

CALIFORNIA COASTAL COMMISSION

455 MARKET STREET, SUITE 228
SAN FRANCISCO, CA 94105-2219
FAX (415) 904-5400
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W7b

CC-0005-21 (SANDAG)

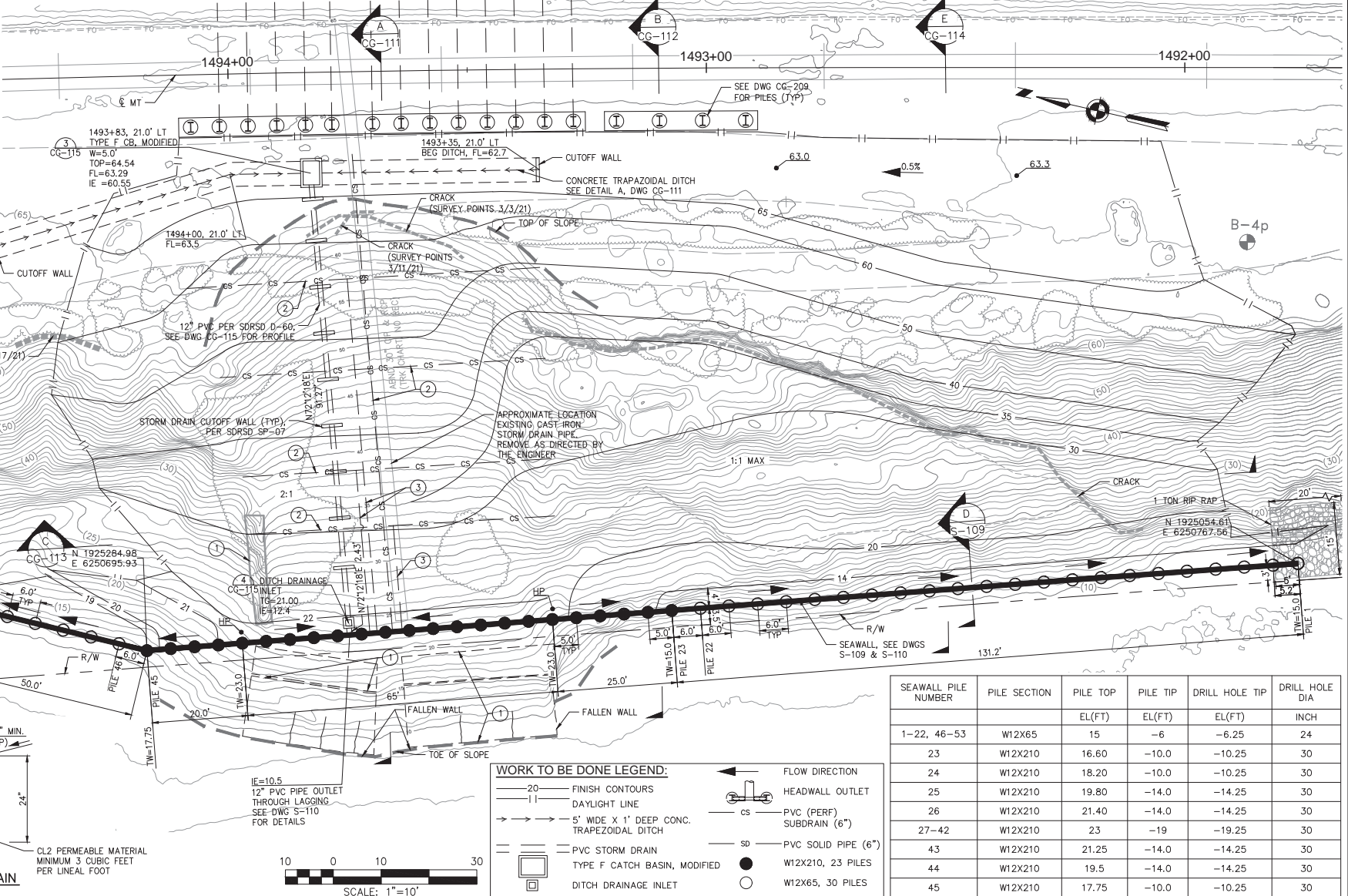
June 8, 2022

EXHIBITS-2

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CONSTRUCTION NOTES:

- 1 REMOVE EXIST FAILED WALL.
- 2 THE LOCATION OF CANYON SUBDRAINS SHOWN ON PLANS IS APPROXIMATE. SUBDRAINS SHALL BE PLACED AS DIRECTED BY THE ENGINEER DURING CONSTRUCTION. CANYON SUBDRAIN DETAIL 1 BELOW.
- 3 SOLID 6" PVC SUBDRAIN OUTLET THROUGH SEAWALL. SEE DETAILS ON DWG S-110.
- 4 PLACE PANEL DRAIN TO COLLECT SEEPAGE AT CONTACT AS DIRECTED BY THE ENGINEER.



5/17/21	GRADING ONLY			
6/4/21	REVISED GRADING			
6/28/21	DCN013 DRAINAGE, SEAWALL & ANDERSON CANYON			
NO.	DATE	REVISIONS	BY	CHK

HNTB

401 B Street
Suite 301
San Diego, CA 92101

DESIGNED BY
G. SHAW
DRAWN BY
M. COOPER
CHECKED BY
P. MCCOLL
SANDAG PM
A. DEVAUX

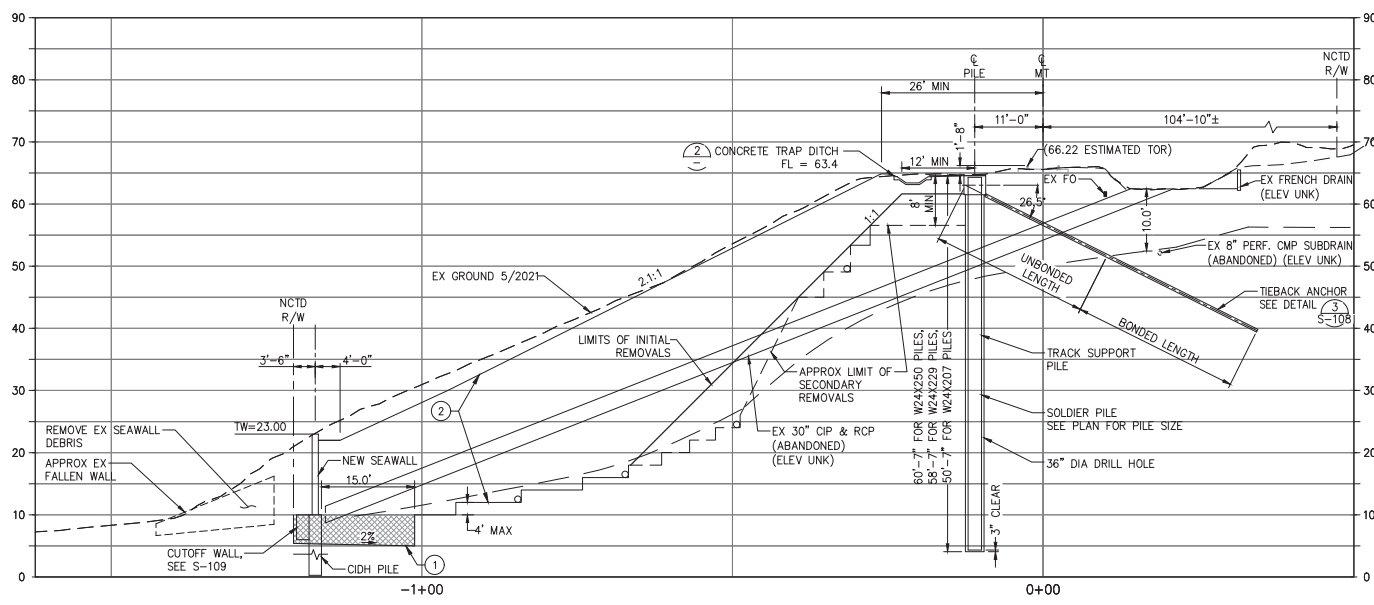
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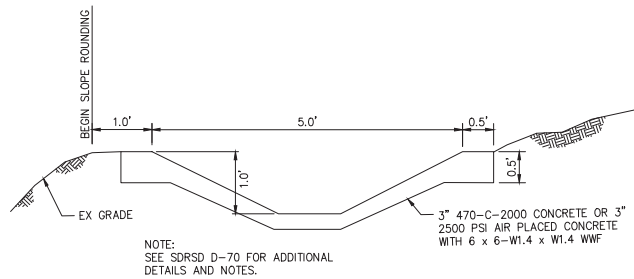
DEL MAR BLUFFS STABILIZATION PROJECT 4
GRADING PLAN
BUTTRESS FILL AND
FAILED SLOPE REMOVAL

SCALE
AS SHOWN
SANDAG CONTRACT NO.
CIP1146100
DRAWING NO.
CG-110
SHEET NO.

FOR REDUCED PLANS ORIGINAL
SCALE IS IN INCHES

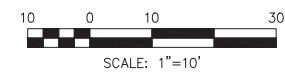


BUTTRUSS FILL
SECTION A-A
1493+68
1"=10'



CONCRETE TRAPEZOIDAL DITCH
NTS

- CONSTRUCTION NOTES:**
- 1 CONSTRUCT KEY AS DIRECTED BY THE ENGINEER - 15' MINIMUM BEHIND SOLDIER PILE FOUNDATION AND 4' MIN DEPTH, 1-1/2 SACK SLURRY.
 - 2 REMOVE EXISTING FILL AND BENCH INTO COMPETENT FORMATIONAL MATERIAL AS DIRECTED BY THE ENGINEER.
 - 3 PLACE CANYON SUBDRAIN SEE DETAIL "A", DWG CG-110 AS DIRECTED BY THE ENGINEER.



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6/28/21	DCN013 DRAINAGE, SEAWALL & ANDERSON CANYON			
NO.	DATE	REVISIONS	BY	CHK

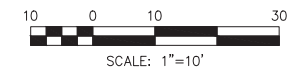
HNTB
401 B Street
Suite 301
San Diego, CA 92101

DESIGNED BY
G. SHAW
DATE
05/21
DRAWN BY
M. COOPER
05/21
CHECKED BY
P. MCCOLL
05/21
SANDAG PM
A. DEVAUX
05/21



DEL MAR BLUFFS STABILIZATION PROJECT 4		SCALE AS SHOWN
BUTTRUSS FILL SECTION A-A AND DRAINAGE DETAIL		SANDAG CONTRACT NO. CIP1146100
DRAWING NO. CG-111	SHEET NO.	

① CONSTRUCT KEY AS DIRECTED BY THE ENGINEER - 15' MINIMUM BEHIND SOLDIER PILE FOUNDATION AND 4' MIN DEPTH, 1-1/2 SACK SLURRY.



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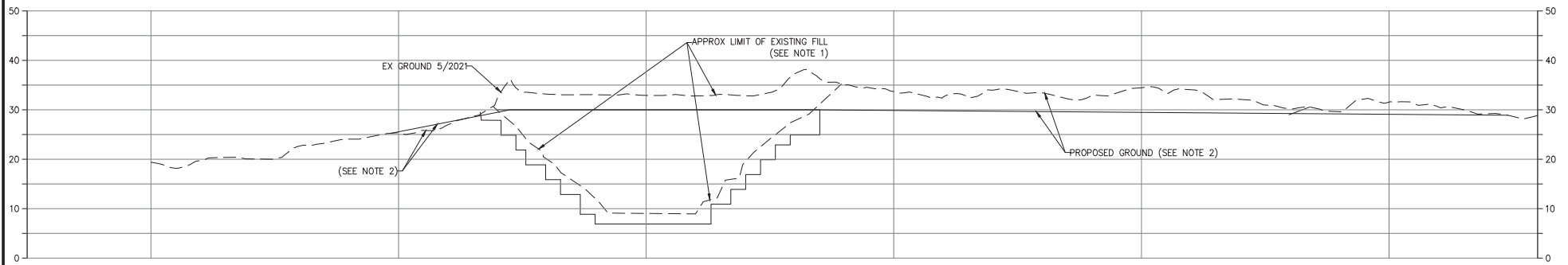


SANDAG
NORTH COUNTY
TRANSIT DISTRICT

FAILED SLOPE REMOVAL
SECTION B-B

SCALE AS SHOWN	
SANDAG CONTRACT NO. CIP1146100	
DRAWING NO. CG-112	SHEET NO.

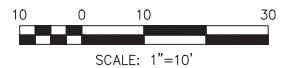
FOR REDUCED PLANS ORIGINAL
SCALE IS IN INCHES



**BUTTRESS FILL
SECTION C-C**
1"=10'

CONSTRUCTION NOTES:

1. REMOVE EXISTING FILL. KEY INTO COMPETENT FORMATIONAL MATERIAL AS DIRECTED BY THE ENGINEER. REPLACE AND COMPACT FILL AT MAXIMUM 2:1 SLOPE.
2. REMOVE LOOSE MATERIAL AND GRADE SLOPE TO TRANSITION TO EXISTING. MAXIMUM 1:1 CUT SLOPE.



△	5/17/21	GRADING ONLY			
	6/28/21	DCN013 DRAINAGE, SEAWALL & ANDERSON CANYON			
NO.	DATE	REVISIONS	BY	CHK	APRV

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401 B Street
Suite 301
San Diego, CA 92101

DESIGNED BY G. SHAW	DATE 04/21
DRAWN BY M. COOPER	04/21
CHECKED BY P. MCCOLL	04/21
SANDAG PM A. DEVAUX	04/21

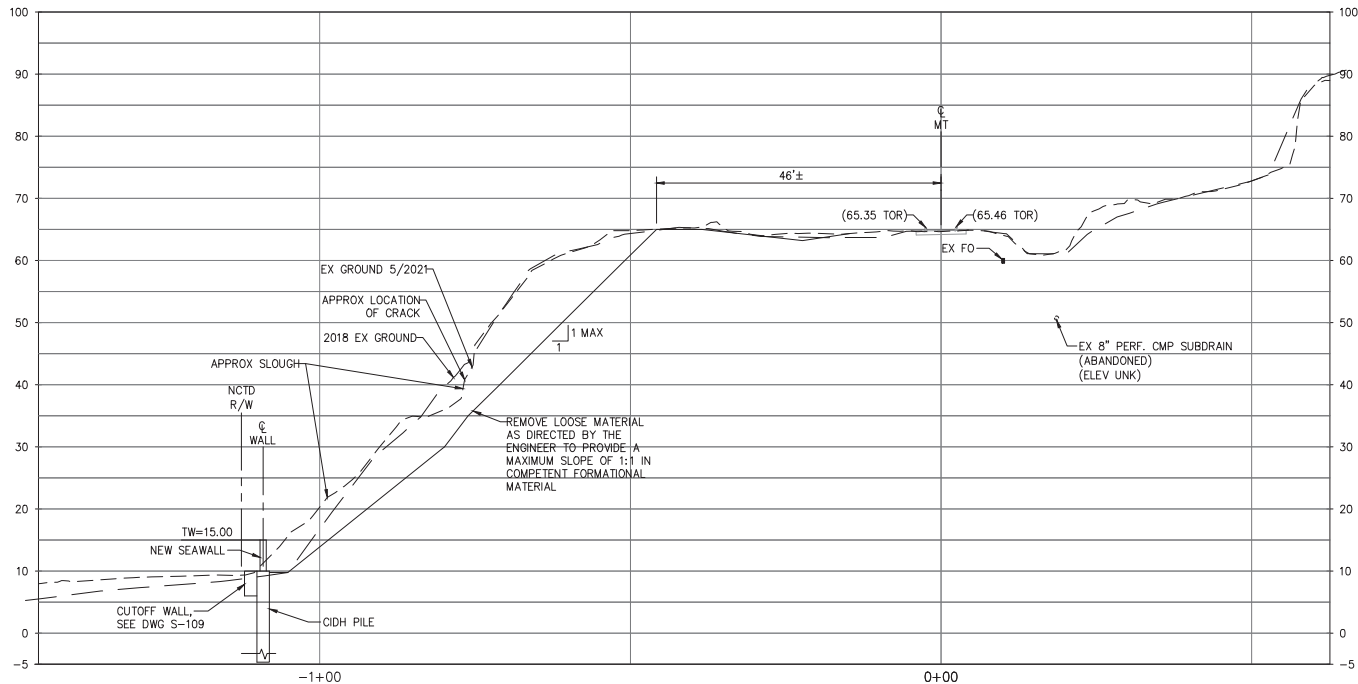


DEL MAR BLUFFS STABILIZATION PROJECT 4

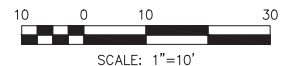
**BUTTRESS FILL
SECTION C-C**

SCALE AS SHOWN
SANDAG CONTRACT NO. CIP1146100
DRAWING NO. CG-113
SHEET NO.

FOR REDUCED PLANS ORIGINAL
SCALE IS IN INCHES



FAILED SLOPE REMOVAL
SECTION E-E
1492+50
1"=10'



△	5/17/21	GRADING ONLY			
	6/28/21	DCN013 DRAINAGE, SEAWALL & ANDERSON CANYON			
NO.	DATE	REVISIONS	BY	CHK	APRV

HNTB

401 B Street
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DESIGNED BY G. SHAW	DATE 05/21
DRAWN BY M. COOPER	05/21
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SANDAG PM A. DEVAUX	05/21

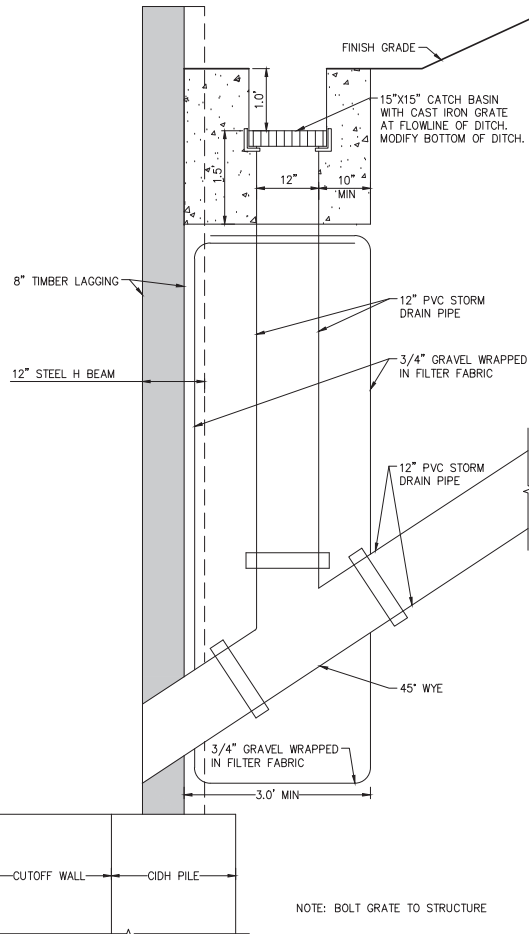


DEL MAR BLUFFS STABILIZATION PROJECT 4

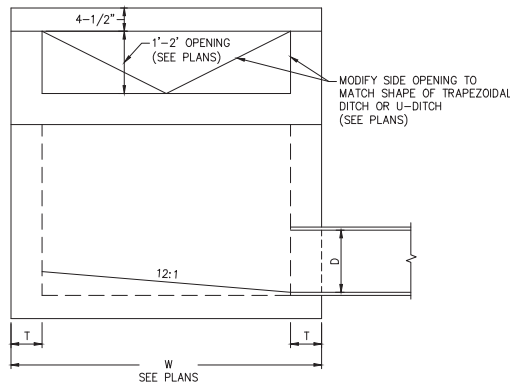
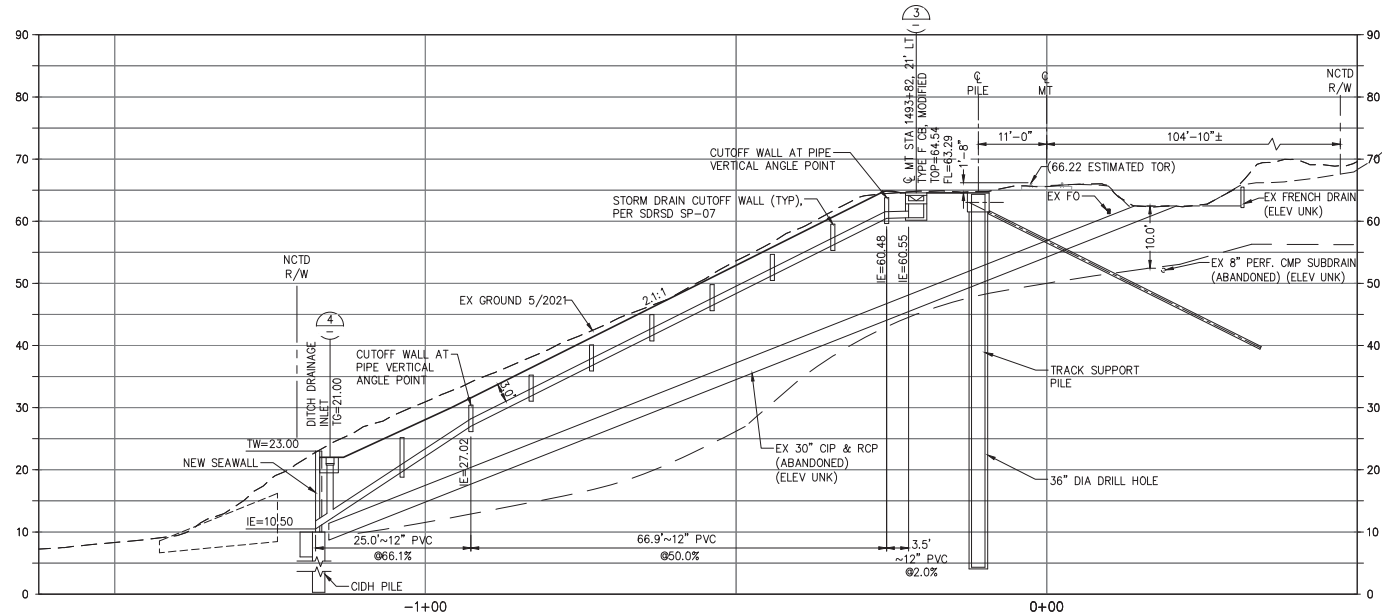
FAILED SLOPE REMOVAL
SECTION E-E

SCALE AS SHOWN
SANDAG CONTRACT NO. CIP1146100
DRAWING NO. CG-114
SHEET NO.

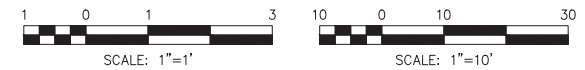
FOR REDUCED PLANS ORIGINAL
SCALE IS IN INCHES



④ DITCH DRAINAGE INLET
1"=1'



③ TYPE F CATCH BASIN, MODIFIED
1"=1'



NO.	DATE	REVISIONS	BY	CHK	APRV
1	5/13/21	DCN 012 - NEW SHEET			
2	6/28/21	DCN013 DRAINAGE, SEAWALL & ANDERSON CANYON			

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401 B Street
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San Diego, CA 92101

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G. SHAW
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P. MCCOLL
SANDAG PM
A. DEVAUX

DATE
05/21
05/21
05/21
05/21



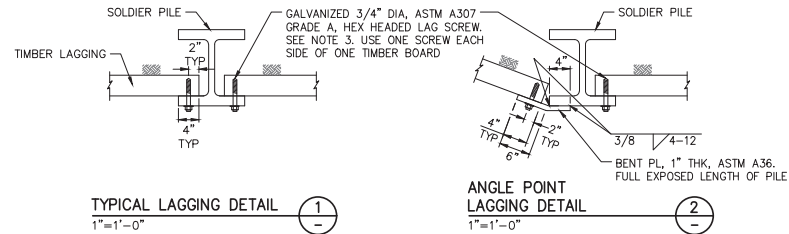
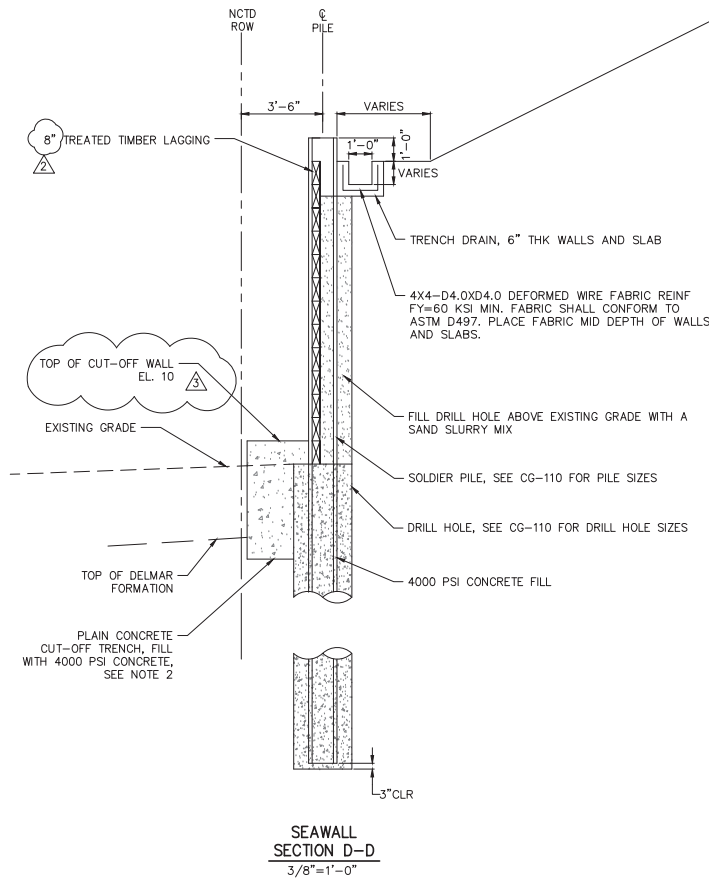
DEL MAR BLUFFS STABILIZATION PROJECT 4

STORM DRAIN PROFILE

SCALE
AS SHOWN
SANDAG CONTRACT NO.
CIP1146100
DRAWING NO.
CG-115
SHEET NO.

FOR REDUCED PLANS ORIGINAL
SCALE IS IN INCHES

0 1 2



NOTES:

- SOLDIER PILES SHALL BE ASTM A995 GR 50. PILES SHALL BE GALVANIZED. ABRASIVE BLAST PILES PRIOR TO GALVANIZING.
- CONCRETE CUT OFF WALL SHALL BE MINIMUM 4'-0" BELOW EXISTING BEACH GRADE AND SHALL PENETRATE A MINIMUM OF 1'-0" INTO THE DELMAR FORMATION. INSTALL TRENCH TO COVER NO MORE THAN THREE PILES AT ANY ONE TIME. DO NOT EXCAVATE ADJACENT TRENCHES IN SEQUENCE. STAGGER TRENCH EXCAVATION. INSTALL TRENCH AFTER PILES ARE INSTALLED.
- HEX LAG SCREW LENGTH SHALL BE SUCH THAT THE SCREW PENETRATES 6" INTO THE TIMBER LAGGING.
- TIMBER LAGGING SHALL BE TREATED TIMBER PER SPECIFICATION SECTION 11-02360 OF CIP 1146100.
- INSTALL TIMBER LAGGING TO EL 9 OR LOWER.

4/16/21 DCN 012 - NEW SHEET

5/04/21 DCN 012 - REVISED

5/05/21 DCN 012 - REVISED

6/28/21 DCN 013 DRAINAGE, SEAWALL & ANDERSON CANYON

NO. DATE REVISIONS BY CHK APRV

HNTB

401 B Street
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M. HARIHARAN
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SANDAG P/M
A. DEVAUX

DATE
05/21
05/21
05/21
05/21

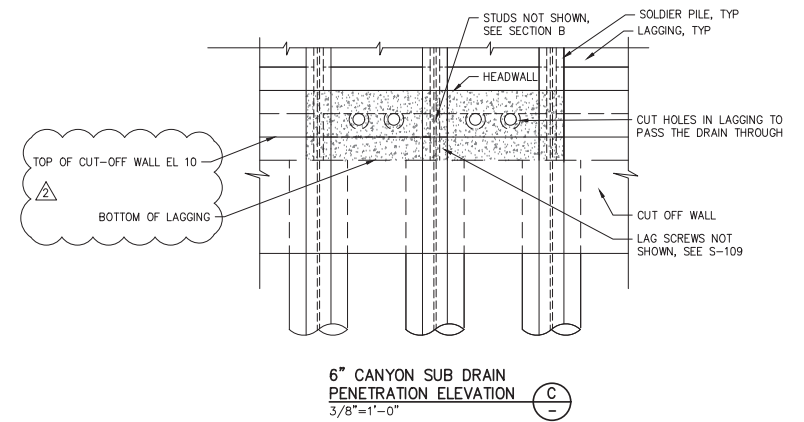
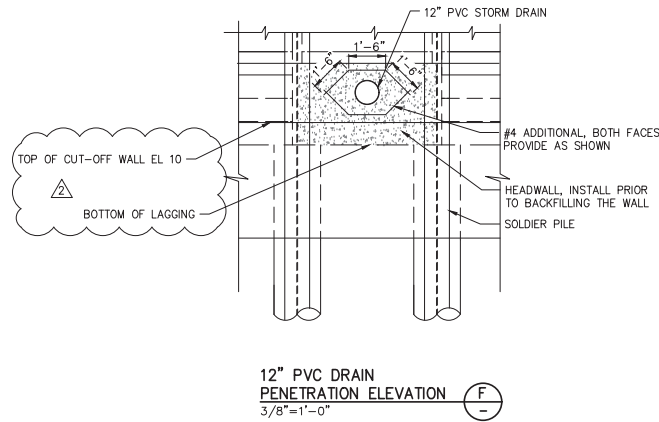
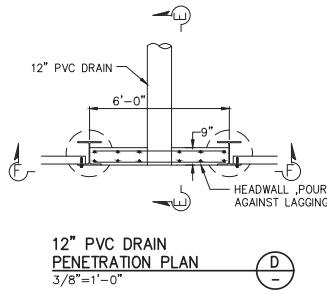
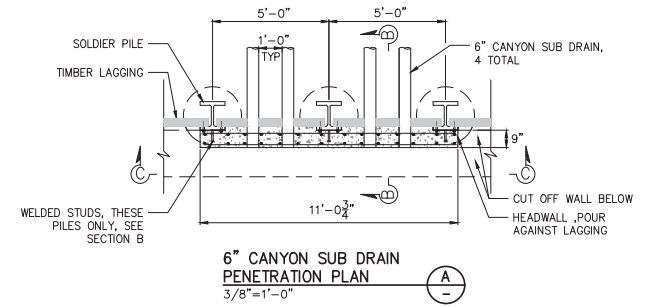
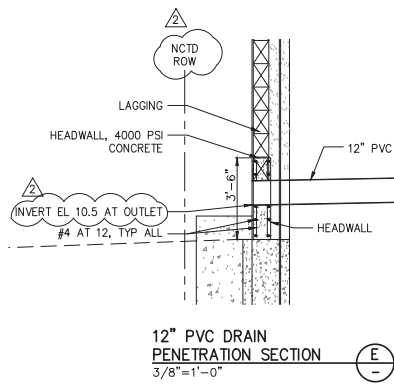
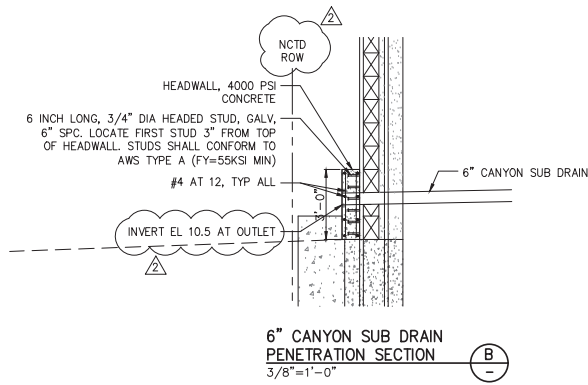


DEL MAR BLUFFS STABILIZATION PROJECT 4

SEAWALL SECTION AND DETAILS
SHEET 1 OF 2

SCALE
AS SHOWN
SANDAG CONTRACT NO.
CIP1146100
DRAWING NO.
S-109
SHEET NO.

FOR REDUCED PLANS ORIGINAL
SCALE IS IN INCHES



NOTES:

1. CLEAR COVER TO REINF IN THE CUT OFF WALL SHALL BE 2" MIN.
2. REINF BAR AT DRAIN PENETRATIONS SHALL HAVE A MIN CLEAR COVER OF 2 INCH.

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4/22/21	DCN 012 - NEW SHEET			
5/05/21	DCN 012 - NEW SHEET			
6/28/21	DCN 013 DRAINAGE, SEAWALL & ANDERSON CANYON			
NO.	DATE	REVISIONS	BY	CHK

HNTB

401 B Street
Suite 301
San Diego, CA 92101

DESIGNED BY M. HARIHARAN	DATE 05/21
DRAWN BY M. COOPER	05/21
CHECKED BY P. MCCOLL	05/21
SANDAG PM A. DEVAUX	05/21



DEL MAR BLUFFS STABILIZATION PROJECT 4

SEAWALL SECTIONS AND DETAILS
SHEET 2 OF 2

SCALE AS SHOWN
SANDAG CONTRACT NO. CIP1146100
DRAWING NO. S-110
SHEET NO.

Drainage Area 1 Improvements



Drainage Area 2 Improvements



Exhibit 7

CC Application No. CC-0005-21

Page 1 of 8

Drainage Area 3 Improvements



Drainage Area 4 Improvements



Exhibit 7

CC Application No. CC-0005-21

Page 2 of 8

Drainage Area 5 Improvements



Drainage Area 6 Improvements



Exhibit 7

CC Application No. CC-0005-21

Page 3 of 8

Drainage Area 7 Improvements



Drainage Area 8 Improvements



Exhibit 7

CC Application No. CC-0005-21

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Drainage Area 9 Improvements



Drainage Area 10 Improvements



Exhibit 7

CC Application No. CC-0005-21

Page 5 of 8

Drainage Area 11 Improvements



Drainage Area 12 Improvements



Exhibit 7

Drainage Area 13 Improvements



Drainage Area 14 Improvements



Exhibit 7

CC Application No. CC-0005-21

Page 7 of 8

Drainage Area 15 Improvements



Exhibit 7

CC Application No. CC-0005-21
Page 8 of 8

- In CDP No. 6-96-156, the Commission authorized the installation of 24 soldier piles at 13th Street, including visual treatment for the top of the exposed piles so that the project would blend in with the surrounding terrain.
- In 1998, approximately \$1.8 million in drainage improvements were constructed within the project limits.
- In CDP No. 6-01-081, the Commission authorized the installation of 12 soldier piles between 7th and 8th Streets, including conditions requiring erosion controls, best management practices, annual reporting, and Executive Director review of staging and construction plans, monitoring and maintenance plans, and the use of materials and colors.
- In 2003, additional surface and subsurface drainage improvements were made within the project limits and a landslide warning system was installed within designated “high priority” areas. These drainage improvements were part of the first Del Mar Bluffs Stabilization Project.
- The Commission concurred with Consistency Certification No. CC-048-04 for SANDAG’s Del Mar Bluffs Stabilization Project 2, including the installation of 1,326-linear-feet of soldier pile walls on the upper bluffs.
- The Commission concurred with Consistency Certification No. CC-020-10 for SANDAG’s Del Mar Bluffs Stabilization Project 3 for the installation of 1,060-linear-feet of soldier pile walls at seven additional priority areas along the upper bluffs.
- The Commission concurred with Consistency Certification No. CC-0004-18 for SANDAG’s Del Mar Bluffs Stabilization Project 4 to repair existing retaining walls, storm drains, flow channels, slope failures, eroded areas, and access pathways. After the Commission concurred with CC-0004-18 SANDAG requested modifications to the project, including: installation of four additional soldier piles on the upper bluff near 12th Street, increasing by three feet the height of the retaining wall at the toe of the bluff below 12th Street, and repairing two additional eroded areas at the top of the bluff near 7th Street. The Commission later concurred with these requested modifications to CC-0004-18.
- The Commission concurred with Consistency Certification No. CC-0001-20 for after-the-fact emergency bluff stabilization measures constructed between November 30, 2019 and December 15, 2019, at milepost (MP) 244.30 and 244.25 (near 13th Street and 15th Street). This work was pursued following a large storm event that caused significant bluff erosion in two locations west of the trackbed. The work at MP 244.30 consisted of removal of loose material from the failed slope area and excavation to a depth where hard material was encountered. Two steel plates were installed behind existing steel H-piles and the eroded area was backfilled with concrete slurry. The repair work at MP 244.25 consisted of excavation down to the stable Del Mar Formation, approximately eight feet below the top of the existing soldier piles. Steel dowels were drilled into the eight soldier piles, steel reinforcement was installed between the piles, and shotcrete was installed to create a lagging wall between the exposed piles. The shotcrete was colored Mesa Bluff and was sculpted by hand to blend in with the surrounding bluff.

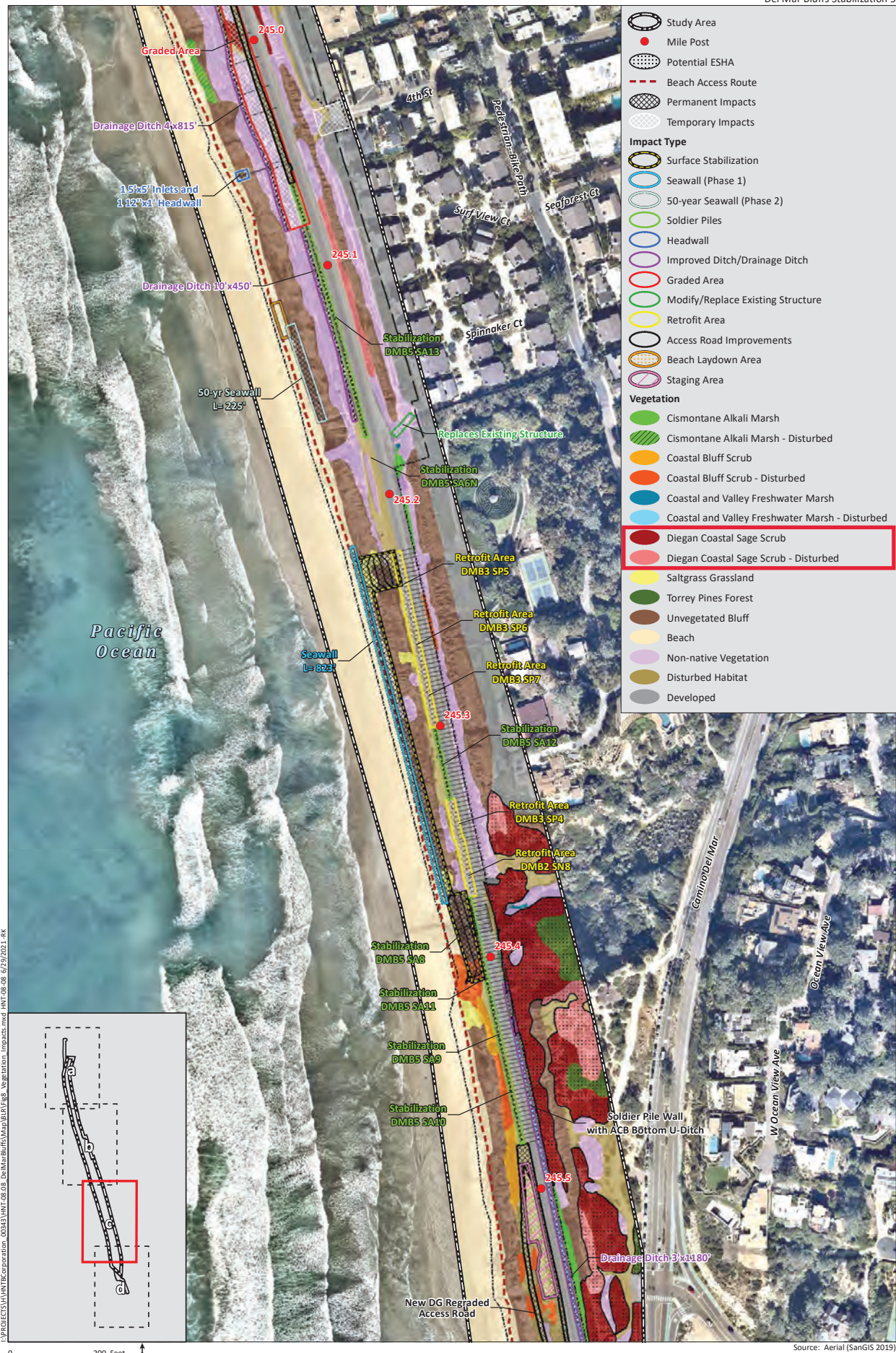


Exhibit 9

CC Application No. CC-0005-21

Page 1 of 2

Vegetation/Impacts

Figure 8c




Exhibit 9

CC Application No. CC-0005-21

Page 2 of 2

Vegetation/Impacts

Figure 8d

Project Number: TBD		Corridor Director: TBD	
RTIP Number: TBD		Project Manager: TBD	
Project Name: Del Mar Bluffs Access Improvements		PM Phone Number: TBD	
Project Scope	Site Location	Progress to Date	
Pedestrian access improvements, which are anticipated to include a lateral (North-South) trail, a railroad crossing and a vertical accessway (East-West) to the beach.		Coastal Connections conceptual planning study is underway. The project will progress once the Coastal Connections conceptual planning study is complete, and all stakeholders agree on the scope of access improvements to be brought forward through all necessary approvals including environmental clearance and CPUC approval.	
Project Limits		Estimated Major Milestones	
On LOSSAN Rail Corridor from Mile Post (MP) 244.1 near Coast Boulevard to MP 246.1 near McGonigle Road.		Draft Environmental Document	Apr-23
		Final Environmental Document	Apr-25
		Ready to Advertise	Apr-26
		Begin Construction	Oct-26
		Open to Public	Oct-27
		Construction Complete	Apr-28

SANDAG Expenditure Plan (\$000)

Budget Phase	Prior Years	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	FY 30	FY 31	Total
Administration	\$0	\$20	\$80	\$90	\$110	\$110	\$80	\$0	\$0	\$0	\$490
Environmental Document	0	60	240	200	0	0	0	0	0	0	500
Design	0	0	0	150	550	150	0	0	0	0	850
Right-of-Way Support	0	0	0	0	25	25	10	0	0	0	60
Right-of-Way Capital	0	0	0	0	25	25	10	0	0	0	60
Construction Support	0	0	0	0	0	1,250	400	0	0	0	1,650
Construction Capital	0	0	0	0	0	3,500	1,050	0	0	0	4,550
Vehicles	0	0	0	0	0	0	0	0	0	0	0
Legal Services	0	0	0	0	0	0	0	0	0	0	0
Communications	0	5	25	25	25	50	25	0	0	0	155
Project Contingency	0	20	20	50	50	150	85	0	0	0	375
Total SANDAG	\$0	\$105	\$365	\$515	\$785	\$5,260	\$1,660	\$0	\$0	\$0	\$8,690

Outside Agency Expenditure Plan (\$000)

Budget Phase	Prior Years	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	FY 30	FY 31	Total
Environmental Document	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Design	0	0	0	0	0	0	0	0	0	0	0
Right-of-Way Support	0	0	0	0	0	0	0	0	0	0	0
Right-of-Way Capital	0	0	0	0	0	0	0	0	0	0	0
Construction Support	0	0	0	0	0	0	0	0	0	0	0
Construction Capital	0	0	0	0	0	0	0	0	0	0	0
Total Outside Agency	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Expenditures	\$0	\$105	\$365	\$515	\$785	\$5,260	\$1,660	\$0	\$0	\$0	\$8,690

Funding Plan (\$000)

Funding Source	Prior Years	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	FY 30	FY 31	Total
Del Mar Bluffs 5 Mitigation Fund	0	105	365	515	785	5,260	1,660	0	0	0	8,690
Total Funding	\$0	\$105	\$365	\$515	\$785	\$5,260	\$1,660	\$0	\$0	\$0	\$8,690

Exhibit 10

CC Application No. CC-0005-21