

APR1400 DCD TIER 2

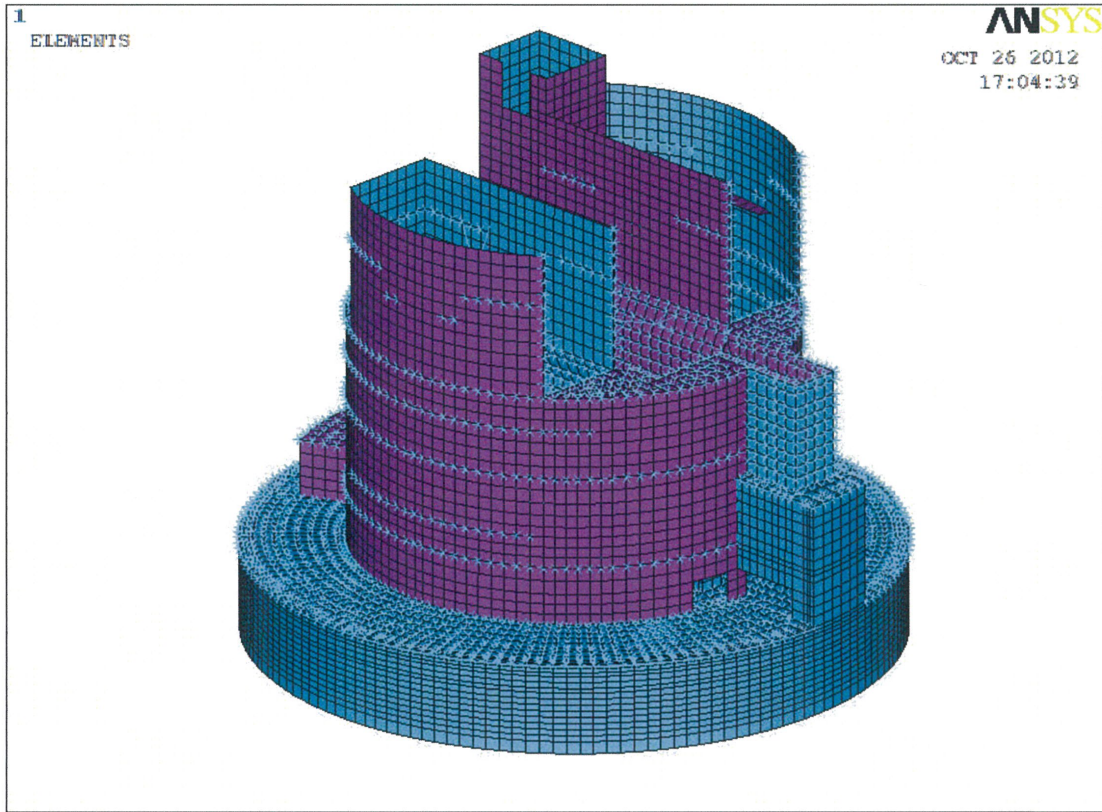
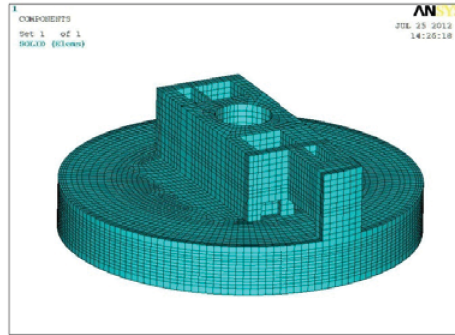
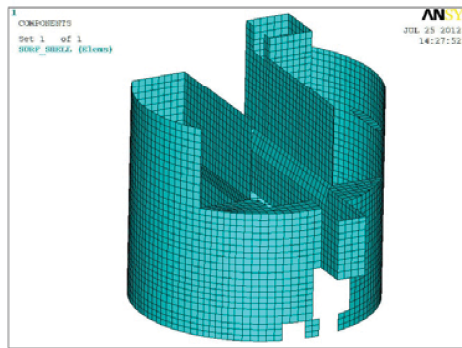


Figure 3.8A-23 Full FE Model for the RCB Internal Structuer

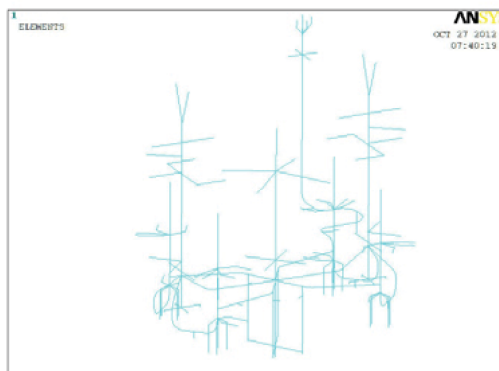
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(a) Solid Element Model (PSW, IRWST, and Fill Concrete)



(b) Shell Element Model (SSW)



(c) Beam Element Model (RCS)

Figure 3.8A-24 Solid, Shell, And Beam Element Model for RCB Internal Structure

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**Security-Related Information – Withheld Under 10 CFR 2.390**

**Figure 3.8A-25 Location of Critical Sections of the AB at EL. 100'-0"**

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**Figure 3.8A-26 Location of Critical Sections of the AB at EL. 120'-0"**



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**Figure 3.8A-27 Location of Critical Sections of the AB at EL. 137'-6"**

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**Figure 3.8A-28 Location of Critical Sections of the AB at EL. 156'-0"**

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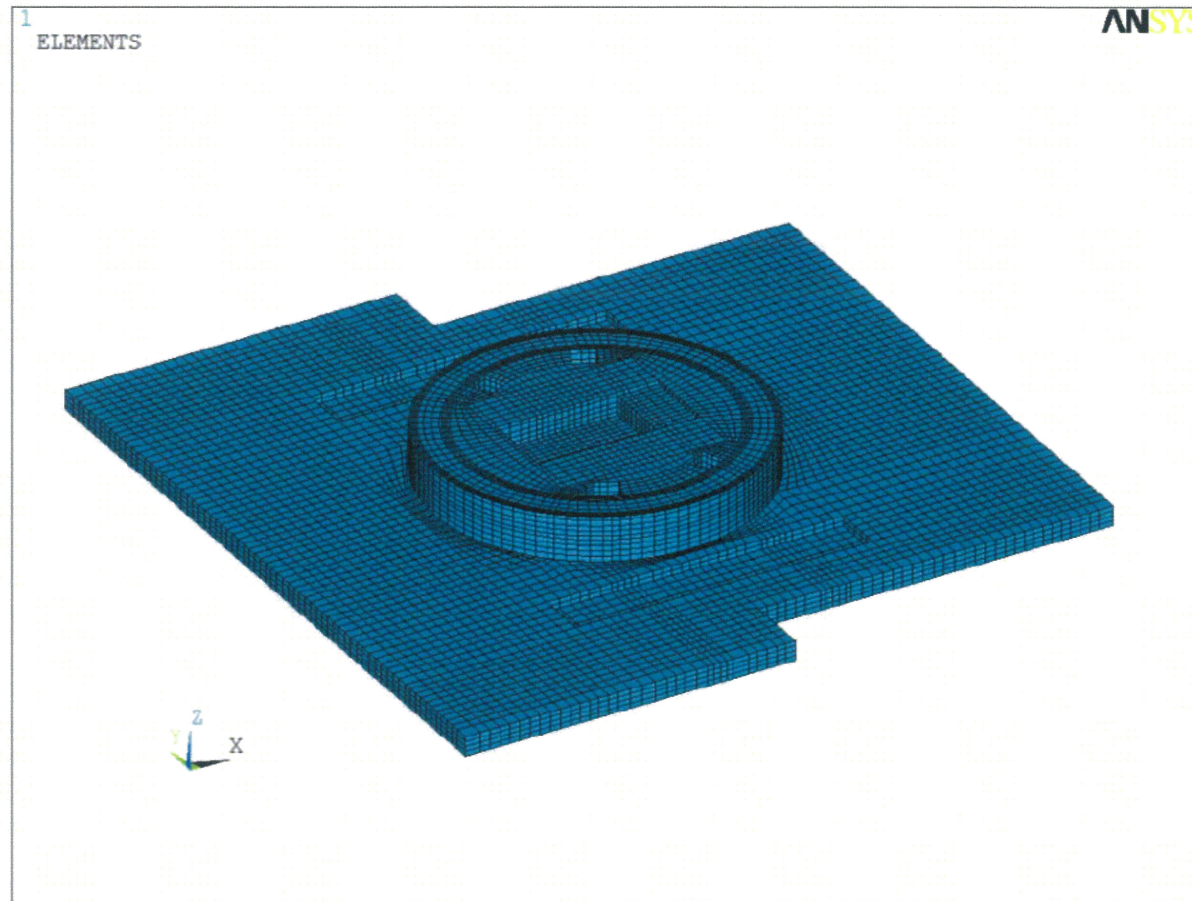


Figure 3.8A-29 Solid Element Model of NI Common Basemat

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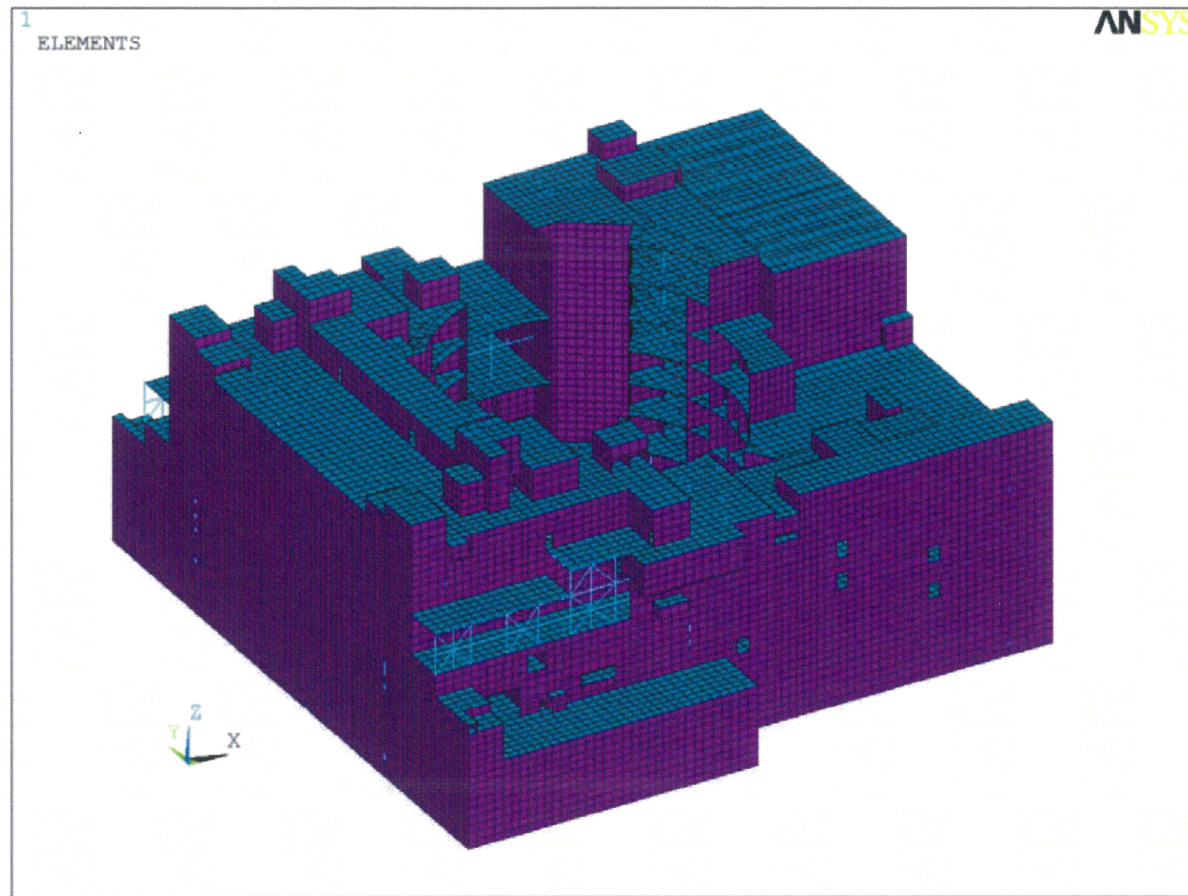


Figure 3.8A-30 3-D View of FE Model for AB Superstructure

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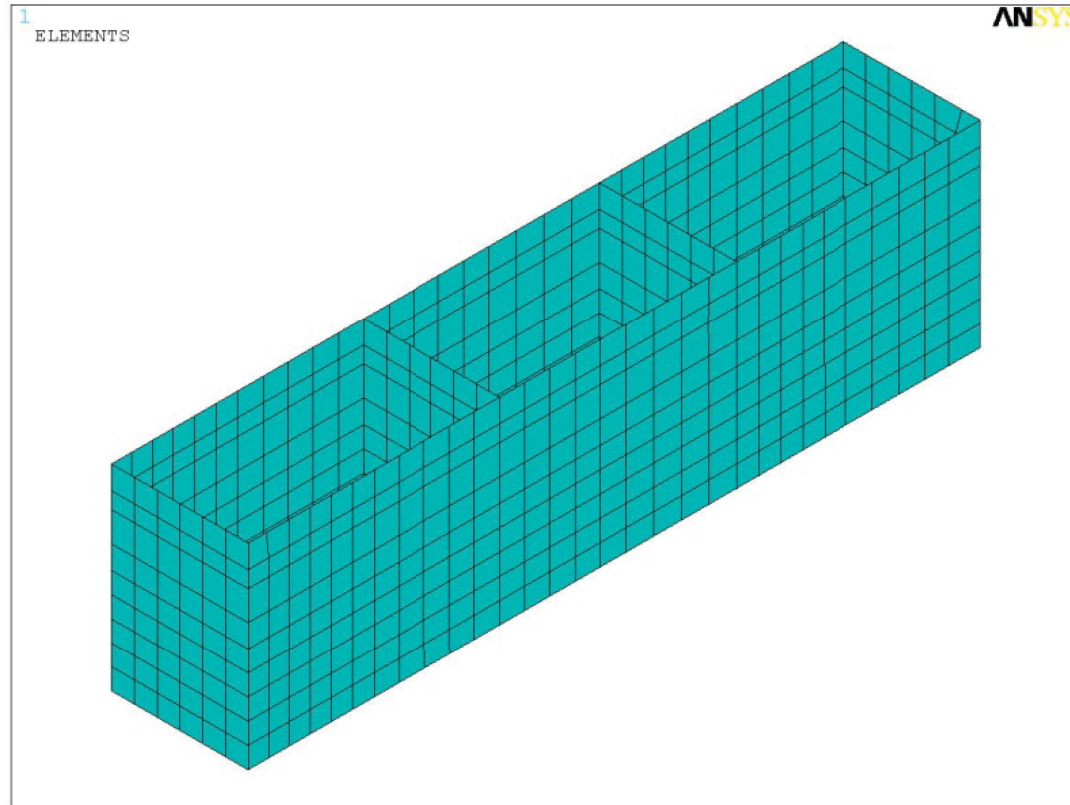


Figure 3.8A-31 Components of FE Model For Rectangular AFW Tank in AB

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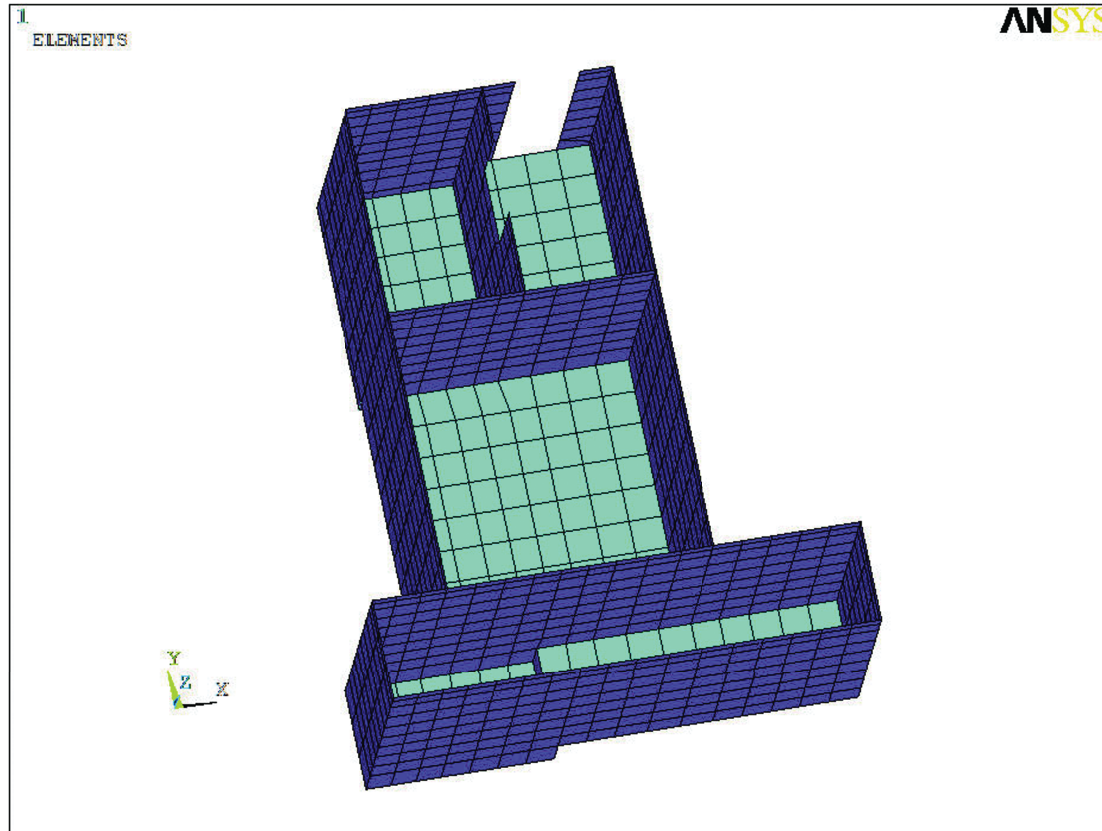


Figure 3.8A-32 Partial FE Model for FHA Pools in AB



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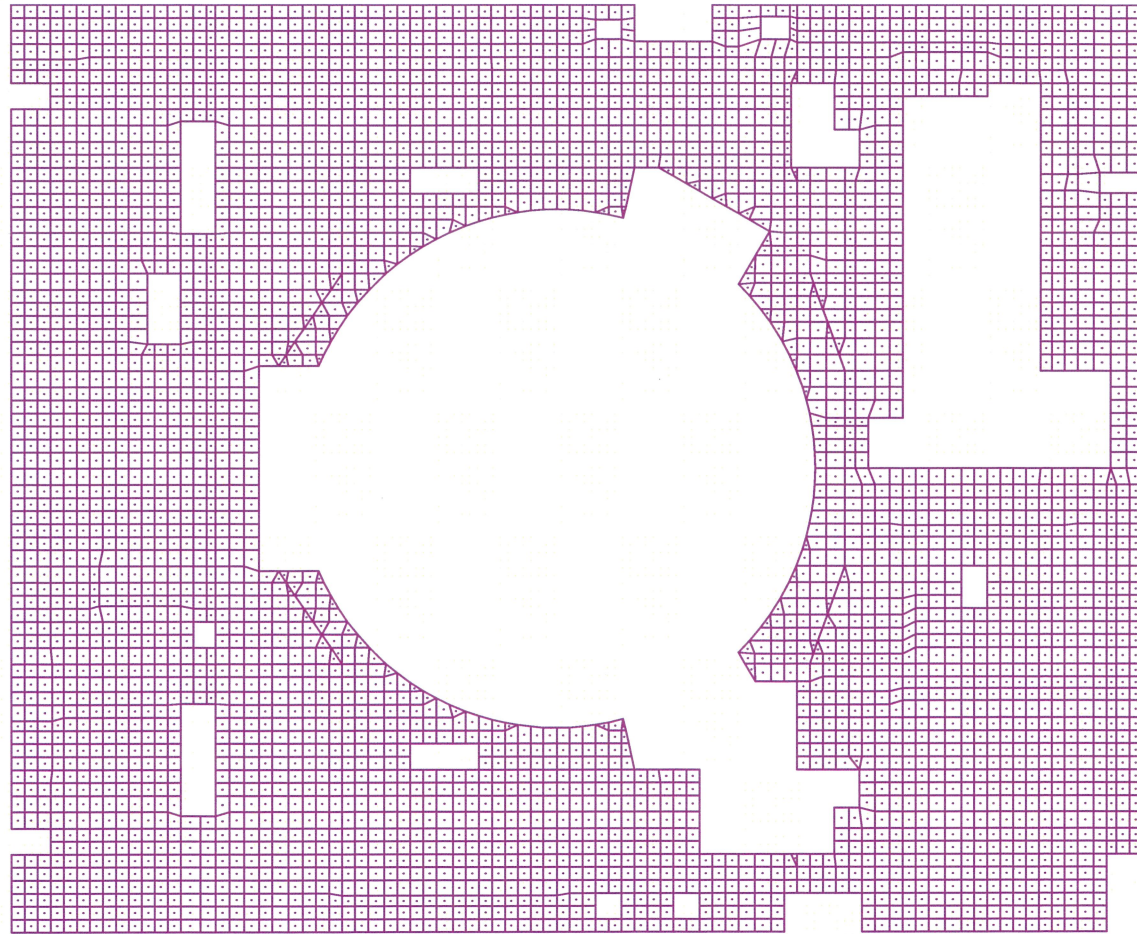


Figure 3.8A-33 FE Model for AB Slab Design at EL. 157'-6"

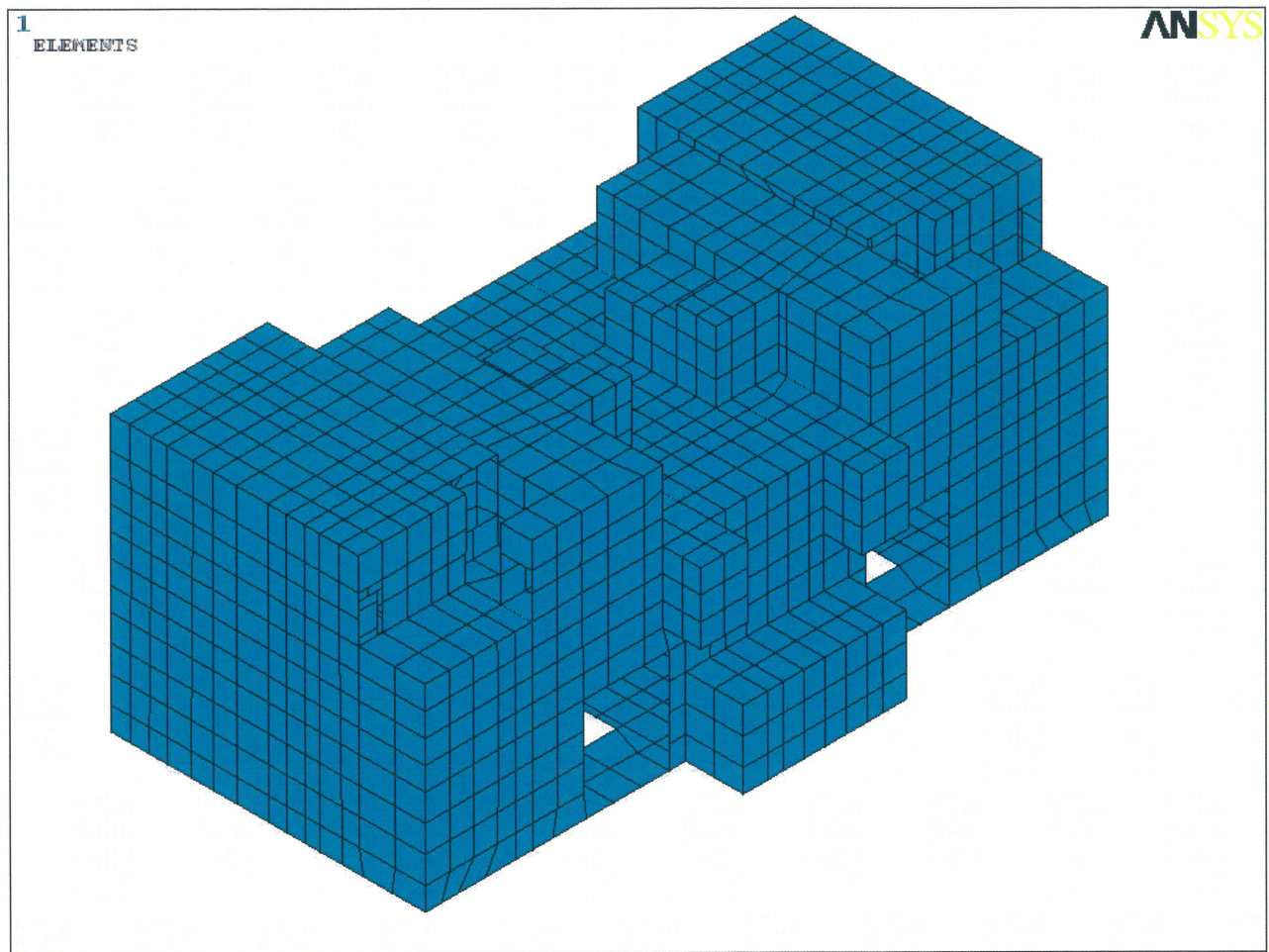


Figure 3.8A-34 Full FE Model for the EDG Building



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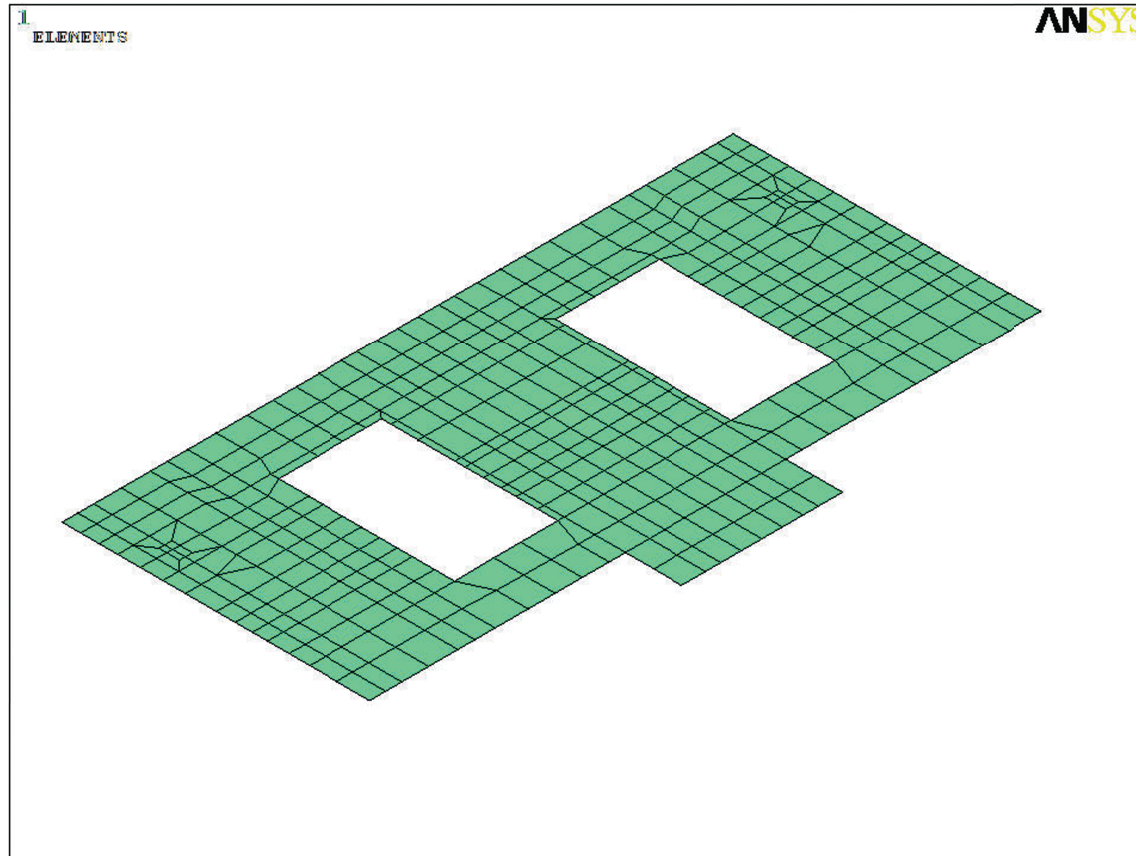


Figure 3.8A-35 FE Model For the EDG Building Basemat

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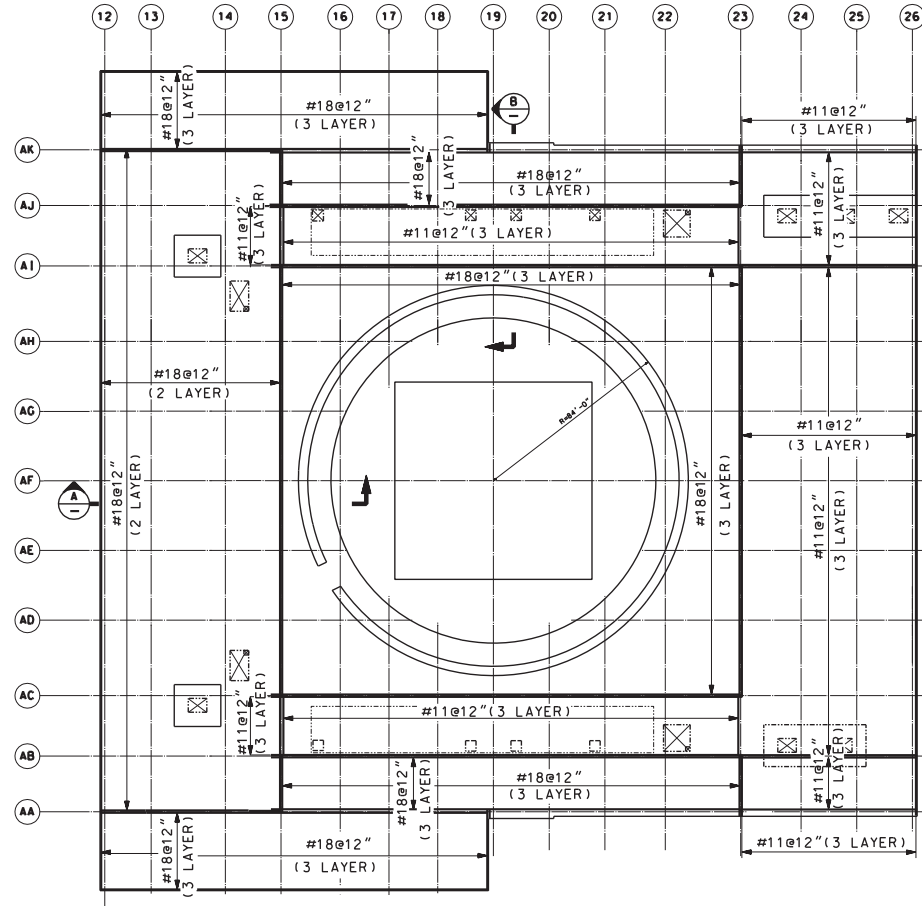


Figure 3.8A-36 Reinforcement Arrangement of the AB Basemat

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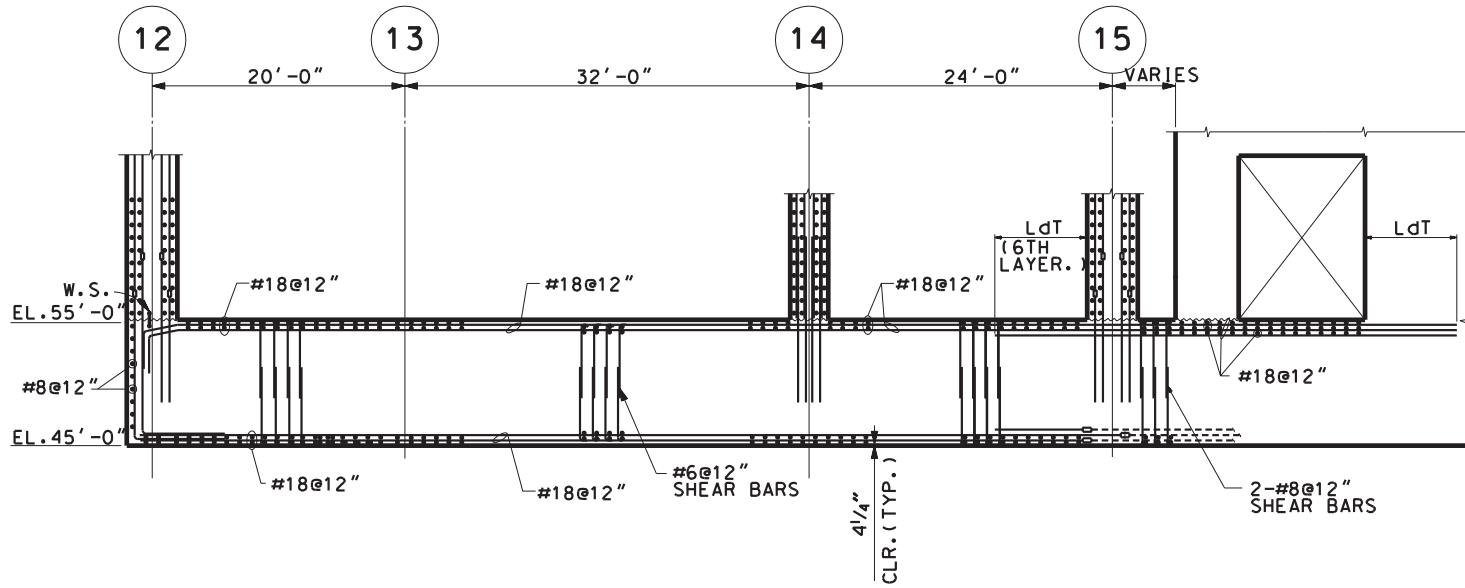


Figure 3.8A-37 Typical Reinforcement of the AB Basemat (Section A)

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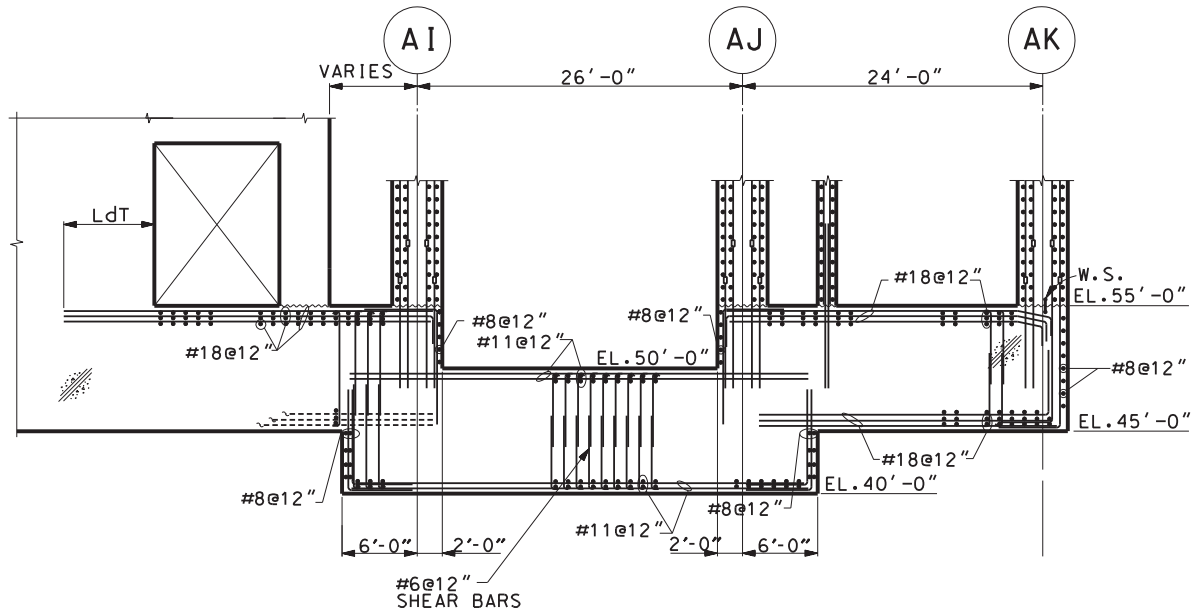
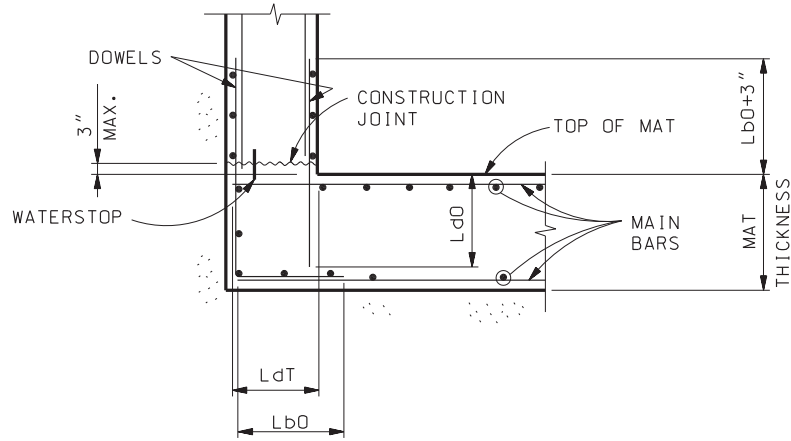
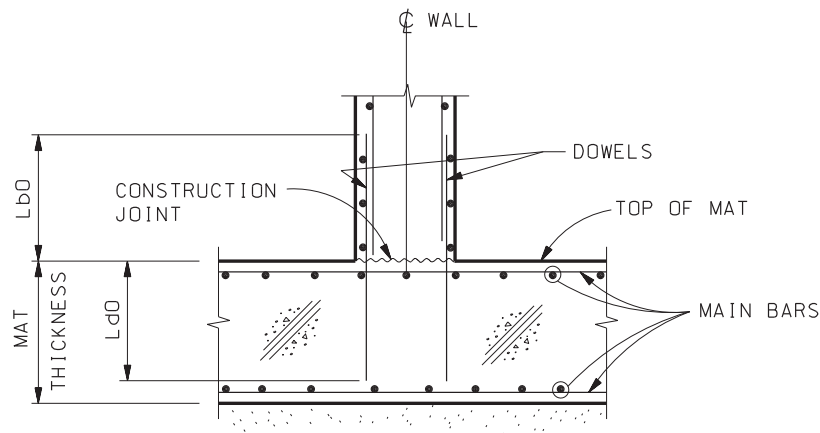


Figure 3.8A-38 Typical Reinforcement of the AB Basemat (Section B)

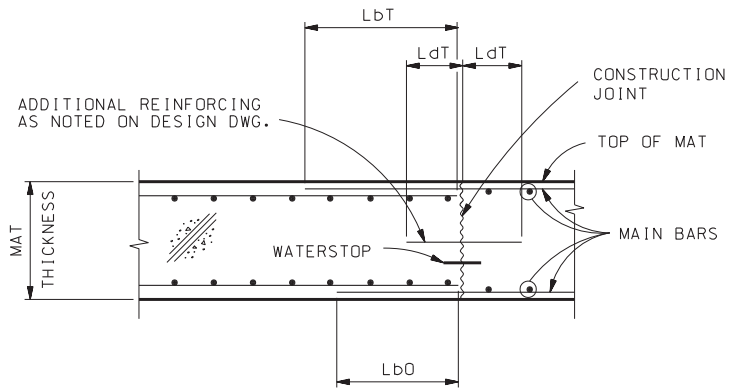
**APR1400 DCD TIER 2**



(a) Exterior Wall with Waterstop



(b) Interior Wall



(c) Typical Construction Joint

Note:  $L_{dT}$  - development length for top horizontal bar  
 (reinforcement location factor = 1.3, [ACI 349 12.2.4])\*  
 $L_{bT}$  - lap splice length for top horizontal bar  
 $L_{dO}$  - development length for other bars  
 $L_{bO}$  - lap splice length for other bars

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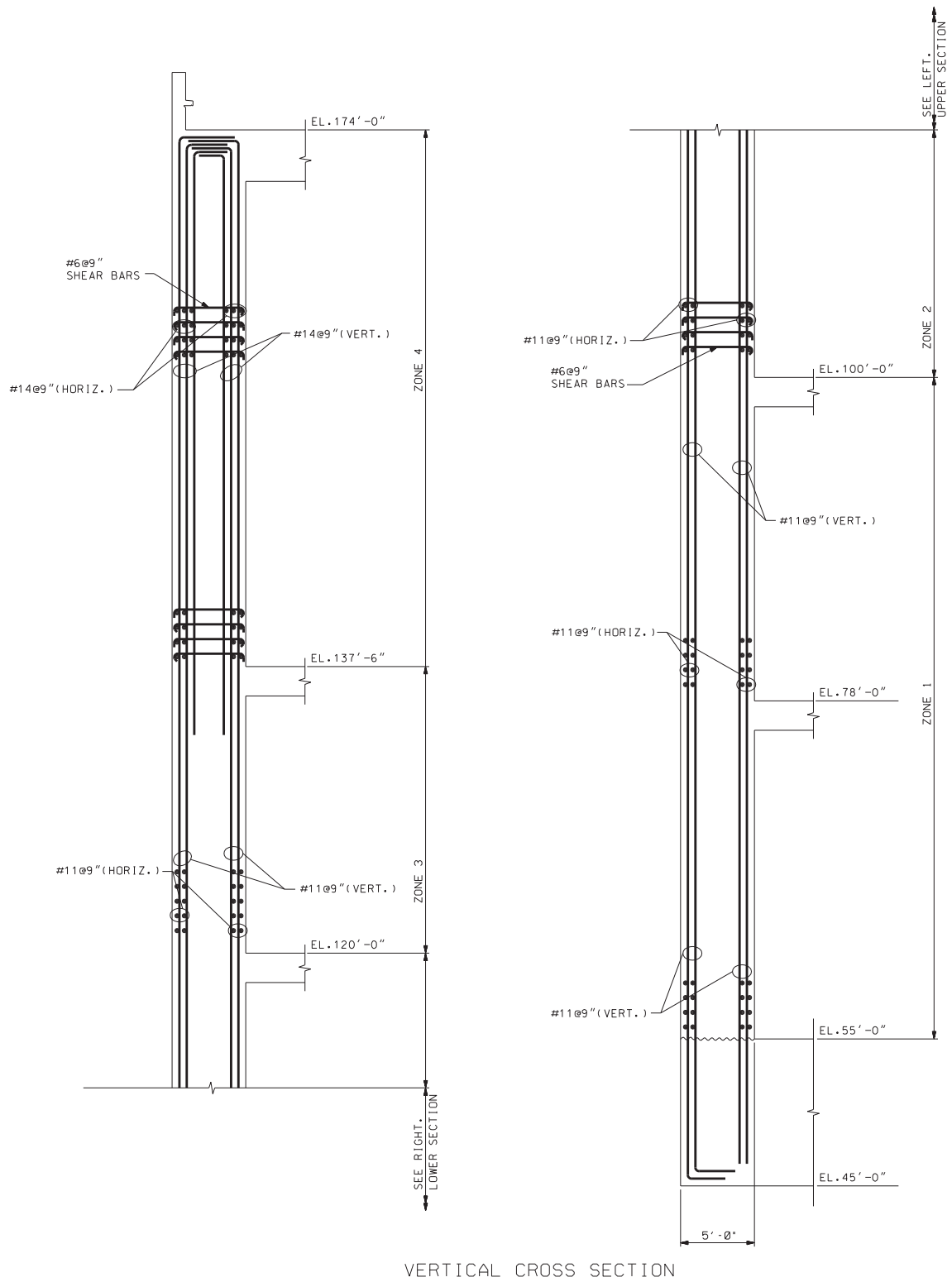
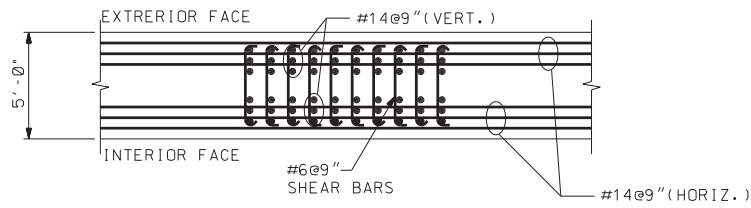
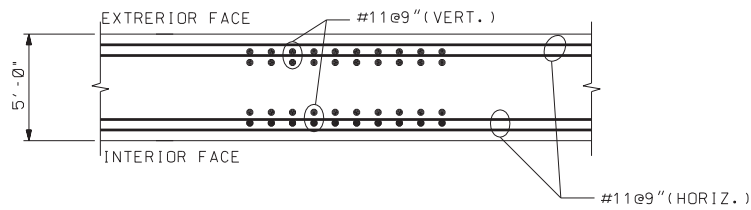


Figure 3.8A-40 Reinforcement Arrangement of the AB MSIV House Wall (Section 1)

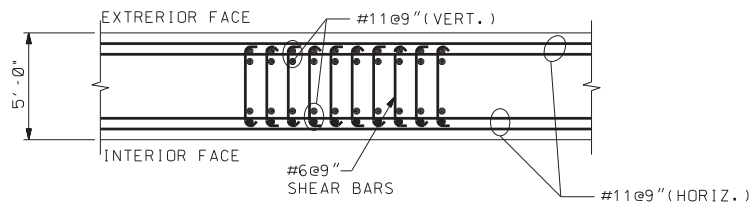
## APR1400 DCD TIER 2



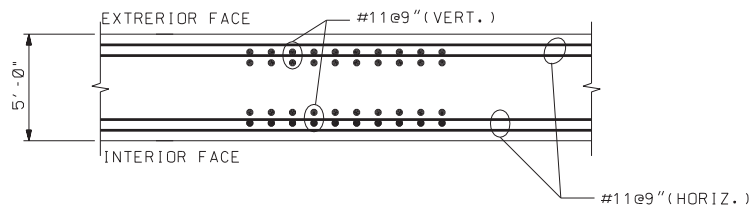
ZONE 4 [EL. 137'-6" TO EL. 174'-0"]



ZONE 3 [EL. 120'-0" TO EL. 137'-6"]



ZONE 2 [EL. 100'-0" TO EL. 120'-0"]



ZONE 1 [EL. 55'-0" TO EL. 100'-0"]

HORIZONTAL CROSS SECTION

Figure 3.8A-41 Reinforcement Arrangement of the AB MSIV House Wall (Section 2)

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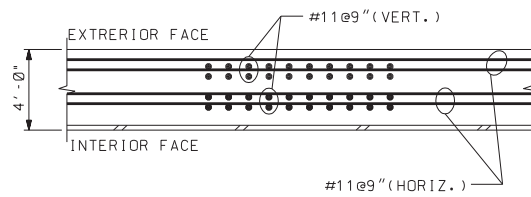
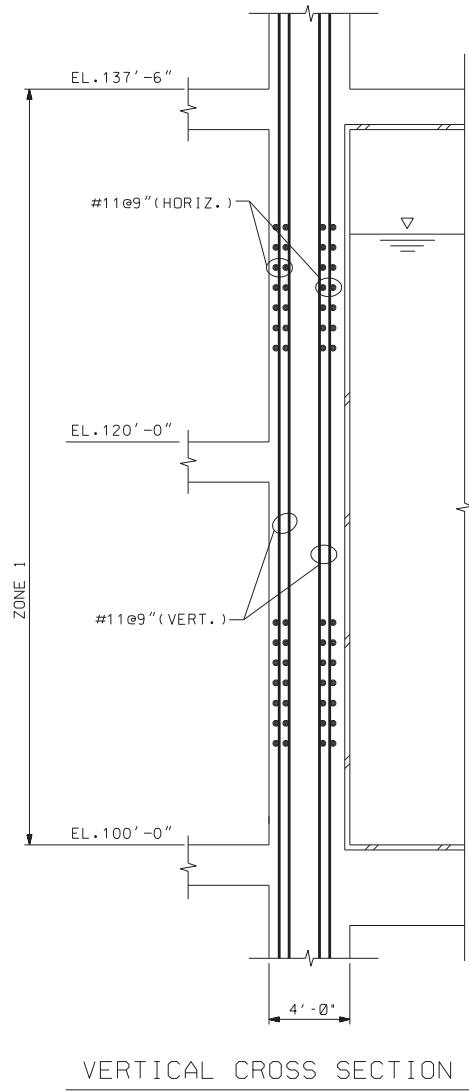
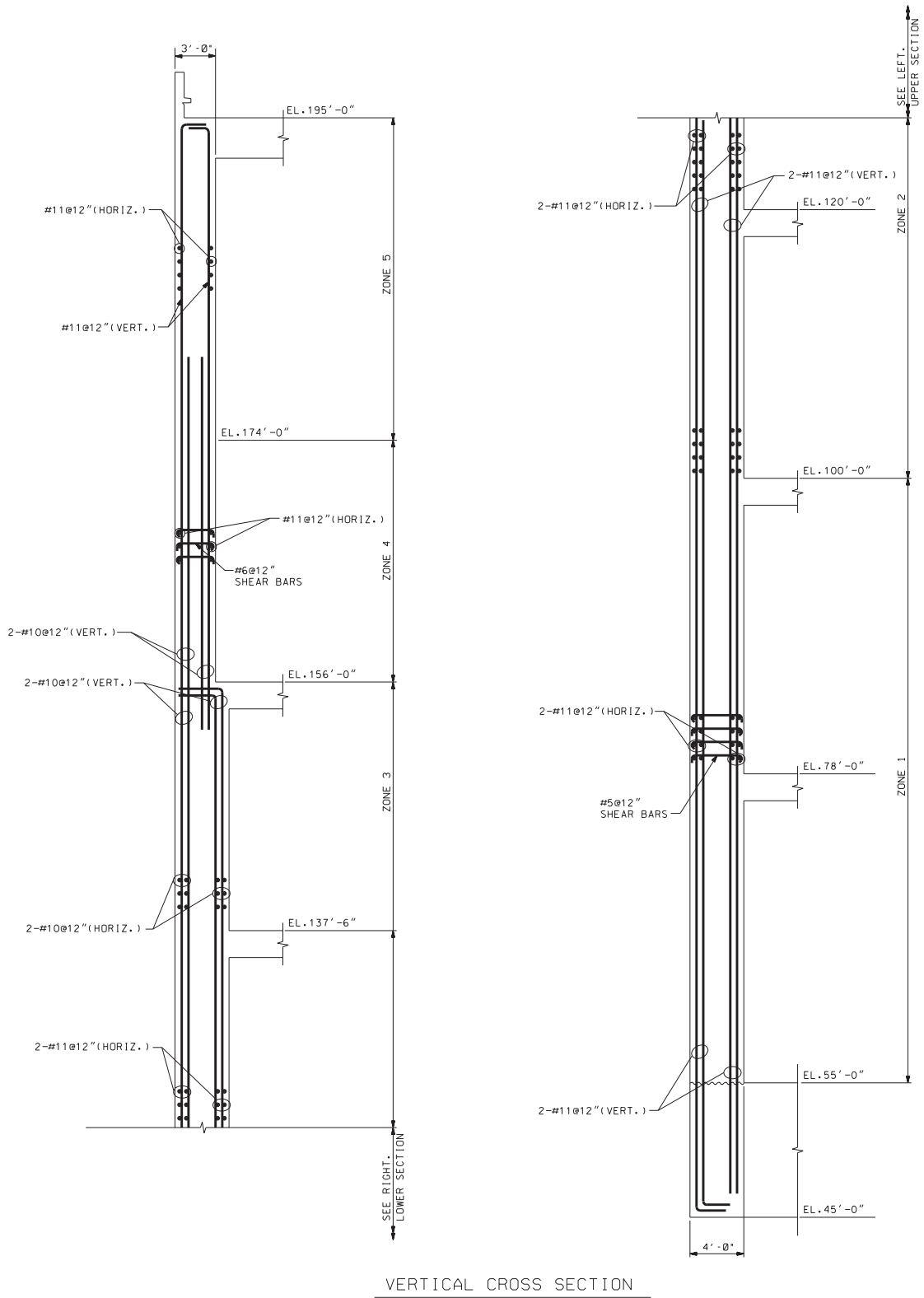


Figure 3.8A-42 Reinforcement Arrangement of the AB AFWST Wall



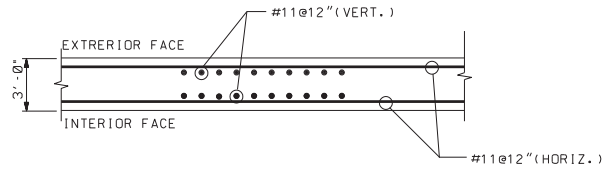
# APR1400 DCD TIER 2



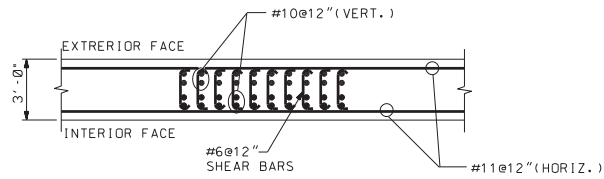
VERTICAL CROSS SECTION

Figure 3.8A-43 Reinforcement Arrangement of the AB MCR Wall (Section 1)

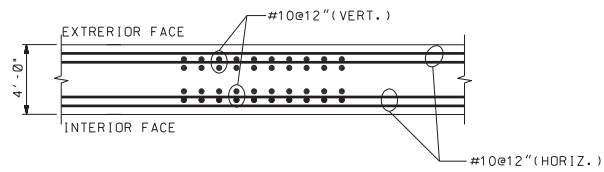
## APR1400 DCD TIER 2



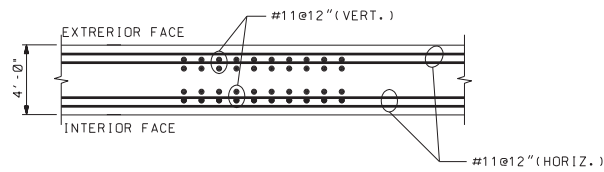
ZONE 5 [EL. 174'-0" TO EL. 195'-0"]



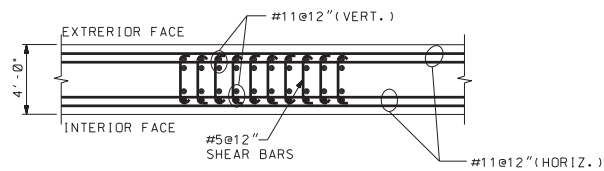
ZONE 4 [EL. 156'-0" TO EL. 174'-0"]



ZONE 3 [EL. 137'-6" TO EL. 156'-0"]



ZONE 2 [EL. 100'-0" TO EL. 137'-6"]



ZONE 1 [EL. 55'-0" TO EL. 100'-0"]

HORIZONTAL CROSS SECTION

Figure 3.8A-44 Reinforcement Arrangement of the AB MCR Wall (Section 2)

## APR1400 DCD TIER 2

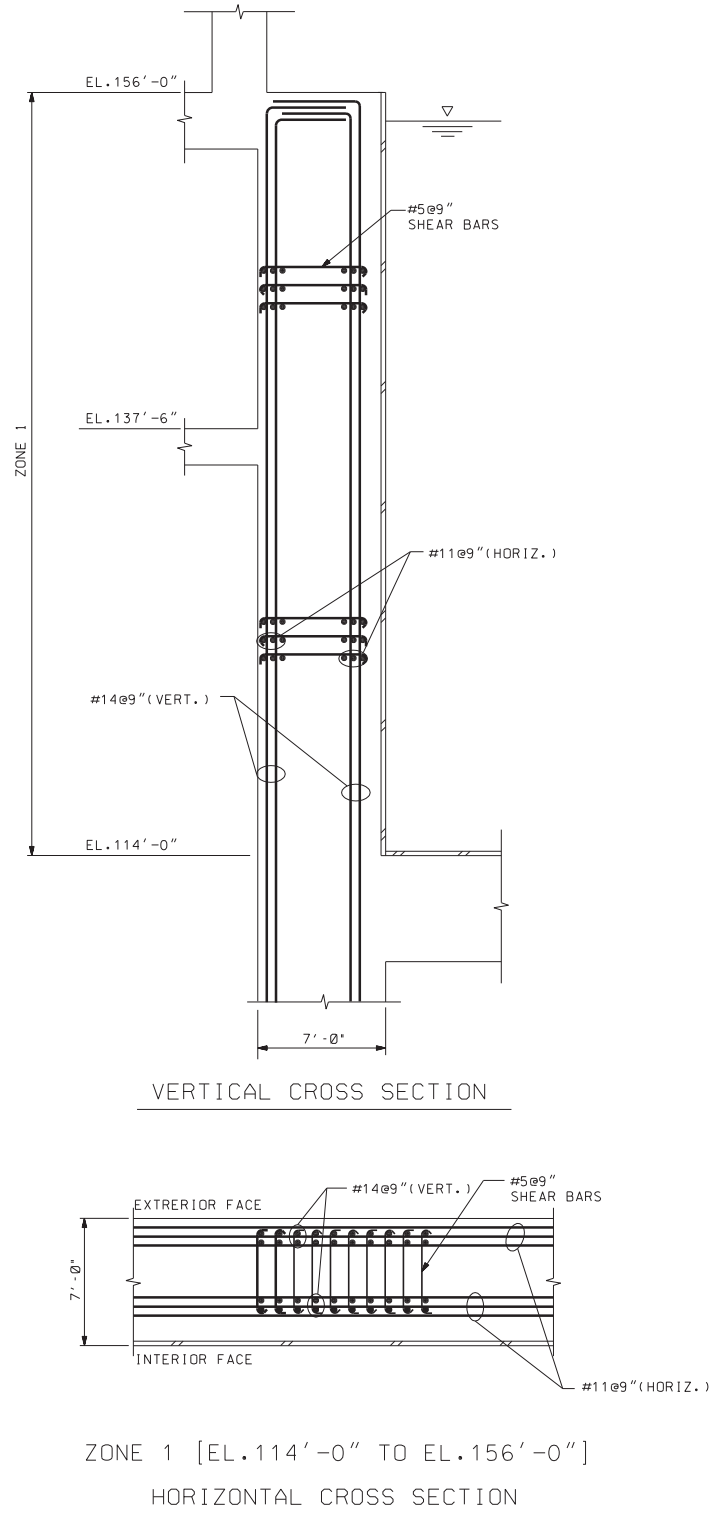
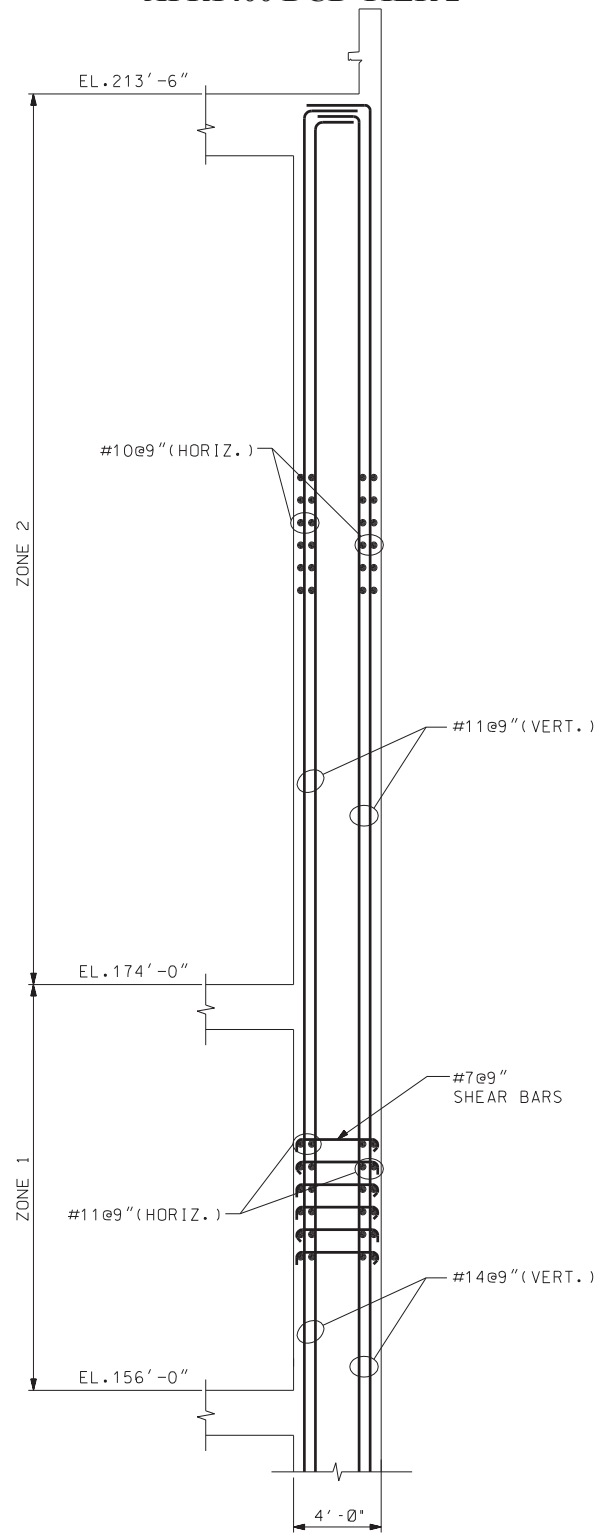


Figure 3.8A-45 Reinforcement Arrangement of the AB SFP Wall

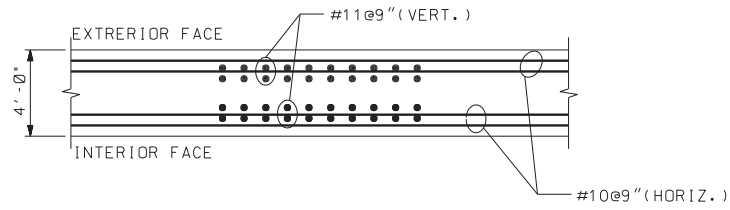
APR1400 DCD TIER 2



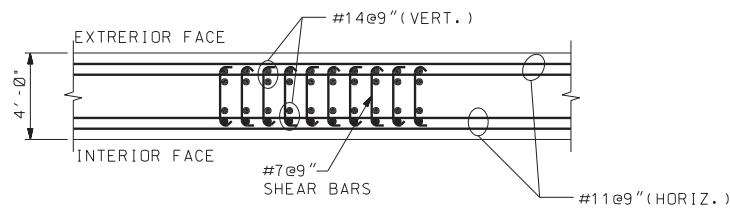
VERTICAL CROSS SECTION

Figure 3.8A-46 Reinforcement Arrangement of the AB FHA Wall (Section 1)

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ZONE 2 [EL.174'-0" TO EL.213'-6"]

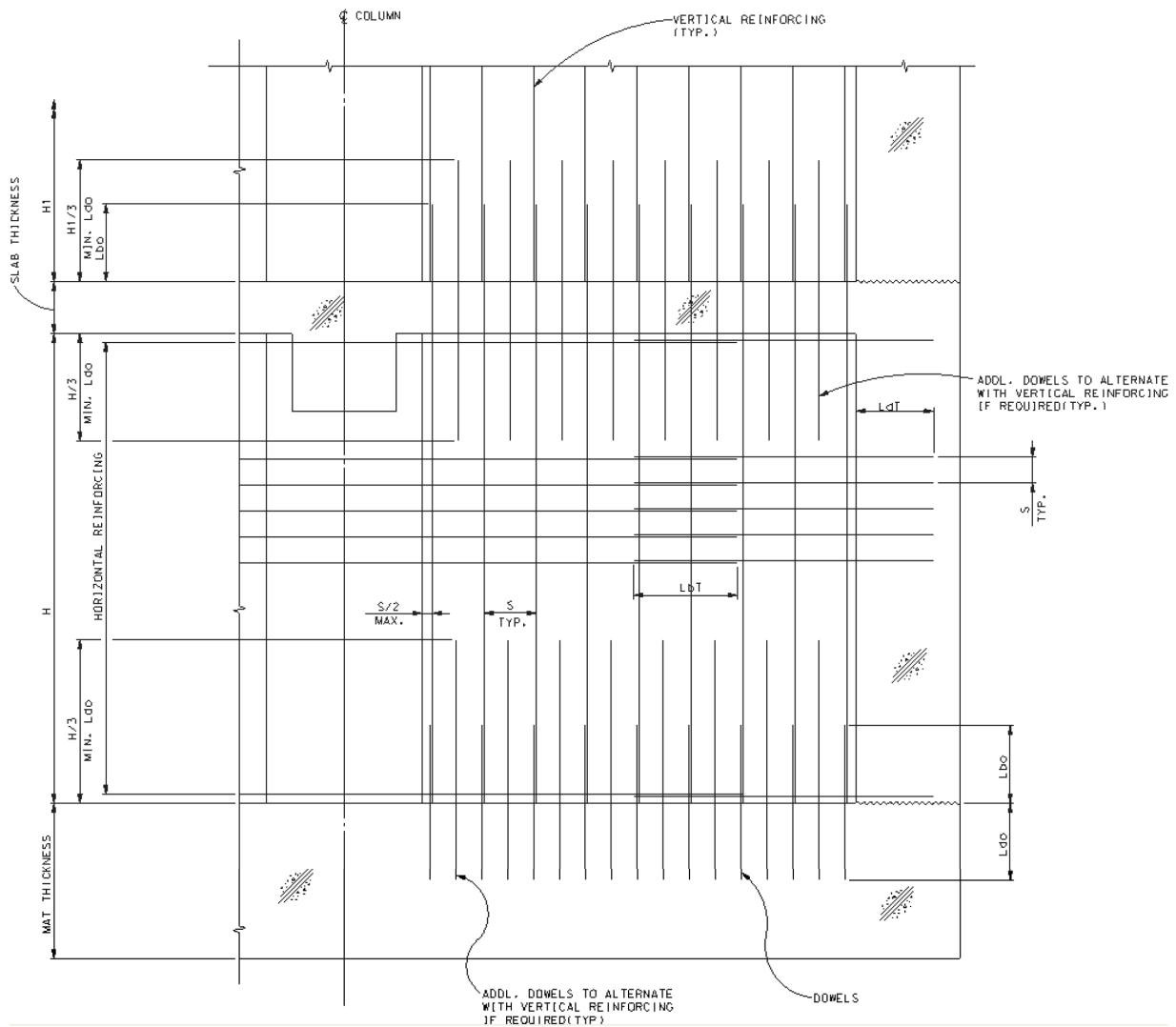


ZONE 1 [EL.156'-0" TO EL.174'-0"]

HORIZONTAL CROSS SECTION

Figure 3.8A-47 Reinforcement Arrangement of the AB FHA Wall (Section 2)

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Note:  $L_{dT}$  - development length for top horizontal bar  
 (reinforcement location factor = 1.3, [ACI 349 12.2.4])\*  
 $L_{bT}$  - lap splice length for top horizontal bar  
 $L_{dO}$  - development length for other bars  
 $L_{bO}$  - lap splice length for other bars

Figure 3.8A-48 Typical Shearwall Reinforcement Arrangement Detail

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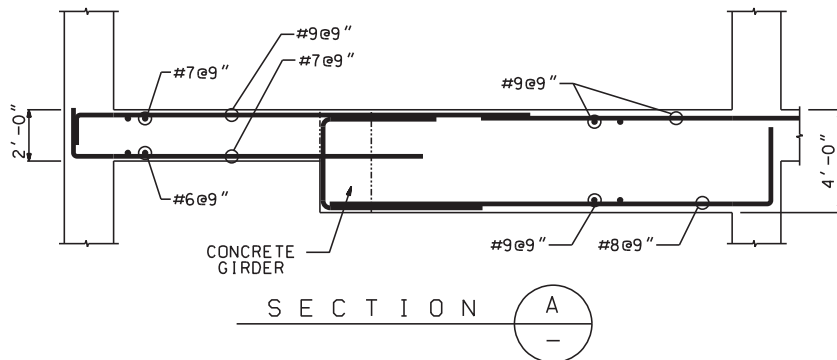
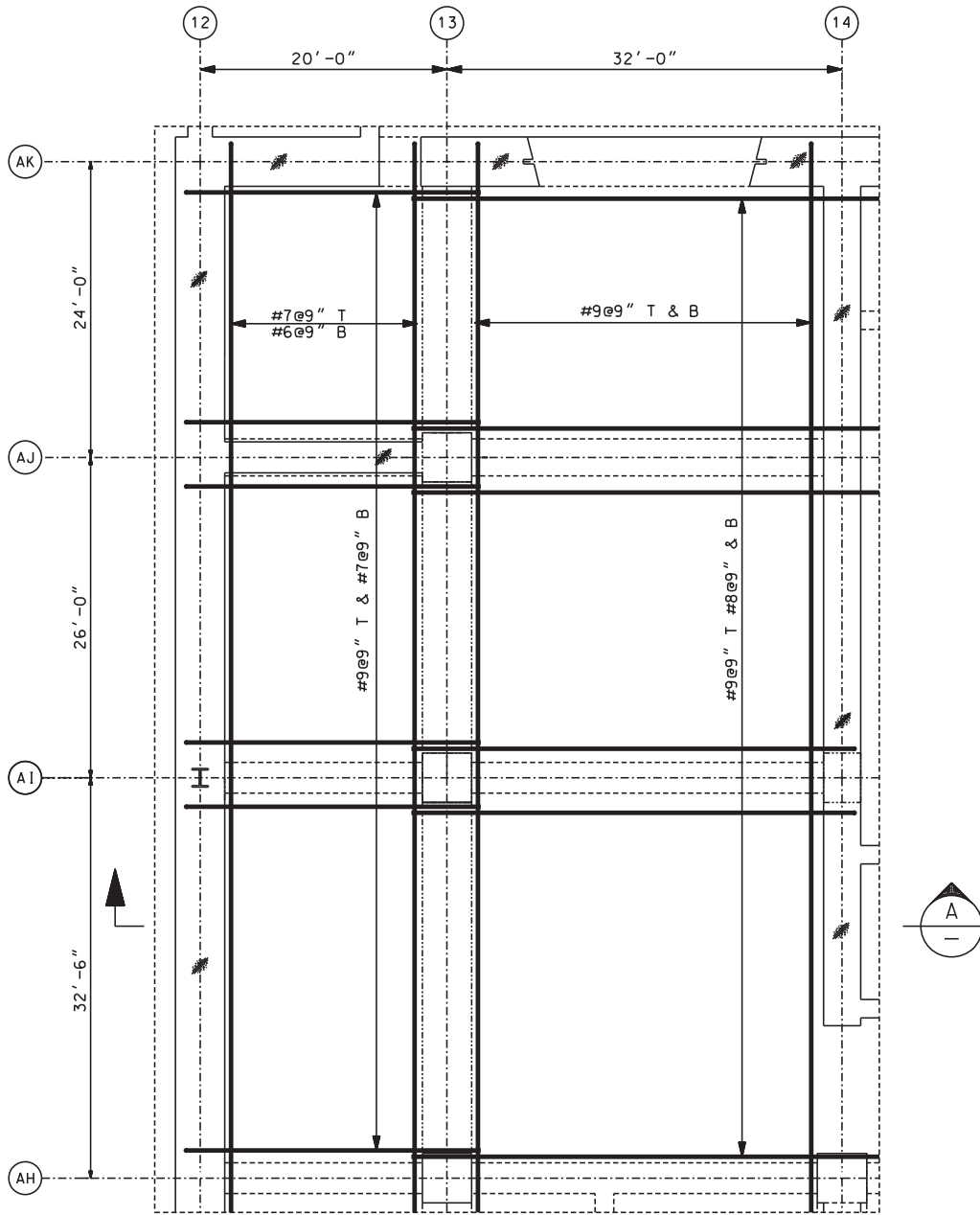


Figure 3.8A-49 Slab Reinforcements for the EDG Room in AB

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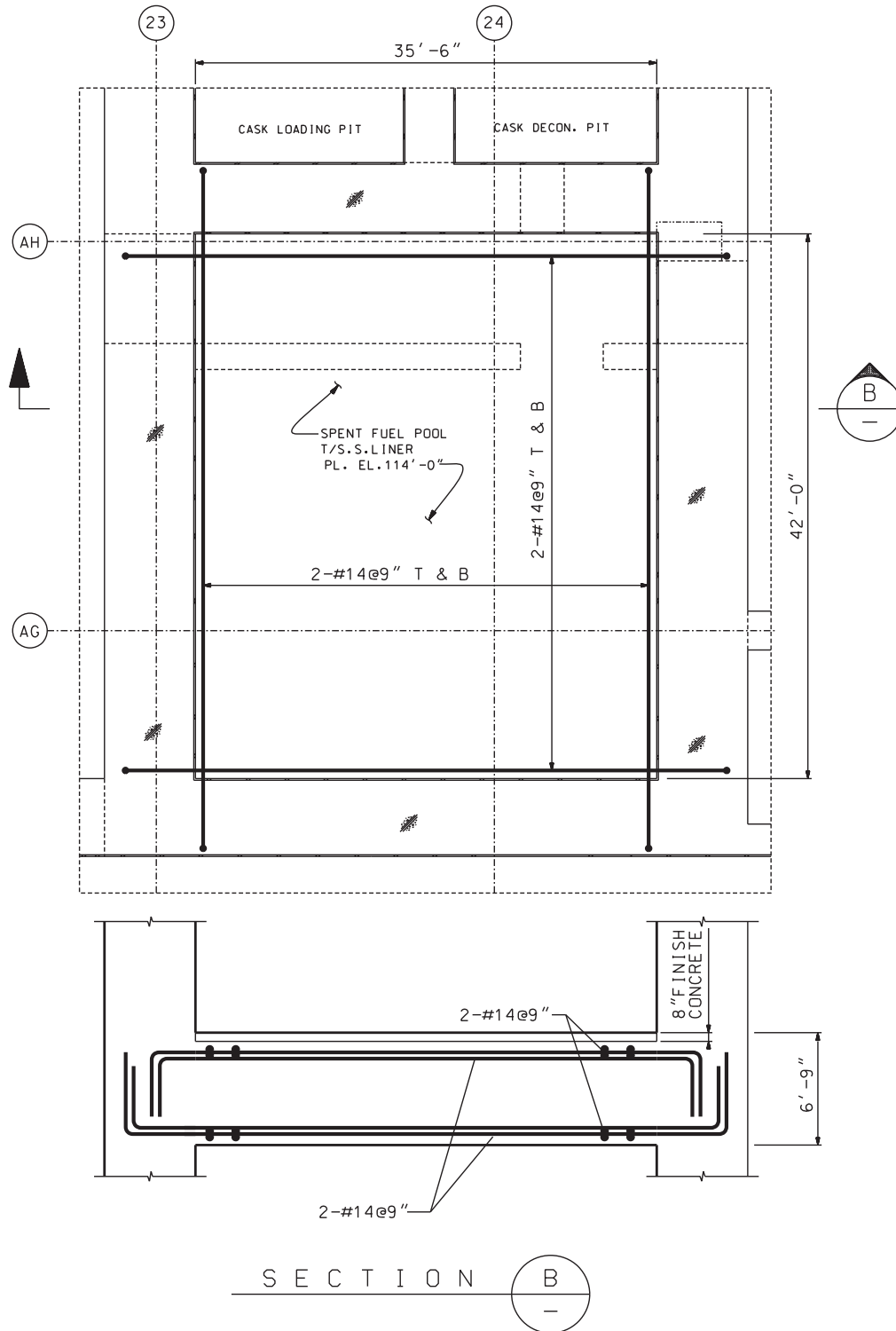


Figure 3.8A-50 Slab Reinforcements for the SFP in AB



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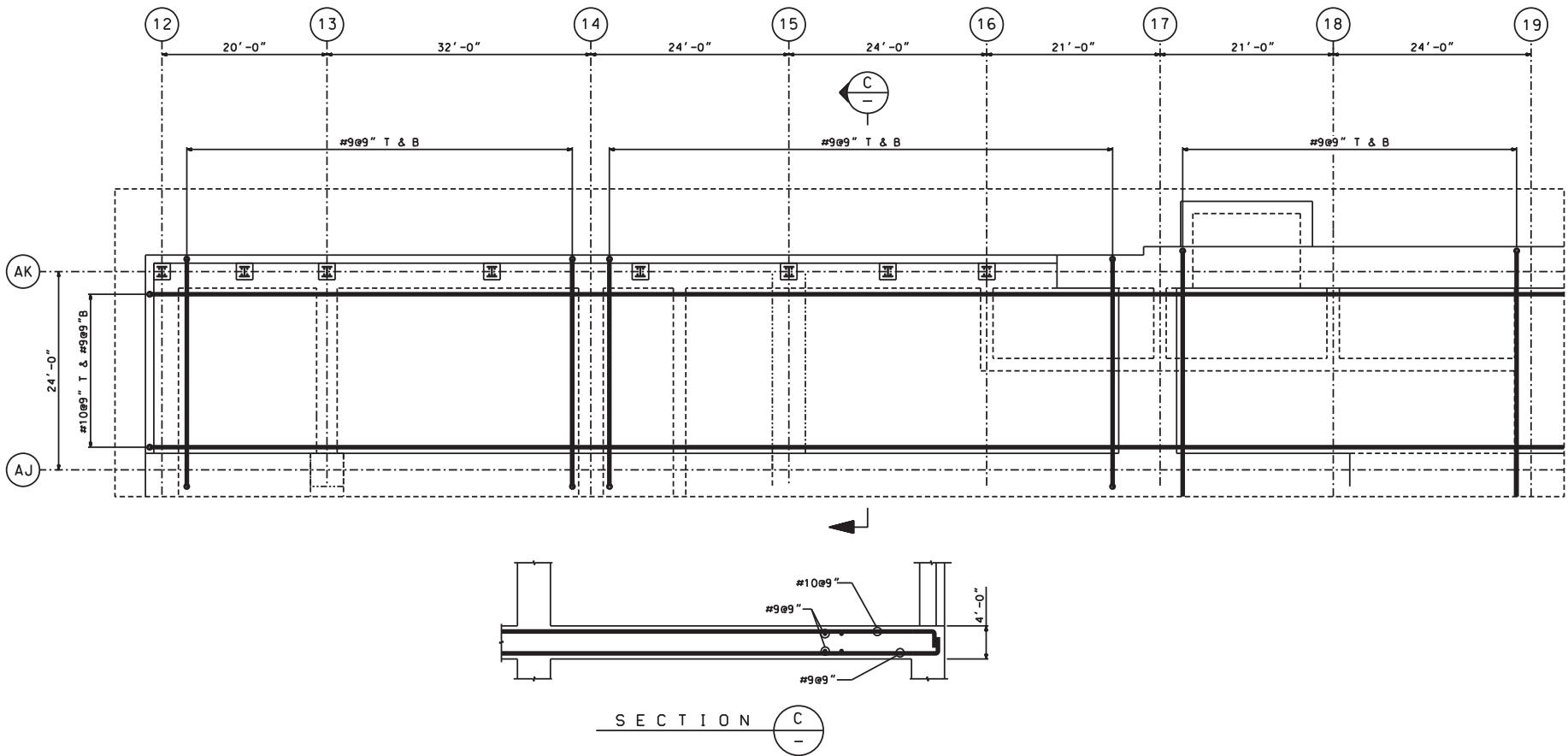
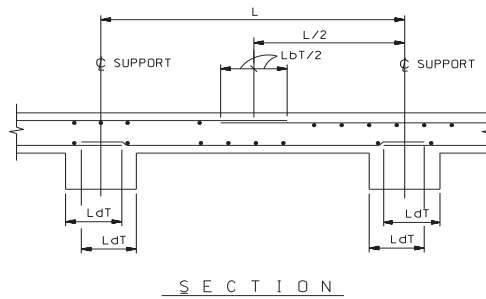
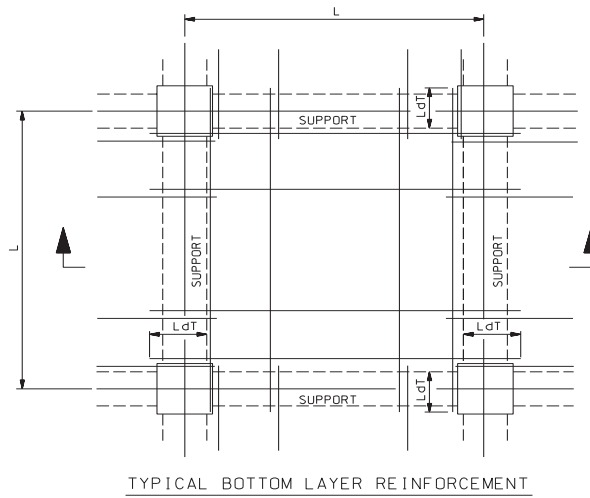
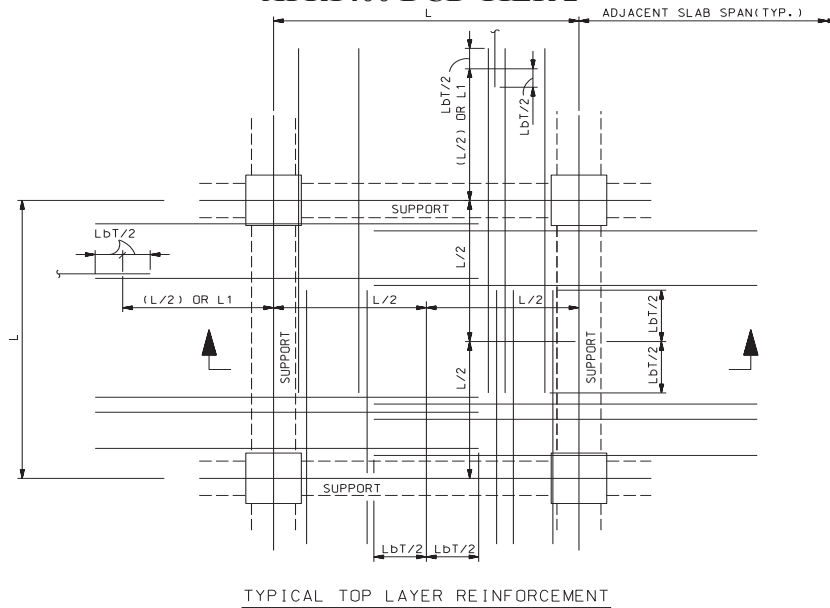


Figure 3.8A-51 Slab Reinforcements for the MSE in AB

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Note:  $L_{dT}$  - development length for top horizontal bar  
 (reinforcement location factor = 1.3, [ACI 349 12.2.4])\*  
 $L_{bT}$  - lap splice length for top horizontal bar  
 $L_{dO}$  - development length for other bars  
 $L_{bO}$  - lap splice length for other bars

Figure 3.8A-52 Typical Slab Reinforcement Arrangement Detail

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**Figure 3.8A-53 Location of Critical Sections of the EDG Building**

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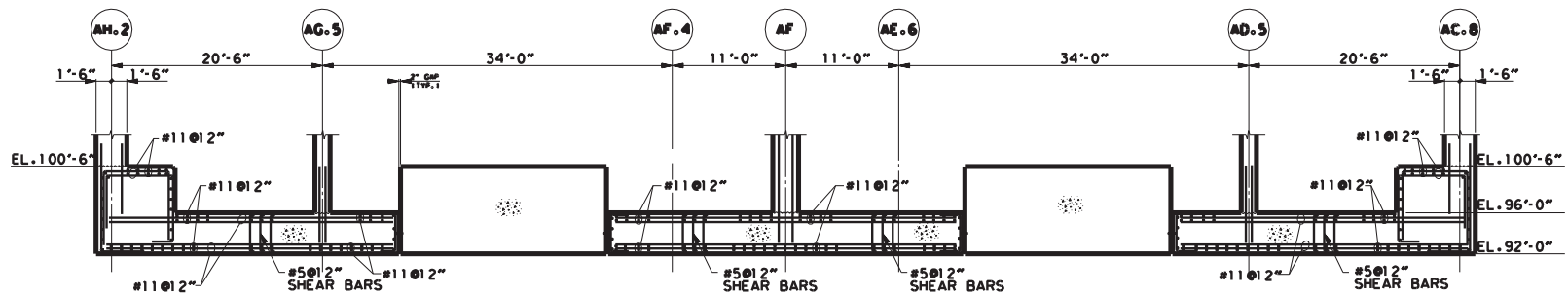
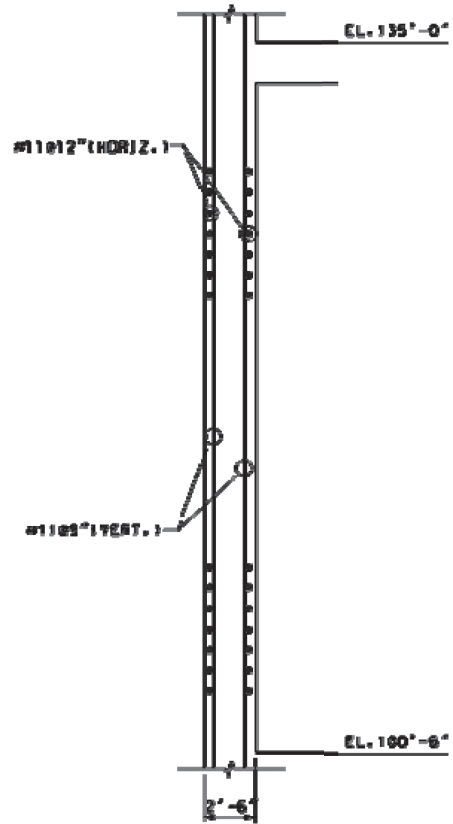
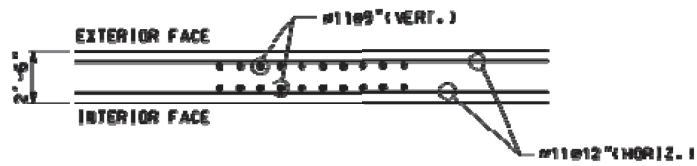


Figure 3.8A-54 Typical Reinforcement of the EDG Building Basemat

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VERTICAL CROSS SECTION



HORIZONTAL CROSS SECTION

Figure 3.8A-55 Reinforcement Arrangement of Center Wall of the EDG Building

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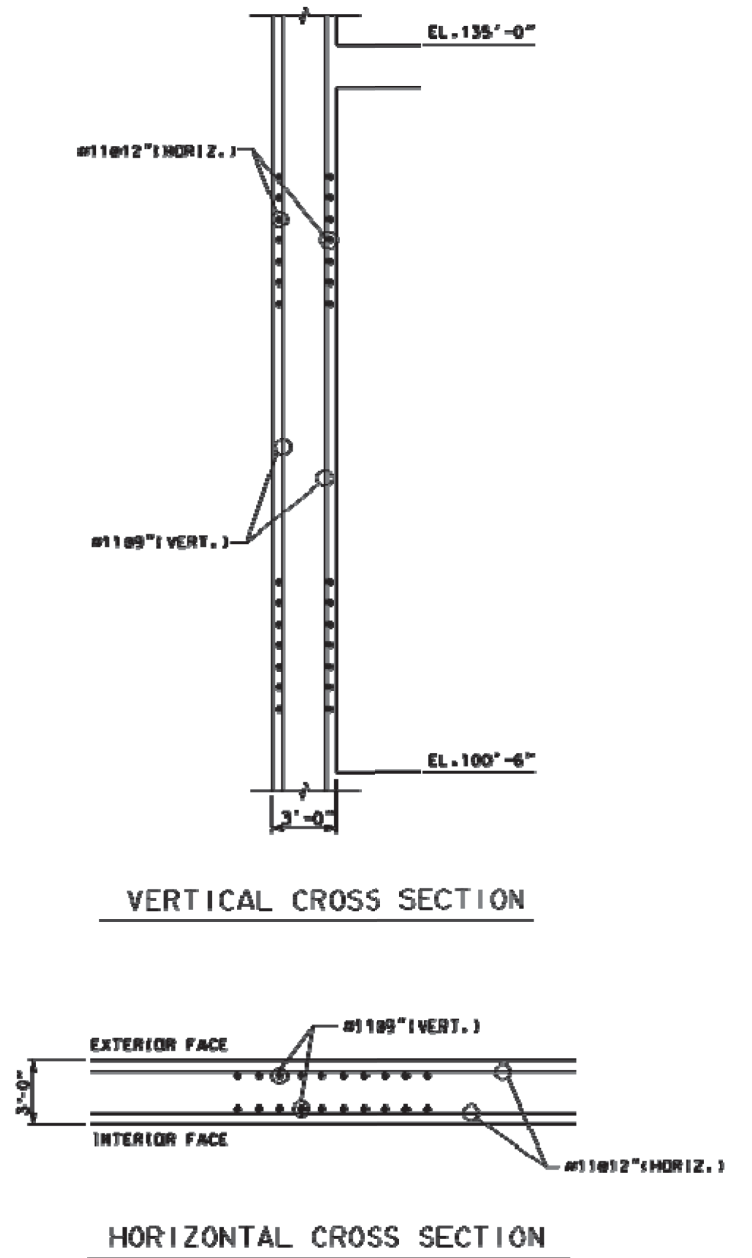


Figure 3.8A-56 Reinforcement Arrangement of the West Wall of the EDG Building