



S25 - Backup vertical steel angles welded using steel tab plates to built-up joist bracing framing



S26 - View of backup vertical steel angles tack welded to the metal deck steel closure angle



S27 - Corrosion of façade backup vertical steel and built-up joist bracing



S28 - Corrosion of façade backup vertical steel and built-up joist bracing





S29 - Metal stud and track framing for façade structural backup at attached tower structure



S30 - Cold-form metal stud and tracking framing (tracking attached to chords of spandrel joist)



S31 - CMU wall backup system for façade cladding (noted fluid-applied dampproofing)



S32 - Corroded metal tie





S33 - Corrugated metal tie not engaged in horizontal brick masonry bed joint (original construction condition)



S34 - Missing corrugated brick tie at fastener to vertical steel angle backup



S35 - Missing welded wire tie at steel column backup



S36 - Corrosion noted at welded tie loop for brick tie connection





S37 - Broken weld at tie loop for brick tie connection shown in Photo 36



S38 - Wire ties attaching brick cladding to steel tube column at Exploratory Opening 10



S39 - Horizontal ladder reinforcement not embedded in brick masonry bed joint



S40 - Horizontal ladder reinforcement not embedded in brick masonry bed joint (note ladder reinforcement is bent)





S41 - Cut section of horizontal ladder reinforcement spanning between Exploratory Openings 12 and 13



S42 - Extruded sealant failure in parapet wall expansion joint



S43 - Failed sealant at through-wall pipe penetration



S44 - Sealant failure at brick façade transition to louver framing





S45 - Sealant and weatherproofing gaskets at window fenestrations



S46 - Cavity wall waterproofing consisting of gypsum sheathing and discontinuous flashing

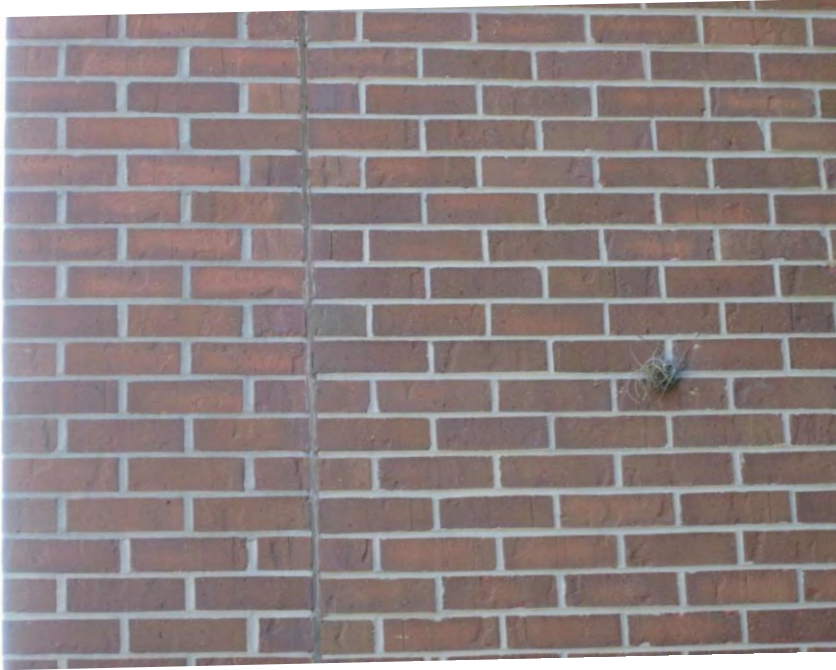


S47 - Moisture deterioration and caking of gypsum sheathing



S48 - Discontinuous flashing waterproofing application at cavity wall





S49 - Blocked post installed weep hole (note vegetative growth)



S50 - Excavation of exterior column footing on north side of building



S51 - Exposed footing



S52 - View of exterior wall at column footing excavation (lower arrow highlights top of interior column footing, upper arrow highlights continuous wall footing, concrete masonry units placed between wall footing and brick veneer).





S53 - Interior column excavation



S54 - View of exposed footing at location shown in previous photo



S55 - Example location of above-ceiling observations of steel framing on Level 1



S56 - Arrow highlights typical 10"x10" tube steel column





S57 - General view of Level 5 floor joist



S58 - General view of floor joist (right arrow) bearing on top chord of joist girder (left arrow)



S59 - Caliper thickness measurement of joist bottom chord angle



S60 - Example joist tag





S61 - Typical joist/joist girder and column joint (joist girder highlighted by left arrow, joist highlighted by right arrow, lower box identifies typical bottom chord to column moment connection, upper box identifies typical top chord to column moment connection).



S62 - Close-up view of typical bottom chord-to-column moment connection consisting of angle welded to chord and column (photo also shows measurement of fillet weld)



S63 - Close-up view of typical top chord-to-column moment connection consisting of angled plate (arrow) welded to chord and column



S64 - Soffit access panel used to access steel framing below exterior walkway on south side of Level 3





S65 - General view of area of long-term water intrusion at location shown in previous photo



S66 - Close-up view of deck and structural steel corrosion shown in previous photo



S67 - General view of corrosion of deck and steel framing below Level 2 exterior corridor



S68 - Closer view of corrosion shown in previous photo





S69 - General view of mechanical room inside tower



S70 - General view of framing at corner of mechanical room



S71 - Closer view of beam-column joint shown in previous photo



S72 - General view of inset wall at exterior corridor





S73 - General view area of north elevation where observations of top of discontinuous CMU backup wall were made from façade exploratory opening (arrow highlights wall in following photo)



S74 - UngROUTED top course of CMU backup wall (left arrow), anchor rod hung from framing above highlighted by right arrow



S75 - Top 6-inch CMU backup wall on south side of building below Level 2 exterior corridor (top course of masonry is grouted, anchor rod hung from joist above is embedded in wall)



S76 - Top of inset wall at Level 3 on south side of building (top course of 6-inch CMU backup wall is grouted, photo shows anchor rod connected to bottom chord of joist and embedded in wall)





S77 - Typical opening in gypsum wallboard at interior face of setback exterior wall where GPR scanning was performed to check for the presence of vertical reinforcing steel



S78 - Exposed CMU backup wall at west end of Level 4 (arrow highlights GPR equipment)



S79 - General view of exposed CMU backup wall inside mechanical room on Level 2 (arrow highlights location of following photo)



S80 - Tape measure shows width of nominal 4-inch CMU backup wall inside mechanical room





S81 - Typical windows in inset wall at exterior corridor



S82 - General view of area above ceiling at east end of Level 4 where window head support was reviewed

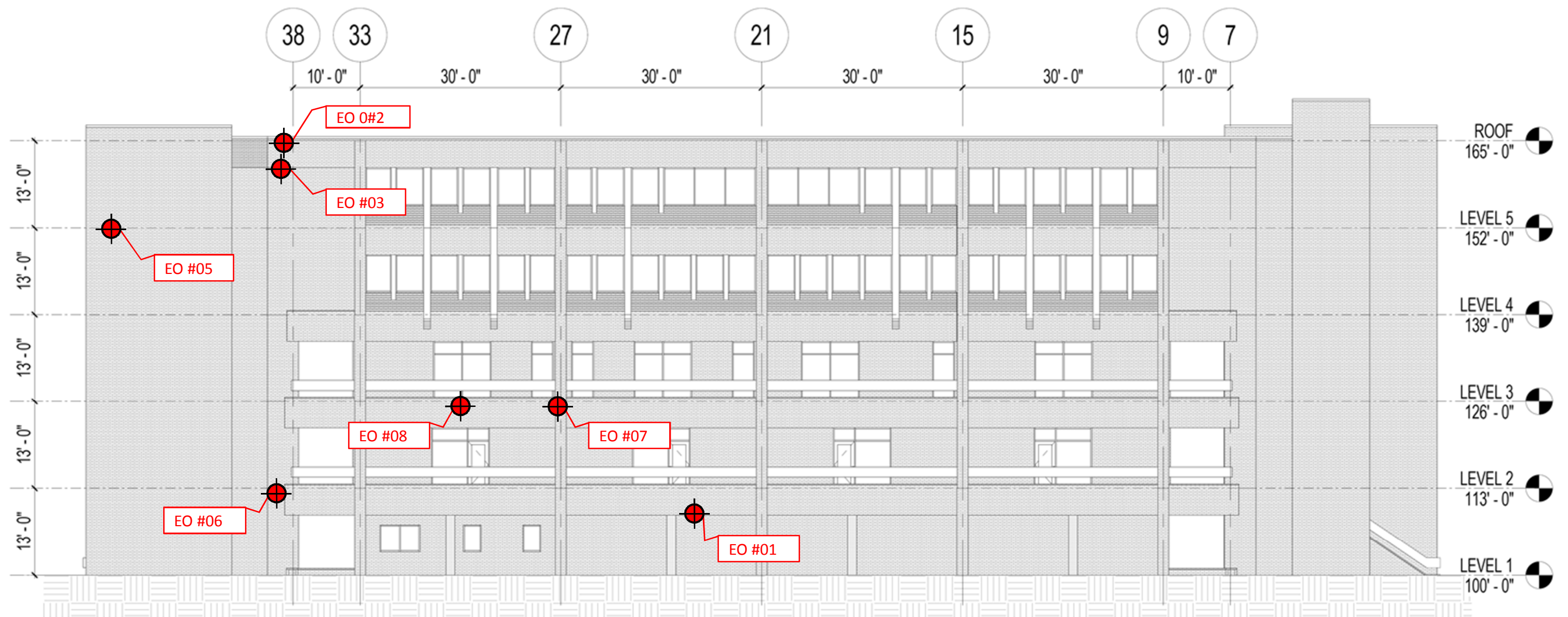


S83 - General view looking along top of wall shown in previous photo (red arrows highlight vertical angles hung from bottom chord of joist and welded to steel channel (yellow arrow) at top of window below)



S84 - Top of discontinuous ungrouted, unreinforced brick pilaster at location shown in previous photo

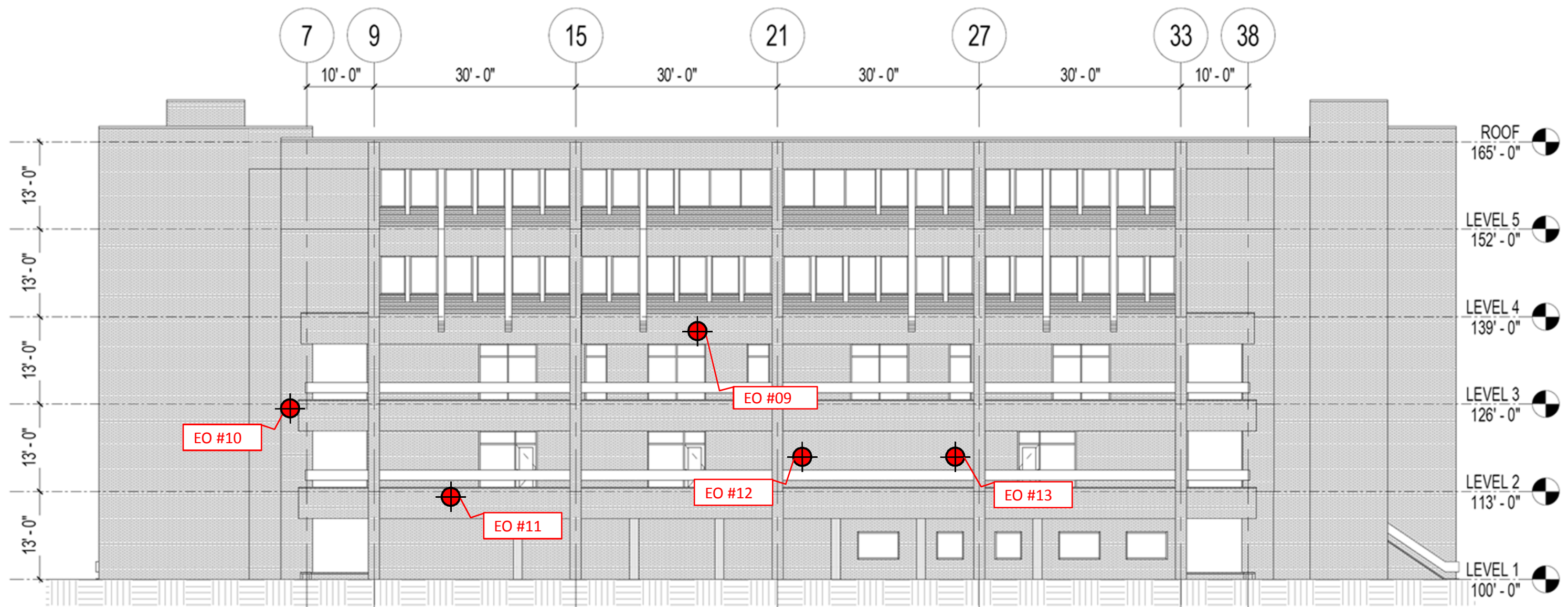




**EXHIBIT LEGEND:**

-  - APPROXIMATE LOCATION OF EXPLORATORY OPENING
- EO # - EXPLORATORY OPENING NUMBER

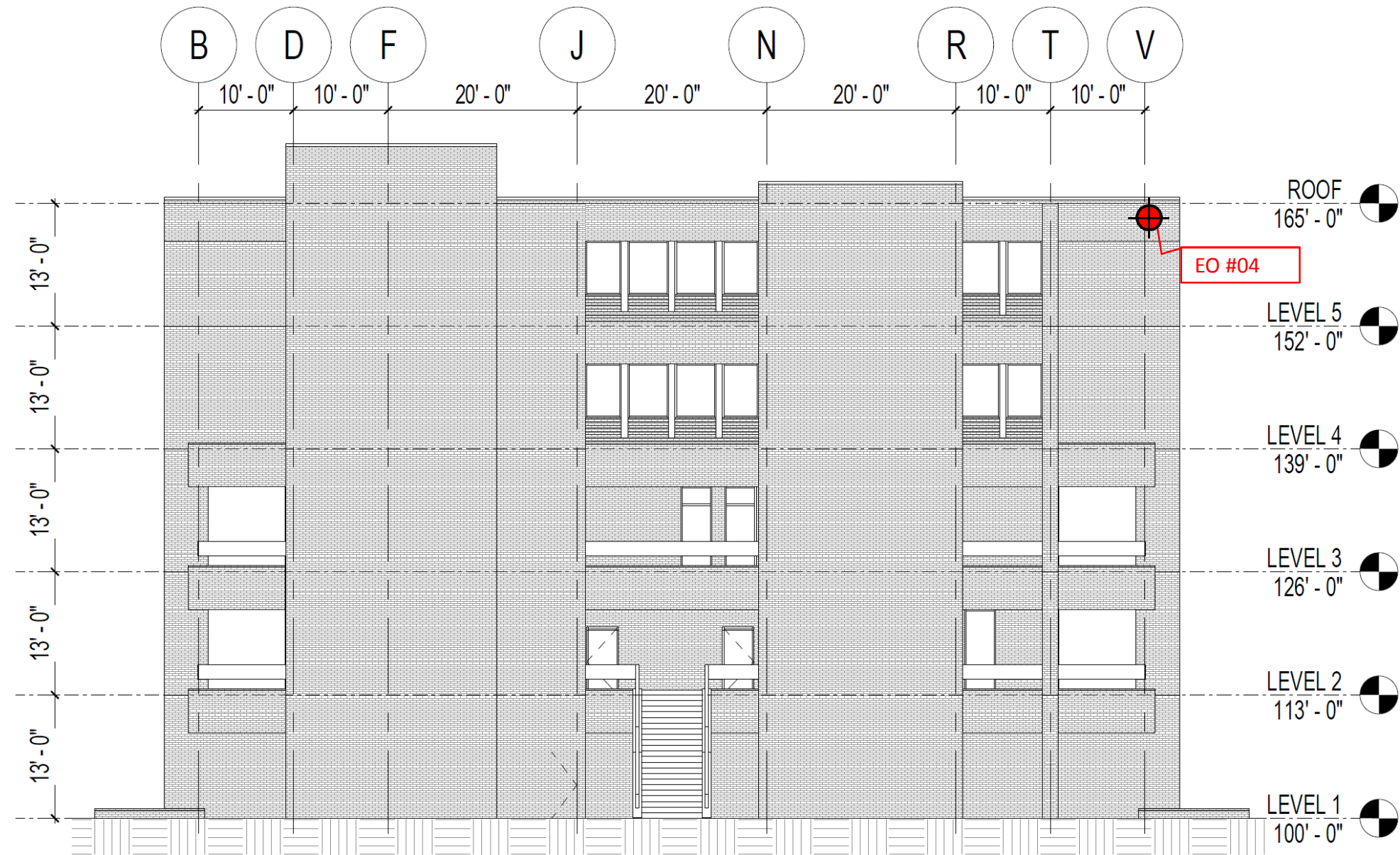




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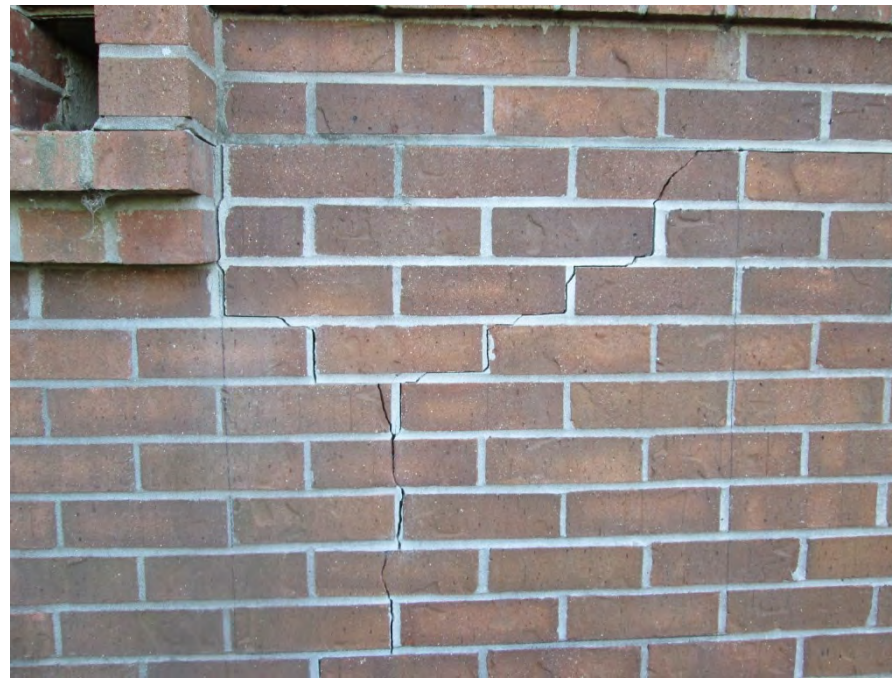
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						OBSERVED DISTRESS CONDITIONS AT EXPLORATORY OPENINGS												
EXPLORATORY OPENING NUMBER	LOCATION REFERENCE EXHIBIT	REPRESENTATIVE PHOTOS REFERENCE EXHIBIT	ELEVATION	LEVEL	LOCATION	LOOSE OVERHEAD BRICK	BRICK CRACKING AND/OR SPALLING	MORTAR CRACKING	MORTAR SEPARATION	CORRODED STEEL FRAMING	UNENGAGED CORRUGATED METAL TIES	CORRODED CORRUGATED METAL OR WIRE TIES	MISSING CORRUGATED METAL OR WIRE TIES	FAILED WELD AT WIRE TIES	UNENGAGED LADDER REINFORCEMENT TIES	FAILED SEALANT	IMPROPERLY INSTALLED CAVITY WALL FLASHING	SIGNS OF PREVIOUS WATER INFILTRATION
E0-01	EX-N	EX-01	North	2	Open corridor projected façade	X	X	X	X	X		X					X	X
E0-02	EX-N	EX-02	North	Roof	Parapet		X	X	X	X					X		X	X
E0-03	EX-N	EX-03	North	Roof	Parapet	X	X	X		X					X		X	X
E0-04	EX-W	EX-04	West	Roof	Parapet		X	X			X		X					
E0-05	EX-N	EX-05	North	5	Vertical expansion joint	X							X		X	X		
E0-06	EX-N	EX-06	North	2	Tower Structure						X					X	X	X
E0-07	EX-N	EX-07	North	3	Projected column							X		X				
E0-08	EX-N	EX-08	North	3	Open corridor projected façade	X			X	X							X	X
E0-09	EX-S	EX-09	South	4	Brick veneer at core building façade												X	
E0-10	EX-S	EX-10	South	3	Tower Structure		X											
E0-11	EX-S	EX-11	South	2	Open corridor projected façade	X			X	X							X	X
E0-12	EX-S	EX-12	South	2	Open corridor inset façade										X			
E0-13	EX-S	EX-13	South	2	Open corridor inset façade										X			





Overview of Exploratory Opening 01



Brick cracking distress



Brick crack width measured as 1/4- inch



Corrosion distress at metal deck closure angle and joist girder top chord



Corrosion distress at shelf angle



Corroded corrugated metal tie





Overview of Exploratory Opening 02



Brick cracking distress



Brick crack width measured as 1/8- inch



Ladder reinforcement tie not adequately embedded in brick masonry bed joint



Through-wall fabric flashings act as bond-breaker for mortar joint



Mortar separation due to through-wall fabric acting as bond breaker





Overview of Exploratory Opening 03



Discontinuous flashing of cavity wall waterproofing



Rotated brick and mortar cracking at discontinuous shelf angle support



Corrosion distress of discontinuous shelf angle (note splice in shelf angle at location of rotated brick)



Corrosion distress at s discontinuous shelf angle splice connection

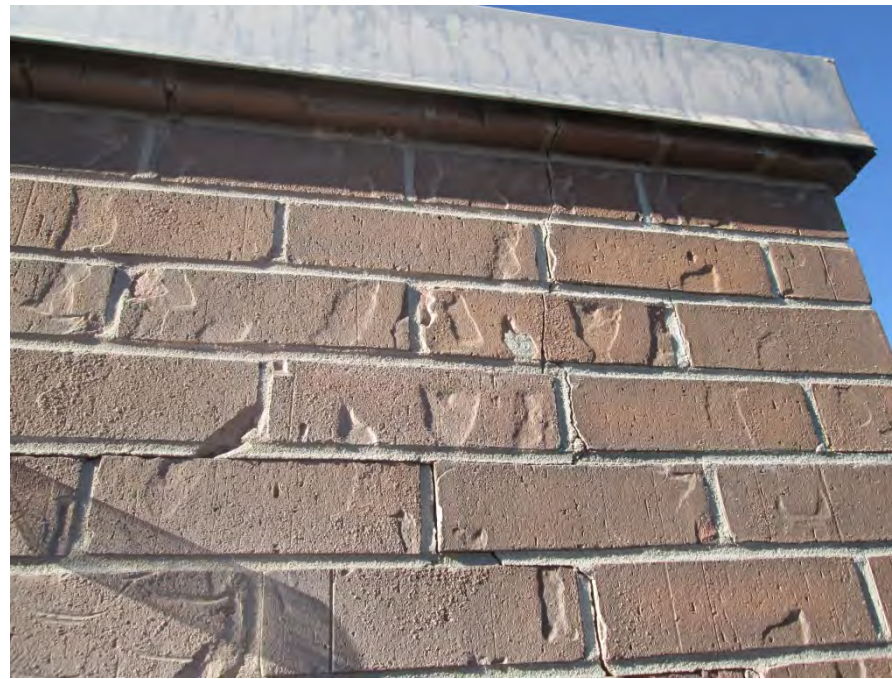


Signs of previous water infiltration as evidenced by water staining of gypsum sheathing





Overview of Exploratory Opening 04



Brick cracking distress



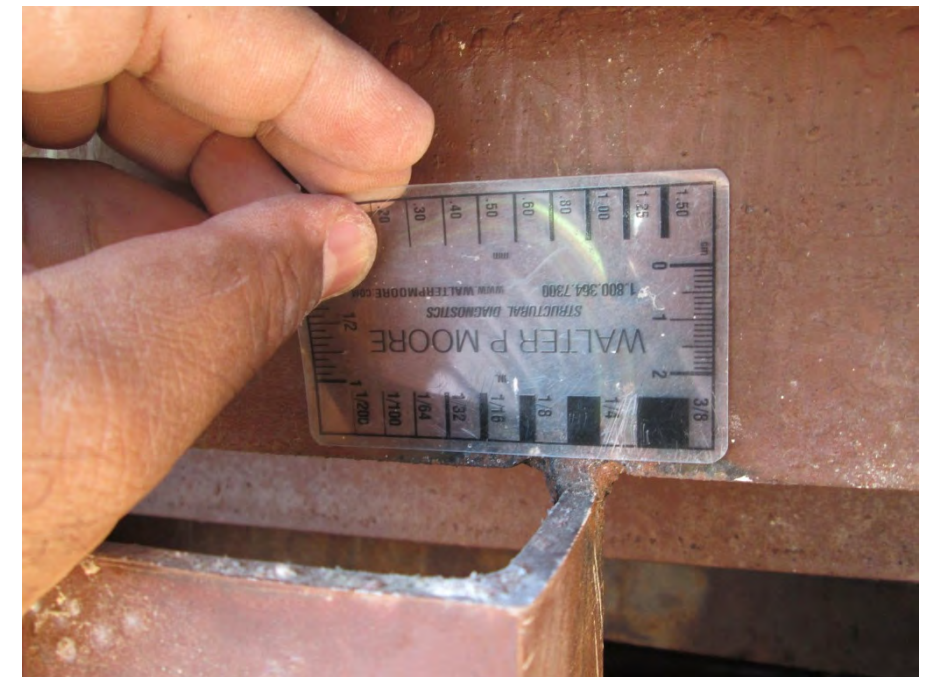
Brick crack width measured as 1/8-inch



Uninstalled corrugated metal tie for lateral support of brick cladding



Tack welding of vertical angle support to metal deck closure angle



Tack welding of vertical angle support to metal deck closure angle





Overview of Exploratory Opening 05



Fluid applied asphaltic waterproofing  
on CMU backup wall



Cavity depth a steel tube column  
measured as 1/2-inch



Ladder reinforcement tie not adequately  
embedded in brick masonry bed joint



Failed joint sealant at expansion joint



Joint sealant does not have an  
adequate width-to-depth profile ratio





Overview of Exploratory Opening 06



Metal stud with gypsum sheathing backup



Ladder reinforcement embedded in brick masonry bed joint



Corrugated metal tie not installed in brick masonry bed joint during original construction



Vertical tie spacing measured at approximately 29-inches on center



Horizontal tie spacing measured at approximately 24-inches on center





Overview of Exploratory Opening 07



Wire tie attached to welded wire loops on steel tube column



Wire tie attached to welded wire loops on steel tube column



Corroded and broken weld at wire loop connection to steel tube column



View of broken weld at wire loop connection to steel tube column



View of broken weld at wire loop connection to steel tube column





Overview of Exploratory Opening 08



Deflected brick and separated mortar (through wall fabric flashing acts as bond breaker in masonry bed joint)



Separated mortar gap measured as approximately 5/8-inch



Corroded metal framing indicates previous water infiltration



Corroded metal framing indicates previous water infiltration



Corroded metal framing and deteriorated gypsum sheathing indicates previous water infiltration





Overview of Exploratory Opening 09



Surface corrosion noted at corrugated metal tie



Corbelled brick façade at Level 4



Corbelled brick façade at Level 4



Bent steel angle backup for corbelled brick façade (view looking up towards start of corbelled wall section)



Interior structural framing noted to be in generally fair condition





Overview of Exploratory Opening 10



Wire ties for lateral attachment of brick cladding



Wall cavity depth measured as 9-inches on west elevation of opening



Wall cavity depth measured as 1-inch on south elevation of opening



Mortar droppings at north elevation of opening inhibit cavity wall drainage



Vertical wire tie spacing measured as approximately 16-inches on center





Overview of Exploratory Opening 11



Deflected brick and separated mortar (through wall fabric flashing acts as bond breaker in masonry bed joint)



Gap between mortar bed joint for brick coping and concrete curb support



Gap between mortar bed joint for brick coping and concrete curb support



Gap between brick coping and concrete curb support (view from corridor)



Corroded metal framing indicates previous water infiltration





Overview of Exploratory Opening 12



Ladder reinforcement embedded in brick masonry bed joint



Ladder reinforcement embedded in brick masonry bed joint



Ladder reinforcement attached to CMU wall backup



Vertical tie spacing measured at approximately 15-inches on center



Vertical tie spacing measured at approximately 15-inches on center





Overview of Exploratory Opening 13



Ladder reinforcement embedded in brick masonry bed joint



View of ladder reinforcement from CMU backup wall to brick masonry bed joint



Cut ties of ladder reinforcement projecting from CMU wall backup

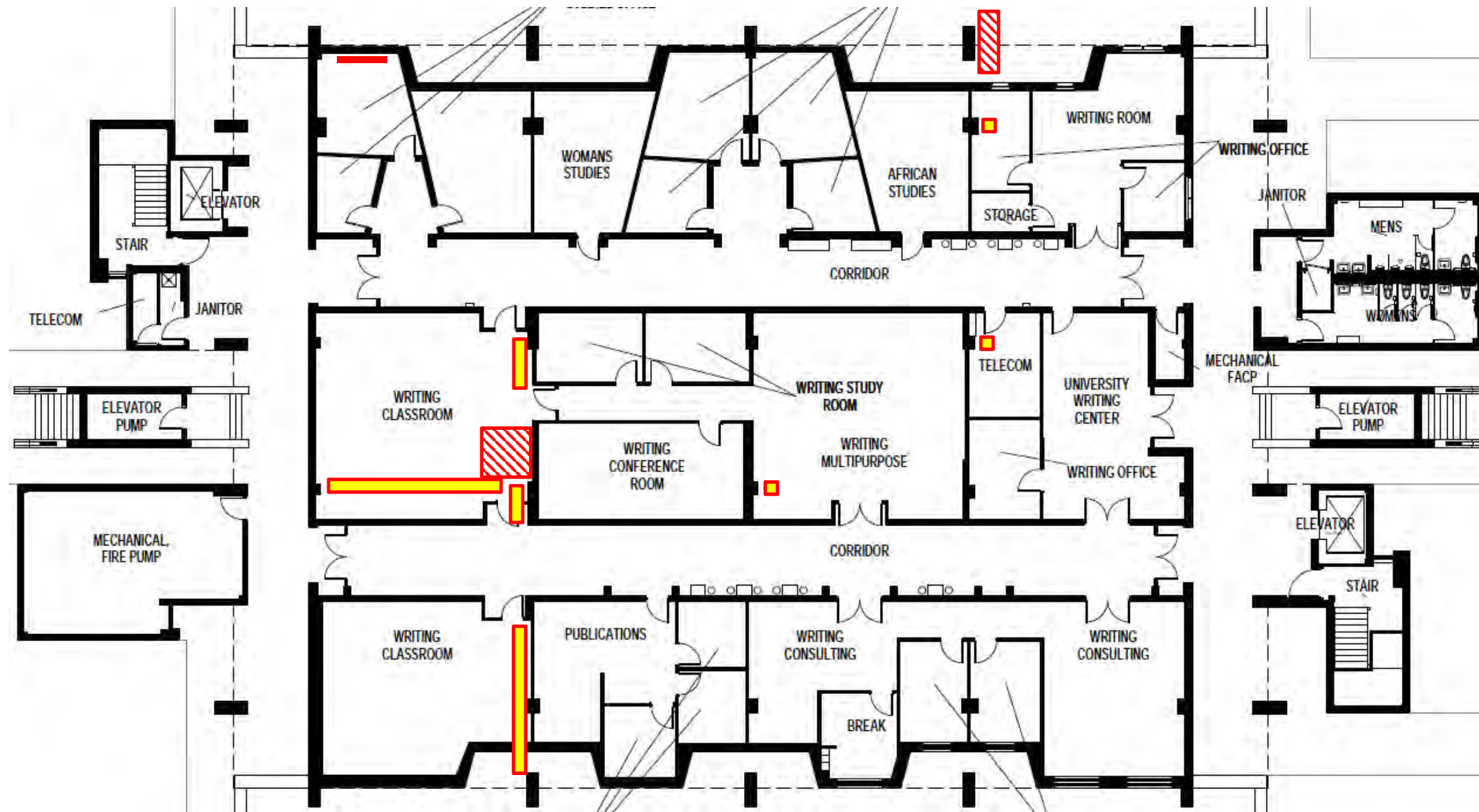


Vertical tie spacing measured at approximately 15-inches on center



Vertical tie spacing measured at approximately 15-inches on center

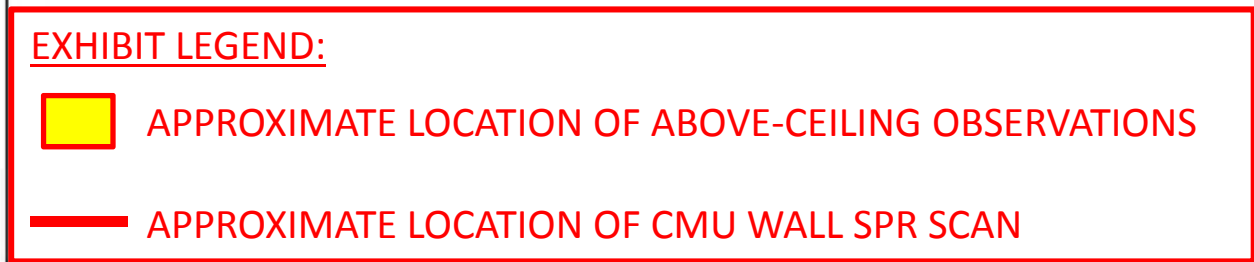




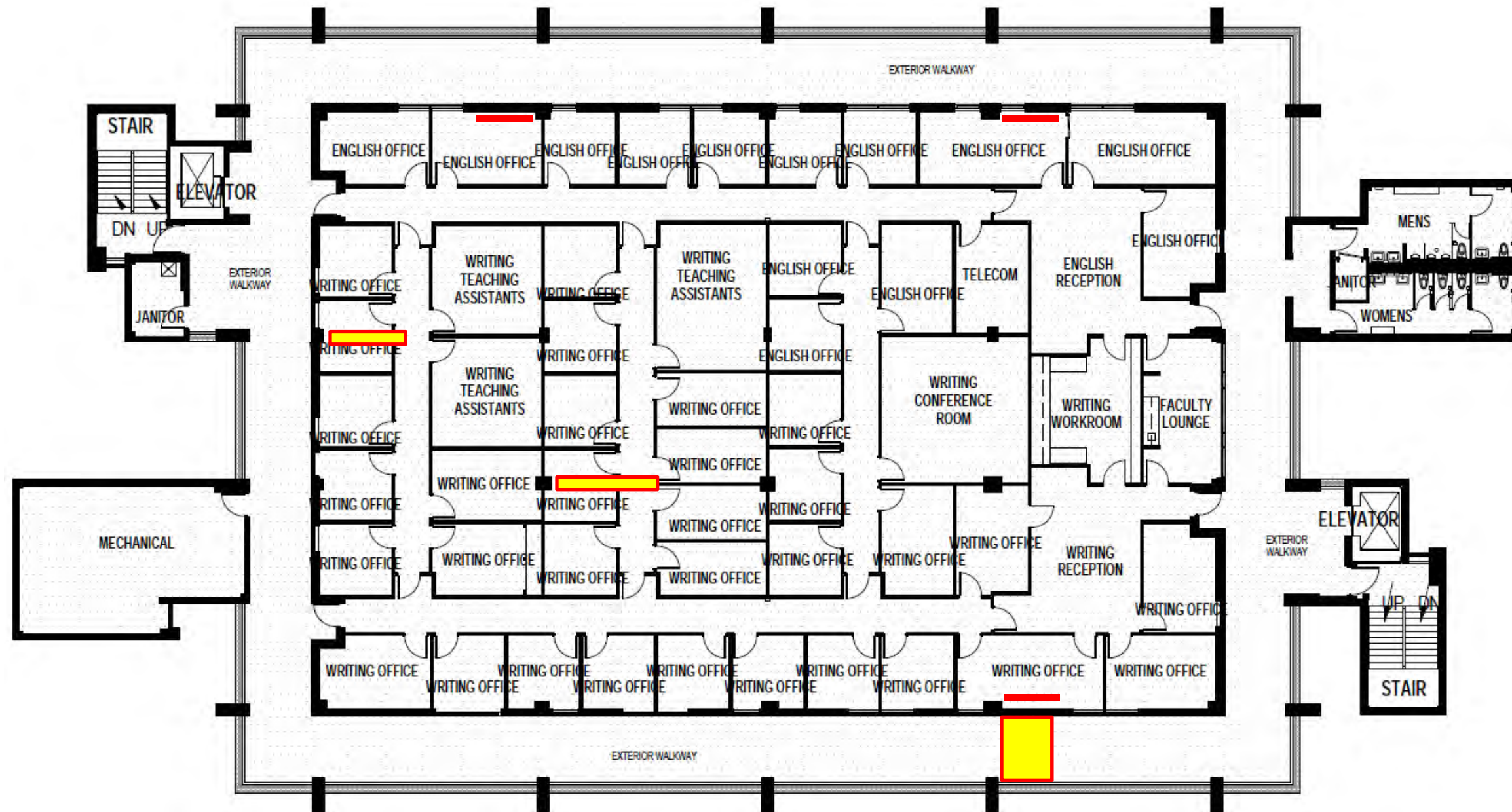
#### EXHIBIT LEGEND:

- APPROXIMATE LOCATION OF ABOVE-CEILING OBSERVATIONS
- APPROXIMATE LOCATION OF FOOTING EXCAVATION
- APPROXIMATE LOCATION OF CMU WALL SPR SCAN









**EXHIBIT LEGEND:**

- APPROXIMATE LOCATION OF ABOVE-CEILING OBSERVATIONS
- APPROXIMATE LOCATION OF CMU WALL SPR SCAN