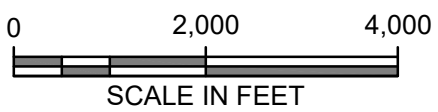
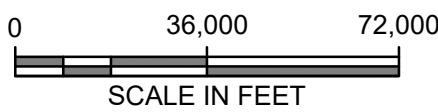
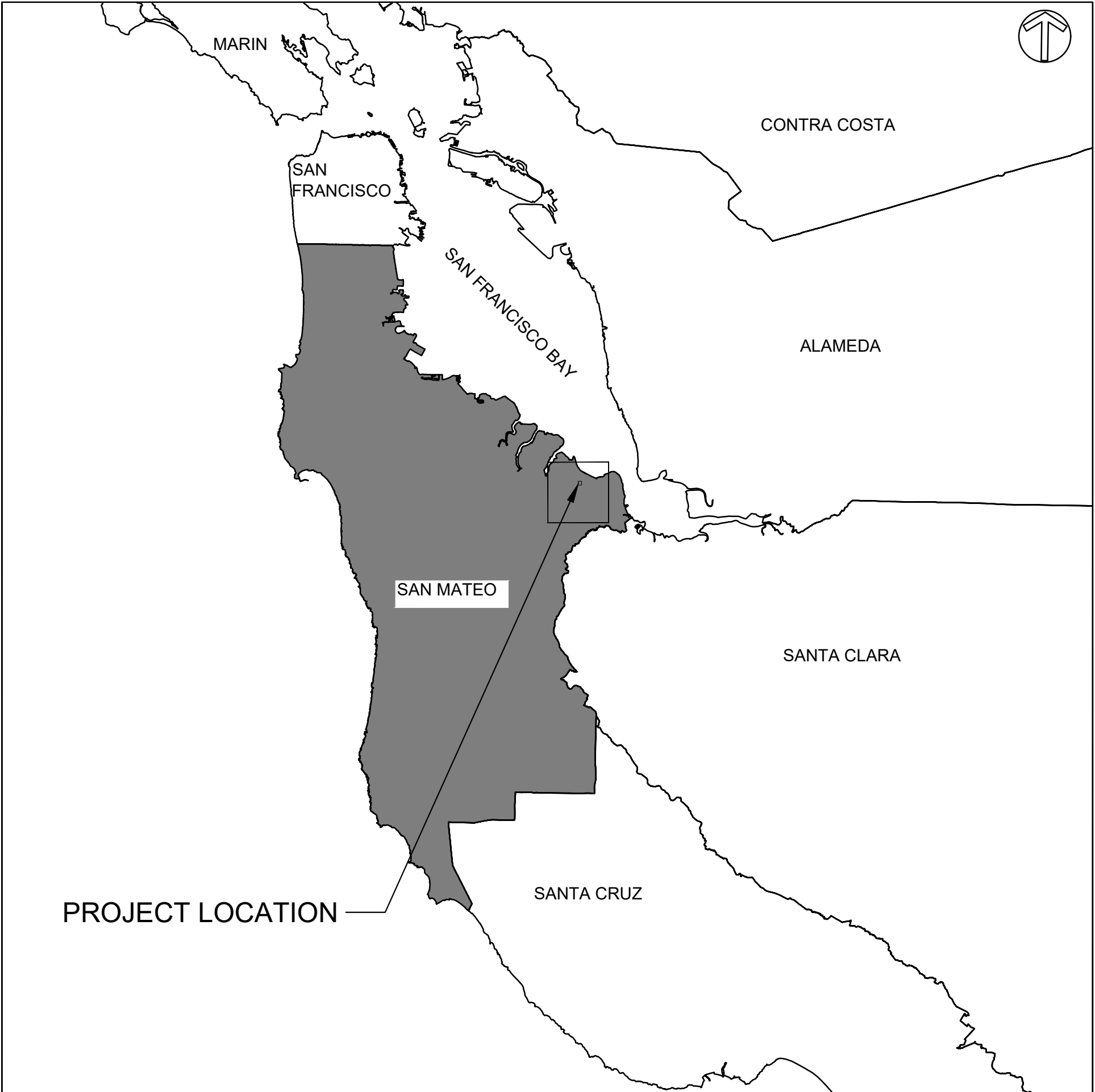


WEST BAY SANITARY DISTRICT
ECOTONE LEVEE PROJECT
65% DESIGN PLANS

MENLO PARK
SAN MATEO COUNTY, CALIFORNIA
08/10/2022



ADDRESS:
1700 MARSH ROAD,
MENLO PARK, CA 94025
(055-400-010)

SHEET INDEX	
SHEET #	SHEET NAME
1	COVER SHEET
2	PROPOSED GROUND OVERVIEW
3	PLANTING OVERVIEW
4	SECTIONS (1)
5	SECTIONS (2)
6	SECTIONS (3)
7	SECTIONS (4)

DISTRICT'S PROJECT #1762.0

DATE:	08/10/2022	JYZ	08/10/2022	65% DESIGN	BSS
SCALE:	AS NOTED				
DESIGNED:	JYZ				
DRAWN:	JYZ				
CHECKED:	BSS				
PROJ. ENGR:	BSS				
BY	DATE	DESCRIPTION OF REVISIONS			APP'D

FREYER & LAURETA, INC.
CIVIL ENGINEERS • SURVEYORS • CONSTRUCTION MANAGERS
150 Executive Park Blvd #4200 • San Francisco, CA 94134
(415)534-7070 • www.freyerlaureta.com

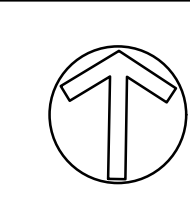
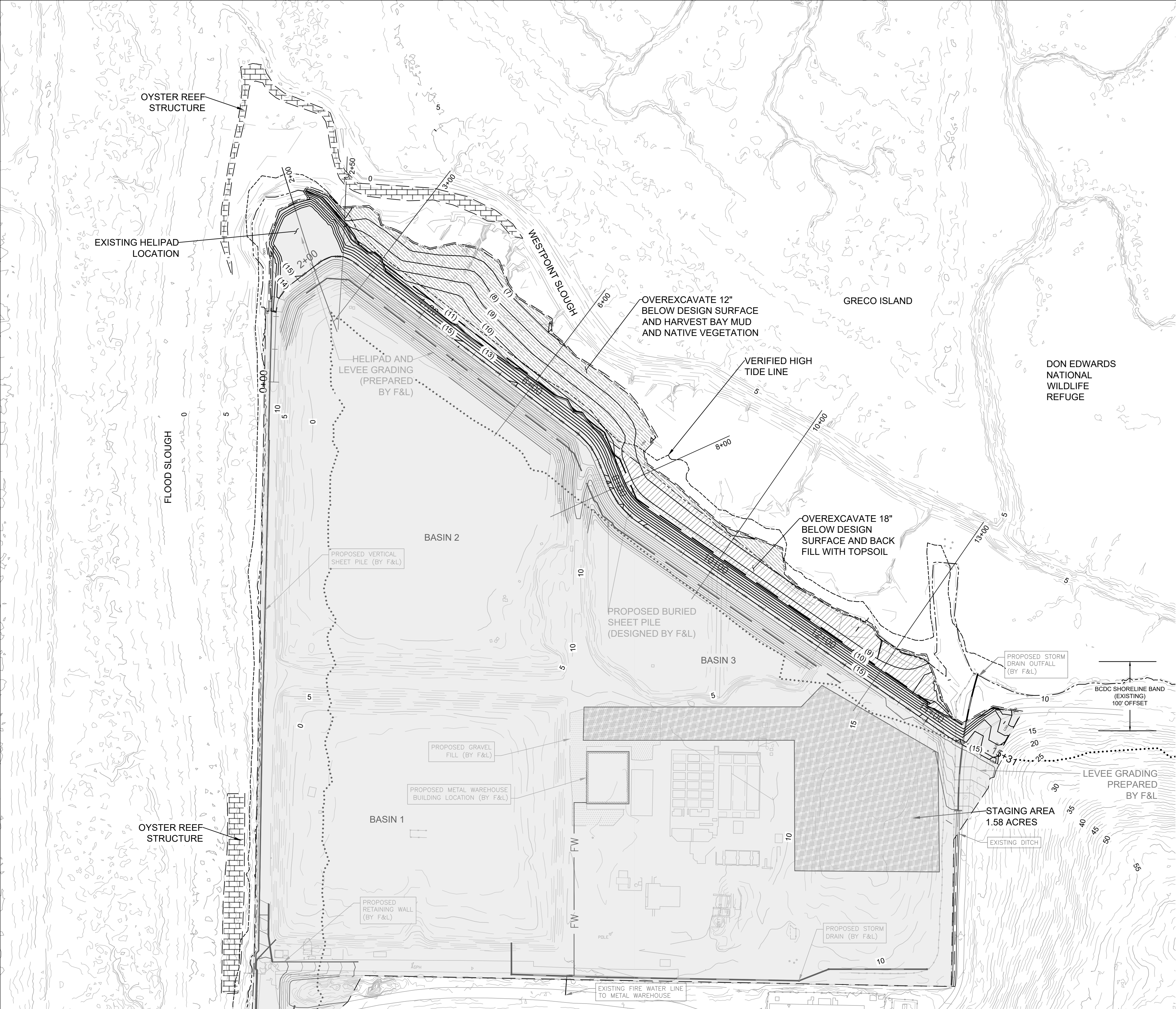
SWCA
ENVIRONMENTAL & ENGINEERING
2996 107th Avenue, Oakland, CA 94605
(650)440-4160 www.swca.com

WEST BAY
SANITARY DISTRICT
SAN MATEO COUNTY
PROJECT No. 1762.0

FLOW EQUALIZATION AND RESOURCE RECOVERY FACILITY LEVEE IMPROVEMENTS AND BAYFRONT RECYCLED WATER FACILITY PROJECT
COVER SHEET
MENLO PARK, CALIFORNIA



SHEET
1
OF 7 SHEETS
JOB NO.
1079



PLAN LEGEND

- LIMIT OF DISTURBANCE
- LIMIT OF GRADING DESIGNED BY SWCA
- PROPOSED VERTICAL SHEET PILE LOCATION
- PROPOSED BURIED SHEET PILE LOCATION
- 5 EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- (10) PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- VERIFIED HIGH TIDE LINE (HTL)
- EXISTING BCDC BAY SHORELINE (MSL + 5')
- EXISTING BCDC SHORELINE BAND (100' OFFSET FROM MSL + 5')
- [Pattern] OYSTER REEF STRUCTURE
- SECTION LINE AND STATION
- [Pattern] STAGING AREA
- [Pattern] AREA AND FEATURES DESIGNED BY SITE ENGINEERS FREYER & LAURETA, INC (F&L)
- [Pattern] AREA TO OVER EXCAVATE 18" BELOW DESIGN SURFACE AND BACK FILL WITH TOPSOIL
- [Pattern] AREA TO OVER EXCAVATE 12" BELOW DESIGN SURFACE AND HARVEST BAY MUD AND NATIVE VEGETATION

TIDAL DATUM					
FEET-NAVD88					
MLLW	MSL	MHW	MHHW	MSL+5' (BCDC BAY SHORELINE)	HTL (SECTION 401/404)
-1.18	3.35	6.51	7.12	8.35'	AS SHOWN ON PLAN / FIELD VERIFIED

- NOTE:
1. SOIL SPECIFICATIONS FOR ALL IMPORTED FILL MATERIAL FOR THE ECOTONE SLOPE/LIVING SHORELINE AND TIDAL MARSH CREATION AREA, INCLUDING GENERAL FILL, BAY MUD TOPSOIL, AND UPLAND TOPSOIL, WILL BE SUBMITTED TO THE WATER BOARD FOR APPROVAL PRIOR TO CONSTRUCTION.
 2. INSTALL OYSTER REEF STRUCTURES IN BETWEEN MLLW AND MSL (-1.18 TO 3.35 FEET-NAVD 88).
 3. FINAL LIMIT OF GRADING AND DISTURBANCE TO BE STAKED IN THE FIELD BY THE PROJECT BIOLOGIST PRIOR TO CONSTRUCTION TO MINIMIZE / AVOID TEMPORARY IMPACTS TO EXISTING MARSH HABITAT.
 4. LIMIT OF DISTURBANCE AT THE ECOTONE SLOPE/LIVING SHORELINE AND TIDAL MARSH CREATION AREA IS 2 FEET OFFSET OF LIMIT OF GRADING.

SCALE (34"x22"): 1" = 80'
SCALE (17"x11"): 1" = 160'

0 80 160
SCALE IN FEET

DATE:	08/10/2022	JYZ	08/10/2022	65% DESIGN	BSS
SCALE:	AS NOTED				
DESIGNED:	JYZ				
DRAWN:	JYZ				
CHECKED:	BSS				
PROJ. ENGR:	BSS				
BY	DATE	DESCRIPTION OF REVISIONS			APP'D

**FREYER & LAURETA, INC.**
CIVIL ENGINEERS • SURVEYORS • CONSTRUCTION MANAGERS
150 Executive Park Blvd #4200 • San Francisco, CA 94134
(415)534-7070 • www.freyerlaureta.com

SUBCONSULTANT
SWCA
ENVIRONMENTAL & ENGINEERING
2996 107th Avenue,
(650)440-4160
Oakland, CA 94605
www.swca.com

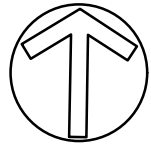
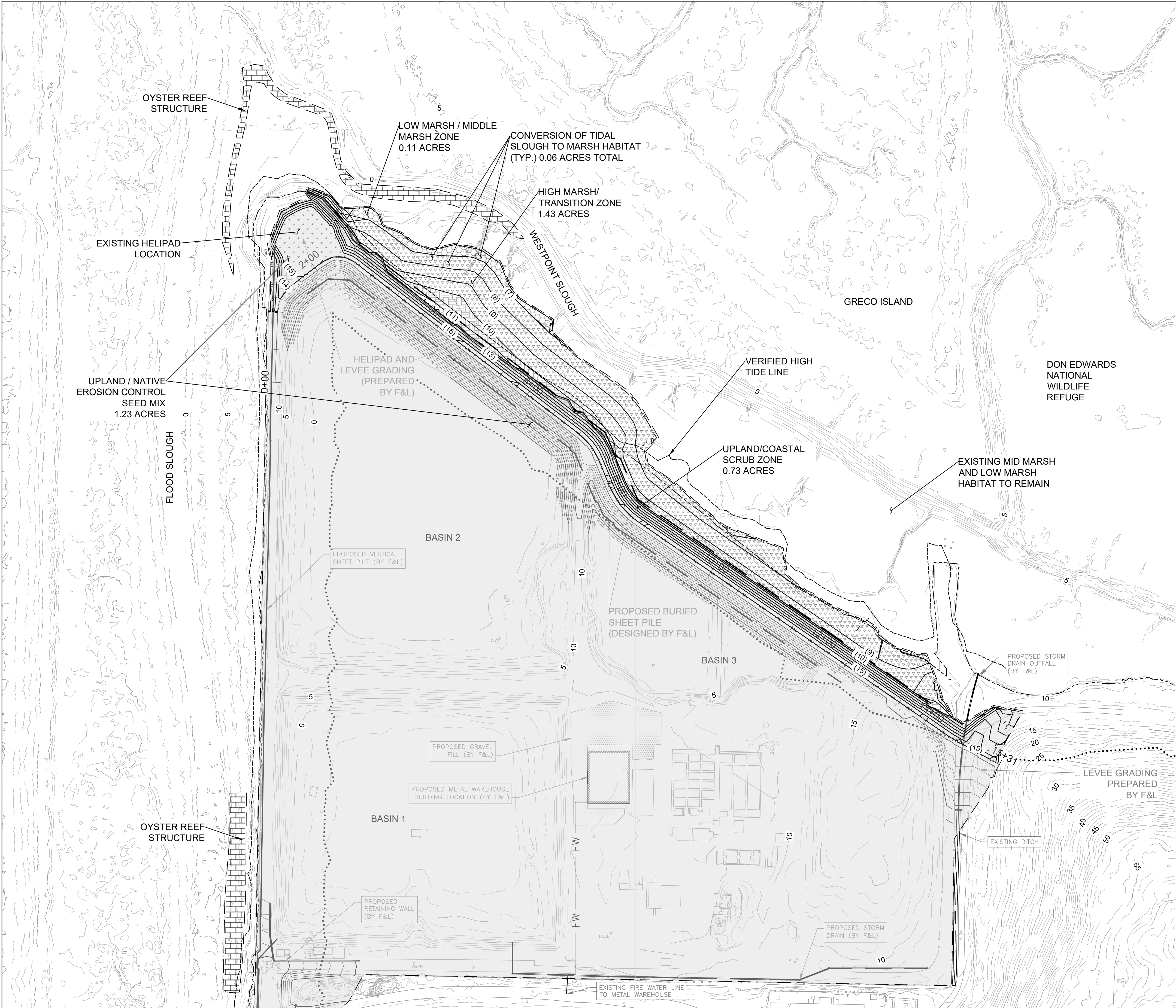
WEST BAY
SANITARY DISTRICT
SAN MATEO COUNTY

PROJECT No. 1762.0

FLOW EQUALIZATION AND RESOURCE RECOVERY FACILITY LEVEE IMPROVEMENTS AND BAYFRONT RECYCLED WATER FACILITY PROJECT
PROPOSED GROUND OVERVIEW

MENLO PARK, CALIFORNIA

SHEET
2
OF 7 SHEETS
JOB NO.
1079



PLAN LEGEND

- LIMIT OF DISTURBANCE
- 100' — 100' LIMIT OF GRADING DESIGNED BY SWCA
- PROPOSED VERTICAL SHEET PILE LOCATION
- PROPOSED BURIED SHEET PILE LOCATION
- 5' EXISTING MAJOR CONTOUR
- (10) EXISTING MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- VERIFIED HIGH TIDE LINE (HTL)
- - - - - EXISTING BCDC BAY SHORELINE (MSL + 5')
- EXISTING BCDC SHORELINE BAND (100' OFFSET FROM MSL + 5')
- [Pattern] OYSTER REEF STRUCTURE
- [Shaded Area] AREA AND FEATURES DESIGNED BY SITE ENGINEERS FREYER & LAURETA, INC (F&L)

Low Marsh / Middle Marsh Plant Palette			5.0' - 7.0' NAVD 88
Symbol	Latin Name	Common Name	Elevation Range
[Pattern]	<i>Salicornia virginica</i>	Pickleweed	5.0 - 7.0
	<i>Spartina foliosa</i>	Cordgrass	5.0 - 6.0

High Marsh / Transition Zone Plant Palette			7.0' - 10.0' NAVD 88
Symbol	Latin Name	Common Name	Elevation Range
[Pattern]	<i>Atriplex lentiformis</i>	big saltbush	7.5 - 8.0
	<i>Distichlis spicata</i>	Saltgrass	7.0 - 10.0
	<i>Frankenia salina</i>	Alkali Heath	7.0 - 10.0
	<i>Grindelia stricta</i>	Marsh Gumplant	7.0 - 10.0
	<i>Jaumea carnosa</i>	Marsh Jaumea	7.0 - 7.5
	<i>Limonium californicum</i>	Marsh Rosemary	7.0 - 7.5
	<i>Salicornia virginica</i>	Pickleweed	7.0 - 8.5
	<i>Suaeda californica</i>	California seablite	7.0 - 8.5

Upland / Coastal Scrub Plant Palette			10.0' - 15.0' NAVD 88
Symbol	Latin Name	Common Name	Elevation Range
[Pattern]	<i>Artemisia californica</i>	California sagebrush	10.0 - 15.0
	<i>Baccharis pilularis</i> var. <i>consanguinea</i>	coyote bush	10.0 - 15.0
	<i>Eriogonum nudum</i>	buckwheat	10.0 - 15.0
	<i>Heliotropium curassavicum</i>	Wild heliotrope	10.0 - 15.0
	<i>Lupinus albus</i> var. <i>albus</i>	silver bush lupine	10.0 - 15.0
	<i>Amsinckia menziesii</i> (A. m. var. <i>intermedia</i>)	Menzies' Fiddleneck	10.0 - 15.0
	<i>Mimulus aurantiacus</i>	sticky monkey flower	10.0 - 15.0
	<i>Ribes Sanguineum</i>	red flowering currant	10.0 - 15.0

Upland / Native Erosion Control Seed Mix			
Symbol	Latin Name	Common Name	Lbs Pure Live Seed / Acre
[Pattern]	<i>Achillea millefolium</i>	Common yarrow	1
	<i>Bromus carinatus</i>	California Brome	10
	<i>Elymus glaucus</i>	Blue Wildrye	8
	<i>Eschscholzia californica</i>	California poppy	1.5
	<i>Hordeum californicum</i>	California Barley	8
	<i>Leymus triticoides</i>	Creeping Wildrye	5
	<i>Lupinus nanus</i>	Sky lupine	4
	<i>Sisyrinchium bellum</i>	Western blue eyed grass	3
	<i>Vulpia microstachys</i>	Three Weeks Fescue	6
	Total		46.5

- NOTE:
- NATIVE EROSION CONTROL SEED MIX IS TO BE APPLIED ABOVE 10.0' NAVD 88 ON THE ECOTONE SLOPE/LIVING SHORELINE AND ABOVE THE TIDAL MARSH CREATION AREA (INCLUDING THE COASTAL SCRUB PLANTING AREA), THE TOP OF THE LEVEE AND HELIPAD, AND DOWN TO THE LIMIT OF GRADE ON THE INTERIOR SIDE OF THE LEVEE.
 - EXISTING NATIVE MARSH VEGETATION WITHIN THE ECOTONE SLOPE/LIVING SHORELINE FOOTPRINT WILL BE SALVAGED, MAINTAINED IN THE ON-SITE NURSERY, AND REPLACED AFTER COMPLETION OF GRADING ACTIVITIES UNDER THE DIRECTION OF THE RESTORATION ECOLOGIST.
 - COIR MATTING AND COIR LOGS SHALL BE USED AS EROSION CONTROL ON ALL GRADED SURFACES.

SCALE (34"x22"): 1" = 80'
SCALE (17"x11"): 1" = 160'

0 80 160
SCALE IN FEET

DATE:	08/10/2022	JYZ	08/10/2022	65% DESIGN	BSS
SCALE:	AS NOTED				
DESIGNED:	JYZ				
DRAWN:	JYZ				
CHECKED:	BSS				
PROJ. ENGR:	BSS				
BY	DATE			DESCRIPTION OF REVISIONS	APP'D

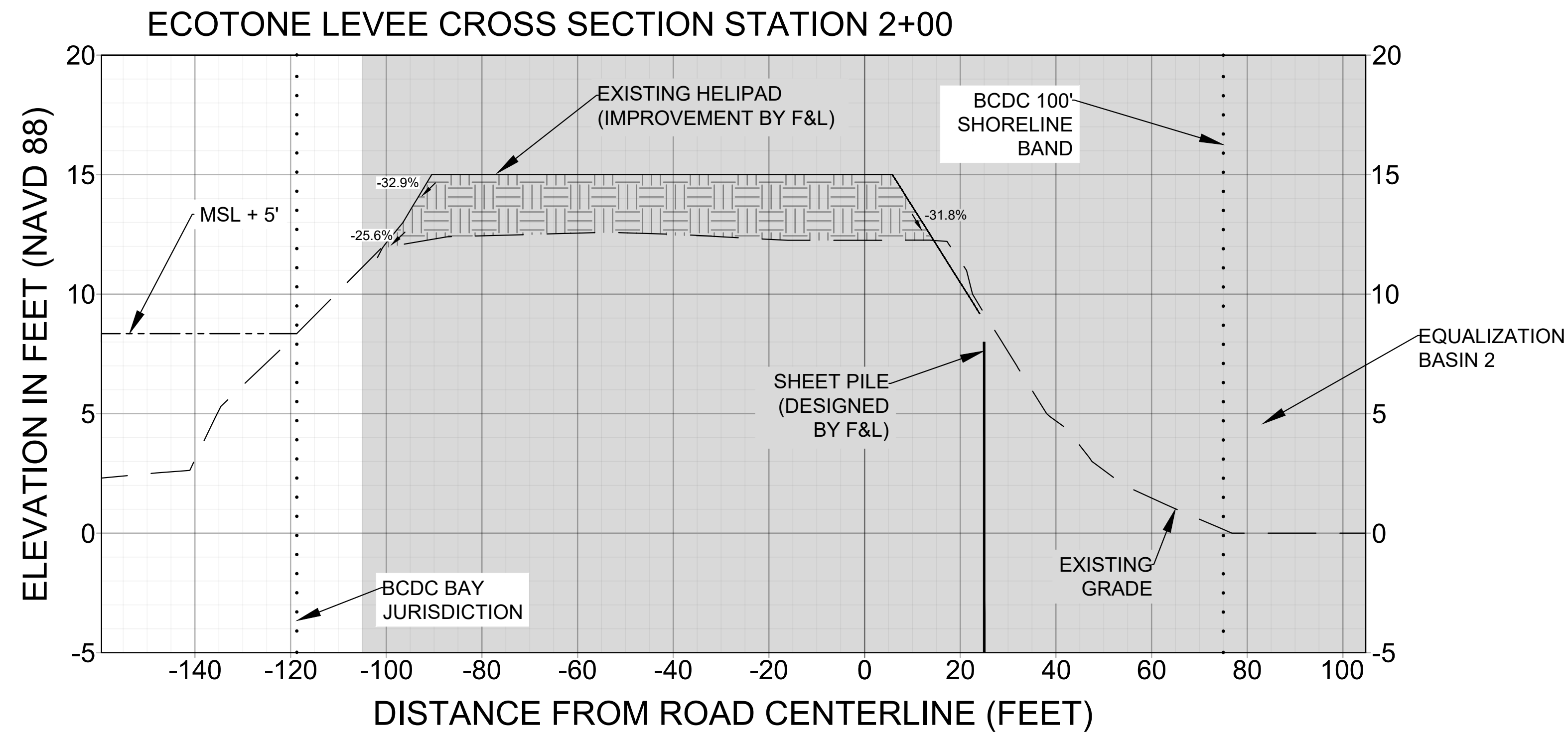
**FREYER & LAURETA, INC.**
CIVIL ENGINEERS • SURVEYORS • CONSTRUCTION MANAGERS
150 Executive Park Blvd #4200 • San Francisco, CA 94134
(415)534-7070 • www.freyerlaureta.com

SWCA
ENVIRONMENTAL & ENGINEERING
2996 107th Avenue,
(650)440-4160
Oakland, CA 94605
www.swca.com

WEST BAY
SANITARY DISTRICT
SAN MATEO COUNTY
PROJECT No. 1762.0

FLOW EQUALIZATION AND RESOURCE RECOVERY FACILITY LEVEE IMPROVEMENTS AND BAYFRONT RECYCLED WATER FACILITY PROJECT
PLANTING OVERVIEW
MENLO PARK, CALIFORNIA

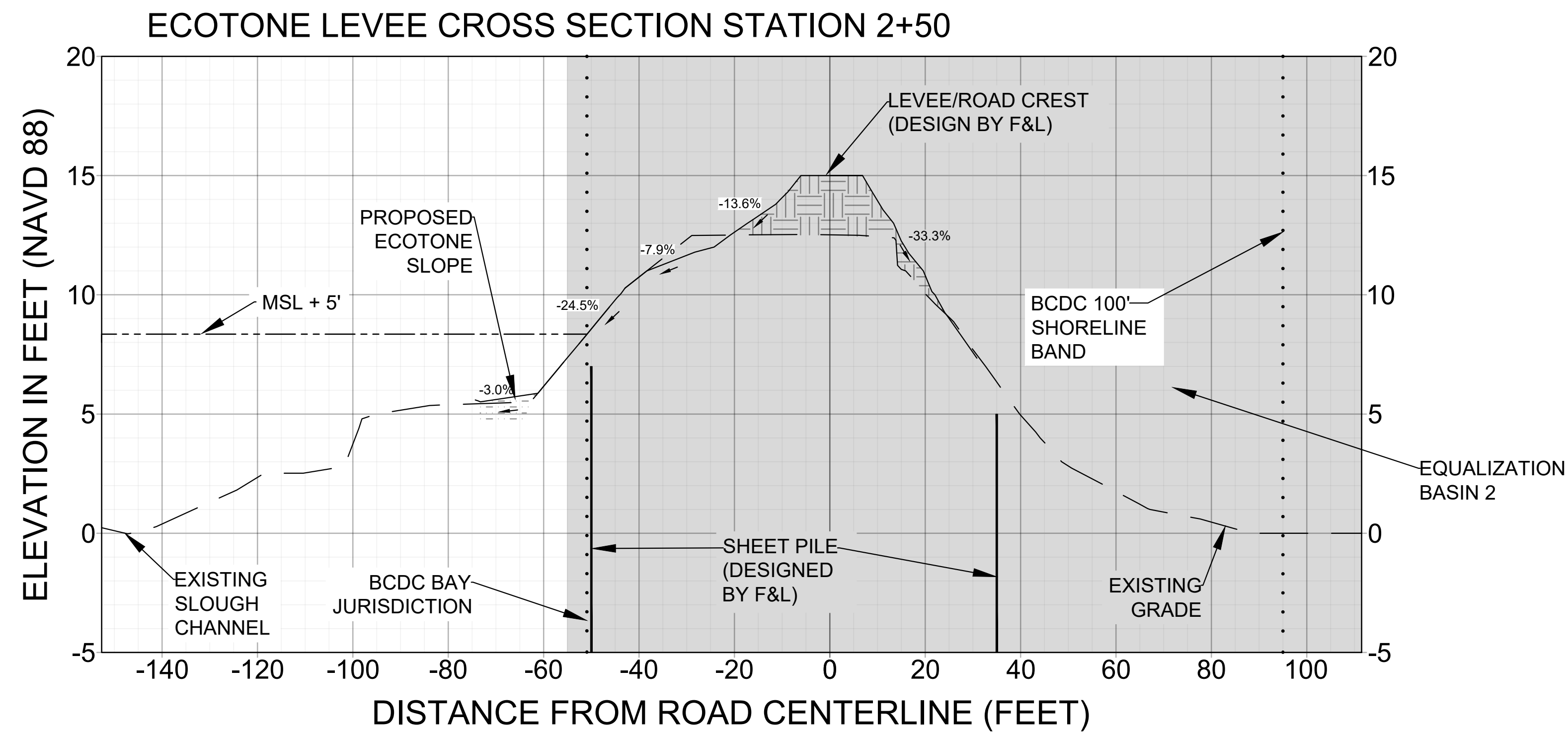
SHEET
3
OF 7 SHEETS
JOB NO.
1079



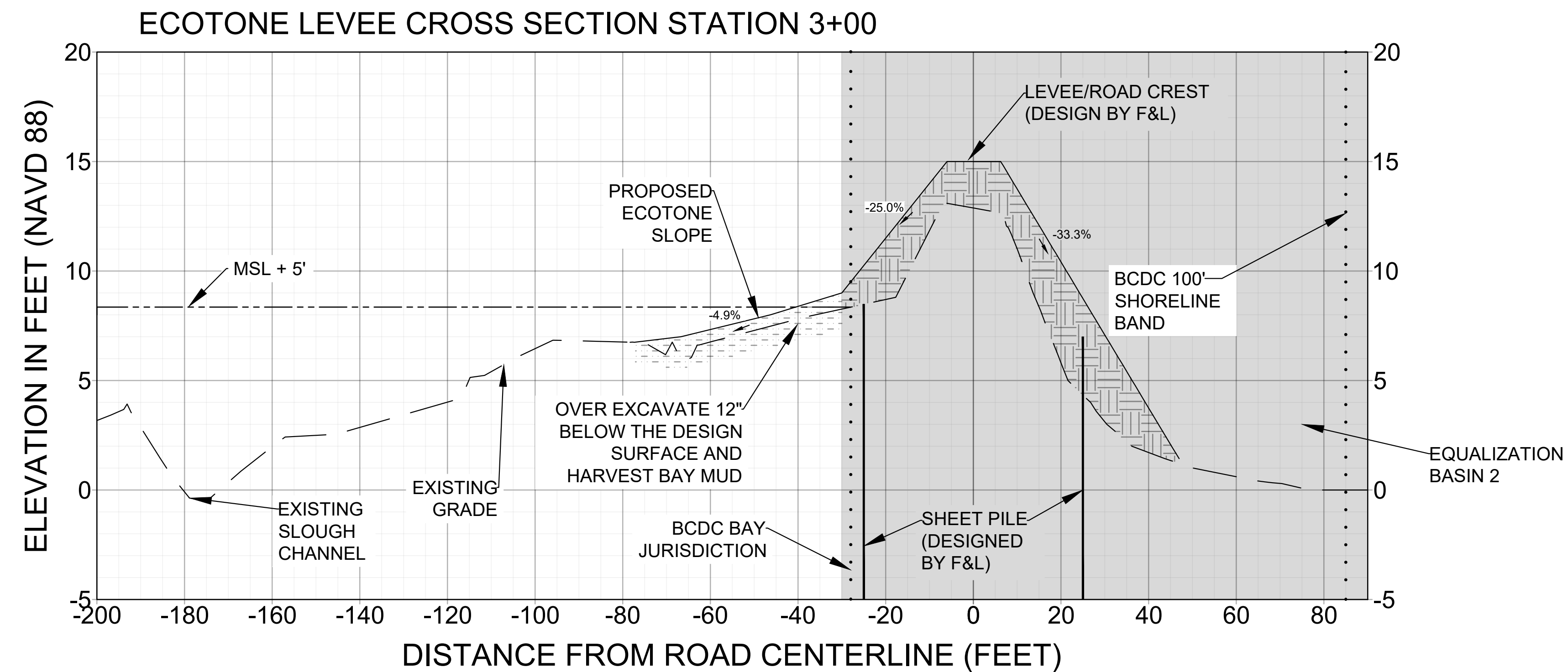
SECTION LEGEND

- DESIGN SURFACE
- EXISTING GROUND
- MSL + 5'
- SHEET PILE LOCATION
- BCDC 100' SHORELINE BAND
- VERTICAL EXAGGERATION 5:1
- ENGINEERED FILL DESIGNED BY SITE ENGINEERS FREYER & LAURETA, INC (F&L)
- ECOTONE SLOPE/LIVING SHORELINE FILL
- AREA AND FEATURES DESIGNED BY SITE ENGINEERS FREYER & LAURETA, INC (F&L)

NOTE:
1. AREA AND FEATURES DESIGNED BY SITE ENGINEERS FREYER & LAURETA, INC (F&L) ARE INCLUDED IN SEPARATE DESIGN PLAN SET BY F&L.



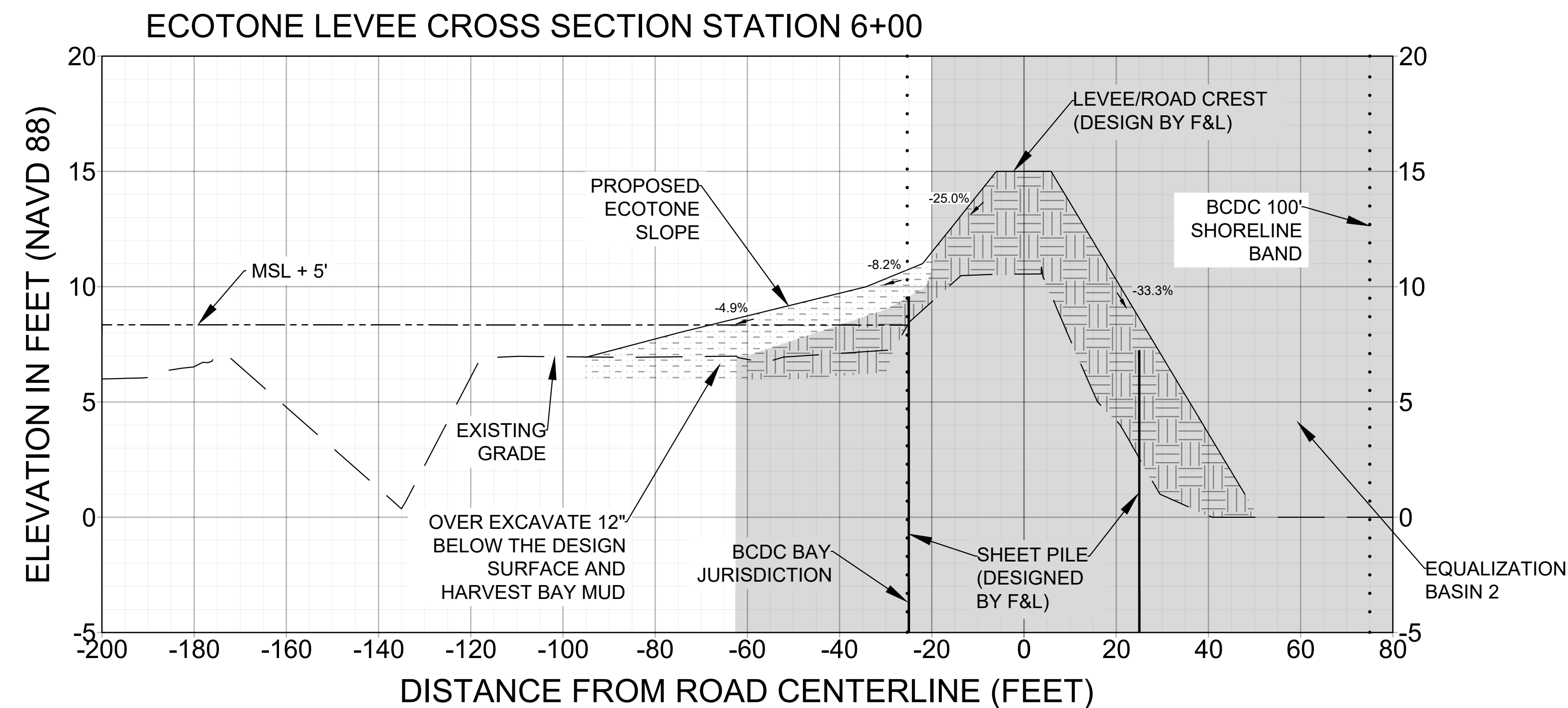
DATE: 08/10/2022	JYZ	08/10/2022	65% DESIGN	BSS	FREYER & LAURETA, INC. CIVIL ENGINEERS • SURVEYORS • CONSTRUCTION MANAGERS 150 Executive Park Blvd #4200 • San Francisco, CA 94134 (415)534-7070 • www.freyerlaureta.com SUBCONSULTANT SWCA ENVIRONMENTAL & ENGINEERING 2996 107th Avenue, (650)440-4160 Oakland, CA 94605 www.swca.com WEST BAY SANITARY DISTRICT SAN MATEO COUNTY PROJECT No. 1762.0 FLOW EQUALIZATION AND RESOURCE RECOVERY FACILITY LEVEE IMPROVEMENTS AND BAYFRONT RECYCLED WATER FACILITY PROJECT SECTIONS (1) MENLO PARK, CALIFORNIA SHEET 4 OF 7 SHEETS JOB NO. 1079
SCALE: NOT TO SCALE					
DESIGNED: JYZ					
DRAWN: JYZ					
CHECKED: BSS					
PROJ. ENGR: BSS					
	BY	DATE	DESCRIPTION OF REVISIONS	APP'D	



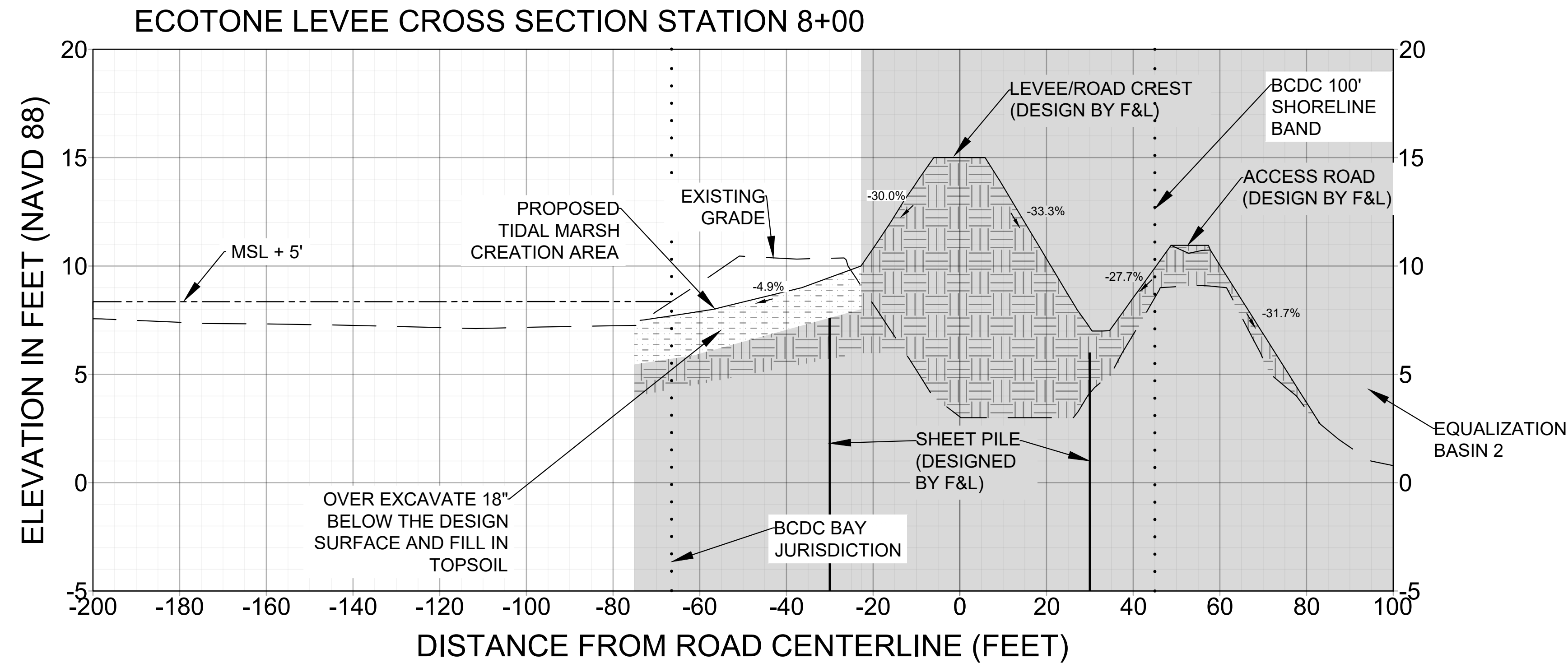
SECTION LEGEND

- DESIGN SURFACE
- EXISTING GROUND
- MSL + 5'
- SHEET PILE LOCATION
- BCDC 100' SHORELINE BAND
- VERTICAL EXAGGERATION 5:1
- ENGINEERED FILL DESIGNED BY SITE ENGINEERS FREYER & LAURETA, INC (F&L)
- ECOTONE SLOPE/LIVING SHORELINE FILL
- AREA AND FEATURES DESIGNED BY SITE ENGINEERS FREYER & LAURETA, INC (F&L)

NOTE:
1. AREA AND FEATURES DESIGNED BY SITE ENGINEERS FREYER & LAURETA, INC (F&L) ARE INCLUDED IN SEPARATE DESIGN PLAN SET BY F&L.



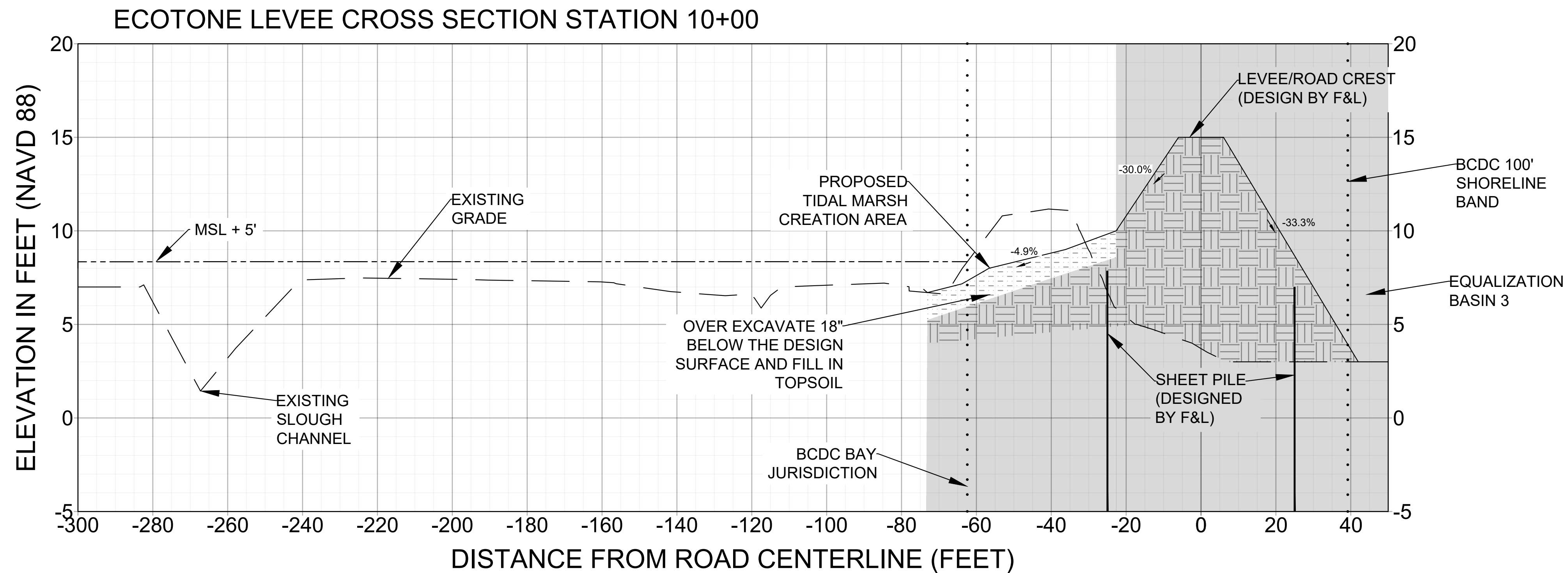
DATE: 08/10/2022	JYZ	08/10/2022	65% DESIGN	BSS	 CIVIL ENGINEERS • SURVEYORS • CONSTRUCTION MANAGERS 150 Executive Park Blvd #4200 • San Francisco, CA 94134 (415)534-7070 • www.freyerlaureta.com	 SUBCONSULTANT ENVIRONMENTAL & ENGINEERING 2996 107th Avenue, (650)440-4160 Oakland, CA 94605 www.swca.com	 SAN MATEO COUNTY PROJECT No. 1762.0	FLOW EQUALIZATION AND RESOURCE RECOVERY FACILITY LEVEE IMPROVEMENTS AND BAYFRONT RECYCLED WATER FACILITY PROJECT SECTIONS 121	MENLO PARK, CALIFORNIA	SHEET 5 OF 7 SHEETS JOB NO. 1079
DESIGNED: JYZ										
DRAWN: JYZ										
CHECKED: BSS										
PROJ. ENGR: BSS										
BY	DATE	DESCRIPTION OF REVISIONS			APP'D					



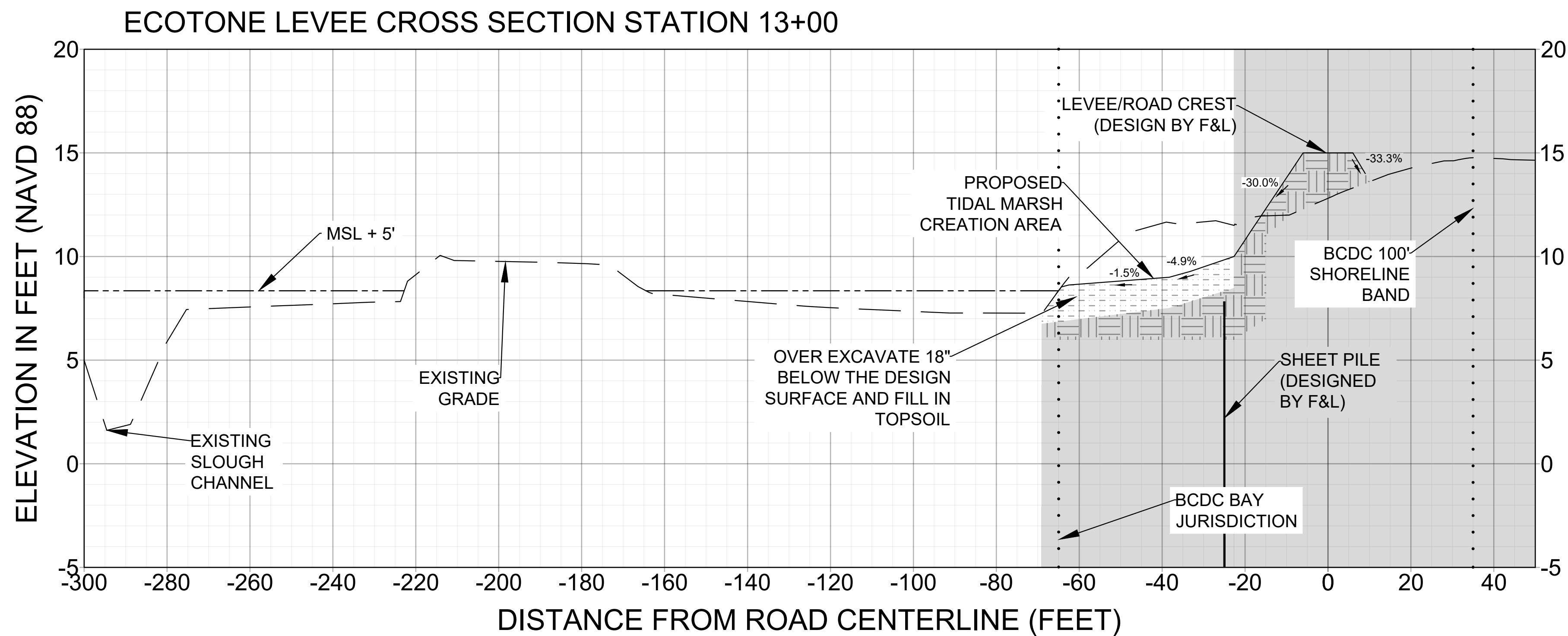
SECTION LEGEND

- DESIGN SURFACE
- EXISTING GROUND
- MSL + 5'
- SHEET PILE LOCATION
- BCDC 100' SHORELINE BAND
- VERTICAL EXAGGERATION 5:1
- ENGINEERED FILL DESIGNED BY SITE ENGINEERS FREYER & LAURETA, INC (F&L)
- ECOTONE SLOPE/LIVING SHORELINE FILL
- AREA AND FEATURES DESIGNED BY SITE ENGINEERS FREYER & LAURETA, INC (F&L)

NOTE:
1. AREA AND FEATURES DESIGNED BY SITE ENGINEERS FREYER & LAURETA, INC (F&L) ARE INCLUDED IN SEPARATE DESIGN PLAN SET BY F&L.



DATE: 08/10/2022	JYZ	08/10/2022	65% DESIGN	BSS	FREYER & LAURETA, INC. CIVIL ENGINEERS • SURVEYORS • CONSTRUCTION MANAGERS 150 Executive Park Blvd #4200 • San Francisco, CA 94134 (415)534-7070 • www.freyerlaureta.com <td data-kind="parent" data-rs="5"> SWCA ENVIRONMENTAL & ENGINEERING 2996 107th Avenue, (650)440-4160 Oakland, CA 94605 www.swca.com </td> <td data-kind="parent" data-rs="5"> WEST BAY SANITARY DISTRICT SAN MATEO COUNTY PROJECT No. 1762.0 </td> <td data-kind="parent" data-rs="5"> FLOW EQUALIZATION AND RESOURCE RECOVERY FACILITY LEVEE IMPROVEMENTS AND BAYFRONT RECYCLED WATER FACILITY PROJECT SECTIONS 13I MENLO PARK, CALIFORNIA <tr><td>DESIGNED: JYZ</td><td></td><td></td><td></td><td></td><td>SHEET 6 OF 7 SHEETS JOB NO. 1079</td></tr><tr><td>DRAWN: JYZ</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>CHECKED: BSS</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>PROJ. ENGR: BSS</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td>BY</td><td>DATE</td><td>DESCRIPTION OF REVISIONS</td><td>APP'D</td><td></td></tr></td>	SWCA ENVIRONMENTAL & ENGINEERING 2996 107th Avenue, (650)440-4160 Oakland, CA 94605 www.swca.com	WEST BAY SANITARY DISTRICT SAN MATEO COUNTY PROJECT No. 1762.0	FLOW EQUALIZATION AND RESOURCE RECOVERY FACILITY LEVEE IMPROVEMENTS AND BAYFRONT RECYCLED WATER FACILITY PROJECT SECTIONS 13I MENLO PARK, CALIFORNIA <tr><td>DESIGNED: JYZ</td><td></td><td></td><td></td><td></td><td>SHEET 6 OF 7 SHEETS JOB NO. 1079</td></tr> <tr><td>DRAWN: JYZ</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>CHECKED: BSS</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>PROJ. ENGR: BSS</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td>BY</td><td>DATE</td><td>DESCRIPTION OF REVISIONS</td><td>APP'D</td><td></td></tr>	DESIGNED: JYZ					SHEET 6 OF 7 SHEETS JOB NO. 1079	DRAWN: JYZ						CHECKED: BSS						PROJ. ENGR: BSS							BY	DATE	DESCRIPTION OF REVISIONS	APP'D	
DESIGNED: JYZ						SHEET 6 OF 7 SHEETS JOB NO. 1079																																
DRAWN: JYZ																																						
CHECKED: BSS																																						
PROJ. ENGR: BSS																																						
	BY	DATE	DESCRIPTION OF REVISIONS	APP'D																																		



SECTION LEGEND

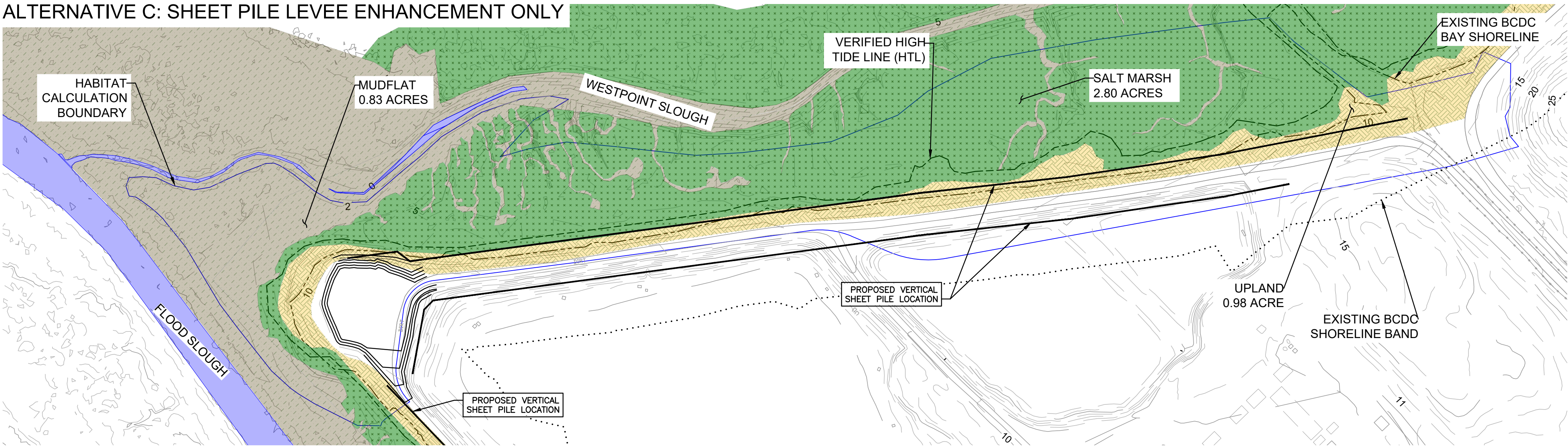
- DESIGN SURFACE
- EXISTING GROUND
- MSL + 5'
- SHEET PILE LOCATION
- BCDC 100' SHORELINE BAND

VERTICAL EXAGGERATION 5:1

- ENGINEERED FILL DESIGNED BY SITE ENGINEERS FREYER & LAURETA, INC (F&L)
- ECOTONE SLOPE/LIVING SHORELINE FILL
- AREA AND FEATURES DESIGNED BY SITE ENGINEERS FREYER & LAURETA, INC (F&L)

NOTE:
1. AREA AND FEATURES DESIGNED BY SITE ENGINEERS FREYER & LAURETA, INC (F&L) ARE INCLUDED IN SEPARATE DESIGN PLAN SET BY F&L.

ALTERNATIVE C: SHEET PILE LEVEE ENHANCEMENT ONLY

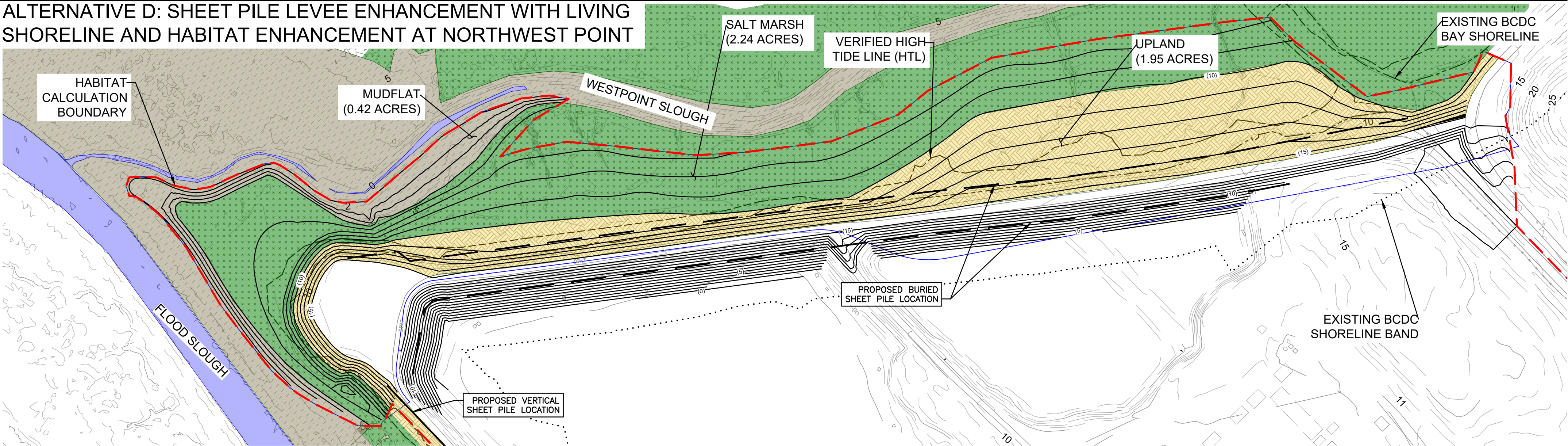


PLAN LEGEND

---	LIMIT OF GRADING
---	PROPOSED VERTICAL SHEET PILE LOCATION
---	PROPOSED BURIED SHEET PILE LOCATION
---	EXISTING MAJOR CONTOUR
---	EXISTING MINOR CONTOUR
---	PROPOSED MAJOR CONTOUR
---	PROPOSED MINOR CONTOUR
---	VERIFIED HIGH TIDE LINE (HTL)
---	EXISTING BCDC BAY SHORELINE (MSL + 5')
---	EXISTING BCDC SHORELINE BAND (100' OFFSET FROM MSL + 5')
---	HABITAT CALCULATION BOUNDARY

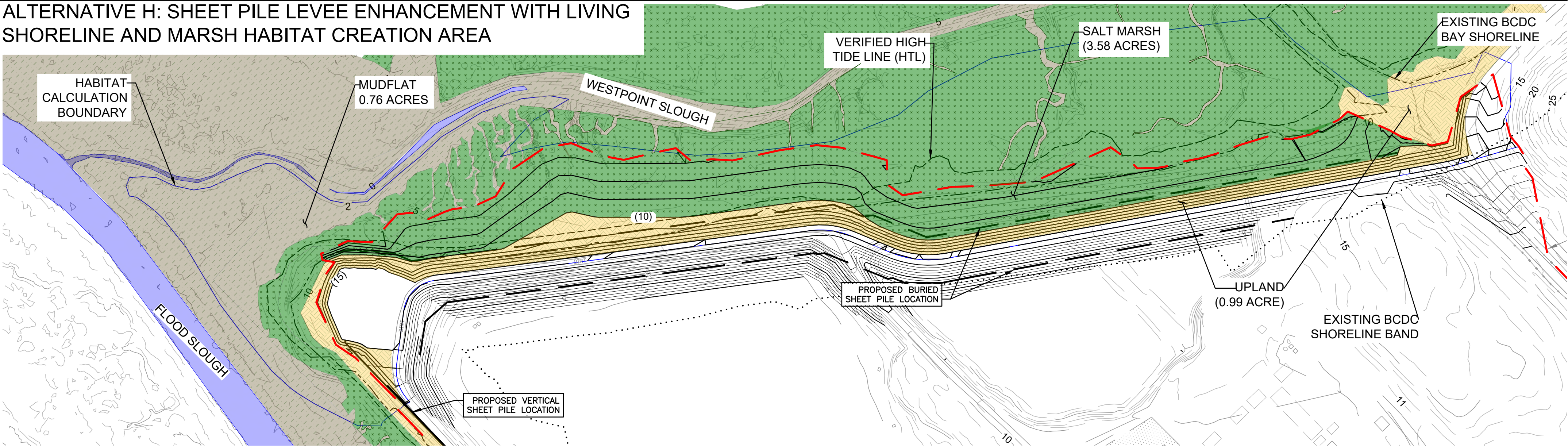
2023 HABITAT ZONES IN PROPOSED				LIMIT OF GRADING
ALTERNATIVE C		ELEVATION (FEET, NAVD 88)		ACREAGE IN THE HABITAT CALCULATION BOUNDARY
		MINIMUM	MAXIMUM	
	OPEN WATER	N/A	0	0
	MUDFLAT	0	5	0.83
	SALT MARSH	5	10	2.80
	UPLAND	10	15	0.98

ALTERNATIVE D: SHEET PILE LEVEE ENHANCEMENT WITH LIVING SHORELINE AND HABITAT ENHANCEMENT AT NORTHWEST POINT



2023 HABITAT ZONES IN PROPOSED LIMIT OF GRADING				
ALTERNATIVE D		ELEVATION (FEET, NAVD 88)		ACREAGE IN THE HABITAT CALCULATION BOUNDARY
		MINIMUM	MAXIMUM	
	OPEN WATER	N/A	0	0
	MUDFLAT	0	5	0.42
	SALT MARSH	5	10	2.24
	UPLAND	10	15	1.95

ALTERNATIVE H: SHEET PILE LEVEE ENHANCEMENT WITH LIVING SHORELINE AND MARSH HABITAT CREATION AREA



2023 HABITAT ZONES IN PROPOSED LIMIT OF GRADING				
ALTERNATIVE H		ELEVATION (FEET, NAVD 88)		ACREAGE IN THE HABITAT CALCULATION BOUNDARY
		MINIMUM	MAXIMUM	
	OPEN WATER	N/A	0	0
	MUDFLAT	0	5	0.76
	SALT MARSH	5	10	3.58
	UPLAND	10	15	0.99

NOTE:

1. ACREAGE IN TABLES WAS CALCULATED INSIDE COMBINED LIMITS OF GRADING (LOG) OF THE PROPOSED ALTERNATIVE D AND ALTERNATIVE H DESIGNS.

SCALE (34"x22"): 1" = 80'
SCALE (17"x11"): 1" = 160'

0 80 160
SCALE IN FEET

DATE: 08/10/2022	JYZ	08/10/2022	65% DESIGN	BSS
SCALE: AS NOTED				
DESIGNED: JYZ				
DRAWN: JYZ				
CHECKED: BSS				
PROJ. ENGR: BSS				
BY	DATE	DESCRIPTION OF REVISIONS		APP'D

FREYER & LAURETA, INC.
CIVIL ENGINEERS • SURVEYORS • CONSTRUCTION MANAGERS
150 Executive Park Blvd #4200 • San Francisco, CA 94134
(415)534-7070 • www.freyerlaureta.com

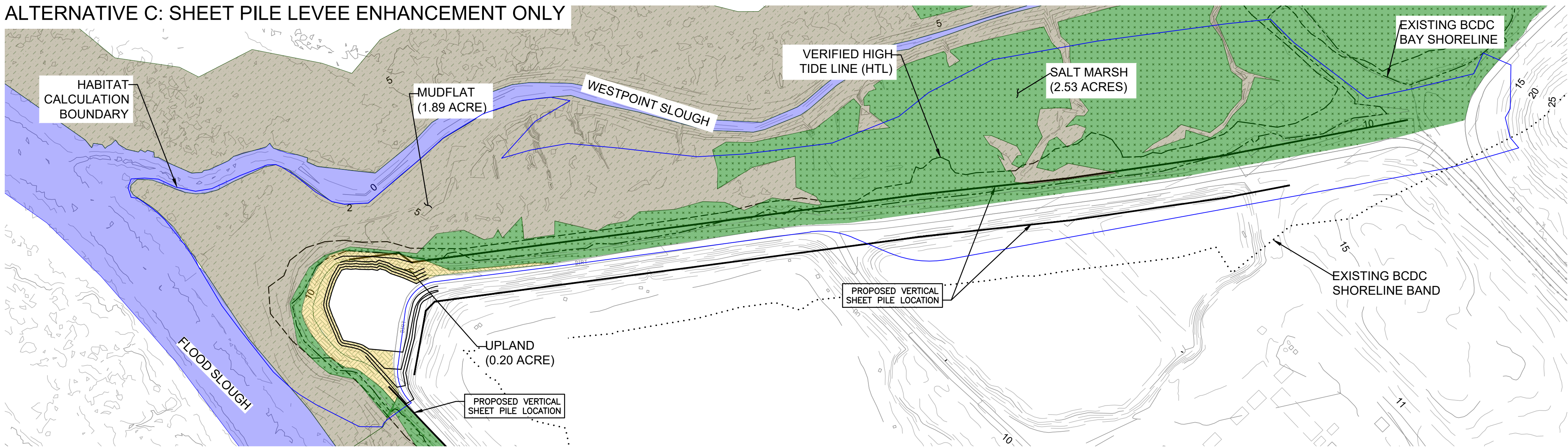
SWCA
ENVIRONMENTAL & ENGINEERING
2996 107th Avenue,
(650)440-4160
Oakland, CA 94605
www.swca.com

WEST BAY
SANITARY DISTRICT
SAN MATEO COUNTY
PROJECT No. 1762.0

FLOW EQUALIZATION AND RESOURCE RECOVERY FACILITY LEVEE IMPROVEMENTS AND BAYFRONT RECYCLED WATER FACILITY PROJECT
2023 HABITAT ZONES COMPARISON
MENLO PARK, CALIFORNIA

SHEET
1
OF 3 SHEETS
JOB NO.
1079

ALTERNATIVE C: SHEET PILE LEVEE ENHANCEMENT ONLY

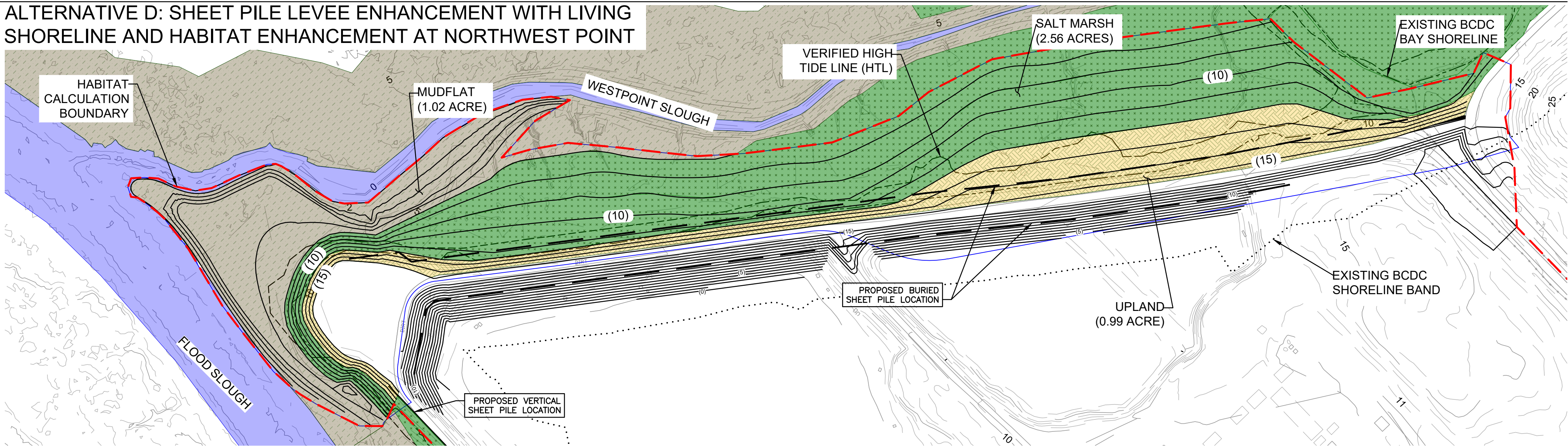


PLAN LEGEND

---	LIMIT OF GRADING
---	PROPOSED VERTICAL SHEET PILE LOCATION
---	PROPOSED BURIED SHEET PILE LOCATION
---	EXISTING MAJOR CONTOUR
---	EXISTING MINOR CONTOUR
---	PROPOSED MAJOR CONTOUR
---	PROPOSED MINOR CONTOUR
---	VERIFIED HIGH TIDE LINE (HTL)
---	EXISTING BCDC BAY SHORELINE (MSL + 5')
---	EXISTING BCDC SHORELINE BAND (100' OFFSET FROM MSL + 5')
---	HABITAT CALCULATION BOUNDARY

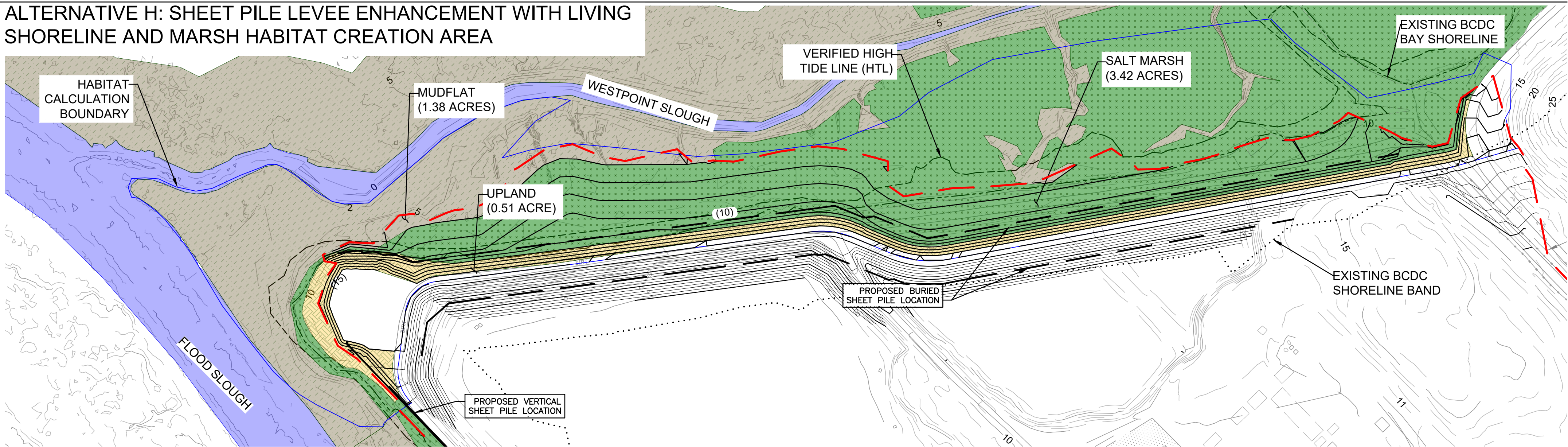
2050 HABITAT ZONES IN PROPOSED LIMIT OF GRADING				
ALTERNATIVE C		ELEVATION (FEET, NAVD 88)		ACREAGE IN THE HABITAT CALCULATION BOUNDARY
		MINIMUM	MAXIMUM	
	OPEN WATER	N/A	2	0
	MUDFLAT	2	7	1.89
	SALT MARSH	7	12	2.53
	UPLAND	12	17	0.20

ALTERNATIVE D: SHEET PILE LEVEE ENHANCEMENT WITH LIVING SHORELINE AND HABITAT ENHANCEMENT AT NORTHWEST POINT



2050 HABITAT ZONES IN PROPOSED LIMIT OF GRADING				
ALTERNATIVE D		ELEVATION (FEET, NAVD 88)		ACREAGE IN THE HABITAT CALCULATION BOUNDARY
		MINIMUM	MAXIMUM	
	OPEN WATER	N/A	2	0
	MUDFLAT	2	7	1.02
	SALT MARSH	7	12	2.56
	UPLAND	12	17	0.99

ALTERNATIVE H: SHEET PILE LEVEE ENHANCEMENT WITH LIVING SHORELINE AND MARSH HABITAT CREATION AREA

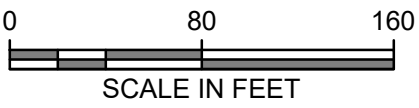


2050 HABITAT ZONES IN PROPOSED LIMIT OF GRADING				
ALTERNATIVE H		ELEVATION (FEET, NAVD 88)		ACREAGE IN THE HABITAT CALCULATION BOUNDARY
		MINIMUM	MAXIMUM	
	OPEN WATER	N/A	2	0
	MUDFLAT	2	7	1.38
	SALT MARSH	7	12	3.42
	UPLAND	12	17	0.51

NOTE:

1. ACREAGE IN TABLES WAS CALCULATED INSIDE COMBINED LIMITS OF GRADING (LOG) OF THE PROPOSED ALTERNATIVE D AND ALTERNATIVE H DESIGNS.

SCALE (34"x22"): 1" = 80'
SCALE (17"x11"): 1" = 160'



DATE: 08/10/2022	JYZ	08/10/2022	65% DESIGN	BSS
SCALE: AS NOTED				
DESIGNED: JYZ				
DRAWN: JYZ				
CHECKED: BSS				
PROJ. ENGR: BSS				
BY	DATE	DESCRIPTION OF REVISIONS		APP'D

FREYER & LAURETA, INC.
CIVIL ENGINEERS • SURVEYORS • CONSTRUCTION MANAGERS
150 Executive Park Blvd #4200 • San Francisco, CA 94134
(415)534-7070 • www.freyerlaureta.com

SUBCONSULTANT

ENVIRONMENTAL & ENGINEERING
2996 107th Avenue,
(650)440-4160
Oakland, CA 94605
www.swca.com

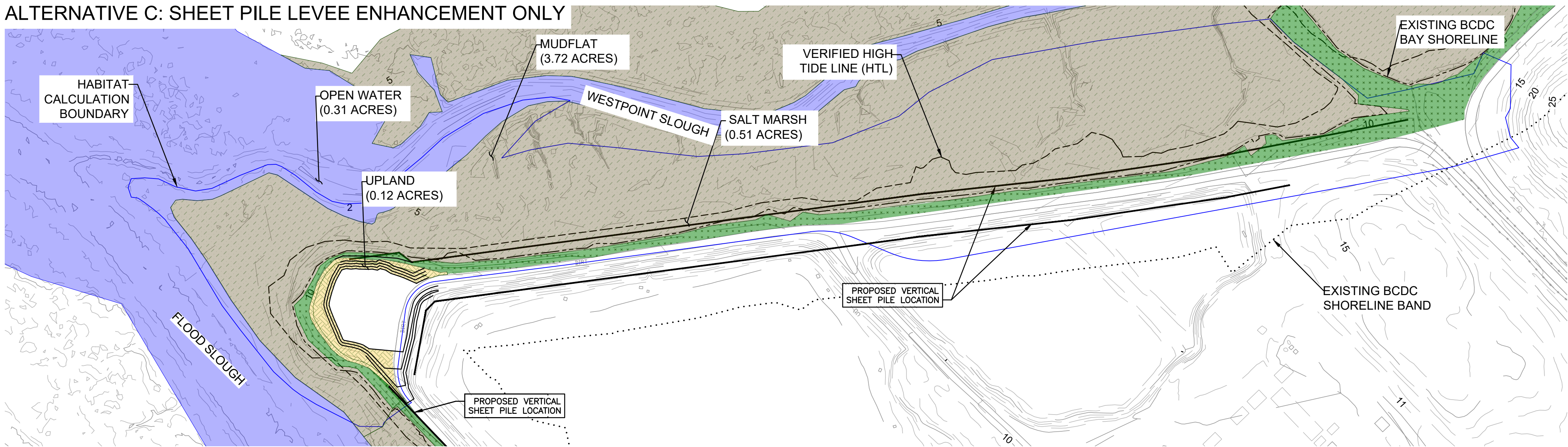
WEST BAY
SANITARY DISTRICT
SAN MATEO COUNTY

PROJECT No. 1762.0

FLOW EQUALIZATION AND RESOURCE RECOVERY FACILITY LEVEE IMPROVEMENTS AND BAYFRONT RECYCLED WATER FACILITY PROJECT
2050 HABITAT ZONES COMPARISON
MENLO PARK, CALIFORNIA

SHEET
2
OF 3 SHEETS
JOB NO.
1079

ALTERNATIVE C: SHEET PILE LEVEE ENHANCEMENT ONLY

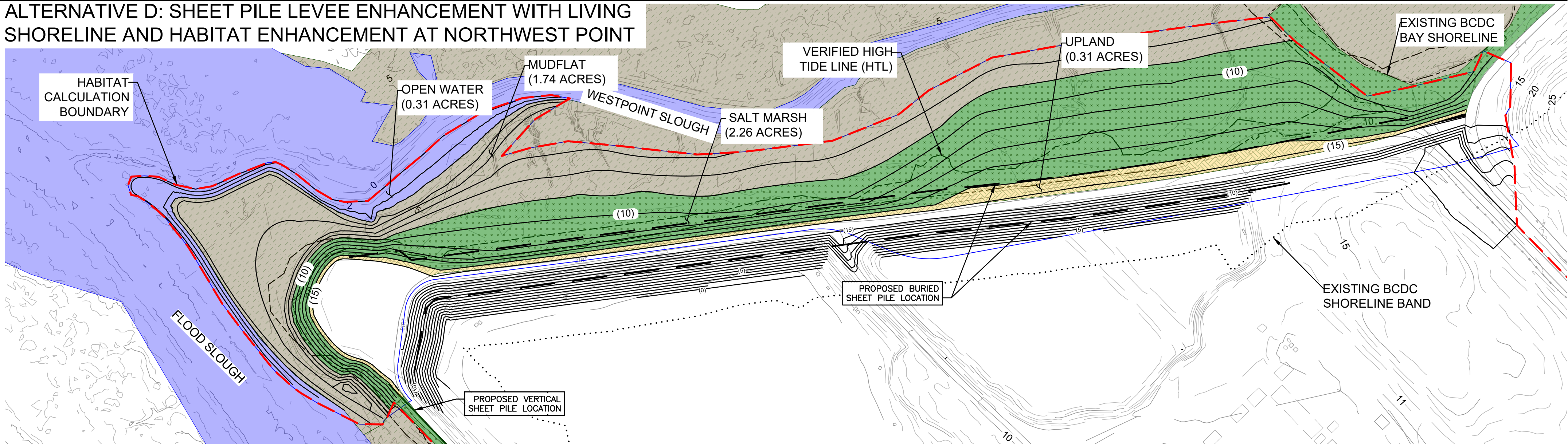


PLAN LEGEND

	LIMIT OF GRADING
	PROPOSED VERTICAL SHEET PILE LOCATION
	PROPOSED BURIED SHEET PILE LOCATION
	EXISTING MAJOR CONTOUR
	EXISTING MINOR CONTOUR
	PROPOSED MAJOR CONTOUR
	PROPOSED MINOR CONTOUR
	VERIFIED HIGH TIDE LINE (HTL)
	EXISTING BCDC BAY SHORELINE (MSL + 5')
	EXISTING BCDC SHORELINE BAND (100' OFFSET FROM MSL + 5')
	HABITAT CALCULATION BOUNDARY

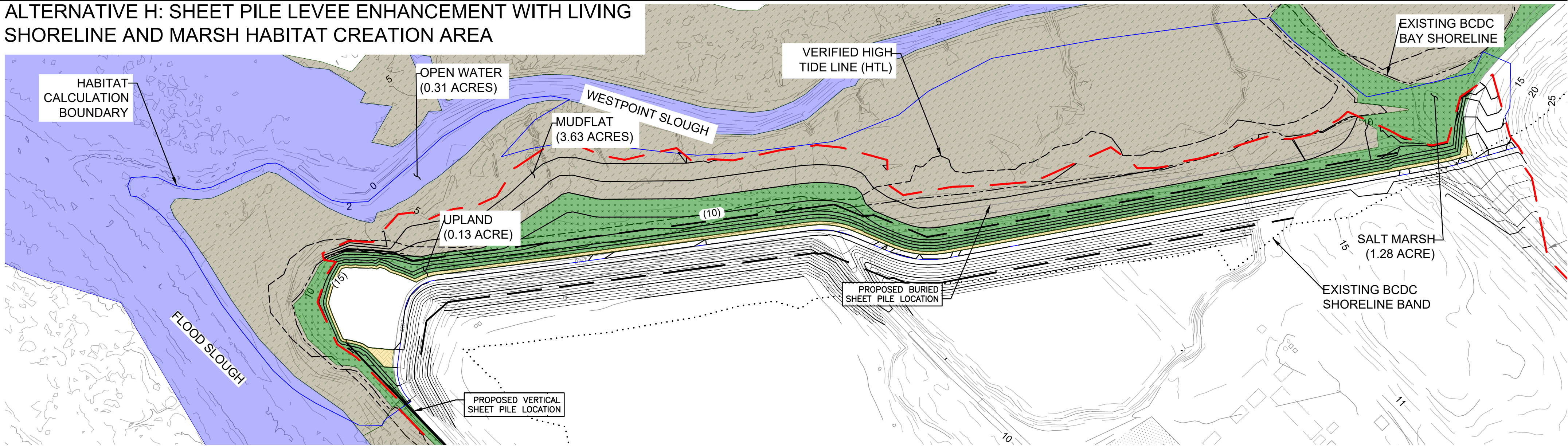
2073 HABITAT ZONES IN PROPOSED LIMIT OF GRADING				
ALTERNATIVE C		ELEVATION (FEET, NAVD 88)		ACREAGE IN THE HABITAT CALCULATION BOUNDARY
		MINIMUM	MAXIMUM	
	OPEN WATER	N/A	4	0.31
	MUDFLAT	4	9	3.72
	SALT MARSH	9	14	0.51
	UPLAND	14	19	0.12

ALTERNATIVE D: SHEET PILE LEVEE ENHANCEMENT WITH LIVING SHORELINE AND HABITAT ENHANCEMENT AT NORTHWEST POINT



2073 HABITAT ZONES IN PROPOSED LIMIT OF GRADING				
ALTERNATIVE D		ELEVATION (FEET, NAVD 88)		ACREAGE IN THE HABITAT CALCULATION BOUNDARY
		MINIMUM	MAXIMUM	
	OPEN WATER	N/A	4	0.31
	MUDFLAT	4	9	1.74
	SALT MARSH	9	14	2.26
	UPLAND	14	19	0.31

ALTERNATIVE H: SHEET PILE LEVEE ENHANCEMENT WITH LIVING SHORELINE AND MARSH HABITAT CREATION AREA

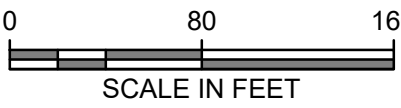


2073 HABITAT ZONES IN PROPOSED LIMIT OF GRADING				
ALTERNATIVE H		ELEVATION (FEET, NAVD 88)		ACREAGE IN THE HABITAT CALCULATION BOUNDARY
		MINIMUM	MAXIMUM	
	OPEN WATER	N/A	4	0.31
	MUDFLAT	4	9	3.63
	SALT MARSH	9	14	1.28
	UPLAND	14	19	0.13

NOTE:

1. ACREAGE IN TABLES WAS CALCULATED INSIDE COMBINED LIMITS OF GRADING (LOG) OF THE PROPOSED ALTERNATIVE D AND ALTERNATIVE H DESIGNS.

SCALE (34"x22"): 1" = 80'
SCALE (17"x11"): 1" = 160'



DATE: 08/10/2022	JYZ	08/10/2022	65% DESIGN	BSS
SCALE: AS NOTED				
DESIGNED: JYZ				
DRAWN: JYZ				
CHECKED: BSS				
PROJ. ENGR: BSS				
BY	DATE	DESCRIPTION OF REVISIONS		APP'D

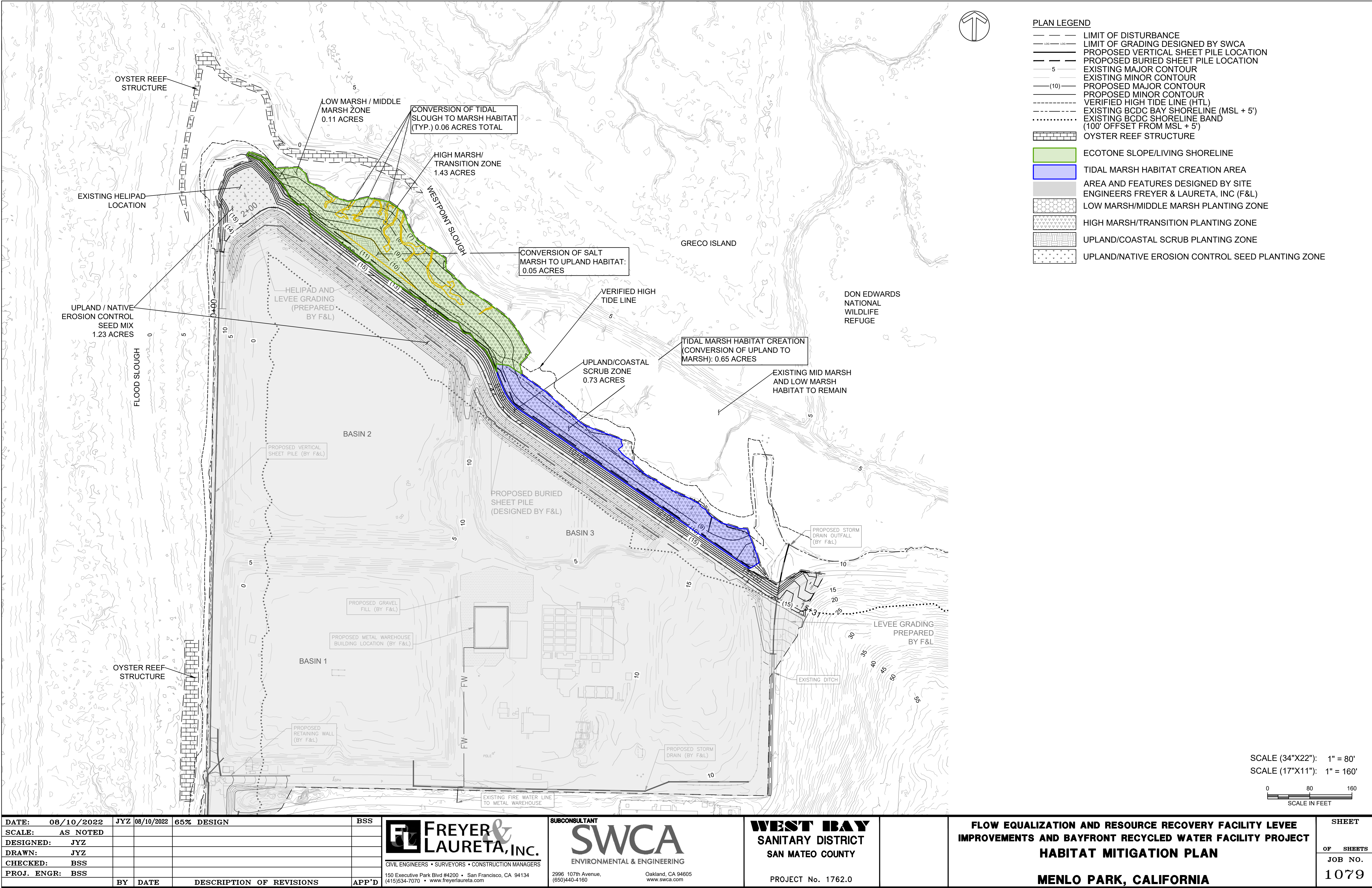
FREYER & LAURETA, INC.
CIVIL ENGINEERS • SURVEYORS • CONSTRUCTION MANAGERS
150 Executive Park Blvd #4200 • San Francisco, CA 94134
(415)534-7070 • www.freyerlaureta.com

SWCA
ENVIRONMENTAL & ENGINEERING
2996 107th Avenue,
(650)440-4160
Oakland, CA 94605
www.swca.com

WEST BAY
SANITARY DISTRICT
SAN MATEO COUNTY
PROJECT No. 1762.0

FLOW EQUALIZATION AND RESOURCE RECOVERY FACILITY LEVEE IMPROVEMENTS AND BAYFRONT RECYCLED WATER FACILITY PROJECT
2073 HABITAT ZONES COMPARISON
MENLO PARK, CALIFORNIA

SHEET
3
OF 3 SHEETS
JOB NO.
1079



- PLAN LEGEND**
- LIMIT OF DISTURBANCE
 - LOG — LOG — LIMIT OF GRADING DESIGNED BY SWCA
 - PROPOSED VERTICAL SHEET PILE LOCATION
 - PROPOSED BURIED SHEET PILE LOCATION
 - 5 — EXISTING MAJOR CONTOUR
 - EXISTING MINOR CONTOUR
 - (10) — PROPOSED MAJOR CONTOUR
 - PROPOSED MINOR CONTOUR
 - VERIFIED HIGH TIDE LINE (HTL)
 - - - EXISTING BCDC BAY SHORELINE (MSL + 5')
 - EXISTING BCDC SHORELINE BAND (100' OFFSET FROM MSL + 5')
 - [Pattern] OYSTER REEF STRUCTURE
 - [Green Box] ECOTONE SLOPE/LIVING SHORELINE
 - [Blue Box] TIDAL MARSH HABITAT CREATION AREA
 - [Grey Box] AREA AND FEATURES DESIGNED BY SITE ENGINEERS FREYER & LAURETA, INC (F&L)
 - [Pattern] LOW MARSH/MIDDLE MARSH PLANTING ZONE
 - [Pattern] HIGH MARSH/TRANSITION PLANTING ZONE
 - [Pattern] UPLAND/COASTAL SCRUB PLANTING ZONE
 - [Pattern] UPLAND/NATIVE EROSION CONTROL SEED PLANTING ZONE

SCALE (34"x22"): 1" = 80'
SCALE (17"x11"): 1" = 160'

0 80 160
SCALE IN FEET

DATE:	08/10/2022	JYZ	08/10/2022	65% DESIGN	BSS
SCALE:	AS NOTED				
DESIGNED:	JYZ				
DRAWN:	JYZ				
CHECKED:	BSS				
PROJ. ENGR:	BSS				
BY	DATE	DESCRIPTION OF REVISIONS			APP'D

FREYER & LAURETA, INC. CIVIL ENGINEERS • SURVEYORS • CONSTRUCTION MANAGERS 150 Executive Park Blvd #4200 • San Francisco, CA 94134 (415)534-7070 • www.freyerlaureta.com	SWCA ENVIRONMENTAL & ENGINEERING 2996 107th Avenue, (650)440-4160 Oakland, CA 94605 www.swca.com	WEST BAY SANITARY DISTRICT SAN MATEO COUNTY PROJECT No. 1762.0	FLOW EQUALIZATION AND RESOURCE RECOVERY FACILITY LEVEE IMPROVEMENTS AND BAYFRONT RECYCLED WATER FACILITY PROJECT HABITAT MITIGATION PLAN MENLO PARK, CALIFORNIA	SHEET OF SHEETS JOB NO. 1079
--	--	--	--	--