

Product Evaluation Report

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Product Manufacturer

KP Building Products/CertainTeed
402 Boyer Circle
Williston, VT 05495

Product Name, Model and/or Description

D4 "Cedar Creek" Vinyl Siding
D5 "Cedar Creek" Vinyl Siding
D5D "Cedar Creek" Vinyl Siding
D4 "Hudson Bay" Vinyl Siding
D5 "Hudson Bay" Vinyl Siding
D5D "Hudson Bay" Vinyl Siding

Code: Current Edition of the Florida Building Code including the 8th Edition (2023) Florida Building Code

Compliance Methods:

- Product Approval Rule 61G20-3.005(1)(d) – Product Evaluation Report by a Licensed Professional Engineer

Product Name, Model and/or Designation: Products covered by this evaluation include the following.

- D4 "Cedar Creek" Vinyl Siding
- D5 "Cedar Creek" Vinyl Siding
- D5D "Cedar Creek" Vinyl Siding
- D4 "Hudson Bay" Vinyl Siding
- D5 "Hudson Bay" Vinyl Siding
- D5D "Hudson Bay" Vinyl Siding

Product Installation Instructions:

- PTC Product Design Group, LLC Drawing No. KPBP0004, Rev. C, dated 10-14/23, D4, D5 & D5D Cedar Creek & Hudson Bay Vinyl (PVC) Siding Installation Anchorage Details, signed and sealed by Robert J. Amoruso, P.E.
- KP Building Products Vinyl Siding Estimating & Installation Guide, KP-EIG21A (101-7383) or later editions.

Comparative Analysis:

D4 Siding:

The D4 "Cedar Creek" Vinyl Siding was performance tested (wind load resistance) to TAS 202 and 203 as documented in Reference 1.a. The D4 "Hudson Bay" Vinyl Siding is compared below to demonstrate that it is enveloped by the D4 Cedar Creek testing.

Appendix 1 shows the profile extrusion drawings for both products. The Cedar Creek and Hudson Bay are identical to each other. The products are sold under different names to accommodate marketing needs. Both are the same vinyl compound. Because they are the same, each will exhibit the same performance characteristics.

Therefore, the D4 "Hudson Bay" is enveloped by the D4 "Cedar Creek" testing.

D5 Siding:

The D5 "Hudson Bay" Vinyl Siding was performance tested (wind load resistance) to ASTM D5206 as documented in Reference 1.b.



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321-690-1788 | FL Certificate of Authorization No. 25935

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Appendix 1 shows the profile extrusion drawings for both products. The Cedar Creek and Hudson Bay are identical to each other. The products are sold under different names to accommodate marketing needs. Both are the same vinyl compound. Because they are the same, each will exhibit the same performance characteristics.

Therefore, the D5 “Cedar Creek” is enveloped by the D5 “Hudson Bay” testing.

The D5 “Hudson Bay” lap layout is shown below along with the D5D “Hudson Bay”. The lap layout of the D5 “Hudson Bay”, considering the less corrugation of the lapping when compared to the D5D “Hudson Bay”, will envelop the performance rating of the D5D “Hudson Bay”.

Therefore, the D5D “Hudson Bay” is enveloped by the D5 “Hudson Bay” testing. Additionally, based on the discussion above, the D5D “Cedar Creek” is enveloped by the D5 “Hudson Bay” testing

D5 Hudson Bay



D5D Hudson Bay



Code Conformance:

The vinyl siding products have been evaluated for compliance with requirements specified in the Current Edition of the Florida Building Code including but not limited to the following and are acceptable for use when installed in accordance with manufacturer’s installation instructions and this product evaluation.

- The water-resistive barrier shall be a minimum of one layer of No.15 asphalt felt, complying with ASTM D 226 for Type 1 felt or other approved materials.
- Vinyl siding labeled as conforming to ASTM D3679.
- Plastics in conformance with Chapter 26 of the FBC.
 - See Test Results in Reference 2.a & 2.b for summary of results.
- Vinyl Siding - Wind Resistance
 - Tested (Reference 1.a & 1.b) in accordance with ASTM D5206 per ASTM D3679.
 - Safety Factor of 1.5 used.
 - Pressure Equalization Factor = 0.36 (Annex A1.2.1 of ASTM D3679) for non-HVHZ tested product.
 - Design Pressure = Test Pressure/(1.5 x 0.36)
 - Pressure Equalization Factor = 0.5 per MD Vinyl Siding & Soffit Approval Checklist for HVHZ tested product.
 - Design Pressure = Test Pressure/(1.5 x 0.50)
 - See Product Design Pressure Evaluation below for pressures based on testing in Reference 1.



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Product Design Pressure Evaluation: Products covered by this evaluation include the following.

- D4 Siding (Reference 1.a test report)
 - Tested in accordance with TAS 202 and TAS 203 per MD Vinyl Siding & Soffit Approval Checklist.
 - Safety Factor of 1.5 used.
 - Test Pressure = average of 3 specimens = $(45 + 45 + 40)/3 = 43.33$ psf.
 - Pressure Equalization Factor = 0.5 per MD Vinyl Siding & Soffit Approval Checklist
 - Design Pressure = $43.33/(1.5 \times 0.5) = -57.78$ psf
- D5/D5D Siding (Reference 1.b test report)
 - Tested in accordance with ASTM D5206 and ASTM D3679.
 - Safety Factor of 1.5 used.
 - Test Pressure = average of 3 specimens = $(50 + 50 + 45)/3 = 48.33$ psf.
 - Pressure Equalization Factor = 0.36 per ASTM D3679, Annex A
 - Design Pressure = $48.33/(1.5 \times 0.36) = -89.51$ psf

Performance Testing Reports and Evaluations:

- 1) Wind Resistance Testing
 - a) D4 Siding
 - i) Architectural Testing Inc., testing to TAS 202 and TAS 203 per MD Vinyl Siding & Soffit Approval Checklist, Test Report No. 98582.01-109-18, dated 06/14/10, Cedar Creek D4 PVC Siding, signed and sealed by Michael D. Stemmle, P.E.
 - b) D5/D5D Siding
 - i) Molimo Architectural Product Testing to ASTM D5206-13, Test Report No. 1286.01-106-11, dated 6/23/17, Hudson Bay D5
- 2) Materials Testing
 - a) Architectural Testing Report No. 94119.02-106-18, dated 6/1/10, signed and sealed by Joseph A. Reed, P.E. on 6/1/10.
 - i) ASTM D3679-05, Specification for Rigid Poly (Vinyl Chloride) (PVC) Siding
 - ii) ASTM D635-06, Standard Test Method for Rate of Burning and/or Extent and Time of Burning of Plastics in a Horizontal Position
 - (1) CC1 Rating
 - iii) ASTM D1929-96(2000)e1, Standard Test Method for Determining Ignition Temperature of Plastics
 - (1) Self-Ignition Temperature = 430°C to $450^{\circ}\text{C} > 343^{\circ}\text{C}$
 - (2) Flash Ignition Temperature = 370°C (not code requirement)
 - iv) ASTM D2843-99(2004)e1, Standard Test Method for Density of Smoke from the Burning or Decomposition of Plastics
 - (1) Smoke Density Rating of 37.1 to $40.4 \leq 75$
 - b) RADCO Test Report No. RAD-2132, dated 12/1998, signed and sealed by R.F. Tucker, P.E. on 12/23/98.
 - i) ASTM G26-96, Standard Practice for Operating Xenon Arc Light Apparatus for Exposure of Non-Metallic Materials.
 - (1) Weathering Evaluation – passed
 - ii) ASTM D638-96, Standard Test Method for Tensile Properties of Plastics
 - (1) Tensile Strength difference $9.15\% < 10\%$ allowed by MD Vinyl Siding & Soffit Approval Checklist – passed.
- 3) Engineering Evaluations
 - a) PTC Product Design Group, LLC, Engineering Evaluation Report No. 2471, Rev. 0, dated 1/9/17, Installation Anchorage for D4 Cedar Creek and Hudson Bay Vinyl Siding, signed and sealed by Robert J. Amoroso, P.E.



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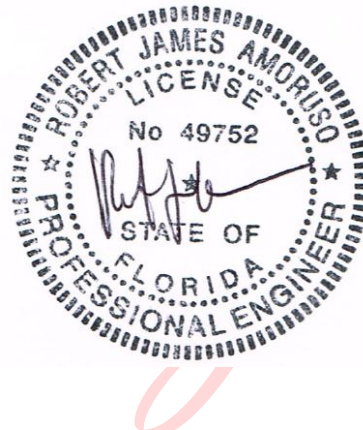
Limitations & Conditions of Use:

- The D4 siding product **HAS** been evaluated for use inside the High Velocity Hurricane Zone (HVHZ).
- The D5/D5D siding product **HAS NOT** been evaluated for use inside the High Velocity Hurricane Zone (HVHZ).
- Refer to Product Installation Instructions noted above for:
 - Maximum allowable wind loads.
 - Overall dimensions and material/grade of main product components, accessories, etc.
 - Illustrated diagrams of the attachment of the product to substrate structure.
 - Anchor type(s), size(s), substrate(s), embedment, edge distance, and spacing/locations.
- Site wind pressures shall be determined by a licensed professional engineer in accordance with the current edition of the Florida Building Code (and/or ASCE 7 as referenced in the current edition of the Florida Building Code) for components and cladding based on allowable stress design.
- Site conditions not covered in this product evaluation document are subject to additional engineering analysis by a licensed professional engineer or registered architect as required by the authority having jurisdiction.
- Adequacy of the existing structural substrates as a main wind force resisting system capable of withstanding and transferring applied product loads to the foundation is the responsibility of the licensed professional engineer or registered architect acting as the design professional of record for the project of installation.

Certificate of Independence per Product Approval Rule 61G20-3.009

PTC Product Design Group, LLC and Robert J. Amoruso, P.E. does not have, nor will acquire, any financial interest in the company manufacturing or distributing product(s) covered by this Product Evaluation Report.

PTC Product Design Group, LLC and Robert J. Amoruso, P.E. do not have, nor will acquire any financial interest in any other entity involved in the approval process or testing of the product(s) covered by this Product Evaluation Report.

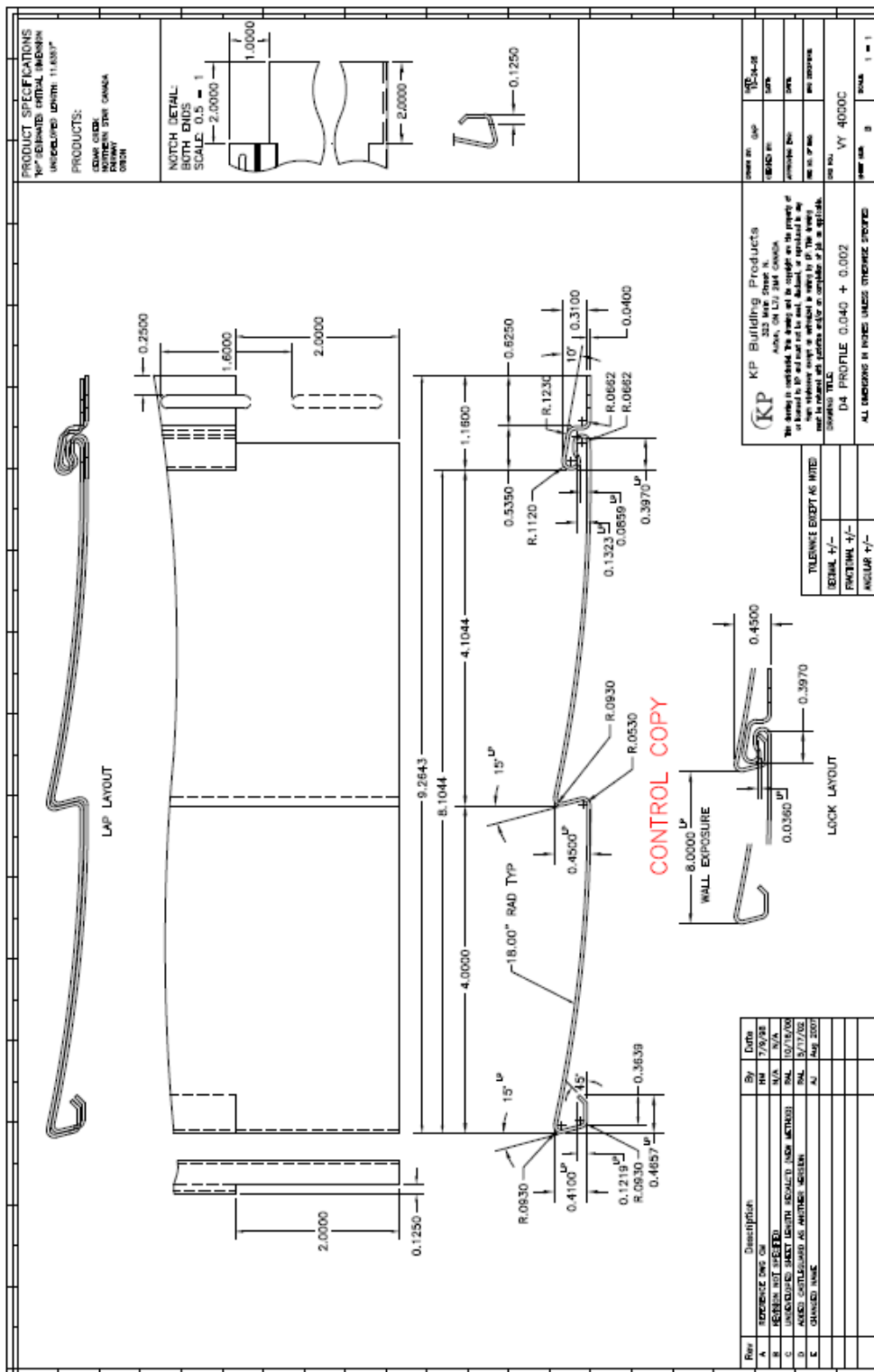


Digitally signed
by Robert J
Amoruso
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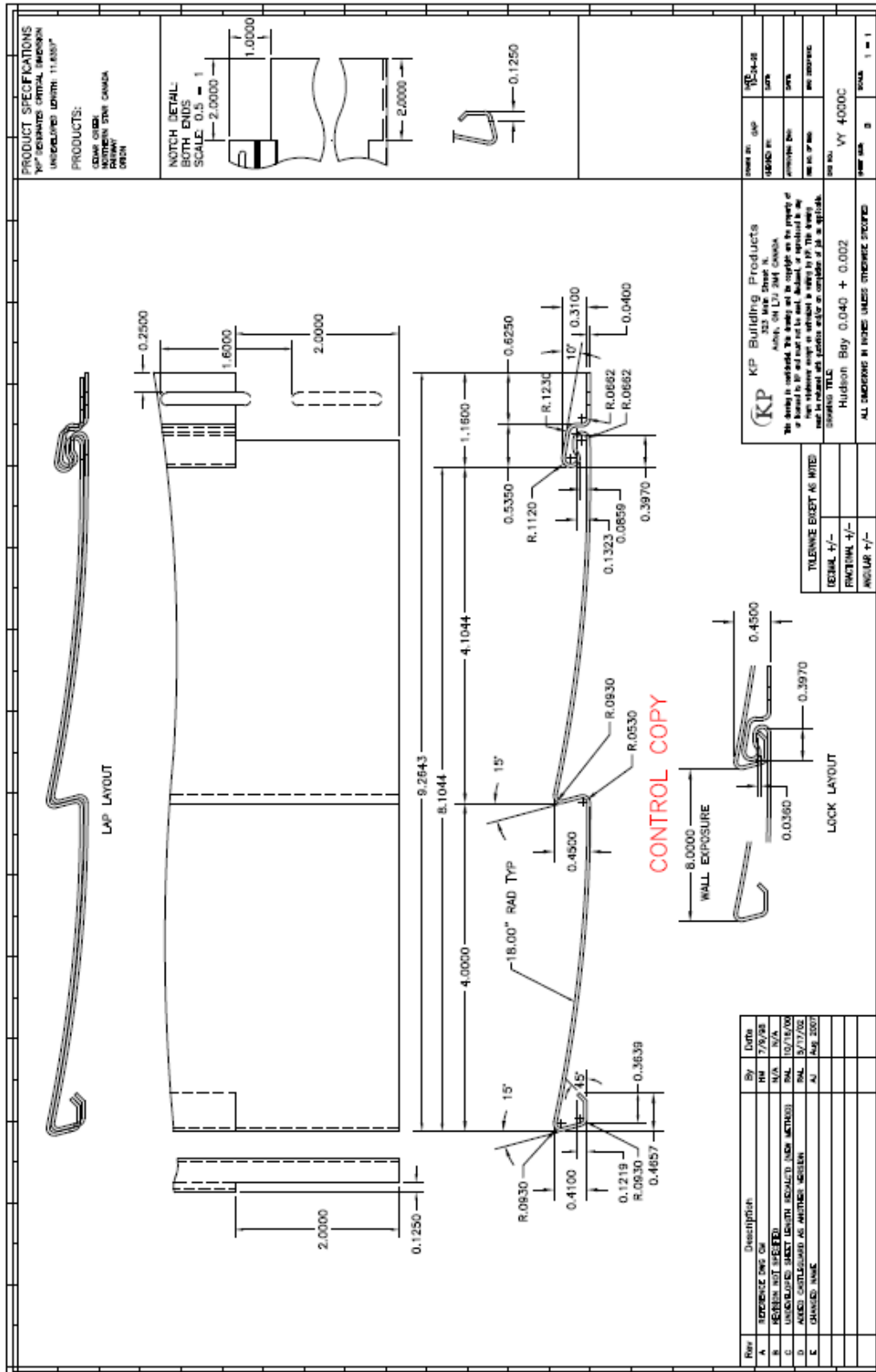
Evaluated By:
Robert J. Amoruso, P.E.
FL P.E. License Number 49752



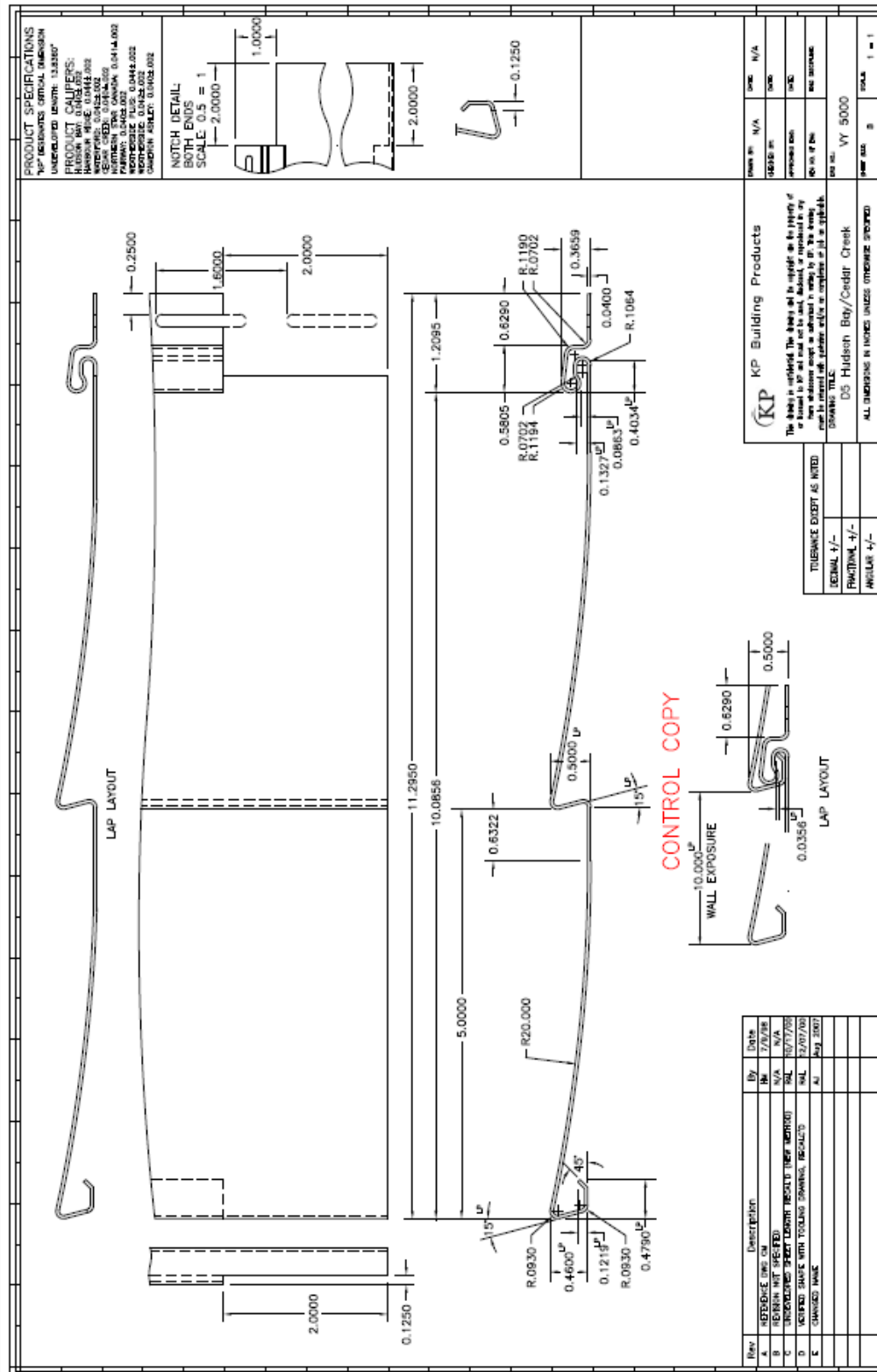
APPENDIX 1 – D4 Cedar Creek



APPENDIX 1 – D4 Hudson Bay



APPENDIX 1 – D5 Hudson Bay/Cedar Creek



APPENDIX 1 – D5D Hudson Bay/Cedar Creek

