

2009 Edition

**Standard Plans
For Public
Works Construction**

PLEASE INSERT THE ATTACHED ADDITIONAL PAGE
The attached page should be inserted into Standard Plan 390-0
AFTER Sheet 26 and BEFORE Sheet 29

BNI[®] ***Building News***

990 Park Center Drive, Suite E
Vista, CA 92081-8352

EARTH COVER MORE THAN 2' (610 mm)
 STEEL COVER 2.0 INCHES (50 mm) AT TOP OF INVERT SLAB

DIMENSIONS SHOWN ARE SPAN x RISE x
 HAUNCH, WALL AND SLAB THICKNESS

* WHERE NOTED, SUBMIT DETAILS FOR
 TOP SLAB SHEAR REINFORCEMENT

H _e EARTH COVER FT (mm) MAXIMUM	TRANSVERSE REINFORCEMENT AREA, IN ² / FT (mm ² / m)			M INCHES (mm)	H _e EARTH COVER FT (mm) MAXIMUM	TRANSVERSE REINFORCEMENT AREA, IN ² / FT (mm ² / m)			M INCHES (mm)	
	AS1	AS2	AS3			AS4	AS1	AS2		AS3
3' x 2' x 4" (900 x 600 x 100 mm)										
3 (915)	0.12 (254)	0.21 (445)	0.33 (699)	0.10 (217)	3 (775)	0.16 (339)	0.28 (593)	0.33 (699)	0.12 (254)	38 (950)
5 (1525)	0.10 (217)	0.10 (217)	0.17 (360)	0.10 (217)	5 (1525)	0.12 (254)	0.15 (318)	0.23 (487)	0.12 (254)	38 (950)
10 (3000)	0.10 (217)	0.12 (254)	0.24 (508)	0.10 (217)	10 (3000)	0.12 (254)	0.17 (360)	0.28 (593)	0.12 (254)	38 (950)
15 (4500)	0.10 (217)	0.18 (381)	0.33 (699)	0.10 (217)	15 (4500)	0.12 (254)	0.24 (508)	0.40 (847)	0.12 (254)	38 (950)
20 (6000) *	0.13 (275)	0.23 (487)	0.43 (910)	0.10 (217)	20 (6000)	0.16 (339)	0.31 (656)	0.51 (1080)	0.12 (254)	38 (950)
3' x 3' x 4" (900 x 900 x 100 mm)										
3 (915)	0.10 (217)	0.25 (529)	0.39 (826)	0.10 (217)	3 (915)	0.13 (275)	0.31 (656)	0.37 (783)	0.12 (254)	38 (950)
5 (1525)	0.10 (217)	0.12 (254)	0.21 (445)	0.10 (217)	5 (1525)	0.12 (254)	0.16 (339)	0.16 (339)	0.12 (254)	38 (950)
10 (3000)	0.10 (217)	0.13 (275)	0.24 (508)	0.10 (217)	10 (3000)	0.12 (254)	0.17 (360)	0.30 (635)	0.12 (254)	38 (950)
15 (4500)	0.10 (217)	0.18 (381)	0.34 (720)	0.10 (217)	15 (4500)	0.12 (254)	0.24 (508)	0.41 (868)	0.12 (254)	38 (950)
20 (6000) *	0.10 (217)	0.24 (508)	0.43 (910)	0.10 (217)	20 (6000)	0.13 (275)	0.32 (677)	0.52 (1101)	0.12 (254)	38 (950)
4' x 2' x 5" (1200 x 600 x 125 mm)										
3 (915)	0.21 (445)	0.23 (489)	0.27 (572)	0.12 (254)	3 (915)	0.21 (445)	0.29 (614)	0.30 (635)	0.14 (296)	45 (1125)
5 (1525)	0.12 (254)	0.13 (275)	0.19 (402)	0.12 (254)	5 (1525)	0.14 (296)	0.17 (360)	0.25 (529)	0.14 (296)	36 (900)
10 (3000)	0.12 (254)	0.15 (318)	0.25 (529)	0.12 (254)	10 (3000)	0.14 (296)	0.20 (423)	0.32 (677)	0.14 (296)	36 (900)
15 (4500)	0.17 (360)	0.21 (445)	0.35 (741)	0.12 (254)	15 (4500)	0.19 (402)	0.29 (614)	0.44 (931)	0.12 (254)	35 (875)
20 (6000)	0.23 (487)	0.28 (593)	0.45 (953)	0.12 (254)	20 (6000)	0.25 (529)	0.37 (783)	0.57 (1207)	0.12 (254)	35 (875)
25 (7500) *	0.29 (614)	0.35 (741)	0.56 (1185)	0.12 (254)	25 (7500)	0.32 (677)	0.47 (995)	0.70 (1482)	0.12 (254)	35 (875)
5' x 3' x 6" (1500 x 900 x 150 mm)										

EARTH COVER MORE THAN 2' (610 mm) DIMENSIONS SHOWN ARE SPAN x RISE x * WHERE NOTED, SUBMIT DETAILS FOR
 STEEL COVER 2.0 INCHES (50 mm) AT TOP OF INVERT SLAB HAUNCH, WALL AND SLAB THICKNESS TOP SLAB SHEAR REINFORCEMENT

H _a EARTH COVER FT (mm) MAXIMUM	TRANSVERSE REINFORCEMENT AREA, IN ² / FT (mm ² / m)				M INCHES (mm)	H _a EARTH COVER FT (mm) MAXIMUM	TRANSVERSE REINFORCEMENT AREA, IN ² / FT (mm ² / m)				M INCHES (mm)
	AS1	AS2	AS3	AS4			AS1	AS2	AS3	AS4	
5' x 4' x 6" (1500 x 1200 x 150 mm)											
3 (915)	0.18 (381)	0.33 (699)	0.34 (720)	0.14 (296)	45 (1125)	3 (915)	0.22 (466)	0.33 (699)	0.33 (699)	0.17 (360)	43 (1075)
5 (1525)	0.14 (296)	0.19 (402)	0.29 (614)	0.14 (296)	45 (1125)	5 (1525)	0.17 (360)	0.22 (466)	0.31 (656)	0.17 (360)	40 (1000)
10 (3000)	0.14 (296)	0.22 (466)	0.35 (741)	0.14 (296)	36 (900)	10 (3000)	0.17 (360)	0.25 (529)	0.39 (826)	0.17 (360)	39 (975)
15 (4500)	0.15 (318)	0.31 (656)	0.48 (1016)	0.14 (296)	35 (875)	15 (4500)	0.22 (466)	0.32 (677)	0.54 (1143)	0.17 (360)	39 (975)
20 (6000) *	0.20 (423)	0.40 (847)	0.62 (1312)	0.12 (254)	35 (875)	20 (6000) *	0.29 (614)	0.47 (995)	0.69 (1461)	0.17 (360)	38 (850)
25 (7500) *	0.25 (529)	0.50 (1058)	0.75 (1588)	0.12 (254)	35 (875)	25 (7500) *	0.36 (762)	0.58 (1228)	0.85 (1799)	0.17 (360)	38 (850)
5' x 5' x 6" (1500 x 1500 x 150 mm)											
3 (915)	0.16 (339)	0.35 (741)	0.37 (783)	0.14 (296)	45 (1125)	3 (915)	0.19 (402)	0.36 (762)	0.36 (762)	0.17 (360)	52 (1300)
5 (1525)	0.14 (296)	0.21 (445)	0.31 (656)	0.14 (296)	45 (1125)	5 (1525)	0.17 (360)	0.24 (508)	0.35 (741)	0.17 (360)	43 (1075)
10 (3000)	0.14 (296)	0.22 (466)	0.36 (762)	0.14 (296)	36 (900)	10 (3000)	0.17 (360)	0.37 (783)	0.42 (889)	0.17 (360)	39 (975)
15 (4500)	0.14 (296)	0.31 (656)	0.49 (1037)	0.14 (296)	35 (875)	15 (4500)	0.19 (402)	0.37 (783)	0.59 (1249)	0.17 (360)	38 (950)
20 (6000) *	0.17 (360)	0.40 (847)	0.63 (1334)	0.14 (296)	35 (875)	20 (6000) *	0.24 (508)	0.49 (1037)	0.73 (1545)	0.17 (360)	38 (950)
25 (7500) *	0.22 (466)	0.50 (1058)	0.76 (1609)	0.14 (296)	35 (875)	25 (7500) *	0.31 (656)	0.60 (1270)	0.89 (1884)	0.17 (360)	38 (950)
6' x 3' x 7" (1800 x 900 x 175 mm)											
3 (915)	0.24 (508)	0.29 (614)	0.29 (614)	0.17 (360)	43 (1075)	3 (915)	0.17 (360)	0.38 (804)	0.40 (847)	0.17 (360)	52 (1300)
5 (1525)	0.17 (360)	0.19 (402)	0.27 (572)	0.17 (360)	40 (1000)	5 (1525)	0.17 (360)	0.25 (529)	0.37 (783)	0.17 (360)	52 (1300)
10 (3000)	0.19 (402)	0.23 (489)	0.35 (741)	0.17 (360)	39 (975)	10 (3000)	0.17 (360)	0.27 (572)	0.43 (910)	0.17 (360)	43 (1075)
15 (4500)	0.27 (572)	0.32 (677)	0.49 (1037)	0.17 (360)	38 (950)	15 (4500)	0.17 (360)	0.38 (804)	0.58 (1228)	0.17 (360)	39 (975)
20 (6000) *	0.36 (762)	0.42 (889)	0.63 (1334)	0.17 (360)	38 (950)	20 (6000) *	0.22 (466)	0.49 (1037)	0.74 (1567)	0.17 (360)	38 (950)
25 (7500) *	0.45 (953)	0.53 (1122)	0.78 (1651)	0.17 (360)	38 (950)	25 (7500) *	0.27 (572)	0.61 (1291)	0.89 (1884)	0.17 (360)	38 (950)

PRECAST REINFORCED CONCRETE BOX

STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION

STANDARD PLAN

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