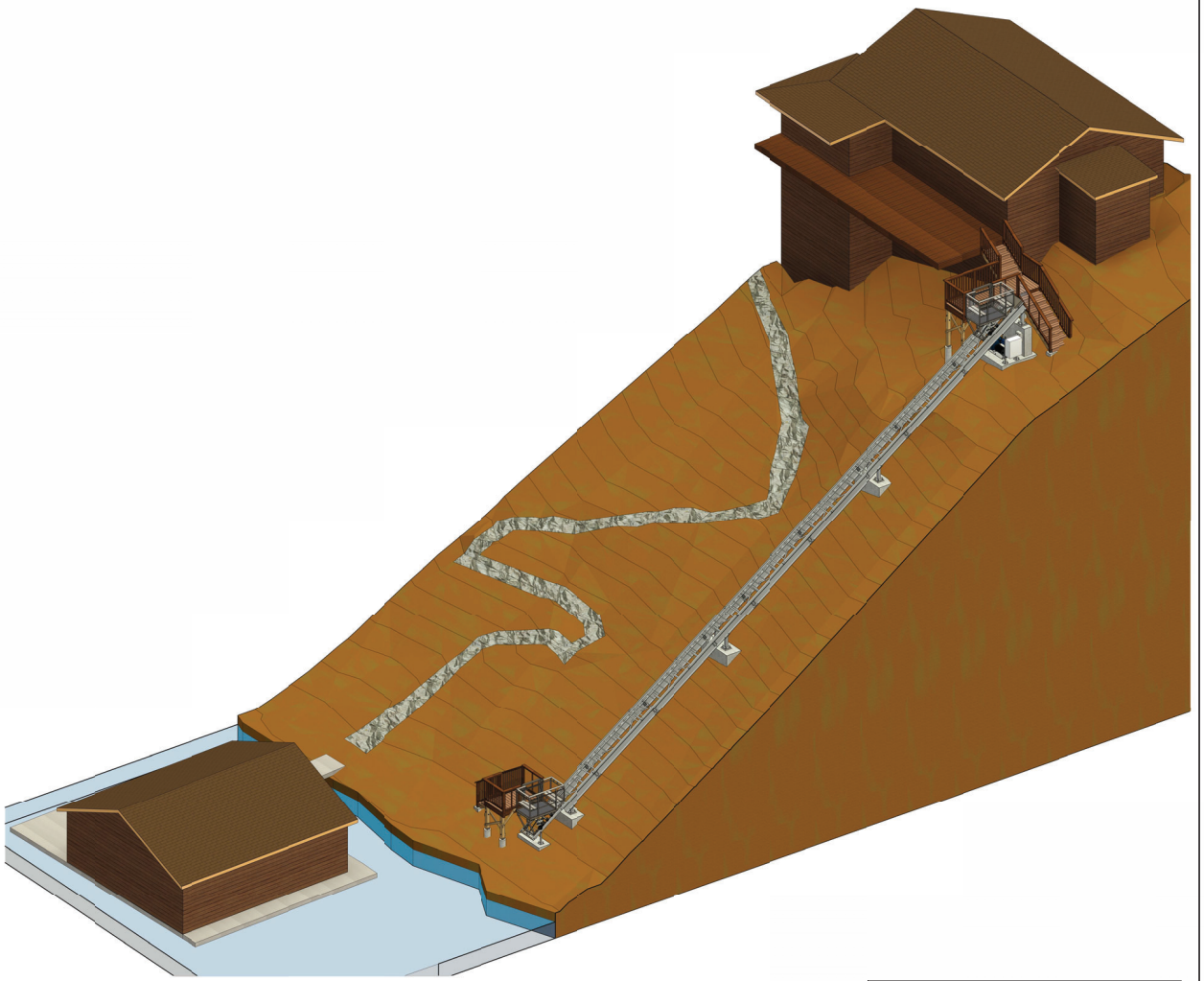
Exhibit A

HILL HIKER
INCLINE ELEVATOR
PLOWSHAY RESIDENCE
GRAND LAKE, CO

HILL HIKER®

HILL HIKER® INCLINED ELEVATOR GENERAL EQUIPMENT SPECIFICATIONS

PROJECT		
HH ID #	2023-27	
NAME	PLOWSHAY	
JOB SITE ADDRESS	1532 GRAND AVE GRAND LAKE, CO 80447	
MATERIAL SPECIFICATIONS		
A. STEEL SHALL CONFORM TO ASTM A240 FY=43,200 PSI		
B. MACHINE BOLTS SHALL BE GRADE 18-8 STAINLESS STEEL		
C. WELDING SHALL USE E71T-11 AWS CLASSIFICATION		
GENERAL INFORMATION		
RATED SPEED	54	FPM APPROX.
ANGLE OF INCLINE	34.5	DEG. APPROX.
TRACK LENGTH	103	FT. APPROX.
LOADS		
CAR/CHASSIS WEIGHT	700	LBS.
RATED LOAD	800	LBS.
DRIVE SYSTEM		
DRIVING MEANS	WINDING DRUM DRIVE	
INPUT POWER	SINGLE PHASE, 220-240V, 60HZ	
MOTOR	5	HP
GEAR-BOX	100:1	RATIO
BRAKE	AC ELECTRO MAGNETIC BRAKE ON MOTOR	
CAR ROPES		
NUMBER OF DRIVE ROPES	1	
RATED BREAKING STRENGTH	14,400	LBS. PER ROPE
TYPE, SIZE & MATERIAL	7 X 19 – 3/8 IN. DIA. GALVANIZED AIRCRAFT CABLE	
MOTOR AREA		
MACHINERY WORKSPACE TYPE	OPEN SPACE	
DISCONNECT IN SIGHT OF MOTOR	YES	
DISCONNECT WITHIN REACH OF PANEL	YES	
CAR		
FRAME MATERIAL	STEEL	
WALL MATERIAL	POLYCARBONATE PANELS (ANSI Z97.1)	
HEIGHT OF CAR	42	IN.
OUTSIDE CAR WIDTH	43	IN.
OUTSIDE CAR LENGTH	71 5/8	IN.
PLATFORM MATERIAL	MARINE GRADE ADA ACCEPTABLE NON-SLIP FIBER-GRATE FLOORING	
ELEVATOR CONTROLLER/CONTROLS		
APPROVALS	UL LISTED / CERTIFIED	
WEATHER RATING	NEMA 4X	
VARIABLE FREQUENCY DRIVE	VARIABLE SPEED AC MOTOR CONTROL WITH SOFT START/SOFT SLOW DOWN	
CALL STATIONS	ON-BOARD CAR AND AT EACH LANDING STATION WITH SECURITY	
SAFETY SYSTEM		
EMERGENCY STOP BUTTONS	TOP, BOTTOM AND ON-BOARD THE CAR	
TRACK SYSTEM	CAPTURED RAIL DESIGN	
SLACK CABLE SYSTEM	AT MOTOR AND ON-BOARD CAR	
OVER-SPEED CENTRIFUGAL GOVERNOR	LOCATED ON CAR	
SPRING BUFFER	LOCATED ON TRACK	
SECURITY	KEYED OR KEYLESS KEY CODE SECURITY	
LIMIT SWITCHES	DECELERATION, DIRECTIONAL & TERMINAL SWITCHES AT TOP & BOTTOM OF HILL	
ELECTRICAL	DISCONNECT WITH LOCK OUT TAG OUT, LOW VOLTAGE SWITCHES AND CONTROLS	
GATES	SHUTOFF SWITCHES ON CAR AND LANDING STATION GATES	



HILL HIKER PROVIDED MATERIALS LIST

ITEM	DESCRIPTION	QUANTITY	PROVIDED BY	INSTALLED BY	NOTES
1	3x4-4 HILL HIKER CAR W/ CHASSIS	1	HH	HH	SEE SHEET S15
2	3'-0" W x 10'-0" L HILL HIKER TOP TRACK SEGMENT	1	HH	HH	
3	3'-0" W x 10'-0" L HILL HIKER TRACK SEGMENT	8	HH	HH	
4	3'-0" W x 7'-0" L HILL HIKER TRACK SEGMENT	1	HH	HH	
5	3'-0" W x 6'-0" L HILL HIKER TRACK SEGMENT	1	HH	HH	
6	DEFLECTION SHEAVE W/ COVER	1	HH	HH	INSTALLED IN TOP TRACK SEGMENT, SEE 8/S13 & 9/S13
7	STOP BAR	1	HH	HH	INSTALLED IN BOTTOM TRACK SEGMENT, DESIGN BY HH
8	HSS2x2 POSTS W/ BASE PLATES & ANCHORAGE	1	HH	HH	
9	3/8" DIA DRIVE CABLE	2	HH	HH	
10	WINDING DRUM DRIVE MACHINE W/ BASE PLATE	1	HH	HH	
11	(6) 5/8" DIA ANCHOR RODS FOR ITEM #10	1	HH	HH	POST-INSTALLED ANCHORS, SEE PLAN 2/S3
12	HILL HIKER CALL STATION	2	HH	HH	(1) @ BOTTOM LANDING & (1) @ TOP LANDING
13	HILL HIKER CONTROL BOX W/ ANCHORAGE	1	HH	HH	DESIGN BY HH
14	HILL HIKER LANDING GATE	2	HH	HH	(1) @ BOTTOM LANDING & (1) @ TOP LANDING, SEE SHEET S14

*NOTE: ALL OTHER ITEMS SHOWN IN THESE DRAWINGS SHALL BE PROVIDED AND INSTALLED BY THE GENERAL CONTRACTOR.

DRAWING INDEX

SHEET	TITLE
CS1	COVER SHEET - HH SPECS & PROVIDED MATERIALS LIST, DRAWING INDEX, & ABBREVIATIONS
S0	STRUCTURAL NOTES
S1	SITE PLAN & OVERALL PLAN
S2	OVERALL ELEVATION
S3	EQUIPMENT PLANS, SECTIONS, & DETAILS
S4	SUPPORT PLANS & SECTIONS
S5	STEEL FRAMING PLAN & CONNECTION DETAILS
S6	TOP LANDING PLANS
S7	TOP LANDING ELEVATIONS
S8	TOP LANDING ELEVATIONS
S9	BOTTOM LANDING PLANS
S10	BOTTOM LANDING ELEVATIONS
S11	BOTTOM LANDING ELEVATIONS
S12	WOOD CONNECTION DETAILS
S13	PIER & LANDING GATE DETAILS
S14	TRACK DETAILS
S15	HILL HIKER CAR

ABBREVIATIONS

ADDL	ADDITIONAL	IF	INSIDE FACE
BAL	BALUSTER	LG	LONG
BOT	BOTTOM	LH	LEFTHAND
BM	BEAM	LOC(S)	LOCATION(S)
CL	CENTERLINE	LSH	LONG SIDE HORIZONTAL
COL	COLUMN	LSV	LONG SIDE VERTICAL
CONC	CONCRETE	MAX	MAXIMUM
CONT	CONTINUOUS	MIN	MINIMUM
CTR	CENTERED	NTS	NOT TO SCALE
DBL	DOUBLE	OC	ON CENTER
DIA	DIAMETER	OF	OUTSIDE FACE
DWLS	DOWELS	OPP	OPPOSITE
EA	EACH	PB	POST BASE
EF	EACH FACE	PL	PROPERTY LINE OR PLATE
EL	ELEVATION	PROJ	PROJECTION
EQ	EQUAL	REQD	REQUIRED
EW	EACH WAY	RH	RIGHTHAND
FDN	FOUNDATION	SIM	SIMILAR
FLR	FLOOR	SPECS	SPECIFICATIONS
FTG	FOOTING	T/	TOP OF
FV	FIELD VERIFY	TM	TRACK MATE
GC	GENERAL CONTRACTOR	TYP	TYPICAL
HH	HILL HIKER	UNO	UNLESS NOTED OTHERWISE
HORIZ	HORIZONTAL REBAR	VERTS	VERTICAL REBAR

VAA, LLC
2300 Berkshire Lane N, Suite 200
Plymouth, MN 55441
763.559.9100
www.vaaeng.com

HILL HIKER®
3565 County Road 6
Orono, MN 55356
952.476.2422
www.hillhiker.com
info@hillhiker.com

PROJECT:
INCLINE ELEVATOR
PLOWSHAY RESIDENCE
1532 GRAND AVE
GRAND LAKE, CO 80447

NO.	DATE	ISSUE/REVISION	BY
A	07/28/23	ISSUED FOR PRELIM REVIEW	DLF
B	07/31/23	ISSUED FOR PRELIM REVIEW	DLF
C	08/02/23	ISSUED FOR PRELIM REVIEW	DLF
D	10/06/23	ISSUED FOR REVIEW	EJE
E	02/05/24	ISSUED FOR REVIEW	EJE
0	05/14/24	ISSUED FOR PERMIT	EJE

COLORADO LICENSED
MARK D. MIELKE
41574
PROFESSIONAL ENGINEER
5.14.24
MARK D. MIELKE, P.E. 41574

DATE:	DESIGNED:
07/28/23	CRG/APF

DRAWN:	CHECKED:	APPROVED:
DLF	APF/KFB	MDM

DRAWING TITLE:
COVER SHEET - HH SPECS & PROVIDED MATERIALS LIST, DRAWING INDEX, & ABBREVIATIONS

PROJECT NO:	DRAWING NO:
230576	CS1
SCALE: AS NOTED	

STRUCTURAL NOTES

1 BUILDING CODE:
1.1 2015 INTERNATIONAL BUILDING CODE (IBC) IN CONJUNCTION WITH ASME17.1-2013/ CSA B44-13 SECTION 5.4 PRIVATE RESIDENCE INCLINED ELEVATORS

2 DESIGN LOADS:
2.1 CAR LOADS:
- DEAD .... 700 LBS
- LIVE .... 800 LBS

2.2 WIND:
- BASIC WIND SPEED, V .... 115 MPH ULTIMATE
- RISK CATEGORY II
- EXPOSURE C

2.3 SEISMIC DATA:
- SITE CLASS .... D
- RISK CATEGORY II
- IMPORTANCE FACTOR, I_e 1.0
- MAPPED SPECTRAL RESPONSE COEFFICIENT, S_S .... 0.222 g
- MAPPED SPECTRAL RESPONSE COEFFICIENT, S_1 .... 0.066 g
- DESIGN SPECTRAL RESPONSE COEFFICIENT, S_{DS} .... 0.237 g
- DESIGN SPECTRAL RESPONSE COEFFICIENT, S_{D1} .... 0.105 g
- SEISMIC DESIGN CATEGORY .... B

3 GENERAL NOTES:
3.1 CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE MEANS AND METHODS OF CONSTRUCTION AND FOR THE SAFETY OF PERSONS AND PROPERTY. CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL SAFETY PRECAUTIONS AND REGULATIONS DURING THE WORK. THE ENGINEER WILL NOT ADVISE ON NOR ISSUE DIRECTION AS TO SAFETY PRECAUTIONS AND PROGRAMS.

3.2 THE STRUCTURAL DRAWINGS HEREIN REPRESENT THE FINISHED STRUCTURE. DURING ERECTION OF THE STRUCTURE, THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR TEMPORARY GUYING, SHORING, BRACING, FORMING, ETC. TO HOLD THE STRUCTURE IN PROPER ALIGNMENT AND TO WITHSTAND ALL LOADS TO WHICH THE STRUCTURE MAY BE SUBJECTED, INCLUDING LATERAL LOADS, TEMPERATURE DIFFERENTIALS, STOCKPILES OF MATERIAL AND EQUIPMENT. SUCH MEASURES SHALL BE LEFT IN PLACE AS LONG AS REQUIRED FOR SAFETY AND UNTIL ALL FRAMING AND CONNECTIONS ARE IN PLACE. THE INVESTIGATION, DESIGN, SAFETY, ADEQUACY AND INSPECTION OF SUCH TEMPORARY MEASURES ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

3.3 DRAWINGS INDICATE GENERAL AND TYPICAL DETAILS OF CONSTRUCTION. WHERE CONDITIONS ARE NOT SPECIFICALLY SHOWN, SIMILAR DETAILS OF CONSTRUCTION SHALL BE USED, SUBJECT TO REVIEW BY THE ENGINEER.

3.4 ARCHITECTURAL DRAWINGS, MECHANICAL DRAWINGS, ELECTRICAL DRAWINGS, TELECOMMUNICATION DRAWINGS, FIRE PROTECTION DRAWINGS, EQUIPMENT DRAWINGS AND RELATED ITEMS ARE BY OTHERS.

3.5 ALL OMISSIONS AND CONFLICTS BETWEEN THE VARIOUS ELEMENTS OF THE CONSTRUCTION DRAWINGS AND/OR SPECIFICATIONS AND/OR EXISTING CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH THE WORK.

3.6 THE CONTRACTOR SHALL COORDINATE ALL DEPRESSIONS, DIMENSIONS, ELEVATIONS, SLEEVES, CHASES, HANGERS, OPENINGS, BLOCK OUTS, INSERTS, ANCHORS, EQUIPMENT SUPPORTS, AND DETAILS WITH THE ENTIRE CONSTRUCTION PACKAGE INCLUDING ARCHITECTURAL DRAWINGS, MECHANICAL DRAWINGS, ELECTRICAL DRAWINGS, TELECOMMUNICATION DRAWINGS, FIRE PROTECTION DRAWINGS AND EQUIPMENT DRAWINGS. FOR CONCRETE AND MASONRY CONSTRUCTION THE INSERTS, EMBEDDED PLATES, ETC. SHALL NOT INTERFERE WITH REINFORCEMENT LOCATIONS.

3.7 ALL MANUFACTURED STRUCTURAL SYSTEMS WHICH ARE COMPOSED OF COMPONENTS TO BE FIELD ERECTED SHALL BE SUPERVISED BY THE SUPPLIER DURING MANUFACTURING, DELIVERY, HANDLING, STORAGE AND ERECTION IN ACCORDANCE WITH THE SUPPLIER'S INSTRUCTIONS AND REQUIREMENTS.

4 FOOTINGS AND SOIL DATA:
4.1 PER GEOTECHNICAL INVESTIGATION REPORT MADE BY HIGH COUNTRY SOIL TESTING, INC., REPORT NO. 4/23/1906, DATED 02/03/23, THE STRUCTURE IS DESIGNED FOR THE FOLLOWING SOIL PROPERTIES:
- MINIMUM ALLOWABLE SOIL BEARING CAPACITY .... 2000 PSF
- LATERAL SOIL PRESSURES .... SEE TABLE BELOW

DESCRIPTION	ACTIVE	AT-REST	PASSIVE
LATERAL SOIL PRESSURE	45 PCF	55 PCF	300 PCF

- COEFFICIENT OF FRICTION 0.3

FOOTINGS SHALL BEAR ON NATURAL UNDISTURBED SOIL OR ON COMPACTED, ENGINEERED FILL. ALL SUBGRADE SHALL BE PREPARED AND COMPACTED ACCORDING TO THE RECOMMENDATIONS PROVIDED IN THE GEOTECHNICAL REPORT.

4.2 ALL TOPSOIL, FILL AND OTHER UNSUITABLE BEARING MATERIAL SHALL BE REMOVED. A GEOTECHNICAL ENGINEER SHALL INSPECT THE EXCAVATED AREA TO ENSURE ALL MATERIALS REQUIRING REMOVAL HAVE BEEN REMOVED AND TO VERIFY THE SOIL BEARING CAPACITY USED FOR DESIGN PRIOR TO CONCRETE PLACEMENT.

4.3 EMBEDMENT DEPTH FROM EXTERIOR GRADE TO BOTTOM OF FOOTING SHALL NOT BE LESS THAN 2'-6". BOTTOM OF FOOTING ELEVATION SHALL BE LOWERED AS REQUIRED TO MEET THIS MINIMUM.

4.4 BACKFILL SHALL BE PLACED AND COMPACTED AGAINST BOTH SIDES OF FOUNDATION WALLS SIMULTANEOUSLY. CONTRACTOR SHALL PROVIDE ADEQUATE BRACING TO SUPPORT AND STABILIZE WALLS UNTIL THE SUPPORTING MEMBERS ARE INSTALLED AND HAVE REACHED SUFFICIENT STRENGTH.

4.5 ALL MAJOR EQUIPMENT SHALL MAINTAIN A SAFE CLEAR DISTANCE FROM BASEMENT AND RETAINING WALLS.

4.6 PRIOR TO COMMENCING ANY FOUNDATION WORK, COORDINATE WITH ALL EXISTING UTILITIES. FOUNDATIONS SHALL BE LOWERED WHERE REQUIRED TO AVOID UTILITIES.

4.7 MUD SLABS, FOOTINGS OR SLABS SHALL NOT BE PLACED ONTO NOR AGAINST SUBGRADE CONTAINING FREE WATER, FROST OR ICE. CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT ANY FROST OR ICE FROM PENETRATING ANY FOOTING OR SLAB SUBGRADE BEFORE AND AFTER PLACING CONCRETE UNTIL SUCH SUBGRADES ARE FULLY PROTECTED BY THE PERMANENT BUILDING STRUCTURE OR PROPER DEPTH OF BURY.

4.8 DO NOT UNDERMINE EXISTING FOUNDATIONS.

4.9 FOOTING ELEVATIONS SHOWN IN DRAWINGS ARE ESTIMATED FROM TOPOGRAPHICAL SURVEY DRAWINGS NOTED ON SHEET S1; FINAL ELEVATION MAY BE LOWERED AS DETERMINED BY TESTING AGENT DURING CONSTRUCTION.

5 REINFORCED CONCRETE:
5.1 DESIGN CODE: BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE (ACI 318), LATEST ADOPTION.

5.2 CONCRETE MIXES SHALL BE DESIGNED PER ACI 301 USING THE FOLLOWING:
- PORTLAND CEMENT CONFORMING TO ASTM C150 OR C595
- AGGREGATE CONFORMING TO ASTM C33.
- ADMIXTURES CONFORMING TO ASTM C494, C1017, AND C260. DO NOT USE CALCIUM CHLORIDE OR ADMIXTURES CONTAINING CALCIUM CHLORIDE.
- CONCRETE SHALL BE READY-MIXED IN ACCORDANCE WITH ASTM C94.

5.3 MATERIAL STRENGTHS:

5.3.1 PROVIDE THE FOLLOWING CONCRETE PROPERTIES:

DESCRIPTION	COMPRESSIVE STRENGTH (f'c) AT 28 DAYS	MAX AGGREGATE SIZE	SLUMP[2]	MAX WATER TO CEMENT RATIOS (W/C)[3]
FOOTINGS	4000 PSI	1 ½"	4" ± 1"	0.57
FOUNDATION WALLS	4000 PSI	¾"	4" ± 1"	0.45
ANY CONCRETE SUBJECT TO FREEZE-THAW CYCLES (5% ENTRAINED AIR[1])	4500 PSI	¾"	4" ± 1"	0.45

[1] TOLERANCE ON AIR CONTENT AS DELIVERED SHALL BE ± 1.5%.

[2] PRIOR TO ADDITION OF PLASTICIZER OR HIGH-RANGE WATER-REDUCER

[3] THESE W/C RATIOS MAY BE LOWER THAN NECESSARY TO PROVIDE THE SPECIFIED STRENGTHS.

5.3.2 REINFORCING STEEL:
- ALL BARS, STIRRUPS AND TIES .... ASTM A615, GR. 60

5.4 PLACEMENT OF CONCRETE AND REINFORCEMENT SHALL BE IN ACCORDANCE WITH ACI AND CRSI STANDARDS.

5.5 CLEAN REINFORCEMENT OF LOOSE RUST, MILL SCALE, EARTH, ICE, AND OTHER FOREIGN MATERIALS THAT REDUCE BOND TO CONCRETE.

5.6 PROVIDE 3/4" CHAMFER AT ALL EXPOSED CORNERS.

5.7 FURNISH THE FOLLOWING CONCRETE COVER ON REINFORCING BARS UNLESS SHOWN OTHERWISE ON DRAWINGS:
- FOOTINGS .... 3" COVER ON BOTTOM AND SIDES
- WALLS .... 2" COVER

5.8 WELDING (INCLUDING TACKING) OF BARS SHALL NOT BE ALLOWED.

5.9 MAINTAIN CONCRETE IN A CONTINUOUSLY DAMP AND WET CONDITION FOR NOT LESS THAN 7 DAYS AFTER PLACING. PROTECT FROM MOISTURE LOSS WITH SHEETING OR SPRAY-ON MEMBRANE MEETING ASTM C309 AND COMPATIBLE WITH FLOOR COVERINGS.

5.10 FINISHING REQUIREMENTS ARE AS FOLLOWS (REFER TO ACI 301):
- SMOOTH RUBBED FINISH ON EXPOSED FORM SURFACES.
- BROOM FINISH ON WALKS, STAIRS AND EXTERIOR CONCRETE PEDESTRIAN PAVING.

5.11 DO NOT FIELD BEND BARS PARTIALLY EMBEDDED IN HARDENED CONCRETE UNLESS SPECIFICALLY INDICATED OR ACCEPTED BY THE ENGINEER.

5.12 PROVIDE CORNER BARS EQUAL IN SIZE AND SPACING TO WALL HORIZONTAL REINFORCEMENT UNLESS OTHERWISE DETAILED.

5.13 COLD WEATHER CONCRETING SHALL FOLLOW PROCEDURES IN ACI 306.

5.14 HOT WEATHER CONCRETING SHALL FOLLOW PROCEDURES IN ACI 305.

5.15 PROVIDE CLASS B LAP SPLICES IN ACCORDANCE WITH ACI 318.

5.16 BAR SUPPORTS AND HOLDING BARS SHALL BE PROVIDED FOR ALL REINFORCING STEEL TO ENSURE COMPLIANCE WITH MINIMUM CONCRETE COVER. BAR SUPPORTS SHALL BE PLASTIC, PLASTIC TIPPED, EPOXY COATED OR STAINLESS STEEL FOR UNCOATED STEEL. BAR SUPPORTS FOR COATED STEEL SHALL BE PLASTIC, PLASTIC COATED OR EPOXY COATED.

5.17 FORMWORK SHALL REMAIN IN PLACE UNTIL CONCRETE HAS ATTAINED A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI, UNLESS OTHERWISE DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL PROVIDE ALL SHORING.

5.18 VERTICAL WALL CONSTRUCTION JOINTS SHALL BE FORMED WITH VERTICAL BULKHEADS AND KEYWAYS. WALL REINFORCING SHALL BE CONTINUOUS THROUGH THE JOINT OR SHALL BE DOWELED WITH AN EQUIVALENT AREA OF REINFORCEMENT UNLESS NOTED OTHERWISE.

5.19 PROVIDE CONTINUOUS WATERSTOPS (BULB TYPE) IN CONSTRUCTION JOINTS, AT BASEMENT AND PIT WALLS, IN JOINTS BETWEEN MONOLITHIC POURS BELOW GRADE, AND IN ALL OTHER WALLS ADJACENT TO BELOW GRADE SLABS.

6 POST-INSTALLED FASTENING:
6.1 POST-INSTALLED SYSTEMS ARE BASED ON THE FOLLOWING (UNLESS NOTED OTHERWISE):

DESCRIPTION	ANCHOR/ADHESIVE[1]	APPLICATIONS
ADHESIVES	SIMPSON AT-XP	CONCRETE (HILL HIKER EQUIPMENT)
	HILTI HIT-HY 200	CONCRETE (ALL OTHER)

[1] SUBSTITUTIONS WILL BE CONSIDERED PROVIDED THE CONTRACTOR SUPPLIES DOCUMENTATION OF EQUAL OR GREATER CAPACITY BASED ON ANCHOR SIZE, EMBEDMENT DEPTH, SPACING AND EDGE DISTANCE.

6.1.1 POST-INSTALLED ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS.

6.2 INSTALLATION REQUIREMENTS FOR ADHESIVE ANCHORS:

6.2.1 HORIZONTAL OR UPWARDLY INCLINED ORIENTATIONS

6.2.1.1 INSTALLATION SHALL BE PERFORMED BY PERSONNEL CERTIFIED IN ACCORDANCE WITH ACI/CRSI ADHESIVE ANCHOR INSTALLER CERTIFICATION PROGRAM.

6.2.1.2 INSTALLATION SHALL BE CONTINUOUSLY INSPECTED DURING INSTALLATION BY AN INSPECTOR SPECIALLY APPROVED BY THE BUILDING OFFICIAL.

6.2.2 ALL OTHER ORIENTATIONS

6.2.2.1 INSTALLATION SHALL BE PERFORMED BY PERSONNEL TRAINED TO INSTALL ADHESIVE ANCHORS. TRAINING SHALL INCLUDE PRODUCT-SPECIFIC TRAINING OFFERED BY THE ADHESIVE MANUFACTURER AND SHALL BE INSPECTED IN ACCORDANCE WITH THE ICC REPORT.

7 STRUCTURAL STEEL:
7.1 DESIGN CODE: SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS (AISC 360), LATEST ADOPTION.

7.2 MATERIAL SPECIFICATIONS (UNLESS NOTED OTHERWISE):
- STRUCTURAL STEEL WIDE FLANGE .... ASTM A992
- OTHER STRUCTURAL STEEL ROLLED SHAPES, PLATES & BARS .... ASTM A36
- HOLLOW STRUCTURAL SECTIONS .... ASTM A500, GR B
- CONNECTION BOLTS .... ASTM F3125 A325 TYPE 1
- THREADED RODS .... ASTM A36
- WELDS (E70XX ELECTRODES) .... AWS D1.1
- NON-SHRINK GROUT (7,000 PSI) .... ASTM C1107, GR. A

7.3 ALL STRUCTURAL STEEL, INCLUDING ANCHOR BOLTS, SHALL BE FABRICATED AND ERECTED ACCORDING TO THE SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS (AISC 360), LATEST ADOPTION AND THE CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES (AISC 303), LATEST ADOPTION. PROVISION 4.4 AND APPENDIX A OF THE AISC CODE OF STANDARD PRACTICE ARE SPECIFICALLY DELETED FROM THE PROJECT CONTRACT DOCUMENTS. THE FABRICATOR SHALL PROVIDE ITS SCHEDULE FOR THE SUBMITTAL OF SHOP AND ERECTION DRAWINGS A MINIMUM OF 14 DAYS PRIOR TO FIRST SUBMITTAL.

7.4 ALL COLUMNS, ANCHOR BOLTS, BASE PLATES, ETC. HAVE BEEN DESIGNED FOR THE FINAL COMPLETED CONDITION AND HAVE NOT BEEN INVESTIGATED FOR POTENTIAL LOADINGS ENCOUNTERED DURING STEEL ERECTION AND CONSTRUCTION. CONFORMANCE TO OR DEVIATION FROM ALLOWABLE CAPACITIES DURING ERECTION IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR (SEE GENERAL NOTES).

7.5 PROVIDE STIFFENERS, THROUGH PLATES, ETC AS REQUIRED TO DEVELOP REACTIONS AT HSS, PIPE AND WIDE-FLANGE CONNECTIONS.

7.6 BEAMS SHALL BE FABRICATED AND ERECTED FOR PLACEMENT WITH THE NATURAL CAMBER UP.

7.7 ALL WELDING SHALL BE PERFORMED IN ACCORDANCE WITH AWS D1.1. UNLESS OTHERWISE NOTED, PROVIDE CONTINUOUS FILLET WELDS PER AISC REQUIREMENTS MEETING MINIMUM THICKNESSES ALLOWED PER THICKNESS OF MATERIAL WELDED. ALL FILLER MATERIAL SHALL HAVE A MINIMUM YIELD STRENGTH OF 58 KSI.

7.8 HOLES IN STEEL SHALL BE DRILLED OR PUNCHED. ALL SLOTTED HOLES SHALL BE PROVIDED WITH SMOOTH EDGES. BURNING OF HOLES AND TORCH CUTTING AT THE SITE ARE NOT PERMITTED.

7.9 STRUCTURAL STEEL SHALL BE GALVANIZED UNLESS NOTED OTHERWISE. DAMAGE DURING TRANSPORTING, ERECTING AND FIELD WELDING PROCESSES SHALL BE REPAIRED TO MATCH THE SHOP APPLIED COATING.

7.10 STRUCTURAL BOLTS SHALL BE GALVANIZED.

8 STAINLESS STEEL:
8.1 DESIGN STANDARD: STANDARD SPECIFICATION FOR THE DESIGN OF COLD-FORMED STAINLESS STEEL STRUCTURAL MEMBERS (ASCE-8), LATEST ADOPTION, AND SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS (AISC) LATEST ADOPTION. AND SPECIFICATIONS FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS (AISC), LATEST ADOPTION.

8.2 MATERIAL SPECIFICATIONS (UNLESS NOTED OTHERWISE PER HILL HIKER, INC. EQUIPMENT SPECIFICATIONS):
- STAINLESS STEEL PLATES, SHEETS AND STRIPS .... ASTM A240, UNS S31603 (F_y = 42,300 KSI)
- STAINLESS STEEL HOLLOW SECTIONS .... ASTM A554, MT-316L
- STAINLESS STEEL STRUCTURAL BOLTS .... ASTM F593 GROUP 1
- STAINLESS STEEL HEAVY HEX NUTS AND WASHERS .... ASTM F594 GROUP 1
- WELDS (E316L-XX ELECTRODES) .... AWS D1.6

8.3 ALL WELDING SHALL COMPLY WITH THE PROVISIONS OF AWS D1.3 AND AWS D1.6 UNLESS NOTED OTHERWISE PER HILL HIKER, INC. EQUIPMENT SPECIFICATIONS. ALL SHOP AND FIELD WELDS SHALL BE PERFORMED BY WELDERS CERTIFIED FOR THE PARTICULAR STAINLESS STEEL WELD TO BE PERFORMED. WELDS SHALL BE PERFORMED USING THE SHIELDED ARC PROCESS UNLESS OTHERWISE NOTED.

8.4 ALL FABRICATION SHALL BE STRAIGHT AND TRUE. CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT FABRICATION PRACTICES WILL NOT CAUSE PERMANENT OUT-OF-TOLERANCE DISTORTION OF THE WORK.

9 WOOD:
9.1 DESIGN CODE: NATIONAL DESIGN SPECIFICATION (NDS) FOR WOOD CONSTRUCTION (AF&PA), LATEST ADOPTION.

9.2 MATERIALS (FOLLOWING INDICATE MINIMUM GRADES UNO ON DRAWINGS):

DESCRIPTION			SPECIES & GRADE		DESIGN VALUES (PSI)						COMMENTS[1]
					Fb	Fv	Fc⊥	Fc‖	Ft	E (x10^6)	
EXTERIOR LANDING FRAMING	Dimensional Lumber (2"-4")	2"-4" WIDE	SOUTHERN PINE	NO. 2	1500	175	565	1650	825	1.6	KICKERS, POSTS AND BALUSTERS
		10" WIDE	SOUTHERN PINE	NO. 2	1050	175	565	1500	575	1.6	JOISTS
		12" WIDE	SOUTHERN PINE	NO. 2	975	175	565	1450	550	1.6	JOISTS
	Timbers (5"x5" and larger)		SOUTHERN PINE	NO. 2	850	165	375	525	550	1.2	COLUMNS
EXTERIOR LANDING DECK			TREX DECKING	-	500	360	540	540	-	0.2	DECKING. COLOR PER OWNER

9.2.1 BUILT UP STUDS, HEADERS, BEAMS, COLUMNS, AND OTHER MEMBERS TO BE CONNECTED PER IBC FASTENING SCHEDULE (UNO ON DRAWINGS)

9.3 ALL NAILS TO BE FULLY DRIVEN WITH HEAD FLUSH TO SURFACE. NEITHER UNDER-DRIVE NOR OVER-DRIVE NAILS UNO.

9.4 ALL LUMBER CONNECTORS TO BE SUPPLIED BY USP OR SIMPSON STRONG-TIE. WHEN USING STEEL LUMBER CONNECTORS FILL ALL NAIL HOLES TO ACHIEVE PUBLISHED VALUE. WHERE MORE STRINGENT, THESE DRAWINGS SUPERSEDE DIRECTIONS IN PRODUCT CATALOG BUT REFER TO PRODUCT CATALOG FOR TYPICAL INSTALLATION INSTRUCTIONS.

10 SUBMITTALS:
10.1 GENERAL SUBMITTAL REQUIREMENTS

10.1.1 CONTRACTOR SHALL REVIEW, STAMP, SIGN AND DATE ALL SUBMITTALS PRIOR TO FORWARDING TO ARCHITECT/ENGINEER. THE ENGINEER'S REVIEW IS FOR CONFORMANCE WITH THE DESIGN CONCEPT AND GENERAL COMPLIANCE WITH THE RELEVANT CONTRACT DOCUMENTS. THE ENGINEER'S REVIEW DOES NOT RELIEVE THE CONTRACTOR OF THE SOLE RESPONSIBILITY TO REVIEW, CHECK AND COORDINATE THE SUBMITTALS THE CONTRACTOR REMAINS SOLELY RESPONSIBLE FOR ERRORS AND OMISSIONS IN THE SUBMITTALS.

10.1.2 SHOP DRAWINGS SHALL BE IN THE FORM OF BLACK-LINE PRINTS OR PORTABLE DOCUMENT FORMAT (PDF) FOR REVIEW. DRAWINGS LISTED BELOW AS "CERTIFIED" SHALL BEAR THE SIGNED AND DATED SEAL OF A PROFESSIONAL ENGINEER REGISTERED IN THE STATE WHERE THE PROJECT IS LOCATED. IN NO CASE SHALL REPRODUCTIONS OF THE CONTRACT DRAWINGS BE USED AS SHOP DRAWINGS. DRAWINGS SHALL SHOW ERECTION PLANS, DIMENSIONS, BRACING AND BRIDGING REQUIREMENTS, DETAILS, SUPPORTED MECHANICAL EQUIPMENT AND PIPING. SUBMITTALS ARE REQUIRED.

10.2 CONCRETE:

10.2.1 CONCRETE MIX DESIGN(S) SHALL BE SUBMITTED TO ENGINEER FOR REVIEW. A SIGNED CERTIFICATION STATING COMPLIANCE WITH ACI 318, CHAPTER 5 SHALL BE SUBMITTED WITH EACH MIX DESIGN.

10.2.2 REINFORCING STEEL SHOP DRAWINGS.

10.3 STRUCTURAL STEEL:

10.3.1 SHOP DRAWINGS

11 SPECIAL INSPECTIONS:
11.1 SPECIAL INSPECTION IS REQUIRED IN ACCORDANCE WITH THE LOCAL BUILDING CODE FOR THE FOLLOWING PORTIONS OF CONSTRUCTION:

11.2 CONCRETE:

11.2.1 REINFORCING STEEL AND PLACEMENT – PERIODIC INSPECTION.

11.2.2 ANCHORS CAST IN CONCRETE – PERIODIC INSPECTION.

11.2.3 VERIFY USE OF REQUIRED DESIGN MIX – PERIODIC INSPECTION.

11.2.4 DURING TAKING OF TEST SPECIMENS, PERFORM SLUMP & AIR CONTENT TESTS, AND DETERMINE CONCRETE TEMPERATURE – CONTINUOUS INSPECTION.

11.2.5 MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES – PERIODIC INSPECTION.

11.2.6 VERIFY IN-SITU CONCRETE STRENGTH, PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS – PERIODIC INSPECTION.

11.2.7 VERIFY FORMWORK SHAPE, LOCATION, AND DIMENSIONS – PERIODIC INSPECTION.

11.3 SEISMIC FORCE-RESISTING SYSTEMS:

11.3.1 STEEL:

11.3.1.1 STRUCTURAL WELDING:
- i. FILLET WELDS 5/16" OR LESS – OBSERVE & PERFORM INSPECTIONS IN ACCORDANCE WITH AISC 341 CHAPTER J.
- ii. PARTIAL PENETRATION WELDS – OBSERVE & PERFORM INSPECTIONS IN ACCORDANCE WITH AISC 341 CHAPTER J.

11.3.1.2 HIGH-STRENGTH BOLTING:
- i. GROUP A (A325) BOLTS – OBSERVE & PERFORM INSPECTIONS IN ACCORDANCE WITH AISC 341 CHAPTER J.

11.4 POST-INSTALLED ANCHORS IN HARDENED CONCRETE

11.4.1 INSTALLATION OF ADHESIVE ANCHORS INTO HARDENED CONCRETE – CONTINUOUS OR PERIODIC INSPECTION IN ACCORDANCE WITH THE RESEARCH REPORT FOR THE ANCHOR ISSUED BY AN APPROVED SOURCE.

11.4.2 INSTALLATION OF MECHANICAL ANCHORS INTO HARDENED CONCRETE – CONTINUOUS OR PERIODIC INSPECTION IN ACCORDANCE WITH THE RESEARCH REPORT FOR THE ANCHOR ISSUED BY AN APPROVED SOURCE.

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2300 Berkshire Lane N, Suite 200
Plymouth, MN 55441
763.559.9100
www.vaaeng.com

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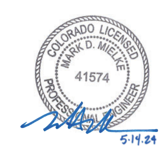
info@hillhiker.com

PROJECT:
INCLINE ELEVATOR
PLOWSHAY RESIDENCE
1532 GRAND AVE
GRAND LAKE, CO 80447

NO.	DATE	ISSUE/REVISION	BY
A	10/06/23	ISSUED FOR REVIEW	EJE
B	02/05/24	ISSUED FOR REVIEW	EJE
0	05/14/24	ISSUED FOR PERMIT	EJE

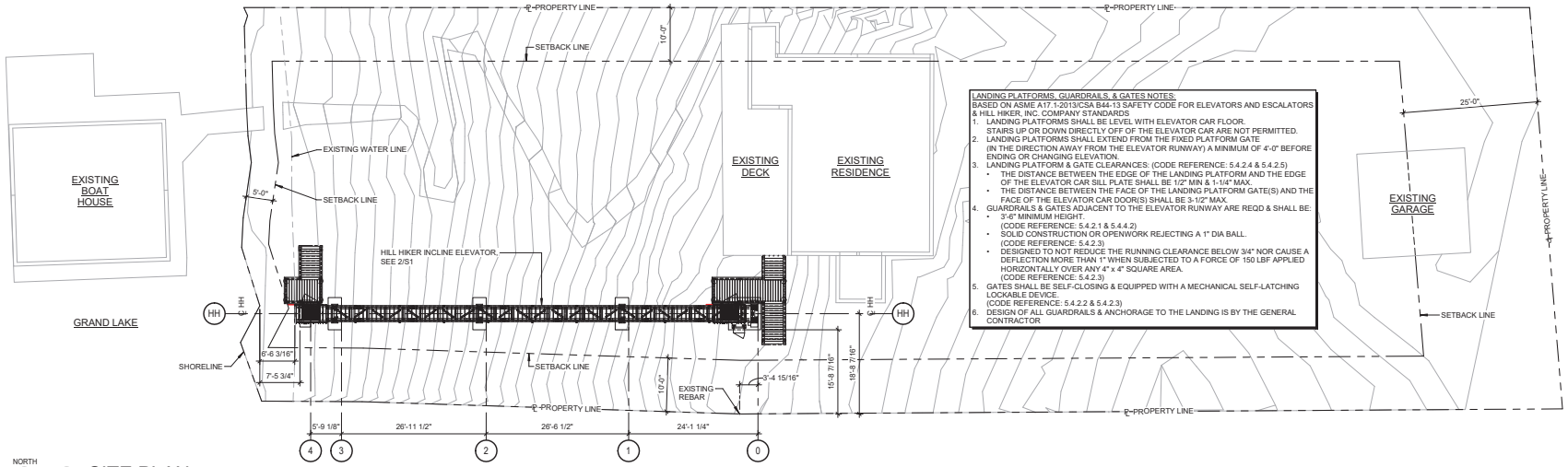


MARK D. MIELKE, P.E. 41574

DATE: 10/06/23 | DESIGNED: CRG/APF
DRAWN: EJE | CHECKED: APF/KFB | APPROVED: MDM

DRAWING TITLE: STRUCTURAL NOTES

PROJECT NO: 230576
SCALE: AS NOTED
DRAWING NO: S0



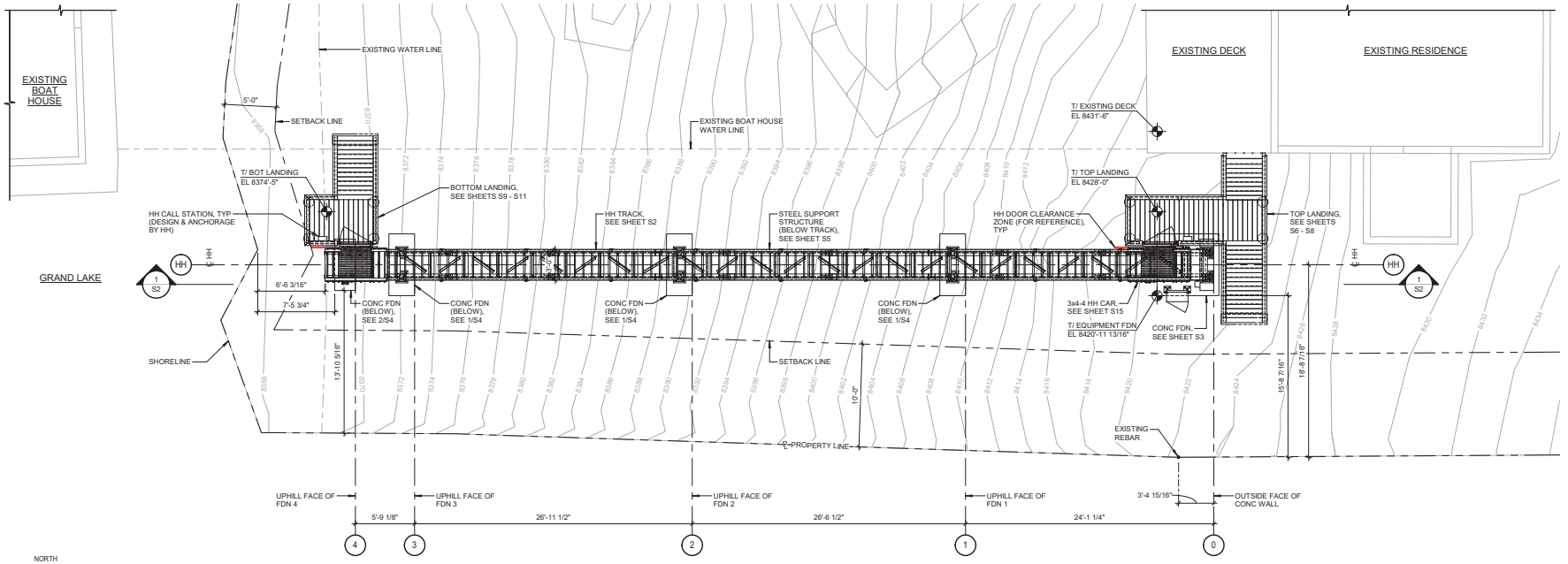
LANDING PLATFORMS, GUARDRAILS, & GATES NOTES:
BASED ON ASME A17.1-2013/CSA B44-13 SAFETY CODE FOR ELEVATORS AND ESCALATORS & HILL HIKER, INC. COMPANY STANDARDS

1. LANDING PLATFORMS SHALL BE LEVEL WITH ELEVATOR CAR FLOOR. STAIRS UP OR DOWN DIRECTLY OFF OF THE ELEVATOR CAR ARE NOT PERMITTED.
2. LANDING PLATFORMS SHALL EXTEND FROM THE FIXED PLATFORM GATE (IN THE DIRECTION AWAY FROM THE ELEVATOR RUNWAY) A MINIMUM OF 4'-0" BEFORE ENDING OR CHANGING ELEVATION.
3. LANDING PLATFORM & GATE CLEARANCES: (CODE REFERENCE: 5.4.2.4 & 5.4.2.5)
   - THE DISTANCE BETWEEN THE EDGE OF THE LANDING PLATFORM AND THE EDGE OF THE ELEVATOR CAR SILL PLATE SHALL BE 1/2" MIN & 1-1/4" MAX.
   - THE DISTANCE BETWEEN THE FACE OF THE LANDING PLATFORM GATE(S) AND THE FACE OF THE ELEVATOR CAR DOOR(S) SHALL BE 3-1/2" MAX.
4. GUARDRAILS & GATES ADJACENT TO THE ELEVATOR RUNWAY ARE REQD & SHALL BE:
   - 3'-6" MINIMUM HEIGHT. (CODE REFERENCE: 5.4.2.1 & 5.4.4.2)
   - SOLID CONSTRUCTION OR OPENWORK REJECTING A 1" DIA BALL. (CODE REFERENCE: 5.4.2.3)
   - DESIGNED TO NOT REDUCE THE RUNNING CLEARANCE BELOW 3/4" NOR CAUSE A DEFLECTION MORE THAN 1" WHEN SUBJECTED TO A FORCE OF 150 LBF APPLIED HORIZONTALLY OVER ANY 4" x 4" SQUARE AREA. (CODE REFERENCE: 5.4.2.3)
5. GATES SHALL BE SELF-CLOSING & EQUIPPED WITH A MECHANICAL SELF-LATCHING LOCKABLE DEVICE. (CODE REFERENCE: 5.4.2.2 & 5.4.2.3)
6. DESIGN OF ALL GUARDRAILS & ANCHORAGE TO THE LANDING IS BY THE GENERAL CONTRACTOR

NORTH

1 / S1 SITE PLAN

3/32" = 1'-0"



NORTH

2 / S1 OVERALL PLAN

3/16" = 1'-0"

NOTES:
1. THERE SHALL BE ONLY ONE CAR ON TRACK AT ANY TIME, OTHER CAR SHOWN FOR REFERENCE
2. IT SHALL BE THE GENERAL CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY & LOCATE GRIDS ON PROJECT SITE
3. ALL EXISTING STRUCTURES & PROPERTY LINES SHOWN THROUGHOUT THESE DRAWINGS ARE BASED ON A1457SUN SURVEY DRAWING PREPARED BY AZIMUTH SURVEY COMPANY, DATED 08-12-21, RECEIVED FROM GEOFFREY ELLIOT ON 06-16-23

VAA, LLC
2300 Berkshire Lane N, Suite 200
Plymouth, MN 55441
763.559.9100
www.vaaeng.com

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C	08/02/23	ISSUED FOR PRELIM REVIEW	DLF
D	10/06/23	ISSUED FOR REVIEW	EJE
E	02/05/24	ISSUED FOR REVIEW	EJE
0	05/14/24	ISSUED FOR PERMIT	EJE

COLORADO LICENSED
MARK D. MIELKE
41574
PROFESSIONAL ENGINEER
5.14.24
MARK D. MIELKE, P.E. 41574

DATE:	DESIGNED:
07/28/23	CRG/APF
DRAWN:	CHECKED:
DLF	APF/KFB
APPROVED:	
MDM	

DRAWING TITLE:
SITE PLAN & OVERALL PLAN

PROJECT NO:	DRAWING NO:
230576	S1
SCALE: AS NOTED	

LANDING PLATFORMS, GUARDRAILS, & GATES NOTES:
BASED ON ASME A17.1-2013/CSA B44-13 SAFETY CODE FOR ELEVATORS AND ESCALATORS & HILL HIKER, INC. COMPANY STANDARDS

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   - THE DISTANCE BETWEEN THE EDGE OF THE LANDING PLATFORM AND THE EDGE OF THE ELEVATOR CAR SILL PLATE SHALL BE 1/2" MIN & 1-1/4" MAX.
   - THE DISTANCE BETWEEN THE FACE OF THE LANDING PLATFORM GATE(S) AND THE FACE OF THE ELEVATOR CAR DOOR(S) SHALL BE 3-1/2" MAX.
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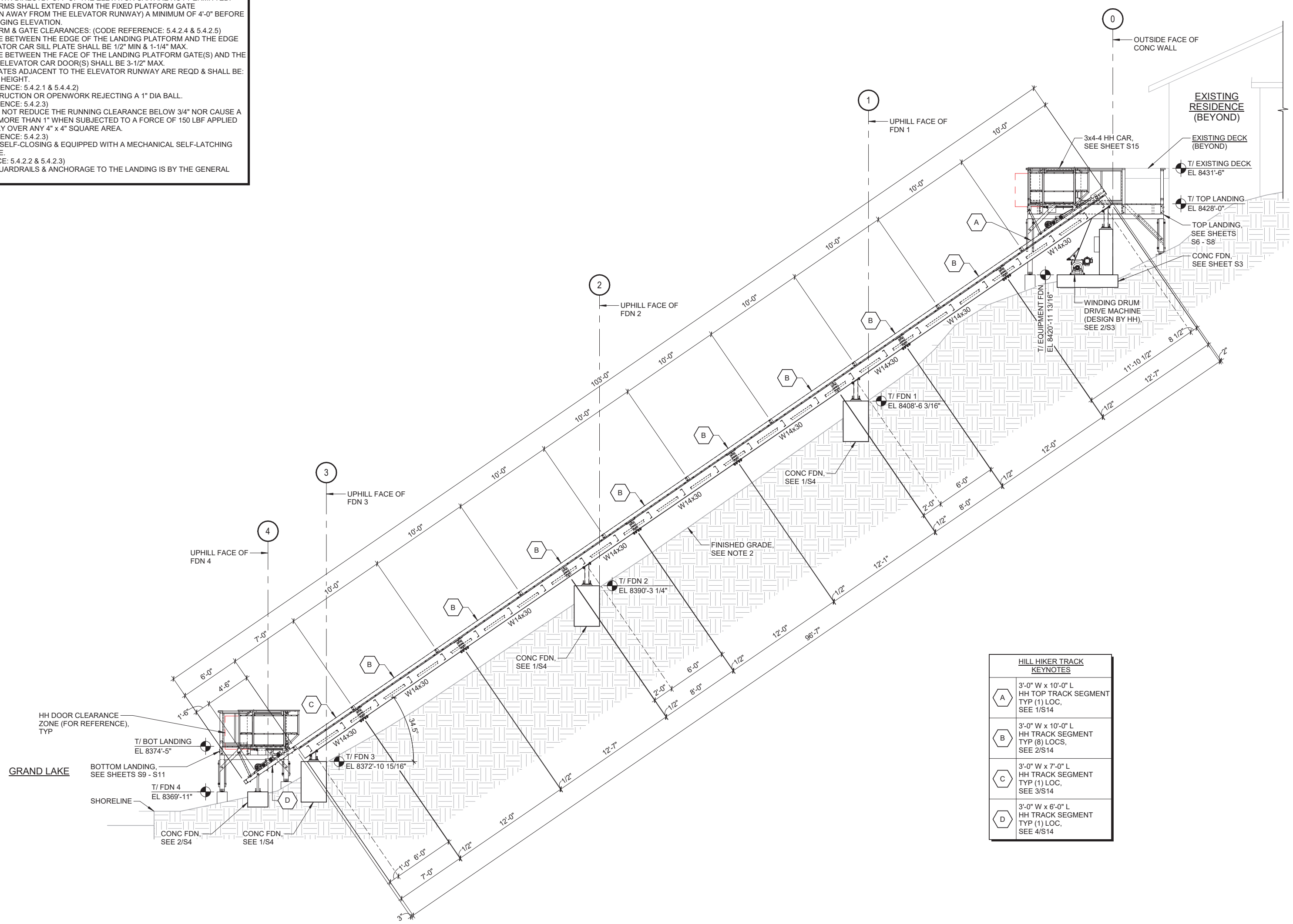
6. DESIGN OF ALL GUARDRAILS & ANCHORAGE TO THE LANDING IS BY THE GENERAL CONTRACTOR



HILL HIKER TRACK KEYNOTES

A	3'-0" W x 10'-0" L HH TOP TRACK SEGMENT TYP (1) LOC, SEE 1/S14
B	3'-0" W x 10'-0" L HH TRACK SEGMENT TYP (8) LOCS, SEE 2/S14
C	3'-0" W x 7'-0" L HH TRACK SEGMENT TYP (1) LOC, SEE 3/S14
D	3'-0" W x 6'-0" L HH TRACK SEGMENT TYP (1) LOC, SEE 4/S14

1/S2 OVERALL ELEVATION (LOOKING NORTHWEST)

3/16" = 1'-0"

NOTES:
1. THERE SHALL BE ONLY ONE CAR ON TRACK AT ANY TIME, OTHER CAR SHOWN FOR REFERENCE
2. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR FINISHED GRADE REQUIREMENTS IN ACCORDANCE WITH THE GEOTECHNICAL ENGINEER'S RECOMMENDATIONS
3. TOP LANDING STAIRS NOT SHOWN FOR CLARITY

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Plymouth, MN 55441
763.559.9100
www.vaaeng.com

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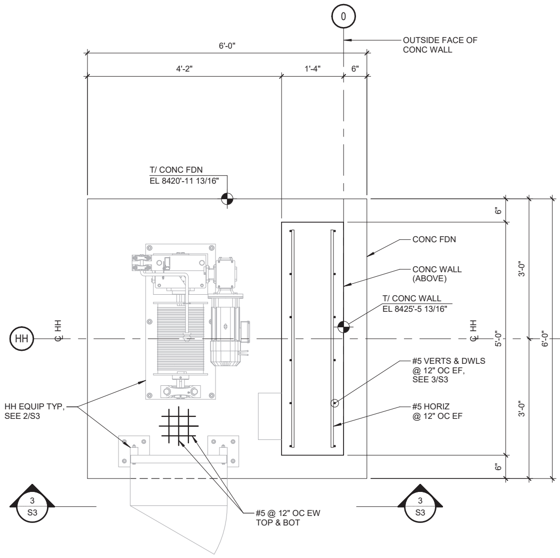
COLORADO LICENSED MARK D. MIELKE 41574 PROFESSIONAL ENGINEER
5.14.24
MARK D. MIELKE, P.E. 41574

DATE: 07/28/23	DESIGNED: CRG/APF	
DRAWN: DLF/EJE	CHECKED: APF/KFB	APPROVED: MDM

DRAWING TITLE:
OVERALL ELEVATION

PROJECT NO: 230576	DRAWING NO: S2
SCALE: AS NOTED	



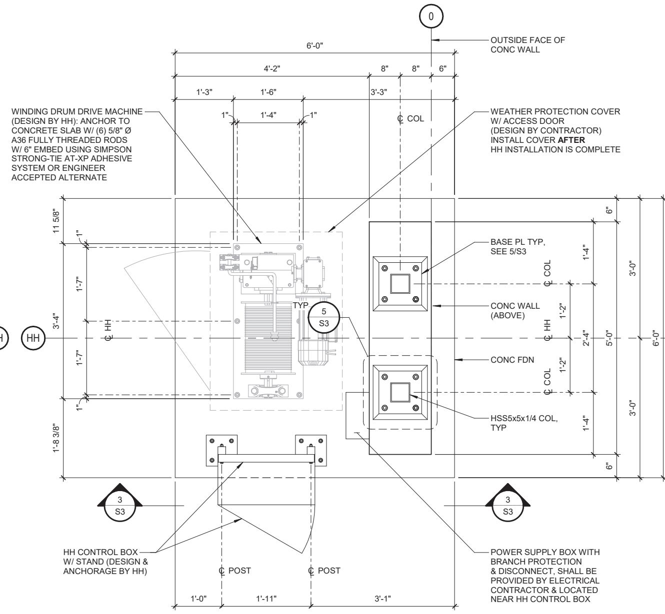
NORTH

1 S3 EQUIPMENT FDN REINF PLAN

3/4" = 1'-0"

NOTES:

1. HH TRACK/CAR & STEEL SUPPORT STRUCTURE NOT SHOWN FOR CLARITY
2. CONTRACTOR SHALL SLOPE TOP OF FDN DOWN TO SOUTHWEST (MIN 1/8" PER 1'-0")


0
OUTSIDE FACE OF CONC WALL
6'-0"
4'-2"
1'-3"
1'-6"
3'-3"
1'-4"
WINDING DRUM DRIVE MACHINE (DESIGN BY HH): ANCHOR TO CONCRETE SLAB W/ (6) 5/8" Ø A36 FULLY THREADED RODS W/ 6" EMBED USING SIMPSON STRONG-TIE AT-XP ADHESIVE SYSTEM OR ENGINEER ACCEPTED ALTERNATE
WEATHER PROTECTION COVER W/ ACCESS DOOR (DESIGN BY CONTRACTOR) INSTALL COVER AFTER HH INSTALLATION IS COMPLETE
℄ COL
BASE PL TYP, SEE 5/S3
CONC WALL (ABOVE)
CONC FDN
HSS5x5x1/4 COL, TYP
TYP
5 S3
HH CONTROL BOX W/ STAND (DESIGN & ANCHORAGE BY HH)
℄ POST
POWER SUPPLY BOX WITH BRANCH PROTECTION & DISCONNECT, SHALL BE PROVIDED BY ELECTRICAL CONTRACTOR & LOCATED NEAR HH CONTROL BOX
1'-0"
1'-11"
3'-1"
11 5/8"
1'-7"
3'-4"
1'-8 3/8"
1'-4"
1'-2"
2'-4"
5'-0"
6'-0"
3'-0"
HH
3 S3

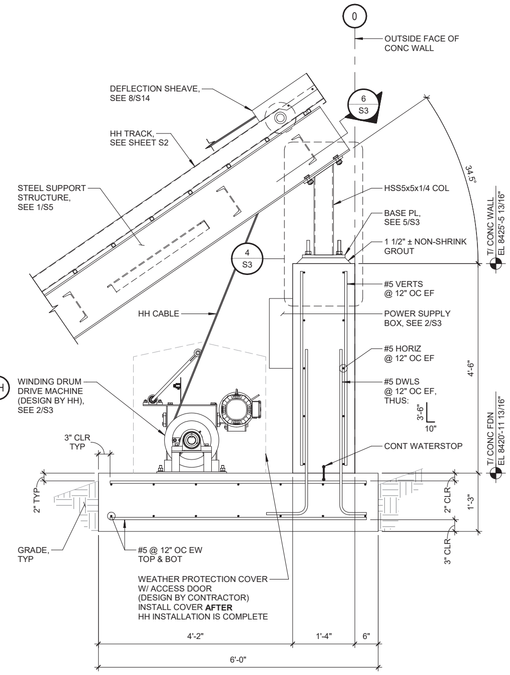
NORTH

2 S3 EQUIPMENT PLAN

3/4" = 1'-0"

NOTES:

1. HH TRACK/CAR & STEEL SUPPORT STRUCTURE NOT SHOWN FOR CLARITY
2. FOR SLAB & WALL REINFORCEMENT, SEE 1/S3 & 3/S3

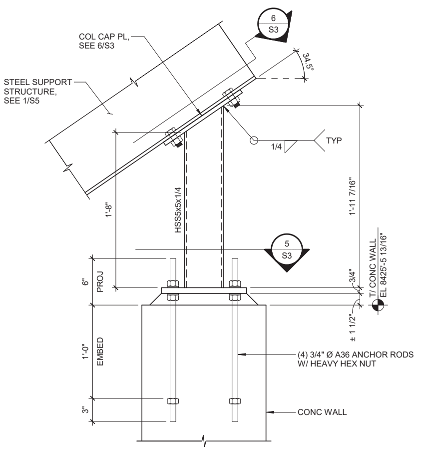

0
OUTSIDE FACE OF CONC WALL
DEFLECTION SHEAVE, SEE 8/S14
HH TRACK, SEE SHEET S2
STEEL SUPPORT STRUCTURE, SEE 1/S5
6 S3
34.5°
HSS5x5x1/4 COL
BASE PL, SEE 5/S3
1 1/2" ± NON-SHRINK GROUT
T/ CONC WALL EL 8425'-5 13/16"
4 S3
HH CABLE
#5 VERTS @ 12" OC EF
POWER SUPPLY BOX, SEE 2/S3
#5 HORIZ @ 12" OC EF
#5 DWLS @ 12" OC EF, THUS:
3'-6"
10"
4'-6"
WINDING DRUM DRIVE MACHINE (DESIGN BY HH), SEE 2/S3
3" CLR TYP
CONT WATERSTOP
T/ CONC FDN EL 8420'-11 13/16"
2" TYP
2" CLR
1'-3"
3" CLR
GRADE, TYP
#5 @ 12" OC EW TOP & BOT
WEATHER PROTECTION COVER W/ ACCESS DOOR (DESIGN BY CONTRACTOR) INSTALL COVER AFTER HH INSTALLATION IS COMPLETE
4'-2"
1'-4"
6"
6'-0"

3 S3 SECTION (LOOKING NORTHWEST)

3/4" = 1'-0"

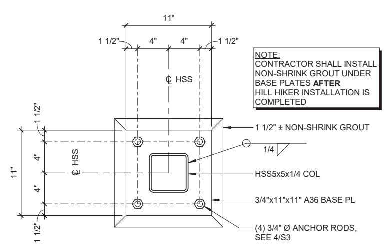
NOTE:

HH CAR & CHASSIS NOT SHOWN FOR CLARITY



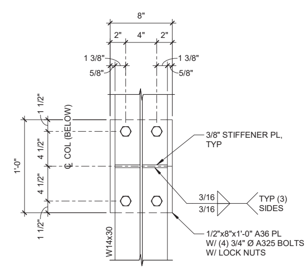
4 S3 SECTION

1 1/2" = 1'-0"



5 S3 BASE PLATE DETAIL

1 1/2" = 1'-0"



6 S3 DETAIL (PLAN)

1 1/2" = 1'-0"

NOTE:

(8) LOCS THUS

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Plymouth, MN 55441
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COLORADO LICENSED PROFESSIONAL ENGINEER MARK D. MIELKE 41574 5.14.24

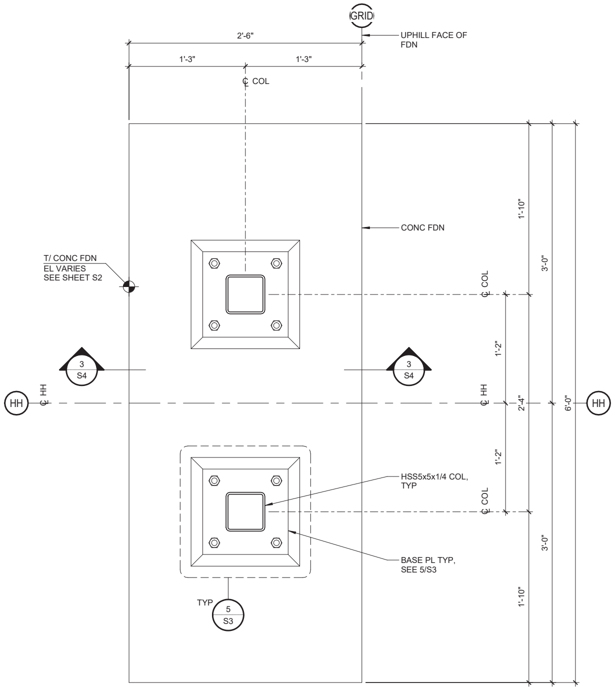
MARK D. MIELKE, P.E. 41574

DATE: 10/06/23	DESIGNED: CRG/APF	
DRAWN: EJE	CHECKED: APF/KFB	APPROVED: MDM

DRAWING TITLE:

EQUIPMENT PLANS, SECTIONS, & DETAILS

PROJECT NO: 230576	DRAWING NO: S3
SCALE: AS NOTED	

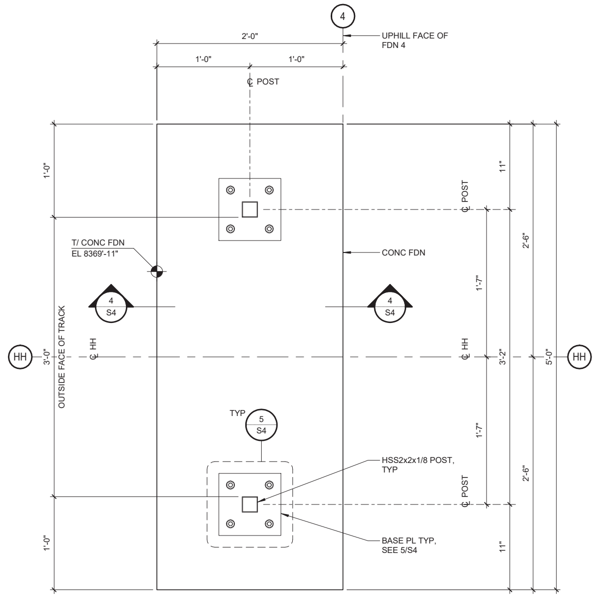


NORTH

1 S4 TYPICAL FDN PLAN

1 1/2" = 1'-0"

NOTES:
1. HH TRACK & STEEL SUPPORT STRUCTURE NOT SHOWN FOR CLARITY
2. (3) LOCS THUS

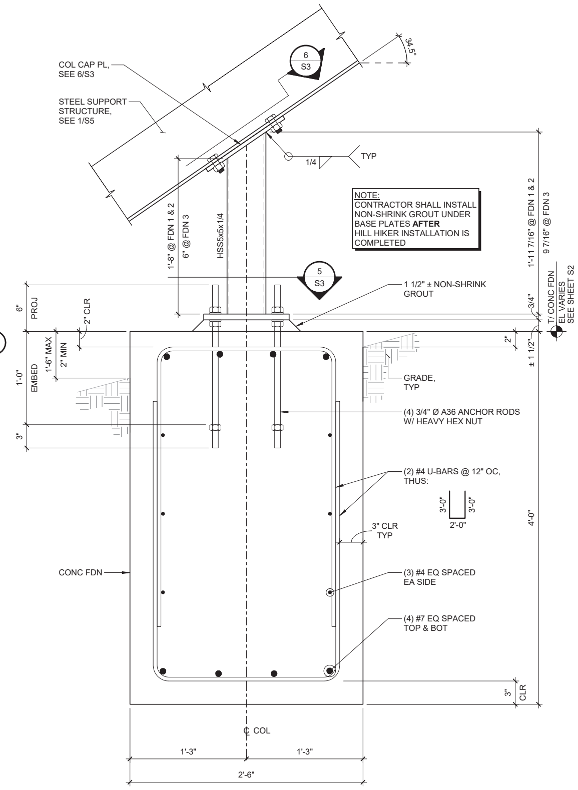


NORTH

2 S4 PLAN @ FDN 4

1 1/2" = 1'-0"

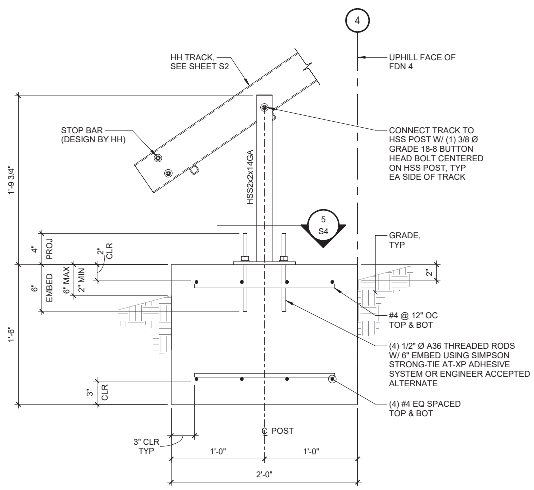
NOTES:
1. HH TRACK & STEEL SUPPORT STRUCTURE NOT SHOWN FOR CLARITY
2. (1) LOC THUS


COL CAP PL, SEE 6/S3
6 S3
34.5°
STEEL SUPPORT STRUCTURE, SEE 1/S5
1/4
TYP
NOTE:
CONTRACTOR SHALL INSTALL NON-SHRINK GROUT UNDER BASE PLATES AFTER HILL HIKER INSTALLATION IS COMPLETED
1'-8" @ FDN 1 & 2
6" @ FDN 3
HSS5x5x1/4
1'-11 7/16" @ FDN 1 & 2
9 7/16" @ FDN 3
5 S3
1 1/2" ± NON-SHRINK GROUT
T/ CONC FDN
EL VARIES
SEE SHEET S2
3/4"
6"
PROJ
2" CLR
1'-6" MAX
2" MIN
EMBED
1'-0"
3"
2"
± 1 1/2"
GRADE, TYP
(4) 3/4" Ø A36 ANCHOR RODS W/ HEAVY HEX NUT
(2) #4 U-BARS @ 12" OC, THUS:
3'-0"
3'-0"
2'-0"
3" CLR TYP
4'-0"
CONC FDN
(3) #4 EQ SPACED EA SIDE
(4) #7 EQ SPACED TOP & BOT
3"
CLR
℄ COL
1'-3"
1'-3"
2'-6"

3 S4 TYPICAL FDN SECTION

1 1/2" = 1'-0"

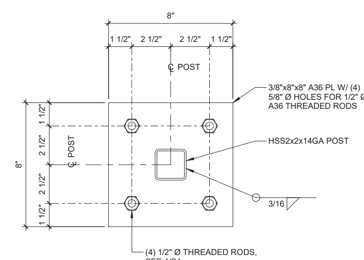
NOTE:
(3) LOCS THUS


4
HH TRACK, SEE SHEET S2
UPHILL FACE OF FDN 4
STOP BAR (DESIGN BY HH)
CONNECT TRACK TO HSS POST W/ (1) 3/8 Ø GRADE 18-8 BUTTON HEAD BOLT CENTERED ON HSS POST, TYP EA SIDE OF TRACK
HSS2x2x14GA
1'-9 3/4"
5 S4
GRADE, TYP
4"
PROJ
2" CLR
6"
EMBED
6" MAX
2" MIN
2"
#4 @ 12" OC TOP & BOT
1'-6"
(4) 1/2" Ø A36 THREADED RODS W/ 6" EMBED USING SIMPSON STRONG-TIE AT-XP ADHESIVE SYSTEM OR ENGINEER ACCEPTED ALTERNATE
3"
CLR
(4) #4 EQ SPACED TOP & BOT
℄ POST
3" CLR TYP
1'-0"
1'-0"
2'-0"

4 S4 SECTION @ FDN 4

1 1/2" = 1'-0"

NOTE:
(1) LOC THUS



5 S4 BASE PLATE DETAIL

3" = 1'-0"

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B	02/05/24	ISSUED FOR REVIEW	EJE
0	05/14/24	ISSUED FOR PERMIT	EJE

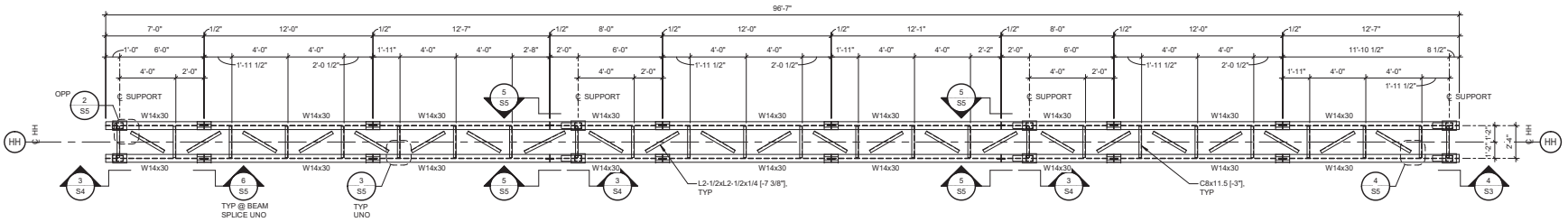
COLORADO LICENSED MARK D. MIELKE 41574 PROFESSIONAL ENGINEER
5-14-24

MARK D. MIELKE, P.E. 41574

DATE: 10/06/23	DESIGNED: CRG/APF	
DRAWN: EJE	CHECKED: APF/KFB	APPROVED: MDM

DRAWING TITLE:
SUPPORT PLANS & SECTIONS

PROJECT NO: 230576	DRAWING NO: S4
SCALE: AS NOTED	

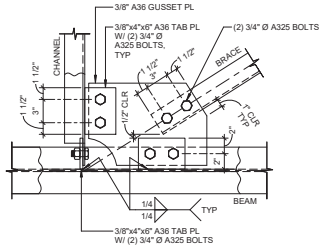


NORTH

1 S5 STEEL FRAMING PLAN

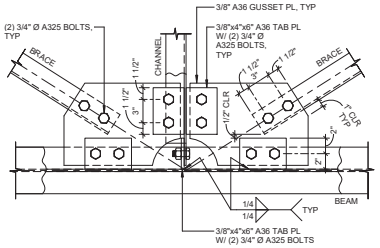
1/4" = 1'-0"

NOTE:
HOLES ON TOP OF WF BEAMS TO BE FIELD DRILLED BY HILL HIKER



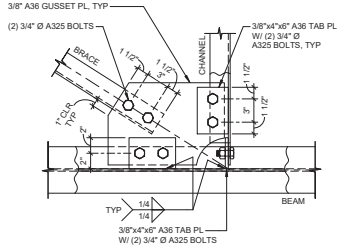
2 S5 BRACING CONN DETAIL

1 1/2" = 1'-0"



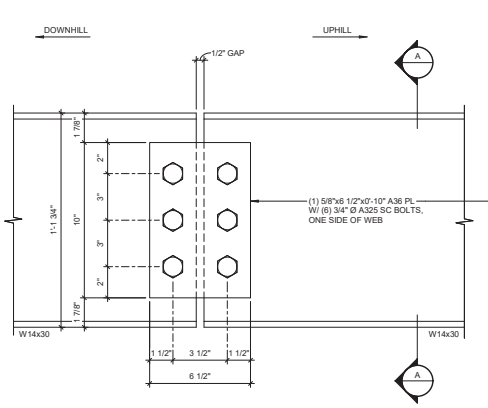
3 S5 BRACING CONNECTION DETAIL

1 1/2" = 1'-0"



4 S5 BRACING CONN DETAIL

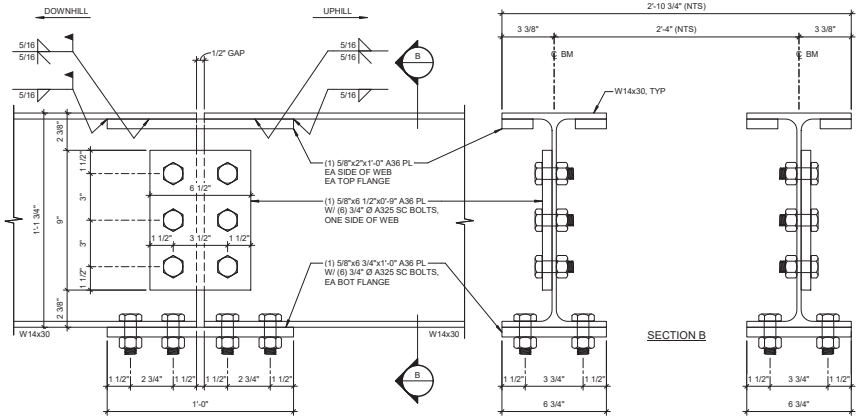
1 1/2" = 1'-0"



5 S5 BEAM SPLICE CONNECTION DETAIL

3" = 1'-0"

NOTES:
1. HH TRACK, CHANNELS, & HORIZ BRACING NOT SHOWN FOR CLARITY
2. (4) LOCS THUS



6 S5 BEAM SPLICE CONNECTION DETAIL

3" = 1'-0"

NOTES:
1. HH TRACK, CHANNELS, & HORIZ BRACING NOT SHOWN FOR CLARITY
2. (12) LOCS THUS

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Plymouth, MN 55441
763.559.9100
www.vaaeng.com

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Orono, MN 55356
952.476.2422
www.hillhiker.com
info@hillhiker.com

PROJECT:
INCLINE ELEVATOR
PLOWSHAY RESIDENCE
1532 GRAND AVE
GRAND LAKE, CO 80447

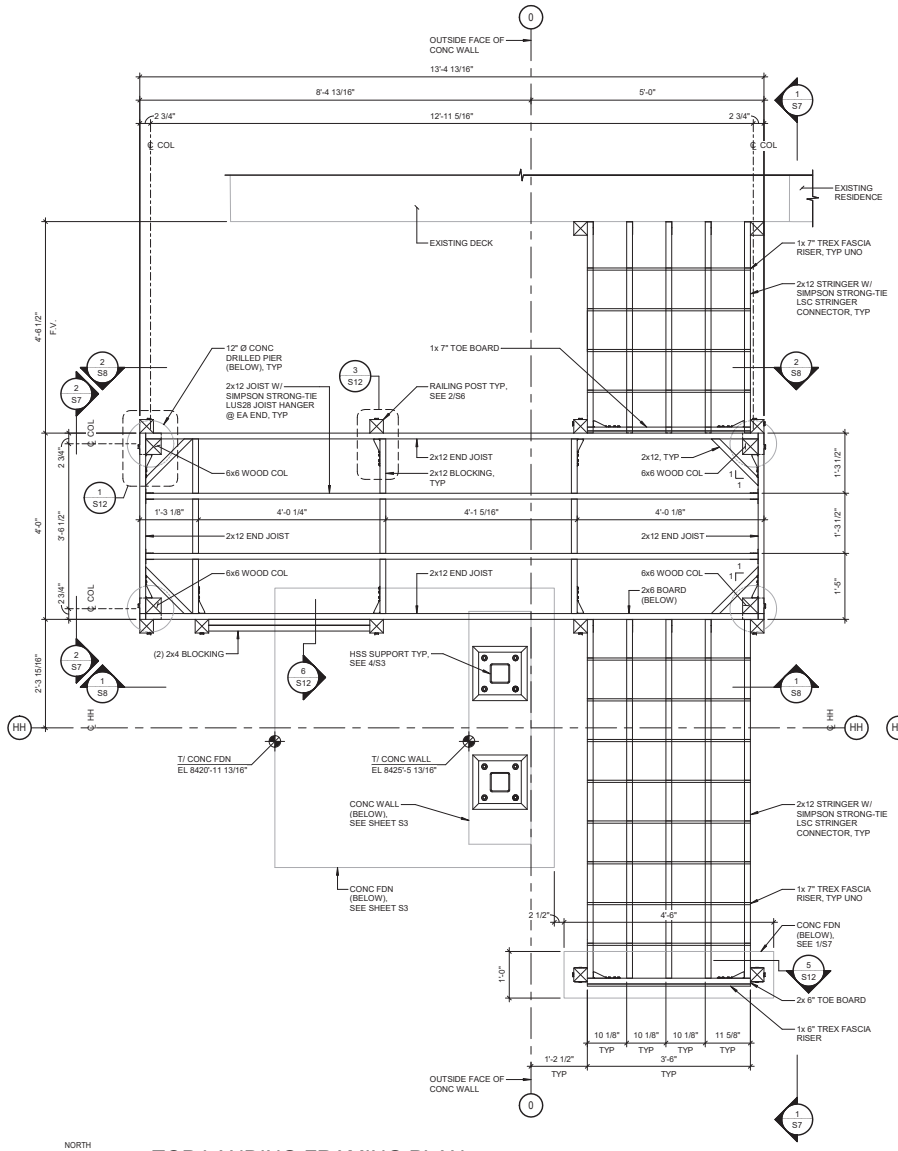
NO.	DATE	ISSUE/REVISION	BY
A	10/06/23	ISSUED FOR REVIEW	EJE
B	02/05/24	ISSUED FOR REVIEW	EJE
0	05/14/24	ISSUED FOR PERMIT	EJE

COLORADO LICENSED
MARK D. MIELKE
41574
PROFESSIONAL ENGINEER
5.14.24
MARK D. MIELKE, P.E. 41574

DATE:	DESIGNED:
10/06/23	CRG/APF
DRAWN:	CHECKED:
EJE	APF/KFB
APPROVED:	
MDM	

DRAWING TITLE:
STEEL FRAMING PLAN & CONNECTION DETAILS

PROJECT NO:	DRAWING NO:
230576	S5
SCALE: AS NOTED	

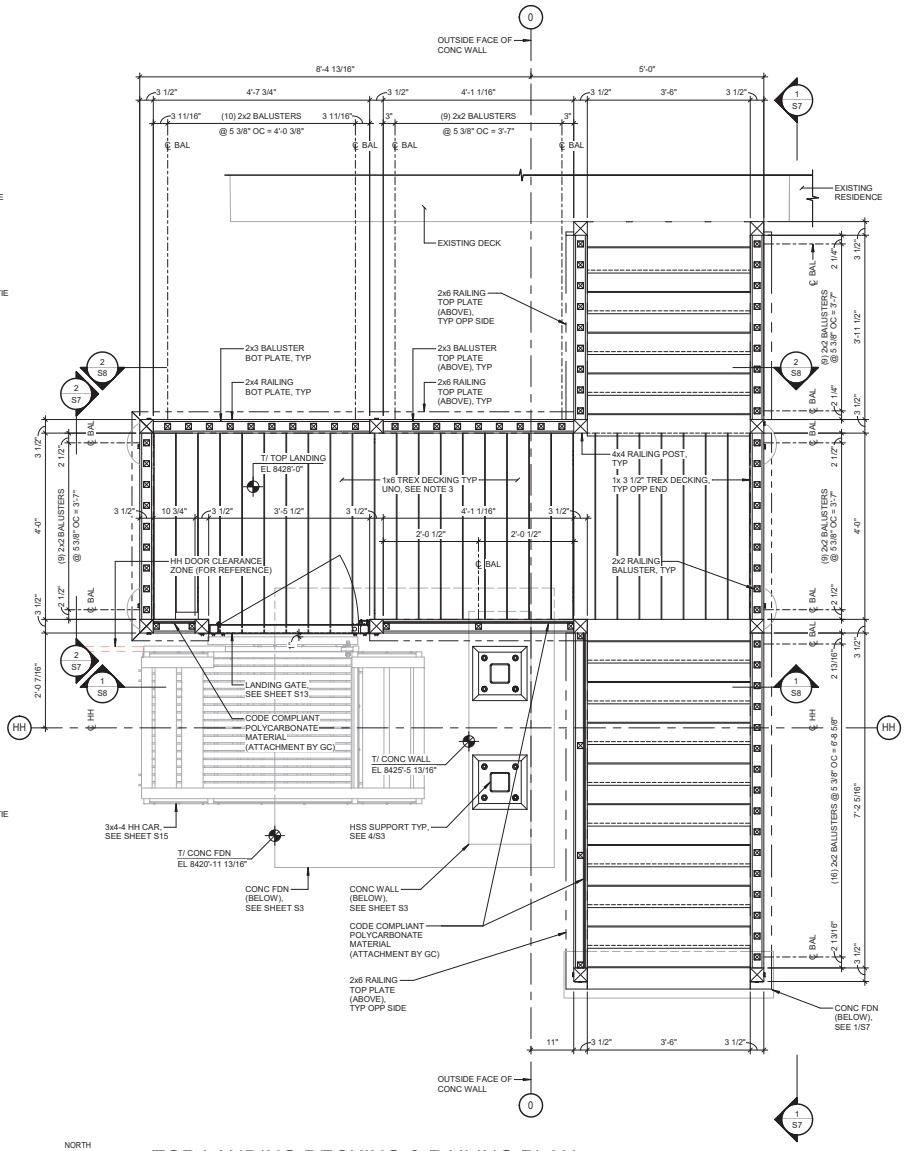


NORTH

S6/1 — TOP LANDING FRAMING PLAN

3/4" = 1'-0"

NOTES:
1. HH TRACK/CAR & HILL HIKER EQUIPMENT NOT SHOWN FOR CLARITY
2. FOR FASTENING SCHEDULE, SEE 11/S12



NORTH

S6/2 — TOP LANDING DECKING & RAILING PLAN

3/4" = 1'-0"

NOTES:
1. HH TRACK & HILL HIKER EQUIPMENT NOT SHOWN FOR CLARITY
2. FOR FASTENING SCHEDULE, SEE 11/S12
3. FOR TREX DECKING GAPPING RULES, SEE 10/S12

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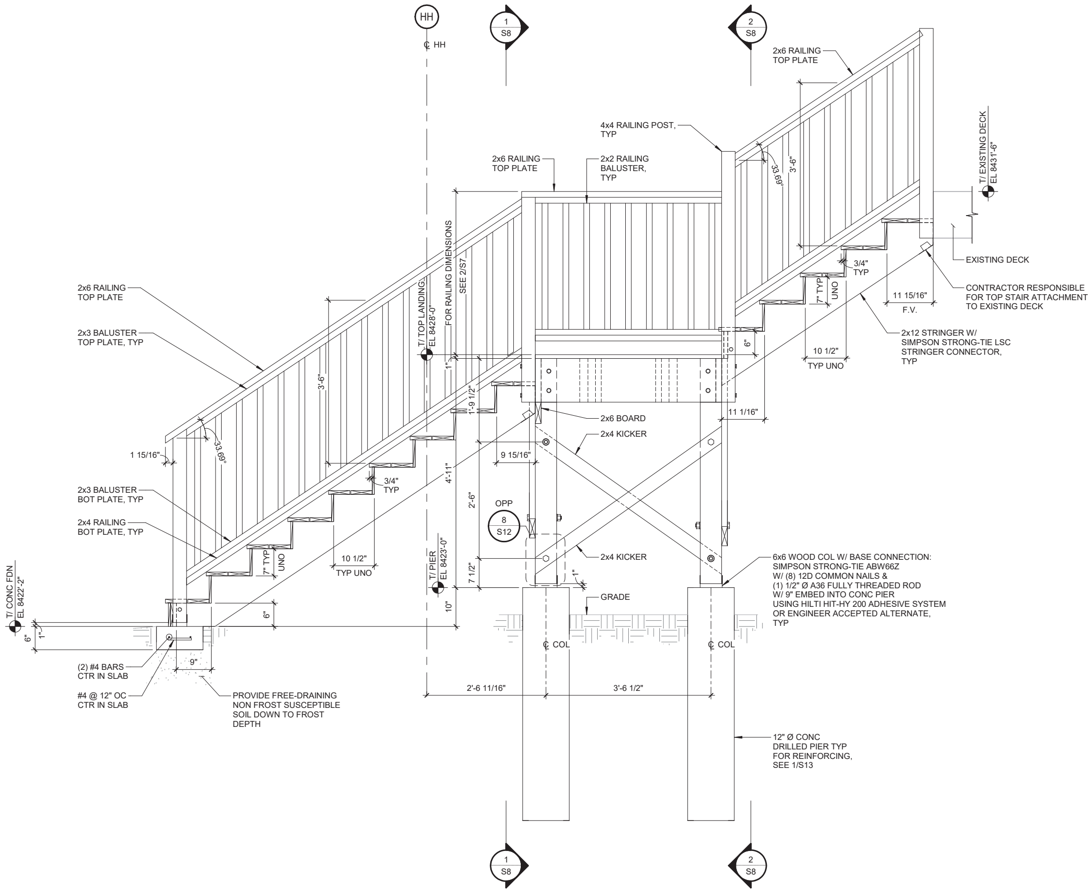
COLORADO LICENSED
MARK D. MIELKE
41574
PROFESSIONAL ENGINEER
5.14.24
MARK D. MIELKE, P.E. 41574

DATE:	DESIGNED:
02/05/24	CRG/APF
DRAWN:	CHECKED:
EJE	APF/KFB
APPROVED:	
MDM	

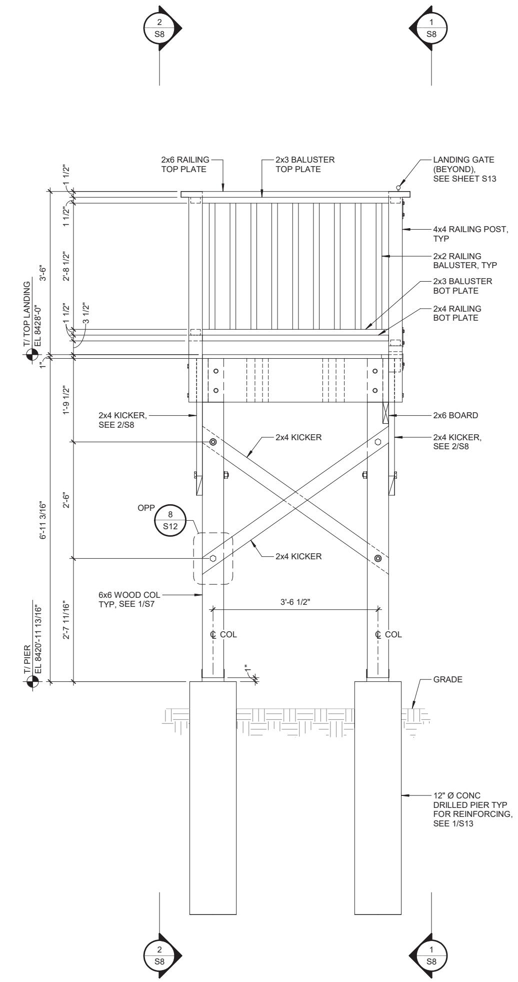
DRAWING TITLE:
TOP LANDING PLANS

PROJECT NO:	DRAWING NO:
230576	S6
SCALE: AS NOTED	



HH
℄ HH
1 S8
2 S8
2x6 RAILING TOP PLATE
4x4 RAILING POST, TYP
2x6 RAILING TOP PLATE
2x2 RAILING BALUSTER, TYP
T/ EXISTING DECK EL 8431'-6"
EXISTING DECK
CONTRACTOR RESPONSIBLE FOR TOP STAIR ATTACHMENT TO EXISTING DECK
2x12 STRINGER W/ SIMPSON STRONG-TIE LSC STRINGER CONNECTOR, TYP
T/ TOP LANDING EL 8428'-0"
FOR RAILING DIMENSIONS SEE 2/S7
2x6 RAILING TOP PLATE
2x3 BALUSTER TOP PLATE, TYP
2x3 BALUSTER BOT PLATE, TYP
2x4 RAILING BOT PLATE, TYP
33.69°
3'-6"
1 15/16"
3/4" TYP
7" TYP UNO
10 1/2" TYP UNO
11 15/16" F.V.
11 1/16"
9 15/16"
2x6 BOARD
2x4 KICKER
OPP 8 S12
2x4 KICKER
GRADE
6x6 WOOD COL W/ BASE CONNECTION: SIMPSON STRONG-TIE ABW66Z W/ (8) 12D COMMON NAILS & (1) 1/2" Ø A36 FULLY THREADED ROD W/ 9" EMBED INTO CONC PIER USING HILTI HIT-HY 200 ADHESIVE SYSTEM OR ENGINEER ACCEPTED ALTERNATE, TYP
T/ PIER EL 8423'-0"
T/ CONC FDN EL 8422'-2"
℄ COL
(2) #4 BARS CTR IN SLAB
#4 @ 12" OC CTR IN SLAB
PROVIDE FREE-DRAINING NON FROST SUSCEPTIBLE SOIL DOWN TO FROST DEPTH
2'-6 11/16"
3'-6 1/2"
4'-11"
1'-9 1/2"
2'-6"
7 1/2"
10"
12" Ø CONC DRILLED PIER TYP FOR REINFORCING, SEE 1/S13

1 S7 ELEVATION (LOOKING SOUTHWEST)
3/4" = 1'-0"



2 S8
1 S8
2x6 RAILING TOP PLATE
2x3 BALUSTER TOP PLATE
LANDING GATE (BEYOND), SEE SHEET S13
4x4 RAILING POST, TYP
2x2 RAILING BALUSTER, TYP
2x3 BALUSTER BOT PLATE
2x4 RAILING BOT PLATE
T/ TOP LANDING EL 8428'-0"
3'-6"
2x4 KICKER, SEE 2/S8
2x4 KICKER
2x6 BOARD
2x4 KICKER, SEE 2/S8
OPP 8 S12
2x4 KICKER
6x6 WOOD COL TYP, SEE 1/S7
3'-6 1/2"
℄ COL
T/ PIER EL 8420'-11 13/16"
6'-11 3/16"
2'-7 11/16"
GRADE
12" Ø CONC DRILLED PIER TYP FOR REINFORCING, SEE 1/S13

2 S7 ELEVATION (LOOKING NORTHEAST)
3/4" = 1'-0"

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GRAND LAKE, CO 80447

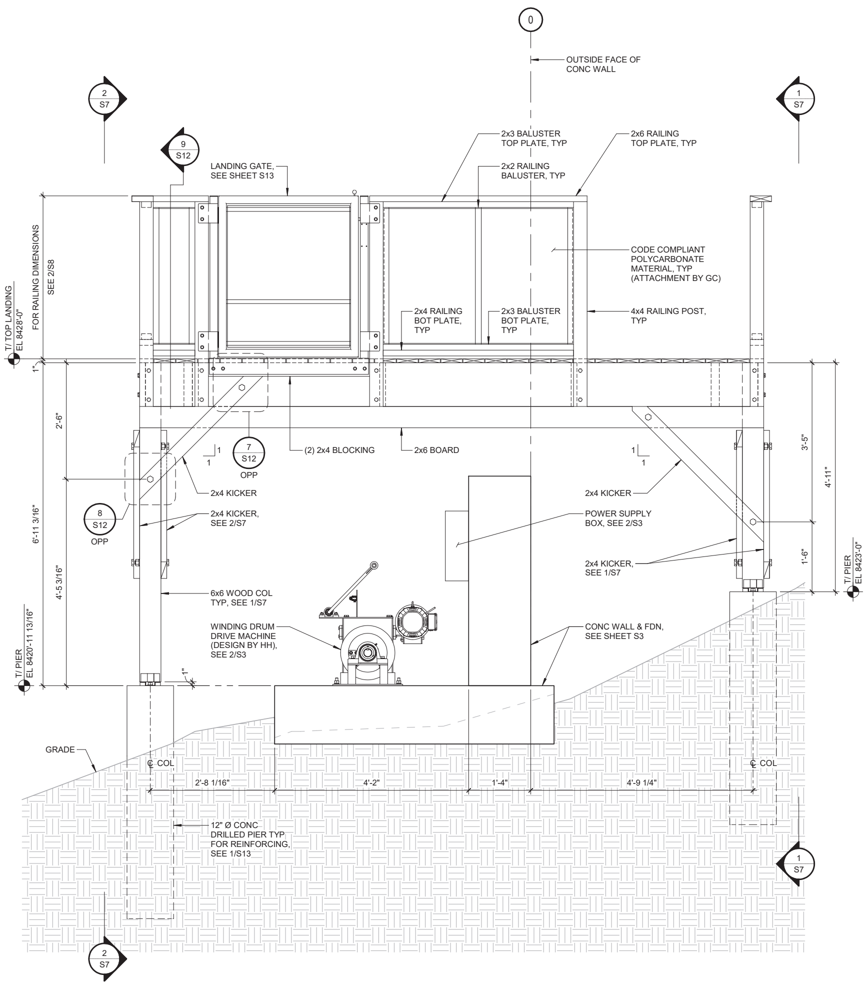
NO.	DATE	ISSUE/REVISION	BY
A	02/05/24	ISSUED FOR REVIEW	EJE
0	05/14/24	ISSUED FOR PERMIT	EJE

COLORADO LICENSED PROFESSIONAL ENGINEER MARK D. MIELKE 41574 5-14-24
MARK D. MIELKE, P.E. 41574

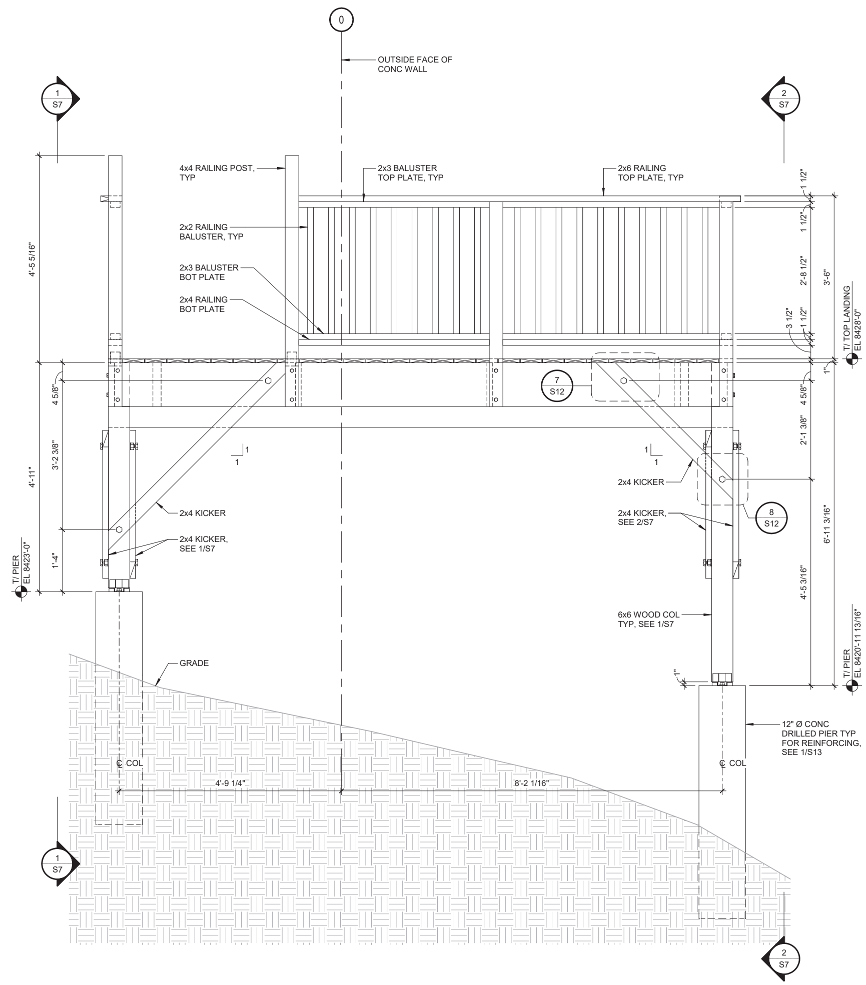
DATE: 02/05/24	DESIGNED: CRG/APF	
DRAWN: EJE	CHECKED: APF/KFB	APPROVED: MDM

DRAWING TITLE:
TOP LANDING ELEVATIONS

PROJECT NO: 230576	DRAWING NO: S7
SCALE: AS NOTED	


0
OUTSIDE FACE OF CONC WALL
2 S7
1 S7
9 S12
LANDING GATE, SEE SHEET S13
2x3 BALUSTER TOP PLATE, TYP
2x2 RAILING BALUSTER, TYP
2x6 RAILING TOP PLATE, TYP
CODE COMPLIANT POLYCARBONATE MATERIAL, TYP (ATTACHMENT BY GC)
2x4 RAILING BOT PLATE, TYP
2x3 BALUSTER BOT PLATE, TYP
4x4 RAILING POST, TYP
T/ TOP LANDING EL 8428'-0"
FOR RAILING DIMENSIONS SEE 2/S8
7 S12 OPP
(2) 2x4 BLOCKING
2x6 BOARD
2x4 KICKER
2x4 KICKER, SEE 2/S7
8 S12 OPP
POWER SUPPLY BOX, SEE 2/S3
2x4 KICKER, SEE 1/S7
6x6 WOOD COL TYP, SEE 1/S7
WINDING DRUM DRIVE MACHINE (DESIGN BY HH), SEE 2/S3
CONC WALL & FDN, SEE SHEET S3
T/ PIER EL 8420'-11 13/16"
T/ PIER EL 8423'-0"
GRADE
℄ COL
2'-8 1/16"
4'-2"
1'-4"
4'-9 1/4"
12" Ø CONC DRILLED PIER TYP FOR REINFORCING, SEE 1/S13
2'-6"
6'-11 3/16"
4'-5 3/16"
3'-5"
4'-11"
1'-6"

1 S8 ELEVATION (LOOKING NORTHWEST)
3/4" = 1'-0"
NOTE:
HSS SUPPORT & TOP LANDING STAIRS NOT SHOWN FOR CLARITY


0
OUTSIDE FACE OF CONC WALL
1 S7
2 S7
4x4 RAILING POST, TYP
2x3 BALUSTER TOP PLATE, TYP
2x6 RAILING TOP PLATE, TYP
2x2 RAILING BALUSTER, TYP
2x3 BALUSTER BOT PLATE
2x4 RAILING BOT PLATE
7 S12
2x4 KICKER
2x4 KICKER, SEE 1/S7
2x4 KICKER, SEE 2/S7
8 S12
6x6 WOOD COL TYP, SEE 1/S7
GRADE
12" Ø CONC DRILLED PIER TYP FOR REINFORCING, SEE 1/S13
℄ COL
4'-9 1/4"
8'-2 1/16"
T/ PIER EL 8423'-0"
T/ TOP LANDING EL 8428'-0"
T/ PIER EL 8420'-11 13/16"
4'-5 5/16"
4'-11"
3'-2 3/8"
1'-4"
4 5/8"
1 1/2"
2'-8 1/2"
3'-6"
3 1/2"
2'-1 3/8"
6'-11 3/16"
4'-5 3/16"

2 S8 ELEVATION (LOOKING SOUTHEAST)
3/4" = 1'-0"
NOTE:
HSS SUPPORT & TOP LANDING STAIRS NOT SHOWN FOR CLARITY

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PROJECT:
INCLINE ELEVATOR
PLOWSHAY RESIDENCE
1532 GRAND AVE
GRAND LAKE, CO 80447

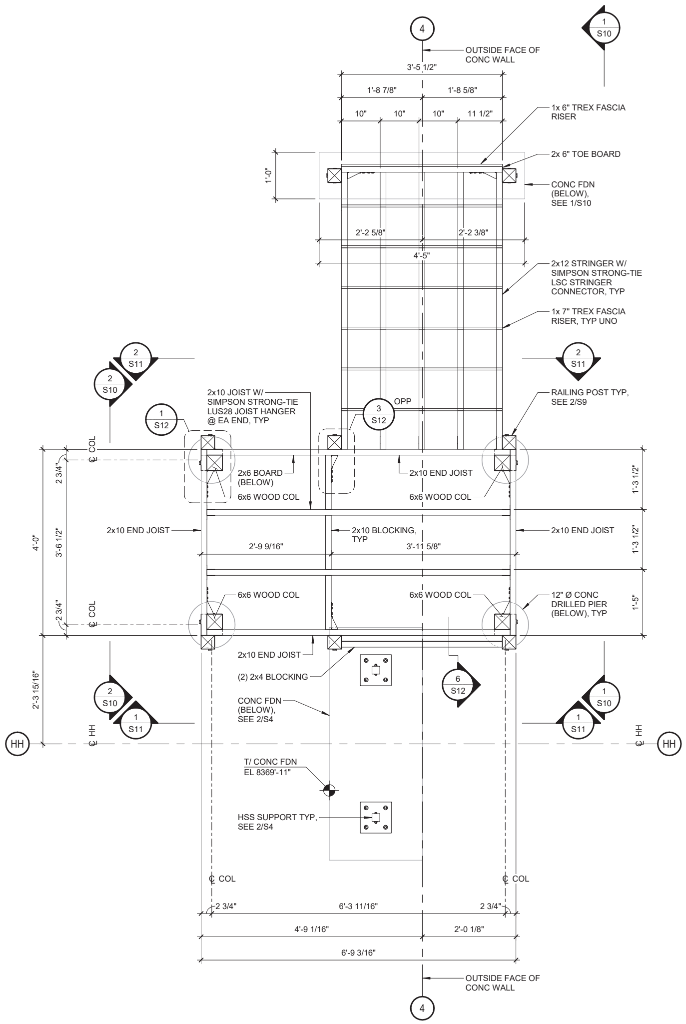
NO.	DATE	ISSUE/REVISION	BY
A	02/05/24	ISSUED FOR REVIEW	EJE
0	05/14/24	ISSUED FOR PERMIT	EJE

COLORADO LICENSED PROFESSIONAL ENGINEER MARK D. MIELKE 41574
5-14-24
MARK D. MIELKE, P.E. 41574

DATE: 02/05/24	DESIGNED: CRG/APF	
DRAWN: DLF	CHECKED: APF/KFB	APPROVED: MDM

DRAWING TITLE:
TOP LANDING ELEVATIONS

PROJECT NO: 230576
SCALE: AS NOTED
DRAWING NO: S8

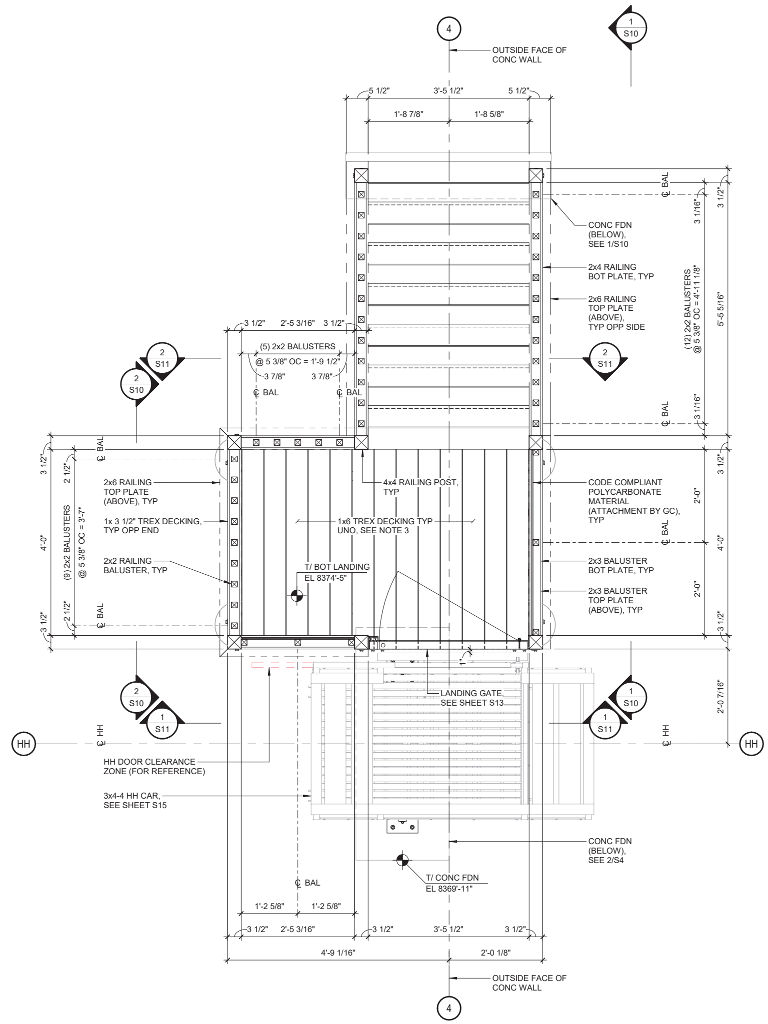

4
OUTSIDE FACE OF CONC WALL
3'-5 1/2"
1'-8 7/8"
1'-8 5/8"
10"
10"
10"
11 1/2"
1x 6" TREX FASCIA RISER
2x 6" TOE BOARD
1'-0"
CONC FDN (BELOW), SEE 1/S10
2'-2 5/8"
2'-2 3/8"
4'-5"
2x12 STRINGER W/ SIMPSON STRONG-TIE LSC STRINGER CONNECTOR, TYP
1x 7" TREX FASCIA RISER, TYP UNO
2x10 JOIST W/ SIMPSON STRONG-TIE LUS28 JOIST HANGER @ EA END, TYP
OPP
RAILING POST TYP, SEE 2/S9
2x6 BOARD (BELOW)
6x6 WOOD COL
2x10 END JOIST
6x6 WOOD COL
2x10 END JOIST
2x10 BLOCKING, TYP
2x10 END JOIST
2'-9 9/16"
3'-11 5/8"
6x6 WOOD COL
6x6 WOOD COL
12" Ø CONC DRILLED PIER (BELOW), TYP
2x10 END JOIST
(2) 2x4 BLOCKING
CONC FDN (BELOW), SEE 2/S4
T/ CONC FDN EL 8369'-11"
HSS SUPPORT TYP, SEE 2/S4
HH
℄ COL
2 3/4"
6'-3 11/16"
2 3/4"
4'-9 1/16"
2'-0 1/8"
6'-9 3/16"
OUTSIDE FACE OF CONC WALL
4'-0"
3'-6 1/2"
2'-3 15/16"
1'-3 1/2"
1'-3 1/2"
1'-5"

1 S9 BOTTOM LANDING FRAMING PLAN

3/4" = 1'-0"

NORTH

NOTES:
1. HH TRACK/CAR NOT SHOWN FOR CLARITY
2. FOR FASTENING SCHEDULE, SEE 11/S12


4
OUTSIDE FACE OF CONC WALL
5 1/2"
3'-5 1/2"
5 1/2"
1'-8 7/8"
1'-8 5/8"
CONC FDN (BELOW), SEE 1/S10
2x4 RAILING BOT PLATE, TYP
2x6 RAILING TOP PLATE (ABOVE), TYP OPP SIDE
(12) 2x2 BALUSTERS @ 5 3/8" OC = 4'-11 1/8"
3 1/2"
2'-5 3/16"
3 1/2"
(5) 2x2 BALUSTERS @ 5 3/8" OC = 1'-9 1/2"
3 7/8"
3 7/8"
℄ BAL
2x6 RAILING TOP PLATE (ABOVE), TYP
1x 3 1/2" TREX DECKING, TYP OPP END
2x2 RAILING BALUSTER, TYP
(9) 2x2 BALUSTERS @ 5 3/8" OC = 3'-7"
4x4 RAILING POST, TYP
1x6 TREX DECKING TYP UNO, SEE NOTE 3
T/ BOT LANDING EL 8374'-5"
CODE COMPLIANT POLYCARBONATE MATERIAL (ATTACHMENT BY GC), TYP
2x3 BALUSTER BOT PLATE, TYP
2x3 BALUSTER TOP PLATE (ABOVE), TYP
LANDING GATE, SEE SHEET S13
HH DOOR CLEARANCE ZONE (FOR REFERENCE)
3x4-4 HH CAR, SEE SHEET S15
CONC FDN (BELOW), SEE 2/S4
T/ CONC FDN EL 8369'-11"
1'-2 5/8"
1'-2 5/8"
3 1/2"
2'-5 3/16"
3 1/2"
3'-5 1/2"
3 1/2"
4'-9 1/16"
2'-0 1/8"
OUTSIDE FACE OF CONC WALL
HH

2 S9 BOTTOM LANDING DECKING & RAILING PLAN

3/4" = 1'-0"

NORTH

NOTES:
1. HH TRACK/CAR NOT SHOWN FOR CLARITY
2. FOR FASTENING SCHEDULE, SEE 11/S12
3. FOR TREX DECKING GAPPING RULES, SEE 10/S12

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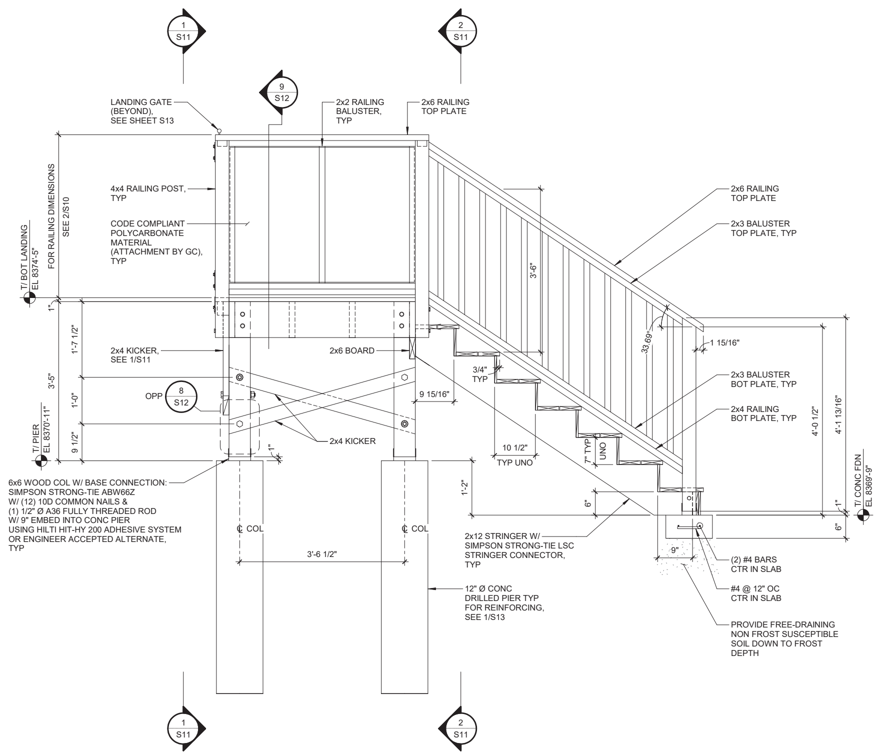
0	05/14/24	ISSUED FOR PERMIT	EJE

MARK D. MIELKE, P.E. 41574

DATE: 02/05/24
DESIGNED: CRG/APF
DRAWN: DLF
CHECKED: APF/KFB
APPROVED: MDM

DRAWING TITLE:
BOTTOM LANDING PLANS

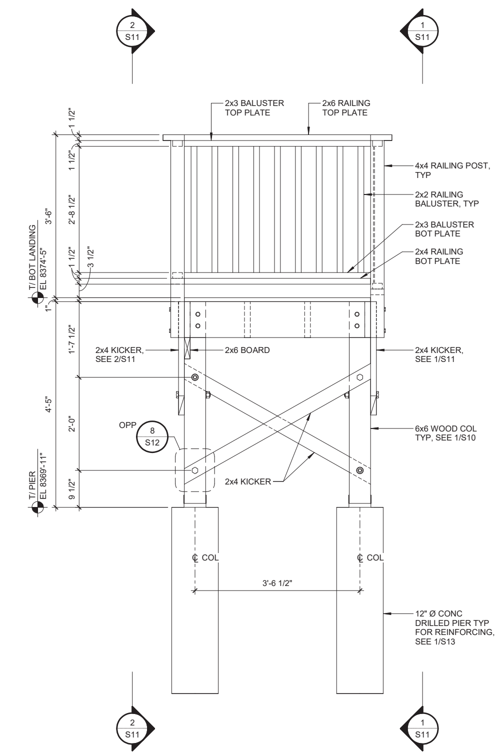
PROJECT NO: 230576
DRAWING NO: S9
SCALE: AS NOTED



LANDING GATE (BEYOND), SEE SHEET S13
2x2 RAILING BALUSTER, TYP
2x6 RAILING TOP PLATE
4x4 RAILING POST, TYP
CODE COMPLIANT POLYCARBONATE MATERIAL (ATTACHMENT BY GC), TYP
FOR RAILING DIMENSIONS SEE 2/S10
T/ BOT LANDING EL 8374'-5"
2x6 RAILING TOP PLATE
2x3 BALUSTER TOP PLATE, TYP
3'-6"
33.69°
1 15/16"
2x4 KICKER, SEE 1/S11
2x6 BOARD
3/4" TYP
9 15/16"
OPP
2x3 BALUSTER BOT PLATE, TYP
2x4 RAILING BOT PLATE, TYP
2x4 KICKER
10 1/2" TYP UNO
7" TYP UNO
4'-0 1/2"
4'-1 13/16"
T/ PIER EL 8370'-11"
T/ CONC FDN EL 8369'-9"
1'-7 1/2"
3'-5"
1'-0"
9 1/2"
1'-2"
6x6 WOOD COL W/ BASE CONNECTION: SIMPSON STRONG-TIE ABW66Z W/ (12) 10D COMMON NAILS & (1) 1/2" Ø A36 FULLY THREADED ROD W/ 9" EMBED INTO CONC PIER USING HILTI HIT-HY 200 ADHESIVE SYSTEM OR ENGINEER ACCEPTED ALTERNATE, TYP
℄ COL
℄ COL
3'-6 1/2"
2x12 STRINGER W/ SIMPSON STRONG-TIE LSC STRINGER CONNECTOR, TYP
12" Ø CONC DRILLED PIER TYP FOR REINFORCING, SEE 1/S13
9"
(2) #4 BARS CTR IN SLAB
#4 @ 12" OC CTR IN SLAB
PROVIDE FREE-DRAINING NON FROST SUSCEPTIBLE SOIL DOWN TO FROST DEPTH

1 S10 ELEVATION (LOOKING SOUTHWEST)

3/4" = 1'-0"



2x3 BALUSTER TOP PLATE
2x6 RAILING TOP PLATE
4x4 RAILING POST, TYP
2x2 RAILING BALUSTER, TYP
2x3 BALUSTER BOT PLATE
2x4 RAILING BOT PLATE
T/ BOT LANDING EL 8374'-5"
1 1/2"
3'-6"
2'-8 1/2"
3 1/2"
2x4 KICKER, SEE 2/S11
2x6 BOARD
2x4 KICKER, SEE 1/S11
OPP
6x6 WOOD COL TYP, SEE 1/S10
2x4 KICKER
4'-5"
1'-7 1/2"
2'-0"
9 1/2"
T/ PIER EL 8369'-11"
℄ COL
℄ COL
3'-6 1/2"
12" Ø CONC DRILLED PIER TYP FOR REINFORCING, SEE 1/S13

2 S10 ELEVATION (LOOKING NORTHEAST)

3/4" = 1'-0"

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NO.	DATE	ISSUE/REVISION	BY
A	02/05/24	ISSUED FOR REVIEW	EJE
0	05/14/24	ISSUED FOR PERMIT	EJE

COLORADO LICENSED PROFESSIONAL ENGINEER MARK D. MIELKE 41574
5.14.24

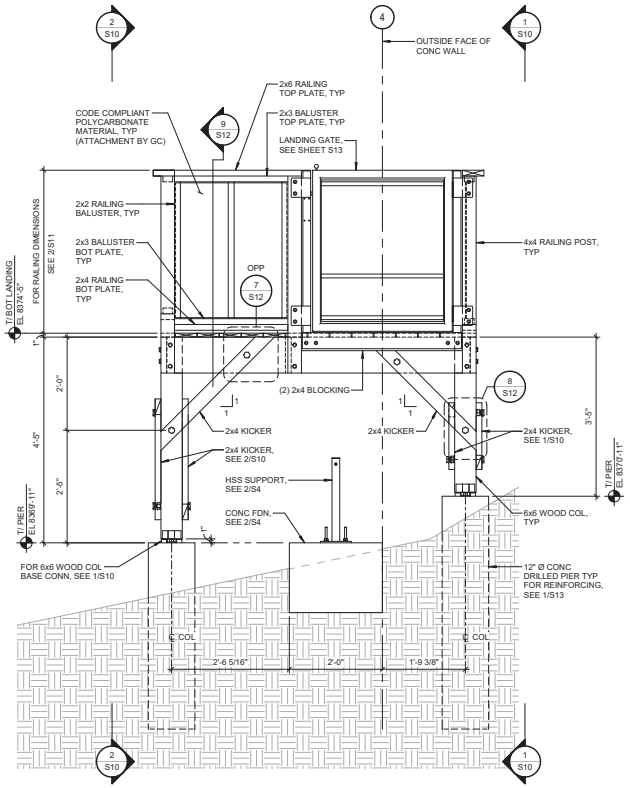
MARK D. MIELKE, P.E. 41574

DATE: 02/05/24	DESIGNED: CRG/APF	
DRAWN: DLF	CHECKED: APF/KFB	APPROVED: MDM

DRAWING TITLE:

BOTTOM LANDING ELEVATIONS

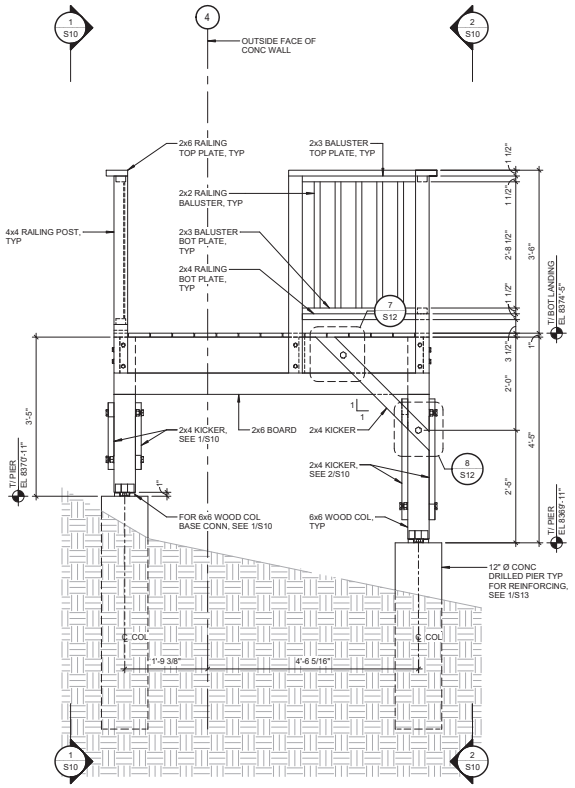
PROJECT NO: 230576	DRAWING NO: S10
SCALE: AS NOTED	



1/S11 ELEVATION (LOOKING NORTHWEST)

3/4" = 1'-0"

NOTE:
HH TRACK/CAR NOT SHOWN FOR CLARITY



2/S11 ELEVATION (LOOKING SOUTHEAST)

3/4" = 1'-0"

NOTE:
BOTTOM LANDING STAIRS NOT SHOWN FOR CLARITY

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www.vaaeng.com

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952.476.2422
www.hillhiker.com
info@hillhiker.com

PROJECT:
INCLINE ELEVATOR
PLOWSHAY RESIDENCE
1532 GRAND AVE
GRAND LAKE, CO 80447

NO.	DATE	ISSUE/REVISION	BY
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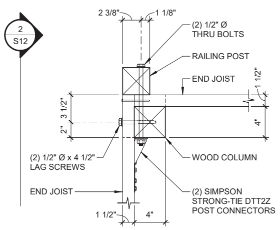
COLORADO LICENSED
MARK D. MIELKE
41574
PROFESSIONAL ENGINEER
5.14.24
MARK D. MIELKE, P.E. 41574

DATE:	DESIGNED:
02/05/24	CRG/APF

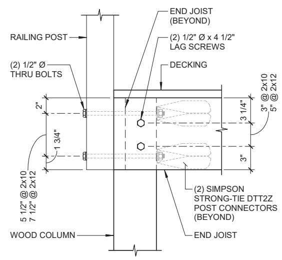
DRAWN:	CHECKED:	APPROVED:
DLF	APF/KFB	MDM

DRAWING TITLE:
BOTTOM LANDING ELEVATIONS

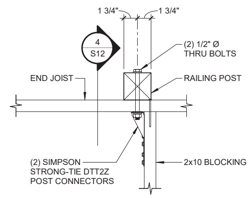
PROJECT NO:	DRAWING NO:
230576	S11
SCALE: AS NOTED	



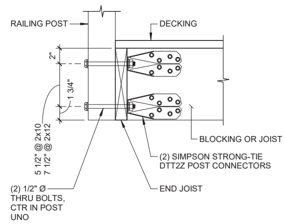
1 S12 CONNECTION DETAIL (PLAN)
1 1/2" = 1'-0"



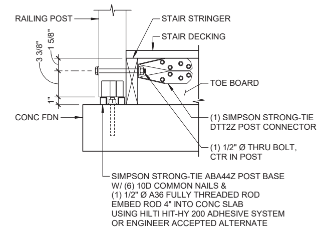
2 S12 CONNECTION DETAIL
1 1/2" = 1'-0"



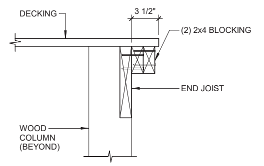
3 S12 CONNECTION DETAIL (PLAN)
1 1/2" = 1'-0"



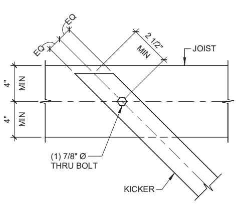
4 S12 POST CONNECTION DETAIL
1 1/2" = 1'-0"
NOTE:
CONC WALL & 2x6 SILL PLATE @ TOP LANDING NOT SHOW FOR CLARITY


RAILING POST
STAIR STRINGER
STAIR DECKING
3 3/8"
1 5/8"
1"
TOE BOARD
CONC FDN
(1) SIMPSON STRONG-TIE DTT2Z POST CONNECTOR
(1) 1/2" Ø THRU BOLT, CTR IN POST
SIMPSON STRONG-TIE ABA44Z POST BASE W/ (6) 10D COMMON NAILS & (1) 1/2" Ø A36 FULLY THREADED ROD EMBED ROD 4" INTO CONC SLAB USING HILTI HIT-HY 200 ADHESIVE SYSTEM OR ENGINEER ACCEPTED ALTERNATE

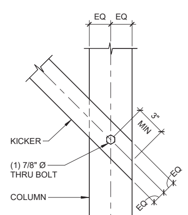
5 S12 STAIR POST TO CONC CONNECTION DETAIL
1 1/2" = 1'-0"



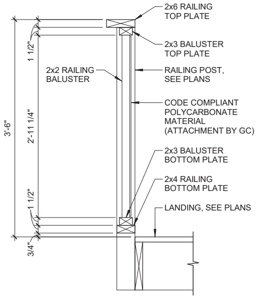
6 S12 CONNECTION DETAIL
1 1/2" = 1'-0"



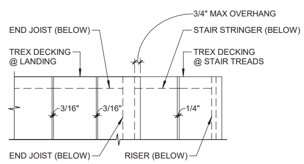
7 S12 KICKER CONNECTION DETAIL
1 1/2" = 1'-0"
NOTE:
DECKING & 2x4 BLOCKING NOT SHOWN FOR CLARITY



8 S12 KICKER CONNECTION DETAIL
1 1/2" = 1'-0"



9 S12 RAILING DETAIL
1" = 1'-0"
NOTE:
FOR FASTENING SCHEDULE, SEE 11/S12



NOTES:
1. TREX DECKING @ LANDING REQUIRES 3/16" MINIMUM WIDTH-TO-WIDTH GAPPING
2. TREX DECKING @ STAIR TREADS REQUIRES 1/4" MINIMUM WIDTH-TO-WIDTH GAPPING

10 S12 TREX GAPPING RULES
1 1/2" = 1'-0"

FASTENING SCHEDULE

CONNECTION	FASTENING
END JOIST TO END JOIST (END NAIL)	(3) #8x3 1/2" WOOD SCREWS **OR** (3) 0.148"x3 1/2" THREADED NAILS
BLOCKING BETWEEN JOISTS (TOENAIL)	(3) #8x2 1/2" WOOD SCREWS **OR** (3) 8d COMMON NAILS
HORIZONTAL BRACE TO END JOIST (TOENAIL)	(6) #8x3 1/2" WOOD SCREWS
RAILING TOP PLATE TO RAILING POST (END NAIL)	(3) #12x3 3/4" WOOD SCREWS **OR** (3) 16d COMMON NAILS
RAILING BOTTOM PLATE TO RAILING POST (TOE NAIL)	(2) #10x3 1/2" WOOD SCREWS **OR** (2) 10d COMMON NAILS
RAILING BALUSTER TO TOP & BOTTOM PLATE (END NAIL)	(1) #10x2 1/2" WOOD SCREWS **OR** (1) 0.148"x3" THREADED NAILS
FLOOR DECK TO JOISTS	PROVIDE MANUFACTURER CLIPS PER MANUFACTURER'S RECOMMENDATIONS

NOTES:
1. PROVIDE THE NAILING NOTED IN THIS SCHEDULE UNLESS MORE STRINGENT NAILINGS NOTED ON THE PLANS OR DETAILS.
2. COMMON NAIL SIZES ARE AS FOLLOWS:
   - 8d = 0.131"Øx2 1/2"
   - 10d = 0.148"Øx3"
   - 16d = 0.162"Øx3 1/2"

11 S12 FASTENING SCHEDULE
12" = 1'-0"

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www.vaaeng.com

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GRAND LAKE, CO 80447

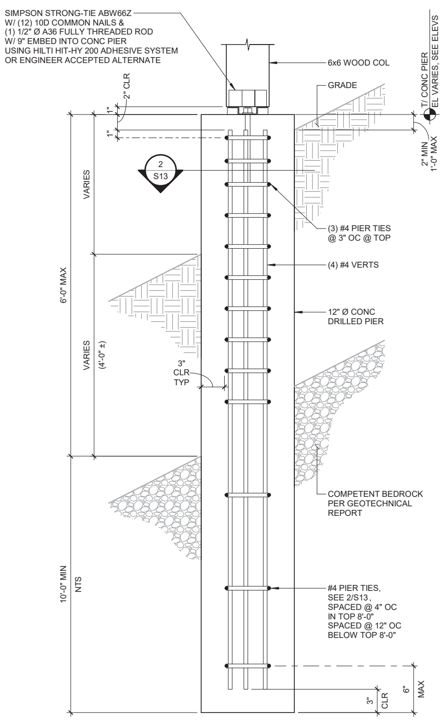
NO.	DATE	ISSUE/REVISION	BY
A	02/05/24	ISSUED FOR REVIEW	EJE
0	05/14/24	ISSUED FOR PERMIT	EJE

COLORADO LICENSED MARK D. MIELKE 41574 PROFESSIONAL ENGINEER
5-14-24
MARK D. MIELKE, P.E. 41574

DATE: 02/05/24	DESIGNED: CRG/APF	
DRAWN: EJE	CHECKED: APF/KFB	APPROVED: MDM

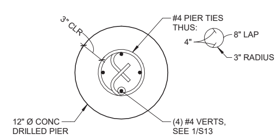
DRAWING TITLE:
WOOD CONNECTION DETAILS

PROJECT NO: 230576
SCALE: AS NOTED
DRAWING NO: S12

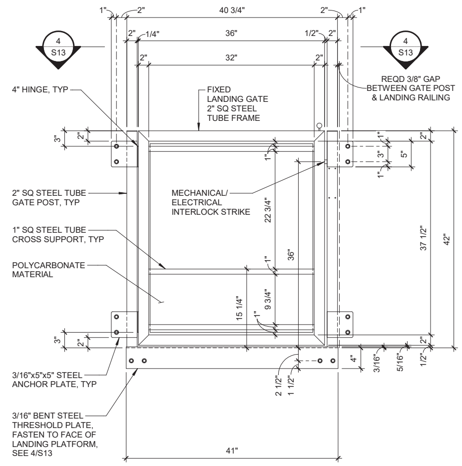


SIMPSON STRONG-TIE ABW66Z
W/ (12) 10D COMMON NAILS &
(1) 1/2" Ø A36 FULLY THREADED ROD
W/ 9" EMBED INTO CONC PIER
USING HILTI HIT-HY 200 ADHESIVE SYSTEM
OR ENGINEER ACCEPTED ALTERNATE
6x6 WOOD COL
GRADE
T/ CONC PIER
EL VARIES, SEE ELEVS
2" CLR
2" MIN
1'-0" MAX
VARIES
(3) #4 PIER TIES
@ 3" OC @ TOP
(4) #4 VERTS
6'-0" MAX
12" Ø CONC
DRILLED PIER
VARIES
(4'-0" ±)
3" CLR TYP
COMPETENT BEDROCK
PER GEOTECHNICAL
REPORT
10'-0" MIN
NTS
#4 PIER TIES,
SEE 2/S13,
SPACED @ 4" OC
IN TOP 8'-0"
SPACED @ 12" OC
BELOW TOP 8'-0"
3" CLR
6" MAX

1 S13 **12" Ø PIER DETAIL**
1 1/2" = 1'-0"
NOTE:
(8) LOCS THUS

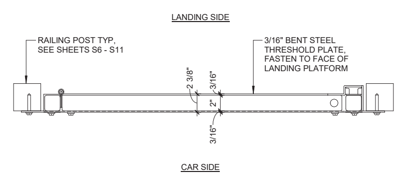


2 S13 **12" Ø PIER DETAIL (PLAN)**
1 1/2" = 1'-0"



40 3/4"
36"
32"
4" HINGE, TYP
FIXED
LANDING GATE
2" SQ STEEL
TUBE FRAME
REQD 3/8" GAP
BETWEEN GATE POST
& LANDING RAILING
2" SQ STEEL TUBE
GATE POST, TYP
MECHANICAL/
ELECTRICAL
INTERLOCK STRIKE
1" SQ STEEL TUBE
CROSS SUPPORT, TYP
POLYCARBONATE
MATERIAL
22 3/4"
36"
15 1/4"
9 3/4"
37 1/2"
42"
3/16"x5"x5" STEEL
ANCHOR PLATE, TYP
3/16" BENT STEEL
THRESHOLD PLATE,
FASTEN TO FACE OF
LANDING PLATFORM,
SEE 4/S13
41"

3 S13 **LANDING GATE DETAIL**
1" = 1'-0"
NOTES:
1. DETAIL FOR DIMENSIONAL INFORMATION ONLY, GATE DESIGN BY HILL HIKER, INC.
2. (1) LEFT SWINGING GATE & (1) RIGHT SWINGING GATE
3. GUARDRAIL RAILINGS NOT SHOWN (DESIGN BY GC)



4 S13 **LANDING GATE DETAIL (PLAN)**
1 1/2" = 1'-0"

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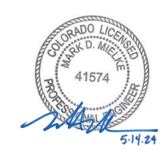
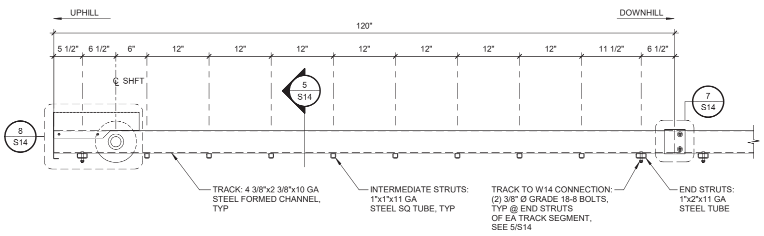


MARK D. MIELKE, P.E. 41574

DATE: 10/06/23	DESIGNED: CRG/APF	
DRAWN: EJE	CHECKED: APF/KFB	APPROVED: MDM

DRAWING TITLE:
PIER & LANDING GATE DETAILS

PROJECT NO: 230576	DRAWING NO: S13
SCALE: AS NOTED	

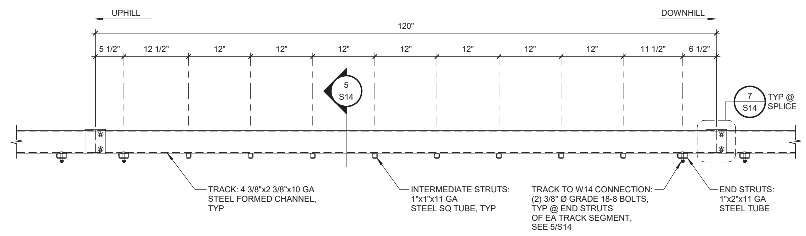

UPHILL
DOWNHILL
120"
5 1/2"
6 1/2"
6"
12"
11 1/2"
6 1/2"
℄ SHFT
5
S14
7
S14
8
S14
TRACK: 4 3/8"x2 3/8"x10 GA STEEL FORMED CHANNEL, TYP
INTERMEDIATE STRUTS: 1"x1"x11 GA STEEL SQ TUBE, TYP
TRACK TO W14 CONNECTION: (2) 3/8" Ø GRADE 18-8 BOLTS, TYP @ END STRUTS OF EA TRACK SEGMENT, SEE 5/S14
END STRUTS: 1"x2"x11 GA STEEL TUBE

1 S14 10'-0" LONG TOP TRACK SEGMENT DETAIL

1" = 1'-0"

NOTES:

1. WF BEAMS NOT SHOWN FOR CLARITY
2. (1) LOC THUS

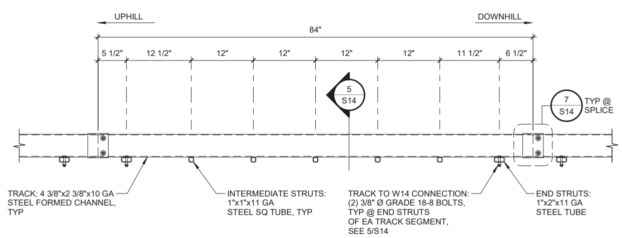

UPHILL
DOWNHILL
120"
5 1/2"
12 1/2"
12"
11 1/2"
6 1/2"
5
S14
7
S14
TYP @ SPLICE
TRACK: 4 3/8"x2 3/8"x10 GA STEEL FORMED CHANNEL, TYP
INTERMEDIATE STRUTS: 1"x1"x11 GA STEEL SQ TUBE, TYP
TRACK TO W14 CONNECTION: (2) 3/8" Ø GRADE 18-8 BOLTS, TYP @ END STRUTS OF EA TRACK SEGMENT, SEE 5/S14
END STRUTS: 1"x2"x11 GA STEEL TUBE

2 S14 10'-0" LONG TRACK SEGMENT DETAIL

1" = 1'-0"

NOTES:

1. WF BEAMS NOT SHOWN FOR CLARITY
2. (8) LOCS THUS

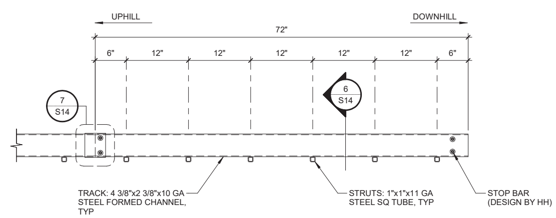

UPHILL
DOWNHILL
84"
5 1/2"
12 1/2"
12"
11 1/2"
6 1/2"
5
S14
7
S14
TYP @ SPLICE
TRACK: 4 3/8"x2 3/8"x10 GA STEEL FORMED CHANNEL, TYP
INTERMEDIATE STRUTS: 1"x1"x11 GA STEEL SQ TUBE, TYP
TRACK TO W14 CONNECTION: (2) 3/8" Ø GRADE 18-8 BOLTS, TYP @ END STRUTS OF EA TRACK SEGMENT, SEE 5/S14
END STRUTS: 1"x2"x11 GA STEEL TUBE

3 S14 7'-0" LONG TRACK SEGMENT DETAIL

1" = 1'-0"

NOTES:

1. WF BEAMS NOT SHOWN FOR CLARITY
2. (1) LOC THUS

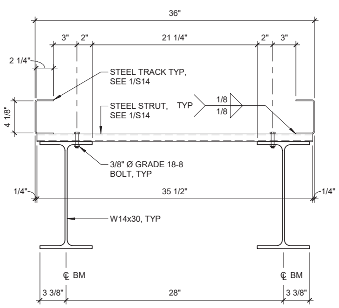


4 S14 6'-0" LONG TRACK SEGMENT DETAIL

1" = 1'-0"

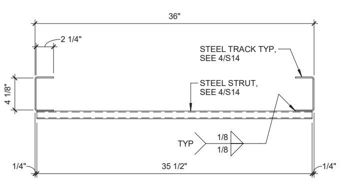
NOTE:

(1) LOC THUS



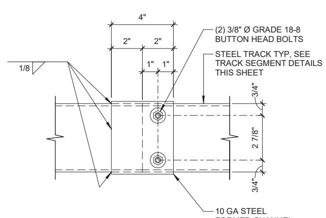
5 S14 TRACK SECTION

1 1/2" = 1'-0"



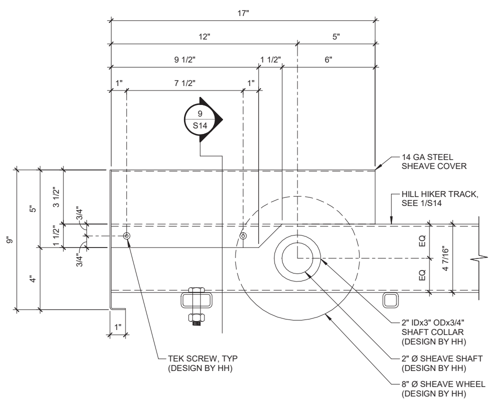
6 S14 TRACK SECTION

1 1/2" = 1'-0"



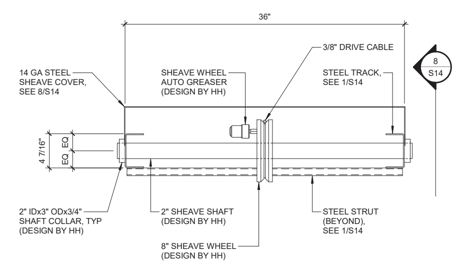
7 S14 TRACK SPLICE DETAIL

3" = 1'-0"



8 S14 DEFLECTION SHEAVE DETAIL

3" = 1'-0"


36"
3/8" DRIVE CABLE
8
S14
14 GA STEEL SHEAVE COVER, SEE 8/S14
SHEAVE WHEEL AUTO GREASER (DESIGN BY HH)
STEEL TRACK, SEE 1/S14
4 7/16"
EQ
2" IDx3" ODx3/4" SHAFT COLLAR, TYP (DESIGN BY HH)
2" SHEAVE SHAFT (DESIGN BY HH)
8" SHEAVE WHEEL (DESIGN BY HH)
STEEL STRUT (BEYOND), SEE 1/S14

9 S14 DEFLECTION SHEAVE DETAIL

1 1/2" = 1'-0"

NOTE:

TEK SCREWS NOT SHOWN

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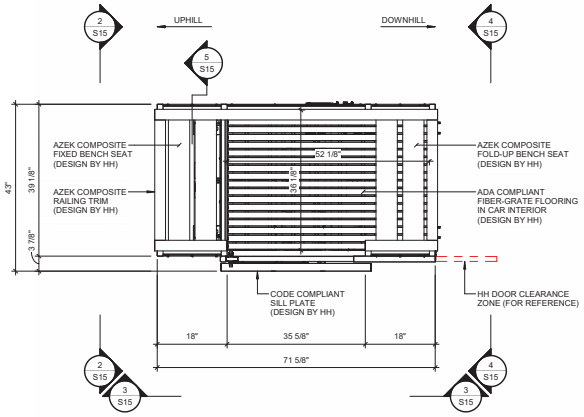
DATE: 10/06/23	DESIGNED: CRG/APF	
DRAWN: EJE	CHECKED: APF/KFB	APPROVED: MDM

DRAWING TITLE:

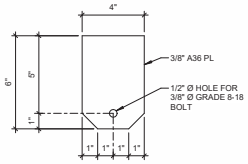
TRACK DETAILS

PROJECT NO: 230576	DRAWING NO:
SCALE: AS NOTED	S14



1 S15 CAR PLAN

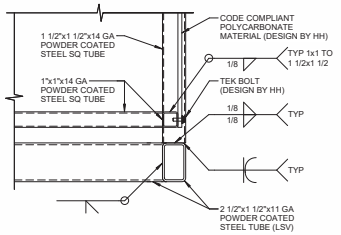
3/4" = 1'-0"



6 S15 MOUNTING PLATE

3" = 1'-0"

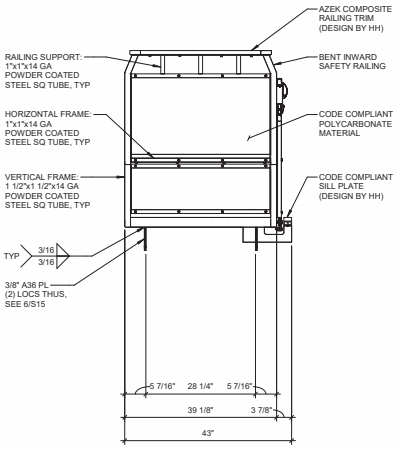
NOTES:
1. (2) LOCS ON CAR UPHILL END, SEE 2/S15
2. (4) LOCS ON CAR DOWNHILL END, SEE 4/S15



5 S15 TYPICAL WELDS DETAIL

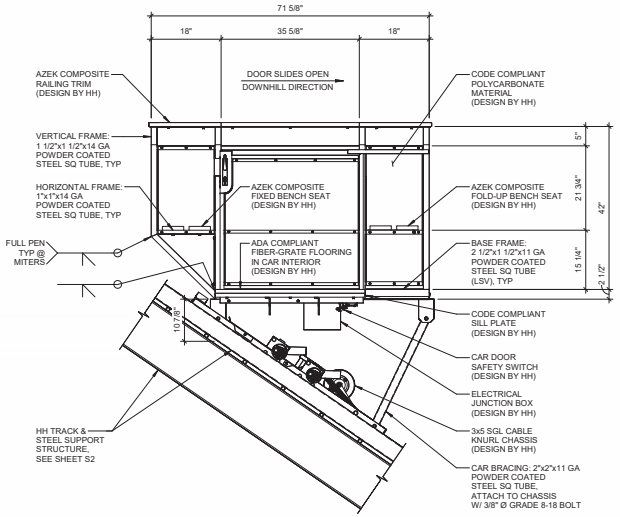
3" = 1'-0"

NOTE:
FLOOR NOT SHOWN FOR CLARITY



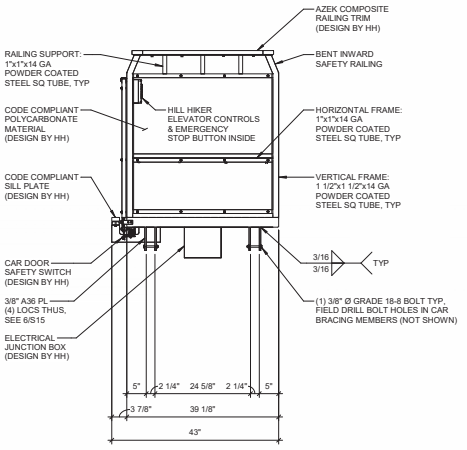
2 S15 ELEVATION (UPHILL END)

3/4" = 1'-0"



3 S15 SIDE ELEVATION

3/4" = 1'-0"



4 S15 ELEVATION (DOWNHILL END)

3/4" = 1'-0"

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2300 Berkshire Lane N, Suite 200
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763.559.9100
www.vaaeng.com

HILL HIKER®
3565 County Road 6
Orono, MN 55356
952.476.2422
www.hillhiker.com
info@hillhiker.com

PROJECT:

INCLINE ELEVATOR
PLOWSHAY RESIDENCE
1532 GRAND AVE
GRAND LAKE, CO 80447

NO.	DATE	ISSUE/REVISION	BY
A	10/06/23	ISSUED FOR REVIEW	EJE
B	02/05/24	ISSUED FOR REVIEW	EJE
0	05/14/24	ISSUED FOR PERMIT	EJE

COLORADO LICENSED
MARK D. MIELKE
41574
PROFESSIONAL ENGINEER
5.14.24

MARK D. MIELKE, P.E. 41574

DATE:	DESIGNED:
10/06/23	CRG/APF
DRAWN:	CHECKED:
EJE	APF/KFB
APPROVED:	
MDM	

DRAWING TITLE:

HILL HIKER CAR

PROJECT NO:	DRAWING NO:
230576	S15
SCALE: AS NOTED	