



**PROJECT NAME:** Forestside Estates Inc.

**PROJECT NUMEBER:** 300

**PROJECT MANAGER:** Vince Staffieri

**ASSISTANT PROJECT MANAGER:** Aseel Al Shawakri

**SUPERINTENDENT:** Keith Schumacher

# MECHANICAL Site Instruction from UNITED ENGINEERS

Updated: August 5, 2022

S.I. #	Issued Date	Title	Description	DWGs
M-1	28 April 2021	To revise mechanical layout to suit architectural CS drawing and City comments for P1 level.	<b>1.0 Reference Drawing M-01 (Site Plan - Mechanical) Issued</b>	M-01
			1.1 Revised: Location of area drains and slab drains.	
			<b>2.0 Reference Drawing M-2, M-2A, M-2B (Underground Drainage - Mechanical) Issued</b>	M-2, M-2A, M-2B
			2.1 Revised: Location of Catch Basins and floor drains.	M-3, M-3A, M-3B
			<b>3.0 Reference Drawing M-3, M-3A, M-3B (Underground Drainage - Mechanical) Issued</b>	M-4, M-4A, M-4B
			3.1 Revised: Mechanical layout to pick up ground floor area drains and slab drains.	M-11
			<b>4.0 Reference Drawing M-4, M-4A, M-4B (Underground Drainage - Mechanical) Issued</b>	M-21
			4.1 Revised: Building D air shaft location.	
			4.2 Revised: Air lock C register size and location.	
			4.3 Revised: Building B location of F-16 to avoid interference with garbage chute.	M-31
			4.4 Revised: Running schedule of F-5 and F-4 as bubbled.	
			<b>5.0 Reference Drawing M-11 (Blk "D" 4th1 - Mechanical) Issued</b>	M-41
			5.1 Revise: Mechanical make-up air riser.	
			5.2 Added: Combined fire and smoke damper for all the opening to public corridor.	
			<b>6.0 Reference Drawing M-21 (Blk "C" 4th1 - Mechanical) Issued</b>	M-48
			6.1 Revise: Mechanical make-up air riser.	
			6.2 Added: Combined fire and smoke damper for all the opening to public corridor.	



SI #	Issued Date	Title	Description	DWG's
M-1	28 April 2021	To revise mechanical layout to suit architectural CS drawing and City comments for P1 level.	<b>7.0 Reference Drawing M-31 (Blk "B" 4th1 - Mechanical) Issued</b> 7.1 Revise: Mechanical make-up air riser. 7.2 Added: Combined fire and smoke damper for all the opening to public corridor. <b>8.0 Reference Drawing M-41 (Blk "A" 4th1 - Mechanical) Issued</b> 8.1 Revise: Mechanical make-up air riser. 8.2 Added: Combined fire and smoke damper for all the opening to public corridor. <b>9.0 Reference Drawing M-48 (SCHED and SCHEM - Mechanical) Issued</b> 9.1 Clarify: Exhaust fans operation schedule.	
M-2	June 4, 2021	To revise mechanical layout to suit architectural SI A-01 and City comments.	<b>1.0 Reference Drawing M-3, M-3A,M-3B (Plumbing P1 - Mechanical) Issued</b> 1.1 Revised: Mechanical layout to suit Arch site instruction. <b>2.0 Reference Drawing M-4,M-4A,M-4B,M-4C (HVAC GAS - Mechanical) Issued</b> 2.1 Revised: Building D gas pipe layout to suit Arch site instruction. 2.2 Clarify: Building D fresh air shaft location. 2.3 Revised: Air lock diffuser location and volume. 2.4 Relocated: Building B F-16. 2.5 Relocated: Intake louver at sub electrical room 'A'. <b>3.0 Reference Drawing M-5 – M-14 (Blk. "D" - Mechanical) Issued</b> 3.1 Revised: Suite mechanical layout to suit Arch site instruction. 3.2 Deleted: One diffuser at 3rd floor locker room. 3.3 Revised: Make up air riser. 3.4 Revised: Corridor fire damper to combine fire smoke damper. <b>4.0 Reference Drawing M-15 – M-21 (Blk "C" - Mechanical) Issued</b> 4.1 Deleted: One diffuser at 3rd floor locker room. 4.2 Revised: Make up air riser. 4.3 Revised: Corridor fire damper to combine fire smoke damper. <b>5.0 Reference Drawing M-25 – M-31 (Blk "B" - Mechanical) Issued</b> 5.1 Deleted: One diffuser at 3rd floor locker room. 5.2 Revised: Make up air riser. 5.3 Revised: Corridor fire damper to combine fire smoke damper. 5.4 Added: Electrical heater in locker room and vestibule. <b>6.0 Reference Drawing M-35 – M-41 (Blk "A" - Mechanical) Issued</b> 6.1 Deleted: One diffuser at 3rd floor locker room.	M-3, M-3A,M-3B  M-4,M-4A,M-4B,M-4C  M-5 – M-14  M-15 – M-21  M-25 – M-31  M-35 – M-41  M-45,M-46,M-47



SI #	Issued Date	Title	Description	DWG's
M-2	June 4, 2021	To revise mechanical layout to suit architectural SI A-01 and City comments.	6.2 Revised: Make up air riser. 6.3 Revised: Corridor fire damper to combine fire smoke damper. <b>7.0 Reference Drawing M-45,M-46,M-47 (Typical Units - Mechanical) Issued</b> 7.1 Added: Typical suite layout 2A1-R, 2A-R and 2Aa-R. 7.2 Revised: Typical suite 2A, 2A1, 2Aa, 2Ab, 2A4, 2A2, 2A3, 2A2a kitchen exhaust location according to code requirements. <b>8.0 Reference Drawing M-49 (Gas Schematic - Mechanical) Issued</b> 8.1 Revised: Building D gas schematic.	M-49
M-3	02 July 2021	PURPOSE: To revise parking level 4 garage exhaust shaft area drains layout.	1.0 Reference Drawing M-2, M-2A, M-2B (Underground P1 - Mechanical) Issued 1.1 Revised: Location of piping to pick up 4 garage exhaust shaft area drain. 2.0 Reference Drawing M-3, M-3A, M-3B (Plumbing P1 - Mechanical) Issued 2.1 Picked up: 4 garage exhaust area drains and offset to the location shown.	M-2, M-2A, M-2B/ M-3, M-3A, M-3B
M-4	03 Aug. 2021	To revise mechanical layout to suit Arch change and reply city plumbing comments.	1.0 <b>Reference Drawing M-4, M-4A (HVAC P1 - Mechanical) Issued</b> 1.1 Revised: Intake louver size to suit Arch change. 2.0 <b>Reference Drawing M-7-M-14 (Building D - Mechanical) Issued</b> 2.1 Showed: Kitchen dishwasher and clean out for suite type 1C, 1A, 1Aa, 1Ba. 2.2 Added: 2 hour fire rate ceiling for plumbing at 3rd floor stair. 2.3 Added: Roof drain for 3rd floor roof and picked up below. 2.4 Clarify: Location and numbers of scupper drains at roof. 3.0 <b>Reference Drawing M-15, M-19-M-24 (Building C - Mechanical) Issued</b> 3.1 Added: Eight 1KW electrical heater for drive way ceiling, one 5 KW electrical heater for service room. 3.2 Added: 2 hour fire rate ceiling for plumbing at 3rd floor stair. 3.3 Added: Roof drain for 3rd floor roof and picked up below. 3.4 Clarify: Location and numbers of scupper drains at roof. 3.5 Relocated: Sanitary piping and domestic cold water and gas line to inside pipe space. 3.6 Revised: Suite# 241,242,243,252,253,254 gas and DCW line location. 3.7 Revised: Suite# 341,342,343,352,353,354 Mechanical room layout. 4.0 <b>Reference Drawing M-25-M-34 (Building B - Mechanical) Issued</b> 4.1 Showed: Kitchen dishwasher and clean out for suite type 1C, 1A, 1Aa, 1Ab, 1Ba. 4.2 Added: 2 hour fire rate ceiling for plumbing at 3rd floor stair.	M-4, M-4A, M-7-M-14, M-15, M-19- M-24, M-25- M-34, M-35- M-44, M-48



SI #	Issued Date	Title	Description	DWG's
M-4	03 Aug. 2021	To revise mechanical layout to suit Arch change and reply city plumbing comments.	4.3 Added: Roof drain for 3rd floor roof and picked up below. 4.4 Clarify: Location and numbers of scupper drains at roof. 4.5 Revised: Suite# 228,229,236,237 gas and DCW line location. 4.6 Revised: Suite# 328,329,336,337 Mechanical room layout. 5.0 <b>Reference Drawing M-35-M-44 (Building A - Mechanical) Issued</b> 5.1 Showed: Kitchen dishwasher and clean out for suite type 1C, 1A, 1Aa, 1Ba. 5.2 Added: 2 hour fire rate ceiling for plumbing at 3rd floor stair. 5.3 Added: Roof drain for 3rd floor roof and picked up below. 5.4 Clarify: Location and numbers of scupper drains at roof. 5.5 Revised: Suite# 202,203,204,205,214,215,216 gas and DCW line location. 5.6 Revised: Suite# 302,303,304,305,314,315,316 Mechanical room layout. 6.0 <b>Reference Drawing M-48 (Schedule &amp; Schematic - Mechanical) Issued</b> 6.1 Revised: Typical plumbing riser layout.	
M5	October 26, 2021	To revise mechanical layout to suit Arch change and reply city HVAC & Plumbing comments	<b>1.0 Reference Drawing M-3, M-3A,M-3B (Plumbing P1 – Mechanical) Issued</b> 1.1 Revised: Plumbing stack location to suit Architectural changes. <b>2.0 Reference Drawing M-7-M-14 (Building D – Mechanical) Issued</b> 2.1 Added: Plumbing stack tags for typical suites. 2.2 Added: Separate HVAC drawing set. 2.3 Revised: Scupper drains to suit Architectural changes. 2.4 Revised: 3 <sup>rd</sup> floor mechanical room to avoid bulkhead below. <b>3.0 Reference Drawing M-15-M-24 (Building C – Mechanical) Issued</b> 3.1 Added: Plumbing stack tags for typical suites. 3.2 Added: Separate HVAC drawing set. 3.3 Revised: Scupper drains to suit Architectural changes. <b>4.0 Reference Drawing M25-M34 (Building B – Mechanical) Issued</b> 4.1 Added: Plumbing stack tags for typical suites. 4.2 Added: Separate HVAC drawing set. 4.3 Revised: Scupper drains to suit Architectural changes. 4.4 Revised: 3 <sup>rd</sup> floor mechanical room to avoid piping cross over below.	M-3, M-3A, M-3B, M-7-M-14, M-15-M-24, M25-M34, M-35-M-44, M-45, M-47, M-48, M-52



SI #	Issued Date	Title	Description	DWG's
M5	October 26, 2021	To revise mechanical layout to suit Arch change and reply city HVAC & Plumbing comments	<b>5.0 Reference Drawing M-35-M-44 (Building A – Mechanical) Issued</b> 5.1 Added: Plumbing stack tags for typical suites. 5.2 Added: Separate HVAC drawing set. 5.3 Revised: Scupper drains to suit Architectural changes. 5.4 Revised: 3 <sup>rd</sup> floor mechanical room to avoid piping cross over below.  <b>6.0 Reference Drawing M-45, M-47 (Typical Units – Mechanical) Issued</b> 6.1 Revised: Suites mechanical layout to suit Architectural changes. <b>7.0 Reference Drawing M-48 (Schedule &amp; Schematic – Mechanical) Issued</b> 7.1 Revised: Typical suites plumbing riser layout.  <b>8.0 Reference Drawing M-52 (Details – Mechanical) Issued</b> 8.1 Added: Section cut view of 3 <sup>rd</sup> floor stair fire rate enclosure.	
M6	February 2, 2022	Updated Arch. Background to remove 4 <sup>th</sup> floor registers.	<b>1.0 Reference Drawing M-11,M-11A,M-12,M-12A (Building D – Mechanical) Issued</b> 1.1 Deleted: 4 <sup>th</sup> floor registers.  <b>2.0 Reference Drawing M-21,M-21A,M-22,M-22A (Building C – Mechanical) Issued</b> 2.1 Deleted: 4 <sup>th</sup> floor registers.  <b>3.0 Reference Drawing M-31,M-31A,M-32,M-32A (Building B – Mechanical) Issued</b> 3.1 Deleted: 4 <sup>th</sup> floor registers.  <b>4.0 Reference Drawing M-41,M-41A,M-42,M-42A (Building A – Mechanical) Issued</b> 4.1 Deleted: 4 <sup>th</sup> floor registers.  <b>5.0 Reference Drawing m-46 (Typical Units – Mechanical) Issued</b> 5.1 Deleted: 4 <sup>th</sup> floor registers.	M-11, M11A,M-12, M-12A, M21, M-21A, M-22, M-22A, M-31, M-31A, M-32, M-32A, M-41, M-41A, M-42, M-42A, M-46



SI #	Issued Date	Title	Description	DWG's
M7	March 22 2022	To revise make-up air risers to suit space requirements & City Permits comments.	<p><b>1.0 Reference Drawing M-4 (P-1 Level Garage) Issued</b></p> <p>1.1 Add: Supply air grille in air lock grid line 19 &amp; M and riser duct size.</p> <p>1.2 Add: Exhaust fan F-19 c/w exhaust duct &amp; grille and intake air louvre grid line 2G &amp; N.</p> <p><b>2.0 Reference Drawing M-5A,M-6A (Ground Floor Block D) Issued</b></p> <p>2.1 Clarify: Make-up air riser.</p> <p><b>3.0 Reference Drawing M-7A, M-8A (2nd Floor Block D) Issued</b></p> <p>3.1 Relocate: Make-up air riser.</p> <p>Locate make-up air riser 600mm. Back from face of corridor wall.</p> <p><b>4.0 Reference Drawing M-9,M-9A,M-10M-10A(3rd Floor Block D) Issued</b></p> <p>4.1 Relocate: Make-up air riser.</p> <p>Locate make-up air riser 600mm. Back from face of corridor wall.</p> <p>4.2 Relocate: RWL.</p> <p><b>5.0 Reference Drawing M-11A,M-12A (4th Floor Block D) Issued</b></p> <p>5.1 Clarify: Make-up air duct size.</p> <p>5.2 Clarify: Make-up air riser diagram.</p> <p><b>6.0 Reference Drawing M-15A,M-16A (Ground Floor Block C) Issued</b></p> <p>6.1 Clarify: Make-up air riser.</p> <p><b>7.0 Reference Drawing M-17A,M-18A (2nd Floor Block C) Issued</b></p> <p>7.1 Relocate: Make-up air riser. .</p> <p>Locate make-up air riser 600mm.</p> <p>Back from face of corridor wall (cut floor).</p> <p><b>8.0 Reference Drawing M-19A,M-20A (3rd Floor Block C) Issued</b></p> <p>8.1 Relocate: Make-up air riser.</p> <p>Locate make-up air riser 600mm.</p> <p>Back from face of corridor wall (cut floor).</p> <p><b>9.0 Reference Drawing M-21A,M-22A (4th Floor Block C) Issued</b></p> <p>9.1 Clarify: Make-up air duct size.</p> <p>9.2 Revise: Make-up air riser diagrams.</p> <p><b>10.0 Reference Drawing M-25A,M-26A (Ground Floor Block B) Issued</b></p> <p>10.1 Clarify: Make-up air riser.</p> <p><b>11.0 Reference Drawing M-27A,M-28A (2nd Floor Block B) Issued</b></p> <p>11.1 Relocate: Make-up air riser.</p> <p>Locate make-up air riser 600mm.</p>	<p>M-4, M-5A,M-6A, M-7A, M-8A, M-9,M-9A,M-10M-10A, M-11A,M-12A, M-15A,M-16A, M-17A,M-18A, M-19A,M-20A, M-21A,M-22A, M-25A,M-26A, M-27A,M-28A, M29A,M-30A, M-31A,M-32A, M-35A,M-36A, M-37A,M-38A, M-39A,M-40A, M-41A,M-42A,</p>



SI #	Issued Date	Title	Description	DWG's
M7	March 22 2022	To revise make-up air risers to suit space requirements & City Permits comments.	<p>Back from face of corridor wall (cut floor).</p> <p><b>12.0 Reference Drawing M29A,M-30A (3rd Floor Block B) Issued</b></p> <p>12.1 Clarify: Make-up air riser. Locate make-up air riser 600mm. Back from face of corridor wall (cut floor).</p> <p><b>13.0 Reference Drawing M-31A,M-32A (4th Floor Block B) Issued</b></p> <p>13.1 Clarify: Make-up air duct size. 13.2 Revise: Make-up air riser diagram.</p> <p><b>14.0 Reference Drawing M-35A,M-36A (Ground Floor Block A) Issued</b></p> <p>14.1 Clarify: Make-up air riser.</p> <p><b>15.0 Reference Drawing M-37A,M-38A (2nd Floor Block A) Issued</b></p> <p>15.1 Relocate: Make-up air riser. Locate make-up air riser 600mm. Back from face of corridor wall (cut floor).</p> <p><b>16.0 Reference Drawing M-39A,M-40A (3rd Floor Block A) Issued</b></p> <p>16.1 Relocate: Make-up air riser. Locate make-up air riser 600mm. Back from face of corridor wall (cut floor).</p> <p><b>17.0 Reference Drawing M-41A,M-42A (4th Floor Block A) Issued</b></p> <p>17.1 Clarify: Make-up air duct size. 17.2 Revise: Make-up air riser diagram.</p>	
M8	March 23 2022	To add gas meter for generator and house service.	<p><b>1.0 Reference Drawing M-1 (Site Plan) Issued</b></p> <p>1.1 Add: Gas meter for generator &amp; house service 2.0 lb, 10,000 cfm.</p> <p>1.2 Clarify: Generator life safety kit c/w position indicating contact connected to fire Alarm system.</p> <p>1.3 Clarify: Generator exhaust pipe to be installed to 10 feet above grade with 45° mitered outlet.</p> <p>1.4 Clarify: Generator exhaust pipe to be insulated with Selkirk IPSC2 double wall. Exhaust system with 50mm insulation between inner liner &amp; outer jacket.</p>	M-1



SI #	Issued Date	Title	Description	DWG's
M9	April 19 2022	To revise P1 level communication mechanical layout. To clarify Building B 2nd floor board room F-23 location.	<b>1.0 Reference Drawing M-4,M-4A,M-4B (HVAC P1 Floor Plan) Issued</b> 1.1 Deleted: One AC split unit E-1, E-2, one exhaust fan F-4 and one intake louver. <b>2.0 Reference Drawing M-27A,M-28A (Blk 'B' 2nd Floor Plan) Issued</b> 2.1 Relocated: Exhaust fan in boardroom at 2nd floor building B.	M-4, M-4A, M-4B, M-27A, M-28A
M10	June 7 2022	To revise P1 level elevator lobby electrical heater and ground floor stair entrance electrical heaters.	<b>1.0 Reference Drawing M-4,M-4A,M-4B (HVAC P1 Floor Plan) Issued</b> 1.1 Revised: All elevator lobby electrical heaters type. <b>2.0 Reference Drawing M-5A,M-6A (Blk. 'D' Ground Floor Plan) Issued</b> 2.1 Revised: Stair entrance electrical heater type. <b>3.0 Reference Drawing M-15A,M-16A (Blk. 'C' Ground Floor Plan) Issued</b> 3.1 Revised: Stair entrance electrical heater type. <b>4.0 Reference Drawing M-25A,M-26A (Blk. 'B' Ground Floor Plan) Issued</b> 4.1 Revised: Stair entrance electrical heater type. <b>5.0 Reference Drawing M-35A,M-36A (Blk. 'A' Ground Floor Plan) Issued</b> 5.1 Revised: Stair entrance electrical heater type.	M-4, M-4A, M-4B, M-5A, M-6A, M-15A, M-16A, M-25A, M-26A, M-35A, M-36A
M11	August 5 2022	To revise P1 level mechanical layout to suit Arch SI -20.	1.0 Reference Drawing M-4, M-4A (HVAC P1 Floor Plan) Issued 1.1 Deleted: Air intake and exhaust fan F-19 for small electrical room.	M-4, M-4A