PART 1 GENERAL

1.1 SECTION INCLUDES

A. Material: **Extruded Aluminum Cladding System**.
   1. Manufacturer: ES Metals, https://es-metals.com/projects/.

B. Exterior extruded aluminum planks for cladding system and accessories as required for a rainscreen system.
   1. Exterior facade siding.
      a. Aluminum subframing.
      b. Clips, trims, anchors and additional accessories.
   2. Horizontal soffits.
      a. Aluminum subframing.
      b. Clips, trims, anchors and additional accessories.

1.2 RELATED SECTIONS

A. The following items of related work, as specified in other sections and divisions, are not included.
   1. Division 05.
      a. Cold-Formed Metal Framing Sections.
      b. Any metal fabrication, additional subframing, or Z girts to accommodate exterior insulation.
   2. Division 06.
      a. Rough Carpentry & Sheathing and Mechanically Graded Lumber Sections.
   3. Division 07.
      a. Thermal Protection, Insulation and Safing Sections.
      b. Joint Sealers Sections.
      c. Air Barriers and Weather Barriers Sections.
      d. Sheet Metal Flashing and Trim Sections.
   4. Division 08.
      a. Aluminum Windows, Glass and Glazing Sections.
      b. Aluminum Framed Storefronts and Aluminum Curtain Walls Sections.
   5. Division 09.
      a. Gypsum Board Sections.

1.3 SUBMITTALS

A. General: Submit under conditions of the Contract and provisions of Division 01.

B. Product Data: Manufacturer's information on each product to be used, including product data sheets, specifications, product details, and installation instructions.

C. Shop Drawings: Submit plan, section, elevation and perspective drawings as necessary to describe and convey the layout, profiles and product components, including edge conditions, joints, fixture location, anchorage, accessories, finish colors, patterns and textures.

D. Engineering Calculations: Submit engineering calculations as required by the local building code, showing that the installed planks and attachments system meets the wind load requirements for the project.

E. Samples: Submit selection and verification samples for finishes, colors and textures.
   1. Selection Samples: Manufacturer's color charts or chips illustrating full range of colors, finishes and patterns available. Please note that samples are only representative of color and pattern and not for thickness or edge finish. Metallic colors may also show a slight variation in appearance due to the metal flake orientation from batch production
   2. Verification Samples: For each finish product specified, two samples representing actual product, color, and patterns.

1.4 QUALITY ASSURANCE

A. Manufacturer Qualifications: Primary extruded aluminum products specified in this section will be supplied by a single manufacturer with a minimum of ten (10) years' experience. Products covered under the Work listed in this section are to be manufactured in an ISO 9001 certified facility.

B. Installer Qualifications: All products listed in this section are to be installed by an installing firm who can prove 3 years in business and exemplary workmanship. The installation firm must have evidence of installing cladding systems and is suitable for the execution of the work.

C. Mock-Up: Provide a mock-up for evaluation of the product and application workmanship.
   1. Scope and finish are to be described by Architect on architectural drawings.
   2. Do not proceed with remaining work until workmanship, color, and finish are approved by Architect.

D. Pre-installation Meetings: Conduct a pre-installation meeting of the contractor and installer to verify project requirements, substrate conditions, manufacturer's installation instructions and manufacturer's warranty requirements. Comply with Division 1 Project Management and Coordination (Project Meetings) Section.

1.5 DELIVERY, STORAGE, AND HANDLING

A. **Delivery:**
1. Deliver products in fabricator or manufacturer's unopened, undamaged containers with identification labels intact.
2. During transportation, use stable pallets that are at least the same dimension as the extrusion pack.
3. Materials shall be packaged to minimize or eliminate the possibility of damage during shipping. Items such as wooden side boards, wooden lids, and spacers or protective sheeting between planks shall be used to protect the planks from surface and/or edge damage.
4. Moving extrusions that are stacked on pallets should be done with a forklift or a crane. Exercise care in unloading, storing and installing planks to prevent bending, warping, twisting, and surface damage.

B. **Storage:**
1. Store products in an enclosed area protected from direct sunlight, moisture and heat. Maintain consistent temperature and humidity.
2. Store products in fabricator or manufacturer's unopened crates until ready for installation.

C. **Handling:**
1. When moving extrusions, lift evenly to avoid dragging materials across each other and scratching the decorative surface.
2. Remove all labels and stickers immediately after installation.

1.6 PROJECT CONDITIONS

A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.

B. Field Measurements: Verify actual measurements/openings by field measurements performed by the installer prior to release for fabrication.

1.7 WARRANTY

A. Manufacturer Warranty: At project closeout, provide Manufacturer's limited **[__ years]** warranty covering defects in aluminum materials from date of shipment. Warranty is only available when material is fabricated and installed by companies trained by the Manufacturer or Manufacturer's representative.

PART 2 PRODUCTS

2.1 Extruded Aluminum Cladding

A. Basis of Design: Extruded Aluminum Planks and Trims manufactured by ES Metals, Carrera 72A #107-33, Barranquilla, Colombia.

B. Product: **Extruded Aluminum Planks and Trims** manufactured by **ES Metals**.
1. Aluminum material that is used as wall cladding. It comes in a wide range of colors, ensuring excellent appearance for a long period of time. It is ideal for facades that require efficient installation and low maintenance.
2. 6063-T6 extruded aluminum.
3. Planks Type: **[Grooved] [Smooth]** Surface.
4. Plank Size: **[6"] [8"]**.
5. Plank Length: **[20'] [16'] [12']**.
6. Plank Placement: **[Aligned] [Staggered]**.
7. Plank Orientation: **[Vertical] [Horizontal]**.
8. Plank Color: To be selected by the Architect from manufacturer's standard palette.

C. **Trims and other components:**
1. Aluminum Clips, Starter, Corner Trims, Divider Trims, One-Piece Finisher Trim, Two-Piece Finisher Trims, Mirror Starter Strip and Compression Joint.

D. **Sub Structure:**

1. Sub-structure designed to withstand structural loading due to wind load and the dead load of the planks, painted only as required by fabricator to conceal behind the open joinery of the attachment system.

2. Cladding system installed on Aluminum 6063-T6 "J", "Hats", or selected shape by ES Metal.

E. **Fasteners:**

Fasteners are non-corrosive stainless steel. Fastener color and finish is mil.

2.2 FABRICATION

A. Fabricate planks and accessory items in accordance with manufacturer's tolerance and performance recommendations.

B. Fabricate planks to the size, configuration and layout as shown on approved shop drawing submittals.

C. Form plank lines, breaks and angles to be sharp and true, with surfaces that are free from warp or buckle.

D. Where final dimensions cannot be established by field measurements, provide allowance for field adjustment as recommended by manufacturer. All fabrication shall be done under controlled conditions as recommended by manufacturer.

E. Planks shall be marked to coordinate with the approved shop drawings.

F. Materials with a grain or directionality shall be fabricated to run in the same direction when installed unless otherwise specified or illustrated on approved shop drawings.

G. Fasteners in profile shall accommodate thermal expansion/contraction of metal.

H. Attachment system does not include:

a. Flashings and trims.

b. Framing or Furring.

c. Insulation.

d. Wood blocking, furring.

e. Sheathing and gypsum drywall.

f. Sealant and primers.

g. Flashings.

PART 3 EXECUTION

3.1 MANUFACTURER'S INSTRUCTIONS

A. Compliance: Comply with manufacturer's and fabricator's product data, including product technical bulletins, product catalog installation instructions and project specific instructions for installation.

3.2 EXAMINATION

B. Do not begin installation until substrates have been properly prepared.

C. Surfaces to receive planks shall be even, smooth, dry, and free from defects detrimental to the installation of the cladding system. Notify Contractor in writing of conditions detrimental to proper and timely completion of the work.

D. Confirm load bearing wall surface is plumb and level, with no deviations greater than 1/4 inch (6 mm) in 20 feet (6096 mm).

E. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding. Do not proceed with installation until

unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Clean surfaces thoroughly prior to installation.

B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

3.3 INSTALLATION

A. Install cladding system plumb and level and accurately spaced in accordance with manufacturer's recommendations and approved submittals and shop drawings.

B. Install system over a plumb, flat, true and dry substrate in accordance with ASTM E330

C. Anchor planks, trims and sub-framing securely per engineering recommendations and in accordance with approved shop drawings to allow for necessary movement and structural support.

D. Do not install planks or component parts which are observed to be defective or damaged including, but not limited to: warped, bowed, abraded, scratched, and broken members.

E. Fasten planks with fasteners approved for use with supporting substrate.

F. Install profiles and trim with fasteners appropriate for use with adjoining construction as indicated on the shop drawings and as recommended by manufacturer.

G. Do not cut or trim component parts during installation in a manner that would damage the finish, decrease the strength, or result in visual imperfection or a failure in performance. Return component parts with require alteration to the shop for re-fabrication or replacement.

H. Materials with grain or directionality are to be installed in same direction, unless otherwise noted on the approved shop drawings.

I. Accessory Items: Install accessory items with fastening method appropriate for use with adjoining construction as indicated on drawings and as recommended by the Fabricator or Manufacturer.

3.4 ADJUSTING AND CLEANING

A. Remove masking or protection as soon as possible after installation. Any masking intentionally left in place after installation on an elevation, shall become the responsibility of the General Contractor to remove.

B. Adjust final installation so that all joints are true and even. Planks out of plane shall be adjusted with the surrounding planks to minimize any imperfection.

C. Repair planks with minor damage. Remove and replace planks damaged beyond repair as a direct result of the installation. After installation, repair and replacement shall become the responsibility of the General Contractor.

D. Clean finished surfaces as recommended by fabricator. After installation cleaning, cleaning during construction shall become the responsibility of the General Contractor.

3.5 PROTECTION

A. Protect installed products and finish surfaces from damage during construction.

END OF SECTION