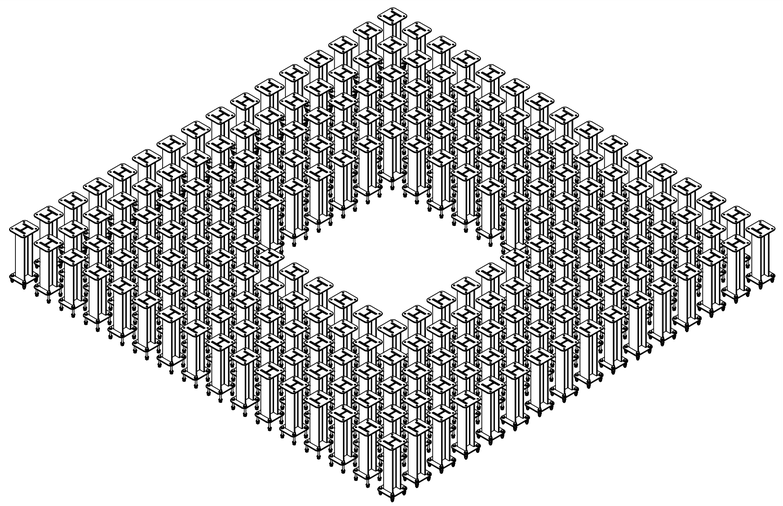
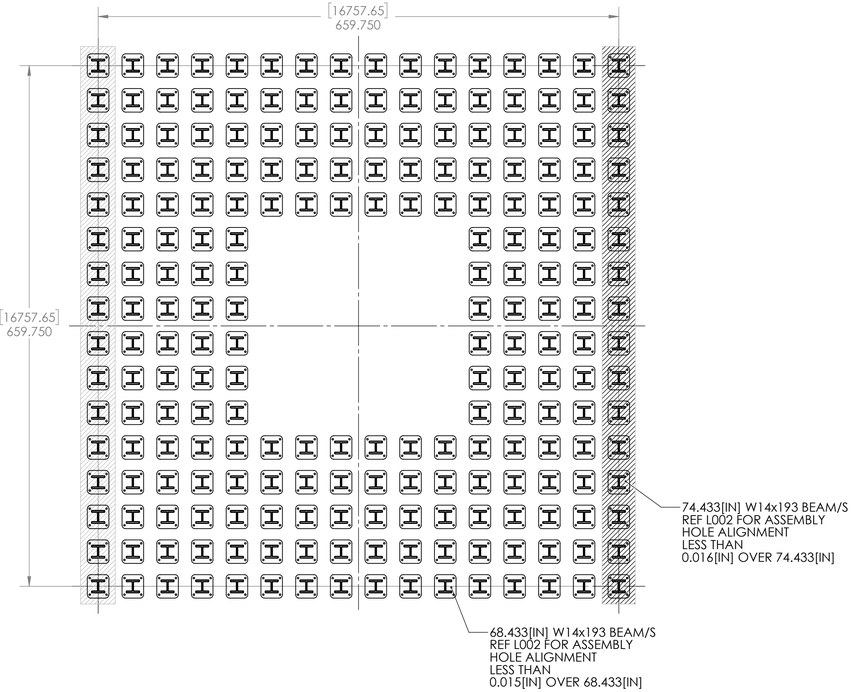
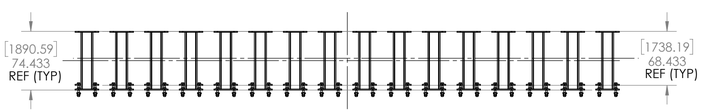
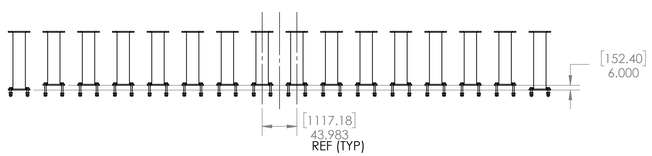
ITEM NO.	PART NUMBER	DESCRIPTION	WEIGHT	QTY.
1	W14x193 1 20210720 c140			32
2	Plate w14x193 20210528 s1 s4C c140			64
3	bolt 2in 4tpi 10in DH3 1 20210623 s4C c140			128
4	nut 2in 4tpi HD 1 20210720			128
5	wash 2in HD 1 20210720			256
6	nut 2in 4tpi HD 1 half 20210720			128
7	W14x193 1 20210720 c140 B			188
8	Plate w14x193 20210528 s1 s4C c140 B			376
9	nut 2in 4tpi HD 1 20210720 B			752
10	wash 2in HD 1 20210720 B			1504
11	nut 2in 4tpi HD 1 half 20210720 B			752
12	bolt 2in 4tpi 15.5in DH3 1 20210720 B			752









NOTE/S:
DEFINITION:
INT = INTERSECTION
NO SHARP EDGES/CORNERS
W14/W10, ASTM A913 G65, Sy 65[KSI]
W6-BEAMS, Sy 42[KSI] (PERF A572 G42)
C6-BEAMS, Sy 36[KSI]
AL, T6061-T6, Sy 40[KSI] MIN
AL, ALLOY, Sy 40[KSI] MIN
PLATE/S AISI 1045, Sy 75[KSI] (MIN)
ALUMINIZATION TYPE II (PREF)
GALVINIZE ASTM A123 G100 ACCPTABLE
MASKING OF MATING SURFACES
OIL-SHEEN, SAE 50+, PRIOR TO ASM
NO AGGLOMERATION OF OIL
AL/ALLOY TO STEEL INTERFACE, POLYMER FILM OR OTHER
MINIMIZE/NEUTRALIZE IONIC EXHANGE
BOLT/S ASM G8
CLASS B, AS-BUILT
CAD/DATA IS MASTER

EXAMPLE: AMBIENT TEMP [F]	EXAMPLE: AMBIENT TEMP [C]	T6061-T6 dL PER 1000[IN]	T6061-T6 dL PER 1000[mm]
45.00	7.22	-0.183	-4.658
59.00	15.00	0.0	0.0
86.00	30.00	0.354	8.984

EXAMPLE:
LET DIM = 47.125[IN] (T6061-T6)
dL = 0.000015 [(86 - 59)47.125
dL = 0.0167[IN] [0.4234[mm]]

AT 86[F] THE DIMENSION OF THE PART IS 47.125 + 0.0167 =47.1429[IN]

GALVONIC PROTECTION REQUIRED:
ALUMINIZE TYPE II PREFERRED
GALVINIZE G100 ACCEPTABLE
THERMAL SPRAY AS/FOR ASSEMBLED

UNLESS OTHERWISE SPECIFIED:
TOLERANCES:
DIMENSIONS TAKEN AT 59[F] DIMENSIONS TAKEN AT 15[C]
FRACTIONAL±0.13[IN]
ANGULAR: 0.3[DEG]
TWO PLACE DECIMAL ±0.05[IN]
THREE PLACE DECIMAL ±0.005[IN]
VERIFICATION OF COMPONENTS MUST BE PERFORMED WITH TEMPERATURE COMPENSATION
INTERPRET GEOMETRIC TOLERANCING PER: ASME Y14.5

PARALLEL PLANES MAX 0.002[IN]
FLATNESS MAX 0.002[IN]
FINISH: AS REQUIRED

	NAME	DATE
DRAWN		
CHECKED		
ENG APPR.		
MFG APPR.		
Q.A.		

GAUGE/S:
DRAWINGS ARE AT 59[F] (15[C]): REFER TO MATERIAL SUPPLIER FOR THERMAL EXPANSION COEFFICIENT (CTE)
dL[ENG] = (DIM)*(CTE[1/R])*(TEMP-59)
dL[SI] = (DIM)*(CTE[1/K])*(TEMP-15)
***TOLERANCES DO NOT CHANGE

CREO DESIGNS, ENG DPT

TITLE: GLORIOUS CROSS

INT - C140 BEAM ARRAY

SIZE	DWG. NO.	REV
D	M - 049	1

SCALE: 1:96 SHEET 1 OF 1