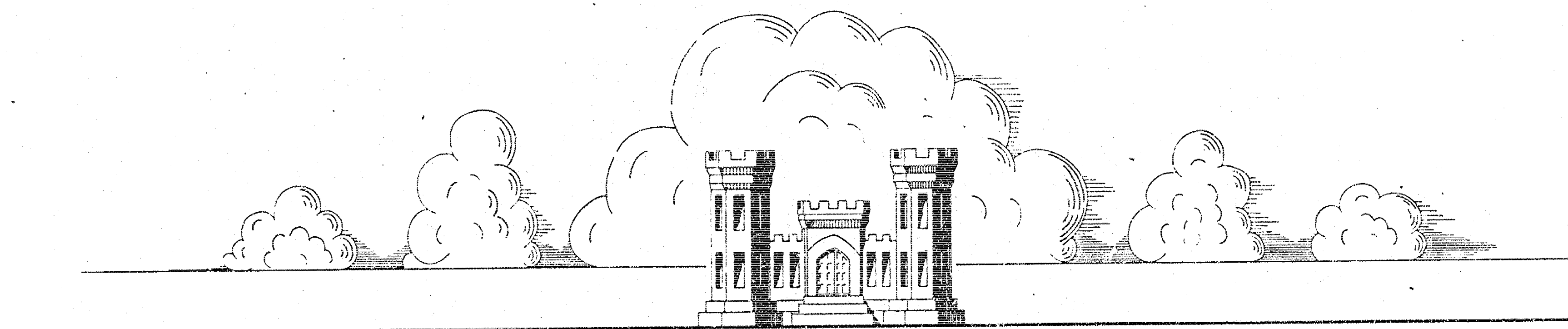


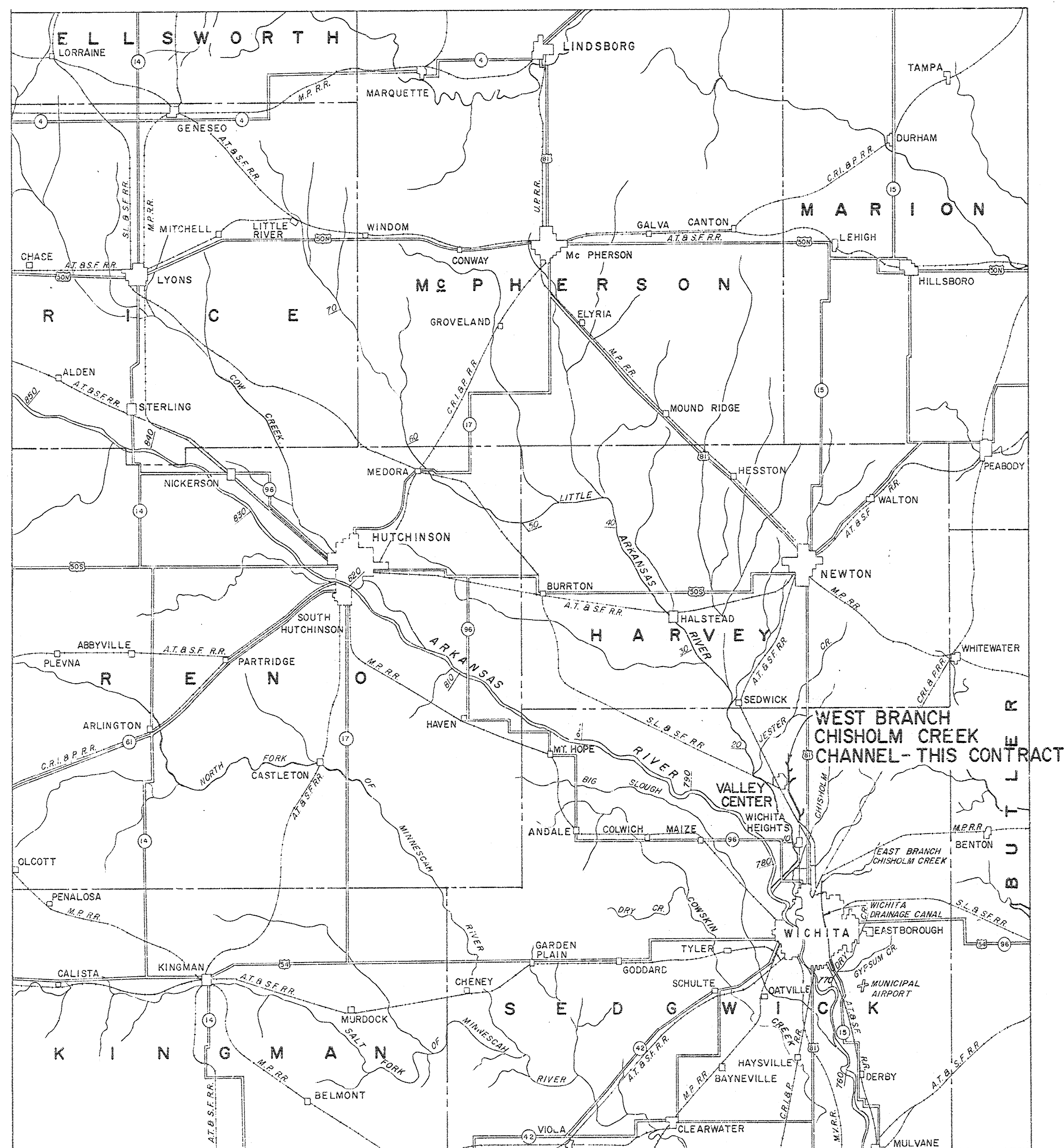
ARKANSAS RIVER WATERSHED
WEST BRANCH CHISHOLM CREEK
VALLEY CENTER KANSAS
ARKANSAS RIVER, KANSAS

PLANS FOR
CONSTRUCTION OF CHANNEL



U.S. ARMY ENGINEER DISTRICT, TULSA
CORPS OF ENGINEERS
TULSA, OKLAHOMA
AUGUST 1962

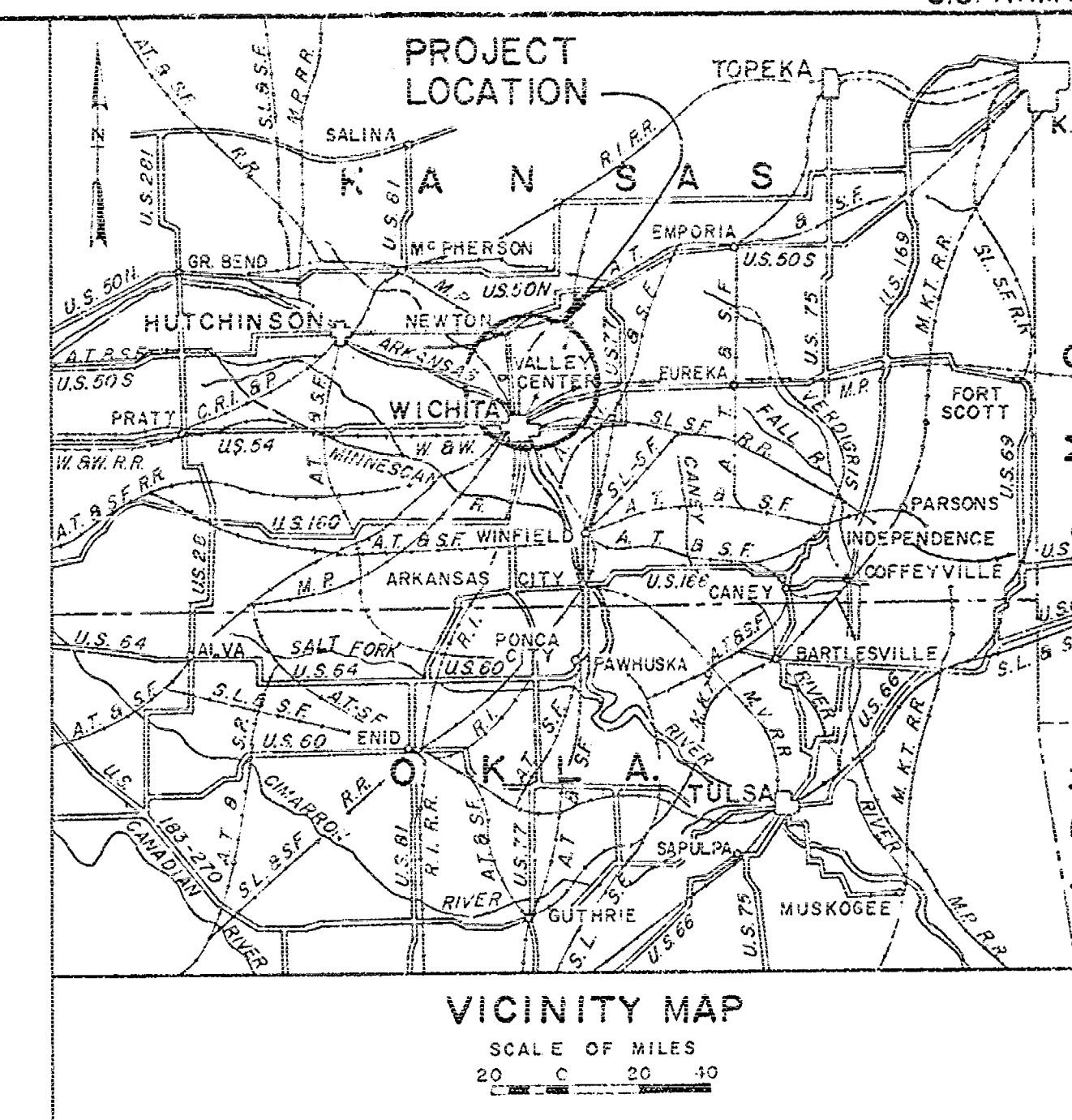
RECORD (AS BUILT) DRAWING



PROJECT LOCATION

LEGEND

- CREEK
- RIVER
- RIVER MILEAGE
- STATE HIGHWAY
- U.S. HIGHWAY
- RAILROAD
- COUNTY LINE
- TOWNS
- CITIES



INDEX TO DRAWINGS

DISTRICT FILE NO.	TITLE	PLATE NO.
C173-1	PROJECT LOCATION & DRAWING INDEX	1
C173-2	GENERAL PLAN	2
C173-3	PLAN & PROFILE I	3
C173-4	PLAN & PROFILE II	4
C173-5	PLAN & PROFILE III	5
C173-6	PLAN & PROFILE IV	6
C173-7	TYPICAL SECTIONS I-CHANNEL A	7
C173-8	TYPICAL SECTIONS II-CHANNELS B, C & D	8
C173-9	DRAINAGE STRUCTURES I	9
C173-10	DRAINAGE STRUCTURES II	10
C173-11	DRAINAGE STRUCTURES III	11
C173-12	DRAINAGE STRUCTURES IV	12
C173-13	DRAINAGE STRUCTURES V	13
C173-14	DRAINAGE STRUCTURES VI	14
C173-15	DRAINAGE STRUCTURES VII	15
C173-16	FOUNDATION EXPLORATION- AUGER LOG RECORD	16

GENERAL NOTES:

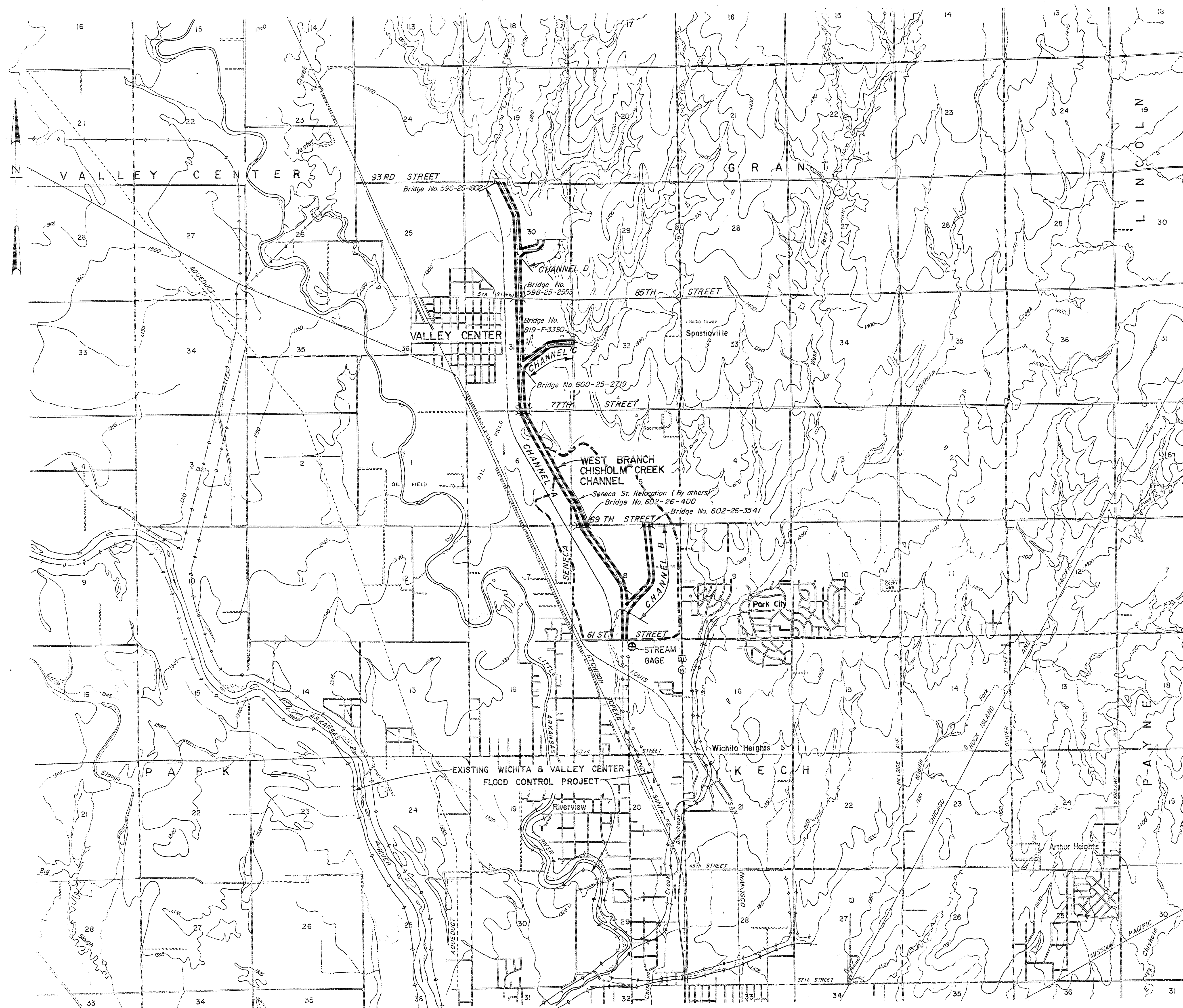
- Elevations are in feet and refer to mean sea level.
- Sections taken and shown on the same sheet are noted thus; SECTION A-A
- When a section is taken on a sheet other than where the detail is shown it is indicated thus; the number indicates the sheet where it is shown.
- Where the section is titled thus; SECTION B-22 the number indicates the sheet where the section was taken.
- Existing fences, utility lines and bridges within the right-of-way limits are to be removed or relocated by others.
- All area within the permanent right-of-way will be flush cleared, except as noted.
- Bench marks shown at bridges are on existing structures, and will be obliterated. New bench marks will be established on the new bridges.

RECORD (AS BUILT) DRAWING

ARIZONA RIVER WATERSHED		ARIZONA RIVER, ARIZONA	
WEST BRANCH CHISHOLM CREEK			
VALLEY CENTER, KANSAS			
CONSTRUCTION OF CHANNEL			
PROJECT LOCATION & DRAWING INDEX			
IN 16 SHEETS		SCALE: 1 INCH = 4 MILES	
SHEET NO. 1		SHEET NO. 1	
U.S. ARMY ENGINEER DISTRICT, TULSA, CORPS OF ENGINEERS, MAR. 1962			
SUBMITTED:		APPROVED:	
BY:		BY:	
CHIEF, ENGR. DIVISION		CHIEF, DESIGN BRANCH	
DRAWN: G.O.G., N.W.F.		TO ACCOMPANY SPECIFICATIONS	
TRACED:		ISSUED UNDER INVITATION	
CHECKED: J.W. I.H.H.		NO. CIVENS-34-056-61-21	
C173-1		C173-1	

CONTRACT-63-1152

CORPS OF ENGINEERS



LEGEND

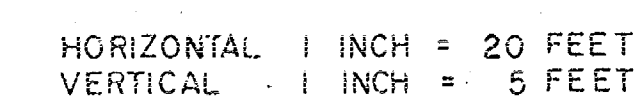
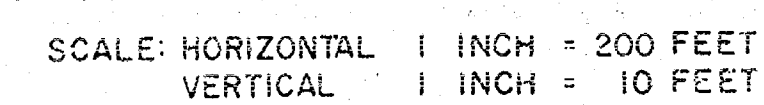
- Medium duty
- Heavy duty
- Unimproved dirt
- Light duty
- U.S. Route
- State Route
- Bridge Relocation (By Local Interests)
- Project Design Flood Modified Conditions
- Stream Gage

NOTES:

1. For utility relocations by Local Interests, see Plan & Profile I thru IV.
2. The limits of the permanent rights-of-way will be marked in the field with red topped posts.
3. The limits of easements for waste fill will be marked in the field with yellow topped posts.
4. Relocations of all bridges and utilities are scheduled for completion prior to issuance to the contractor of notice to proceed, except the bridges numbered 598-25-2353 and 619-F-3390 on the drawings, which are scheduled for completion on or about 1 December 1962.
5. Access to the work areas of this contract will be provided by others from the county roads adjacent to each bridge.
6. Access to work areas will not be provided until the relocation work at each bridge site has been completed, unless otherwise authorized in writing by the Contracting Officer.

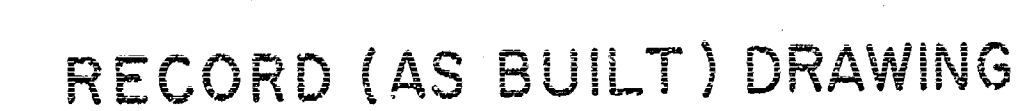
ARKANSAS RIVER WATERSHED		ARKANSAS RIVER, KANSAS	
WEST BRANCH CHISHOLM CREEK VALLEY CENTER, KANSAS CONSTRUCTION OF CHANNEL GENERAL PLAN			
IN 16 SHEETS		SCALE OF FEET	SHEET NO. 2
U.S. ARMY ENGINEER DISTRICT, TULSA, CORPS OF ENGINEERS, MAR. 1962			
SUBMITTED:		APPROVAL RECOMMENDED:	
CHIEF, GENL. ENGRS. SECT. B DRAWN: D.K.G., N.W.F. CHECKED: J.W., L.H.H.		CHIEF, DESIGN BRANCH "B" TO ACCOMPANY SPECIFICATIONS ISSUED UNDER INVITATION NO. CIVENG-34-066-63-21	
CHIEF, ENGRG. DIVISION FOR THE DISTRICT ENGINEER		C173-2	
CONTRACT-63-1152			

RECORD (AS BUILT) DRAWING



Notes:
1. For typical field crossing details, see Sheet 14
2. For auger record and legend see sheet 16

CONTRACT - 63-1152

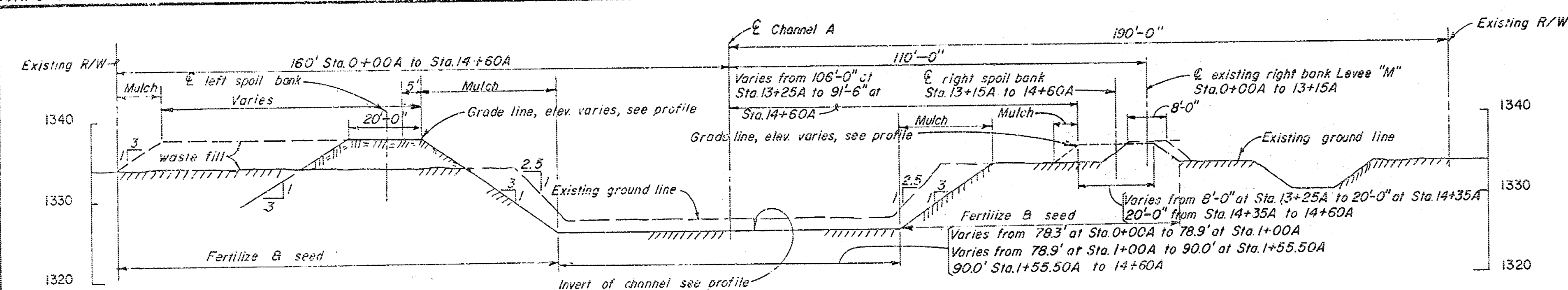


1. For auger log record and legend see sheet 16.

1	7-12-52	REVISED AS CONSTRUCTED			
KEY	DATE	REVISION (INDICATED BY A.)	CHRD.	REC.	APPR.
ARKANSAS RIVER WATERSHED			ARKANSAS RIVER, KANSAS		
WEST BRANCH CHISHOLM CREEK VALLEY CENTER, KANSAS CONSTRUCTION OF CHANNEL PLAN & PROFILE III					
1 IN 6 SHEETS			SCALE: 1 INCH = 200 FEET		SHEET NO. 5
U.S. ARMY ENGINEER DESIGN, TULSA CORPS OF ENGINEERS, MAR. 1962					
SUBMITTED:		APPROVAL RECOMMENDED:		APPROVED:	
CHIEF, ENGR. DIVISION, SEC. 5		CHIEF DESIGN BRANCH		CHIEF ENGR. DIVISION	
DRAWN: J.T., N.W.F.		TO ACCOMPANY SPECIFICATIONS		FOR THE DESIGN BRANCH	
TRACKED:		ISSUED UNDER INVITATION			
CHECKED: J.W., H.H.		NO. CIVENG-34-C66-63-21		C173-5.1	
CONTRACT 63-1152					

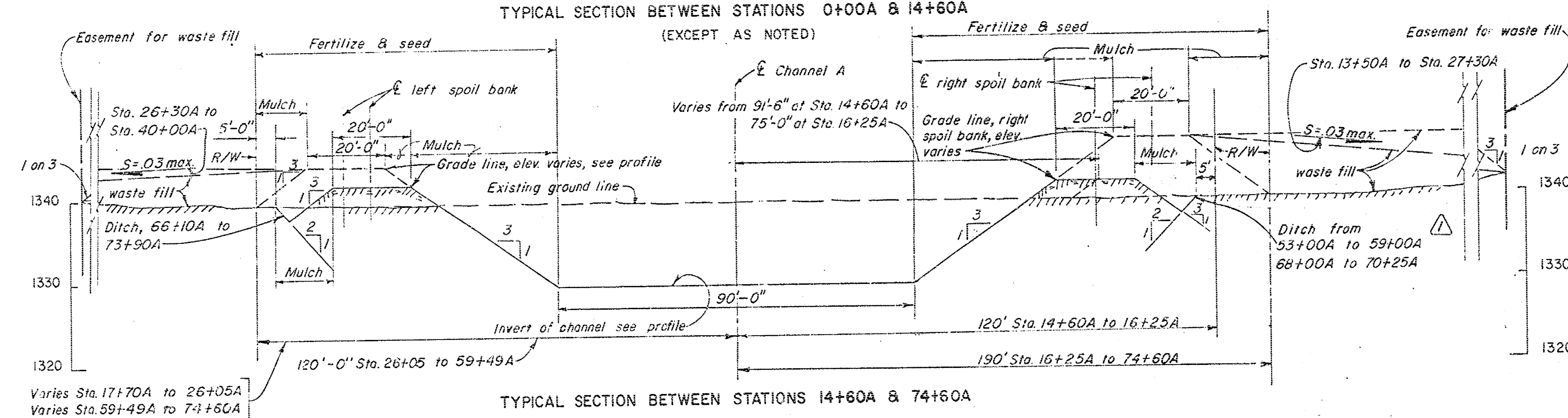


17-10-63		REVISED AS CONSTRUCTED		17-10-63 CHD REC APPR	
KEY	DATE	REVISION (INDICATED BY A)		CHD.	REC. APPR.
ARKANSAS RIVER WATERSHED			ARKANSAS RIVER, KANSAS		
WEST BRANCH CHISHOLM CREEK					
VALLEY CENTER, KANSAS					
CONSTRUCTION OF CHANNEL					
PLAN & PROFILE IV					
SCALE 1 INCH = 200 FEET					
IN 4 SHEETS				SHEET NO. 6	
U.S. ARMY ENGINEER DISTRICT, TULSA CORPS OF ENGINEERS, MAR. 1962					
SUBMITTED:		APPROVAL RECOMMENDED:		APPROVED:	
CHIEF, GENL. ENGRS. SECT. 1 DRAWN D.K.G., N.W.F. CHECKED J.W., L.H.H.		4X BESSON TO ACCOMPANY SPECIFICATIONS ISSUED UNDER INVITATION NO. C2826-54-0-66-69-20		CHIEF ENGRS. DIVISION FOR THE DISTRICT ENGINEER C173-6.1	
CONTRACT-63-1182					

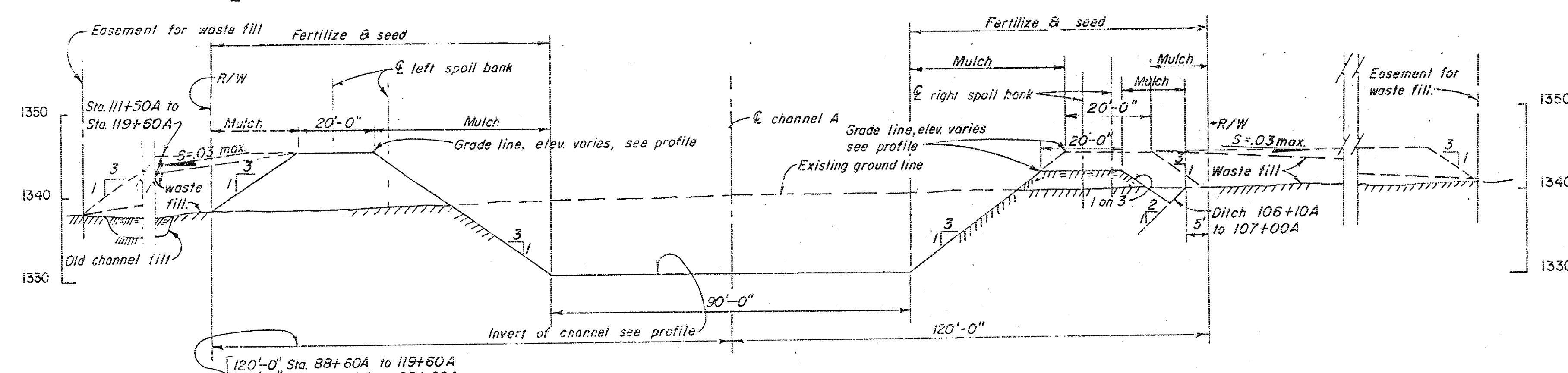


TYPICAL SECTION BETWEEN STATIONS 0+00A & 14+60A

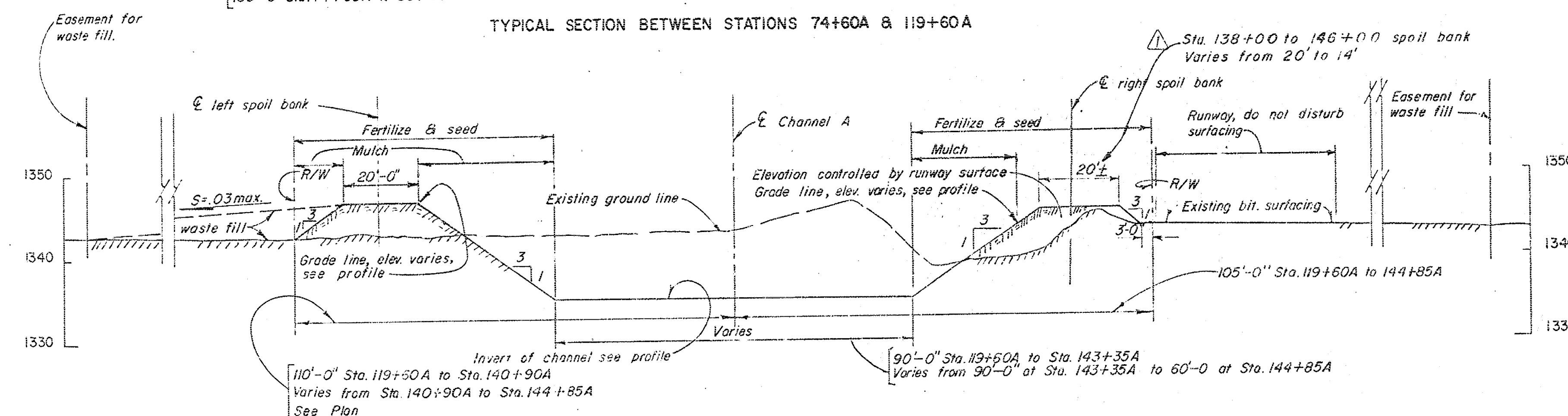
(EXCEPT AS NOTED)



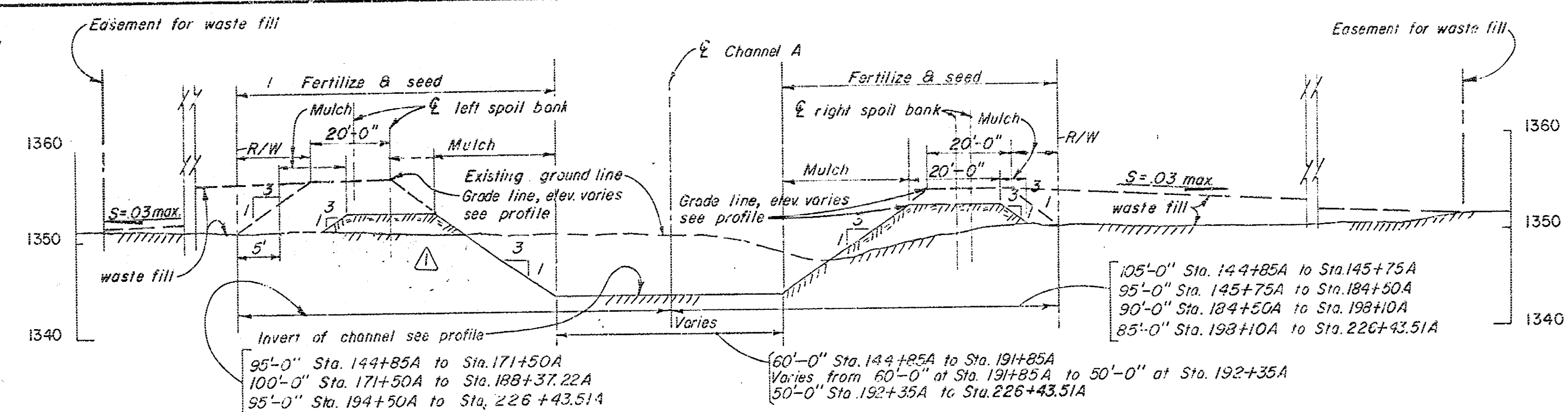
TYPICAL SECTION BETWEEN STATIONS 14+60A & 74+60A



TYPICAL SECTION BETWEEN STATIONS 74+60A & 119+60A



TYPICAL SECTION BETWEEN STATIONS 119+60A & 144+85A



TYPICAL SECTION BETWEEN STATIONS 144+85A & 226+43.51A

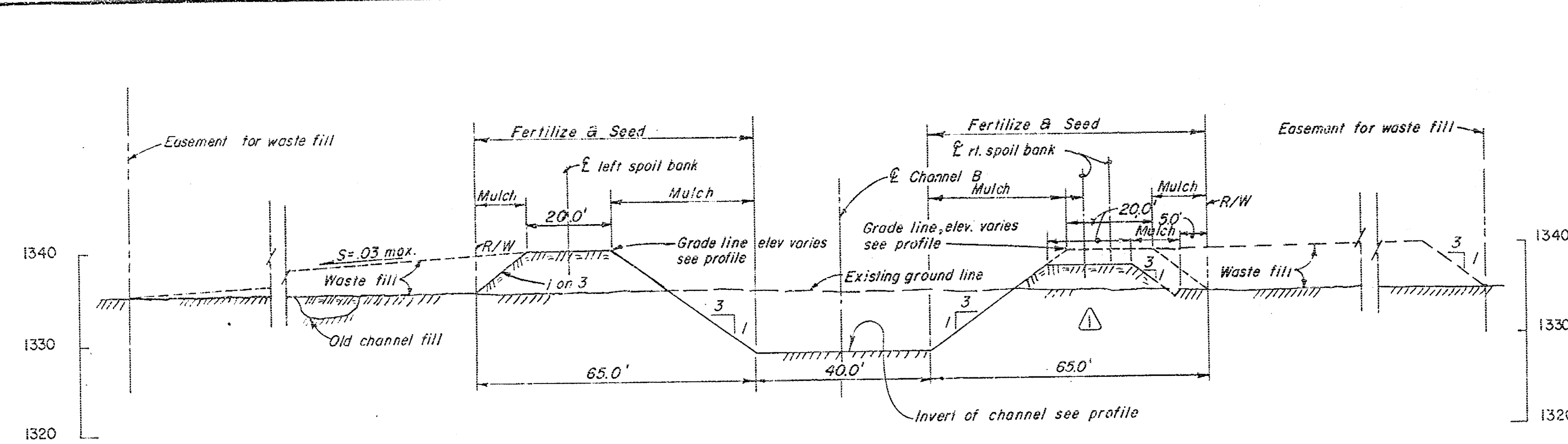
NOTES:

1. For right-of-way limits and easement areas for waste fill, see plan & profile sheets 3 thru 6.
2. For typical plan & sections for field crossings see sheet 14.
3. For typical cross-section of ditch checks see sheet 5.
4. For plan & sections of drainage structures see sheets 9 thru 14.
5. For depth of landside ditches see plan & profile sheets 3 thru 6.

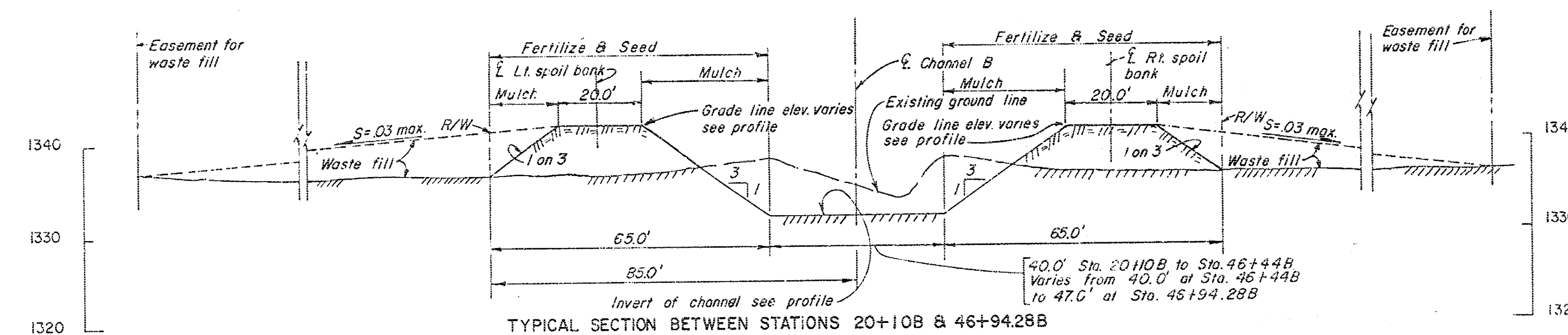
RECORD (AS BUILT) DRAWING

1 1/24/62		REVISED AS CONSTRUCTED		1/24/62	
KEY	DATE	REVISION (INDICATED BY Δ)	CHKD.	REC.	APPR.
ARKANSAS RIVER WATERSHED		ARKANSAS RIVER, KANSAS			
WEST BRANCH CHISHOLM CREEK					
VALLEY CENTER, KANSAS					
CONSTRUCTION OF CHANNEL					
TYPICAL SECTIONS I - CHANNEL A					
IN 16 SHEETS		SCALE: 1 INCH = 20' HORIZ. 1 INCH = 10' VERT.		SHEET NO. 7	
U. S. ARMY ENGINEER DISTRICT, TULSA CORPS OF ENGINEERS, MAR. 1962					
SUBMITTED:		APPROVAL RECOMMENDED:		APPROVED:	
DRAWN: D.K.G. NWF		TO ACCOMPANY SPECIFICATIONS		FOR THE DISTRICT ENGINEER	
CHECKED: J.W. LHL		NO. CIVENG-34-056-68-21		C173-71	
CONTRACT-63-1152					

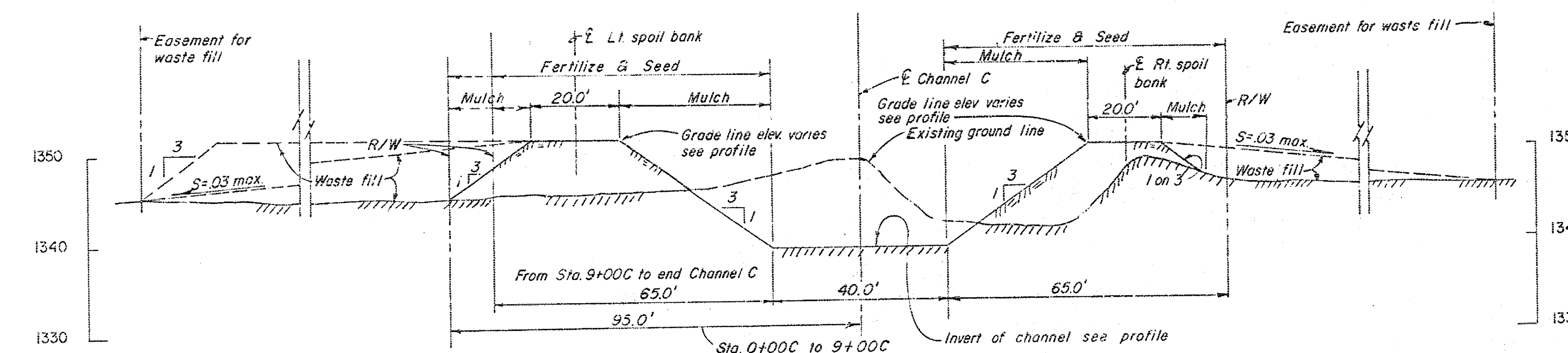
CORPS OF ENGINEERS



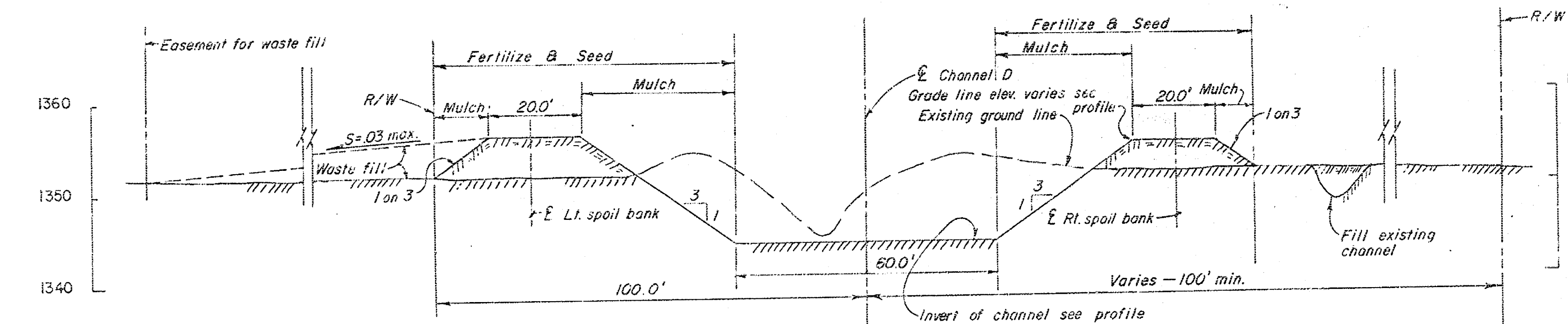
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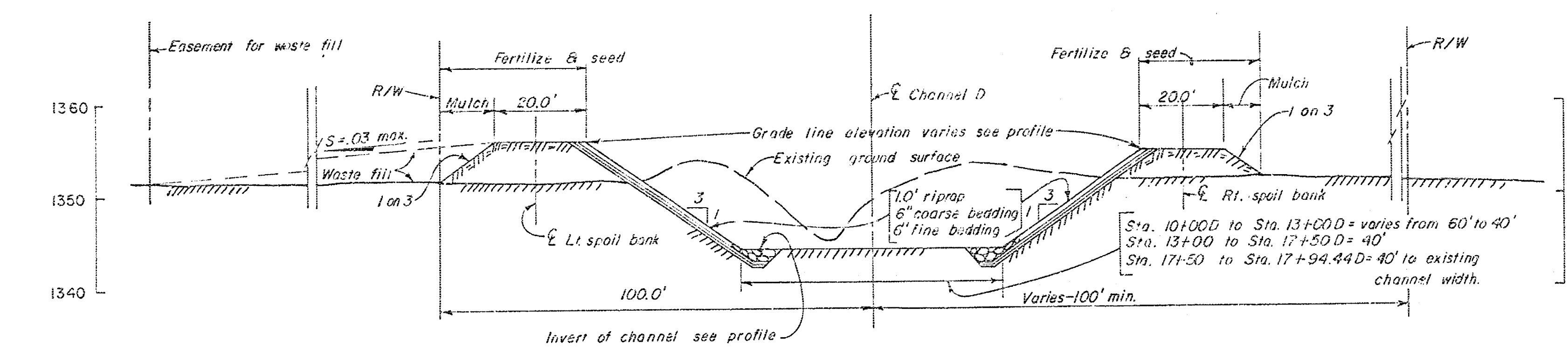
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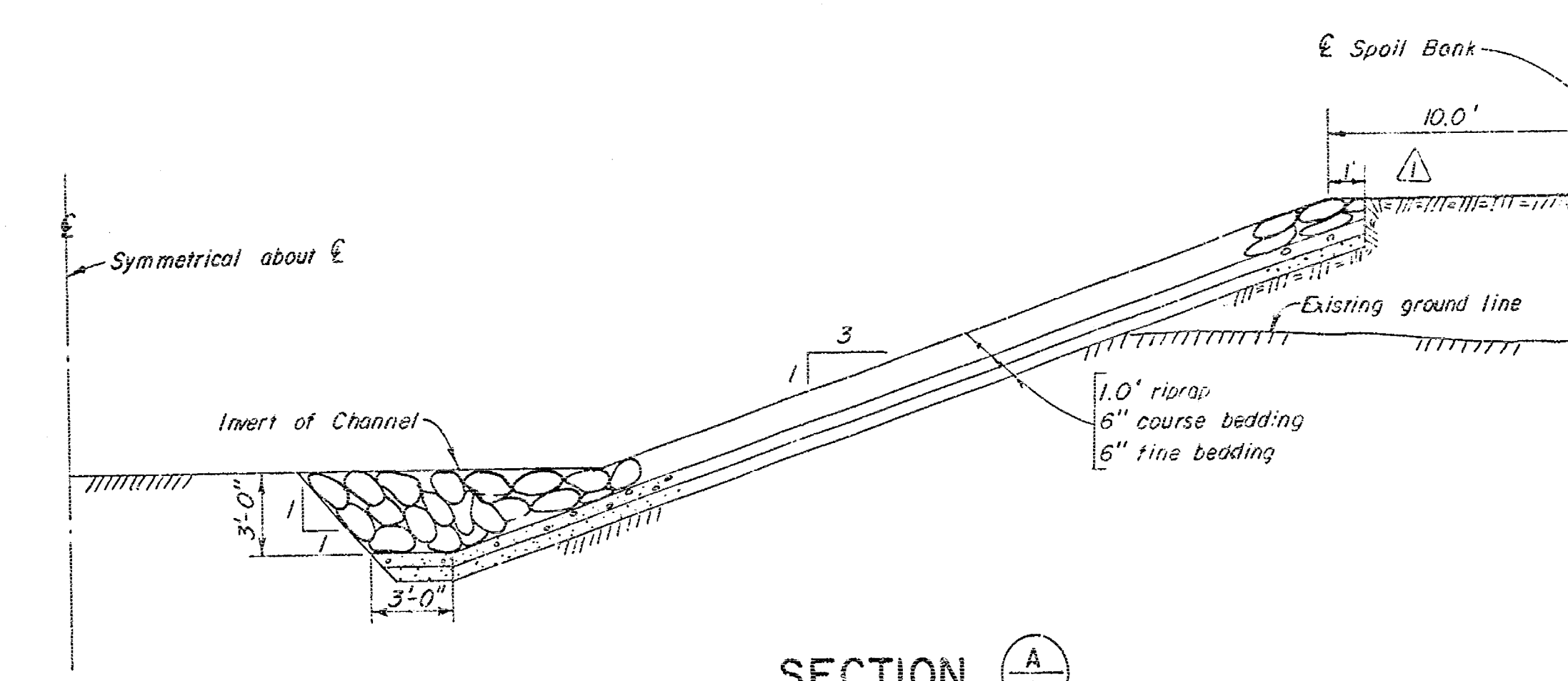
TYPICAL SECTION BETWEEN STATIONS 0+00C & 31+01.58C



TYPICAL SECTION BETWEEN STATIONS 0+00D & 10+00D

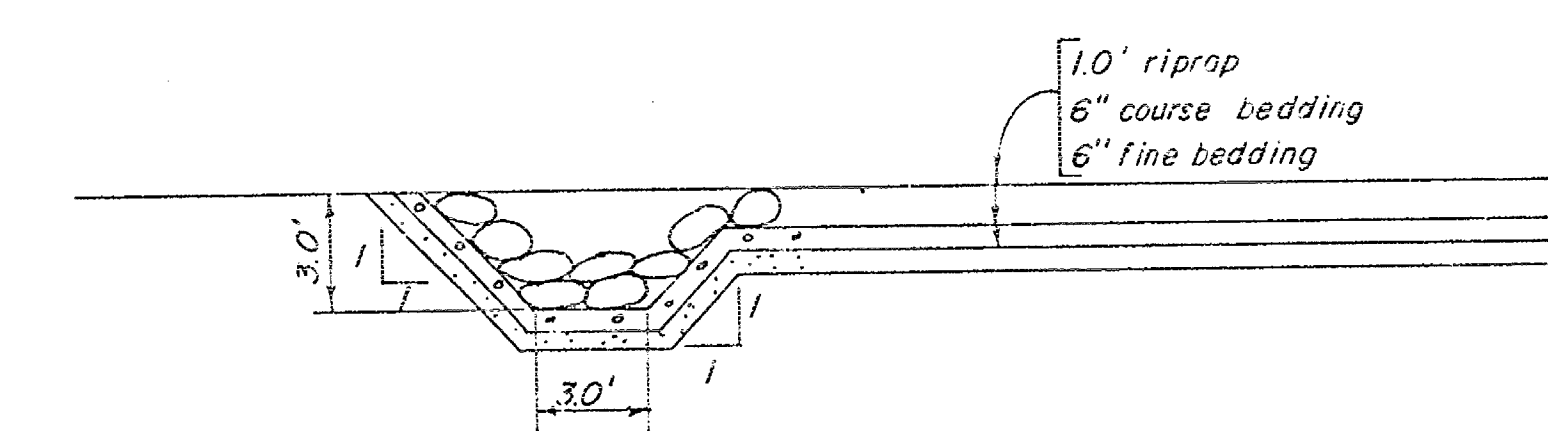


TYPICAL SECTION BETWEEN STATIONS 10+00D & 17+94.44D



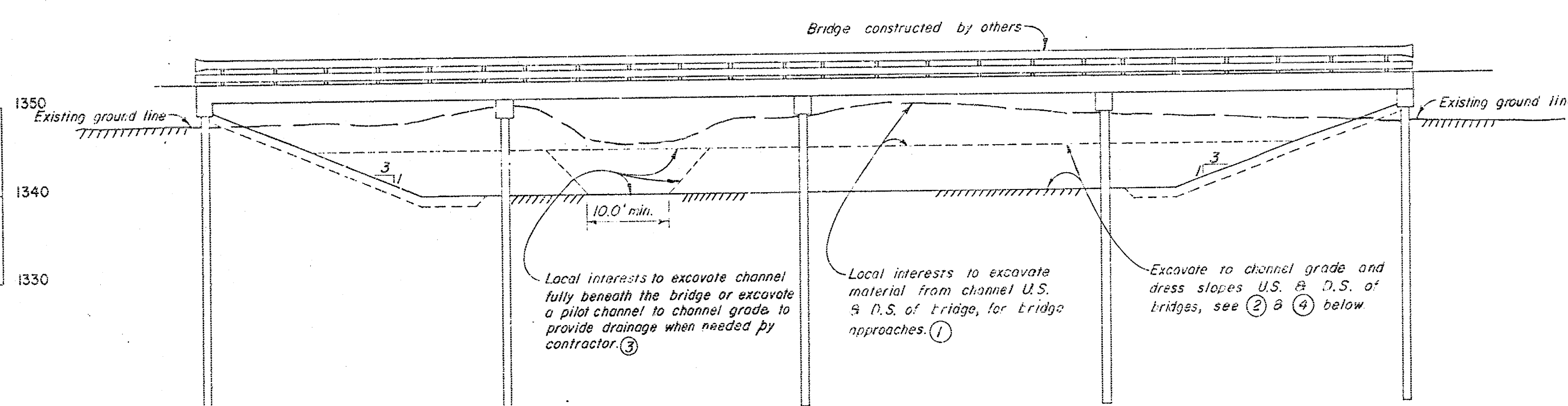
SECTION A-6

SCALE: 1 INCH = 5 FEET



SECTION B-6

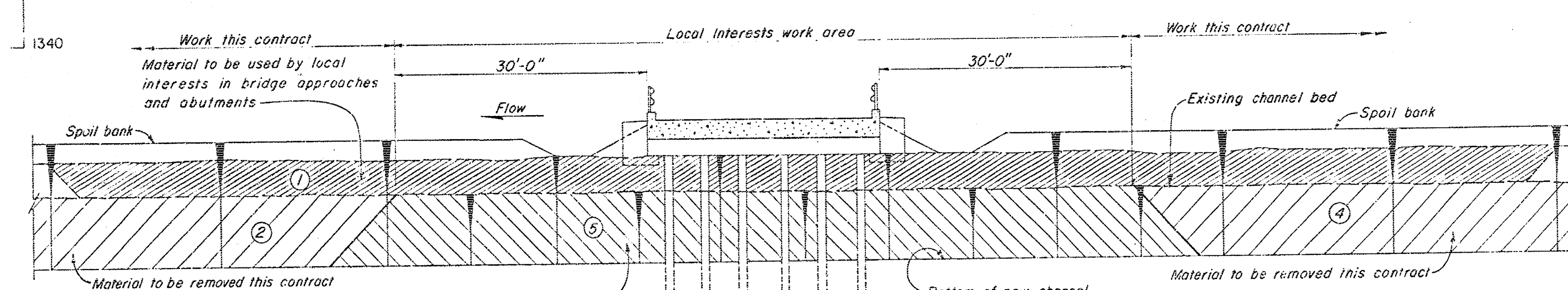
SCALE: 1 INCH = 5 FEET



TYPICAL BRIDGE EXCAVATION SECTION

SCALE: 1 INCH = 10 FEET

NOTE: Local interests to excavate to channel grade beneath bridges and place riprap, see (5) below.



SEQUENCE OF EXCAVATION AT BRIDGES

SCALE: 1 INCH = 10 FEET

NOTE:

1. For right-of-way limits at ditch checks and for easement areas for waste fill, see plan and profile sheets 3 through 6.
2. For typical plan and sections for field crossings see sheet 14.
3. For typical cross-section of ditch checks see sheet 9.
4. For plan and sections of drainage structures see sheets 9 through 14.

RECORD (AS BUILT) DRAWING

7-12-63		REVISED AS CONSTRUCTED			
KEY	DATE	REVISION (INDICATED BY A)	CHKD.	REC.	APPR.
ARKANSAS RIVER WATERSHED					
WEST BRANCH CHISHOLM CREEK					
VALLEY CENTER, KANSAS					
CONSTRUCTION OF CHANNEL					
TYPICAL SECTIONS II - CHANNELS B, C & D					
IN 16 SHEETS		SCALE: 1 INCH = 200' HORIZ. 1 INCH = 10' VERT.		SHEET NO. 8	
U.S. ARMY ENGINEER DISTRICT, TULSA CORPS OF ENGINEERS, MAR. 1962					
SUBMITTED:		APPROVAL RECOMMENDED:		APPROVED:	
CHIEF, GEN. ENG. DISTRICT		CHIEF, DESIGN BRANCH		CHIEF, ENGRS. DIVISION	
DRAWN: D.K.G.		TO ACCOMPANY SPECIFICATIONS		FOR THE DISTRICT ENGINEER	
TRACED:		ISSUED UNDER INVITATION		NO. CIVENG-34-066-63-21	
CHECKED: J.W. L.H.H.				C173-8.1	

CONTRACT-63-1152



Existing Ground Line

1'-2" 10 ga. sheeting

Invert of Channel

1 on 2

El. 1329.4

10.0'

12.0'

1'-6" riprap

6" coarse bedding

6" fine bedding

Right Spoil Bank

20.0'

1 on 2

El. 1330.6

Existing Ground Line 1333.4

1'-0" riprap

6" coarse bedding

6" fine bedding

SECTION A-A

SCALE: 1"=10'-0" HORIZ.
1"=5'-0" VERT.



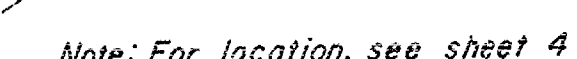
SECTION B-B

SCALE: 1" = 10'-0" HORIZ.
1" = 5'-0" VERT.



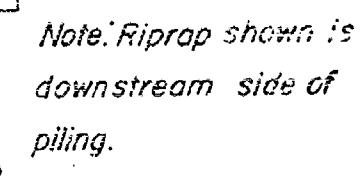
SECTION C-C

SCALE: 1" = 10'-0" HORIZ.
1" = 5'-0" VERT.



SECTION D-D

SCALE: 1" = 10'-0" HORIZ.
1" = 5'-0" VERT.



TYPICAL SECTION
SCALE: 1" = 3'-0"

1 9/12/45 REVISED AS CONSTRUCTED

KEY DATE	REVISION (INDICATED BY Δ)	CHKD REC APPR
ARKANSAS RIVER WATERSHED	ARKANSAS RIVER, KANSAS	

WEST BRANCH CHISHOLM CREEK
VALLEY CENTER, KANSAS

CONSTRUCTION OF CHANNEL
DRAINAGE STRUCTURES I

IN 16 SHEETS SCALE: AS SHOWN SHEET NO. 9

U.S. ARMY ENGINEER DISTRICT, TULSA, CORPS OF ENGINEERS, MAR. 1962

SUBMITTED: APPROVED: RECOMMENDED:

Edw. J. Jones *H. K. Benson* *M. J. Benson*

CHIEF, GENL. ENG. SECT. "B" CHIEF, DESIGN BRANCH "B" CHIEF, ENGRG. DIVISION

BRWN: G.O.C., N.W.F. TO ACCOMPANY SPECIFICATIONS FOR THE DISTRICT ENGINEER

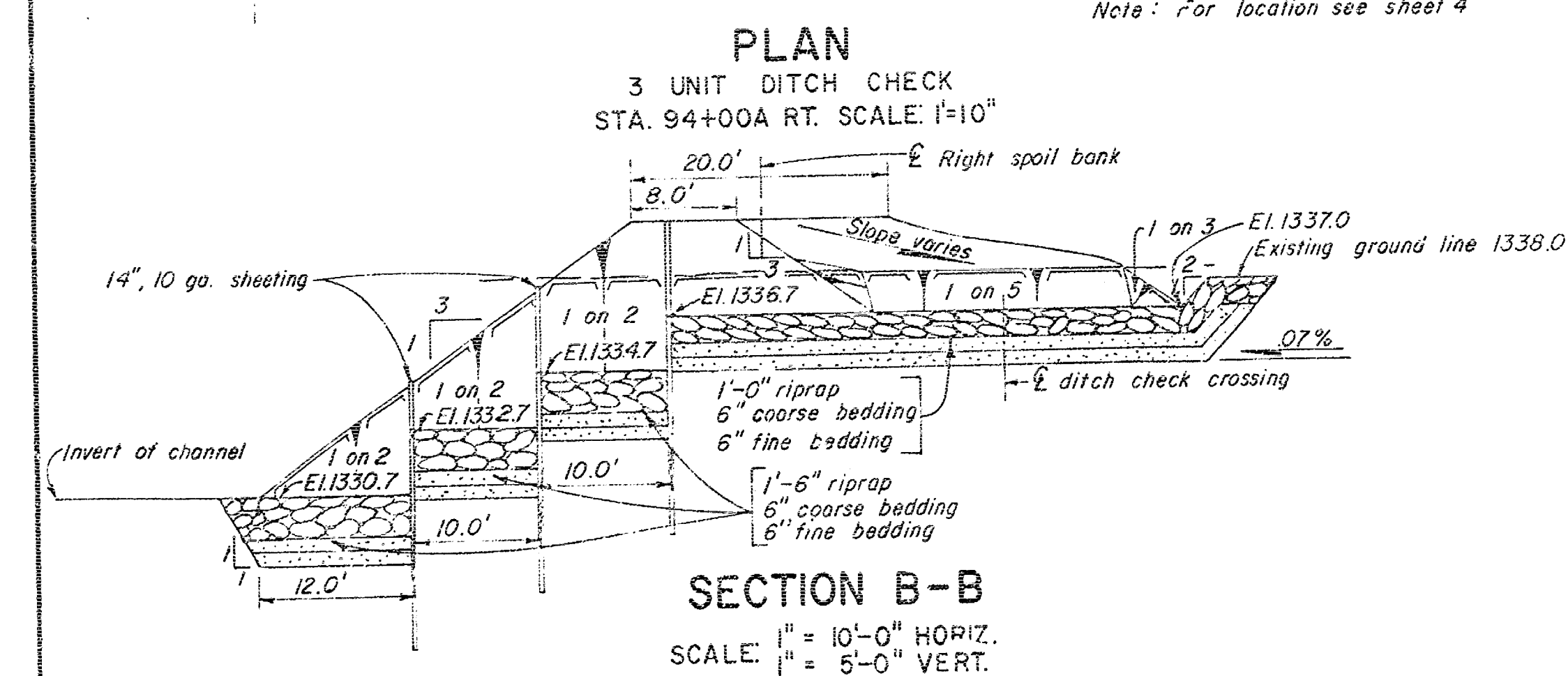
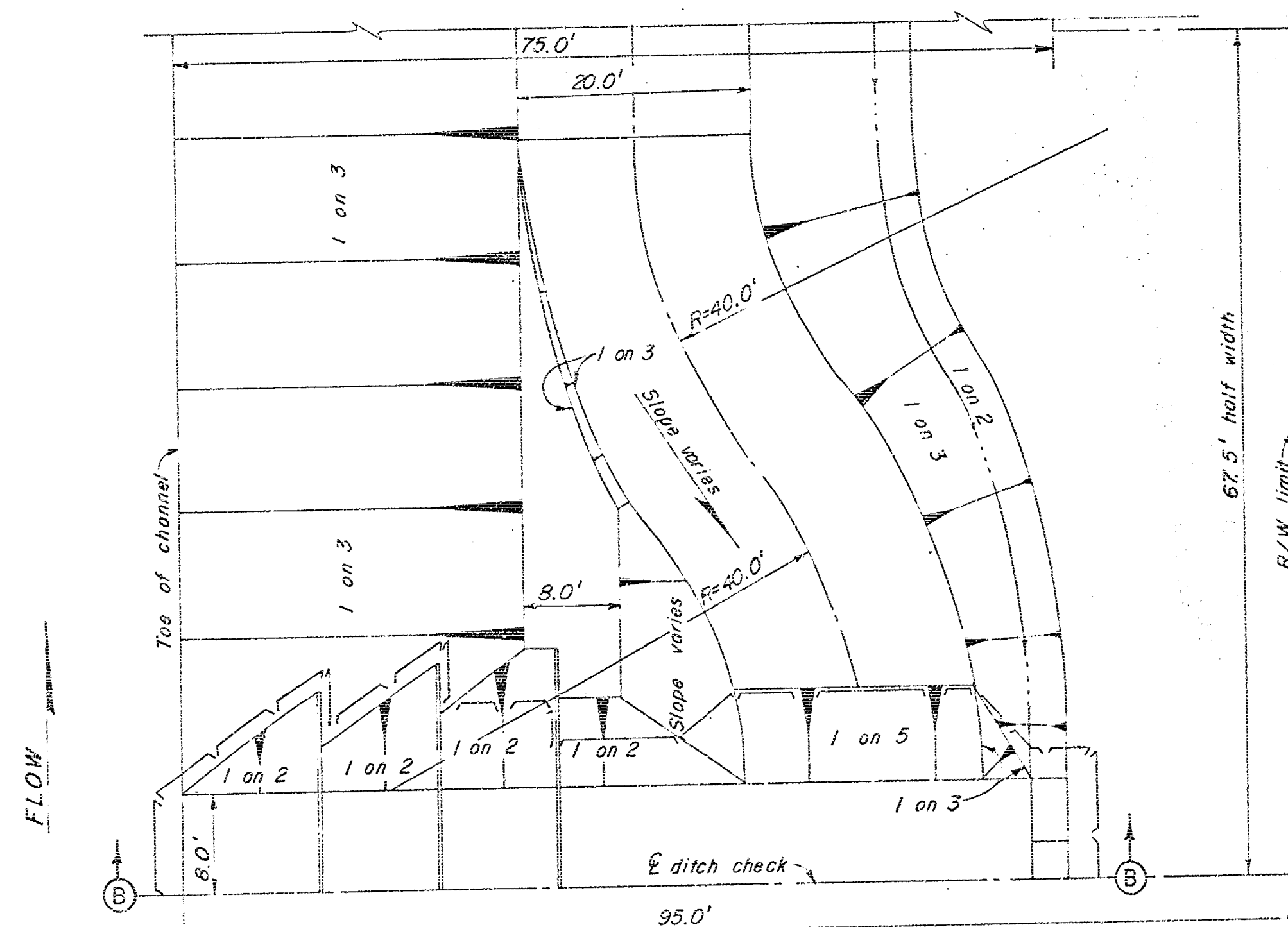
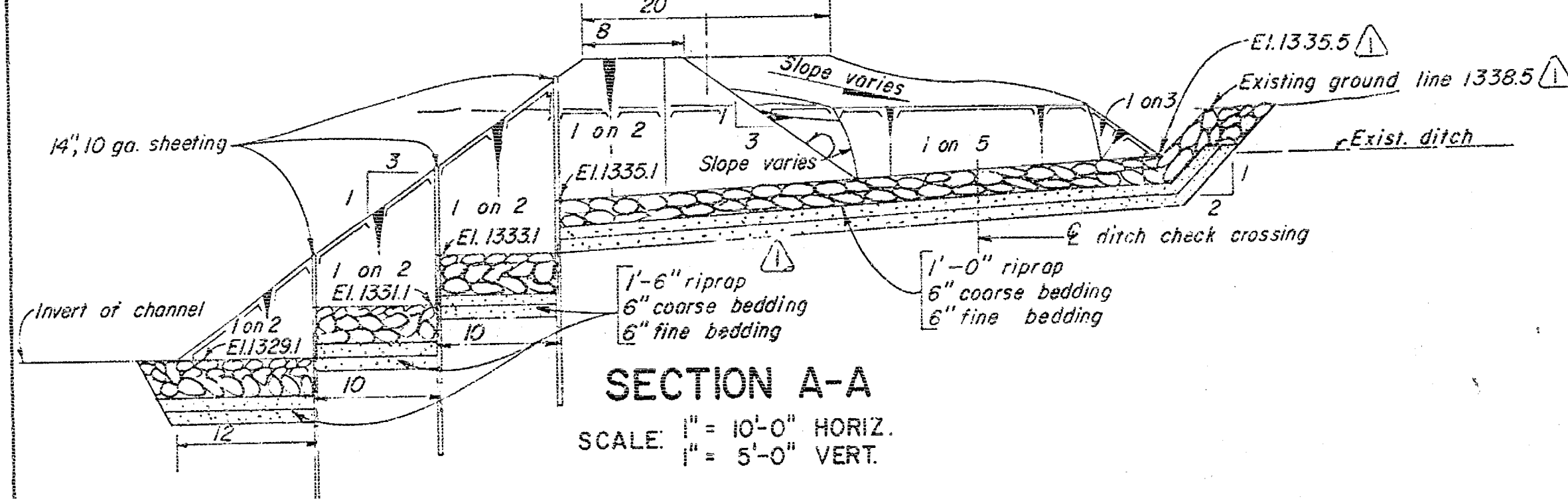
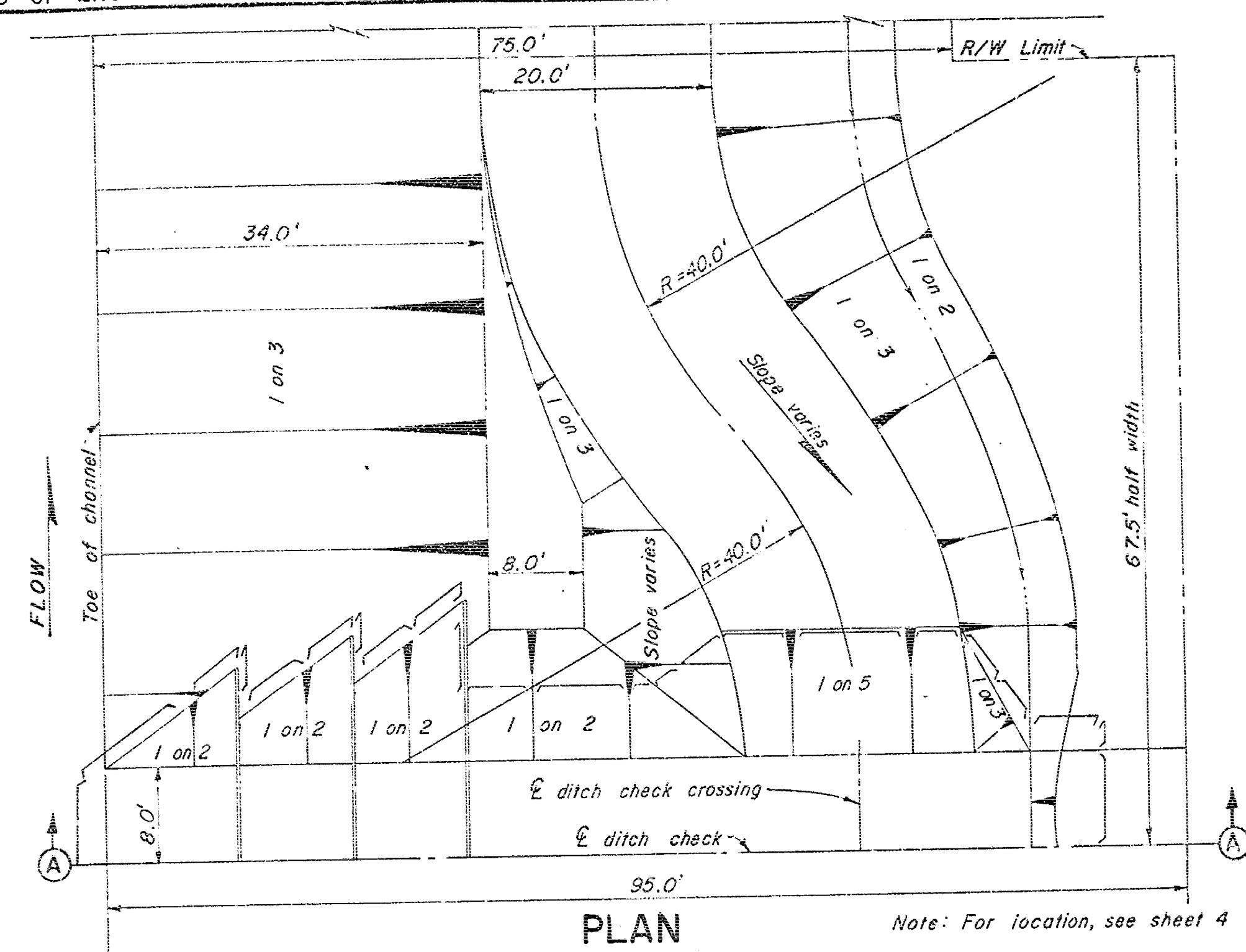
TRACED ISSUED UNDER INVITATION

CHECKED: J.W., L.H.N. NO. GIVEN: 34-066-63-21

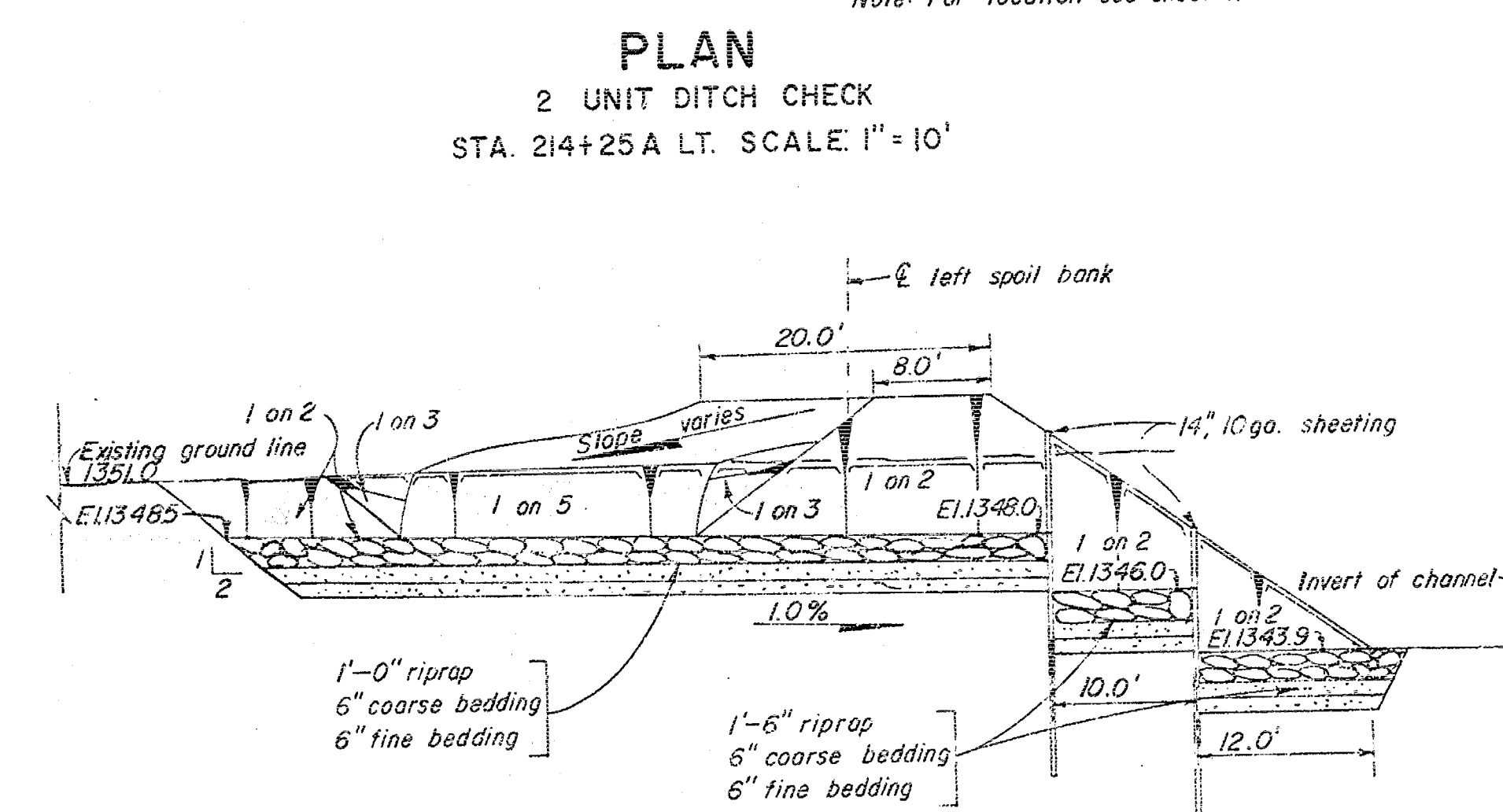
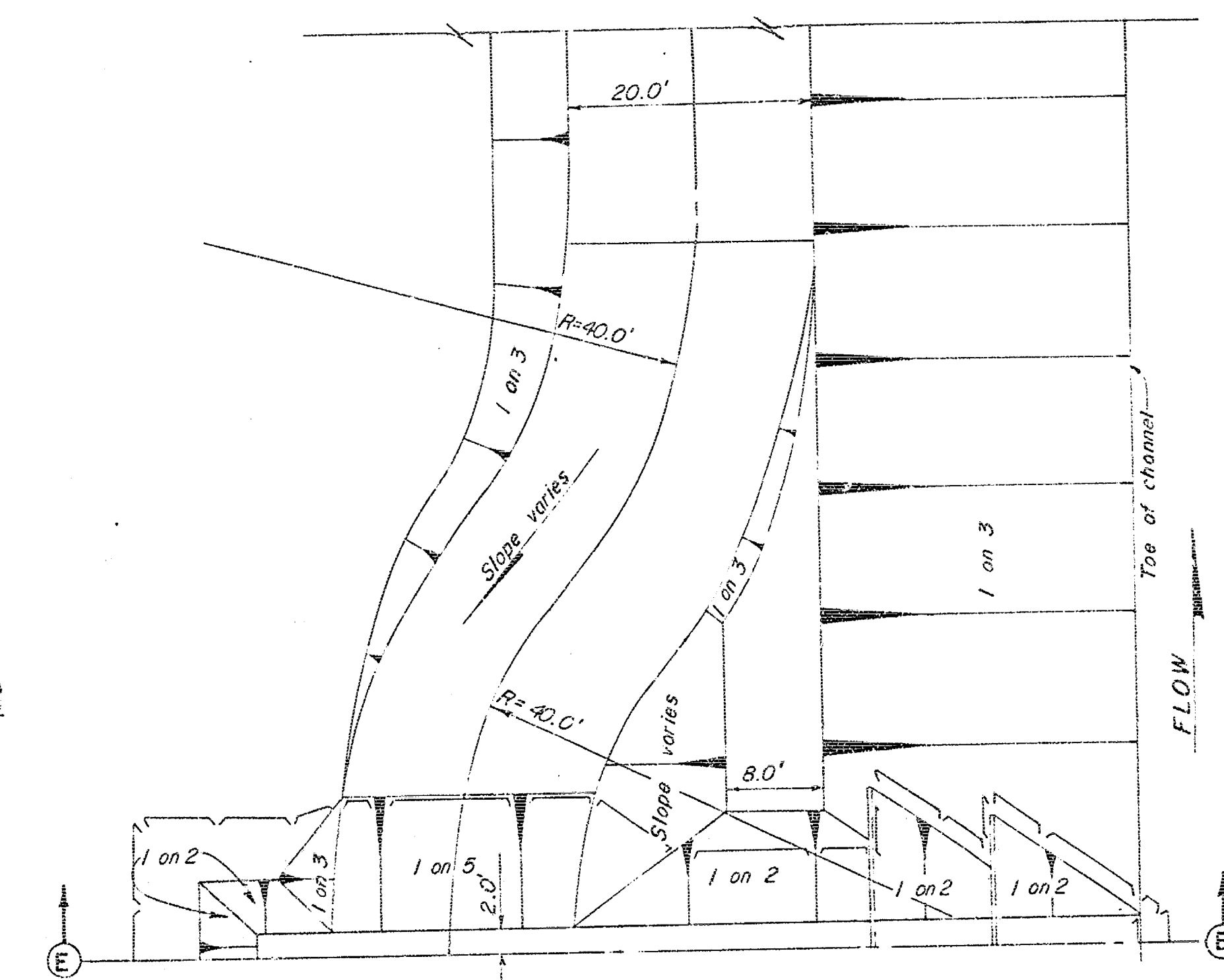
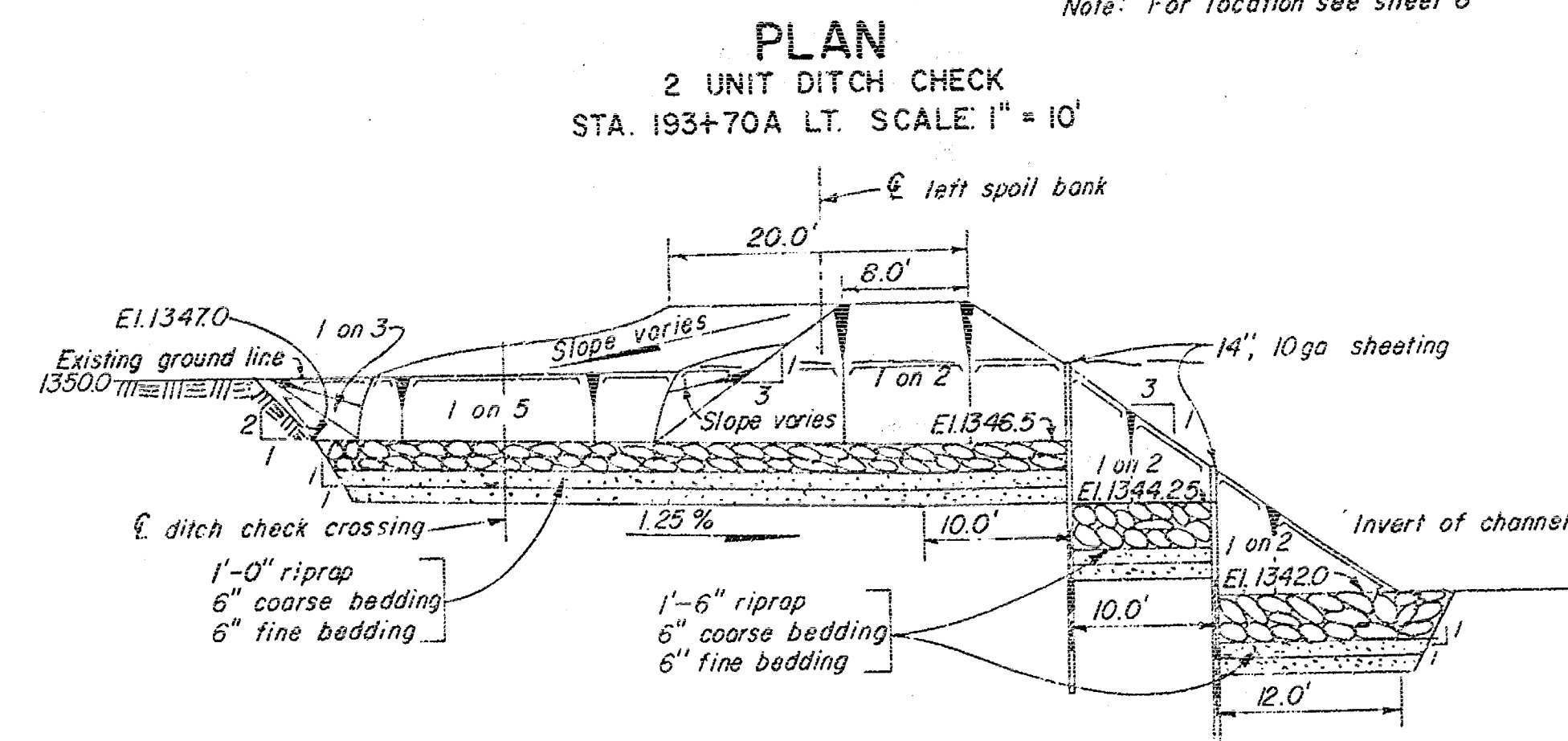
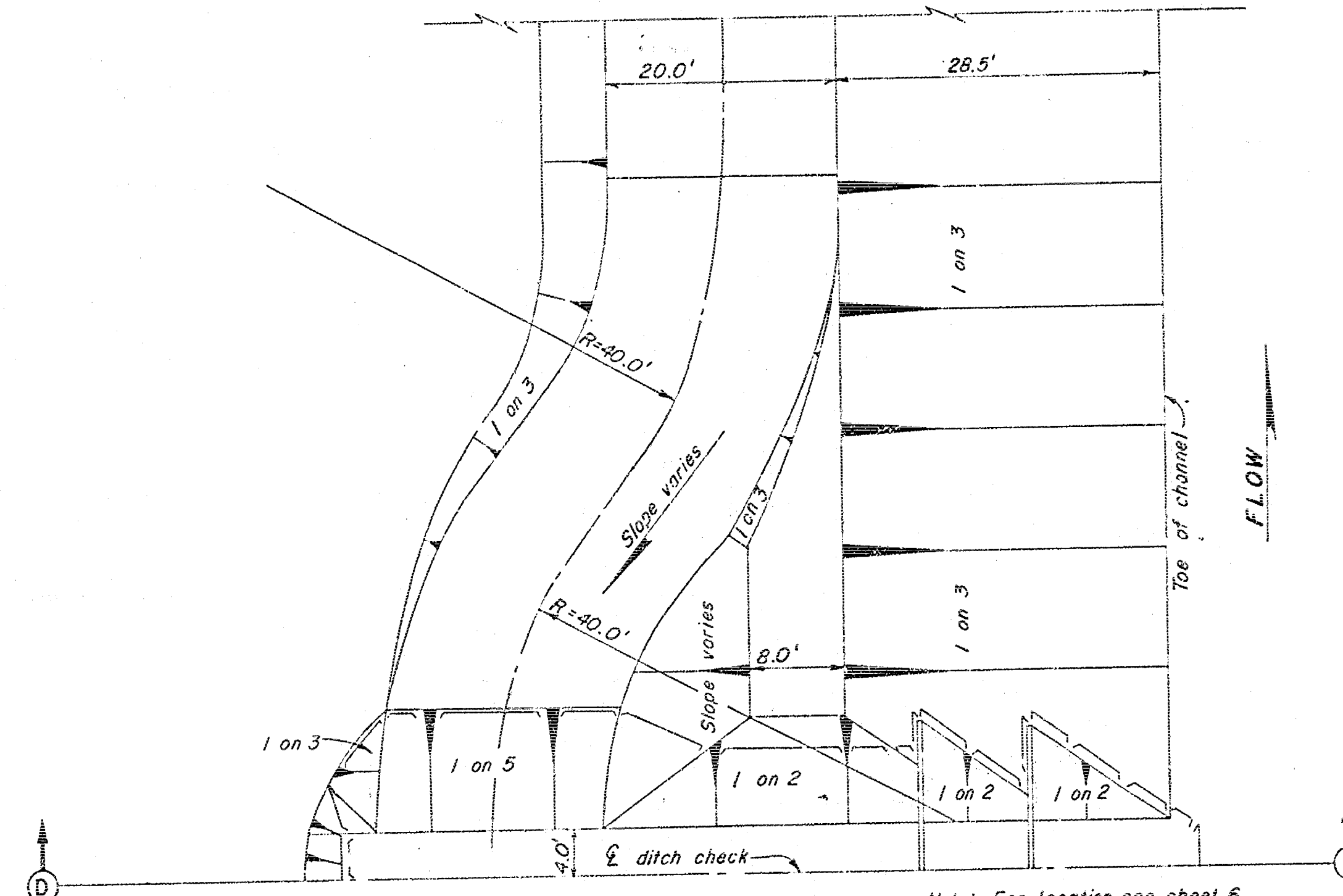
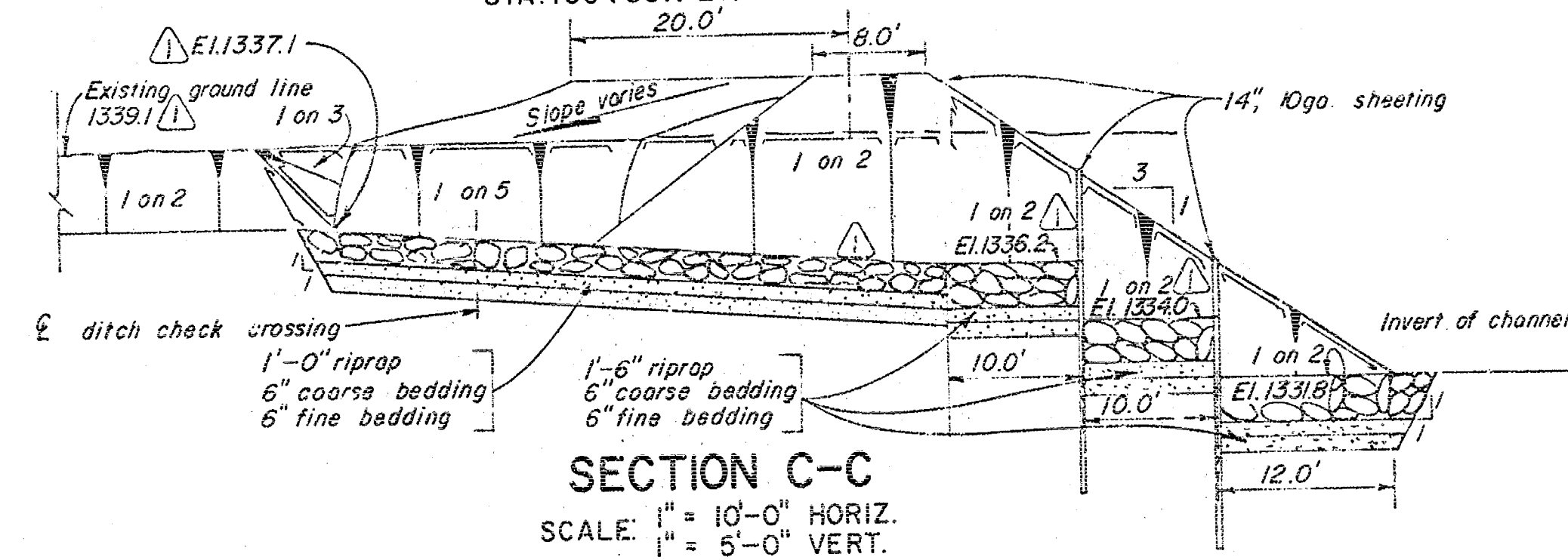
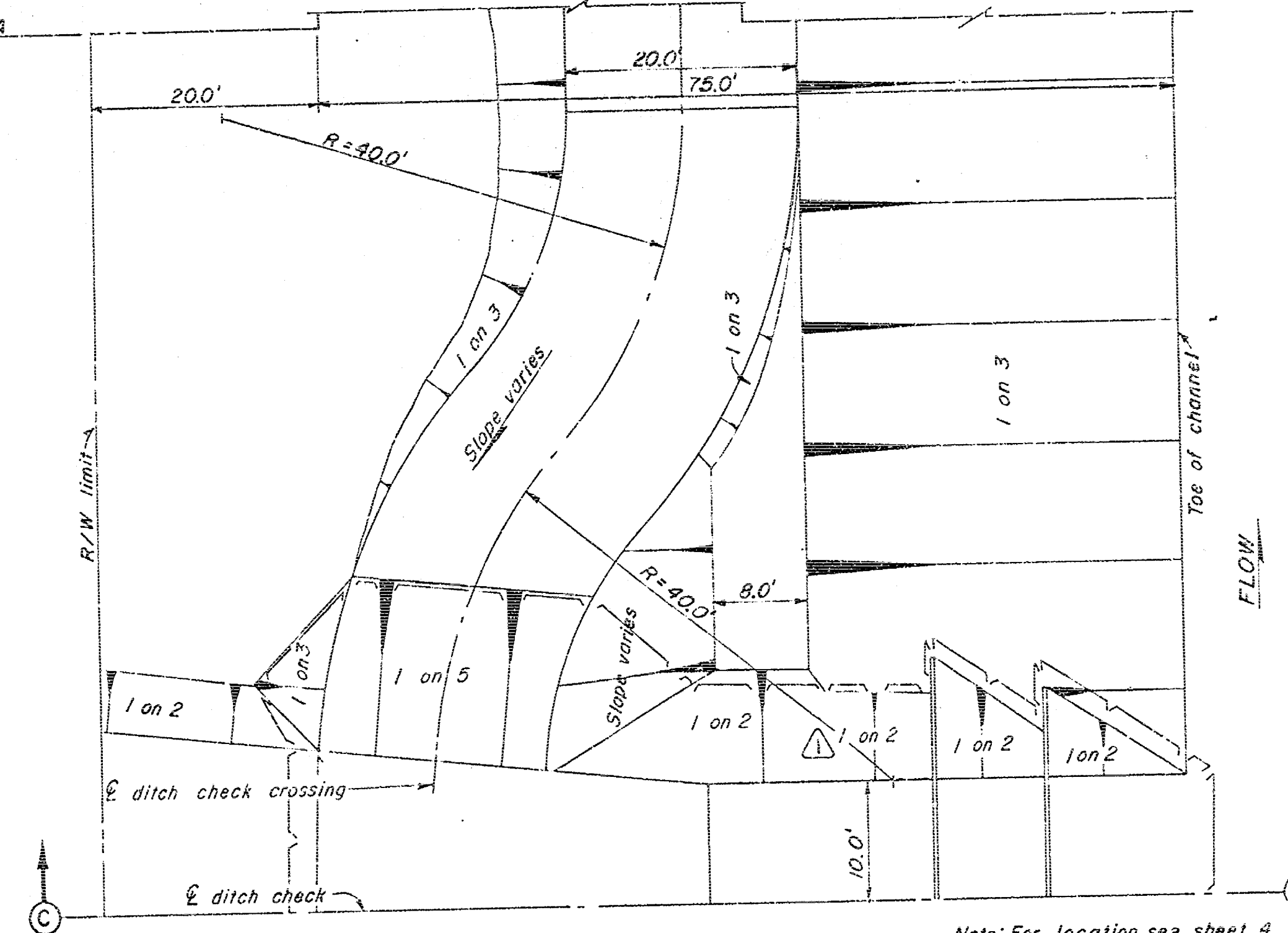
C173-9.1

CONTRACT-63-1152

CORPS OF ENGINEERS



Sta. 104+57A

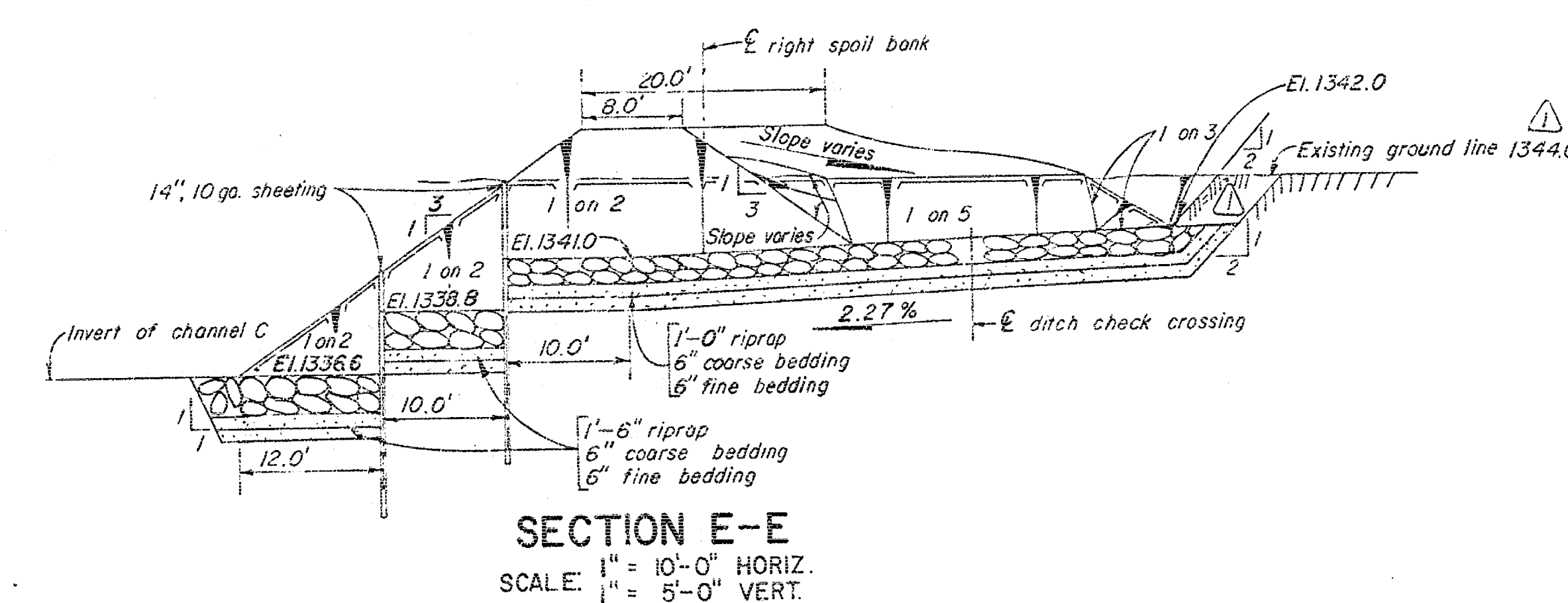
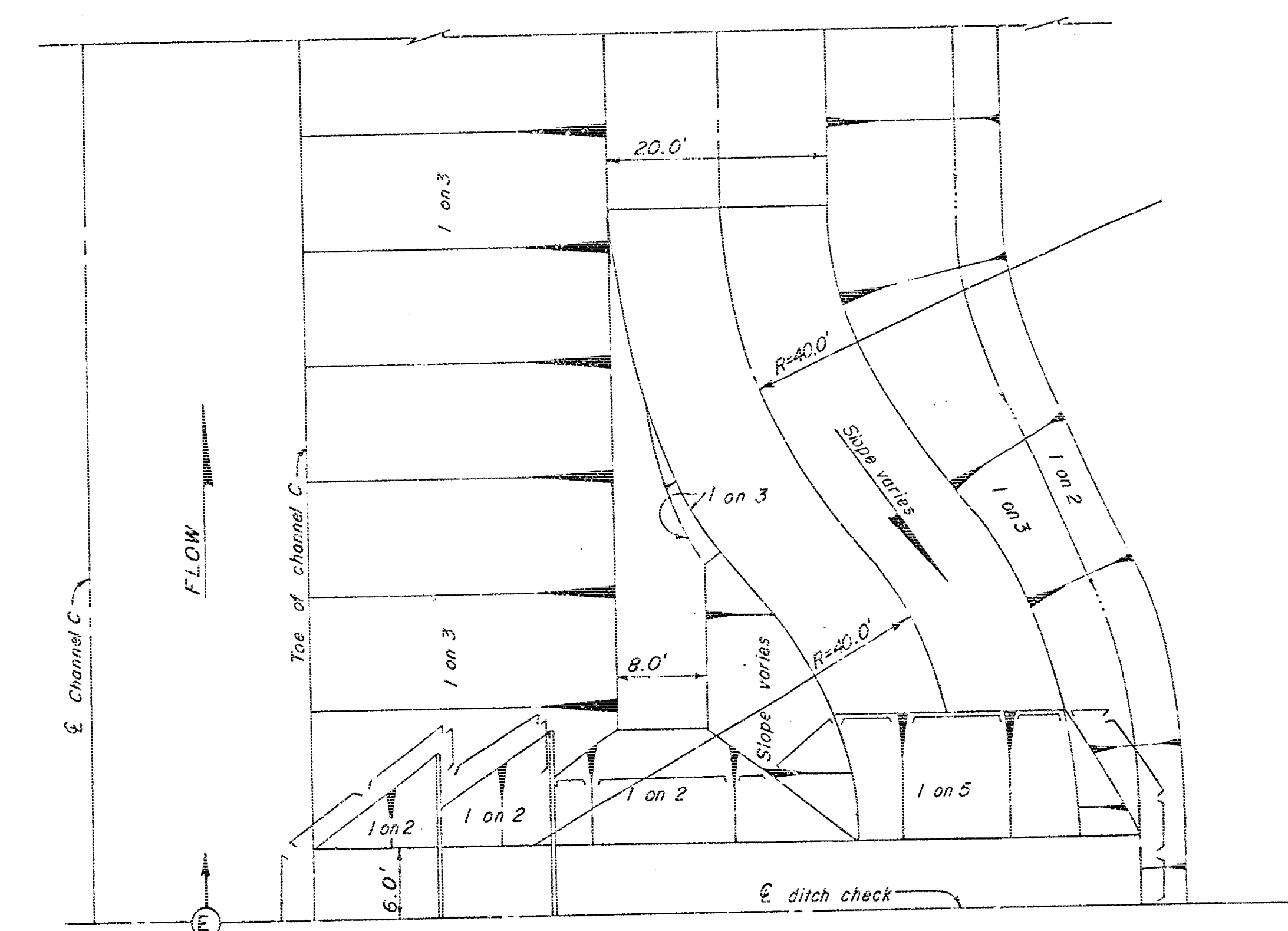
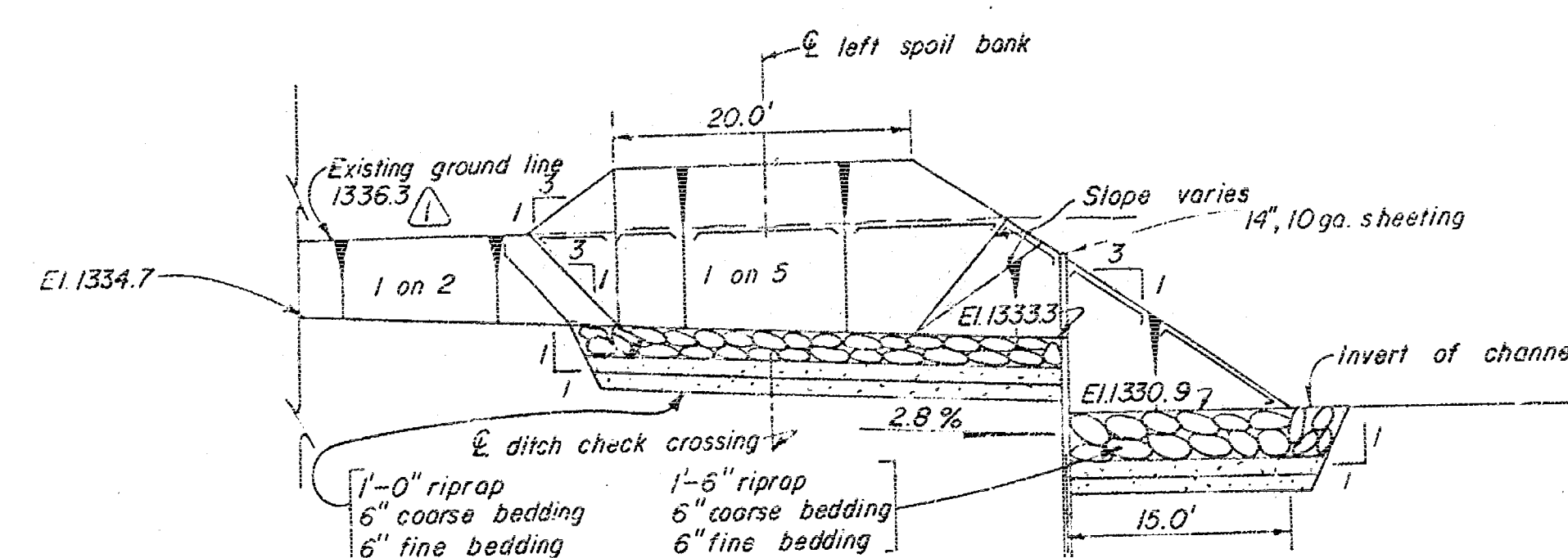
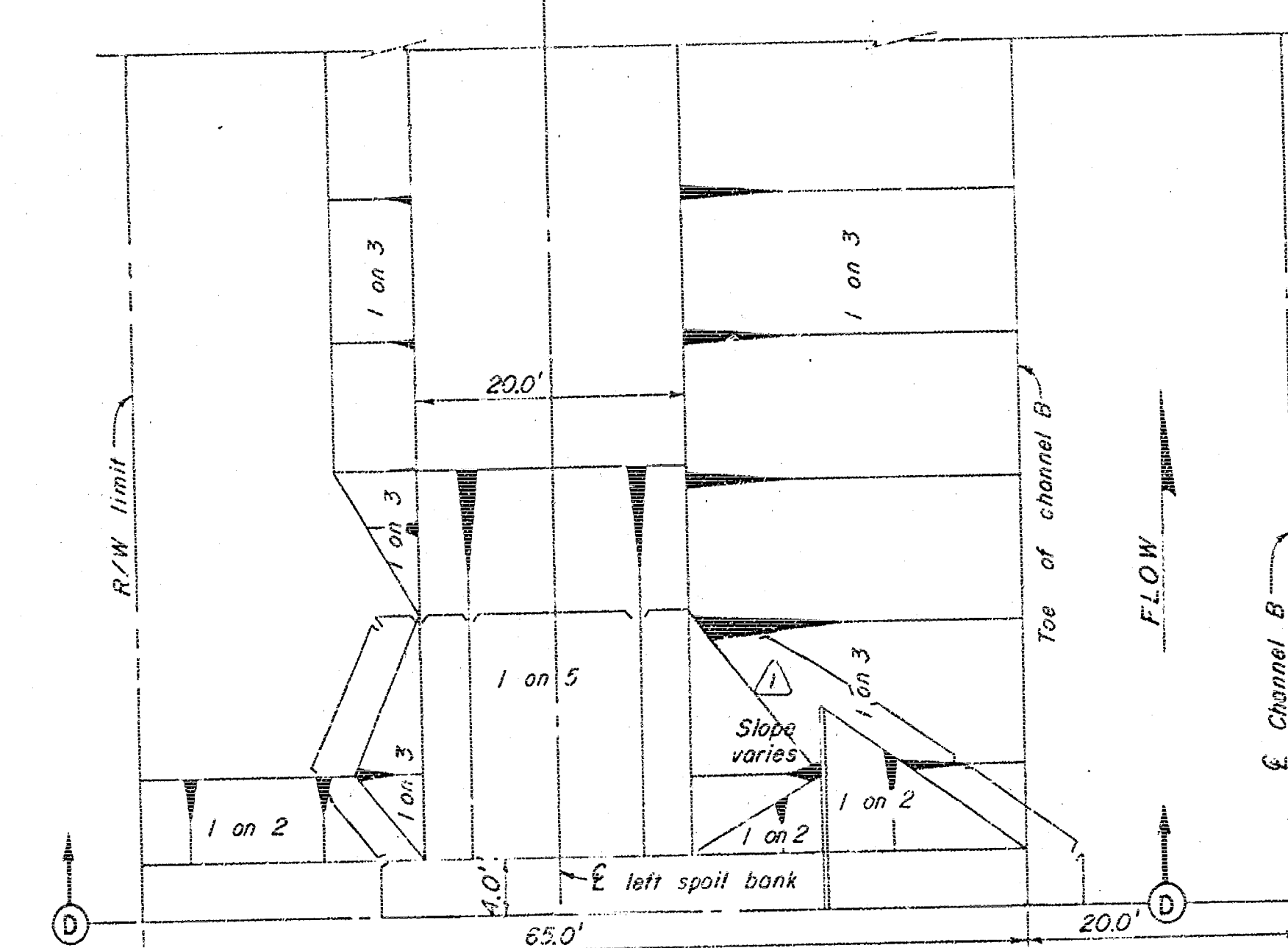
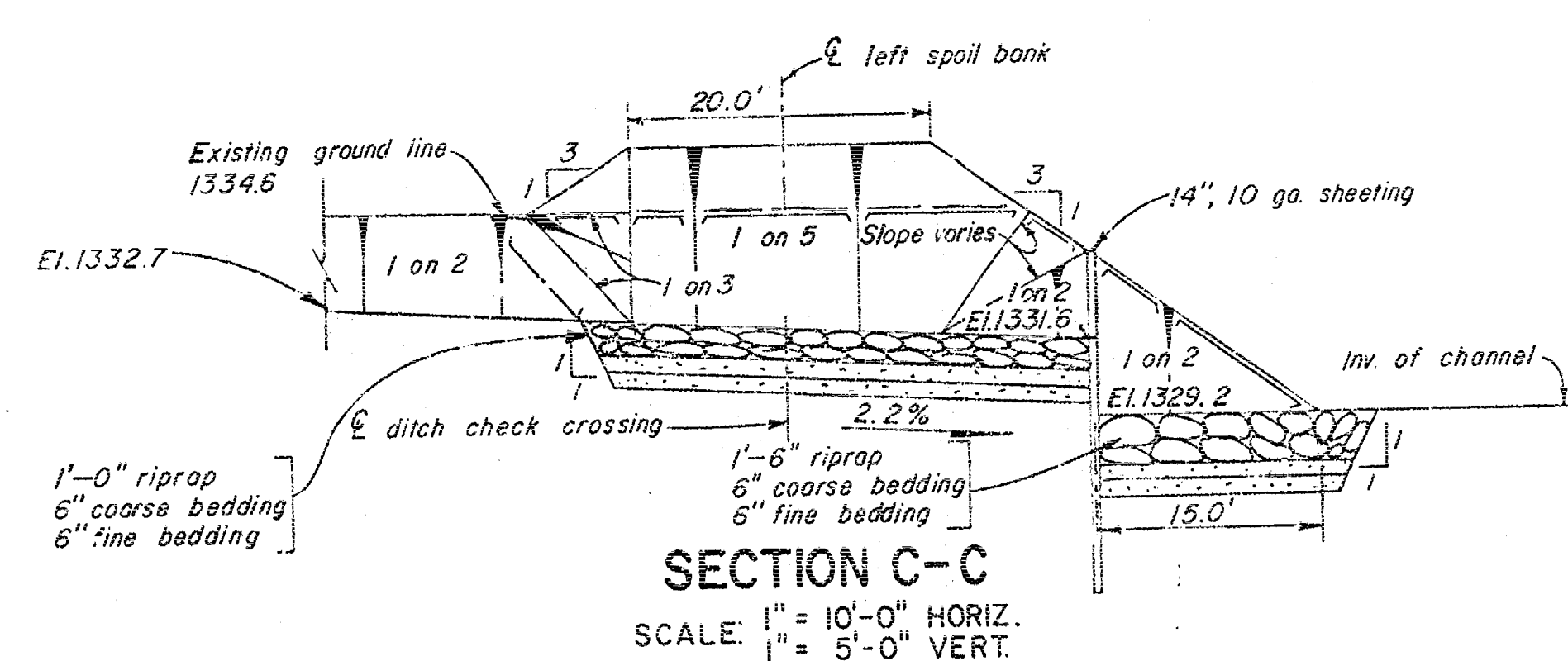
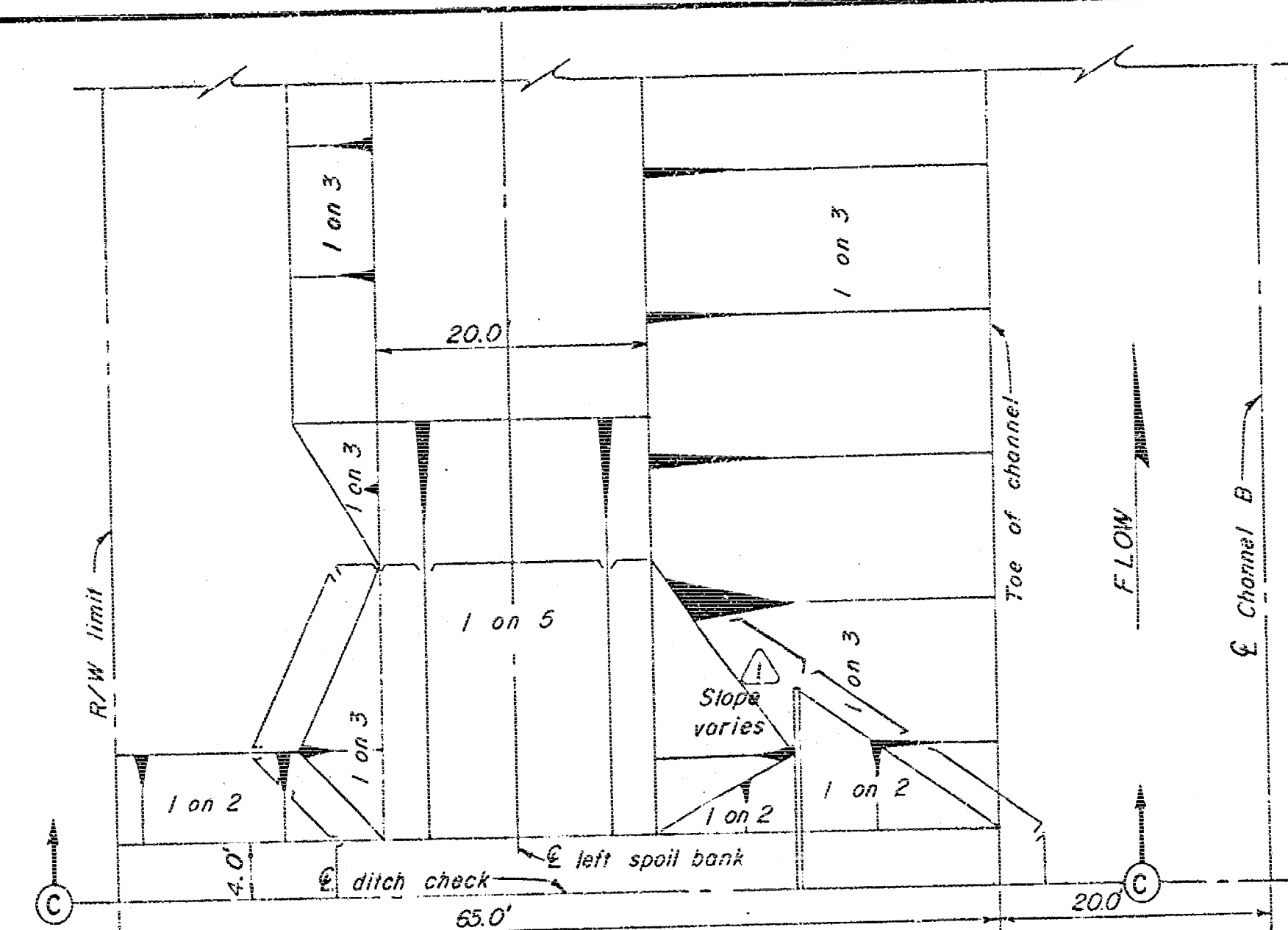
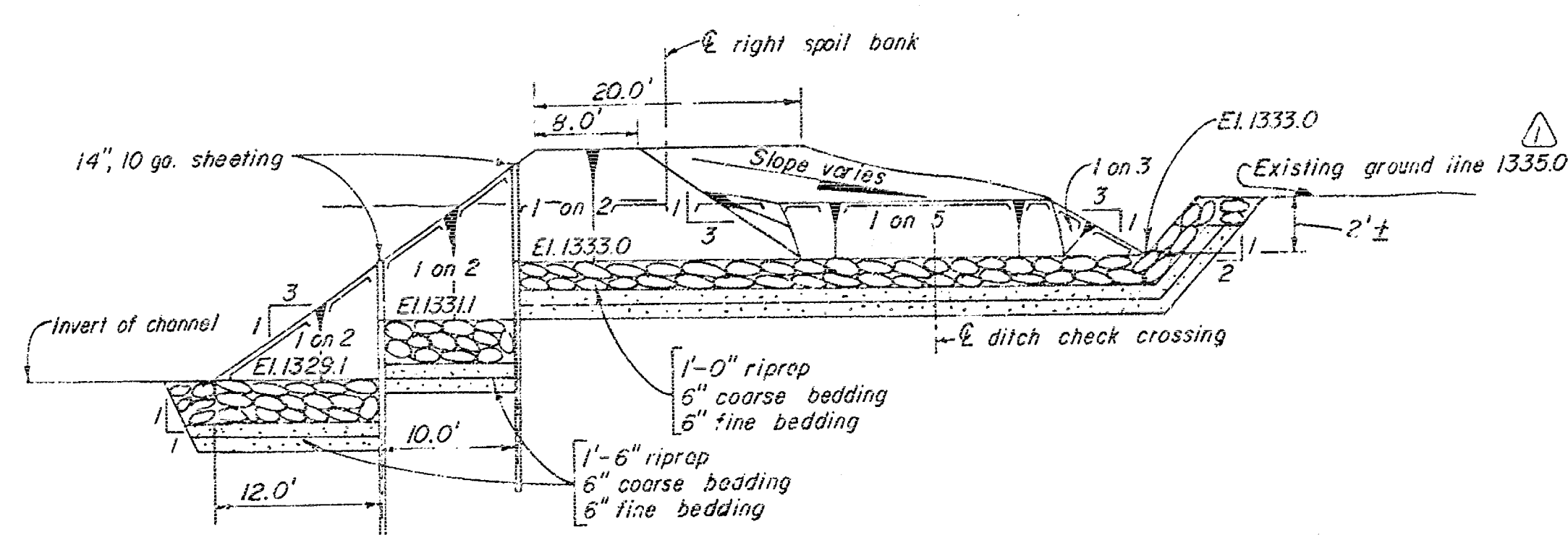
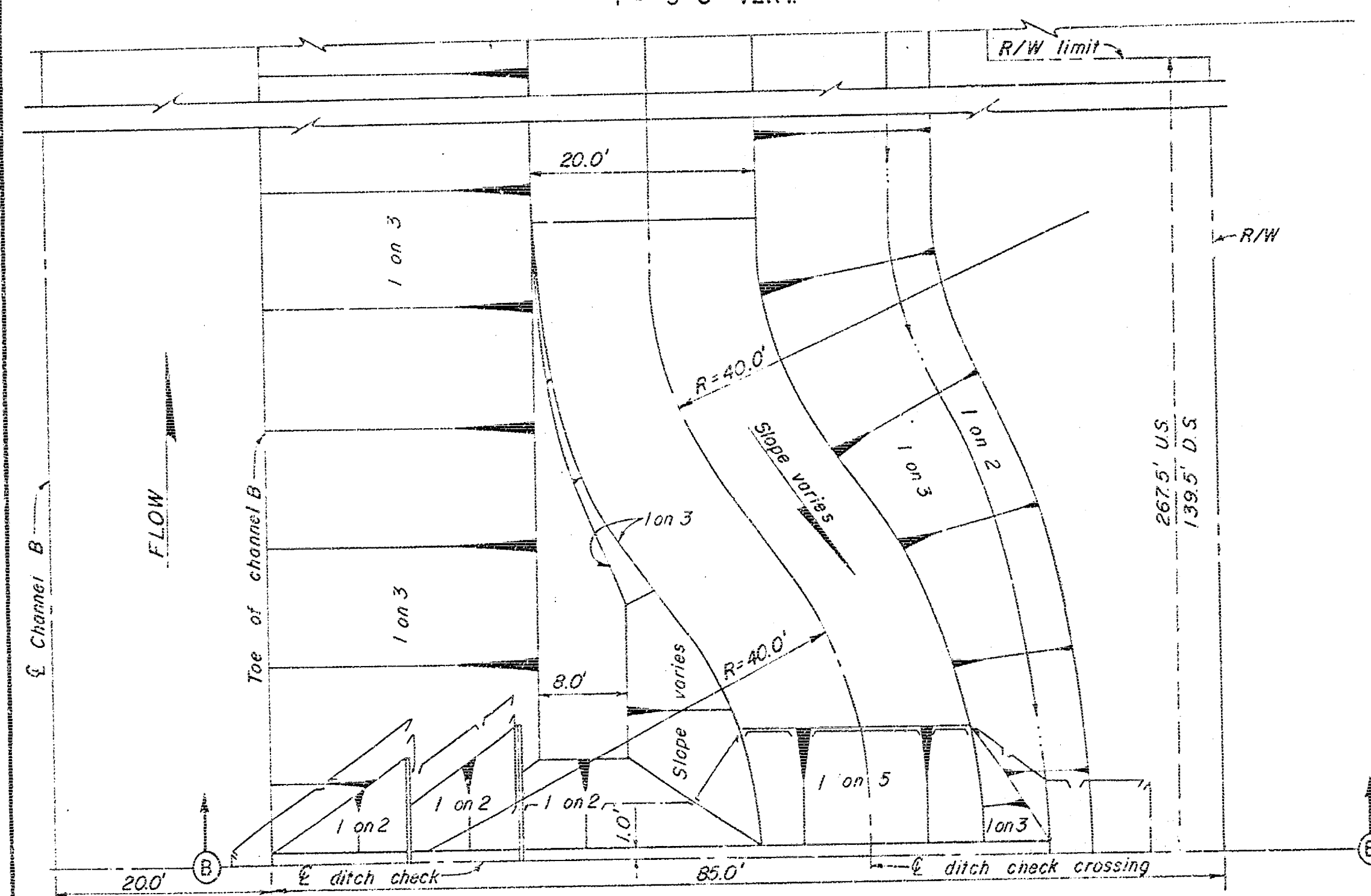
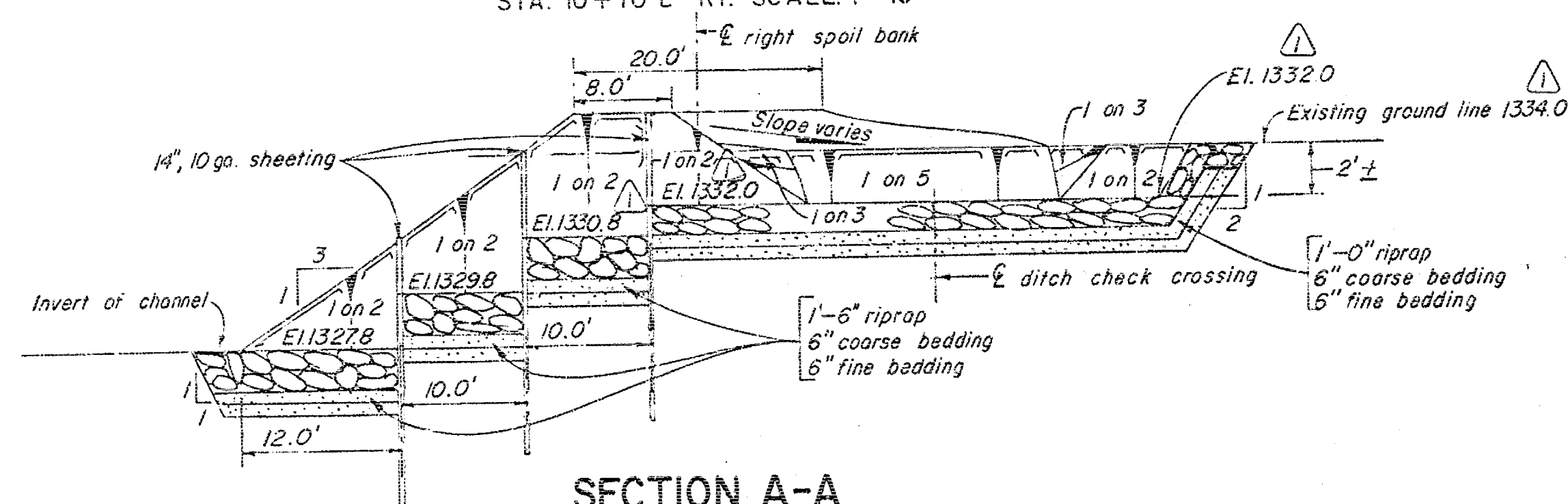
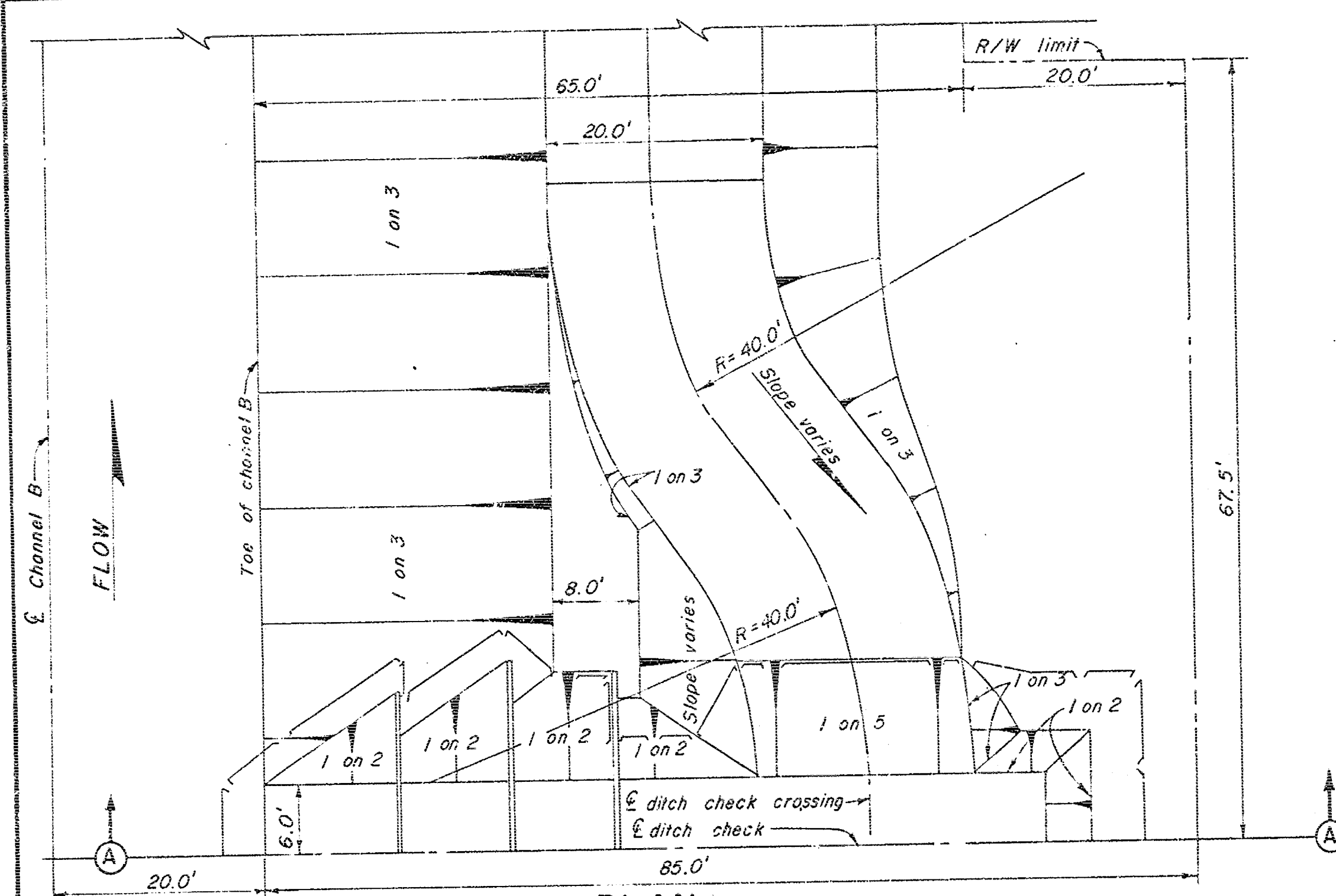


Notes:
1. For typical sectional elevation of ditch check, see sheet 9.

REVISAS AS CONSTRUCTED		CHKD.	REC.	APPR.
KEY	DATE	REVISION (INDICATED BY 3)		
ARKANSAS RIVER WATERSHED WEST BRANCH CHISHOLM CREEK VALLEY CENTER, KANSAS CONSTRUCTION OF CHANNEL DRAINAGE STRUCTURES II				
IN 16 SHEETS		SCALE: AS SHOWN		SHEET NO. 10
U.S. ARMY ENGINEER DISTRICT, TULSA, CORPS OF ENGINEERS, MAR. 1962 SUBMITTED: <i>[Signature]</i> APPROVAL RECOMMENDED: <i>[Signature]</i> APPROVED: <i>[Signature]</i> CHIEF, DIST. ENGR. SECT. "B" CHIEF, DESIGN BRANCH "B" CHIEF, ENGR. DIVISION DRAWN: D.K.G., N.W.F. TO ACCOMPANY SPECIFICATIONS FOR THE DISTRICT ENGINEER TRACED: <i>[Signature]</i> ISSUED UNDER INVITATION CHECKED: J.W., L.H.H. NS. COUNCIL-24-53P-52-21				
CONTRACT-63-1152				

RECORD (AS BUILT) DRAWING

CORPS OF ENGINEERS



Notes:
1. For typical sectional elevation of ditch checks, see sheet 9.

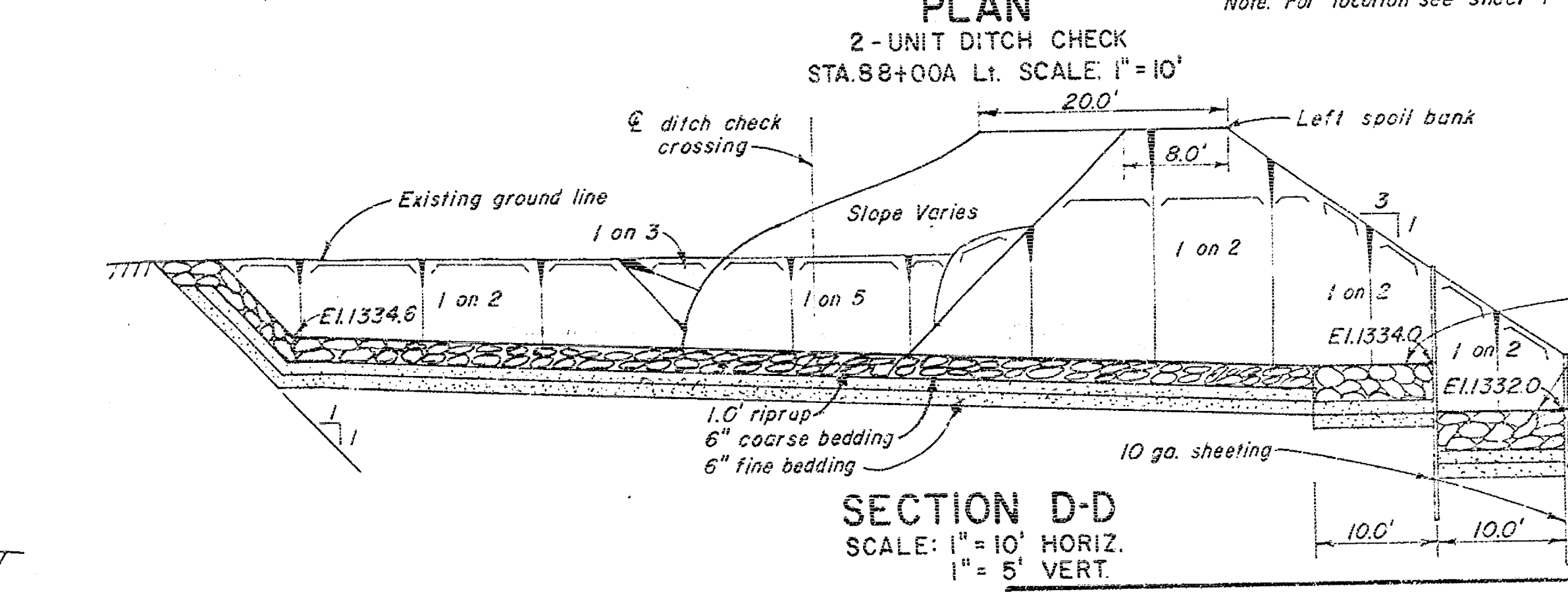
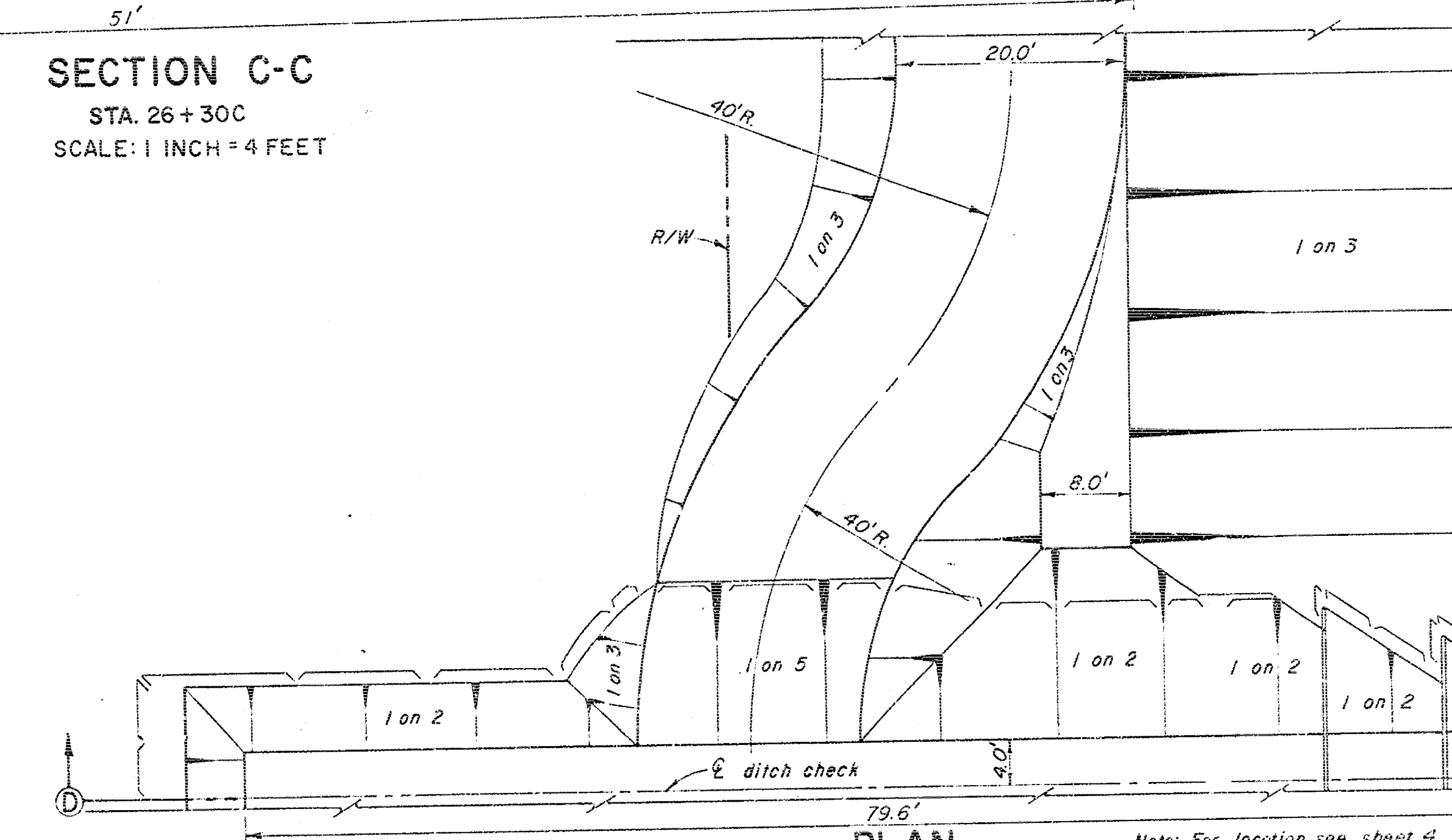
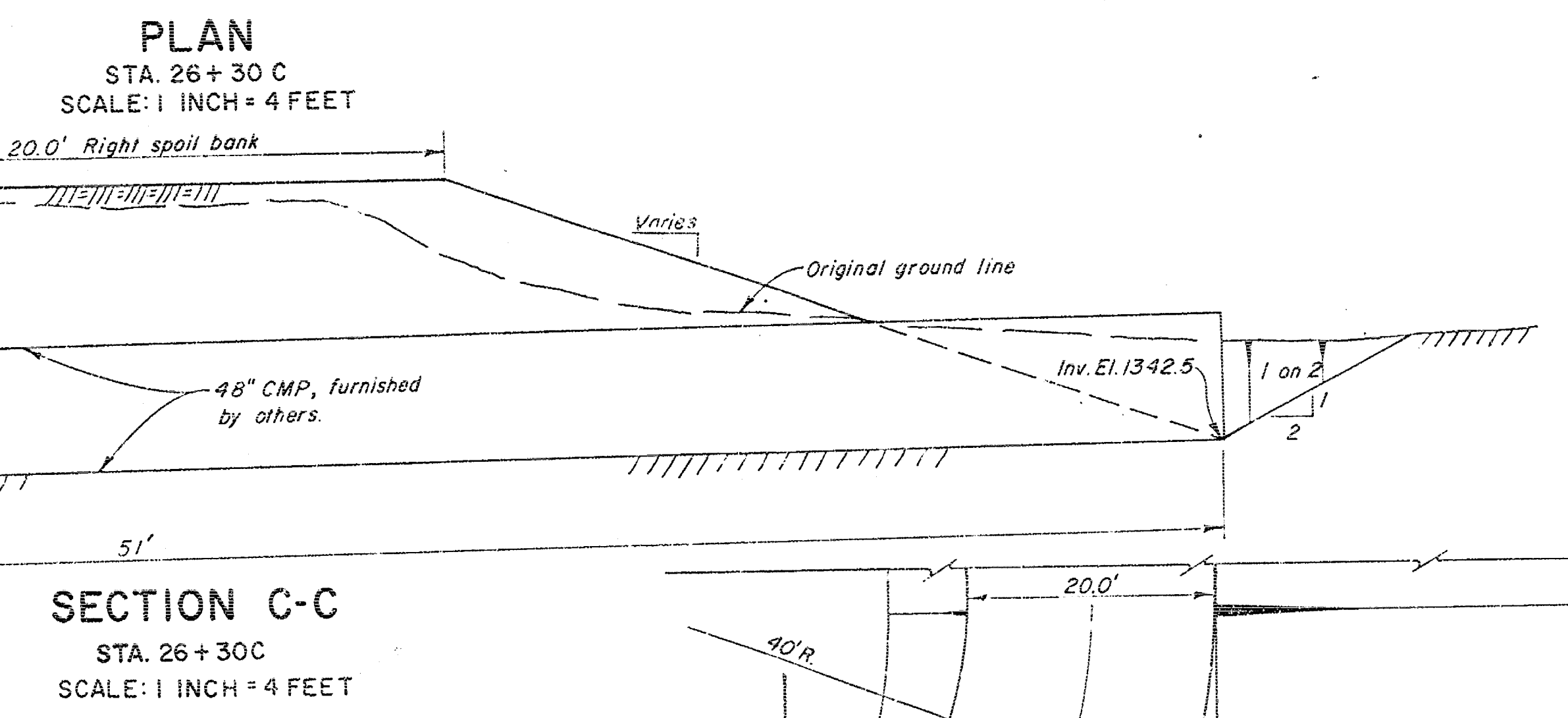
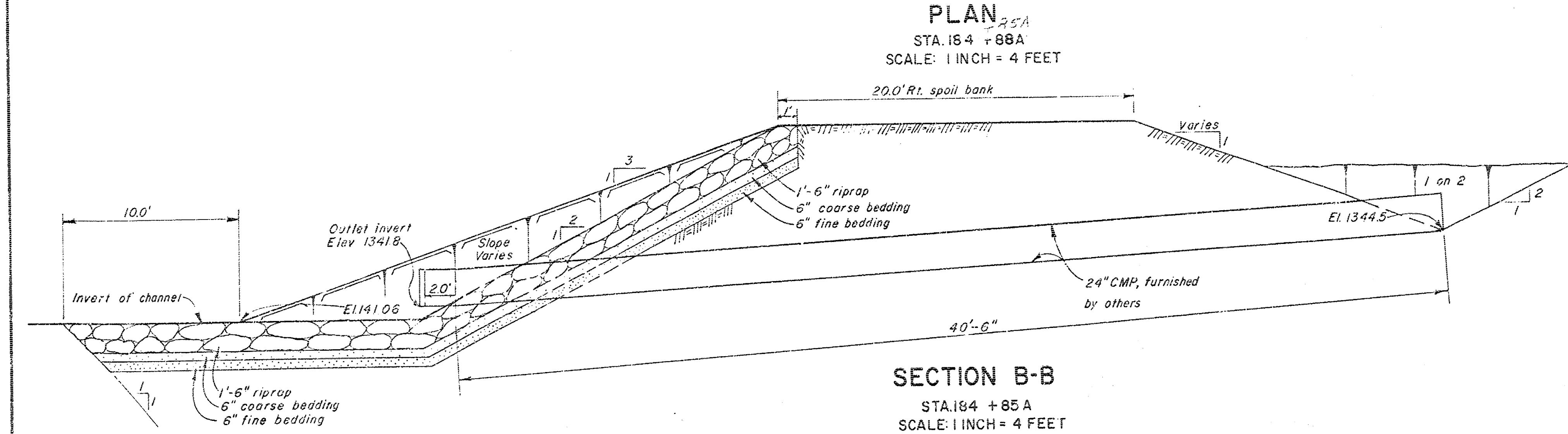
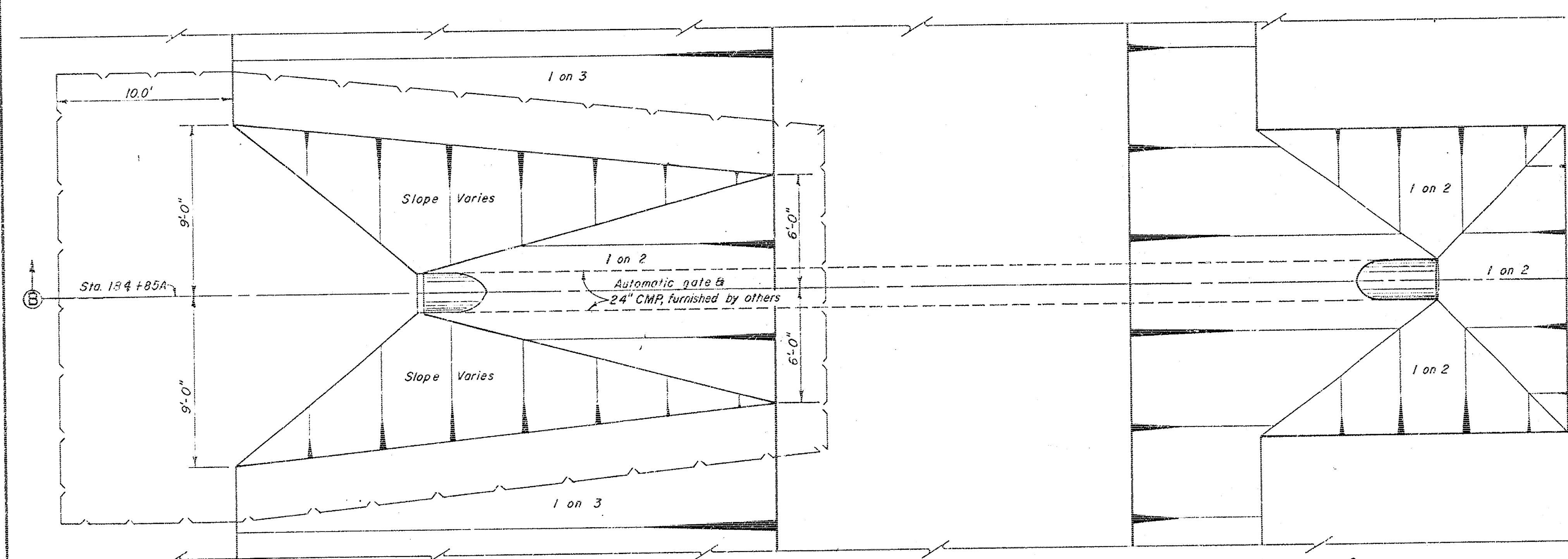
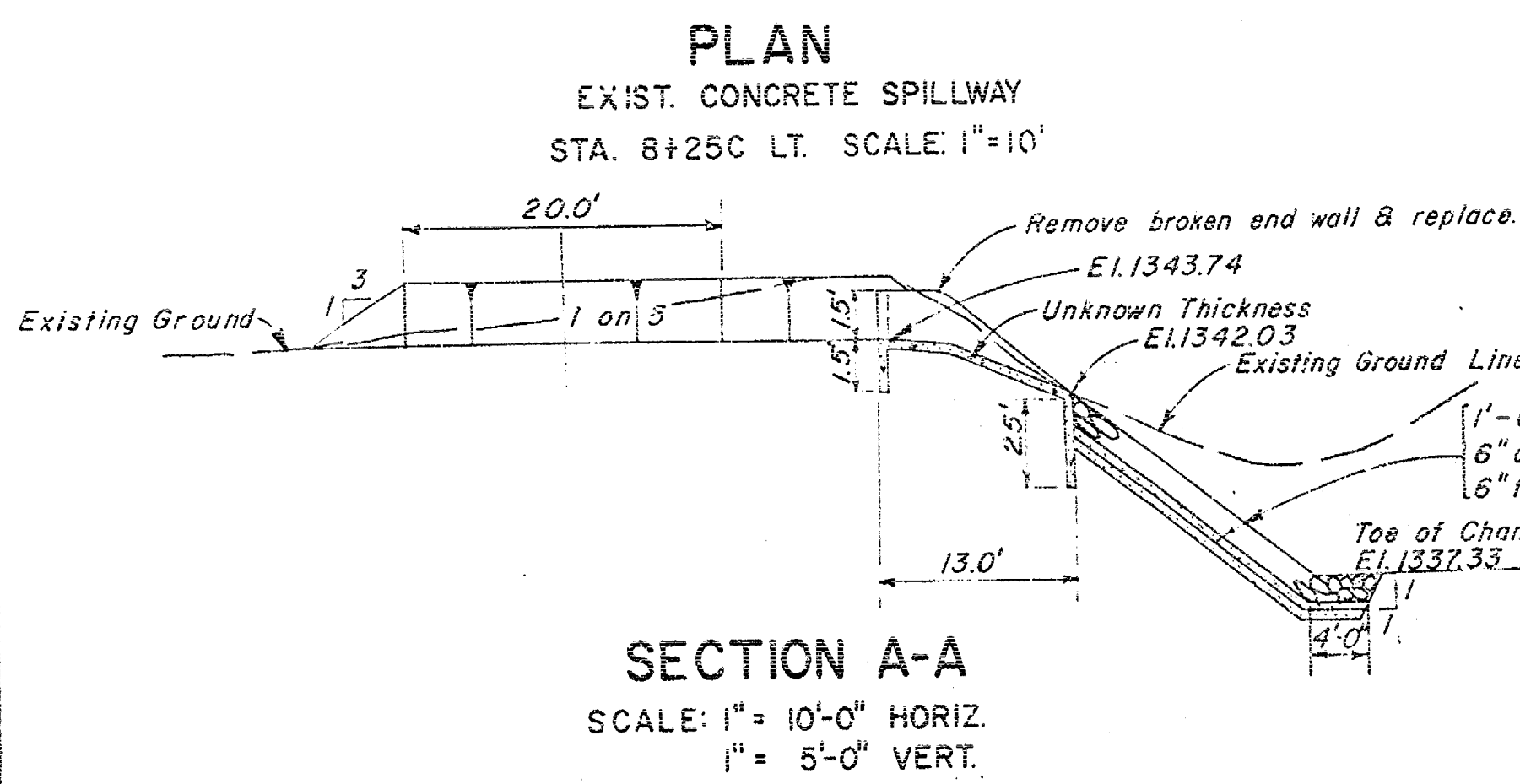
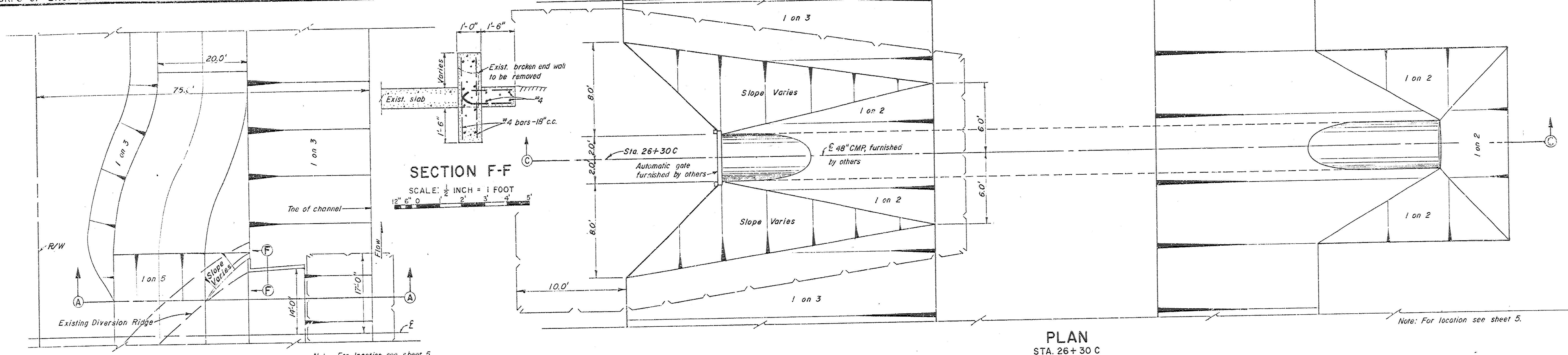
RECORD (AS BUILT) DRAWING

KEY	DATE	REVISION (INDICATED BY & 1)
1	9-12-63	REVISED AS CONSTRUCTED
ARKANSAS RIVER WATERSHED		
WEST BRANCH CHISHOLM CREEK		
VALLEY CENTER, KANSAS		
CONSTRUCTION OF CHANNEL		
DRAINAGE STRUCTURES III		
IN 16 SHEETS	SCALE: AS SHOWN	SHEET NO. 11
U. S. ARMY ENGINEER DISTRICT, TULSA, CORPS OF ENGINEERS, MAR. 1962		
SUBMITTED: APPROVED: <i>[Signature]</i>		
DRAWN: G.O.C., N.W.F. CHECKED: J.W.L.H.H.		
CHIEF DESIGN BRANCH TO ACCOMPANY SPECIFICATIONS ISSUED UNDER INVITATION NO. CIVENG-34-066-63-21		
CHIEF ENGINEER DIVISION FOR THE DISTRICT ENGINEER		
C173-11.1		

CONTRACT-63-1152

11

CORPS OF ENGINEERS



NOTE:
1. For typical elevation of ditch checks, see sheet 9.

RECORD (AS BUILT) DRAWING

KEY	DATE	REVISION (INDICATED BY Δ)	CHKD	REC	APPR
1	9/18/43	REVISED AS CONSTRUCTED			

WEST BRANCH CHISHOLM CREEK
VALLEY CENTER, KANSAS
CONSTRUCTION OF CHANNEL
DRAINAGE STRUCTURES IV

IN 16 SHEETS SCALE: AS SHOWN SHEET NO. 12

U.S. ARMY ENGINEER DISTRICT, TULSA, CORPS OF ENGINEERS, MAR. 1962

SUBMITTED: APPROVAL RECOMMENDED: APPROVED:

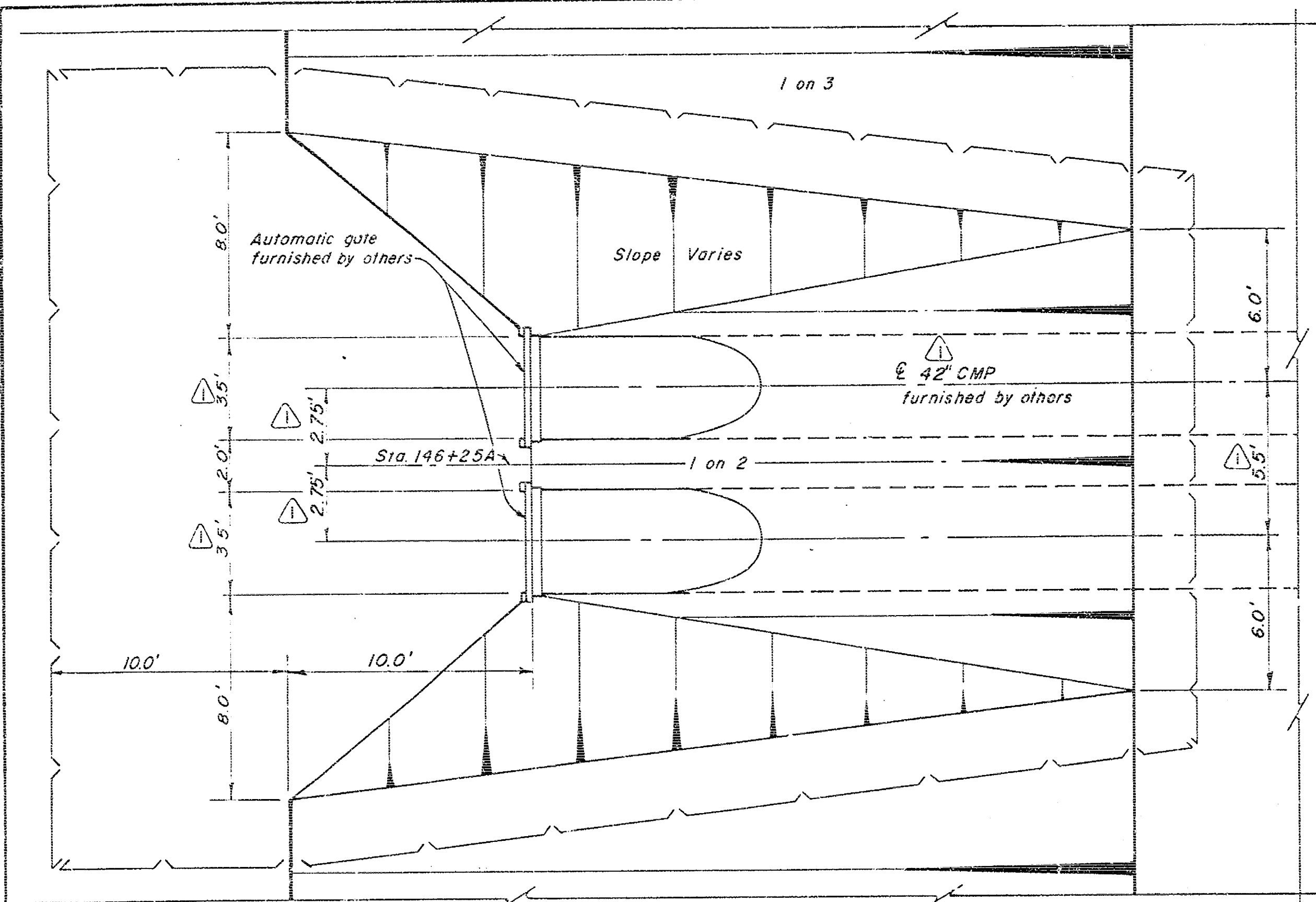
CHIEF, GENL. ENGRG. SECT. B CHIEF, DESIGN BRANCH B CHIEF, ENGRG. DIVISION

DRAWN: G.O.C., N.W.F. TO ACCOMPANY SPECIFICATIONS FOR THE DISTRICT ENGINEER

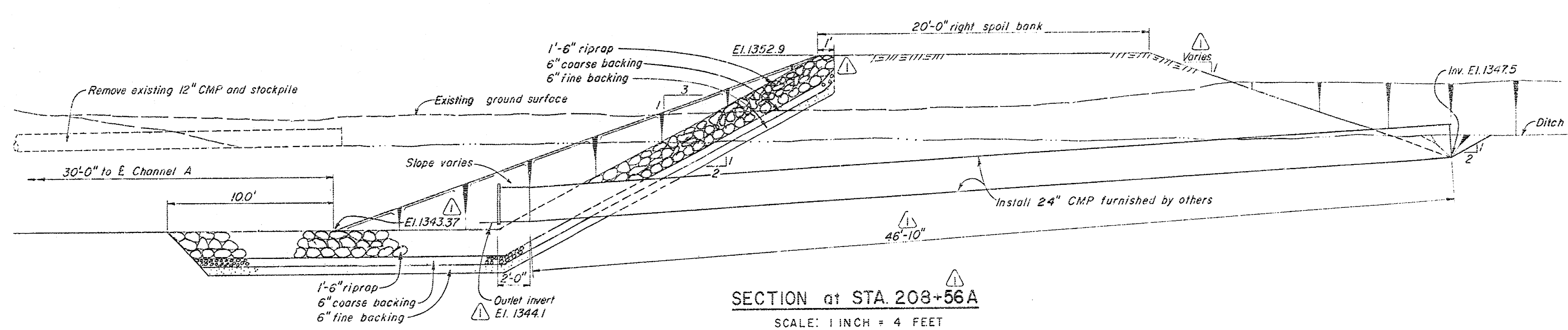
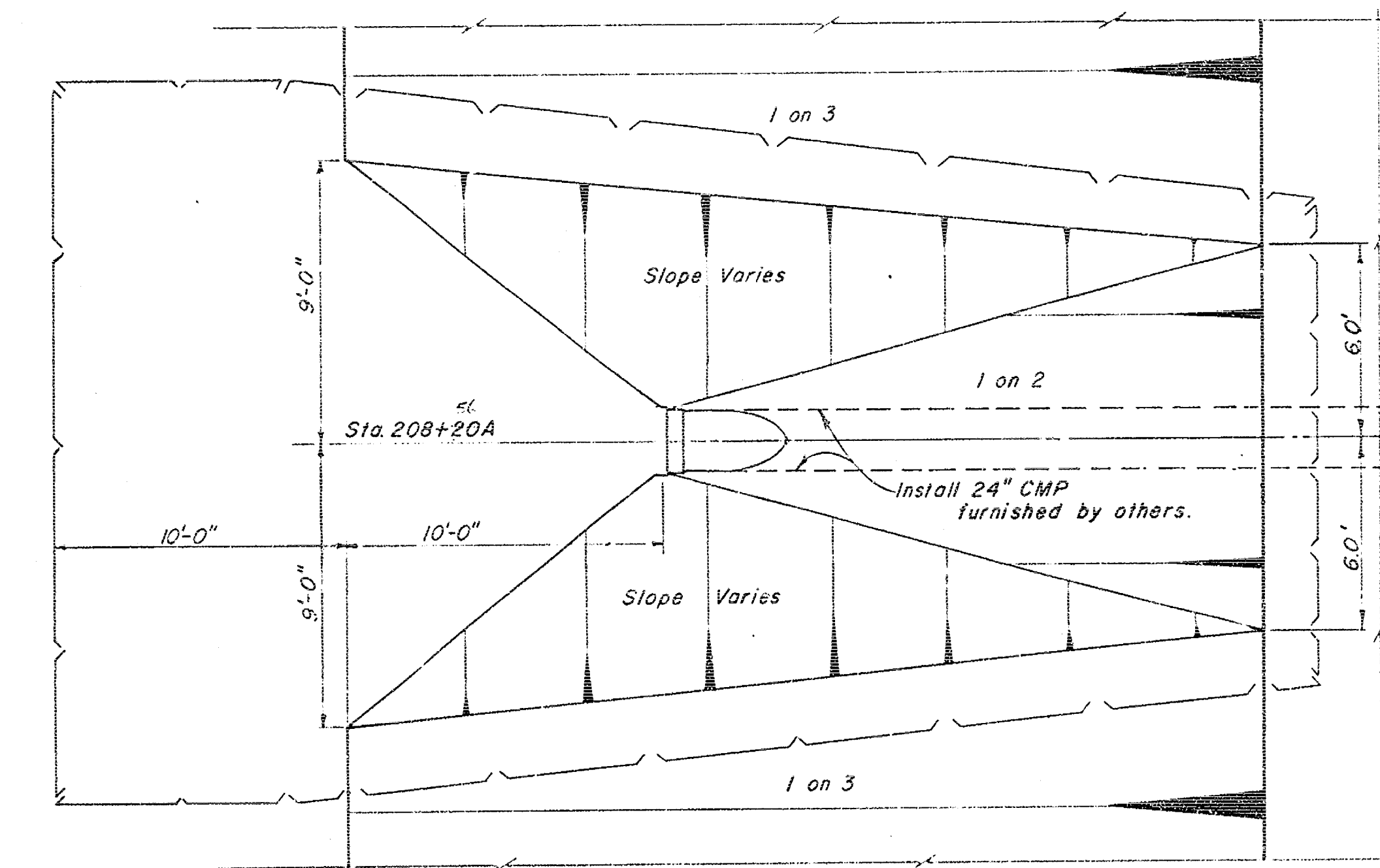
CHECKED: J.W., J.H.H. NO. CIVENG-34-056-63-21

C173-12.1

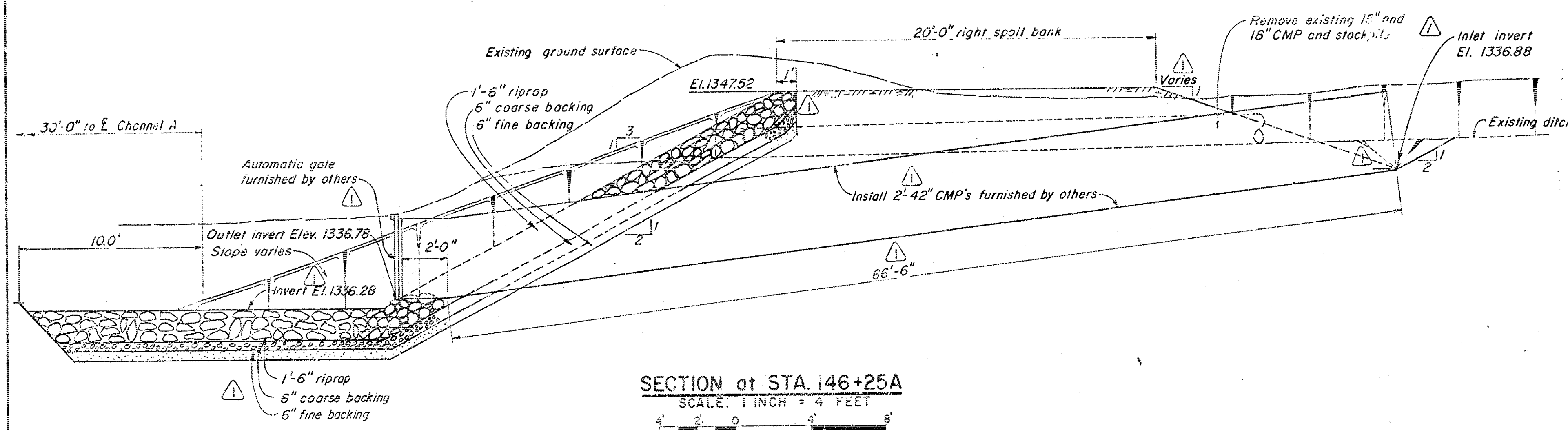
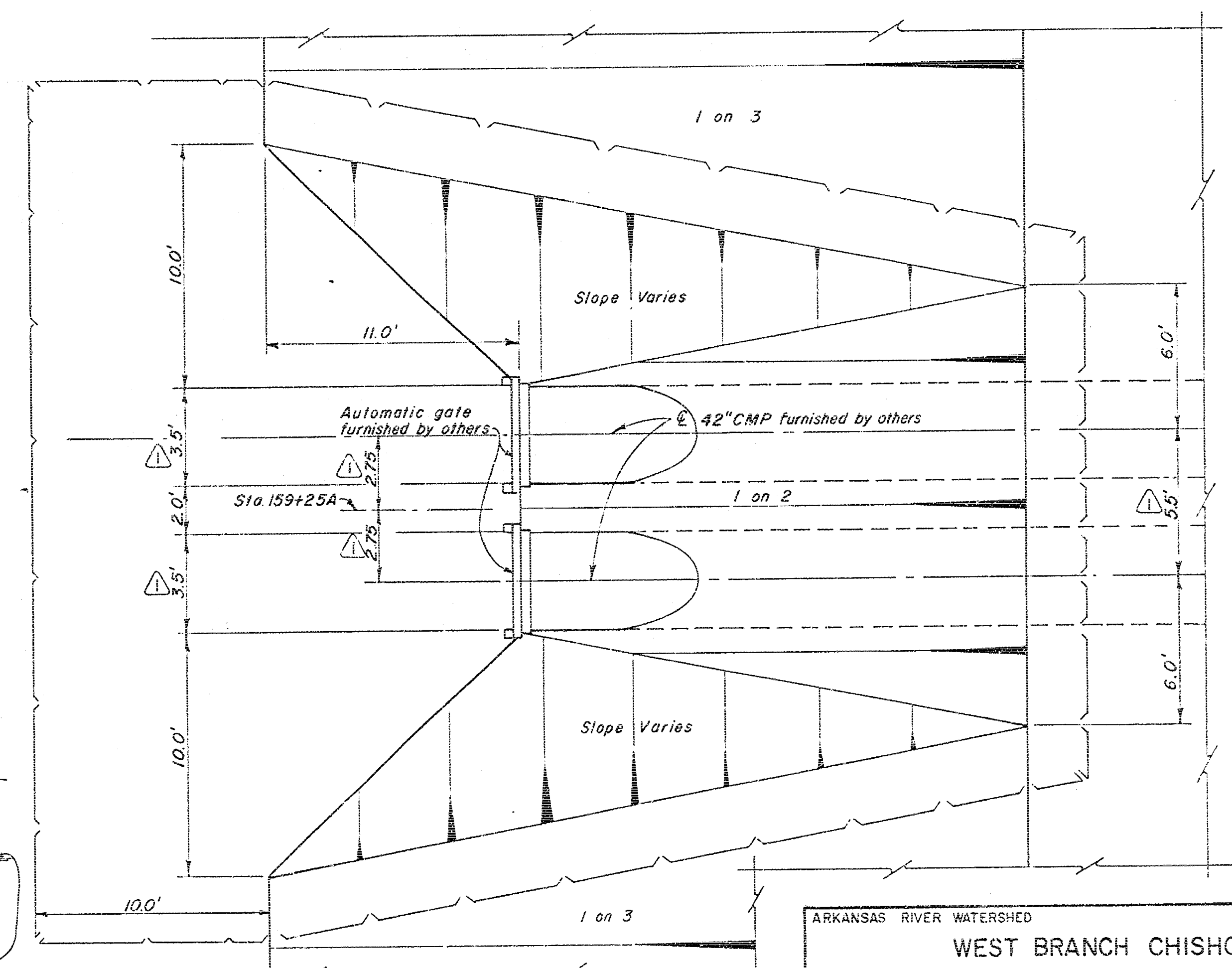
CONTRACT 63-1152

PLAN at STA. 146+25A
SCALE: 1 INCH = 4 FEET

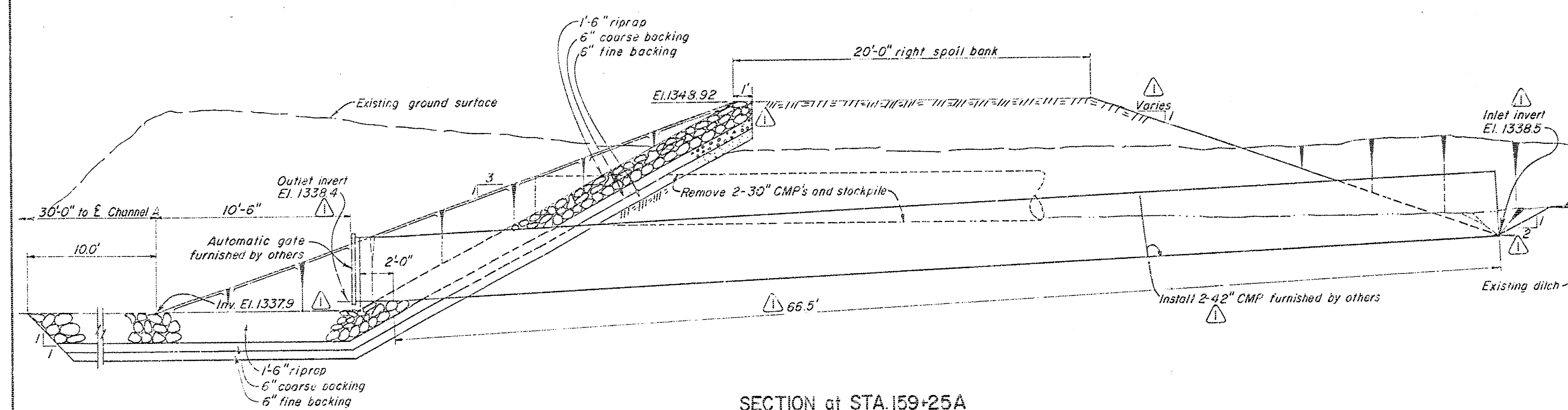
NOTE: For location see sheet 5

SECTION at STA. 208+56A
SCALE: 1 INCH = 4 FEETPLAN at STA. 208+56A
SCALE: 1 INCH = 4 FEET

Note: For location see sheet 6

SECTION at STA. 146+25A
SCALE: 1 INCH = 4 FEETPLAN at STA. 159+25A
SCALE: 1 INCH = 4 FEET

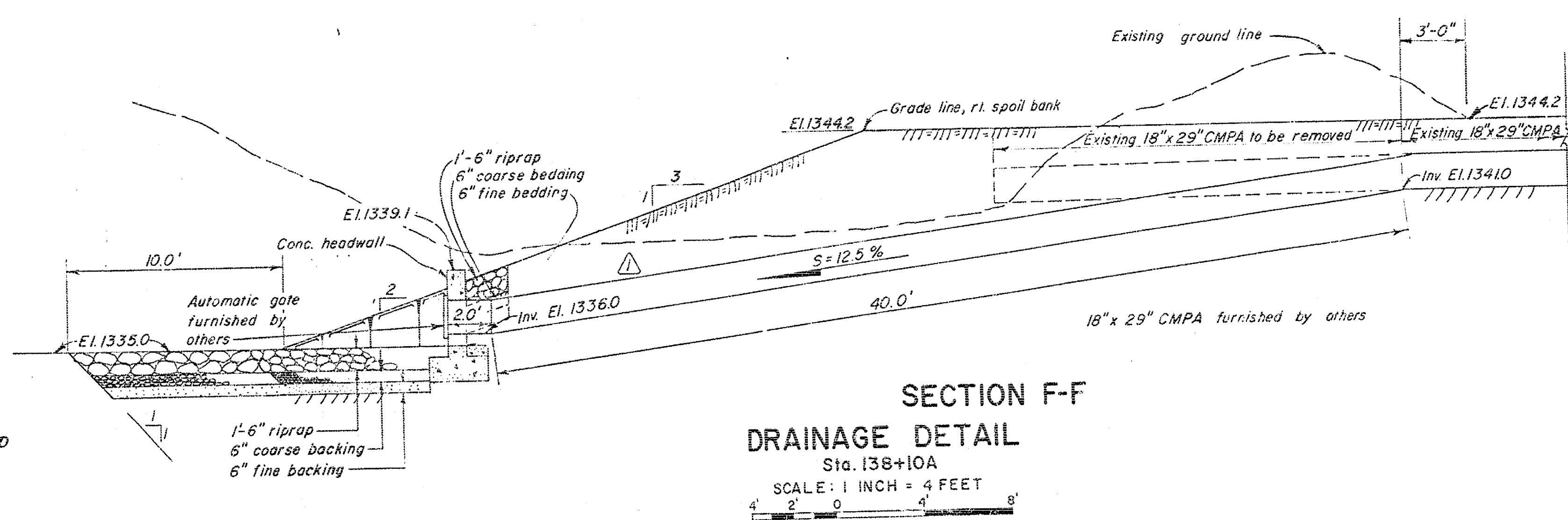
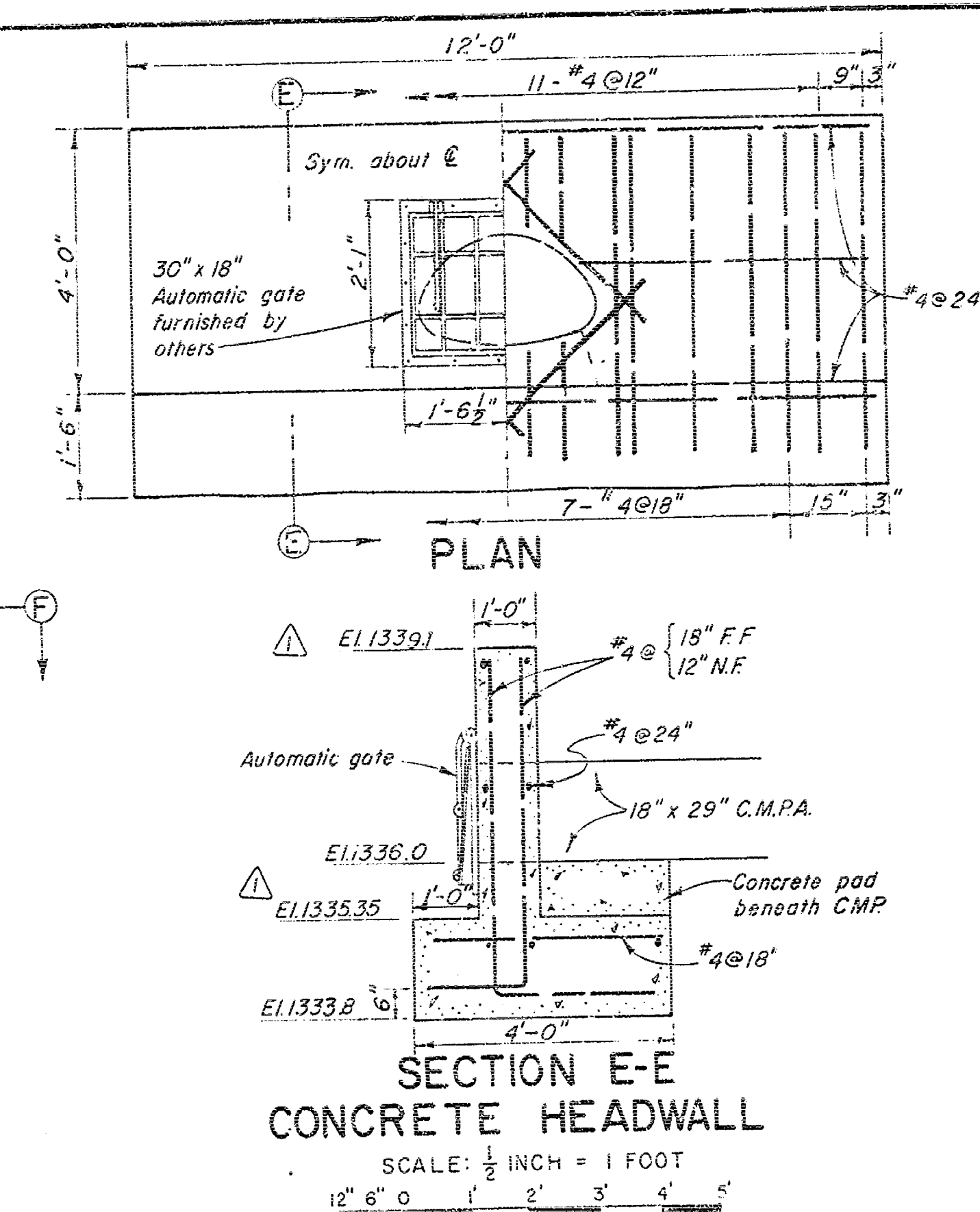
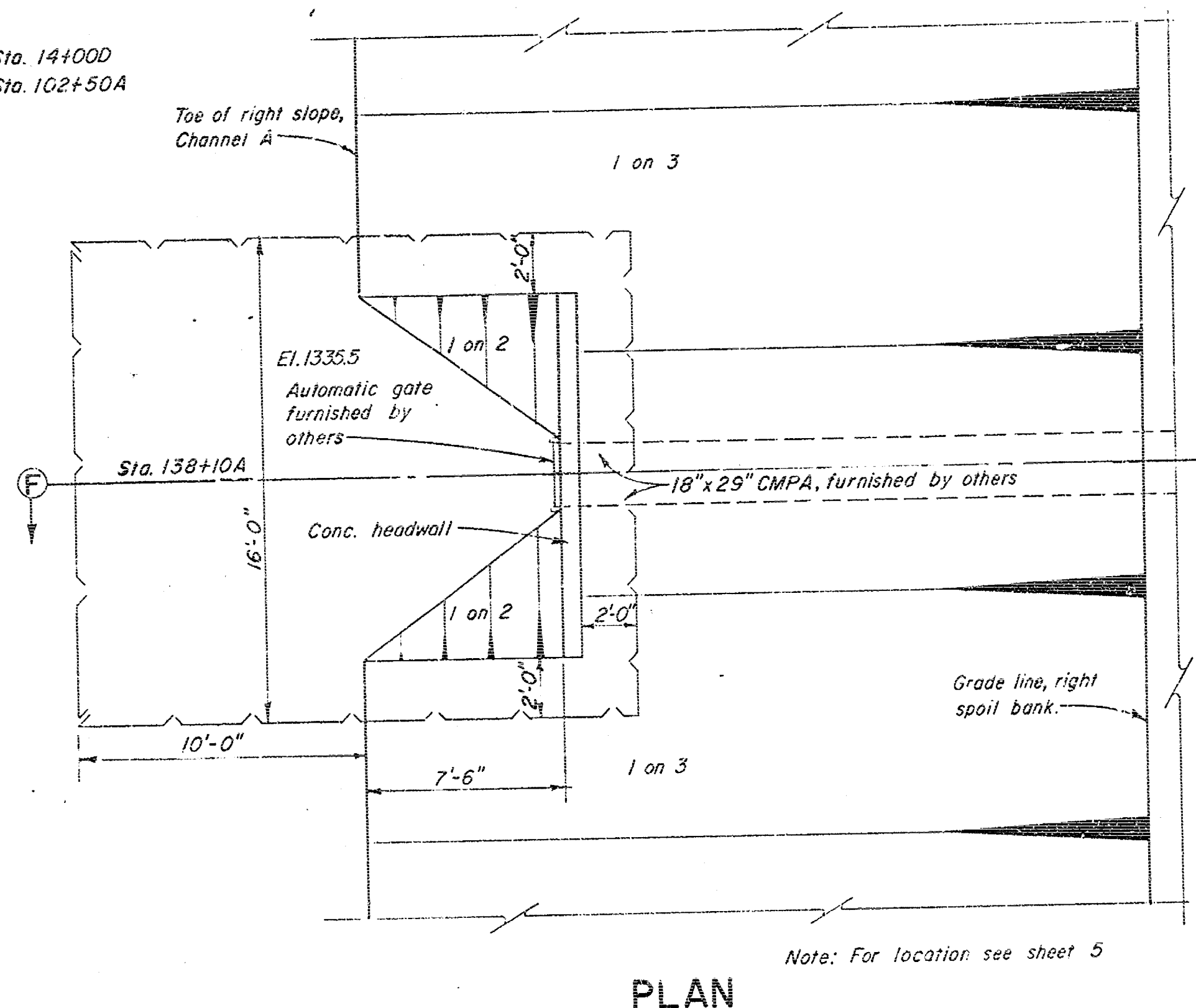
NOTE: For location, see sheet 5

SECTION at STA. 159+25A
SCALE: 1 INCH = 4 FEET

KEY	DATE	REVISION (INDICATED BY Δ)	CHKD	REC	APPR
1	9-12-63	REVISED AS CONSTRUCTED			

RECORD (AS BUILT) DRAWING

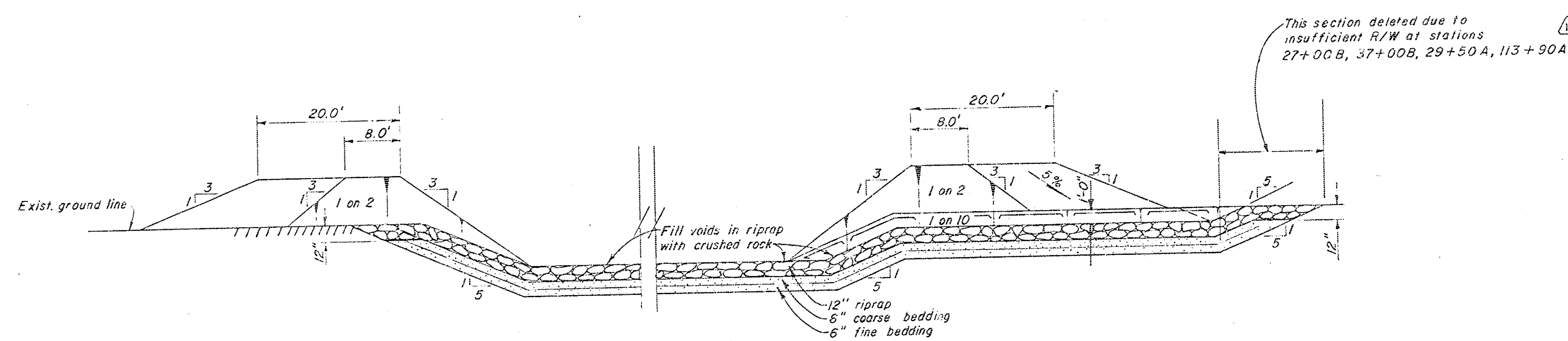
ARKANSAS RIVER WATERSHED		ARKANSAS RIVER, KANSAS	
WEST BRANCH CHISHOLM CREEK			
VALLEY CENTER, KANSAS			
CONSTRUCTION OF CHANNEL			
DRAINAGE STRUCTURES ▽			
IN 16 SHEETS		SCALE: AS SHOWN	
SHEET NO. 13			
U.S. ARMY ENGINEER DISTRICT, TULSA, CORPS OF ENGINEERS, MAR. 1962			
SUBMITTED:		APPROVAL RECOMMENDED:	
DRAWN: J.F.T., N.W.F.		TO COMPANY SPECIFICATION	
TRACED: J.W., L.H.H.		ISSUED UNDER INVITATION	
CHECKED: J.W., L.H.H.		NO. CIVENG-34-66-63-21	
		C173-13.1	
		CONTRACT-63-1152	



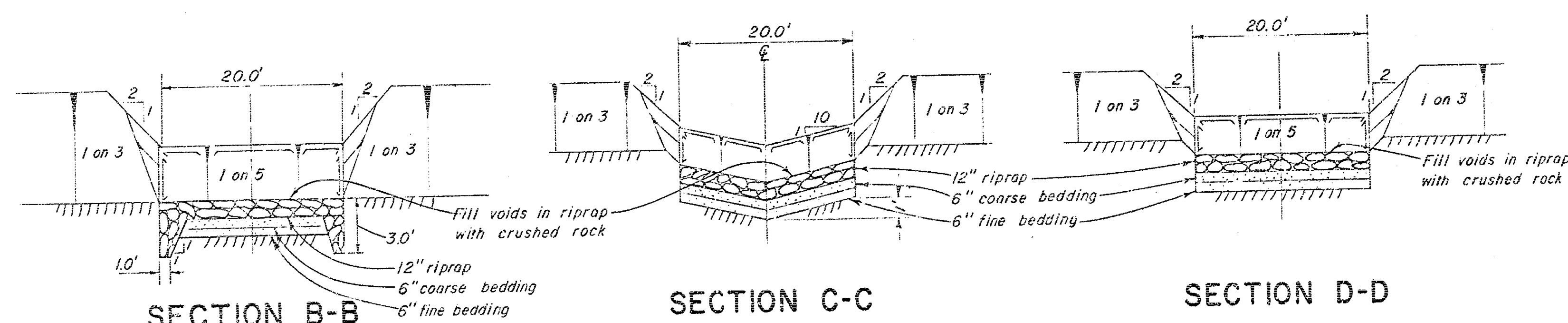
TYPICAL HALF-PLAN WITHOUT DRAINAGE

TYPICAL HALF-PLAN WITH DRAINAGE

PLAN



SECTION A-A



SECTION B-B

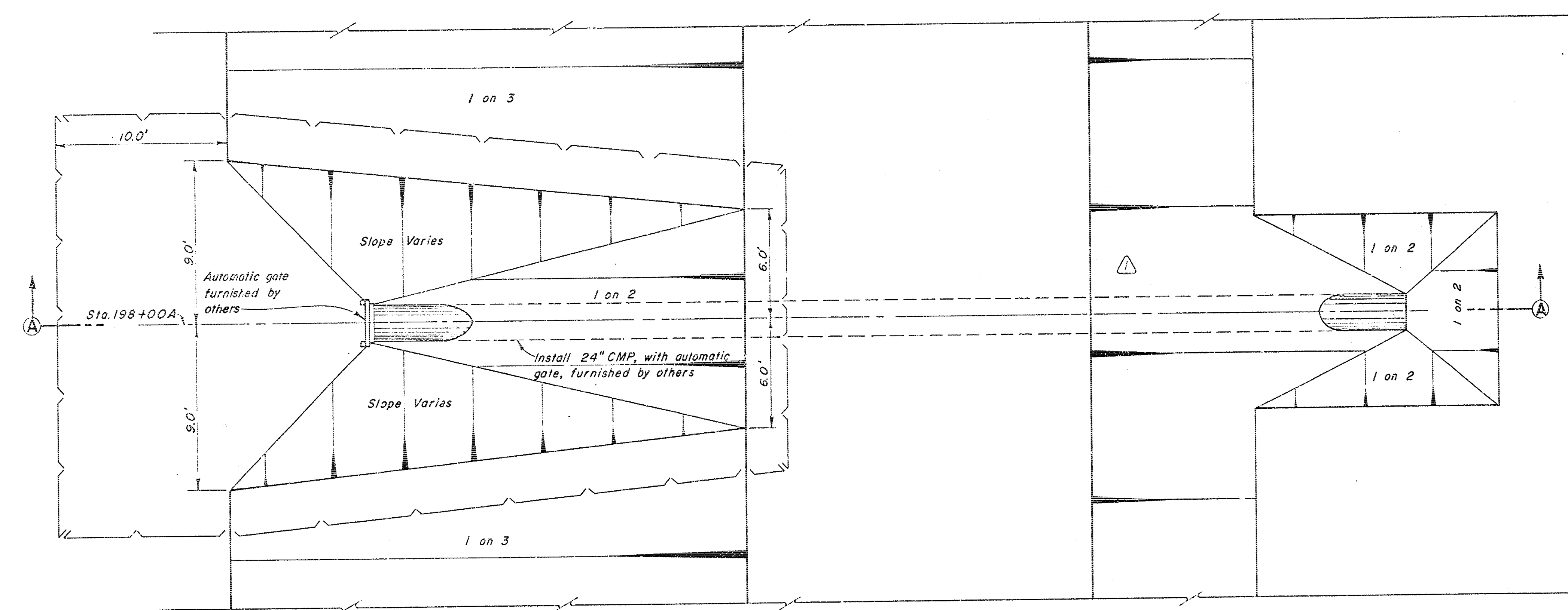
SECTION C-C
TYPICAL FIELD CROSSING

SECTION D-D

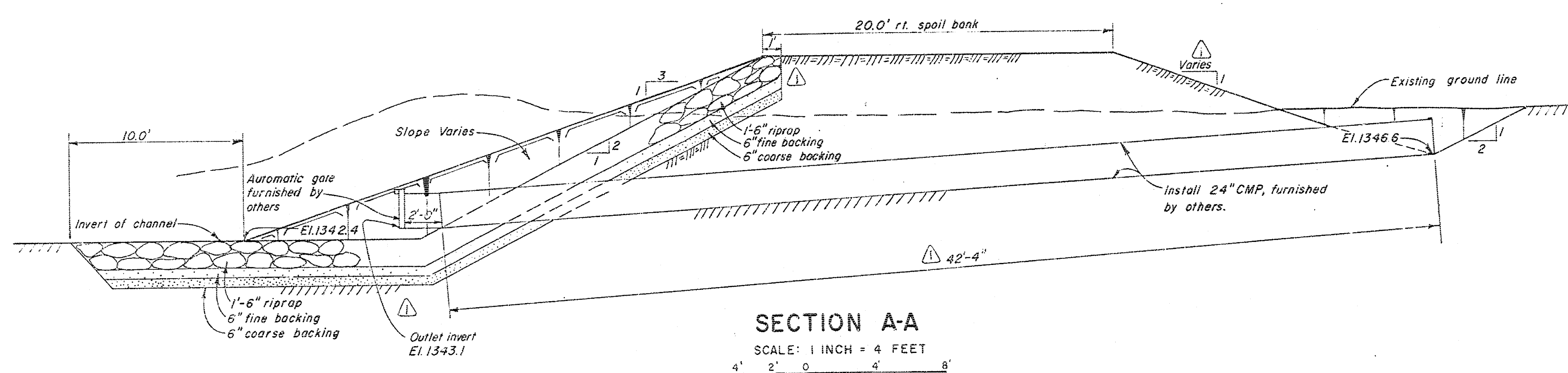
SCALE: 1 INCH = 10 FEET HORIZ.
1 INCH = 5 FEET VERT.

RECORD (AS BUILT) DRAWING

1	17-62	REVISED AS CONSTRUCTED		<i>P. H. B.</i>	APPR
KEY DATE	REVISION (INDICATED BY A.)		CHKD REC	ARKANSAS RIVER, KANSAS	
ARKANSAS RIVER WATERSHED					
WEST BRANCH CHISHOLM CREEK VALLEY CENTER, KANSAS CONSTRUCTION OF CHANNEL DRAINAGE STRUCTURES VI					
IN 16 SHEETS		SCALE: AS SHOWN		SHEET NO. 14	
U.S. ARMY ENGINEER DISTRICT, TULSA, CORPS OF ENGINEERS, MAR. 1962					
SUBMITTED:		APPROVED / RECOMMENDED:		APPROVED:	
<i>H. G. C.</i> CHIEF, GENL. ENG. SECT. DRAWN: G.O.C., N.W.F. TRACED: CHECKED: J.W., L.H.		<i>H.K. Brown</i> B. CHIEF DESIG & BRANCH "B" TO ACCOMPANY SPECIFICATIONS ISSUED UNDER INVITATION NO. CIVENG-34-CRG-63-21		<i>M. P. B.</i> CHIEF ENGRG. DIVISION FOR THE DISTRICT ENGINEER C173-141	
CONTACT 63-1152					



PLAN
STA. 198+00A R/L
SCALE: 1 INCH = 4 FEET



SECTION A-A
SCALE: 1 INCH = 4 FEET

RECORD (AS BUILT) DRAWING

KEY	DATE	REVISION (INDICATED BY Δ)	CHKD.	REC.	APPR.
	9-12-63	REVISED AS CONSTRUCTED			
ARKANSAS RIVER WATERSHED					
WEST BRANCH CHISHOLM CREEK					
VALLEY CENTER, KANSAS					
CONSTRUCTION OF CHANNEL					
DRAINAGE STRUCTURES VII					
IN 16 SHEETS					
SCALE: AS SHOWN					
SHEET NO. 15					
U.S. ARMY ENGINEER DISTRICT, TULSA, CORPS OF ENGINEERS, MAR. 1962					
SUBMITTED: APPROVAL RECOMMENDED: APPROVED:					
DRAWN: G.O.C., N.W.F. TO ACCOMPANY SPECIFICATIONS FOR THE DISTRICT ENGINEER					
CHECKED: J.W., J.H.M. NO. CIVENG-34-066-63-21					
C173-15					
CONTRACT-63-1152					

