A' 53'-5 7/16 WP/WP
B' 64'-1 15/16 WP/WP
C' 41'-10 3/16 WP/WP
D' 30'-5 11/16 WP/WP
H' 46'-9 3/8 WP/WP

A'	3'-4 1/4	3@3=9	6 1/2	44 SPCS. @ 1'-0 (STAGG'D) = 44'-0 (178 - STUDS REQ'D)	45'-11 13/16	3@3=9	3'-6 1/4	A'
B'	3'-6 1/4	3@3=9	6 3/4	55 SPCS. @ 1'-0 (STAGG'D) = 55'-0 (222 - STUDS REQ'D)	57'-1 5/16	3@3=9	2'-11 1/4	B'
C'	3'-2 1/4	3@3=9	4 7/8	33 SPCS. @ 1'-0 (STAGG'D) = 33'-0 (134 - STUDS REQ'D)	34'-8 9/16	3@3=9	3'-4 1/4	C'
D'	2'-11 1/4	3@3=9	8 1/8	22 SPCS @ 1'-0 (STAGG'D) = 22'-0 (90 - STUDS REQ'D)	24'-3 1/16	3@3=9	2'-8 1/4	D'
H'	2'-10 1/4	3@3=9	7 1/2	38 SPCS. @ 1'-0 (STAGG'D) = 38'-0 (154 - STUDS REQ'D)	40'-1 3/4	3@3=9	3'-2 1/4	H'

1'-4 3/8 A' · 1'-4 5/8 B' · 1'-2 3/4 C' · 1'-6 D' · 1'-5 3/8 H'

2 #s px R L ON A ONLY (2)

3/4" ϕ STUD x G" LONG (TYP)

2 #s 2'4 x 1 x 10 px R L ON A ONLY (2)

5 5/8 · A' 4' D' · 6 1/16 · C' 4' H' · 5 3/8 · B' · 8 (KEEP)

SEE DET. 'A' · 1 7/8 · 4 · 3 · 1'-0 · 6 · 6 · 1'-0 · TYP. SPACING (N/S & F/S)

2" ϕ HOLES FOR CONCRETE @ 1'-6 C/C ABT. (STAGG'D)

2 3/4" ϕ HOLES (TYP)

SEE DET. 'A'

NOTE: DIFF. WT SECTIONS!

A559	(CUT W14 x 311)	ONE ~ WT. 16 1/4 x 8 x 1 7/16 @ 155.5 x 46'-10 11/16 - ma	(82/4)
B559	(CUT W14 x 342)	ONE ~ WT. 16 3/8 x 8 x 1 9/16 @ 171 x 58'-0 3/16 - mb	(82/3)
C559	(CUT W14 x 370)	ONE ~ WT. 16 1/2 x 8 x 1 5/8 @ 185 x 35'-7 7/16 - mc	(82/2)
D559	(CUT W14 x 311)	ONE ~ WT. 8 x 155.5 x 25'-1 15/16 - md	(82/4)
H559	(CUT W14 x 370)	ONE ~ WT. 8 x 185 x 41'-0 5/8 - mh	(82/2)

PREP. 2E

K'	2'-7 1/4	3@3=9	4 1/4	29 SPCS. @ 1'-0 (STAGG'D) = 29'-0 (118 - STUDS REQ'D)	30'-7 1/4	3@3=9	2'-8 1/4	K'
M'	2'-10 1/4	3@3=9	4 3/8	26 SPCS. @ 1'-0 (STAGG'D) = 26'-0 (106 - STUDS REQ'D)	27'-7 11/16	3@3=9	2'-8	M'
N'	1'-9	3@3=9	4 1/2	32 SPCS. @ 1'-0 (STAGG'D) = 32'-0 (130 - STUDS REQ'D)	33'-7 3/4	3@3=9	2'-7 1/4	N'
P'	3'-5 1/4	3@3=9	4 1/2	46 SPCS. @ 1'-0 (STAGG'D) = 46'-0 (186 - STUDS REQ'D)	47'-7 7/8	3@3=9	3'-5 1/4	P'
S'	2'-2 1/4	3@3=9	5 1/8	45 SPCS. @ 1'-0 (STAGG'D) = 45'-0 (182 - STUDS REQ'D)	46'-9 15/16	3@3=9	3'-2 1/4	S'
T'	3'-2 1/4	3@3=9	3 3/4	39 SPCS. @ 1'-0 (STAGG'D) = 39'-0 (158 - STUDS REQ'D)	40'-6 3/8	3@3=9	2'-11 1/4	T'

1 3/8 · 1'-0 · 6 · 6 · 1'-0 · TYP. SPACING (N/S & F/S) · D

K' 3 3/8 · M' N' P' S' T' 4 5/8

SEE DET. 'A' · D · NOTE: DIFF. WT. SECTIONS!

K559	(CUT W12 x 106)	ONE ~ WT. 12 1/4 x 6 7/16 x 5/8 @ 53 x 31'-6 7/8 - mk	(82/20)
M559	(CUT W12 x 136)	ONE ~ WT. 12 3/8 x 6 11/16 x 13/16 @ 68 x 28'-6 9/16 - mm	(82/15)
N559	(CUT W12 x 136)	ONE ~ WT. 6 x 68 x 34'-6 5/8 - mn	(82/15)
P559	(CUT W12 x 136)	ONE ~ WT. 6 x 68 x 48'-6 3/4 - mp	(82/17)
S559	(CUT W12 x 136)	ONE ~ WT. 6 x 68 x 47'-8 1/16 - ms	(82/17)
T559	(CUT W12 x 136)	ONE ~ WT. 6 x 68 x 41'-5 1/4 - mt	(82/16)

PREP. 2E

SEE DET. 'A'

A, B, C, D, G & H · K, M, N, P, S & T · 1 5/8 · 6 15/16 · 12

DETAIL 'A' (TYP. END DETAIL)

#s px R L FOR A
#s py R L FOR G

5/8 · P.P. · 45° · 2 1/4 · 2 1/4 · A' · G' · P.P. · 5/8 · B · 45°

SECT. X-X FOR A & G (2)

3/4" STUDS

2 ϕ HOLES STAGG'D (IN SECT. C-C ONLY)

3 · 3 · 3 1/2 · 3 1/2

SECTION C-C

SECTION D-D

WELD: E70XX

PAINT: NONE

REF. DIAG. E5A

40'-9 7/8 WP/WP

1'-5 · 35'-10 5/8 · 3@3=9 · 2'-9 1/4

2 5/8 · 35 SPCS. @ 1'-0 (STAGG'D) = 35'-0 (142 STUDS - REQ'D) · B

G G G G G G G G

C · X

3/4" STUD x G" LONG (TYP)

8 (KEEP) · 5 7/8

2 ϕ · 1 · 4'-11 5/8 N.T.S. · 19 SPACES @ 1'-6 = 28'-6 (STAGGERED) · 1'-6 · SEE DET. 'A'

G559 (CUT W14 x 342) ONE ~ WT. 8 x .171 x 36'-9 1/2 - mg (82/3) (PREP 1E)

Approver Note Btwn. 10 & 00

2 #s 2'12 x 1 x 10 py R L (2)

BILL OF MATERIAL

LINE	COOSTE	COMMX SHIP DIVN.	PIECE MARKS MAIN MAT'L.	PIECE MARKS DETAIL MAT'L.	NO. OF PIECES	MATERIAL DESCRIPTION PL	WIDTH Inch	WIDTH 16th	X PLATE ONLY	THK. In.	THK. 16th	GRADE CODE	DSOR	FINISHED LENGTH Feet	FINISHED LENGTH In.	FINISHED LENGTH 16th	PAGE	LINE	REMARKS
01					F001														
02				MA	1		W14 x 311					A36	2	46	10	11	82	4	CUT / TEE, PREP 2E
03					178		~~3/4" STUD x G" LG~~												
04							SHEAR STUD 3/4 x 6												
05		0026	A559		1		PIECE BRACE							46	10	11			x 16 IN.
06																			
07					F001														
08				MB	1		W14 x 342					A36	2	58	0	3	82	3	CUT / TEE, PREP 2E
09					222		~~3/4" STUD x G" LG~~												
10							SHEAR STUD 3/4 x 6												
11		0031	B559		1		PIECE BRACE							58	0	3			x 16 IN.
12																			
13					F001														
14				MC	1		W14 x 370					A36	2	35	7	7	82	2	CUT / TEE, PREP 2E
15					134		~~3/4" STUD x G" LG~~												
16							SHEAR STUD 3/4 x 6												
17		0025	C559		1		PIECE BRACE							35	7	7			x 16 IN.
18																			
19					F001														
20				MD	1		W14 x 311					A36	2	25	1	15	82	4	CUT / TEE, PREP 2E
21					90		~~3/4" STUD x G" LG~~												
22							SHEAR STUD 3/4 x 6												
23		0026	D559		1		PIECE BRACE							25	1	15			x 16 IN.
24																			
25																			
26			TOTAL				TOTAL										1 OF 3		
01					F001														
02				MG	1		W14 x 342					A36	2	36	9	8	~~82~~ 823		CUT / TEE, PREP 1E
03					142		~~3/4" STUD x G" LG~~												
04							SHEAR STUD 3/4 x 6												
05		0025	G559		1		PIECE BRACE							36	9	8			x 16 IN.
06																			
07					F001														
08				MH	1		W14 x 370					A36	2	41	0	10	~~82~~ 82		CUT / TEE, PREP 2E
09					154		~~3/4" STUD x G" LG~~												
10							SHEAR STUD 3/4 x 6												
11		0025	H559		1		PIECE BRACE							41	0	10			x 16 IN.
12																			
13					F001														
14				MK	1		W12 x 106					A36	2	31	6	2	82	20	CUT / TEE, PREP 2E
15					118		~~3/4" STUD x G" LG~~												
16							SHEAR STUD 3/4 x 6												
17		0029	K559		1		PIECE BRACE							31	6	2			x 12 IN.
18																			
19					F001														
20				MM	1		W12 x 136					A36	2	28	6	9	82	15	CUT / TEE, PREP 2E
21					106		~~3/4" STUD x G" LG~~												
22							SHEAR STUD 3/4 x 6												
23		0026	M559		1		PIECE BRACE							28	6	9			x 12 IN.
24																			Appd 85/85R. APR. 15/85
25																			
26			TOTAL				TOTAL										2 OF 3		

REV.	DATE	BY
1	DATE Apr 22/85	BY JM
2	DATE Apr 25/85	BY JM
3	DATE	BY

SPEC. A36 U/N
HOLES 1/16ϕ
FINISH

FRANKEL STEEL LIMITED
220 ATTWELL DRIVE, UNIT 1, REXDALE, ONTARIO M9W 5B2

MADE 27 EJF · DATE Apr. 85 · SQUAD FR.
CHK'D. 28 WD · DATE APR. 85

PROJECT: 7 WORLD TRADE CENTER
DETAIL: HOR. BRACE @ 5TH FLOOR

CONTRACT 84-15 · DWG.No. 559