

結構系統：活載重 (L.L.) = 0.200

- 一、構架
本建築物 1F~2F~R1F 採用鋼筋混凝土建造(梁柱韌性立體剛構架)。
- 二、樓版
2F~R1F 15 cm R.C. 版
- 三、基礎
採筏式基礎設計。

- 壹、分析方法：
- 一、依彈性構架理論, 以勁度法分析構架應力及應變。
 - 二、分析程式及設計：
 - 1. 構架採用 CSI-ETABS 程式分析。
 - 2. 採用強度設計法 (USD)，並考慮韌性設計。
 - 3. 設計規範：
 - a.內政部營建署『建築技術規則』
 - b.內政部營建署『結構混凝土工程設計規範』(土木 401-86a)
 - c.內政部營建署『建築物耐震設計規範及解說』(94 年)
 - d. ACI『Building Code Requirements for structural Concrete』ACI 318-99

貳、設計載重 (T/m ²)			
R1FL			
	1. 15cm 鋼筋混凝土版		0.360
	2. 防水層		0.030
	3. 1.5cm 水泥砂漿粉光		0.020
	4. 天花及其他		0.030
		靜載重 (D.L.) 合計=	0.440
		活載重 (L.L.) =	0.200
		水箱載重(TON) =	2.000
2FL			
	1. 15cm 鋼筋混凝土版		0.360
	2. 地磚		0.030
	3. 1.5cm 水泥砂漿粉光		0.020
	4. 天花及其他		0.030
		靜載重 (D.L.) 合計=	0.440

- 參、材料強度：
- 鋼筋：Fy = 4200 kg/cm² (≥#6)
Fy = 2800 kg/cm² (<#6)
(鋼筋材質符合 CNS560 熱軋竹節鋼筋之規定)
 - 混凝土：
fc' = 210 kg/cm² (RC)
(混凝土 28 天抗壓強度)

- 肆、地震力分析
- 一、用途係數：
第四類建築物 I=1.00
 - 二、第二類地盤 (普通地盤)
 - 三、最小設計水平總橫力：

$$V = \frac{S_{aD}IW}{1.4\alpha_yFu} = \frac{I}{1.4\alpha_y}\left(\frac{S_{aD}}{Fu}\right)_m W$$

避免中度地震降伏之設計地震力：

$$\text{一般工址與近斷層區域：} \quad *V = \frac{IFu}{4.2\alpha_y}\left(\frac{S_{aD}}{Fu}\right)_m W$$

$$\text{台北盆地：} V^* = \frac{IFu}{3.5\alpha_y}\left(\frac{S_{aD}}{Fu}\right)_m W$$

避免最大考量地震崩塌之設計地震力：

$$V_M = \frac{I}{1.4\alpha_y}\left(\frac{S_{aM}}{Fu_M}\right)_m W$$

- 四、基本振動週期：
- T = 0.07H^{0.75} (H = 結構物總高度)
 - T = 0.05H^{0.75} (H = 結構物總高度)

- 伍、結構桿件分析程式及分析後結果
- 1. 地震力分析結果 (如下附件)

2. 結構分析輸入（如下附件）
3. 結構桿件分析結果（如下附件）
4. 結構平面圖（如下附件）

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*                地震力計算                *
*                依據我國建築物耐震設計規範                *
*                (2007.01版)                *
*                BY: S. L. LEE                *
*                01/03/2007                *
*****
工程名稱:CHEN225
日期:05/02/2008
時間:17:29:22

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屋突樓層數	(NP):	0
地面樓層數	(NF):	2
地下樓層數	(NB):	0
用途係數	(I):	1.00
基礎種類		第二類地盤
震區短週期水平譜加速度係數	(SsD):	.700
	(SSM):	.900
震區1秒週期水平譜加速度係數	(S1D):	.400
	(S1M):	.500
反應譜等加速度段之工址放大係數:	(FaD):	1.000
	(FaM):	1.000
反應譜等速度段之工址放大係數:	(FvD):	1.300
	(FvM):	1.100
工址設計水平譜加速度係數	(SDs):	.700
	(SD1):	.520
工址最大水平譜加速度係數	(SMs):	.900
	(SM1):	.550
設計地震近斷層調整因子	NA:	1.00
	NV:	1.00
最大考量地震近斷層調整因子	NAM:	1.00
	NVM:	1.00
短週期與中週期分界點	(TOD):	.743
	(TOM):	.611
起始降伏地震力放大倍數	:	1.50
地面建物總高(不含屋突)	(HnF):	6.7

LEVEL	Hi	Wi	XMi	YMi	DXi	DYi	IXYi
RFL	3. 70	85. 06	4. 16	11. 66	4. 75	10. 92	11. 82
2FL	3. 00	128. 98	3. 36	8. 24	6. 54	17. 12	26. 44
1FL	. 00	128. 98	3. 36	8. 24	6. 54	17. 12	26. 44

設計參數計算	
X-向:	
結構系統種類	: 鋼筋混凝土
韌性容量	(R): 4.00
容許韌性容量	(Ra): 3.00
建物靜力基本震動周期	(Ts): .292
動力基本震動周期	(Td): .533
周期上限係數	(Cu): 1.200
設計用基本震動周期	(T): .350
計算設計地震力 V 之參數	:
設計水平譜加速度係數	(SaB): .700
地震力折減係數	(Fu): 2.236
	[(SaD/Fu)m]: .307
計算中小地震設計地震力 V* 之參數:	
設計水平譜加速度係數	(SaB): .700
地震力折減係數	(Fu): 2.236
	[(SaD/Fu)m]: .307
計算最大考量地震設計地震力 VM 之參數:	
設計水平譜加速度係數	(SaM): .900
地震力折減係數	(FuM): 2.646
	[(SaM/FuM)m]: .321
計算層間位移角及建物間隔之參數:	
基本震動周期	(T): .533
設計水平譜加速度係數	(SaD): .700
	[(SaD/Fu)m]: .307

地震力折減係數 (Fu): 2.236
結構系統容許韌性容量 (Ra*): 3.000

Y-向:	
結構系統種類	:其他構造
韌性容量	(R): 4.00
容許韌性容量	(Ra): 3.00
建物靜力基本震動周期	(Ts): .208
動力基本震動周期	(Td): .390
周期上限係數	(Cu): 1.200
設計用基本震動周期	(T): .250
計算設計地震力 V 之參數	:
設計水平譜加速度係數	(Sa _d): .700
地震力折減係數	(Fu): 2.236
	[(Sa _d /Fu) _m]: .307
計算中小度地震設計地震力 V* 之參數:	
設計水平譜加速度係數	(Sa _d): .700
地震力折減係數	(Fu): 2.236
	[(Sa _d /Fu) _m]: .307
計算最大考量地震設計地震力 VM 之參數:	
設計水平譜加速度係數	(Sa _m): .900
地震力折減係數	(Fu _m): 2.646
	[(Sa _m /Fu _m) _m]: .321
計算層間位移角及建物間隔之參數:	
基本震動周期	(T): .390
設計水平譜加速度係數	(Sa _d): .700
	[(Sa _d /Fu) _m]: .307
地震力折減係數	(F): 2.236
結構系統容許韌性容量	(Ra*) : 3.000

RESULTS								
設計水平地震力：								
X-向：V=		31.27	V*=	23.31	Vm=	32.71	used V=	32.71
Y-向：V=		31.27	V*=	23.31	Vm=	32.71	used V=	32.71
LEVEL	HEIGHT	H	W	FX	TMX	FY	TMV	
				(FTPX=	.00	FTPY=	.00)	
				(FTY=	.00	FTV=	.00)	
RFL	6.70	3.70	85.06	19.48	10.64	19.48	4.63	
2FL	3.00	3.00	128.98	13.23	11.32	13.23	4.32	
(SUM)			214.05	32.71	21.96	32.71	8.95	
1FL	.00	.00	128.98	11.61	9.94	11.61	3.80	
OMX=		170.2	OMY=	170.2				
RMX=		1220.6	RMV=	3117.5				

計算層間位移用水平地震力:	
X-向:	V= 34.96
Y-向:	V= 34.96
容許層間位移角放大係數(根據設計地震力分析結果)	
X向:	1.06890
Y向:	1.06890
設計地震力下之容許層間位移角	
X向:	0.0468
Y向:	0.0468
建物間隔所需之位移放大係數(根據設計地震力分析結果)	
X向:	3.78000
Y向:	3.78000

設計垂直地震力計算:									
=====									
X-向		Tx/10:	.035	Tx:	.350	SaDvx:	.467		
				Fuvx:	1.215	(Sa/Fu)m:	.296	Kzx:	.141
		Tx/15:	.023	Fuvx:	1.144	(Sa/Fu)m:	.308	Kzx:	.147
建議使用垂直地震力係數(Kzx): .14676									
Y-向				Ty:	.250	SaDvy:	.467		
		Ty/10:	.025	Fuvy:	1.154	(Sa/Fu)m:	.306	Kzy:	.146
		Ty/15:	.017	Fuvy:	1.103	(Sa/Fu)m:	.316	Kzy:	.151
建議使用垂直地震力係數(Kzy): .15052									

\$ PROGRAM INFORMATION

\$ CONTROLS

UNITS "KGS" "CM"
PREFERENCE WBCRTO, 0.1
RLFF METHOD "TRIBARAUIC97" USEDEFAULTMIN 'YES'

\$ STORIES - IN SEQUENCE FROM TOP

STORY "R1P" HEIGHT 270 MASTERSTORY "Yes"
STORY "2P" HEIGHT 300 MASTERSTORY "Yes"
STORY "BASE" ELEV 0

\$ DIAPHRAGM NAMES

DIAPHRAGM "D1"

\$ GRIDS

COORDSYSTEM "GLOBAL" TYPE "CARTESIAN" BUBBLESIZE 0
GRID "GLOBAL" LABEL "A" DIR "X" COORD 0 GRIDTYPE "PRIMARY" BUBBLELOC "DEFAULT" GRIDHIDE "NO"
GRID "GLOBAL" LABEL "B" DIR "Y" COORD 180.5 GRIDTYPE "PRIMARY" BUBBLELOC "DEFAULT" GRIDHIDE "NO"
GRID "GLOBAL" LABEL "C" DIR "X" COORD 404.5 GRIDTYPE "PRIMARY" BUBBLELOC "DEFAULT" GRIDHIDE "NO"
GRID "GLOBAL" LABEL "D" DIR "X" COORD 619.5 GRIDTYPE "PRIMARY" BUBBLELOC "DEFAULT" GRIDHIDE "NO"
GRID "GLOBAL" LABEL "1" DIR "Y" COORD 0 GRIDTYPE "PRIMARY" BUBBLELOC "SWITCHED" GRIDHIDE "NO"
GRID "GLOBAL" LABEL "2" DIR "Y" COORD 300 GRIDTYPE "PRIMARY" BUBBLELOC "SWITCHED" GRIDHIDE "NO"
GRID "GLOBAL" LABEL "3" DIR "Y" COORD 620 GRIDTYPE "PRIMARY" BUBBLELOC "SWITCHED" GRIDHIDE "NO"
GRID "GLOBAL" LABEL "4" DIR "Y" COORD 1240 GRIDTYPE "PRIMARY" BUBBLELOC "SWITCHED" GRIDHIDE "NO"
GRID "GLOBAL" LABEL "5" DIR "Y" COORD 1467 GRIDTYPE "PRIMARY" BUBBLELOC "DEFAULT" GRIDHIDE "NO"
GRID "GLOBAL" LABEL "6" DIR "Y" COORD 1689.5 GRIDTYPE "PRIMARY" BUBBLELOC "DEFAULT" GRIDHIDE "NO"

\$ MATERIAL PROPERTIES

MATERIAL "STEEL" M 7.98142E-06 W 7.833414E-03 TYPE "ISOTROPIC" E 2038902 U 0.3 A 1.1699999950917E-05
MATERIAL "STEEL" DESIGNTYPE "STEEL" FY 3515.348 FU 4569.952 PRICE 2.767991E+07
MATERIAL "CONC280" M 2.448E-06 W 0.002403 TYPE "ISOTROPIC" E 250998 U 0.2 A 9.89999989542412E-06
MATERIAL "CONC280" DESIGNTYPE "CONCRETE" FY 4200 FC 280 FYS 2800
MATERIAL "OTHER" M 7.98142E-06 W 7.833414E-03 TYPE "ISOTROPIC" E 2038902 U 0.3 A 1.1699999950917E-05
MATERIAL "OTHER" DESIGNTYPE "OTHER"
MATERIAL "CONC210" M 2.448E-06 W 0.002403 TYPE "ISOTROPIC" E 217371 U 0.2 A 9.89999989542412E-06
MATERIAL "CONC210" DESIGNTYPE "CONCRETE" FY 4200 FC 210 FYS 2800

\$ FRAME SECTIONS

FRAMESECTION "B35X50" MATERIAL "CONC210" SHAPE "Rectangular" D 50 B 35
FRAMESECTION "C45X45" MATERIAL "CONC210" SHAPE "Rectangular" D 45 B 45
FRAMESECTION "B25X50" MATERIAL "CONC210" SHAPE "Rectangular" D 50 B 25
FRAMESECTION "C25X50" MATERIAL "CONC210" SHAPE "Rectangular" D 25 B 50
FRAMESECTION "B30X50" MATERIAL "CONC210" SHAPE "Rectangular" D 50 B 30
FRAMESECTION "B35X50" JMOD 0.1
FRAMESECTION "B25X50" JMOD 0.1

\$ REBAR DEFINITIONS

REBARDEFINITION "#2" AREA 0.32258 DIA 0.635
REBARDEFINITION "#4" AREA 1.29692 DIA 1.0525
REBARDEFINITION "#5" AREA 1.999996 DIA 1.5875
REBARDEFINITION "#6" AREA 2.838704 DIA 1.905
REBARDEFINITION "#7" AREA 3.87096 DIA 2.2225
REBARDEFINITION "#8" AREA 5.096764 DIA 2.54
REBARDEFINITION "#9" AREA 6.4516 DIA 2.86512
REBARDEFINITION "#10" AREA 8.193532 DIA 3.2258
REBARDEFINITION "#11" AREA 10.0645 DIA 3.5814
REBARDEFINITION "#14" AREA 14.5161 DIA 4.30022
REBARDEFINITION "#16" AREA 25.8064 DIA 5.73278
REBARDEFINITION "10M" AREA 1 DIA 1.13
REBARDEFINITION "15M" AREA 2 DIA 1.6
REBARDEFINITION "20M" AREA 3 DIA 1.95
REBARDEFINITION "25M" AREA 5 DIA 2.52
REBARDEFINITION "30M" AREA 7 DIA 2.99
REBARDEFINITION "35M" AREA 10 DIA 3.57
REBARDEFINITION "45M" AREA 15 DIA 4.37
REBARDEFINITION "50M" AREA 25 DIA 5.64
REBARDEFINITION "64" AREA 0.283 DIA 0.6
REBARDEFINITION "84" AREA 0.569 DIA 0.8
REBARDEFINITION "104" AREA 0.785 DIA 1
REBARDEFINITION "124" AREA 1.13 DIA 1.2
REBARDEFINITION "144" AREA 1.54 DIA 1.4
REBARDEFINITION "164" AREA 2.01 DIA 1.6
REBARDEFINITION "204" AREA 3.14 DIA 2
REBARDEFINITION "254" AREA 4.91 DIA 2.5
REBARDEFINITION "264" AREA 5.31 DIA 2.6
REBARDEFINITION "284" AREA 6.16 DIA 2.8

\$ CONCRETE SECTIONS

CONCRETESECTION "C45X45" TYPE "COLUMN" PATTERN "R-4-4" TRANSREINF "TIES" COVER 6.9 REBAR "#10" DESIGNCHECK "DESIGN"
CONCRETESECTION "C25X50" TYPE "COLUMN" PATTERN "R-3-3" TRANSREINF "TIES" COVER 6.9 REBAR "#7" DESIGNCHECK "DESIGN"
CONCRETESECTION "B35X50" TYPE "BEAM" COVERTOP 6.55 COVERBOTTOM 6.55 AT1 0 AB1 0 AT7 0 AB7 0
CONCRETESECTION "B25X50" TYPE "BEAM" COVERTOP 6.55 COVERBOTTOM 6.55 AT1 0 AB1 0 AT7 0 AB7 0
CONCRETESECTION "B30X50" TYPE "BEAM" COVERTOP 6.55 COVERBOTTOM 6.55 AT1 0 AB1 0 AT7 0 AB7 0

\$ WALL/SLAB/DECK PROPERTIES

SHELLPROP "WALL25" MATERIAL "CONC210" PROPTYPE "WALL" TYPE "MEMBRANE" TM 25 TB 25
SHELLPROP "SLAB15" MATERIAL "CONC210" PROPTYPE "SLAB" TYPE "MEMBRANE" TM 15 TB 15
SHELLPROP "DECK1" PROPTYPE "DECK" TYPE "MEMBRANE"
SHELLPROP "DECK1" DECKTYPE "FILLED" CONCMATERIAL "CONC280" SLABDEPTH 8.89
SHELLPROP "DECK1" RIBDEPTH 7.62 RIBWIDTH 15.2999997711182 RIBSPACING 30.48 WEIGHT 1.122958E-03
SHELLPROP "DECK1" STUDIA 1.965 STUDHEIGHT 15.24 STUDKRENGTH 4218.418
SHELLPROP "PLANK1" MATERIAL "CONC280" PROPTYPE "SLAB" TYPE "MEMBRANE" ONWAY "YES" TM 25 TB 25
SHELLPROP "PLANK1" F11MOD 0.01 F22MOD 0.01

\$ LINE PROPERTIES

LINELPROP "NLPR1" TYPE "DAMPKR"
LINELPROP "NLPR1" DOF "U1"

\$ PIECE/SPANDREL NAMES

PIERNAME "P1"
SPANDRELNAME "S1"

\$ POINT COORDINATES

POINT "1" 0 0
POINT "2" 180.5 0
POINT "3" 619.5 0
POINT "4" 0 300
POINT "5" 189.5 300
POINT "6" 619.5 300
POINT "7" 0 620
POINT "8" 189.5 620
POINT "9" 619.5 620
POINT "10" 0 1246
POINT "11" 189.5 1246
POINT "12" 619.5 1246
POINT "13" 0 1467
POINT "14" 189.5 1467
POINT "15" 619.5 1467
POINT "16" 189.5 1689.5
POINT "17" 619.5 1689.5

\$ LINE CONNECTIVITIES

LINE "C1" COLUMN "1" "1" 1
LINE "C2" COLUMN "2" "2" 1
LINE "C3" COLUMN "3" "3" 1
LINE "C4" COLUMN "4" "4" 1
LINE "C5" COLUMN "5" "5" 1

LINE "C6" COLUMN "6" "6" 1
LINE "C7" COLUMN "7" "7" 1
LINE "C8" COLUMN "8" "8" 1
LINE "C9" COLUMN "9" "9" 1
LINE "C10" COLUMN "10" "10" 1
LINE "C11" COLUMN "11" "11" 1
LINE "C12" COLUMN "12" "12" 1
LINE "C13" COLUMN "13" "13" 1
LINE "C14" COLUMN "14" "14" 1
LINE "C15" COLUMN "15" "15" 1
LINE "B1" BEAM "1" "2" 0
LINE "B2" BEAM "2" "3" 0
LINE "B3" BEAM "1" "4" 0
LINE "B4" BEAM "2" "5" 0
LINE "B5" BEAM "3" "6" 0
LINE "B6" BEAM "4" "5" 0
LINE "B7" BEAM "5" "6" 0
LINE "B8" BEAM "4" "7" 0
LINE "B9" BEAM "5" "8" 0
LINE "B10" BEAM "6" "9" 0
LINE "B11" BEAM "7" "8" 0
LINE "B12" BEAM "8" "9" 0
LINE "B13" BEAM "7" "10" 0
LINE "B14" BEAM "8" "11" 0
LINE "B15" BEAM "9" "12" 0
LINE "B16" BEAM "10" "11" 0
LINE "B17" BEAM "11" "12" 0
LINE "B18" BEAM "10" "13" 0
LINE "B19" BEAM "11" "14" 0
LINE "B20" BEAM "12" "15" 0
LINE "B21" BEAM "13" "14" 0
LINE "B22" BEAM "14" "15" 0
LINE "B23" BEAM "14" "16" 0
LINE "B24" BEAM "15" "17" 0
LINE "B25" BEAM "16" "17" 0

\$ AREA CONNECTIVITIES

AREA "W1" PANEL 4 "1" "4" "4" "1" 1 1 0 0
AREA "W2" PANEL 4 "4" "7" "7" "4" 1 1 0 0
AREA "W3" PANEL 4 "7" "10" "10" "7" 1 1 0 0
AREA "W4" PANEL 4 "10" "13" "13" "10" 1 1 0 0
AREA "F1" FLOOR 4 "1" "4" "5" "2" 0 0 0 0
AREA "F2" FLOOR 4 "2" "5" "6" "3" 0 0 0 0
AREA "F3" FLOOR 4 "4" "7" "8" "5" 0 0 0 0
AREA "F4" FLOOR 4 "5" "8" "9" "6" 0 0 0 0
AREA "F5" FLOOR 4 "7" "10" "11" "8" 0 0 0 0
AREA "F6" FLOOR 4 "8" "11" "12" "9" 0 0 0 0
AREA "F7" FLOOR 4 "10" "13" "14" "11" 0 0 0 0
AREA "F8" FLOOR 4 "11" "14" "15" "12" 0 0 0 0
AREA "F9" FLOOR 4 "14" "16" "17" "15" 0 0 0 0

\$ POINT ASSIGNS

POINTASSIGN "1" "2P" DIAPH "D1"
POINTASSIGN "4" "2P" DIAPH "D1"
POINTASSIGN "7" "2P" DIAPH "D1"
POINTASSIGN "10" "2P" DIAPH "D1"
POINTASSIGN "13" "2P" DIAPH "D1"
POINTASSIGN "14" "2P" DIAPH "D1"
POINTASSIGN "15" "2P" DIAPH "D1"
POINTASSIGN "2" "2P" DIAPH "D1"
POINTASSIGN "5" "2P" DIAPH "D1"
POINTASSIGN "8" "2P" DIAPH "D1"
POINTASSIGN "11" "2P" DIAPH "D1"
POINTASSIGN "16" "2P" DIAPH "D1"
POINTASSIGN "17" "2P" DIAPH "D1"
POINTASSIGN "3" "2P" DIAPH "D1"
POINTASSIGN "6" "2P" DIAPH "D1"
POINTASSIGN "9" "2P" DIAPH "D1"
POINTASSIGN "12" "2P" DIAPH "D1"
POINTASSIGN "2" "BASE" DIAPH "D1"
POINTASSIGN "3" "BASE" DIAPH "D1"
POINTASSIGN "5" "BASE" DIAPH "D1"
POINTASSIGN "6" "BASE" DIAPH "D1"
POINTASSIGN "8" "BASE" DIAPH "D1"
POINTASSIGN "11" "BASE" DIAPH "D1"
POINTASSIGN "14" "BASE" DIAPH "D1"
POINTASSIGN "16" "BASE" DIAPH "D1"
POINTASSIGN "12" "BASE" DIAPH "D1"
POINTASSIGN "15" "BASE" DIAPH "D1"
POINTASSIGN "1" "BASE" DIAPH "D1"
POINTASSIGN "4" "BASE" DIAPH "D1"
POINTASSIGN "7" "BASE" DIAPH "D1"
POINTASSIGN "10" "BASE" DIAPH "D1"
POINTASSIGN "13" "BASE" DIAPH "D1"
POINTASSIGN "14" "R1P" DIAPH "D1"
POINTASSIGN "15" "R1P" DIAPH "D1"
POINTASSIGN "8" "R1P" DIAPH "D1"
POINTASSIGN "11" "R1P" DIAPH "D1"
POINTASSIGN "16" "R1P" DIAPH "D1"
POINTASSIGN "17" "R1P" DIAPH "D1"
POINTASSIGN "12" "R1P" DIAPH "D1"
POINTASSIGN "2" "BASE" RESTRAINT "UX UY UZ"
POINTASSIGN "3" "BASE" RESTRAINT "UX UY UZ"
POINTASSIGN "5" "BASE" RESTRAINT "UX UY UZ"
POINTASSIGN "6" "BASE" RESTRAINT "UX UY UZ"
POINTASSIGN "8" "BASE" RESTRAINT "UX UY UZ"
POINTASSIGN "11" "BASE" RESTRAINT "UX UY UZ"
POINTASSIGN "14" "BASE" RESTRAINT "UX UY UZ"
POINTASSIGN "9" "BASE" RESTRAINT "UX UY UZ"
POINTASSIGN "12" "BASE" RESTRAINT "UX UY UZ"
POINTASSIGN "15" "BASE" RESTRAINT "UX UY UZ"
POINTASSIGN "1" "BASE" RESTRAINT "UX UY UZ"
POINTASSIGN "4" "BASE" RESTRAINT "UX UY UZ"
POINTASSIGN "7" "BASE" RESTRAINT "UX UY UZ"
POINTASSIGN "10" "BASE" RESTRAINT "UX UY UZ"
POINTASSIGN "13" "BASE" RESTRAINT "UX UY UZ"

\$ LINE ASSIGNS

LINEASSIGN "B3" "2P" SECTION "B25X50" ANG 0 MAXSTASPC 50 CARDINALPT 8 MESH "POINTSANDLINES"
LINEASSIGN "B8" "2P" SECTION "B25X50" ANG 0 MAXSTASPC 50 CARDINALPT 8 MESH "POINTSANDLINES"
LINEASSIGN "B13" "2P" SECTION "B25X50" ANG 0 MAXSTASPC 50 CARDINALPT 8 MESH "POINTSANDLINES"
LINEASSIGN "B18" "2P" SECTION "B25X50" ANG 0 MAXSTASPC 50 CARDINALPT 8 MESH "POINTSANDLINES"
LINEASSIGN "B22" "2P" SECTION "B35X50" ANG 0 MAXSTASPC 50 CARDINALPT 8 MESH "POINTSANDLINES"
LINEASSIGN "B1" "2P" SECTION "B35X50" ANG 0 MAXSTASPC 50 CARDINALPT 8 MESH "POINTSANDLINES"
LINEASSIGN "B4" "2P" SECTION "B35X50" ANG 0 MAXSTASPC 50 CARDINALPT 8 MESH "POINTSANDLINES"
LINEASSIGN "B9" "2P" SECTION "B35X50" ANG 0 MAXSTASPC 50 CARDINALPT 8 MESH "POINTSANDLINES"
LINEASSIGN "B14" "2P" SECTION "B35X50" ANG 0 MAXSTASPC 50 CARDINALPT 8 MESH "POINTSANDLINES"
LINEASSIGN "B25" "2P" SECTION "B30X50" ANG 0 MAXSTASPC 50 CARDINALPT 8 MESH "POINTSANDLINES"
LINEASSIGN "B5" "2P" SECTION "B35X50" ANG 0 MAXSTASPC 50 CARDINALPT 8 MESH "POINTSANDLINES"
LINEASSIGN "B10" "2P" SECTION "B35X50" ANG 0 MAXSTASPC 50 CARDINALPT 8 MESH "POINTSANDLINES"
LINEASSIGN "B15" "2P" SECTION "B35X50" ANG 0 MAXSTASPC 50 CARDINALPT 8 MESH "POINTSANDLINES"
LINEASSIGN "B24" "2P" SECTION "B35X50" ANG 0 MAXSTASPC 50 CARDINALPT 8 MESH "POINTSANDLINES"
LINEASSIGN "B16" "2P" SECTION "B35X50" ANG 0 MAXSTASPC 50 CARDINALPT 8 MESH "POINTSANDLINES"
LINEASSIGN "B17" "2P" SECTION "B35X50" ANG 0 MAXSTASPC 50 CARDINALPT 8 MESH "POINTSANDLINES"
LINEASSIGN "B20" "2P" SECTION "B35X50" ANG 0 MAXSTASPC 50 CARDINALPT 8 MESH "POINTSANDLINES"
LINEASSIGN "B12" "2P" SECTION "B35X50" ANG 0 MAXSTASPC 50 CARDINALPT 8 MESH "POINTSANDLINES"
LINEASSIGN "B6" "2P" SECTION "B35X50" ANG 0 MAXSTASPC 50 CARDINALPT 8 MESH "POINTSANDLINES"
LINEASSIGN "B7" "2P" SECTION "B35X50" ANG 0 MAXSTASPC 50 CARDINALPT 8 MESH "POINTSANDLINES"
LINEASSIGN "B2" "2P" SECTION "B35X50" ANG 0 MAXSTASPC 50 CARDINALPT 8 MESH "POINTSANDLINES"

LINEASSIGN "C2" "2P" SECTION "C45X45" ANG 0 MINNUMSTA 3 MESH "POINTSANDLINES"
LINEASSIGN "C3" "2P" SECTION "C45X45" ANG 0 MINNUMSTA 3 MESH "POINTSANDLINES"
LINEASSIGN "C5" "2P" SECTION "C45X45" ANG 0 MINNUMSTA 3 MESH "POINTSANDLINES"
LINEASSIGN "C8" "2P" SECTION "C45X45" ANG 0 MINNUMSTA 3 MESH "POINTSANDLINES"
LINEASSIGN "C11" "2P" SECTION "C45X45" ANG 0 MINNUMSTA 3 MESH "POINTSANDLINES"
LINEASSIGN "C14" "2P" SECTION "C45X45" ANG 0 MINNUMSTA 3 MESH "POINTSANDLINES"
LINEASSIGN "C9" "2P" SECTION "C45X45" ANG 0 MINNUMSTA 3 MESH "POINTSANDLINES"
LINEASSIGN "C12" "2P" SECTION "C45X45" ANG 0 MINNUMSTA 3 MESH "POINTSANDLINES"
LINEASSIGN "C15" "2P" SECTION "C45X45" ANG 0 MINNUMSTA 3 MESH "POINTSANDLINES"
LINEASSIGN "B22" "R1P" SECTION "B35X50" ANG 0 MAXSTASPC 50 CARDINALPT 8 MESH "POINTSANDLINES"
LINEASSIGN "B14" "R1P" SECTION "B35X50" ANG 0 MAXSTASPC 50 CARDINALPT 8 MESH "POINTSANDLINES"
LINEASSIGN "B85" "R1P" SECTION "B35X50" ANG 0 MAXSTASPC 50 CARDINALPT 8 MESH "POINTSANDLINES"
LINEASSIGN "B15" "R1P" SECTION "B35X50" ANG 0 MAXSTASPC 50 CARDINALPT 8 MESH "POINTSANDLINES"
LINEASSIGN "B20" "R1P" SECTION "B35X50" ANG 0 MAXSTASPC 50 CARDINALPT 8 MESH "POINTSANDLINES"
LINEASSIGN "B24" "R1P" SECTION "B35X50" ANG 0 MAXSTASPC 50 CARDINALPT 8 MESH "POINTSANDLINES"
LINEASSIGN "B17" "R1P" SECTION "B35X50" ANG 0 MAXSTASPC 50 CARDINALPT 8 MESH "POINTSANDLINES"
LINEASSIGN "B12" "R1P" SECTION "B35X50" ANG 0 MAXSTASPC 50 CARDINALPT 8 MESH "POINTSANDLINES"
LINEASSIGN "C8" "R1P" SECTION "C45X45" ANG 0 MINNUMSTA 3 MESH "POINTSANDLINES"
LINEASSIGN "C11" "R1P" SECTION "C45X45" ANG 0 MINNUMSTA 3 MESH "POINTSANDLINES"
LINEASSIGN "C14" "R1P" SECTION "C45X45" ANG 0 MINNUMSTA 3 MESH "POINTSANDLINES"
LINEASSIGN "C9" "R1P" SECTION "C45X45" ANG 0 MINNUMSTA 3 MESH "POINTSANDLINES"
LINEASSIGN "C12" "R1P" SECTION "C45X45" ANG 0 MINNUMSTA 3 MESH "POINTSANDLINES"
LINEASSIGN "C15" "R1P" SECTION "C45X45" ANG 0 MINNUMSTA 3 MESH "POINTSANDLINES"
LINEASSIGN "C1" "2P" SECTION "C25X50" ANG 0 MINNUMSTA 3 MESH "POINTSANDLINES"
LINEASSIGN "C14" "2P" SECTION "C25X50" ANG 0 MINNUMSTA 3 MESH "POINTSANDLINES"
LINEASSIGN "C7" "2P" SECTION "C25X50" ANG 0 MINNUMSTA 3 MESH "POINTSANDLINES"
LINEASSIGN "C10" "2P" SECTION "C25X50" ANG 0 MINNUMSTA 3 MESH "POINTSANDLINES"
LINEASSIGN "C13" "2P" SECTION "C25X50" ANG 0 MINNUMSTA 3 MESH "POINTSANDLINES"
LINEASSIGN "B19" "R1P" SECTION "B35X50" ANG 0 MAXSTASPC 50 CARDINALPT 8 MESH "POINTSANDLINES"
LINEASSIGN "B23" "R1P" SECTION "B35X50" ANG 0 MAXSTASPC 50 CARDINALPT 8 MESH "POINTSANDLINES"
LINEASSIGN "B19" "2P" SECTION "B35X50" ANG 0 MAXSTASPC 50 CARDINALPT 8 MESH "POINTSANDLINES"
LINEASSIGN "B23" "2P" SECTION "B35X50" ANG 0 MAXSTASPC 50 CARDINALPT 8 MESH "POINTSANDLINES"

\$ AREA ASSIGNS

AREAASSIGN "W1" "2P" SECTION "WALL25" OBJMESHTYPE "NAUTOMESH"
AREAASSIGN "W2" "2P" SECTION "WALL25" OBJMESHTYPE "NAUTOMESH"
AREAASSIGN "W3" "2P" SECTION "WALL25" OBJMESHTYPE "NAUTOMESH"
AREAASSIGN "W4" "2P" SECTION "WALL25" OBJMESHTYPE "NAUTOMESH"
AREAASSIGN "F1" "2P" SECTION "SLAB15" OBJMESHTYPE "DEFAULT"
AREAASSIGN "F2" "2P" SECTION "SLAB15" OBJMESHTYPE "DEFAULT"
AREAASSIGN "F3" "2P" SECTION "SLAB15" OBJMESHTYPE "DEFAULT"
AREAASSIGN "F4" "2P" SECTION "SLAB15" OBJMESHTYPE "DEFAULT"
AREAASSIGN "F5" "2P" SECTION "SLAB15" OBJMESHTYPE "DEFAULT"
AREAASSIGN "F6" "2P" SECTION "SLAB15" OBJMESHTYPE "DEFAULT"
AREAASSIGN "F7" "2P" SECTION "SLAB15" OBJMESHTYPE "DEFAULT"
AREAASSIGN "F8" "2P" SECTION "SLAB15" OBJMESHTYPE "DEFAULT"
AREAASSIGN "F9" "2P" SECTION "SLAB15" OBJMESHTYPE "DEFAULT"
AREAASSIGN "F8" "R1P" SECTION "SLAB15" OBJMESHTYPE "DEFAULT"
AREAASSIGN "F8" "R1P" SECTION "SLAB15" OBJMESHTYPE "DEFAULT"
AREAASSIGN "F9" "R1P" SECTION "SLAB15" OBJMESHTYPE "DEFAULT"

\$ STATIC LOADS

LOADCASE "DEAD" TYPE "DEAD" SELFWEIGHT 1
LOADCASE "LIVE" TYPE "LIVE" SELFWEIGHT 0
LOADCASE "EQN" TYPE "QUAKE" SELFWEIGHT 0
LOADCASE "EQM" TYPE "QUAKE" SELFWEIGHT 0
LOADCASE "EQV" TYPE "QUAKE" SELFWEIGHT 0
LOADCASE "EQW" TYPE "QUAKE" SELFWEIGHT 0
SEISMIC "EQX" "USER LOADS" ECC 0.05
SEISMIC "EQX" "USER LOADS" "R1P" "D1" FX 19460
SEISMIC "EQX" "USER LOADS" "2P" "D1" FX 13230
SEISMIC "EQM" "USER LOADS" ECC -0.05
SEISMIC "EQM" "USER LOADS" "R1P" "D1" FX 19460
SEISMIC "EQM" "USER LOADS" "2P" "D1" FX 13230
SEISMIC "EQV" "USER LOADS" ECC 0.05
SEISMIC "EQV" "USER LOADS" "R1P" "D1" FY 19460
SEISMIC "EQV" "USER LOADS" "2P" "D1" FY 13230
SEISMIC "EQW" "USER LOADS" ECC -0.05
SEISMIC "EQW" "USER LOADS" "R1P" "D1" FY 19460
SEISMIC "EQW" "USER LOADS" "2P" "D1" FY 13230

\$ AREA OBJECT LOADS

AREALOAD "W1" "2P" TYPE "UNIFF" DIR "GRAV" LC "DEAD" FVAL 0.03
AREALOAD "W2" "2P" TYPE "UNIFF" DIR "GRAV" LC "DEAD" FVAL 0.03
AREALOAD "W3" "2P" TYPE "UNIFF" DIR "GRAV" LC "DEAD" FVAL 0.03
AREALOAD "W4" "2P" TYPE "UNIFF" DIR "GRAV" LC "DEAD" FVAL 0.03
AREALOAD "F1" "2P" TYPE "UNIFF" DIR "GRAV" LC "DEAD" FVAL 0.03
AREALOAD "F2" "2P" TYPE "UNIFF" DIR "GRAV" LC "DEAD" FVAL 0.03
AREALOAD "F3" "2P" TYPE "UNIFF" DIR "GRAV" LC "DEAD" FVAL 0.03
AREALOAD "F4" "2P" TYPE "UNIFF" DIR "GRAV" LC "DEAD" FVAL 0.03
AREALOAD "F5" "2P" TYPE "UNIFF" DIR "GRAV" LC "DEAD" FVAL 0.03
AREALOAD "F6" "2P" TYPE "UNIFF" DIR "GRAV" LC "DEAD" FVAL 0.03
AREALOAD "F7" "2P" TYPE "UNIFF" DIR "GRAV" LC "DEAD" FVAL 0.03
AREALOAD "F8" "2P" TYPE "UNIFF" DIR "GRAV" LC "DEAD" FVAL 0.03
AREALOAD "F9" "2P" TYPE "UNIFF" DIR "GRAV" LC "DEAD" FVAL 0.03
AREALOAD "F1" "2P" TYPE "UNIFF" DIR "GRAV" LC "LIVE" FVAL 0.02
AREALOAD "F2" "2P" TYPE "UNIFF" DIR "GRAV" LC "LIVE" FVAL 0.02
AREALOAD "F3" "2P" TYPE "UNIFF" DIR "GRAV" LC "LIVE" FVAL 0.02
AREALOAD "F4" "2P" TYPE "UNIFF" DIR "GRAV" LC "LIVE" FVAL 0.02
AREALOAD "F5" "2P" TYPE "UNIFF" DIR "GRAV" LC "LIVE" FVAL 0.02
AREALOAD "F6" "2P" TYPE "UNIFF" DIR "GRAV" LC "LIVE" FVAL 0.02
AREALOAD "F7" "2P" TYPE "UNIFF" DIR "GRAV" LC "LIVE" FVAL 0.02
AREALOAD "F8" "2P" TYPE "UNIFF" DIR "GRAV" LC "LIVE" FVAL 0.02
AREALOAD "F9" "2P" TYPE "UNIFF" DIR "GRAV" LC "LIVE" FVAL 0.02
AREALOAD "F6" "R1P" TYPE "UNIFF" DIR "GRAV" LC "DEAD" FVAL 0.060
AREALOAD "F8" "R1P" TYPE "UNIFF" DIR "GRAV" LC "DEAD" FVAL 0.060
AREALOAD "F9" "R1P" TYPE "UNIFF" DIR "GRAV" LC "DEAD" FVAL 0.060
AREALOAD "F6" "R1P" TYPE "UNIFF" DIR "GRAV" LC "LIVE" FVAL 0.06
AREALOAD "F8" "R1P" TYPE "UNIFF" DIR "GRAV" LC "LIVE" FVAL 0.06
AREALOAD "F9" "R1P" TYPE "UNIFF" DIR "GRAV" LC "LIVE" FVAL 0.06

\$ ANALYSIS OPTIONS

ACTIVATED "UX UY UZ KX KY KZ"
DYNAMICS MODES 100 MODETYPE "EIGEN" TOL 0.000001
MASSOPTIONS GRAVITY 980.665 SOURCE "MASS" LATERALONLY "YES" STORYLEVELONLY "YES"

\$ LOAD COMBINATIONS

COMBO "EQN" TYPE "ADP"
COMBO "EQN" LOAD "DEAD" SF 0.15652
COMBO "COMB1" TYPE "ADP" DESIGN "CONCRETE"
COMBO "COMB1" LOAD "DEAD" SF 1.4
COMBO "COMB2" TYPE "ADP" DESIGN "CONCRETE"
COMBO "COMB2" LOAD "DEAD" SF 1.4
COMBO "COMB2" LOAD "LIVE" SF 1.4
COMBO "COMB3" TYPE "ADP" DESIGN "CONCRETE"
COMBO "COMB3" LOAD "DEAD" SF 1.05
COMBO "COMB3" LOAD "LIVE" SF 1.275
COMBO "COMB3" LOAD "EQN" SF 1.4025
COMBO "COMB3" COMBO "EQN" SF 0.42075
COMBO "COMB4" TYPE "ADP" DESIGN "CONCRETE"
COMBO "COMB4" LOAD "DEAD" SF 1.05
COMBO "COMB4" LOAD "LIVE" SF 1.275
COMBO "COMB4" LOAD "EQN" SF 1.4025
COMBO "COMB4" COMBO "EQN" SF -0.42075
COMBO "COMB5" TYPE "ADP" DESIGN "CONCRETE"
COMBO "COMB5" LOAD "DEAD" SF 1.05
COMBO "COMB5" LOAD "LIVE" SF 1.275

COMBO "COMB5" LOAD "EQN" SF -1.4025
COMBO "COMB5" COMBO "EQN" SF 0.42075
COMBO "COMB6" TYPE "ADP" DESIGN "CONCRETE"
COMBO "COMB6" LOAD "DEAD" SF 1.05
COMBO "COMB6" LOAD "LIVE" SF 1.275
COMBO "COMB6" LOAD "EQN" SF -1.4025
COMBO "COMB6" COMBO "EQN" SF -0.42075
COMBO "COMB7" TYPE "ADP" DESIGN "CONCRETE"
COMBO "COMB7" LOAD "DEAD" SF 0.9
COMBO "COMB7" LOAD "EQN" SF 1.43
COMBO "COMB7" COMBO "EQN" SF 0.429
COMBO "COMB8" TYPE "ADP" DESIGN "CONCRETE"
COMBO "COMB8" LOAD "DEAD" SF 0.9
COMBO "COMB8" LOAD "EQN" SF 1.43
COMBO "COMB8" COMBO "EQN" SF -0.429
COMBO "COMB9" TYPE "ADP" DESIGN "CONCRETE"
COMBO "COMB9" LOAD "DEAD" SF 0.9
COMBO "COMB9" LOAD "EQN" SF -1.43
COMBO "COMB9" COMBO "EQN" SF 0.429
COMBO "COMB10" TYPE "ADP" DESIGN "CONCRETE"
COMBO "COMB10" LOAD "DEAD" SF 0.9
COMBO "COMB10" LOAD "LIVE" SF 1.275
COMBO "COMB10" COMBO "EQN" SF -0.429
COMBO "COMB11" TYPE "ADP" DESIGN "CONCRETE"
COMBO "COMB11" LOAD "DEAD" SF 1.05
COMBO "COMB11" LOAD "LIVE" SF 1.275
COMBO "COMB11" LOAD "EQN" SF 0.9
COMBO "COMB11" COMBO "EQN" SF 0.42075
COMBO "COMB12" TYPE "ADP" DESIGN "CONCRETE"
COMBO "COMB12" LOAD "DEAD" SF 1.05
COMBO "COMB12" LOAD "LIVE" SF 1.275
COMBO "COMB12" LOAD "EQN" SF 1.4025
COMBO "COMB12" COMBO "EQN" SF -0.42075
COMBO "COMB13" TYPE "ADP" DESIGN "CONCRETE"
COMBO "COMB13" LOAD "DEAD" SF 1.05
COMBO "COMB13" LOAD "LIVE" SF 1.275
COMBO "COMB13" LOAD "EQN" SF -1.4025
COMBO "COMB13" COMBO "EQN" SF 0.42075
COMBO "COMB14" TYPE "ADP" DESIGN "CONCRETE"
COMBO "COMB14" LOAD "DEAD" SF 1.05
COMBO "COMB14" LOAD "LIVE" SF 1.275
COMBO "COMB14" LOAD "EQN" SF 1.4025
COMBO "COMB14" COMBO "EQN" SF -0.42075
COMBO "COMB15" TYPE "ADP" DESIGN "CONCRETE"
COMBO "COMB15" LOAD "DEAD" SF 1.05
COMBO "COMB15" LOAD "LIVE" SF 1.275
COMBO "COMB15" LOAD "EQN" SF 1.43
COMBO "COMB15" COMBO "EQN" SF 0.429
COMBO "COMB16" TYPE "ADP" DESIGN "CONCRETE"
COMBO "COMB16" LOAD "DEAD" SF 0.9
COMBO "COMB16" LOAD "LIVE" SF 1.43
COMBO "COMB16" COMBO "EQN" SF -0.429
COMBO "COMB17" TYPE "ADP" DESIGN "CONCRETE"
COMBO "COMB17" LOAD "DEAD" SF 0.9
COMBO "COMB17" LOAD "EQN" SF -1.43
COMBO "COMB17" COMBO "EQN" SF 0.429
COMBO "COMB18" TYPE "ADP" DESIGN "CONCRETE"
COMBO "COMB18" LOAD "DEAD" SF 0.9
COMBO "COMB18" LOAD "EQN" SF -1.43
COMBO "COMB18" COM

COMBO "COMB35" LOAD "DEAD" SF 1.05
COMBO "COMB35" LOAD "LIVE" SF 1.275
COMBO "COMB35" LOAD "EQ" SF 0.42075
COMBO "COMB35" COMBO "EQ" SF 1.4025
COMBO "COMB36" TYPE "ADD" DESIGN "CONCRETE"
COMBO "COMB36" LOAD "DEAD" SF 1.05
COMBO "COMB36" LOAD "LIVE" SF 1.275
COMBO "COMB36" LOAD "EQ" SF 0.42075
COMBO "COMB36" COMBO "EQ" SF -1.4025
COMBO "COMB37" TYPE "ADD" DESIGN "CONCRETE"
COMBO "COMB37" LOAD "DEAD" SF 1.05
COMBO "COMB37" LOAD "LIVE" SF 1.275
COMBO "COMB37" LOAD "EQ" SF -0.42075
COMBO "COMB37" COMBO "EQ" SF 1.4025
COMBO "COMB38" TYPE "ADD" DESIGN "CONCRETE"
COMBO "COMB38" LOAD "DEAD" SF 1.05
COMBO "COMB38" LOAD "LIVE" SF 1.275
COMBO "COMB38" LOAD "EQ" SF -0.42075
COMBO "COMB38" COMBO "EQ" SF -1.4025
COMBO "COMB39" TYPE "ADD" DESIGN "CONCRETE"
COMBO "COMB39" LOAD "DEAD" SF 0.9
COMBO "COMB39" LOAD "EQ" SF 0.429
COMBO "COMB39" COMBO "EQ" SF 1.43
COMBO "COMB40" TYPE "ADD" DESIGN "CONCRETE"
COMBO "COMB40" LOAD "DEAD" SF 0.9
COMBO "COMB40" LOAD "EQ" SF 0.429
COMBO "COMB40" COMBO "EQ" SF -1.43
COMBO "COMB41" TYPE "ADD" DESIGN "CONCRETE"
COMBO "COMB41" LOAD "DEAD" SF 0.9
COMBO "COMB41" LOAD "EQ" SF -0.429
COMBO "COMB41" COMBO "EQ" SF 1.43
COMBO "COMB42" TYPE "ADD" DESIGN "CONCRETE"
COMBO "COMB42" LOAD "DEAD" SF 0.9
COMBO "COMB42" LOAD "EQ" SF -0.429
COMBO "COMB42" COMBO "EQ" SF -1.43
COMBO "COMB43" TYPE "ADD" DESIGN "CONCRETE"
COMBO "COMB43" LOAD "DEAD" SF 1.05
COMBO "COMB43" LOAD "LIVE" SF 1.275
COMBO "COMB43" LOAD "EQ" SF 0.42075
COMBO "COMB43" COMBO "EQ" SF 1.4025
COMBO "COMB44" TYPE "ADD" DESIGN "CONCRETE"
COMBO "COMB44" LOAD "DEAD" SF 1.05
COMBO "COMB44" LOAD "LIVE" SF 1.275
COMBO "COMB44" LOAD "EQ" SF 0.42075
COMBO "COMB44" COMBO "EQ" SF -1.4025
COMBO "COMB45" TYPE "ADD" DESIGN "CONCRETE"
COMBO "COMB45" LOAD "DEAD" SF 1.05
COMBO "COMB45" LOAD "LIVE" SF 1.275
COMBO "COMB45" LOAD "EQ" SF -0.42075
COMBO "COMB45" COMBO "EQ" SF 1.4025
COMBO "COMB46" TYPE "ADD" DESIGN "CONCRETE"
COMBO "COMB46" LOAD "DEAD" SF 1.05
COMBO "COMB46" LOAD "LIVE" SF 1.275
COMBO "COMB46" LOAD "EQ" SF -0.42075
COMBO "COMB46" COMBO "EQ" SF -1.4025
COMBO "COMB47" TYPE "ADD" DESIGN "CONCRETE"
COMBO "COMB47" LOAD "DEAD" SF 0.9
COMBO "COMB47" LOAD "EQ" SF 0.429
COMBO "COMB47" COMBO "EQ" SF 1.43
COMBO "COMB48" TYPE "ADD" DESIGN "CONCRETE"
COMBO "COMB48" LOAD "DEAD" SF 0.9
COMBO "COMB48" LOAD "EQ" SF 0.429
COMBO "COMB48" COMBO "EQ" SF -1.43
COMBO "COMB49" TYPE "ADD" DESIGN "CONCRETE"
COMBO "COMB49" LOAD "DEAD" SF 0.9
COMBO "COMB49" LOAD "EQ" SF -0.429
COMBO "COMB49" COMBO "EQ" SF 1.43
COMBO "COMB50" TYPE "ADD" DESIGN "CONCRETE"
COMBO "COMB50" LOAD "DEAD" SF 0.9
COMBO "COMB50" LOAD "EQ" SF -0.429
COMBO "COMB50" COMBO "EQ" SF -1.43
COMBO "COMB51" TYPE "ADD" DESIGN "CONCRETE"
COMBO "COMB51" LOAD "DEAD" SF 1.05
COMBO "COMB51" LOAD "LIVE" SF 1.275
COMBO "COMB51" LOAD "EQ" SF 0.42075
COMBO "COMB51" COMBO "EQ" SF 1.4025
COMBO "COMB52" TYPE "ADD" DESIGN "CONCRETE"
COMBO "COMB52" LOAD "DEAD" SF 1.05
COMBO "COMB52" LOAD "LIVE" SF 1.275
COMBO "COMB52" LOAD "EQ" SF 0.42075
COMBO "COMB52" COMBO "EQ" SF -1.4025
COMBO "COMB53" TYPE "ADD" DESIGN "CONCRETE"
COMBO "COMB53" LOAD "DEAD" SF 1.05
COMBO "COMB53" LOAD "LIVE" SF 1.275
COMBO "COMB53" LOAD "EQ" SF -0.42075
COMBO "COMB53" COMBO "EQ" SF 1.4025
COMBO "COMB54" TYPE "ADD" DESIGN "CONCRETE"
COMBO "COMB54" LOAD "DEAD" SF 1.05
COMBO "COMB54" LOAD "LIVE" SF 1.275
COMBO "COMB54" LOAD "EQ" SF -0.42075
COMBO "COMB54" COMBO "EQ" SF -1.4025
COMBO "COMB55" TYPE "ADD" DESIGN "CONCRETE"
COMBO "COMB55" LOAD "DEAD" SF 0.9
COMBO "COMB55" LOAD "EQ" SF 0.429
COMBO "COMB55" COMBO "EQ" SF 1.43
COMBO "COMB56" TYPE "ADD" DESIGN "CONCRETE"
COMBO "COMB56" LOAD "DEAD" SF 0.9
COMBO "COMB56" LOAD "EQ" SF 0.429
COMBO "COMB56" COMBO "EQ" SF -1.43
COMBO "COMB57" TYPE "ADD" DESIGN "CONCRETE"
COMBO "COMB57" LOAD "DEAD" SF 0.9
COMBO "COMB57" LOAD "EQ" SF -0.429
COMBO "COMB57" COMBO "EQ" SF 1.43
COMBO "COMB58" TYPE "ADD" DESIGN "CONCRETE"
COMBO "COMB58" LOAD "DEAD" SF 0.9
COMBO "COMB58" LOAD "EQ" SF -0.429
COMBO "COMB58" COMBO "EQ" SF -1.43
COMBO "COMB59" TYPE "ADD" DESIGN "CONCRETE"
COMBO "COMB59" LOAD "DEAD" SF 1.05
COMBO "COMB59" LOAD "LIVE" SF 1.275
COMBO "COMB59" LOAD "EQ" SF 0.42075
COMBO "COMB59" COMBO "EQ" SF 1.4025
COMBO "COMB60" TYPE "ADD" DESIGN "CONCRETE"
COMBO "COMB60" LOAD "DEAD" SF 1.05
COMBO "COMB60" LOAD "LIVE" SF 1.275
COMBO "COMB60" LOAD "EQ" SF 0.42075
COMBO "COMB60" COMBO "EQ" SF -1.4025
COMBO "COMB61" TYPE "ADD" DESIGN "CONCRETE"
COMBO "COMB61" LOAD "DEAD" SF 1.05
COMBO "COMB61" LOAD "LIVE" SF 1.275
COMBO "COMB61" LOAD "EQ" SF -0.42075
COMBO "COMB61" COMBO "EQ" SF 1.4025
COMBO "COMB62" TYPE "ADD" DESIGN "CONCRETE"
COMBO "COMB62" LOAD "DEAD" SF 1.05
COMBO "COMB62" LOAD "LIVE" SF 1.275
COMBO "COMB62" LOAD "EQ" SF -0.42075
COMBO "COMB62" COMBO "EQ" SF -1.4025
COMBO "COMB63" TYPE "ADD" DESIGN "CONCRETE"
COMBO "COMB63" LOAD "DEAD" SF 0.9
COMBO "COMB63" LOAD "EQ" SF 0.429
COMBO "COMB63" COMBO "EQ" SF 1.43
COMBO "COMB64" TYPE "ADD" DESIGN "CONCRETE"

COMBO "COMB64" LOAD "DEAD" SF 0.9
COMBO "COMB64" LOAD "EQ" SF 0.429
COMBO "COMB64" COMBO "EQ" SF -1.43
COMBO "COMB65" TYPE "ADD" DESIGN "CONCRETE"
COMBO "COMB65" LOAD "DEAD" SF 0.9
COMBO "COMB65" LOAD "EQ" SF -0.429
COMBO "COMB65" COMBO "EQ" SF 1.43
COMBO "COMB66" TYPE "ADD" DESIGN "CONCRETE"
COMBO "COMB66" LOAD "DEAD" SF 0.9
COMBO "COMB66" LOAD "EQ" SF -0.429
COMBO "COMB66" COMBO "EQ" SF -1.43

\$ STEEL DESIGN PREFERENCES
STEELPREFERENCE CODE "AISC-LRF93" THDESIGN "ENVELOPS" FRAMETYPE "MOMENT FRAME"
STEELPREFERENCE CONSIDERDEFLECTION "YES" RELATIVEDEFLECTION "BOTH"
STEELPREFERENCE DLDEFLECTIONLIMIT 120 SLDEFLECTIONLIMIT 120 LLDEFLECTIONLIMIT 360 TLDEFLECTIONLIMIT 240
TLMDEFLECTIONLIMIT 240
STEELPREFERENCE DLDEFLECTIONLIMITABS 2.54 SLDEFLECTIONLIMITABS 2.54 LLDEFLECTIONLIMITABS 2.54 TLDEFLECTIONLIMITABS 2.54
TLMDEFLECTIONLIMITABS 2.54
STEELPREFERENCE CALCULATECAMBER "NO" PERCENTCAMBERDL 1 CAMBERRELAAXLIMIT 180 CAMBERIGNORELIMIT 1.905
STEELPREFERENCE CAMBERABSMAXLIMIT 10.16 CAMBERINTERVAL 0.635 CAMBERROUNDOWN "YES"
STEELPREFERENCE PATTERNLLF 0.75 MAXITERATION 1 SRLIMIT 0.95

\$ CONCRETE DESIGN PREFERENCES
CONCRETEPREFERENCE CODE "ACI 318-99" THDESIGN "ENVELOPS" CONSIDERMINECENTRICITY "YES"
CONCRETEPREFERENCE NUMINTERCURVES 24 NUMINTERPOINTS 11 PATTERNLLF 0.75 UFLIMIT 0.95
CONCRETEPREFERENCE FRIHENDING 0.9 FRIHCOMP(T) 0.7 FRIHCOMP(S) 0.75 FRIHSHEAR 0.85

\$ COMPOSITE DESIGN PREFERENCES
COMPOSITEPREFERENCE CODE "AISC-LRF93"
COMPOSITEPREFERENCE PHI-B 0.9 PHI-SCNE 0.9 PHI-BCNP 0.85 PHI-RCPE 0.9 PHI-BCPP 0.85 PHI-V 0.9
COMPOSITEPREFERENCE SHRED "NO" WMIDOLERANGE 70 PATTERNLLF 0.75 SRLIMIT 1 SINGLESEGMENT "NO" STUDINCREASEFACTOR 1
MINNUMEXTRASTUS 0
COMPOSITEPREFERENCE DLLIMIT 0 SLLIMIT 120 LLLIMIT 360 TLLIMIT 240 CREEPFACTOR 1
COMPOSITEPREFERENCE ADLCAMBER 100 CAMBERIGNORE 1.905 CAMBERABSMAX 10.16 CAMBERRELAAX 180 CAMBERINTERVAL 0.635
CAMBERROUNDOWN "YES"
COMPOSITEPREFERENCE AVIBLL 25 CONSIDERFREQ "NO" MINFREQ 8 CONSIDERDAMP "NO" MINRENTENTAMP 4
COMPOSITEPREFERENCE OPTIMIZEPRICE "NO" CONNECTORPRICE 0 CAMBERPRICE 0

\$ WALL DESIGN PREFERENCES
WALLPREFERENCE CODE "UBC97" THDESIGN "ENVELOPS"
WALLPREFERENCE REBARUNITS "in 2" REBAR/LENGTHUNITS "in 2/ft"
WALLPREFERENCE PHI-B 0.9 PHI-C 0.7 PHI-VNS 0.85 PHI-VS 0.6 PMAXFACTOR 0.8
WALLPREFERENCE NUMCURVES 24 NUMPOINTS 11
WALLPREFERENCE PPMAX 0.06 PPMAX 0.04 IPMAX 0.02 IPMIN 0.0025
WALLPREFERENCE UFLIMIT 0.95

\$ SPECIAL SEISMIC DATA
SPECIALSEISMICDATA USEFORDESIGN "YES"

\$ DIMENSION LINES
DIMENSIONLINE X1 0 Y1 0 Z1 0 XJ 0 YJ 600 ZJ 0 XC -75 YC 300 ZC 0
DIMENSIONLINE X1 0 Y1 600 Z1 0 XJ 0 YJ 1200 ZJ 0 XC -75 YC 900 ZC 0
DIMENSIONLINE X1 0 Y1 1200 Z1 0 XJ 0 YJ 1800 ZJ 0 XC -75 YC 1500 ZC 0
DIMENSIONLINE X1 0 Y1 1800 Z1 0 XJ 600 YJ 1800 ZJ 0 XC 300 YC 1875 ZC 0
DIMENSIONLINE X1 600 Y1 1800 Z1 0 XJ 1200 YJ 1800 ZJ 0 XC 900 YC 1875 ZC 0
DIMENSIONLINE X1 1200 Y1 1800 Z1 0 XJ 1800 YJ 1800 ZJ 0 XC 1500 YC 1875 ZC 0

\$ LOG
STARTCOMMENTS
ENDCOMMENTS

END
\$ END OF MODEL FILE

FRAME: 4 MAJOR

```

FRAME: 7 MAJOR
FLOOR: R1F      R1F      0

COL: 0.00
CITEM_1: 0.00 45.00 0.00
CITEM_2: 0.00 0.00 0.00
COL: 320.00

```

```

BAY: G9
BITEM_1: 35.00 50.00 0.00
BITEM_2: #6 3 3 3
BITEM_3: #6 0 0 0
BITEM_4: #6 0 0 0
BITEM_5: #6 3 3 3
BITEM_6: 1#3@10 1#3@10 1#3@10
BITEM_7: #6 0
BAY: G10

```

* Column Fabrication Detailing (COL.DAT) by bpmtohm *
* Version 1.0

TABLE: 1 L T
ROW: 1 2F 2F
ROW: 2 1F 1F

COL: C1 1
SEC: 2 RR
ITEM_1: 25 50
ITEM_2: #7 2 2
ITEM_3: #7 0 2
ITEM_4: 0
ITEM_5: #0 0
ITEM_6: 1#3010
ITEM_7: 1#3010-12 TIED

COL: C2 1
SEC: 2 RR
ITEM_1: 45 45
ITEM_2: #7 2 2
ITEM_3: #7 2 2
ITEM_4: 0
ITEM_5: #0 0
ITEM_6: 1#3010
ITEM_7: 1#3010-12 TIED

COL: C3 1
SEC: 2 RR
ITEM_1: 45 45
ITEM_2: #7 2 2
ITEM_3: #7 2 2
ITEM_4: 0
ITEM_5: #0 0
ITEM_6: 1#3010
ITEM_7: 1#3010-12 TIED

COL: C4 1
SEC: 2 RR
ITEM_1: 25 50
ITEM_2: #7 2 2
ITEM_3: #7 0 2
ITEM_4: 0
ITEM_5: #0 0
ITEM_6: 1#3010
ITEM_7: 1#3010-12 TIED

COL: C5 1
SEC: 1 RR
ITEM_1: 45 45
ITEM_2: #7 2 2
ITEM_3: #7 2 2
ITEM_4: 0
ITEM_5: #0 0
ITEM_6: 1#3010
ITEM_7: 1#3010-12 TIED

SEC: 2 RR
ITEM_1: 45 45
ITEM_2: #7 2 2
ITEM_3: #7 2 2
ITEM_4: 0
ITEM_5: #0 0
ITEM_6: 1#3010
ITEM_7: 1#3010-12 TIED

COL: C6 1
SEC: 1 RR
ITEM_1: 45 45
ITEM_2: #7 2 2
ITEM_3: #7 2 2
ITEM_4: 0
ITEM_5: #0 0
ITEM_6: 1#3010
ITEM_7: 1#3010-12 TIED

SEC: 2 RR
ITEM_1: 45 45
ITEM_2: #7 2 2
ITEM_3: #7 2 2
ITEM_4: 0
ITEM_5: #0 0
ITEM_6: 1#3010
ITEM_7: 1#3010-12 TIED

COL: C7 1
SEC: 2 RR
ITEM_1: 25 50
ITEM_2: #7 2 2
ITEM_3: #7 0 2
ITEM_4: 0
ITEM_5: #0 0
ITEM_6: 1#3010
ITEM_7: 1#3010-12 TIED

COL: C8 1
SEC: 1 RR
ITEM_1: 45 45
ITEM_2: #7 2 2
ITEM_3: #7 2 2
ITEM_4: 0
ITEM_5: #0 0
ITEM_6: 1#3010
ITEM_7: 1#3010-12 TIED

SEC: 2 RR
ITEM_1: 45 45
ITEM_2: #7 2 2
ITEM_3: #7 2 2
ITEM_4: 0
ITEM_5: #0 0
ITEM_6: 1#3010
ITEM_7: 1#3010-12 TIED

COL: C9 1
SEC: 1 RR
ITEM_1: 45 45
ITEM_2: #7 2 2
ITEM_3: #7 2 2
ITEM_4: 0
ITEM_5: #0 0
ITEM_6: 1#3010
ITEM_7: 1#3010-12 TIED

SEC: 2 RR
ITEM_1: 45 45
ITEM_2: #7 2 2
ITEM_3: #7 2 2
ITEM_4: 0

ITEM_5: #0 0
ITEM_6: 1#3010
ITEM_7: 1#3010-12 TIED

COL: C10 1
SEC: 2 RR
ITEM_1: 25 50
ITEM_2: #7 2 2
ITEM_3: #7 0 2
ITEM_4: 0
ITEM_5: #0 0
ITEM_6: 1#3010
ITEM_7: 1#3010-12 TIED

COL: C11 1
SEC: 1 RR
ITEM_1: 45 45
ITEM_2: #7 2 2
ITEM_3: #7 2 2
ITEM_4: 0
ITEM_5: #0 0
ITEM_6: 1#3010
ITEM_7: 1#3010-12 TIED

SEC: 2 RR
ITEM_1: 45 45
ITEM_2: #7 2 2
ITEM_3: #7 2 2
ITEM_4: 0
ITEM_5: #0 0
ITEM_6: 1#3010
ITEM_7: 1#3010-12 TIED

COL: C12 1
SEC: 1 RR
ITEM_1: 45 45
ITEM_2: #7 2 2
ITEM_3: #7 2 2
ITEM_4: 0
ITEM_5: #0 0
ITEM_6: 1#3010
ITEM_7: 1#3010-12 TIED

SEC: 2 RR
ITEM_1: 45 45
ITEM_2: #7 2 2
ITEM_3: #7 2 2
ITEM_4: 0
ITEM_5: #0 0
ITEM_6: 1#3010
ITEM_7: 1#3010-12 TIED

COL: C13 1
SEC: 2 RR
ITEM_1: 25 50
ITEM_2: #7 2 2
ITEM_3: #7 0 2
ITEM_4: 0
ITEM_5: #0 0
ITEM_6: 1#3010
ITEM_7: 1#3010-12 TIED

COL: C14 1
SEC: 1 RR
ITEM_1: 45 45
ITEM_2: #7 2 2
ITEM_3: #7 2 2
ITEM_4: 0
ITEM_5: #0 0
ITEM_6: 1#3010
ITEM_7: 1#3010-12 TIED

SEC: 2 RR
ITEM_1: 45 45
ITEM_2: #7 2 2
ITEM_3: #7 2 2
ITEM_4: 0
ITEM_5: #0 0
ITEM_6: 1#3010
ITEM_7: 1#3010-12 TIED

COL: C15 1
SEC: 1 RR
ITEM_1: 45 45
ITEM_2: #7 2 2
ITEM_3: #7 2 2
ITEM_4: 0
ITEM_5: #0 0
ITEM_6: 1#3010
ITEM_7: 1#3010-12 TIED

SEC: 2 RR
ITEM_1: 45 45
ITEM_2: #7 2 2
ITEM_3: #7 2 2
ITEM_4: 0
ITEM_5: #0 0
ITEM_6: 1#3010
ITEM_7: 1#3010-12 TIED