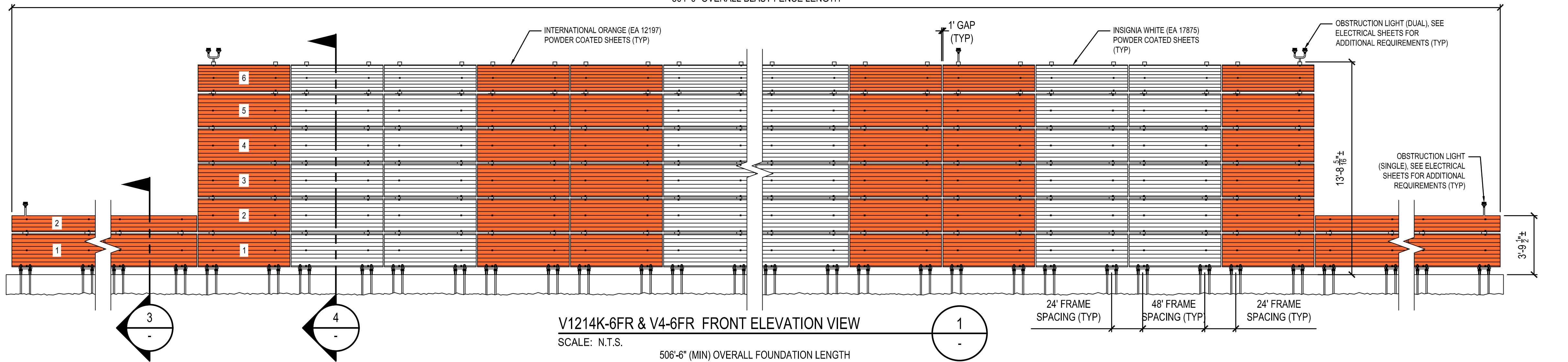
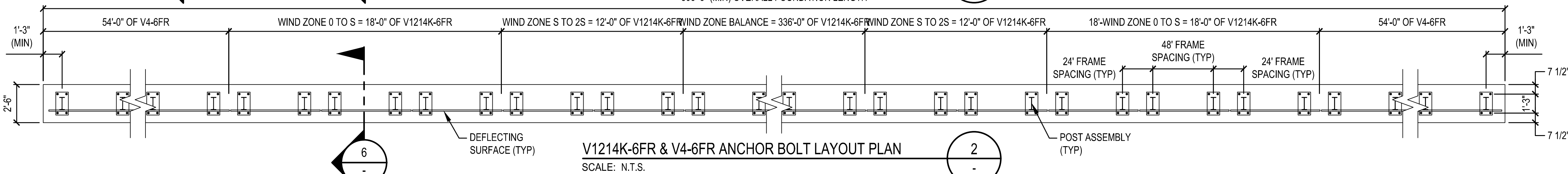


504'-0" OVERALL BLAST FENCE LENGTH



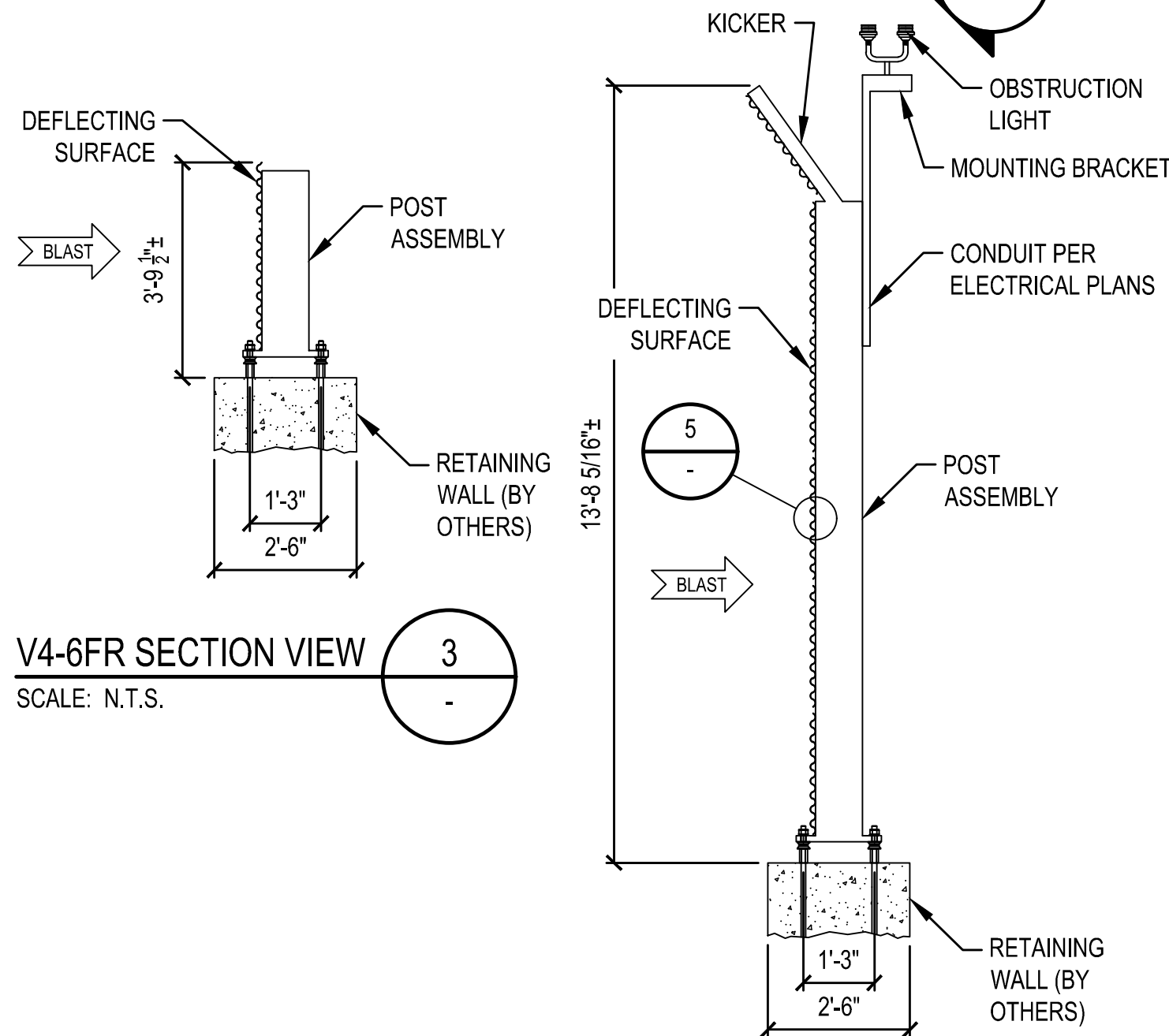
V1214K-6FR & V4-6FR FRONT ELEVATION VIEW

SCALE: N.T.S.



V1214K-6FR & V4-6FR ANCHOR BOLT LAYOUT PLAN

SCALE: N.T.S.

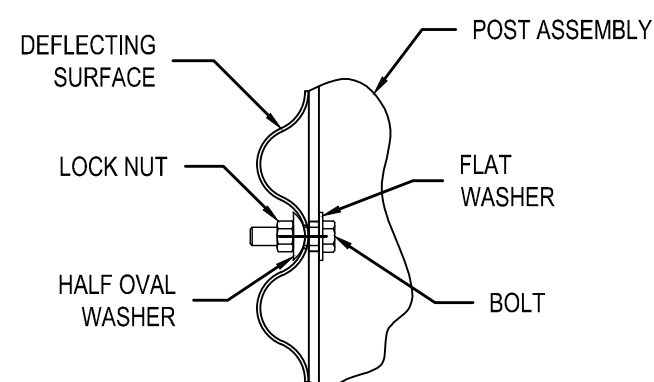


V4-6FR SECTION VIEW

SCALE: N.T.S.

V1214K-6FR SECTION VIEW

SCALE: N.T.S.



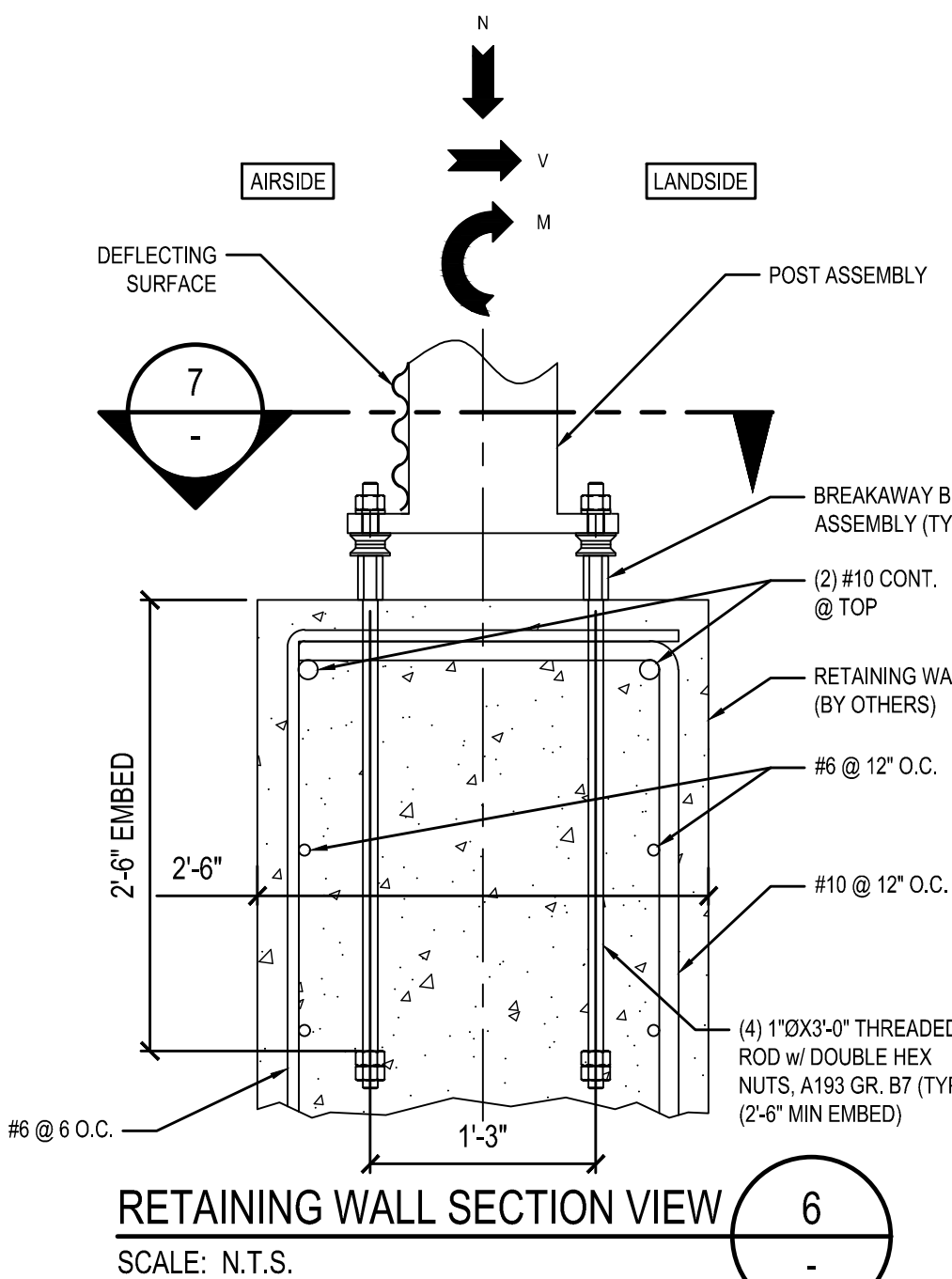
DETAIL

SCALE: N.T.S.

WIND ZONE 0 TO S - LOADS BASED TRIBUTARY WIDTH OF 3'				
LOAD CASE	NATURE	V (KIPS)	N (KIPS)	M (KIP-FT)
TOTAL DEAD LOAD	D	--	↓ 0.4	(CCW) 0.1
140 MPH JET BLAST	L	→ 2.0	↑ 0.3	(CW) 13.2
140 MPH (ULT.) WIND FRONT	W	→ 6.3	↑ 0.8	(CW) 41.6
140 MPH (ULT.) WIND REAR	W	→ 6.3	↓ 0.8	(CCW) 41.6

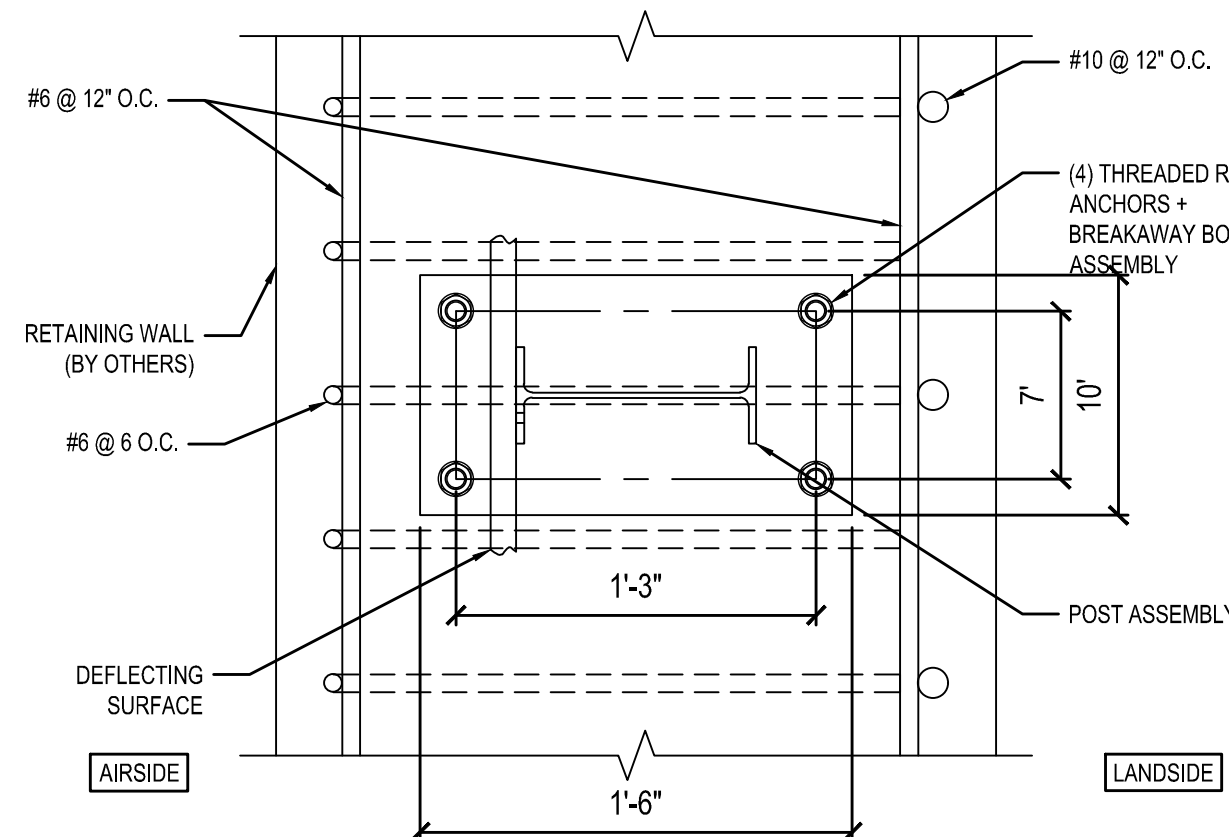
WIND ZONE S TO 2S - LOADS BASED TRIBUTARY WIDTH OF 3'				
LOAD CASE	NATURE	V (KIPS)	N (KIPS)	M (KIP-FT)
TOTAL DEAD LOAD	D	--	↓ 0.4	(CCW) 0.1
140 MPH JET BLAST	L	→ 2.0	↑ 0.3	(CW) 13.2
140 MPH (ULT.) WIND FRONT	W	→ 3.9	↑ 0.5	(CW) 25.8
140 MPH (ULT.) WIND REAR	W	→ 3.9	↓ 0.5	(CCW) 25.8

WIND ZONE BALANCE - LOADS BASED TRIBUTARY WIDTH OF 3'				
LOAD CASE	NATURE	V (KIPS)	N (KIPS)	M (KIP-FT)
TOTAL DEAD LOAD	D	--	↓ 0.3	(CCW) 0.1
140 MPH JET BLAST	L	→ 2.0	↑ 0.3	(CW) 13.2
140 MPH (ULT.) WIND FRONT	W	→ 3.0	↑ 0.4	(CW) 19.8
140 MPH (ULT.) WIND REAR	W	→ 3.0	↓ 0.4	(CCW) 19.8



RETAINING WALL SECTION VIEW

SCALE: N.T.S.



DETAIL

SCALE: N.T.S.

BLAST FENCE NOTES:

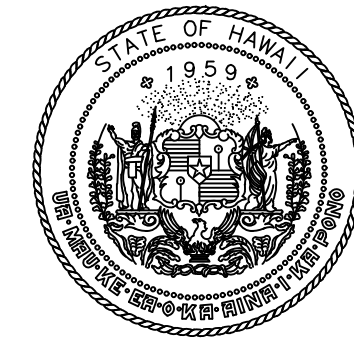
- BLAST FENCE SHALL WITHSTAND HIGH BREAKAWAY & TAKEOFF EXHAUST VELOCITIES OF COMMERCIAL AND MILITARY AIRCRAFT. DESIGN AIRCRAFT IS B777-200 OPERATING AT TAKEOFF POWER WITH TAIL DISTANCE OF 350' TO THE BLAST FENCE DEFLECTING SURFACE. DESIGN LOADS ARE:
140 MPH JET BLAST AT STD. DAY PER FAA GUIDELINES 50 PSF (NOM.)
140 MPH (ULT.) WIND PER HI BUILDING CODE / ASCE 7-16 159 PSF (ULT.) / 94.8 PSF (NOM.) ZONE 0 TO S
98.0 PSF (ULT.) / 58.8 PSF (NOM.) ZONE S TO 2S
75.2 PSF (ULT.) / 45.1 PSF (NOM.) ZONE 2S+
- POST ASSEMBLIES SHALL BE FABRICATED FROM ASTM A992 STEEL & ASTM A36 (SECTIONS), AND ASTM A572 GRADE 50 (BASE PLATE) STEEL. THE ENTIRE ASSEMBLY SHALL BE HOT-DIP GALVANIZED TO 2 OZ/FT² PER ASTM A123. POST ASSEMBLIES SHALL BE POWDER COATED OVER GALVANIZED FINISH.
- DEFLECTING SURFACES SHALL BE CORRUGATED STEEL SHEETS DESIGNED TO SUPPORT LOADS IN A SINGLE-SPAN, CANTILEVERED CONDITION. SHEET THICKNESS SHALL BE 16 GA WITH A MINIMUM 2.10 OZ/FT² (G210) HOT-DIP GALVANIZED FINISH PER ASTM A653. SHEET SECTION MODULUS SHALL BE A MINIMUM OF 0.196 IN⁴/FT. SHEETS SHALL BE POWDER COATED OVER GALVANIZED FINISH.
- ALL FIELD CONNECTIONS SHALL BE BOLTED (NO FIELD WELDING PERMITTED). SHEET FASTENERS SHALL BE ASTM F593 (ALLOY GROUP 2) AND/OR STAINLESS STEEL. ADEQUATE LOCKING PROPERTIES SHALL BE PROVIDED TO PREVENT FASTENERS FROM WORKING LOOSE DURING NORMAL OPERATION (SUBJECT TO MANUFACTURER MAINTENANCE GUIDELINES).
- ALL ANCHORAGE SHALL BE SUPPLIED BY THE BLAST FENCE MANUFACTURER AND SHALL BE CAST-IN-PLACE BY THE GENERAL CONTRACTOR DURING FOUNDATION CONSTRUCTION.
- BLAST FENCE MANUFACTURER ONSITE SUPERVISION IS REQUIRED DURING INSTALLATION FOR PRODUCT GUARANTEE.
- ELECTRICAL, LIGHTING, SECURITY ATTACHMENTS, ETC. (IF REQUIRED) SHALL BE BY OTHERS.

FOUNDATION NOTES:

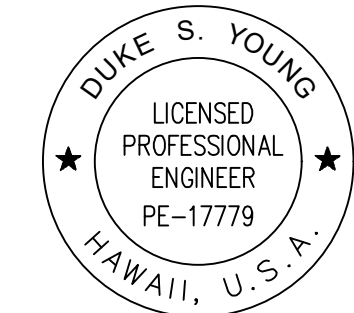
- FINAL FOUNDATION/RETAINING WALL DESIGN AND APPROVALS ARE BY OTHERS AND SHALL BE BASED ON ANCHOR LOADS SHOWN, SITE SOIL CONDITIONS, AND GOVERNING CODES.
- PROJECT DESIGNER (OR OWNERS REPRESENTATIVE) SHALL VERIFY FOUNDATION/RETAINING WALL SUITABILITY AND DESIGN.
- GENERAL CONTRACTOR SHALL VERIFY CORRECT LOCATION AND ELEVATION OF FOUNDATION/RETAINING WALL.
- BLAST FENCE MANUFACTURER SHALL FURNISH ALL ANCHORAGE (TO INCLUDE THREADED ROD, BREAKAWAY BOLT ASSEMBLIES, FLAT WASHERS, AND HEX NUTS).
- GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE PLACEMENT OF EMBEDDED ANCHORAGE DURING FOUNDATION/RETAINING WALL CONSTRUCTION. FINISHED FOUNDATION/RETAINING WALL SURFACE MAY SLOPE UP TO 2.5% TO ACCOMMODATE DRAINAGE OR TO MATCH EXISTING GRADES.
- THE FOLLOWING TOLERANCES SHALL APPLY:
FINISHED FOUNDATION ELEVATIONS ±1/4"
ANCHORAGE PLUMBNESS (OVER PROJ. HEIGHT) ±1/16"
ANCHORAGE LAYOUT (NON-CUMULATIVE) ±1/16" O.C.
FOUNDATION DIMENSIONS ±1/2"
- PORTLAND CEMENT CONCRETE (PCC) DESIGN COMPRESSIVE STRENGTH AND REINFORCEMENT LAYOUT SHALL BE COORDINATED WITH THE BLAST FENCE MANUFACTURER FOR ANCHORAGE DESIGN VERIFICATION. MINIMUM PCC COMPRESSIVE STRENGTH SHALL BE 5000 PSI. REINFORCING STEEL SHALL BE DEFORMED BAR WITH A MINIMUM YIELD STRENGTH OF 60 KSI.
- CONSTRUCTION AND CONTRACTION JOINTS SHALL BE PLACED PER APPROVED DESIGN, BUT NOT WITHIN 12" OF ANY BLAST FENCE ANCHOR LOCATION.
- FOUNDATION CONSTRUCTION, CIVIL WORKS, GROUNDING, AND ELECTRICAL (IF REQUIRED) ARE BY OTHERS.
- APPROVED BLAST FENCE MANUFACTURER:

BLAST DEFLECTORS, INC.
8620 TECHNOLOGY WAY
RENO, NV 89521 USA

TEL: +1 775.856.1928
WEB: WWW.BDI.AERO
EMAIL: CONTACTBDI@BDI.AERO



Airports Division
DEPARTMENT OF TRANSPORTATION
STATE OF HAWAII



Duke Young
DUKE YOUNG, PE
CIVIL ENGINEER

4/30/24
Expiration Date

DSGN.	DRWN.	CHKD.	APPD.
HF	HT	JB	DY

KEY PLAN / NOTES:

NO.	DATE	REVISIONS
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CONSTRUCTION DOCUMENTS

JULY 2022
DATE

PROJECT TITLE :

RELOCATE
RUNWAY 3-21

AT
LIHUE AIRPORT
LIHUE, KAUAI, HAWAII

PROJECT NO.:

AK1031-14

SHEET TITLE:

JET BLAST FENCE
DETAILS

DATE :	DWG. NO.
07/2022	C9.50
SHEET :	
302 OF 376 SHEETS	