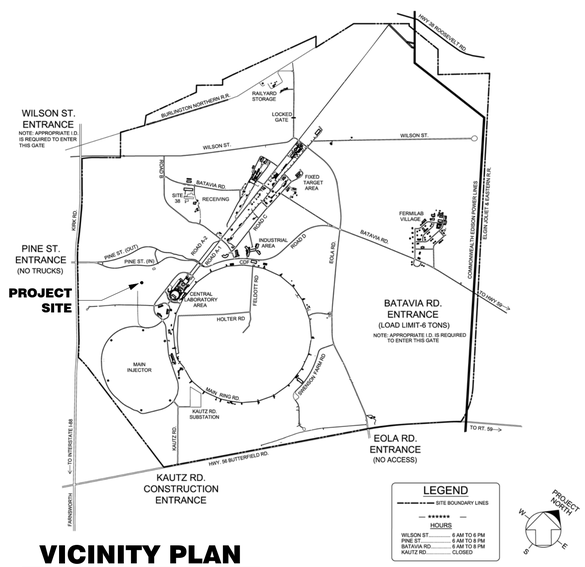
SBNE FAR DETECTOR BUILDING

CONCEPT DESIGN



VICINITY PLAN

SCALE: N.T.S.

SHEET INDEX

GENERAL DRAWINGS
G1 VICINITY PLAN AND SHEET LIST

ARCHITECTURAL DRAWINGS
A0 SITE PLAN
A1 ENCLOSURE LEVEL PLAN
A2 GRADE LEVEL PLAN
A3 BUILDING ELEVATIONS SHEET 1
A4 BUILDING ELEVATIONS SHEET 2
A5 TRANSVERSE SECTIONS
A6 LONGITUDINAL SECTION
A7 SURFACE BUILDING PERSPECTIVES

STRUCTURAL DRAWINGS
S1 GRADE LEVEL FRAMING PLAN

REV.	DATE	DESCRIPTION

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HOLABIRD & ROOT
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DESIGNED		
DRAWN	M.BLEWITT	09/05/2014
CHECKED	S.DIXON	09/05/2014
APPROVED	S.DIXON	09/05/2014
SUBMITTED		

SCALE:

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UNITED STATES DEPARTMENT OF ENERGY

SBN FAR DETECTOR BUILDING
VICINITY PLAN AND SHEET LIST

DRAWING NO. 6-7-93 G1 REV.

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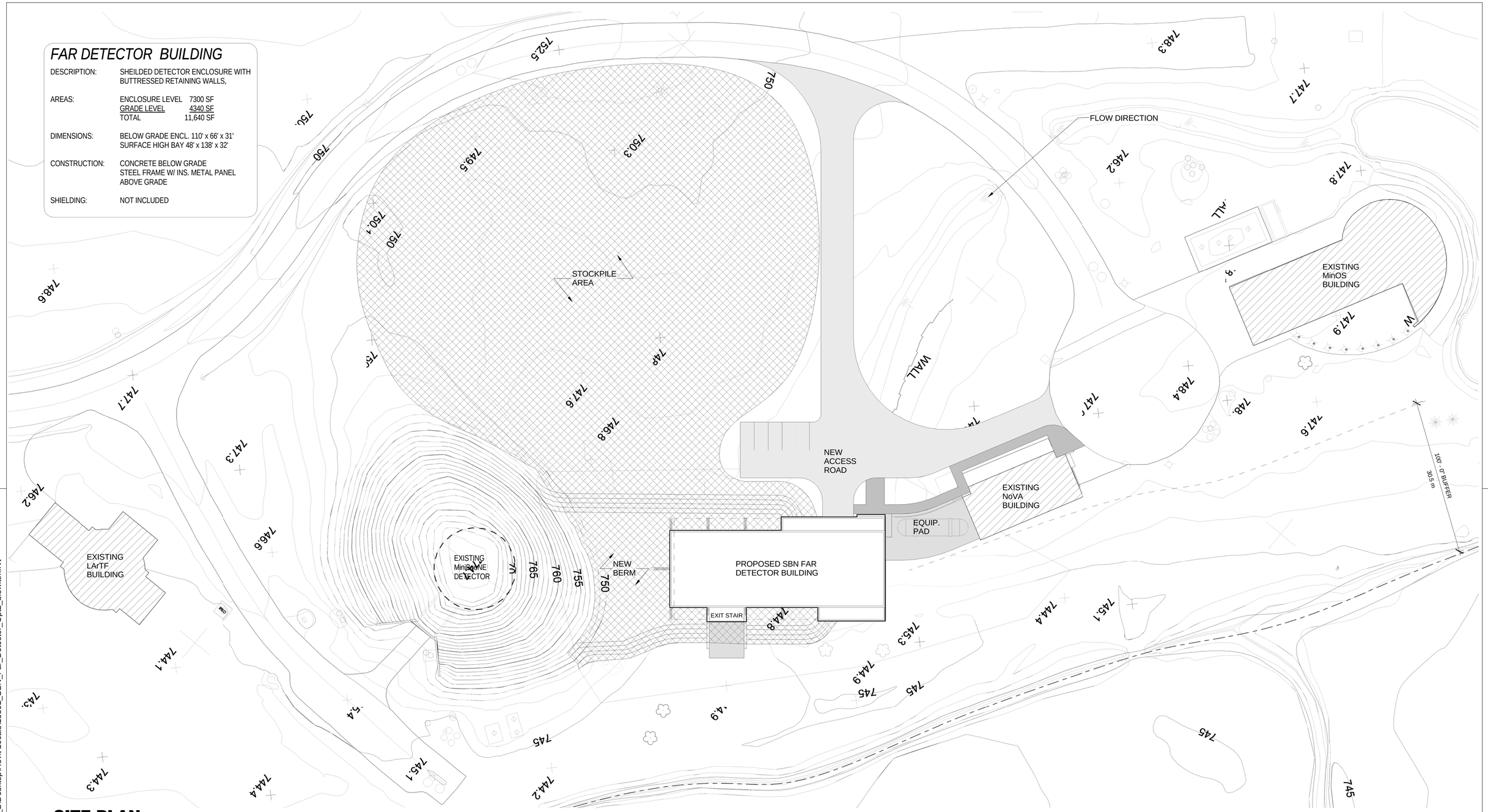
FAR DETECTOR BUILDING

DESCRIPTION:	SHEILDED DETECTOR ENCLOSURE WITH BUTTRESSED RETAINING WALLS,
AREAS:	ENCLOSURE LEVEL 7300 SF GRADE LEVEL 4340 SF TOTAL 11,640 SF
DIMENSIONS:	BELOW GRADE ENCL. 110' x 66' x 31' SURFACE HIGH BAY 48' x 138' x 32'
CONSTRUCTION:	CONCRETE BELOW GRADE STEEL FRAME W/ INS. METAL PANEL ABOVE GRADE
SHIELDING:	NOT INCLUDED



SITE PLAN

SCALE: 1" = 30'-0"

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S W E PROJECT NORTH

SCALE:
1"=30'-0"
30 0 30 60
SCALE FEET

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SBN FAR DETECTOR BUILDING

SITE PLAN

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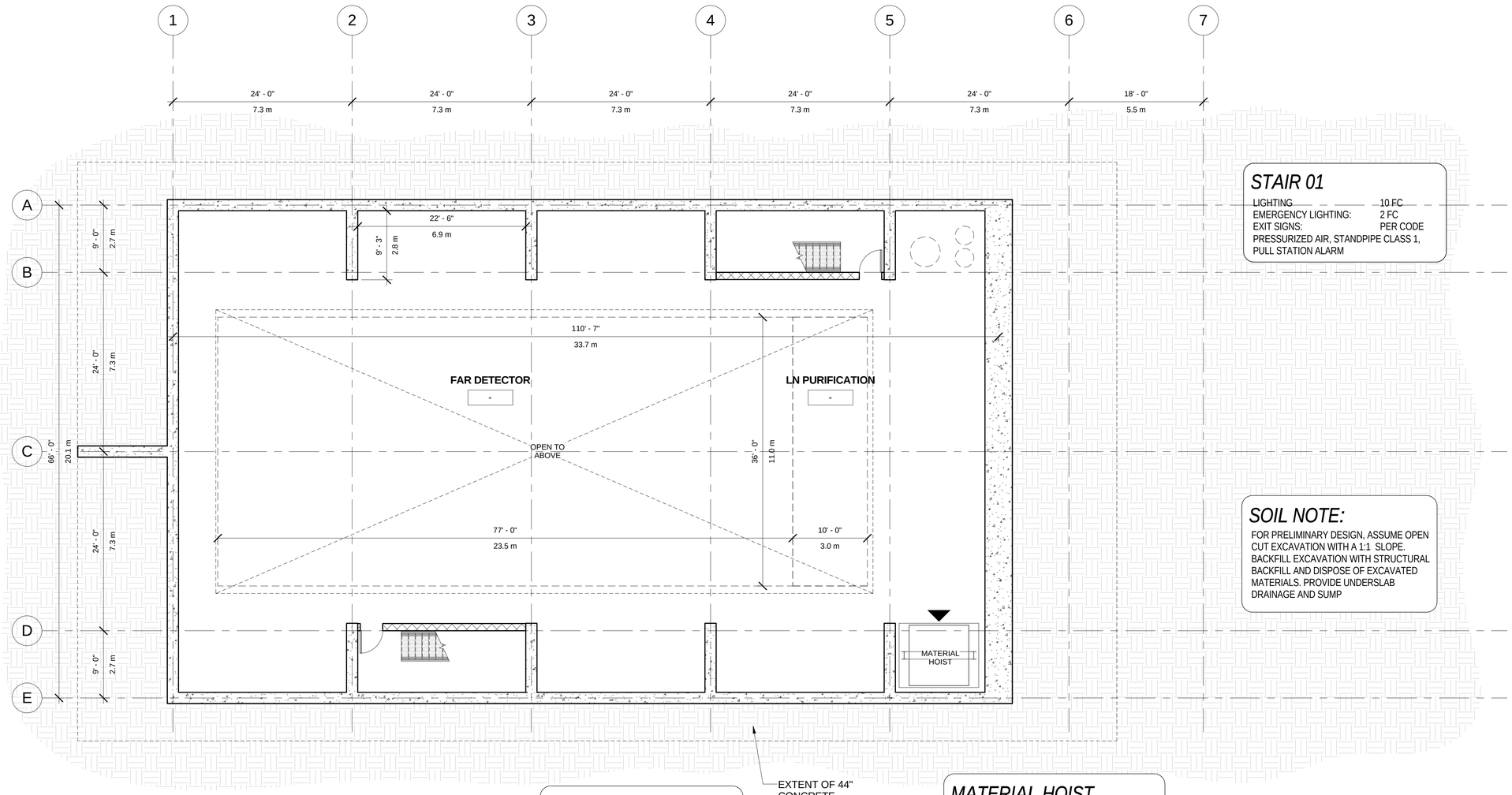

STAIR 01

LIGHTING	10 FC
EMERGENCY LIGHTING:	2 FC
EXIT SIGNS:	PER CODE

PRESSURIZED AIR, STANDPIPE CLASS 1, PULL STATION ALARM

SOIL NOTE:

FOR PRELIMINARY DESIGN, ASSUME OPEN CUT EXCAVATION WITH A 1:1 SLOPE. BACKFILL EXCAVATION WITH STRUCTURAL BACKFILL AND DISPOSE OF EXCAVATED MATERIALS. PROVIDE UNDERSLAB DRAINAGE AND SUMP

STAIR 02

LIGHTING	10 FC
EMERGENCY LIGHTING:	2 FC
EXIT SIGNS:	PER CODE

PRESSURIZED AIR, STANDPIPE CLASS 1, PULL STATION ALARM

MATERIAL HOIST

TYPE:	CHAIN LIFT HOIST, VERT. RECIPROCATING CONVEYOR
LOAD/CAPACITY:	5000 lbs
CAB SPEED:	
TRAVEL DISTANCE:	34'-10"
FLOORS SERVED:	ELEV: 713'-2",748'-0"

ENCLOSURE LEVEL PLAN

SCALE: 1/8" = 1'-0"

REV.	DATE	DESCRIPTION

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SUBMITTED		

S W E PROJECT NORTH

SCALE:
1/8"=1'-0"
8 0 8 16
SCALE FEET

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UNITED STATES DEPARTMENT OF ENERGY

SBN FAR DETECTOR BUILDING

ENCLOSURE LEVEL PLAN

DRAWING NO. 6-7-93 A1 REV.

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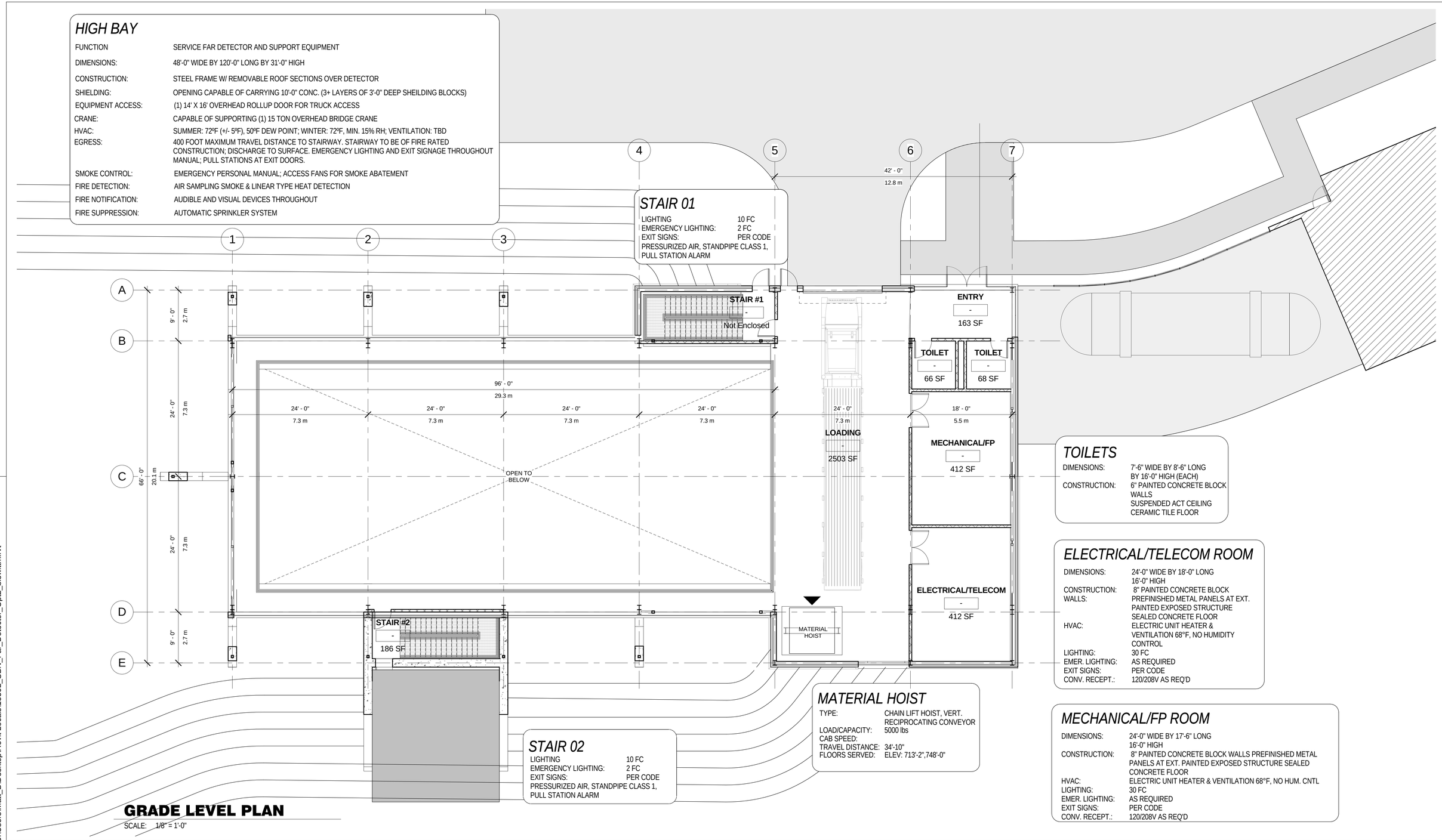
HIGH BAY

FUNCTION	SERVICE FAR DETECTOR AND SUPPORT EQUIPMENT
DIMENSIONS:	48'-0" WIDE BY 120'-0" LONG BY 31'-0" HIGH
CONSTRUCTION:	STEEL FRAME W/ REMOVABLE ROOF SECTIONS OVER DETECTOR
SHIELDING:	OPENING CAPABLE OF CARRYING 10'-0" CONC. (3+ LAYERS OF 3'-0" DEEP SHEILDING BLOCKS)
EQUIPMENT ACCESS:	(1) 14' X 16' OVERHEAD ROLLUP DOOR FOR TRUCK ACCESS
CRANE:	CAPABLE OF SUPPORTING (1) 15 TON OVERHEAD BRIDGE CRANE
HVAC:	SUMMER: 72ºF (+/- 5ºF), 50ºF DEW POINT; WINTER: 72ºF, MIN. 15% RH; VENTILATION: TBD
EGRESS:	400 FOOT MAXIMUM TRAVEL DISTANCE TO STAIRWAY. STAIRWAY TO BE OF FIRE RATED CONSTRUCTION; DISCHARGE TO SURFACE. EMERGENCY LIGHTING AND EXIT SIGNAGE THROUGHOUT MANUAL; PULL STATIONS AT EXIT DOORS.
SMOKE CONTROL:	EMERGENCY PERSONAL MANUAL; ACCESS FANS FOR SMOKE ABATEMENT
FIRE DETECTION:	AIR SAMPLING SMOKE & LINEAR TYPE HEAT DETECTION
FIRE NOTIFICATION:	AUDIBLE AND VISUAL DEVICES THROUGHOUT
FIRE SUPPRESSION:	AUTOMATIC SPRINKLER SYSTEM



STAIR 01

LIGHTING	10 FC
EMERGENCY LIGHTING:	2 FC
EXIT SIGNS:	PER CODE

PRESSURIZED AIR, STANDPIPE CLASS 1, PULL STATION ALARM

STAIR 02

LIGHTING	10 FC
EMERGENCY LIGHTING:	2 FC
EXIT SIGNS:	PER CODE

PRESSURIZED AIR, STANDPIPE CLASS 1, PULL STATION ALARM

MATERIAL HOIST

TYPE:	CHAIN LIFT HOIST, VERT. RECIPROCATING CONVEYOR
LOAD/CAPACITY:	5000 lbs
CAB SPEED:	
TRAVEL DISTANCE:	34'-10"
FLOORS SERVED:	ELEV: 713'-2",748'-0"

TOILETS

DIMENSIONS:	7'-6" WIDE BY 8'-6" LONG BY 16'-0" HIGH (EACH)
CONSTRUCTION:	6" PAINTED CONCRETE BLOCK WALLS SUSPENDED ACT CEILING CERAMIC TILE FLOOR

ELECTRICAL/TELECOM ROOM

DIMENSIONS:	24'-0" WIDE BY 18'-0" LONG 16'-0" HIGH
CONSTRUCTION:	8" PAINTED CONCRETE BLOCK
WALLS:	PREFINISHED METAL PANELS AT EXT. PAINTED EXPOSED STRUCTURE SEALED CONCRETE FLOOR
HVAC:	ELECTRIC UNIT HEATER & VENTILATION 68°F, NO HUMIDITY CONTROL
LIGHTING:	30 FC
EMER. LIGHTING:	AS REQUIRED
EXIT SIGNS:	PER CODE
CONV. RECEPT.:	120/208V AS REQ'D

MECHANICAL/FP ROOM

DIMENSIONS:	24'-0" WIDE BY 17'-6" LONG 16'-0" HIGH
CONSTRUCTION:	8" PAINTED CONCRETE BLOCK WALLS PREFINISHED METAL PANELS AT EXT. PAINTED EXPOSED STRUCTURE SEALED CONCRETE FLOOR
HVAC:	ELECTRIC UNIT HEATER & VENTILATION 68°F, NO HUM. CNTL
LIGHTING:	30 FC
EMER. LIGHTING:	AS REQUIRED
EXIT SIGNS:	PER CODE
CONV. RECEPT.:	120/208V AS REQ'D

GRADE LEVEL PLAN

SCALE: 1/8" = 1'-0"

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CHECKED	S.DIXON	09/05/2014
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S W E PROJECT NORTH

SCALE:

1/8"=1'-0" 8 0 8 16 SCALE FEET

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SBN FAR DETECTOR BUILDING

GRADE LEVEL PLAN

DRAWING NO. **6-7-93** **A2** REV.

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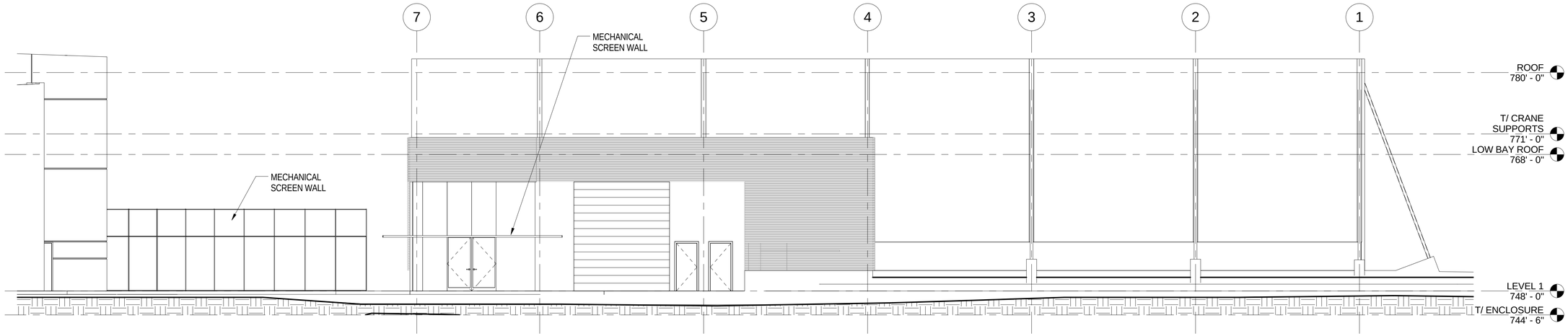
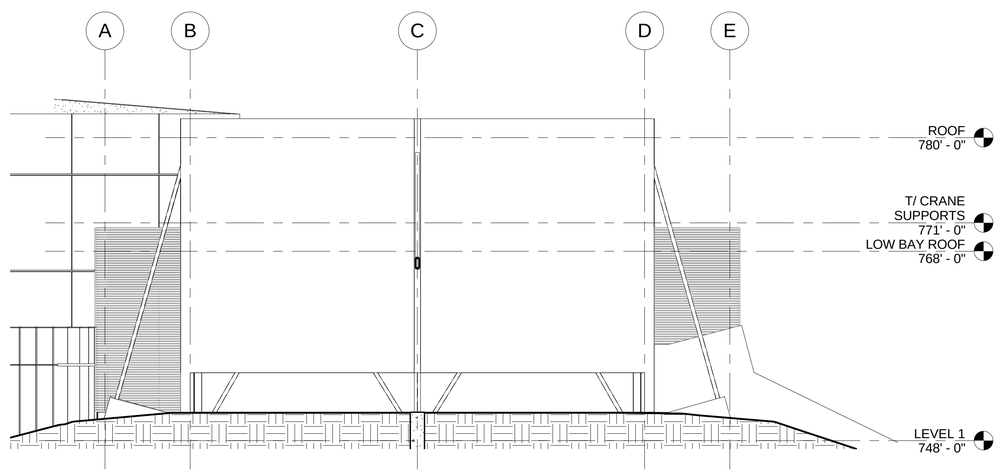


ELEVATION 1

SCALE: 1/8" = 1'-0"

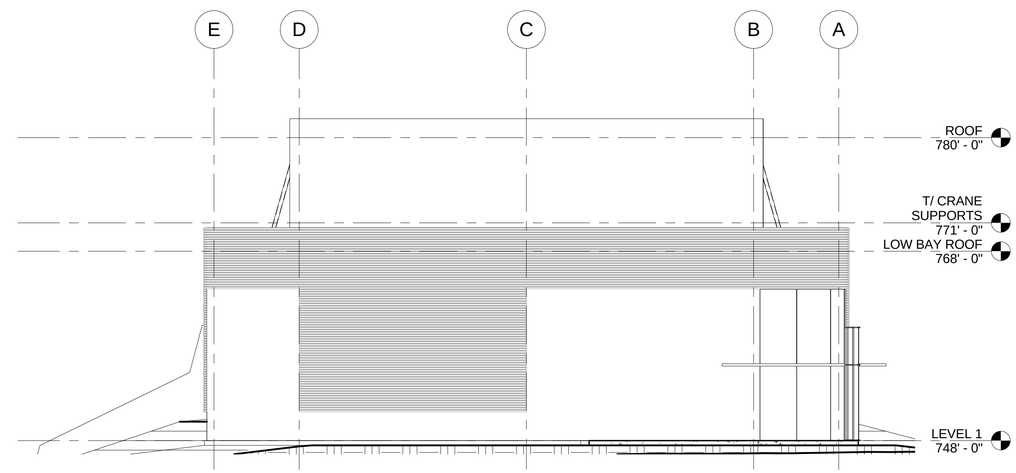
1



ELEVATION 2

SCALE: 1/8" = 1'-0"

2



ELEVATION 3

SCALE: 1/8" = 1'-0"

3

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APPROVED	**S. DIXON**	**09/05/2014**
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SCALE:

1/8"=1'-0"

8 0 8 16
SCALE FEET

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SBN FAR DETECTOR BUILDING

BUILDING ELEVATIONS SHEET 1

DRAWING NO. **6-7-93** **A3** REV.

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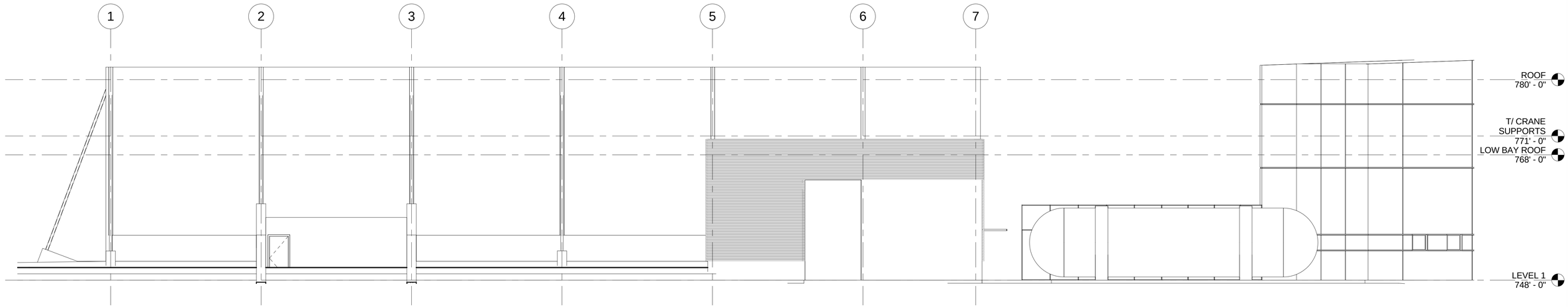

ELEVATION 4

1

SCALE: 1/8" = 1'-0"

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SCALE:

1/8"=1'-0"

8 0 8 16
SCALE FEET

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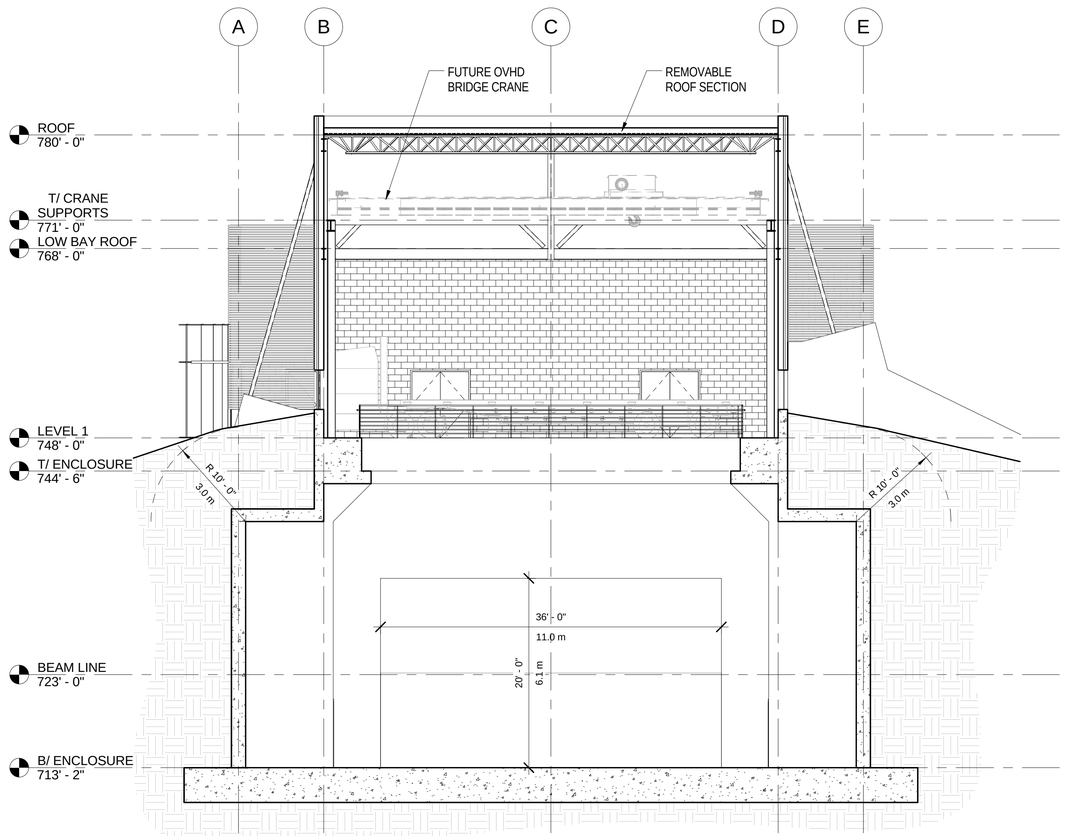
SBN FAR DETECTOR BUILDING

BUILDING ELEVATIONS SHEET 2

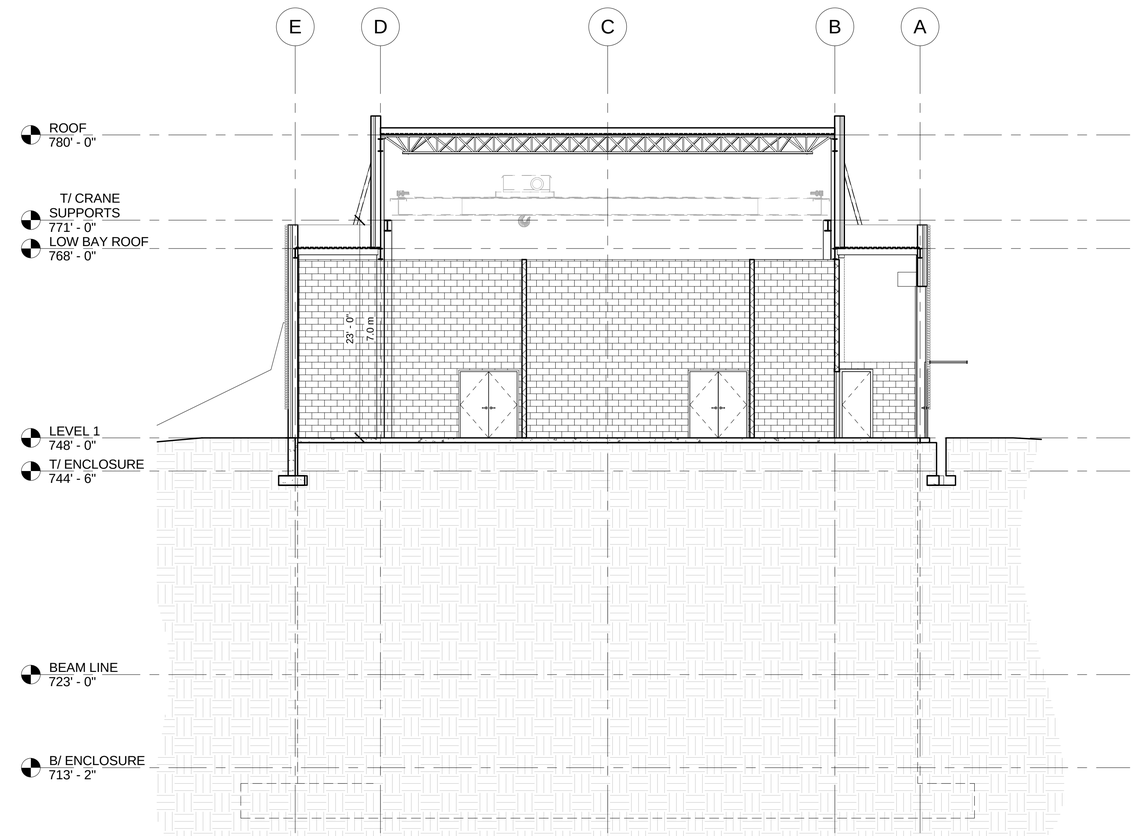
DRAWING NO. **6-7-93** **A4** REV. **1**

05 SEPT. 2014



TRANSVERSE SECTION ENCL. 1

SCALE: 1/8" = 1'-0"



TRANSVERSE SECTION HIGH BAY 2

SCALE: 1/8" = 1'-0"

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SCALE:

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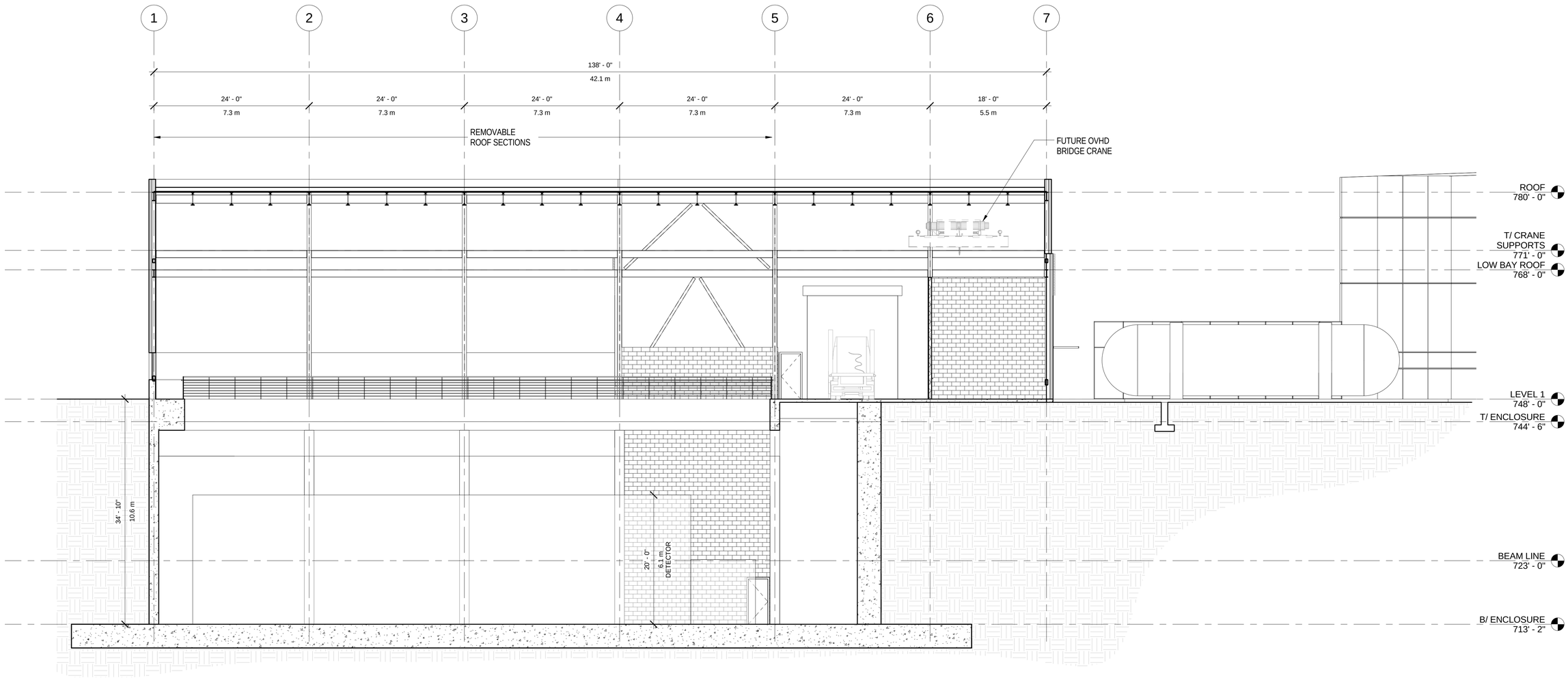
UNITED STATES DEPARTMENT OF ENERGY

SBN FAR DETECTOR BUILDING

TRANSVERSE SECTIONS

DRAWING NO. 6-7-93 A5 REV.

07/27/14



LONGITUDINAL SECTION HIGH BAY 1

SCALE: 1/8" = 1'-0"

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SCALE:

1/8" = 1'-0"

8 0 8 16
SCALE FEET

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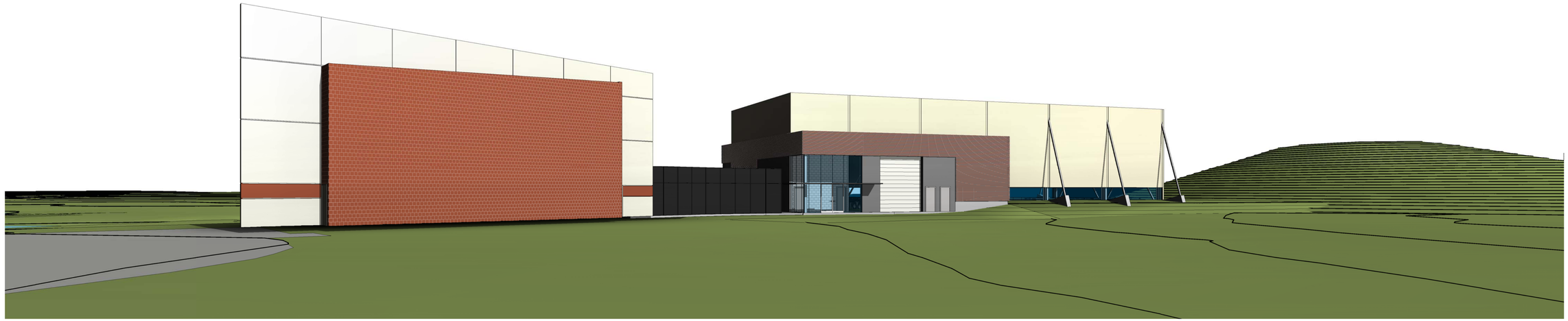
SBN FAR DETECTOR BUILDING

LONGITUDINAL SECTION

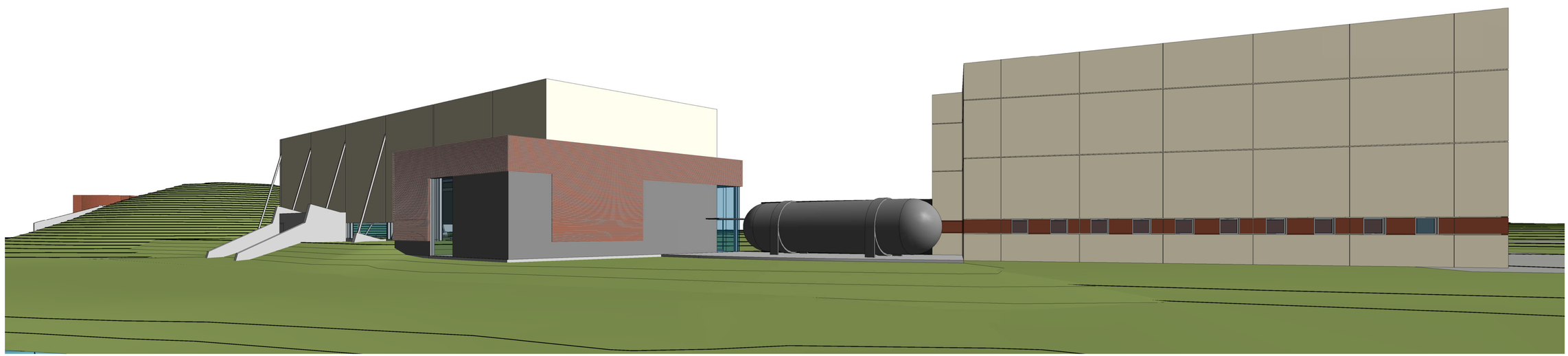
DRAWING NO. **6-7-93** **A6** REV.

05 SEPT. 2014



SITE PERSPECTIVE 1

SCALE: N.T.S.



SITE PERSPECTIVE 2

SCALE: N.T.S.

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SBN FAR DETECTOR BUILDING

SURFACE BUILDING PERSPECTIVES

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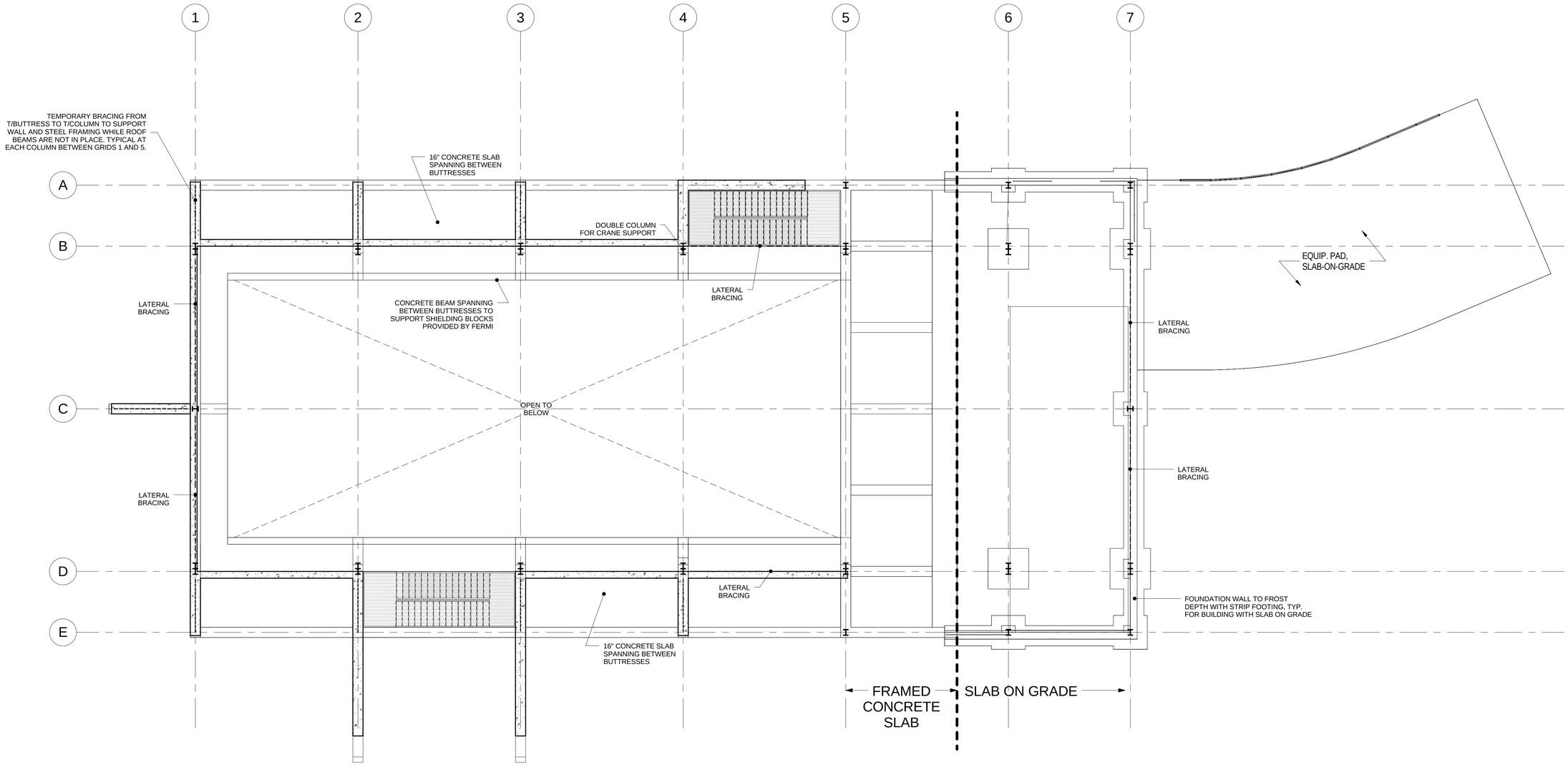

GRADE LEVEL FRAMING PLAN

SCALE: 1/8" = 1'-0"

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SUBMITTED		

S W E PROJECT NORTH

SCALE:

1/8"=1'-0"

8 0 8 16
SCALE FEET

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SBN FAR DETECTOR BUILDING

GRADE LEVEL FRAMING PLAN

DRAWING NO. **6-7-93** **S1** REV.

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