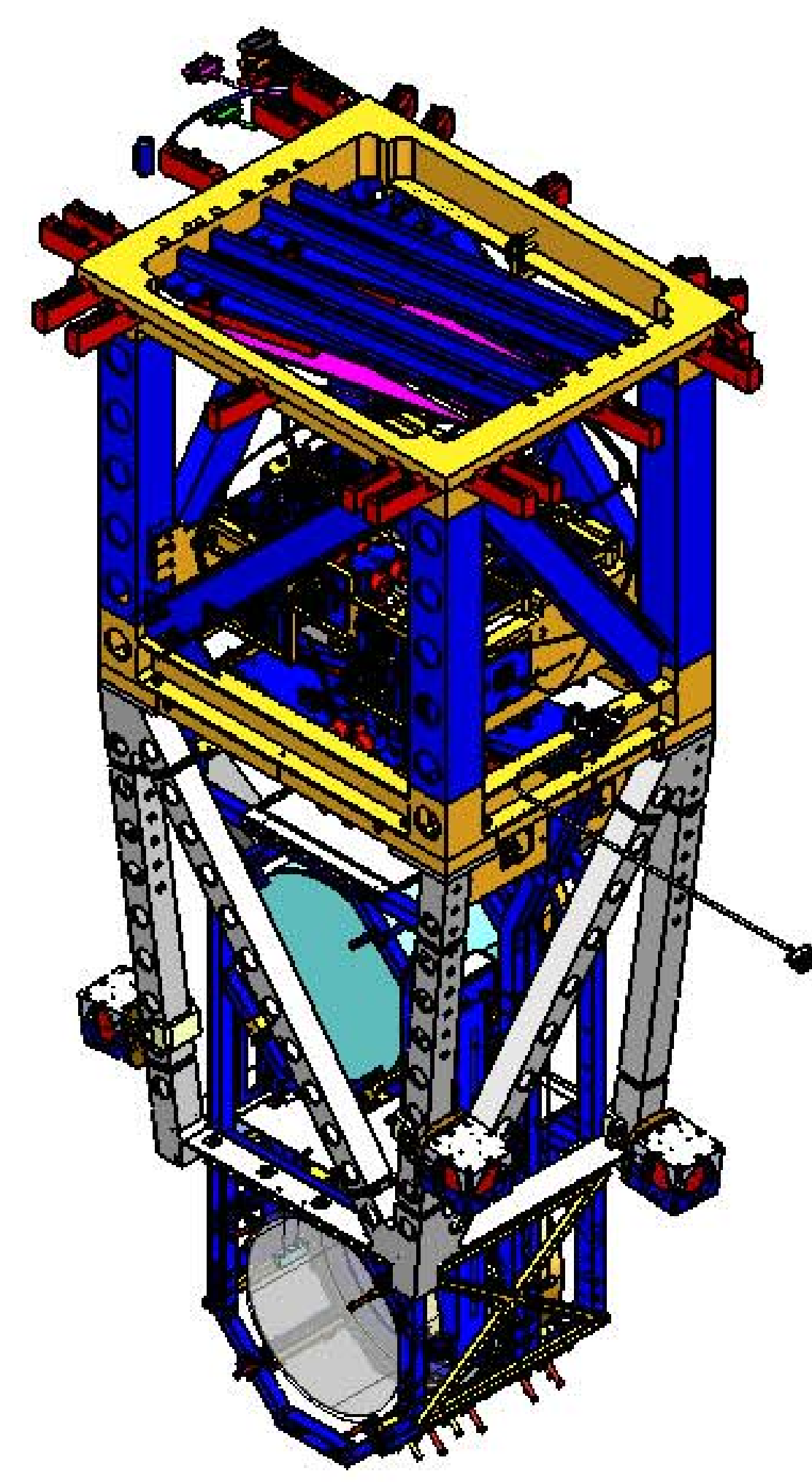
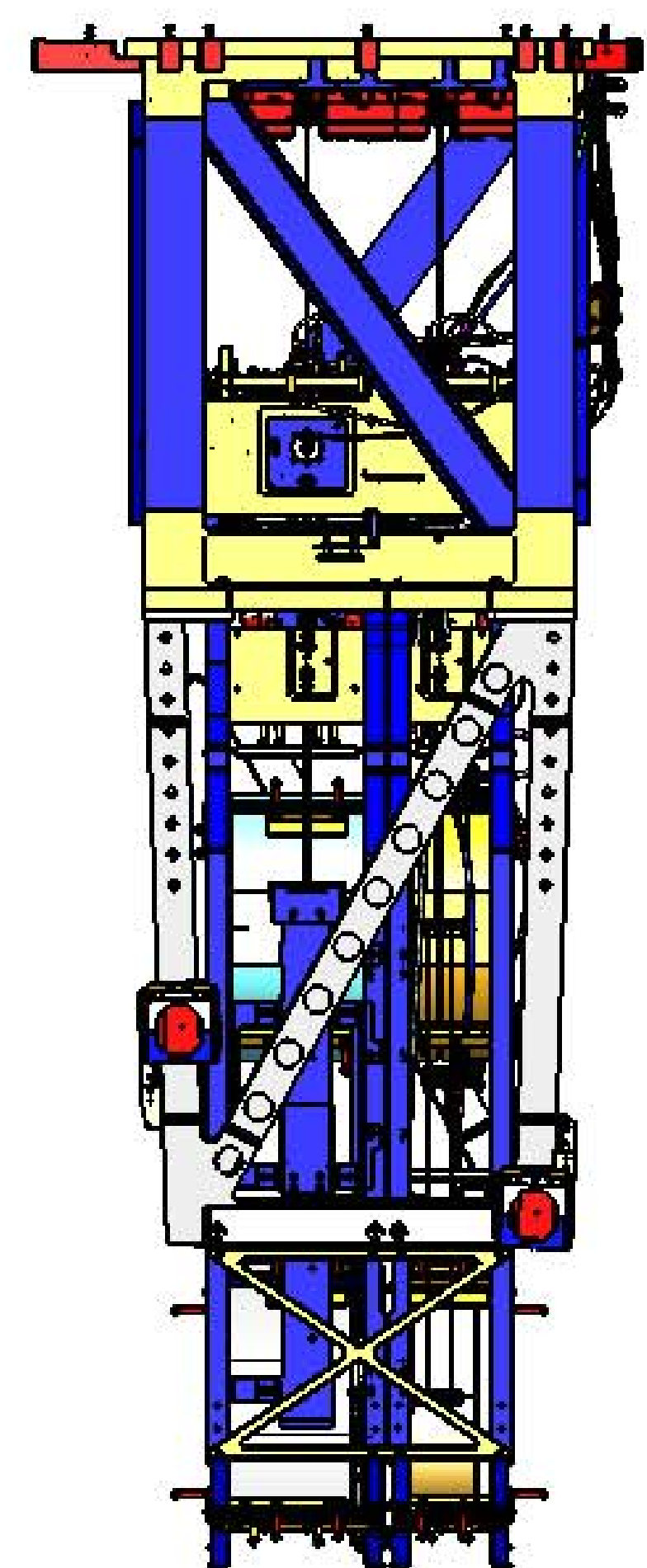
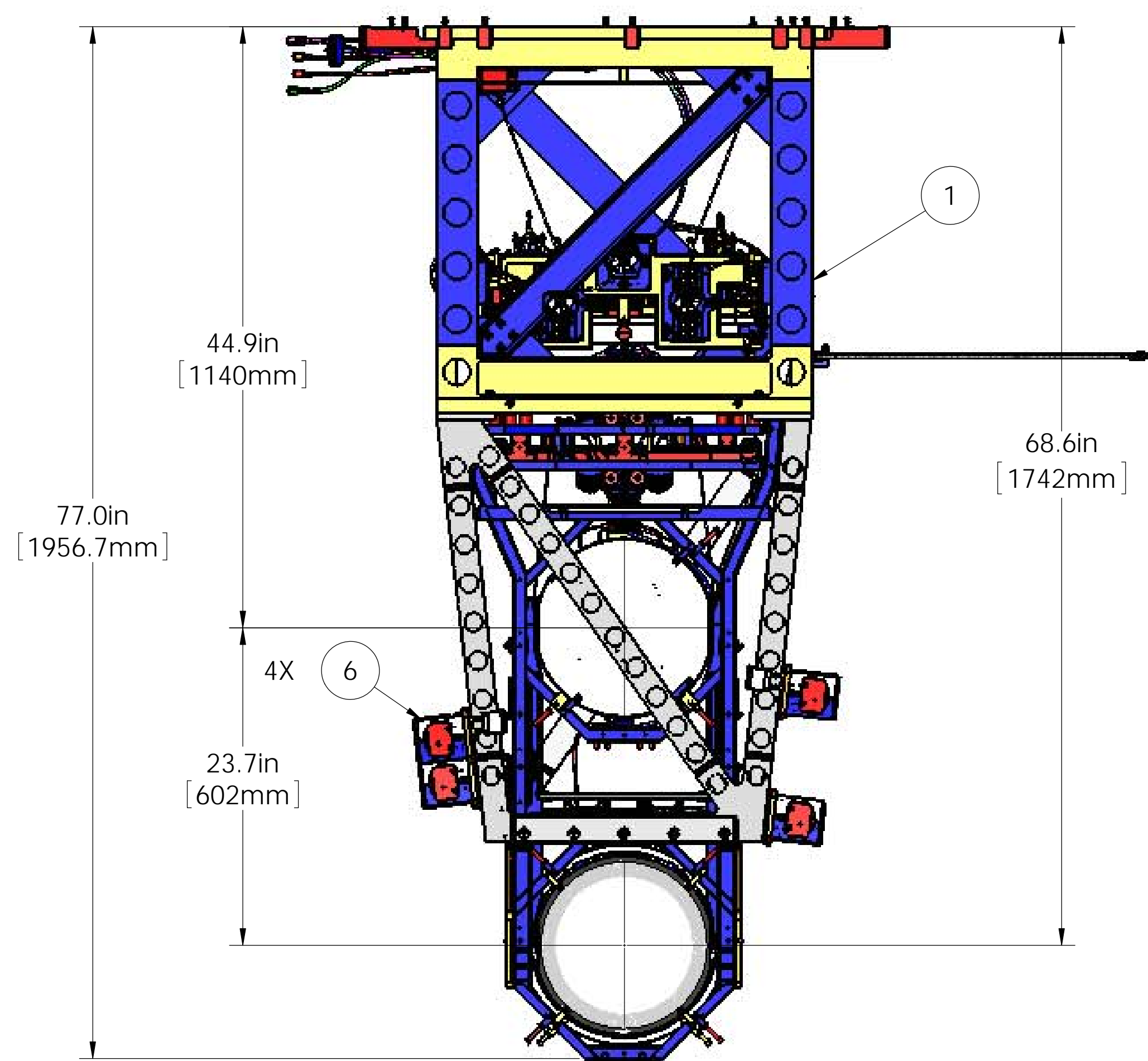
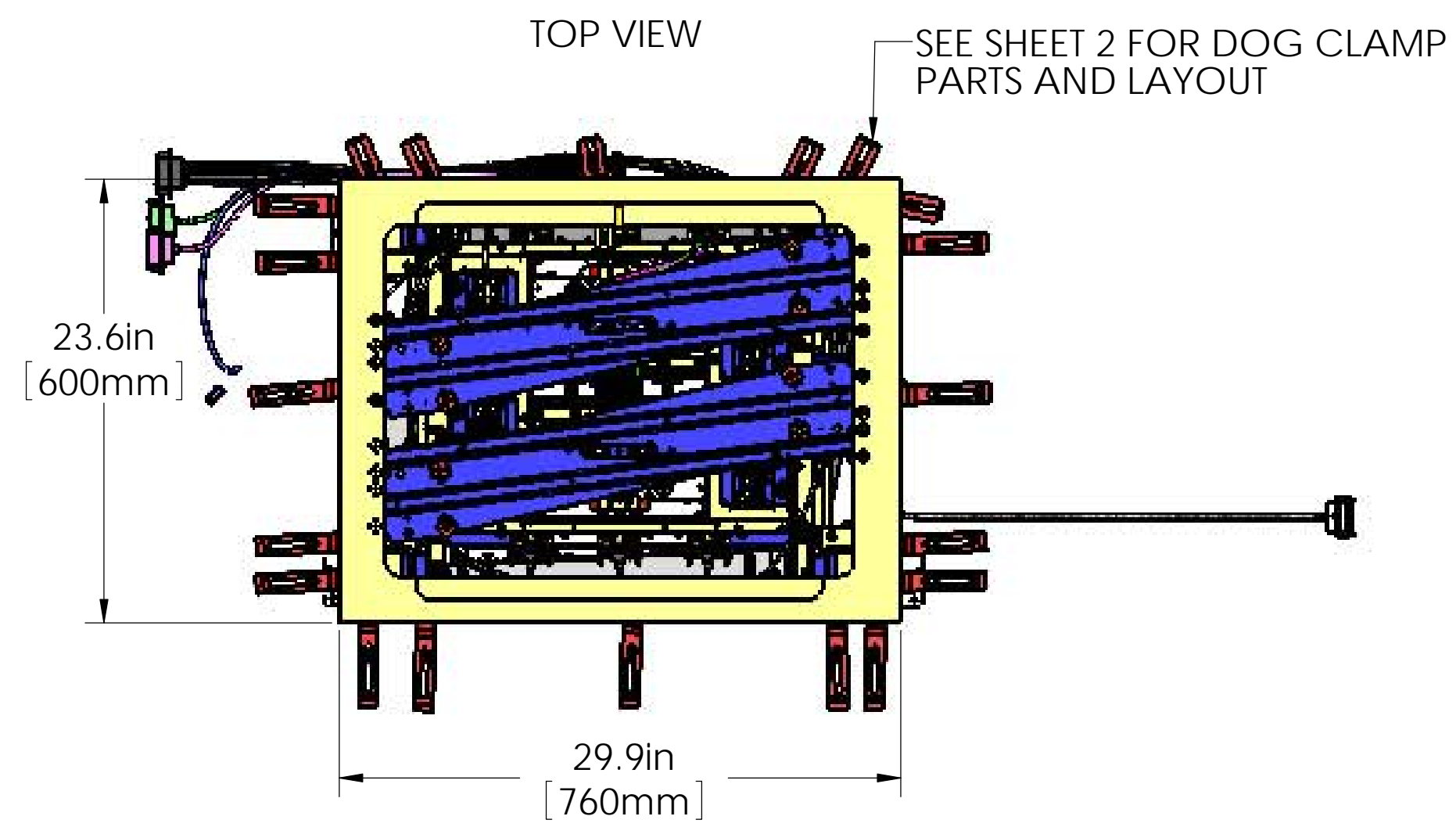


REV.	DATE	DCN #	DRAWING TREE #
v5	21 NOV 2011	-	-
v6	12 DEC 2011	-	-
v7	28 JUN 2012	-	-



ISO VIEW

LOCAL COORDINATES - REFERENCE

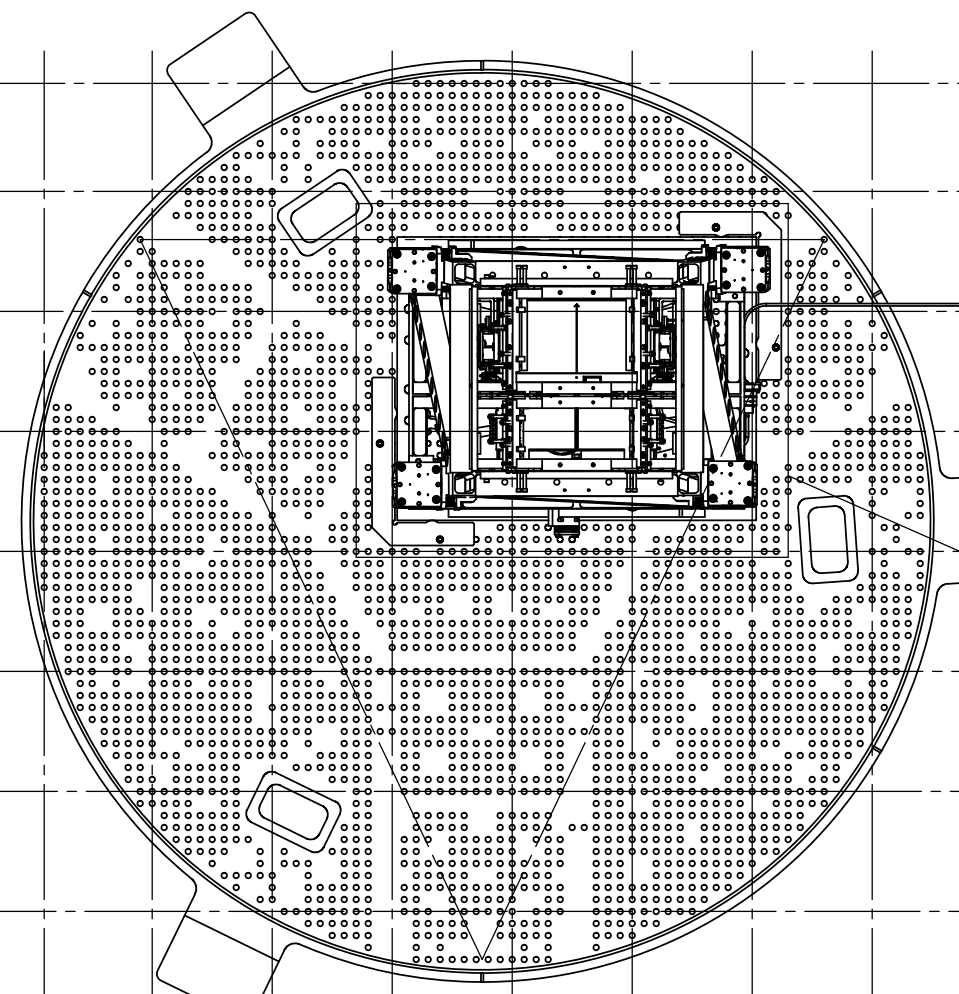
Xmm	Ymm	Zmm	Yaw
200.0	-472.3	-80.0	0.0°

SEE PAGE 4 FOR CS DEFINITION

ITEM NO.	PART NUMBER	DESCRIPTION	MATERIAL	QTY.
6	D1002424	VIBRATION ABSORBER ASSEMBLY	N/A	4
5	3AJ1.500-12CL	3/8-16 X 1.50 12PT BOLT	450 SSSL	20
4	D1100785-620	duplicate do not use	NITRONIC 60	20
3	D1003190	aLIGO QUAD SHORTER DOG CLAMP	304 SSSL	6
2	D070056	aLIGO SUS QUAD N-PTYPE QUAD DOG CLAMP	304 SSSL	14
1	D0901346-03	aLIGO SUS QUAD ITM SUS ASSY TOP LEVEL TD-1084-090	N/A	1

DIMENSIONS ARE IN INCHES TOLERANCES: .XX ± .03 .XXX ± .010 ANGULAR ± .5°		NOTES AND TOLERANCES: (UNLESS OTHERWISE SPECIFIED) 1. INTERPRET DRAWING PER ASME Y14.5-1994. 2. REMOVE ALL SHARP EDGES, .005-.015. FOR MACHINED PARTS. ROUND ALL EDGES APPROXIMATELY R.02 FOR SHEET METAL PARTS. 3. DO NOT SCALE FROM DRAWING. 4. ALL MACHINING FLUIDS MUST BE FULLY SYNTHETIC, FULLY WATER SOLUBLE AND FREE OF SULFUR, SILICONE, AND CHLORINE.		CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		PART NAME AdvLIGO SUS BSC6-H2, XYZ Local CS for ETMY	
MATERIAL SEE BOM		FINISH N/A μinch		SYSTEM ADVANCED LIGO		SUB-SYSTEM SUS	
NEXT ASSY D0900512		DESIGNER J.ODELL 9 Aug 2009		SIZE D		DWG. NO. D0900515	
CHECKER E.CHAVEZ 30 June 2011		DRAFTER M.HILLARD 30 June 2011		APPROVAL C.TORRE 30 June 2011		REV. v7	
SCALE: 1:8		PROJECTION:		SHEET 1 OF 9			

D:\090515-ADV-LIGO\SUS\BSC6-H2_XYZ Local CS for ETMY.PART.PDM\REV.X.078.DRAWING.PDM.REV.X.012



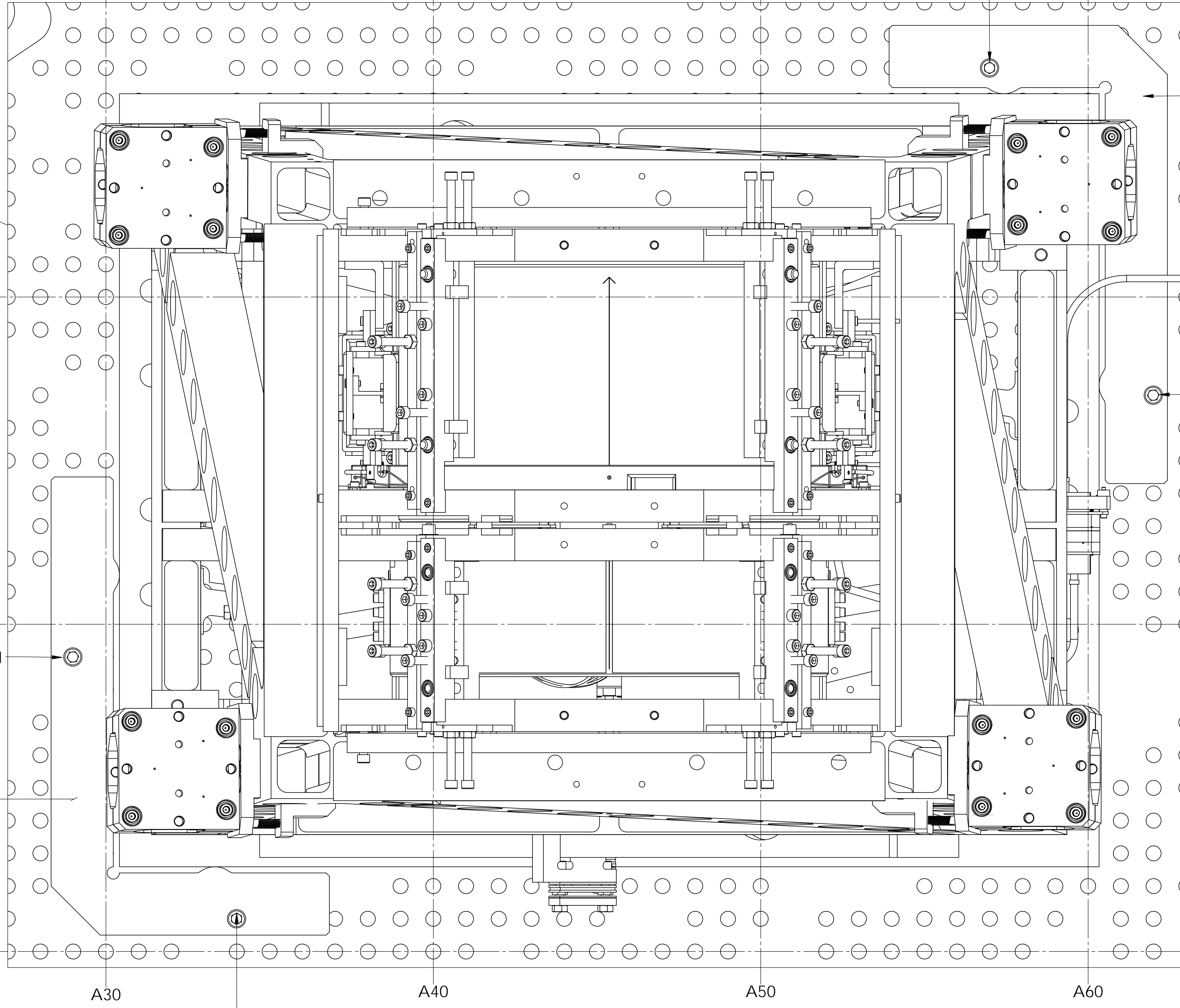
A1 A10 A20 A30 A40 A50 A60 A70

ISI TABLE
UNDERSIDE VIEW
(LOOKING UP)

Y+

BSC 10

+X



SCREW HOLE: A57, B13

1
D1101050-7
LABELED 'BSC6-B'

B20

SCREW HOLE: A62, B23

B30

SCREW HOLE: A29, B31

1
D1101050-5
LABELED 'BSC6-A'

B40

A30

A40

A50

A60

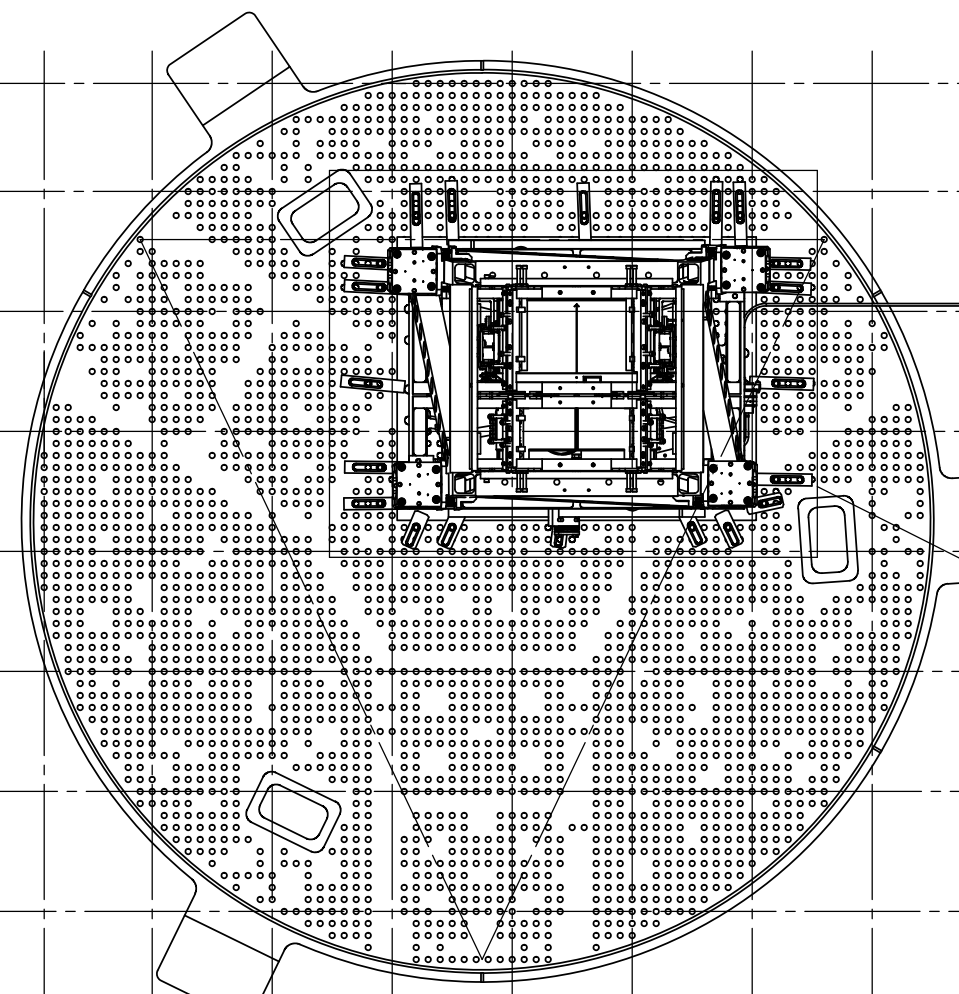
SCREW HOLE: A34, B39

DETAIL A
SCALE 1 : 2

3. REFER TO D1101271 FOR OPTICAL TABLE HOLE TABULATION CONVENTION.
2. REFER TO G1000125 FOR ISI NAMING CONVENTION AND ORIENTATION CONVENTION.
1. USE ONLY ONE (1) ALIGNMENT TOOL. REMOVE AFTER ETMY IS CLAMPED TO ISI TABLE.

LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY	
SIZE DWG. NO.	REV.
D D0900515	v7
SCALE: 1:5	PROJECTION:
SHEET 2 OF 9	

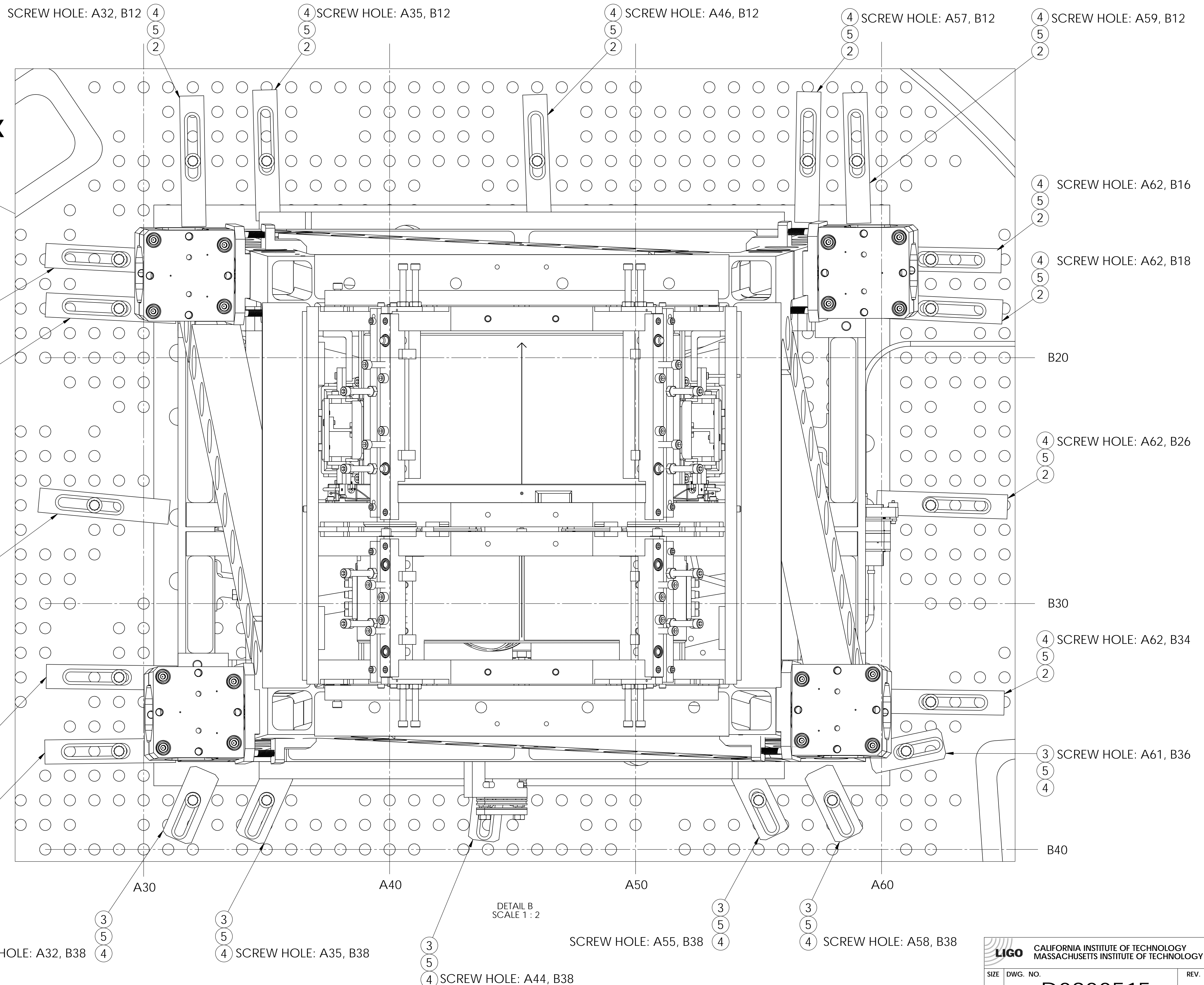
D0900515-ADM-LIGO SLS-BSC-HZ, XYZ Local CS for ETMY, PART PDM REV. X.078, DRAWING PDM REV. X.012



A1 A10 A20 A30 A40 A50 A60 A70

ISI TABLE
UNDERSIDE VIEW
(LOOKING UP)

Y+
BSC 10



SCREW HOLE: A32, B12 (4) (5) (2)

SCREW HOLE: A35, B12 (4) (5) (2)

SCREW HOLE: A46, B12 (4) (5) (2)

SCREW HOLE: A57, B12 (4) (5) (2)

SCREW HOLE: A59, B12 (4) (5) (2)

SCREW HOLE: A62, B16 (4) (5) (2)

SCREW HOLE: A62, B18 (4) (5) (2)

SCREW HOLE: A62, B26 (4) (5) (2)

SCREW HOLE: A62, B34 (4) (5) (2)

SCREW HOLE: A61, B36 (3) (5) (4)

SCREW HOLE: A55, B38 (3) (5) (4)

SCREW HOLE: A58, B38 (4) (5) (2)

SCREW HOLE: A32, B38 (3) (5) (4)

SCREW HOLE: A35, B38 (3) (5) (4)

SCREW HOLE: A44, B38 (3) (5) (4)

SCREW HOLE: A29, B16 (2) (5) (4)

SCREW HOLE: A29, B18 (2) (5) (4)

SCREW HOLE: A28, B26 (2) (5) (4)

SCREW HOLE: A29, B33 (4) (5) (2)

SCREW HOLE: A29, B36 (2) (5) (4)

B1 B10 B20 B30 B40 B50 B60 B70

B20 B30 B40

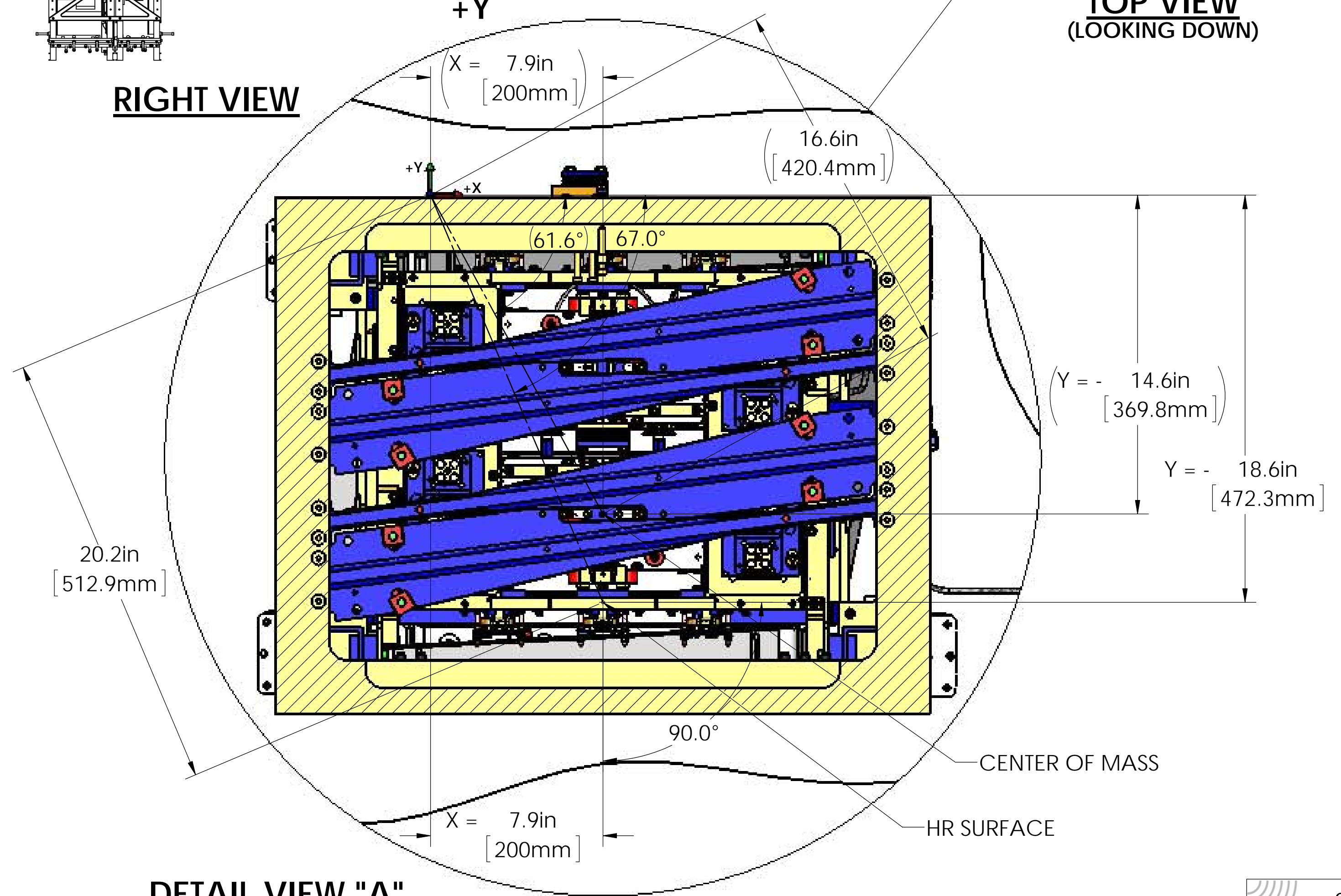
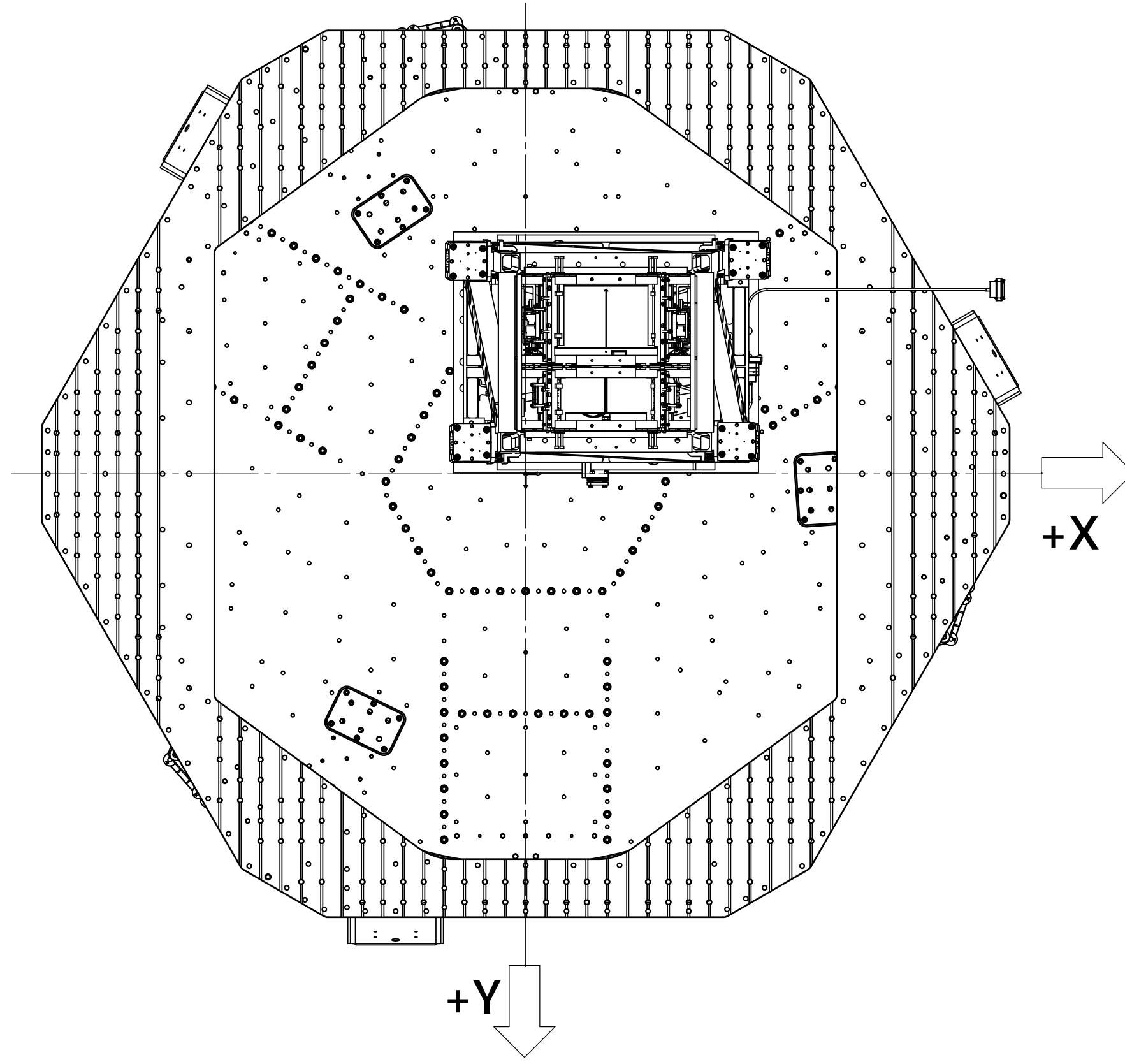
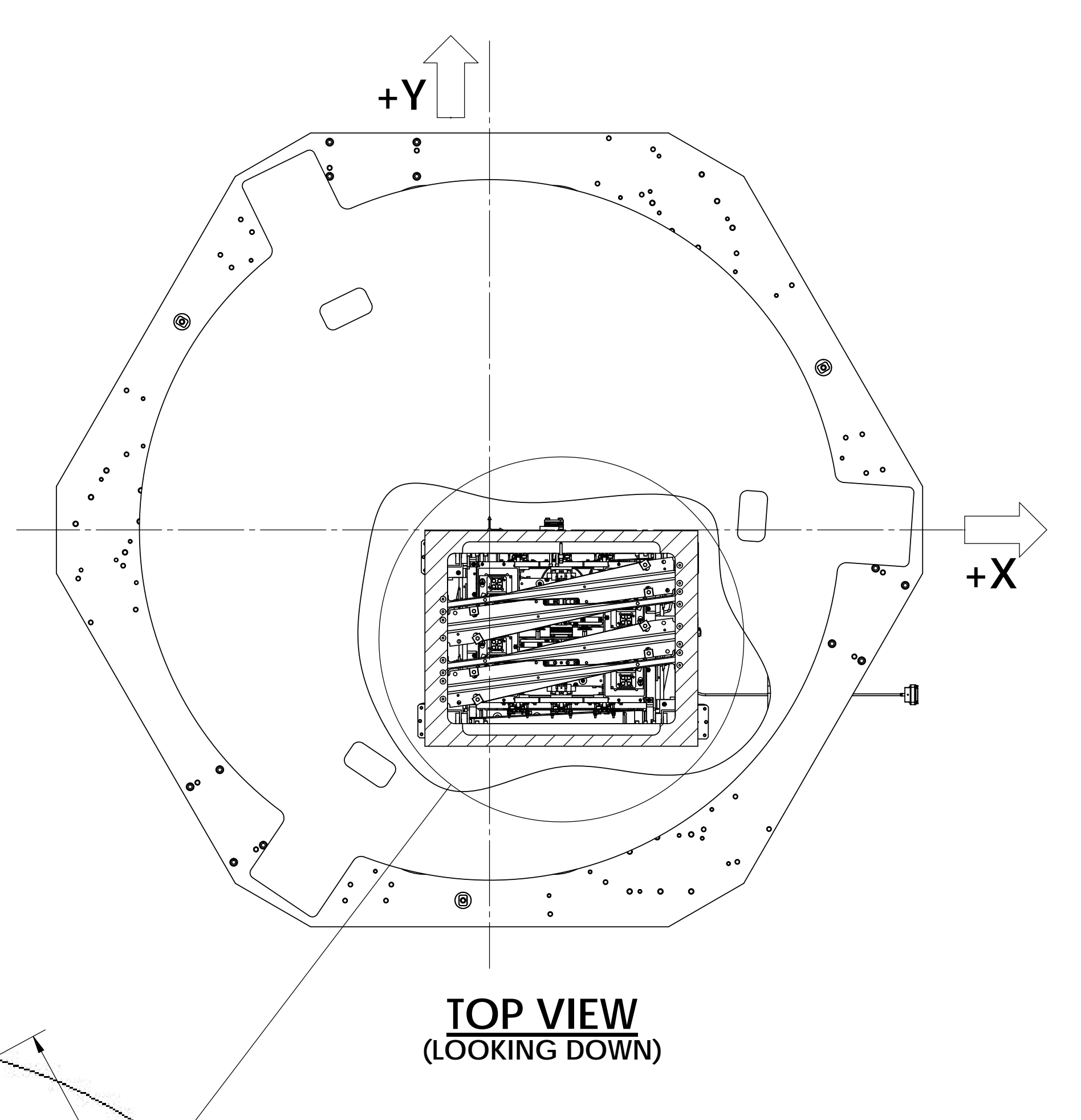
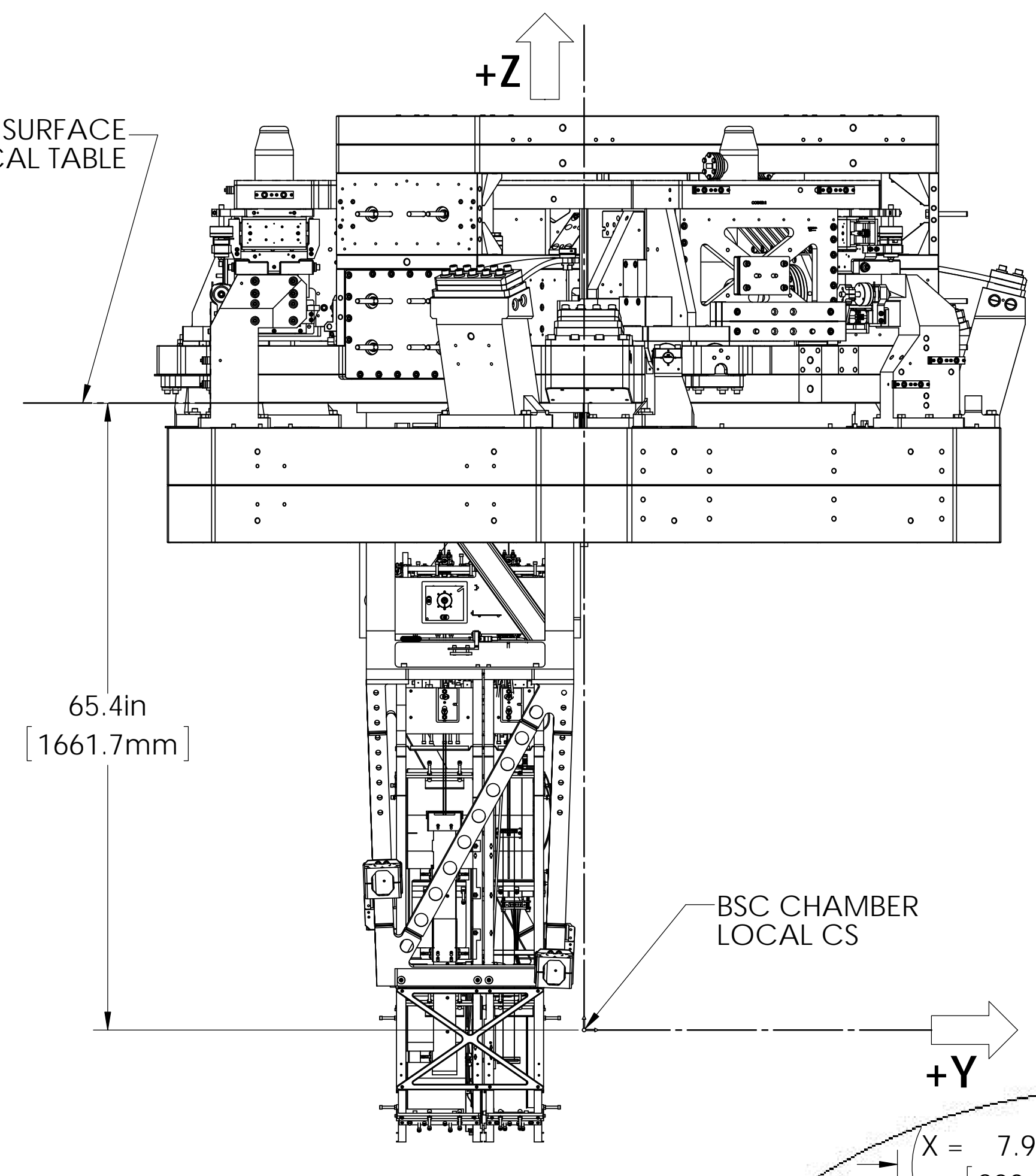
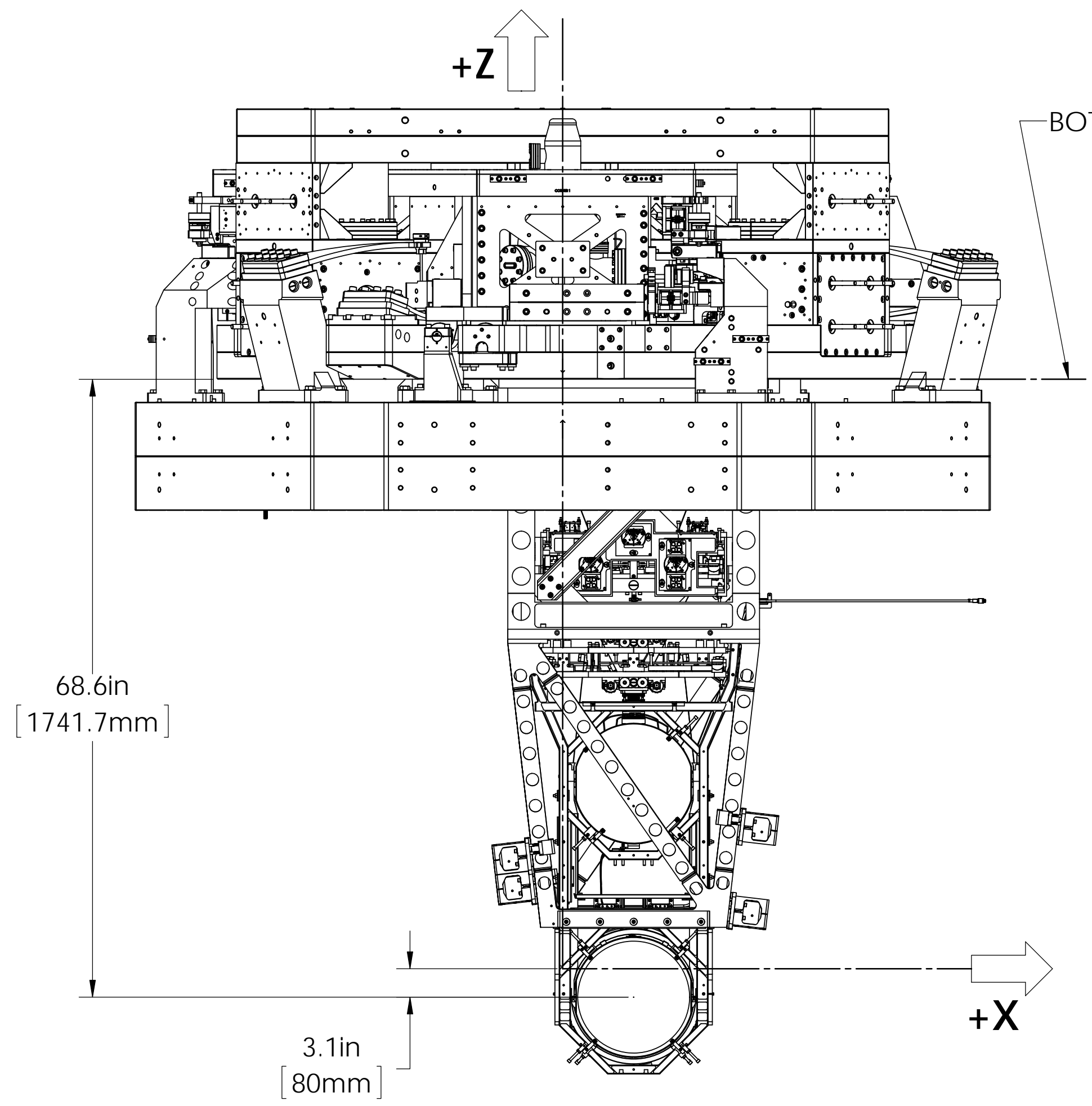
A30 A40 A50 A60

DETAIL B
SCALE 1 : 2

TIGHTEN ALL SCREWS TO
A TORQUE OF 300 IN/LB

LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY	
SIZE DWG. NO.	REV.
D D0900515	v7
SCALE: 1:5	PROJECTION: SHEET 3 OF 9

D0900515.ADM/LIGO_SLS_BSC-HZ_XYZ Local CS for ETM, PART PDM REV. X.078, DRAWING PDM REV. X.012



DETAIL VIEW "A"
DIMENSIONS IN PARENTHESIS
(REFERENCE DIMENSIONS)
ARE FROM CENTER OF MASS

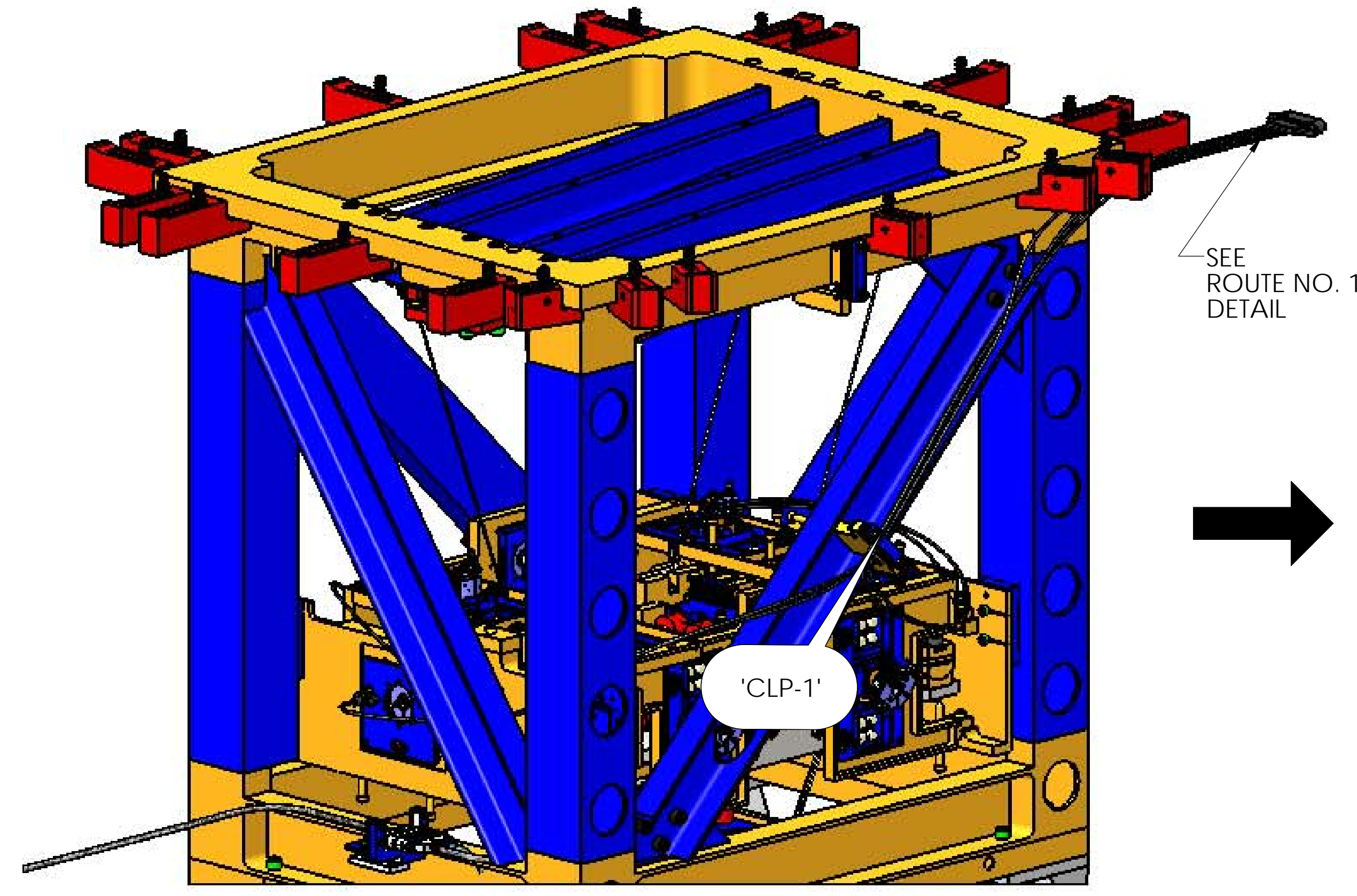
LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY	
SIZE DWG. NO.	REV.
D D0900515	v7
SCALE: 1:24	PROJECTION: SHEET 4 OF 9

D0900515-ADM-LIGO SLS-BSC-HZ, XYZ Local CS for EIMV, PART PDM REV. X.078, DRAWING PDM REV. X.012

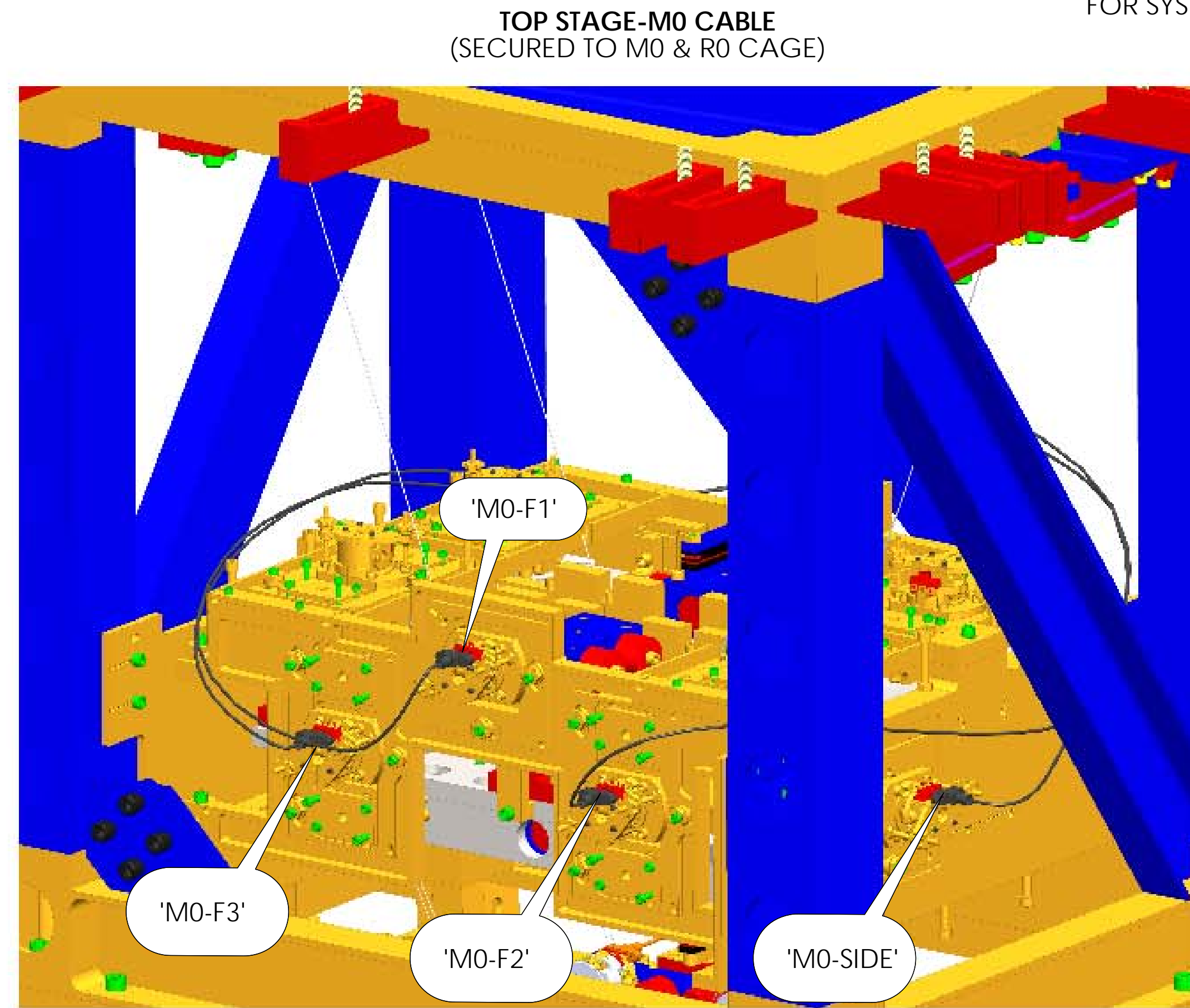
CABLE ROUTING SPECS.: TOP STAGE BOSEM

SEE T1100327 FOR QUAD CABLING PICASSO

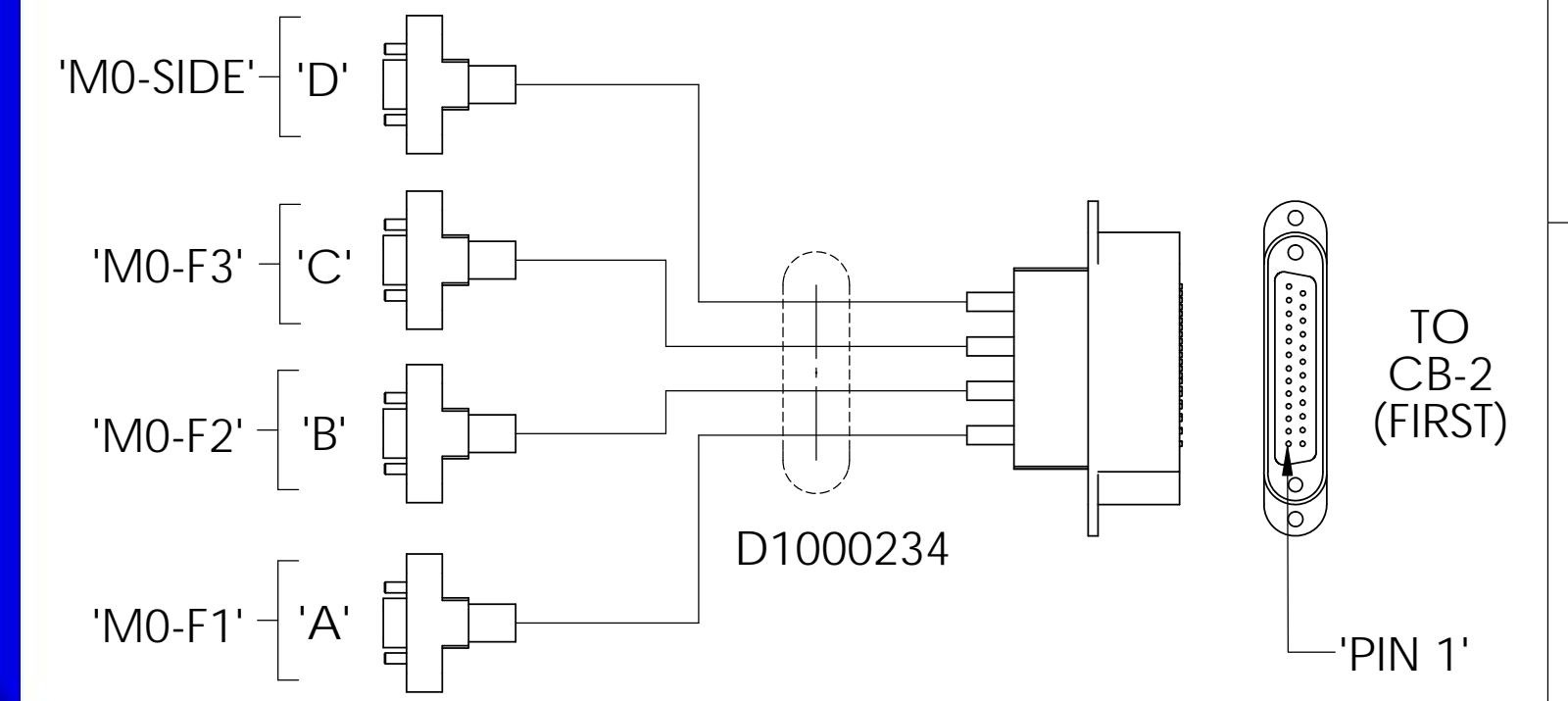
FOR SYSTEM CABLING DIAGRAM, CABLE BRACKET LOCATION/ORIENTATION WRT CHAMBER, SEE D1101478



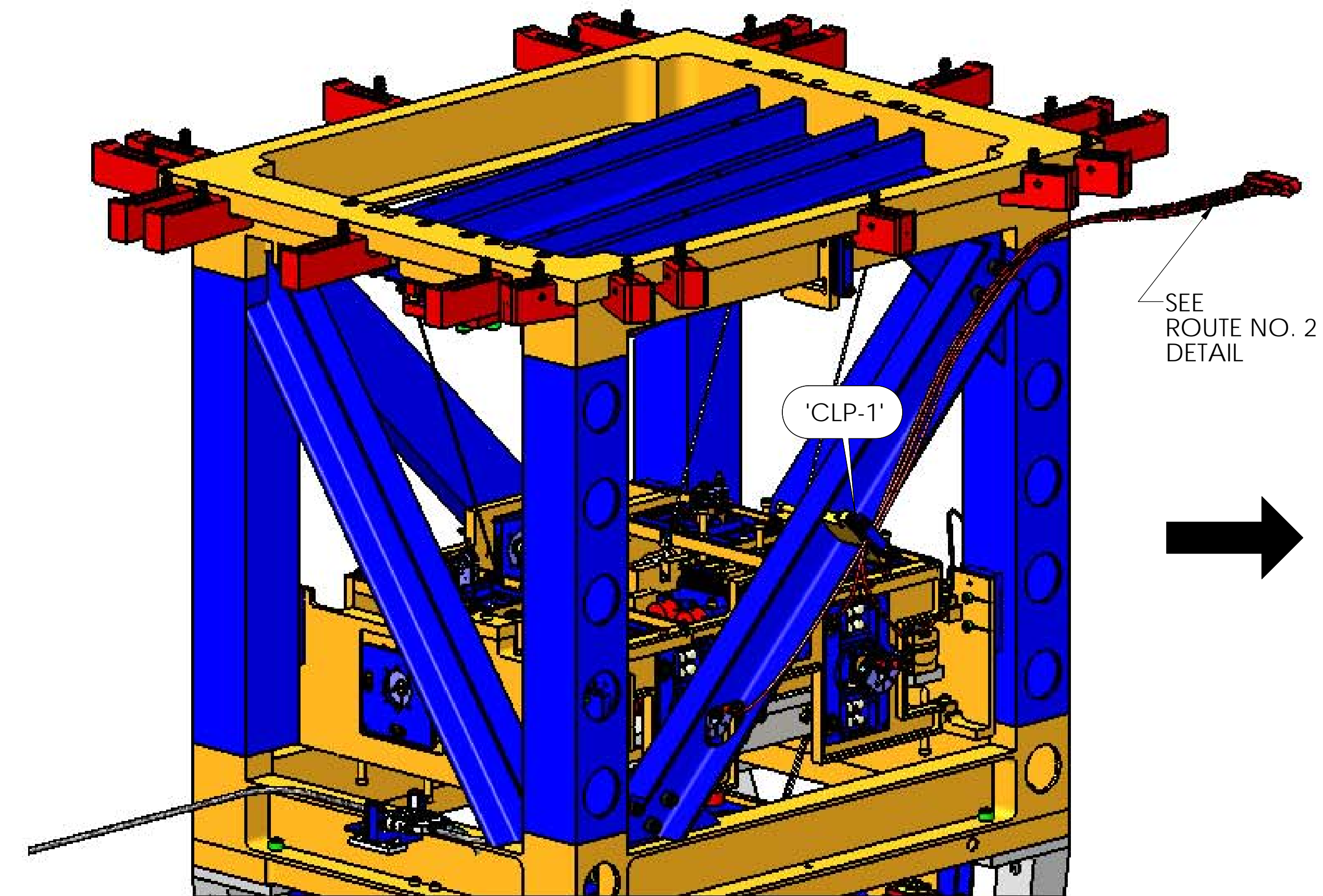
ROUTE CABLE/CABLES THROUGH REFERENCED CABLE CLAMPS



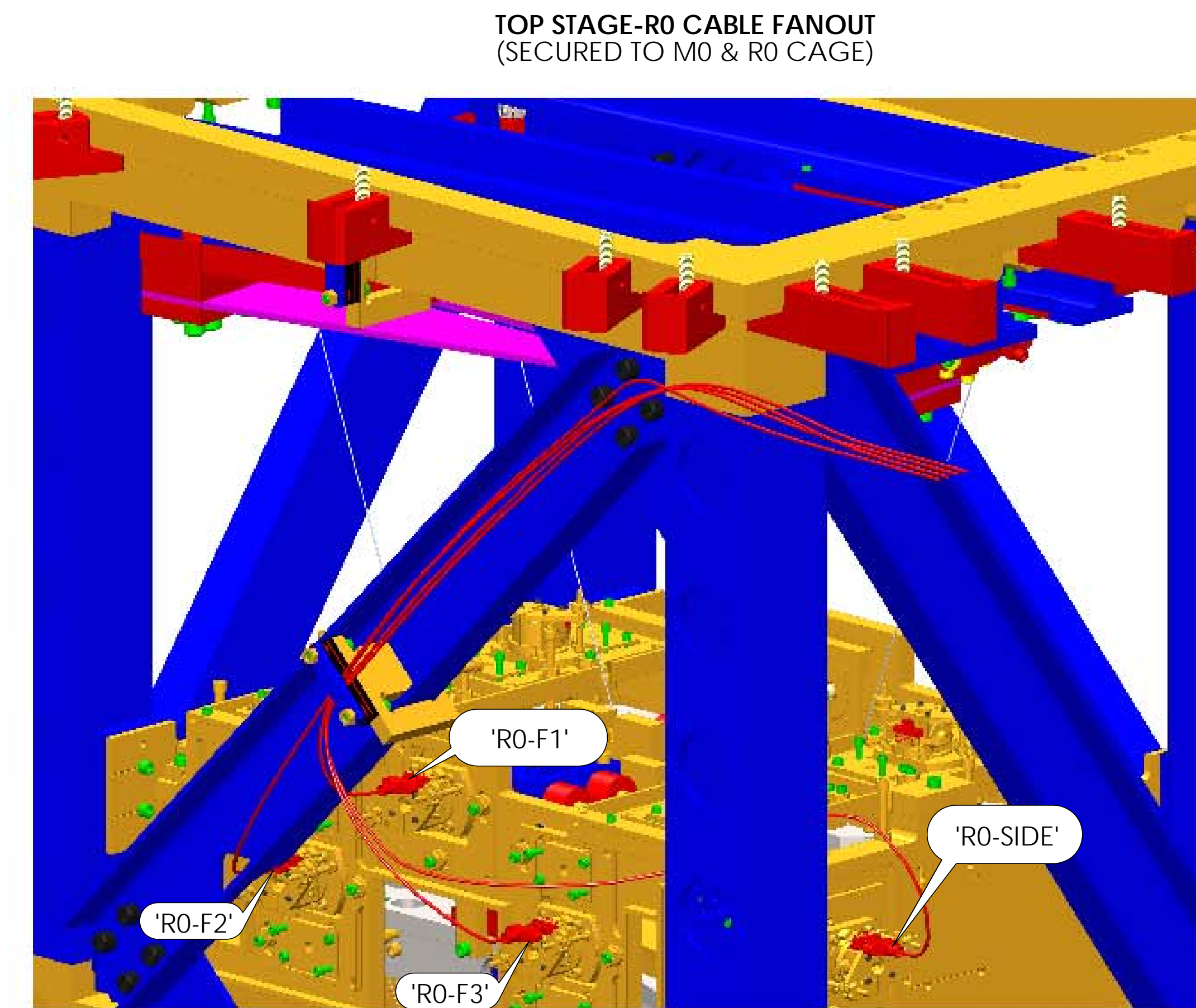
ISO VIEW-REAR



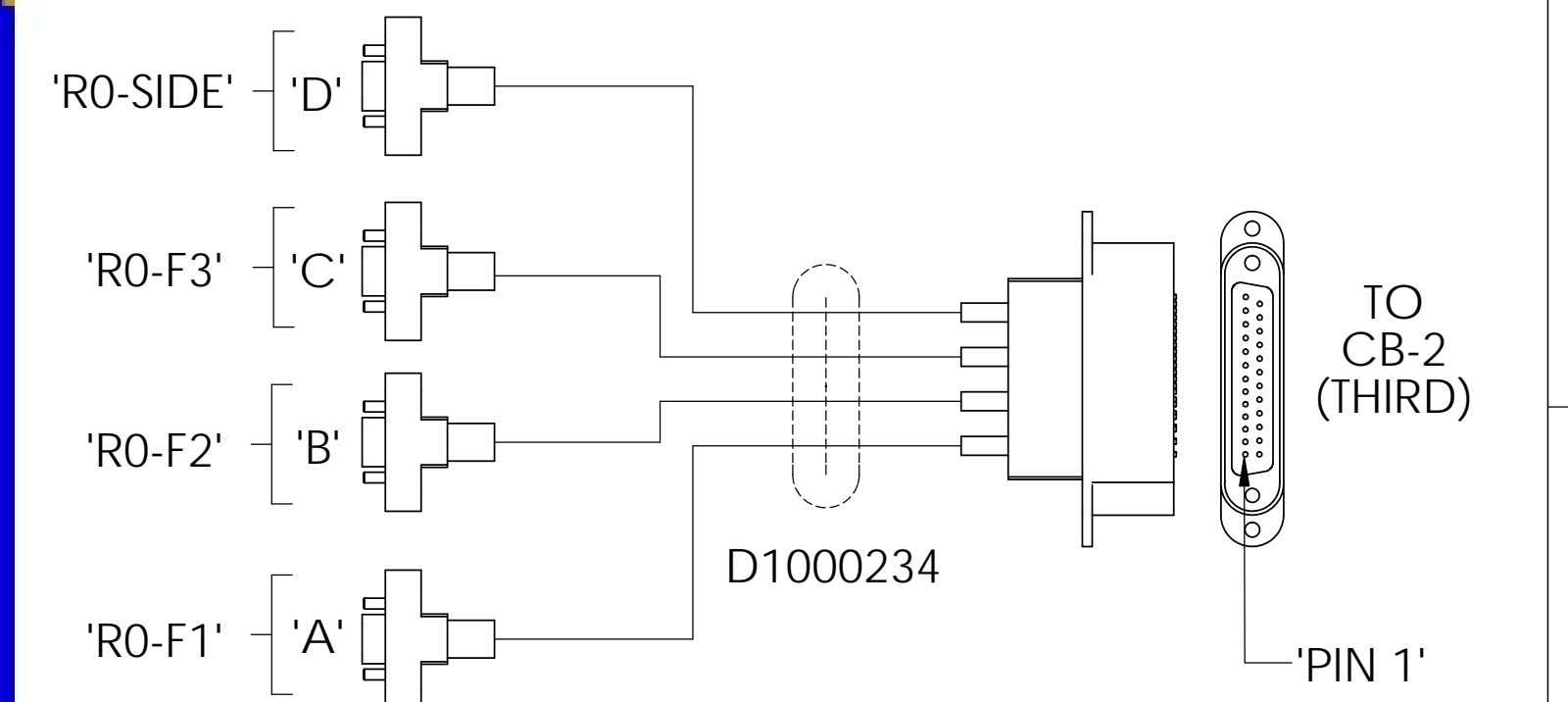
ROUTE NO. 1
(PARTIAL ROUTE-SEE D1101478, FOR COMPLETE ROUTE)



ROUTE CABLE/CABLES THROUGH REFERENCED CABLE CLAMPS



ISO VIEW-FRONT

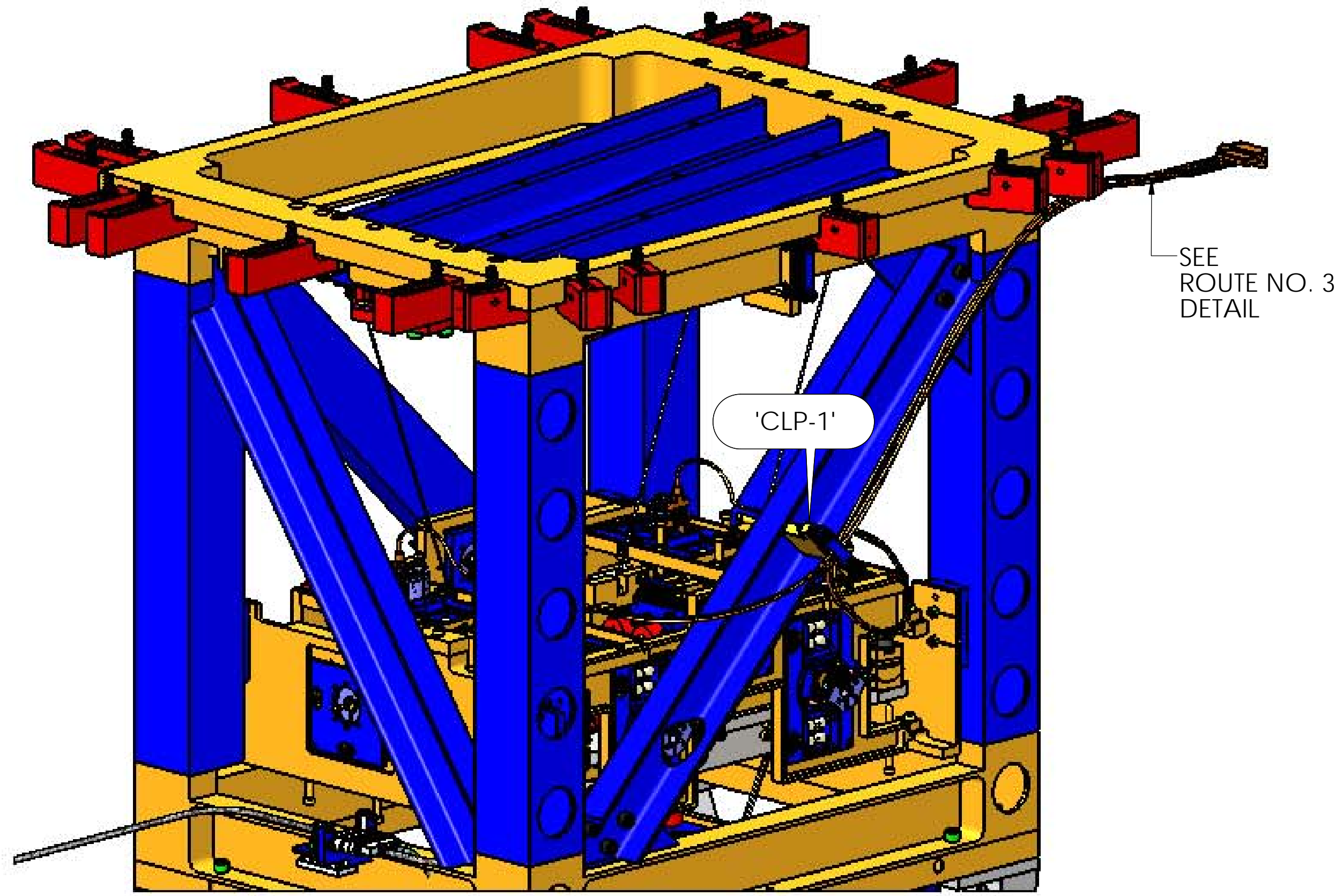


ROUTE NO. 2
(PARTIAL ROUTE-SEE D1101478, FOR COMPLETE ROUTE)

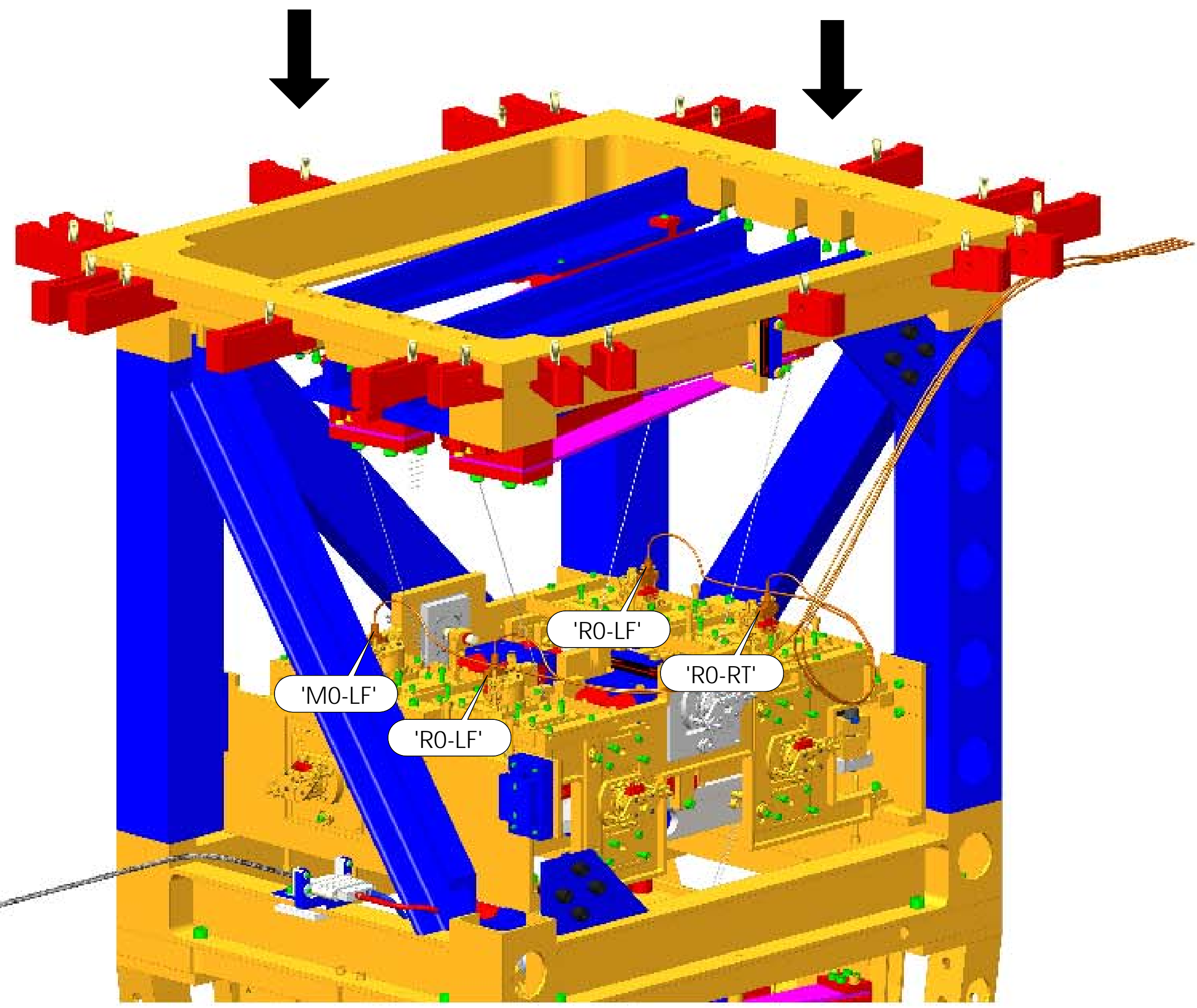
LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		REV.
SIZE DWG. NO.	D0900515	v7
SCALE: 1:16	PROJECTION:	SHEET 5 OF 9

D:\0900515_ADM\LIGO_SLS\BSC-HZ_XYZ\Local\CS for ETM\PART PDM\REV_X_078_DRAWING_PDM_REV_X_012

CABLE ROUTING SPECS.: TOP STAGE BOSEM



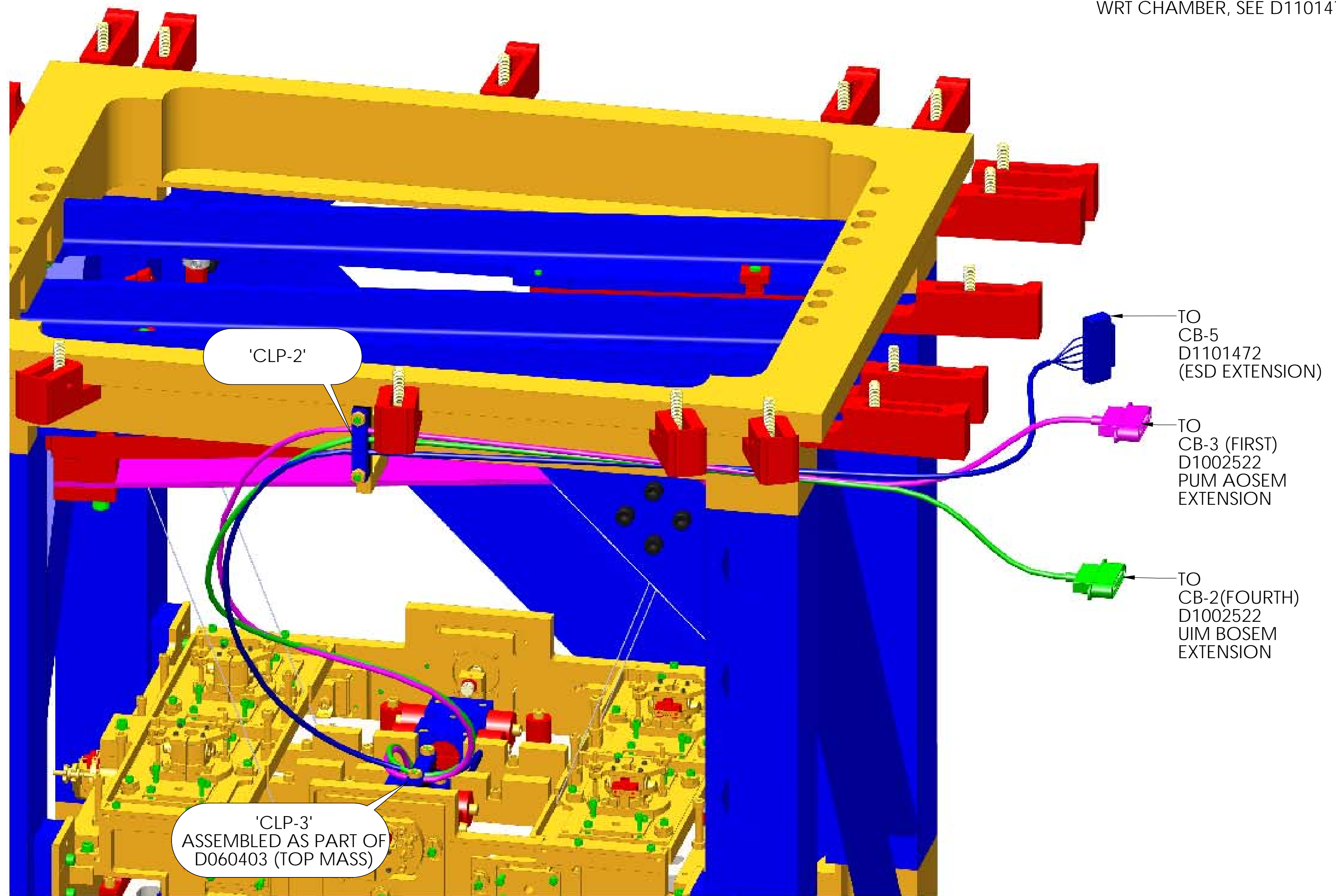
ROUTE CABLE/CABLES THROUGH REFERENCED CABLE CLAMPS



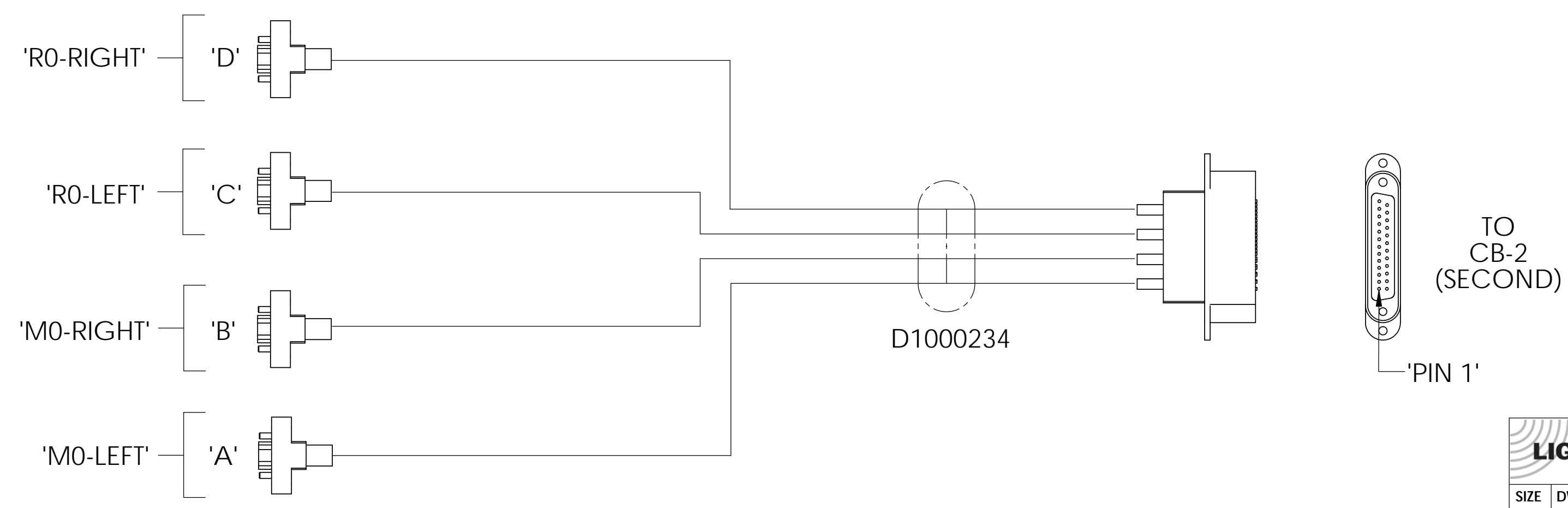
TOP STAGE, M0 / R0 CABLE

SEE T1100327 FOR QUAD CABLING PICASSO

FOR SYSTEM CABLING DIAGRAM, CABLE BRACKET LOCATION/ORIENTATION WRT CHAMBER, SEE D1101478



SEGMENT 'A': ROUTE CABLE/CABLES THROUGH REFERENCED CABLE CLAMPS



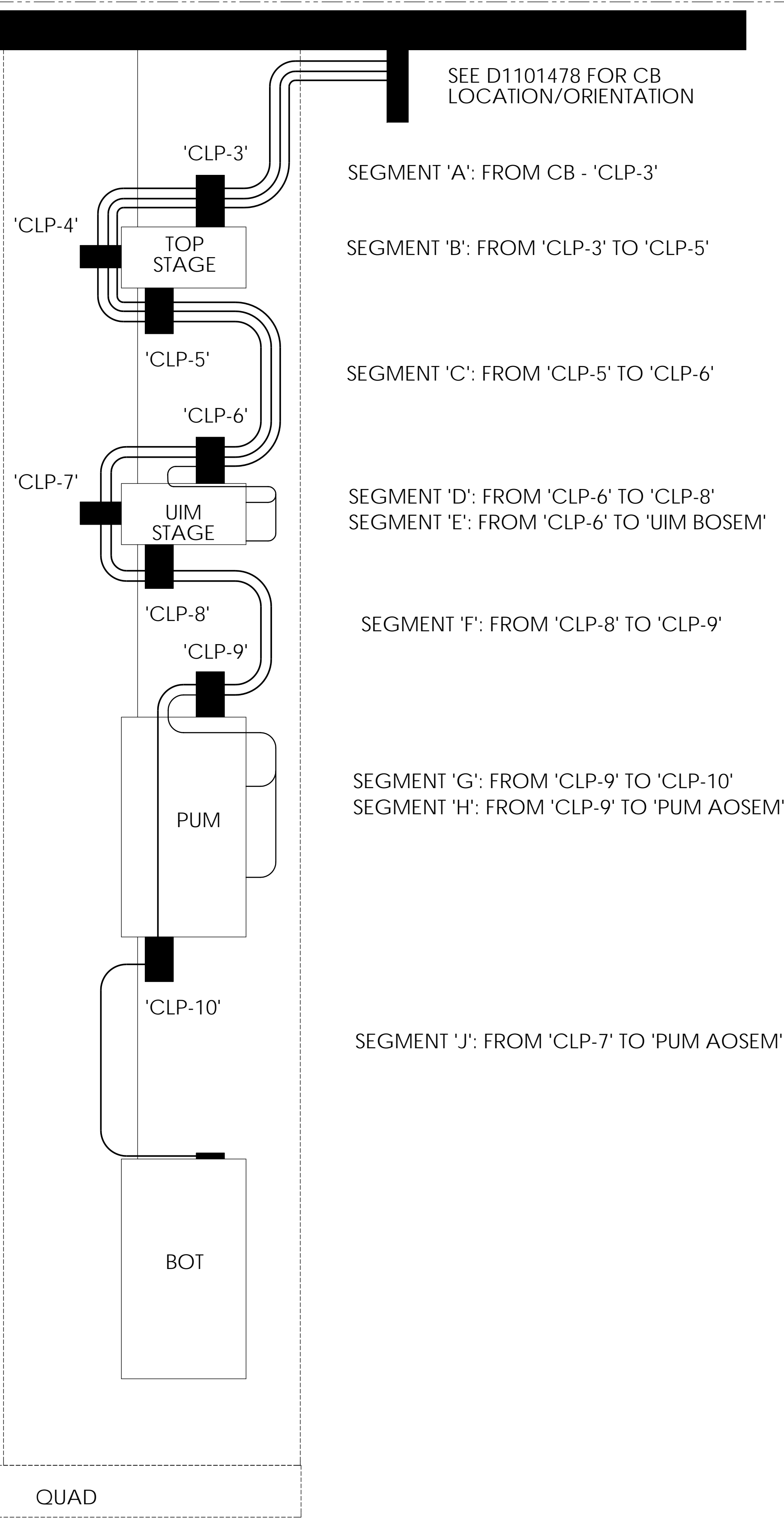
ROUTE NO. 3 DETAIL
(PARTIAL ROUTE-SEE D1101478, FOR COMPLETE ROUTE)

CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		REV.
SIZE	DWG. NO.	v7
D	D0900515	
SCALE: 1:16	PROJECTION:	SHEET 6 OF 9

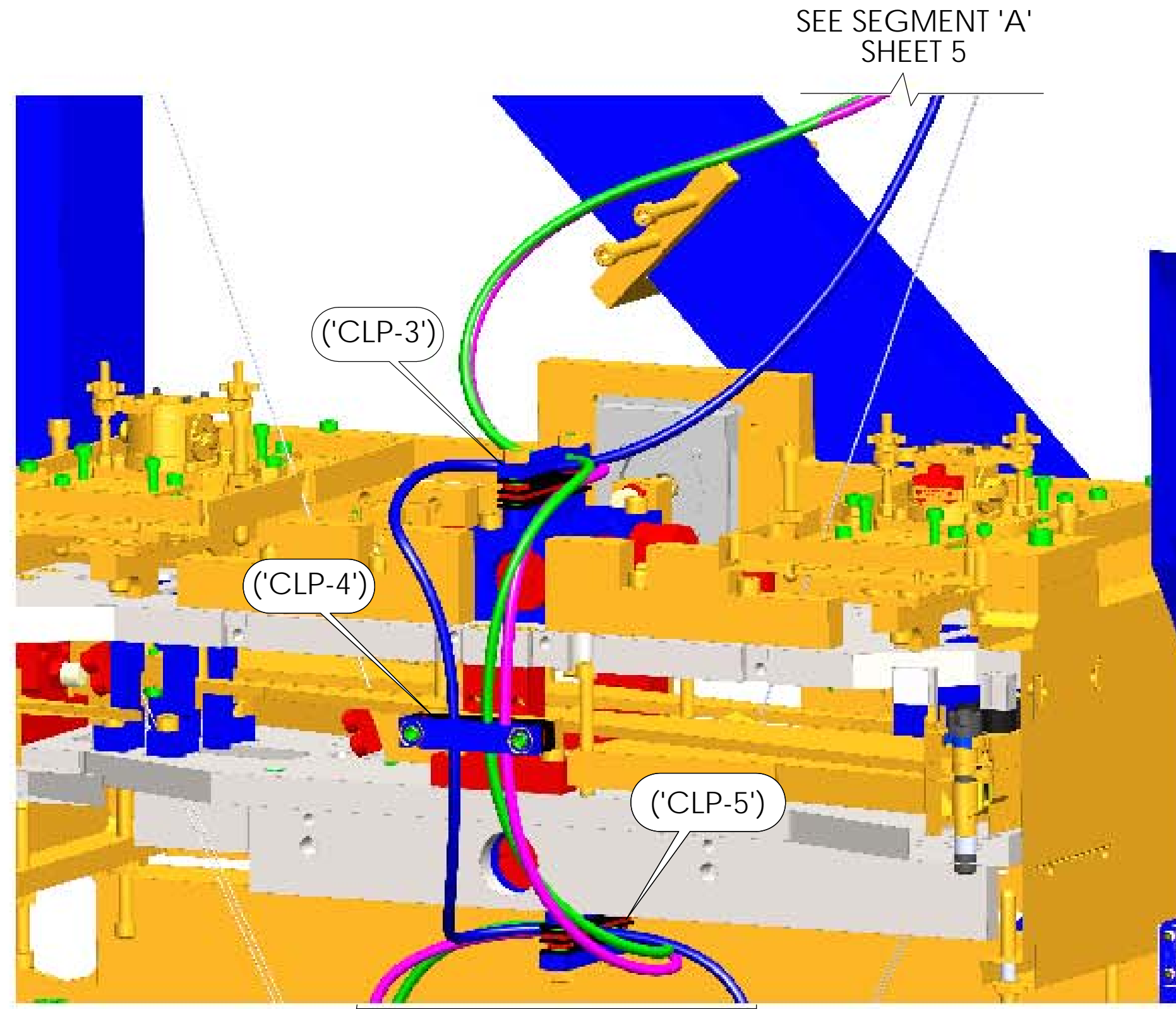
D0900515-ADM-LIGO SUB-REG-HZ_XYZ Local CS for ETMY PART PDM REV. X.078 DRAWING PDM REV. X.012

CABLE ROUTING SPECS.: CABLING (UP REACTION CHAIN)

MAIN CHAIN (NOT SHOWN)

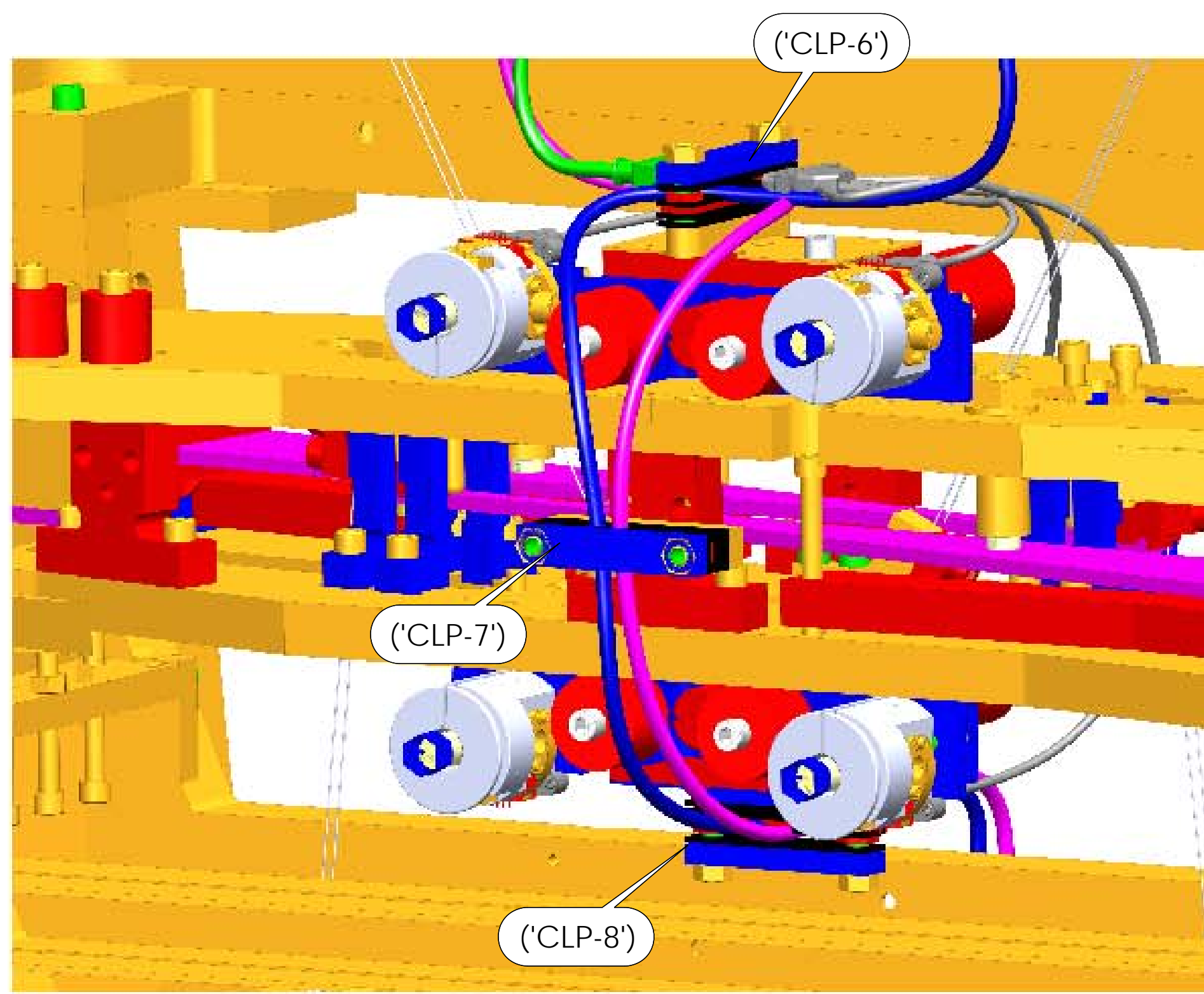


- ESD CABLE EXTENSION ■ PUM AOSEM EXTENSION ■ UIM BOSEM EXTENSION
 - ESD CABLE ■ PUM AOSEM ■ UIM BOSEM
- SEE T1100327 FOR QUAD CABLING PICASSO.

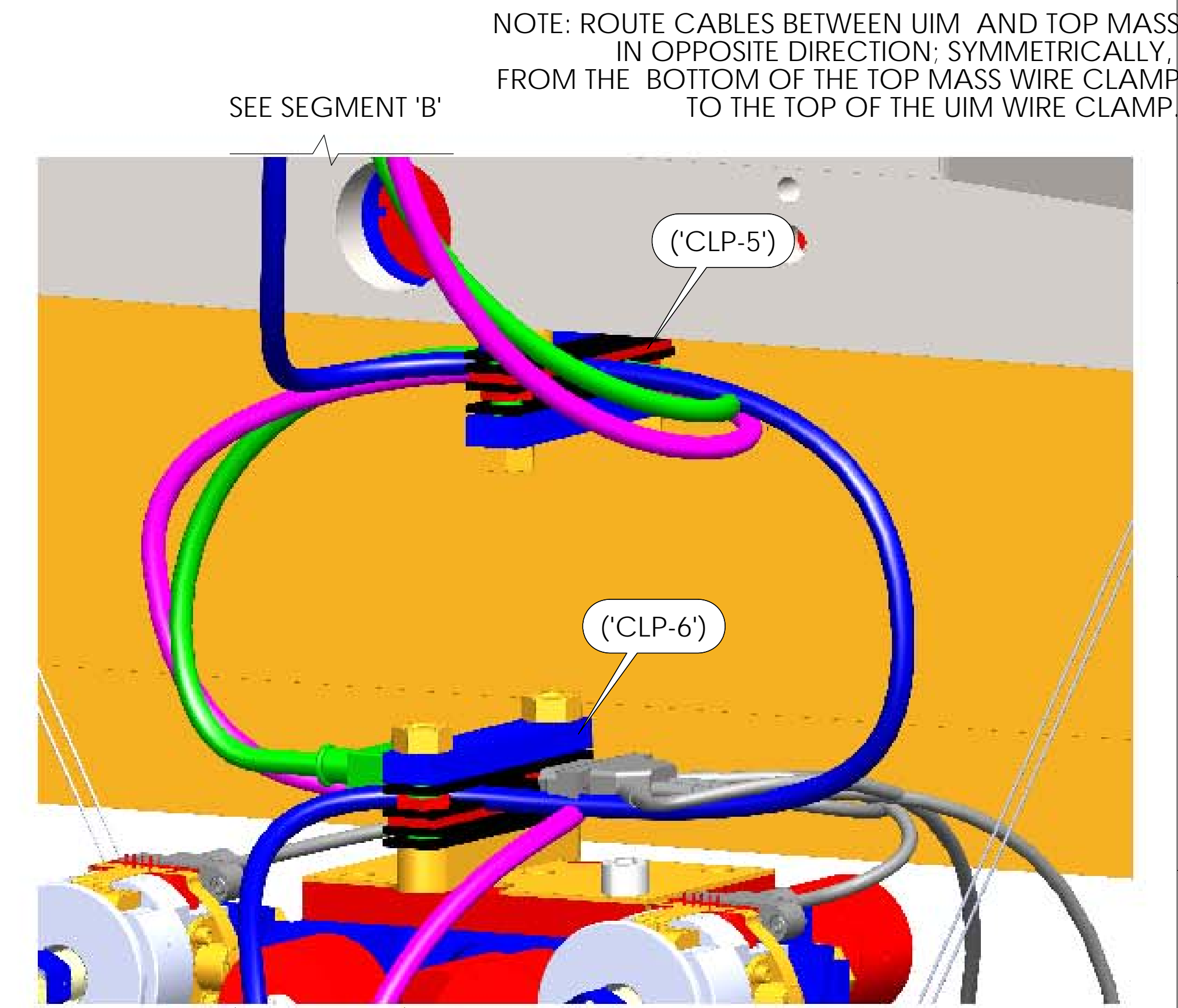


SEE SEGMENT 'C'

SEGMENT 'B': FROM 'CLP-3' TO 'CLP-5'
AS VIEW BEHIND RE CHAIN
CLP-3, CLP-4 AND CLP-5 ARE BOTH ASSEMBLED AT D060403 LEVEL
(ROUTE CABLE/CABLES THROUGH REFERENCED CABLE CLAMPS)



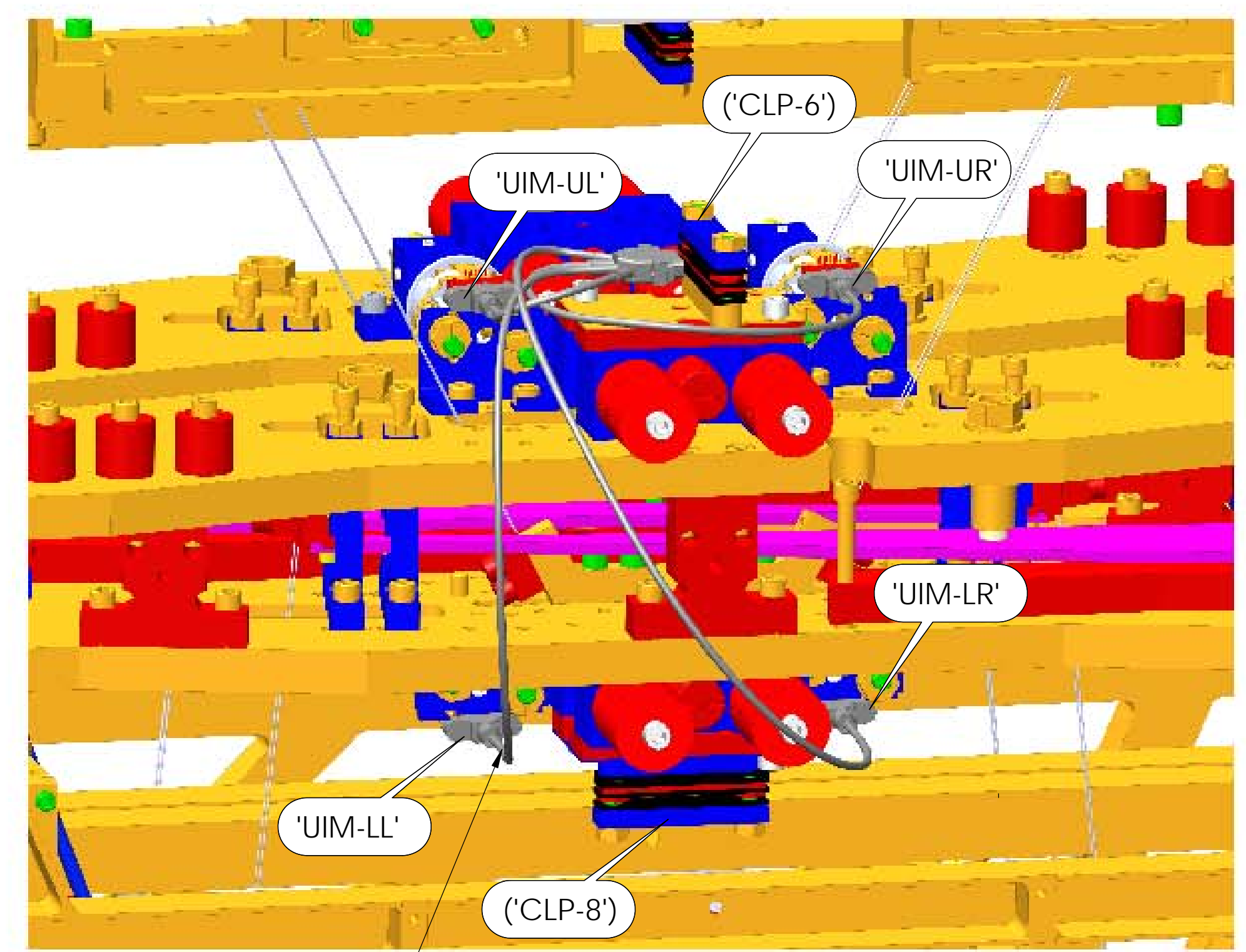
SEGMENT 'D': FROM 'CLP-5' TO 'CLP-6'
AS VIEW BEHIND RE CHAIN
CLP-5 AND CLP-6 ARE BOTH ASSEMBLED AT D1101129 LEVEL
(ROUTE CABLE/CABLES THROUGH REFERENCED CABLE CLAMPS)



SEE SEGMENT 'D'

SEGMENT 'C': FROM 'CLP-5' TO 'CLP-6'
AS VIEW BEHIND RE CHAIN
CLP-6 ASSEMBLED AT D1101129 LEVEL
(ROUTE CABLE/CABLES THROUGH REFERENCED CABLE CLAMPS)

SEE SEGMENT 'E'

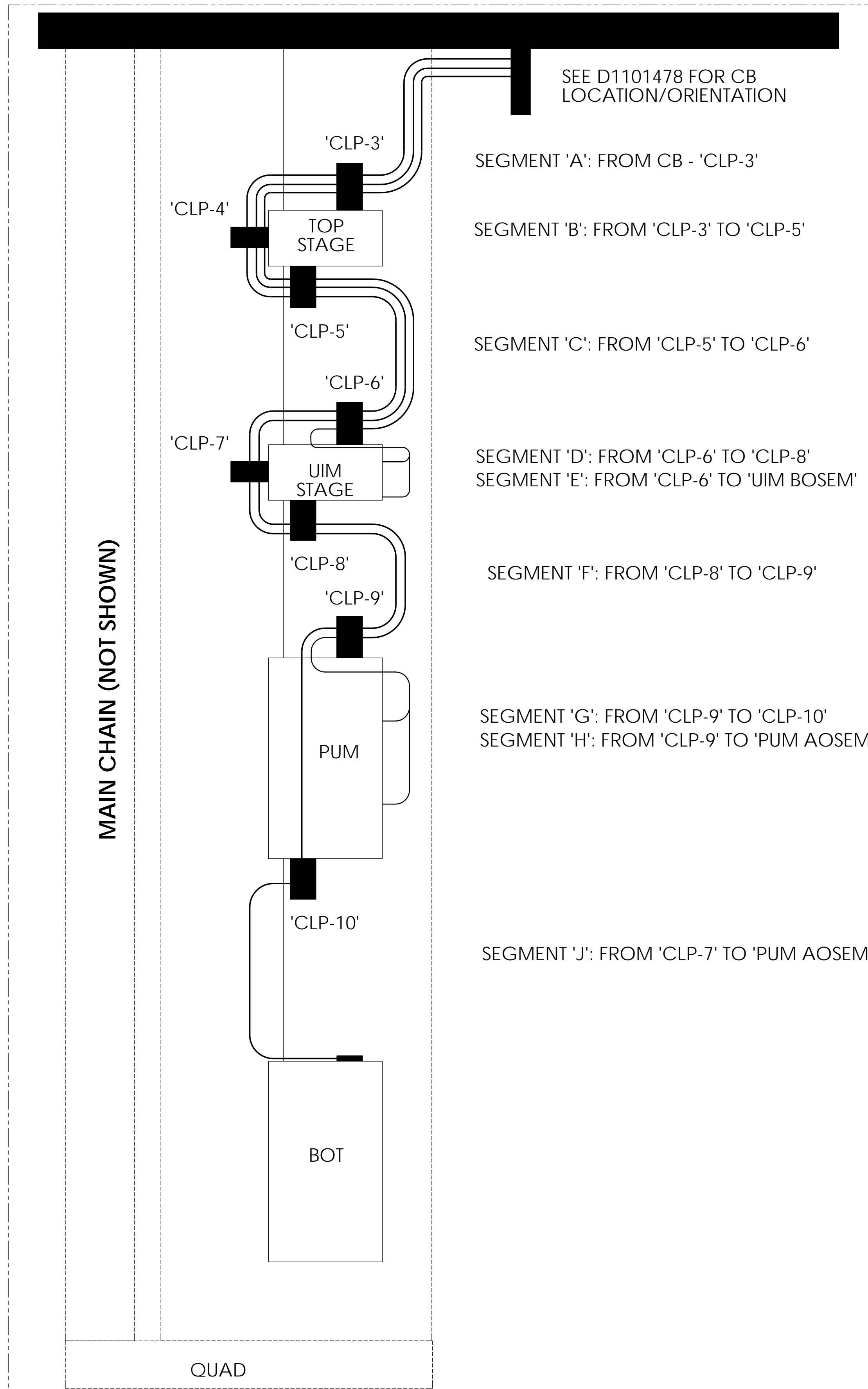


SEE SHEET 8, ROUTE NO. 4 UIM BOSEM-DETAIL

SEGMENT 'E': FROM 'CLP-6' TO UIM BOSEM

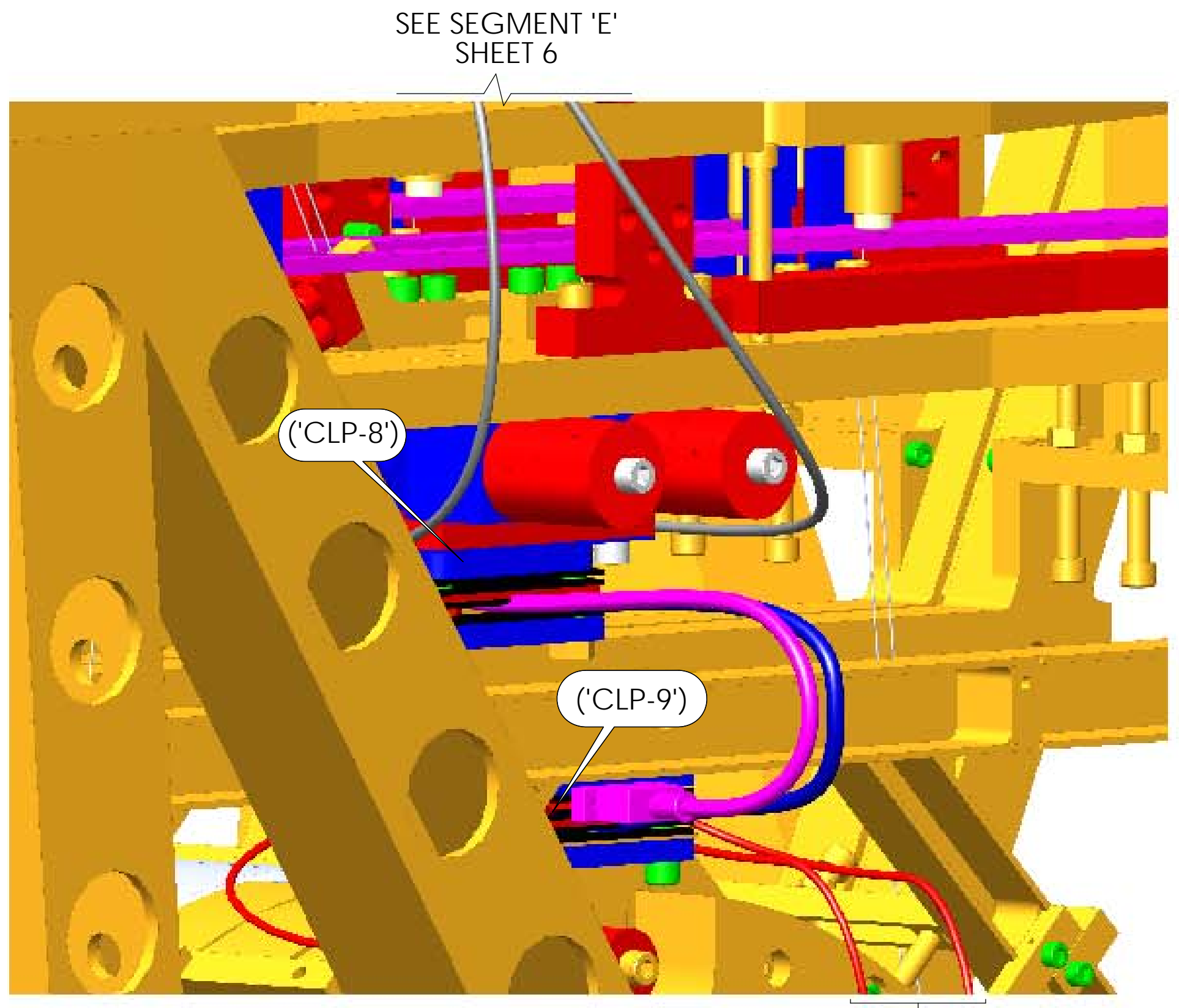
LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY	
SIZE DWG. NO.	REV.
D D0900515	v7
SCALE: 1:16	PROJECTION:
SHEET 7 OF 9	

CABLE ROUTING SPECS.: CABLING (UP REACTION CHAIN)



ESD CABLE EXTENSION
 PUM AOSEM EXTENSION
 UIM BOSEM EXTENSION
 ESD CABLE
 PUM AOSEM
 UIM BOSEM

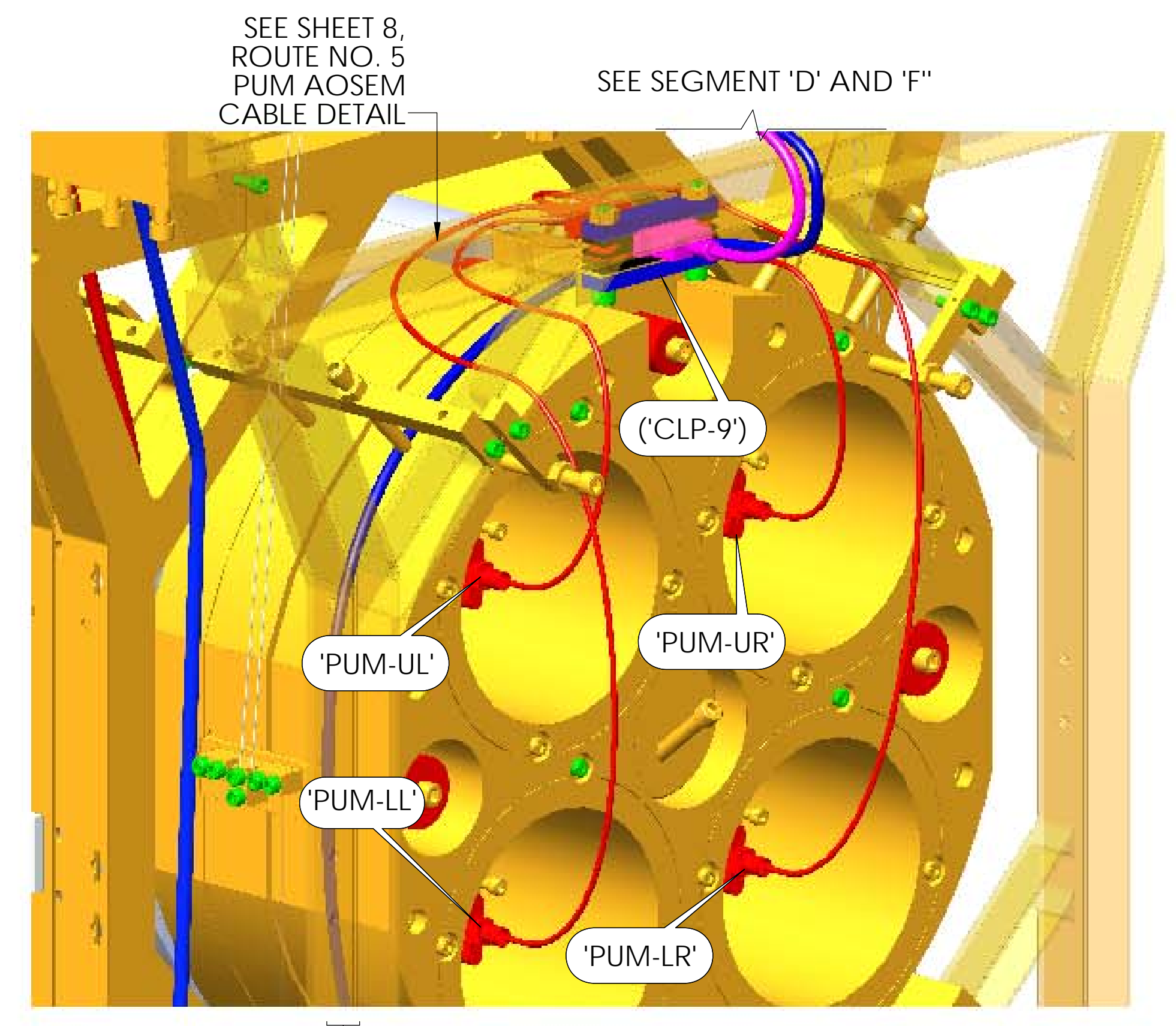
SEE T1100327 FOR QUAD CABLING PICASSO.



SEE SEGMENT 'H'

SEGMENT 'F': FROM 'CLP-8' TO 'CLP-9'

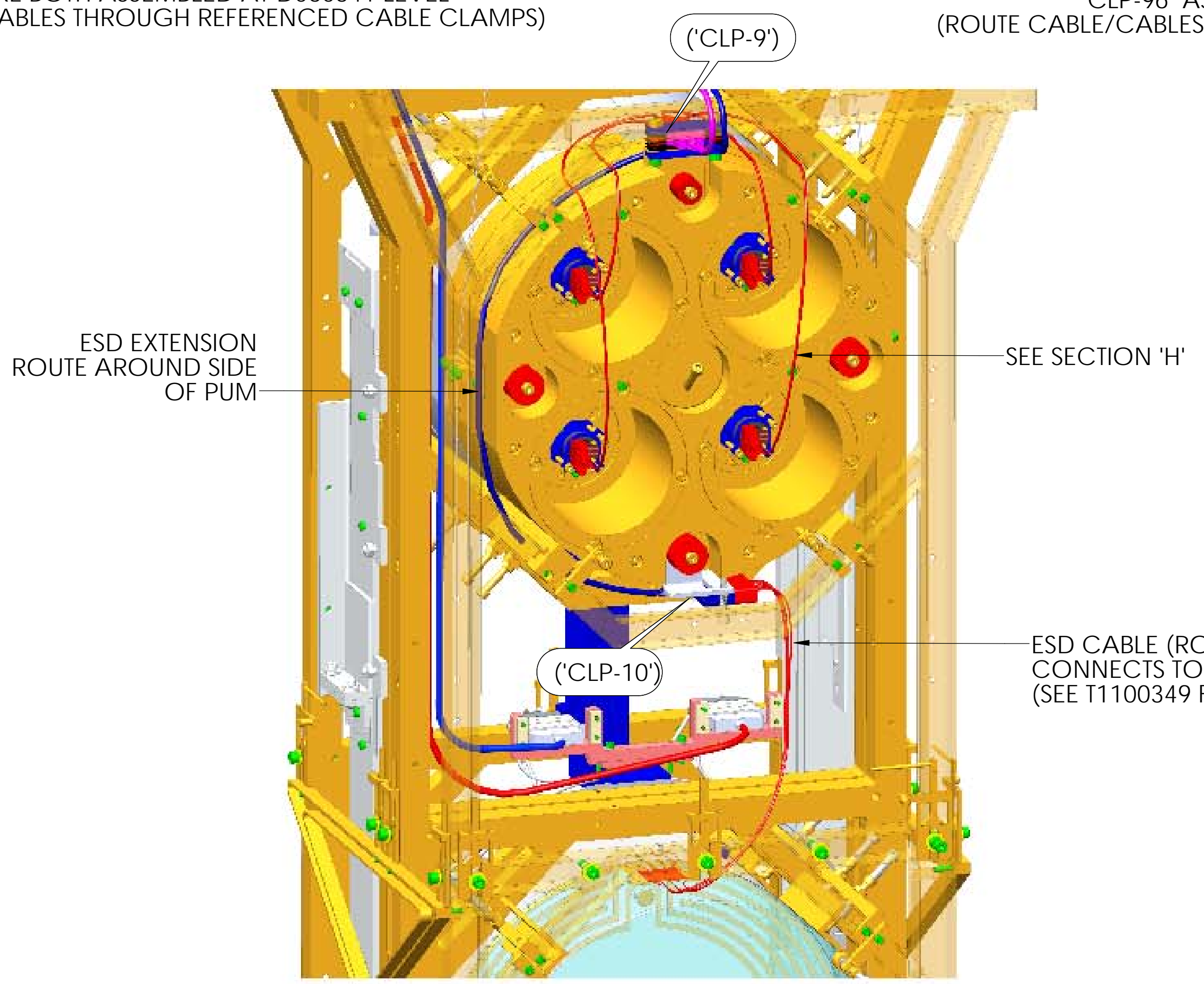
CLP-9 ARE BOTH ASSEMBLED AT D060341 LEVEL
(ROUTE CABLE/CABLES THROUGH REFERENCED CABLE CLAMPS)



SEE SEGMENT 'J'

SEGMENT 'H': FROM 'CLP-9' TO 'PUM AOSEM'

CLP-96 ASSEMBLED AT D060341 LEVEL
(ROUTE CABLE/CABLES THROUGH REFERENCED CABLE CLAMPS)



SEGMENT 'J': FROM 'CLP-5' TO 'CLP-6'

CLP-9 AND CLP-10 ARE BOTH ASSEMBLED AT D060341 LEVEL
(ROUTE CABLE/CABLES THROUGH REFERENCED CABLE CLAMPS)

ESD CABLE (ROUTE NO. 6) CONNECTS TO MASS (SEE T1100349 FOR REFERENCE)

CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY		REV.
SIZE	DWG. NO.	v7
D	D0900515	
SCALE: 1:16	PROJECTION:	SHEET 8 OF 9

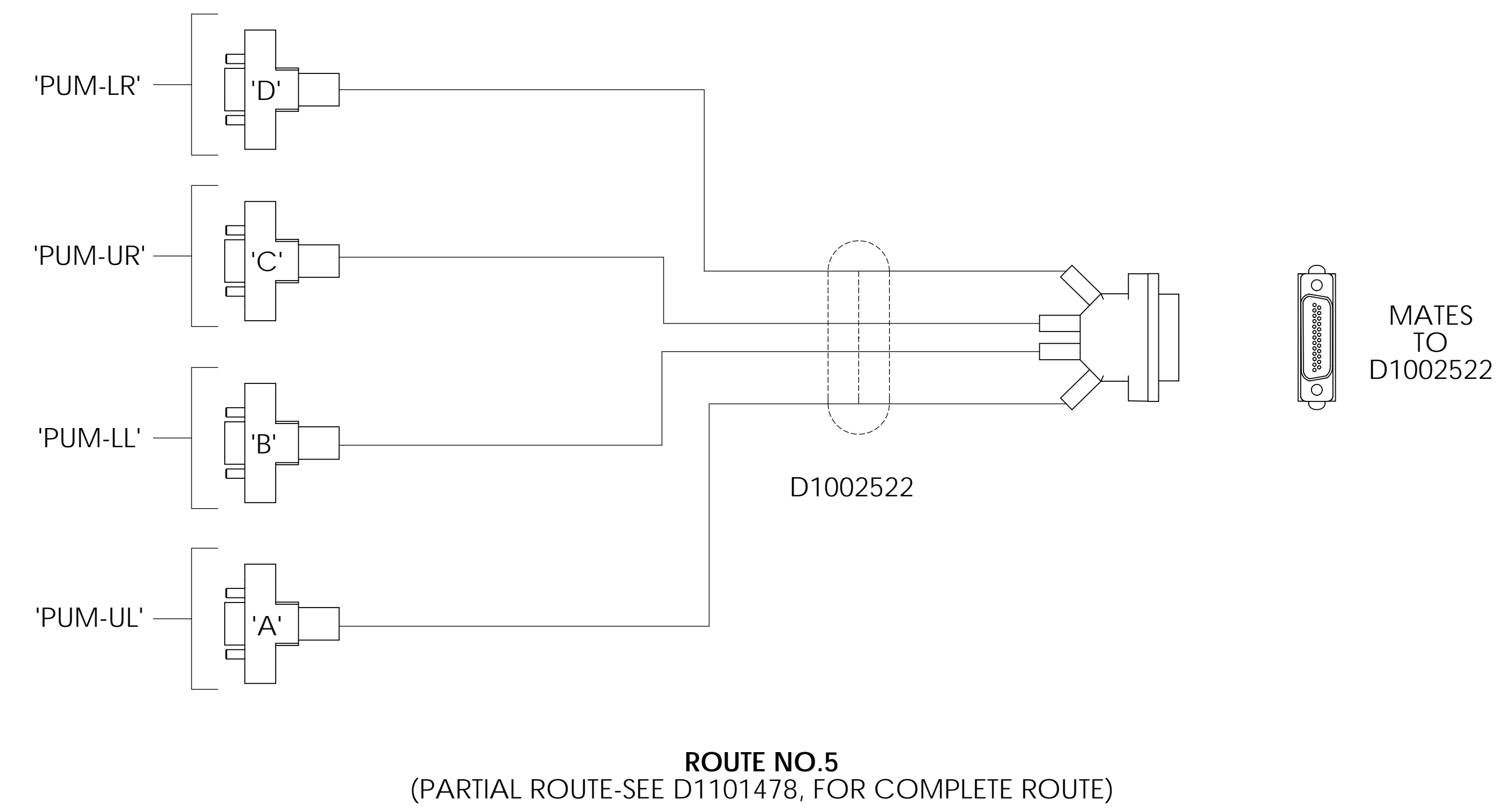
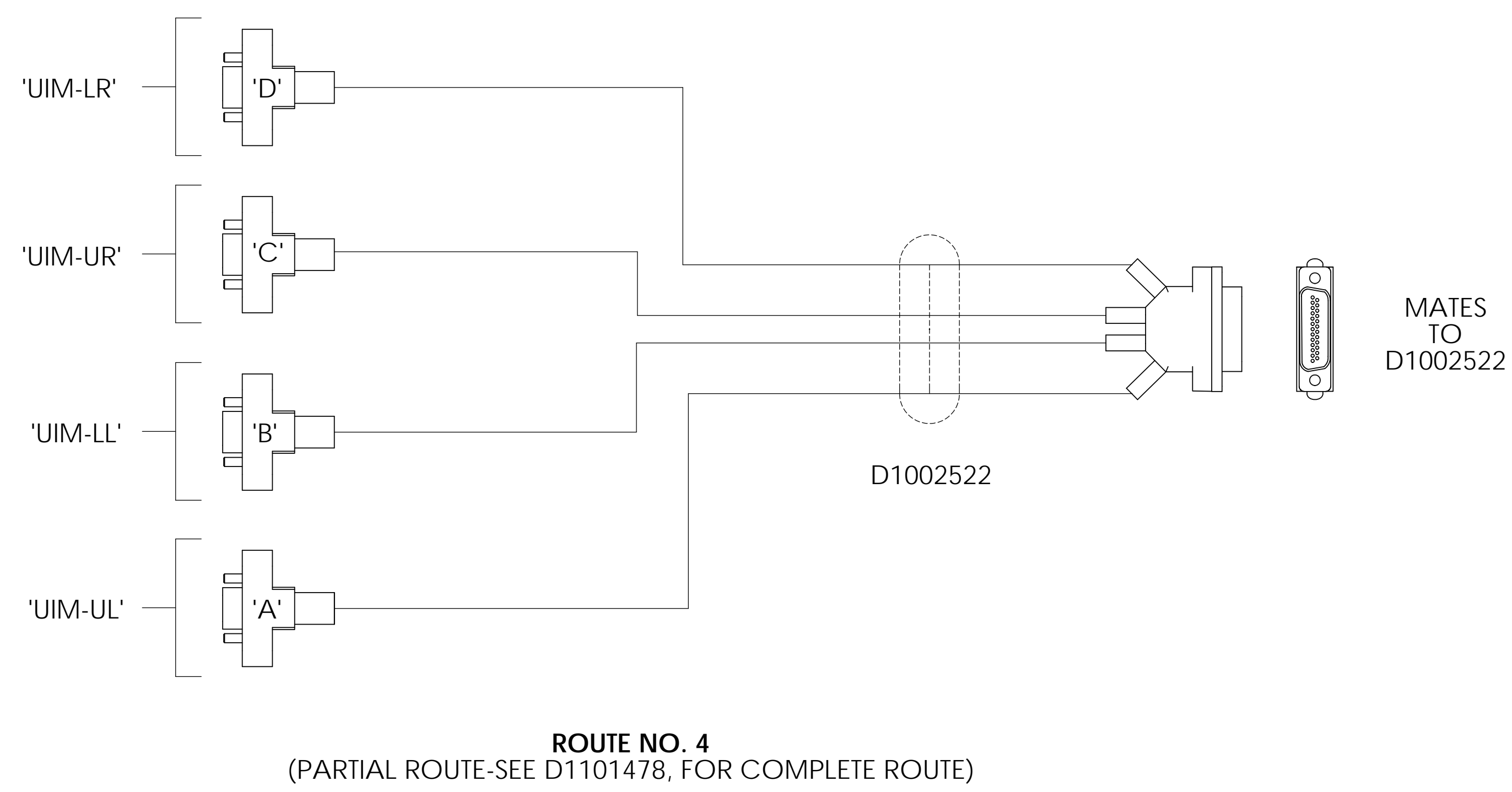


TABLE 1: BSC6 ETMY CABLING SPECIFICATIONS, FROM/TO DES.

ROUTE NO.	FROM (OSEM POSITION)	TO CABLE EXTENSION	TO CB FLOOR DES.	OP LEG DES.	CABLE PART NO.	NOM. CABLE LENGTH (IN)	NOM. CABLE LENGTH (IN) (EXTENSION)
1	M0-F1	N/A	CB-2 (FIRST)	A	D1000234	88	N/A
	M0-F2			B			
	M0-F3			C			
	M0-SIDE			D			
2	R0-F1	N/A	CB-2 (THIRD)	A	D1000234	88	N/A
	R0-F2			B			
	R0-F3			C			
	R0-SIDE			D			
3	M0-LEFT	N/A	CB-2 (SECOND)	A	D1000234	88	N/A
	M0-RIGHT			B			
	R0-LEFT			C			
	R0-RIGHT			D			
4	UIM-UL	D1002522	CB-2 (FOURTH)	A	D1002523	12	121
	UIM-LL			B			
	UIM-UR			C			
	UIM-LR			D			
5	PUM-UL	D1002522	CB-3 (FIRST)	A	D1002524	17	156
	PUM-LL			B			
	PUM-UR			C			
	PUM-LL			D			
6	D1002225	D1101472	CB-5	N/A	N/A	N/A	175