



South Texas Project Electric Generating Station P.O. Box 289 Wadsworth, Texas 77483

June 2, 2010  
U7-C-STP-NRC-100124

U. S. Nuclear Regulatory Commission  
Attention: Document Control Desk  
One White Flint North  
11555 Rockville Pike  
Rockville, MD 20852-2738

South Texas Project  
Units 3 and 4  
Docket Nos. 52-012 and 52-013  
Revised Response to Request for Additional Information

Reference: Letter, Scott Head to Document Control Desk, "Response to Request for Additional Information," dated February 10, 2010. U7-C-STP-NRC-100036 (ML100550613)

Attachment 2 is a revised response to NRC staff question included in Request for Additional Information (RAI) letter number 299 related to Combined License Application (COLA) Part 2, Tier 2, Section 3.8. The referenced letter provides the original response to the following RAI question:

RAI 03.08.04-18

Additionally, the supplemental information, as denoted in Attachment 15 of the referenced letter, has been submitted as provided in Attachment 1 to this letter. Supporting information for this RAI response will be provided in a future supplement as described in Attachment 2.

Where there are COLA markups, they will be made at the first routine COLA update following NRC acceptance of the RAI response.

There are no commitments in this letter.

If you have any questions regarding this response, please contact me at (361) 972-7136, or Bill Mookhoek at (361) 972-7274.

DO91  
NRO

STI 32684622

I declare under penalty of perjury that the foregoing is true and correct.

Executed on 6/2/10



Scott Head  
Manager, Regulatory Affairs  
South Texas Project Units 3 & 4

jep

Attachments:

1. Supplemental Information Dates
2. RAI 03.08.04-18, Revision 1

cc: w/o attachment except\*  
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**SUPPLEMENTAL INFORMATION DATES (UPDATED)**

<b>RAI Number</b>	<b>INFORMATION DESCRIPTION</b>	<b>STPNOC LETTER NUMBER</b>	<b>SUPPLEMENTAL / REVISION DATE</b>
03.07.01-18	Increase in Soil Pressure due to Structure to Structure interaction	U7-C-STP-NRC-100035 U7-C-STP-NRC-100093	Submitted
03.07.01-19	Details for Diesel Generator Fuel Oil Storage Vaults	U7-C-STP-NRC-100035 U7-C-STP-NRC-100093	Submitted
03.07.01-24	Effects of Crane Wall on the Reactor and Control Buildings	U7-C-STP-NRC-100036 U7-C-STP-NRC-100083	Submitted
03.07.02-13	Stability Evaluations for Seismic Category II Structures	U7-C-STP-NRC-100036 U7-C-STP-NRC-100093	Submitted
03.07.02-19	Seismic Input for II/I Evaluation for Radwaste Building	U7-C-STP-NRC-100035 U7-C-STP-NRC-100093	Submitted
03.07.03-3	Revise previous RAI response for Control Building Annex Input Motion based on DCD model – As previously discussed in the January 19-20 meeting	U7-C-STP-NRC-090225 U7-C-STP-NRC-100036 U7-C-STP-NRC-100093	Submitted
03.08.01-8	Effect of Increase in Pool Swell Height and Pressure	U7-C-STP-NRC-100018 U7-C-STP-NRC-100036 U7-C-STP-NRC-100083	Submitted
03.08.04-18	Radwaste Building Analysis Results and Design Details	U7-C-STP-NRC-100036 U7-C-STP-NRC-100124	Submitted
03.08.04-19	Results of Sliding Evaluation	U7-C-STP-NRC-100036 U7-C-STP-NRC-100093	Submitted
03.08.04-25	Details of Interface Connections Between the RSW Piping Tunnel and Buildings	U7-C-STP-NRC-100036 U7-C-STP-NRC-100083	Submitted
03.08.05-2	Results of Time Rate of Settlement and Evaluation of Gaps for Site-Specific Structures	U7-C-STP-NRC-100018 U7-C-STP-NRC-100036 U7-C-STP-NRC-100083	Submitted
03.08.05-3	Revise previous RAI response for Acceptance Criteria for Building Tilt due to Settlement – As previously discussed in the January 19-20 meeting	U7-C-STP-NRC-100018 U7-C-STP-NRC-100036 U7-C-STP-NRC-100083	Submitted



**RAI 03.08.04-18, Revision 1****QUESTION:****Follow-up to Question 03.08.04-2 (RAI 2964)**

The applicant's response to Question 03.08.04-2 states that the Radwaste Building (RWB) will be designed in accordance with the requirements of RG 1.143, Revision 2. The applicant also discussed the design criteria for this building for seismic category II/I evaluation. In order for the staff to conclude that the Radwaste Building design meets the requirements of RG 1.143, and also meets the requirement in ABWR DCD Section 3.7.2.8, item (3), the FSAR needs to include sufficient design information for the building to demonstrate that the design meets the pertinent design criteria. Guidance provided in SRP Section 3.8.4 may be used for providing such information. Therefore, the applicant is requested to provide design information for the RWB in the FSAR that includes more detailed description of the structure; applicable codes, standards and specifications; loads and load combinations including live loads, seismic loads, thermal loads, flood loads, tornado loads, lateral soil pressure, etc.; design and analysis procedures; structural acceptance criteria; materials and quality control; design of critical sections, stability evaluation, etc.

**REVISED RESPONSE:**

The original response to this RAI was submitted with STPNOC letter U7-C-STP-NRC-100036, dated February 10, 2010 which committed to provide the analysis and design results for the Radwaste Building by May 31, 2010. The following revised response provides this information and completely supersedes the previous response. The revised portions of the response are marked with a revision bar. This response also completely supersedes the response to RAI 03.08.04-2, submitted with STPNOC letter U7-C-STP-NRC-090136 dated September 15, 2009.

The Radwaste Building (RWB) for each STP unit houses the liquid and solid radwaste treatment and storage facilities, and radwaste processing and handling areas. The RWB is a reinforced concrete structure consisting of walls and slabs supported by a mat foundation. Liquid radwaste storage tanks are housed inside concrete cubicles located below grade at basement level. These cubicles are lined with steel liner plates to eliminate migration of any liquid outside the concrete cubicles.

The RWB is classified as RW-IIb (Hazardous) for STP 3&4 site per Section 5 of Regulatory Guide (RG) 1.143 Revision 2 and designed to meet or exceed applicable requirements of RG 1.143 Revision 2. Although, the RWB is classified as RW-IIb, it is designed conservatively for earthquake, tornado and wind loadings based on the requirements for RW-IIa classification. Design for other loads is based on the requirements for RW-IIb classification.

Due to its close proximity to Seismic Category I structures, the RWB structure is also designed to meet Seismic II/I requirements to ensure that the building does not collapse on the nearby Seismic Category I structures.

The codes and standards that are used for determining loads, load combinations, load factors and acceptance criteria meet or exceed those noted in Tables 1 through 4 of RG 1.143 Revision 2. The RWB is not subjected to any accident pressure or temperature loading. The minimum floor live load is 200 psf and the minimum roof live load is 50 psf. The seismic analysis of the RWB is performed using a fixed base stick model. The input motion of the seismic analysis is as follows:

For design basis:

- One-half of the DCD Safe Shutdown Earthquake (SSE) defined in Tier 1 Table 5.0.

For II/I design:

- The SSE input at the foundation level is the envelope of 0.3g RG 1.60 response spectrum and the induced acceleration response spectrum due to site-specific SSE that is determined from an SSI analysis which accounts for the impact of the nearby Reactor Building (RB). In this SSI analysis, five interaction nodes at the depth corresponding to the bottom elevation of the RWB foundation are added to the three dimensional SSI model of the RB. These five interaction nodes correspond to the four corners and the center of the RWB foundation. The average response of these five interaction nodes is enveloped with the 0.3g RG 1.60 spectra to determine the SSE input at the foundation level.

Tornado parameters are as follows:

For design basis:

- Tornado parameters are equal to three-fifths of the Region 1 tornado parameters defined in Table 1 of RG 1.76, Rev. 1. The Region 1 maximum tornado wind speed and pressure drop per Table 1 of RG 1.76, Rev. 1 are 230 mph and 1.2 psi, respectively. Three-fifths of 230 mph equals 138 mph and three-fifths of 1.2 psi equals 0.72 psi.
- Tornado missiles are in accordance with Table 2 of RG 1.143 Revision 2 for RW-IIa classification.

For II/I design:

- Tornado parameters and missiles are the same as those defined in DCD Tier 1 Table 5.0.

The Seismic II/I stability evaluations of the RWB structure for sliding, overturning and flotation are in accordance with the criteria provided in response to RAI 03.07.02-13 which was submitted with STPNOC letter U7-C-STP-NRC-100036, dated February 10, 2010. The required safety factors for flotation, sliding and overturning are the same as those specified in Standard Review Plan (SRP), Section 3.8.5. The analysis and design of the RWB is performed using a SAP2000

3D finite element model with shell and frame elements. Per Table 1 of RG 1.143 Revision 2, all concrete and steel designs are in accordance with the ACI 349-97 and ANSI/AISC N690, 1984 code requirements, respectively. Also, for II/I design, the structure is conservatively designed to remain elastic.

More detailed and specific description of the loads, load combinations, and results of analysis and design of the RWB structures is provided in the COLA mark-up shown in Enclosure 1.

COLA Part 2, Section 2.5S.4 will be revised as a result of this response as shown in Enclosure 2.

This RAI response will also impact other COLA sections beyond the structural details presented herein. Specifically, the general arrangement drawings of the RWB (Figures 1.2-23a through 1.2-23e) and other applicable text, table and figures in associated COLA sections (e.g., radiation zone maps, fire protection, area radiation monitors, etc.) will be revised and submitted as a supplement to this RAI response by July 30, 2010. This supplement will include an assessment of previous RAI responses associated with these COLA sections and will provide any RAI response revisions consistent with the design and analysis presented in this response.

**RAI 03.08.04-18, Revision 1**  
**Enclosure 1**

**COLA Part 2, Section 3H.3**

### 3H.3 Not Used Radwaste Building

STD DEP T1 2.15-1

Due to the re-classification of the Radwaste Building substructure from seismic Category I to non-seismic, this subsection of the DCD, including all tables and figures, is replaced in its entirety by this COLA section.

This section of the reference ABWR DCD including all subsections, figures, and tables is replaced completely. This is due to departures taken in the design of the liquid and solid radioactive waste system.

STD DEP T1 2.15-1

STD DEP 11.2-1

STD DEP 11.4-1

STD DEP 3.8-1

#### 3H.3.1 Objective and Scope

The scope of this subsection is to document the structural design and analysis of the Radwaste Building (RWB) for STP Units 3 & 4. The RWB is not a Seismic Category I structure. The RWB is classified as RW-IIb (Hazardous) for STP 3&4 site per Section 5 of Regulatory Guide (RG) 1.143 Revision 2 and designed to meet or exceed applicable requirements of RG 1.143 revision 2. Although, the RWB is classified as RW-IIb, it is designed conservatively for earthquake, tornado and wind loadings based on the requirements for RW-IIa classification. Design for other loads is based on the requirements for RW-IIb classification.

Due to its close proximity to safety-related seismic category I structures, the RWB structure is also designed to meet Seismic II/II requirements to ensure that the building does not collapse on the nearby safety-related buildings.

#### 3H.3.2 Summary

The following are the major summary conclusions on the design and analysis of the Radwaste Building:

- The provided concrete reinforcement listed in Tables 3H.3-3 and 3H.3-4 meet the requirements of the design codes and standards listed in Section 3H.3.4.
- The provided structural steel listed in Table 3H.3-5 meets the requirements of the design codes and standards listed in Section 3H.3.4.
- The factors of safety against flotation, sliding, and overturning of the structure under various loading combinations are higher than the required minimum factors of safety as shown in Table 3H.6-14.

### 3H.3.3 Structural Description

The Radwaste Building (RWB) for each STP unit houses the liquid and solid radwaste treatment and storage facilities, and radwaste processing and handling areas. The RWB is a reinforced concrete structure consisting of walls and slabs supported by a mat foundation. Liquid radwaste storage tanks are housed inside concrete cubicles located below grade at basement level. These cubicles are lined with steel liner plates to eliminate migration of any liquid outside the concrete cubicles. Metal decking supported by steel framing is used as form work to support the slabs during construction.

### 3H.3.4 Structural Design Criteria

#### 3H.3.4.1 Design Codes and Standards

The RWB is designed to meet the design requirements of RG 1.143 Revision 2 and also satisfy the Seismic II/I requirements that it does not collapse on the adjacent safety related structures in the proximity of the RWB under seismic and tornado loadings. The following codes, standards, and regulatory documents are applicable for the design of the RWB:

- ASCE 4-98, "Seismic Analysis of Safety-Related Nuclear Structures and Commentary"
- ACI 349-97, "Code Requirements for Nuclear Safety-Related Concrete Structures and Commentary"
- ANSI/AISC N690, 1984 "Specifications for the Design, Fabrication and Erection of Steel Safety-Related Structures for Nuclear Facilities"
- AWS D1.1 "Steel Structural Welding Code", 2000
- ASCE 7-95, "Minimum Design Loads for Buildings and Other Structures"
- NRC RG 1.143, "Design Guidance for Radioactive Waste Management Systems, Structures, and Components Installed in Light-Water-Cooled Nuclear Power Plants," Rev. 2, November 2001
- NUREG-0800 SRP 3.3.2, "Tornado Loadings," Rev. 2, July 1981
- NRC RG 1.142, "Safety-Related Concrete Structures for Nuclear Power Plants (Other Than Reactor Vessels and Containments)," Rev 2, November 2001
- NRC RG 1.76, "Design-Basis Tornado and Tornado Missiles for Nuclear Power Plants," Rev 1, March 2007.

**3H.3.4.2 Site Design Parameters****3H.3.4.2.1 Soil Parameters**

• Poisson's ratio (above groundwater)	0.42
• Poisson's ratio (below groundwater)	0.47
• Unit Weight (moist)	120 pcf
• Unit Weight (saturated)	140 pcf
• Liquefaction potential	None
• Static Soil Bearing Capacity Factor of Safety	$\geq 9.3$
• Dynamic Soil Bearing Capacity Factor of Safety	$\geq 6.5$

**3H.3.4.2.2 Design Ground Water Level**

Design groundwater level is at elevation 32 feet MSL, based on DCD, Tier 1 Table 5.0. This value bounds the groundwater elevations discussed in Section 2.4S.12.

**3H.3.4.2.3 Design Flood Level**

Design flood level is 33 feet MSL, based on DCD, Tier 1 Table 5.0. This flood level is above the level derived from ASCE 7-95 (RG 1.143 requirement) for the STP 3&4 site.

**3H.3.4.2.4 Maximum Snow Load**

Roof snow load is 50 psf (2.39 kPa) as shown in DCD Tier 1 Table 5.0. This snow load is above the value derived from ASCE 7-95 (RG 1.143 requirement) for the STP 3&4 site. This load is not combined with normal roof live load.

**3H.3.4.2.5 Maximum Rainfall**

Design rainfall is 19.4 in/hr (50.3 cm/hr) as shown in COLA Part 2 Tier 1 Table 5.0. This load is not combined with normal roof live load.

**3H.3.4.3 Design Loads and Load Combinations**

The RWB is not subjected to any accident temperature or pressure loading.

**3H.3.4.3.1 Normal Loads**

Normal loads are those that are encountered during normal plant startup, operation, and shutdown.

**3H.3.4.3.1.1 Dead Loads (D)**

Dead loads include the weight of the structure, permanent equipment, and other permanent static loads. An additional 50 psf (2.39 kPa) uniform load is considered to account for dead loads due to piping, raceways, grating, and HVAC duct work.

**3H.3.4.3.1.2 Live Loads (L)**

Live loads include floor and roof area live loads, movable loads, and laydown loads. A minimum normal floor live load of 200 psf (9.6 kPa) is considered for all floors of the RWB. A normal live load of 50 psf (2.39 kPa) is considered for the roof. The floor area live load shall be omitted from areas occupied by equipment whose weight is included in the dead load.

For the computation of global seismic loads, the live load is limited to the expected live load present during normal plant operation which is defined as 25% of the normal floor and roof live loads. However, design of local elements such as beams and slabs is based on consideration of full normal live load.

**3H.3.4.3.1.3 Snow Loads**

The normal roof snow load is 50 psf. This load is not combined with normal roof live load.

**3H.3.4.3.1.4 Lateral Soil Pressures (H)**

Lateral soil pressures are calculated using the following soil properties.

• Unit weight (moist).....	120 pcf (1.92 t/m <sup>3</sup> )
• Unit weight (saturated).....	140 pcf (2.24 t/m <sup>3</sup> )
• Internal friction angle: .....	30°
• Poisson's ratio (above groundwater) .....	0.42
• Poisson's ratio (below groundwater) .....	0.47

Figure 3H.3-1 shows the at-rest lateral soil pressures. Figure 3H.3-2 shows the dynamic at-rest lateral soil pressures. Figure 3H.3-3 shows the active lateral earth pressures. Figure 3H.3-4 shows the passive lateral earth pressures.

**3H.3.4.3.2 Severe Environmental Loads**

Severe environmental loads consist of loads generated by wind and earthquake.

**3H.3.4.3.2.1 Wind Load (W)**

The following parameters are used in the computation of the wind loads.

• Basic wind speed (50 year recurrence interval, 3-second gust).....	126 mph (203 km/h), as shown in Table 2.0-2. This value envelops the value derived from ASCE 7-95 (RG 1.143 requirement) for STP 3&4 site.
• Exposure: .....	D
• Importance factor: .....	1.15



• Velocity pressure exposure coefficient per ASCE 7 Table 6-3, but $\geq 0.87$	
• Topographic factor	1.0
• Wind directionality factor	1.0

Wind loads are calculated in accordance with the provisions of Chapter 6 of ASCE 7-95.

### **3H.3.4.3.2.2 Earthquake ( $E_o$ )**

The earthquake loads are those due to one-half of the Safe Shutdown Earthquake (SSE) defined in DCD Tier 1 Table 5.0. This corresponds to the Regulatory Guide 1.60 response spectra anchored to 0.15g. The earthquake loads are applied in all three orthogonal directions. The total structural response is predicted by combining the applicable maximum co-directional responses by the square root of the sum of the squares (SRSS) method.

### **3H.3.4.3.2.3 Flood Load (FL)**

The flood level is at 33 feet MSL, as stated in Section 3H.3.4.2.3 above.

### **3H.3.4.3.3 Extreme Environmental Loads**

Extreme environmental loads consist of loads generated by tornado.

#### **3H.3.4.3.3.1 Tornado Loads**

The tornado load effects consist of wind pressure, differential pressure, and tornado generated missile loads. The tornado parameters are as follows:

- Tornado parameters are equal to three-fifths of the Region 1 tornado parameters defined in Table 1 of RG 1.76, Rev. 1. The Region 1 maximum tornado wind speed and pressure drop per Table 1 of RG 1.76, Rev. 1 are 230 mph and 1.2 psi, respectively. Three-fifths of 230 mph equals 138 mph and three-fifths of 1.2 psi equals 0.72 psi.
- Tornado missile parameters are in accordance with Table 2 of RG 1.143 revision 2 for RW-IIa classification.

**3H.3.4.3.4 Load Combinations****3H.3.4.3.4.1 Notations**

S	= Normal allowable stress for allowable stress design method
U	= Required strength for strength design method
D	= Dead load
F	= Load due to weight and pressure of fluid with well-defined density and controllable maximum height
FL	= Hydrostatic and hydrodynamic load due to flood
L	= Live load
R <sub>o</sub>	= Piping and equipment reaction under normal operating condition (excluding dead load, thermal expansion and seismic)
T <sub>o</sub>	= Normal operating thermal expansion loads from piping and equipment
T <sub>b</sub>	= Upset thermal expansion loads from piping and equipment
H	= Lateral soil pressure and groundwater effects
H'	= Lateral soil pressure and groundwater effects, including dynamic effects
W	= Wind load
W <sub>t</sub>	= Total tornado load, including missile effects
E <sub>o</sub>	= Earthquake load

**3H.3.4.3.4.2 Structural Steel Load Combinations**

$$S = D + L + F + H + R_o + T_o$$

$$1.33S = D + L + F + H + R_o + T_b$$

$$1.33S = D + L + F + H + R_o + T_o + W$$

$$1.33S = D + L + F + H' + R_o + T_o + E_o$$

$$1.33S = D + L + F + H + R_o + T_o + FL$$

$$1.6S = D + L + F + H + R_o + T_o + W_t$$

For the computation of global seismic loads, the live load is limited to the expected live load present during normal plant operation which is defined as 25% of the normal floor and roof live loads. However, design of local elements such as beams and slabs is based on consideration of full normal live load.

**3H.3.4.3.5.3 Reinforced Concrete Load Combinations**

$$U = 1.4D + 1.7L + 1.4F + 1.7H + 1.7R_o + 1.7T_o$$

$$U = 1.4D + 1.7L + 1.4F + 1.7H + 1.7R_o + 1.7T_b$$

$$U = 1.4D + 1.7L + 1.4F + 1.7H + 1.7R_o + 1.7T_o + 1.7W$$

$$U = 1.4D + 1.7L + 1.4F + 1.7H' + 1.7R_o + 1.7T_o + 1.7E_o$$

$$U = D + L + F + H + R_o + T_o + FL$$

$$U = D + L + F + H + R_o + T_o + W_i$$

For the computation of global seismic loads, the live load is limited to the expected live load present during normal plant operation which is defined as 25% of the normal floor and roof live loads. However, design of local elements such as beams and slabs is based on consideration of full normal live load

#### **3H.3.4.4 Materials**

Structural materials used in the design of RWB are as follows:

##### **3H.3.4.4.1 Reinforced Concrete**

Concrete conforms to the requirements of ACI 349. Its design properties are:

- Compressive strength ..... 4.0 ksi (27.6 MPa)
- Modulus of elasticity ..... 3,597 ksi (24.8 GPa)
- Shear modulus ..... 1,537 ksi (10.6 GPa)
- Poisson's ratio ..... 0.17

##### **3H.3.4.4.2 Reinforcement**

Deformed billet steel reinforcing bars are considered in the design. Reinforcement conforms to the requirements of ASTM A615. Its design properties are:

- Yield strength ..... 60 ksi (414 MPa)
- Tensile strength ..... 90 ksi (621 MPa)

##### **3H.3.4.4.3 Structural Steel**

High strength, low-alloy structural steel conforming to ASTM A572, Grade 50 is considered in the design for wide-flange sections. The steel design properties are:

- Yield strength ..... 50 ksi (345 MPa)
- Tensile strength ..... 65 ksi (448 MPa)

##### **3H.3.4.4.4 Steel Grating**

Bearing bars conforming to ASTM A1011 are considered in the design. The design property is:

- Yield strength ..... 30 to 50 ksi (207 to 345 MPa)

##### **3H.3.4.4.5 Anchor Bolts**

Material for anchor bolts conforms to the requirements of ASTM F1554, Grade 36. Its design properties are:

- Yield strength ..... 36 ksi (248 MPa)
- Tensile strength ..... 58 ksi (400 MPa)

### **3H.3.5 Structural Design and Analysis Summary**

#### **3H.3.5.1 Seismic Analysis**

The seismic analysis of the RWB is performed using a fixed base stick model. The structure is represented by a lumped-mass model consisting of structural masses lumped at selected nodes which are connected by massless elements representing the stiffness properties of the shear walls between the nodes. The building masses are lumped at elevations where the building weights are concentrated such as the floors and roof.

For modeling reinforced concrete shear wall elements, the shear walls in each particular vibration direction are identified. The stiffness of a shear wall along its length consists of a combination of its shear stiffness and its flexural stiffness, both of which are calculated individually and combined to obtain the stiffness of the wall.

The input motion of the seismic analysis is the Regulatory Guide 1.60 response spectra for 0.15g.

The RWB seismic design loads are shown in Table 3H.3-1. The RWB structural frequencies are shown in Table 3H.3-2.

#### **3H.3.5.2 Analysis and Design**

The analysis and design of the RWB is performed using a SAP2000 3D finite element model with shell and frame elements, as shown in Figures 3H.3-5 through 3H.3-7. Per Table 1 of RG 1.143 revision 2, all concrete and steel designs are in accordance with the ACI 349-97 and ANSI/AISC N690, 1984 code requirements, respectively. Also, for II/I design, the structure is conservatively designed to remain elastic.

The forces and moments at critical locations in the Radwaste Building along with the provided longitudinal and transverse reinforcement are included in Table 3H.3-3 for the exterior walls and Table 3H.3-4 for the basemat, roof slab, and operating floor (elevation 35'-0") slab. Figures 3H.3-8 through 3H.3-27 show the location of the reinforcement zones listed in Table 3H.3-3 for the exterior walls. Figures 3H.3-28 through 3H.3-42 show the location of the reinforcement zones listed in Table 3H.3-4 for the basemat, roof slab, and operating floor slab.

The structural steel member sizes, critical forces, safety margins, and governing load combinations for the operating floor beams, roof truss members, and roof purlins are shown in Table 3H.3-5. The layout of the operating floor steel beams is shown in Figures 3H.3-43 through 3H.3-46. The layout of the roof truss members and roof purlins are shown in Figure 3H.3-47. The typical east-west spanning truss and typical north-south spanning truss are shown in Figures 3H.3-48 and 3H.3-49, respectively.

**3H.3.5.3 Seismic II/I Evaluation**

The seismic II/I evaluation for the RWB is performed to ensure that the RWB will not collapse on the nearby Category I structures. The structure is conservatively designed to remain elastic for this evaluation. The earthquake input used at the foundation level is the envelope of 0.3g RG 1.60 response spectrum and the induced acceleration response spectrum due to site-specific SSE that is determined from an SSI analysis which accounts for the impact of the nearby Reactor Building (RB). In this SSI analysis, five interaction nodes at the depth corresponding to the bottom elevation of the RWB foundation are added to the three dimensional SSI model of the RB. These five interaction nodes correspond to the four corners and the center of the RWB foundation. The average response of these five interaction nodes is enveloped with the 0.3g RG 1.60 spectra to determine the SSE input at the foundation level.

For tornado parameters, including the missiles, the same parameters as those defined in DCD Tier 1 Table 5.0 are used. For flood, the extreme flood level of 40 ft (12.2 meters) MSL with maximum hydrodynamic force of 44 psf is used, which is caused by the Main Coolant Reservoir dike breach.

The II/I stability evaluations for sliding and overturning are performed using the site-specific SSE and other site-specific parameters such as soil properties.

**Table 3H.3-1 Radwaste Building Design Seismic Loads**

Wall	Elevation (ft)	In-Plane Forces <sup>(1)</sup> 1/2 SSE (0.15g) (kips)	In-Plane Moments <sup>(1)</sup> 1/2 SSE (0.15g) (kips-ft)
North Wall	95'-0"	5963	0
	35'-0"	4133	351845
	(-)11'-0"	9328	770605
South Wall	95'-0"	5351	0
	35'-0"	2888	315719
	(-)11'-0"	7186	635566
East Wall	95'-0"	4555	0
	35'-0"	3276	268725
	(-)11'-0"	7282	595912
West Wall	95'-0"	5481	0
	35'-0"	4362	323390
	(-)11'-0"	9125	732302

**Vertical Direction:  
Maximum Acceleration**

Elevation (ft)	Acceleration (g)
(-)11'-0"	0.150
35'-0"	0.151
95'-0"	0.331

**Notes:**

(1) The forces and moments reported are the maximum calculated for all time steps. Therefore, the summation of the forces at Elevation 35'-0" and Elevation 95'-0" is not equal to the force at Elevation (-)11'-0".

Table 3H.3-2 Natural Frequencies of the Radwaste Building - Fixed Base Condition		
Mode No.	Frequency (Hz)	Direction
1	2.60	Vertical
2	8.44	Vertical
3	9.10	North-South
4	10.84	East-West
5	12.39	East-West
6	15.48	North-South
7	18.40	East-West
8	23.01	North-South
9	23.95	Vertical
10	27.90	Vertical

**Table 3H.3-3: Results of Radwaste Building Concrete Wall Design**

Location	Face	Direction	Reinforcement Layout Drawing Number (1)	Thickness (ft)	Reinforcement Zone Number (2)	Maximum Forces (3)	Element	Longitudinal Reinforcement Design Loads				Longitudinal Reinforcement Provided (in <sup>2</sup> /ft)	Transverse Shear Design Loads		Transverse Shear (7) Reinforcement Provided (in <sup>2</sup> /ft <sup>2</sup> )	Remarks	
								Axial and Flexure Loads			In-Plane Shear Loads		Load Combination	Transverse Shear (6) Reinforcement Design Loads (kips / ft)			
								Load Combination	Axial (4) (kips / ft)	Flexure (4) (ft-kips / ft)	Load Combination						In-plane (5) Shear (kips / ft)
North Wall	Near Side	Horizontal	3H-3B	3	1-H-L	Max Tension w/ corresponding moment	34365	1.4D + 1.7L + 1.7H' + 1.7Eo	239	-28	1.4D + 1.7L + 1.7H' + 1.7Eo	91	3.12	-	-		
						Max Compression w/ corresponding moment	34322	1.4D + 1.7L + 1.7H' + 1.7Eo	-323	-20							
						Max Moment with axial tension	30238	1.4D + 1.7L + 1.7H' + 1.7Eo	1	-244							
						Max Moment with axial compression	26461	D + L + H' + E'	-205	-378							
					2-H-L	Max Tension w/ corresponding moment	29155	1.4D + 1.7L + 1.7H' + 1.7Eo	69	-58	1.4D + 1.7L + 1.7H' + 1.7Eo	130	1.56	-	-		
						Max Compression w/ corresponding moment	29147	1.4D + 1.7L + 1.7H' + 1.7Eo	-128	-46							
						Max Moment with axial tension	30183	1.4D + 1.7L + 1.7H' + 1.7Eo	14	-174							
						Max Moment with axial compression	30183	1.4D + 1.7L + 1.7H' + 1.7Eo	-12	-174							
					3-H-L	Max Tension w/ corresponding moment	28574	1.4D + 1.7L + 1.7H' + 1.7Eo	117	-49	1.4D + 1.7L + 1.7H' + 1.7Eo	130	3.12	-	-		
						Max Compression w/ corresponding moment	26429	1.4D + 1.7L + 1.7H' + 1.7Eo	-288	-233							
						Max Moment with axial tension	26429	1.4D + 1.7L + 1.7H' + 1.7Eo	5	-274							
						Max Moment with axial compression	26429	1.4D + 1.7L + 1.7H' + 1.7Eo	-242	-316							
				4	4-H-L	Max Tension w/ corresponding moment	23487	D + L + H' + E'	28	-460	1.4D + 1.7L + 1.7H' + 1.7Eo	133	6.24	-	-		
						Max Compression w/ corresponding moment	14749	D + L + H' + E'	-119	-191							
						Max Moment with axial tension	23487	D + L + H' + E'	7	-534							
						Max Moment with axial compression	12522	D + L + H' + E'	-66	-749							
					5-H-L	Max Tension w/ corresponding moment	23478	1.4D + 1.7L + 1.7H' + 1.7Eo	159	-61	1.4D + 1.7L + 1.7H' + 1.7Eo	133	3.12	-	-		
						Max Compression w/ corresponding moment	34327	1.4D + 1.7L + 1.7H' + 1.7Eo	-280	-11							
						Max Moment with axial tension	22248	1.4D + 1.7L + 1.7H' + 1.7Eo	4	-93							
						Max Moment with axial compression	23474	D + L + H' + E'	-171	-294							
					6-H-L	Max Tension w/ corresponding moment	23472	1.4D + 1.7L + 1.7H' + 1.7Eo	84	-301	1.4D + 1.7L + 1.7H' + 1.7Eo	119	10.92	-	-		
						Max Compression w/ corresponding moment	22807	1.4D + 1.7L + 1.7H' + 1.7Eo	-213	-345							
						Max Moment with axial tension	23472	D + L + H' + E'	16	-912							
						Max Moment with axial compression	23472	D + L + H' + E'	-163	-1025							
				7-H-L	Max Tension w/ corresponding moment	16716	1.4D + 1.7L + 1.7H' + 1.7Eo	40	-147	1.4D + 1.7L + 1.7H' + 1.7Eo	133	6.24	-	-			
					Max Compression w/ corresponding moment	16716	1.4D + 1.7L + 1.7H' + 1.7Eo	-175	-479								
					Max Moment with axial tension	11710	D + L + H' + E'	13	-670								
					Max Moment with axial compression	16716	D + L + H' + E'	-117	-727								
5.5	8-H-L	Max Tension w/ corresponding moment	6477	1.4D + 1.7L + 1.7H' + 1.7Eo	15	-82	1.4D + 1.7L + 1.7H' + 1.7Eo	127	9.36	-	-						
		Max Compression w/ corresponding moment	8972	D + L + H' + E'	-452	-1165											
		Max Moment with axial tension	8957	1.4D + 1.7L + 1.7H' + 1.7Eo	1	-300											
		Max Moment with axial compression	8972	D + L + H' + E'	-305	-1428											
	9-H-L	Max Tension w/ corresponding moment	2787	1.4D + 1.7L + 1.7H' + 1.7Eo	69	-70	1.4D + 1.7L + 1.7H' + 1.7Eo	157	6.24	-	-						
		Max Compression w/ corresponding moment	5570	D + L + H' + E'	-174	-1045											
		Max Moment with axial tension	2772	D + L + H' + E'	5	-483											
		Max Moment with axial compression	5570	D + L + H' + E'	-173	-1052											



**Table 3H.3-3: Results of Radwaste Building Concrete Wall Design (Continued)**

Location	Face	Direction	Reinforcement Layout (Drawing Number (f))	Thickness (ft)	Reinforcement Zone Number (e)	Maximum Forces (P)	Element	Longitudinal Reinforcement Design Loads				Longitudinal Reinforcement Provided (in <sup>2</sup> /ft)	Transverse Shear Design Loads		Transverse Shear (7) Reinforcement Provided (in <sup>2</sup> /ft <sup>2</sup> )	Remarks	
								Axial and Flexure Loads			In-Plane Shear Loads		Load Combination	Transverse Shear (6) Reinforcement Design Loads (Kips / ft)			
								Load Combination	Axial (4) (kips / ft)	Flexure (4) (ft-kips / ft)	In-plane (6) Shear (kips / ft)						
North Wall	Near Side	Horizontal	3H/3B	4	10-H-L	Max Tension w/ corresponding moment	11709	D + L + H' + E'	156	-346	1.4D + 1.7L + 1.7H' + 1.7Eo	133	6.24				
						Max Compression w/ corresponding moment	21365	1.4D + 1.7L + 1.7H' + 1.7Eo	-108	-289							
						Max Moment with axial tension	19506	D + L + H' + E'	0	-700							
						Max Moment with axial compression	19506	D + L + H' + E'	-29	-700							
				5.5	11-H-L	Max Tension w/ corresponding moment	8956	1.4D + 1.7L + 1.7H' + 1.7Eo	33	-205	1.4D + 1.7L + 1.7H' + 1.7Eo	127	6.24				
						Max Compression w/ corresponding moment	8956	1.4D + 1.7L + 1.7H' + 1.7Eo	-132	-808							
						Max Moment with axial tension	8956	1.4D + 1.7L + 1.7H' + 1.7W	5	-361							
						Max Moment with axial compression	8956	D + L + H' + E'	-107	-1004							
				4	12-H-L	Max Tension w/ corresponding moment	23436	1.4D + 1.7L + 1.7H' + 1.7Eo	103	-190	1.4D + 1.7L + 1.7H' + 1.7Eo	133	4.68				
						Max Compression w/ corresponding moment	23439	1.4D + 1.7L + 1.7H' + 1.7Eo	-235	-247							
						Max Moment with axial tension	12474	D + L + H' + E'	0	-411							
						Max Moment with axial compression	13635	D + L + H' + E'	-91	-441							
					13-H-L	Max Tension w/ corresponding moment	11706	D + L + H' + E'	43	-116	1.4D + 1.7L + 1.7H' + 1.7Eo	133	3.12				
						Max Compression w/ corresponding moment	22231	1.4D + 1.7L + 1.7H' + 1.7Eo	-120	-127							
						Max Moment with axial tension	11706	D + L + H' + E'	43	-116							
						Max Moment with axial compression	22242	D + L + H' + E'	-42	-164							
					14-H-L	Max Tension w/ corresponding moment	23440	1.4D + 1.7L + 1.7H' + 1.7Eo	113	-384	1.4D + 1.7L + 1.7H' + 1.7Eo	114	6.24				
						Max Compression w/ corresponding moment	23440	1.4D + 1.7L + 1.7H' + 1.7Eo	-353	-449							
						Max Moment with axial tension	23440	1.4D + 1.7L + 1.7H' + 1.7Eo	39	-431							
						Max Moment with axial compression	23440	1.4D + 1.7L + 1.7H' + 1.7Eo	-277	-535							
					15-H-L	Max Tension w/ corresponding moment	23431	1.4D + 1.7L + 1.7H' + 1.7Eo	60	-88	1.4D + 1.7L + 1.7H' + 1.7Eo	114	3.12				
						Max Compression w/ corresponding moment	23431	1.4D + 1.7L + 1.7H' + 1.7Eo	-129	-125							
						Max Moment with axial tension	23424	1.4D + 1.7L + 1.7H' + 1.7Eo	0	-157							
						Max Moment with axial compression	20084	D + L + H' + E'	-76	-308							
					5.5	16-H-L	Max Tension w/ corresponding moment	8952	1.4D + 1.7L + 1.7H' + 1.7Eo	26	-59	1.4D + 1.7L + 1.7H' + 1.7Eo	127	4.68			
							Max Compression w/ corresponding moment	8902	D + L + H' + E'	-354	-301						
							Max Moment with axial tension	8941	1.4D + 1.7L + 1.7H' + 1.7W	0	-209						
							Max Moment with axial compression	7163	D + L + H' + E'	-177	-845						
				17-H-L		Max Tension w/ corresponding moment	2716	1.4D + 1.7L + 1.7H' + 1.7Eo	61	-79	1.4D + 1.7L + 1.7H' + 1.7Eo	157	6.24				
						Max Compression w/ corresponding moment	2716	1.4D + 1.7L + 1.7H' + 1.7Eo	-166	-272							
						Max Moment with axial tension	2771	D + L + H' + E'	2	-433							
						Max Moment with axial compression	4498	D + L + H' + E'	-156	-650							
				3	18-H-L	Max Tension w/ corresponding moment	36068	1.4D + 1.7L + 1.7H' + 1.7Eo	220	-120	1.4D + 1.7L + 1.7H' + 1.7Eo	58	3.12				
						Max Compression w/ corresponding moment	36068	1.4D + 1.7L + 1.7H' + 1.7Eo	-431	-114							
						Max Moment with axial tension	36131	1.4D + 1.7L + 1.7H' + 1.7Eo	193	-206							
						Max Moment with axial compression	36131	1.4D + 1.7L + 1.7H' + 1.7Eo	-181	-206							

**Table 3H.3-3: Results of Radwaste Building Concrete Wall Design (Continued)**

Location	Face	Direction	Reinforcement Layout Drawing Number (1)	Thickness (ft)	Reinforcement Zone Number (2)	Maximum Force (3)	Element	Longitudinal Reinforcement Design Loads				Longitudinal Reinforcement Provided (in <sup>2</sup> /ft)	Transverse Shear Design Loads		Transverse Shear (7) Reinforcement Provided (in <sup>2</sup> /ft <sup>2</sup> )	Remarks	
								Axial and Flexure Loads			In-Plane Shear Loads		Load Combination	Transverse Shear (6) Reinforcement Design Loads (kips / ft)			
								Load Combination	Axial (4) (kips / ft)	Flexure (4) (ft-kips / ft)	Load Combination						In-plane (5) Shear (kips / ft)
North Wall	Near Side	Vertical	31, 3-9	3	1-V-L	Max Tension w/ corresponding moment	34324	1.4D + 1.7L + 1.7H' + 1.7Eo	187	-21	1.4D + 1.7L + 1.7H' + 1.7Eo	105	3.12	-	-	-	
						Max Compression w/ corresponding moment	34324	1.4D + 1.7L + 1.7H' + 1.7Eo	-466	-7							
						Max Moment with axial tension	27520	1.4D' + 1.7L + 1.7H' + 1.7Eo	25	-219							
						Max Moment with axial compression	29969	1.4D + 1.7L + 1.7H'	-133	-258							
					2-V-L	Max Tension w/ corresponding moment	34322	1.4D + 1.7L + 1.7H' + 1.7Eo	-127	-16	1.4D + 1.7L + 1.7H' + 1.7Eo	267	4.68	-	-	-	
						Max Compression w/ corresponding moment	34323	1.4D + 1.7L + 1.7H' + 1.7Eo	-359	-16							
						Max Moment with axial tension	26461	D + L + H' + E'	28	-270							
						Max Moment with axial compression	26461	D + L + H' + E'	-184	-270							
					3-V-L	Max Tension w/ corresponding moment	26444	1.4D + 1.7L + 1.7H' + 1.7Eo	107	-345	1.4D + 1.7L + 1.7H' + 1.7Eo	70	6.24	-	-	-	
						Max Compression w/ corresponding moment	26444	1.4D + 1.7L + 1.7H	-152	-120							
						Max Moment with axial tension	26444	1.4D + 1.7L + 1.7H' + 1.7Eo	27	-378							
						Max Moment with axial compression	26444	1.4D + 1.7L + 1.7H' + 1.7Eo	-89	-378							
					4-V-L	Max Tension w/ corresponding moment	26437	D + L + H' + E'	66	-497	1.4D + 1.7L + 1.7H' + 1.7Eo	74	7.80	-	-	-	
						Max Compression w/ corresponding moment	26436	1.4D + 1.7L + 1.7H	-170	-190							
						Max Moment with axial tension	26436	1.4D + 1.7L + 1.7H' + 1.7Eo	32	-576							
						Max Moment with axial compression	26436	1.4D + 1.7L + 1.7H' + 1.7Eo	-53	-578							
					5-V-L	Max Tension w/ corresponding moment	26435	1.4D + 1.7L + 1.7H' + 1.7Eo	-29	-404	1.4D + 1.7L + 1.7H' + 1.7Eo	73	6.24	-	-	-	
						Max Compression w/ corresponding moment	27221	1.4D + 1.7L + 1.7H	-183	-9							
						Max Moment with axial tension	26435	1.4D + 1.7L + 1.7H' + 1.7Eo	29	-404							
						Max Moment with axial compression	26435	1.4D + 1.7L + 1.7H' + 1.7Eo	-88	-444							
					6-V-L	Max Tension w/ corresponding moment	26405	1.4D + 1.7L + 1.7H' + 1.7Eo	133	-40	1.4D + 1.7L + 1.7H' + 1.7Eo	83	6.24	-	-	-	
						Max Compression w/ corresponding moment	26405	1.4D + 1.7L + 1.7H' + 1.7Eo	-355	-10							
						Max Moment with axial tension	26418	1.4D + 1.7L + 1.7H' + 1.7Eo	23	-357							
						Max Moment with axial compression	26418	1.4D + 1.7L + 1.7H' + 1.7Eo	-112	-357							

**Table 3H.3-3: Results of Radwaste Building Concrete Wall Design (Continued)**

Location	Face	Direction	Reinforcement Layout Drawing Number (1)	Thickness (ft)	Reinforcement Zone Number (2)	Maximum Force (3)	Element	Longitudinal Reinforcement Design Loads				Longitudinal Reinforcement Provided (in <sup>2</sup> /ft)	Transverse Shear Design Loads		Transverse Shear (7) Reinforcement Provided (in <sup>2</sup> /ft <sup>2</sup> )	Remarks	
								Axial and Flexure Loads			In-Plane Shear Loads		Load Combination	Transverse Shear (6) Reinforcement Design Loads (kips / ft)			
								Load Combination	Axial (4) (kips / ft)	Flexure (4) (ft-kips / ft)	In-plane (6) Shear (kips / ft)						
North Wall	Near Side	Vertical	3H-3.9	4	7-V-L	Max Tension w/ corresponding moment	11725	1.4D + 1.7L + 1.7H' + 1.7Eo	138	-66	1.4D + 1.7L + 1.7H' + 1.7Eo	139	4.68	-	-	-	
						Max Compression w/ corresponding moment	11724	1.4D + 1.7L + 1.7H' + 1.7Eo	-447	-86							
						Max Moment with axial tension	23487	D + L + H' + E'	11	-196							
						Max Moment with axial compression	23487	1.4D + 1.7L + 1.7H' + 1.7Eo	-240	-212							
					8-V-L	Max Tension w/ corresponding moment	23479	1.4D + 1.7L + 1.7H' + 1.7Eo	87	-38	1.4D + 1.7L + 1.7H' + 1.7Eo	183	3.12	-	-	-	
						Max Compression w/ corresponding moment	11719	1.4D + 1.7L + 1.7H' + 1.7Eo	-273	-0							
						Max Moment with axial tension	23481	1.4D + 1.7L + 1.7H' + 1.7Eo	7	-73							
						Max Moment with axial compression	23481	1.4D + 1.7L + 1.7H' + 1.7Eo	-222	-73							
					9-V-L	Max Tension w/ corresponding moment	34327	1.4D + 1.7L + 1.7H' + 1.7Eo	108	-64	1.4D + 1.7L + 1.7H' + 1.7Eo	219	4.68	-	-	-	
						Max Compression w/ corresponding moment	34326	1.4D + 1.7L + 1.7H' + 1.7Eo	-407	-9							
						Max Moment with axial tension	22809	D + L + H' + E'	16	-168							
						Max Moment with axial compression	22809	D + L + H' + E'	-214	-168							
					10-V-L	Max Tension w/ corresponding moment	23471	1.4D + 1.7L + 1.7H' + 1.7Eo	104	-562	1.4D + 1.7L + 1.7H' + 1.7Eo	233	7.80	-	-	-	
						Max Compression w/ corresponding moment	11710	1.4D + 1.7L + 1.7H' + 1.7Eo	-318	-54							
						Max Moment with axial tension	23472	D + L + H' + E'	47	-777							
						Max Moment with axial compression	23472	D + L + H' + E'	-211	-777							
					11-V-L	Max Tension w/ corresponding moment	21627	1.4D + 1.7L + 1.7H' + 1.7Eo	81	-71	1.4D + 1.7L + 1.7H' + 1.7Eo	144	4.68	-	-	-	
						Max Compression w/ corresponding moment	11705	1.4D + 1.7L + 1.7H' + 1.7Eo	-358	-42							
						Max Moment with axial tension	22805	D + L + H' + E'	28	-317							
						Max Moment with axial compression	23468	1.4D + 1.7L + 1.7H' + 1.7Eo	-245	-479							
					12-V-L	Max Tension w/ corresponding moment	16710	1.4D + 1.7L + 1.7H' + 1.7Eo	53	-58	1.4D + 1.7L + 1.7H' + 1.7Eo	163	3.12	-	-	-	
						Max Compression w/ corresponding moment	14466	1.4D + 1.7L + 1.7H' + 1.7Eo	-312	-10							
						Max Moment with axial tension	16710	D + L + H' + E'	17	-212							
						Max Moment with axial compression	16709	1.4D + 1.7L + 1.7H' + 1.7Eo	-295	-279							
					13-V-L	Max Tension w/ corresponding moment	23455	D + L + H' + E'	-44	-337	1.4D + 1.7L + 1.7H' + 1.7Eo	225	6.24	-	-	-	
						Max Compression w/ corresponding moment	11696	1.4D + 1.7L + 1.7H' + 1.7Eo	-288	-12							
						Max Moment with axial tension	23456	D + L + H' + E'	4	-403							
						Max Moment with axial compression	23451	1.4D + 1.7L + 1.7H' + 1.7Eo	-169	-514							
					14-V-L	Max Tension w/ corresponding moment	23448	D + L + H' + E'	63	-531	1.4D + 1.7L + 1.7H' + 1.7Eo	228	7.80	-	-	-	
						Max Compression w/ corresponding moment	11685	1.4D + 1.7L + 1.7H' + 1.7Eo	-286	-53							
						Max Moment with axial tension	23448	1.4D + 1.7L + 1.7H' + 1.7Eo	5	-700							
						Max Moment with axial compression	23447	1.4D + 1.7L + 1.7H' + 1.7Eo	-90	-724							
					15-V-L	Max Tension w/ corresponding moment	23441	1.4D + 1.7L + 1.7H' + 1.7Eo	67	-589	1.4D + 1.7L + 1.7H' + 1.7Eo	177	6.24	-	-	-	
						Max Compression w/ corresponding moment	11679	1.4D + 1.7L + 1.7H' + 1.7Eo	-320	-34							
						Max Moment with axial tension	23441	1.4D + 1.7L + 1.7H' + 1.7Eo	24	-675							
						Max Moment with axial compression	23441	1.4D + 1.7L + 1.7H' + 1.7Eo	-170	-715							
					16-V-L	Max Tension w/ corresponding moment	23439	1.4D + 1.7L + 1.7H' + 1.7Eo	105	-203	1.4D + 1.7L + 1.7H' + 1.7Eo	220	9.36	-	-	-	
						Max Compression w/ corresponding moment	23439	1.4D + 1.7L + 1.7H' + 1.7Eo	-331	-334							
						Max Moment with axial tension	23440	1.4D + 1.7L + 1.7H' + 1.7Eo	2	-826							
						Max Moment with axial compression	23440	1.4D + 1.7L + 1.7H' + 1.7Eo	-192	-891							

**Table 3H.3-3: Results of Radwaste Building Concrete Wall Design (Continued)**

Location	Face	Direction	Reinforcement Layout Drawing Number (1)	Thickness (ft)	Reinforcement Zone Number (2)	Maximum Forces (3)	Element	Longitudinal Reinforcement Design Loads				Longitudinal Reinforcement Provided (in <sup>2</sup> /ft)	Transverse Shear Design Loads		Transverse Shear (7) Reinforcement Provided (in <sup>2</sup> /ft <sup>2</sup> )	Remarks	
								Axial and Flexure Loads			In-Plane Shear Loads		Load Combination	Transverse Shear (6) Reinforcement Design Loads (kips / ft)			
								Load Combination	Axial (4) (kips / ft)	Flexure (4) (ft-kips / ft)	In-plane (6) Shear (kips / ft)						
North Wall	Near Side	Vertical	3H-3-9	4	17-V-L	Max Tension w/ corresponding moment	11678	1.4D + 1.7L + 1.7H' + 1.7Eo	52	-49	1.4D + 1.7L + 1.7H' + 1.7Eo	220	4.68				
						Max Compression w/ corresponding moment	11678	1.4D + 1.7L + 1.7H' + 1.7Eo	-283	-45							
						Max Moment with axial tension	11677	1.4D + 1.7L + 1.7H' + 1.7Eo	3	-117							
						Max Moment with axial compression	14439	1.4D + 1.7L + 1.7H' + 1.7Eo	-165	-155							
					18-V-L	Max Tension w/ corresponding moment	23438	1.4D + 1.7L + 1.7H' + 1.7Eo	101	-228	1.4D + 1.7L + 1.7H' + 1.7Eo	193	6.24				
						Max Compression w/ corresponding moment	23438	1.4D + 1.7L + 1.7H' + 1.7Eo	-326	-373							
						Max Moment with axial tension	23433	1.4D + 1.7L + 1.7H' + 1.7Eo	1	-389							
						Max Moment with axial compression	23433	1.4D + 1.7L + 1.7H' + 1.7Eo	-145	-407							
					19-V-L	Max Tension w/ corresponding moment	11671	1.4D + 1.7L + 1.7H' + 1.7Eo	39	-45	1.4D + 1.7L + 1.7H' + 1.7Eo	176	3.12				
						Max Compression w/ corresponding moment	11671	1.4D + 1.7L + 1.7H' + 1.7Eo	-263	-43							
						Max Moment with axial tension	20662	D + L + H' + E'	16	-74							
						Max Moment with axial compression	20666	1.4D + 1.7L + 1.7H' + 1.7Eo	-144	-91							
					20-V-L	Max Tension w/ corresponding moment	23432	D + L + H' + E'	72	-366	1.4D + 1.7L + 1.7H' + 1.7Eo	176	7.80				
						Max Compression w/ corresponding moment	11669	1.4D + 1.7L + 1.7H' + 1.7Eo	-279	-78							
						Max Moment with axial tension	23431	1.4D + 1.7L + 1.7H' + 1.7Eo	4	-565							
						Max Moment with axial compression	23431	1.4D + 1.7L + 1.7H' + 1.7Eo	-67	-572							
				21-V-L	Max Tension w/ corresponding moment	11656	1.4D + 1.7L + 1.7H' + 1.7Eo	133	-67	1.4D + 1.7L + 1.7H' + 1.7Eo	200	6.24					
					Max Compression w/ corresponding moment	11654	1.4D + 1.7L + 1.7H' + 1.7Eo	-487	-183								
					Max Moment with axial tension	23423	1.4D + 1.7L + 1.7H' + 1.7Eo	1	-392								
					Max Moment with axial compression	23428	1.4D + 1.7L + 1.7H' + 1.7Eo	-193	-454								
				5.5	22-V-L	Max Tension w/ corresponding moment	8972	1.4D + 1.7L + 1.7H' + 1.7Eo	200	-88	1.4D + 1.7L + 1.7H' + 1.7Eo	178	6.24				
						Max Compression w/ corresponding moment	8972	1.4D + 1.7L + 1.7H' + 1.7Eo	-695	-124							
						Max Moment with axial tension	6488	D + L + H' + E'	1	-255							
						Max Moment with axial compression	6489	D + L + H' + E'	-469	-290							
					23-V-L	Max Tension w/ corresponding moment	2787	1.4D + 1.7L + 1.7H' + 1.7Eo	420	-193	1.4D + 1.7L + 1.7H' + 1.7Eo	178	10.92				
						Max Compression w/ corresponding moment	2787	1.4D + 1.7L + 1.7H' + 1.7Eo	-841	-342							
						Max Moment with axial tension	2780	D + L + H' + E'	40	-1333							
						Max Moment with axial compression	2780	D + L + H' + E'	-261	-1333							
					24-V-L	Max Tension w/ corresponding moment	2716	1.4D + 1.7L + 1.7H' + 1.7Eo	384	-235	1.4D + 1.7L + 1.7H' + 1.7Eo	223	9.36				
						Max Compression w/ corresponding moment	2716	1.4D + 1.7L + 1.7H' + 1.7Eo	-801	-282							
						Max Moment with axial tension	17268	D + L + H' + E'	-39	-1213							
						Max Moment with axial compression	17268	D + L + H' + E'	-250	-1213							

**Table 3H.3-3: Results of Radwaste Building Concrete Wall Design (Continued)**

Location	Face	Direction	Reinforcement Layout Drawing Number (1)	Thickness (ft)	Reinforcement Zone Number (2)	Maximum Forces (3)	Element	Longitudinal Reinforcement Design Loads				Longitudinal Reinforcement Provided (in <sup>2</sup> /ft)	Transverse Shear Design Loads		Transverse Shear (7) Reinforcement Provided (in <sup>2</sup> /ft <sup>2</sup> )	Remarks	
								Axial and Flexure Loads			In-Plane Shear Loads		Load Combination	Transverse Shear (6) Reinforcement Design Loads (kips / ft)			
								Load Combination	Axial (4) (kips / ft)	Flexure (4) (ft-kips / ft)	Load Combination						In-plane (6) Shear (kips / ft)
North Wall	Near Side	Vertical	3H-3-9	3	25-V-L	Max Tension w/ corresponding moment	36131	1.4D + 1.7L + 1.7H' + 1.7Eo	108	-190	1.4D + 1.7L + 1.7H' + 1.7Eo	94	4.68	-	-	-	
						Max Compression w/ corresponding moment	36068	1.4D + 1.7L + 1.7H' + 1.7Eo	-296	-154							
						Max Moment with axial tension	36131	1.4D + 1.7L + 1.7H' + 1.7Eo	64	-227							
						Max Moment with axial compression	36131	1.4D + 1.7L + 1.7H' + 1.7Eo	-152	-227							
					26-V-L	Max Tension w/ corresponding moment	26428/ 26429	1.4D + 1.7L + 1.7H' + 1.7Eo	115	-610	1.4D + 1.7L + 1.7H' + 1.7Eo	66	12.87	-	-	-	(8), (9)
						Max Compression w/ corresponding moment	26428/ 26429	1.4D + 1.7L + 1.7H' + 1.7Eo	-325	-700							
						Max Moment with axial tension	26428/ 26429	1.4D + 1.7L + 1.7H' + 1.7Eo	39	-723							
						Max Moment with axial compression	26428/ 26429	1.4D + 1.7L + 1.7H' + 1.7Eo	-291	-724							
					27-V-L	Max Tension w/ corresponding moment	26422	1.4D + 1.7L + 1.7H' + 1.7Eo	254	-546	1.4D + 1.7L + 1.7H' + 1.7Eo	76	12.87	-	-	-	(8), (9)
						Max Compression w/ corresponding moment	28574	1.4D + 1.7L + 1.7H' + 1.7Eo	-531	-243							
						Max Moment with axial tension	26422	1.4D + 1.7L + 1.7H' + 1.7Eo	158	-549							
						Max Moment with axial compression	26422	1.4D + 1.7L + 1.7H' + 1.7Eo	-338	-549							
	28-V-L	Max Tension w/ corresponding moment	26429/ 26430	1.4D + 1.7L + 1.7H' + 1.7Eo	59	-447	1.4D + 1.7L + 1.7H' + 1.7Eo	73	9.36	-	-	-	(8)				
		Max Compression w/ corresponding moment	27219	1.4D + 1.7L + 1.7H' + 1.7Eo	221	-93											
		Max Moment with axial tension	26429/ 26430	1.4D + 1.7L + 1.7H' + 1.7Eo	14	-553											
		Max Moment with axial compression	26429/ 26430	1.4D + 1.7L + 1.7H' + 1.7Eo	-134	-567											
	29-V-L	Max Tension w/ corresponding moment	26684	D + L + H' + E'	70	-367	1.4D + 1.7L + 1.7H' + 1.7Eo	81	9.36	-	-	-					
		Max Compression w/ corresponding moment	27210	1.4D + 1.7L + 1.7H' + 1.7Eo	-211	-92											
		Max Moment with axial tension	26421	1.4D + 1.7L + 1.7H' + 1.7Eo	38	-486											
		Max Moment with axial compression	26421	1.4D + 1.7L + 1.7H' + 1.7Eo	-133	-489											
	Far Side	Horizontal	3H-3-10	3	1-H-L	Max Tension w/ corresponding moment	34365	1.4D + 1.7L + 1.7H' + 1.7Eo	292	20	1.4D + 1.7L + 1.7H' + 1.7Eo	130	3.12	-	-	-	
						Max Compression w/ corresponding moment	26429	1.4D + 1.7L + 1.7H' + 1.7Eo	-288	116							
						Max Moment with axial tension	32070	1.4D + 1.7L + 1.7H' + 1.7Eo	14	324							
						Max Moment with axial compression	32070	1.4D + 1.7L + 1.7H' + 1.7Eo	-78	324							
2-H-L					Max Tension w/ corresponding moment	26467	1.4D + 1.7L + 1.7H' + 1.7Eo	317	86	1.4D + 1.7L + 1.7H' + 1.7Eo	91	6.24	-	-	-		
					Max Compression w/ corresponding moment	34322	1.4D + 1.7L + 1.7H' + 1.7Eo	-513	31								
					Max Moment with axial tension	26467	D + L + H' + E'	243	234								
					Max Moment with axial compression	26467	D + L + H' + E'	-31	234								

**Table 3H.3-3: Results of Radwaste Building Concrete Wall Design (Continued)**

Location	Face	Direction	Reinforcement Layout (Drawing Number, (1))	Thickness (ft)	Reinforcement Zone Number, (2)	Maximum Force(s)	Element	Longitudinal Reinforcement Design Loads				Longitudinal Reinforcement Provided (in <sup>2</sup> / ft)	Transverse Shear Design Loads		Transverse Shear <sup>(7)</sup> Reinforcement Provided (in <sup>2</sup> /ft <sup>2</sup> )	Remarks			
								Axial and Flexure Loads			In-Plane Shear Loads		Load Combination	In-plane <sup>(5)</sup> Shear (kips / ft)			Load Combination	Transverse Shear <sup>(6)</sup> Reinforcement Design Loads (kips / ft)	
								Load Combination	Axial <sup>(4)</sup> (kips / ft)	Flexure <sup>(4)</sup> (ft-kips / ft)									
North Wall	Fair side	Horizontal	3H, 3-10	4	3-H-L	Max Tension w/ corresponding moment	23478	1.4D + 1.7L + 1.7H' + 1.7Eo	158	175	1.4D + 1.7L + 1.7H' + 1.7Eo	133	6.24	-	-	-			
						Max Compression w/ corresponding moment	34326	D + L + H' + E'	-281	103									
						Max Moment with axial tension	23478	D + L + H' + E'	2	545									
						Max Moment with axial compression	23478	D + L + H' + E'	-152	545									
					4-H-L	Max Tension w/ corresponding moment	23440	1.4D + 1.7L + 1.7H' + 1.7Eo	113	317	1.4D + 1.7L + 1.7H' + 1.7Eo	114	4.68	-	-	-			
						Max Compression w/ corresponding moment	23440	1.4D + 1.7L + 1.7H' + 1.7Eo	-353	167									
						Max Moment with axial tension	23440	1.4D + 1.7L + 1.7H' + 1.7Eo	104	326									
						Max Moment with axial compression	23440	1.4D + 1.7L + 1.7H' + 1.7Eo	-43	326									
					5-H-L	Max Tension w/ corresponding moment	23434	1.4D + 1.7L + 1.7H' + 1.7Eo	101	58	1.4D + 1.7L + 1.7H' + 1.7Eo	133	3.12	-	-	-			
						Max Compression w/ corresponding moment	11657	D + L + H' + E'	-184	155									
						Max Moment with axial tension	21599	1.4D + 1.7L + 1.7H' + 1.7Eo	35	118									
						Max Moment with axial compression	13244	D + L + H' + E'	-102	247									
				5.5	6-H-L	Max Tension w/ corresponding moment	2787	1.4D + 1.7L + 1.7H' + 1.7Eo	65	21	1.4D + 1.7L + 1.7H' + 1.7Eo	157	6.24	-	-	-			
						Max Compression w/ corresponding moment	8970	D + L + H' + E'	-191	228									
						Max Moment with axial tension	8963	1.4D + 1.7L + 1.7H' + 1.7Eo	6	233									
						Max Moment with axial compression	8963	D + L + H' + E'	-70	1018									
					7-H-L	Max Tension w/ corresponding moment	8952	1.4D + 1.7L + 1.7H' + 1.7Eo	26	31	1.4D + 1.7L + 1.7H' + 1.7Eo	127	3.12	-	-	-			
						Max Compression w/ corresponding moment	8942	1.4D + 1.7L + 1.7H' + 1.7Eo	-123	37									
						Max Moment with axial tension	8941	1.4D + 1.7L + 1.7H' + 1.7Eo	15	108									
						Max Moment with axial compression	5544	D + L + H' + E'	-88	254									
					8-H-L	Max Tension w/ corresponding moment	2716	1.4D + 1.7L + 1.7H' + 1.7Eo	58	30	1.4D + 1.7L + 1.7H' + 1.7Eo	157	4.68	-	-	-			
						Max Compression w/ corresponding moment	8174	1.4D + 1.7L + 1.7H' + 1.7Eo	-163	94									
						Max Moment with axial tension	8936	1.4D + 1.7L + 1.7H' + 1.7Eo	4	430									
						Max Moment with axial compression	8937	D + L + H' + E'	-58	545									
					9-H-L	Max Tension w/ corresponding moment	8902	1.4D + 1.7L + 1.7H + 1.7W	21	77	1.4D + 1.7L + 1.7H' + 1.7Eo	127	3.12	-	-	-			
						Max Compression w/ corresponding moment	8902	D + L + H' + E'	-266	185									
						Max Moment with axial tension	8913	1.4D + 1.7L + 1.7H + 1.7W	0	195									
						Max Moment with axial compression	8139	D + L + H' + E'	-164	491									
					9	10-H-L	Max Tension w/ corresponding moment	36068	1.4D + 1.7L + 1.7H' + 1.7Eo	220	119	1.4D + 1.7L + 1.7H' + 1.7Eo	58	3.12	-	-	-		
							Max Compression w/ corresponding moment	36068	1.4D + 1.7L + 1.7H' + 1.7Eo	-431	116								
							Max Moment with axial tension	36076	1.4D + 1.7L + 1.7H' + 1.7Eo	68	238								
							Max Moment with axial compression	36076	1.4D + 1.7L + 1.7H' + 1.7Eo	-25	238								

**Table 3H.3-3: Results of Radwaste Building Concrete Wall Design (Continued)**

Location	Face	Direction	Reinforcement Layout Drawing Number (1)	Thickness (ft)	Reinforcement Zone Number (2)	Maximum Forces (3)	Element	Longitudinal Reinforcement Design Loads				Longitudinal Reinforcement Provided (in <sup>2</sup> / ft)	Transverse Shear Design Loads		Transverse Shear (7) Reinforcement Provided (in <sup>2</sup> /ft <sup>2</sup> )	Remarks	
								Axial and Flexure Loads			In-Plane Shear Loads		Load Combination	Transverse Shear (6) Reinforcement Design Loads (kips / ft)			
								Load Combination	Axial (4) (kips / ft)	Flexure (4) (ft-kips / ft)	Load Combination						In-plane Shear (5) (kips / ft)
North Wall	Fair side	Vertical	3rd 3-11	3	1-VL	Max Tension w/ corresponding moment	27568	1.4D + 1.7L + 1.7H' + 1.7Eo	180	24	1.4D + 1.7L + 1.7H' + 1.7Eo	106	3.12	-	-	-	
						Max Compression w/ corresponding moment	27568	1.4D + 1.7L + 1.7H' + 1.7Eo	-586	41							
						Max Moment with axial tension	26445	1.4D + 1.7L + 1.7H' + 1.7Eo	32	314							
						Max Moment with axial compression	26445	1.4D + 1.7L + 1.7H' + 1.7Eo	-90	314							
					2-VL	Max Tension w/ corresponding moment	34324	1.4D + 1.7L + 1.7H' + 1.7Eo	187	44	1.4D + 1.7L + 1.7H' + 1.7Eo	267	4.68	-	-	-	
						Max Compression w/ corresponding moment	34324	1.4D + 1.7L + 1.7H' + 1.7Eo	-639	10							
						Max Moment with axial tension	26460	1.4D + 1.7L + 1.7H' + 1.7Eo	49	222							
						Max Moment with axial compression	26460	1.4D + 1.7L + 1.7H' + 1.7Eo	-126	222							
					3-VL	Max Tension w/ corresponding moment	32324	1.4D + 1.7L + 1.7H' + 1.7Eo	89	255	1.4D + 1.7L + 1.7H' + 1.7Eo	73	6.24	-	-	-	
						Max Compression w/ corresponding moment	32059	1.4D + 1.7L + 1.7H' + 1.7Eo	-175	418							
						Max Moment with axial tension	32328	1.4D + 1.7L + 1.7H' + 1.7Eo	47	441							
						Max Moment with axial compression	32328	1.4D + 1.7L + 1.7H' + 1.7Eo	-19	441							
					4-VL	Max Tension w/ corresponding moment	32316	1.4D + 1.7L + 1.7H' + 1.7Eo	104	256	1.4D + 1.7L + 1.7H' + 1.7Eo	74	7.80	-	-	-	
						Max Compression w/ corresponding moment	32053	1.4D + 1.7L + 1.7H' + 1.7Eo	-187	421							
						Max Moment with axial tension	32316	1.4D + 1.7L + 1.7H' + 1.7Eo	56	440							
						Max Moment with axial compression	32316	1.4D + 1.7L + 1.7H' + 1.7Eo	-38	440							
					5-VL	Max Tension w/ corresponding moment	26437	D + L + H' + E'	66	353	1.4D + 1.7L + 1.7H' + 1.7Eo	74	6.24	-	-	-	
						Max Compression w/ corresponding moment	27221	1.4D + 1.7L + 1.7H	-190	48							
						Max Moment with axial tension	26436	1.4D + 1.7L + 1.7H' + 1.7Eo	9	414							
						Max Moment with axial compression	26436	1.4D + 1.7L + 1.7H' + 1.7Eo	-76	414							
					6-VL	Max Tension w/ corresponding moment	32312	1.4D + 1.7L + 1.7H' + 1.7Eo	104	239	1.4D + 1.7L + 1.7H' + 1.7Eo	79	6.24	-	-	-	
						Max Compression w/ corresponding moment	32049	1.4D + 1.7L + 1.7H' + 1.7Eo	-188	407							
						Max Moment with axial tension	32315	1.4D + 1.7L + 1.7H' + 1.7Eo	55	436							
						Max Moment with axial compression	32315	1.4D + 1.7L + 1.7H' + 1.7Eo	-35	436							
					7-VL	Max Tension w/ corresponding moment	32306	1.4D + 1.7L + 1.7H' + 1.7Eo	108	269	1.4D + 1.7L + 1.7H' + 1.7Eo	94	7.80	-	-	-	
						Max Compression w/ corresponding moment	32043	1.4D + 1.7L + 1.7H' + 1.7Eo	-188	424							
						Max Moment with axial tension	32306	1.4D + 1.7L + 1.7H' + 1.7Eo	57	453							
						Max Moment with axial compression	32306	1.4D + 1.7L + 1.7H' + 1.7Eo	-32	453							
					8-VL	Max Tension w/ corresponding moment	32302	1.4D + 1.7L + 1.7H' + 1.7Eo	92	262	1.4D + 1.7L + 1.7H' + 1.7Eo	83	6.24	-	-	-	
						Max Compression w/ corresponding moment	32040	1.4D + 1.7L + 1.7H' + 1.7Eo	-184	418							
						Max Moment with axial tension	32302	1.4D + 1.7L + 1.7H' + 1.7Eo	48	436							
						Max Moment with axial compression	32302	1.4D + 1.7L + 1.7H' + 1.7Eo	-35	436							
9-VL	Max Tension w/ corresponding moment	26415	1.4D + 1.7L + 1.7H' + 1.7Eo	30	217	1.4D + 1.7L + 1.7H' + 1.7Eo	83	6.24	-	-	-						
	Max Compression w/ corresponding moment	27207	1.4D + 1.7L + 1.7H	-170	61												
	Max Moment with axial tension	26418	1.4D + 1.7L + 1.7H' + 1.7Eo	14	275												
	Max Moment with axial compression	26418	1.4D + 1.7L + 1.7H' + 1.7Eo	-120	275												

**Table 3H.3-3: Results of Radwaste Building Concrete Wall Design (Continued)**

Location	Face	Direction	Reinforcement Layout Drawing Number <sup>(1)</sup>	Thickness (ft)	Reinforcement Zone Number <sup>(2)</sup>	Maximum Forces <sup>(3)</sup>	Element	Longitudinal Reinforcement Design Loads				Longitudinal Reinforcement Provided (in <sup>2</sup> /ft)	Transverse Shear Design Loads:		Transverse Shear <sup>(7)</sup> Reinforcement Provided (in <sup>2</sup> /ft <sup>2</sup> )	Remarks	
								Axial and Flexure Loads			In-Plane Shear Loads		Load Combination	Transverse Shear <sup>(6)</sup> Reinforcement Design Loads (kips / ft)			
								Load Combination	Axial <sup>(4)</sup> (kips / ft)	Flexure <sup>(4)</sup> (ft-kips / ft)	in-plane <sup>(5)</sup> Shear (kips / ft)						
North Wall	Fair side	Vertical	3d-3-11	4	10-V-L	Max Tension w/ corresponding moment	11725	1.4D + 1.7L + 1.7H' + 1.7Eo	138	52	1.4D + 1.7L + 1.7H' + 1.7Eo	233	6.24	-	-	-	
						Max Compression w/ corresponding moment	11724	1.4D + 1.7L + 1.7H' + 1.7Eo	-447	10							
						Max Moment with axial tension	12512	D + L + H' + E'	13	385							
						Max Moment with axial compression	12512	D + L + H' + E'	-217	385							
					11-V-L	Max Tension w/ corresponding moment	21364	1.4D + 1.7L + 1.7H' + 1.7Eo	72	19	1.4D + 1.7L + 1.7H' + 1.7Eo	163	3.12	-	-	-	
						Max Compression w/ corresponding moment	11705	1.4D + 1.7L + 1.7H' + 1.7Eo	-358	81							
						Max Moment with axial tension	19504	D + L + H' + E'	14	206							
						Max Moment with axial compression	19504	1.4D + 1.7L + 1.7H' + 1.7Eo	-253	207							
					12-V-L	Max Tension w/ corresponding moment	23455	D + L + H' + E'	44	138	1.4D + 1.7L + 1.7H' + 1.7Eo	225	6.24	-	-	-	
						Max Compression w/ corresponding moment	11693	1.4D + 1.7L + 1.7H' + 1.7Eo	-318	103							
						Max Moment with axial tension	11694	1.4D + 1.7L + 1.7H' + 1.7Eo	3	402							
						Max Moment with axial compression	11694	1.4D + 1.7L + 1.7H' + 1.7Eo	-184	560							
					13-V-L	Max Tension w/ corresponding moment	11692	1.4D + 1.7L + 1.7H' + 1.7Eo	41	31	1.4D + 1.7L + 1.7H' + 1.7Eo	158	3.12	-	-	-	
						Max Compression w/ corresponding moment	11687	1.4D + 1.7L + 1.7H' + 1.7Eo	-335	117							
						Max Moment with axial tension	11688	1.4D + 1.7L + 1.7H' + 1.7Eo	6	222							
						Max Moment with axial compression	11688	D + L + H' + E'	-196	268							
					14-V-L	Max Tension w/ corresponding moment	23441	1.4D + 1.7L + 1.7H' + 1.7Eo	67	447	1.4D + 1.7L + 1.7H' + 1.7Eo	228	6.24	-	-	-	
						Max Compression w/ corresponding moment	11679	1.4D + 1.7L + 1.7H' + 1.7Eo	-346	35							
						Max Moment with axial tension	23441	1.4D + 1.7L + 1.7H' + 1.7Eo	25	481							
						Max Moment with axial compression	23441	1.4D + 1.7L + 1.7H' + 1.7Eo	-126	513							
					15-V-L	Max Tension w/ corresponding moment	23439	1.4D + 1.7L + 1.7H' + 1.7Eo	105	138	1.4D + 1.7L + 1.7H' + 1.7Eo	220	7.80	-	-	-	
						Max Compression w/ corresponding moment	23439	1.4D + 1.7L + 1.7H' + 1.7Eo	-331	34							
						Max Moment with axial tension	23440	1.4D + 1.7L + 1.7H' + 1.7Eo	12	532							
						Max Moment with axial compression	23440	1.4D + 1.7L + 1.7H' + 1.7Eo	-124	533							
					16-V-L	Max Tension w/ corresponding moment	11678	1.4D + 1.7L + 1.7H' + 1.7Eo	52	46	1.4D + 1.7L + 1.7H' + 1.7Eo	220	4.68	-	-	-	
						Max Compression w/ corresponding moment	11678	1.4D + 1.7L + 1.7H' + 1.7Eo	-342	54							
						Max Moment with axial tension	14439	1.4D + 1.7L + 1.7H' + 1.7Eo	2	134							
						Max Moment with axial compression	11677	1.4D + 1.7L + 1.7H' + 1.7Eo	-196	282							
					17-V-L	Max Tension w/ corresponding moment	23438	1.4D + 1.7L + 1.7H' + 1.7Eo	101	159	1.4D + 1.7L + 1.7H' + 1.7Eo	193	4.68	-	-	-	
						Max Compression w/ corresponding moment	11676	1.4D + 1.7L + 1.7H' + 1.7Eo	-333	48							
						Max Moment with axial tension	23431	1.4D + 1.7L + 1.7H' + 1.7Eo	8	201							
						Max Moment with axial compression	11669	1.4D + 1.7L + 1.7H' + 1.7Eo	-144	265							
					18-V-L	Max Tension w/ corresponding moment	11663	1.4D + 1.7L + 1.7H' + 1.7Eo	62	49	1.4D + 1.7L + 1.7H' + 1.7Eo	139	3.12	-	-	-	
						Max Compression w/ corresponding moment	11663	1.4D + 1.7L + 1.7H' + 1.7Eo	-360	40							
						Max Moment with axial tension	11664	D + L + H' + E'	3	224							
						Max Moment with axial compression	11664	D + L + H' + E'	-204	224							
					19-V-L	Max Tension w/ corresponding moment	11656	1.4D + 1.7L + 1.7H' + 1.7Eo	133	55	1.4D + 1.7L + 1.7H' + 1.7Eo	200	4.68	-	-	-	
						Max Compression w/ corresponding moment	11654	1.4D + 1.7L + 1.7H' + 1.7Eo	-487	38							
						Max Moment with axial tension	11661	1.4D + 1.7L + 1.7H' + 1.7Eo	7	190							
						Max Moment with axial compression	11661	1.4D + 1.7L + 1.7H' + 1.7Eo	-234	259							



**Table 3H.3-3: Results of Radwaste Building Concrete Wall Design (Continued)**

Location	Face	Direction	Reinforcement Layout Drawing Number (1)	Thickness (ft)	Reinforcement Zone Number (2)	Maximum Forces (3)	Element	Longitudinal Reinforcement Design Loads				Longitudinal Reinforcement Provided (in <sup>2</sup> /ft)	Transverse Shear Design Loads		Transverse Shear (7) Reinforcement Provided (in <sup>2</sup> /ft <sup>2</sup> )	Remarks	
								Axial and Flexure Loads			In-Plane Shear Loads		Load Combination	Transverse Shear (6) Reinforcement Design Loads (kips / ft)			
								Load Combination	Axial (4) (kips / ft)	Flexure (4) (ft-kips / ft)	Load Combination						In-plane (5) Shear (kips / ft)
North Wall	Far side	Vertical	3H-3-11	5.5	20-V-L	Max Tension w/ corresponding moment	2787	1.4D + 1.7L + 1.7H' + 1.7Eo	420	25	1.4D + 1.7L + 1.7H' + 1.7Eo	217	7.80	-	-	-	
						Max Compression w/ corresponding moment	2787	1.4D + 1.7L + 1.7H' + 1.7Eo	-700	-111							
						Max Moment with axial tension	-8961	D + L + H' + E'	35	706							
						Max Moment with axial compression	8961	D + L + H' + E'	-266	714							
					21-V-L	Max Tension w/ corresponding moment	2716	1.4D + 1.7L + 1.7H' + 1.7Eo	384	57	1.4D + 1.7L + 1.7H' + 1.7Eo	223	6.24	-	-	-	
						Max Compression w/ corresponding moment	2716	1.4D + 1.7L + 1.7H' + 1.7Eo	-801	54							
						Max Moment with axial tension	-5545	D + L + H' + E'	18	443							
						Max Moment with axial compression	5544	D + L + H' + E'	-305	467							
				22-V-L	Max Tension w/ corresponding moment	36131	1.4D + 1.7L + 1.7H' + 1.7Eo	108	203	1.4D + 1.7L + 1.7H' + 1.7Eo	94	4.66	-	-	-		
					Max Compression w/ corresponding moment	36068	1.4D + 1.7L + 1.7H' + 1.7Eo	-296	185								
					Max Moment with axial tension	36131	1.4D + 1.7L + 1.7H' + 1.7Eo	29	263								
					Max Moment with axial compression	36131	1.4D + 1.7L + 1.7H' + 1.7Eo	-186	263								
				23-V-L	Max Tension w/ corresponding moment	26428/26429	1.4D + 1.7L + 1.7H' + 1.7Eo	115	498	1.4D + 1.7L + 1.7H' + 1.7Eo	66	12.87	-	-	-	(8),(9)	
					Max Compression w/ corresponding moment	26428/26429	1.4D + 1.7L + 1.7H' + 1.7Eo	-325	492								
					Max Moment with axial tension	26428/26429	1.4D + 1.7L + 1.7H' + 1.7Eo	80	555								
					Max Moment with axial compression	26428/26429	1.4D + 1.7L + 1.7H' + 1.7Eo	-209	555								
				24-V-L	Max Tension w/ corresponding moment	26422	1.4D + 1.7L + 1.7H' + 1.7Eo	254	385	1.4D + 1.7L + 1.7H' + 1.7Eo	76	12.87	-	-	-	(8),(9)	
					Max Compression w/ corresponding moment	28574	1.4D + 1.7L + 1.7H' + 1.7Eo	-531	283								
					Max Moment with axial tension	26422	1.4D + 1.7L + 1.7H' + 1.7Eo	91	417								
					Max Moment with axial compression	26422	1.4D + 1.7L + 1.7H' + 1.7Eo	-405	417								
	25-V-L	Max Tension w/ corresponding moment	26429/26430	1.4D + 1.7L + 1.7H' + 1.7Eo	59	338	1.4D + 1.7L + 1.7H' + 1.7Eo	69	9.36	-	-	-	(8)				
		Max Compression w/ corresponding moment	27219	1.4D + 1.7L + 1.7H'	-221	60											
		Max Moment with axial tension	26429/26430	1.4D + 1.7L + 1.7H' + 1.7Eo	35	420											
		Max Moment with axial compression	26429/26430	1.4D + 1.7L + 1.7H' + 1.7Eo	-114	434											
	26-V-L	Max Tension w/ corresponding moment	26694	D + L + H' + E'	70	263	1.4D + 1.7L + 1.7H' + 1.7Eo	81	9.36	-	-	-					
		Max Compression w/ corresponding moment	26421	1.4D + 1.7L + 1.7H'	-218	117											
		Max Moment with axial tension	26421	1.4D + 1.7L + 1.7H' + 1.7Eo	45	363											
		Max Moment with axial compression	26421	1.4D + 1.7L + 1.7H' + 1.7Eo	-84	363											
	Near side	Horizontal Plane	3H-3-12	5.5	1-H-T	-	-	-	-	-	-	-	D + L + H' + E'	149	0.4 (#4@6)	-	
				5.5	2-H-T	-	-	-	-	-	-	-	D + L + H' + E'	156	0.4 (#4@6)	-	
				3	3-H-T	-	-	-	-	-	-	-	1.4D + 1.7L + 1.7H' + 1.7Eo	101	0.62 (#5@6)	-	
		Vertical Plane	3H-3-12	5.5	1-V-T	-	-	-	-	-	-	-	D + L + H' + E'	130	0.2 (#4@12)	-	
				5.5	2-V-T	-	-	-	-	-	-	-	D + L + H' + E'	172	0.4 (#4@6)	-	
				4	3-V-T	-	-	-	-	-	-	-	D + L + H' + E'	85	0.2 (#4@12)	-	
				4	4-V-T	-	-	-	-	-	-	-	D + L + H' + E'	117	0.4 (#4@6)	-	
				3	5-V-T	-	-	-	-	-	-	-	D + L + H' + E'	69	0.2 (#4@12)	-	

**Table 3H.3-3: Results of Radwaste Building Concrete Wall Design (Continued)**

Location	Face	Direction	Reinforcement Layout Drawing Number (1)	Thickness (ft)	Reinforcement Zone Number (2)	Maximum Forces (3)	Element	Longitudinal Reinforcement Design Loads				Longitudinal Reinforcement Provided (in <sup>2</sup> /ft)	Transverse Shear Design Loads		Transverse Shear (7) Reinforcement Provided (in <sup>2</sup> /ft <sup>2</sup> )	Remarks	
								Axial and Flexure Loads			In-Plane Shear Loads		Load Combination	Transverse Shear (6) Reinforcement Design Loads (kips / ft)			
								Load Combination	Axial (4) (kips / ft)	Flexure (4) (ft-kips / ft)	In-plane (5) Shear (kips / ft)						
South Wall	Near Side	Horizontal	SH-3-13	3	1-H-L	Max Tension w/ corresponding moment	28431	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7E <sub>o</sub>	126	-50	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7E <sub>o</sub>	121	3.12	-	-	-	
						Max Compression w/ corresponding moment	28431	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7E <sub>o</sub>	-273	-50							
						Max Moment with axial tension	26246	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7E <sub>o</sub>	10	-314							
						Max Moment with axial compression	26238	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7E <sub>o</sub>	-222	-329							
				4	2-H-L	Max Tension w/ corresponding moment	23290	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7E <sub>o</sub>	86	-75	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7E <sub>o</sub>	143	3.12	-	-	-	
						Max Compression w/ corresponding moment	21455	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7E <sub>o</sub>	-171	-53							
						Max Moment with axial tension	21461	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7E <sub>o</sub>	19	-197							
						Max Moment with axial compression	21462	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7E <sub>o</sub>	-89	-248							
					3-H-L	Max Tension w/ corresponding moment	23273	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7E <sub>o</sub>	22	-212	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7E <sub>o</sub>	143	4.68	-	-	-	
						Max Compression w/ corresponding moment	11511	D + L + H <sup>1</sup> + E <sub>1</sub>	-125	-273							
						Max Moment with axial tension	23273	D + L + H <sup>1</sup> + E <sub>1</sub>	1	-267							
						Max Moment with axial compression	14536	D + L + H <sup>1</sup> + E <sub>1</sub>	-78	-441							
				5.5	4-H-L	Max Tension w/ corresponding moment	2287	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7E <sub>o</sub>	58	-59	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7E <sub>o</sub>	156	6.24	-	-	-	
						Max Compression w/ corresponding moment	8472	D + L + H <sup>1</sup> + E <sub>1</sub>	-443	-568							
						Max Moment with axial tension	2287	D + L + H <sup>1</sup> + E <sub>1</sub>	9	-402							
						Max Moment with axial compression	6754	D + L + H <sup>1</sup> + E <sub>1</sub>	-124	-845							
				4	5-H-L	Max Tension w/ corresponding moment	23295	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7E <sub>o</sub>	140	-271	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7E <sub>o</sub>	121	6.24	-	-	-	
						Max Compression w/ corresponding moment	23297	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7E <sub>o</sub>	-329	-362							
						Max Moment with axial tension	23305	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7E <sub>o</sub>	8	-621							
						Max Moment with axial compression	23305	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7E <sub>o</sub>	-90	-668							
				5.5	6-H-L	Max Tension w/ corresponding moment	8486	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7E <sub>o</sub>	26	-60	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7E <sub>o</sub>	134	3.12	-	-	-	
						Max Compression w/ corresponding moment	8485	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7E <sub>o</sub>	-134	-21							
						Max Moment with axial tension	8512	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7E <sub>o</sub>	1	-131							
						Max Moment with axial compression	6003	D + L + H <sup>1</sup> + E <sub>1</sub>	-72	-425							
					7-H-L	Max Tension w/ corresponding moment	2289	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7E <sub>o</sub>	33	-48	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7E <sub>o</sub>	156	4.68	-	-	-	
						Max Compression w/ corresponding moment	2289	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7E <sub>o</sub>	-122	-173							
						Max Moment with axial tension	2289	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7E <sub>o</sub>	0	-180							
						Max Moment with axial compression	2289	D + L + H <sup>1</sup> + E <sub>1</sub>	-78	-220							
				4	8-H-L	Max Tension w/ corresponding moment	23315	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7E <sub>o</sub>	76	-439	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7E <sub>o</sub>	135	4.68	-	-	-	
						Max Compression w/ corresponding moment	23315	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7E <sub>o</sub>	-200	-493							
						Max Moment with axial tension	23315	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7E <sub>o</sub>	36	-465							
						Max Moment with axial compression	12367	D + L + H <sup>1</sup> + E <sub>1</sub>	-86	-553							
9-H-L	Max Tension w/ corresponding moment	11553	D + L + H <sup>1</sup> + E <sub>1</sub>		73	-94	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7E <sub>o</sub>	143	6.24	-	-	-					
	Max Compression w/ corresponding moment	11559	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7E <sub>o</sub>		-162	-4											
	Max Moment with axial tension	11561	D + L + H <sup>1</sup> + E <sub>1</sub>		13	-381											
	Max Moment with axial compression	11570	D + L + H <sup>1</sup> + E <sub>1</sub>		-92	-590											

**Table 3H.3-3: Results of Radwaste Building Concrete Wall Design (Continued)**

Location	Face	Direction	Reinforcement Layout Drawing Number (1)	Thickness (ft)	Reinforcement Zone Number (2)	Maximum Force (P)	Element	Longitudinal Reinforcement Design Loads				Longitudinal Reinforcement Provided (in <sup>2</sup> /ft)	Transverse Shear Design Loads		Transverse Shear (7) Reinforcement Provided (in <sup>2</sup> /ft <sup>2</sup> )	Remarks	
								Axial and Flexure Loads			In-Plane Shear Loads		Load Combination	Transverse Shear (6) Reinforcement Design Loads (kips / ft)			
								Load Combination	Axial (4) (kips / ft)	Flexure (4) (ft-kips / ft)	Load Combination						In-plane (5) Shear (kips / ft)
South Wall	Near Side	Horizontal	3H-13	5.5	10-HL	Max Tension w/ corresponding moment	2346	1.4D + 1.7L + 1.7H' + 1.7Eo	62	-82	1.4D + 1.7L + 1.7H' + 1.7Eo	156	6.24	-	-		
						Max Compression w/ corresponding moment	8531	D + L + H' + E'	-484	-755							
						Max Moment with axial tension	-2346	1.4D + 1.7L + 1.7H' + 1.7Eo	1	-389							
						Max Moment with axial compression	8531	D + L + H' + E'	-353	-1148							
				9	11-HL	Max Tension w/ corresponding moment	34156	1.4D + 1.7L + 1.7H' + 1.7Eo	233	-142	1.4D + 1.7L + 1.7H' + 1.7Eo	67	3.12	-	-		
						Max Compression w/ corresponding moment	34156	1.4D + 1.7L + 1.7H' + 1.7Eo	-451	-145							
						Max Moment with axial tension	34162	1.4D + 1.7L + 1.7H' + 1.7Eo	65	-207							
						Max Moment with axial compression	34162	1.4D + 1.7L + 1.7H' + 1.7Eo	-59	-207							
		Vertical	3H-14	9	1-VL	Max Tension w/ corresponding moment	26214	1.4D + 1.7L + 1.7H' + 1.7Eo	104	-45	1.4D + 1.7L + 1.7H' + 1.7Eo	79	3.12	-	-		
						Max Compression w/ corresponding moment	26214	1.4D + 1.7L + 1.7H' + 1.7Eo	-240	-62							
						Max Moment with axial tension	26219	1.4D + 1.7L + 1.7H' + 1.7Eo	20	-217							
						Max Moment with axial compression	26219	1.4D + 1.7L + 1.7H' + 1.7Eo	-150	-217							
					2-VL	Max Tension w/ corresponding moment	34164	1.4D + 1.7L + 1.7H' + 1.7Eo	109	-218	1.4D + 1.7L + 1.7H' + 1.7Eo	95	4.68	-	-		
						Max Compression w/ corresponding moment	34156	1.4D + 1.7L + 1.7H' + 1.7Eo	-300	-182							
						Max Moment with axial tension	30330	1.4D + 1.7L + 1.7H' + 1.7Eo	18	-275							
						Max Moment with axial compression	30330	1.4D + 1.7L + 1.7H' + 1.7Eo	-65	-275							
					3-VL	Max Tension w/ corresponding moment	26220	1.4D + 1.7L + 1.7H' + 1.7Eo	50	-200	1.4D + 1.7L + 1.7H' + 1.7Eo	88	6.24	-	-		
						Max Compression w/ corresponding moment	26220	1.4D + 1.7L + 1.7H' + 1.7Eo	-206	-190							
						Max Moment with axial tension	26228	1.4D + 1.7L + 1.7H' + 1.7Eo	14	-460							
						Max Moment with axial compression	26228	1.4D + 1.7L + 1.7H' + 1.7Eo	-120	-482							
	4-VL				Max Tension w/ corresponding moment	26238/26239	1.4D + 1.7L + 1.7H' + 1.7Eo	29	-481	1.4D + 1.7L + 1.7H' + 1.7Eo	72	9.36	-	-	(8)		
					Max Compression w/ corresponding moment	27076	1.4D + 1.7L + 1.7H	-208	-90								
					Max Moment with axial tension	26238/26239	1.4D + 1.7L + 1.7H' + 1.7Eo	20	-536								
					Max Moment with axial compression	26238/26239	1.4D + 1.7L + 1.7H' + 1.7Eo	-155	-567								
	5-VL				Max Tension w/ corresponding moment	26229	D + L + H' + E'	28	-442	1.4D + 1.7L + 1.7H' + 1.7Eo	86	9.36	-	-			
					Max Compression w/ corresponding moment	27377	1.4D + 1.7L + 1.7H	-198	-82								
					Max Moment with axial tension	26229	1.4D + 1.7L + 1.7H' + 1.7Eo	9	-505								
					Max Moment with axial compression	26229	1.4D + 1.7L + 1.7H' + 1.7Eo	-121	-506								
	6-VL	Max Tension w/ corresponding moment	26584	1.4D + 1.7L + 1.7H' + 1.7Eo	89	-19	1.4D + 1.7L + 1.7H' + 1.7Eo	127	3.12	-	-						
		Max Compression w/ corresponding moment	26584	1.4D + 1.7L + 1.7H' + 1.7Eo	-274	-20											
		Max Moment with axial tension	31135	1.4D + 1.7L + 1.7H' + 1.7Eo	6	-236											
		Max Moment with axial compression	26563	1.4D + 1.7L + 1.7H' + 1.7Eo	-107	-244											
	7-VL	Max Tension w/ corresponding moment	26257	D + L + H' + E'	51	-409	1.4D + 1.7L + 1.7H' + 1.7Eo	68	6.24	-	-						
		Max Compression w/ corresponding moment	26256	1.4D + 1.7L + 1.7H	-187	-144											
		Max Moment with axial tension	26256	1.4D + 1.7L + 1.7H' + 1.7Eo	25	-481											
		Max Moment with axial compression	26256	1.4D + 1.7L + 1.7H' + 1.7Eo	-128	-486											

**Table 3H.3-3: Results of Radwaste Building Concrete Wall Design (Continued)**

Location	Face	Direction	Reinforcement Layout Drawing Number (1)	Thickness (ft)	Reinforcement Zone Number (2)	Maximum Force (3)	Element	Longitudinal Reinforcement Design Loads				Longitudinal Reinforcement Provided (in <sup>2</sup> / ft)	Transverse Shear Design Loads		Transverse Shear (7) Reinforcement Provided (in <sup>2</sup> /ft <sup>2</sup> )	Remarks	
								Axial and Flexure Loads			In-Plane Shear Loads		Load Combination	Transverse Shear (6) Reinforcement Design Loads (kips / ft)			
								Load Combination	Axial (4) (kips / ft)	Flexure (4) (ft-kips / ft)	In-plane Shear (kips / ft)						
South Wall	Near Side	Vertical	3H-3-14	4	8-V-L	Max Tension w/ corresponding moment	23273	1.4D + 1.7L + 1.7H' + 1.7Eo	116	-93	1.4D + 1.7L + 1.7H' + 1.7Eo	106	4.68	-	-		
						Max Compression w/ corresponding moment	11512	1.4D + 1.7L + 1.7H' + 1.7Eo	-380	-98							
						Max Moment with axial tension	23273	1.4D + 1.7L + 1.7H' + 1.7Eo	7	-204							
						Max Moment with axial compression	23273	1.4D + 1.7L + 1.7H' + 1.7Eo	-279	-204							
					9-V-L	Max Tension w/ corresponding moment	11513	1.4D + 1.7L + 1.7H' + 1.7Eo	111	-82	1.4D + 1.7L + 1.7H' + 1.7Eo	130	3.12	-	-		
						Max Compression w/ corresponding moment	11513	1.4D + 1.7L + 1.7H' + 1.7Eo	-405	-89							
						Max Moment with axial tension	11513	1.4D + 1.7L + 1.7H' + 1.7Eo	3	-138							
						Max Moment with axial compression	23275	1.4D + 1.7L + 1.7H' + 1.7Eo	-259	-151							
					10-V-L	Max Tension w/ corresponding moment	23295	1.4D + 1.7L + 1.7H' + 1.7Eo	100	-229	1.4D + 1.7L + 1.7H' + 1.7Eo	152	4.98	-	-		
						Max Compression w/ corresponding moment	23295	1.4D + 1.7L + 1.7H' + 1.7Eo	-337	-425							
						Max Moment with axial tension	23290	1.4D + 1.7L + 1.7H' + 1.7Eo	8	-446							
						Max Moment with axial compression	23289	1.4D + 1.7L + 1.7H' + 1.7Eo	-172	-461							
					11-V-L	Max Tension w/ corresponding moment	23296	1.4D + 1.7L + 1.7H' + 1.7Eo	100	-169	1.4D + 1.7L + 1.7H' + 1.7Eo	133	7.80	-	-		
						Max Compression w/ corresponding moment	23296	1.4D + 1.7L + 1.7H' + 1.7Eo	-337	-339							
						Max Moment with axial tension	23297	D + L + H' + E'	7	-722							
						Max Moment with axial compression	23297	1.4D + 1.7L + 1.7H' + 1.7Eo	-235	-812							
					12-V-L	Max Tension w/ corresponding moment	11554	1.4D + 1.7L + 1.7H' + 1.7Eo	44	-58	1.4D + 1.7L + 1.7H' + 1.7Eo	204	6.24	-	-		
						Max Compression w/ corresponding moment	16494	1.4D + 1.7L + 1.7H' + 1.7Eo	-258	-174							
						Max Moment with axial tension	23304	1.4D + 1.7L + 1.7H' + 1.7Eo	5	-622							
						Max Moment with axial compression	23304	1.4D + 1.7L + 1.7H' + 1.7Eo	-152	-690							
					13-V-L	Max Tension w/ corresponding moment	11560	1.4D + 1.7L + 1.7H' + 1.7Eo	57	-70	1.4D + 1.7L + 1.7H' + 1.7Eo	169	4.68	-	-		
						Max Compression w/ corresponding moment	11560	1.4D + 1.7L + 1.7H' + 1.7Eo	-304	-75							
						Max Moment with axial tension	23319	D + L + H' + E'	3	-237							
						Max Moment with axial compression	23319	D + L + H' + E'	-151	-271							
					14-V-L	Max Tension w/ corresponding moment	11561	1.4D + 1.7L + 1.7H' + 1.7Eo	62	-64	1.4D + 1.7L + 1.7H' + 1.7Eo	197	6.24	-	-		
						Max Compression w/ corresponding moment	11561	1.4D + 1.7L + 1.7H' + 1.7Eo	-301	-59							
						Max Moment with axial tension	23323	D + L + H' + E'	10	-278							
						Max Moment with axial compression	23323	1.4D + 1.7L + 1.7H' + 1.7Eo	-121	-288							
					15-V-L	Max Tension w/ corresponding moment	11562	1.4D + 1.7L + 1.7H' + 1.7Eo	73	-86	1.4D + 1.7L + 1.7H' + 1.7Eo	292	7.80	-	-		
						Max Compression w/ corresponding moment	11562	1.4D + 1.7L + 1.7H' + 1.7Eo	-321	-137							
						Max Moment with axial tension	23324	D + L + H' + E'	2	-284							
						Max Moment with axial compression	23324	1.4D + 1.7L + 1.7H' + 1.7Eo	-128	-294							
16-V-L	Max Tension w/ corresponding moment	11570	1.4D + 1.7L + 1.7H' + 1.7Eo	129	-115	1.4D + 1.7L + 1.7H' + 1.7Eo	236	6.24	-	-							
	Max Compression w/ corresponding moment	11569	1.4D + 1.7L + 1.7H' + 1.7Eo	-464	-164												
	Max Moment with axial tension	14327	D + L + H' + E'	4	-368												
	Max Moment with axial compression	14327	D + L + H' + E'	-240	-368												

**Table 3H.3-3: Results of Radwaste Building Concrete Wall Design (Continued)**

Location	Face	Direction	Reinforcement Layout Drawing Number (1)	Thickness (ft)	Reinforcement Zone Number (2)	Maximum Force (3)	Element	Longitudinal Reinforcement Design Loads				Longitudinal Reinforcement Provided (in <sup>2</sup> / ft)	Transverse Shear Design Loads		Transverse Shear (7) Reinforcement Provided (in <sup>2</sup> /ft <sup>2</sup> )	Remarks	
								Axial and Flexure Loads			In-Plane Shear Loads		Load Combination	Transverse Shear (6) Reinforcement Design Loads (kips / ft)			
								Load Combination	Axial (4) (kips / ft)	Flexure (4) (ft-kips / ft)	Load Combination						In-plane Shear (5) (kips / ft)
South Wall	New Side	Vertical	SH-3-14	5.5	17-V-L	Max Tension w/ corresponding moment	2287	1.4D + 1.7L + 1.7H' + 1.7Eo	375	-224	1.4D + 1.7L + 1.7H' + 1.7Eo	158	6.24	-	-	-	
						Max Compression w/ corresponding moment	2287	1.4D + 1.7L + 1.7H' + 1.7Eo	-826	-245							
						Max Moment with axial tension	2292	D + L + H' + E'	19	-874							
						Max Moment with axial compression	2292	D + L + H' + E'	-266	-874							
					18-V-L	Max Tension w/ corresponding moment	2346	1.4D + 1.7L + 1.7H' + 1.7Eo	401	-250	1.4D + 1.7L + 1.7H' + 1.7Eo	303	9.36	-	-	-	
						Max Compression w/ corresponding moment	2346	1.4D + 1.7L + 1.7H' + 1.7Eo	-826	-415							
						Max Moment with axial tension	2343	D + L + H' + E'	19	-817							
						Max Moment with axial compression	2343	D + L + H' + E'	-278	-817							
				19-V-L	Max Tension w/ corresponding moment	26230/26231	D + L + H' + E'	114	-537	1.4D + 1.7L + 1.7H' + 1.7Eo	80	12.87	-	-	-	(8),(9)	
					Max Compression w/ corresponding moment	28431	1.4D + 1.7L + 1.7H' + 1.7Eo	-528	-274								
					Max Moment with axial tension	26230/26231	1.4D + 1.7L + 1.7H' + 1.7Eo	107	-617								
					Max Moment with axial compression	26230/26231	1.4D + 1.7L + 1.7H' + 1.7Eo	-110	-617								
				20-V-L	Max Tension w/ corresponding moment	26237/26238	1.4D + 1.7L + 1.7H' + 1.7Eo	93	-805	1.4D + 1.7L + 1.7H' + 1.7Eo	66	12.87	-	-	-	(8),(9)	
					Max Compression w/ corresponding moment	26237/26238	1.4D + 1.7L + 1.7H' + 1.7Eo	-310	-861								
					Max Moment with axial tension	26237/26238	1.4D + 1.7L + 1.7H' + 1.7Eo	29	-856								
					Max Moment with axial compression	26237/26238	1.4D + 1.7L + 1.7H' + 1.7Eo	-310	-861								
	21-V-L	Max Tension w/ corresponding moment	26245/26246	1.4D + 1.7L + 1.7H' + 1.7Eo	18	-516	1.4D + 1.7L + 1.7H' + 1.7Eo	72	9.36	-	-	-	(8),(9)				
		Max Compression w/ corresponding moment	26245/26246	1.4D + 1.7L + 1.7H	-154	-178											
		Max Moment with axial tension	26245/26246	1.4D + 1.7L + 1.7H' + 1.7Eo	2	-637											
		Max Moment with axial compression	26245/26246	1.4D + 1.7L + 1.7H' + 1.7Eo	-120	-642											
	Far Side	Horizontal	SH-3-15	3	1-H-L	Max Tension w/ corresponding moment	28431	1.4D + 1.7L + 1.7H' + 1.7Eo	126	46	1.4D + 1.7L + 1.7H' + 1.7Eo	121	3.12	-	-	-	
						Max Compression w/ corresponding moment	28431	1.4D + 1.7L + 1.7H' + 1.7Eo	-273	46							
						Max Moment with axial tension	31889	1.4D + 1.7L + 1.7H' + 1.7Eo	57	302							
						Max Moment with axial compression	31889	1.4D + 1.7L + 1.7H' + 1.7Eo	-107	302							
					2-H-L	Max Tension w/ corresponding moment	32171	1.4D + 1.7L + 1.7H' + 1.7Eo	125	59	1.4D + 1.7L + 1.7H' + 1.7Eo	45	6.24	-	-	-	
						Max Compression w/ corresponding moment	32171	1.4D + 1.7L + 1.7H' + 1.7Eo	-201	64							
						Max Moment with axial tension	31900	1.4D + 1.7L + 1.7H' + 1.7Eo	59	351							
						Max Moment with axial compression	31900	1.4D + 1.7L + 1.7H' + 1.7Eo	-184	351							
3-H-L				Max Tension w/ corresponding moment	23290	1.4D + 1.7L + 1.7H' + 1.7Eo	86	75	1.4D + 1.7L + 1.7H' + 1.7Eo	143	3.12	-	-	-			
				Max Compression w/ corresponding moment	11568	D + L + H' + E'	-203	154									
				Max Moment with axial tension	23278	D + L + H' + E'	1	186									
				Max Moment with axial compression	11516	D + L + H' + E'	-162	292									

**Table 3H.3-3: Results of Radwaste Building Concrete Wall Design (Continued)**

Location	Face	Direction	Reinforcement Layout Drawing Number (1)	Thickness (ft)	Reinforcement Zone Number (2)	Maximum Forces (3)	Element	Longitudinal Reinforcement Design Loads				Longitudinal Reinforcement Provided (in <sup>2</sup> /ft)	Transverse Shear Design Loads		Transverse Shear (7) Reinforcement Provided (in <sup>2</sup> /ft <sup>2</sup> )	Remarks		
								Axial and Flexure Loads			In-Plane Shear Loads		Load Combination	Transverse Shear (6) Reinforcement Design Loads (kips / ft)				
								Load Combination	Axial (4) (kips / ft)	Flexure (4) (ft-kips / ft)	Load Combination						In-plane (6) Shear (kips / ft)	
South Wall	Far side	Horizontal	QH-3-15	5.5	4-H-L	Max Tension w/ corresponding moment	4072	1.4D + 1.7L + 1.7H' + 1.7Eo	23	64	1.4D + 1.7L + 1.7H' + 1.7Eo	134	4.68	-	-	-		
						Max Compression w/ corresponding moment	7708	D + L + H' + E'	-163	40								
						Max Moment with axial tension	8476	D' + L + H' + E'	7	611								
						Max Moment with axial compression	8477	D + L + H' + E'	-55	627								
				4	5-H-L	Max Tension w/ corresponding moment	23295	1.4D + 1.7L + 1.7H' + 1.7Eo	140	-214	1.4D + 1.7L + 1.7H' + 1.7Eo	121	6.24	-	-	-		
						Max Compression w/ corresponding moment	23297	1.4D + 1.7L + 1.7H' + 1.7Eo	-329	223								
						Max Moment with axial tension	23305	1.4D + 1.7L + 1.7H' + 1.7Eo	34	477								
						Max Moment with axial compression	23305	1.4D + 1.7L + 1.7H' + 1.7Eo	-35	477								
				5.5	6-H-L	Max Tension w/ corresponding moment	6514	1.4D + 1.7L + 1.7H' + 1.7Eo	32	23	1.4D + 1.7L + 1.7H' + 1.7Eo	134	3.12	-	-	-		
						Max Compression w/ corresponding moment	7751	1.4D + 1.7L + 1.7H' + 1.7Eo	-211	60								
						Max Moment with axial tension	6518	1.4D + 1.7L + 1.7H' + 1.7Eo	18	191								
						Max Moment with axial compression	7762	D + L + H' + E'	-119	456								
					7-H-L	Max Tension w/ corresponding moment	2346	1.4D + 1.7L + 1.7H' + 1.7Eo	60	44	1.4D + 1.7L + 1.7H' + 1.7Eo	156	4.68	-	-	-		
						Max Compression w/ corresponding moment	2345	1.4D + 1.7L + 1.7H' + 1.7Eo	-162	222								
						Max Moment with axial tension	2289	1.4D + 1.7L + 1.7H' + 1.7Eo	0	157								
						Max Moment with axial compression	3086	D + L + H' + E'	-105	391								
					8-H-L	Max Tension w/ corresponding moment	4126	1.4D + 1.7L + 1.7H' + 1.7Eo	30	92	1.4D + 1.7L + 1.7H' + 1.7Eo	134	4.68	-	-	-		
						Max Compression w/ corresponding moment	7765	D + L + H' + E'	-234	61								
						Max Moment with axial tension	6046	1.4D + 1.7L + 1.7H' + 1.7Eo	3	123								
						Max Moment with axial compression	8529	D + L + H' + E'	-123	548								
6	9-H-L	Max Tension w/ corresponding moment	34156	1.4D + 1.7L + 1.7H' + 1.7Eo	233	139	1.4D + 1.7L + 1.7H' + 1.7Eo	67	3.12	-	-	-						
		Max Compression w/ corresponding moment	34156	1.4D + 1.7L + 1.7H' + 1.7Eo	-451	145												
		Max Moment with axial tension	34162	1.4D + 1.7L + 1.7H' + 1.7Eo	65	231												
		Max Moment with axial compression	34162	1.4D + 1.7L + 1.7H' + 1.7Eo	-39	231												

**Table 3H.3-3: Results of Radwaste Building Concrete Wall Design (Continued)**

Location	Face	Direction	Reinforcement Layout Drawing Number (1)	Thickness (ft)	Reinforcement Zone Number (2)	Maximum Forces (3)	Element	Longitudinal Reinforcement Design Loads				Longitudinal Reinforcement Provided (in <sup>2</sup> /ft)	Transverse Shear Design Loads		Transverse Shear (7) Reinforcement Provided (in <sup>2</sup> /ft <sup>2</sup> )	Remarks	
								Axial and Flexure Loads			In-Plane Shear Loads		Load Combination	Transverse Shear (6) Reinforcement Design Loads (kips / ft)			
								Load Combination	Axial (4) (kips / ft)	Flexure (4) (ft-kips / ft)	In-plane (5) Shear (kips / ft)						
South Wall	Fair side	Vertical	3H-3-16	3	1-V/L	Max Tension w/ corresponding moment	26214	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7Eo	104	64	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7Eo	79	3.12	-	-	-	
						Max Compression w/ corresponding moment	26214	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7Eo	-240	68							
						Max Moment with axial tension	32147	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7Eo	11	259							
						Max Moment with axial compression	31885	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7Eo	-26	273							
					2-V/L	Max Tension w/ corresponding moment	32152	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7Eo	83	279	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7Eo	86	6.24	-	-	-	
						Max Compression w/ corresponding moment	31890	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7Eo	-136	411							
						Max Moment with axial tension	32152	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7Eo	37	434							
						Max Moment with axial compression	32152	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7Eo	-23	434							
					3-V/L	Max Tension w/ corresponding moment	32162	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7Eo	103	322	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7Eo	95	9.36	-	-	-	
						Max Compression w/ corresponding moment	31900	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7Eo	-184	528							
						Max Moment with axial tension	32162	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7Eo	93	544							
						Max Moment with axial compression	32162	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7Eo	-34	544							
					4-V/L	Max Tension w/ corresponding moment	34164	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7Eo	109	257	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7Eo	95	4.68	-	-	-	
						Max Compression w/ corresponding moment	34156	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7Eo	-300	212							
						Max Moment with axial tension	30067	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7Eo	1	370							
						Max Moment with axial compression	30067	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7Eo	-91	371							
					5-V/L	Max Tension w/ corresponding moment	26229	D + L + H <sup>1</sup> + E <sup>1</sup>	28	346	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7Eo	88	6.24	-	-	-	
						Max Compression w/ corresponding moment	27377	1.4D + 1.7L + 1.7H <sup>1</sup>	-195	37							
						Max Moment with axial tension	26229	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7Eo	15	399							
						Max Moment with axial compression	26229	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7Eo	-86	399							
					6-V/L	Max Tension w/ corresponding moment	26239	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7Eo	31	381	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7Eo	72	7.80	-	-	-	
						Max Compression w/ corresponding moment	27676	1.4D + 1.7L + 1.7H <sup>1</sup>	-209	57							
						Max Moment with axial tension	26239	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7Eo	23	397							
						Max Moment with axial compression	26239	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7Eo	-129	397							
					7-V/L	Max Tension w/ corresponding moment	26821	D + L + H <sup>1</sup> + E <sup>1</sup>	15	251	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7Eo	72	9.36	-	-	-	
						Max Compression w/ corresponding moment	26818	1.4D + 1.7L + 1.7H <sup>1</sup>	-160	58							
						Max Moment with axial tension	26821	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7Eo	10	326							
						Max Moment with axial compression	26821	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7Eo	-95	331							
					8-V/L	Max Tension w/ corresponding moment	26245/ 26246	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7Eo	18	408	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7Eo	72	9.36	-	-	-	(8) (9)
						Max Compression w/ corresponding moment	26555	1.4D + 1.7L + 1.7H <sup>1</sup>	-161	74							
						Max Moment with axial tension	26245/ 26246	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7Eo	2	504							
						Max Moment with axial compression	26245/ 26246	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7Eo	-108	515							
					9-V/L	Max Tension w/ corresponding moment	32179	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7Eo	85	304	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7Eo	74	6.24	-	-	-	
						Max Compression w/ corresponding moment	31915	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7Eo	-176	488							
						Max Moment with axial tension	32178	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7Eo	46	498							
						Max Moment with axial compression	32178	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7Eo	-31	498							
					10-V/L	Max Tension w/ corresponding moment	26584	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7Eo	89	22	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7Eo	127	3.12	-	-	-	
						Max Compression w/ corresponding moment	26584	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7Eo	-274	23							
						Max Moment with axial tension	26256	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7Eo	21	379							
						Max Moment with axial compression	26256	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7Eo	-88	379							





**Table 3H.3-3: Results of Radwaste Building Concrete Wall Design (Continued)**

Location	Face	Direction	Reinforcement Layout Drawing Number (1)	Thickness (ft)	Reinforcement Zone Number (2)	Maximum Force (3)	Element	Longitudinal Reinforcement Design Loads				Longitudinal Reinforcement Provided (in <sup>2</sup> /ft)	Transverse Shear Design Loads		Transverse Shear (7) Reinforcement Provided (in <sup>2</sup> /ft <sup>2</sup> )	Remarks	
								Axial and Flexure Loads			In-Plane Shear Loads		Load Combination	Transverse Shear (6) Reinforcement Design Loads (kips / ft)			
								Load Combination	Axial (4) (kips / ft)	Flexure (4) (ft-kips / ft)	Load Combination						In-plane (6) Shear (kips / ft)
South Wall	Far Side	Vertical	SH-3-16	5.5	18-V-L	Max Tension w/ corresponding moment	2287	1.4D + 1.7L + 1.7H' + 1.7Eo	375	34	1.4D + 1.7L + 1.7H' + 1.7Eo	126	6.24	-	-	-	
						Max Compression w/ corresponding moment	2287	1.4D + 1.7L + 1.7H' + 1.7Eo	-826	180							
						Max Moment with axial tension	6760	D + L + H' + E'	24	688							
						Max Moment with axial compression	6760	D + L + H' + E'	-268	718							
					19-V-L	Max Tension w/ corresponding moment	2330	1.4D + 1.7L + 1.7H' + 1.7Eo	132	48	1.4D + 1.7L + 1.7H' + 1.7Eo	229	4.68	-	-	-	
						Max Compression w/ corresponding moment	3097	1.4D + 1.7L + 1.7H' + 1.7Eo	-398	83							
						Max Moment with axial tension	6761	D + L + H' + E'	20	711							
						Max Moment with axial compression	6761	D + L + H' + E'	-261	738							
				20-V-L	Max Tension w/ corresponding moment	2346	1.4D + 1.7L + 1.7H' + 1.7Eo	401	42	1.4D + 1.7L + 1.7H' + 1.7Eo	303	9.36	-	-	-		
					Max Compression w/ corresponding moment	8531	1.4D + 1.7L + 1.7H' + 1.7Eo	-763	173								
					Max Moment with axial tension	7762	D + L + H' + E'	21	671								
					Max Moment with axial compression	7762	D + L + H' + E'	-255	671								
				9	21-V-L	Max Tension w/ corresponding moment	26230/26231	D + L + H' + E'	114	421	1.4D + 1.7L + 1.7H' + 1.7Eo	80.07193	12.87	-	-	-	(8),(9)
						Max Compression w/ corresponding moment	28431	1.4D + 1.7L + 1.7H' + 1.7Eo	-528	312							
						Max Moment with axial tension	26230/26231	1.4D + 1.7L + 1.7H' + 1.7Eo	17	488							
						Max Moment with axial compression	26230/26231	1.4D + 1.7L + 1.7H' + 1.7Eo	-201	488							
	22-V-L	Max Tension w/ corresponding moment	26237/26238		1.4D + 1.7L + 1.7H' + 1.7Eo	93	671	1.4D + 1.7L + 1.7H' + 1.7Eo	67.06475	12.87	-	-	-	(8),(9)			
		Max Compression w/ corresponding moment	26237/26238		1.4D + 1.7L + 1.7H' + 1.7Eo	-310	631										
		Max Moment with axial tension	26237/26238		1.4D + 1.7L + 1.7H' + 1.7Eo	90	672										
		Max Moment with axial compression	26237/26238		1.4D + 1.7L + 1.7H' + 1.7Eo	-211	672										
		Horizontal Plane	SH-3-17	5.5	1-H-T	-	-	-	-	-	-	-	D + L + H' + E'	121	0.2 (#4@12)	-	
				5.5	2-H-T	-	-	-	-	-	-	-	D + L + H' + E'	135	0.31 (#5@12)	-	
				5.5	3-H-T	-	-	-	-	-	-	-	D + L + H' + E'	170	0.4 (#4@6)	-	
				4	4-H-T	-	-	-	-	-	-	-	D + L + H' + E'	63	0.2 (#4@12)	-	
3				5-H-T	-	-	-	-	-	-	-	1.4D + 1.7L + 1.7H' + 1.7Eo	114	0.62 (#5@6)	-		
Vertical Plane		SH-3-17	5.5	1-V-T	-	-	-	-	-	-	-	D + L + H' + E'	134	0.2 (#4@12)	-		
			4	2-V-T	-	-	-	-	-	-	-	D + L + H' + E'	71	0.2 (#4@12)	-		
			5.5	3-V-T	-	-	-	-	-	-	-	D + L + H' + E'	140	0.31 (#5@12)	-		
East Wall	Near Side	Horizontal	SH-3-19	3	1-H-L	Max Tension w/ corresponding moment	29324	1.4D + 1.7L + 1.7H' + 1.7Eo	202	-18	1.4D + 1.7L + 1.7H' + 1.7Eo	119	1.56	-	-	-	
						Max Compression w/ corresponding moment	29324	1.4D + 1.7L + 1.7H' + 1.7Eo	-154	-27							
						Max Moment with axial tension	34105	1.4D + 1.7L + 1.7H' + 1.7Eo	13	-112							
						Max Moment with axial compression	34105	1.4D + 1.7L + 1.7H' + 1.7Eo	-13	-112							

**Table 3H.3-3: Results of Radwaste Building Concrete Wall Design (Continued)**

Location	Face	Direction	Reinforcement Layout Drawing Number (1)	Thickness (ft)	Reinforcement Zone Number (2)	Maximum Forces (3)	Element	Longitudinal Reinforcement Design Loads				Longitudinal Reinforcement Provided (in <sup>2</sup> /ft)	Transverse Shear Design Loads		Transverse Shear (7) Reinforcement Provided (in <sup>2</sup> /ft <sup>2</sup> )	Remarks	
								Axial and Flexure Loads			In-Plane Shear Loads		Load Combination	Transverse Shear (6) Reinforcement Design Loads (kips / ft)			
								Load Combination	Axial (4) (kips / ft)	Flexure (4) (ft-kips / ft)	Load Combination						In-plane (6) Shear (kips / ft)
East Wall	Near Side	Horizontal	3H-3-19	4	2-H-L	Max Tension w/ corresponding moment	23407	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7Eo	32	-77	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7Eo	160	3.12	-	-		
						Max Compression w/ corresponding moment	14402	D + L + H <sup>1</sup> + E <sup>1</sup>	-160	-71							
						Max Moment with axial tension	21491	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7Eo	3	-134							
						Max Moment with axial compression	20002	D + L + H <sup>1</sup> + E <sup>1</sup>	-70	-304							
					3-H-L	Max Tension w/ corresponding moment	11572	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7Eo	13	-59	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7Eo	176	6.24	-	-		
						Max Compression w/ corresponding moment	12369	D + L + H <sup>1</sup> + E <sup>1</sup>	-111	-284							
						Max Moment with axial tension	14597	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7Eo	4	-103							
						Max Moment with axial compression	14597	D + L + H <sup>1</sup> + E <sup>1</sup>	-104	-417							
				5	4-H-L	Max Tension w/ corresponding moment	2348	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7Eo	58	-44	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7Eo	179	7.80	-	-		
						Max Compression w/ corresponding moment	7768	D + L + H <sup>1</sup> + E <sup>1</sup>	-255	-1001							
						Max Moment with axial tension	2348	D + L + H <sup>1</sup> + E <sup>1</sup>	0	-392							
						Max Moment with axial compression	6815	D + L + H <sup>1</sup> + E <sup>1</sup>	-242	-1018							
				4	5-H-L	Max Tension w/ corresponding moment	23408	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7Eo	57	-115	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7Eo	176	4.68	-	-		
						Max Compression w/ corresponding moment	14411	D + L + H <sup>1</sup> + E <sup>1</sup>	-164	-196							
						Max Moment with axial tension	23411	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7Eo	10	-244							
						Max Moment with axial compression	23411	D + L + H <sup>1</sup> + E <sup>1</sup>	-43	-276							
					6-H-L	Max Tension w/ corresponding moment	13592	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7Eo	6	-25	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7Eo	156	3.12	-	-		
						Max Compression w/ corresponding moment	11576	D + L + H <sup>1</sup> + E <sup>1</sup>	-212	-146							
						Max Moment with axial tension	13592	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7Eo	0	-40							
						Max Moment with axial compression	11576	D + L + H <sup>1</sup> + E <sup>1</sup>	-176	-299							
				5	7-H-L	Max Tension w/ corresponding moment	2352	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7Eo	48	-34	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7Eo	179	4.68	-	-		
						Max Compression w/ corresponding moment	8537	D + L + H <sup>1</sup> + E <sup>1</sup>	-263	-262							
						Max Moment with axial tension	2352	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7Eo	1	-175							
						Max Moment with axial compression	8890	D + L + H <sup>1</sup> + E <sup>1</sup>	-243	-501							
				3	8-H-L	Max Tension w/ corresponding moment	31192	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7Eo	295	-42	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7Eo	61	3.12	-	-		
						Max Compression w/ corresponding moment	31192	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7Eo	-240	-68							
						Max Moment with axial tension	29351	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7Eo	178	-89							
						Max Moment with axial compression	29351	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7Eo	-187	-89							
9-H-L	Max Tension w/ corresponding moment	32281	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7Eo		115	-258	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7Eo	119	3.12	-	-						
	Max Compression w/ corresponding moment	32281	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7Eo		-134	-214											
	Max Moment with axial tension	32281	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7Eo		27	-297											
	Max Moment with axial compression	32281	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7Eo		-39	-297											
4	10-H-L	Max Tension w/ corresponding moment	23415	D + L + H <sup>1</sup> + E <sup>1</sup>	28	-441	1.4D + 1.7L + 1.7H <sup>1</sup> + 1.7Eo	176	7.80	-	-						
		Max Compression w/ corresponding moment	11651	D + L + H <sup>1</sup> + E <sup>1</sup>	-268	-361											
		Max Moment with axial tension	23415	D + L + H <sup>1</sup> + E <sup>1</sup>	10	-551											
		Max Moment with axial compression	16659	D + L + H <sup>1</sup> + E <sup>1</sup>	-146	-698											

**Table 3H.3-3: Results of Radwaste Building Concrete Wall Design (Continued)**

Location	Face	Direction	Reinforcement Layout Drawing Number: (1)	Thickness (ft)	Reinforcement Zone Number: (2)	Maximum Forces (3)	Element	Longitudinal Reinforcement Design Loads				Longitudinal Reinforcement Provided (in <sup>2</sup> / ft)	Transverse Shear Design Loads		Transverse Shear (7) Reinforcement Provided (in <sup>2</sup> /ft <sup>2</sup> )	Remarks	
								Axial and Flexure Loads			In-Plane Shear Loads		Load Combination	Transverse Shear (6) Reinforcement Design Loads (kips / ft)			
								Load Combination	Axial (4) (kips / ft)	Flexure (4) (ft-kips / ft)	In-plane (5) Shear (kips / ft)						
East Wall	Near Side	Horizontal	SH-3-18	3	11-H-L	Max Tension w/ corresponding moment	2715	1.4D + 1.7L + 1.7H' + 1.7Eo	61	-62	1.4D + 1.7L + 1.7H' + 1.7Eo	179	9.36	-	-	-	
						Max Compression w/ corresponding moment	8895	D + L + H' + E'	-339	-695							
						Max Moment with axial tension	2715	1.4D + 1.7L + 1.7H' + 1.7Eo	3	-372							
						Max Moment with axial compression	8135	D + L + H' + E'	-271	-1223							
					12-H-L	Max Tension w/ corresponding moment	2705	1.4D + 1.7L + 1.7H' + 1.7Eo	-43	-39	1.4D + 1.7L + 1.7H' + 1.7Eo	179	6.24	-	-	-	
						Max Compression w/ corresponding moment	4486	D + L + H' + E'	-185	-122							
						Max Moment with axial tension	2686	1.4D + 1.7L + 1.7H' + 1.7W	1	-128							
						Max Moment with axial compression	4468	D + L + H' + E'	-146	-465							
		Vertical	3	1-V-L	Max Tension w/ corresponding moment	32281	1.4D + 1.7L + 1.7H' + 1.7Eo	276	-109	1.4D + 1.7L + 1.7H' + 1.7Eo	85	3.12	-	-	-		
					Max Compression w/ corresponding moment	26393	1.4D + 1.7L + 1.7H' + 1.7Eo	-363	-30								
					Max Moment with axial tension	26306	D + L + H' + E'	8	-207								
					Max Moment with axial compression	26306	1.4D + 1.7L + 1.7H' + 1.7Eo	-230	-275								
			4	2-V-L	Max Tension w/ corresponding moment	11572	1.4D + 1.7L + 1.7H' + 1.7Eo	161	-35	1.4D + 1.7L + 1.7H' + 1.7Eo	141	3.12	-	-	-		
					Max Compression w/ corresponding moment	11576	1.4D + 1.7L + 1.7H' + 1.7Eo	-555	-81								
					Max Moment with axial tension	23342	D + L + H' + E'	2	-206								
					Max Moment with axial compression	23342	1.4D + 1.7L + 1.7H' + 1.7Eo	-281	-235								
			5	3-V-L	Max Tension w/ corresponding moment	2715	1.4D + 1.7L + 1.7H' + 1.7Eo	382	-63	1.4D + 1.7L + 1.7H' + 1.7Eo	267	9.36	-	-	-		
					Max Compression w/ corresponding moment	2715	1.4D + 1.7L + 1.7H' + 1.7Eo	-767	-272								
					Max Moment with axial tension	2547	D + L + H' + E'	3	-1086								
					Max Moment with axial compression	2531	D + L + H' + E'	-197	-1099								
	6	4-V-L	Max Tension w/ corresponding moment	26375	1.4D + 1.7L + 1.7H' + 1.7Eo	38	-59	1.4D + 1.7L + 1.7H' + 1.7Eo	85	4.68	-	-	-				
			Max Compression w/ corresponding moment	26310	1.4D + 1.7L + 1.7H' + 1.7Eo	-229	-265										
			Max Moment with axial tension	33710	D + L + H' + E'	5	-270										
			Max Moment with axial compression	33710	1.4D + 1.7L + 1.7H' + 1.7Eo	-114	-349										
	7	5-V-L	Max Tension w/ corresponding moment	11653	1.4D + 1.7L + 1.7H' + 1.7Eo	105	-43	1.4D + 1.7L + 1.7H' + 1.7Eo	187	4.68	-	-	-				
			Max Compression w/ corresponding moment	-11651	1.4D + 1.7L + 1.7H' + 1.7Eo	-533	-112										
			Max Moment with axial tension	14356	D + L + H' + E'	31	-363										
			Max Moment with axial compression	23373	1.4D + 1.7L + 1.7H' + 1.7Eo	-236	-398										
	8	6-V-L	Max Tension w/ corresponding moment	32279	1.4D + 1.7L + 1.7H' + 1.7Eo	273	-97	1.4D + 1.7L + 1.7H' + 1.7Eo	78	4.68	-	-	-				
			Max Compression w/ corresponding moment	32279	1.4D + 1.7L + 1.7H' + 1.7Eo	-274	-76										
			Max Moment with axial tension	32279	1.4D + 1.7L + 1.7H' + 1.7Eo	48	-103										
			Max Moment with axial compression	32279	1.4D + 1.7L + 1.7H' + 1.7Eo	-24	-103										
	Far side	Horizontal	SH-3-20	3	1-H-L	Max Tension w/ corresponding moment	29324	1.4D + 1.7L + 1.7H' + 1.7Eo	202	48	1.4D + 1.7L + 1.7H' + 1.7Eo	119	1.56	-	-	-	
						Max Compression w/ corresponding moment	29324	1.4D + 1.7L + 1.7H' + 1.7Eo	-154	36							
						Max Moment with axial tension	28551	1.4D + 1.7L + 1.7H' + 1.7Eo	2	137							
						Max Moment with axial compression	28551	1.4D + 1.7L + 1.7H' + 1.7Eo	-19	-137							

**Table 3H.3-3: Results of Radwaste Building Concrete Wall Design (Continued)**

Location	Face	Direction	Reinforcement Layout Drawing Number (1)	Thickness (ft)	Reinforcement Zone Number (2)	Maximum Force(s) (3)	Element	Longitudinal Reinforcement Design Loads				Longitudinal Reinforcement Provided (in <sup>2</sup> /ft)	Transverse Shear Design Loads		Transverse Shear (7) Reinforcement Provided (in <sup>2</sup> /ft <sup>2</sup> )	Remarks				
								Axial and Flexure Loads			In-Plane Shear Loads		Load Combination	Transverse Shear (6) Reinforcement Design Loads (kips / ft)						
								Load Combination	Axial (4) (kips / ft)	Flexure (4) (ft-kips / ft)	In-plane Shear (kips / ft)									
East Wall	Far side	Horizontal	3H-3-20	4	2-H-L	Max Tension w/ corresponding moment	23408	1.4D + 1.7L + 1.7H' + 1.7Eo	57	78	1.4D + 1.7L + 1.7H' + 1.7Eo	160	3.12	-	-					
						Max Compression w/ corresponding moment	14665	D + L + H' + E'	-152	29										
						Max Moment with axial tension	23408	1.4D + 1.7L + 1.7H' + 1.7Eo	41	96										
						Max Moment with axial compression	15402	D + L + H' + E'	-84	295										
					3-H-L	Max Tension w/ corresponding moment	14597	1.4D + 1.7L + 1.7H' + 1.7Wo	16	30	1.4D + 1.7L + 1.7H' + 1.7Eo	160	6.24	-	-					
						Max Compression w/ corresponding moment	14601	D + L + H' + E'	-104	61										
						Max Moment with axial tension	14601	1.4D + 1.7L + 1.7H' + 1.7Eo	4	71										
						Max Moment with axial compression	14605	D + L + H' + E'	-85	375										
					4-H-L	Max Tension w/ corresponding moment	14334	1.4D + 1.7L + 1.7H' + 1.7Wo	16	27	1.4D + 1.7L + 1.7H' + 1.7Eo	176	4.68	-	-					
						Max Compression w/ corresponding moment	11576	D + L + H' + E'	-176	183										
						Max Moment with axial tension	14338	1.4D + 1.7L + 1.7H' + 1.7Eo	3	60										
						Max Moment with axial compression	13561	D + L + H' + E'	-101	313										
				5	5-H-L	Max Tension w/ corresponding moment	2719	1.4D + 1.7L + 1.7H' + 1.7Eo	61	18	1.4D + 1.7L + 1.7H' + 1.7Eo	179	4.68	-	-					
						Max Compression w/ corresponding moment	8537	D + L + H' + E'	-230	131										
						Max Moment with axial tension	3149	1.4D + 1.7L + 1.7H' + 1.7Eo	1	71										
						Max Moment with axial compression	8591	D + L + H' + E'	-160	414										
					6-H-L	Max Tension w/ corresponding moment	31192	1.4D + 1.7L + 1.7H' + 1.7Eo	295	81	1.4D + 1.7L + 1.7H' + 1.7Eo	61	3.12	-	-					
						Max Compression w/ corresponding moment	31192	1.4D + 1.7L + 1.7H' + 1.7Eo	-240	82										
						Max Moment with axial tension	29351	1.4D + 1.7L + 1.7H' + 1.7Eo	232	125										
						Max Moment with axial compression	29351	1.4D + 1.7L + 1.7H' + 1.7Eo	-132	125										
	7-H-L	Max Tension w/ corresponding moment	32281	1.4D + 1.7L + 1.7H' + 1.7Eo	115	198	1.4D + 1.7L + 1.7H' + 1.7Eo	75	3.12	-	-									
		Max Compression w/ corresponding moment	32281	1.4D + 1.7L + 1.7H' + 1.7Eo	-134	-221														
		Max Moment with axial tension	34107	1.4D + 1.7L + 1.7H' + 1.7Eo	9	278														
		Max Moment with axial compression	34107	1.4D + 1.7L + 1.7H' + 1.7Eo	-22	278														
	9	1-V-L	Max Tension w/ corresponding moment	29589	1.4D + 1.7L + 1.7H' + 1.7Eo	139	43	1.4D + 1.7L + 1.7H' + 1.7Eo	76	3.12	-	-								
			Max Compression w/ corresponding moment	26586	1.4D + 1.7L + 1.7H' + 1.7Eo	-272	33													
			Max Moment with axial tension	26605	D + L + H' + E'	1	143													
			Max Moment with axial compression	26612	1.4D + 1.7L + 1.7H' + 1.7Eo	-154	215													
			2-V-L	Max Tension w/ corresponding moment	15473	1.4D + 1.7L + 1.7H' + 1.7Eo	-101							8	1.4D + 1.7L + 1.7H' + 1.7Eo	187	3.12	-	-	
				Max Compression w/ corresponding moment	15394	1.4D + 1.7L + 1.7H' + 1.7Eo	-394							79						
				Max Moment with axial tension	15402	1.4D + 1.7L + 1.7H' + 1.7Eo	20							168						
				Max Moment with axial compression	15402	D + L + H' + E'	-295							199						
		3-V-L		Max Tension w/ corresponding moment	11653	1.4D + 1.7L + 1.7H' + 1.7Eo	185	17	1.4D + 1.7L + 1.7H' + 1.7Eo	187	4.68	-	-							
				Max Compression w/ corresponding moment	11576	1.4D + 1.7L + 1.7H' + 1.7Eo	-474	45												
				Max Moment with axial tension	11614	D + L + H' + E'	26	453												
				Max Moment with axial compression	11614	D + L + H' + E'	-194	453												

**Table 3H.3-3: Results of Radwaste Building Concrete Wall Design (Continued)**

Location	Face	Direction	Reinforcement Layout Drawing Number (1)	Thickness (ft)	Reinforcement Zone Number (2)	Maximum Forces (3)	Element	Longitudinal Reinforcement Design Loads					Longitudinal Reinforcement Provided (in <sup>2</sup> /ft)	Transverse Shear Design Loads		Transverse Shear (7) Reinforcement Provided (in <sup>2</sup> /ft <sup>2</sup> )	Remarks		
								Axial and Flexure Loads			In-Plane Shear Loads			Load Combination	In-plane Shear (kips / ft)			Load Combination	Transverse Shear (6) Reinforcement Design Loads (kips / ft)
								Load Combination	Axial (4) (kips / ft)	Flexure (4) (ft-kips / ft)									
East Wall	Far Side	Vertical	3H-3-21	5	4-V-L	Max Tension w/ corresponding moment	2715	1.4D + 1.7L + 1.7H' + 1.7Eo	382	59	1.4D + 1.7L + 1.7H' + 1.7Eo	244	7.80	-	-	-			
						Max Compression w/ corresponding moment	2348	1.4D + 1.7L + 1.7H' + 1.7Eo	-748	81									
						Max Moment with axial tension	6938	D + L + H' + E'	20	749									
						Max Moment with axial compression	6938	D + L + H' + E'	-268	761									
				3	5-V-L	Max Tension w/ corresponding moment	30930	1.4D + 1.7L + 1.7H' + 1.7Eo	172	184	1.4D + 1.7L + 1.7H' + 1.7Eo	85	3.12	-	-	-			
						Max Compression w/ corresponding moment	29615	1.4D + 1.7L + 1.7H' + 1.7Eo	-302	56									
						Max Moment with axial tension	30920	1.4D + 1.7L + 1.7H' + 1.7Eo	42	265									
						Max Moment with axial compression	30920	1.4D + 1.7L + 1.7H' + 1.7Eo	-224	265									
				6-V-L	Max Tension w/ corresponding moment	26381	D + L + H' + E'	172	81	1.4D + 1.7L + 1.7H' + 1.7Eo	67	1.56	-	-	-				
					Max Compression w/ corresponding moment	26391	1.4D + 1.7L + 1.7H' + 1.7Eo	-281	6										
					Max Moment with axial tension	29617	1.4D + 1.7L + 1.7H' + 1.7Eo	22	180										
					Max Moment with axial compression	26643	1.4D + 1.7L + 1.7H' + 1.7Eo	-155	211										
				7-V-L	Max Tension w/ corresponding moment	26393	1.4D + 1.7L + 1.7H' + 1.7Eo	51	15	1.4D + 1.7L + 1.7H' + 1.7Eo	78	3.12	-	-	-				
					Max Compression w/ corresponding moment	26393	1.4D + 1.7L + 1.7H' + 1.7Eo	-363	8										
					Max Moment with axial tension	34107	D + L + H' + E'	3	126										
					Max Moment with axial compression	34107	1.4D + 1.7L + 1.7H' + 1.7Eo	-89	140										
	8-V-L	Max Tension w/ corresponding moment	26396	1.4D + 1.7L + 1.7H' + 1.7Eo	90	14	1.4D + 1.7L + 1.7H' + 1.7Eo	48	1.56	-	-	-							
		Max Compression w/ corresponding moment	26396	1.4D + 1.7L + 1.7H' + 1.7Eo	-361	8													
		Max Moment with axial tension	34110	1.4D + 1.7L + 1.7H' + 1.7Eo	2	110													
		Max Moment with axial compression	34110	1.4D + 1.7L + 1.7H' + 1.7Eo	-73	110													
	9-V-L	Max Tension w/ corresponding moment	32281	1.4D + 1.7L + 1.7H' + 1.7Eo	276	100	1.4D + 1.7L + 1.7H' + 1.7Eo	78	4.68	-	-	-							
		Max Compression w/ corresponding moment	32281	1.4D + 1.7L + 1.7H' + 1.7Eo	-278	74													
		Max Moment with axial tension	32279	1.4D + 1.7L + 1.7H' + 1.7Eo	48	120													
		Max Moment with axial compression	32279	1.4D + 1.7L + 1.7H' + 1.7Eo	-24	120													
			Horizontal Plane	3H-3-22	5	1-H-T	-	-	-	-	-	-	-	D + L + H' + E'	100	0.2 (#4@12)	-		
					5	2-H-T	-	-	-	-	-	-	-	D + L + H' + E'	191	0.62 (#5@6)	-		
					4	3-H-T	-	-	-	-	-	-	-	D + L + H' + E'	82	0.2 (#4@12)	-		
					4	4-H-T	-	-	-	-	-	-	-	D + L + H' + E'	109	0.4 (#4@6)	-		
Vertical Plane			3H-3-22	5	1-V-T	-	-	-	-	-	-	-	-	D + L + H' + E'	118	0.2 (#4@12)	-		
				5	2-V-T	-	-	-	-	-	-	-	D + L + H' + E'	127	0.31 (#5@12)	-			
				4	3-V-T	-	-	-	-	-	-	-	D + L + H' + E'	65	0.2 (#4@12)	-			
West Wall	Near Side	Horizontal	3H-3-23	3	1-H-L	Max Tension w/ corresponding moment	32204	1.4D + 1.7L + 1.7H' + 1.7Eo	113	-184	1.4D + 1.7L + 1.7H' + 1.7Eo	107	3.12	-	-	-			
						Max Compression w/ corresponding moment	32243	1.4D + 1.7L + 1.7H' + 1.7Eo	-95	-174									
						Max Moment with axial tension	31152	1.4D + 1.7L + 1.7H' + 1.7Eo	24	-208									
						Max Moment with axial compression	31152	1.4D + 1.7L + 1.7H' + 1.7Eo	-41	-208									

### Table 3H.3-3: Results of Radwaste Building Concrete Wall Design (Continued)

Location	Face	Direction	Reinforcement Layout Drawing Number (1)	Thickness (ft)	Reinforcement Zone Number (2)	Maximum Forces (3)	Element	Longitudinal Reinforcement Design Loads				Longitudinal Reinforcement Provided (in <sup>2</sup> / ft)	Transverse Shear Design Loads		Transverse Shear (7) Reinforcement Provided (in <sup>2</sup> /ft <sup>2</sup> )	Remarks		
								Axial and Flexure Loads			In-Plane Shear Loads		Load Combination	Transverse Shear (6) Reinforcement Design Loads (kips / ft)				
								Load Combination	Axial (4) (kips / ft)	Flexure (4) (ft-kips / ft)	Load Combination						In-plane (5) Shear (kips / ft)	
West Wall	Near Side	Horizontal	3H.3.23	4	2-H-L	Max Tension w/ corresponding moment	23343	1.4D + 1.7L + 1.7H' + 1.7Eo	163	-38	1.4D + 1.7L + 1.7H' + 1.7Eo	143	4.68	-	-	-		
						Max Compression w/ corresponding moment	11573	D + L + H' + E'	-391	-428								
						Max Moment with axial tension	11571	D + L + H' + E'	1	-265								
						Max Moment with axial compression	13167	D + L + H' + E'	-116	-557								
				5	3-H-L	Max Tension w/ corresponding moment	8532	D + L + H' + E'	194	-845	1.4D + 1.7L + 1.7H' + 1.7Eo	164	6.24	-	-	-	-	
						Max Compression w/ corresponding moment	8534	D + L + H' + E'	-335	-788								
						Max Moment with axial tension	8532	D + L + H' + E'	145	-878								
						Max Moment with axial compression	8663	D + L + H' + E'	-72	-895								
		Vertical	3H.3.24	3	1-V-L	Max Tension w/ corresponding moment	32243	1.4D + 1.7L + 1.7H' + 1.7Eo	8	-308	1.4D + 1.7L + 1.7H' + 1.7Eo	90	4.68	-	-	-	-	
						Max Compression w/ corresponding moment	32243	1.4D + 1.7L + 1.7H' + 1.7Eo	-50	-389								
						Max Moment with axial tension	32243	D + L + H' + E'	1	-310								
						Max Moment with axial compression	32243	1.4D + 1.7L + 1.7H' + 1.7Eo	-50	-390								
					2-V-L	Max Tension w/ corresponding moment	26402	1.4D + 1.7L + 1.7H' + 1.7Eo	134	-39	1.4D + 1.7L + 1.7H' + 1.7Eo	90	3.12	-	-	-	-	
						Max Compression w/ corresponding moment	26402	1.4D + 1.7L + 1.7H' + 1.7Eo	-356	-39								
						Max Moment with axial tension	32258	D + L + H' + E'	1	-247								
						Max Moment with axial compression	32258	1.4D + 1.7L + 1.7H' + 1.7Eo	-44	-305								
				4	3-V-L	Max Tension w/ corresponding moment	11571	1.4D + 1.7L + 1.7H' + 1.7Eo	249	-97	1.4D + 1.7L + 1.7H' + 1.7Eo	212	4.68	-	-	-	-	
						Max Compression w/ corresponding moment	11573	1.4D + 1.7L + 1.7H' + 1.7Eo	-733	-316								
						Max Moment with axial tension	23385	D + L + H' + E'	4	-375								
						Max Moment with axial compression	23385	D + L + H' + E'	-127	-411								
					4-V-L	Max Tension w/ corresponding moment	22694	D + L + H' + E'	73	-18	1.4D + 1.7L + 1.7H' + 1.7Eo	212	6.24	-	-	-	-	
						Max Compression w/ corresponding moment	12396	1.4D + 1.7L + 1.7H' + 1.7Eo	-303	-52								
						Max Moment with axial tension	23359	D + L + H' + E'	24	-362								
						Max Moment with axial compression	23359	1.4D + 1.7L + 1.7H' + 1.7Eo	-77	-385								
		5	5-V-L	Max Tension w/ corresponding moment	3508	1.4D + 1.7L + 1.7H' + 1.7Eo	271	-46	1.4D + 1.7L + 1.7H' + 1.7Eo	204	6.24	-	-	-	-			
				Max Compression w/ corresponding moment	3144	1.4D + 1.7L + 1.7H' + 1.7Eo	-669	-118										
				Max Moment with axial tension	3400	D + L + H' + E'	16	-392										
				Max Moment with axial compression	3400	D + L + H' + E'	-175	-405										
6-V-L	Max Tension w/ corresponding moment		2711	1.4D + 1.7L + 1.7H' + 1.7Eo	351	-86	1.4D + 1.7L + 1.7H' + 1.7Eo	204	9.36	-	-	-	-					
	Max Compression w/ corresponding moment		2347	1.4D + 1.7L + 1.7H' + 1.7Eo	-755	-249												
	Max Moment with axial tension		2582	D + L + H' + E'	0	-762												
	Max Moment with axial compression		2582	D + L + H' + E'	-182	-778												

**Table 3H.3-3: Results of Radwaste Building Concrete Wall Design (Continued)**

Location	Face	Direction	Reinforcement Layout Drawing Number <sup>(1)</sup>	Thickness <sup>(7)</sup>	Reinforcement Zone Number <sup>(2)</sup>	Maximum Forces <sup>(3)</sup>	Element	Longitudinal Reinforcement Design Loads				Longitudinal Reinforcement Provided <sup>(8)</sup> (in <sup>2</sup> /ft)	Transverse Shear Design Loads		Transverse Shear <sup>(7)</sup> Reinforcement Provided (in <sup>2</sup> /ft <sup>2</sup> )	Remarks	
								Axial and Flexure Loads			In-Plane Shear Loads		Load Combination	Transverse Shear <sup>(6)</sup> Reinforcement Design Loads (kips / ft)			
								Load Combination	Axial <sup>(4)</sup> (kips / ft)	Flexure <sup>(4)</sup> (ft-kips / ft)	Load Combination						In-plane <sup>(5)</sup> Shear (kips / ft)
West Wall	Far side	Horizontal	3H-3-25	3	1-H-L	Max Tension w/ corresponding moment	32204	1.4D + 1.7L + 1.7H' + 1.7Eo	113'	129	1.4D + 1.7L + 1.7H' + 1.7Eo	71	3.12	-	-	-	
						Max Compression w/ corresponding moment	32243	1.4D + 1.7L + 1.7H' + 1.7Eo	-95	96							
						Max Moment with axial tension	32204	1.4D + 1.7L + 1.7H' + 1.7Eo	96	134							
						Max Moment with axial compression	32204	1.4D + 1.7L + 1.7H' + 1.7Eo	-57	134							
					2-H-L	Max Tension w/ corresponding moment	31978	1.4D + 1.7L + 1.7H' + 1.7Eo	53	66	1.4D + 1.7L + 1.7H' + 1.7Eo	73	1.56	-	-	-	
						Max Compression w/ corresponding moment	31978	1.4D + 1.7L + 1.7H' + 1.7Eo	-81	75							
						Max Moment with axial tension	31152	1.4D + 1.7L + 1.7H' + 1.7Eo	28	169							
						Max Moment with axial compression	31152	1.4D + 1.7L + 1.7H' + 1.7Eo	-37	169							
					3-H-L	Max Tension w/ corresponding moment	26287	1.4D + 1.7L + 1.7H' + 1.7Eo	91	72	1.4D + 1.7L + 1.7H' + 1.7Eo	107	3.12	-	-	-	
						Max Compression w/ corresponding moment	26287	1.4D + 1.7L + 1.7H' + 1.7Eo	-81	60							
						Max Moment with axial tension	29574	1.4D + 1.7L + 1.7H' + 1.7Eo	17	136							
				Max Moment with axial compression		29574	1.4D + 1.7L + 1.7H' + 1.7Eo	-19	136								
				4	4-H-L	Max Tension w/ corresponding moment	23361	1.4D + 1.7L + 1.7H' + 1.7Eo	34	23	1.4D + 1.7L + 1.7H' + 1.7Eo	143	3.12	-	-	-	
						Max Compression w/ corresponding moment	11650	D + L + H' + E'	-225	170							
						Max Moment with axial tension	11625	1.4D + 1.7L + 1.7H + 1.7W	2	142							
						Max Moment with axial compression	11625	D + L + H' + E'	-70	303							
					5-H-L	Max Tension w/ corresponding moment	23343	1.4D + 1.7L + 1.7H' + 1.7Eo	163	181	1.4D + 1.7L + 1.7H' + 1.7Eo	143	6.24	-	-	-	
						Max Compression w/ corresponding moment	23343	1.4D + 1.7L + 1.7H' + 1.7Eo	-107	149							
						Max Moment with axial tension	23343	1.4D + 1.7L + 1.7H' + 1.7Eo	103	242							
						Max Moment with axial compression	23343	1.4D + 1.7L + 1.7H' + 1.7Eo	-71	242							
					6-H-L	Max Tension w/ corresponding moment	11571	1.4D + 1.7L + 1.7H' + 1.7Eo	27	9	1.4D + 1.7L + 1.7H' + 1.7Eo	132	4.68	-	-	-	
						Max Compression w/ corresponding moment	11650	D + L + H' + E'	-225	170							
						Max Moment with axial tension	11625	1.4D + 1.7L + 1.7H + 1.7W	2	142							
						Max Moment with axial compression	11625	D + L + H' + E'	-70	303							
				5	7-H-L	Max Tension w/ corresponding moment	2711	1.4D + 1.7L + 1.7H' + 1.7Eo	53	14	1.4D + 1.7L + 1.7H' + 1.7Eo	164	4.68	-	-	-	
						Max Compression w/ corresponding moment	8891	D + L + H' + E'	-238	157							
						Max Moment with axial tension	8730	1.4D + 1.7L + 1.7H' + 1.7Eo	5	104							
Max Moment with axial compression	8604	D + L + H' + E'	-174			500											

**Table 3H.3-3: Results of Radwaste Building Concrete Wall Design (Continued)**

Location	Face	Direction	Reinforcement Layout Drawing Number <sup>(1)</sup>	Thickness (ft)	Reinforcement Zone Number <sup>(2)</sup>	Maximum Forces <sup>(3)</sup>	Element	Longitudinal Reinforcement Design Loads				Longitudinal Reinforcement Provided (in <sup>2</sup> /ft)	Transverse Shear Design Loads		Transverse Shear <sup>(7)</sup> Reinforcement Provided (in <sup>2</sup> /ft <sup>2</sup> )	Remarks	
								Axial and Flexure Loads			In-Plane Shear Loads		Load Combination	Transverse Shear <sup>(6)</sup> Reinforcement Design Loads (kips / ft)			
								Load Combination	Axial <sup>(4)</sup> (kips / ft)	Flexure <sup>(4)</sup> (ft-kips / ft)	In-plane <sup>(5)</sup> Shear (kips / ft)						
West Wall	Flat side	Vertical	3H-3-26	3	1-V-L	Max Tension w/ corresponding moment	26929	1.4D + 1.7L + 1.7H' + 1.7Eo	110	30	1.4D + 1.7L + 1.7H' + 1.7Eo	73	1.56	-	-	-	
						Max Compression w/ corresponding moment	26929	1.4D + 1.7L + 1.7H' + 1.7Eo	-275	35							
						Max Moment with axial tension	26918	1.4D + 1.7L + 1.7H' + 1.7Eo	1	128							
						Max Moment with axial compression	26918	1.4D + 1.7L + 1.7H' + 1.7Eo	-118	128							
					2-V-L	Max Tension w/ corresponding moment	26848	1.4D + 1.7L + 1.7H' + 1.7Eo	98	24	1.4D + 1.7L + 1.7H' + 1.7Eo	90	3.12	-	-	-	
						Max Compression w/ corresponding moment	26856	1.4D + 1.7L + 1.7H' + 1.7Eo	-224	13							
						Max Moment with axial tension	26890	1.4D + 1.7L + 1.7H' + 1.7Eo	2	192							
						Max Moment with axial compression	26890	1.4D + 1.7L + 1.7H' + 1.7Eo	-54	219							
					3-V-L	Max Tension w/ corresponding moment	26402	1.4D + 1.7L + 1.7H' + 1.7Eo	134	18	1.4D + 1.7L + 1.7H' + 1.7Eo	90	4.68	-	-	-	
						Max Compression w/ corresponding moment	26402	1.4D + 1.7L + 1.7H' + 1.7Eo	-356	16							
						Max Moment with axial tension	26344	1.4D + 1.7L + 1.7H' + 1.7Eo	5	299							
						Max Moment with axial compression	26344	1.4D + 1.7L + 1.7H' + 1.7Eo	-57	309							
				4	4-V-L	Max Tension w/ corresponding moment	11571	1.4D + 1.7L + 1.7H' + 1.7Eo	249	137	1.4D + 1.7L + 1.7H' + 1.7Eo	212	4.68	-	-	-	
						Max Compression w/ corresponding moment	11573	1.4D + 1.7L + 1.7H' + 1.7Eo	-680	90							
						Max Moment with axial tension	11625	D + L + H' + E'	3	301							
						Max Moment with axial compression	11599	D + L + H' + E'	-246	392							
					5-V-L	Max Tension w/ corresponding moment	11585	1.4D + 1.7L + 1.7H' + 1.7Eo	81	62	1.4D + 1.7L + 1.7H' + 1.7Eo	161	6.24	-	-	-	
						Max Compression w/ corresponding moment	11585	1.4D + 1.7L + 1.7H' + 1.7Eo	-322	81							
						Max Moment with axial tension	11592	D + L + H' + E'	22	272							
						Max Moment with axial compression	11592	D + L + H' + E'	-214	280							



Table 3H.3-3: Results of Radwaste Building Concrete Wall Design (Continued)

Location	Face	Direction	Reinforcement Layout Drawing Number <sup>(1)</sup>	Thickness (ft)	Reinforcement Zone Number <sup>(2)</sup>	Maximum Forces <sup>(3)</sup>	Element	Longitudinal Reinforcement Design Loads				Longitudinal Reinforcement Provided (in <sup>2</sup> /ft)	Transverse Shear Design Loads		Transverse Shear <sup>(7)</sup> Reinforcement Provided (in <sup>2</sup> /ft <sup>2</sup> )	Remarks	
								Axial and Flexure Loads			In-Plane Shear Loads		Load Combination	Transverse Shear <sup>(6)</sup> Reinforcement Design Loads (kips / ft)			
								Load Combination	Axial <sup>(4)</sup> (kips / ft)	Flexure <sup>(4)</sup> (ft-kips / ft)	In-plane <sup>(5)</sup> Shear (kips / ft)						
West Wall	Far side	Vertical	3H.3-26	5	6-V-L	Max Tension w/ corresponding moment	2711	1.4D + 1.7L + 1.7H' + 1.7Eo	351	75	1.4D + 1.7L + 1.7H' + 1.7Eo	146	7.80	-	-	-	
						Max Compression w/ corresponding moment	2711	1.4D + 1.7L + 1.7H' + 1.7Eo	-672	59							
						Max Moment with axial tension	5489	D + L + H' + E'	16	235							
						Max Moment with axial compression	5489	D + L + H' + E'	-369	236							
					7-V-L	Max Tension w/ corresponding moment	4482	1.4D + 1.7L + 1.7H' + 1.7Eo	151	30	1.4D + 1.7L + 1.7H' + 1.7Eo	204	4.68	-	-	-	
						Max Compression w/ corresponding moment	3497	1.4D + 1.7L + 1.7H' + 1.7Eo	-507	190							
						Max Moment with axial tension	6284	D + L + H' + E'	1	341							
						Max Moment with axial compression	6247	D + L + H' + E'	-186	369							
					8-V-L	Max Tension w/ corresponding moment	3205	1.4D + 1.7L + 1.7H' + 1.7Eo	94	27	1.4D + 1.7L + 1.7H' + 1.7Eo	153	6.24	-	-	-	
						Max Compression w/ corresponding moment	3205	1.4D + 1.7L + 1.7H' + 1.7Eo	-376	179							
						Max Moment with axial tension	5196	D + L + H' + E'	8	340							
						Max Moment with axial compression	-5196	D + L + H' + E'	-200	340							
					9-V-L	Max Tension w/ corresponding moment	2350	1.4D + 1.7L + 1.7H' + 1.7Eo	231	64	1.4D + 1.7L + 1.7H' + 1.7Eo	177	4.68	-	-	-	
						Max Compression w/ corresponding moment	2350	1.4D + 1.7L + 1.7H' + 1.7Eo	-620	26							
						Max Moment with axial tension	5185	D + L + H' + E'	15	270							
						Max Moment with axial compression	5185	D + L + H' + E'	-226	270							
					10-V-L	Max Tension w/ corresponding moment	2347	1.4D + 1.7L + 1.7H' + 1.7Eo	341	74	1.4D + 1.7L + 1.7H' + 1.7Eo	137	7.80	-	-	-	
						Max Compression w/ corresponding moment	2347	1.4D + 1.7L + 1.7H' + 1.7Eo	-725	53							
						Max Moment with axial tension	8534	1.4D + 1.7L + 1.7H' + 1.7Eo	4	218							
						Max Moment with axial compression	8534	1.4D + 1.7L + 1.7H' + 1.7Eo	-251	218							
		Vertical Plane	3H.3-27	5	1-H-T	-	-	-	-	-	-	-	D + L + H' + E'	139	0.4 (#4@6)	-	
				5	1-V-T	-	-	-	-	-	-	D + L + H' + E'	110	0.2 (#4@12)	-		
				4	2-V-T	-	-	-	-	-	-	-	D + L + H' + E'	69	0.2 (#4@12)	-	

- Notes:**
- (1) The reinforcement layout drawings show the various zones used to define the minimum reinforcement that will be provided based on finite element analysis results. Actual provided reinforcement based on final rebar layout and including development length may exceed the reported provided reinforcement and the zones with higher reinforcement may be extended beyond their reported boundaries. The dimensions in the reinforcement drawings are based on the dimensions of the 2D SAP2000 shell elements, which are modeled at the centerline of the walls and slabs. Therefore, the reinforcement drawing dimensions do not match actual building dimensions.
- (2) Each reinforcement layout drawing is divided into reinforcement zones. The reinforcement zone naming convention is as follows: "H" = horizontal, "V" = vertical, "L" = longitudinal reinforcement, "T" = transverse reinforcement. For slabs, vertical corresponds to North-South direction and horizontal corresponds to East-West Direction.
- (3) The maximum tension and compression axial forces are provided with the corresponding moment from the same load combination. The maximum moment that has a corresponding tension in the same load combination and the maximum moment that has a corresponding compression in the same load combination are also provided. For zones where either axial tension or axial compression does not occur for any load combination, dashes are input into the corresponding cell.
- (4) Negative axial load is compression and positive axial load is tension. Negative moment applies tension to the top face of the shell element and positive moment applies tension to the bottom face of the shell element. For walls or slabs where the same reinforcement is provided on both faces, the moment is shown as absolute value. The axial and flexural loads reported in the table are the average of the 2 node pairs that form the 4 edges of the critical rectangular shell element. If the 2 node pairs on the shell element edges parallel to the reinforcement direction do not satisfy P&M interaction criteria, then only the 2 node pairs on the shell element edges perpendicular to the reinforcement direction are used for design (effective width considered).
- (5) The reported in-plane shear is the maximum average in-plane shear along a plane that crosses the longitudinal reinforcement zone.
- (6) The reported transverse shear is the maximum average transverse shear along a plane in that transverse reinforcement zone.
- (7) In areas where horizontal and vertical transverse shear zones overlap, the total transverse shear reinforcement to be supplied in the overlapping area is the sum of the transverse reinforcement required from the horizontal and vertical zones.
- (8) For certain areas of the structure, the standard element post-processing methods were too conservative. For such cases, detailed manual design was performed and the design forces determined by the detailed manual design are provided in the table.
- (9) The longitudinal reinforcement shown is required to be tied.
- (10) The reported forces are from the FEM analysis. The provided longitudinal reinforcement includes additional reinforcement required due to manual one-way design calculations.
- (11) The reported axial and in-plane forces are from the FEM analysis. The reported flexural forces are from manual one-way design calculations.
- (12) The reported transverse shear reinforcement is the required ties for transverse shear in beam band region.

**Table 3H.3-4: Results of Radwaste Building Concrete Slab Design**

Location	Face	Direction	Reinforcement Layout Drawing Number <sup>(1)</sup>	Thickness (ft)	Reinforcement Zone Number <sup>(2)</sup>	Maximum Force <sup>(3)</sup>	Element	Longitudinal Reinforcement Design Loads				Longitudinal Reinforcement Provided (in <sup>2</sup> / ft)	Transverse Shear Design Loads		Transverse Shear <sup>(7)</sup> Reinforcement Provided (in <sup>2</sup> /ft <sup>2</sup> )	Remarks	
								Axial and Flexure Loads			In-Plane Shear Loads		Load Combination	Transverse Shear <sup>(6)</sup> Reinforcement Design Loads (kips / ft)			
								Load Combination	Axial <sup>(4)</sup> (kips / ft)	Flexure <sup>(4)</sup> (ft-kips / ft)	In-plane <sup>(6)</sup> Shear (kips / ft)						
Basemat	Near Side	Horizontal	SH-3-28	12	1-H-L	Max Tension w/ corresponding moment	26159	1.4D + 1.7L + 1.7H' + 1.7Eo	191	-706	1.4D + 1.7L + 1.7H' + 1.7Eo	96	7.80	-	-	-	
						Max Compression w/ corresponding moment	26186	1.4D + 1.7L + 1.7H' + 1.7Eo	-237	-248							
						Max Moment with axial tension	26185	1.4D + 1.7L + 1.7H' + 1.7Eo	115	-1986							
						Max Moment with axial compression	26185	1.4D + 1.7L + 1.7H' + 1.7Eo	-35	-1986							
					2-H-L	Max Tension w/ corresponding moment	29870	D + L + H' + E'	69	-578	1.4D + 1.7L + 1.7H' + 1.7Eo	96	6.24	-	-	-	
						Max Compression w/ corresponding moment	813	1.4D + 1.7L + 1.7H' + 1.7Eo	-88	-8							
						Max Moment with axial tension	32403	1.4D + 1.7L + 1.7H' + 1.7Eo	12	-862							
						Max Moment with axial compression	32403	1.4D + 1.7L + 1.7H' + 1.7Eo	-14	-862							
					3-H-L	Max Tension w/ corresponding moment	737	1.4D + 1.7L + 1.7H' + 1.7Eo	81	-615	1.4D + 1.7L + 1.7H' + 1.7Eo	96	3.12	-	-	-	
						Max Compression w/ corresponding moment	1073	1.4D + 1.7L + 1.7H' + 1.7Eo	-164	-117							
						Max Moment with axial tension	277	1.4D + 1.7L + 1.7H' + 1.7Eo	1	-1609							
						Max Moment with axial compression	371	1.4D + 1.7L + 1.7H' + 1.7Eo	-45	-1624							
					4-H-L	Max Tension w/ corresponding moment	27348	1.4D + 1.7L + 1.7H' + 1.7Eo	214	-1676	1.4D + 1.7L + 1.7H' + 1.7Eo	96	6.24	-	-	-	
						Max Compression w/ corresponding moment	27347	1.4D + 1.7L + 1.7H' + 1.7Eo	-354	-1086							
						Max Moment with axial tension	27789	1.4D + 1.7L + 1.7H' + 1.7Eo	70	-2095							
						Max Moment with axial compression	27789	1.4D + 1.7L + 1.7H' + 1.7Eo	-107	-2095							

**Table 3H.3-4: Results of Radwaste Building Concrete Slab Design (Continued)**

Location	Face	Direction	Reinforcement Layout Drawing Number <sup>(1)</sup>	Thickness (ft)	Reinforcement Zone Number <sup>(2)</sup>	Maximum Forces <sup>(3)</sup>	Element	Longitudinal Reinforcement Design Loads					Longitudinal Reinforcement Provided (in <sup>2</sup> /ft)	Transverse Shear Design Loads		Transverse Shear <sup>(7)</sup> Reinforcement Provided (in <sup>2</sup> /ft <sup>2</sup> )	Remarks
								Axial and Flexure Loads			In-Plane Shear Loads			Load Combination	Transverse Shear <sup>(6)</sup> Reinforcement Design Loads (kips / ft)		
								Load Combination	Axial <sup>(4)</sup> (kips / ft)	Flexure <sup>(4)</sup> (ft-kips / ft)							
Basemat	Near Side	Vertical	3H.3.29	12	1-VL	Max Tension w/ corresponding moment	27828	1.4D + 1.7L + 1.7H' + 1.7Eo	250	-1882	1.4D + 1.7L + 1.7H' + 1.7Eo	87	9.36	-	-	-	
						Max Compression w/ corresponding moment	27828	1.4D + 1.7L + 1.7H' + 1.7Eo	-368	-781							
						Max Moment with axial tension	27828	1.4D + 1.7L + 1.7H' + 1.7Eo	173	-2239							
						Max Moment with axial compression	27828	1.4D + 1.7L + 1.7H' + 1.7Eo	-87	-2239							
					2-VL	Max Tension w/ corresponding moment	30927	D + L + H' + E'	119	-1023	D + L + H' + E'	50	4.68	-	-	-	
						Max Compression w/ corresponding moment	32362	D + L + H' + E'	-132	-437							
						Max Moment with axial tension	29870	1.4D + 1.7L + 1.7H' + 1.7Eo	93	-1815							
						Max Moment with axial compression	29870	1.4D + 1.7L + 1.7H' + 1.7Eo	-42	-1815							
					3-VL	Max Tension w/ corresponding moment	777	1.4D + 1.7L + 1.7H' + 1.7Eo	130	-1209	1.4D + 1.7L + 1.7H' + 1.7Eo	49	3.12	-	-	-	
						Max Compression w/ corresponding moment	777	D + L + H' + E'	-286	-562							
						Max Moment with axial tension	831	1.4D + 1.7L + 1.7H' + 1.7Eo	14	-1470							
						Max Moment with axial compression	831	1.4D + 1.7L + 1.7H' + 1.7Eo	-42	-1470							
					4-VL	Max Tension w/ corresponding moment	28049	D + L + H' + E'	143	-135	D + L + H' + E'	50	4.68	-	-	-	
						Max Compression w/ corresponding moment	28579	D + L + H' + E'	-152	-590							
						Max Moment with axial tension	27906	1.4D + 1.7L + 1.7H' + 1.7Eo	97	-1758							
						Max Moment with axial compression	27906	1.4D + 1.7L + 1.7H' + 1.7Eo	-41	-1758							
					5-VL	Max Tension w/ corresponding moment	880	1.4D + 1.7L + 1.7H' + 1.7Eo	125	-1310	D + L + H' + E'	50	4.68	-	-	-	
						Max Compression w/ corresponding moment	879	D + L + H' + E'	-317	-275							
						Max Moment with axial tension	880	1.4D + 1.7L + 1.7H' + 1.7Eo	93	-1575							
						Max Moment with axial compression	880	1.4D + 1.7L + 1.7H' + 1.7Eo	-114	-1575							
					6-VL	Max Tension w/ corresponding moment	1260	1.4D + 1.7L + 1.7H' + 1.7Eo	107	-340	1.4D + 1.7L + 1.7H' + 1.7Eo	36	3.12	-	-	-	
						Max Compression w/ corresponding moment	881	D + L + H' + E'	-171	-411							
						Max Moment with axial tension	881	1.4D + 1.7L + 1.7H' + 1.7Eo	54	-1349							
						Max Moment with axial compression	881	1.4D + 1.7L + 1.7H' + 1.7Eo	-78	-1349							
					7-VL	Max Tension w/ corresponding moment	29849	1.4D + 1.7L + 1.7H' + 1.7Eo	226	-651	1.4D + 1.7L + 1.7H' + 1.7Eo	91	9.36	-	-	-	
						Max Compression w/ corresponding moment	27790	1.4D + 1.7L + 1.7H' + 1.7Eo	-336	-517							
						Max Moment with axial tension	32371	1.4D + 1.7L + 1.7H' + 1.7Eo	143	-2095							
						Max Moment with axial compression	32371	1.4D + 1.7L + 1.7H' + 1.7Eo	-73	-2095							
					8-VL	Max Tension w/ corresponding moment	778	1.4D + 1.7L + 1.7H' + 1.7Eo	132	-1164	1.4D + 1.7L + 1.7H' + 1.7Eo	40	4.68	-	-	-	
						Max Compression w/ corresponding moment	778	D + L + H' + E'	-283	-523							
						Max Moment with axial tension	778	1.4D + 1.7L + 1.7H' + 1.7Eo	87	-1455							
						Max Moment with axial compression	778	1.4D + 1.7L + 1.7H' + 1.7Eo	-116	-1455							

**Table 3H.3-4: Results of Radwaste Building Concrete Slab Design (Continued)**

Location	Face	Direction	Reinforcement Layout Drawing Number (1)	Thickness (ft)	Reinforcement Zone Number (2)	Maximum Forces (3)	Element	Longitudinal Reinforcement Design Loads				Longitudinal Reinforcement Provided (in <sup>2</sup> /ft)	Transverse Shear Design Loads		Transverse Shear (7) Reinforcement Provided (in <sup>2</sup> /ft <sup>2</sup> )	Remarks	
								Axial and Flexure Loads			In-Plane Shear Loads		Load Combination	Transverse Shear (6) Reinforcement Design Loads (kips / ft)			
								Load Combination	Axial (4) (kips / ft)	Flexure (4) (ft-kips / ft)	Load Combination						In-plane Shear (5) (kips / ft)
Basemat	Farside	Horizontal	9H-330	12	1-H-L	Max Tension w/ corresponding moment	26159	1.4D + 1.7L + 1.7H' + 1.7Eo	200	214	1.4D + 1.7L + 1.7H' + 1.7Eo	96	9.36	-	-	-	
						Max Compression w/ corresponding moment	26186	1.4D + 1.7L + 1.7H' + 1.7Eo	-307	1876							
						Max Moment with axial tension	26185	1.4D + 1.7L + 1.7H' + 1.7Eo	27	4473							
						Max Moment with axial compression	26185	1.4D + 1.7L + 1.7H' + 1.7Eo	-181	4482							
					2-H-L	Max Tension w/ corresponding moment	896	1.4D + 1.7L + 1.7H' + 1.7Eo	160	620	1.4D + 1.7L + 1.7H' + 1.7Eo	96	4.68	-	-	-	
						Max Compression w/ corresponding moment	755	D + L + H' + E'	-127	833							
						Max Moment with axial tension	1177	1.4D + 1.7L + 1.7H' + 1.7Eo	7	2204							
						Max Moment with axial compression	1177	D + L + H' + E'	-4	1983							
					3-H-L	Max Tension w/ corresponding moment	662	1.4D + 1.7L + 1.7H' + 1.7Eo	111	520	1.4D + 1.7L + 1.7H' + 1.7Eo	96	3.12	-	-	-	
						Max Compression w/ corresponding moment	813	D + L + H' + E'	-101	215							
						Max Moment with axial tension	54	1.4D + 1.7L + 1.7H' + 1.7Eo	8	1521							
						Max Moment with axial compression	54	1.4D + 1.7L + 1.7H' + 1.7Eo	-1	1381							
					4-H-L	Max Tension w/ corresponding moment	39	1.4D + 1.7L + 1.7H' + 1.7Eo	154	671	1.4D + 1.7L + 1.7H' + 1.7Eo	96	6.24	-	-	-	
						Max Compression w/ corresponding moment	1073	D + L + H' + E'	-220	728							
						Max Moment with axial tension	416	1.4D + 1.7L + 1.7H' + 1.7Eo	1	3223							
						Max Moment with axial compression	557	1.4D + 1.7L + 1.7H' + 1.7Eo	-89	3403							
					5-H-L	Max Tension w/ corresponding moment	27346	1.4D + 1.7L + 1.7H' + 1.7Eo	214	1379	1.4D + 1.7L + 1.7H' + 1.7Eo	96	9.36	-	-	-	
						Max Compression w/ corresponding moment	27347	1.4D + 1.7L + 1.7H' + 1.7Eo	-515	1306							
						Max Moment with axial tension	29849	1.4D + 1.7L + 1.7H' + 1.7Eo	55	3850							
						Max Moment with axial compression	27347	1.4D + 1.7L + 1.7H' + 1.7Eo	-299	4528							
					6-H-L	Max Tension w/ corresponding moment	604	1.4D + 1.7L + 1.7H' + 1.7Eo	60	32	1.4D + 1.7L + 1.7H' + 1.7Eo	31	7.80	-	-	-	
						Max Compression w/ corresponding moment	604	1.4D + 1.7L + 1.7H' + 1.7Eo	-162	1278							
						Max Moment with axial tension	604	D + L + H' + E'	17	2558							
						Max Moment with axial compression	604	1.4D + 1.7L + 1.7H' + 1.7Eo	-122	3483							

**Table 3H.3-4: Results of Radwaste Building Concrete Slab Design (Continued)**

Location	Face	Direction	Reinforcement Layout Drawing Number (1)	Thickness (ft)	Reinforcement Zone Number (2)	Maximum Force (3)	Element	Longitudinal Reinforcement Design Loads				Longitudinal Reinforcement Provided (in <sup>2</sup> /ft)	Transverse Shear Design Loads		Transverse Shear (7) Reinforcement Provided (in <sup>2</sup> /ft <sup>2</sup> )	Remarks	
								Axial and Flexure Loads			In-Plane Shear Loads		Load Combination	Transverse Shear (6) Reinforcement Design Loads (kips / ft)			
								Load Combination	Axial (4) (kips / ft)	Flexure (4) (ft-kips / ft)	In-plane (5) Shear (kips / ft)						
Basemat	Fw side	Vertical	3H-3-31	12	1-V-L	Max Tension w/ corresponding moment	26186	1.4D + 1.7L + 1.7H' + 1.7Eo	241	1674	1.4D + 1.7L + 1.7H' + 1.7Eo	87	9.36	-	-	-	
						Max Compression w/ corresponding moment	26186	1.4D + 1.7L + 1.7H' + 1.7Eo	-395	982							
						Max Moment with axial tension	26186	1.4D + 1.7L + 1.7H' + 1.7Eo	35	4571							
						Max Moment with axial compression	26186	1.4D + 1.7L + 1.7H' + 1.7Eo	-237	4588							
					2-V-L	Max Tension w/ corresponding moment	26178	1.4D + 1.7L + 1.7H' + 1.7Eo	74	552	1.4D + 1.7L + 1.7H' + 1.7Eo	87	4.68	-	-	-	
						Max Compression w/ corresponding moment	26172	D + L + H' + E'	-46	380							
						Max Moment with axial tension	26179	1.4D + 1.7L + 1.7H' + 1.7Eo	19	1479							
						Max Moment with axial compression	10307	1.4D + 1.7L + 1.7H' + 1.7Eo	0	1049							
					3-V-L	Max Tension w/ corresponding moment	26158	1.4D + 1.7L + 1.7H' + 1.7Eo	247	1915	1.4D + 1.7L + 1.7H' + 1.7Eo	87	9.36	-	-	-	
						Max Compression w/ corresponding moment	26158	1.4D + 1.7L + 1.7H' + 1.7Eo	-493	1058							
						Max Moment with axial tension	26159	1.4D + 1.7L + 1.7H' + 1.7Eo	24	3813							
						Max Moment with axial compression	26158	1.4D + 1.7L + 1.7H' + 1.7Eo	-288	4739							
					4-V-L	Max Tension w/ corresponding moment	27828	1.4D + 1.7L + 1.7H' + 1.7Eo	250	1765	1.4D + 1.7L + 1.7H' + 1.7Eo	58	10.92	-	-	-	
						Max Compression w/ corresponding moment	27828	1.4D + 1.7L + 1.7H' + 1.7Eo	-487	1170							
						Max Moment with axial tension	27828	1.4D + 1.7L + 1.7H' + 1.7Eo	8	5061							
						Max Moment with axial compression	27828	1.4D + 1.7L + 1.7H' + 1.7Eo	-312	5113							
					5-V-L	Max Tension w/ corresponding moment	32367	D + L + H' + E'	191	32	1.4D + 1.7L + 1.7H' + 1.7Eo	72	7.80	-	-	-	
						Max Compression w/ corresponding moment	32364	1.4D + 1.7L + 1.7H' + 1.7Eo	-325	502							
						Max Moment with axial tension	1269	1.4D + 1.7L + 1.7H' + 1.7Eo	7	3769							
						Max Moment with axial compression	1267	1.4D + 1.7L + 1.7H' + 1.7Eo	-132	3979							
					6-V-L	Max Tension w/ corresponding moment	885	1.4D + 1.7L + 1.7H' + 1.7Eo	136	324	1.4D + 1.7L + 1.7H' + 1.7Eo	72	6.24	-	-	-	
						Max Compression w/ corresponding moment	879	1.4D + 1.7L + 1.7H' + 1.7Eo	-353	440							
						Max Moment with axial tension	880	1.4D + 1.7L + 1.7H' + 1.7Eo	48	2308							
						Max Moment with axial compression	880	1.4D + 1.7L + 1.7H' + 1.7Eo	-267	2863							
					7-V-L	Max Tension w/ corresponding moment	29586	1.4D + 1.7L + 1.7H' + 1.7Eo	153	702	1.4D + 1.7L + 1.7H' + 1.7Eo	72	9.36	-	-	-	
						Max Compression w/ corresponding moment	73	1.4D + 1.7L + 1.7H' + 1.7Eo	-366	2483							
						Max Moment with axial tension	27906	1.4D + 1.7L + 1.7H' + 1.7Eo	18	3974							
						Max Moment with axial compression	7	1.4D + 1.7L + 1.7H' + 1.7Eo	-208	4158							
					8-V-L	Max Tension w/ corresponding moment	29849	1.4D + 1.7L + 1.7H' + 1.7Eo	226	2324	1.4D + 1.7L + 1.7H' + 1.7Eo	91	10.92	-	-	-	
						Max Compression w/ corresponding moment	27790	1.4D + 1.7L + 1.7H' + 1.7Eo	-373	639							
						Max Moment with axial tension	27347	1.4D + 1.7L + 1.7H' + 1.7Eo	80	4705							
						Max Moment with axial compression	27347	1.4D + 1.7L + 1.7H' + 1.7Eo	-109	4705							
					9-V-L	Max Tension w/ corresponding moment	26234	1.4D + 1.7L + 1.7H' + 1.7Eo	99	1385	1.4D + 1.7L + 1.7H' + 1.7Eo	34	6.24	-	-	-	
						Max Compression w/ corresponding moment	26808	1.4D + 1.7L + 1.7H' + 1.7Eo	-30	284							
						Max Moment with axial tension	26807	1.4D + 1.7L + 1.7H' + 1.7Eo	29	2300							
						Max Moment with axial compression	26808	1.4D + 1.7L + 1.7H' + 1.7Eo	-4	2221							
					10-V-L	Max Tension w/ corresponding moment	26233	1.4D + 1.7L + 1.7H' + 1.7Eo	90	1333	1.4D + 1.7L + 1.7H' + 1.7Eo	34	4.68	-	-	-	
						Max Compression w/ corresponding moment	26196	1.4D + 1.7L + 1.7H' + 1.7Eo	-54	373							
						Max Moment with axial tension	26775	1.4D + 1.7L + 1.7H' + 1.7Eo	39	1890							
						Max Moment with axial compression	26775	1.4D + 1.7L + 1.7H' + 1.7Eo	-6	1269							

Table 3H.3-4: Results of Radwaste Building Concrete Slab Design (Continued)

Location	Face	Direction	Reinforcement Layout Drawing Number <sup>(1)</sup>	Thickness (ft)	Reinforcement Zone Number <sup>(2)</sup>	Maximum Forces <sup>(3)</sup>	Element	Longitudinal Reinforcement Design Loads				Longitudinal Reinforcement Provided (in <sup>2</sup> /ft)	Transverse Shear Design Loads		Transverse Shear <sup>(7)</sup> Reinforcement Provided (in <sup>2</sup> /ft <sup>2</sup> )	Remarks	
								Axial and Flexure Loads			In-Plane Shear Loads		Load Combination	Transverse Shear <sup>(6)</sup> Reinforcement Design Loads (kips / ft)			
								Load Combination	Axial <sup>(4)</sup> (kips / ft)	Flexure <sup>(4)</sup> (ft-kips / ft)	In-plane <sup>(5)</sup> Shear (kips / ft)						
Basemat	Far side	Vertical	3H.3-31	12	1-V-L	Max Tension w/ corresponding moment	26191	1.4D + 1.7L + 1.7H <sup>+</sup> + 1.7Eo	109	957	1.4D + 1.7L + 1.7H <sup>+</sup> + 1.7Eo	34	6.24	-	-	-	
						Max Compression w/ corresponding moment	26191	1.4D + 1.7L + 1.7H <sup>+</sup> + 1.7Eo	-34	465							
						Max Moment with axial tension	26274	1.4D + 1.7L + 1.7H <sup>+</sup> + 1.7Eo	31	2620							
						Max Moment with axial compression	32712	1.4D + 1.7L + 1.7H <sup>+</sup> + 1.7Eo	-3	2071							
		Horizontal Plane	3H.3-32	12	1-H-T	-	-	-	-	-	-	-	-	1.4D + 1.7L + 1.7H <sup>+</sup> + 1.7Eo	315	0.31 (#5@12)	-
		Vertical Plane	3H.3-32	12	1-V-T	-	-	-	-	-	-	-	-	1.4D + 1.7L + 1.7H <sup>+</sup> + 1.7Eo	305	0.31 (#5@12)	-

**Table 3H.3-4: Results of Radwaste Building Concrete Slab Design (Continued)**

Location	Face	Direction	Reinforcement Layout Drawing Number <sup>(1)</sup>	Thickness (ft)	Reinforcement Zone Number <sup>(2)</sup>	Maximum Forces <sup>(3)</sup>	Element	Longitudinal Reinforcement Design Loads				Longitudinal Reinforcement Provided (in <sup>2</sup> / ft)	Transverse Shear Design Loads		Transverse Shear <sup>(7)</sup> Reinforcement Provided (in <sup>2</sup> /ft <sup>2</sup> )	Remarks	
								Axial and Flexure Loads			In-Plane Shear Loads		Load Combination	Transverse Shear <sup>(6)</sup> Reinforcement Design Loads (kips / ft)			
								Load Combination	Axial <sup>(4)</sup> (kips / ft)	Flexure <sup>(4)</sup> (ft-kips / ft)	Load Combination						In-plane <sup>(5)</sup> Shear (kips / ft)
EL. 35'-0"	Near Side	Horizontal	3H 3-33	4	1-H-L	Max Tension w/ corresponding moment	35290	1.4D + 1.7L + 1.7H' + 1.7Eo	184	-217	1.4D + 1.7L + 1.7H' + 1.7Eo	180	3.12	-	-	-	
						Max Compression w/ corresponding moment	36218	-1.4D + 1.7L + 1.7H' + 1.7Eo	-323	-222							
						Max Moment with axial tension	36606	1.4D + 1.7L + 1.7H' + 1.7Eo	59	-422							
						Max Moment with axial compression	36764	1.4D + 1.7L + 1.7H' + 1.7Eo	-71	-504							
					2-H-L	Max Tension w/ corresponding moment	35350	1.4D + 1.7L + 1.7H' + 1.7Eo	240	-390	1.4D + 1.7L + 1.7H' + 1.7Eo	151	6.24	-	-	-	
						Max Compression w/ corresponding moment	35330	1.4D + 1.7L + 1.7H' + 1.7Eo	-150	-410							
						Max Moment with axial tension	35339	1.4D + 1.7L + 1.7H' + 1.7Eo	80	-784							
						Max Moment with axial compression	35339	1.4D + 1.7L + 1.7H' + 1.7Eo	-83	-784							
					3-H-L	Max Tension w/ corresponding moment	35287	1.4D + 1.7L + 1.7H' + 1.7Eo	320	-370	1.4D + 1.7L + 1.7H' + 1.7Eo	151	6.24	-	-	-	
						Max Compression w/ corresponding moment	35283	1.4D + 1.7L + 1.7H' + 1.7Eo	-399	-604							
						Max Moment with axial tension	35282	1.4D + 1.7L + 1.7H' + 1.7Eo	126	-740							
						Max Moment with axial compression	35282	1.4D + 1.7L + 1.7H' + 1.7Eo	-204	-740							
					4-H-L	Max Tension w/ corresponding moment	34207	1.4D + 1.7L + 1.7H' + 1.7Eo	391	-612	1.4D + 1.7L + 1.7H' + 1.7Eo	180	9.36	-	-	-	
						Max Compression w/ corresponding moment	34207	1.4D + 1.7L + 1.7H' + 1.7Eo	-514	-617							
						Max Moment with axial tension	34208	1.4D + 1.7L + 1.7H' + 1.7Eo	271	-1006							
						Max Moment with axial compression	34208	1.4D + 1.7L + 1.7H' + 1.7Eo	-382	-1006							
					5-H-L	Max Tension w/ corresponding moment	36145	1.4D + 1.7L + 1.7H' + 1.7Eo	239	-498	1.4D + 1.7L + 1.7H' + 1.7Eo	166	6.24	-	-	-	
						Max Compression w/ corresponding moment	36145	1.4D + 1.7L + 1.7H' + 1.7Eo	-358	-540							
						Max Moment with axial tension	36763	1.4D + 1.7L + 1.7H' + 1.7Eo	2	-674							
						Max Moment with axial compression	36763	1.4D + 1.7L + 1.7H' + 1.7Eo	-98	-681							
					6-H-L	Max Tension w/ corresponding moment	35810	1.4D + 1.7L + 1.7H' + 1.7Eo	280	-242	1.4D + 1.7L + 1.7H' + 1.7Eo	281	4.68	-	-	-	
						Max Compression w/ corresponding moment	35810	1.4D + 1.7L + 1.7H' + 1.7Eo	-409	-262							
						Max Moment with axial tension	34217	1.4D + 1.7L + 1.7H' + 1.7Eo	57	-557							
						Max Moment with axial compression	34217	1.4D + 1.7L + 1.7H' + 1.7Eo	-127	-557							
					7-H-L	Max Tension w/ corresponding moment	37817	1.4D + 1.7L + 1.7H' + 1.7Eo	251	-350	1.4D + 1.7L + 1.7H' + 1.7Eo	100	6.24	-	-	-	
						Max Compression w/ corresponding moment	37818	1.4D + 1.7L + 1.7H' + 1.7Eo	-345	-373							
						Max Moment with axial tension	37844	1.4D + 1.7L + 1.7H' + 1.7Eo	59	-814							
						Max Moment with axial compression	37844	1.4D + 1.7L + 1.7H' + 1.7Eo	-273	-814							
					8-H-L	Max Tension w/ corresponding moment	37852	1.4D + 1.7L + 1.7H' + 1.7Eo	455	-689	1.4D + 1.7L + 1.7H' + 1.7Eo	137	7.80	-	-	-	
						Max Compression w/ corresponding moment	37852	1.4D + 1.7L + 1.7H' + 1.7Eo	-639	-670							
						Max Moment with axial tension	38122	1.4D + 1.7L + 1.7H' + 1.7Eo	7	-758							
						Max Moment with axial compression	38122	1.4D + 1.7L + 1.7H' + 1.7Eo	-155	-758							
					9-H-L	Max Tension w/ corresponding moment	37878	1.4D + 1.7L + 1.7H' + 1.7Eo	329	-353	1.4D + 1.7L + 1.7H' + 1.7Eo	114	6.24	-	-	-	
						Max Compression w/ corresponding moment	37878	1.4D + 1.7L + 1.7H' + 1.7Eo	-474	-294							
						Max Moment with axial tension	38142	1.4D + 1.7L + 1.7H' + 1.7Eo	11	-642							
						Max Moment with axial compression	38142	1.4D + 1.7L + 1.7H' + 1.7Eo	-263	-642							

**Table 3H.3-4: Results of Radwaste Building Concrete Slab Design (Continued)**

Location	Face	Direction	Reinforcement Layout Drawing Number (1)	Thickness (ft)	Reinforcement Zone Number (2)	Maximum Forces (3)	Element	Longitudinal Reinforcement Design Loads				Longitudinal Reinforcement Provided (in <sup>2</sup> /ft)	Transverse Shear Design Loads		Transverse Shear (7) Reinforcement Provided (in <sup>2</sup> /ft <sup>2</sup> )	Remarks			
								Axial and Flexure Loads			In-Plane Shear Loads		Load Combination	Transverse Shear (6) Reinforcement Design Loads (kips / ft)					
								Load Combination	Axial (4) (kips / ft)	Flexure (4) (ft-kips / ft)	Load Combination						In-plane (5) Shear (kips / ft)		
El. 35'-0"	Near Side	Horizontal	3H.3-33	3	10-H-L	Max Tension w/ corresponding moment	38193	1.4D + 1.7L + 1.7H' + 1.7Eo	453	-178	1.4D + 1.7L + 1.7H' + 1.7Eo	219	6.24	-	-	-			
						Max Compression w/ corresponding moment	38193	1.4D + 1.7L + 1.7H' + 1.7Eo	-590	-52									
						Max Moment with axial tension	37772	1.4D + 1.7L + 1.7H' + 1.7Eo	91	-876									
						Max Moment with axial compression	37772	1.4D + 1.7L + 1.7H' + 1.7Eo	-137	-876									
				2	11-H-L	Max Tension w/ corresponding moment	34590	1.4D + 1.7L + 1.7H' + 1.7Eo	112	-8	1.4D + 1.7L + 1.7H' + 1.7Eo	27	3.12	-	-	-	-	-	
						Max Compression w/ corresponding moment	34590	1.4D + 1.7L + 1.7H' + 1.7Eo	-129	-8									
						Max Moment with axial tension	34571	1.4D + 1.7L + 1.7H' + 1.7Eo	14	-45									
						Max Moment with axial compression	34571	1.4D + 1.7L + 1.7H' + 1.7Eo	-57	-62									
				12-H-L	Max Tension w/ corresponding moment	34652	1.4D + 1.7L + 1.7H' + 1.7Eo	63	-11	D + L + H' + E'	37	1.56	-	-	-	-	-		
					Max Compression w/ corresponding moment	34672	D + L + H' + E'	-173	-20										
					Max Moment with axial tension	34985	1.4D + 1.7L + 1.7H' + 1.7Eo	2	-32										
					Max Moment with axial compression	34798	D + L + H' + E'	-152	-40										
				13-H-L	Max Tension w/ corresponding moment	34556	1.4D + 1.7L + 1.7H' + 1.7Eo	16	-15	D + L + H' + E'	37	3.12	-	-	-	-	-		
					Max Compression w/ corresponding moment	34546	D + L + H' + E'	-54	-35										
					Max Moment with axial tension	34557	D + L + H' + E'	3	-59										
					Max Moment with axial compression	34557	D + L + H' + E'	-26	-59										
				4	14-H-L	Max Tension w/ corresponding moment	36130	1.4D + 1.7L + 1.7H' + 1.7Eo	427	-134	1.4D + 1.7L + 1.7H' + 1.7Eo	92	6.24	-	-	-	-	-	
						Max Compression w/ corresponding moment	36130	1.4D + 1.7L + 1.7H' + 1.7Eo	-591	-319									
						Max Moment with axial tension	36144	1.4D + 1.7L + 1.7H' + 1.7Eo	122	-585									
						Max Moment with axial compression	36144	1.4D + 1.7L + 1.7H' + 1.7Eo	-193	-585									
					15-H-L	Max Tension w/ corresponding moment	37893	1.4D + 1.7L + 1.7H' + 1.7Eo	496	-336	1.4D + 1.7L + 1.7H' + 1.7Eo	81	6.24	-	-	-	-	-	
						Max Compression w/ corresponding moment	37893	1.4D + 1.7L + 1.7H' + 1.7Eo	-821	-488									
						Max Moment with axial tension	37893	1.4D + 1.7L + 1.7H' + 1.7Eo	61	-623									
						Max Moment with axial compression	37893	1.4D + 1.7L + 1.7H' + 1.7Eo	-357	-623									
					16-H-L	Max Tension w/ corresponding moment	38230	1.4D + 1.7L + 1.7H' + 1.7Eo	627	-593	1.4D + 1.7L + 1.7H' + 1.7Eo	231	9.36	-	-	-	-	-	
						Max Compression w/ corresponding moment	37838	1.4D + 1.7L + 1.7H' + 1.7Eo	-823	-1005									
						Max Moment with axial tension	38230	1.4D + 1.7L + 1.7H' + 1.7Eo	489	-1015									
						Max Moment with axial compression	38230	1.4D + 1.7L + 1.7H' + 1.7Eo	-664	-1015									
2	17-H-L	Max Tension w/ corresponding moment	25335	1.4D + 1.7L + 1.7H' + 1.7Eo	109	-46	1.4D + 1.7L + 1.7H' + 1.7Eo	94	4.68	-	-	-	-	-	(10)				
		Max Compression w/ corresponding moment	25335	1.4D + 1.7L + 1.7H' + 1.7Eo	-259	-76													
		Max Moment with axial tension	39029	1.4D + 1.7L + 1.7H' + 1.7Eo	61	-133													
		Max Moment with axial compression	39029	1.4D + 1.7L + 1.7H' + 1.7Eo	-15	-133													



**Table 3H.3-4: Results of Radwaste Building Concrete Slab Design (Continued)**

Location	Face	Direction	Reinforcement Layout Drawing Number (1)	Thickness (ft)	Reinforcement Zone Number (2)	Maximum Force (3)	Element	Longitudinal Reinforcement Design Loads				Longitudinal Reinforcement Provided (in <sup>2</sup> /ft)	Transverse Shear Design Loads		Transverse Shear (7) Reinforcement Provided (in <sup>2</sup> /ft <sup>2</sup> )	Remarks									
								Axial and Flexure Loads			In-Plane Shear Loads		Load Combination	Transverse Shear (6) Reinforcement Design Loads (kips / ft)											
								Load Combination	Axial (4) (kips / ft)	Flexure (4) (ft-kips / ft)	In-plane (5) Shear (kips / ft)														
El. 35'-0"	Nest Side	Vertical	3H-3-34	4	1-V-L	Max Tension w/ corresponding moment	35815	1.4D + 1.7L + 1.7H' + 1.7Eo	440	-194	1.4D + 1.7L + 1.7H' + 1.7Eo	125	6.24	-	-	-									
						Max Compression w/ corresponding moment	35815	1.4D + 1.7L + 1.7H' + 1.7Eo	-511	-131															
						Max Moment with axial tension	34312	1.4D + 1.7L + 1.7H' + 1.7Eo	44	-650															
						Max Moment with axial compression	34312	1.4D + 1.7L + 1.7H' + 1.7Eo	-160	-650															
						2-V-L	Max Tension w/ corresponding moment	35290	1.4D + 1.7L + 1.7H' + 1.7Eo	146								-379	1.4D + 1.7L + 1.7H' + 1.7Eo	92	9.36	-	-	-	
							Max Compression w/ corresponding moment	37023	D + L + H' + E'	-288								-476							
							Max Moment with axial tension	35290	1.4D + 1.7L + 1.7H' + 1.7Eo	115								-967							
							Max Moment with axial compression	35290	1.4D + 1.7L + 1.7H' + 1.7Eo	-145								-967							
						3-V-L	Max Tension w/ corresponding moment	34191	1.4D + 1.7L + 1.7H' + 1.7Eo	435								-575	1.4D + 1.7L + 1.7H' + 1.7Eo	93	9.36	-	-	-	
							Max Compression w/ corresponding moment	35933	D + L + H' + E'	-862								-336							
							Max Moment with axial tension	34198	1.4D + 1.7L + 1.7H' + 1.7Eo	94								-996							
							Max Moment with axial compression	34198	1.4D + 1.7L + 1.7H' + 1.7Eo	-161								-996							
						4-V-L	Max Tension w/ corresponding moment	36126	1.4D + 1.7L + 1.7H' + 1.7Eo	217								-82	1.4D + 1.7L + 1.7H' + 1.7Eo	96	10.92	-	-	-	
							Max Compression w/ corresponding moment	36126	1.4D + 1.7L + 1.7H' + 1.7Eo	-305								-84							
							Max Moment with axial tension	35289	1.4D + 1.7L + 1.7H' + 1.7Eo	130								-986							
							Max Moment with axial compression	35289	1.4D + 1.7L + 1.7H' + 1.7Eo	-168								-986							
						5-V-L	Max Tension w/ corresponding moment	37141	1.4D + 1.7L + 1.7H' + 1.7Eo	217								-403	1.4D + 1.7L + 1.7H' + 1.7Eo	96	9.36	-	-	-	
							Max Compression w/ corresponding moment	37141	1.4D + 1.7L + 1.7H' + 1.7Eo	-410								-508							
							Max Moment with axial tension	36794	1.4D + 1.7L + 1.7H' + 1.7Eo	104								-826							
							Max Moment with axial compression	36794	1.4D + 1.7L + 1.7H' + 1.7Eo	-198								-826							
						6-V-L	Max Tension w/ corresponding moment	35951	1.4D + 1.7L + 1.7H' + 1.7Eo	221								-131	1.4D + 1.7L + 1.7H' + 1.7Eo	92	10.92	-	-	-	
							Max Compression w/ corresponding moment	34202	1.4D + 1.7L + 1.7H' + 1.7Eo	-260								-635							
							Max Moment with axial tension	34202	D + L + H' + E'	137								-1088							
							Max Moment with axial compression	34202	D + L + H' + E'	-162								-1088							
						7-V-L	Max Tension w/ corresponding moment	35793	1.4D + 1.7L + 1.7H' + 1.7Eo	547								-194	1.4D + 1.7L + 1.7H' + 1.7Eo	89	7.80	-	-	-	
							Max Compression w/ corresponding moment	35807	1.4D + 1.7L + 1.7H' + 1.7Eo	-677								-100							
							Max Moment with axial tension	35983	1.4D + 1.7L + 1.7H' + 1.7Eo	358								-413							
							Max Moment with axial compression	35983	1.4D + 1.7L + 1.7H' + 1.7Eo	-428								-413							
						8-V-L	Max Tension w/ corresponding moment	36148	1.4D + 1.7L + 1.7H' + 1.7Eo	276								-184	1.4D + 1.7L + 1.7H' + 1.7Eo	119	10.92	-	-	-	
							Max Compression w/ corresponding moment	36266	1.4D + 1.7L + 1.7H' + 1.7Eo	-449								-388							
							Max Moment with axial tension	35272	1.4D + 1.7L + 1.7H' + 1.7Eo	99								-1032							
							Max Moment with axial compression	35272	1.4D + 1.7L + 1.7H' + 1.7Eo	-202								-1032							
						9-V-L	Max Tension w/ corresponding moment	37838	1.4D + 1.7L + 1.7H' + 1.7Eo	200								-105	1.4D + 1.7L + 1.7H' + 1.7Eo	125	6.24	-	-	-	
							Max Compression w/ corresponding moment	37838	1.4D + 1.7L + 1.7H' + 1.7Eo	-326								-183							
							Max Moment with axial tension	37845	1.4D + 1.7L + 1.7H' + 1.7Eo	17								-564							
							Max Moment with axial compression	37845	1.4D + 1.7L + 1.7H' + 1.7Eo	-197								-604							
						10-V-L	Max Tension w/ corresponding moment	37849	1.4D + 1.7L + 1.7H' + 1.7Eo	318								-401	1.4D + 1.7L + 1.7H' + 1.7Eo	125	9.36	-	-	-	
							Max Compression w/ corresponding moment	37849	1.4D + 1.7L + 1.7H' + 1.7Eo	-587								-304							
							Max Moment with axial tension	38120	1.4D + 1.7L + 1.7H' + 1.7Eo	124								-939							
							Max Moment with axial compression	38120	1.4D + 1.7L + 1.7H' + 1.7Eo	-208								-939							

**Table 3H.3-4: Results of Radwaste Building Concrete Slab Design (Continued)**

Location	Face	Direction	Reinforcement Layout Drawing Number <sup>(1)</sup>	Thickness (ft)	Reinforcement Zone Number <sup>(2)</sup>	Maximum Forces <sup>(3)</sup>	Element	Longitudinal Reinforcement Design Loads				Longitudinal Reinforcement Provided (in <sup>2</sup> /ft)	Transverse Shear Design Loads		Transverse Shear <sup>(7)</sup> Reinforcement Provided (in <sup>2</sup> /ft <sup>2</sup> )	Remarks	
								Axial and Flexure Loads			In-Plane Shear Loads		Load Combination	Transverse Shear <sup>(6)</sup> Reinforcement Design Loads (kips / ft)			
								Load Combination	Axial <sup>(4)</sup> (kips / ft)	Flexure <sup>(4)</sup> (ft-kips / ft)	Load Combination						In-plane Shear <sup>(5)</sup> (kips / ft)
El. 35'-0"	Near Side	Vertical	3H.3-34	4	11-V-L	Max Tension w/ corresponding moment	38230	1.4D + 1.7L + 1.7H' + 1.7Eo	362	-208	1.4D + 1.7L + 1.7H' + 1.7Eo	209	10.92	-	-	-	
						Max Compression w/ corresponding moment	38119	1.4D + 1.7L + 1.7H' + 1.7Eo	-390	-629							
						Max Moment with axial tension	37809	1.4D + 1.7L + 1.7H' + 1.7Eo	128	-1017							
						Max Moment with axial compression	37809	1.4D + 1.7L + 1.7H' + 1.7Eo	-134	-1017							
					12-V-L	Max Tension w/ corresponding moment	38187	1.4D + 1.7L + 1.7H' + 1.7Eo	493	-152	1.4D + 1.7L + 1.7H' + 1.7Eo	160	14.04	-	-	-	
						Max Compression w/ corresponding moment	38187	1.4D + 1.7L + 1.7H' + 1.7Eo	-573	-167							
						Max Moment with axial tension	37763	1.4D + 1.7L + 1.7H' + 1.7Eo	454	-1970							
						Max Moment with axial compression	37763	1.4D + 1.7L + 1.7H' + 1.7Eo	-524	-1970							
				13-V-L	Max Tension w/ corresponding moment	38289	1.4D + 1.7L + 1.7H' + 1.7Eo	371	-138	1.4D + 1.7L + 1.7H' + 1.7Eo	158	7.80	-	-	-		
					Max Compression w/ corresponding moment	38293	D + L + H' + E'	-484	-65								
					Max Moment with axial tension	38521	1.4D + 1.7L + 1.7H' + 1.7Eo	26	-929								
					Max Moment with axial compression	38521	1.4D + 1.7L + 1.7H' + 1.7Eo	-192	-946								
				4	14-V-L	Max Tension w/ corresponding moment	36144	1.4D + 1.7L + 1.7H' + 1.7Eo	358	-104	1.4D + 1.7L + 1.7H' + 1.7Eo	89	6.24	-	-	-	
						Max Compression w/ corresponding moment	36144	1.4D + 1.7L + 1.7H' + 1.7Eo	-505	-135							
						Max Moment with axial tension	36528	1.4D + 1.7L + 1.7H' + 1.7Eo	16	-516							
						Max Moment with axial compression	36528	1.4D + 1.7L + 1.7H' + 1.7Eo	-78	-516							
					15-V-L	Max Tension w/ corresponding moment	36061/ 36062	1.4D + 1.7L + 1.7H' + 1.7Eo	446	-675	1.4D + 1.7L + 1.7H' + 1.7Eo	96	20.80	-	-	-	(8),(9)
						Max Compression w/ corresponding moment	36061/ 36062	1.4D + 1.7L + 1.7H' + 1.7Eo	-558	-1053							
						Max Moment with axial tension	34207/ 34208	1.4D + 1.7L + 1.7H' + 1.7Eo	319	-2085							
						Max Moment with axial compression	34207/ 34208	1.4D + 1.7L + 1.7H' + 1.7Eo	-483	-2085							
				16-V-L	Max Tension w/ corresponding moment	35810/ 35812	1.4D + 1.7L + 1.7H' + 1.7Eo	570	-573	1.4D + 1.7L + 1.7H' + 1.7Eo	119	21.10	-	-	-	(8),(9)	
					Max Compression w/ corresponding moment	35810/ 35812	1.4D + 1.7L + 1.7H' + 1.7Eo	-708	-497								
					Max Moment with axial tension	34217/ 34218	1.4D + 1.7L + 1.7H' + 1.7Eo	432	-2005								
					Max Moment with axial compression	34217/ 34218	1.4D + 1.7L + 1.7H' + 1.7Eo	-612	-2005								
				2	17-V-L	Max Tension w/ corresponding moment	34573	1.4D + 1.7L + 1.7H' + 1.7Eo	57	-35	D + L + H' + E'	34	3.12	-	-	-	(10)
						Max Compression w/ corresponding moment	34575	D + L + H' + E'	-97	-11							
						Max Moment with axial tension	34573	1.4D + 1.7L + 1.7H' + 1.7Eo	23	-54							
						Max Moment with axial compression	34573	1.4D + 1.7L + 1.7H' + 1.7Eo	-65	-54							
18-V-L	Max Tension w/ corresponding moment	34679	1.4D + 1.7L + 1.7H' + 1.7Eo		61	-15	D + L + H' + E'	28	1.56	-	-	-	(10)				
	Max Compression w/ corresponding moment	34649	D + L + H' + E'		-95	-3											
	Max Moment with axial tension	34858	1.4D + 1.7L + 1.7H' + 1.7Eo		5	-29											
	Max Moment with axial compression	34513	D + L + H' + E'		-17	-32											

**Table 3H.3-4: Results of Radwaste Building Concrete Slab Design (Continued)**

Location	Face	Direction	Reinforcement Layout Drawing Number <sup>(1)</sup>	Thickness (ft)	Reinforcement Zone Number <sup>(2)</sup>	Maximum Force <sup>(3)</sup>	Element	Longitudinal Reinforcement Design Loads				Longitudinal Reinforcement Provided (in <sup>2</sup> /ft)	Transverse Shear Design Loads		Transverse Shear <sup>(7)</sup> Reinforcement Provided (in <sup>2</sup> /ft <sup>2</sup> )	Remarks	
								Axial and Flexure Loads			In-Plane Shear Loads		Load Combination	Transverse Shear <sup>(6)</sup> Reinforcement Design Loads (kips / ft)			
								Load Combination	Axial <sup>(4)</sup> (kips / ft)	Flexure <sup>(4)</sup> (ft-kips / ft)	Load Combination						In-plane <sup>(5)</sup> Shear (kips / ft)
El. 35'-0"	Near Side	Vertical	34-334	4	19-V-L	Max Tension w/ corresponding moment	37824	1.4D + 1.7L + 1.7H' + 1.7Eo	207	-930	1.4D + 1.7L + 1.7H' + 1.7Eo	149	18.72	-	-	-	(9)
						Max Compression w/ corresponding moment	38231	1.4D + 1.7L + 1.7H' + 1.7Eo	-446	-64							
						Max Moment with axial tension	37824	1.4D + 1.7L + 1.7H' + 1.7Eo	143	-1389							
						Max Moment with axial compression	37824	1.4D + 1.7L + 1.7H' + 1.7Eo	-322	-1389							
					20-V-L	Max Tension w/ corresponding moment	35282	1.4D + 1.7L + 1.7H' + 1.7Eo	356	-536	1.4D + 1.7L + 1.7H' + 1.7Eo	96	18.72	-	-	-	(9)
						Max Compression w/ corresponding moment	35282	1.4D + 1.7L + 1.7H' + 1.7Eo	-441	-679							
						Max Moment with axial tension	35282	1.4D + 1.7L + 1.7H' + 1.7Eo	291	-1900							
						Max Moment with axial compression	35282	1.4D + 1.7L + 1.7H' + 1.7Eo	-410	-1900							
					21-V-L	Max Tension w/ corresponding moment	35273	1.4D + 1.7L + 1.7H' + 1.7Eo	433	-868	1.4D + 1.7L + 1.7H' + 1.7Eo	119	18.72	-	-	-	(9)
						Max Compression w/ corresponding moment	35273	1.4D + 1.7L + 1.7H' + 1.7Eo	-545	-940							
						Max Moment with axial tension	35273	1.4D + 1.7L + 1.7H' + 1.7Eo	324	-1735							
						Max Moment with axial compression	35273	1.4D + 1.7L + 1.7H' + 1.7Eo	-475	-1735							
				22-V-L	Max Tension w/ corresponding moment	35265	1.4D + 1.7L + 1.7H' + 1.7Eo	268	-721	1.4D + 1.7L + 1.7H' + 1.7Eo	105	18.72	-	-	-	(9)	
					Max Compression w/ corresponding moment	35265	1.4D + 1.7L + 1.7H' + 1.7Eo	-358	-865								
					Max Moment with axial tension	35265	1.4D + 1.7L + 1.7H' + 1.7Eo	210	-1268								
					Max Moment with axial compression	35265	1.4D + 1.7L + 1.7H' + 1.7Eo	-333	-1268								
				23-V-L	Max Tension w/ corresponding moment	39029	1.4D + 1.7L + 1.7H' + 1.7Eo	36	-8	D + L + H' + E'	34	4.68	-	-	-	(10)	
					Max Compression w/ corresponding moment	25335	D + L + H' + E'	-101	-41								
					Max Moment with axial tension	38998	1.4D + 1.7L + 1.7H' + 1.7Eo	6	-50								
					Max Moment with axial compression	25335	1.4D + 1.7L + 1.7H' + 1.7Eo	-80	-50								

**Table 3H.3-4: Results of Radwaste Building Concrete Slab Design (Continued)**

Location	Face	Direction	Reinforcement Layout Drawing Number <sup>(1)</sup>	Thickness (ft)	Reinforcement Zone Number <sup>(2)</sup>	Maximum Forces <sup>(3)</sup>	Element	Longitudinal Reinforcement Design Loads				Longitudinal Reinforcement Provided (in <sup>2</sup> /ft)	Transverse Shear Design Loads		Transverse Shear <sup>(7)</sup> Reinforcement Provided (in <sup>2</sup> /ft <sup>2</sup> )	Remarks	
								Axial and Flexure Loads			In-Plane Shear Loads		Load Combination	Transverse Shear Reinforcement Design Loads (kips / ft)			
								Load Combination	Axial <sup>(4)</sup> (kips / ft)	Flexure <sup>(4)</sup> (ft-kips / ft)	Load Combination						In-plane <sup>(5)</sup> Shear (kips / ft)
El. 35'-0"	Far side	Horizontal	3H-3-35	4	1-H-L	Max Tension w/ corresponding moment	35350	1.4D + 1.7L + 1.7H' + 1.7Eo	240	165	1.4D + 1.7L + 1.7H' + 1.7Eo	180	3.12	-	-		
						Max Compression w/ corresponding moment	37105	1.4D + 1.7L + 1.7H' + 1.7Eo	-336	162							
						Max Moment with axial tension	35318	1.4D + 1.7L + 1.7H' + 1.7Eo	92	377							
						Max Moment with axial compression	35318	1.4D + 1.7L + 1.7H' + 1.7Eo	-89	377							
					2-H-L	Max Tension w/ corresponding moment	35330	1.4D + 1.7L + 1.7H' + 1.7Eo	202	287	1.4D + 1.7L + 1.7H' + 1.7Eo	101	6.24	-	-		
						Max Compression w/ corresponding moment	35330	1.4D + 1.7L + 1.7H' + 1.7Eo	-150	369							
						Max Moment with axial tension	35339	1.4D + 1.7L + 1.7H' + 1.7Eo	81	521							
						Max Moment with axial compression	35339	1.4D + 1.7L + 1.7H' + 1.7Eo	-82	521							
					3-H-L	Max Tension w/ corresponding moment	35287	1.4D + 1.7L + 1.7H' + 1.7Eo	320	356	1.4D + 1.7L + 1.7H' + 1.7Eo	151	6.24	-	-		
						Max Compression w/ corresponding moment	35283	1.4D + 1.7L + 1.7H' + 1.7Eo	-399	545							
						Max Moment with axial tension	35282	1.4D + 1.7L + 1.7H' + 1.7Eo	130	750							
						Max Moment with axial compression	35282	1.4D + 1.7L + 1.7H' + 1.7Eo	-200	750							
					4-H-L	Max Tension w/ corresponding moment	34207	1.4D + 1.7L + 1.7H' + 1.7Eo	391	608	1.4D + 1.7L + 1.7H' + 1.7Eo	180	9.36	-	-		
						Max Compression w/ corresponding moment	34207	1.4D + 1.7L + 1.7H' + 1.7Eo	-514	593							
						Max Moment with axial tension	34208	1.4D + 1.7L + 1.7H' + 1.7Eo	225	1006							
						Max Moment with axial compression	34208	1.4D + 1.7L + 1.7H' + 1.7Eo	-428	1006							
					5-H-L	Max Tension w/ corresponding moment	37817	1.4D + 1.7L + 1.7H' + 1.7Eo	251	334	1.4D + 1.7L + 1.7H' + 1.7Eo	100	6.24	-	-		
						Max Compression w/ corresponding moment	37818	1.4D + 1.7L + 1.7H' + 1.7Eo	-345	224							
						Max Moment with axial tension	38402	1.4D + 1.7L + 1.7H' + 1.7Eo	31	619							
						Max Moment with axial compression	38402	1.4D + 1.7L + 1.7H' + 1.7Eo	-162	619							
					6-H-L	Max Tension w/ corresponding moment	37852	1.4D + 1.7L + 1.7H' + 1.7Eo	455	655	1.4D + 1.7L + 1.7H' + 1.7Eo	137	7.80	-	-		
						Max Compression w/ corresponding moment	37852	1.4D + 1.7L + 1.7H' + 1.7Eo	-639	666							
						Max Moment with axial tension	37853	1.4D + 1.7L + 1.7H' + 1.7Eo	288	716							
						Max Moment with axial compression	37853	1.4D + 1.7L + 1.7H' + 1.7Eo	-613	716							
					7-H-L	Max Tension w/ corresponding moment	37878	1.4D + 1.7L + 1.7H' + 1.7Eo	329	316	1.4D + 1.7L + 1.7H' + 1.7Eo	114	6.24	-	-		
						Max Compression w/ corresponding moment	37878	1.4D + 1.7L + 1.7H' + 1.7Eo	-474	359							
						Max Moment with axial tension	37854	1.4D + 1.7L + 1.7H' + 1.7Eo	142	475							
						Max Moment with axial compression	37854	1.4D + 1.7L + 1.7H' + 1.7Eo	-266	475							
8-H-L	Max Tension w/ corresponding moment	38193	1.4D + 1.7L + 1.7H' + 1.7Eo	453	240	1.4D + 1.7L + 1.7H' + 1.7Eo	219	6.24	-	-							
	Max Compression w/ corresponding moment	38193	1.4D + 1.7L + 1.7H' + 1.7Eo	-590	330												
	Max Moment with axial tension	37772	1.4D + 1.7L + 1.7H' + 1.7Eo	108	806												
	Max Moment with axial compression	37772	1.4D + 1.7L + 1.7H' + 1.7Eo	-120	806												

**Table 3H.3-4: Results of Radwaste Building Concrete Slab Design (Continued)**

Location	Face	Direction	Reinforcement Layout Drawing Number (1)	Thickness (ft)	Reinforcement Zone Number (2)	Maximum Forces (3)	Element	Longitudinal Reinforcement Design Loads				Longitudinal Reinforcement Provided (in <sup>2</sup> /ft)	Transverse Shear Design Loads		Transverse Shear (7) Reinforcement Provided (in <sup>2</sup> /ft <sup>2</sup> )	Remarks	
								Axial and Flexure Loads			In-Plane Shear Loads		Load Combination	Transverse Shear (6) Reinforcement Design Loads (kips / ft)			
								Load Combination	Axial (4) (kips / ft)	Flexure (4) (ft-kips / ft)	Load Combination						In-plane (5) Shear (kips / ft)
El. 35'-0"	Fib side	Horizontal	3H-3-35	2	9-H-L	Max Tension w/ corresponding moment	34590	1.4D + 1.7L + 1.7H' + 1.7Eo	112	12	1.4D + 1.7L + 1.7H' + 1.7Eo	94	3.12	-	-	-	(10)
						Max Compression w/ corresponding moment	25335	D + L + H' + E'	-247	7							
						Max Moment with axial tension	39021	1.4D + 1.7L + 1.7H' + 1.7Eo	23	60							
						Max Moment with axial compression	34576	1.4D + 1.7L + 1.7H' + 1.7Eo	-131	70							
					10-H-L	Max Tension w/ corresponding moment	34652	1.4D + 1.7L + 1.7H' + 1.7Eo	63	7	D + L + H' + E'	37	1.56	-	-	-	
						Max Compression w/ corresponding moment	34652	D + L + H' + E'	-124	10							
						Max Moment with axial tension	34557	1.4D + 1.7L + 1.7H' + 1.7Eo	14	34							
						Max Moment with axial compression	34557	1.4D + 1.7L + 1.7H' + 1.7Eo	-17	34							
					11-H-L	Max Tension w/ corresponding moment	36145	1.4D + 1.7L + 1.7H' + 1.7Eo	239	495	1.4D + 1.7L + 1.7H' + 1.7Eo	166	6.24	-	-	-	
						Max Compression w/ corresponding moment	36145	1.4D + 1.7L + 1.7H' + 1.7Eo	-358	419							
						Max Moment with axial tension	35273	1.4D + 1.7L + 1.7H' + 1.7Eo	121	553							
						Max Moment with axial compression	35273	1.4D + 1.7L + 1.7H' + 1.7Eo	-177	553							
				12-H-L	Max Tension w/ corresponding moment	35810	1.4D + 1.7L + 1.7H' + 1.7Eo	280	258	1.4D + 1.7L + 1.7H' + 1.7Eo	281	4.68	-	-	-		
					Max Compression w/ corresponding moment	35810	1.4D + 1.7L + 1.7H' + 1.7Eo	-409	208								
					Max Moment with axial tension	34217	1.4D + 1.7L + 1.7H' + 1.7Eo	98	532								
					Max Moment with axial compression	34217	1.4D + 1.7L + 1.7H' + 1.7Eo	-86	532								
				13-H-L	Max Tension w/ corresponding moment	36130	1.4D + 1.7L + 1.7H' + 1.7Eo	427	66	1.4D + 1.7L + 1.7H' + 1.7Eo	92	4.68	-	-	-		
					Max Compression w/ corresponding moment	36144	D + L + H' + E'	-562	68								
					Max Moment with axial tension	36138	1.4D + 1.7L + 1.7H' + 1.7Eo	95	399								
					Max Moment with axial compression	36138	1.4D + 1.7L + 1.7H' + 1.7Eo	-123	399								
				14-H-L	Max Tension w/ corresponding moment	37893	1.4D + 1.7L + 1.7H' + 1.7Eo	496	301	1.4D + 1.7L + 1.7H' + 1.7Eo	81	6.24	-	-	-		
					Max Compression w/ corresponding moment	37893	1.4D + 1.7L + 1.7H' + 1.7Eo	-821	134								
					Max Moment with axial tension	37893	1.4D + 1.7L + 1.7H' + 1.7Eo	173	399								
					Max Moment with axial compression	37893	1.4D + 1.7L + 1.7H' + 1.7Eo	-245	399								
				15-H-L	Max Tension w/ corresponding moment	38230	1.4D + 1.7L + 1.7H' + 1.7Eo	627	512	1.4D + 1.7L + 1.7H' + 1.7Eo	231	6.24	-	-	-		
					Max Compression w/ corresponding moment	37838	D + L + H' + E'	-772	157								
					Max Moment with axial tension	38224	1.4D + 1.7L + 1.7H' + 1.7Eo	58	696								
					Max Moment with axial compression	38224	1.4D + 1.7L + 1.7H' + 1.7Eo	-123	696								

**Table 3H.3-4: Results of Radwaste Building Concrete Slab Design (Continued)**

Location	Face	Direction	Reinforcement Layout Drawing Number (1)	Thickness (ft)	Reinforcement Zone Number (2)	Maximum Forces (3)	Element	Longitudinal Reinforcement Design Loads				Longitudinal Reinforcement Provided (in <sup>2</sup> /ft)	Transverse Shear Design Loads		Transverse Shear (7) Reinforcement Provided (in <sup>2</sup> /ft <sup>2</sup> )	Remarks		
								Axial and Flexure Loads			In-Plane Shear Loads		Load Combination	Transverse Shear (6) Reinforcement Design Loads (kips / ft)				
								Load Combination	Axial (4) (kips / ft)	Flexure (4) (ft-kips / ft)	Load Combination						In-plane (5) Shear (kips / ft)	
El. 35'-0"	Far side	Vertical	3H.3-36	4	1-VL	Max Tension w/ corresponding moment	35815	1.4D + 1.7L + 1.7H' + 1.7Eo	440	185	1.4D + 1.7L + 1.7H' + 1.7Eo	125	6.24	-	-	-		
						Max Compression w/ corresponding moment	37849	1.4D + 1.7L + 1.7H' + 1.7Eo	-587	424								
						Max Moment with axial tension	35293	1.4D + 1.7L + 1.7H' + 1.7Eo	87	592								
						Max Moment with axial compression	35293	1.4D + 1.7L + 1.7H' + 1.7Eo	-109	592								
					2-VL	Max Tension w/ corresponding moment	36501	1.4D + 1.7L + 1.7H' + 1.7Eo	138	99	1.4D + 1.7L + 1.7H' + 1.7Eo	116	4.68	-	-	-		
						Max Compression w/ corresponding moment	36285	D + L + H' + E'	-235	117								
						Max Moment with axial tension	35299	1.4D + 1.7L + 1.7H' + 1.7Eo	58	385								
						Max Moment with axial compression	37503	1.4D + 1.7L + 1.7H' + 1.7Eo	-167	431								
					3-VL	Max Tension w/ corresponding moment	34191	1.4D + 1.7L + 1.7H' + 1.7Eo	435	605	1.4D + 1.7L + 1.7H' + 1.7Eo	93	9.36	-	-	-		
						Max Compression w/ corresponding moment	35933	D + L + H' + E'	-862	244								
						Max Moment with axial tension	34198	1.4D + 1.7L + 1.7H' + 1.7Eo	122	921								
						Max Moment with axial compression	34198	1.4D + 1.7L + 1.7H' + 1.7Eo	-133	921								
					4-VL	Max Tension w/ corresponding moment	34200/ 34201	1.4D + 1.7L + 1.7H' + 1.7Eo	181	1113	1.4D + 1.7L + 1.7H' + 1.7Eo	92	12.48	-	-	-	(8)	
						Max Compression w/ corresponding moment	34200/ 34201	1.4D + 1.7L + 1.7H' + 1.7Eo	-227	921								
						Max Moment with axial tension	34200/ 34201	1.4D + 1.7L + 1.7H' + 1.7Eo	181	1113								
						Max Moment with axial compression	34200/ 34201	1.4D + 1.7L + 1.7H' + 1.7Eo	-197	1113								
					5-VL	Max Tension w/ corresponding moment	36126	1.4D + 1.7L + 1.7H' + 1.7Eo	217	75	1.4D + 1.7L + 1.7H' + 1.7Eo	96	9.36	-	-	-		
						Max Compression w/ corresponding moment	36126	1.4D + 1.7L + 1.7H' + 1.7Eo	-305	34								
						Max Moment with axial tension	35289	1.4D + 1.7L + 1.7H' + 1.7Eo	144	929								
						Max Moment with axial compression	35289	1.4D + 1.7L + 1.7H' + 1.7Eo	-154	929								
					6-VL	Max Tension w/ corresponding moment	35793	1.4D + 1.7L + 1.7H' + 1.7Eo	547	182	1.4D + 1.7L + 1.7H' + 1.7Eo	89	7.80	-	-	-		
						Max Compression w/ corresponding moment	35807	1.4D + 1.7L + 1.7H' + 1.7Eo	-677	260								
						Max Moment with axial tension	35983	1.4D + 1.7L + 1.7H' + 1.7Eo	354	365								
						Max Moment with axial compression	35983	1.4D + 1.7L + 1.7H' + 1.7Eo	-432	365								
					7-VL	Max Tension w/ corresponding moment	36148	1.4D + 1.7L + 1.7H' + 1.7Eo	276	183	1.4D + 1.7L + 1.7H' + 1.7Eo	119	10.92	-	-	-		
						Max Compression w/ corresponding moment	36148	1.4D + 1.7L + 1.7H' + 1.7Eo	-372	200								
						Max Moment with axial tension	35272	1.4D + 1.7L + 1.7H' + 1.7Eo	140	884								
						Max Moment with axial compression	35272	1.4D + 1.7L + 1.7H' + 1.7Eo	-161	884								
					8-VL	Max Tension w/ corresponding moment	38230	1.4D + 1.7L + 1.7H' + 1.7Eo	362	256	1.4D + 1.7L + 1.7H' + 1.7Eo	209	9.36	-	-	-		
						Max Compression w/ corresponding moment	38230	1.4D + 1.7L + 1.7H' + 1.7Eo	-410	79								
						Max Moment with axial tension	38120	1.4D + 1.7L + 1.7H' + 1.7Eo	88	644								
						Max Moment with axial compression	38120	1.4D + 1.7L + 1.7H' + 1.7Eo	-244	644								
					5	9-VL	Max Tension w/ corresponding moment	38187	1.4D + 1.7L + 1.7H' + 1.7Eo	493	141	1.4D + 1.7L + 1.7H' + 1.7Eo	160	15.60	-	-	-	
							Max Compression w/ corresponding moment	38187	1.4D + 1.7L + 1.7H' + 1.7Eo	-573	159							
							Max Moment with axial tension	37763	1.4D + 1.7L + 1.7H' + 1.7Eo	445	2057							
							Max Moment with axial compression	37763	1.4D + 1.7L + 1.7H' + 1.7Eo	-533	2057							

**Table 3H.3-4: Results of Radwaste Building Concrete Slab Design (Continued)**

Location	Face	Direction	Reinforcement Layout Drawing Number (1)	Thickness (ft)	Reinforcement Zone Number (2)	Maximum Forces (3)	Element	Longitudinal Reinforcement Design Loads				Longitudinal Reinforcement Provided (in <sup>2</sup> /ft)	Transverse Shear Design Loads		Transverse Shear (7) Reinforcement Provided (in <sup>2</sup> /ft <sup>2</sup> )	Remarks							
								Axial and Flexure Loads			In-Plane Shear Loads		Load Combination	Transverse Shear (6) Reinforcement Design Loads (kips / ft)									
								Load Combination	Axial (4) (kips / ft)	Flexure (4) (ft-kips / ft)	Load Combination						In-plane Shear (5) (kips / ft)						
El. 35'-0"	Far side	Vertical	34-3-35	4	10-V-L	Max Tension w/ corresponding moment	37809/38391/38352	1.4D + 1.7L + 1.7H' + 1.7Eo	161	463	1.4D + 1.7L + 1.7H' + 1.7Eo	165	10.92	-	-	(8)							
						Max Compression w/ corresponding moment	37809/38391/38352	D + L + H' + E'	-262	694													
						Max Moment with axial tension	37809/38391/38352	1.4D + 1.7L + 1.7H' + 1.7Eo	12	833													
						Max Moment with axial compression	37809/38391/38352	1.4D + 1.7L + 1.7H' + 1.7Eo	-198	833													
					11-V-L	Max Tension w/ corresponding moment	38289	1.4D + 1.7L + 1.7H' + 1.7Eo	371	155	1.4D + 1.7L + 1.7H' + 1.7Eo	160	6.24	-	-	(8),(9)							
						Max Compression w/ corresponding moment	38293	D + L + H' + E'	-484	154													
						Max Moment with axial tension	37764	1.4D + 1.7L + 1.7H' + 1.7Eo	159	770													
						Max Moment with axial compression	37764	1.4D + 1.7L + 1.7H' + 1.7Eo	-181	770													
					12-V-L	Max Tension w/ corresponding moment	36061/36062	1.4D + 1.7L + 1.7H' + 1.7Eo	446	728	1.4D + 1.7L + 1.7H' + 1.7Eo	96	20.80	-	-	(8),(9)							
						Max Compression w/ corresponding moment	36061/36062	1.4D + 1.7L + 1.7H' + 1.7Eo	-558	892													
						Max Moment with axial tension	34207/34208	1.4D + 1.7L + 1.7H' + 1.7Eo	384	1953													
						Max Moment with axial compression	34207/34208	1.4D + 1.7L + 1.7H' + 1.7Eo	-418	1963													
						13-V-L	Max Tension w/ corresponding moment	35810/35812	1.4D + 1.7L + 1.7H' + 1.7Eo	570							613	1.4D + 1.7L + 1.7H' + 1.7Eo	119	21.10	-	-	(8),(9)
							Max Compression w/ corresponding moment	35810/35812	1.4D + 1.7L + 1.7H' + 1.7Eo	-708							669						
							Max Moment with axial tension	34217/34218	1.4D + 1.7L + 1.7H' + 1.7Eo	502							1941						
							Max Moment with axial compression	34217/34218	1.4D + 1.7L + 1.7H' + 1.7Eo	-543							1941						
					14-V-L	Max Tension w/ corresponding moment	34831	1.4D + 1.7L + 1.7H' + 1.7Eo	60	4	D + L + H' + E'	34	1.56	-	-	(10)							
						Max Compression w/ corresponding moment	34821	D + L + H' + E'	-114	7													
						Max Moment with axial tension	34576	1.4D + 1.7L + 1.7H' + 1.7Eo	2	48													
						Max Moment with axial compression	34576	1.4D + 1.7L + 1.7H' + 1.7Eo	-89	71													
					15-V-L	Max Tension w/ corresponding moment	38231	1.4D + 1.7L + 1.7H' + 1.7Eo	335	498	1.4D + 1.7L + 1.7H' + 1.7Eo	149	18.72	-	-	(9)							
						Max Compression w/ corresponding moment	38231	1.4D + 1.7L + 1.7H' + 1.7Eo	-344	285													
						Max Moment with axial tension	37824	1.4D + 1.7L + 1.7H' + 1.7Eo	204	843													
						Max Moment with axial compression	37824	1.4D + 1.7L + 1.7H' + 1.7Eo	-262	843													
					16-V-L	Max Tension w/ corresponding moment	35282	1.4D + 1.7L + 1.7H' + 1.7Eo	356	580	1.4D + 1.7L + 1.7H' + 1.7Eo	96	18.72	-	-	(9)							
						Max Compression w/ corresponding moment	35282	1.4D + 1.7L + 1.7H' + 1.7Eo	-441	518													
						Max Moment with axial tension	35282	1.4D + 1.7L + 1.7H' + 1.7Eo	336	1838													
						Max Moment with axial compression	35282	1.4D + 1.7L + 1.7H' + 1.7Eo	-365	1838													
					17-V-L	Max Tension w/ corresponding moment	35273	1.4D + 1.7L + 1.7H' + 1.7Eo	433	931	1.4D + 1.7L + 1.7H' + 1.7Eo	119	18.72	-	-	(9)							
						Max Compression w/ corresponding moment	35273	1.4D + 1.7L + 1.7H' + 1.7Eo	-545	809													
						Max Moment with axial tension	35273	1.4D + 1.7L + 1.7H' + 1.7Eo	377	1600													
						Max Moment with axial compression	35273	1.4D + 1.7L + 1.7H' + 1.7Eo	-422	1600													
					18-V-L	Max Tension w/ corresponding moment	35265	1.4D + 1.7L + 1.7H' + 1.7Eo	268	768	1.4D + 1.7L + 1.7H' + 1.7Eo	105	18.72	-	-	(9)							
						Max Compression w/ corresponding moment	35265	1.4D + 1.7L + 1.7H' + 1.7Eo	-358	712													
						Max Moment with axial tension	35265	1.4D + 1.7L + 1.7H' + 1.7Eo	253	1143													
						Max Moment with axial compression	35265	1.4D + 1.7L + 1.7H' + 1.7Eo	-290	1143													

Table 3H.3-4: Results of Radwaste Building Concrete Slab Design (Continued)

Location	Face	Direction	Reinforcement Layout Drawing Number (1)	Thickness (ft)	Reinforcement Zone Number (2)	Maximum Forces (3)	Element	Longitudinal Reinforcement Design Loads					Longitudinal Reinforcement Provided (in <sup>2</sup> /ft)	Transverse Shear Design Loads		Transverse Shear (7) Reinforcement Provided (in <sup>2</sup> /ft <sup>2</sup> )	Remarks		
								Axial and Flexure Loads			In-Plane Shear Loads			Load Combination	Transverse Shear (6) Reinforcement Design Loads (kips / ft)				
								Load Combination	Axial (4) (kips / ft)	Flexure (4) (ft-kips / ft)	Load Combination	In-plane (6) Shear (kips / ft)							
El. 35'-0"		Horizontal Plane	3H-3-37a	4	1-H-T	-	-	-	-	-	-	-	-	1.4D + 1.7L + 1.7H <sup>+</sup> + 1.7Eo	93	0.2 (#4@12)	-		
				4	2-H-T	-	-	-	-	-	-	-	-	1.4D + 1.7L + 1.7H <sup>+</sup> + 1.7Eo	139	0.62 (#5@6)	-		
				4	3-H-T	-	-	-	-	-	-	-	-	1.4D + 1.7L + 1.7H <sup>+</sup> + 1.7Eo	156	0.88 (#5@6)	-		
				4	4-H-T	-	-	-	-	-	-	-	-	1.4D + 1.7L + 1.7H <sup>+</sup> + 1.7Eo	104	0.31 (#5@12)	-		
				4	5-H-T	-	-	-	-	-	-	-	-	1.4D + 1.7L + 1.7H <sup>+</sup> + 1.7Eo	119	0.4 (#4@6)	-		
				5	6-H-T	-	-	-	-	-	-	-	-	1.4D + 1.7L + 1.7H <sup>+</sup> + 1.7Eo	129	0.31 (#5@12)	-		
		Vertical Plane	3H-3-37b	4	7-H-T	-	-	-	-	-	-	-	-	-	1.4D + 1.7L + 1.7H <sup>+</sup> + 1.7Eo	311	24 #6 ties	(12)	
				4	1-V-T	-	-	-	-	-	-	-	-	-	-	1.4D + 1.7L + 1.7H <sup>+</sup> + 1.7Eo	106	0.31 (#5@12)	-
				4	2-V-T	-	-	-	-	-	-	-	-	-	-	1.4D + 1.7L + 1.7H <sup>+</sup> + 1.7Eo	77	0.2 (#4@12)	-
				4	3-V-T	-	-	-	-	-	-	-	-	-	-	1.4D + 1.7L + 1.7H <sup>+</sup> + 1.7Eo	89	0.4 (#4@6)	-
				5	4-V-T	-	-	-	-	-	-	-	-	-	-	1.4D + 1.7L + 1.7H <sup>+</sup> + 1.7Eo	60	0.2 (#4@12)	-
				5	5-V-T	-	-	-	-	-	-	-	-	-	-	1.4D + 1.7L + 1.7H <sup>+</sup> + 1.7Eo	94	0.2 (#4@12)	-
Roof	Near Side	Horizontal	3H-3-38	1	1-H-L	Max Tension, Max Moment	-	1.4D + 1.7L + 1.7H <sup>+</sup> + 1.7Eo	29	0	1.4D + 1.7L + 1.7H <sup>+</sup> + 1.7Eo	59	1.58	-	-	-	(11)		
		Horizontal	3H-3-38	1	2-H-L	Max Tension, Max Moment	-	1.4D + 1.7L + 1.7H <sup>+</sup> + 1.7Eo	29	0	1.4D + 1.7L + 1.7H <sup>+</sup> + 1.7Eo	59	1.58	-	-	-	(11)		
		Vertical	3H-3-39	1	1-V-L	Max Tension, Max Moment	-	1.4D + 1.7L + 1.7H <sup>+</sup> + 1.7Eo	34	-14	1.4D + 1.7L + 1.7H <sup>+</sup> + 1.7Eo	64	1.58	-	-	-	(11)		
		Vertical	3H-3-39	1	2-V-L	Max Tension, Max Moment	-	1.4D + 1.7L + 1.7H <sup>+</sup> + 1.7Eo	34	-34	1.4D + 1.7L + 1.7H <sup>+</sup> + 1.7Eo	64	2.00	-	-	-	(11)		
	Far Side	Horizontal	3H-3-40	1	1-H-L	Max Tension, Max Moment	-	1.4D + 1.7L + 1.7H <sup>+</sup> + 1.7Eo	29	0	1.4D + 1.7L + 1.7H <sup>+</sup> + 1.7Eo	59	1.58	-	-	-	(11)		
		Horizontal	3H-3-40	1	2-H-L	Max Tension, Max Moment	-	1.4D + 1.7L + 1.7H <sup>+</sup> + 1.7Eo	29	0	1.4D + 1.7L + 1.7H <sup>+</sup> + 1.7Eo	59	1.58	-	-	-	(11)		
		Vertical	3H-3-41	1	1-V-L	Max Tension, Max Moment	-	1.4D + 1.7L + 1.7H <sup>+</sup> + 1.7Eo	34	14	1.4D + 1.7L + 1.7H <sup>+</sup> + 1.7Eo	64	1.58	-	-	-	(11)		
		Vertical	3H-3-41	1	2-V-L	Max Tension, Max Moment	-	1.4D + 1.7L + 1.7H <sup>+</sup> + 1.7Eo	34	34	1.4D + 1.7L + 1.7H <sup>+</sup> + 1.7Eo	64	2.00	-	-	-	(11)		
		Horizontal Plane	3H-3-42	1	1-H-T	-	-	-	-	-	-	-	-	-	1.4D + 1.7L + 1.7H <sup>+</sup> + 1.7Eo	11	0.2 (#4@12)	-	
				1	2-H-T	-	-	-	-	-	-	-	-	-	-	1.4D + 1.7L + 1.7H <sup>+</sup> + 1.7Eo	17	0.31 (#5@12)	-
		Vertical Plane	3H-3-42	1	1-V-T	-	-	-	-	-	-	-	-	-	-	1.4D + 1.7L + 1.7H <sup>+</sup> + 1.7Eo	10	0.2 (#4@12)	-
				1	2-V-T	-	-	-	-	-	-	-	-	-	-	1.4D + 1.7L + 1.7H <sup>+</sup> + 1.7Eo	9	0.31 (#5@12)	-
1				3-V-T	-	-	-	-	-	-	-	-	-	-	-	1.4D + 1.7L + 1.7H <sup>+</sup> + 1.7Eo	26	0.4 (#4@6)	-

- Notes:
- (1) The reinforcement layout drawings show the various zones used to define the minimum reinforcement that will be provided based on finite element analysis results. Actual provided reinforcement based on final rebar layout and including development length may exceed the reported provided reinforcement and the zones with higher reinforcement may be extended beyond their reported boundaries. The dimensions in the reinforcement drawings are based on the dimensions of the 2D SAP2000 shell elements, which are modeled at the centerline of the walls and slabs. Therefore, the reinforcement drawing dimensions do not match actual building dimensions.
- (2) Each reinforcement layout drawing is divided into reinforcement zones. The reinforcement zone naming convention is as follows: "H" = horizontal, "V" = vertical, "L" = longitudinal reinforcement, "T" = transverse reinforcement. For slabs, vertical corresponds to North-South direction and horizontal corresponds to East-West Direction.
- (3) The maximum tension and compression axial forces are provided with the corresponding moment from the same load combination. The maximum moment that has a corresponding tension in the same load combination and the maximum moment that has a corresponding compression in the same load combination are also provided. For zones where either axial tension or axial compression does not occur for any load combination, dashes are input into the corresponding cell.
- (4) Negative axial load is compression and positive axial load is tension. Negative moment applies tension to the top face of the shell element and positive moment applies tension to the bottom face of the shell element. For walls or slabs where the same reinforcement is provided on both faces, the moment is shown as absolute value. The axial and flexural loads reported in the table are the average of the 2 node pairs that form the 4 edges of the critical rectangular shell element. If the 2 node pairs on the shell element edges parallel to the reinforcement direction do not satisfy P&M interaction criteria, then only the 2 node pairs on the shell element edges perpendicular to the reinforcement direction are used for design (effective width considered).
- (5) The reported in-plane shear is the maximum average in-plane shear along a plane that crosses the longitudinal reinforcement zone.
- (6) The reported transverse shear is the maximum average transverse shear along a plane in that transverse reinforcement zone.
- (7) In areas where horizontal and vertical transverse shear zones overlap, the total transverse shear reinforcement to be supplied in the overlapping area is the sum of the transverse reinforcement required from the horizontal and vertical zones.
- (8) For certain areas of the structure, the standard element post-processing methods were too conservative. For such cases, detailed manual design was performed and the design forces determined by the detailed manual design are provided in the table.
- (9) The longitudinal reinforcement shown is required to be tied.
- (10) The reported forces are from the FEM analysis. The provided longitudinal reinforcement includes additional reinforcement required due to manual one-way design calculations.
- (11) The reported axial and in-plane forces are from the FEM analysis. The reported flexural forces are from manual one-way design calculations.
- (12) The reported transverse shear reinforcement is the required ties for transverse shear in beam band region.



Table 3H.3-5 Summary of Structural Steel Design

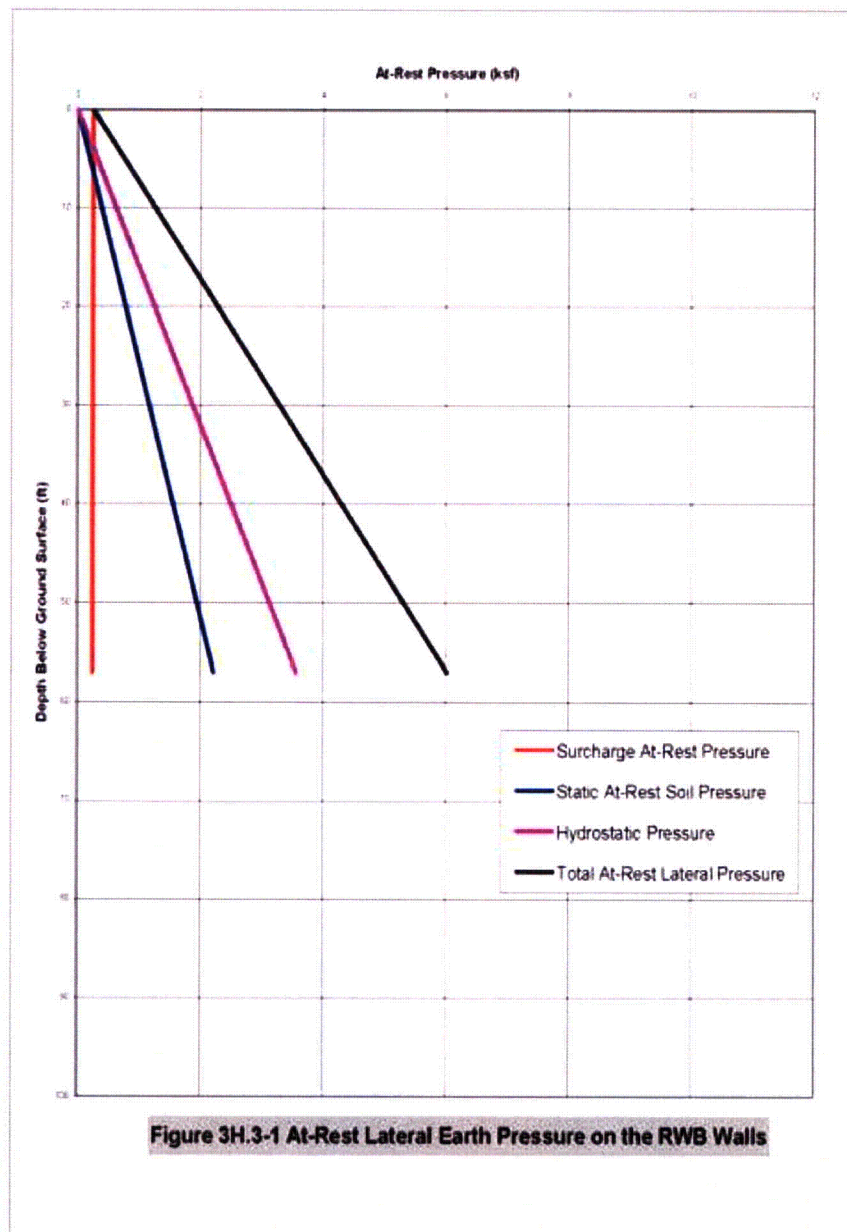
Elevation 35'-0" Floor Steel Beams					
Location <sup>4</sup>	Figure Number	Size <sup>2,3,4</sup>	Safety Margin = Capacity/Demand	Max. Moment <sup>5</sup> (kip-ft)	Governing Load Combination <sup>6</sup>
Elevation 35'-0" Formwork Steel Beams	3H.3-43 3H.3-44	W10X54	2.0	83.7	D+L
		W14X153	1.4	505.8	D+L
		W14X283	1.7	700.4	D+L
Elevation 35'-0" Composite Steel Beams	3H.3-45 3H.3-46	W14x82	1.3	629.3	D+L+E
		W36x210	1.2	4507.3	D+L+E
		W36x231	1.1	5496.0	D+L+E
		W36x247	1.6	2964.6	D+L+E

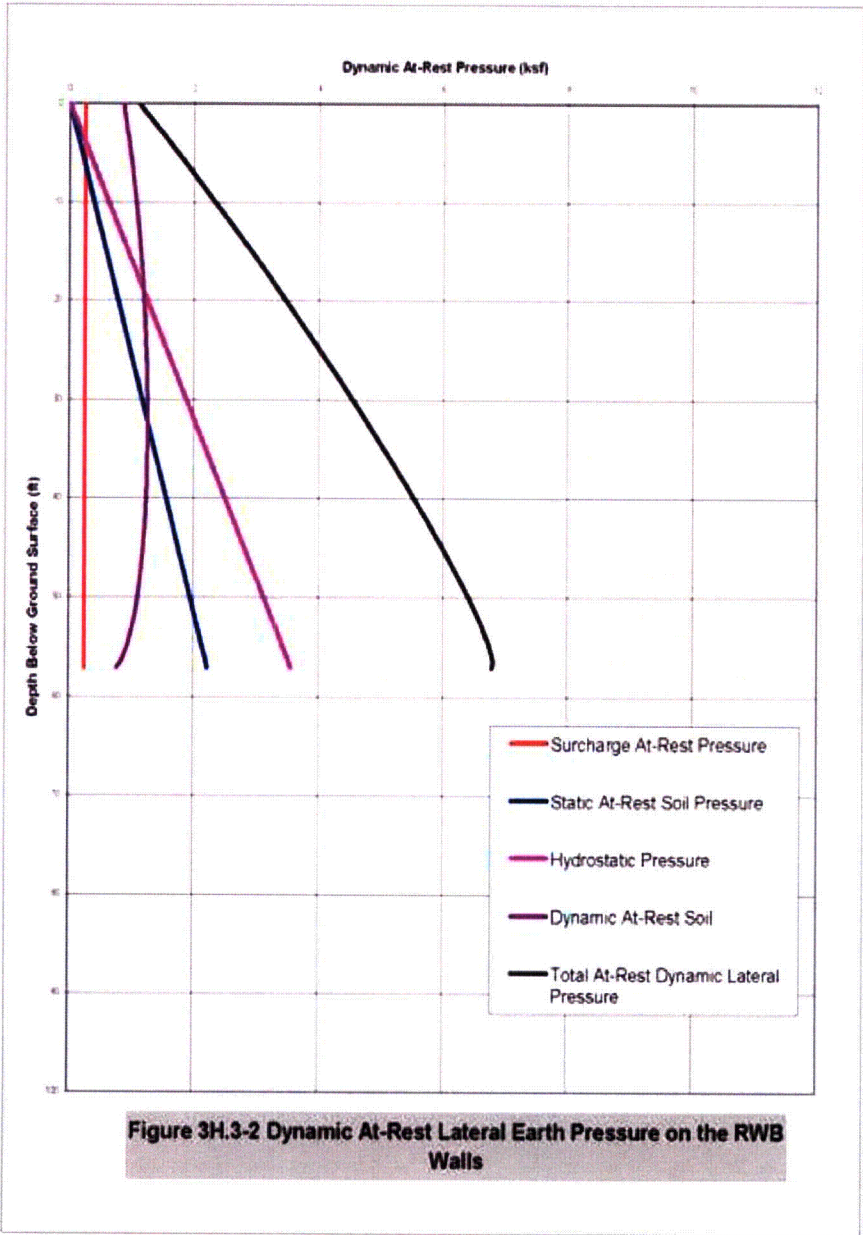
Roof Truss Members					
Location	Figure Number	Size <sup>2,3,4</sup>	Safety Margin = Capacity/Demand	Max. Axial Load <sup>5</sup> (kip)	Governing Load Combination <sup>6</sup>
North-South Spanning Truss Top Chord Member	3H.3-47 3H.3-49	W14X120	1.6	706.0	D+L+E
			1.6	-982.0	D+L+E
North-South Spanning Truss Bottom Chord Member		W14X311	1.4	2161.0	D+L+E
			4.3	-908.0	D+E
North-South Spanning Truss Outer Diagonal Members		W12X136	1.4	510.0	D+L+E
			4.5	-329.0	D+E
North-South Spanning Truss Outer Vertical Members		2L8X2X1	2.8	241.0	D+E
			1.3	-667.0	D+L+E
North-South Spanning Truss Inner Diagonal Members	3H.3-47 3H.3-48	2L6X6X3/4LLB	1.4	264.0	D+L+E
			3.7	-139.0	D+E
North-South Spanning Truss Inner Vertical Members		2L6X6X1/2	2.0	94.0	D+E
			1.3	-185.0	D+L+E
North-South Spanning Truss Lateral Bracing Members		2L6X4X1/4LLB	1.1	386.0	D+L+E
			1.1	-316.0	D+L+E
East-West Spanning Truss Top Chord Member		2L5X5X1/2	3.8	47.0	0.9D+E
			1.9	-152.0	D+L+E
East-West Spanning Truss Bottom Chord Member	3H.3-47 3H.3-48	2L6X4X1/4LLB	1.4	510.0	D+L+E
			7.1	-94.0	0.9D+E
East-West Spanning Truss Outer Diagonal Members		L6X8X7/8	1.3	208.0	D+L+E
			8.3	-51.0	0.9D+E
East-West Spanning Truss Outer Vertical Members		L6X6X1/2	3.3	35.0	D+L+E
			1.3	-143.0	D+L+E
East-West Spanning Truss Inner Diagonal Members		L6X6X3/8	4.3	14.0	D+L+E
			11.1	-7.0	0.9D+E
East-West Spanning Truss Inner Vertical Members	3H.3-47 3H.3-48	L6X6X1/2	6.0	23.0	0.9D+E
			2.9	-63.0	D+L+E
East-West Spanning Truss Lateral Bracing Members	3H.3-47 3H.3-48	L5X5X3/8	3.8	18.0	D+L+E
			2.6	-21.0	D+L+E

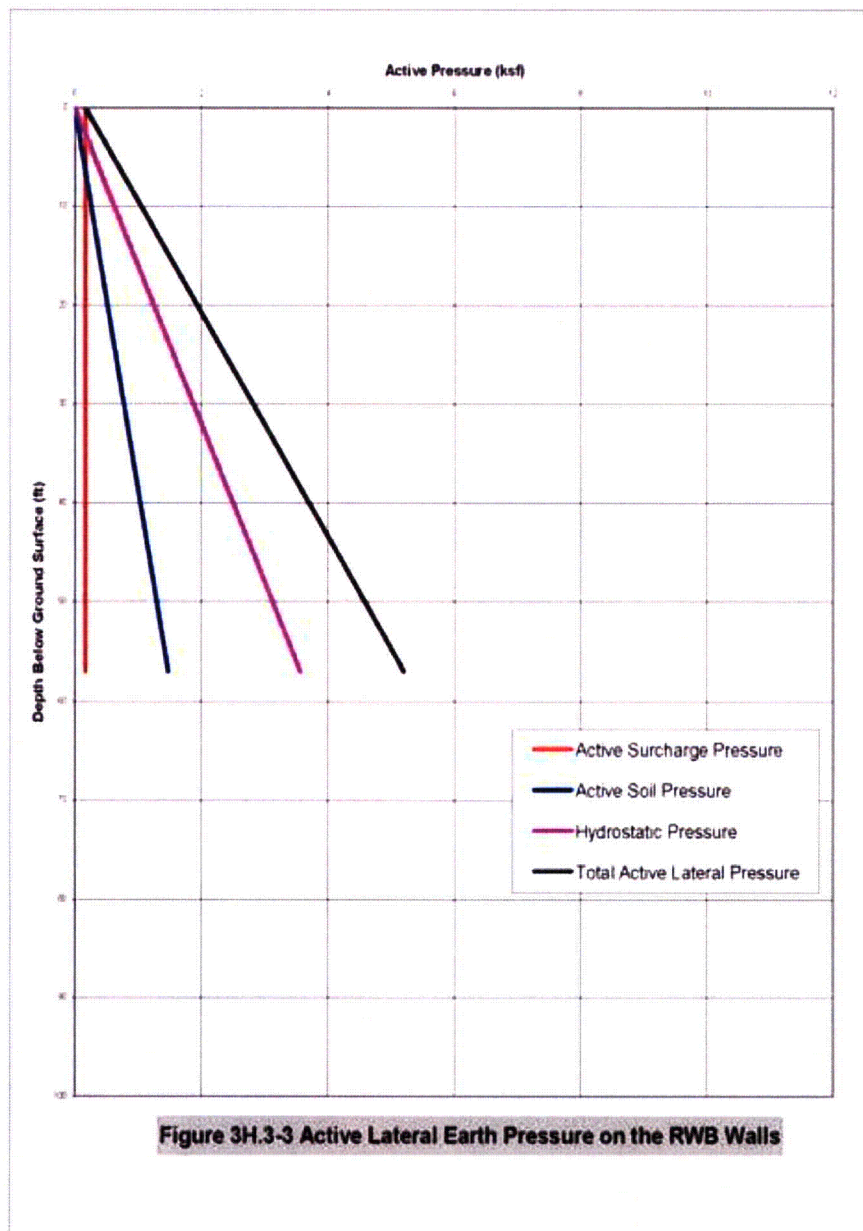
Roof Purlins						
Location	Figure Number	Size <sup>2,3,4</sup>	Safety Margin = Capacity/Demand	Max. Axial Load <sup>5</sup> (kip)	Max. Moment <sup>6</sup> (kip-ft)	Governing Load Combination <sup>6</sup>
North-South Spanning Roof Purlins	3H.3-47	W12X210	1.3	-1299.3	-13.2	D+L+E
East-West Spanning Roof Purlins		V8X67	1.8	-269.6	-2.5	D+L+E

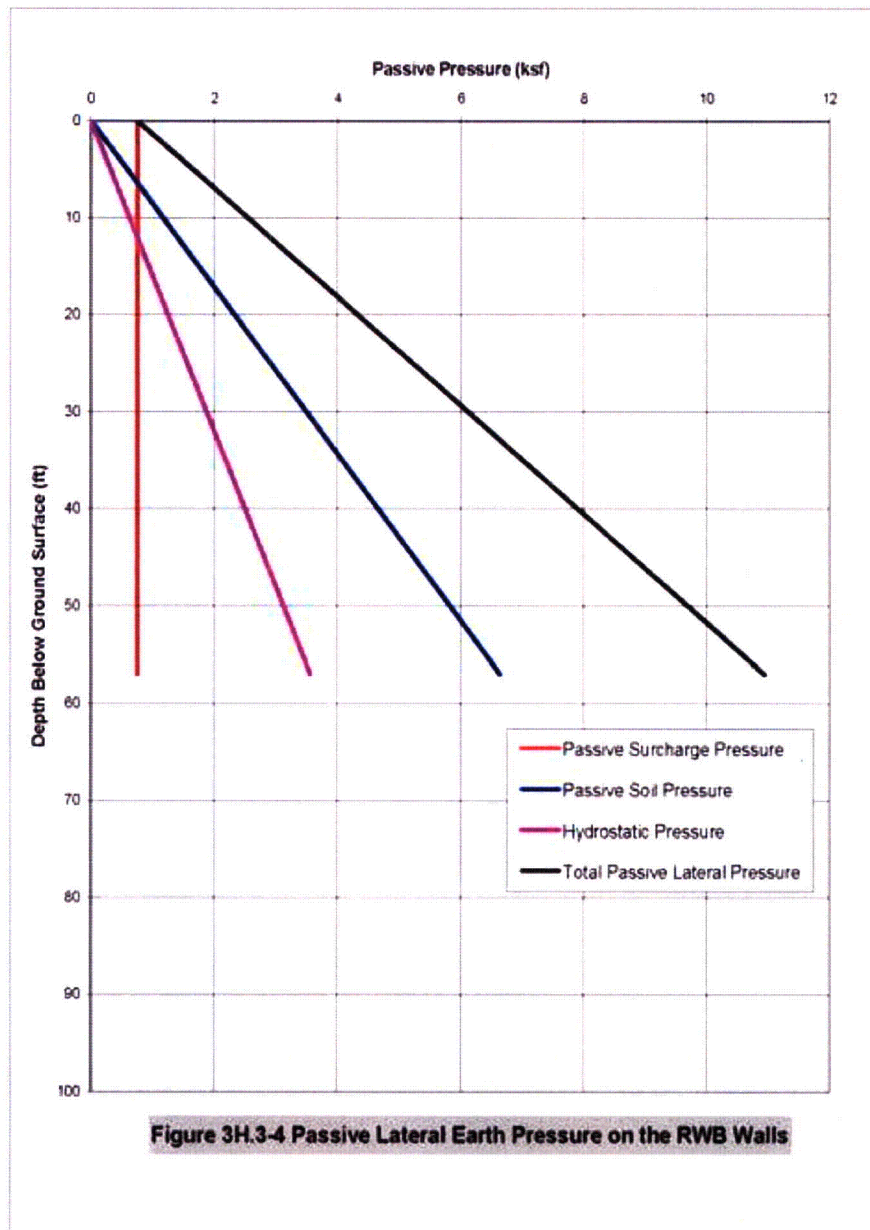
## Notes:

1. Positive axial load is tension and negative axial load is compression.
2. W-shapes : ASTM A572 Gr. 50 (Fy = 50ksi)
3. Angles and Double Angles : ASTM A36 Gr. 36 (Fy = 36ksi)
4. Member sizes reported are based on analysis results.  
Actual member sizes used will have the same or greater capacity, but size and shape may vary based on connection design requirements.
5. E<sub>1</sub> is the design basis earthquake load (1/2 SSE). E<sub>2</sub> is the full earthquake load (SSE).
6. The steel beams located between column lines W7-W8 and WA-WB are required for concrete formwork only. Once the concrete cures, the concrete alone is designed for all design basis loading. The formwork steel will remain in-place unless commodity routing required the formwork steel to be removed.
7. Maximum moment for governing load combination is based on bending about the minor-axis.





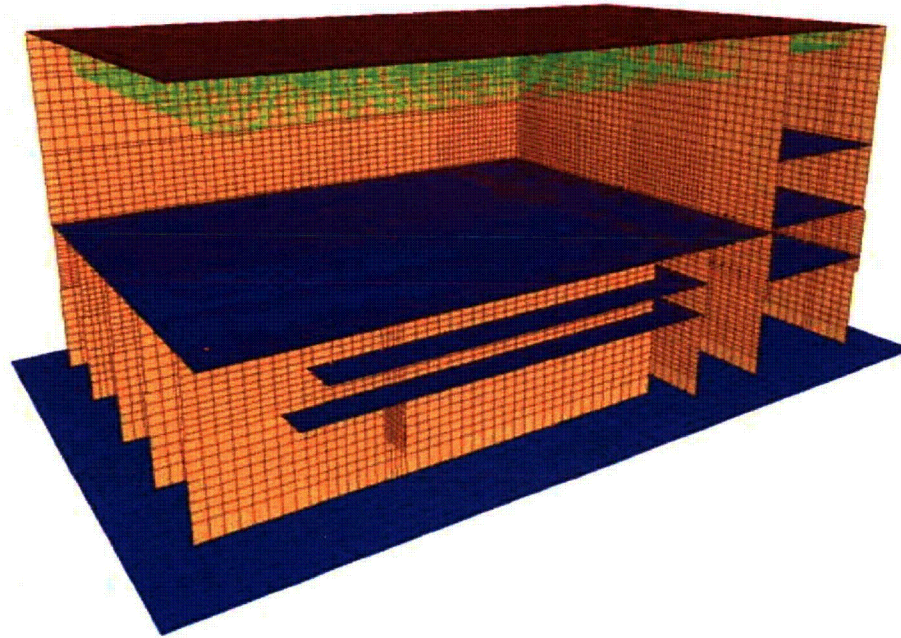




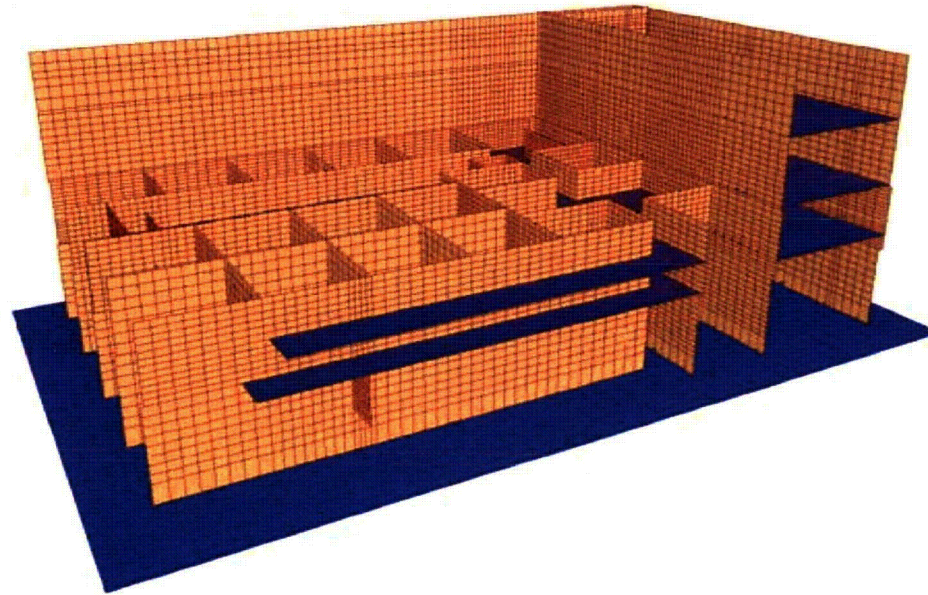


**Figure 3H.3-5 Radwaste Building SAP2000 Model (Looking from Southwest Corner)**



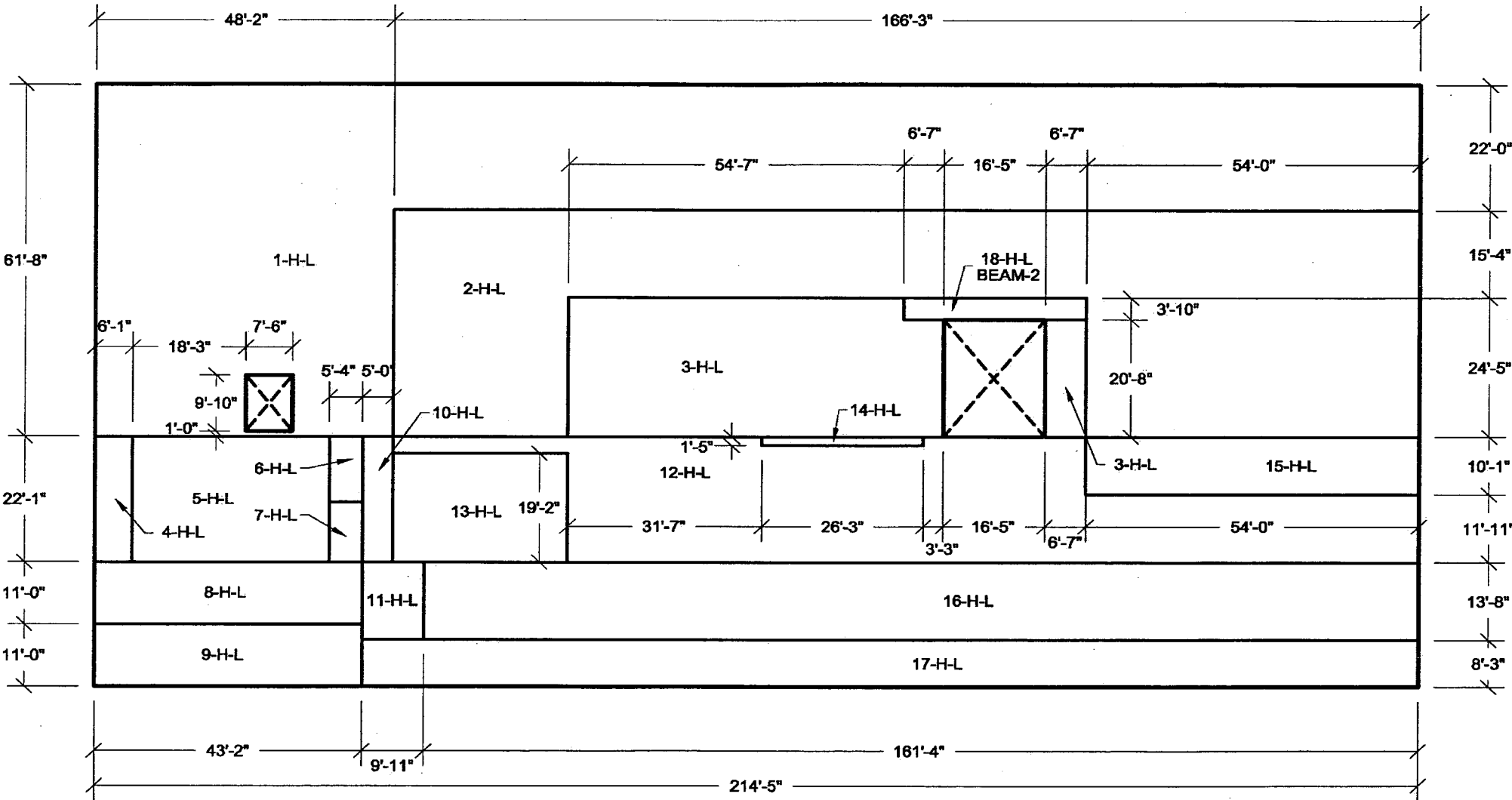


**Figure 3H.3-6 Radwaste Building SAP2000 Model (South and West Walls Removed)**



**Figure 3H.3-7 Radwaste Building SAP2000 Model (South Wall, West Wall, Roof, and El. 35'-0" Slab Removed)**





**FIGURE 3H.3-8: NORTH WALL LOOKING SOUTH  
HORIZONTAL REINFORCEMENT ZONES  
NEAR SIDE FACE**

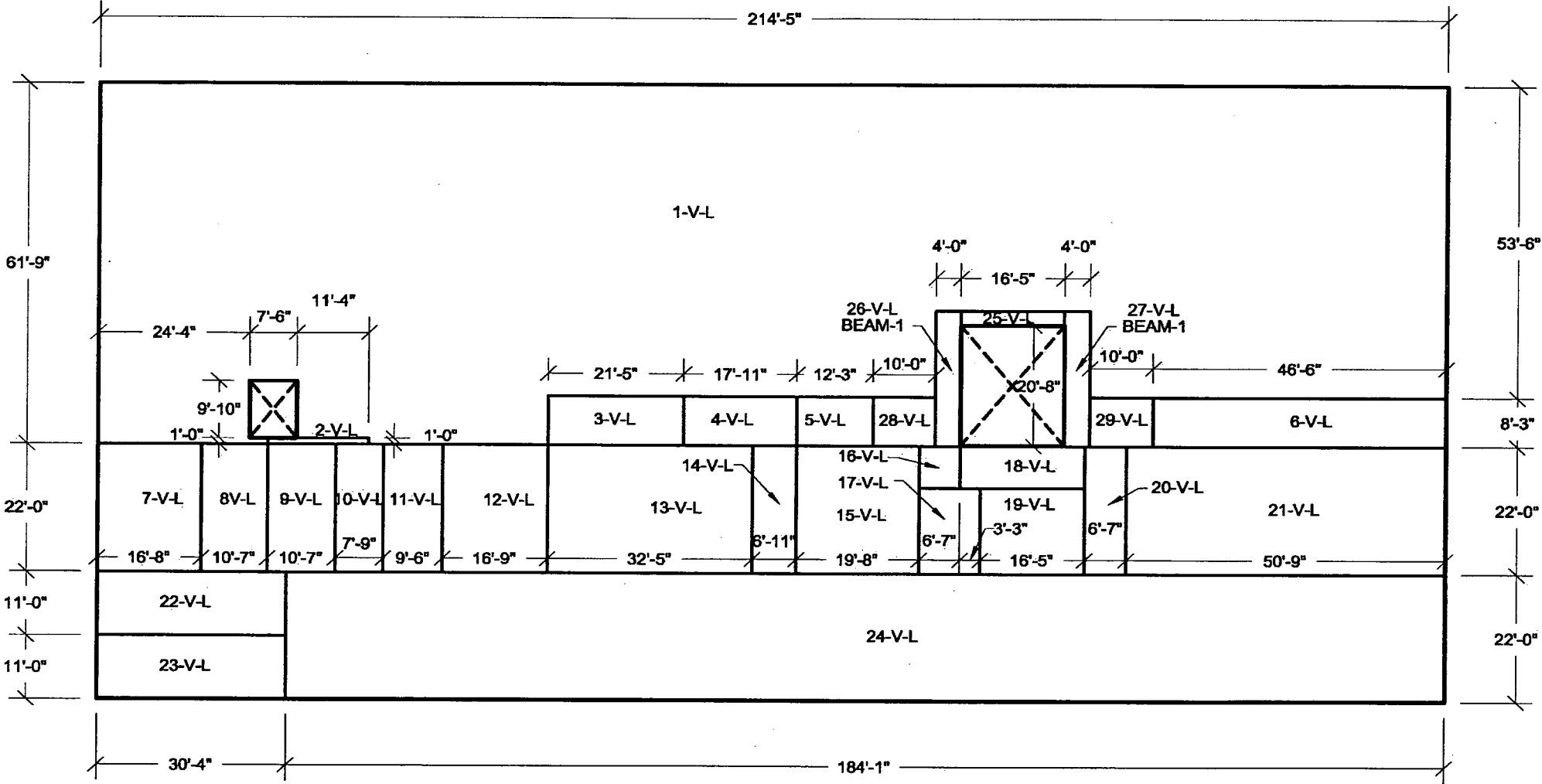


FIGURE 3H.3-9: NORTH WALL LOOKING SOUTH  
VERTICAL REINFORCEMENT ZONES  
NEAR SIDE FACE

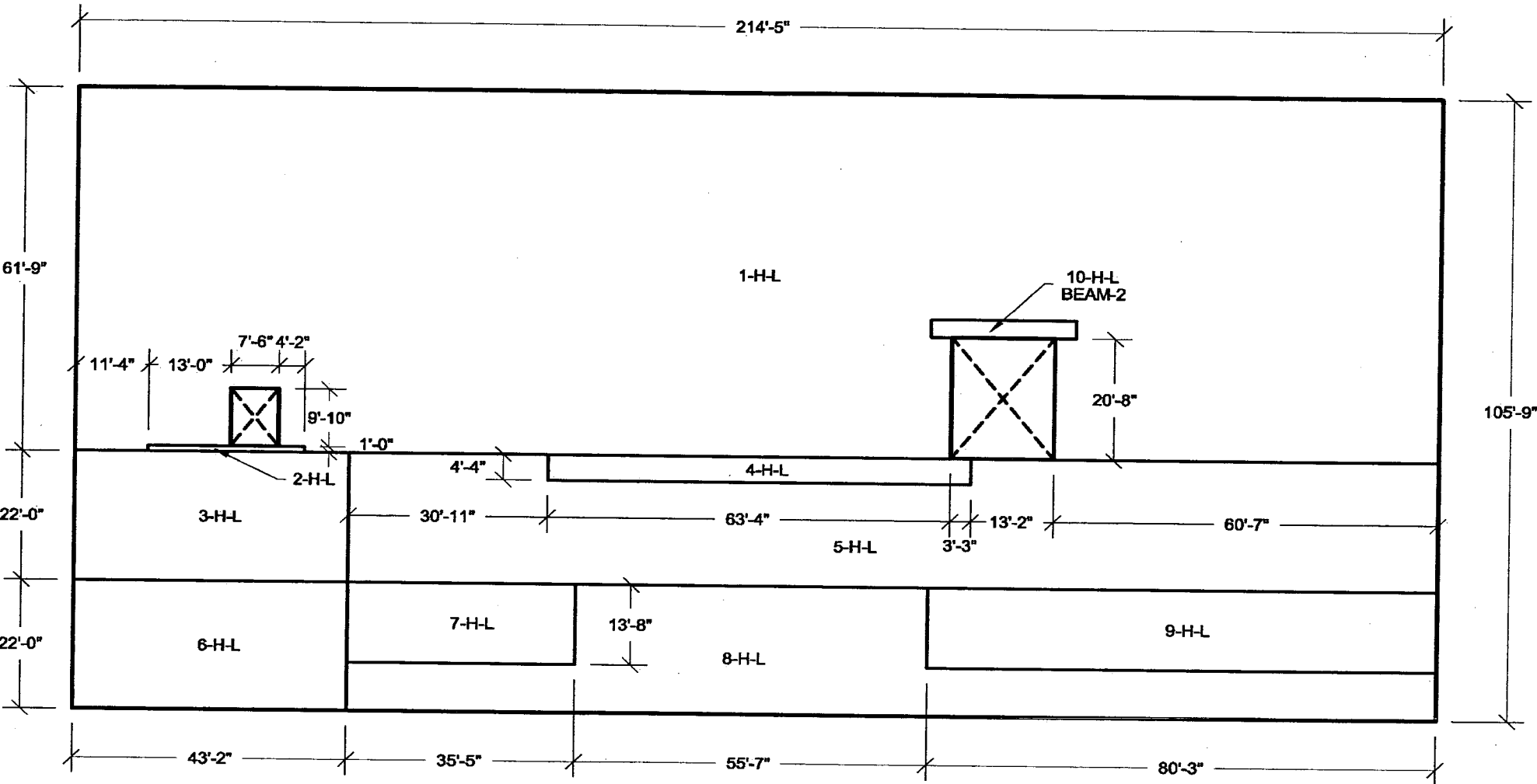
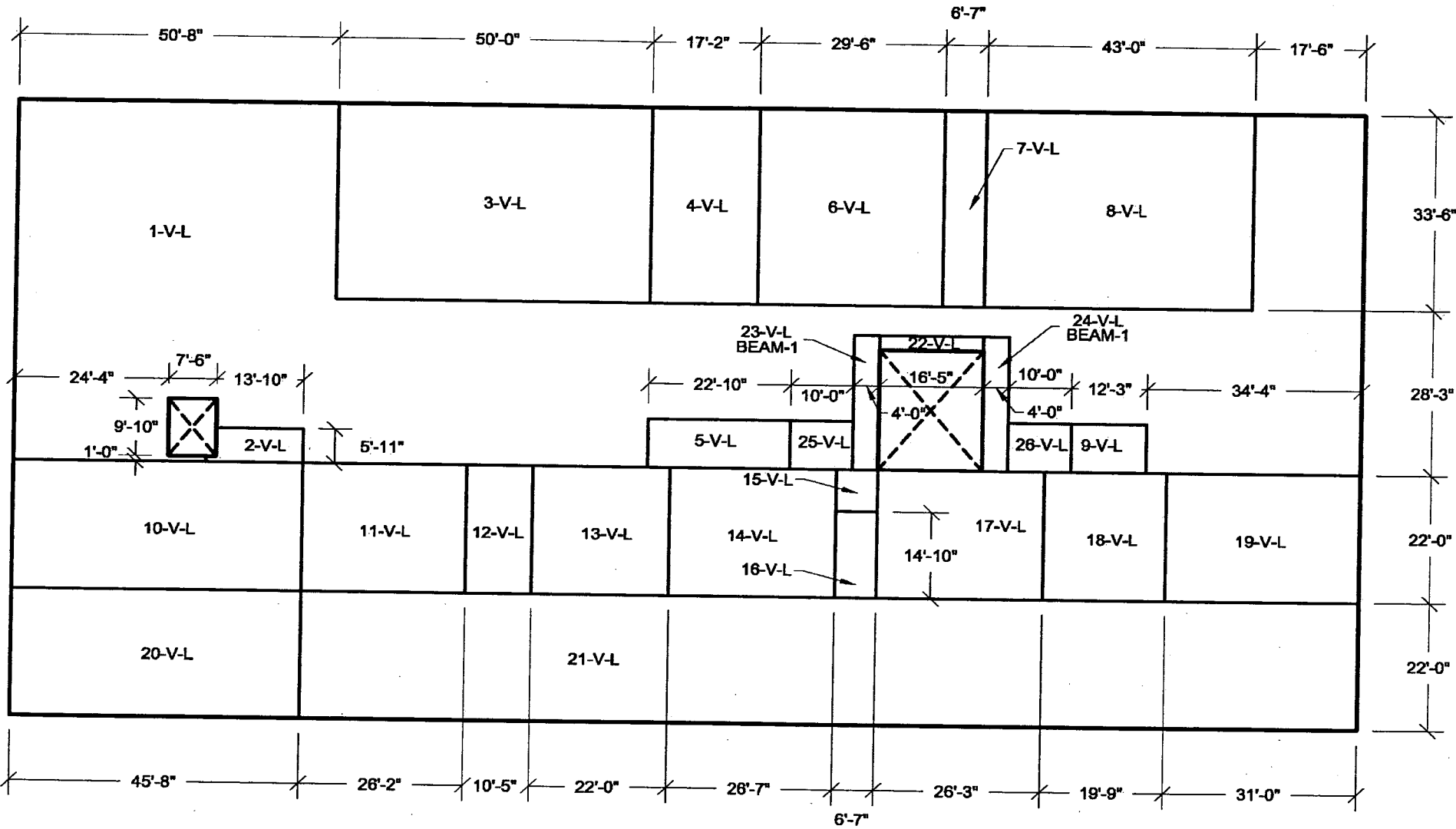


FIGURE 3H.3-10: NORTH WALL LOOKING SOUTH  
HORIZONTAL REINFORCEMENT ZONES  
FAR SIDE FACE



**FIGURE 3H.3-11: NORTH WALL LOOKING SOUTH  
VERTICAL REINFORCEMENT ZONES  
FAR SIDE FACE**



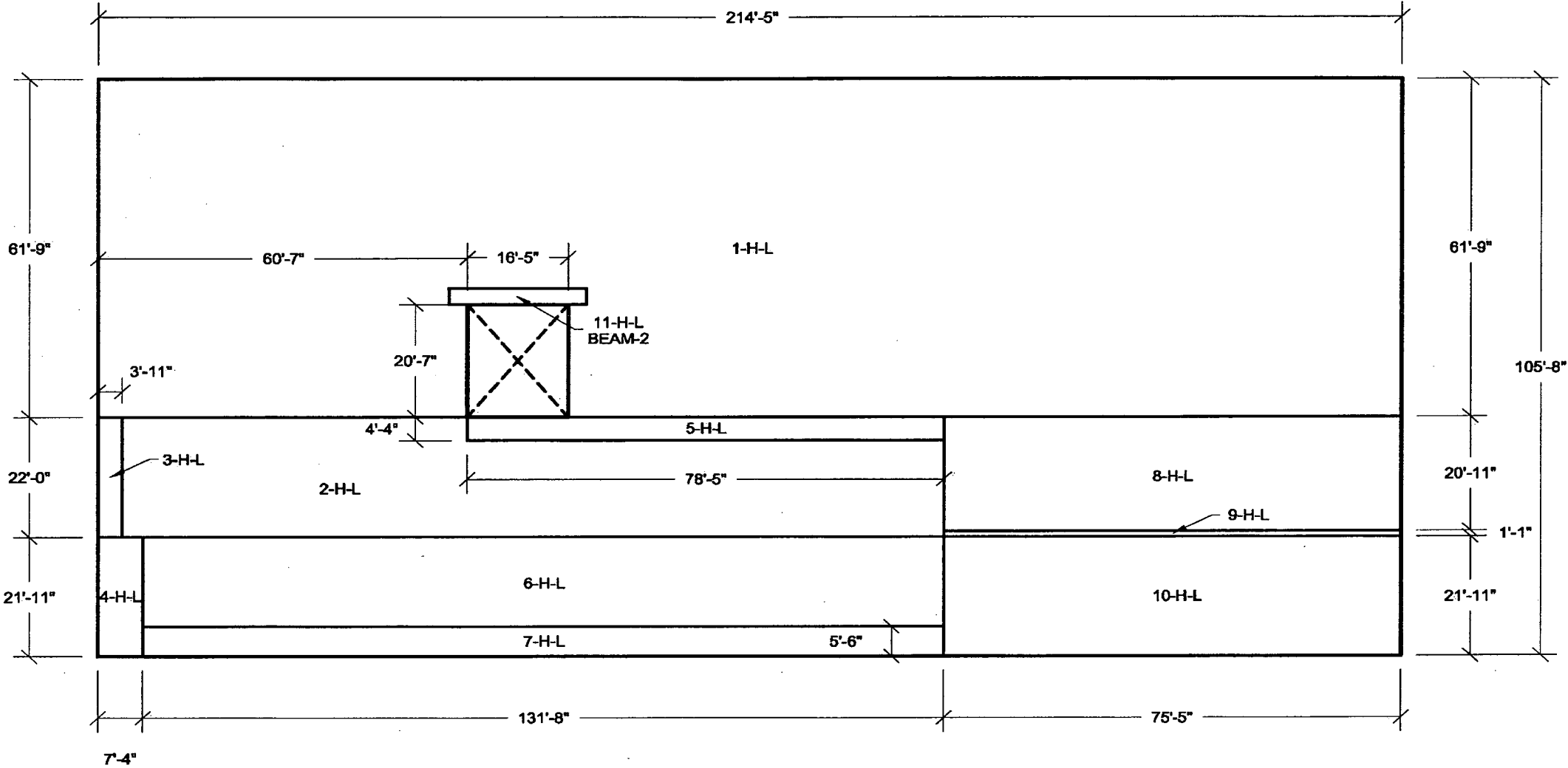
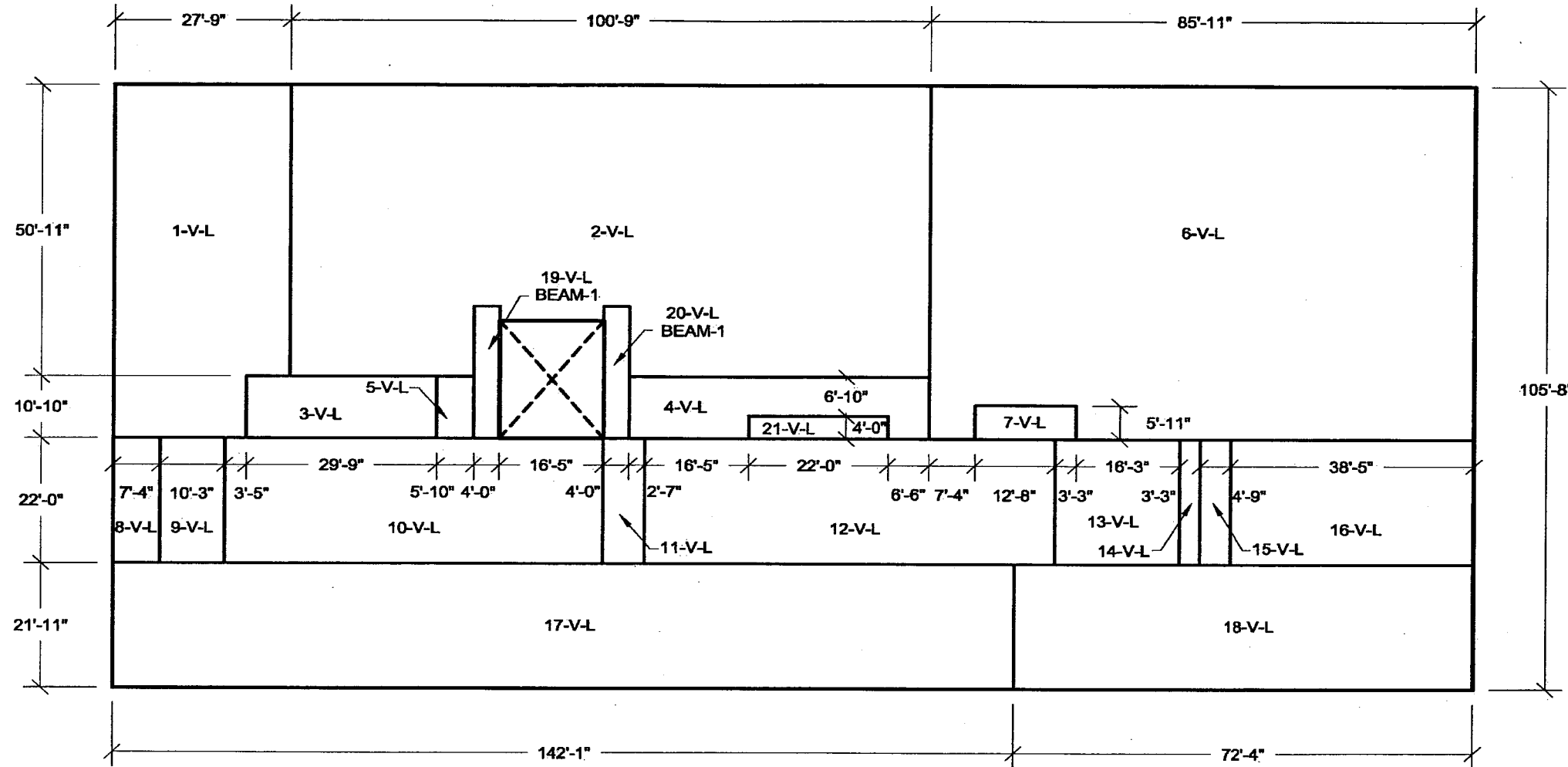
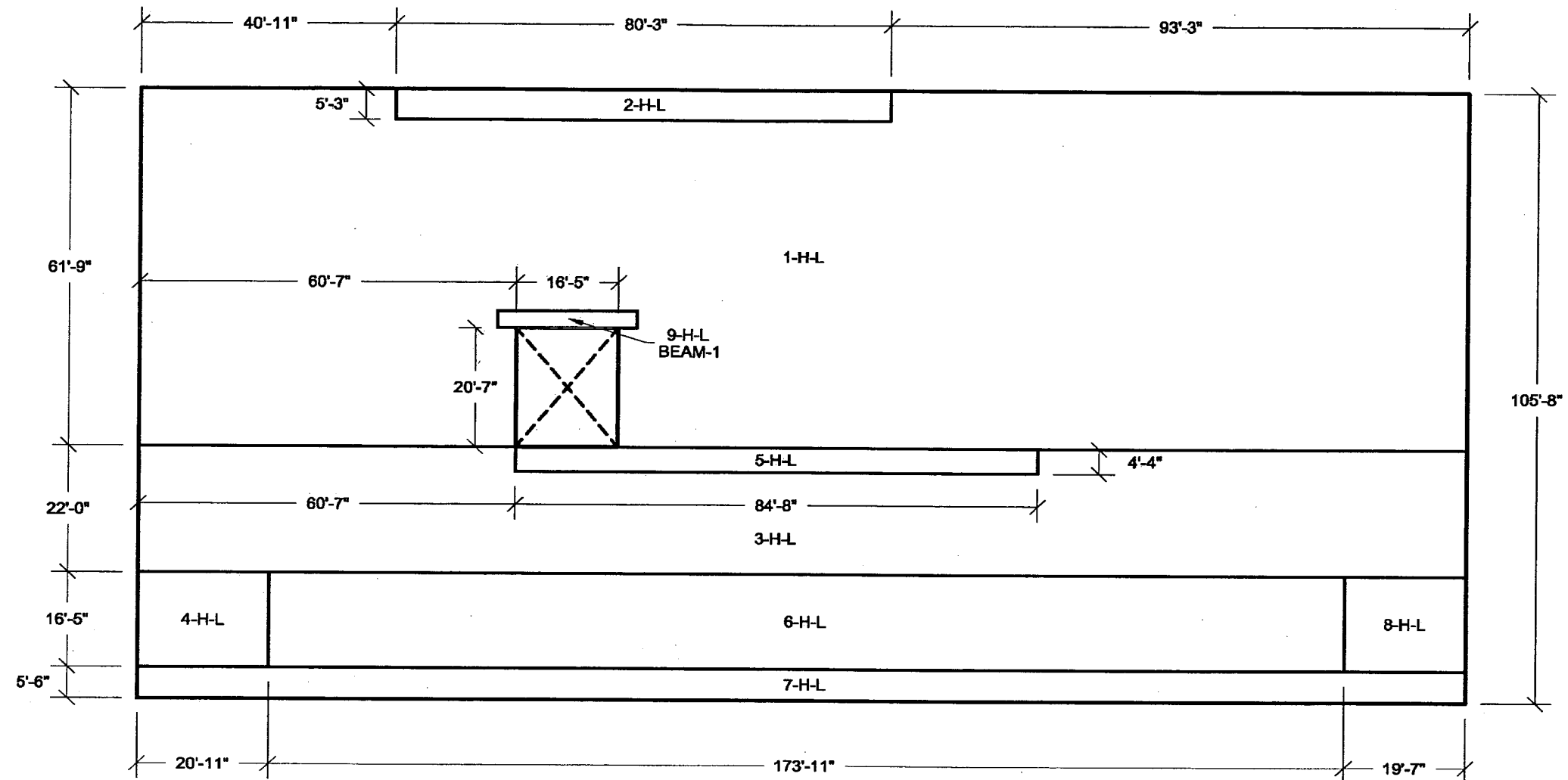


FIGURE 3H.3-13: SOUTH WALL LOOKING NORTH  
HORIZONTAL REINFORCEMENT ZONES  
NEAR SIDE FACE



**FIGURE 3H.3-14: SOUTH WALL LOOKING NORTH**  
**VERTICAL REINFORCEMENT ZONES**  
**NEAR SIDE FACE**



**FIGURE 3H.3-15: SOUTH WALL LOOKING NORTH**  
**HORIZONTAL REINFORCEMENT ZONES**  
**FAR SIDE FACE**



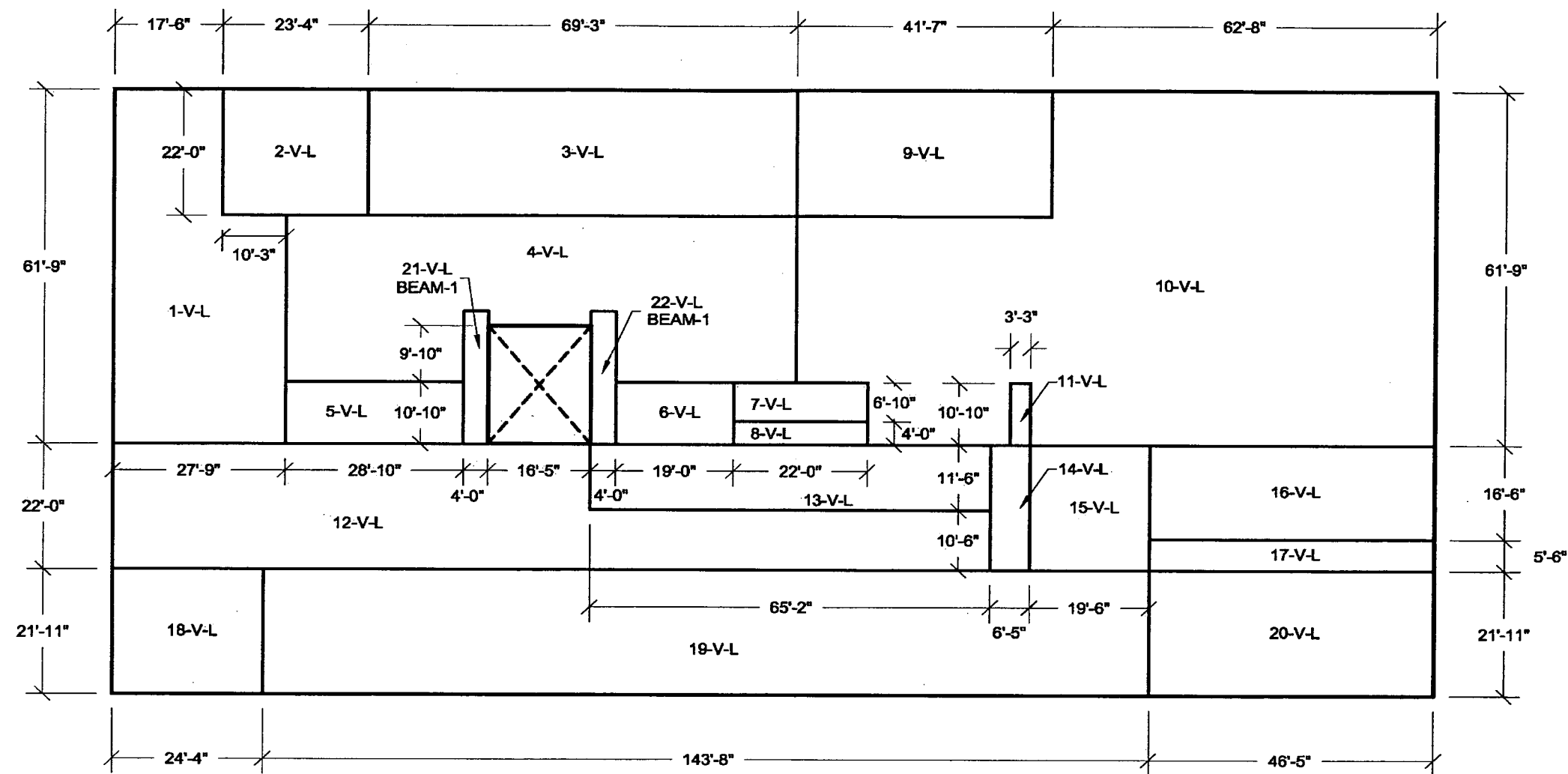
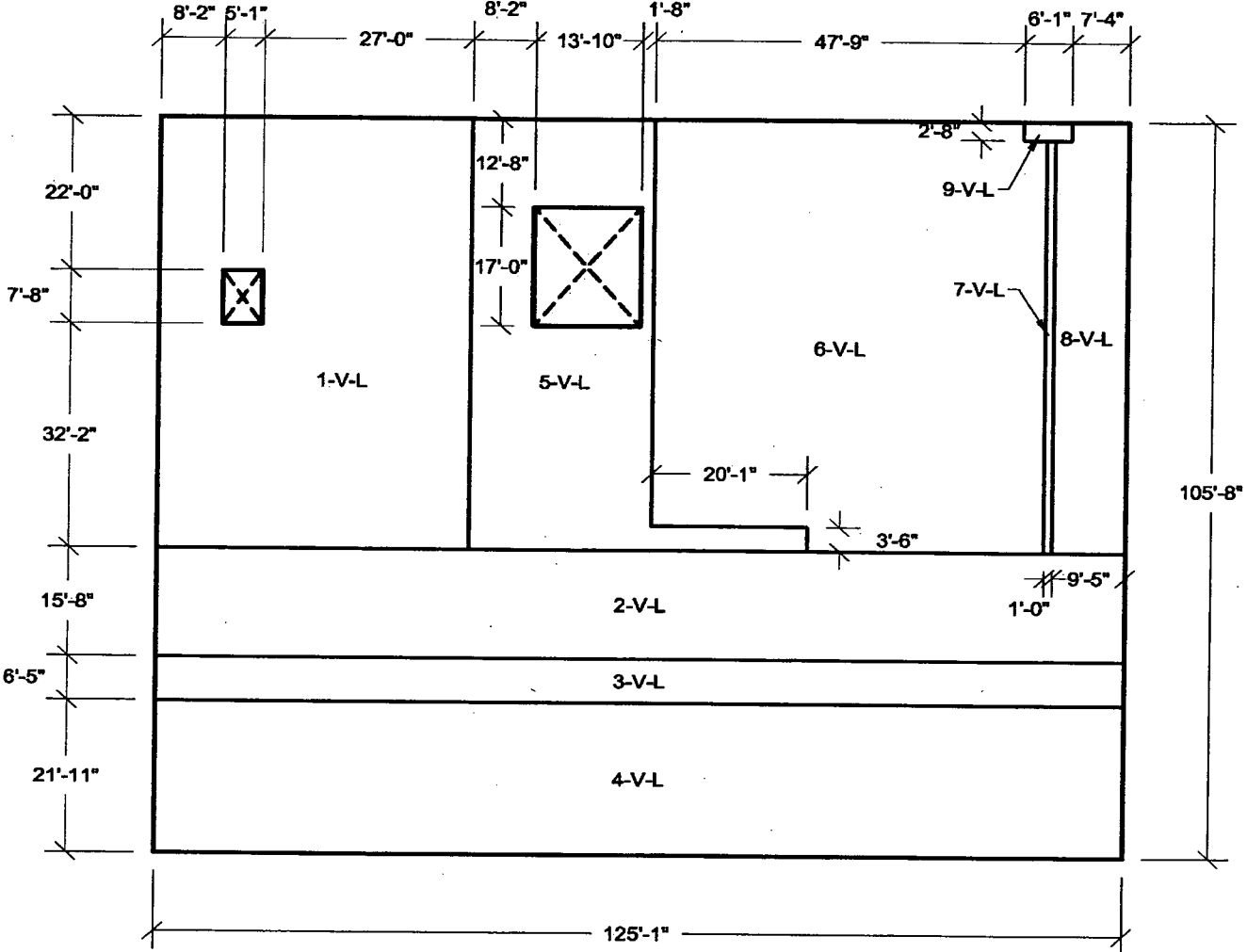
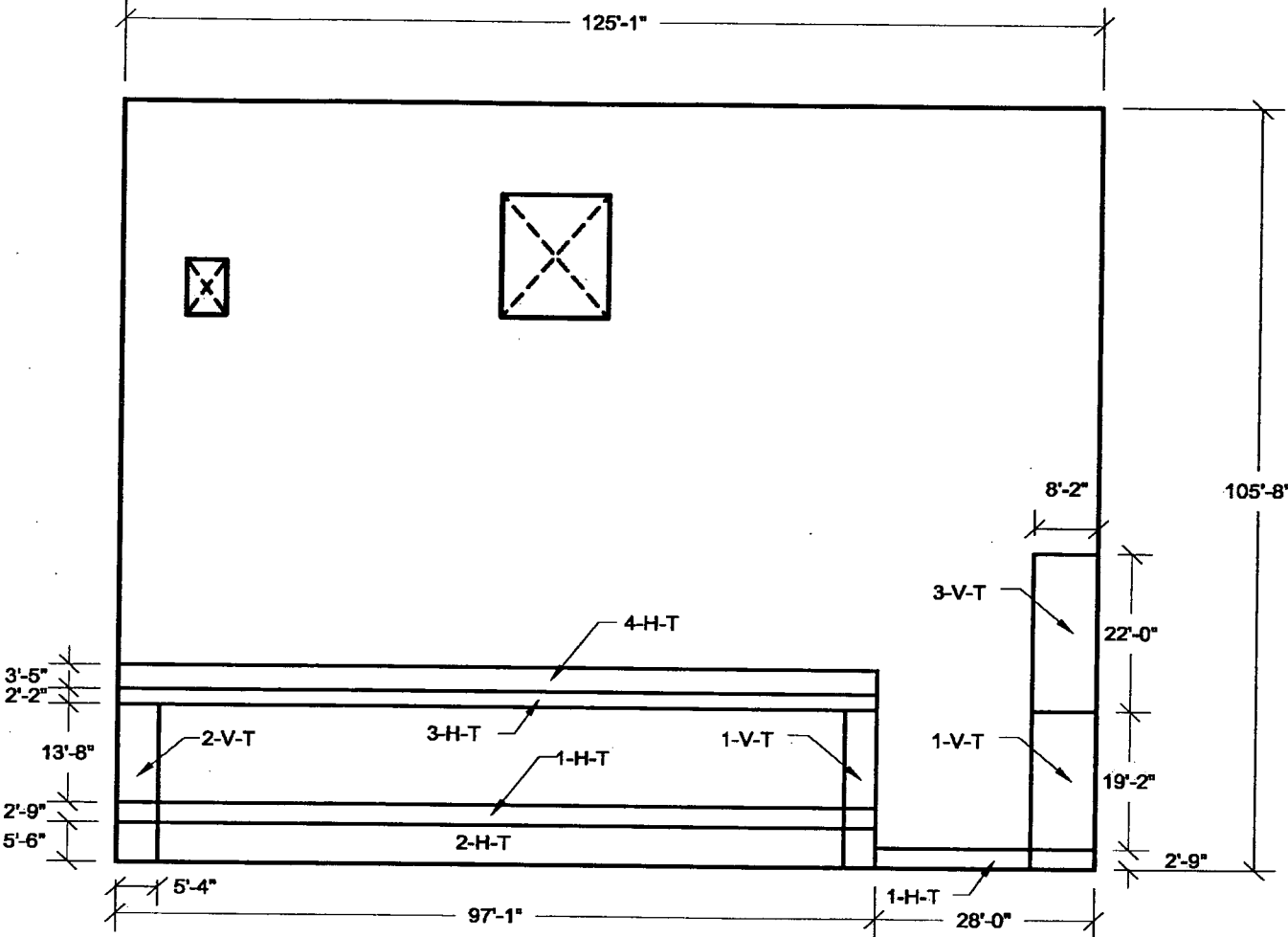


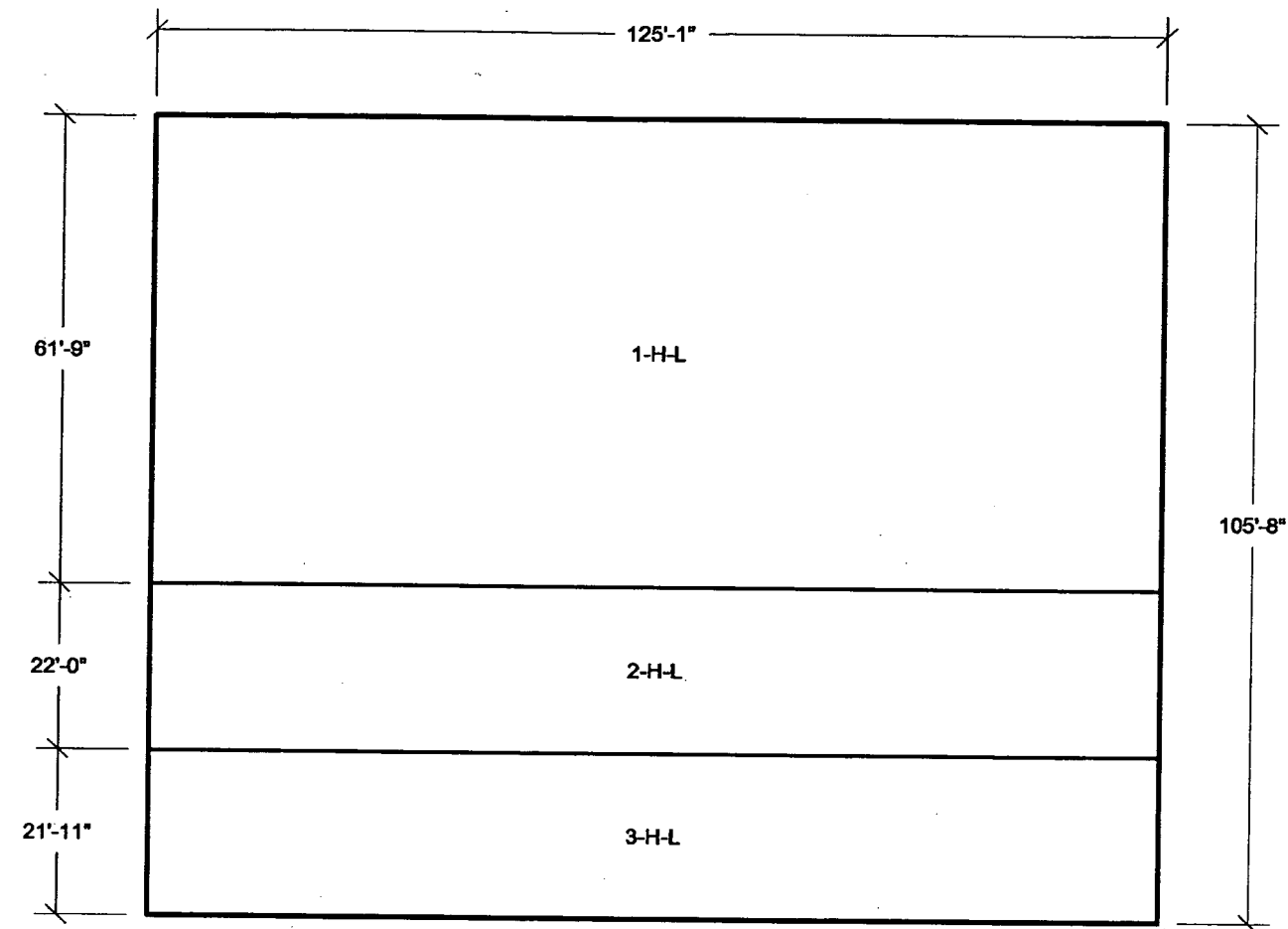
FIGURE 3H.3-16: SOUTH WALL LOOKING NORTH  
VERTICAL REINFORCEMENT ZONES  
FAR SIDE FACE



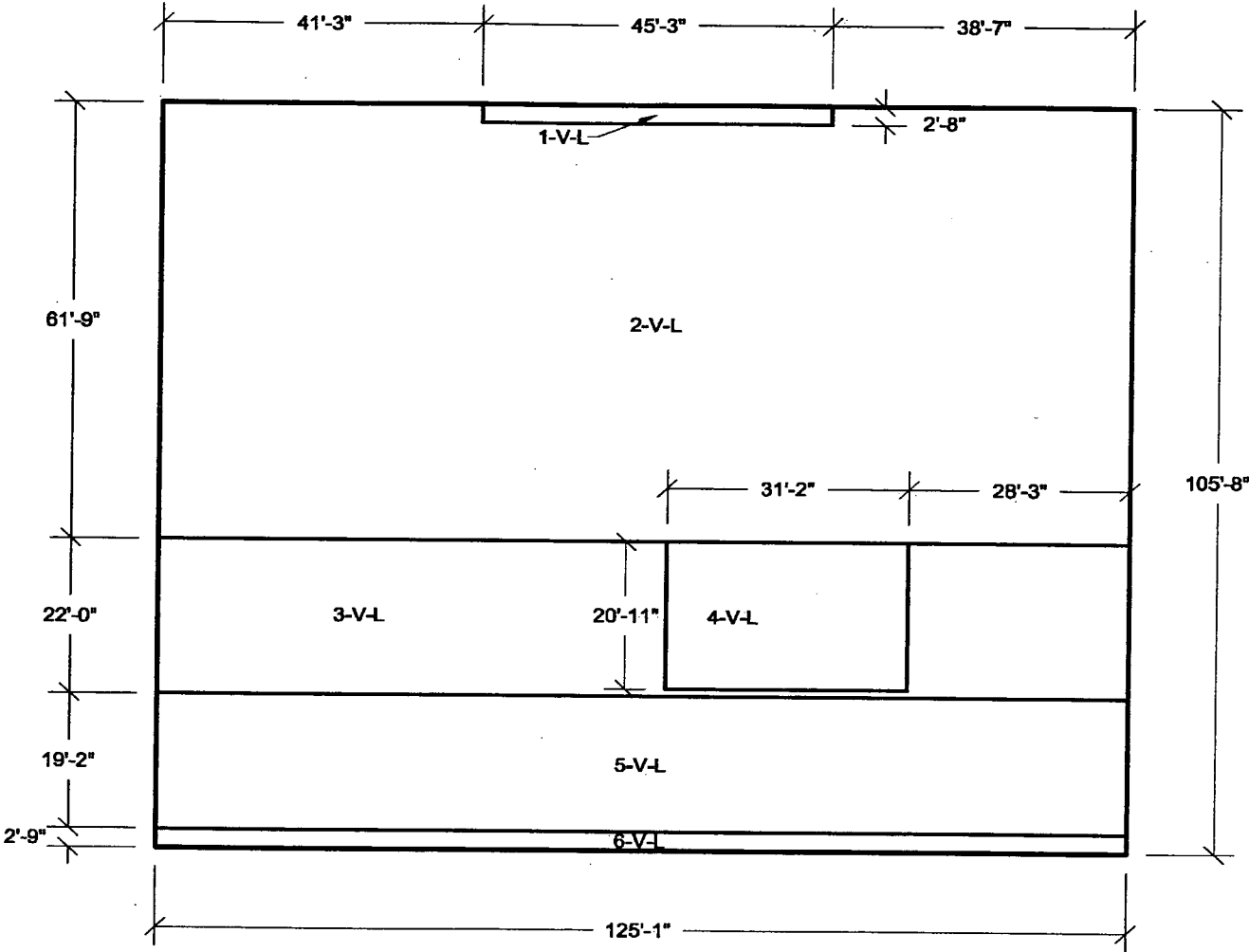
**FIGURE 3H.3-21: EAST WALL LOOKING WEST  
VERTICAL REINFORCEMENT ZONES  
FAR SIDE FACE**



**FIGURE 3H.3-22: EAST WALL LOOKING WEST  
TRANSVERSE REINFORCEMENT ZONES**

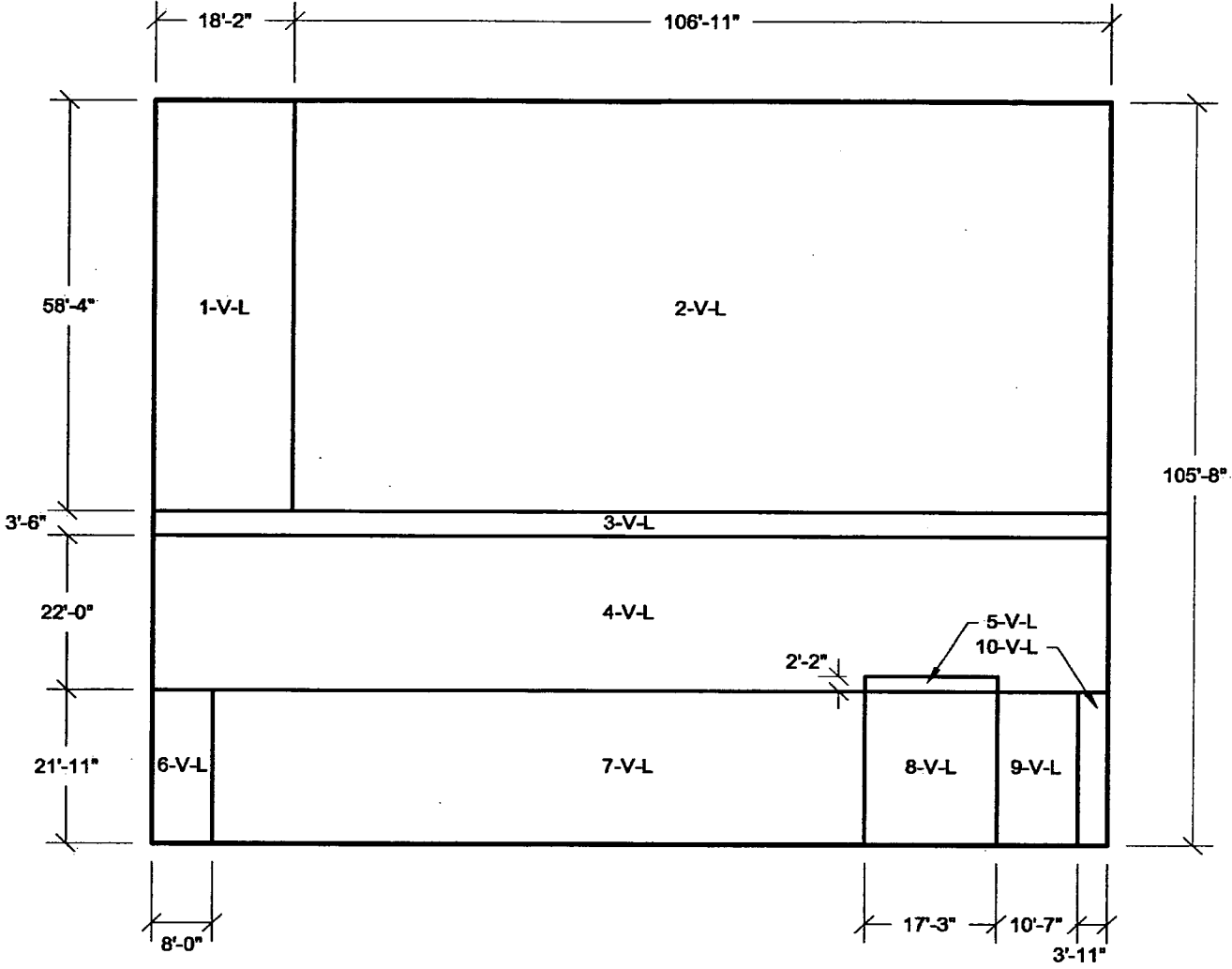


**FIGURE 3H.3-23: WEST WALL LOOKING EAST**  
**HORIZONTAL REINFORCEMENT ZONES**  
 NEAR SIDE FACE



**FIGURE 3H.3-24: WEST WALL LOOKING EAST**  
**VERTICAL REINFORCEMENT ZONES**  
**NEAR SIDE FACE**





**FIGURE 3H.3-26: WEST WALL LOOKING EAST**  
**VERTICAL REINFORCEMENT ZONES**  
**FAR SIDE FACE**

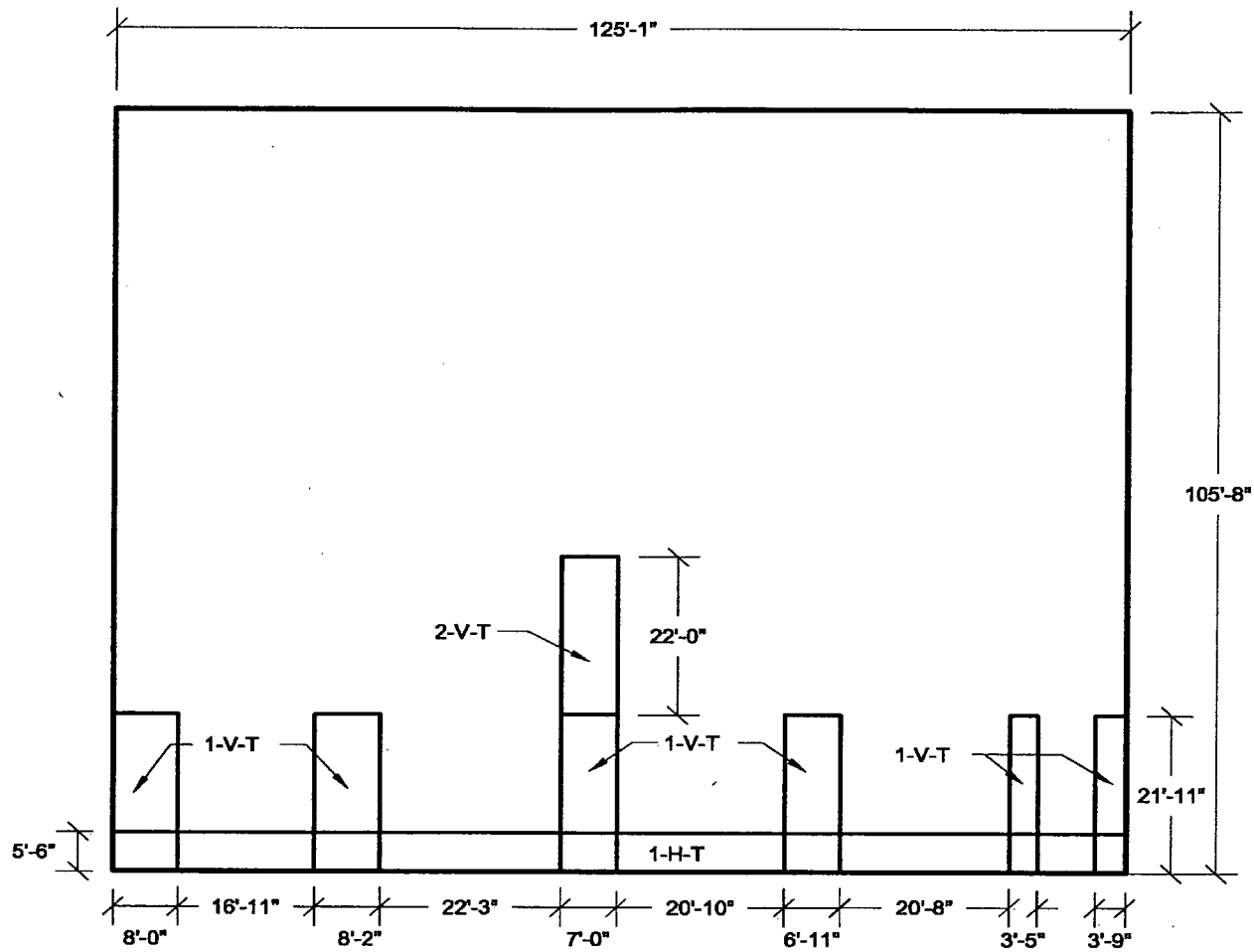
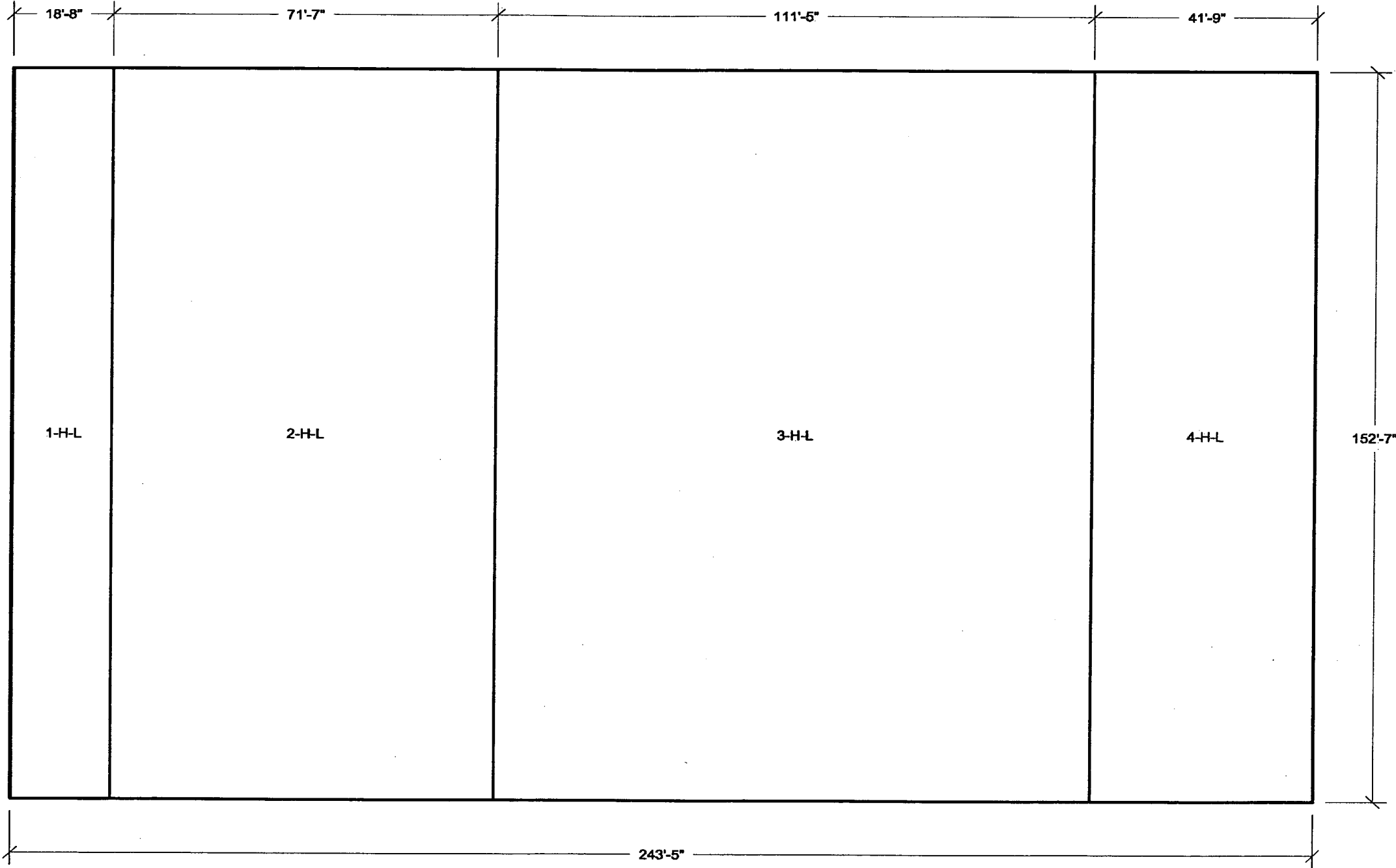


FIGURE 3H.3-27: WEST WALL LOOKING EAST  
TRANSVERSE REINFORCEMENT ZONES





**FIGURE 3H.3-28: BASEMAT LOOKING DOWN**  
**EAST-WEST REINFORCEMENT ZONES**  
NEAR SIDE FACE

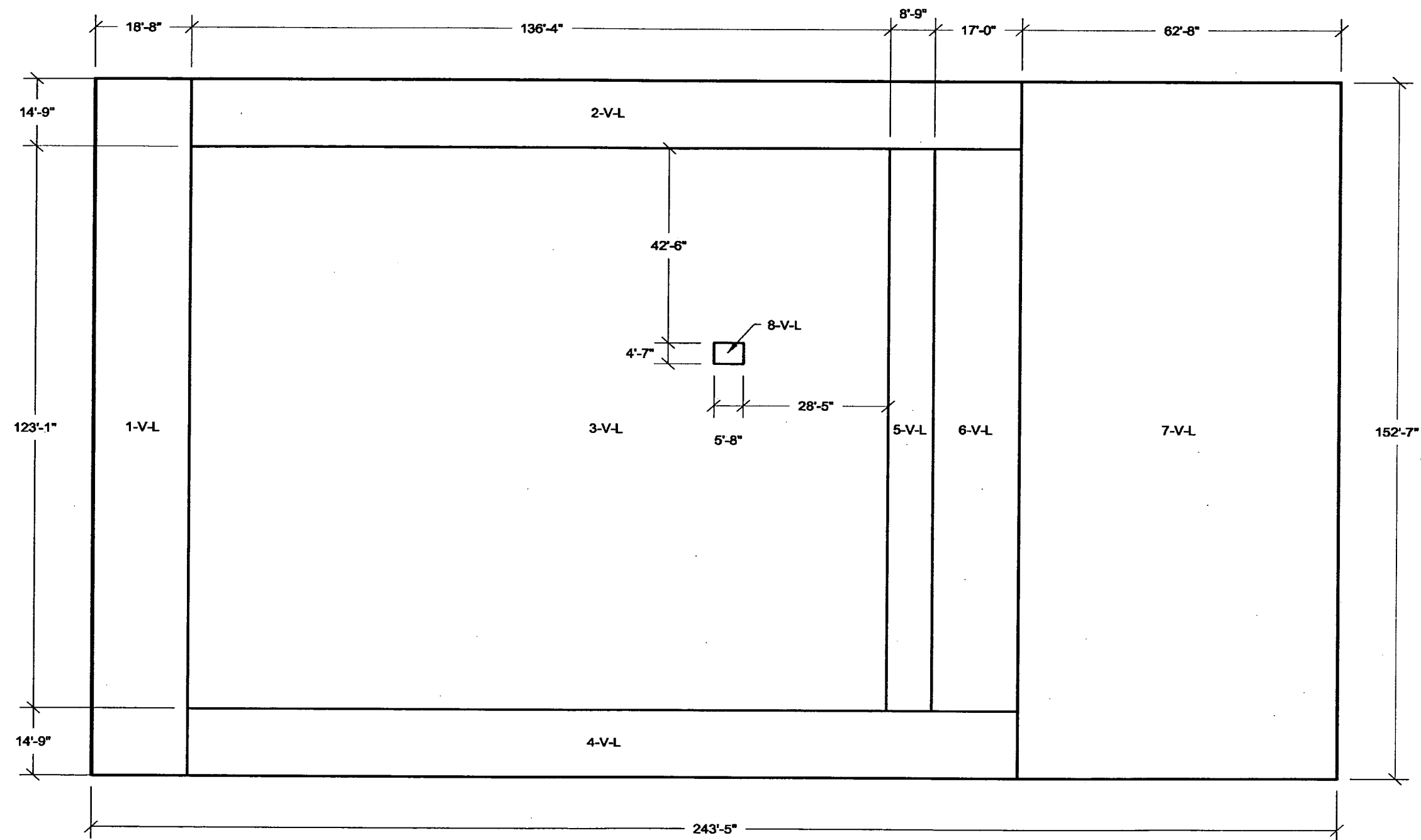


FIGURE 3H.3-29: BASEMAT LOOKING DOWN  
NORTH-SOUTH REINFORCEMENT ZONES  
NEAR SIDE FACE

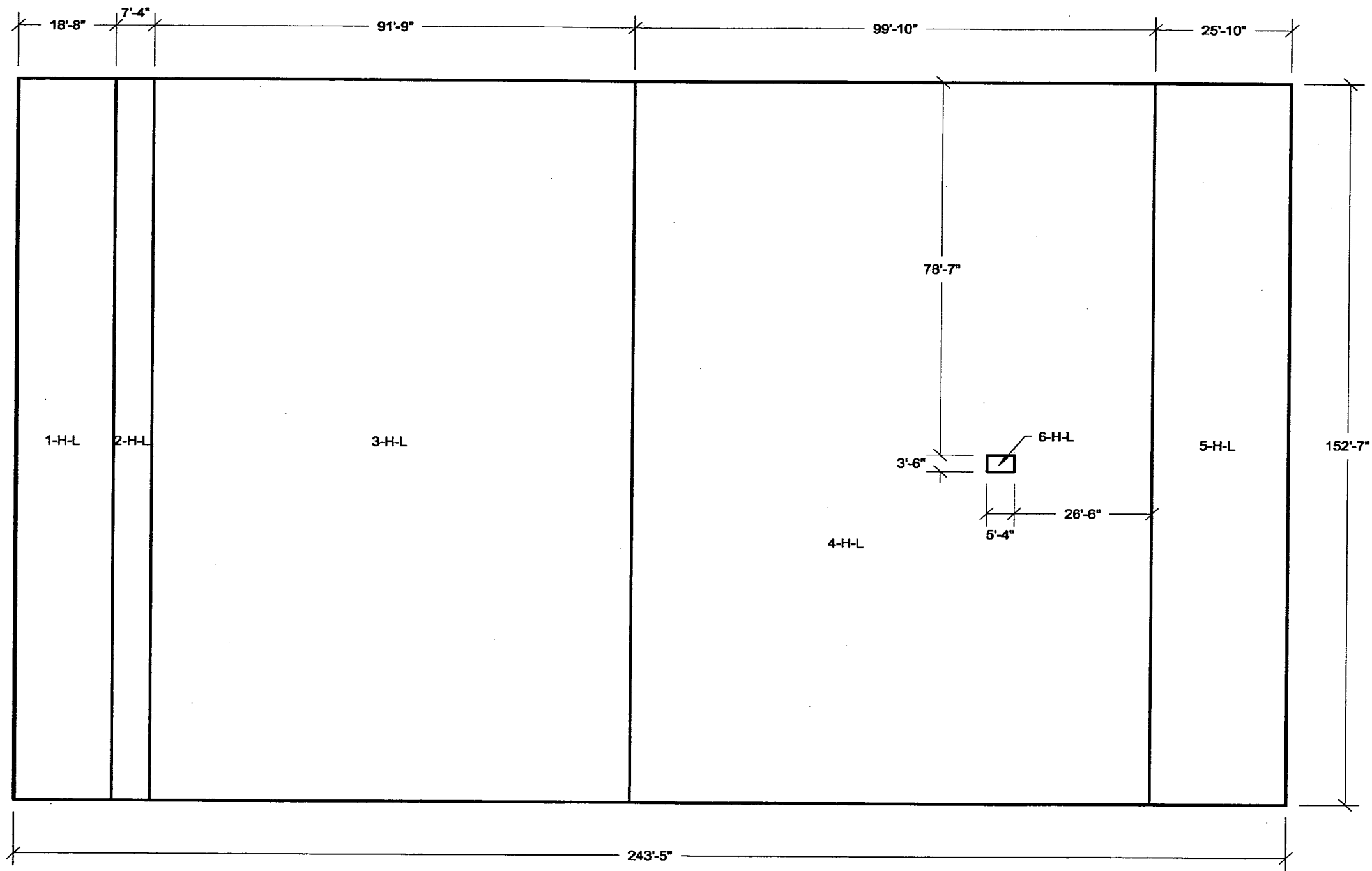
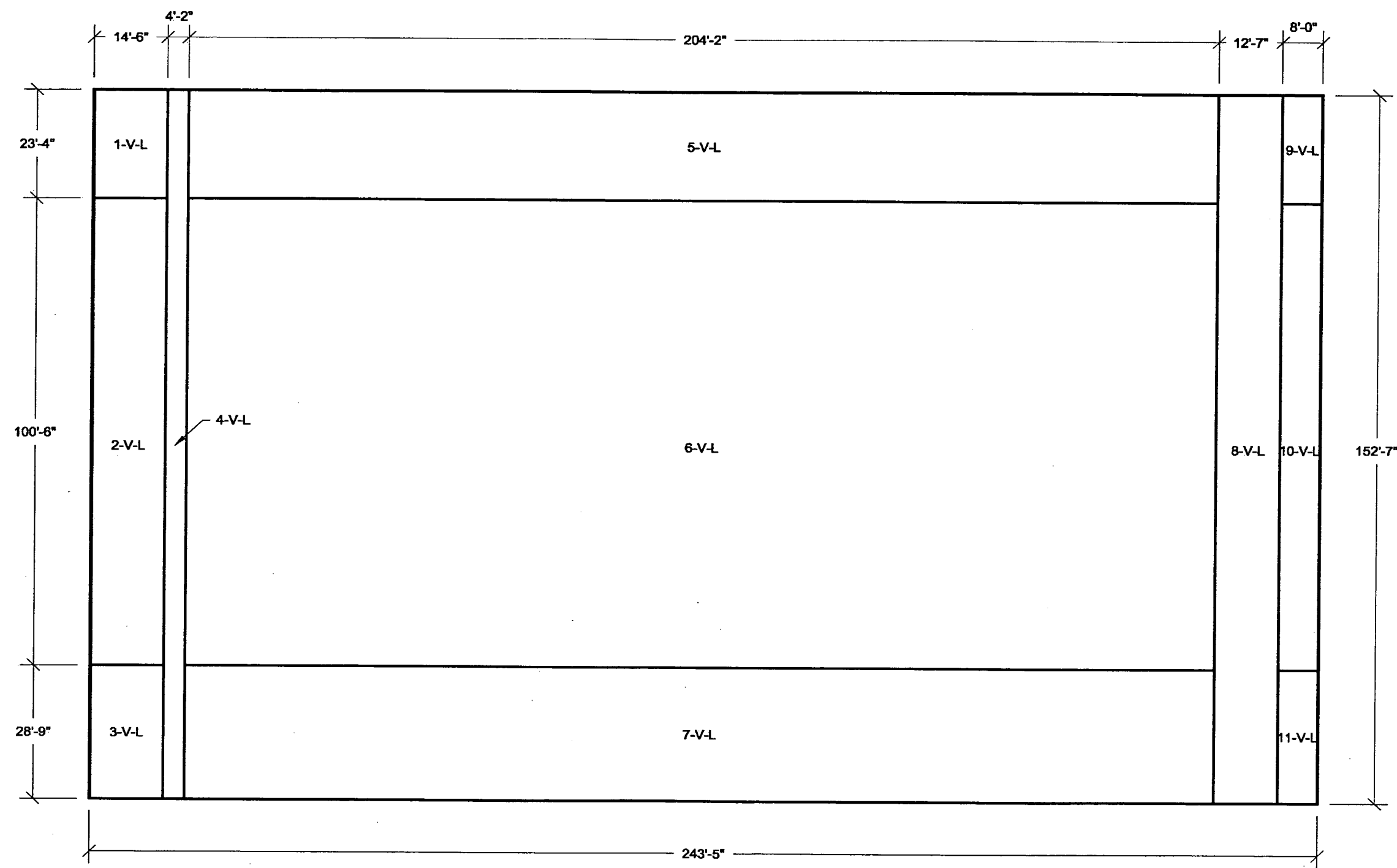


FIGURE 3H.3-30: BASEMAT LOOKING DOWN  
EAST-WEST REINFORCEMENT ZONES  
FAR SIDE FACE



**FIGURE 3H.3-31: BASEMAT LOOKING DOWN  
NORTH-SOUTH REINFORCEMENT ZONES  
FAR SIDE FACE**

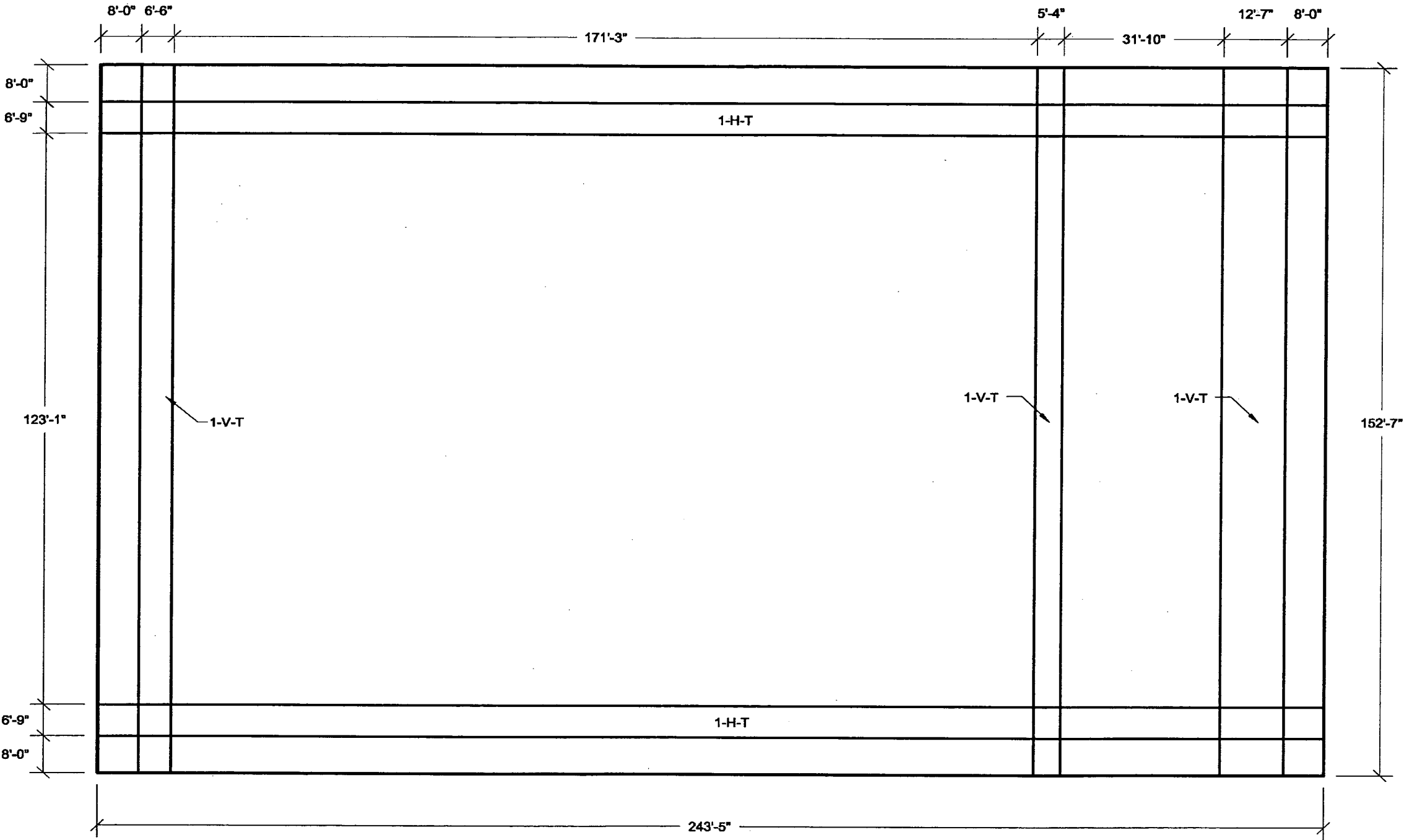


FIGURE 3H.3-32: BASEMAT LOOKING DOWN  
TRANSVERSE REINFORCEMENT ZONES

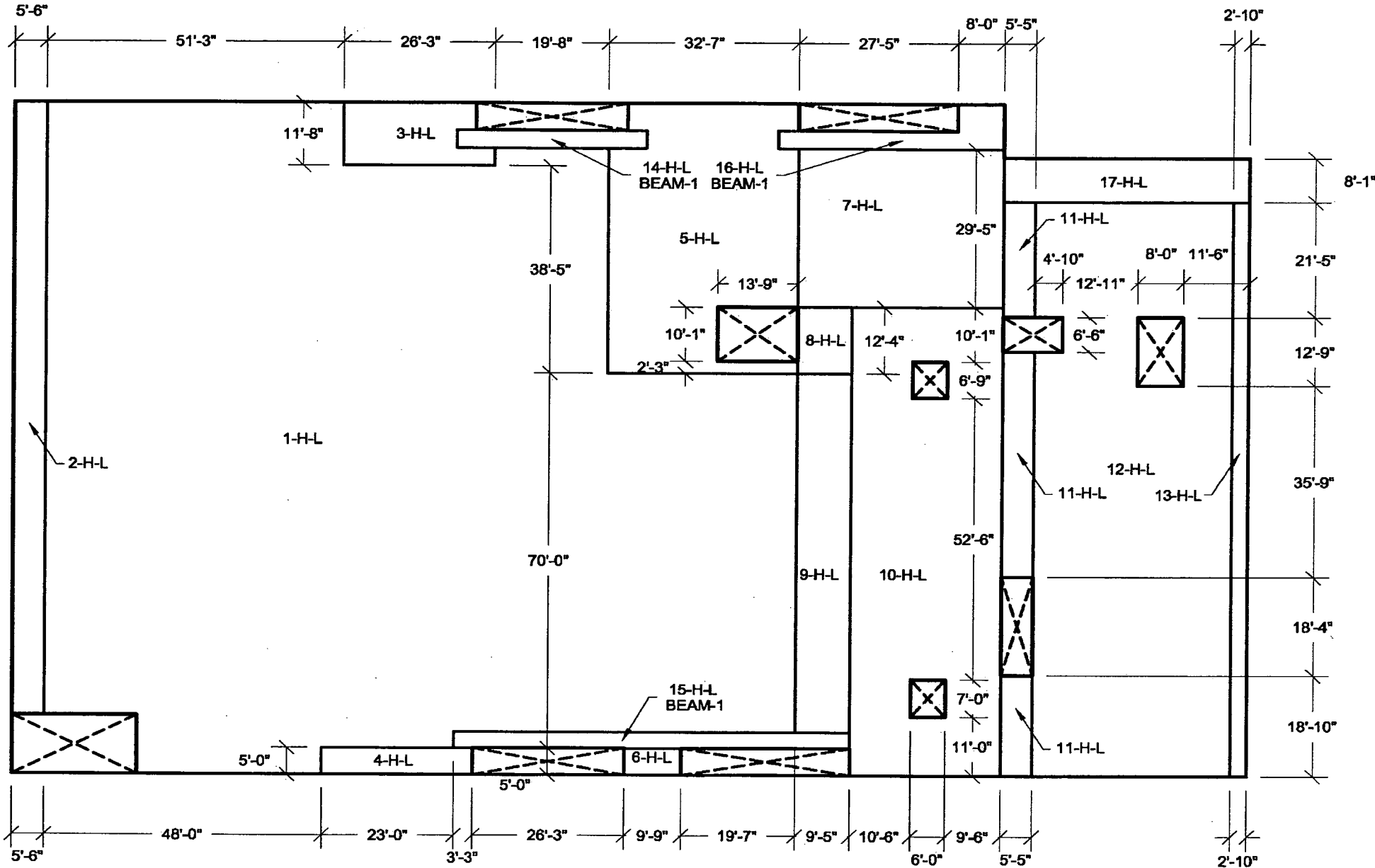


FIGURE 3H.3-33: ELEVATION 35 LOOKING DOWN  
EAST-WEST REINFORCEMENT ZONES  
NEAR SIDE FACE



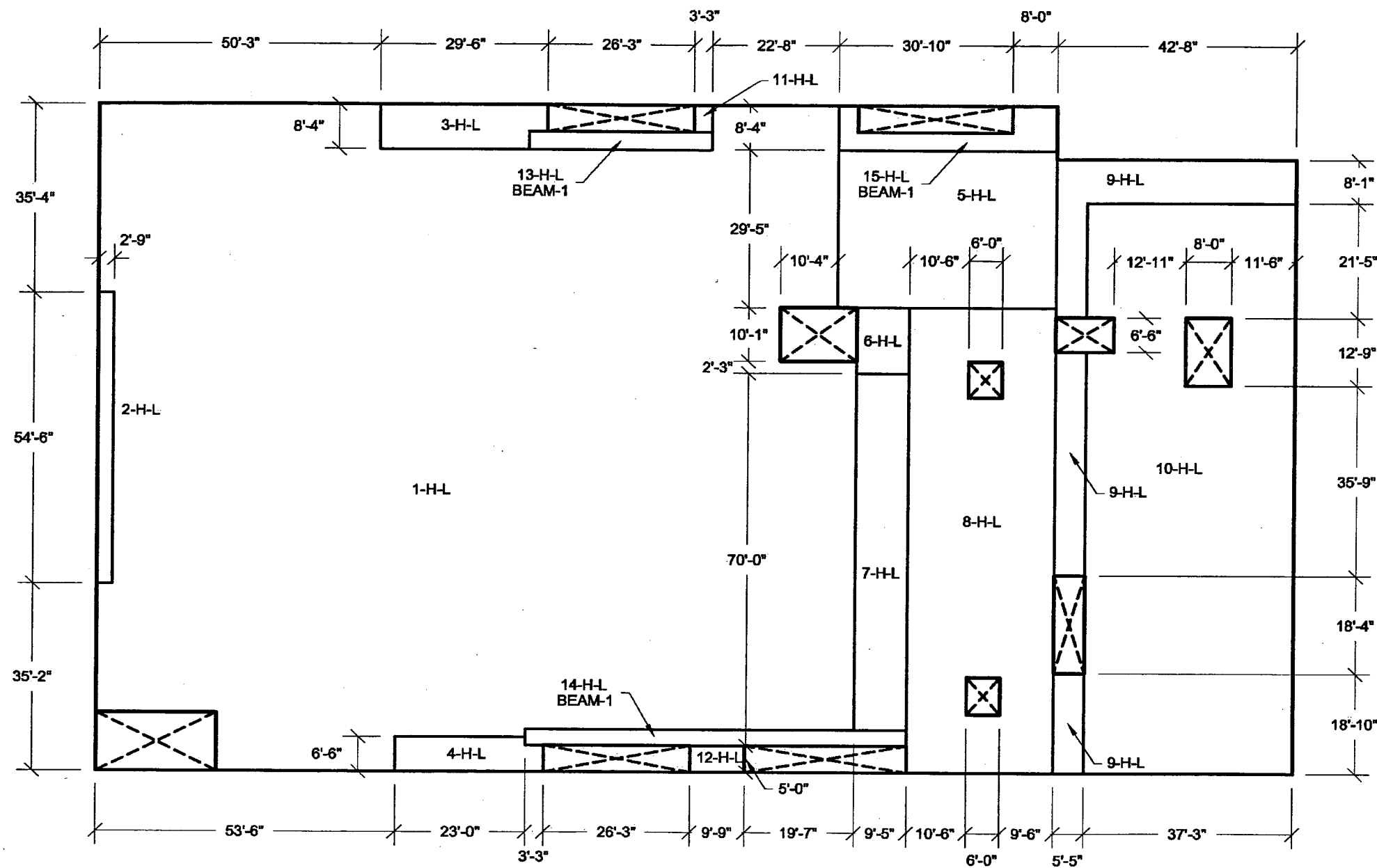
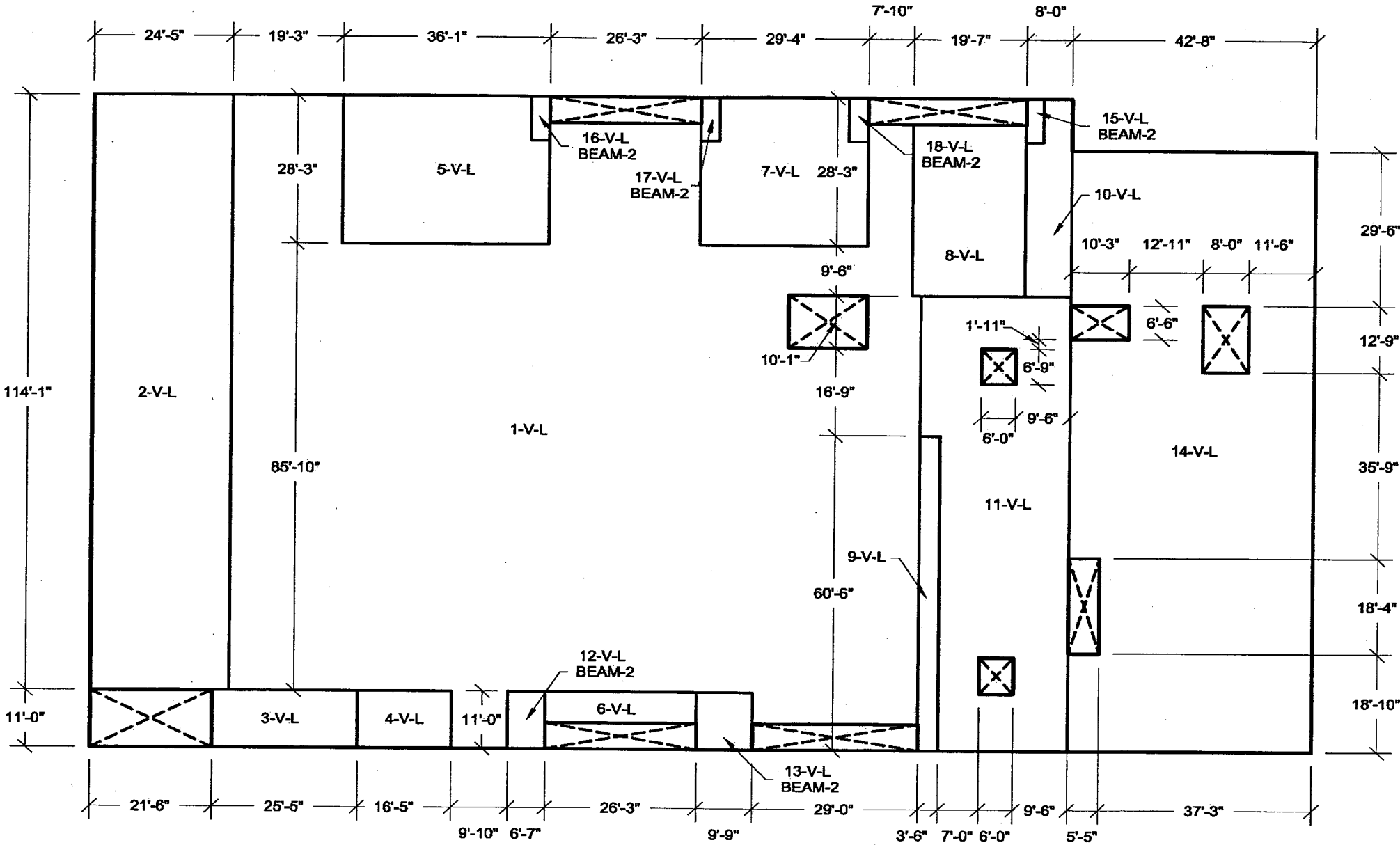


FIGURE 3H.3-35: ELEVATION 35 LOOKING DOWN  
EAST-WEST REINFORCEMENT ZONES  
FAR SIDE FACE





**FIGURE 3H.3-38: ELEVATION 35 LOOKING DOWN  
NORTH-SOUTH REINFORCEMENT ZONES  
FAR SIDE FACE**

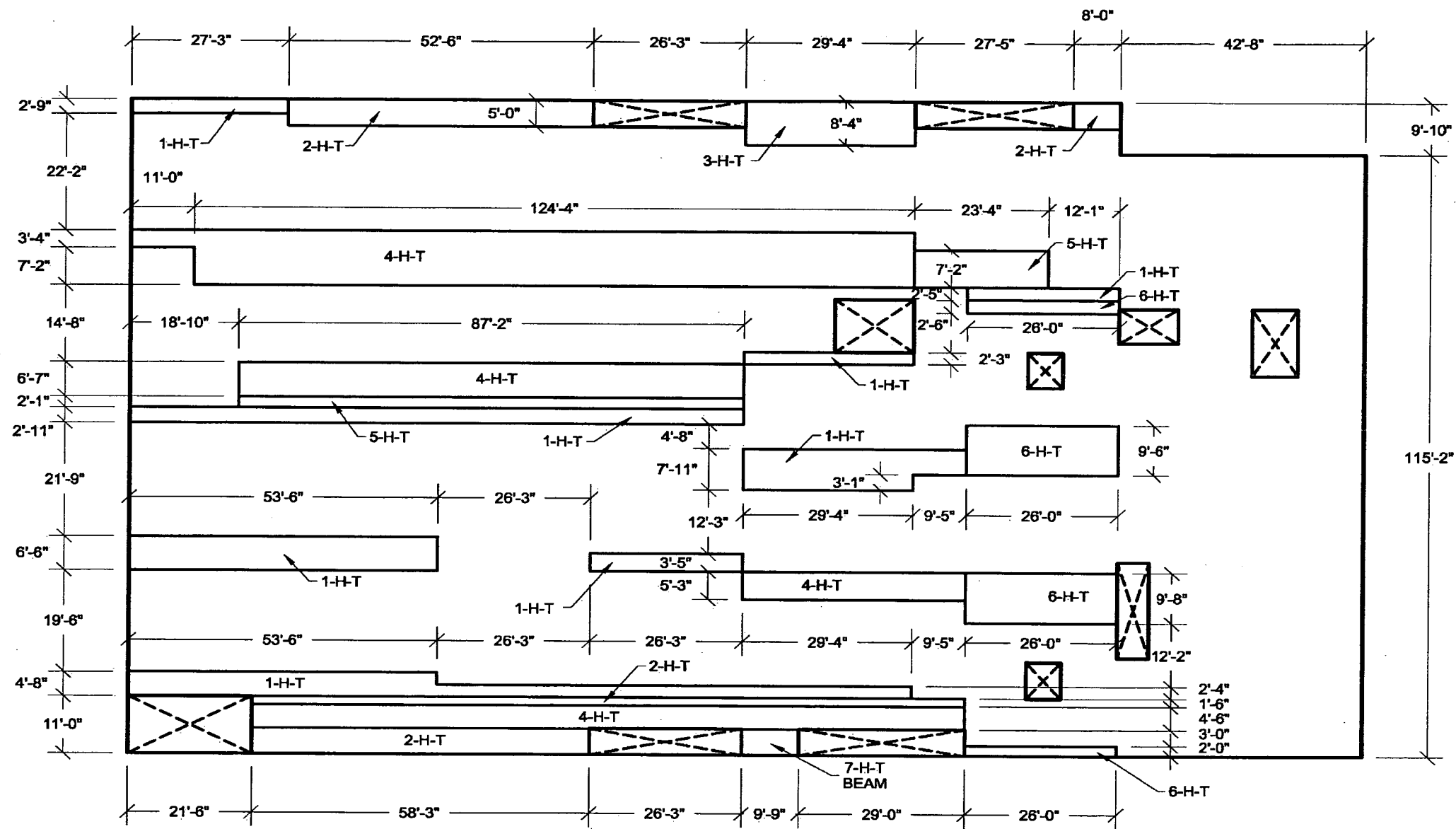
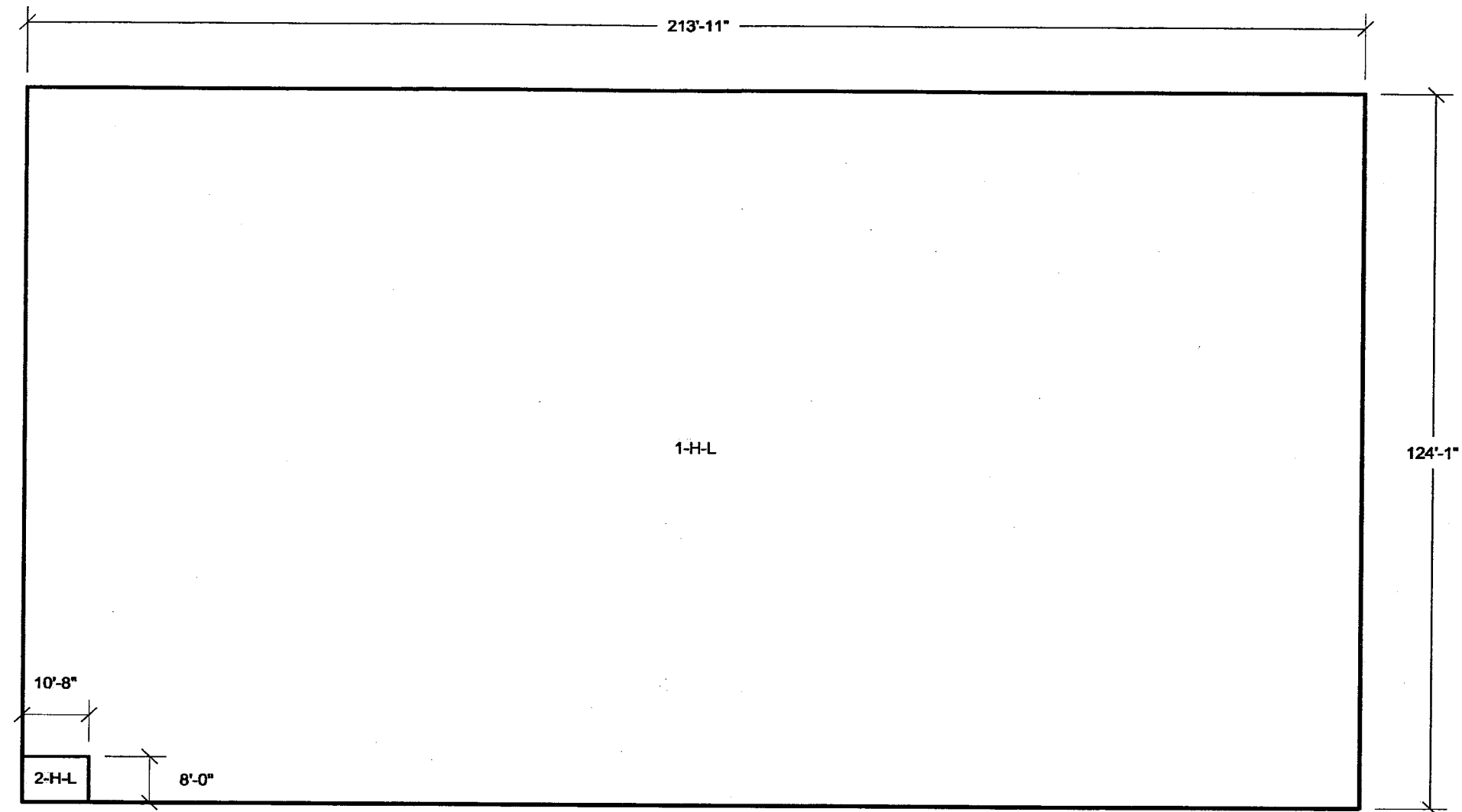


FIGURE 3H.3-37a: ELEVATION 35 LOOKING DOWN  
HORIZONTAL TRANSVERSE REINFORCEMENT ZONES





**FIGURE 3H.3-38: ELEVATION 95 LOOKING DOWN**  
**EAST-WEST REINFORCEMENT ZONES**  
**NEAR SIDE FACE**

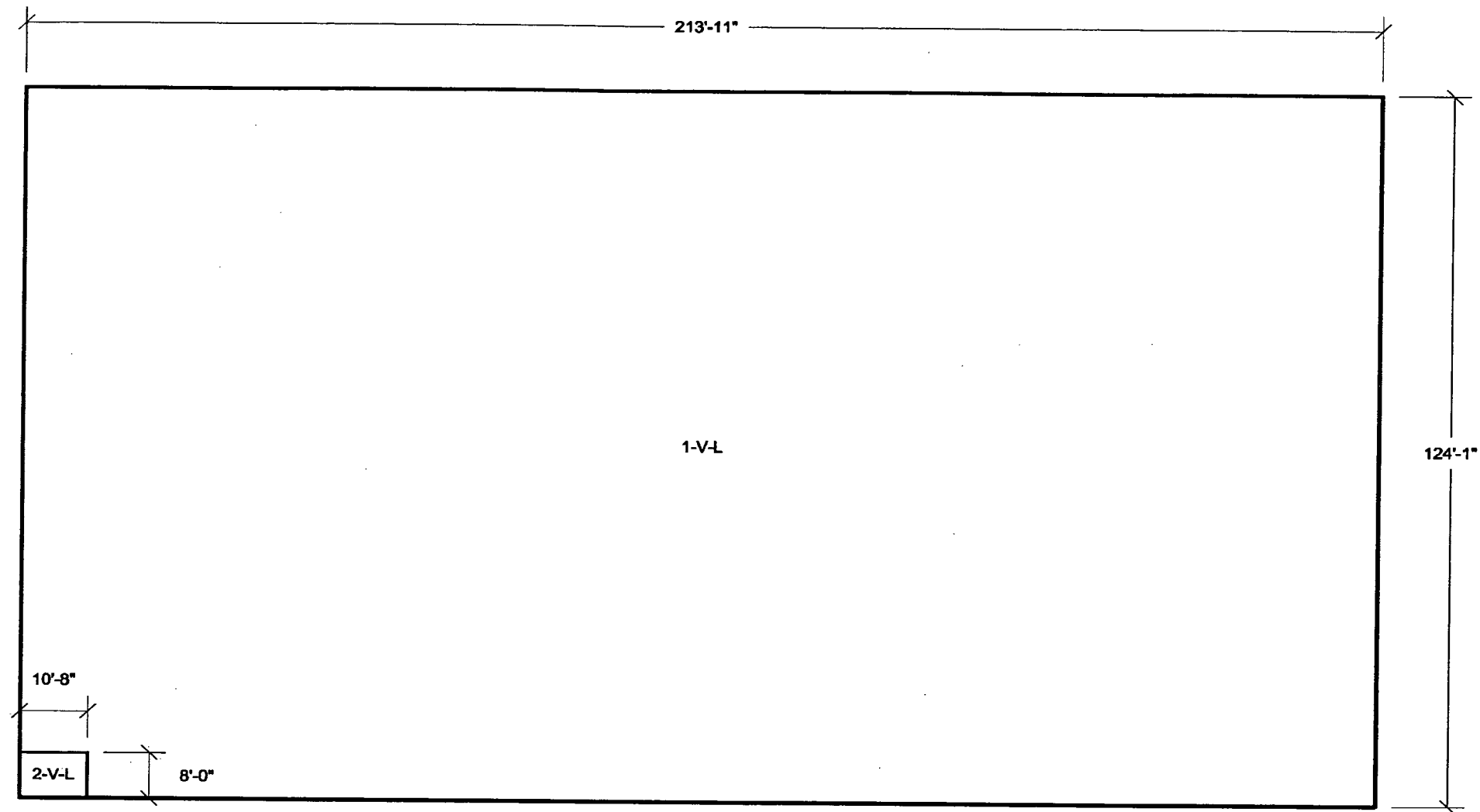
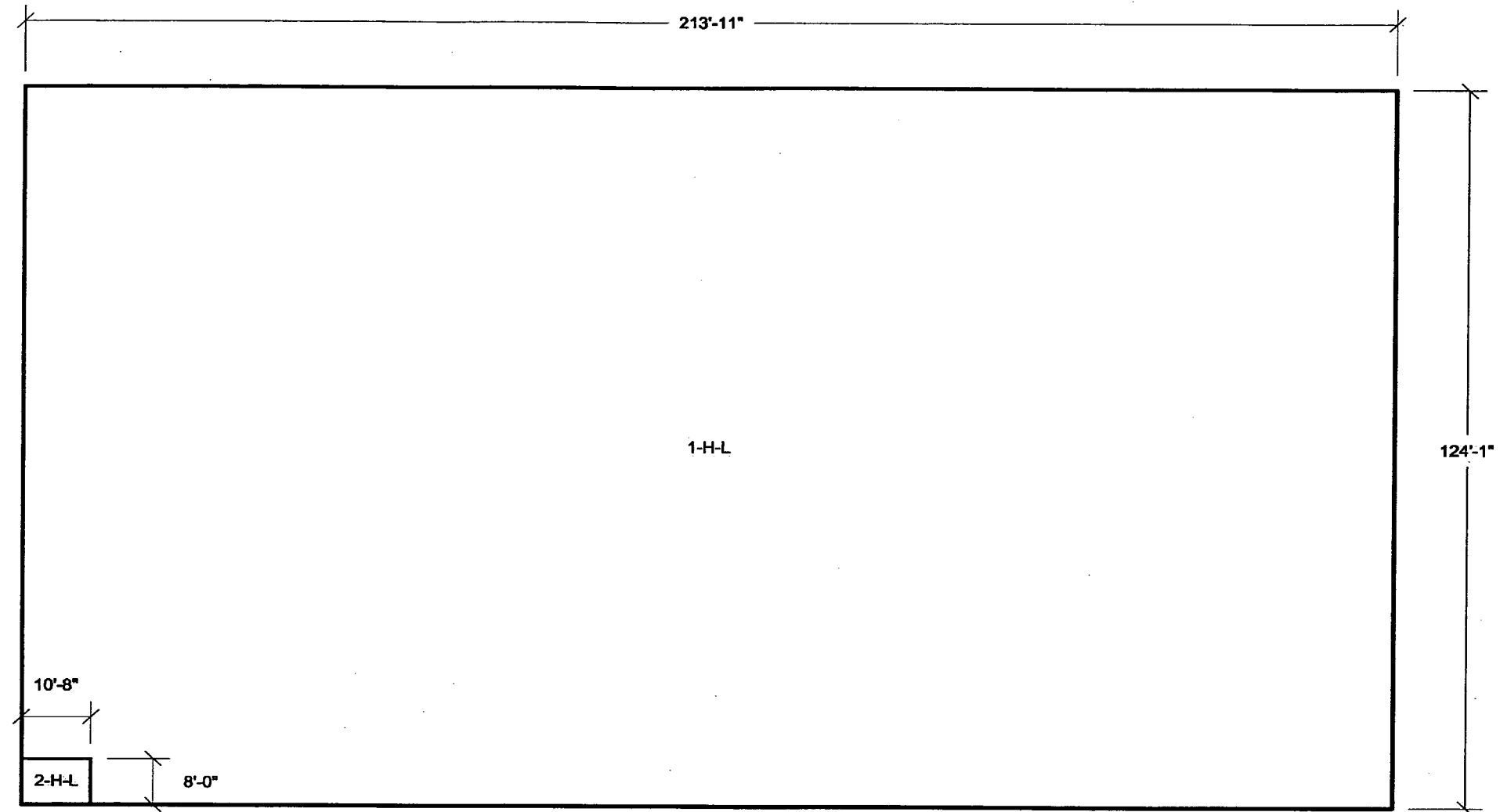


FIGURE 3H.3-39: ELEVATION 95 LOOKING DOWN  
NORTH-SOUTH REINFORCEMENT ZONES  
NEAR SIDE FACE



**FIGURE 3H.3-40: ELEVATION 95 LOOKING DOWN**  
**EAST-WEST REINFORCEMENT ZONES**  
**FAR SIDE FACE**

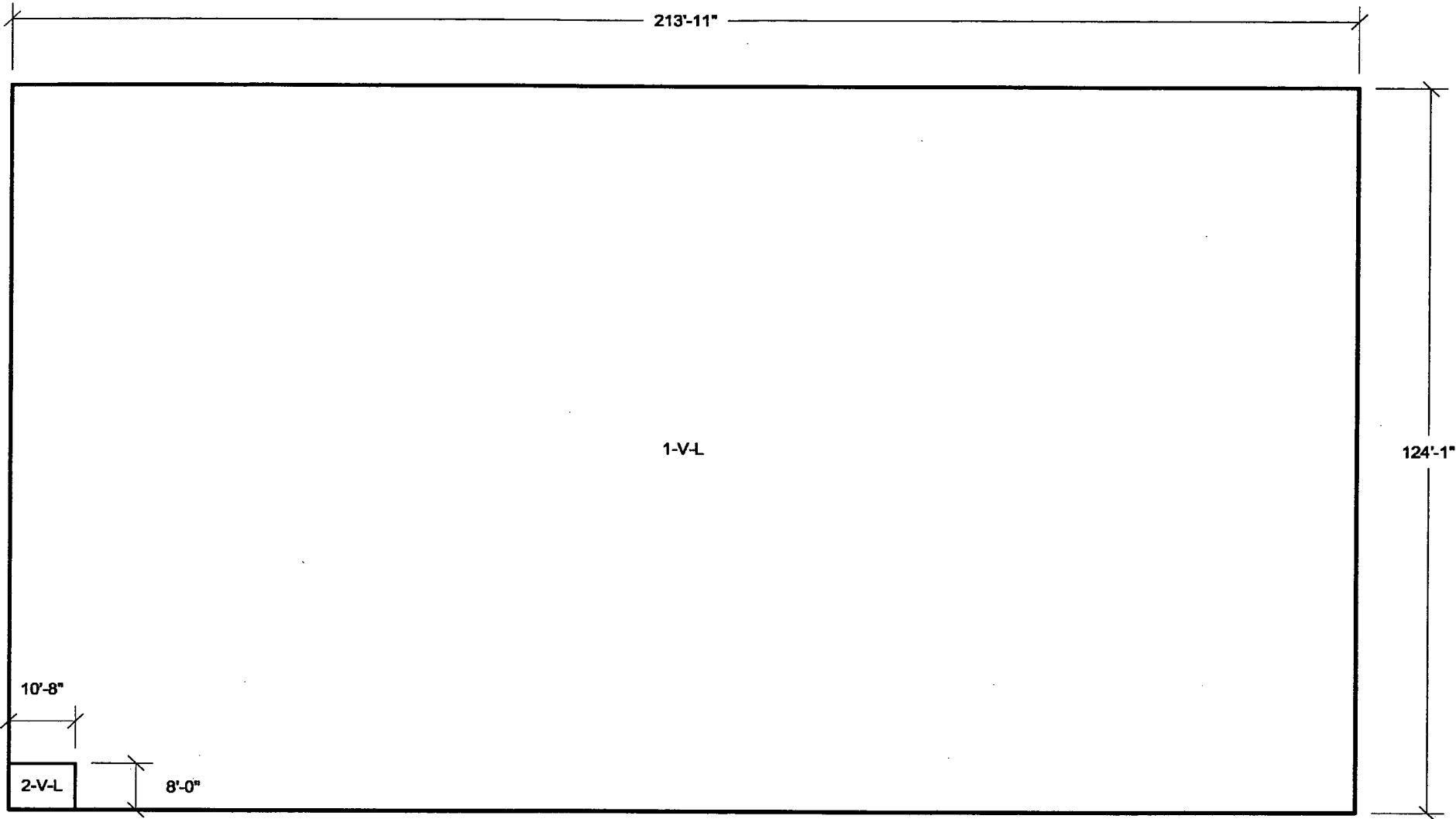
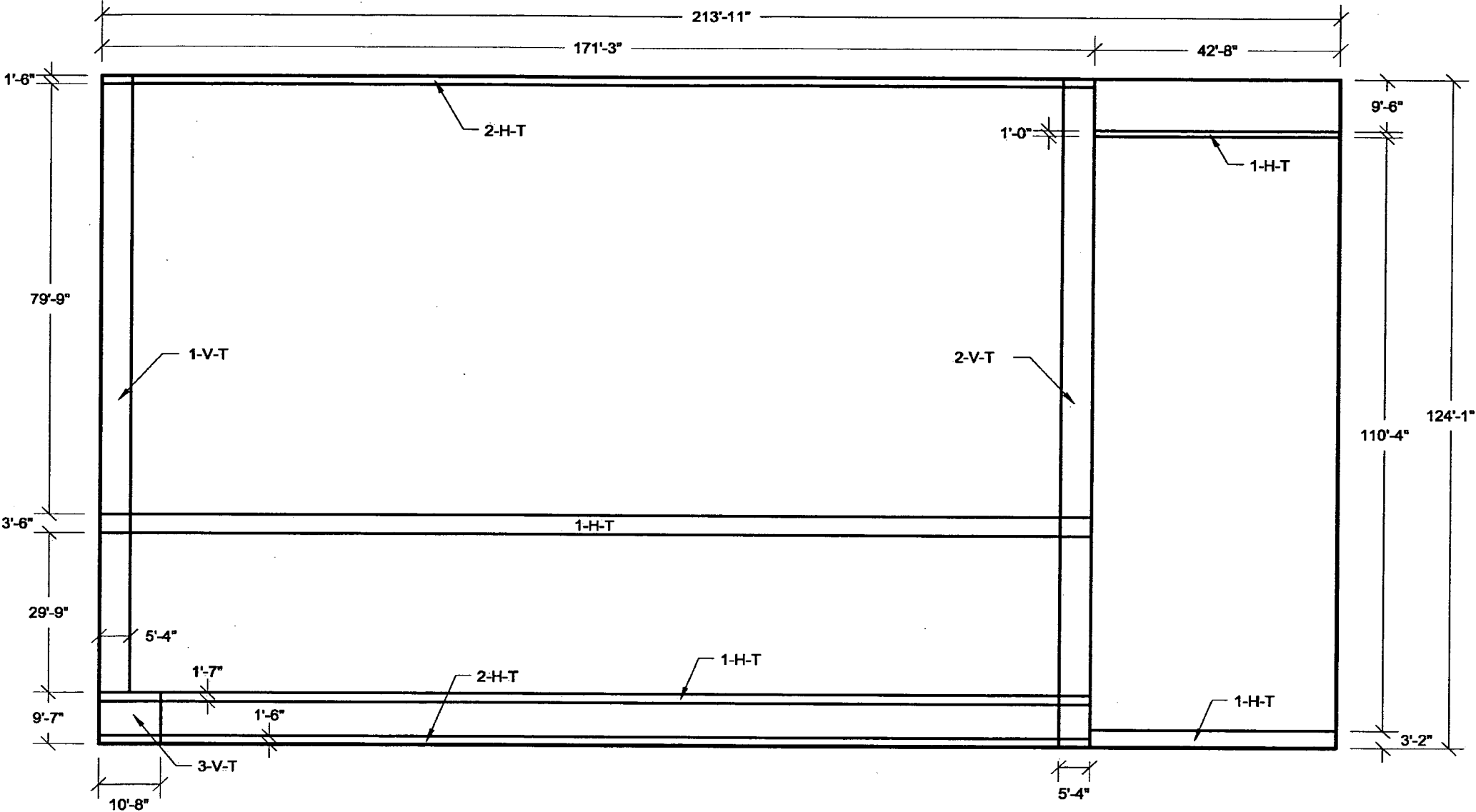
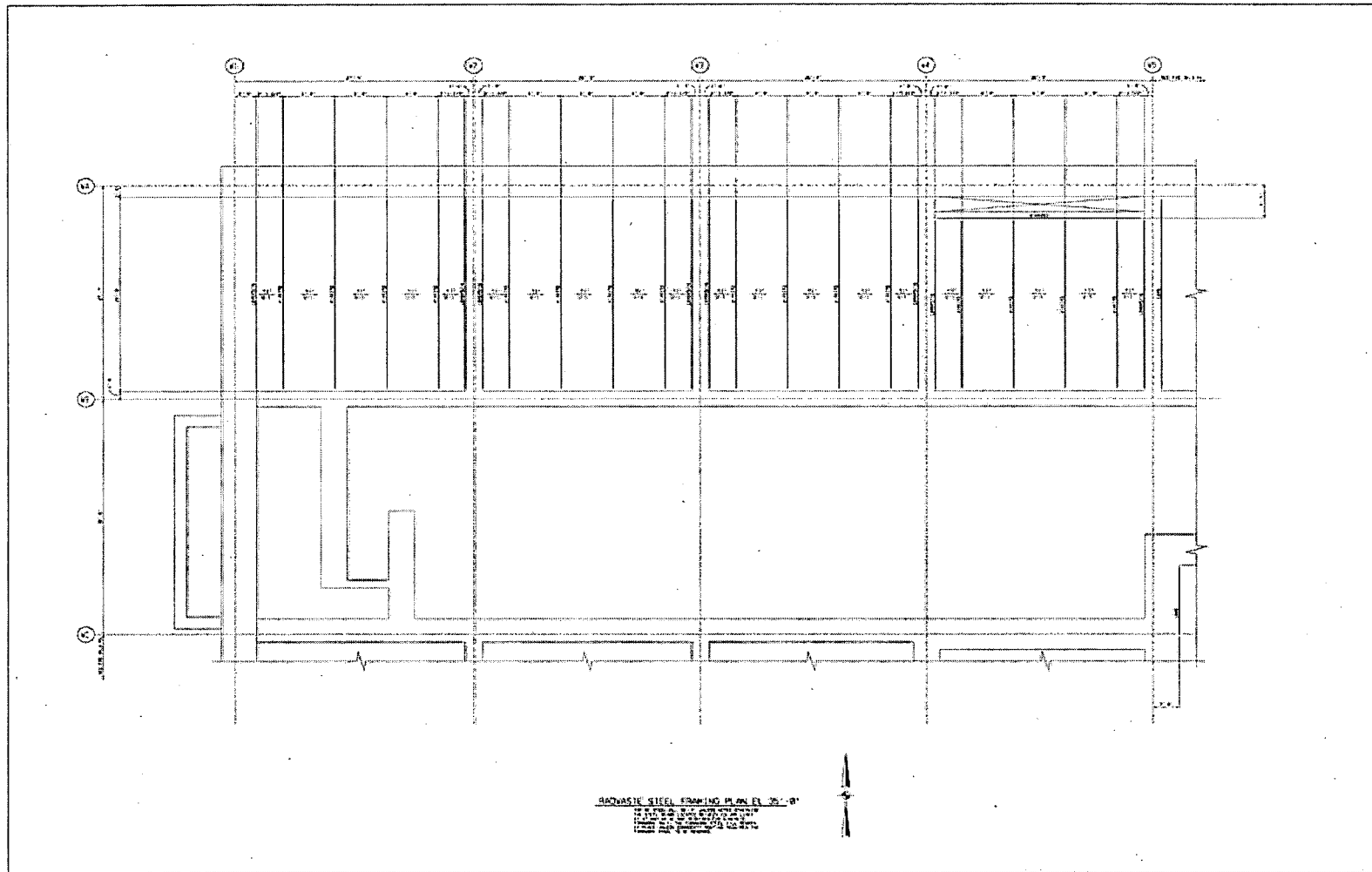


FIGURE 3H.3-41: ELEVATION 95 LOOKING DOWN  
NORTH-SOUTH REINFORCEMENT ZONES  
FAR SIDE FACE

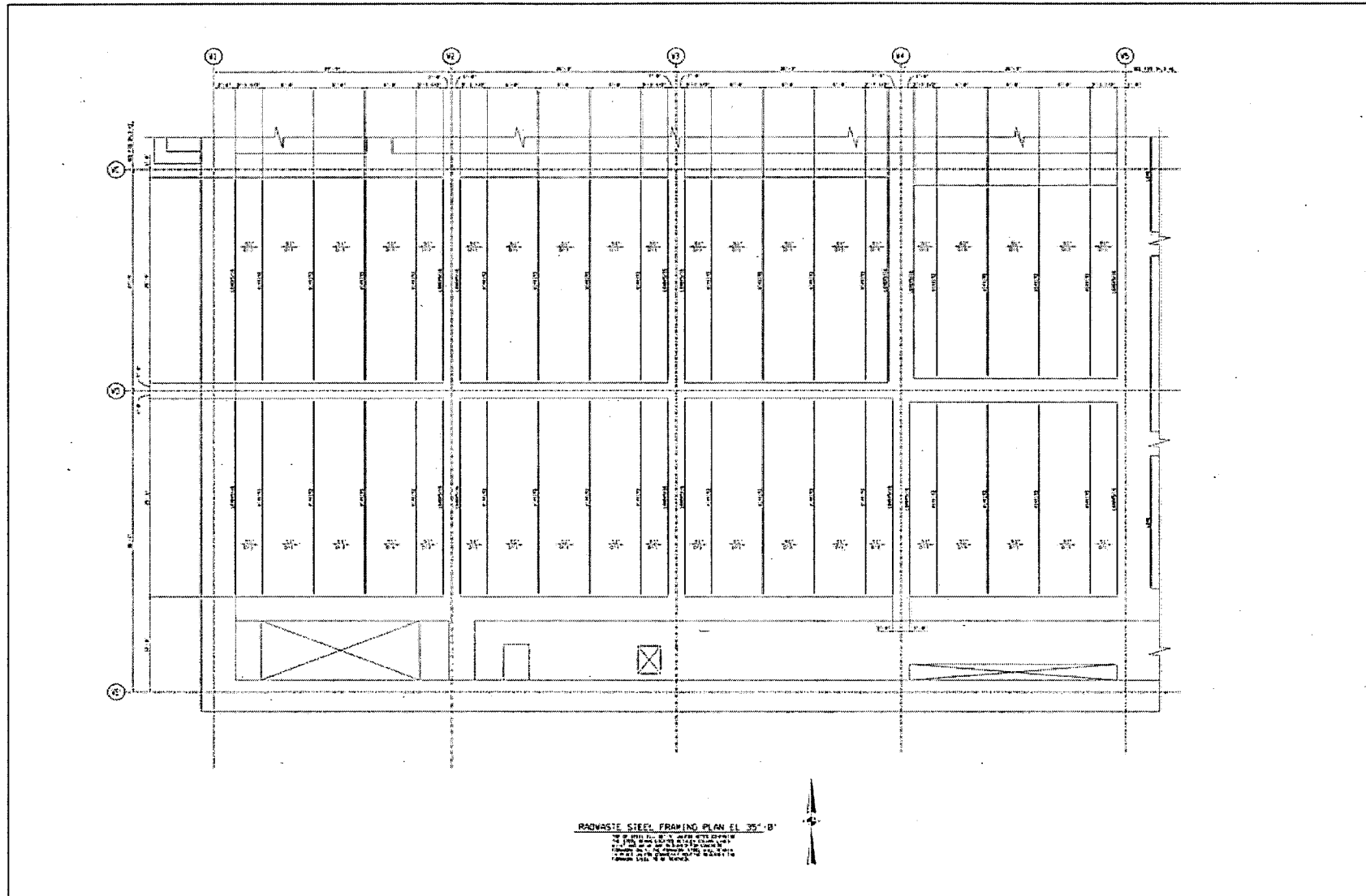


**FIGURE 3H.3-42: ELEVATION 95 LOOKING DOWN  
TRANSVERSE REINFORCEMENT ZONES**









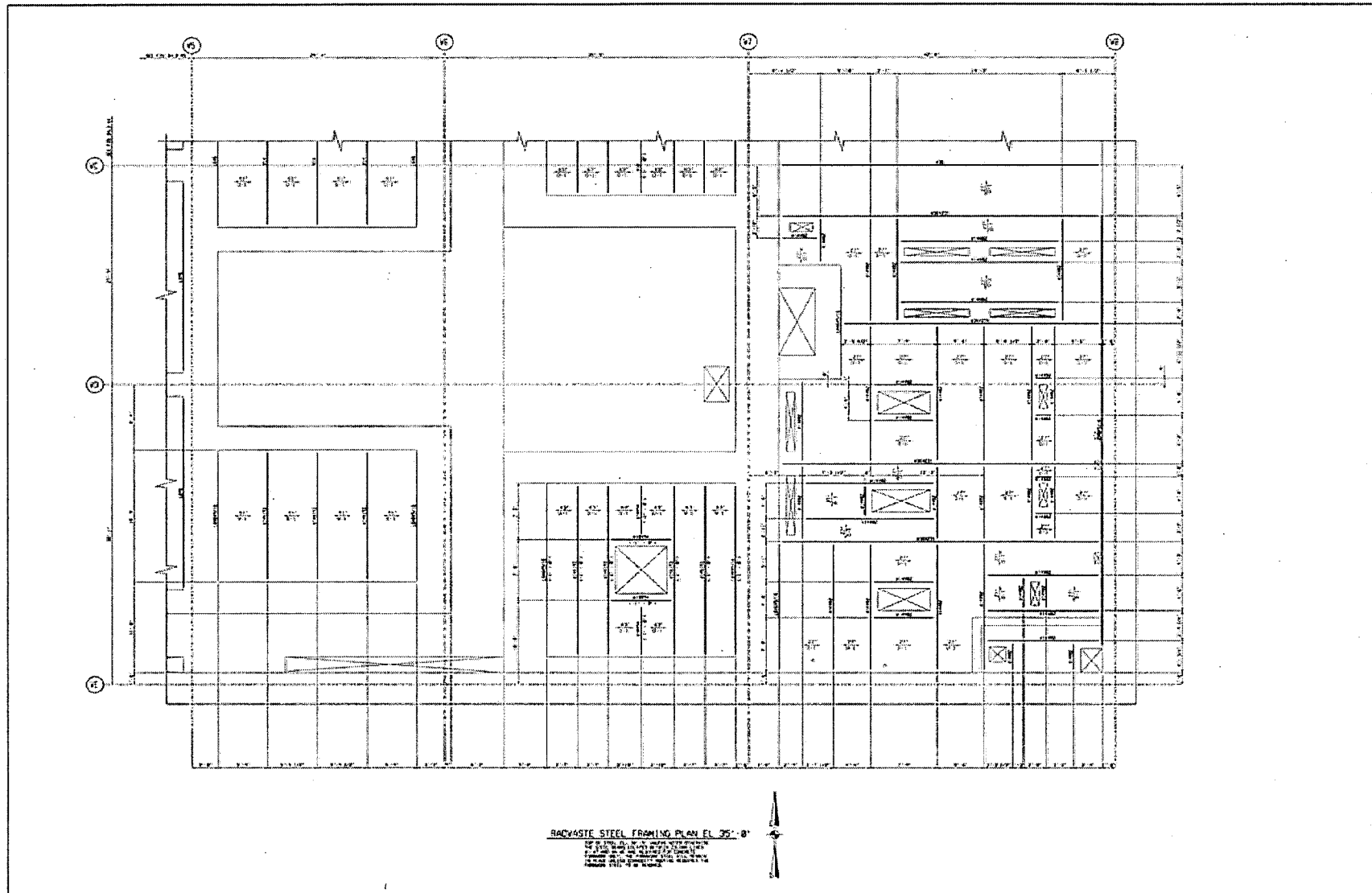


FIGURE 3H.3-46 EL. 35'-0" STEEL LAYOUT BETWEEN COLUMN LINES W5-W8 AND WC-WE

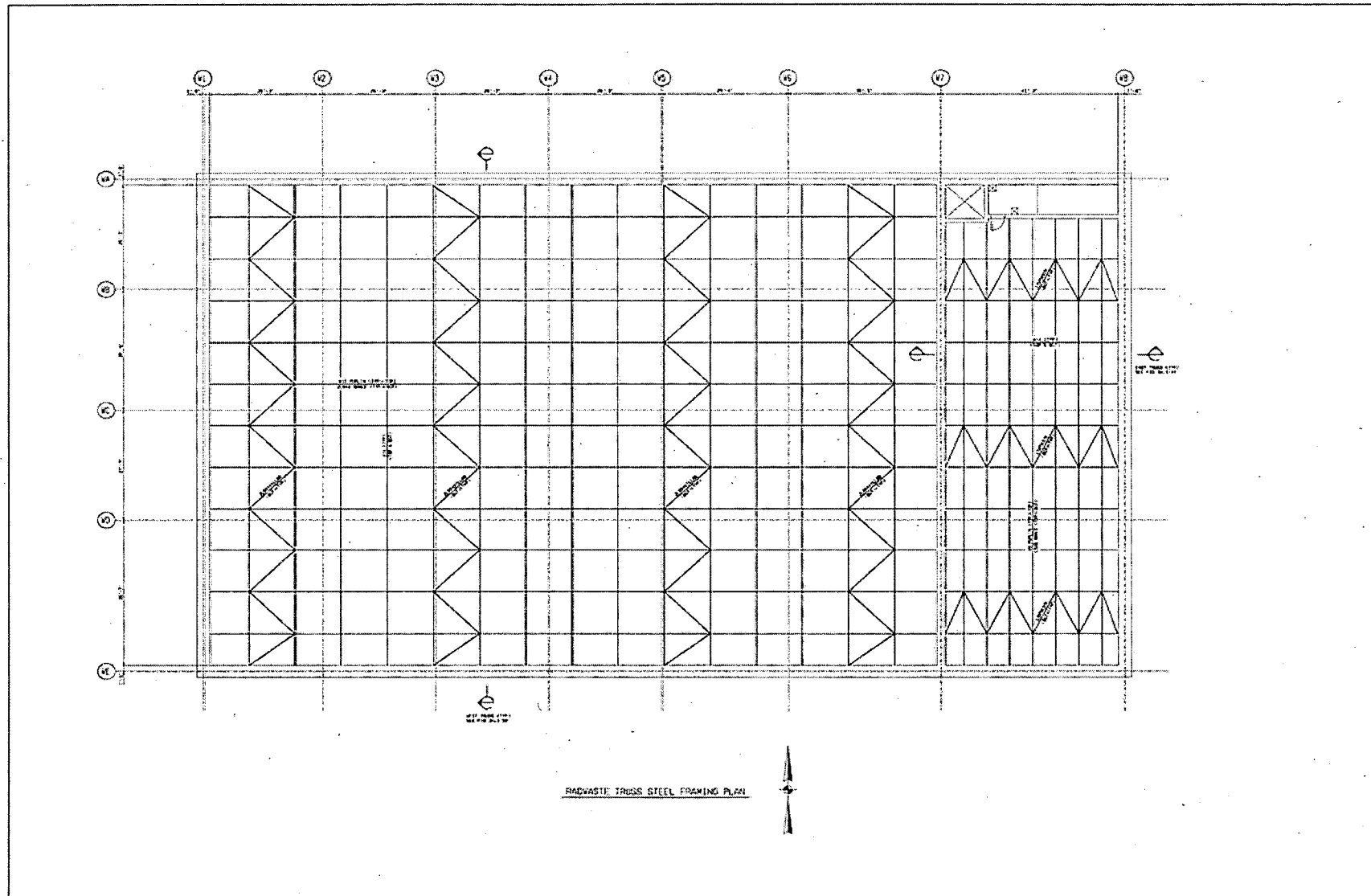


FIGURE 3H.3-47 ROOF TRUSS, PURLIN AND HORIZONTAL BRACING LAYOUT (PLAN VIEW)

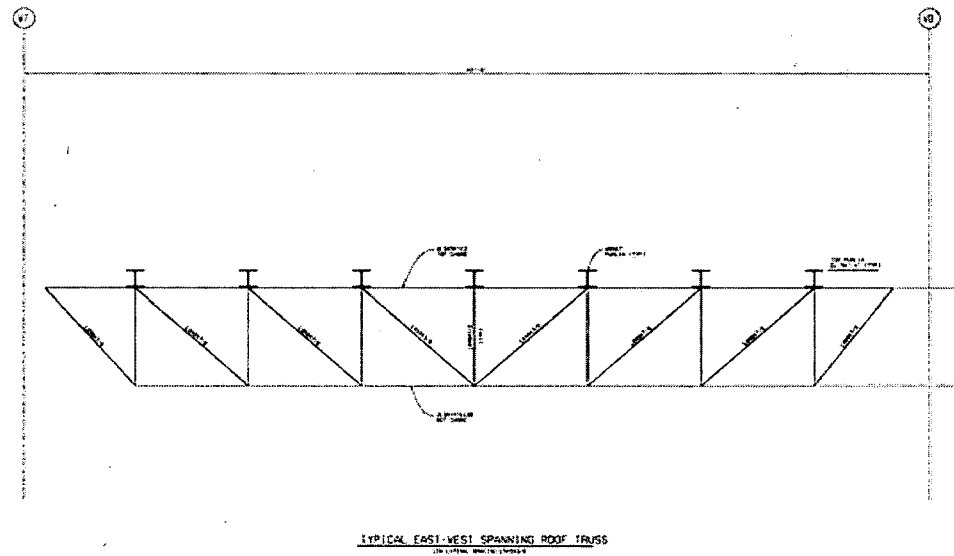
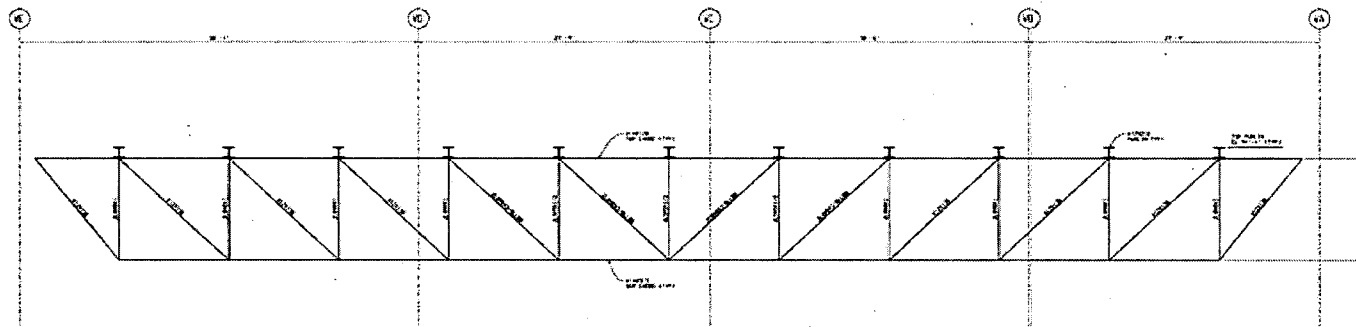


FIGURE 3H.3-48 TYPICAL EAST-WEST SPANNING ROOF TRUSS BETWEEN COLUMN LINES W7-W8 (ELEVATION VIEW)



TYPICAL NORTH-SOUTH SPANNING ROOF TRUSS  
(IN ELEVATION VIEW)

FIGURE 3H.3-49 TYPICAL NORTH-SOUTH SPANNING TRUSS BETWEEN COLUMN LINES WA-WE (ELEVATION VIEW)

## **RAI 03.08.04-18, Revision 1**

### **Enclosure 2**

**Other COLA revisions due to Radwaste Building design  
COLA Part 2, Section 2.5S.4**



## Section 2.5S.4

## 2.5S.4.5.2.1 Excavation

(Page 2.5S.4-87)

Structure [1]	Bottom of Excavation (MSL)	Bottom of Mat (MSL)	Predominant Soil Stratum Foundation [2]
Reactor Buildings	-60.25	-50.25	F
Control Buildings	-44.25	-42.25	E
Services Buildings [3]	-50.25 , 32	-14 , 34	Structural Fill
Radwaste Buildings	-39	<del>-19</del> -23	Structural Fill
Turbine Buildings [3]	-39*	-26 , -8	Structural Fill
UHS Basins	2	4	C
RSW Pump Houses	-34	-32	D
RSW Tunnels	-23	-21	Structural Fill
Diesel Fuel Oil Storage Vaults	-7	-5	Structural Fill

Table 2.5S.4-35 Summary of Liquefaction Potential FOS Values &lt;1.10; SPT Method

Boring	Test El. [1] (feet)	FOS	Structure	Foundation El. [2] (feet)	Stratum (Disposition)	[3]
B-343	11	0.99	Radwaste Building	<del>-19</del> -23 {-39}	Stratum B (to be excavated)	✓

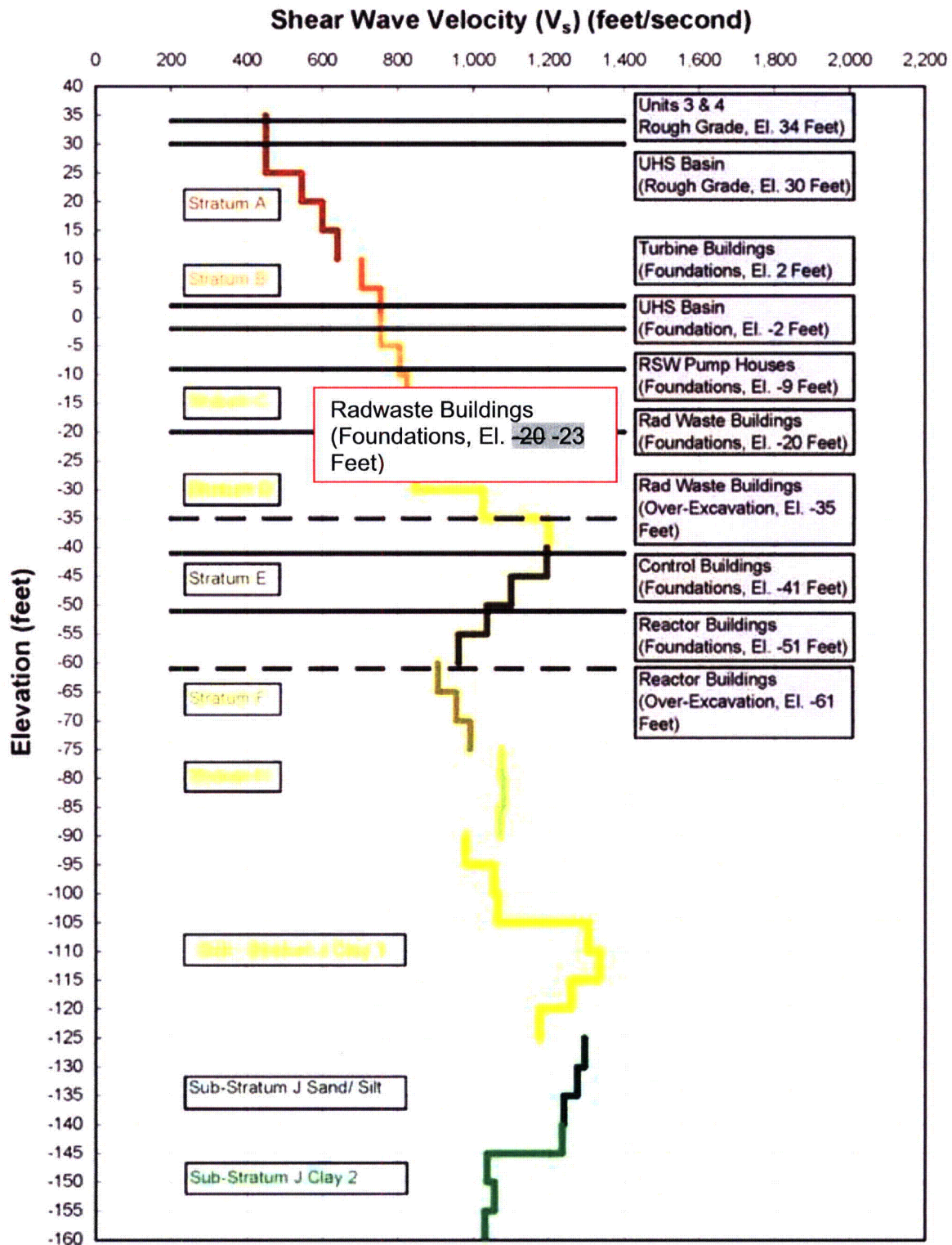


Figure 2.5S.4-45 Shear Wave Velocity Profile - Strata A to J

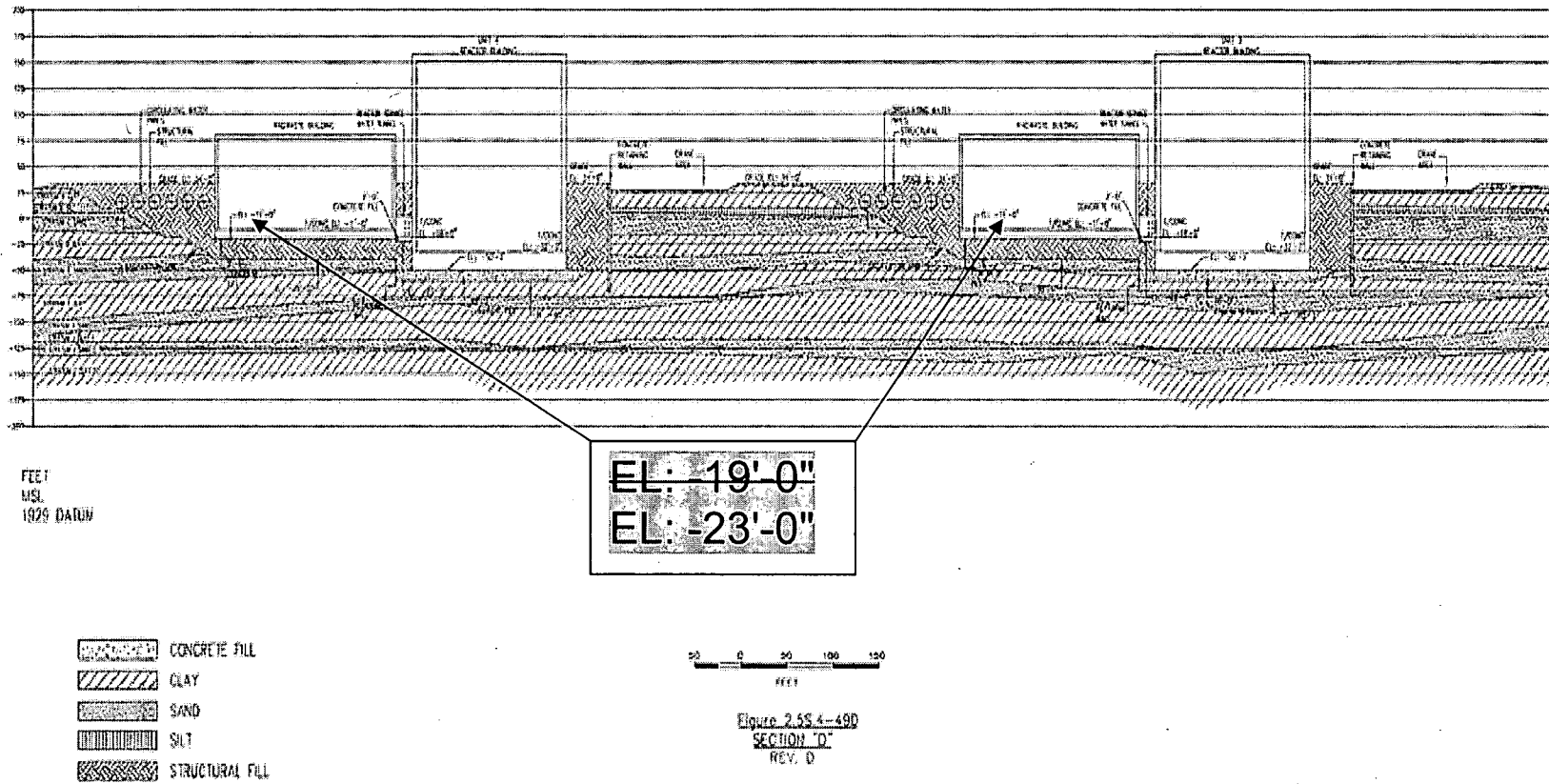


Figure 2.5S.4-49D Section "D" Rev. D