

E T A B S / C O N K E R

Concrete Frame Design Processor for ETABS

Version 6.20

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27 Jul 2022 11:23:16

ETABS_FILE:3F110.PST/CONKER_FILE:C10.CNK

FILE : DESCON FOR 3F BUILDING FILE : SHEDC
 MOMENT RESISTING CONCRETE FRAME UNITS : KG-M-S

DESIGN CODE TYPE-----	2 (ACI 318-89)
NUMBER OF FRAMES TO BE DESIGNED/CHECKED----	1
NUMBER OF LOAD COMBINATIONS-----	34
ETABS DEAD LOAD CONDITION NUMBER-----	1
ETABS LIVE LOAD CONDITION NUMBER-----	2
NUMBER OF REDEFINED MATERIAL PROPERTIES----	0
NUMBER OF COLUMN DESIGN PROPERTY SETS-----	0
NUMBER OF BEAM DESIGN PROPERTY SETS-----	0
NUMBER OF CURVES PER INTERACTION VOLUME----	11
NUMBER OF POINTS PER INTERACTION CURVE-----	21
CODE FOR PRINTING INTERACTION CURVES-----	0
CODE FOR UNITY PHI FACTOR OVER RIDE-----	0
TYPE OF UNITS (ENGLISH, MKS OR SI)-----	M
EXECUTION MODE-----	0
FLAG FOR MAP OF BEAM FLEXURAL STEEL-----	1
FLAG FOR MAP OF BEAM SHEAR STEEL-----	1
FLAG FOR MAP OF COLUMN DESIGN/CHECK-----	1
FLAG FOR MAP OF COLUMN SHEAR STEEL-----	1
FLAG FOR MAP OF JOINT SHEAR STRESS RATIOS--	1
FLAG FOR MAP OF B/C MOMENT CAPACITY RATIOS-	1

FILE : DESCON FOR 3F BUILDING

FILE : SHEDC

MOMENT RESISTING CONCRETE FRAME

UNITS : KG-M-S

DESIGN LOADING COMBINATION DATA

LOAD TYPE		I	II	III	A	B	C	D1	D2
1	0	1.200	1.600	0.000	0.000	0.000	0.000	0.000	0.000
2	0	1.200	1.000	0.300	1.000	0.000	0.000	0.000	0.000
3	0	1.200	1.000	0.300	0.000	1.000	0.000	0.000	0.000
4	0	1.200	1.000	0.300	-1.000	0.000	0.000	0.000	0.000
5	0	1.200	1.000	0.300	0.000	-1.000	0.000	0.000	0.000
6	0	1.200	1.000	1.000	0.300	0.000	0.000	0.000	0.000
7	0	1.200	1.000	1.000	0.000	0.300	0.000	0.000	0.000
8	0	1.200	1.000	1.000	-0.300	0.000	0.000	0.000	0.000
9	0	1.200	1.000	1.000	0.000	-0.300	0.000	0.000	0.000
10	0	1.200	1.000	-0.300	1.000	0.000	0.000	0.000	0.000
11	0	1.200	1.000	-0.300	0.000	1.000	0.000	0.000	0.000
12	0	1.200	1.000	-0.300	-1.000	0.000	0.000	0.000	0.000
13	0	1.200	1.000	-0.300	0.000	-1.000	0.000	0.000	0.000
14	0	1.200	1.000	-1.000	0.300	0.000	0.000	0.000	0.000
15	0	1.200	1.000	-1.000	0.000	0.300	0.000	0.000	0.000
16	0	1.200	1.000	-1.000	-0.300	0.000	0.000	0.000	0.000
17	0	1.200	1.000	-1.000	0.000	-0.300	0.000	0.000	0.000
18	0	0.900	0.000	0.300	1.000	0.000	0.000	0.000	0.000
19	0	0.900	0.000	0.300	0.000	1.000	0.000	0.000	0.000
20	0	0.900	0.000	1.000	0.300	0.000	0.000	0.000	0.000
21	0	0.900	0.000	1.000	0.000	0.300	0.000	0.000	0.000
22	0	0.900	0.000	0.300	-1.000	0.000	0.000	0.000	0.000
23	0	0.900	0.000	0.300	0.000	-1.000	0.000	0.000	0.000
24	0	0.900	0.000	1.000	-0.300	0.000	0.000	0.000	0.000
25	0	0.900	0.000	1.000	0.000	-0.300	0.000	0.000	0.000
26	0	0.900	0.000	-0.300	1.000	0.000	0.000	0.000	0.000
27	0	0.900	0.000	-0.300	0.000	1.000	0.000	0.000	0.000
28	0	0.900	0.000	-1.000	0.300	0.000	0.000	0.000	0.000
29	0	0.900	0.000	-1.000	0.000	0.300	0.000	0.000	0.000

ETABS_FILE:3F110.PST/CONKER_FILE:C10.CNK

FILE : DESCON FOR 3F BUILDING
MOMENT RESISTING CONCRETE FRAME

FILE : SHEDC
UNITS : KG-M-S

MATERIAL PROPERTIES

ID	TYPE	ELASTIC MODULUS {Kg/sqm}	POISSONS RATIO	UNIT WEIGHT {Kg/cum}	UNIT MASS	COEFF OF EXPANSION
1	C	0.2600E+10	0.2000	0.2400E+04	0.2446E+03	0.1000E-04
2	C	0.2600E+10	0.2000	0.2400E+04	0.2446E+03	0.1000E-04
3	M	0.2100E+10	0.1670	0.2400E+04	0.2446E+03	0.1000E-04

MATERIAL PROPERTIES FOR DESIGN

ID	TYPE	YIELD	STRENGTH	YIELD	STRENGTH	ALLOWABLES	
		FY {Kg/sqm}	FC(FM) {Kg/sqm}	FYS {Kg/sqm}	FCS(FMS) {Kg/sqm}	FBMAJ {Kg/sqm}	FBMIN {Kg/sqm}
1	C	0.420E+08	0.280E+07	0.280E+08	0.280E+07		
2	C	0.280E+08	0.280E+07	0.280E+08	0.280E+07		
3	M	0.000E+00	0.500E+06	0.000E+00	0.500E+06		

FILE : DESCON FOR 3F BUILDING
MOMENT RESISTING CONCRETE FRAME

FILE : SHEDC
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SECTION PROPERTIES FOR COLUMNS

SECT ID	SECTION TYPE	MAT ID	MAJOR DIM {m}	MINOR DIM {m}	CONCRETE COVER {m}	AREA OF BARS 1 {sqm}	AREA OF BARS 2 {sqm}
1	RR	1	0.6000	0.4000	0.04000	0.00000	0.00000
2	RR	1	0.3000	0.3000	0.03000	0.00000	0.00000

FILE : DESCON FOR 3F BUILDING

FILE : SHEDC

MOMENT RESISTING CONCRETE FRAME

UNITS : KG-M-S

SECTION PROPERTIES FOR BEAMS

SECT ID	SECT TYPE	MAT ID	DEPTH BELOW {m}	DEPTH ABOVE {m}	BEAM WIDTH {m}	SLAB THICK {m}	SLAB WIDTH {m}	TOP COVER {m}	BOTTOM COVER {m}
1	RCB	1	0.6000	0.0000	0.3500	0.0000	0.0000	0.06000	0.06000
2	RCB	1	0.6000	0.0000	0.3000	0.0000	0.0000	0.06000	0.06000

FILE : DESCON FOR 3F BUILDING
MOMENT RESISTING CONCRETE FRAME

FILE : SHEDC
UNITS : KG-M-S

SECTION PROPERTIES FOR BEAMS

SECT ID	TOP STEEL END-I { sqm}	BOT STEEL END-I { sqm}	TOP STEEL END-J { sqm}	BOT STEEL END-J { sqm}
1	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
2	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00

FILE : DESCON FOR 3F BUILDING
MOMENT RESISTING CONCRETE FRAME

FILE : SHEDC
UNITS : KG-M-S

FRAME NUMBER----- 1
FRAMING TYPE----- 1 (SEISMIC)
COLUMN PROPERTY REASSIGNMENT FLAG----- 0
BEAM PROPERTY REASSIGNMENT FLAG----- 0
YIELD OVERSTRENGTH FACTOR----- 1.25

FRAME ID NUMBER----- 1
NUMBER OF STORY LEVELS----- 4
NUMBER OF COLUMN LINES----- 8
NUMBER OF BAYS----- 9
NUMBER OF BRACING ELEMENTS----- 0
NUMBER OF PANEL ELEMENTS----- 0
NUMBER OF COLUMN LATERAL LOAD PATTERNS----- 0
NUMBER OF BEAM SPAN LOAD PATTERNS----- 0
MAXIMUM NUMBER OF LOADS PER BEAM SPAN----- 4

ETABS_FILE:3F110.PST/CONKER_FILE:C10.CNK

FILE : DESCON FOR 3F BUILDING FILE : SHEDC
 MOMENT RESISTING CONCRETE FRAME UNITS : KG-M-S

DESIGN OF BEAM ELEMENTS (ACI 318-89)

FRAME ID /REINFORCEMENT CONCRETE FRAME

LEVEL ID RF

BAY ID	BEAM SIZE WIDTH X DEPTH {m} {m}	STRESS POINT	/-FACTORED -MOMENT {T-m}	LOADS & +MOMENT {T-m}	COMBOS-//--REQUIRED SHEAR M{top} M{bot} V {/m} {T} {sqcm} {sqcm} {sqcm}	REBAR--/ M{top} M{bot} V {/m} {sqcm} {sqcm} {sqcm}
1	0.35 X 0.60	END I	12 < 4>	8 <26>	11 < 9>	6.33 6.33 8.74
		1/4-PT	4 <30>	6 < 2>	10 < 6>	6.33 6.33 7.55
		MIDDLE	3 < 0>	4 < 2>	8 < 6>	6.33 6.33 5.91
		3/4-PT	3 < 0>	4 < 4>	10 < 6>	6.33 6.33 8.05
		END J	11 < 2>	5 < 0>	12 < 9>	6.33 6.33 9.24
2	0.35 X 0.60	END I	11 < 4>	6 < 0>	12 < 6>	6.33 6.33 9.24
		1/4-PT	3 < 0>	4 < 2>	10 < 6>	6.33 6.33 8.03
		MIDDLE	3 < 0>	4 < 4>	8 < 6>	6.33 6.33 5.86
		3/4-PT	4 <26>	7 < 4>	10 < 6>	6.33 6.33 7.52
		END J	12 < 2>	8 <30>	11 < 6>	6.33 6.33 8.73
3	0.35 X 0.60	END I	11 < 4>	7 <26>	11 < 6>	6.33 6.33 8.72
		1/4-PT	4 <30>	6 < 2>	10 < 6>	6.33 6.33 7.52
		MIDDLE	3 < 0>	3 < 2>	8 < 6>	6.33 6.33 5.93
		3/4-PT	3 < 0>	4 < 4>	10 < 9>	6.33 6.33 8.07
		END J	11 < 2>	5 < 0>	12 < 6>	6.33 6.33 9.26
4	0.35 X 0.60	END I	11 < 4>	5 < 0>	12 < 9>	6.33 6.33 9.24
		1/4-PT	3 < 0>	4 < 2>	10 < 9>	6.33 6.33 8.03
		MIDDLE	3 < 0>	4 < 4>	8 < 9>	6.33 6.33 5.86
		3/4-PT	4 <26>	6 < 4>	10 < 6>	6.33 6.33 7.52
		END J	11 < 2>	7 <30>	11 < 9>	6.33 6.33 8.73
5	0.35 X 0.60					

END I	14 < 5>	8 <27>	12 < 6>	7.05	6.33	9.44
1/4-PT	4 <31>	7 < 3>	10 < 9>	6.33	6.33	8.02
MIDDLE	3 < 0>	4 < 9>	7 < 6>	6.33	6.33	5.52
3/4-PT	4 <27>	7 < 5>	10 < 6>	6.33	6.33	8.00
END J	14 < 3>	8 <31>	12 < 6>	7.01	6.33	9.42

6 0.35 X 0.60

END I	17 < 5>	9 < 0>	16 < 2>	8.92	6.33	12.27
1/4-PT	4 <31>	8 < 3>	14 < 6>	6.33	6.33	10.67
MIDDLE	4 < 0>	7 < 9>	8 < 9>	6.33	6.33	6.27
3/4-PT	5 <27>	8 < 5>	14 < 6>	6.33	6.33	10.68
END J	18 < 3>	9 < 0>	16 < 2>	9.02	6.33	12.28

7 0.35 X 0.60

END I	16 < 5>	10 <27>	13 < 9>	8.12	6.33	9.89
1/4-PT	5 <31>	8 < 3>	11 < 6>	6.33	6.33	8.47
MIDDLE	4 < 0>	4 < 9>	8 <14>	6.33	6.33	5.96
3/4-PT	6 <27>	8 < 5>	11 < 9>	6.33	6.33	8.47
END J	16 < 3>	11 <31>	13 < 6>	8.22	6.33	9.89

FILE : DESCON FOR 3F BUILDING FILE : SHEDC
 MOMENT RESISTING CONCRETE FRAME UNITS : KG-M-S

DESIGN OF BEAM ELEMENTS (ACI 318-89)

FRAME ID /REINFORCEMENT CONCRETE FRAME

LEVEL ID 3F

BAY ID	BEAM SIZE WIDTH X DEPTH {m} {m}	STRESS POINT	/-FACTORED -MOMENT {T-m}	LOADS & +MOMENT {T-m}	COMBOS-//--REQUIRED SHEAR M{top} M{bot} V {/m} {T} {sqcm} {sqcm} {sqcm}	REBAR--/ M{top} M{bot} V {/m} {sqcm} {sqcm} {sqcm}
1	0.35 X 0.60	END I	21 < 4>	15 <26>	14 < 6>	10.71 7.65 10.59
		1/4-PT	9 < 4>	9 <26>	12 < 6>	6.33 6.33 9.65
		MIDDLE	5 < 0>	4 < 0>	10 < 6>	6.33 6.33 8.14
		3/4-PT	7 <26>	8 < 4>	12 <14>	6.33 6.33 9.14
		END J	17 <10>	14 <22>	13 <17>	8.90 7.13 10.08
2	0.35 X 0.60	END I	18 <12>	14 <18>	13 <17>	9.05 6.94 10.00
		1/4-PT	7 <30>	8 < 2>	12 <17>	6.33 6.33 9.04
		MIDDLE	5 < 0>	4 < 0>	10 < 6>	6.33 6.33 7.91
		3/4-PT	9 < 2>	9 <30>	12 < 9>	6.33 6.33 9.44
		END J	21 < 2>	15 <30>	13 < 9>	10.69 7.56 10.39
3	0.35 X 0.60	END I	19 < 4>	14 <26>	13 < 9>	10.00 7.12 9.94
		1/4-PT	8 < 4>	9 <26>	12 < 9>	6.33 6.33 9.00
		MIDDLE	5 < 0>	4 < 0>	10 < 9>	6.33 6.33 7.50
		3/4-PT	6 <26>	8 < 4>	11 <17>	6.33 6.33 8.66
		END J	17 <10>	13 <22>	12 <17>	8.52 6.51 9.59
4	0.35 X 0.60	END I	17 <12>	13 <18>	12 <17>	8.48 6.45 9.53
		1/4-PT	6 <30>	8 < 2>	11 <17>	6.33 6.33 8.57
		MIDDLE	5 < 0>	3 < 0>	10 < 6>	6.33 6.33 7.42
		3/4-PT	8 < 2>	9 <30>	12 < 9>	6.33 6.33 8.96
		END J	20 < 2>	14 <30>	13 < 6>	10.03 7.02 9.91
5	0.35 X 0.60					

END I	21 < 5>	15 <27>	13 < 9>	10.74	7.45	10.25
1/4-PT	8 <23>	9 <11>	12 < 9>	6.33	6.33	9.15
MIDDLE	5 < 0>	4 < 0>	10 < 9>	6.33	6.33	7.40
3/4-PT	8 <19>	9 <13>	12 <17>	6.33	6.33	9.11
END J	21 < 3>	15 <31>	13 <14>	10.66	7.49	10.20

6 0.35 X 0.60

END I	25 < 5>	15 <27>	16 < 6>	13.08	7.76	12.73
1/4-PT	9 <23>	10 <11>	14 < 9>	6.33	6.33	11.15
MIDDLE	6 < 0>	4 <34>	11 <14>	6.33	6.33	8.26
3/4-PT	9 <19>	10 <13>	14 <17>	6.33	6.33	11.15
END J	25 < 3>	15 <31>	16 <14>	12.83	7.52	12.74

7 0.35 X 0.60

END I	24 < 5>	18 <27>	15 < 9>	12.60	9.26	11.53
1/4-PT	10 <23>	11 <11>	13 < 9>	6.33	6.33	10.43
MIDDLE	6 < 0>	5 < 0>	11 < 9>	6.33	6.33	8.68
3/4-PT	10 <19>	10 <13>	13 <17>	6.33	6.33	10.40
END J	24 < 3>	18 <31>	15 <17>	12.28	9.04	11.50

FILE : DESCON FOR 3F BUILDING FILE : SHEDC
 MOMENT RESISTING CONCRETE FRAME UNITS : KG-M-S

DESIGN OF BEAM ELEMENTS (ACI 318-89)

FRAME ID /REINFORCEMENT CONCRETE FRAME

LEVEL ID 2F

BAY ID	BEAM SIZE WIDTH X DEPTH {m} {m}	STRESS POINT	/-FACTORED -MOMENT {T-m}	LOADS & +MOMENT {T-m}	COMBOS-//--REQUIRED SHEAR M{top} M{bot} V {/m} {T} {sqcm} {sqcm} {sqcm}	REBAR--/ M{top} M{bot} V {/m} {sqcm} {sqcm} {sqcm}
1	0.35 X 0.60	END I	26 < 4>	19 <26>	18 < 9>	13.41 9.60 14.35
		1/4-PT	11 <30>	13 < 2>	16 < 6>	6.33 6.36 12.72
		MIDDLE	6 < 0>	5 < 0>	13 < 9>	6.33 6.33 10.20
		3/4-PT	9 <26>	9 < 4>	17 < 9>	6.33 6.33 13.43
		END J	25 < 2>	15 <30>	19 < 9>	13.14 7.66 15.06
2	0.35 X 0.60	END I	27 < 4>	14 <26>	23 < 6>	14.20 6.95 17.64
		1/4-PT	8 <30>	10 < 2>	19 < 9>	6.33 6.33 14.94
		MIDDLE	7 < 0>	7 < 4>	13 < 9>	6.33 6.33 10.13
		3/4-PT	10 <26>	14 < 4>	18 < 6>	6.33 6.87 14.33
		END J	28 < 2>	17 <30>	22 < 9>	14.61 8.80 17.03
3	0.35 X 0.60	END I	24 < 4>	17 <26>	18 < 6>	12.63 8.78 13.71
		1/4-PT	10 <30>	12 < 2>	16 < 6>	6.33 6.33 12.08
		MIDDLE	6 < 0>	5 < 2>	12 < 6>	6.33 6.33 9.33
		3/4-PT	8 <26>	9 < 4>	16 < 6>	6.33 6.33 12.56
		END J	23 < 2>	14 <30>	18 < 6>	12.09 7.14 14.19
4	0.35 X 0.60	END I	23 < 4>	14 <26>	18 < 6>	12.07 7.04 14.12
		1/4-PT	8 <30>	9 < 2>	16 < 6>	6.33 6.33 12.46
		MIDDLE	6 < 0>	5 < 4>	12 < 6>	6.33 6.33 9.17
		3/4-PT	10 <26>	12 < 4>	15 < 6>	6.33 6.33 12.00
		END J	24 < 2>	17 <30>	18 < 6>	12.63 8.67 13.66
5	0.35 X 0.60					

END I	26 < 5>	16 <27>	19 < 9>	13.68	8.02	14.52
1/4-PT	9 <31>	11 < 3>	16 < 9>	6.33	6.33	12.53
MIDDLE	7 < 0>	5 < 9>	11 < 6>	6.33	6.33	8.71
3/4-PT	9 <27>	11 < 5>	16 < 9>	6.33	6.33	12.48
END J	26 < 3>	16 <31>	19 < 9>	13.61	8.07	14.47

6 0.35 X 0.60

END I	30 < 5>	15 < 0>	24 <10>	15.61	7.50	18.67
1/4-PT	8 < 0>	11 < 3>	21 < 6>	6.33	6.33	16.49
MIDDLE	8 < 0>	9 < 9>	12 < 6>	6.33	6.33	9.44
3/4-PT	9 <27>	13 < 5>	21 < 6>	6.33	6.38	16.36
END J	31 < 3>	15 < 0>	24 <13>	16.26	7.79	18.56

7 0.35 X 0.60

END I	25 < 5>	14 <27>	19 < 6>	13.01	7.18	14.40
1/4-PT	8 <31>	10 < 3>	16 < 6>	6.33	6.33	12.41
MIDDLE	6 < 0>	5 < 5>	11 < 9>	6.33	6.33	8.58
3/4-PT	9 <27>	12 < 5>	16 < 9>	6.33	6.33	12.22
END J	26 < 3>	16 <31>	18 < 9>	13.57	8.16	14.20

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FILE : DESCON FOR 3F BUILDING FILE : SHEDC
 MOMENT RESISTING CONCRETE FRAME UNITS : KG-M-S

DESIGN OF BEAM ELEMENTS (ACI 318-89)

FRAME ID /REINFORCEMENT CONCRETE FRAME

LEVEL ID 2F

BAY ID	BEAM SIZE WIDTH X DEPTH {m} {m}	STRESS POINT	/-FACTORED -MOMENT {T-m}	LOADS & +MOMENT {T-m}	COMBOS-//--REQUIRED SHEAR M{top} M{bot} V {/m} {T} {sqcm} {sqcm} {sqcm}	REBAR--/ M{top} M{bot} V {/m} {sqcm} {sqcm} {sqcm}
8	0.30 X 0.60	END I	5 < 0>	4 < 0>	23 <17>	5.42 5.42 18.24
		1/4-PT	5 <19>	6 <13>	23 <17>	5.42 5.42 17.91
		MIDDLE	9 <19>	10 <13>	23 < 6>	5.42 5.42 17.91
		3/4-PT	14 < 3>	14 <31>	24 < 6>	6.98 7.12 18.57
		END J	18 < 3>	18 <31>	24 < 6>	9.54 9.14 19.01
9	0.30 X 0.60	END I	5 < 0>	5 < 0>	24 < 6>	5.42 5.42 18.46
		1/4-PT	5 <27>	6 < 5>	23 <14>	5.42 5.42 18.10
		MIDDLE	10 <19>	10 <13>	23 < 9>	5.42 5.42 18.02
		3/4-PT	14 < 3>	14 <31>	24 < 9>	7.10 7.29 18.68
		END J	19 < 3>	18 <31>	25 < 9>	9.71 9.36 19.12

FILE : DESCON FOR 3F BUILDING FILE : SHEDC
 MOMENT RESISTING CONCRETE FRAME UNITS : KG-M-S

DESIGN OF BEAM ELEMENTS (ACI 318-89)

FRAME ID /REINFORCEMENT CONCRETE FRAME

LEVEL ID 1F

BAY ID	BEAM SIZE WIDTH X DEPTH {m} {m}	STRESS POINT	/-FACTORED -MOMENT {T-m}	LOADS & +MOMENT {T-m}	COMBOS-//--REQUIRED SHEAR M{top} M{bot} V {/m} {T} {sqcm} {sqcm} {sqcm}	REBAR--/ M{top} M{bot} V {/m} {sqcm} {sqcm} {sqcm}
1	0.35 X 0.60	END I	23 < 4>	18 <26>	15 < 9>	11.83 9.13 11.48
		1/4-PT	10 <22>	10 <10>	14 < 9>	6.33 6.33 10.54
		MIDDLE	6 < 0>	4 < 0>	12 < 9>	6.33 6.33 9.03
		3/4-PT	9 <26>	10 < 4>	13 <17>	6.33 6.33 10.46
		END J	22 <10>	17 <22>	15 <17>	11.27 8.77 11.40
2	0.35 X 0.60	END I	23 <12>	16 <18>	16 <14>	11.80 8.21 12.22
		1/4-PT	9 <30>	10 < 2>	14 <17>	6.33 6.33 10.90
		MIDDLE	6 < 0>	4 < 0>	11 < 9>	6.33 6.33 8.85
		3/4-PT	10 <18>	11 <12>	14 < 6>	6.33 6.33 10.93
		END J	24 < 2>	17 <30>	16 < 6>	12.28 8.63 12.25
3	0.35 X 0.60	END I	21 < 4>	16 <26>	14 < 6>	10.87 8.26 10.70
		1/4-PT	9 <22>	10 <10>	13 < 9>	6.33 6.33 9.76
		MIDDLE	5 < 0>	4 < 0>	11 < 6>	6.33 6.33 8.25
		3/4-PT	8 <26>	9 < 4>	12 <14>	6.33 6.33 9.72
		END J	20 <10>	16 <22>	14 <17>	10.41 7.89 10.66
4	0.35 X 0.60	END I	20 <12>	15 <18>	14 <17>	10.35 7.79 10.55
		1/4-PT	8 <30>	9 < 2>	12 <17>	6.33 6.33 9.59
		MIDDLE	5 < 0>	4 < 0>	10 < 6>	6.33 6.33 8.12
		3/4-PT	9 <18>	10 <12>	12 < 6>	6.33 6.33 9.65
		END J	21 < 2>	16 <30>	14 < 6>	10.83 8.13 10.60
5	0.35 X 0.60					

END I	22 < 5>	16 <27>	14 <14>	11.39	8.14	10.73
1/4-PT	9 <23>	10 <11>	12 <14>	6.33	6.33	9.63
MIDDLE	6 < 0>	4 < 0>	10 <28>	6.33	6.33	7.89
3/4-PT	9 <19>	10 <13>	12 < 6>	6.33	6.33	9.63
END J	22 < 3>	16 <31>	14 < 6>	11.38	8.15	10.72

6 0.35 X 0.60

END I	23 <13>	13 <19>	16 <14>	11.97	6.74	12.11
1/4-PT	8 <23>	9 <11>	14 <17>	6.33	6.33	10.53
MIDDLE	6 < 0>	4 <34>	10 <28>	6.33	6.33	7.64
3/4-PT	9 <19>	10 <13>	14 < 9>	6.33	6.33	10.53
END J	23 < 3>	14 <31>	16 < 9>	12.20	6.98	12.11

7 0.35 X 0.60

END I	21 <13>	15 <19>	13 <14>	10.68	7.39	10.30
1/4-PT	8 <23>	9 <11>	12 <14>	6.33	6.33	9.21
MIDDLE	5 < 0>	4 < 0>	10 <17>	6.33	6.33	7.46
3/4-PT	9 <19>	9 <13>	12 < 9>	6.33	6.33	9.16
END J	21 < 3>	15 <31>	13 < 6>	10.83	7.68	10.26

ETABS_FILE:3F110.PST/CONKER_FILE:C10.CNK

FILE : DESCON FOR 3F BUILDING

FILE : SHEDC

MOMENT RESISTING CONCRETE FRAME

UNITS : KG-M-S

DESIGN OF BEAM ELEMENTS (ACI 318-89)

FRAME ID /REINFORCEMENT CONCRETE FRAME

LEVEL ID 1F

BAY ID	BEAM SIZE WIDTH X DEPTH {m} {m}	STRESS POINT	/-FACTORED -MOMENT {T-m}	LOADS & +MOMENT {T-m}	COMBOS-//-- SHEAR {T}	REQUIRED M{top} {sqcm}	REBAR--/ M{bot} {sqcm}	V {/m} {sqcm}
8	0.30 X 0.60	END I	5 < 0>	5 < 0>	25 < 6>	5.42	5.42	19.08
		1/4-PT	6 <27>	6 < 5>	24 < 6>	5.42	5.42	18.83
		MIDDLE	10 <27>	11 < 5>	24 < 6>	5.42	5.57	18.51
		3/4-PT	14 <27>	15 < 5>	24 <33>	7.28	7.90	18.49
		END J	19 <27>	20 < 5>	24 <17>	9.74	10.20	18.76
9	0.30 X 0.60	END I	5 < 0>	5 < 0>	24 < 9>	5.42	5.42	18.48
		1/4-PT	6 <27>	6 < 5>	23 < 9>	5.42	5.42	18.23
		MIDDLE	10 <27>	11 < 5>	23 < 9>	5.42	5.42	17.91
		3/4-PT	14 <27>	15 < 5>	23 <14>	7.23	7.60	18.20
		END J	19 <27>	19 < 5>	24 <17>	9.68	9.80	18.47

FILE : DESCON FOR 3F BUILDING FILE : SHEDC
 MOMENT RESISTING CONCRETE FRAME UNITS : KG-M-S

DESIGN OF COLUMN ELEMENTS (ACI 318-89)

FRAME ID /REINFORCEMENT CONCRETE FRAME

LEVEL ID RF

COL ID	COLUMN MAJOR {m}	SIZE X MINOR {m}	STR PT	/-----MOMENT PU {T}	INTERACTION MMAJ {T-m}	MINN {T-m}	COMBO REBAR {sqcm}	/-----SHEAR DIRN	VU {T}	DESIGN COMBO A {/m}	-----/ {sqcm}
1	0.60	X 0.40	RR	TOP	9	3	2 <34> 24.00	MAJOR	8 < 0>	6.66	
				BOT	9	2	1 <34> 24.00	MINOR	8 < 0>	9.79	
2	0.60	X 0.40	RR	TOP	5	0	30 < 0> 49.23	MAJOR	10 < 0>	8.16	
				BOT	5	0	21 < 0> 34.32	MINOR	14 < 0>	17.36	
3	0.60	X 0.40	RR	TOP	9	3	2 <34> 24.00	MAJOR	10 < 0>	7.66	
				BOT	9	2	1 <34> 24.00	MINOR	8 < 0>	9.78	
4	0.60	X 0.40	RR	TOP	9	3	2 <34> 24.00	MAJOR	8 < 0>	6.61	
				BOT	9	2	1 <34> 24.00	MINOR	8 < 0>	9.49	
5	0.60	X 0.40	RR	TOP	5	0	30 < 0> 49.22	MAJOR	10 < 0>	8.15	
				BOT	5	0	20 < 0> 31.62	MINOR	14 < 0>	16.85	
6	0.60	X 0.40	RR	TOP	9	3	2 <34> 24.00	MAJOR	10 < 0>	7.62	
				BOT	9	2	1 <34> 24.00	MINOR	8 < 0>	9.50	

FILE : DESCON FOR 3F BUILDING

FILE : SHEDC

MOMENT RESISTING CONCRETE FRAME

UNITS : KG-M-S

DESIGN OF COLUMN ELEMENTS (ACI 318-89)

FRAME ID /REINFORCEMENT CONCRETE FRAME

LEVEL ID 3F

COL ID	COLUMN MAJOR {m}	SIZE X MINOR {m}	STR PT	/-----MOMENT PU {T}	INTERACTION MMAJ {T-m}	MINN {T-m}	COMBO REBAR {sqcm}	/-----SHEAR DIRN	VU {T}	DESIGN COMBO A {/m}	-----/ {sqcm}
1	0.60	X 0.40	RR					MAJOR	10	< 0>	7.52
								MINOR	9	< 0>	11.56
			TOP	20	1	1	<34> 24.00				
			BOT	20	3	2	<34> 24.00				
2	0.60	X 0.40	RR					MAJOR	15	< 0>	11.74
								MINOR	15	< 0>	18.50
			TOP	8	0	16	< 0> 24.28				
			BOT	8	0	25	< 0> 39.92				
3	0.60	X 0.40	RR					MAJOR	14	< 0>	10.92
								MINOR	10	< 0>	12.11
			TOP	20	1	1	<34> 24.00				
			BOT	0	25	0	< 0> 26.80				
4	0.60	X 0.40	RR					MAJOR	9	< 0>	7.48
								MINOR	9	< 0>	10.90
			TOP	20	1	1	<34> 24.00				
			BOT	20	3	2	<34> 24.00				
5	0.60	X 0.40	RR					MAJOR	11	< 0>	8.82
								MINOR	14	< 0>	16.73
			TOP	32	2	0	<34> 24.00				
			BOT	8	0	22	< 0> 34.60				
6	0.60	X 0.40	RR					MAJOR	10	< 0>	7.89
								MINOR	9	< 0>	10.91
			TOP	20	1	1	<34> 24.00				
			BOT	20	3	2	<34> 24.00				

FILE : DESCON FOR 3F BUILDING FILE : SHEDC
 MOMENT RESISTING CONCRETE FRAME UNITS : KG-M-S

DESIGN OF COLUMN ELEMENTS (ACI 318-89)

FRAME ID /REINFORCEMENT CONCRETE FRAME

LEVEL ID 2F

COL ID	COLUMN MAJOR {m}	SIZE X MINOR {m}	STR PT	/-----MOMENT INTERACTION-----/ PU {T}	MMAJ {T-m}	MMIN {T-m}	COMBO REBAR {sqcm}	/-----SHEAR DESIGN-----/ DIRN	VU {T}	COMBO A {/m}	{/m}
1	0.60	X 0.40	RR					MAJOR	11	< 0>	8.65
								MINOR	11	< 0>	13.56
			TOP	35	3	2	<34> 24.00				
			BOT	35	2	1	<34> 24.00				
2	0.60	X 0.40	RR					MAJOR	21	< 0>	16.19
								MINOR	19	< 0>	23.05
			TOP	30	0	25	< 0> 36.67				
			BOT	30	0	26	< 0> 39.44				
3	0.60	X 0.40	RR					MAJOR	19	< 0>	14.92
								MINOR	12	< 0>	14.36
			TOP	7	25	0	< 0> 25.57				
			BOT	7	26	0	< 0> 26.25				
4	0.60	X 0.40	RR					MAJOR	11	< 0>	8.63
								MINOR	10	< 0>	12.69
			TOP	35	3	2	<34> 24.00				
			BOT	35	2	1	<34> 24.00				
5	0.60	X 0.40	RR					MAJOR	12	< 0>	9.68
								MINOR	17	< 0>	20.53
			TOP	18	0	22	< 0> 33.03				
			BOT	18	0	23	< 0> 35.34				
6	0.60	X 0.40	RR					MAJOR	11	< 0>	8.43
								MINOR	10	< 0>	12.67
			TOP	35	3	2	<34> 24.00				
			BOT	35	2	1	<34> 24.00				
7	0.30	X 0.30						MAJOR	0	< 0>	0.00

	RR						MINOR	0 < 0>	0.00
		TOP	4	0	0 <34>	9.00			
		BOT	4	0	0 <34>	9.00			
8	0.30 X	0.30					MAJOR	0 < 0>	0.00
	RR						MINOR	0 < 0>	0.00
		TOP	4	0	0 <34>	9.00			
		BOT	4	0	0 <34>	9.00			

FILE : DESCON FOR 3F BUILDING FILE : SHEDC
 MOMENT RESISTING CONCRETE FRAME UNITS : KG-M-S

DESIGN OF COLUMN ELEMENTS (ACI 318-89)

FRAME ID /REINFORCEMENT CONCRETE FRAME

LEVEL ID 1F

COL ID	COLUMN MAJOR {m}	SIZE X MINOR {m}	STR PT	/-----MOMENT INTERACTION-----/ PU {T}	MMAJ {T-m}	MMIN {T-m}	COMBO REBAR {sqcm}	/-----SHEAR DESIGN-----/ DIRN	VU {T}	COMBO A {/m}	{/m}
1	0.60	X 0.40	RR					MAJOR	11	< 0>	8.38
								MINOR	11	< 0>	13.50
			TOP	45	1	1	<34> 24.00				
			BOT	45	1	1	<34> 24.00				
2	0.60	X 0.40	RR					MAJOR	21	< 0>	1.88
								MINOR	20	<30>	2.45
			TOP	44	0	21	< 0> 26.96				
			BOT	83	2	2	<34> 24.00				
3	0.60	X 0.40	RR					MAJOR	20	< 0>	15.10
								MINOR	11	< 0>	13.97
			TOP	52	1	1	<34> 24.00				
			BOT	52	1	1	<34> 24.00				
4	0.60	X 0.40	RR					MAJOR	11	< 0>	8.37
								MINOR	10	< 0>	12.47
			TOP	45	1	1	<34> 24.00				
			BOT	45	1	1	<34> 24.00				
5	0.60	X 0.40	RR					MAJOR	11	< 0>	8.93
								MINOR	18	< 0>	21.14
			TOP	21	0	18	< 0> 26.41				
			BOT	76	2	2	<34> 24.00				
6	0.60	X 0.40	RR					MAJOR	10	< 0>	7.99
								MINOR	10	< 0>	12.44
			TOP	45	1	1	<34> 24.00				
			BOT	45	1	1	<34> 24.00				
7	0.30	X 0.30						MAJOR	0	< 0>	0.00

	RR						MINOR	0 < 0>	0.00
		TOP	7	0	0 <34>	9.00			
		BOT	7	0	0 <34>	9.00			
8	0.30 X	0.30					MAJOR	0 < 0>	0.00
	RR						MINOR	0 < 0>	0.00
		TOP	7	0	0 <34>	9.00			
		BOT	7	0	0 <34>	9.00			