CITY OF WICHITA, KANSAS

Central Avenue Dam Improvements

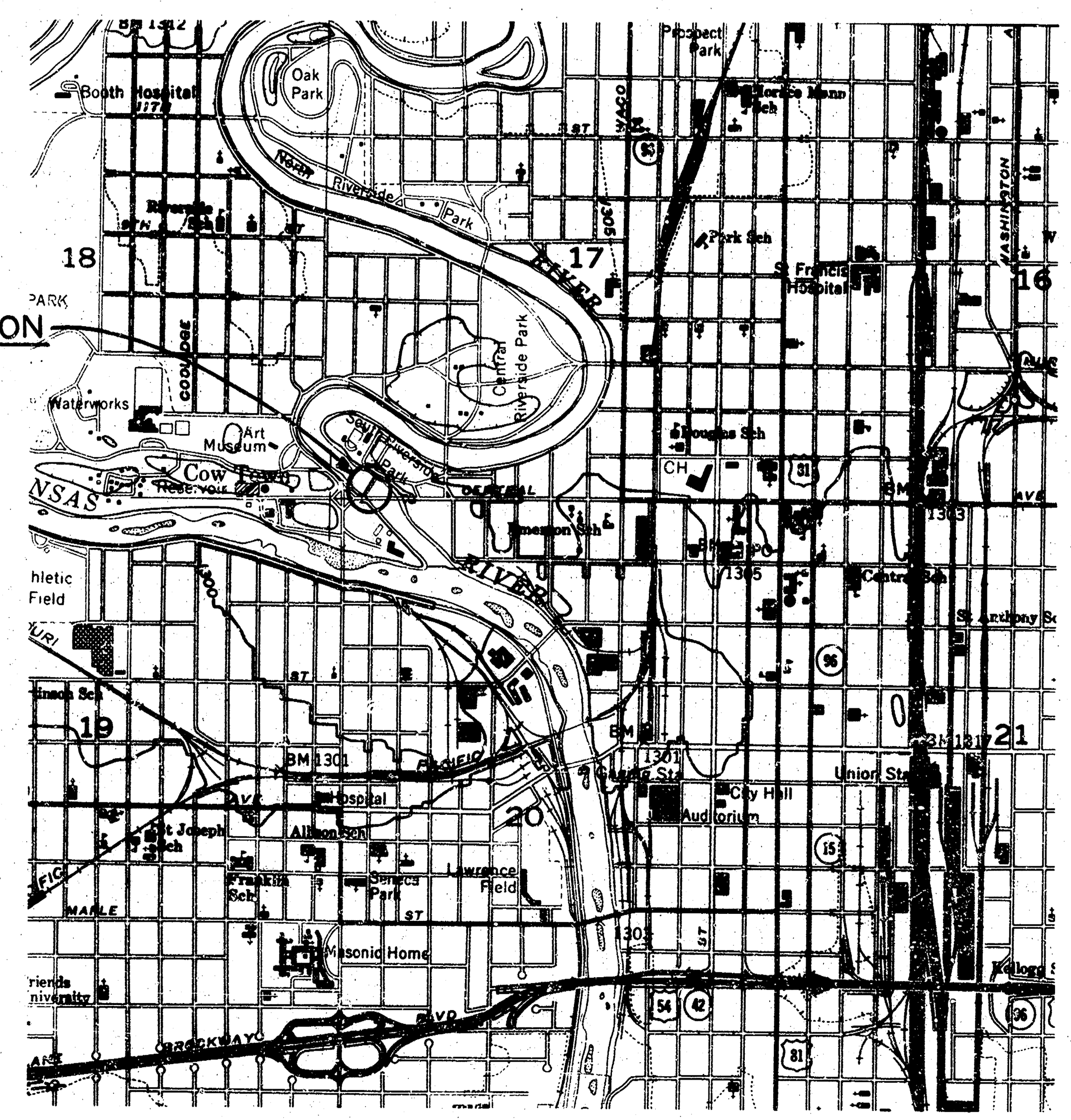
Project No. 472 76 245 80851 000 000 001

CONTRACT DRAWINGS

DRAWING NO.	TITLE
1.	SITE PLAN
2.	DEMOLITION PLAN AND DETAILS
3.	HYDRAULIC GATE STRUCTURE I
4.	HYDRAULIC GATE STRUCTURE II
5.	CREST OVERFLOW WALL
6.	MISCELLANEOUS DETAILS
7.	LOG BOOM DETAILS

PROJECT LOCATION

N



VICINITY MAP

1981

APPROVED
WICHITA, KANSAS

BY R W Bruggeman DATE 4-27-81
R. W. Bruggeman
Director of Eng./City Engineer

Burns & McDonnell
ENGINEERS - ARCHITECTS - CONSULTANTS
Kansas City, Missouri

FILMED FROM THE BEST

B.M #1 = CITY OF WICHITA BENCHMARK; EL. 115.17 ON CITY OF WICHITA DATUM.

PARK MAINT. BLDG.

EXISTING DRIVE

NORTH

P.I. NO. 3 STA 0+00

NORTH ANCHOR BLOCK LOCATION PT. = NORTH BASELINE STATION 1+23, 12' LT.

NORTH BASELINE

EXIST. POLE & GUY

GRADING LIMIT

EXIST. POLE & GUY

P.I. NO.1

0+00

B.M. #1

EXIST. NORTH ABUTMENT STRUCTURE

3 2 1

15' CRUSHED ROCK SURFACING

ACCESS RAMP ℄

SOD

2:1 TYP.

15'

15'

114°

EXIST. ROCK WALL

GRADING LIMIT

EXIST. SIGN RAISE AS REQ'D

P.I. NO. 4 STA 1+16.06

P.I. NO. 5 STA 1+61.06

℄ ANCHOR

N. BASELINE STA. 3+15

N. BASELINE STA. 2+39

16" RIPRAP BLANKET W/ 6" SAND & GRAVEL BEDDING. TOP EL. OF RIPRAP = 98.75 ±

EXTEND RIPRAP TO SHORELINE

STA 0+62.4

30'±

20'

20'

HYDRAULIC GATE STRUCTURE

EXISTING CENTRAL AVENUE DAM

APPROX. LOG BOOM ALIGNMENT (SEE DWG. 7 FOR DETAILS)

FLOW

OVERFLOW WALL

LITTLE ARKANSAS RIVER

BASELINE OF DAM

℄ ANCHOR

39°

SOUTH ANCHOR BLOCK LOCATION PT. = SOUTH BASELINE STATION 3+18, 44' RT.

APPARENT SHORELINE (BASED ON NORMAL POOL EL. 108.0')

SOUTH BASELINE

P.I. NO #2

0+00

3 2 1

SITE PLAN

SCALE IN FEET 20 0 20 40

P.I. NO.1

89° 39'

288'

SOUTH BASELINE

BASELINE OF DAM = EAST LINE OF CURB ON WEST SIDE OF DAM

P.I. NO. 2 = 0+00 FOR SOUTH BASELINE = 2+58 FOR BASELINE OF DAM = NAIL.

P.I. NO. 2

HORIZONTAL CONTROL

NORTH BASELINE = SOUTH EDGE OF EXIST. CONC. SIDEWALK

90° 21'

288'

P.I. NO. 2

P.I. NO. 1 = 0+00 FOR NORTH BASELINE & FOR BASELINE OF DAM = V-NOTCH IN SIDEWALK

BASE LINE OF DAM = EAST LINE OF CURB ON WEST SIDE OF DAM

P.I. NO. 1

SOD 15' ACCESS RAMP ℄ SOD

GRADING LIMIT

EL. SHOWN ON PROFILE

2%

GRADING LIMIT

EXIST. WALK

2 1

6" CRUSHED ROCK (TYP.)

TYPICAL SECTION STATION 0+00 TO STATION 0+60

SOD 15' ACCESS RAMP ℄ SOD GRADING LIMIT

GRADING LIMIT

EL. SHOWN ON PROFILE

2%

2 1

TYPICAL SECTION STATION 0+60 TO STATION 1+61.06

TYPICAL ACCESS RAMP SECTIONS
NOT TO SCALE

NORTH BASELINE STA. 2+99.00; 6.0' RT. = P.I. NO. 3

NORTH BASELINE

EXISTING CONCRETE SIDEWALK

3 2 1

116.06'

℄ ACCESS RAMP

45.0'

NORTH BASELINE STA. 1+40.00; 15.75' LT. = P.I. NO. 5

P.I. NO. 5 = ℄ RAMP STA. 1+61.06

NORTH BASELINE STA. 1+85.00; 15.75' LT. = P.I. NO. 4

P.I. NO. 4 = ℄ RAMP STA. 1+16.06

ACCESS RAMP STAKING PLAN
NOT TO SCALE

2% CROSS-SLOPE

GRADE TO MATCH EXIST. SIDEWALK EDGE

EXIST. CONC. SIDEWALK

0% ±

-7.08%

0%

EXIST. GRADE

ELEVATION

120 110 100

STA. 0+00 P.I. NO. 3

STA 0+61.00 PVI EL. 115.5'

STA. 1+16.06 PVI. EL. 111.6'

END ACCESS RAMP CONSTRUCTION-1+61.06

0+00 1+00

ACCESS RAMP PROFILE

VERT. - 10 0 10 20 SCALE IN FEET

HORIZ. - 20 0 20 40 SCALE IN FEET

DAVE G. RUF LICENSED 5376 KANSAS PROFESSIONAL ENGINEER

NO	DATE	BY	REVISION
1	7-23-81	JMC	AS PER ADDENDUM NO. 1
2	10-13-82	TDB	CONFORMING TO CONSTRUCTION RECORDS

CITY OF WICHITA, KANSAS

Central Avenue Dam Improvements

Department of Engineering
R.W. Bruggeman-Director of Engr.-City Engr.
Project No. 472 76 245 80851 000 000 001

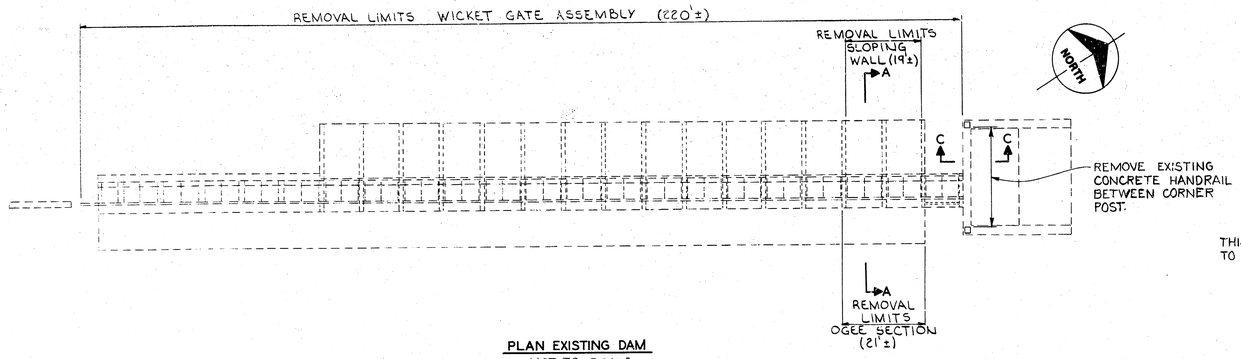
SITE PLAN

Burns & McDonnell
ENGINEERS - ARCHITECTS - CONSULTANTS
Kansas City, Missouri

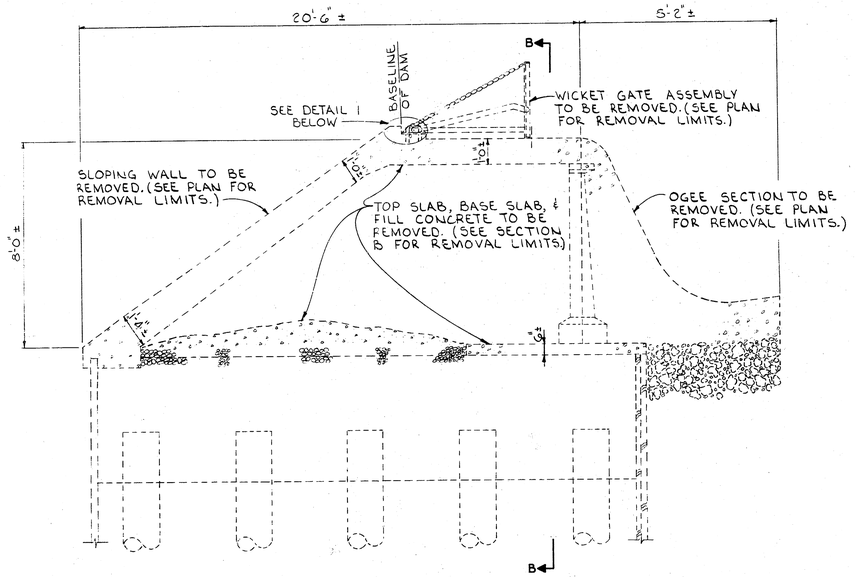
DATE	MAY 1, 1981	DRAWING NO	REV. 1 — 2
DESIGNED	DHS	PROJECT	80-011-1-001
DETAILED	JDR	SHEET	1 OF 7 SHEETS
CHECKED	DLS		2/10

Form GCO-1-82 89177

FILMED FROM THE BEST



PLAN EXISTING DAM
NOT TO SCALE



SECTION A
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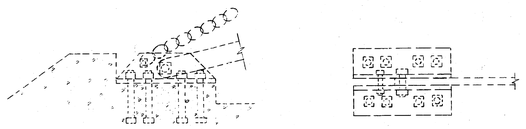
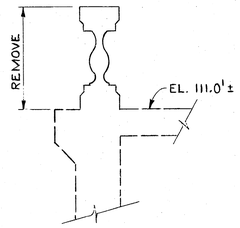
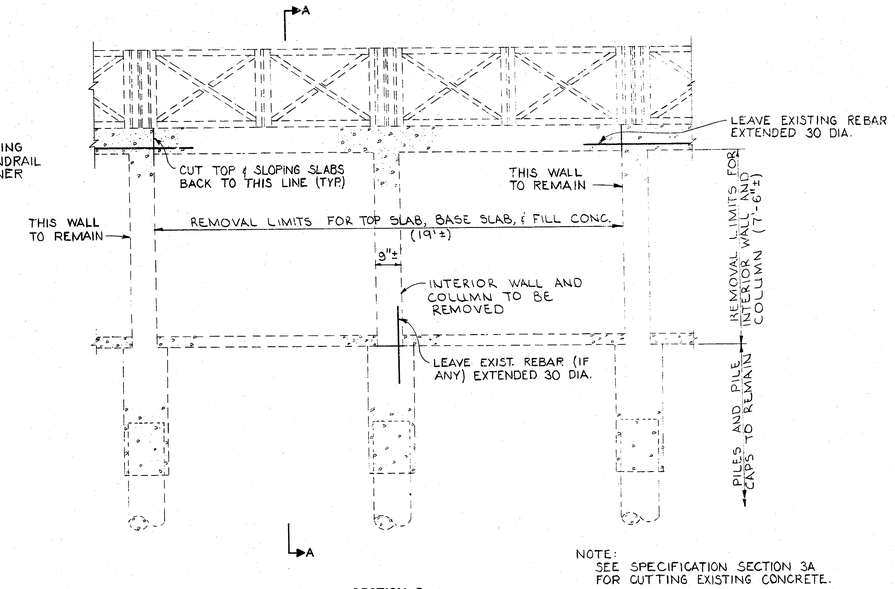


DETAIL 1
NOT TO SCALE

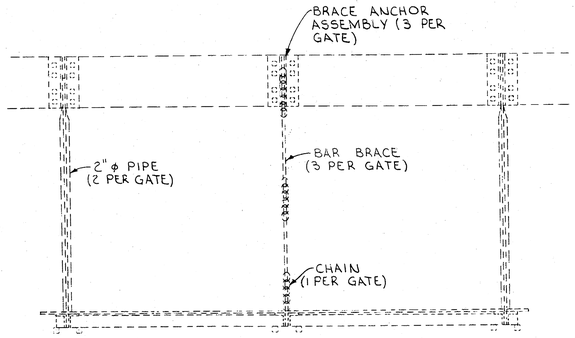


SECTION C
NOT TO SCALE



SECTION B
NOT TO SCALE

NOTE:
SEE SPECIFICATION SECTION 3A FOR CUTTING EXISTING CONCRETE.



PLAN TYPICAL WICKET GATE ASSEMBLY
NOT TO SCALE

NO.	DATE	BY	REVISION
1			

NO.	DATE	BY	REVISION
1	10-13-82	TDB	CONFORMING TO CONSTRUCTION RECORDS

DALE G. RUF JR. LICENSED 5376 KANSAS PROFESSIONAL ENGINEER

CITY OF
WICHITA, KANSAS

Central Avenue Dam Improvements

Department of Engineering
R.W. Bruggeman-Director of Engr. City Engr.
Project No. 472 76 245 80851 000 000 001

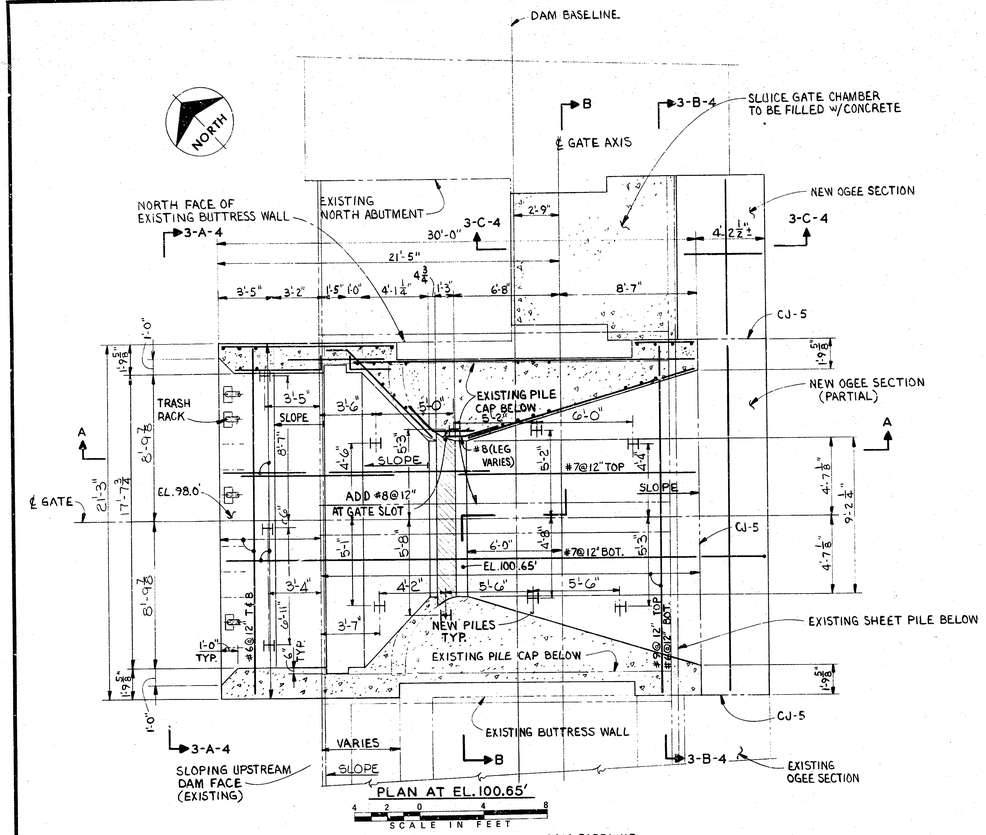
DEMOLITION PLAN & DETAILS

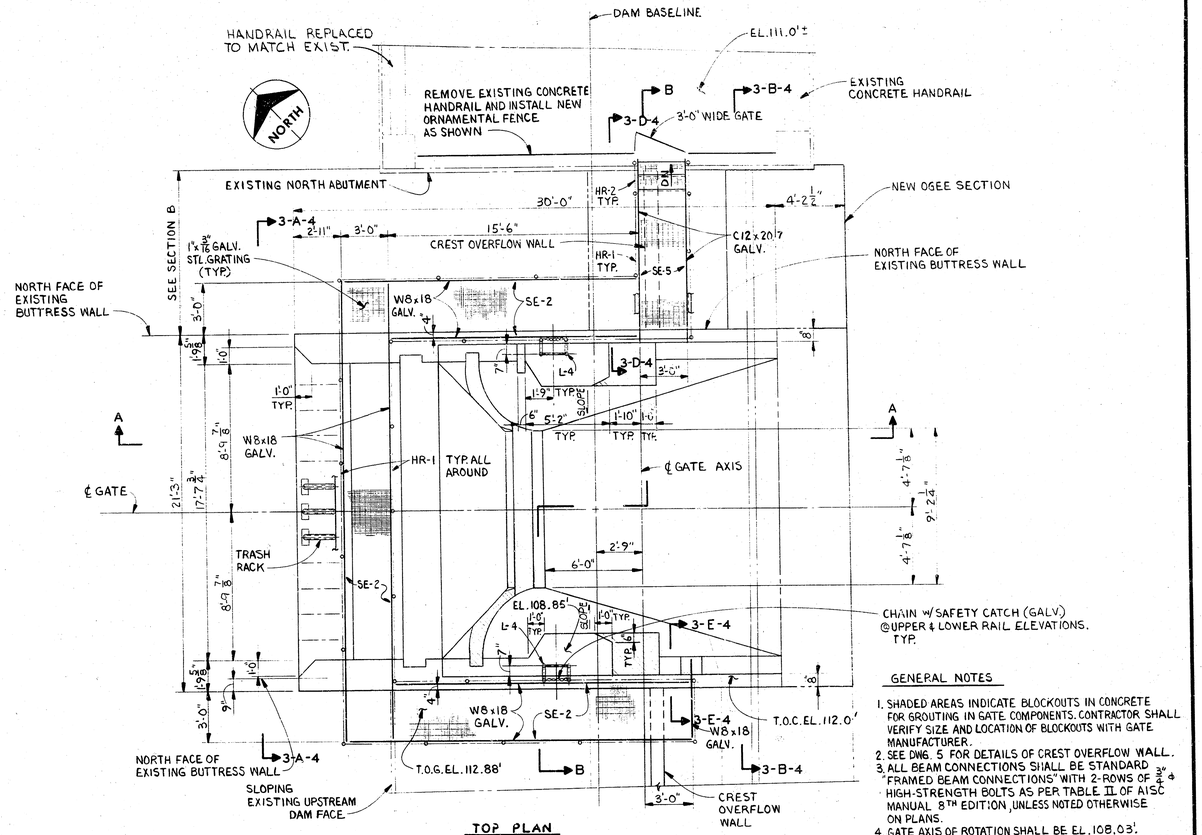
Burns & McDonnell
ENGINEERS - ARCHITECTS - CONSULTANTS
Kansas City, Missouri

DATE	MAY 1, 1981	DRAWING NO	REV.
DESIGNED	DHS	2	-- 1
DETAILED	JDR	PROJECT	80-011-1-001
CHECKED	DLS	SHEET 2 OF 7 SHEETS	

Form GCO-143 8/1977

3/10

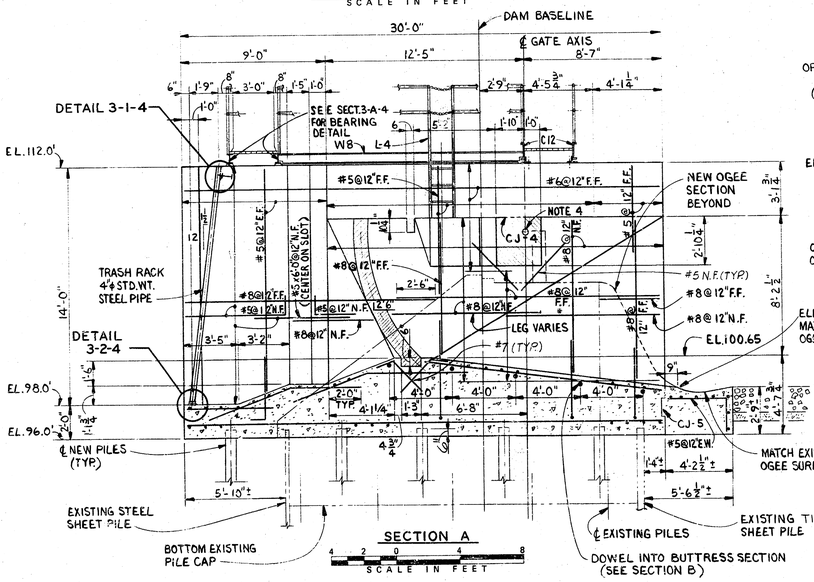


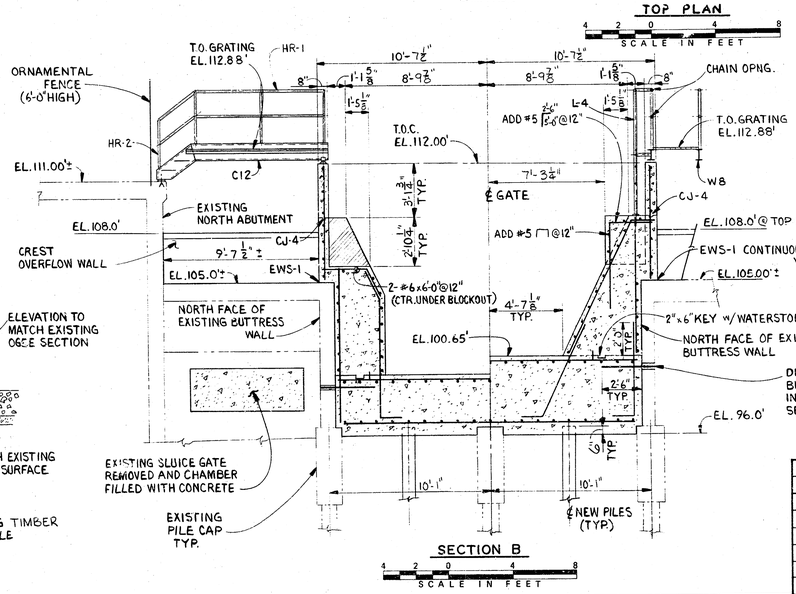


GENERAL NOTES

1. SHADED AREAS INDICATE BLOCKOUTS IN CONCRETE FOR GROUTING IN GATE COMPONENTS. CONTRACTOR SHALL VERIFY SIZE AND LOCATION OF BLOCKOUTS WITH GATE MANUFACTURER.
2. SEE DWG. 5 FOR DETAILS OF CREST OVERFLOW WALL.
3. ALL BEAM CONNECTIONS SHALL BE STANDARD "FRAMED BEAM CONNECTIONS" WITH 2-ROWS OF $\frac{3}{4}$" ø HIGH-STRENGTH BOLTS AS PER TABLE II OF AISC MANUAL 8TH EDITION, UNLESS NOTED OTHERWISE ON PLANS.
4. GATE AXIS OF ROTATION SHALL BE EL. 108.03'.
5. ALL EXISTING STRUCTURES MUST BE FIELD MEASURED — DIMENSIONS SHOWN ARE APPROXIMATE ONLY.
6. CONTRACTOR SHALL ADEQUATELY BRACE EXISTING BUTTRESS WALLS AGAINST PRESSURE OF FRESH CONCRETE.

△7. ALL EXPOSED STEEL SHALL BE GALVANIZED UNLESS OTHERWISE SPECIFIED.





DAVE G. RUE LICENSED 5376 KANSAS PROFESSIONAL ENGINEER

CITY OF WICHITA, KANSAS

Central Avenue Dam Improvements

Department of Engineering
R.W. Bruggeman-Director of Engr. City Engr.
Project No. 472 76245 80851 000 000 001

HYDRAULIC GATE STRUCTURE I

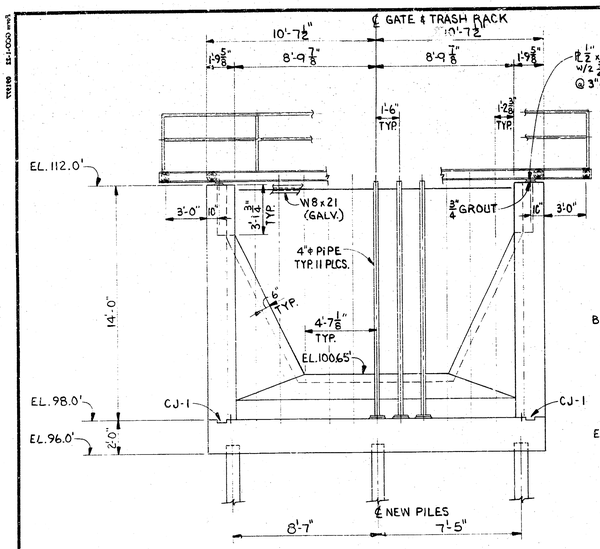
NO.	DATE	BY	REVISION
1	7-23-81	JMC	AS PER ADDENDUM NO.1
2	10-18-82	TDB	CONFORMING TO CONSTRUCTION RECORDS

Burns & McDonnell
ENGINEERS - ARCHITECTS - CONSULTANTS
Kansas City, Missouri

DATE MAY 1, 1981	DRAWING NO. 3 — 2 REV.
DESIGNED B.A.B.	
DETAILED E.C.K.	PROJECT 80-011-1-001
CHECKED B.A.B	SHEET 3 OF 7 SHEETS

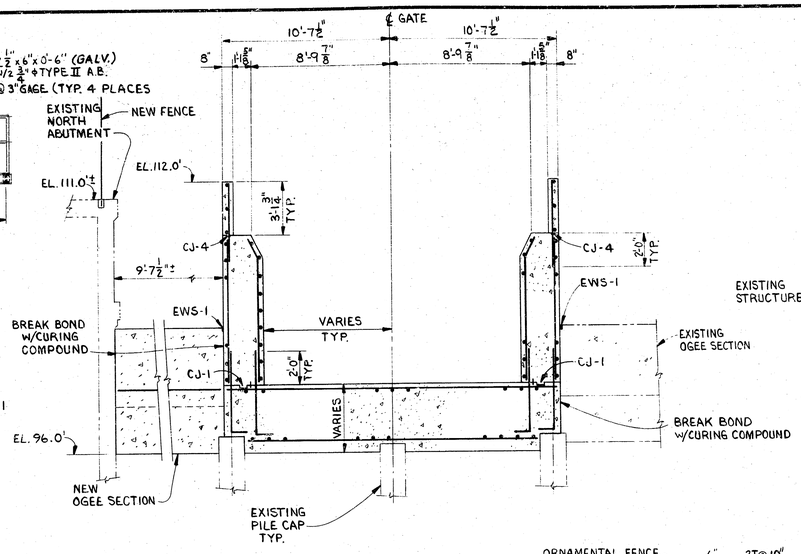
Form CCDO-438 8/1977

4/10



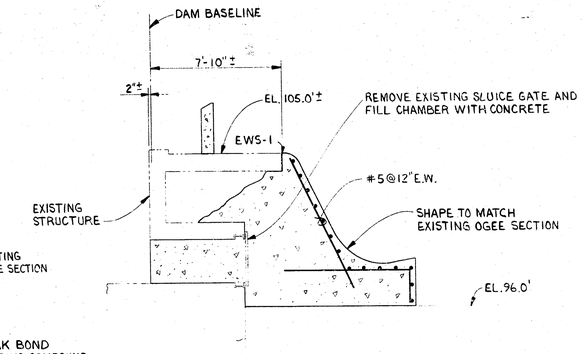
SECTION 3-A-4

SCALE IN FEET



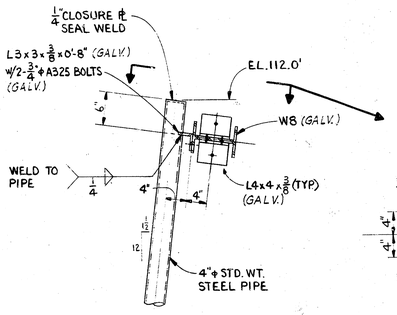
SECTION 3-B-4

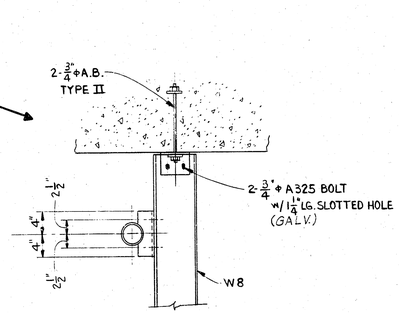
SCALE IN FEET

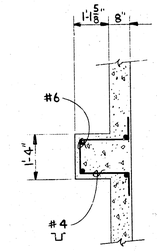


SECTION 3-C-4

SCALE IN FEET

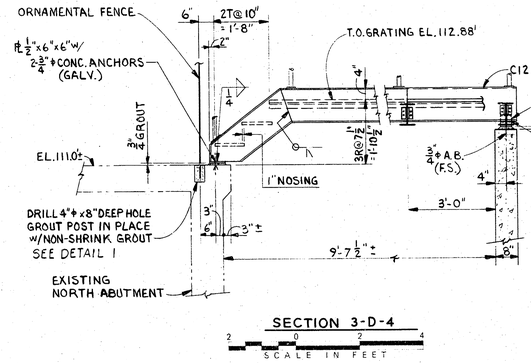






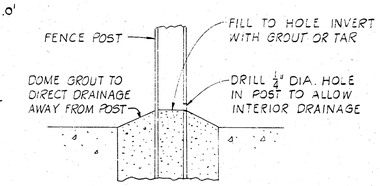
SECTION A

SCALE IN FEET



SECTION 3-D-4

SCALE IN FEET

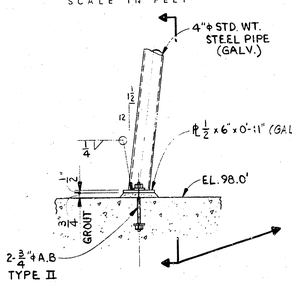


DETAIL 1

NTS

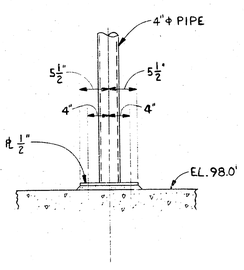
DETAIL 3-1-4

SCALE IN FEET

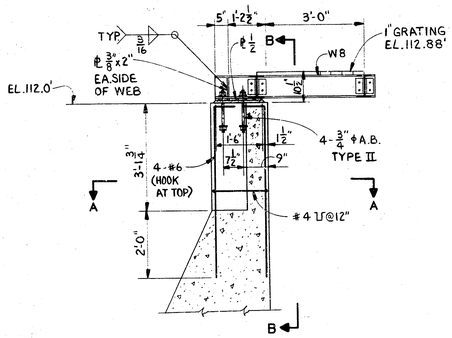


DETAIL 3-2-4

SCALE IN FEET

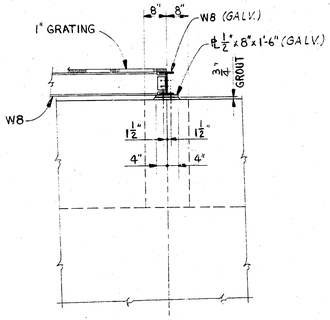


TRASH RACK DETAILS



SECTION 3-E-4

SCALE IN FEET



SECTION B

SCALE IN FEET

DAVE G. RUFER LICENSED 5376 KANSAS PROFESSIONAL ENGINEER

CONFORMING TO CONSTRUCTION RECORDS

NO.	DATE	BY	REVISION
1	10-13-82	TDB	

CITY OF WICHITA, KANSAS

Central Avenue Dam Improvements

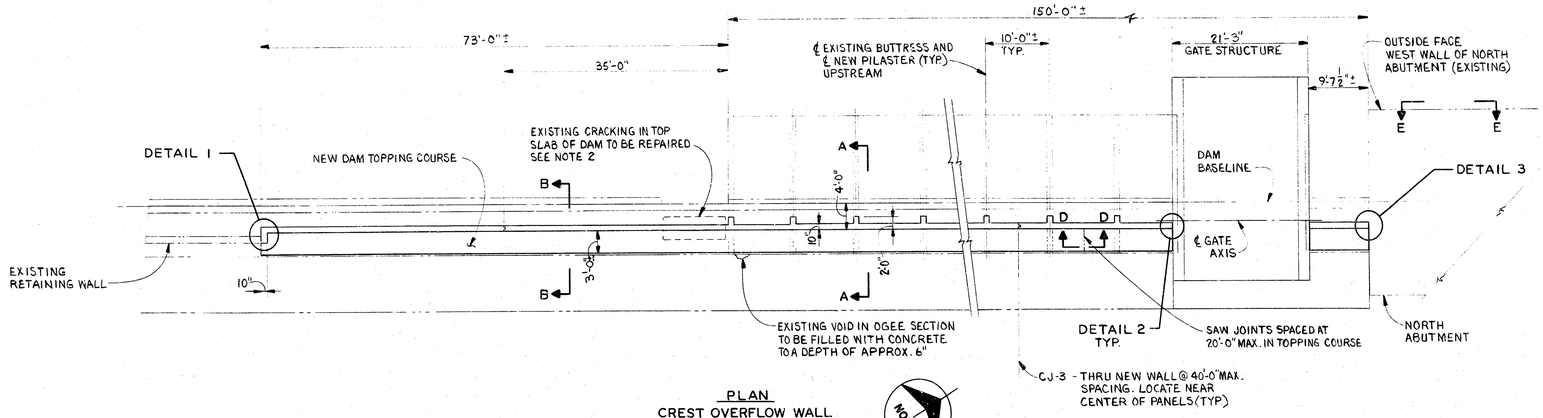
Department of Engineering
R.W. Bruggeman-Director of Engr.-City Engr.
Project No. 478-76 245 80851 000 000 001

HYDRAULIC GATE STRUCTURE II

Burns & McDonnell
ENGINEERS - ARCHITECTS - CONSULTANTS
Kansas City, Missouri

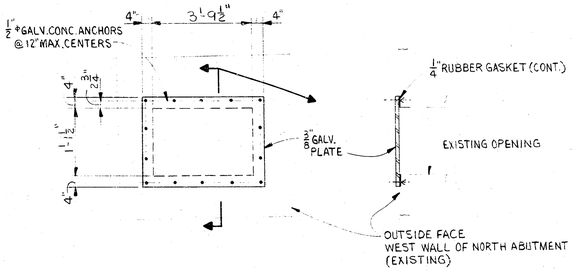
DATE MAY 1, 1981	DRAWING NO 4 — 1 REV.
DESIGNED BAB.	PROJECT 80-011-1-001
DETAILED ECK.	SHEET 4 OF 7 SHEETS
CHECKED B.A.B.	

5/10

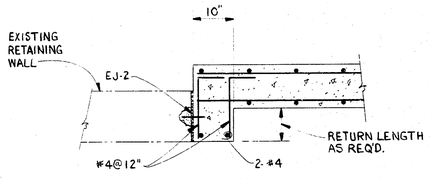


PLAN
CREST OVERFLOW WALL
10 0 10 20
SCALE IN FEET

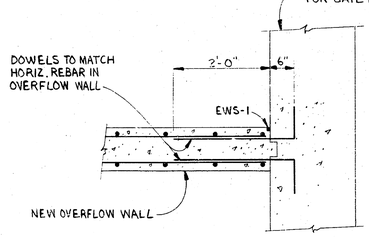
NORTH



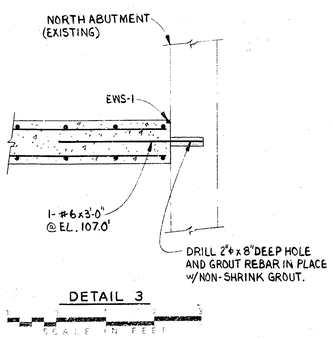
SECTION E
2 1 0 1 2
SCALE IN FEET



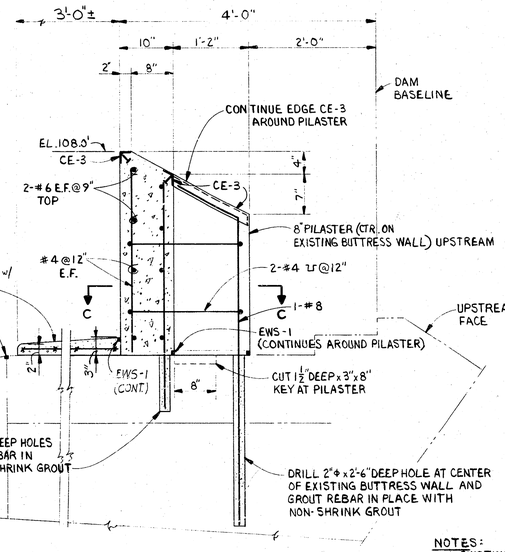
DETAIL 1
SCALE IN FEET

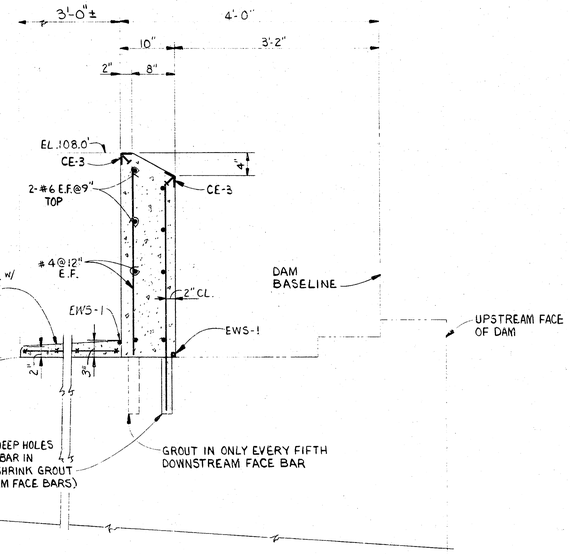


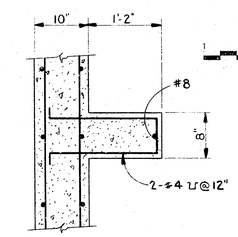
DETAIL 2
SCALE IN FEET



DETAIL 3
SCALE IN FEET

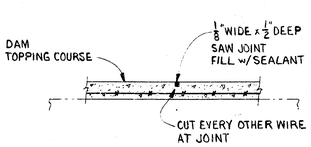






SECTION C
SCALE IN FEET

SECTION A
1 0 1 2
SCALE IN FEET



SECTION D
N.T.S.

SECTION B
1 0 1 2
SCALE IN FEET

NOTES:
1. EXISTING JOINT SHOULD BE ENLARGED BY SUITABLE GRINDING OR CUTTING METHODS TO PRODUCE A SLOT OF 1" WIDTH BY ½" MAXIMUM DEPTH. SLOT SHOULD THEN BE SEALED AS SHOWN IN EWS-1.
2. REMOVE EXISTING CONCRETE TO A DEPTH OF 2" WITHIN THE APPROXIMATE RECTANGULAR AREA INDICATED. CHIP EDGES PERPENDICULAR TO THE SURFACE. APPLY BONDING AGENT AND PATCH WITH SAME CONCRETE AS SPECIFIED FOR DAM TOPPING COURSE.
3. SPLICE HORIZONTAL BARS IN CREST OVERFLOW WALL AS FOLLOWS:
   #4 BARS - 2'-0" LAP
   #6 BARS - 2'-9" LAP

DALE G. RUF JR. LICENSED 5376 KANSAS PROFESSIONAL ENGINEER

NO.	DATE	BY	REVISION
1	10-18-82	TDB	CONFORMING TO CONSTRUCTION RECORDS

CITY OF
WICHITA, KANSAS

Central Avenue Dam Improvements

Department of Engineering
R.W. Bruggeman-Director of Engr. City Engr.
Project No. 472 76245 80851000 000 001

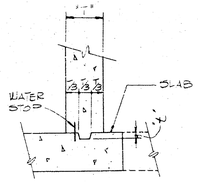
CREST OVERFLOW WALL

Burns & McDonnell
ENGINEERS - ARCHITECTS - CONSULTANTS
Kansas City, Missouri

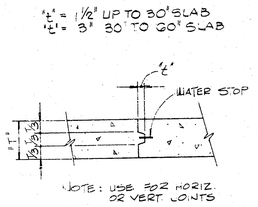
DATE MAY 1, 1981	DRAWING NO. 5 — REV. 1
DESIGNED BAB.	
DETAILED E.C.K.	PROJECT 80-011-1-001
CHECKED BAB	SHEET 5 OF 7 SHEETS

6/10

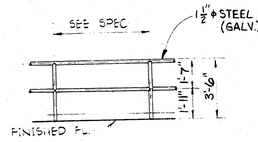
Form CCO-48 #8977



CJ-1 W/WATER STOP
CJ-2 OMIT WATER STOP



CJ-3 W/WATER STOP
CJ-4 OMIT WATER STOP



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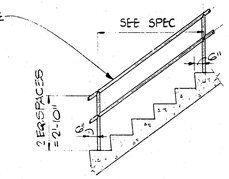

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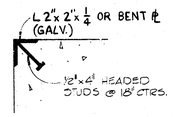
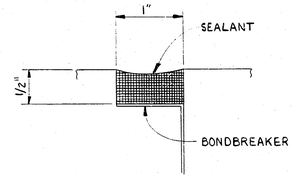
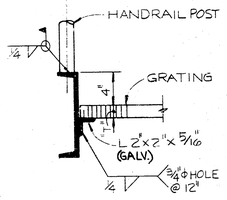


CE-3



ELASTOMERIC WATERSTOP
EWS-1



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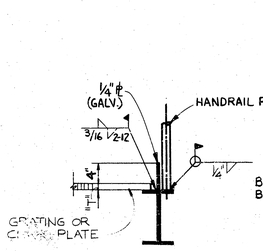

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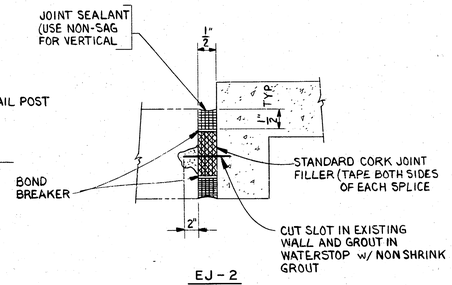
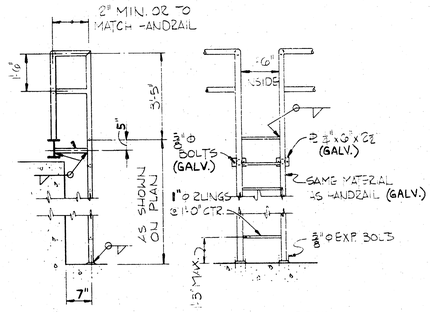


EJ-2

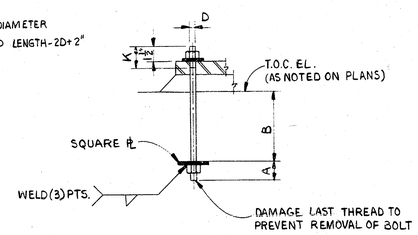


LADDER w/ HANDRAIL ON STEEL

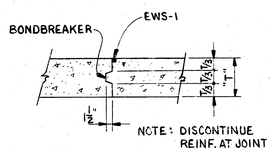
L-4

SCHEDULE				
"D"	"A"	"B"	SQUARE ℄	REMARKS
¾"	2¼"	8"	℄ 3"x 3"x ½"	GALVANIZE

D = BOLT DIAMETER
K = THREAD LENGTH-2D+2"



TYPE II ANCHOR BOLT



CJ-5

DAVE G. RUE JR LICENSED 5376 KANSAS PROFESSIONAL ENGINEER

CITY OF WICHITA, KANSAS
Central Avenue Dam Improvements
Department of Engineering
R.W. Bruggeman-Director of Engr.-City Engr.
Project No. 472 76 245 80851 000 000 001

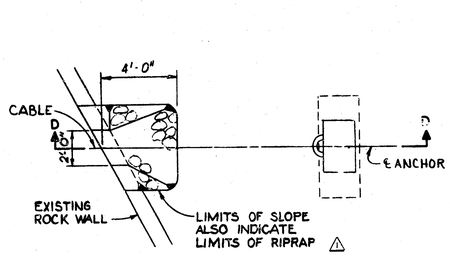
MISCELLANEOUS DETAILS

Burns & McDonnell
ENGINEERS - ARCHITECTS - CONSULTANTS
Kansas City, Missouri

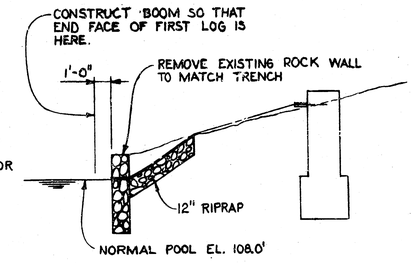
NO.	DATE	BY	REVISION
1	10-18-82	TDB	CONFORMING TO CONSTRUCTION RECORDS

DATE MAY 1, 1981	DRAWING NO 6 — 1 REV.
DESIGNED B.A.B.	
DETAILED E.C.K.	PROJECT 80-011-1-001
CHECKED B.A.B.	SHEET 6 OF 7 SHEETS

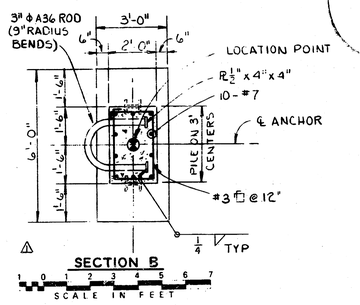
7/10

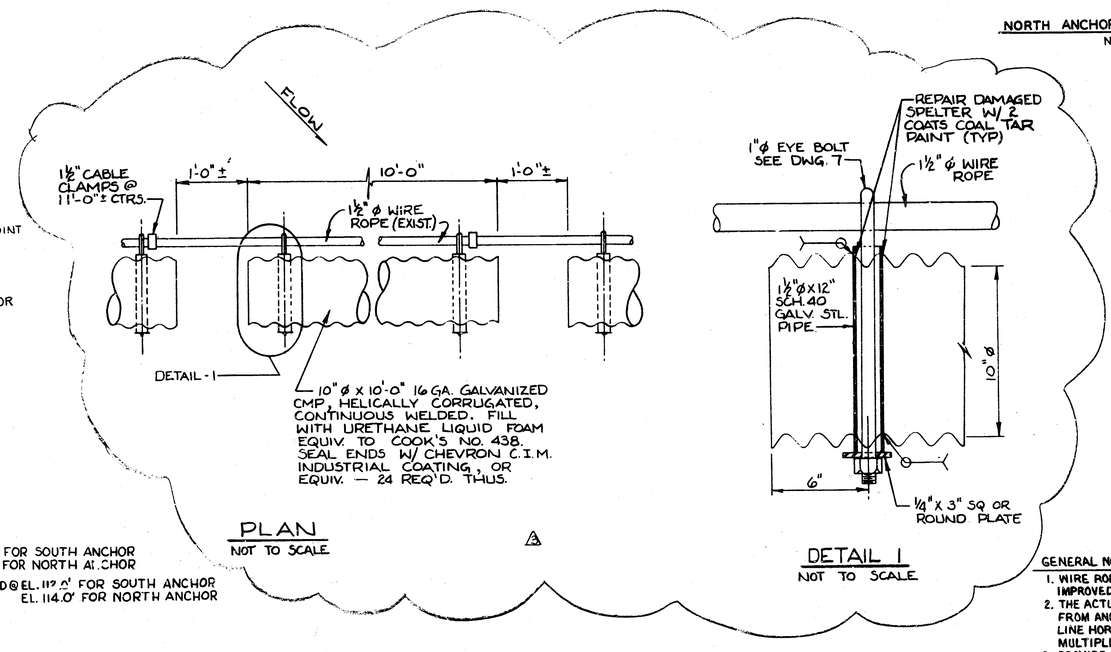


NORTH ANCHOR BLOCK GRADING PLAN
NOT TO SCALE



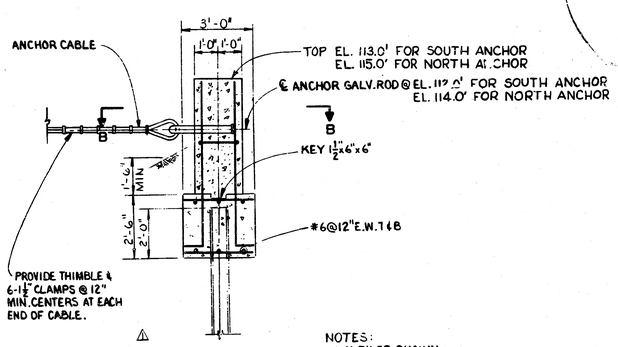
SECTION D
NOT TO SCALE





PLAN
NOT TO SCALE

DETAIL 1
NOT TO SCALE



DETAIL 3
CABLE ANCHOR BLOCK
1 0 1 2 3 4 5 6 7
SCALE IN FEET

NOTES:
1. H-PILES SHOWN; PIPE PILES SIMILAR.
2. RESTORE GRADE AROUND SOUTH ANCHOR BLOCKS TO ORIGINAL CONTOUR AND MATERIAL.

GENERAL NOTES:
1. WIRE ROPE SHALL BE 1½" ϕ GALVANIZED, 6 x 25 FW, IMPROVED PLOW, IWRC.
2. THE ACTUAL LENGTH OF BOOM TO BE INSTALLED AS MEASURED FROM ANCHOR ROD TO ANCHOR ROD SHALL BE THE STRAIGHT-LINE HORIZONTAL DISTANCE BETWEEN THE ABOVE POINTS MULTIPLIED BY A FACTOR OF 1.012 TO ALLOW FOR CABLE SAG.
3. PROVIDE EXTRA 6'-0" (MIN.) LENGTH OF CABLE PAST 6 CLAMPS AT EACH END FOR LENGTH ADJUSTMENTS.
4. ALL LOG BOOM STEEL HARDWARE (EYE BOLTS, PLATES, NUTS, CLAMPS) SHALL BE GALVANIZED.

△2

DAVE G. RUE JR. LICENSED 5376 KANSAS PROFESSIONAL ENGINEER

NOTE: AT THE TIME OF MAKING REVISIONS TO CONFORMING TO CONSTRUCTION RECORDS, ITEMS IN REVISION 3 WERE UNDER CONSTRUCTION. REVISE AS REQUIRED IN FUTURE TO REFLECT ACTUAL CONSTRUCTION.

NO.	DATE	BY	REVISION
△1	7-23-81	JMC	REVISED PER ADDENDUM #1
△2	10-7-81	TDB	REVISED END LOG CONN.
△3	10-13-82	TDB	REVISED ENTIRE LOG BOOM

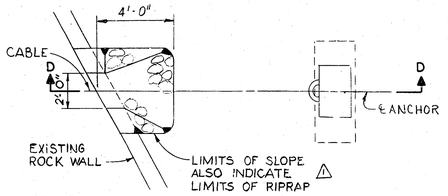
CITY OF WICHITA, KANSAS
Central Avenue Dam Improvements
Department of Engineering
R.W. Bruggeman-Director of Engr./City Engr.
Project No. 472 76 245 80851 000 000 001

LOG BOOM DETAILS

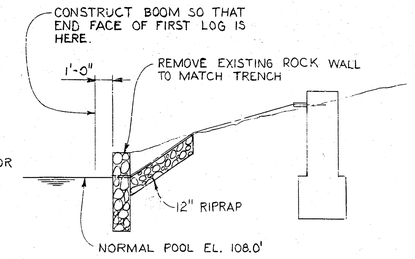
Burns & McDonnell
ENGINEERS - ARCHITECTS - CONSULTANTS
Kansas City, Missouri

DATE MAY 1, 1982	DRAWING NO 7 — 3 REV.
DESIGNED DHS	
DETAILED JDR	PROJECT 80-011-1-001
CHECKED DLS	SHEET 7 OF 7 SHEETS

8/10



NORTH ANCHOR BLOCK GRADING PLAN
NOT TO SCALE



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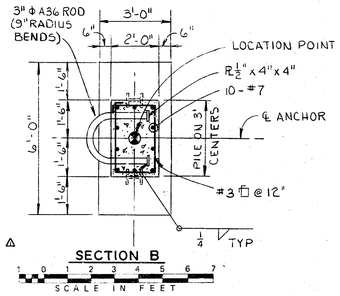

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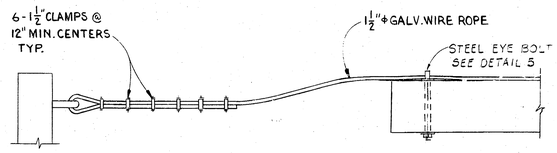
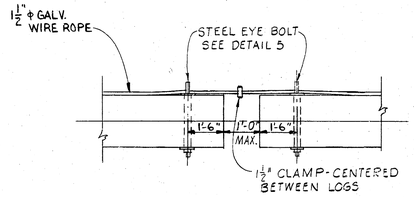
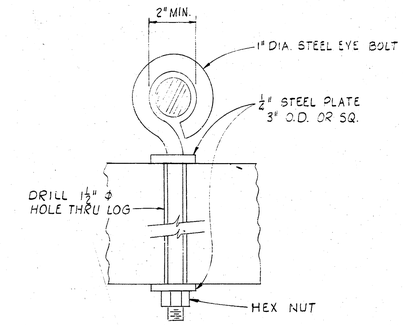


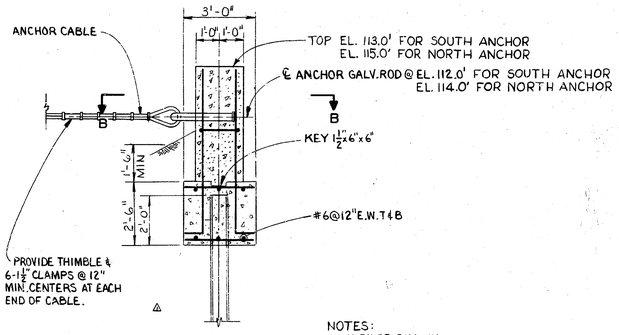
DETAIL 1
END LOG CONNECTION
NTS



DETAIL 2
LOG TO LOG CONNECTION
NTS



DETAIL 5
NTS



DETAIL 3
CABLE ANCHOR BLOCK

NOTES:
1. H-PILES SHOWN; PIPE PILES SIMILAR.
2. RESTORE GRADE AROUND SOUTH ANCHOR BLOCKS TO ORIGINAL CONTOUR AND MATERIAL.

GENERAL NOTES:
1. WIRE ROPE SHALL BE 1 1/2" ϕ GALVANIZED, 6 x 25 FW, IMPROVED PLOW, IWRC.
2. THE ACTUAL LENGTH OF BOOM TO BE INSTALLED AS MEASURED FROM ANCHOR ROD TO ANCHOR ROD SHALL BE THE STRAIGHT-LINE HORIZONTAL DISTANCE BETWEEN THE ABOVE POINTS MULTIPLIED BY A FACTOR OF 1.012 TO ALLOW FOR CABLE SAG.
3. PROVIDE EXTRA 6'-0" (MIN.) LENGTH OF CABLE PAST 6 CLAMPS AT EACH END FOR LENGTH ADJUSTMENTS.
4. ALL LOG BOOM STEEL HARDWARE (EYE BOLTS, PLATES, NUTS, CLAMPS) SHALL BE GALVANIZED.
5. LOG MATERIAL SHALL BE SOUTHERN YELLOW PINE.
6. THE FIRST FIVE LOGS NEAREST EITHER SHORE SHALL BE 6 TO 8 FEET IN LENGTH. REMAINING LOGS SHALL BE 18 TO 20 FEET IN LENGTH. ALL LOGS, IRREGARDLESS OF LENGTH, SHALL BE 10 TO 14 INCHES IN DIAMETER.
7. FIRST LOG ON SOUTH END OF LOG BOOM SHALL BE A MAXIMUM OF 18 FEET FROM THE SOUTH ANCHOR BLOCK.
8. ALL LOGS SHALL BE WOLMANIZED (CCA) PRESSURE-TREATED (KOPPERS) AT 0.60 PCF.

DAVE G. RUF JR. LICENSED 5376 KANSAS PROFESSIONAL ENGINEER

NO.	DATE	BY	REVISION
1	7-23-81	JMC	AS PER ADDENDUM NO. 1
2	10-7-81	TDB	REVISED END LOG CONN.
	10-13-82	TDB	

CONFORMING TO CONSTRUCTION RECORDS

CITY OF WICHITA, KANSAS

Central Avenue Dam Improvements

Department of Engineering
R.W. Bruggeman-Director of Engr. City Engr.
Project No. 472 76 245 80851 000 000 001

LOG BOOM DETAILS

Burns & McDonnell
ENGINEERS - ARCHITECTS - CONSULTANTS
Kansas City, Missouri

DATE	MAY 1, 1981	DRAWING NO	7 - 2
DESIGNED	DHS		
DETAILED	JDR	PROJECT	80-011-1-001
CHECKED	DLS	SHEET	7 OF 7 SHEETS

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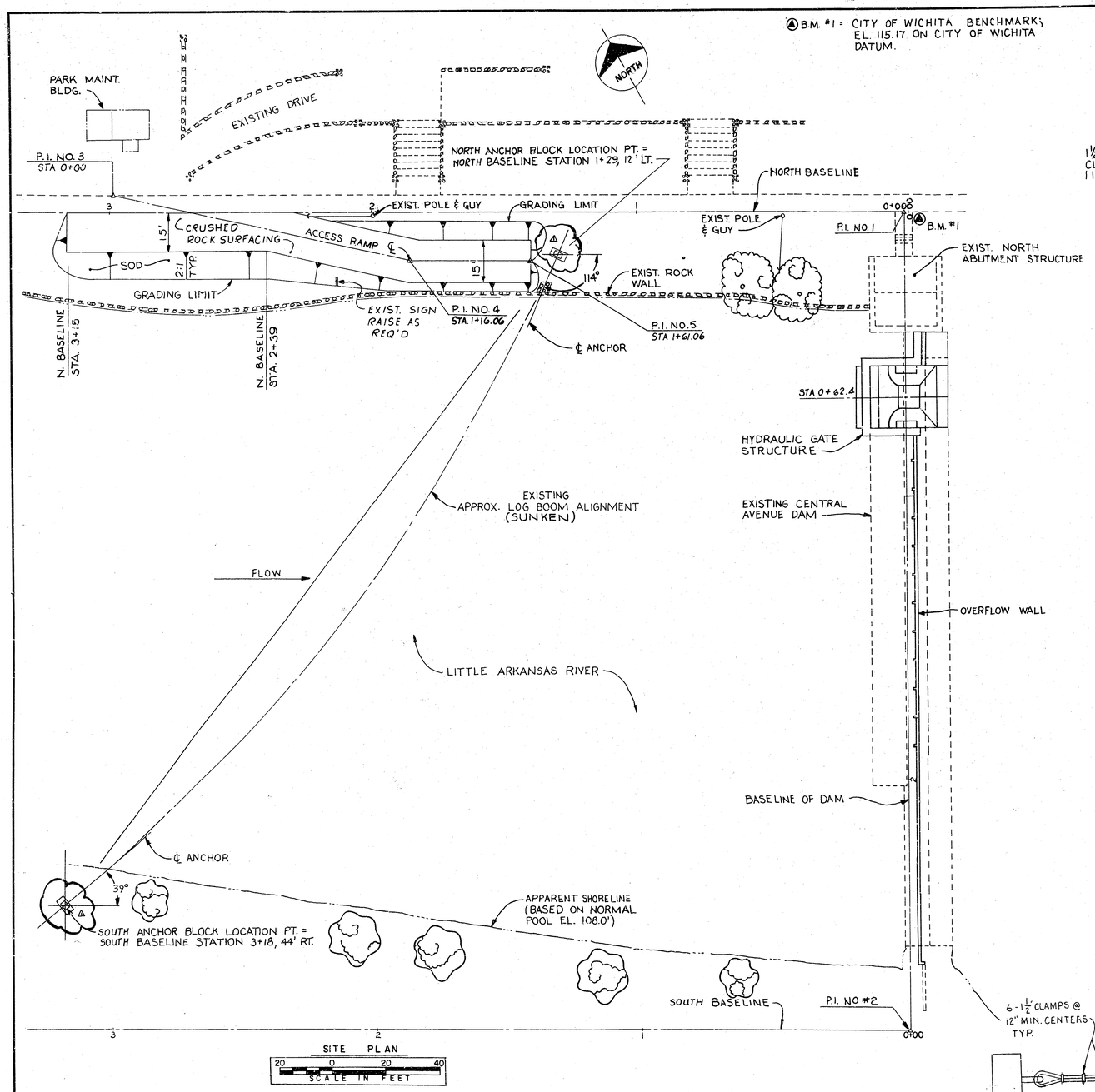
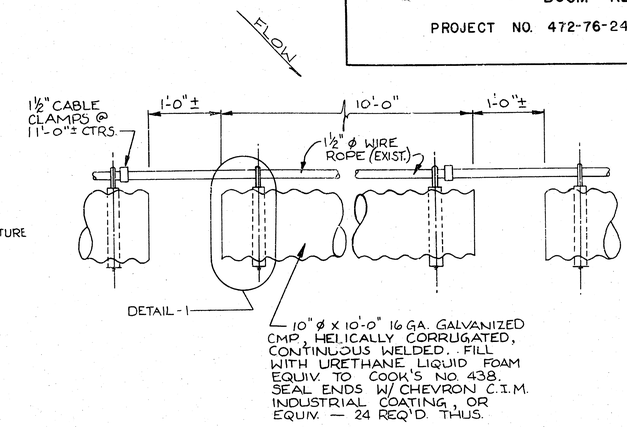
CENTRAL AVENUE DAM

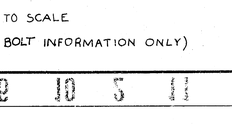
BOOM REPAIR

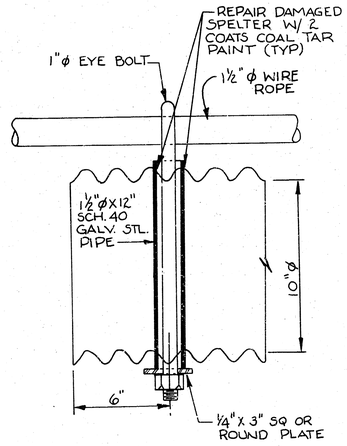
PROJECT NO. 472-76-245-80851-000-000-001



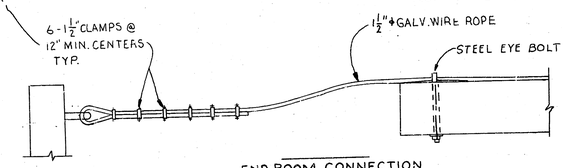


PLAN
NOT TO SCALE





DETAIL 1
NOT TO SCALE

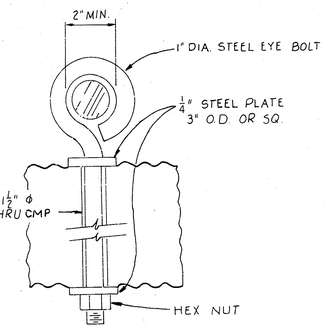


END BOOM CONNECTION
NTS

NOTE:
ALL BOOM STEEL HARDWARE (EYE BOLTS, PLATES, NUTS, CLAMPS) SHALL BE GALVANIZED.

GENERAL NOTES

1. BOOM REPAIR WILL BE ACCOMPLISHED WITHOUT LOWERING THE WATER ELEVATION BEHIND THE DAM.
2. EXISTING LOG BOOM HARDWARE, i.e. CLAMPS, EYE BOLTS, HEX NUTS, ETC., MAY BE REUSED WITH THE APPROVAL OF THE ENGINEER; HOWEVER ADDITIONAL BOOM HARDWARE WILL BE REQUIRED.
3. LUMP SUM BID ITEM - BOOM REPAIR WILL INCLUDE ALL COSTS TO COMPLETE THIS PROJECT, INCLUDING, BUT NOT LIMITED TO, RAISING SUNKEN LOG BOOM, REMOVAL OF BOOM FROM RIVER, REMOVAL AND DISPOSAL OF LOGS, ATTACHMENT OF CMP FLOTATION UNITS, ADDITIONAL BOOM HARDWARE, REPLACING AND REATTACHING BOOM IN RIVER, AND SITE RESTORATION.
4. ~~CONTRACTOR MAY CONTACT DEPARTMENT OF OPERATIONS AND MAINTENANCE, 268-4559, FOR POSSIBLE SOURCE OF ADDITIONAL BOOM HARDWARE.~~
5. ALL OPENINGS IN CMP SHALL BE SEALED WITH SEALANT.



NOT TO SCALE
(FOR EYE BOLT INFORMATION ONLY)