PART 1 - GENERAL

1.1 GENERAL REQUIREMENTS

.1 Conform to requirements of General Conditions and Division 1.

1.2 SCOPE OF WORK

.1 Provide all labour, materials and necessary equipment to supply and install **Durex® "Stucco Wall" Stucco System** where shown on the Architectural drawings and as specified.

1.3 RELATED WORK SPECIFIED ELSEWHERE

.1	Concrete walls:	Section 03300
.2	Masonry walls:	Section 04200
.3	Rough Carpentry:	Section 06100
.4	Air barrier (other than air barrier specified in this Section):	Section 07196
.5	Flashing:	Section 07900
.6	Caulking (other than caulking specified in this Section):	Section 07900

NOTE: *List, or delete, other trades which are related to* **Durex® "Stucco Wall"** *but which are executed by other Trades.*

1.4 SAMPLES

.1 (Prior to application of mock-up), submit duplicate 300 mm x 300 mm (12" x 12") samples of (each) colour and texture of the specified coating system in accordance with requirements specified in Division 1.

NOTE: *Include (Prior to application of mock-up) only if mock-up is required. Correlate with Article 1.10. Include (each) if more than one colour and/or texture is required for project.*

1.5 TEST REPORTS

.1 Submit products data including certified copies of test reports verifying **Durex® "Stucco Wall" Stucco System** applied to substrata as constructed on project will meet or exceed requirements of Specifications.

1.6 MAINTENANCE DATA

.1 Provide maintenance data for special coating system for incorporation into Maintenance Manual specified in Division 1.

1.7 QUALIFICATIONS OF APPLICATOR

.1 Work of this Trade shall be executed by qualified applicator approved by **Durabond Products Limited**.

Applicator shall have been trained in the most recent application procedures and shall have minimum 5 years proven satisfactory experience in this type of work, having proper equipment and skilled personnel to expediently complete work of this Trade in an efficient and very best workmanlike manner.

1.8 MANUFACTURER'S SUPERVISION AND INSPECTION

.1 Arrange for **Durabond Products Limited** to have a qualified technical representative visit site prior to commencement of work to discuss with General Contractor, Applicator and Architect, the application procedures to be used and to analyze conditions of surfaces to be coated, in order that alternative recommendations may be made to Architect should adverse conditions exist.

.2 Also arrange for the qualified technical representative to visit site at regular intervals during application and upon completion of work to ensure adherence to specifications and to check quality of completed work.

.3 The above supervision shall be at no extra cost to Owner.

1.9 JOB MOCK-UP

.1 When directed, apply 3 m x 3 m (10' x 10') of (each colour and/or texture of) coating system where applicable in mock-up area designated by Architect.
NOTE: *Revise size of mock-up to suit Architect's requirements. Also, more than one mock-up may be required if more than one coating colour and/or texture is required for project.*

.2 Apply samples of finish required in presence of Architect, General Contractor and **Durabond's** representative. Apply mock-up using correct material, number of coats, colour, texture and degree of gloss required.

.3 Maintain mock-up until completion of work. Approved mock-up shall serve as a standard for similar work throughout project. Refinish work, which does not match, approved mock-up.

1.10 DELIVERY

.1 Deliver all required materials to the job site in original unopened containers with all identifying labels and markers clearly visible and intact. Upon delivery inspect materials for damages and advise **Durabond Products Limited** in writing of any unacceptable materials.

1.11 SPECIAL STORAGE AND PROTECTION

.1 Store materials in a dry, vented, waterproof location, stacked off the ground, out of direct sunlight and other detrimental conditions. Store liquid materials at ambient temperatures above 5°C and below 35°C. Protect all materials from freezing.

.2 Keep thinner-soaked rags and other similar combustible materials in closed metal containers containing water, to prevent spontaneous combustion and remove them from job site at end of each work day.

.3 If coatings have been applied, provide protective coverings to protect freshly applied coatings from damage due to inclement weather until coatings have fully set and cured.

.4 Ensure that all cappings and flashings have been installed by others immediately after completion of the **Durex® "Stucco Wall" System**, unless temporary protection has been provided by others. If cappings and flashings or temporary protection has not been provided, advise Architect and General Contractor in writing.

1.12 ENVIRONMENTAL CONDITIONS

.1 Do not coat exterior work at ambient air temperatures below 5ºC, nor above 35ºC. Avoid coating surfaces directly exposed to hot sun. Do not coat interior work at temperatures below 5ºC, nor on surfaces where condensation has or will form due to presence of high humidity and lack of proper ventilation.

.2 When necessary provide temporary enclosures for exterior work and ensure that temporary heat is being provided in the area of work to maintain the required ambient air temperature prior to, during application and for minimum 24 hours after application of coating system.

***NOTE: As** the above work can be costly, carefully co-ordinate to determine whether or not the General Contractor is to provide temporary enclosure and heat.*

.3 Do not apply materials to wet, frozen nor frosted surfaces.

.4 Do not proceed with application of materials immediately prior to, during nor immediately after inclement conditions, nor if wet weather is anticipated within 24 hours after application.

.5 Do not apply coating finish in areas where dust is being generated.

.6 If required, ensure that adequate controlled ventilation, heat and light is provided by General Contractor during application and drying period of interior work.

.7 Proceed with work only when surfaces and conditions are satisfactory for production of a first class application.

.8 Protect applied coating from rapid evaporation during dry and hot weather. should adverse conditions exist consult **Durabond Products Limited** for recommendations.

PART 2 - PRODUCTS

2.1 MATERIALS

***NOTE:** All components of* **Durex® "Stucco Wall" System** *shall be manufactured/supplied by* **Durabond Products Limited** *, 55 Underwriters Road, Toronto, Ontario, Canada M1R 3B4, Tel: (416) 759-4474. No substitutions or addition of other materials shall be permitted.*

.1 **Air/Moisture Barrier:**
No.15 asphalt-saturated felt, perforated, weighing not less than 0.195 kg/m², in rolls 1 meter wide, or 100% spun-bonded, high-density woven polyethylene sheets.

.2 **Reinforcing metal lath:**
Galvanized Diamond mesh lath or galvanized self-furring lath of a minimum weight of 1.84 kg/m² (3.4 lbs/sq. yd.). Galvanizing of the lath shall conform to ASTM A525-94.

.3 **Fasteners for metal lath:**
Fasteners for securing metal lath to steel shall be corrosion resistant coated self-tapping screws ATek-Wafer Head @ type minimum 19 mm (3/4") long, or hot dipped galvanized roofing nails minimum of 25 mm (1") long for securing to wood. For securing to masonry and concrete, fasteners shall be Zamac Pin Bolts minimum 25 mm (1") long.

.4 **Trim accessories:**
All trim, expansion and control joints, casing beads and corner beads shall be minimum 26 gauge-galvanized metal with a minimum ground of 10 mm (3/8").

.5 **Scratch coat and base coat:**
Both scratch coat and base coat shall be **Durex® Dryplast "Coarse"** and **"Medium"** or **Uniplast** mixed with potable water, or **Uniplast "Coarse"** or **"Medium"** mixed with **Durex® Acrylic Resin Bond** in strict accordance with **Durabond's** printed instructions.

.6 **Prime Coat:**
Primer coat shall be **Durex® Brush Coat** colour number
_____.

NOTE: **Durex® Brush Coat** *shall be the same colour number as the* **Durex® Architectural Coating** *finish.*

.7 **Finish Coat:**
Finish coat shall be **Durex® Architectural Coating**
_____.
colour number_____.

NOTE: *Refer to Product Data Sheets for selection of* ***Finish Coat*** *which would be desired for the project.*

.8 **Sealant:**
Low modulus sealant as recommended and approved by **Durabond Products Limited**. Standard colours as selected by Architect.

.9 **Surface Sealer (optional)**:
Surface sealer shall be **Durex® Wall Seal 15** manufactured by **Durabond Products Limited**.

2.2 MIXES

.1 Perform all mixing under conditions as set forth in Article 1.13: Environmental Conditions.

.2 Prepare and mix primer, scratch, base and finish coats in strict accordance with **Durabond's** written instructions to obtain a homogeneous consistency of mixture. Other than those specified by **Durabond**, do not add any other additives, rapid binders, antifreeze, accelerators, fillers or pigments to the mixtures without written approval from **Durabond Products Limited**.

.3 Mix both scratch and base coats in accordance with the following formula by weight:

Durex® Dryplast Coarse or **Medium**	1 bag
Potable Water	5 litres

.4 Pour the water into an empty clean mixing container. While under slow mixing action add the **Durex® Dryplast Coarse** or **Medium** in the required mixing proportions. Mix well until the mixture is free of lumps. Do not over-mix or use excessive mixing speed.

OR

Durex® Uniplast Coarse or **Medium**	1 bag
Durex® Acrylic Resin Bond	5 liters

.5 Pour **Durex® Acrylic Resin Bond** into an empty clean mixing container. While under slow mixing action add the **Durex® Uniplast Coarse** or **Medium** in the required mixing proportions. Mix well until the mixture is free of lumps. Do not over-mix or use excessive mixing speed.

.6 Let mixed materials stand for a few minutes until they too begin initial stiffening. Mix only enough materials, which can be used within 45 minutes. Re-temper and use. Discard all materials, which have begun to stiffen for a second time.

PART 3 - EXECUTION

3.1 EXAMINATION

.1 Examine surfaces to receive the **Durex® "Stucco Wall" System** for defects that will adversely affect execution and quality of work.

.2 Ensure substrate surfaces, including each applied scratch coat and base coat are dry, solid and sound, free of weak and powdery surfaces, free from ice, snow and frost, oil, grease, releasing agents and other deleterious materials detrimental to a positive bond.

NOTE: *Deteriorating, weak, powdering or flaking surfaces may require further preparation work prior to installation of the* **Durex®"Stucco Wall" System**. *Check with* **Durabond Products Limited** *for questionable substrate conditions.*

.3 Ensure substrate tolerance is within 3.2 mm in 2,430 mm (1/8" in 8'-0").

.4 Report in writing to Architect all adverse conditions which will be detrimental to work of this Trade.

.5 Do not start work until unsatisfactory conditions have been corrected.

.6 Commencement of work shall indicate acceptance of substrate conditions.

3.2 PREPARATION

.1 Thoroughly clean and wash (existing) surfaces, including each applied scratch coat and base coat, (and including existing coated surfaces) by wire brushing or other approved methods to remove all dirt, dust, grease, oil, laitance, loose coatings and other contaminants detrimental to newly applied system.

NOTE: *Include reference to "existing" and "new" for retrofit projects.*

.2 Where necessary, mask all surrounding surfaces to provide neat, clean, true juncture lines with no over-spray on surrounding surfaces.

.3 Co-operate and co-ordinate with other trades and ensure that penetrations in the substrate have been provided by other trades before applying coating system.

.4 Advise other trades that fixtures and fittings should not be installed on surfaces to be coated before work of this Trade has been completed.

3.3 APPLICATION

.1 Apply **Durex® "Stucco Wall" System** in strict accordance with approved mock-up and **Durabond's** printed instructions.

.2 **Air/Moisture Barrier:**

- .1 Install moisture barrier over all wood and wood by-product substrates and over other substrates which are susceptible to potential deterioration from the presence of moisture.
- .2 Install moisture barrier prior to the installation of the metal lath.
- .3 Install moisture barrier strips horizontally, starting from the bottom of the wall.
- .4 Secure the edge of each strip with sufficient corrosion resistant staples, nails or other approved fasteners to hold it in place until the metal lath has been installed.
- .5 Overlap each strip of moisture barrier on top of the lower strip by a minimum of 100 mm (4").

.3 **Trim Accessories:**

- .1 Install all trim accessories prior to installation of the metal lath, except for external corner reinforcing beads.
- .2 Install all trim uniformly throughout the entire area, which is to be coated.
- .3 Install trim straight, level and plumb to a tolerance of not more than 3.2 mm in 3.0 m (1/8" in 10'-0").
- .4 Discard all trim units, which are damaged in any way including deterioration of the galvanizing.
- .5 Secure trim at not more than 300 mm (12") o.c.
- .6 Install casing beads at all terminations, around all openings and at all control joints and leave a 12.7 mm (1/2") space for caulking.
- .7 Install expanded wing corner beads continuously at all external corners.

.4 **Expansion and Control Joints:**

- .1 Install expansion joints in alignment with building expansion joints.
- .2 Install control joints at all locations of maximum stress (such as corners of openings), in the direction as shown on drawings.
- .3 Install control joints at all locations where dissimilar substrates meet.
- .4 Install expansion joints at the lesser of each floor horizontally at the level of the underside of ceiling, or spaced at not more than 3.0 m (10'-0") o.c. vertically.

.5 Install control joints vertically, spaced at not more than 6.0 m (20'-0") o.c. horizontally.

.6 Lay out control joints so to divide the wall surface into panels of not more than 12 sq.m. (130 sq.ft.).

NOTE: *The 3.0 m (10'-0") between horizontal joints and 6.0 m (20'-0") between vertical joints are maximum spacing. Adjust either or both to obtain the 12 m². (130 ft²) panel size.*

.7 Lay out expansion/control joints in a pattern which enhances the overall aesthetics of the structure to Architect's approval.

.5 **Metal Lath:**

.1 Install metal lath not more than 3 days prior to the application of the scratch coat, unless the lath will be protected temporarily from inclement weather. Do not use lath, which show signs of galvanizing deterioration including rust.

.2 Install metal lath with the long dimension horizontal.

.3 Lap all horizontal and vertical joints minimum 50 mm (2").

.4 Ensure all end joints are staggered and that they occur over framing members.

.5 Reinforce external corners with an expanded wing corner bead, or with a vertical strip of lath extending not less than 150 mm (6") on both sides of the corner, or by continuously extending the lath uninterrupted around the corners not less than 300 mm (12").

.6 Ensure that no vertical laps of metal lath occur within 300 mm (12") of openings, corners, expansion/control joints and terminations.

.7 Space fasteners not more than 150 mm (6") o.c. vertically and 400 mm (16") o.c. horizontally, or 100 mm (4") o.c. vertically and 600 mm (24") o.c. horizontally. Other nailing patterns may be used provided that there are no fewer than 20 fasteners/m² (10ft²) of wall surface.

.8 Ensure that fasteners around openings and along all termination points are no more than 50 mm (2") from the edge of the lath, at maximum 200 mm (8") o.c.

.6 **Scratch Coat** :

NOTE: *The primer and finish coats require a straight, smooth and even surface; thus careful attention at this stage of the application is most important to complete the final application of the finish coat. 75% of curing occurs in the first 7 days from initial application. In this period the application of sufficient moisture is most important to avoid shrinkage cracks.*

.1 Apply scratch coat after metal lath and trim accessories have been securely fastened in place.

.2 Firmly apply scratch coat **Durex® Dryplast Coarse** or **Uniplast Coarse** over the lath and accessories. Scratch coat shall not be less than 7 mm (9/32") thick, uniformly and forcefully applied to fully fill all voids to ensure full bond with the substrate and to sufficiently cover and embed the metal lath and accessories.

.3 Rake the surface of the newly applied scratch coat with a plaster rake to form fairly uniform indentations which will act as a key surface for the base coat **Durex® Dryplast Medium** or **Uniplast Medium**.

.4 Allow minimum 3 days for curing and drying.

.7 **Base Coat :**

.1 During hot weather, if the scratch coat surface is exceptionally dry, lightly dampen the surface with a fog mist of clean potable water. Do not over-saturate as it will impair the bonding of the base coat.

.2 Trowel apply the base coat, applying sufficient pressure to ensure full bond with the scratch coat.

.3 Use a straight edge tool to darby the surface and bring it to a straight, even and true surface.

.4 Total thickness of both the scratch and base coats shall be not less than 12.7 mm (1/2").

.5 When the base coat has taken initial set use a wood or sponge float and work the surface with light circular motions to remove all high points and to fill low points.

.6 Final surface shall be smooth straight and true to a tolerance of not more than 3.2 mm in 3 m (1/8" in 10'-0"). Surface shall be free of trowel marks, irregularities and visible mesh pattern.

.7 Allow minimum 3 days for curing and drying.

NOTE: *3 days is the minimum recommended curing time as it may not be feasible given the construction schedule to allow 7 days.*

.8 **Finish Coat Primer:**

.1 Apply primer with high pile roller at the rate of 2.8 m²/ pail (600 ft²/pail). Evenly apply primer throughout. Substrate shall not be visible through the applied primer.

.2 Avoid excessive build-up in any one area.

.3 Allow a minimum of 4 hours prior to application of the finish coat.

.9 **Finish Coat:**

.1 Apply finish texture coat within 3 days after application of primer coat. Longer periods may be scheduled between operations provided that the primed surface is kept clean and in good condition.

.2 Apply final texture coat in strict accordance with **Durabond's** printed instructions for the selected finish.

.3 Final texture finish and colour shall match the approved site mock-up.

3.4 CAULKING

.1 Caulk all expansion and control joints and all coating system terminations, including below grade terminations, with sealant. Apply sealant in strictly accordance with sealant manufacturer's printed instructions.

3.5 CLEAN UP

.1 Clean all spotting and blemishes from surfaces which are not intended to receive coating and leave such surfaces in their original condition.

.2 Entirely reinstate surfaces, which are not to be coated but which are soiled and attributable to the coating applicator at coating applicator's own expense.