

Drawing Analysis Results

AI Analysis Summary

Plan View: R2.0 (page 2)

Scale: AS NOTED

- roof_drains: 4
- mechanical_units: 3
- sleeper_curbs: 3
- vent_hoods: 3
- gas_penetrations: 1
- electrical_penetrations: 2

Detail refs: 1/R3.2, 5/R3.0, 1/R3.1, 2/R3.2, 4/R3.1, 5/R3.1, 6/R3.1, 4/R3.0, 2/R3.0, 1/R3.0, 6/R3.0

Details: R2.1 (page 3)

SECTION #3 - ROOF SLOPE PLAN [field_assembly] - measured in: sqft

- 1. 2% TAPER PACKAGE / SLOPE PACKAGE → Polyisocyanurate_ISO_Insulation (Dimensioned as 2.4m wide (approx 94.5 inches) around full perimeter of roof.)
- 2. ROOF DRAIN SYMBOLS → Roof_Drain (Drain symbols indicated at the low points of the 300mm wide drainage channels.)

Details: R3.0 (page 4)

TYPICAL PROTECTED ROOF ASSEMBLY - NO TAPERED PACKAGE [field_assembly] - measured in: sqft

- 1. EXISTING ROOF MEMBRANE → Base_Membrane (To remain)
- 2. NEW ROOF BASE SHEET → Base_Membrane
- 3. ROOF CAP SHEET → Cap_Membrane
- 4. 10mm DRAINAGE MAT → Drainage_Board (10mm)
- 5. 75mm EXTRUDED POLYSTYRENE INSULATION (XPS) → XPS_Insulation (75mm)
- 6. FILTER FABRIC → Filter_Fabric
- 7. REMOVE AND REPLACE GRAVEL BALLAST → Gravel_Ballast (To maximum 100mm)

TYPICAL PROTECTED ROOF ASSEMBLY - WITH TAPERED INSULATION [field_assembly] - measured in: sqft

- 1. EXISTING MEMBRANE → Base_Membrane (To remain)
- 2. ADHESIVE RIBBONS 300mm (12") O/C → Adhesive (Ribbons at 12" on center)
- 3. TAPERED INSULATION PACKAGE → Polyisocyanurate_ISO_Insulation (Adhered with adhesive ribbons)

- 4. COMBINATION BOARD BASE SHEET AND 6.4mm ASPHALT CORE BOARD → Gypsum_Fiber_Coverboard (6.4mm asphalt core board combination base sheet)
- 5. CAP SHEET MEMBRANE → Cap_Membrane
- 6. 10mm DRAINAGE MAT → Drainage_Board (10mm)
- 7. 75mm EXTRUDED POLYSTYRENE INSULATION (XPS) → XPS_Insulation (75mm)
- 8. FILTER FABRIC → Filter_Fabric
- 9. REMOVE AND REPLACE GRAVEL BALLAST → Gravel_Ballast (To maximum 100mm)

TYPICAL ROOF DRAIN INSERT WATERPROOFING DETAIL [drain] - measured in: each

- 1. EXISTING ROOF DRAIN TO REMAIN → Roof_Drain (Existing)
- 2. MINERAL WOOL INSULATION → Batt_Insulation (Fill void)
- 3. PERIMETER SEALANT → Sealant_General (Set drain into perimeter sealant)
- 4. NEW DRAIN INSERT WITH 150mm FLANGE → Roof_Drain (Watertight mechanical connection)
- 5. FLEECE REINFORCED ALSAN RS MEMBRANE → Fleece_Reinforcement_Fabric (Applied around roof drain minimum dimension of 1500x1500mm)
- 6. NEW GRAVEL GUARD → Flashing_General (Around drain)
- 7. DRAIN DOME → Roof_Drain (Top cover)

ROOF AREA DIVIDER CURB WITH EXPANSION JOINT [expansion_joint] - measured in: linear_ft

- 1. DIMENSIONAL LUMBER → Wood_Blocking_Lumber (To accommodate new insulation)
- 2. 25mm WIDE POLYISOCYANURATE INSULATION → Polyisocyanurate_ISO_Insulation (25mm wide)
- 3. 18 GA STEEL STUD FRAMING → Wood_Blocking_Lumber (C/W top and bottom tracks)
- 4. 12mm GYPSUM SHEATHING → DensDeck_Coverboard (12mm, mechanically fastened)
- 5. 13mm PLYWOOD SHEATHING → Plywood_Sheathing (13mm)
- 6. MINERAL WOOL → Batt_Insulation (Infill joint)
- 7. BASE AND CAP SHEET MEMBRANE → Cap_Membrane (Leave a loop at expansion joint)
- 8. 24GA PRE-FINISHED STEEL FLASHING → Flashing_General (To cover termination bar)
- 9. 24GA PRE-FINISHED STEEL COUNTER FLASHING → Flashing_General (Finish tight to insulation below ballast)
- 10. METAL CAP FLASHING → Flashing_General (Remove and reinstate)

TYPICAL CONCRETE PANEL DETAIL [parapet] - measured in: linear_ft

- 1. FOAM BACKER ROD → Sealant_General (Below air/vapour barrier)
- 2. NEW VAPOUR BARRIER → Vapour_Barrier_Membrane (At transition from concrete deck to wall)
- 3. 26GA GALVANIZED STEEL METAL IN L SHAPE → Flashing_General (Fasten into pre-cast at 300mm)
- 4. BASE AND CAP SHEET MEMBRANE → Cap_Membrane (Transition from top of curb to wall)
- 5. 25mm CONT. CLAMPING BAR → Clips (Terminate membrane at upturn)

TYPICAL GAS PENETRATION [penetration_gas] - measured in: each

- 1. FIRESTOP SEALANT → Sealant_General (Between pipe and sheet metal)
- 2. TWO PIECE FLAT STOCK 26GA STEEL → Flashing_General (Cut on site tight to pipe penetration)
- 3. MINERAL WOOL INSULATION → Batt_Insulation (Fill entire cavity with mineral wool)

- 4. DIMENSIONAL LUMBER AND PLYWOOD CURB → Plywood_Sheathing (Around penetration)
- 5. SELF-ADHERED BASE SHEET → Base_Membrane (Around curb)
- 6. FLEECE REINFORCED LIQUID APPLIED FLASHING → Fleece_Reinforcement_Fabric (Around penetration)
- 7. 24GA PRE-FINISHED STEEL COUNTER FLASHING → Flashing_General (Finish tight to insulation below ballast)
- 8. 22GA PREFINISHED STEEL COVER FLASHING → Flashing_General (Over full curb, one piece metal sleeve)

Details: R3.1 (page 5)

MECHANICAL SLEEPER CURB DETAIL [sleeper_curb] - measured in: linear_ft

- 1. #8 CONCRETE SCREWS → Fasteners (AT 150mm O/C)
- 2. NEW WOOD BLOCKING → Wood_Blocking_Lumber (AS REQUIRED)
- 3. 13mm PLYWOOD SHEATHING → Plywood_Sheathing (NEW)
- 4. 24GA PREFINISHED STEEL COUNTER FLASHING → Flashing_General (FINISH TIGHT TO INSULATION BELOW BALLAST)
- 5. 22GA. PRE-FINISHED STEEL CAP FLASHING → Flashing_General (FACE FASTENED)
- 6. 50mm HEX HEAD #14 FASTENERS WITH RUBBERIZED GASKET → Fasteners (4 PER STRAP / FACE)
- 7. SEALANT → Sealant_General (PERIMETER HEEL BEAD)
- 8. 24ga GALVANIZED STEEL STRAPPING → Coated_Metal_Sheet (FROM LEG ONTO SIDE OF CURB ON EACH CORNER (4 STRAPS IN TOTAL))

LARGE OPENING COVER [opening_cover] - measured in: each

- 1. 38x38x6.4 ANGLE → Coated_Metal_Sheet (FULLY AROUND PERIMETER)
- 2. 38x38x6.4 STEEL ANGLE ON EDGE → Coated_Metal_Sheet (SPACE AT 450 O/C MAX. IN SINGLE DIRECTION)
- 3. TAPCON PHILLIPS HEAD, 38mm → Fasteners (MIN. 8 PER OPENING)
- 4. 3mm STEEL PLATE COVER → Coated_Metal_Sheet

SMALL OPENING COVER [opening_cover] - measured in: each

- 1. TAPCON PHILLIPS HEAD, 44mm (1-3/4") LENGTH → Fasteners (4 PER COUNTERSUNK PLATE)
- 2. 3mm STEEL PLATE COVER → Coated_Metal_Sheet

MECHANICAL UNIT TRANSITION DETAIL - TYPE 1 [mechanical_curb] - measured in: linear_ft

- 1. NEW BASE AND CAP SHEET → Base_Membrane (INSTALLED UP UNDER THE EXISTING MECHANICAL UNIT FRAME)
- 2. NEW 24GA PRE-FINISHED STEEL FLASHING → Flashing_General (FINISH TIGHT TO INSULATION BELOW BALLAST)
- 3. HEX HEAD 50mm CONCRETE SCREWS C/W GASKET → Fasteners (FASTEN @ 300mm O/C)
- 4. SEALANT BEAD → Sealant_General (AT LEADING EDGE)
- 5. FLEECE REINFORCED PMMA MEMBRANE → Fleece_Reinforcement_Fabric (AT EXISTING SEAMS AND FROM FLASHING TO STEEL CHANNEL)

MECHANICAL UNIT TRANSITION DETAIL - TYPE 2 [mechanical_curb] - measured in: linear_ft

- 1. NEW 24GA PRE-FINISHED STEEL COUNTER FLASHING → Flashing_General (FINISH TIGHT TO INSULATION BELOW BALLAST)
- 2. HEX HEAD 50mm CONCRETE SCREWS C/W GASKET → Fasteners (FASTEN @ 300mm O/C)
- 3. FLEECE REINFORCED PMMA MEMBRANE → Fleece_Reinforcement_Fabric (AT EXISTING SEAMS AND FROM FLASHING TO STEEL CHANNEL)

TYPICAL MECHANICAL CURB [mechanical_curb] - measured in: linear_ft

- 1. NEW DIMENSIONAL LUMBER → Wood_Blocking_Lumber (AS REQUIRED TO PROVIDE 200mm UPTURN)
- 2. 6mm ASPHALTIC CORE BOARD OR 12mm GYPSUM SHEATHING → Gypsum_Fiber_Coverboard (MECHANICALLY FASTENED INTO STRUCTURE OF CURB)
- 3. 50mm SELF TAPPING #8 FLAT HEAD OR PAN HEAD SCREWS → Fasteners (WITH 50mm PLATES C/W NEPORENE GASKET)
- 4. 50mm PLATES → Insulation_Plates
- 5. BASE MEMBRANE → Base_Membrane (RETURN OVER CURB)
- 6. RING NAILS → Nails_Staples (FASTEN BASE MEMBRANE)
- 7. NEW 24GA PRE-FINISHED STEEL COUNTER FLASHING → Flashing_General (FINISH TIGHT TO INSULATION BELOW BALLAST)

Details: R3.2 (page 6)

ROOF TO CURTAIN WALL DETAIL [curtain_wall] - measured in: linear_ft

- 1. MINERAL WOOL INSULATION → Batt_Insulation (Fill gaps with mineral wool insulation)
- 2. NEW 12.5mm PLYWOOD → Plywood_Sheathing (On exterior)
- 3. NEW 26GA METAL BREAKSHAPE → Flashing_General (To transition from curb to curtain wall framing)
- 4. NEW SOPREMA 1100HT SELF-ADHERED MEMBRANE → Base_Membrane (Curtain wall shoulder)
- 5. NEW DRIP FLASHING → Drip_Edge (At curtain wall, captured by pressure plate)
- 6. NEW 24GA PRE-FINISHED STEEL COUNTER FLASHING → Flashing_General (Finish tight to insulation below ballast)

TYPICAL PARAPET DETAIL [parapet] - measured in: linear_ft

- 1. NEW 12.5mm PLYWOOD SHEATHING → Plywood_Sheathing (On interior face of parapet wall)
- 2. DIMENSIONAL LUMBER AND WOOD BLOCKING → Wood_Blocking_Lumber (To build up parapet, fasten into concrete)
- 3. FASTENERS → Fasteners (50mm pin bolts, #8 pan head screws, #12 hex head concrete screws)
- 4. CONTINUOUS 22GA GALV. STEEL CLIP → Clips (On exterior face, fasten at 400mm O/C)
- 5. 24GA PRE-FINISHED STEEL COUNTER FLASHING → Flashing_General (Max 2.4m lengths, utilize S-locks on vertical joints)

- 6. 24GA PREFINISHED STEEL CAP FLASHING → Flashing_General (Face fasten interior, slope 5% min, standing seam at corners and S-lock)

Specification PDF Analysis (Deterministic Regex Engine)

24 unique products found across 7 categories — 11 mapped to pricing keys.

Project: 2026 Roof Replacement

- ▶ Membranes (8)
- ▶ Sealants & Adhesives (4)
- ▶ Drainage (4)
- ▶ Miscellaneous (3)
- ▶ Fasteners & Hardware (1)
- ▶ Insulation (1)
- ▶ Metal Flashings & Accessories (3)

Spec-Driven Pricing Estimate (Drawing spatial data + Specification materials — deterministic)

LINE ITEMS RESOLVED

8

RESOLUTION FAILURES

7

TOTAL MATERIAL COST

\$475.80

Resolved Line Items

DETAIL	TYPE	CONFIRMED MATERIAL	QTY	UNIT PRICE	LINE COST	SOURCE
SECTION #3 - ROOF SLOPE PLAN R2.1	field_assembly	Roof Drain Roof_Drain spec pg 2, 49, 59, 73, 74	1 EA	\$325.00	\$325.00	FAL
Total Material Cost					\$475.80	

DETAIL	TYPE	CONFIRMED MATERIAL	QTY	UNIT PRICE	LINE COST	SOURCE
TYPICAL PROTECTED ROOF ASSEMBLY - NO TAPERED PACKAGE R3.0	field_assembly	Gravel Ballast Gravel_Ballast spec pg 48	1 sqft	\$0.75	\$0.75	FAL
TYPICAL PROTECTED ROOF ASSEMBLY - WITH TAPERED INSULATION R3.0	field_assembly	Gravel Ballast Gravel_Ballast spec pg 48	1 sqft	\$0.75	\$0.75	FAL
TYPICAL ROOF DRAIN INSERT WATERPROOFING DETAIL R3.0	drain	Sealant (General) Sealant_General spec pg 2, 11, 14, 30, 48, 57, 64, 68, 69, 70, 71, 72	1 tube	\$29.86	\$29.86	FAL
TYPICAL CONCRETE PANEL DETAIL R3.0	parapet	Sealant (General) Sealant_General spec pg 2, 11, 14, 30, 48, 57, 64, 68, 69, 70, 71, 72	1 tube	\$29.86	\$29.86	FAL
TYPICAL GAS PENETRATION R3.0	penetration_gas	Sealant (General) Sealant_General spec pg 2, 11, 14, 30, 48, 57, 64, 68, 69, 70, 71, 72	1 tube	\$29.86	\$29.86	FAL
MECHANICAL SLEEPER CURB DETAIL R3.1	sleeper_curb	Sealant (General) Sealant_General spec pg 2, 11, 14,	1 tube	\$29.86	\$29.86	FAL
Total Material Cost					\$475.80	

DETAIL	TYPE	CONFIRMED MATERIAL	QTY	UNIT PRICE	LINE COST	SOURCE
		30, 48, 57, 64, 68, 69, 70, 71, 72				
MECHANICAL UNIT TRANSITION DETAIL - TYPE 1 R3.1	mechanical_curb	Sealant (General) Sealant_General spec pg 2, 11, 14, 30, 48, 57, 64, 68, 69, 70, 71, 72	1 tube	\$29.86	\$29.86	FAL
Total Material Cost					\$475.80	

⚠ Material Resolution Failures (7)

These drawing details could not be matched to a confirmed material in the Specification PDF. Either the spec PDF does not cover these items, or additional regex patterns are needed in database.PRODUCT_KEYWORDS.

- **ROOF AREA DIVIDER CURB WITH EXPANSION JOINT** expansion_joint (ref: R3.0)

Expected one of: Cap_Membrane, Batt_Insulation, Plywood_Sheathing, DensDeck_Coverboard, Polyisocyanurate_ISO_Insulation, Wood_Blocking_Lumber, Flashing_General, EPDM_Accessory, TPO_Accessory — none confirmed in spec.

- **LARGE OPENING COVER** opening_cover (ref: R3.1)

Expected one of: Fasteners, Coated_Metal_Sheet, Plywood_Sheathing, Flashing_General — none confirmed in spec.

- **SMALL OPENING COVER** opening_cover (ref: R3.1)

Expected one of: Coated_Metal_Sheet, Fasteners, Plywood_Sheathing, Flashing_General — none confirmed in spec.

- **MECHANICAL UNIT TRANSITION DETAIL - TYPE 2** mechanical_curb (ref: R3.1)

Expected one of: Fleece_Reinforcement_Fabric, Fasteners, Flashing_General, Metal_Flashings_Galvanized — none confirmed in spec.

- **TYPICAL MECHANICAL CURB** mechanical_curb (ref: R3.1)

Expected one of: Nails_Staples, Base_Membrane, Insulation_Plates, Fasteners, Gypsum_Fiber_Coverboard, Wood_Blocking_Lumber, Flashing_General, Metal_Flashings_Galvanized — none confirmed in spec.

- **ROOF TO CURTAIN WALL DETAIL** curtain_wall (ref: R3.2)

Expected one of: Drip_Edge, Base_Membrane, Plywood_Sheathing, Batt_Insulation, Flashing_General, Metal_Flashings_Galvanized, Metal_Flashings_Prepainted — none confirmed in spec.

• **TYPICAL PARAPET DETAIL** parapet (ref: R3.2)

Expected one of: Clips, Fasteners, Wood_Blocking_Lumber, Plywood_Sheathing, Flashing_General, Metal_Flashing_Galvanized, Metal_Flashing_Prepainted, Cap_Membrane, Base_Membrane — none confirmed in spec.

Detail-Based Quantity Takeoff (AI-Analyzed)

ROOF AREA	PERIMETER	PARAPET	PENETRATIONS
18,450 sqft	503 LF	503 LF x 0.0 ft	12

SECTION #3 - ROOF SLOPE PLAN [field_assembly] (ref: R2.1)

Measured in: sqft | Base value: 18,450.0 | Detail cost: \$6,046,587.48 qty: fallback

MATERIAL	QTY	UNIT PRICE	LINE COST
2% TAPER PACKAGE / SLOPE PACKAGE	1154 sheet (4'x4')	\$43.62	\$50,337.48
ROOF DRAIN SYMBOLS	18450 EA	\$325.00	\$5,996,250.00

TYPICAL PROTECTED ROOF ASSEMBLY - NO TAPERED PACKAGE [field_assembly] (ref: R3.0)

Measured in: sqft | Base value: 18,450.0 | Detail cost: \$150,123.91 qty: fallback

MATERIAL	QTY	UNIT PRICE	LINE COST
EXISTING ROOF MEMBRANE	185 roll	\$127.25	\$23,541.25
NEW ROOF BASE SHEET	0 roll	\$0.00	-
ROOF CAP SHEET	215 roll	\$150.00	\$32,250.00
10mm DRAINAGE MAT	62 roll (6'x50')	\$410.53	\$25,452.86
75mm EXTRUDED POLYSTYRENE INSULATION (XPS)	1154 sheet (2'x8')	\$43.70	\$50,429.80
FILTER FABRIC	18450 sqft	\$0.25	\$4,612.50

MATERIAL	QTY	UNIT PRICE	LINE COST
REMOVE AND REPLACE GRAVEL BALLAST	18450 sqft	\$0.75	\$13,837.50

TYPICAL PROTECTED ROOF ASSEMBLY - WITH TAPERED INSULATION

[field_assembly] (ref: R3.0)

Measured in: sqft | Base value: 18,450.0 | Detail cost: \$28,720.39 qty: fallback

MATERIAL	QTY	UNIT PRICE	LINE COST
EXISTING MEMBRANE	0 roll	\$0.00	-
ADHESIVE RIBBONS 300mm (12") O/C	93 pail	\$125.05	\$11,629.65
TAPERED INSULATION PACKAGE	0 sheet (4'x4')	\$0.00	-
COMBINATION BOARD BASE SHEET AND 6.4mm ASPHALT CORE BOARD	577 sheet (4'x8')	\$29.62	\$17,090.74
CAP SHEET MEMBRANE	0 roll	\$0.00	-
10mm DRAINAGE MAT	0 roll (6'x50')	\$0.00	-
75mm EXTRUDED POLYSTYRENE INSULATION (XPS)	0 sheet (2'x8')	\$0.00	-
FILTER FABRIC	0 sqft	\$0.00	-
REMOVE AND REPLACE GRAVEL BALLAST	0 sqft	\$0.00	-

TYPICAL ROOF DRAIN INSERT WATERPROOFING DETAIL [drain] (ref: R3.0)

Measured in: each | Base value: 4 | Detail cost: \$338.85 qty: fallback

MATERIAL	QTY	UNIT PRICE	LINE COST
EXISTING ROOF DRAIN TO REMAIN	0 EA	\$0.00	-
MINERAL WOOL INSULATION	1 bundle	\$83.99	\$83.99

MATERIAL	QTY	UNIT PRICE	LINE COST
PERIMETER SEALANT	1 tube	\$29.86	\$29.86
NEW DRAIN INSERT WITH 150mm FLANGE	0 EA	\$0.00	-
FLEECE REINFORCED ALSAN RS MEMBRANE	1 roll	\$150.00	\$150.00
NEW GRAVEL GUARD	1 10ft piece	\$75.00	\$75.00
DRAIN DOME	0 EA	\$0.00	-

ROOF AREA DIVIDER CURB WITH EXPANSION JOINT [expansion_joint] (ref: R3.0)

Measured in: linear_ft | Base value: 125.8 | Detail cost: \$1,374.21 qty: fallback

MATERIAL	QTY	UNIT PRICE	LINE COST
DIMENSIONAL LUMBER	63 8ft piece	\$16.59	\$1,045.17
25mm WIDE POLYISOCYANURATE INSULATION	0 sheet (4'x4')	\$0.00	-
18 GA STEEL STUD FRAMING	0 8ft piece	\$0.00	-
12mm GYPSUM SHEATHING	4 sheet (4'x8')	\$33.52	\$134.08
13mm PLYWOOD SHEATHING	4 4'x8' sheet	\$48.74	\$194.96
MINERAL WOOL	0 bundle	\$0.00	-
BASE AND CAP SHEET MEMBRANE	0 roll	\$0.00	-
24GA PRE-FINISHED STEEL FLASHING	0 10ft piece	\$0.00	-
24GA PRE-FINISHED STEEL COUNTER FLASHING	0 10ft piece	\$0.00	-
METAL CAP FLASHING	0 10ft piece	\$0.00	-

TYPICAL CONCRETE PANEL DETAIL [parapet] (ref: R3.0)

Measured in: linear_ft | Base value: 503.0 | Detail cost: \$5,125.57 qty: fallback

MATERIAL	QTY	UNIT PRICE	LINE COST
FOAM BACKER ROD	0 tube	\$0.00	-
NEW VAPOUR BARRIER	0 roll	\$173.66	-
26GA GALVANIZED STEEL METAL IN L SHAPE	0 10ft piece	\$0.00	-
BASE AND CAP SHEET MEMBRANE	0 roll	\$0.00	-
25mm CONT. CLAMPING BAR	503 piece	\$10.19	\$5,125.57

TYPICAL GAS PENETRATION [penetration_gas] (ref: R3.0)

Measured in: each | Base value: 1.0 | Detail cost: \$0.00 qty: unit_perimeter G

Unit Breakdown:

- G-1: 1.57 LF perimeter (Near RTU #2)

MATERIAL	QTY	UNIT PRICE	LINE COST
FIRESTOP SEALANT	0 tube	\$0.00	-
TWO PIECE FLAT STOCK 26GA STEEL	0 10ft piece	\$0.00	-
MINERAL WOOL INSULATION	0 bundle	\$0.00	-
DIMENSIONAL LUMBER AND PLYWOOD CURB	0 4'x8' sheet	\$0.00	-
SELF-ADHERED BASE SHEET	0 roll	\$0.00	-
FLEECE REINFORCED LIQUID APPLIED FLASHING	0 roll	\$0.00	-
24GA PRE-FINISHED STEEL COUNTER FLASHING	0 10ft piece	\$0.00	-
22GA PREFINISHED STEEL COVER FLASHING	0 10ft piece	\$0.00	-

MECHANICAL SLEEPER CURB DETAIL [sleeper_curb] (ref: R3.1)

Measured in: each | Base value: 3 | Detail cost: \$933.11 qty: fallback

MATERIAL	QTY	UNIT PRICE	LINE COST
#8 CONCRETE SCREWS	1 box (1M)	\$350.00	\$350.00
NEW WOOD BLOCKING	0 8ft piece	\$0.00	-
13mm PLYWOOD SHEATHING	0 4'x8' sheet	\$0.00	-
24GA PREFINISHED STEEL COUNTER FLASHING	0 10ft piece	\$0.00	-
22GA. PRE-FINISHED STEEL CAP FLASHING	0 10ft piece	\$0.00	-
50mm HEX HEAD #14 FASTENERS WITH RUBBERIZED GASKET	0 box (1M)	\$0.00	-
SEALANT	0 tube	\$0.00	-
24ga GALVANIZED STEEL STRAPPING	1 sheet (4'x10')	\$583.11	\$583.11

LARGE OPENING COVER [opening_cover] (ref: R3.1)

Measured in: each | Base value: 3 | Detail cost: \$0.00 qty: fallback

MATERIAL	QTY	UNIT PRICE	LINE COST
38x38x6.4 ANGLE	0 sheet (4'x10')	\$0.00	-
38x38x6.4 STEEL ANGLE ON EDGE	0 sheet (4'x10')	\$0.00	-
TAPCON PHILLIPS HEAD, 38mm	0 box (1M)	\$0.00	-
3mm STEEL PLATE COVER	0 sheet (4'x10')	\$0.00	-

SMALL OPENING COVER [opening_cover] (ref: R3.1)

Measured in: each | Base value: 3 | Detail cost: \$0.00 qty: fallback

MATERIAL	QTY	UNIT PRICE	LINE COST
TAPCON PHILLIPS HEAD, 44mm (1-3/4") LENGTH	0 box (1M)	\$0.00	-
3mm STEEL PLATE COVER	0 sheet (4'x10')	\$0.00	-

MECHANICAL UNIT TRANSITION DETAIL - TYPE 1 [mechanical_curb] (ref: R3.1)

Measured in: linear_ft | Base value: 40.0 | Detail cost: \$0.00 qty: unit_perimeter RTU #1

Unit Breakdown:

- RTU #1-1: 40.0 LF perimeter (Center of roof)

MATERIAL	QTY	UNIT PRICE	LINE COST
NEW BASE AND CAP SHEET	0 roll	\$0.00	-
NEW 24GA PRE-FINISHED STEEL FLASHING	0 10ft piece	\$0.00	-
HEX HEAD 50mm CONCRETE SCREWS C/W GASKET	0 box (1M)	\$0.00	-
SEALANT BEAD	0 tube	\$0.00	-
FLEECE REINFORCED PMMA MEMBRANE	0 roll	\$0.00	-

MECHANICAL UNIT TRANSITION DETAIL - TYPE 2 [mechanical_curb] (ref: R3.1)

Measured in: linear_ft | Base value: 40.0 | Detail cost: \$0.00 qty: unit_perimeter RTU #2

Unit Breakdown:

- RTU #2-1: 40.0 LF perimeter (Center left of roof)

MATERIAL	QTY	UNIT PRICE	LINE COST
NEW 24GA PRE-FINISHED STEEL COUNTER FLASHING	0 10ft piece	\$0.00	-
HEX HEAD 50mm CONCRETE SCREWS C/W GASKET	0 box (1M)	\$0.00	-

MATERIAL	QTY	UNIT PRICE	LINE COST
FLEECE REINFORCED PMMA MEMBRANE	0 roll	\$0.00	-

TYPICAL MECHANICAL CURB [mechanical_curb] (ref: R3.1)

Measured in: linear_ft | Base value: 16.0 | Detail cost: \$0.00 [qty: unit_perimeter](#) V

Unit Breakdown:

- V-1: 8.0 LF perimeter (Near RTU #2)
- V-2: 8.0 LF perimeter (Near RTU #1)

MATERIAL	QTY	UNIT PRICE	LINE COST
NEW DIMENSIONAL LUMBER	0 8ft piece	\$0.00	-
6mm ASPHALTIC CORE BOARD OR 12mm GYPSUM SHEATHING	0 sheet (4'x8')	\$0.00	-
50mm SELF TAPPING #8 FLAT HEAD OR PAN HEAD SCREWS	0 box (1M)	\$0.00	-
50mm PLATES	0 box (1M)	\$269.38	-
BASE MEMBRANE	0 roll	\$0.00	-
RING NAILS	0 box	\$29.75	-
NEW 24GA PRE-FINISHED STEEL COUNTER FLASHING	0 10ft piece	\$0.00	-

ROOF TO CURTAIN WALL DETAIL [curtain_wall] (ref: R3.2)

Measured in: linear_ft | Base value: 503.0 | Detail cost: \$349.35 [qty: fallback](#)

MATERIAL	QTY	UNIT PRICE	LINE COST
MINERAL WOOL INSULATION	0 bundle	\$0.00	-

MATERIAL	QTY	UNIT PRICE	LINE COST
NEW 12.5mm PLYWOOD	0 4'x8' sheet	\$0.00	-
NEW 26GA METAL BREAKSHAPE	0 10ft piece	\$0.00	-
NEW SOPREMA 1100HT SELF-ADHERED MEMBRANE	0 roll	\$0.00	-
NEW DRIP FLASHING	51 10ft piece	\$6.85	\$349.35
NEW 24GA PRE-FINISHED STEEL COUNTER FLASHING	0 10ft piece	\$0.00	-

TYPICAL PARAPET DETAIL [parapet] (ref: R3.2)

Measured in: linear_ft | Base value: 503.0 | Detail cost: \$0.00 qty: fallback

MATERIAL	QTY	UNIT PRICE	LINE COST
NEW 12.5mm PLYWOOD SHEATHING	0 4'x8' sheet	\$0.00	-
DIMENSIONAL LUMBER AND WOOD BLOCKING	0 8ft piece	\$0.00	-
FASTENERS	0 box (1M)	\$0.00	-
CONTINUOUS 22GA GALV. STEEL CLIP	0 piece	\$0.00	-
24GA PRE-FINISHED STEEL COUNTER FLASHING	0 10ft piece	\$0.00	-
24GA PREFINISHED STEEL CAP FLASHING	0 10ft piece	\$0.00	-

Total Material Cost

\$6,233,552.87

Standard Estimate (for comparison)

Standard Total Estimate

\$499,722.53