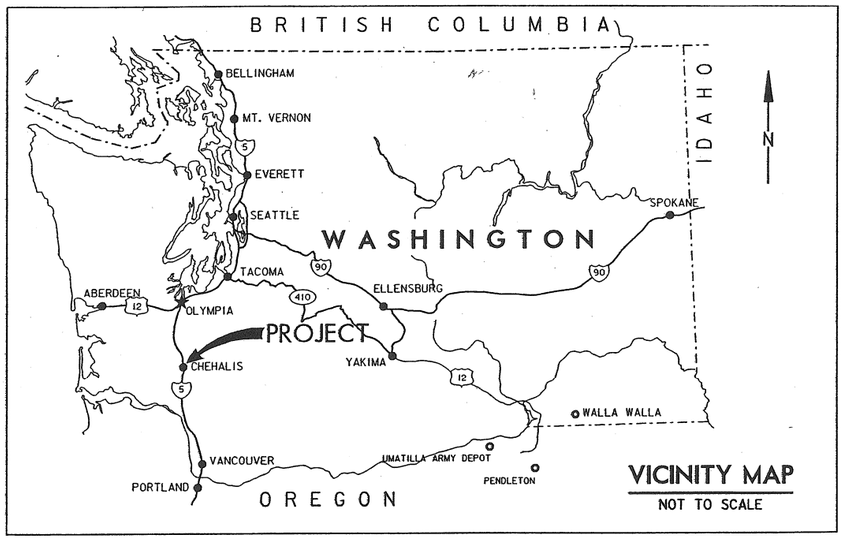
SKJELBREIA

REVISIONS				
SYMBOL	ZONE	DESCRIPTION	DATE	BY

US Army Corps
of Engineers
Seattle District

CENTRALIA, WA FLOOD DAMAGE REDUCTION PROJECT

CENTRALIA, WASHINGTON



VICINITY MAP
NOT TO SCALE

LEVEE PLAN
35% DESIGN DOCUMENTATION REPORT SUBMITTAL

SAFETY PAYS

PN C1919 FY 02

This project was designed by the Seattle District U.S. Army Corps of Engineers. The initials or signatures and registration designations of individuals appear within the specifications or on these project documents within the scope of their employment as required by ER 1110-1-8152, Professional Registration.

DATE AND TIME PLOTTED: 20-SEP-2002 08:31
DESIGN FILE: I:\designs\ccfr\general\ccfrgg0a.dgn

COMPUTER AIDED DESIGN & DRAFTING

PREPARED:
DENNIS FISCHER, P.E.
CHIEF CIVIL SOILS SECTION
REVIEWED:
FRANCES E. COFFEY, P.E.
PROJECT MANAGER
SUBMITTED:
DEAN M. SCHMIOT
CHIEF, TECHNICAL ENGINEERING AND REVIEW SECTION
RECOMMENDED:
MARK A. OHLSTROM, P.E.
CHIEF, DESIGN BRANCH
APPROVED:
RICK L. MOSHIER, P.E.
CHIEF, ENG. & CONST. DIVISION

U.S. ARMY ENGINEER DISTRICT, SEATTLE
CORPS OF ENGINEERS
SEATTLE, WASHINGTON

CENTRALIA, WA FLOOD DAMAGE REDUCTION PROJECT

TITLE AND VICINITY MAP

CENTRALIA		PN C1919		WASHINGTON
SIZE D	INVITATION NO.	FILE NO. E-5-14-196	DATE: 14 MAY 02	PLATE G-1
DSGN. SKJELBREIA		CKL. GOUGH	SHEET 1 OF 66	

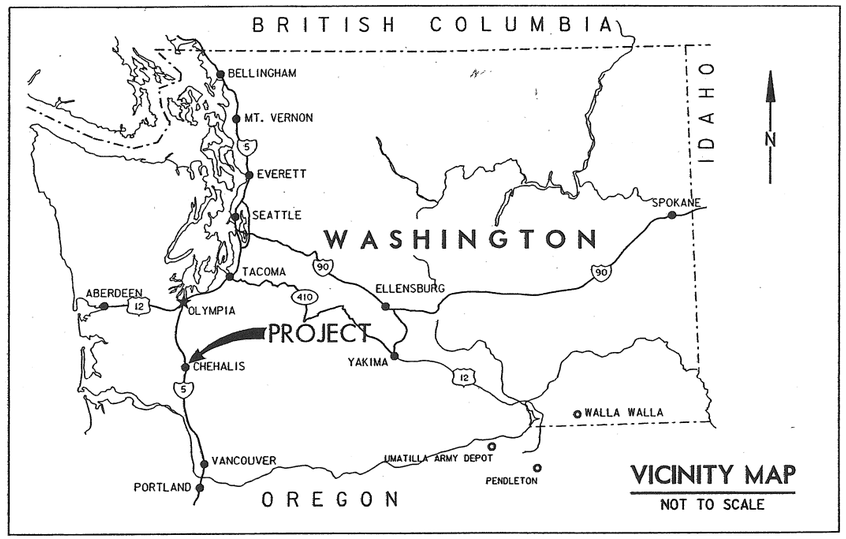
US Army Corps
of Engineers
Seattle District

SKJELBREIA

REVISIONS				
SYMBOL	ZONE	DESCRIPTION	DATE	BY

CENTRALIA, WA FLOOD DAMAGE REDUCTION PROJECT

CENTRALIA, WASHINGTON



VICINITY MAP
NOT TO SCALE

LEVEE PLAN
35% DESIGN DOCUMENTATION REPORT SUBMITTAL

SAFETY PAYS

PN C1919 FY 02

This project was designed by the Seattle District U.S. Army Corps of Engineers. The initials or signatures and registration designations of individuals appear within the specifications or on these project documents within the scope of their employment as required by ER 1110-1-8152, Professional Registration.

DATE AND TIME PLOTTED: 20-SEP-2002 08:31
DESIGN FILE: I:\designs\ccfr\general\ccfrgg0a.dgn

COMPUTER AIDED DESIGN & DRAFTING

PREPARED:
DENNIS FISCHER, P.E.
CHIEF CIVIL SOILS SECTION
REVIEWED:
FRANCES E. COFFEY, P.E.
PROJECT MANAGER
SUBMITTED:
DEAN M. SCHMIDT
CHIEF, TECHNICAL ENGINEERING AND REVIEW SECTION
RECOMMENDED:
MARK A. OHLSTROM, P.E.
CHIEF, DESIGN BRANCH
APPROVED:
RICK L. MOSHIER, P.E.
CHIEF, ENG. & CONST. DIVISION

U.S. ARMY ENGINEER DISTRICT, SEATTLE
CORPS OF ENGINEERS
SEATTLE, WASHINGTON

CENTRALIA, WA FLOOD DAMAGE REDUCTION PROJECT

TITLE AND VICINITY MAP

CENTRALIA PN C1919 WASHINGTON

SIZE	INVITATION NO.	FILE NO.	DATE:	PLATE
D		E-5-14-196	14 MAY 02	G-1

DSGN. SKJELBRIEA CKL. GOUGH SHEET 1 OF 66

SHEET NO.	PLATE NO.	TITLE
		GENERAL
1	G-1	TITLE AND VICINITY MAP
2	G-2	DRAWING INDEX
		GEOTECHNICAL
3	GT-1	SITE PLAN - EXPLORATION BORING LOCATIONS
4	GT-2	FOUNDATION LOGS
5	GT-3	FOUNDATION LOGS
6	GT-4	FOUNDATION LOGS
7	GT-5	FOUNDATION LOGS
8	GT-6	FOUNDATION LOGS
		CIVIL
9	C-1	OVERALL PLAN - NORTH REACHES
10	C-2	OVERALL PLAN - SOUTH REACHES
11	C-3	REACH 1 - STA 0+00 TO STA 142+64
12	C-4	REACH 2 - STA 0+00 TO STA 7+04
13	C-5	REACH 3 - STA 0+00 TO STA 73+05
14	C-6	REACH 4 - STA 0+00 TO STA 124+74
15	C-7	REACH 5 - STA 0+00 TO STA 62+30
		REACH 6 - STA 0+00 TO STA 9+76
16	C-8	REACH 7 - STA 0+00 TO STA 139+53
17	C-9	REACH 8 - STA 0+00 TO STA 20+51
18	C-10	REACH 9 - STA 0+00 TO STA 29+46
		REACH 10 - STA 0+00 TO STA 17+43
19	C-11	REACH 11 - STA 0+00 TO STA 23+31
		REACH 12 - STA 0+00 TO STA 38+34
		REACH 13 - STA 0+00 TO STA 30+50
20	C-12	REACH 14 - STA 0+00 TO STA 20+89
		REACH 15 - STA 0+00 TO STA 38+43
		REACH 16 - STA 0+00 TO STA 34+14
21	C-13	DETAILS I
22	C-14	DETAILS II
23	C-15	REACH 1 - STA 0+00 TO STA 20+00
24	C-16	REACH 1 - STA 20+00 TO STA 40+00
25	C-17	REACH 1 - STA 40+00 TO STA 60+00
26	C-18	REACH 1 - STA 60+00 TO STA 80+00
27	C-19	REACH 1 - STA 80+00 TO STA 100+00
28	C-20	REACH 1 - STA 100+00 TO STA 120+00
29	C-21	REACH 1 - STA 120+00 TO STA 140+00
30	C-22	REACH 1 - STA 140+00 TO STA 142+64
31	C-23	REACH 2 - STA 0+00 TO STA 7+04
32	C-24	REACH 3 - STA 0+00 TO STA 20+00
33	C-25	REACH 3 - STA 20+00 TO STA 40+00
34	C-26	REACH 3 - STA 40+00 TO STA 60+00
35	C-27	REACH 3 - STA 60+00 TO STA 73+05
36	C-28	REACH 4 - STA 0+00 TO STA 20+00
37	C-29	REACH 4 - STA 20+00 TO STA 40+00
38	C-30	REACH 4 - STA 40+00 TO STA 60+00
39	C-31	REACH 4 - STA 60+00 TO STA 80+00
40	C-32	REACH 4 - STA 80+00 TO STA 100+00
41	C-33	REACH 4 - STA 100+00 TO STA 124+74
42	C-34	REACH 5 - STA 0+00 TO STA 20+00
43	C-35	REACH 5 - STA 20+00 TO STA 40+00
44	C-36	REACH 5 - STA 40+00 TO STA 62+30
45	C-37	REACH 6 - STA 0+00 TO STA 9+76
46	C-38	REACH 7 - STA 0+00 TO STA 20+00
47	C-39	REACH 7 - STA 20+00 TO STA 40+00
48	C-40	REACH 7 - STA 40+00 TO STA 60+00
49	C-41	REACH 7 - STA 60+00 TO STA 80+00
50	C-42	REACH 7 - STA 80+00 TO STA 100+00
51	C-43	REACH 7 - STA 100+00 TO STA 120+00
52	C-44	REACH 7 - STA 120+00 TO STA 139+53
53	C-45	REACH 8 - STA 0+00 TO STA 20+51
54	C-46	REACH 9 - STA 0+00 TO STA 20+00
55	C-47	REACH 9 - STA 20+00 TO STA 29+46
56	C-48	REACH 10 - STA 0+00 TO STA 17+43
57	C-49	REACH 11 - STA 0+00 TO STA 23+31
58	C-50	REACH 12 - STA 0+00 TO STA 20+00
59	C-51	REACH 12 - STA 20+00 TO STA 38+34
60	C-52	REACH 13 - STA 0+00 TO STA 20+00
61	C-53	REACH 13 - STA 20+00 TO STA 30+50
62	C-54	REACH 14 - STA 0+00 TO STA 20+89
63	C-55	REACH 15 - STA 0+00 TO STA 20+00
64	C-56	REACH 15 - STA 20+00 TO STA 38+43
65	C-57	REACH 16 - STA 0+00 TO STA 20+00
66	C-58	REACH 16 - STA 20+00 TO STA 34+14

LEGEND

LEVEE

FLOODWALL

REVISIONS				
SYMBOL	ZONE	DESCRIPTION	DATE	BY

This project was designed by the Seattle District U.S. Army Corps of Engineers. The initials or signatures and registration designations of individuals appear within the specifications or on these project documents within the scope of their employment as required by ER 1110-1-8152, Professional Registration.

DATE AND TIME PLOTTED: 20-SEP-2002 08:31
DESIGN FILE: i:\designs\ccfr\general\ccfrgg0b.dgn

Computer Aided Design & Drafting

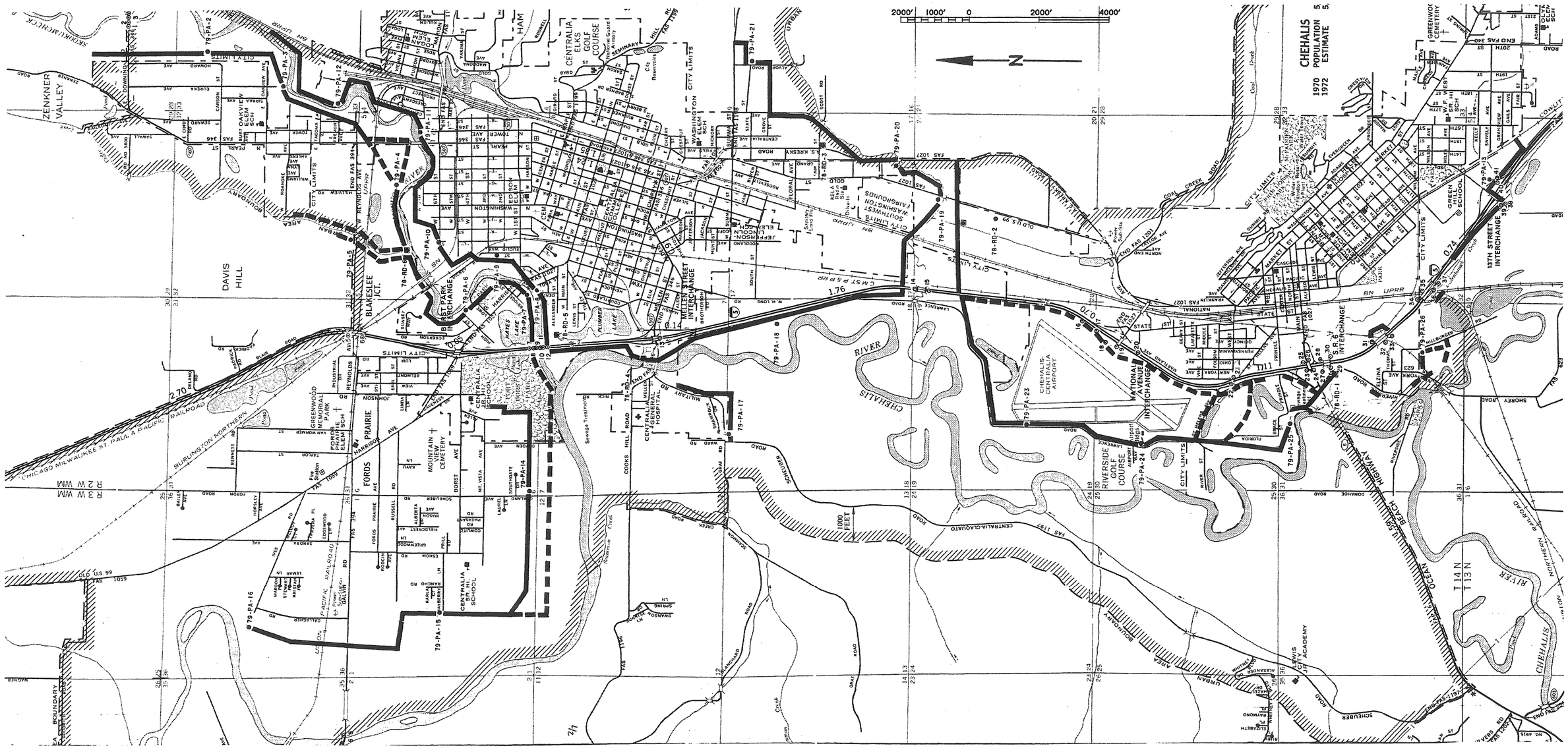
U.S. ARMY ENGINEER DISTRICT, SEATTLE
CORPS OF ENGINEERS
SEATTLE, WASHINGTON

CENTRALIA, WA FLOOD DAMAGE REDUCTION PROJECT

DRAWING INDEX

CENTRALIA PN C1919 WASHINGTON

SIZE	INVITATION NO.	FILE NO.	DATE:	PLATE
D		E-5-14-196	14 MAY 02	G-2
DSGN. SKJELBRIEA		CHK. GOUGH	SHEET 2	



NOTES:

1. REFERENCE DRAWING FILE NO. E-5-14-165 SHEET 2, CHEHALIS-CENTRALIA LEVEE STUDY, EXPLORATION BORING LOCATIONS

LEGEND:

- ● DRILLED BY SEATTLE DISTRICT CORPS OF ENGINEERS
- ⊙ DRILLED BY OTHERS
- ▣ PROPOSED PUMP STATION SITES, 78-RD-1 TO 78-RD-6. HOLES DRILLED BY SEATTLE DISTRICT CORPS OF ENGINEERS
- ▬▬ PROPOSED ALTERNATE LEVEE ALIGNMENTS
- ▬▬ PROPOSED LEVEE ALIGNMENT

SYMBOL	ZONE	DESCRIPTION	DATE	BY
		REVISIONS		

This project was designed by the Seattle District U.S. Army Corps of Engineers. The initials or signatures and registration designations of individuals appear within the specifications or on these project documents within the scope of their employment as required by ER 1110-1-8152, Professional Registration.

DATE AND TIME PLOTTED: 12-AUG-2002 13:09
DESIGN FILE: I:\designs\ccfr\geotech\ccfrfg0a.dgn

COMPUTER AIDED DESIGN & DRAFTING

PREPARED: DENNIS A. FISCHER, P.E.
CHIEF, CIVIL/SOILS SECTION

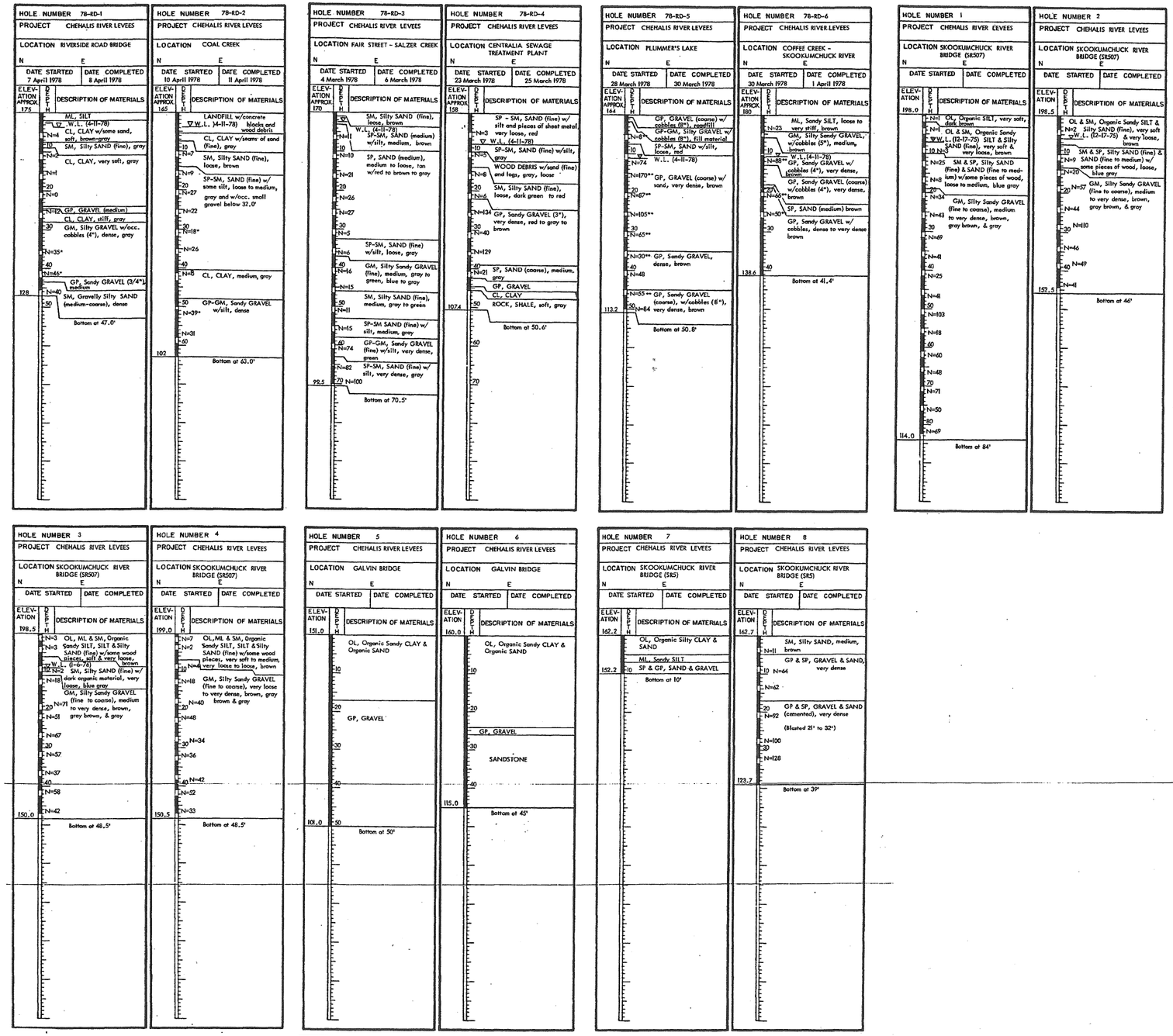
U.S. ARMY ENGINEER DISTRICT, SEATTLE
CORPS OF ENGINEERS
SEATTLE, WASHINGTON

CENTRALIA, WA FLOOD DAMAGE REDUCTION PROJECT

SITE PLAN - EXPLORATION BORING LOCATIONS

CENTRALIA PN C1919 WASHINGTON

SIZE	INVITATION NO.	FILE NO.	DATE	PLATE
D		E-5-14-196	14 MAY 02	%P:FG0A
DSGN. KAISER		CHK. SEGAL	SHEET	%SHT:FG0A



REVISIONS				
SYMBOL	ZONE	DESCRIPTION	DATE	BY

SOILS LEGEND

MH - INORGANIC SILTY SOILS, PLASTIC SILTS
ML - INORGANIC SILTS, FINE SANDS, CLAYEY SILTS OR SANDS OF SLIGHT PLASTICITY
CL - INORGANIC CLAYS, SANDY OR SILTY CLAYS OF LOW OR MEDIUM PLASTICITY
SM - POORLY GRADED SILTY SAND
SP - POORLY GRADED SAND
SP-SM - POORLY GRADED SAND W/SILT
GP - POORLY GRADED GRAVEL
GM - POORLY GRADED SILTY GRAVEL
GP-GM - POORLY GRADED GRAVEL W/SILT
GC - POORLY GRADED CLAYEY GRAVEL
OL - ORGANIC SILTS OR CLAYS OF LOW PLASTICITY
PT - PEAT AND OTHER HIGHLY ORGANIC SOILS

LEGEND

GROUND WATER LEVEL

78-RD-2 ROTARY DRILL HOLE (DRILLED BY CORPS OF ENGINEERS, SEATTLE DISTRICT)
79-PA-4 POWER AUGER HOLE (DRILLED BY CORPS OF ENGINEERS, SEATTLE DISTRICT)
21 DRILLED BY OTHERS (FURNISHED BY WASHINGTON STATE DEPT. OF HIGHWAYS)

N=7 SAMPLE TAKEN WITH 2" O.D. SPLIT-SPOON SAMPLER USING A 140 LB. HAMMER DROPPED FROM 30 INCHES.
N=NUMBER OF BLOWS PER FOOT OF PENETRATION (STANDARD PENETRATION TEST).

N=8* SAMPLE TAKEN WITH A 3" O.D. SPLIT-SPOON SAMPLER USING A 400 LB. HAMMER DROPPED FROM 30 INCHES.
N=NUMBER OF BLOWS PER FOOT OF PENETRATION BUT IS NOT A STANDARD PENETRATION TEST.

N=88** SAMPLE TAKEN WITH A 3" O.D. SPLIT-SPOON SAMPLER USING A 140 LB. HAMMER DROPPED FROM 30 INCHES.
N=NUMBER OF BLOWS PER FOOT OF PENETRATION BUT IS NOT A STANDARD PENETRATION TEST.

RELATIVE DENSITY OF SANDS AND GRAVELS ACCORDING TO RESULTS OF STANDARD PENETRATION TEST

NO. OF BLOWS "N" PER FOOT	RELATIVE DENSITY
0-4	VERY LOOSE
4-10	LOOSE
10-30	MEDIUM
30-50	DENSE
50+	VERY DENSE

CONSISTENCY OF SILTS AND CLAYS ACCORDING TO RESULTS OF STANDARD PENETRATION TEST

NO. OF BLOWS "N" PER FOOT	CONSISTENCY
0-2	VERY SOFT
2-4	SOFT
4-8	MEDIUM
8-15	STIFF
15-30	VERY STIFF
30+	HARD

NOTES:

1. CLASSIFICATIONS ARE BASED ON "THE UNIFIED SOIL CLASSIFICATION SYSTEM".
2. SEE PLATE GT-1 FOR BORING LOCATIONS.
3. ELEVATIONS TAKEN FROM CONTOUR MAPS.
4. DESCRIPTION OF MATERIALS IN EXPLORATION BORINGS DRILLED BY CORPS OF ENGINEERS WAS BASED ON VISUAL CLASSIFICATION.
5. BORINGS 79-PA-1 AND 79-PA-22 WERE NOT DRILLED.
6. REFERENCE DRAWING FILE NO. E-5-14-165, SHEET 3, CHEHALIS-CENTRALIA LEVEE STUDY, FOUNDATION LOGS.

This project was designed by the Seattle District U.S. Army Corps of Engineers. The initials or signatures and registration designations of individuals appear within the specifications or on these project documents within the scope of their employment as required by ER 1110-1-8152, Professional Registration.

DATE AND TIME PLOTTED: 24-JUL-2002 11:43
DESIGN FILE: I:\designs\ccfr\geotech\ccfrfg0b.dgn

COMPUTER AIDED DESIGN & DRAFTING

U.S. ARMY ENGINEER DISTRICT, SEATTLE
CORPS OF ENGINEERS
SEATTLE, WASHINGTON

CENTRALIA, WA FLOOD DAMAGE REDUCTION PROJECT

FOUNDATION LOGS

CENTRALIA PN C1919 WASHINGTON

SIZE	INVITATION NO.	FILE NO.	DATE:	PLATE
D		E-5-14-196	14 MAY 02	GT-2
DSGN. KAISER		CHK. SEGAL	SHEET 4	

REVISIONS				
SYMBOL	ZONE	DESCRIPTION	DATE	BY

HOLE NUMBER 9
PROJECT CHEHALIS RIVER LEVEES
LOCATION SKOOKUMCHUCK RIVER BRIDGE (SR5)
N E
DATE STARTED | DATE COMPLETED

ELEVATION	DEPTH	DESCRIPTION OF MATERIALS
162.1		SM, Silty SAND
151.1	10	SP & GP, SAND & GRAVEL
		Bottom at 11'

HOLE NUMBER 10
PROJECT CHEHALIS RIVER LEVEES
LOCATION SKOOKUMCHUCK RIVER BRIDGE (SR5)
N E
DATE STARTED | DATE COMPLETED

ELEVATION	DEPTH	DESCRIPTION OF MATERIALS
165.2		OL, Organic Silty CLAY & SAND
		ML, Sandy SILT
	10	SM & GM, Silty SAND & GRAVEL
152.2		SP & GP, SAND & GRAVEL
		Bottom at 13'

HOLE NUMBER 11
PROJECT CHEHALIS RIVER LEVEES
LOCATION SKOOKUMCHUCK RIVER BRIDGE (SR5)
N E
DATE STARTED | DATE COMPLETED

ELEVATION	DEPTH	DESCRIPTION OF MATERIALS
164.5		CL, Silty CLAY, stiff, brown
		N=11
	10	GP & SP, GRAVEL & SAND, medium to very dense
		N=29
		N=53
	20	N=50
		SP, SAND (fine), dense, brown
		N=32
	30	GP, GRAVEL (cemented), very dense
		N=79
		N=80
	50	N=110
		SM & CL, Silty SAND & CLAY, hard, blue
		N=80
		(Blasted 13' to 50') (Jetted 54' to 59')
105.5		Bottom at 59'

HOLE NUMBER 12
PROJECT CHEHALIS RIVER LEVEES
LOCATION SKOOKUMCHUCK RIVER BRIDGE (SR5)
N E
DATE STARTED | DATE COMPLETED

ELEVATION	DEPTH	DESCRIPTION OF MATERIALS
163.8		OL, Organic Silty CLAY & SAND
		ML, Sandy SILT
		SM, Silty SAND
	10	SM & GM, Silty SAND & GRAVEL
		SP & GP, SAND & GRAVEL
147.8		Bottom at 16'

HOLE NUMBER 13
PROJECT CHEHALIS RIVER LEVEES
LOCATION MELLEN STREET OVERCROSSING
N E
DATE STARTED | DATE COMPLETED

ELEVATION	DEPTH	DESCRIPTION OF MATERIALS
168.2		GM, GRAVEL & TOP SOIL
		GM, GRAVEL (cemented)
	10	GP & SP, GRAVEL & SAND
	20	SP, SAND w/trace of clay
		SP, SAND, very dense
	30	
	40	SM, Silty SAND, brown & blue
123.2		GP, GRAVEL, very dense
		Bottom at 45'

HOLE NUMBER 14
PROJECT CHEHALIS RIVER LEVEES
LOCATION SALZER CREEK BRIDGE
N E
DATE STARTED | DATE COMPLETED

ELEVATION	DEPTH	DESCRIPTION OF MATERIALS
174.0		N=4 SM (fill), Gravelly Silty SAND, loose, brown
	10	N=24 ML & SM (fill), Sandy SILT & Silty SAND (fine), medium, brown
		N=24
	20	N=18 CL & ML, CLAY & SILT w/ some sand (fine) & layers of silty sand (fine), very stiff, gray & brown
		N=30
	30	N=12 SM & ML, Silty SAND (fine) & Sandy SILT, loose to medium & stiff to very stiff, gray
		N=9
		N=8
	40	N=9
		N=6
	50	N=12
		N=47
	60	N=92 GM, Silty Sandy GRAVEL (fine to coarse), dense to very dense, gray & brown
109.0		N= 125/6"
		Bottom at 65'

HOLE NUMBER 15
PROJECT CHEHALIS RIVER LEVEES
LOCATION SALZER CREEK BRIDGE
N E
DATE STARTED | DATE COMPLETED

ELEVATION	DEPTH	DESCRIPTION OF MATERIALS
175.0		N=64 SM, (fill), Gravelly Silty SAND, very dense, gray & brown
		N=13 CL & ML, CLAY & SILT w/ some sand (fine) & layers of silty sand (fine), stiff, gray & brown.
	10	N=14
		N=9
	20	N=8 W.L. (4-17-70)
		N=13
		N=25
	30	N=13 SM & ML, Silty SAND (fine) & Sandy SILT, loose to dense & medium to hard, gray
		N=18
	40	N=18
		N=5
	50	N=8
		N=8
		N=51
	60	N=73 GM, Silty Sandy GRAVEL (fine to coarse), very dense, gray & brown
110.0		N= 88/6"
		Bottom at 65.5'

HOLE NUMBER 16
PROJECT CHEHALIS RIVER LEVEES
LOCATION NATIONAL AVENUE INTERCHANGE
N E
DATE STARTED | DATE COMPLETED

ELEVATION	DEPTH	DESCRIPTION OF MATERIALS
166.0		ML, Clayey SILT, stiff, mottled
	10	CL, Sandy (very fine) CLAY, stiff, gray brown
		ML, Sandy (very fine) Clayey SILT, soft, gray
	20	ML, Sandy (fine) SILT, w/ intermittent layers of medium sand, very soft, gray
	30	
126.0	40	SP & GP, SAND and GRAVEL (1"), gray
		Bottom at 40'

HOLE NUMBER 17
PROJECT CHEHALIS RIVER LEVEES
LOCATION NATIONAL AVENUE INTERCHANGE
N E
DATE STARTED | DATE COMPLETED

ELEVATION	DEPTH	DESCRIPTION OF MATERIALS
165.0		OL, Organic Silty CLAY
		CL, Silty CLAY, stiff, gray brown
	10	W.L. (10-29-57) CL, Sandy (fine) CLAY, mottled
		ML, Sandy (fine) SILT, mottled, soft
	20	ML, Sandy (very fine) SILT and layers of silty sand (medium), very soft, gray brown
	30	
	40	
118.0		SP & GP, SAND (coarse) and GRAVEL (1/2"), gray
	50	
		Bottom at 47'

HOLE NUMBER 18
PROJECT CHEHALIS RIVER LEVEES
LOCATION NATIONAL AVENUE INTERCHANGE
N E
DATE STARTED | DATE COMPLETED

ELEVATION	DEPTH	DESCRIPTION OF MATERIALS
165.5		ML, Clayey SILT, stiff, mottled
	10	CL, Silty CLAY w/trace of sand (very fine), stiff, mottled
		W.L. (10-29-57)
		ML, Sandy(very fine) SILT w/ layers of silty sand (medium), soft, gray
	20	
	30	
	40	
121.5		SM & GP, Silty SAND (medium) & GRAVEL (1"), gray
		Bottom at 44'

HOLE NUMBER 19
PROJECT CHEHALIS RIVER LEVEES
LOCATION NATIONAL AVENUE INTERCHANGE
N E
DATE STARTED | DATE COMPLETED

ELEVATION	DEPTH	DESCRIPTION OF MATERIALS
166.5		SP & GP (fill), SAND & GRAVEL
		CL, CLAY, stiff, yellow, mottled brown & gray
	10	N=10
		N=10 CL, CLAY w/some organic material, stiff, mottled brown & light gray
	20	ML, Clayey SILT, stiff, blue
		N=10
		N=8 ML, SILT, medium, gray
	30	
		N=7
		SM, Silty SAND (very fine)
	40	
		N=46 SP & GP, SAND & GRAVEL,
		N=30 dense to very dense
	50	CL, Silty CLAY, green
		@ 50' N=36 SP & GP, SAND & GRAVEL (fine to medium) w/some clay, dense
106.0	60	@ 57' N=124 CL, CLAY hard, gray
		CL, CLAY, w/trace of gravel, gray
		@ 60' N= 200/6" CL, CLAY, hard, gray
		Bottom at 60.5'

HOLE NUMBER 20
PROJECT CHEHALIS RIVER LEVEES
LOCATION NATIONAL AVENUE INTERCHANGE
N E
DATE STARTED | DATE COMPLETED

ELEVATION	DEPTH	DESCRIPTION OF MATERIALS
167.2		OL, Organic Sandy (fine) Silty CLAY, stiff
		CL, Sandy (fine) Silty CLAY, stiff, brown
		W.L. (10-24-57)
	10	CL, Silty CLAY, soft to very soft, brown to blue gray
147.2	20	ML, Sandy (fine) SILT, very soft, blue gray
		Bottom at 20'

HOLE NUMBER 21
PROJECT CHEHALIS RIVER LEVEES
LOCATION WEST STREET UNDERCROSSING
N E
DATE STARTED | DATE COMPLETED

ELEVATION	DEPTH	DESCRIPTION OF MATERIALS
180.0		CL, CLAY, brown
	10	GP, GRAVEL
	20	
	30	SP, SAND (coarse)
		CL, CLAY, brown
	40	Sandy SHALE
132.0		Bottom at 48'

HOLE NUMBER 22
PROJECT CHEHALIS RIVER LEVEES
LOCATION WEST STREET UNDERCROSSING
N E
DATE STARTED | DATE COMPLETED

ELEVATION	DEPTH	DESCRIPTION OF MATERIALS
174.5		CL, CLAY, brown
	10	GP, GRAVEL
	20	GP & CL, GRAVEL and CLAY, brown
		SP & GP, SAND (coarse) and GRAVEL
	30	Sandy SHALE, soft
135.5		Sandy SHALE, solid
		Bottom at 39'

HOLE NUMBER 23
PROJECT CHEHALIS RIVER LEVEES
LOCATION SR-6 UNDERCROSSING
N E
DATE STARTED | DATE COMPLETED

ELEVATION	DEPTH	DESCRIPTION OF MATERIALS
171.0		N=7 ML, CL & OL (fill), Sandy Clayey SILT, Sandy CLAY
		N=20 & Organic SILT w/some gravel & organic material, medium, brown & gray
	10	
		N=7 FILL MATERIAL, Silt, Wood, Bricks, Ash, etc.
		N=3 OL, ML & SM, Organic SILT, Organic Clayey SILT, thin layers of Silty SAND
	20	N=4 (fine), Sandy SILT w/some pieces of wood, soft to medium & loose, gray & brown
		N=3
	30	
		N=42
		N=76
		N=80 SM & ML, Gravelly Silty SAND (fine to coarse),
	40	Gravelly Sandy SILT &
		N=93 Sandy Clayey SILT w/ gravels & some cobbles, very dense & hard, gray & brown
		N=109/11"
		N=82 ML, Sandy (fine) SILT w/ pieces of siltstone, hard, gray
		N=83/9"
	60	
		N=106
102.5		Bottom at 68.5'

HOLE NUMBER 24
PROJECT CHEHALIS RIVER LEVEES
LOCATION SR-6 UNDERCROSSING
N E
DATE STARTED | DATE COMPLETED

ELEVATION	DEPTH	DESCRIPTION OF MATERIALS
198.5		N=15 SM, (fill) Silty Gravelly SAND (fine to coarse),
		N=7 medium, brown
	10	ML, CL & OL, (fill) Sandy
		N= 2 Clayey SILT, Sandy CLAY &
		N=9 Organic SILT w/some gravel & organic material, stiff to
	20	very stiff, brown & gray
		N=9
		OL, ML & SM, Organic
		N=28 SILT, Organic Clayey SILT, thin layers of Silty SAND
	30	(fine), sandy SILT w/some
		N=23 pieces of wood, stiff to hard & medium to dense, gray
		N=31 & brown
	40	
		N=22
	50	N=13
		N=10
		W.L. (6-13-73) SM, Silty
		N=48 SAND (fine to coarse) w/
	60	scattered fine gravel, medium, gray
		N=57 CL, Sandy CLAY w/scattered gravel, hard, gray
		N=93 SM & ML, Gravelly Silty SAND (fine to coarse),
	70	N=90 Gravelly Sandy SILT & Sandy Clayey SILT w/ gravels & some cobbles, very dense & hard, gray & brown
	80	ML, Sandy (fine) SILT w/pieces
116.5		N=111 of siltstone, hard, gray
		Bottom at 82'

HOLE NUMBER 25
PROJECT CHEHALIS RIVER LEVEES
LOCATION SR-6 UNDERCROSSING
N E
DATE STARTED | DATE COMPLETED

ELEVATION	DEPTH	DESCRIPTION OF MATERIALS
196.0		N=3 CL, ML & OL, (fill) Sandy
		N=4 CLAY, Sandy Clayey SILT, Sandy SILT & Organic SILT
	10	N=5 w/scattered gravel, soft to very stiff, brown
		N=6
	20	N=6
		N=16
		N=20
		N=10 CL & ML, CLAY & SILT w/
	30	N=10 some sand, brown
		W.L. (6-20-73)
		N=6 SM, ML & OL, Silty SAND (fine), Sandy SILT &
	40	Organic Material, loose to medium & medium to very stiff, brown
		N=5
		N=5
		N=12
		N=19
	50	
		N=22 SM, Silty SAND (fine to coarse) w/scattered gravel
		N=93 (fine), medium, gray
	60	
		N=110 SM & ML, Gravelly Silty SAND (fine to coarse),
		Gravelly Sandy SILT &
		N=82 Sandy Clayey SILT w/ gravels & some cobbles,
	70	dense to very dense & hard,
		N=31 gray & brown
		N=102/9" ML, Sandy (fine)
	80	SILT w/pieces of siltstone,
		N=69/6" hard, gray
108.5		N=75/6"
	90	
		Bottom at 87.5'

HOLE NUMBER 26
PROJECT CHEHALIS RIVER LEVEES
LOCATION SR-6 UNDERCROSSING
N E
DATE STARTED | DATE COMPLETED

ELEVATION	DEPTH	DESCRIPTION OF MATERIALS
197.5		N=9 CL, ML & OL, (fill) Sandy
		N=12 CLAY, Sandy Clayey SILT, Sandy SILT & Organic SILT
	10	w/scattered gravel, stiff to
		N=12 very stiff, brown
		N=9
	20	
		N=27
		N=16
	30	CL & ML, CLAY & SILT w/
		N=11 some sand, brown
		SM, ML & OL, Silty SAND
		N=6 (fine), Sandy SILT &
		Organic Material, loose to medium
	40	W.L. (6-6-73, Perched)
		N=15 & medium to very stiff,
		N=16 brown
		N=14
	50	
		N=20 SM, Silty SAND (fine to
		N=32 coarse) w/scattered gravel
	60	(fine), medium, gray
		N=113 SM & ML, Gravelly Silty
		SAND (fine to coarse),
		N=105 Gravelly Sandy SILT &
	70	Sandy Clayey SILT w/gravels
		& some cobbles, very dense
		N=53 & hard, gray & brown
		N=108/9" ML, Sandy (fine)
	80	SILT w/pieces of siltstone,
		N=73/6" hard, gray
		N=95/6"
	90	
106.0		N=105/11"
		Bottom at 91.5'

NOTES:

1. SEE PLATE GT-1 FOR BORING LOCATIONS. SEE PLATE GT-2 FOR LEGENDS AND ADDITIONAL NOTES.
2. REFERENCE DRAWING FILE NO. E-5-14-165, SHEET 4, CHEHALIS-CENTRALIA LEVEE STUDY, FOUNDATION LOGS.

U.S. ARMY ENGINEER DISTRICT, SEATTLE
CORPS OF ENGINEERS
SEATTLE, WASHINGTON

CENTRALIA, WA FLOOD DAMAGE REDUCTION PROJECT

FOUNDATION LOGS

CENTRALIA PN C1919 WASHINGTON

SIZE	INVITATION NO.	FILE NO.	DATE:	PLATE
D		E-5-14-196	14 MAY 02	GT-3
DSGN. KAISER		CHK. SEGAL	SHEET 5	

This project was designed by the Seattle District U.S. Army Corps of Engineers. The initials or signatures and registration designations of individuals appear within the specifications or on these project documents within the scope of their employment as required by ER 1110-1-8152, Professional Registration.

DATE AND TIME PLOTTED: 24-JUL-2002 11:43
DESIGN FILE: l:\designs\ccfr\geotech\ccfrfg0c.dgn

Computer Aided Design & Drafting

REVISIONS				
SYMBOL	ZONE	DESCRIPTION	DATE	BY

HOLE NUMBER 27
PROJECT CHEHALIS RIVER LEVEES
LOCATION DILLENBAUGH CREEK BRIDGE
N E
DATE STARTED | DATE COMPLETED

ELEVATION	DEPTH	DESCRIPTION OF MATERIALS
167.0	N=14	ML & CL, CLAY, Silty CLAY & Clayey SILT w/scattered organic material & few sand lenses, stiff, brown & gray
	N=10, 10 ▽ W.L.	(12-10-73)
	N=2	OL & CL, Sandy Organic SILT, CLAY & Silty CLAY w/wood & shells, very soft to stiff, gray & brown
	N=1, 20	
	N=1	
	N=36	ML & SM, Gravelly Sandy SILT, Sandy Clayey SILT w/Gravel & Gravelly Silty SAND w/ scattered cobbles & some silty sandy gravel, very stiff to hard & medium to very dense, gray & brown.
	30 N=93	
	N=23	
	40 N=100	
	N=126	
	50 N=140/11"	ML, Sandy SILT & Sandy Clayey SILT w/ occ. gravel, hard, gray & brown
	N=180	
	60 N=100/9"	
104.0		Bottom at 63'

HOLE NUMBER 28
PROJECT CHEHALIS RIVER LEVEES
LOCATION DILLENBAUGH CREEK BRIDGE
N E
DATE STARTED | DATE COMPLETED

ELEVATION	DEPTH	DESCRIPTION OF MATERIALS
173.0	N=23	ML & CL, CLAY, Silty CLAY & Clayey SILT w/scattered organic material & few sand lenses, medium to very stiff, brown & gray
	▽ W.L. (1-9-74)	
	N=9	
	N=9	
	20 N=7	
	N=10	ML, Sandy SILT & Sandy Clayey SILT w/some sandy organic silt, stiff to very stiff, gray
	30 N=6	
		CL, CLAY & Silty CLAY, gray
	N=97, N=47	
	N=48, 40	ML & SM, Gravelly Sandy SILT, Sandy Clayey SILT w/ gravel & gravelly silty sand w/scattered cobbles & some silty sandy gravel, stiff to hard & medium to very dense, gray & brown
	N=34	
	N=86	
	N=74, 50	
	N=100/5"	ML, Sandy SILT & Sandy clayey SILT w/ occ. gravel, hard, gray & brown
116.0	N=75/6"	
		Bottom at 57'

HOLE NUMBER 29
PROJECT CHEHALIS RIVER LEVEES
LOCATION DILLENBAUGH CREEK BRIDGE
N E
DATE STARTED | DATE COMPLETED

ELEVATION	DEPTH	DESCRIPTION OF MATERIALS
173.0	N=21	CL, CLAY & Silty CLAY w/ some organic material wood & sand, very stiff, brown
	10 N=9	CL & ML, CLAY, Silty CLAY & Clayey SILT w/some scattered sand (fine) & organic material, medium to stiff, brown & gray
	N=6	
	20 N=4 ▽ W.L. (12-3-73)	
	N=19	ML, Sandy SILT & Sandy Clayey SILT w/some silty sand (fine), very stiff, gray
	30	
	N=5	CL & ML, Silty CLAY & sandy SILT, medium, gray
	N=62	
	N=93, 40	ML & SM, Gravelly Sandy SILT, Sandy Clayey SILT w/ gravel & gravelly silty sand w/scattered cobbles and silty sandy gravel, hard & very dense, gray & brown
	N=84	
	N=111	
	50 N=80	ML & CL, SILT, Sandy Clayey SILT & Sandy CLAY, hard, brown, green, white & purple
	N=55, 60	ML, Sandy SILT, hard, gray
	N=101/9"	ML, Sandy SILT w/occ. gravel, hard, gray & brown
105.0	N=94/8"	
		Bottom at 68'

HOLE NUMBER 30
PROJECT CHEHALIS RIVER LEVEES
LOCATION DILLENBAUGH CREEK BRIDGE
N E
DATE STARTED | DATE COMPLETED

ELEVATION	DEPTH	DESCRIPTION OF MATERIALS
173.0	N=22	
	▽ W.L. (1-4-74)	
	10 N=8	CL&ML, CLAY, Silty CLAY & Clayey SILT w/ some scattered sand (fine) & organic material, medium to very stiff, brown & gray
	N=9	
	20 N=7	ML, Sandy SILT & Sandy Clayey SILT w/some silty sand (fine), medium to stiff, gray
	N=10	
	30 N=6	ML&SM, Gravelly Sandy SILT, Sandy Clayey SILT w/gravel & Gravelly Silty SAND w/ scattered cobbles & silty sandy gravel, hard & very dense, gray & brown
	N=56/6"	
	N=75/6"	
	40 N=54/6"	
	N=62/6"	
	50 N=61/5"	ML, Sandy SILT w/occ. gravel, hard, gray & brown
	N=56/6"	
	60 N=59/6"	
107.0	N=72/6"	
		Bottom at 66'

HOLE NUMBER 31
PROJECT CHEHALIS RIVER LEVEES
LOCATION CHICAGO, ST. PAUL AND MILWAUKEE RAILROAD OVERCROSSING
N E
DATE STARTED | DATE COMPLETED

ELEVATION	DEPTH	DESCRIPTION OF MATERIALS
203.0	N=7	SM & GP (fill), Silty SAND & GRAVEL, loose, brown
	N=5	CL (fill), CLAY w/some sand (fine) & organic material, medium to very stiff, brown & gray
	10 N=7	
	N=13	
	20 N=18	
	N=23	
	30 N=24	CL, Sandy CLAY w/layer of silty sandy, very stiff, brown
	▽ W.L. (7-16-74)	
	N=27	CL, CLAY w/scattered organic material, medium to very stiff, brown & gray
	40 N=21	
	N=16	
	50 N=9	CL & OL, CLAY, Organic CLAY & Organic Clayey SILT w/some sand (fine), medium, gray
	N=7	
	N=65	
	60 N=48	SM, Gravelly Silty SAND (fine to coarse) w/some gravelly sandy silt, silty sandy gravel & cobbles, very dense, brown & gray
	N=78	
	70	
	N=73	SM, Silty Gravelly SAND (fine to coarse) w/occ. cobbles, very dense to medium, gray
	N=64	
	N=29	
	80 N=98/6"	SM, Silty SAND (very fine), very dense, gray
116.0	N=103/10"	
		Bottom at 87'

HOLE NUMBER 32
PROJECT CHEHALIS RIVER LEVEES
LOCATION CHICAGO, ST. PAUL AND MILWAUKEE RAILROAD OVERCROSSING
N E
DATE STARTED | DATE COMPLETED

ELEVATION	DEPTH	DESCRIPTION OF MATERIALS
174.0		CL, CLAY w/layer of sand,
	N=7 ▽ W.L. (7-26-74)	medium, brown
	N=10	CL, CLAY w/scattered organic material, stiff, brown & gray
	10 N=9	
	N=10	
	20 N=8	CL & OL, CLAY, Organic CLAY & Organic Clayey SILT w/some sand (fine), medium, gray
	N=14	
	30 N=31	CL, CLAY w/organic material, scattered sand & gravel (fine), stiff, gray
	N=98	SM, Gravelly Silty SAND (fine to coarse) w/some gravelly sandy silt, silty sandy gravel & cobbles, dense to very dense, brown & gray
	40 N=130/10"	
125.0	N=117	ML, Clayey SILT w/some sand (very fine) & organic material, brown
		SM, Silty Gravelly SAND, (fine to coarse) very dense, gray
		Bottom at 49'

HOLE NUMBER 33
PROJECT CHEHALIS RIVER LEVEES
LOCATION CHICAGO, ST. PAUL AND MILWAUKEE RAILROAD OVERCROSSING
N E
DATE STARTED | DATE COMPLETED

ELEVATION	DEPTH	DESCRIPTION OF MATERIALS
200.0	N=10	SM & GP (fill), Silty SAND & GRAVEL, medium dense, brown
	N=8	CL & SM (fill), CLAY & Silty SAND (fine) in thin layers w/some organic material, medium to very stiff & loose to medium, brown & gray
	10 N=8	
	N=20	
	20 N=16	
	N=23	CL, Sandy CLAY w/scattered organic material & thin layers of sand, very stiff to hard, brown
	30 N=37	
	▽ W.L. (7-12-74)	
	N=13	CL, CLAY w/scattered organic material, stiff, brown & gray
	40 N=13	
	N=10	
	50 N=15	CL & OL, CLAY, Organic CLAY & Organic Clayey SILT w/some sand (fine), stiff, gray
	N=14	
	60 N=77	CL, CLAY w/organic material, scattered sand & gravel (fine), very stiff, gray
	N=55	SM, Gravelly Silty SAND (fine to coarse) w/some gravelly sandy silt, silty sandy gravel & cobbles, very dense, brown & gray
	N=102	
	70	
	N=87	
	N=74	SM, Silty Gravelly SAND (fine to coarse), very dense, gray
	80	
	N=49	CL, CLAY w/scattered sand and gravel, hard, gray
	N=29	
	90	
	N=31	
106.5		Bottom at 93.5'

HOLE NUMBER 34
PROJECT CHEHALIS RIVER LEVEES
LOCATION BURLINGTON NORTHERN OVERCROSSING
N E
DATE STARTED | DATE COMPLETED

ELEVATION	DEPTH	DESCRIPTION OF MATERIALS
211.0	N=5	SP & GP (fill) SAND & GRAVEL, loose
	N=7	CL & ML (fill), Silty CLAY, CLAY & Clayey SILT w/ traces of sand and organic material, medium to hard, brown & gray
	N=8	
	10 N=11	
	N=16	
	20 N=18	
	30 N=37	
	N=11	
	40 N=47	
	▽ W.L. (6-26-74)	
	N=21	CL, CLAY w/traces of sand and organic material, stiff to very stiff, gray and brown
	50 N=13	
	N=26	
	60 N=54	CL, CLAY & Silty CLAY w/some sand & scattered gravel, hard, gray
	N=72	
	N=102, 70	SP & GP SAND (fine to coarse) & GRAVEL w/silty clay & some cobbles, very dense, gray & brown
	N=62	GM, Clayey & Silty Sandy GRAVEL (fine to coarse), very dense, brown
	N=74, 80	SM, Silty SAND (fine) w/ some sandy gravelly clayey silt, dense to very dense, gray
	N=37	
	N=100/6"	
	90 N=32	
	N=39	
	100	PT, PEAT w/wood, black and brown

HOLE NUMBER 34 (SHEET 2)

ELEVATION	DEPTH	DESCRIPTION OF MATERIALS
	N=41	CL & OL, CLAY, Silty CLAY & Organic CLAY w/ black peat and traces of sand & gravel, very stiff to hard, gray
100.0	110 N=22	
		Bottom at 111'

HOLE NUMBER 35
PROJECT CHEHALIS RIVER LEVEES
LOCATION BURLINGTON NORTHERN OVERCROSSING
N E
DATE STARTED | DATE COMPLETED

ELEVATION	DEPTH	DESCRIPTION OF MATERIALS
178.0	N=43	GM, Silty Sandy GRAVEL dense, brown
	N=47	SM & GM, Silty SAND and GRAVEL, dense
	10 N=9	CL, CLAY w/traces of sand and organic material, stiff, gray and brown
	N=12	
	20 N=12	
		CL, CLAY and Silty CLAY w/ some sand and scattered gravel, gray
	30 N=18	
	N=43	SP & GP, SAND (fine to coarse) & GRAVEL w/silty clay & some cobbles, medium to very dense.
	N=78	
	N=33	
	40 N=60/6"	gray & brown
		SP, Silty Gravelly SAND, dense
		GM, Silty & Clayey Sandy GRAVEL w/cobbles (partially cemented), very dense, gray & brown
138.0		
		Bottom at 40'

HOLE NUMBER 36
PROJECT CHEHALIS RIVER LEVEES
LOCATION BURLINGTON NORTHERN OVERCROSSING
N E
DATE STARTED | DATE COMPLETED

ELEVATION	DEPTH	DESCRIPTION OF MATERIALS
170.0		W.L. (5-23-74)
	N=10	CL & ML (fill), CLAY, Silty CLAY & Clayey SILT w/traces of sand (fine) & organic material, stiff, gray & brown
	N=11, 10	
	N=11	CL, CLAY w/traces of sand & organic material, stiff, gray
	N=32, 20	CL, CLAY & Silty CLAY w/ some sand & scattered gravel, hard, gray
	N=37	
	N=120	SP & GP, SAND (fine to coarse) & GRAVEL w/silty Clay & some cobbles, dense, gray & brown
	30 N=49	GM, Silty & Clayey Sandy GRAVEL w/cobbles (partially cemented), very dense, gray & brown
	N=17	
	40	CL, Sandy CLAY w/scattered GRAVEL, very stiff, gray
128.0	N=102	
		PT, PEAT, hard, brown & black
		Bottom at 42'

HOLE NUMBER 37
PROJECT CHEHALIS RIVER LEVEES
LOCATION BURLINGTON NORTHERN OVERCROSSING
N E
DATE STARTED | DATE COMPLETED

ELEVATION	DEPTH	DESCRIPTION OF MATERIALS
204.0	N=30	GM (fill) Silty Sand GRAVEL, dense
	N=11	CL & ML (fill), CLAY, Silty CLAY & Clayey SILT w/traces of sand (fine) & organic material, stiff to very stiff, gray & brown
	10 N=9	
	N=22	
	20 N=13	
	N=29	
	30 N=17	
	N=18	CL, CLAY w/traces of sand & organic material, stiff to very stiff, gray
	40 N=24	
	N=17	
	▽ W.L. (7-9-74)	
	50 N=13	
	N=19	SP & GP, SAND (fine to coarse) & GRAVEL w/ silty clay & some cobbles, medium to dense, gray & brown
	N=45	
	60	
	N=100/6"	GM, Silty & Clayey Sandy GRAVEL w/cobbles (partially cemented), very dense, gray & brown
	N=27	
	70	
	N=32	CL, Sandy CLAY w/ scattered gravel, very stiff to hard, gray
	80 N=32	
	N=30	
	90 N=28	
	N=39	
	100 N=39	

HOLE NUMBER 37 (SHEET 2)

ELEVATION	DEPTH	DESCRIPTION OF MATERIALS
	N=51	
	110	
93.0	N=61	
		Bottom at 111'

HOLE NUMBER 38
PROJECT CHEHALIS RIVER LEVEES
LOCATION 13 TH STREET UNDERCROSSING
N E
DATE STARTED | DATE COMPLETED

ELEVATION	DEPTH	DESCRIPTION OF MATERIALS
165.9		CL, CLAY, dark brown
	N=15	CL, CLAY w/some organic material, stiff, mottled gray-brown
	10 N=14	
		CL, CLAY, blue
	20 N=7	ML, Clayey SILT, medium to stiff, blue
	N=7	
	30 N=14	
		ML, Clayey SILT w/some very fine sand, blue
	N=11	SP, SAND (very fine to fine), medium to very dense, blue-gray
	40 N=22	
	N=121	
	N=37, 50	SP & GP, SAND (all grades) & GRAVEL (fine to medium) w/some green clay, dense
109.9	N=220	CL, CLAY, hard, gray
		Bottom at 56'

HOLE NUMBER 39
PROJECT CHEHALIS RIVER LEVEES
LOCATION 13 TH STREET UNDERCROSS UNDERCROSSING
N E
DATE STARTED | DATE COMPLETED

ELEVATION	DEPTH	DESCRIPTION OF MATERIALS
167.1		SP & GP (fill) SAND and GRAVEL
		CL, (fill), CLAY, yellow
	N=10	CL, CLAY w/some organic material, stiff, mottled brown & gray
	10 N=10	
		ML, Clayey SILT, stiff, blue
	20 N=10	
	N=8	ML, SILT, medium, gray
	30 N=7	
		SM, Silty SAND, very dense
	40 N=68	
	N=30	SP & GP, SAND (all grades) & GRAVEL (fine), medium
		CL, Silty CLAY, green
	50 N=36	SP & GP, SAND (all grades) and GRAVEL (fine to medium) w/ some green clay, dense
	N=124	CL, CLAY, hard, gray
106.1	60 N=400	CL, CLAY w/occ. gravel (fine to medium) hard, gray
		Bottom at 61'

HOLE NUMBER 40
PROJECT CHEHALIS RIVER LEVEES
LOCATION BISHOP ROAD CONNECTION CULVERT
N E
DATE STARTED | DATE COMPLETED

ELEVATION	DEPTH	DESCRIPTION OF MATERIALS
171.5		PT, ORGANIC MATERIAL, soft, wet black
	N=8	CL, CLAY, soft to medium, damp, gray
	5	
		GP, Sandy GRAVEL w/clay binder, (near cemented), gray
	N=111/11"	GP, Sandy GRAVEL w/ clay binder (near cemented), possible cobbles and boulders, very dense, damp, rust brown
	10	
	N=136/6"	
	15	GP, Sandy GRAVEL w/ possible cobbles and boulders, very dense, water bearing
	N=52	
	20	GP, Sandy GRAVEL w/ clayey stiff binder (near cemented), possible cobbles and boulders, very dense, damp, rust brown
147.0	N=76	
		Bottom at 24.5'

HOLE NUMBER 41
PROJECT CHEHALIS RIVER LEVEES
LOCATION BISHOP ROAD CONNECTION CULVERT
N E
DATE STARTED | DATE COMPLETED

ELEVATION	DEPTH	DESCRIPTION OF MATERIALS
170.0		PT, ORGANIC MATERIAL, wet, black
	N=34	GM, Silty Sandy GRAVEL and COBBLES (fine to coarse) w/possible scattered boulders, dense to very dense, gray to brown
	5 N=150	
	10 N=155	
	15	SP & GP, SAND & GRAVEL, rust brown, possible water bearing
	N=83	
		GM, Silty Sandy GRAVEL and COBBLES (fine to coarse) w/possible scattered boulders, very dense
	20 N=76	
145.0		
		Bottom at 25'

NOTES:

1. SEE PLATE GT-1 FOR BORING LOCATIONS. SEE PLATE GT-2 FOR LEGENDS AND ADDITIONAL NOTES.
2. REFERENCE DRAWING FILE NO. E-5-14-165, SHEET 5, CHEHALIS-CENTRALIA LEVEE STUDY, FOUNDATION LOGS.

This project was designed by the Seattle District U.S. Army Corps of Engineers. The initials or signatures and registration designations of individuals appear within the specifications or on these project documents within the scope of their employment as required by ER 1110-1-8152, Professional Registration.

DATE AND TIME PLOTTED: 24-JUL-2002 11:43
DESIGN FILE: I:\designs\ccfr\geotech\ccfrfg0d.dgn

COMPUTER AIDED DESIGN & DRAFTING

U.S. ARMY ENGINEER DISTRICT, SEATTLE
CORPS OF ENGINEERS
SEATTLE, WASHINGTON

CENTRALIA, WA FLOOD DAMAGE REDUCTION PROJECT

FOUNDATION LOGS

CENTRALIA PN C1919 WASHINGTON

SIZE	INVITATION NO.	FILE NO.	DATE:	PLATE
D		E-5-14-196	14 MAY 02	GT-4
DSGN. KAISER		CHK. SEGAL	SHEET 6	

REVISIONS				
SYMBOL	ZONE	DESCRIPTION	DATE	BY

HOLE NUMBER 79-PA-2
PROJECT CHEHALIS-CENTRALIA LEVEES
LOCATION NW 1/4, Sec. 33, T.15N., R.2W., W.M. N E
DATE STARTED 24 APR 1979 DATE COMPLETED 24 APR 1979
ELEVATION Approx 197' DEPTH DESCRIPTION OF MATERIALS
- ML, SILT w/minor organic debris, soft, moist, black
- N=4
- 5
- CL, CLAY w/minor sand, very soft, moist, brown
- 10 N=1
- GC, Sandy Clayey GRAVEL w/occ. cobbles (7"), dense, wet, brown. (caving from 12')
- 15
- 179.5
- 20
- Bottom @ 17.5' in Cobbles

HOLE NUMBER 79-PA-3
PROJECT CHEHALIS-CENTRALIA LEVEES
LOCATION SW 1/4, Sec 33, T15N., R.2W., W.M. N E
DATE STARTED 19 APR 1979 DATE COMPLETED 19 APR 1979
ELEVATION Approx 190' DEPTH DESCRIPTION OF MATERIALS
- ML, SILT w/organic debris, moist, black
- 5
- CL, Sandy CLAY, stiff, moist, brown
- 179.5
- 10
- GC, Clayey GRAVEL (3" minus) w/occ. cobbles (8"), dense, brown. (more sand w/depth) (caving from 9')
- 15
- Bottom @ 10.5' in Gravel
- 20

HOLE NUMBER 79-PA-4
PROJECT CHEHALIS-CENTRALIA LEVEES
LOCATION NE 1/4, Sec. 5, T.14N., R.2W., W.M. N E
DATE STARTED 19 APR 1979 DATE COMPLETED 19 APR 1979
ELEVATION Approx 185' DEPTH DESCRIPTION OF MATERIALS
- ML-CL, Silty CLAY, medium, sticky, moist red to brown
- N=5
- 5
- (Sandier w/depth)
- 10 N=3
- ML-CL, Silty CLAY w/sand, soft to very soft, very sticky, moist
- N=1
- 15
- SM, Silty SAND (fine) soft, wet, brown
- 168
- Bottom @ 17.0'
- 20

HOLE NUMBER 79-PA-5
PROJECT CHEHALIS-CENTRALIA LEVEES
LOCATION S W 1/4, Sec 32, T.15N., R.2W., W.M. N E
DATE STARTED 19 APR 1979 DATE COMPLETED 19 APR 1979
ELEVATION Approx 180' DEPTH DESCRIPTION OF MATERIALS
- ML, SILT w/organic debris, soft, moist, black
- N=6
- 5
- CL, CLAY w/minor sand, medium, moist to wet, brown
- 10
- GC, Sandy Clayey GRAVEL w/occ. cobbles (6"), dense, wet, brown (caving from 11')
- Blue-gray @ 12'
- 164.5
- 15
- GP, Sandy GRAVEL (3" minus) w/silt, wet, brown
- 20
- Bottom @ 15.5'

HOLE NUMBER 79-PA-6
PROJECT CHEHALIS-CENTRALIA LEVEES
LOCATION SE 1/4, Sec. 6, T.14N., R.2W., W.M. N E
DATE STARTED 20 APR 1979 DATE COMPLETED 20 APR 1979
ELEVATION Approx 177' DEPTH DESCRIPTION OF MATERIALS
- ML, SILT w/organic debris, soft, moist to dry, black
- 5 N=2
- SP-SM, SAND w/silt, loose, moist, brown
- 10
- GP, Sandy GRAVEL (3" minus) w/some silt, occ. cobbles (6"), medium to dense, brown (caving from 11.0)
- 163.5
- 15
- Bottom @ 13.5'
- 20

HOLE NUMBER 79-PA-7
PROJECT CHEHALIS-CENTRALIA LEVEES
LOCATION SW 1/4, Sec. 5, T.14N., R.2W., W.M. N E
DATE STARTED 20 APR 1979 DATE COMPLETED 20 APR 1979
ELEVATION Approx 167' DEPTH DESCRIPTION OF MATERIALS
- ML, SILT w/gravel, soft, dark brown, (partial fill)
- 5 N=3
- SM, Silty SAND (fine), very loose, dark brown
- 10
- GP, Sandy GRAVEL (1 1/2" minus), clean, gray-brown, (caving from 11.5)
- 152.5
- 15
- Bottom @ 14.5' in Gravel
- 20

HOLE NUMBER 79-PA-8
PROJECT CHEHALIS-CENTRALIA LEVEES
LOCATION SW 1/4, Sec. 5, T.14N., R.2W., W.M. N E
DATE STARTED 20 APR 1979 DATE COMPLETED 20 APR 1979
ELEVATION Approx 173' DEPTH DESCRIPTION OF MATERIALS
- GM, Silty Sandy GRAVEL w/concrete debris, dense, moist, black, (fill material)
- 5
- GP, Sandy GRAVEL w/minor silt, medium to dense, moist, brown, w/clay @ 6.0'
- 10
- GM-GC, Silty Sandy GRAVEL w/clay, semi-plastic, medium to dense, brown
- 159.5
- 15
- GP, Sandy GRAVEL (1 1/2" minus) w/some silt, medium, wet, brown (caving from 10.5' to 11.0')
- 20
- Bottom @ 13.5'

HOLE NUMBER 79-PA-9
PROJECT CHEHALIS-CENTRALIA LEVEES
LOCATION SW 1/4, Sec. 5, T.14N., R.2W., W.M. N E
DATE STARTED 19 APR 1979 DATE COMPLETED 19 APR 1979
ELEVATION Approx 179' DEPTH DESCRIPTION OF MATERIALS
- GM, Silty SANDY GRAVEL, loose, moist, black
- GP, Sandy GRAVEL (3" minus), loose to medium, moist, brown, fairly clean
- 5
- seam of clean SP, SAND @ 9.0 to 9.5'
- 10
- SP, SAND (medium) loose, moist, gray
- 15
- 162.5
- GP, Sandy GRAVEL, (3/4" minus) loose, clean, wet, brown, (caving from 15.0')
- 20
- Bottom @ 16.5'

HOLE NUMBER 79-PA-10
PROJECT CHEHALIS-CENTRALIA LEVEES
LOCATION NW 1/4, Sec. 5, T.14N., R.2W., W.M. N E
DATE STARTED 20 APR 1979 DATE COMPLETED 20 APR 1979
ELEVATION Approx 182' DEPTH DESCRIPTION OF MATERIALS
- ML, SILT w/some organic debris, soft, black
- N=7
- 5
- CL, Silty CLAY w/minor sand, medium, brown
- (moist to wet @ 10.0)
- 10
- N=4
- GC, Clayey Sandy GRAVEL w/occ. cobbles, medium to dense, wet, brown (caving from 16.0)
- 15
- 163.5
- 20
- Bottom @ 18.5' in cleaner, wetter GRAVELS

HOLE NUMBER 79-PA-11
PROJECT CHEHALIS-CENTRALIA LEVEES
LOCATION NE 1.4, Sec. 5, T.14N., R.2W., W.M. N E
DATE STARTED 20 APR 1979 DATE COMPLETED 20 APR 1979
ELEVATION Approx 186' DEPTH DESCRIPTION OF MATERIALS
- GM, Silty GRAVEL, loose, moist, black
- N=7
- 5
- CL, CLAY, medium, moist, brown
- GC, Clayey Sandy GRAVEL w/occ. cobbles (7"), dense, moist, brown
- 10
- (wet and sandy @ 10.0') (caving from 10.5')
- 171.5
- Bottom @ 14.5'
- 20

HOLE NUMBER 79-PA-12
PROJECT CHEHALIS-CENTRALIA LEVEES
LOCATION SW 1/4, Sec. 33, T.15N., R.2W., W.M. N E
DATE STARTED 20 APR 1979 DATE COMPLETED 20 APR 1979
ELEVATION Approx 188' DEPTH DESCRIPTION OF MATERIALS
- GP, Sandy GRAVEL w/ organic (wood) debris (fill material)
- 5
- N=10 SP, Gravelly SAND, loose to medium, moist, gray
- 10
- N=14 blue-gray and wet @ 13'
- 15
- (caving from 13')
- GP, Sandy GRAVEL, loose, wet, gray
- N=5
- 169.5
- 20
- Bottom @ 18.5'

HOLE NUMBER 79-PA-13
PROJECT CHEHALIS-CENTRALIA LEVEES
LOCATION NE 1/4, Sec. 5, T.13N., R.2W., W.M. N E
DATE STARTED 24 APR 1979 DATE COMPLETED 24 APR 1979
ELEVATION Approx 184' DEPTH DESCRIPTION OF MATERIALS
- GM, Silty GRAVEL w/ concrete debris, (fill material)
- 5 N=0
- MH, organic SILT w/wood debris, very soft, wet, gray
- 10
- 172.0
- CL, CLAY w/sand, soft, moist to wet, brown
- 15
- Bottom @ 12' (caving)
- 20

HOLE NUMBER 79-PA-14
PROJECT CHEHALIS-CENTRALIA LEVEES
LOCATION SW 1/4, Sec. 6, T.14N., R.2W., W.M. N E
DATE STARTED 21 APR 1979 DATE COMPLETED 21 APR 1979
ELEVATION Approx 165' DEPTH DESCRIPTION OF MATERIALS
- ML, SILT w/some organic debris, soft, moist, black
- 5 N=4
- CL, CLAY w/minor sand, soft to medium, moist, brown
- 10
- SM, Silty SAND, very loose, wet, brown (caving from 12')
- 15
- GM, Silty Sandy GRAVEL, wet, brown
- 149.0
- 20
- Bottom @ 16'

HOLE NUMBER 79-PA-15
PROJECT CHEHALIS-CENTRALIA LEVEES
LOCATION NW 1/4, Sec 1, T.14N., R.3W., W.M. N E
DATE STARTED 23 APR 1979 DATE COMPLETED 23 APR 1979
ELEVATION Approx 164' DEPTH DESCRIPTION OF MATERIALS
- ML, SILT w/some organic debris, soft, dry to moist, black
- 5 N=3
- SM, Silty SAND, loose, moist, brown
- 10
- GM, Silty Sandy GRAVEL, (2" minus) w/occ. cobbles (5"), moist, brown
- 15
- (caving from 14')
- 148.0
- Bottom @ 16'
- 20

HOLE NUMBER 79-PA-16
PROJECT CHEHALIS-CENTRALIA LEVEES
LOCATION NW 1/4, Sec. 36, T.15N., R.3W., W.M. N E
DATE STARTED 23 APR 1979 DATE COMPLETED 23 APR 1979
ELEVATION Approx 166' DEPTH DESCRIPTION OF MATERIALS
- GM, Silty Sandy GRAVEL, medium to dense, moist, black, (fill material)
- 5
- GP, Sandy GRAVEL (3" minus) w/minor silt, occ. cobbles (3"), moist, dense
- 10
- (caving from 13')
- 151.0
- 15
- Bottom @ 15'
- 20

HOLE NUMBER 79-PA-17
PROJECT CHEHALIS-CENTRALIA LEVEES
LOCATION NW 1/4, Sec. 18, T.14N., R.2W., W.M. N
DATE STARTED 21 APR 1979 DATE COMPLETED 21 APR 1979
ELEVATION Approx 172' DEPTH DESCRIPTION OF MATERIALS
- ML, SILT w/organic debris, very soft, moist, black
- 5 N=3
- CL, CLAY w/minor sand, stiff, moist, brown-gray (mottled)
- 10 N= 4
- (stiff and soft zones throughout)
- 15
- N=3
- 152.8
- 20
- Bottom @ 19.2'

HOLE NUMBER 79-PA-18
PROJECT CHEHALIS-CENTRALIA LEVEES
LOCATION NE 1/4, Sec. 18, T.14N., R.2W., W. M. N E
DATE STARTED 21 APR 1979 DATE COMPLETED 21 APR 1979
ELEVATION Approx 171' DEPTH DESCRIPTION OF MATERIALS
- ML, SILT w/some organic debris, soft, moist, black (minor sand zone @ 2.5)
- 5 N=4
- ML-CL, Silty CLAY w/ minor sand, soft, moist, dark brown
- 10 N=3
- ML, Sandy (fine) SILT, soft, moist, brown-gray
- 15
- SM, Silty SAND (fine) w/ minor clay zones, very loose, wet, brown (caving from 13')
- 154.5
- 20
- Bottom @ 16.5'

HOLE NUMBER 79-PA-19
PROJECT CHEHALIS-CENTRALIA LEVEES
LOCATION NE 1/4, Sec. 20, T.14N., R.2W., W.M. N E
DATE STARTED 23 APR 1979 DATE COMPLETED 23 APR 1979
ELEVATION Approx 170' DEPTH DESCRIPTION OF MATERIALS
- GM, Silty Sandy GRAVEL (fill material), medium, brown
- CL, CLAY w/some sand, medium, moist, brown
- 5 N=5
- Top of Natural Ground
- ML, SILT, medium, moist, brown-black
- 10 N=8
- 15 N=5
- SM, Silty SAND loose to medium, wet, blue-gray
- 150.8
- 20
- Bottom @ 19.2' (Minor caving)

NOTES:

1. SEE PLATE GT-1 FOR BORING LOCATIONS. SEE PLATE GT-2 FOR LEGENDS AND ADDITIONAL NOTES.
2. REFERENCE DRAWING FILE NO. E-5-14-165, SHEET 6, CHEHALIS-CENTRALIA LEVEE STUDY, FOUNDATION LOGS.

This project was designed by the Seattle District U.S. Army Corps of Engineers. The initials or signatures and registration designations of individuals appear within the specifications or on these project documents within the scope of their employment as required by ER 1110-1-8152, Professional Registration.

DATE AND TIME PLOTTED: 24-JUL-2002 11:44
DESIGN FILE: i:\designs\ccfr\geotech\ccfrfg0e.dgn

COMPUTER AIDED DESIGN & DRAFTING

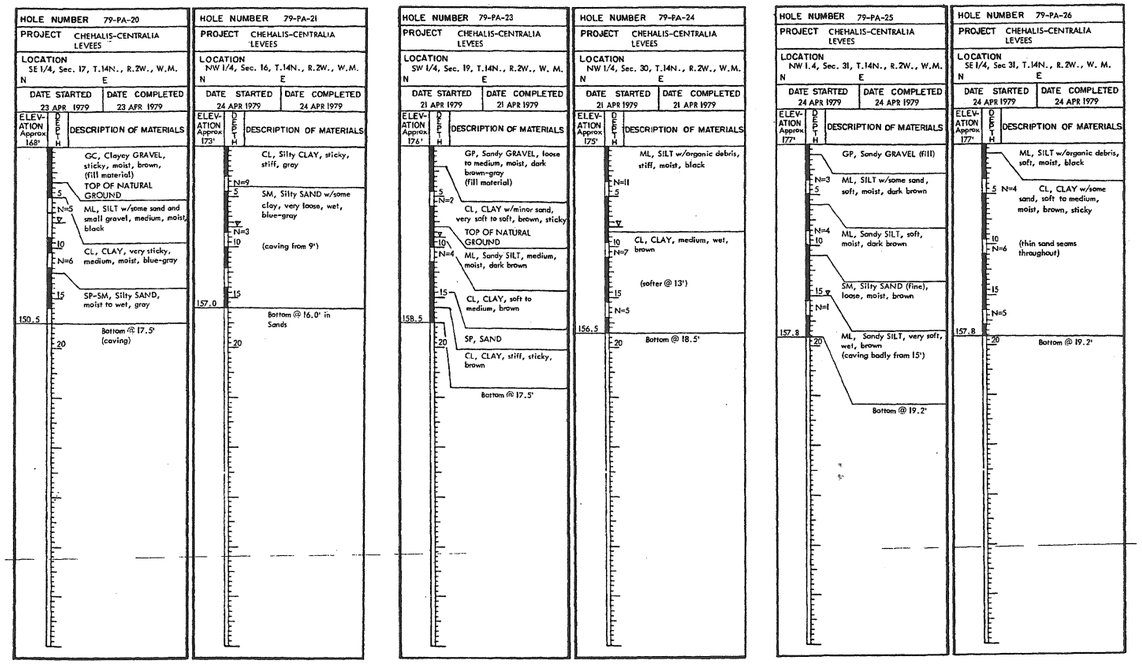
U.S. ARMY ENGINEER DISTRICT, SEATTLE
CORPS OF ENGINEERS
SEATTLE, WASHINGTON

CENTRALIA, WA FLOOD DAMAGE REDUCTION PROJECT

FOUNDATION LOGS

CENTRALIA PN C1919 WASHINGTON

SIZE	INVITATION NO.	FILE NO.	DATE:	PLATE
D		E-5-14-196	14 MAY 02	GT-5
DSGN. KAISER		CHK. SEGAL	SHEET 7	



REVISIONS				
SYMBOL	ZONE	DESCRIPTION	DATE	BY

NOTES:

1. SEE PLATE GT-1 FOR BORING LOCATIONS. SEE PLATE GT-2 FOR LEGENDS AND ADDITIONAL NOTES.
2. REFERENCE DRAWING FILE NO. E-5-14-165, SHEET 7, CHEHALIS-CENTRALIA LEVEE STUDY, FOUNDATION LOGS.

U.S. ARMY ENGINEER DISTRICT, SEATTLE
CORPS OF ENGINEERS
SEATTLE, WASHINGTON

CENTRALIA, WA FLOOD DAMAGE REDUCTION PROJECT

FOUNDATION LOGS

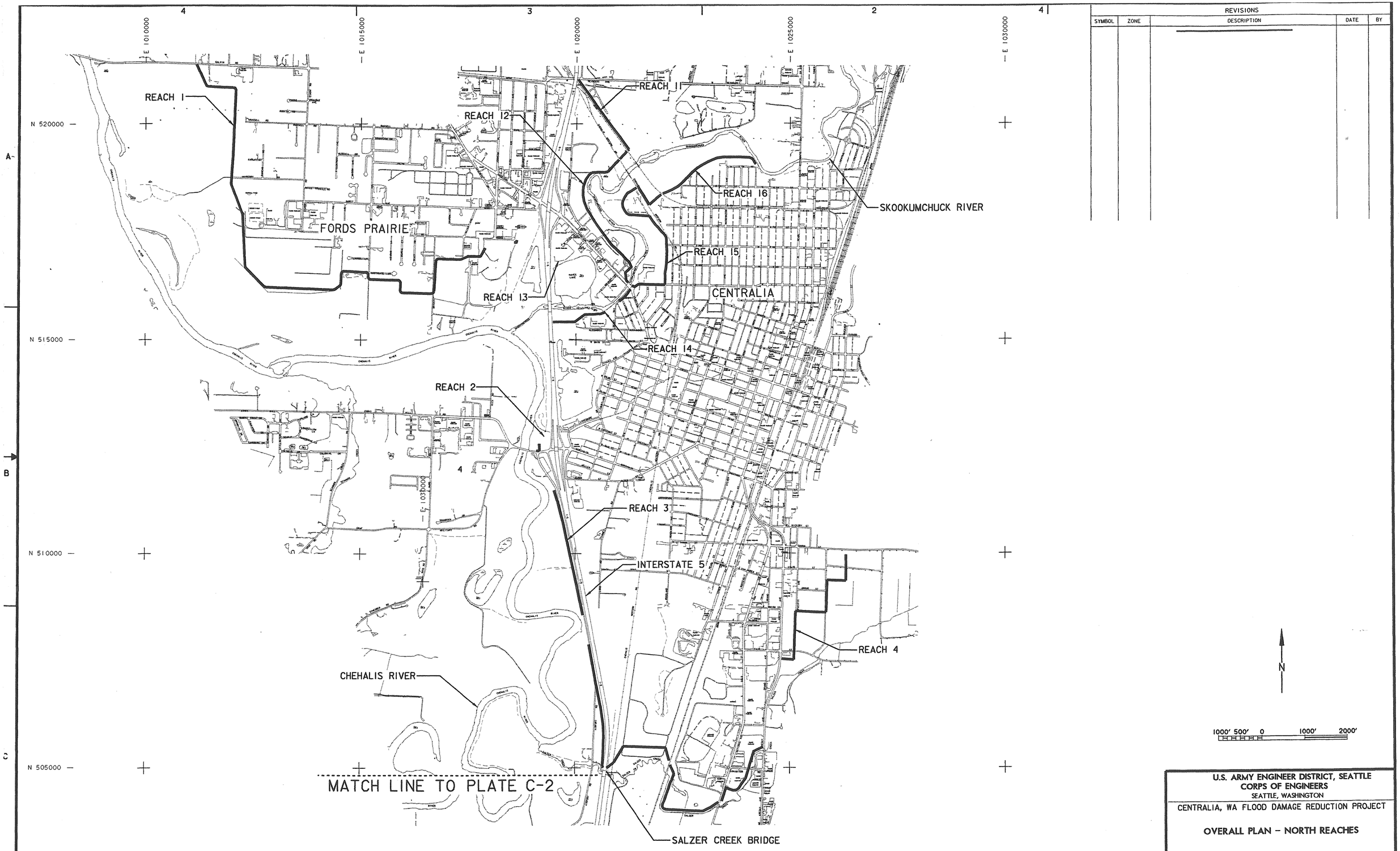
CENTRALIA PN C1919 WASHINGTON

SIZE	INVITATION NO.	FILE NO.	DATE:	PLATE
D		E-5-14-196	14 MAY 02	GT-6
DSGN. KAISER		CHK. SEGAL	SHEET 8	

This project was designed by the Seattle District U.S. Army Corps of Engineers. The initials or signatures and registration designations of individuals appear within the specifications or on these project documents within the scope of their employment as required by ER 1110-1-8152, Professional Registration.

DATE AND TIME PLOTTED: 25-JUL-2002 13:30
DESIGN FILE: I:\designs\ccfr\geotech\ccfrfg0f.dgn

Computer Aided Design & Drafting



REVISIONS				
SYMBOL	ZONE	DESCRIPTION	DATE	BY

This project was designed by the Seattle District U.S. Army Corps of Engineers. The initials or signatures and registration designations of individuals appear within the specifications or on these project documents within the scope of their employment as required by ER 1110-1-8152, Professional Registration.

DATE AND TIME PLOTTED: 20-SEP-2002 08:39
DESIGN FILE: I:\designs\ccfr\civ\ccfrcg0a.dgn

COMPUTER AIDED DESIGN & DRAFTING

PREPARED: DENNIS A. FISCHER, P.E.
CHIEF, CIVIL/SOILS SECTION

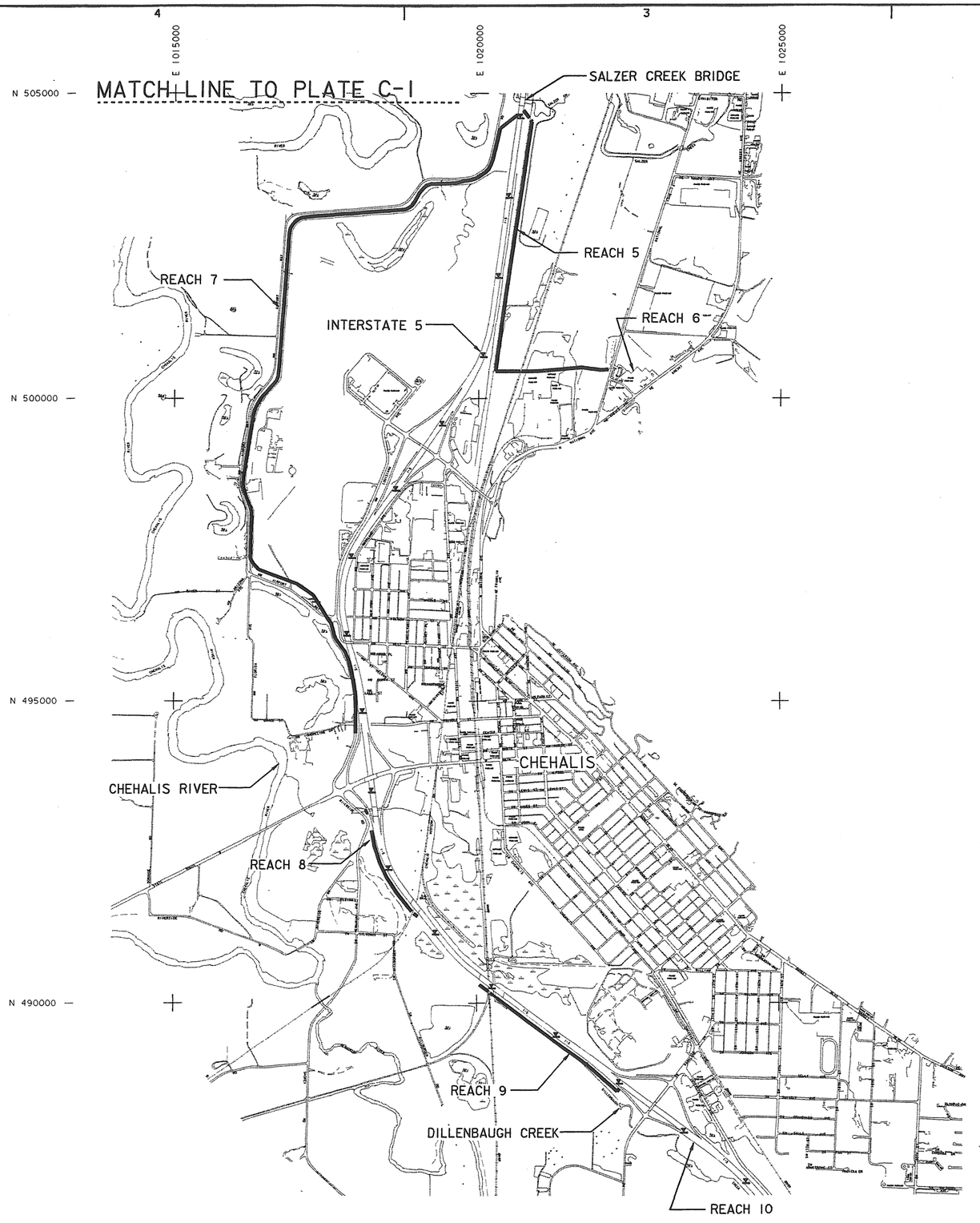
U.S. ARMY ENGINEER DISTRICT, SEATTLE
CORPS OF ENGINEERS
SEATTLE, WASHINGTON

CENTRALIA, WA FLOOD DAMAGE REDUCTION PROJECT

OVERALL PLAN – NORTH REACHES

CENTRALIA PN C1919 WASHINGTON

SIZE	INVITATION NO.	FILE NO.	DATE:	PLATE
D		E-5-14-196	14 MAY 02	C-1
DSGN. SKJELBREIA		CHK. GOUGH	SHEET 9	



REVISIONS				
SYMBOL	ZONE	DESCRIPTION	DATE	BY

N

1000' 500' 0 1000' 2000'

This project was designed by the Seattle District U.S. Army Corps of Engineers. The initials or signatures and registration designations of individuals appear within the specifications or on these project documents within the scope of their employment as required by ER 1110-1-8152, Professional Registration.

DATE AND TIME PLOTTED: 20-SEP-2002 08:50
DESIGN FILE: I:\designs\ccfr\civ\ccfrcg0b.dgn

Computer Aided Design & Drafting

U.S. ARMY ENGINEER DISTRICT, SEATTLE
CORPS OF ENGINEERS
SEATTLE, WASHINGTON

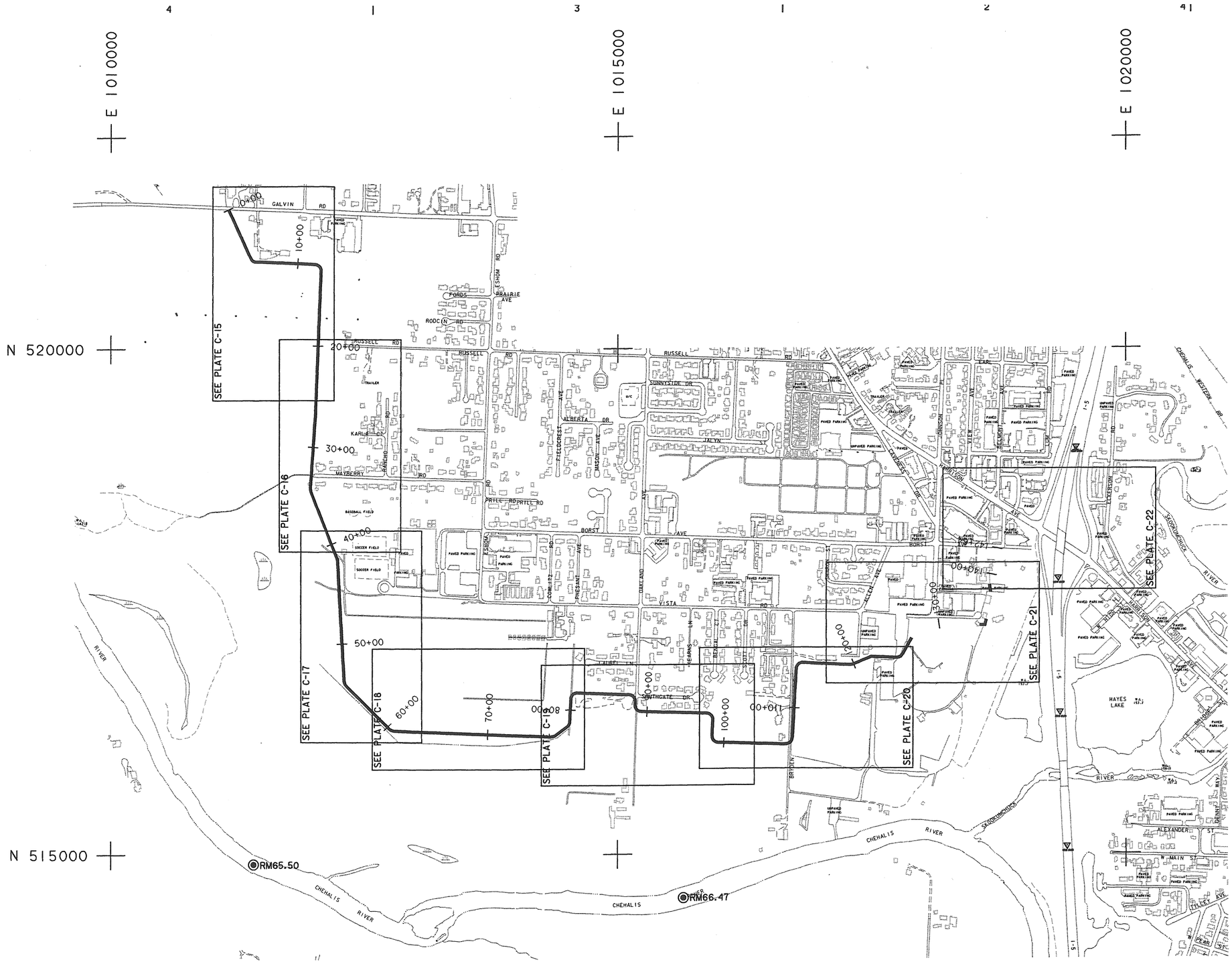
CENTRALIA, WA FLOOD DAMAGE REDUCTION PROJECT

OVERALL PLAN - SOUTH REACHES

CENTRALIA PN C1919 WASHINGTON

SIZE	INVITATION NO.	FILE NO.	DATE:	PLATE
D		E-5-14-196	14 MAY 02	C-2
DSGN. SKJELBREIA		CHK. GOUGH	SHEET 10	

REVISIONS				
SYMBOL	ZONE	DESCRIPTION	DATE	BY



N

500' 250' 0 500' 1000'

This project was designed by the Seattle District U.S. Army Corps of Engineers. The initials or signatures and registration designations of individuals appear within the specifications or on these project documents within the scope of their employment as required by ER 1110-1-8152, Professional Registration.

DATE AND TIME PLOTTED: 20-SEP-2002 08:52
DESIGN FILE: I:\designs\ccfr\civ\ccfrcg0c.dgn

Computer Aided Design & Drafting

U.S. ARMY ENGINEER DISTRICT, SEATTLE
CORPS OF ENGINEERS
SEATTLE, WASHINGTON

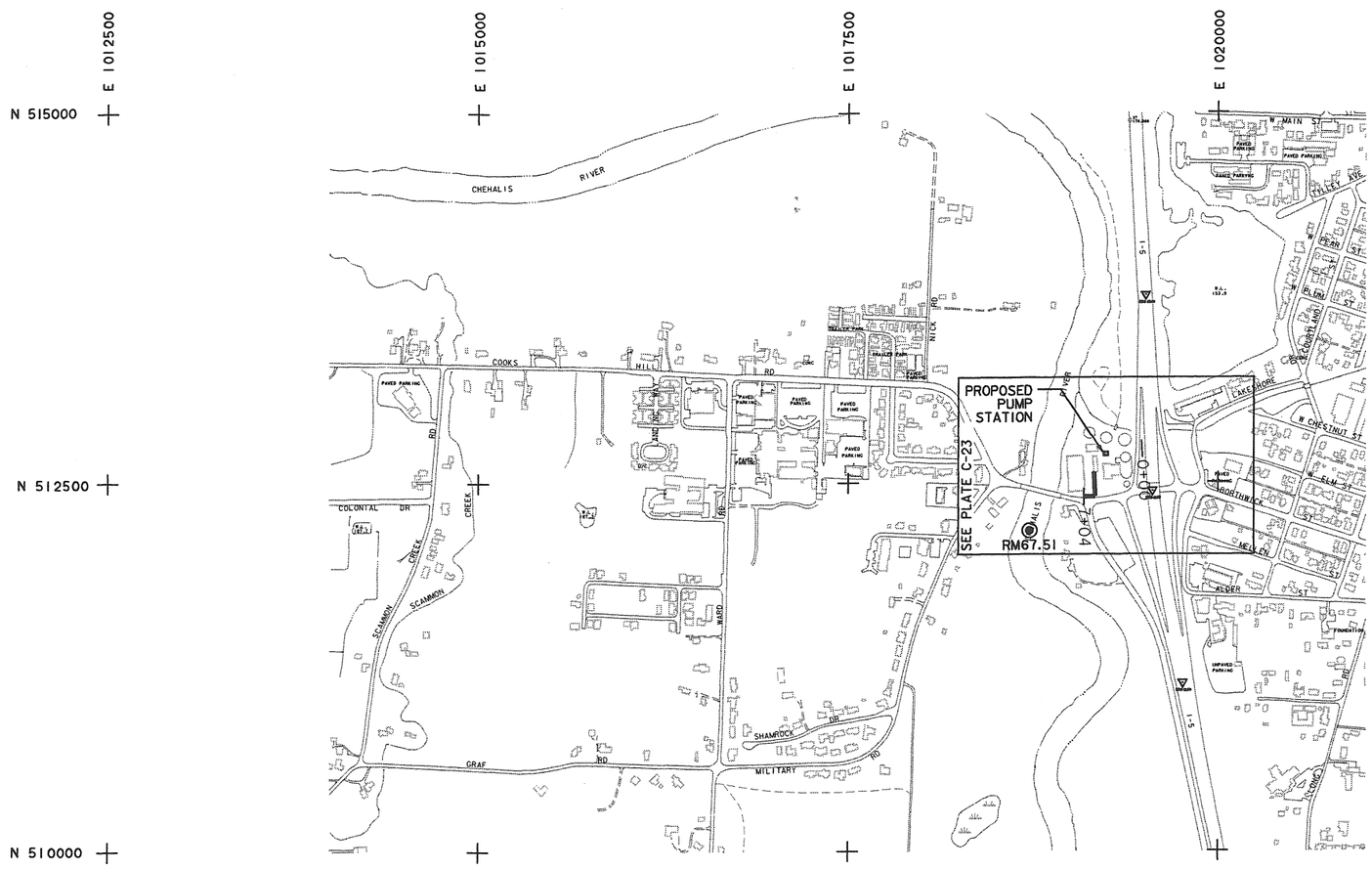
CENTRALIA, WA FLOOD DAMAGE REDUCTION PROJECT

REACH 1 - STA 0+00 TO STA 142+64

CENTRALIA PN C1919 WASHINGTON

SIZE	INVITATION NO.	FILE NO.	DATE:	PLATE
D		E-5-14-196	14 MAY 02	C-3
DSGN. SKJELBREIA		CHK. GOUGH	SHEET 11	

REVISIONS				
SYMBOL	ZONE	DESCRIPTION	DATE	BY



N

500' 250' 0 500' 1000'

This project was designed by the Seattle District U.S. Army Corps of Engineers. The initials or signatures and registration designations of individuals appear within the specifications or on these project documents within the scope of their employment as required by ER 1110-1-8152, Professional Registration.

DATE AND TIME PLOTTED: 20-SEP-2002 08:53
DESIGN FILE: i:\designs\ccfr\civ\ccfrcg0d.dgn

COMPUTER AIDED DESIGN & DRAFTING

U.S. ARMY ENGINEER DISTRICT, SEATTLE
CORPS OF ENGINEERS
SEATTLE, WASHINGTON

CENTRALIA, WA FLOOD DAMAGE REDUCTION PROJECT

REACH 2 – STA 0+00 TO STA 7+04

CENTRALIA		PN C1919		WASHINGTON
SIZE D	INVITATION NO.	FILE NO. E-5-14-196	DATE: 14 MAY 02	PLATE C-4
DSGN. SKJELBREIA		CHK. GOUGH	SHEET 12	

REVISIONS				
SYMBOL	ZONE	DESCRIPTION	DATE	BY

U.S. ARMY ENGINEER DISTRICT, SEATTLE
CORPS OF ENGINEERS
SEATTLE, WASHINGTON

CENTRALIA, WA FLOOD DAMAGE REDUCTION PROJECT

REACH 3 - STA 0+00 TO STA 73+05

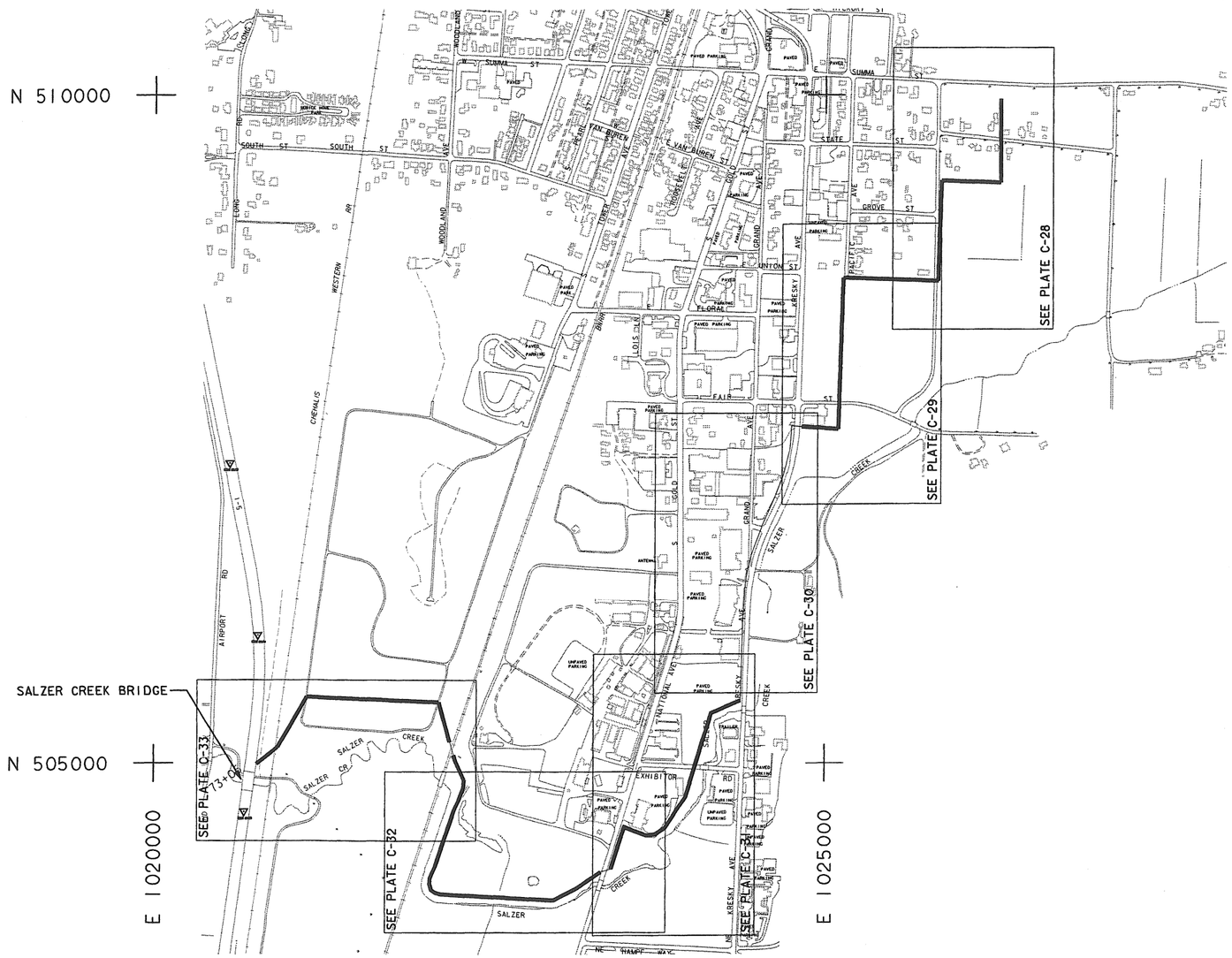
CENTRALIA		PN C1919		WASHINGTON
SIZE D	INVITATION NO.	FILE NO. E-5-14-196	DATE: 14 MAY 02	PLATE C-5
DSGN. SKJELBREIA		CHK. GOUGH	SHEET 13	

This project was designed by the Seattle District U.S. Army Corps of Engineers. The initials or signatures and registration designations of individuals appear within the specifications or on these project documents within the scope of their employment as required by ER 1110-1-8152, Professional Registration.

DATE AND TIME PLOTTED: 20-SEP-2002 08:57
DESIGN FILE: I:\designs\ccfr\civ\ccfrcg0e.dgn

COMPUTER AIDED DESIGN & DRAFTING

REVISIONS				
SYMBOL	ZONE	DESCRIPTION	DATE	BY



This project was designed by the Seattle District U.S. Army Corps of Engineers. The initials or signatures and registration designations of individuals appear within the specifications or on these project documents within the scope of their employment as required by ER 1110-1-8152, Professional Registration.

DATE AND TIME PLOTTED: 20-SEP-2002 09:00
DESIGN FILE: I:\designs\ccfr\civ\ccfrcg01.dgn

Computer Aided Design & Drafting

U.S. ARMY ENGINEER DISTRICT, SEATTLE
CORPS OF ENGINEERS
SEATTLE, WASHINGTON

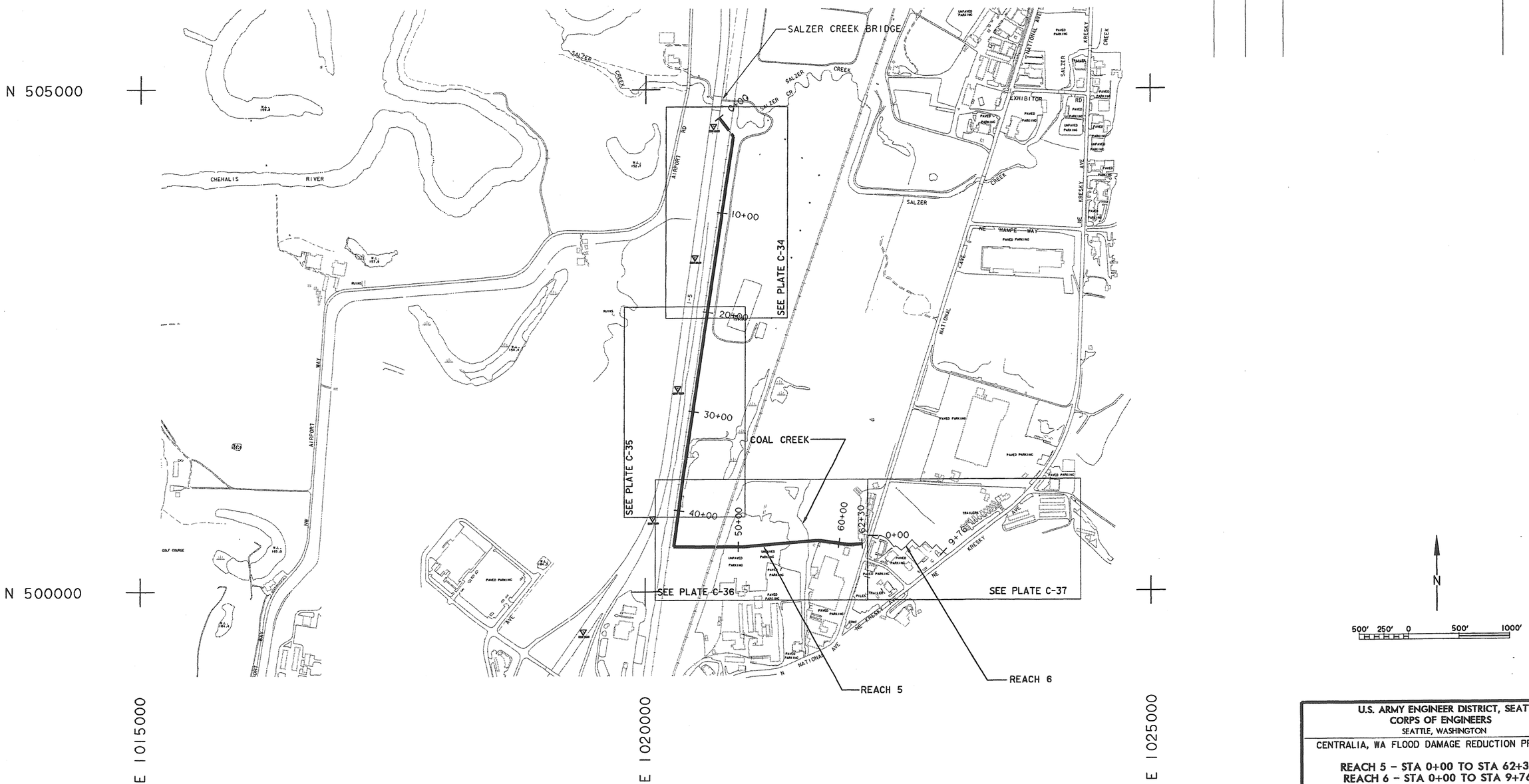
CENTRALIA, WA FLOOD DAMAGE REDUCTION PROJECT

REACH 4 – STA 0+00 TO STA 124+74

CENTRALIA PN C1919 WASHINGTON

SIZE	INVITATION NO.	FILE NO.	DATE:	PLATE
D		E-5-14-196	14 MAY 02	C-6
DSGN. SKJELBREIA		CHK. GOUGH	SHEET 14	

REVISIONS				
SYMBOL	ZONE	DESCRIPTION	DATE	BY



This project was designed by the Seattle District U.S. Army Corps of Engineers. The initials or signatures and registration designations of individuals appear within the specifications or on these project documents within the scope of their employment as required by ER 1110-1-8152, Professional Registration.

DATE AND TIME PLOTTED: 20-SEP-2002 09:05
DESIGN FILE: I:\designs\ccfr\civ\ccfrcg0g.dgn

Computer Aided Design & Drafting

U.S. ARMY ENGINEER DISTRICT, SEATTLE
CORPS OF ENGINEERS
SEATTLE, WASHINGTON

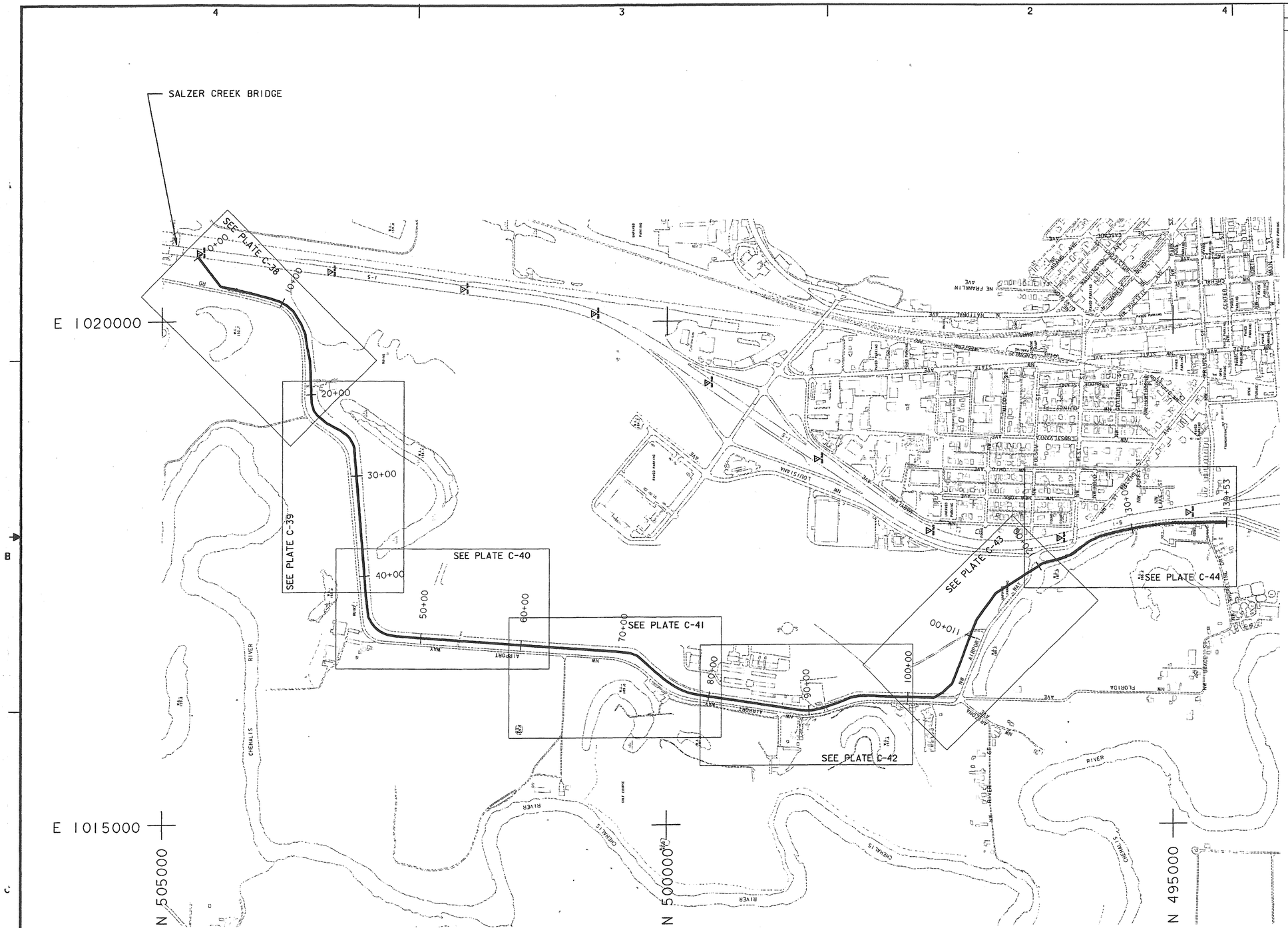
CENTRALIA, WA FLOOD DAMAGE REDUCTION PROJECT

REACH 5 – STA 0+00 TO STA 62+30
REACH 6 – STA 0+00 TO STA 9+76

CENTRALIA PN C1919 WASHINGTON

SIZE	INVITATION NO.	FILE NO.	DATE:	PLATE
D		E-5-14-196	14 MAY 02	C-7
DSGN. SKJELBREIA		CHK. GOUGH	SHEET 15	

REVISIONS				
SYMBOL	ZONE	DESCRIPTION	DATE	BY



This project was designed by the Seattle District U.S. Army Corps of Engineers. The initials or signatures and registration designations of individuals appear within the specifications or on these project documents within the scope of their employment as required by ER 1110-1-8152, Professional Registration.

DATE AND TIME PLOTTED: 20-SEP-2002 09:12
DESIGN FILE: i:#designs#ccfr#civ#ccfrcg0h.dgn

Computer Aided Design & Drafting

U.S. ARMY ENGINEER DISTRICT, SEATTLE
CORPS OF ENGINEERS
SEATTLE, WASHINGTON

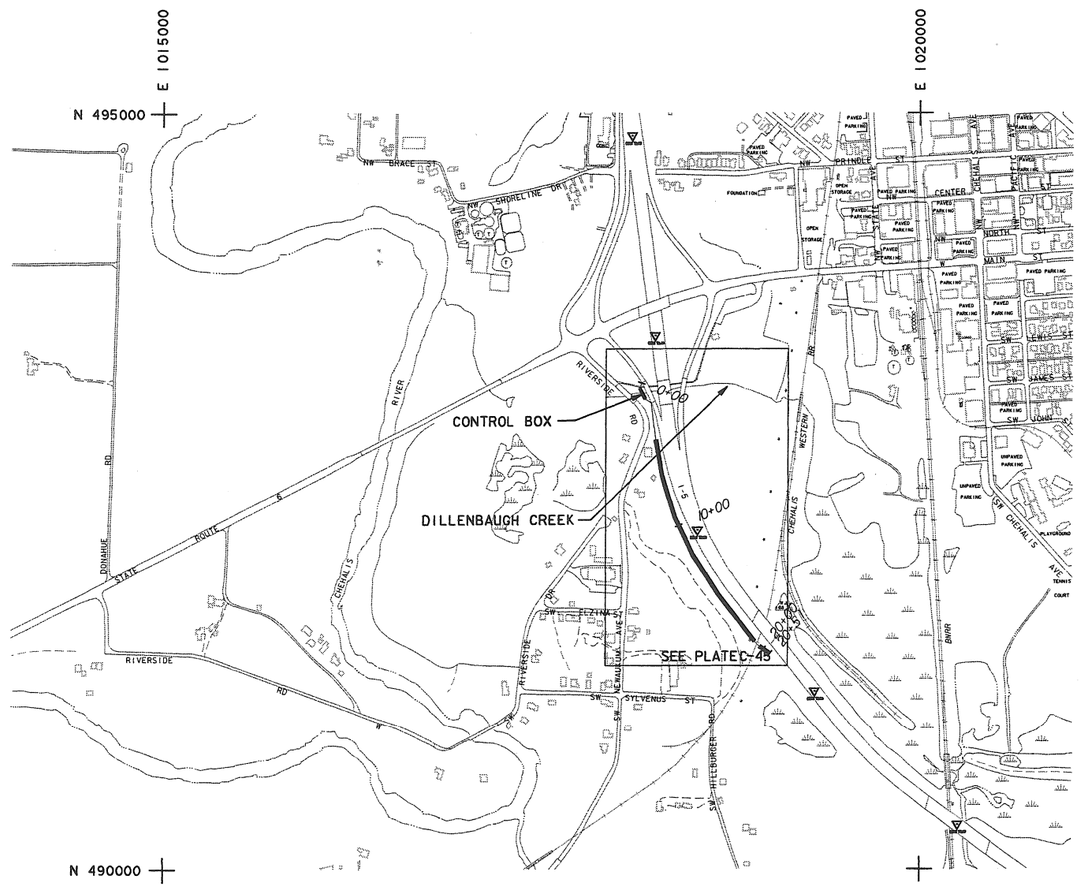
CENTRALIA, WA FLOOD DAMAGE REDUCTION PROJECT

REACH 7 - STA 0+00 TO STA 139+53

CENTRALIA PN C1919 WASHINGTON

SIZE	INVITATION NO.	FILE NO.	DATE:	PLATE
D		E-5-14-196	14 MAY 02	C-8
DSGN. SKJELBREIA		CHK. GOUGH	SHEET 16	

REVISIONS				
SYMBOL	ZONE	DESCRIPTION	DATE	BY



N

1" = 500' 500' 250' 0 500' 1000'

U.S. ARMY ENGINEER DISTRICT, SEATTLE CORPS OF ENGINEERS SEATTLE, WASHINGTON				
CENTRALIA, WA FLOOD DAMAGE REDUCTION PROJECT				
REACH 8 - STA 0+00 TO STA 19+21				
CENTRALIA		PN C1919		WASHINGTON
SIZE D	INVITATION NO.	FILE NO. E-5-14-196	DATE: 14 MAY 02	PLATE C-9
DSGN. SKJELBREIA		CHK. GOUGH	SHEET 17	

This project was designed by the Seattle District U.S. Army Corps of Engineers. The initials or signatures and registration designations of individuals appear within the specifications or on these project documents within the scope of their employment as required by ER 1110-1-8152, Professional Registration.

DATE AND TIME PLOTTED: 20-SEP-2002 09:14
DESIGN FILE: I:\designs\ccfr\civ\ccfrcg01.dgn

Computer Aided Design & Drafting

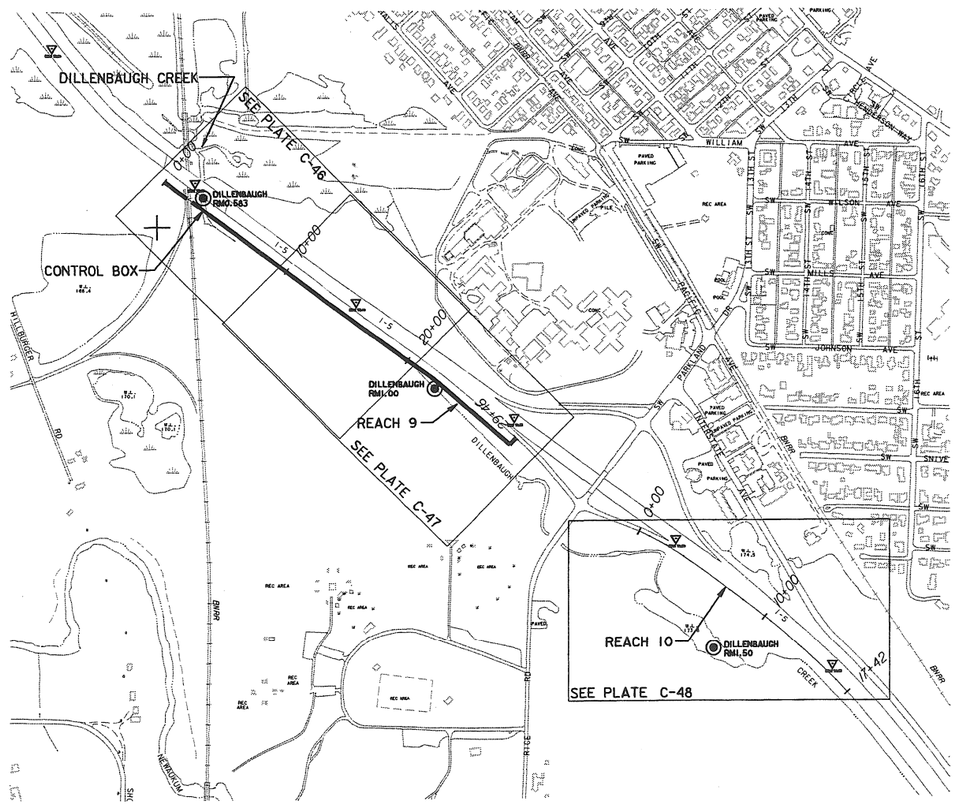
REVISIONS				
SYMBOL	ZONE	DESCRIPTION	DATE	BY

E 1020000

E 1025000

N 490000

N 485000



N

500' 250' 0 500' 1000'

This project was designed by the Seattle District U.S. Army Corps of Engineers. The initials or signatures and registration designations of individuals appear within the specifications or on these project documents within the scope of their employment as required by ER 1110-1-8152, Professional Registration.

DATE AND TIME PLOTTED: 20-SEP-2002 09:17
DESIGN FILE: I:\designs\ccfr\civ\ccfrcg0j.dgn

Computer Aided Design & Drafting

U.S. ARMY ENGINEER DISTRICT, SEATTLE
CORPS OF ENGINEERS
SEATTLE, WASHINGTON

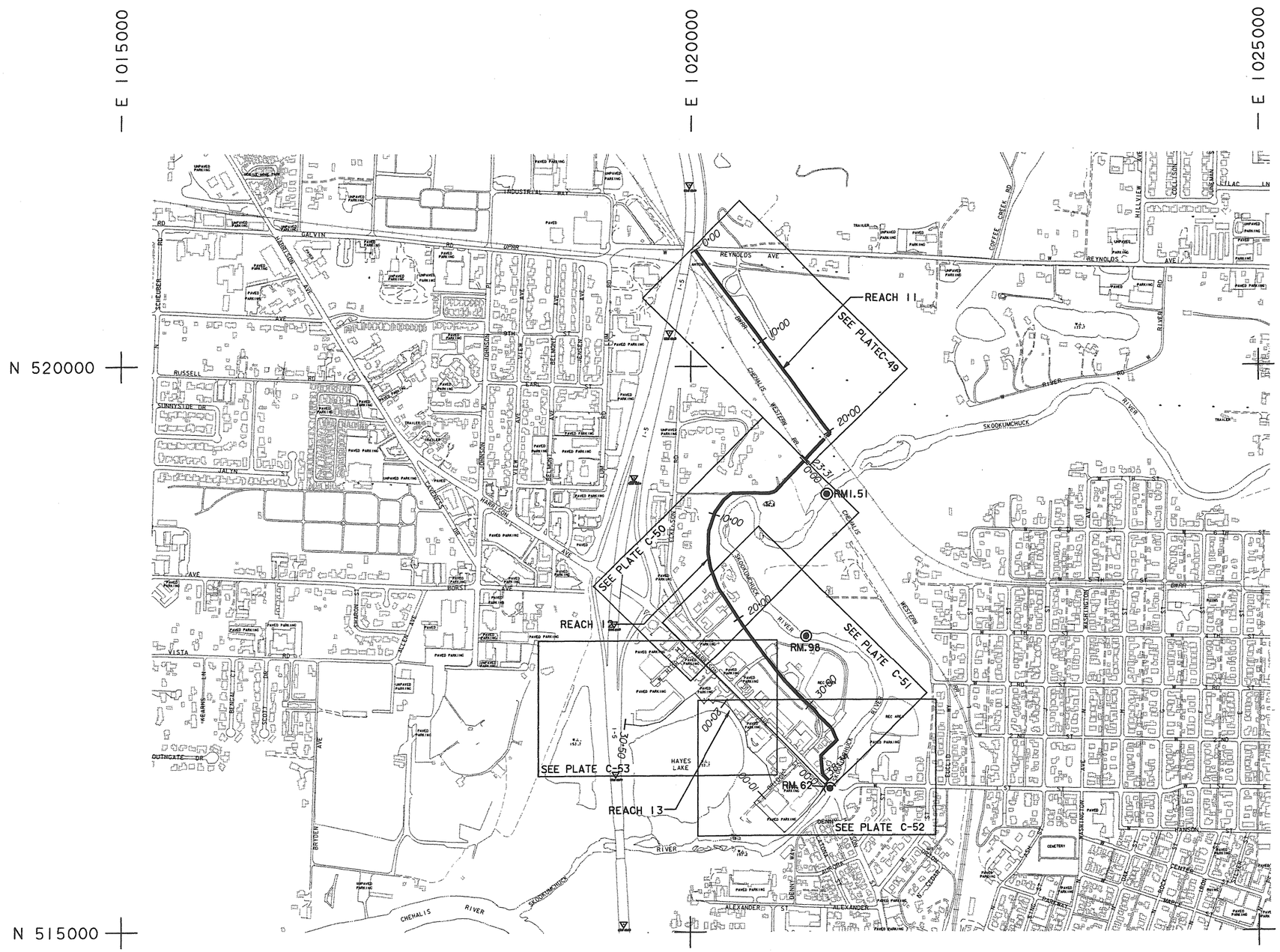
CENTRALIA, WA FLOOD DAMAGE REDUCTION PROJECT

REACH 9 – STA 0+00 TO STA 28+06
REACH 10 – STA 0+00 TO STA 17+43

CENTRALIA PN C1919 WASHINGTON

SIZE	INVITATION NO.	FILE NO.	DATE:	PLATE
D		E-5-14-196	14 MAY 02	C-10
DSGN. SKJELBREIA		CHK. GOUGH	SHEET 18	

REVISIONS				
SYMBOL	ZONE	DESCRIPTION	DATE	BY



This project was designed by the Seattle District U.S. Army Corps of Engineers. The initials or signatures and registration designations of individuals appear within the specifications or on these project documents within the scope of their employment as required by ER 1110-1-8152, Professional Registration.

DATE AND TIME PLOTTED: 20-SEP-2002 09:18
DESIGN FILE: I:\designs\ccfr\civ\ccfrcg0k.dgn

Computer Aided Design & Drafting

U.S. ARMY ENGINEER DISTRICT, SEATTLE
CORPS OF ENGINEERS
SEATTLE, WASHINGTON

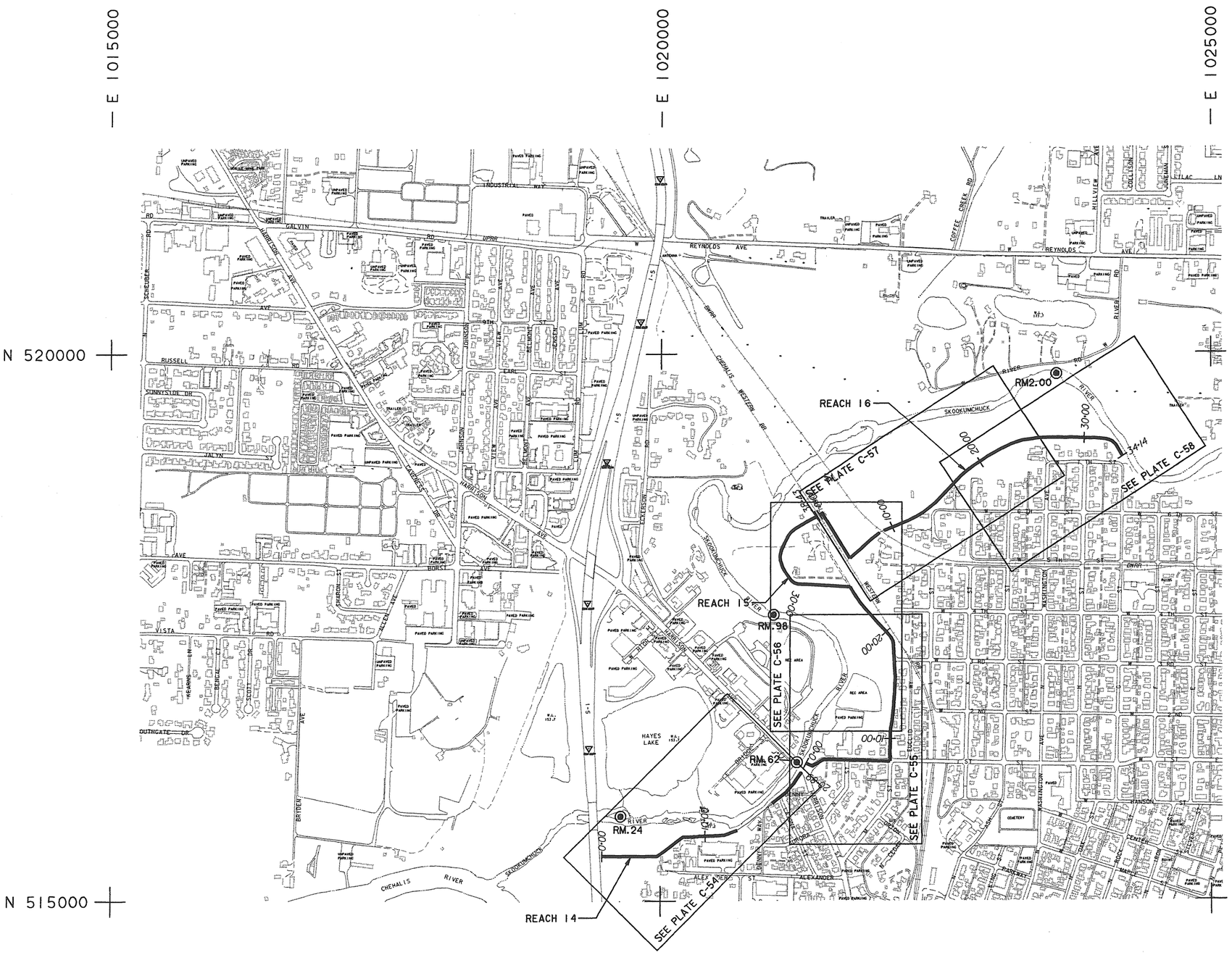
CENTRALIA, WA FLOOD DAMAGE REDUCTION PROJECT

REACH 11 – STA 0+00 TO STA 23+31
REACH 12 – STA 0+00 TO STA 38+34
REACH 13 – STA 0+00 TO STA 30+50

CENTRALIA PN C1919 WASHINGTON

SIZE	INVITATION NO.	FILE NO.	DATE:	PLATE
D		E-5-14-196	14 MAY 02	C-11
DSGN. SKJELBREIA		CHK. GOUGH	SHEET 19	

REVISIONS				
SYMBOL	ZONE	DESCRIPTION	DATE	BY



This project was designed by the Seattle District U.S. Army Corps of Engineers. The initials or signatures and registration designations of individuals appear within the specifications or on these project documents within the scope of their employment as required by ER 1110-1-8152, Professional Registration.

DATE AND TIME PLOTTED: 20-SEP-2002 09:20
DESIGN FILE: I:\designs\ccfr\civ\ccfrcg01.dgn

COMPUTER AIDED DESIGN & DRAFTING

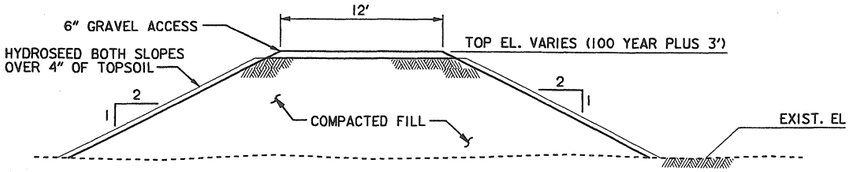
U.S. ARMY ENGINEER DISTRICT, SEATTLE
CORPS OF ENGINEERS
SEATTLE, WASHINGTON

CENTRALIA, WA FLOOD DAMAGE REDUCTION PROJECT

REACH 14 - STA 0+00 TO STA 20+89
REACH 15 - STA 0+00 TO STA 38+43
REACH 16 - STA 0+00 TO STA 34+14

CENTRALIA		PN C1919		WASHINGTON	
SIZE D	INVITATION NO.	FILE NO. E-5-14-196		DATE: 14 MAY 02	PLATE C-12
DSGN. SKJELBREIA		CHK. GOUGH		SHEET 20	

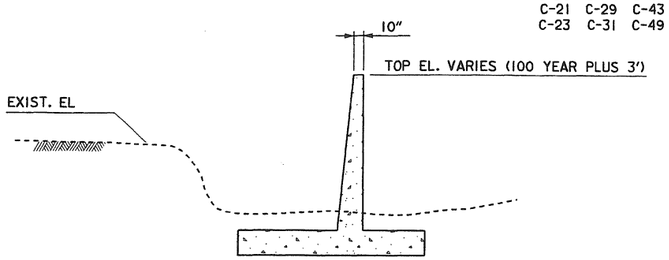
REVISIONS				
SYMBOL	ZONE	DESCRIPTION	DATE	BY



TYPICAL NEW LEVEE OVER SOIL (A)

NOT TO SCALE

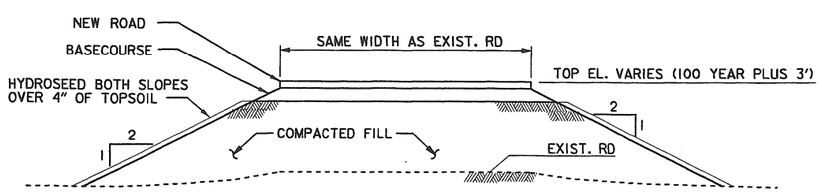
C-15
C-16 C-24 C-33 C-50
C-17 C-25 C-34 C-51
C-18 C-26 C-35 C-54
C-19 C-27 C-36 C-56
C-20 C-28 C-38 C-57
C-21 C-29 C-43 C-58
C-23 C-31 C-49



TYPICAL NEW FLOOD WALL (B)

NOT TO SCALE

C-21
C-22 C-37
C-23 C-45
C-24 C-48
C-25 C-52
C-26 C-53
C-30 C-54
C-31

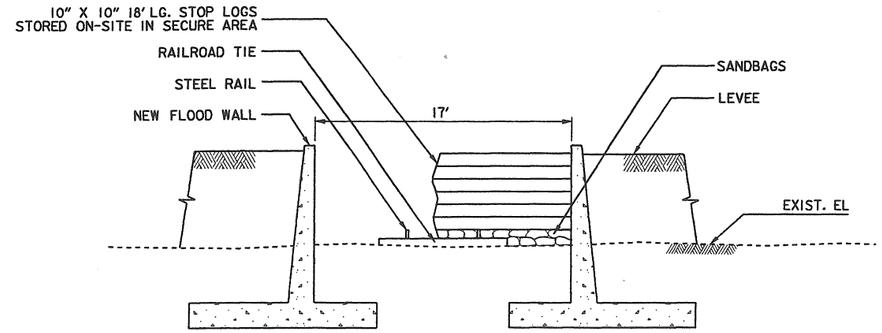


TYPICAL NEW LEVEE/ROAD OVER ROAD (C)

NOT TO SCALE

C-44
C-51
C-55
C-56

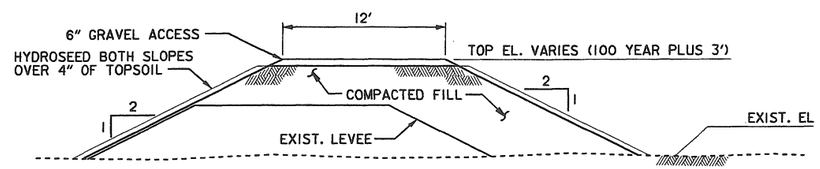
NOTE: ROAD SURFACE VARIES (ASPHALT OR GRAVEL).



RAIL ROAD INTERSECTION (D)

NOT TO SCALE

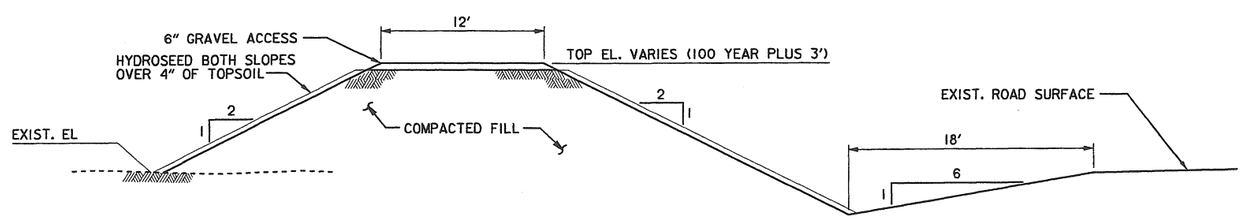
C-33
C-34
C-36
C-45
C-46
C-49
C-50



TYPICAL NEW LEVEE OVER EXISTING LEVEE (E)

NOT TO SCALE

C-32 C-41
C-33 C-42
C-36 C-43
C-38 C-56
C-39 C-57
C-40



TYPICAL NEW LEVEE ADJACENT TO FREEWAY (F)

NOT TO SCALE

C-45
C-46
C-47

DATE AND TIME PLOTTED: 20-SEP-2002 09:20
DESIGN FILE: I:\designs\ccfr\civ\ccfrct0a.dgn

COMPUTER AIDED DESIGN & DRAFTING

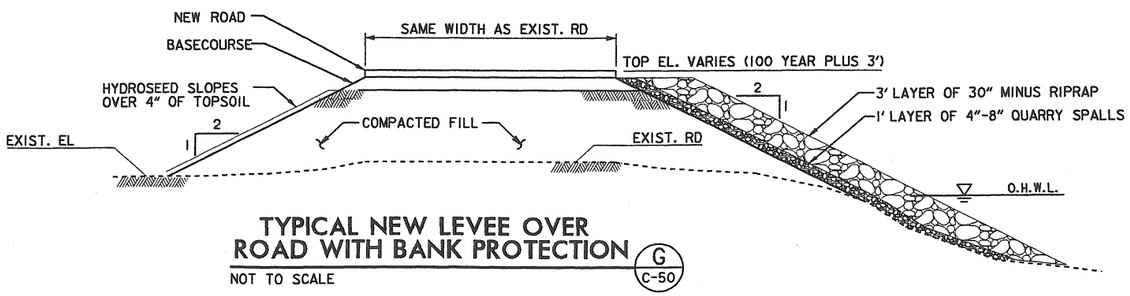
U.S. ARMY ENGINEER DISTRICT, SEATTLE
CORPS OF ENGINEERS
SEATTLE, WASHINGTON

CENTRALIA, WA FLOOD DAMAGE REDUCTION PROJECT

DETAILS I

CENTRALIA PN C1919 WASHINGTON

SIZE	INVITATION NO.	FILE NO.	DATE:	PLATE
D		E-5-14-196	14 MAY 02	C-13
DSGN. SKJELBREIA		CHK. GOUGH	SHEET 21	



TYPICAL NEW LEVEE OVER ROAD WITH BANK PROTECTION

G
C-50

NOT TO SCALE

REVISIONS				
SYMBOL	ZONE	DESCRIPTION	DATE	BY

DATE AND TIME PLOTTED: 20-SEP-2002 09:20
DESIGN FILE: I:\designs\ccfr\civ\ccfrctlt.dgn

COMPUTER AIDED DESIGN & DRAFTING

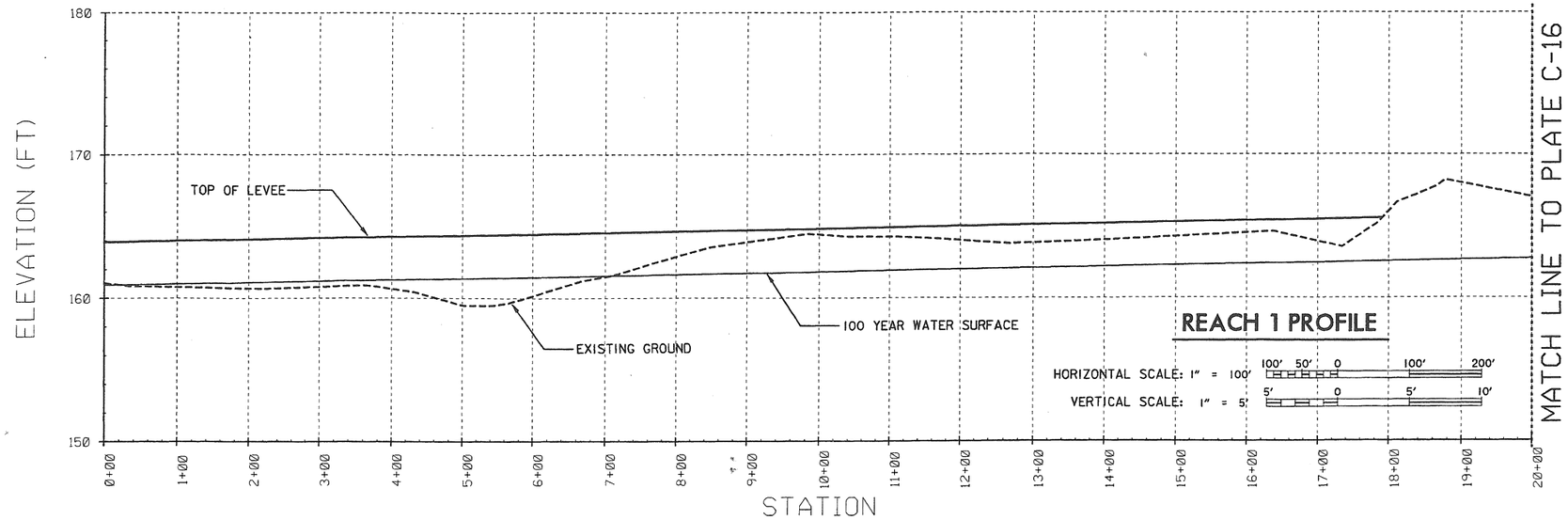
U.S. ARMY ENGINEER DISTRICT, SEATTLE
CORPS OF ENGINEERS
SEATTLE, WASHINGTON

CENTRALIA, WA FLOOD DAMAGE REDUCTION PROJECT

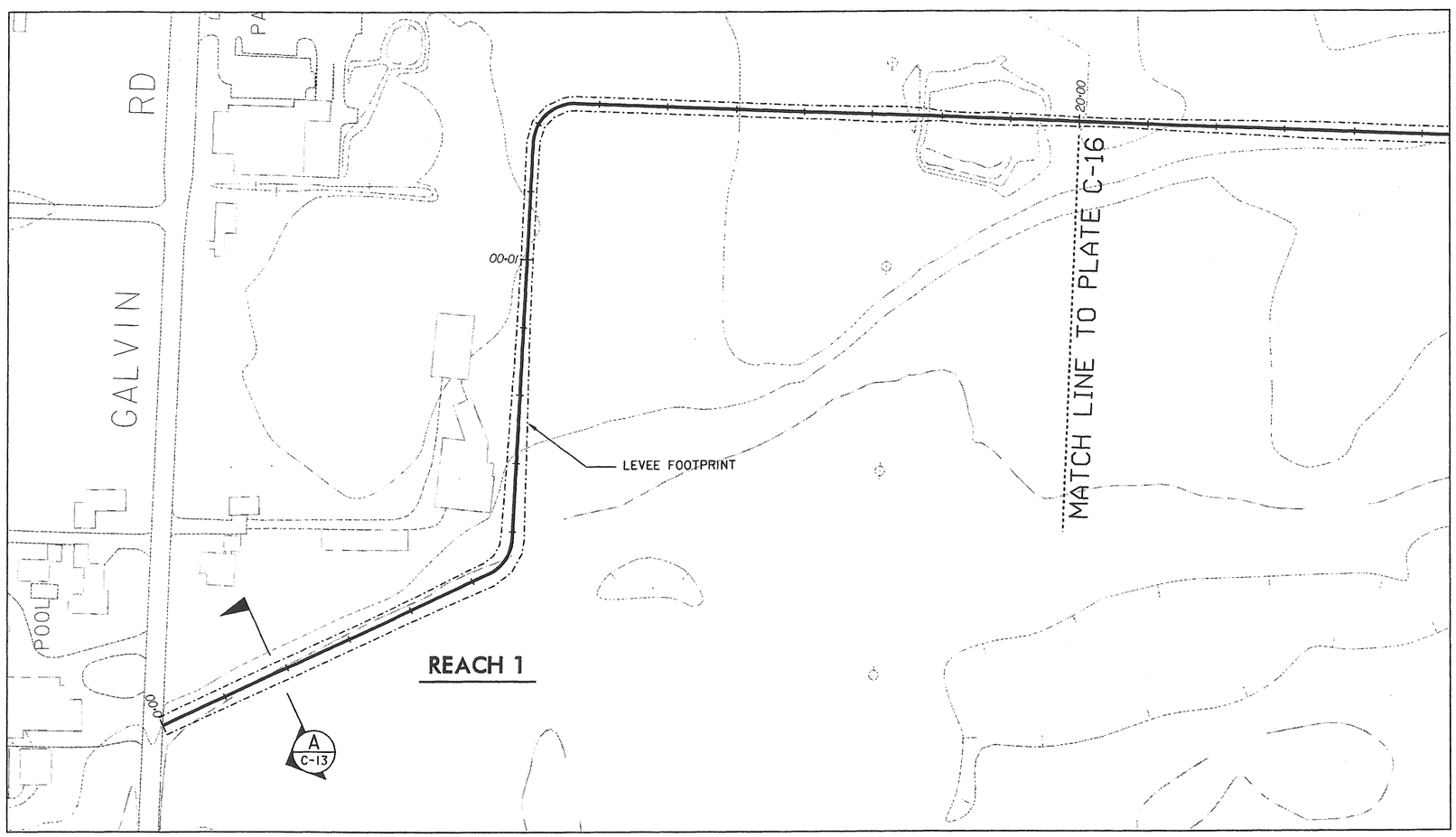
DETAILS II

CENTRALIA PN C1919 WASHINGTON

SIZE	INVITATION NO.	FILE NO.	DATE:	PLATE
D		E-5-14-196	14 MAY 02	C-14
DSGN. SKJELBREIA		CHK. GOUGH	SHEET 22	



REVISIONS				
SYMBOL	ZONE	DESCRIPTION	DATE	BY



N

1" = 100' 100' 50' 0 100' 200'

NOTES:

1. VERTICAL DATUM NGVD 1929.

U.S. ARMY ENGINEER DISTRICT, SEATTLE
CORPS OF ENGINEERS
SEATTLE, WASHINGTON

CENTRALIA, WA FLOOD DAMAGE REDUCTION PROJECT

REACH 1 - STA 0+00 TO STA 20+00

CENTRALIA PN C1919 WASHINGTON

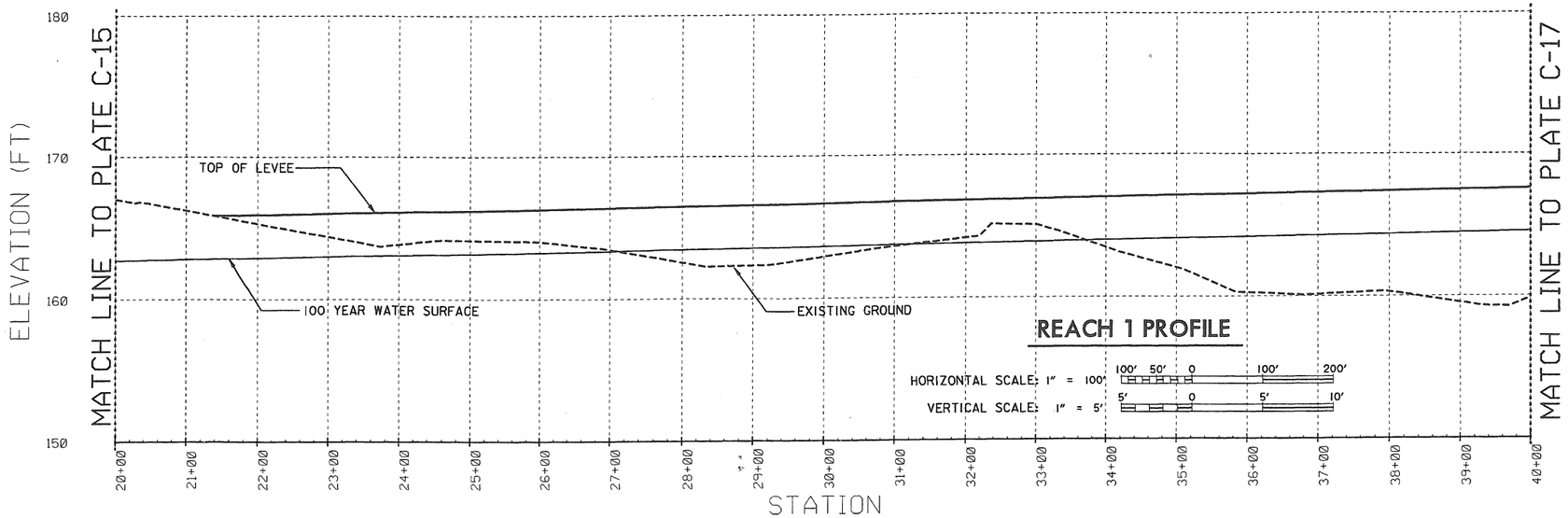
SIZE	INVITATION NO.	FILE NO.	DATE:	PLATE
D		E-5-14-196	14 MAY 02	C-15
DSGN. SKJELBREIA		CHK. GOUGH	SHEET 23	

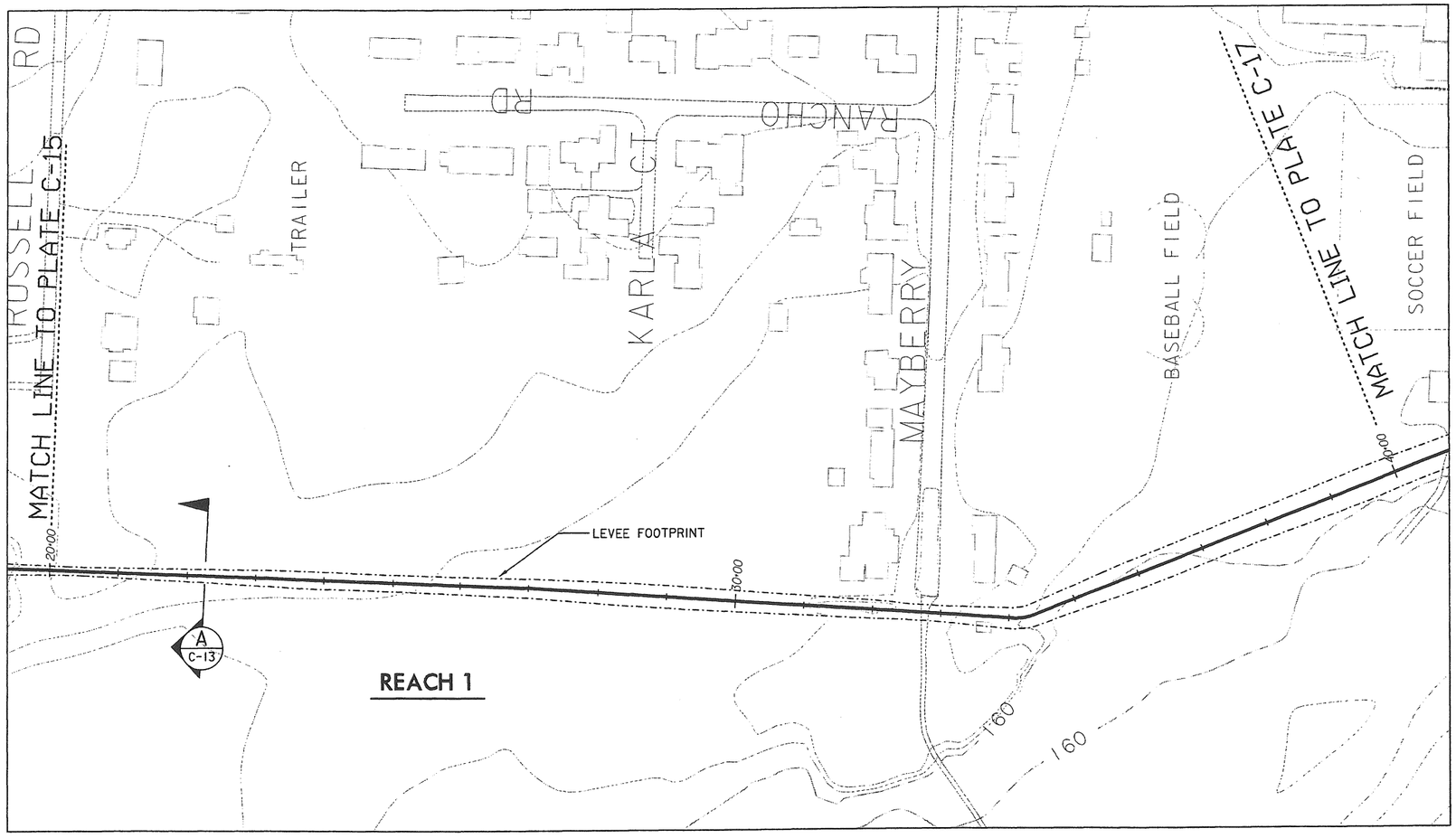
This project was designed by the Seattle District U.S. Army Corps of Engineers. The initials or signatures and registration designations of individuals appear within the specifications or on these project documents within the scope of their employment as required by ER 1110-1-8152, Professional Registration.

DATE AND TIME PLOTTED: 20-SEP-2002 09:21
DESIGN FILE: I:\designs\ccfr\civ\ccfrct0b.dgn

Computer Aided Design & Drafting

REVISIONS				
SYMBOL	ZONE	DESCRIPTION	DATE	BY





N

1" = 100' 100' 50' 0 100' 200'

This project was designed by the Seattle District U.S. Army Corps of Engineers. The initials or signatures and registration designations of individuals appear within the specifications or on these project documents within the scope of their employment as required by ER 1110-1-8152, Professional Registration.

DATE AND TIME PLOTTED: 20-SEP-2002 09:21
DESIGN FILE: I:\designs\ccfr\civ\ccfrct0c.dgn

Computer Aided Design & Drafting

U.S. ARMY ENGINEER DISTRICT, SEATTLE
CORPS OF ENGINEERS
SEATTLE, WASHINGTON

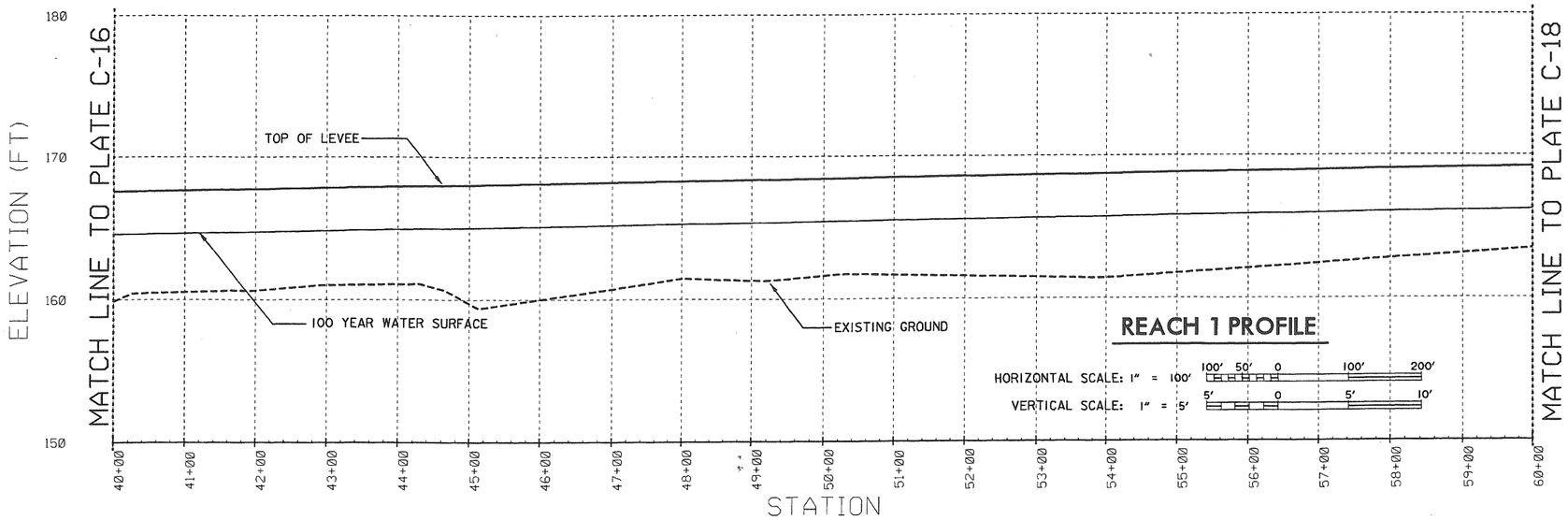
CENTRALIA, WA FLOOD DAMAGE REDUCTION PROJECT

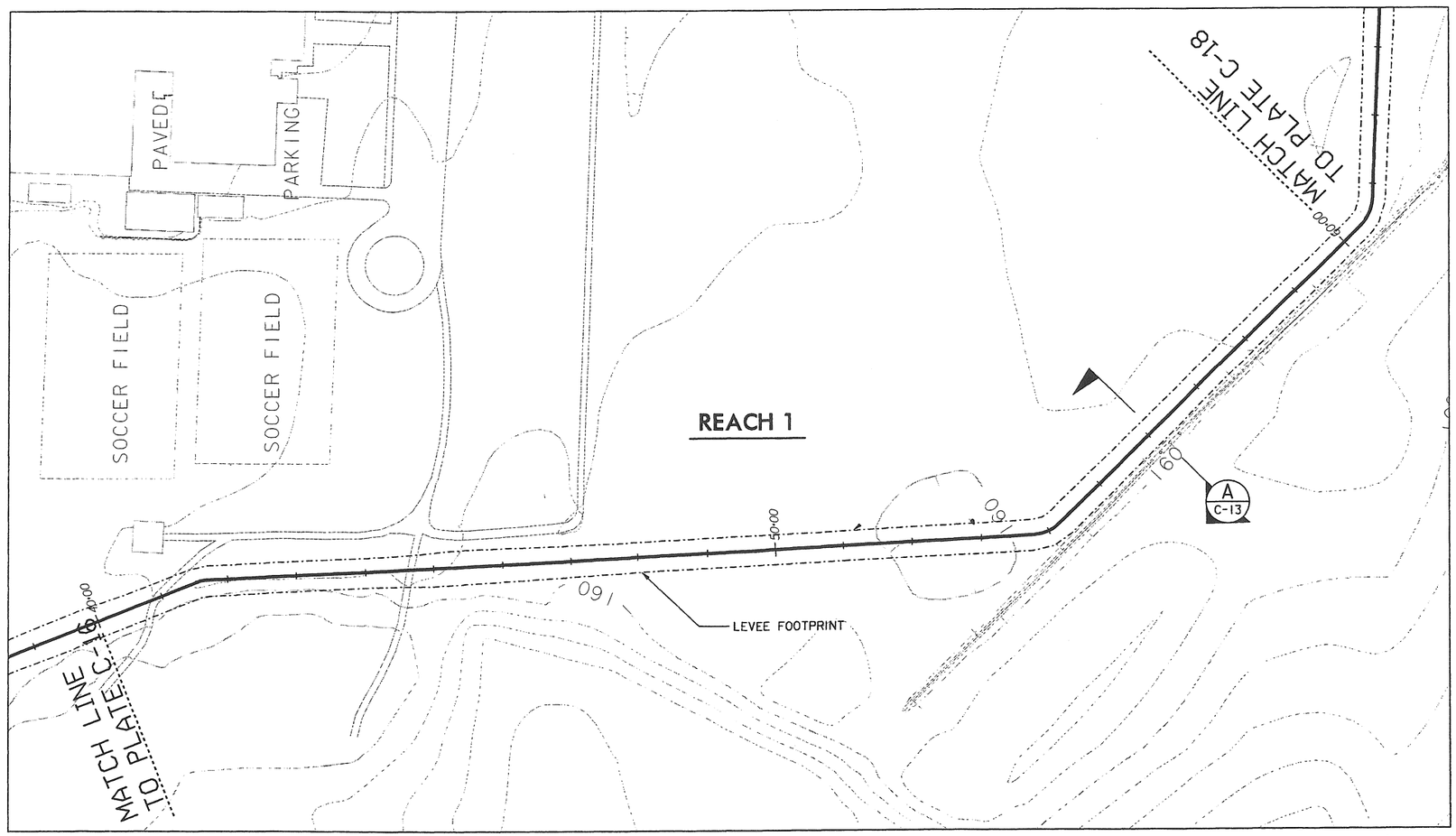
REACH 1 - STA 20+00 TO STA 40+00

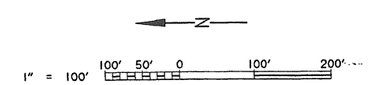
CENTRALIA PN C1919 WASHINGTON

SIZE	INVITATION NO.	FILE NO.	DATE:	PLATE
D		E-5-14-196	14 MAY 02	C-16
DSGN. SKJELBREIA		CHK. GOUGH	SHEET 24	

REVISIONS				
SYMBOL	ZONE	DESCRIPTION	DATE	BY







NOTES:

1. VERTICAL DATUM NGVD 1929.

U.S. ARMY ENGINEER DISTRICT, SEATTLE
CORPS OF ENGINEERS
SEATTLE, WASHINGTON

CENTRALIA, WA FLOOD DAMAGE REDUCTION PROJECT

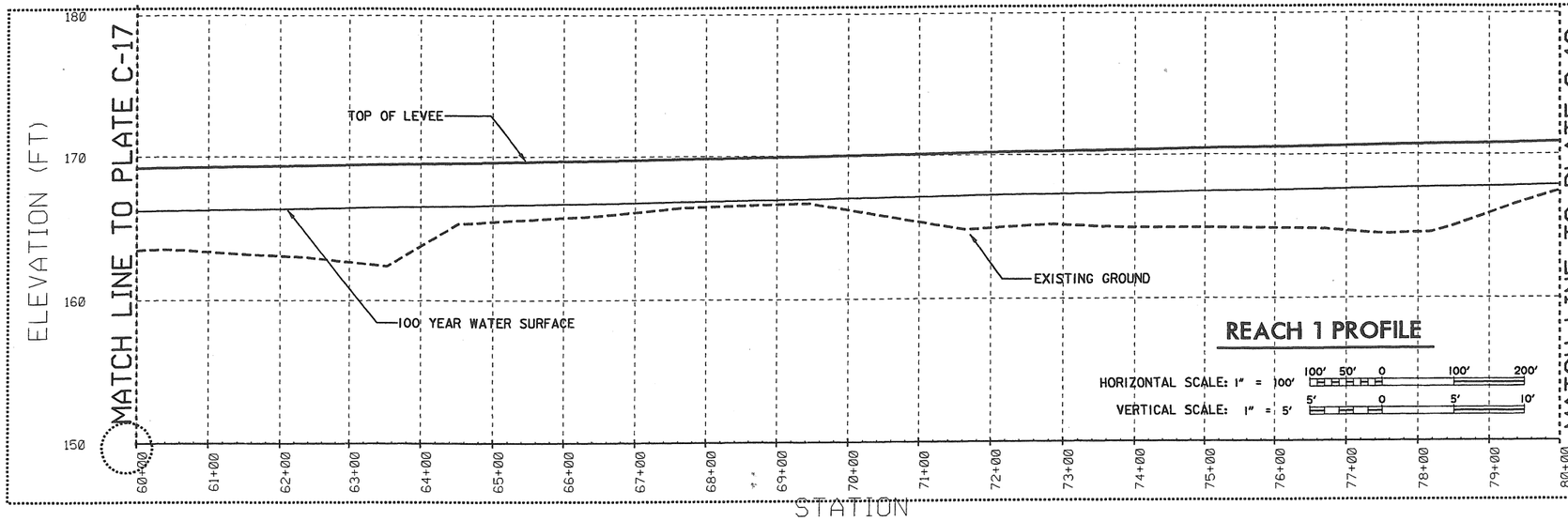
REACH 1 - STA 40+00 TO STA 60+00

CENTRALIA		PN C1919		WASHINGTON	
SIZE D	INVITATION NO.	FILE NO. E-5-14-196		DATE: 14 MAY 02	PLATE C-17
DSGN. SKJELBREIA		CHK. GOUGH		SHEET 25	

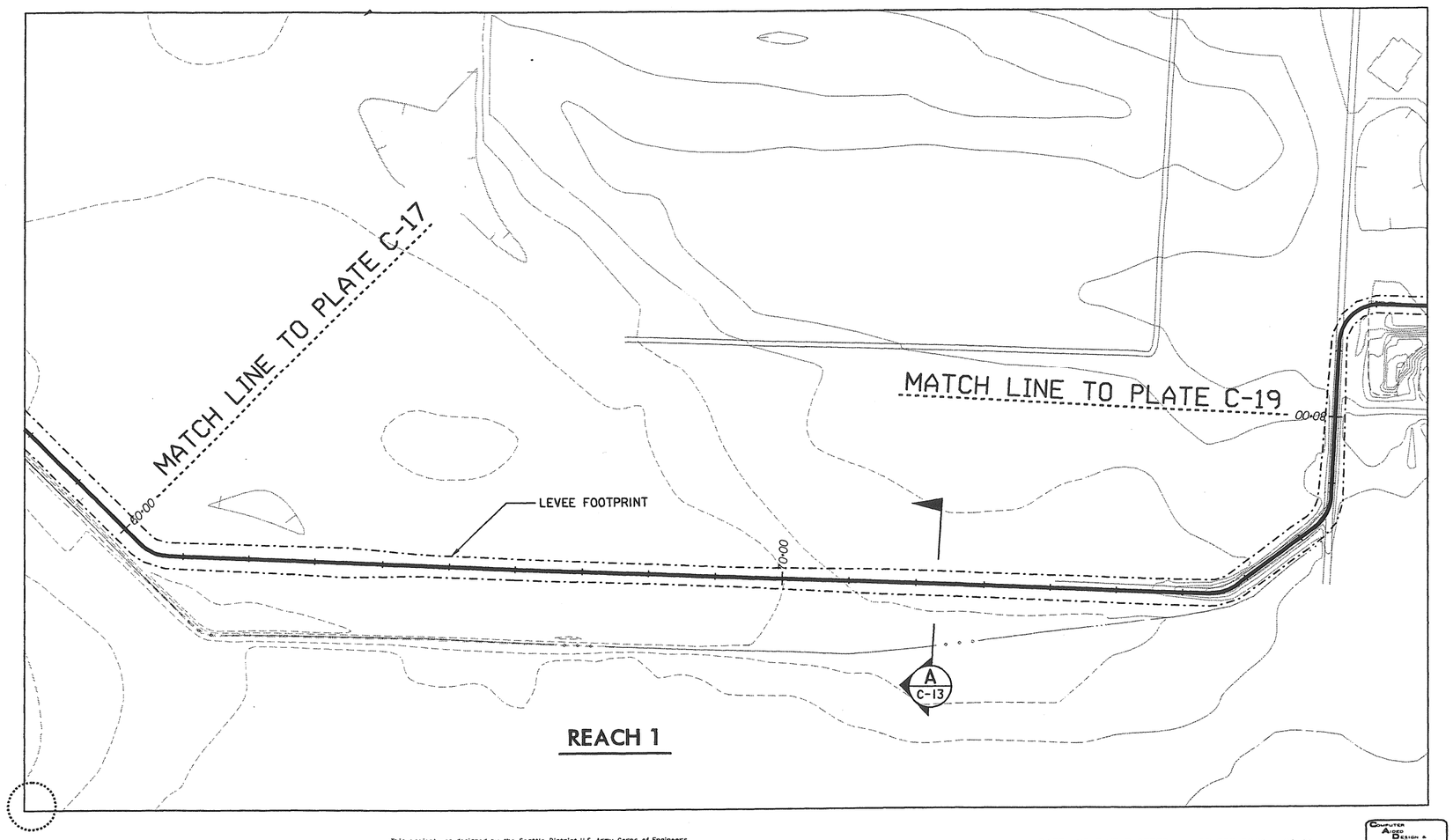
This project was designed by the Seattle District U.S. Army Corps of Engineers. The initials or signatures and registration designations of individuals appear within the specifications or on these project documents within the scope of their employment as required by ER 1110-1-8152, Professional Registration.

DATE AND TIME PLOTTED: 20-SEP-2002 09:21
DESIGN FILE: I:\designs\ccfr\civ\ccfrct0d.dgn

Computer Aided Design & Drafting



REACH 1 PROFILE



REACH 1

N

1" = 100' 100' 50' 0 100' 200'

NOTES:

1. VERTICAL DATUM NGVD 1929.

REVISIONS

SYMBOL	ZONE	DESCRIPTION	DATE	BY

U.S. ARMY ENGINEER DISTRICT, SEATTLE
CORPS OF ENGINEERS
SEATTLE, WASHINGTON

CENTRALIA, WA FLOOD DAMAGE REDUCTION PROJECT

REACH 1 – STA 60+00 TO STA 80+00

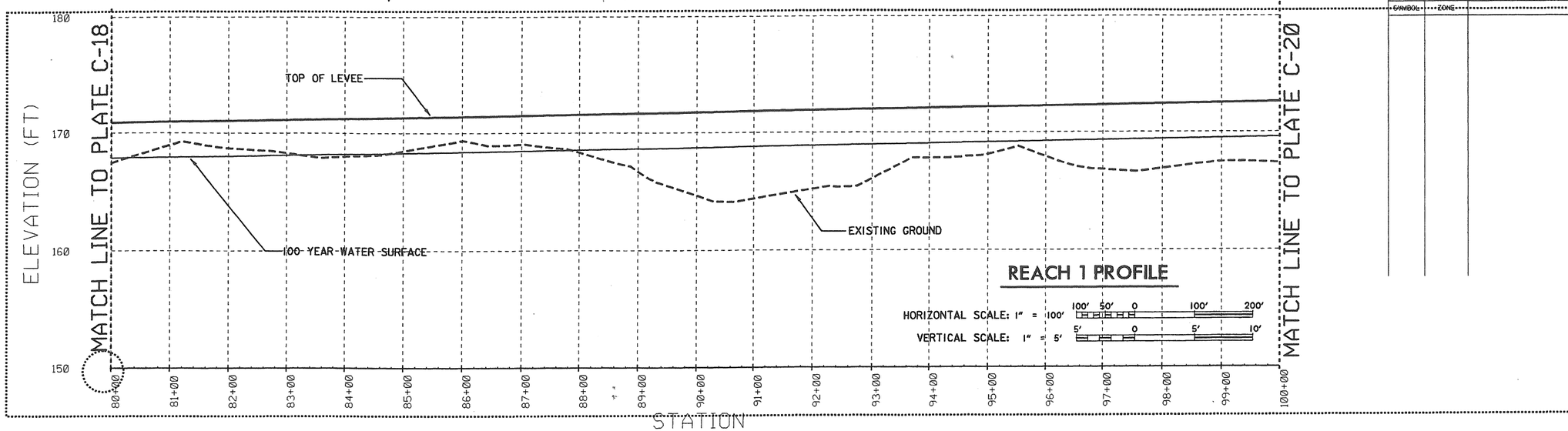
CENTRALIA PN C1919 WASHINGTON

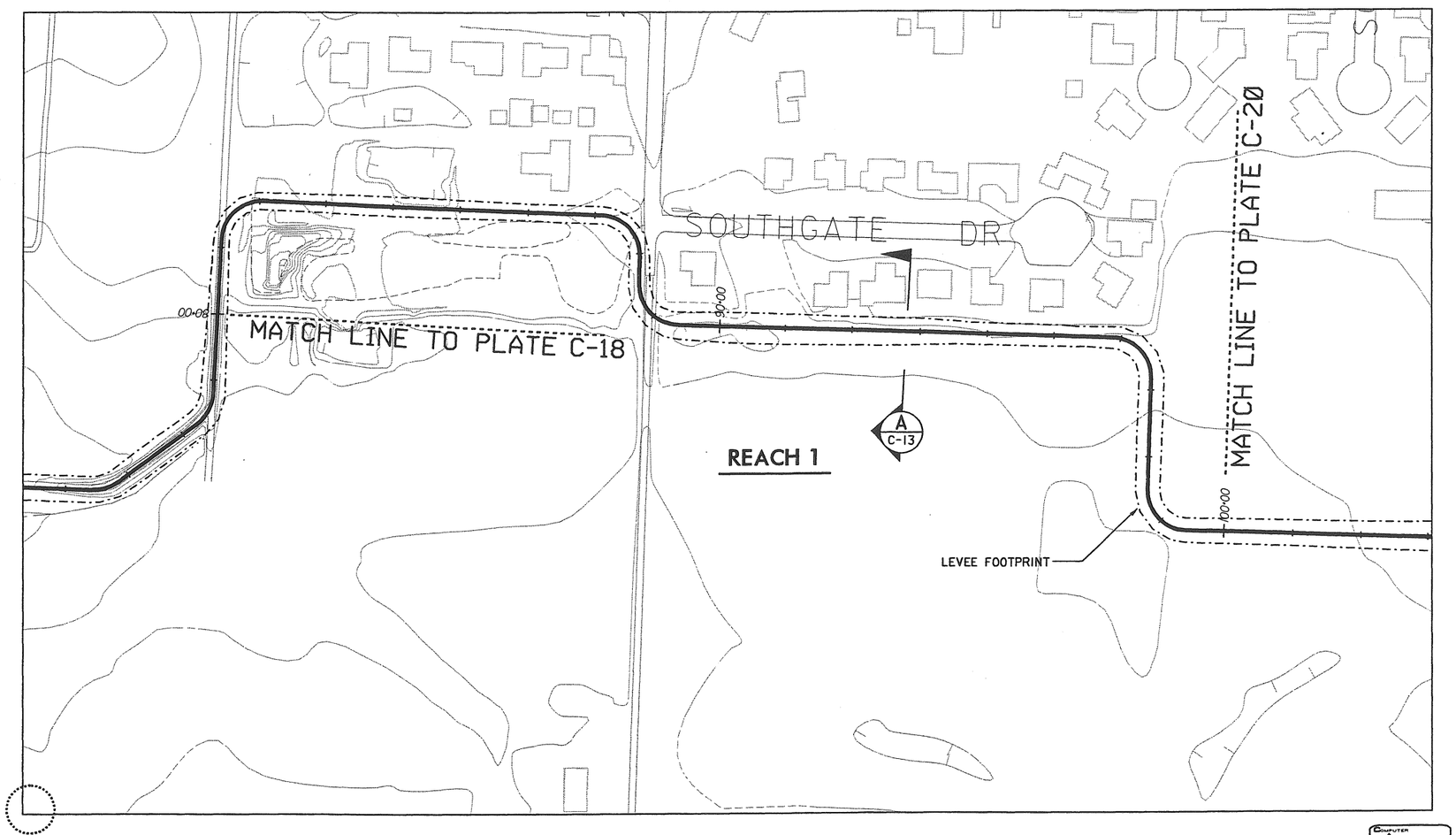
SIZE	INVITATION NO.	FILE NO.	DATE	PLATE
D		E-5-14-196	14 MAY 02	C-18
DSGN. SKJELBREIA		CHK. GOUGH	SHEET 26	

This project was designed by the Seattle District U.S. Army Corps of Engineers. The initials or signatures and registration designations of individuals appear within the specifications or on these project documents within the scope of their employment as required by ER 1110-1-8152, Professional Registration.

DATE AND TIME PLOTTED: 20-SEP-2002 09:22
DESIGN FILE: I:\designs\ccfr\civ\ccfrct0e.dgn

Computer Aided Design & Drafting





REVISIONS				
SYMBOL	ZONE	DESCRIPTION	DATE	BY

NOTES:

1. VERTICAL DATUM NGVD 1929.

This project was designed by the Seattle District U.S. Army Corps of Engineers. The initials or signatures and registration designations of individuals appear within the specifications or on these project documents within the scope of their employment as required by ER 1110-1-8152, Professional Registration.

DATE AND TIME PLOTTED: 20-SEP-2002 09:22
DESIGN FILE: I:\designs\ccfr\civ\ccfrct01.dgn

Computer Aided Design & Drafting

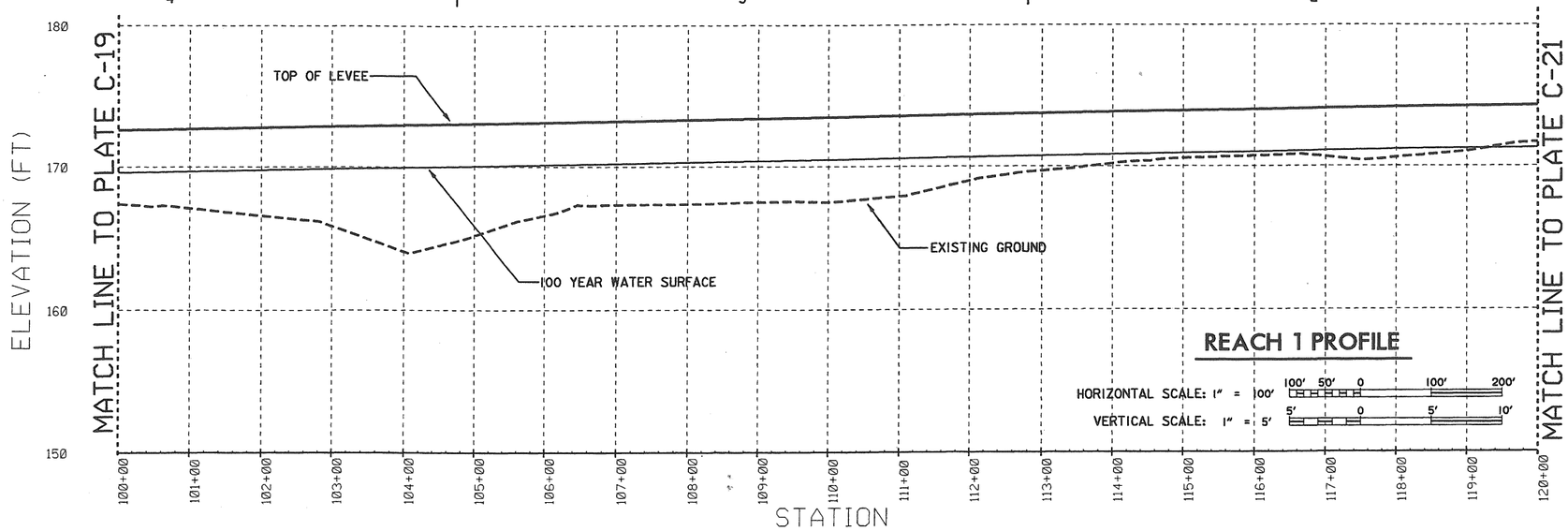
U.S. ARMY ENGINEER DISTRICT, SEATTLE
CORPS OF ENGINEERS
SEATTLE, WASHINGTON

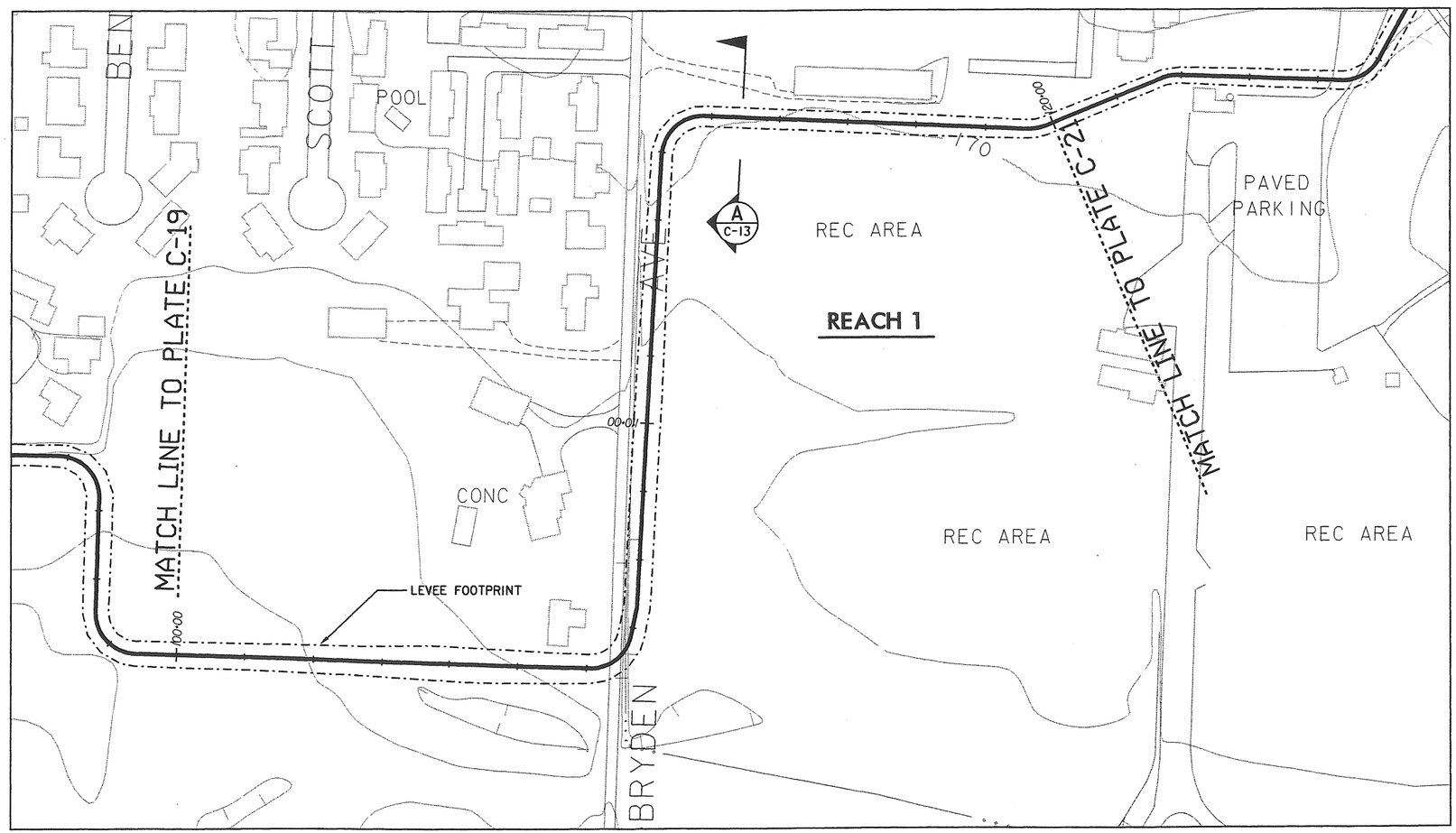
CENTRALIA, WA FLOOD DAMAGE REDUCTION PROJECT

REACH 1 - STA 80+00 TO STA 100+00

CENTRALIA PN C1919 WASHINGTON

SIZE	INVITATION NO.	FILE NO.	DATE:	PLATE
D		E-5-14-196	14 MAY 02	C-19
DSGN. SKJELBREIA		CHK. GOUGH	SHEET 27	





REVISIONS				
SYMBOL	ZONE	DESCRIPTION	DATE	BY

N

1" = 100' 100' 50' 0 100' 200'

NOTES:

1. VERTICAL DATUM NGVD 1929.

This project was designed by the Seattle District U.S. Army Corps of Engineers. The initials or signatures and registration designations of individuals appear within the specifications or on these project documents within the scope of their employment as required by ER 1110-1-8152, Professional Registration.

DATE AND TIME PLOTTED: 20-SEP-2002 09:22
DESIGN FILE: I:\designs\ccfr\civ\ccfrct0g.dgn

Computer Aided Design & Drafting

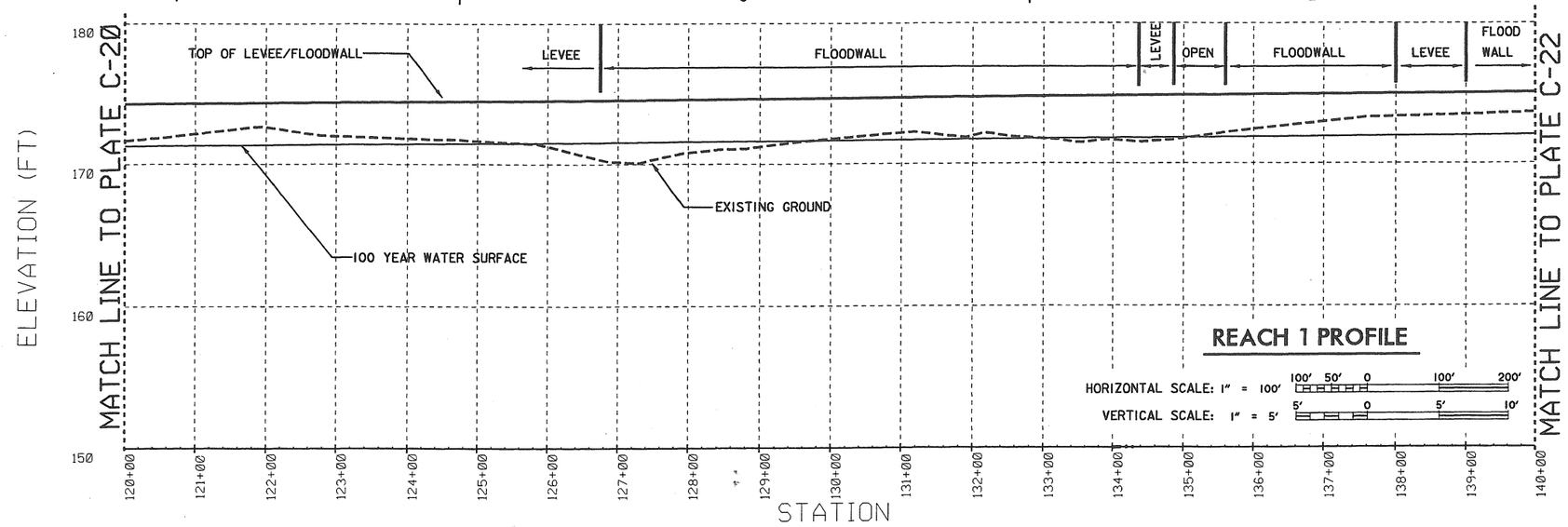
U.S. ARMY ENGINEER DISTRICT, SEATTLE
CORPS OF ENGINEERS
SEATTLE, WASHINGTON

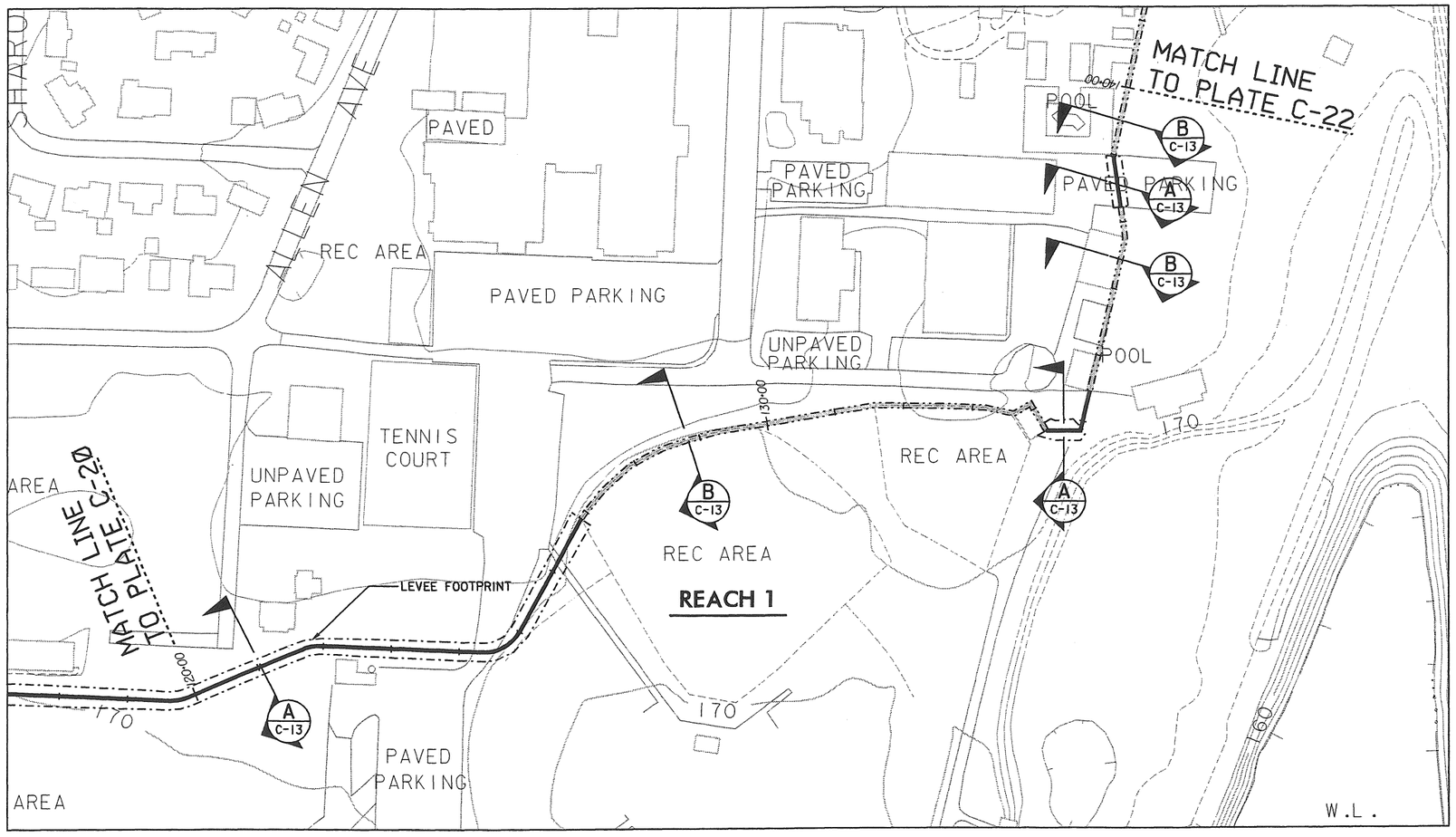
CENTRALIA, WA FLOOD DAMAGE REDUCTION PROJECT

REACH 1 – STA 100+00 TO STA 120+00

CENTRALIA PN C1919 WASHINGTON

SIZE	INVITATION NO.	FILE NO.	DATE:	PLATE
D		E-5-14-196	14 MAY 02	C-20
DSGN. SKJELBREIA		CHK. GOUGH	SHEET 28	





NOTES:

1. VERTICAL DATUM NGVD 1929.

REVISIONS				
SYMBOL	ZONE	DESCRIPTION	DATE	BY

This project was designed by the Seattle District U.S. Army Corps of Engineers. The initials or signatures and registration designations of individuals appear within the specifications or on these project documents within the scope of their employment as required by ER 1110-1-8152, Professional Registration.

DATE AND TIME PLOTTED: 20-SEP-2002 09:22
DESIGN FILE: I:\designs\ccfr\civ\ccfrct0h.dgn

Computer Aided Design & Drafting

U.S. ARMY ENGINEER DISTRICT, SEATTLE
CORPS OF ENGINEERS
SEATTLE, WASHINGTON

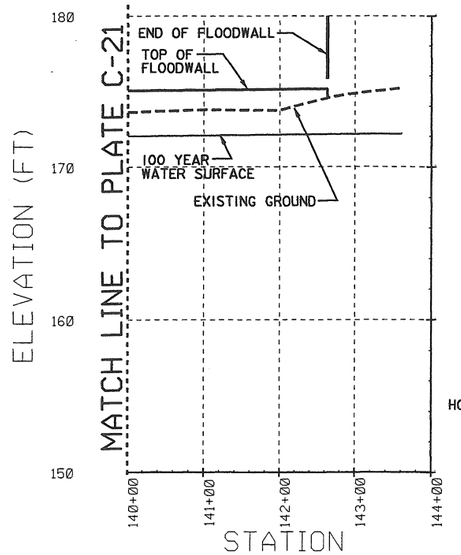
CENTRALIA, WA FLOOD DAMAGE REDUCTION PROJECT

REACH 1 - STA 120+00 TO STA 140+00

CENTRALIA PN C1919 WASHINGTON

SIZE	INVITATION NO.	FILE NO.	DATE:	PLATE
D		E-5-14-196	14 MAY 02	C-21
DSGN. SKJELBREIA		CHK. GOUGH	SHEET 29	

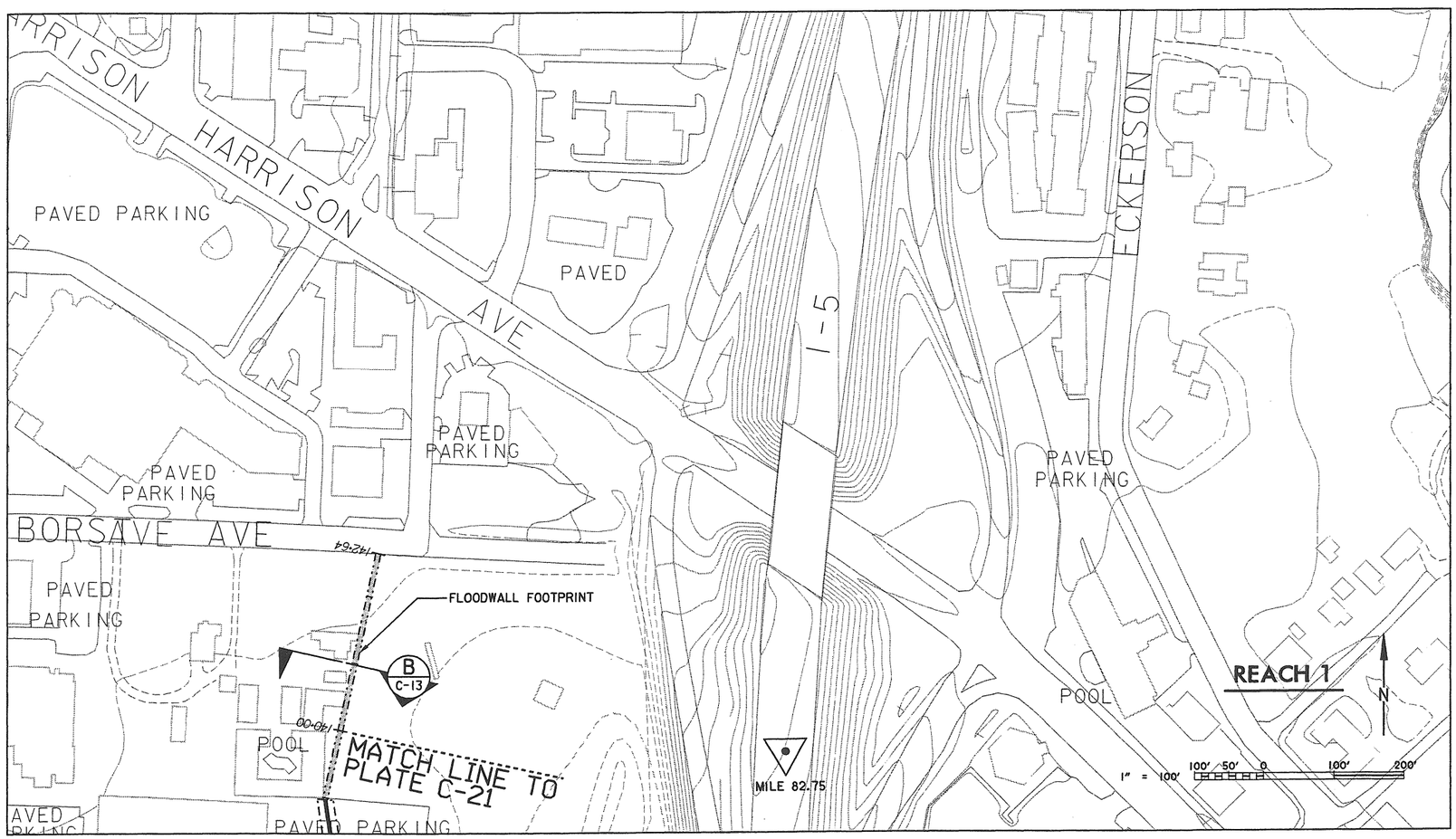
REVISIONS				
SYMBOL	ZONE	DESCRIPTION	DATE	BY



REACH 1 PROFILE

HORIZONTAL SCALE: 1" = 100' (100' 50' 0 100' 200')

VERTICAL SCALE: 1" = 5' (5' 0 5' 10')



NOTES:

1. VERTICAL DATUM NGVD 1929.

This project was designed by the Seattle District U.S. Army Corps of Engineers. The initials or signatures and registration designations of individuals appear within the specifications or on these project documents within the scope of their employment as required by ER 1110-1-8152, Professional Registration.

DATE AND TIME PLOTTED: 20-SEP-2002 09:23
DESIGN FILE: I:\designs\ccfr\civ\ccfrct01.dgn

Computer Aided Design & Drafting

U.S. ARMY ENGINEER DISTRICT, SEATTLE
CORPS OF ENGINEERS
SEATTLE, WASHINGTON

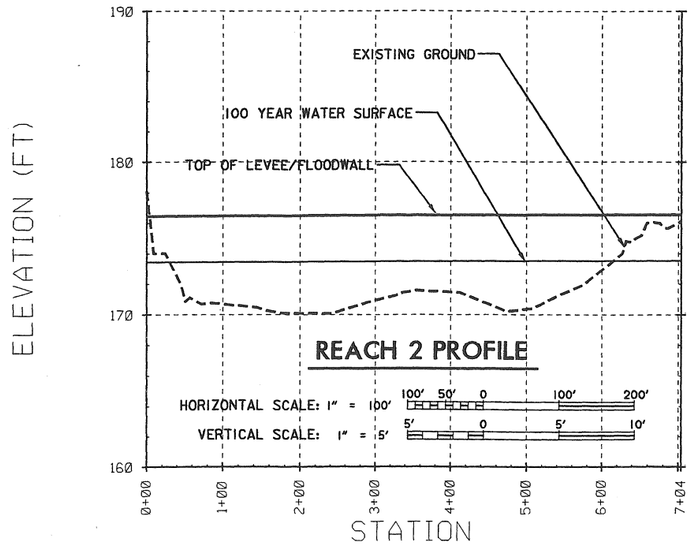
CENTRALIA, WA FLOOD DAMAGE REDUCTION PROJECT

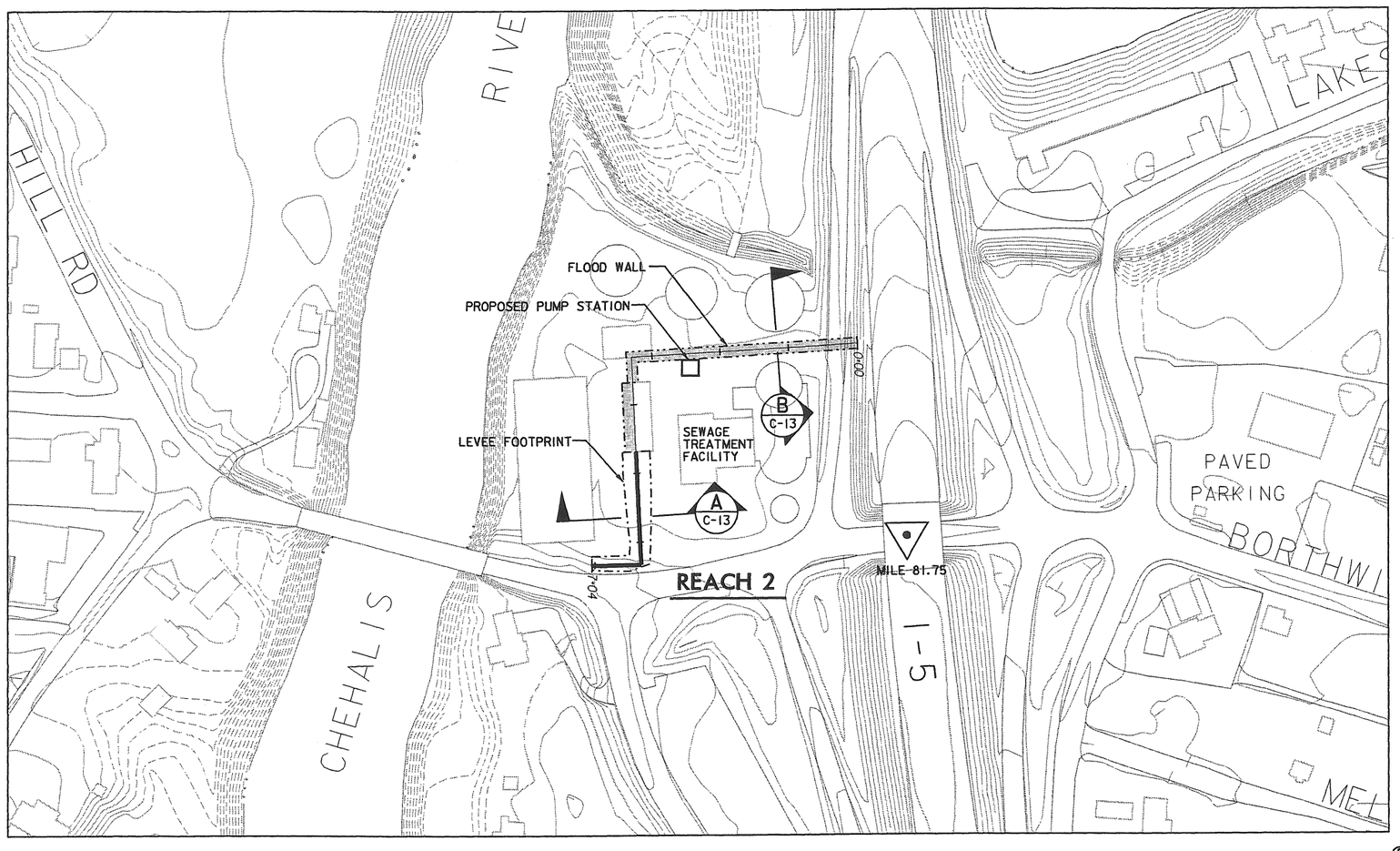
REACH 1 – STA 140+00 TO STA 142+64

CENTRALIA PN C1919 WASHINGTON

SIZE	INVITATION NO.	FILE NO.	DATE:	PLATE
D		E-5-14-196	14 MAY 02	C-22
DSGN. SKJELBREIA		CHK. GOUGH	SHEET 30	

SYMBOL	ZONE	DESCRIPTION	DATE	BY





N

1" = 100' 100' 50' 0 100' 200'

NOTES:

1. VERTICAL DATUM NGVD 1929.

U.S. ARMY ENGINEER DISTRICT, SEATTLE
CORPS OF ENGINEERS
SEATTLE, WASHINGTON

CENTRALIA, WA FLOOD DAMAGE REDUCTION PROJECT

REACH 2 - STA 0+00 TO STA 7+04

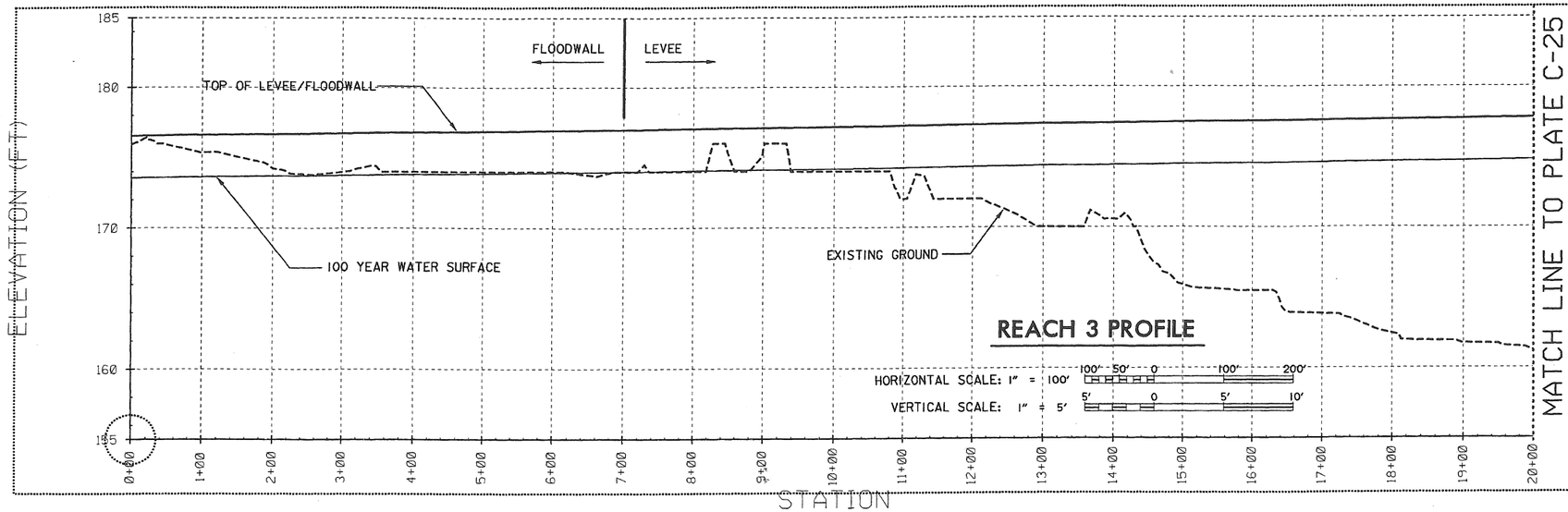
CENTRALIA PN C1919 WASHINGTON

SIZE	INVITATION NO.	FILE NO.	DATE:	PLATE
D		E-5-14-196	14 MAY 02	C-23
DSGN. SKJELBREIA		CHK. GOUGH	SHEET 31	

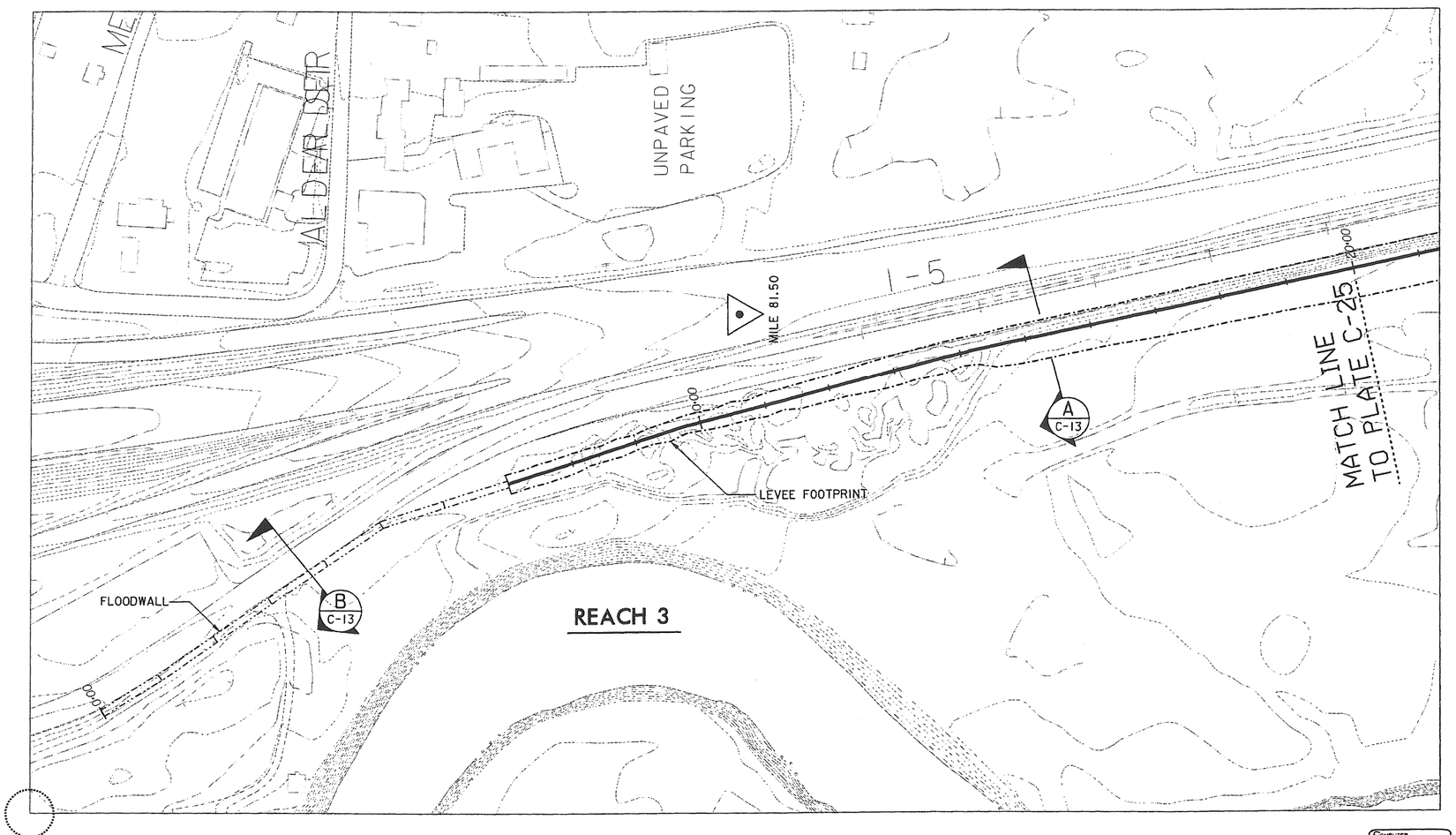
This project was designed by the Seattle District U.S. Army Corps of Engineers. The initials or signatures and registration designations of individuals appear within the specifications or on these project documents within the scope of their employment as required by ER 1110-1-8152, Professional Registration.

DATE AND TIME PLOTTED: 20-SEP-2002 09:23
DESIGN FILE: I:\designs\ccfr\civ\ccfrct0j.dgn

COMPUTER AIDED DESIGN & DRAFTING



REVISIONS				
SYMBOL	ZONE	DESCRIPTION	DATE	BY



N

1" = 100' 100' 50' 0 100' 200'

NOTES:

1. VERTICAL DATUM NGVD 1929.

This project was designed by the Seattle District U.S. Army Corps of Engineers. The initials or signatures and registration designations of individuals appear within the specifications or on these project documents within the scope of their employment as required by ER 1110-1-8152, Professional Registration.

DATE AND TIME PLOTTED: 20-SEP-2002 09:23
DESIGN FILE: I:\designs\ccfr\civ\ccfrct0k.dgn

Computer Aided Design & Drafting

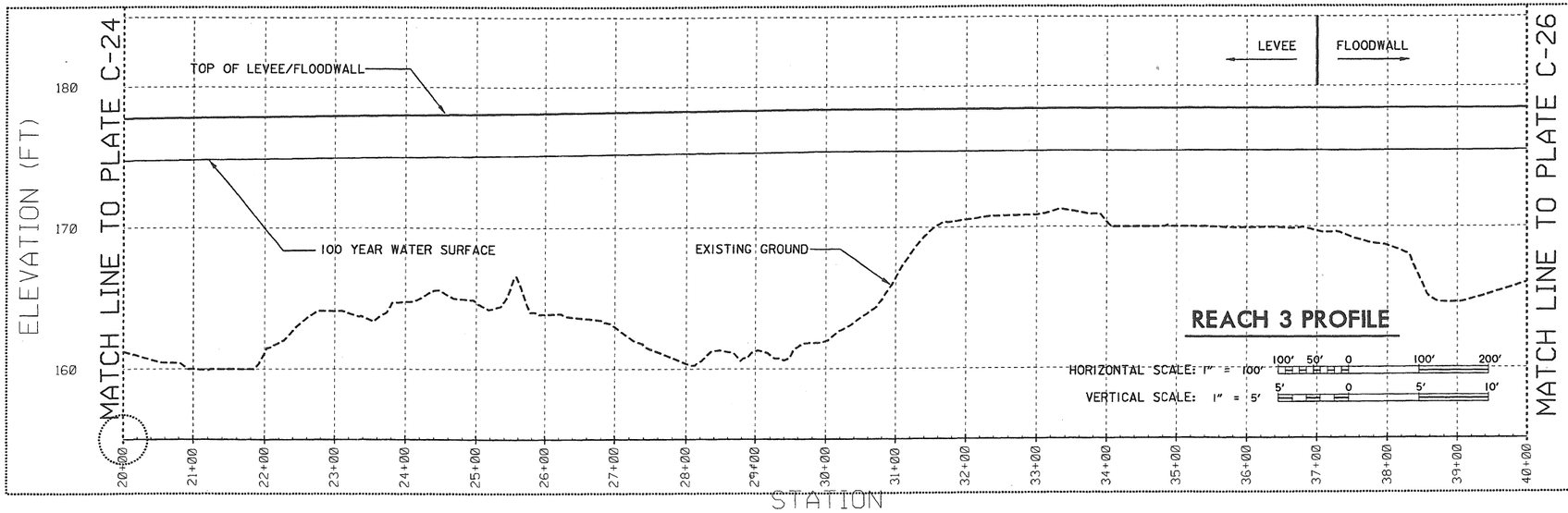
U.S. ARMY ENGINEER DISTRICT, SEATTLE
CORPS OF ENGINEERS
SEATTLE, WASHINGTON

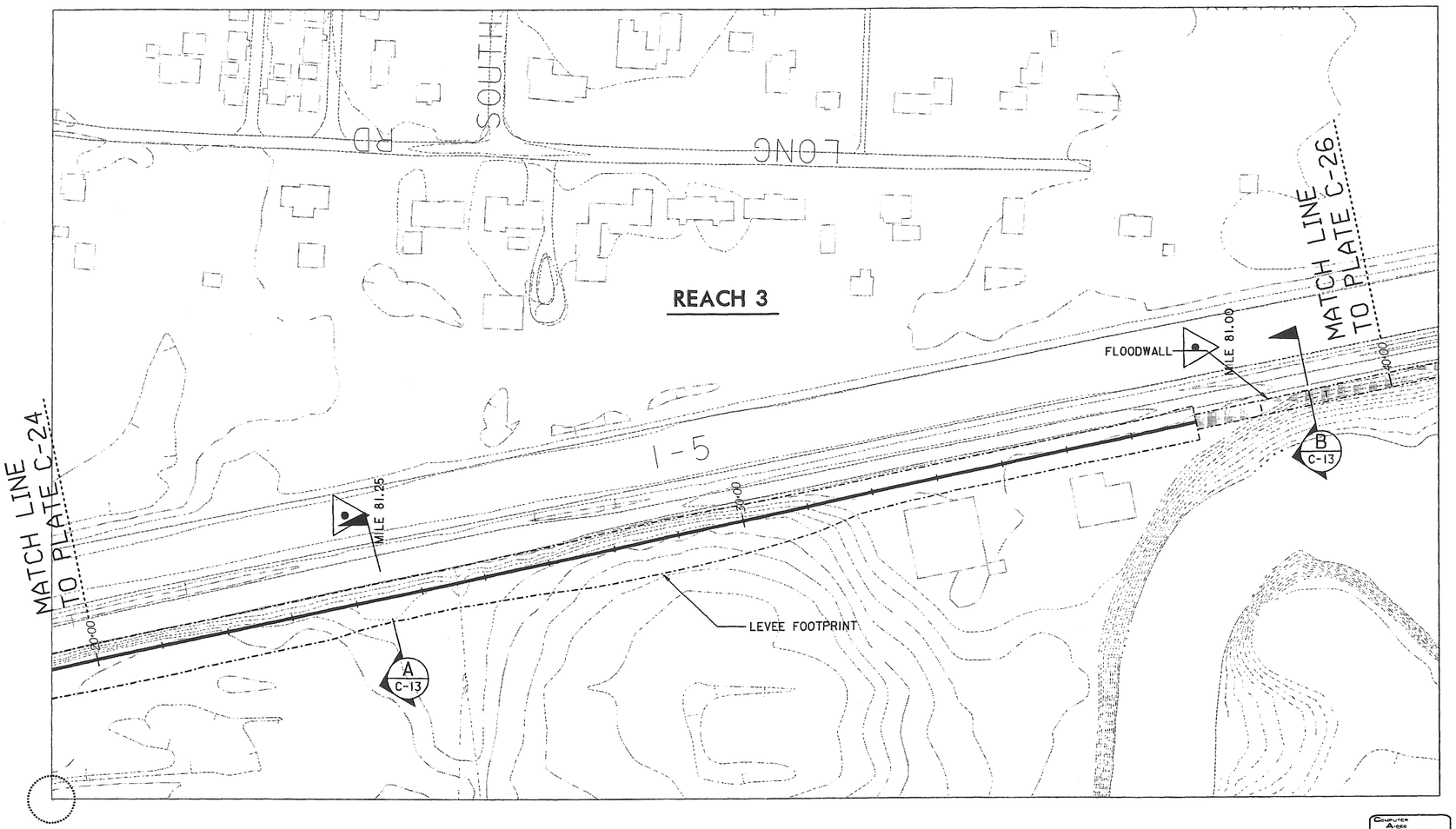
CENTRALIA, WA FLOOD DAMAGE REDUCTION PROJECT

REACH 3 - STA 0+00 TO STA 20+00

CENTRALIA PN C1919 WASHINGTON

SIZE	INVITATION NO.	FILE NO.	DATE:	PLATE
D		E-5-14-196	14 MAY 02	C-24
DSGN. SKJELBREIA		CHK. GOUGH	SHEET 32	





NOTES:

1. VERTICAL DATUM NGVD 1929.

REVISIONS

SYMBOL	ZONE	DESCRIPTION	DATE	BY

U.S. ARMY ENGINEER DISTRICT, SEATTLE
CORPS OF ENGINEERS
SEATTLE, WASHINGTON

CENTRALIA, WA FLOOD DAMAGE REDUCTION PROJECT

REACH 3 - STA 20+00 TO STA 40+00

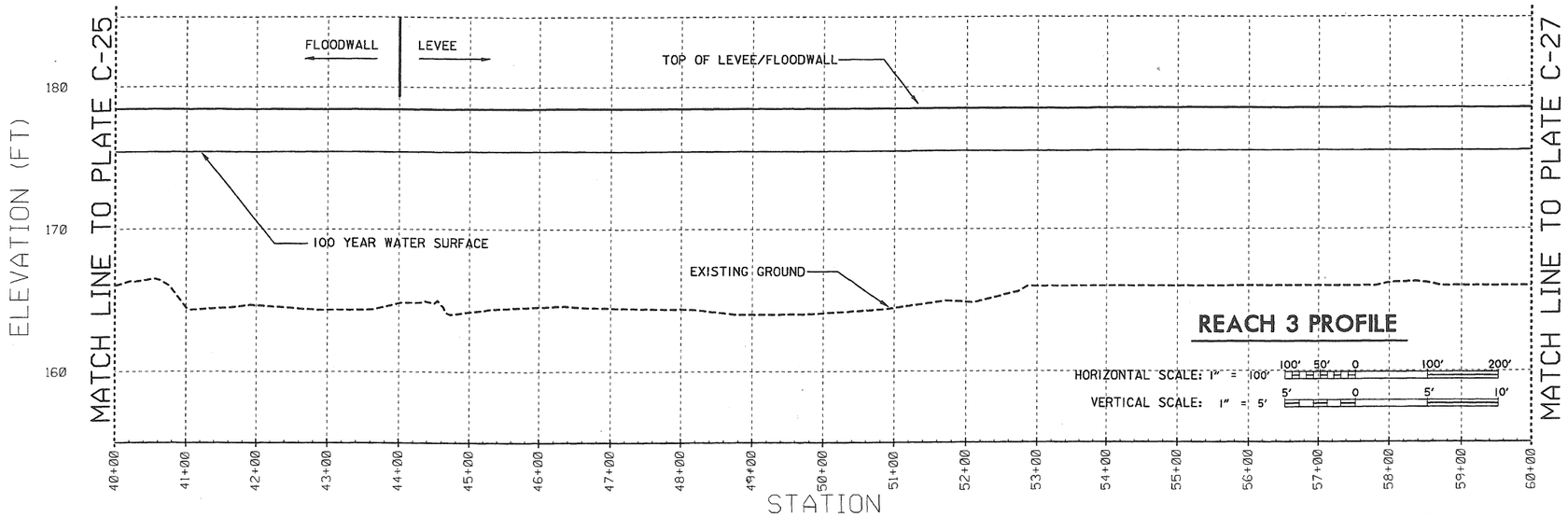
CENTRALIA PN C1919 WASHINGTON

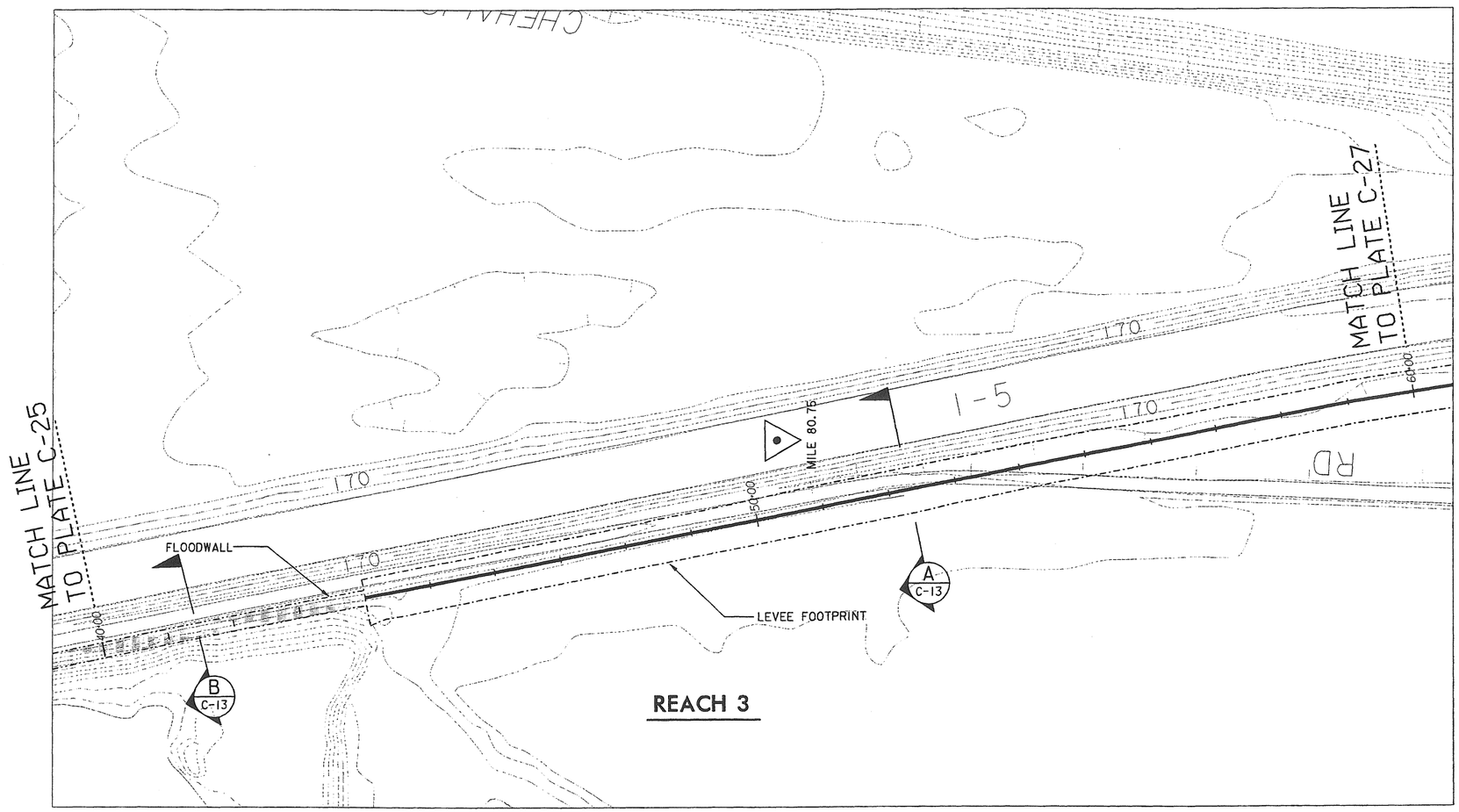
SIZE	INVITATION NO.	FILE NO.	DATE:	PLATE
D		E-5-14-196	14 MAY 02	C-25
DSGN. SKJELBREIA		CHK. GOUGH	SHEET 33	

This project was designed by the Seattle District U.S. Army Corps of Engineers. The initials or signatures and registration designations of individuals appear within the specifications or on these project documents within the scope of their employment as required by ER 1110-1-8152, Professional Registration.

DATE AND TIME PLOTTED: 20-SEP-2002 09:24
DESIGN FILE: I:\designs\ccfr\civ\ccfrct01.dgn

Computer Aided Design & Drafting





REVISIONS				
SYMBOL	ZONE	DESCRIPTION	DATE	BY

1" = 100' 100' 50' 0 100' 200'

NOTES:

1. VERTICAL DATUM NGVD 1929.

This project was designed by the Seattle District U.S. Army Corps of Engineers. The initials or signatures and registration designations of individuals appear within the specifications or on these project documents within the scope of their employment as required by ER 1110-1-8152, Professional Registration.

DATE AND TIME PLOTTED: 20-SEP-2002 09:25
DESIGN FILE: I:\designs\ccfr\civ\ccfrct0m.dgn

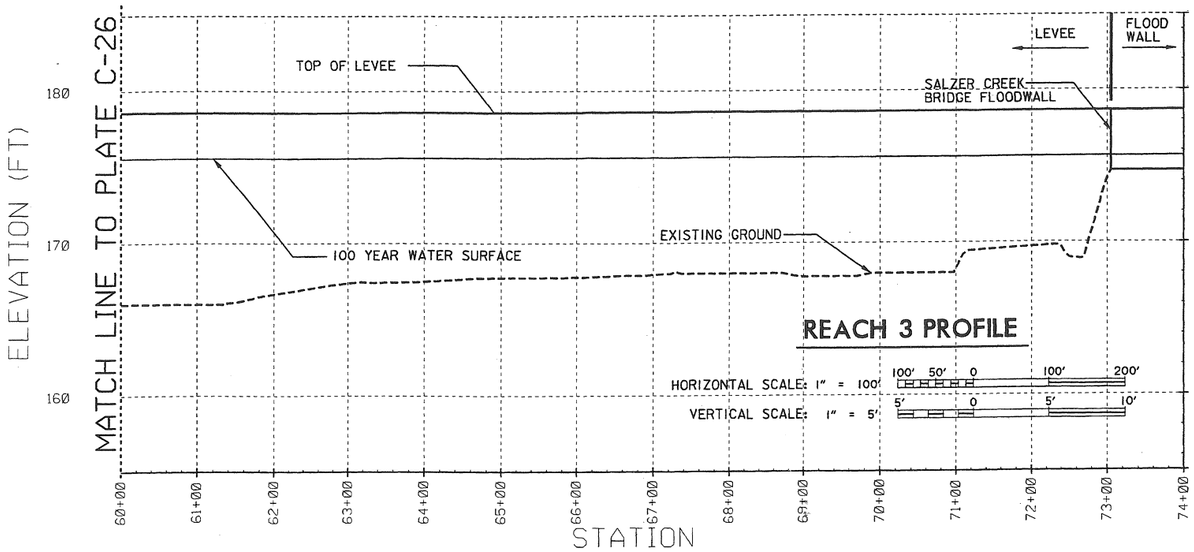
U.S. ARMY ENGINEER DISTRICT, SEATTLE
CORPS OF ENGINEERS
SEATTLE, WASHINGTON

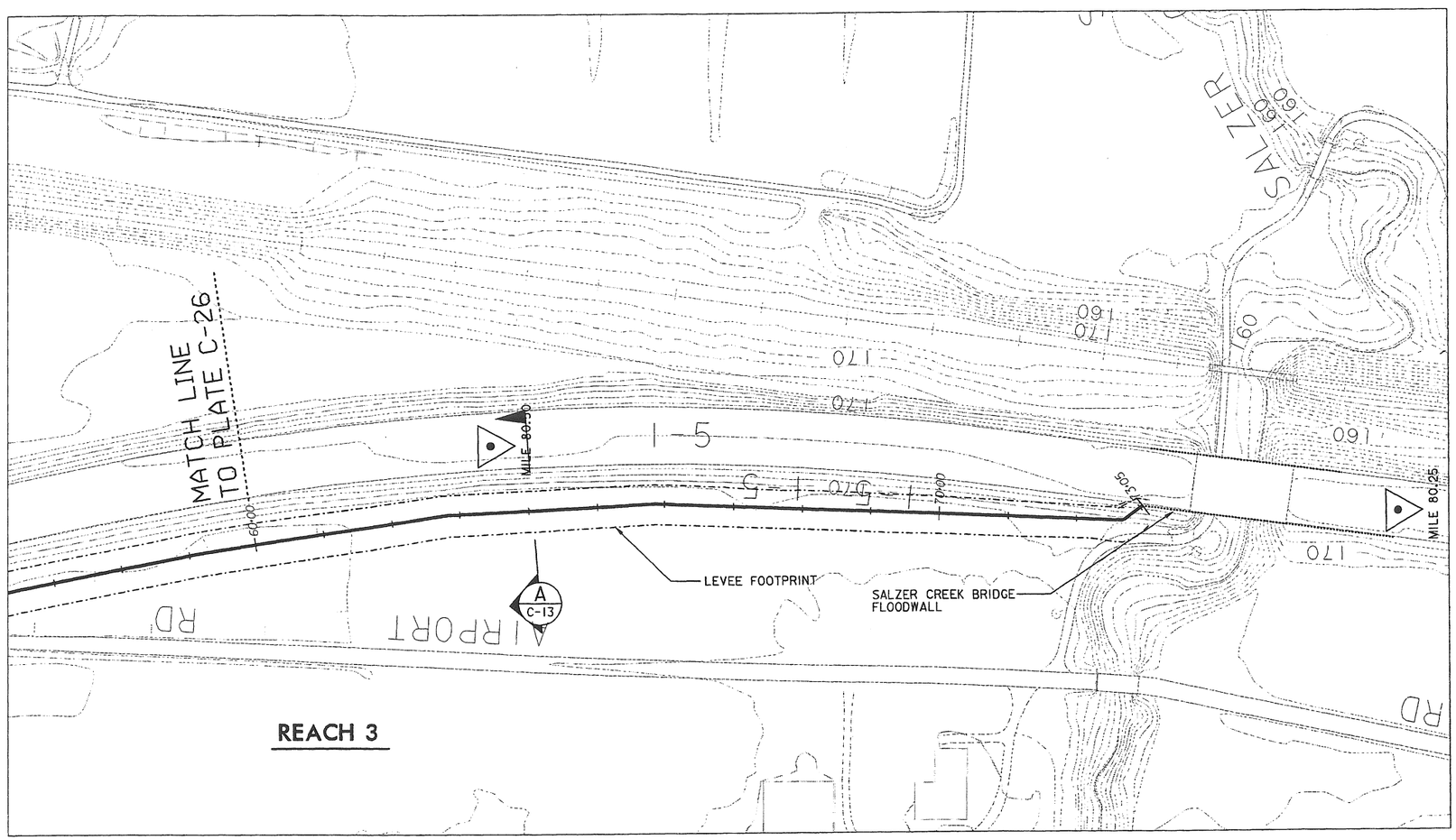
CENTRALIA, WA FLOOD DAMAGE REDUCTION PROJECT

REACH 3 - STA 40+00 TO STA 60+00

CENTRALIA PN C1919 WASHINGTON

SIZE	INVITATION NO.	FILE NO.	DATE:	PLATE
D		E-5-14-196	14 MAY 02	C-26
DSGN. SKJELBREIA		CHK. GOUGH	SHEET 34	





REVISIONS				
SYMBOL	ZONE	DESCRIPTION	DATE	BY

1" = 100' 100' 50' 0 100' 200'

NOTES:

1. VERTICAL DATUM NGVD 1929.

This project was designed by the Seattle District U.S. Army Corps of Engineers. The initials or signatures and registration designations of individuals appear within the specifications or on these project documents within the scope of their employment as required by ER 1110-1-8152, Professional Registration.

DATE AND TIME PLOTTED: 20-SEP-2002 09:27
DESIGN FILE: I:\designs\ccfr\civ\ccfrct0n.dgn

COMPUTER AIDED DESIGN & DRAFTING

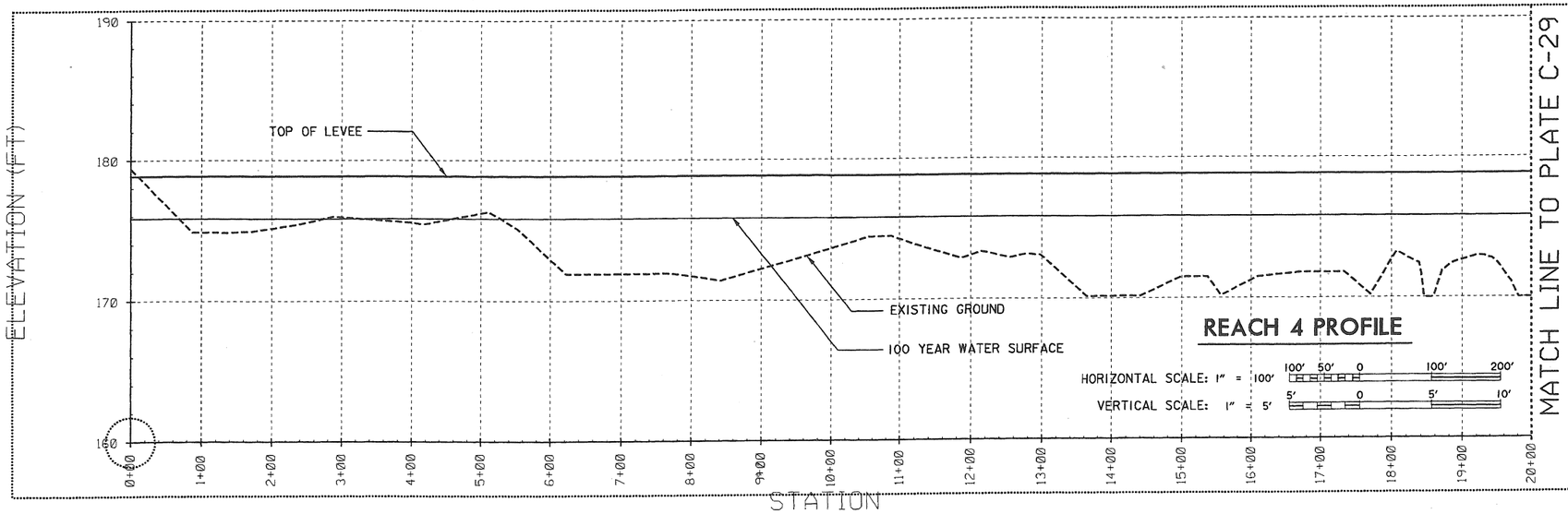
U.S. ARMY ENGINEER DISTRICT, SEATTLE
CORPS OF ENGINEERS
SEATTLE, WASHINGTON

CENTRALIA, WA FLOOD DAMAGE REDUCTION PROJECT

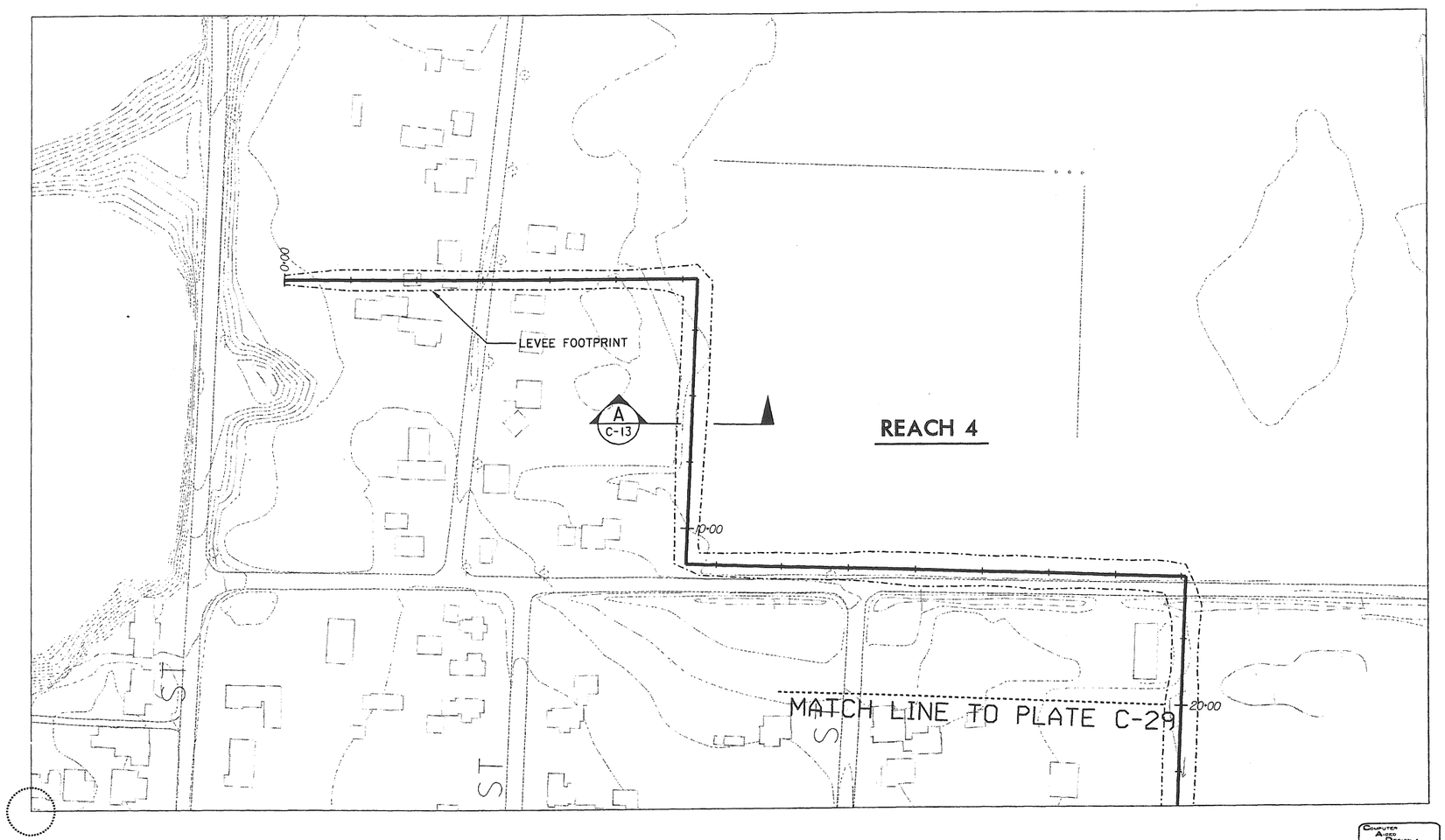
REACH 3 - STA 60+00 TO STA 73+05

CENTRALIA PN C1919 WASHINGTON

SIZE	INVITATION NO.	FILE NO.	DATE:	PLATE
D		E-5-14-196	14 MAY 02	C-27
DSGN. SKJELBREIA		CHK. GOUGH	SHEET 35	



REVISIONS				
SYMBOL	ZONE	DESCRIPTION	DATE	BY



N

1" = 100' 100' 50' 0 100' 200'

NOTES:

1. VERTICAL DATUM NGVD 1929.

This project was designed by the Seattle District U.S. Army Corps of Engineers. The initials or signatures and registration designations of individuals appear within the specifications or on these project documents within the scope of their employment as required by ER 1110-1-8152, Professional Registration.

DATE AND TIME PLOTTED: 20-SEP-2002 09:28
DESIGN FILE: i:\designs\ccfr\civ\ccfrct0o.dgn

COMPUTER AIDED DESIGN & DRAFTING

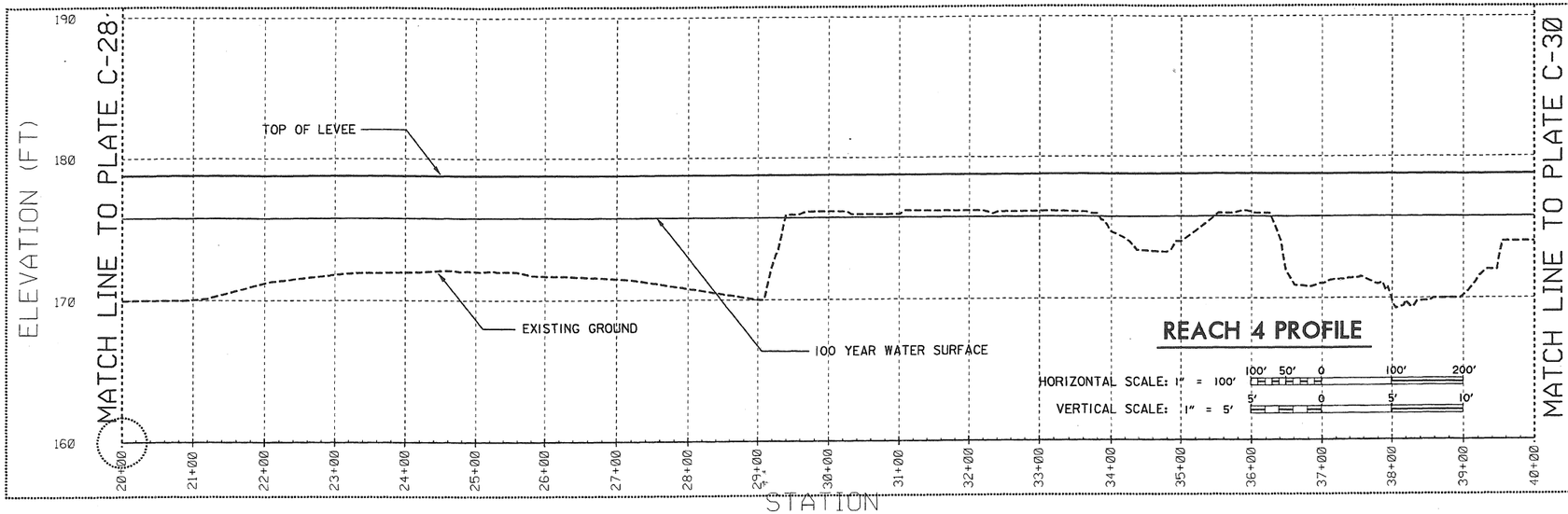
U.S. ARMY ENGINEER DISTRICT, SEATTLE
CORPS OF ENGINEERS
SEATTLE, WASHINGTON

CENTRALIA, WA FLOOD DAMAGE REDUCTION PROJECT

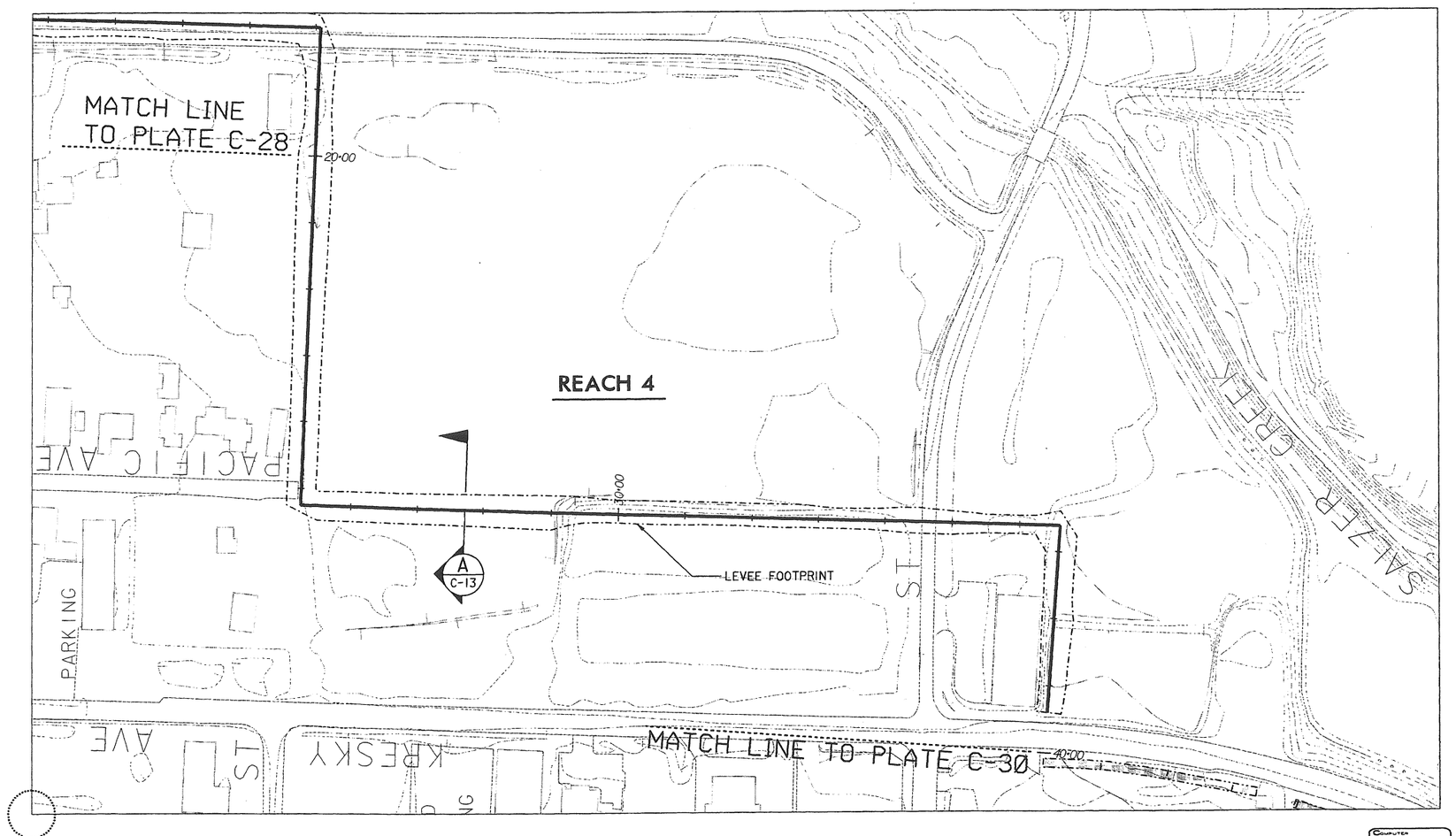
REACH 4 – STA 0+00 TO STA 20+00

CENTRALIA PN C1919 WASHINGTON

SIZE	INVITATION NO.	FILE NO.	DATE:	PLATE
D		E-5-14-196	14 MAY 02	C-28
DSGN. SKJELBREIA		CHK. GOUGH	SHEET 36	



REVISIONS				
SYMBOL	ZONE	DESCRIPTION	DATE	BY



N

1" = 100' 100' 50' 0 100' 200'

NOTES:

1. VERTICAL DATUM NGVD 1929.

This project was designed by the Seattle District U.S. Army Corps of Engineers. The initials or signatures and registration designations of individuals appear within the specifications or on these project documents within the scope of their employment as required by ER 1110-1-8152, Professional Registration.

DATE AND TIME PLOTTED: 20-SEP-2002 09:29
DESIGN FILE: I:\designs\ccfr\civ\ccfrct0p.dgn

Computer Aided Design & Drafting

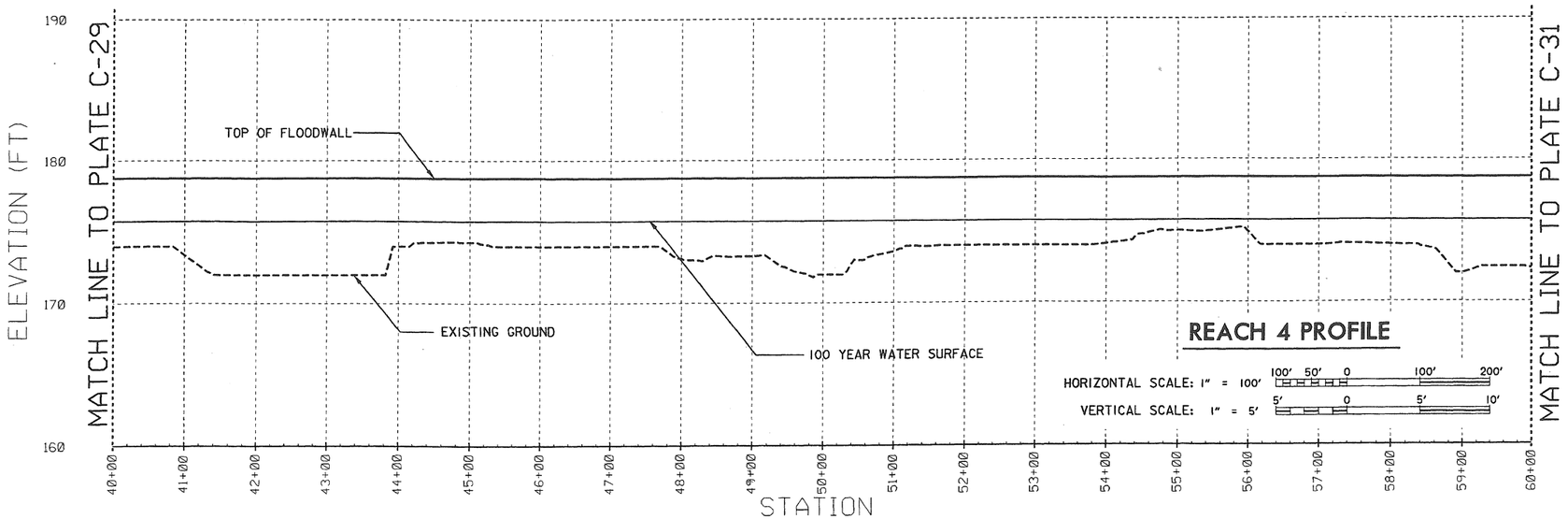
U.S. ARMY ENGINEER DISTRICT, SEATTLE
CORPS OF ENGINEERS
SEATTLE, WASHINGTON

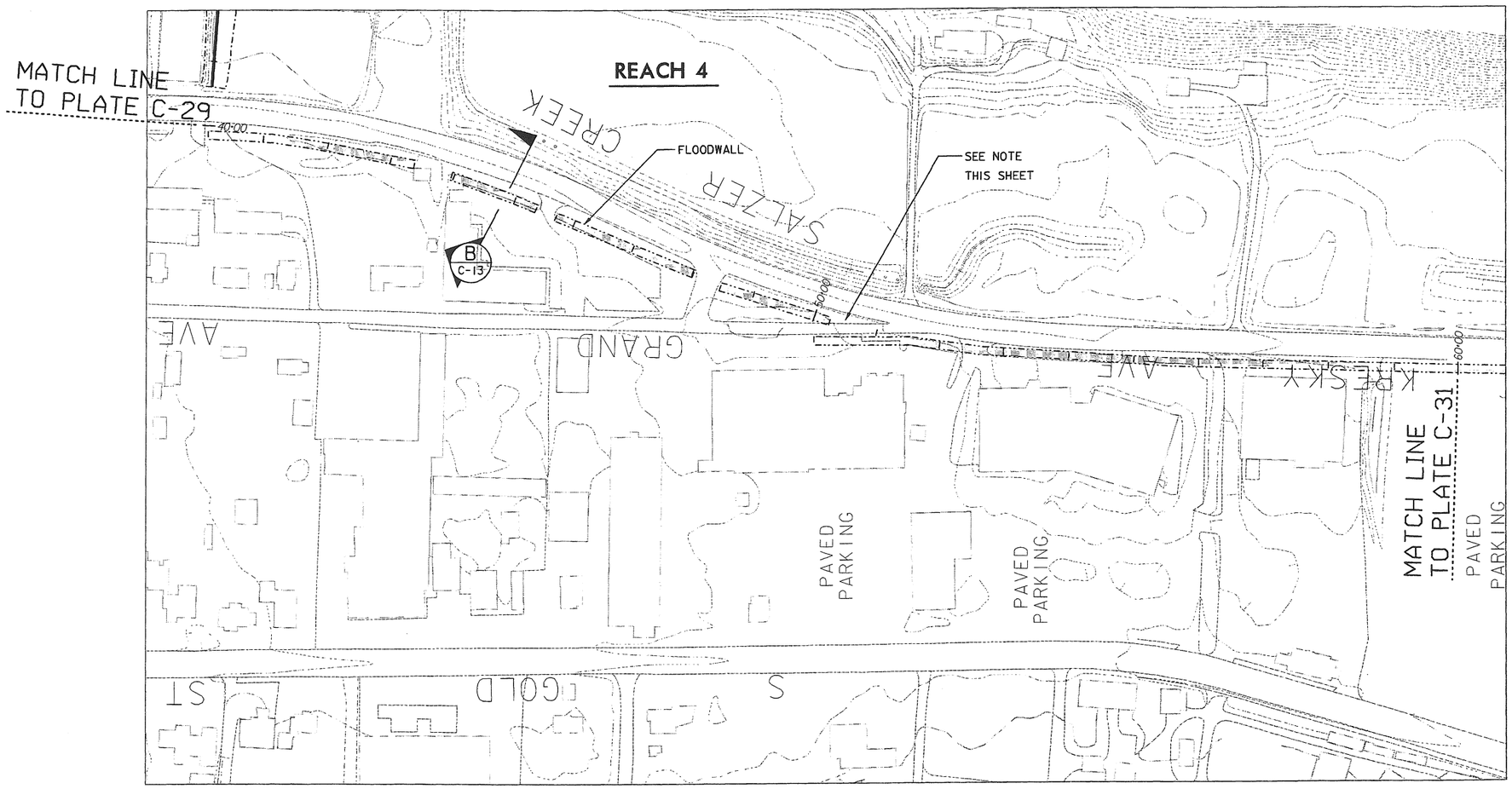
CENTRALIA, WA FLOOD DAMAGE REDUCTION PROJECT

REACH 4 - STA 20+00 TO STA 40+00

CENTRALIA PN C1919 WASHINGTON

SIZE	INVITATION NO.	FILE NO.	DATE	PLATE
D		E-5-14-196	14 MAY 02	C-29
DSGN. SKJELBREIA		CHK. GOUGH	SHEET 37	





NOTE: BREAK IN FLOODWALL TO BE CLOSED WITH SANDBAGS.

1" = 100' 100' 50' 0 100' 200'

NOTES:

1. VERTICAL DATUM NGVD 1929.

REVISIONS

SYMBOL	ZONE	DESCRIPTION	DATE	BY

U.S. ARMY ENGINEER DISTRICT, SEATTLE
CORPS OF ENGINEERS
SEATTLE, WASHINGTON

CENTRALIA, WA FLOOD DAMAGE REDUCTION PROJECT

REACH 4 - STA 40+00 TO STA 60+00

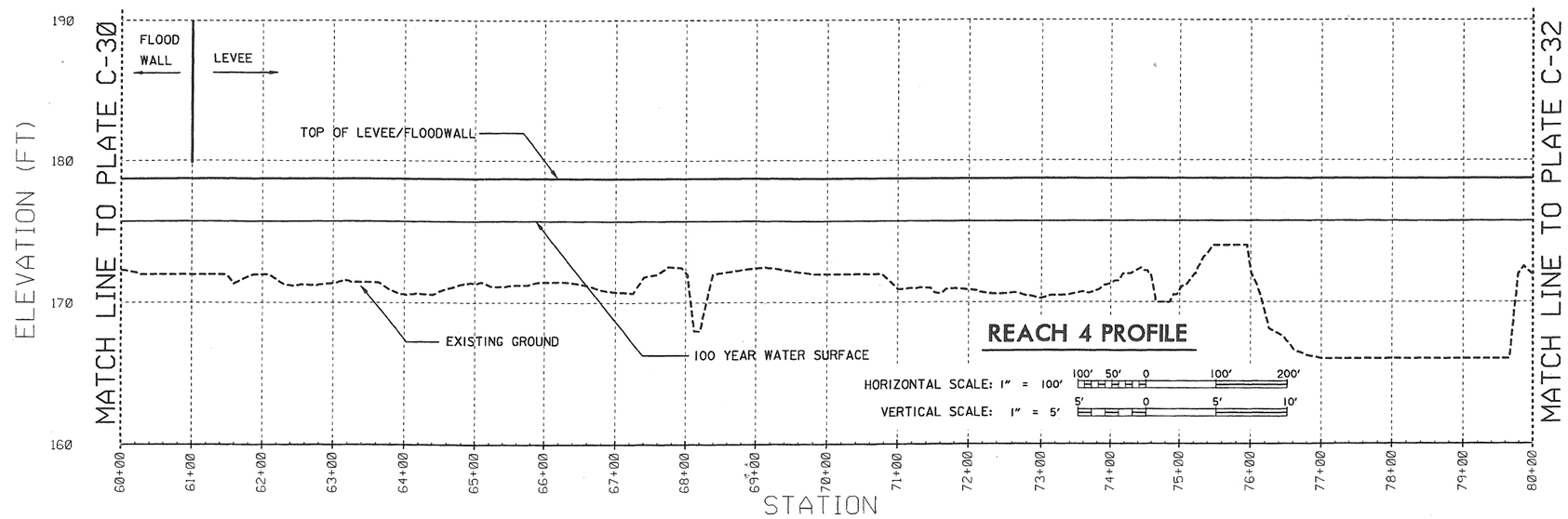
CENTRALIA PN C1919 WASHINGTON

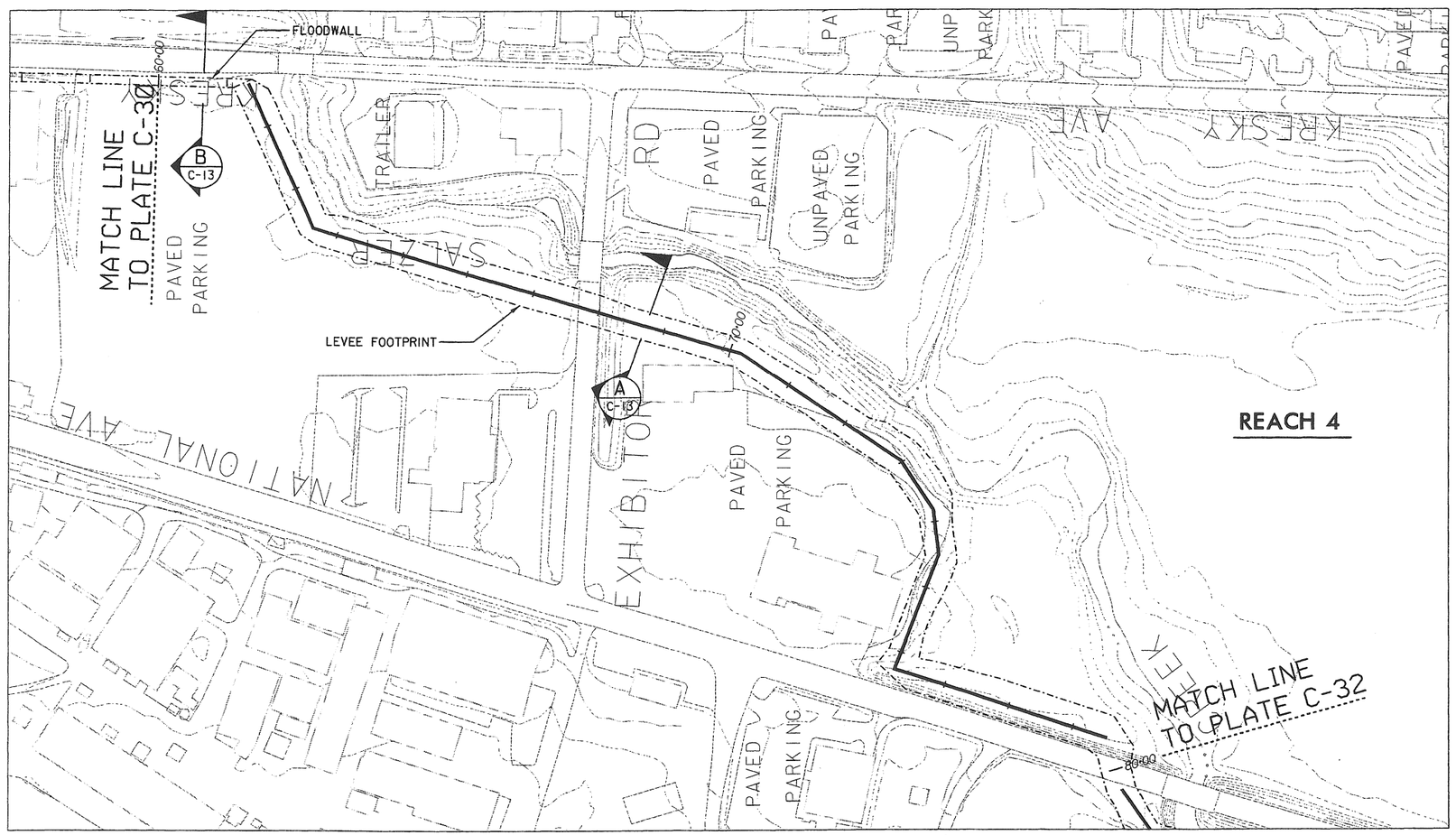
SIZE	INVITATION NO.	FILE NO.	DATE:	PLATE
D		E-5-14-196	14 MAY 02	C-30
DSGN. SKJELBREIA		CHK. GOUGH	SHEET 38	

This project was designed by the Seattle District U.S. Army Corps of Engineers. The initials or signatures and registration designations of individuals appear within the specifications or on these project documents within the scope of their employment as required by ER 1110-1-8152, Professional Registration.

DATE AND TIME PLOTTED: 20-SEP-2002 09:29
DESIGN FILE: I:\designs\ccfr\civ\ccfrct0q.dgn

Computer Aided Design & Drafting





REVISIONS				
SYMBOL	ZONE	DESCRIPTION	DATE	BY

1" = 100' 100' 50' 0 100' 200'

NOTES:

1. VERTICAL DATUM NGVD 1929.

This project was designed by the Seattle District U.S. Army Corps of Engineers. The initials or signatures and registration designations of individuals appear within the specifications or on these project documents within the scope of their employment as required by ER 1110-1-8152, Professional Registration.

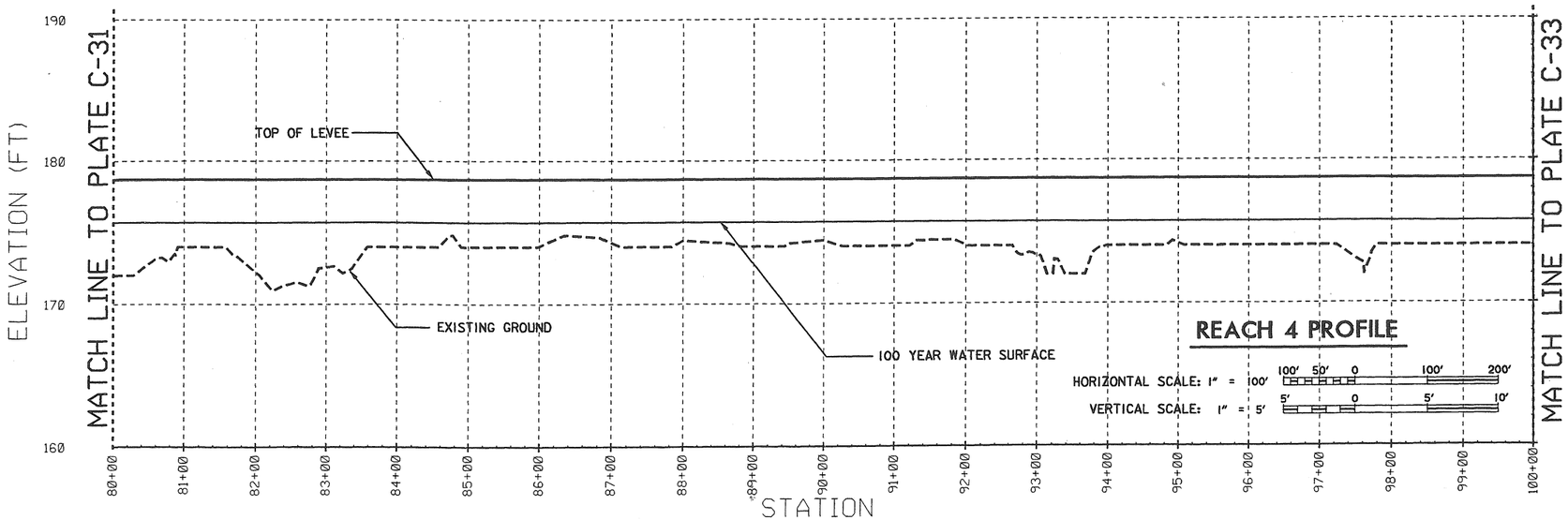
DATE AND TIME PLOTTED: 20-SEP-2002 09:30
DESIGN FILE: I:\designs\ccfr\civ\ccfrct0r.dgn

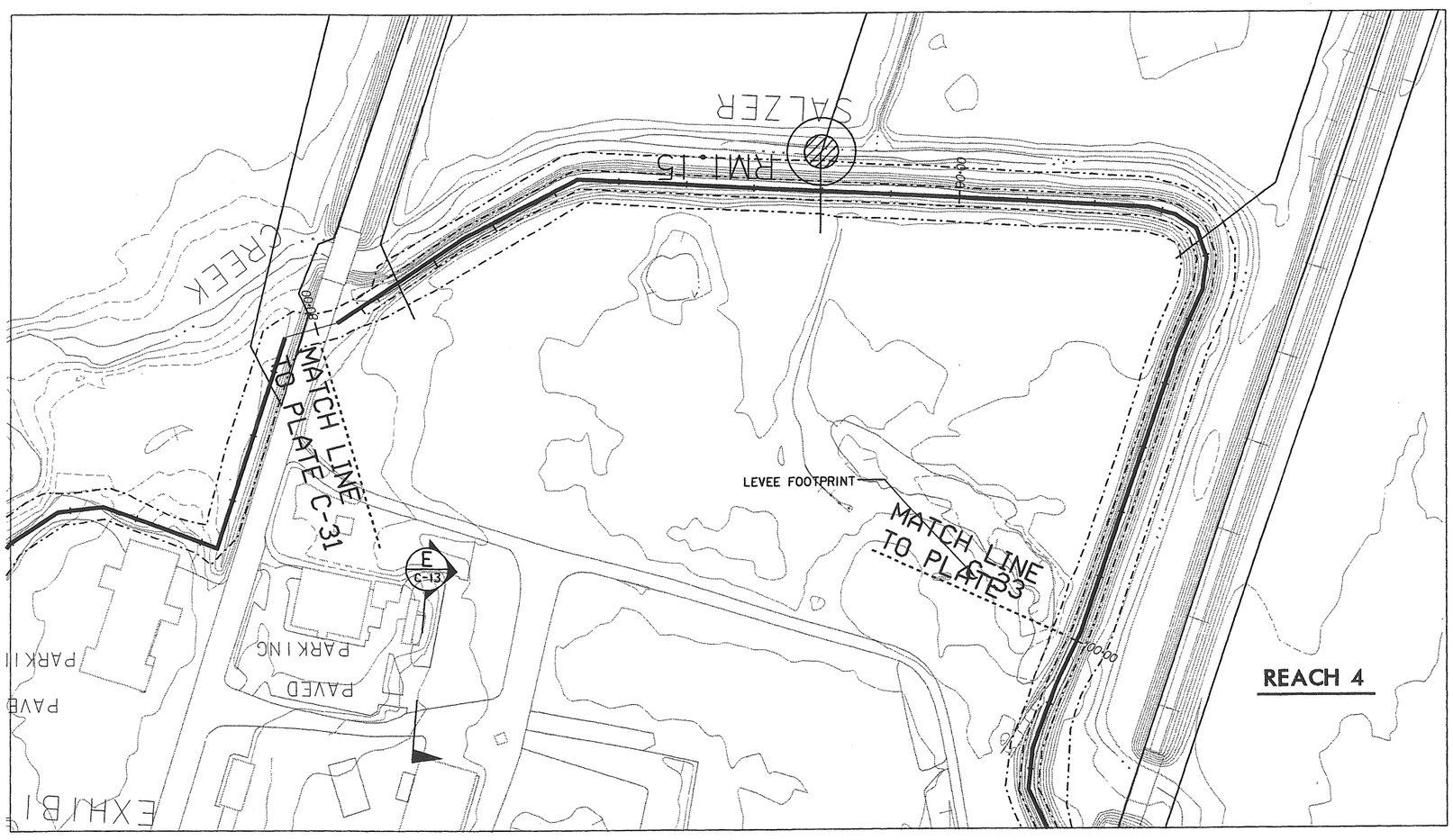
U.S. ARMY ENGINEER DISTRICT, SEATTLE
CORPS OF ENGINEERS
SEATTLE, WASHINGTON

CENTRALIA, WA FLOOD DAMAGE REDUCTION PROJECT

REACH 4 - STA 60+00 TO STA 80+00

CENTRALIA		PN C1919		WASHINGTON
SIZE D	INVITATION NO.	FILE NO. E-5-14-196	DATE: 14 MAY 02	PLATE C-31
DSGN. SKJELBREIA		CHK. GOUGH	SHEET 39	





SYMBOL	ZONE	DESCRIPTION	DATE	BY

N

1" = 100' 100' 50' 0 100' 200'

NOTES:

1. VERTICAL DATUM NGVD 1929.

This project was designed by the Seattle District U.S. Army Corps of Engineers. The initials or signatures and registration designations of individuals appear within the specifications or on these project documents within the scope of their employment as required by ER 1110-1-8152, Professional Registration.

DATE AND TIME PLOTTED: 20-SEP-2002 09:30
DESIGN FILE: I:\designs\ccfr\civ\ccfrct05.dgn

Computer Aided Design & Drafting

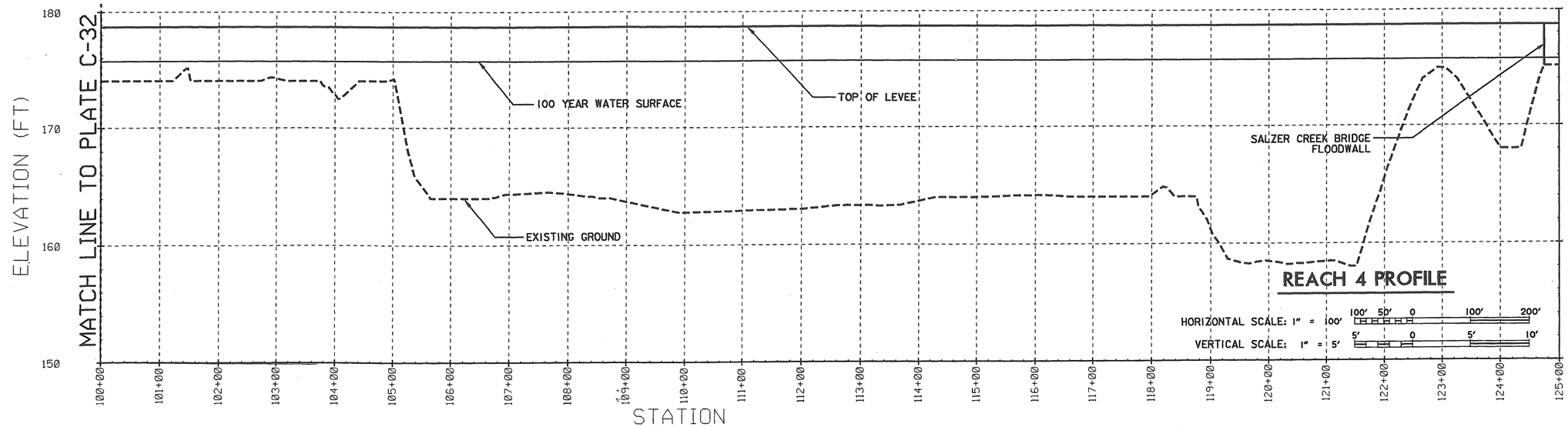
U.S. ARMY ENGINEER DISTRICT, SEATTLE
CORPS OF ENGINEERS
SEATTLE, WASHINGTON

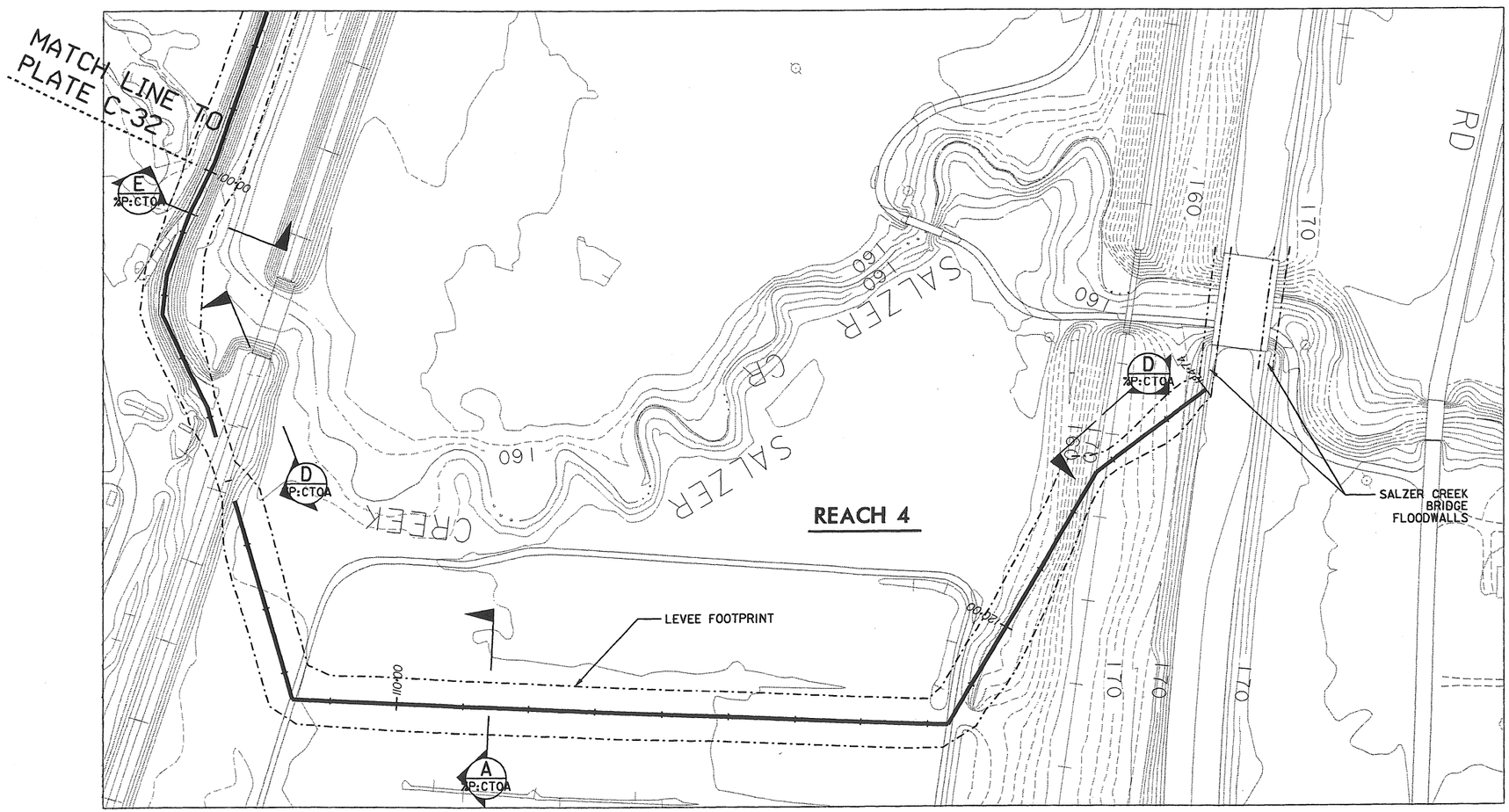
CENTRALIA, WA FLOOD DAMAGE REDUCTION PROJECT

REACH 4 - STA 80+00 TO STA 100+00

CENTRALIA PN C1919 WASHINGTON

SIZE	INVITATION NO.	FILE NO.	DATE:	PLATE
D		E-5-14-196	14 MAY 02	C-32
DSGN. SKJELBREIA		CHK. GOUGH	SHEET 40	





N

1" = 100' 100' 50' 0 100' 200'

NOTES:

1. VERTICAL DATUM NGVD 1929.

SYMBOL	ZONE	DESCRIPTION	DATE	BY
		REVISIONS		

This project was designed by the Seattle District U.S. Army Corps of Engineers. The initials or signatures and registration designations of individuals appear within the specifications or on these project documents within the scope of their employment as required by ER 1110-1-8152, Professional Registration.

DATE AND TIME PLOTTED: 19-SEP-2002 11:00
DESIGN FILE: I:\designs\ccfr\civ\ccfrct01.dgn

Computer Aided Design & Drafting

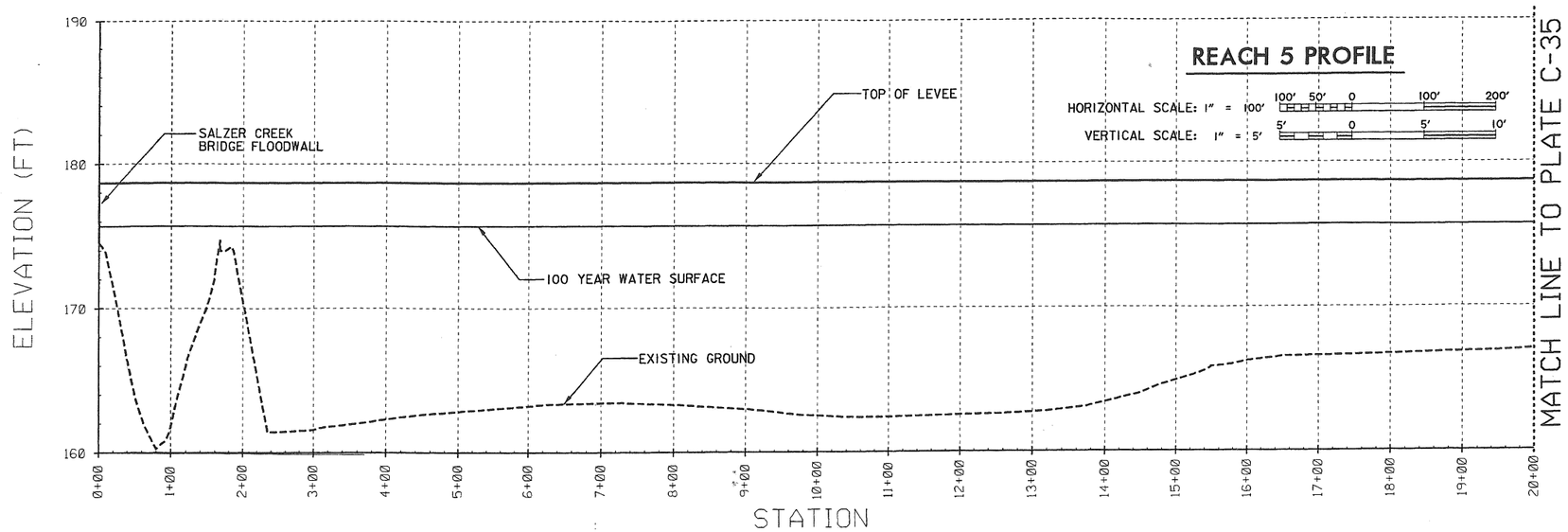
U.S. ARMY ENGINEER DISTRICT, SEATTLE
CORPS OF ENGINEERS
SEATTLE, WASHINGTON

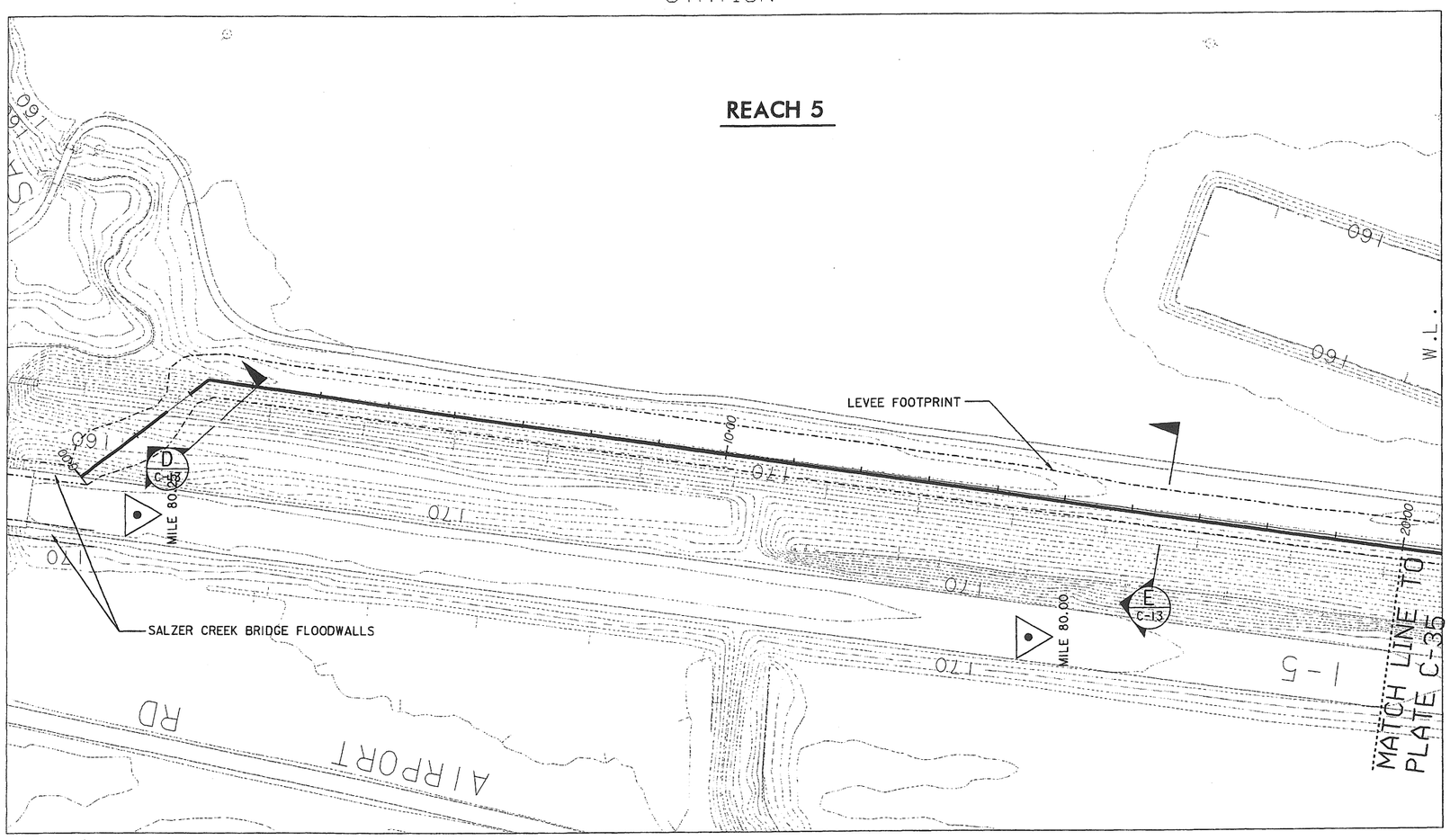
CENTRALIA, WA FLOOD DAMAGE REDUCTION PROJECT

REACH 4 – STA 100+00 TO STA 124+74

CENTRALIA PN C1919 WASHINGTON

SIZE	INVITATION NO.	FILE NO.	DATE:	PLATE
D		E-5-14-196	14 MAY 02	C-33
DSGN. SKJELBREIA		CHK. GOUGH	SHEET 41	





REVISIONS				
SYMBOL	ZONE	DESCRIPTION	DATE	BY

NOTES:

1. VERTICAL DATUM NGVD 1929.

N

1" = 100' 100' 50' 0 100' 200'

This project was designed by the Seattle District U.S. Army Corps of Engineers. The initials or signatures and registration designations of individuals appear within the specifications or on these project documents within the scope of their employment as required by ER 1110-1-8152, Professional Registration.

DATE AND TIME PLOTTED: 20-SEP-2002 09:34
DESIGN FILE: I:\designs\ccfr\civ\ccfrct0u.dgn

COMPUTER AIDED DESIGN & DRAFTING

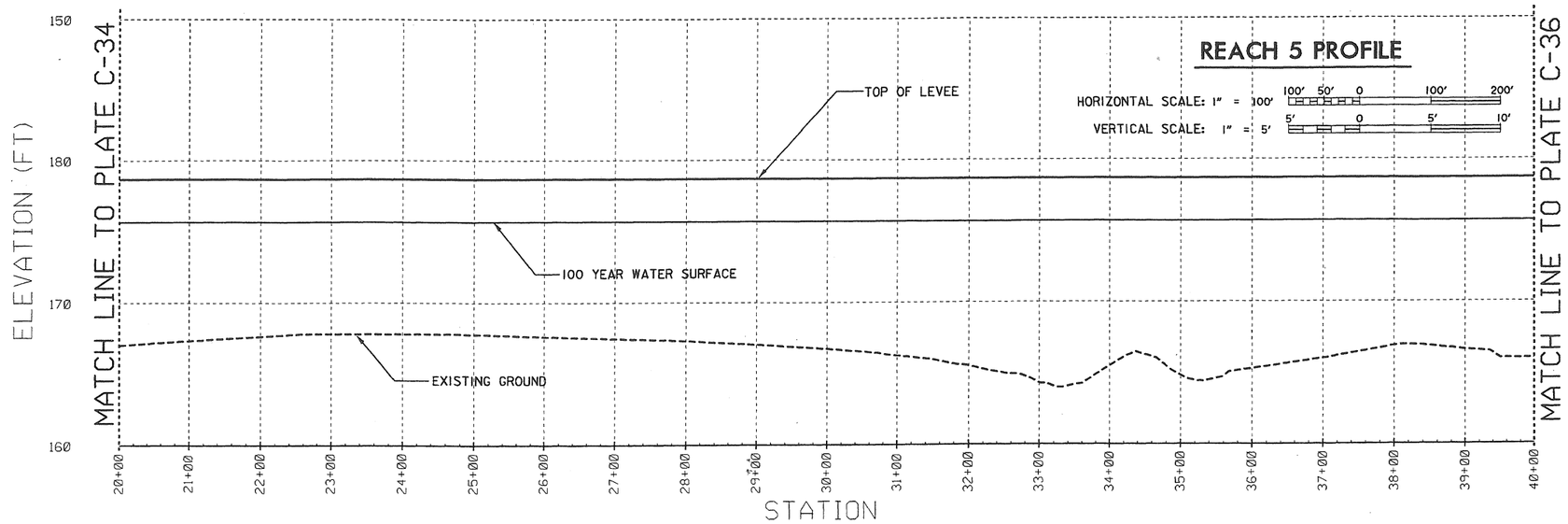
U.S. ARMY ENGINEER DISTRICT, SEATTLE
CORPS OF ENGINEERS
SEATTLE, WASHINGTON

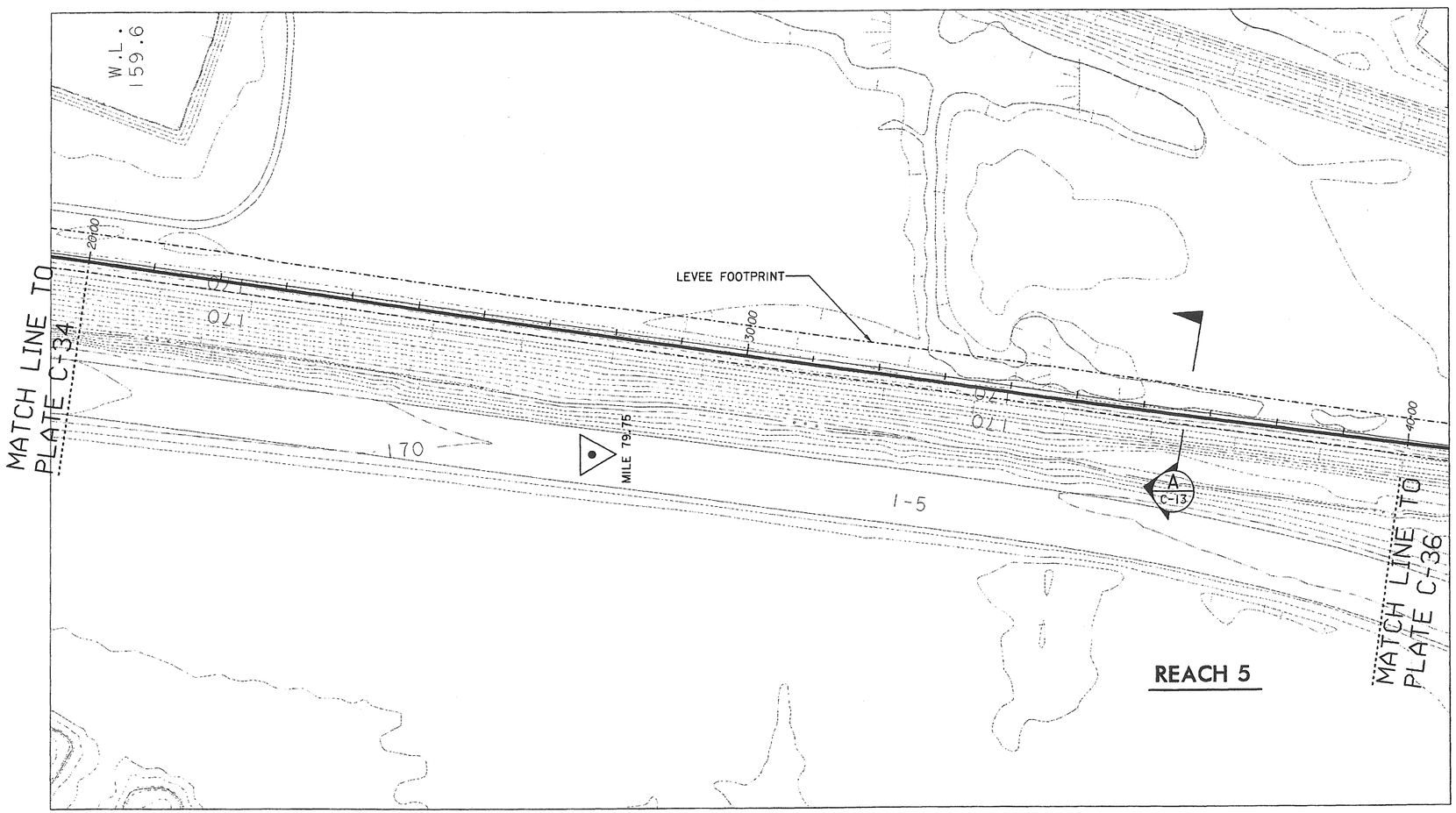
CENTRALIA, WA FLOOD DAMAGE REDUCTION PROJECT

REACH 5 - STA 0+00 TO STA 20+00

CENTRALIA PN C1919 WASHINGTON

SIZE	INVITATION NO.	FILE NO.	DATE:	PLATE
D		E-5-14-196	14 MAY 02	C-34
DSGN. SKJELBREIA		CHK. GOUGH	SHEET 42	





REVISIONS				
SYMBOL	ZONE	DESCRIPTION	DATE	BY

NOTES:

1. VERTICAL DATUM NGVD 1929.

N

1" = 100' 100' 50' 0 100' 200'

This project was designed by the Seattle District U.S. Army Corps of Engineers. The initials or signatures and registration designations of individuals appear within the specifications or on these project documents within the scope of their employment as required by ER 1110-1-8152, Professional Registration.

DATE AND TIME PLOTTED: 20-SEP-2002 09:36
DESIGN FILE: I:\designs\ccfr\civ\ccfrct0v.dgn

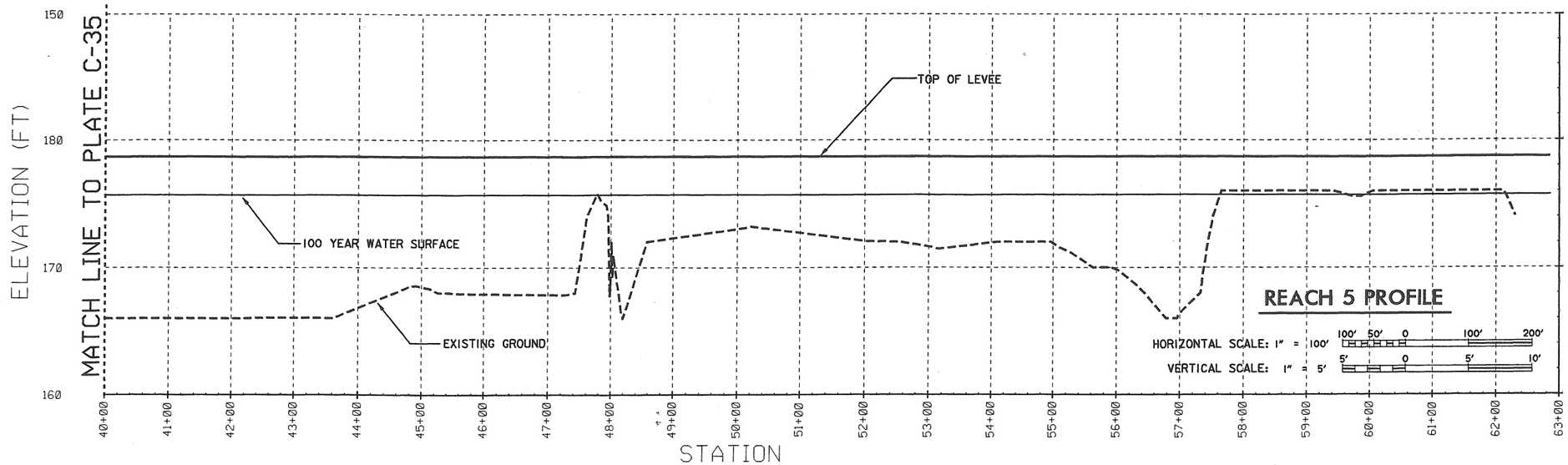
COMPUTER AIDED DESIGN & DRAFTING

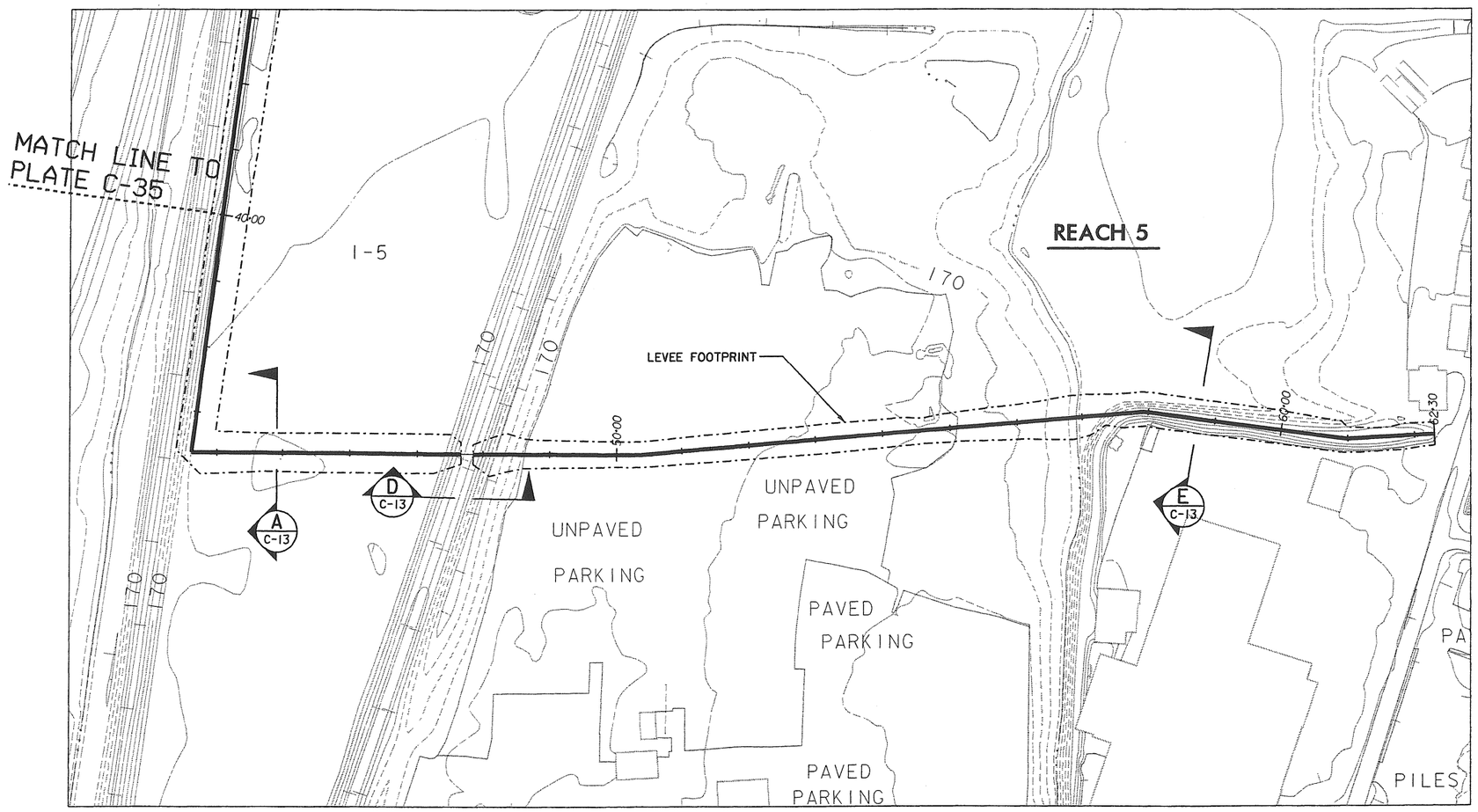
U.S. ARMY ENGINEER DISTRICT, SEATTLE
CORPS OF ENGINEERS
SEATTLE, WASHINGTON

CENTRALIA, WA FLOOD DAMAGE REDUCTION PROJECT

REACH 5 - STA 20+00 TO STA 40+00

CENTRALIA		PN C1919		WASHINGTON
SIZE D	INVITATION NO.	FILE NO. E-5-14-196	DATE: 14 MAY 02	PLATE C-35
DSGN. SKJELBREIA		CHK. GOUGH	SHEET 43	





N

1" = 100' 100' 50' 0 100' 200'

NOTES:

1. VERTICAL DATUM NGVD 1929.

SYMBOL	ZONE	DESCRIPTION	DATE	BY
		REVISIONS		

U.S. ARMY ENGINEER DISTRICT, SEATTLE
CORPS OF ENGINEERS
SEATTLE, WASHINGTON

CENTRALIA, WA FLOOD DAMAGE REDUCTION PROJECT

REACH 5 - STA 40+00 TO STA 62+30

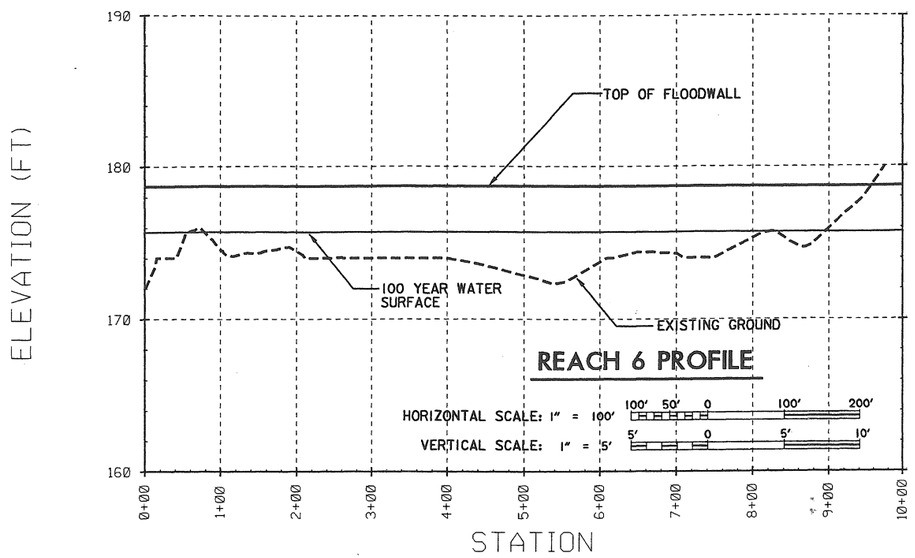
CENTRALIA PN C1919 WASHINGTON

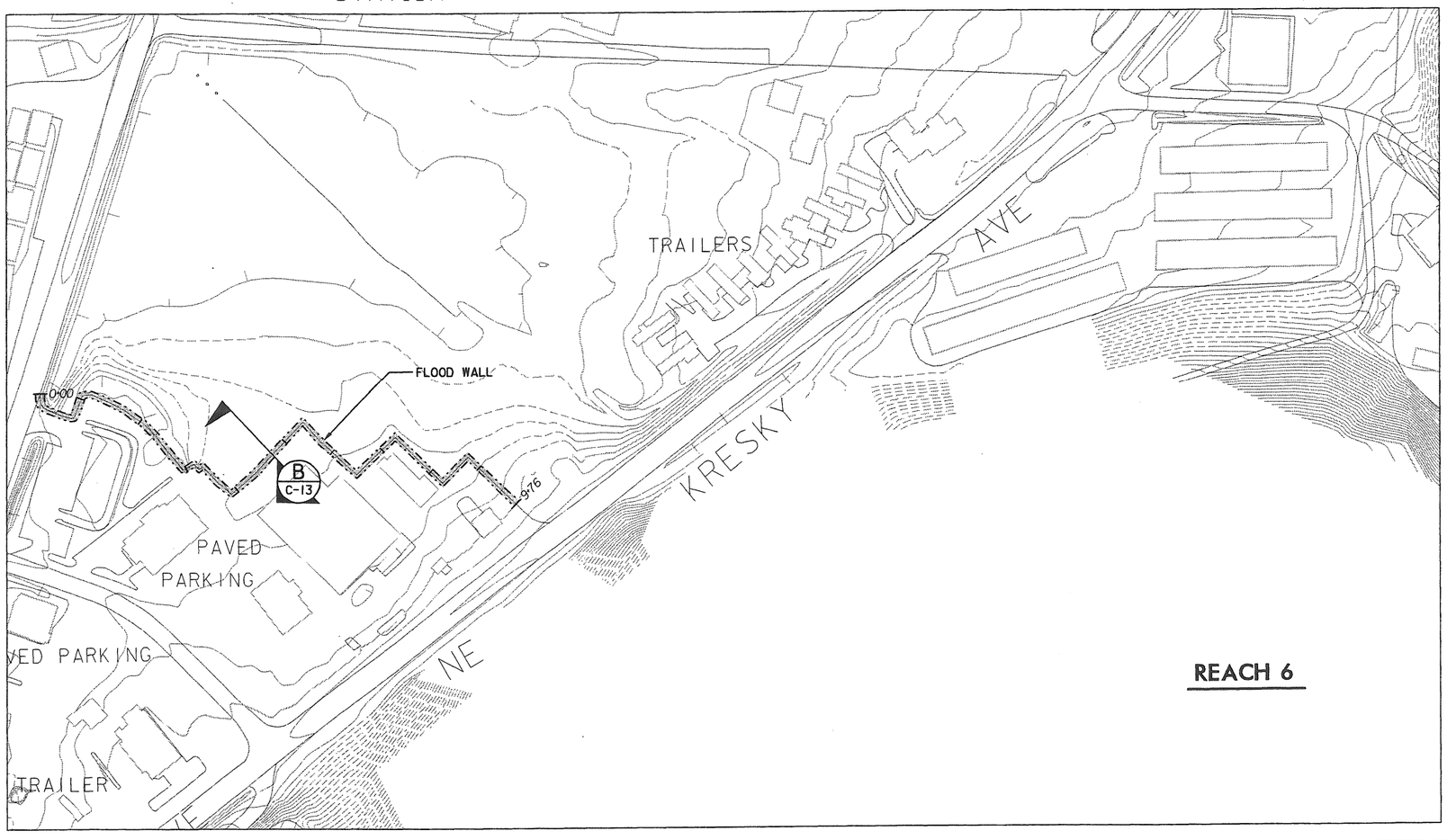
SIZE	INVITATION NO.	FILE NO.	DATE	PLATE
D		E-5-14-196	14 MAY 02	C-36
DSGN. SKJELBREIA		CHK. GOUGH	SHEET 44	

This project was designed by the Seattle District U.S. Army Corps of Engineers. The initials or signatures and registration designations of individuals appear within the specifications or on these project documents within the scope of their employment as required by ER 1110-1-8152, Professional Registration.

DATE AND TIME PLOTTED: 20-SEP-2002 09:37
DESIGN FILE: I:\designs\ccfr\civ\ccfrct0w.dgn

Computer Aided Design & Drafting





REVISIONS				
SYMBOL	ZONE	DESCRIPTION	DATE	BY

NOTES:

1. VERTICAL DATUM NGVD 1929.

N

1" = 100' 100' 50' 0 100' 200'

This project was designed by the Seattle District U.S. Army Corps of Engineers. The initials or signatures and registration designations of individuals appear within the specifications or on these project documents within the scope of their employment as required by ER 1110-1-8152, Professional Registration.

DATE AND TIME PLOTTED: 20-SEP-2002 09:38
DESIGN FILE: I:#designs#ccfr#civ#ccfrct0x.dgn

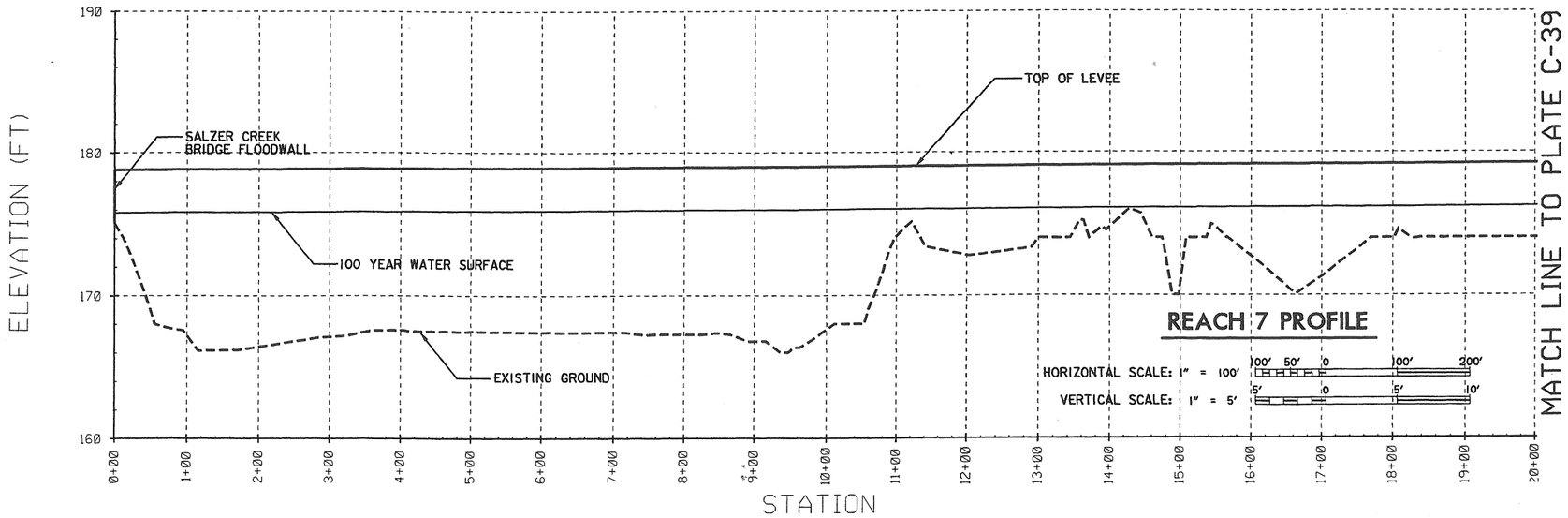
Computer Aided Design & Drafting

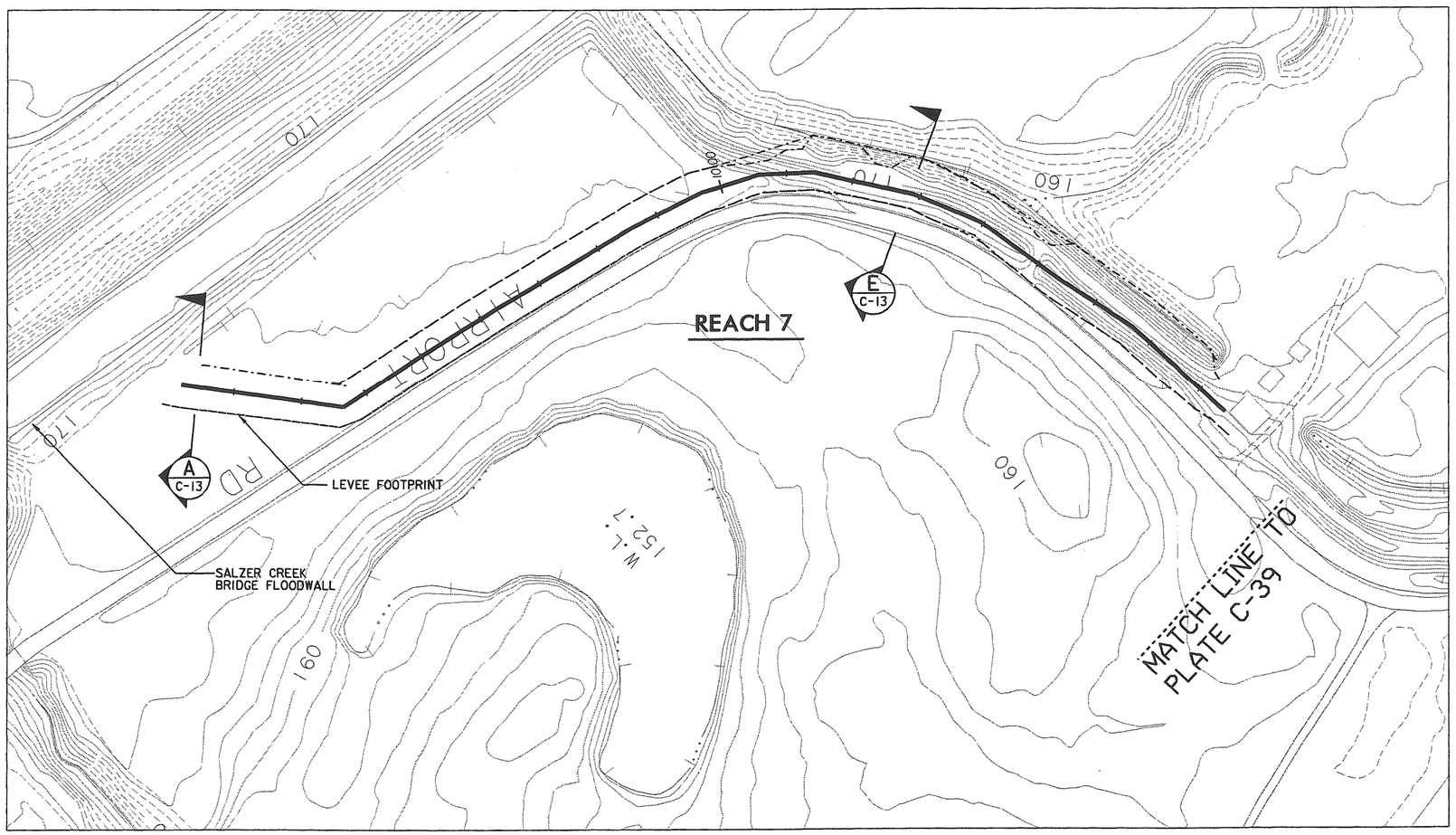
U.S. ARMY ENGINEER DISTRICT, SEATTLE
CORPS OF ENGINEERS
SEATTLE, WASHINGTON

CENTRALIA, WA FLOOD DAMAGE REDUCTION PROJECT

REACH 6 – STA 0+00 TO STA 9+76

CENTRALIA		PN C1919		WASHINGTON
SIZE D	INVITATION NO.	FILE NO. E-5-14-196	DATE: 14 MAY 02	PLATE C-37
DSGN. SKJELBREIA		CHK. GOUGH	SHEET 45	





REVISIONS				
SYMBOL	ZONE	DESCRIPTION	DATE	BY

NOTES:

1. VERTICAL DATUM NGVD 1929.

N

1" = 100' 100' 50' 0 100' 200'

This project was designed by the Seattle District U.S. Army Corps of Engineers. The initials or signatures and registration designations of individuals appear within the specifications or on these project documents within the scope of their employment as required by ER 1110-1-8152, Professional Registration.

DATE AND TIME PLOTTED: 20-SEP-2002 09:41
DESIGN FILE: i:\designs\ccfr\civ\ccfrct0y.dgn

COMPUTER AIDED DESIGN & DRAFTING

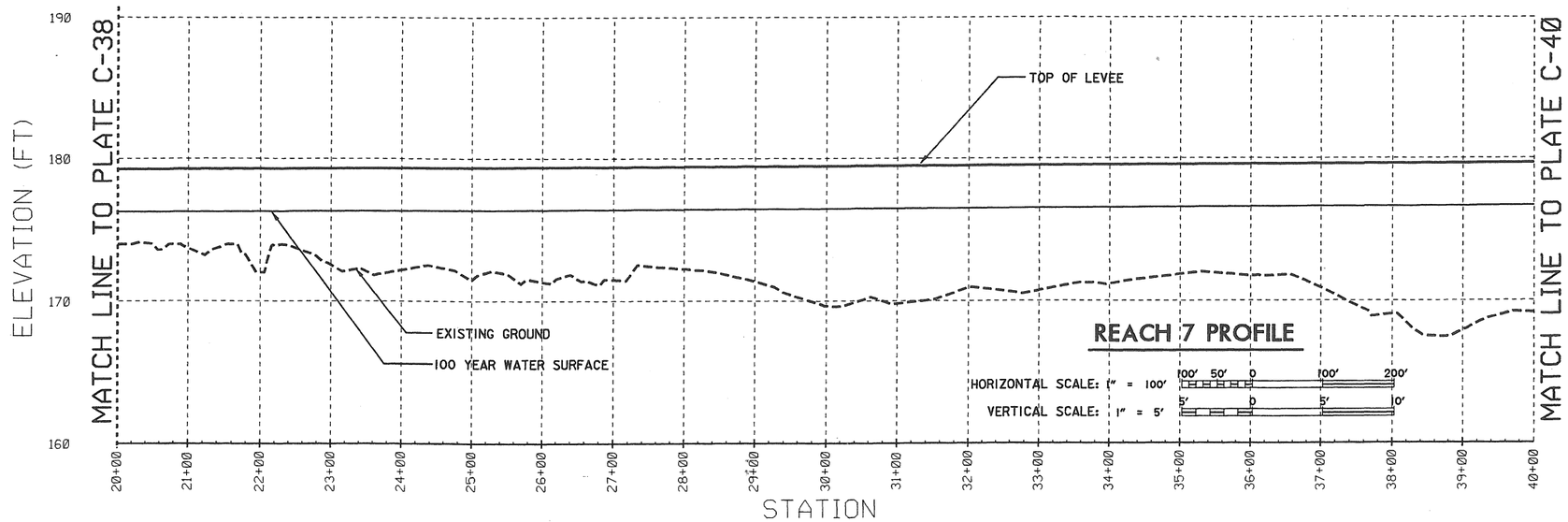
U.S. ARMY ENGINEER DISTRICT, SEATTLE
CORPS OF ENGINEERS
SEATTLE, WASHINGTON

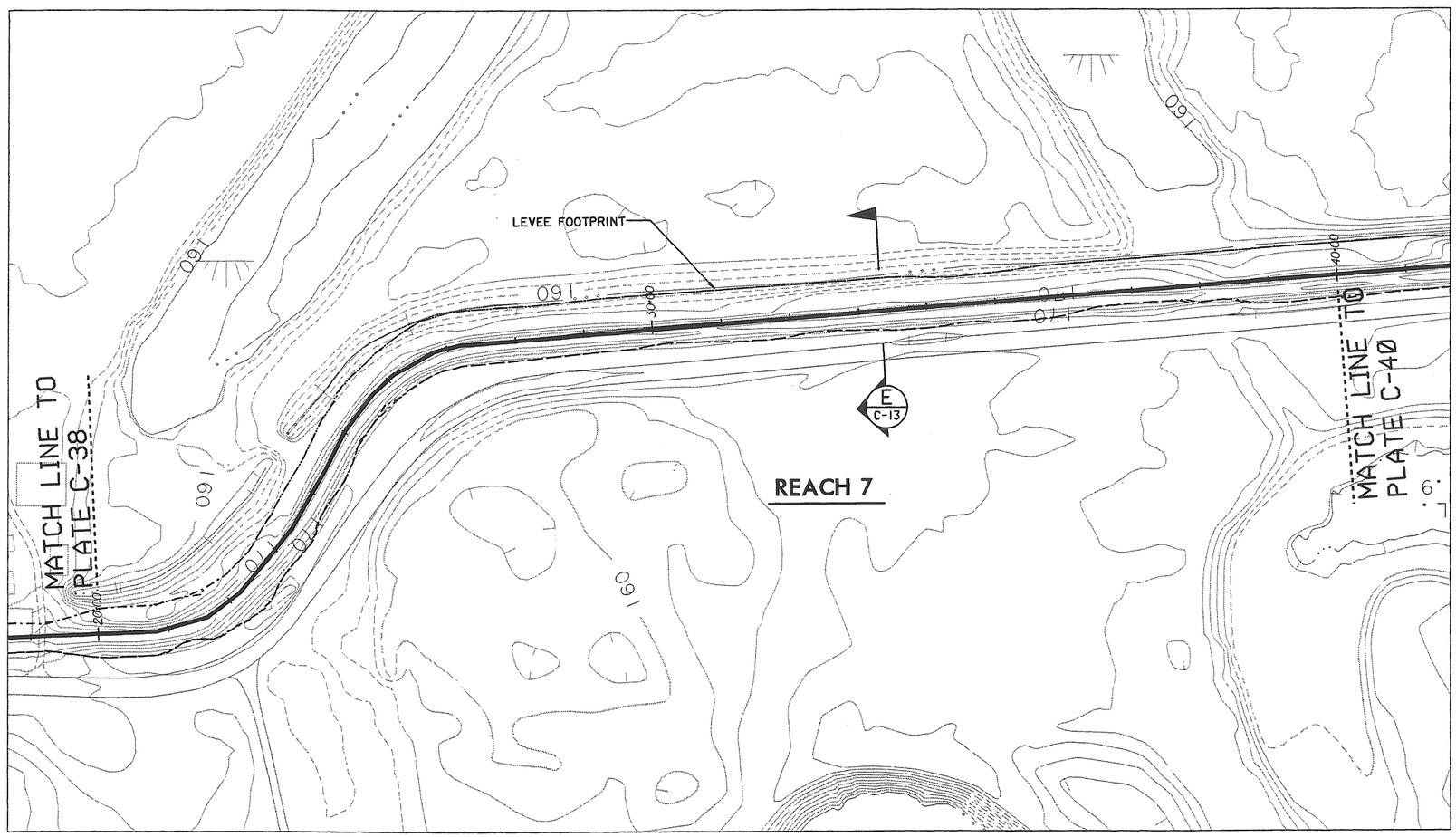
CENTRALIA, WA FLOOD DAMAGE REDUCTION PROJECT

REACH 7 – STA 0+00 TO STA 20+00

CENTRALIA PN C1919 WASHINGTON

SIZE	INVITATION NO.	FILE NO.	DATE:	PLATE
D		E-5-14-196	14 MAY 02	C-38
DSGN. SKJELBREIA		CHK. GOUGH	SHEET 46	





REVISIONS				
SYMBOL	ZONE	DESCRIPTION	DATE	BY

NOTES:

1. VERTICAL DATUM NGVD 1929.

N

1" = 100' 100' 50' 0 100' 200'

U.S. ARMY ENGINEER DISTRICT, SEATTLE
CORPS OF ENGINEERS
SEATTLE, WASHINGTON

CENTRALIA, WA FLOOD DAMAGE REDUCTION PROJECT

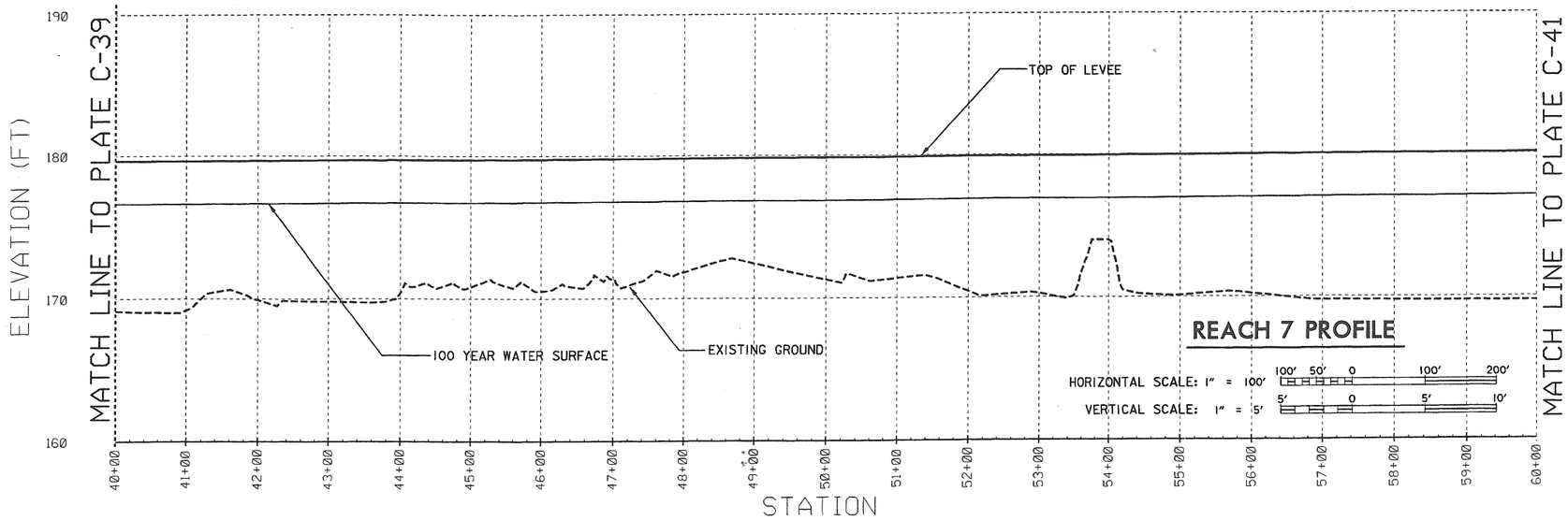
REACH 7 - STA 20+00 TO STA 40+00

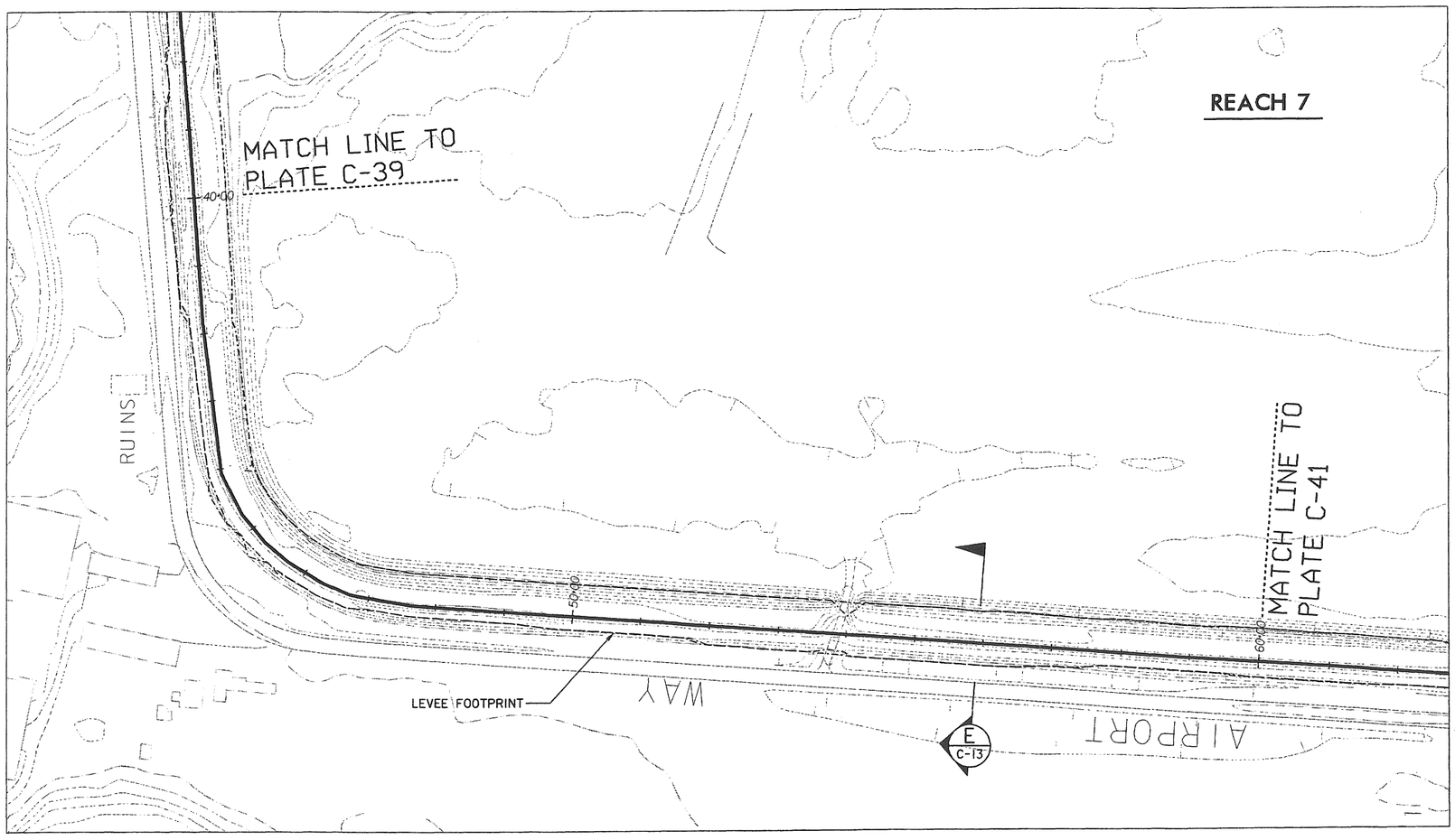
CENTRALIA		PN C1919		WASHINGTON
SIZE D	INVITATION NO.	FILE NO. E-5-14-196	DATE: 14 MAY 02	PLATE C-39
DSGN. SKJELBREIA		CHK. GOUGH	SHEET 47	

This project was designed by the Seattle District U.S. Army Corps of Engineers. The initials or signatures and registration designations of individuals appear within the specifications or on these project documents within the scope of their employment as required by ER 1110-1-8152, Professional Registration.

DATE AND TIME PLOTTED: 20-SEP-2002 09:42
DESIGN FILE: I:\designs\ccfr\civ\ccfrct02.dgn

Computer Aided Design & Drafting





REVISIONS				
SYMBOL	ZONE	DESCRIPTION	DATE	BY

NOTES:

1. VERTICAL DATUM NGVD 1929.

N

1" = 100' 100' 50' 0 100' 200'

This project was designed by the Seattle District U.S. Army Corps of Engineers. The initials or signatures and registration designations of individuals appear within the specifications or on these project documents within the scope of their employment as required by ER 1110-1-8152, Professional Registration.

DATE AND TIME PLOTTED: 20-SEP-2002 09:44
DESIGN FILE: i:\designs\ccfr\civ\ccfrctia.dgn

Computer Aided Design & Drafting

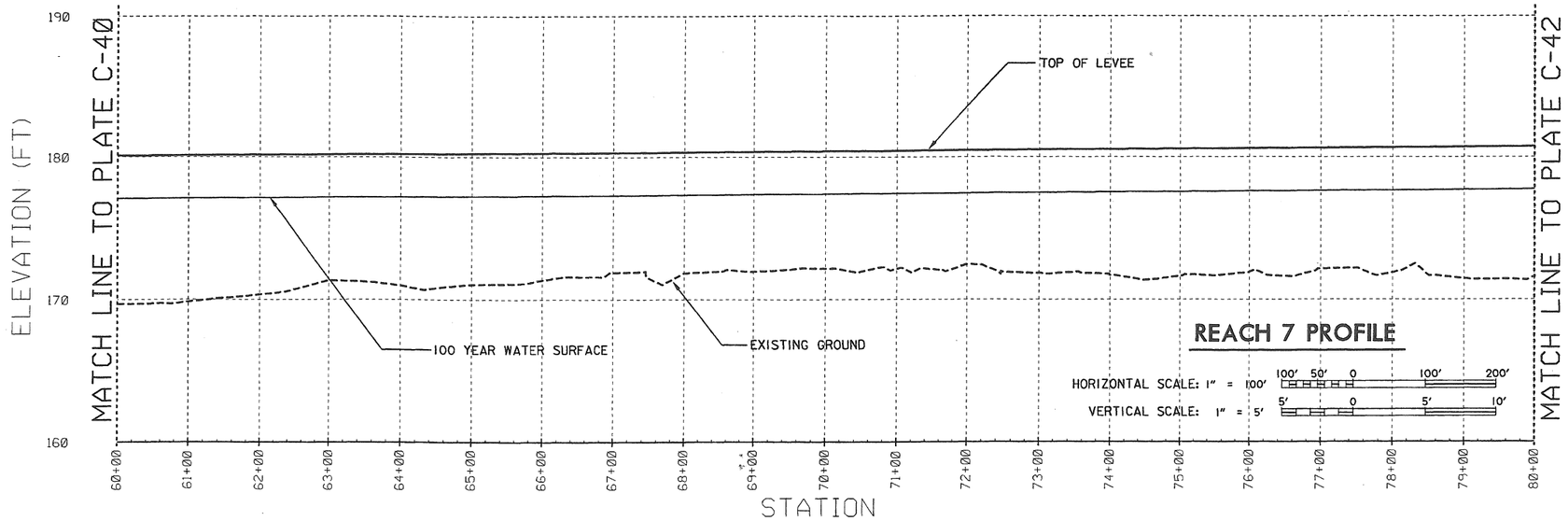
U.S. ARMY ENGINEER DISTRICT, SEATTLE
CORPS OF ENGINEERS
SEATTLE, WASHINGTON

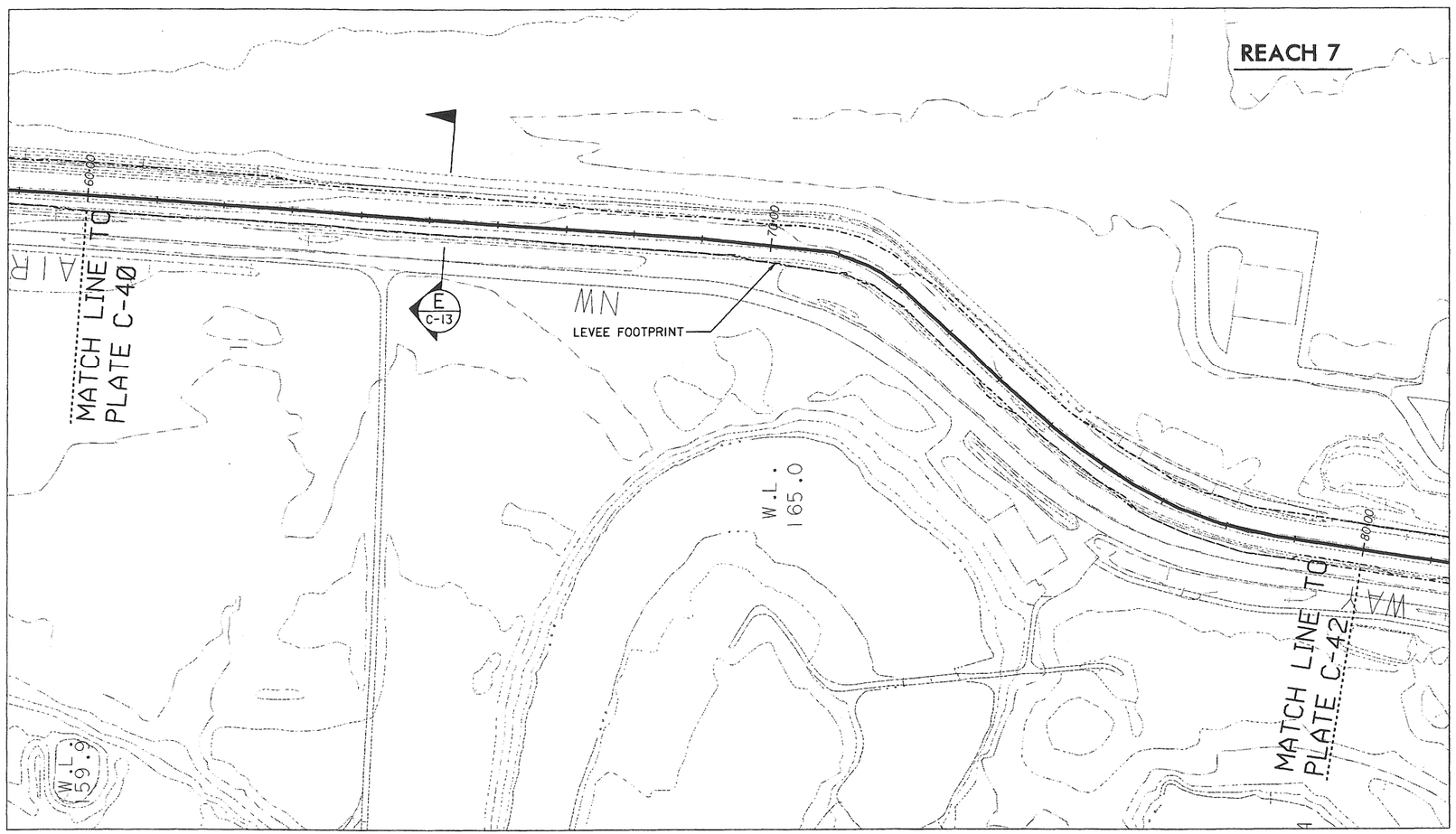
CENTRALIA, WA FLOOD DAMAGE REDUCTION PROJECT

REACH 7 – STA 40+00 TO STA 60+00

CENTRALIA PN C1919 WASHINGTON

SIZE	INVITATION NO.	FILE NO.	DATE	PLATE
D		E-5-14-196	14 MAY 02	C-40
DSGN. SKJELBREIA		CHK. GOUGH	SHEET 48	





REVISIONS				
SYMBOL	ZONE	DESCRIPTION	DATE	BY

NOTES:

1. VERTICAL DATUM NGVD 1929.

N

1" = 100' 100' 50' 0 100' 200'

This project was designed by the Seattle District U.S. Army Corps of Engineers. The initials or signatures and registration designations of individuals appear within the specifications or on these project documents within the scope of their employment as required by ER 1110-1-8152, Professional Registration.

DATE AND TIME PLOTTED: 20-SEP-2002 09:46
DESIGN FILE: I:\designs\ccfr\civ\ccfrctlb.dgn

Computer Aided Design & Drafting

U.S. ARMY ENGINEER DISTRICT, SEATTLE
CORPS OF ENGINEERS
SEATTLE, WASHINGTON

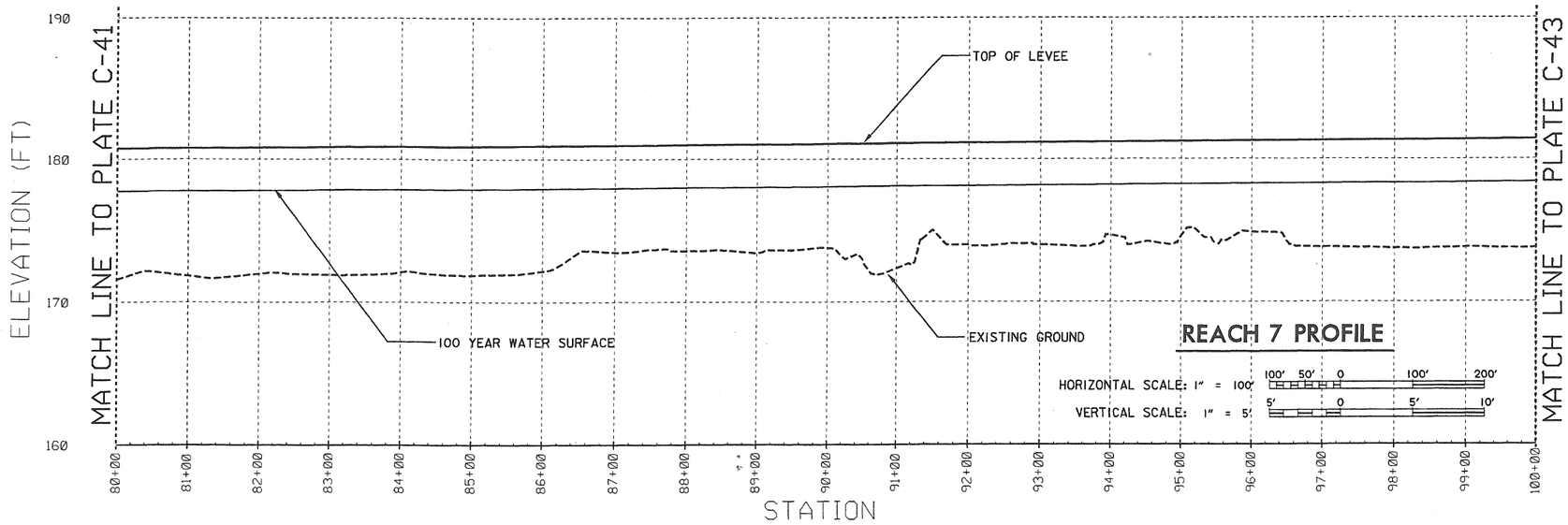
CENTRALIA, WA FLOOD DAMAGE REDUCTION PROJECT

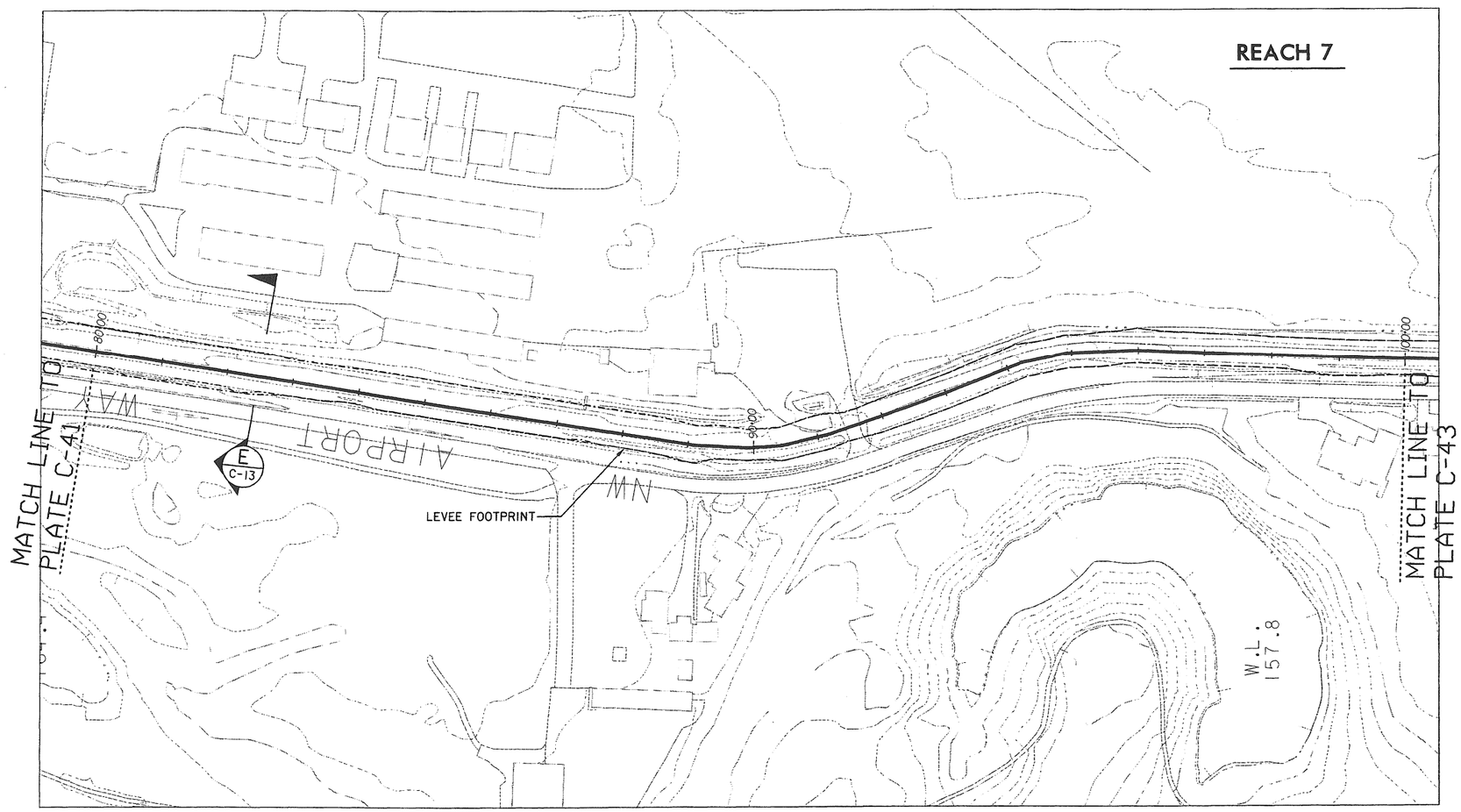
REACH 7 - STA 60+00 TO STA 80+00

CENTRALIA PN C1919 WASHINGTON

SIZE	INVITATION NO.	FILE NO.	DATE:	PLATE
D		E-5-14-196	14 MAY 02	C-41
DSGN. SKJELBREIA		CHK. GOUGH	SHEET 49	

REVISIONS				
SYMBOL	ZONE	DESCRIPTION	DATE	BY





NOTES:

1. VERTICAL DATUM NGVD 1929.

N

1" = 100' 100' 50' 0 100' 200'

This project was designed by the Seattle District U.S. Army Corps of Engineers. The initials or signatures and registration designations of individuals appear within the specifications or on these project documents within the scope of their employment as required by ER 1110-1-8152, Professional Registration.

DATE AND TIME PLOTTED: 20-SEP-2002 09:48
DESIGN FILE: I:\designs\ccfr\civ\ccfrctlc.dgn

Computer Aided Design & Drafting

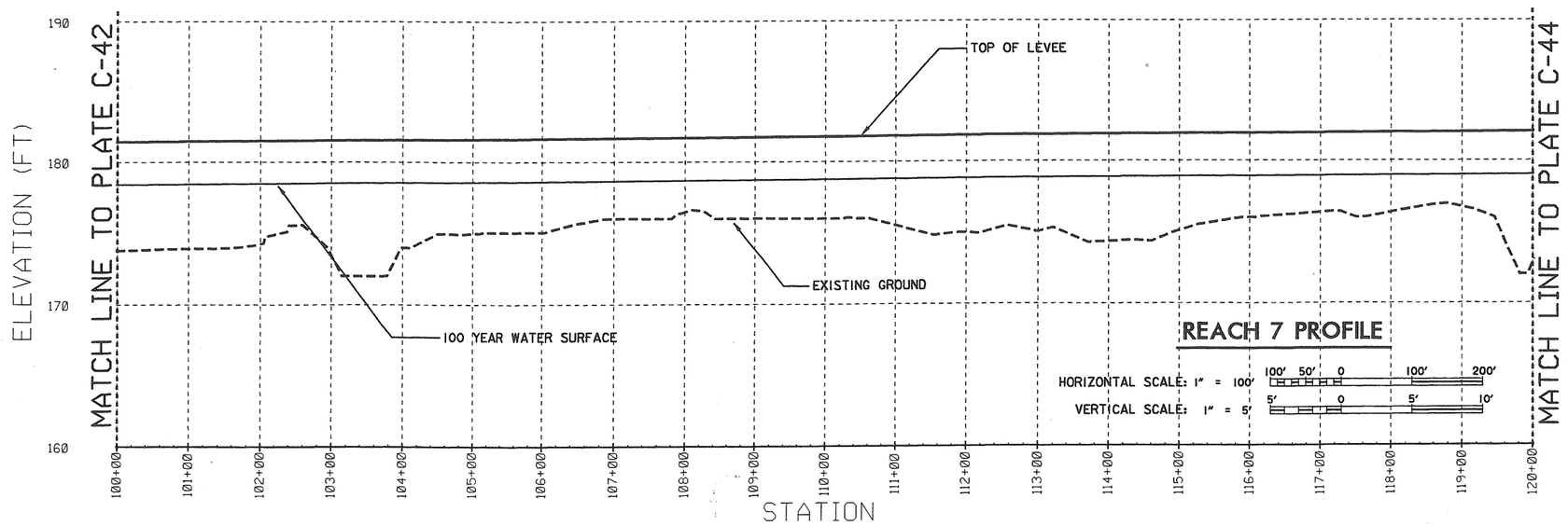
U.S. ARMY ENGINEER DISTRICT, SEATTLE
CORPS OF ENGINEERS
SEATTLE, WASHINGTON

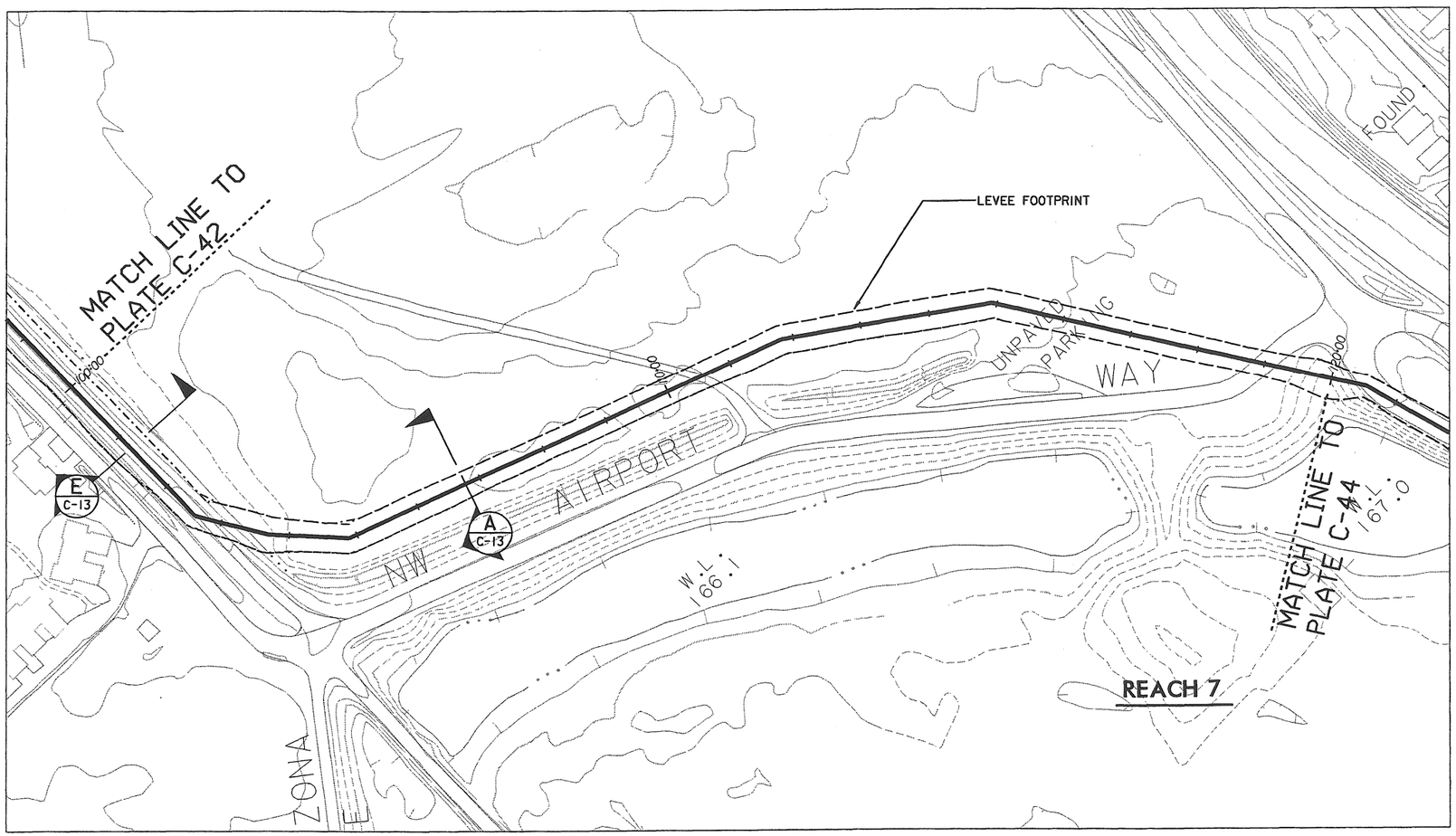
CENTRALIA, WA FLOOD DAMAGE REDUCTION PROJECT

REACH 7 - STA 80+00 TO STA 100+00

CENTRALIA PN C1919 WASHINGTON

SIZE	INVITATION NO.	FILE NO.	DATE:	PLATE
D		E-5-14-196	14 MAY 02	C-42
DSGN. SKJELBREIA		CHK. GOUGH	SHEET 50	





REVISIONS				
SYMBOL	ZONE	DESCRIPTION	DATE	BY

NOTES:

1. VERTICAL DATUM NGVD 1929.

N

1" = 100' 100' 50' 0 100' 200'

This project was designed by the Seattle District U.S. Army Corps of Engineers. The initials or signatures and registration designations of individuals appear within the specifications or on these project documents within the scope of their employment as required by ER 1110-1-8152, Professional Registration.

DATE AND TIME PLOTTED: 20-SEP-2002 09:49
DESIGN FILE: I:\designs\ccfr\civ\ccfrctld.dgn

Computer Aided Design & Drafting

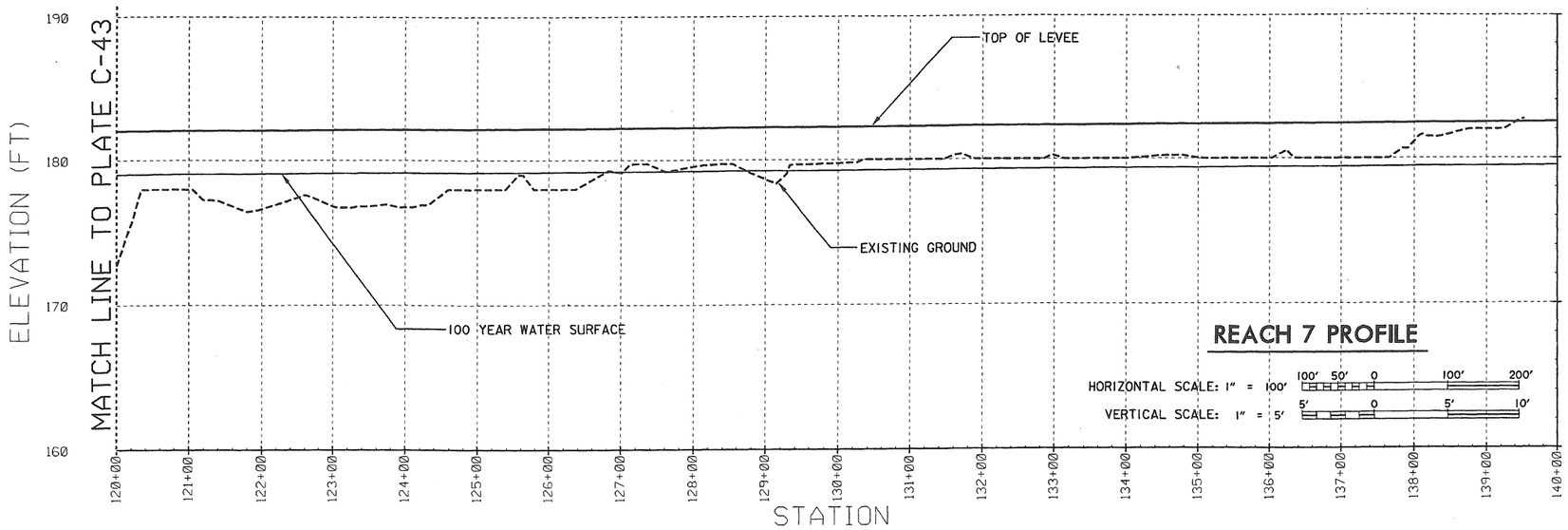
U.S. ARMY ENGINEER DISTRICT, SEATTLE
CORPS OF ENGINEERS
SEATTLE, WASHINGTON

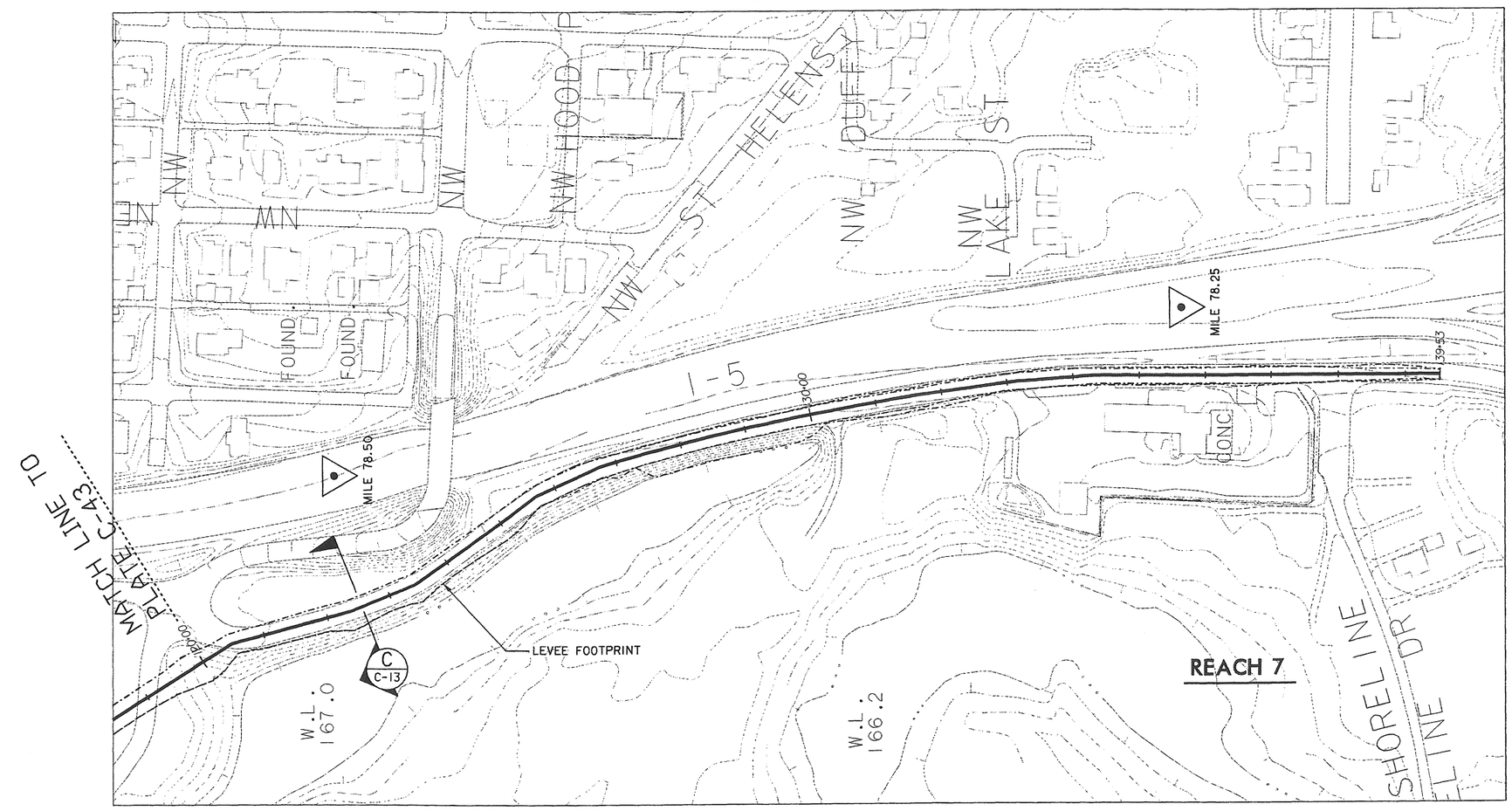
CENTRALIA, WA FLOOD DAMAGE REDUCTION PROJECT

REACH 7 – STA 100+00 TO STA 120+00

CENTRALIA PN C1919 WASHINGTON

SIZE	INVITATION NO.	FILE NO.	DATE	PLATE
D		E-5-14-196	14 MAY 02	C-43
DSGN. SKJELBREIA		CHK. GOUGH	SHEET 51	





REVISIONS				
SYMBOL	ZONE	DESCRIPTION	DATE	BY

NOTES:

1. VERTICAL DATUM NGVD 1929.

U.S. ARMY ENGINEER DISTRICT, SEATTLE
CORPS OF ENGINEERS
SEATTLE, WASHINGTON

CENTRALIA, WA FLOOD DAMAGE REDUCTION PROJECT

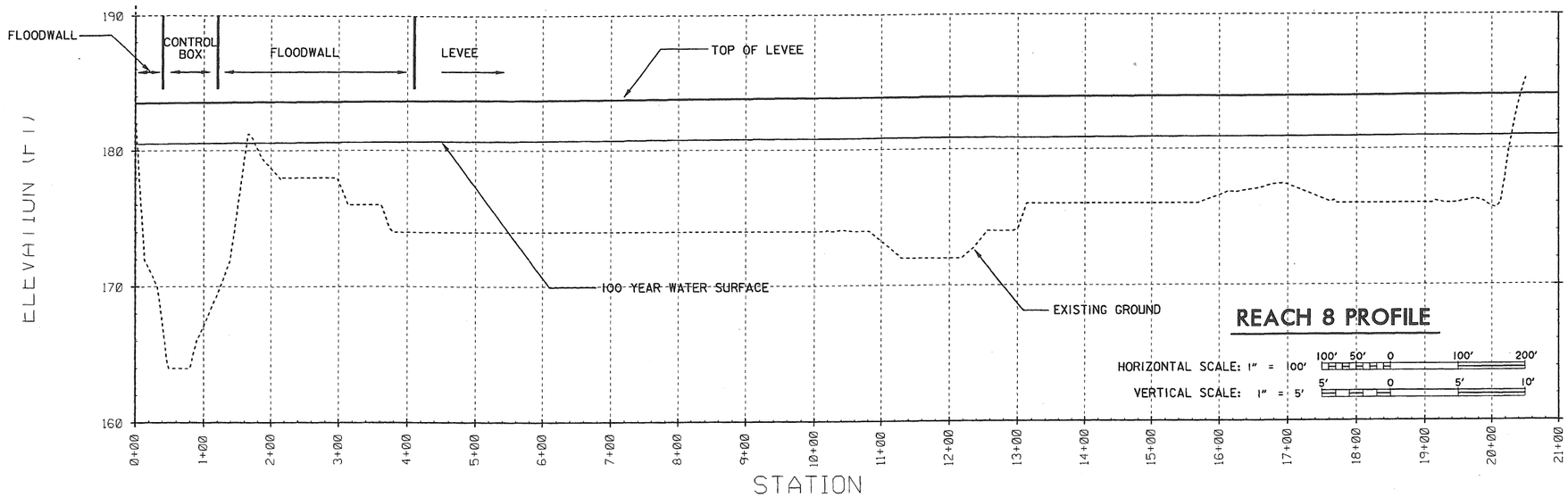
REACH 7 – STA 120+00 TO STA 139+53

CENTRALIA		PN C1919		WASHINGTON
SIZE D	INVITATION NO.	FILE NO. E-5-14-196	DATE: 14 MAY 02	PLATE C-44
DSGN. SKJELBREIA		CHK. GOUGH	SHEET 52	

This project was designed by the Seattle District U.S. Army Corps of Engineers. The initials or signatures and registration designations of individuals appear within the specifications or on these project documents within the scope of their employment as required by ER 1110-1-8152, Professional Registration.

DATE AND TIME PLOTTED: 20-SEP-2002 09:51
DESIGN FILE: I:\designs\ccfr\civ\ccfrctle.dgn

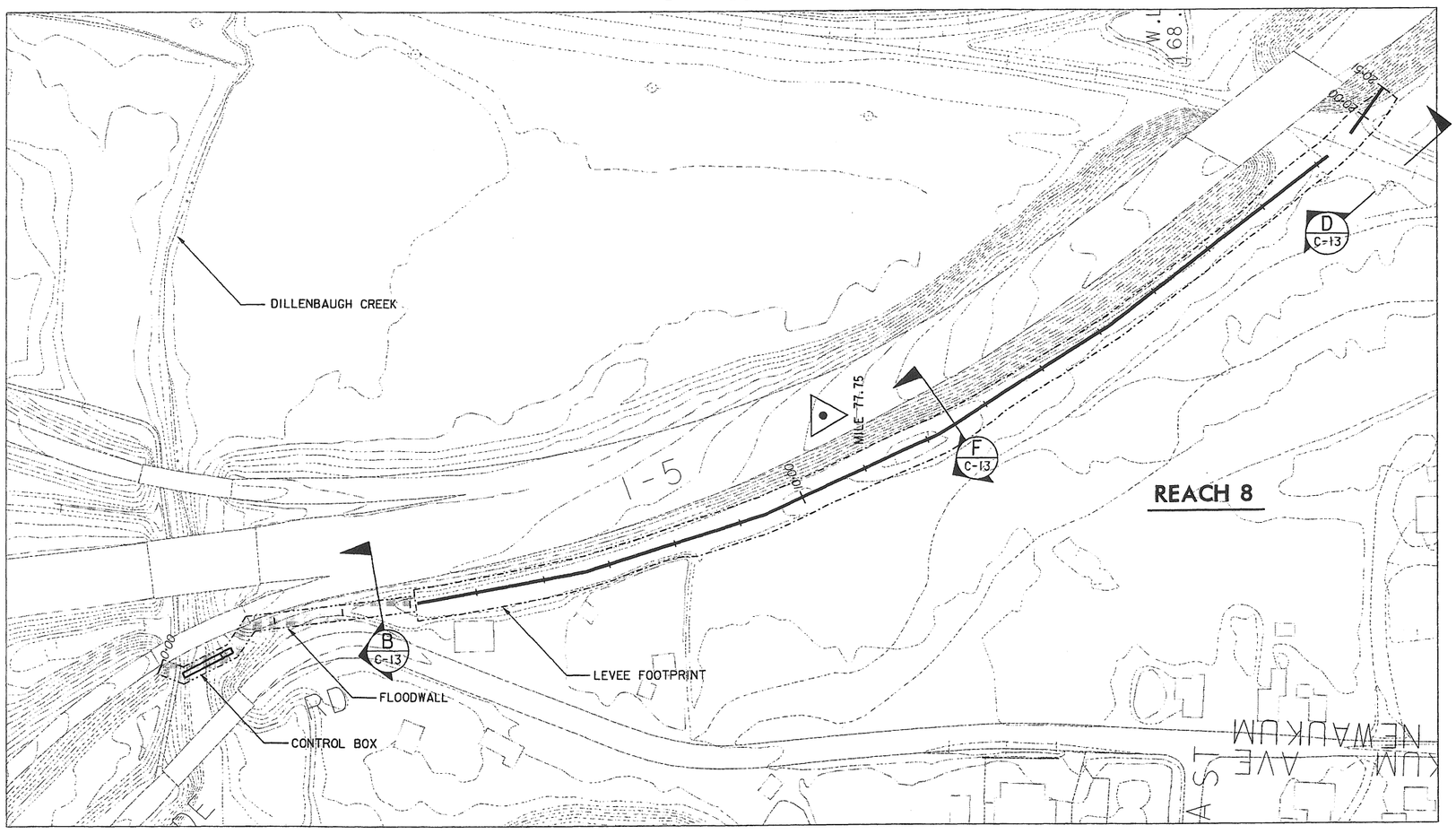
Computer Aided Design & Drafting



REACH 8 PROFILE

HORIZONTAL SCALE: 1" = 100'

VERTICAL SCALE: 1" = 5'



REVISIONS				
SYMBOL	ZONE	DESCRIPTION	DATE	BY

NOTES:

1. VERTICAL DATUM NGVD 1929.

N

1" = 100' 100' 50' 0 100' 200'

This project was designed by the Seattle District U.S. Army Corps of Engineers. The initials or signatures and registration designations of individuals appear within the specifications or on these project documents within the scope of their employment as required by ER 1110-1-8152, Professional Registration.

DATE AND TIME PLOTTED: 20-SEP-2002 09:52
DESIGN FILE: I:\designs\ccfr\civ\ccfrctlf.dgn

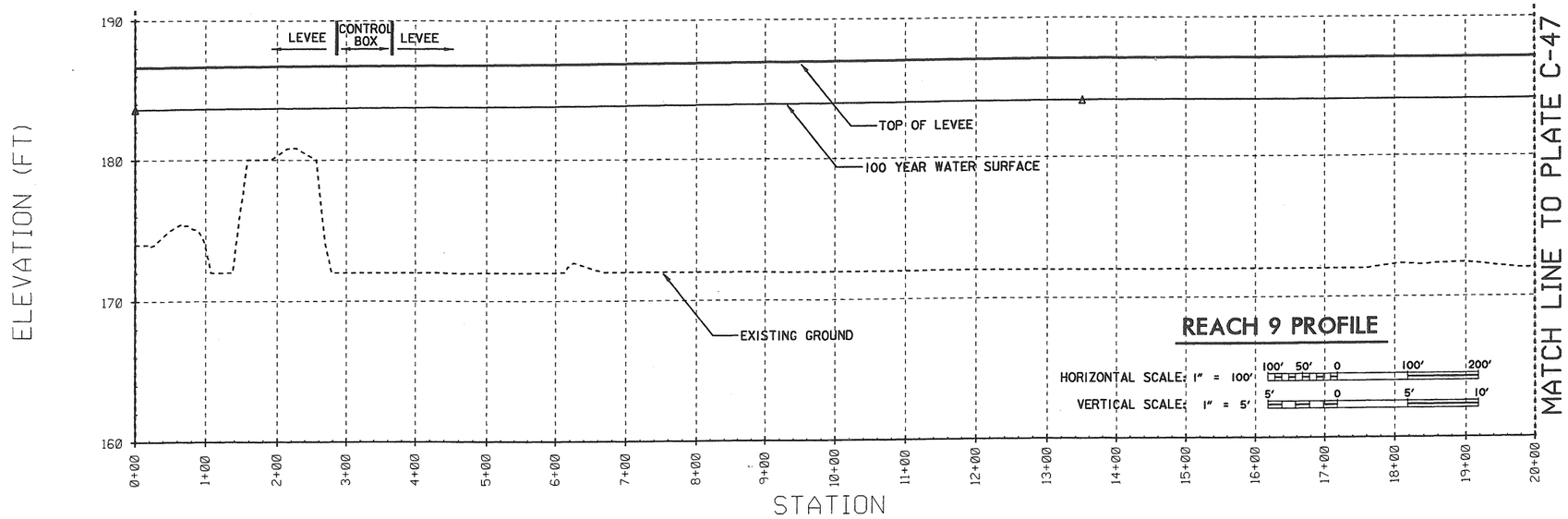
Computer Aided Design & Drafting

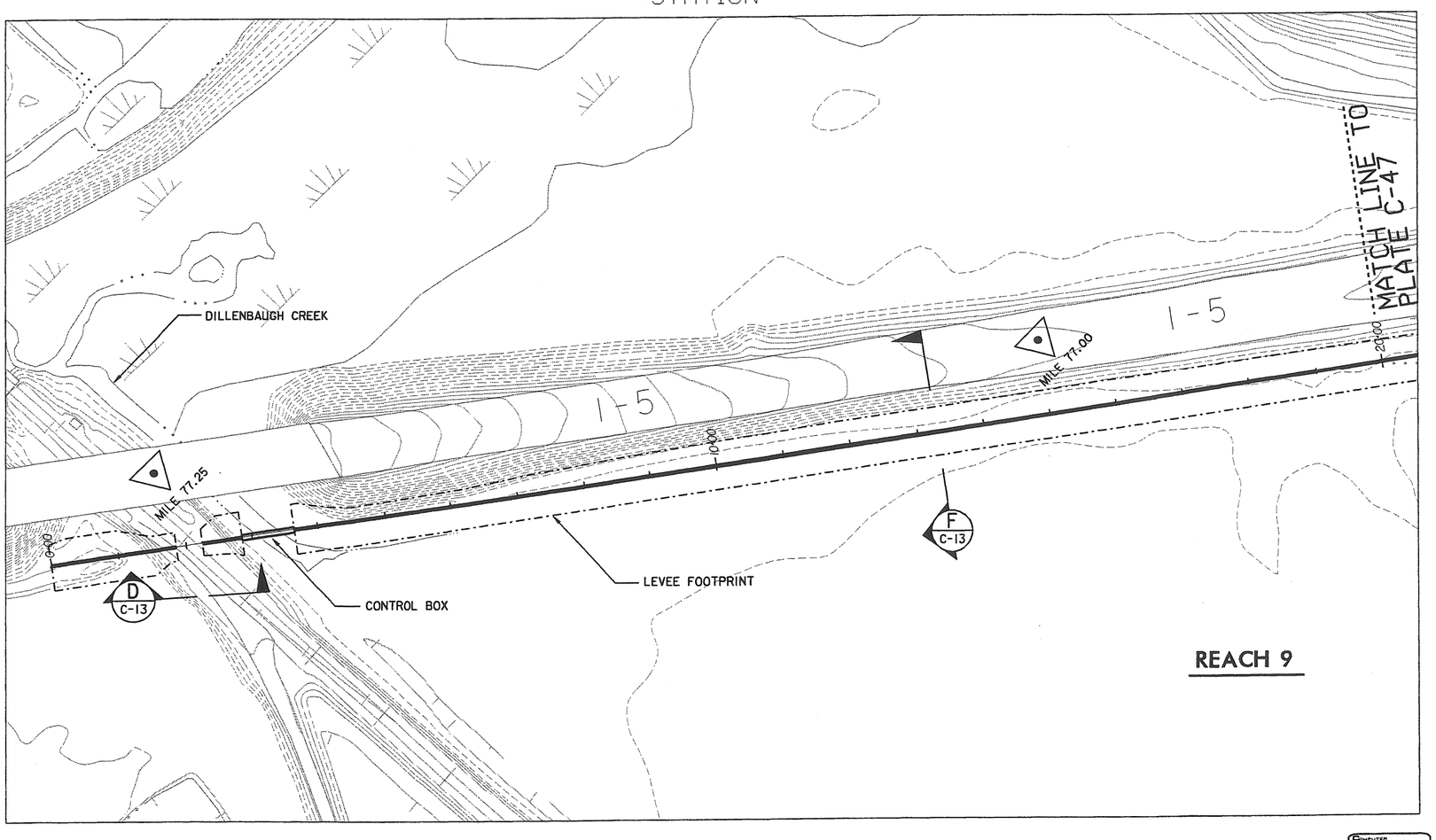
U.S. ARMY ENGINEER DISTRICT, SEATTLE
CORPS OF ENGINEERS
SEATTLE, WASHINGTON

CENTRALIA, WA FLOOD DAMAGE REDUCTION PROJECT

REACH 8 – STA 0+00 TO STA 20+51

CENTRALIA		PN C1919		WASHINGTON
SIZE D	INVITATION NO.	FILE NO. E-5-14-196	DATE: 14 MAY 02	PLATE C-45
DSGN. SKJELBREIA		CHK. GOUGH	SHEET 53	





REVISIONS				
SYMBOL	ZONE	DESCRIPTION	DATE	BY

NOTES:

1. VERTICAL DATUM NGVD 1929.

1" = 100' 100' 50' 0 100' 200'

This project was designed by the Seattle District U.S. Army Corps of Engineers. The initials or signatures and registration designations of individuals appear within the specifications or on these project documents within the scope of their employment as required by ER 1110-1-8152, Professional Registration.

DATE AND TIME PLOTTED: 20-SEP-2002 09:53
DESIGN FILE: I:\$designs\ccfr\civ\ccfrctig.dgn

Computer Aided Design & Drafting

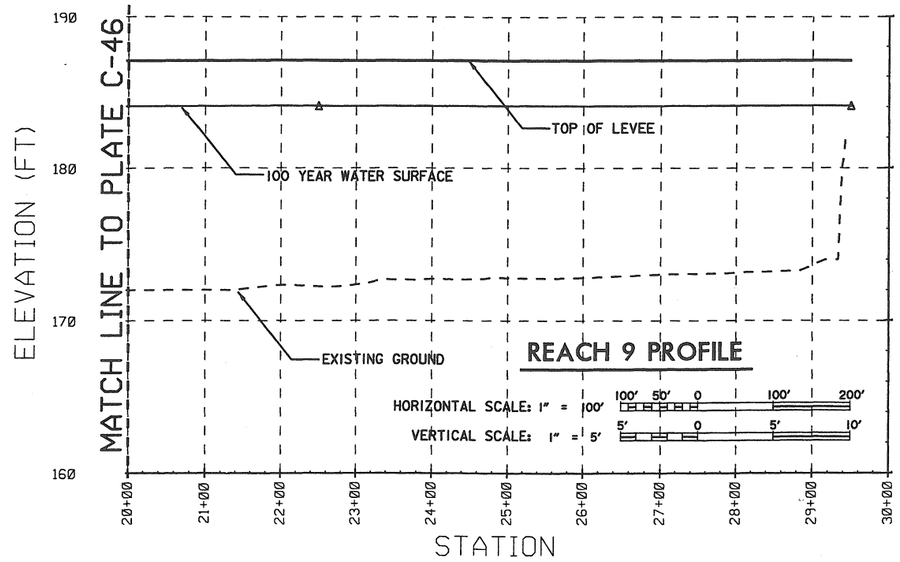
U.S. ARMY ENGINEER DISTRICT, SEATTLE
CORPS OF ENGINEERS
SEATTLE, WASHINGTON

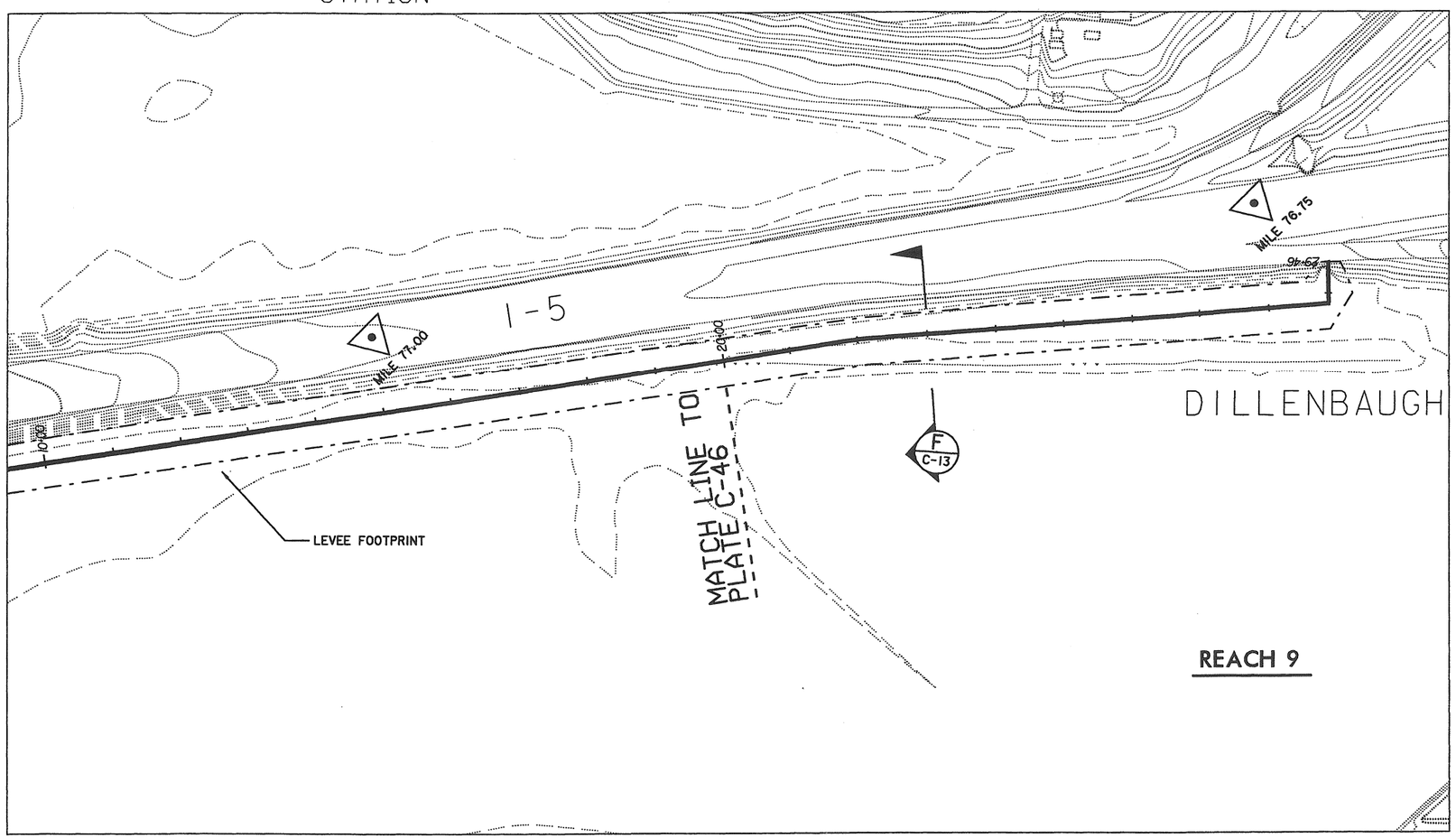
CENTRALIA, WA FLOOD DAMAGE REDUCTION PROJECT

REACH 9 - STA 0+00 TO STA 20+00

CENTRALIA PN C1919 WASHINGTON

SIZE	INVITATION NO.	FILE NO.	DATE:	PLATE
D		E-5-14-196	14 MAY 02	C-46
DSGN. SKJELBREIA		CHK. GOUGH	SHEET 54	





REVISIONS				
SYMBOL	ZONE	DESCRIPTION	DATE	BY

NOTES:

1. VERTICAL DATUM NGVD 1929.

1" = 100' 100' 50' 0 100' 200'

REDUCED TO 50% OF FULL SIZE

U.S. ARMY ENGINEER DISTRICT, SEATTLE
CORPS OF ENGINEERS
SEATTLE, WASHINGTON

CENTRALIA, WA FLOOD DAMAGE REDUCTION PROJECT

REACH 9 - STA 20+00 TO STA 29+46

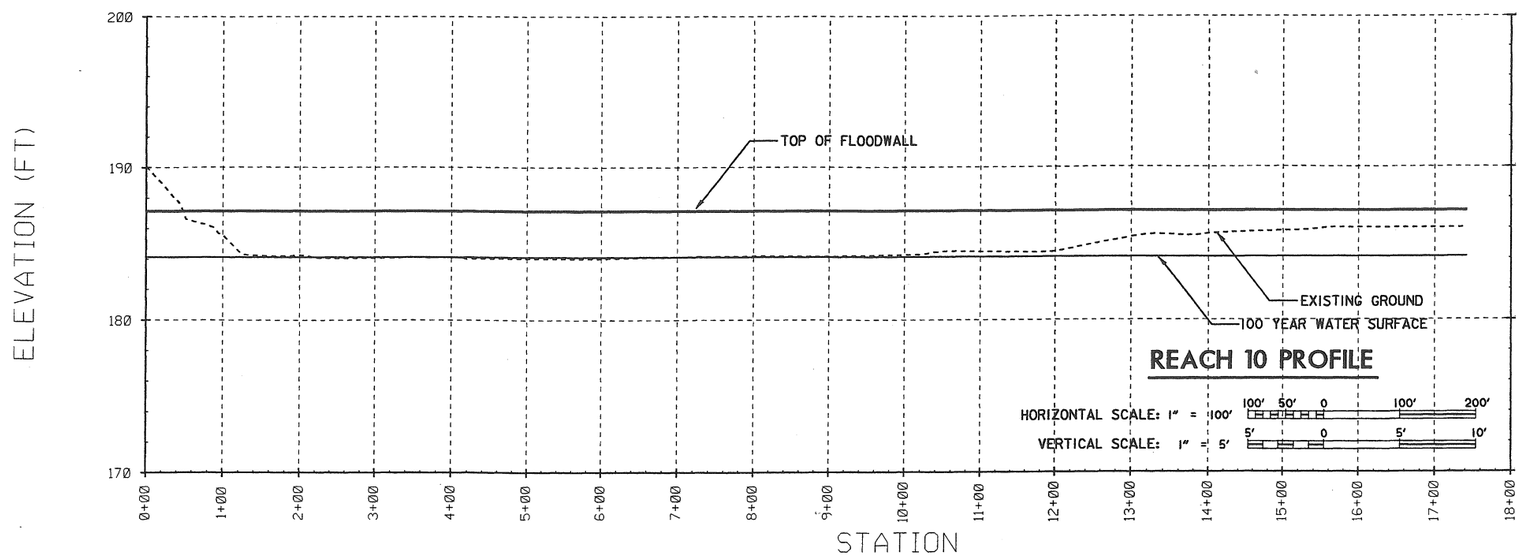
CENTRALIA PN C1919 WASHINGTON

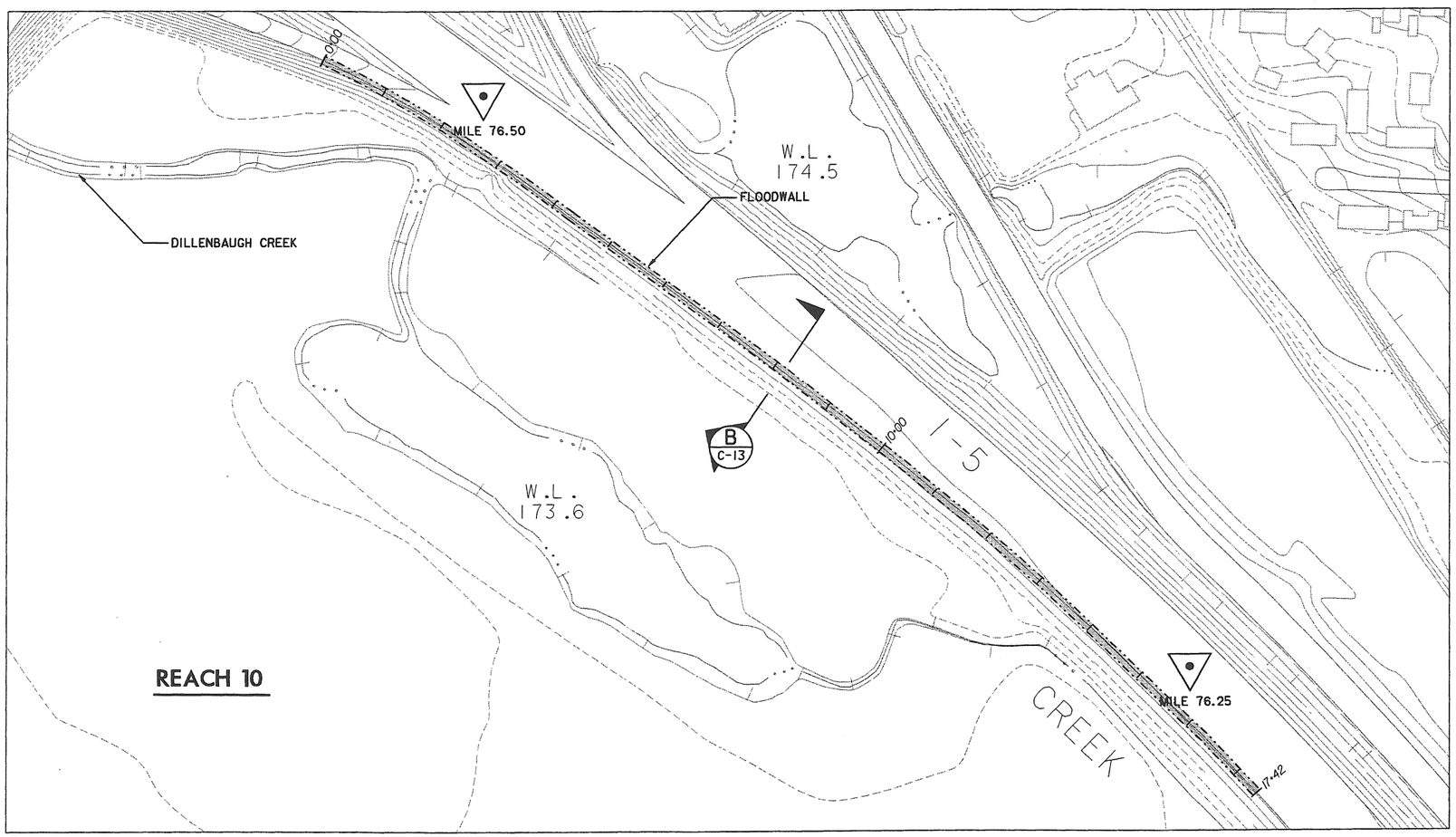
SIZE	INVITATION NO.	FILE NO.	DATE:	PLATE
D		E-5-14-196	14 MAY 02	C-47
DSGN. SKJELBREIA		CHK. GOUGH	SHEET 55	

This project was designed by the Seattle District U.S. Army Corps of Engineers. The initials or signatures and registration designations of individuals appear within the specifications or on these project documents within the scope of their employment as required by ER 1110-1-8152, Professional Registration.

DATE AND TIME PLOTTED: 13-MAR-2003 13:14
DESIGN FILE: I:\designs\ccfr\civ\ccfrctlh.dgn

Computer Aided Design & Drafting





REVISIONS				
SYMBOL	ZONE	DESCRIPTION	DATE	BY

NOTES:

1. VERTICAL DATUM NGVD 1929.

N

1" = 100' 100' 50' 0 100' 200'

This project was designed by the Seattle District U.S. Army Corps of Engineers. The initials or signatures and registration designations of individuals appear within the specifications or on these project documents within the scope of their employment as required by ER 1110-1-8152, Professional Registration.

DATE AND TIME PLOTTED: 20-SEP-2002 09:54
DESIGN FILE: I:\designs\ccfr\civ\ccfrctii.dgn

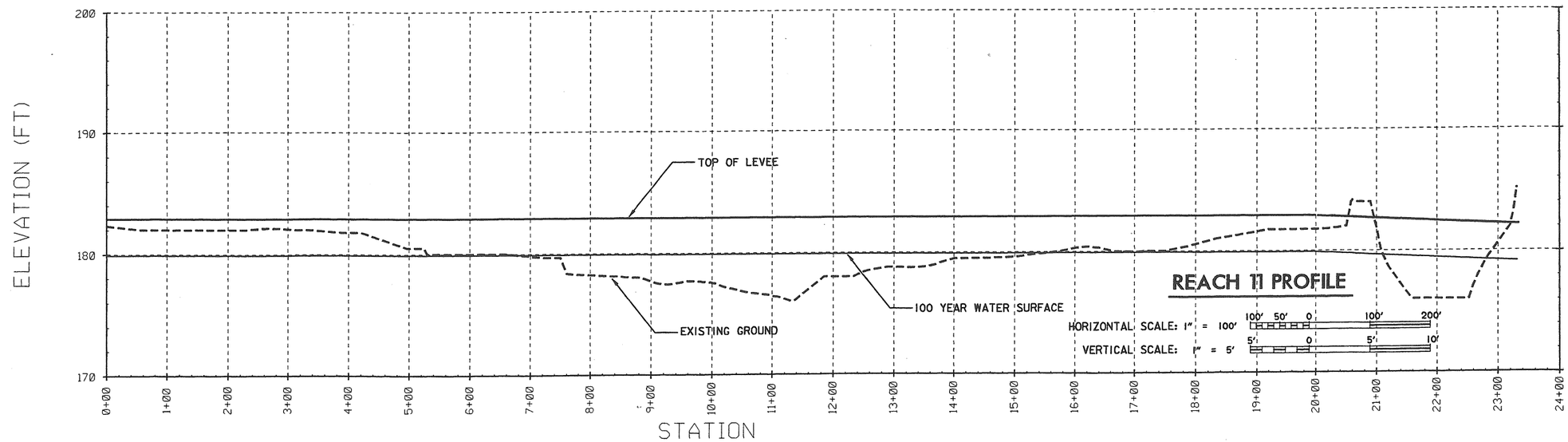
Computer Aided Design & Drafting

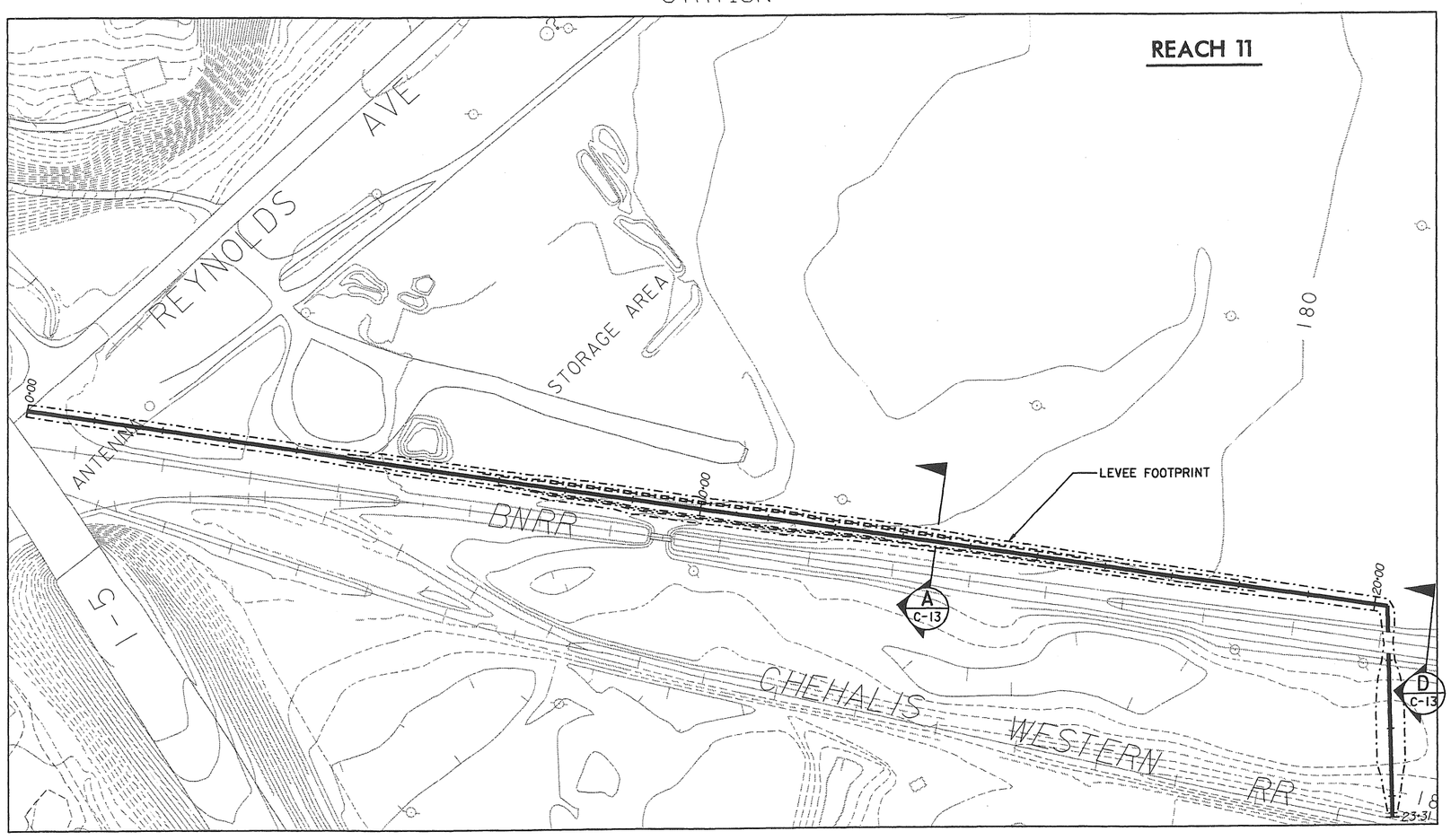
U.S. ARMY ENGINEER DISTRICT, SEATTLE
CORPS OF ENGINEERS
SEATTLE, WASHINGTON

CENTRALIA, WA FLOOD DAMAGE REDUCTION PROJECT

REACH 10 – STA 0+00 TO STA 17+42

CENTRALIA		PN C1919		WASHINGTON
SIZE D	INVITATION NO.	FILE NO. E-5-14-196	DATE: 14 MAY 02	PLATE C-48
DSGN. SKJELBREIA		CHK. GOUGH	SHEET 56	





1" = 100' 100' 50' 0 100' 200'

NOTES:

1. VERTICAL DATUM NGVD 1929.

SYMBOL	ZONE	DESCRIPTION	DATE	BY
		REVISIONS		

U.S. ARMY ENGINEER DISTRICT, SEATTLE
CORPS OF ENGINEERS
SEATTLE, WASHINGTON

CENTRALIA, WA FLOOD DAMAGE REDUCTION PROJECT

REACH 11 - STA 0+00 TO STA 23+31

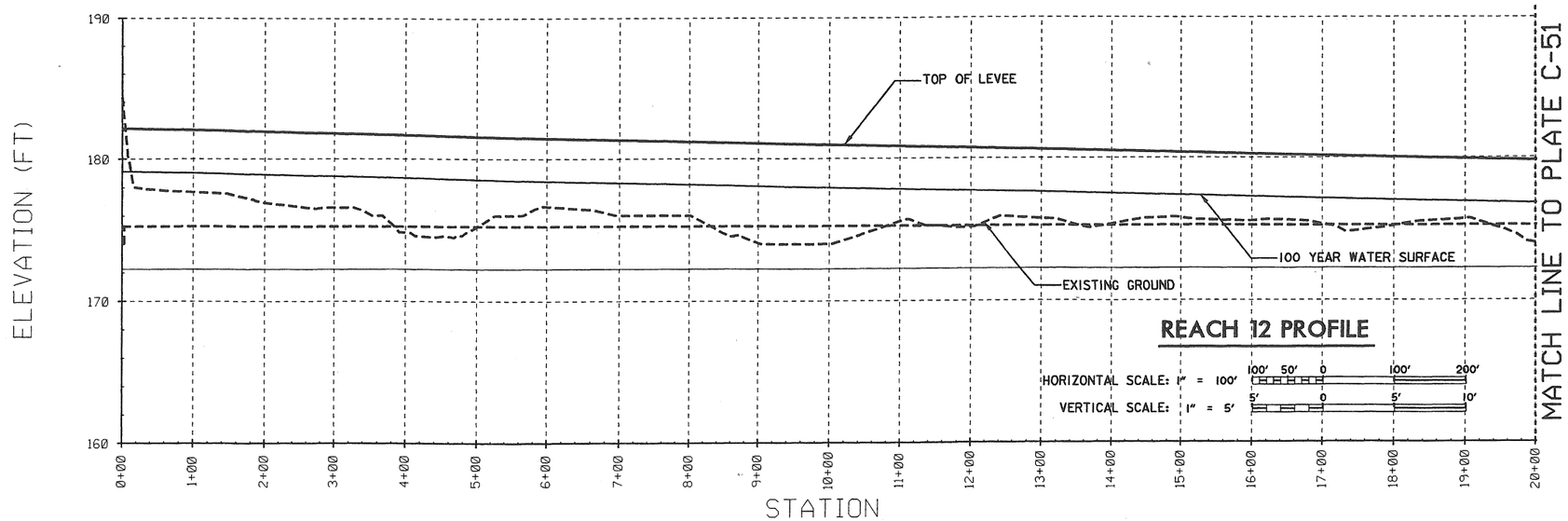
CENTRALIA PN C1919 WASHINGTON

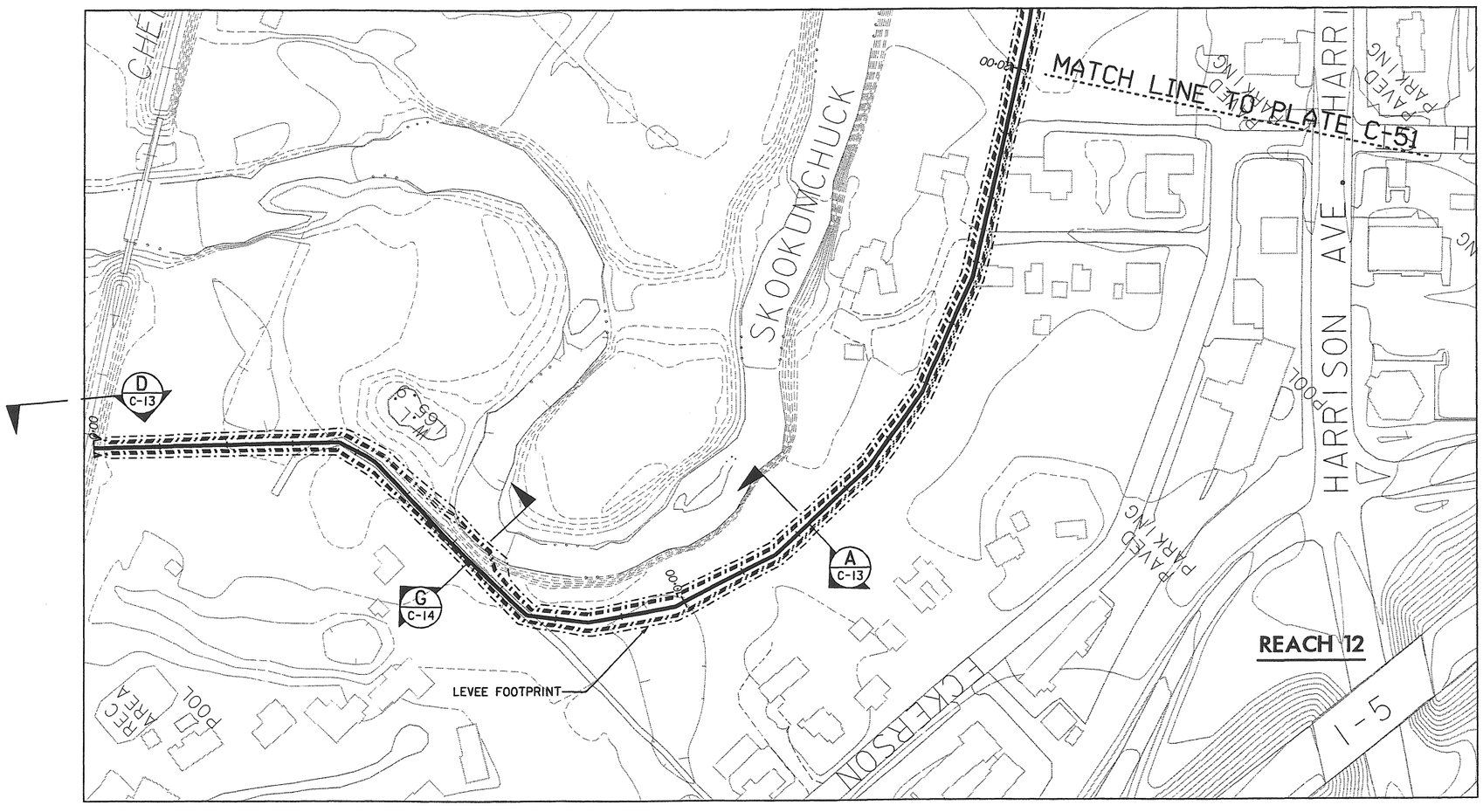
SIZE	INVITATION NO.	FILE NO.	DATE:	PLATE
D		E-5-14-196	14 MAY 02	C-49
DSGN. SKJELBREIA		CHK. GOUGH	SHEET 57	

This project was designed by the Seattle District U.S. Army Corps of Engineers. The initials or signatures and registration designations of individuals appear within the specifications or on these project documents within the scope of their employment as required by ER 1110-1-8152, Professional Registration.

DATE AND TIME PLOTTED: 20-SEP-2002 09:55
DESIGN FILE: I:\designs\ccfr\civ\ccfrctij.dgn

COMPUTER AIDED DESIGN & DRAFTING





NOTES:

1. VERTICAL DATUM NGVD 1929.

N

1" = 100' 100' 50' 0 100' 200'

This project was designed by the Seattle District U.S. Army Corps of Engineers. The initials or signatures and registration designations of individuals appear within the specifications or on these project documents within the scope of their employment as required by ER 1110-1-8152, Professional Registration.

DATE AND TIME PLOTTED: 20-SEP-2002 09:57
DESIGN FILE: I:\designs\ccfr\civ\ccfrctlk.dgn

Computer Aided Design & Drafting

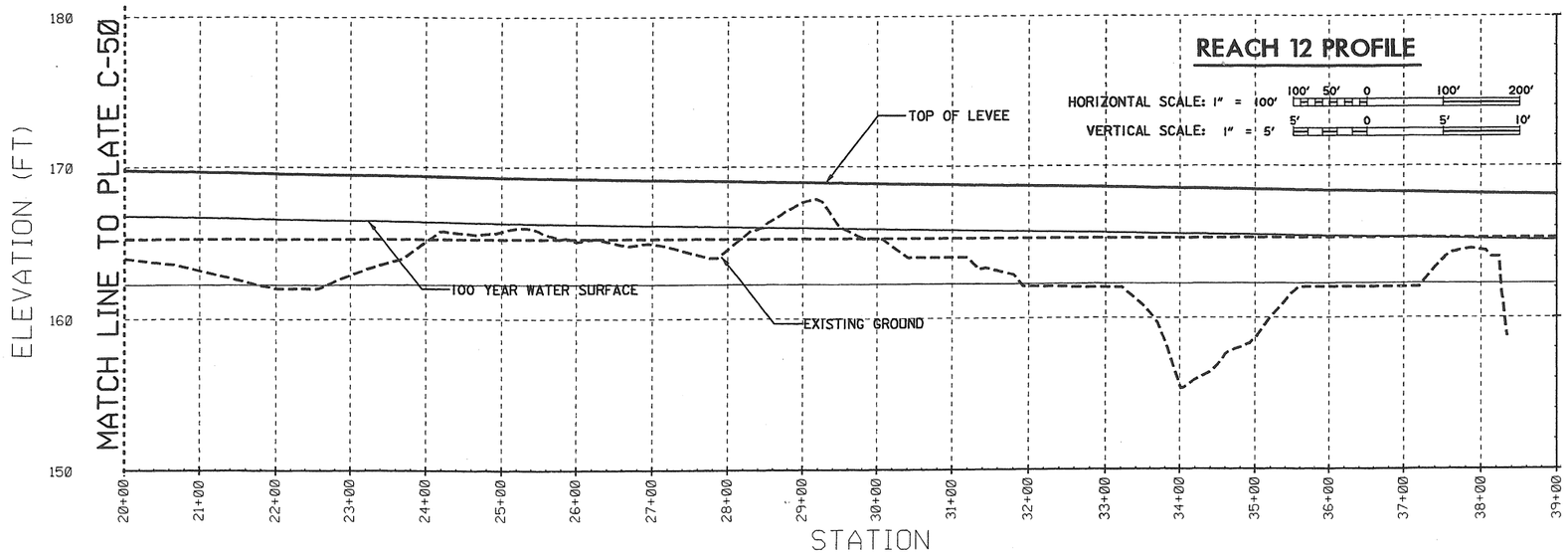
U.S. ARMY ENGINEER DISTRICT, SEATTLE
CORPS OF ENGINEERS
SEATTLE, WASHINGTON

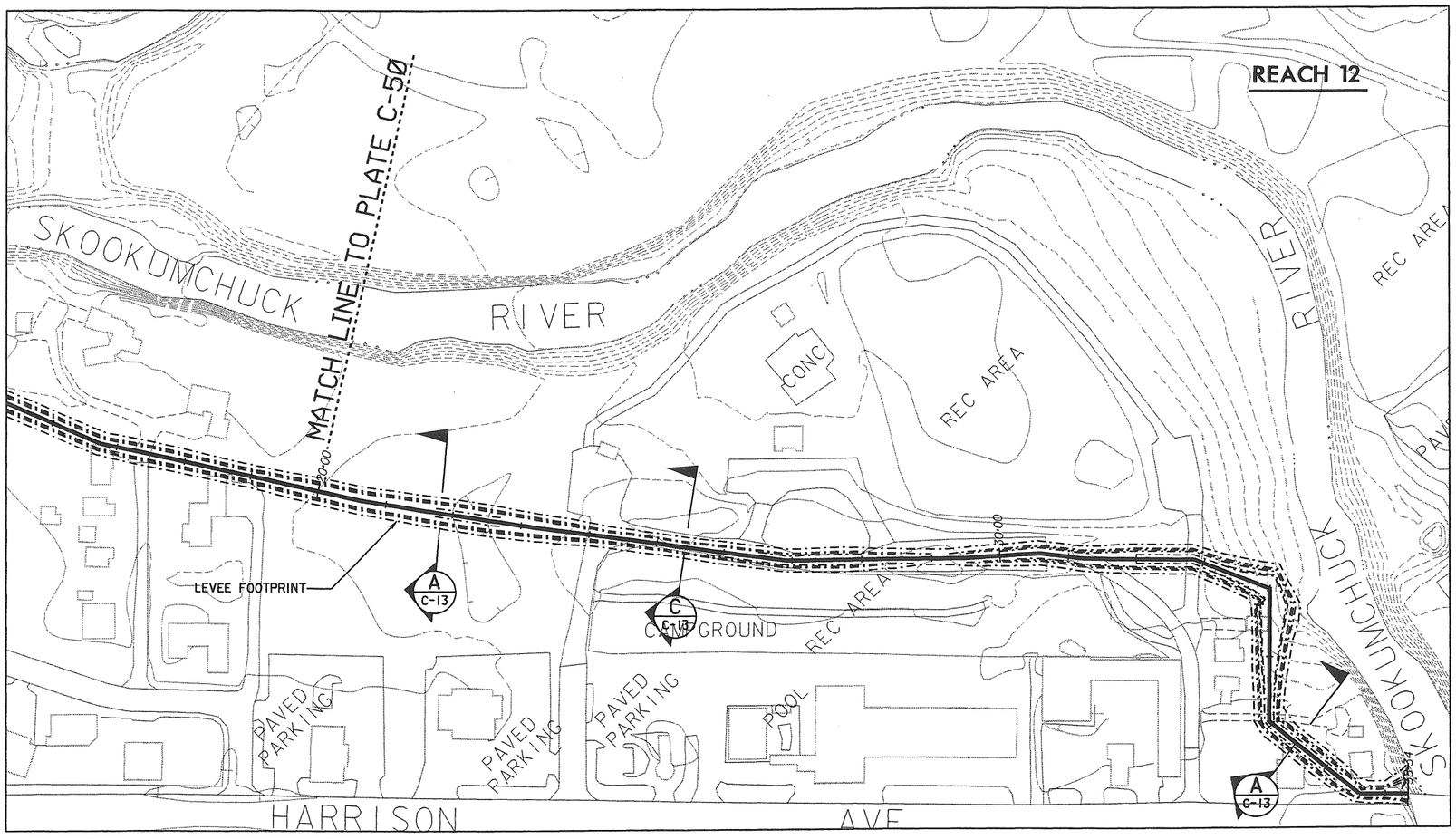
CENTRALIA, WA FLOOD DAMAGE REDUCTION PROJECT

REACH 12 – STA 0+00 TO STA 20+00

CENTRALIA PN C1919 WASHINGTON

SIZE	INVITATION NO.	FILE NO.	DATE:	PLATE
D		E-5-14-196	14 MAY 02	C-50
DSGN. SKJELBREIA		CHK. GOUGH	SHEET 58	





REVISIONS				
SYMBOL	ZONE	DESCRIPTION	DATE	BY

NOTES:

1. VERTICAL DATUM NGVD 1929.

N

1" = 100' 100' 50' 0 100' 200'

This project was designed by the Seattle District U.S. Army Corps of Engineers. The initials or signatures and registration designations of individuals appear within the specifications or on these project documents within the scope of their employment as required by ER 1110-1-8152, Professional Registration.

DATE AND TIME PLOTTED: 20-SEP-2002 09:58
DESIGN FILE: I:\DESIGNS\CCFR\CIV\CCFRCT1L.DGN

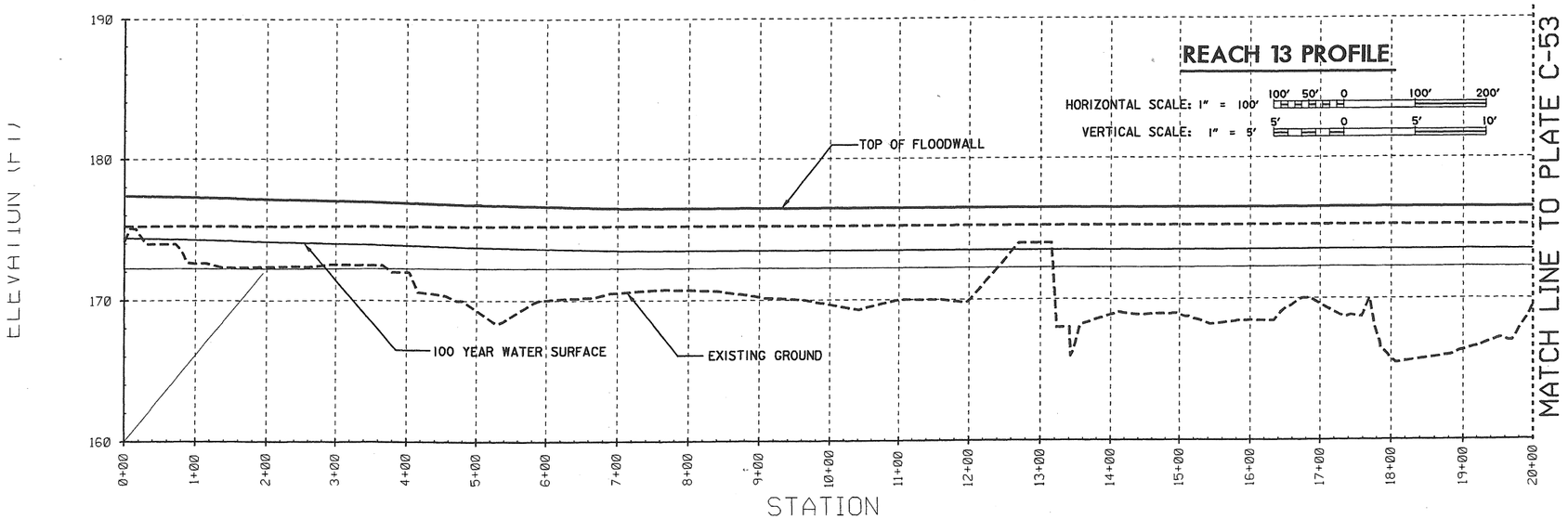
Computer Aided Design & Drafting

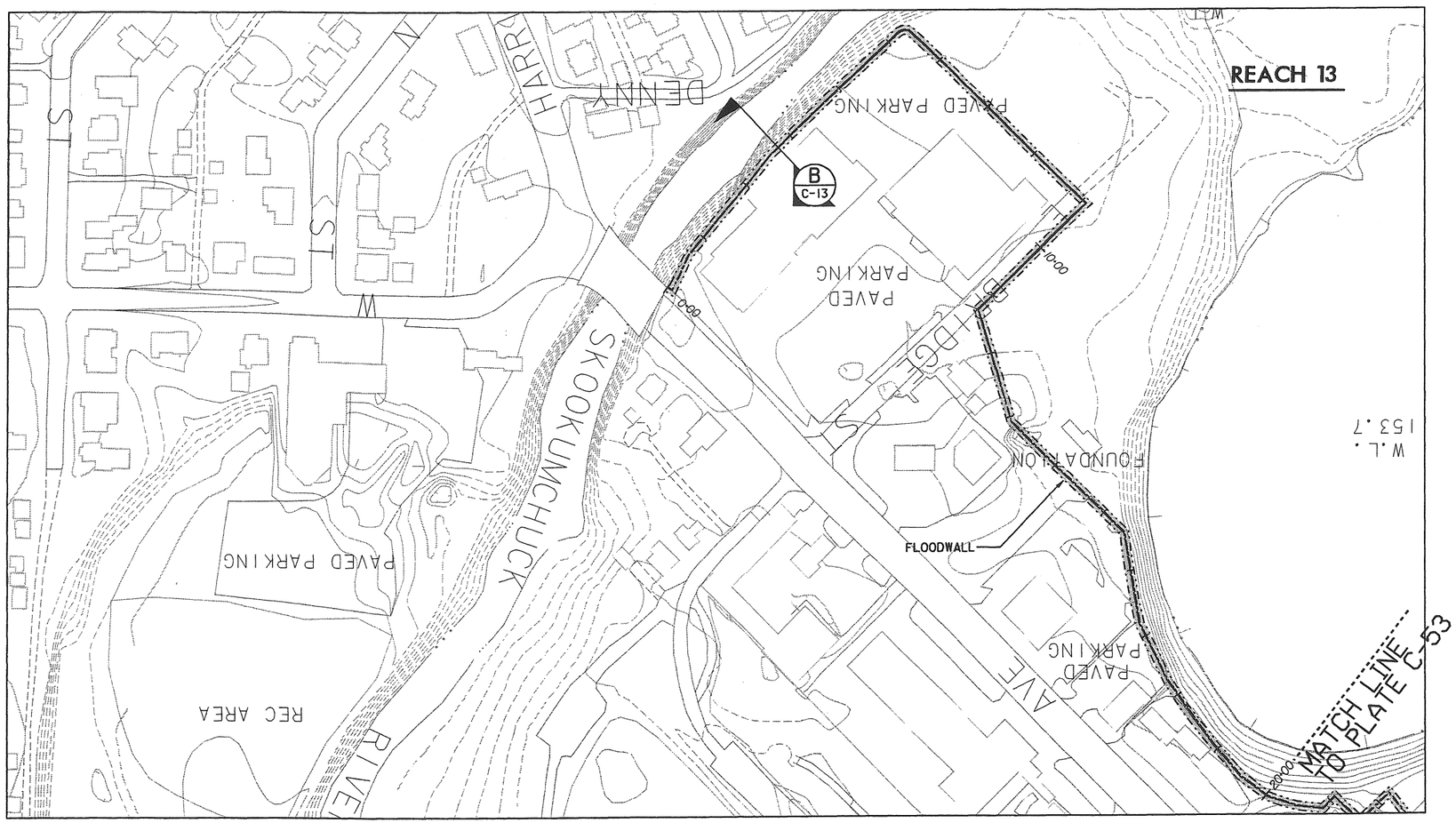
U.S. ARMY ENGINEER DISTRICT, SEATTLE
CORPS OF ENGINEERS
SEATTLE, WASHINGTON

REACH 12 – STA 20+00 TO STA 38+34

SIZE	INVITATION NO.	FILE NO.	DATE:	PLATE
				C-51
DSGN. SKJELBREIA		CHK.	SHEET 59	

REVISIONS				
SYMBOL	ZONE	DESCRIPTION	DATE	BY





NOTES:

1. VERTICAL DATUM NGVD 1929.

N

1" = 100' 100' 50' 0 100' 200'

U.S. ARMY ENGINEER DISTRICT, SEATTLE
CORPS OF ENGINEERS
SEATTLE, WASHINGTON

CENTRALIA, WA FLOOD DAMAGE REDUCTION PROJECT

REACH 13 – STA 0+00 TO STA 20+00

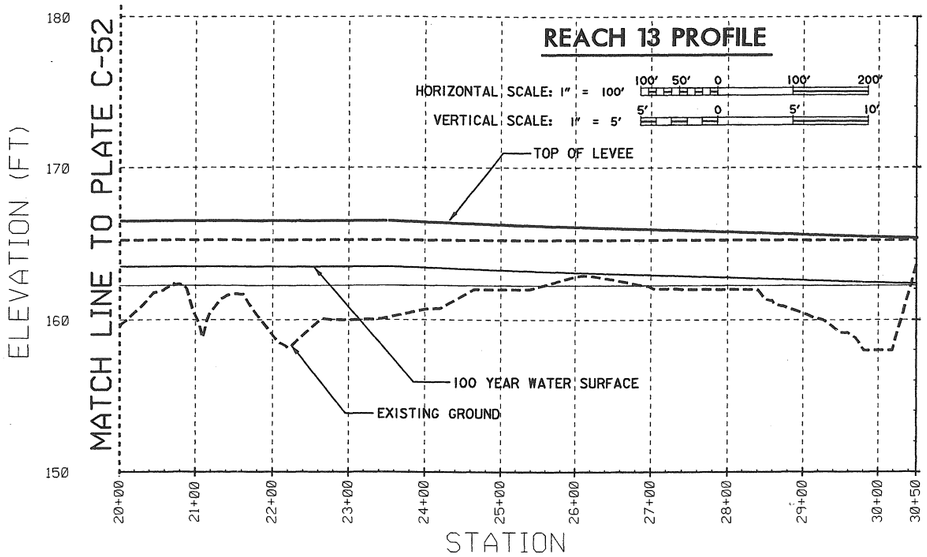
CENTRALIA		PN C1919		WASHINGTON
SIZE D	INVITATION NO.	FILE NO. E-5-14-196	DATE: 14 MAY 02	PLATE C-52
DSGN. SKJELBREIA		CHK. GOUGH	SHEET 60	

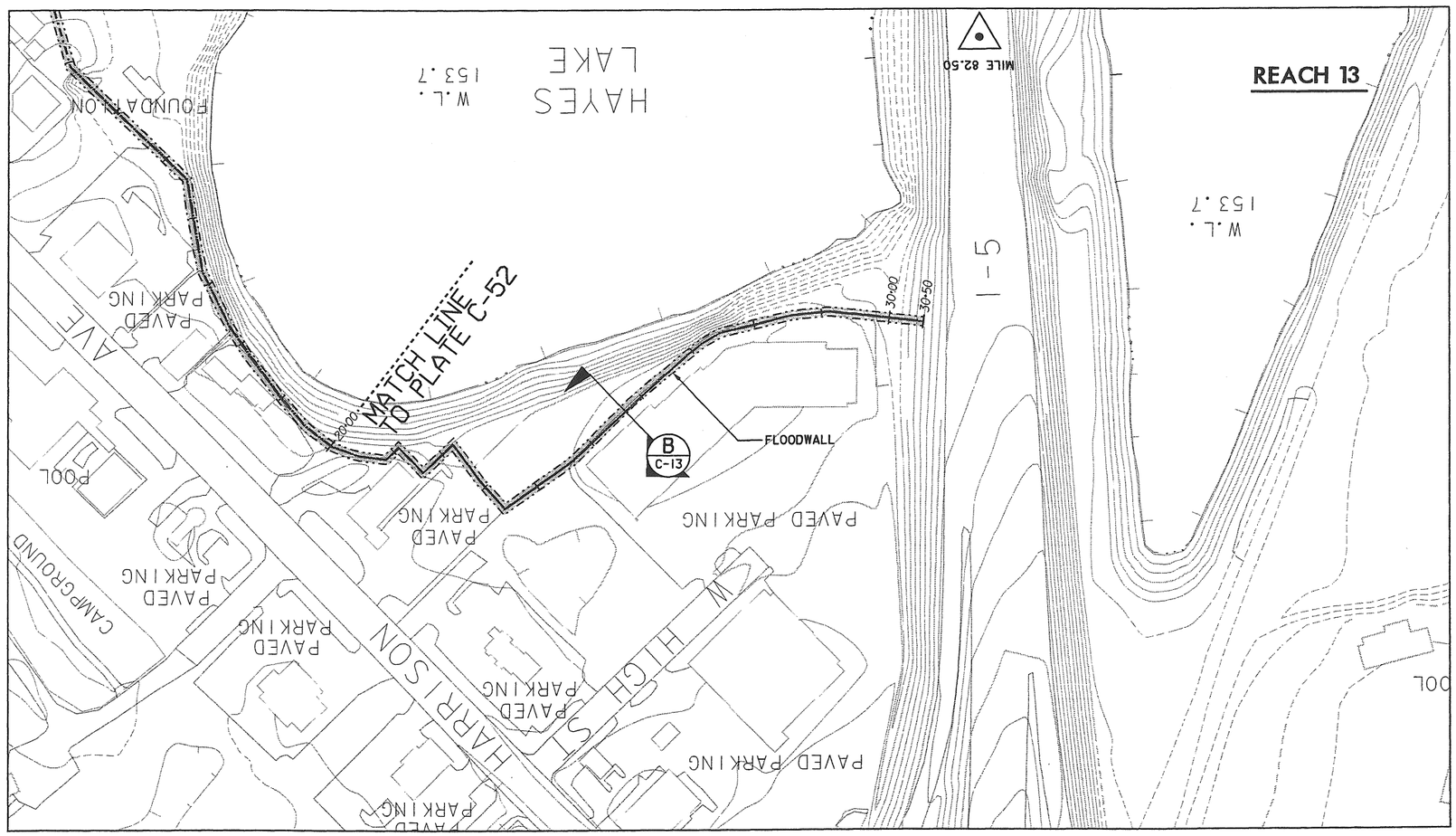
This project was designed by the Seattle District U.S. Army Corps of Engineers. The initials or signatures and registration designations of individuals appear within the specifications or on these project documents within the scope of their employment as required by ER 1110-1-8152, Professional Registration.

DATE AND TIME PLOTTED: 20-SEP-2002 09:59
DESIGN FILE: I:\designs\ccfr\civ\ccfrctlm.dgn

Computer Aided Design & Drafting

REVISIONS				
SYMBOL	ZONE	DESCRIPTION	DATE	BY





NOTES:

1. VERTICAL DATUM NGVD 1929.

N

1" = 100' 100' 50' 0 100' 200'

This project was designed by the Seattle District U.S. Army Corps of Engineers. The initials or signatures and registration designations of individuals appear within the specifications or on these project documents within the scope of their employment as required by ER 1110-1-8152, Professional Registration.

DATE AND TIME PLOTTED: 20-SEP-2002 10:00
DESIGN FILE: I:\designs\ccfr\civ\ccfrctln.dgn

COMPUTER AIDED DESIGN & DRAFTING

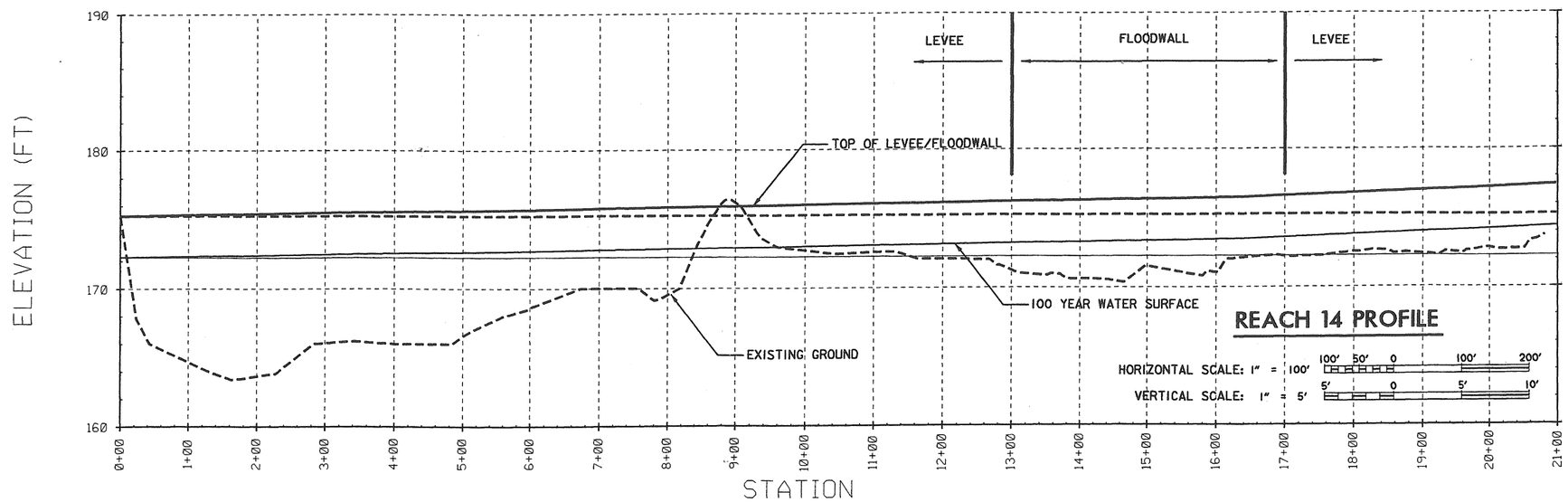
U.S. ARMY ENGINEER DISTRICT, SEATTLE
CORPS OF ENGINEERS
SEATTLE, WASHINGTON

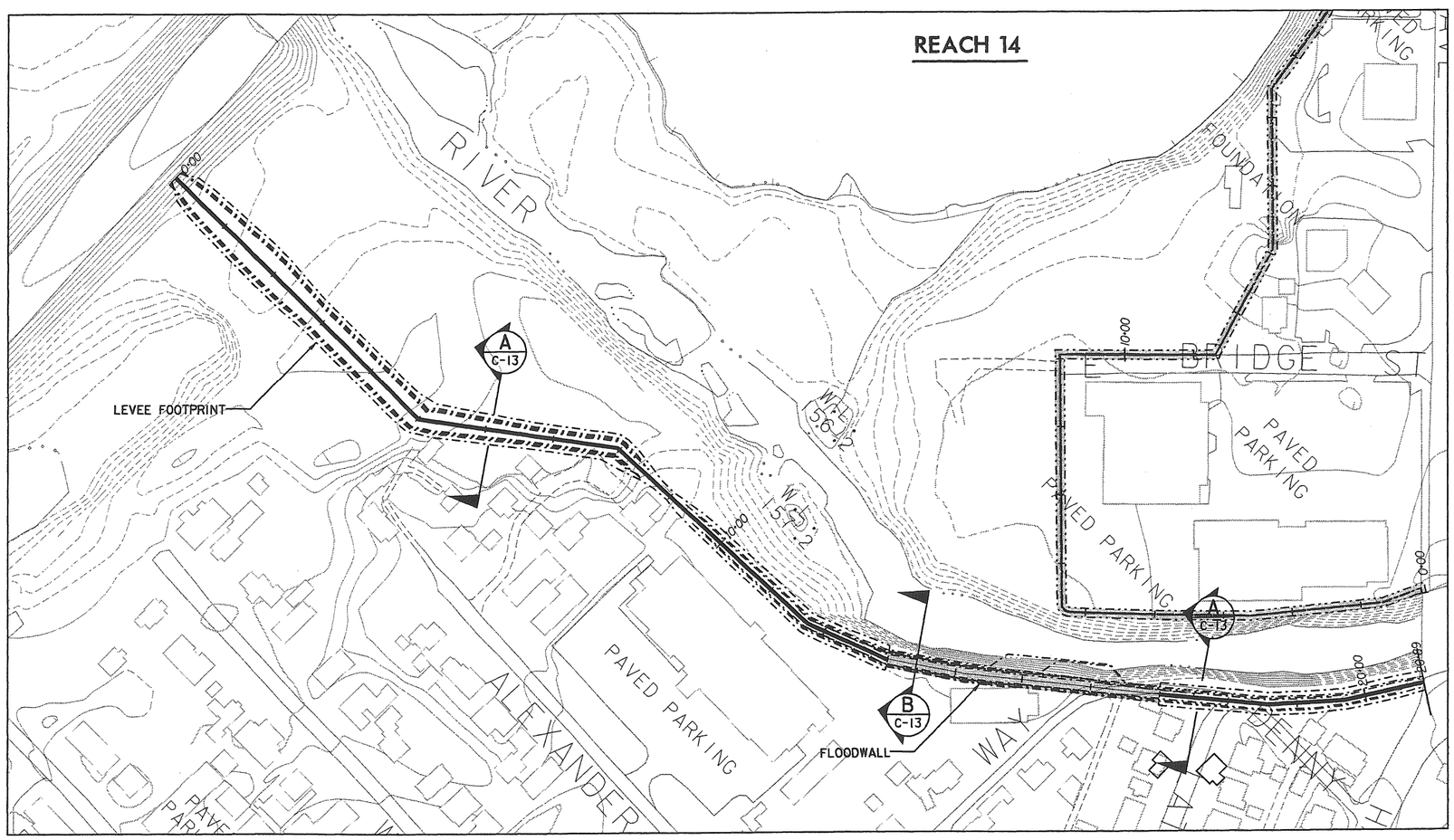
CENTRALIA, WA FLOOD DAMAGE REDUCTION PROJECT

REACH 13 – STA 20+00 TO STA 30+50

CENTRALIA PN C1919 WASHINGTON

SIZE	INVITATION NO.	FILE NO.	DATE:	PLATE
D		E-5-14-196	14 MAY 02	C-53
DSGN. SKJELBREIA		CHK. GOUGH	SHEET 61	





REVISIONS				
SYMBOL	ZONE	DESCRIPTION	DATE	BY

NOTES:

1. VERTICAL DATUM NGVD 1929.

1" = 100' 100' 50' 0 100' 200'

U.S. ARMY ENGINEER DISTRICT, SEATTLE
CORPS OF ENGINEERS
SEATTLE, WASHINGTON

CENTRALIA, WA FLOOD DAMAGE REDUCTION PROJECT

REACH 14 – STA 0+00 TO STA 20+89

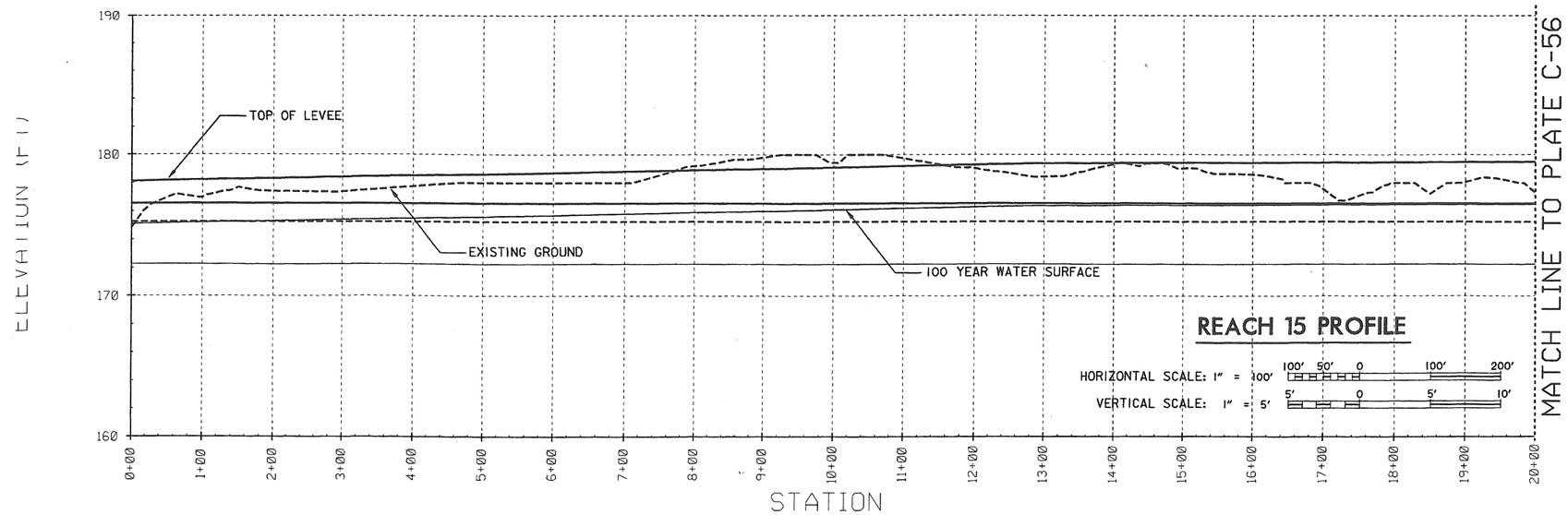
CENTRALIA PN C1919 WASHINGTON

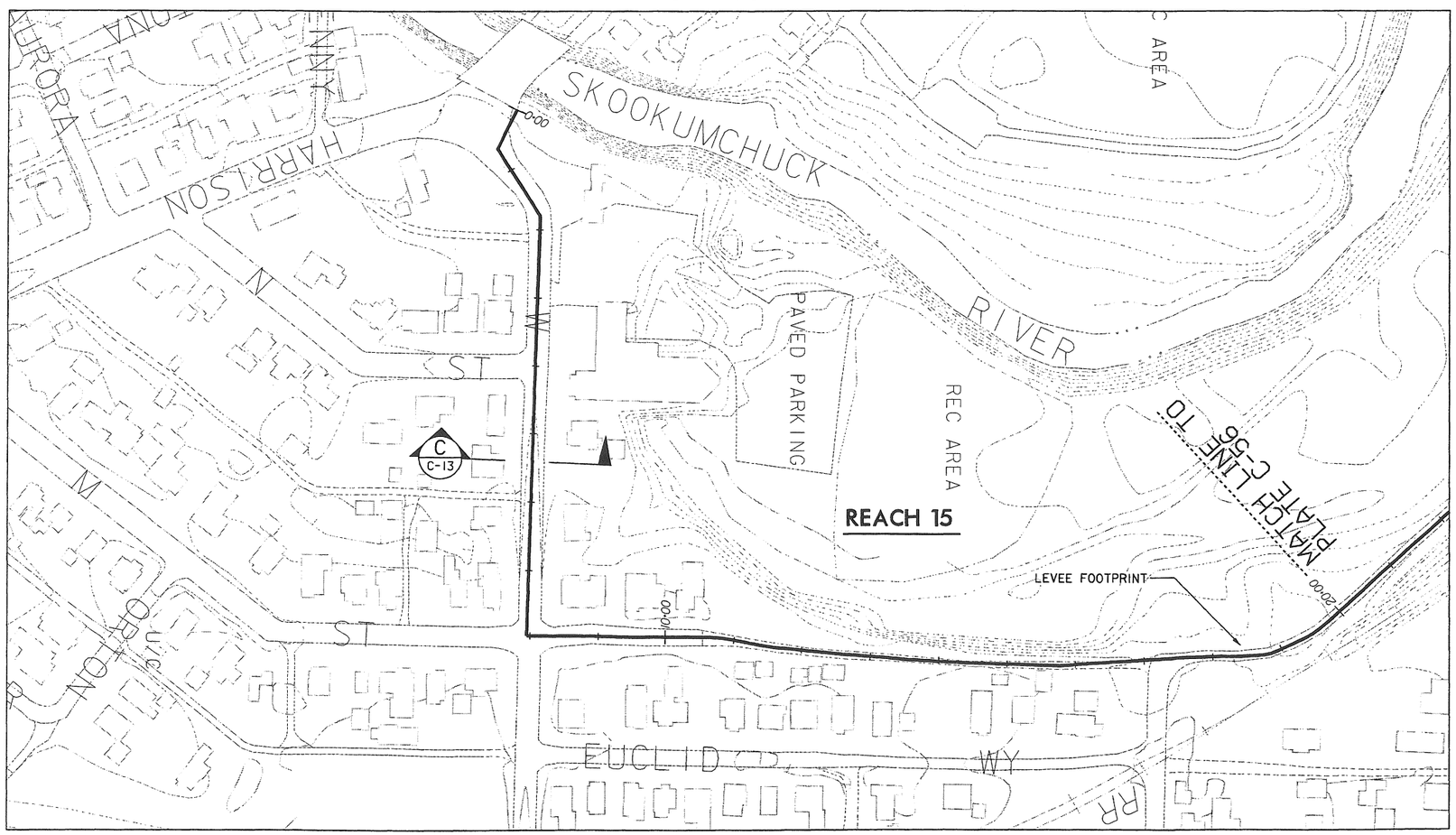
SIZE	INVITATION NO.	FILE NO.	DATE:	PLATE
D		E-5-14-196	14 MAY 02	C-54
DSGN. SKJELBREIA		CHK. GOUGH	SHEET 62	

This project was designed by the Seattle District U.S. Army Corps of Engineers. The initials or signatures and registration designations of individuals appear within the specifications or on these project documents within the scope of their employment as required by ER 1110-1-8152, Professional Registration.

DATE AND TIME PLOTTED: 20-SEP-2002 10:02
DESIGN FILE: I:\designs\ccfr\civ\ccfrctl0.dgn

Computer Aided Design & Drafting





REVISIONS				
SYMBOL	ZONE	DESCRIPTION	DATE	BY

NOTES:

1. VERTICAL DATUM NGVD 1929.

N

1" = 100' 100' 50' 0 100' 200'

This project was designed by the Seattle District U.S. Army Corps of Engineers. The initials or signatures and registration designations of individuals appear within the specifications or on these project documents within the scope of their employment as required by ER 1110-1-8152, Professional Registration.

DATE AND TIME PLOTTED: 20-SEP-2002 10:03
DESIGN FILE: I:\designs\ccfr\civ\ccfrctlp.dgn

COMPUTER AIDED DESIGN & DRAFTING

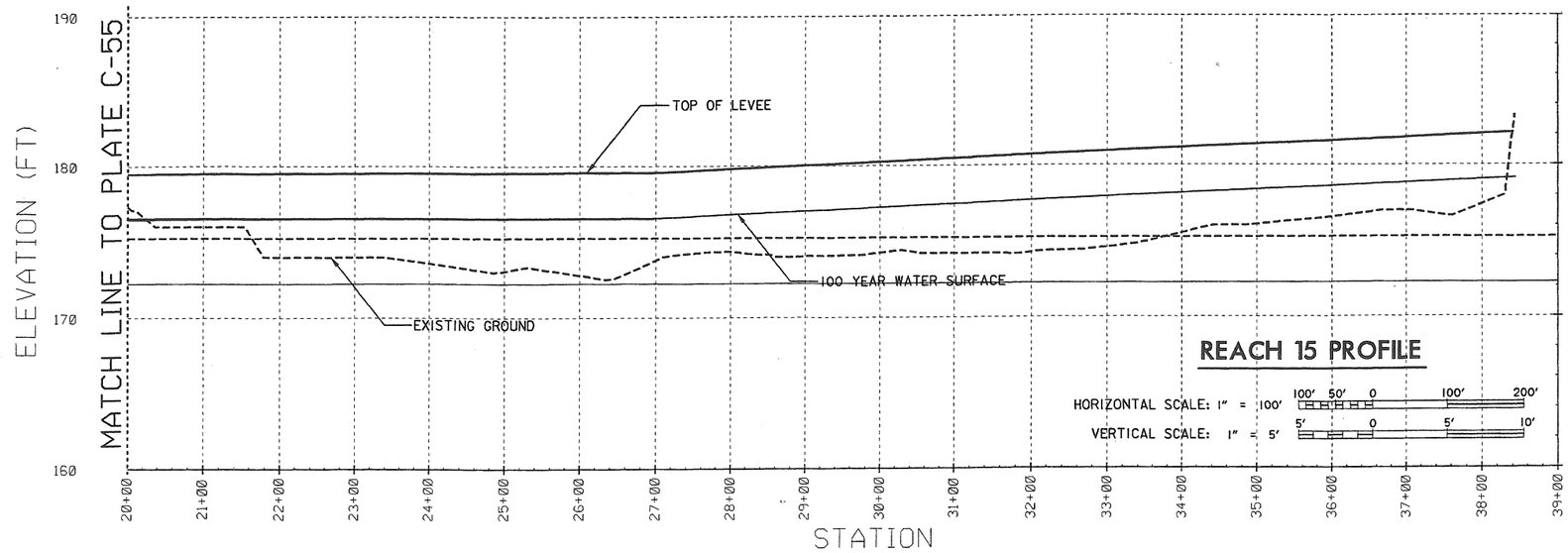
U.S. ARMY ENGINEER DISTRICT, SEATTLE
CORPS OF ENGINEERS
SEATTLE, WASHINGTON

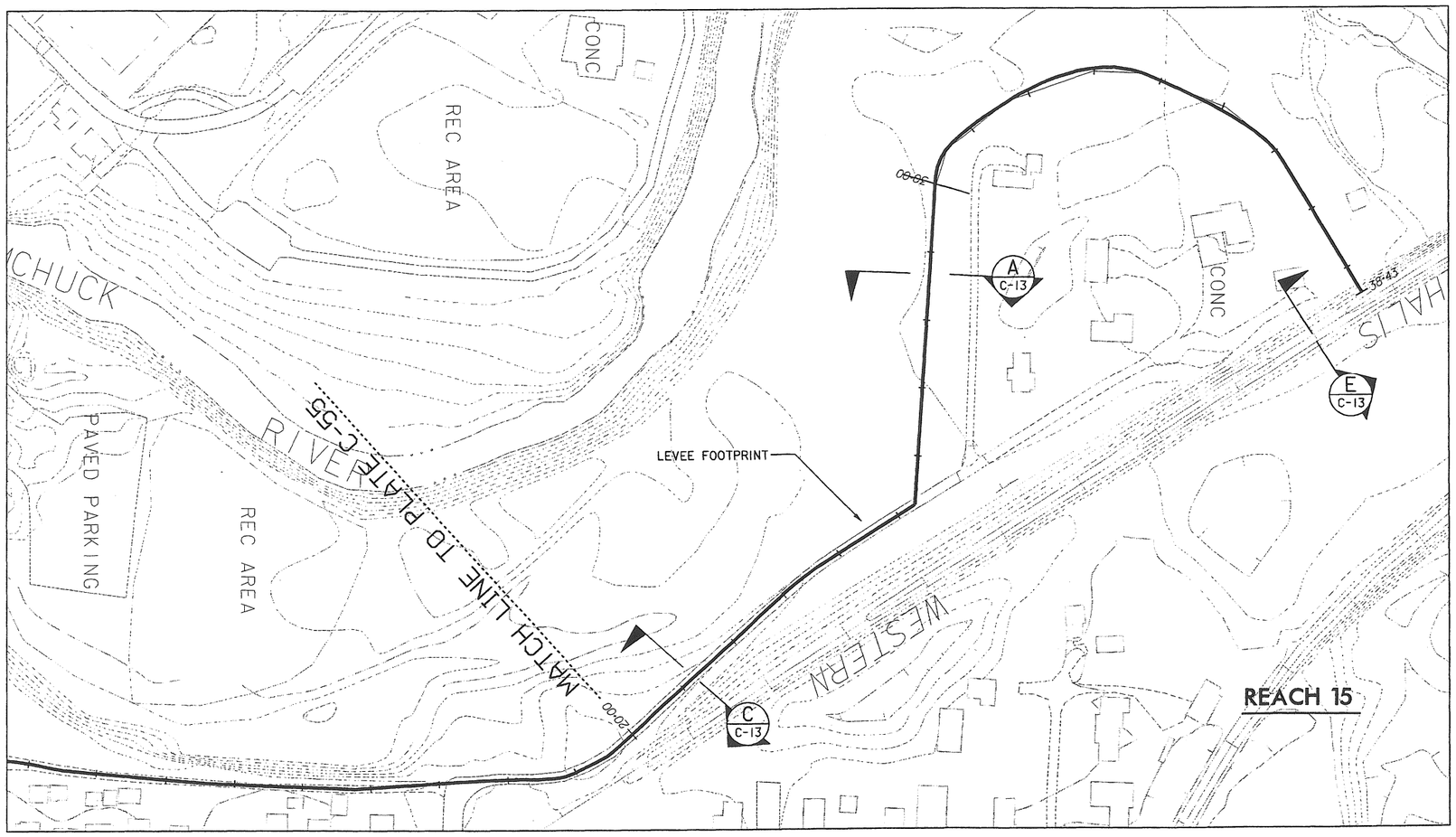
CENTRALIA, WA FLOOD DAMAGE REDUCTION PROJECT

REACH 15 – STA 0+00 TO STA 20+00

CENTRALIA PN C1919 WASHINGTON

SIZE	INVITATION NO.	FILE NO.	DATE:	PLATE
D		E-5-14-196	14 MAY 02	C-55
DSGN. SKJELBREIA		CHK. GOUGH	SHEET 63	





REVISIONS				
SYMBOL	ZONE	DESCRIPTION	DATE	BY

NOTES:

1. VERTICAL DATUM NGVD 1929.

N

1" = 100' 100' 50' 0 100' 200'

This project was designed by the Seattle District U.S. Army Corps of Engineers. The initials or signatures and registration designations of individuals appear within the specifications or on these project documents within the scope of their employment as required by ER 1110-1-8152, Professional Registration.

DATE AND TIME PLOTTED: 20-SEP-2002 10:03
DESIGN FILE: i:\designs\ccfr\civ\ccfrctlq.dgn

COMPUTER AIDED DESIGN & DRAFTING

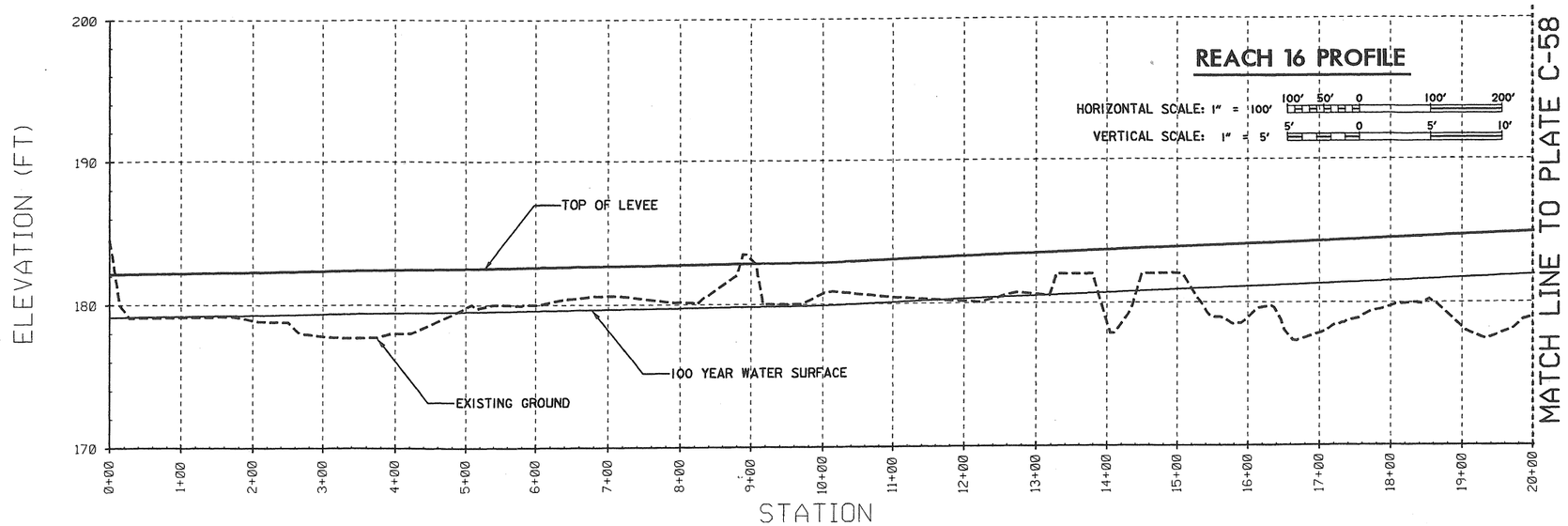
U.S. ARMY ENGINEER DISTRICT, SEATTLE
CORPS OF ENGINEERS
SEATTLE, WASHINGTON

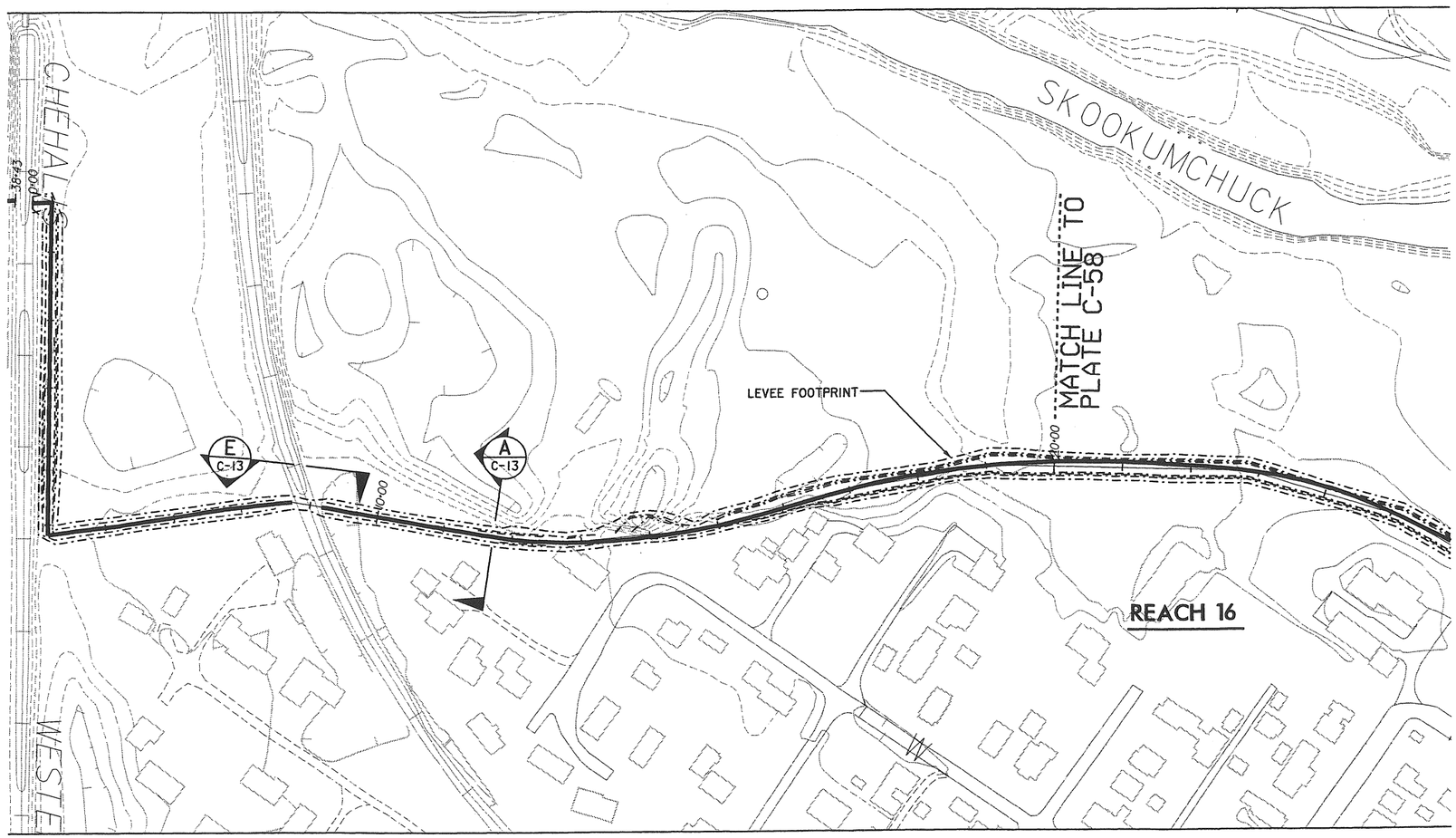
CENTRALIA, WA FLOOD DAMAGE REDUCTION PROJECT

REACH 15 – STA 20+00 TO STA 38+43

CENTRALIA PN C1919 WASHINGTON

SIZE	INVITATION NO.	FILE NO.	DATE:	PLATE
D		E-5-14-196	14 MAY 02	C-56
DSGN. SKJELBREIA		CHK. GOUGH	SHEET 64	





REVISIONS				
SYMBOL	ZONE	DESCRIPTION	DATE	BY

NOTES:

1. VERTICAL DATUM NGVD 1929.

1" = 100' 100' 50' 0 100' 200'

This project was designed by the Seattle District U.S. Army Corps of Engineers. The initials or signatures and registration designations of individuals appear within the specifications or on these project documents within the scope of their employment as required by ER 1110-1-8152, Professional Registration.

DATE AND TIME PLOTTED: 20-SEP-2002 10:04
DESIGN FILE: I:\designs\ccfr\civ\ccfrctlr.dgn

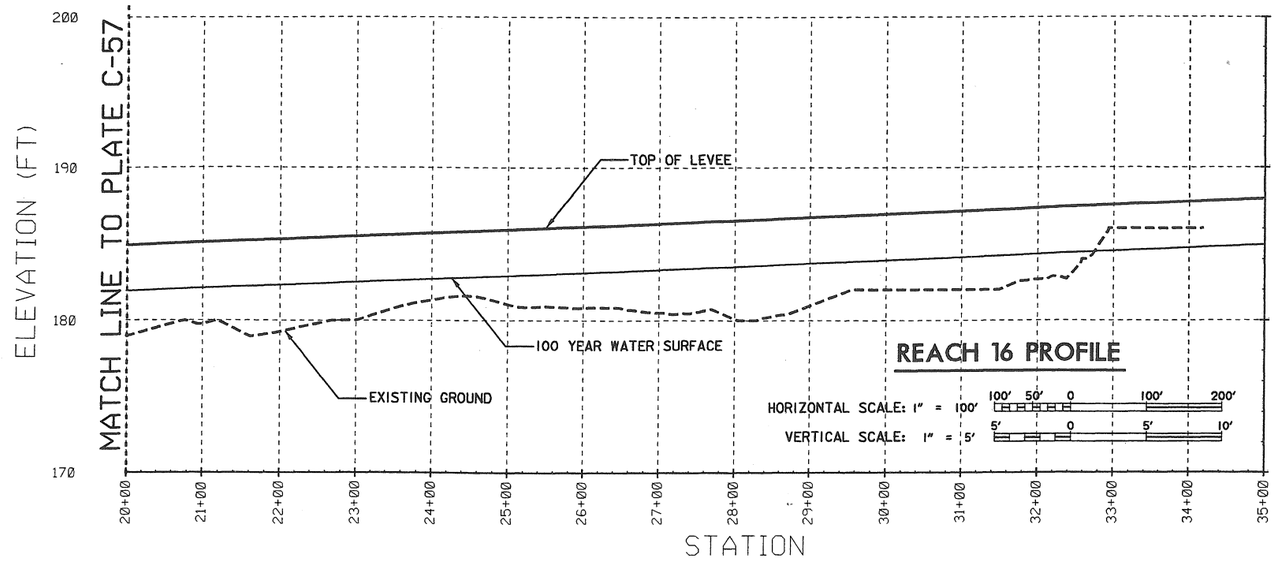
U.S. ARMY ENGINEER DISTRICT, SEATTLE
CORPS OF ENGINEERS
SEATTLE, WASHINGTON

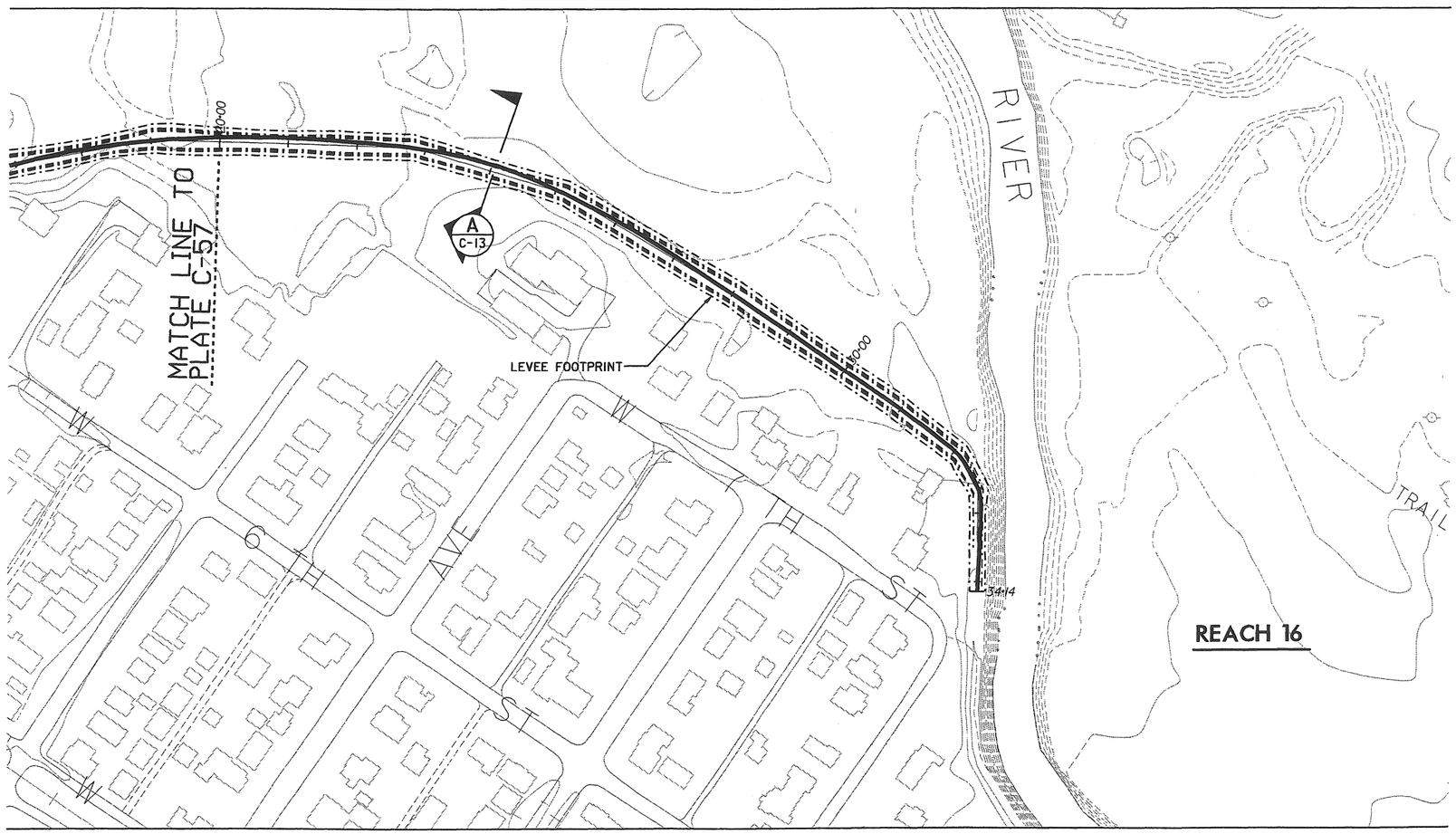
CENTRALIA, WA FLOOD DAMAGE REDUCTION PROJECT

REACH 16 – STA 0+00 TO STA 20+00

CENTRALIA PN C1919 WASHINGTON

SIZE	INVITATION NO.	FILE NO.	DATE:	PLATE
D		E-5-14-196	14 MAY 02	C-57
DSGN. SKJELBREIA		CHK. GOUGH	SHEET 65	





REVISIONS				
SYMBOL	ZONE	DESCRIPTION	DATE	BY

NOTES:

1. VERTICAL DATUM NGVD 1929.

N

1" = 100' 100' 50' 0 100' 200'

This project was designed by the Seattle District U.S. Army Corps of Engineers. The initials or signatures and registration designations of individuals appear within the specifications or on these project documents within the scope of their employment as required by ER 1110-1-8152, Professional Registration.

DATE AND TIME PLOTTED: 20-SEP-2002 10:05
DESIGN FILE: I:\designs\ccfr\civ\ccfrctls.dgn

COMPUTER AIDED DESIGN & DRAFTING

U.S. ARMY ENGINEER DISTRICT, SEATTLE
CORPS OF ENGINEERS
SEATTLE, WASHINGTON

CENTRALIA, WA FLOOD DAMAGE REDUCTION PROJECT

REACH 16 – STA 20+00 TO STA 34+14

CENTRALIA PN C1919 WASHINGTON

SIZE	INVITATION NO.	FILE NO.	DATE	PLATE
D		E-5-14-196	14 MAY 02	C-58
DSGN. SKJELBREIA		CHK. GOUGH	SHEET 66 OF 66	