KPH-DS-01-MTLV  C & I DISCLAIMER
KPH-PJ-01-MTLV  EXPANDED PANEL JOINT
KPH-PJ-02-MTLV  ENGAGED PANEL JOINT
KPH-PJ-03-MTLV  VERTICAL JOINT PROFILE
KPH-PJ-04-MTLV  VERTICAL JOINT
KPH-PJ-05-MTLV  VERT. JOINT BETWEEN STUDS
KPH-BS-01-MTLV  BASE DETAIL FLUSH
KPH-BS-02-MTLV  BASE DETAIL FLUSH W/ EXTRUSION
KPH-BS-03-MTLV  BASE AT NOTCHED CONCRETE
KPH-BS-04-MTLV  BASE AT OVERHANG (WITH BASE FLASHING)
KPH-OC-01-MTLV  OUTSIDE CORNER (MITERED TILE)
KPH-IC-01-MTLV  INSIDE CORNER
KPH-SF-01-MTLV  STOREFRONT WINDOW HEAD
KPH-SF-02-MTLV  STOREFRONT WINDOW JAMB
KPH-SF-03-MTLV  STOREFRONT WINDOW SILL
KPH-FO-01-MTLV  FRAMED OPENING HEAD
KPH-FO-02-MTLV  FRAMED OPENING JAMB
KPH-CW-01-MTLV  CURTAINWALL (FLUSH) HEAD
KPH-CW-02-MTLV  CURTAINWALL (FLUSH) JAMB
KPH-PR-01-MTLV  PARAPET DETAIL
KPH-PR-02-MTLV  PARAPET DETAIL OVERHANG CAP
KPH-LE-01-MTLV  LOW EAVE DETAIL
KPH-RD-01-MTLV  RAKE DETAIL
KPH-TP-01-MTLV  PANEL TERMINATION
KPH-TL-01-MTLV  TRIM END LAP
KPH-TL-02-MTLV  TRIM END LAP WITH HEM
DISCLAIMERS:

THESE DETAILS ARE PROVIDED AS A GUIDELINE FOR PROPER PANEL AND ASSOCIATED COMPONENT INSTALLATION, AND ARE BASED ON INDUSTRY ACCEPTED PRACTICES.

LOCATION OF VAPOR BARRIERS AND ASSOCIATED SEALANTS IN THESE DETAILS ARE BASED ON TYPICAL DESIGN PRACTICES FOR MOST U.S. AND CANADIAN CLIMACTIC ZONES. (THE PRIMARY VAPOR BARRIER IS PLACED ON THE "WARM" SIDE IN WINTER).

PROJECTS LOCATED IN AREAS SUBJECT TO EXTREME COLD AND/OR HIGH SNOW LOADS MAY REQUIRE MODIFICATIONS TO THESE DETAILS - CONTACT KINGSPAN TECHNICAL SERVICES FOR SPECIFIC PROJECT RECOMMENDATIONS.

ALL STRUCTURAL SUPPORTS ARE NOT BY KINGSPAN AND ARE SHOWN FOR CLARIFICATION AND ILLUSTRATION PURPOSES ONLY.

WALL SYSTEM DEFLECTIONS ARE TO BE DETERMINED BY THE ENGINEER OF RECORD.

ALL DETAILS ARE BASED ON TYPICAL STUD WALL CONSTRUCTION WITH SINGLE FASTENER. FOR ATTACHMENT TO OTHER WALL SUPPORT SYSTEMS, PLEASE CONTACT KINGSPAN TECHNICAL SERVICES FOR FASTENING RECOMMENDATIONS.

CONTACT KINGSPAN TECHNICAL SERVICES FOR MAXIMUM ALLOWABLE PANEL SPANS AND FASTENING PATTERNS.
**Facades - ACM**

- **KS24SL**
- **Continuous Butyl Sealant**
- **Continuous Butyl Sealant (Optional)**
- **Set Karrier™ Rail in Butyl Sealant at Fastener Locations**
- **1/8" - 14 Hex Head Fasteners with Washer**
- **Continuous Karrier™ Rail (Karrier™ Rail Available in 1"-3" Faces)**
- **Evo Mid-Clip (Typ)**
- **Evo Perimeter Extrusion (Typ)**
- **#10 Panhead Self-Drilling Stainless Steel Fastener**
- **Through Fastener as Required**

**Expanded Panel Joint**

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NOTE:
CONTACT KINGSPAN TECHNICAL SERVICES FOR SPECIFIC PROJECT RECOMMENDATIONS
VERTICAL JOINT

FILL GAPS $\frac{1}{4}''$ OR LARGER WITH F.I.P. INSULATION (NOT BY KINGSPAN)

CONTINUOUS BUTYL SEALANT WITH MARRIAGE BEAD TO HORIZONTAL PANEL JOINT

THROUGH FASTENER AT KARRIER™ RAIL (BELOW)

VERTICAL SUPPORT

OPTIONAL FRAMING

TRIPLE STUD

CONTINUOUS MENDING PLATE

$\frac{3}{8}''$ - 14 HEX HEAD FASTENERS WITH WASHER

SET KARRIER™ RAIL IN BUTYL SEALANT AT FASTENER LOCATIONS

#10 PANHEAD SELF-DRILLING STAINLESS STEEL FASTENER

EVO PERIMETER EXTRUSION (TYP)
VERTICAL SUPPORTS AT 16" O.C.

CONTINUOUS MENDING PLATE

CONTINUOUS BUTYL SEALANT WITH MARRIAGE BEAD TO HORIZONTAL PANEL JOINT

VERTICAL SUPPORT

FILL GAPS ¼" OR LARGER WITH F.I.P. INSULATION (NOT BY KINGSPAN)

⅜" - 14 HEX HEAD FASTENERS WITH WASHER

FILL GAPS ¼" OR LARGER WITH F.I.P. INSULATION (NOT BY KINGSPAN)

THROUGH FASTENER AT KARRIER™ RAIL (BELOW)

VERTICAL JOINT BETWEEN STUDS

DETAIL #: KPH-PJ-05-MTLV

DATE: 11/16/16

Kingspan
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Z-GIRT TO SUIT
(SET IN BUTYL SEALANT
AT FASTENER LOCATIONS)

#10 PANHEAD
SELF-DRILLING
STAINLESS STEEL
FASTENER

VERTICAL SUPPORTS
(NOT BY KINGSPAN)

1/4" - 14 HEX HEAD FASTENERS
WITH WASHER

CONTINUOUS BUTYL SEALANT
BOTH SIDES OF TRIM

1/4" - 14 HEX HEAD FASTENERS
WITH 1 1/8" BONDED WASHER

WEEP HOLE

BASE FLASHING

BASE DETAIL
FLUSH

DETAIL #: KPH-BS-01-MTLV
DATE: 11/16/16

Kingspan.
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FASTENER TO CONCRETE (NOT BY KINGSPAN)
ALUMINUM BASE EXTRUSION
FILL VOID WITH COMPRESSIBLE FOAM CLOSURE

1/4" - 14 HEX HEAD FASTENERS WITH WASHER
CONTINUOUS BUTYL SEALANT AT PANEL JOINT
CONTINUOUS BUTYL SEALANT
1/4" - 14 HEX HEAD FASTENERS WITH WASHER
BASE CHANNEL SET IN SEALANT (NOT BY KINGSPAN)

#10 PANHEAD SELF-DRILLING STAINLESS STEEL FASTENER

VERTICAL SUPPORTS (NOT BY KINGSPAN)

Z-GIRT TO SUIT (SET IN BUTYL SEALANT AT FASTENER LOCATIONS)

1/16" EVO PERIMETER EXTRUSION (TYP)
WEEP HOLE
BASE FLASHING
EVO STARTER EXTRUSION (TYP)
CONTINUOUS BUTYL SEALANT BELOW BASE FLASHING (AIR SEAL)

FASTENER TO CONCRETE (NOT BY KINGSPAN)
ALUMINUM BASE EXTRUSION
FILL VOID WITH COMPRESSIBLE FOAM CLOSURE

BASE DETAIL
FLUSH WITH EXTRUSION

DETAIL #: KPH-BS-02-MTLV
DATE: 11/16/16
VERTICAL SUPPORTS (NOT BY KINGSPAN)

CONTINUOUS BUTYL SEALANT

FASTENER TO CONCRETE (NOT BY KINGSPAN)

BASE CHANNEL SET IN SEALANT (NOT BY KINGSPAN)

CONTINUOUS BUTYL SEALANT BELOW BASE FLASHING (AIR SEAL)

Z-GIRT TO SUIT (SET IN BUTYL SEALANT AT FASTENER LOCATIONS)

¾" - 14 HEX HEAD FASTENERS WITH WASHER

#10 PANHEAD SELF-DRILLING STAINLESS STEEL FASTENER

EVO PERIMETER EXTRUSION (TYP)

EVO STARTER EXTRUSION (TYP)

BASE FLASHING

WEEP HOLE

BASE AT NOTCHED CONCRETE

DETAIL #: KPH-BS-03-MTLV

DATE: 11/16/16
VERTICAL SUPPORTS
(NOT BY KINGSPAN)

CONTINUOUS BUTYL SEALANT
FASTENER TO CONCRETE
(NOT BY KINGSPAN)
BASE CHANNEL SET IN SEALANT (NOT BY KINGSPAN)

CONTINUOUS BUTYL SEALANT
BOTH SIDES OF TRIM

¼" - 14 HEX HEAD FASTENERS WITH WASHER

Z-GIRT TO SUIT
(SET IN BUTYL SEALANT AT FASTENER LOCATIONS)

#10 PANHEAD SELF-DRILLING STAINLESS STEEL FASTENER

EVO PERIMETER EXTRUSION (TYP)

WEEP HOLE

BASE FLASHING

FASTENER TO CONCRETE
(NOT BY KINGSPAN)

BASE CHANNEL SET IN SEALANT (NOT BY KINGSPAN)

CONTINUOUS BUTYL SEALANT
NOTCH THE KARRIER™ RAIL AS NECESSARY TO ALLOW FOR THE INSTALLATION OF THE CORNER TRIM AND/OR MEMBRANE MATERIAL

#10 PANHEAD SELF-DRILLING STAINLESS STEEL FASTENER

CONTINUOUS KARRIER™ RAIL

F.I.P. INSULATION AS REQUIRED (BY OTHERS)

OUTSIDE CORNER TRIM

FIELD MITER CUT PANELS

POPC RIVETS

THROUGH FASTENER AT KARRIER™ RAIL (BELOW)

EVO PERIMETER EXTRUSION (TYP)

CONTINUOUS BUTYL SEALANT AT PANEL JOINT

EVO MID-CLIP (TYP)

SET KARRIER™ RAIL IN BUTYL SEALANT AT FASTENER LOCATIONS

¼" - 14 HEX HEAD FASTENERS WITH WASHER

CONTINUOUS BUTYL SEALANT WITH MARRIAGE BEAD TO HORIZONTAL PANEL JOINT

INSIDE CORNER TRIM

VERTICAL SUPPORT (NOT BY KINGSSPAN)
NOTCH THE KARRIER™ RAIL AS NECESSARY TO ALLOW FOR THE INSTALLATION OF THE CORNER TRIM AND/OR MEMBRANE MATERIAL

SET KARRIER™ RAIL IN BUTYL SEALANT AT FASTENER LOCATIONS

F.I.P. INSULATION AS REQUIRED (BY OTHERS)

CONTINUOUS BUTYL SEALANT AT PANEL JOINT

VERTICAL SUPPORT

3/4" - 14 HEX HEAD FASTENERS WITH WASHER

CONTINUOUS BUTYL SEALANT WITH MARRIAGE BEAD TO HORIZONTAL PANEL JOINT

POP RIVETS

CONTINUOUS KARRIER™ RAIL

EVO PERIMETER EXTRUSION (TYP)

#10 PANHEAD SELF-DRILLING STAINLESS STEEL FASTENER

CONTINUOUS KARRIER™ RAIL

INSIDE CORNER TRIM

OUTSIDE CORNER TRIM

INSIDE CORNER TRIM

POP RIVETS

EVO MID-CLIP (TYP)

CONTINUOUS BUTYL SEALANT AT PANEL JOINT

DETAIL #: KPH-IC-01-MTLV

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SEALANT AT FASTENER LOCATIONS

1/4" - 14 HEX HEAD FASTENERS WITH WASHER

CONTINUOUS BUTYL SEALANT BOTH SIDES OF TRIM W/ MARRIAGE BEAD TO HORIZONTAL JOINT

INTERIOR CAP TRIM

SET KARRIER™ RAIL IN BUTYL SEALANT AT FASTENER LOCATIONS

INSULATED METAL KARRIER PANEL (IMP)

INTERNAL FINISH TO ARCHITECTS DESIGN

VERTICAL SUPPORT AT 16" O.C. (NOT BY KINGSPAN)

WINDOW BY OTHERS

WEATHER SEAL BY WINDOW INSTALLER

THROUGH FASTENER AT KARRIER™ RAIL (BELOW)

JAMB FLASHING W/ OPEN HEM RETURN

#10 PANHEAD SELF-DRILLING STAINLESS STEEL FASTENER

EVO STARTER EXTRUSION (TYP)

EVO PERIMETER EXTRUSION (TYP)

STOREFRONT WINDOW JAMB

DETAIL #: KPH-SF-02-MTLV

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WEATHER SEAL BY WINDOW INSTALLER

WINDOW SILL FLASHING

\( \frac{3}{8} '' - 14 \) HEX HEAD FASTENERS WITH 1 3\( \frac{1}{16}'' \) BONDED WASHER

EVO PERIMETER EXTRUSION (TYP)

EVO STARTER EXTRUSION (TYP)

#10 PANHEAD SELF-DRILLING STAINLESS STEEL FASTENER

Z-GIRT TO SUIT (SET IN BUTYL SEALANT AT FASTENER LOCATIONS)

WINDOW BY OTHERS INTERNAL FINISH TO ARCHITECTS DESIGN

\( \frac{3}{8} '' - 14 \) HEX HEAD FASTENERS WITH WASHER

INSULATED METAL KARRIER PANEL (IMP)

VERTICAL SUPPORT AT 16'' O.C. (NOT BY INGSPAN)

STOREFRONT WINDOW SILL

DETAIL #: KPH-SF-03-MTLV

DATE: 11/16/16
DOOR, DOOR FRAME AND COMPONENTS

CONTINUOUS BUTYL SEALANT BOTH SIDES OF TRIM

1/4" - 14 HEX HEAD FASTENERS WITH WASHER

CONTINUOUS BUTYL SEALANT BOTH SIDES OF TRIM

1/4" - 14 "LOW PROFILE" THROUGH FASTENER

Z-GIRT TO SUIT (SET IN BUTYL SEALANT AT FASTENER LOCATIONS)

#10 PANHEAD SELF-DRILLING STAINLESS STEEL FASTENER

EVO PERIMETER EXTRUSION (TYP)

EVO STARTER EXTRUSION (TYP)

FIELD CUT FEMALE JOINTS WHERE REQUIRED

WEATHER SEAL BY INSTALLER

WEEP

DRIP FLASHING

FACADES - ACM

FRAMED OPENING HEAD

DETAIL #: KPH-FO-01-MTLV

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DOOR, DOOR FRAME AND COMPONENTS (NOT BY KINGSPAN)
DOOR, DOOR FRAME AND COMPONENTS (NOT BY KINGSPAN)

INTERNAL FINISH TO ARCHITECTS DESIGN

VERTICAL SUPPORT AT 16" O.C. (NOT BY KINGSPAN)

¼" - 14 HEX HEAD FASTENERS WITH WASHER

CONTINUOUS BUTYL SEALANT BOTH SIDES OF TRIM W/MARRIAGE BEAD TO HORIZONTAL JOINT

INTERIOR CAP TRIM

SET KARRIER™ RAIL IN BUTYL SEALANT AT FASTENER LOCATIONS

INSULATED METAL KARRIER PANEL (IMP)

WEATHER SEAL BY WINDOW INSTALLER

THROUGH FASTENER AT KARRIER™ RAIL (BELOW)

JAMB FLASHING W/ OPEN HEM RETURN

9/16"

13/4"

#10 PANHEAD SELF-DRILLING STAINLESS STEEL FASTENER

EVO STARTER EXTRUSION (TYP)

EVO PERIMETER EXTRUSION (TYP)

FRAMED OPENING JAMB

DETAIL #: KPH-FO-02-MTLV

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CONTINUOUS BUTYL SEALANT BOTH SIDES OF TRIM

\(1\frac{3}{4}''\) - 14 HEX HEAD FASTENERS WITH WASHER

\(\frac{3}{8}''\) - 14 "LOW PROFILE" THROUGH FASTENER

Z-GIRT TO SUIT (SET IN BUTYL SEALANT AT FASTENER LOCATIONS)

#10 PANHEAD SELF-DRILLING STAINLESS STEEL FASTENER

EVO PERIMETER EXTRUSION (TYP)

FIELD CUT FEMALE JOINTS WHERE REQUIRED

WEATHER SEAL BY INSTALLER

CURTAINWALL SYSTEM BY OTHERS

CURTAINWALL (FLUSH) HEAD

DATE: 11/16/16
NOTCH THE KARRIER™ RAIL AS NECESSARY TO ALLOW FOR THE INSTALLATION OF THE CORNER TRIM AND/OR MEMBRANE MATERIAL.

INTERNAL FINISH TO ARCHITECTS DESIGN.

VERTICAL SUPPORT AT 16" O.C. (NOT BY KINGSPAN).

WEATHER SEAL BY WINDOW INSTALLER.

CONTINUOUS BUTYL SEALANT BOTH SIDES OF TRIM W/ MARRIAGE BEAD TO HORIZONTAL JOINT.

INTERIOR CAP TRIM.

SET KARRIER™ RAIL IN BUTYL SEALANT AT FASTENER LOCATIONS.

INSULATED METAL KARRIER PANEL (IMP).

EPDM MEMBRANE BONDED TO FACE OF PANEL (BY OTHERS).

#10 PANHEAD SELF-DRILLING STAINLESS STEEL FASTENER.

EVO STARTER EXTRUSION (TYP).

EVO PERIMETER EXTRUSION (TYP).
WRAP MEMBRANE OVER PANEL FACE (NOT BY KINGSPAN)

PARAPET CAP FLASHING

TRIM FASTENER

EVO STARTER EXTRUSION (TYP)

EVO PERIMETER EXTRUSION (TYP)

#10 PANHEAD SELF-DRILLING STAINLESS STEEL FASTENER

Z-GIRT TO SUIT (SET IN BUTYL SEALANT AT FASTENER LOCATIONS)

INSULATED METAL KARRIER PANEL (IMP)

CONTINUOUS BUTYL SEALANT

PARAPET BLOCKING (NOT BY KINGSPAN)

SLOPE

FASTENER TO PARAPET BACKER (NOT BY KINGSPAN)

½" - 14 HEX HEAD FASTENERS WITH WASHER

PARAPET DETAIL

DETAIL #:  KPH-PR-01-MTLV

DATE:  11/16/16
PARAPET DETAIL
OVERHANG CAP

WRAP MEMBRANE OVER PANEL FACE (NOT BY KINGSPAN)

#10 PANHEAD SELF-DRILLING STAINLESS STEEL FASTENER

EVO PERIMETER EXTRUSION (TYP)

EVO MID-CLIP (TYP)

Z-GIRT TO SUIT (SET IN BUTYL SEALANT AT FASTENER LOCATIONS)

INSULATED METAL KARRIER PANEL (IMP)

PARAPET BLOCKING (NOT BY KINGSPAN)

PARAPET CAP

\( \frac{3}{8} '' - 14 \) HEX HEAD FASTENERS WITH 1 \( \frac{1}{8} '' \) BONDED WASHER

CONTINUOUS BUTYL SEALANT

\( \frac{3}{8} '' - 14 \) HEX HEAD FASTENERS WITH WASHER

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REFER TO 900/1000 SERIES ROOF PANEL DETAILS FOR ADDITIONAL INFORMATION

FIP INSULATION AS REQUIRED

EVO STARTER EXTRUSION (TYP)

COUNTER FLASHING

EVO PERIMETER EXTRUSION (TYP)

#10 PANHEAD SELF-DRILLING STAINLESS STEEL FASTENER

Z-GIRT TO SUIT (SET IN BUTYL SEALANT AT FASTENER LOCATIONS)

INSULATED METAL KARRIER PANEL (IMP)

LOW EAVE DETAIL

DETAIL #: KPH-LE-01-MTLV

DATE: 11/16/16
RAKE DETAIL

- **EVO STARTER EXTRUSION (TYP)**
- **RAKE ANGLE** (NOT BY KINGSPAN)
- **REFER TO 900/1000 SERIES ROOF PANEL DETAILS FOR ADDITIONAL INFORMATION**
- **CONTINUOUS BUTYL SEALANT**
- **1/4" - 14 HEX HEAD FASTENERS WITH 1 1/8" BONDED WASHER**
- **1/4" - 14 HEX HEAD FASTENERS WITH WASHER**
- **FIP INSULATION AS REQUIRED**
- **RAKE FLASHING**
- **Z-GIRT TO SUIT** (SET IN BUTYL SEALANT AT FASTENER LOCATIONS)
- **EVO PERIMETER EXTRUSION (TYP)**
- **#10 PANHEAD SELF-DRILLING STAINLESS STEEL FASTENER**
- **INSULATED METAL KARRIER PANEL (IMP)**

**RAKE DETAIL**

**DETAILED**: KPH-RD-01-MTLV

**DATE**: 11/16/16

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STRUCTURAL SUPPORTS (NOT BY KINGSPAN)
CAP TRIM
BACKER ROD & SEALANT (NOT BY KINGSPAN)

\(\frac{3}{4}"\) - 14 HEX HEAD FASTENERS WITH WASHER
CONTINUOUS BUTYL SEALANT BOTH SIDES OF TRIM W/ MARRIAGE BEAD TO HORIZONTAL PANEL JOINT
SET KARRIER™ RAIL IN BUTYL SEALANT AT FASTENER LOCATIONS
CONTINUOUS KARRIER RAIL
THROUGH FASTENER AT KARRIER™ RAIL (BELOW)
#10 PANHEAD SELF-DRILLING STAINLESS STEEL FASTENER
EVO STARTER EXTRUSION (TYP)
EVO PERIMETER EXTRUSION (TYP)

PANEL TERMINATION

DETAIL #: KPH-TP-01-MTLV
DATE: 11/16/16
Facades - ACM

Trim End Lap

(2) Beads
Butyl Sealant

MIN. 3" TRIM LAP

MIN. 3" TRIM LAP

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Facades - ACM

Field Notch Hem(s) as Required
(Not by Kingspan)

(2) Beads
Butyl Sealant

Trim End Lap with Hems