



COUNTY OF ORANGE

OC PUBLIC WORKS DEPARTMENT

SANTA ANA, CALIFORNIA

JAMES, TREADWAY, DIRECTOR

2023 SCOUR STUDY

**PREPARED BY:
COUNTY OF ORANGE PUBLIC WORKS**

SURVEY FIELD UNIT

KEVIN HILLS, COUNTY SURVEYOR

ORANGE COUNTY BOARD OF SUPERVISORS

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FIRST DISTRICT

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SECOND DISTRICT

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SECOND DISTRICT

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THIRD DISTRICT

KATRINA FOLEY
THIRD DISTRICT

2023 ANNUAL SCOUR STUDY

SAN DIEGO CREEK CHANNEL (F05)

MAXIMUM CAPACITY OF BASIN 3

STATION 100+00 TO 135+00

AS-BUILT PLANS:
F05-101-6A

STA. 100+00 TO 135+00

NOTE: As-Built plans were used for left side of the basin, the right side of the template was modified based on the San Diego Creek 2004 Emergency Repair Agreement whereas, a 40' Wildlife Corridor was established on the right side of the channel

HORIZONTAL DATUM: NAD83 2017.5 EPOCH

VERTICAL DATUM: NAVD 1988 (O.C.S. 1995 ADJUSTMENT)

OFFICE CHECK BY: Hanna Aftim, PLS, Senior Land Surveyor
 Michael Kubisty, PLS, Senior Land Surveyor

SURVEY PARTY CHIEF: James Russo, Surveyor III

MAPPING DONE BY: Hanna Aftim, PLS, Senior Land Surveyor

COUNTY of ORANGE

OC PUBLIC WORKS

OC SURVEY

FIELD UNIT-BOUNDARY ANALYSIS & MAPPING

2023 SCOURS STUDY (MAX. CAPACITY BASIN TEMPLATE) - VOLUME REPORT

SAN DIEGO CREEK (F05) BASIN #3, STATION 100+00 to 135+00

Date of Survey October 2023

ALIGNMENT: CENTERLINE ALIGNMENT REACH 1

SURFACE 1: SDCR2_2023

SURFACE 2: F05B2 MAX CAP (2010 MAX CAP Basin #3 Template)

BASILINE STATION NUMBER	STATION CUT AREA (Sq. Ft)	STATION CUT VOLUME (Cu. Yds)	STATION FILL AREA (Sq. Ft)	STATION FILL VOLUME (Cu. Yds)	MASS ORDINANCE VOLUME (Cu. Yds)
100+00	0.00	0.00	0.00	0.00	0.00
101+00	0.00	0.00	0.00	0.00	0.00
102+00	0.00	0.00	0.00	0.00	0.00
103+00	0.00	0.00	0.00	0.00	0.00
104+00	0.00	0.00	0.00	0.00	0.00
105+00	510.82	945.96	8.35	15.46	930.50
106+00	416.45	1717.17	4.10	23.05	2624.62
107+00	426.69	1561.37	2.54	12.29	4173.70
108+00	407.71	1545.18	3.13	10.50	5708.38
109+00	399.88	1495.54	0.52	6.75	7197.17
110+00	330.55	1352.65	0.26	1.45	8548.37
111+00	348.41	1257.33	1.06	2.45	9803.25
112+00	459.03	1495.25	0.00	1.96	11296.54
113+00	422.70	1632.83	0.00	0.00	12929.37
114+00	305.95	1344.59	0.00	0.00	14273.96
115+00	412.25	1321.73	0.00	0.00	15595.69
116+00	450.96	1585.86	0.06	0.10	17181.45
117+00	454.41	1663.00	0.23	0.52	18843.93
118+00	460.22	1679.34	0.13	0.65	20522.62
119+00	446.32	1664.25	2.80	5.53	22181.34
120+00	465.40	1674.34	2.46	9.98	23845.70
121+00	450.64	1685.24	1.77	8.03	25522.91
122+00	348.88	1468.52	7.00	16.53	26974.90
123+00	406.37	1383.21	19.37	49.82	28308.29
124+00	476.02	1622.06	49.87	131.19	29799.16
125+00	473.33	1750.12	41.57	173.32	31375.96
126+00	534.27	1855.81	56.58	186.36	33045.41

127+00	524.33	1946.95	50.98	204.75	34787.61
128+00	517.20	1916.11	49.07	190.27	36513.45
129+00	500.36	1874.77	46.46	180.24	38207.98
130+00	298.21	1473.66	51.76	182.72	39498.92
131+00	401.35	1300.82	148.51	366.85	40432.89
132+00	161.57	1052.04	146.06	539.46	40945.47
133+00	0.00	302.20	0.00	268.20	40979.47
134+00	0.00	0.00	0.00	0.00	40979.47
135+00	0.00	0.00	0.00	0.00	40979.47
		CUT: 43,567.90 Cu. Yds	FILL: 2,588.43 Cu. Yds		NET: 40,979.47 Cu. Yds

COUNTY of ORANGE
OC PUBLIC WORKS

OC SURVEY
FIELD UNIT-BOUNDARY ANALYSIS & MAPPING

2023 SCOURS STUDY- % MAX. CAPACITY BASIN TEMPLATE - VOLUME REPORT (OCTOBER 30, 2023)

SAN DIEGO CREEK (F05) BASIN #3, (STATION 100+00 TO 135+00)

STATION	CUT AREA	CUT VOLUME	FILL AREA	FILL VOLUME	% of CAPACITY
	(Sq. Ft)	(Cu. Yds)	(Sq. Ft)	(Cu. Yds)	
100+00	0.00	0.00	0.00	0.00	0.00%
101+00	0.00	0.00	0.00	0.00	0.00%
102+00	0.00	0.00	0.00	0.00	0.00%
103+00	0.00	0.00	0.00	0.00	0.00%
104+00	0.00	0.00	0.00	0.00	0.00%
105+00	510.82	945.96	905.20	1676.30	56.43%
106+00	416.45	1717.17	869.31	3286.13	52.26%
107+00	426.69	1561.37	884.37	3247.55	48.08%
108+00	407.71	1545.18	906.00	3315.50	46.60%
109+00	399.88	1495.54	909.24	3361.56	44.49%
110+00	330.55	1352.65	859.99	3276.36	41.29%
111+00	348.41	1257.33	904.03	3266.71	38.49%
112+00	459.03	1495.25	890.80	3323.75	44.99%
113+00	422.7	1632.83	886.51	3291.31	49.61%
114+00	305.95	1344.59	885.14	3280.84	40.98%
115+00	412.25	1321.73	878.73	3266.43	40.46%
116+00	450.96	1585.86	884.43	3265.11	48.57%
117+00	454.41	1663.00	897.33	3299.55	50.40%
118+00	460.22	1679.34	909.33	3345.67	50.19%
119+00	446.32	1664.25	923.82	3394.73	49.02%
120+00	465.40	1674.34	976.93	3519.90	47.57%
121+00	450.64	1685.24	937.10	3544.50	47.55%

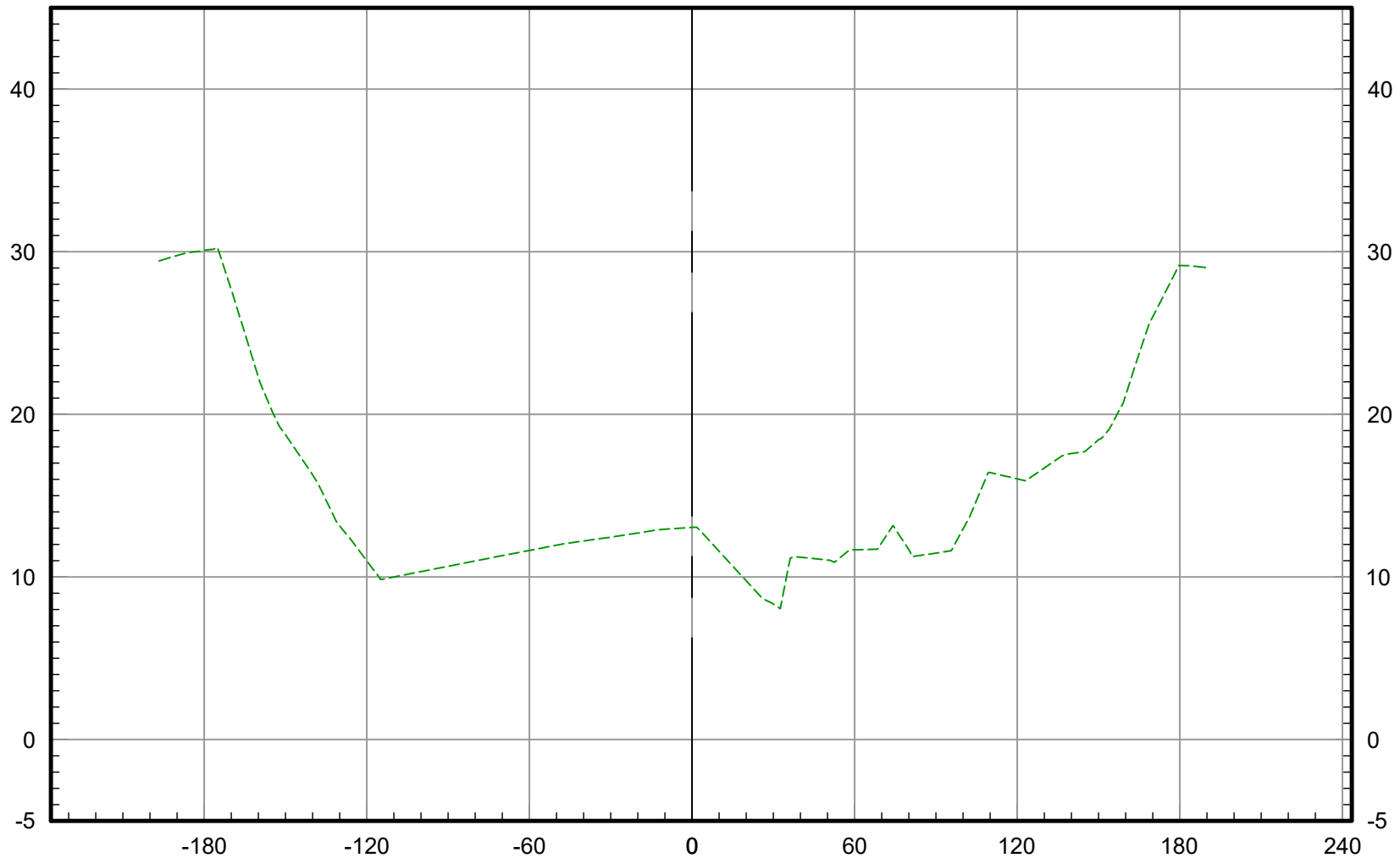
122+00	348.88	1468.52	906.05	3413.25	43.02%
123+00	406.37	1383.21	937.85	3414.63	40.51%
124+00	476.02	1622.06	974.71	3541.77	45.80%
125+00	473.33	1750.12	947.97	3560.51	49.15%
126+00	534.27	1855.81	958.62	3530.72	52.56%
127+00	524.33	1946.95	1039.40	3700.03	52.62%
128+00	517.20	1916.11	999.57	3775.87	50.75%
129+00	500.36	1874.77	1014.08	3728.99	50.28%
130+00	298.21	1473.66	1065.82	3851.66	38.26%
131+00	401.35	1300.82	1039.52	3898.77	33.36%
132+00	161.57	1052.04	0.00	1922.00	54.74%
133+00	0.00	302.20	0.00	0.00	0.00%
134+00	0.00	0.00	0.00	0.00	0.00%
135+00	0.00	0.00	0.00	0.00	0.00%
		TOTAL CUT VOLUME		MAX. CAPACITY BASIN 3 VOLUME	TOTAL % OF CAPACITY
		43,567.90 Cu. Yds		93,300.10 Cu. Yds	46.70%

U.S. Survey Foot

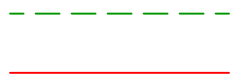
OC Public Works
OC Survey/Field Services
Boundary Analysis & Mapping



SAN DIEGO CREEK (F05) BASIN 3 - 2023 SCOURS CL



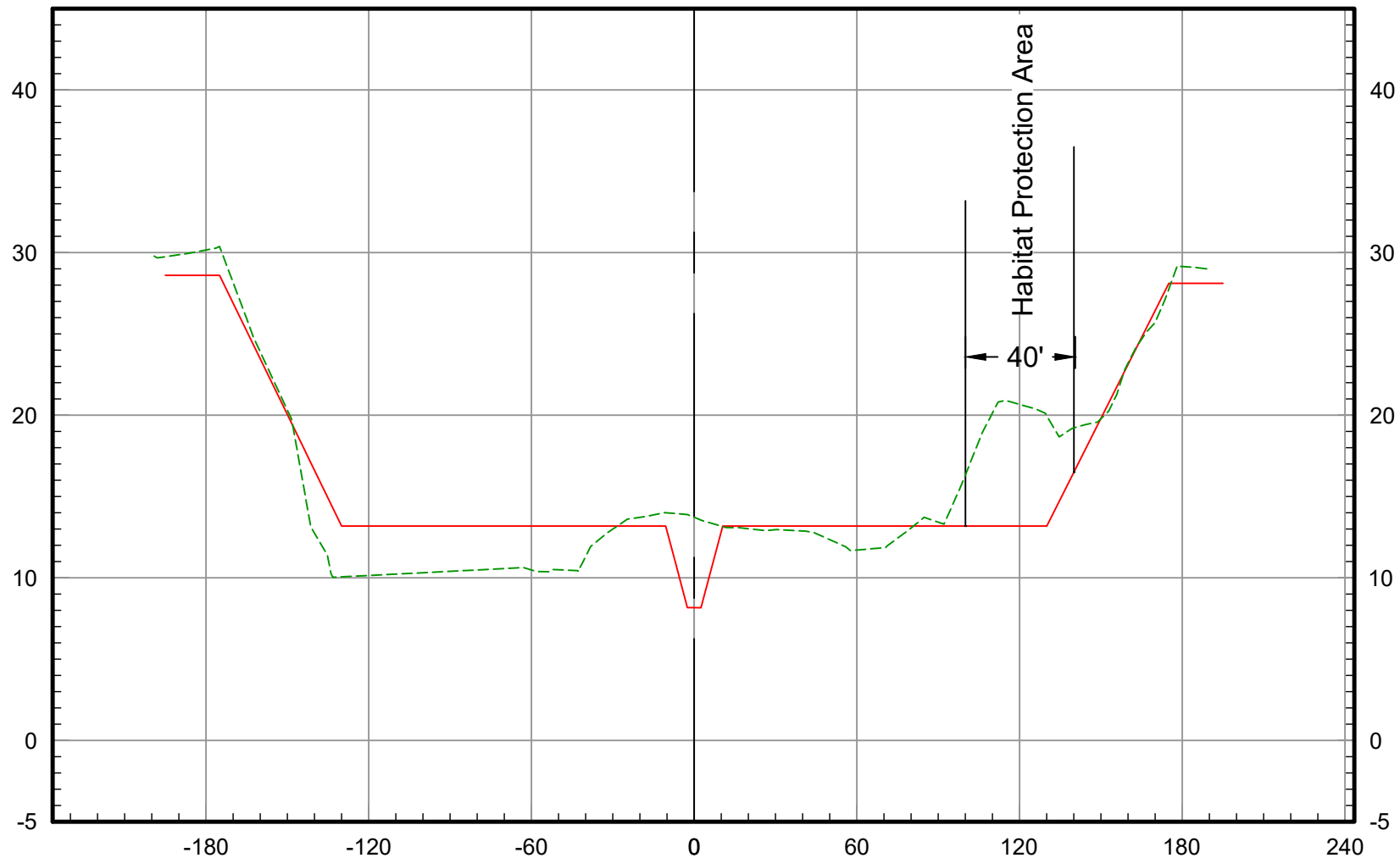
2023 Ground
As-Built Plan



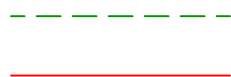
100+00

Vert. Scale: 1" = 10'
Horiz. Scale: 1" = 60'

SAN DIEGO CREEK (F05) BASIN 3 - 2023 SCOURS CL



2023 Ground
As-Built Plan



101+00

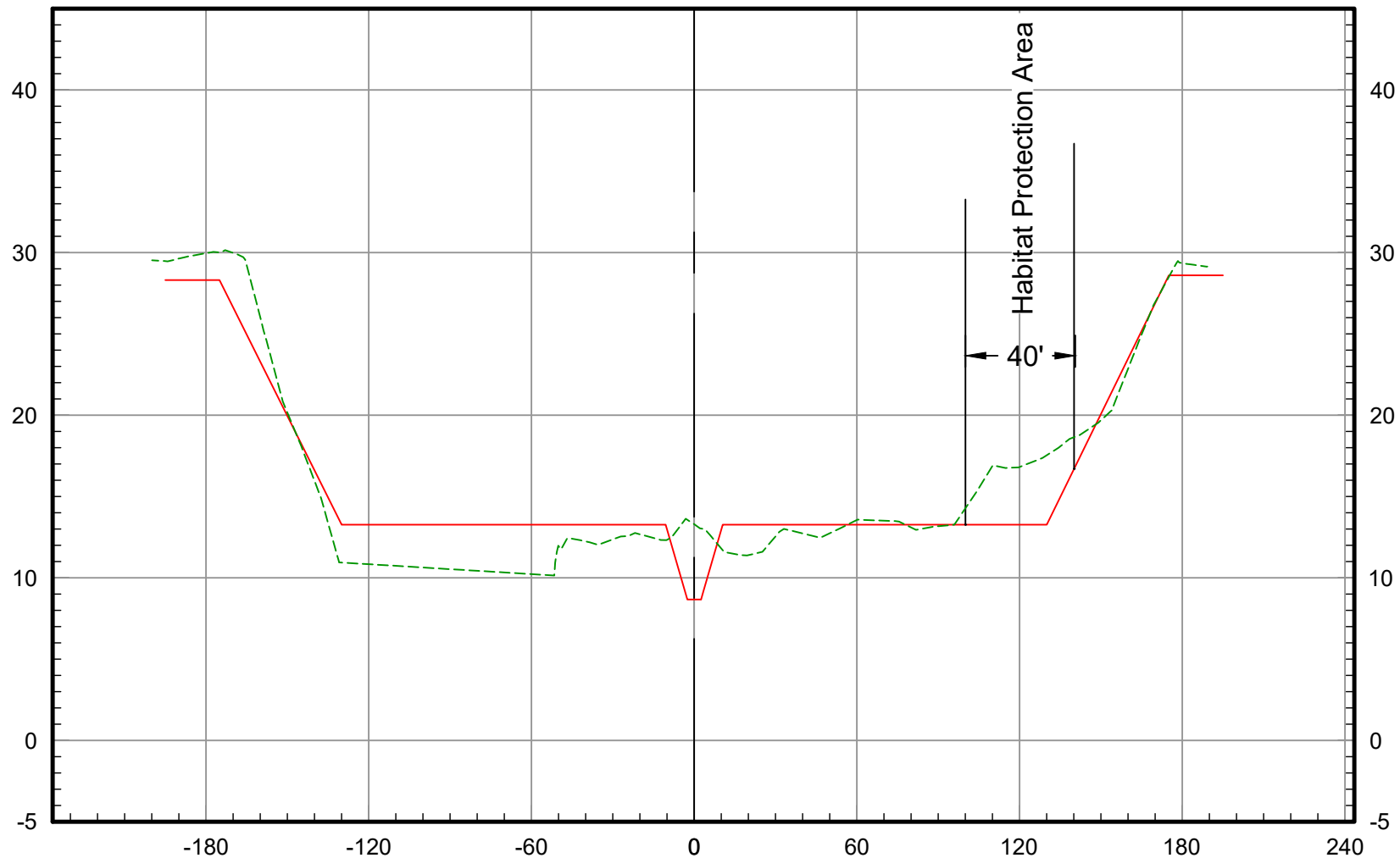
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Horiz. Scale: 1" = 60'

U.S. Survey Foot

OC Public Works
OC Survey/Field Services
Boundary Analysis & Mapping



SAN DIEGO CREEK (F05) BASIN 3 - 2023 SCOURS CL



2023 Ground
As-Built Plan

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102+00

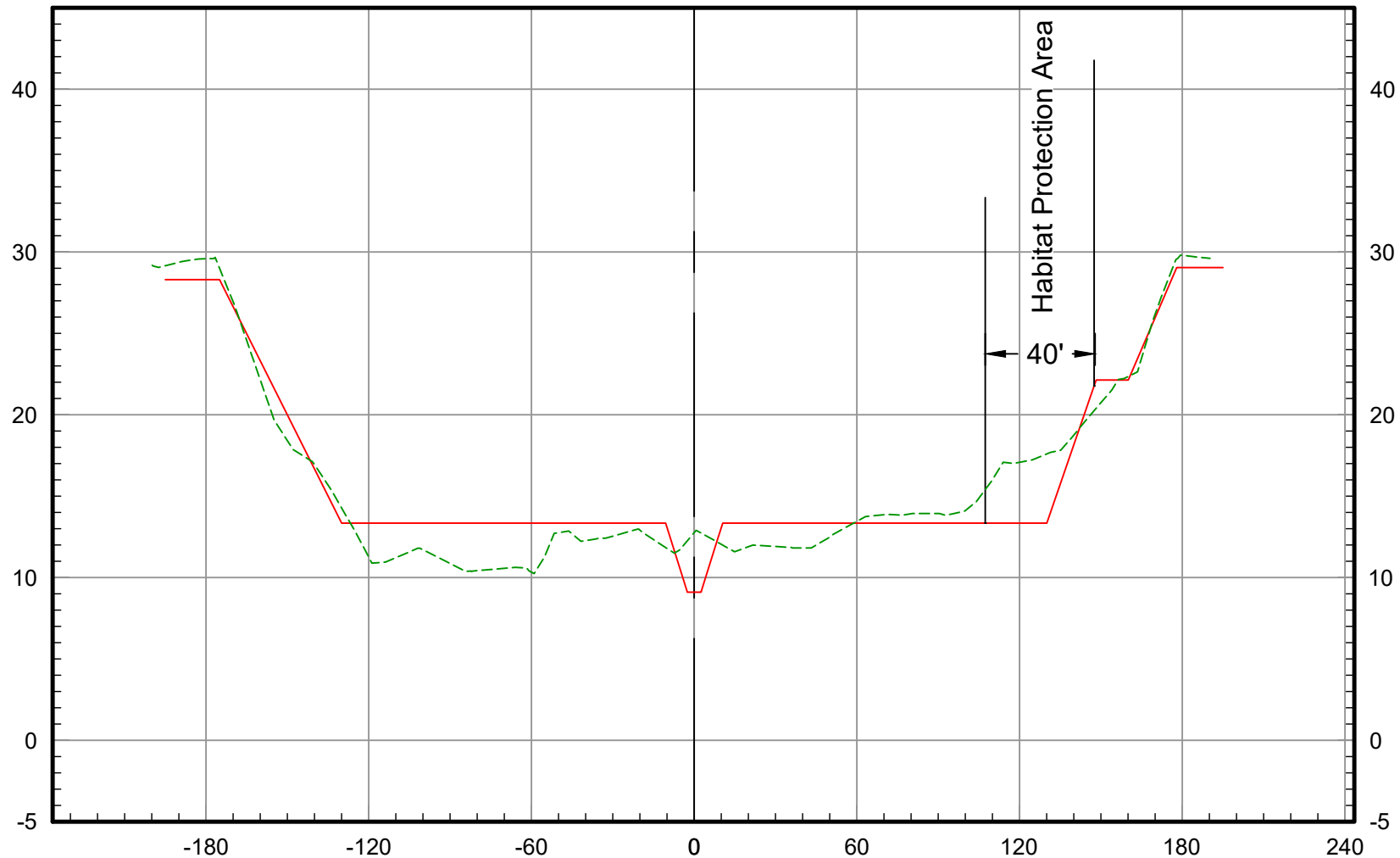
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Horiz. Scale: 1" = 60'

**U.S. Survey
Foot**

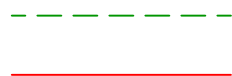
OC Public Works
OC Survey/Field Services
Boundary Analysis & Mapping



SAN DIEGO CREEK (F05) BASIN 3 - 2023 SCOURS CL



2023 Ground
As-Built Plan



103+00

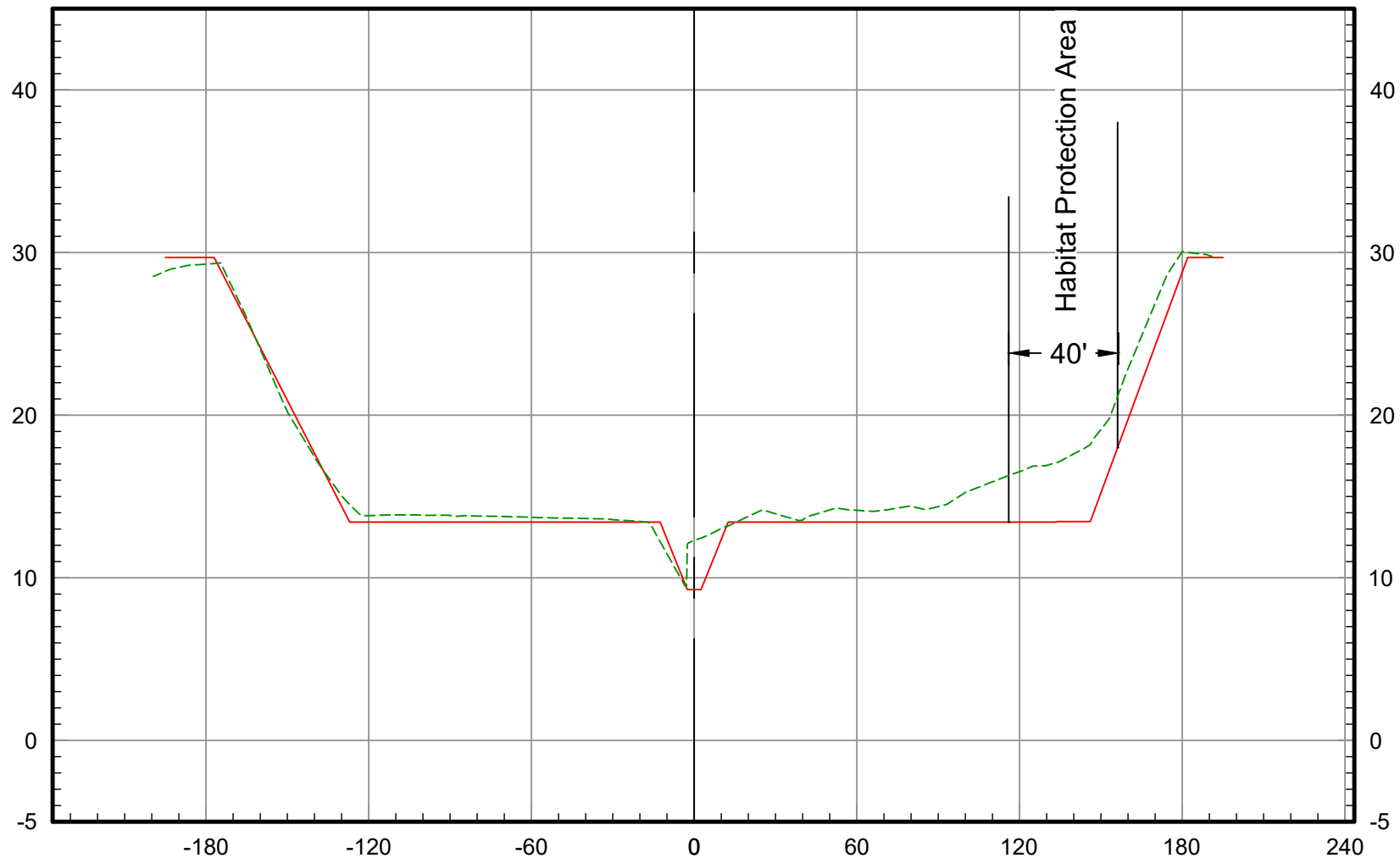
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Horiz. Scale: 1" = 60'

U.S. Survey Foot

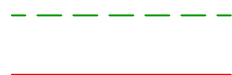
OC Public Works
OC Survey/Field Services
Boundary Analysis & Mapping



SAN DIEGO CREEK (F05) BASIN 3 - 2023 SCOURS CL



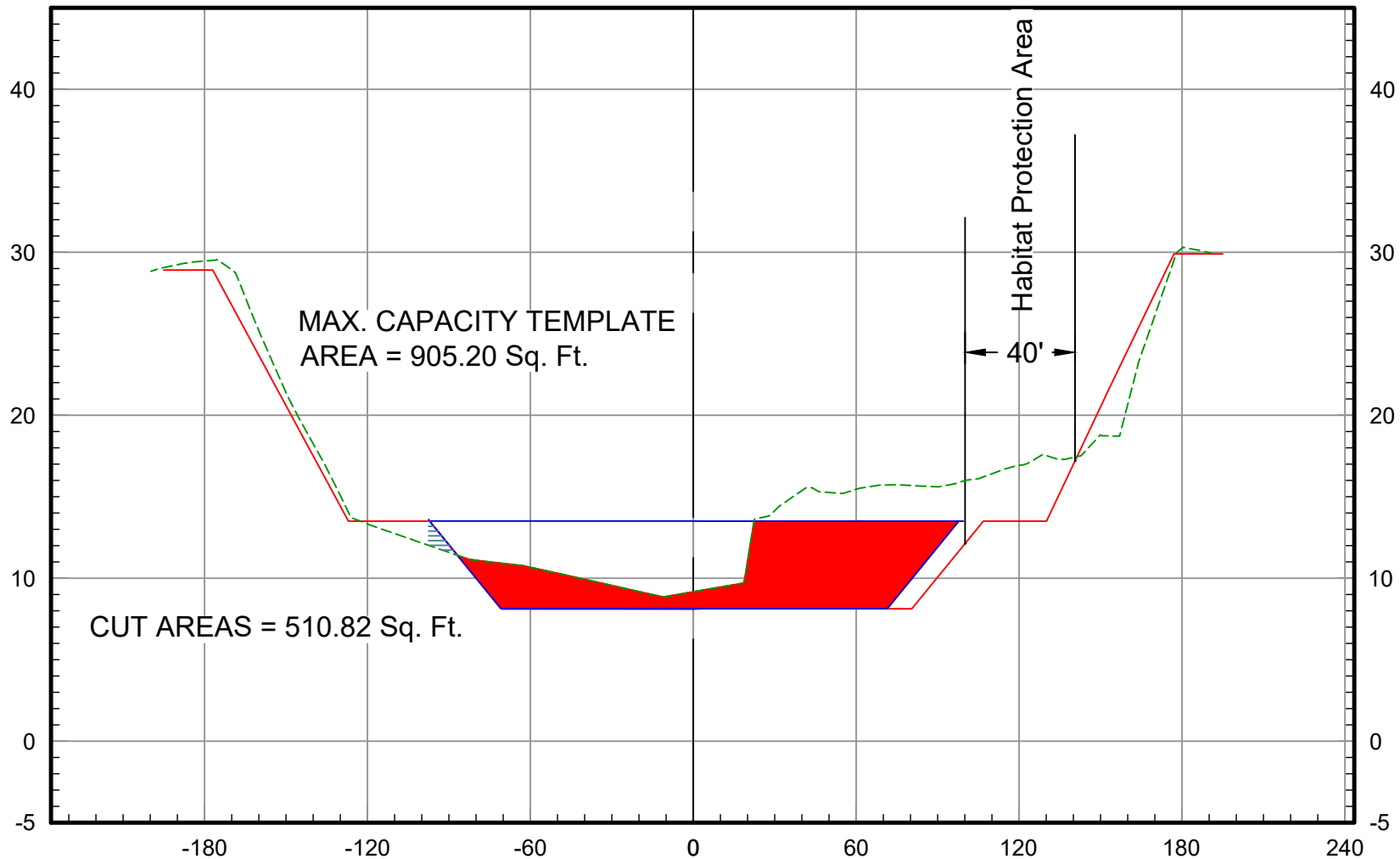
2023 Ground
As-Built Plan



104+00

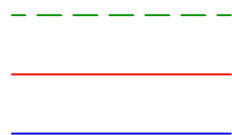
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Horiz. Scale: 1" = 60'

SAN DIEGO CREEK (F05) BASIN 3 - 2023 SCOURS CL



2023 Ground
As-Built Plan

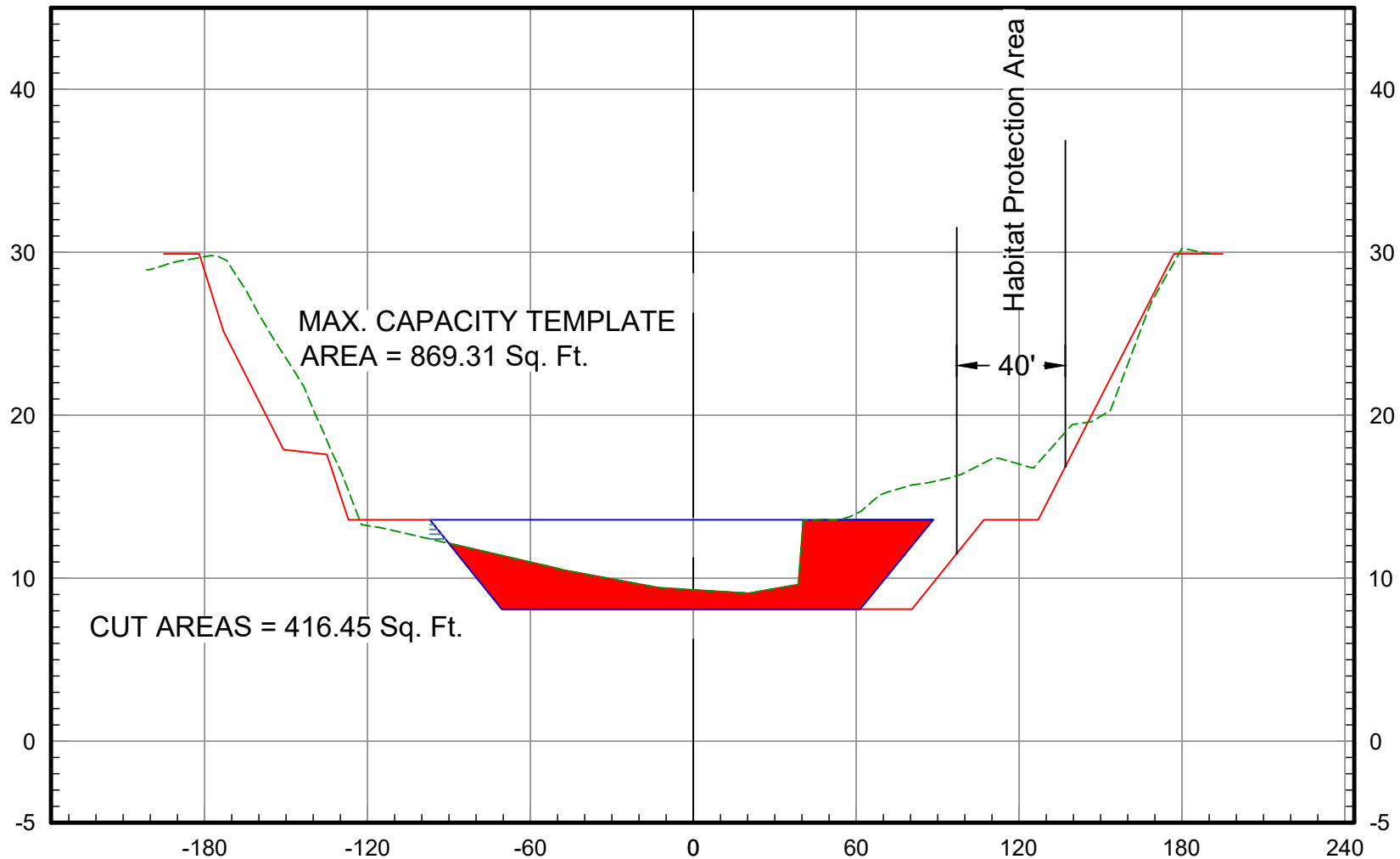
Maximum Capacity



105+00

Vert. Scale: 1" = 10'
Horiz. Scale: 1" = 60'

SAN DIEGO CREEK (F05) BASIN 3 - 2023 SCOURS CL



2023 Ground
As-Built Plan

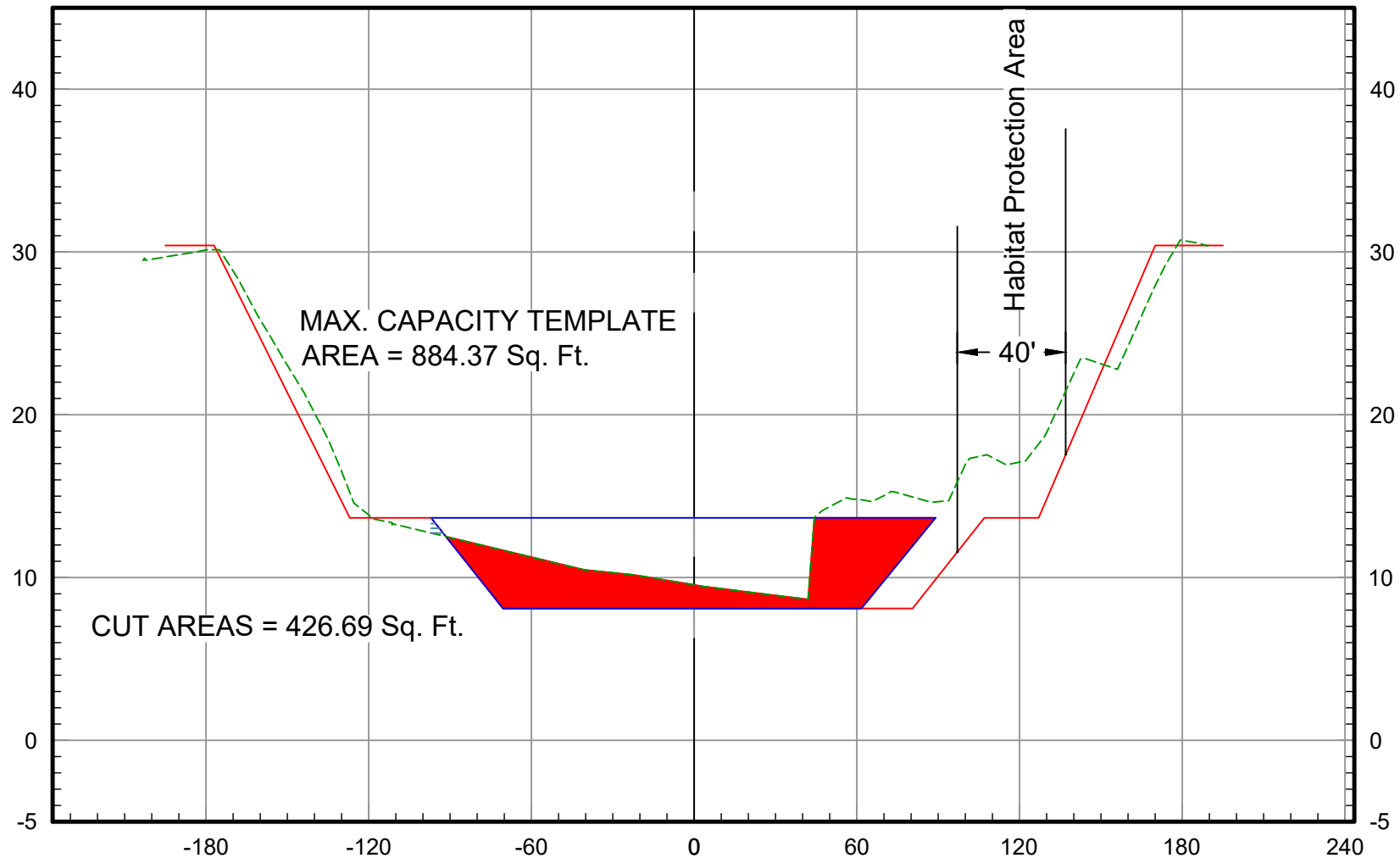
Maximum Capacity



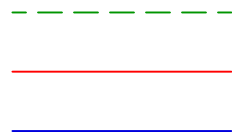
106+00

Vert. Scale: 1" = 10'
Horiz. Scale: 1" = 60'

SAN DIEGO CREEK (F05) BASIN 3 - 2023 SCOURS CL



2023 Ground
As-Built Plan

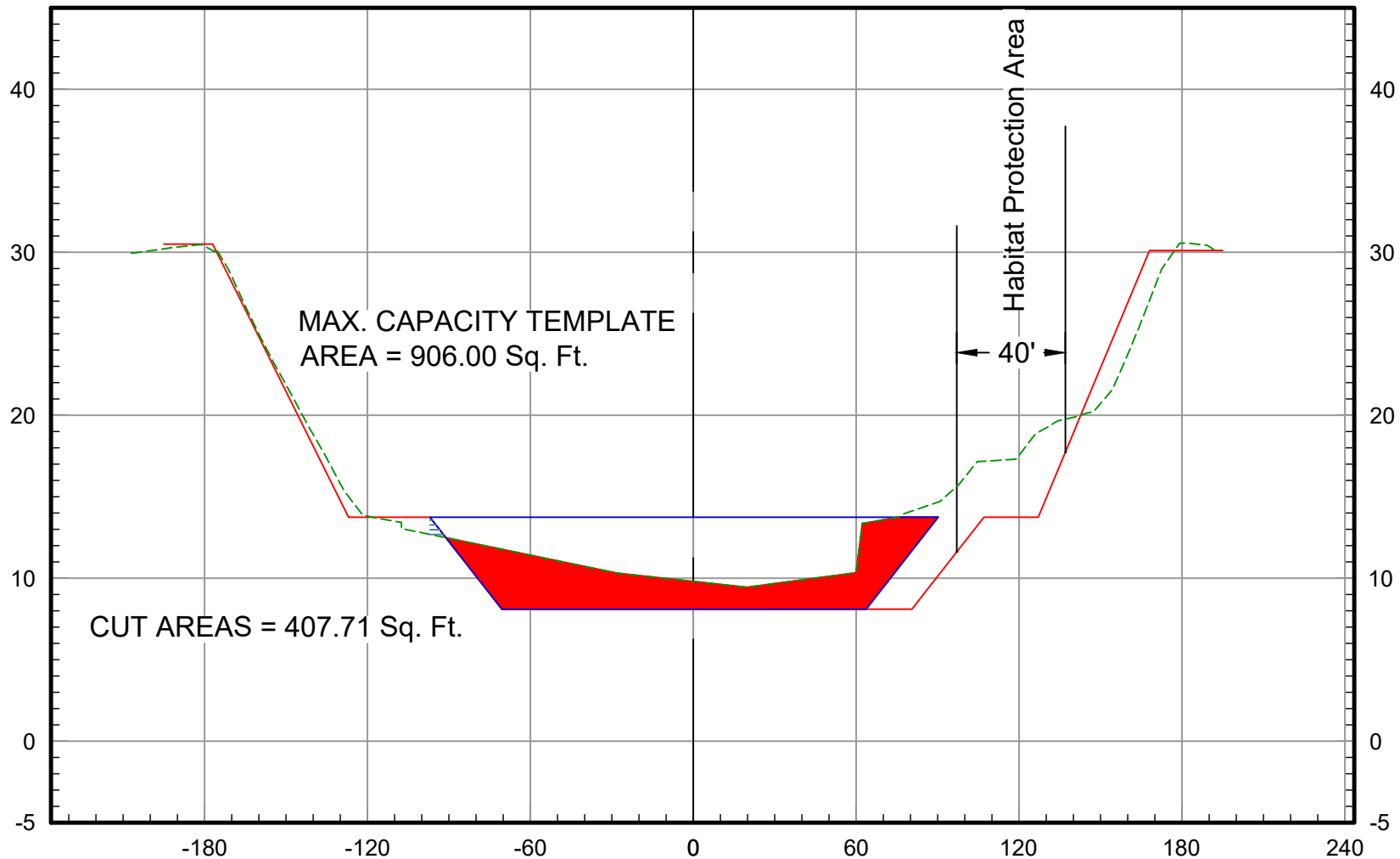


Maximum Capacity

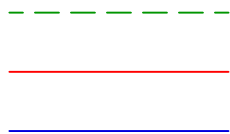
107+00

Vert. Scale: 1" = 10'
Horiz. Scale: 1" = 60'

SAN DIEGO CREEK (F05) BASIN 3 - 2023 SCOURS CL



2023 Ground
As-Built Plan

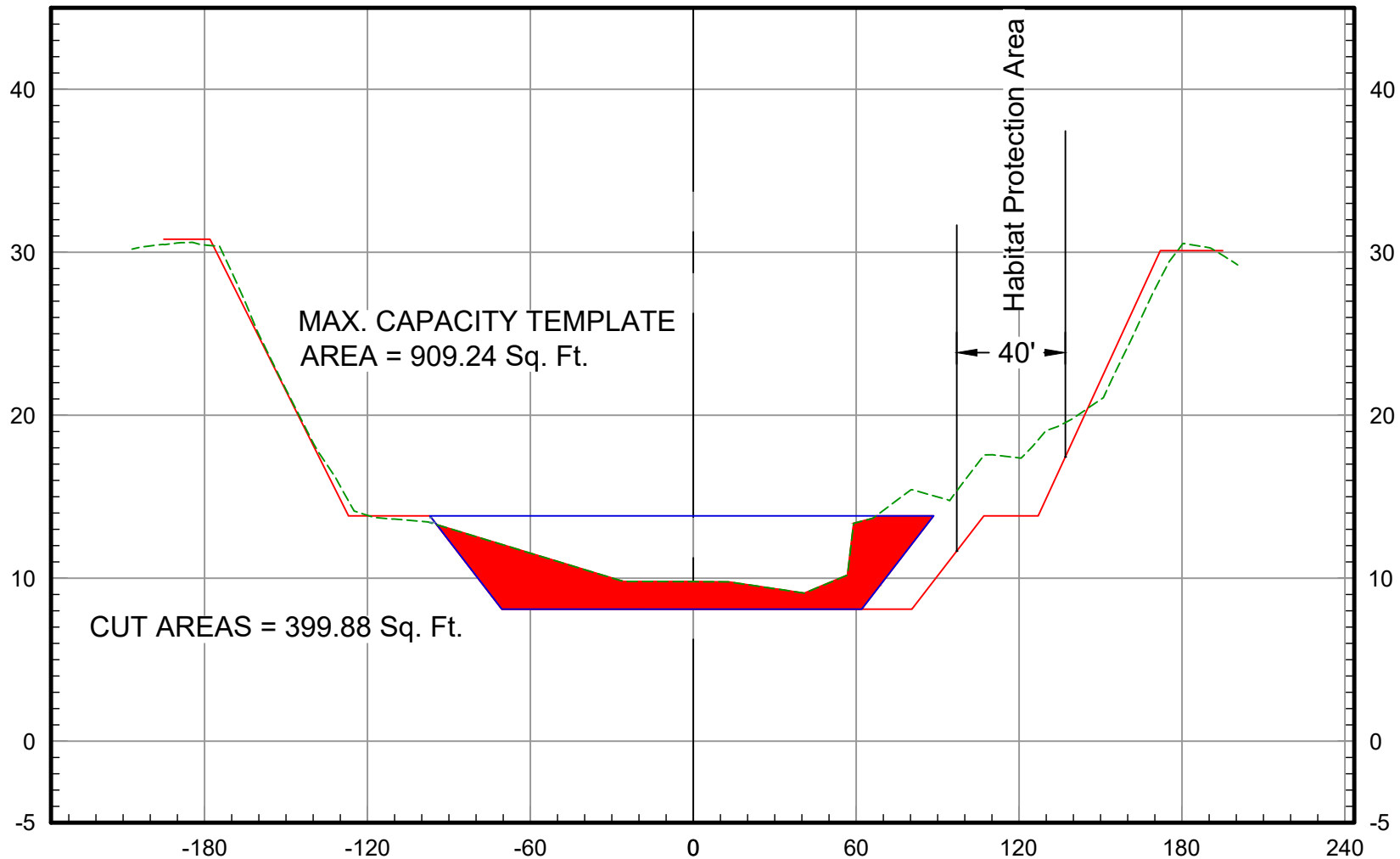


Maximum Capacity

108+00

Vert. Scale: 1" = 10'
Horiz. Scale: 1" = 60'

SAN DIEGO CREEK (F05) BASIN 3 - 2023 SCOURS CL

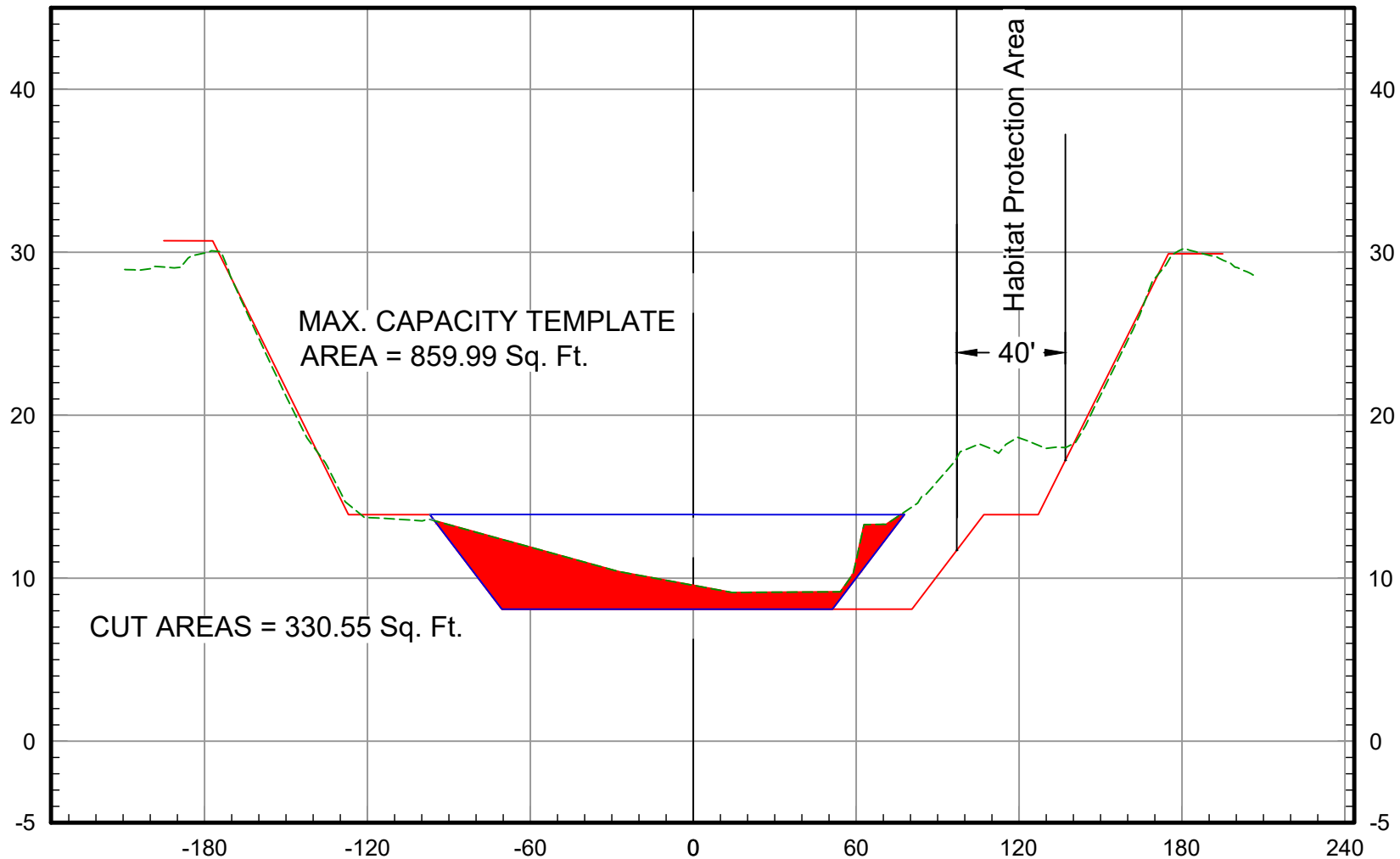


2023 Ground
As-Built Plan
Maximum Capacity

109+00

Vert. Scale: 1" = 10'
Horiz. Scale: 1" = 60'

SAN DIEGO CREEK (F05) BASIN 3 - 2023 SCOURS CL



2023 Ground
As-Built Plan

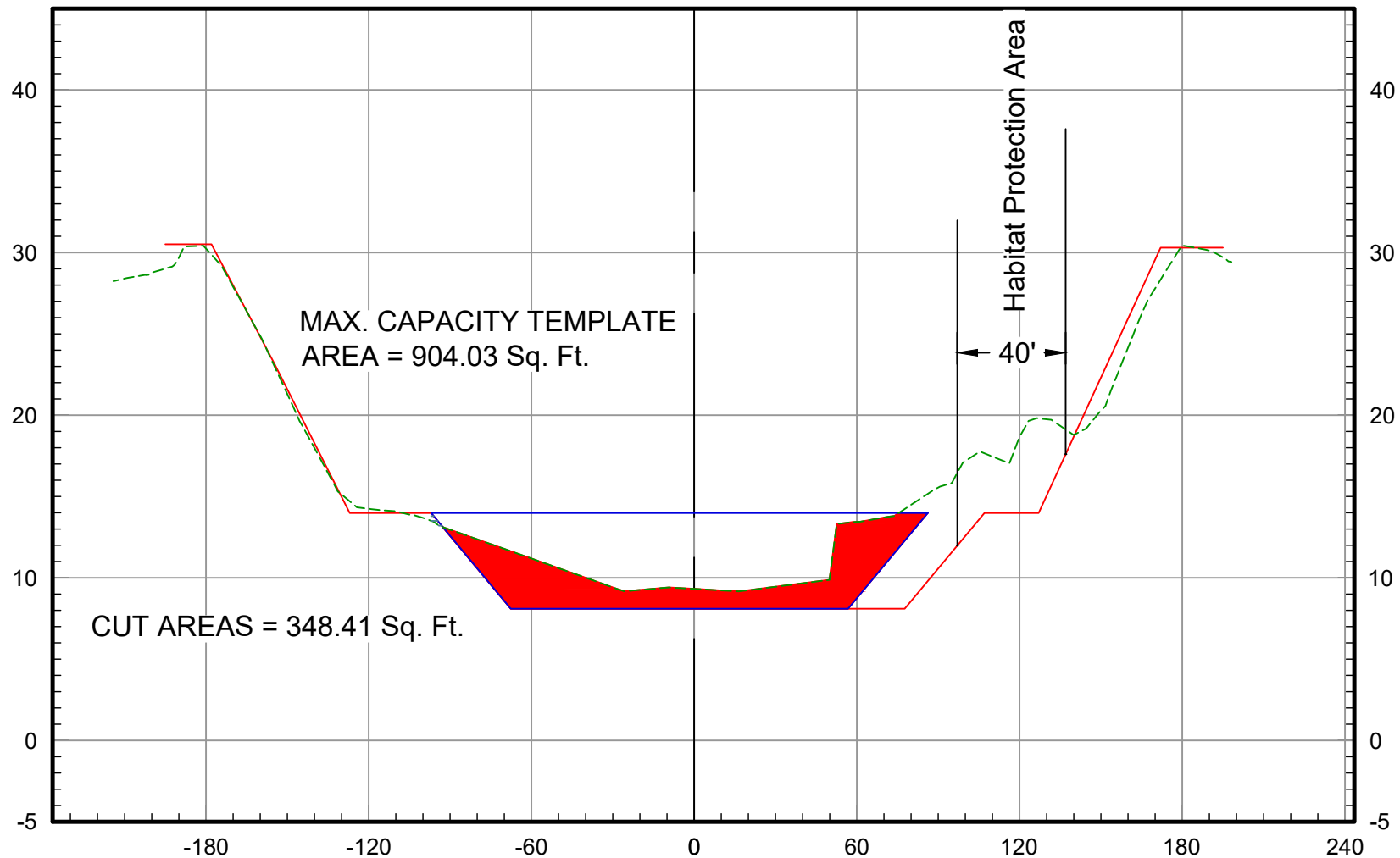
Maximum Capacity



110+00

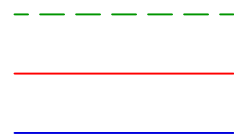
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Horiz. Scale: 1" = 60'

SAN DIEGO CREEK (F05) BASIN 3 - 2023 SCOURS CL



2023 Ground
As-Built Plan

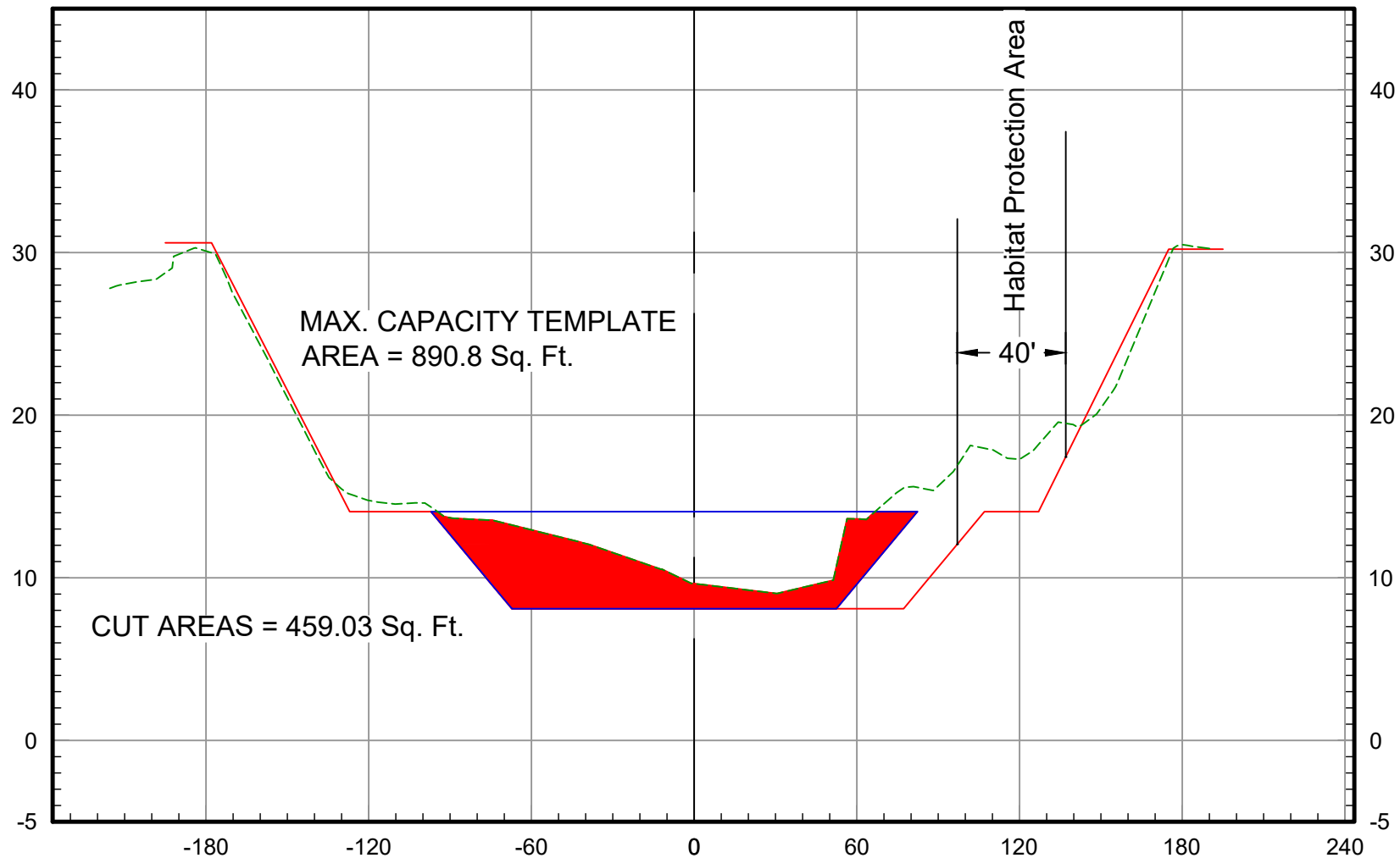
Maximum Capacity



111+00

Vert. Scale: 1" = 10'
Horiz. Scale: 1" = 60'

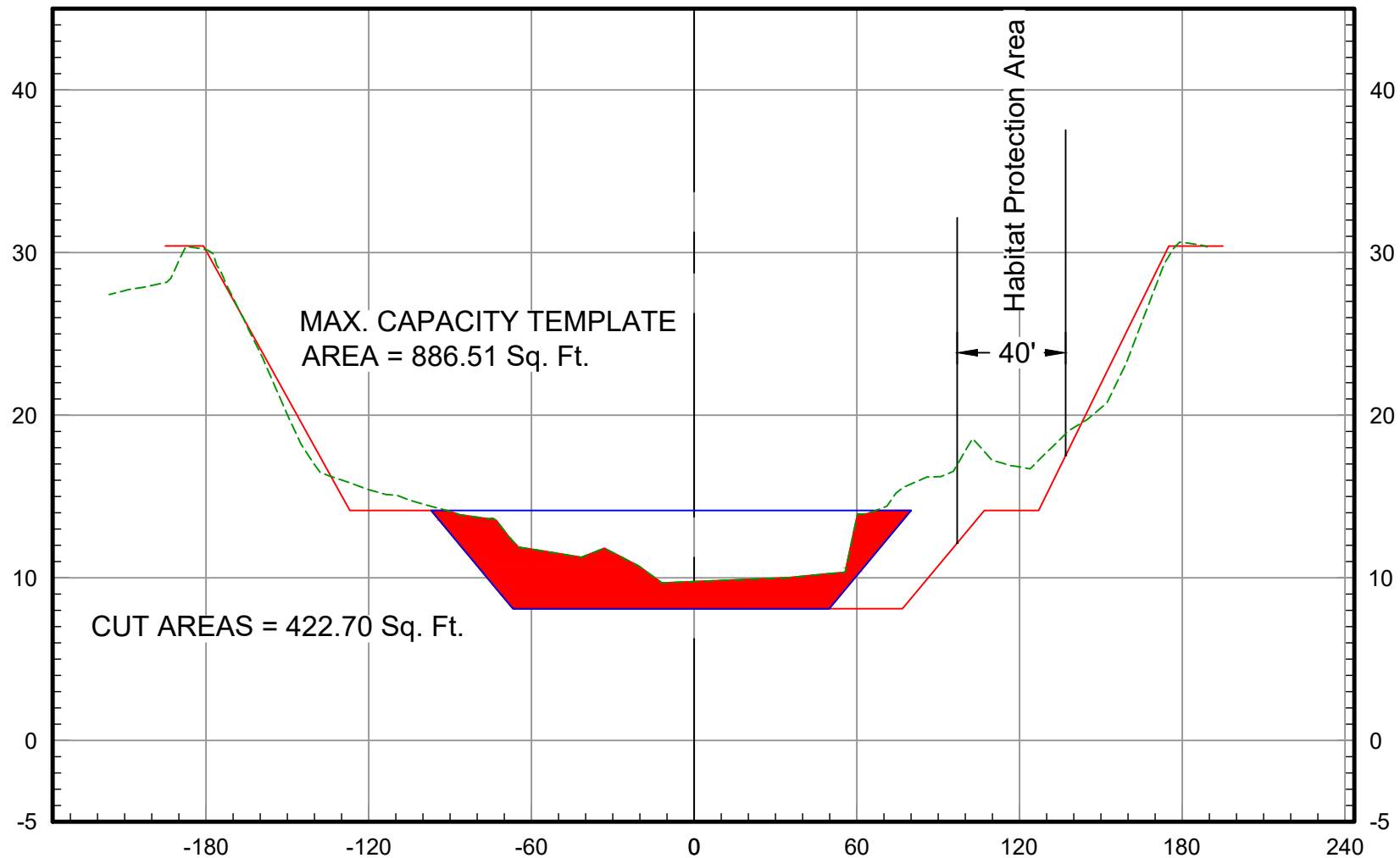
SAN DIEGO CREEK (F05) BASIN 3 - 2023 SCOURS CL



2023 Ground -----
As-Built Plan -----
Maximum Capacity -----

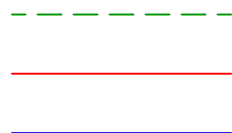
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Horiz. Scale: 1" = 60'

SAN DIEGO CREEK (F05) BASIN 3 - 2023 SCOURS CL



2023 Ground
As-Built Plan

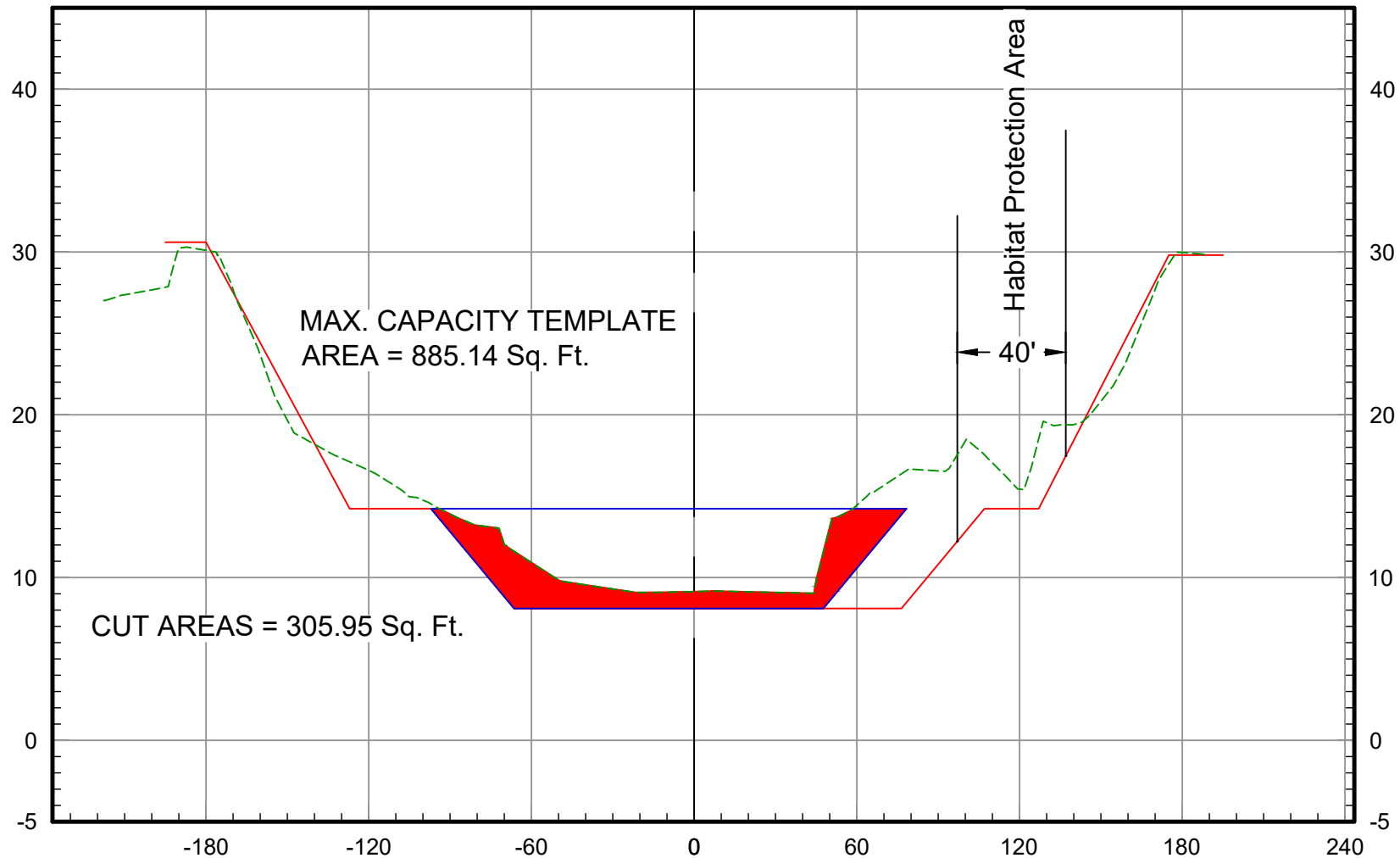
Maximum Capacity



113+00

Vert. Scale: 1" = 10'
Horiz. Scale: 1" = 60'

SAN DIEGO CREEK (F05) BASIN 3 - 2023 SCOURS CL

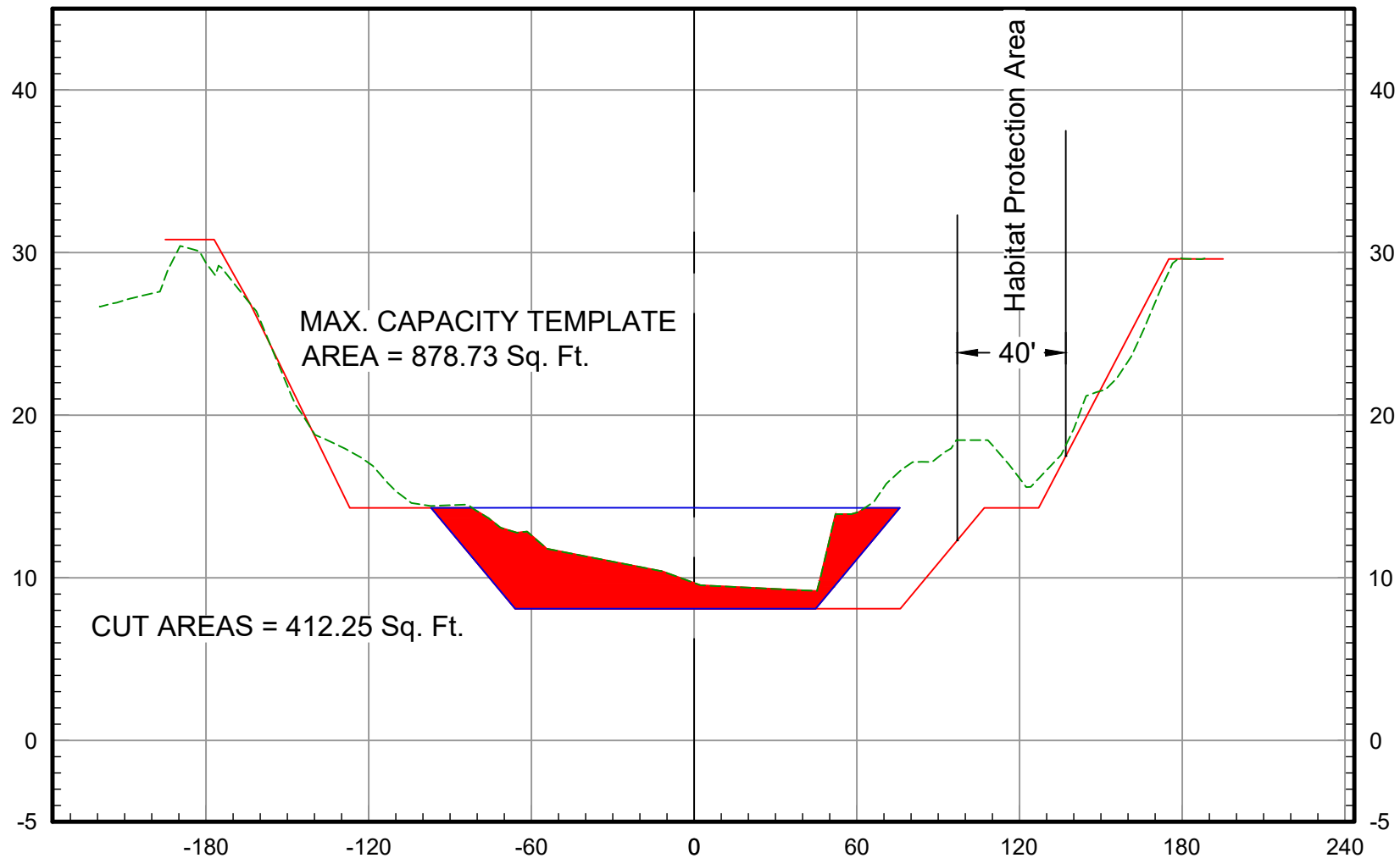


2023 Ground ---
As-Built Plan ---
Maximum Capacity ---

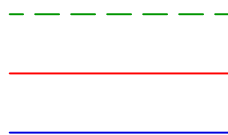
114+00

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Horiz. Scale: 1" = 60'

SAN DIEGO CREEK (F05) BASIN 3 - 2023 SCOURS CL



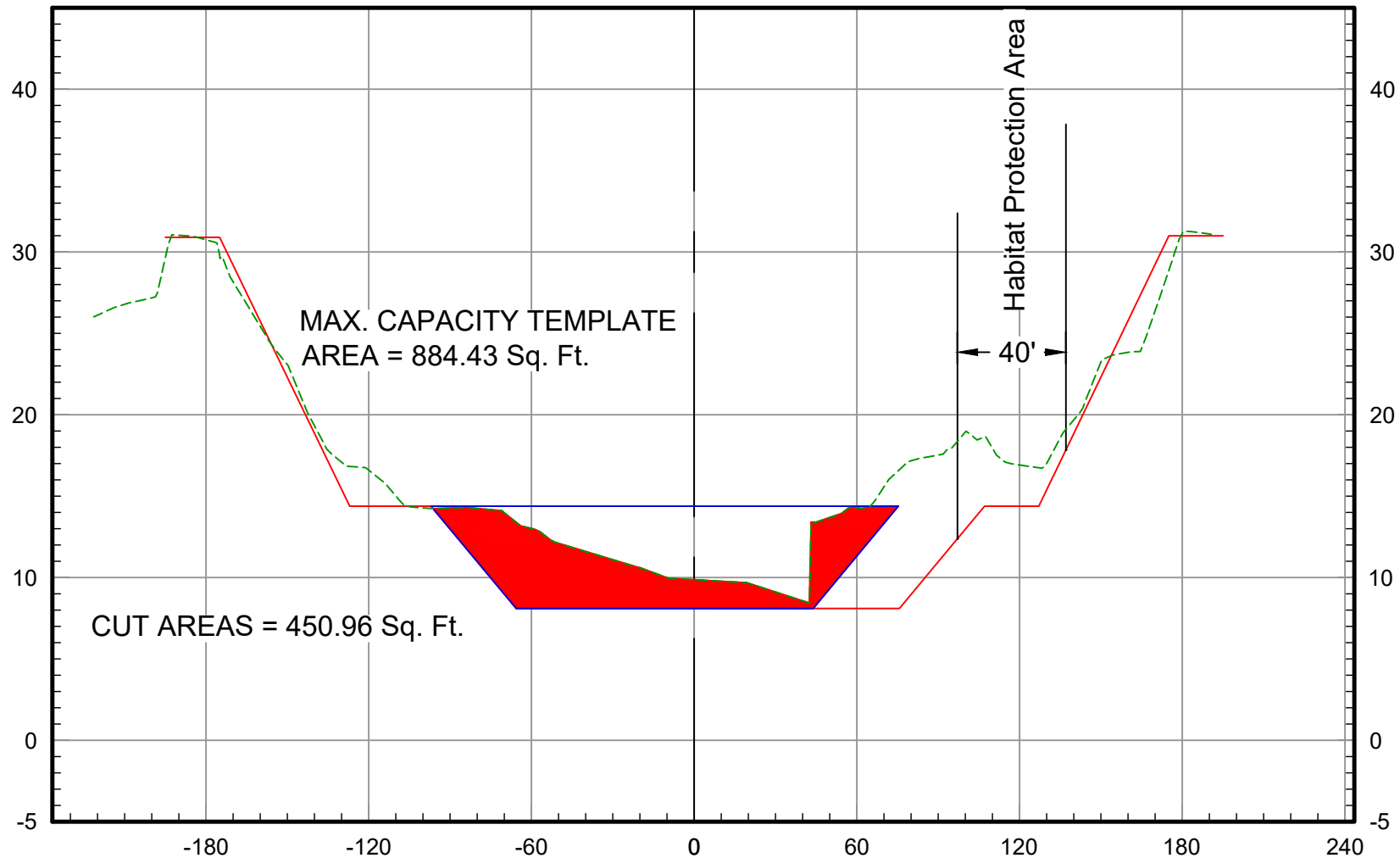
2023 Ground
As-Built Plan
Maximum Capacity



115+00

Vert. Scale: 1" = 10'
Horiz. Scale: 1" = 60'

SAN DIEGO CREEK (F05) BASIN 3 - 2023 SCOURS CL



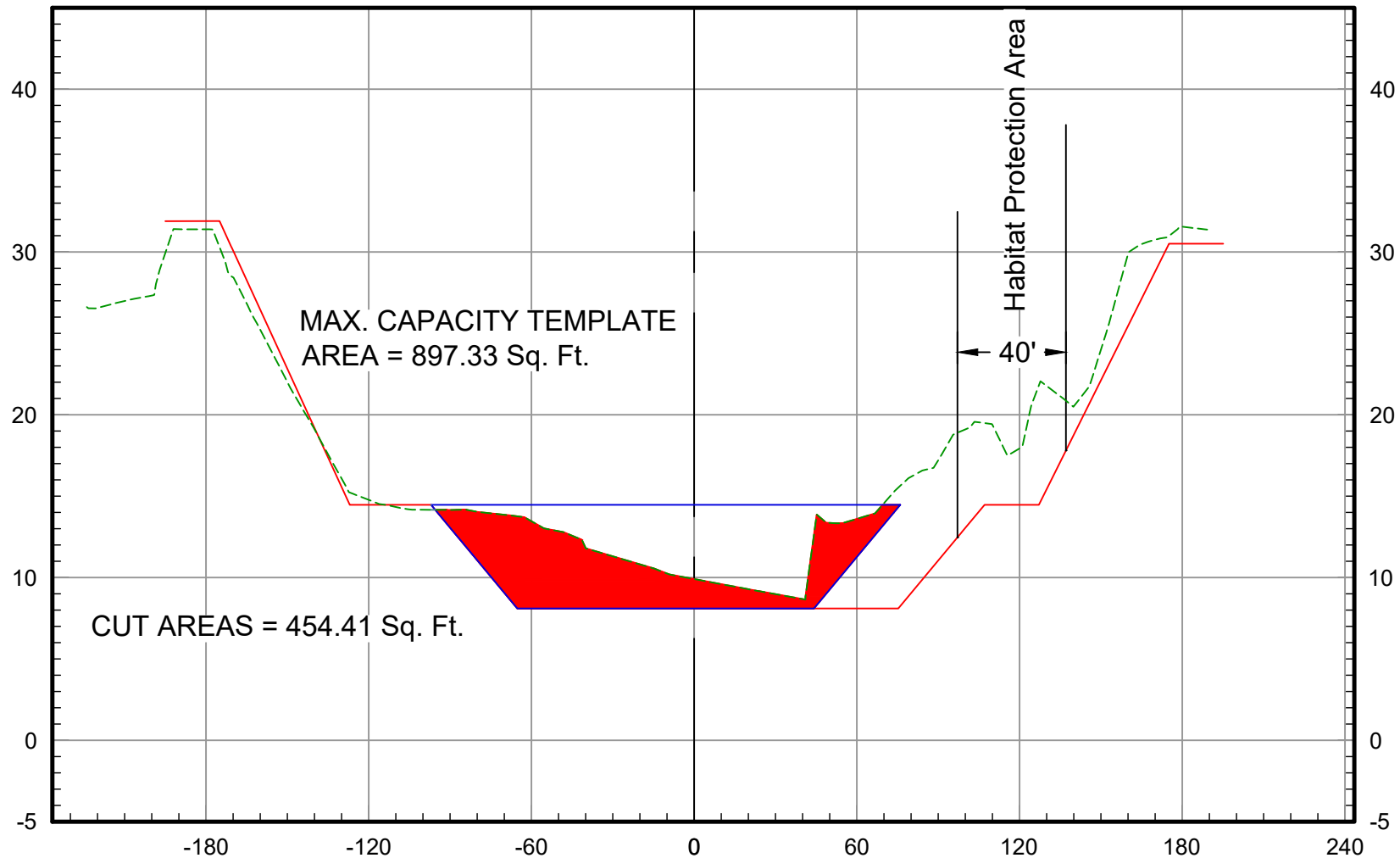
2023 Ground
As-Built Plan
Maximum Capacity



116+00

Vert. Scale: 1" = 10'
Horiz. Scale: 1" = 60'

SAN DIEGO CREEK (F05) BASIN 3 - 2023 SCOURS CL

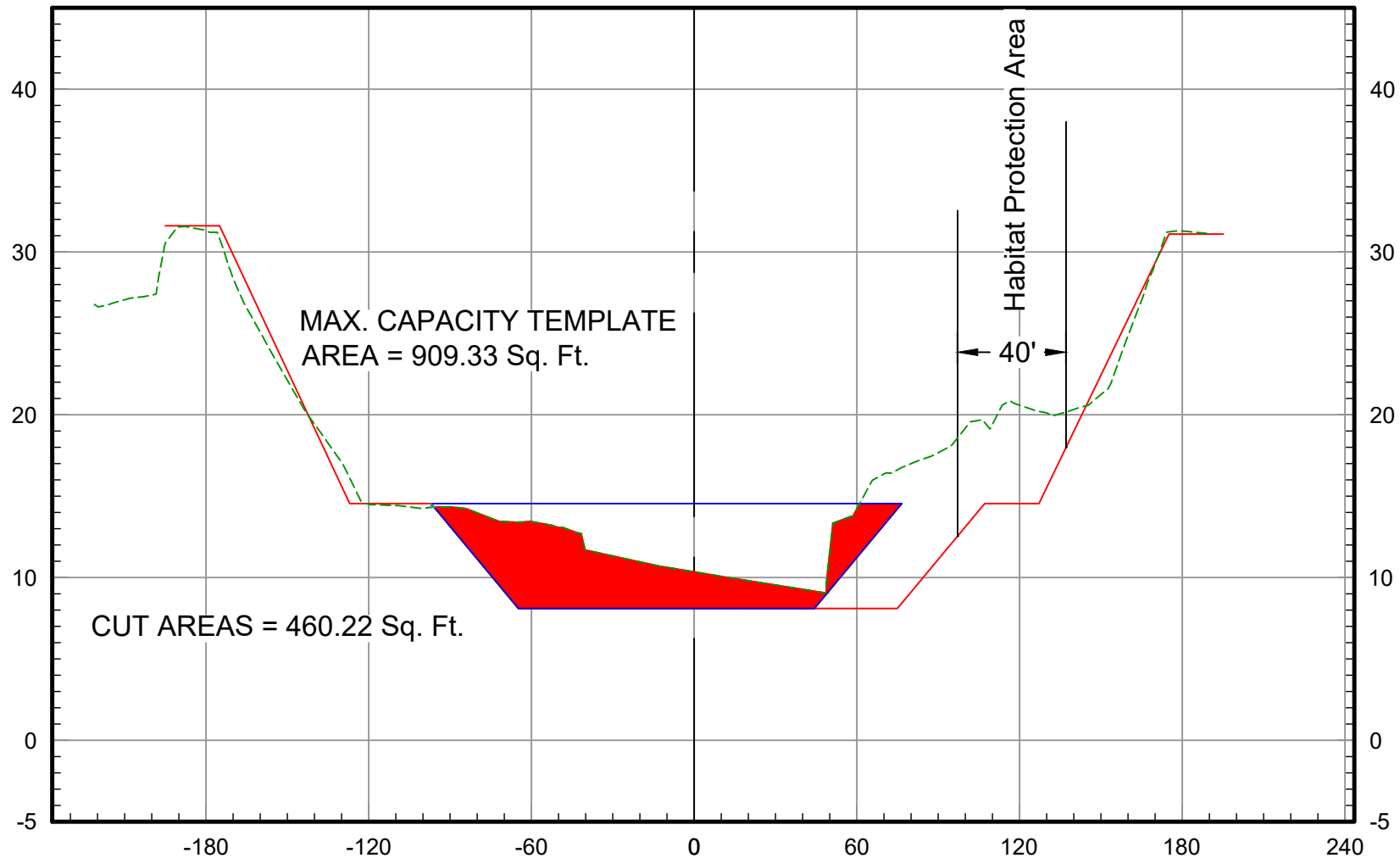


2023 Ground ---
As-Built Plan ---
Maximum Capacity ---

117+00

Vert. Scale: 1" = 10'
Horiz. Scale: 1" = 60'

SAN DIEGO CREEK (F05) BASIN 3 - 2023 SCOURS CL

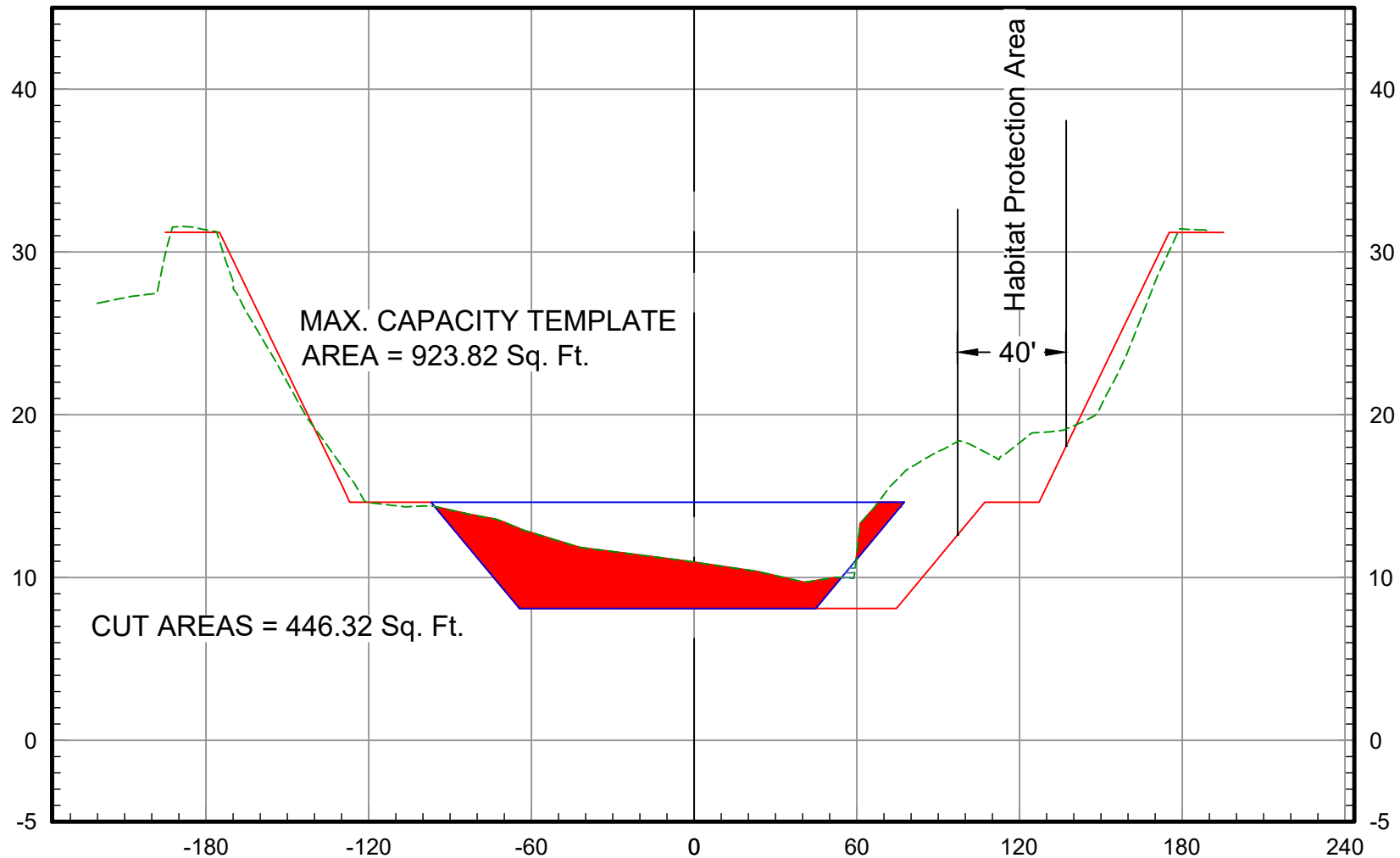


2023 Ground
As-Built Plan
Maximum Capacity

118+00

Vert. Scale: 1" = 10'
Horiz. Scale: 1" = 60'

SAN DIEGO CREEK (F05) BASIN 3 - 2023 SCOURS CL

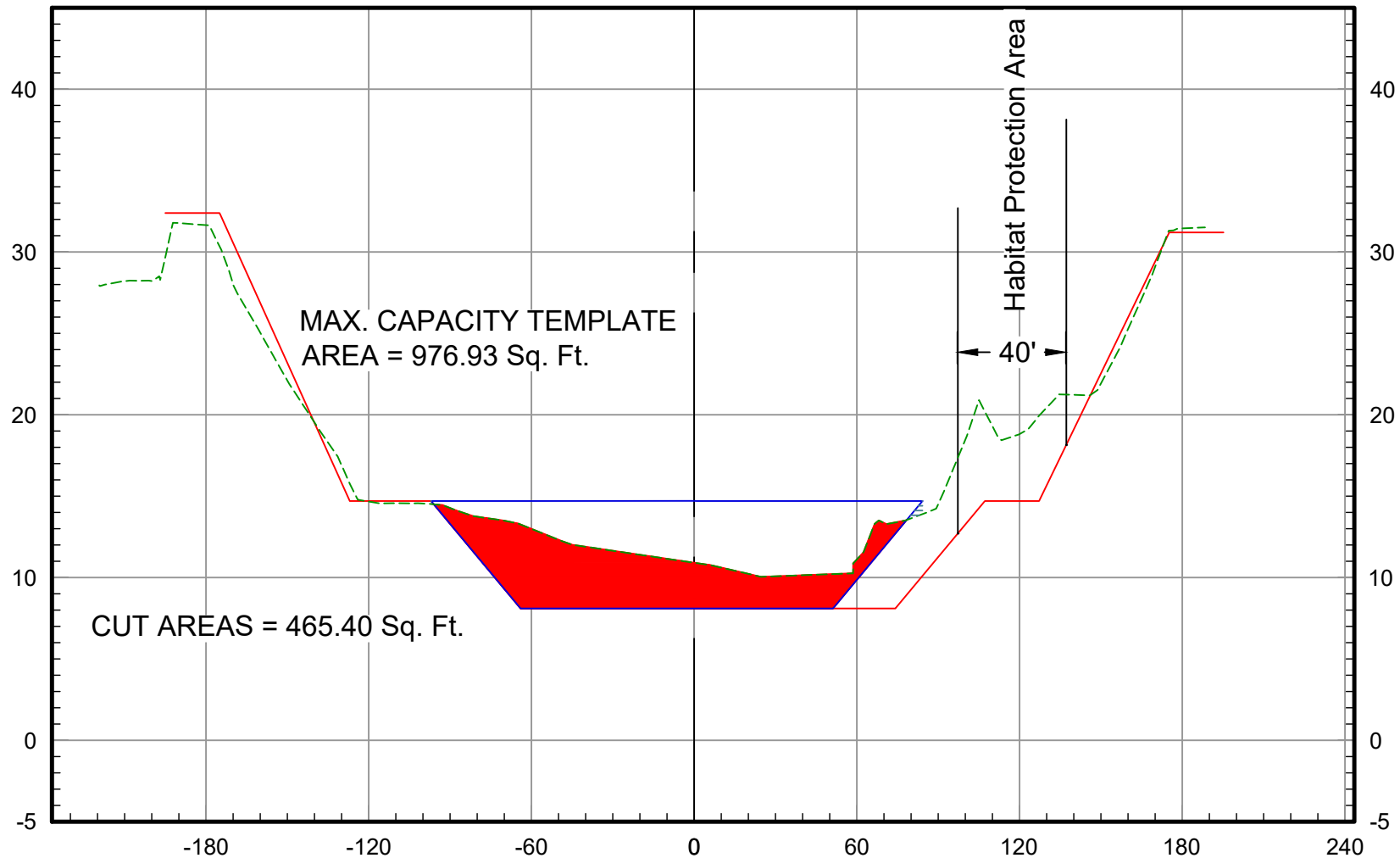


2023 Ground ---
As-Built Plan ---
Maximum Capacity ---

119+00

Vert. Scale: 1" = 10'
Horiz. Scale: 1" = 60'

SAN DIEGO CREEK (F05) BASIN 3 - 2023 SCOURS CL

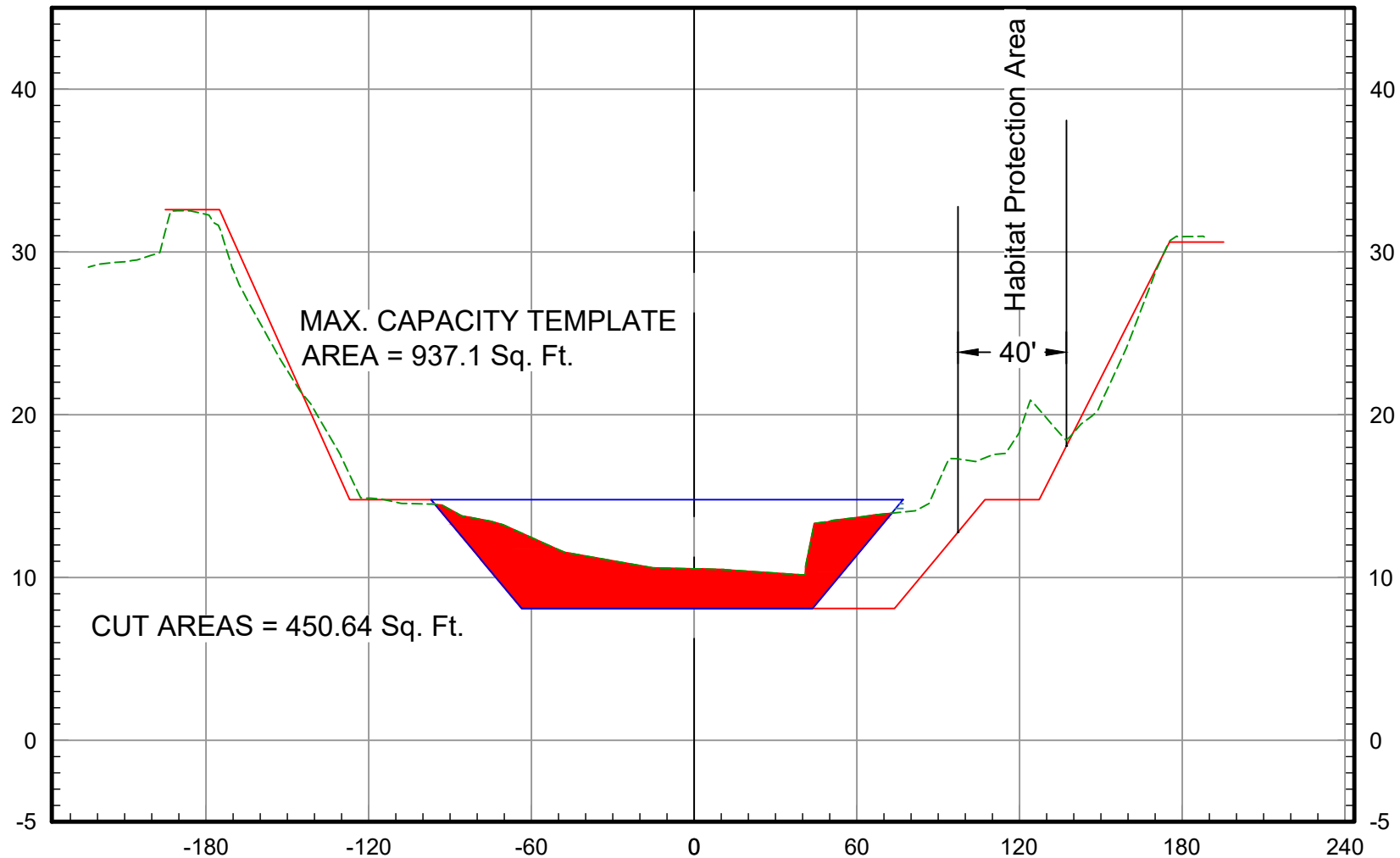


2023 Ground
As-Built Plan
Maximum Capacity

120+00

Vert. Scale: 1" = 10'
Horiz. Scale: 1" = 60'

SAN DIEGO CREEK (F05) BASIN 3 - 2023 SCOURS CL

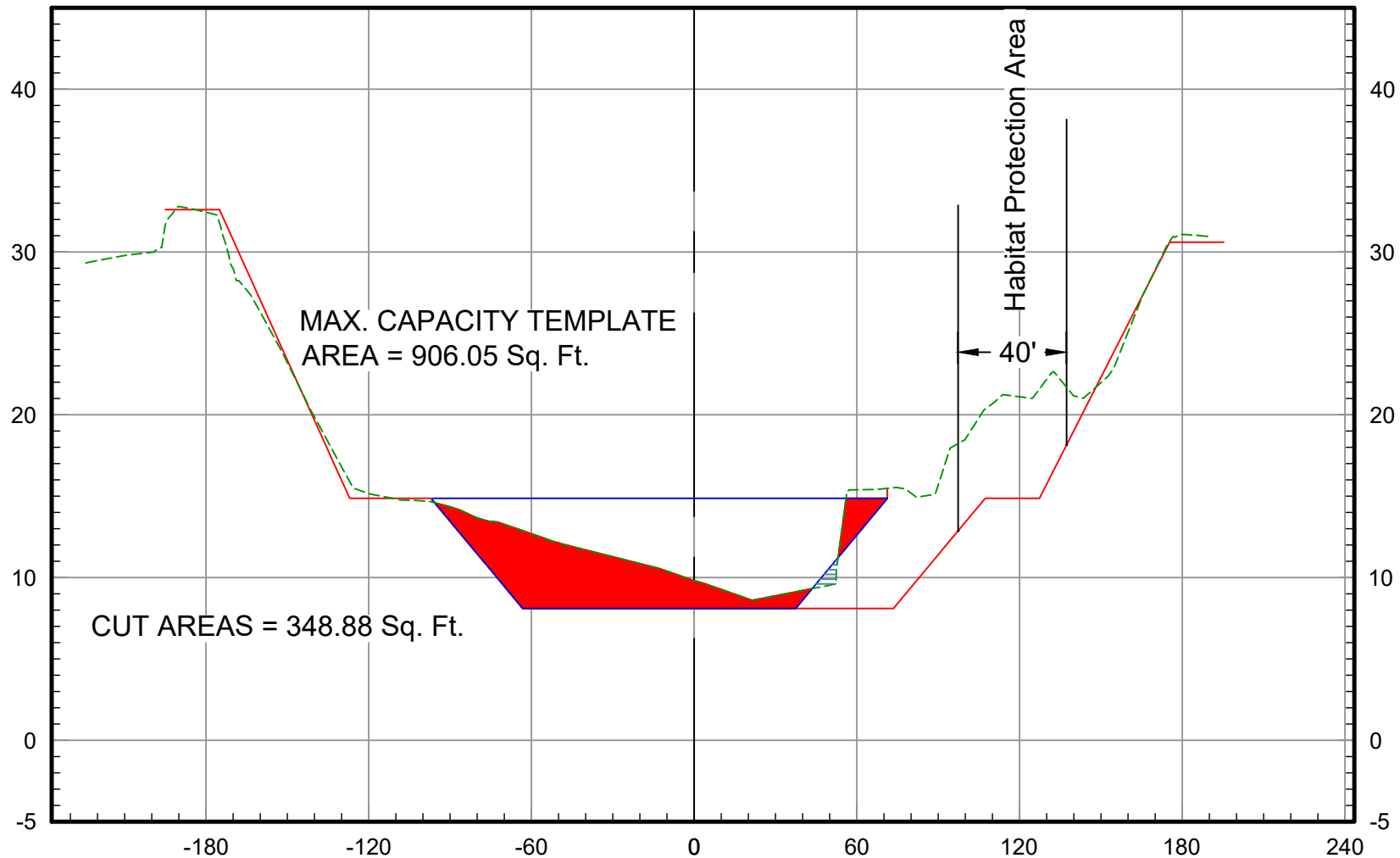


2023 Ground
As-Built Plan
Maximum Capacity

121+00

Vert. Scale: 1" = 10'
Horiz. Scale: 1" = 60'

SAN DIEGO CREEK (F05) BASIN 3 - 2023 SCOURS CL

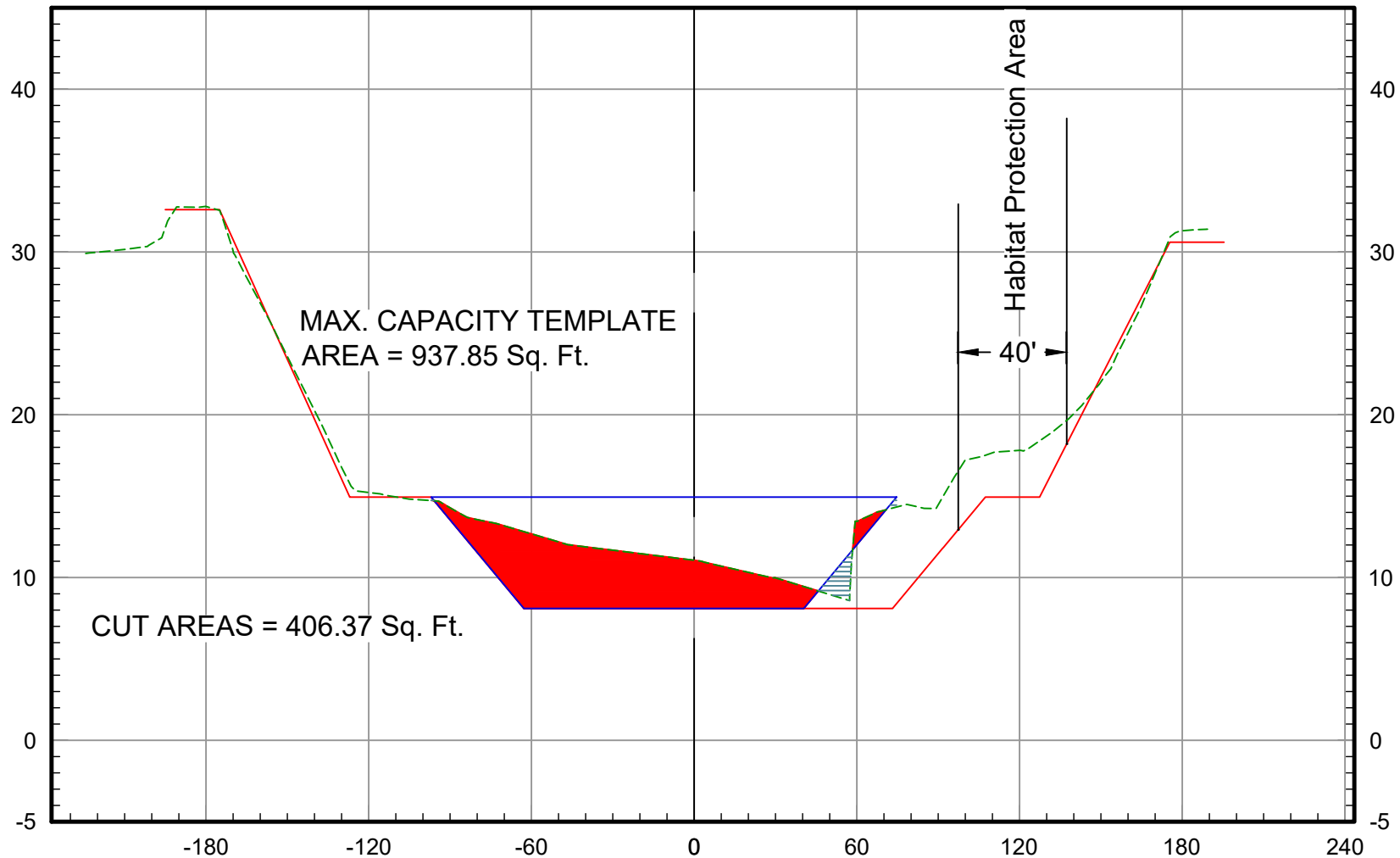


2023 Ground ---
As-Built Plan ---
Maximum Capacity ---

122+00

Vert. Scale: 1" = 10'
Horiz. Scale: 1" = 60'

SAN DIEGO CREEK (F05) BASIN 3 - 2023 SCOURS CL

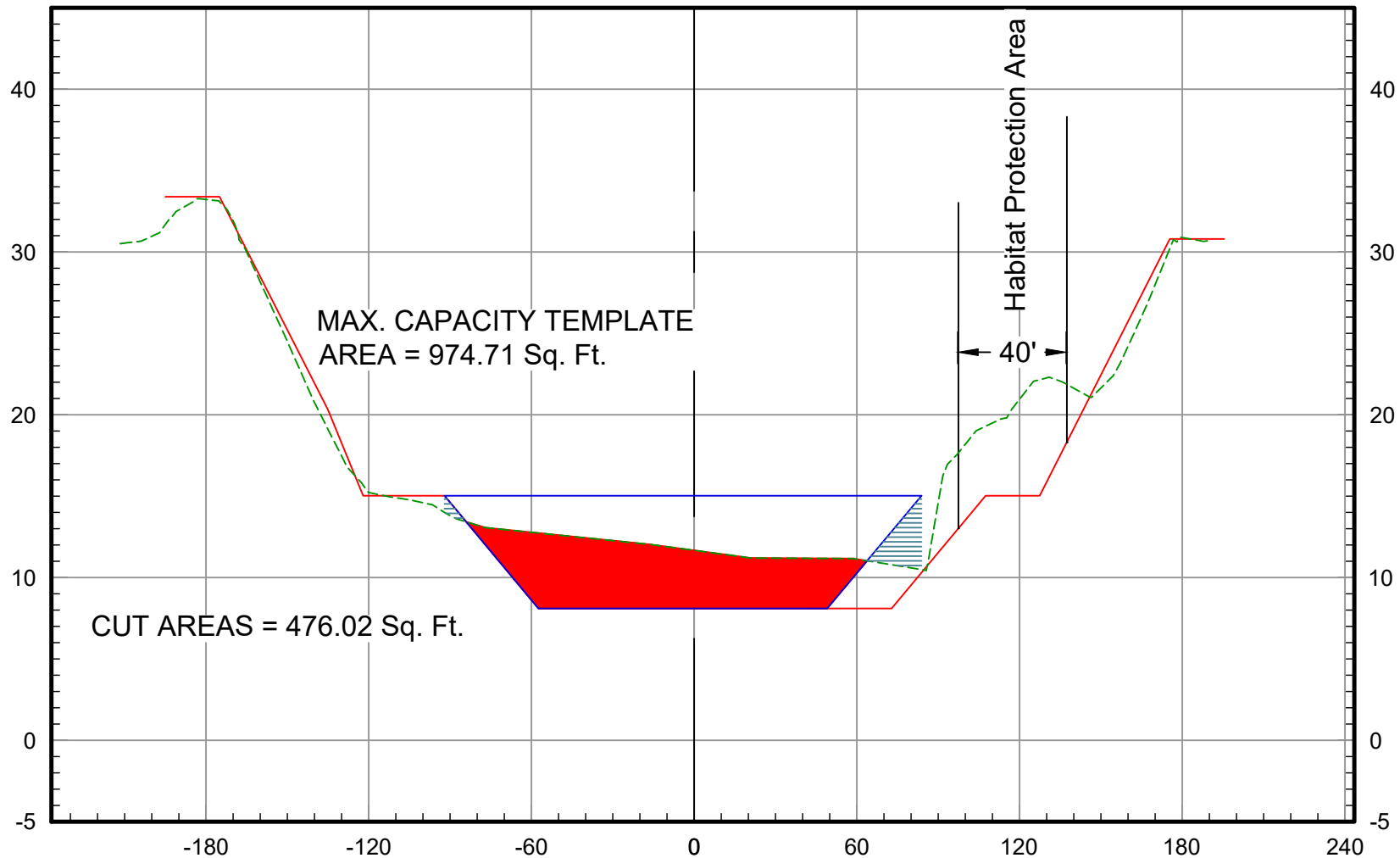


2023 Ground
As-Built Plan
Maximum Capacity

123+00

Vert. Scale: 1" = 10'
Horiz. Scale: 1" = 60'

SAN DIEGO CREEK (F05) BASIN 3 - 2023 SCOURS CL

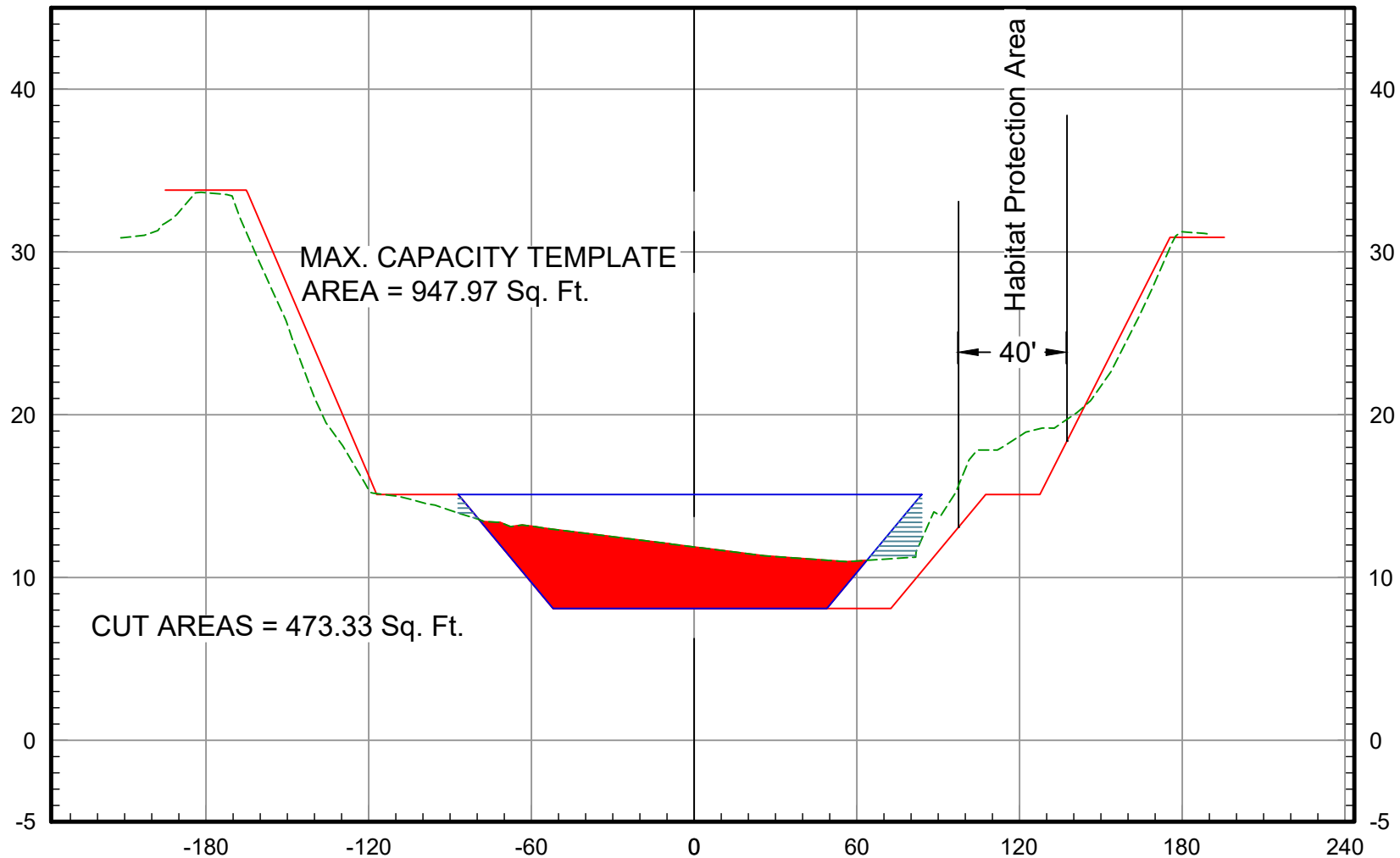


2023 Ground
As-Built Plan
Maximum Capacity

124+00

Vert. Scale: 1" = 10'
Horiz. Scale: 1" = 60'

SAN DIEGO CREEK (F05) BASIN 3 - 2023 SCOURS CL

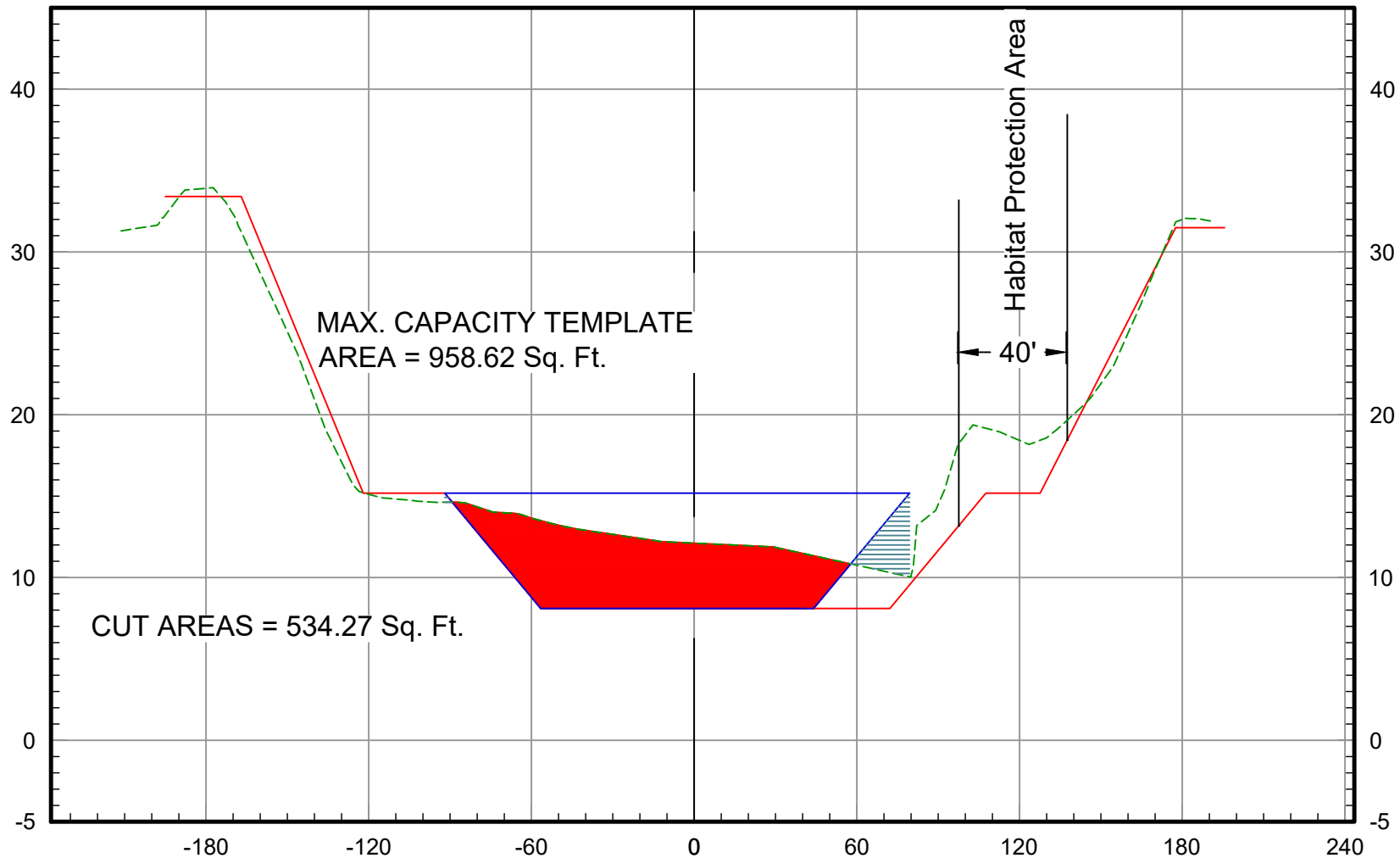


2023 Ground - - - - -
As-Built Plan _____
Maximum Capacity _____

125+00

Vert. Scale: 1" = 10'
Horiz. Scale: 1" = 60'

SAN DIEGO CREEK (F05) BASIN 3 - 2023 SCOURS CL

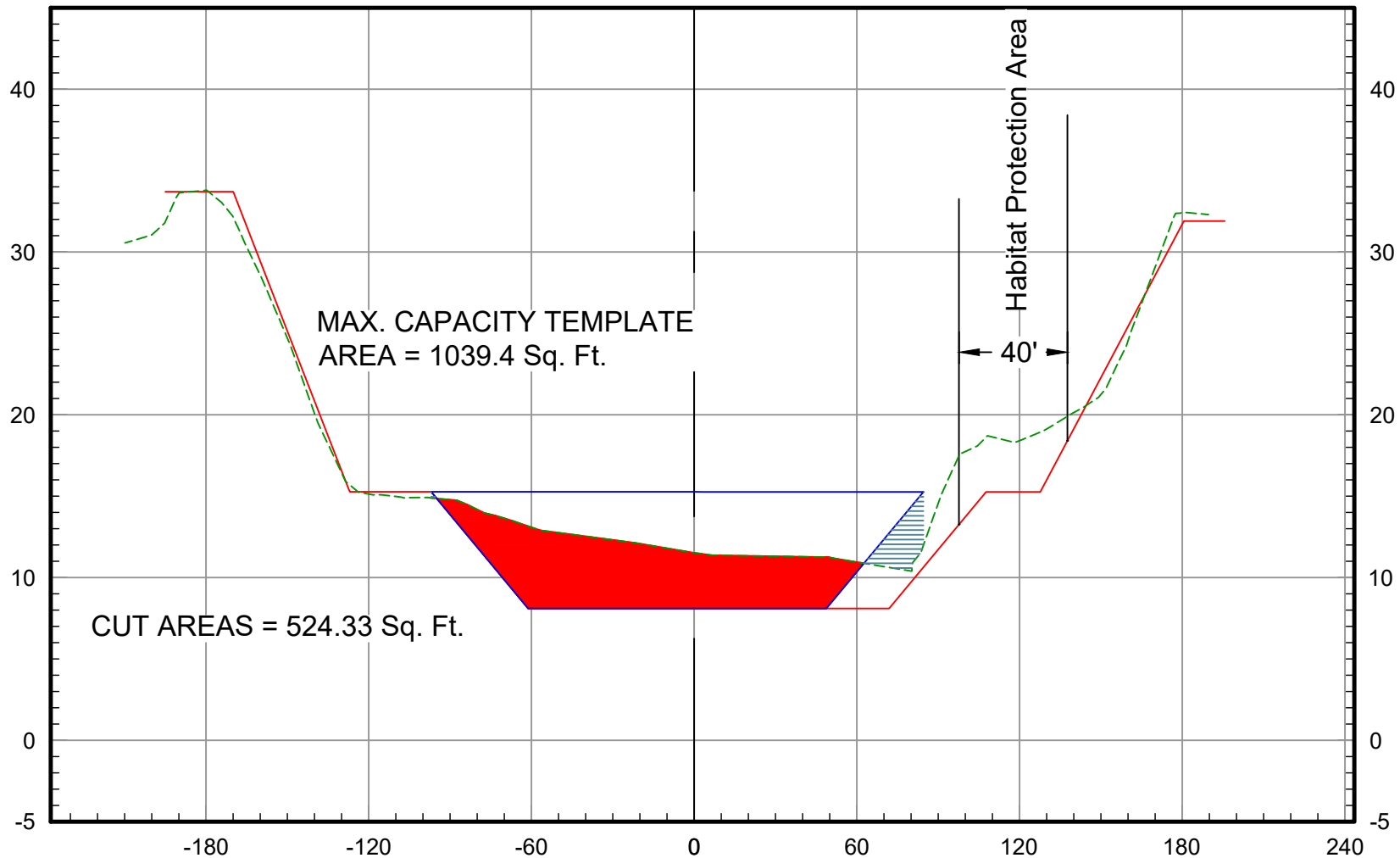


2023 Ground ---
As-Built Plan ---
Maximum Capacity ---

126+00

Vert. Scale: 1" = 10'
Horiz. Scale: 1" = 60'

SAN DIEGO CREEK (F05) BASIN 3 - 2023 SCOURS CL

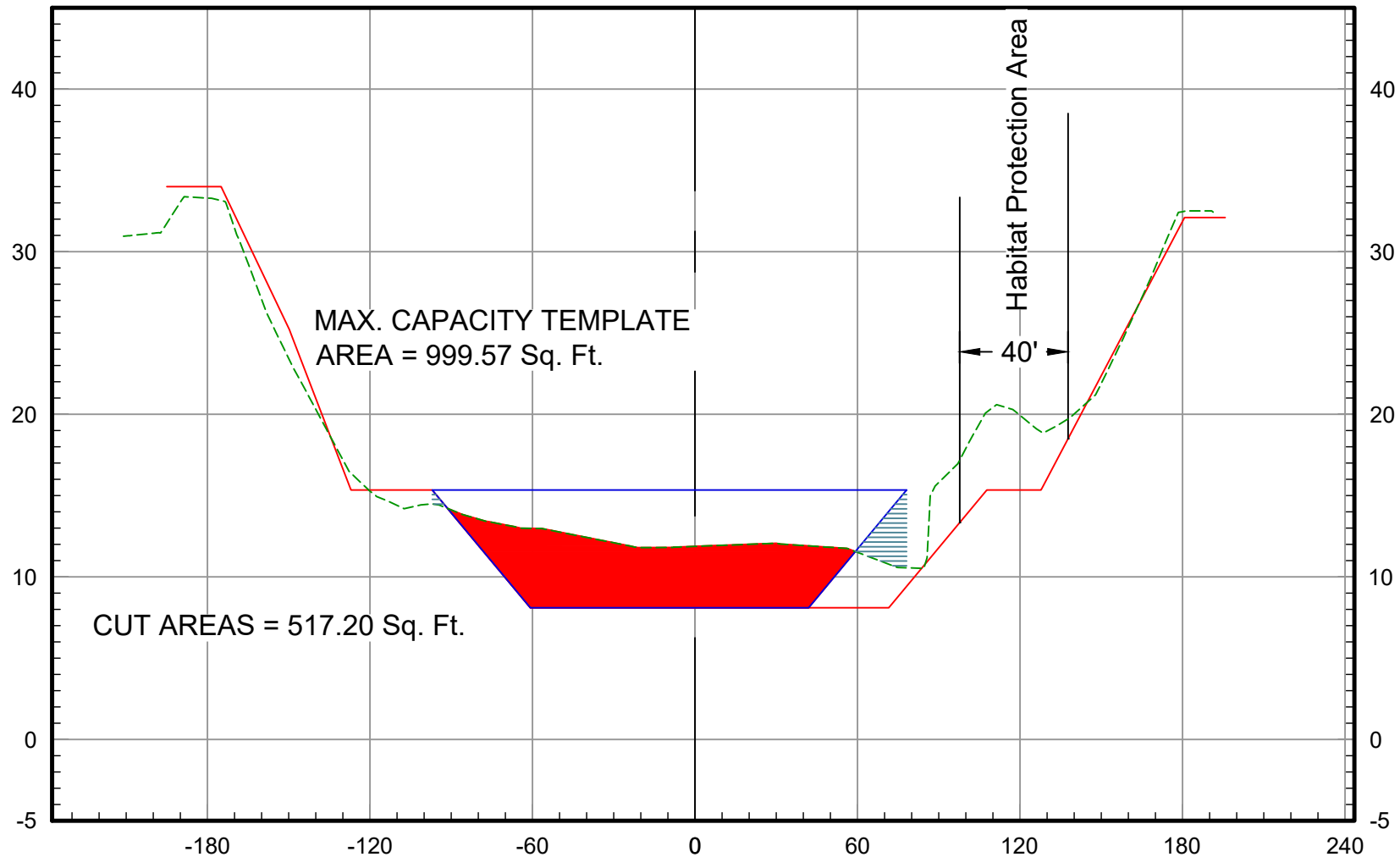


2023 Ground ---
As-Built Plan ---
Maximum Capacity ---

127+00

Vert. Scale: 1" = 10'
Horiz. Scale: 1" = 60'

SAN DIEGO CREEK (F05) BASIN 3 - 2023 SCOURS CL

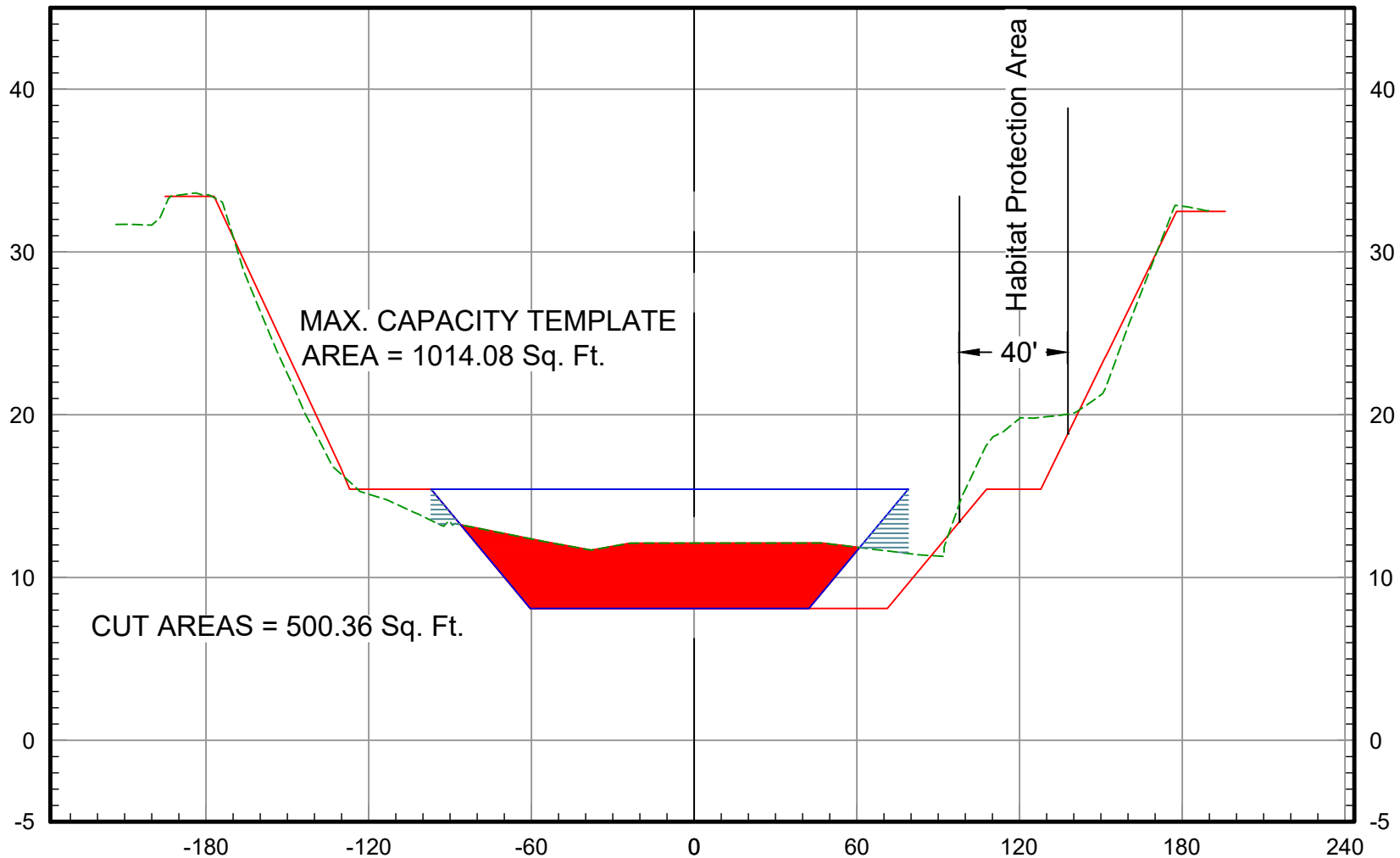


2023 Ground ---
As-Built Plan ---
Maximum Capacity ---

128+00

Vert. Scale: 1" = 10'
Horiz. Scale: 1" = 60'

SAN DIEGO CREEK (F05) BASIN 3 - 2023 SCOURS CL

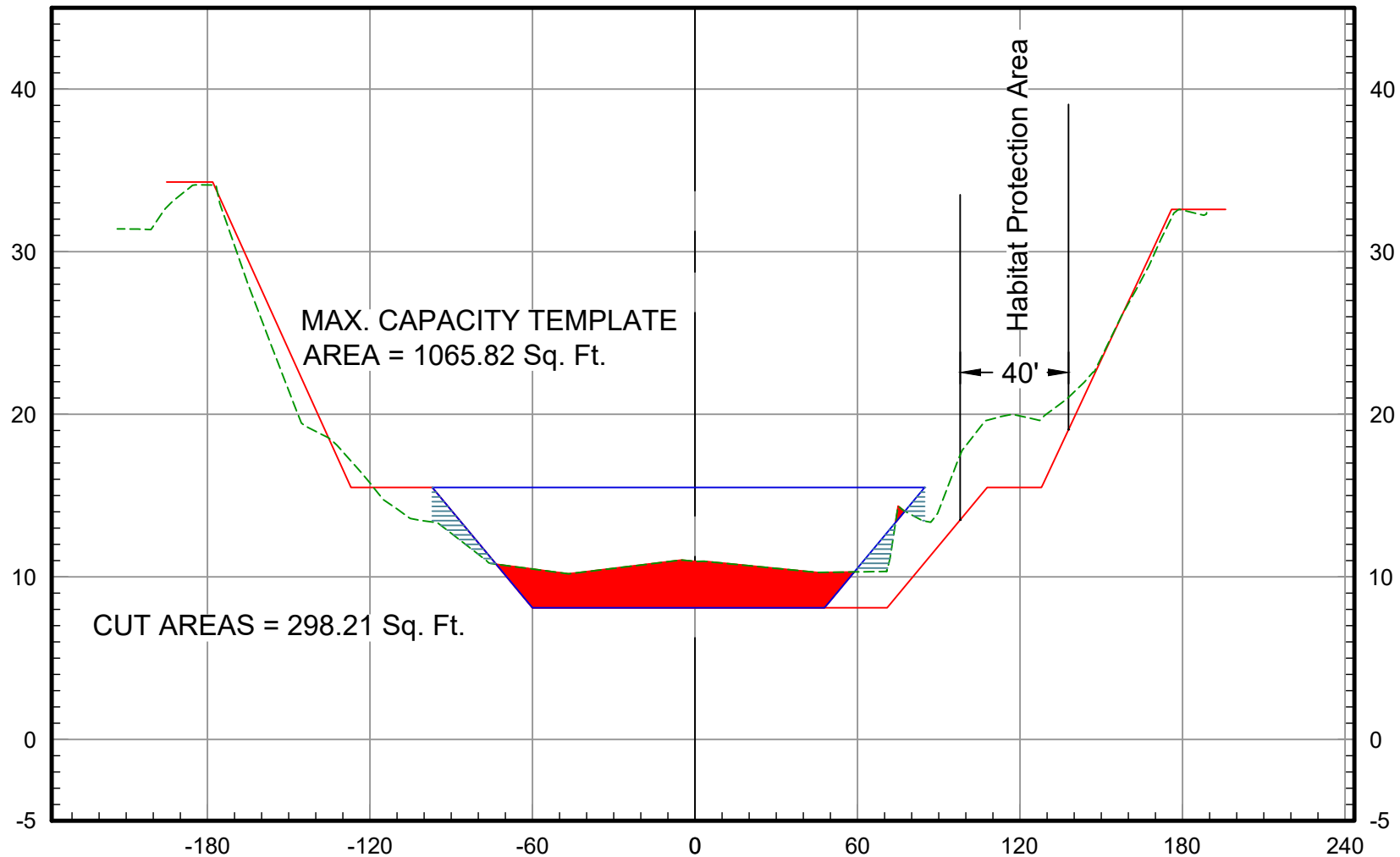


2023 Ground
As-Built Plan
Maximum Capacity

129+00

Vert. Scale: 1" = 10'
Horiz. Scale: 1" = 60'

SAN DIEGO CREEK (F05) BASIN 3 - 2023 SCOURS CL

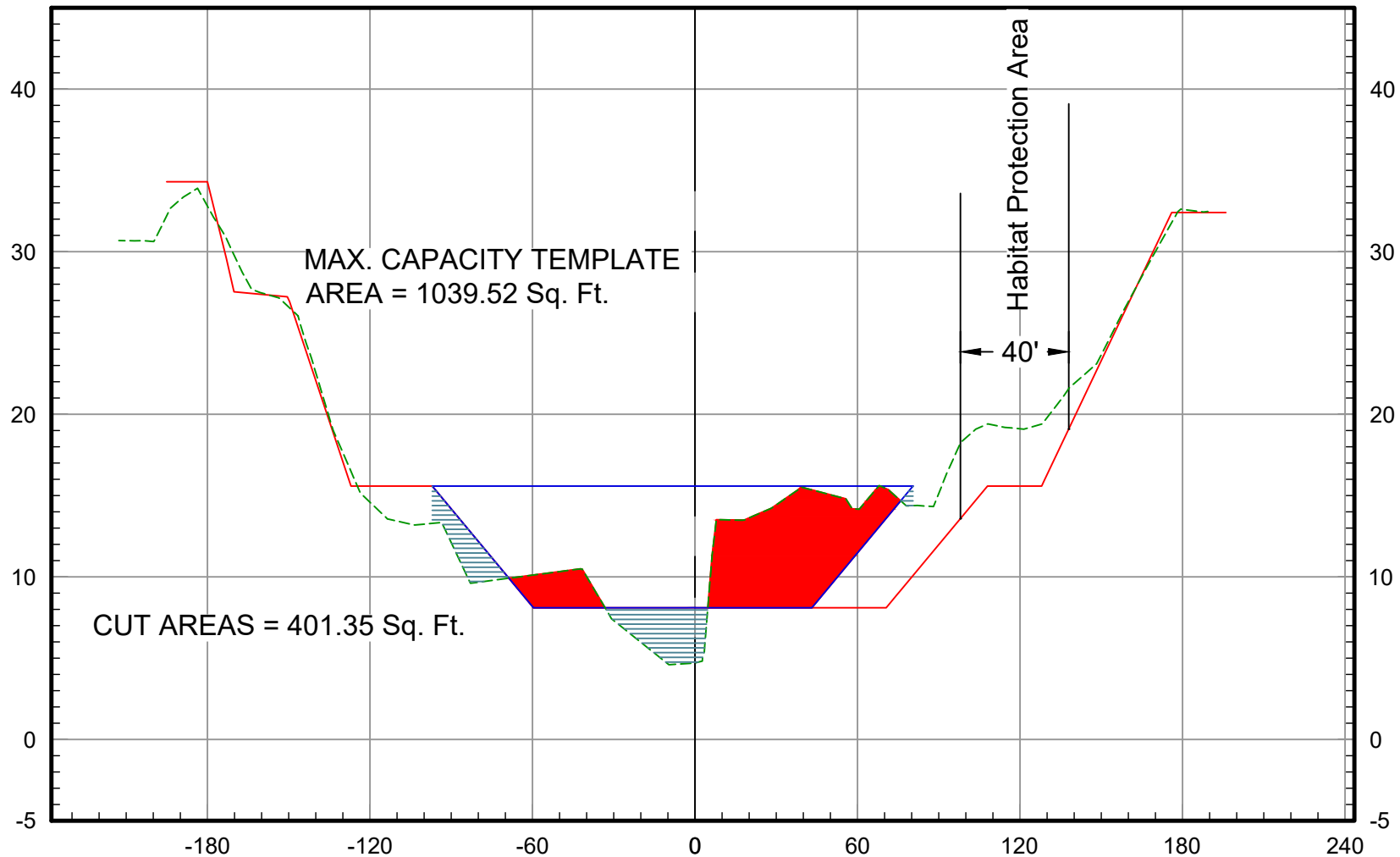


2023 Ground -----
As-Built Plan —————
Maximum Capacity —————

130+00

Vert. Scale: 1" = 10'
Horiz. Scale: 1" = 60'

SAN DIEGO CREEK (F05) BASIN 3 - 2023 SCOURS CL



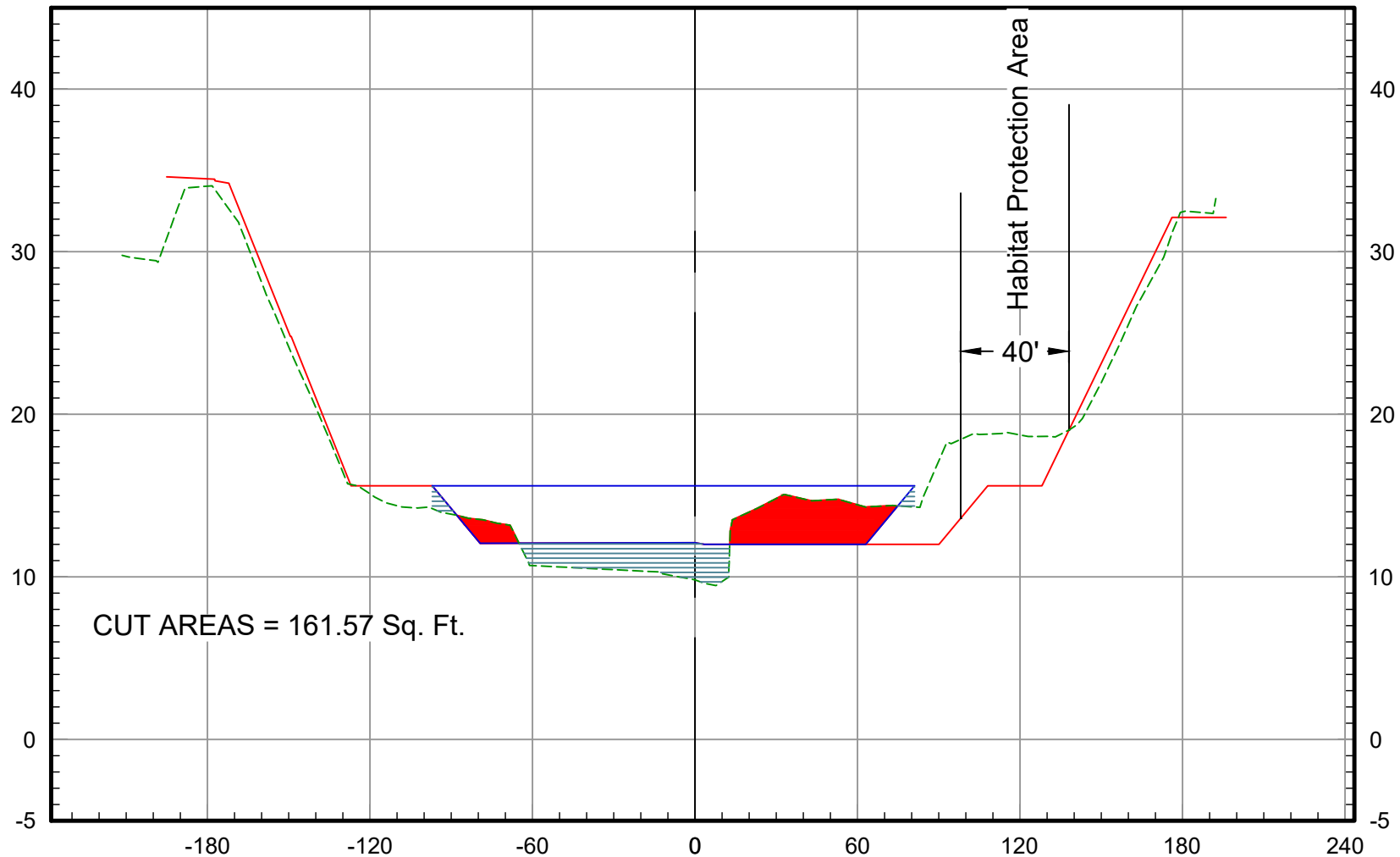
2023 Ground
As-Built Plan
Maximum Capacity



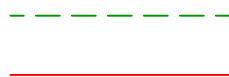
131+00

Vert. Scale: 1" = 10'
Horiz. Scale: 1" = 60'

SAN DIEGO CREEK (F05) BASIN 3 - 2023 SCOURS CL



2023 Ground
As-Built Plan



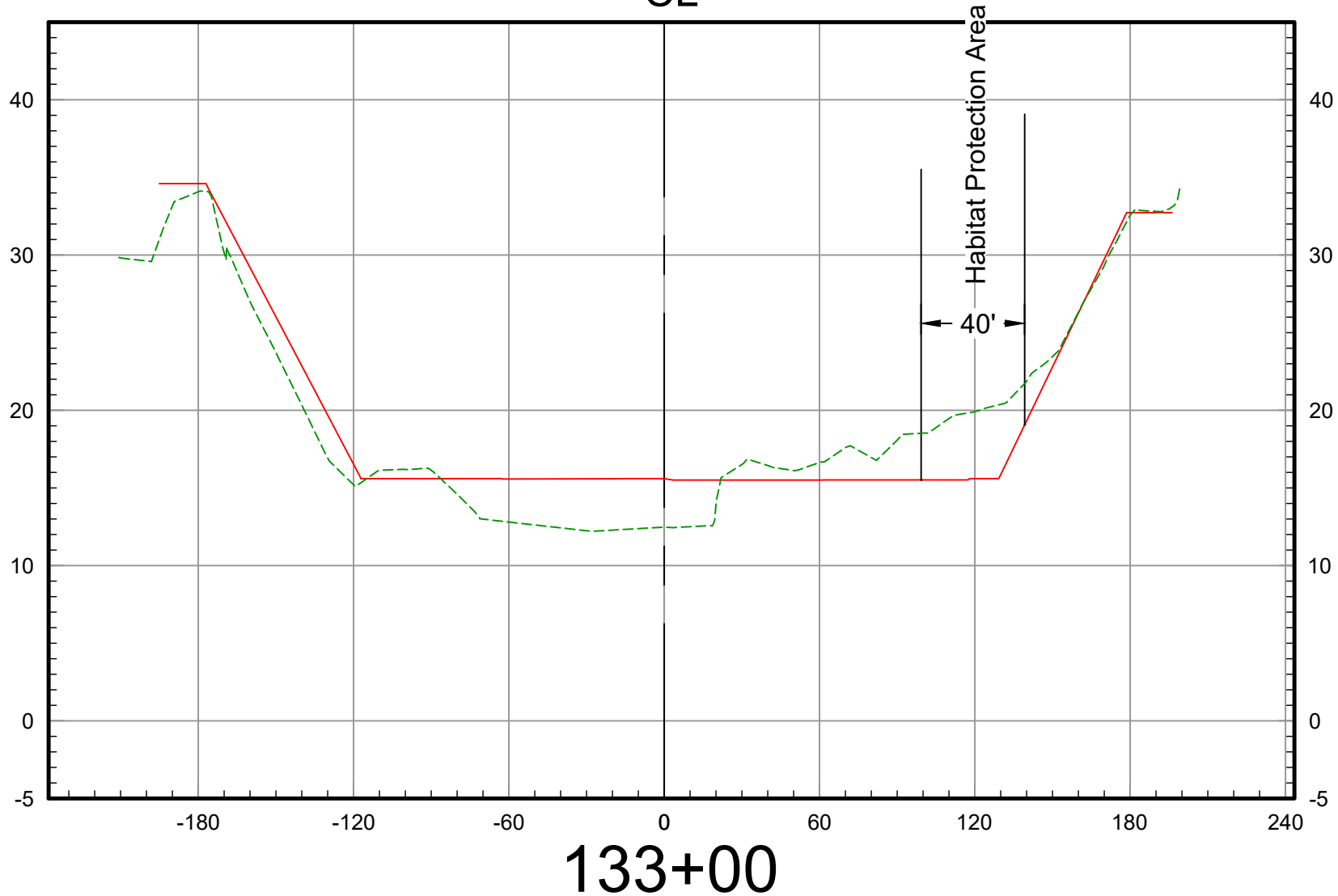
132+00

Vert. Scale: 1" = 10'
Horiz. Scale: 1" = 60'

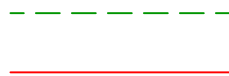
SAN DIEGO CREEK (F05) BASIN 3 - 2023

SCOURS

CL



2023 Ground
As-Built Plan



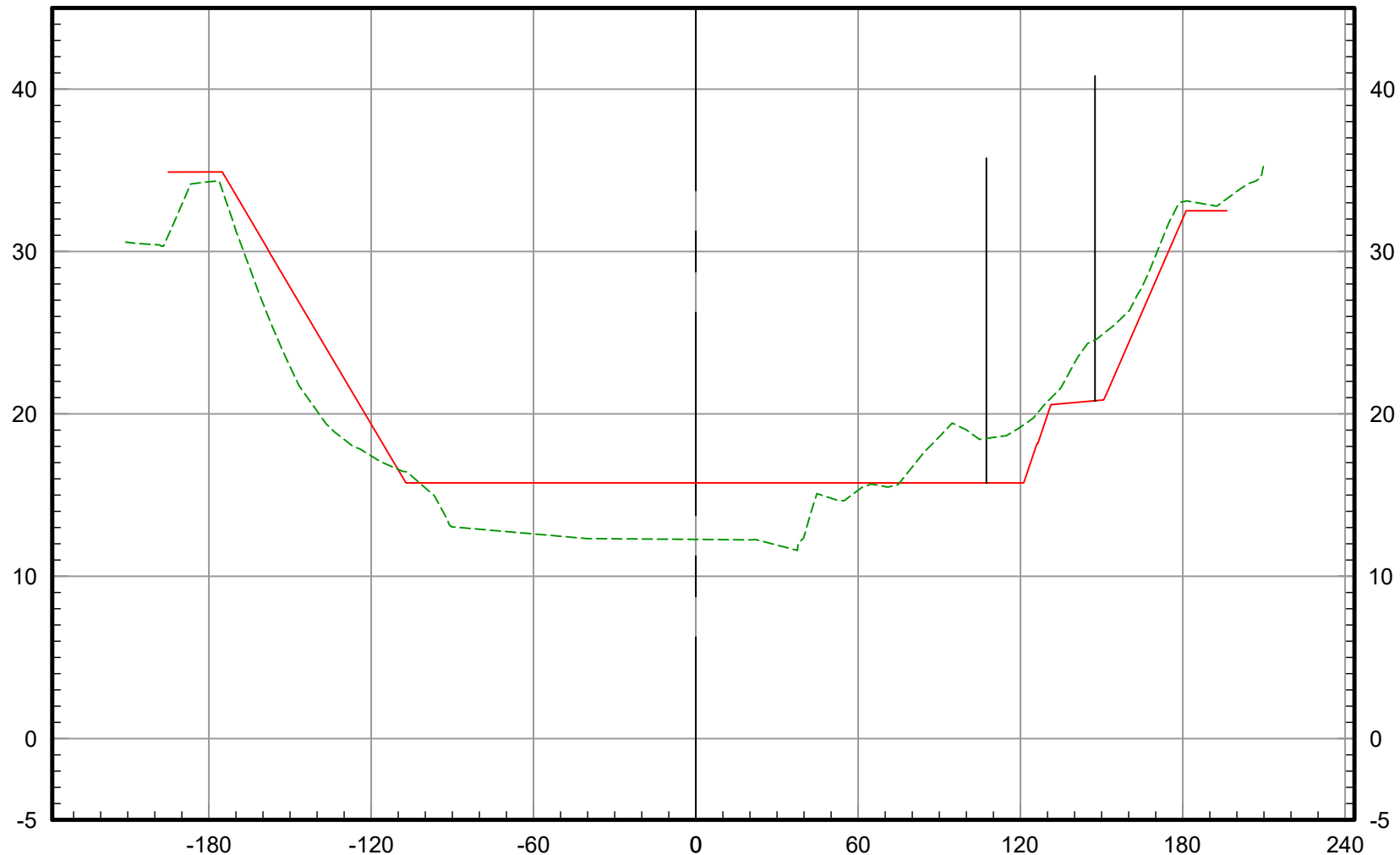
Vert. Scale: 1" = 10'
Horiz. Scale: 1" = 60'

U.S. Survey Foot

OC Public Works
OC Survey/Field Services
Boundary Analysis & Mapping



SAN DIEGO CREEK (F05) BASIN 3 - 2023 SCOURS CL

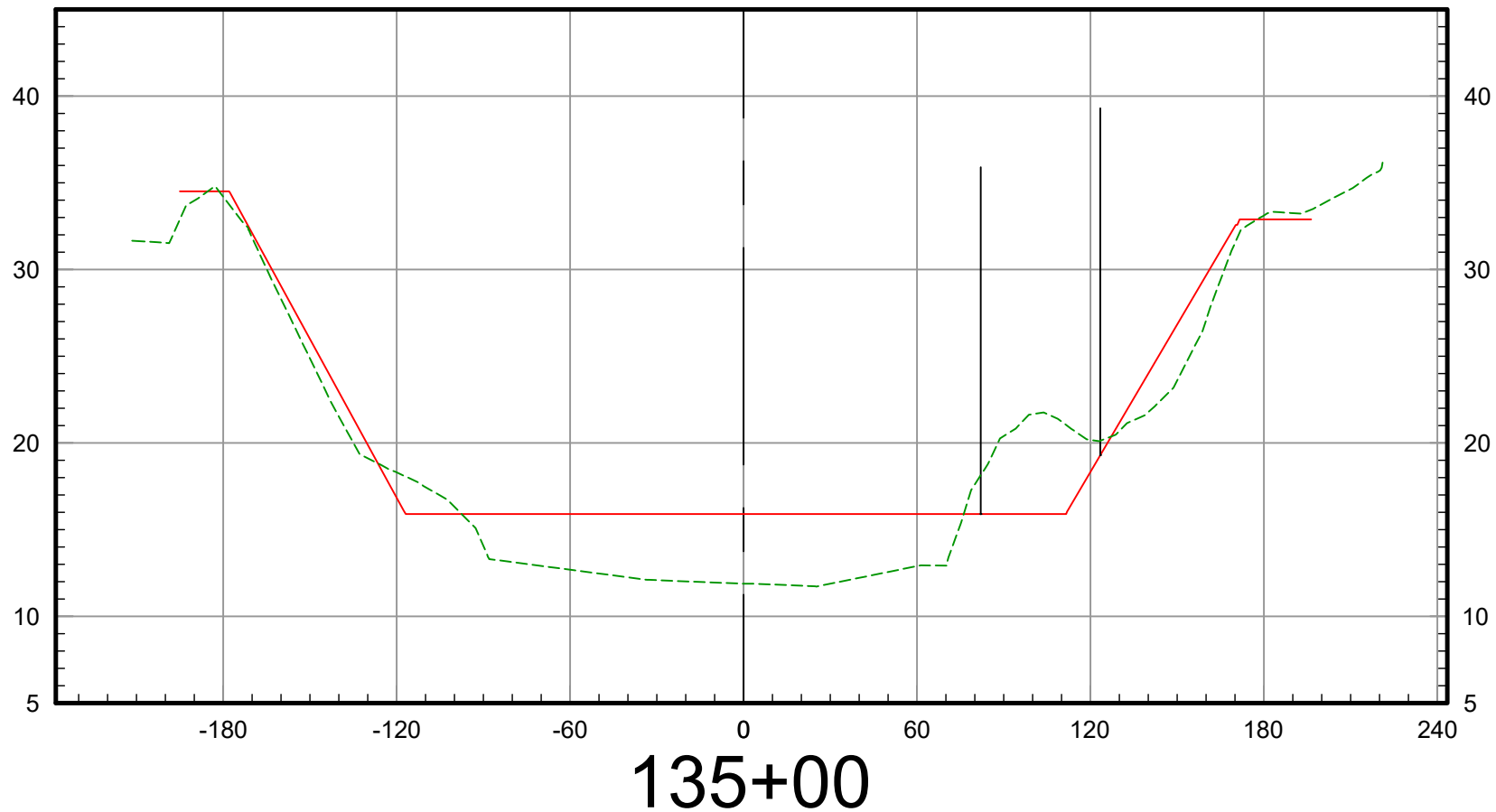


2023 Ground -----
As-Built Plan —————

Vert. Scale: 1" = 10'
Horiz. Scale: 1" = 60'

134+00

SAN DIEGO CREEK (F05) BASIN 3 - 2023 SCOURS CL



2023 Ground -----
As-Built Plan —————

Vert. Scale: 1" = 10'
Horiz. Scale: 1" = 60'