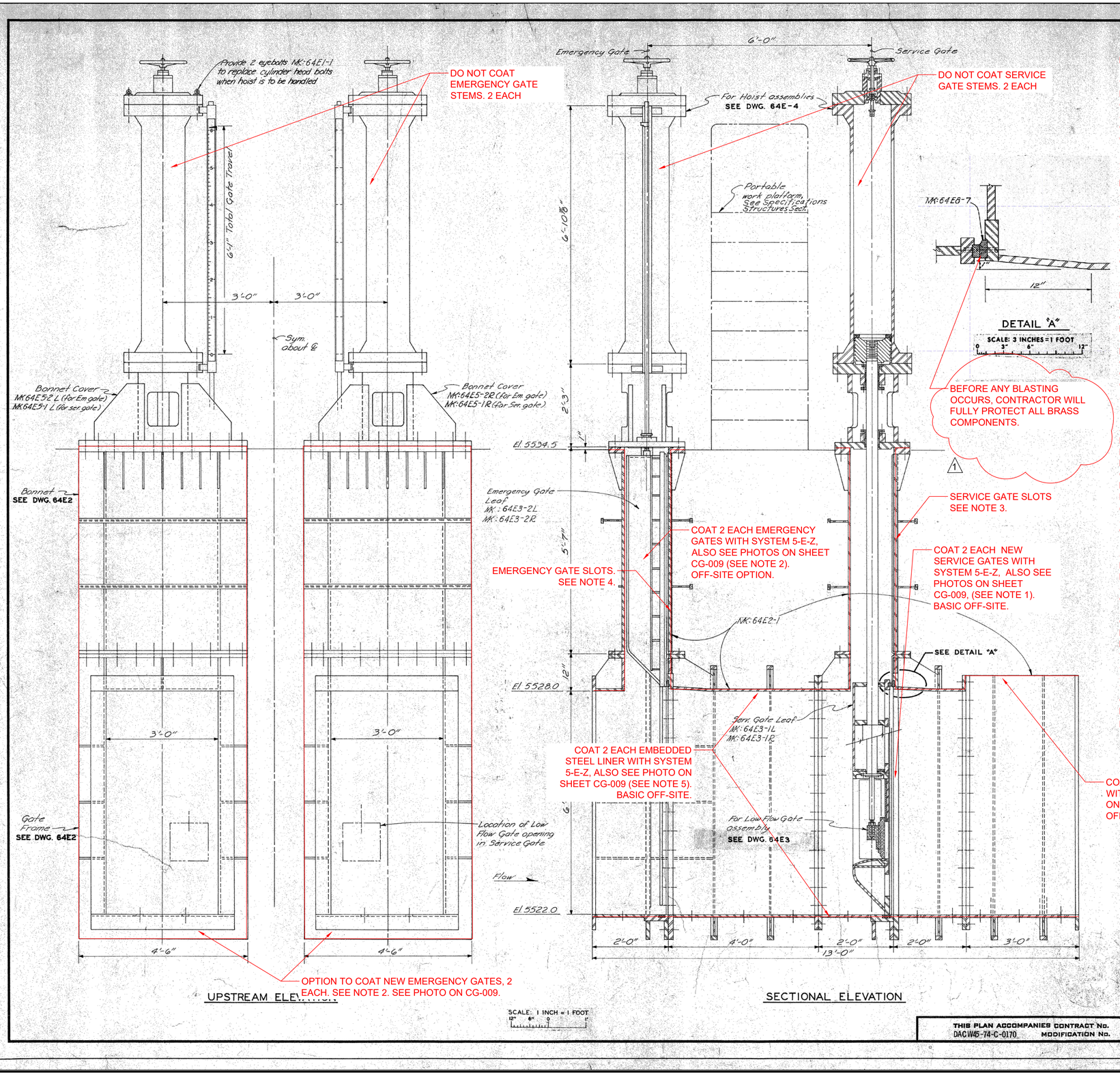


NOTES:

1. BLAST THE 2 EACH NEW SERVICE GATES TO SSPC-SP-5 WHITE METAL BLAST CLEANING (NACE NO.1) AND COAT 2 EACH SERVICE GATES WITH A 5-COAT VINYL SYSTEM 5-E-Z. SHOP MUST BE QP-3 SHOP CERTIFIED. BRUSH A STRIPE COAT ON ALL INSIDE, OUTSIDE CORNERS AND WELDED AREAS. SPRAY GENERAL AREAS. BASIC OFF-SITE.

2. BLAST THE NEW EMERGENCY GATES 2 EACH TO SSPC-SP-5 WHITE METAL BLAST CLEANING (NACE NO.1) AND COAT 2 EACH NEW EMERGENCY GATES WITH A 5-COAT VINYL SYSTEM 5-E-Z. SHOP MUST BE QP-3 SHOP CERTIFIED. BRUSH A STRIPE COAT ON ALL INSIDE, OUTSIDE CORNERS AND WELDED AREAS. SPRAY GENERAL AREAS. THESE EMERGENCY GATES WILL BE AVAILABLE TO BE COATED ONCE THE NEW SERVICE GATES ARE BACK ON SITE AND OPTION IS AWARDED. THESE OLD GATES MUST REMAIN ONSITE DURING THE 21 DAY LAKE DRAW DOWN. OPTIONAL OFF-SITE.

3. SERVICE GATE AND EMERGENCY GATE SLOT AREAS WILL BE DIFFICULT TO ACCESS TO OBTAIN THE SSPC-SP 5 WHITE METAL BLAST CLEANING (NACE NO. 1). SURFACE PREPARATION CONTRACTOR SHALL UTILIZE SPECIAL ANGLED BLASTING NOZZLES TO GET INTO CREVICES WITH THE WIDTH RESTRICTIONS SHOWN ON PLAN (BONNET) ON SHEET CG-007. COAT 4 EACH EMBEDDED GATE SLOTS WITH A 5-COAT VINYL SYSTEM 5-E-Z. CONTRACTOR MUST BE QP-1 FIELD CERTIFIED. BRUSH A STRIPE COAT ON ALL INSIDE, OUTSIDE CORNERS AND WELDED AREAS. CONTRACTOR MAY APPLY THE COATING SYSTEM BY ROLLERS AND OR BRUSHES TO OBTAIN COVERAGE IN THE EMERGENCY AND SERVICE GATES SLOT AREAS. BASIC ON-SITE COATING.

4. SERVICE GATE AND EMERGENCY GATE SLOT AREAS SHALL HAVE EMERGENCY PROVISIONS TO SEAL THE SLOT AREAS IF A FLOOD EVENT THAT WOULD EXCEED THE LAKE WATER DRAW DOWN DURING THE 21 DAY COATING DURATION. THE 21 DAY COATING DURATION INCLUDES DRYING THE TUNNEL WITH DEHUMIDIFIED AIR, SURFACE PREPARATION TO SSPC-SP-5 WHITE METAL BLAST CLEANING (NACE 1), COATING 5-COATS OF VINYL (SYSTEM 5-E-Z) AND THEN CURE THE COATING SYSTEM FOR APPROXIMATELY 7 DAYS. THIS WOULD INCLUDE REPLACING THE OLD EMERGENCY AND SERVICE GATES . BASIC ON-SITE COATING.

5. BLAST THE EMBEDDED STEEL LINER TO SSPC-SP-5 WHITE METAL BLAST CLEANING (NACE NO.1) AND COAT 2 EACH EMBEDDED STEEL LINER WITH COATING SYSTEM 5-E-Z PER SPECIFICATION 09 97 02. BRUSH A STRIPE COAT ON ALL INSIDE, OUTSIDE CORNERS AND WELDED AREAS. SPRAY GENERAL AREAS. PLAN VIEW IS SHOWN ON SECTION 4. PROFILE IS SHOWN ON SECTION 1. THE STEEL LINER REQUIRES COATING THE EXPOSED STEEL SURFACES AREAS LOCATED IN THE TUNNEL TO INCLUDE FLOOR, WALLS, AND CEILING. FLOOR LENGTH IS ABOUT 13'-1" FEET LONG, AND HEIGHT VARIES FROM 6'2" TO 10'6" HIGH. SEE SECTION 1. THE TUNNEL WIDTHS ARE 3' AS SHOWN ON SECTION 3. THE TUNNEL WIDTH IN THE GATE SLOT AREA IS WIDER. SEE PLAN BONNET ON SHEET CG-007. SEAL WITH CONTAINMENT UPSTREAM OF EMERGENCY GATE AND DOWNSTREAM OF MARINE DOOR WITH BARRIER. PLACE HEPA FILTER ON EXHAUST. BASIC ON-SITE COATING.

DATE	DESCRIPTION	MADE	APPR'D
3-2279	REVISED TO SHOW "AS-BUILT" CONDITIONS.	G.C.S	J.J.G

REVISIONS

U. S. ARMY ENGINEER DISTRICT, OMAHA
CORPS OF ENGINEERS
OMAHA, NEBRASKA

DESIGNED BY: C. B.
DRAWN BY: C.F.K.
CHECKED BY: R.L.N.
SUBMITTED BY: C. A. Maschitte, CHIEF MECH. SECTION
RECOMMENDED: H. E. Hermann, CHIEF DESIGN BRANCH

SOUTH PLATTE RIVER BASIN
BEAR CREEK LAKE, COLORADO
OUTLET WORKS
MECHANICAL
GATES AND HOISTS ASSEMBLY

APPROVED: R. A. Burnett, CHIEF ENGINEERING DIVISION — DATE: MAR. 1974
APPROVED: Carlyle H. Charles, COL. C. E., DISTRICT ENGINEER (ACTG) — SCALE: AS SHOWN — SPEC. NO. DACW45-74-B-0099
SHEET — DRAWING NUMBER: PB5-64E1

THIS PLAN ACCOMPANIES CONTRACT No. DACW45-74-C-0170 MODIFICATION No.

RECORD DRAWING

64E1

US Army Corps of Engineers®

MARK	AMENDMENT/GENERAL REVISIONS	DATE
1		JUNE 2026

DESIGNED BY: D.LANG
DRAWN BY: J. SEWELL
CHECKED BY: K. HALL
SUBMITTED BY: B. FLERE
SIZE: ANSI D
ISSUE DATE:
CONTRACT NUMBER: SOLICITATION NO.: W912BF26RA079
CONTRACT NO.:
FILE NUMBER:
FILENAME:

U.S. ARMY CORPS OF ENGINEERS
OMAHA DISTRICT
1616 CAPITOL AVE
OMAHA, NE 68102

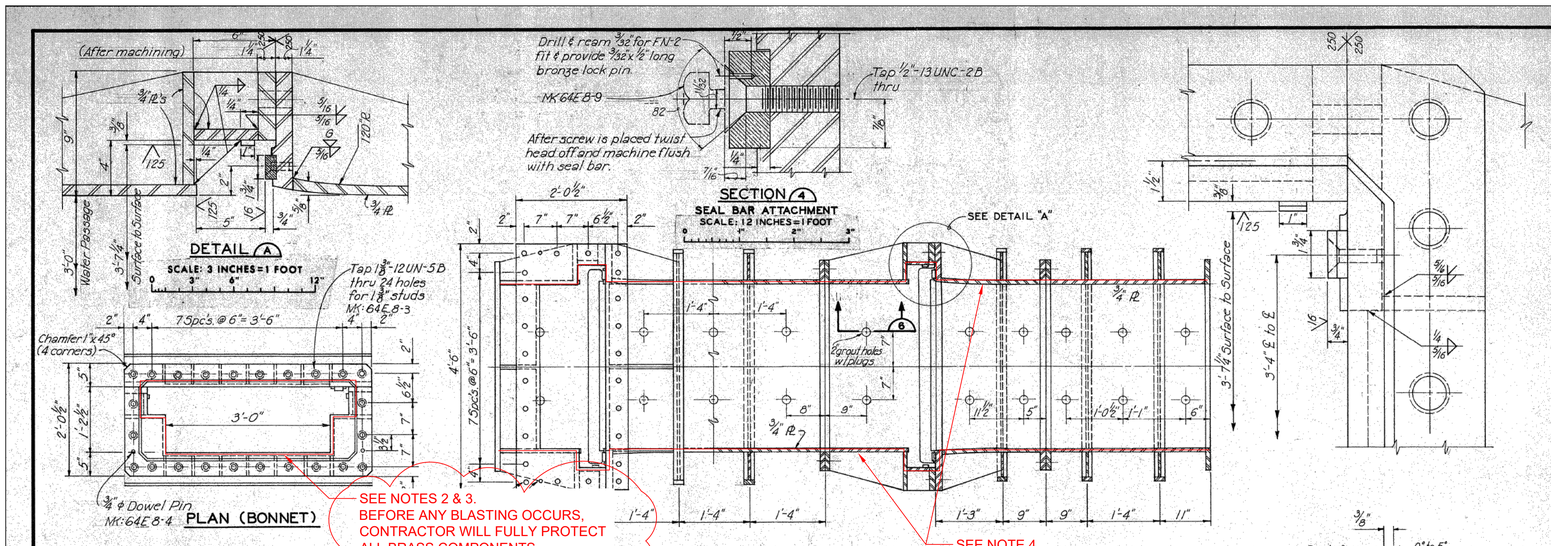
BEAR CREEK DAM, COLORADO
REPLACE SERVICE AND EMERGENCY GATES

GATE AMD HOIST ASSMBLIES
EMEGENCY GATES, SERVICE GATES, EMBEDED STEEL FRAMES AND SLOTS

SHEET ID
CG005

ADVERTISEMENT

G6EDX.IDS
3:30:40 PM 6/8/2026



NOTES:

1. BLAST THE NEW EMERGENCY GATES TO SSPC-SP-5 WHITE METAL BLAST CLEANING (NACE NO.1) AND COAT 2 EACH NEW EMERGENCY GATES WITH A 5-COAT VINYL SYSTEM 5-E-Z. SHOP MUST BE QP-3 SHOP CERTIFIED. BRUSH A STRIPE COAT ON ALL INSIDE, OUTSIDE CORNERS AND WELDED AREAS. SPRAY GENERAL AREAS. THESE EMERGENCY GATES WILL BE AVAILABLE TO BE COATED ONCE THE NEW SERVICE GATES ARE BACK ON SITE AND OPTION IS AWARDED. THESE OLD GATES MUST REMAIN ONSITE DURING THE 21 DAY LAKE DRAW DOWN. OPTIONAL OFF-SITE.

2. SERVICE GATE AND EMERGENCY GATE SLOTS AREAS WILL BE DIFFICULT TO ACCESS TO OBTAIN THE SSPC-SP 5 WHITE METAL BLAST CLEANING (NACE NO. 1). SURFACE PREPARATION CONTRACTOR SHALL UTILIZE SPECIAL ANGLED BLASTING NOZZLES TO GET INTO CREVICES WITH THE WIDTH RESTRICTIONS SHOWN ON PLAN (BONNET) ON SHEET CG-007. COAT 4 EACH EMBEDDED GATE SLOTS WITH A 5-COAT VINYL SYSTEM 5-E-Z. CONTRACTOR MUST BE QP-1 FIELD CERTIFIED. BRUSH A STRIPE COAT ON ALL INSIDE, OUTSIDE CORNERS AND WELDED AREAS. CONTRACTOR MAY APPLY THE COATING SYSTEM BY ROLLERS AND OR BRUSHES TO OBTAIN COVERAGE IN THE EMERGENCY AND SERVICE GATES SLOT AREAS. BASIC ON-SITE.

3. SERVICE GATE AND EMERGENCY GATE SLOT AREAS SHALL HAVE EMERGENCY PROVISIONS TO SEAL THE SLOT AREAS IF A FLOOD EVENT THAT WOULD EXCEED THE LAKE WATER DRAW DOWN DURING THE 21 DAY COATING DURATION. THE 21 DAY COATING DURATION INCLUDES DRYING THE TUNNEL WITH DEHUMIDIFIED AIR, SURFACE PREPARATION TO SSPC-SP-5 WHITE METAL BLAST CLEANING (NACE 1), COATING 5-COATS OF VINYL (SYSTEM 5-E-Z) AND THEN CURE THE COATING SYSTEM FOR APPROXIMATELY 7 DAYS. THIS WOULD INCLUDE REPLACING THE OLD EMERGENCY AND SERVICE GATES . BASIC ON-SITE COATING.

4. BLAST THE EMBEDDED STEEL LINER TO SSPC-SP-5 WHITE METAL BLAST CLEANING (NACE NO.1) AND COAT 2 EACH EMBEDDED STEEL LINER WITH COATING SYSTEM 5-E-Z PER SPECIFICATION 09 97 02. BRUSH A STRIPE COAT ON ALL INSIDE, OUTSIDE CORNERS AND WELDED AREAS. SPRAY GENERAL AREAS. PLAN VIEW IS SHOWN ON SECTION 4. PROFILE IS SHOWN ON SECTION 1. THE LINER REQUIRES COATING THE EXPOSED STEEL SURFACES AREAS LOCATED IN THE TUNNEL TO INCLUDE FLOOR, WALLS, AND CEILING. FLOOR LENGTH IS ABOUT 13'-1" FEET LONG, AND HEIGHT VARIES FROM 6'2" TO 10'6" HIGH. SEE SECTION 1. THE TUNNEL WIDTHS ARE 3' AS SHOWN ON SECTION 3. THE TUNNEL WIDTH IN THE GATE SLOT AREA IS WIDER. SEE PLAN BONNET ON SHEET CG-007. SEAL WITH CONTAINMENT UPSTREAM OF EMERGENCY GATE AND DOWNSTREAM OF MARINE DOOR WITH BARRIER. PLACE HEPA FILTER ON EXHAUST. BASIC ON-SITE COATING.

NOTES:
1. Two complete gate frames are required.

DATE	DESCRIPTION	MADE	APP'D
3-22-77	REVISED TO SHOW "AS-BUILT" CONDITIONS.	G.C.S.	J.J.G.

REVISIONS

U. S. ARMY ENGINEER DISTRICT, OMAHA
CORPS OF ENGINEERS
OMAHA, NEBRASKA

DESIGNED BY: C. B.
DRAWN BY: M. E. B.
CHECKED BY: R. L. N.
SUBMITTED BY: C. F. Meschieter, CHIEF, MECH. SECTION
RECOMMENDED: H. Hohmann, CHIEF, DESIGN BRANCH
APPROVED: Carlyle H. Charles, COL, C. E., DISTRICT ENGINEER (ACTG)

SOUTH PLATTE RIVER BASIN
BEAR CREEK LAKE, COLORADO
OUTLET WORKS
MECHANICAL
EMERGENCY AND SERVICE GATE FRAME AND BONNET ASSEMBLY AND DETAILS

APPROVED: R. B. Burnett, CHIEF ENGINEERING DIVISION
DATE: MAR. 1974
SCALE: AS SHOWN
SPEC. NO. DACW45-74-B-0099
DRAWING NUMBER PB5-64E2
SHEET

THIS PLAN ACCOMPANIES CONTRACT NO. DACW45-74-C-0170 MODIFICATION NO.

RECORD DRAWING

64E2

US Army Corps of Engineers®

MARK	DESCRIPTION	DATE
1	AM#002-GENERAL REVISIONS	JUNE 2026

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3:31:17 PM 6/8/2026
GEDX.IDS

DESIGNED BY: D. LANG
DRAWN BY: J. SEWELL
CHECKED BY: K. HALL
SUBMITTED BY: B. FLERE
SIZE: ANSI D
ISSUE DATE: 04/03/2026
SOLICITATION NO.: W912BP26RA079
CONTRACT NO.:
FILE NUMBER:
FILENAME:

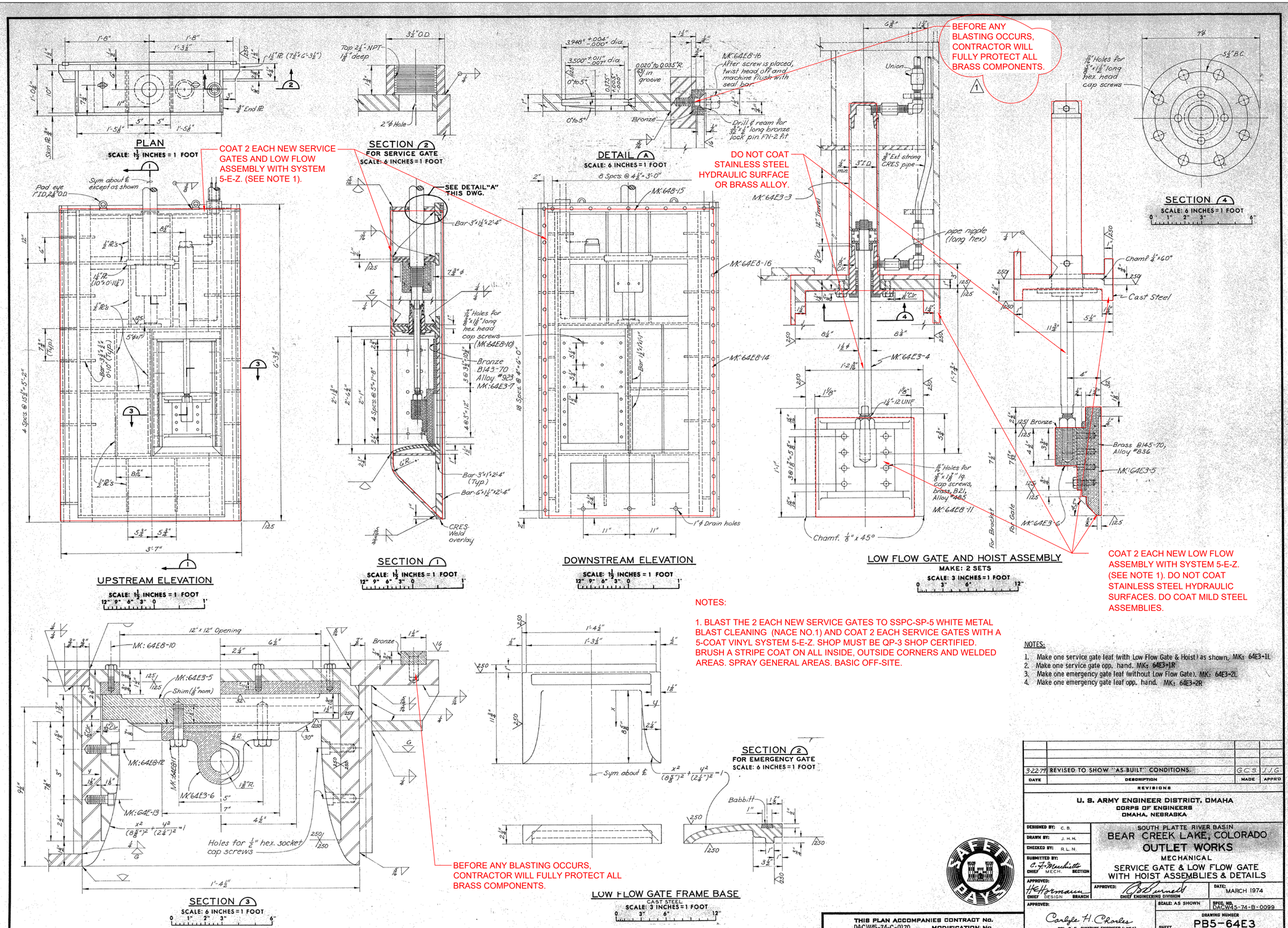
U.S. ARMY CORPS OF ENGINEERS
OMAHA DISTRICT
1616 CAPITOL AVE
OMAHA, NE 68102

BEAR CREEK DAM, COLORADO
REPLACE SERVICE AND EMERGENCY GATES

OUTLET WORKS - GATE STRUCTURES
EMERGENCY GATES, SERVICE GATES, SLOTS AND EMBEDDED STEEL FRAME

SHEET ID
CG007

ADVERTISEMENT



NOTES:

1. BLAST THE 2 EACH NEW SERVICE GATES TO SSPC-SP-5 WHITE METAL BLAST CLEANING (NACE NO.1) AND COAT 2 EACH SERVICE GATES WITH A 5-COAT VINYL SYSTEM 5-E-Z. SHOP MUST BE QP-3 SHOP CERTIFIED. BRUSH A STRIPE COAT ON ALL INSIDE, OUTSIDE CORNERS AND WELDED AREAS. SPRAY GENERAL AREAS. BASIC OFF-SITE.

NOTES:

1. Make one service gate leaf (with Low Flow Gate & Hoist) as shown. MK: 64E3-1L
2. Make one service gate opp. hand. MK: 64E3-1R
3. Make one emergency gate leaf (without Low Flow Gate). MK: 64E3-2L
4. Make one emergency gate leaf opp. hand. MK: 64E3-2R

DATE	DESCRIPTION	MADE	APPR'D
3-22-79	REVISED TO SHOW "AS-BUILT" CONDITIONS.	G.C.S.	J.J.G.

REVISIONS

U. S. ARMY ENGINEER DISTRICT, OMAHA
CORPS OF ENGINEERS
OMAHA, NEBRASKA

SOUTH PLATTE RIVER BASIN
BEAR CREEK LAKE, COLORADO
OUTLET WORKS
MECHANICAL
SERVICE GATE & LOW FLOW GATE WITH HOIST ASSEMBLIES & DETAILS

DESIGNED BY: C. B.
DRAWN BY: J. H. H.
CHECKED BY: R. L. N.
SUBMITTED BY: C. F. Mechitto, CHIEF MECH. SECTION
APPROVED: H. E. Hormann, CHIEF DESIGN BRANCH
APPROVED: B. Burnett, CHIEF ENGINEERING DIVISION
APPROVED: Carlyle H. Charles, COL. C. E., DISTRICT ENGINEER (ACTG)
DATE: MARCH 1974
SCALE: AS SHOWN
SPEC. NO. DACW45-74-B-0099
DRAWING NUMBER PB5-64E3
SHEET

THIS PLAN ACCOMPANIES CONTRACT NO. DACW45-74-C-0170 MODIFICATION NO.

RECORD DRAWING

US Army Corps of Engineers®

MARK	DESCRIPTION	DATE
1	AM#002-GENERAL REVISIONS	JUNE 2026

DESIGNED BY: D. LANG
DRAWN BY: J. SEWELL
CHECKED BY: K. HALL
SUBMITTED BY: B. FLERE
SIZE: ANSI D
FILENAME:
ISSUE DATE: 04/03/2026
SOLICITATION NO.: W9128F26RA079
CONTRACT NO.:
FILE NUMBER:

U.S. ARMY CORPS OF ENGINEERS
OMAHA DISTRICT
1616 CAPITOL AVE
OMAHA, NE 68102

BEAR CREEK DAM, COLORADO
REPLACE SERVICE AND EMERGENCY GATES

OUTLET WORKS - GATE STRUCTURES
SERVICE GATE & LOW FLOW GATE WITH HOIST ASSEMBLY

SHEET ID
CG008

ADVERTISEMENT

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3:32:02 PM 6/8/2026
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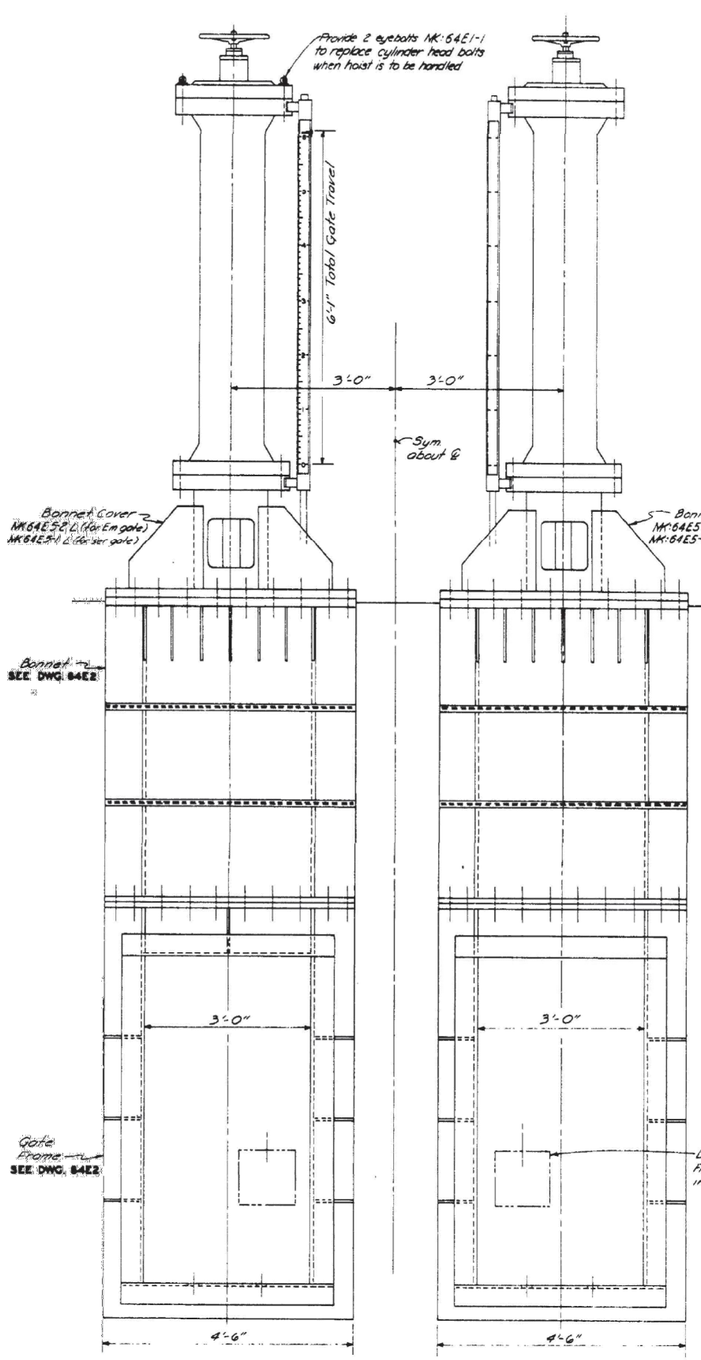
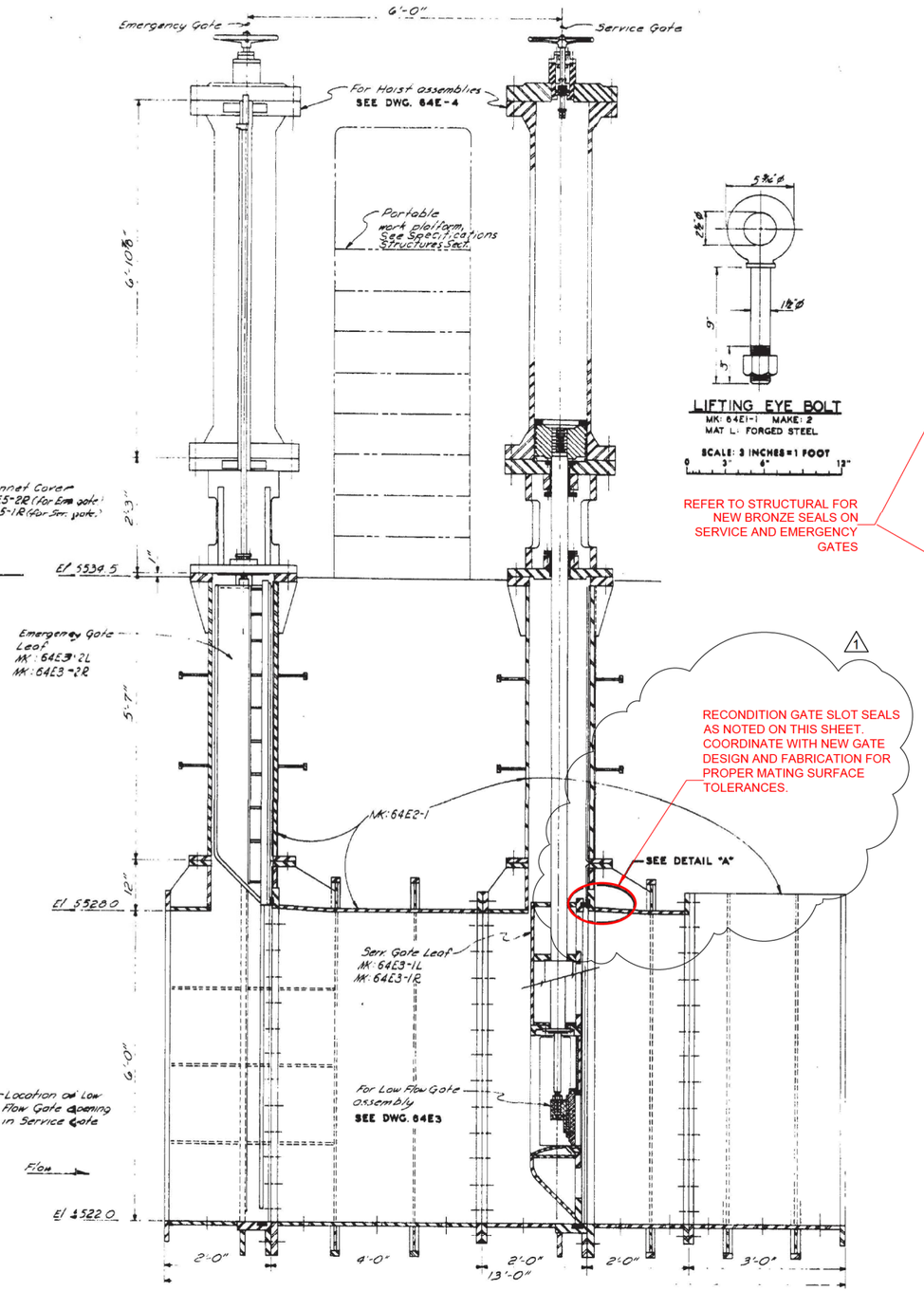


UPSTREAM ELEVATION

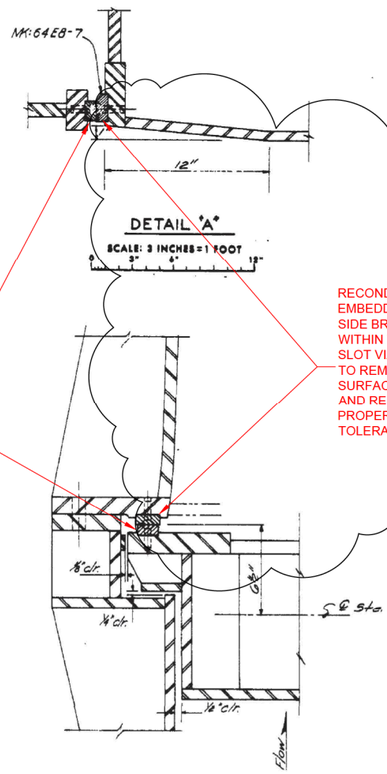


SECTIONAL ELEVATION

LIFTING EYE BOLT
MK: 64E1-1 MAKE: 2
MAT L: FORGED STEEL
SCALE: 3 INCHES = 1 FOOT
0 3" 6" 12"

REFER TO STRUCTURAL FOR NEW BRONZE SEALS ON SERVICE AND EMERGENCY GATES

RECONDITION GATE SLOT SEALS AS NOTED ON THIS SHEET. COORDINATE WITH NEW GATE DESIGN AND FABRICATION FOR PROPER MATING SURFACE TOLERANCES.



SECTION THROUGH GATE FRAME SLOT
SCALE: 3 INCHES = 1 FOOT
0 3" 6" 12"

SCALE: 1 INCH = 1 FOOT
8" 8" 0 1'

US Army Corps of Engineers®

MARK	DESCRIPTION	DATE
1	AM#0002-GENERAL REVISIONS	JUN 2026

DESIGNED BY: K.PARK
DRAWN BY: K.PARK
CHECKED BY: T.WEEDER
SUBMITTED BY: T.WEEDER
SIZE: ANSI D
ISSUE DATE: 04/03/2026
SOLICITATION NO.: W9128F26RA079
CONTRACT NO.:
FILE NUMBER:
FILENAME: BC00101M-103.dwg

U.S. ARMY CORPS OF ENGINEERS
OMAHA DISTRICT
1616 CAPITOL AVE
OMAHA, NE 68102

BEAR CREEK DAM, COLORADO
REPLACE SERVICE & EMERGENCY GATES

GATE SEALS AND GATE SLOT SEALS

SHEET ID
M-103

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