

KNOTWOOD - GENERIC GUARDRAIL

SHOP DRAWINGS

PROPERTY MANAGER:
PER ARCHITECT / ENGINEER

DESIGN ENGINEER:
PVE, LLC
2000 GEORGETOWN DRIVE, SUITE 101
SEWICKLEY, PA 15143

DRAWING LIST			LATEST REVISION	DATE
T-100	-	TITLE SHEET		
G-100	-	GENERAL NOTES		
A-100	-	HORIZONTAL SLAT TYP GUARDRAIL PLAN & EL		
A-101	-	HORIZONTAL SLAT TYP GUARDRAIL DETAILS		
A-200	-	VERTICAL SLAT TYP GUARDRAIL PLAN & EL		
A-201	-	VERTICAL SLAT TYP GUARDRAIL DETAILS		
A-300	-	MISCELLANEOUS GUARDRAIL DETAILS		

PREPARED FOR:

K

KNOTWOOD™

Stunning Aluminum

5555 W Roosevelt St

Phoenix, AZ 85043

ISSUED FOR:

ISSUED DATE: 05/15/2024

PLAN REVISIONS		
NO.	DATE	DESCRIPTION

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PROJECT NAME:

KNOTWOOD - GENERIC GUARDRAIL
DRAWINGS

PROJECT LOCATION:

DRAWING NAME:

TITLE SHEET

ABBREVIATIONS:

ABV	ABOVE
ACI	AMERICAN CONCRETE INSTITUTE
ACIP	AUGERED CAST-IN-PLACE PILES
ADD'L	ADDITIONAL
AE	AIR-ENTRAINED
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
APPROX	APPROXIMATELY
AR	ANCHOR ROD
ARCH	ARCHITECTURAL
ASCE	AMERICAN SOCIETY OF CIVIL ENGINEERS
ASTM	AMERICAN SOCIETY FOR TESTING & MATERIALS
AWS	AMERICAN WELDING SOCIETY
B	BOTTOM
B/	BOTTOM OF
BH	BULKHEAD
BLDG	BUILDING
BM	BEAM
BOT	BOTTOM
CJP	COMPLETE JOINT PENETRATION
CLR	CLEAR

ABBREVIATIONS (CONT.):

CLSM	CONTROLLED LOW STRENGTH MATERIAL
CMU	CONCRETE MASONRY UNIT
CO	CLEAN OUT
COL	COLUMN
CONC	CONCRETE
CONT	CONTINUOUS
COORD	COORDINATE
COTR	CONTRACTING OFFICER'S TECHNICAL REPRESENTATIVE
db	REINFORCING BAR DIAMETER
DIA	DIAMETER
DN	DOWN
DTLS	DETAILS
DWG	DRAWING
DWLS	DOWELS
E	EXISTING
EA	EACH
EF	EACH FACE
EL	ELEVATION
ELECT	ELECTRICAL
ELEV	ELEVATOR
EMBED	EMBEDMENT

ABBREVIATIONS (CONT.):

EOS	EDGE OF SLAB
EQ	EQUAL
EQUIP	EQUIPMENT
EW	EACH WAY
EXIST	EXISTING
EXP	EXPANSION
FT	FOOT/FEET
FTG	FOOTING
FE	FIRE ESCAPE
GALV	GALVANIZE
GL	GRIDLINE
H	HIGH
HORIZ	HORIZONTAL
HP	HIGH POINT
HS	HIGH STRENGTH
HSA	HEADED SHEAR ANCHOR
IN	INCH(ES)
IP	INFLECTION POINT
I.F.	INSIDE FACE
JT	JOINT
K	KIPS (1000 POUNDS)

ABBREVIATIONS (CONT.):

kN	KILONEWTON
kPa	KILOPASCAL
I	LITER
L	LENGTH
LBS	POUNDS
Ld	REINF BAR DEVELOPMENT LENGTH
LLH	LONG LEG HORIZ
LLV	LONG LEG VERT
LP	LOW POINT
LTWT	LIGHT WEIGHT
m	METER
mm	MILLIMETER
MAX	MAXIMUM
MANUF	MANUFACTURER
MECH	MECHANICAL
MEP	MECH/ELECT/PLUMBING
MIN	MINIMUM
MPa	MEGAPASCAL
MTL	METAL
N	NEWTON
NLWT	NORMAL WEIGHT

ABBREVIATIONS (CONT.):

(N)	NEW
OC	ON CENTER
OPNG	OPENING
OPP	OPPOSITE
O.F.	OUTER FACE
PJP	PARTIAL JOINT PENETRATION
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	POST-TENSION
R	RISER
REF	REFERENCE
REINF	REINFORCING OR REINFORCEMENT
REQ'D	REQUIRED
SCHED	SCHEDULE
SC	SLIP CRITICAL
SDI	STEEL DECK INSTITUTE
SDL	SUPERIMPOSED DEAD LOAD
SEC	SECONDS
SIM	SIMILAR
SJI	STEEL JOIST INSTITUTE
SLV	SHORT LED (DIM) VERTICAL

ABBREVIATIONS (CONT.):

SOG	SLAB-ON-GRADE
STD	STANDARD
STL	STEEL
STRUCT	STRUCTURAL
T	TOP OF TREAD
T/	TOP OF
TOF	TOP OF FOOTING
TOS	TOP OF STEEL
THK	THICK
TMS	THE MASONRY SOCIETY
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
VERT	VERTICAL
W/C	WATER-CEMENTITIOUS MATERIAL RATIO
W	WIDTH
WD	WOOD
WP	WORK POINT
WWR	WELDED WIRE REINFORCEMENT

GENERAL NOTES:

1. DRAWING REFERENCE:
N/A
2. CONTRACTOR TO VERIFY ALL DIMENSIONS IN FIELD PRIOR TO INSTALLATION. DO NOT SCALE OFF DRAWINGS.
3. ALL MEMBERS SHALL BE SAW CUT IN FIELD AS REQUIRED.
4. NO SPLICES SHALL BE PERMITTED UNLESS INDICATED OTHERWISE ON DRAWINGS.
5. TOUCH UP ALL SCRATCHES WITH DEALER PROVIDED COLORS TO MATCH.
6. WELDING IS NOT PERMITTED, UNLESS OTHERWISE INDICATED ON DRAWINGS.
7. THE CONTENTS SHOW THE APPLICATION OF ALUMINUM KNOTWOOD FRAMING COMPONENTS ONLY. THE INSTALLING CONTRACTOR IS TO REFER TO THE PROJECT DOCUMENTS FOR ADDITIONAL REQUIREMENTS.
8. DIMENSIONS HEREIN ARE FOR ENGINEERING PURPOSES ONLY AND MUST BE REVIEWED FOR THE PURPOSE OF APPROVAL. ALL CONDITIONS ARE SUBJECT TO APPROVAL AND TO FIELD VERIFICATION PRIOR TO FABRICATION OR INSTALLATION.
9. BEFORE ORDERING, FABRICATING OR ERECTING ANY MATERIAL, MAKE ANY NECESSARY SURVEYS AND MEASUREMENTS TO VERIFY THAT IN PLACE WORK HAS BEEN BUILT ACCORDING TO THE CONTRACT DOCUMENTS AND ARE WITHIN ACCEPTABLE TOLERANCES. THIS INCLUDES THE ORIGINAL BUILDINGS AND ALL ADDITIONS THERETO. NOTIFY THE A/E AND OWNER'S REPRESENTATIVES OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
10. TEMPORARY BRACING OF THE SYSTEM AND SAFETY DURING CONSTRUCTION IS SOLELY THE RESPONSIBILITY OF THE CONTRACTOR. TEMPORARY BRACING OF THE SYSTEM SHALL REMAIN IN PLACE UNTIL THE SYSTEM IS TOTALLY IN PLACE. CONTRACTOR SHALL COORDINATE LOCATIONS OF TEMPORARY BRACING WITH OTHER CONTRACTORS. REFER TO DRAWINGS FOR ADDITIONAL CRITERIA.
11. THIS SUBMITTAL IS SUBJECT TO THE REVIEW AND APPROVAL OF THE PROJECT ARCHITECT/ENGINEER OF RECORD PRIOR TO INSTALLATION.

BUILDING LOADS:

1. SUPERIMPOSED DEAD LOAD AND LIVE LOADS

a. DEAD LOAD

1. KESP2W65651.72 PLF

2. KESP2C6565EF1.37 PLF

3. KESP1W65250.96 PLF

4. KES150160.90 PLF

5. KES100160.60 PLF

6. KES65160.33 PLF

b. LIVE LOADS

1. TOP RAIL50 PLF

2. CONCENTRATED LOAD200 LBF

3. GUARDRAIL INFILL LOAD50 LBF
2. SNOW LOADS

a. N/A - SNOW LOADS NEGLECTED
3. WIND

a. SEE TABLES FOR MAX WIND LOADS
4. SEISMIC

a. N/A - SEISMIC LOADS NEGLECTED

CODES AND STANDARDS:

1. THE FOLLOWING CODES AND STANDARS, INCLUDING ALL SPECIFICATIONS REFERENCED WITHIN, APPLY TO THE DESIGN AND CONSTRUCTION OF THIS PROJECT WITH LATEST EDITION PER GOVERNING BUILDING CODE TO BE USED:

a. ASCE 7-16, "MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES"

b. IBC 2018, "INTERNATIONAL BUILDING CODE"

c. AA ADM-2015 "ALUMINUM DESIGN MANUAL"

d. ACI 318-14. "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE"

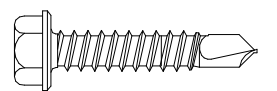
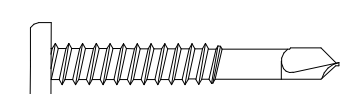


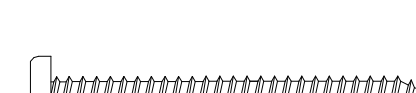

e. 7TH EDITION - 2020 FLORIDA BUILDING CODE
2. ASTM F 1679 STANDARD TEST METHOD FOR USING A VARIABLE INCIDENCE TRIBOMETER (VIT)
3. ASTM E 2126 STANDARD TEST METHODS FOR CYCLIC (REVERSED) LOAD TEST FOR SHEAR RESISTANCE OF VERTICAL ELEMENTS OF THE LATERAL FORCE RESISTING SYSTEMS FOR BUILDINGS

ALUMINUM NOTES:

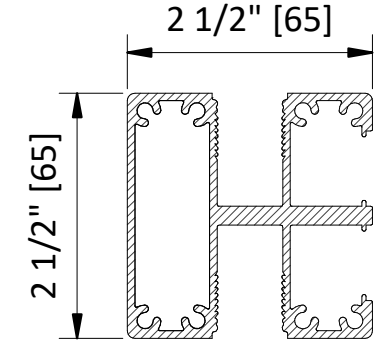
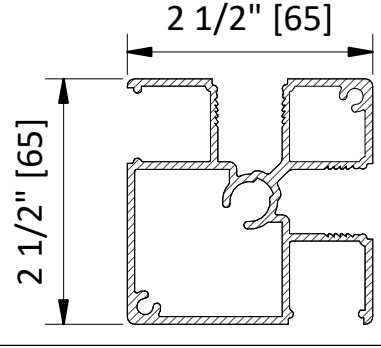
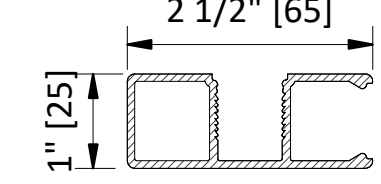
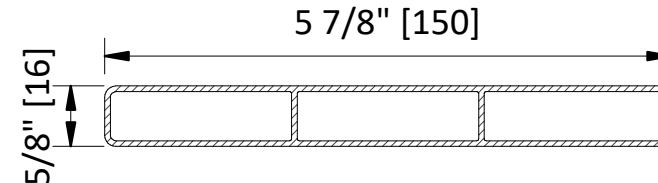
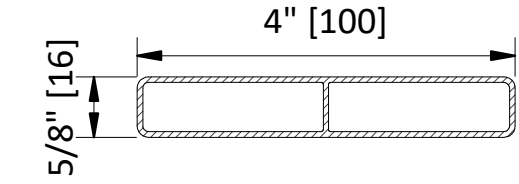
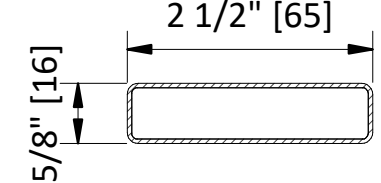
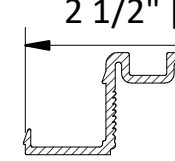
1. ALL STRUCTURAL ALUMINUM COMPONENTS SHALL BE FABRICATED AND ERECTED ACCORDING TO THE GOVERNING BUILDING CODE AND ADM-2015.
2. MATERIAL NOTES:
ALL SHAPES SHALL BE ONE OF THE FOLLOWING ALUMINUM ALLOYS AND TEMPER:
6061-T6 6063-T6 6063-T5
F_y: 35 KSI F_y: 25 KSI F_y: 16 KSI
F_u: 38 KSI F_u: 30 KSI F_u: 22 KSI
E: 10x10³ KSI E: 10x10³ KSI E: 10x10³ KSI
3. SCREWS:
SELF-TAPPING METAL SCREWS (AS NOTED) - #10 MINIMUM GALVANIZED UNLESS NOTED OTHERWISE
ALUMINUM WHERE NOTED AT HIGH/SALT EXPOSURE
4. WHERE ALUMINUM IS IN CONTACT WITH OTHER METALS EXCEPT 300 SERIES STAINLESS TELL, ZINC OR CADMIUM AND THE FAYING SURFACES ARE EXPOSED TO MOISTURE, THE OTHER METALS SHALL BE PAINTED OR COATED WITH ZINC, CADMIUM, OR ALUMINUM.
5. UNCOATED ALUMINUM SHALL NOT BE EXPOSED TO MOISTURE OR RUNOFF THAT HAS COME IN CONTACT WITH OTHER UNCOATED METALS EXCEPT 300 SERIES STAINLESS, ZINC, OR CADMIUM.
6. ALUMINUM SURFACES TO BE PLACED IN CONTACT WITH WOOD, FIBERBOARD, OR OTHER POROUS MATERIAL THAT ABSORBS WATER SHALL BE PAINTED.
7. ALUMINUM SURFACES SHALL BE PAINTED IF THEY ARE TO BE PLACED IN CONTACT WITH CONCRETE OR MASONRY UNLESS THE CONCRETE OR MASONRY REMAINS DRY AFTER CURING AND NO CORROSIVE ADDITIVES SUCH AS CHLORIDES ARE USED.
8. ALUMINUM SHALL NOT BE EMBEDDED IN CONCRETE WITH CORROSIVE ADDITIVES SUCH AS CHLORIDES IF THE ALUMINUM IS ELECTRICALLY CONNECTED TO STEEL. ALUMINUM EMBEDDED IN CONCRETE SHALL BE WRAPPED WITH 10 MIL PIPE WRAP OR PLASTIC TAPE. WRAP MUST PROTECT ALL ALUMINUM SURFACES FROM EXPOSURE TO CONCRETE.
9. AS AN ALTERNATIVE TO THE PREVIOUS REQUIREMENTS FOR ALUMINUM IN CONTACT WITH OTHER MATERIALS, ALUMINUM SHALL BE SEPARATED FROM THE MATERIALS OF THIS SECTION BY A NONPOROUS ISOLATOR COMPATIBLE WITH THE ALUMINUM AND THE DISSIMILAR MATERIAL.
10. STEEL FASTENERS WITH A MINIMUM TENSILE ULTIMATE STRENGTH GREATER THAN 120 KSI IN THE LOAD BEARING PORTION OF THE SHANK SHALL NOT BE USED IN CONTACT WITH ALUMINUM. ALL FASTENERS SHALL BE LOCATED AT A SPACING THAT CONFORMS TO AISC STANDARD GAGE AND PITCH.
11. BOLT HOLES SHALL BE DRILLED THE SAME NOMINAL DIAMETER AS THE BOLT + 1/16" (U.O.N.).
12. PREDRILL ALL HOLES FOR MATERIAL THICKER THAN 3/16".
13. NOMINAL DIAMETER OF UNTHREADED HOLES FOR SCREWS SHALL NOT EXCEED THE NOMINAL DIAMETER OF THE SCREWS BY MORE THAN 1/16".
14. THE SPACING BETWEEN SCREW CENTERS SHALL NOT BE LESS THAN 2.5 TIMES THE NOMINAL DIAMETER OF THE SCREWS.
15. THE DISTANCE FROM THE EDGE OF A PART TO THE CENTER OF THE SCREWS SHALL NOT BE LESS THAN 1.5 TIMES THE NOMINAL DIAMETER OF THE SCREW.
16. WASHERS SHALL HAVE A NOMINAL DIAMETER NOT LESS THAN 5/16" AND SHALL HAVE A NOMINAL THICKNESS NOT LESS THAN 0.050".

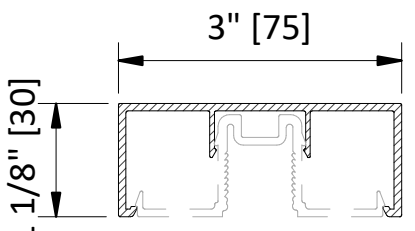
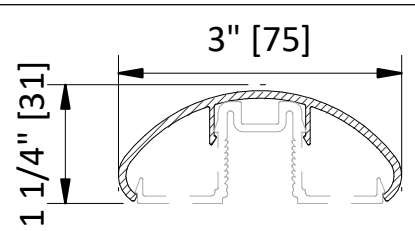
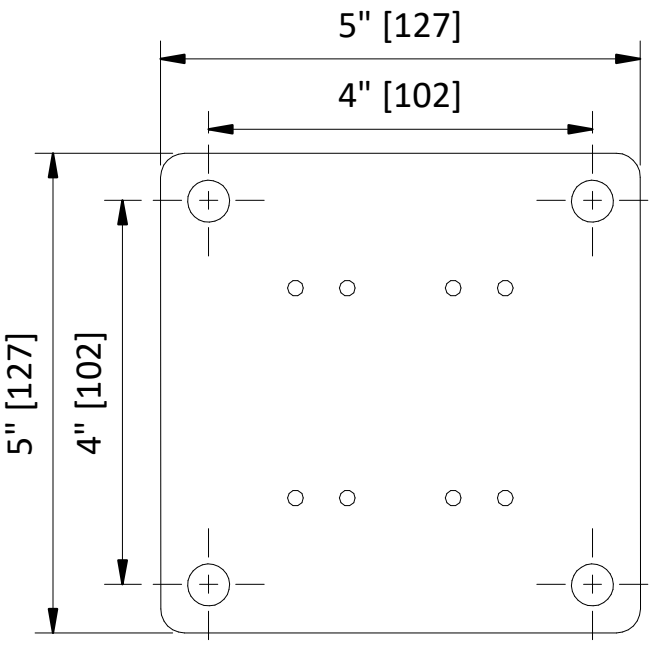
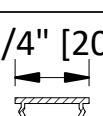
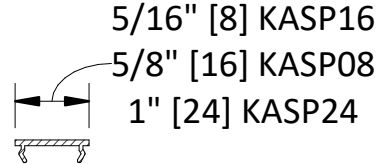
TYPICAL SCREW FASTENER LEGEND:

NOTE: SCREWS SHOWN BELOW ARE TYPICAL EXAMPLES AND ALL MAY NOT BE USED IN PROJECT. CONTRACTOR MAY ELECT TO USE OTHER TYPES. SCREW MATERIAL PER THE GENERAL NOTES AND MINIMUM SCREW DIAMETER PER THE DETAILS MUST BE MAINTAINED. DRILL POINT, HEAD STYLE, AND THREAD COUNT PER INCH SHALL BE SELECTED BY THE CONTRACTOR BASED ON THE APPLICATION.

#10-16X1" HEX WASHER HEAD (HWH) SELF DRILLING SCREW (5/16" HEX-HEAD) (METAL TO METAL) MANUF. PART NO. 10100HW3CS		TRIANGLE FASTENER 1-800-486-1832
#12-24X1-1/2" SD5 PANCAKE HEAD SELF DRILLING SCREW (2/2 QUADREX DRIVE) (METAL TO METAL) MANUF. PART NO. CSSD5-#12X1-1/2"-PC-QX-F		SFS INTECT 1-800-234-4533
#12-11X1" GP SELF DRILLING SCREW (2/2 QUADREX DRIVE) (THIN METAL) MANUF. PART NO. 12100SPCGCSTS		TRIANGLE FASTENER 1-800-486-1832
#10-16X5/8" BLAZER LO PROFILE PANCAKE HEAD SELF DRILLING SCREW (2/2 QUADREX DRIVE) (METAL TO METAL) MANUF. PART NO. CSSD5-#10X5/8"-PC-QX-F		TRIANGLE FASTENER 1-800-486-1832
#10-13X2" GP SELF DRILLING SCREW (2/2 QUADREX DRIVE) (THIN METAL) MANUF. PART NO. 10200SPCGCSTS		TRIANGLE FASTENER 1-800-486-1832
#12-24X4-3/4" CONCEALOR SELF DRILLING SCREW (#3 SQUARE) (METAL THRU EPS TO METAL) MANUF. PART NO. 126750C35E		TRIANGLE FASTENER 1-800-486-1832

ENLARGED PART DETAILS (VALUES IN [] ARE MM):

KESP2W6565	
KESP2C6565EF	
KESP1W6525	
KES15016	
KES10016	
KES6516	
KESBF	

KESBTFR	
KESBTFO	
KAOPGP65-10	
KESINFS	
KASP08 KASP16 KSAP24	

PREPARED BY:



PREPARED FOR:



ISSUED FOR:

ISSUED DATE:

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PROJECT NAME:

KNOTWOOD - GENERIC GUARDRAIL DRAWINGS

PROJECT LOCATION:

DRAWING NAME:

GENERAL NOTES

SEAL & SIGNATURE

PROJECT NO: 2110314

DRAWN BY:

CHECKED BY:

DRAWING NO:

G-100

PAGE NO:

PREPARED BY:



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KNOTWOOD - GENERIC GUARDRAIL DRAWINGS

PROJECT LOCATION:

DRAWING NAME:

HORIZONTAL SLAT TYP GUARDRAIL PLAN & EL

SEAL & SIGNATURE

PROJECT NO: 2110314

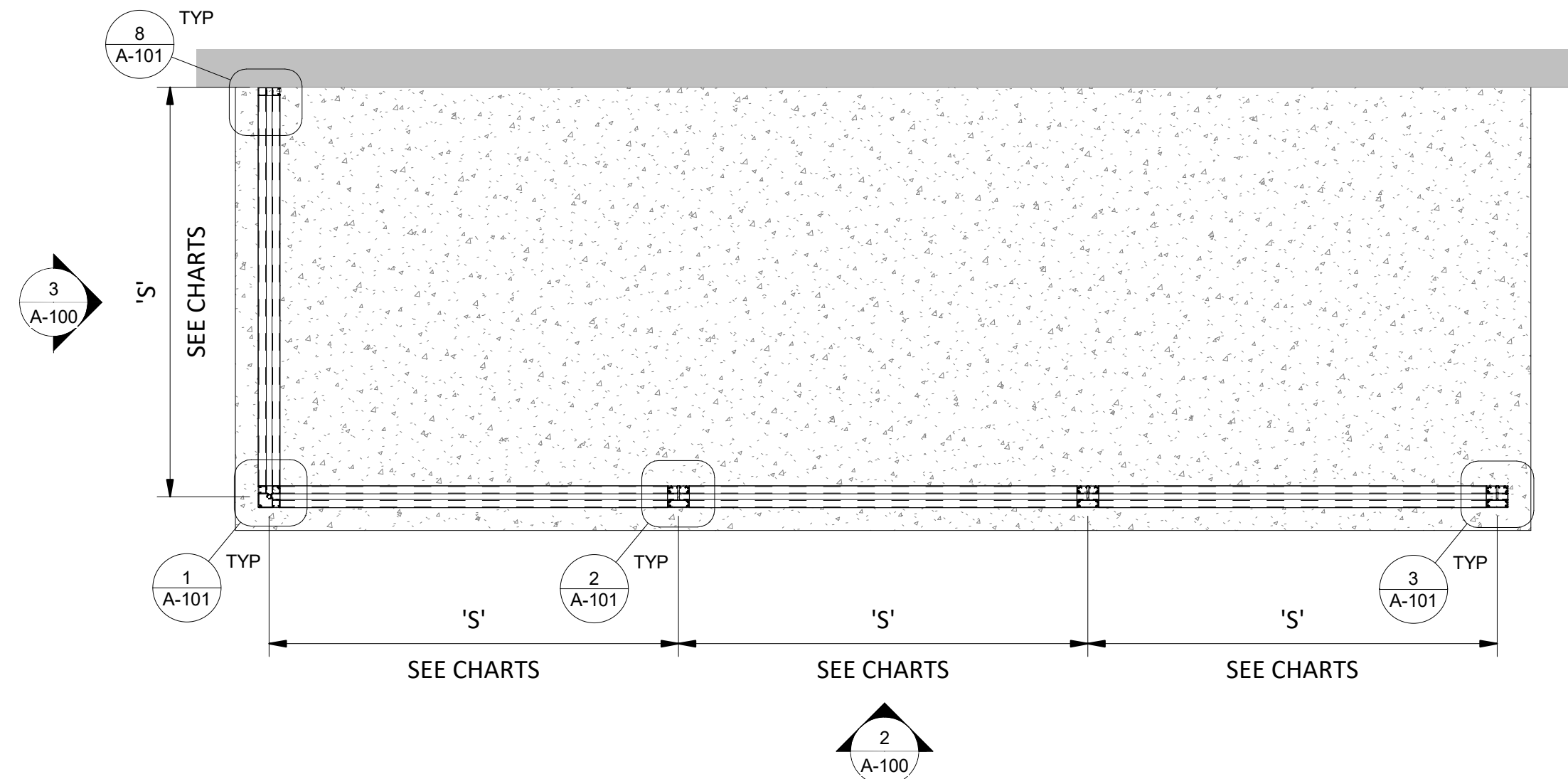
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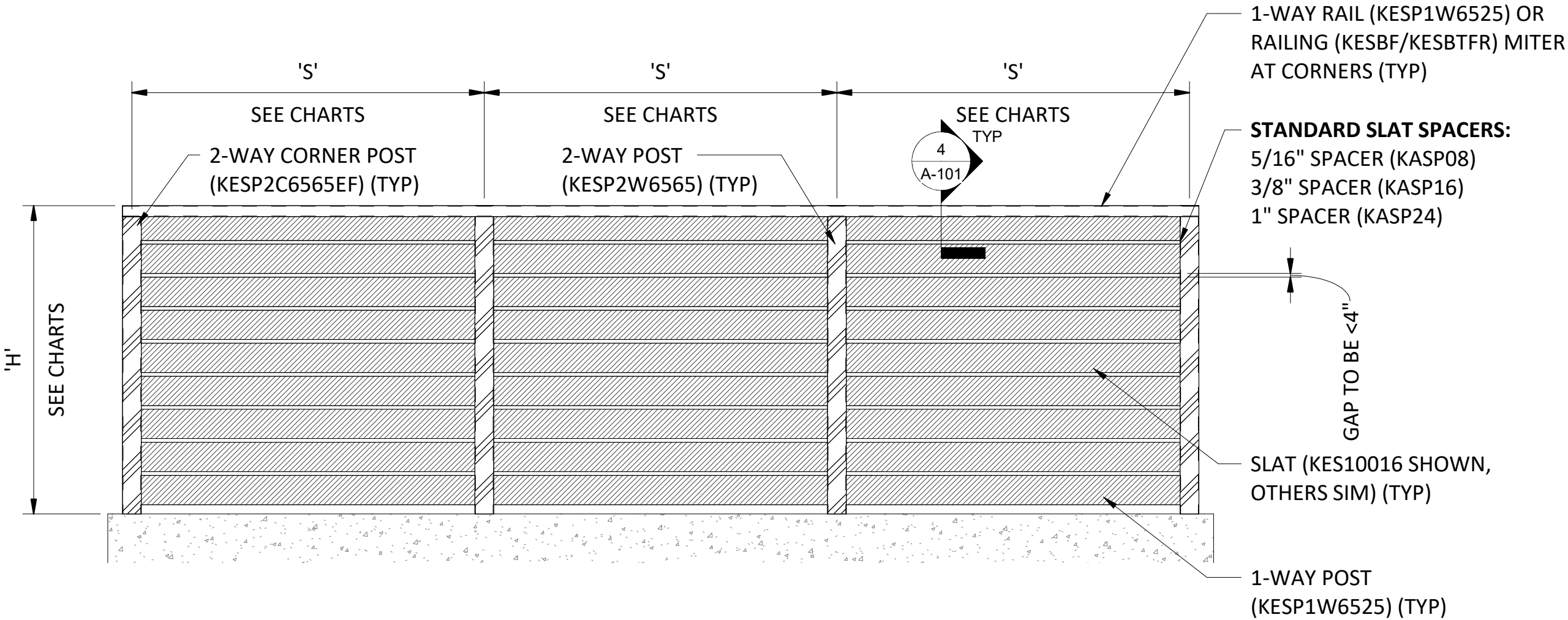
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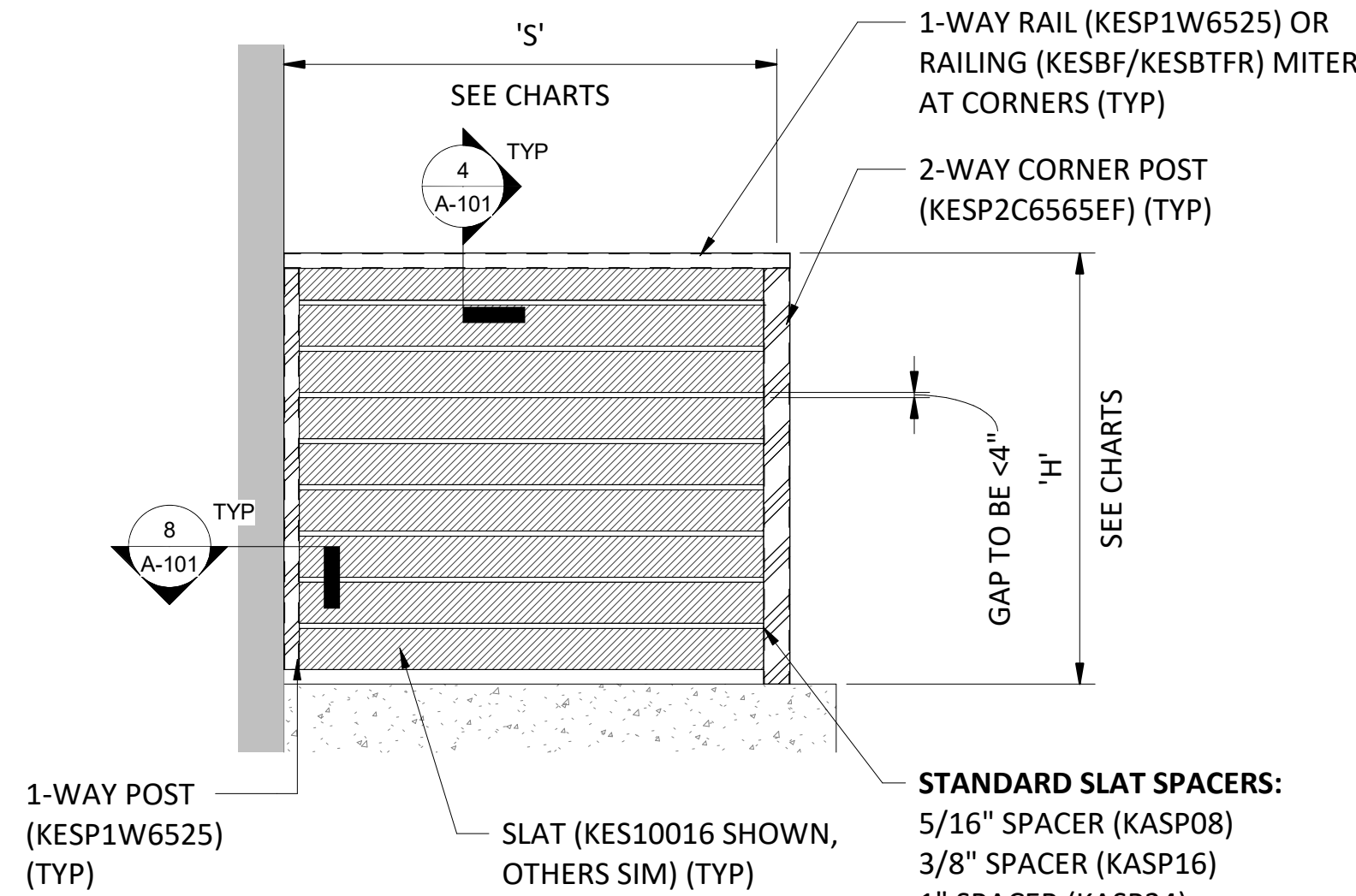
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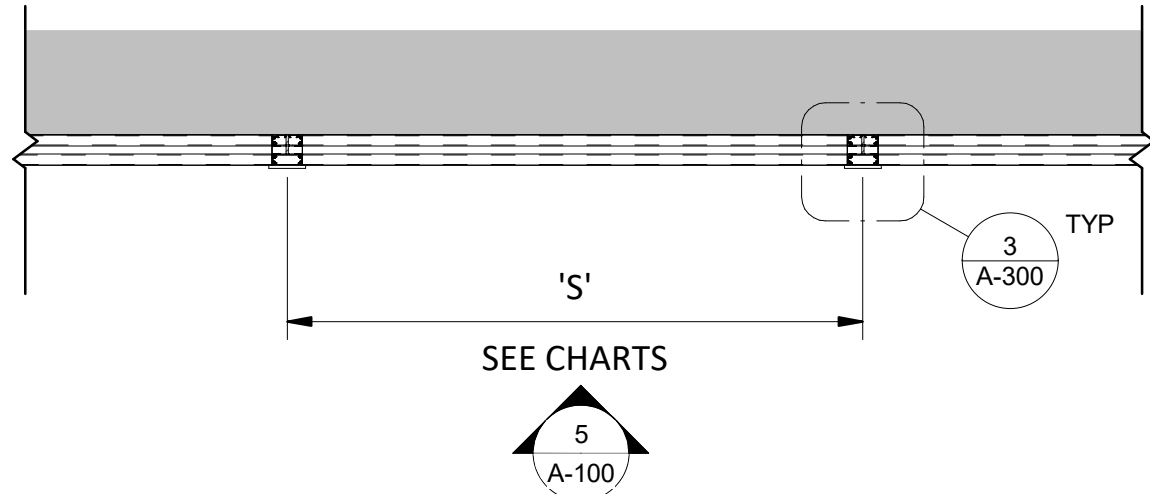
1 HORIZONTAL SLAT TYP GUARDRAIL - PLAN VIEW
3/4" = 1'-0"



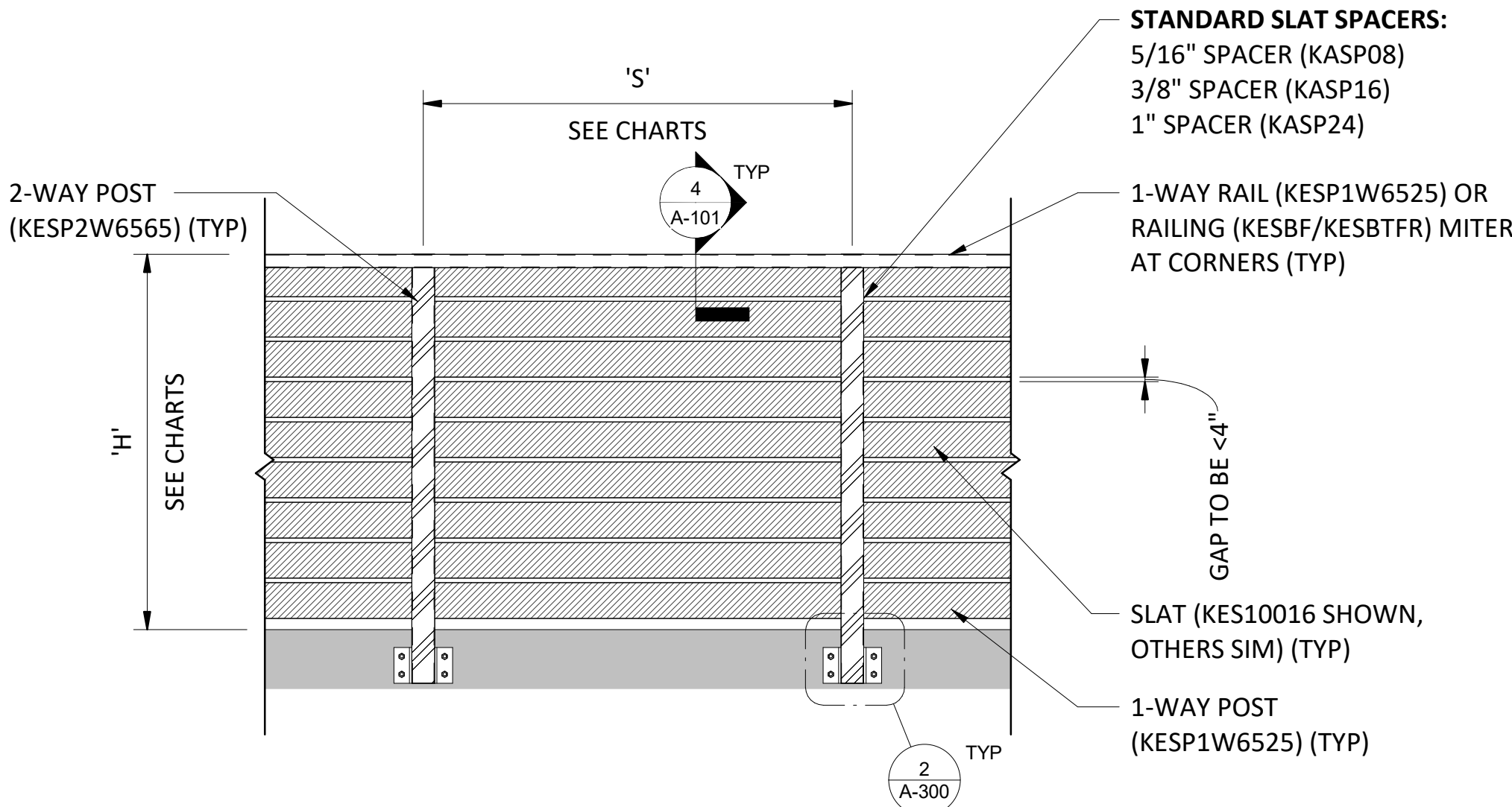
2 HORIZONTAL SLAT TYP GUARDRAIL - ELEVATION I
3/4" = 1'-0"



3 HORIZONTAL SLAT TYP GUARDRAIL - ELEVATION II
3/4" = 1'-0"



4 HORIZONTAL SLAT GUARDRAIL FASCIA MOUNT - PLAN VIEW
3/4" = 1'-0"



5 HORIZONTAL SLAT GUARDRAIL FASCIA MOUNT - ELEVATION
3/4" = 1'-0"

GUARDRAIL POST HEIGHT & SPACING CHART - WITH STANDARD BASEPLATE		
POST HEIGHT 'H' (MAX)	POST SPACING 'S' (MAX) ¹	MAX WIND PRESSURE ²³
3'-6"	3'-0"	68 PSF
3'-6"	3'-6"	58 PSF
3'-6"	3'-9"	54 PSF
3'-6"	4'-0"	51 PSF
3'-9"	3'-0"	59 PSF
3'-9"	3'-6"	50 PSF
3'-9"	3'-9"	47 PSF
3'-9"	4'-0"	44 PSF
4'-0"	N/A ⁴	N/A ⁴

- ALL LAYOUTS HAVE BEEN DESIGNED FOR GUARDRAIL LOADING AS NOTED ON G-100.
- MAXIMUM ULTIMATE WIND PRESSURE FOR AS DEFINED BY ASCE 7.
- MAXIMUM WIND PRESSURE CONSIDERING MIN. 5/16" GAP IN SLATS.
- POST HEIGHT NOT ACCEPTABLE FOR STANDARD BASEPLATE.

GUARDRAIL POST HEIGHT & SPACING CHART - WITH EMBEDDED POST		
POST HEIGHT 'H' (MAX)	POST SPACING 'S' (MAX) ¹	MAX WIND PRESSURE ²³
3'-6"	3'-0"	90 PSF
3'-6"	3'-6"	77 PSF
3'-6"	3'-9"	72 PSF
3'-6"	4'-0"	67 PSF
3'-9"	3'-0"	78 PSF
3'-9"	3'-6"	67 PSF
3'-9"	3'-9"	63 PSF
3'-9"	4'-0"	59 PSF
4'-0"	3'-0"	69 PSF
4'-0"	3'-6"	59 PSF
4'-0"	3'-9"	55 PSF
4'-0"	4'-0"	50 PSF

- ALL LAYOUTS HAVE BEEN DESIGNED FOR GUARDRAIL LOADING AS NOTED ON G-100.
- MAXIMUM ULTIMATE WIND PRESSURE FOR AS DEFINED BY ASCE 7.
- MAXIMUM WIND PRESSURE CONSIDERING MIN. 5/16" GAP IN SLATS.

PREPARED BY:



1. ANCHORAGE DESIGN IS BASED ON MAXIMUM MOMENT ALLOWED BY BASEPLATE WITH 6" MIN. THICK 4000 PSI CONCRETE. ANCHORAGE CAN BE DESIGNED FOR REDUCED LOADS BASED ON LOCAL CONDITIONS BY EOR.

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PROJECT NAME:

KNOTWOOD - GENERIC GUARDRAIL DRAWINGS

PROJECT LOCATION:

DRAWING NAME:

HORIZONTAL SLAT TYP GUARDRAIL DETAILS

SEAL & SIGNATURE

PROJECT NO: 2110314

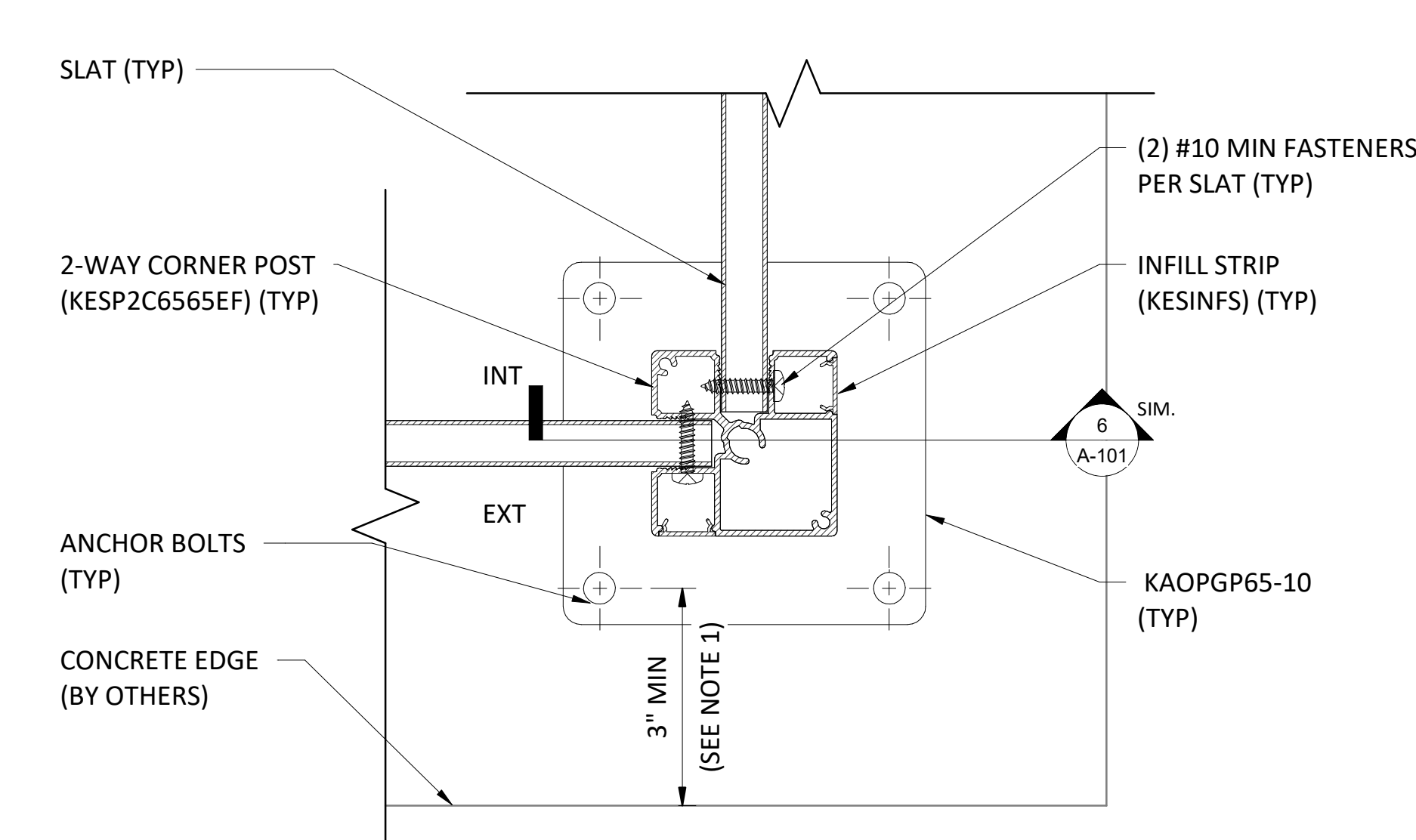
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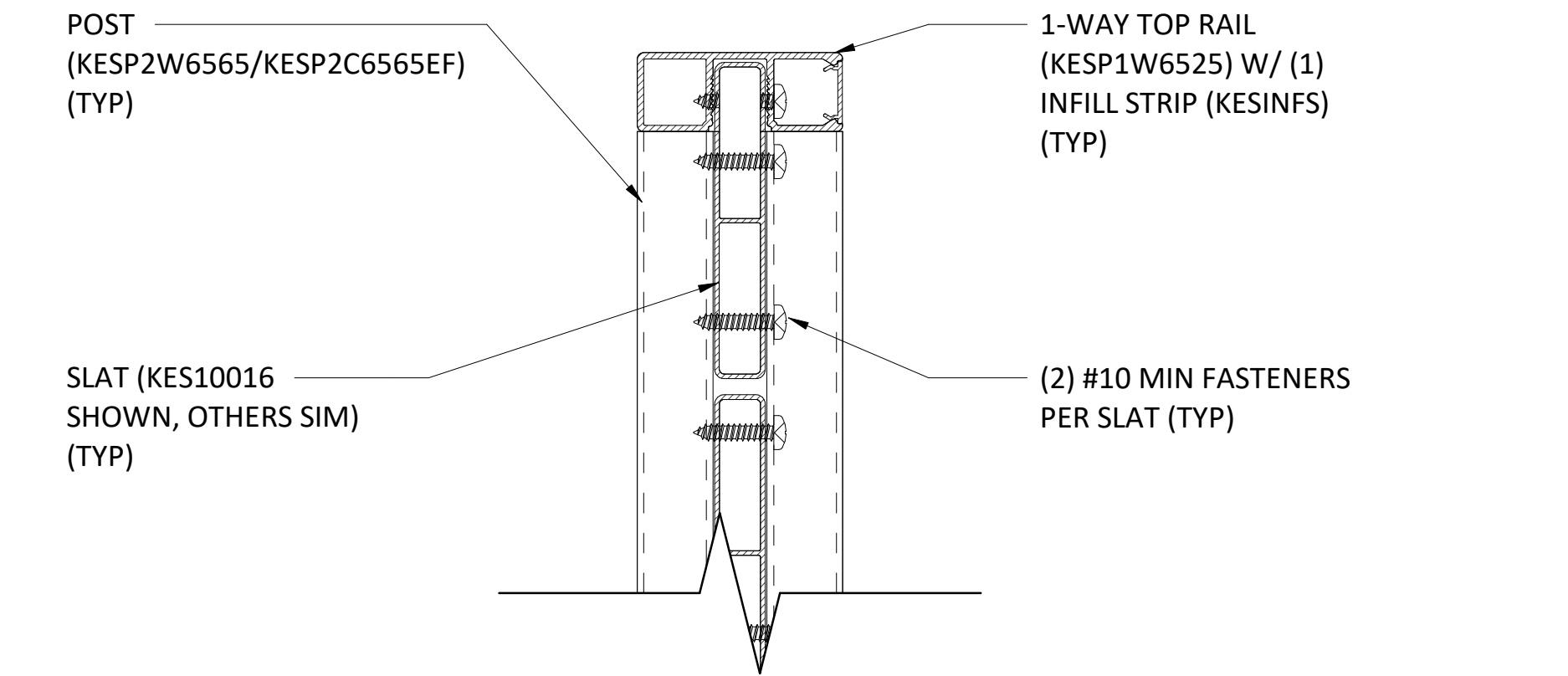
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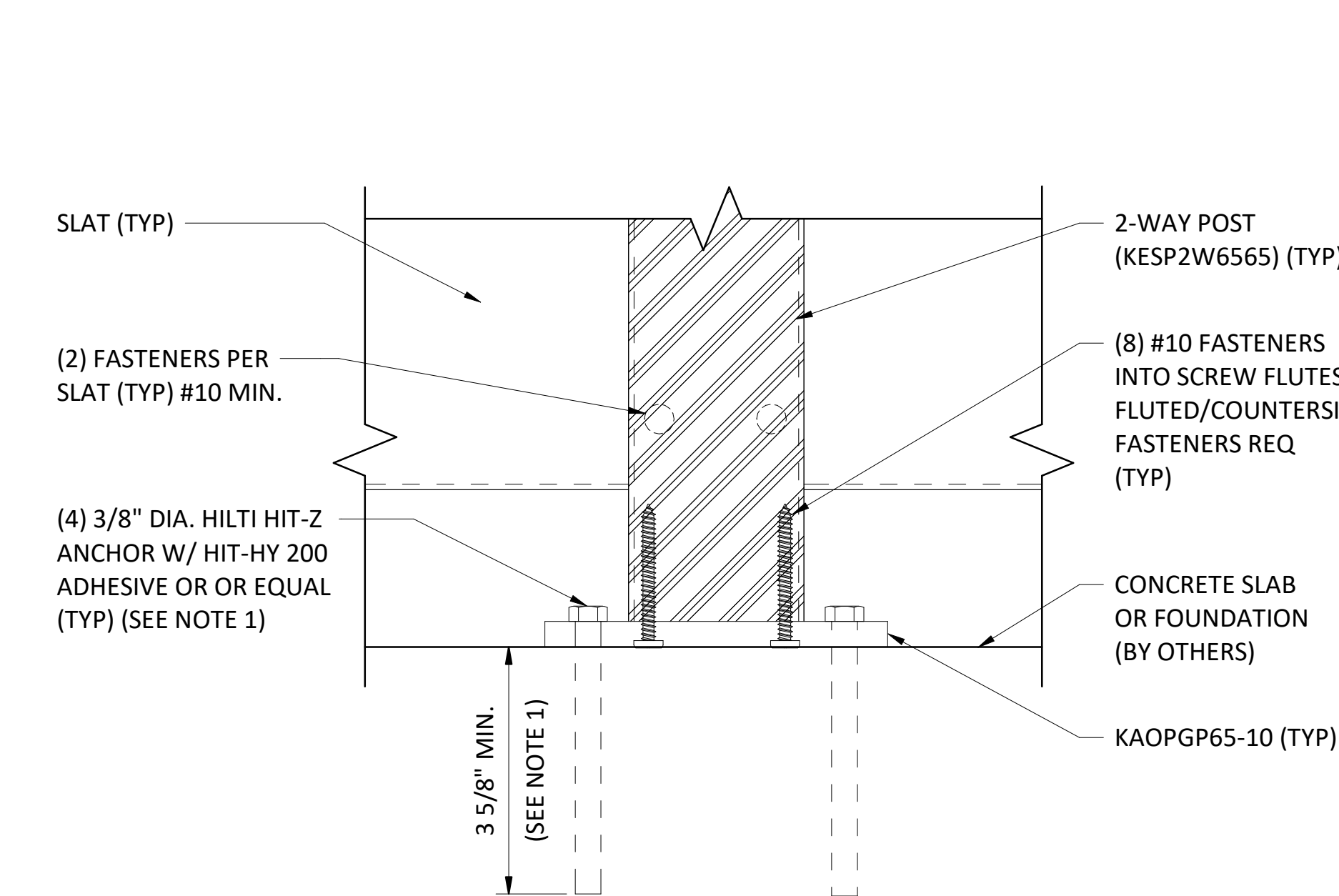
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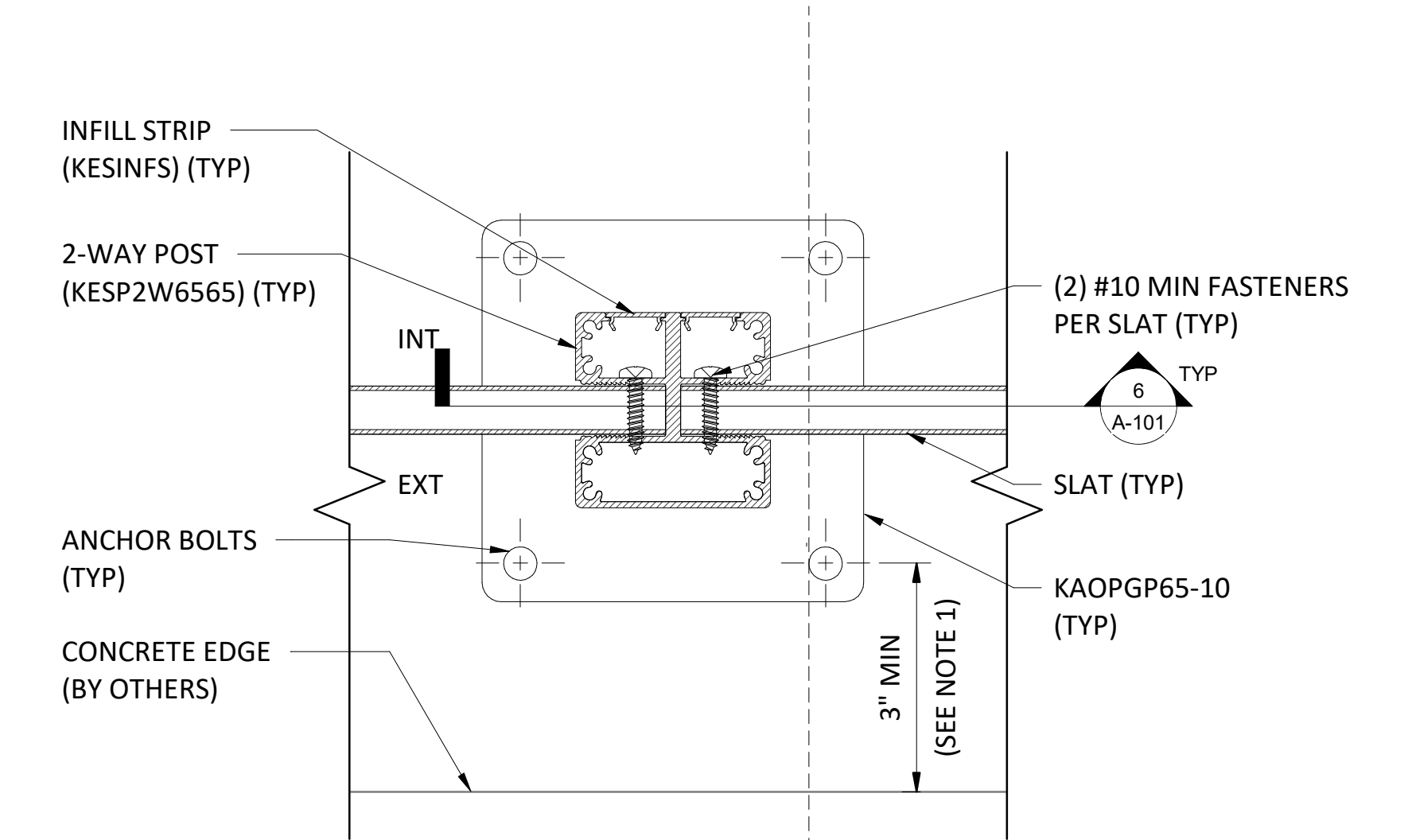
1 HORIZONTAL SLAT GUARDRAIL CORNER POST DETAIL
6" = 1'-0"



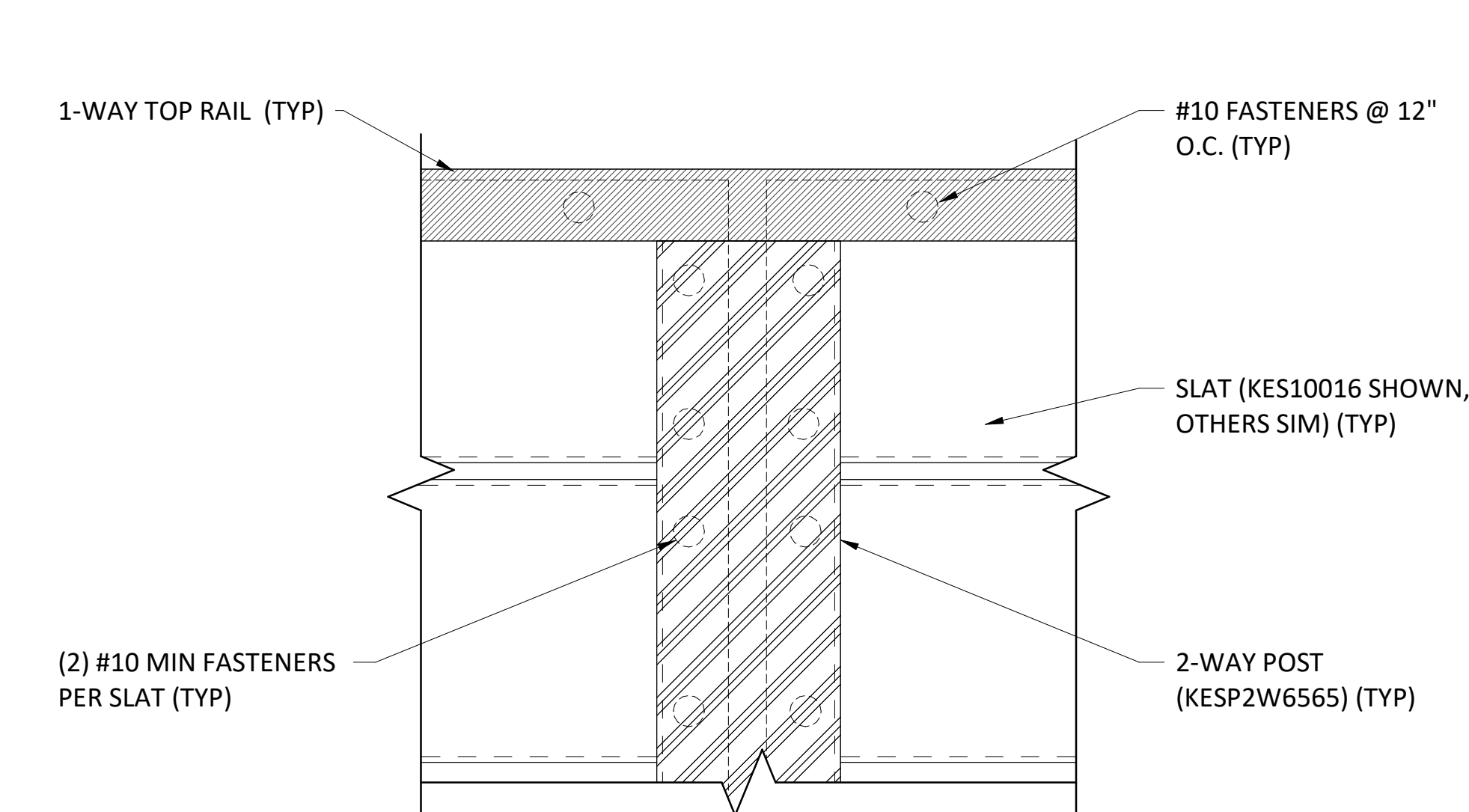
4 HORIZONTAL SLAT GUARDRAIL TOP RAIL CONNECTION DETAIL I
6" = 1'-0"



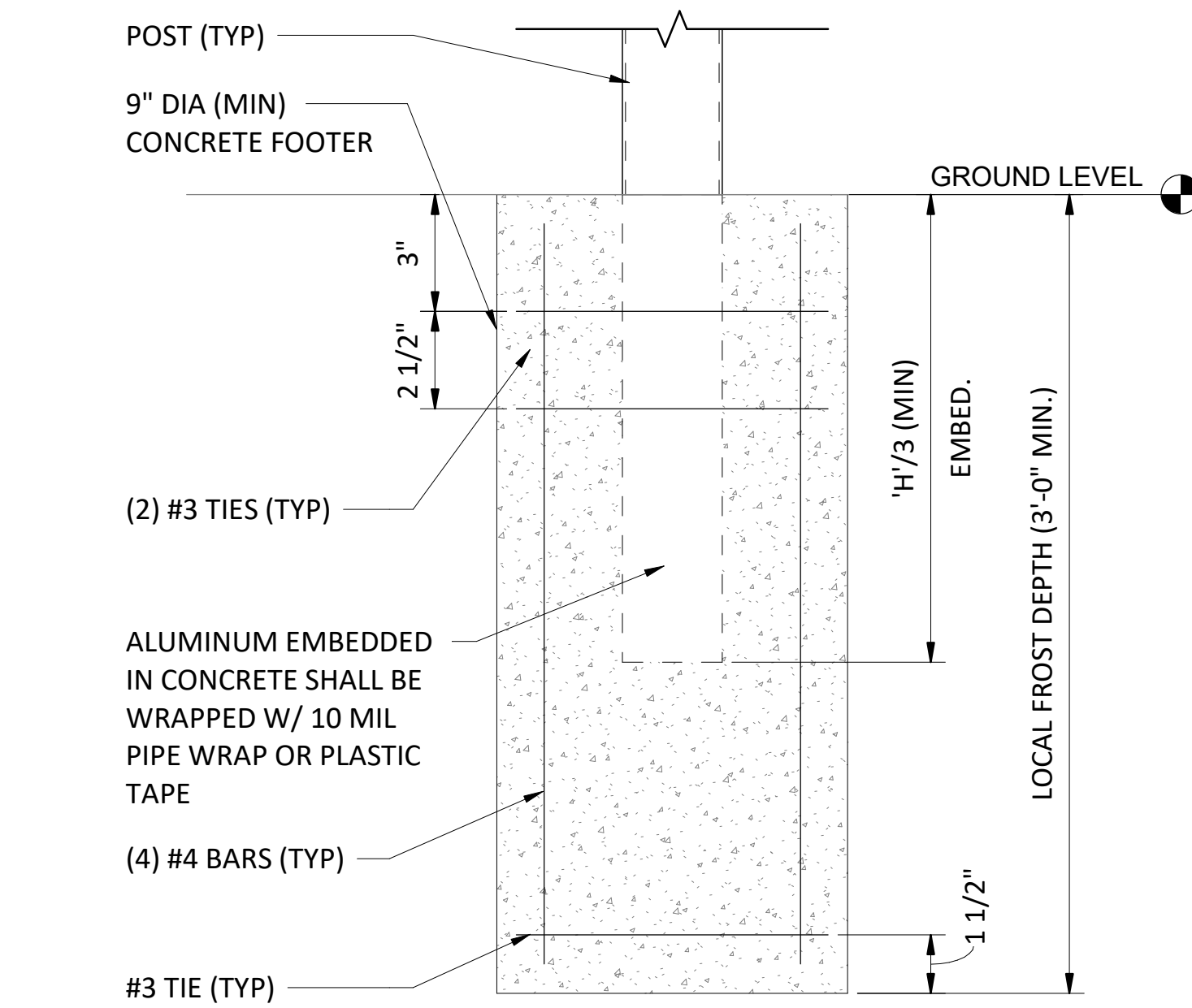
6 HORIZONTAL SLAT GUARDRAIL POST ANCHOR DETAIL
6" = 1'-0"



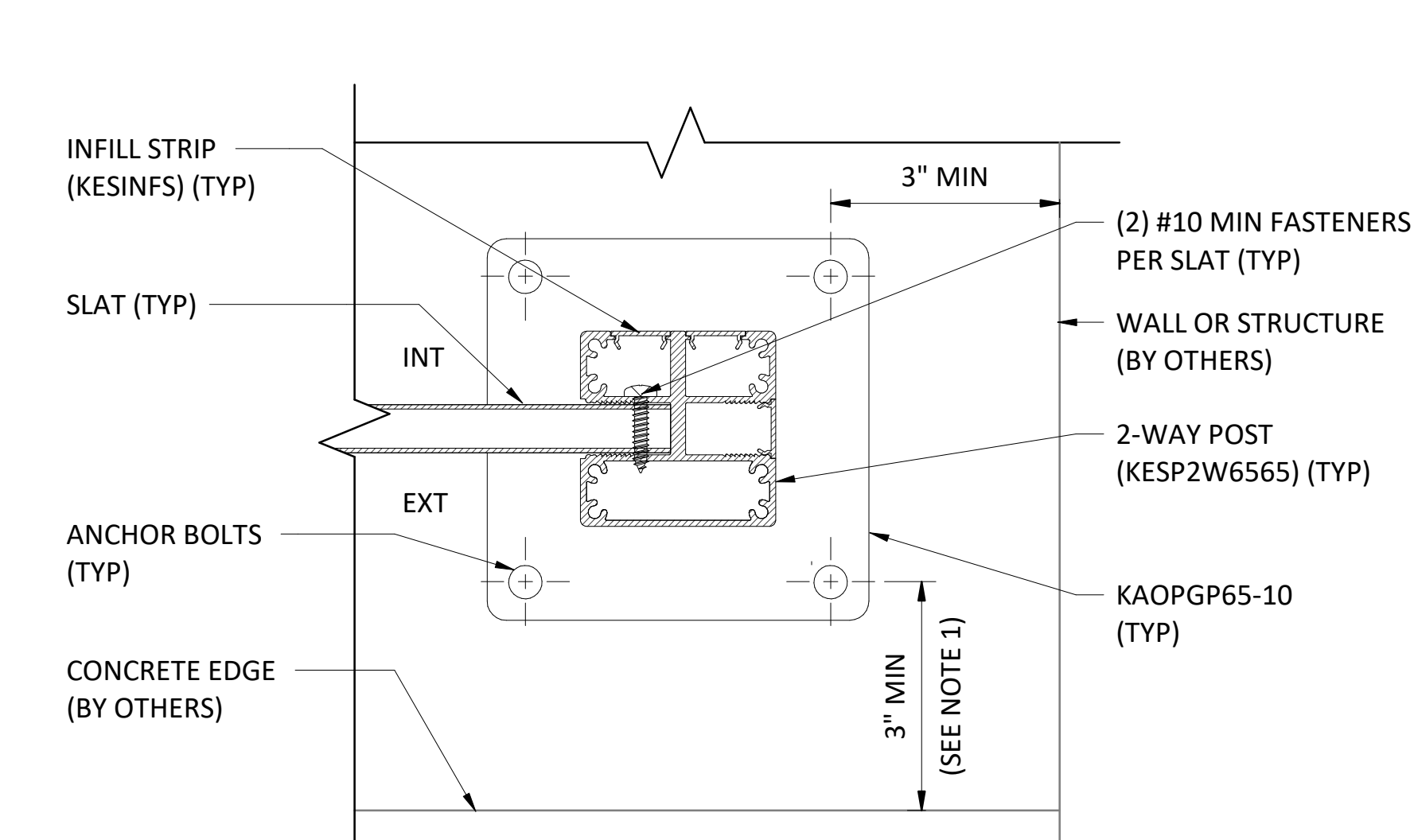
2 HORIZONTAL SLAT MIDDLE POST CONNECTION DETAIL
6" = 1'-0"



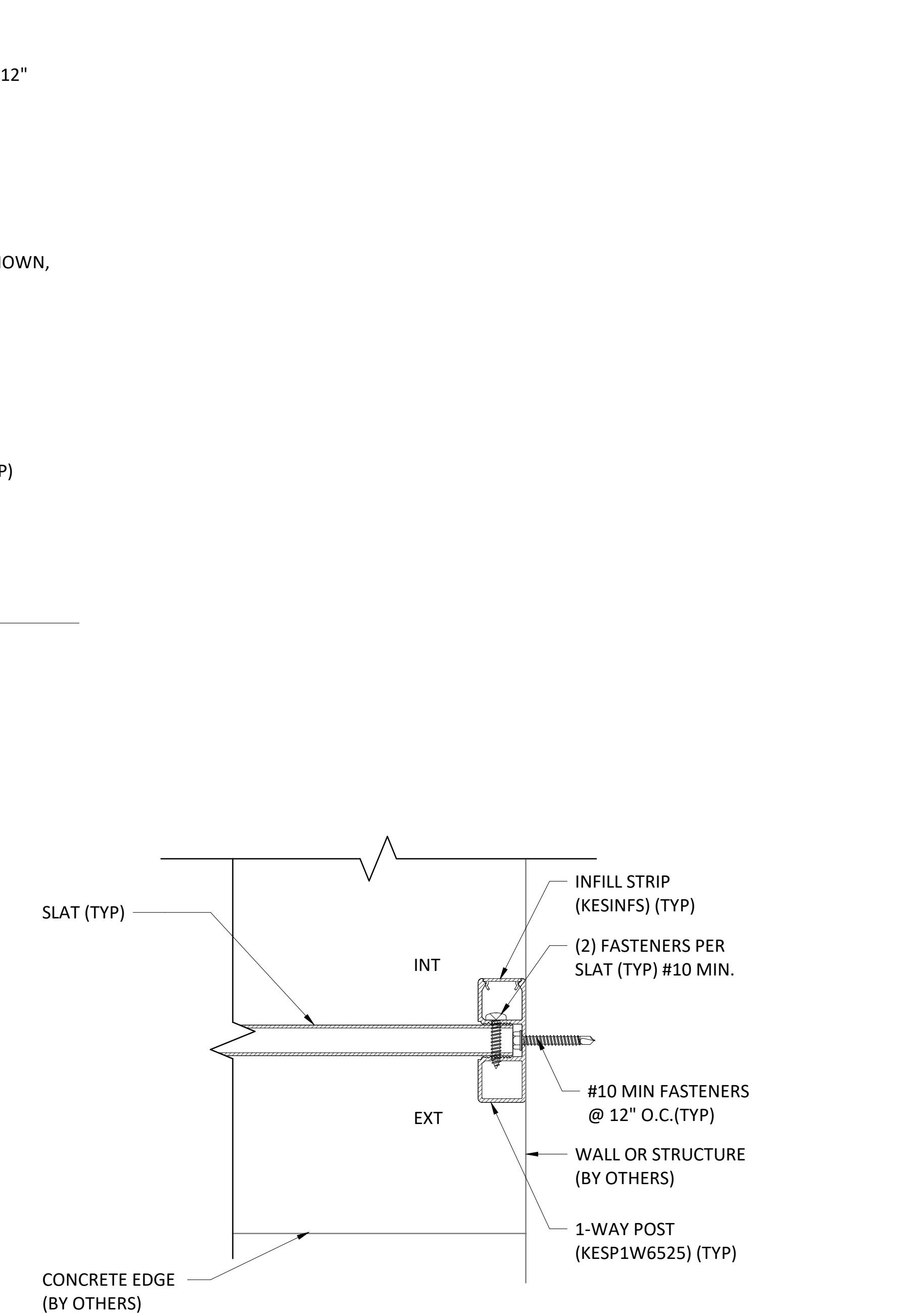
5 HORIZONTAL SLAT GUARDRAIL TOP RAIL CONNECTION DETAIL II
6" = 1'-0"



7 HORIZONTAL SLAT GUARDRAIL POST ALTERNATE EMBEDMENT DETAIL
3" = 1'-0"



3 HORIZONTAL SLAT END POST CONNECTION DETAIL
6" = 1'-0"



8 HORIZONTAL SLAT GUARDRAIL END POST CONNECTION AT WALL DETAIL
6" = 1'-0"

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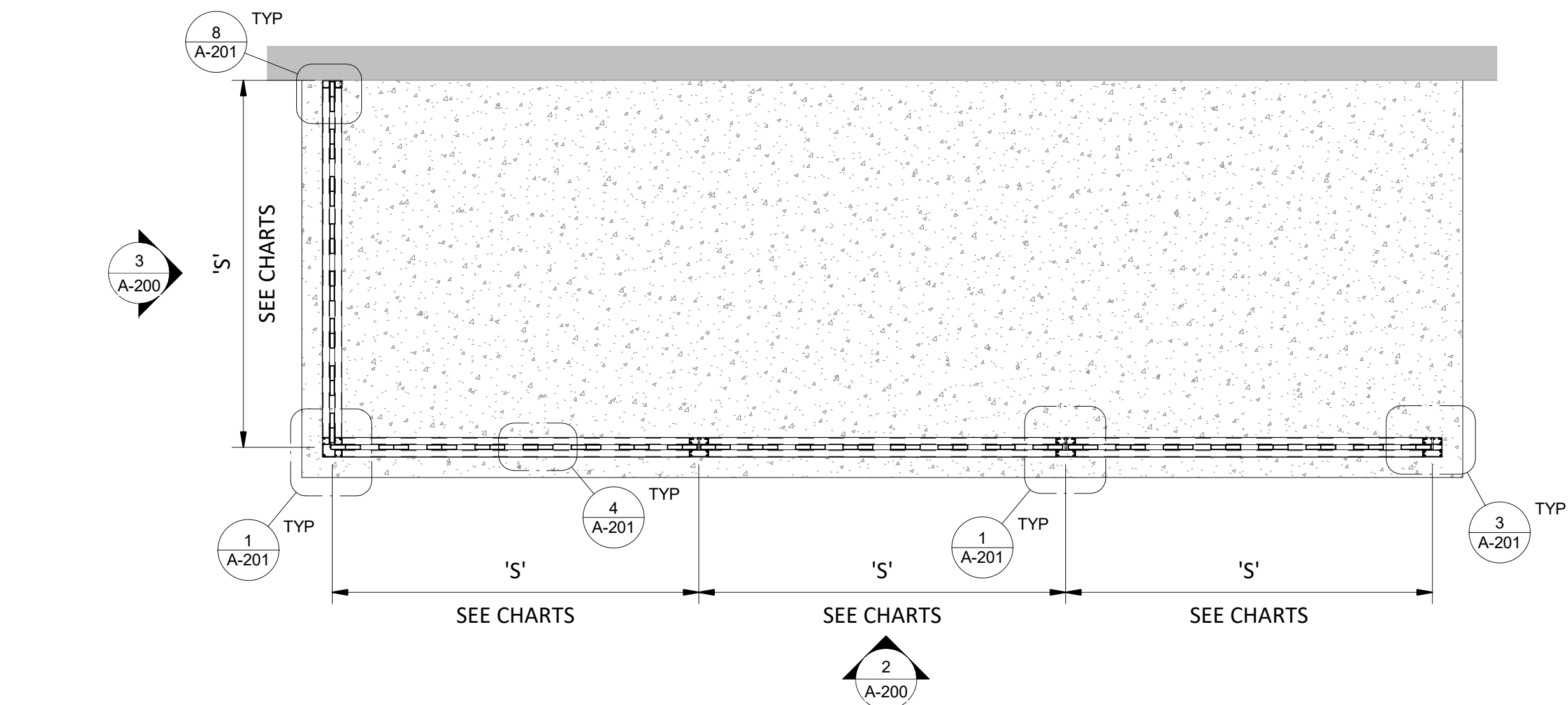
KNOTWOOD - GENERIC GUARDRAIL DRAWINGS

PROJECT LOCATION:

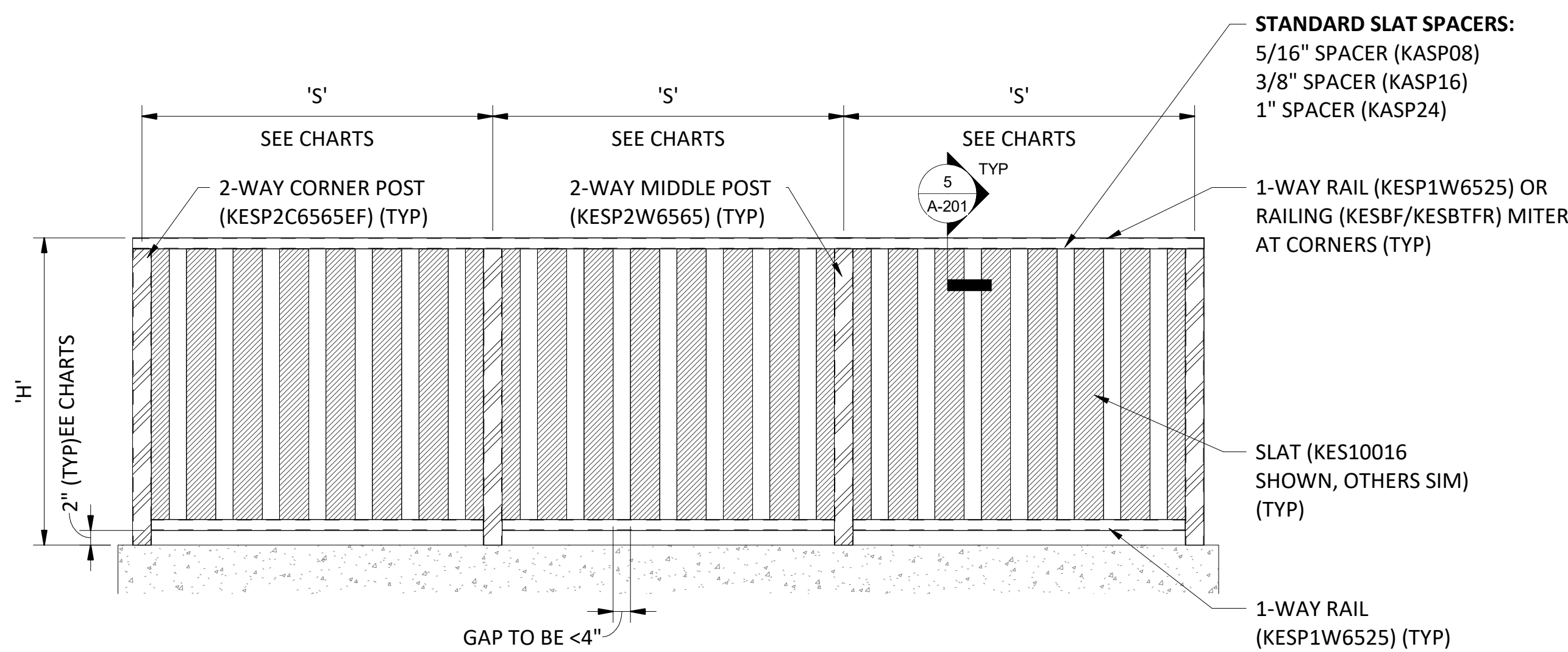
DRAWING NAME:

VERTICAL SLAT TYP GUARDRAIL PLAN & EL

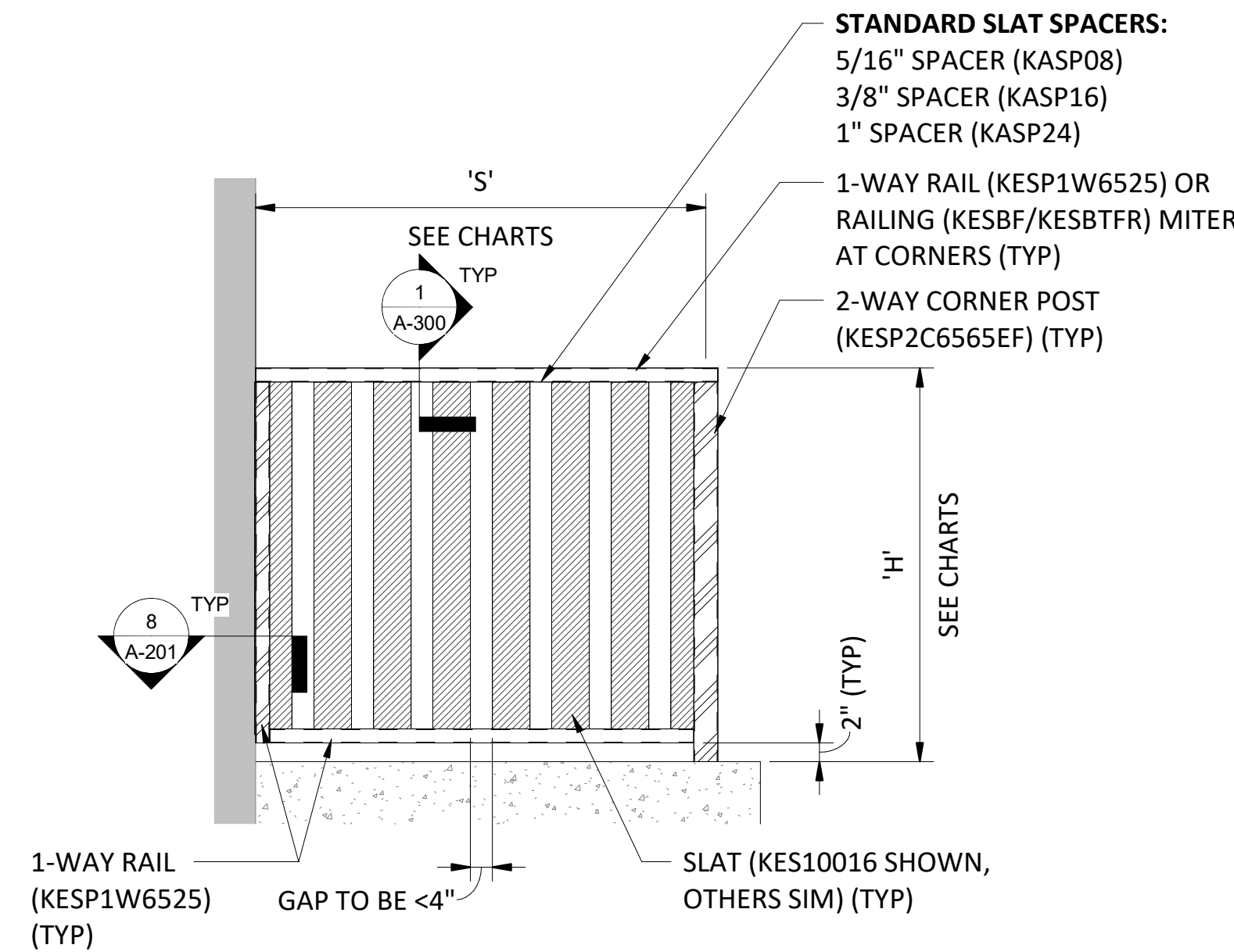
SEAL & SIGNATURE	PROJECT NO:	2110314
	DRAWN BY:	
	CHECKED BY:	
	DRAWING NO:	A-200
	PAGE NO:	



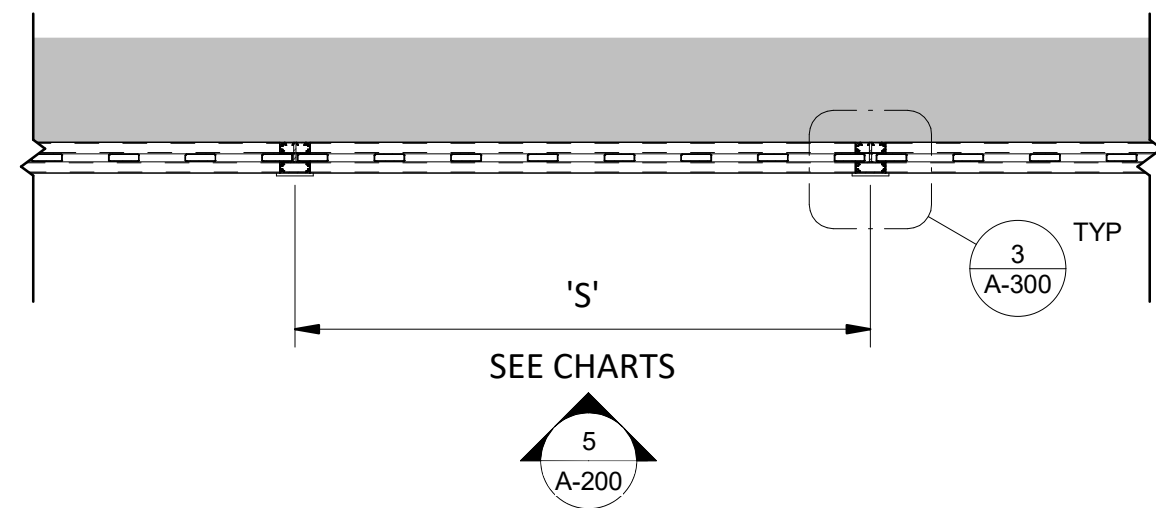
1 VERTICAL SLAT GUARDRAIL - PLAN VIEW
3/4" = 1'-0"



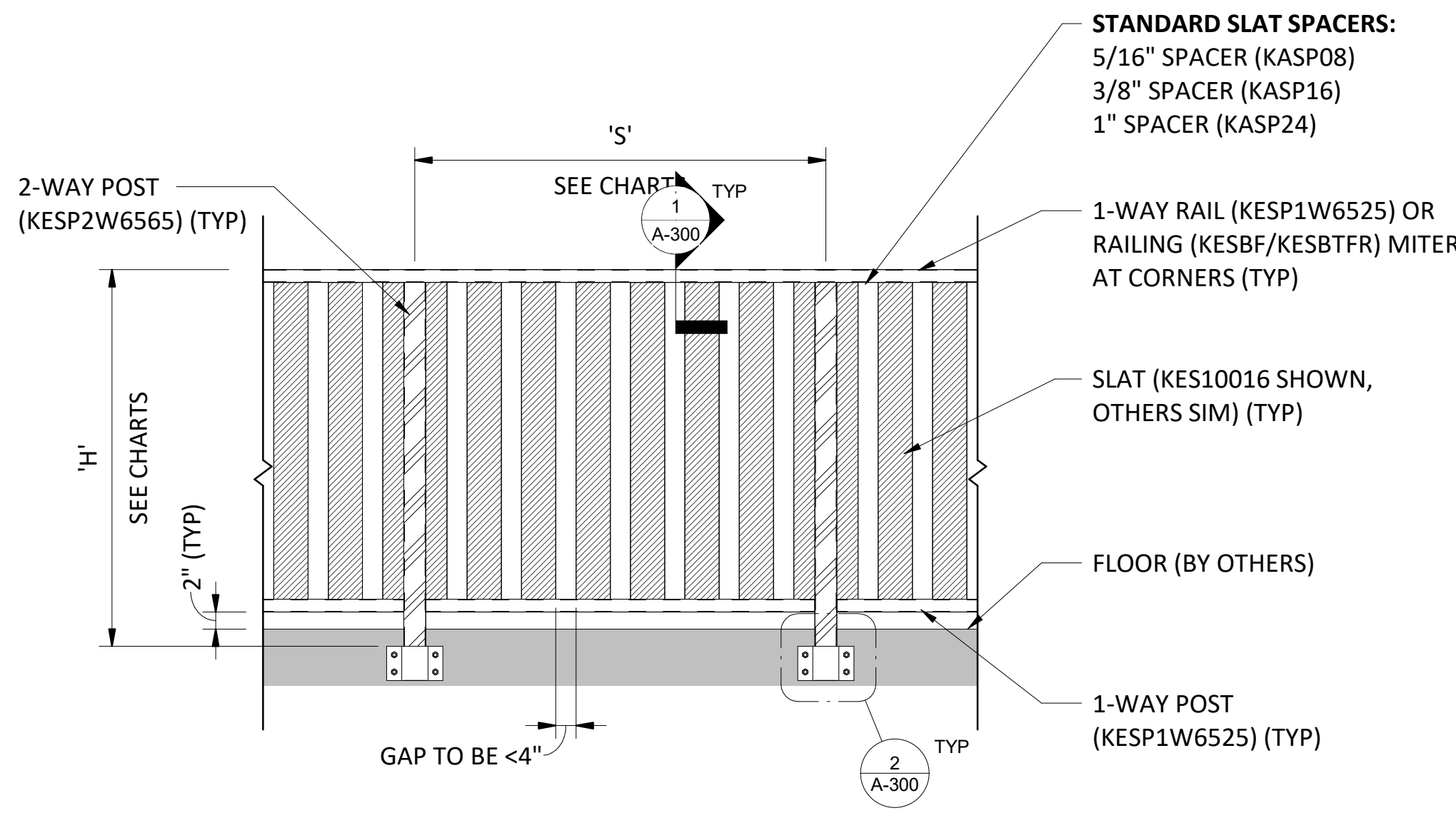
2 VERTICAL SLAT GUARDRAIL - ELEVATION I
3/4" = 1'-0"



3 VERTICAL SLAT GUARDRAIL - ELEVATION II
3/4" = 1'-0"



4 VERTICAL SLAT GUARDRAIL FASCIA MOUNT - PLAN VIEW
3/4" = 1'-0"



5 VERTICAL SLAT GUARDRAIL FASCIA MOUNT - ELEVATION
3/4" = 1'-0"

GUARDRAIL POST HEIGHT & SPACING CHART - WITH STANDARD BASEPLATE		
POST HEIGHT 'H' (MAX)	POST SPACING 'S' (MAX) ¹	MAX WIND PRESSURE ^{2,3}
3'-6"	3'-0"	68 PSF
3'-6"	3'-6"	58 PSF
3'-6"	3'-9"	54 PSF
3'-6"	4'-0"	51 PSF
3'-9"	3'-0"	59 PSF
3'-9"	3'-6"	50 PSF
3'-9"	3'-9"	47 PSF
3'-9"	4'-0"	44 PSF
4'-0"	N/A ⁴	N/A ⁴

1. ALL LAYOUTS HAVE BEEN DESIGNED FOR GUARDRAIL LOADING AS NOTED ON G-100.
2. MAXIMUM ULTIMATE WIND PRESSURE FOR AS DEFINED BY ASCE 7.
3. MAXIMUM WIND PRESSURE CONSIDERING MIN. 5/16" GAP IN SLATS.
4. POST HEIGHT NOT ACCEPTABLE FOR STANDARD BASEPLATE.

GUARDRAIL POST HEIGHT & SPACING CHART - WITH EMBEDDED POST		
POST HEIGHT 'H' (MAX)	POST SPACING 'S' (MAX) ¹	MAX WIND PRESSURE ^{2,3}
3'-6"	3'-0"	90 PSF
3'-6"	3'-6"	77 PSF
3'-6"	3'-9"	72 PSF
3'-6"	4'-0"	67 PSF
3'-9"	3'-0"	78 PSF
3'-9"	3'-6"	67 PSF
3'-9"	3'-9"	63 PSF
3'-9"	4'-0"	59 PSF
4'-0"	3'-0"	69 PSF
4'-0"	3'-6"	59 PSF
4'-0"	3'-9"	55 PSF
4'-0"	4'-0"	50 PSF

1. ALL LAYOUTS HAVE BEEN DESIGNED FOR GUARDRAIL LOADING AS NOTED ON G-100.
2. MAXIMUM ULTIMATE WIND PRESSURE FOR AS DEFINED BY ASCE 7.
3. MAXIMUM WIND PRESSURE CONSIDERING MIN. 5/16" GAP IN SLATS.

PREPARED BY:



1. ANCHORAGE DESIGN IS BASED ON MAXIMUM MOMENT ALLOWED BY BASEPLATE WITH 6" MIN. THICK 4000 PSI CONCRETE. ANCHORAGE CAN BE DESIGNED FOR REDUCED LOADS BASED ON LOCAL CONDITIONS BY EOR.

PREPARED FOR:



ISSUED FOR:

ISSUED DATE: 05/15/2024

PLAN REVISIONS

NO.	DATE	DESCRIPTION

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KNOTWOOD - GENERIC GUARDRAIL DRAWINGS

PROJECT LOCATION:

DRAWING NAME:

VERTICAL SLAT TYP GUARDRAIL DETAILS

SEAL & SIGNATURE

PROJECT NO: 2110314

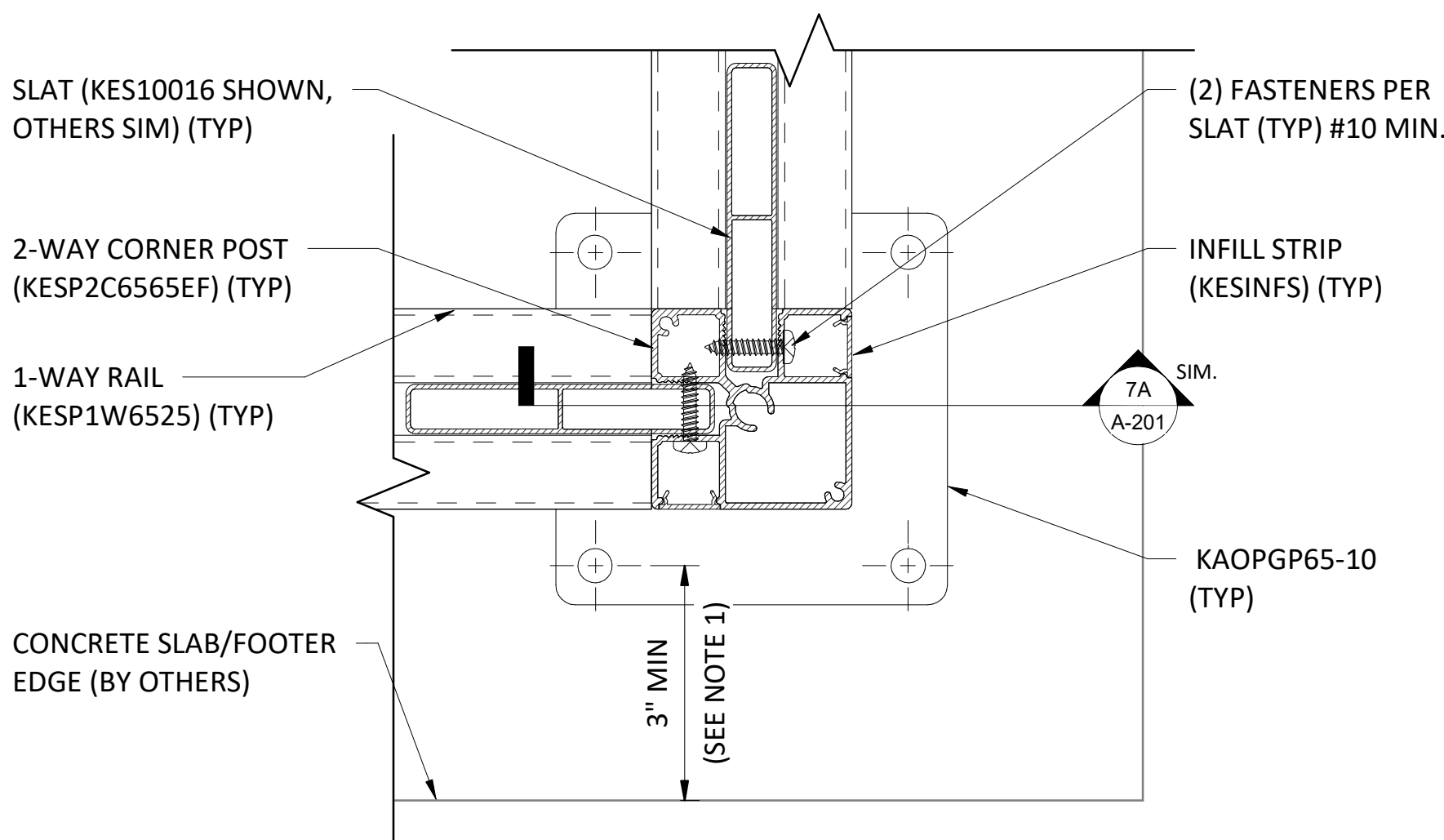
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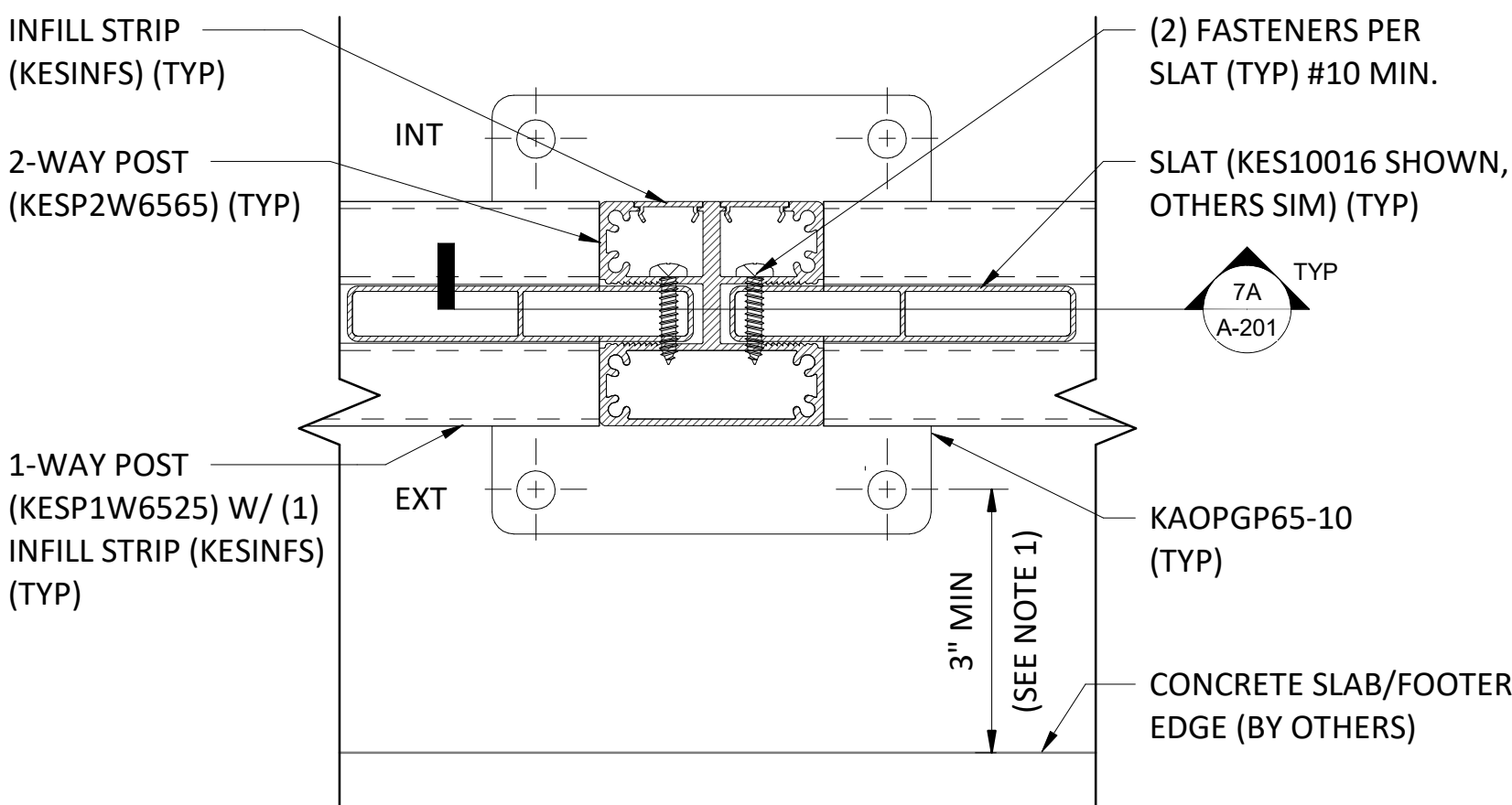
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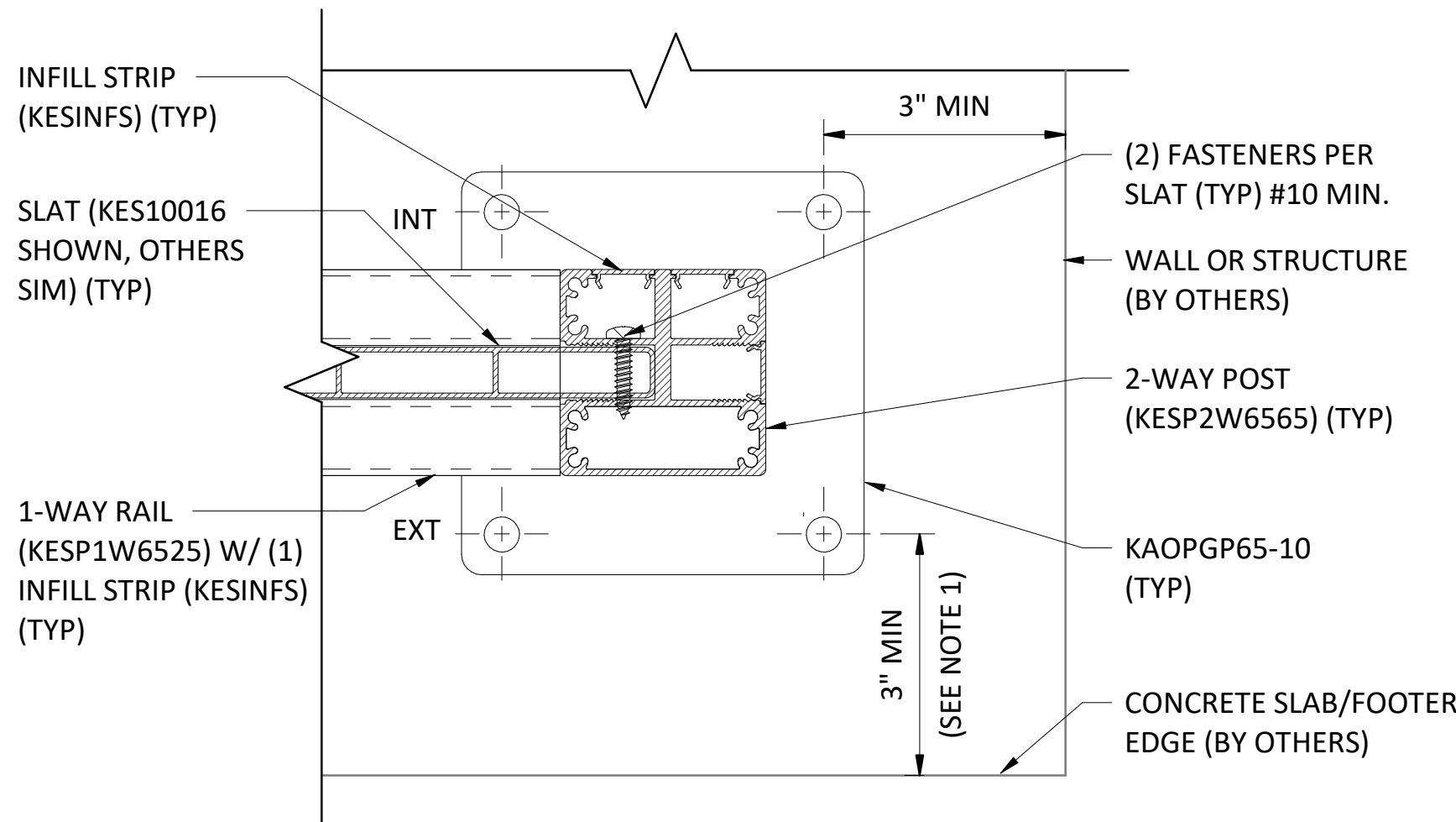
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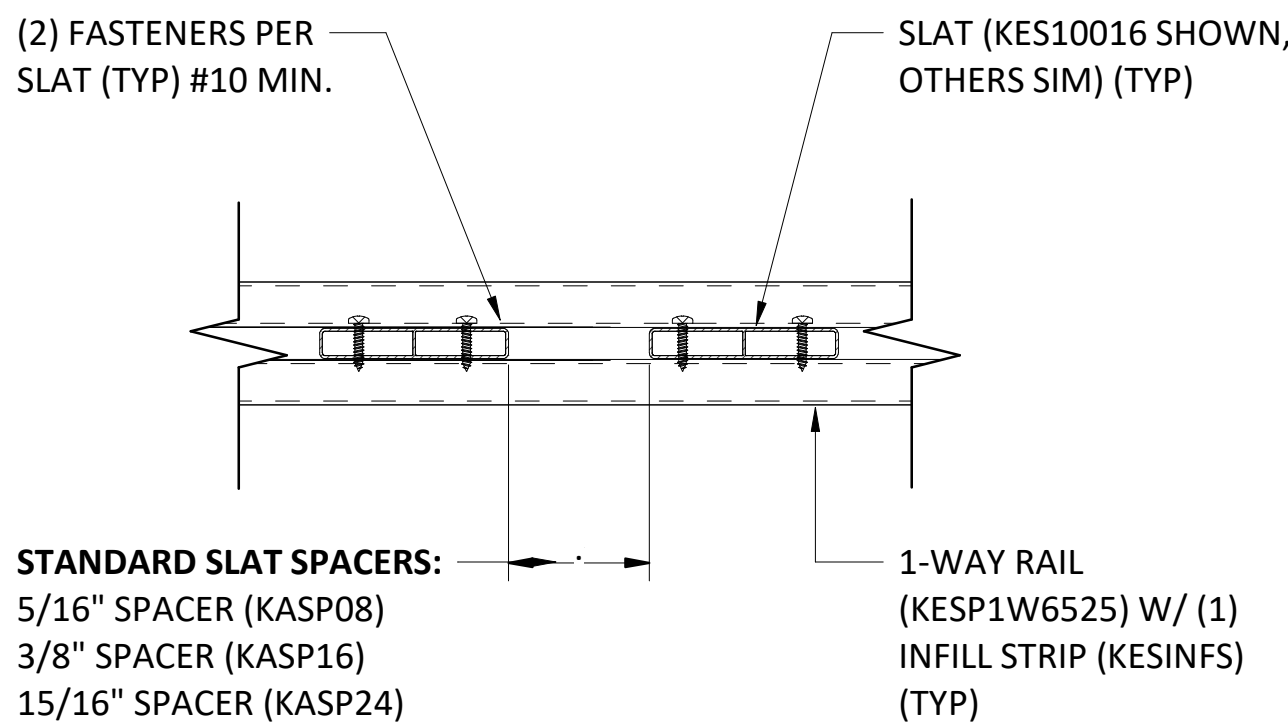
1 VERTICAL SLAT GUARDRAIL CORNER POST CONNECTION DETAIL
6" = 1'-0"



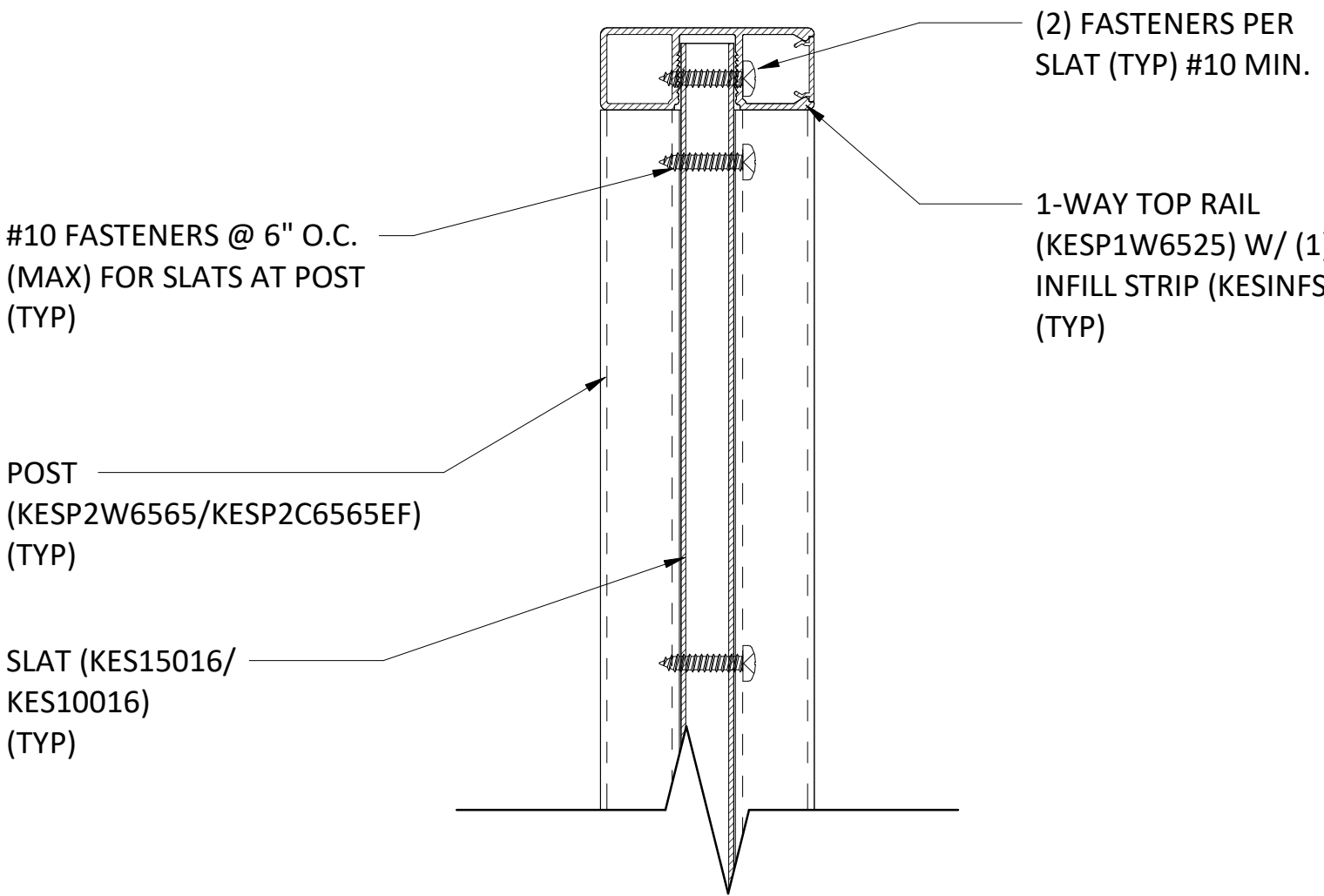
2 VERTICAL SLAT GUARDRAIL MIDDLE POST CONNECTION DETAIL
6" = 1'-0"



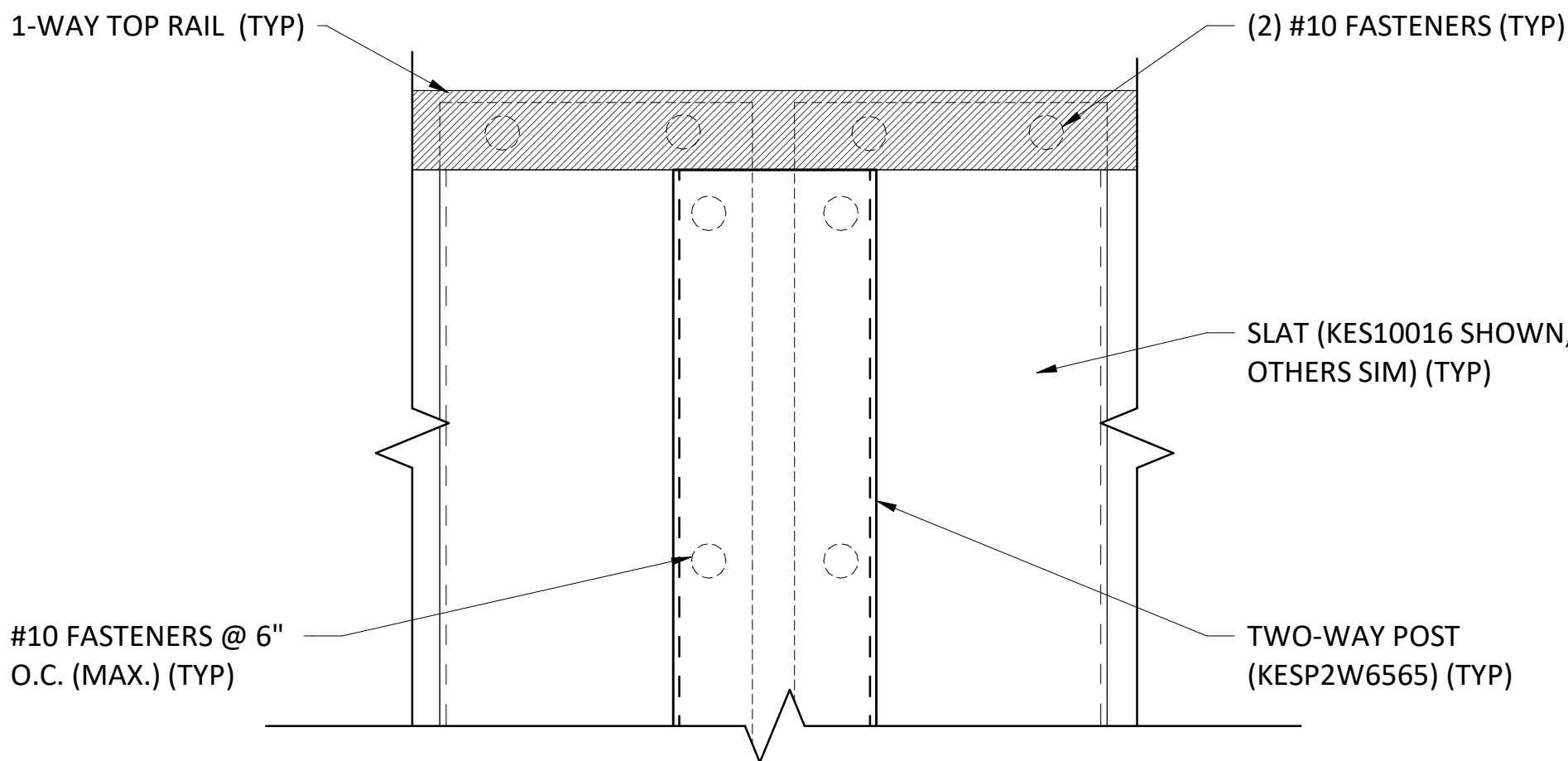
3 VERTICAL SLAT GUARDRAIL END POST CONNECTION DETAIL
6" = 1'-0"



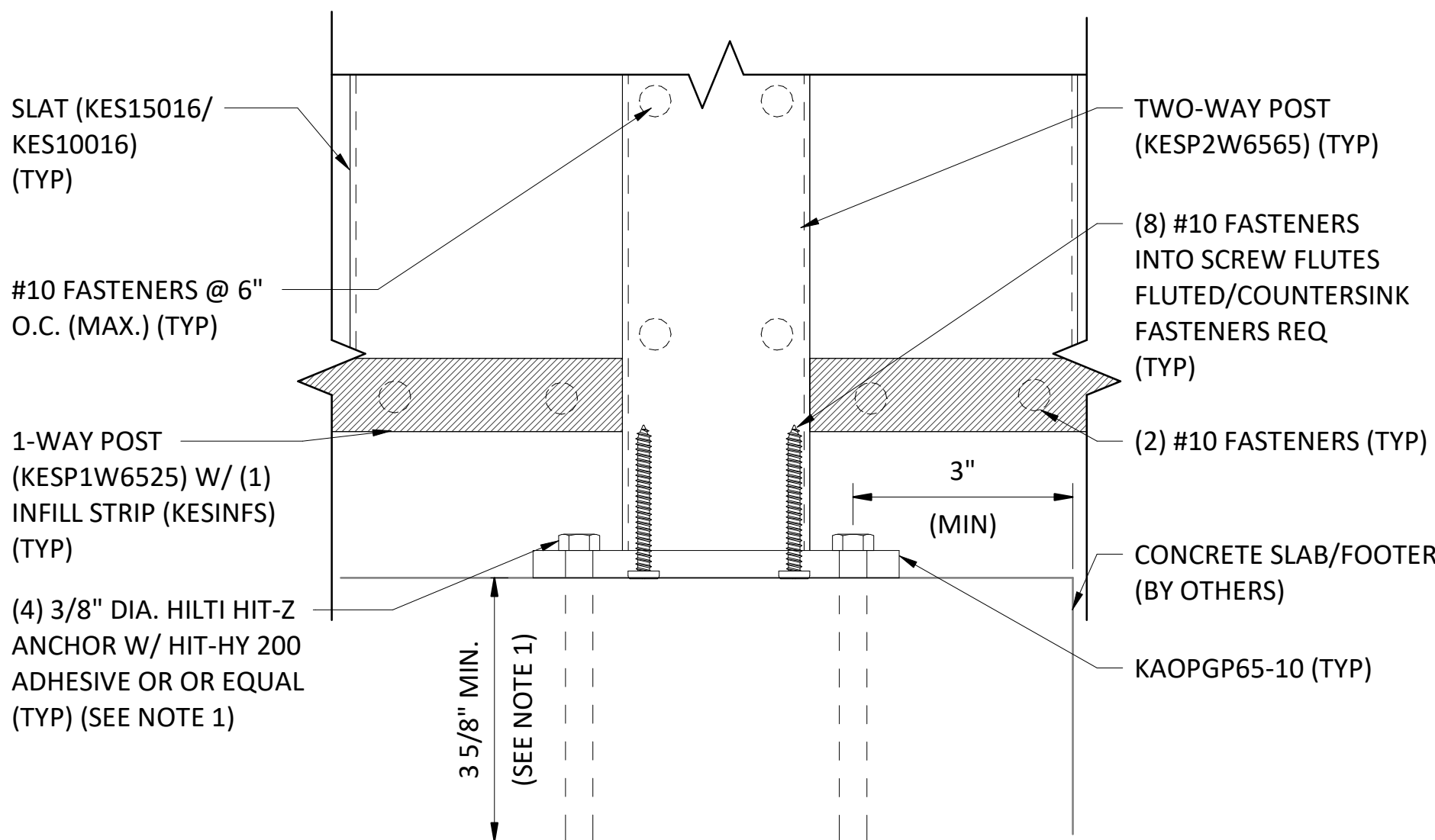
4 VERTICAL SLAT GUARDRAIL TOP RAIL CONNECTION DETAIL I
3" = 1'-0"



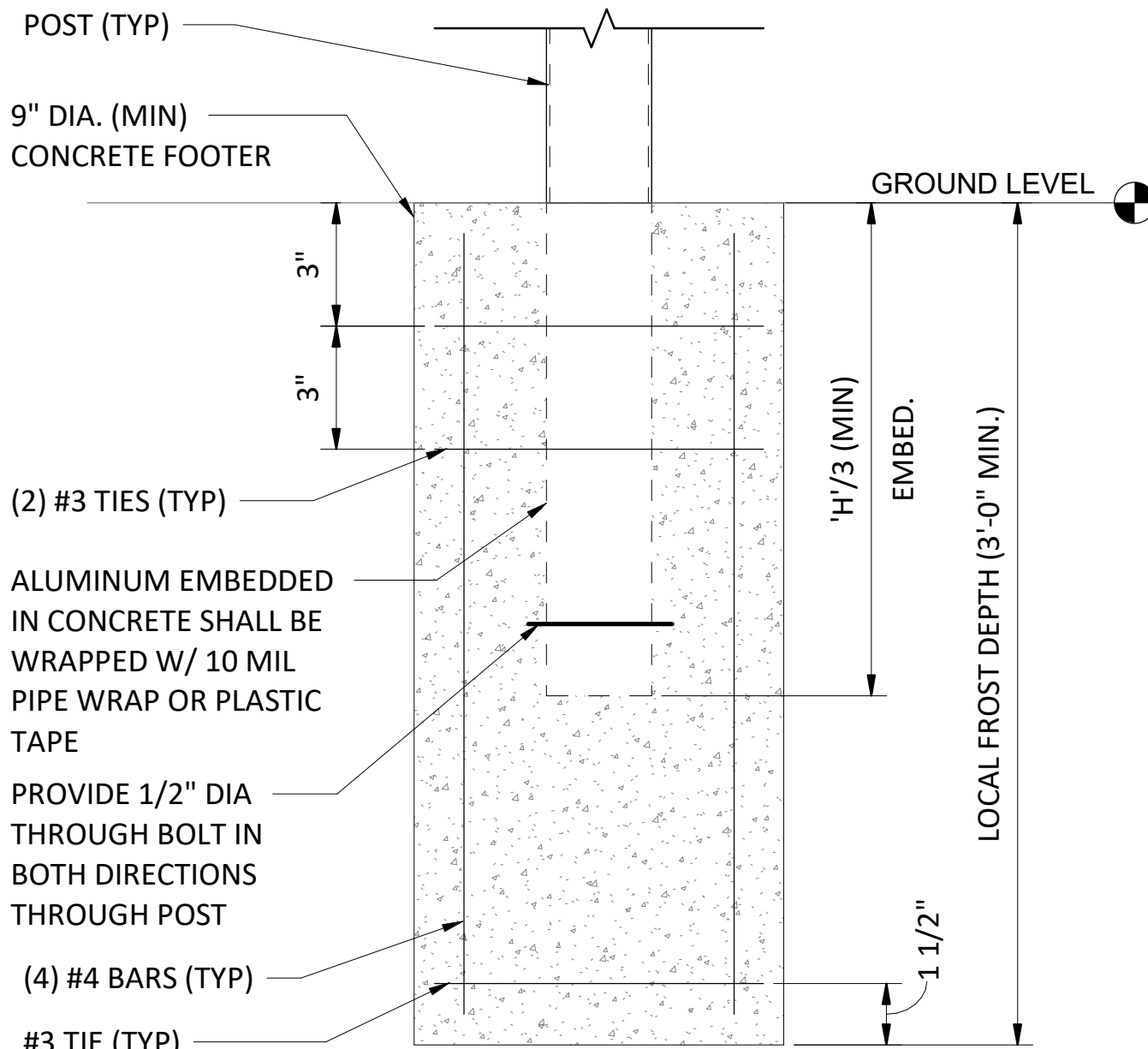
5 VERTICAL SLAT GUARDRAIL TOP RAIL CONNECTION DETAIL II
6" = 1'-0"



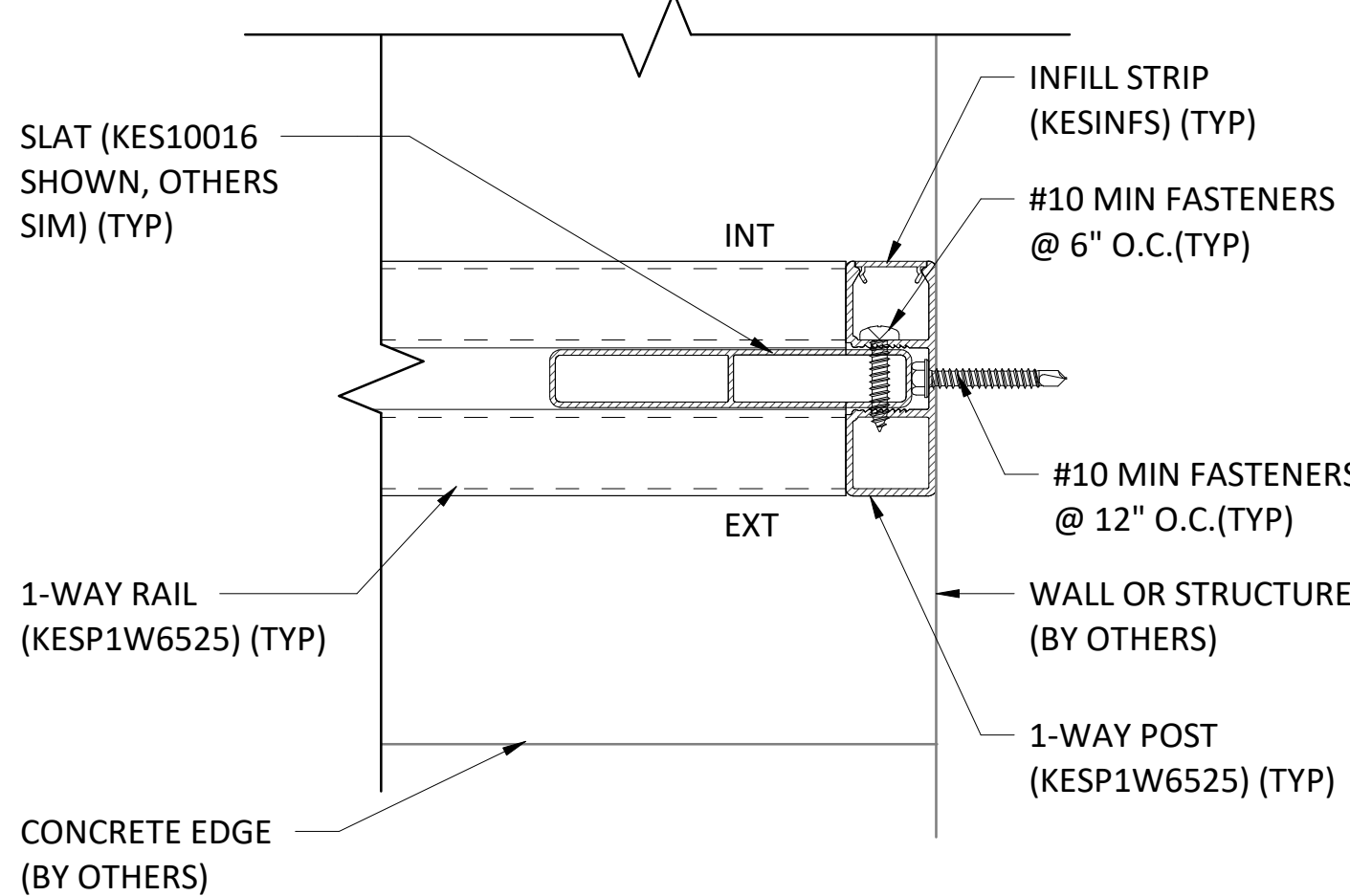
6 VERTICAL SLAT GUARDRAIL TOP RAIL CONNECTION DETAIL III
6" = 1'-0"



7A VERTICAL SLAT GUARDRAIL POST BASEPLATE CONNECTION
6" = 1'-0"



7B VERTICAL SLAT GUARDRAIL POST ALTERNATE EMBEDMENT DETAIL
3" = 1'-0"



8 VERTICAL SLAT GUARDRAIL END POST CONNECTION AT WALL DETAIL
6" = 1'-0"

