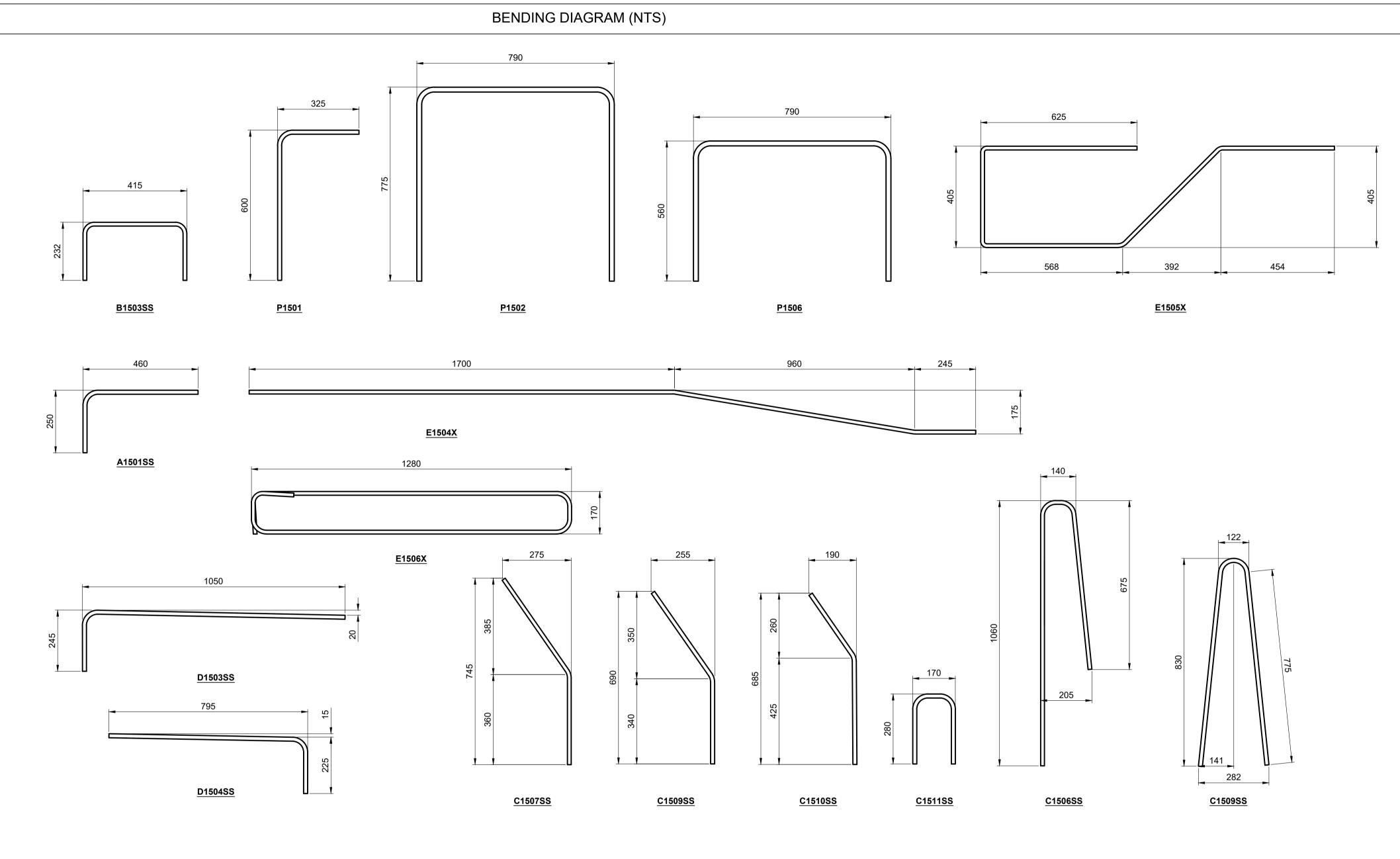
DECK (D) EXPANSION SLAB (E) PIER (P) ROADWAY SLAB (R)

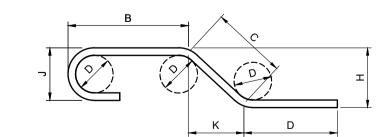
A1501SS         BENT         90         710         144         160.52           A1502SS         STR         -         4030         70         442.90           A150SS         STR         -         5120         60         482.30           B1501SS         STR         -         9350         6         88.08           B1502SS         STR         -         8850         6         83.37           B1503SS         BENT         90         879         246         339.49           C1501SS         STR         -         4250         72         480.42           C1502SS         STR         -         4450         36         251.426           C1503SS         STR         -         4450         36         251.426           C1503SS         STR         -         5625         288         2543.40           C1505SS         STR         -         4780         36         270.17           C1506SS         BENT         90         1825         1338         3833.70           C1507SS         BENT         90         1735         446         151.63           C1508SS         BENT         90	MARK	TYPE	PIN DIAMETER	LENGTH (mm)	NO. BARS	MASS		
A150SS         STR         -         5120         60         482.30           B1501SS         STR         -         9350         6         88.08           B1502SS         STR         -         8850         6         83.37           B1503SS         BENT         90         879         246         339.49           C1501SS         STR         -         4250         72         480.42           C1502SS         STR         -         4450         36         251.51           C1503SS         STR         -         4450         36         251.51           C1504SS         STR         -         4780         36         270.17           C1506SS         SERT         -         4780         36         270.17           C1506SS         BENT         90         1825         1338         3833.70           C1507SS         BENT         90         1735         446         1214.88           C1508SS         BENT         90         765         446         535.67           C1510SS         BENT         90         770         446         518.16           C1511SS         STR         -         <	A1501SS	BENT	90	710	144	160.52		
B1501SS         STR         -         9350         6         88.08           B1502SS         STR         -         8850         6         83.37           B1503SS         BENT         90         879         246         339.49           C1501SS         STR         -         4250         72         480.42           C1502SS         STR         -         4450         36         251.51           C1503SS         STR         -         5625         288         2543.40           C1504SS         STR         -         4780         36         270.17           C1506SS         BENT         90         1825         1338         3833.70           C1507SS         BENT         90         1735         446         1214.88           C1508SS         BENT         90         765         446         535.67           C1508SS         BENT         90         765         446         535.67           C1510SS         BENT         90         770         446         518.16           C1511SS         SERT         -         4800         2         15.07           C1513SS         STR         -	A1502SS	STR	-	4030	70	442.90		
B1502SS         STR         -         8850         6         83.37           B1503SS         BENT         90         879         246         339.49           C1501SS         STR         -         4250         72         480.42           C1502SS         STR         -         4450         36         251.51           C1503SS         STR         -         4450         36         251.51           C1504SS         STR         -         4780         36         270.17           C1506SS         BENT         90         1825         1338         3833.70           C1507SS         BENT         90         1735         446         1214.88           C1508SS         BENT         90         765         446         535.67           C1510SS         BENT         90         765         446         535.67           C1510SS         BENT         90         765         446         535.67           C1511SS         BENT         90         675         437         463.11           C1512SS         STR         -         5980         4         37.55           C1514SS         STR         -	A150SS	STR	-	5120	60	482.30		
B1503SS         BENT         90         879         246         339.49           C1501SS         STR         -         4250         72         480.42           C1502SS         STR         -         4460         72         54.26           C1503SS         STR         -         4450         36         251.51           C1504SS         STR         -         5625         288         2543.40           C1508SS         BENT         90         1825         1338         3833.70           C1508SS         BENT         90         1735         446         1214.88           C1509SS         BENT         90         765         446         535.67           C1510SS         BENT         90         765         446         535.67           C1519SS         BENT         90         7740         446         518.16           C1511SS         BENT         90         675         437         463.11           C1512SS         STR         -         4800         2         15.07           C1513SS         STR         -         12000         8         150.72           C1514SS         STR         -	B1501SS	STR	-	9350	6	88.08		
C1501SS STR - 4250 72 480.42 C1502SS STR - 480 72 54.26 C1503SS STR - 4450 36 251.51 C1504SS STR - 4450 36 251.51 C1504SS STR - 4780 36 270.17 C1506SS BENT 90 1825 1338 3833.70 C1507SS BENT 90 825 892 1155.36 C1508SS BENT 90 1735 446 1214.88 C1509SS BENT 90 765 446 535.67 C1510SS BENT 90 765 446 518.16 C1511SS BENT 90 675 437 463.11 C1511SS BENT 90 675 437 463.11 C1512SS STR - 4800 2 15.07 C1513SS STR - 5980 4 37.55 C1514SS STR - 12000 8 150.72 C1515SS STR - 4880 2 15.32 C250122 STR - 530 117 243.39 D1501SS STR - 6200 26 253.08 D1502SS STR - 6200 26 253.08 D1503SS BENT 90 1020 740 1185.04 E1501X STR - 7370 66 763.68 E1502X STR - 3835 82 493.72 E1504X BENT 90 3240 82 417.12 P1501 BENT 90 3240 82 417.12 P1501 BENT 90 2290 180 647.15 P1503 STR - 1650 60 155.43 P1505 STR - 1650 60 155.43 P1506 BENT 90 1910 20 59.97 R1501X STR - 1650 60 155.43 P1503 STR - 1650 60 155.43 P1503 STR - 1650 60 155.43 P1504 STR - 1650 60 155.43 P1505 STR - 1650 60 155.43 P1506 BENT 90 1910 20 59.97 R1501X STR - 1650 60 155.43 P1503 STR - 1650 60 155.43 P1504 STR - 1650 60 155.43 P1505 STR - 1650 60 155.43 P1506 BENT 90 1910 20 59.97 R1501X STR - 1650 60 155.43 P1505 STR - 1650 60 155.43 P1505 STR - 1650 60 155.43 P1505 STR - 1650 60 155.43 P1506 BENT 90 1910 20 59.97 R1501X STR - 1650 60 155.43 P1505 STR - 1650 60 155.43 P1505 STR - 1650 60 155.43 P1506 BENT 90 1910 20 59.97 R1501X STR - 5590 56 491.47 R1503X STR - 5590 56 491.47 R1503X STR - 5590 56 491.47	B1502SS	STR	-	8850	6	83.37		
C1502SS         STR         -         480         72         54.26           C1503SS         STR         -         4450         36         251.51           C1504SS         STR         -         5625         288         2543.40           C1505SS         STR         -         4780         36         270.17           C1506SS         BENT         90         1825         1338         3833.70           C1507SS         BENT         90         825         892         1155.36           C1508SS         BENT         90         765         446         1214.88           C1509SS         BENT         90         765         446         535.67           C1510SS         BENT         90         765         446         535.67           C1511SS         BENT         90         675         437         463.11           C1511SS         STR         -         4800         2         15.07           C151SS         STR         -         4800         2         15.07           C151SS         STR         -         12000         8         150.72           C1514SS         STR         -         <	B1503SS	BENT	90	879	246	339.49		
C1503SS         STR         -         4450         36         251.51           C1504SS         STR         -         5625         288         2543.40           C1505SS         STR         -         4780         36         270.17           C1506SS         BENT         90         1825         1338         3833.70           C1507SS         BENT         90         825         892         1155.36           C1508SS         BENT         90         765         446         1214.88           C1509SS         BENT         90         765         446         535.67           C1510SS         BENT         90         765         446         535.67           C1511SS         BENT         90         675         437         463.11           C1512SS         STR         -         4800         2         15.07           C1513SS         STR         -         5980         4         37.55           C1514SS         STR         -         12000         8         150.72           C1515SS         STR         -         4880         2         15.32           C250122         STR         -	C1501SS	STR	-	4250	72	480.42		
C1504SS         STR         -         5625         288         2543.40           C1505SS         STR         -         4780         36         270.17           C1506SS         BENT         90         1825         1338         3833.70           C1507SS         BENT         90         825         892         1155.36           C1508SS         BENT         90         1735         446         1214.88           C1509SS         BENT         90         765         446         535.67           C1510SS         BENT         90         740         446         518.16           C1511SS         BENT         90         675         437         463.11           C1512SS         STR         -         4800         2         15.07           C1513SS         STR         -         5980         4         37.55           C1514SS         STR         -         12000         8         150.72           C1515SS         STR         -         4880         2         15.32           C250122         STR         -         530         117         243.39           D1504SS         STR         -	C1502SS	STR	-	480	72	54.26		
C1505SS         STR         -         4780         36         270.17           C1506SS         BENT         90         1825         1338         3833.70           C1507SS         BENT         90         825         892         1155.36           C1508SS         BENT         90         1735         446         1214.88           C1509SS         BENT         90         765         446         535.67           C1510SS         BENT         90         740         446         518.16           C1511SS         BENT         90         675         437         463.11           C1512SS         STR         -         4800         2         15.07           C1513SS         STR         -         5980         4         37.55           C1514SS         STR         -         12000         8         150.72           C1515SS         STR         -         4880         2         15.32           C250122         STR         -         6200         26         253.08           D1502SS         STR         -         6200         26         253.08           D1503SS         BENT         90	C1503SS	STR	-	4450	36	251.51		
C1506SS         BENT         90         1825         1338         3833.70           C1507SS         BENT         90         825         892         1155.36           C1508SS         BENT         90         765         446         535.67           C1509SS         BENT         90         765         446         535.67           C1510SS         BENT         90         675         437         463.11           C1511SS         BENT         90         675         437         463.11           C1512SS         STR         -         4800         2         15.07           C1513SS         STR         -         5980         4         37.55           C1514SS         STR         -         12000         8         150.72           C1515SS         STR         -         4880         2         15.32           C250122         STR         -         530         117         243.39           D1502SS         STR         -         12000         52         979.68           D1503SS         BENT         90         1295         740         1185.03           E1502XS         STR         -	C1504SS	STR	-	5625	288	2543.40		
C1507SS         BENT         90         825         892         1155.36           C1508SS         BENT         90         1735         446         1214.88           C1509SS         BENT         90         765         446         535.67           C1510SS         BENT         90         740         446         518.16           C1511SS         BENT         90         675         437         463.11           C1512SS         STR         -         4800         2         15.07           C1513SS         STR         -         5980         4         37.55           C1514SS         STR         -         12000         8         150.72           C1514SS         STR         -         12000         52         979.68           D1502SS         STR         -         6200         26         253.08           D1503SS         BENT         90	C1505SS	STR	-	4780	36	270.17		
C1508SS         BENT         90         1735         446         1214.88           C1509SS         BENT         90         765         446         535.67           C1510SS         BENT         90         740         446         518.16           C1511SS         BENT         90         675         437         463.11           C1512SS         STR         -         4800         2         15.07           C1513SS         STR         -         5980         4         37.55           C1514SS         STR         -         12000         8         150.72           C1515SS         STR         -         4880         2         15.32           C250122         STR         -         4880         2         15.32           C250122         STR         -         530         117         243.39           D1501SS         STR         -         12000         52         979.68           D1502SS         STR         -         6200         26         253.08           D1503SS         BENT         90         1295         740         1185.04           E1504XS         STR         -         7	C1506SS	BENT	90	1825	1338	3833.70		
C1509SS         BENT         90         765         446         535.67           C1510SS         BENT         90         740         446         518.16           C1511SS         BENT         90         675         437         463.11           C1512SS         STR         -         4800         2         15.07           C1513SS         STR         -         5980         4         37.55           C1514SS         STR         -         12000         8         150.72           C1514SS         STR         -         12000         8         150.72           C1515SS         STR         -         4880         2         15.32           C250122         STR         -         4880         2         15.32           C250122         STR         -         6200         26         253.08           D1501SS         STR         -         6200         26         253.08           D1504SS         BENT         90         1295         740         1185.04           E1504XS         BENT         90         1020         740         1185.04           E1503X         STR         -         559	C1507SS	BENT	90	825	892	1155.36		
C1510SS         BENT         90         740         446         518.16           C1511SS         BENT         90         675         437         463.11           C1512SS         STR         -         4800         2         15.07           C1513SS         STR         -         5980         4         37.55           C1514SS         STR         -         12000         8         150.72           C1515SS         STR         -         4880         2         15.32           C250122         STR         -         530         117         243.39           D1501SS         STR         -         12000         52         979.68           D1501SS         STR         -         6200         26         253.08           D1502SS         STR         -         6200         26         253.08           D1503SS         BENT         90         1295         740         1504.53           D1504SS         BENT         90         1202         740         1185.04           E1501X         STR         -         7370         66         763.68           E1502X         STR         -         559	C1508SS	BENT	90	1735	446	1214.88		
C1511SS         BENT         90         675         437         463.11           C1512SS         STR         -         4800         2         15.07           C1513SS         STR         -         5980         4         37.55           C1514SS         STR         -         12000         8         150.72           C1515SS         STR         -         4880         2         15.32           C250122         STR         -         530         117         243.39           D1501SS         STR         -         6200         26         253.08           D1502SS         STR         -         6200         26         253.08           D1503SS         BENT         90         1020         740         1185.04           E1503SS         BENT         90         1020         740         1185.04           E1504XS         BENT         9         1020         740         1185.04           E1501X         STR         -         7370         66         763.68           E1502X         STR         -         5590         66         579.24           E1503X         BENT         90         38	C1509SS	BENT	90	765	446	535.67		
C1512SS         STR         -         4800         2         15.07           C1513SS         STR         -         5980         4         37.55           C1514SS         STR         -         12000         8         150.72           C1515SS         STR         -         4880         2         15.32           C250122         STR         -         530         117         243.39           D1501SS         STR         -         6200         26         253.08           D1502SS         STR         -         6200         26         253.08           D1503SS         BENT         90         1295         740         1504.53           D1504SS         BENT         90         1020         740         1185.04           E1504XS         BENT         90         1020         740         1185.04           E1503X         STR         -         7370         66         763.68           E1502X         STR         -         5590         66         579.24           E1503X         STR         -         3835         82         493.72           E1505X         BENT         90         3240	C1510SS	BENT	90	740	446	518.16		
C1513SS         STR         -         5980         4         37.55           C1514SS         STR         -         12000         8         150.72           C1515SS         STR         -         4880         2         15.32           C250122         STR         -         530         117         243.39           D1501SS         STR         -         12000         52         979.68           D1502SS         STR         -         6200         26         253.08           D1503SS         BENT         90         1295         740         1504.53           D1504SS         BENT         90         1020         740         1185.04           E1504SS         BENT         90         1020         740         1185.04           E1501X         STR         -         7370         66         763.68           E1501X         STR         -         5590         66         579.24           E1503X         STR         -         3835         82         493.72           E1504X         BENT         90         3845         82         495.01           E1505X         BENT         90	C1511SS	BENT	90	675	437	463.11		
C1514SS         STR         -         12000         8         150.72           C1515SS         STR         -         4880         2         15.32           C250122         STR         -         530         117         243.39           D1501SS         STR         -         12000         52         979.68           D1502SS         STR         -         6200         26         253.08           D1503SS         BENT         90         1295         740         1504.53           D1504SS         BENT         90         1020         740         1185.04           E1501X         STR         -         7370         66         763.68           E1502X         STR         -         5590         66         579.24           E1503X         STR         -         3835         82         493.72           E1504X         BENT         90         3845         82         495.01           E1505X         BENT         90         3240         82         417.12           P1501         BENT         90         925         180         261.41           P1502         BENT         90         22	C1512SS	STR	1	4800	2	15.07		
C1515SS         STR         -         4880         2         15.32           C250122         STR         -         530         117         243.39           D1501SS         STR         -         12000         52         979.68           D1502SS         STR         -         6200         26         253.08           D1503SS         BENT         90         1295         740         1504.53           D1504SS         BENT         90         1020         740         1185.04           E1501X         STR         -         7370         66         763.68           E1502X         STR         -         7370         66         763.68           E1503X         STR         -         3835         82         493.72           E1504X         BENT         90         3845         82         495.01           E1505X         BENT         90         2642         82         340.13           E1506X         BENT         90         3240         82         417.12           P1501         BENT         90         925         180         647.15           P1502         BENT         90         2	C1513SS	STR	1	5980	4	37.55		
C250122         STR         -         530         117         243.39           D1501SS         STR         -         12000         52         979.68           D1502SS         STR         -         6200         26         253.08           D1503SS         BENT         90         1295         740         1504.53           D1504SS         BENT         90         1020         740         1185.04           E1501X         STR         -         7370         66         763.68           E1502X         STR         -         5590         66         579.24           E1503X         STR         -         3835         82         493.72           E1504X         BENT         90         3845         82         495.01           E1505X         BENT         90         2642         82         340.13           E1506X         BENT         90         3240         82         417.12           P1501         BENT         90         925         180         647.41           P1502         BENT         90         2290         180         647.15           P1504         STR         -	C1514SS	STR	-	12000	8	150.72		
D1501SS         STR         -         12000         52         979.68           D1502SS         STR         -         6200         26         253.08           D1503SS         BENT         90         1295         740         1504.53           D1504SS         BENT         90         1020         740         1185.04           E1501X         STR         -         7370         66         763.68           E1502X         STR         -         5590         66         579.24           E1503X         STR         -         3835         82         493.72           E1504X         BENT         90         3845         82         495.01           E1505X         BENT         90         3240         82         417.12           P1501         BENT         90         925         180         261.41           P1502         BENT         90         9290         180         647.15           P1503         STR         -         4300         60         405.06           P1504         STR         -         1650         60         155.43           P1505         STR         -         1200<	C1515SS	STR	-	4880	2	15.32		
D1502SS         STR         -         6200         26         253.08           D1503SS         BENT         90         1295         740         1504.53           D1504SS         BENT         90         1020         740         1185.04           E1501X         STR         -         7370         66         763.68           E1502X         STR         -         5590         66         579.24           E1503X         STR         -         3835         82         493.72           E1504X         BENT         90         3845         82         495.01           E1505X         BENT         90         2642         82         340.13           E1506X         BENT         90         3240         82         417.12           P1501         BENT         90         925         180         261.41           P1502         BENT         90         2290         180         647.15           P1503         STR         -         4300         60         405.06           P1504         STR         -         1650         60         155.43           P1505         STR         -         1200<	C250122	STR	-	530	117	243.39		
D1503SS         BENT         90         1295         740         1504.53           D1504SS         BENT         90         1020         740         1185.04           E1501X         STR         -         7370         66         763.68           E1502X         STR         -         5590         66         579.24           E1503X         STR         -         3835         82         493.72           E1504X         BENT         90         3845         82         495.01           E1505X         BENT         90         2642         82         340.13           E1506X         BENT         90         3240         82         417.12           P1501         BENT         90         925         180         261.41           P1502         BENT         90         2290         180         647.15           P1503         STR         -         4300         60         405.06           P1504         STR         -         1650         60         155.43           P1505         STR         -         1200         60         113.04           P1506         BENT         90         1910<	D1501SS	STR	-	12000	52	979.68		
D1504SS         BENT         90         1020         740         1185.04           E1501X         STR         -         7370         66         763.68           E1502X         STR         -         5590         66         579.24           E1503X         STR         -         3835         82         493.72           E1504X         BENT         90         3845         82         495.01           E1505X         BENT         90         2642         82         340.13           E1506X         BENT         90         3240         82         417.12           P1501         BENT         90         925         180         261.41           P1502         BENT         90         2290         180         647.15           P1503         STR         -         4300         60         405.06           P1504         STR         -         1650         60         155.43           P1505         STR         -         1200         60         113.04           P1506         BENT         90         1910         20         59.97           R1501X         STR         -         7370	D1502SS	STR	-	6200	26	253.08		
E1501X         STR         -         7370         66         763.68           E1502X         STR         -         5590         66         579.24           E1503X         STR         -         3835         82         493.72           E1504X         BENT         90         3845         82         495.01           E1505X         BENT         90         2642         82         340.13           E1506X         BENT         90         3240         82         417.12           P1501         BENT         90         925         180         261.41           P1502         BENT         90         2290         180         647.15           P1503         STR         -         4300         60         405.06           P1504         STR         -         1650         60         155.43           P1505         STR         -         1200         60         113.04           P1506         BENT         90         1910         20         59.97           R1501X         STR         -         7370         56         647.97           R1502X         STR         -         5590	D1503SS	BENT	90	1295	740	1504.53		
E1502X         STR         -         5590         66         579.24           E1503X         STR         -         3835         82         493.72           E1504X         BENT         90         3845         82         495.01           E1505X         BENT         90         2642         82         340.13           E1506X         BENT         90         3240         82         417.12           P1501         BENT         90         925         180         261.41           P1502         BENT         90         2290         180         647.15           P1503         STR         -         4300         60         405.06           P1504         STR         -         1650         60         155.43           P1505         STR         -         1200         60         113.04           P1506         BENT         90         1910         20         59.97           R1501X         STR         -         7370         56         647.97           R1503X         STR         -         5590         56         491.47           R1503X         STR         -         3835	D1504SS	BENT	90	1020	740	1185.04		
E1503X         STR         -         3835         82         493.72           E1504X         BENT         90         3845         82         495.01           E1505X         BENT         90         2642         82         340.13           E1506X         BENT         90         3240         82         417.12           P1501         BENT         90         925         180         261.41           P1502         BENT         90         2290         180         647.15           P1503         STR         -         4300         60         405.06           P1504         STR         -         1650         60         155.43           P1505         STR         -         1200         60         113.04           P1506         BENT         90         1910         20         59.97           R1501X         STR         -         7370         56         647.97           R1502X         STR         -         5590         56         491.47           R1503X         STR         -         3835         164         987.44	E1501X	STR	-	7370	66	763.68		
E1504X         BENT         90         3845         82         495.01           E1505X         BENT         90         2642         82         340.13           E1506X         BENT         90         3240         82         417.12           P1501         BENT         90         925         180         261.41           P1502         BENT         90         2290         180         647.15           P1503         STR         -         4300         60         405.06           P1504         STR         -         1650         60         155.43           P1505         STR         -         1200         60         113.04           P1506         BENT         90         1910         20         59.97           R1501X         STR         -         7370         56         647.97           R1502X         STR         -         5590         56         491.47           R1503X         STR         -         3835         164         987.44           TOTAL REINFORCING STEEL MASS - BLACK STEEL (kg):         1642.06	E1502X	K STR - 5590 66						
E1505X         BENT         90         2642         82         340.13           E1506X         BENT         90         3240         82         417.12           P1501         BENT         90         925         180         261.41           P1502         BENT         90         2290         180         647.15           P1503         STR         -         4300         60         405.06           P1504         STR         -         1650         60         155.43           P1505         STR         -         1200         60         113.04           P1506         BENT         90         1910         20         59.97           R1501X         STR         -         7370         56         647.97           R1502X         STR         -         5590         56         491.47           R1503X         STR         -         3835         164         987.44           TOTAL REINFORCING STEEL MASS - BLACK STEEL (kg):         1642.06	E1503X	STR	-	3835	82	493.72		
E1506X         BENT         90         3240         82         417.12           P1501         BENT         90         925         180         261.41           P1502         BENT         90         2290         180         647.15           P1503         STR         -         4300         60         405.06           P1504         STR         -         1650         60         155.43           P1505         STR         -         1200         60         113.04           P1506         BENT         90         1910         20         59.97           R1501X         STR         -         7370         56         647.97           R1502X         STR         -         5590         56         491.47           R1503X         STR         -         3835         164         987.44           TOTAL REINFORCING STEEL MASS - BLACK STEEL (kg):         1642.06	E1504X	BENT	90	3845	82	495.01		
P1501         BENT         90         925         180         261.41           P1502         BENT         90         2290         180         647.15           P1503         STR         -         4300         60         405.06           P1504         STR         -         1650         60         155.43           P1505         STR         -         1200         60         113.04           P1506         BENT         90         1910         20         59.97           R1501X         STR         -         7370         56         647.97           R1502X         STR         -         5590         56         491.47           R1503X         STR         -         3835         164         987.44           TOTAL REINFORCING STEEL MASS - BLACK STEEL (kg):         1642.06	E1505X	BENT	90	2642	82	340.13		
P1502         BENT         90         2290         180         647.15           P1503         STR         -         4300         60         405.06           P1504         STR         -         1650         60         155.43           P1505         STR         -         1200         60         113.04           P1506         BENT         90         1910         20         59.97           R1501X         STR         -         7370         56         647.97           R1502X         STR         -         5590         56         491.47           R1503X         STR         -         3835         164         987.44           TOTAL REINFORCING STEEL MASS - BLACK STEEL (kg):         1642.06	E1506X	BENT	90	3240	82	417.12		
P1503         STR         -         4300         60         405.06           P1504         STR         -         1650         60         155.43           P1505         STR         -         1200         60         113.04           P1506         BENT         90         1910         20         59.97           R1501X         STR         -         7370         56         647.97           R1502X         STR         -         5590         56         491.47           R1503X         STR         -         3835         164         987.44           TOTAL REINFORCING STEEL MASS - BLACK STEEL (kg):         1642.06	P1501	BENT	90	925	180	261.41		
P1504         STR         -         1650         60         155.43           P1505         STR         -         1200         60         113.04           P1506         BENT         90         1910         20         59.97           R1501X         STR         -         7370         56         647.97           R1502X         STR         -         5590         56         491.47           R1503X         STR         -         3835         164         987.44           TOTAL REINFORCING STEEL MASS - BLACK STEEL (kg):         1642.06	P1502	BENT	90	2290	180	647.15		
P1505         STR         -         1200         60         113.04           P1506         BENT         90         1910         20         59.97           R1501X         STR         -         7370         56         647.97           R1502X         STR         -         5590         56         491.47           R1503X         STR         -         3835         164         987.44           TOTAL REINFORCING STEEL MASS - BLACK STEEL (kg):         1642.06	P1503	STR	-	4300	60	405.06		
P1506         BENT         90         1910         20         59.97           R1501X         STR         -         7370         56         647.97           R1502X         STR         -         5590         56         491.47           R1503X         STR         -         3835         164         987.44           TOTAL REINFORCING STEEL MASS - BLACK STEEL (kg):         1642.06	P1504	STR	-	1650	60	155.43		
R1501X         STR         -         7370         56         647.97           R1502X         STR         -         5590         56         491.47           R1503X         STR         -         3835         164         987.44           TOTAL REINFORCING STEEL MASS - BLACK STEEL (kg):         1642.06	P1505	STR	-	1200	60	113.04		
R1502X         STR         -         5590         56         491.47           R1503X         STR         -         3835         164         987.44           TOTAL REINFORCING STEEL MASS - BLACK STEEL (kg): 1642.06	P1506	BENT	90	1910	20	59.97		
R1503X         STR         -         3835         164         987.44           TOTAL REINFORCING STEEL MASS - BLACK STEEL (kg):         1642.06	R1501X	STR	-	7370	56	647.97		
TOTAL REINFORCING STEEL MASS - BLACK STEEL (kg): 1642.06	R1502X	STR	-	5590	56	491.47		
	R1503X	STR	-	3835	164	987.44		
TOTAL REINFORCING STEEL MASS - CHROMX (kg): 5215.77	тот	AL REIN	FORCING STE	EL MASS - BLAG	CK STEEL (kg):	1642.06		
		TOTAL F	REINFORCING	STEEL MASS -	CHROMX (kg):	5215 77		



- 1. ALL DIMENSIONS GIVEN IN BENDING DIAGRAM ARE OUT-TO-OUT, EXCEPT RADII AND EXTENSIONS ON 90°, 135° & 180° HOOKS. EXTENSIONS ON 90°, 135° & 180° HOOKS ARE THE "A" OR "G" DIMENSIONS FOR THE STANDARD 90°, 135° & 180° HOOKS REFERENCED FROM THE RSIC "MANUAL OF STANDARD PRACTICE". RADII ARE INSIDE DIMENSIONS. ALL REINFORCING STEEL SHALL CONFORM TO THE LATEST EDITION OF CAN/CSA-S6 CLAUSE 8.14 "DETAILS OF REINFORCEMENT AND SPECIAL
- DETAILING PROVISIONS", UNLESS NOTED OTHERWISE IN THE BILL OF REINFORCING STEEL. 2. ALL REINFORCING STEEL SHALL BE DEFORMED STEEL, UNLESS NOTED OTHERWISE IN THE BILL OF REINFORCING STEEL.

TOTAL REINFORCING STEEL MASS (kg): 24159.52

- 3. ALL REINFORCING WITH SUFFIX "SS" SHALL BE STAINLESS STEEL CONFORMING TO THE REQUIREMENTS OF ASTM A955M, 300 SERIES, MINIMUM GRADE 420, OF ONE OF THE FOLLOWING UNS DESIGNATIONS: S31653, S31803, OR S32304.
- 4. ALL REINFORCING STEEL SHALL CONFORM TO THE LATEST EDITION OF CAN/CSA G30.18 "CARBON STEEL BARS FOR CONCRETE REINFORCEMENT" GRADE 400W, UNLESS NOTED OTHERWISE.
- 5. LIKE BARS SHALL BE BUNDLED, SECURELY TIED AND IDENTIFIED AS TO MARK AND SITE NO. BY APPROPRIATE MEANS. ALL OTHER ITEMS TO BE IDENTIFIED IN A SIMILAR FASHION.
- 6. UNLESS OTHERWISE NOTED DIAMETER "D" IS THE SAME ALL HOOKS AND BENDS ON A BAR. WHERE SLOPE DIFFERS FROM 45° DIMENSIONS "H" AND "K" MUST BE SHOWN.



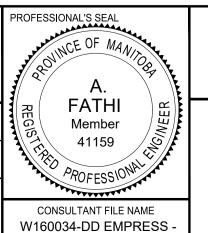
**ENLARGED VIEW BAR BENDING DETAILS** 

BID OPPORTUNITY No. 602-2018



LOCATION APPROVED	BM ELEV			
SUPR. U/G STRUCTURES DATE COMMITTEE				
NOTE:				
LOCATION OF UNDERGROUND STRUCTURES AS SHOWN ARE BASED ON THE BEST				
INFORMATION AVAILABLE BUT NO GUARANTEE IS GIVEN THAT ALL EXISTING				
UTILITIES ARE SHOWN OR THAT THE GIVEN LOCATIONS ARE EXACT. CONFIRMATION OF				
EXISTENCE AND EXACT LOCATION OF ALL SERVICES MUST BE OBTAINED FROM THE	В	ISSUED FOR TENDER		
INDIVIDUAL UTILITIES BEFORE PROCEEDING	Α	ISSUED FOR 95% DESIGN R		
WITH CONSTRUCTION.	No.	REVISIONS		

D	BM ELEV				mı			PROFESSIONAL'S SEAL		
_						MORRIS	SON HER	RSHFIELD	A.	
ΞS					DESIGNED BY	AF	CHECKED BY	BAP	REGISOR 41159	
J					DRAWN BY	АН	APPROVED BY	BE	41159 SO	
)F				LIOD COM E				CONSTRUCTION	MOLESSIC	
	В	ISSUED FOR TENDER	18/09/04	BAP	HOR SCALE VERT SCALE	AS SHOWN	N/A		CONSULTANT FILE NAME W160034-DD EMPRESS -	
G	Α	ISSUED FOR 95% DESIGN REVIEW	18/08/07	BAP						
	No.	REVISIONS	YY/MM/DD	BY	DATE		DATE		REINF - OVERPASS.DWG	





## THE CITY OF WINNIPEG PUBLIC WORKS DEPARTMENT

**ENGINEERING DIVISION** 

	CITY DRAWING NUMBER			
EMPRESS STREET PROJECT	P-3494-116			
OVERPASS REHABILITATION WORKS	SHEET	OF		
SUBSTRUCTURE AND SUPERSTRUCTURE		116	168	
BILL OF REINFORCING	DRAWING	3 No.	REV	