TENSION DEVELOPMENT LENGTH AND TENSION LAP SPLICES (Fy = 400 MPa) — TDC-36

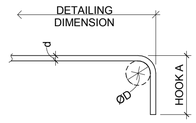
CONCRETE / SPLICE / BAR	25 MPa		30 MPa		35 MPa		40 MPa		45 MPa		50 MPa		CONCRETE / SPLICE / BAR
	CLASS A, Ld	CLASS B	CLASS A, Ld	CLASS B	CLASS A, Ld	CLASS B	CLASS A, Ld	CLASS B	CLASS A, Ld	CLASS B	CLASS A, Ld	CLASS B	
	TABLE 1: UNCOATED, OTHER THAN TOP BARS												
10	300	380	300	350	300	320	300	300	300	280	300	300	10
15	440	570	400	520	370	480	350	450	330	420	310	400	15
20	580	750	530	690	490	640	460	600	430	560	410	530	20
25	900	1170	830	1070	760	990	720	930	670	880	640	830	25
30	1080	1410	990	1290	920	1190	860	1110	810	1050	770	1000	30
35	1260	1640	1150	1500	1070	1390	1000	1300	940	1220	890	1160	35
	TABLE 2: UNCOATED, TOP BARS												
10	380	490	350	450	320	420	300	390	280	370	300	350	10
15	570	730	520	670	480	620	450	580	420	550	400	520	15
20	750	980	690	890	640	830	600	770	560	730	530	690	20
25	1170	1530	1070	1390	990	1290	930	1210	880	1140	830	1080	25
30	1410	1830	1290	1670	1190	1550	1110	1450	1050	1360	1000	1290	30
35	1640	2130	1500	1950	1390	1800	1300	1690	1220	1590	1160	1510	35
	TABLE 3: EPOXY-COATED BARS, OTHER THAN TOP BARS												
10	440	570	400	520	370	480	350	450	330	420	310	400	10
15	650	850	600	770	550	720	520	670	490	630	460	600	15
20	870	1130	790	1030	730	950	690	890	650	840	610	800	20
25	1350	1760	1240	1610	1140	1490	1070	1390	1010	1310	960	1240	25
30	1620	2110	1480	1930	1370	1780	1280	1670	1210	1570	1150	1490	30
35	1890	2460	1730	2250	1600	2080	1500	1950	1410	1840	1340	1740	35
	TABLE 4: EPOXY-COATED TOP BARS												
10	490	640	450	590	420	540	390	510	370	480	350	450	10
15	740	960	670	880	620	810	580	760	550	720	520	680	15
20	980	1280	900	1170	830	1080	780	1010	730	950	700	900	20
25	1530	1990	1400	1820	1300	1690	1210	1580	1140	1490	1090	1410	25
30	1840	2390	1680	2180	1560	2020	1460	1890	1370	1780	1300	1690	30
35	2150	2790	1960	2550	1810	2360	1700	2210	1600	2080	1520	1970	35

NOTES:

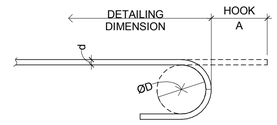
1. USE FOLLOWING TENSION LAP SPLICE LENGTHS UNLESS NOTED OTHERWISE ON DRAWINGS.
2. TENSION DEVELOPMENT LENGTHS, Ld, DENOTED AS TENSION LAP SPLICE CLASS A.
3. FOR COLUMNS, USE COLUMN TENSION SPLICE TYPICAL DETAIL.
4. TOP BARS ARE BARS WITH MORE THAN 300 OF CONCRETE CAST BELOW SPLICE.
5. CLEAR COVER NOT LESS THAN d_b, CLEAR SPACING NOT LESS THAN $2d_b$.
6. FOR STRUCTURAL LOW-DENSITY CONCRETE, INCREASE SPLICE LENGTHS BY 30%.
7. FOR STRUCTURAL SEMI-LOW-DENSITY CONCRETE, INCREASE SPLICE LENGTHS BY 20%.

REINFORCING STEEL BAR AND STANDARD HOOK DIMENSIONS FOR DEFORMED BARS WITH Fy = 460 MPa — TDC-39

BAR SIZE	MASS kg/m	DIA. d	AREA mm2	STANDARD HOOK BEND D	STANDARD HOOK A 90°	STANDARD HOOK A 180°	STIRRUP AND TIE HOOKS (90°) D	STIRRUP AND TIE HOOKS (90°) A
T8	0.395	8	50	50	130	120	30	85
T10	0.617	10	79	60	160	130	40	90
T12	0.888	12	113	70	190	150	50	110
T16	1.580	16	201	95	260	180	65	145
T20	2.47	20	314	120	320	220	-	-
T25	3.86	25	491	150	400	280	-	-
T32	6.31	32	804	260	550	420	-	-
T40	9.87	40	1257	400	720	640	-	-



STANDARD 90° HOOK

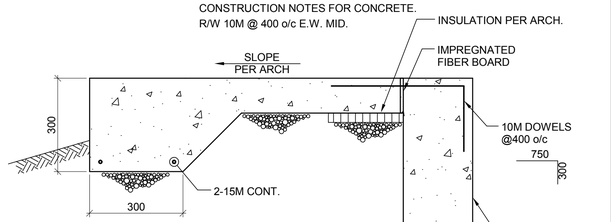


STANDARD 180° HOOK

TYPICAL SIDEWALK — TDC-50

NOTE:

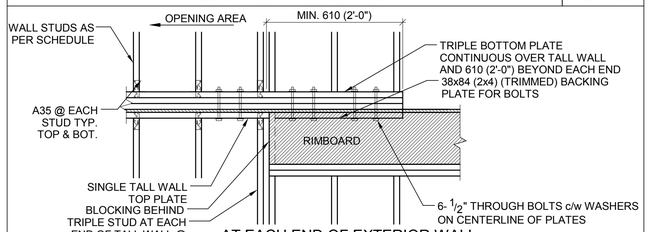
100 CONCRETE SLAB ON GRADE OMIT POLY V.B & PROVIDE DOWELS & THICKENING AT EDGES AS SHOWN. REFER TO CONSTRUCTION NOTES FOR CONCRETE. R/W 10M @ 400 o/c E.W. MID.



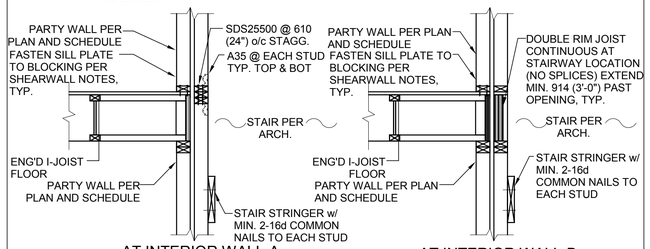
SUB-BASE: 150MM THICKNESS OF 19 TO 25 CRUSHED GRAVEL & COMPACTION. REVIEWED BY GEOTECH ENGINEER/SOILS REPORT FOR TYPICAL EXTERIOR SLAB ON GRADE

SIDEWALK DETAIL
(REFER TO ARCH FOR EXACT SIZE AND LOCATION)

WOOD TALL WALL DETAILS — TDW-09



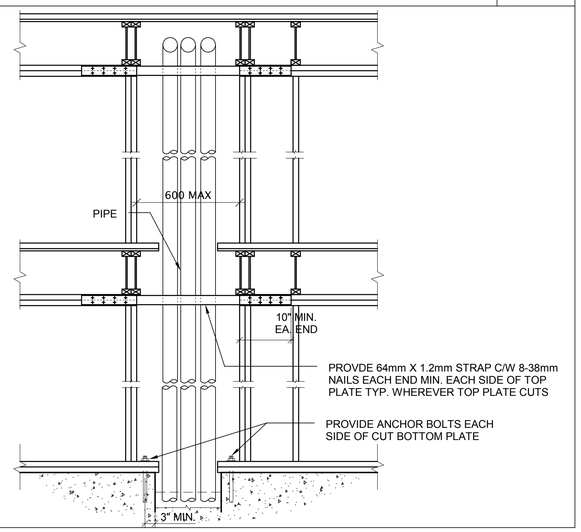
AT EACH END OF EXTERIOR WALL



AT INTERIOR WALL-A

AT INTERIOR WALL-B

MECHANICAL PIPES THROUGH LOAD BEARING WALL — TDW-15R



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385 St. Mary Avenue
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A Partnership of Limited Companies

Victor Smith, Architect, AAA, B.Arch, MAIBC
Bruce McKenzie, Architect, AAA, B.Arch, MAIBC
A. Silvio Baldassarra, Architect, AAA, B.Arch, MAIBC
Adrian Todella, P.Eng., APEGA
Chris Pal, P.Eng., APEGA

Revision	Description	Date
4	ISSUED FOR CONSTRUCTION	2020/03/06
3	ISSUED FOR 99% REVIEW	2019/08/29
2	ISSUED FOR 66% REVIEW	2019/05/09
1	ISSUED FOR 33% REVIEW	2019/03/14

Client: PSPC

10025 JASPER AVE
EDMONTON, ALBERTA, T5J 1S6
PH. 780-919-9445

Project title / Projet: JASPER STAFF HOUSING CONSTRUCTION

DUPLEX

720 PATRICIA STREET,
JASPER, AB, T0E 1E0

Designed by / Conçu par: H.Sun
Drawn by / Dessiné par: D.Kuang
Approved by / Approuvé par: A.Elshafey
PWGSC Project Manager / Administrateur de Projects TPSGC: ROB HAFER

Drawing Title / Titre du dessin: TYPICAL DETAILS

Project no./No. du projet	Drawing no./No. du dessin	Revision no.
R. 100429.001	S2.3 OF	4

PSPC – A1 – 841X594

0 10 20 30 40 50 60 70 80 90 100mm