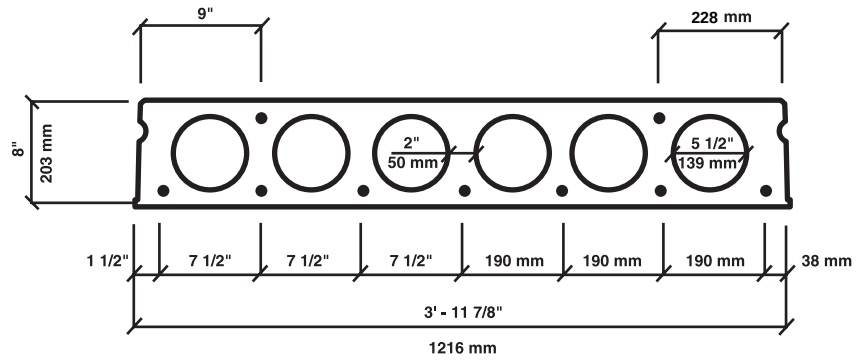
CORESLAB 8 INCH IMPERIAL LOAD TABLE

# of 1/2" Ø strands	Mu (lb·ft)	TOTAL UNIFORMLY DISTRIBUTED SUPERIMPOSED SERVICE LOAD - lbs/ft²																			
		SIMPLE SPAN - CENTRE TO CENTRE OF BEARING - FEET																			
		14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33
7	106660	674	580	504	440	387	342	304	271	242	217	195	176	159	143	130	117	106	96	87	79
6	96050	602	517	449	391	344	303	268	239	213	190	171	153	138	124	112	101	91	82	73	
5	80720	497	427	369	321	281	246	217	192	171	152	135	121	108	96	86	76	68	60		
4	66960	404	345	297	257	224	196	172	151	133	117	103	91	80	71	62	54				
3	39060	214	180	152	129	109	93	79	66	56											



NOTES:
1. Shaded portion of table controlled by shear.
2. Table based on maximum deflection of L/360.

CORESLAB PROPERTIES		
PROP.	METRIC	IMPERIAL
A	153000 mm²	237.1 in²
Y_b	101.6 mm	4 in
I_x	7.367x10⁸ mm⁴	1770 in⁴
b_w	395.2 mm	15.55 in
f_{pu}	1860 MPa	270 ksi
f'_c	41 MPa	6000 psi
f'_{ci}	28 MPa	4000 psi
S_w	2.96 kPa	62 psf

CORESLAB 200 mm METRIC LOAD TABLE

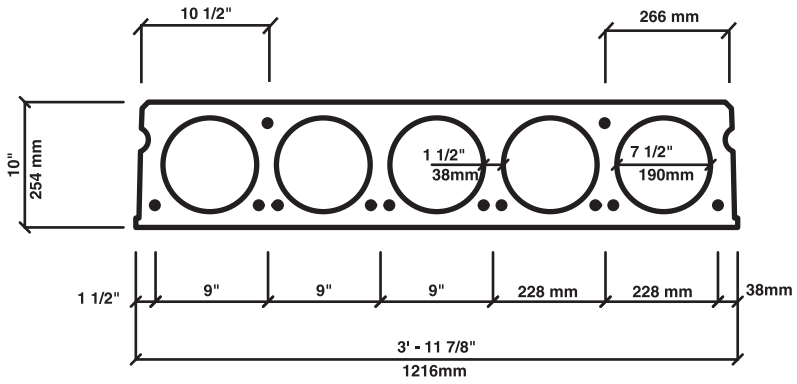
# of 13mm Ø strands	Mu (kN·m)	TOTAL UNIFORMLY DISTRIBUTED SUPERIMPOSED SERVICE LOAD - kPa (kN/m²)																			
		SIMPLE SPAN - CENTRE TO CENTRE OF BEARING - METRES																			
		4.00	4.50	5.00	5.50	6.00	6.50	7.00	7.25	7.50	7.75	8.00	8.25	8.50	8.75	9.00	9.25	9.50	9.75	10.00	10.50
7	144.50	37.0	28.7	22.8	18.4	15.1	12.5	10.4	9.5	8.8	8.0	7.4	6.8	6.3	5.8	5.3	4.9	4.5	4.2	3.8	3.3
6	130.20	33.1	25.6	20.3	16.3	13.3	11.0	9.1	8.4	7.6	7.0	6.4	5.9	5.4	5.0	4.6	4.2	3.8	3.5	3.2	
5	109.40	27.4	21.1	16.6	13.3	10.8	8.8	7.3	6.6	6.0	5.5	5.0	4.6	4.1	3.8	3.4	3.1	2.8			
4	90.70	22.3	17.1	13.4	10.6	8.5	6.9	5.6	5.1	4.6	4.1	3.7	3.4	3.0	2.7						
3	52.90	12.0	8.9	6.8	5.2	4.0	3.0														

* PLEASE CONTACT CORESLAB STRUCTURES (ONT) INC. TO ADDRESS LINEAR LOADS, POINT LOADS OR ANY OTHER SPECIAL LOADING CONDITIONS.

CORESLAB® STRUCTURES (ONT) INC.

CORESLAB 10 INCH IMPERIAL LOAD TABLE

# of 1/2" Ø strands	Mu (lb·ft)	TOTAL UNIFORMLY DISTRIBUTED SUPERIMPOSED SERVICE LOAD - lbs/ft^2																			
		SIMPLE SPAN - CENTRE TO CENTRE OF BEARING - FEET																			
		24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
9	170978	334	303	276	251	229	209	192	176	161	148	136	124	114	105	96	88	81	74	68	62
8	159615	308	279	253	230	210	191	175	160	146	134	122	112	103	94	86	78	71	65	59	53
7	144340	272	246	223	202	184	167	152	139	126	115	105	95	87	79	72	65	59	53	47	
6	126867	232	209	189	170	154	139	126	114	104	94	85	76	69	62	55	50				
5	107633	187	168	151	135	121	109	98	88	78	70	62	55								
4	87433	141	125	111	98	87	77	68	60	52											



NOTES:
1. Shaded portion of table controlled by shear.
2. Table based on maximum deflection of L/360.

CORESLAB PROPERTIES		
PROP.	METRIC	IMPERIAL
A	162555 mm^2	252 in^2
Y_b	127 mm	5 in
I_x	1.318x10^9 mm^4	3166 in^4
b_w	288.23 mm	11.34 in
f_{pu}	1860 MPa	270 ksi
f'_c	41 MPa	6000 psi
f'_{ci}	28 MPa	4000 psi
S_w	3.54 kPa	74 psf

CORESLAB 250 mm METRIC LOAD TABLE

# of 13mm Ø strands	Mu (kN·m)	TOTAL UNIFORMLY DISTRIBUTED SUPERIMPOSED SERVICE LOAD - kPa (kN/m^2)																			
		SIMPLE SPAN - CENTRE TO CENTRE OF BEARING - METRES																			
		7.00	7.50	8.00	8.50	9.00	9.50	10.00	10.25	10.50	10.75	11.00	11.25	11.50	11.75	12.00	12.25	12.50	12.75	13.00	13.50
9	231.80	17.7	15.1	12.9	11.1	9.6	8.3	7.2	6.7	6.2	5.8	5.4	5.1	4.7	4.4	4.1	3.8	3.5	3.3	3.0	2.6
8	216.39	16.3	13.9	11.8	10.1	8.7	7.5	6.5	6.0	5.6	5.2	4.9	4.5	4.2	3.9	3.6	3.4	3.1	2.9	2.6	
7	195.68	14.5	12.2	10.4	8.9	7.6	6.5	5.6	5.2	4.8	4.4	4.1	3.8	3.5	3.2	3.0	2.7	2.5	2.3		
6	172.00	12.4	10.4	8.8	7.5	6.3	5.4	4.6	4.2	3.9	3.6	3.3	3.0	2.7	2.5						
5	145.92	10.1	8.4	7.0	5.9	4.9	4.1	3.4	3.1	2.8											
4	118.55	7.6	6.3	5.1	4.2	3.4	2.8														

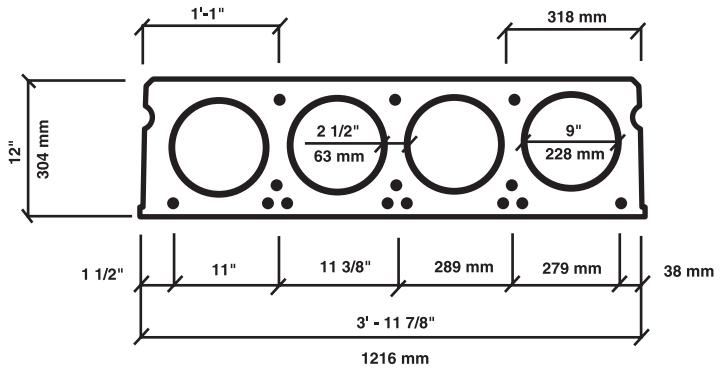
* PLEASE CONTACT CORESLAB STRUCTURES (ONT) INC. TO ADDRESS LINEAR LOADS, POINT LOADS OR ANY OTHER SPECIAL LOADING CONDITIONS.

CORESLAB® STRUCTURES (ONT) INC.

ONT 04/04

CORESLAB 12 INCH IMPERIAL LOAD TABLE

# of 1/2" Ø strands	Mu (lb·ft)	TOTAL UNIFORMLY DISTRIBUTED SUPERIMPOSED SERVICE LOAD - lbs/ft²																			
		SIMPLE SPAN - CENTRE TO CENTRE OF BEARING - FEET																			
		31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
11	260750	290	268	248	229	212	197	182	169	157	146	135	125	116	108	100	93	86	79	73	67
10	246700	271	250	230	213	197	182	169	156	145	134	124	115	106	98	91	84	77	71	65	60
9	222080	236	217	200	184	170	157	145	133	123	113	104	96	88	81	75	68	62	57	52	47
8	207720	217	199	183	168	154	142	131	120	110	101	93	85	78	71	65	59	54	49	44	
7	188440	190	174	159	146	133	122	112	102	94	85	78	71	64	58	52	47				
6	166780	160	145	133	121	110	100	91	82	75	67	61	54								
5	142090	125	113	102	92	83	75	67	60	53											



NOTES:
1. Shaded portion of table controlled by shear.
2. Table based on maximum deflection of L/360.

CORESLAB PROPERTIES		
PROP.	METRIC	IMPERIAL
A	203150 mm²	314.90 in²
Y_b	152.4 mm	6 in
I_x	2.1x10⁹ mm⁴	5552 in⁴
b_w	323.25 mm	12.72 in
f_{pu}	1860 MPa	270 ksi
f'_c	41 MPa	6000 psi
f'_{ci}	28 MPa	4000 psi
S_w	4.12 kPa	86 psf

CORESLAB 300 mm METRIC LOAD TABLE

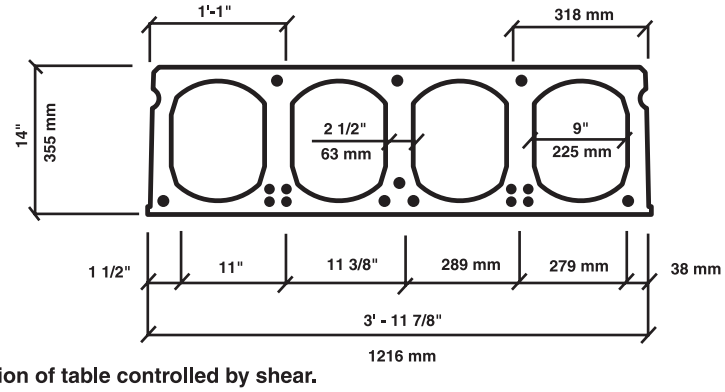
# of 13mm Ø strands	Mu (kN·m)	TOTAL UNIFORMLY DISTRIBUTED SUPERIMPOSED SERVICE LOAD - kPa (kN/m²)																			
		SIMPLE SPAN - CENTRE TO CENTRE OF BEARING - METRES																			
		9.50	10.00	10.50	11.00	11.50	12.00	12.25	12.50	12.75	13.00	13.25	13.50	13.75	14.00	14.25	14.50	14.75	15.00	15.25	15.50
11	353.30	13.7	12.0	10.6	9.3	8.2	7.3	6.9	6.4	6.1	5.7	5.4	5.0	4.7	4.4	4.2	3.9	3.7	3.4	3.2	3.0
10	334.30	12.7	11.2	9.8	8.6	7.6	6.7	6.3	5.9	5.6	5.2	4.9	4.6	4.3	4.0	3.8	3.5	3.3	3.1	2.8	2.6
9	330.90	12.6	11.0	9.7	8.5	7.5	6.6	6.2	5.8	5.5	5.1	4.8	4.5	4.2	3.9	3.7	3.4	3.2	3.0	2.8	
8	281.50	10.2	8.9	7.7	6.7	5.9	5.1	4.8	4.4	4.1	3.8	3.6	3.3	3.1	2.8	2.6	2.4	2.2	2.0		
7	255.30	8.9	7.7	6.7	5.8	5.0	4.3	4.0	3.7	3.4	3.2	2.9	2.7	2.5	2.3						
6	226.00	7.5	6.4	5.5	4.7	4.0	3.4	3.1	2.9	2.6											
5	192.50	5.9	5.0	4.2	3.5	2.9	2.4														

* PLEASE CONTACT CORESLAB STRUCTURES (ONT) INC. TO ADDRESS LINEAR LOADS, POINT LOADS OR ANY OTHER SPECIAL LOADING CONDITIONS.

CORESLAB® STRUCTURES (ONT) INC.

CORESLAB 14 INCH IMPERIAL LOAD TABLE

# of 1/2" Ø strands	Mu (lb·ft)	TOTAL UNIFORMLY DISTRIBUTED SUPERIMPOSED SERVICE LOAD - lbs/ft²																			
		SIMPLE SPAN - CENTRE TO CENTRE OF BEARING - FEET																			
		31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
13	390169	462	429	399	371	345	322	301	281	263	246	230	216	210	197	185	174	164	154	145	129
12	364354	426	395	367	341	317	296	276	257	240	224	210	196	191	179	168	158	148	139	131	115
11	337064	388	360	334	310	288	268	249	232	216	202	188	176	171	160	150	141	132	123	116	101
10	309775	351	324	300	278	258	240	223	207	192	179	167	155	152	142	132	124	115	108	100	86
9	281747	312	288	266	246	227	211	195	181	168	156	144	134	131	122	114	106	98	91	85	71
8	252983	272	250	231	213	196	181	167	154	143	132	121	112	111	103	95	88	81	75	69	
7	223480	231	212	194	179	164	151	138	127	117	107	98	90	89	82	75	69				
6	193240	189	172	157	144	131	120	109	99	90	82	74	67								
5	163000	147	133	120	109	98	89	80	71	64											



NOTES:
1. Shaded portion of table controlled by shear.
2. Table based on maximum deflection of L/360.

CORESLAB PROPERTIES

PROP.	METRIC	IMPERIAL
A	194655 mm²	301.71 in²
Y_b	177.8 mm	7 in
I_x	3.16x10⁹ mm⁴	7591.9 in⁴
b_w	299 mm	11.77 in
f_{pu}	1860 MPa	270 ksi
f'_c	41 MPa	6000 psi
f'_{ci}	28 MPa	4000 psi
S_w	4.52 kPa	95 psf

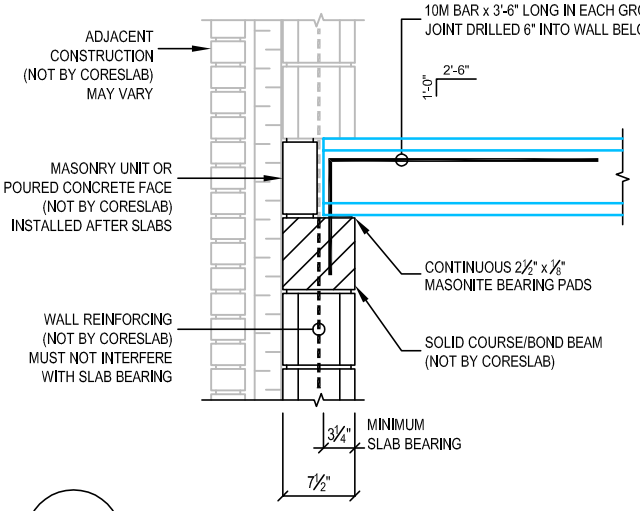
CORESLAB 350 mm METRIC LOAD TABLE

# of 13mm Ø strands	Mu (kN·m)	TOTAL UNIFORMLY DISTRIBUTED SUPERIMPOSED SERVICE LOAD - kPa (kN/m²)																			
		SIMPLE SPAN - CENTRE TO CENTRE OF BEARING - METRES																			
		9.50	10.00	10.50	11.00	11.50	12.00	12.25	12.50	12.75	13.00	13.25	13.50	13.75	14.00	14.25	14.50	14.75	15.00	15.25	15.50
13	529.0	21.8	19.3	17.2	15.3	13.7	12.3	11.6	11.0	10.5	9.9	9.4	8.9	8.5	8.0	7.6	7.2	6.9	6.5	6.2	5.9
12	494.0	20.1	17.8	15.8	14.1	12.6	11.2	10.6	10.0	9.5	9.0	8.5	8.1	7.6	7.2	6.9	6.5	6.2	5.8	5.5	5.2
11	457.0	18.4	16.2	14.3	12.7	11.3	10.1	9.5	9.0	8.5	8.0	7.6	7.2	6.8	6.4	6.1	5.7	5.4	5.1	4.8	4.5
10	420.0	16.6	14.6	12.9	11.4	10.1	9.0	8.5	8.0	7.5	7.1	6.7	6.3	5.9	5.6	5.3	5.0	4.7	4.4	4.1	3.9
9	382.0	14.7	12.9	11.4	10.0	8.9	7.8	7.4	6.9	6.5	6.1	5.7	5.4	5.1	4.7	4.5	4.2	3.9	3.7	3.4	
8	343.0	12.8	11.2	9.8	8.6	7.6	6.6	6.2	5.8	5.5	5.1	4.8	4.5	4.2	3.9	3.6	3.4	3.1	2.9		
7	303.0	10.9	9.5	8.2	7.2	6.2	5.4	5.1	4.7	4.4	4.1	3.8	3.5	3.2	3.0						
6	262.0	8.9	7.7	6.6	5.7	4.9	4.2	3.9	3.6	3.3											
5	221.0	6.9	5.9	5.0	4.2	3.5	2.9														

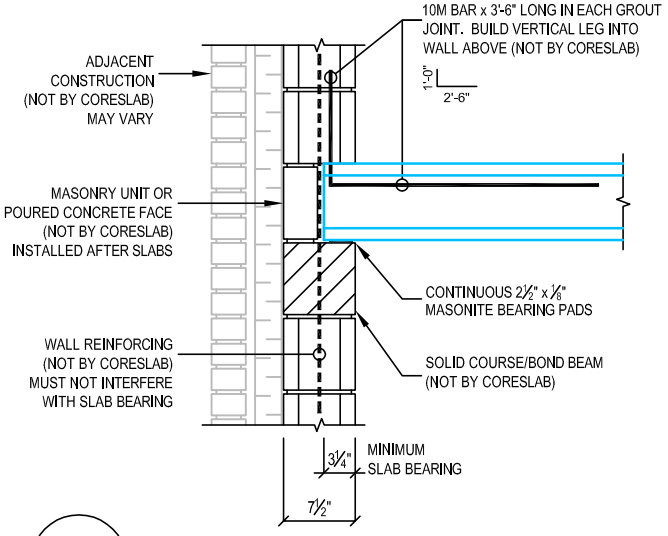
* PLEASE CONTACT CORESLAB STRUCTURES (ONT) INC. TO ADDRESS LINEAR LOADS, POINT LOADS OR ANY OTHER SPECIAL LOADING CONDITIONS.

CORESLAB® STRUCTURES (ONT) INC.

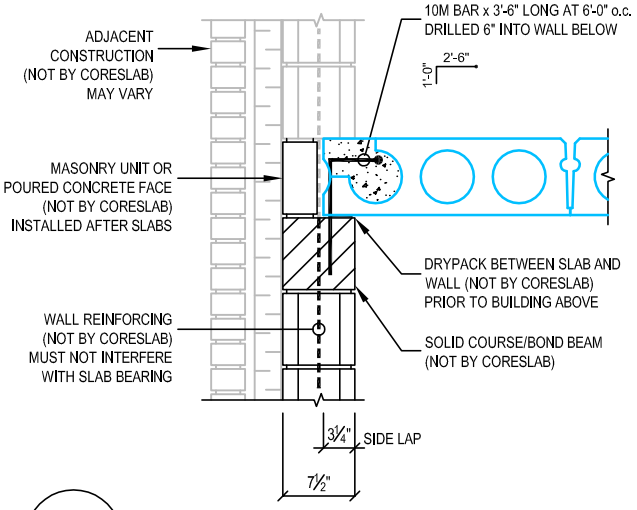
CONNECTION DETAILS TO MASONRY



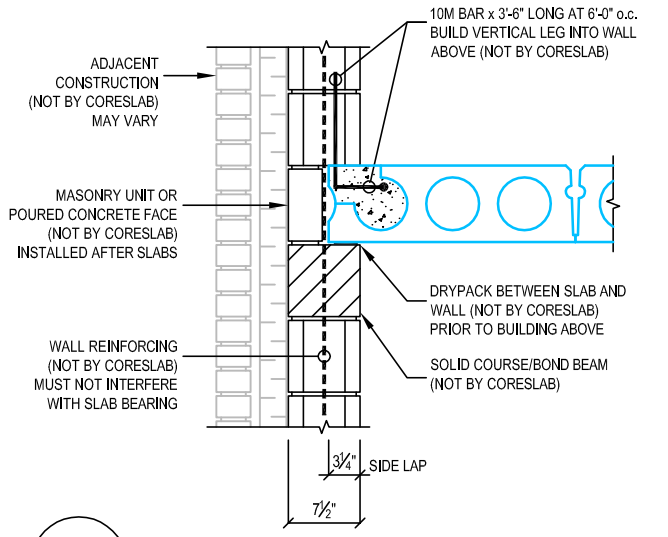
M1 STANDARD END BEARING / TIE DOWN



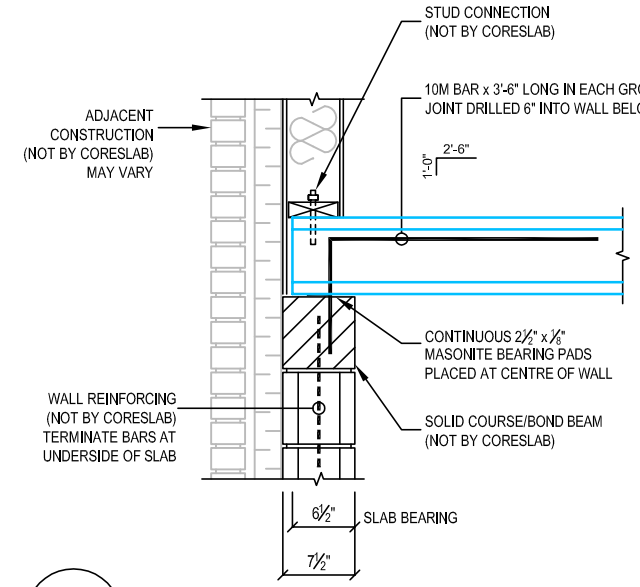
M2 STANDARD END BEARING / WALL ABOVE / TIE UP



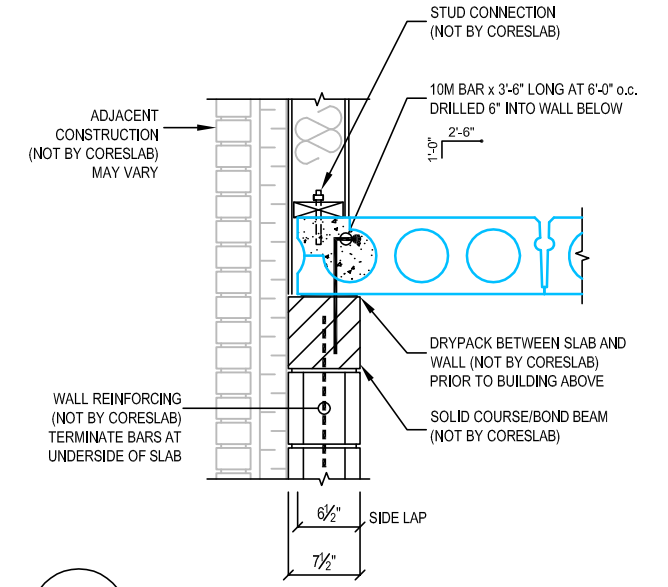
M3 SIDE LAP / TIE DOWN



M4 SIDE LAP / WALL ABOVE / TIE UP



M5 END BEARING / TIE DOWN / STUD ABOVE

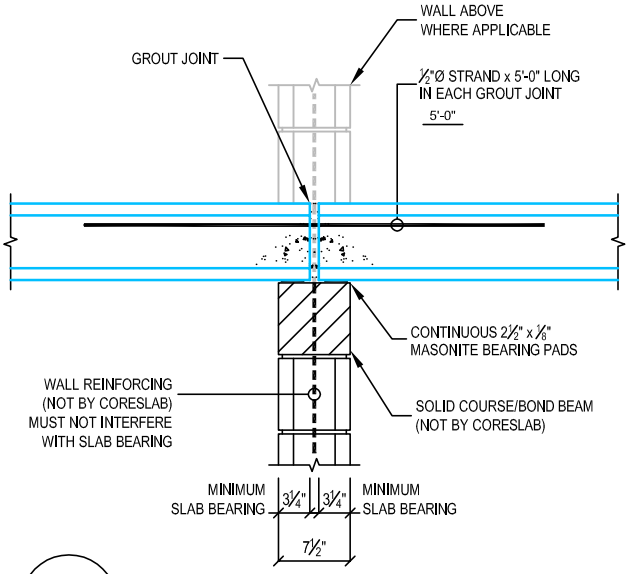


M6 SIDE LAP / TIE DOWN / STUD ABOVE

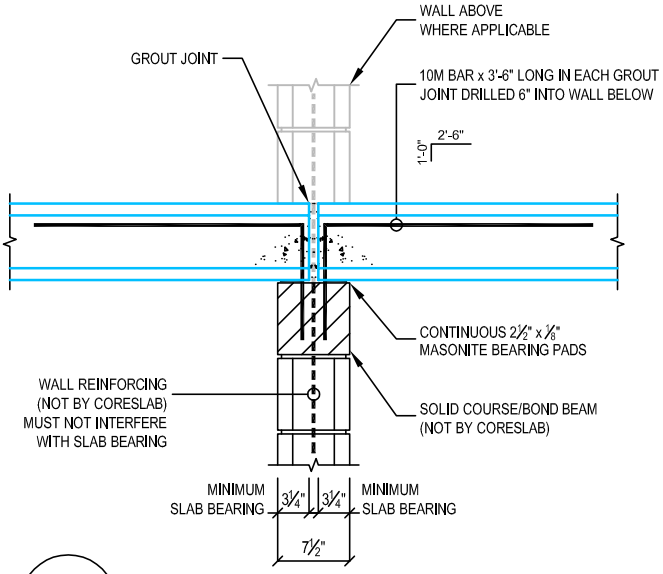
ONT 01/11

****All connection details shown are for **reference purposes only**. The building consultant must ensure that the details selected will satisfy the design criteria for the entire project. Connection details and bearing requirements for 10", 12", and 14" slabs may vary ~ contact Coreslab Engineer.

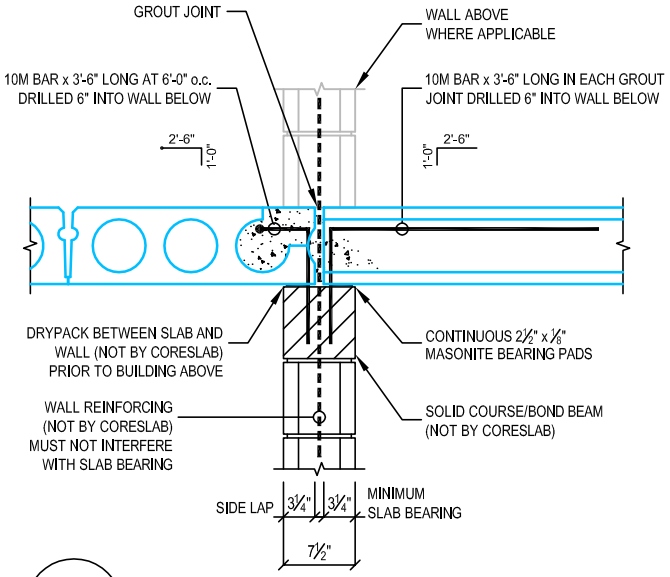
CONNECTION DETAILS TO MASONRY (continued)



M7 SHARED END BEARING / TIE ACROSS



M8 SHARED END BEARING / TIE DOWN

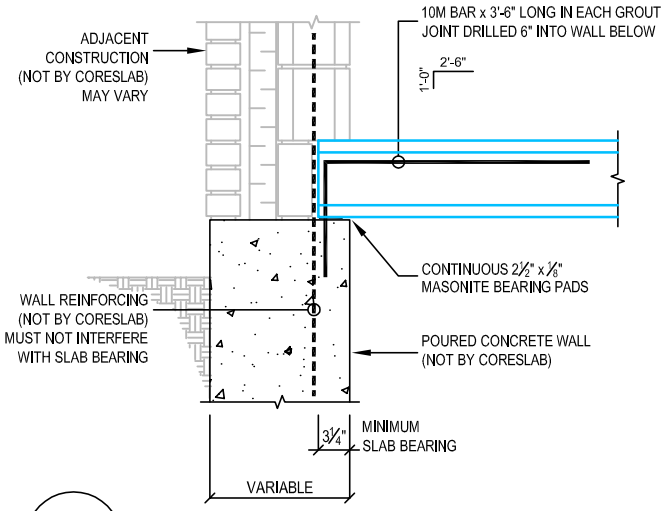


M9 PERPENDICULAR BEARING / TIE DOWN

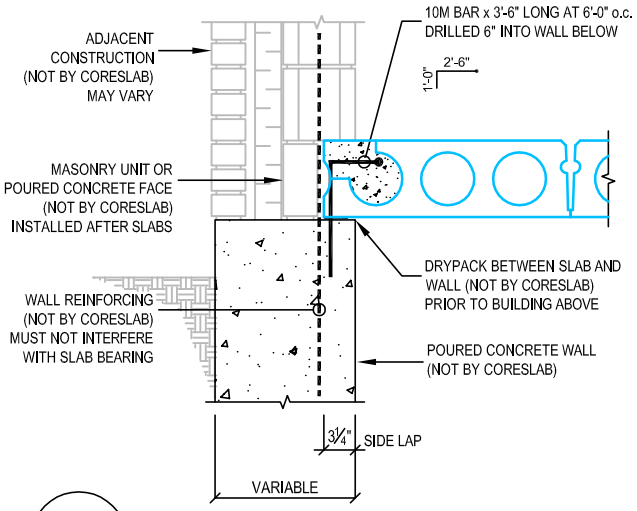
ONT 01/11

****All connection details shown are for **reference purposes only**. The building consultant must ensure that the details selected will satisfy the design criteria for the entire project. Connection details and bearing requirements for 10", 12", and 14" slabs may vary ~ contact Coreslab Engineer.

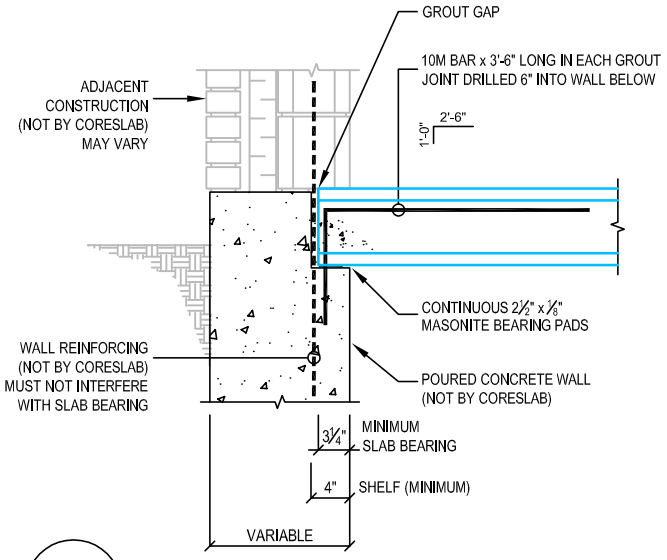
CONNECTION DETAILS TO POURED CONCRETE



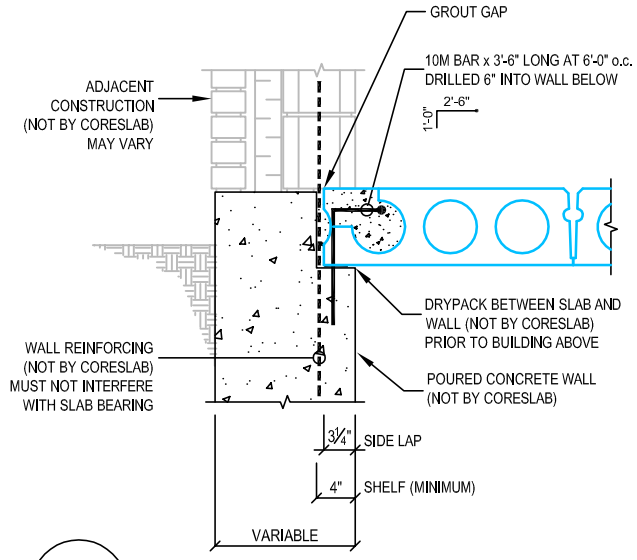
PC1 END BEARING ON POURED CONCRETE



PC2 SIDE LAP ON POURED CONCRETE



PC3 END BEARING ON POURED CONCRETE WITH SHELF

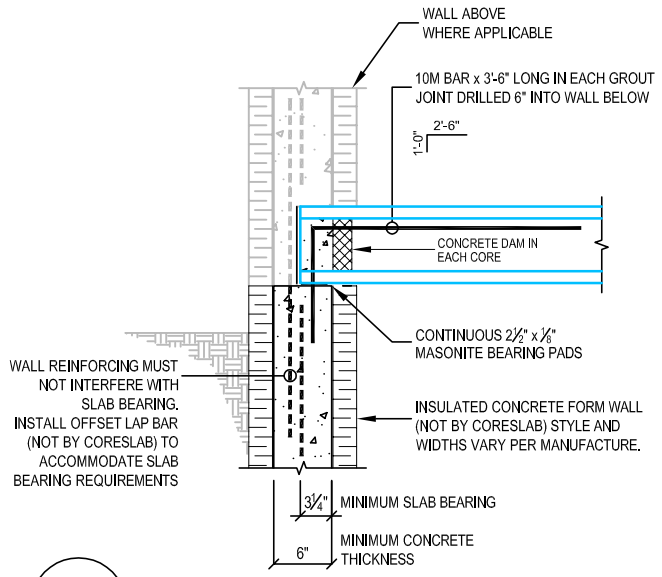


PC4 SIDE LAP ON POURED CONCRETE WITH SHELF

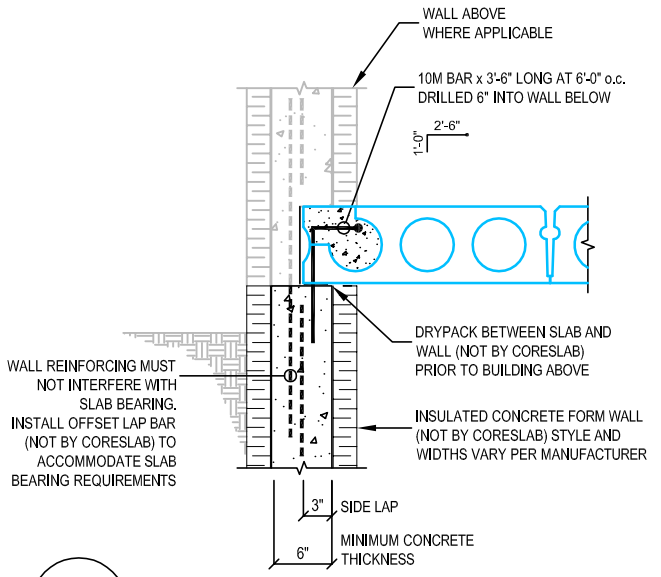
ONT 01/11

****All connection details shown are for **reference purposes only**. The building consultant must ensure that the details selected will satisfy the design criteria for the entire project. Connection details and bearing requirements for 10", 12", and 14" slabs may vary ~ contact Coreslab Engineer.

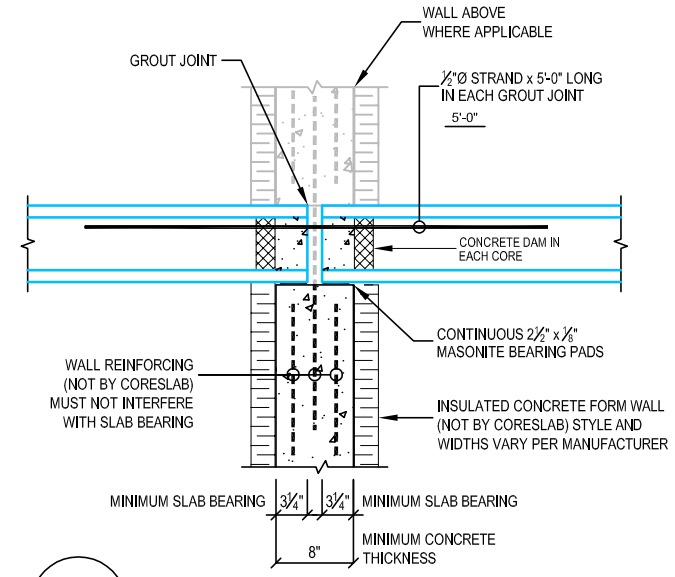
CONNECTION DETAILS TO INSULATED CONCRETE FORM "ICF" WALLS



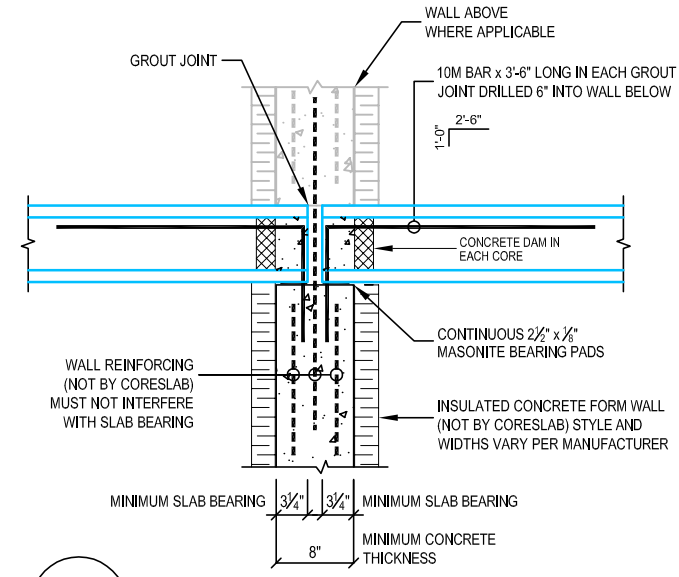
ICF1 END BEARING / TIE DOWN



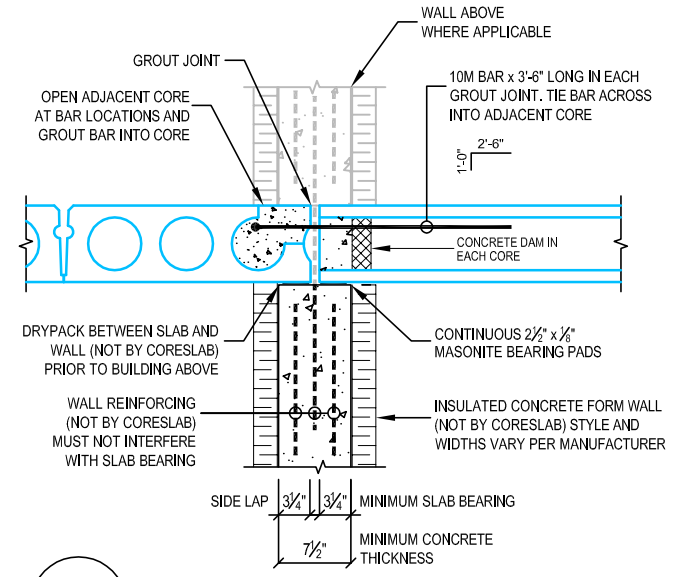
ICF2 SIDE LAP / TIE DOWN



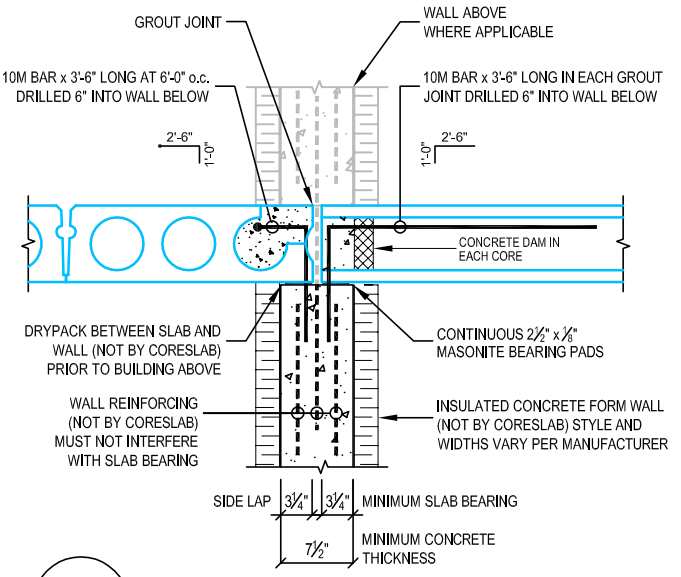
ICF3 SHARED END BEARING / TIE ACROSS



ICF4 SHARED END BEARING / TIE DOWN



ICF5 PERPENDICULAR BEARING / TIE ACROSS

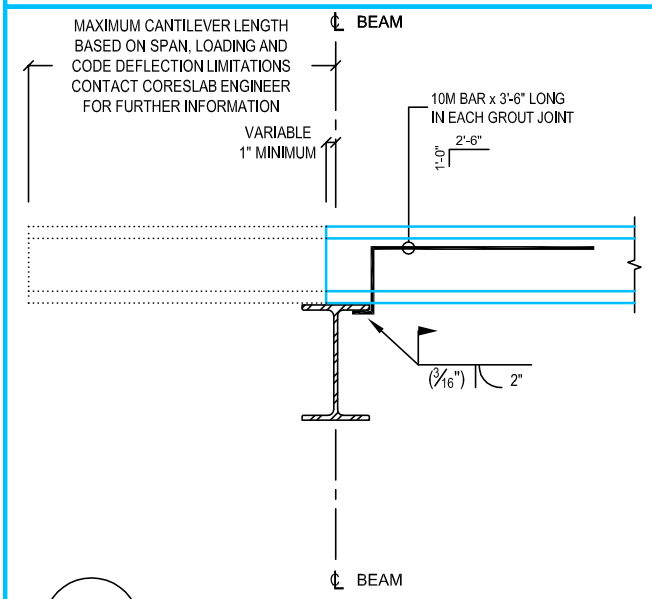


ICF6 PERPENDICULAR BEARING / TIE DOWN

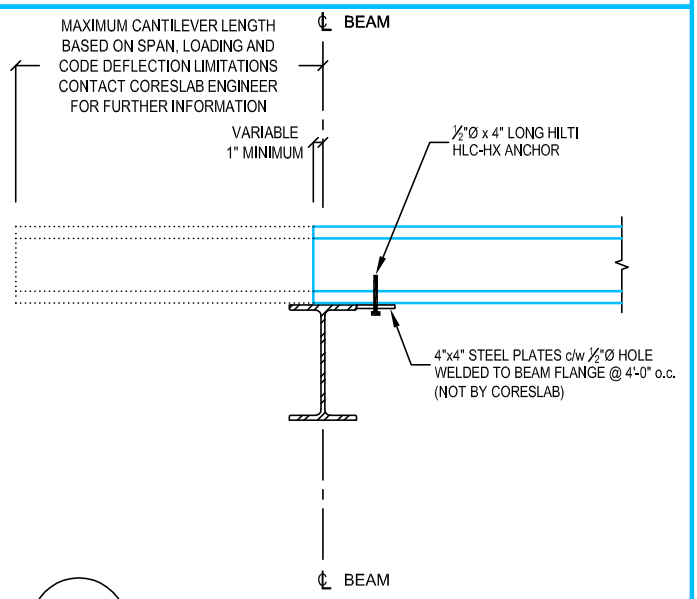
ONT 01/11

****All connection details shown are for **reference purposes only**. The building consultant must ensure that the details selected will satisfy the design criteria for the entire project. Connection details and bearing requirements for 10", 12", and 14" slabs may vary ~ contact Coreslab Engineer.

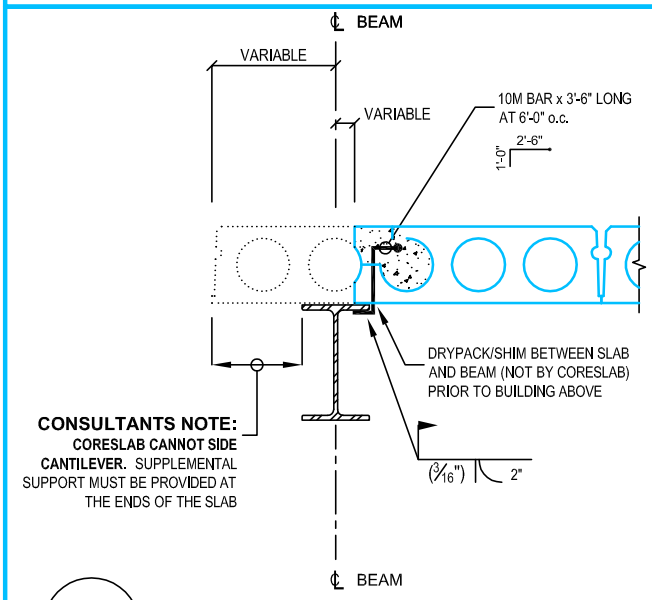
CONNECTION DETAILS TO STRUCTURAL STEEL



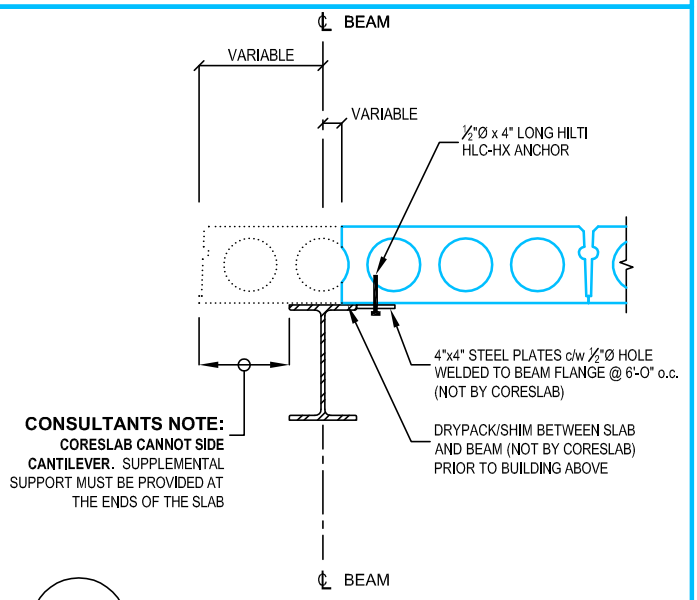
S1 END BEARING / TIE DOWN



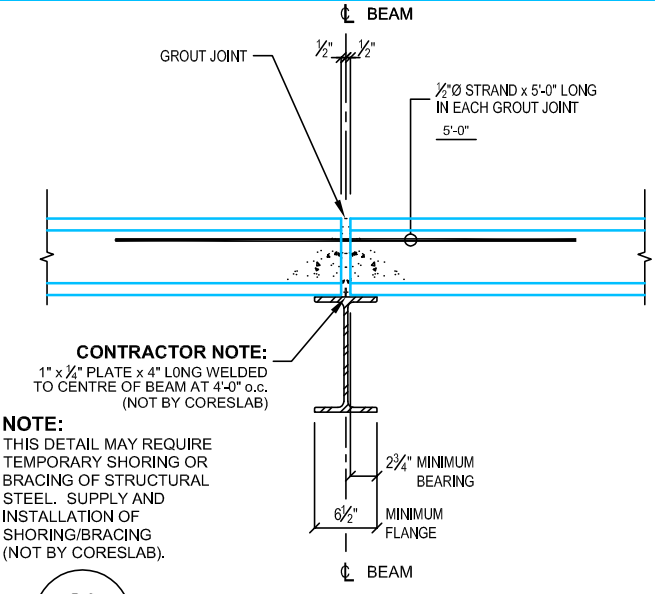
S1H END BEARING / HILTI CONNECTION



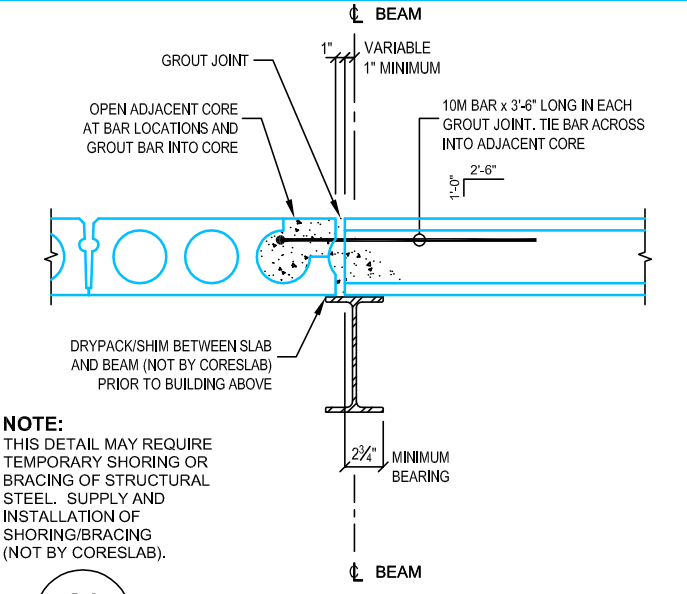
S2 SIDE LAP / TIE DOWN



S2H SIDE LAP / HILTI CONNECTION



S3 SHARED BEARING / TIE ACROSS

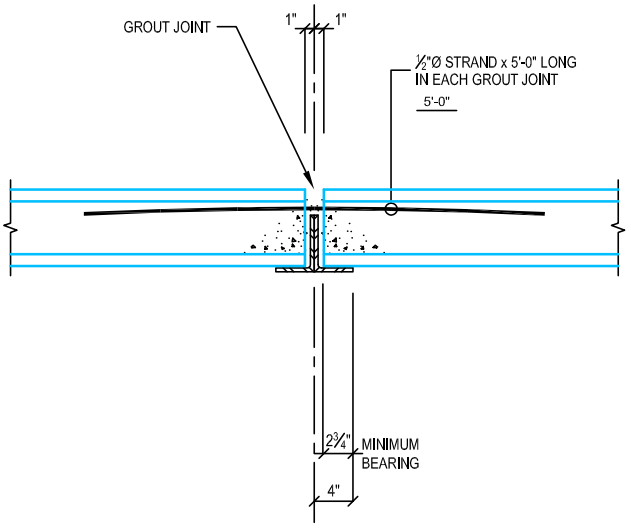


S4 PERPENDICULAR / TIE ACROSS

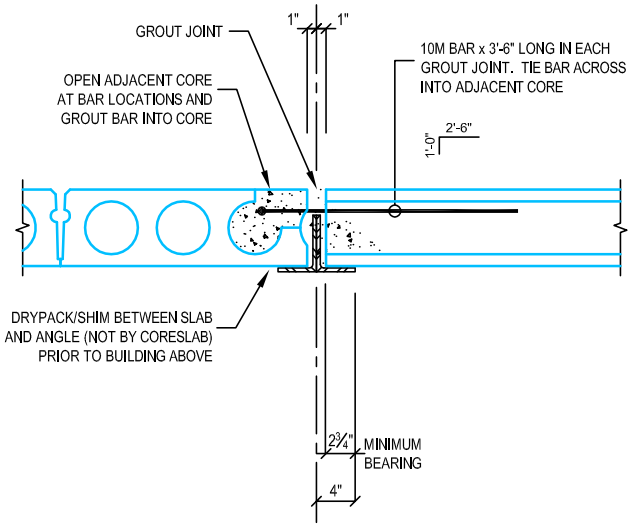
ONT 01/11

****All connection details shown are for **reference purposes only**. The building consultant must ensure that the details selected will satisfy the design criteria for the entire project.
Connection details and bearing requirements for 10", 12", and 14" slabs may vary ~ contact Coreslab Engineer.

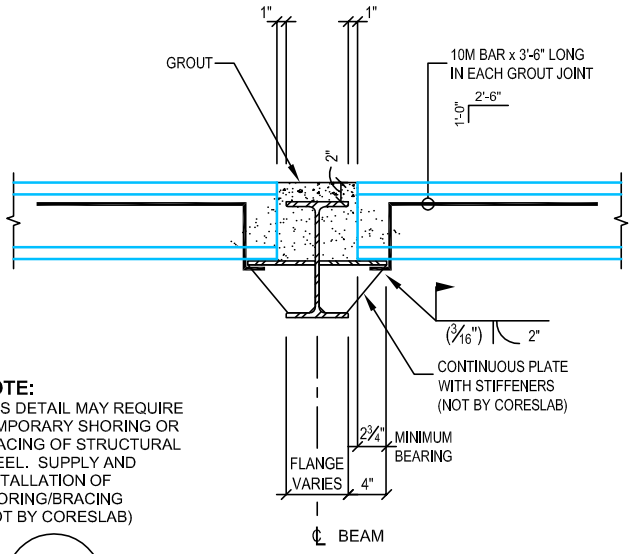
CONNECTION DETAILS TO STRUCTURAL STEEL (continued)



S5 END BEARING / BACK TO BACK ANGLES / TIE ACROSS

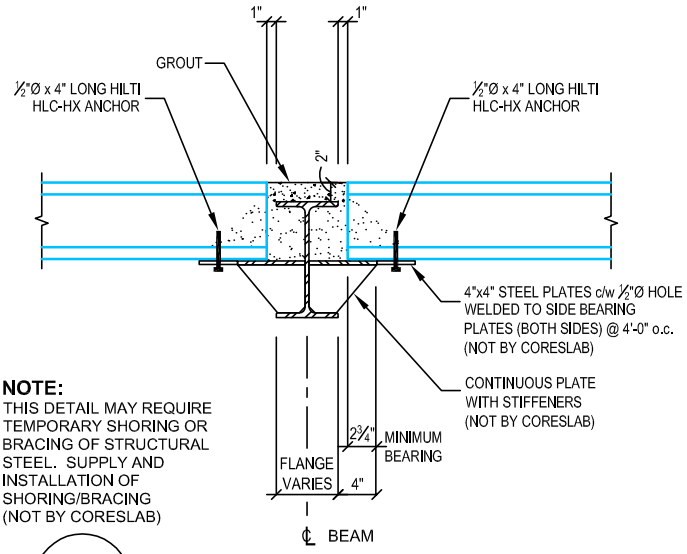


S6 PERPENDICULAR / BACK TO BACK ANGLES TIE ACROSS



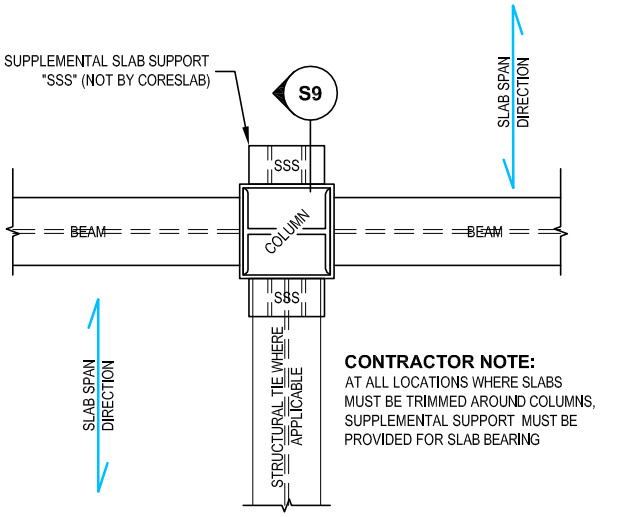
NOTE:
THIS DETAIL MAY REQUIRE TEMPORARY SHORING OR BRACING OF STRUCTURAL STEEL. SUPPLY AND INSTALLATION OF SHORING/BRACING (NOT BY CORESLAB)

S7 ELEVATED BEAM / SIDE PLATES / TIE DOWN



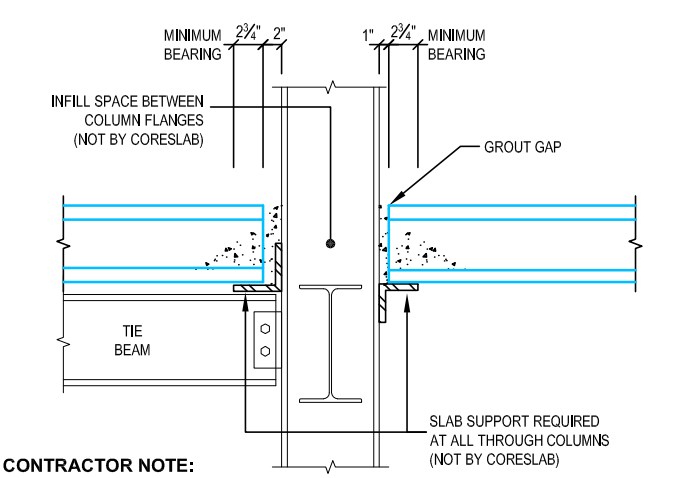
NOTE:
THIS DETAIL MAY REQUIRE TEMPORARY SHORING OR BRACING OF STRUCTURAL STEEL. SUPPLY AND INSTALLATION OF SHORING/BRACING (NOT BY CORESLAB)

S7H ELEVATED BEAM / SIDE PLATES / HILTI CONNECTION



CONTRACTOR NOTE:
AT ALL LOCATIONS WHERE SLABS MUST BE TRIMMED AROUND COLUMNS, SUPPLEMENTAL SUPPORT MUST BE PROVIDED FOR SLAB BEARING

S8 SUPPORT AT THROUGH COLUMNS PLAN VIEW

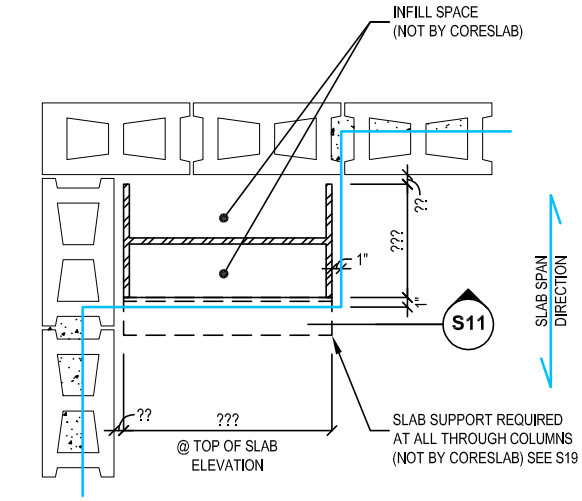


CONTRACTOR NOTE:
AT ALL LOCATIONS WHERE SLABS MUST BE TRIMMED AROUND COLUMNS, SUPPLEMENTAL SUPPORT MUST BE PROVIDED FOR SLAB BEARING

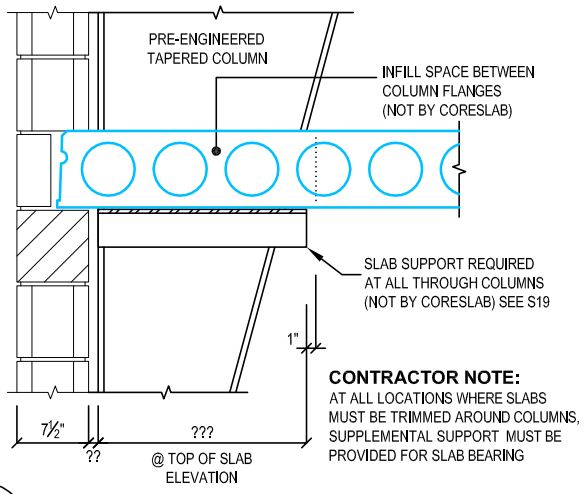
S9 SUPPORT AT THROUGH COLUMNS SECTION

****All connection details shown are for **reference purposes only**. The building consultant must ensure that the details selected will satisfy the design criteria for the entire project.
Connection details and bearing requirements for 10", 12", and 14" slabs may vary ~ contact Coreslab Engineer.

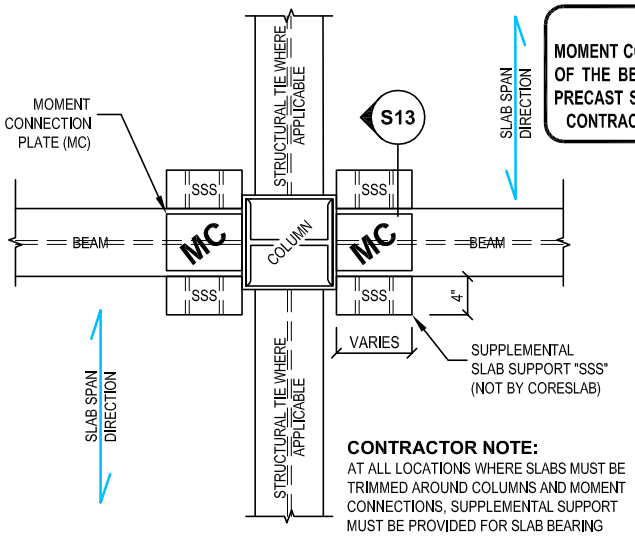
CONNECTION DETAILS TO STRUCTURAL STEEL (continued)



S10 SUPPORT AT PRE-ENGINEERED COLUMNS
PLAN VIEW



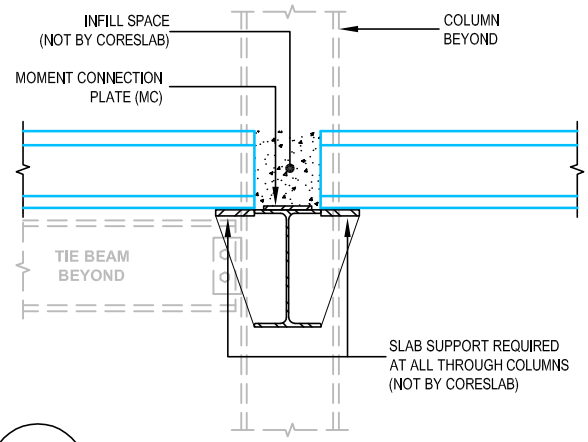
S11 SUPPORT AT PRE-ENGINEERED COLUMNS
SECTION



S12 SUPPORT AT MOMENT CONNECTIONS
PLAN VIEW

MOMENT CONNECTIONS

MOMENT CONNECTION PLATES ARE NOT TO BE LOCATED ON TOP OF THE BEAM WHERE THEY INTERFERE WITH BEARING OF THE PRECAST SLABS. IF TOP MOUNTED PLATES ARE UNAVOIDABLE, CONTRACTOR MUST PROVIDE SUPPLEMENTAL SLAB SUPPORT.

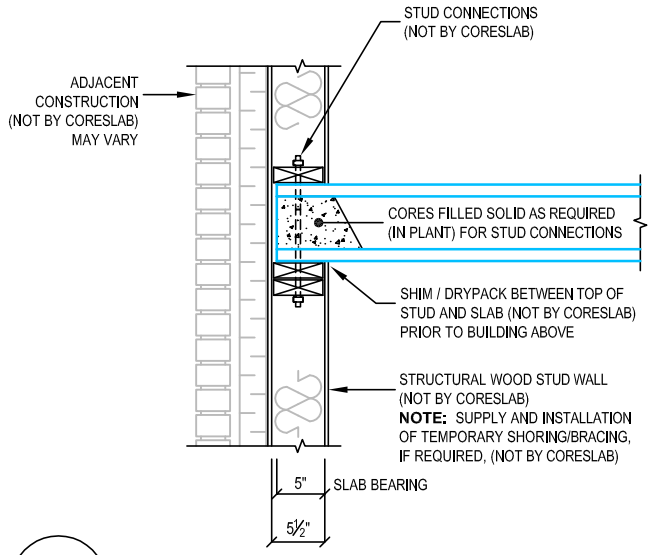


S13 SUPPORT AT MOMENT CONNECTIONS
SECTION

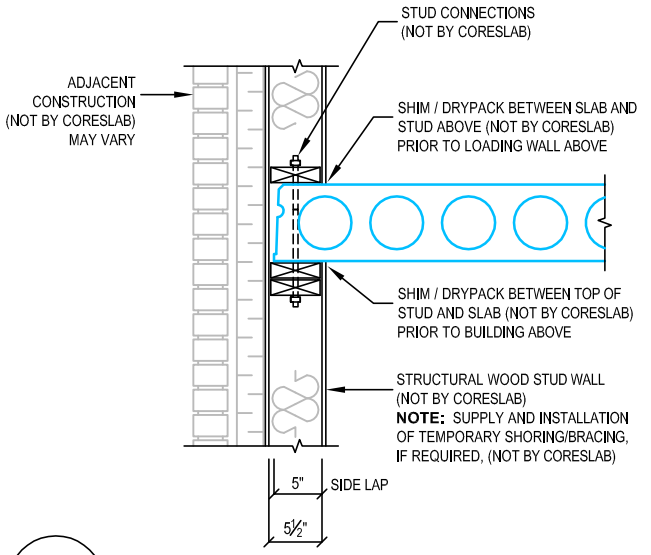
ONT 01/11

****All connection details shown are for **reference purposes only**. The building consultant must ensure that the details selected will satisfy the design criteria for the entire project. Connection details and bearing requirements for 10", 12", and 14" slabs may vary ~ contact Coreslab Engineer.

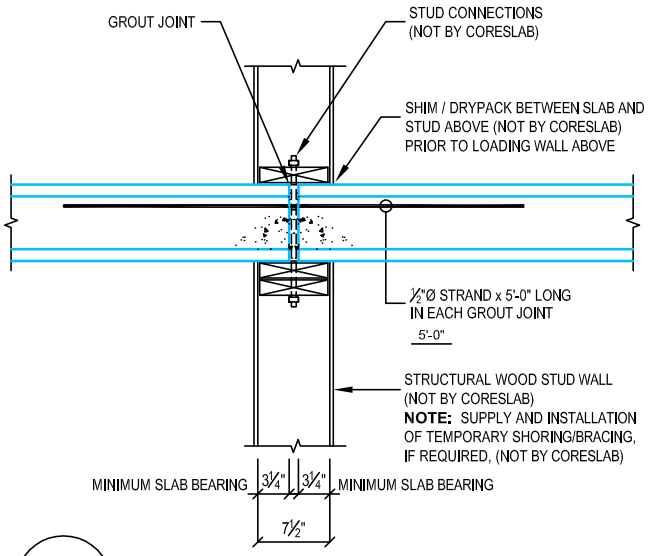
CONNECTION DETAILS TO STRUCTURAL WOOD STUD WALLS



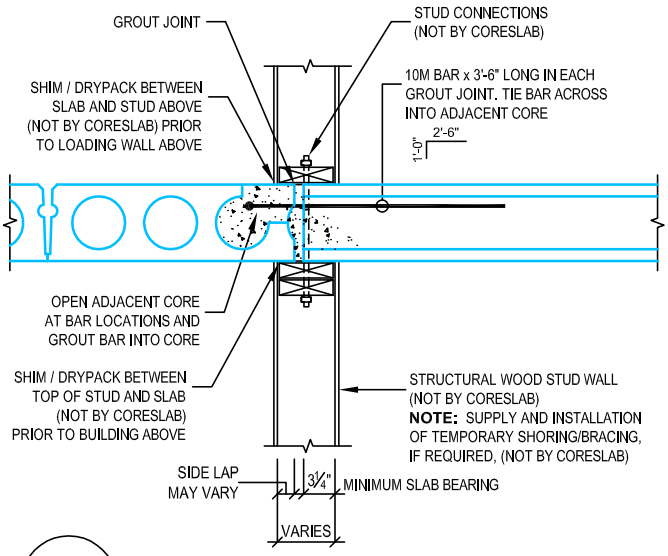
WS1 END BEARING



WS2 SIDE LAP



WS3 SHARED END BEARING

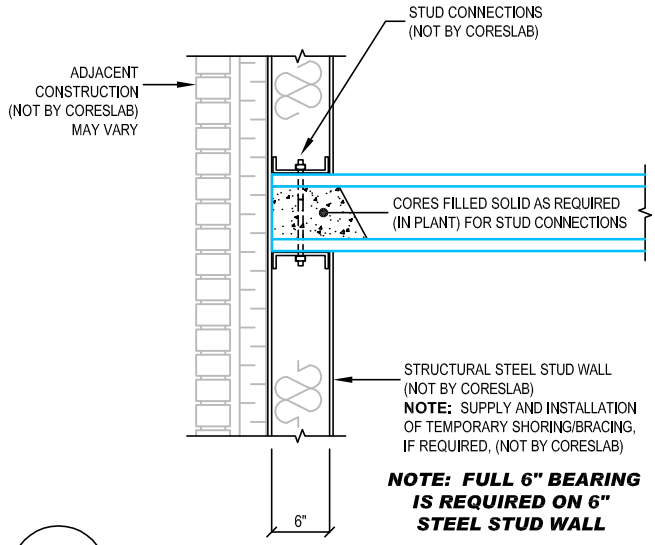


WS4 PERPENDICULAR BEARING

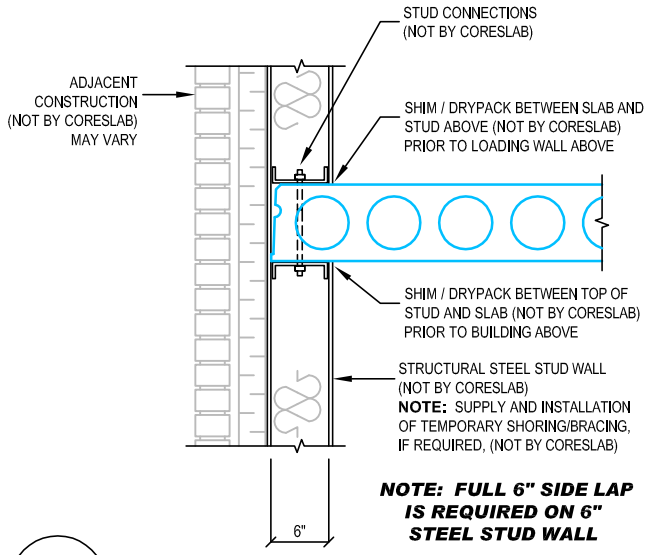
ONT 01/11

****All connection details shown are for **reference purposes only**. The building consultant must ensure that the details selected will satisfy the design criteria for the entire project. Connection details and bearing requirements for 10", 12", and 14" slabs may vary ~ contact Coreslab Engineer.

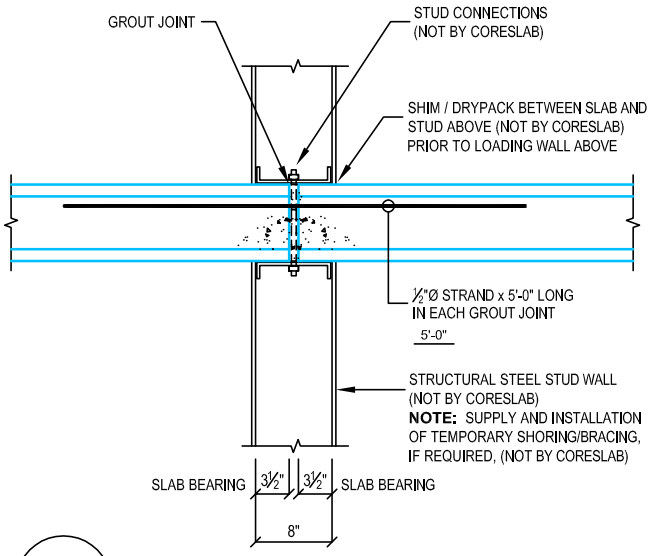
CONNECTION DETAILS TO STRUCTURAL STEEL STUD WALLS



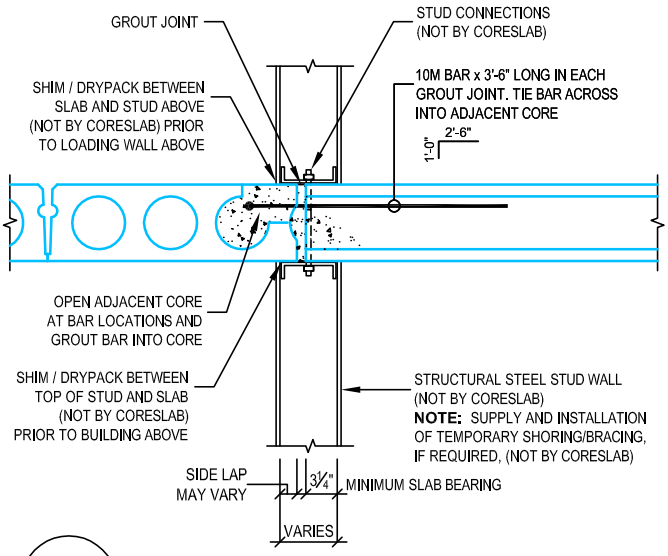
SS1 END BEARING



SS2 SIDE LAP



SS3 EQUAL SHARED END BEARING



SS4 PERPENDICULAR BEARING

ONT 01/11

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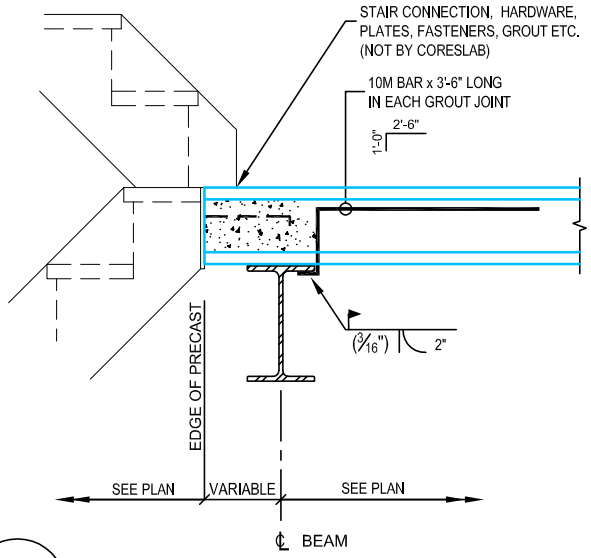
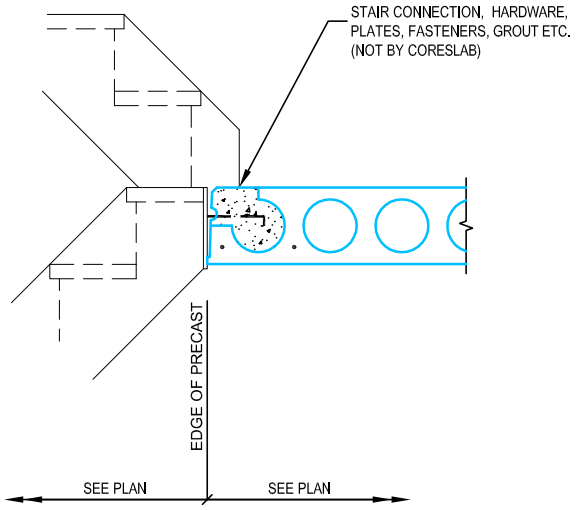
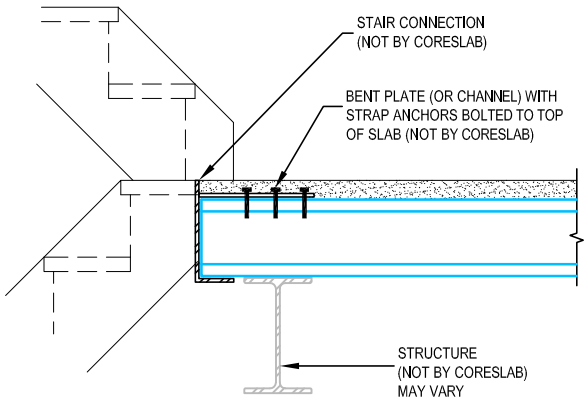
CONNECTION DETAILS TO STAIRS



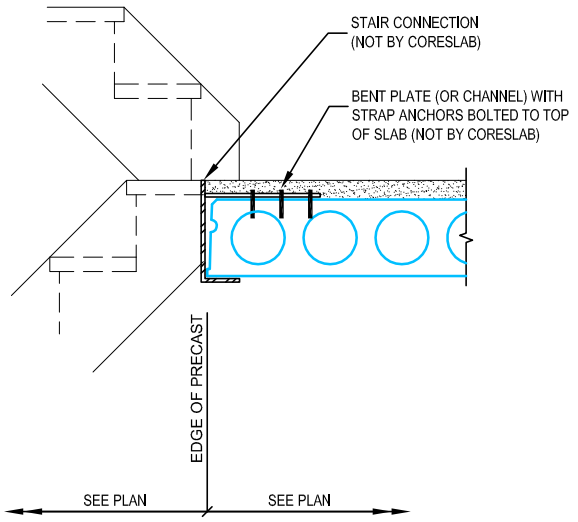
ST1 WOOD OR STEEL STAIR TO END OF SLAB



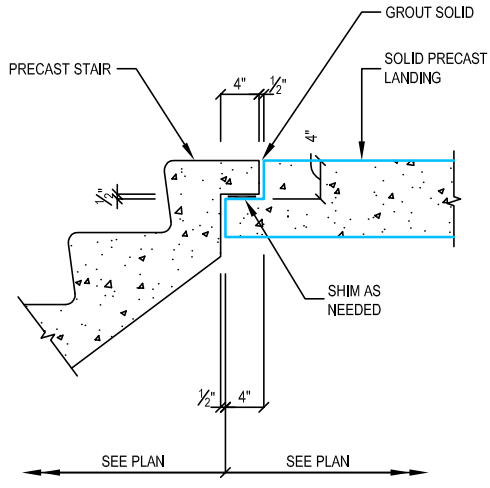
ST2 WOOD OR STEEL STAIR TO SIDE OF SLAB



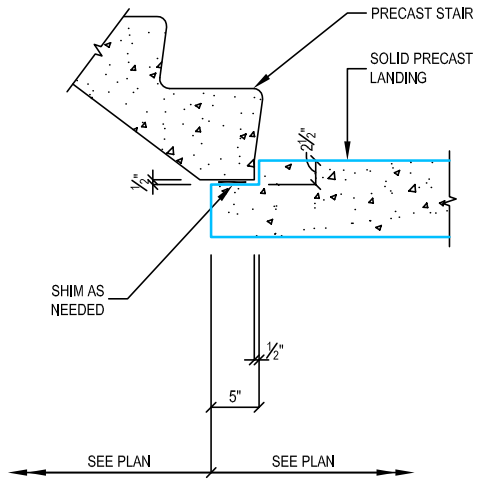
ST3 STEEL STAIR TO END OF SLAB WITH TOPPING



ST4 STEEL STAIR TO SIDE OF SLAB WITH TOPPING



ST5 PRECAST STAIR / SOLID PRECAST LANDING / DOWN



ST6 PRECAST STAIR / SOLID PRECAST LANDING / UP

ONT 01/11

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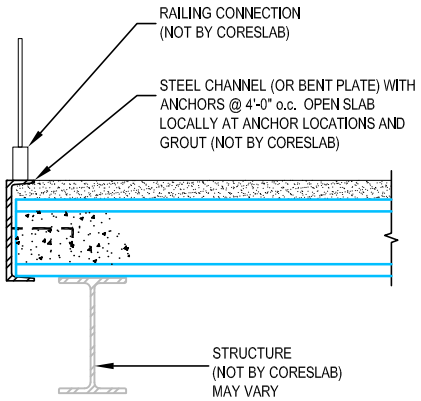
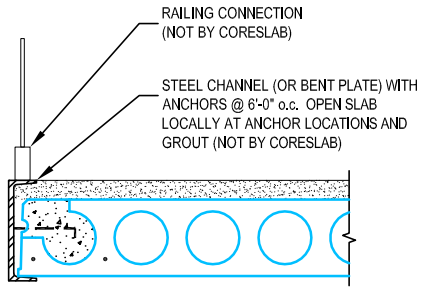
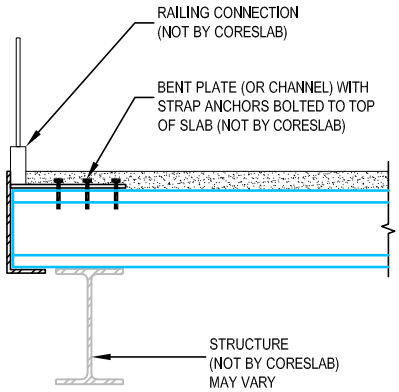
RAILING CONNECTIONS



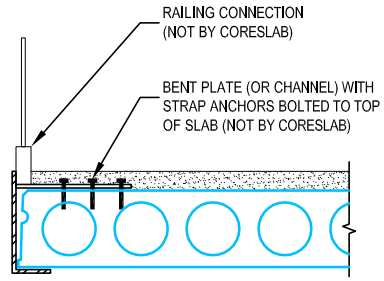
R1 RAILINGS TO END OF SLAB CHANNEL



R2 RAILINGS TO SIDE OF SLAB CHANNEL



R3 RAILINGS TO END OF SLAB BENT PLATE AND STRAPPING



R4 RAILINGS TO END OF SLAB BENT PLATE AND STRAPPING

ONT 01/11

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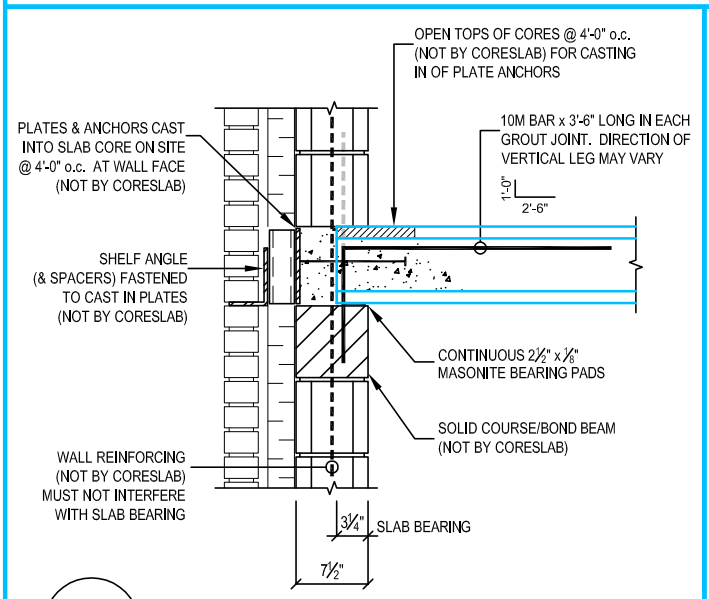
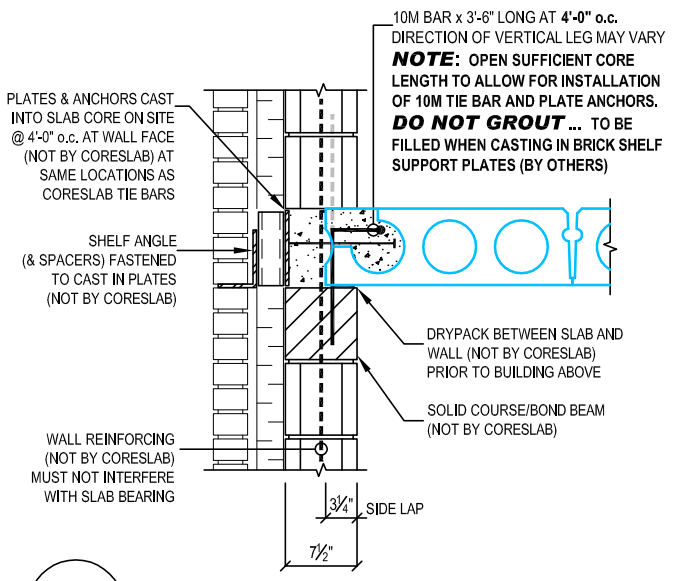
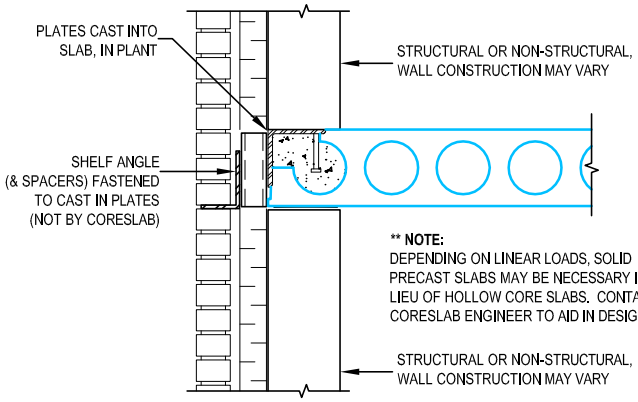
EXTERIOR CLADDING SUPPORT DETAILS



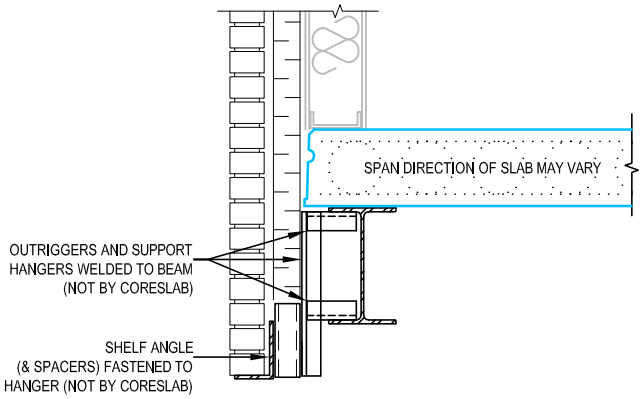
EC1 BRICK SUPPORT / END BEARING



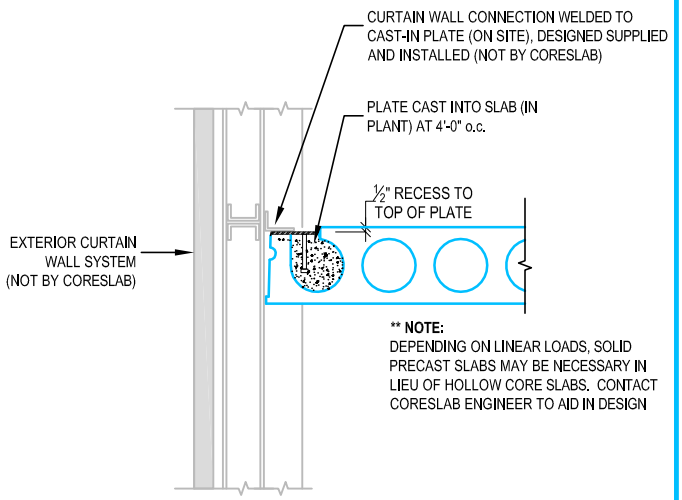
EC2 BRICK SUPPORT / SIDE LAP



EC3 BRICK SUPPORT / HOLLOW CORE SLAB**



EC4 BRICK SUPPORT / STRUCTURAL STEEL FRAMING

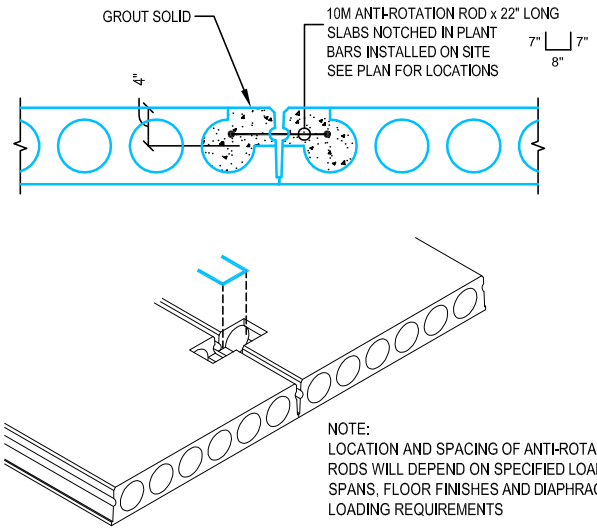


EC5 CURTAIN WALL SUPPORT / HOLLOW CORE SLAB**

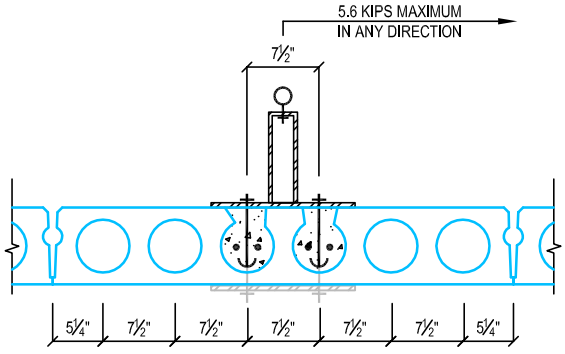
ONT 01/11

****All connection details shown are for **reference purposes only**. The building consultant must ensure that the details selected will satisfy the design criteria for the entire project. Connection details and bearing requirements for 10", 12", and 14" slabs may vary ~ contact Coreslab Engineer.

MISCELLANEOUS DETAILS



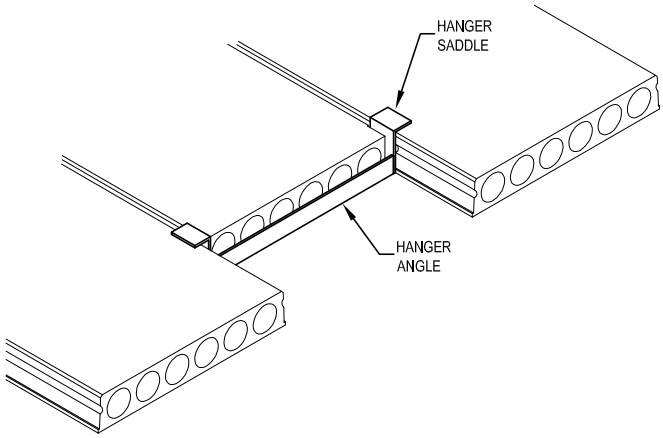
MSC1 ANTI-ROTATION ROD DETAIL



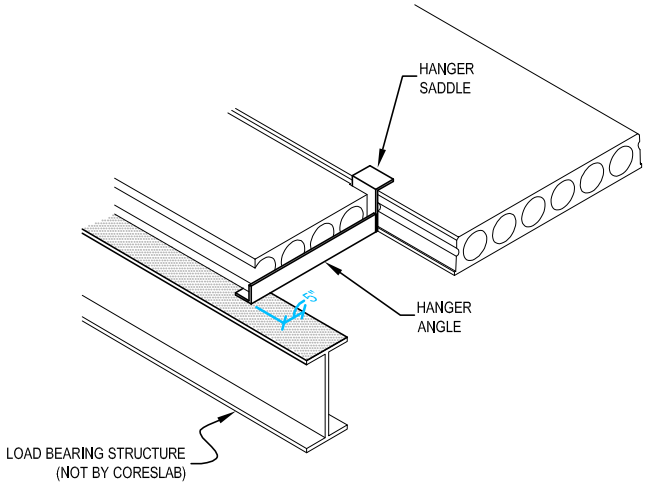
FALL PROTECTION ANCHOR SYSTEMS VARY PER MANUFACTURER.
TOP MOUNTED HARDWARE AND EMBEDDED REINFORCEMENT OR
PENETRATING THROUGH BOLTS - DESIGNED, SUPPLIED AND
INSTALLED (NOT BY CORESLAB)

NOTE: THERE ARE NUMEROUS PARAMETERS TO CONSIDER FOR
INSTALLING ROOF ANCHORS INTO HOLLOW CORE SLABS.
CONTACT CORESLAB ENGINEER TO AID IN CONNECTION DESIGN
AND LOCATING TO ENSURE INTENDED ROOF ANCHOR ACTION.

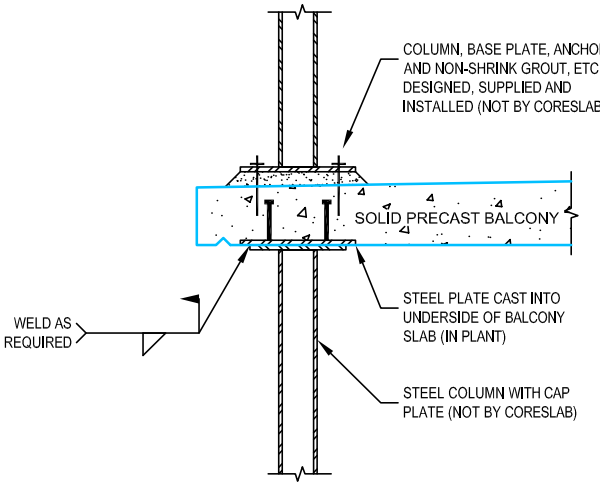
MSC2 FALL PROTECTION "ROOF" ANCHOR CONNECTION



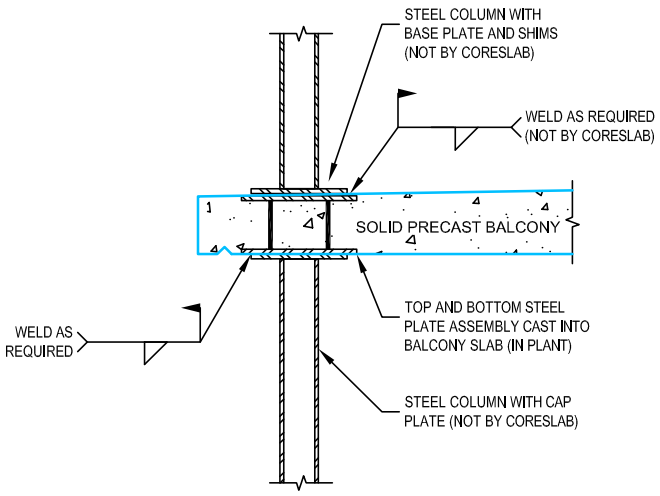
MSC3 HANGER DETAIL / SLAB TO SLAB



MSC4 HANGER DETAIL / SLAB TO WALL (OR BEAM)

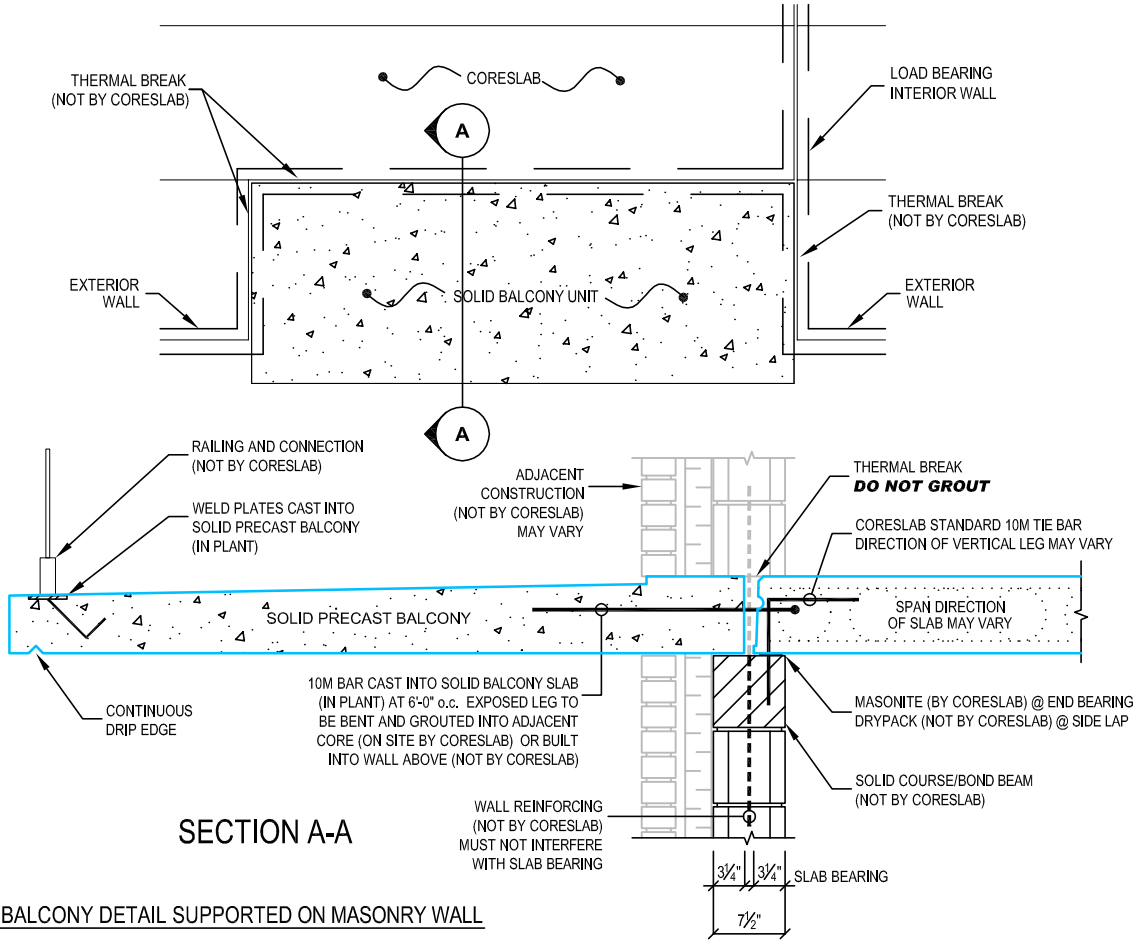


MSC5 COLUMN TO SOLID BALCONY
WELDED BELOW - BOLTED ABOVE



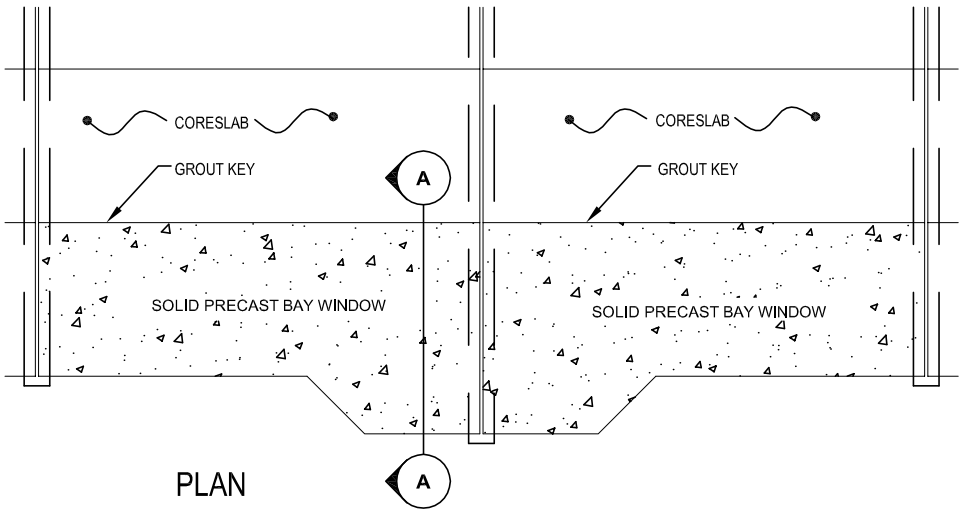
MSC6 COLUMN TO SOLID BALCONY
WELDED BELOW AND ABOVE

****All connection details shown are for **reference purposes only**. The building consultant must ensure that the details selected will satisfy the design criteria for the entire project.
Connection details and bearing requirements for 10", 12", and 14" slabs may vary ~ contact Coreslab Engineer.

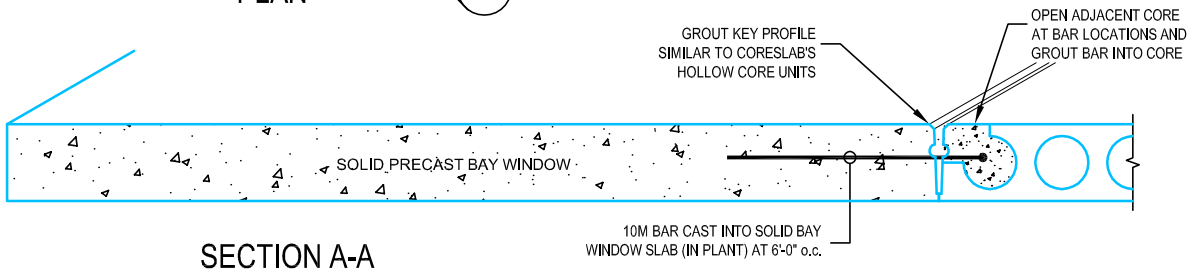


SECTION A-A

MSC7 BALCONY DETAIL SUPPORTED ON MASONRY WALL



PLAN



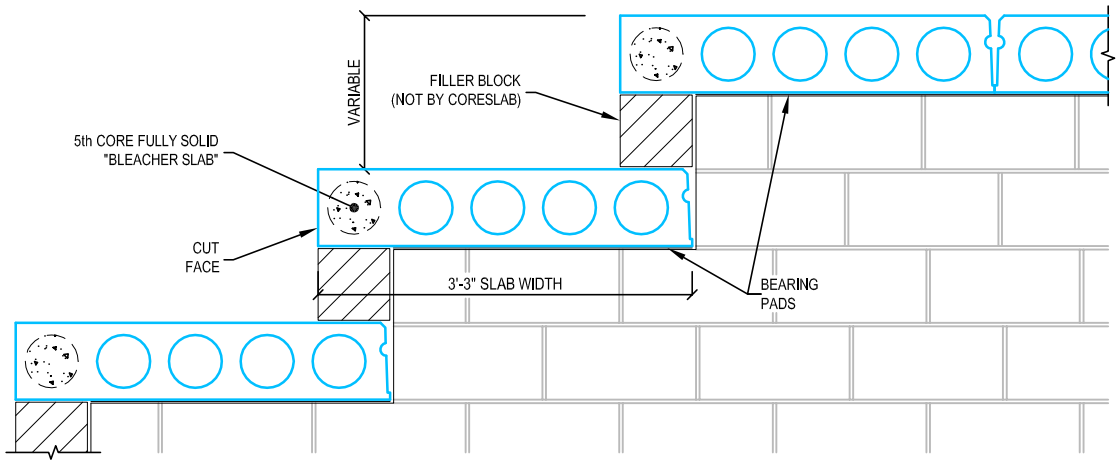
SECTION A-A

MSC8 SOLID BAY WINDOW UNIT

ONT 01/11

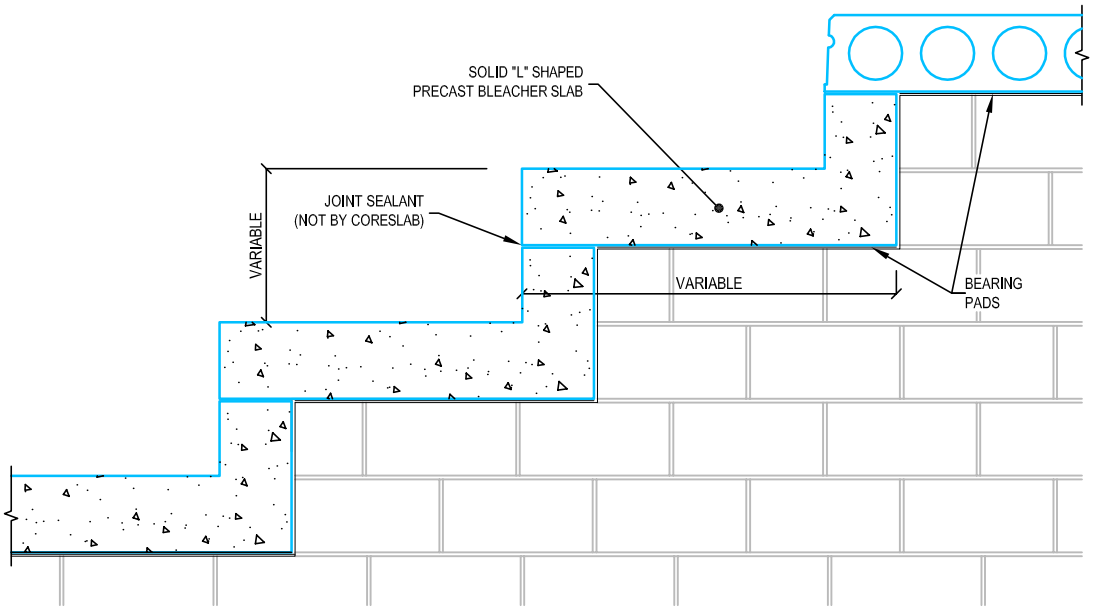
****All connection details shown are for **reference purposes only**. The building consultant must ensure that the details selected will satisfy the design criteria for the entire project. Connection details and bearing requirements for 10", 12", and 14" slabs may vary ~ contact Coreslab Engineer.

BLEACHER SEATING



MSC9 HOLLOW CORE BLEACHER SEATING

SLABS WILL HAVE SOME CAMBER. CONSULT CORESLAB FOR SPANS, DETAILS AND LOADING INFORMATION



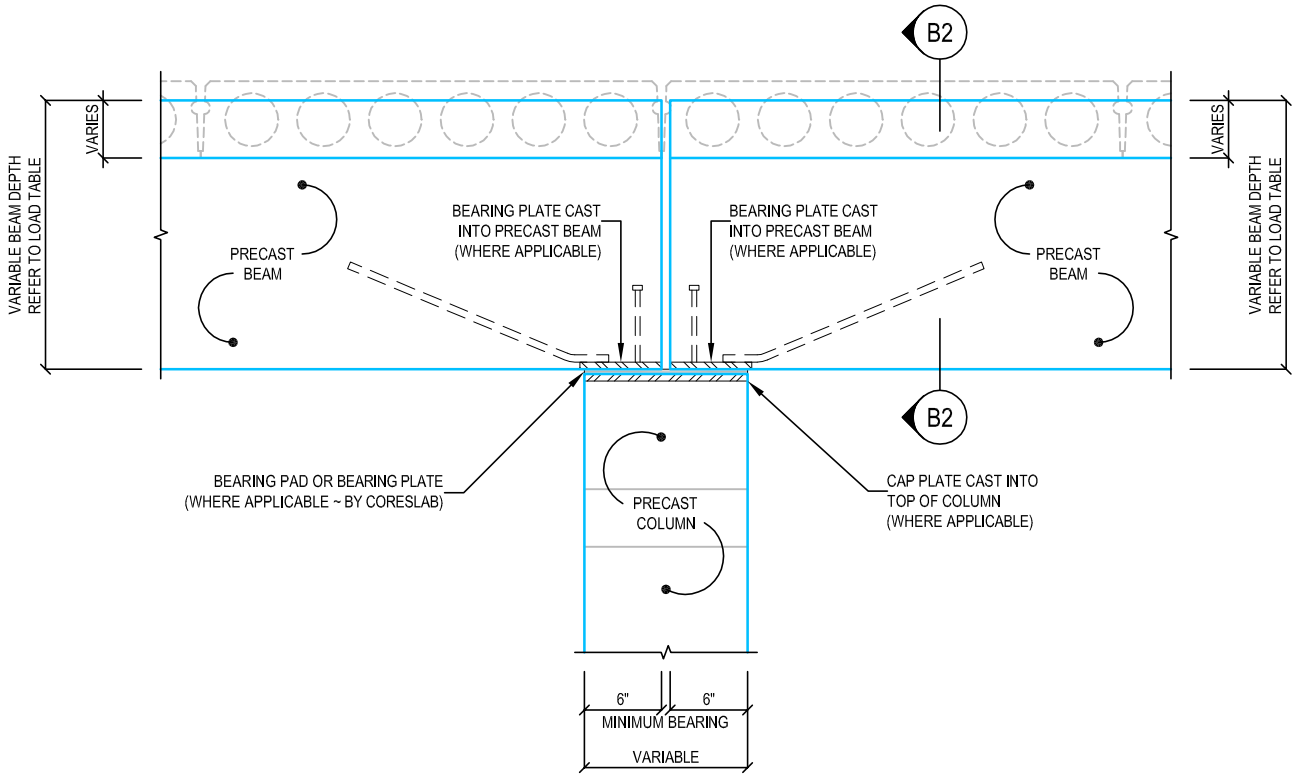
MSC10 SOLID PRECAST BLEACHER SEATING

ONT 01/11

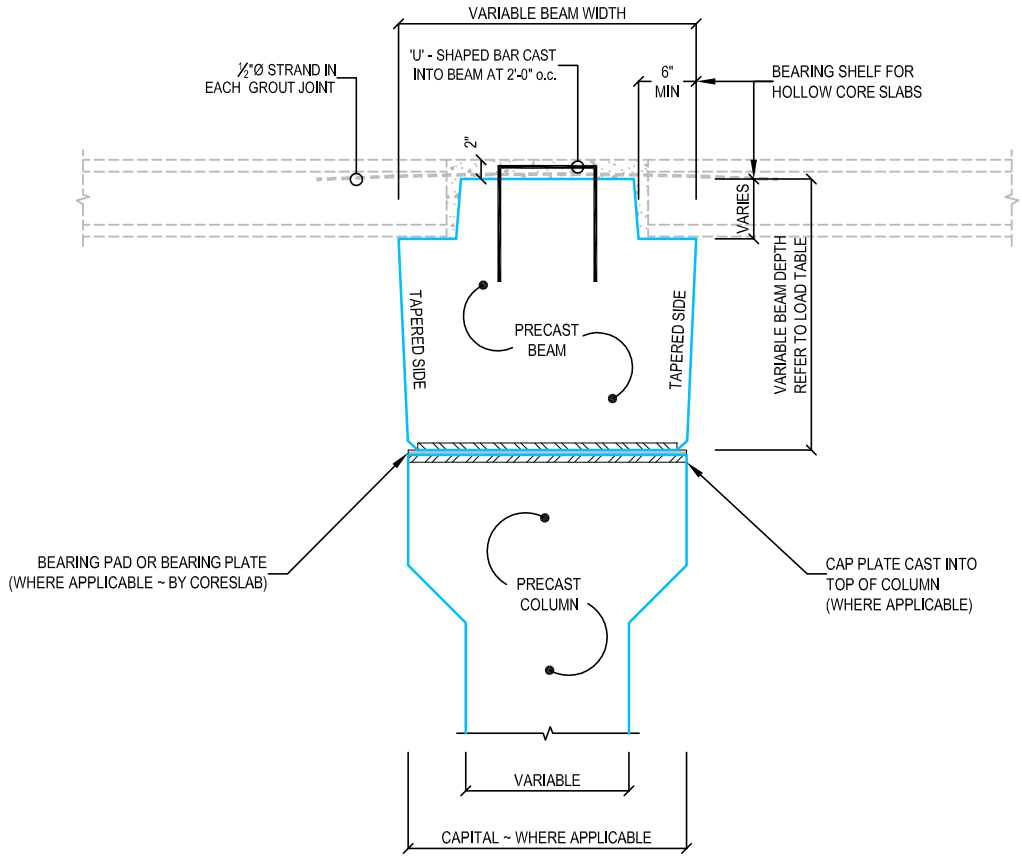
SLABS WILL HAVE SOME CAMBER. CONSULT CORESLAB FOR VARIOUS WIDTHS, SPANS, DETAILS AND LOADING INFORMATION

****All connection details shown are for **reference purposes only**. The building consultant must ensure that the details selected will satisfy the design criteria for the entire project. Connection details and bearing requirements for 10", 12", and 14" slabs may vary ~ contact Coreslab Engineer.

PRECAST BEAM DETAILS



B1 SHARED BEARING ON COLUMN

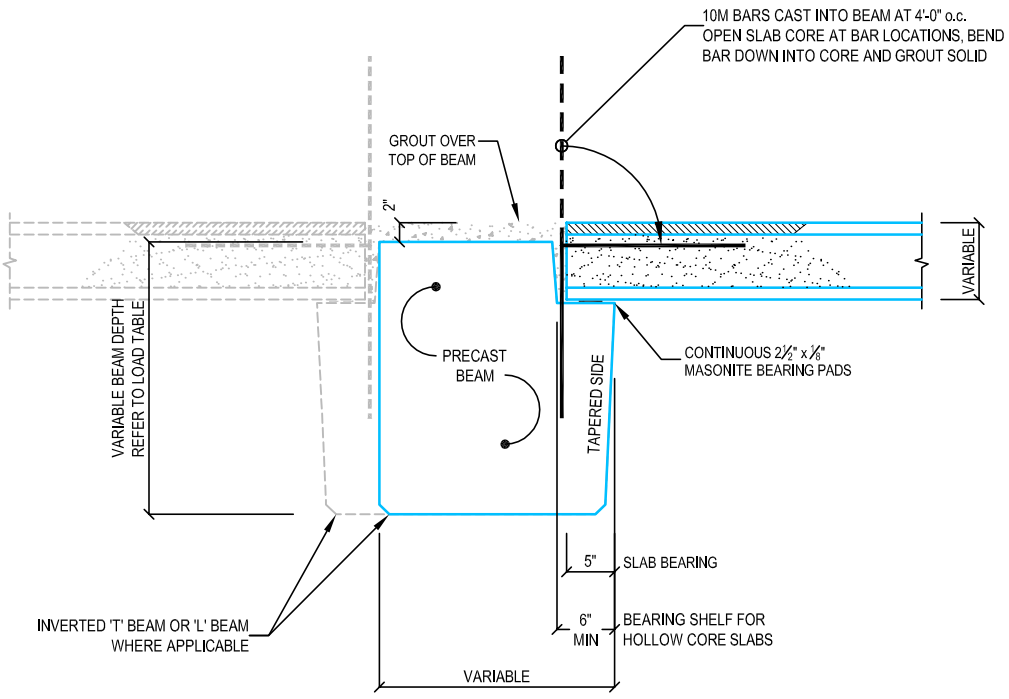


B2 BEAM TO COLUMN CONNECTION

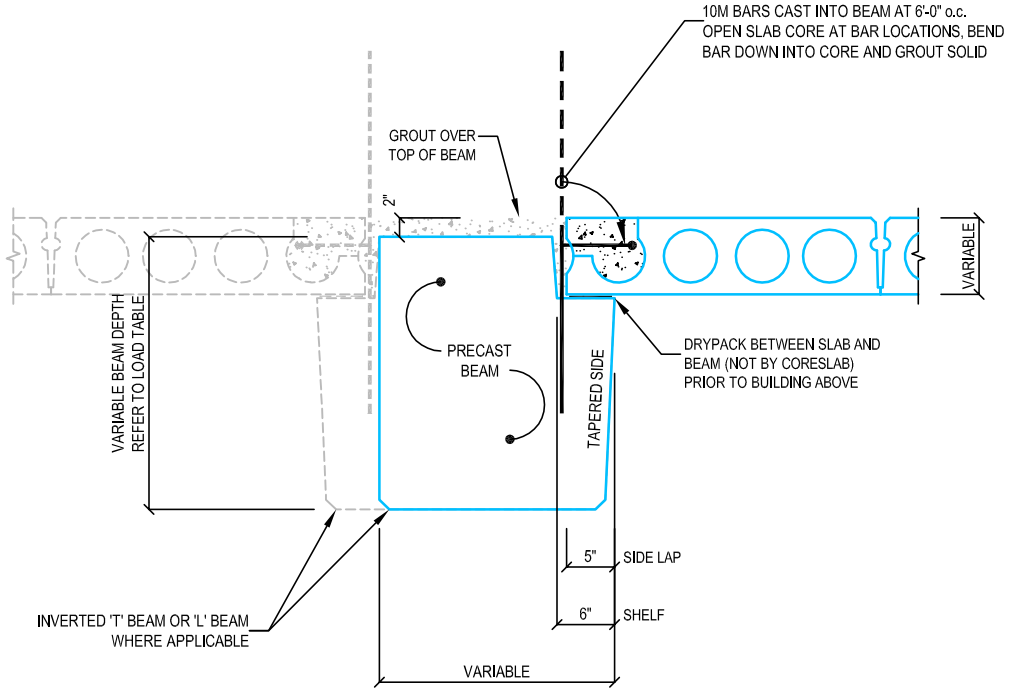
ONT 01/11

****All connection details shown are for **reference purposes only**. The building consultant must ensure that the details selected will satisfy the design criteria for the entire project. Connection details and bearing requirements may vary ~ contact Coreslab Engineer.

PRECAST BEAM DETAILS



B3 HOLLOW CORE SLABS ~ END BEARING ON PRECAST BEAM

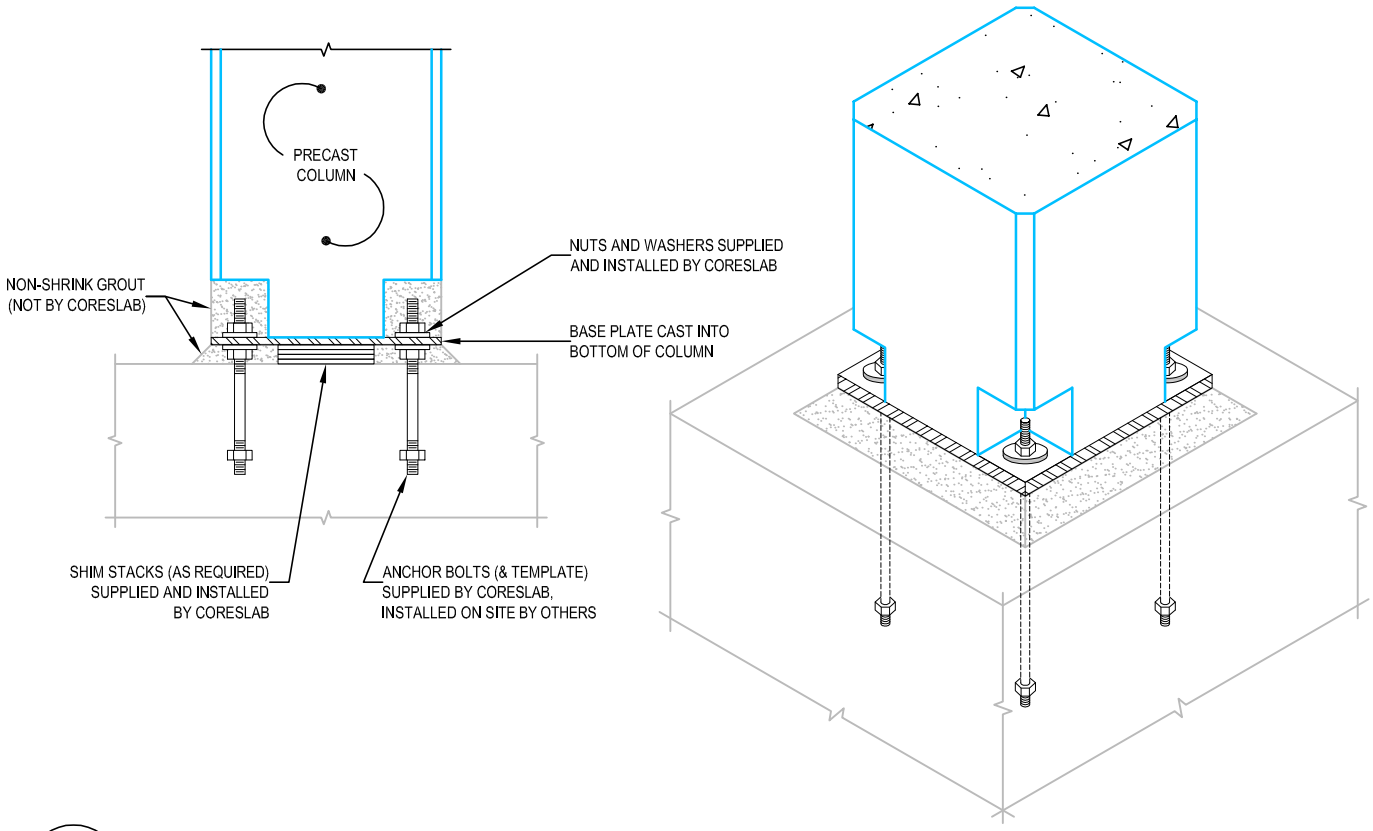


B4 HOLLOW CORE SLABS ~ SIDE LAP ON PRECAST BEAM

ONT 01/11

****All connection details shown are for **reference purposes only**. The building consultant must ensure that the details selected will satisfy the design criteria for the entire project. Connection details and bearing requirements may vary ~ contact Coreslab Engineer.

PRECAST COLUMN DETAILS



C1 COLUMN DETAIL AT BASE

ONT 01/11

****All connection details shown are for **reference purposes only**. The building consultant must ensure that the details selected will satisfy the design criteria for the entire project. Connection details and bearing requirements may vary ~ contact Coreslab Engineer.

SPECIFICATIONS

PRECAST PRESTRESSED CONCRETE

PART 1 – GENERAL

1.1 Related Work

1.1.1 Cast-in-Place Concrete: Section 03300

1.2 Reference Standards

1.2.1 Do precast prestressed concrete work in accordance with CSA-A23.4 and CSA3-A23.3 and PCI MNL 116.

1.2.2 Do welding in accordance with CSA W59 for welding to steel structures and CSA W186 for welding reinforcement.

1.3 Qualifications of Manufacturer

1.3.1 Manufacturers of precast concrete elements to be certified to the requirements of CSA-A23.4 and PCI MNL 116.

1.3.2 Manufacturers shall be approved by CMHC.

1.4 Design Criteria

1.4.1 Design precast prestressed concrete units to CSA-A23.3 and to carry handling stresses.

1.4.2 Design loads in accordance with applicable codes for use and occupancy, wind, temperature and earthquake.

1.4.3 Consider vibration characteristics in accordance with NBC.

1.4.4 Design prestressed units to meet two (2) hour fire resistance rating.

1.5 Source Quality Control

1.5.1 Upon request, provide Engineer with certified copies of quality control tests and inspection related to project as specified in CSA-A23.4 and PCI MNL 116.

1.5.2 Inspection of prestressed concrete tendons is required in accordance with ASTM A416.

1.5.3 Upon request, provide Engineer with certified copy of mill test report of reinforcing steel supplied, showing physical and chemical analysis.

1.6 Shop Drawings

1.6.1 Submit shop drawings in accordance with Section 01340 – Shop Drawings, Product Data.

1.6.2 Submit shop drawings in accordance with CSA-A23.4 and CSA-A23.3. Upon request, the following items shall be provided:

1.6.2.1 Design calculations for items designed by Manufacturer

1.6.2.2 Estimated camber

1.6.2.3 Finishing schedules

1.6.2.4 Methods of handling and erection

1.6.2.5 Openings, inserts and related reinforcement

1.6.3 Each drawing submitted to bear stamp of qualified Professional Engineer registered in the Province of Ontario.

1.7 Warranty

1.7.1 The Contractor hereby warrants that the precast prestressed elements will not spall or show visible evidence of cracking, except for normal hairline shrinkage cracks, in accordance with GC24, for a one year period.

PART 2 – PRODUCTS

2.1 Materials

2.1.1 Cement, aggregates, water, admixtures: To CSA-A23.4 and CSA-A23.1 and PCI MNL 116.

2.1.2 Prestressing steel: Uncoated 7 wire cable conforming to ASTM A416.

2.1.3 Reinforcing steel: to CSA G30.18.

2.1.4 Anchorages and couplings: To CSA-A23.1.

2.1.5 Embedded steel: To CSA-G40.21, Type M300W.

2.1.6 Welding materials: To CSA W48.1.

2.1.7 Bearing pads: 3 mm Masonite smooth one side and 3mm Korolath.

2.1.8 Air entrainment admixtures: To CSA-A266.1.

2.1.9 Chemical admixtures: To CSA-A266.2.

2.2 Concrete Mixes

2.2.1 Use concrete mix designed to produce 41 MPa (6,000 psi) compressive cylinder strength at 28 days with maximum water/cement ratio to CSA-A23.1, Table 2 for Class N exposure.

2.2.2 Air entrainment of concrete mix: To CSA-A266.4.

2.2.3 Admixtures: To CSA-A266.4, CSA-A266.5.

2.2.4 Do not use calcium chloride or products containing calcium chloride.

2.3 Grout Mix

2.3.1 Cement grout: 20 MPa (3000 psi) at 28 days or one part type 10 Portland cement, 2-1/2 parts sand, sufficient water for placement and hydration.

2.4 Manufacture

2.4.1 Manufacture units in accordance with CSA A23.4 and PCI MNL 116.

2.4.2 Mark each precast unit to correspond to identification mark on shop drawings for location on part of unit which will not be exposed.

2.4.3 Provide hardware suitable for handling elements.

PRECAST PRESTRESSED CONCRETE

PART 3 – EXECUTION

3.1 Erection

3.1.1 Erect elements within allowable tolerances indicated or specified.

3.1.2 Non-cumulative erection tolerances in accordance with CSA-A23.4, Section 12 and PCI MNL 116, Appendix B.

3.1.3 Install 3 mm masonite bearing pads, smooth side up on bearing ends, of concrete or masonry.

3.1.4 Set units in a tight, level position on true level bearing surface provided by others. Minimum bearing 90 mm (3-1/2") on masonry and 75 mm (3") on structural steel. Thicker or longer span slabs may require more bearing length for structural stability.

3.1.5 Fasten precast units in place as indicated on reviewed shop drawings.

3.1.6 Level differential elevation of horizontal joints with grout to slope not more than 1:12.

3.1.7 Clean field welds with wire brush and touch up with primer.

3.1.8 Field cut holes and openings up to 150 mm (6") diameter for mechanical trades. Openings larger than 150 mm (6") to be located on shop drawings at time of approval and to be cut in field. Do not cut reinforcing without approval of precast slab manufacturer and Engineer.

3.2 Topping

3.2.1 Contractor shall provide a suitable top finish to accept direct application of finished flooring/roofing as per room finish schedule.

3.2.2 Where concrete topping (minimum 37 mm [1-1/2"]) is to be applied. (Refer to appropriate specifications). The top surface of the precast prestressed slab is to be raked (roughened) for bonding of topping.

3.3 Exposed Ceilings

3.3.1 Caulk exposed ceiling longitudinal joints, using standard caulking.

3.3.2 The underside of precast shall be finished as per CSA A23.4 (26.2.3) STANDARD GRADE.

3.4 Clean-up

3.4.1 Upon completion of the work of this section, all surplus materials and debris shall be removed from this site.

*Items relating to precast prestressed slabs to be carried out by other trades, and covered in their respective specifications:

(1) Drypacking of gap between precast prestressed slabs at all locations where load bearing walls are parallel to length of slab.
(2) Perimeter caulking.
(3) Electrical holes.
(4) Concrete topping (37 mm [1-1/2”] +/-).

CPCI CERTIFIED PLANT

CORESLAB® STRUCTURES (ONT) INC.

FIRE RATING

A 2-hour fire resistance rating is achieved by meeting the following requirements in the Supplementary Standard SB-2 to the Ontario Building Code 2006:

1 The equivalent thickness of the slab is calculated as described in Subsection 1.6. OBC requires a minimum thickness of 124 mm as listed in Table 2.2.1.A forming part of sentence 2.2.1 (1).

2 The concrete cover over the reinforcement is 39 mm. OBC requires a minimum cover of 39 mm as listed in Table 2.2.1.B forming part of sentence 2.2.1 (2).

TECHNICAL INFORMATION

Slab thickness:	8 inch	(203 mm)
Slab weight:	62 psf	(2.96 kPa)
X-section area:	237 in^2	(153,000 mm^2)
Concrete cover:	1.55 inch	(39 mm)
Concrete type:	Type N	

Slab thickness:	10 inch	(254 mm)
Slab weight:	74 psf	(3.44 kPa)
X-section area:	277 in^2	(178,700 mm^2)
Concrete cover:	1.55 inch	(39 mm)
Concrete type:	Type N	

Slab thickness:	12 inch	(304 mm)
Slab weight:	86 psf	(4.12 kPa)
X-section area:	315 in^2	(203,200 mm^2)
Concrete cover:	1.55 inch	(39 mm)
Concrete type:	Type N	

Slab thickness:	14 inch	(355 mm)
Slab weight:	95 psf	(4.52 kPa)
X-section area:	301 in^2	(194,655 mm^2)
Concrete cover:	1.55 inch	(39 mm)
Concrete type:	Type N	

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