SPECIFICATIONS

FIREHALL ADDITION, FENELON FALLS
FOR
CITY OF KAWARTHA LAKES

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CKL 23040/Specifications

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FIREHALL ADDITION
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1. **GENERAL**

1.1. The client is City of Kawartha Lakes

1.2. Construction will be reviewed periodically by the Owner, the Architect, and sub-consultants. The Architect will be the administrator of the contract.

2. **WORK UNDER THIS CONTRACT**

2.1. Work includes for:

Demolition of existing Quonset hut including slab and foundations below grade. Remove existing electrical service but retain existing water/floor drain piping services for reuse. See attached Designated Substance Survey and execute removals accordingly.

Construct new single storage bay addition in same location and provide new link to existing Firehall structure as indicated. Includes mechanical/electrical services and site works as described.

END OF SECTION 01010

1. Cash allowances shall be expended only on the Architect's/owner's written instructions.

2. The Contractor's charges for overhead and profit on account of Cash Allowance shall be included in the Contract Amount in accordance with G.C. 4.1 of the General Conditions of the Contract as amended.

3. Credit the Owner with any unused portion of Cash Allowances in the statement for final payment.

4. If a test made under payment by a specified allowance proves that the material tested is unacceptable, then the subsequent testing and replacement materials shall be at Contractor's expenses.

5. Include in the stipulated sum quoted a single Cash Allowance in the amount of $120,000.00.

    1) Inspection and testing for mold abatement consultant.
    2) Supply of finish door hardware
    3) Design and construction of emergency power system for entire building.

TOTAL **$120,000.00**

1. GENERAL

1.1. Demolition and/or removal means the complete removal of all items and associated work from the site and the making good of all disturbed surfaces affected to acceptable finishes.

1.2. Electrical and mechanical demolition for installation of heating, ventilation, and electrical lighting including light fixtures and associated systems is the responsibility of the respective trade under supervision of the general contractor. See mechanical and electrical drawings.

1.3. Remove existing components as required for installation of new work as noted. Confirm locations of all existing services on site prior to demolition activities.

1.4 Provide adequate temporary support for existing load bearing components and structural revisions called for.

1.5 Remove existing finishes, insulation, and exterior wall components as indicated on the demolition drawings.

1.6 Confirm locations for bins for removals in advance of work.

1.7 Co-ordinate work with Designated Substance Survey as attached.

1.8 Retain existing water service and floor drain piping for reuse.

2. EXECUTION

2.1. Note that work is being performed within an existing building and the contractor is to provide protection of the work and property including neighbouring structures and parking lots in accordance with Part 9 of CCDC 2.

2.2. Keep access areas to work reasonably clean during work and on completion perform final cleaning as specified.

END OF SECTION 02000

1. **GENERAL**

1.1. Comply with requirements of Division 1 and co-ordinate with Section 02800 Site Work as well as review by inspection and testing company.

1.2. All asphalt paving preparation subbase and installation to design as below in accordance with the site plan.

1.3. Paint all line work demarking revised parking layout as per site plan.

2. **MATERIALS & EXECUTION**

2.1. **Asphalt Paving - Patching & New Areas**

2.1.1. Excavate and remove existing grade sufficiently for design for asphalt replacement/repair as follows:

- 18" (450 mm) Granular B compacted to 95% Proctar
- 6" (150 mm) Granular A compacted to 95% Proctar
- 2" (50 mm) HL 8 Binder Course
- 1 ½" (40 mm) HL 4 Surface Course

2.1.2. Provide drainage and slopes as per grading information on site plan.

2.1.3. All products and execution to MTO standards.

2.2 **Concrete Walkways**

2.2.1 5" thick concrete slab size noted with minimum compressive strength of 30 MPA at 28 days, 5-7% air entrainment, maximum 3"slump.
2.2.2 Welded steel mesh 6 x 6 - 9/9.
2.2.3 Excavate and remove existing grade sufficiently to place 6" compacted granular 'B' fill.
2.2.4 Install slab minimum 2% slope to grade and provide broom finish.
2.2.5 Provide control and expansion joints and all work to Municipal standards.

2.3 **Sod & Topsoil**

2.3.1 Use nursery sod on minimum 6" topsoil for landscaped areas as noted on site. Water and provide first cut.

END OF SECTION 02800

1. **GENERAL**

1.1. Comply with requirements of Division 01.

1.2. Work of this section includes supply and placing of concrete at slab removals.

1.3. All workmanship to be performed by skilled and experienced workmen with a competent supervisor to be on site continuously throughout each work day.

1.4. Protect existing and new construction. Be responsible for repair and/or replacement of items damaged in the construction of this work.

1.5. Co-ordinate with Structural drawing and specifications.

2. **MATERIALS**

2.1. The ultimate 28 day compressive strength of concrete unless noted otherwise, shall be 25 Mpa with air entrainment content of 5.9% to 7% and maximum water/cement ratio by mass of 0.55.

2.2. The concrete supplier shall be responsible for concrete mix design - conform to CSA A23.

2.3. Only read mix concrete is permitted on this job.

2.4. Vapor barrier to be 6 mil polyethylene

2.5. Joint filler to be non-extruded pre-moulded fibre type saturated in bituminous binder.

3. **EXECUTION**

3.1. Supply and install concrete, including placing, finishing and curing as shown in accordance with CSA A23 and CSAG30.

3.2. Install pre-moulded joint filler at all junctions of slab with foundation wall.

3.3. Provide new concrete slabs, as noted on the drawings, over vapour barrier – steel trowel finish. Provide slopes to drain in storage building as called for.

3.4. Provide two coats of clear sealer.

END OF SECTION 03300

1. GENERAL

1.1. Comply with General Requirements Division 01.

1.2. Submit samples of block and brick before delivery to site.

1.3. Building in all miscellaneous inserts, anchors, blocking sleeves, lintels, conduit and other accessories as required.

1.4. Co-ordinate work with Section 07411 Preformed Metal Siding, Ceiling & Soffits.

2. MATERIALS

2.1. Concrete Block: All hollow concrete block shall be autoclave block having a minimum compressive strength of 7.5 MPa on the gross area, standard metric to sizes as indicated on the drawings and details. Concrete block to be thickness as per drawings to Atlas Block Co. Ltd. or equal. Stone facing masonry to be Royal Stones. Limestone Aspen or equal complete with precast stone sills.

2.2. Mortar shall be type N grey colour conforming to CSA CAN 3-5304-M78 and type S for load bearing walls to CSA standard A179, mortar and grout for unit masonry.

2.3. Non Shrink Grout: M-bed by Sternson Ltd.

2.4. Flexible Membrane: Damp proof course and through wall flashing. Blue Skin TWF S.A. as manufactured by Henry Bakor.

2.5. Joint Reinforcement: Heavy Duty ladder type reinforcing for all single wythe masonry walls and extra heavy duty ladder type Blok-Lok for all walls with 2 wythes. Co-ordinate work with Structural drawings and Specifications.

2.6. Flexible anchors for cavity wall to be hot dipped galvanized 3/16" wire type BL 42 with adjustable Econo-Cavity Lock II complete with wedgelock insulation retainers as manufactured by Blok-Lok Ltd.

2.7. Cavity Wall Ventilators: shall be PVC Weephole Ventilators (brick type, approx. 60 mm high) as supplied by Goodco Ltd., Form & Build Supply Inc., Blok-Lok or approved equal.

2.8. Exterior wall insulation to be 3" thick polyisocyanurate R19.5(conditioned R value) to C.G.S.B-51.26-M86 Type 1.

2.9. Self Adhesive Air Barrier: Blue Skin S.A. and Blue Skin primer as manufactured by Henry Bakor or equal for cavity walls.

2.10. Provide control joints maximum 25'-0" o/c or as indicated on drawings.

2.11. Mort Mat for Cavity Wall: Mortar dropping control device (cavity drainage mat) - high density polyethylene or nylon mesh in trapezoidal configuration designed to facilitate effective drainage of moisture to weep holes; thickness to suit air space: "The Mortar Net" by JV Building Supply (905) 851-3744, or "Mortar Maze" by Form & Build Supply.

3. EXECUTION

3.1 Give other trades notice of intention to proceed and incorporate anchors and other components to ensure proper installation of later work.

3.2 Lay block in running bond (half-bond) pattern. Select units randomly from cubes so as not to create a defined pattern.

3.3 Provide and maintain protection for masonry walls at all times when work is interrupted or temporarily ceased to prevent moisture from entering unfinished walls.

3.4 Comply with CSA A371-94 and use CSA A224 for cold weather requirements.

3.5 Joints shall be neatly tooled to produce concave joints. All interior surfaces ready for paint finishes.

3.6 Masonry shall be carried up solid between joints and built tight around beams and lintels with all voids full. Provide minimum 6" bearing for steel lintels bearing on masonry. Bearing shall be on solid masonry 8" deep and projecting 8" on each side of beam or base plate.

3.7 Install reinforcing continuously at every second course securely fastened to substrate unless noted otherwise.

3.8 Brace and support work as required during operation until final set is achieved.

3.9 Install masonry reinforcing in 2 consecutive courses above and below all openings in walls, extending not less than 600 mm (2') on each side of opening. Install metal angles for all door and window opening perimeters as per details and fasten securely to block for support of door/window framing.

3.10 Build in hollow metal frames and ensure that anchors are solidly bedded. Fill hollow metal frames completely with grout. Install pressure treated wood blocking and securely anchor as per details.

3.11 Set lintels and other members that lay on masonry. Group them accurately in place and fill voids solid under joist and beam bearings, vertical reinforcing, and as noted on the drawings.

3.12 Install damp proof courses and through wall flashings on smooth bed, lap joints minimum 6" (see details) with mortar mat at base of all cavity walls and stud walls to receive brick.

3.13 Install through wall flashings at heads of all exterior openings, over shelf angles and loose lintels.

3.14 For air barrier areas install primer by brush, roller or spray and let dry for minimum 30 minutes followed by self-adhesive membrane over all block/stud sheathing surfaces returning into all openings around all metal supports behind door/window frames and connecting to attic vapour barrier for continuous air/vapour barrier system. Lap all joints minimum 2" and cut/fit neatly around all masonry anchors sealing with Air-Bloc 21. Install pressure-treated wood blocking supports around window and door perimeters as per details. Install insulation boards horizontally with staggered vertical joints and fill all joints. Install hook ties and wedgelock fasteners to secure insulation boards.

3.15 Carry through wall flashing not less than (8") back-up material before turning into joint and through back-up wall. Keep flashing (1") from the exterior face. Lay flashings in full mortar bed. Maintain all flashings and keep cavity clean during construction. Install vents at 2' o/c for all lintels and base flashings. Install mortar mat and keep cavity clean.

3.16. Install cavity wall ventilators at 800 mm o/c at the following locations:
- at the bottom of all exterior cavity walls
- elsewhere as indicated on wall section details

3.17. Install stone neatly in random pattern to align with openings in block substrate and tie in with reinforcing.

3.18. Clean masonry surfaces with water, detergent or proprietary masonry cleaner and brushes. Do not use muriatic acid.

END OF SECTION 04200

1. **GENERAL**

1.1 Comply with requirements of Division 01.

1.2 Supply bolts, anchors, inserts, and pipe sleeve required by Division 02 & 03.

1.3 Submit shop drawings in accordance with Division 01. Confirm all measurements on site.

1.4 Welding to CSA W59-1977.

1.5 Shop prime to CSA S16-1969.

1.6 Provide protection to prefinished metal surfaces that receive no site finish.

2. **MATERIALS**

2.1 Materials generally new, free of rust, waves, buckles or other visible defects.

2.2 Roof Access Ladders – construct as per details complete with all fastenings and hinged lockable cover called for.

3. **EXECUTION**

3.1 Fabricate to ensure that work will remain free of warping, buckling, opening of joints and seams. Deliver components to site in larges practicable sections and railings in greatest possible lengths.

3.2 Fit joints, corners, caps and miters tightly, smoothly and in true planes, and with concealed fastenings unless this is impossible by detail. Provide for differential movements within assembles and at junctions between this and other work.

3.3. Weld connections where possible: bolt where not possible, cut off bolts flush with nuts, countersink bolt heads and provide means to prevent loosening of nuts. Make welded joints tight and flush, ground smooth where exposed to view.

3.4 Finish surfaces and edges smooth, including holes. Fill joints and depressions with metal post filler or welds, and grind smooth.

3.5 Cap open ends of pipes, channels, angles and other similar components that are exposed to view. Support work with level bearings. Machine grind bearing surfaces at loose components. Holes and connections; ream holes and include as required for other work.

3.6 Provide 1/8" thick steel plate cover to sizes as drawings call for with 3 welded hinges on one side and bent 2" wide edge on the other with welded clip/hole for padlock. Lock will be supplied by Section 8700.

3.7 Priming of Steel: one coat of prime paint unless otherwise specified and exempt where field welded, galvanized or embedded in concrete. Remove from surfaces loose scale, rust, dirt, weld flux and other foreign materials and grind projections smooth before priming. Give surfaces inaccessible to finish painting two coats of prime paint and 2 coats of finished.

END OF SECTION 05500

1. **GENERAL**

1.1. Comply with requirements of Division 1.

1.2. Supply all fastening devises, nails, bolts, etc., for work of this section.

1.3. Store all products to maintain dimensional stability.

1.4. Comply with O.B.C. Section 9.3, 9.4, 9.17, 9.23.

1.5. Co-ordinate work with Section 07411 Preformed Metal Siding, Roofing, Ceiling & Soffits.

2. **MATERIALS**

2.1. Lumber: Spruce-Pine-Fir, species group designation of National Lumber Grades Authority - No. 1 Grade except for studs, Stud Grade, for members exposed to view - Appearance Grade, beams parts No. 1 Structural Grade. Reject any material subject to warping or twisting.

2.2. Strapping 1 x 3 spruce.

2.3. Plywood: sheathing grade, to thickness as indicated.

2.4. All wood material in contact with masonry or concrete and new deck work to be pressure treated.

2.5. Wood Trim: ½" finished plywood for concrete upstands and ¾" pine capping/sills for windows.

2.6. Roof Trusses and Roof Joists - see Structural drawings.

3. **EXECUTION**

3.1. Install work plumb, square, level, permanently secured, accurately fitted.

3.2. Include: Strapping, furring, sleepers, nailers, caulking, sill gaskets, and miscellaneous rough faming adequate for intended support. Ensure that adequate support is installed for all items requiring attachment.

3.3. Install all fastenings, rough hardware and straps.

3.4. Provide all temporary bracing and hardware where required and remove when no longer needed.

3.5. Provide coat of wood preservative to all concealed edges in contact with masonry/concrete or use pressure treated lumber.

3.6. Install wood stud framing and sheathing to locations called for. Ensure continuity of vapour barrier prior to installation.

3.7. Install pre-engineered wood trusses and hurricane clips as called for on structural drawings.

3.8. Install vertical strapping over exterior insulation on stud walls and around windows/doors as per details after complete by Section 07411.

3.9. Install door frames, doors, and hardware. Adjust for smooth operation.

END OF SECTION 06100

1. **GENERAL**

1.1. Conform to the General Conditions as applicable.

1.2. Performance of installed insulation shall comply with requirements of O.B.C. Section 9.26, Thermal Insulation and Vapour Barriers, or greater as may be indicated.

1.3. Flat roof insulation by Section 07530.

2. **MATERIALS**

2.1. Interior Rigid Insulation - 4" rigid polystyrene meeting CGSB51-GP-20M Type A square edged, R5 per inch for foundation walls below grade + 2" below concrete slabs.

2.2. Batt Insulation – R20 Fiberglass batts + R60 blow in fiberglass for attics.

2.3. Vapour Barrier - 6 mil polyethylene to CAN 2-51-33-M77

2.4. Tape - pressure sensitive tape 2" wide

2.5. Exterior rigid insulation and air barrier for exterior walls by Section 04200 Masonry and 07411 Preformed Metal Siding, Ceilings & Soffits (supply and installed).

3. **EXECUTION**

3.1. Examine preceding work before commencing installation to ensure that space is provided for insulation in thickness as indicated and specified, and to ensure that specified performance requirements are met, supports are adequate, surfaces for adhesive applied insulation are smooth, free of projections, dirt and grease, and are otherwise acceptable for adhesive application.

3.2. Install insulation in locations indicated on drawings and where required to completely envelop insulated areas with no breaks or voids in continuity of insulation, or in air and vapour barriers.

3.3. Install insulation with a minimum number of joints and to fill all voids. Provide insulation stops in attic spaces as per details.

3.4. Support and anchor insulation to prevent movement and breaking of seals, air barriers and vapour barriers. Ensure continuity of all air and vapour barriers - lap and seal as per details. Seal around all penetrations for air tight seal.

3.5. Cut and fit insulation tightly around penetrating elements.

3.6. Butt panels of insulation board in moderate contact. Cover exposed sections of rigid insulation with cement board as per details.

3.7. Install vapour barrier in locations called for. Lap and seal with tape. Connect vapour barrier to air barrier by others and seal.

3.8. Install Moore vents at soffits to provide clear ventilation space to attic space above attic insulation.

END OF SECTION 07200

1. GENERAL

1.1. Conform to the General Conditions as applicable.

1.2. Submit samples of all materials for approval by Architect prior to ordering.

1.3. Co-ordinate with Division 4, Section 04200 Unit Masonry and Division 8, Section 08520 Aluminum Windows.

2. MATERIALS

2.1. Siding, Roofing, Ventilated Soffits, Ceilings, Fascias, Gutters and RWL's to be 26 gauge pre-painted galvanized steel 4-150 (roof and walls) as manufactured by Agway Metals Inc. or equal. Colour to be chosen later from manufacturer's standard QC line to match existing. Provide samples for review prior to ordering.

Include for all related trims, fastenings, self-adhesive membrane for roofing, ridge vents/wall roof vents, and sealants to complete the work as per the manufacturer's recommendations.

2.2. Air/Vapour Barrier – Blue Skin self-adhesive membrane and primer by Henry or equal. Use VP-160 for wood frame wall areas.

2.3. Insulation – 2" rigid polyiso R10 – see drawings for locations.

3. EXECUTION

3.1. Examine wall work done by others and confirm all is acceptable. Advise Architect if any concerns or sections require replacement.

3.2. Apply primer over all existing masonry and wood sheathing surfaces to receive air barrier using a roller strictly in conformance with the manufacturer's instructions and allow to dry minimum 30 minutes. Take care and do not coat other surfaces ie: windows etc. Install all metal flashing/closure strips.

3.3. Install air barrier in consecutive weather board method starting at the bottom and working up providing min 2" overlaps. Extend over flashings, into door frame returns, and connect seal to vapour barrier at top as per details. Seal at all terminations with Kop-R-Lastic sealant for a continuous waterproof seal.

3.4. Install matching trims and flashings as required by details and elevations..

3.5. Install siding and roofing in longest lengths possible to minimize joints using the fastenings at spacings as per the manufacturer's recommendations.

3.6. Install soffit panels perpendicular to building wall and fascias, as per elevations/details. Fasten securely to suspended metal framing provided. Install gutters and rwl's as per drawings and secure. Install ridge vent, wall roof vents and closures.

3.7. Caulk all areas as per details.

3.8. Remove all excess material from site and clean up.

END OF SECTION 07411

1. GENERAL

1.1. Conform to the General Conditions as applicable.

1.2. Supply and installation of fully adhered membrane, sloped insulation, and vapour barrier to existing wood deck including metal cap flashings.

1.3. All products and workmanship shall combine to provide Class A roof covering. Products shall meet ULC S126-M82 test for fire spread without need for thermal barrier on top of wood deck.

1.4. All roofing will be inspected by the owner and architect. Inform Architect prior to commencement giving sufficient time to allow for inspection. Roofing subtrade shall bear costs of all cut tests and other tests required due to failure to notify for inspection as above.

Minimum inspections by manufacturer:

- start up
- 1 visit for roofs under 20,000 sq. ft. + 2 visits over 20,000 sq. ft. during construction
- 1 final for warranty

1.5. Contractor shall have minimum of five (5) years proven first-class experience in this type of work and shall be a member in good standing of the C.R.C.A. and manufacturer of roof membrane. Also, contractor to be a certified applicator of the product by the manufacturer.

1.6. Specification is based upon fully adhered single ply system with heat welded seams – see drawings for new roof assembly.

1.7. Deliver to the Architect two (2) pieces of all materials specified. Each sample shall be identified on back with manufacturer's name, thickness and name of project.

1.8. Submit to the Architect a written 25 year "watertight" warranty for entire roof assembly on form designed by C.R.C.A. from the date of Substantial Performance covering all aspects of roofing system, flashing, and caulking against defects in materials or workmanship (labour and materials).

2. MATERIALS

2.1. General: Use materials recommended by manufacturer.

2.2. Membrane: Shall be UltraPly reinforced TPO 60 mils thick as manufactured by Firestone Building Products or equal including all related adhesives, tape, flashings, accessories for all penetrations, etc. Colour to be grey.

All products shall be of one manufacturer and certified by same to be compatible when used together to form a complete system. System based on mechanically fastened insulation/dens deck with fully adhered membrane.

Other PVC and TPO single ply fully adhered membrane systems will be considered an alternative provided they are minimum 60 mil thick, come with a 20 year warranty for the entire roof assembly, and that the manufacturer will provide inspections with reports as outlined in Section 07530, item 1.4. Acceptable system manufacturer's are Carlisle, GAF, Sika Sarnafil and Tremco. All details are to be followed.

2.3. Cap and wall flashing to be 26 gauge pre-painted steel from standard 8000 series colour range as selected by owner to shapes as per details.

2.4. Insulation: Minimum 6 ½" thick poly isocyanurate R42.25 equivalent to Firestone ISO95+. Minimum 2-3 layers thick over all areas except at 8' x 8' drain sumps. Add sloped insulation to match in thickness for perimeter areas as noted on roof plan (1% minimum sloped) - see roof plan and details.

2.5. Utility Board – Dens Deck ¼" thick siliconized gypsum, fire tested with fiberglass facers in 4' x 8' sheets to be Securock by Firestone or equal.

2.6. Adhesives: use Ultraply Bonding Adhesive by Firestone or equal for membrane with heated welded seams throughout.

2.7. Vapour Barrier: permate vapour retarder peel and stick sheet membrane by Firestone or equal.

2.8. Roof Drains: "Super Drain" aluminum TPO coated inserts with locking cast bonnet Uflow seal by Firestone or equal to suit existing drain sizes and roof system used complete with aluminum strainer.

2.9. Plywood: ½" for all parapet walls

2.10 Wood Blocking: Use pressure treated 1 ½" thick material for parapet caps to widths as per details.

2.11 Flashings for all existing roof penetrations to manufacturer's requirements.

2.12 Perimeter warning line to be 4" yellow TPO membrane (not tape) made from Firestone or equal.

2.13 New roof curbs for new HVAC rooftop units to be supplied by the Mechanical division to this section for installation – this work to be included in the separate price on the tender.

3. EXECUTION

3.1. The work under this contract shall include the supply of all labour, materials, plant, equipment, and services (unless herein specifically excluded) necessary for the execution and completion to the satisfaction of the work herein specified as follows.

3.2. Ensure that membrane manufacturer's Technical Representative is present to review installation procedures and to inspect the completed application to verify compliance with all specifications and details.

3.3. Deliver and store materials undamaged in original containers with manufacturer's label and seals intact. Store membrane rolls flat and protected from moisture. Store solvent base liquids away from excessive heat and open flame.

3.4. Roofing shall never be carried out during any wet or foggy period. Size of roof removal section not to exceed size of replacement section possible on a daily basis.

3.5. Do not roof over damp, frozen or unsuitable deck surface.

3.6. Contractor shall adequately protect walls, lawns, driveways, etc., under hoisting part to the satisfaction of the Architect, including protection for all entry/exit points, as building will be occupied during the work.

3.7. Provide adequate protection of materials and work of this trade from damage by weather, traffic and other causes. At the end of each day's work, seal exposed edges of new roofing membrane to existing roofing for watertight seal. Protect work of other trades from damage resulting from work of this trade. Make good such damage at own expense to the satisfaction of the Architect.

3.8. Removal of existing flashings, roofing and parapets by this Section as per Demolition 02000.

3.9. Inspect condition of roof decks and report any concerns to Architect prior to re-roofing. (See Cash Allowance Section 01020 for any replacement work). Verify locations of all existing services under all roof decks prior to construction to ensure no damage will occur due to screw fastenings. Contractor will be responsible for any and all damage created by these construction activities.

3.10 Install vapour barrier, base and sloped layers of insulation with utility board to all areas as per layout and provide 8' x 8' sump depression for roof drains. Stagger joints and mechanically fasten to wood roof decks. Fasteners to be embedded 1" into decking as recommended by the manufacturer.

3.11 Install new roof drain inserts at existing roof drain locations. New roof drains and piping inside existing ceiling space – see Cash Allowance Section 01020.

3.12 Install membrane in full sheets with minimum seams in strict accordance with manufacturer's directions, up and over all parapets and fully adhered. Fully adhere membrane to existing HVAC roof top unit curbs or as per separate price on the tender form for new rooftop units cubs provided by the Mechanical Division to this division.

3.13 Flash all corners, vent pipes and curbs in accordance with manufacturer's details. Mechanically fasten at roof drains. Use premade metal covers for sanitary stacks and all roof penetrations (gas, electrical, and exhaust vents). Install overflow scuppers at locations as noted according to manufacturer's standard details.

3.14 Install metal cap flashing to details using lock seam slip connections and invisible fastenings for parapets and curbs.

3.15 Install perimeter warning line 6' away from roof edge as per roof plan – clean roof and hot air weld at overlap.

3.16 Ensure water tightness of all roof areas during construction.

3.17 Plug roof drains and flood membrane with a minimum of 50 mm of water. Patch and repair any leaks and re-test.

3.18 At completion of work, remove all debris from site.

END OF SECTION 07530

1. **GENERAL**

1.1. Comply with General Requirements Division 01.

1.2. Thoroughly clean all sealant smears from adjacent surfaces upon completion.

1.3. Proven written warranty covering making good of defects in materials and workmanship for a period of 2 years.

1.4. Execute work in accordance with manufacturer's instructions.

2. **MATERIALS**

2.1. To O.B.C. Section 9.28 and CAN2-19.24-M80.

2.2. Equivalent to Tremco products or equal.

2.3. Type 1: Two component urethane for moving joints.

2.4. Type 2: One component, urethane base solvent covering for static joints.

2.5. Sealant Backing: Extruded, foamed, close cell, round polyethylene rod 25% wider than joint.

3. EXECUTION

3.1. Interior Caulking:

- exposed control joints
- metal at wood
- concrete at wood
- concrete at metal

3.2. Joints to be caulked shall be cleaned of dust, oil, grease, water, frost, loose mortar and other foreign matter. Cleaning shall ensure a clean, sound base surface for sealant adhesion.

3.3. When air temperature is below 40 deg. F. consult sealant manufacturer for recommendations regarding application.

3.4. Joints ¼" or more wide shall be packed with pre-moulded backup rope. Install a bond breaker behind sealer in joints less than ¼" in width. Caulked joints must have pre-moulded back or bond breaker behind sealant.

3.5. Apply sealant under pressure with hand actuated guns. Gun nozzle shall be of proper size to fit and fill and seal joint.

3.6. Remove all excess materials and debris from site.

END OF SECTION 07900

1. **GENERAL**

1.1. Comply with General Requirements Division 01.

1.2. Submit shop drawings in accordance with Division 01.

1.3. Verify door and frame sized by site measures.

1.4. Tag frames and doors and deliver to site with identification marks indicating proper locations.

1.5. Co-ordinate work of this section with other sections.

1.6. Prepare for all hardware.

2. **MATERIALS**

2.1. Hollow metal door frames shall be fabricated of 16 ga. 316 stainless steel #4 brushed finish reinforced and welded as manufactured by S.W. Fleming or equal at locations called for. Minimum 6 anchors per frame.

2.2. Hollow metal doors shall be Type D-18 series as manufactured by S.W. Flemming Ltd., or equivalent, fabricated of 18 ga. wipe coat galvanized steel with no visible seams complete with 16 ga. end channels welded to top and bottom door.

- Shall be sanded smooth, stiffened, insulation and sound deadened.
- Shall be mortised, reinforced, drilled and tapped for hardware as scheduled.

3. **EXECUTION**

3.1. Installation of frames - Division 4, Section 04200 Unit Masonry and Section 06200 Rough Carpentry.

3.2. Locate and anchor frames in alignment with other work. Anchor frames to retain position and clearance during construction of walls and partitions.

3.3. Brace frames solidly in position while being built in. Install temporary wood spreader at mid-height of frame to maintain width until adjacent wall work is completed.

3.4. Generally, anchorage of frames shall be by means of standard anchors. Where standard anchors cannot be used, provide suitable anchors to ensure proper installation. Method of anchorage shall not be visible when frames are installed.

END OF SECTION 08100

1. **GENERAL**

1.1. Comply with requirements of Division 01.

1.2. Submit shop drawings in accordance with Division 01.

1.3. Verify door and frame sizes by site measurements.

1.4. Co-ordinate work of this section with other sections.

1.5. Provide 1 year written warranty on materials and workmanship/10 year on panel delamination.

2. **MATERIALS**

2.1. Door panels-sectional overhead doors to be ridged polyurethane insulated core with prefinished metal steel on each side, color white Thermatite T35-MR as manufactured by Richard - Wilcox Canada or equal. Include for steel reinforcing for hardware, all weather stripping/seals, and 16 Ga. galvanized end caps.

2.2. Hardware - track to be 3" commercial hot dipped galvanized mount to steel installation complete with 11 Ga. trac brackets, 1 ¼" x 1 ¼" 14 Ga. track hangers, 2-7/8" diameter ball bearing rollers/roller brackets, helically wound torsion spring counter balance, and interior slide bolt locks. Include for pusher springs, and manual chain hoist.

2.3. Power Operator to be wall mounted for each location and provide 3 remotes to operate all via separate codes.

3. **EXECUTION**

3.1. Install complete door installation in all locations strictly in accordance to the manufacturer's recommendations.

3.2. Adjust all doors to function and ensure all seals working properly for air tight installation.

END OF SECTION 08360

1. **GENERAL**

1.1. Comply with Requirements of Division 01.

1.2. Install work within 1/8" of dimension location and flat within 1/8" maximum in 1/8" and 1/16" maximum in any running 12".

1.3. Proceed with work only in areas protected and closed from the elements with temperature above 10 deg. C.

1.4. Co-ordinate installation of grilles and light fixtures.

2. **MATERIALS**

2.1. Gypsum board: CSA A82.27-M1977 in thickness shown.

2.2. Corner beads steel galvanized, ½ bead.

2.3. Screws: self drilling Phillips head, drywall screws #6 x 1" for single thickness.

2.4. Joint cement, tape, topping compound: as recommended by wallboard manufacturer.

3. EXECUTION

3.1. Install gypsum board as recommended by Gypsum Association Specification No. GA-216-82 regarding temperature, finishing and methods of installation.

3.2. Frame openings and built in equipment with furring, furr in ducts, pipes and dropped beams occurring in finished areas.

3.3. Provide for integration of supports of equipment and components, and installation of flush mounted recessed components included in work of other sections only after consultation and verification with them of their requirements.

3.4. Framing and furring shown on drawings is indicative, but do not consider it as exact or complete. Construct work to withstand stresses imposed by use without either distortion or dimensional changes. Install wall framing to heights called for and brace all walls with diagonal supports to suit, full height to underside of roof deck for rated assemblies.

3.5. Make good drywall at cutouts for services and other work, and where defective. Fill in defective joints, holes and other depressions with joint compound, and ensure that surfaces are smooth and evenly textured to receive finish treatments.

3.6. Remove droppings and excessive joint compound from work of this and other sections before it sets.

3.7. Clean off beads and other metal trim, and leave all surfaces ready for specified finishes.

END OF SECTION 09250

1. **GENERAL**

1.1. Comply with General Requirements Division 01.

1.2. Meet standards specified in Architectural Painting Specification Manual, Ontario Edition published by the Canadian Painters Contractor's Association.

1.3. Submit samples of each specified paint, colour and wood finish.

1.4. Submit list of all materials, manufacturer catalogue numbers, etc.

1.5. Deliver to Owner on completion of work, one quart of each colour, clearly labeled.

1.6. Cover or make surfaces adjacent to those being finished and protect work of others from damage and/or paint spills.

1.7. Repainting of existing surfaces fully.

1.8. Concrete block to be painted to be allowed to cure for 30-60 days depending on drying conditions.

2. **MATERIALS**

2.1. Manufacturers approved for supply of materials are:

- Canadian Industries Ltd. (CIL)
- Color Your World
- Pratt & Lambert Inc.
- Canadian Pittsburgh Industries Ltd.
- Benjamin Moore
- Glidden

2.2. Supply only the best quality material for each specified line.

2.3. Materials used shall meet or exceed CGSB Specifications.

3. EXECUTION

3.1. Examine surfaces prior to application for moisture content and acid alkali balance. Acceptance of surfaces signifies responsibility for finished products.

3.2. Clean all surfaces and remove foreign materials, fill cracks, holes and depression and smooth for finish.

3.3. Paint all new and existing wall surfaces in work areas as indicated only full height to next change in wall plane.

3.4. Colours will be provided by Architect upon award of contract.

3.5. Finishes:

Interior/Exterior Exterior Metal

- 1 coat primer
- 2 coats of acrylic semi-gloss finish

Interior New Painted Drywall

- 1 coat latex sealer
- 2 coats of latex eggshell finish

Interior Epoxy Paint – New Concrete Block

- 1 coat of primer Stonhard block filler
- 2 coats of Stonglaze VSR

All products to Stonhard or equal.

3.6. Clean-Up

3.6.1. Clean up daily. All paint rags, empty cans shall be removed from the site upon completion of each day's work. Upon Total Completion provide total clean up.

END OF SECTION 09900

APPENDIX

FIREHALL ADDITION
FENELON FALLS

Wilcox Architects Inc.
February 2026

ROOM FINISH SCHEDULE

		WALLS					FLOOR & BASE			CEILING		
		North	East	South	West	Comments	Floor	Base	Comments	Type	Fin.	Comments
Rm. No.	Room Name	ALL NEW U.O.N.										
101	NEW STO BLDG	CB/ EPOX PT	CB/ EPOX PT	CB/ EPOX PT	CB/ EPOX PT	----------	CONC/ CLR SEAL	-----	----------	PREF MTL	---	4200
102	NEW LINK	DW/ PT	DW/ PT	DW/ PT	DW/ PT	----------	CONC/ CLR SEAL	-----	----------	DW/ PT	---	2438
103	STO RM	DW/ PT	DW/ PT	DW/ PT	DW/ PT	----------	CONC/ CLR SEAL	-----	----------	DW/ PT		2438

A	ARC	ADJ	Adjustable
AB	Air Barrier	AL, ALUM	Aluminum
ABV	Above	ARCH	Architectural
A.C.	Air Condition	A.T.	Acoustic Tile
BL, BLK.	Block	BR ANOD	Bronze Anodized
BLDG	Building	B/S	Both Sides
BLKHD.	Bulkhead	BTM, B/	Bottom Of
BLW	Below	B.U.R.	Built-Up Roof
BM.	Beam, Beams		
CAB.	Cabinet	COL	Column
CABS	Cabinets	CONC.	Concrete
CAR	Carpet	CONT.	Continuous
C.B.	Catch Basin	CRS	Course
CB	Concrete Block	CS	Concrete Slab
CCS	Clear Concrete Sealer	CT	Ceramic Tile
CLF	Chain Link Fence	CTNG	Coating
CLG	Ceiling	CTOP	Counter Top
CLOS	Closet	C/W	Complete With
CNR	Corner		
D.C.	Display Case	DN	Down
DIA	Diameter	DR	Door
D/G	Double Glazed	DW	Drywall
E	East	EQ	Equal
EL	Elevation	E/S	Each Side
ELEC,ELEC'L	Electrical	EX., EXIST	Existing
ELEV	Elevator	EXT.	Exterior
ENCL	Enclosed		

F	Female	FIN	Finish
FD	Floor Drain	FL	Floor
FND	Foundation	FLS	Flood Lights
F.E.	Fire Extinguisher	F.P.	Fire Protection
FFL	Finish Floor Level	FR.	Frame
F/G	Fixed Glazing	F.R.	Fire Rated; Fire Rating
F.H.	Fire Hydrant	FTG.	Footing
GALV.	Galvanized	GR	Grade
GL	Glazing	GWG	Georgian Wired Glass
H.C.	Handicap	HORIZ	Horizontal
HD	Head	H.P.	Hydro Pole
HDWRE	Hardware	HR	Hour
H.M.	Hollow Metal	HT, HGT.	Height
H.O.	Hold Open	HTR.	Heater
ID	Inside Diameter	INSUL	Insulation
INC/	Including	INT.	Interior
IND	Indicates	I/S	Inside
INFO	Information		
J	Joist		
LBL	Label		
LOC	Location		
LWR	Lower		

M	Male	MIR	Mirror
MANF	Manufacture	M.L.B.	Micro-Lam-Beam
MAT.	Material	MT	Minute
MAX	Maximum	MTD	Mounted
MECH,MECH'L	Mechanical	MTL	Metal
M.H.	Manhole	M.U.A.	Make-Up-Air Mechanical Unit
MIN	Minimum		
N.	North	N.I.C.	Not In Contract
OA	Overall	OH	Overhead
O.B.C.	Ontario Building Code	OPNG	Opening
O/H	Overhang	O.S.	Over Size
PART'N	Partition	POL.	Polethylene
P.C.	Pre-Cast	PR	Pair Prefinished
PL	Plate	PREFORM	Preformed
P.LAM	Plastic Laminate	P.T.	Pressure Treated
PLY, PLYWD	Plywood	PT	Paint
R	Radius	REF.	Reference
R.D.	Roof Drain	REV	Reversed
REF	Refrigerator	R.S.O.	Rough Stud Opening
REQ'D	Required	R & S	Rod and Shelf
RES	Resistance	R.W.L.	Rain Water Leader

S	South	S.P.	Splash Pad
S.A.B.	Sound Attenuation Blanket	S.P.M.	Single Ply Membrane
SAN.	Sanitary	S.S.	Stop Sink
SC	Solid Core	ST	Stain
SCR	Screen	STD	Standard
SEP	Separation	STL	Steel
S/G	Single Glazing	STR	Stringers
SHLVS	Shelves	STRUCT`L	Structural
SHTG	Sheating	ST.S	Storm Sewer
S.O.G.	Slab On Grade		
T/	Top Of	T.T.	Terrazo Tile
T.B.	Thermal Broken	T. & WD	Towel & Waste Disposal
T. & B.	Top And Bottom		
TEX	Textured	TYP	Typical
T. & G.	Tongue & Groove		
U/C	Under Counter	UPR	Upper
U.O.N.	Unless Otherwise Noted	U/S	Underside
V.	Vinyl	VERT	Vertical
VAL	Valance	V.T.	Vinyl Tile
VAN	Vanity	V.W.C.	Vinyl Wallcovering
V.B.	Vapour Barrier		
W/	With	WIN	Window
W.C.	Water Closet	W.F.	Wood Fibre
WD	Wood	W.V.	Water Valve