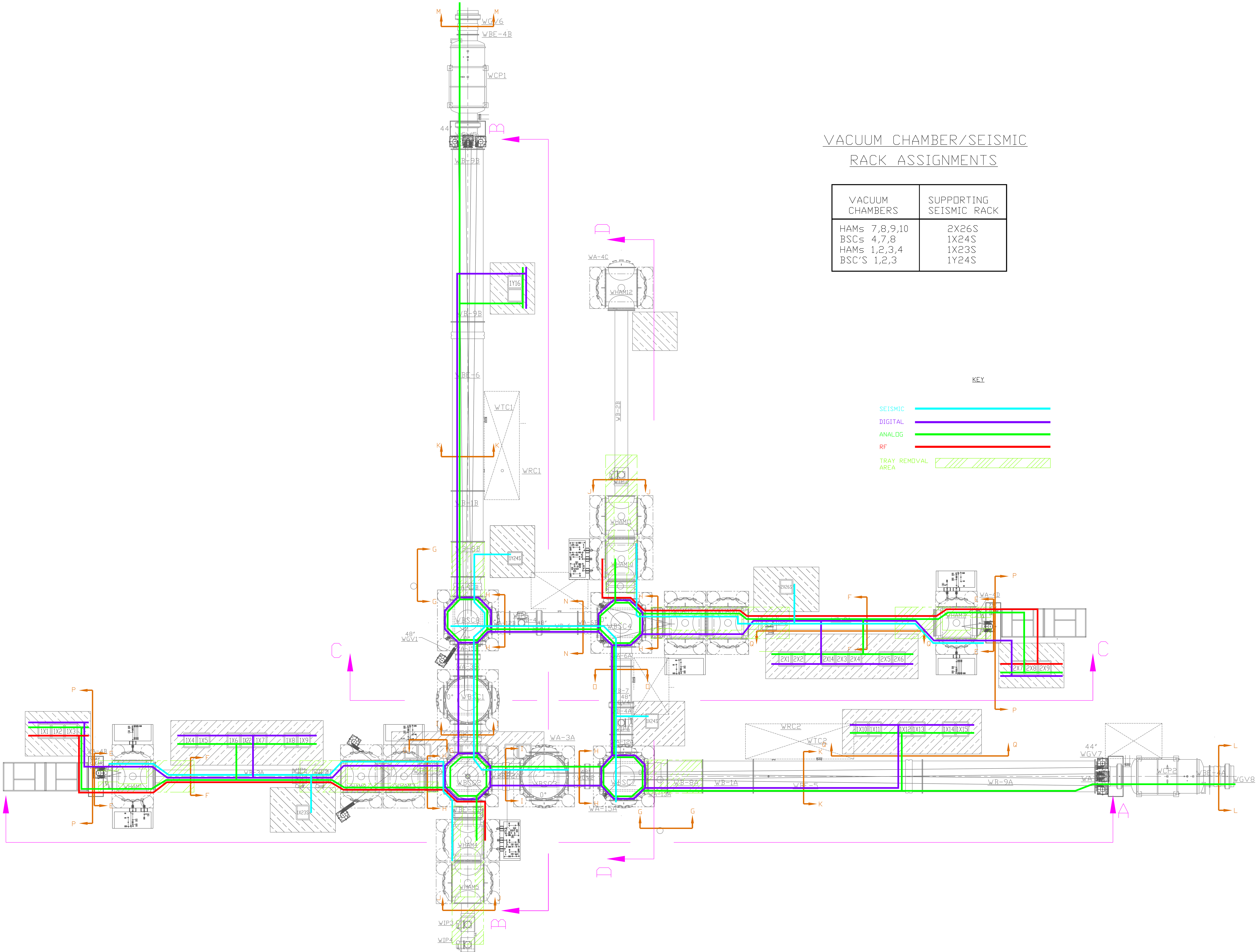


VACUUM CHAMBER/SEISMIC RACK ASSIGNMENTS

VACUUM CHAMBERS	SUPPORTING SEISMIC RACK
HAMs 7,8,9,10	2X26S
BSCs 4,7,8	1X24S
HAMs 1,2,3,4	1X23S
BSC'S 1,2,3	1Y24S

KEY

SEISMIC
DIGITAL
ANALOG
RF
TRAY REMOVAL AREA

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES

TOLERANCES:
FRACTIONAL ±
ANGULAR ±
ANGULARMACH ± BEND ±
TWO PLACE DECIMAL ±

THREE PLACE DECIMAL ±
FINISHED SURFACE RMS
BREAK CORNERS IN: OUT:
REMOVE ALL BURRS

MATERIAL: HEAT TREAT: FINISH:

USED ON: NEXT ASS'Y:

DWG. NO.	DESCRIPTION
REFERENCE DRAWINGS	

REV	DESCRIPTION	DCN NUMBER		APPR'D	CHECK	DRWN	DATE
A	RELEASE	E980178	-	DC	WJB	KABOT	7-15-98
00	PRE-RELEASE	-	-	-	-	KABOT	6-29-98

ISSUE DESCRIPTION

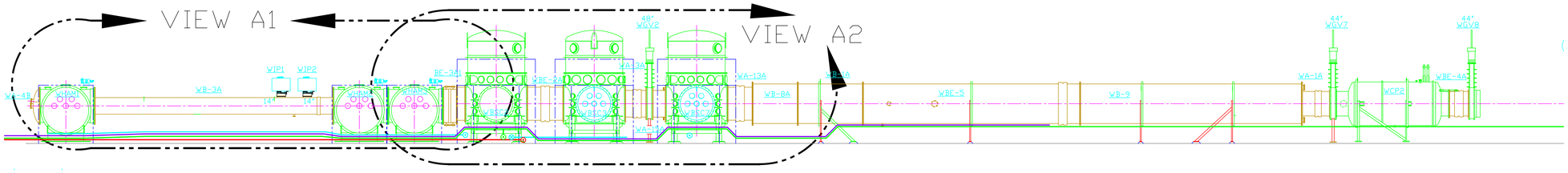
LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY
MASSACHUSETTS INSTITUTE OF TECHNOLOGY

INTERFEROMETER CABLE TRAY LAYOUT
HANFORD SITE
PLAN VIEW
LASER VACUUM EQUIPMENT AREA (LVEA)

CAD FILE D980266-A-s1.dwg
SIZE E
DWG. NO. D980266-A
SCALE NTS
SHEET 1 OF 21

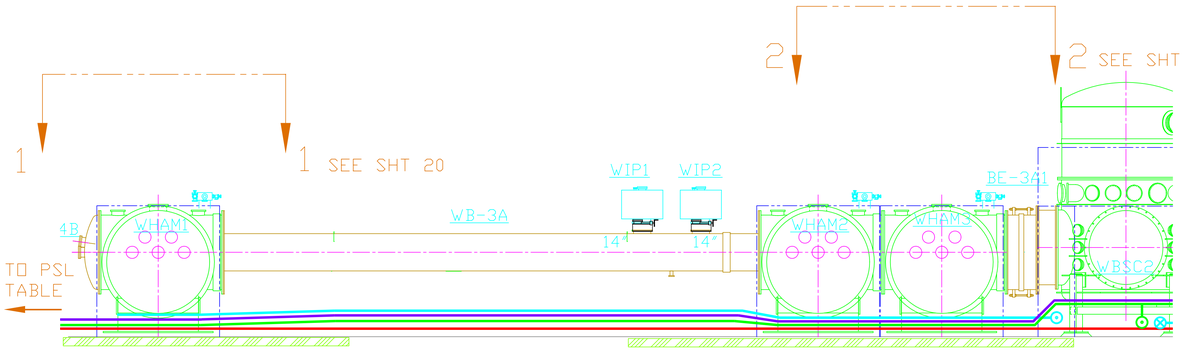
NOTES:

1. NOT SHOWN YET IN ELEVATION:
   -CLEAN ROOMS
   -VACUUM PIPING



ELEVATION "A-A" SEE D980266, SHEET 1

VERTEX X-BEAM MANIFOLD



REFERENCE AREA FOR
SECTION E-E, SHEET 6

REFERENCE AREA FOR
SECTION F-F, SHEET 7

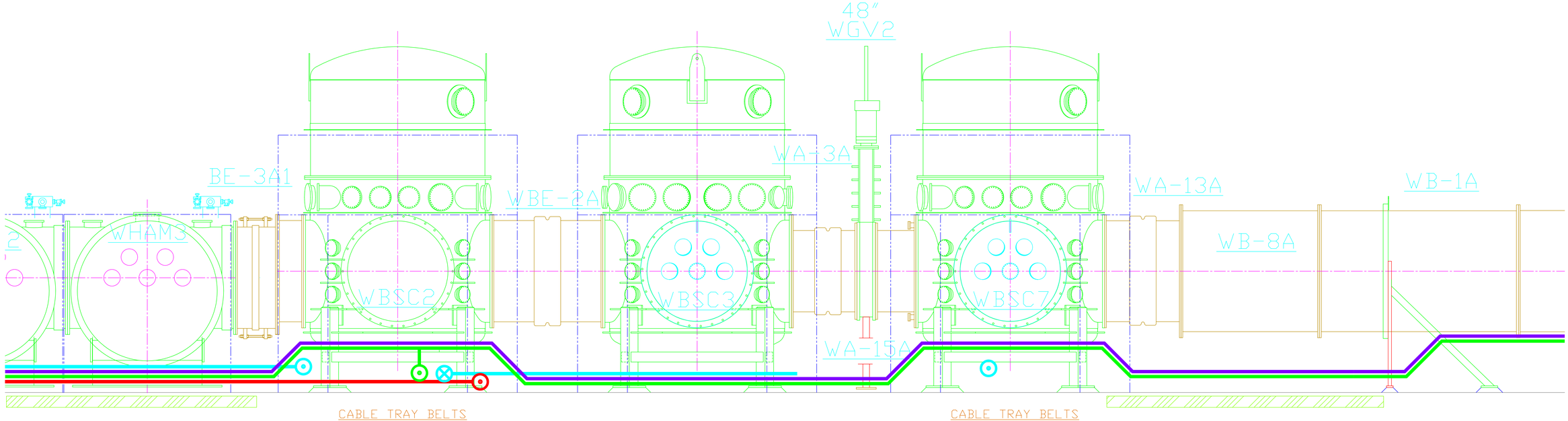
REFERENCE AREA FOR
SECTION H-H, SHEET 8

KEY

SEISMIC
DIGITAL
ANALOG
RF
TRAY REMOVAL AREA

TRAY RUN DIRECTION
=OUT OF PLANE OF (B/P) PAPER
=INTO PLANE OF (B/P) PAPER

VIEW A1



CABLE TRAY BELTS

CABLE TRAY BELTS
(SEISMIC TRAY ROUTING TBD BY INSTALLER)

REFERENCE AREA FOR
SECTION G-G, PHOTO E25,
SPEC E980176-00-D

REFERENCE AREA FOR
SECTION H-H, SHEET 8

REFERENCE AREA FOR
SECTION I-I, SHEET 9

REFERENCE AREA FOR
SECTION H-H, SHEET 8

REFERENCE AREA FOR
SECTION K-K, SHEET 11

VIEW A2

DWG. NO.	DESCRIPTION
REFERENCE DRAWINGS	

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES

TOLERANCES:
FRACTIONAL ±
ANGULAR ±
ANGULARMACH ± BEND ±
TWO PLACE DECIMAL ±
THREE PLACE DECIMAL ±
FINISHED SURFACE RMS
BREAK CORNERS IN: OUT:
REMOVE ALL BURRS

MATERIAL:	HEAT TREAT:	FINISH:
USED ON:	NEXT ASS'Y:	

REV	DESCRIPTION	DCN NUMBER		APPR'D	CHECK	DRWN	DATE
A	RELEASE	E980178	-	DC	WJB	KABOT	7-15-98
00	PRE-RELEASE	-	-	-	-	KABOT	7-9-98

ISSUE DESCRIPTION

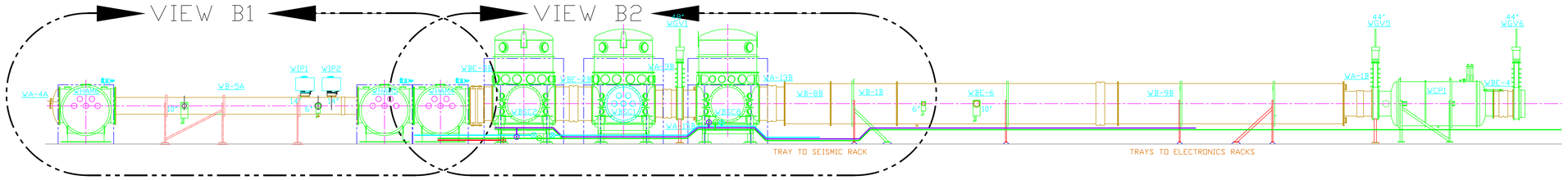
LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY
MASSACHUSETTS INSTITUTE OF TECHNOLOGY

INTERFEROMETER CABLE TRAY LAYOUT
HANFORD SITE-ELEVATION VIEW
LASER VACUUM EQUIPMENT AREA (LVEA)
VERTEX X-BEAM MANIFOLD

CAD FILE	SIZE	DWG. NO.
D980269-A-s1.dwg	E	D980266-A
SCALE NTS		SHEET 2 OF 21

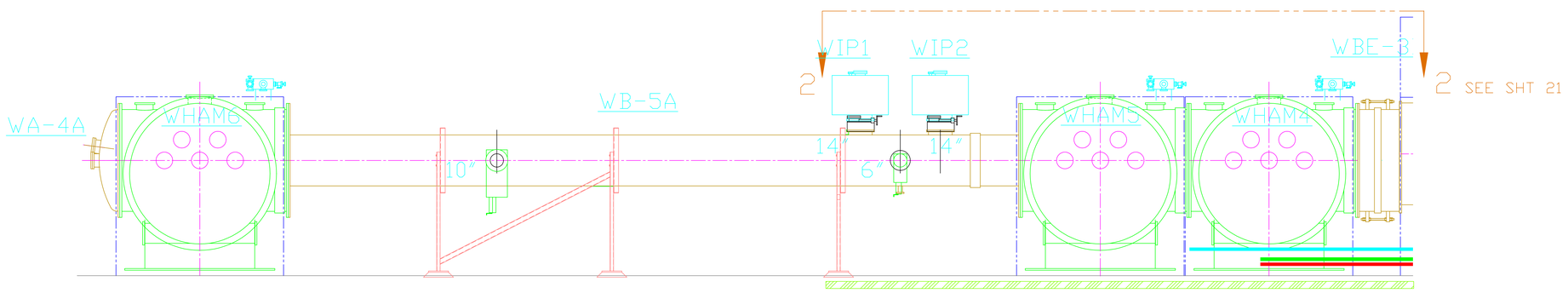
NOTES:

1. NOT SHOWN YET IN ELEVATION:
   -CLEAN ROOMS
   -VACUUM PIPING



ELEVATION "B-B" SEE D980266, SHEET 1

VERTEX Y-BEAM MANIFOLD

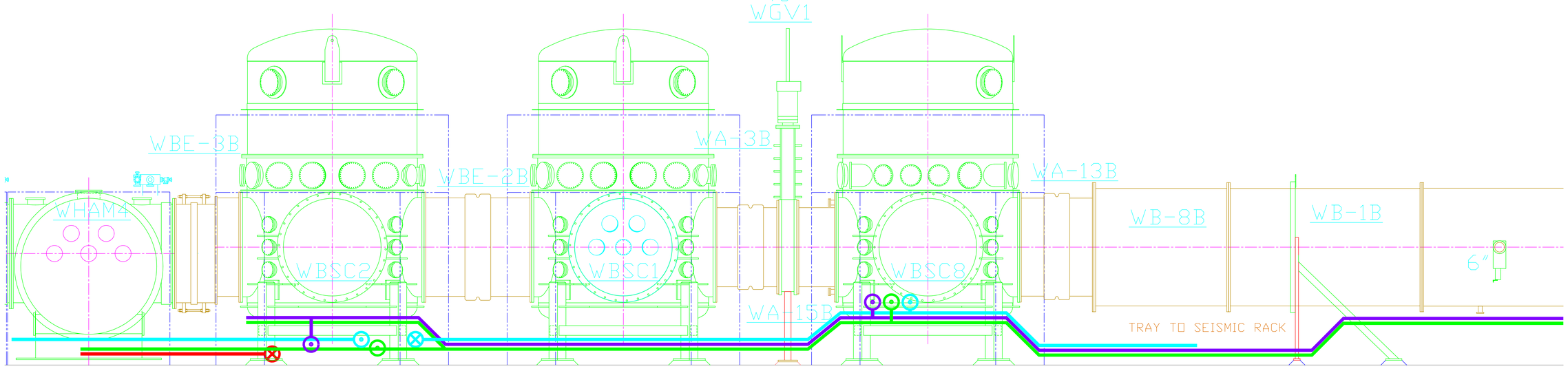


KEY

- SEISMIC
- DIGITAL
- ANALOG
- RF
- TRAY REMOVAL AREA
- TRAY RUN DIRECTION: ⊙ =OUT OF PLANE OF (B/P) PAPER; ⊗ =INTO PLANE OF (B/P) PAPER

REFERENCE AREA FOR
SECTION J-J, SHEET 10

VIEW B1



CABLE TRAY BELTS

CABLE TRAY BELTS

(SEISMIC TRAY ROUTING TBD BY INSTALLER)

REFERENCE AREA FOR
SECTION J-J, SHEET 10

REFERENCE AREA FOR
SECTION H-H, SHEET 8

REFERENCE AREA FOR
SECTION I-I, SHEET 9

REFERENCE AREA FOR
SECTION H-H, SHEET 8

REFERENCE AREA FOR
SECTION K-K, SHEET 11

VIEW B2

DWG. NO.	DESCRIPTION
REFERENCE DRAWINGS	

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES

TOLERANCES:
FRACTIONAL ±
ANGULAR ±
ANGULARMACH ± BEND ±
TWO PLACE DECIMAL ±
THREE PLACE DECIMAL ±
FINISHED SURFACE RMS
BREAK CORNERS IN: OUT:
REMOVE ALL BURRS

MATERIAL: | HEAT TREAT: | FINISH:

USED ON: | NEXT ASS'Y:

REV	DESCRIPTION	DCN NUMBER		APPR'D	CHECK	DRWN	DATE
A	RELEASE	E980178	-	DC	WJB	KABOT	7-15-98
00	PRE-RELEASE	-	-	-	-	KABOT	7-10-98

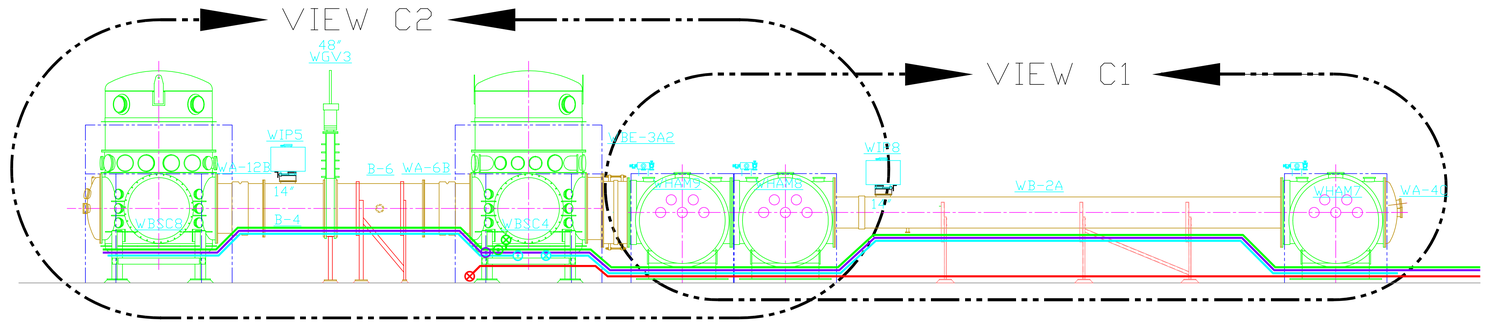
ISSUE DESCRIPTION

LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY
MASSACHUSETTS INSTITUTE OF TECHNOLOGY

INTERFEROMETER CABLE TRAY LAYOUT
HANFORD SITE-ELEVATION VIEW
LASER VACUUM EQUIPMENT AREA (LVEA)
VERTEX Y-BEAM MANIFOLD

CAD FILE D980269-A-s2 | SIZE E | DWG. NO. D980266-A

SCALE NTS | SHEET 3 OF 21



ELEVATION "C-C" SEE D980266, SHEET 1

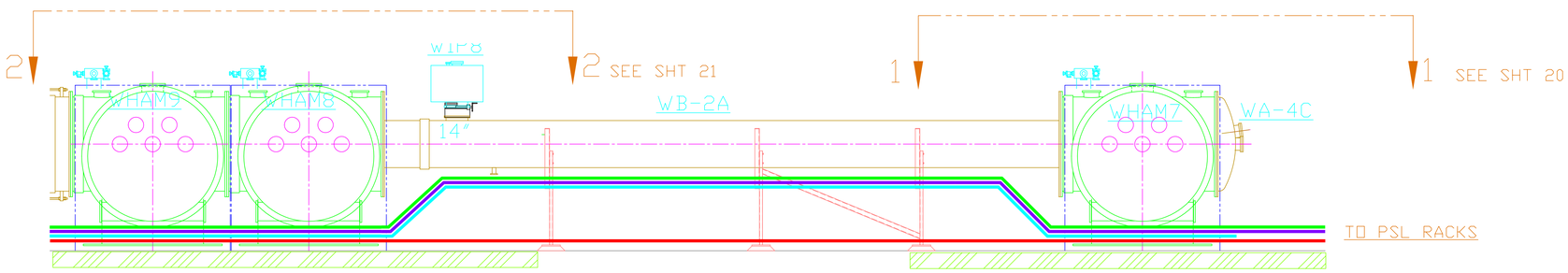
X-BEAM MANIFOLD-DIAGONAL

NOTES:

1. NOT SHOWN YET IN ELEVATION:
   -CLEAN ROOMS
   -VACUUM PIPING

KEY

SEISMIC
DIGITAL
ANALOG
RF
TRAY REMOVAL AREA
TRAY RUN DIRECTION
=OUT OF PLANE OF (B/P) PAPER
=INTO PLANE OF (B/P) PAPER

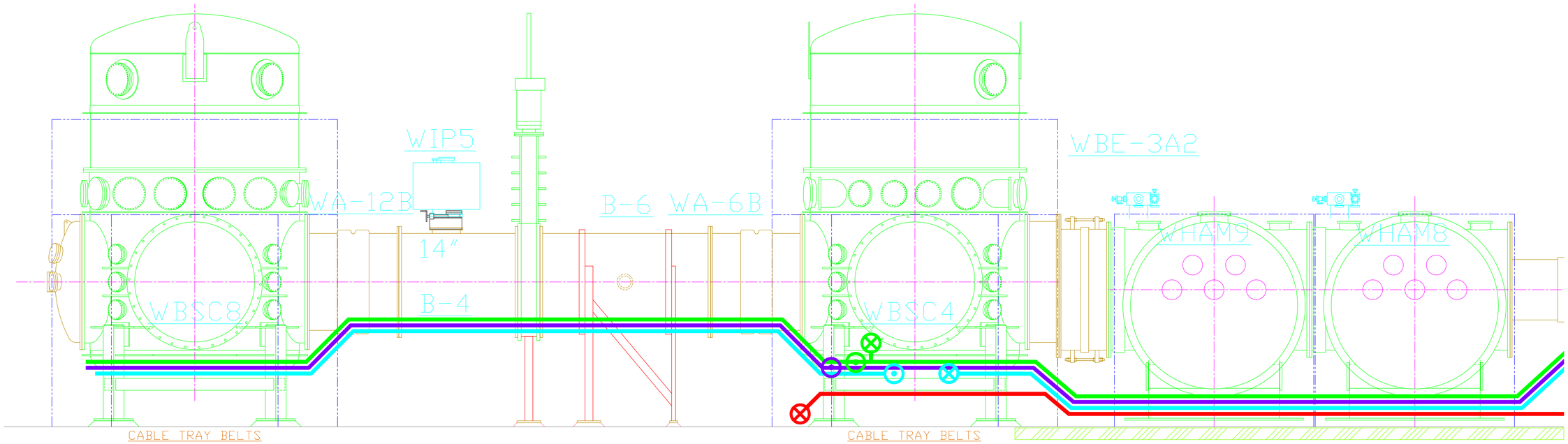


REFERENCE AREA FOR
SECTION E-E, SHEET 6

REFERENCE AREA FOR
SECTION F-F, SHEET 7

REFERENCE AREA FOR
SECTION E-E, SHEET 6

VIEW C1



CABLE TRAY BELTS

CABLE TRAY BELTS

REFERENCE AREA FOR
SECTION H-H, SHEET 8

REFERENCE AREA FOR
SECTION N-N, SHEET 16

REFERENCE AREA FOR
SECTION H-H, SHEET 8

REFERENCE AREA FOR
SECTION E-E, SHEET 6

VIEW C2

DWG. NO.	DESCRIPTION
REFERENCE DRAWINGS	

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES

TOLERANCES:
FRACTIONAL ±
ANGULAR ±
ANGULARMACH ± BEND ±
TWO PLACE DECIMAL ±
THREE PLACE DECIMAL ±
FINISHED SURFACE RMS
BREAK CORNERS IN: OUT:
REMOVE ALL BURRS

MATERIAL: | HEAT TREAT: | FINISH:

USED ON: | NEXT ASS'Y:

REV	DESCRIPTION	DCN NUMBER		APPR'D	CHECK	DRWN	DATE
A	RELEASE	E980178	-	DC	WJB	KABOT	7-15-98
00	PRE-RELEASE	-	-	-	-	KABOT	7-13-98

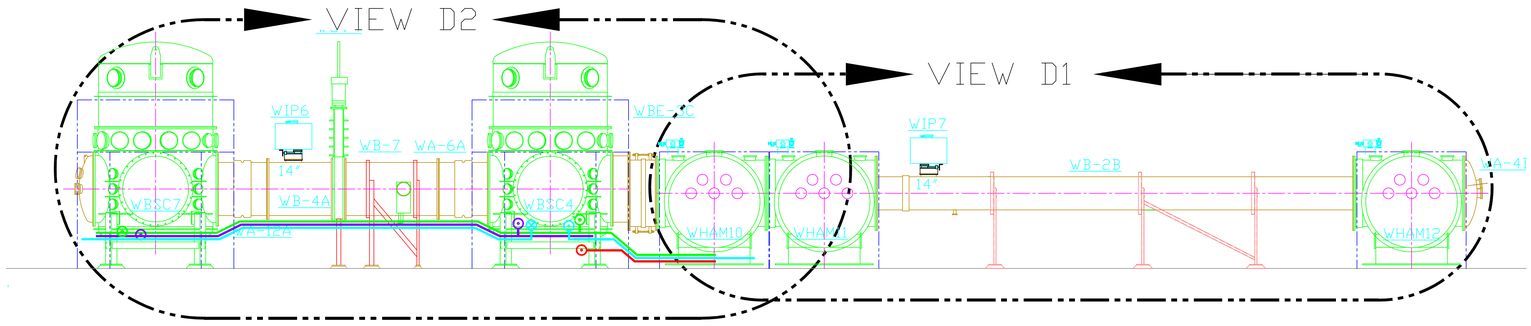
ISSUE DESCRIPTION

LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY
MASSACHUSETTS INSTITUTE OF TECHNOLOGY

INTERFEROMETER CABLE TRAY LAYOUT
HANFORD SITE-ELEVATION VIEW
LASER VACUUM EQUIPMENT AREA (LVEA)
X-BEAM MANIFOLD-DIAGONAL

CAD FILE	SIZE	DWG. NO.
D980269-A-s3.dwg	E	D980266-A

SCALE NTS | SHEET 4 OF 21

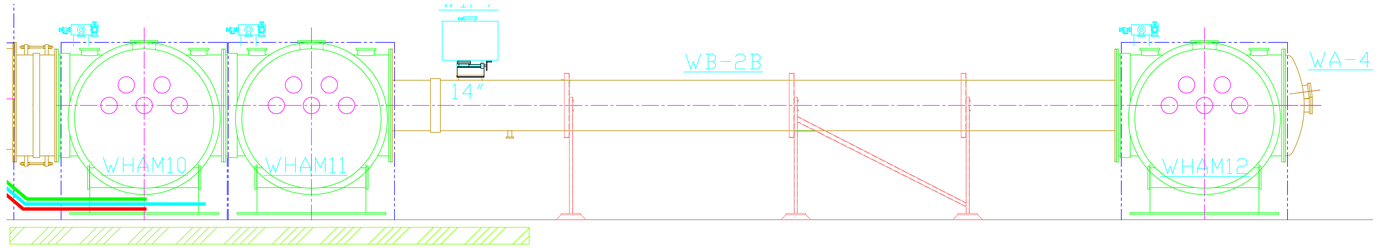


NOTES:

1. NOT SHOWN YET IN ELEVATION:
   -CLEAN ROOMS
   -VACUUM PIPING

ELEVATION "D-D" SEE D980266, SHEET 1

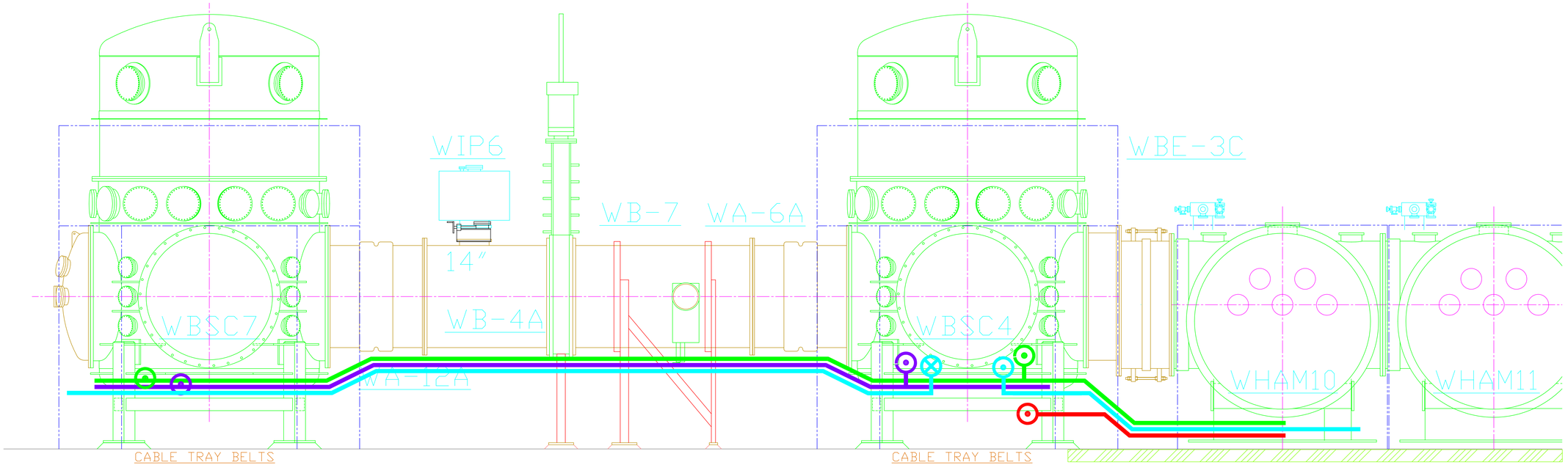
Y-BEAM MANIFOLD-DIAGONAL



KEY

- SEISMIC
- DIGITAL
- ANALOG
- RF
- TRAY REMOVAL AREA
- TRAY RUN DIRECTION: ⊙ =OUT OF PLANE OF (B/P) PAPER; ⊗ =INTO PLANE OF (B/P) PAPER

VIEW D1



CABLE TRAY BELTS

REFERENCE AREA FOR
SECTION H-H, SHEET 8

REFERENCE AREA FOR
SECTION O-O, SHEET 17

CABLE TRAY BELTS

REFERENCE AREA FOR
SECTION H-H, SHEET 8

REFERENCE AREA FOR
SECTION J-J, SHEET 10

VIEW D2

DWG. NO.	DESCRIPTION
REFERENCE DRAWINGS	

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES

TOLERANCES:
FRACTIONAL ±
ANGULAR ±
ANGULARMACH ± BEND ±
TWO PLACE DECIMAL ±
THREE PLACE DECIMAL ±
FINISHED SURFACE RMS
BREAK CORNERS IN: OUT:
REMOVE ALL BURRS

MATERIAL: | HEAT TREAT: | FINISH:

USED ON: | NEXT ASS'Y:

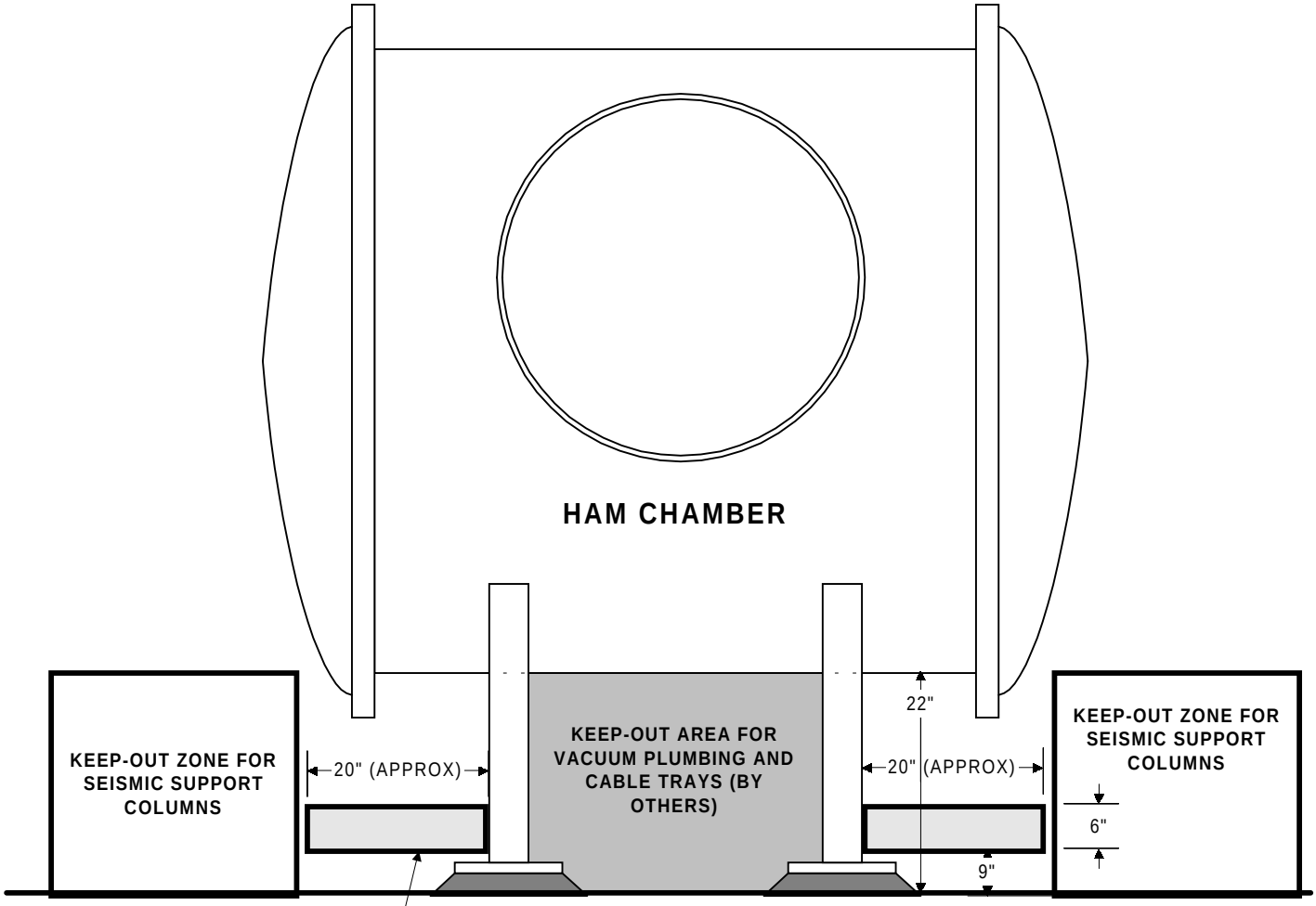
REV	DESCRIPTION	DCN NUMBER		APPR'D	CHECK	DRWN	DATE
A	RELEASE	E980178		DC	WJB	KABOT	7-15-98
00	PRE-RELEASE	-	-	-	-	KABOT	7-13-98

ISSUE DESCRIPTION

LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY
MASSACHUSETTS INSTITUTE OF TECHNOLOGY

INTERFEROMETER CABLE TRAY LAYOUT
HANFORD SITE-ELEVATION VIEW
LASER VACUUM EQUIPMENT AREA (LVEA)
Y-BEAM MANIFOLD-DIAGONAL

CAD FILE: D980269-A-s4.dwg | SIZE: E | DWG. NO.: D980266-A
SCALE: NTS | SHEET: 5 OF 21



SECTION E - E

NOT TO SCALE

REMOVEABLE CABLE TRAYS MAY BE MOUNTED TO HAM LEGS BUT SHALL NOT CONTACT SEISMIC SUPPORT COLUMNS (BOTH SIDES)

NOTES:

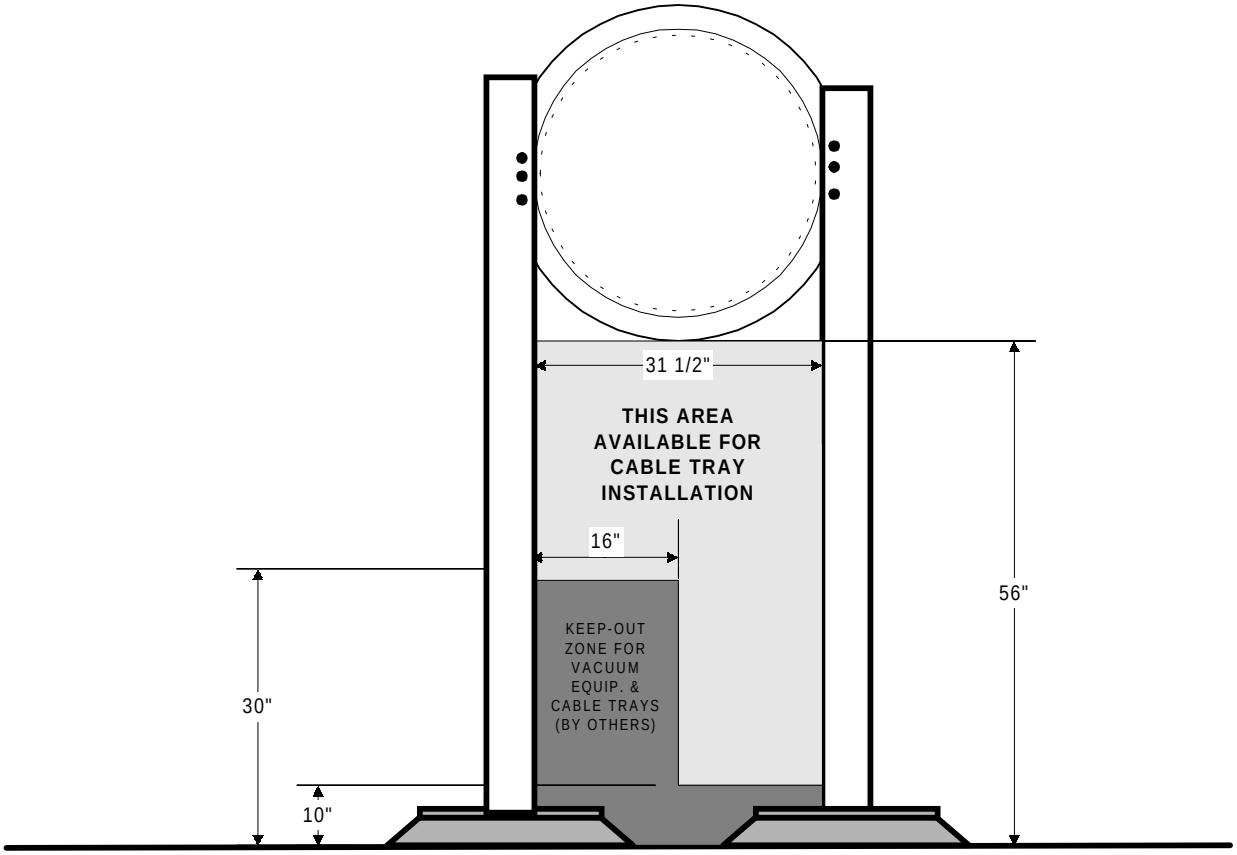
1) SEISMIC COLUMNS MAY NOT BE INSTALLED PRIOR TO CABLE TRAYS

2) CABLE TRAYS GO INTO PLANE OF PAPER

INSTALLATION AREAS FOR CABLE TRAYS AROUND INPUT HAMS (HAMS 1, 2, 3, 7, 8, 9)

DRAWING D980266, SHEET 6

Z:~visio/inputhams.vsd



SECTION F-F

NOT TO SCALE

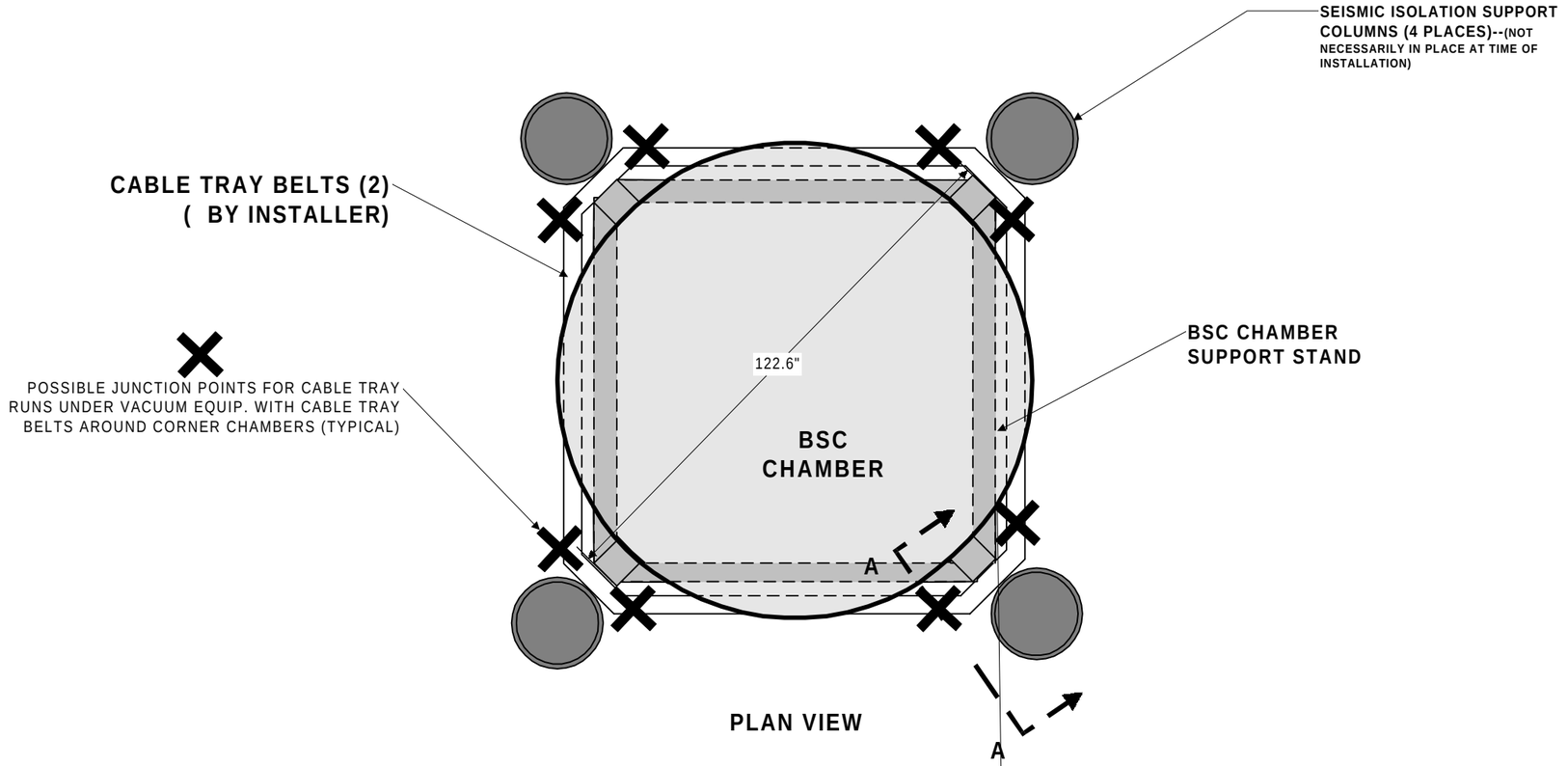
NOTES:
1) CABLE TRAYS MAY BE ATTACHED TO VACUUM EQUIPMENT POSTS

2) CABLE TRAYS RUN INTO PLANE OF PAPER

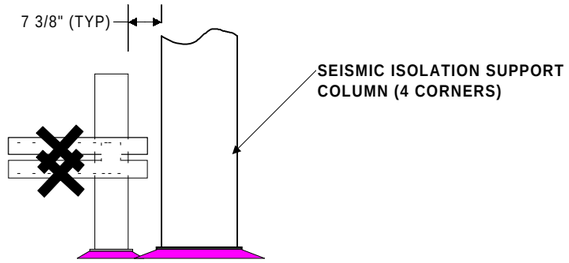
MODE CLEANER AREA (X-ARM)
LOOKING FROM LASER INPUT AREAS

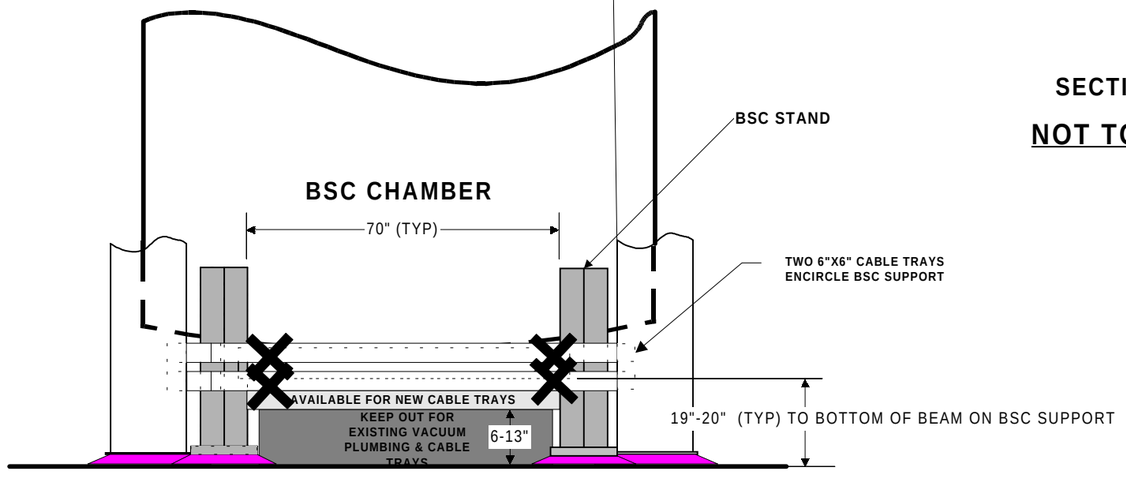
DRAWING D980266, SHEET 7

Z:~visio/manifolds.vsc



PLAN VIEW





ELEVATION

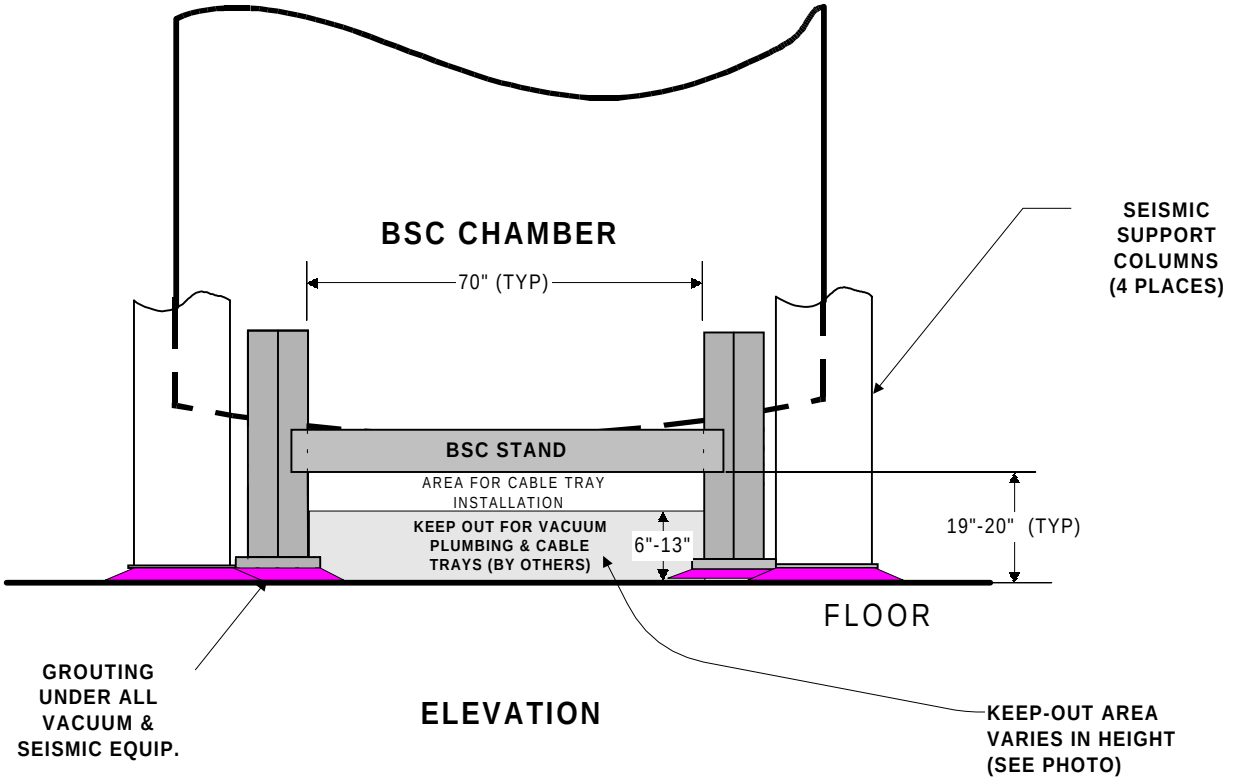
SECTION H - H

NOT TO SCALE

CABLE TRAY INSTALLATIONS FOR CORNER BSC CHAMBERS (BSCs 2, 4, 7, & 8)

DRAWING D980266, SHEET 8

Z:~visio/bscplanvu.vsd



SECTION I - I

NOT TO SCALE

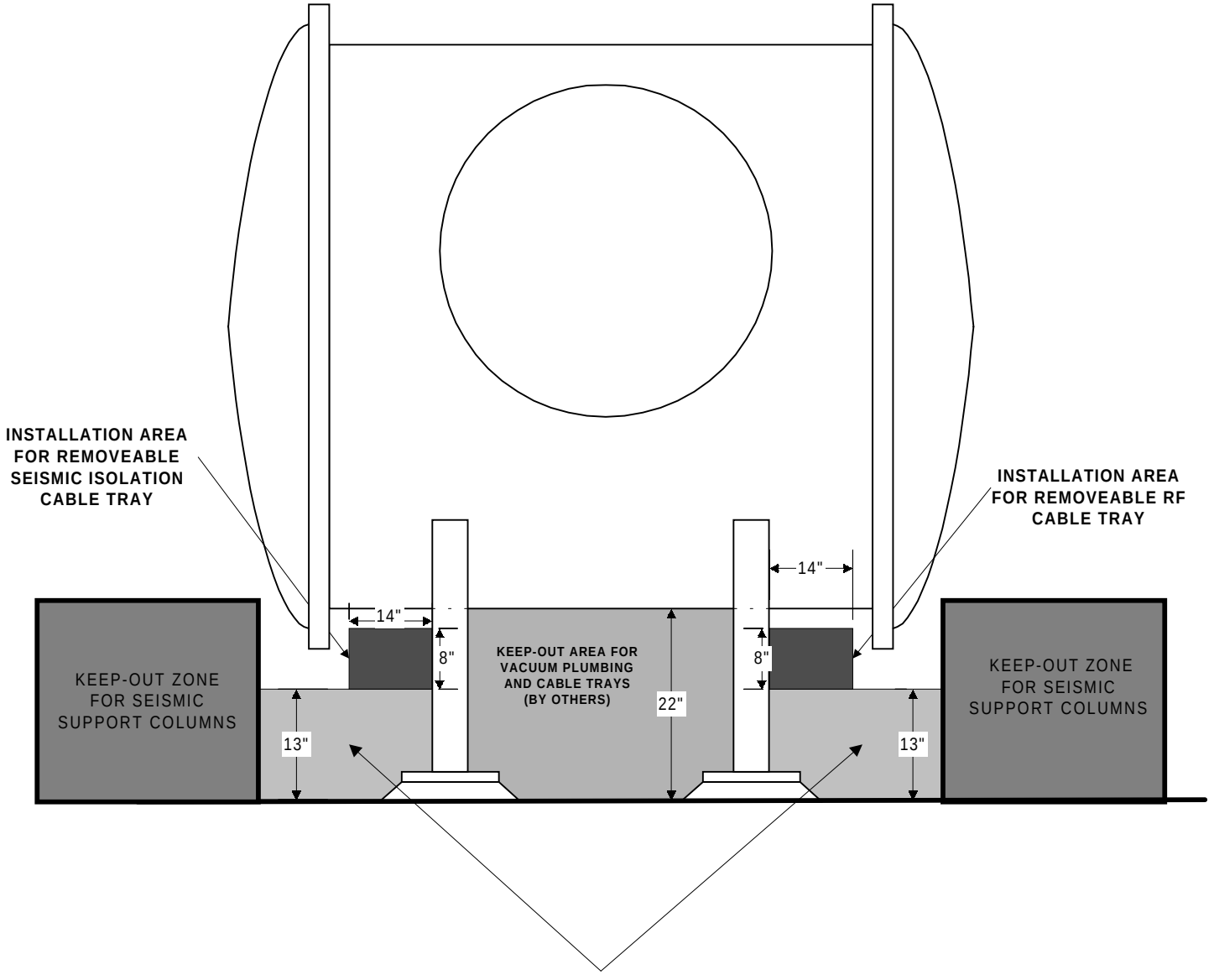
NOTE: CABLE TRAYS RUN PERPENDICULAR TO THE PLANE OF THE PAPER

CABLE TRAY ROUTING UNDER BSCS 1 & 3

DRAWING D980266, SHEET 9

Z:~visio/bscs1and3.vsd

NOTE: CABLE TRAYS RUN INTO THE PLANE OF THE PAPER



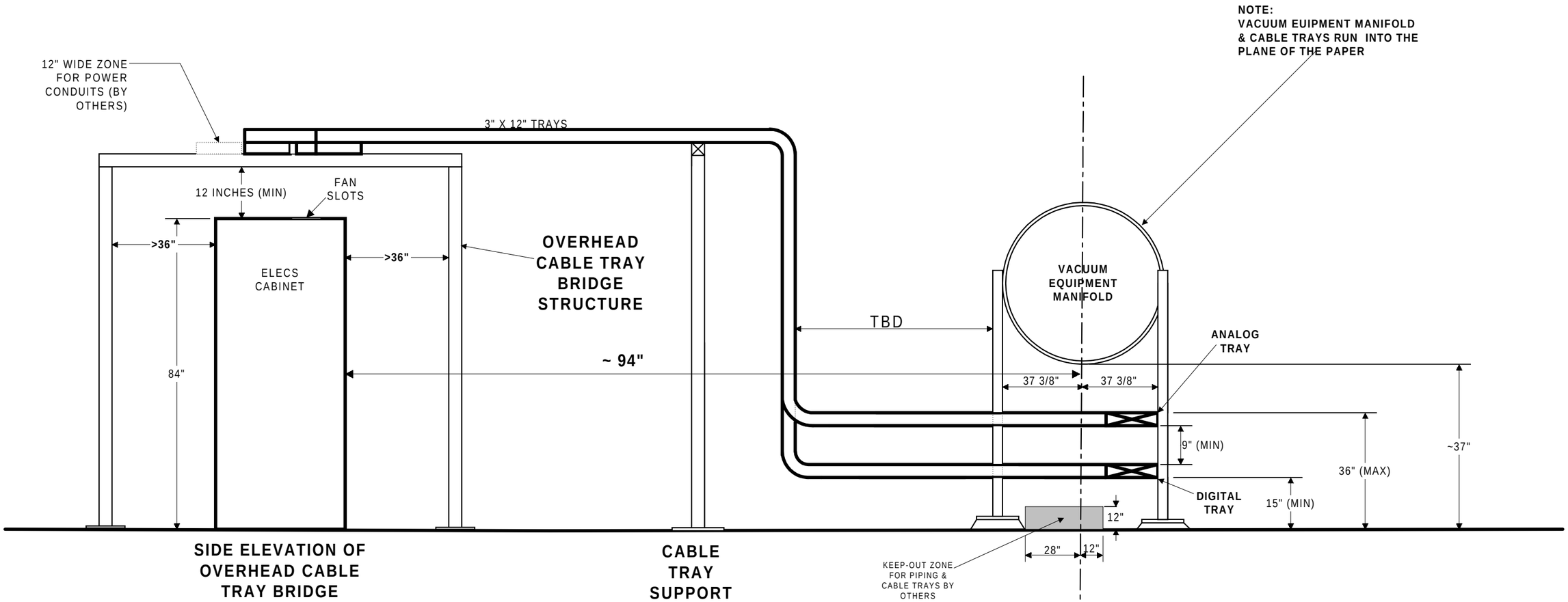
SECTION J-J

NOT TO SCALE

INSTALLATION AREAS FOR CABLE TRAYS UNDER OUTPUT HAMS (HAMS 4 & 10) LOOKING TOWARDS VERTEX

DRAWING D980266, SHEET 10

Z:~visio/drawings/outputhams.vsd



SIDE ELEVATION OF OVERHEAD CABLE TRAY BRIDGE

CABLE TRAY SUPPORT

SECTION K-K

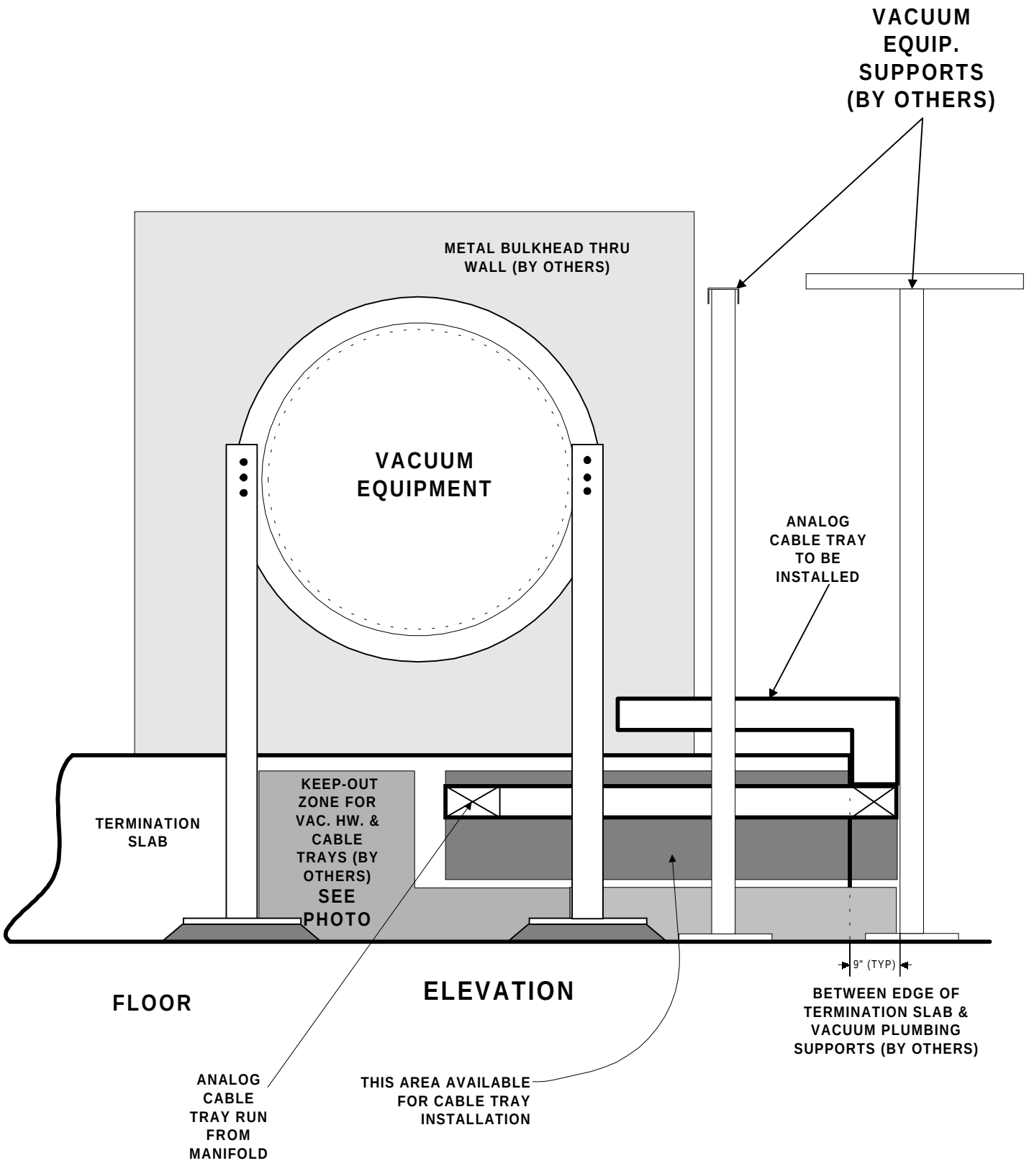
NOT TO SCALE

CABLE TRAY INSTALLATIONS NEAR VACUUM MANIFOLDS

VIEW SHOWN: X-ARM LOOKING TOWARDS END STATION

DRAWING D980266, SHEET 11

Z:~visio/drawings/manifold.vsd



SECTION L-L
NOT TO SCALE

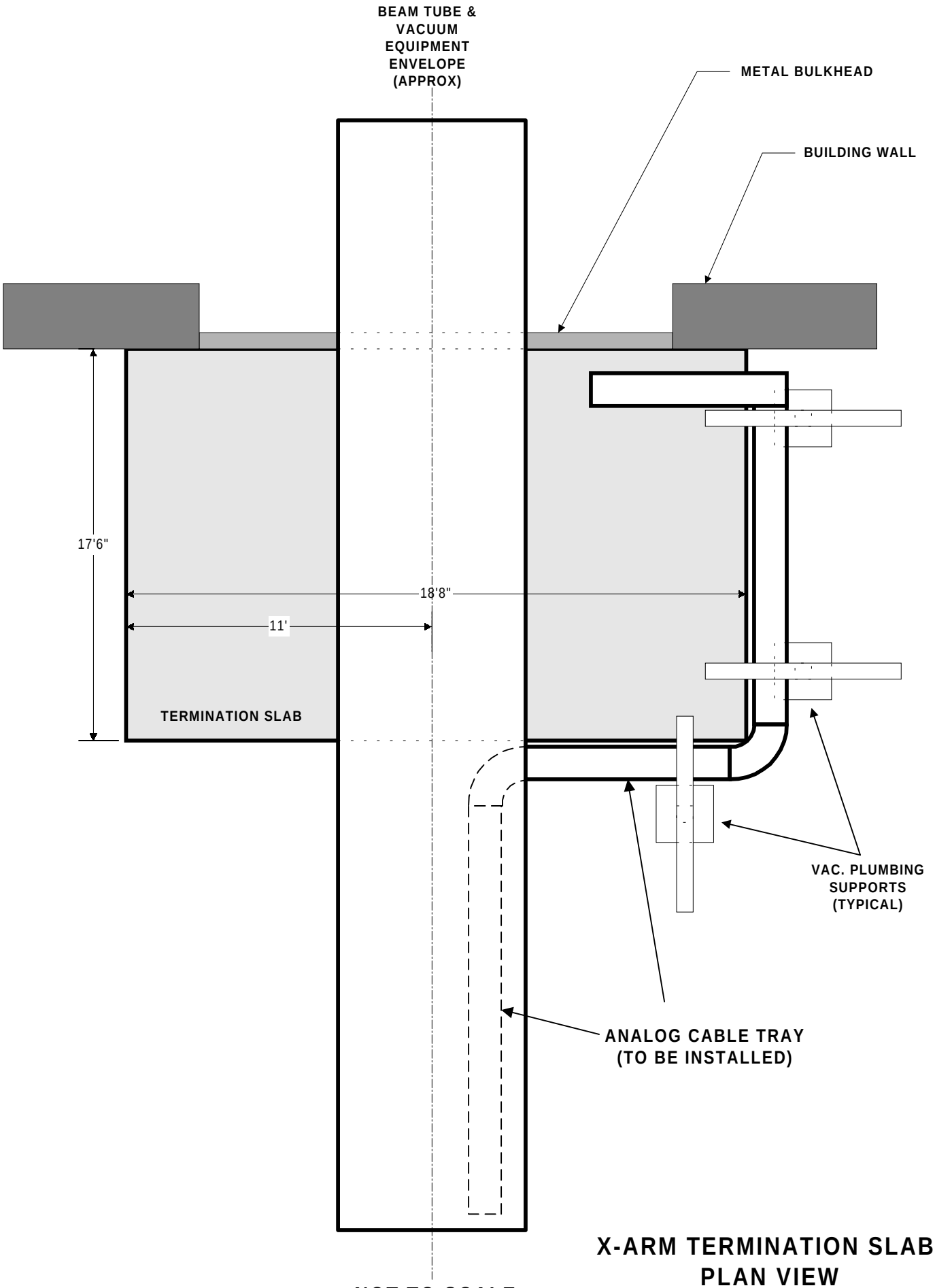
NOTES:
1) FOR PLAN VIEW OF THIS AREA SEE D980266, SHEET 13

2) CABLE TRAYS RUN INTO THE PLANE OF THE PAPER

X ARM TERMINATION SLAB

DRAWING D980266, SHEET 12

Z:~visio/drawings/terminationslab.vsd



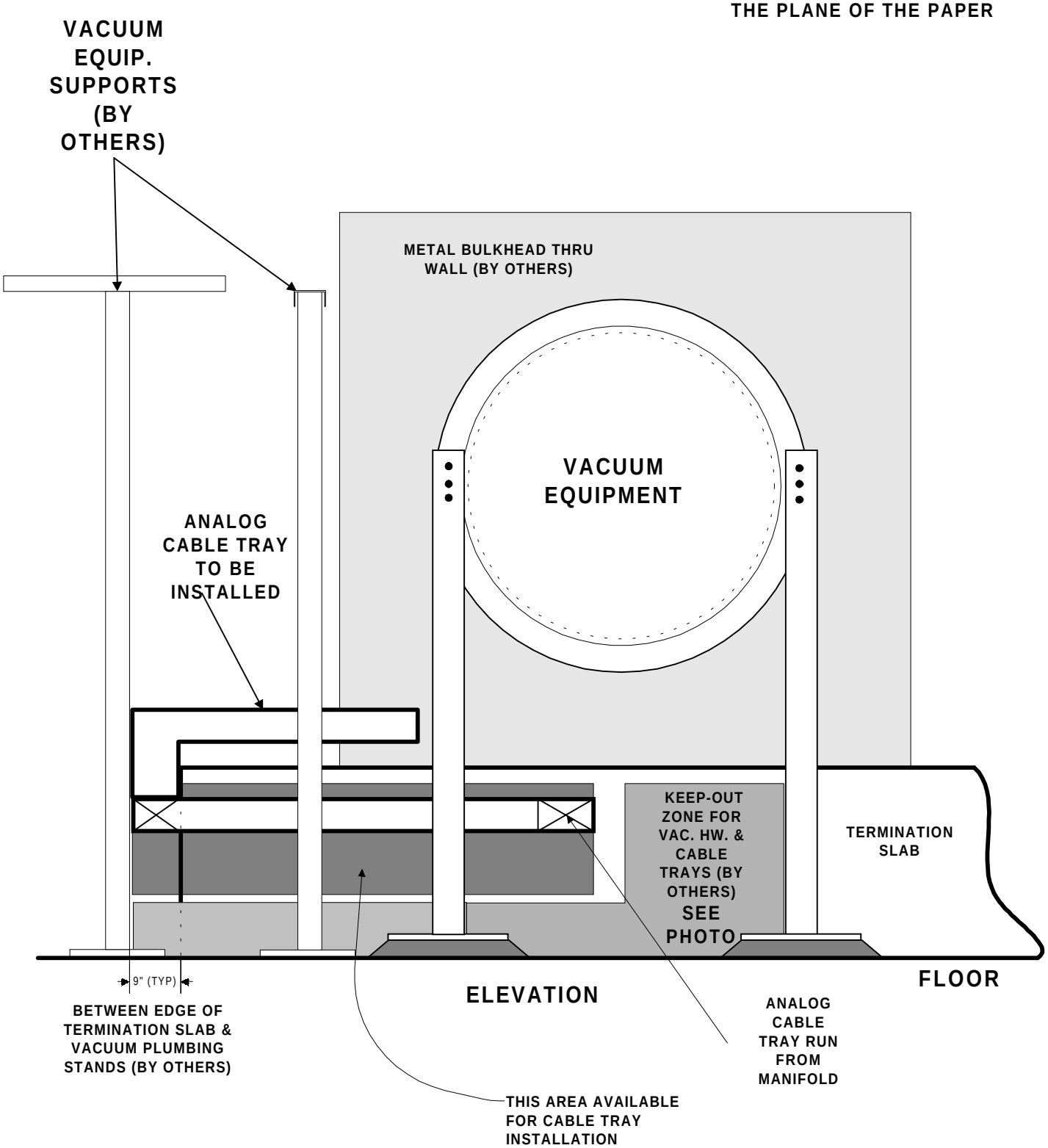
NOT TO SCALE

X-ARM TERMINATION SLAB, PLAN VIEW

DRAWING D980266, SHEET 13

Z:~visio/drawings/xtermslab.vsd

NOTE: CABLE TRAYS RUN INTO THE PLANE OF THE PAPER

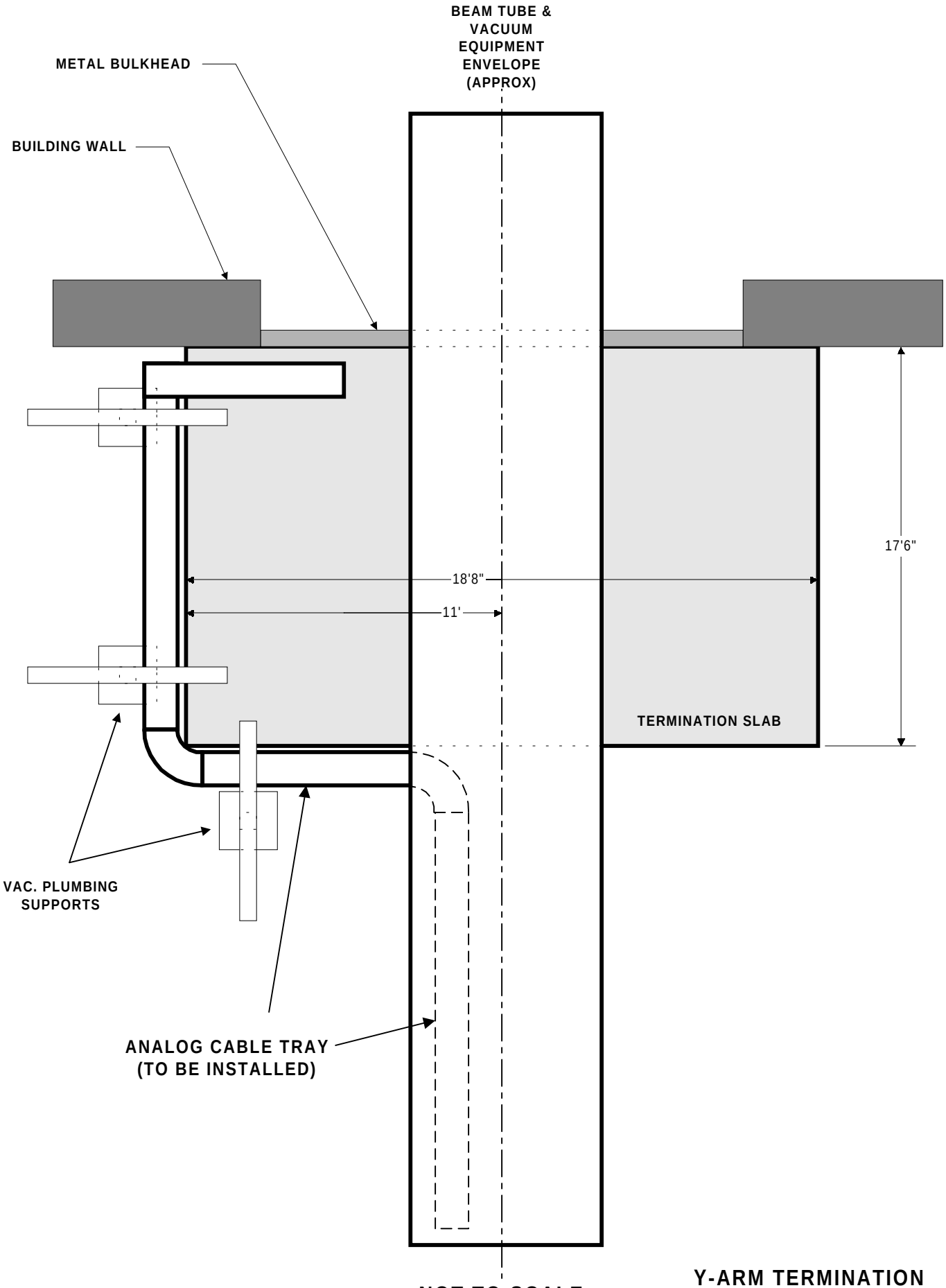


SECTION M-M
NOT TO SCALE

Y-ARM TERMINATION SLAB, ELEVATION

DRAWING D980266, SHEET 14

Z:~visio/ytermslab.vsd

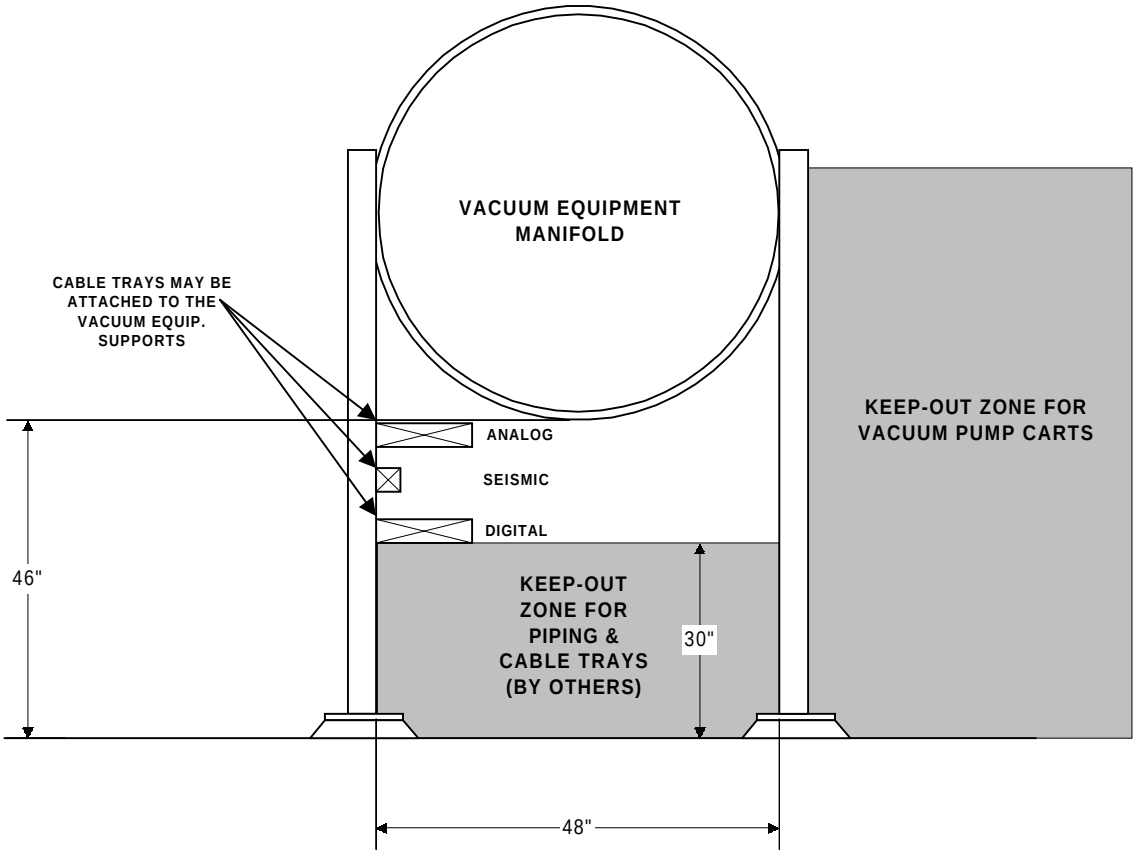


NOT TO SCALE

Y-ARM TERMINATION SLAB , PLAN VIEW

DRAWING D980266, SHEET 15

Z:~visio/ytermplanslab.vsd



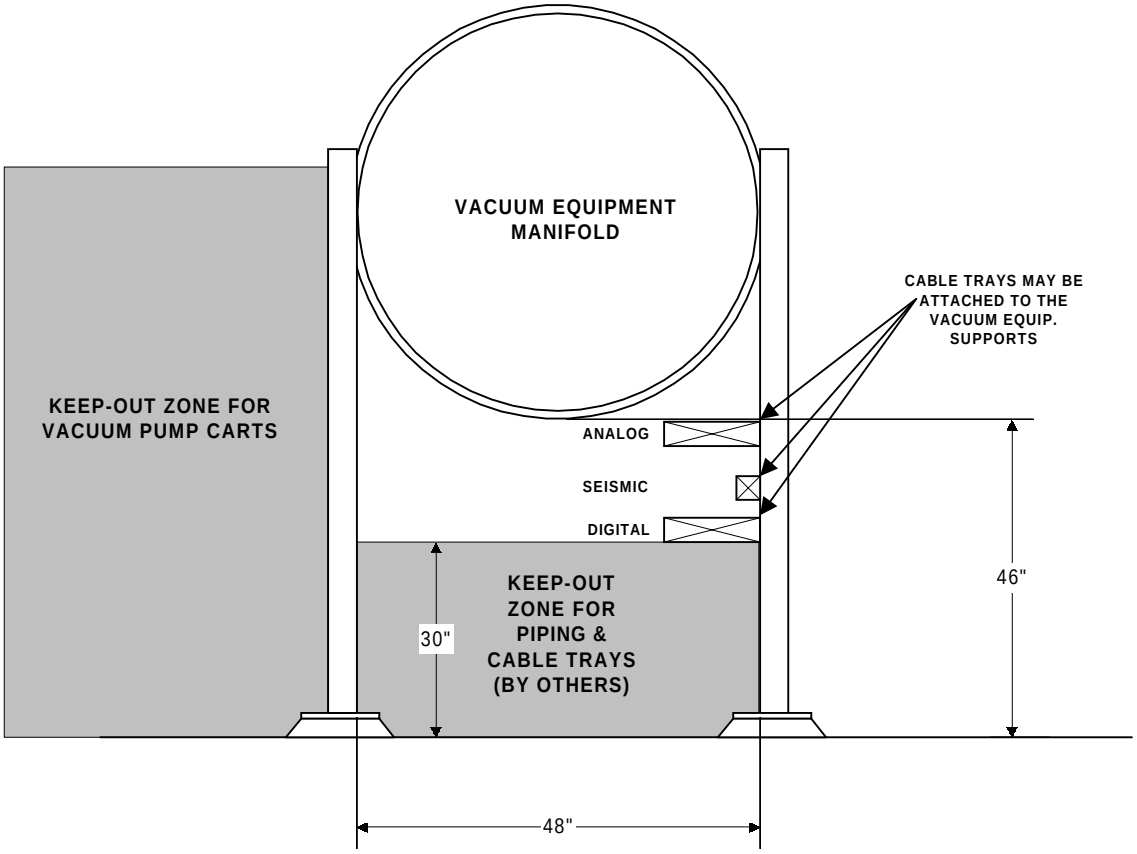
SECTION N-N

NOT TO SCALE

DIAGONAL BEAM MANIFOLD (Y-ARM)
LOOKING FROM BSC4 TOWARDS BSC 8

DRAWING D980266, SHEET 16

Z: ~visio/ydiagmanifold.vsd



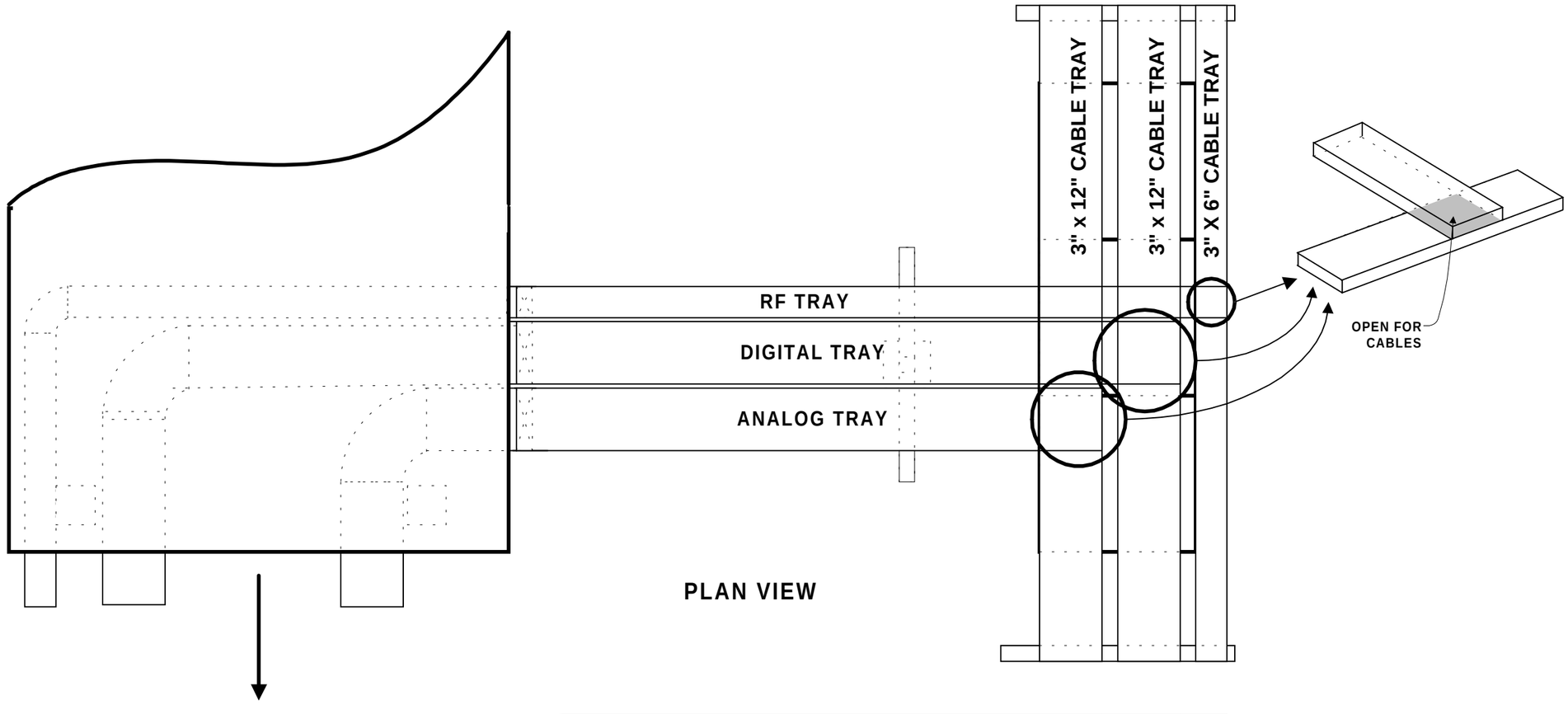
SECTION O-O

NOT TO SCALE

DIAGONAL BEAM MANIFOLD (X-ARM)
LOOKING FROM BSC 4 TOWARDS BSC 7

DRAWING D980266, SHEET 17

Z: visio/xdiagmanifold.vsd

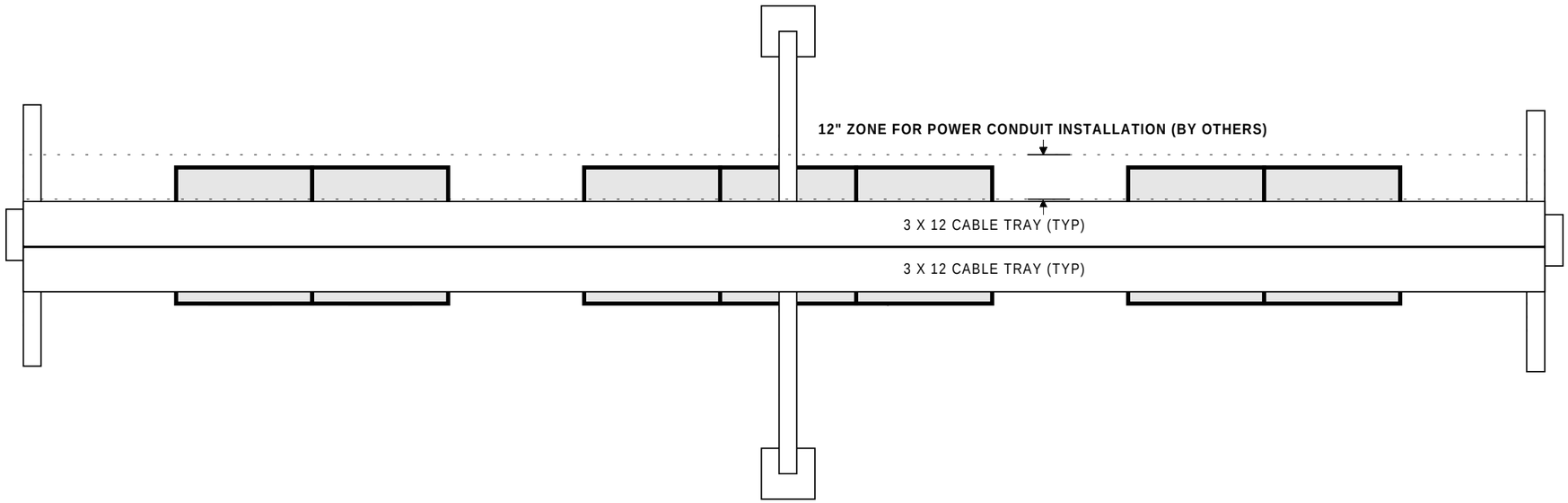


NOT TO SCALE

CABLE TRAY INTERFACES WITH PSL TABLES AND ELECTRONICS RACKS

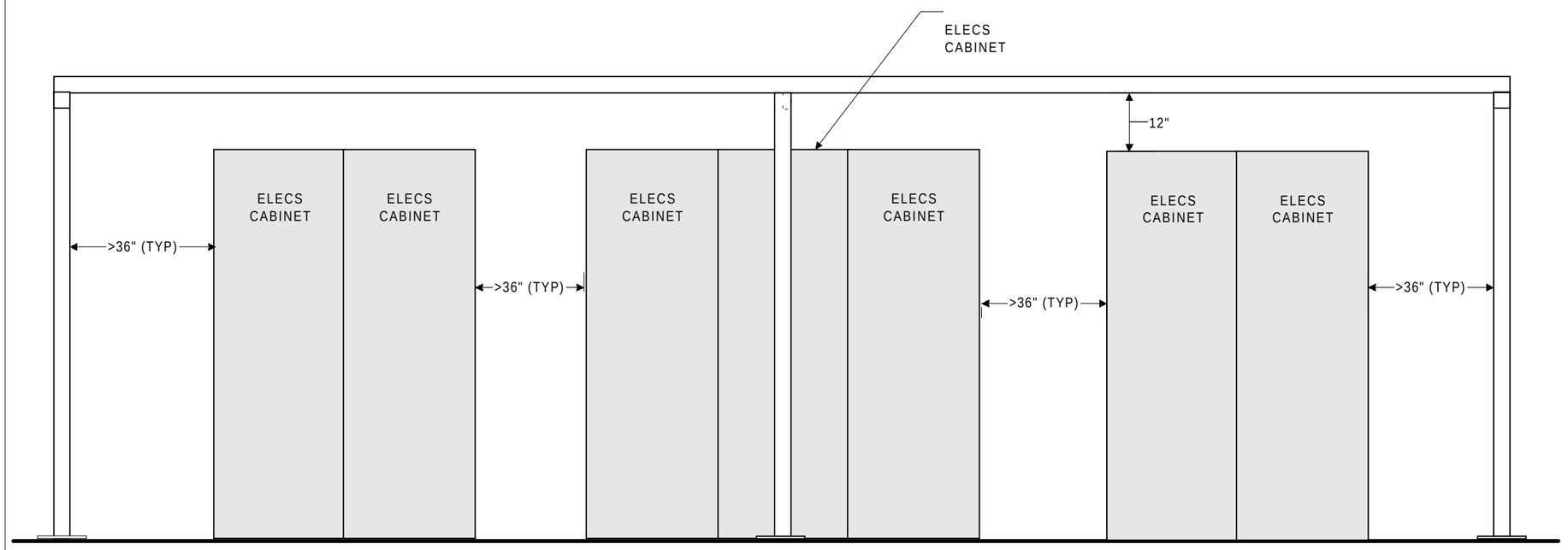
DRAWING D980266,SHEET 18

Z:~visio/drawings/lasertable.vsd

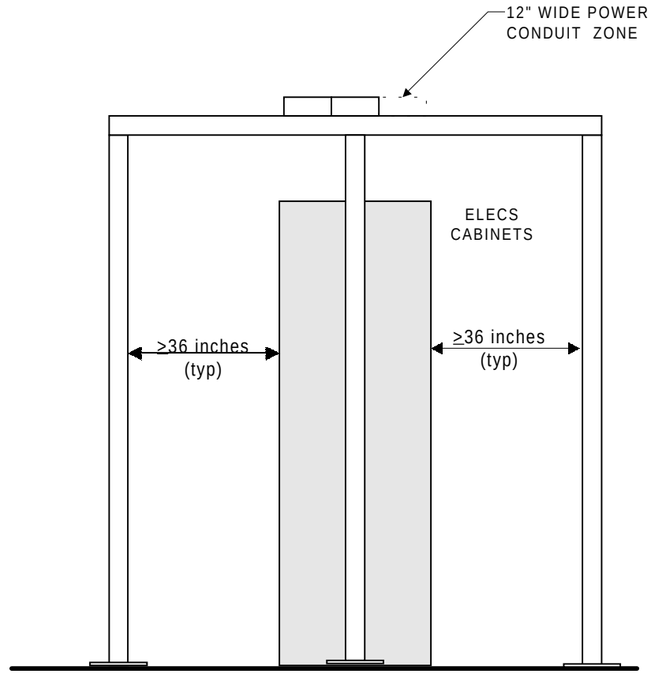


PLAN VIEW

SECTION Q-Q



FRONT ELEVATION



SIDE ELEVATION

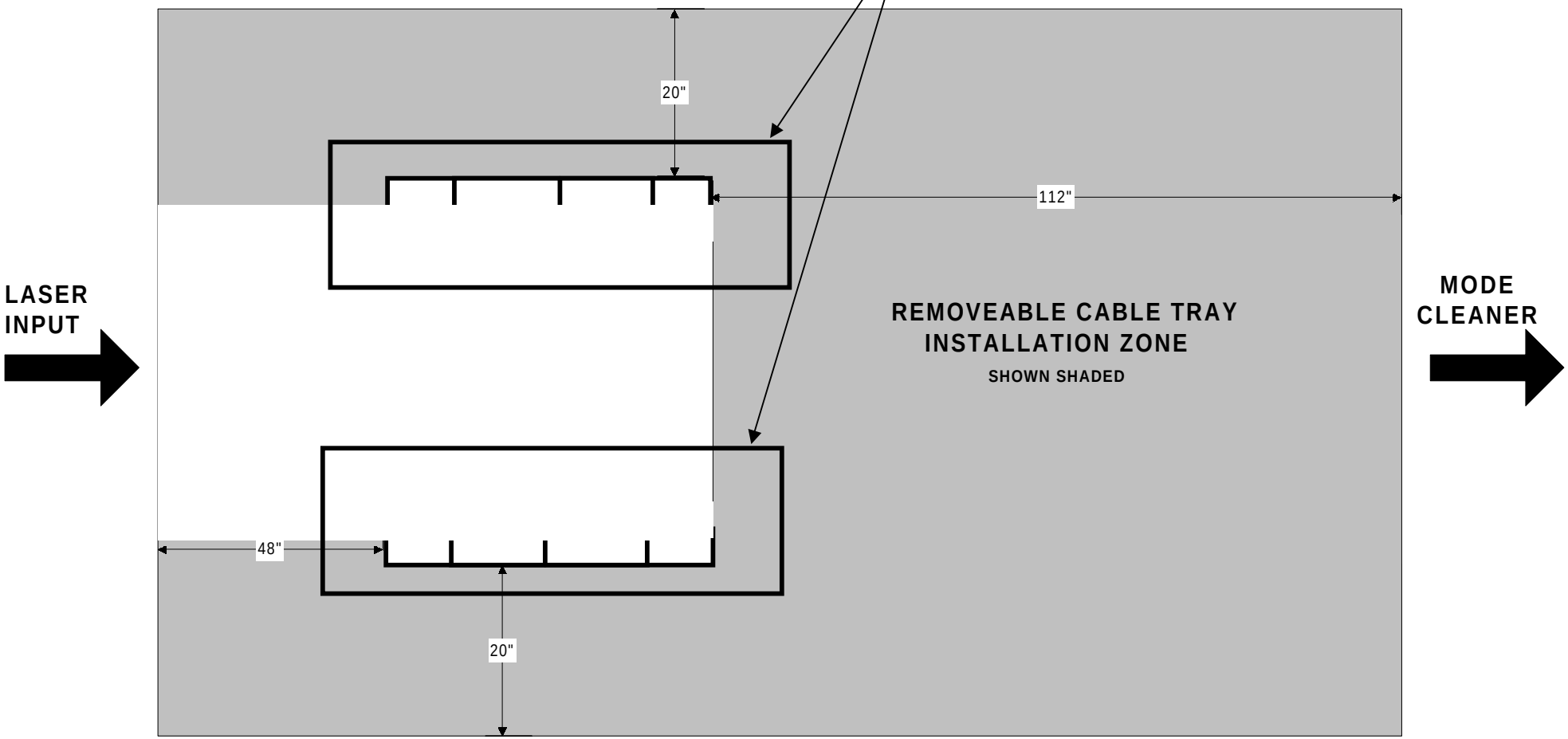
OVERHEAD CABLE TRAY BRIDGE CONCEPTS

DRAWING D980266, SHEET 19

Z:~visio/drawings/cabletraybrdg.vsd

NOTE: SEE SECTION E-E
(PHOTO E20) FOR ELEVATION
PHOTO OF A TYPICAL INPUT HAM
SUPPORT AREA

HAM SUPPORT
FOOTPRINT
SEE NOTE ABOVE



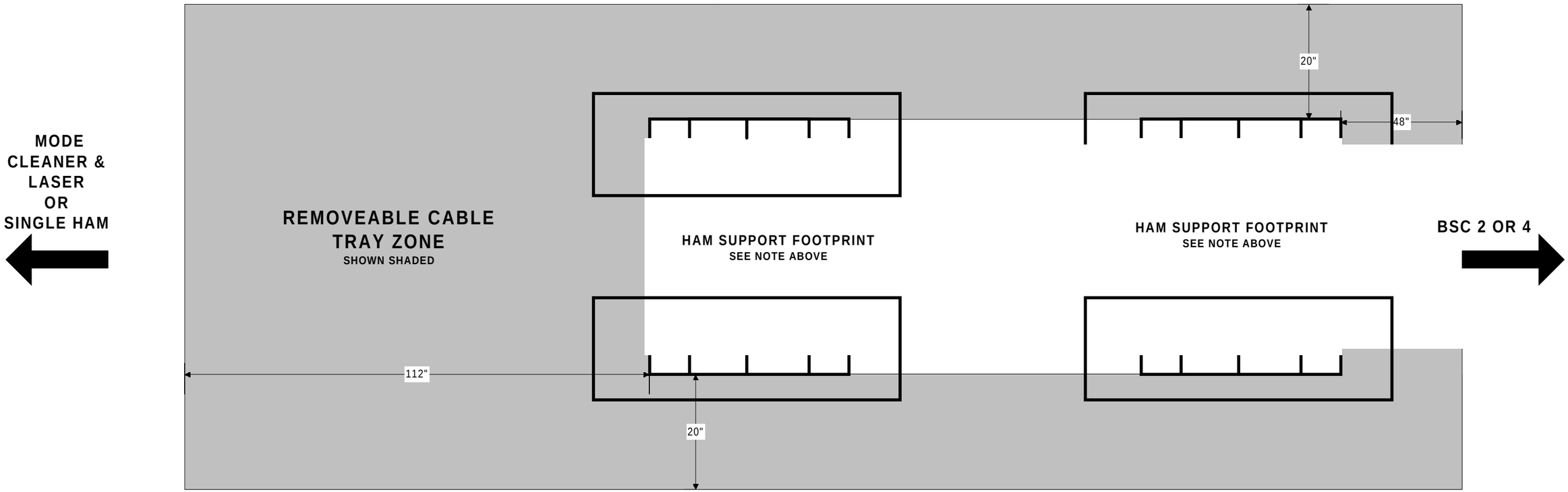
PLAN VIEW

NOT TO SCALE

REMOVEABLE CABLE TRAY ZONE
AROUND INPUT HAMS

DRAWING D980266, SHEET 20
Z:~visio/drawings/inhamfutprint.vsd

NOTE: SEE SECTION E-E
(PHOTO E20) FOR ELEVATION
PHOTO OF A TYPICAL INPUT HAM
SUPPORT AREA



PLAN VIEW

NOT TO SCALE

REMOVEABLE CABLE TRAY ZONE AROUND DUAL HAM INSTALLATIONS

DRAWING D980262, SHEET 21

Z:~visio/drawings/hamfootprnt.vsd