

# HEATING AND COOLING



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**Bruner/Cott**  
architects and planners

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- Infiltration was worked backwards from an airtightness target



# RESULTS

	CD Model
Heat, HP	21,081
Cool	14,965
Fans	12,162
Lights	22,542
E-10 plug	28,112
Add'l plug	3,720
DHW	6,187
Total	<b>108,768</b>
kWh/sf	<b>6.8</b>
kBTU/sf/yr	<b>23.2</b>



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- Vetted each category of end use with other buildings with motivated occupants



# PV SYSTEM



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- Sunpower panels with SolarEdge optimizers and inverters





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- 345 panels of 345WDC rating, total 119 kWDC



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- Estimated annual output about 140,000 kWh



# AIR BARRIER



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- During design, there was input from the CM as well as the design team



# AIR BARRIER

Base Approach



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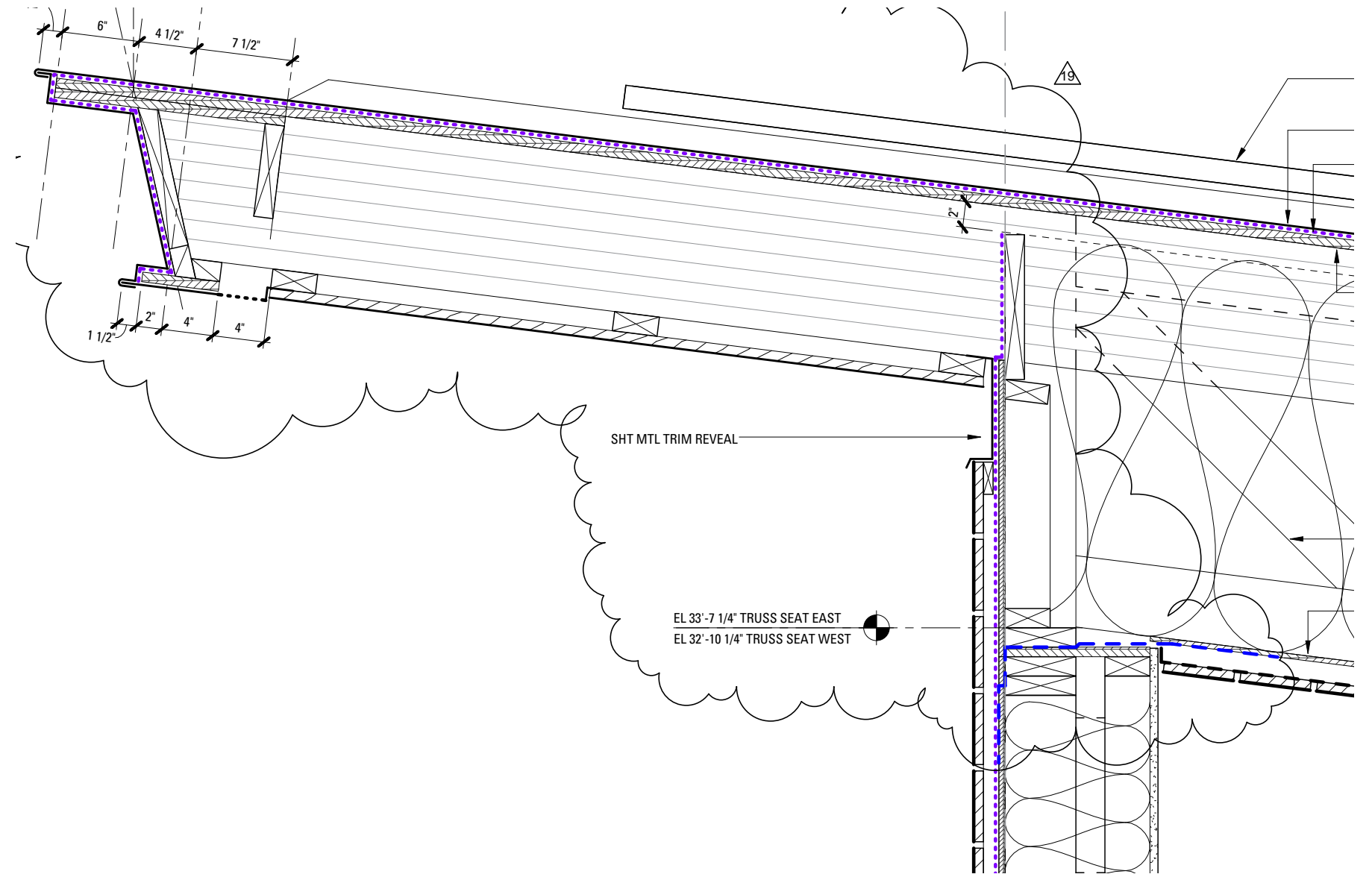
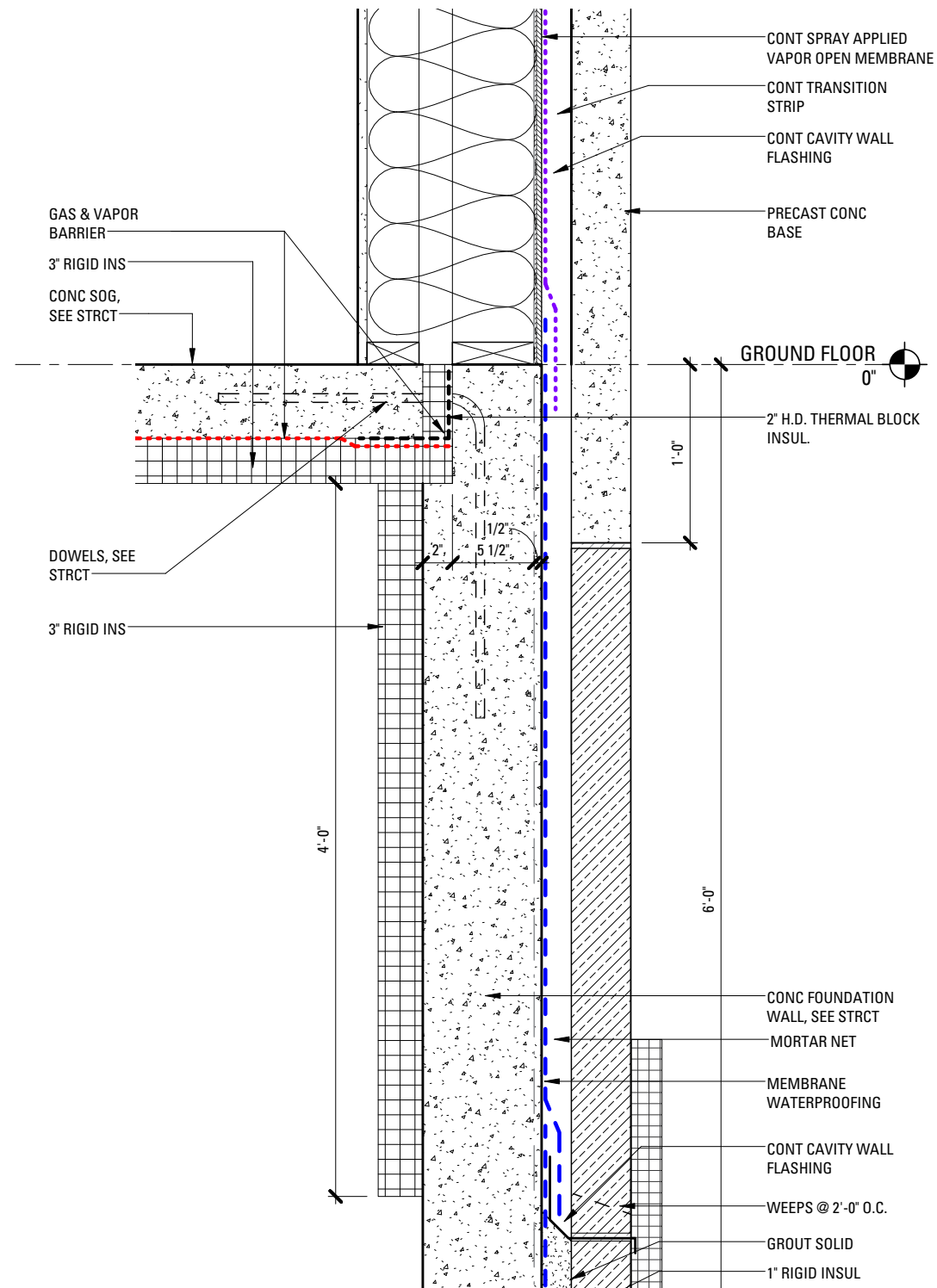


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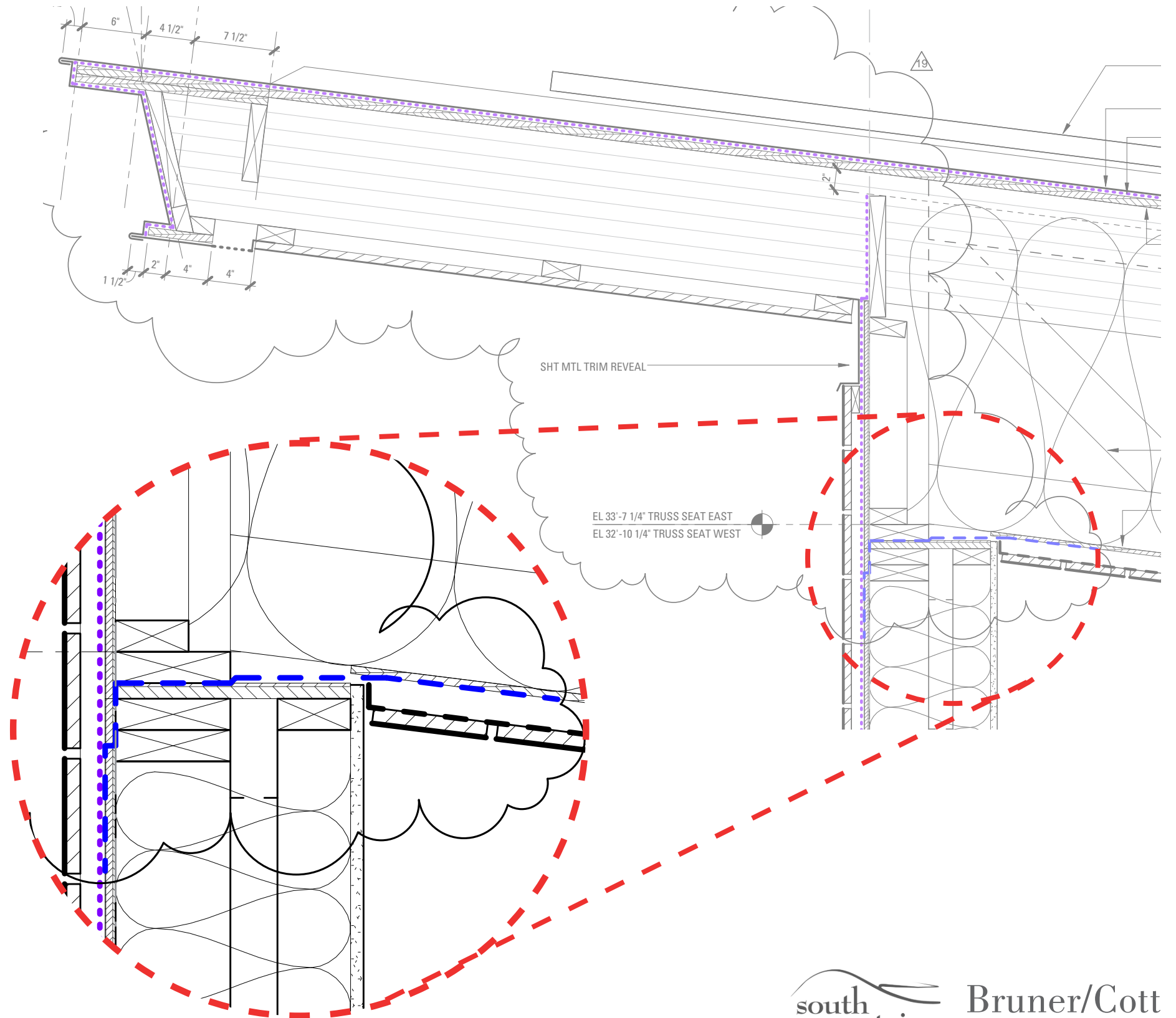
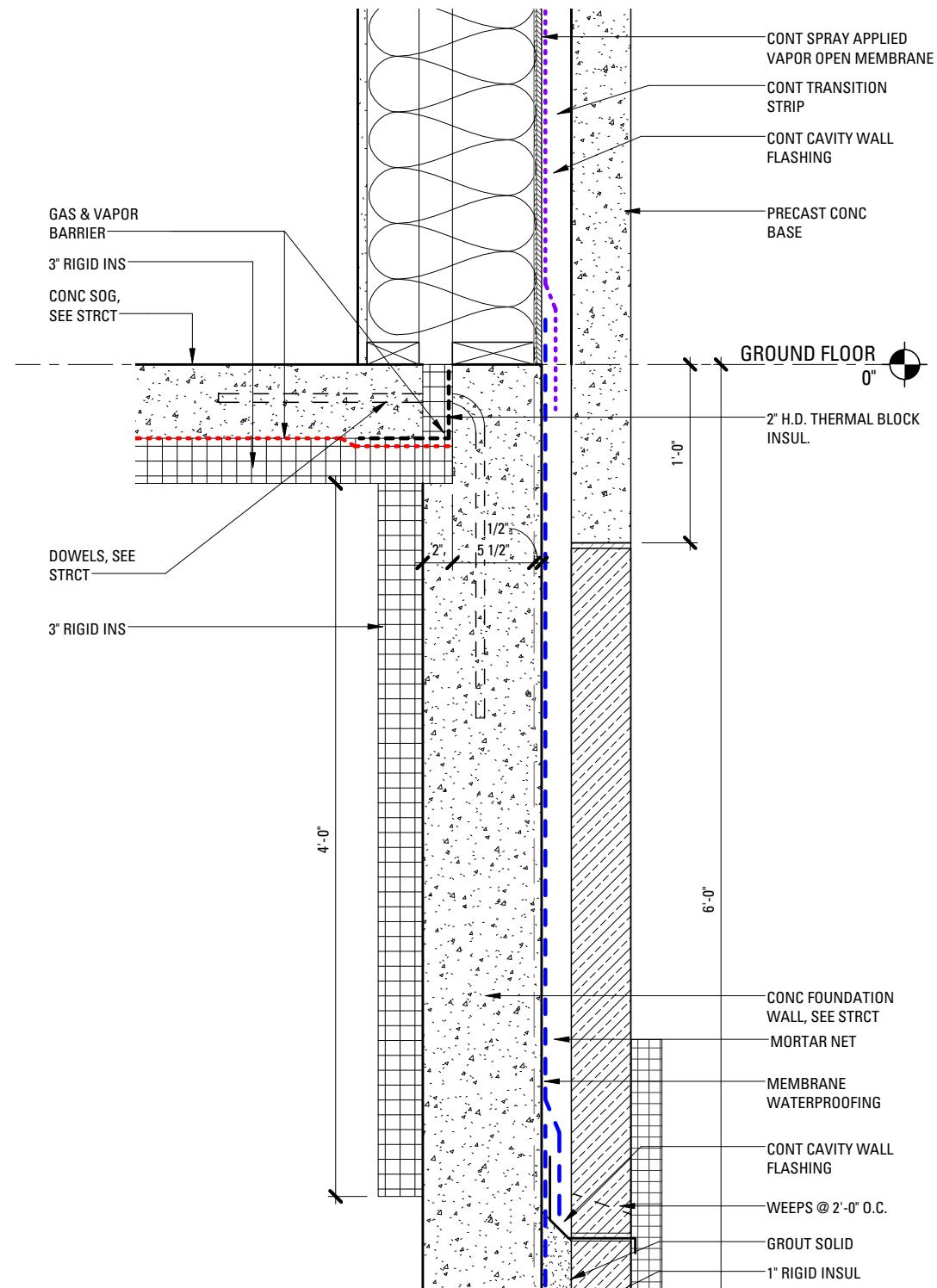
# AIR BARRIER

## Base Approach



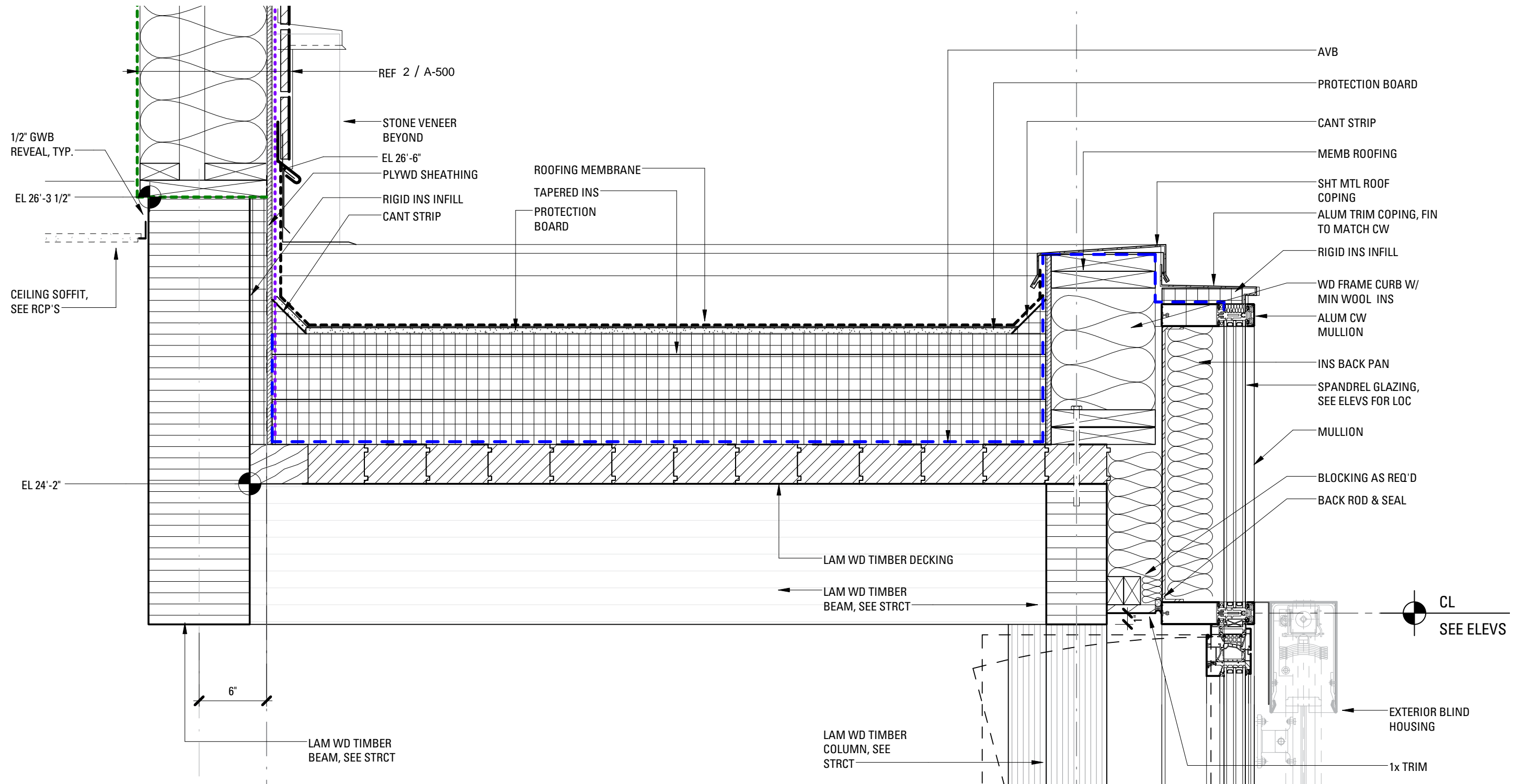
# AIR BARRIER

## Base Approach



# AIR BARRIER

## Tricky Places



# QUALITY ASSURANCE TESTING

- 2nd floor corner testing before windows
- 2nd floor corner testing after windows in
- Whole building test after curtainwall was in place



# QUALITY ASSURANCE TESTING

- 2nd floor corner testing before windows
- 2nd floor corner testing after windows in
- Whole building test after curtainwall was in place
- Without this process it is doubtful that the target air tightness would have been achieved



# QUALITY ASSURANCE TESTING

September 25, 2015



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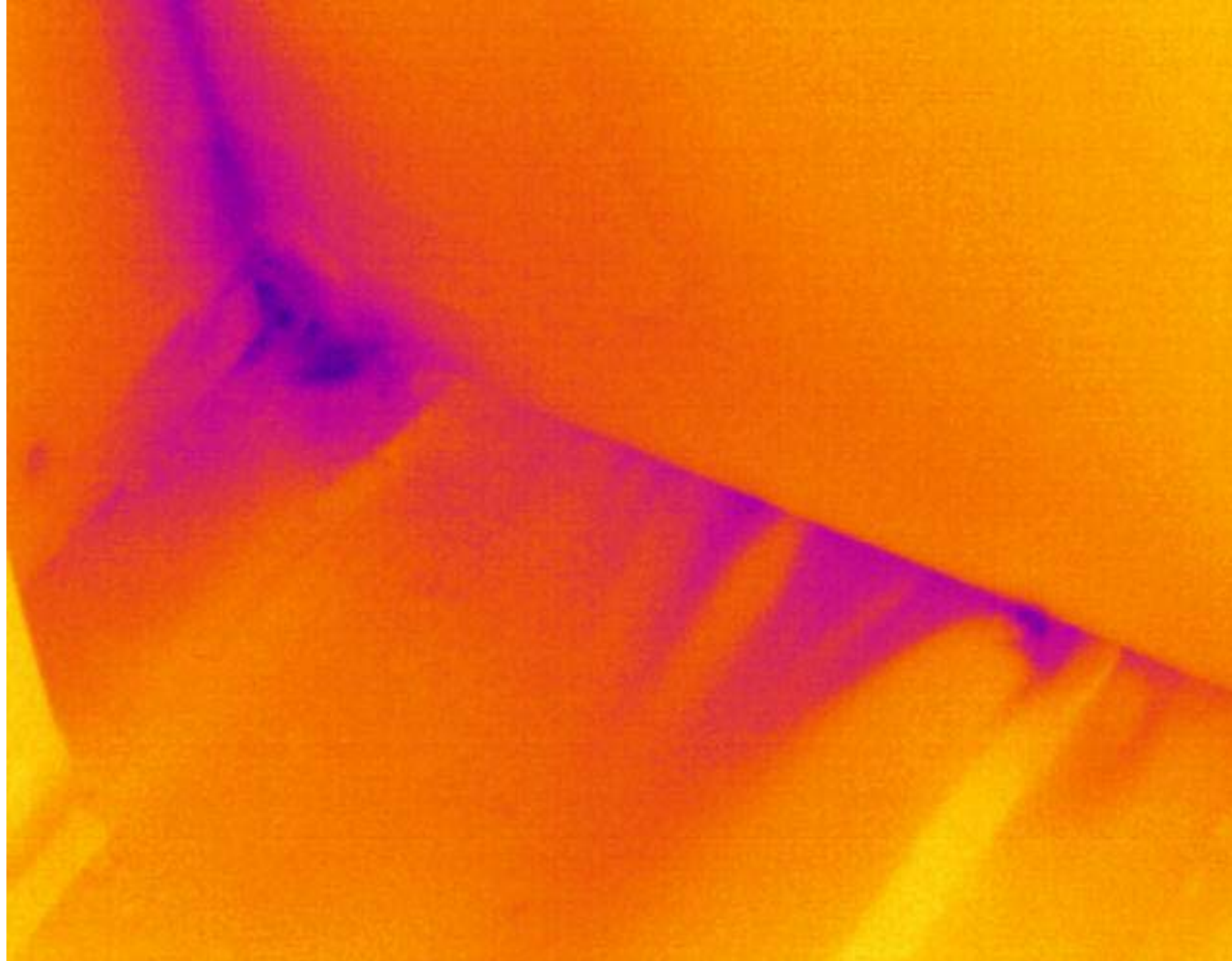


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# QUALITY ASSURANCE TESTING

January 1, 2016



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