UNIVERSIDAD NACIONAL AUTONOMA DE MEXICO

FACULTAD DE INGENIERIA

"ANALISIS Y DISEÑO DE UN EDIFICIO ALTO EN CONDOMINIOS UTILIZANDO UNA ESTRUCTURA COMPUESTA ACERO-CONCRETO

T E S I S

QUE PARA OBTENER EL TITULO DE:

INGENIERO CIVIL

P R E S E N T A :

JULIO CESAR MENDEZ FRANCO

DIRECTOR DE TESIS: M. en C. ENRIQUE MARTINEZ ROMERO

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Señor
JULIO CESAR MENDEZ FRANCO
P r e s e n t e

En atención a su solicitud me es grato hacer de su conocimiento el tema que propuso el profesor **M. en C. ENRIQUE MARTINEZ ROMERO,** que aprobó esta Dirección, para que lo desarrolle usted como tesis de su examen profesional de **INGENIERO CIVIL.**

"ANALISIS Y DISEÑO DE UN EDIFICIO ALTO EN CONDOMINIOS UTILIZANDO UNA ESTRUCTURA COMPUESTA ACERO - CONCRETO"

INTRODUCCION
I. DESCRIPCION DEL PROYECTO
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Ruego a usted cumplir con la disposición de la Dirección General de la Administración Escolar en el sentido de que se imprima en lugar visible de cada ejemplar de la tesis el Título de ésta.

Asimismo le recuerdo que la Ley de Profesiones estipula que deberá prestar servicio social durante un tiempo mínimo de seis meses como requisito para sustentar Examen Profesional.

A t e n t a m e n t e
"POR MI RAZA HABLARA EL ESPIRITU"
Cd Universitaria a 8 de septiembre de 1998
EL DIRECTOR.

ING JOSE MANUEL COVARRUBIAS SOLIS
JMCS/GMP*lmf

A mis Padres,
quienes con su esfuerzo, amor y anhelo,
me supieron conducir
para lograr que hiciera posible
la realización de mi carrera

A mis Hermanos; Marlon, Edhit, Gabriela y Esteban

A toda mi Familia

Al M. En C Enríque Martínez Romero,
a quien considero una institución en la Ingeniería Civil
y quien con su apoyo, impulso y ejemplo
ayudo al logro de tan acariciado objetivo

A mis profesores

A Claudia,
quien me motivó y ayudó
para lograr esta hermosa culminación

A mis amigos

ÍNDICE

INTRODUCCIÓN

El diseño de edificaciones altas en la Ciudad de México reviste características especiales en virtud de la alta sismicidad regional, relacionada con las características de los suelos blandos. El Reglamento para Construcciones del Distrito Federal en su última versión, establece los requisitos de resistencia y las condiciones de servicios que se deben cumplir en esas edificaciones, para las distintas zonas de la Ciudad de México.

Sin embargo, el caso que nos ocupa reviste características especiales tanto por su esbeltez arquitectónica como la de su problemática constructiva, toda vez que se trata de erigir un edificio de doce niveles en un predio estrecho (14 metros de ancho), delimitado por dos edificios con alturas mayores de 55 metros, por lo cual hubo necesidad de planear una estructura que cumpliese tanto con los reglamentos vigentes tomando en cuenta la sismicidad local, su esbeltez arquitectónica y muy en especial su sistema constructivo y secuencia de construcción

Las características arquitectónicas en el proyecto y las limitaciones de espacio constructivo dieron como resultado proponer una estructura de acero de un solo claro con la suficiente rigidez como para evitar los golpeteos laterales con las colindancias, respetando las holguras con las propiedades vecinas y resolviendo los problemas de excavación para la cimentación.

Así también a las características antes mencionadas, la economía del proyecto y la necesidad de aprovechar los espacios para la colocación de instalaciones, dieron como resultado el uso de la llamada viga-tacón que se describe adelante.

El Edificio está constituido por dos niveles para estacionamiento, salón de usos múltiples, doce niveles tipo y la azotea; su análisis y diseño estructural se realizó utilizando el Programa ETABS (Extended Three-Dimensional Analysis of Building Systems) , en tanto que la cimentación se estudió con el programa SAFE (Slab Analysis of Finite Element).

El presente trabajo hace una descripción somera del proyecto estructural y de la cimentación, los análisis y diseños realizados, las consideraciones constructivas para realizar la cimentación y erigir la estructura, concluyendo con los resultados obtenidos para este proyecto.

DESCRIPCIÓN DEL PROYECTO

UBICACIÓN PARTICULAR

El edificio que se proyecta construir se ubica en Campos Eliseos No 355 de esta ciudad. Estará constituido por dos niveles para estacionamiento, salón de usos múltiples, doce niveles tipo y la azotea.

CARACTERÍSTICAS ARQUITECTÓNICAS

El proyecto arquitectónico elaborado por el despacho del Arquitecto Pedro Ramírez Vázquez, y liderado por el Arquitecto Jaime Giovannini, contempla la construcción de un edificio con nivel de piso de sótano a 1.75 m de profundidad, 2 niveles subterráneos para estacionamiento, un nivel de salón para usos múltiples, una torre de 12 niveles para apartamentos , los cuales se desarrollan en dos niveles cada uno, un nivel de azotea y caseta de elevador cargada hacia la parte sur del predio y todo con una altura total de 52.42 m con respecto al nivel de banqueta.

PROBLEMÁTICA CONSTRUCTIVA

Debido a las condiciones del medio, además de sus colindancias a los lados y en el fondo, fue necesario considerar un solo frente para atacar. Por lo que se diseño la estructura a base de marcos continuos en la dirección transversal y contravientos concéntricos en los parámetros laterales, en la dirección longitudinal del edificio.

Para que los marcos tuvieran la inercia y la rigidez necesaria, al tiempo que se facilitara el montaje de las columnas lo más despegado posible de los linderos, se idearon columnas de acero de sección tipo H orientadas con su eje débil en el sentido del marco y con su eje fuerte hacia los paramentos laterales para formar marcos contraventeados longitudinales al edificio.

Estas columnas de aproximadamente 30 cm de peralte por 25 cm de ancho del patín, se colocaron a 75 cm del lindero, para dejar la junta constructiva de 30 cm libres, y poder quedar recubiertas de concreto reforzado a su alrededor, de manera que la sección final fuese de 40x90 cm, según se aprecia en los planos anexos.

Las vigas que conforman el marco principal de cada piso, son denominadas del tipo "trabe tacón" y consiste en trabes de 46 cm de peralte en sección I, como cuerda inferior sobre las cuales se apoya perpendicularmente las vigas de piso a cada 2.40 m, también de la misma sección I, sólo que con 31 cm de peralte, quedando un peralte combinado de 77 cm más el espesor de la losa de 12.2 cm.

En la dirección transversal del edificio no se puede contraventear por requerimientos arquitectónicos, por lo que se optó por utilizar la acción de marco continuo para rigidizar la estructura, en cambio en la otra dirección si se utilizaron contraventeos.

En las colindancias norte y poniente, que corresponden al lindero con la Embajada de Francia, se sabe que existe un muro estructural desplantado a una profundidad de 11m, por lo que no se tendrán problemas de estabilidad o empujes laterales sobre los muros de los sótanos en dicha zona; la colindancia oriente esta cimentada con un cajón apoyado sobre pilas, debido a la esbeltez de la estructura, por lo que tampoco presentaba problemas de estabilidad o empujes laterales, debiéndose efectuar una cala exploratoria en la parte norte de dicho lindero (donde se tienen 2 niveles de sótano) para verificar si el cajón cubre toda el área del predio.

Sin embargo, el solo hecho de extraer un volumen de tierra importante, y excavar a grandes profundidades, representa una cuidadosa planeación de esta etapa, en especial en el frente que da a la calle, en el cual se debería dejar un talud tanto para el acceso del equipo de construcción (Retroexcavadora, Tractor y Camiones), como para evitar caidos en este frente. Posteriormente habría que utiizar el procedimiento de verma y talud para ir colocando anclas al terreno debajo de la calle de manera de estabilizar la excavación en esta zona (ver figuras en el anexo del Estudio de Mecánica de Suelos).

Por último la cimentación que se propuso para este edificio deberá contemplar la existencia de algunas pilas hincadas en el predio que corresponden a otro proyecto semejante cuya construcción fue suspendida años atrás.

Considerando todo lo anterior se planeó cuidadosamente un Sistema Estructural que pudiera cumplir con los siguientes aspectos:

1) Proyecto Arquitectónico
2) Reglamento de Construcciones para el Distrito Federal
3) Constructibilidad dentro del predio
4) Nivel económico adecuado

En las páginas siguientes se describe la solución a la cual se llegó.

CRITERIOS DE DISEÑO

Para realizar el diseño de este edificio se tomaron en cuenta varios aspectos importantes, entre los cuales se encuentran las características de los materiales, del suelo, el uso de la trabe tacón y la colocación óptima de las instalaciones

El actual Reglamento para Construcciones del Distrito Federal establece como única fuente de disipación de Energía Sísmica, a la ductilidad del Sistema Estructural, lo cual presupone que en el mismo se formen una serie de articulaciones plásticas que al girar disipan la Energía Sísmica, absorbida por la estructura durante un Temblor.

La aplicación de este concepto en la práctica ingenieril debe entenderse de manera tal que para que exista una pérdida de estabilidad en la formación de los mecanismos plásticos, las articulaciones deben de formarse en las vigas en lugar de en las columnas, lo cual da lugar al concepto denominado "Columna Fuerte – Viga Débil"; sin embargo, las articulaciones plásticas deben de presentar giros entre 0.02 y 0.03 rad, para que exista la disipación de Energía requerida, las vigas taconadas "Empotradas en sus extremos", se ha demostrado que permiten esta rotación plástica y que por lo mismo son adecuadas para el uso en zonas de alta sismicidad. (Referencia 2).

Sin embargo, el hecho de contar con una sola crujía para ejercer la acción de marco continuo y varios pisos de altura producía deformaciones considerables que excedían con mucho las deformaciones laterales permitidas y propiciarían golpeteos con las construcciones contiguas.
Dado que una gran parte de las deformaciones laterales en la estructura de marcos continuos provienen del alargamiento y acortamiento de las columnas y estas son función del área transversal de las columnas, de su módulo de elasticidad y su longitud, para una carga determinada resultaba deseable incrementar el área y módulo de elasticidad de las columnas (entiéndase su rigidez), en virtud de que la longitud resultaba una invariable condicionada por el proyecto arquitectónico; por lo cual una forma práctica y económica de lograrlo era recubrir las columnas de acero con concreto reforzado, haciendo trabajar los dos materiales (acero y concreto) en sección compuesta.

Con base en este criterio se pudieron lograr secciones estructurales de dimensiones admisibles en el proyecto arquitectónico al tiempo de que se restringen las deformaciones laterales dentro de los lineamientos reglamentarios. Por otra parte se permitió agilizar la construcción de los entrepisos en tramos de columnas de acero de hasta 4 niveles de longitud montados en una sola operación de gancho para ir construyendo los marcos de acero, viniendo después el recubrimiento de concreto reforzado para que el marco adquiriese su rigidez de diseño.

Trabe tacón

La losa de los entrepisos de 12 cm de espesor, jugó un papel preponderante en el sistema estructural, ya que al ser colada sobre unas láminas losacero, soldadas a los patines de las vigas de piso que corren continuas en el sentido longitudinal del edificio apoyadas sobre le patín superior de las trabes de 46 cm de los marcos, las ligan entre sí a manera de sección compuesta, aumentan la resistencia de la viga de acero, proporcionando además la rigidez requerida del diafragma horizontal para unificar el trabajo de todos los marcos.

Los entrepisos como antes se describió consistieron en losas de concreto coladas sobre láminas de acero galvanizado, que sirve a la vez de cimbra y área de acero colaborante en trabajo estructural de la losa. Estas losas se cuelan sobre vigas de apoyo y largueros que pasan en forma continua sobre las trabes principales de los marcos que se apoyan directamente sobre las columnas. Estas últimas al quedar separadas de la losa por el peralte de la viga de apoyo de la losa (o larguero), perderían la ventaja de la acción compuesta "viga-losa" a menos de que se provocase una liga entre estos dos elementos , entre larguero y larguero lo cual se logró

Los entrepisos como antes se describió consistieron en losas de concreto coladas sobre láminas de acero galvanizado, que sirve a la vez de cimbra y área de acero colaborante en trabajo estructural de la losa. Estas losas se cuelan sobre vigas de apoyo y largueros que pasan en forma continua sobre las trabes principales de los marcos que se apoyan directamente sobre las columnas. Estas últimas al quedar separadas de la losa por el peralte de la viga de apoyo de la losa (o larguero), perderían la ventaja de la acción compuesta "viga-losa" a menos de que se provocase una liga entre estos dos elementos, entre larguero y larguero lo cual se logró agregando pequeños ".tacones" o tramos de viga de la misma sección de los largueros colocados sobre la viga principal y en su misma dirección.

Este concepto ha recibido el nombre de "viga taconada o trabe tacón" e integra perfectamente la losa de concreto a la viga soporte a través de un gran brazo de palanca que hace muy eficiente la construcción, ya que se integra una especie de armadura Vierendeel en la cual, la cuerda superior a compresión quede formada por la losa de entrepiso, en tanto que la cuerda inferior a tensión la compone la viga de soporte y de ahí la economía de este sistema, ya que se hace trabajar a los materiales en la forma más eficiente: el concreto a compresión y el acero en tensión Con ello se cambia el trabajo de una viga por el de una armadura de mayor peralte, rigidez y resistencia.

Este sistema estructural fue utilizado por primera vez en los edificios de oficina Almacenes y Talleres que conforman la base de Mantenimiento de la Compañía Mexicana de Aviación en el Aeropuerto Internacional "Benito Juárez" de esta Ciudad de México, proyectada por el M. en C. Enrique Martínez Romero, idea que le valió el reconocimiento de la Sociedad Americana de Ingeniería Civil ASCV, quien le otorgo en el año de 1983 el Premio al Mérito en la Innovación en Ingeniería Civil. Ver figura I.

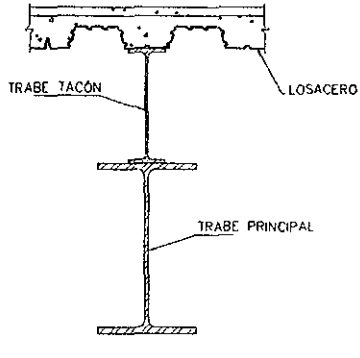


FIGURA I

ESTUDIO DE MECÁNICA DE SUELOS

El Estudio de Mecánica de Suelos, fue elaborado por la Empresa TGC Ingeniería S.A de C.V, firmado por los Ingenieros Juan Manuel Ruíz y José A. Segovia contratados por el propietario.

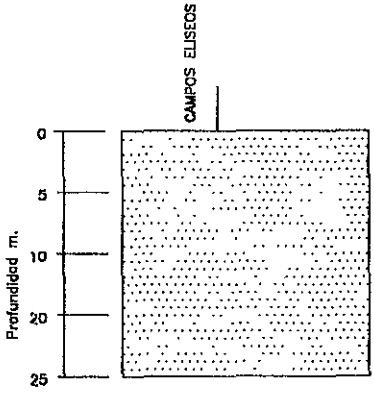
El estudio comprendió trabajos de campo, ensayes de laboratorio, una interpretación estratigráfica y recomendaciones para el estudio y diseño de la cimentación. (Ref. 7) De dichos estudios se extrae la recomendación de utilizar pilas coladas en el lugar, desplantadas a una profundidad de 18.0 m y con una capacidad de carga admisible que se expresa en la siguiente tabla:

Tabla 1. Capacidad de carga de las pilas

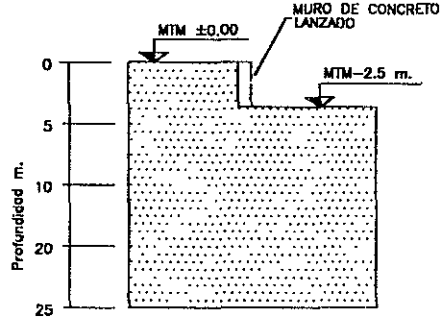
Capacidad de carga	Punta (Qpu)	Fricción (Qfu)	Compresión (Qa)	Tensión (Qta)
Última	382 ton	166 ton		
Admisible (estática)			210 ton	
Admisible (sísmica)			274 ton	110 ton

Concluyen los estudios con recomendaciones para la excavación (estabilidad de taludes, deformación sobre los empujes de muros, en condiciones estáticas y en condiciones sísmicas y la recomendación para utilizar un Módulo de reacción de las pilas individuales k=10 kg/cm^3.

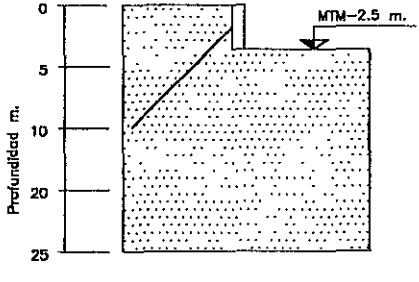
El problema fundamental fue la excavación por los edificios colindantes altos y con la calle, así como la utilización de una serie de pilas existentes, correspondientes a otro proyecto anterior. El estudio suministrado por TGC Ingeniería S A de C.V proporciona las recomendaciones necesarias para la estabilización de los taludes, las cuales consisten en una serie de anclas al terreno que se detallan en dicho estudio quedando las mismas fuera del alcance del presente trabajo.



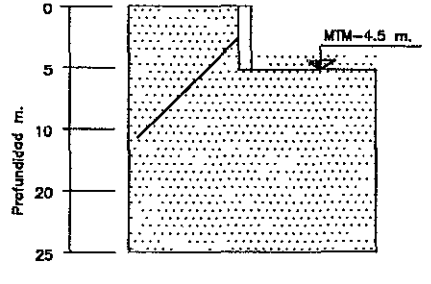
1) NIVEL DE TERRENO Y COLINDANCIA



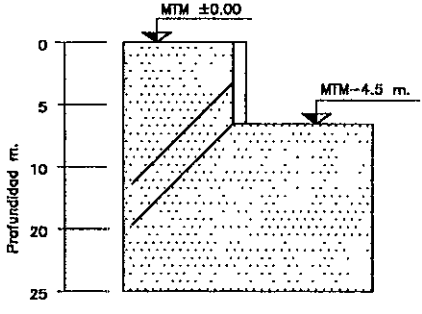
2) EXCAVACION DE TODA EL AREA HASTA EL NIVEL -2.5 CONSTRUYENDO EN FORMA DESCENDENTE DEL MURO DE CONCRETO LANZADO EN TABLEROS PERIMETRALES



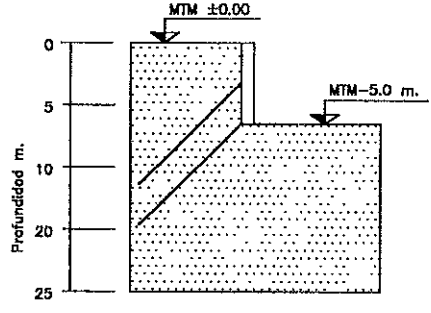
3) INSTALACION DE ANCLAS Y POSTENSADO DE LAS MISMAS.



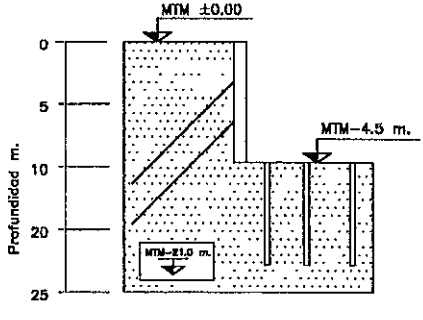
4) EXCAVACION HASTA EL NIVEL -4.5 m. CONSTRUYENDO EN FORMA DESCENDENTE EL MURO DE CONCRETO LANZADO EN EN TABLEROS PERIMETRALES



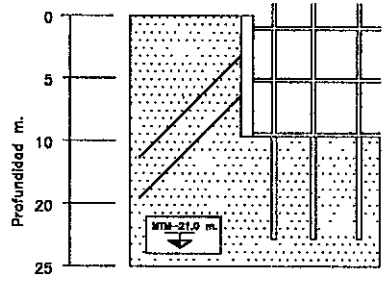
5) INSTALACION DE ANCLAS Y POSTENSADO DE LAS MISMAS.



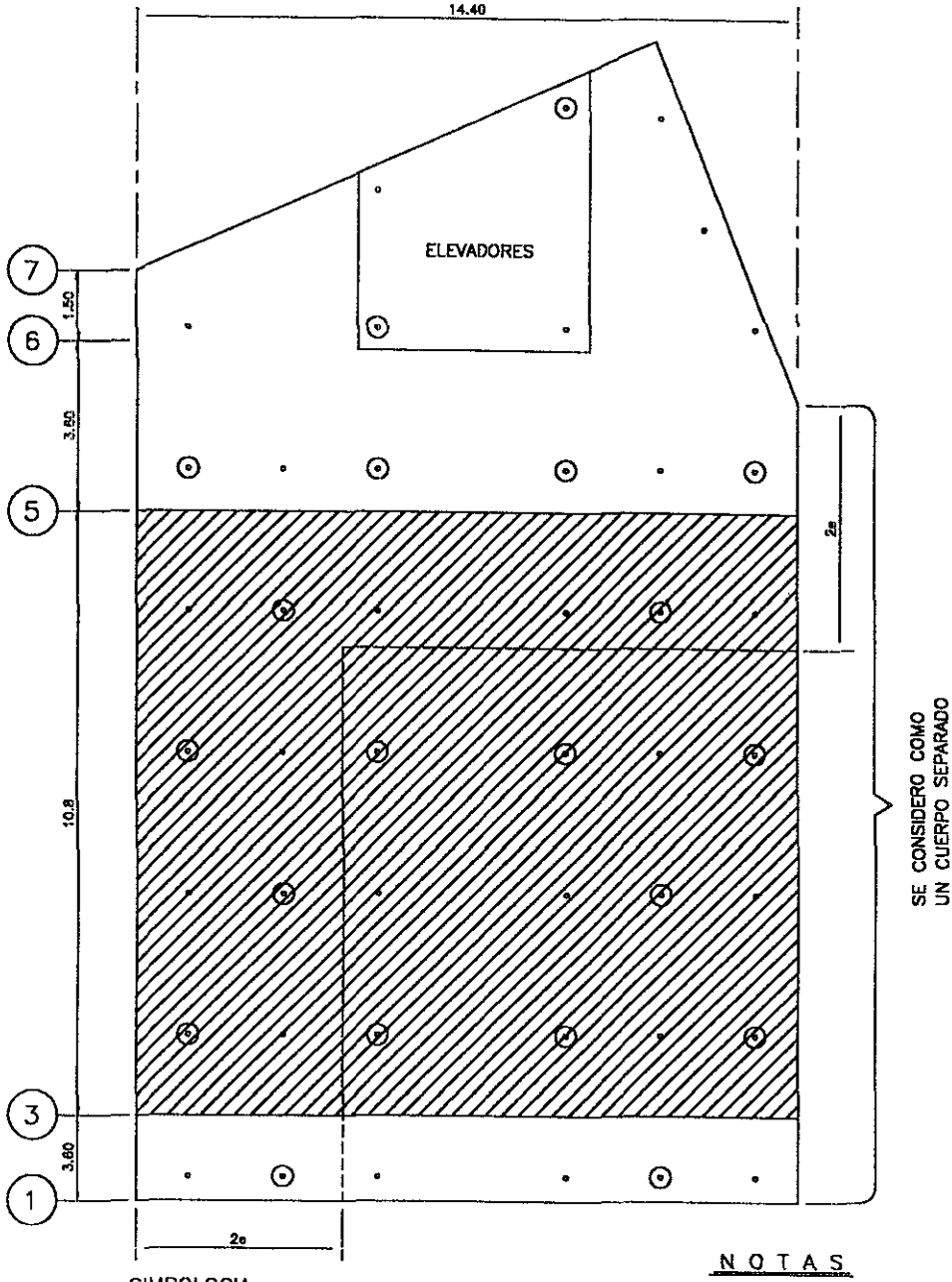
6) EXCAVACION HASTA EL NIVEL DE PROYECTO COSTRUYENDO EN FORMA DESCENDENTE EL MURO DE CONCRETO LANZADO EN TABLEROS PERIMETRALES.



7) CONSTRUCCION DE LAS PILAS ADICIONALES DESDE EL FONDO DE LA EXCAVACION (Df=18 m. MEDIDOS DESDE EL NIVEL DE BANQUETA.



8) CONSTRUCCION DE LA ESTRUCTURA DE ABAJO HACIA ARRIBA.



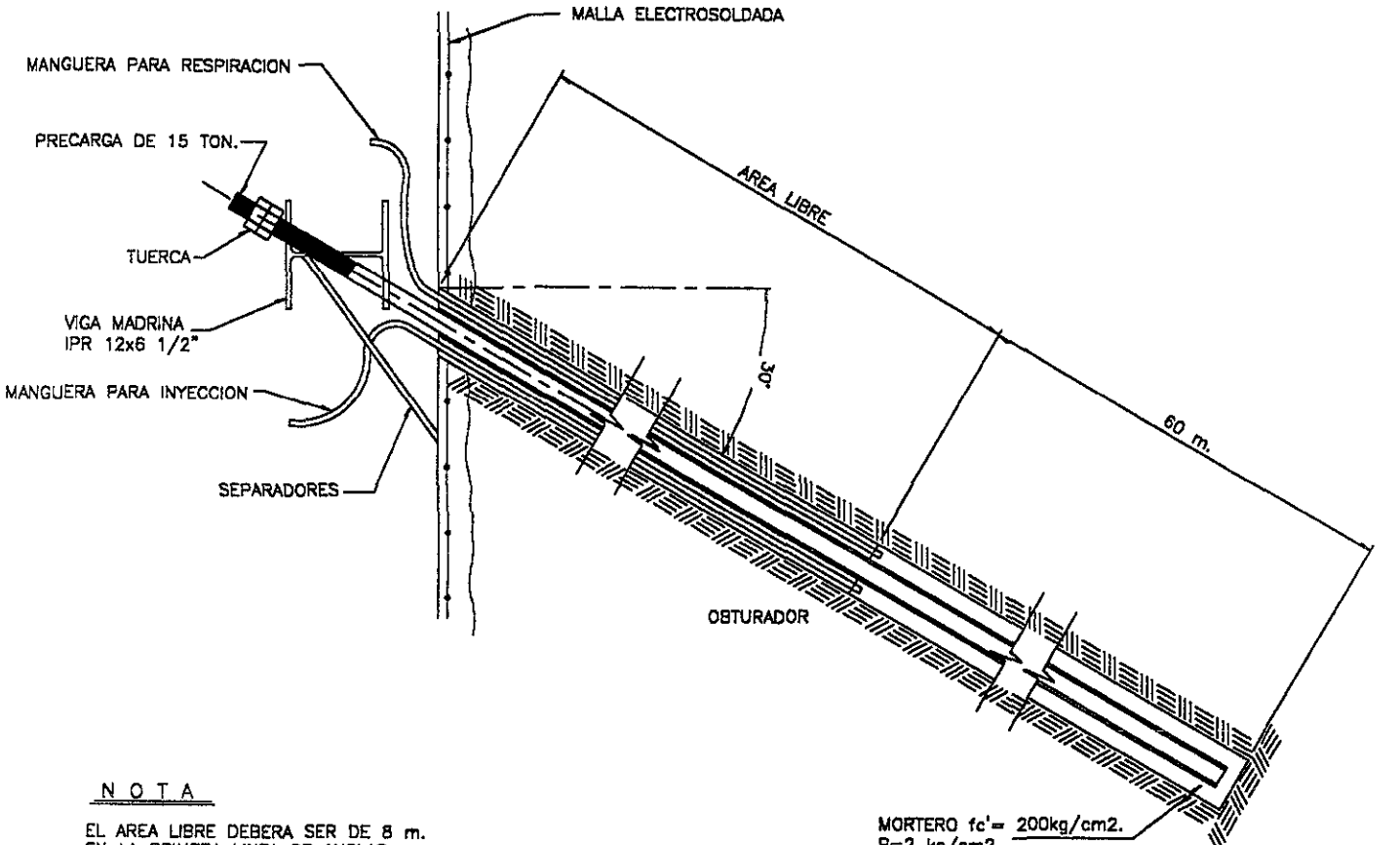
SIMBOLOGIA

- PILAS EXISTENTES
- PILAS ADICIONALES
- e EXCENTRICIDAD DEBIDA AL SISMO

N O T A S

LA DISTRIBUCION DE PILAS ES APROXIMADA, DEBERA REVISARSE CUANDO SE TENGA EL LEVANTA-- MIENTO DE LAS MISMAS.

LAS PILAS ADICIONALES SERAN IGUALES A LAS EXISTENTES



N O T A

EL AREA LIBRE DEBERA SER DE 8 m.
EN LA PRIMERA LINEA DE ANCLAS
Y DE 12 m. EN SEGUNDA.

ANÁLISIS ESTRUCTURAL

Según lo establece el Reglamento para Construcciones del Distrito Federal vigente, las cargas muertas y vivas utilizadas son las siguientes:

ANÁLISIS DE CARGAS

I. AZOTEA

- IMPERMEABILIZANTE	10 Kg/cm²
- RELLENOS P/PENDIENTE	100 Kg/cm²
- LOSACERO QL99 CAL 22 e=6	220 Kg/cm²
- INSTALACIONES	10 Kg/cm²
- Po. Po. ELEMENTOS SECUNDARIOS	10 Kg/cm²
- FALSO PLAFOND	20 Kg/cm²
- ADICIONAL (RCDF)	40 Kg/cm²
	410 Kg/cm²
W CARGA VIVA MAX	100 Kg/cm²
W CARGA VIVA RED.	70 Kg/cm²

II. DEPARTAMENTOS

- LOSACERO QL99 CAL 22 e=6	220 Kg/cm²
- ACABADO DE PISO	100 Kg/cm²
- INSTALACIONES	10 Kg/cm²
- Po. Po. ELEMENTOS SECUNDARIOS	10 Kg/cm²
- FALSO PLAFOND	20 Kg/cm²
- MUROS DIVISORIOS	150 Kg/cm²
	510 Kg/cm²
W CARGA VIVA MAXIMA	170 Kg/cm²
W CARGA VIVA RED.	90 Kg/cm²

III. SALÓN DE USOS MÚLTIPLES

- LOSACERO QL99 CAL 22 e=6	220 Kg/cm²
- ACABADO DE PISO	100 Kg/cm²
- INSTALACIONES	10 Kg/cm²
- Po. Po. ELEMENTOS SECUNDARIOS	10 Kg/cm²
- FALSO PLAFOND	20 Kg/cm²
- MUROS DIVISORIOS	150 Kg/cm²
	510 Kg/cm²
W CARGA VIVA MAXIMA	350 Kg/cm²
W CARGA VIVA RED.	250 Kg/cm²

IV. ESTACIONAMIENTO

- LOSACERO QL99 CAL 22 e=6	220 Kg/cm²
- ACABADO CEMENTO PULIDO	60 Kg/cm²
- INSTALACIONES	10 Kg/cm²
- Po. Po. ELEMENTOS SECUNDARIOS	10 Kg/cm²
- ADICIONAL (RCDF)	150 Kg/cm²
	320 Kg/cm²
W CARGA VIVA MAXIMA	250 Kg/cm²
W CARGA VIVA RED.	100 Kg/cm²

V. PASILLO

- LOSACERO QL99 CAL 22 e=6	220 Kg/cm²
- ACABADO DE PISO	100 Kg/cm²
- INSTALACIONES	10 Kg/cm²
- Po. Po. ELEMENTOS SECUNDARIOS	10 Kg/cm²
- FALSO PLAFOND	20 Kg/cm²
- ADICIONAL(RCDF)	40 Kg/cm²
	400 Kg/cm²
W CARGA VIVA MAXIMA	350 Kg/cm²
W CARGA VIVA RED.	150 Kg/cm²

VI. BAÑOS

- LOSACERO QL99 CAL 22 e=6	220 Kg/cm²
- ACABADO DE PISO	100 Kg/cm²
- INSTALACIONES	10 Kg/cm²
- Po. Po. ELEMENTOS SECUNDARIOS	10 Kg/cm²
- FALSO PLAFOND	20 Kg/cm²
- ADICIONAL (RCDF)	40 Kg/cm²
- RELLENOS	40 Kg/cm²
	500 Kg/cm²
W CARGA VIVA MAXIMA	170 Kg/cm²
W CARGA VIVA RED.	90 Kg/cm²

VII. CASA DE MÁQUINAS

- LOSA MACIZA DE CONCRETO (h=25cm)	600 Kg/cm²
- SOBRECARGA REGLAMENTO	20 Kg/cm²
- LARGUEROS	20Kg/cm²
- PROTECCIÓN CONTRA INCENDIO	5 Kg/cm²
- INSTALACIONES Y PLAFÓN	30 Kg/cm²
	675 Kg/cm²
W CARGA VIVA MAXIMA	350 Kg/cm²
W CARGA VIVA RED.	315 Kg/cm²

NOTA: El peso propio de trabes, columnas y muros será calculado y asignado a la carga muerta por el Programa de Análisis Estructural ETABS.

Determinación de la sección equivalente. (Trabe - Tacón)

Para obtener la sección equivalente de una trabe de sección variable como es la trabe tacón, se hace el análisis de una viga (sección variable) empotrada de un lado y articulada del otro, a la cual se le pone un momento de un valor arbitrario N en un extremo, y se investiga el giro de dicho extremo θ. La rigidez angular de esa viga M/θ se iguala a la de una viga de la misma longitud con un momento de inercia equivalente constante, cuyo valor es 4Eieq/L, de donde se despeja el valor de la inercia equivalente.
Por tratarse de una sección compuesta el giro de la trabe es distinto cuando el momento se aplica en una dirección que en otra ya que un caso se comprime la losa y en otro se fracciona, y por tratarse de concreto no permite tomar la tensión, por lo tanto, hay que investigar la rigidez equivalente de la trabe para uno y otro caso y considerarla así para su análisis.

A continuación se muestran los análisis realizados:

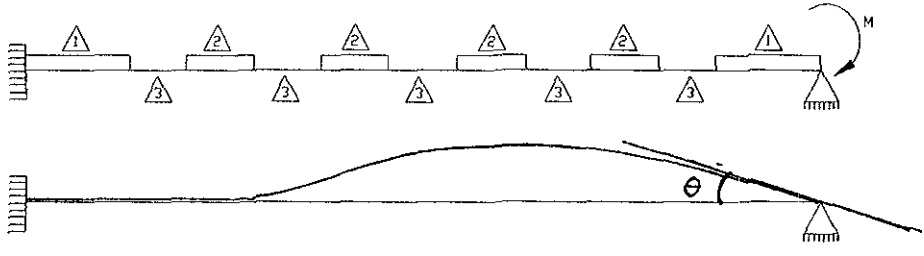


FIGURA II

1) Trabe principal + tacón (Para momento negativo)
2) Trabe principal + tacón + losa (Para momento positivo)
3) Trabe principal + losa (Para momento positivo)

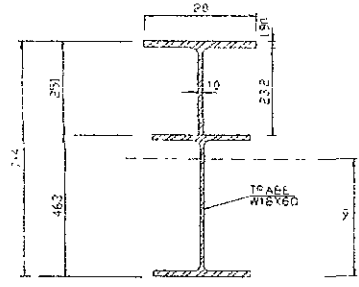
Así entonces, se determinan las propiedades geométricas de todas y cada una de las secciones antes mencionadas. Posteriormente, se analiza una viga empotrada en un extremo y apoyada en el otro (FIGURA II), de sección variable aplicándole un momento unitario en su extremo apoyado; para obtener la inercia equivalente de acuerdo con la ecuación (A)

$$\frac{M}{\Phi} = \frac{4EI}{L} \quad \ldots\ldots\ldots (A)$$

Para determinar el giro, la viga se modeló en el programa SAP90; presentando a continuación el procedimiento y los resultados obtenidos.

SECCIÓN PROPUESTA TRABE-TACÓN

1) Sección para momento negativo



Propiedades geométricas para momento negativo (fibra superior tensión)

PARTE	ÁREA(Ai)	Y(yi)	A*y
	cm²	cm	cm³
W18x60	113.6	23.15	2629.8
PATIN	38	70.45	2677.1
ALMA	23.2	57.9	1343.2
SUMA	174 85		6650 1

$$\bar{y} = \frac{6650.1}{174.85} = 36.98cm$$

$$Ix = 40957 + \left[(113.6)(38 - 23.15)^2 + 38(70.45 - 38)^2 + \frac{(1.0)(23.2)^3}{12} + 23.2(57.9 - 38)^2 \right]$$

$$Ix = 116250cm^4$$

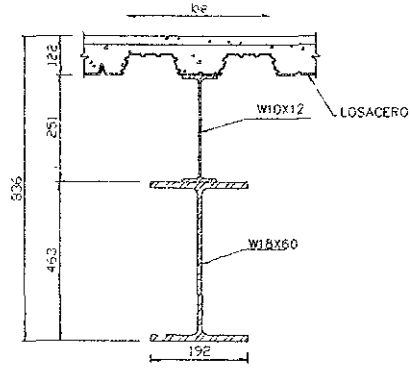
$$S = \frac{Ix}{y} = \frac{116250}{38} = 3059cm^3 \text{ (Compresión)}$$

$$S = \frac{Ix}{y} = \frac{116250}{(71.4 - 38)} = 3480cm^3 \text{ (Tensión)}$$

2) Sección para momento positivo (con tacón)

Determinación del ancho efectivo: Se selecciona el valor más desfavorable de las siguientes condiciones:

- b <= ¼ del claro de la viga.
- b <= ½ de la distancia entre vigas
- b <= 8 veces el espesor de la losa



$$n = \frac{Es}{Ec} = 9$$

$$b = \frac{l}{8} = \frac{1440}{8} = 180$$

$$b = \frac{c}{2} = \frac{360}{2} = 180$$

$$b = 8t = 8(122) = 97.6$$

$$be = 97.6 / 9 = 10.84cm$$

$$Ic = \frac{bh^3}{12} = \frac{(10.84)(5)^3}{12}$$

$$Ic = 195.12cm^4$$

$$Ac = beh = (10.84)(6) = 65.04cm^2$$

EJE NEUTRO:

$$\bar{y} = \frac{(65\,04)(80.6) + (22\,8)(58\,85) + (113.6)(23.15)}{65.04 + 22.8 + 113.6} = 45.74cm$$

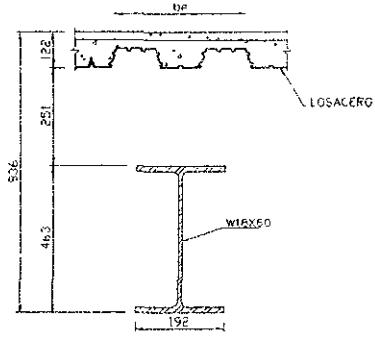
$$I_T = \sum I_0 + \sum Ad^2$$

$$I_T = 195.12 + 2239 + 40957 + 65.04(80\,6 - 45.74)^2 + 22.8(58.85 - 45.74)^2 + 113.6(23.15 - 45.74)^2$$

$$I_T = 184{,}319cm^4$$

$$A_T = 22.8 + 113.6 = 136.40cm^2$$

3**4)** Sección para momento positivo (sin tacón)



be=10.84cm
Ic=195.12cm^4
Ac=65.04cm^2

EJE NEUTRO

$$\bar{y} = \frac{(65\,04)(80.6) + (113.6)(23.15)}{65.04 + 113.6} = 44.07cm$$

$$I_T = 195.12 + 40{,}957 + 65.04(80.6 - 44.07)^2 + 113\,6(23\,15 - 44\,07)^2$$

$$I_T = 177{,}661cm^4$$

$$A_T = 113.60cm^2$$

Finalmente:

$I_1 = 116{,}250cm^4$
$I_2 = 184{,}319cm^4$
$I_3 = 177{,}661cm^4$

$A_1 = 174cm^2$
$A_2 = 136.40cm^2$
$A_3 = 113.60cm^2$

M= 1E5 Kg-m ∅=0.01307 $E = 2E10kg/m^2$

$$\frac{M}{\varnothing} = \frac{4EI}{L} \rightarrow I = \frac{ML}{\varnothing 4E} = \frac{(IE5)}{(0.01307)}\frac{(14.40)}{(4)}\frac{}{(2E10)} = 0.001377$$

$I_{XX} = 137{,}720cm^4$

$$I_{YY} = \frac{ML}{\varnothing 4E} = \frac{(IE5)}{(0\,58078)}\frac{(14.40)}{(4)}\frac{}{(2E10)} = 0.0000309$$

$I_{YY} = 3099cm^4$

ANÁLISIS SÍSMICO

Para poder realizar el espectro de diseño de acuerdo al Reglamento de Construcciones para el Distrito Federal se determinó lo siguiente:

ZONAII- TRANSICION ALTA ESTRUCTURA GRUPO B

Qx= 3x0.8= 2.4 (condición irregularidad)
Qy= 2x0.8=1.6

En la dirección X, se adoptó Q=3, de acuerdo con los requisitos que marcan la Normas Técnicas Complementarias para diseño por sismo, ya que en esta dirección la estructura es de un solo marco no contraventeado y además cumple con los requisitos de ductilidad que especifica el Reglamento de Construcciones para el Distrito Federal; mientras que en la otra dirección se adoptó Q=2, debido a que el marco en esta dirección está contraventeado.

ESPECTRO DE ACELERACIONES

Ta= 0.3
Tb= 1.5
r= 2/3
c= 0.32

$a_1=(1+3T/Ta)c/4=(1+3T/0.3)0.32/4$
$a_2= c=0.32$
$a_3=(Tb/T)^r c=(1.5/T)^{2/3}(0.32)$

"no incluye Q "

T	a	T	A	T	a
0	0.08	1.6	0.307	2.4	0.234
0.05	0.12	1.7	0.294	2.5	0.228
0.1	0.16	1.8	0.283	2.6	0.22
0.15	0.2	1.9	0.273	2.7	0.216
0.2	0.24	2	0.264	2 8	0.211
0.25	0.28	2.1	0.256	2.9	0.206
0.3	0.32	2.2	0.248	3	0.202
1.5	0.32	2.3	0.241		

REDUCCIÓN POR DUCTILIDAD

Q'=Q Para T>Ta

Q' = 1+(T/Ta)(Q-1) T<Ta

dirección x= Q=2.4

Q'=1+(T/0 3)(1.60-1)=1+0.60T/0.3

0	0.08
0.05	0 0973236
0 1	0.10908843
0.15	0.11764706
0.2	0.12414007
0.25	0.12927054
0 3	0.13333333
1.5	0.13333333
1 6	0.12791667
1.7	0.1225
1.8	0.11791667
1.9	0.11375
2	0.11
2 1	0.10666667
2.2	0.10333333
2 3	0.10041667
2.4	0.0975
2.5	0.095
2.6	0.0925
2.7	0.09
2.8	0.08791667
2.9	0.08583333
3	0.08416667

dirección y Q=1.60

Q'=1+(T/0.3)(2.4-1)=1+1 4T/0.3

0	0 08
0.05	0.10909091
0 1	0.13333333
0.15	0.15384615
0 2	0.17142857
0.25	0.18666667
0.3	0.2
1.5	0.2
1.6	0.191875
1.7	0.18375
1.8	0.176875
1.9	0.170625
2	0.165
2.1	0.16
2.2	0.155
2.3	0.150625
2.4	0.14625
2.5	0.1425
2.6	0.13875
2.7	0.135
2.8	0.131875
2.9	0.12875
3	0.12625

ANÁLISIS SÍSMICO ESTÁTICO

LEVEL	hi	Wi	Wi*hi	Fi	Vi
N13	56.00	146512	8204692	43722	43722
N12	52.50	138988	7296874	38884	82606
N11	49.00	146512	7179105	38257	120863
N10	45.50	138988	6323958	33700	154563
N9	42.00	146512	6153519	32791	187354
N8	38.50	138988	5351041	28515	215869
N7	35.00	146512	5127932	27326	243195
N6	31 50	138988	4378125	23331	266526
N5	28.00	146512	4102346	21861	288387
N4	24.50	138988	3405208	18146	306533
N3	21.00	146512	3076759	16396	322929
N2	17.50	138988	2432291	12961	335890
N1	14.00	146512	2051173	10930	346821
MEZ	10.50	196671	2065044	11004	357825
PB	7.00	109205	764434	4074	361899
S1	3.50	109205	382217	2037	363935
		2274596	68294718		
	fac=	0.005329			

El peso se obtuvo multiplicando la Carga muerta más la carga viva reducida por el área de cada nivel.

ETABS

(Archivo de Entrada)

```
ETABS 6.1
UNIVERSIDAD NACIONAL AUTÓNOMA DE MÉXICO
TESIS
JULIO CÉSAR MÉNDEZ FRANCO
~~PROYECTO CONDOMINIO CAMPOS PL10000~~
$
$ Modelo matemático
$
$ ST MD DF TF MS LD PE MT CP BP FP RP PP SP LA DY ES PD RIG SW IU
  17  2  1  1 10  1 30  5 10 10  1  2  2  0  1  2  0  0  2  0  2
 9.81 0.0001 0 2.4
$ ------------------------------------------------mass type
$ Sotano y PB
1 8 1/9.81
RECT     420  7.20  5.20 14 40 10.40  90
RECT     420  5.40 14.00 10.80  7.20  90
RECT     420  8.71 18.35 10.21  1.50  90
RECT     420 11.26 20.35  3.12  2.50  90
RECT     420  8.68 20.77  2.05  3.33  90
TRIANGLE 420 13.81 17.60 14.40 17.60 13.81 19.10
TRIANGLE 420 12.82 19.10 13.81 19.10 12.82 21.60
TRIANGLE 420  7.65 22.43  9.70 22.43  9.70 23.29
$ Salon de usos multiples
2 4 1/9.81
RECT     760  7.20  9.60 14.40 16.80  90
RECT     760  6.65 18.35  6.10  1.50  90
RECT     760  8.68 20.77  2.05  3.33  90
TRIANGLE 760  7.65 22.43  9.70 22.43  9.70 23.29
3 6 1/9.81
RECT     600  7.20  7.00 14.40 14.00  90
LINE     500  7.20  0.00 14.40  90
LINE     500  0.00  7.00 14.40  90
LINE     500 14.40  7.00 14.00   0
LINE     500  1.80 14.00  3.60  90
LINE     500 12.05 14.00  4.70  90
4 4 1/9.81
RECT     760  7.20  9 60 14.40 16.80  90
RECT     760  6.65 18.35  6 10  1.50  90
RECT     760  8.68 20.77  2 05  3.33  90
TRIANGLE 760  7.65 22.43  9.70 22.43  9.70 23 29
$ Depto PB
5 6 1/9.81
RECT     600  7 20  7.00 14.40 14.00  90
LINE     500  7.20  0.00 14.40  90
LINE     500  0.00  7.00 14.40  90
LINE     500 14.40  7.00 14.00   0
LINE     500  1.80 14.00  3.60  90
LINE     500 12.05 14.00  4.70  90
6 4 1/9.81
RECT     600  5.63 15.80  4.05  3.60  90
RECT     600  6.65 18.35  6.10  1.50  90
RECT     600  8.68 20.77  2.05  3.33  90
TRIANGLE 600  7.65 22.43  9.70 22.43  9.70 23.29
$ Depto PA
7 5 1/9.81
RECT     600  7.20  7.60 14.40 12.80  90
LINE     500  7.20  1.20 14.40  90
LINE     500  0.00  7.00 14.00   0
LINE     500 14.40  7.00 14 00   0
LINE     500  7.20 14.00 14.40  90
8 3 1/9.81
RECT     600  8.68 18.35  2.05  1.50  90
RECT     600  8.68 20.77  2.05  3 33  90
TRIANGLE 600  7.65 22.43  9 70 22.43  9.70 23.29
$ Azotea (N13)
9 6 1/9.81
RECT     600  7.20  7.00 14.40 14.00  90
LINE     500  7.20  0.00 14.40  90
LINE     500  0.00  7.00 14.40  90
LINE     500 14.40  7.00 14 00   0
LINE     500  1.80 14.00  3.60  90
LINE     500 12.05 14 00  4.70  90
10 4 1/9.81
RECT     600  5.63 15.80  4.05  3.60  90
RECT     600  6 65 18.35  6 10  1.50  90
RECT     600  8.68 20.77  2.05  3.33  90
```

```
TRIANGLE 600  7.65 22.43  9.70 22.43  9.70 23.29
$ ------------------------------------------ Story Data
CM 3.50  1
1 0
N13 3.50  2
1 9
2 10
N12 3.50  2
1 7
2 8
N11 3 50  2
1 5
2 6
N10 3.50  2
1 7
2 8
N9  3.50  2
1 5
2 6
N8  3.50  2
1 7
2 8
N7  3.50  2
1 5
2 6
N6  3.50  2
1 7
2 8
N5  3.50  2
1 5
2 6
N4  3.50  2
1 7
2 8
N3  3.50  2
1 5
2 6
N2  3.50  2
1 7
2 8
N1  3.50  2
1 5
2 6
MEZ  3.50 1
1 2
PB  3.50  1
1 1
S1 3.50  1
1 1
$ ------------------------------------------ Material Data
 1 S 2.10E10 0 30 7860 7860/9.81     0     2.53E7
 2 C 2.21ES9 0 18 2400 2400/9.81     0     4.20E7  2 5E6  4.20E7 2.5E6
 3 W 2.21ES9 0.18 2400 2400/9.81     0     4.20E7  2.5E6  4.20E7 2 5E6
 4 O 2.10E11 0.18 2400     0         0     4.20E7  2 5E6  4.20E7 2.5E6
 5 O 2.10E10 0.30 7860*.7 7860/9.81
$ ------------------------------------------ Column Properties
 1 RECT 2 0.90 0.40
 2 RECT 2 0.90 0.40
 3 RECT 2 0.90 0.40
 4 W18X43  1
 5 RECT    2 0.90 0.40
 6 RECT    2 0.50 0.30
 7 W14X61  1
 8 W14X61  1
 9 RECT 2 0.90 0.40
10 W14X60 1
$ ------------------------------------------ Beams Properties
 1 USER 5 0.75 0.00 0 25
 0 0 0 0 230200E-8
 2 W16X26  1
 3 W12X19  1
 4 W16X26  1
 5 W30X99  1
 6 RECT 4 0.001 0.001 0.001
 7 USER 5 0.75 0.00 0.25
 0 0 0 0 230200E-8
```

```
 8 W16x26  1
 9 W16X26  1
10 W30X99  1
$ ------------------------------------------- Floor Properties
 1 MEMB 4 0.12
$ ------------------------------------------- Brace Properties
 1 W12X65   1
 2 W12X50   1
$ ------------------------------------------- Panel Properties
 1 MEMB 3 0.3
 2 MEMB 3 0.2
$ ------------------------------------------- Frame Data
 EDIFICIO TISSOT
 1 38 62 14 0 201 0 1 60 100 0 5
$ ------------------------------------------- Column Line Location
1 0 0
2 14.40 0
3 0 3.20
4 14.40 3.20
5 0 6.80
6 14.40 6.80
7 0 10.40
8 10.98 10.40
9 14.49 10 40
10 9.09 14.00
11 10.99 14.00
12 14.40 14.00
13 9.00 17.60
14 3.60 17.60
15 7.65 17.60
16 9.70 17.60
17 10.90 17.60
18 14.40 17.60
19 9 19.10
20 3.60 19.10 90
21 7.65 19.10 90
22 9.70 19.10 90
23 13.81 19.1
24 3.60 20.73  24
25 7.65 22.43  24
26 9.70 23.29  24
27 11.80 24.19
28 3.60 14.00
29 5.625 14.00
30 7.65 14.00
31 0 1.20
32 14.40 1.20
33 9.70 21.60
34 12.82 21.60
35  1.00 0
36  4.80 0
37  9.16 0
38  13.00 0
$ ------------------------------------------- Beam Bay Connectivity
 1 1 2 0
2 3 4
3 5 6
4 7 8
5 8 9
6 10 11
7 13 14
8 14 15
9 15 16
10 16 17
11 17 18
12 20 21
13 21 22
14 22 23
15 19 24
16 24 25
17 25 26
18 26 27
19 1 3
20 3 5
21 5 7
22 7 10
23 10 13
24 13 19
25 14 20
26 20 24
27 15 21
28 21 25
29 16 22
30 22 26
31 8 11
32 11 17
33 2 4
34 4 6
35 6 9
36 9 12
37 12 18
38 18 23
39 34 27
40 7 9
41 10 28
42 28 29
43 29 30
44 30 12
45 28 14
46 32 4
47 30 15
48 31 32
49 10 12
50 16 18
51 1 31
52 31 3
53 2 32
54 33 34
55 22 33
56 33 26
57 23 34
58 1 35
59 35 36
60 36 37
61 37 38
62 38 2
$ ------------------------------------------- Floor Bay Connectivity
 1 1 2 3 4 0 5 19
 2 3 4 5 6 0 5 19
 3 5 6 7 9 0 5 19
 4 7 9 10 12 0 5 19
 5 28 30 14 15 0 1 19
 6 14 15 20 21 0 0 0
 7 15 16 21 22 0 0 0
 8 21 22 25 26 0 0 0
 9 31 32 3 4 0 5 19
 10 10 12 13 18 0 5 19
 11 7 8 10 11 0 4 19
 12 10 11 13 17 0 4 19
 13 16 18 22 23 0 0 0
 14 22 23 33 34 0 0 0
$ ------------------------------------------- Beam Load Patterns
  1   5   0
 -0.167   1229   -0.334   1229   -0.501   1229   -0.668   1229
 -0.835   1229
 2   5   0
 -0.167    960   -0.334    960   -0.501    960   -0.668    960
 -0.835    960
 3   5   0
 -0.167    384   -0.334    384   -0.501    384   -0.668    384
 -0.835    384
 4   5   0
 -0.167   2611   -0.334   2611   -0.501   2611   -0.668   2611
 -0.835   2611
 5   5   0
 -0.167   2040   -0.334   2040   -0.501   2040   -0.668   2040
 -0.835   2040
 6   5   0
 -0.167    816   -0.334    816   -0.501    816   -0.668    816
 -0.835    816
 7   5   0
 -0.167   2765   -0.334   2765   -0.501   2765   -0.668   2765
```

```
-0.835   2765
 8   5   0
-0.167   2160   -0.334   2160   -0.501   2160   -0.668   2160
-0.835   2160
 9   5   0
-0.167    864   -0.334    864   -0.501    864   -0.668    864
-0.835    864
10   1   0
    1.20   1382
11   1   0
    1.20   1080
12   1   0
    1.20    432
13   4   0
    2.40   2765    4.80   2765    7.20   2765    9.60   2419
14   4   0
    2.40   2160    4.80   2160    7.20   2160    9.60   1890
15   4   0
    2.40    864    4.80    864    7.20    864    9.60    756
16   4   0
    2.40   2765    4.80   2765    7.20   2765    9.60   2074
17   4   0
    2.40   2160    4.80   2160    7.20   2160    9.60   1620
18   4   0
    2.40    864    4.80    864    7.20    864    9.60    648
19   0  240.0
20   0  187.5
21   0   75.0
22   1  240.0
    1.95   1382
23   1  187.5
    1.95   1080
24   1   75.0
    1.95    432
25   2  240.0
    1.20   1382    3.60   1382
26   2  187.5
    1.20   1080    3.60   1080
27   2   75.0
    1.20    432    3.60    432
28   1   0
    2.40   1382
29   1   0
    2.40   1080
30   1   0
    2.40    432
31   0  624.0
32   0  487.5
33   0  195.0
34      0  192.0
35      0  150.0
36      0   60.0
37      0  384.0
38      0  300.0
39      0  120.0
40   1   0
    2.50    592
41   1   0
    2.50    463
42   1   0
    2.50    185
43   1   0
    2.50    592
44   1   0
    2.50    463
45   1   0
    2.50    185
46   5   0
-0.167   4406   -0.334   4406   -0.501   4406   -0.668   4406
-0.835   4406
47   5   0
-0.167   3024   -0.334   3024   -0.501   3024   -0.668   3024
-0.835   3024
48   5   0
-0.167   2160   -0.334   2160   -0.501   2160   -0.668   2160
-0.835   2160
```

```
49   1   0
    2.30   2203
50   1   0
    2.30   1512
51   1   0
    2.30   1080
52   1  382.5
    1.95   2203
53   1 262.5
    1.95   1512
54   1  187.5
    1.95   1080
55   2 382.5
    1.20   2203    3.60   2203
56   2 262.5
    1.20   1512    3.60   1512
57   2 187.5
    1.20   1080    3.60   1080
58   1   0
    2.40   2203
59   1   0
    2 40   1512
60   1   0
    2.40   1080
61   0  994.5
62   0  682.5
63   0  487.5
64   0  382.5
65   0  262.5
66   0  187.5
67   5      0
 -0.167   1469   -0.334   1469   -0.501   1469   -0.668   1469
 -0.835   1469
68   5   0
 -0.167   1008   -0.334   1008   -0 501   1008   -0.668   1008
 -0.835   1008
69   5   0
 -0.167    720   -0.334    720   -0.501    720   -0.668    720
 -0.835    720
70   5   0
 -0.167   3672   -0.334   3672   -0.501   3672   -0.668   3672
 -0.835   3672
71   5   0
 -0.167   2520   -0.334   2520   -0.501   2520   -0.668   2520
 -0.835   2520
72   5   0
 -0.167   1800   -0.334   1800   -0.501   1800   -0.668   1800
 -0.835   1800
73   1   0
    2.50    944
74   1   0
    2.50    648
75   1   0
    2.50    463
76   1   0
    2.50    944
77   1   0
    2.50    648
78   1   0
    2.50    463
79   0 612.0
80      0   420.0
81      0   300.0
82      5   500.0
 -0.167   1469   -0.334   1469   -0.501   1469   -0.668   1469
 -0.835   1469
83   5  0.0
 -0.167    490   -0.334    490   -0.501    490   -0.668    490
 -0.835    490
84   5  0.0
 -0.167    259   -0.334    259   -0.501    259   -0.668    259
 -0.835    259
85   5   0
 -0 167   3672   -0.334   3672   -0.501   3672   -0.668   3672
 -0.835   3672
86   5   0
```

```
 -0.167   1224   -0.334   1224   -0.501   1224   -0.668   1224
 -0.835   1224
87    5   0
 -0.167    648   -0.334    648   -0.501    648   -0.668    648
 -0.835    648
88    5   0
 -0.167   4406   -0.334   4406   -0.501   4406   -0.668   4406
 -0.835   4406
89    5   0
 -0.167   1469   -0.334   1469   -0.501   1469   -0.668   1469
 -0.835   1469
90    5   0
 -0.167    778   -0.334    778   -0.501    778   -0.668    778
 -0.835    778
91   2 500.0
    1.95   2203     4.35   2203
92    2  0.0
    1.95    734     4.35    734
93    2  0.0
    1.95    389     4.35    389
94    2   0
    0.00   1862     1.580  2203
95    2   0
    0.00    621     1.580   734
96    2   0
    0.00    329     1.580   389
97    1   0
    1.20   2203
98    1   0
    1.20    734
99    1   0
    1.20    389
100   1 500.0
    2.40   2203
101   1  0.0
    2.40    734
102   1  0.0
    2.40    389
103   1   0
    2.03   3121
104   1   0
    2.03   1040
105   1   0
    2.03    551
106   1   0
    2.03    918
107   1   0
    2.03    306
108   1   0
    2.03    162
109   0   612.0
110   0   204.0
111   0   108.0
112   0   382.5
113   0   127.5
114   0    67.5
115   0  1112.0
116   0   204.0
117   0   108.0
118   0   515.1
119   0   171.7
120   0    90.9
121   0  1035.3
122   0   345.1
123   0   182.7
124   1     0
    2.50    944
125   1   0
    2.50    315
126   1   0
    2.50    167
127   5 500.0
 -0.167   2509   -0.334   1867   -0.501   1224   -0.668   1867
 -0.835   2509
128   5  0.0
 -0.167    836   -0.334    622   -0.501    408   -0.668    622
 -0.835    836
129   5  0.0
 -0.167    443   -0.334    329   -0.501    216   -0.668    329
 -0.835    443
130   5   0
 -0.167   3427   -0.334   3427   -0.501   3427   -0.668   3427
 -0.835   3427
131   5   0
 -0.167   1142   -0.334   1142   -0.501   1142   -0.668   1142
 -0.835   1142
132   5   0
 -0.167    605   -0.334    605   -0.501    605   -0.668    605
 -0.835    605
133   5   0
 -0.167   4406   -0.334   4406   -0.501   4406   -0.668   4406
 -0.835   4406
134   5   0
 -0.167   1469   -0.334   1469   -0.501   1469   -0.668   1469
 -0.835   1469
135   5   0
 -0.167    778   -0.334    778   -0.501    778   -0.668    778
 -0.835    778
136   5 500.0
 -0.167   2203   -0.334   2203   -0.501   2203   -0.668   2203
 -0.835   2203
137   5  0.0
 -0.167    734   -0.334    734   -0.501    734   -0.668    734
 -0.835    734
138   5  0.0
 -0.167    389   -0.334    389   -0.501    389   -0.668    389
 -0.835    389
139   0   500.0
140   0     0.0
141   0     0.0
142   0  1112.0
143   0   204.0
144   0   108.0
145   0   382.5
146   0   127.5
147   0    67.5
148   0   994.5
149   0   331.5
150   0   175.5
151   1     0
    2.50    944
152   1   0
    2.50    315
153   1   0
    2.50    167
154   1   0
    2.50    944
155   1   0
    2.50    315
156   1   0
    2.50    167
157   5 500.0
 -0.167   1574   -0.334   1574   -0.501   1574   -0.668   1574
 -0.835   1574
158   5  0.0
 -0.167    384   -0.334    384   -0.501    384   -0.668    384
 -0.835    384
159   5  0.0
 -0.167    269   -0.334    269   -0.501    269   -0.668    269
 -0.835    269
160   5   0
 -0.167   3346   -0.334   3346   -0.501   3346   -0.668   3346
 -0.835   3346
161   5   0
 -0.167    816   -0.334    816   -0.501    816   -0.668    816
 -0.835    816
162   5   0
 -0.167    571   -0.334    571   -0.501    571   -0.668    571
 -0.835    571
163   5   0
 -0.167   3542   -0.334   3542   -0.501   3542   -0.668   3542
 -0.835   3542
```

```
164    3    0
 -0.167     864    -0.334     864    -0.501     864    -0.668     864
 -0.835     864
165    5    0
 -0.167     605    -0.334     605    -0.501     605    -0.668     605
 -0.835     605
166  2   500.0
   1.95    1771      4.35    1771
167    2  0.0
   1.95     432      4.35     432
168    2  0.0
   1.95     302      4.35     302
169    2    0
   0.00    1497     1.580    1771
170    2    0
   0.00     365     1.580     432
171    2    0
   0.00     256     1.580     302
172    1    0
   1.20    1771
173    1    0
   1.20     432
174    1    0
   1.20     302
175  1  500.0
   2.40    1771
176  1  0.0
   2.40     432
177  1  0 0
   2.40     302
178  1    0
 -0.500    2509
179  1    0
 -0.500     612
180  1    0
 -0.500     428
181      0  492.0
182      0  120 0
183      0   84.0
184      1      0
 -0.500     738
185      1 0
 -0.500     180
186      1  0
 -0.500     126
187    0  307.5
188    0   75.0
189    0   52.5
190    0  992.0
191    0  120.0
192    0   84.0
193    0  414.1
194    0  101.0
195    0   70.7
196    1      0
   2.50     759
197    1    0
   2 50     185
198    1    0
   2.50     130
199      0  832
200      0  203
201      0  142
$ ------------------------------------------- Floor Load Patterns
$ ------------------------------------------- Joint Assignments
$ Niveles Inferiores
1 24 0 MEZ S1 1
$ Deptos y Azotea. Diafragma 1.
1 7 0 N13 N1 1
9  9  1
10 10 1
12 12 1
$ Depto y Azotea. Diafragma 2.
15 15 0 CM N1 2
16 16  15
20 20  15
21 21  15
22 22  15
24 24  15
25 25  15
26 26  15
$ Especiales Diafragma 1.
28 30 0 N13 N13 1
28 30 0 N11 N11 1
28 30 0 N9  N9  1
28 30 0 N7  N7  1
28 30 0 N5  N5  1
28 30 0 N3  N3  1
28 30 0 N1  N1  1
$ Especiales Diagrama 2.
14 14 0 CM  CM  2
14 14 0 N13 N13 2
14 14 0 N11 N11 2
14 14 0 N9  N9  2
14 14 0 N7  N7  2
14 14 0 N5  N5  2
14 14 0 N3  N3  2
14 14 0 N1  N1  2

$ ------------------------------------------- Column Assignments
1 1 0 N13 N10  1
1 1 0 N9  N6   2
1 1 0 N5  N3   3
1 1 0 N2  MEZ  9
1 1 0 PB  S1   5
2 2 1
3 3 1
4 4 1
5 5 1
6 6 1
7 7 1
9 9 1
10 10 1
12 12 1
13 13 0 MEZ MEZ 1
13 13 0 PB S1 5
18 18 13
20 20 0 CM  N10 4
20 20 0 N9 N5 7
20 20 0 N4 N3  10
20 20 0 N2 MEZ 10
20 20 0 PB S1 10
21 21 20
22 22 20
24 24 0 CM  N10 4
24 24 0 N9 N5 7
24 24 0 N4 N3  10
24 24 0 N2 MEZ 10
24 24 0 PB S1 6
25 25 24
26 26 24

$ ------------------------------------------- Beam Assignments
1 1 0 N13 N13 1
1 1 0 N11 N11 1
1 1 0 N9 N9 1
1 1 0 N7 N7 1
1 1 0 N5 N5 1
1 1 0 N3 N3 1
1 1 0 N1 N1 1
2 2 0 N13 N6 1
2 2 0 N5 MEZ 1
2 2 0 PB S1 7 3 0
3 3 2
4 4 0 PB S1 7 1 0
5 5 0 PB S1 7 2 0
6 6 0 PB S1 7 3  0
7 7 0 MEZ MEZ 1
7 7 0 PB S1 7 1 0
8 8 0 N13 N13 3 3 0
8 8 0 N11 N11 3 3 0
8 8 0 N9 N9 3 3 0
```

```
8 8 0 M7 M7 3 3 0
8 8 0 M5 M5 3 3 0
8 8 0 M3 M3 3 3 0
8 8 0 M1 M1 3 3 0
8 8 0 MEZ MEZ 1
9 8 0 PB  S1 7
9 9 0 M13 M6 3 3 0
9 9 0 M5 M1 3 3 0
9 9 0 MEZ MEZ 1
9 9 0 PB S1 7
10 10 0 PB S1 7
11 11 0 PB S1 7 2 0
12 12 0 CK  M6 2
12 12 0 M5 S1 8
13 13 12
14 14 0 PB S1 8 2 0
15 15 0 PB S1 6
16 16 0 CK  M6 2
16 16 0 M5 MEZ 8
16 16 0 PB S1 6
17 17 16
18 18 15
19 19 0 M13 M13 4
19 19 0 M11 M11 4
19 19 0 M9 M9 4
19 19 0 M7 M7 4
19 19 0 M5 M5 9
19 19 0 M3 M3 9
19 19 0 M1 M1 9
19 19 0 PB S1 6
20 20 0 M13 M6 4
20 20 0 M5 MEZ 9
20 20 0 PB S1 6
21 21 20
22 22 20
23 23 0 MEZ MEZ 9
23 23 0 PB S1 6
24 24 0 PB S1 6
25 25 0 M13 M13 2
25 25 0 M11 M11 2
25 25 0 M9 M9 2
25 25 0 M7 M7 2
25 25 0 M5 M5 8
25 25 0 M3 M3 8
25 25 0 M1 M1 8
25 25 0 MEZ S1 8 1 0
26 26 0 CK  M6 2
26 26 0 M5 MEZ 8
26 26 0 PB S1 8 2 0
27 27 0 M13 M6 2
27 27 0 M5 M1 8
27 27 0 MEZ S1 8 1 0
28 28 26
29 29 27
30 30 0 CK  M6 2
30 30 0 M5 PB 8
31 31 0 PB S1 10 1 0
32 32 0 PB S1 10 2 0
33 33 19
34 34 20
35 35 20
36 36 20
37 37 0 MEZ MEZ 9
37 37 0 PB S1 6
38 38 0 PB S1 6
39 39 0 PB S1 6
40 40 0 M13 M6 1
40 40 0 M5 MEZ 1
41 41 0 M13 M13 1
41 41 0 M11 M11 1
41 41 0 M9 M9 1
41 41 0 M7 M7 1
41 41 0 M5 M5 1
41 41 0 M3 M3 1
41 41 0 M1 M1 1
42 42 0 M13 M13 1
42 42 0 M11 M11 1
42 42 0 M9 M9 1
42 42 0 M7 M7 1
42 42 0 M5 M5 1
42 42 0 M3 M3 1
42 42 0 M1 M1 1
43 43 42
44 44 41
45 45 0 M13 M13 2 1 0
45 45 0 M11 M11 2 1 0
45 45 0 M9 M9 2 1 0
45 45 0 M7 M7 2 1 0
45 45 0 M5 M5 8 1 0
45 45 0 M3 M3 8 1 0
45 45 0 M1 M1 8 1 0
46 46 0 M12 M12 5
46 46 0 M10 M10 5
46 46 0 M8 M8 5
46 46 0 M6 M6 5
46 46 0 M4 M4 10
46 46 0 M2 M2 10
46 46 0 MEZ MEZ 10
47 47 45
48 48 0 M12 M12 7 3 0
48 48 0 M10 M10 7 3 0
48 48 0 M8 M8 7 3 0
48 48 0 M6 M6 7 3 0
48 48 0 M4 M4 7 3 0
48 48 0 M2 M2 7 3 0
48 48 0 MEZ MEZ 7 3 0
49 49 0 M12 M12 1
49 49 0 M10 M10 1
49 49 0 M8 M8 1
49 49 0 M6 M6 1
49 49 0 M4 M4 1
49 49 0 M2 M2 1
49 49 0 MEZ MEZ 1
50 50 0 MEZ MEZ 1
51 51 46
52 52 46
53 53 46
54 54 0 PB S1 3 3 0
55 55 0 PB S1 8
56 56 0 PB S1 8 2 0
57 57 0 PB S1 6
58 58 0 PB S1 6
59 59 0 PB S1 6
60 60 0 PB S1 6
61 61 0 PB S1 6
62 62 0 PB S1 6

$ ---------------------------------------- Floor Assignments
1 1 0 M13 M13 1
1 1 0 M11 M11 1
1 1 0 M9  M9  1
1 1 0 M7  M7  1
1 1 0 M5  M5  1
1 1 0 M3  M3  1
1 1 0 M1  M1  1
1 1 0 PB  PB  1
1 1 0 S1  S1  1
2 2 0 M13 S1  1
3 3 0 M13 S1  1
4 4 0 M13 MEZ 1
5 5 0 M13 M13 1
5 5 0 M11 M11 1
5 5 0 M9  M9  1
5 5 0 M7  M7  1
5 5 0 M5  M5  1
5 5 0 M3  M3  1
5 5 0 M1  M1  1
6 6 0 M13 M13 1
6 6 0 M11 M11 1
6 6 0 M9  M9  1
6 6 0 M7  M7  1
6 6 0 M5  M5  1
```

```
6 6 0 M3  M3   1
6 6 0 M1  M1   1
6 6 0 MEZ S1   1
7 7 0 M13 S1   1
8 8 0 CM  S1   1
9 9 0 M12 M12  1
9 9 0 M10 M10  1
9 9 0 M8  M8   1
9 9 0 M6  M6   1
9 9 0 M4  M4   1
9 9 0 M2  M2   1
9 9 0 MSZ MSZ  1
10 10 0 MEZ MEZ 1
11 11 0 PB S1  1
12 12 0 PB S1  1
13 13 0 PB S1  1
14 14 0 PB S1  1

$ ------------------------------------------------- Brace Assignments
 1  M13 M13   7  5 2 3 3 1
 2  M12 M12  10  7 2 3 3 1
 3  M11 M11   7  5 2 3 3 1
 4  M10 M10  10  7 2 3 3 1
 5  M9  M9    7  5 2 3 3 1
 6  M8  M8   10  7 2 3 3 1
 7  M7  M7    7  5 1 3 3 1
 8  M6  M6   10  7 1 3 3 1
 9  M5  M5    7  5 1 3 3 1
10  M4  M4   10  7 1 3 3 1
11  M3  M3    7  5 1 3 3 1
12  M2  M2   10  7 1 3 3 1
13  M1  M1    7  5 1 3 3 1
14  MEZ MEZ  10  7 1 3 3 1
$
15  M13 M13   3  5 2 3 3 1
16  M12 M12   1  3 2 3 3 1
17  M11 M11   3  5 2 3 3 1
18  M10 M10   1  3 2 3 3 1
19  M9  M9    3  5 2 3 3 1
20  M8  M8    1  3 2 3 3 1
21  M7  M7    3  5 1 3 3 1
22  M6  M6    1  3 1 3 3 1
23  M5  M5    3  5 1 3 3 1
24  M4  M4    1  3 1 3 3 1
25  M3  M3    3  5 1 3 3 1
26  M2  M2    1  3 1 3 3 1
27  M1  M1    3  5 1 3 3 1
28  MEZ MEZ   1  3 1 3 3 1
$
29  M13 M13   4  6 2 3 3 1
30  M12 M12   2  4 2 3 3 1
31  M11 M11   4  6 2 3 3 1
32  M10 M10   2  4 2 3 3 1
33  M9  M9    4  6 2 3 3 1
34  M8  M8    2  4 2 3 3 1
35  M7  M7    4  6 1 3 3 1
36  M6  M6    2  4 1 3 3 1
37  M5  M5    4  6 1 3 3 1
38  M4  M4    2  4 1 3 3 1
39  M3  M3    4  6 1 3 3 1
40  M2  M2    2  4 1 3 3 1
41  M1  M1    4  6 1 3 3 1
42  MSZ MSZ   2  4 1 3 3 1
$
43  M13 M13   9  6 2 3 3 1
44  M12 M12  12  9 2 3 3 1
45  M11 M11   9  6 2 3 3 1
46  M10 M10  12  9 2 3 3 1
47  M9  M9    9  6 2 3 3 1
48  M8  M8   12  9 2 3 3 1
49  M7  M7    9  6 1 3 3 1
50  M6  M6   12  9 1 3 3 1
51  M5  M5    9  6 1 3 3 1
52  M4  M4   12  9 1 3 3 1
53  M3  M3    9  6 1 3 3 1
54  M2  M2   12  9 1 3 3 1
```

```
55  M1  M1    9  6 1 3 3 1
56  MEZ MEZ  12  9 1 3 3 1

$ ------------------------------------------------- Panel Assignments
 1 PB S1  1  3 2      $ Seccion 2: 20 cm
 2 PB S1  3  5 2      $ Seccion 1: 30 cm (Muro de retencion de calle)
 3 PB S1  5  7 2
 4 PB S1  7 10 2
 5 PB S1 10 13 2
 6 PB S1 13 19 2
 7 PB S1  2  4 2
 8 PB S1  4  6 2
 9 PB S1  6  9 2
10 PB S1  9 12 2
11 PB S1 12 18 2
12 PB S1 18 23 2
13 PB S1 34 27 2
14 PB S1 19 24 2
15 PB S1 24 25 2
16 PB S1 25 26 2
17 PB S1 26 27 2
18 PB S1 23 34 2
19 PB S1  1 35 1    $ Muro frontal
19 PB S1 35 36 1
19 PB S1 36 37 1
19 PB S1 37 38  1
19 PB S1 38  2 1

$ ------------------------------------------------- Beam Load Assignments
 1  1  0 S1  S1    1  2  3
 2  2  0 S1  S1    4  5  6
 3  3  0 S1  S1    7  8  9
 4  4  0 S1  S1   13 14 15
 5  5  0 S1  S1   10 11 12
 6  6  0 S1  S1   16 17 18
 7  7  0 S1  S1   28 29 30
 8  8  0 S1  S1   25 26 27
 9  9  0 S1  S1   22 23 24
10 10  0 S1  S1   19 20 21
11 11  0 S1  S1   19 20 21
12 12  0 S1  S1   19 20 21
13 13  0 S1  S1   31 32 33
14 14  0 S1  S1   31 32 33
17 17  0 S1  S1   19 20 21
19 19  0 S1  S1   37 38 39
20 20  0 S1  S1   37 38 39
21 21  0 S1  S1   37 38 39
22 22  0 S1  S1   37 38 39
23 23  0 S1  S1   37 38 39
28 28  0 S1  S1   43 44 45
33 33  0 S1  S1   37 38 39
34 34  0 S1  S1   37 38 39
35 35  0 S1  S1   37 38 39
54 54  0 S1  S1   37 38 39
55 55  0 S1  S1   40 41 42
 1  1  0 PB  PB    1  2  3
 2  2  0 PB  PB    4  5  6
 3  3  0 PB  PB    7  8  9
 4  4  0 PB  PB   13 14 15
 5  5  0 PB  PB   10 11 12
 6  6  0 PB  PB   16 17 18
 7  7  0 PB  PB   28 29 30
 8  8  0 PB  PB   25 26 27
 9  9  0 PB  PB   22 23 24
10 10  0 PB  PB   19 20 21
11 11  0 PB  PB   19 20 21
12 12  0 PB  PB   19 20 21
13 13  0 PB  PB   31 32 33
14 14  0 PB  PB   31 32 33
17 17  0 PB  PB   19 20 21
19 19  0 PB  PB   37 38 39
20 20  0 PB  PB   37 38 39
21 21  0 PB  PB   37 38 39
22 22  0 PB  PB   37 38 39
23 23  0 PB  PB   37 38 39
28 28  0 PB  PB   43 44 45
```

33	33	0	PB	PB	37	38	39
34	34	0	PB	PB	37	38	39
35	35	0	PB	PB	37	38	39
54	54	0	PB	PB	37	38	39
55	55	0	PB	PB	40	41	42
2	2	0	MBZ	MBZ	70	71	72
3	3	0	MBZ	MBZ	46	47	48
7	7	0	MBZ	MBZ	58	59	60
8	8	0	MBZ	MBZ	55	56	57
9	9	0	MBZ	MBZ	52	53	54
12	12	0	MBZ	MBZ	64	65	66
13	13	0	MBZ	MBZ	61	62	63
17	17	0	MBZ	MBZ	64	65	66
20	20	0	MBZ	MBZ	79	80	81
21	21	0	MBZ	MBZ	79	80	81
22	22	0	MBZ	MBZ	79	80	81
23	23	0	MBZ	MBZ	79	80	81
29	29	0	MBZ	MBZ	76	77	78
30	30	0	MBZ	MBZ	73	74	75
34	34	0	MBZ	MBZ	79	80	81
35	35	0	MBZ	MBZ	79	80	81
36	36	0	MBZ	MBZ	79	80	81
37	37	0	MBZ	MBZ	79	80	81
40	40	0	MBZ	MBZ	46	47	48
46	46	0	MBZ	MBZ	79	80	81
48	48	0	MBZ	MBZ	67	68	69
49	49	0	MBZ	MBZ	46	47	48
50	50	0	MBZ	MBZ	49	50	51
52	52	0	MBZ	MBZ	79	80	81
1	1	0	M1	M1	82	83	84
2	2	0	M1	M1	85	86	87
3	3	0	M1	M1	88	89	90
8	8	0	M1	M1	103	104	105
12	12	0	M1	M1	106	107	108
13	13	0	M1	M1	109	110	111
17	17	0	M1	M1	112	113	114
19	19	0	M1	M1	115	116	117
20	20	0	M1	M1	115	116	117
21	21	0	M1	M1	115	116	117
22	22	0	M1	M1	115	116	117
25	25	0	M1	M1	118	119	120
27	27	0	M1	M1	121	122	123
28	28	0	M1	M1	124	125	126
29	29	0	M1	M1	118	119	120
30	30	0	M1	M1	124	125	126
33	33	0	M1	M1	115	116	117
34	34	0	M1	M1	115	116	117
35	35	0	M1	M1	115	116	117
36	36	0	M1	M1	115	116	117
40	40	0	M1	M1	88	89	90
41	41	0	M1	M1	100	101	102
42	42	0	M1	M1	97	98	99
43	43	0	M1	M1	94	95	96
44	44	0	M1	M1	91	92	93
45	45	0	M1	M1	118	119	120
47	47	0	M1	M1	118	119	120
2	2	0	M2	M2	130	131	132
3	3	0	M2	M2	133	134	135
9	9	0	M2	M2	145	146	147
13	13	0	M2	M2	148	149	150
17	17	0	M2	M2	145	146	147
20	20	0	M2	M2	142	143	144
21	21	0	M2	M2	142	143	144
22	22	0	M2	M2	142	143	144
28	28	0	M2	M2	154	155	156
30	30	0	M2	M2	151	152	153
34	34	0	M2	M2	142	143	144
35	35	0	M2	M2	142	143	144
36	36	0	M2	M2	142	143	144
40	40	0	M2	M2	133	134	135
46	46	0	M2	M2	142	143	144
48	48	0	M2	M2	127	128	129
49	49	0	M2	M2	136	137	138
51	51	0	M2	M2	139	140	141
52	52	0	M2	M2	142	143	144
53	53	0	M2	M2	139	140	141

1	1	0	M3	M3	82	83	84
2	2	0	M3	M3	85	86	87
3	3	0	M3	M3	88	89	90
8	8	0	M3	M3	103	104	105
12	12	0	M3	M3	106	107	108
13	13	0	M3	M3	109	110	111
17	17	0	M3	M3	112	113	114
19	19	0	M3	M3	115	116	117
20	20	0	M3	M3	115	116	117
21	21	0	M3	M3	115	116	117
22	22	0	M3	M3	115	116	117
25	25	0	M3	M3	118	119	120
27	27	0	M3	M3	121	122	123
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29	29	0	M3	M3	118	119	120
30	30	0	M3	M3	124	125	126
33	33	0	M3	M3	115	116	117
34	34	0	M3	M3	115	116	117
35	35	0	M3	M3	115	116	117
36	36	0	M3	M3	115	116	117
40	40	0	M3	M3	88	89	90
41	41	0	M3	M3	100	101	102
42	42	0	M3	M3	97	98	99
43	43	0	M3	M3	94	95	96
44	44	0	M3	M3	91	92	93
45	45	0	M3	M3	118	119	120
47	47	0	M3	M3	118	119	120
2	2	0	M4	M4	130	131	132
3	3	0	M4	M4	133	134	135
9	9	0	M4	M4	145	146	147
13	13	0	M4	M4	148	149	150
17	17	0	M4	M4	145	146	147
20	20	0	M4	M4	142	143	144
21	21	0	M4	M4	142	143	144
22	22	0	M4	M4	142	143	144
28	28	0	M4	M4	154	155	156
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48	48	0	M4	M4	127	128	129
49	49	0	M4	M4	136	137	138
51	51	0	M4	M4	139	140	141
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53	53	0	M4	M4	139	140	141
1	1	0	M5	M5	82	83	84
2	2	0	M5	M5	85	86	87
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8	8	0	M5	M5	103	104	105
12	12	0	M5	M5	106	107	108
13	13	0	M5	M5	109	110	111
17	17	0	M5	M5	112	113	114
19	19	0	M5	M5	115	116	117
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21	21	0	M5	M5	115	116	117
22	22	0	M5	M5	115	116	117
25	25	0	M5	M5	118	119	120
27	27	0	M5	M5	121	122	123
28	28	0	M5	M5	124	125	126
29	29	0	M5	M5	118	119	120
30	30	0	M5	M5	124	125	126
33	33	0	M5	M5	115	116	117
34	34	0	M5	M5	115	116	117
35	35	0	M5	M5	115	116	117
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40	40	0	M5	M5	88	89	90
41	41	0	M5	M5	100	101	102
42	42	0	M5	M5	97	98	99
43	43	0	M5	M5	94	95	96
44	44	0	M5	M5	91	92	93
45	45	0	M5	M5	118	119	120
47	47	0	M5	M5	118	119	120
2	2	0	M6	M6	130	131	132
3	3	0	M6	M6	133	134	135

9	9	0	N6	N6	145	146	147
13	13	0	N6	N6	148	149	150
17	17	0	N6	N6	145	146	147
20	20	0	N6	N6	142	143	144
21	21	0	N6	N6	142	143	144
22	22	0	N6	N6	142	143	144
28	28	0	N6	N6	154	155	156
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48	48	0	N6	N6	127	128	129
49	49	0	N6	N6	136	137	138
51	51	0	N6	N6	139	140	141
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53	53	0	N6	N6	139	140	141
1	1	0	N7	N7	82	83	84
2	2	0	N7	N7	85	86	87
3	3	0	N7	N7	88	89	90
8	8	0	N7	N7	103	104	105
12	12	0	N7	N7	106	107	108
13	13	0	N7	N7	109	110	111
17	17	0	N7	N7	112	113	114
19	19	0	N7	N7	115	116	117
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22	22	0	N7	N7	115	116	117
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40	40	0	N7	N7	88	89	90
41	41	0	N7	N7	100	101	102
42	42	0	N7	N7	97	98	99
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44	44	0	N7	N7	91	92	93
45	45	0	N7	N7	118	119	120
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9	9	0	N8	N8	145	146	147
13	13	0	N8	N8	148	149	150
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21	21	0	N8	N8	142	143	144
22	22	0	N8	N8	142	143	144
28	28	0	N8	N8	154	155	156
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48	48	0	N8	N8	127	128	129
49	49	0	N8	N8	136	137	138
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53	53	0	N8	N8	139	140	141
1	1	0	N9	N9	82	83	84
2	2	0	N9	N9	85	86	87
3	3	0	N9	N9	88	89	90
8	8	0	N9	N9	103	104	105
12	12	0	N9	N9	106	107	108
13	13	0	N9	N9	109	110	111
17	17	0	N9	N9	112	113	114
19	19	0	N9	N9	115	116	117
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21	21	0	N9	N9	115	116	117
22	22	0	N9	N9	115	116	117
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41	41	0	N9	N9	100	101	102
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44	44	0	N9	N9	91	92	93
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9	9	0	N10	N10	145	146	147
13	13	0	N10	N10	148	149	150
17	17	0	N10	N10	145	146	147
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21	21	0	N10	N10	142	143	144
22	22	0	N10	N10	142	143	144
28	28	0	N10	N10	154	155	156
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36	36	0	N10	N10	142	143	144
40	40	0	N10	N10	133	134	135
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48	48	0	N10	N10	127	128	129
49	49	0	N10	N10	136	137	138
51	51	0	N10	N10	139	140	141
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53	53	0	N10	N10	139	140	141
1	1	0	N11	N11	82	83	84
2	2	0	N11	N11	85	86	87
3	3	0	N11	N11	88	89	90
8	8	0	N11	N11	103	104	105
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19	19	0	N11	N11	115	116	117
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27	27	0	N11	N11	121	122	123
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29	29	0	N11	N11	118	119	120
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33	33	0	N11	N11	115	116	117
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40	40	0	N11	N11	88	89	90
41	41	0	N11	N11	100	101	102
42	42	0	N11	N11	97	98	99
43	43	0	N11	N11	94	95	96
44	44	0	N11	N11	91	92	93
45	45	0	N11	N11	118	119	120
47	47	0	N11	N11	118	119	120
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9	9	0	N12	N12	145	146	147
13	13	0	N12	N12	148	149	150
17	17	0	N12	N12	145	146	147
20	20	0	N12	N12	142	143	144
21	21	0	N12	N12	142	143	144
22	22	0	N12	N12	142	143	144
28	28	0	N12	N12	154	155	156
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34	34	0	N12	N12	142	143	144
35	35	0	N12	N12	142	143	144
36	36	0	N12	N12		143	144

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 40 40   0  N12  N12  133  134  135
 46 46   0  N12  N12  142  143  144
 48 48   0  N12  N12  127  128  129
 49 49   0  N12  N12  136  137  138
 51 51   0  N12  N12  139  140  141
 52 52   0  N12  N12  142  143  144
 53 53   0  N12  N12  139  140  141
  1  1   0  N13  N13  157  158  159
  2  2   0  N13  N13  160  161  162
  3  3   0  N13  N13  163  164  165
  8  8   0  N13  N13  178  179  180
 12 12   0  N13  N13  184  185  186
 13 13   0  N13  N13  181  182  183
 17 17   0  N13  N13  187  188  189
 19 19   0  N13  N13  190  191  192
 20 20   0  N13  N13  190  191  192
 21 21   0  N13  N13  190  191  192
 22 22   0  N13  N13  190  191  192
 25 25   0  N13  N13  193  194  195
 27 27   0  N13  N13  199  200  201
 28 28   0  N13  N13  196  197  198
 29 29   0  N13  N13  193  194  195
 30 30   0  N13  N13  196  197  198
 33 33   0  N13  N13  190  191  192
 34 34   0  N13  N13  190  191  192
 35 35   0  N13  N13  190  191  192
 36 36   0  N13  N13  190  191  192
 40 40   0  N13  N13  163  164  165
 41 41   0  N13  N13  175  176  177
 42 42   0  N13  N13  172  173  174
 43 43   0  N13  N13  169  170  171
 44 44   0  N13  N13  166  167  168
 45 45   0  N13  N13  193  194  195
 47 47   0  N13  N13  193  194  195

$ ---------------------------------------- Floor Load Assignments
$ Frame Location Data
 1 0 0 0   EDIFICIO TISSOT
$ User Static Lateral Load Data
 N13   1 A  43722*.561   0   7.20   6.85   0
 N12   1 A  38884*.561   0   7.20   7.54   0
 N11   1 A  38257*.561   0   7.20   6.85   0
 N10   1 A  33700*.561   0   7.20   7.54   0
 N9    1 A  32791*.561   0   7.20   6.85   0
 N8    1 A  28515*.561   0   7.20   7.54   0
 N7    1 A  27326*.561   0   7.20   6.85   0
 N6    1 A  23331*.561   0   7.20   7.54   0
 N5    1 A  21961*.561   0   7.20   6.85   0
 N4    1 A  18146*.561   0   7.20   7.54   0
 N3    1 A  16396*.561   0   7.20   6.85   0
 N2    1 A  12961*.561   0   7.20   7.54   0
 N1    1 A  10930*.561   0   7.20   6.85   0
 MEZ   1 A  11004*.561   0   7.23  10.25   0
 PB    1 A   4074*.561   0   6.96   9.62   0
 S1    1 A   2037*.561   0   6.96   9.62   0
 N13   2 A   4829*.561   0   6.68  17.82   0
 N12   2 A   1554*.561   0   8.71  20.24   0
 N11   2 A   4226*.561   0   6.68  17.82   0
 N10   2 A   1347*.561   0   8.71  20.24   0
 N9    2 A   3622*.561   0   6.68  17.82   0
 N8    2 A   1140*.561   0   8.71  20.24   0
 N7    2 A   3018*.561   0   6.68  17.82   0
 N6    2 A    932*.561   0   8.71  20.24   0
 N5    2 A   2415*.561   0   6.68  17.82   0
 N4    2 A    725*.561   0   8.71  20.24   0
 N3    2 A   1811*.561   0   6.68  17.82   0
 N2    2 A    518*.561   0   8.71  20.24   0
 N1    2 A   1207*.561   0   6.68  17.82   0
$
 N13   1 B   0  43722*0.890   7.20   6.85   0
 N12   1 B   0  38884*0.890   7.20   7.54   0
 N11   1 B   0  38257*0.890   7.20   6.85   0
 N10   1 B   0  33700*0.890   7.20   7.54   0
 N9    1 B   0  32791*0.890   7.20   6.85   0
 N8    1 B   0  28515*0.890   7.20   7.54   0
 N7    1 B   0  27326*0.890   7.20   6.85   0
 N6    1 B   0  23331*0.890   7.20   7.54   0
 N5    1 B   0  21961*0.890   7.20   6.85   0
 N4    1 B   0  18146*0.890   7.20   7.54   0
 N3    1 B   0  16396*0.890   7.20   6.85   0
 N2    1 B   0  12961*0.890   7.20   7.54   0
 N1    1 B   0  10930*0.890   7.20   6.85   0
 MEZ   1 B   0  11004*0.890   7.23  10.25   0
 PB    1 B   0   4074*0.890   6.96   9.62   0
 S1    1 B   0   2037*0.890   6.96   9.62   0
 N13   2 B   0   4829*0.890   6.68  17.82   0
 N12   2 B   0   1554*0.890   8.71  20.24   0
 N11   2 B   0   4226*0.890   6.68  17.82   0
 N10   2 B   0   1347*0.890   8.71  20.24   0
 N9    2 B   0   3622*0.890   6.68  17.82   0
 N8    2 B   0   1140*0.890   8.71  20.24   0
 N7    2 B   0   3018*0.890   6.68  17.82   0
 N6    2 B   0    932*0.890   8.71  20.24   0
 N5    2 B   0   2415*0.890   6.68  17.82   0
 N4    2 B   0    725*0.890   8.71  20.24   0
 N3    2 B   0   1811*0.890   6.68  17.82   0
 N2    2 B   0    518*0.890   8.71  20.24   0
 N1    2 B   0   1207*0.890   6.68  17.82   0

$
 ANALISIS DINAMICO ESPECTRAL
 0 CQC 0.05
SISMOX      9.81 1 0
SISMOY      9.81 1 0
$
$ Load Case Data
 1 0 I
$ End of Input
```

ETABS

(Elementos Mecánicos)

E T A B S

Extended Three Dimensional Analysis of Building Systems

Version Pe.12

20 Aug 2098 22.40 46

PROGRAM ETABS/FILE:pmi5.FRM

ANALISIS
UNAM FACULTAD DE INGENIERIA M.K.S

LOAD CASE DEFINITION DATA

LOAD	LTYP	I	II	III	A	B	C	D1	D2
1	0	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

FOR DYNAMICS BY THE RESPONSE SPECTRUM METHOD

DYNAMIC 1 . . SPECTRAL DIRECTION 1
DYNAMIC 2 . SPECTRAL DIRECTION 2

FOR DYNAMICS BY THE TIME HISTORY METHOD

DYNAMIC 1 . . TIME HISTORY MODAL ANALYSIS
DYNAMIC 2 . . NOT USED

PROGRAM ETABS/FILE.pmi5.FRM

ANALISIS
UNAM FACULTAD DE INGENIERIA M.K.S

COLUMN FORCES AT LEVEL CM IN FRAME EDIFICIO TISSOT

COL ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
20	CASE 1	TOP	165.21	38.73	-147.17	106.08	-319.58	0.04
		BOTTOM	225.33		181.84			
21	CASE 1	TOP	-192.16	295.07	112.98	-81.94	803.85	0.04
		BOTTOM	-669.00		-444.17			
22	CASE 1	TOP	89.69	-244.79	233.03	-161.45	-547.24	0.04
		BOTTOM	-669.54		-267.71			
24	CASE 1	TOP	196.36	-132.59	56.35	-47.88	1.61	0.04
		BOTTOM	-214.89		-95.31			
25	CASE 1	TOP	66.64	-59.12	-64.21	32.78	75.76	0.04
		BOTTOM	-116.73		59.64			
26	CASE 1	TOP	-43.88	30.06	30.21	-10.37	-34.41	0.04
		BOTTOM	49.35		-2.62			

BEAM FORCES AT LEVEL CM IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
12	CASE 1	END-I	-167.95	-212.82	0.00	0.00	0.00	0.00
		1/4-PT	36.73	-212.82	0.00			
		1/2-PT	241.40	-212.82	0.00			
		3/4-PT	446.08	-212.82	0.00			
		END-J	650.76	-212.82	0.00			
13	CASE 1	END-I	762.80	544.14	0.00	0.00	0.00	0.02
		1/4-PT	511.55	544.14	0.00			
		1/2-PT	260.31	544.14	0.00			
		3/4-PT	9.06	544.14	0.00			
		END-J	-242.18	544.14	0.00			
16	CASE 1	END-I	-196.63	-105.15	0.00	0.00	0.00	0.03
		1/4-PT	-90.29	-105.15	0.00			
		1/2-PT	16.05	-105.15	0.00			
		3/4-PT	122.39	-105.15	0.00			
		END-J	228.74	-105.15	0.00			
17	CASE 1	END-I	109.19	87.51	0.00	0.00	0.00	-0.10
		1/4-PT	68.15	87.51	0.00			
		1/2-PT	27.10	87.51	0.00			
		3/4-PT	-13.94	87.51	0.00			
		END-J	-54.99	87.51	0.00			

PROGRAM ETABS/FILE:pmi5.FRM

ANALISIS
UNAM FACULTAD DE INGENIERIA M.K.S

BEAM FORCES AT LEVEL CM IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
26	CASE 1	END-I	-71.25	-106.76	0.00	0.00	0.00	-0.11
		1/4-PT	-35.41	-106.76	0.00			
		1/2-PT	0.44	-106.76	0.00			
		3/4-PT	36.29	-106.76	0.00			
		END-J	72.13	-106.76	0.00			
28	CASE 1	END-I	289.46	116.90	0.00	0.00	0.00	0.05
		1/4-PT	260.53	116.90	0.00			
		1/2-PT	111.60	116.90	0.00			
		3/4-PT	22.67	116.90	0.00			
		END-J	-66.26	116.90	0.00			
30	CASE 1	END-I	-178.01	-53.10	0.00	0.00	0.00	0.05
		1/4-PT	-126.26	-53.10	0.00			
		1/2-PT	-74.39	-53.10	0.00			
		3/4-PT	-22.58	-53.10	0.00			
		END-J	29.24	-53.10	0.00			

FLOOR FORCES AT LEVEL CM IN FRAME EDIFICIO TISSOT

BA.	OUTPUT	OUT	FORCE	FORCE
ID	ID	POINT	11	22
8	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00

ANALISIS
UNAM FACULTAD DE INGENIERIA M.K.S

COLUMN FORCES AT LEVEL N13 IN FRAME EDIFICIO TISSOT

COL ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
1	CASE 1	TOP	13967.83	-5929.22	738.94	-720.32	-9190.13	-2.34
		BOTTOM	-2397.52		-1695.11			
2	CASE 1	TOP	-13874.76	5920.36	736.02	-726.82	-9197.70	-2.34
		BOTTOM	2406.23		-1687.18			
3	CASE 1	TOP	14836.15	-10128.22	198.43	-3.86	-11582.91	-2.34
		BOTTOM	-13016.46		186.47			
4	CASE 1	TOP	-14850.27	10138.07	192.98	1.89	-11620.12	-2.34
		BOTTOM	13029.44		198.85			
5	CASE 1	TOP	15383.21	-11259.00	28.64	-36.00	-13480.96	-2.34
		BOTTOM	-15579.04		-83.01			
6	CASE 1	TOP	-15435.90	11290.56	20.99	-29.65	-13431.67	-2.34
		BOTTOM	15613.15		-70.98			
7	CASE 1	TOP	15360.92	-11216.47	126.12	-77.77	-12375.87	-2.34
		BOTTOM	-15566.88		-115.08			
9	CASE 1	TOP	-15458.41	11393.22	103.62	-62.65	-12421.18	-2.34
		BOTTOM	15625.45		-90.67			
10	CASE 1	TOP	14356.65	-9810.76	-804.58	467.97	-10341.26	-2.34
		BOTTOM	-12795.44		646.84			
12	CASE 1	TOP	-14181.28	9794.25	-823.10	480.72	-10136.68	-2.34
		BOTTOM	12752.91		667.85			
20	CASE 1	TOP	-2317.59	1092.54	-264.00	164.88	-3846.19	-0.01
		BOTTOM	1070.90		237.38			
21	CASE 1	TOP	-2426.28	1096.45	-15.86	20.38	-2683.76	-0.01
		BOTTOM	975.32		47.35			
22	CASE 1	TOP	-903.24	428.27	127.25	-95.99	-2398.95	-0.01
		BOTTOM	425.03		-179.47			
24	CASE 1	TOP	-80.22	44.46	-259.01	179.20	181.11	-0.01
		BOTTOM	57.66		308.60			
25	CASE 1	TOP	-138.74	94.32	-360.06	255.57	-685.51	-0.01
		BOTTOM	153.80		449.41			
26	CASE 1	TOP	-299.78	198.79	-316.53	209.14	-1060.31	-0.01
		BOTTOM	316.81		345.90			

ANALISIS
UNAM FACULTAD DE INGENIERIA M.K.S

BEAM FORCES AT LEVEL N13 IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
1	CASE 1	END-I	-15016.93	-7304.89	0.00	0.00	0.00	0.00
		1/4-PT	4504.02	-4044.39	0.00			
		1/2-PT	11590.31	792.11	0.00			
		3/4-PT	4587.51	4053.61	0.00			
		END-J	-14972.61	7315.11	0.00			
2	CASE 1	END-I	-18676.26	-8346.78	0.00	0.00	0.00	0.00
		1/4-PT	4742.12	-5000.78	0.00			
		1/2-PT	13621.46	1691.22	0.00			
		3/4-PT	4763.66	5037.22	0.00			
		END-J	-18681.36	8383.22	0.00			
3	CASE 1	END-I	-19853.24	-8831.99	0.00	0.00	0.00	0.00
		1/4-PT	4924.37	-5289.99	0.00			
		1/2-PT	14311.28	1794.01	0.00			
		3/4-PT	4922.05	5336.01	0.00			
		END-J	-19908.89	8878.01	0.00			
8	CASE 1	END-I	0.00	-1254.50	0.00	0.00	0.00	0.00
		1/4-PT	1270.18	-1254.50	0.00			
		1/2-PT	2540.36	-1254.50	0.00			
		3/4-PT	1270.18	1254.50	0.00			
		END-J	0.00	1254.50	0.00			
9	CASE 1	END-I	0.00	0.00	0.00	0.00	0.00	-0.36
		1/4-PT	0.00	0.00	0.00			
		1/2-PT	0.00	0.00	0.00			
		3/4-PT	0.00	0.00	0.00			
		END-J	0.00	0.00	0.00			
12	CASE 1	END-I	-452.12	-586.67	0.00	0.00	0.00	0.01
		1/4-PT	112.10	-586.67	0.00			
		1/2-PT	676.32	-586.67	0.00			
		3/4-PT	530.79	151.33	0.00			
		END-J	385.25	151.33	0.00			
13	CASE 1	END-I	490.18	-5.38	0.00	0.00	0.00	-0.17
		1/4-PT	440.22	221.79	0.00			
		1/2-PT	285.36	448.97	0.00			
		3/4-PT	25.61	676.14	0.00			
		END-J	-339.03	903.31	0.00			
16	CASE 1	END-I	-197.01	-99.02	0.00	0.00	0.00	0.01
		1/4-PT	-96.86	-99.02	0.00			
		1/2-PT	3.29	-99.02	0.00			
		3/4-PT	103.44	-99.02	0.00			
		END-J	203.59	-99.02	0.00			

ANALISIS
UNAM FACULTAD DE INGENIERIA M.K.S

BEAM FORCES AT LEVEL N13 IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
17	CASE 1	END-I	95.53	-144.06	0.00	0.00	0.00	0.00
		1/4-PT	129.27	0.17	0.00			
		1/2-PT	95.36	144.41	0.00			
		3/4-PT	-6.19	288.64	0.00			
		END-J	-175.41	432.87	0.00			
19	CASE 1	END-I	-713.80	-1461.84	0.00	0.00	0.00	-0.01
		1/4-PT	66.85	-767.44	0.00			
		1/2-PT	360.62	-73.04	0.00			
		3/4-PT	168.71	621.36	0.00			
		END-J	-509.29	1315.76	0.00			
20	CASE 1	END-I	-667.70	-1521.57	0.00	0.00	0.00	0.00
		1/4-PT	233.72	-729.97	0.00			
		1/2-PT	500.25	63.63	0.00			
		3/4-PT	131.91	857.23	0.00			
		END-J	-871.31	1650.83	0.00			
21	CASE 1	END-I	-912.78	-1656.42	0.00	0.00	0.00	0.00

		1/4-PT	[illegible]	-80.42	0.00			
		1/2-PT	470.42	-71.22	0.00			
		3/4-PT	210.40	722.38	0.00			
		END-J	-684.89	1515.98	0.00			
22	CASE 1	END-I	-818.46	-1638.52	0.00	0.00	0.00	0.00
		1/4-PT	172.88	-841.92	0.00			
		1/2-PT	526.98	-48.32	0.00			
		3/4-PT	250.20	745.28	0.00			
		END-J	-663.46	1538.88	0.00			
25	CASE 1	END-I	-145.37	2040.26	0.00	0.00	0.00	-0.03
		1/4-PT	-844.75	2177.59	0.00			
		1/2-PT	-1589.67	2314.92	0.00			
		3/4-PT	-2380.14	2452.24	0.00			
		END-J	-1216.15	2589.57	0.00			
26	CASE 1	END-I	-664.98	-278.53	0.00	0.00	0.00	-0.17
		1/4-PT	-551.14	-278.53	0.00			
		1/2-PT	-457.94	-278.53	0.00			
		3/4-PT	-364.42	-278.53	0.00			
		END-J	-270.90	-278.53	0.00			
27	CASE 1	END-I	47.24	1986.86	0.00	0.00	0.00	0.02
		1/4-PT	-657.41	2262.77	0.00			
		1/2-PT	-1453.57	2538.69	0.00			
		3/4-PT	-2341.23	2814.60	0.00			
		END-J	-3320.38	3090.52	0.00			

ANALISIS
UNAM FACULTAD DE INGENIERIA M.K.S

BEAM FORCES AT LEVEL N13 IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
28	CASE 1	END-I	-263.49	-116.10	0.00	0.00	0.00	0.05
		1/4-PT	-175.16	-116.10	0.00			
		1/2-PT	-86.84	-116.10	0.00			
		3/4-PT	1.48	-116.10	0.00			
		END-J	-454.07	642.90	0.00			
29	CASE 1	END-I	-0.36	0.00	0.00	0.00	0.00	0.00
		1/4-PT	-21.13	137.33	0.00			
		1/2-PT	-91.44	274.66	0.00			
		3/4-PT	-206.30	411.98	0.00			
		END-J	-364.69	549.31	0.00			
30	CASE 1	END-I	-23.96	-219.30	0.00	0.00	0.00	0.07
		1/4-PT	190.02	-219.30	0.00			
		1/2-PT	404.01	-219.30	0.00			
		3/4-PT	162.00	539.70	0.00			
		END-J	-364.62	539.70	0.00			
33	CASE 1	END-I	-710.01	-1459.19	0.00	0.00	0.00	0.01
		1/4-PT	68.38	-768.79	0.00			
		1/2-PT	360.69	-78.39	0.00			
		3/4-PT	166.92	624.01	0.00			
		END-J	-512.93	1318.41	0.00			
34	CASE 1	END-I	-664.56	-1521.69	0.00	0.00	0.00	0.00
		1/4-PT	239.41	-728.09	0.00			
		1/2-PT	500.44	65.51	0.00			
		3/4-PT	130.59	859.11	0.00			
		END-J	-676.14	1652.71	0.00			
35	CASE 1	END-I	-906.69	-1654.99	0.00	0.00	0.00	0.00
		1/4-PT	100.06	-861.39	0.00			
		1/2-PT	471.73	-67.79	0.00			
		3/4-PT	208.53	725.81	0.00			
		END-J	-689.56	1519.41	0.00			
36	CASE 1	END-I	-797.52	-1622.53	0.00	0.00	0.00	0.00

		1/4-PT	[illegible]06	-8.93	0.00			
		1/2-PT	528.11	-55.13	0.00			
		3/4-PT	239.59	758.27	0.00			
		END-J	-684.47	1551.87	0.00			
40	CASE 1	END-I	-18825.33	-8827.56	0.00	0.00	0.00	0.00
		1/4-PT	4939.31	-5285.56	0.00			
		1/2-PT	14311.29	1798.44	0.00			
		3/4-PT	4907.13	5340.44	0.00			
		END-J	-19938.73	8882.44	0.00			

ANALISIS
UNAM FACULTAD DE INGENIERIA M.K.S

BEAM FORCES AT LEVEL N13 IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
41	CASE 1	END-I	-17916.05	-8378.99	0.00	0.00	0.00	0.00
		1/4-PT	-11472.64	-7985.24	0.00			
		1/2-PT	-5339.30	-7591.49	0.00			
		3/4-PT	-246.58	-5126.74	0.00			
		END-J	3671.93	-5032.99	0.00			
42	CASE 1	END-I	3871.90	-4327.99	0.00	0.00	0.00	0.00
		1/4-PT	6062.95	-4327.99	0.00			
		1/2-PT	8253.99	-4327.99	0.00			
		3/4-PT	9880.53	-2556.99	0.00			
		END-J	11175.00	-2556.99	0.00			
43	CASE 1	END-I	11175.00	-2556.99	0.00	0.00	0.00	0.00
		1/4-PT	11711.62	-1059.99	0.00			
		1/2-PT	12248.24	-1059.99	0.00			
		3/4-PT	12784.86	-1059.99	0.00			
		END-J	12533.38	711.01	0.00			
44	CASE 1	END-I	12533.41	1469.42	0.00	0.00	0.00	0.00
		1/4-PT	9558.93	2256.92	0.00			
		1/2-PT	3258.93	4815.42	0.00			
		3/4-PT	-6669.03	7373.92	0.00			
		END-J	-17803.70	8161.42	0.00			
45	CASE 1	END-I	0.00	-705.00	38.79	21.39	-967.48	-0.03
		1/4-PT	466.79	-332.31	19.54			
		1/2-PT	598.16	40.38	0.28			
		3/4-PT	394.11	413.07	-18.97			
		END-J	-145.37	785.76	-38.22			
47	CASE 1	END-I	0.00	-798.40	38.79	21.39	-2385.32	0.03
		1/4-PT	514.95	-385.71	19.54			
		1/2-PT	694.28	-13.02	0.28			
		3/4-PT	638.29	459.67	-18.97			
		END-J	46.88	732.36	-38.22			

BRACE FORCES AT LEVEL N13 IN FRAME EDIFICIO TISSOT

BRC ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
1	CASE 1	TOP	0.00	0.00	0.00	0.00	1676.18	-0.10
		BOTTOM	0.00		0.00			
15	CASE 1	TOP	0.00	0.00	0.00	0.00	-321.49	0.18
		BOTTOM	0.00		0.00			

ANALISIS
UNAM FACULTAD DE INGENIERIA M.K.S

BRACE FORCES AT LEVEL N13 IN FRAME EDIFICIO TISSOT

BRC ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
29	CASE 1	TOP	0.00	0.00	0.00	0.00	-236.56	-0.14
		BOTTOM	0.00		0.00			
43	CASE 1	TOP	0.00	0.00	0.00	0.00	1454.67	0.10
		BOTTOM	0.00		0.00			

FLOOR FORCES AT LEVEL N13 IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT ID	OUTPUT POINT	FORCE 11	FORCE 22
1	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00
2	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00
3	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00
4	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00
5	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00
6	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00
7	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00
8	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00

ANALISIS
UNAM FACULTAD DE INGENIERIA M.K.S

COLUMN FORCES AT LEVEL N12 IN FRAME EDIFICIO TISSOT

COL ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
1	CASE 1	TOP	-7396.72	-1274.52	1256.34	-695.30	-16157.85	-3.42
		BOTTOM	-6857.43		-853.58			
2	CASE 1	TOP	2405.44	1256.10	1262.92	-699.05	-16176.09	-3.42
		BOTTOM	6801.79		-857.31			
3	CASE 1	TOP	-6432.92	-6260.19	-349.76	121.21	-22836.93	-3.42
		BOTTOM	-10782.55		-10.84			
4	CASE 1	TOP	-6447.19	6258.74	-348.23	118.53	-22836.70	-3.42
		BOTTOM	10764.35		-20.64			
5	CASE 1	TOP	9163.46	-2148.85	10.88	7.31	-28546.79	-3.42
		BOTTOM	-13245.89		33.54			
6	CASE 1	TOP	-9214.87	8176.83	35.80	4.86	-28546.88	-3.42
		BOTTOM	13271.40		30.88			
7	CASE 1	TOP	9144.91	-8133.85	9.90	-11.38	-23796.31	-3.42
		BOTTOM	-13223.17		-25.38			
9	CASE 1	TOP	-9233.44	8191.85	7.48	-8.49	-23794.79	-3.42
		BOTTOM	13294.15		-18.84			
10	CASE 1	TOP	6527.35	-6522.11	-449.38	333.33	-21414.07	-3.42
		BOTTOM	-11408.46		583.83			
12	CASE 1	TOP	-6514.52	6498.76	-450.72	335.17	-21276.13	-3.42
		BOTTOM	11357.08		588.81			
20	CASE 1	TOP	-953.29	1047.52	-125.36	172.63	-2194.10	0.00
		BOTTOM	2280.05		310.06			
21	CASE 1	TOP	-898.81	1084.69	-89.77	29.25	-2690.34	0.00
		BOTTOM	2465.32		30.96			
22	CASE 1	TOP	-521.39	370.09	144.57	-94.50	-4325.41	0.00
		BOTTOM	624.44		-148.51			
24	CASE 1	TOP	-79.73	54.83	-138.36	204.60	-1860.84	0.00
		BOTTOM	99.34		319.67			
25	CASE 1	TOP	-181.83	121.84	-471.55	292.75	-2385.74	0.00
		BOTTOM	196.08		435.69			
26	CASE 1	TOP	-323.11	226.24	-376.81	248.79	-2594.36	0.00
		BOTTOM	378.61		411.20			

ANALISIS
UNAM FACULTAD DE INGENIERIA M.K.S

BEAM FORCES AT LEVEL N12 IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
2	CASE 1	END-I	-20296.29	-8548.55	0.00	0.00	0.00	0.00
		1/4-PT	3686.01	-5121.56	0.00			
		1/2-PT	12719.36	1732.45	0.00			
		3/4-PT	3706.15	5159.45	0.00			
		END-J	-20307.40	8586.45	0.00			
3	CASE 1	END-I	-25910.65	-16985.58	0.00	0.00	0.00	0.00
		1/4-PT	4908.27	-6579.57	0.00			
		1/2-PT	16582.23	2232.43	0.00			
		3/4-PT	4899.99	6630.43	0.00			
		END-J	-25990.65	11044.42	0.00			
9	CASE 1	END-I	0.00	-392.06	0.00	0.00	0.00	0.02
		1/4-PT	150.70	-196.03	0.00			
		1/2-PT	200.93	0.00	0.00			
		3/4-PT	150.70	196.03	0.00			
		END-J	0.00	392.06	0.00			
12	CASE 1	END-I	-509.51	-315.85	0.00	0.00	0.00	-0.01
		1/4-PT	-205.74	-315.85	0.00			
		1/2-PT	98.02	-315.85	0.00			
		3/4-PT	401.78	-315.85	0.00			
		END-J	705.54	-315.85	0.00			
13	CASE 1	END-I	668.13	-444.40	0.00	0.00	0.00	0.04
		1/4-PT	768.31	14.79	0.00			
		1/2-PT	655.47	473.99	0.00			
		3/4-PT	330.60	933.18	0.00			
		END-J	-206.29	1392.37	0.00			

16	CASE 1	END-I	-140.33	-74.02	0.00	0.00	0.00	0.05
		1/4-PT	-65.47	-74.02	0.00			
		1/2-PT	9.38	-74.02	0.00			
		3/4-PT	84.24	-74.02	0.00			
		END-J	159.10	-74.02	0.00			
17	CASE 1	END-I	134.47	-146.89	0.00	0.00	0.00	-0.08
		1/4-PT	181.29	32.52	0.00			
		1/2-PT	103.96	211.93	0.00			
		3/4-PT	-37.53	391.34	0.00			
		END-J	-263.16	570.75	0.00			
20	CASE 1	END-I	-913.34	-1776.71	0.00	0.00	0.00	0.01
		1/4-PT	152.19	-887.11	0.00			
		1/2-PT	506.04	2.49	0.00			
		3/4-PT	148.20	892.09	0.00			
		END-J	-921.31	1781.69	0.00			

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BEAM FORCES AT LEVEL M12 IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
21	CASE 1	END-I	-998.68	-1849.76	0.00	0.00	0.00	0.00
		1/4-PT	125.29	-969.16	0.00			
		1/2-PT	537.58	-70.56	0.00			
		3/4-PT	238.19	819.04	0.00			
		END-J	-772.88	1708.64	0.00			
22	CASE 1	END-I	-886.25	-1789.40	0.00	0.00	0.00	-0.01
		1/4-PT	189.43	-899.80	0.00			
		1/2-PT	553.43	-10.20	0.00			
		3/4-PT	205.75	879.80	0.00			
		END-J	-853.62	1769.00	0.00			
26	CASE 1	END-I	2098.27	1967.94	0.00	0.00	0.00	-0.04
		1/4-PT	1437.50	1967.94	0.00			
		1/2-PT	776.72	1967.94	0.00			
		3/4-PT	115.95	1967.94	0.00			
		END-J	-544.83	1967.94	0.00			
27	CASE 1	END-I	-0.02	392.06	0.00	0.00	0.00	0.00
		1/4-PT	-130.04	392.06	0.00			
		1/2-PT	-260.06	392.06	0.00			
		3/4-PT	-390.08	392.06	0.00			
		END-J	-520.10	392.06	0.00			
28	CASE 1	END-I	1611.65	615.02	0.00	0.00	0.00	0.04
		1/4-PT	1143.67	615.02	0.00			
		1/2-PT	675.78	615.02	0.00			
		3/4-PT	207.90	615.02	0.00			
		END-J	-936.42	1559.02	0.00			
29	CASE 1	END-I	0.02	392.06	0.00	0.00	0.00	0.00
		1/4-PT	-130.00	392.06	0.00			
		1/2-PT	-260.01	392.06	0.00			
		3/4-PT	-390.03	392.06	0.00			
		END-J	-520.05	392.06	0.00			
30	CASE 1	END-I	516.04	-47.05	0.00	0.00	0.00	0.09
		1/4-PT	561.95	-47.05	0.00			
		1/2-PT	607.86	-47.05	0.00			
		3/4-PT	86.61	896.95	0.00			
		END-J	-788.61	896.95	0.00			
34	CASE 1	END-I	-913.71	-1776.86	0.00	0.00	0.00	-0.01
		1/4-PT	151.94	-887.26	0.00			
		1/2-PT	506.91	2.34	0.00			
		3/4-PT	148.19	891.94	0.00			
		END-J	-921.20	1781.54	0.00			

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BEAM FORCES AT LEVEL M12 IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
35	CASE 1	END-I	+993.06	+1846.44	0.00	0.00	0.00	0.00
		1/4-PT	128.25	-956.84	0.00			
		1/2-PT	537.93	-67.24	0.00			
		3/4-PT	235.84	822.36	0.00			
		END-J	-777.89	1711.96	0.00			
36	CASE 1	END-I	-866.42	-1776.96	0.00	0.00	0.00	0.01
		1/4-PT	199.30	-867.36	0.00			
		1/2-PT	553.24	2.25	0.00			
		3/4-PT	195.70	891.85	0.00			
		END-J	-873.62	1781.45	0.00			
40	CASE 1	END-I	-25871.21	-10979.73	0.00	0.00	0.00	0.00
		1/4-PT	6927.98	+6573.73	0.00			
		1/2-PT	16582.23	2238.27	0.00			
		3/4-PT	4880.27	6644.27	0.00			
		END-J	-26030.09	11050.27	0.00			
46	CASE 1	END-I	4737.50	2219.50	0.00	0.00	0.00	-0.79
		1/4-PT	3626.10	2719.98	0.00			
		1/2-PT	2289.52	3220.38	0.00			
		3/4-PT	727.76	3720.78	0.00			
		END-J	-1059.19	4221.18	0.00			
48	CASE 1	END-I	0.00	-8578.02	0.00	0.00	0.00	0.00
		1/4-PT	21642.13	-4269.02	0.00			
		1/2-PT	32307.74	621.98	0.00			
		3/4-PT	24641.79	4288.98	0.00			
		END-J	0.00	8597.98	0.00			
49	CASE 1	END-I	-28088.36	-8856.41	0.00	0.00	0.00	0.00
		1/4-PT	3825.66	-4965.91	0.00			
		1/2-PT	12471.89	1127.59	0.00			
		3/4-PT	3744.70	5018.09	0.00			
		END-J	-28282.00	8908.59	0.00			
51	CASE 1	END-I	-1891.55	-6867.73	0.00	0.00	0.00	0.80
		1/4-PT	-190.25	-6742.73	0.00			
		1/2-PT	1479.81	-6617.73	0.00			
		3/4-PT	3118.62	-6492.73	0.00			
		END-J	4726.17	-6367.73	0.00			
52	CASE 1	END-I	4726.17	2210.30	0.00	0.00	0.00	0.80
		1/4-PT	3618.95	2710.70	0.00			
		1/2-PT	2286.54	3211.10	0.00			
		3/4-PT	728.96	3711.50	0.00			
		END-J	-1053.81	4211.90	0.00			

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BEAM FORCES AT LEVEL M12 IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
53	CASE 1	END-I	-1890.89	-6878.39	0.00	0.00	0.00	-0.78
		1/4-PT	-186.92	-6753.39	0.00			
		1/2-PT	1485.81	-6628.39	0.00			
		3/4-PT	3127.28	-6503.39	0.00			
		END-J	4737.50	-6378.39	0.00			

BRACE FORCES AT LEVEL N12 IN FRAME EDIFICIO TISSOT

BRC ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
2	CASE 1	TOP	0.00	0.00	0.00	0.00	-3349.28	0.02
		BOTTOM	0.00		0.00			
16	CASE 1	TOP	0.00	0.00	0.00	0.00	-5898.72	-0.09
		BOTTOM	0.00		0.00			
30	CASE 1	TOP	0.00	0.00	0.00	0.00	-5931.46	0.08
		BOTTOM	0.00		0.00			
44	CASE 1	TOP	0.00	0.00	0.00	0.00	-3810.68	-0.01
		BOTTOM	0.00		0.00			

FLOOR FORCES AT LEVEL N12 IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT ID	OUTPUT POINT	FORCE 11	FORCE 22
2	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00
3	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00
4	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00
7	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00
8	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00
9	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00

ANALISIS
UNAM FACULTAD DE INGENIERIA M.K.S

COLUMN FORCES AT LEVEL N11 IN FRAME EDIFICIO TISSOT

COL ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
1	CASE 1	TOP	8791.80	-3500.69	332.12	-493.02	-29643.03	-3.29
		BOTTOM	-834.83		-1196.96			
2	CASE 1	TOP	-8802.97	3512.20	330.28	-492.64	-29696.11	-3.29
		BOTTOM	855.58		-1197.62			
3	CASE 1	TOP	9227.70	-7319.11	171.34	41.48	-35200.76	-3.29
		BOTTOM	-10899.86		309.31			
4	CASE 1	TOP	-9272.08	7350.71	170.55	45.30	-35244.01	-3.29
		BOTTOM	10912.39		311.07			
5	CASE 1	TOP	10707.53	-8914.64	46.83	-39.48	-41598.55	-3.29
		BOTTOM	-13[illegible].74		-[illegible].48			
6	CASE 1	TOP	-10771.97	8964.00	43.15	-36.52	-41598.48	-3.29
		BOTTOM	13876.03		-70.10			
7	CASE 1	TOP	10694.93	-6906.02	125.38	-80.84	-38715.66	-3.29
		BOTTOM	-13791.91		-129.32			
9	CASE 1	TOP	-10787.59	8973.62	113.12	-72.14	-38718.21	-3.29
		BOTTOM	13889.87		-110.62			
10	CASE 1	TOP	9796.69	-7552.02	-473.87	325.19	-35868.34	-3.29
		BOTTOM	-10972.37		534.69			
12	CASE 1	TOP	-9606.54	7465.14	-485.07	233.16	-35632.66	-3.29
		BOTTOM	11022.59		548.21			
20	CASE 1	TOP	-1851.76	697.77	-268.64	167.47	-5848.91	0.01
		BOTTOM	932.66		250.77			
21	CASE 1	TOP	-2162.84	1037.02	-4.01	14.98	-7135.78	0.01
		BOTTOM	1054.26		39.60			
22	CASE 1	TOP	-336.97	237.05	142.83	-104.12	-6094.26	0.01
		BOTTOM	398.22		-180.11			
24	CASE 1	TOP	-9.74	16.01	-220.37	156.27	-2291.96	0.01
		BOTTOM	39.91		274.61			
25	CASE 1	TOP	-100.03	79.87	-357.22	257.05	-3565.80	0.01
		BOTTOM	147.68		456.96			
26	CASE 1	TOP	-268.90	191.04	-334.97	223.40	-4117.24	0.01
		BOTTOM	321.65		372.62			

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BEAM FORCES AT LEVEL N11 IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
1	CASE 1	END-I	-15055.03	-7042.65	0.00	0.00	0.00	0.00
		1/4-PT	3779.97	-3866.15	0.00			
		1/2-PT	10536.56	739.35	0.00			
		3/4-PT	3810.67	3895.85	0.00			
		END-J	-15014.79	7062.35	0.00			
2	CASE 1	END-I	-21378.38	-9158.18	0.00	0.00	0.00	0.00
		1/4-PT	4315.48	-5486.18	0.00			
		1/2-PT	18053.78	1857.82	0.00			
		3/4-PT	4326.80	5529.82	0.00			
		END-J	-21408.63	9201.82	0.00			
3	CASE 1	END-I	-25696.65	-10983.94	0.00	0.00	0.00	0.00
		1/4-PT	5116.75	-6577.94	0.00			
		1/2-PT	16785.21	2234.06	0.00			
		3/4-PT	5097.86	6640.06	0.00			
		END-J	-25798.69	11049.06	0.00			
8	CASE 1	END-I	0.00	-1566.65	0.00	0.00	0.00	0.01
		1/4-PT	1576.10	-1566.65	0.00			
		1/2-PT	3152.21	-1566.65	0.00			
		3/4-PT	1581.91	1564.35	0.00			
		END-J	0.00	1564.35	0.00			
9	CASE 1	END-I	0.00	0.00	0.00	0.00	0.00	-0.45
		1/4-PT	0.00	0.00	0.00			
		1/2-PT	0.00	0.00	0.00			
		3/4-PT	0.00	0.00	0.00			
		END-J	0.00	0.00	0.00			
12	CASE 1	END-I	-573.85	-766.58	0.00	0.00	0.00	0.01

	1/4-PT	1[illegible].69	-76[illegible].98	.00			
	1/2-PT	785.73	-766.58	0.00			
	3/4-PT	586.49	211.42	0.00			
	END-J	383.16	211.42	0.00			
13 CASE 1	END-I	349.28	-216.11	0.00	0.00	0.00	-0.21
	1/4-PT	397.68	26.47	0.00			
	1/2-PT	315.60	319.05	0.00			
	3/4-PT	103.05	601.63	0.00			
	END-J	-239.98	884.21	0.00			
14 CASE 1	END-I	-142.55	-74.41	0.00	0.00	0.00	0.03
	1/4-PT	-67.30	-74.41	0.00			
	1/2-PT	7.95	-74.41	0.00			
	3/4-PT	83.20	-74.41	0.00			
	END-J	158.45	-74.41	0.00			

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BEAM FORCES AT LEVEL N11 IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
17	CASE 1	END-I	132.38	-154.26	0.00	0.00	0.00	0.01
		1/4-PT	162.66	25.16	0.00			
		1/2-PT	108.79	204.57	0.00			
		3/4-PT	-29.24	383.98	0.00			
		END-J	-251.42	563.39	0.00			
19	CASE 1	END-I	-631.60	-1641.70	0.00	0.00	0.00	-0.01
		1/4-PT	65.16	-863.30	0.00			
		1/2-PT	377.03	-84.90	0.00			
		3/4-PT	164.02	693.50	0.00			
		END-J	-593.87	1471.50	0.00			
20	CASE 1	END-I	-720.89	-1688.95	0.00	0.00	0.00	0.00
		1/4-PT	274.43	-798.35	0.00			
		1/2-PT	558.08	90.25	0.00			
		3/4-PT	130.04	979.85	0.00			
		END-J	-1009.68	1869.45	0.00			
21	CASE 1	END-I	-1038.49	-1670.43	0.00	0.00	0.00	0.00
		1/4-PT	102.01	-980.83	0.00			
		1/2-PT	530.83	-91.23	0.00			
		3/4-PT	247.98	798.37	0.00			
		END-J	-746.56	1687.97	0.00			
22	CASE 1	END-I	-905.69	-1807.55	0.00	0.00	0.00	0.00
		1/4-PT	184.60	-917.95	0.00			
		1/2-PT	563.12	-28.35	0.00			
		3/4-PT	229.96	861.25	0.00			
		END-J	-814.89	1750.85	0.00			
25	CASE 1	END-I	-174.49	2532.29	0.00	0.00	0.00	-0.04
		1/4-PT	-1042.00	2703.12	0.00			
		1/2-PT	-1947.34	2873.94	0.00			
		3/4-PT	-2948.76	3044.76	0.00			
		END-J	-3986.82	3215.58	0.00			
26	CASE 1	END-I	-124.72	356.71	0.00	0.00	0.00	-0.19
		1/4-PT	-244.49	356.71	0.00			
		1/2-PT	-364.27	356.71	0.00			
		3/4-PT	-484.04	356.71	0.00			
		END-J	-603.82	356.71	0.00			
27	CASE 1	END-I	25.10	2484.69	0.00	0.00	0.00	0.01
		1/4-PT	-855.83	2828.02	0.00			
		1/2-PT	-1850.61	3171.16	0.00			
		3/4-PT	-2959.26	3514.70	0.00			
		END-J	-4181.77	3858.03	0.00			

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BEAM FORCES AT LEVEL N11 IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
28	CASE 1	END-I	154.81	111.87	0.00	0.00	0.00	0.00
		1/4-PT	69.71	111.87	0.00			
		1/2-PT	-15.39	111.87	0.00			
		3/4-PT	-100.50	111.87	0.00			
		END-J	-862.04	1056.87	0.00			
29	CASE 1	END-I	-0.45	0.00	0.00	0.00	0.00	0.00
		1/4-PT	-28.77	170.82	0.00			
		1/2-PT	-113.75	341.64	0.00			
		3/4-PT	-255.37	512.47	0.00			
		END-J	-453.65	683.29	0.00			
30	CASE 1	END-I	484.55	-50.85	0.00	0.00	0.00	0.07
		1/4-PT	534.17	-50.85	0.00			
		1/2-PT	583.79	-50.85	0.00			
		3/4-PT	66.26	893.15	0.00			
		END-J	-805.25	893.15	0.00			
33	CASE 1	END-I	-833.14	-1642.67	0.00	0.00	0.00	0.01
		1/4-PT	44.29	-864.27	0.00			
		1/2-PT	576.84	-85.87	0.00			
		3/4-PT	164.51	692.53	0.00			
		END-J	-592.69	1470.93	0.00			
34	CASE 1	END-I	-722.07	-1689.76	0.00	0.00	0.00	0.00
		1/4-PT	273.99	-800.16	0.00			
		1/2-PT	558.19	89.44	0.00			
		3/4-PT	130.80	979.04	0.00			
		END-J	-1008.27	1868.64	0.00			
35	CASE 1	END-I	-1035.11	-1868.56	0.00	0.00	0.00	0.00
		1/4-PT	103.90	-978.96	0.00			
		1/2-PT	531.23	-89.36	0.00			
		3/4-PT	246.88	800.24	0.00			
		END-J	-749.16	1689.84	0.00			
36	CASE 1	END-I	-888.47	-1796.82	0.00	0.00	0.00	0.00
		1/4-PT	193.14	-907.22	0.00			
		1/2-PT	563.07	-17.62	0.00			
		3/4-PT	221.33	871.98	0.00			
		END-J	-832.10	1761.58	0.00			
40	CASE 1	END-I	-25656.76	-10978.03	0.00	0.00	0.00	0.00
		1/4-PT	5136.70	-6572.03	0.00			
		1/2-PT	16785.21	2239.97	0.00			
		3/4-PT	5077.52	6645.97	0.00			
		END-J	-25838.58	11051.97	0.00			

ANALISIS
UNAM FACULTAD DE INGENIERIA M.K.S

BEAM FORCES AT LEVEL N11 IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
41	CASE 1	END-I	-22352.96	-9921.33	0.00	0.00	0.00	0.00
		1/4-PT	-14694.95	-9527.58	0.00			
		1/2-PT	-7347.02	-9133.83	0.00			
		3/4-PT	-1217.91	-8527.08	0.00			
		END-J	3775.00	-6143.33	0.00			
42	CASE 1	END-I	3774.96	-5261.62	0.00	0.00	0.00	0.00
		1/4-PT	6440.17	-5261.62	0.00			
		1/2-PT	9105.38	-5261.62	0.00			

		3/4-PT	11[illegible] 39	-30[illegible].62	.00			
		END-J	12618.33	-3061.62	0.00			
43	CASE 1	END-I	12618.33	-3061.62	0.00	0.00	0.00	0.00
		1/4-PT	13225.64	-1199.62	0.00			
		1/2-PT	13832.94	-1199.62	0.00			
		3/4-PT	14440.25	-1199.62	0.00			
		END-J	14067.22	1003.38	0.00			
44	CASE 1	END-I	14067.25	1937.41	0.00	0.00	0.00	0.00
		1/4-PT	10395.67	2724.91	0.00			
		1/2-PT	2840.19	5715.41	0.00			
		3/4-PT	-7607.66	8705.91	0.00			
		END-J	-21939.83	9493.41	0.00			
45	CASE 1	END-I	0.00	-878.71	28.32	15.74	192.57	-0.04
		1/4-PT	582.23	-415.12	14.15			
		1/2-PT	747.22	48.47	-0.02			
		3/4-PT	494.99	512.06	-14.19			
		END-J	-174.48	975.65	-28.36			
47	CASE 1	END-I	0.00	-936.03	28.32	15.74	288.02	0.03
		1/4-PT	632.01	-470.44	14.15			
		1/2-PT	846.78	-6.85	-0.02			
		3/4-PT	644.33	456.74	-14.19			
		END-J	24.64	920.33	-28.36			

BRACE FORCES AT LEVEL N11 IN FRAME EDIFICIO TISSOT

BRC ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
3	CASE 1	TOP	0.00	0.00	0.00	0.00	-655.33	-0.01
		BOTTOM	0.00		0.00			
17	CASE 1	TOP	0.00	0.00	0.00	0.00	-2375.12	0.04
		BOTTOM	0.00		0.00			

ANALISIS
UNAM FACULTAD DE INGENIERIA M.K.S

BRACE FORCES AT LEVEL N11 IN FRAME EDIFICIO TISSOT

BRC ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
31	CASE 1	TOP	0.00	0.00	0.00	0.00	-2403.33	-0.04
		BOTTOM	0.00		0.00			
45	CASE 1	TOP	0.00	0.00	0.00	0.00	-770.56	0.01
		BOTTOM	0.00		0.00			

FLOOR FORCES AT LEVEL N11 IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT ID	OUTPUT POINT	FORCE 11	FORCE 22
1	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00
2	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00
3	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00
4	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00
5	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00
6	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00
7	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00
8	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00

ANALISIS
UNAM FACULTAD DE INGENIERIA M.K.S

COLUMN FORCES AT LEVEL N10 IN FRAME EDIFICIO TISSOT

COL ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
1	CASE 1	TOP	-834.06	-1843.51	1222.11	-670.81	-384.5.52	-3.73
		BOTTOM	-7286.35		-620.56			
2	CASE 1	TOP	854.81	1822.09	1231.36	-677.27	-36497.63	-3.73
		BOTTOM	7232.11		-629.02			
3	CASE 1	TOP	7829.33	-6957.02	-445.69	166.25	-46396.05	-3.73
		BOTTOM	-11302.46		65.92			
4	CASE 1	TOP	-7841.97	6958.27	-439.45	180.75	-46444.43	-3.73
		BOTTOM	11293.28		57.06			
5	CASE 1	TOP	10329.92	-8729.28	30.13	1.93	-56705.45	-3.73
		BOTTOM	-13679.60		36.11			
6	CASE 1	TOP	-10378.06	8761.87	33.78	-1.04	-56731.55	-3.73
		BOTTOM	13717.09		30.58			
7	CASE 1	TOP	10311.61	-8713.01	79.15	-50.46	-56427.28	-3.73
		BOTTOM	-13649.17		-77.38			
9	CASE 1	TOP	-10596.36	8778.15	74.89	-47.92	-56312.24	-3.73
		BOTTOM	13743.54		-73.74			
10	CASE 1	TOP	7672.29	-7083.28	-494.83	351.05	-46909.53	-3.73
		BOTTOM	-11806.73		594.08			
12	CASE 1	TOP	-7873.80	7080.00	-498.07	352.94	-46746.27	-3.73
		BOTTOM	11596.20		596.57			
20	CASE 1	TOP	-823.07	898.48	-213.68	156.41	-8454.98	-0.01
		BOTTOM	1963.53		271.42			
21	CASE 1	TOP	-755.96	427.93	-65.93	34.05	-7212.01	-0.01
		BOTTOM	2122.00		39.07			
22	CASE 1	TOP	-473.02	583.95	132.02	-82.62	-8048.74	-0.01
		BOTTOM	562.72		-124.85			
24	CASE 1	TOP	-49.08	83.81	-276.44	179.09	-4075.47	-0.01
		BOTTOM	54.25		260.30			

25	CASE 1	TOP	-140.18	93.61	-424.90	256.18	-5228.33	-0.01
		BOTTOM	150.16		386.53			
26	CASE 1	TOP	-282.40	192.28	-326.87	208.64	-5594.61	-0.01
		BOTTOM	311.97		333.90			

ANALISIS
UNAM FACULTAD DE INGENIERIA M.K.S

BEAM FORCES AT LEVEL N10 IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
2	CASE 1	END-I	-20101.74	-8546.47	0.00	0.00	0.00	0.00
		1/4-PT	3876.57	-5119.47	0.00			
		1/2-PT	12961.87	1734.53	0.00			
		3/4-PT	3881.65	5161.53	0.00			
		END-J	-20138.92	8588.53	0.00			
3	CASE 1	END-I	-26742.19	-10983.19	0.00	0.00	0.00	0.00
		1/4-PT	5068.66	-6577.19	0.00			
		1/2-PT	16734.56	2231.81	0.00			
		3/4-PT	5044.26	6640.81	0.00			
		END-J	-25854.44	11046.81	0.00			
9	CASE 1	END-I	0.00	-392.06	0.00	0.00	0.00	0.03
		1/4-PT	150.70	-196.03	0.00			
		1/2-PT	200.93	0.00	0.00			
		3/4-PT	150.70	196.03	0.00			
		END-J	0.00	392.06	0.00			
12	CASE 1	END-I	-496.38	-309.82	0.00	0.00	0.00	-0.01
		1/4-PT	-197.42	-309.82	0.00			
		1/2-PT	100.55	-309.82	0.00			
		3/4-PT	398.51	-309.82	0.00			
		END-J	696.48	-309.82	0.00			
13	CASE 1	END-I	659.99	-452.97	0.00	0.00	0.00	0.04
		1/4-PT	763.13	8.22	0.00			
		1/2-PT	654.25	465.42	0.00			
		3/4-PT	333.34	924.61	0.00			
		END-J	-199.60	1383.80	0.00			
16	CASE 1	END-I	-153.69	-79.76	0.00	0.00	0.00	0.05
		1/4-PT	-73.02	-79.76	0.00			
		1/2-PT	7.64	-79.76	0.00			
		3/4-PT	88.31	-79.76	0.00			
		END-J	168.97	-79.76	0.00			
17	CASE 1	END-I	113.85	-171.98	0.00	0.00	0.00	-0.08
		1/4-PT	152.45	7.43	0.00			
		1/2-PT	106.89	186.84	0.00			
		3/4-PT	-22.82	366.25	0.00			
		END-J	-236.69	545.66	0.00			
20	CASE 1	END-I	-891.16	-1758.38	0.00	0.00	0.00	0.01
		1/4-PT	159.70	-868.78	0.00			
		1/2-PT	498.98	20.82	0.00			
		3/4-PT	126.38	910.42	0.00			
		END-J	-957.80	1800.02	0.00			

ANALISIS
UNAM FACULTAD DE INGENIERIA M.K.S

BEAM FORCES AT LEVEL N10 IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
21	CASE 1	END-I	-1044.96	-1878.49	0.00	0.00	0.00	0.00
		1/4-PT	100.00	+966.89	0.00			
		1/2-PT	535.27	+99.29	0.00			
		3/4-PT	258.86	790.31	0.00			
		END-J	-729.23	1679.91	0.00			
22	CASE 1	END-I	-926.04	-1818.81	0.00	0.00	0.00	-0.01
		1/4-PT	173.17	-929.21	0.00			
		1/2-PT	560.70	-39.61	0.00			
		3/4-PT	236.55	849.99	0.00			
		END-J	-799.28	1739.59	0.00			
26	CASE 1	END-I	1818.23	1703.75	0.00	0.00	0.00	-0.05
		1/4-PT	1246.17	1703.75	0.00			
		1/2-PT	674.10	1703.75	0.00			
		3/4-PT	102.03	1703.75	0.00			
		END-J	-470.03	1703.75	0.00			
27	CASE 1	END-I	-0.03	392.06	0.00	0.00	0.00	0.00
		1/4-PT	-130.04	392.06	0.00			
		1/2-PT	-260.06	392.06	0.00			
		3/4-PT	-390.08	392.06	0.00			
		END-J	-520.10	392.06	0.00			
28	CASE 1	END-I	1494.73	559.96	0.00	0.00	0.00	0.04
		1/4-PT	1068.73	559.96	0.00			
		1/2-PT	642.72	559.96	0.00			
		3/4-PT	216.72	559.96	0.00			
		END-J	-885.71	1503.96	0.00			
29	CASE 1	END-I	0.03	392.06	0.00	0.00	0.00	0.00
		1/4-PT	-129.99	392.06	0.00			
		1/2-PT	-260.01	392.06	0.00			
		3/4-PT	-390.03	392.06	0.00			
		END-J	-520.05	392.06	0.00			
30	CASE 1	END-I	429.93	-78.63	0.00	0.00	0.00	0.02
		1/4-PT	506.66	-78.63	0.00			
		1/2-PT	583.39	-78.63	0.00			
		3/4-PT	92.97	865.37	0.00			
		END-J	-751.42	865.37	0.00			
34	CASE 1	END-I	-893.30	-1759.81	0.00	0.00	0.00	-0.01
		1/4-PT	158.71	-870.21	0.00			
		1/2-PT	499.04	19.39	0.00			
		3/4-PT	127.68	908.99	0.00			
		END-J	-955.35	1798.59	0.00			

ANALISIS
UNAM FACULTAD DE INGENIERIA M.K.S

BEAM FORCES AT LEVEL N10 IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
35	CASE 1	END-I	-1044.00	-1876.80	0.00	0.00	0.00	0.00
		1/4-PT	101.65	-987.26	0.00			
		1/2-PT	535.62	-97.66	0.00			
		3/4-PT	257.91	791.94	0.00			
		END-J	-731.48	168.54	0.00			
36	CASE 1	END-I	-910.57	-1809.12	0.00	0.00	0.00	0.01
		1/4-PT	180.88	-916.52	0.00			
		1/2-PT	560.66	-29.92	0.00			
		3/4-PT	228.75	859.68	0.00			
		END-J	-814.84	1749.28	0.00			
40	CASE 1	END-I	-25700.62	-10977.03	0.00	0.00	0.00	0.00
		1/4-PT	5089.45	-6571.03	0.00			
		1/2-PT	18734.56	2410.97	0.00			
		3/4-PT	5023.47	6646.97	0.00			
		END-J	-25896.02	11052.97	0.00			
46	CASE 1	END-I	6862.78	2396.46	0.00	0.00	0.00	-0.71

		-PT	30 ..78	24 ..80	..00			
		1/2-PT	2255.61	3397.26	0 00			
		3/4-PT	614.25	3897.66	0.00			
		END-J	-1252.29	4398.06	0.00			
48	CASE 1	END-I	0.00	-8578.02	0 00	0.00	0.00	0.00
		1/4-PT	21642.13	-4269.02	0.00			
		1/2-PT	42307.74	621 98	0.00			
		3/4-PT	24641.70	4288.98	0.00			
		END-J	0.00	8597.98	0.00			
49	CASE 1	END-I	-19922.11	-8854.17	0.00	0.00	0.00	0.00
		1/4-PT	3984.38	-4963.67	0.00			
		1/2-PT	12623.07	1129.82	0.00			
		3/4-PT	3888.35	5020.33	0.00			
		END-J	-20145 89	8910.83	0.00			
51	CASE 1	END-I	-1577.77	-6682.49	0.00	0.00	0.00	0.78
		1/4-PT	77.23	-6557.49	0.00			
		1/2-PT	1700.98	-6432 49	0.00			
		3/4-PT	3293.48	-6307.49	0.00			
		END-J	4854.72	-6182 49	0.00			
52	CASE 1	END-I	4854.72	2395.53	0.00	0.00	0.00	0.78
		1/4-PT	3664.14	2895.93	0.00			
		1/2-PT	2248.38	3396.33	0.00			
		3/4-PT	607.44	3896.73	0.00			
		END-J	-1258.68	4397.13	0.00			

ANALISIS
UNAM FACULTAD DE INGENIERIA M.K.S

BEAM FORCES AT LEVEL N10 IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
53	CASE 1	END-I	-1588.74	-6701.52	0.00	0.00	0.00	-0.77
		1/4-PT	71.02	-6576.52	0.00			
		1/2-PT	1699.52	-6451.52	0.00			
		3/4-PT	3296.77	-6326.52	0.00			
		END-J	4862.78	-6201.52	0.00			

BRACE FORCES AT LEVEL N10 IN FRAME EDIFICIO TISSOT

BRC ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
4	CASE 1	TOP	0.00	0 00	0.00	0.00	-5255.71	0.00
		BOTTOM	0.00		0.00			
18	CASE 1	TOP	0.00	0.00	0.00	0.00	-7598.80	-0.06
		BOTTOM	0.00		0.00			
32	CASE 1	TOP	0.00	0.00	0.00	0.00	-7677.31	0.06
		BOTTOM	0.00		0.00			
46	CASE 1	TOP	0.00	0.00	0.00	0.00	-5640.03	0.01
		BOTTOM	0.00		0.00			

FLOOR FORCES AT LEVEL N10 IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT ID	OUTPUT POINT	FORCE 11	FORCE 22
2	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00
3	CASE 1	NODE I	0.00	0 00
		NODE J	0.00	0.00
		NODE K	0.00	0 00
		NODE L	0.00	0.00
4	CASE 1	NODE I	0.00	0 00
		NODE J	0 00	0.00
		NODE K	0 00	0.00
		NODE L	0 00	0.00
7	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00
8	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0 00
		NODE L	0.00	0.00
9	CASE 1	NODE I	0.00	0.00
		NODE J	0 00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00

ANALISIS
UNAM FACULTAD DE INGENIERIA M.K.S

COLUMN FORCES AT LEVEL N9 IN FRAME EDIFICIO TISSOT

COL ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
1	CASE 1	TOP	8495.20	-3360.60	309.19	-436.06	-521.7.55	-3 10
		BOTTOM	-746.46		-1074.25			
2	CASE 1	TOP	-8522.73	3378.35	303.86	-443 92	-51261.74	-3.10
		BOTTOM	767.74		-1072.94			
3	CASE 1	TOP	8874.71	-7181.00	140.03	95.69	-59169.54	-3.10
		BOTTOM	-10763.02		436 82			
4	CASE 1	TOP	-8928.61	7180.43	136.04	98.17	-59265.80	-3 10
		BOTTOM	10817.58		440.51			
5	CASE 1	TOP	10415.16	-8766 60	65.72	-44 20	-67745 09	-3.10
		BOTTOM	-13692 98		-71.38			
6	CASE 1	TOP	-10486 06	8821.26	60.12	-40.77	-67730.68	-3 10
		BOTTOM	13772.43		-66.14			
7	CASE 1	TOP	10405.73	-8758 34	189.48	-116.50	-69331 55	-3.10
		BOTTOM	-13679.71		-171.95			
9	CASE 1	TOP	-10496.61	8829.53	176.07	-107 61	-69285.15	-3 10
		BOTTOM	13785.69		-157.72			
10	CASE 1	TOP	9498.09	-7400.33	418.32	302.51	-62647.08	-3 10
		BOTTOM	-10852.82		519.92			
12	CASE 1	TOP	-9198.41	7312.66	436 63	310 57	-62335 80	-3.10
		BOTTOM	10911.96		532 61			
20	CASE 1	TOP	-2257.86	1039.53	466.12	274.58	-8047 44	0.01
		BOTTOM	906.22		385 50			
21	CASE 1	TOP	-2667.50	1228 06	-2 94	25.53	-11398.21	0.01
		BOTTOM	1141.30		75.20			
22	CASE 1	TOP	-396.06	267.75	294.44	-189.57	-9865.80	0.01
		BOTTOM	434.36		-321.52			
24	CASE 1	TOP	-73.12	60.50	-361.04	253.21	-4645.88	0.01
		BOTTOM	114.54		441.05			
25	CASE 1	TOP	-191.86	143.71	-580.76	404.24	-.561 89	0.01

	b. .OM	88		6...63				
26 CASE 1	TOP	-376.85	251.75	-528.24	336.55	-7153.71		0.01
	BOTTOM	413.30		537.76				

ANALISIS
UNAM FACULTAD DE INGENIERIA M.K.S

BEAM FORCES AT LEVEL N9 IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
1	CASE 1	END-I	-19082.94	-7041.09	0.00	0.00	0.00	0.00
		1/4-PT	3746.80	-3884.59	0.00			
		1/2-PT	10498.12	740.91	0.00			
		3/4-PT	3766.96	3897.41	0.00			
		END-J	-19063.76	7052.91	0.00			
2	CASE 1	END-I	-21412.48	-9156.48	0.00	0.00	0.00	0.00
		1/4-PT	6275.68	-5486.48	0.00			
		1/2-PT	14008.24	1859.52	0.00			
		3/4-PT	6275.54	5531.52	0.00			
		END-J	-21465.61	9203.52	0.00			
3	CASE 1	END-I	-25723.70	-10982.32	0.00	0.00	0.00	0.00
		1/4-PT	5084.23	-6578.32	0.00			
		1/2-PT	16747.20	2235.68	0.00			
		3/4-PT	5053.97	6641.68	0.00			
		END-J	-25847.66	11047.68	0.00			
8	CASE 1	END-I	0.00	-1556.65	0.00	0.00	0.00	0.01
		1/4-PT	1576.10	-1556.65	0.00			
		1/2-PT	3152.21	-1556.65	0.00			
		3/4-PT	1583.91	1564.35	0.00			
		END-J	0.00	1564.35	0.00			
9	CASE 1	END-I	0.00	0.00	0.00	0.00	0.00	-0.44
		1/4-PT	0.00	0.00	0.00			
		1/2-PT	0.00	0.00	0.00			
		3/4-PT	0.00	0.00	0.00			
		END-J	0.00	0.00	0.00			
12	CASE 1	END-I	-749.08	-771.93	0.00	0.00	0.00	0.02
		1/4-PT	-16.50	-771.93	0.00			
		1/2-PT	716.08	-771.93	0.00			
		3/4-PT	582.05	146.07	0.00			
		END-J	443.42	146.07	0.00			
13	CASE 1	END-I	393.91	-140.84	0.00	0.00	0.00	-0.18
		1/4-PT	595.45	133.97	0.00			
		1/2-PT	275.59	408.78	0.00			
		3/4-PT	28.34	683.58	0.00			
		END-J	-340.31	958.39	0.00			
16	CASE 1	END-I	-147.44	-76.77	0.00	0.00	0.00	0.03
		1/4-PT	-69.91	-76.77	0.00			
		1/2-PT	7.62	-76.77	0.00			
		3/4-PT	85.14	-76.77	0.00			
		END-J	162.67	-76.77	0.00			

ANALISIS
UNAM FACULTAD DE INGENIERIA M.K.S

BEAM FORCES AT LEVEL N9 IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
17	CASE 1	END-I	119.80	-159.37	0.00	0.00	0.00	0.01
		1/4-PT	152.50	19.48	0.00			
		1/2-PT	101.58	198.33	0.00			
		3/4-PT	...1.99	...1.18	0.00			
		END-J	-251.15	556.03	0.00			
19	CASE 1	END-I	-766.19	-1595.41	0.00	0.00	0.00	-0.01
		1/4-PT	78.16	-817.01	0.00			
		1/2-PT	377.62	-38.61	0.00			
		3/4-PT	132.21	739.79	0.00			
		END-J	-659.08	1519.29	0.00			
20	CASE 1	END-I	-666.70	-1655.01	0.00	0.00	0.00	0.00
		1/4-PT	301.47	-765.41	0.00			
		1/2-PT	557.96	124.19	0.00			
		3/4-PT	102.77	1013.79	0.00			
		END-J	-1064.10	1903.39	0.00			
21	CASE 1	END-I	-1109.32	-1913.42	0.00	0.00	0.00	0.00
		1/4-PT	65.57	-1021.82	0.00			
		1/2-PT	528.78	-134.22	0.00			
		3/4-PT	280.32	755.38	0.00			
		END-J	-679.83	1644.98	0.00			
22	CASE 1	END-I	-954.50	-1837.91	0.00	0.00	0.00	0.00
		1/4-PT	159.99	-948.31	0.00			
		1/2-PT	662.80	-58.71	0.00			
		3/4-PT	253.92	830.89	0.00			
		END-J	-766.63	1720.49	0.00			
25	CASE 1	END-I	-207.71	2541.52	0.00	0.00	0.00	-0.06
		1/4-PT	-1076.90	2711.97	0.00			
		1/2-PT	-2002.49	2882.42	0.00			
		3/4-PT	-2984.68	3052.86	0.00			
		END-J	-4022.87	3223.31	0.00			
26	CASE 1	END-I	-50.91	493.64	0.00	0.00	0.00	-0.16
		1/4-PT	-213.62	493.64	0.00			
		1/2-PT	-376.33	493.64	0.00			
		3/4-PT	-539.04	493.64	0.00			
		END-J	-701.76	493.64	0.00			
27	CASE 1	END-I	-23.37	2498.15	0.00	0.00	0.00	0.03
		1/4-PT	-906.69	2840.73	0.00			
		1/2-PT	-1903.36	3183.31	0.00			
		3/4-PT	-3013.40	3525.89	0.00			
		END-J	-4236.79	3868.47	0.00			

ANALISIS
UNAM FACULTAD DE INGENIERIA M.K.S

BEAM FORCES AT LEVEL N9 IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
28	CASE 1	END-I	503.32	229.49	0.00	0.00	0.00	0.04
		1/4-PT	130.14	229.49	0.00			
		1/2-PT	-43.04	229.49	0.00			
		3/4-PT	-216.22	229.49	0.00			
		END-J	-1045.37	1173.49	0.00			
29	CASE 1	END-I	-8.44	0.00	0.00	0.00	0.00	0.00
		1/4-PT	-28.64	170.45	0.00			
		1/2-PT	-113.24	340.89	0.00			
		3/4-PT	-254.24	511.34	0.00			
		END-J	-451.64	681.78	0.00			
30	CASE 1	END-I	486.86	-8.40	0.00	0.00	0.00	0.05
		1/4-PT	495.00	-8.40	0.00			
		1/2-PT	503.14	-8.40	0.00			
		3/4-PT	-41.20	935.60	0.00			
		END-J	-948.38	935.60	0.00			
33	CASE 1	END-I	-768.21	-1596.71	0.00	0.00	0.00	0.01
		1/4-PT	77.04	-818.31	0.00			
		1/2-PT	377.42	-39.91	0.00			

		3/4-PT	132 91	756.49	0.00			
		END-J	-656 48	1516.89	0.00			
34	CASE 1	END-I	-668.47	-1656.16	0 00	0.00	0.00	0.00
		1/4-PT	300.91	-706.56	0.00			
		1/2-PT	558.02	123.04	0.00			
		3/4-PT	193.75	1012.64	0.00			
		END-J	-1062.20	1902.24	0 00			
35	CASE 1	END-I	-1106.29	-1911.75	0.00	0.00	0.00	0.00
		1/4-PT	67 27	-1022.15	0.00			
		1/2-PT	529 15	-132.55	0.00			
		3/4-PT	279 35	757 05	0.00			
		END-J	-682 11	1646 65	0.00			
36	CASE 1	END-I	-938.58	-1827 93	0.00	0.00	0 00	0.00
		1/4-PT	167.93	-938.33	0.00			
		1/2-PT	562.75	-48.73	0.00			
		3/4-PT	245.90	840.87	0 00			
		END-J	-782.63	1730.47	0 00			
40	CASE 1	END-I	-25684 24	-10976.47	0.00	0.00	0.00	0.00
		1/4-PT	5103 95	-6570.47	0.00			
		1/2-PT	16747 20	2241.53	0.00			
		3/4-PT	5034 24	8647.53	0.00			
		END-J	-25887 11	11053.53	0.00			

ANALISIS
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BEAM FORCES AT LEVEL N9 IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
41	CASE 1	END-I	-22346.73	-9906.02	0.00	0.00	0.00	0.00
		1/4-PT	-11700.78	-9512.27	0.00			
		1/2-PT	-7364.90	-9118.52	0.00			
		3/4-PT	-1287.84	-8521.77	0.00			
		END-J	3733.02	-6128.02	0 00			
42	CASE 1	END-I	3732.96	-5258.54	0.00	0.00	0.00	0.00
		1/4-PT	6395.09	-5258.54	0.00			
		1/2-PT	9057.21	-5258.54	0.00			
		3/4-PT	11017.16	-3055.54	0.00			
		END-J	12564.02	-3055.54	0.00			
43	CASE 1	END-I	12564.02	-3055.54	0.00	0.00	0 00	0.00
		1/4-PT	13168.25	-1193.54	0.00			
		1/2-PT	13772.48	-1193.54	0.00			
		3/4-PT	14376.71	-1193.54	0.00			
		END-J	14000.61	1009.46	0.00			
44	CASE 1	END-I	14000.64	1930.02	0 00	0.00	0.00	0.00
		1/4-PT	10920.70	2717.52	0.00			
		1/2-PT	2796.84	5708.02	0 00			
		3/4-PT	-7639.58	8698.52	0.00			
		END-J	-21959.91	9486.02	0.00			
45	CASE 1	END-I	0.00	-869.48	19.25	10.65	-161.96	-0.06
		1/4-PT	573.92	-405.89	9.67			
		1/2-PT	730 61	57.70	0 09			
		3/4-PT	470 07	521.29	-9.49			
		END-J	-207.71	984.88	-19.08			
47	CASE 1	END-I	0.00	-920.56	19.25	10.65	-597.93	0 03
		1/4-PT	619.89	-456.97	9.67			
		1/2-PT	822.55	6 62	0.09			
		3/4-PT	607.98	470.21	-9.49			
		END-J	-23.82	933.80	-19.08			

BRACE FORCES AT LEVEL N9 IN FRAME EDIFICIO TISSOT

BRC ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
5	CASE 1	TOP	0.00	0 00	0.00	0.00	-1865 67	0.00
		BOTTOM	0.00		0.00			
19	CASE 1	TOP	0 00	0.00	0 00	0.00	-4167.62	0.03
		BOTTOM	0.00		0.00			

ANALISIS
UNAM FACULTAD DE INGENIERIA M K.S

BRACE FORCES AT LEVEL N9 IN FRAME EDIFICIO TISSOT

BRC ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
33	CASE 1	TOP	0.00	0.00	0.00	0.00	-2190.46	+0 03
		BOTTOM	0.00		0.00			
47	CASE 1	TOP	0.00	0.00	0 00	0.00	-1981 38	0.00
		BOTTOM	0.00		0.00			

FLOOR FORCES AT LEVEL N9 IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT ID	OUTPUT POINT	FORCE 11	FORCE 22
1	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00
2	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00
3	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00
4	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00
5	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00
6	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00
7	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00
8	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00

ANALISIS
UNAM FACULTAD DE INGENIERIA M.K.S

COLUMN FORCES AT LEVEL N8 IN FRAME EDIFICIO TISSOT

COL ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
1	CASE 1	TOP	-745.68	-1872.50	1149.60	-648.43	-57767.45	-3.43
		BOTTOM	-7299.42		-631.57			
2	CASE 1	TOP	766.97	1857 27	1156.60	-652.76	-57927.11	-3.43
		BOTTOM	7267.40		-636.45			
3	CASE 1	TOP	7913.09	-6995.68	-528.21	224 35	-70448.54	-3.43
		BOTTOM	-11325.03		88.05			
4	CASE 1	TOP	-7931.98	7006.43	-524 34	221.02	-70564.60	-3.43
		BOTTOM	11335.71		82.78			
5	CASE 1	TOP	10400.30	-8762 43	73.59	-30.71	-82920.29	-3 43
		BOTTOM	-13696.39		-21.64			
6	CASE 1	TOP	-10452.71	8801.18	76.36	-32.68	-82972.20	-3.43
		BOTTOM	13750.54		-24.99			
7	CASE 1	TOP	10383.07	-8747.93	171.81	-119.43	-77035.40	-3.43
		BOTTOM	-13673.72		-198.60			
9	CASE 1	TOP	-10469.93	8815 70	166.91	-116.10	-76883.59	-3.43
		BOTTOM	13773.24		-193.17			
10	CASE 1	TOP	7748.24	-7124 58	-445.28	309.60	-73644.12	-3 43
		BOTTOM	-11844 35		514.92			
12	CASE 1	TOP	-7949.08	7118.11	-448.93	312.14	-73399.90	-3.43
		BOTTOM	11625.72		519.18			
20	CASE 1	TOP	-819 99	1022.28	-314 19	248.12	-6445.92	-0.02
		BOTTOM	2350.58		455 37			
21	CASE 1	TOP	-805.52	1096.45	-116.45	56.00	-10989.93	-0.02
		BOTTOM	2595.10		57 24			
22	CASE 1	TOP	-561.57	380.08	237.57	-153.57	-11844.64	-0.02
		BOTTOM	617.23		-238.72			
24	CASE 1	TOP	-126.23	86.88	-458.23	283.13	-6735.35	-0.02
		BOTTOM	143.23		438.55			
25	CASE 1	TOP	-243.56	164 17	-658.13	406.39	-8430.67	-0.02
		BOTTOM	265.63		629.06			
26	CASE 1	TOP	-365.11	259.33	-482.43	321.61	-8777.66	-0.02
		BOTTOM	439.24		536.24			

BEAM FORCES AT LEVEL N8 IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
2	CASE 1	END-I	-26078.46	-8564.71	0.00	0.00	0.00	0.00
		1/4-PT	3892.89	-5117.71	0.00			
		1/2-PT	12973.24	1736.30	0.00			
		3/4-PT	3887.07	5163.29	0.00			
		END-J	-20139.45	8590.29	0.00			
3	CASE 1	END-I	-25723.31	-10981.80	0.00	0.00	0.00	0.00
		1/4-PT	5082.84	-6575.80	0.00			
		1/2-PT	16744.05	2236.20	0.00			
		3/4-PT	5049.06	6642.20	0.00			
		END-J	-25854.34	11048 20	0.00			
9	CASE 1	END-I	0.00	-392.06	0.00	0.00	0.00	0.03
		1/4-PT	100.70	-196.03	0 00			
		1/2-PT	200.93	0.00	0.00			
		3/4-PT	150.70	196.03	0.00			
		END-J	0.00	392.06	0 00			
12	CASE 1	END-I	-746.65	-409.00	0 00	0.00	0.00	0.00
		1/4-PT	-388.50	-409.00	0 00			
		1/2-PT	29.66	-409.00	0 00			
		3/4-PT	417.81	-409.00	0.00			
		END-J	805.97	-409.00	0.00			
13	CASE 1	END-I	686.97	-276.43	0.00	0 00	0 00	0 04
		1/4-PT	710.84	170.13	0 00			
		1/2-PT	534.19	616.69	0.00			
		3/4-PT	157.02	1063.25	0.00			
		END-J	-420.60	1509.81	0.00			
16	CASE 1	END-I	-151.43	-78.95	0 00	0.00	0.00	0 03
		1/4-PT	-71 70	-78.95	0 00			
		1/2-PT	8.03	-78.95	0 00			
		3/4-PT	87 76	-78.95	0 00			
		END-J	167 49	-78.95	0.00			
17	CASE 1	END-I	113 24	-152.25	0.00	0.00	0 00	-0.06
		1/4-PT	142.62	26.60	0 00			
		1/2-PT	88.37	205.45	0.00			
		3/4-PT	-49.51	384.30	0 00			
		END-J	-271.01	563.15	0.00			
20	CASE 1	END-I	-868.43	-1739.44	0 00	0.00	0.00	0.01
		1/4-PT	167.28	-869.84	0 00			
		1/2-PT	491.31	39 76	0.00			
		3/4-PT	103.65	929.36	0 00			
		END-J	-995.68	1818.96	0.00			

BEAM FORCES AT LEVEL N8 IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
21	CASE 1	END-I	-1130 75	-1929.64	0 00	0 00	0.00	0.00
		1/4-PT	57.12	-1040.04	0.00			
		1/2-PT	533.31	-150.44	0.00			
		3/4-PT	297.82	739.16	0.00			
		END-J	-649.34	1628.76	0.00			
22	CASE 1	END-I	-993.84	-1862.54	0.00	0 00	0.00	-0.01
		1/4-PT	140.35	-972.94	0.00			
		1/2-PT	562 85	-83 34	0.00			
		3/4-PT	273.68	806.26	0.00			
		END-J	-727.17	1695.86	0.00			
26	CASE 1	END-I	1838.99	2010 53	0.00	0.00	0.00	-0.02
		1/4-PT	1176 24	2010.53	0.00			
		1/2-PT	513 53	2010.53	0 00			
		3/4-PT	-149 17	2010.53	0.00			
		END-J	-811.88	2010 53	0.00			
27	CASE 1	END-I	-0 03	392.06	0 00	0 00	0 00	0.00
		1/4-PT	-129.76	392.06	0 00			
		1/2-PT	-259.49	392.06	0 00			
		3/4-PT	-389.23	392.06	0 00			
		END-J	-518.96	392.06	0.00			
28	CASE 1	END-I	1655.56	794.01	0.00	0.00	0.00	0 02
		1/4-PT	1056.38	794.01	0.00			
		1/2-PT	457.20	794.01	0.00			
		3/4-PT	-141 98	794.01	0 00			
		END-J	-1597.13	1738.01	0.00			
29	CASE 1	END-I	0 03	392.06	0 00	0 00	0 00	0.00

		1/4-PT	-1.. .71	3.. 00	.00			
		1/2-PT	-259 44	392.06	0.00			
		3/4-PT	-389 17	392.06	0.00			
		END-J	-518 91	392.06	0.00			
30	CASE 1	END-I	550 67	49 34	0.00	0.00	0.00	0.05
		1/4-PT	502 84	49.34	0 00			
		1/2-PT	455 00	49.34	0.00			
		3/4-PT	-145.32	593.34	0.00			
		END-J	-1108.48	593.34	0.00			
34	CASE 1	END-I	-670 23	-1740 59	0.00	0 00	0 00	-0.01
		1/4-PT	166 41	-850 99	0 00			
		1/2-PT	491 36	38 61	0 00			
		3/4-PT	104.64	928.21	0.00			
		END-J	-993 77	1817.81	0.00			

ANALISIS
UNAM FACULTAD DE INGENIERIA M.A.S

BEAM FORCES AT LEVEL N8 IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
35	CASE 2	END-I	-1127.32	-1927.71	0.00	0.00	0.00	0 00
		1/4-PT	59.01	-1038.11	0.00			
		1/2-PT	533 65	-148.51	0.00			
		3/4-PT	296.62	741.09	0.00			
		END-J	-652.10	1630.69	0.00			
36	CASE 1	END-I	-978 54	-1852.93	0.00	0.00	0.00	0.01
		1/4-PT	147.96	-963.23	0.00			
		1/2-PT	562.79	-73.73	0 00			
		3/4-PT	265.94	815.87	0 00			
		END-J	-742.60	1705.47	0.00			
40	CASE 1	END-I	-25684 52	-10976.05	0.00	0.00	0.00	0 00
		1/4-PT	5102.24	-6570.05	0.00			
		1/2-PT	16744.05	2241.95	0.00			
		3/4-PT	5029.66	6847.95	0.00			
		END-J	-25891.13	11053.95	0.00			
46	CASE 1	END-I	4917 31	2532.60	0.00	0.00	0.00	-0.77
		1/4-PT	3665 05	3033.60	0.00			
		1/2-PT	2187.61	3533.40	0 00			
		3/4-PT	484 98	4033.80	0.00			
		END-J	-1442 82	4538.20	0.00			
48	CASE 1	END-I	0.00	-8578.02	0.00	0.00	0.00	0.00
		1/4-PT	24642.13	-4269.02	0.00			
		1/2-PT	32307.74	621.98	0.00			
		3/4-PT	24641.70	4288.98	0.00			
		END-J	0.00	8597.98	0.00			
49	CASE 1	END-I	-18909.66	-8853.77	0.00	0.00	0.00	0.00
		1/4-PT	3995 45	-4963.27	0 00			
		1/2-PT	12632 77	1130.23	0.00			
		3/4-PT	3896 68	5020.73	0.00			
		END-J	-20138.93	8911.23	0.00			
51	CASE 1	END-I	-1392.21	-6549.90	0.00	0.00	0.00	0.78
		1/4-PT	229.64	-6424.90	0.00			
		1/2-PT	1820.24	-6299.90	0.00			
		3/4-PT	3379.59	-6174.90	0.00			
		END-J	4907.69	-6049.90	0.00			
52	CASE 1	END-I	4907.69	2528.12	0.00	0.00	0.00	0.78
		1/4-PT	3657.85	3028.52	0 00			
		1/2-PT	2182.02	3528.92	0.00			
		3/4-PT	481.42	4029.32	0.00			
		END-J	-1444.37	4529.72	0 00			

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UNAM FACULTAD DE INGENIERIA M.A.S

BEAM FORCES AT LEVEL N8 IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
53	CASE 1	END-I	-1398 06	-6565.37	0.00	0 00	0.00	-0.77
		1/4-PT	227.66	-6440 37	0.00			
		1/2-PT	1822 12	-6315.37	0 00			
		3/4-PT	3385.34	-6190.37	0 00			
		END-J	4917.31	-6065.37	0.00			

BRACE FORCES AT LEVEL N8 IN FRAME EDIFICIO TISSOT

BRC ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AX AL FORCE	TORSIONAL MOMENT
6	CASE 1	TOP	0.00	0 00	0.00	0.00	-6466.15	0.00
		BOTTOM	0.00		0 00			
20	CASE 1	TOP	0.00	0.00	0 00	0.00	-9328 86	-0 06
		BOTTOM	0.00		0 00			
34	CASE 1	TOP	0.00	0.00	0.00	0.00	-9395 84	0 06
		BOTTOM	0 00		0.00			
48	CASE 1	TOP	0.00	0.00	0 00	0.00	-6825 84	0.01
		BOTTOM	0.00		0 00			

FLOOR FORCES AT LEVEL N8 IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT ID	OUTPUT POINT	FORCE 11	FORCE 22
2	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0 00
3	CASE 1	NODE I	0 00	0.00
		NODE J	0.00	0 00
		NODE K	0 00	0.00
		NODE L	0 00	0.00
4	CASE 1	NODE I	0 00	0.00
		NODE J	0 00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00
7	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00
8	CASE 1	NODE I	0.00	0.00
		NODE J	0 00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00
9	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0 00
		NODE L	0.00	0.00

ANALISIS
UNAM FACULTAD DE INGENIERIA M.A.S

COLUMN FORCES A.. ..., N7 IN FRAME EDIFICIO TISSOT

COL ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
1	CASE 1	TOP	8480.10	-3352.81	228.70	-355.98	-73670.29	-3.16
		BOTTOM	-740.12		-875.38			
2	CASE 1	TOP	-8505.47	3371.07	226.22	-355.69	-73896.26	-3.16
		BOTTOM	765.26		-876.33			
3	CASE 1	TOP	8853.98	-7129.13	28.99	200.95	-83244.91	-3.16
		BOTTOM	-10751.12		652.22			
4	CASE 1	TOP	-8906.90	7171.04	28.03	201.62	-83410.81	-3.16
		BOTTOM	10814.37		653.35			
5	CASE 1	TOP	10396.31	-8756.22	27.38	-21.61	-90441.58	-3.16
		BOTTOM	-13683.29		-39.65			
6	CASE 1	TOP	-10468.72	8813.91	24.52	-19.31	-90431.97	-3.16
		BOTTOM	13769.53		-35.38			
7	CASE 1	TOP	10385.33	-8747.79	206.20	-128.39	-91929.43	-3.16
		BOTTOM	-13671.09		-192.00			
9	CASE 1	TOP	-10479.73	8822.35	195.75	-120.94	-91848.41	-3.16
		BOTTOM	13781.73		-179.36			
10	CASE 1	TOP	9481.04	-7388.41	-428.88	307.90	-90194.77	-3.16
		BOTTOM	-10837.08		526.07			
12	CASE 1	TOP	-9184.26	7303.34	-438.61	314.92	-89793.00	-3.16
		BOTTOM	10699.92		538.08			
20	CASE 1	TOP	-2029.16	952.98	-397.62	238.81	-9873.24	0.01
		BOTTOM	926.48		343.05			
21	CASE 1	TOP	-2392.39	1118.62	-15.48	32.65	-15043.12	0.01
		BOTTOM	1076.97		85.79			
22	CASE 1	TOP	-384.21	271.88	218.47	-160.95	-13635.74	0.01
		BOTTOM	459.02		-280.71			
24	CASE 1	TOP	-52.46	51.27	-314.39	228.32	-7485.05	0.01
		BOTTOM	106.57		408.77			
25	CASE 1	TOP	-155.67	123.05	-501.38	362.24	-9852.89	0.01
		BOTTOM	229.98		646.00			
26	CASE 1	TOP	-318.91	225.96	-453.51	300.69	-10376.58	0.01
		BOTTOM	381.93		498.91			

ANALISIS
UNAM FACULTAD DE INGENIERIA M.K.S

BEAM FORCES AT LEVEL N7 IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
1	CASE 1	END-I	-15075.69	-7039.69	0.00	0.00	0.00	0.00
		1/4-PT	3749.32	-3883.19	0.00			
		1/2-PT	10495.92	742.31	0.00			
		3/4-PT	3760.04	3898.81	0.00			
		END-J	-15075.40	7055.31	0.00			
2	CASE 1	END-I	-21406.04	-9155.10	0.00	0.00	0.00	0.00
		1/4-PT	4277.48	-5483.10	0.00			
		1/2-PT	14005.38	1869.90	0.00			
		3/4-PT	4268.04	5532.90	0.00			
		END-J	-21477.77	9206.90	0.00			
3	CASE 1	END-I	-25718.37	-10981.18	0.00	0.00	0.00	0.00
		1/4-PT	5065.70	-6575.18	0.00			
		1/2-PT	16744.81	2236.82	0.00			
		3/4-PT	5094.73	6631.82	0.00			
		END-J	-25857.76	11048.82	0.00			
8	CASE 1	END-I	0.00	-1556.65	0.00	0.00	0.00	0.01
		1/4-PT	1576.10	-1556.65	0.00			
		1/2-PT	3152.21	-1556.65	0.00			
		3/4-PT	1583.91	1564.35	0.00			
		END-J	0.00	1564.35	0.00			
9	CASE 1	END-I	0.00	0.00	0.00	0.00	0.00	-0.02
		1/4-PT	0.00	0.00	0.00			
		1/2-PT	0.00	0.00	0.00			
		3/4-PT	0.00	0.00	0.00			
		END-J	0.00	0.00	0.00			
12	CASE 1	END-I	-846.82	-798.82	0.00	0.00	0.00	0.01
		1/4-PT	-88.71	-798.82	0.00			
		1/2-PT	669.40	-798.82	0.00			
		3/4-PT	560.88	119.18	0.00			
		END-J	447.78	119.18	0.00			
13	CASE 1	END-I	367.85	-126.06	0.00	0.00	0.00	-0.16
		1/4-PT	362.76	148.75	0.00			
		1/2-PT	234.27	423.56	0.00			
		3/4-PT	-17.62	698.37	0.00			
		END-J	-392.91	973.17	0.00			
16	CASE 1	END-I	-138.66	-72.04	0.00	0.00	0.00	0.02
		1/4-PT	-65.91	-72.04	0.00			
		1/2-PT	6.84	-72.04	0.00			
		3/4-PT	79.59	-72.04	0.00			
		END-J	152.35	-72.04	0.00			

ANALISIS
UNAM FACULTAD DE INGENIERIA M.K.S

BEAM FORCES AT LEVEL N7 IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
17	CASE 1	END-I	113.41	-160.35	0.00	0.00	0.00	0.01
		1/4-PT	146.57	18.50	0.00			
		1/2-PT	96.11	197.34	0.00			
		3/4-PT	-37.98	376.19	0.00			
		END-J	-255.69	555.04	0.00			
19	CASE 1	END-I	-673.71	-1530.93	0.00	0.00	0.00	-0.01
		1/4-PT	125.50	-752.53	0.00			
		1/2-PT	379.84	25.87	0.00			
		3/4-PT	89.29	804.27	0.00			
		END-J	-746.14	1582.67	0.00			
20	CASE 1	END-I	-600.77	-1613.79	0.00	0.00	0.00	0.00
		1/4-PT	338.43	-724.19	0.00			
		1/2-PT	567.94	165.41	0.00			
		3/4-PT	69.78	1055.01	0.00			
		END-J	-1130.06	1944.61	0.00			
21	CASE 1	END-I	-1184.84	-1958.86	0.00	0.00	0.00	0.00
		1/4-PT	26.40	-1069.26	0.00			
		1/2-PT	525.97	-179.66	0.00			
		3/4-PT	313.86	709.94	0.00			
		END-J	-609.93	1599.54	0.00			
22	CASE 1	END-I	-1010.98	-1871.07	0.00	0.00	0.00	0.00
		1/4-PT	132.43	-984.47	0.00			
		1/2-PT	564.17	-91.67	0.00			
		3/4-PT	284.22	794.73	0.00			
		END-J	-707.60	1681.33	0.00			
25	CASE 1	END-I	-178.86	2533.51	0.00	0.00	0.00	-0.08
		1/4-PT	-1045.40	2703.95	0.00			
		1/2-PT	-1968.34	2874.40	0.00			

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UNAM FACULTAD DE INGENIERIA M.K.S

BEAM FORCES AT LEVEL N7 IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT CASE	OUTPUT ID	POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
28	CASE 1	END-I		631 04	322.44	0.00	0.00	0.00	0.03
		1/4-PT		189.72	322 44	0.00			
		1/2-PT		-53.60	322.44	0.00			
		3/4-PT		-296.92	322.44	0.00			
		END-J		-1196.24	1266.44	0.00			
29	CASE 1	END-I		-9.42	0.00	0.00	0.00	0.00	0.00
		1/4-PT		+28 62	170.45	0.00			
		1/2-PT		+111 22	340.89	0.00			
		3/4-PT		-254.23	511.34	0.00			
		END-J		-451 63	681.78	0.00			
30	CASE 1	END-I		524 00	32.41	0.00	0.00	0.00	0.04
		1/4-PT		492.57	32 41	0.00			
		1/2-PT		461.15	32 41	0.00			
		3/4-PT		-122.76	976.41	0.00			
		END-J		-1069.51	976.41	0.00			
33	CASE 1	END-I		-675.66	-1532.17	0.00	0 00	0.00	0.01
		1/4-PT		124.42	-753.77	0.00			
		1/2-PT		379.62	24.63	0.00			
		3/4-PT		89.94	803.03	0 00			
		END-J		-744.61	1581.43	0.00			
34	CASE 1	END-I		-602.78	-1615 09	0.00	0.00	0.00	0.00
		1/4-PT		333.45	-725.49	0.00			
		1/2-PT		956.00	164.11	0.00			
		3/4-PT		70.87	1053.71	0.00			
		END-J		-1127 95	1943.31	0.00			
35	CASE 1	END-I		-1182 31	-1957.50	0 00	0.00	0.00	0 00
		1/4-PT		27.84	-1087.90	0.00			
		1/2-PT		526.32	-178.30	0.00			
		3/4-PT		313 12	711.30	0.00			
		END-J		-611 76	1600.90	0.00			
36	CASE 1	END-I		-996.11	-1864.75	0.00	0.00	0.00	0.00
		1/4-PT		139 85	-975.15	0.00			
		1/2-PT		564 13	-85.55	0.00			
		3/4-PT		276 73	804.05	0.00			
		END-J		-722 35	1693.65	0.00			
40	CASE 1	END-I		-29680.87	-10975.62	0.00	0.00	0.00	0.00
		1/4-PT		5104.45	-6569.62	0.00			
		1/2-PT		16741.82	2242.38	0.00			
		3/4-PT		5028 98	6648.38	0.00			
		END-J		-25895 25	11054.38	0.00			

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UNAM FACULTAD DE INGENIERIA M.K.S

BEAM FORCES AT LEVEL N7 IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT CASE	OUTPUT ID	POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
41	CASE 1	END-I		-22355.68	-9911.52	0.00	0.00	0.00	0.00
		1/4-PT		-14705.60	-9517.77	0.00			
		1/2-PT		-7365.40	-9124.02	0.00			
		3/4-PT		-1244 02	-8527.27	0.00			
		END-J		3741 17	-8133.52	0.00			
42	CASE 1	END-I		3741.09	-5256.02	0 00	0.00	0.00	0 00
		1/4-PT		6401.95	-5256.02	0.00			
		1/2-PT		9062.81	-5256.02	0.00			
		3/4-PT		11021.46	-3053.02	0.00			
		END-J		12567.05	-3053 02	0.00			
43	CASE 1	END-I		12567.05	-3053 02	0.00	0.00	0.00	0 00
		1/4-PT		13170.00	-1191.02	0.00			
		1/2-PT		13772.96	-1191 02	0.00			
		3/4-PT		14375.91	-1191.02	0.00			
		END-J		13998.53	1011.98	0.00			
44	CASE 1	END-I		13998 55	1930.93	0.00	0.00	0 00	0.00
		1/4-PT		10327 18	2718.43	0 00			
		1/2-PT		2791.89	5708.93	0.00			
		3/4-PT		-7645.96	8699.43	0.00			
		END-J		-21967.73	9486.93	0.00			
45	CASE 1	END-I		0.00	-877.50	10.59	5.89	116.17	-0.68
		1/4-PT		581.13	-413.91	5.29			
		1/2-PT		745.04	49 88	-0.02			
		3/4-PT		491.71	513.27	-5.32			
		END-J		-178.85	976.86	-10.62			
47	CASS 1	END-I		0.00	-918.95	10 59	5.89	196.45	0 03
		1/4-PT		618.44	-455.36	5.29			
		1/2-PT		819.65	8.23	-0 02			
		3/4-PT		603 63	471.82	-5.32			
		END-J		-29 62	935.41	-10.62			

BRACE FORCES AT LEVEL N7 IN FRAME EDIFICIO TISSOT

BRC ID	OUTPUT CASE	OUTPUT ID	POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
7	CASE 1	TOP		0.00	0.00	0.00	0.00	-4429 29	0.00
		BOTTOM		0.00		0.00			
21	CASE 1	TOP		0.00	0 00	0.00	0 00	-6771 96	0 04
		BOTTOM		0.00		0.00			

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UNAM FACULTAD DE INGENIERIA M.K S

BRACE FORCES AT LEVEL N7 IN FRAME EDIFICIO TISSOT

BRC ID	OUTPUT CASE	OUTPUT ID	POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
35	CASE 1	TOP		0.00	0 00	0.00	0.00	-6852.08	-0 04
		BOTTOM		0.00		0.00			
49	CASE 1	TOP		0.00	0 00	0.00	0 00	-4530.66	0.00
		BOTTOM		0.00		0.00			

FLOOR FORCES AT LEVEL N7 IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT CASE	OUTPUT ID	POINT	FORCE 11	FORCE 22
1	CASE 1	NODE I		0.00	0.00
		NODE J		0.00	0.00
		NODE K		0.00	0.00
		NODE L		0.00	0.00
2	CASE 1	NODE I		0.00	0.00
		NODE J		0.00	0.00
		NODE K		0.00	0.00
		NODE L		0.00	0 00
3	CASE 1	NODE I		0.00	0 00
		NODE J		0.00	0 00
		NODE K		0.00	0.00
		NODE L		0.00	0.00

4	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00
5	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00
6	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00
7	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00
8	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00

ANALISIS
UNAM FACULTAD DE INGENIERIA M.K.S

COLUMN FORCES AT LEVEL N6 IN FRAME EDIFICIO TISSOT

COL ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
I	CASE 1	TOP	-739.35	-1874.22	1007.99	-568.21	-80068.71	-3.59
		BOTTOM	-7299.13		-532.83			
2	CASE 1	TOP	764.49	1857.40	1017.86	-574.98	-80314.87	-3.59
		BOTTOM	7265.38		-561.51			
3	CASE 1	TOP	7916.50	-6996.26	-676.53	316.54	-93476.65	-3.59
		BOTTOM	-11323.26		192.57			
4	CASE 1	TOP	-7939.26	7009.58	-669.39	310.38	-93642.84	-3.59
		BOTTOM	11336.94		183.19			
5	CASE 1	TOP	10403	-8762	105	-44	-105669	-4
		BOTTOM	-13682		+30			
6	CASE 1	TOP	-10459	8805	110	-47	-105725	-4
		BOTTOM	13754		-37			
7	CASE 1	TOP	10386	-8747	245	-163	-102581	-4
		BOTTOM	-13667		-262			
9	CASE 1	TOP	-10476	8820	242	-162	-102379	-4
		BOTTOM	13779		-260			
10	CASE 1	TOP	7751	-7138	-393	280	-101159	-4
		BOTTOM	-13878		477			
12	CASE 1	TOP	-7955	7132	-396	281	-100826	-4
		BOTTOM	13659		478			
20	CASE 1	TOP	-716 77	934.18	-291 62	130.55	-8402.64	-0.01
		BOTTOM	2180.58		423.41			
21	CASE 1	TOP	-730 76	1025 87	-198.94	50.74	-14826.17	-0.01
		BOTTOM	2450 34		48.42			
22	CASE 1	TOP	-475.53	327.90	227.54	-146 09	-15586.59	-0 01
		BOTTOM	541.56		-225.57			
24	CASE 1	TOP	-103.75	72.74	-411.55	263 99	-9403.58	-0.01

		BOTTOM	-1...87		-... 99			
25	CASE 1	TOP	-201.74	136.13	-616.24	374 94	-11681.46	-0 01
		BOTTOM	220.46		577.34			
26	CASE 1	TOP	-333.26	236.60	-45b n0	303.1b	-119.7 ...	-0...1
		BOTTOM	400 60		503.68			

ANALISIS
UNAM FACULTAD DE INGENIERIA M.K.S

BEAM FORCES AT LEVEL N6 IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
2	CASE 1	END-I	-20070.85	-8543.69	0.00	0 00	0.00	0.00
		1/4-PT	3897.09	-5116.69	0.00			
		1/2-PT	12974.03	1737.31	0 00			
		3/4-PT	3881.44	5164 31	0.00			
		END-J	-20145.50	8591.31	0.00			
3	CASE 1	END-I	-25716.18	-10980.84	0.00	0.00	0.00	0 00
		1/4-PT	5086.74	-6574.84	0.00			
		1/2-PT	16744.71	2237.16	0.00			
		3/4-PT	5046.48	6643.16	0.00			
		END-J	-25860.15	11049.16	0 00			
9	CASE 1	END-I	0.00	-392.06	0.00	0.00	0.00	0.02
		1/4-PT	150.70	-196.03	0.00			
		1/2-PT	200.93	0.00	0.00			
		3/4-PT	150.70	196.03	0.00			
		END-J	0.00	392.06	0.00			
12	CASE 1	END-I	-679.45	-371.20	0 00	0.00	0 00	0.00
		1/4-PT	-327.17	-371.20	0 00			
		1/2-PT	25.11	-371.20	0.00			
		3/4-PT	377.39	-371.20	0.00			
		END-J	729.67	-371.20	0.00			
13	CASE 1	END-I	613.37	-342.70	0.00	0.00	0.00	0 04
		1/4-PT	866.89	103.87	0 00			
		1/2-PT	520.09	550.43	0.00			
		3/4-PT	172.67	996.99	0.00			
		END-J	-375.27	1443.55	0.00			
16	CASE 1	END-I	-148.46	-76.73	0 00	0.00	0.00	0.03
		1/4-PT	-70.97	-76.73	0.00			
		1/2-PT	6.52	-76.73	0.00			
		3/4-PT	84.02	-76.73	0.00			
		END-J	161.51	-76.73	0.00			
17	CASE 1	END-I	82.28	-187.10	0 00	0.00	0 00	-0 06
		1/4-PT	127 95	-8.25	0 00			
		1/2-PT	89.99	170.60	0 00			
		3/4-PT	-31.59	349.45	0.00			
		END-J	-236.80	528.30	0.00			
20	CASE 1	END-I	-843.62	-1716.82	0.00	0 00	0 00	0 01
		1/4-PT	174.00	-827 22	0.00			
		1/2-PT	479.94	62 38	0.00			
		3/4-PT	74.19	951.98	0.00			
		END-J	-1043.23	1841.58	0.00			

ANALISIS
UNAM FACULTAD DE INGENIERIA M.K S

BEAM FORCES AT LEVEL N6 IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT

2, CASE 1	[illegible]	-11[illegible].78	-19[illegible].93	.00	.00	.00	.00
	1/4-PT	30.81	-1070.93	0.00			
	1/2-PT	531.71	-181.33	0.00			
	3/4-PT	320.94	708.27	0.00			
	END-J	-664.52	1597.87	0.00			
22 CASE 1	END-I	-1044.06	-1898.45	0.00	0.00	0.00	-0.01
	1/4-PT	115.66	-1006.85	0.00			
	1/2-PT	563.70	-115.25	0.00			
	3/4-PT	390.05	776.35	0.00			
	END-J	-675.27	1663.95	0.00			
26 CASE 1	END-I	1690.65	1841.80	0.00	0.00	0.00	-0.02
	1/4-PT	1083.55	1841.80	0.00			
	1/2-PT	476.46	1841.80	0.00			
	3/4-PT	-130.63	1841.80	0.00			
	END-J	-737.72	1841.80	0.00			
27 CASE 1	END-I	-0.02	392.06	0.00	0.00	0.00	0.00
	1/4-PT	-129.76	392.06	0.00			
	1/2-PT	-259.49	392.06	0.00			
	3/4-PT	-389.22	392.06	0.00			
	END-J	-518.96	392.06	0.00			
28 CASE 1	END-I	1503.66	706.74	0.00	0.00	0.00	0.01
	1/4-PT	970.34	706.74	0.00			
	1/2-PT	437.02	706.74	0.00			
	3/4-PT	-96.30	706.74	0.00			
	END-J	-1285.59	1650.74	0.00			
29 CASE 1	END-I	0.02	392.06	0.00	0.00	0.00	0.00
	1/4-PT	-129.71	392.06	0.00			
	1/2-PT	-259.44	392.06	0.00			
	3/4-PT	-389.18	392.06	0.00			
	END-J	-518.91	392.06	0.00			
30 CASE 1	END-I	475.25	11.00	0.00	0.00	0.00	0.05
	1/4-PT	464.58	11.00	0.00			
	1/2-PT	453.93	11.00	0.00			
	3/4-PT	-109.22	955.00	0.00			
	END-J	-1036.21	955.00	0.00			
34 CASE 1	END-I	-846.71	-1718.86	0.00	0.00	0.00	-0.01
	1/4-PT	172.54	-829.26	0.00			
	1/2-PT	680.10	60.34	0.00			
	3/4-PT	75.98	949.94	0.00			
	END-J	-1039.81	1839.54	0.00			

ANALISIS
UNAM FACULTAD DE INGENIERIA M.K.S

BEAM FORCES AT LEVEL N6 IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
35	CASE 1	END-I	-1180.16	-1959.72	0.00	0.00	0.00	0.00
		1/4-PT	31.77	-1070.12	0.00			
		1/2-PT	532.03	-180.52	0.00			
		3/4-PT	320.61	709.08	0.00			
		END-J	-602.50	1598.68	0.00			
36	CASE 1	END-I	-1031.26	-1886.43	0.00	0.00	0.00	0.01
		1/4-PT	122.05	-996.83	0.00			
		1/2-PT	563.68	-107.23	0.00			
		3/4-PT	293.62	782.37	0.00			
		END-J	-688.11	1671.97	0.00			
40	CASE 1	END-I	-25677.96	-10975.17	0.00	0.00	0.00	0.00
		1/4-PT	5105.85	-6569.17	0.00			
		1/2-PT	16744.71	2242.83	0.00			
		3/4-PT	5067.37	6648.83	0.00			
		END-J	-25898.38	11054.83	0.00			

4[illegible] CASE 1	[illegible]-I	50[illegible].52	2[illegible].87	.00	.00	.00	.77
	1/4-PT	3650.99	3280.27	0.00			
	1/2-PT	2062.28	3780.67	0.00			
	3/4-PT	248.39	4281.07	0.00			
	END-J	-1790.68	4781.47	0.00			
48 CASE 1	END-I	0.00	-8578.02	0.00	0.00	0.00	0.00
	1/4-PT	24642.13	-4269.02	0.00			
	1/2-PT	32307.74	621.98	0.00			
	3/4-PT	24641.70	4288.98	0.00			
	END-J	0.00	8597.96	0.00			
49 CASE 1	END-I	-19906.65	-8853.23	0.00	0.00	0.00	0.00
	1/4-PT	3696.66	-4962.73	0.00			
	1/2-PT	12632.17	1130.77	0.00			
	3/4-PT	3894.27	5021.27	0.00			
	END-J	-20143.14	8911.77	0.00			
51 CASE 1	END-I	-1041.61	-6298.43	0.00	0.00	0.00	0.78
	1/4-PT	517.37	-6173.43	0.00			
	1/2-PT	2045.10	-6048.43	0.00			
	3/4-PT	3561.59	-5923.43	0.00			
	END-J	5006.82	-5798.43	0.00			
52 CASE 1	END-I	5006.82	2779.60	0.00	0.00	0.00	0.78
	1/4-PT	3643.41	3280.00	0.00			
	1/2-PT	2054.82	3780.40	0.00			
	3/4-PT	241.05	4280.80	0.00			
	END-J	-1797.89	4781.20	0.00			

ANALISIS
UNAM FACULTAD DE INGENIERIA M.K.S

BEAM FORCES AT LEVEL N6 IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
53	CASE 1	END-I	-1053.59	-6318.11	0.00	0.00	0.00	-0.77
		1/4-PT	510.31	-6193.11	0.00			
		1/2-PT	2042.97	-6068.11	0.00			
		3/4-PT	3564.37	-5943.11	0.00			
		END-J	5014.52	-5818.11	0.00			

BRACE FORCES AT LEVEL N6 IN FRAME EDIFICIO TISSOT

BRC ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
8	CASE 1	TOP	0.00	0.00	0.00	0.00	-10541.52	0.00
		BOTTOM	0.00		0.00			
22	CASE 1	TOP	0.00	0.00	0.00	0.00	-13516.21	-0.07
		BOTTOM	0.00		0.00			
36	CASE 1	TOP	0.00	0.00	0.00	0.00	-13659.14	0.07
		BOTTOM	0.00		0.00			
50	CASE 1	TOP	0.00	0.00	0.00	0.00	-10919.89	0.01
		BOTTOM	0.00		0.00			

FLOOR FORCES AT LEVEL N6 IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT ID	OUTPUT POINT	FORCE 11	FORCE 22
2	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00
3	CASE 1	NODE I	0.00	0.00

		NODE J	.00	.00				
		NODE K	0.00	0.00				
		NODE L	0.00	0.00				
6	CASE 1	NODE I	0.00	0.00				
		NODE J	0.00	0.00				
		NODE K	0.00	0.00				
		NODE L	0.00	0.00				
7	CASE 1	NODE I	0.00	0.00				
		NODE J	0.00	0.00				
		NODE K	0.00	0.00				
		NODE L	0.00	0.00				
8	CASE 1	NODE I	0 00	0.00				
		NODE J	0.00	0.00				
		NODE K	0.00	0.00				
		NODE L	0.00	0.00				
9	CASE 1	NODE I	0 00	0.00				
		NODE J	0.00	0.00				
		NODE K	0 00	0.00				
		NODE L	0.00	0.00				

ANALISIS
UNAM FACULTAD DE INGENIERIA M.K.S

COLUMN FORCES AT LEVEL N5 IN FRAME EDIFICIO TISSOT

COL ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
1	CASE 1	TOP	8471.82	-3353.57	212.94	-311.82	-98991.98	-2.93
		BOTTOM	-750.50		-754.15			
2	CASE 1	TOP	-6511 71	3376.96	207.91	-310.36	-99362.88	-2.93
		BOTTOM	774 93		-754.65			
3	CASE 1	TOP	8848	-7129	-10	255	-106310	-3
		BOTTOM	-10756		782			
4	CASE 1	TOP	-8909	7177	-13	257	-106528	-3
		BOTTOM	10828		783			
5	CASE 1	TOP	10394	-8757	25	-15	-110214	-3
		BOTTOM	-13688		-21			
6	CASE 1	TOP	-10469	8810	21	-12	-110215	-3
		BOTTOM	13781		-17			
7	CASE 1	TOP	10386	-8750	248	-148	-117477	-3
		BOTTOM	-13676		-210			
9	CASE 1	TOP	-10477	8825	237	-140	-117348	-3
		BOTTOM	13792		-199			
10	CASE 1	TOP	9529	-7413	-408	302	-120555	-3
		BOTTOM	-10857		528			
12	CASE 1	TOP	-9206	7318	-419	309	-120047	-3
		BOTTOM	10929		539			
20	CASE 1	TOP	-1969.64	930.66	-368.24	216.64	-11843.44	0 00
		BOTTOM	916.79		301.66			
21	CASE 1	TOP	-2309 18	1080.11	-15.06	31.70	-19034.66	0.00
		BOTTOM	1040.75		83.25			
22	CASE 1	TOP	-366.95	259.28	191.30	-142.38	-17356.90	0.00
		BOTTOM	437.18		-248.30			
24	CASE 1	TOP	-50.77	50.62	-295.66	214.29	-10061.82	0.00
		BOTTOM	1 0.88		383.10			

25	CASE 1	TOP	-21 .29	1 .39	-4 .19	2 .67	-136 .38	.00
		BOTTOM	192 38		583.83			
26	CASE 1	TOP	-290 87	204 38	-423.02	278.72	-13445 .2	0.00
		BOTTOM	343 04		459.80			

ANALISIS
UNAM FACULTAD DE INGENIERIA M K.S

BEAM FORCES AT LEVEL N5 IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
1	CASE 1	END-I	-15068.23	-7038.51	0.00	0.00	0.00	0.00
		1/4-PT	3752.81	-3882.01	0.00			
		1/2-PT	10495.44	743.49	0.00			
		3/4-PT	3755.59	3899.99	0.00			
		END-J	-15083.83	7056.49	0.00			
2	CASE 1	END-I	-21398.81	-9153.96	0.00	0.00	0.00	0.00
		1/4-PT	4280.81	-5481.96	0.00			
		1/2-PT	16004.88	1862.04	0.00			
		3/4-PT	4263.68	5531.04	0.00			
		END-J	-21405.98	9206.04	0 00			
3	CASE 1	END-I	-25712.96	-10980.31	0 00	0.00	0.00	0 00
		1/4-PT	5088.20	-6574.31	0.00			
		1/2-PT	16744.39	2237.69	0.00			
		3/4-PT	5044.37	6643.69	0.00			
		END-J	-25864.04	11049.69	0.00			
8	CASE 1	END-I	0.00	-1556.65	0.00	0 00	0.00	0.01
		1/4-PT	1576.10	-1556.65	0.00			
		1/2-PT	3152.21	-1556.65	0.00			
		3/4-PT	1583.91	1561.35	0.00			
		END-J	0.00	1561.35	0.00			
9	CASE 1	END-I	0.00	0.00	0.00	0.00	0 00	-0.40
		1/4-PT	0.00	0.00	0.00			
		1/2-PT	0.00	0.00	0.00			
		3/4-PT	0.00	0.00	0.00			
		END-J	0.00	0.00	0.00			
12	CASE 1	END-I	-781.73	-758.61	0.00	0.00	0.00	0.01
		1/4-PT	-61.78	-758.61	0.00			
		1/2-PT	658 17	-758.61	0.00			
		3/4-PT	511.49	159.39	0.00			
		END-J	380.23	159.39	0.00			
13	CASE 1	END-I	292.79	-188.86	0.00	0.00	0 00	-0.16
		1/4-PT	315.90	85.95	0.00			
		1/2-PT	215.61	360.75	0.00			
		3/4-PT	-8.08	635.56	0.00			
		END-J	-355.17	910.37	0.00			
16	CASE 1	END-I	-131 97	-67.88	0 00	0.00	0.00	0 02
		1/4-PT	-63.42	-67.88	0.00			
		1/2-PT	5.13	-67.88	0.00			
		3/4-PT	73.69	-67.88	0.00			
		END-J	142.24	-67.88	0.00			

ANALISIS
UNAM FACULTAD DE INGENIERIA M.K.S

BEAM FORCES AT LEVEL N5 IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
17	CASE 1	END-I	77.07	-199.38	0.00	0.00	0.00	0 01
		1/4-PT	128.49	-20.53	0.00			

		1/4-PT	...27	1...32	..00			
		3/4-PT	-19.57	337.17	0.00			
		END-J	-219.03	516.02	0.00			
19	CASE 1	END-I	-575.39	-1462.01	0.00	0.00	0.00	-0.01
		1/4-PT	175.57	-683.61	0.00			
		1/2-PT	381.66	94.79	0.00			
		3/4-PT	42.86	873.19	0.00			
		END-J	-840.81	1651.59	0.00			
20	CASE 1	END-I	-550.14	-1582.55	0.00	0.00	0.00	0.00
		1/4-PT	360.06	-692.95	0.00			
		1/2-PT	558.58	196.65	0.00			
		3/4-PT	45.41	1086.25	0.00			
		END-J	-1179.43	1975.85	0.00			
21	CASE 1	END-I	-1236.98	-1989.91	0.00	0.00	0 00	0.00
		1/4-PT	-0.90	-1100.31	0.00			
		1/2-PT	521.51	-210.71	0.00			
		3/4-PT	336.23	678.89	0.00			
		END-J	-562.72	1568.49	0.00			
22	CASE 1	END-I	-1061.64	-1907.64	0.00	0.00	0.00	0.00
		1/4-PT	106 64	-1018.04	0.00			
		1/2-PT	565.23	-128.44	0.00			
		3/4-PT	312 14	761.36	0.00			
		END-J	-852 62	1650.76	0.00			
25	CASE 1	END-I	-57.83	2499.89	0.00	0.00	0.00	-0.08
		1/4-PT	-913.25	2670.33	0.00			
		1/2-PT	-1825.06	2840.78	0.00			
		3/4-PT	-2793.27	3011.23	0.00			
		END-J	-3817.88	3181.67	0.00			
26	CASE 1	END-I	29.81	590.35	0.00	0.00	0.00	-0 12
		1/4-PT	-164.78	590.35	0.00			
		1/2-PT	-359.37	590.35	0.00			
		3/4-PT	-553.96	590.35	0.00			
		END-J	-748.55	590.35	0.00			
27	CASE 1	END-I	50.74	2477.55	0.00	0 00	0.00	0.03
		1/4-PT	-825.76	2820.13	0.00			
		1/2-PT	-1815 62	3162.71	0.00			
		3/4-PT	-2918.84	3505.29	0.00			
		END-J	-4135.42	3847.87	0.00			

ANALISIS
UNAM FACULTAD DE INGENIERIA M.K.S

BEAM FORCES AT LEVEL N5 IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
28	CASE 1	END-I	316 10	247.95	0.00	0.00	0.00	0.03
		1/4-PT	128.99	247.95	0.00			
		1/2-PT	-58.12	247.95	0.00			
		3/4-PT	-245 22	247.95	0.00			
		END-J	-1088 30	1191.95	0 00			
29	CASE 1	END-I	-0.40	0.00	0 00	0.00	0.00	0.00
		1/4-PT	-28 60	170.45	0.00			
		1/2-PT	-113.20	340.89	0.00			
		3/4-PT	-254.21	511.34	0.00			
		END-J	-451.61	681.78	0.00			
30	CASE 1	END-I	433.43	-9.60	0.00	0.00	0 00	0.04
		1/4-PT	442.74	-9.60	0.00			
		1/2-PT	452.05	-9.60	0.00			
		3/4-PT	-91.13	934.40	0.00			
		END-J	-997.13	934.40	0.00			
33	CASE 1	END-I	-578.14	-1463.79	0.00	0.00	0.00	0.01
		1/4-PT	174.03	-685.39	0.00			
		1/2-PT	381.41	93.01	0.00			
		3/4-PT	41.86	871.41	0 00			
		END-J	-838.57	1649 81	0.00			
34	CASE 1	END-I	-553.33	-1584.55	0 00	0 00	0.00	0.00
		1/4-PT	358.47	-694.96	0.00			
		1/2-PT	558.59	194.65	0 00			
		3/4-PT	47.03	1084.25	0.00			
		END-J	-1176 22	1973.85	0.00			
35	CASE 1	END-I	-1235.67	-1989.29	0.00	0.00	0.00	0 00
		1/4-PT	-0.07	-1099.69	0.00			
		1/2-PT	523.84	-210.09	0.00			
		3/4-PT	336.08	679.51	0.00			
		END-J	-563.36	1569.11	0 00			
36	CASE 1	END-I	-1050.60	-1899.49	0.00	0 00	0.00	0 00
		1/4-PT	111.15	-1009.89	0.00			
		1/2-PT	565.22	-120.29	0 00			
		3/4-PT	305.61	769.31	0.00			
		END-J	-665.68	1658.91	0.00			
40	CASE 1	END-I	-25677.55	-10975.07	0 00	0.00	0.00	0 00
		1/4-PT	5105.90	-6569.07	0.00			
		1/2-PT	16744.39	2242.93	0.00			
		3/4-PT	5026.68	6648.93	0.00			
		END-J	-25899.42	11054.93	0 00			

ANALISIS
UNAM FACULTAD DE INGENIERIA M.K.S

BEAM FORCES AT LEVEL N5 IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
41	CASE 1	END-I	-22439.83	-9949.58	0.00	0.00	0 00	0.00
		1/4-PT	-14759.58	-9555.83	0.00			
		1/2-PT	-7389.60	-9162.08	0.00			
		3/4-PT	-1238.04	-6565.33	0.00			
		END-J	3777.11	-6171.58	0.00			
42	CASE 1	END-I	3777.03	-5260.46	0 00	0.00	0.00	0.00
		1/4-PT	6440.18	-5260.46	0 00			
		1/2-PT	9103.25	-5260.46	0 00			
		3/4-PT	11064.15	-3057.46	0 00			
		END-J	12611.98	-3057.46	0.00			
43	CASE 1	END-I	12611.98	-3057.46	0.00	0 00	0.00	0.00
		1/4-PT	13217.18	-1195.46	0.00			
		1/2-PT	13822.39	-1195.46	0.00			
		3/4-PT	14427.59	-1195.46	0.00			
		END-J	14052.45	1007.54	0.00			
44	CASE 1	END-I	14052.48	1948.70	0.00	0.00	0.00	0.00
		1/4-PT	10361 12	2736.20	0 00			
		1/2-PT	2785.84	5726.70	0.00			
		3/4-PT	-7675.99	8717.20	0.00			
		END-J	-22025.74	9504.70	0.00			
45	CASE 1	END-I	0.00	-911.12	4.68	2.61	31 15	-0.08
		1/4-PT	611.39	-447 53	2.33			
		1/2-PT	805 55	16.06	-0 02			
		3/4-PT	582 48	479 65	-2 37			
		END-J	-57.82	943.24	-4 72			
47	CASE 1	END-I	0.00	-941.16	4.69	2.61	122.79	0 03
		1/4-PT	628.43	-477.57	2 33			
		1/2-PT	859.62	-13.98	-0.02			
		3/4-PT	663.59	449.61	-2.37			
		END-J	50.33	913.20	-4.72			

BRA- FORCES , LEVEL h. IN .AME EDI...IO TISS..

BRC ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
9	CASE 1	TOP	0.00	0 00	0.00	0.00	-6617.40	0,00
		BOTTOM	0.00		0.00			
23	CASE 1	TOP	0.00	0.00	0.00	0.00	-8941.62	0 04
		BOTTOM	0.00		0.00			

ANALISIS
UNAM FACULTAD DE INGENIERIA M.K.S

BRACE FORCES AT LEVEL N5 IN FRAME EDIFICIO TISSOT

BRC ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
37	CASE 1	TOP	0.00	0.00	0.00	0.00	-9012.45	-0.04
		BOTTOM	0.00		0.00			
51	CASE 1	TOP	0.00	0.00	0.00	0.00	-8691.94	0 0
		BOTTOM	0.00		0.00			

FLOOR FORCES AT LEVEL N5 IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT ID	OUTPUT POINT	FORCE 11	FORCE 22
1	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00
2	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00
3	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00
4	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00
5	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0 00
		NODE K	0.00	0.00
		NODE L	0.00	0.00
6	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0 00	0.00
		NODE L	0.00	0.00
7	CASE 1	NODE I	0 00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00
8	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0 00	0.00
		NODE L	0 00	0.00

ANALISIS
UNAM FACULTAD DE INGENIERIA M.K.S

COLUMN FORCES AT LEVEL N4 IN FRAME EDIFICIO TISSOT

COL ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
1	CASE 1	TOP	-750	-1856	926	-527	-105241	-3
		BOTTOM	-7247		-522			
2	CASE 1	TOP	774	1844	935	-533	-105630	-3
		BOTTOM	7229		-530			
3	CASE 1	TOP	7914	-6979	-756	261	-116035	-3
		BOTTOM	-11279		235			
4	CASE 1	TOP	-7942	6999	-750	355	-116266	-3
		BOTTOM	11306		226			
5	CASE 1	TOP	10402	-8748	143	-67	-125465	-3
		BOTTOM	-13655		-63			
6	CASE 1	TOP	-10460	8795	147	-70	-125533	-3
		BOTTOM	13726		-70			
7	CASE 1	TOP	10387	-8735	302	-199	-127645	-3
		BOTTOM	-13633		-316			
9	CASE 1	TOP	-10475	8808	299	-198	-127405	-3
		BOTTOM	13748		-315			
10	CASE 1	TOP	7744	-7129	-349	253	-131492	-3
		BOTTOM	-11859		435			
12	CASE 1	TOP	-7943	7113	-351	254	-131048	-3
		BOTTOM	11616		436			
20	CASE 1	TOP	-642.92	898.44	-268.95	215.96	-10407.13	-0.01
		BOTTOM	2143.57		400.86			
21	CASE 1	TOP	-625.15	968.48	-111.69	50.30	-19001.59	-0.01
		BOTTOM	2378.58		44.31			
22	CASE 1	TOP	-415.74	298.78	246.23	-142.29	-19279.45	-0.01
		BOTTOM	510.92		-215.09			
24	CASE 1	TOP	-105.23	76.17	-413.39	255.40	-11897.69	-0.01
		BOTTOM	131.02		395.58			
25	CASE 1	TOP	-177.17	120.23	-593.03	361.72	-14869.72	-0.01
		BOTTOM	195.74		552.70			
26	CASE 1	TOP	-311.70	221.09	-442.94	292.55	-14920.02	-0 01
		BOTTOM	374.04		403.67			

ANALISIS
UNAM FACULTAD DE INGENIERIA M.K.S

BEAM FORCES AT LEVEL N4 IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
2	CASE 1	END-I	-20060.73	-8542.39	0.00	0.00	0.00	0.00
		1/4-PT	5902.82	-5115.39	0.00			
		1/2-PT	12975.36	1738.61	0.00			
		3/4-PT	3881.38	5165.61	0 00			
		END-J	-20152.95	8592 61	0 00			
3	CASE 1	END-I	-25710.04	-10980.10	0.00	0.00	0.00	0.00
		1/4-PT	5080.39	-6574.10	0.00			
		1/2-PT	16785.88	2247.96	0.00			
		3/4-PT	5015.15	6643.90	0.00			
		END-J	-25863.97	11049.90	0.00			

9	CASE 1	END-I	.00	-3...06	.00	00	.00	.02
		1/4-PT	150.70	-196.03	0.00			
		1/2-PT	200.93	0.00	0.00			
		3/4-PT	150 70	196.03	0 00			
		END-J	0.00	392.06	0 00			
12	CASE 1	END-I	-616.63	-330.00	0.00	0.00	0.00	0.00
		1/4-PT	-303.53	-330.00	0.00			
		1/2-PT	9.56	-330.00	0.00			
		3/4-PT	322.65	-330.00	0.00			
		END-J	635.75	-330.00	0.00			
13	CASE 1	END-I	522.86	-407.69	0.00	0.00	0.00	0.03
		1/4-PT	605.68	38.62	0.00			
		1/2-PT	688.20	484.93	0.00			
		3/4-PT	170.43	931.24	0.00			
		END-J	-347.64	1377.55	0.00			
16	CASE 1	END-I	-136.18	-69.57	0.00	0.00	0.00	0.03
		1/4-PT	-65.99	-69.57	0.00			
		1/2-PT	4.20	-69.57	0.00			
		3/4-PT	74.38	-69.57	0.00			
		END-J	144.57	-69.57	0.00			
17	CASE 1	END-I	44.52	-225.14	0.00	0.00	0.00	-0.05
		1/4-PT	107.94	-46.66	0.00			
		1/2-PT	88 07	131.83	0.00			
		3/4-PT	-15 09	310.31	0.00			
		END-J	-201.63	488.80	0.00			
20	CASE 1	END-I	-847 19	-1714.54	0.00	0.00	0.00	0.01
		1/4-PT	168.60	-824.94	0.00			
		1/2-PT	472.71	66.66	0 00			
		3/4-PT	65.15	954.26	0 00			
		END-J	-1054 10	1843.86	0.00			

ANALISIS
UNAM FACULTAD DE INGENIERIA M.K.S

BEAM FORCES AT LEVEL N4 IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
21	CASE 1	END-I	-1217 02	-1982.01	0.00	0.00	0.00	0.00
		1/4-PT	12.75	-1092.41	0 00			
		1/2-PT	530 84	-202.81	0 00			
		3/4-PT	337 25	686.79	0 00			
		END-J	-568 02	1576 39	0 00			
22	CASE 1	END-I	-1089.72	-1923.38	0.00	0.00	0.00	-0.01
		1/4-PT	93.15	-1033.79	0.00			
		1/2-PT	564.34	-144.19	0.00			
		3/4-PT	321.85	745.41	0.00			
		END-J	-628.33	1635.01	0.00			
26	CASE 1	END-I	1602.81	1766.31	0.00	0.00	0 00	-0.01
		1/4-PT	1021.77	1766.31	0.00			
		1/2-PT	440.72	1766.31	0.00			
		3/4-PT	-140.32	1766.31	0.00			
		END-J	-721.36	1766.31	0.00			
27	CASE 1	END-I	-0.02	392.06	0.00	0.00	0.00	0.00
		1/4-PT	-129.57	392 06	0.00			
		1/2-PT	-259.12	392.06	0 00			
		3/4-PT	-388 66	392.06	0 00			
		END-J	-518 21	392.06	0.00			
28	CASE 1	END-I	1351 65	629.57	0.00	0.00	0.00	0.01
		1/4-PT	876.78	629.57	0 00			
		1/2-PT	402.11	629.57	0.00			
		3/4-PT	-72.56	629.57	0 00			
		END-J	-1202.50	1573.57	0.00			

29	CASE 1	END-I	.02	-3...06	.00	. 00	.00	.00
		1/4-PT	-129.52	392.06	0.00			
		1/2-PT	-259.07	392.06	0 00			
		3/4-PT	-388.62	392.06	0 00			
		END-J	-518.16	392 06	0.00			
30	CASE 1	END-I	388.63	-26 20	0.00	0.00	0 00	0.00
		1/4-PT	414.01	-26 20	0.00			
		1/2-PT	439.40	-26.20	0 00			
		3/4-PT	-87.63	917.80	0 00			
		END-J	-976.95	917.80	0 00			
34	CASE 1	END-I	-850.39	-1716.62	0.00	0.00	0 00	-0.01
		1/4-PT	167.07	-827.02	0 00			
		1/2-PT	472.84	62.58	0 00			
		3/4-PT	66.93	952.18	0 00			
		END-J	-1050.66	1841.78	0.00			

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UNAM FACULTAD DE INGENIERIA M.K.S

BEAM FORCES AT LEVEL N4 IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
35	CASE 1	END-I	-1216.63	-1981.34	0.00	0.00	0 00	0 00
		1/4-PT	13.60	-1091.74	0 00			
		1/2-PT	531.14	-202.14	0 00			
		3/4-PT	337.01	687.46	0 00			
		END-J	-568.80	1577.06	0 00			
36	CASE 1	END-I	-1077.71	-1915.86	0 00	0.00	0.00	0 01
		1/4-PT	99.14	-1026.26	0.00			
		1/2-PT	564 12	-136.66	0 00			
		3/4-PT	317 81	752.94	0 00			
		END-J	-640.38	1642.54	0.00			
40	CASE 1	END-I	-25675 97	-10975.05	0 00	0.00	0 00	0.00
		1/4-PT	5107 42	-6969.05	0.00			
		1/2-PT	16745.87	2242.95	0.00			
		3/4-PT	5028 10	6648.95	0.00			
		END-J	-25898.06	11051.95	0.00			
46	CASE 1	END-I	5088.91	2931.04	0.00	0 00	0.00	-0.77
		1/4-PT	3637 35	3431.44	0 00			
		1/2-PT	1980.61	3931.84	0.00			
		3/4-PT	98 69	4432.24	0.00			
		END-J	-2008.41	4932.64	0.00			
48	CASE 1	END-I	0.00	-8578.02	0.00	0.00	0.00	0 00
		1/4-PT	24642.13	-4269.02	0.00			
		1/2-PT	32307.74	441.98	0.00			
		3/4-PT	24641.70	4288.98	0.00			
		END-J	0 00	8597.98	0.00			
49	CASE 1	END-I	-19912.62	-8854.09	0 00	0 00	0.00	0 00
		1/4-PT	3953.58	-4963.59	0.00			
		1/2-PT	12831.99	1129.91	0.00			
		3/4-PT	3896.98	5029.41	0.00			
		END-J	-20137.54	8930.91	0 00			
51	CASE 1	END-I	-837.85	-6148.51	0 00	0.00	0 00	0 78
		1/4-PT	883.65	-6023.51	0.00			
		1/2-PT	2173.91	-5898.51	0.00			
		3/4-PT	3632.91	-5773.51	0.00			
		END-J	5060 66	-5648.51	0.00			
52	CASE 1	END-I	5060.66	2949.51	0.00	0.00	0.00	0 78
		1/4-PT	3629.79	3429.91	0.00			
		1/2-PT	1973.74	3910 31	0.00			
		3/4-PT	92.51	4430.71	0 00			
		END-J	-2013.90	4931.11	0 00			

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UNAM FACULTAD DE INGENIERIA M.K.S

BEAM FORCES AT LEVEL N4 IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
53	CASE 1	END-I	-848.03	-6166.94	0.00	0.00	0.00	-0.77
		1/4-PT	678.08	-6041.94	0.00			
		1/2-PT	2172.94	-5916.94	0.00			
		3/4-PT	3636.55	-5791.94	0.00			
		END-J	5068.91	-5666.94	0.00			

BRACE FORCES AT LEVEL N4 IN FRAME EDIFICIO TISSOT

BRC ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
10	CASE 1	TOP	0.00	0.00	0.00	0.00	-13433.77	0.00
		BOTTOM	0.00		0.00			
24	CASE 1	TOP	0.00	0.00	0.00	0.00	-16449.18	-0.07
		BOTTOM	0.00		0.00			
38	CASE 1	TOP	0.00	0.00	0.00	0.00	-16600.94	0.07
		BOTTOM	0.00		0.00			
52	CASE 1	TOP	0.00	0.00	0.00	0.00	-13771.95	0.01
		BOTTOM	0.00		0.00			

FLOOR FORCES AT LEVEL N4 IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT ID	OUTPUT POINT	FORCE 11	FORCE 22
2	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00
3	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00
4	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00
7	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00
8	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00
9	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00

ANALISIS
UNAM FACULTAD DE INGENIERIA M.K.S

COLUMN FORCES AT LEVEL N4 IN FRAME EDIFICIO TISSOT

COL ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
1	CASE 1	TOP	8471	-3419	200	-290	-126295	-3
		BOTTOM	-930		-701			
2	CASE 1	TOP	-8514	3445	195	-289	-126819	-3
		BOTTOM	959		-702			
3	CASE 1	TOP	8850	-7182	-19	263	-128897	-3
		BOTTOM	-10899		796			
4	CASE 1	TOP	-8910	7234	-21	264	-129182	-3
		BOTTOM	10984		796			
5	CASE 1	TOP	10397	-8804	9	-1	-125207	-3
		BOTTOM	-13814		7			
6	CASE 1	TOP	-10468	8867	6	1	-125223	-3
		BOTTOM	13917		10			
7	CASE 1	TOP	10391	-8798	242	-136	-142549	-3
		BOTTOM	-13803		-179			
9	CASE 1	TOP	-10474	8873	231	-129	-142381	-3
		BOTTOM	13926		-169			
10	CASE 1	TOP	9593	-7541	-416	312	-152936	-3
		BOTTOM	-11144		551			
12	CASE 1	TOP	-9237	7438	-426	318	-152262	-3
		BOTTOM	11218		560			
20	CASE 1	TOP	-1890.41	874.33	-341.82	196 78	-13728.15	0 01
		BOTTOM	821.30		268.50			
21	CASE 1	TOP	-2213.78	1007.68	-3.20	25.46	-23323.94	0.01
		BOTTOM	911.90		75.77			
22	CASE 1	TOP	-306.09	207.50	185 29	-138.53	-21036.42	0.01
		BOTTOM	337.48		-244 37			
24	CASE 1	TOP	-60.81	50 65	-284.77	207.92	-12588.76	0 01
		BOTTOM	106.29		373.79			
25	CASE 1	TOP	-94.65	79.17	-419.76	304.23	-16270.68	0.01
		BOTTOM	150.96		543.85			
26	CASE 1	TOP	-255.28	180.71	-394.32	260.68	-16350 65	0.01
		BOTTOM	305.23		431.37			

ANALISIS
UNAM FACULTAD DE INGENIERIA M.K.S

BEAM FORCES AT LEVEL N3 IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
1	CASE 1	END-I	-15044.69	-7037.05	0.00	0.00	0 00	0.00
		1/4-PT	3751.82	-3880.55	0.00			
		1/2-PT	10489.11	744.95	0.00			
		3/4-PT	3744.32	5901.45	0.00			
		END-J	-15100.03	7057.95	0.00			
2	CASE 1	END-I	-21396.69	-9152.88	0.00	0.00	0.00	0.00
		1/4-PT	4279.30	-5460.88	0.00			
		1/2-PT	13999.71	1863.12	0.00			
		3/4-PT	4258.85	5535.12	0.00			
		END-J	-21498.46	9207.12	0.00			
3	CASE 1	END-I	-25714.38	-10979.85	0.00	0.00	0.00	0.00
		1/4-PT	5085.22	-6573.85	0.00			

		1/4-PT	1673.88	2200.15	0.00			
		3/4-PT	5038.32	6644.15	0.00			
		END-J	-25871.63	11050.15	0.00			
8	CASE 1	END-I	0.00	-1556.65	0.00	0.00	0.00	0.02
		1/4-PT	1576.10	-1556.65	0.00			
		1/2-PT	3152.21	-1556.65	0.00			
		3/4-PT	1583.91	1564.35	0.00			
		END-J	0.00	1564.35	0.00			
9	CASE 1	END-I	0.00	0.00	0.00	0.00	0.00	-0.37
		1/4-PT	0.00	0.00	0.00			
		1/2-PT	0.00	0.00	0.00			
		3/4-PT	0.00	0.00	0.00			
		END-J	0.00	0.00	0.00			
12	CASE 1	END-I	-729.70	-717.30	0.00	0.00	0.00	0.01
		1/4-PT	-49.14	-717.30	0.00			
		1/2-PT	631.42	-717.30	0.00			
		3/4-PT	445.69	200.70	0.00			
		END-J	255.17	200.70	0.00			
13	CASE 1	END-I	207.90	-243.18	0.00	0.00	0.00	-0.14
		1/4-PT	255.41	31.47	0.00			
		1/2-PT	179.65	306.12	0.00			
		3/4-PT	-19.36	580.78	0.00			
		END-J	-341.63	855.43	0.00			
16	CASE 1	END-I	-119.58	-60.47	0.00	0.00	0.00	0.01
		1/4-PT	-58.57	-60.47	0.00			
		1/2-PT	2.44	-60.47	0.00			
		3/4-PT	63.45	-60.47	0.00			
		END-J	124.46	-60.47	0.00			

ANALISIS
UNAM FACULTAD DE INGENIERIA M.K.S

BEAM FORCES AT LEVEL N3 IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
17	CASE 1	END-I	30.25	-244.61	0.00	0.00	0.00	0.01
		1/4-PT	102.75	-66.12	0.00			
		1/2-PT	91.96	112.36	0.00			
		3/4-PT	-2.12	290.85	0.00			
		END-J	-179.48	469.33	0.00			
19	CASE 1	END-I	-529.32	-1429.86	0.00	0.00	0.00	-0.01
		1/4-PT	199.14	-651.46	0.00			
		1/2-PT	382.72	126.94	0.00			
		3/4-PT	21.42	905.34	0.00			
		END-J	-884.76	1683.74	0.00			
20	CASE 1	END-I	-546.67	-1580.41	0.00	0.00	0.00	0.00
		1/4-PT	361.82	-650.81	0.00			
		1/2-PT	556.63	198.79	0.00			
		3/4-PT	43.76	1088.39	0.00			
		END-J	-1182.79	1977.99	0.00			
21	CASE 1	END-I	-1251.76	-1998.64	0.00	0.00	0.00	0.00
		1/4-PT	-8.69	-1109.04	0.00			
		1/2-PT	522.71	-219.44	0.00			
		3/4-PT	342.42	670.16	0.00			
		END-J	-549.55	1559.76	0.00			
22	CASE 1	END-I	-1088.73	-1923.59	0.00	0.00	0.00	0.00
		1/4-PT	94.30	-1033.59	0.00			
		1/2-PT	565.66	-148.39	0.00			
		3/4-PT	328.33	745.21	0.00			
		END-J	-626.67	1634.81	0.00			
25	CASE 1	END-I	94.14	2457.67	0.00	0.00	0.00	-0.09
		1/4-PT	-948.05	2627.87	0.00			
		1/2-PT	-1894.48	2797.67	0.00			
		3/4-PT	-2595.15	2968.28	0.00			
		END-J	-3604.06	3138.48	0.00			
26	CASE 1	END-I	98.12	630.60	0.00	0.00	0.00	-0.10
		1/4-PT	-109.32	630.60	0.00			
		1/2-PT	-316.76	630.60	0.00			
		3/4-PT	-524.20	630.60	0.00			
		END-J	-731.64	630.60	0.00			
27	CASE 1	END-I	142.17	2452.15	0.00	0.00	0.00	0.03
		1/4-PT	-724.60	2794.24	0.00			
		1/2-PT	-1704.39	3136.32	0.00			
		3/4-PT	-2797.22	3478.41	0.00			
		END-J	-4003.09	3820.50	0.00			

ANALISIS
UNAM FACULTAD DE INGENIERIA M.K.S

BEAM FORCES AT LEVEL N3 IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
28	CASE 1	END-I	256.83	204.63	0.00	0.00	0.00	0.03
		1/4-PT	102.55	204.63	0.00			
		1/2-PT	-51.73	204.63	0.00			
		3/4-PT	-206.02	204.63	0.00			
		END-J	-1015.57	1148.63	0.00			
29	CASE 1	END-I	-0.37	0.00	0.00	0.00	0.00	0.00
		1/4-PT	-28.49	170.20	0.00			
		1/2-PT	-112.85	340.40	0.00			
		3/4-PT	-253.45	510.60	0.00			
		END-J	-450.28	680.80	0.00			
30	CASE 1	END-I	328.78	-50.90	0.00	0.00	0.00	0.03
		1/4-PT	378.10	-50.90	0.00			
		1/2-PT	427.42	-50.90	0.00			
		3/4-PT	-75.68	893.10	0.00			
		END-J	-961.06	893.10	0.00			
33	CASE 1	END-I	-531.97	-1431.57	0.00	0.00	0.00	0.01
		1/4-PT	197.69	-653.17	0.00			
		1/2-PT	382.47	125.23	0.00			
		3/4-PT	22.37	903.63	0.00			
		END-J	-882.61	1682.03	0.00			
34	CASE 1	END-I	-549.93	-1582.46	0.00	0.00	0.00	0.00
		1/4-PT	360.19	-692.86	0.00			
		1/2-PT	568.64	196.74	0.00			
		3/4-PT	45.40	1086.34	0.00			
		END-J	-1179.51	1975.94	0.00			
35	CASE 1	END-I	-1250.77	-1998.42	0.00	0.00	0.00	0.00
		1/4-PT	-8.03	-1108.62	0.00			
		1/2-PT	523.02	-219.02	0.00			
		3/4-PT	342.40	670.58	0.00			
		END-J	-549.90	1560.18	0.00			
36	CASE 1	END-I	-1076.70	-1916.07	0.00	0.00	0.00	0.00
		1/4-PT	100.32	-1026.47	0.00			
		1/2-PT	565.66	-136.87	0.00			
		3/4-PT	329.32	752.73	0.00			
		END-J	-636.70	1642.33	0.00			
40	CASE 1	END-I	-25603.53	-10975.29	0.00	0.00	0.00	0.00
		1/4-PT	5100.67	-6569.29	0.00			
		1/2-PT	16739.91	2242.71	0.00			
		3/4-PT	5022.95	6648.71	0.00			
		END-J	-25902.41	11054.71	0.00			

ANAL..IS
UNAM FACULTAD DE INGENIERIA M.K.S

BEAM FORCES AT LEVEL N3 IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
41	CASE 1	END-I	-22557.87	-9997.35	0.00	0.00	0.00	0.00
		1/4-PT	-14839.99	-9603.69	0.00			
		1/2-PT	-7432.19	-9209.85	0.00			
		3/4-PT	-1241.21	-6613.10	0.00			
		END-J	3809.57	-6219.35	0.00			
42	CASE 1	END-I	3809.48	-5266.02	0.00	0.00	0.00	0.00
		1/4-PT	6475.49	-5266.02	0.00			
		1/2-PT	9141.32	-5266.02	0.00			
		3/4-PT	11105.04	-3063.02	0.00			
		END-J	12655.69	-3063.02	0.00			
43	CASE 1	END-I	12655.69	-3063.02	0.00	0.00	0.00	0.00
		1/4-PT	13263.71	-1201.02	0.00			
		1/2-PT	13871.72	-1201.02	0.00			
		3/4-PT	14479.74	-1201.02	0.00			
		END-J	14107.42	1001.98	0.00			
44	CASE 1	END-I	14107.44	1968.54	0.00	0.00	0.00	0.00
		1/4-PT	10386.83	2756.04	0.00			
		1/2-PT	2782.30	5746.54	0.00			
		3/4-PT	-7714.79	8737.04	0.00			
		END-J	-22095.79	9524.54	0.00			
45	CASE 1	END-I	0.00	-953.33	1.59	0.90	48.11	-0.09
		1/4-PT	649.39	-489.74	0.78			
		1/2-PT	881.54	-26.15	-0.03			
		3/4-PT	696.46	437.44	-0.84			
		END-J	94.15	901.03	-1.65			
47	CASE 1	END-I	0.00	-966.56	1.59	0.90	196.60	0.03
		1/4-PT	661.29	-502.97	0.78			
		1/2-PT	905.35	-39.38	-0.03			
		3/4-PT	732.18	424.21	-0.84			
		END-J	141.78	887.80	-1.65			

BRACE FORCES AT LEVEL N3 IN FRAME EDIFICIO TISSOT

BRC ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
11	CASE 1	TOP	0.00	0.00	0.00	0.00	-10119.10	0.00
		BOTTOM	0.00		0.00			
25	CASE 1	TOP	0.00	0.00	0.00	0.00	-12344.79	0.04
		BOTTOM	0.00		0.00			

ANALISIS
UNAM FACULTAD DE INGENIERIA M.K.S

BRACE FORCES AT LEVEL N3 IN FRAME EDIFICIO TISSOT

BRC ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
39	CASE 1	TOP	0.00	0.00	0.00	0.00	-12459.99	-0.04
		BOTTOM	0.00		0.00			
53	CASE 1	TOP	0.00	0.00	0.00	0.00	-10174.87	0.00
		BOTTOM	0.00		0.00			

FLOOR FORCES AT LEVEL N3 IN FRAME EDIFICIO TISSOT

BA. ID	OUTPUT ID	OUTPUT POINT	...ACE 11	...ACE 22
1	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00
2	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00
3	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00
4	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00
5	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00
6	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00
7	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00
8	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00

ANALISIS
UNAM FACULTAD DE INGENIERIA M.K.S

COLUMN FORCES AT LEVEL N2 IN FRAME EDIFICIO TISSOT

COL ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
1	CASE 1	TOP	-929	-1574	956	-584	-132527	-3
		BOTTOM	-6439		-648			
2	CASE 1	TOP	959	1571	965	-592	-133071	-3
		BOTTOM	6459		-661			
3	CASE 1	TOP	7914	-6755	-750	387	-137415	-3
		BOTTOM	-10662		313			
6	CASE 1	TOP	-7932	6782	-744	380	-137715	-3
		BOTTOM	10718		300			
5	CASE 1	TOP	10406	-8553	177	-89	-140418	-3
		BOTTOM	-13114		-100			
6	CASE 1	TOP	-10447	8604	180	-93	-140501	-3
		BOTTOM	13215		-110			
7	CASE 1	TOP	10398	-8541	306	-195	-151761	-3
		BOTTOM	-13094		-306			
9	CASE 1	TOP	-10459	8619	30.	-195	-151504	-3
		BOTTOM	13243		-301			

10	CASE 1	TOP	-738	-1.39	-229	-147	-162675	-3
		BOTTOM	-10769		437			
12	CASE 1	TOP	-7908	6691	-332	248	-162260	-3
		BOTTOM	10491		436			
20	CASE 1	TOP	-671.83	839.51	-212.25	171.19	-12286.06	-0.01
		BOTTOM	1931.89		318.69			
21	CASE 1	TOP	-595.62	861.02	-111.28	52.37	-23538.54	-0.01
		BOTTOM	2074.81		51.14			
22	CASE 1	TOP	-420.10	277.53	185.86	-115.80	-22910.05	-0.01
		BOTTOM	440.66		-173.29			
24	CASE 1	TOP	-122.91	85.65	-414.13	260.54	-14353.00	-0.01
		BOTTOM	142.75		411.12			
25	CASE 1	TOP	-149.34	99.54	-537.70	330.36	-18037.04	-0.01
		BOTTOM	159.41		508.74			
26	CASE 1	TOP	-271.84	192.63	-413.05	273.94	-17731.08	-0.01
		BOTTOM	322.64		454.61			

ANALISIS
UNAM FACULTAD DE INGENIERIA M.K.S

BEAM FORCES AT LEVEL N2 IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
2	CASE 1	END-I	-20036.26	-8541.83	0.00	0.00	0.00	0.00
		1/4-PT	3925.39	-5118.83	0.00			
		1/2-PT	12996.04	1739.17	0.00			
		3/4-PT	3900.17	5166.17	0 00			
		END-J	-20136.05	8593.17	0 00			
3	CASE 1	END-I	-25692.99	-10980.25	0.00	0.00	0.00	0.00
		1/4-PT	5107.94	-6576 25	0.00			
		1/2-PT	16763.92	2237.75	0.00			
		3/4-PT	5063.70	6613.75	0.00			
		END-J	-25844.92	11049.75	0.00			
9	CASE 1	END-I	0.00	-392.06	0.00	0.00	0.00	0.02
		1/4-PT	150 70	-196.03	0 00			
		1/2-PT	200.93	0 00	0.00			
		3/4-PT	150.70	196.03	0.00			
		END-J	0.00	392.06	0.00			
12	CASE 1	END-I	-514 72	-268.71	0.00	0.00	0.00	0.00
		1/4-PT	-259.77	-268.71	0.00			
		1/2-PT	-4.82	-268.71	0.00			
		3/4-PT	250 12	-268.71	0.00			
		END-J	505.07	-268.71	0.00			
13	CASE 1	END-I	401 00	-498.57	0.00	0.00	0.00	0.01
		1/4-PT	526.60	-52.26	0.00			
		1/2-PT	449 91	394.05	0.00			
		3/4-PT	172.92	840.36	0.00			
		END-J	-304.36	1286.67	0.00			
16	CASE 1	END-I	-114.69	-57.44	0.00	0.00	0.00	0.02
		1/4-PT	-56.71	-57.44	0.00			
		1/2-PT	1.24	-57.44	0.00			
		3/4-PT	59.18	-57.44	0.00			
		END-J	117.13	-57.44	0.00			
17	CASE 1	END-I	-5.90	-277.55	0.00	0.00	0.00	-0.04
		1/4-PT	81.97	-99.07	0.00			
		1/2-PT	86.55	79.42	0.00			
		3/4-PT	7.85	257.90	0.00			
		END-J	-154.14	436.39	0.00			

4c	CASE 1	END-I	-8...09	-1...74	.00	.00	.00	.01
		1/4-PT	150.06	-849.14	0.00			
		1/2-PT	473.51	40.46	0.00			
		3/4-PT	85.32	930.06	0.00			
		END-J	-1014.57	1819.66	0.00			

ANALISIS
UNAM FACULTAD DE INGENIERIA M.K.S

BEAM FORCES AT LEVEL N2 IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
21	CASE 1	END-I	-1190.34	-1965.74	0.00	0.00	0.00	0.00
		1/4-PT	26.41	-1076.14	0.00			
		1/2-PT	531.49	-186.54	0.00			
		3/4-PT	324.88	703.06	0.00			
		END-J	-593.41	1592.66	0.00			
22	CASE 1	END-I	-1090.46	-1923.38	0.00	0 00	0.00	-0.01
		1/4-PT	92.40	-1033.78	0.00			
		1/2-PT	563.58	-144.18	0 00			
		3/4-PT	323.08	745.42	0 00			
		END-J	-629.10	1635.02	0.00			
26	CASE 1	END-I	1523.37	1706.81	0.00	0.00	0.00	0.00
		1/4-PT	961.90	1706.81	0.00			
		1/2-PT	400.43	1706.81	0.00			
		3/4-PT	-161.04	1706.81	0.00			
		END-J	-722.51	1706.81	0.00			
27	CASE 1	END-I	-0.02	392.06	0.00	0.00	0.00	0.00
		1/4-PT	-129.57	392.06	0.00			
		1/2-PT	-259.11	392.06	0 00			
		3/4-PT	-388.66	392.06	0 00			
		END-J	-518.21	392.06	0.00			
28	CASE 1	END-I	1166.88	534.05	0 00	0.00	0.00	0.01
		1/4-PT	764.21	534.05	0.00			
		1/2-PT	361.57	534.05	0.00			
		3/4-PT	-41.08	534.05	0.00			
		END-J	-1099.00	1478.05	0.00			
29	CASE 1	END-I	0.02	392.06	0.00	0.00	0 00	0.00
		1/4-PT	-129.51	392.06	0.00			
		1/2-PT	-259.07	392.06	0.00			
		3/4-PT	-388.62	392.06	0.00			
		END-J	-518.17	392.06	0 00			
30	CASE 1	END-I	292.28	-68.15	0.00	0.00	0.00	0.04
		1/4-PT	358.32	-68.15	0 00			
		1/2-PT	424.34	-68 15	0.00			
		3/4-PT	-62.03	875 85	0.00			
		END-J	-910.69	875.85	0.00			
34	CASE 1	END-I	-888 35	-1740.86	0.00	0.00	0.00	-0.01
		1/4-PT	148 50	-851.26	0.00			
		1/2-PT	473.64	38 36	0.00			
		3/4-PT	87.15	927.94	0.00			
		END-J	-1011.04	1817.54	0 00			

ANALISIS
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BEAM FORCES AT LEVEL N2 IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
35	CASE 1	END-I	-1189.28	-1965.25	0.00	0.00	0 00	0.00
		1/4-PT	27.08	-1075.65	0.00			

		-PT	5.76	-4.05	.00			
		1/4-PT	324.76	703.55	0.00			
		END-J	-593.92	1593.15	0.00			
36	CASE 1	END-I	-1079.73	-1916 65	0.00	0.00	0.00	0.01
		1/4-PT	97.75	-1027.05	0.00			
		1/2-PT	563.55	-137.45	0.00			
		3/4-PT	317.67	752.15	0 00			
		END-J	-639.89	1641.75	0.00			
40	CASE 1	END-I	-25664.07	-10975.94	0.00	0.00	0.00	0.00
		1/4-PT	5142.33	-6569.94	0.00			
		1/2-PT	16763.79	2242.06	0.00			
		3/4-PT	5049.04	6648.06	0.00			
		END-J	-25874.11	11054.06	0.00			
46	CASE 1	END-I	5029.94	2945.74	0.00	0.00	0.00	-0.77
		1/4-PT	3591.77	3446.14	0.00			
		1/2-PT	1928.42	3946.54	0.00			
		3/4-PT	39 89	4445.94	0.00			
		END-J	-2073 83	4947.34	0.00			
48	CASE 1	END-I	0.00	-8578.02	0.00	0.00	0.00	0.00
		1/4-PT	24642.13	-4269.02	0.00			
		1/2-PT	32307.74	621.98	0.00			
		3/4-PT	24641.70	4288.98	0.00			
		END-J	0.00	8597.98	0.00			
49	CASE 1	END-I	-19892.80	-8856.54	0.00	0.00	0.00	0.00
		1/4-PT	4021.68	-4966.04	0 00			
		1/2-PT	12668.38	1127.46	0.00			
		3/4-PT	3941.65	5017.96	0.00			
		END-J	-20084.58	8908.46	0.00			
51	CASE 1	END-I	-860 29	-6132.63	0.00	0.00	0.00	0 77
		1/4-PT	657 24	-6007.63	0.00			
		1/2-PT	2143.52	-5882.63	0.00			
		3/4-PT	3598.56	-5757.63	0.00			
		END-J	5022.34	-5632.63	0.00			
52	CASE 1	END-I	5022.34	2945.40	0 00	0.00	0 00	0.77
		1/4-PT	3584.32	3445 80	0.00			
		1/2-PT	1921.12	3946.20	0.00			
		3/4-PT	32.74	4446.60	0.00			
		END-J	-2060.61	4947.00	0.00			

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BEAM FORCES AT LEVEL N2 IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
53	CASE 1	END-I	-872.30	-6152.24	0.00	0.00	0.00	-0.77
		1/4-PT	650.14	-6027.24	0 00			
		1/2-PT	2141.32	-5902.24	0 00			
		3/4-PT	3601.26	-5777 24	0.00			
		END-J	5029.94	-5652.24	0.00			

BRACE FORCES AT LEVEL N2 IN FRAME EDIFICIO TISSOT

BRC ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
12	CASE 1	TOP	0.00	0.00	0.00	0.00	-18330.87	-0.03
		BOTTOM	0.00		0.00			
36	CASE 1	TOP	0.00	0.00	0.00	0.00	-21353.86	-0.05
		BOTTOM	0 00		0.00			
40	CASE 1	TOP	0.00	0.00	0.00	0.00	-21515.59	0.05
		BOTTOM	0.00		0.00			
54	CASE 1	TOP	0.00	0.00	0.00	0 00	-18418 28	0.04
		BOTTOM	0.00		0.00			

FLOOR FORCES AT LEVEL N2 IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT ID	OUTPUT POINT	FORCE 11	FORCE 22
2	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00
3	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00
4	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0 00	0.00
		NODE L	0 00	0.00
7	CASE 1	NODE I	0 00	0.00
		NODE J	0 00	0.00
		NODE K	0 00	0.00
		NODE L	0.00	0 00
8	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00
9	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00

ANALISIS
UNAM FACULTAD DE INGENIERIA M.K.S

COLUMN FORCES AT LEVEL N1 IN FRAME EDIFICIO TISSOT

COL ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
1	CASE 1	TOP	8503	-4605	155	-145	-157226	-1
		BOTTOM	-4160		-295			
2	CASE 1	TOP	-8519	4610	145	-140	-157909	-1
		BOTTOM	4159		-291			
3	CASE 1	TOP	8892	-8069	127	39	-150312	-1
		BOTTOM	-13297		258			
4	CASE 1	TOP	-8910	8119	128	44	-150665	-1
		BOTTOM	13417		264			
5	CASE 1	TOP	10444	-9580	7	32	-131823	-1
		BOTTOM	-15902		106			
6	CASE 1	TOP	-10458	9637	-2	35	-131850	-1
		BOTTOM	16044		106			
7	CASE 1	TOP	10446	-9573	184	-69	-166691	-1
		BOTTOM	-15880		-50			
9	CASE 1	TOP	-10456	9633	170	-63	-166501	-1
		BOTTOM	16036		-26			
10	CASE 1	TOP	9750	-9251	-435	349	-184816	-1
		BOTTOM	-15198		616			

1	CASE 1	TOP	-.285	-.195	-.48	.42	-1v.895	-1
		BOTTOM	16002		614			
20	CASE 1	TOP	-1949.10	1165.29	-326.70	218.31	-15305.38	0.00
		BOTTOM	1665.02		350.39			
21	CASE 1	TOP	-2180.28	1266.74	24.43	-11.22	-28049.43	0.00
		BOTTOM	1748.49		-10.37			
22	CASE 1	TOP	-276.33	278.08	341.19	-103.35	-24588.30	0.00
		BOTTOM	586.14		-179.33			
24	CASE 1	TOP	-84.59	81.28	-304.75	218.34	-15203.61	0.00
		BOTTOM	167.51		386.83			
25	CASE 1	TOP	-74.61	64.81	-372.42	267.22	-19460.58	0.00
		BOTTOM	126.41		473.96			
26	CASE 1	TOP	-227.82	167.13	-365.52	245.28	-19075.46	0.00
		BOTTOM	290.57		411.38			

ANALISIS
UNAM FACULTAD DE INGENIERIA M.K.S

BEAM FORCES AT LEVEL N1 IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
1	CASE 1	END-I	-15178.82	-7037.41	0.00	0.00	0.00	0.00
		1/4-PT	3638.51	-3890.91	0.00			
		1/2-PT	10377.42	744.59	0.00			
		3/4-PT	3633.86	3901.09	0.00			
		END-J	-15209.27	7057.59	0.00			
2	CASE 1	END-I	-21486.14	-9153.85	0.00	0.00	0.00	0.00
		1/4-PT	4193.13	-5481.85	0.00			
		1/2-PT	13916.83	1862.15	0.00			
		3/4-PT	4175.25	5534.15	0.00			
		END-J	-21574.78	9206.15	0.00			
3	CASE 1	END-I	-25801.17	-10982.00	0.00	0.00	0.00	0.00
		1/4-PT	5005.67	-6576.00	0.00			
		1/2-PT	16661.55	2236.00	0.00			
		3/4-PT	4971.22	6642.00	0.00			
		END-J	-25929.50	11048.00	0.00			
8	CASE 1	END-I	0.00	-1556.65	0.00	0.00	0.00	0.02
		1/4-PT	1576.19	-1556.65	0.00			
		1/2-PT	3152.21	-1556.65	0.00			
		3/4-PT	1583.91	1561.35	0.00			
		END-J	0.00	1561.35	0.00			
9	CASE 1	END-I	0.00	0.00	0.00	0.00	0.00	-0.34
		1/4-PT	0.00	0.00	0.00			
		1/2-PT	0.00	0.00	0.00			
		3/4-PT	0.00	0.00	0.00			
		END-J	0.00	0.00	0.00			
12	CASE 1	END-I	-648.98	-654.30	0.00	0.00	0.00	0.01
		1/4-PT	-28.19	-654.30	0.00			
		1/2-PT	592.59	-654.30	0.00			
		3/4-PT	348.99	263.70	0.00			
		END-J	96.79	263.70	0.00			
13	CASE 1	END-I	91.28	-355.82	0.00	0.00	0.00	-0.12
		1/4-PT	189.33	-81.16	0.00			
		1/2-PT	166.13	193.49	0.00			
		3/4-PT	15.66	468.14	0.00			
		END-J	-256.06	742.79	0.00			
16	CASE 1	END-I	-83.09	-41.17	0.00	0.00	0.00	0.01
		1/4-PT	-41.55	-41.17	0.00			
		1/2-PT	-0.01	-41.17	0.00			
		3/4-PT	41.52	-41.17	0.00			
		END-J	83.06	-41.17	0.00			

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BEAM FORCES AT LEVEL N1 IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
17	CASE 1	END-I	-21.07	-296.95	0.00	0.00	0.00	0.01
		1/4-PT	75.85	-118.46	0.00			
		1/2-PT	89.49	60.02	0.00			
		3/4-PT	19.83	238.51	0.00			
		END-J	-133.10	416.99	0.00			
19	CASE 1	END-I	-547.76	-1458.31	0.00	0.00	0.00	-0.01
		1/4-PT	197.82	-675.91	0.00			
		1/2-PT	398.51	102.49	0.00			
		3/4-PT	54.33	880.89	0.00			
		END-J	-834.73	1659.29	0.00			
20	CASE 1	END-I	-647.71	-1638.84	0.00	0.00	0.00	0.00
		1/4-PT	307.53	-769.24	0.00			
		1/2-PT	551.09	140.36	0.00			
		3/4-PT	82.96	1029.96	0.00			
		END-J	-1096.86	1919.56	0.00			
21	CASE 1	END-I	-1183.90	-1958.05	0.00	0.00	0.00	0.00
		1/4-PT	26.70	-1068.45	0.00			
		1/2-PT	525.62	-178.85	0.00			
		3/4-PT	312.86	710.75	0.00			
		END-J	-611.59	1600.35	0.00			
22	CASE 1	END-I	-1061.49	-1906.28	0.00	0.00	0.00	0.00
		1/4-PT	107.69	-1016.68	0.00			
		1/2-PT	565.19	-127.08	0.00			
		3/4-PT	311.02	762.52	0.00			
		END-J	-654.84	1652.12	0.00			
25	CASE 1	END-I	295.25	2401.81	0.00	0.00	0.00	-0.10
		1/4-PT	-526.49	2572.01	0.00			
		1/2-PT	-1404.66	2742.21	0.00			
		3/4-PT	-2338.67	2912.41	0.00			
		END-J	-3329.11	3082.61	0.00			
26	CASE 1	END-I	314.10	809.44	0.00	0.00	0.00	-0.07
		1/4-PT	47.83	809.44	0.00			
		1/2-PT	-218.44	809.44	0.00			
		3/4-PT	-484.71	809.44	0.00			
		END-J	-750.98	809.44	0.00			
27	CASE 1	END-I	272.34	2415.98	0.00	0.00	0.00	0.02
		1/4-PT	-582.47	2758.07	0.00			
		1/2-PT	-1550.32	3100.16	0.00			
		3/4-PT	-2631.20	3442.24	0.00			
		END-J	-3825.11	3784.33	0.00			

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BEAM FORCES AT LEVEL N1 IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
28	CASE 1	END-I	215.97	155.56	0.00	0.00	0.00	0.01
		1/4-PT	98.68	155.56	0.00			
		1/2-PT	-18.60	155.56	0.00			
		3/4-PT	-135.88	155.56	0.00			
		END-J	-908.44	1049.56	0.00			

29 CASE 1	END-I	-0.34	0.00	0.00	0.00	0.00	0.00
	1/4-PT	-28.46	170.20	0.00			
	1/2-PT	-112.81	340.40	0.00			
	3/4-PT	-253.41	510.60	0.00			
	END-J	-450.24	680.80	0.00			
30 CASE 1	END-I	262.99	-84.81	0.00	0.00	0.00	0.03
	1/4-PT	345.17	-84.81	0.00			
	1/2-PT	427.35	-84.81	0.00			
	3/4-PT	-82.68	859.19	0.00			
	END-J	-675.40	959.19	0.00			
33 CASE 1	END-I	-548.12	-1454.44	0.00	0.00	0.00	0.01
	1/4-PT	197.65	-676.04	0.00			
	1/2-PT	398.34	102.36	0.00			
	3/4-PT	51.25	880.76	0.00			
	END-J	-834.72	1659.16	0.00			
34 CASE 1	END-I	-849.01	-1639.73	0.00	0.00	0.00	0.00
	1/4-PT	306.94	-740.13	0.00			
	1/2-PT	551.21	139.47	0.00			
	3/4-PT	81.79	1029.07	0.00			
	END-J	-1095.30	1918.67	0.00			
35 CASE 1	END-I	-1181.54	-1956.78	0.00	0.00	0.00	0.00
	1/4-PT	28.04	-1067.18	0.00			
	1/2-PT	525.94	-177.58	0.00			
	3/4-PT	312.16	712.02	0.00			
	END-J	-613.30	1601.62	0.00			
36 CASE 1	END-I	-1049.89	-1989.07	0.00	0.00	0.00	0.01
	1/4-PT	113.53	-1009.47	0.00			
	1/2-PT	565.26	-119.87	0.00			
	3/4-PT	305.31	769.73	0.00			
	END-J	-666.31	1659.33	0.00			
40 CASE 1	END-I	-25978.31	-10978.69	0.00	0.00	0.00	0.00
	1/4-PT	5017.36	-6572.69	0.00			
	1/2-PT	16668.08	2239.31	0.00			
	3/4-PT	4962.60	6645.31	0.00			
	END-J	-25951.29	11051.31	0.00			

ANALISIS
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BEAM FORCES AT LEVEL N1 IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
41 CASE 1		END-I	-28880.17	-10068.03	0.00	0.00	0.00	0.00
		1/4-PT	-15109.79	+9670.28	0.00			
		1/2-PT	-7648.48	-9276.53	0.00			
		3/4-PT	-1407.99	-6679.78	0.00			
		END-J	3697.29	-6286.03	0.00			
42 CASE 1		END-I	3697.19	-5276.83	0.00	0.00	0.00	0.00
		1/4-PT	6468.59	-5276.83	0.00			
		1/2-PT	9039.98	-5276.83	0.00			
		3/4-PT	11009.17	-3073.83	0.00			
		END-J	12565.30	-3073.83	0.00			
43 CASE 1		END-I	12565.30	-3073.83	0.00	0.00	0.00	0.00
		1/4-PT	13178.79	-1211.83	0.00			
		1/2-PT	13792.28	-1211.83	0.00			
		3/4-PT	14405.77	-1211.83	0.00			
		END-J	14038.92	991.17	0.00			
44 CASE 1		END-I	14038.94	1993.90	0.00	0.00	0.00	0.00
		1/4-PT	10278.39	2781.40	0.00			
		1/2-PT	2633.93	5771.90	0.00			
		3/4-PT	-7903.09	8762.40	0.00			
		END-J	-27324.03	9549.90	0.00			

45 CASE 1	END-I	0.00	+1009.20	0.45	0.25	-241.59	-0.00
	1/4-PT	699.66	-545.61	0.22			
	1/2-PT	982.10	-82.02	0.00			
	3/4-PT	847.30	381.57	-0.22			
	END-J	295.27	845.16	-0.45			
47 CASE 1	END-I	0.00	+1002.73	0.45	0.25	-241.80	0.02
	1/4-PT	693.84	-539.14	0.22			
	1/2-PT	970.45	-75.55	0.00			
	3/4-PT	829.83	388.04	-0.22			
	END-J	271.98	851.63	-0.45			

BRACE FORCES AT LEVEL N1 IN FRAME EDIFICIO TISSOT

BRC ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL F'CE	TORSIONAL MOMENT
13 CASE 1		TOP	0.00	0.00	0.00	0.00	-757.91	0.06
		BOTTOM	0.00		0.00			
27 CASE 1		TOP	0.00	0.00	0.00	0.00	-7855.32	-0.02
		BOTTOM	0.00		0.00			

ANALISIS
UNAM FACULTAD DE INGENIERIA M.K.S

BRACE FORCES AT LEVEL N1 IN FRAME EDIFICIO TISSOT

BRC ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL F'CE	TORSIONAL MOMENT
41 CASE 1		TOP	0.00	0.00	0.00	0.00	-1854.19	0.02
		BOTTOM	0.00		0.00			
55 CASE 1		TOP	0.00	0.00	0.00	0.00	-15908.76	-0.06
		BOTTOM	0.00		0.00			

FLOOR FORCES AT LEVEL N1 IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT ID	OUTPUT POINT	FORCE 11	FORCE 22
1 CASE 1		NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00
2 CASE 1		NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00
3 CASE 1		NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00
4 CASE 1		NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00
5 CASE 1		NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00
6 CASE 1		NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00

7	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00
8	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00

ANALISIS
UNAM FACULTAD DE INGENIERIA M.K.S

COLUMN FORCES AT LEVEL MEZ IN FRAME EDIFICIO TISSOT

COL ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
1	CASE 1	TOP	-4159	3361	662	-498	-159993	0
		BOTTOM	7601		-705			
2	CASE 1	TOP	4159	-3290	654	-490	-160672	0
		BOTTOM	-7352		-693			
3	CASE 1	TOP	8597	-4598	-62	-39	-153271	0
		BOTTOM	-4049		-168			
4	CASE 1	TOP	-8565	4565	-73	-30	-153690	0
		BOTTOM	3990		-156			
5	CASE 1	TOP	10366	-5497	261	-202	-145122	0
		BOTTOM	-4752		-366			
6	CASE 1	TOP	-10340	5462	254	-196	-145202	0
		BOTTOM	4682		-353			
7	CASE 1	TOP	10362	-5512	291	-209	-172807	0
		BOTTOM	-4797		-357			
9	CASE 1	TOP	-10344	5493	275	-193	-172533	0
		BOTTOM	4762		-322			
10	CASE 1	TOP	10551	-5504	-387	331	-201175	0
		BOTTOM	-4585		640			
12	CASE 1	TOP	-10605	5018	-377	323	-200328	0
		BOTTOM	3194		624			
13	CASE 1	TOP	8702.35	-4410.99	-1528.20	1034.81	-6424.66	-0.49
		BOTTOM	-3427.88		1660.18			
18	CASE 1	TOP	-8339.21	5145.20	-1507.97	984.20	-6439.67	-0.49
		BOTTOM	5809.41		1543.52			
20	CASE 1	TOP	-1059.00	831.20	-265.47	169.12	-16419.39	0.00
		BOTTOM	1518.96		259.06			
21	CASE 1	TOP	-1058.53	862.52	-7.65	1.36	-31225.41	0.00
		BOTTOM	1616.56		-3.44			
22	CASE 1	TOP	-730.02	622.12	86.31	-24.88	-26887.51	0.00
		BOTTOM	1199.46		9.15			
24	CASE 1	TOP	-36.19	-2.86	-242.70	112.43	-16349.39	0.00
		BOTTOM	-35.05		113.43			

ANALISIS
UNAM FACULTAD DE INGENIERIA M.K.S

COLUMN FORCES AT LEVEL MEZ IN FRAME EDIFICIO TISSOT

COL ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
25	CASE 1	TOP	-9.72	-2.54	-307.38	145.25	-20284.54	0.00
		BOTTOM	-17.58		152.68			
26	CASE 1	TOP	-145.93	95.90	-277.86	157.47	-20284.92	0.00
		BOTTOM	147.43		220.91			

BEAM FORCES AT LEVEL MEZ IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
2	CASE 1	END-I	-21222.75	-9157.21	0.00	0.00	0.00	0.00
		1/4-PT	8467.85	-5485.20	0.00			
		1/2-PT	14202.86	1858.80	0.00			
		3/4-PT	8472.61	5530.80	0.00			
		END-J	-21266.10	9202.79	0.00			
3	CASE 1	END-I	-25446.87	-10986.73	0.00	0.00	0.00	0.00
		1/4-PT	5375.95	-6580.73	0.00			
		1/2-PT	17053.81	2231.27	0.00			
		3/4-PT	5375.47	6637.27	0.00			
		END-J	-25511.27	11043.27	0.00			
7	CASE 1	END-I	-9941.03	-4599.02	0.00	0.00	0.00	0.00
		1/4-PT	-6219.30	-4599.02	0.00			
		1/2-PT	-2697.57	-4599.02	0.00			
		3/4-PT	15.42	-2396.02	0.00			
		END-J	1902.29	-2396.02	0.00			
8	CASE 1	END-I	1902.14	-3716.87	0.00	0.00	0.00	0.00
		1/4-PT	5469.41	-3329.59	0.00			
		1/2-PT	6827.08	-739.31	0.00			
		3/4-PT	7379.57	-352.03	0.00			
		END-J	6548.58	2238.26	0.00			
9	CASE 1	END-I	6548.64	690.38	0.00	0.00	0.00	0.00
		1/4-PT	6247.09	686.41	0.00			
		1/2-PT	5845.07	882.45	0.00			
		3/4-PT	5342.58	1078.48	0.00			
		END-J	4519.33	3477.51	0.00			
12	CASE 1	END-I	-571.76	-849.83	0.00	0.00	0.00	0.00
		1/4-PT	62.38	-486.92	0.00			
		1/2-PT	352.20	-124.01	0.00			
		3/4-PT	297.70	238.90	0.00			
		END-J	-101.12	601.80	0.00			

ANALISIS
UNAM FACULTAD DE INGENIERIA M.K.S

BEAM FORCES AT LEVEL MEZ IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
13	CASE 1	END-I	-62.95	-845.46	0.00	0.00	0.00	-0.01
		1/4-PT	218.33	-399.15	0.00			
		1/2-PT	295.31	47.16	0.00			
		3/4-PT	174.00	493.47	0.00			
		END-J	-147.60	939.78	0.00			
16	CASE 1	END-I	-86.25	-40.37	0.00	0.00	0.00	0.01
		1/4-PT	-45.52	-40.37	0.00			
		1/2-PT	-4.79	-40.37	0.00			
		3/4-PT	35.94	-40.37	0.00			
		END-J	76.67	-40.37	0.00			
17	CASE 1	END-I	-78.46	-357.49	0.00	0.00	0.00	-0.02
		1/4-PT	46.72	-179.01	0.00			
		1/2-PT	88.60	-0.52	0.00			

		3/4-PT	47.21	177.96	0.00			
		END-J	-77.48	356.45	0.00			
20	CASE 1	END-I	-531.09	-996.32	0.00	0.00	0.00	0.01
		1/4-PT	68.53	-504.72	0.00			
		1/2-PT	276.46	-15.12	0.00			
		3/4-PT	92.72	474.48	0.00			
		END-J	-482.71	961.08	0.00			
21	CASE 1	END-I	-690.74	-1103.89	0.00	0.00	0.00	0.00
		1/4-PT	-3.47	-614.29	0.00			
		1/2-PT	292.12	-124.69	0.00			
		3/4-PT	196.03	364.91	0.00			
		END-J	-291.74	854.51	0.00			
22	CASE 1	END-I	-647.71	-1093.04	0.00	0.00	0.00	0.00
		1/4-PT	30.89	-603.44	0.00			
		1/2-PT	317.80	-113.84	0.00			
		3/4-PT	211.04	375.76	0.00			
		END-J	-281.41	865.36	0.00			
23	CASE 1	END-I	729.22	-255.16	0.00	0.00	0.00	-0.01
		1/4-PT	737.51	238.44	0.00			
		1/2-PT	354.12	726.04	0.00			
		3/4-PT	-820.96	1213.64	0.00			
		END-J	-1587.71	1703.24	0.00			
25	CASE 1	END-I	0.00	1320.85	0.00	0.00	0.00	-0.15
		1/4-PT	-436.44	1320.85	0.00			
		1/2-PT	-872.88	1320.85	0.00			
		3/4-PT	-1309.31	1320.85	0.00			
		END-J	-1745.75	1320.85	0.00			

ANALISIS
UNAM FACULTAD DE INGENIERIA M.K.S

BEAM FORCES AT LEVEL ME2 IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
26	CASE 1	END-I	876.91	1105.41	0.00	0.00	0.00	-0.05
		1/4-PT	513.27	1105.41	0.00			
		1/2-PT	149.64	1105.41	0.00			
		3/4-PT	-214.00	1105.41	0.00			
		END-J	-577.62	1105.41	0.00			
27	CASE 1	END-I	0.00	1747.87	0.00	0.00	0.00	0.06
		1/4-PT	-577.54	1747.87	0.00			
		1/2-PT	-1155.08	1747.87	0.00			
		3/4-PT	-1732.61	1747.87	0.00			
		END-J	-2310.15	1747.87	0.00			
28	CASE 1	END-I	494.25	194.65	0.00	0.00	0.00	0.02
		1/4-PT	347.50	194.65	0.00			
		1/2-PT	200.74	194.65	0.00			
		3/4-PT	53.99	194.65	0.00			
		END-J	-748.04	1138.65	0.00			
29	CASE 1	END-I	0.00	1045.51	0.00	0.00	0.00	0.14
		1/4-PT	-345.46	1045.51	0.00			
		1/2-PT	-690.92	1045.51	0.00			
		3/4-PT	-1036.38	1045.51	0.00			
		END-J	-1381.85	1045.51	0.00			
30	CASE 1	END-I	29.18	-187.18	0.00	0.00	0.00	0.03
		1/4-PT	210.54	-187.18	0.00			
		1/2-PT	391.91	-187.18	0.00			
		3/4-PT	20.87	756.82	0.00			
		END-J	-712.46	756.82	0.00			
34	CASE 1	END-I	-530.34	-993.59	0.00	0.00	0.00	-0.01
		1/4-PT	68.67	-503.99	0.00			
		1/2-PT	276.04	-14.39	0.00			
		3/4-PT	91.71	475.21	0.00			
		END-J	-484.30	964.81	0.00			
35	CASE 1	END-I	-683.34	-1099.28	0.00	0.00	0.00	0.00
		1/4-PT	0.24	-609.68	0.00			
		1/2-PT	292.14	-120.08	0.00			
		3/4-PT	192.37	369.52	0.00			
		END-J	-299.09	859.12	0.00			
36	CASE 1	END-I	-631.72	-1082.78	0.00	0.00	0.00	0.00
		1/4-PT	38.66	-593.18	0.00			
		1/2-PT	317.36	-103.58	0.00			
		3/4-PT	204.39	386.02	0.00			
		END-J	-300.27	875.62	0.00			

ANALISIS
UNAM FACULTAD DE INGENIERIA M.K.S

BEAM FORCES AT LEVEL ME2 IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
37	CASE 1	END-I	699.01	-275.93	0.00	0.00	0.00	0.01
		1/4-PT	723.91	213.67	0.00			
		1/2-PT	367.13	703.27	0.00			
		3/4-PT	-401.33	1192.87	0.00			
		END-J	-1561.47	1682.47	0.00			
40	CASE 1	END-I	-25432.95	-10984.35	0.00	0.00	0.00	0.00
		1/4-PT	5381.83	-6578.35	0.00			
		1/2-PT	17061.66	2233.65	0.00			
		3/4-PT	5365.28	6639.65	0.00			
		END-J	-25529.49	11045.65	0.00			
46	CASE 1	END-I	2001.19	916.87	0.00	0.00	0.00	-0.71
		1/4-PT	1526.64	1192.27	0.00			
		1/2-PT	928.15	1467.67	0.00			
		3/4-PT	205.74	1743.07	0.00			
		END-J	-640.61	2018.47	0.00			
48	CASE 1	END-I	0.00	-3665.16	0.00	0.00	0.00	0.00
		1/4-PT	11438.81	-2196.16	0.00			
		1/2-PT	15833.47	741.84	0.00			
		3/4-PT	11449.39	2210.84	0.00			
		END-J	0.00	3679.84	0.00			
49	CASE 1	END-I	-25430.40	-10993.47	0.00	0.00	0.00	0.00
		1/4-PT	5415.14	-6587.47	0.00			
		1/2-PT	17115.74	2224.53	0.00			
		3/4-PT	5460.13	6630.53	0.00			
		END-J	-25403.88	11030.53	0.00			
50	CASE 1	END-I	4519.47	2431.99	0.00	0.00	0.00	0.00
		1/4-PT	1935.48	2431.99	0.00			
		1/2-PT	-648.51	2431.99	0.00			
		3/4-PT	-5187.67	4634.99	0.00			
		END-J	-10112.35	4634.99	0.00			
51	CASE 1	END-I	-779.14	-2766.69	0.00	0.00	0.00	0.70
		1/4-PT	-87.47	-2766.69	0.00			
		1/2-PT	604.20	-2766.69	0.00			
		3/4-PT	1295.88	-2766.69	0.00			
		END-J	1987.55	-2766.69	0.00			
52	CASE 1	END-I	1987.55	898.47	0.00	0.00	0.00	0.70
		1/4-PT	1521.27	1173.87	0.00			
		1/2-PT	931.07	1449.27	0.00			
		3/4-PT	216.93	1724.67	0.00			
		END-J	-621.13	2000.07	0.00			

ANALISIS

UNA. /ACULTAL .. INGEN..IA M.K.S

BEAM FORCES AT LEVEL MEZ IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
53	CASE 1	END-I	-761 79	-2762.98	0.00	0.00	0 00	-0.71
		1/4-PT	-71.04	-2762.98	0 00			
		1/2-PT	619.70	-2762.98	0.00			
		3/4-PT	1310.45	-2762.98	0 00			
		END-J	2001.19	-2762.98	0.00			

BRACE FORCES AT LEVEL MEZ IN FRAME EDIFICIO TISSOT

BRC ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
14	CASE 1	TOP	0 00	0.00	0 00	0.00	-25859.53	-0.24
		BOTTOM	0 00		0.00			
28	CASE 1	TOP	0.00	0.00	0.00	0.00	-30313.33	0.30
		BOTTOM	0.00		0.00			
42	CASE 1	TOP	0.00	0.00	0.00	0.00	-30502.39	-0.30
		BOTTOM	0.00		0.00			
56	CASE 1	TOP	0.00	0.00	0.00	0.00	-26237.58	0.27
		BOTTOM	0.00		0.00			

FLOOR FORCES AT LEVEL MEZ IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT ID	OUTPUT POINT	FORCE 11	FORCE 22
2	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00
3	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00
4	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00
6	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00
7	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00
8	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00

ANALISIS
UNAM FACULTAD DE INGENIERIA M.K.S

FLOOR FORCES AT LEVEL MEZ IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT ID	OUTPUT POINT	FORCE 11	FORCE 22
9	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00
10	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00

ANALISIS
UNAM FACULTAD DE INGENIERIA M.K.S

COLUMN FORCES AT LEVEL PB IN FRAME EDIFICIO TISSOT

COL ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
1	CASE 1	TOP	-8111.01	3827.35	430.65	-252.36	-55503.99	-1.12
		BOTTOM	5277.06		-452.09			
2	CASE 1	TOP	7684.57	-3620.46	436 07	-256.80	-56287.66	-1 12
		BOTTOM	-4979.81		-462 20			
3	CASE 1	TOP	-1022.34	116.82	362.40	-231.22	-53505.07	-1 12
		BOTTOM	-701.09		-376.46			
4	CASE 1	TOP	978.22	-80.53	369.31	-216.12	-53712.66	-1.12
		BOTTOM	756.76		-386.66			
5	CASE 1	TOP	-1416.58	292.42	357.29	-196.79	-52180.29	-1.12
		BOTTOM	-612.42		-331.09			
6	CASE 1	TOP	1366.03	-249.52	356.03	-196.92	-52140.87	-1.12
		BOTTOM	679.85		-332.81			
7	CASE 1	TOP	-1364.13	249.98	282 92	-145.96	-51695.32	-1 12
		BOTTOM	-676.70		-227.67			
9	CASE 1	TOP	1245.24	-149.22	255.99	-132 76	-60480.00	-1 12
		BOTTOM	834.88		-208.41			
10	CASE 1	TOP	-1817.18	607.51	-589.97	263.99	-67621 31	-1.12
		BOTTOM	-146.53		405.42			
12	CASE 1	TOP	3155.28	-1109.65	-558 90	266.37	-65691.79	-1.12
		BOTTOM	-728.51		372.86			
13	CASE 1	TOP	-2031.37	951 16	-1148.21	565.39	-9793.85	-1 12
		BOTTOM	584.31		822.51			
18	CASE 1	TOP	-1068.99	862.32	-942.36	456.12	-9344.16	-1 12
		BOTTOM	1302.27		653.15			
20	CASE 1	TOP	-1507.84	1006.06	-176.12	119.95	-18439.68	0 00
		BOTTOM	1612.42		193 90			
21	CASE 1	TOP	-1725.87	1207.63	24 17	-19.70	-34621.75	0 00
		BOTTOM	2009.57		-36.93			
22	CASE 1	TOP	-1317 96	908.06	-122 16	90 76	-32057 34	0.00
		BOTTOM	1498 57		159.33			
24	CASE 1	TOP	87 74	-43.45	66.38	-27.69	-2835.36	-0 23
		BOTTOM	-61 41		-19.97			

ANALISIS
UNAM FACULTAD DE INGENIERIA M.K.S

COLUMN FORCES AT LEVEL PB IN FRAME EDIFICIO TISSOT

COL ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
25	CASE 1	TOP	23.26	-11 90	60.83	-23.42	-409002	-0.23
		BOTTOM	-17.60		-15.35			
26	CASE 1	TOP	-126.87	62.68	-180.11	84.79	-379848	-0 23
		BOTTOM	88.30		88.47			

BEAM FORCES AT LEVEL PB IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
2	CASE 1	END-I	0.00	-6513.57	0.00	0.00	000	0.00
		1/4-PT	18275.17	-3902.57	0.00			
		1/2-PT	25205.03	1319.43	0.00			
		3/4-PT	18293.97	3930.43	0.00			
		END-J	0.00	6541.43	0.00			
3	CASE 1	END-I	0.00	-6897.75	0.00	0.00	000	0.00
		1/4-PT	19353.06	-4132.75	0.00			
		1/2-PT	26691.65	1397.25	0.00			
		3/4-PT	19372.97	4162.25	0.00			
		END-J	0.00	6927.25	0.00			
4	CASE 1	END-I	0.00	-7186 00	0.00	0.00	000	0 00
		1/4-PT	16941.60	-4421 00	0.00			
		1/2-PT	26072.08	-1656.00	0.00			
		3/4-PT	27391.43	1109.00	0 00			
		END-J	21349.46	3528.00	0.00			
5	CASE 1	END-I	21352.23	6162.47	0.00	0.00	000	0 00
		1/4-PT	16658.35	6162.47	0.00			
		1/2-PT	11505.32	7548.47	0.00			
		3/4-PT	5752.66	7548 47	0.00			
		END-J	0.00	7548.47	0.00			
6	CASE 1	END-I	0.00	-5100.07	0.00	0.00	000	0.00
		1/4-PT	11492.11	-2335.07	0.00			
		1/2-PT	15173.10	429.93	0.00			
		3/4-PT	11042.96	3194.93	0.00			
		END-J	0.00	5268.93	0.00			
7	CASE 1	END-I	0.00	-1469.36	0.00	0.00	000	0.00
		1/4-PT	1157.12	-1469.36	0.00			
		1/2-PT	2314.24	-1469.36	0.00			
		3/4-PT	2901.29	-87.36	0.00			
		END-J	2970.09	-87.36	0.00			

PROGRAM:ETABS/FLE:pm15.PRM

ANALISIS
UNAM FACULTAD DE INGENIERIA M.K.S

BEAM FORCES AT LEVEL PB IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
8	CASE 1	END-I	2969.93	-1947.18	0.00	0.00	000	0 00
		1/4-PT	1818.43	-1704.18	0.00			
		1/2-PT	5288.75	-79.18	0 00			
		3/4-PT	5237.90	163.82	0.00			
		END-J	4327.12	1788.82	0 00			
9	CASE 1	END-I	4327.13	-786.76	0.00	0.00	000	0 00
		1/4-PT	4698.82	-663.76	0.00			
		1/2-PT	5001.48	-540.76	0.00			
		3/4-PT	5251.10	-417.76	0.00			
		END-J	5297.48	1087.24	0.00			
10	CASE 1	END-I	5297.65	-1154.76	0.00	0.00	000	0.00
		1/4-PT	5633.28	-1082 76	0.00			
		1/2-PT	5967.31	-1010.76	0.00			
		3/4-PT	6299.74	-938.76	0.00			
		END-J	6510 57	-866.76	0 00			
11	CASE 1	END-I	6507.79	1767.70	0.00	0 00	1.00	0 00
		1/4-PT	5090.15	1960.70	0.00			
		1/2-PT	3532.97	2153.70	0 00			
		3/4-PT	1836.26	2346.70	0 00			
		END-J	0 00	2459.70	0.00			
12	CASE 1	END-I	-410.83	-565.81	0 00	0.00	0 00	0.00
		1/4-PT	17.98	-338.11	0.00			
		1/2-PT	230.75	-110.40	0.00			
		3/4-PT	227.47	119.31	0 00			
		END-J	8.15	349.01	0 00			
13	CASE 1	END-I	33.61	-242.12	0 00	0.00	0 00	-0.02
		1/4-PT	79.43	37 92	0.00			
		1/2-PT	-0.83	317.96	0.00			
		3/4-PT	-205.96	598.00	0 00			
		END-J	-537.16	878.03	0.00			
14	CASE 1	END-I	-637 96	-1402.75	0 00	0.00	0.00	-0.03
		1/4-PT	449.38	-783.47	0.00			
		1/2-PT	918.16	-160.19	0.00			
		3/4-PT	768.36	461.09	0.00			
		END-J	0.00	1082.37	0.00			
15	CASE 1	END-I	0.00	0.00	0 00	0.00	0 00	0 00
		1/4-PT	0.00	0.00	0 00			
		1/2-PT	0.00	0 00	0.00			
		3/4-PT	0.00	0.00	0.00			
		END-J	0.00	0.00	0.00			

PROGRAM:ETABS/FILE pm15 PRM

ANALISIS
UNAM FACULTAD DE INGENIERIA M.K S

BEAM FORCES AT LEVEL PB IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
16	CASE 1	END-I	0.00	0.00	0.00	0 00	0.00	0.00
		1/4-PT	0.00	0.00	0.00			
		1/2-PT	0.00	0.00	0.00			
		3/4-PT	0.00	0.00	0.00			
		END-J	0.00	0.00	0.00			
17	CASE 1	END-I	-58.15	-206.78	0.00	0 00	0 00	0.00
		1/4-PT	16.66	-103 39	0.00			
		1/2-PT	38.93	0.00	0.00			
		3/4-PT	16.66	103.39	0.00			
		END-J	-58.15	206.78	0.00			
18	CASE 1	END-I	0.00	0.00	0.00	0 00	0 00	0.00
		1/4-PT	0.00	0.00	0.00			
		1/2-PT	0.00	0.00	0.00			
		3/4-PT	0.00	0.00	0.00			
		END-J	0 00	0.00	0 00			
19	CASE 1	END-I	-232 32	-537.60	0 00	0.00	0 00	0.00
		1/4-PT	49.92	-268.80	0 00			
		1/2-PT	141.00	0.00	0.00			
		3/4-PT	49 92	268.80	0 00			
		END-J	-232 32	537.60	0 00			
20	CASE 1	END-I	-306.56	-614 40	0 00	0.00	0.00	0.00
		1/4-PT	62.08	-307.20	0.00			
		1/2-PT	184.96	0.00	0 00			
		3/4-PT	62.08	307 20	0.00			
		END-J	-306.56	614.40	0.00			
21	CASE 1	END-I	-306 56	-614 40	0.00	0.00	0.00	0.00
		1/4-PT	62.08	-307.20	0.00			
		1/2-PT	184.96	0.00	0.00			

	3/4-PT	...08	3..20	..00			
	END-J	-306.56	614.40	0.00			
22 CASE 1	END-I	-306.56	-614.40	0.00	0.00	0.00	0.00
	1/4-PT	62.08	-307.20	0.00			
	1/2-PT	184.96	0.00	0.00			
	3/4-PT	62.08	307.20	0.00			
	END-J	-306.56	614.40	0.00			
23 CASE 1	END-I	-306.56	-614.40	0.00	0.00	0.00	0.00
	1/4-PT	62.08	-307.20	0.00			
	1/2-PT	184.96	0.00	0.00			
	3/4-PT	62.08	307.20	0.00			
	END-J	-306.56	614.40	0.00			

ANALISIS
UNAM FACULTAD DE INGENIERIA M.K.S

BEAM FORCES AT LEVEL PB IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
24	CASE 1	END-I	0.00	0.00	0.00	0.00	0.00	0.00
		1/4-PT	0.00	0.00	0.00			
		1/2-PT	0.00	0.00	0.00			
		3/4-PT	0.00	0.00	0.00			
		END-J	0.00	0.00	0.00			
25	CASE 1	END-I	0.00	1859.82	0.00	0.00	0.00	-0.16
		1/4-PT	-614.53	1859.82	0.00			
		1/2-PT	-1229.06	1859.82	0.00			
		3/4-PT	-1843.58	1859.82	0.00			
		END-J	-2458.11	1859.82	0.00			
26	CASE 1	END-I	560.26	435.95	0.00	0.00	0.00	-0.06
		1/4-PT	420.26	435.95	0.00			
		1/2-PT	280.13	435.95	0.00			
		3/4-PT	140.07	435.95	0.00			
		END-J	0.00	435.95	0.00			
27	CASE 1	END-I	0.00	2575.57	0.00	0.00	0.00	0.01
		1/4-PT	-851.03	2575.57	0.00			
		1/2-PT	-1702.06	2575.57	0.00			
		3/4-PT	-2553.08	2575.57	0.00			
		END-J	-3404.11	2575.57	0.00			
28	CASE 1	END-I	-6.82	-133.52	0.00	0.00	0.00	0.00
		1/4-PT	91.83	-133.52	0.00			
		1/2-PT	193.47	-133.52	0.00			
		3/4-PT	293.12	-133.52	0.00			
		END-J	0.00	458.48	0.00			
29	CASE 1	END-I	0.00	2242.01	0.00	0.00	0.00	0.17
		1/4-PT	-740.81	2242.01	0.00			
		1/2-PT	-1481.62	2242.01	0.00			
		3/4-PT	-2222.43	2242.01	0.00			
		END-J	-2963.24	2242.01	0.00			
30	CASE 1	END-I	220.56	144.42	0.00	0.00	0.00	-0.01
		1/4-PT	81.73	144.42	0.00			
		1/2-PT	-57.09	144.42	0.00			
		3/4-PT	-195.91	144.42	0.00			
		END-J	-334.74	144.42	0.00			
31	CASE 1	END-I	0.00	-2634.47	0.00	0.00	0.00	2.77
		1/4-PT	2371.02	-2634.47	0.00			
		1/2-PT	4742.04	-2634.47	0.00			
		3/4-PT	7113.06	-2634.47	0.00			
		END-J	9484.08	-2634.47	0.00			

ANALISIS

BEAM FORCES AT LEVEL PB IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
32	CASE 1	END-I	9484.08	2634.47	0.00	0.00	0.00	2.77
		1/4-PT	7113.06	2634.47	0.00			
		1/2-PT	4742.04	2634.47	0.00			
		3/4-PT	2371.02	2634.47	0.00			
		END-J	0.00	2634.47	0.00			
33	CASE 1	END-I	-232.32	-537.60	0.00	0.00	0.00	0.00
		1/4-PT	49.92	-268.80	0.00			
		1/2-PT	144.00	0.00	0.00			
		3/4-PT	49.92	268.80	0.00			
		END-J	-232.32	537.60	0.00			
34	CASE 1	END-I	-306.56	-614.40	0.00	0.00	0.00	0.00
		1/4-PT	62.08	-307.20	0.00			
		1/2-PT	184.96	0.00	0.00			
		3/4-PT	62.08	307.20	0.00			
		END-J	-306.56	614.40	0.00			
35	CASE 1	END-I	-306.56	-614.40	0.00	0.00	0.00	0.00
		1/4-PT	62.08	-307.20	0.00			
		1/2-PT	184.96	0.00	0.00			
		3/4-PT	62.08	307.20	0.00			
		END-J	-306.56	614.40	0.00			
36	CASE 1	END-I	0.00	0.00	0.00	0.00	0.00	0.00
		1/4-PT	0.00	0.00	0.00			
		1/2-PT	0.00	0.00	0.00			
		3/4-PT	0.00	0.00	0.00			
		END-J	0.00	0.00	0.00			
37	CASE 1	END-I	0.00	0.00	0.00	0.00	0.00	0.00
		1/4-PT	0.00	0.00	0.00			
		1/2-PT	0.00	0.00	0.00			
		3/4-PT	0.00	0.00	0.00			
		END-J	0.00	0.00	0.00			
38	CASE 1	END-I	0.00	0.00	0.00	0.00	0.00	0.00
		1/4-PT	0.00	0.00	0.00			
		1/2-PT	0.00	0.00	0.00			
		3/4-PT	0.00	0.00	0.00			
		END-J	0.00	0.00	0.00			
39	CASE 1	END-I	0.00	0.00	0.00	0.00	0.00	0.00
		1/4-PT	0.00	0.00	0.00			
		1/2-PT	0.00	0.00	0.00			
		3/4-PT	0.00	0.00	0.00			
		END-J	0.00	0.00	0.00			

ANALISIS
UNAM FACULTAD DE INGENIERIA M.K.S

BEAM FORCES AT LEVEL PB IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
54	CASE 1	END-I	0.00	-559.04	0.00	0.00	0.00	-0.05
		1/4-PT	350.44	-279.52	0.00			
		1/2-PT	467.25	0.00	0.00			
		3/4-PT	350.44	279.52	0.00			
		END-J	0.00	559.04	0.00			
55	CASE 1	END-I	-617.25	-632.41	0.00	0.00	0.00	-0.01
		1/4-PT	-250.18	-632.41	0.00			
		1/2-PT	116.88	-632.41	0.00			
		3/4-PT	483.94	-632.41	0.00			
		END-J	1.01	-632.41	0.00			

56 CASE 1	END-I	851.06	558.63	0.00	0.00	0.00	-0.01
	1/4-PT	638.29	558.63	0.00			
	1/2-PT	425.53	558.63	0.00			
	3/4-PT	212.76	558.63	0.00			
	END-J	0.00	558.63	0.00			
57 CASE 1	END-I	0.00	0.00	0.00	0.00	0.00	0.00
	1/4-PT	0.00	0.00	0.00			
	1/2-PT	0.00	0.00	0.00			
	3/4-PT	0.00	0.00	0.00			
	END-J	0.00	0.00	0.00			
58 CASE 1	END-I	0.00	0.00	0.00	0.00	0.00	0.00
	1/4-PT	0.00	0.00	0.00			
	1/2-PT	0.00	0.00	0.00			
	3/4-PT	0.00	0.00	0.00			
	END-J	0.00	0.00	0.00			
59 CASE 1	END-I	0.00	0.00	0.00	0.00	0.00	0.00
	1/4-PT	0.00	0.00	0.00			
	1/2-PT	0.00	0.00	0.00			
	3/4-PT	0.00	0.00	0.00			
	END-J	0.00	0.00	0.00			
60 CASE 1	END-I	0.00	0.00	0.00	0.00	0.00	0.00
	1/4-PT	0.00	0.00	0.00			
	1/2-PT	0.00	0.00	0.00			
	3/4-PT	0.00	0.00	0.00			
	END-J	0.00	0.00	0.00			
61 CASE 1	END-I	0.00	0.00	0.00	0.00	0.00	0.00
	1/4-PT	0.00	0.00	0.00			
	1/2-PT	0.00	0.00	0.00			
	3/4-PT	0.00	0.00	0.00			
	END-J	0.00	0.00	0.00			

ANALISIS
UNAM FACULTAD DE INGENIERIA M.K.S

BEAM FORCES AT LEVEL PB IN FRAME EDIFICIO TISSUT

BAY ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
62	CASE 1	END-I	0.00	0.00	0.00	0.00	0.00	0.00
		1/4-PT	0.00	0.00	0.00			
		1/2-PT	0.00	0.00	0.00			
		3/4-PT	0.00	0.00	0.00			
		END-J	0.00	0.00	0.00			

WALL FORCES AT LEVEL PB IN FRAME EDIFICIO TISSUT

WALL ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
1	CASE 1	TOP	18680.75	-11216.22	54.90	-24.46	-97608.22	37.35
		BOTTOM	-20576.03		-38.70			
2	CASE 1	TOP	14303	-3628	10	0	-106548	-1
		BOTTOM	-15893		9			
3	CASE 1	TOP	26405	-12033	12	-1	-114199	0
		BOTTOM	-15709		9			
4	CASE 1	TOP	9715	-3313	14	-2	-129766	-3
		BOTTOM	-1882		7			
5	CASE 1	TOP	-9277.14	33186.09	19.70	-6.67	-78047.36	-3.11
		BOTTOM	23379.16		-0.13			
6	CASE 1	TOP	-10080.73	5025.13	-6.44	4.87	-3039.16	8.00
		BOTTOM	7507.23		10.59			
7	CASE 1	TOP	18744.54	-11408.73	-11.90	2[illegible]	-[illegible]	-[illegible]
		BOTTOM	-21186.02		26.42			
8	CASE 1	TOP	14639	-8904	-9	0	-[illegible]	1
		BOTTOM	-16526		-10			
9	CASE 1	TOP	25591	-11765	-10	0	-[illegible]	-1
		BOTTOM	-15584		-10			
10	CASE 1	TOP	7338	-2406	-24	7	-[illegible]	13
		BOTTOM	-1084		0			
11	CASE 1	TOP	-8708.85	20434.44	-11.62	[illegible]	-[illegible]	-[illegible]
		BOTTOM	19451.70		-1.94			
12	CASE 1	TOP	-5739.18	2772.66	30.09	-14.83	-5106.98	1.59
		BOTTOM	3965.12		-21.81			

ANALISIS
UNAM FACULTAD DE INGENIERIA M.K.S

WALL FORCES AT LEVEL PB IN FRAME EDIFICIO TISSUT

WALL ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
13	CASE 1	TOP	5692.83	-3294.13	5.30	-2.16	-1090.63	-8.87
		BOTTOM	-5836.62		-2.27			
14	CASE 1	TOP	14365.99	-4340.52	-24.58	13.82	-4698.94	-35.48
		BOTTOM	-825.83		23.08			
15	CASE 1	TOP	9626.40	-3963.94	14.49	-4.90	-20444.63	1.00
		BOTTOM	-4247.40		-2.67			
16	CASE 1	TOP	-1140.90	500.46	-13.88	6.17	-11786.67	16.68
		BOTTOM	820.71		7.71			
17	CASE 1	TOP	-8691.14	3790.20	-15.61	5.51	-6216.38	-11.71
		BOTTOM	4574.58		1.68			
18	CASE 1	TOP	-522.42	74.70	9.49	-3.94	-2085.[illegible]	10.70
		BOTTOM	-260.76		-4.28			
19	CASE 1	TOP	-3506	1937	124	-85	-171171	-6
		BOTTOM	3273		-172			

FLOOR FORCES AT LEVEL PB IN FRAME EDIFICIO TISSUT

BAY ID	OUTPUT ID	OUTPUT POINT	FORCE 11	FORCE 22
1	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00
2	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00
3	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00
6	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00

	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00
8	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00
11	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00

ANALISIS
UNAM FACULTAD DE INGENIERIA M.K.S

FLOOR FORCES AT LEVEL PB IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT ID	OUTPUT POINT	FORCE 11	FORCE 22
12	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00
13	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00
14	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00

ANALISIS
UNAM FACULTAD DE INGENIERIA M.K.S

COLUMN FORCES AT LEVEL S1 IN FRAME EDIFICIO TISSOT

COL ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
1	CASE 1	TOP	-2150.16	885.93	236.20	-109.59	-43367.81	-0.42
		BOTTOM	946.55		-147.26			
2	CASE 1	TOP	2057.10	-838.16	239.43	-112.17	-43949.21	-0.42
		BOTTOM	-875.63		-153.94			
3	CASE 1	TOP	1634.23	-890.99	180.62	-85.98	-54214.97	-0.42
		BOTTOM	-916.00		-120.22			
4	CASE 1	TOP	-1495.51	884.74	183.01	-88.20	-54527.90	-0.42
		BOTTOM	937.53		-125.59			
5	CASE 1	TOP	3715.91	-995.35	174.46	-62.12	-58869.50	-0.42
		BOTTOM	-1021.31		-92.90			
6	CASE 1	TOP	-1667.29	987.56	179.96	-61.84	-58319.89	-0.42
		BOTTOM	1038.46		-95.41			
7	CASE 1	TOP	1761.04	-1020.03	36.39	-24.71	-62979.08	-0.42
		BOTTOM	-1043.44		-50.96			
9	CASE 1	TOP	-1749.59	1037.91	21.76	-19.70	-61670.74	-0.42
		BOTTOM	1104.65		-47.15			
10	CASE 1	TOP	1485.16	-859.86	-234.21	90.26	-54919.66	-0.42
		BOTTOM	-868.46		81.58			
12	CASE 1	TOP	-731.19	389.43	-220.51	84.14	-51813.17	-0.4
		BOTTOM	351.82		70.72			
13	CASE 1	TOP	816.89	-462.06	-427.55	172.39	-21446.93	-0.42
		BOTTOM	-453.78		175.63			
18	CASE 1	TOP	-659.43	403.21	-345.40	135.44	-20906.78	-0.42
		BOTTOM	449.40		130.49			
20	CASE 1	TOP	-1055.54	507.24	-116.82	59.58	-20894.07	0.00
		BOTTOM	517.66		67.95			
21	CASE 1	TOP	-1391.57	670.57	27.91	-14.60	-38469.14	0.00
		BOTTOM	688.19		-17.39			
22	CASE 1	TOP	-1036.66	497.71	-114.78	58.53	-37527.20	0.00
		BOTTOM	506.96		66.74			
24	CASE 1	TOP	10.01	-5.34	-45.67	19.96	-2603.22	-0.09
		BOTTOM	-8.32		17.54			

ANALISIS
UNAM FACULTAD DE INGENIERIA M.K.S

COLUMN FORCES AT LEVEL S1 IN FRAME EDIFICIO TISSOT

COL ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
25	CASE 1	TOP	-5.66	1.47	-49.21	21.61	-3405.02	-0.09
		BOTTOM	-0.62		19.23			
26	CASE 1	TOP	-47.16	19.50	-3.19	-1.25	-2948.65	-0.09
		BOTTOM	19.80		-7.16			

BEAM FORCES AT LEVEL S1 IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
2	CASE 1	END-I	0.00	-6513.57	0.00	0.00	0.00	0.00
		1/4-PT	16275.17	-3902.57	0.00			
		1/2-PT	25205.03	1119.43	0.00			
		3/4-PT	18293.97	3930.43	0.00			
		END-J	0.00	6561.43	0.00			
3	CASE 1	END-I	0.00	-6897.75	0.00	0.00	0.00	0.00
		1/4-PT	19353.06	-4132.75	0.00			
		1/2-PT	26691.66	1497.25	0.00			
		3/4-PT	19372.97	4162.25	0.00			
		END-J	0.00	6927.25	0.00			
4	CASE 1	END-I	0.00	-7185.99	0.00	0.00	0.00	0.00
		1/4-PT	16941.58	-4420.99	0.00			
		1/2-PT	26072.01	-1655.99	0.00			
		3/4-PT	27291.37	1109.01	0.00			
		END-J	21349.38	3526.01	0.00			
5	CASE 1	END-I	31352.26	6162.48	0.00	0.00	0.00	0.00
		1/4-PT	16853.37	6162.48	0.00			
		1/2-PT	11505.33	7544.48	0.00			
		3/4-PT	5752.66	7544.48	0.00			
		END-J	0.00	7544.48	0.00			
6	CASE 1	END-I	0.00	-5180.07	0.00	0.00	0.00	0.00
		1/4-PT	11490.11	-2.35 07	0.00			
		1/2-PT	15173.10	429.93	0.00			
		3/4-PT	11042.96	3194.93	0.00			
		END-J	0.00	5208.93	0.00			
7	CASE 1	END-I	0.00	-1298.64	0.00	0.00	0.00	0.00
		1/4-PT	1022.68	-1298.64	0.00			

	1/4-PT	2045.35	-1250.64	0.00			
	3/4-PT	2497.95	83.36	0.00			
	END-J	2832.30	83.36	0.00			

ANALISIS
UNAM FACULTAD DE INGENIERIA M K S

BEAM FORCES AT LEVEL S1 IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
8	CASE 1	END-I	2432.17	-1841.96	0.00	0.00	0.00	0.00
		1/4-PT	4174.14	-1598.96	0.00			
		1/2-PT	4529.92	26.04	0.00			
		3/4-PT	4380.54	269.04	0.00			
		END-J	3363.22	1894.04	0.00			
9	CASE 1	END-I	3363.22	-911.79	0.00	0.00	0.00	0.00
		1/4-PT	3747.75	-688.79	0.00			
		1/2-PT	4069.23	-565.79	0.00			
		3/4-PT	4327.68	-442.79	0.00			
		END-J	4384.88	1062.21	0.00			
10	CASE 1	END-I	4384.05	-1369.52	0.00	0.00	0.00	0.00
		1/4-PT	4785.11	-1297.52	0.00			
		1/2-PT	5161.56	-1225.52	0.00			
		3/4-PT	5520.42	-1153.52	0.00			
		END-J	5865.67	-1081.52	0.00			
11	CASE 1	END-I	5862.79	1552.95	0.00	0.00	0.00	0.00
		1/4-PT	4598.90	1735.95	0.00			
		1/2-PT	3205.47	1918.95	0.00			
		3/4-PT	1672.50	2101.95	0.00			
		END-J	0.00	2284.95	0.00			
12	CASE 1	END-I	-269.75	-491.86	0.00	0.00	0.00	0.01
		1/4-PT	88.90	-268.15	0.00			
		1/2-PT	231.50	-36.45	0.00			
		3/4-PT	156.06	181.26	0.00			
		END-J	-131.43	418.97	0.00			
13	CASE 1	END-I	-71.44	-294.96	0.00	0.00	0.00	-0.02
		1/4-PT	-3.91	-14.92	0.00			
		1/2-PT	-60.05	265.12	0.00			
		3/4-PT	-241.87	545.16	0.00			
		END-J	-549.36	825.19	0.00			
14	CASE 1	END-I	-769.17	-1435.69	0.00	0.00	0.00	-0.03
		1/4-PT	390.98	-818.41	0.00			
		1/2-PT	852.56	-153.13	0.00			
		3/4-PT	735.56	628.14	0.00			
		END-J	0.00	1049.42	0.00			
15	CASE 1	END-I	0.00	0.00	0.00	0.00	0.00	0.00
		1/4-PT	0.00	0.00	0.00			
		1/2-PT	0.00	0.00	0.00			
		3/4-PT	0.00	0.00	0.00			
		END-J	0.00	0.00	0.00			

ANALISIS
UNAM FACULTAD DE INGENIERIA M K S

BEAM FORCES AT LEVEL S1 IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
16	CASE 1	END-I	0.00	0.00	0.00	0.00	0.00	0.00
		1/4-PT	0.00	0.00	0.00			
		1/2-PT	0.00	0.00	0.00			
		3/4-PT	0.00	0.00	0.00			
		END-J	0.00	0.00	0.00			
17	CASE 1	END-I	-50.15	-206.78	0.00	0.00	0.00	0.00
		1/4-PT	16.66	-103.39	0.00			
		1/2-PT	38.93	0.00	0.00			
		3/4-PT	16.66	103.39	0.00			
		END-J	-50.15	206.78	0.00			
18	CASE 1	END-I	0.00	0.00	0.00	0.00	0.00	0.00
		1/4-PT	0.00	0.00	0.00			
		1/2-PT	0.00	0.00	0.00			
		3/4-PT	0.00	0.00	0.00			
		END-J	0.00	0.00	0.00			
19	CASE 1	END-I	-232.32	-537.60	0.00	0.00	0.00	0.00
		1/4-PT	49.92	-268.80	0.00			
		1/2-PT	144.00	0.00	0.00			
		3/4-PT	49.92	268.80	0.00			
		END-J	-232.32	537.60	0.00			
20	CASE 1	END-I	-306.56	-614.40	0.00	0.00	0.00	0.00
		1/4-PT	62.08	-307.20	0.00			
		1/2-PT	184.96	0.00	0.00			
		3/4-PT	62.08	307.20	0.00			
		END-J	-306.56	614.40	0.00			
21	CASE 1	END-I	-306.56	-614.40	0.00	0.00	0.00	0.00
		1/4-PT	62.08	-307.20	0.00			
		1/2-PT	184.96	0.00	0.00			
		3/4-PT	62.08	307.20	0.00			
		END-J	-306.56	614.40	0.00			
22	CASE 1	END-I	-306.56	-614.40	0.00	0.00	0.00	0.00
		1/4-PT	62.08	-307.20	0.00			
		1/2-PT	184.96	0.00	0.00			
		3/4-PT	62.08	307.20	0.00			
		END-J	-306.56	614.40	0.00			
23	CASE 1	END-I	-306.56	-614.40	0.00	0.00	0.00	0.00
		1/4-PT	62.08	-307.20	0.00			
		1/2-PT	184.96	0.00	0.00			
		3/4-PT	62.08	307.20	0.00			
		END-J	-306.56	614.40	0.00			

ANALISIS
UNAM FACULTAD DE INGENIERIA M K.S

BEAM FORCES AT LEVEL S1 IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
24	CASE 1	END-I	0.00	0.00	0.00	0.00	0.00	0.00
		1/4-PT	0.00	0.00	0.00			
		1/2-PT	0.00	0.00	0.00			
		3/4-PT	0.00	0.00	0.00			
		END-J	0.00	0.00	0.00			
25	CASE 1	END-I	0.00	1925.33	0.00	0.00	0.00	-0.15
		1/4-PT	+636.17	1925.33	0.00			
		1/2-PT	-1272.34	1925.33	0.00			
		3/4-PT	-1908.52	1925.33	0.00			
		END-J	-2544.69	1925.33	0.00			
26	CASE 1	END-I	-15.72	-12.23	0.00	0.00	0.00	-0.05
		1/4-PT	-11.79	-12.23	0.00			
		1/2-PT	-7.86	-12.23	0.00			
		3/4-PT	-3.93	-12.23	0.00			
		END-J	0.00	-12.23	0.00			
27	CASE 1	END-I	0.00	2345.82	0.00	0.00	0.00	0.00
		1/4-PT	-891.07	2345.82	0.00			
		1/2-PT	-1782.13	2345.82	0.00			
		3/4-PT	-2682.20	2345.82	0.00			

		-J	-35 .2e	2[illegible] .82	.00			
28	CASE 1	END-I	-346.18	-247.54	0 00	0 00	0 00	0 01
		1/4-PT	-161.44	-247.54	0 00			
		1/2-PT	23.29	-247.54	0 00			
		3/4-PT	208.03	-247 54	0 00			
		END-J	0.00	344 46	0 00			
29	CASE 1	END-I	0.00	2431 73	0.00	0.00	0 00	0 17
		1/4-PT	-801.50	2431 73	0.00			
		1/2-PT	-1607.00	2431 73	0.00			
		3/4-PT	-2414.50	2431 73	0 00			
		END-J	-3214.00	2431.73	0.00			
31	CASE 1	END-J	0.00	-2634.47	0.00	0.00	0 00	2.88
		1/4-PT	2371 02	-2634.47	0.00			
		1/2-PT	4742.04	-2634.47	0.00			
		3/4-PT	7113.06	-2634 47	0.00			
		END-J	9484 08	-2634.47	0.00			
32	CASE 1	END-I	9484.08	2634.47	0.00	0.00	0.00	2.88
		1/4-PT	7113.06	2634.47	0.00			
		1/2-PT	4742.04	2634.47	0.00			
		3/4-PT	2371.02	2634.47	0 00			
		END-J	0 00	2634.47	0.00			

ANALISIS
UNAM FACULTAD DE INGENIERIA M.K.S

BEAM FORCES AT LEVEL S1 IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
33	CASE 1	END-I	-232 32	-537 60	0.00	0 00	0 00	0 00
		1/4-PT	49 92	-268.80	0.00			
		1/2-PT	181 00	0.00	0.00			
		3/4-PT	49 92	268 80	0.00			
		END-J	-232.32	537.60	0.00			
34	CASE 1	END-I	-306.56	-614.40	0 00	0.00	0 00	0.00
		1/4-PT	62 08	-307.20	0 00			
		1/2-PT	184.96	0.00	0 00			
		3/4-PT	62.08	307 20	0.00			
		END-J	-306.56	614.40	0.00			
35	CASE 1	END-I	-306.56	-614 40	0 00	0 00	0.00	0 00
		1/4-PT	62.08	-307 20	0.00			
		1/2-PT	184 96	0 00	0.00			
		3/4-PT	62.08	307.20	0.00			
		END-J	-306.56	614.40	0.00			
36	CASE 1	END-I	0 00	0 00	0.00	0.00	0.00	0 00
		1/4-PT	0.00	0.00	0.00			
		1/2-PT	0.00	0.00	0.00			
		3/4-PT	0 00	0.00	0.00			
		END-J	0 00	0.00	0.00			
37	CASE 1	END-I	0.00	0.00	0.00	0 00	0 00	0 00
		1/4-PT	0 00	0.00	0.00			
		1/2-PT	0 00	0.00	0.00			
		3/4-PT	0.00	0.00	0 00			
		END-J	0.00	0 00	0.00			
38	CASE 1	END-I	0.00	0.00	0.00	0.00	0.00	0.00
		1/4-PT	0 00	0 00	0.00			
		1/2-PT	0 00	0.00	0.00			
		3/4-PT	0.00	0 00	0.00			
		END-J	0.00	0.00	0.00			
39	CASE 1	END-I	0.00	0 00	0.00	0.00	0 00	0 00
		1/4-PT	0.00	0 00	0.00			
		1/2-PT	0.00	0.00	0 00			
		3/4-PT	0.00	0 00	0 00			

		-J	.00	.00	.00			
54	CASE 1	END-I	0.00	-599.04	0 00	0.00	0 00	-0 02
		1/4-PT	350.44	-299.52	0.00			
		1/2-PT	467.25	0.00	0.00			
		3/4-PT	350.44	299.52	0 00			
		END-J	0.00	599.04	0.00			

ANALISIS
UNAM FACULTAD DE INGENIERIA M.K.S

BEAM FORCES AT LEVEL S1 IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
55	CASE 1	END-I	-793 28	-678 19	0 00	0 00	0 00	-0 02
		1/4-PT	-396 64	-678 19	0 00			
		1/2-PT	-0 00	-678 19	0.00			
		3/4-PT	387 63	-678 19	0.00			
		END-J	781 27	678 19	0.00			
56	CASE 1	END-I	781 30	512.85	0.00	0.00	0.00	-0.02
		1/4-PT	585 97	512.85	0 00			
		1/2-PT	390 65	512.85	0.00			
		3/4-PT	195.32	512.85	0.00			
		END-J	0 00	512.85	0.00			
57	CASE 1	END-I	0 00	0.00	0 00	0 00	0 00	0.00
		1/4-PT	0.00	0.00	0.00			
		1/2-PT	0.00	0.00	0.00			
		3/4-PT	0.00	0.00	0.00			
		END-J	0.00	0.00	0.00			
58	CASE 1	END-I	0.00	0.00	0.00	0.00	0 00	0 00
		1/4-PT	0.00	0.00	0.00			
		1/2-PT	0.00	0.00	0.00			
		3/4-PT	0.00	0.00	0.00			
		END-J	0.00	0 00	0.00			
59	CASE 1	END-I	0 00	0 00	0 00	0.00	0.00	0 00
		1/4-PT	0 00	0.00	0 00			
		1/2-PT	0 00	0.00	0 00			
		3/4-PT	0 00	0.00	0 00			
		END-J	0 00	0.00	0 00			
60	CASE 1	END-I	0 00	0.00	0 00	0 00	0 00	0 00
		1/4-PT	0 00	0.00	0 00			
		1/2-PT	0 00	0.00	0 00			
		3/4-PT	0.00	0.00	0.00			
		END-J	0.00	0.00	0 00			
61	CASE 1	END-I	0.00	0.00	0.00	0 00	0.00	0.00
		1/4-PT	0.00	0.00	0.00			
		1/2-PT	0.00	0.00	0.00			
		3/4-PT	0.00	0.00	0.00			
		END-J	0.00	0.00	0 00			
62	CASE 1	END-I	0.00	0.00	0 00	0 00	0 00	0 00
		1/4-PT	0 00	0 00	0 00			
		1/2-PT	0 00	0 00	0 00			
		3/4-PT	0.00	0 00	0 00			
		END-J	0.00	0.00	0 00			

ANALISIS
UNAM FACULTAD DE INGENIERIA M.K.S

WALL FORCES AT LEVEL S1 IN FRAME EDIFICIO TISSOT

WALL ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT

. ASE 1	TOP	135. .03	-46...97	..25	..88	-874...70	...31
	BOTTOM	-3253.87		-2.31			
2 CASE 1	TOP	8169	-3210	-19	8	-113604	1
	BOTTOM	-3064		9			
3 CASE 1	TOP	8164	-3291	-20	9	-122440	0
	BOTTOM	-3053		10			
4 CASE 1	TOP	-6045	691	-19	8	-118862	-1
	BOTTOM	-3626		9			
5 CASE 1	TOP	-35400.91	8747.24	-13.48	5.64	-76974.08	-2.90
	BOTTOM	-4785.56		6.26			
6 CASE 1	TOP	-6748.73	1841.39	-10.55	4.38	-11849.88	0.27
	BOTTOM	1696.13		4.76			
7 CASE 1	TOP	13624.88	-4919.66	-3.82	1.58	-68250.05	-13.87
	BOTTOM	-3594.33		1.70			
8 CASE 1	TOP	8059	-3305	19	-8	-113769	-1
	BOTTOM	-3509		-10			
9 CASE 1	TOP	7550	-3166	20	-9	-120970	0
	BOTTOM	-3529		-10			
10 CASE 1	TOP	-7695	1018	15	-6	-118413	4
	BOTTOM	-4131		-8			
11 CASE 1	TOP	-31998.40	7687.66	8.51	-3.76	-73315.76	0.38
	BOTTOM	-5091.61		-4.66			
12 CASE 1	TOP	-3076.34	1094.52	10.25	-4.30	-14517.73	1.27
	BOTTOM	758.48		-6.79			
13 CASE 1	TOP	477.79	-766.65	0.52	-0.16	-3548.76	-3.06
	BOTTOM	-2205.50		-0.03			
14 CASE 1	TOP	-68.07	-140.36	-10.98	7.58	-14415.96	-6.99
	BOTTOM	-699.32		7.54			
15 CASE 1	TOP	3465.11	-997.92	-10.70	4.01	-17737.11	0.34
	BOTTOM	-27.62		3.35			
16 CASE 1	TOP	-1097.99	358.70	-5.97	1.93	-8895.73	-2.29
	BOTTOM	157.48		0.90			

ANALISIS
UNAM FACULTAD DE INGENIERIA M.M.S

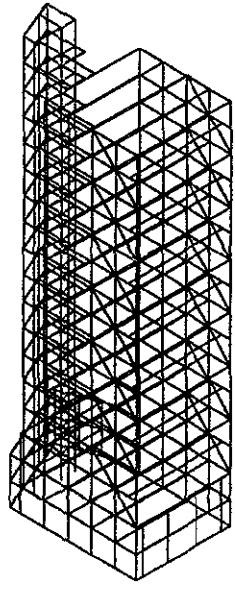
WALL FORCES AT LEVEL S1 IN FRAME EDIFICIO TISSOT

WALL ID	OUTPUT ID	OUTPUT POINT	MAJOR MOMENT	MAJOR SHEAR	MINOR MOMENT	MINOR SHEAR	AXIAL FORCE	TORSIONAL MOMENT
17	CASE 1	TOP	-3079.20	1062.49	0.59	-0.83	-6598.02	-0.56
		BOTTOM	639.62		-2.33			
18	CASE 1	TOP	-3892.70	736.80	0.52	-0.14	-11093.93	2.91
		BOTTOM	-1313.91		0.02			
19	CASE 1	TOP	6949	837	26	-25	-234062	-4
		BOTTOM	9877		-62			

FLOOR FORCES AT LEVEL S1 IN FRAME EDIFICIO TISSOT

BAY ID	OUTPUT ID	OUTPUT POINT	FORCE 11	FORCE 22
1	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00

		NODE L	0.00	0.00
2	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00
3	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00
6	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00
7	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00
8	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00
11	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00
12	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00
13	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00
14	CASE 1	NODE I	0.00	0.00
		NODE J	0.00	0.00
		NODE K	0.00	0.00
		NODE L	0.00	0.00



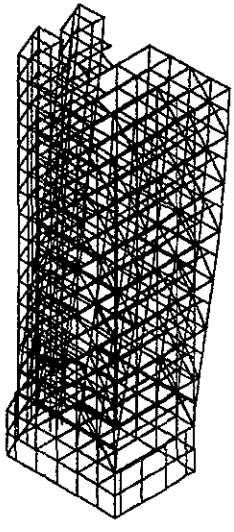
Z
Y X

PMIS
UNDEFORMED
SHAPE

TOP CM
BOT S1

OPTIONS
HIDDEN LINES

ETABS

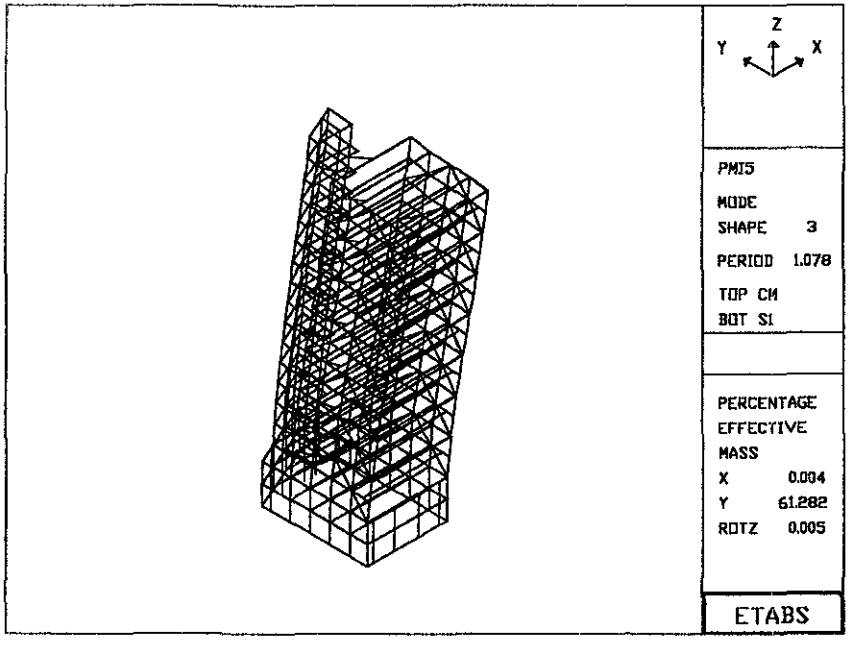


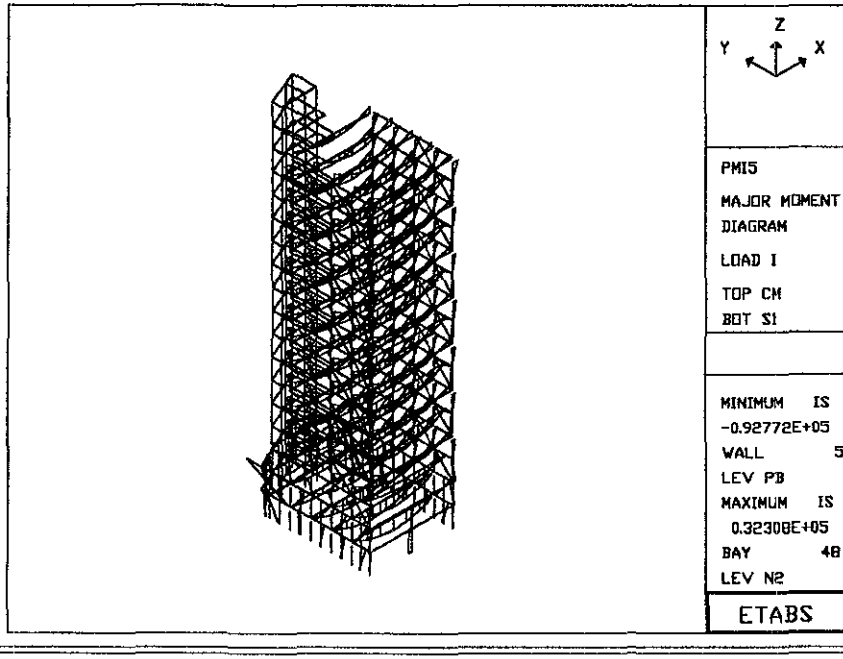
Z
Y X

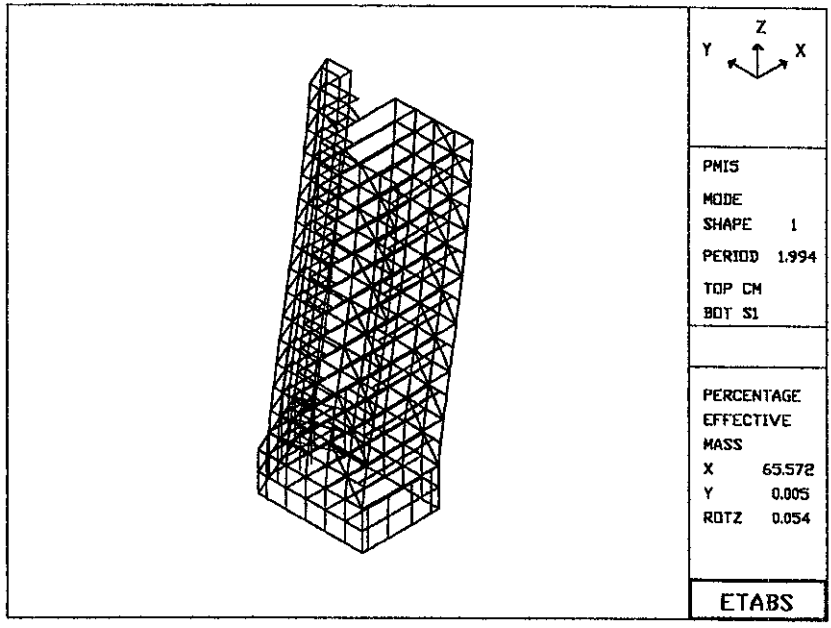
PMIS
MODE
SHAPE 1
PERIOD 1.994
TOP CM
BOT S1

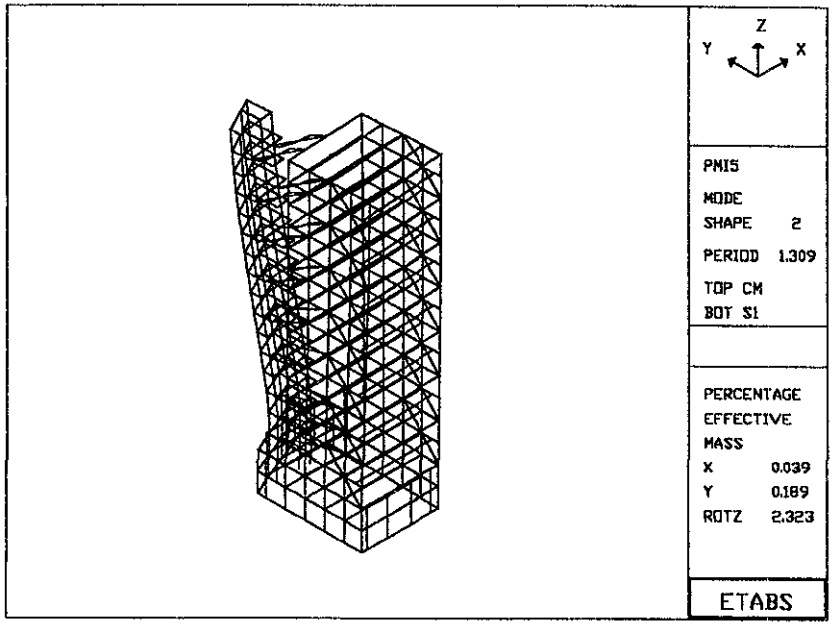
PERCENTAGE
EFFECTIVE
MASS
X 65.572
Y 0.005
ROTZ 0.054

ETABS


Z
Y
X
PMI5
MODE
SHAPE 3
PERIOD 1.078
TOP CM
BOT SI
PERCENTAGE
EFFECTIVE
MASS
X 0.004
Y 61.282
RDTZ 0.005
ETABS


Z
Y
X
PMI5
MAJOR MOMENT
DIAGRAM
LOAD I
TOP CM
BOT SI
MINIMUM IS
-0.92772E+05
WALL 5
LEV PB
MAXIMUM IS
0.32308E+05
BAY 48
LEV N2
ETABS


Z
Y
X
PMIS
MODE
SHAPE 1
PERIOD 1.994
TOP CM
BOT S1
PERCENTAGE
EFFECTIVE
MASS
X 65.572
Y 0.005
ROTZ 0.054
ETABS


Z
Y
X
PMIS
MODE
SHAPE 2
PERIOD 1.309
TOP CM
BOT S1
PERCENTAGE
EFFECTIVE
MASS
X 0.039
Y 0.189
ROTZ 2.323
ETABS

ETABS

(Comportamiento Dinámico)

E T A B S

Extended Three Dimensional Analysis of Building Systems

Version P6.13

UNIVERSIDAD NACIONAL AUTÓNOMA DE MÉXICO
JULIO CÉSAR MÉNDEZ FRANCO
TESIS PROGRAM:ETABS/FILE:PM15.EIG

STRUCTURAL TIME PERIODS AND FREQUENCIES

MODE NUMBER	PERIOD (TIME)	FREQUENCY (CYCLES/UNIT TIME)	CIRCULAR/FREQ (RADIANS/UNIT TIME)
1	1.92370	0.50158	3.15152
2	1.30934	0.76375	4.79876
3	1.07825	0.92743	5.82722
4	0.80188	1.24707	7.83556
5	0.64410	1.55256	9.75505
6	0.60287	1.65873	10.42208
7	0.36568	2.73463	17.18221
8	0.34349	2.91133	18.29243
9	0.33515	2.98373	18.74734
10	0.27171	3.68042	23.12474
11	0.25389	3.93866	24.74728
12	0.22836	4.37899	27.51403
13	0.19995	5.00138	31.42457
14	0.17572	5.69090	35.75700
15	0.16626	6.01468	37.79134
16	0.16017	6.24325	39.22747
17	0.14795	6.75915	42.46897
18	0.13611	7.34692	46.16204
19	0.12718	7.86262	49.40231
20	0.12188	8.20449	51.55033
21	0.11310	8.84205	55.55623
22	0.10697	9.34806	58.73558
23	0.10611	9.42383	59.21169
24	0.10366	9.64735	60.61611
25	0.09982	10.01932	62.94695
26	0.09761	10.24523	64.37269
27	0.09594	10.42351	65.49284
28	0.09513	10.51146	66.04542
29	0.09353	10.69167	67.17773
30	0.09178	10.89515	68.45623

PROGRAM:ETABS/FILE:PM15.EIG
UNIVERSIDAD NACIONAL AUTÓNOMA DE MÉXICO

MODAL PARTICIPATION FACTORS

MODE NUMBER	X-TRANS DIRECTION	Y-TRANS DIRECTION	Z-ROTN DIRECTION
1	464.21170	-4.01152	91.72959
2	11.34219	24.91675	614.27182
3	-3.53037	-448.76829	28.51192
4	29.07985	0.10144	-2886.64684

5	1[illegible].31346	-[illegible].03423	2[illegible].58456
6	-80.45151	-4.74809	-55.21084
7	69.21135	-2.20896	-19.63054
8	87.15967	-4.65380	35.07679
9	-2.67546	-226.55392	-14.76648
10	11.11472	1.98681	-1337.11360
11	30.89683	-1.12898	253.45996
12	82.67603	-0.16724	-43.83136
13	-11.15519	0.78175	-20.85936
14	-1.63028	119.91333	19.29808
15	-65.75700	-1.91334	35.87550
16	-35.77075	0.46208	-133.18528
17	-16.65967	-2.67521	741.52957
18	18.37590	-1.05995	210.39624
19	3.32518	-81.86999	-25.36121
20	-62.05651	-2.39229	-28.33480
21	-1.33810	-22.69921	71.71015
22	6.29653	23.18329	-188 68077
23	14 74001	-5.41857	-518.87704
24	-8.85236	13.64000	196.68022
25	2.70154	-46.00961	45.80581
26	-12.77961	3.42277	82.38000
27	-57.77325	-4.37399	-59.42590
28	-7.65304	5.65234	0.40100
29	2.28998	-19.57495	-155.70525
30	0.00067	-53.40459	39.85461

MODAL DIRECTION FACTORS

MODE NUMBER	X-TRANS DIRECTION	Y-TRANS DIRECTION	Z-ROTN DIRECTION
1	99.89484	0.00799	0.09717
2	95.50512	0.32142	4.17346
3	9.31950	99.67144	0.00906
4	5.17278	0.08962	94.73760
5	99.41522	0.02709	0.55769
6	99.82457	0.02505	0.21958
7	99.70492	0.02821	0.26687
8	99.76079	0.01847	0.19075
9	0.09660	99.88424	0.01916
10	5.22354	0.12499	94.65147
11	96.11273	0.04336	3.84391
12	99.56468	0.00518	0.42994
13	98.62055	0.07800	1.30145
14	0.07158	99.74841	0.18001
15	98.66728	0.11133	1.22138
16	95.71543	0.09966	4.18490
17	11.52107	0.43666	86.04227
18	87.04177	0.25950	12.67874
19	0.24501	97.77733	1.97766
20	99.24797	0.20671	0.54532
21	4.75813	71.55987	23.68200
22	2.78377	62.92711	34.28912
23	14.31460	17.09554	68.58985
24	70.16762	14.63653	15.19584
25	4.53121	79.08439	16.38440
26	6.13371	70.35321	23.51308
27	92.20631	4.33468	3.45901
28	6.34282	58.87394	34.78324
29	4.51953	63.70755	31.77292
30	2.40806	80.88040	16.71154

EFFECTIVE MASS FACTORS

MODE	/--X TRANSLATION--/	/--Y TRANSLATION--/	/----Z ROTATION----/
NUMBER	%-MASS <%-SUM>	%-MASS <%-SUM>	%-MASS <%-SUM>
1	65.57 < 65.6>	0 00 < 0.0>	0.05 < 0.1>
2	0.04 < 65.6>	0.19 < 0.2>	2.32 < 2.4>
3	0.00 < 65.6>	61.28 < 61.5>	0.01 < 2.4>
4	0.26 < 65.9>	0.00 < 61.5>	51.31 < 53.7>
5	7.15 < 73.0>	0 01 < 61.5>	0.34 < 54.0>
6	1.97 < ..0>	0.01 < ..5>	0.02 < ..0>
7	1.42 < 76.4>	0.00 < 61.5>	0 02 < 54.1>
8	2.31 < 78.7>	0.01 < 61.5>	0 01 < 54.1>
9	0.00 < 78.7>	15.62 < 77.1>	0.00 < 54.1>
10	0.04 < 78.8>	0.00 < 77.1>	10.84 < 64.9>
11	0.29 < 79.1>	0.00 < 77.1>	0.40 < 65 3>
12	2.08 < 81.1>	0.00 < 77.1>	0.01 < 65 3>
13	0.08 < 81 2>	0 00 < 77.1>	0.00 < 65 3>
14	0 00 < 81.2>	4 38 < 81.5>	0.00 < 65.3>
15	1.32 < 82.5>	0.00 < 81.5>	0 01 < 65.3>
16	0.39 < 82.9>	0.00 < 81.5>	0 11 < 65.4>
17	0.08 < 83.0>	0.00 < 81.5>	3.19 < 68 8>
18	0.10 < 83.1>	0 00 < 81.5>	0.27 < 69.1>
19	0.00 < 83.1>	2.04 < 83.5>	0.00 < 69.1>
20	1.17 < 84.2>	0.00 < 83 5>	0 00 < 69.1>
21	0.00 < 84.2>	0.16 < 83.7>	0 03 < 69.1>
22	0.01 < 84.3>	0.16 < 83 9>	0.22 < 69 4>
23	0.07 < 84.3>	0.01 < 83 9>	1.66 < 71.0>
24	0.02 < 84.3>	0.06 < 83 9>	0.24 < 71 3>
25	0.00 < 84.3>	0 64 < 84.6>	0.01 < 71.3>
26	0.05 < 84.4>	0.00 < 84.6>	0.04 < 71.3>
27	1.02 < 85.4>	0 01 < 84.6>	0.02 < 71.3>
28	0.02 < 85.4>	0 01 < 84.6>	0.00 < 71.3>
29	0.00 < 85.4>	0.12 < 84.7>	0.15 < 71.5>
30	0.00 < 85.4>	0 87 < 85.6>	0.01 < 71.5>

STRUCTURAL MODE SHAPES FOR DIAPHRAGM 1

VALUES ARE AT THE CENTERS OF MASS OF THE
CORRESPONDING DIAPHRAGM IN GLOBAL COORDINATES

LEVEL ID	DIRN ID	MODE 1	MODE 2	MODE 3	MODE 4	MODE 5
CM	X	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0 0000E+00
CM	Y	0.0000E+00	0.0000E+00	0 0000E+00	0.0000E+00	0.0000E+00
CM	ROTZ	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
N13	X	2.8079E-03	8.9506E-04	2.5940E-05	-6.5930E-06	-2.1090E-03
N13	Y	-2.8401E-05	1.8296E-04	-1.1778E-03	5.1709E-06	3.6264E-05
N13	ROTZ	1.4977E-05	9.5843E-05	4.3819E-06	-4.5818E-04	2.3258E-05
N12	X	2.7298E-03	8.2833E-04	2.3088E-05	2.6602E-04	-1.7812E-03
N12	Y	-2.6882E-05	1.7345E-04	-3.0298E-03	4.3581E-06	2.5924E-05
N12	ROTZ	1.4228E-05	9.1861E-05	4.2361E-06	-4.4123E-04	2.4455E-05
N11	X	2.5411E-03	8.4817E-04	2.4424E-05	7.7790E-05	-1.2910E-03
N11	Y	-2.4581E-05	1.5791E-04	-2.7674E-03	3.0892E-06	1.0357E-05
N11	ROTZ	1.3134E-05	8.5917E-05	3.9957E-06	-4.1219E-04	2.5791E-05
N10	X	2.5091E-03	7.6834E-04	2.1326E-05	3 2519E-04	-7.0915E-04
N10	Y	-2.2697E-05	1.4574E-04	-2.5735E-03	1.9636E-06	-3 5177E-06
N10	ROTZ	1.2188E-05	8.0155E-05	3.7570E-06	-3.8523E-04	2.6765E-05
N9	X	2.3604E-03	7.6101E-04	2.1853E-05	1.6373E-04	-3 1993E-05
N9	Y	-2.0070E-05	1.2794E-04	-2.2726E-03	5.0027E-07	-2.0532E-05
N9	ROTZ	1.0931E-05	7.2721E-05	3.4360E-06	-3 4818E-04	2.7721E-05
N8	X	2.1725E-03	6.6787E-04	1.8546E-05	3.6201E-04	6.0850E-04
N8	Y	-1.8048E-05	1.1447E-04	-2.0499E-03	-5.0561E-07	-3.0801E-05
N8	ROTZ	9.8992E-06	6.5735E-05	3.1315E-06	-3.1449E-04	2.7453E-05
N7	X	1.9690E-03	6.3298E-04	1.8261E-05	2.1933E-04	1.2087E-03
N7	Y	-1.5328E-05	9.5825E-05	-1.7276E-03	-1 6715E-06	-4.1181E-05
N7	ROTZ	8.5211E-06	5.7245E-05	2.7486E-06	-2 7202E-04	2.6906E-05
N6	X	1.7343E-03	5.3004E-04	1.4927E-05	3.5038E-04	1.6381E-03
N6	Y	-1.3436E-05	8.3319E-05	-1.5192E-03	-2.4501E-06	-4.1991E-05
N6	ROTZ	7.5399E-06	5.0384E-05	2.4318E-06	-2.3836E-04	2.5247E-05
N5	X	1.4872E-03	4.7114E-04	1.3944E-05	2.1809E-04	1.9147E-03
N5	Y	-1.0857E-05	6.5960E-05	-1.2175E-03	-3.2256E-06	-4.6767E-05

N5	ROTZ	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
N4	X	1.2189E-03	3.6287E-04	1.0724E-05	2.7764E-04	1.9504E-03
N4	Y	-9.0154E-06	5.3828E-05	-1.0131E-03	-3.7244E-06	-4.4121E-05
N4	ROTZ	5.2352E-06	3.5034E-05	1.6970E-06	-1.6166E-04	1.9660E-05

PAGE 7
UNIVERSIDAD NACIONAL AUTÓNOMA DE MÉXICO PROGR

LEVEL ID	DIRN ID	MODE 1	MODE 2	MODE 3	MODE 4	MODE 5
N3	X	9.4388E-04	2.8598E-04	9.1625E-06	1.5627E-04	1.7956E-03
N3	Y	-6.6266E-06	3.8013E-05	-7.3502E-04	-4.0020E-06	-3.7885E-05
N3	ROTZ	3.9331E-06	2 6759E-05	1.2885E-06	-1.2026E-04	1.5364E-05
N2	X	6.6182E-04	1.8068E-04	6.2355E-06	1.5166E-04	1.4315E-03
N2	Y	-4.9465E-06	2.6934E-05	-5.4565E-04	-4.1558E-06	-2.9587E-05
N2	ROTZ	3.1573E-06	2.0152E-05	9.5538E-07	-8.6695E-05	1.0984E-05
N1	X	3.8986E-04	1.0026E-04	4.3899E-06	5.5912E-05	9.4292E-04
N1	Y	-2.9906E-06	1.4239E-05	-3.1799E-04	-3 8910E-06	-1.7961E-05
N1	ROTZ	2.1231E-06	1.2810E-05	5.7855E-07	-4.9781E-05	5.6338E-06
MEZ	X	1.4997E-04	8.0686E-06	1.6421E-06	8.0649E-05	4.1009E-04
MEZ	Y	-1.5196E-06	4.9290E-06	-1.5384E-04	-4.0180E-06	-6.3711E-06
MEZ	ROTZ	1.4302E-06	6.7968E-06	2.6725E-07	-1.9930E-05	1.0551E-06
PB	X	1.1540E-05	-2.4900E-06	1.5598E-06	1.6140E-05	3.0049E-05
PB	Y	-6.3675E-07	8.5122E-07	-2.4601E-05	-1.0069E-06	-2.2406E-06
PB	ROTZ	-1.4218E-08	3.9860E-07	-2.5224E-08	-1.2860E-06	-1.8784E-07
S1	X	3.3406E-06	-7.2074E-07	6.7781E-07	4.5497E-06	9.2459E-06
S1	Y	-2.0188E-07	3.9642E-07	-1.0365E-05	-3.8249E-07	-8.2987E-07
S1	ROTZ	1.0783E-08	1.8566E-07	-1.0185E-08	-6.1502E-07	-2.7407E-08

LEVEL ID	DIRN ID	MODE 6	MODE 7	MODE 8	MODE 9	MODE 10
CM	X	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
CM	Y	0 0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
CM	ROTZ	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
N13	X	2.0864E-03	1.1403E-03	2.7178E-03	-6.6998E-05	7.9860E-05
N13	Y	3.6039E-05	-3.5459E-05	7.9074E-05	2.7048E-03	-2.3620E-05
N13	ROTZ	1.5603E-05	2.8274E-05	-1.0303E-05	4.6992E-06	4.1389E-04
N12	X	1.7366E-03	6.9503E-04	1.6465E-03	-4.2147E-05	-1.9065E-04
N12	Y	2.5221E-05	-1.2225E-05	5.7069E-05	2.2192E-03	-2.5722E-05
N12	ROTZ	1.2973E-05	2.1160E-05	-1.0631E-05	4.0496E-06	3.4888E-04
N11	X	1.2561E-03	1.4516E-04	2.4459E-04	-5.2011E-06	-7.6346E-05
N11	Y	8.9935E-06	1.5473E-05	2.3478E-05	1.3012E-03	-2.2236E-05
N11	ROTZ	8.9277E-06	1.0895E-05	-1.1282E-05	2.9083E-06	2.2687E-04
N10	X	6.4265E-04	-4.2754E-04	-1.1557E-03	2.8648E-05	-1.5296E-04
N10	Y	-5.4935E-06	3.3229E-05	-1.2963E-06	5.3328E-04	-1.2707E-05
N10	ROTZ	5.4516E-06	2.6775E-06	-1.0297E-05	1.6897E-06	1.0557E-04
N9	X	-3.4786E-05	-8.6920E-04	-2.2016E-03	5 4478E-05	-7.7556E-05
N9	Y	-2.2988E-05	4.6275E-05	-2.8947E-05	-4.6514E-04	1 6743E-06
N9	ROTZ	8.0920E-07	-6.3779E-06	-9.8976E-06	2.0908E-07	-4.2460E-05

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UNIVERSIDAD NACIONAL AUTÓNOMA DE MÉXICO PROGR

LEVEL ID	DIRN ID	MODE 6	MODE 7	MODE 8	MODE 9	MODE 10
N8	X	-7.0367E-04	-1.0425E-03	-2.5378E-03	6.2191E-05	7.7457E-05
N8	Y	-3.3111E-05	3.5996E-05	-4.0454E-05	-1.2224E-03	1.8392E-05
N8	ROTZ	-2.7724E-06	-1.0305E-05	-6.5991E-06	-1.1377E-06	-1.6766E-04
N7	X	-1.2972E-03	-9.3005E-04	-2.1048E-03	4.8985E-05	4.6087E-05
N7	Y	-4.2994E-05	1.6262E-05	-4.7414E-05	-1.9471E-03	3.3844E-05

N7	ROTZ	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
N6	X	-1.7288E-03	-5.3410E-04	-1 0089E-03	2.2535E-05	2.7952E-04
N6	Y	-4.5985E-05	-4.5855E-06	-4.8499E-05	-2.3772E-03	4.0303E-05
N6	ROTZ	-9.6902E-06	-1 3301E-05	1.4574E-06	-3.3117E-06	-3.5261E-04
N5	X	-1.9733E-03	7.4028E-07	4.0740E-04	-1.4369E-05	7.9199E-05
N5	Y	-4.6538E-05	-3.1363E-05	-4.2758E-05	-2 5753E-03	4.0169E-05
N5	ROTZ	-1.2372E-05	-1.1856E-05	7.3334E-06	-3.9431E-06	-3.8782E-04
N4	X	-1.9733E-03	5.4153E-04	1.6888E-03	-4.2260E-05	2.3492E-04
N4	Y	-4.2594E-05	-4.3063E-05	-4.1963E-05	-2.6416E-03	3.4549E-05
N4	ROTZ	-1.3716E-05	-1.1492E-05	1.1539E-05	-4.1783E-06	-3.9287E-04
N3	X	-1.7627E-03	9.2038E-04	2.4845E-03	-6.0926E-05	-5.7551E-05
N3	Y	-3.4841E-05	-5.4119E-05	-3.4061E-05	-2.3442E-03	2 1429E-05
N3	ROTZ	-1.4410E-05	-9.7591E-06	1.6656E-05	-4.0407E-06	-3.5062E-04
N2	X	-1.3428E-03	1.0397E-03	2.5061E-03	-5 5895E-05	2.9334E-05
N2	Y	-2.5205E-05	-4.3821E-05	-3.4687E-05	-2 0332E-03	1.3535E-05
N2	ROTZ	-1.4626E-05	-1.1125E-05	1.8606E-05	-3.5819E-06	-2.9207E-04
N1	X	-8.1688E-04	8.6244E-04	1 8476E-03	-3.7954E-05	-1.4578E-04
N1	Y	-1.2532E-05	-2.9520E-05	-2.8643E-05	-1.3715E-03	1.8027E-06
N1	ROTZ	-1.3621E-05	-1.1398E-05	1.9643E-05	-2.7196E-06	-1.9201E-04
MEZ	X	-2.6780E-04	4.9907E-04	7 6027E-04	-5.7007E-06	1.9777E-04
MEZ	Y	-4.5420E-07	-5.7801E-06	-2.5652E-05	-7.7201E-04	-3.4174E-06
MEZ	ROTZ	-1.1881E-05	-1.2241E-05	1 7066E-05	-1.7337E-06	-9.1975E-05
PB	X	-1.6845E-05	4.5972E-05	6.2141E-05	6 6942E-06	2.9718E-05
PB	Y	1.3941E-07	-3.2600E-06	-5.3118E-06	-9.9391E-05	-1.5519E-06
PB	ROTZ	-4 2394E-07	-9.7700E-07	4.5005E-07	-2.9593E-07	-6.2673E-06
S1	X	-5.0647E-06	1 4588E-05	1 9622E-05	3.2690E-06	1.0120E-05
S1	Y	-9.5454E-08	-1.2829E-06	-1 9924E-06	-4.7308E-05	-7.6502E-07
S1	ROTZ	-2.3526E-07	-3.8208E-07	3 0138E-07	-1.3819E-07	-2.9218E-06

LEVEL ID	DIRN ID	MODE 11	MODE 12	MODE 13	MODE 14	MODE 15
CM	X	0.0000E+00	0 0000E+00	0 0000E+00	0.0000E+00	0.0000E+00
CM	Y	0.0000E+00	0 0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
CM	ROTZ	0.0000E+00	0.0000E+00	0.0000E+00	0 0000E+00	0 0000E+00

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LEVEL ID	DIRN ID	MODE 11	MODE 12	MODE 13	MODE 14	MODE 15
N13	X	-6.0893E-04	-2.7626E-03	-4.9180E-04	-4.4132E-05	-1.9588E-03
N13	Y	4.8493E-05	-2.3871E-05	3.2516E-05	2.5093E-03	-6.0861E-05
N13	ROTZ	-9.1175E-05	2.2637E-05	2.7381E-05	8.8728E-06	2.5949E-05
N12	X	-1.7587E-04	-8.2732E-04	-8.7220E-05	-4.4657E-06	7.5170E-05
N12	Y	1.6642E-06	-7.2334E-06	-1.8147E-05	1.6552E-03	-1.9647E-05
N12	ROTZ	-6.8531E-05	2.2126E-05	2.9996E-05	6.4629E-06	2.0555E-05
N11	X	2.2216E-04	1.2707E-03	3.2874E-04	3.5073E-05	1.7342E-03
N11	Y	-4.7822E-05	1.1496E-05	-6.0523E-05	6.3797E-05	2.9584E-05
N11	ROTZ	-3.3536E-05	1.9014E-05	2.3845E-05	1.7240E-06	1.1209E-05
N10	X	5.1452E-04	2.5134E-03	4.6706E-04	4.3304E-05	1.7629E-03
N10	Y	-4.2260E-05	1.0684E-05	-1.4148E-05	-1.2826E-03	2.3036E-05
N10	ROTZ	-7.1752E-06	1.2218E-05	2.9168E-06	-2.7385E-06	8.0782E-07
N9	X	5.4344E-04	2.3351E-03	2.8673E-04	1.4789E-05	2.5821E-04
N9	Y	-2 3651E-05	6.7564E-06	4.3115E-05	-2.3040E-03	8.2771E-06
N9	ROTZ	2.1720E-05	4.4207E-06	-2.0892E-05	-6 6091E-06	-9.9154E-06
N8	X	2.7486E-04	7.9689E-04	-6.8214E-05	-2.1015E-05	-1 4664E-03
N8	Y	1.1009E-05	3.5848E-06	3.1340E-05	-2.6045E-03	5.1646E-05
N8	ROTZ	4.1339E-05	-7.6015E-06	-3.0886E-05	-7.8303E-06	-2.7342E-05
N7	X	-9.0341E-05	-1.2099E-03	-4.0162E-04	-4.7142E-05	-1.9689E-03

N7	[illegible]	[illegible].4256E-[illegible]	-3 468[illegible]07	8.3[illegible]E-06	-1.[illegible]2E-03	[illegible]722E-0[illegible]
N7	ROTZ	5.7247E-05	-2.0663E-05	-3.4019E-05	-6.9415E-06	-4.0489E-05
N6	X	-4.5960E-04	-2.4919E-03	-4.2122E-04	-2.5530E-05	-6.9467E-04
N6	Y	3.8127E-05	5.7591E-06	-2.2735E-05	-1.0920E-03	3.2171E-05
N6	ROTZ	6 9551E-05	-2.6695E-05	-2.8989E-05	-4.4902E-06	-3.0232E-05
N5	X	-5.4322E-04	-2.4060E-03	-1.8281E-04	1.3118E-05	1.1600E-03
N5	Y	2.0555E-05	1.1398E-05	-4.5208E-05	3.3879E-04	-3.0795E-05
N5	ROTZ	7 4676E-05	-3.0996E-05	-1.9492E-05	-4.5168E-07	-9.6950E-06
N4	X	-4.2838E-04	-9 0092E-04	1.9270E-04	3.9043E-05	1.9862E-03
N4	Y	-8.9416E-06	1.2802E-05	-1.4735E-05	1.4369E-03	-6.0891E-05
N4	ROTZ	7.6480E-05	-2.7343E-05	-1.5728E-05	2.9668E-06	3.1193E-06
N3	X	-4.2441E-05	1.0988E-03	4.2738E-04	3.7736E-05	1.1103E-03
N3	Y	-4.2365E-05	1.0747E-05	3.0380E-05	2.3641E-03	-7.1137E-05
N3	ROTZ	6.8037E-05	-1 8098E-05	-8.9108E-06	6.3918E-06	1.7477E-05
N2	X	2.8451E-04	2.4881E-03	3.8446E-04	1.9577E-07	-7.6406E-04
N2	Y	-4.0244E-05	2.0528E-07	3.9290E-05	2.6543E-03	-4.6736E-05
N2	ROTZ	5.1546E-05	-9.8864E-06	1.2522E-06	7.6062E-06	2.1733E-05
N1	X	4.9860E-04	2.5404E-03	1.1732E-04	-3.2800E-05	-1.9946E-03
N1	Y	-3.2887E-05	-1.1824E-05	4.2501E-05	2.2312E-03	-3.5022E-06
N1	ROTZ	2.6219E-05	2.7120E-06	1.3221E-05	6.9689E-06	1.9233E-05

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UNIVERSIDAD NACIONAL AUTÓNOMA DE MÉXICO PROGR

LEVEL ID	DIRN ID	MODE 11	MODE 12	MODE 13	MODE 14	MODE 15
MEZ	X	3.7869E-04	1.3375E-03	-1.8301E-04	-5.5859E-05	-1.6127E-03
MEZ	Y	-4.7048E-07	-1.7792E-05	-2.8167E-06	1.3912E-03	-1.4593E-05
MEZ	ROTZ	-1.4689E-07	7.1093E-06	2.5232E-05	4.7673E-06	2.5672E-05
PB	X	3.7891E-05	1.2776E-04	-2.6526E-05	-2.0310E-05	-1.9243E-04
PB	Y	-2.9961E-06	-7.1688E-06	2.5310E-06	1.8952E-04	7.5790E-06
PB	ROTZ	2.6463E-08	-5.8322E-07	1.4718E-06	6.5592E-07	2.6082E-06
S1	X	1.2545E-05	4.3115E-05	-9.0845E-06	-9.1227E-06	-6.8348E-05
S1	Y	-1.1889E-06	-2.5875E-06	1.1713E-06	9 1218E-05	2.5862E-06
S1	ROTZ	7.5605E-08	-9.3393E-08	6.5776E-07	3.1344E-07	1.0042E-06

LEVEL ID	DIRN ID	MODE 16	MODE 17	MODE 18	MODE 19	MODE 20
CM	X	0.0000E+00	0.0000E+00	0 0000E+00	0.0000E+00	0.0000E+00
CM	Y	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
CM	ROTZ	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
N13	X	-1.7404E-03	5.2859E-05	-7.5828E-04	-8.7119E-05	2.2787E-03
N13	Y	6.1877E-07	-9.1987E-05	-2.9922E-05	2.2846E-03	9.3816E-05
N13	ROTZ	-7.4089E-05	3.7159E-04	1.3371E-04	1.5807E-05	1.7265E-05
N12	X	1.9539E-04	-1.7556E-04	1.7924E-04	2.9221E-05	-1.0893E-03
N12	Y	-1.6180E-05	-6.3060E-05	-5.2980E-06	7.3340E-04	3.1906E-05
N12	ROTZ	-4.5168E-05	2.5032E-04	8.3830E-05	6.3633E-06	-4.0623E-07
N11	X	1.6219E-03	-5.7735E-05	8.1454E-04	9.5065E-05	-2.5902E-03
N11	Y	-2.5580E-05	-5.7774E-07	1.9061E-05	-1.2640E-03	-5.9250E-05
N11	ROTZ	7.6236E-07	3.0423E-05	-1.5297E-06	-5.5615E-06	-2.2067E-05
N10	X	1.4633E-03	9.6724E-05	4.9786E-04	4.6938E-05	-6.3353E-04
N10	Y	1.5808E-05	6.4118E-05	1.2755E-05	-2.4663E-03	-1.0196E-04
N10	ROTZ	2.7490E-05	-1 7460E-04	-7.8589E-05	-1.2327E-05	-2.0224E-05
N9	X	-7.7554E-06	2.7486E-05	-4.2962E-04	-6.7750E-05	2.1346E-03
N9	Y	5.1836E-05	1.0251E-04	2.8070E-06	-2.1206E-03	-8.0420E-05
N9	ROTZ	4.9879E-05	-3.3102E-04	-1.2761E-04	-1.2872E-05	-7.8019E-06
N8	X	-1.5130E-03	2 2384E-04	-7.6371E-04	-8.8809E-05	2.1685E-03
N8	Y	1.7861E-06	9.3399E-05	2.4846E-05	-7.0442E-04	-2.1425E-06
N8	ROTZ	6.9511E-05	-3 7222E-04	-1.3262E-04	-3 6862E-06	-3.8928E-06

N7	[illegible]	1.6191E[illegible]	-6.22[illegible]05	-3.5[illegible]E-04	-5.[illegible]90E-06	[illegible]9133E-[illegible]
N7	Y	-5.3372E-05	3.6104E-05	4.3133E-05	1.3475E-03	8.0314E-05
N7	ROTZ	6.6410E-05	-2.8416E-04	-8.3856E-05	7 9466E-06	6.3406E-06
N6	X	-2.9439E-04	-3.2050E-05	5.2705E-04	7.7192E-05	-2.5083E-03
N6	Y	-2.0532E-05	2.5573E-05	1.1752E-06	2.2594E-03	9.7961E-05
N6	ROTZ	4.3380E-05	-1.5260E-04	-1.3288E-05	1.3183E-05	1.6414E-05

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UNIVERSIDAD NACIONAL AUTÓNOMA DE MÉXICO PROGR

LEVEL ID	DIRN ID	MODE 16	MODE 17	MODE 18	MODE 19	MODE 20
N5	X	1.3281E-03	-7.0229E-05	8.2349E-04	7.7363E-05	-1.4013E-03
N5	Y	2.1349E-05	-2.9631E-06	-5.0164E-05	2.1094E-03	5.8117E-05
N5	ROTZ	5.1823E-06	4.5611E-05	7.1500E-05	1.2931E-05	1.4920E-05
N4	X	1.7095E-03	-7.2957E-05	1.3043E-04	-2.9046E-05	1.4844E-03
N4	Y	1.4713E-05	-5.8284E-05	-9 9684E-06	1.1180E-03	1.4991E-05
N4	ROTZ	-2.6948E-05	2.1942E-04	1.1270E-04	5.8344E-06	9.5832E-06
N3	X	5.3182E-04	1.6331E-04	-6.3349E-04	-9.6839E-05	2 5455E-03
N3	Y	-4.1515E-06	-1.0167E-04	3.0584E-05	-5.7997E-04	-4.7096E-05
N3	ROTZ	-5.3434E-05	3.4932E-04	1.2184E-04	-4.4101E-06	4.5489E-06
N2	X	-1.1001E-03	-7.2460E-05	-7.9245E-04	-4.2212E-05	3.2666E-04
N2	Y	-1.2637E-05	-9.2652E-05	-3 8872E-05	-1.8314E-03	-1.0035E-04
N2	ROTZ	-6.8432E-05	3.8026E-04	1 1492E-04	-1.1629E-05	-6.9258E-06
N1	X	-1.8647E-03	3.5384E-05	-5.0398E-05	5.4206E-05	-2.3641E-03
N1	Y	-2.1188E-05	-4.7607E-05	-1.0224E-04	-2.2717E-03	-1.1209E-04
N1	ROTZ	-7.0262E-05	3.0194E-04	6.8011E-05	-1 4631E-05	-1 8142E-05
MEZ	X	-9.3949E-04	-5.7470E-04	4.9514E-04	1.2255E-04	-2.1810E-03
MEZ	Y	2.5375E-05	-1.5727E-05	8.0717E-06	-1.7260E-03	-1.8949E-05
MEZ	ROTZ	-5.6590E-05	1.6287E-04	-1.0008E-05	-1.0545E-05	-1.8715E-05
PB	X	-1.0178E-04	-8.9239E-05	7.5870E-05	3.5076E-05	-3.0864E-04
PB	Y	5.6599E-06	1.2865E-06	-7 0538E-06	-2.3792E-04	8.9491E-06
PB	ROTZ	-2.9158E-06	1.1967E-05	-2.7866E-07	-1.3251E-06	5.5401E-07
S1	X	-3.6500E-05	-3.2652E-05	2.8039E-05	1 5625E-05	-1.1821E-04
S1	Y	2.0381E-06	5.9514E-07	-3.0582E-06	-1 1743E-04	2.9182E-06
S1	ROTZ	-1.4790E-06	5.5964E-06	2.5683E-08	-6.3022E-07	-4.1784E-09

LEVEL ID	DIRN ID	MODE 21	MODE 22	MODE 23	MODE 24	MODE 25
CM	X	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
CM	Y	0.0000E+00	0.0000E+00	0.0000E+00	0 0000E+00	0.0000E+00
CM	ROTZ	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
N13	X	-3.2328E-06	3.0444E-05	1.2605E-04	-1.5553E-04	1 0923E-04
N13	Y	7.9020E-04	6.2600E-04	-6.6525E-04	1.4357E-04	-1.3905E-03
N13	ROTZ	-1 4500E-05	1.9416E-04	2.8574E-04	-1.3852E-04	-7.6178E-05
N12	X	4.4667E-06	-9.1010E-05	-1.9030E-04	1.5722E-04	-6.5134E-05
N12	Y	5.8914E-04	5.6254E-04	-3.0587E-04	-1.9967E-04	1.7677E-04
N12	ROTZ	1.0049E-05	9.3838E-05	9.4538E-05	-6 6570E-05	-2.1691E-05
N11	X	1.6006E-05	-2.3641E-05	-1.5664E-04	1.6897E-04	-1.1569E-04
N11	Y	-9.2067E-05	-1.8660E-04	1.8232E-04	-3.1611E-04	1 2793E-03
N11	ROTZ	2.8977E-05	-5.8082E-05	-1.5521E-04	4.5571E-05	4 6164E-05

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LEVEL ID	DIRN ID	MODE 21	MODE 22	MODE 23	MODE 24	MODE 25
N10	X	-1.7236E-05	1.2701E-04	2.3771E-04	-1.2221E-04	-1.1621E-05
N10	Y	-5.3417E-04	2.9643E-04	1 2982E-04	-2.8796E-04	1.8409E-03
N10	ROTZ	3.5496E-05	-1.3631E-04	-3.1883E-04	1.1933E-04	9.3484E-05
N9	X	-9.6943E-06	1.8549E-05	1.0818E-04	-1.6953E-04	1 6675E-04

N9	X	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
N9	ROTZ	2.0717E-05	-1.2630E-04	-2.8632E-04	1.1927E-04	8.1151E-05
N8	X	-4.2473E-06	-2.1142E-05	3.2578E-05	-4.5091E-05	1.7958E-05
N8	Y	-5.9101E-04	7.1556E-04	-3.5093E-04	3.9591E-04	-5.9765E-04
N8	ROTZ	-8.2987E-06	-3.2314E-05	-9.7592E-05	6.3810E-05	3.9399E-05
N7	X	1.8210E-06	-4.2053E-05	-1.3975E-04	1.8138E-04	-1.3703E-04
N7	Y	-1.0337E-04	2.8854E-04	-4.2214E-04	4.4867E-04	-1.3589E-03
N7	ROTZ	-3.5825E-05	9.6952E-05	1.6272E-04	-3.4827E-05	-2.7058E-05
N6	X	3.2802E-05	-6.7417E-05	-2.1868E-04	1.5340E-04	-5.3920E-05
N6	Y	3.9315E-04	-1.6746E-04	-2.4247E-04	1.4642E-04	-4.7049E-04
N6	ROTZ	-4.4223E-05	1.4112E-04	2.9701E-04	-1.0684E-04	-4.8521E-05
N5	X	-8.0596E-06	8.7079E-05	1.9095E-04	-1.6550E-04	8.8500E-05
N5	Y	6.9555E-04	-6.7058E-04	1.6639E-04	-2.7209E-04	6.7861E-04
N5	ROTZ	-3.1162E-05	1.2051E-04	2.7441E-04	-1.2156E-04	-4.1173E-05
N4	X	-1.3562E-05	2.1730E-05	1.0573E-04	-1.3881E-04	1.1846E-04
N4	Y	5.8247E-04	-6.2382E-04	2.5408E-04	-4.4818E-04	1.3834E-03
N4	ROTZ	-7.0482E-06	5.2642E-05	1.3156E-04	-7.3422E-05	-1.6315E-05
N3	X	-2.9447E-06	-4.9478E-05	-6.3200E-05	5.6738E-05	-4.4494E-05
N3	Y	7.3459E-05	-1.8113E-04	1.8841E-04	-2.7407E-04	8.7296E-04
N3	ROTZ	2.2766E-05	-4.9154E-05	-9.6712E-05	2.1250E-05	1.7702E-05
N2	X	-5.8857E-06	-8.1418E-06	-6.3847E-05	1.4759E-04	-1.4851E-04
N2	Y	-4.0954E-04	4.0818E-04	3.3604E-05	7.4826E-05	-3.1881E-04
N2	ROTZ	3 9160E-05	-1.1898E-04	-2.6340E-04	9.7635E-05	2.9546E-05
N1	X	2.3662E-05	-2.4463E-05	-1.3363E-04	8.3735E-05	-1.3740E-05
N1	Y	-6.8924E-04	7.4345E-04	-1.4511E-04	4.2249E-04	-1.4880E-03
N1	ROTZ	3.8298E-05	-1.3135E-04	-3.0066E-04	1.2594E-04	2.2594E-05
MEZ	X	-6.5563E-05	2.9626E-04	6.9602E-04	-3.9537E-04	9.4194E-05
MEZ	Y	-5.7909E-04	6.4108E-04	-1.9474E-04	4.1723E-04	-1.4347E-03
MEZ	ROTZ	2.3043E-05	-7.9680E-05	-1.8994E-04	8.7517E-05	4.9926E-06
PB	X	-3 4846E-06	4.4113E-05	1.2408E-04	-7.7944E-05	3.5796E-05
PB	Y	-8.1844E-05	9.0364E-05	-3.1912E-05	6.6053E-05	-2.1727E-04
PB	ROTZ	1.6488E-06	-6.2151E-06	-1.5300E-05	7.0586E-06	-2.6342E-09
S1	X	-3.3416E-07	1.7234E-05	5.0259E-05	-3.2556E-05	1.6179E-05
S1	Y	-4.0771E-05	4.4646E-05	-1.5643E-05	3.2957E-05	-1.0772E-04
S1	ROTZ	7.8836E-07	-2.9258E-06	-7.2469E-06	3.3106E-06	1.6526E-08

LEVEL ID	DIRN ID	MODE 26	MODE 27	MODE 28	MODE 29	MODE 30
CM	X	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
CM	Y	0.0000E+00	0.0000E+00	0.0000E+00	0 0000E+00	0.0000E+00
CM	ROTZ	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
N13	X	-3.5811E-04	-1.9290E-03	-2.8955E-04	-4.8724E-05	3.7257E-05
N13	Y	-9.4579E-04	-1.9039E-05	4.0965E-04	4.9084E-04	-1.3564E-03
N13	ROTZ	-4.4373E-05	5.6203E-05	3.8098E-05	5.5265E-05	7.7466E-05
N12	X	3 1905E-04	1.6809E-03	2.4798E-04	2.8619E-05	-5.8540E-05
N12	Y	2 7592E-04	-3.7464E-05	7.4485E-05	-1.3926E-04	3.7076E-04
N12	ROTZ	-4.9397E-06	2.2456E-05	1.0600E-05	1.0354E-05	2.1250E-05
N11	X	3.9301E-04	2.0531E-03	3.0393E-04	4.8409E-05	-3.6281E-05
N11	Y	8.7619E-04	5.3479E-05	-5 5647E-04	-5.3240E-04	1.4942E-03
N11	ROTZ	3.9251E-05	-1.7923E-05	-2 4761E-05	-4.0181E-05	-4.7503E-05
N10	X	-2.2418E-04	-1.0787E-03	-1.4737E-04	1 0630E-05	8.4119E-05
N10	Y	1.2117E-03	1.6329E-05	-5.0863E-04	-5.5084E-04	1.4167E-03
N10	ROTZ	6.7610E-05	-5.7503E-05	-4.5060E-05	-6.1690E-05	-7.3890E-05
N9	X	-4.5406E-04	-2.5382E-03	-3.8715E-04	-7.5610E-05	2.5510E-05
N9	Y	9.3642E-05	1.9283E-05	-1.5139E-04	9.9684E-05	-4.1273E-04
N9	ROTZ	5.1922E-05	-6.1408E-05	-3.2689E-05	-3.3513E-05	-4.2272E-05

N8	X	1.9990E-05	2.6965E-04	4.4491E-05	-9.9719E-06	-4.6085E-05
N8	Y	1.0251E-04	-2.3061E-04	6.9263E-04	6.7039E-04	-1.8624E-03
N8	ROTZ	3.9992E-05	-1.8721E-05	1.3492E-05	2.3207E-05	2.5167E-06
N7	X	4.8884E-04	2.6459E-03	4.1627E-04	8.0348E-05	-4.1492E-05
N7	Y	-2.3772E-04	-2.0917E-04	6.7535E-04	6.6693E-04	-1.5682E-03
N7	ROTZ	5.0109E-06	4.1484E-05	5.7901E-05	6.8728E-05	4.4037E-05
N6	X	1.5264E-04	5.7536E-04	4.4899E-05	-1.3850E-05	9 8841E-06
N6	Y	1.0895E-04	-2.3421E-04	1.1288E-03	4.4474E-04	-4.2711E-04
N6	ROTZ	-1.5756E-05	4.7656E-05	9.5183E-05	8.2145E-05	3.4350E-05
N5	X	-4.3804E-04	-2.4138E-03	-3.4619E-04	-4.8075E-05	5 9047E-05
N5	Y	1.3586E-04	6.7909E-06	3.7319E-04	-1 0611E-04	1.0917E-03
N5	ROTZ	-2.8146E-05	2.1633E-05	7.9212E-05	4.2947E-05	1.7587E-06
N4	X	-2.9002E-04	-1.3824E-03	-2.1172E-04	-3.0038E-05	1 7075E-06
N4	Y	1.1257E-04	4.2035E-05	5.7384E-04	-4.1173E-04	2.1688E-03
N4	ROTZ	-2.6894E-05	-9.0640E-06	6.7426E-05	-9.8361E-06	-1.2121E-05
N3	X	3.0674E-04	1.8790E-03	3.0935E-04	2.7008E-05	-5 7808E-05
N3	Y	-1.8176E-04	9.7774E-05	3.1700E-05	-3.0891E-04	1.2412E-03
N3	ROTZ	-1.0134E-05	-4.0706E-05	1.6005E-05	-6 5198E-05	-1.2864E-05
N2	X	4.0422E-04	2.0206E-03	2.9465E-04	8.7517E-05	-1.0109E-05
N2	Y	-8.7705E-06	-9.5778E-05	3.0576E-04	-8.0585E-04	-1.5244E-04
N2	ROTZ	1 5109E-05	-6.2001E-05	-1.0870E-05	-1.1526E-04	7.5205E-06

LEVEL ID	DIRN ID	MODE 26	MODE 27	MODE 28	MODE 29	MODE 30
N1	X	-1.2595E-04	-1.1488E-03	-2.0766E-04	-6.6095E-05	6.7247E-05
N1	Y	7.8241E-05	-1.9203E-04	1.4531E-04	-5.6803E-04	-1.6541E-03
N1	ROTZ	3.4053E-05	-4.1190E-05	-2.9870E-05	-9.9900E-05	2 5316E-05
MEZ	X	-5.4595E-04	-2.4270E-03	-3.1058E-04	1.2488E-04	-2.6485E-05
MEZ	Y	1.4012E-04	-1 3177E-04	2 4322E-04	-7.5394E-04	-1.9105E-03
MEZ	ROTZ	3.4285E-05	1.3154E-06	-1.8491E-05	-5.8335E-05	2.2080E-05
PB	X	-1.0190E-04	-4.4787E-04	-6.0667E-05	3.4687E-05	1 8058E-05
PB	Y	2.0978E-05	2.2810E-06	3.2312E-05	-1.0796E-04	-2.9333E-04
PB	ROTZ	3.1002E-06	2.1057E-06	-1.1261E-06	-5.2387E-06	1.0051E-06
S1	X	-4.1362E-05	-1.8236E-04	-2.4845E-05	1.5474E-05	1 0913E-05
S1	Y	1.0641E-05	-3.8162E-07	1.5592E-05	-5.3958E-05	-1 4655E-04
S1	ROTZ	1.4117E-06	7.4446E-07	-5.7697E-07	-2.5085E-06	4 1307E-07

STRUCTURAL MODE SHAPES FOR DIAPHRAGM 2

VALUES ARE AT THE CENTERS OF MASS OF THE
CORRESPONDING DIAPHRAGM IN GLOBAL COORDINATES

LEVEL ID	DIRN ID	MODE 1	MODE 2	MODE 3	MODE 4	MODE 5
CM	X	3.3184E-03	-1.0529E-02	-5.4576E-04	-1.6302E-03	-7 8959E-03
CM	Y	-3.2117E-05	1.8930E-04	-3.3233E-03	7.1968E-05	3 0848E-05
CM	ROTZ	1.6941E-05	9.5694E-05	5.2660E-06	-4.6977E-04	-2 7670E-06
N13	X	3.2396E-03	-9.8747E-03	-5 2856E-04	-2.6909E-03	-6.8880E-03
N13	Y	-3.5579E-05	1.4065E-04	-3.1844E-03	2.2871E-04	1.7147E-05
N13	ROTZ	1.5370E-05	9.8442E-05	3.1625E-06	-4.5752E-04	8 6464E-06
N12	X	3.0587E-03	-9.6277E-03	-5.2888E-04	-1.5422E-03	-5.1813E-03
N12	Y	-1.0669E-05	2.8430E-04	-3 0065E-03	-4.8745E-04	3.6356E-05
N12	ROTZ	1.5026E-05	8.9784E-05	-1.0829E-06	-4.4224E-04	5.3234E-06
N11	X	2.9109E-03	-8.8148E-03	-5.0880E-04	-2.2387E-03	-2.9125E-03

LEVEL ID	DIRN ID	MODE 1	MODE 2	MODE 3	MODE 4	MODE 5
N11	[illegible]	[illegible].0835E-[illegible]	1.204[illegible]-04	-2.7[illegible]E-03	2.[illegible]37E-04	[illegible]2258E-0[illegible]
N11	ROTZ	1.3593E-05	8.8385E-05	2.1904E-06	-4.1206E-04	1.9176E-05
N10	X	2.6714E-03	-8.3169E-03	-4.9128E-04	-1.1077E-03	-4.0167E-04
N10	Y	-8.6594E-06	2.4234E-04	-2.5452E-03	-4.2508E-04	2.5093E-05
N10	ROTZ	1.2971E-05	7.8530E-05	5.7221E-08	-3.8546E-04	2.6274E-05
N9	X	2.4616E-03	-7.3388E-03	-4.5696E-04	-1.5978E-03	2.1652E-03
N9	Y	-2.5216E-05	9.6601E-05	-2.2777E-03	1.6913E-04	-3.1776E-05
N9	ROTZ	1.1191E-05	7.5534E-05	2.3492E-06	-3.4705E-04	3.3866E-05
N8	X	2.2076E-03	-6.7376E-03	-4.3213E-04	-6.2456E-04	3.9155E-03
N8	Y	-7.2832E-06	1.8753E-04	-2.0127E-03	-3.2156E-04	7.2344E-06
N8	ROTZ	1 0307E-05	6.5971E-05	9.0372E-07	-3.1234E-04	3.6606E-05
N7	X	1.9830E-03	-5.7788E-03	-3.9344E-04	-9.9254E-04	5.4186E-03
N7	Y	-1.9216E-05	7.1500E-05	-1.7339E-03	1.2870E-04	-4.9450E-05
N7	ROTZ	8 9400E-06	5.9183E-05	1.4512E-06	-2.7169E-04	3.6611E-05
N6	X	1.7034E-03	-5.0434E-03	-3.4879E-04	-2.1344E-04	6.1833E-03
N6	Y	-4.9848E-06	1.3800E-04	-1.4778E-03	-2.4458E-04	-4.2517E-06
N6	ROTZ	7.7801E-06	5.0432E-05	6.7991E-07	-2.3506E-04	4.0811E-05
N5	X	1.4476E-03	-4.0461E-03	-2.9247E-04	-4.5358E-04	6.5248E-03
N5	Y	-1.3638E-05	4.8038E-05	-1.2212E-03	9.0991E-05	-5.2057E-05
N5	ROTZ	6.4747E-06	4.3434E-05	1.2300E-06	-1.9561E-04	3.4922E-05
N4	X	1.1558E-03	-3.2314E-03	-2.3636E-04	1.1583E-04	6.0229E-03
N4	Y	-3.4731E-06	9.1307E-05	-9.7501E-04	-1.6381E-04	-9.8443E-06
N4	ROTZ	5.0592E-06	3.5778E-05	6.4485E-07	-1.5766E-04	3.3153E-05

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UNIVERSIDAD NACIONAL AUTÓNOMA DE MÉXICO

PROGR

LEVEL ID	DIRN ID	MODE 1	MODE 2	MODE 3	MODE 4	MODE 5
N3	X	8.9474E-04	-2.2876E-03	-1.7607E-04	-2.1958E-05	5 1456E-03
N3	Y	-8.3654E-06	2.6481E-05	-7.3784E-04	5.3275E-05	-4.0327E-05
N3	ROTZ	4.1363E-06	2.7617E-05	6.7000E-07	-1.1979E-04	2.5303E-05
N2	X	6.1809E-04	-1.4860E-03	-1.1474E-04	3.1250E-04	3.6594E-03
N2	Y	-1.1712E-06	4.5591E-05	-5.2187E-04	-8.9096E-05	-4.4435E-06
N2	ROTZ	3.0994E-06	1.9597E-05	2.8178E-07	-8.4571E-05	2.1440E-05
N1	X	3.6792E-04	-6.8120E-04	-5.3545E-05	2.4852E-04	1.9833E-03
N1	Y	-3.4261E-06	7.3999E-06	-3.1930E-04	2.0028E-05	-1.6882E-05
N1	ROTZ	2.7155E-06	1.1898E-05	1.6857E-07	-4.9202E-05	1.1735E-05

LEVEL ID	DIRN ID	MODE 6	MODE 7	MODE 8	MODE 9	MODE 10
CM	X	-8 3072E-03	9.3398E-03	-4.1182E-03	1.9953E-04	-3.2404E-03
CM	Y	3.1315E-05	-1.2068E-05	7.9793E-05	3.1851E-03	-8.5708E-05
CM	ROTZ	-8.6993E-06	1.1088E-04	-4.3383E-05	4.9286E-06	4.4586E-04
N13	X	-7.2597E-03	7.7827E-03	-3.3833E-03	2.5992E-04	-1.4541E-03
N13	Y	2.1848E-05	-1.2932E-05	6.9572E-05	2.7545E-03	-2.2071E-04
N13	ROTZ	1.4267E-06	8.7950E-05	-3.6651E-05	1.9848E-05	4.0793E-04
N12	X	-5.4231E-03	3.1069E-03	-1.2148E-03	1.7331E-04	-6.0870E-04
N12	Y	2.5723E-05	5.9600E-05	2.7630E-05	2.2927E-03	4.6824E-04
N12	ROTZ	-7.7513E-06	6.6654E-05	-2.9237E-05	4.9919E-05	3.6023E-04
N11	X	-3.0126E-03	-2.2530E-03	1.2324E-03	1.1901E-04	1.8026E-03
N11	Y	2.8377E-06	1.2044E-06	3.5576E-05	1.3325E-03	-1.0297E-04
N11	ROTZ	3.3612E-06	-6.3217E-06	-6.4212E-08	1.3758E-05	2.6313E-04
N10	X	-2.9580E-04	-6.5670E-03	3.0632E-03	-8.6985E-06	1.8499E-03
N10	Y	8.8507E-07	-4.9018E-05	2.5415E-05	4.6396E-04	1.7669E-04
N10	ROTZ	5.4703E-06	-8.7282E-05	3.3669E-05	7.2058E-06	1.5654E-04
N9	X	2 3573E-03	-8.8027E-03	3.7988E-03	-9.6569E-05	1.3417E-03
N9	Y	-2.0765E-05	1.2532E-05	-8.3417E-06	-4.8166E-04	3.0083E-05
N9	ROTZ	8 2655E-06	-7.2475E-05	1.9858E-05	-4.8088E-06	-2.7680E-05

LEVEL ID	DIRN ID	MODE 6	MODE 7	MODE 8	MODE 9	MODE 10
N8	[illegible]	4.2120[illegible]	-7.47[illegible]-03	2 [illegible]E-03	-[illegible]26E-04	[illegible].3057E-0[illegible]
N8	Y	-2 7114E-05	-6.2830E-05	-1.6984E-05	-1.3526E-03	-2.0105E-04
N8	ROTZ	6.4754E-06	-7.7503E-05	1.9204E-05	-2.0995E-05	-1.8197E-04
N7	X	5.6241E-03	-4.4896E-03	1.3976E-03	-1.6730E-04	-1.4683E-03
N7	Y	-3.5677E-05	3.5140E-06	-4.1852E-05	-1.9881E-03	1.4174E-04
N7	ROTZ	2.6641E-06	-4.5509E-05	5.9133E-06	-1 6461E-05	-3.1318E-04
N6	X	6 3742E-03	1 2032E-04	-6.7657E-04	-1.4568E-04	-1.2153E-03
N6	Y	-4.5049E-05	-2.4719E-05	-5.7291E-05	-2.5290E-03	-4.5227E-04
N6	ROTZ	5.1736E-06	-1.3876E-05	-6.1901E-06	-3.8244E-05	-4.0821E-04

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LEVEL ID	DIRN ID	MODE 6	MODE 7	MODE 8	MODE 9	MODE 10
N5	X	6.4860E-03	4.6787E-03	-2.5778E-03	-1.9077E-04	-1.8909E-03
N5	Y	-3.6764E-05	-8 1276E-06	-5.8620E-05	-2.6359E-03	1.8803E-04
N5	ROTZ	-1.5778E-06	2.0171E-05	-1.2937E-05	-2.3559E-05	-4.2982E-04
N4	X	5.8787E-03	7 7038E-03	-3.5299E-03	-1.2288E-04	1.6460E-04
N4	Y	-4.7519E-05	2.3990E-05	-6.7865E-05	-2.7307E-03	-4.6144E-04
N4	ROTZ	-1.9438E-06	5.7408E-05	-2.0482E-05	-4.0815E-05	-4.1946E-04
N3	X	4.7350E-03	8.9031E-03	-3.5553E-03	-1.4015E-04	5.7430E-04
N3	Y	-2.5205E-05	-1.4686E-05	-5.6912E-05	-2.3991E-03	1.7200E-04
N3	ROTZ	-6.5698E-06	5.2612E-05	-9.4522E-06	-2.2081E-05	-3.5814E-04
N2	X	3.1460E-03	7.2883E-03	-2 4194E-03	-6.7670E-05	2.0954E-03
N2	Y	-2.9417E-05	2.7646E-05	-4.0851E-05	-2.0571E-03	-3.0549E-04
N2	ROTZ	-5.0822E-06	5.4839E-05	-2.7957E-06	-3.1267E-05	-2.7478E-04
N1	X	1.2990E-03	4.1863E-03	-7.1516E-04	-6.2524E-05	1.7306E-03
N1	Y	-4 4127E-06	-5.0821E-06	-4.1035E-05	-1.4031E-03	9.7136E-05
N1	ROTZ	-1.0101E-05	2.2063E-05	1.3844E-05	-1 2251E-05	-1.7670E-04

LEVEL ID	DIRN ID	MODE 11	MODE 12	MODE 13	MODE 14	MODE 15
CM	X	-1 0036E-02	2.6524E-03	-8.7168E-03	-8.6284E-05	3.4879E-[illegible]
CM	Y	3.3737E-05	-1.5350E-05	2.7491E-05	3.4423E-03	-9.0216E-05
CM	ROTZ	-2.9239E-04	8.0621E-05	-2.4485E-04	4 6498E-05	2.1344E-04
N13	X	-7.4757E-03	1.8913E-03	-5.4328E-03	1 9889E-04	1.8747E-03
N13	Y	1.1285E-05	-1.1252E-05	-6.9207E-05	2 7198E-03	-3.4251E-05
N13	ROTZ	-2 1672E-04	5.9321E-05	-1.1041E-04	7 5212E-05	9.1096E-05
N12	X	1.3741E-03	-7.1619E-04	4.3966E-03	-4 1523E-05	-3.0207E-03
N12	Y	-7.0255E-05	3.2064E-07	3.0034E-04	2.2946E-03	-2.9713E-04
N12	ROTZ	-4.3739E-05	2.5993E-07	2.6518E-04	1.8906E-04	-2.3008E-04
N11	X	9.0624E-03	-2.7164E-03	1.0512E-02	-9.1240E-05	-4.3745E-03
N11	Y	5.9226E-05	-3.0517E-05	1.1725E-04	7.3940E-05	-8.6622E-05
N11	ROTZ	1.2083E-04	-3.6446E-05	3.1979E-04	5.3320E-06	-1.5875E-04
N10	X	8.8565E-03	-1.9104E-03	2.0937E-03	-3.6096E-05	2 5983E-03
N10	Y	2.3119E-04	-3.7281E-05	1.1172E-04	-2.0188E-03	3.1933E-04
N10	ROTZ	2.6358E-04	-5.2416E-05	1.1341E-04	-1.6090E-04	2.2944E-04
N9	X	3.7155E-03	1.8472E-04	-7.9957E-03	-3.6033E-05	6.6292E-03
N9	Y	4.1148E-06	9.7143E-06	-9.1087E-05	-2.5306E-03	1.9307E-04
N9	ROTZ	7.8559E-05	1.2188E-05	-2.4242E-04	-8.1236E-05	2 4885E-04
N8	X	-2.8998E-03	1.5852E-03	-7.1675E-03	3.2675E-05	-1.4473E-05
N8	Y	-1.0987E-05	5.0248E-05	-3.9360E-04	-3.2278E-03	9 0806E-06
N8	ROTZ	-1.4074E-05	3.3987E-06	-3.0123E-04	-1.8523E-04	-4 0870E-05

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PROGR

LEVEL ID	DIRN ID	MODE 11	MODE 12	MODE 13	MODE 14	MODE 15

LEVEL ID	DIRN ID	MODE 16	MODE 17	MODE 18	MODE 19	MODE 20
N7	[illegible]	8.0217E-0[illegible]	2.12[illegible]E-03	-1.[illegible]E-03	-[illegible]58E-04	[illegible].5760E-0[illegible]
N7	Y	-5.7267E-05	3.3604E-05	-1.4450E-05	-2 1273E-03	-8.2075E-05
N7	ROTZ	-6.5353E-05	1.8716E-05	-8.8785E-05	-8.0237E-05	-2.9612E-04
N6	X	-7.9420E-03	1.0261E-03	5.4191E-03	-6.2188E-05	-3.3018E-03
N6	Y	-7.8999E-05	-5.3248E-06	2.0351E-04	-1.2476E-03	-3.0853E-04
N6	ROTZ	-8.6992E-05	-9.8337E-06	1 6511E-04	-7.7958E-05	-2.3094E-04
N5	X	-4.2010E-03	-6.7998E-04	9.1697E-03	1.8298E-05	2.7488E-03
N5	Y	-5.0039E-05	1.3464E-05	1.1783E-04	3 7400E-04	4.0822E-05
N5	ROTZ	1.3242E-05	-4.8471E-05	2.1599E-04	1.0316E-05	9.2376E-05
N4	X	2.0549E-03	-1.6310E-03	3.3340E-03	5.6390E-05	4.7968E-03
N4	Y	1.5185E-04	-8.2415E-05	1.2086E-04	2.0663E-03	3.2710E-04
N4	ROTZ	1.3275E-04	-7.4220E-05	9.4049E-05	1.2975E-04	2.7888E-04
N3	X	7.4620E-03	-1.8215E-03	-4.3766E-03	2.5811E-04	2.7762E-03
N3	Y	3.1830E-06	-3.9243E-06	-4.1661E-05	2.6198E-03	-9.7429E-06
N3	ROTZ	1.8907E-04	-5.3918E-05	-1.2415E-04	9.7113E-05	1.2329E-04
N2	X	7.7540E-03	-5.2390E-04	-7.6820E-03	-2 4097E-05	-3.1529E-03
N2	Y	2.3848E-04	-2.6083E-05	-3.3230E-04	3.4282E-03	-2.8358E-04
N2	ROTZ	2.1480E-04	-1.7309E-05	-2.8963E-04	1.8977E-04	-1.6283E-04
N1	X	5.1887E-03	9.4552E-04	-6.4775E-03	2.9623E-05	-6.4673E-03
N1	Y	7.9628E-06	-2.9845E-06	-7.2783E-05	2.4230E-03	-1.6930E-04
N1	ROTZ	1.1334E-04	1.9418E-05	-1.5993E-04	6.4902E-05	-2.1849E-04

LEVEL ID	DIRN ID	MODE 16	MODE 17	MODE 18	MODE 19	MODE 20
CM	X	-3.1870E-03	-2.2984E-03	8.4949E-04	-9.4527E-04	1.0031E-04
CM	Y	4.1152E-06	-1.3688E-04	2.8899E-05	3.7088E-03	1.6620E-04
CM	ROTZ	-3.1893E-04	4.6773E-04	3.6077E-04	3.4320E-05	8.7975E-05
N13	X	-1.7286E-03	-3.5833E-04	6.2449E-04	9.5983E-05	6.1810E-05
N13	Y	-1.7734E-05	-1.9607E-04	-4.0613E-05	2.7893E-03	1.0880E-04
N13	ROTZ	-1.4919E-04	4.2880E-04	1.9364E-04	1.9459E-04	3.0203E-05
N12	X	3.3204E-03	3.6503E-04	-1.8867E-03	2.7358E-04	-3.4121E-04
N12	Y	2.5251E-04	9.7808E-04	-1.8283E-05	3.6177E-03	-9.8953E-06
N12	ROTZ	2.5177E-04	4.7345E-04	-1.1597E-04	7.0997E-04	-6.4378E-05
N11	X	4.1868E-03	1.2132E-03	-1.2480E-03	-1.9850E-04	-1.1825E-04
N11	Y	9.2549E-05	3.9402E-05	-1.9010E-05	-1.6328E-03	-8.6267E-05
N11	ROTZ	1.7918E-04	9.6710E-05	-6.6933E-05	-1.5533E-04	-4.6983E-05
N10	X	-3.6171E-03	-1.0016E-03	2.8275E-03	1.0484E-04	6.8890E-04
N10	Y	-3.0139E-04	-7.9786E-04	2.3325E-04	-8.3144E-03	-3.4822E-04
N10	ROTZ	-2.8023E-04	-4.4050E-04	2.4020E-04	-1.3841E-03	1.4963E-06

LEVEL ID	DIRN ID	MODE 16	MODE 17	MODE 18	MODE 19	MODE 20
N9	X	-7.0327E-03	-2.3872E-03	2.4082E-03	-6.0543E-05	2.2168E-04
N9	Y	-1.6186E-04	7.8244E-05	1.1044E-04	-2.7923E-03	-1.0473E-04
N9	ROTZ	-2.3544E-04	-5.1923E-04	-2.4759E-05	-2.8312E-04	-7.5749E-06
N8	X	1.1994E-03	2.2235E-03	-2.3324E-03	2.9270E-04	-6.6851E-04
N8	Y	2.5436E-04	-6.1261E-04	-7.9563E-04	-6.3451E-04	-1.3844E-04
N8	ROTZ	1.6815E-04	-3.7293E-04	-4.5832E-04	-2.5006E-05	-8.0741E-05
N7	X	8.3873E-03	3.2509E-03	-4.6090E-03	1.2292E-05	-6 2331E-04
N7	Y	1.6723E-04	1.9140E-04	-1.3257E-04	1.6946E-03	7.6322E-05
N7	ROTZ	4.1828E-04	-1.9316E-04	-3.6319E-04	1.4385E-04	-2.1792E-05
N6	X	2.2123E-03	-2.5778E-04	3.0374E-03	-5.3303E-04	9 2961E-04
N6	Y	2.8032E-04	-3.9816E-04	4.7238E-04	4.6407E-03	5.0168E-04
N6	ROTZ	1.9770E-04	-2.3689E-04	2.8251E-04	5.4356E-04	1.7604E-04
N5	X	-5.8692E-03	-3.9720E-03	7.1026E-03	2.1246E-04	1 2733E-03
N5	Y	-1.4504E-04	-1.4417E-04	2.2061E-04	2.6882E-03	1.4148E-04
N5	ROTZ	-2.3151E-04	-1.3163E-04	4.7911E-04	2.3898E-04	1.1254E-04

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LEVEL ID	DIRN ID	MODE 21	MODE 22	MODE 23	MODE 24	MODE 25
N4	X	-4.8472E-03	-8 1266E-04	-3.7642E-03	-8.1456E-06	-1.5971E-03
N4	Y	-4.8548E-04	4.5279E-04	-2.2825E-04	1.9471E-03	-2.8830E-04
N4	ROTZ	-3.3199E-04	2.9487E-04	-1.7161E-04	2.3452E-04	-1.7628E-04
N3	X	2.6436E-04	3.7465E-03	-9 4851E-03	2.8261E-05	-2.1773E-03
N3	Y	1.3212E-05	-3.1805E-05	-3 4179E-04	-7.4396E-04	-1.6393E-04
N3	ROTZ	-5.2763E-05	6.0606E-04	-3.6366E-04	-6.7476E-05	-1.4522E-04
N2	X	5.1776E-03	3.4150E-04	2 7708E-03	1.6979E-04	2.2913E-03
N2	Y	2.9151E-04	9.2661E-04	7 5584E-04	-3.7503E-03	2.6151E-04
N2	ROTZ	2.1543E-04	5.9152E-04	4 5575E-04	-4.4684E-04	2.3782E-04
N1	X	5.4730E-03	-2.1160E-03	1 2586E-02	-2.9227E-04	3.9019E-03
N1	Y	1.5836E-04	-1.6566E-04	3.8067E-04	-2.7337E-03	1.0519E-04
N1	ROTZ	1.5438E-04	2.7798E-04	7.9582E-04	-1.8301E-04	2.8245E-04

LEVEL ID	DIRN ID	MODE 21	MODE 22	MODE 23	MODE 24	MODE 25
CM	X	4.2271E-03	1.1684E-04	3.5358E-03	1.3938E-02	4.6444E-03
CM	Y	6.4895E-03	6.3600E-03	-3.6658E-03	-3.5121E-03	-4.4875E-03
CM	ROTZ	1.7893E-03	1.8876E-03	8.7855E-04	1.4519E-03	1.1241E-04
N13	X	6.8586E-04	-5.4543E-05	1.4209E-03	3.0726E-03	3.9230E-04
N13	Y	-2.6866E-04	-3.2167E-04	-1 6021E-04	1.0036E-03	-1.8527E-03
N13	ROTZ	-5.4812E-04	-2.4101E-04	7.3797E-04	3.2030E-04	-2.5550E-04
N12	X	-4.2119E-03	-6.8961E-04	-7.9815E-03	-1.8664E-02	-3.8799E-03
N12	Y	-2.0034E-02	-1.6649E-02	7.8343E-03	7.2794E-03	-1.0331E-03
N12	ROTZ	-5.3171E-03	-4.2173E-03	7.6642E-04	-1.4982E-03	-1.0992E-03

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LEVEL ID	DIRN ID	MODE 21	MODE 22	MODE 23	MODE 24	MODE 25
N11	X	3.7722E-04	-3.9751E-04	3 7025E-04	7.6939E-04	3.0620E-04
N11	Y	-3.4544E-04	-3.1028E-03	1 7044E-03	-1.7019E-04	5.7887E-04
N11	ROTZ	-6.0454E-05	-1.4949E-03	4.2143E-04	1.7523E-04	-3.2656E-04
N10	X	3.6458E-03	4.6056E-03	6.7583E-03	1.6362E-02	3.7557E-03
N10	Y	1.6699E-02	-1.6976E-02	6.1124E-03	-6.0156E-03	-8.3092E-03
N10	ROTZ	4.5039E-03	-3.6853E-03	2.1520E-03	1.5340E-03	-1.6694E-03
N9	X	-1.4404E-03	-1.0432E-03	-1.5476E-03	-3.3419E-03	-1.4398E-03
N9	Y	1.4754E-04	-5.7151E-04	1.6920E-05	-6.3956E-04	-1.0162E-03
N9	ROTZ	3.5899E-04	-7.1384E-04	-4.5558E-04	-2.9794E-04	-6.9555E-04
N8	X	-1.8526E-03	-5.6197E-04	-1.3035E-03	-6.5535E-03	9.3683E-04
N8	Y	-4.6215E-03	4.7015E-03	-4.6555E-03	1.6678E-03	-4.7426E-03
N8	ROTZ	-1.0516E-03	8.0344E-04	-1.2585E-03	-4.7631E-04	-1.1237E-03
N7	X	1.2279E-03	3.0752E-04	1.2148E-03	1.9575E-03	-1.8046E-04
N7	Y	-3.4835E-04	8.3792E-04	-5.5271E-04	9.9504E-04	-3.4088E-03
N7	ROTZ	-9.2922E-05	3 7944E-04	2.3704E-04	2.8370E-04	-9.8522E-04
N6	X	1.3754E-03	-7.9052E-04	-8.1121E-04	3.7071E-03	1.7607E-03
N6	Y	1.6721E-03	-8.6874E-05	3 3436E-03	1.1766E-03	-1.1113E-02
N6	ROTZ	3.4947E-04	1.6587E-04	1.0781E-03	5.2896E-04	-2.3659E-03
N5	X	-7.4903E-04	-1.1486E-04	-6 5461E-04	-1.2452E-03	-2.2182E-06
N5	Y	9.7944E-04	-9.6860E-04	7 1726E-04	-7.6509E-04	1.1501E-03
N5	ROTZ	2.9202E-05	5.0107E-05	5 9764E-04	-4.5756E-04	1.3420E-04
N4	X	-8.6830E-04	6.0769E-04	-5.4253E-04	-1.0127E-03	-1.9673E-03
N4	Y	1.2634E-03	-1.8734E-03	2 5179E-03	-4.5826E-03	1.4198E-02
N4	ROTZ	1.0311E-04	-2.0491E-04	6.2696E-04	-1.1869E-03	2.8456E-03
N3	X	4.7441E-04	1.7877E-04	9.8247E-04	5.5659E-04	1.2113E-04
N3	Y	1.2943E-04	-3.5715E-04	1.9474E-04	-4.6104E-04	2.3401E-03
N3	ROTZ	7 8868E-05	-1.3794E-04	-8.1181E-05	-2.1351E-05	6.9749E-04
N2	X	4 2292E-04	-2.7481E-04	1.5505E-04	5.0823E-04	-4.5212E-06
N2	Y	-8.9139E-04	1.6351E-04	-3.3246E-03	2.7164E-03	-3.4718E-03

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LEVEL ID	DIRN ID	MODE 26	MODE 27	MODE 28	MODE 29	MODE 30
N2	ROTZ	3.0029E[illegible]	-2.237[illegible]-04	-1.0[illegible]E-03	7.[illegible]28E-04	[illegible]5145E-0[illegible]
N1	X	-2.0254E-04	-7.1095E-04	-1.8234E-03	-1.0657E-04	6.3246E-04
N1	Y	-8.7093E-04	8.2795E-04	-6.2245E-04	7.8616E-04	-2.1475E-03
N1	ROTZ	-1.4592E-05	-2.2366E-04	-7.6121E-04	3.3269E-04	-1.5469E-04

LEVEL ID	DIRN ID	MODE 26	MODE 27	MODE 28	MODE 29	MODE 30
CM	X	-1.5870E-03	-4.9350E-04	-1.1452E-03	-2.3264E-03	2.3619E-04
CM	Y	-2.3227E-03	2.1786E-04	1.8866E-03	2.2896E-03	-4.7864E-03
CM	ROTZ	-7.9158E-04	1.1766E-04	2.6156E-04	1.0766E-04	-4.8530E-04

LEVEL ID	DIRN ID	MODE 26	MODE 27	MODE 28	MODE 29	MODE 30
N13	X	-5.7185E-04	-4.0292E-06	9.4983E-05	-6.6616E-05	-3.2843E-04
N13	Y	-1.4426E-03	-3.7112E-05	6.6758E-04	7.3089E-04	-2.0618E-03
N13	ROTZ	-2.7659E-04	7.3700E-05	1.6701E-04	1.7059E-04	-1.6238E-04
N12	X	3.6879E-03	1.2871E-04	9.7384E-05	1.4092E-03	1.2820E-03
N12	Y	-1.4152E-03	-2.5173E-04	5.1714E-04	2.0079E-04	-8.5636E-04
N12	ROTZ	2.5420E-04	2.0909E-06	2.4234E-04	3.9910E-04	-1.0327E-04
N11	X	-1.2431E-03	2.1140E-05	-8.4032E-06	-5.2897E-04	-4.2307E-04
N11	Y	2.7047E-04	9.7911E-05	-4.0893E-04	-5.3244E-04	1.4475E-03
N11	ROTZ	-3.6247E-04	-2.2352E-06	6.6278E-05	-5.3840E-05	-1.8450E-04
N10	X	4.7568E-04	-1.6219E-04	-1.8483E-04	4.4047E-04	1.0526E-03
N10	Y	-4.7782E-03	6.2955E-04	1.5508E-03	1.1389E-03	-1.2869E-03
N10	ROTZ	-1.5821E-03	9.0156E-05	3.8288E-04	3.1600E-04	-3.2125E-04
N9	X	-9.1695E-05	2.9069E-04	-5.0715E-04	-1.6905E-04	7.0490E-04
N9	Y	-2.9184E-03	6.7739E-04	-7.7503E-04	-3.8344E-04	6.6733E-04
N9	ROTZ	-1.4028E-03	2.5175E-04	-3.9608E-04	-3.1310E-04	5.5813E-04
N8	X	2.8037E-03	-8.4814E-04	2.0658E-03	7.6285E-04	-3.4856E-03
N8	Y	-2.0221E-02	4.3176E-03	-5.9338E-03	-4.6545E-03	8.5479E-03
N8	ROTZ	-4.5263E-03	1.0095E-03	-1.5542E-03	-1.2961E-03	2.1743E-03
N7	X	-8.3798E-04	4.7486E-05	-1.1824E-03	-6.1535E-04	1.3730E-04
N7	Y	-1.2715E-03	2.8724E-04	-2.4272E-03	-8.0910E-04	-2.0643E-04
N7	ROTZ	-5.4489E-04	3.2279E-04	-1.5627E-03	-7.0972E-04	8.1071E-04
N6	X	-2.5156E-04	-1.8976E-04	3.8375E-03	2.0255E-03	8.1067E-04
N6	Y	1.2654E-02	-2.6332E-04	-1.7061E-02	-5.9605E-03	1.8704E-03
N6	ROTZ	2.7861E-03	1.3623E-04	-4.2011E-03	-1.3882E-03	6.4823E-04
N5	X	-1.0832E-04	6.6493E-04	-1.4353E-03	-8.2310E-05	-4.3264E-04
N5	Y	8.8349E-04	6.0069E-04	-3.4886E-03	-9.4616E-04	-5.9012E-05
N5	ROTZ	2.9453E-04	3.6700E-04	-1.9145E-03	-3.2707E-04	-8.9605E-04
N4	X	-3.2750E-04	-1.7069E-03	3.2676E-03	-1.0659E-03	2.4917E-03
N4	Y	-7.1489E-03	4.3166E-03	-1.1144E-02	4.5117E-04	-1.3780E-02
N4	ROTZ	-1.6716E-03	8.3535E-04	-2.7911E-03	3.4685E-04	-3.6342E-03
N3	X	2.5552E-04	-4.5277E-04	-1.2226E-03	1.4670E-03	-1.8518E-04
N3	Y	-1.0156E-03	6.0657E-04	-2.4661E-03	3.1505E-03	1.6552E-04
N3	ROTZ	-3.8284E-04	1.5728E-04	-1.3071E-03	1.7266E-03	-6.3490E-04
N2	X	1.1101E-03	1.8274E-03	1.7850E-03	-5.4998E-03	-3.1482E-04
N2	Y	1.0306E-03	-3.5327E-04	-5.9778E-03	2.1939E-02	5.9269E-03
N2	ROTZ	3.1147E-04	1.3169E-04	-1.5270E-03	5.0895E-03	1.3343E-03
N1	X	-4.2330E-04	1.0908E-03	-1.6205E-04	1.7489E-04	-5.1349E-04
N1	Y	2.1427E-04	-1.4902E-04	-6.2631E-04	2.5057E-03	-1.1624E-03
N1	ROTZ	8.4923E-05	9.2726E-05	-4.4136E-04	1.3637E-03	3.1107E-04

CIMENTACIÓN.

De acuerdo a las condiciones del suelo en donde se ubica la estructura, y siguiendo las recomendaciones de Mecánica de Suelos, la cimentación se resolvió a base de pilas de concreto y una losa de cimentación con contratrabes; cabe mencionar que ya existían algunas pilas coladas en el lugar, las cuales pertenecían a otro proyecto anterior.

La cimentación se analizó utilizando el programa de análisis por elemento finito SAFE (Slab Analysis of Finite Element), y el diseño de la misma se realizó usando el post-procesador SAFERC del SAFE, el cual proporciona los esfuerzos y armados en las distintas zonas de la cimentación.

Se anexan archivos de entrada, salida y gráficas que se obtuvieron.

ANÁLISIS DE LA CIMENTACIÓN

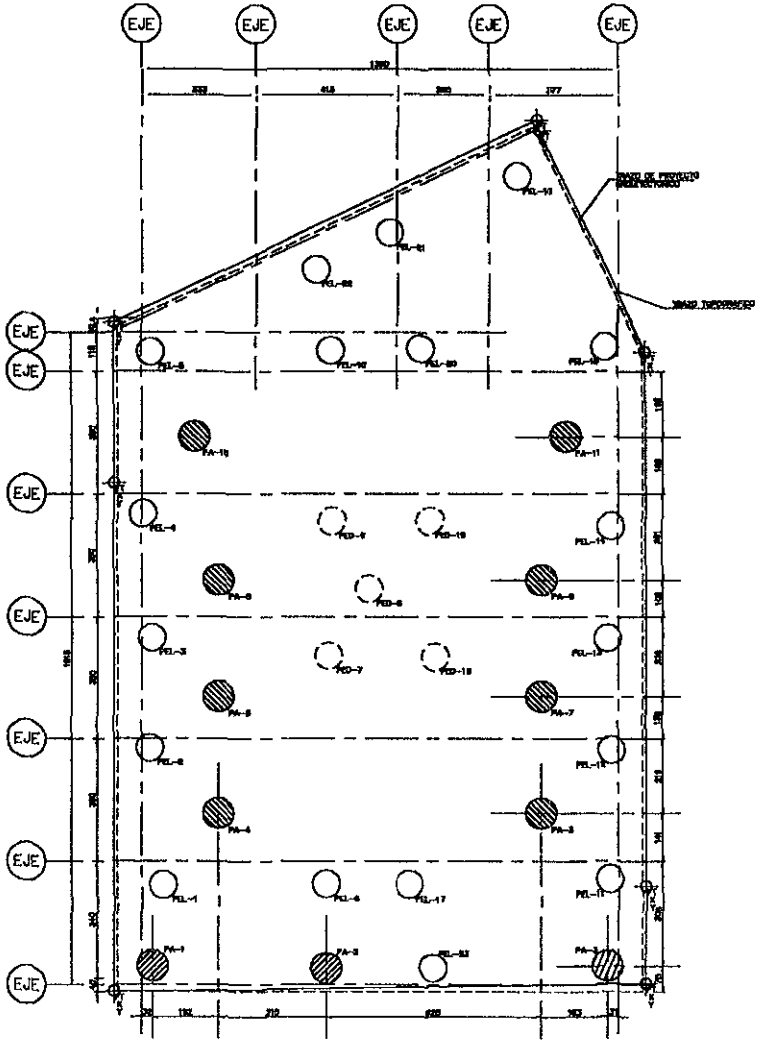
SAFE

(Archivo de Entrada)

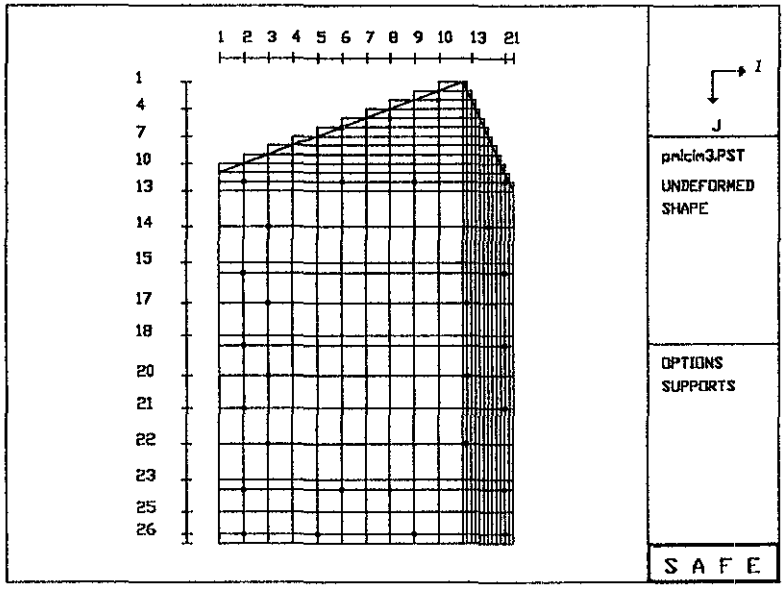
```
PRO. .O CANO ELISEOS, MENDEZ P. ..CO JUL.. .ESAR
ANALISIS DE CIMENTACION
$ ARCHIVO DE SAFE: PMICIM3
$ SE MODELAN CONTRATRABES DIRECCION CORTA Y UN
$ MACIZO PERIMETRAL DE 150CM
$ NO SE CONSIDERA LA PARTICIPACION DE LA LOSA COMO APOYO
$
$ DATOS DE CONTROL :
$ IMAX JMAX NBMP NSLB NSP NREL NLD NITER NMW NPST NTYP
   23  27    1    2    3   0    9   0   120   0    0
   1  9  1  0  1
$
$ DATOS DE SALIDA
$ IDV IDI IDJ IBM IBT IBS ISI ISJ ISIJ ISVI ISVJ IRV IRI IRJ ND MB MS MR
   4   4   4   4 4 4    4 4 4 4 4 4 4 4      15 15 15 15
$
$ ESPACIOS EN I
1.21 1.22 1.21 1.22 1.21 1.22 1.21 1.22
1.21 1.22 0.21 0.21 0.21 0.21 0.21 0.21
0.21 0.21 0.21 0.21 0.21 0.21
$
$ ESPACIOS EN J
0.45 0.46 0.45 0.46 0.45 0.46 0.45 0.46
0.45 0.46 0.45 0.46 1.80 1.60 0.50 1.50
1.60 0.50 1.50 1.60 1.80 1.80 0.50 1.10
1.10 0.50
$
$ PROPIEDADES DE LAS TRABES:
$ MB     E      P     W    IJ      XI     AV
  1  2.214E9 0.18 2400 0.081  0.16875 0.75     $ 1.50 X 0.60
$
$ PROPIEDADES DE LA LOSA
$ MP     E       P      W     TII   TJJ   TIJ
   1  2.214E9  0.18  2400  1.50  1.50  1.50    $ ESPESOR=150cm
   2  2.214E9  0.18  2400  0.20  0.20  0.20    $ ESPESOR=20CM
$
$ PROPIEDADES DE LOS APOYOS:
$ MS  ST     XV     XR1       XR2
  1   P  6.4186   000       000        $ PILAS 90CM
  2   P  5.25E6   000       000        $ PILAS 80CM
  3   S  1E6
$
$
$ LOCALIZACION DE ELEMENTOS
$ LOCALIZACION DE TRABES:
$ IMED  I1   I2   J1   J2   IB
  1     1    23   27   27   1
  2     1    23   23   23   1
  3     1    23   21   21   1
  4     1    23   18   18   1
  5     1    23   15   15   1
  6     1    23   13   13   1
  8     1     1   27   11   1
  9     [illegible]   7   27    5   1
  10    23   [illegible]   27   13   1
  11    1    [illegible]   11   [illegible]   1
  12    1.   [illegible]   [illegible]   [illegible]   1
  END
$
$ LOCALIZACION DE LOSAS :
$ IMED   I1    I2    J1    J2    IS
  *      1     23    27    21    1
  *      1     4           11    1
  *      4           11    11
  *      4     11    21    13    2
  *            11    11    6     2
  *      8     11    6     5     2
  *      10    11    5     4     2
  *      1     7     11    10    1
  *      2     7     10    9     1
  *      3     7     9     8     1
  *      4     7     8     7     1
  *      5     7     7     6     1
  *      6     8     5     6     1
  *      11    23    23    13    1
  *      11    23    13    12    1
  *      11    22    12    11    1
  *      11    21    11    10    1
  *      11    20    10    9     1
  *      11    19    9     8     1
  *      11    18    8     7     1
  *      11    17    7     6     1
  *      11    16    6     5     1
  *      11    15    5     4     1
  *      11    14    4     3     1
  *      11    13    3     2     1
  *      11    12    2     1     1
  *      7     10    5     4     1
  *      8     11    4     3     1
  *      9     11    3     2     1
  *      10    11    2     1     1
END
$
$ LOCALIZACION DE APOYOS:
$ IMED  STP  I1  I2   JJ1  J2   ISP
* P 2   2   26   26 1
* P 5   5   26   26 2
* P 9   9   26   26 2
* P 21  21  26   26 1
* P 2   2   24   24 2
* P 21  21  24   24 2
* P 3   3   22   22 1
* P 12  12  22   22 1
* P 2   2   21   21 2
* P 21  21  21   21 2
* P 3   3   20   20 1
* P 12  12  20   20 1
* P 2   2   19   19 2
* P 21  21  19   19 2
* P 3   3   17   17 1
* P 12  12  17   17 1
* P 2   2   16   16 2
* P 21  21  16   16 2
* P 3   3   14   14 1
* P 17  17  14   14 1
* P 2   2   12   12 2
* P 6   6   12   12 2
* P 9   9   12   12 2
* P 21  21  12   12 2
* P 6   6   6    6  2
* P 8   8   5    5  2
* P 10  10  3    3  2
* P 6 6 24 24 2
* P 8 8 24 24 2
$  * S   1    23   27   25   3
$  * S   1    4    25   11   3
$  * S   4    11   13   11   3
$  * S   4    11   25   13   3
$  * S   7    11   11   6    3
$  * S   8    11   6    5    3
$  * S   10   11   5    4    3
$  * S   1    7    11   10   3
$  * S   2    7    10   9    3
$  * S   3    7    9    8    3
$  * S   4    7    8    7    3
$  * S   5    7    7    6    3
$  * S   6    8    5    6    3
$ *  S   10   23   25   13   3
$ *  S   11   23   13   12   3
$ *  S   11   22   12   11   3
$ *  S   11   21   11   10   3
$ *  S   11   20   10   9    3
$ *  S   11   19   9    8    3
$ *  S   11   18   8    7    3
$ *  S   11   17   7    6    3
$ *  S   11   16   6    5    3
$ *  S   11   15   5    4    3
$ *  S   11   14   4    3    3
$ *  S   11   13   3    2    3
$ *  S   11   12   2    1    3
$ *  S   7    10   5    4    3
$ *  S   8    11   4    3    3
```

```
$ .    9    11    2    1    3
$ . 5  10   11    2    1    3
END
$ las cargas se obtuvieron corriendo un SAP82 con archivo FMISAPE.SAF
CASE 1  1 2
  1.000CM   1.000CVmax   0.000CVred   0.000Sx   0.000Sy
.     S   7  11  25  13        1500
1     P   1   1  27  27        137739    1124     155
2     P  23  23  27  27        145542   -1022     160
3     P   1   1  23  23        215017   -1650     115
4     P  23  23  23  23        216358    1693     118
5     P   1   1  21  21        239387   -1841      95
6     P  23  23  21  21        237692    1892      95
7     P   1   1  18  18        243133   -1882      54
9     P  23  23  18  18        235525    1392      48
10    P   1   1  15  15        198919   -1571     -68
12    P  23  23  15  15        187171     650     -56
13    P   1   1  13  13         84587    -773    -157
18    P  23  23  13  13         83424     547    -116
19    P   1   1  11  11         22163     -23     -25
20    P   4   4  11  11         30142    -111    -896
21    P   7   7  11  11         55632      31   -1229
22    P   9   9  11  11         55503    -127    -910
23    P  21  21  11  11         21592       3      -1
24    P   4   4   8   8         26472     -19     -20
25    P   7   7   5   5         20328     -11     -28
26    P   9   9   3   3         11464      26      13
27    P  11  11   1   1          4682       9       5
34    P  16  16   6   6         11913      -4       2
35    P   2   2  27  27         58566       0       5
36    P   5   5  27  27         53452       0       5
37    P  10  10  27  27         49705       0       6
38    P  18  18  27  27         62813       0       6
END
$
CASE 2  1 2
  1.000CM   0.000CVmax   1.000CVred   1.000Sx   0.300Sy
.     S   7  11  25  13        1500
1     P   1   1  27  27          6960    3449      76
2     P  23  23  27  27        156824    2219    -122
3     P   1   1  23  23         71563    6296      36
4     P  23  23  23  23        241368    8954    -119
5     P   1   1  21  21        130030    5761     -11
6     P  23  23  21  21        289651    8747    -123
7     P   1   1  18  18        160640    5354     -71
9     P  23  23  18  18        321283    8443    -167
10    P   1   1  15  15        135503    5192    -208
12    P  23  23  15  15        292666    5809    -333
13    P   1   1  13  13         39571    6903    -357
18    P  23  23  13  13        157177    4192    -520
19    P   1   1  11  11        -22039      40     -31
20    P   4   4  11  11          5365     -15    -749
21    P   7   7  11  11         40341       6   -1053
22    P   9   9  11  11         68464     -89    -695
23    P  21  21  11  11         46102      62     -24
24    P   4   4   8   8         -2853     320     -91
25    P   7   7   5   5         36876     303    -159
26    P   9   9   3   3         36351     360     -94
27    P  11  11   1   1         41302      84     -17
34    P  16  16   6   6         39692      51     -20
35    P   2   2  27  27        -14301       0     -20
36    P   5   5  27  27          4031       0     -25
37    P  10  10  27  27         44343       0     -30
38    P  18  18  27  27         76018       0     -34
END
$
CASE 3  1.2
  1.000CM   0.000CVmax   1.000CVred   1.000Sx  -0.300Sy
.     S   7  11  25  13        1500
1     P   1   1  27  27        105857    4427     455
2     P  23  23  27  27        266045    1588     262
3     P   1   1  23  23        144894    6417     377
4     P  23  23  23  23        317640    9075     228
5     P   1   1  21  21        130863    5901     350
6     P  23  23  21  21        291338    8886     248
7     P   1   1  18  18         97534    5511     321
9     P  23  23  18  18        258874    8600     235
10    P   1   1  15  15         41226    5373     276
12    P  23  23  15  15        201266    5972     170
13    P   1   1  13  13        -22948    6963     227
18    P  23  23  13  13         98155    4961      65
19    P   1   1  11  11        -43974      86      47
20    P   4   4  11  11         11583     -11    -507
21    P   7   7  11  11         46745      10    -784
22    P   9   9  11  11         75244     -79    -420
23    P  21  21  11  11         32796      37     -15
24    P   4   4   8   8        -22277     320     168
25    P   7   7   5   5         21158     306      63
26    P   9   9   3   3         20172     361      83
27    P  11  11   1   1         12829      98      44
34    P  16  16   6   6         21673      38     -15
35    P   2   2  27  27         32279       0      52
36    P   5   5  27  27         47959       0      48
37    P  10  10  27  27         86338       0      44
38    P  18  18  27  27        128556       0      40
END
$
CASE 4  1 2
  1.000CM   0.000CVmax   1.000CVred  -1.000Sx   0.300Sy
.     S   7  11  25  13        1500
1     P   1   1  27  27        141258   -2413    -190
2     P  23  23  27  27         -5148   -3425      11
3     P   1   1  23  23        237322   -9041    -180
4     P  23  23  23  23         66913   -6383     -25
5     P   1   1  21  21        292080   -8847    -182
6     P  23  23  21  21        129191   -5861     -78
7     P   1   1  18  18        331943   -8517    -223
9     P  23  23  18  18        159102   -5429    -150
10    P   1   1  15  15        310767   -7921    -394
12    P  23  23  15  15        132901   -4831    -268
13    P   1   1  13  13        172611   -8280    -503
18    P  23  23  13  13         50533   -4068    -272
19    P   1   1  11  11         83646    -127     -91
20    P   4   4  11  11         39459    -166    -845
21    P   7   7  11  11         47795      36   -1034
22    P   9   9  11  11         17680    -100    -917
23    P  21  21  11  11          6195     -32      12
24    P   4   4   8   8         68733    -353    -207
25    P   7   7   5   5         17666    -329    -108
26    P   9   9   3   3          -572    -313     -51
27    P  11  11   1   1         -5264     -82     -35
34    P  16  16   6   6         -1441     -45      18
35    P   2   2  27  27         73295       0     -43
36    P   5   5  27  27         48504       0     -38
37    P  10  10  27  27          3289       0     -34
38    P  18  18  27  27        -15461       0     -29
END
$
CASE 5  1.2
  1.000CM   0.000CVmax   1.000CVred  -1.000Sx  -0.300Sy
.     S   7  11  25  13        1500
1     P   1   1  27  27        241056   -1435     188
2     P  23  23  27  27        104074   -4056     395
3     P   1   1  23  23        310653   -8920     161
4     P  23  23  23  23        143185   -6262     323
5     P   1   1  21  21        292913   -8707     179
6     P  23  23  21  21        130878   -5722     292
7     P   1   1  18  18        268838   -8360     168
9     P  23  23  18  18         96693   -5271     256
10    P   1   1  15  15        216490   -7740      91
12    P  23  23  15  15         41501   -4668     235
13    P   1   1  13  13        110092   -8220      81
18    P  23  23  13  13         -8489   -3298     313
19    P   1   1  11  11         61710     -81     -13
20    P   4   4  11  11         45707    -161    -604
21    P   7   7  11  11         54201      40    -766
22    P   9   9  11  11         24461     -91    -642
23    P  21  21  11  11         -8112     -57      22
24    P   4   4   8   8         49308    -353      52
25    P   7   7   5   5          1989    -326     115
26    P   9   9   3   3        -16750    -312     125
27    P  11  11   1   1        -33738     -68      26
```

```
34      P  16  16   6   6          -19261        -58         21
35      P   2   2  27  27          119875          0         30
36      P   5   5  27  27           92431          0         34
37      P  10  10  27  27           45283          0         40
38      P  18  18  27  27           37077          0         44
END
$
CASE  6  1.2
  1.000CM   0.000CVmax   1.000CVred   0.300Sx   1.000Sy
*       S   7  11  25  13            1500
1       P   1   1  27  27          -63051        256        -459
2       P  23  23  27  27          -27292        980        -523
3       P   1   1  23  23           44025        787        -437
4       P  23  23  23  23           91324       3445        -491
5       F   1   1  21  21          185775        186        -491
6       F  23  23  21  21          231522       3472        -540
7       P   1   1  18  18          294219        315        -591
8       F  23  23  18  18          337331       3404        -634
10      F   1   1  15  15          396835        391        -839
12      F  23  23  15  15          443382       1895        -896
13      F   1   1  13  13          459074       1518       -1090
18      F  23  23  13  13          488709        104       -1117
19      P   1   1  11  11           40642        -73        -142
20      P   4   4  11  11           10053        -78       -1064
21      P   7   7  11  11           35476         11       -1359
22      P   9   9  11  11           42780       -102       -1094
23      F  21  21  11  11           47308         58        -23
24      F   4   4   8   8           44864         85        -433
25      F   7   7   5   5           46489         78        -400
26      P   9   9   3   3           42303        124        -284
27      F  11  11   1   1           58223          9         -94
34      P  16  16   6   6           46085         32         -13
35      P   2   2  27  27          -37586          0        -112
36      P   5   5  27  27          -31652          0        -114
37      P  10  10  27  27          -19019          0        -116
38      P  18  18  27  27          -17294          0        -118
END
$
CASE  7  1.2
  1.000CM   0.000CVmax   1.000CVred  -0.300Sx   1.000Sy
*       S   7  11  25  13            1500
1       P   1   1  27  27          -22491      -1502        -539
2       P  23  23  27  27          -75883       -713        -483
3       P   1   1  23  23           93753      -3814        -502
4       P  23  23  23  23           38988      -1156        -463
5       P   1   1  21  21          234390      -3896        -543
6       P  23  23  21  21          183384       -910        -627
7       P   1   1  18  18          345610      -3846        -627
9       P  23  23  18  18          288677       -757        -629
10      P   2   2  15  15          359414      -3543        -894
12      P  23  23  15  15          295452      -1297        -877
13      P   1   1  13  13          198686      -3027       -1134
18      P  23  23  13  13          156716      -2074       -1042
19      P   1   1  11  11           72217       -123        -166
20      P   4   4  11  11           20290       -119       -1093
21      P   7   7  11  11           57712         21       -1354
22      P   9   9  11  11           27545       -106       -1160
23      P  21  21  11  11           35036         30        -12
24      P   4   4   8   8           66340       -116        -468
25      P   7   7   5   5           42726       -112        -385
26      P   9   9   3   3           31226        -78        -271
27      P  11  11   1   1           44253        -40        -100
34      P  16  16   6   6           33745          4         -1
35      P   2   2  27  27          -11707          0        -119
36      P   5   5  27  27          -18310          0        -118
37      P  10  10  27  27          -31335          0        -118
38      P  18  18  27  27          -44737          0        -117
END
$
CASE  8  1.2
  1.000CM   0.000CVmax   1.000CVred   0.300Sx  -1.000Sy
*       S   7  11  25  13            1500
1       P   1   1  27  27          269607       3516        803
2       P  23  23  27  27          286781      -1124        756
3       P   1   1  23  23          288463       1189        699
4       P  23  23  23  23          305965       3848        667
5       P   1   1  21  21          288553        950        711
6       P  23  23  21  21          237145       3936        696
7       P   1   1  18  18           83868        840        724
9       P  23  23  18  18          129300       3929        719
10      P   1   1  15  15           -7422        995        777
12      P  23  23  15  15           38715       2438        779
13      P   1   1  13  13          -49323       1720        857
18      P  23  23  13  13           -8029       2968        835
19      P   1   1  11  11          -32576         82        117
20      P   4   4  11  11           30782        -58       -259
21      P   7   7  11  11           56829         25       -165
22      P   9   9  11  11           65180        -73       -177
23      P  21  21  11  11            2955        -25         10
24      P   4   4   8   8          -19884         83        430
25      P   7   7   5   5           -3902         89        340
26      P   9   9   3   3          -11626        126        303
27      P  11  11   1   1          -36689         57        109
34      P  16  16   6   6          -13314        -10          4
35      P   2   2  27  27          117261          0        128
36      P   5   5  27  27          114773          0        128
37      P  10  10  27  27          120982          0        128
38      P  18  18  27  27          157833          0        127
END
$
CASE  9  1.2
  1.000CM   0.000CVmax   1.000CVred  -0.300Sx  -1.000Sy
*       S   7  11  25  13            1500
1       P   1   1  27  27          280167       1757        723
2       P  23  23  27  27          288189      -2817        796
3       P   1   1  23  23          308191      -3412        634
4       P  23  23  23  23          293229       -753        695
5       P   1   1  21  21          237168      -3432        658
6       P  23  23  21  21          189007       -447        710
7       P   1   1  18  18          135259      -3321        679
9       P  23  23  18  18           80646       -232        724
10      P   1   1  15  15           45258      -2939        721
12      P  23  23  15  15           -9214       -754        798
13      P   1   1  13  13           -9411      -2835        813
18      P  23  23  13  13          -40022        490        909
19      P   1   1  11  11            -871         32         99
20      P   4   4  11  11           41019       -103       -208
21      P   7   7  11  11           59065         34       -459
22      P   9   9  11  11           56145        -77       -243
23      P  21  21  11  11           -9318        -53         21
24      P   4   4   8   8            1691       -119        395
25      P   7   7   5   5           -9665       -101        356
26      P   9   9   3   3          -22702        -75        316
27      P  11  11   1   1          -50659          7        103
34      P  16  16   6   6          -25654        -39         16
35      P   2   2  27  27          143560          0        122
36      P   5   5  27  27          128115          0        124
37      P  10  10  27  27          108645          0        126
38      P  18  18  27  27          130389          0        129
END
```



PLANTA LOCALIZACION DE PILAS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J
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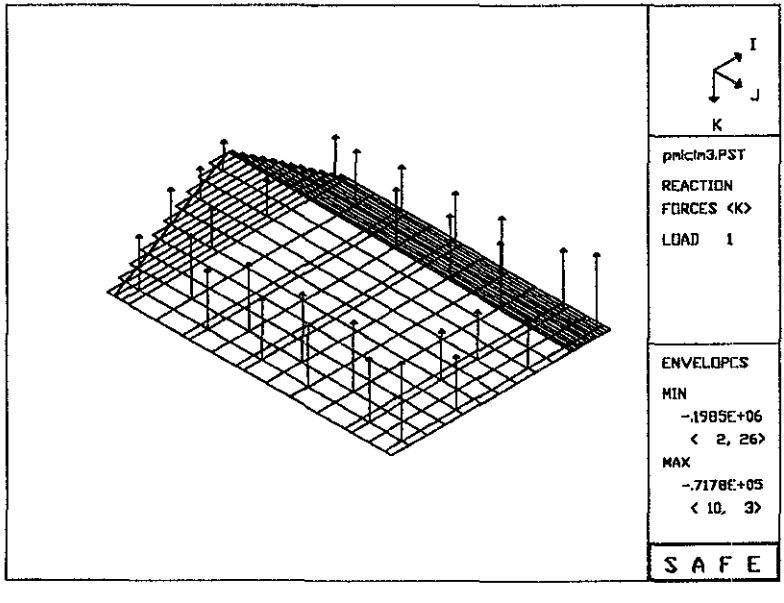
UNDEFORMED
SHAPE
OPTIONS
SUPPORTS
SAFE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ENVELOPES
MIN
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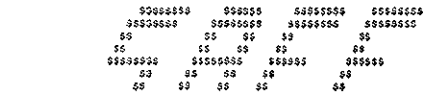
SAFE

ANÁLISIS DE LA CIMENTACIÓN

SAFE

(Resumen de Resultados)



SLAB ANALYSIS BY THE FINITE ELEMENT METHOD
VERSION V5.42
BY
ASHRAF HABIBULLAH

PROYECTO EDIFICIO TESIS
ANALISIS DE CIMENTACION

D I S P L A C E M E N T S U M M A R Y

LOAD CASE		VERTICAL DISPLACEMENT	ROTATION ABOUT-I	ROTATION ABOUT-J
1				
	MIN	0.1280E-01	0.1101E-03	-0.1583E-02
		(19, 1)	(1, 22)	(23, 21)
	MAX	0.3353E-01	0.1079E-02	0.2263E-02
		(1, 27)	(16, 5)	(1, 19)
2				
	MIN	0.7764E-02	-0.9393E-03	-0.3422E-02
		(1, 27)	(1, 25)	(23, 18)
	MAX	0.3870E-01	0.7070E-03	-0.2765E-03
		(23, 19)	(1, 12)	(1, 18)
3				
	MIN	0.1134E-02	0.5632E-03	-0.3571E-02
		(1, 10)	(9, 17)	(23, 27)
	MAX	0.5165E-01	0.1885E-02	-0.4b53E-03
		(23, 27)	(23, 27)	(1, 23)
4				
	MIN	0.3939E-02	-0.1161E-02	0.6278E-03
		(23, 27)	(23, 25)	(23, 18)
	MAX	0.4896E-01	0.1038E-02	0.4b64E-02
		(1, 13)	(17, 6)	(1, 16)
5				
	MIN	-0.2490E-02	0.2556E-03	0 6867E-03
		(12, 1)	(5, 14)	(11, 22)
	MAX	0.5365E-01	0.1823E-02	0.4378E-02
		(1, 27)	(17, 6)	(1, 27)
6				
	MIN	0.1147E-02	-0.3158E-02	-0.2349E-02
		(5, 27)	(1, 26)	(23, 15)
	MAX	0.3735E-01	0.2824E-03	0.2127E-02
		(1, 13)	(16, 5)	(1, 15)

	MIN	-0.2117E-02	-0.9257E-02	-0.1149E-02
		(23, 27)	(23, 26)	(22, 15)
	MAX	0.4847E-01	0.4229E-03	0 3640E-02
		(1, 10)	(16, 5)	(1, 10)
8				
	MIN	-0.4583E-03	0.1168E-02	-0 2103E-02
		(10, 1)	(8, 14)	(23, 27)
	MAX	0.5322E-01	0.3635E-02	0 1739E-02
		(23, 27)	(22, 27)	(1, 27)
9				
	MIN	-0.6113E-02	0.1043E-02	-0.1389E-02
		(12, 1)	(5, 14)	(23, 27)
	MAX	0.5521E-01	0.3655E-02	0 2685E-02
		(1, 27)	(23, 27)	(1, 27)

PROYECTO EDIFICIO TESIS
ANALISIS DE CIMENTACION

R E A C T I O N S U M M A R Y

LOAD CASE		VERTICAL REACTION	MOMENT ABOUT-I	MOMENT ABOUT-J	SURFACE PRESSURE
1					
	MIN	-0.1985E+06	0.0000E+00	0.0000E+00	0.0000E+00
		(2, 26)	(1, 1)	(1, 1)	(1, 1)
	MAX	-0.7178E+05	0.0000E+00	0.0000E+00	0 0000E+00
		(10, 3)	(1, 1)	(1, 1)	(1, 1)
2					
	MIN	-0.2271E+06	0.0000E+00	0.0000E+00	0 0000E+00
		(21, 26)	(1, 1)	(1, 1)	(1, 1)
	MAX	-0.5813E+05	0.0000E+00	0.0000E+00	0.0000E+00
		(2, 24)	(1, 1)	(1, 1)	(1, 1)
3					
	MIN	-0.3155E+06	0.0000E+00	0.0000E+00	0 0000E+00
		(21, 26)	(1, 1)	(1, 1)	(1, 1)
	MAX	-0.1967E+05	0.0000E+00	0 0000E+00	0 0000E+00
		(2, 12)	(1, 1)	(1, 1)	(1, 1)
4					
	MIN	-0.2431E+06	0.0000E+00	0.0000E+00	0.0000E+00
		(3, 14)	(1, 1)	(1, 1)	(1, 1)
	MAX	-0.3190E+05	0 0000E+00	0 0000E+00	0.0000E+00
		(21, 26)	(1, 1)	(1, 1)	(1, 1)
5					
	MIN	-0.3059E+06	0.0000E+00	0 0000E+00	0.0000E+00
		(2, 26)	(1, 1)	(1, 1)	(1, 1)
	MAX	-0.6188E+04	0.0000E+00	0.0000E+00	0.0000E+00
		(21, 12)	(1, 1)	(1, 1)	(1, 1)
6					
	MIN	-0.2176E+06	0.0000E+00	0.0000E+00	0.0000E+00
		(17, 14)	(1, 1)	(1, 1)	(1, 1)
	MAX	-0.1338E+05	0.0000E+00	0.0000E+00	0.0000E+00
		(5, 26)	(1, 1)	(1, 1)	(1, 1)
7					
	MIN	-0.2476E+06	0.0000E+00	0.0000E+00	0.0000E+00
		(3, 14)	(1, 1)	(1, 1)	(1, 1)
	MAX	0.2928E+04	0.0000E+00	0.0000E+00	0.0000E+00
		(21, 26)	(1, 1)	(1, 1)	(1, 1)
8					
	MIN	-0.3239E+06	0.0000E+00	0.0000E+00	0.0000E+00
		(21, 26)	(1, 1)	(1, 1)	(1, 1)
	MAX	-0.4940E+04	0.0000E+00	0 0000E+00	0 0000E+00
		(10, 3)	(1, 1)	(1, 1)	(1, 1)
9					
	MIN	-0.3226E+06	0.0000E+00	0 0000E+00	0.0000E+00
		(2, 26)	(1, 1)	(1, 1)	(1, 1)
	MAX	0.1860E+05	0.0000E+00	0.0000E+00	0 0000E+00
		(10, 3)	(1, 1)	(1, 1)	(1, 1)

PROYECTO EDIFICIO TESIS
ANALISIS DE CIMENTACION

M E M B E R F O R C E S U M M A R Y O F I-BEAM E L E M E N T S

MAXIMA & MINIMA FOR ELEMENTS WITH SECTION PROPERTY 1

LOAD CASE		BENDING MOMENT	TORSIONAL MOMENT	SHEAR FORCE
1				
	MIN	-0.2022E+06	-0.6579E+04	-0.2347E+05
		(4, 21)	(11, 23)	(10, 15)
	MAX	-0.4520E+04	0.8023E+04	0.3298E+05
		(22, 13)	(3, 23)	(4, 18)
2				
	MIN	-0.2000E+06	-0.5194E+04	-0.8489E+05
		(10, 18)	(14, 23)	(10, 18)
	MAX	-0.5492E+04	0.7347E+04	0.1101E+05
		(22, 27)	(3, 23)	(9, 27)
3				
	MIN	-0.1861E+06	-0.5812E+04	-0.4691E+05
		(10, 18)	(1, 15)	(10, 18)
	MAX	-0.2286E+04	0.9681E+04	0.1770E+05
		(22, 21)	(4, 23)	(9, 27)
4				
	MIN	-0.2883E+06	-0.7555E+04	-0.1963E+05
		(4, 18)	(11, 23)	(1, 27)
	MAX	-0.2870E+04	0.9538E+04	0.5578E+05
		(22, 23)	(6, 13)	(4, 18)
5				
	MIN	-0.2617E+06	-0.6919E+04	-0.2414E+05
		(4, 18)	(10, 23)	(1, 27)
	MAX	-0.1423E+04	0.8195E+04	0.5436E+05
		(22, 13)	(7, 15)	(4, 18)
6				
	MIN	-0.1937E+06	-0.8867E+04	-0.2888E+05
		(8, 15)	(18, 23)	(10, 21)
	MAX	-0.5488E+04	0.1051E+05	0.3914E+05
		(22, 27)	(2, 21)	(4, 21)
7				
	MIN	-0.2910E+06	-0.9033E+04	-0.1800E+05
		(4, 18)	(19, 21)	(10, 21)
	MAX	-0.9474E+04	0.1104E+05	0.4270E+05
		(22, 27)	(1, 21)	(4, 21)
8				
	MIN	-0.1551E+06	-0.1084E+05	-0.3281E+05
		(7, 27)	(1, 18)	(10, 15)
	MAX	0.1694E+05	0.1068E+05	0.2639E+05
		(7, 13)	(22, 18)	(4, 15)
9				
	MIN	-0.1836E+06	-0.8559E+04	-0.2592E+05
		(4, 21)	(1, 18)	(10, 15)
	MAX	0.3677E+04	0.1226E+05	0.3499E+05
		(22, 18)	(12, 18)	(4, 18)

PROYECTO EDIFICIO TESIS
ANALISIS DE CIMENTACION

M E M B E R F O R C E S U M M A R Y O F J-BEAM E L E M E N T S

MAXIMA & MINIMA FOR ELEMENTS WITH SECTION PROPERTY 1

LOAD CASE		BENDING MOMENT	TORSIONAL MOMENT	SHEAR FORCE
1				
	MIN	-0.3064E+05	-0.1428E+05	-0.1362E+05
		(7, 22)	(7, 10)	(7, 22)
	MAX	0.3747E+05	0.8876E+04	0.1169E+05
		(23, 18)	(7, 6)	(23, 14)
2				
	MIN	-0.2122E+05	-0.8843E+04	-0.1259E+05
		(23, 25)	(7, 10)	(23, 18)
	MAX	0.7005E+05	0.1206E+05	0.1547E+05
		(1, 18)	(7, 6)	(23, 14)
3				
	MIN	-0.3388E+05	-0.8714E+04	-0.2295E+05
		(7, 22)	(23, 17)	(7, 22)
	MAX	0.2402E+05	0.6065E+04	0.1317E+05
		(7, 13)	(1, 25)	(23, 26)
4				
	MIN	-0.1839E+05	-0.8366E+04	-0.1050E+05
		(1, 25)	(7, 10)	(23, 21)
	MAX	0.8346E+05	0.1092E+05	0.1368E+05
		(23, 18)	(7, 6)	(23, 14)
5				
	MIN	-0.5716E+05	-0.1658E+05	-0.1166E+05
		(7, 22)	(7, 10)	(7, 22)
	MAX	0.3951E+05	0.6041E+04	0.1305E+05
		(7, 6)	(7, 22)	(1, 22)
6				
	MIN	-0.4050E+04	-0.2225E+05	-0.1358E+05
		(23, 26)	(7, 10)	(23, 21)
	MAX	0.1233E+06	0.2027E+05	0.2462E+05
		(23, 18)	(7, 6)	(23, 14)
7				
	MIN	-0.2999E+04	-0.2669E+05	-0.1400E+05
		(1, 26)	(7, 10)	(23, 21)
	MAX	0.1360E+06	0.1992E+05	0.2408E+05
		(23, 18)	(7, 6)	(23, 14)
8				
	MIN	-0.1371E+06	-0.1129E+05	-0.3088E+05
		(7, 22)	(23, 17)	(7, 22)
	MAX	0.2289E+05	0.1147E+05	0.1552E+05
		(7, 13)	(1, 20)	(23, 26)
9				
	MIN	-0.1370E+06	-0.1459E+05	-0.2947E+05
		(7, 22)	(23, 17)	(7, 22)
	MAX	0.2401E+05	0.9548E+04	0.1480E+05
		(7, 13)	(1, 17)	(23, 32)

PROYECTO EDIFICIO TESIS
ANALISIS DE CIMENTACION

M E M B E R F O R C E S U M M A R Y O F J-BEAM E L E M E N T S

MAXIMA & MINIMA FOR ELEMENTS WITH SECTION PROPERTY 1

LOAD CASE		BENDING MOMENT	TORSIONAL MOMENT	SHEAR FORCE
1				
	MIN	-0.3022E+05	-0.8411E+04	-0.3691E+04
		(13, 3)	(12, 2)	(11, 1)
	MAX	-0.3214E+04	-0.4156E+04	0.4265E+04
		(18, 8)	(22, 12)	(14, 4)
2				
	MIN	-0.1851E+05	-0.5714E+04	-0.2622E+04
		(12, 2)	(12, 2)	(11, 1)
	MAX	0.6759E+04	-0.3693E+04	0.4811E+04
		(16, 6)	(16, 6)	(22, 12)
3				
	MIN	-0.1881E+05	-0.5713E+04	-0.2818E+04
		(21, 11)	(20, 10)	(21, 11)
	MAX	0.7265E+04	-0.2766E+04	0.7167E+04
		(16, 6)	(16, 6)	(22, 12)
4				
	MIN	-0.4824E+05	-0.1119E+05	-0.5619E+04
		(13, 3)	(12, 2)	(11, 1)
	MAX	0.6688E+04	-0.4428E+04	0.3767E+04
		(22, 12)	(22, 12)	(14, 4)
5				
	MIN	-0.3576E+05	-0.8964E+04	-0.3730E+04
		(13, 3)	(12, 2)	(11, 1)
	MAX	-0.4820E+04	-0.3207E+04	0.2639E+04
		(22, 12)	(22, 12)	(14, 4)
6				
	MIN	-0.4195E+05	-0.1021E+05	-0.5817E+04
		(13, 3)	(12, 2)	(11, 1)
	MAX	0.1258E+05	-0.5631E+04	0.7420E+04

LOAD CASE				
		(22, 12)	(22, 12)	(22, 1[illegible])
7	MIN	-0 5157E+05	-0.1187E+05	-0.6716E+04
		(13, 3)	(12, 2)	(11, 1)
	MAX	0.1617E+05	-0.5734E+04	0.7013E+04
		(22, 12)	(22, 12)	(22, 12)
8	MIN	-0.2082E+05	-0.2806E+04	-0.2240E+04
		(22, 12)	(19, 9)	(21, 11)
	MAX	0.3335E+04	-0.1501E+04	0.1007E+04
		(14, 4)	(22, 12)	(13, 3)
9	MIN	-0.2321E+05	-0.4604E+04	-0.1802E+04
		(22, 12)	(13, 3)	(22, 12)
	MAX	-0.5475E+04	-0.1706E+04	0.1238E+04
		(17, 7)	(22, 12)	(16, 6)

M E M B E R   F O R C E   S U M M A R Y   O F   JI-BEAM E L E M E N T S

MAXIMA & MINIMA FOR ELEMENTS WITH SECTION PROPERTY 1

LOAD CASE		BENDING MOMENT	TORSIONAL MOMENT	SHEAR FORCE
1	MIN	-0.8977E+05	0.9423E+03	-0.1432E+05
		(7, 4)	(1, 10)	(7, 4)
	MAX	-0.2243E+05	0.9797E+04	0.1006E+05
		(1, 10)	(8, 3)	(10, 1)
2	MIN	-0.1052E+06	-0.3620E+03	-0.1495E+05
		(7, 4)	(1, 10)	(7, 4)
	MAX	-0 1532E+05	0.6295E+04	0.1337E+05
		(1, 10)	(8, 3)	(10, 1)
3	MIN	-0.4595E+05	-0.2678E+04	-0.8445E+04
		(7, 4)	(1, 10)	(7, 4)
	MAX	-0.1261E+05	0.2513E+04	0 7308E+04
		(1, 10)	(8, 3)	(10, 1)
4	MIN	-0.1141E+06	0.4606E+04	-0.1735E+05
		(7, 4)	(1, 10)	(7, 4)
	MAX	-0.2595E+05	0 1506E+05	0.1062E+05
		(1, 10)	(7, 4)	(10, 1)
5	MIN	-0.5540E+05	0 2291E+04	-0.1167E+05
		(8, 3)	(1, 10)	(1, 10)
	MAX	-0.2124E+05	0.1164E+05	0.4562E+04
		(1, 10)	(7, 4)	(10, 1)
6	MIN	-0.1775E+06	0.4079E+04	-0.2390E+05
		(7, 4)	(1, 10)	(6, 5)
	MAX	-0.2221E+05	0.1370E+05	0 1948E+05
		(1, 10)	(8, 3)	(10, 1)
7	MIN	-0 1801E+06	0.5569E+04	-0.2470E+05
		(7, 4)	(1, 10)	(6, 5)
	MAX	-0.2540E+05	0.1627E+05	0.1866E+05
		(1, 10)	(8, 3)	(10, 1)
8	MIN	-0.1512E+05	-0 [illegible]776E+04	-0.2878E+04
		(2, 9)	(1, 10)	(8, 3)
	MAX	0.1952E+05	0.1418E+04	0.4435E+04
		(7, 4)	(10, 1)	(6, 5)
9	MIN	-0 1542E+05	-0 1782E+04	-0.4320E+04
		(2, 9)	(1, 10)	(8, 3)
	MAX	0.1877E+05	0.418[illegible]E+04	0 3660E+04
		(7, 4)	(7, 4)	(6, 5)

M E M B E R   F O R C E   S U M M A R Y   O F   SLAB   E L E M E N T S

MAXIMA & MINIMA FOR ELEMENTS WITH SECTION PROPERTY 1

LOAD CASE		M-II MOMENT	M-JJ MOMENT	M-IJ MOMENT	V-II SHEAR	V-JJ SHEAR
1	MIN	-0.2444E+06	-0.3869E+05	-0 6076E+05	-0 1333E+06	-0 2980E+06
		(5, 23)	(21, 25)	(3, 15)	(11, 16)	(22, 23)
	MAX	0.3324E+03	0.7053E+05	0.6955E+05	0.3339E+06	0 2532E+06
		(11, 16)	(11, 15)	(11, 4)	(13, 3)	(22, 26)
2	MIN	-0.1864E+06	-0 3786E+05	-0.8993E+05	-0.1891E+06	-0.4132E+06
		(6, 4)	(21, 25)	(7, 5)	(11, 16)	(22, 18)
	MAX	0.1114E+04	0.1049E+06	0.5749E+05	0.2810E+06	0 2577E+06
		(11, 16)	(1, 18)	(12, 15)	(22, 12)	(22, 26)
3	MIN	-0.2159E+06	-0.8732E+05	-0.4835E+05	-0.1759E+06	-0 4074E+06
		(7, 24)	(11, 19)	(3, 15)	(11, 19)	(22, 23)
	MAX	0.2137E+04	0.2812E+05	0.7619E+05	0 3481E+06	0.406[illegible]E+06
		(11, 16)	(1, 17)	(12, 15)	(22, 26)	(22, 26)
4	MIN	-0.2900E+06	-0.3783E+05	-0.6398E+05	-0 1575E+06	-0.2353E+06
		(7, 11)	(11, 4)	(7, 5)	(7, 4)	(11, 1)
	MAX	0.4007E+04	0.1399E+06	0.1020E+06	0.4301E+06	0.2554E+06
		(22, 18)	(22, 18)	(6, 10)	(13, 3)	(11, 4)
5	MIN	-0.2753E+06	-0.8642E+05	-0.7773E+05	-0.1712E+06	-0.[illegible]763E+06
		(5, 23)	(3, 19)	(3, 18)	(1, 26)	(22, 23)
	MAX	0.1059E+04	0.6086E+05	0.7779E+05	0.331[illegible]E+06	0.1978E+06
		(22, 17)	(11, 10)	(11, 4)	(13, 3)	(22, 26)
6	MIN	-0.3501E+06	-0 3202E+05	-0.1381E+06	-0.2143E+06	-0.4116E+06
		(7, 11)	(11, 4)	(7, 5)	(7, 4)	(22, 18)
	MAX	0.3859E+04	0.2047E+06	0.8581E+05	0.4289E+06	0.3342E+06
		(22, 18)	(22, 18)	(11, 4)	(13, 3)	(22, 12)
7	MIN	-0.3846E+06	-0.4372E+05	-0.1303E+06	-0.2219E+06	-0.3423E+06
		(7, 11)	(11, 4)	(7, 5)	(7, 4)	(22, 18)
	MAX	0.5948E+04	0.2267E+06	0.1045E+06	0.4826E+06	0.3258E+06
		(22, 18)	(22, 18)	(6, 10)	(13, 3)	(22, 12)
8	MIN	-0.2675E+06	-0.1418E+06	-0.9664E+05	-0.1725E+06	-0 34[illegible]E+06
		(6, 24)	(11, 22)	(3, 18)	(18, 26)	(22, 23)
	MAX	0.3576E+05	0.4252E+05	0.8686E+05	0.3533E+06	0.4722E+06
		(7, 11)	(11, 10)	(12, 18)	(22, 26)	(22, 26)
9	MIN	-0.2868E+06	-0.1424E+06	-0 9158E+05	-0.1728E+06	-0 3192E+06
		(6, 23)	(3, 22)	(3, 18)	(1, 26)	(22, 23)
	MAX	0.1100E+05	0.5071E+05	0.9587E+05	0.1411E+06	0 4385E+06
		(7, 5)	(11, 10)	(12, 18)	(22, 26)	(22, 26)

M E M B E R   F O R C E   S U M M A R Y   O F   SLAB   E L E M E N T S

MAXIMA & MINIMA FOR ELEMENTS WITH SECTION PROPERTY 2

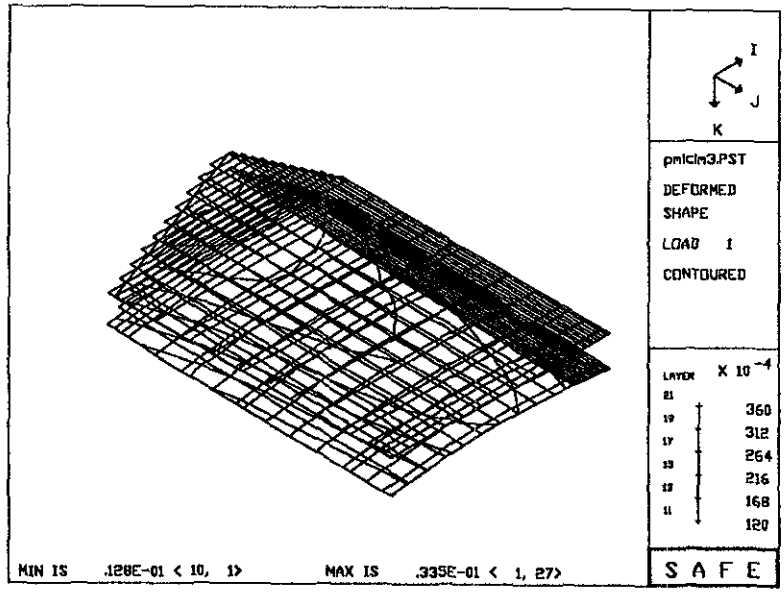
LOAD CASE		M-II MOMENT	M-JJ MOMENT	M-IJ MOMENT	V-II SHEAR	V-JJ SHEAR
1	MIN	-0.1142E+04	-0.8279E+03	-0.1[illegible]24E+0[illegible]	-0.16[illegible]E+04	-0.1[illegible]82E+04
		(4, 19)	(8, 18)	(10, 22)	(10, 16)	(8, 17)
	MAX	-0.5690E+02	0.4550E+0[illegible]	0 21[illegible]E+03	0.[illegible]14[illegible]E+04	0 2986E+04
		(8, 16)	(8, 16)	(8, 6)	(7, 19)	(8, 18)
2	MIN	-0.1340E+04	-0.840[illegible]E+03	-0.2367E+03	-0 1961E+04	-0.1691E+04

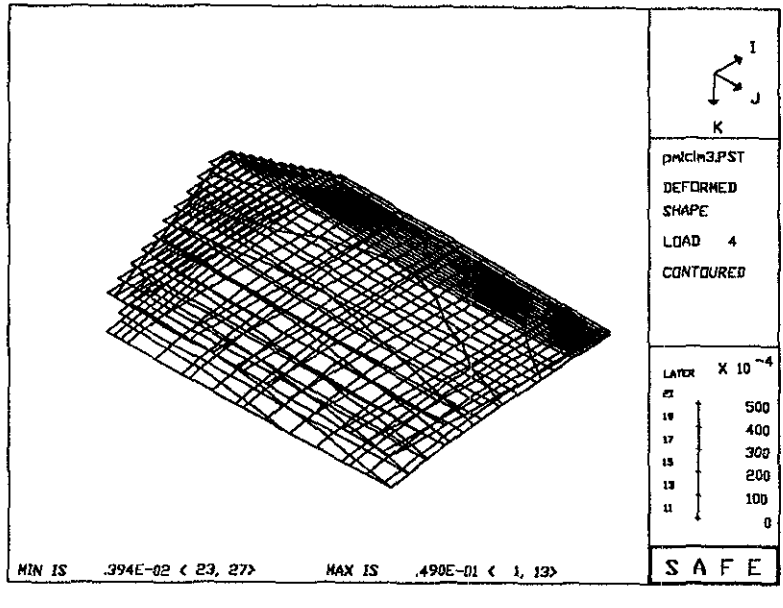
	(10, 19)	(8, 18)	(9, 15)	(10, 20)	(8, 17)
MAX	-0.6423E+02	0.4889E+03	0.1700E+03	0.9765E+03	0.3129E+04
	(8, 16)	(8, 16)	(7, 22)	(7, 16)	(8, 18)
3					
MIN	-0.1344E+04	-0.9073E+03	-0.2260E+03	-0.2008E+04	-0.1784E+04
	(10, 19)	(8, 18)	(9, 15)	(10, 19)	(8, 17)
MAX	0.4166E+02	0.4010E+03	0.1941E+03	0.9634E+03	0.3050E+04
	(8, 16)	(8, 16)	(7, 22)	(7, 16)	(8, 18)
4					
MIN	-0.1637E+04	-0.7264E+03	-0.1736E+03	-0.1238E+04	-0.1584E+04
	(4, 19)	(8, 18)	(10, 22)	(10, 16)	(8, 22)
MAX	0.6863E+02	0.5563E+03	0.3362E+03	0.1325E+04	0.3035E+04
	(9, 19)	(9, 16)	(8, 6)	(7, 19)	(9, 15)
5					
MIN	-0.1566E+04	-0.7934E+03	-0.1338E+03	-0.1257E+04	-0.1752E+04
	(4, 19)	(8, 18)	(10, 22)	(10, 16)	(8, 22)
MAX	0.1234E+03	0.4563E+03	0.2690E+03	0.1130E+04	0.2941E+04
	(9, 16)	(9, 16)	(5, 15)	(7, 19)	(9, 15)
6					
MIN	-0.1185E+04	-0.7223E+03	-0.2009E+03	-0.1687E+04	-0.1539E+04
	(7, 8)	(8, 18)	(9, 18)	(10, 16)	(8, 17)
MAX	-0.6836E+01	0.6173E+03	0.2957E+03	0.1256E+04	0.3152E+04
	(8, 22)	(8, 19)	(8, 6)	(8, 6)	(8, 18)
7					
MIN	-0.1350E+04	-0.6906E+03	-0.1911E+03	-0.1478E+04	-0.1501E+04
	(4, 16)	(8, 15)	(10, 22)	(10, 16)	(8, 17)
MAX	0.5431E+01	0.6488E+03	0.3552E+03	0.1301E+04	0.3091E+04
	(9, 22)	(9, 19)	(8, 6)	(8, 6)	(8, 18)
8					
MIN	-0.9675E+03	-0.9147E+03	-0.1428E+03	-0.1751E+04	-0.1880E+04
	(10, 19)	(8, 18)	(4, 19)	(10, 19)	(8, 22)
MAX	0.2541E+01	0.3352E+03	0.2216E+03	0.1102E+04	0.2893E+04
	(8, 13)	(8, 16)	(10, 21)	(7, 19)	(8, 15)
9					
MIN	-0.1024E+04	-0.9056E+03	-0.1032E+03	-0.1591E+04	-0.1693E+04
	(4, 19)	(8, 18)	(4, 19)	(10, 19)	(8, 22)
MAX	0.2062E+03	0.3312E+03	0.2497E+03	0.1181E+04	0.2890E+04
	(8, 13)	(8, 16)	(10, 21)	(7, 19)	(8, 15)

PROYECTO EDIFICIO TESIS
ANALISIS DE CIMENTACION

S O L U T I O N A C C U R A C Y

LOAD CASE	SUM OF APPLIED LOADS	SUM OF RECOVERED LOADS	SUM OF REACTIONS
1	0.4901220052E+07	0.4901220052E+07	-0.4901220052E+07
2	0.3692047052E+07	0.3692047052E+07	-0.3692047052E+07
3	0.3692045052E+07	0.3692045052E+07	-0.3692045052E+07
4	0.3692046052E+07	0.3692046052E+07	-0.3692046052E+07
5	0.3692044052E+07	0.3692044052E+07	-0.3692044052E+07
6	0.3692044052E+07	0.3692044052E+07	-0.3692044052E+07
7	0.3692046052E+07	0.3692046052E+07	-0.3692046052E+07
8	0.3692046052E+07	0.3692046052E+07	-0.3692046052E+07
9	0.3692046052E+07	0.3692046052E+07	-0.3692046052E+07


I
J
K
pmicln3.PST
DEFORMED
SHAPE
LOAD 1
CONTOURED
LAYER X 10 -4
21
19 360
17 312
15 264
13 216
11 168
120
MIN IS .128E-01 < 10, 1> MAX IS .335E-01 < 1, 27>
SAFE


I
J
K
pmicln3.PST
DEFORMED
SHAPE
LOAD 4
CONTOURED
LAYER X 10 -4
21
19 500
17 400
15 300
13 200
11 100
0
MIN IS .394E-02 < 23, 27> MAX IS .490E-01 < 1, 13>
SAFE

DISEÑO ESTRUCTURAL

El Diseño estructural se realizó utilizando los post-procesadores de los programas ETABS y SAFE; los cuales son.

- Diseño de la cimentación: SAFERC (SAFE)
- Diseño de estructura metálica. STEELER (ETABS)
- Diseño de columnas de concreto: CONKER (ETABS)

Se presentan los archivos de salida, los cuales enlistan en el caso de concreto, el área de acero requeridos en las secciones respectivas, así como los coeficientes de interacción en el caso de la estructura metálica

Finalmente se agregan los planos y detalles importantes de los cuales consta el proyecto

DISEÑO DE LA CIMENTACIÓN

SAFERC

(Archivo de Entrada)

```
PROYE. O  CAMPOS ELISEOS MENDEZ FR. CO JULIO CESAR
DISEÑO DE CIMENTACION, M.K.S.
$ UNAM TESIS
$ DATOS DE CONTROL
$ NLC NRBP INBP IPBP NRSP IRSP IPSP NSEGI NSEGJ  NMW NUN
   9    1    2    0    2    0    0    11    20      80  M
$
$ COMBINACIONES DE CARGA
 COMBO 1
 CM + CV MAX
 * 1 1 400
 END
 COMBO 2
 CM + CVRED + EA + 30%EB
* 2  1 10
 END
 COMBO 3
 CM + CVRED + EA - 30%EB
* 3  1.10
 END
 COMBO 4
 CM + CVRED +30%EA + EB
* 4  1.10
 END
 COMBO 5
 CM + CVRED +30%EA - EB
* 5  1.10
 END
 COMBO 6
 CM + CVRED -EA + 30%EB
* 6  1.10
 END
 COMBO 7
 CM + CVRED - EA - 30%EB
* 7  1.10
 END
 COMBO 8
 CM + CVRED -30%EA + EB
* 8  1.10
 END
 COMBO 9
 CM + CVRED -30%EA - EB
* 9  1.10
 END
$
$ PROPIEDADES DE LA CONTRATRABE
$ M    B     G    EP  DS   CT    CB    FC     FY      FYS
  1  0.60  1 50  0   0   0.05  0.05  200E4  4200E4  4200E4
$
$ PROPIEDADES DE LA LOSA
$  M    T     CTI   CTJ   CBI   CBJ   FC     FY
   1  1.50   0.03  0.03  0.03  0.03  200E4  4200E4
   2  0.20   0.03  0.03  0.03  0.03  200E4  4200E4
$
$ REDEFINICION DE TRABES
$ IRED  I1  I2  J1  J2  IB
  1     1   23  27  27  1
  2     1   23  23  23  1
  3     1   23  21  21  1
  4     1   23  19  16  1
  5     1   23  15  15  1
  6     1   23  13  13  1
  8     1    1  27  11  1
  9     7    7  27  5   1
  10    23  23  27  15  1
  11    1   11  11  1   1
  12    11  23  1   13  1
END
$ DISEÑO DE SEGMENTOS DE LOSA DIRECCION I
$ N    NSTR   I1   I2
  1     13    1    2
$ N  ID  J1  J2
  1  *  1  3
  2  *  3  5
  3  *  5  7
  4  *  7  9
  5  *  9 11
  6  * 11 13
  7  * 13 15
  8  * 15 17
  9  * 17 19
 10  * 19 21
 11  * 21 23
 12  * 23 25
 13  * 25 27
$ N   NSTR   I1   I2
  2    13    2    3
$ N  ID  J1  J2
  1  *  1  3
  2  *  3  5
  3  *  5  7
  4  *  7  9
  5  *  9 11
  6  * 11 13
  7  * 13 15
  8  * 15 17
  9  * 17 19
 10  * 19 21
 11  * 21 23
 12  * 23 25
 13  * 25 27
$ N   NSTR   I1   I2
  3    13    3    4
$ N  ID  J1  J2
  1  *  1  3
  2  *  3  5
  3  *  5  7
  4  *  7  9
  5  *  9 11
  6  * 11 13
  7  * 13 15
  8  * 15 17
  9  * 17 19
 10  * 19 21
 11  * 21 23
 12  * 23 25
 13  * 25 27
$ N   NSTR   I1   I2
  4    13    4    5
$ N  ID  J1  J2
  1  *  1  3
  2  *  3  5
  3  *  5  7
  4  *  7  9
  5  *  9 11
  6  * 11 13
  7  * 13 15
  8  * 15 17
  9  * 17 19
 10  * 19 21
 11  * 21 23
 12  * 23 25
 13  * 25 27
$ N   NSTR   I1   I2
  5    13    5    6
$ N  ID  J1  J2
  1  *  1  3
  2  *  3  5
  3  *  5  7
  4  *  7  9
  5  *  9 11
  6  * 11 13
  7  * 13 15
  8  * 15 17
  9  * 17 19
 10  * 19 21
 11  * 21 23
 12  * 23 25
 13  * 25 27
$ N   NSTR   I1   I2
  6    13    6    7
$ N  ID  J1  J2
```

```
  1     1  3
  2  *  3  5
  3  *  5  7
  4  *  7  9
  5  *  9  11
  6  *  11 13
  7  *  13 15
  8  *  15 17
  9  *  17 19
  10 *  19 21
  11 *  21 23
  12 *  23 25
  13 *  25 27
$ N    NSTR   I1   I2
  7     13    7    8
$ N  ID  J1  J2
  1  *  1  3
  2  *  3  5
  3  *  5  7
  4  *  7  9
  5  *  9  11
  6  *  11 13
  7  *  13 15
  8  *  15 17
  9  *  17 19
  10 *  19 21
  11 *  21 23
  12 *  23 25
  13 *  25 27
$ N    NSTR   I1   I2
  8     13    8    9
$ N  ID  J1  J2
  1  *  1  3
  2  *  3  5
  3  *  5  7
  4  *  7  9
  5  *  9  11
  6  *  11 13
  7  *  13 15
  8  *  15 17
  9  *  17 19
  10 *  19 21
  11 *  21 23
  12 *  23 25
  13 *  25 27
$ N    NSTR   I1   I2
  9     13    9    10
$ N  ID  J1  J2
  1  *  1  3
  2  *  3  5
  3  *  5  7
  4  *  7  9
  5  *  9  11
  6  *  11 13
  7  *  13 15
  8  *  15 17
  9  *  17 19
  10 *  19 21
  11 *  21 23
  12 *  23 25
  13 *  25 27
$ N    NSTR   I1   I2
  10    13    10   11
$ N  ID  J1  J2
  1  *  1  3
  2  *  3  5
  3  *  5  7
  4  *  7  9
  5  *  9  11
  6  *  11 13
  7  *  13 15
  8  *  15 17
  9  *  17 19
  10 *  19 21
  11 *  21 23
  12 *  23 25
  13    25 27
$ N    NSTR   I1   I2
  11    13    17   23
$ N  ID  J1  J2
  1  *  1  3
  2  *  3  5
  3  *  5  7
  4  *  7  9
  5  *  9  11
  6  *  11 13
  7  *  13 15
  8  *  15 17
  9  *  17 19
  10 *  19 21
  11 *  21 23
  12 *  23 25
  13 *  25 27
$
$ DISEÑO DE SEGMENTOS DE LOSA DIRECCION J
$ N  NSTR  J1  J2
  1    16   1   3
$ N  ID  I1  I2
  1  *  1  2
  2  *  2  3
  3  *  3  4
  4  *  4  5
  5  *  5  6
  6  *  6  7
  7  *  7  8
  8  *  8  9
  9  *  9  10
  10 *  10 11
  11 *  11 13
  12 *  13 15
  13 *  15 17
  14 *  17 19
  15 *  19 21
  16 *  21 23
$ N  NSTR J1 J2
  2  16   4   5
$ N  ID  I1  I2
  1  *  1  2
  2  *  2  3
  3  *  3  4
  4  *  4  5
  5  *  5  6
  6  *  6  7
  7  *  7  8
  8  *  8  9
  9  *  9  10
  10 *  10 11
  11 *  11 13
  12 *  13 15
  13 *  15 17
  14 *  17 19
  15 *  19 21
  16 *  21 23
$ N  NSTR J1 J2
  3  16   5  7
$ N  ID  I1  I2
  1  *  1  2
  2  *  2  3
  3  *  3  4
  4  *  4  5
  5  *  5  6
  6  *  6  7
  7  *  7  8
  8  *  8  9
  9  *  9  10
  10 *  10 11
  11 *  11 13
  12 *  13 15
  13 *  15 17
  14 *  17 19
  15 *  19 21
  16 *  21 23
```

```
$ M   MSTR  J1  J2
   4   16    7   4
$ N   ID   I1   I2
  1   *  1  2
  2   *  2  3
  3   *  3  4
  4   *  4  5
  5   *  5  6
  6   *  6  7
  7   *  7  8
  8   *  8  9
  9   *  9  10
 10   *  10 11
 11   *  11 13
 12   *  13 15
 13   *  15 17
 14   *  17 19
 15   *  19 21
 16   *  21 23
$ M   MSTA  J1  J2
   5   16    9  11
$ M   ID   I1   I2
  1   *  1  2
  2   *  2  3
  3   *  3  4
  4   *  4  5
  5   *  5  6
  6   *  6  7
  7   *  7  8
  8   *  8  9
  9   *  9  10
 10   *  10 11
 11   *  11 13
 12   *  13 15
 13   *  15 17
 14   *  17 19
 15   *  19 21
 16   *  21 23
$ M   MSTR  J1  J2
   6   16   13  13
$ M   ID   I1   I2
  1   *  1  2
  2   *  2  3
  3   *  3  4
  4   *  4  5
  5   *  5  6
  6   *  6  7
  7   *  7  8
  8   *  8  9
  9   *  9  10
 10   *  10 11
 11   *  11 13
 12   *  13 15
 13   *  15 17
 14   *  17 19
 15   *  19 21
 16   *  21 23
$ M   MSTR  J1  J2
   7   16   13  14
$ M   ID   I1   I2
  1   *  1  2
  2   *  2  3
  3   *  3  4
  4   *  4  5
  5   *  5  6
  6   *  6  7
  7   *  7  8
  8   *  8  9
  9   *  9  10
 10   *  10 11
 11   *  11 13
 12   *  13 15
 13   *  15 17
 14   *  17 19
 15   *  19 21
 16   *  21 23
```

```
$ M   MSTR  J1  J2
   8   16   10  15
$ M   ID   I1   I2
  1   *  1  2
  2   *  2  3
  3   *  3  4
  4   *  4  5
  5   *  5  6
  6   *  6  7
  7   *  7  8
  8   *  8  9
  9   *  9  10
 10   *  10 11
 11   *  11 13
 12   *  13 15
 13   *  15 17
 14   *  17 19
 15   *  19 21
 16   *  21 23
$ M   MSTR  J1  J2
   9   16   15  16
$ M   ID   I1   I2
  1   *  1  2
  2   *  2  3
  3   *  3  4
  4   *  4  5
  5   *  5  6
  6   *  6  7
  7   *  7  8
  8   *  8  9
  9   *  9  10
 10   *  10 11
 11   *  11 13
 12   *  13 15
 13   *  15 17
 14   *  17 19
 15   *  19 21
 16   *  21 23
$ M   MSTR  J1  J2
  10   16   16  17
$ M   ID   I1   I2
  1   *  1  2
  2   *  2  3
  3   *  3  4
  4   *  4  5
  5   *  5  6
  6   *  6  7
  7   *  7  8
  8   *  8  9
  9   *  9  10
 10   *  10 11
 11   *  11 13
 12   *  13 15
 13   *  15 17
 14   *  17 19
 15   *  19 21
 16   *  21 23
$ M   MSTR  J1  J2
  11   16   17  18
$ M   ID   I1   I2
  1   *  1  2
  2   *  2  3
  3   *  3  4
  4   *  4  5
  5   *  5  6
  6   *  6  7
  7   *  7  8
  8   *  8  9
  9   *  9  10
 10   *  10 11
 11   *  11 13
 12   *  13 15
 13   *  15 17
 14   *  17 19
 15   *  19 21
 16   *  21 23
```

```
$ M ...R  J1  ..
  12 16   16  19
$ N  ID  I1  I2
  1  * 1 2
  2  * 2 3
  3  * 3 4
  4  * 4 5
  5  * 5 6
  6  * 6 7
  7  * 7 8
  8  * 8 9
  9  * 9 10
 10  * 10 11
 11  * 11 13
 12  * 13 15
 13  * 15 17
 14  * 17 19
 15  * 19 21
 16  * 21 23
$ M NSTR  J1  J2
  13 16   19  20
$ N  ID  I1  I2
  1  * 1 2
  2  * 2 3
  3  * 3 4
  4  * 4 5
  5  * 5 6
  6  * 6 7
  7  * 7 8
  8  * 8 9
  9  * 9 10
 10  * 10 11
 11  * 11 13
 12  * 13 15
 13  * 15 17
 14  * 17 19
 15  * 19 21
 16  * 21 23
$ N NSTR  J1  J2
  14 16   20  21
$ N  ID  I1  I2
  1  * 1 2
  2  * 2 3
  3  * 3 4
  4  * 4 5
  5  * 5 6
  6  * 6 7
  7  * 7 8
  8  * 8 9
  9  * 9 10
 10  * 10 11
 11  * 11 13
 12  * 13 15
 13  * 15 17
 14  * 17 19
 15  * 19 21
 16  * 21 23
$ N NSTR  J1  J2
  15 16   21  22
$ N  ID  I1  I2
  1  * 1 2
  2  * 2 3
  3  * 3 4
  4  * 4 5
  5  * 5 6
  6  * 6 7
  7  * 7 8
  8  * 8 9
  9  * 9 10
 10  * 10 11
 11  * 11 13
 12  * 13 15
 13  * 15 17
 14  * 17 19
 15  * 19 21
 16  * 21 23
```

```
$ M ...R  J1  ..
  10 16   22  23
$ N  ID  I1  I2
  1  * 1 2
  2  * 2 3
  3  * 3 4
  4  * 4 5
  5  * 5 6
  6  * 6 7
  7  * 7 8
  8  * 8 9
  9  * 9 10
 10  * 10 11
 11  * 11 13
 12  * 13 15
 13  * 15 17
 14  * 17 19
 15  * 19 21
 16  * 21 23
$ N NSTR  J1  J2
  17 16   23  24
$ N  ID  I1  I2
  1  * 1 2
  2  * 2 3
  3  * 3 4
  4  * 4 5
  5  * 5 6
  6  * 6 7
  7  * 7 8
  8  * 8 9
  9  * 9 10
 10  * 10 11
 11  * 11 13
 12  * 13 15
 13  * 15 17
 14  * 17 19
 15  * 19 21
 16  * 21 23
$ M NSTR  J1  J2
  18 16   24  25
$ N  ID  I1  I2
  1  * 1 2
  2  * 2 3
  3  * 3 4
  4  * 4 5
  5  * 5 6
  6  * 6 7
  7  * 7 8
  8  * 8 9
  9  * 9 10
 10  * 10 11
 11  * 11 13
 12  * 13 15
 13  * 15 17
 14  * 17 19
 15  * 19 21
 16  * 21 23
$ N NSTR  J1  J2
  19 16   25  26
$ N  ID  I1  I2
  1  * 1 2
  2  * 2 3
  3  * 3 4
  4  * 4 5
  5  * 5 6
  6  * 6 7
  7  * 7 8
  8  * 8 9
  9  * 9 10
 10  * 10 11
 11  * 11 13
 12  * 13 15
 13  * 15 17
 14  * 17 19
 15  * 19 21
 16  * 21 23
```

```
$ H N  K   J1   u
 20  16    26   27
$ W  10   11   12
  1  * 1  2
  2  * 2  3
  3  * 3  4
  4  * 4  5
  5  * 5  6
  6  * 6  7
  7  * 7  8
  8  * 8  9
  9  * 9  10
  10 * 10  11
  11 * 11  13
  12 * 13  15
  13 * 15  17
  14 * 17  19
  15 * 19  21
  16 * 21  23
$ FIN DE DATOS
```

DISEÑO DE LA CIMENTACION

SAFERC

(Archivo de Salida)

```
  $$$$$$$     $$$$$$$     $$$$$$$$$ $$$$$$$$$  $$$$$$$      $$$$$$$$
 $$$$$$$$$   $$$$$$$$$    $$$$$$$$$ $$$$$$$$$ $$$$$$$$$    $$$$$$$$$
$$          $$     $$    $$         $$        $$     $$   $$
$$          $$     $$    $$         $$        $$     $$   $$
$$$$$$$$   $$$$$$$$$    $$$$$$$$$  $$$$$$$$$ $$$$$$$$$   $$
      $$  $$     $$    $$         $$        $$     $$   $$
      $$  $$     $$    $$         $$        $$     $$   $$
$$$$$$$$$  $$     $$    $$         $$$$$$$$$ $$     $$   $$$$$$$$$
$$$$$$$    $$     $$    $$         $$$$$$$$$ $$     $$    $$$$$$$$
```

REINFORCED CONCRETE SLAB DESIGN USING SAFE
VERSION P5.40
BY
ASHRAF HABIBULLAH


```
CSI / SAFE - SLAB AND BASEMAT ANALYSIS BY THE FINITE ELEMENT METHOD       1
                          SAFE_FILE.pmicim3.PST/SAFERC_FILE:dicimient OUT
PROYECTO, EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.


CSI / SAFE - SLAB AND BASEMAT ANALYSIS BY THE FINITE ELEMENT METHOD      15
                          SAFE_FILE pmicim3.PST/SAFERC_FILE:dicimient OUT
PROYECTO, EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.

I - D I R E C T I O N   B E A M   F L E X U R A L   R E I N F O R C I N G

                       I        I        I        I        I        I
  J-GRID     PLACING      1 21     1.22     1.21     1 22     1 21
                       1        2        3        4        5        6

                        ( 7)     ( 7)     ( 7)     ( 7)     ( 7)
     13         TOP     8.438   14.598   18.786   30 927   32 193
     13      BOTTOM     0.027
                        ( 8)

                        ( 7)     ( 7)     ( 7)     ( 4)     ( 4)
     15         TOP     8 848   13.118   18.535   61.319   48 344
     15      BOTTOM     0 154
                        ( 8)

                        ( 7)     ( 7)     ( 4)     ( 4)     ( 4)
     18         TOP     8 739   13.313   21.147   72.051   55.114
     18      BOTTOM

                        ( 7)     ( 4)     ( 4)     ( 4)     ( 4)
     21         TOP     7.444   11.991   17.723   66.296   50 363
     21      BOTTOM

                        ( 5)     ( 5)     ( 1)     ( 1)     ( 1)
     23         TOP     7 913   11.951   21 803   40.539   40 178
     23      BOTTOM
```

```
                        ( 1)     ( 1)     ( 1)     ( 1)     ( 1)
     27         TOP    10.344   19.772   26.364   32 857   36 913
     27      BOTTOM

                       1        2        3        4        5        6
  J-GRID     PLACING      1.21     1.22     1.21     1.22     1.2
                       I        I        I        I        I        I
CSI / SAFE - SLAB AND BASEMAT ANALYSIS BY THE FINITE ELEMENT METHOD      16
                          SAFE FILE:pmicim3 PST/SAFERC FILE dicimient OUT
PROYECTO EDIFICIO
DISEÑO DE CIMENTACION, M K.S.

I - D I R E C T I O N   B E A M   F L E X U R A L   R E I N F O R C I N G

                       I        I        I        I        I        I
  J-GRID     PLACING      1.21     1 21     1.22     1 21     1.22
                       6        7        8        9        10       11

                        ( 7)     ( 7)     ( 7)     ( 7)     ( 8)
     13         TOP    37.801   44.107   43.273   36.208   28 155
     13      BOTTOM     1.561    1.634    3.412    0.814
                        ( 8)     ( 8)     ( 8)     ( 8)

                        ( 7)     ( 7)     ( 7)     ( 6)     ( 2)
     15         TOP    40.020   34 384   30 039   33 815   42.255
     15      BOTTOM              0.030
                                 ( 8)

                        ( 4)     ( 1)     ( 1)     ( 2)     ( 2)
     18         TOP    39.928   29 130   28.738   36.339   49.061
     18      BOTTOM

                        ( 1)     ( 1)     ( 1)     ( 1)     ( 1)
     21         TOP    40.908   31 937   30.326   34 391   44.112
     21      BOTTOM

                        ( 1)     ( 1)     ( 1)     ( 1)     ( 1)
     23         TOP    39.751   36.816   35.248   28 679   24.146
     23      BOTTOM

                        ( 1)     ( 1)     ( 1)     ( 1)     ( 1)
     27         TOP    36.085   35 073   34.008   28.985   18.972
     27      BOTTOM

                       6        7        8        9        10       11
  J-GRID     PLACING      1 22     1.21     1.22     1.21     1.22
                       I        I        I        I        I        I
CSI / SAFE - SLAB AND BASEMAT ANALYSIS BY THE FINITE ELEMENT METHOD      17
                          SAFE_FILE:pmicim3.PST/SAFERC_FILE:dicimient.OUT
PROYECTO EDIFICIO
DISEÑO DE CIMENTACION, M K.S.

I - D I R E C T I O N   B E A M   F L E X U R A L   R E I N F O R C I N G

                       I        I        I        I        I        I
  J-GRID     PLACING      0.21     0.21     0.21     0.21     0.21
                       11       12       13       14       15       16

                        ( 1)     ( 1)     ( 6)     ( 6)     ( 6)
     13         TOP    15 099   11.[illegible]   10.251   6 863    7 810
     13      BOTTOM

                        ( 6)     ( 6)     ( 6)     ( 6)     ( 6)
     15         TOP    18 387   14.724   11.755   10 466   [illegible]
     15      BOTTOM

                        ( 2)     ( 1)     ( 6)     ( 6)     ( 6)
```

18	TOP	20.705	15.028	12.036	10.554	9.585
18	BOTTOM					
		(2)	(2)	(2)	(6)	(6)
21	TOP	15.518	12.093	10.061	8.761	7.874
21	BOTTOM					
		(1)	(1)	(1)	(1)	(1)
23	TOP	15.175	12.632	10.968	9.567	8.600
23	BOTTOM					
		(1)	(1)	(1)	(1)	(1)
27	TOP	14.209	12.765	11.461	10.206	8.944
27	BOTTOM					

J-GRID	PLACING	11	12	13	14	15	16
		0.21	0.21	0.21	0.21	0.21	
		1	1	1	1	1	1

CSI / SAFE - SLAB AND BASEMAT ANALYSIS BY THE FINITE ELEMENT METHOD 18
SAFE_FILE:paicim3.PST/SAFERC_FILE.diciment.OUT

PROYECTO: EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.

I - D I R E C T I O N B E A M F L E X U R A L R E I N F O R C I N G

J-GRID	PLACING	1	1	1	1	1	1
		0.21	0.21	0.21	0.21	0.21	0.21
		16	17	18	19	20	21
		(6)	(6)	(6)	(6)	(6)	(6)
13	TOP	8.868	8.347	6.199	5.946	5.415	
13	BOTTOM						
		(6)	(6)	(6)	(6)	(6)	
15	TOP	8.852	8.501	8.435	8.132	7.426	
15	BOTTOM				0.013	0.210	
					(9)	(9)	
		(6)	(6)	(6)	(6)	(6)	
18	TOP	8.928	8.470	8.128	7.795	7.257	
18	BOTTOM						
		(6)	(6)	(6)	(6)	(6)	
21	TOP	7.206	6.716	6.375	6.178	6.154	
21	BOTTOM						
		(2)	(2)	(2)	(2)	(2)	
23	TOP	7.441	6.696	6.074	5.496	4.738	
23	BOTTOM						
		(1)	(1)	(1)	(1)	(1)	
27	TOP	7.617	6.130	5.503	5.641	5.084	
27	BOTTOM						

J-GRID	PLACING	16	17	18	19	20	21
		0.21	0.21	0.21	0.21	0.21	
		1	1	1	1	1	1

CSI / SAFE - SLAB AND BASEMAT ANALYSIS BY THE FINITE ELEMENT METHOD 19
SAFE_FILE:paicim3.PST/SAFERC_FILE:diciment.OUT

PROYECTO: EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.

I - D I R E C T I O N B E A M F L E X U R A L R E I N F O R C I N G

J-GRID	PLACING	1	1	1
		0.21	0.21	
		21	22	23
		(6)	(6)	
13	TOP	4.448	3.295	
13	BOTTOM		0.618	
			(9)	
		(6)	(6)	
15	TOP	6.164	4.735	
15	BOTTOM	0.433	0.665	
		(9)	(9)	
		(6)	(7)	
18	TOP	6.140	3.963	
18	BOTTOM	0.257	0.743	
		(9)	(9)	
		(6)	(7)	
21	TOP	5.158	3.129	
21	BOTTOM		0.695	
			(9)	
		(2)	(2)	
23	TOP	3.554	1.698	
23	BOTTOM			
		(1)	(1)	
27	TOP	3.736	1.475	
27	BOTTOM			

J-GRID	PLACING	21	22	23
		0.21	0.21	
		1	1	1

CSI / SAFE - SLAB AND BASEMAT ANALYSIS BY THE FINITE ELEMENT METHOD 20
SAFE_FILE.paicim3.PST/SAFERC_FILE:diciment.OUT

PROYECTO: EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.

I - D I R E C T I O N B E A M S H E A R R E I N F O R C I N G

J-GRID	PLACING	1	1	1	1	1	1
		1.21	1.22	1.21	1.22	1.21	
		1	2	3	4	5	6
13	WEB	0.000	0.000	0.000	0.000	0.000	
		(7)	(1)	(1)	(5)	(7)	
15	WEB	0.000	0.000	0.000	0.000	0.000	
		(7)	(5)	(4)	(5)	(5)	
18	WEB	0.000	0.000	0.000	1.139	0.000	
		(4)	(4)	(4)	(4)	(4)	
21	WEB	0.000	0.000	0.000	0.292	0.000	
		(4)	(7)	(1)	(6)	(4)	
23	WEB	0.000	0.000	0.000	0.000	0.000	
		(5)	(7)	(1)	(7)	(6)	
27	WEB	0.000	0.000	0.000	0.000	0.000	
		(1)	(6)	(1)	(1)	(8)	

J-GRID	PLACING	1	2	3	4	5	6
		1.21	1.22	1.21	1.22	1.21	
		1	1	1	1	1	1

CSI / SAFE - SLAB AND BASEMAT ANALYSIS BY THE FINITE ELEMENT METHOD 21
SAFE_FILE:paicim..PST/SAFERC_FILE diciment.OUT

PROYECTO: EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.

I - D I R E C T I O N B E A M S H E A R R E I N F O R C I N G

J-GRID	PLACING	1	1	1	1	1	1
		1.22	1.21	1.22	1.21	1.22	
		6	7	8	9	10	11

13	WEB	0.000 (7)	0.000 (6)	0.000 (4)	0.000 (7)	0.000 (7)
15	WEB	0.000 (5)	0.000 (6)	0.000 (3)	0.000 (3)	0.000 (3)
18	WEB	0.000 (4)	0.000 (4)	0.000 (3)	0.000 (3)	0.000 (3)
21	WEB	0.000 (4)	0.000 (5)	0.000 (2)	0.000 (2)	0.000 (2)
23	WEB	0.000 (9)	0.000 (8)	0.000 (9)	0.000 (9)	0.000 (6)
27	WEB	0.000 (4)	0.000 (5)	0.000 (5)	0.000 (8)	0.000 (1)

J-GRID	PLACING	6	7	8	9	10	11
		1.22	1.21	1.22	1.21	1.22	

CSI / SAFE - SLAB AND BASEMAT ANALYSIS BY THE FINITE ELEMENT METHOD 22
SAFE_FILE:pmicim3.FST/SAFERC_FILE:diciment.OUT

PROYECTO: EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.

I - D I R E C T I O N B E A M S H E A R R E I N F O R C I N G

J-GRID	PLACING	12	12	13	14	15	16
		0.21	0.21	0.21	0.21	0.21	0.21
13	WEB	0.000 (1)	0.000 (1)	0.000 (1)	0.000 (1)	0.000 (1)	
15	WEB	0.000 (2)	0.000 (2)	0.000 (2)	0.000 (2)	0.000 (2)	
18	WEB	0.000 (2)	0.000 (3)	0.000 (3)	0.000 (3)	0.000 (3)	
21	WEB	0.000 (3)	0.000 (3)	0.000 (3)	0.000 (3)	0.000 (3)	
23	WEB	0.000 (1)	0.000 (1)	0.000 (1)	0.000 (1)	0.000 (6)	
27	WEB	0.000 (1)	0.000 (1)	0.000 (1)	0.000 (8)	0.000 (8)	

J-GRID	PLACING	11	12	13	14	15	16
		0.21	0.21	0.21	0.21	0.21	0.21

CSI / SAFE - SLAB AND BASEMAT ANALYSIS BY THE FINITE ELEMENT METHOD 23
SAFE_FILE:pmicim3.FST/SAFERC_FILE:diciment.OUT

PROYECTO: EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.

I - D I R E C T I O N B E A M S H E A R R E I N F O R C I N G

J-GRID	PLACING	16	17	18	19	20	21
		0.21	0.21	0.21	0.21	0.21	0.21
13	WEB	0.000 (1)	0.000 (91)	0.000 (1)	0.000 (1)	0.000 (1)	
15	WEB	0.000 (2)	0.000 (9)	0.000 (1)	0.000 (2)	0.000 (6)	
18	WEB	0.000 (3)	0.000 (2)	0.000 (2)	0.000 (2,	0.000 (2)	
21	WEB	0.000 (2)	0.000 (2)	0.000 (6)	0.000 (9)	0.000 (8)	
23	WEB	0.000 (6)	0.000 (0)	0.000 (6)	0.000 (6)	0.000 (1)	
27	WEB	0.000 (8)	0.000 (8)	0.000 (8)	0.000 (8)	0.000 (1)	

J-GRID	PLACING	16	17	18	19	20	21
		0.21	0.21	0.21	0.21	0.21	0.21

CSI / SAFE - SLAB AND BASEMAT ANALYSIS BY THE FINITE ELEMENT METHOD 24
SAFE_FILE:pmicim3.FST/SAFERC_FILE:diciment.OUT

PROYECTO. EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.

I - D I R E C T I O N B E A M S H E A R R E I N F O R C I N G

J-GRID	PLACING	21	22	23
		0.21	0.21	
13	WEB	0.000 (1)	0.000 (0)	
15	WEB	0.000 (6)	0.000 (6)	
18	WEB	0.000 (6)	0.000 (6)	
21	WEB	0.000 (2)	0.000 (2)	
23	WEB	0.000 (3)	0.000 (3)	
27	WEB	0.000 (1)	0.000 (8)	

J-GRID	PLACING	21	22	23
		0.21	0.21	

CSI / SAFE - SLAB AND BASEMAT ANALYSIS BY THE FINITE ELEMENT METHOD 25
SAFE_FILE:pmicim3.FST/SAFERC_FILE:diciment.OUT

PROYECTO: EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.

J - D I R E C T I O N B E A M F L E X U R A L R E I N F O R C I N G

I-GRID	PLACING	1	2	3	4	5	6
		0.45	0.46	0.45	0.46	0.45	
23	TOP						
23	BOTTOM						
7	TOP						
7	BOTTOM						7.238 (4)
1	TOP						
1	BOTTOM						

I-GRID	PLACING	1	2	3	4	5	6
		0.45	0.46	0.45	0.46	0.45	

CSI / SAFE - SLAB AND BASEMAT ANALYSIS BY THE FINITE ELEMENT METHOD 26
SAFE_FILE:pmicim3.FST/SAFERC_FILE:diciment.OUT

PROYECTO: EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.

```
J - D I R E C T I O N   B E A M   F L E X U R A L   R E I N F O R C I N G

                            J         J         J         J         J         J
  I-GRID       PLACING        0.46      0.45      0.46      0.45      0.46
                            6         7         8         9        10        11


    23            TOP
    23         BOTTOM

                            ( 2)      ( 2)      ( 6)      ( 7)
     7            TOP      0.044     0.463     0.681     0.024
     7         BOTTOM      6.344     4.653     3.395     3.443     4.955
                            ( 4)      ( 5)      ( 9)      ( 8)      ( 1)

     1            TOP
     1         BOTTOM

                            6         7         8         9        10        11
  I-GRID       PLACING        0.46      0.45      0.46      0.45      0.46
                            J         J         J         J         J         J
CSI / SAFE - SLAB AND BASEMAT ANALYSIS BY THE FINITE ELEMENT METHOD         27
                               SAFE_FILE:paicim3.PST/SAFERC_FILE:diciment.OUT
PROYECTO: EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.

J - D I R E C T I O N   B E A M   F L E X U R A L   R E I N F O R C I N G

                            J         J         J         J         J         J
  I-GRID       PLACING        0.45      0.46      1.80      1.80      0.50
                           11        12        13        14        15        16

                                                ( 8)      ( 9)      ( 9)
    23            TOP                          4.279     6.371     9.124
    23         BOTTOM                          9.009    21.605    23.021
                                                ( 7)      ( 7)      ( 7)

                                                          ( 9)      ( 9)
     7            TOP                                    4.661     2.825
     7         BOTTOM      6.578     6.472    10.459    13.376    13.580
                            ( 1)      ( 7)      ( 7)      ( 7)      ( 7)

                            ( 8)      ( 8)      ( 8)      ( 8)      ( 8)
     1            TOP      3.755     4.813     5.165     6.893     8.405
     1         BOTTOM      3.800     6.981     9.881    20.060    21.778
                            ( 7)      ( 7)      ( 6)      ( 6)      ( 6)

                           11        12        13        14        15        16
  I-GRID       PLACING        0.45      0.46      1.80      1.80      0.50
                            J         J         J         J         J         J
CSI / SAFE - SLAB AND BASEMAT ANALYSIS BY THE FINITE ELEMENT METHOD         28
                               SAFE_FILE:paicim3.PST/SAFERC_FILE:diciment.OUT
PROYECTO: EDIFICIO
DISEÑO DE CIMENTACION, M.K.S

J - D I R E C T I O N   B E A M   F L E X U R A L   R E I N F O R C I N G

                            J         J         J         J         J         J
  I-GRID       PLACING        1.50      1.60      0.50      1.50      1.60
                           16        17        18        19        20        21

                            ( 8)      ( 8)      ( 8)      ( 8)      ( 8)
    23            TOP     10.125    10.115    11.874    13.879    13.295
    23         BOTTOM     21.517    20.586    28.983    23.940    21.067
                            ( 7)      ( 7)      ( 7)      ( 7)      ( 7)

                            ( 9)      ( 9)      ( 9)      ( 9)      ( 9)
     7            TOP      6.592    11.249    10.507    12.416    17.253
     7         BOTTOM     15.023    15.007    13.669    15.217    15.204
                            ( 6)      ( 6)      ( 6)      ( 6)      ( 6)

                            ( 9)      ( 9)      ( 9)      ( 9)      ( 9)
     1            TOP     10.334    10.222    11.146    13.614    12.402
```

```
     1         BOTTOM     18.381    [illegible] [illegible] [illegible] [illegible]
                            ( 6)      ( 6)      ( 6)      ( 6)   [illegible]

                           16        17        18        19        20        21
  I-GRID       PLACING        1.50      1.60      0.50      1.50      1.60
                            J         J         J         J         J         J
CSI / SAFE - SLAB AND BASEMAT ANALYSIS BY THE FINITE ELEMENT METHOD   [illegible]
                               SAFE_FILE:paicim3.PST/SAFERC_FILE:diciment.OUT
PROYECTO  EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.

J - D I R E C T I O N   B E A M   F L E X U R A L   R E I N F O R C I N G

                            J         J         J         J         J         J
  I-GRID       PLACING        1.80      1.80      0.50      1.10      1.10
                           21        22        23        24        25        26

                            ( 8)      ( 8)      ( 8)      ( 8)   [illegible]
    23            TOP     12.507    11.323     7.164   [illegible] [illegible]
    23         BOTTOM     20.299    11.305   [illegible]  4.410     1.848
                            ( 7)      ( 7)      ( 6)      ( 7)      ( 7)

                            ( 9)      ( 8)      ( 8)      ( 8)
     7            TOP     22.809    34.814     7.061     1.448
     7         BOTTOM     17.124    18.565     7.445     4.834     4.097
                            ( 7)      ( 7)      ( 7)      ( 7)      ( 1)

                            ( 9)      ( 9)      ( 9)      ( 9)      ( 9)
     1            TOP     12.402    11.087     6.223     9.732     8.719
     1         BOTTOM     16.262     8.949     5.182     3.308     0.989
                            ( 6)      ( 6)      ( 6)      ( 6)      ( 6)

                           21        22        23        24        25        26
  I-GRID       PLACING        1.80      1.80      0.50      1.10      1.10
                            J         J         J         J         J         J
CSI / SAFE - SLAB AND BASEMAT ANALYSIS BY THE FINITE ELEMENT METHOD   [illegible]
                               SAFE_FILE:paicim3.PST/SAFERC_FILE:diciment.OUT
PROYECTO  EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.

J - D I R E C T I O N   B E A M   F L E X U R A L   R E I N F O R C I N G

                            J         J
  I-GRID       PLACING        0.50
                           26        27

                            ( 8)
    23            TOP      4.562
    23         BOTTOM


     7            TOP
     7         BOTTOM      4.331
                            ( 1)

                            ( 9)
     1            TOP      2.896
     1         BOTTOM


                           26        27
  I-GRID       PLACING        0.50
                            J         J
CSI / SAFE - SLAB AND BASEMAT ANALYSIS BY THE FINITE ELEMENT METHOD   [illegible]
                               SAFE_FILE:paicim3.PST/SAFERC_FILE:diciment.OUT
PROYECTO  EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.

J - D I R E C T I O N   B E A M   S H E A R   R E I N F O R C I N G

                            J         J         J         J         J         J
  I-GRID       PLACING        0.45      0.46      0.45      0.46      0.45
                            1         2         3         4         5         6

    23            WEB
```

7	WEB					0.000	
						(5)	
1	WEB						

		1	2	3	4	5	6
I-GRID	PLACING	0.45	0.46	0.45	0.46	0.45	
		J	J	J	J	J	J

PROYECTO: EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.

J - D I R E C T I O N B E A M S H E A R R E I N F O R C I N G

		J	J	J	J	J	J
I-GRID	PLACING	0.46	0.45	0.46	0.45	0.46	
		6	7	8	9	10	11
23	WEB						
7	WEB	0.000	0.000	0.000	0.000	0.000	
		(7)	(4)	(3)	(2)	(6)	
1	WEB						

		6	7	8	9	10	11
I-GRID	PLACING	0.46	0.45	0.46	0.45	0.46	
		J	J	J	J	J	J

PROYECTO: EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.

J - D I R E C T I O N B E A M S H E A R R E I N F O R C I N G

		J	J	J	J	J	J
I-GRID	PLACING	0.45	0.46	1.80	1.80	0.50	
		11	12	13	14	15	16
23	WEB			0.000	0.000	0.000	
				(4)	(6)	(2)	
7	WEB	0.000	0.000	0.000	0.000	0.000	
		(3)	(6)	(6)	(9)	(6)	
1	WEB	0.000	0.000	0.000	0.000	0.000	
		(7)	(7)	(2)	(7)	(7)	

		11	12	13	14	15	16
I-GRID	PLACING	0.45	0.46	1.80	1.80	0.50	
		J	J	J	J	J	J

PROYECTO: EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.

J - D I R E C T I O N B E A M S H E A R R E I N F O R C I N G

		J	J	J	J	J	J
I-GRID	PLACING	1.50	1.60	0.50	1.50	1.60	
		16	17	18	19	20	21
23	WEB	0.000	0.000	0.000	0.000	0.000	
		(7)	(6)	(2)	(6)	(5)	
7	WEB	0.000	0.000	0.000	0.000	0.000	
		(9)	(9)	(7)	(9)	(9)	
1	WEB	0.000	0.000	0.000	0.000	0.000	
		(4)	(7)	(7)	(7)	(5)	

		16	17	18	19	20	21
I-GRID	PLACING	1.50	1.60	0.50	1.50	1.60	
		J	J	J	J	J	J

PROYECTO: EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.

J - D I R E C T I O N B E A M S H E A R R E I N F O R C I N G

		J	J	J	J	J	J
I-GRID	PLACING	1.60	1.60	0.50	1.10	1.10	
		21	22	23	24	25	26
23	WEB	0.000	0.000	0.000	0.000	0.000	
		(7)	(9)	(3)	(6)	(8)	
7	WEB	0.000	0.000	0.000	0.000	0.000	
		(8)	(8)	(9)	(6)	(8)	
1	WEB	0.000	0.000	0.000	0.000	0.000	
		(1)	(9)	(1)	(1)	(9)	

		21	22	23	24	25	26
I-GRID	PLACING	1.80	1.80	0.50	1.10	1.10	
		J	J	J	J	J	J

PROYECTO: EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.

J - D I R E C T I O N B E A M S H E A R R E I N F O R C I N G

		J	J
I-GRID	PLACING	0.50	
		26	27
23	WEB	0.000	
		(6)	
7	WEB	0.000	
		(7)	
1	WEB	0.000	
		(9)	

		26	27
I-GRID	PLACING	0.50	
		J	J

PROYECTO: EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.

I-J - D I R E C T I O N B E A M F L E X U R A L R E I N F O R C I N G

		I	I	I	I	I	I
	PLACING						
		1	2	3	4	5	6
J 1							
	TOP						
	BOTTOM						
J 2							
J 2							
	TOP						
	BOTTOM						
J 3							
J 3							
	TOP						
	BOTTOM						

```
J    1
J    1

                    TOP
                 BOTTOM

J    5
J    5

                    TOP
                 BOTTOM

J    6
J    6

                    TOP
                 BOTTOM

J    7
J    7

                    TOP
                 BOTTOM

J    8
J    8

                    TOP
                 BOTTOM

J    9
J    9

                    TOP
                 BOTTOM

J   10
J   10

                    TOP
                 BOTTOM

J   11
J   11

                    TOP
                 BOTTOM

J   12
J   12

                    TOP
                 BOTTOM

J   13
                          1       2       3       4       5       6
                  PLACING
                          I       I       I       I       I       I
CSI / SAFE - SLAB AND BASEMAT ANALYSIS BY THE FINITE ELEMENT METHOD      38
                                SAFE_FILE:pmtcim1 PST/SAFERC_FILE.dictmmat.OUT
PROYECTO: EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.

IJ - D I R E C T I O N   B E A M   F L E X U R A L   R E I N F O R C I N G

                          1       I       1       I       I       I
                  PLACING
                          6       7       8       9      10      11
J    1

                    TOP
                 BOTTOM

J    2
J    2
```

```
                    TOP
                 BOTTOM

J    3
J    3

                    TOP
                 BOTTOM

J    4
J    4

                    TOP
                 BOTTOM

J    5
J    5

                    TOP
                 BOTTOM

J    6
J    6

                    TOP
                 BOTTOM

J    7
J    7

                    TOP
                 BOTTOM

J    8
J    8

                    TOP
                 BOTTOM

J    9
J    9

                    TOP
                 BOTTOM

J   10
J   10

                    TOP
                 BOTTOM

J   11
J   11

                    TOP
                 BOTTOM

J   12
J   12

                    TOP
                 BOTTOM

J   13
                          6       7       8       9      10      11
                  PLACING
                          I       I       I       I       I       I
CSI / SAFE - SLAB AND BASEMAT ANALYSIS BY THE FINITE ELEMENT METHOD      39
                                SAFE_FILE.pmtcim1 PST/SAFERC_FILE.dictmmat.OUT
PROYECTO. EDIFICIO
DISEÑO DE CIMENTACION, M.K.S

IJ - D I R E C T I O N   B E A M   F L E X U R A L   R E I N F O R C I N G

                          I       I       I       I       I       I
```

		PLACING	11	12	13	14	15	16
J	1							
		TOP	(7) 6.730					
		BOTTOM						
J	2							
J	2							
		TOP		(7) 10.064				
		BOTTOM		0.025 (8)				
J	3							
J	3							
		TOP			(7) 10.586			
		BOTTOM			0.428 (8)			
J	4							
J	4							
		TOP				(4) 7.987		
		BOTTOM				0.701 (8)		
J	5							
J	5							
		TOP					(4) 5.416	
		BOTTOM					1.356 (3)	
J	6							
J	6							
		TOP						
		BOTTOM						
J	7							
J	7							
		TOP						
		BOTTOM						
J	8							
J	8							
		TOP						
		BOTTOM						
J	9							
J	9							
		TOP						
		BOTTOM						
J	10							
J	10							
		TOP						
		BOTTOM						
J	11							
J	11							
		TOP						
		BOTTOM						
J	12							
J	12							
		TOP						
		BOTTOM						
J	13							
		PLACING	11	12	13	14	15	16

PROYECTO: EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.

IJ - D I R E C T I O N B E A M F L E X U R A L R E I N F O R C I N G

			I	I	I	I	I	I
		PLACING	16	17	18	19	20	21
J	1							
		TOP						
		BOTTOM						
J	2							
J	2							
		TOP						
		BOTTOM						
J	3							
J	3							
		TOP						
		BOTTOM						
J	4							
J	4							
		TOP						
		BOTTOM						
J	5							
J	5							
		TOP						
		BOTTOM						
J	6							
J	6							
		TOP	(4) 3.280					
		BOTTOM	1.461 (3)					
J	7							
J	7							
		TOP		(5) 1.930				
		BOTTOM		1.026 (2)				
J	8							
J	8							
		TOP			(5) 1.256			
		BOTTOM			0.499 (2)			
J	9							
J	9							
		TOP				(9) 1.896		
		BOTTOM				0.332 (6)		
J	10							
J	10							
		TOP					(9) 2.960	
		BOTTOM					0.652 (7)	
J	11							
J	11							
		TOP						
		BOTTOM						

```
J   11
J   12

                    TOP
                 BOTTOM

J   13
                          16        17        18        19        20        21
                 PLACING
                          I         I         I         I         I         I
CSI / SAFE - SLAB AND BASEMAT ANALYSIS BY THE FINITE ELEMENT METHOD      41
                                    SAFE FILE:paicim3.PST/SAFERC_FILE.diciment.OUT
PROYECTO: EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.

IJ - D I R E C T I O N   B E A M   F L E X U R A L   R E I N F O R C I N G

                          I         I         I
                 PLACING
                          21        22        23
J   1

                    TOP
                 BOTTOM

J   2
J   2

                    TOP
                 BOTTOM

J   3
J   3

                    TOP
                 BOTTOM

J   4
J   4

                    TOP
                 BOTTOM

J   5
J   5

                    TOP
                 BOTTOM

J   6
J   6

                    TOP
                 BOTTOM

J   7
J   7

                    TOP
                 BOTTOM

J   8
J   8

                    TOP
                 BOTTOM

J   9
J   9

                    TOP
                 BOTTOM

J   10
J   10
```

```
                    TOP
                 BOTTOM

J   11
J   11
                          ( 8)
                    TOP   3.936
                 BOTTOM   0.514
                          ( 7)
J   12
J   12
                                    ( 9)
                    TOP             4 782
                 BOTTOM             1 620
                                    ( 7)
J   13
                          21        22        23
                 PLACING
                          I         I         I
CSI / SAFE - SLAB AND BASEMAT ANALYSIS BY THE FINITE ELEMENT METHOD      4.
                                    SAFE_FILE:pai.im3 PST/SAFERC_FILE diciment OUT
PROYECTO: EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.

IJ - D I R E C T I O N   B E A M   S H E A R   R E I N F O R C I N G

                          I         I         I         I         I         I
                 PLACING
                          1         2         3         4         5         6
J   1
                    WEB

J   2
J   2
                    WEB

J   3
J   3
                    WEB

J   4
J   4
                    WEB

J   5
J   5
                    WEB

J   6
J   6
                    WEB

J   7
J   7
                    WEB

J   8
J   8
                    WEB

J   9
J   9
                    WEB

J   10
J   10
                    WEB

J   11
J   11
                    WEB

J   12
J   12
                    WEB
```

```
J    13

                          1        2        3        4        5        6
                PLACING
                          I        I        I        I        I        I
CSI / SAFE - SLAB AND BASEMAT ANALYSIS BY THE FINITE ELEMENT METHOD      43
                                    SAFE_FILE:pmicim3.PST/SAFERC_FILE:diciment.OUT
PROYECTO. EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.

IJ - D I R E C T I O N   B E A M   S H E A R   R E I N F O R C I N G

                          I        I        I        I        I        I
                PLACING
                          6        7        8        9       10       11
J    1
                     WEB

J    2
J    2
                     WEB

J    3
J    3
                     WEB

J    4
J    4
                     WEB

J    5
J    5
                     WEB

J    6
J    6
                     WEB

J    7
J    7
                     WEB

J    8
J    8
                     WEB

J    9
J    9
                     WEB

J   10
J   10
                     WEB

J   11
J   11
                     WEB

J   12
J   12
                     WEB

J   13
                          6        7        8        9       10       11
                PLACING
                          I        I        I        I        I        I
CSI / SAFE - SLAB AND BASEMAT ANALYSIS BY THE FINITE ELEMENT METHOD      44
                                    SAFE_FILE:pmicim3.PST/SAFERC_FILE:diciment.OUT
PROYECTO: EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.

IJ - D I R E C T I O N   B E A M   S H E A R   R E I N F O R C I N G

                          I        I        I        I        I        I
                PLACING
                         11       12       13       14       15       16
J    1
                     WEB      0.000
                              ( 7)
J    2
J    2
                     WEB               0.000
                                       ( 7)
J    3
J    3
                     WEB                        0.000
                                                ( 2)
J    4
J    4
                     WEB                                 0.000
                                                         ( 7)
J    5
J    5
                     WEB                                          0.000
                                                                  ( 7)
J    6
J    6
                     WEB

J    7
J    7
                     WEB

J    8
J    8
                     WEB

J    9
J    9
                     WEB

J   10
J   10
                     WEB

J   11
J   11
                     WEB

J   12
J   12
                     WEB

J   13
                         11       12       13       14       15       16
                PLACING
                          I        I        I        I        I        I
CSI / SAFE - SLAB AND BASEMAT ANALYSIS BY THE FINITE ELEMENT METHOD      45
                                    SAFE_FILE:pmicims.PST/SAFERC_FILE.diciment.OUT
PROYECTO: EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.

IJ - D I R E C T I O N   B E A M   S H E A R   R E I N F O R C I N G

                          I        I        I        I        I        I
                PLACING
                         16       17       18       19       20       21
J    1
                     WEB

J    2
J    2
                     WEB

J    3
J    3
                     WEB

J    4
J    4
                     WEB

J    5
```

```
J    5
                WEB

J    6
J    6
                WEB      0.000
                         ( 4)

J    7
J    7
                WEB               0.000
                                  ( 4)

J    8
J    8
                WEB                        0.000
                                           ( 4)

J    9
J    9
                WEB                                 0.000
                                                    ( 7)

J    10
J    10
                WEB                                          0.000
                                                             ( 8)

J    11
J    11
                WEB

J    12
J    12
                WEB

J    13
                          16        17        18        19        20        21
                PLACING
                           I         I         I         I         I         I
```


PROYECTO: EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.

IJ - D I R E C T I O N B E A M S H E A R R E I N F O R C I N G

```
                           I         I         I
                PLACING
                          21        22        23
J    1
                WEB

J    2
J    2
                WEB

J    3
J    3
                WEB

J    4
J    4
                WEB

J    5
J    5
                WEB

J    6
J    6
                WEB

J    7
J    7
                WEB

J    8
J    8
                WEB
```

```
J    9
J    9
                WEB

J    10
J    10
                WEB

J    11
J    11
                WEB      0.000
                         ( 3)

J    12
J    12
                WEB               0.000
                                  ( 6)

J    13
                          21        22        23
                PLACING
                           I         I         I
```


PROYECTO: EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.

JI - D I R E C T I O N B E A M F L E X U R A L R E I N F O R C I N G

```
                           I         I         I         I         I         I
                PLACING
                           1         2         3         4         5         6
J    1
                TOP
                BOTTOM

J    2
J    2
                TOP
                BOTTOM

J    3
J    3
                TOP
                BOTTOM

J    4
J    4
                TOP
                BOTTOM

J    5
J    5
                TOP
                BOTTOM

J    6
J    6
                                                                      ( 7)
                TOP                                                26.563
                BOTTOM                                              1.769
                                                                    ( 8)

J    7
J    7
                                                  ( 7)
                TOP                              20.692
                BOTTOM

J    8
J    8
                                       ( 7)
                TOP                   15.096
                BOTTOM
```

J 9
J 9

(7)
TOP 11.945
BOTTOM

J 10
J 10

(1)
TOP 7.513
BOTTOM

J 11

I 1 2 3 4 5 6
PLACING
I I I I I I

PROYECTO: EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.

JI - D I R E C T I O N B E A M F L E X U R A L R E I N F O R C I N G

I I I I I I
PLACING
6 7 8 9 10 11

J 1

(7)
TOP 13.974
BOTTOM

J 2
J 2

(7)
TOP 23.204
BOTTOM 9.486
(8)

J 3
J 3

(7)
TOP 34.634
BOTTOM 2.358
(8)

J 4
J 4

(7)
TOP 41.761
BOTTOM 4.144
(9)

J 5
J 5

(7)
TOP 33.844
BOTTOM 9.098
(8)

J 6
J 6

TOP
BOTTOM

J 7
J 7

TOP
BOTTOM

J 8
J 8

TOP
BOTTOM

J 9
J 9

TOP
BOTTOM

J 10
J 10

TOP
BOTTOM

J 11

6 7 8 9 10 11
PLACING
I I I I I I

PROYECTO: EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.

JI - D I R E C T I O N B E A M F L E X U R A L R E I N F O R C I N G

I I I I I I
PLACING
11 12 13 14 15 16

J 1

TOP
BOTTOM

J 2
J 2

TOP
BOTTOM

J 3
J 3

TOP
BOTTOM

J 4
J 4

TOP
BOTTOM

J 5
J 5

TOP
BOTTOM

J 6
J 6

TOP
BOTTOM

J 7
J 7

TOP
BOTTOM

J 8
J 8

TOP
BOTTOM

J 9
J 9

TOP
BOTTOM

J 10
J 10

TOP
BOTTOM

J 11

PLACING 11 12 13 14 15 16

CSI / SAFE - SLAB AND BASEMAT ANALYSIS BY THE FINITE ELEMENT METHOD 50
SAFE_FILE:pmicim3.PST/SAFERC_FILE:dicament.OUT

PROYECTO, EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.

JI - D I R E C T I O N B E A M F L E X U R A L R E I N F O R C I N G

PLACING 16 17 18 19 20 21

J 1

TOP
BOTTOM

J 2
J 2

TOP
BOTTOM

J 3
J 3

TOP
BOTTOM

J 4
J 4

TOP
BOTTOM

J 5
J 5

TOP
BOTTOM

J 6
J 6

TOP
BOTTOM

J 7
J 7

TOP
BOTTOM

J 8
J 8

TOP
BOTTOM

J 9
J 9

TOP
BOTTOM

J 10
J 10

TOP
BOTTOM

J 11

PLACING 16 17 18 19 20 21

CSI / SAFE - SLAB AND BASEMAT ANALYSIS BY THE FINITE ELEMENT METHOD 51
SAFE_FILE:pmicim3.PST/SAFERC_FILE:dicament.OUT

PROYECTO: EDIFICIO
DISEÑO DE CIMENTACION, M.K.S

JI - D I R E C T I O N B E A M F L E X U R A L R E I N F O R C I N G

PLACING 21 22 23

J 1

TOP
BOTTOM

J 2
J 2

TOP
BOTTOM

J 3
J 3

TOP
BOTTOM

J 4
J 4

TOP
BOTTOM

J 5
J 5

TOP
BOTTOM

J 6
J 6

TOP
BOTTOM

J 7
J 7

TOP
BOTTOM

J 8
J 8

TOP
BOTTOM

J 9
J 9

TOP
BOTTOM

J 10
J 10

TOP
BOTTOM

```
J   11
                        21        22        23
                PLACING  I         I         I
CSI / SAFE - SLAB AND BASEMAT ANALYSIS BY THE FINITE ELEMENT METHOD      5.
                                SAFE_FILE:pmaciml.PST/SAFERC_FILE:diciment.OUT
PROYECTO: EDIFICIO
DISEÑO DE CIMENTACION, N.K.S

JI - D I R E C T I O N   B E A M   S H E A R   R E I N F O R C I N G

                        I         I         I         I         I         I
                PLACING  1         2         3         4         5         6
J    1
                   WEB
J    2
J    2
                   WEB
J    3
J    3
                   WEB
J    4
J    4
                   WEB
J    5
J    5
                   WEB
J    6
J    6
                   WEB                                                 0.000
                                                                       ( 7)
J    7
J    7
                   WEB                                       0.000
                                                             ( 7)
J    8
J    8
                   WEB                             0.000
                                                   ( 6)
J    9
J    9
                   WEB                   0.000
                                         ( 7)
J   10
J   10
                   WEB         0.000
                               ( 7)
J   11
                        1         2         3         4         5         6
                PLACING  I         I         I         I         I         I
CSI / SAFE - SLAB AND BASEMAT ANALYSIS BY THE FINITE ELEMENT METHOD      53
                                SAFE_FILE:pmaciml.PST/SAFERC_FILE:diciment.OUT
PROYECTO: EDIFICIO
DISEÑO DE CIMENTACION, N.K.S.

JI - D I R E C T I O N   B E A M   S H E A R   R E I N F O R C I N G

                        I         I         I         I         I         I
                PLACING  6         7         8         9        10        11
J    1
                   WEB                                                 0.000
                                                                       ( 6)
J    2
J    2
                   WEB                                       0.000
                                                             ( 1)
J    3
```

```
J    3
                   WEB                                       0.000
                                                             ( 6)
J    4
J    4
                   WEB                             0.000
                                                   ( 7)
J    5
J    5
                   WEB         0.000
                               ( 7)
J    6
J    6
                   WEB
J    7
J    7
                   WEB
J    8
J    8
                   WEB
J    9
J    9
                   WEB
J   10
J   10
                   WEB
J   11
                        6         7         8         9        10        11
                PLACING  I         I         I         I         I         I
CSI / SAFE - SLAB AND BASEMAT ANALYSIS BY THE FINITE ELEMENT METHOD      54
                                SAFE_FILE:pmaciml.PST/SAFERC_FILE:diciment.OUT
PROYECTO: EDIFICIO
DISEÑO DE CIMENTACION, N.K.S.

JI - D I R E C T I O N   B E A M   S H E A R   R E I N F O R C I N G

                        I         I         I         I         I         I
                PLACING 11        12        13        14        15        16
J    1
                   WEB
J    2
J    2
                   WEB
J    3
J    3
                   WEB
J    4
J    4
                   WEB
J    5
J    5
                   WEB
J    6
J    6
                   WEB
J    7
J    7
                   WEB
J    8
J    8
                   WEB
```

```
J     9
J     9
                    WEB

J    10
J    10
                    WEB

J    11
                         11        12        13        14        15        16
                  PLACING
                         I         I         I         I         I         I
```


PROYECTO: EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.

JI - D I R E C T I O N B E A M S H E A R R E I N F O R C I N G

```
                         I         I         I         I         I         I
                  PLACING
                        16        17        18        19        20        21
J     1
                    WEB

J     2
J     2
                    WEB

J     3
J     3
                    WEB

J     4
J     4
                    WEB

J     5
J     5
                    WEB

J     6
J     6
                    WEB

J     7
J     7
                    WEB

J     8
J     8
                    WEB

J     9
J     9
                    WEB

J    10
J    10
                    WEB

J    11
                        16        17        18        19        20        21
                  PLACING
                         I         I         I         I         I         I
```


PROYECTO: EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.

JI - D I R E C T I O N B E A M S H E A R R E I N F O R C I N G

```
                         I         I         I
                  PLACING
                        21        22        23
J     1
                    WEB

J     2
J     2
                    WEB

J     3
J     3
                    WEB

J     4
J     4
                    WEB

J     5
J     5
                    WEB

J     6
J     6
                    WEB

J     7
J     7
                    WEB

J     8
J     8
                    WEB

J     9
J     9
                    WEB

J    10
J    10
                    WEB

J    11
                        21        22        23
                  PLACING
                         I         I         I
```


PROYECTO: EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.

S L A B R E I N F O R C I N G D E S I G N

I-DIRECTION SEGMENT NUMBER---------- 1

NUMBER OF STRIPS IN SEGMENT---------- 13

I-GRID NUMBER AT START OF SEGMENT---------- 1

I-GRID NUMBER AT END OF SEGMENT---------- 2

STRIP NO	STRIP ID	START J-GRID	END J-GRID	STRIP WIDTH
1	*	1	3	0.910
2	*	3	5	0.910
3	*	5	7	0.910
4	*	7	9	0.910
5	*	9	11	0.910
6	*	11	13	0.910
7	*	13	15	1.000
8	*	15	17	1.000
9	*	17	19	1.100
10	*	19	21	1.100
11	*	21	23	1.000
12	*	23	25	1.000
13	*	25	27	1.000

PROYECTO, EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.

S L A B R E I N F O R C I N G F O R I - S E G M E N T 1

STRIP	WIDTH	PLACING	I 1	I 1.21	I 2
		J 1			
*	0.91	TOP			
*	0.91	BOTTOM			
		J 3			
		J 3			
*	0.91	TOP			
*	0.91	BOTTOM			
		J 5			
		J 5			
*	0.91	TOP			
*	0.91	BOTTOM			
		J 7			
		J 7			
*	0.91	TOP			
*	0.91	BOTTOM			
		J 9			
		J 9	(7)		
*	0.91	TOP	28.274		
*	0.91	BOTTOM	6.330		
		J 11	(7)		
		J 11	(7)		
*	0.91	TOP	28.449		
*	0.91	BOTTOM	3.788		
		J 13	(7)		
		J 13	(6)		
*	3.66	TOP	15.858		
*	3.66	BOTTOM	1.900		
		J 15	(7)		
		J 15	(6)		
*	2.06	TOP	17.174		
*	2.06	BOTTOM	1.310		
		J 17	(7)		
		J 17	(6)		
*	2.10	TOP	18.041		
*	2.10	BOTTOM	3.139		
		J 19	(7)		
		J 19	(6)		
*	3.10	TOP	17.166		
*	3.10	BOTTOM	0.891		
		J 21	(7)		
		J 21	(5)		
*	3.66	TOP	18.680		
*	3.66	BOTTOM	1.298		
		J 23	(1)		
		J 23	(5)		
*	1.60	TOP	24.679		
*	1.60	BOTTOM	1.137		
		J 25	(1)		
		J 25	(5)		
*	1.60	TOP	24.038		
*	1.60	BOTTOM	.833		

J 27 (9)

STRIP	WIDTH	PLACING	1	1.21	2

PROYECTO, EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.

S L A B R E I N F O R C I N G D E S I G N

I-DIRECTION SEGMENT NUMBER---------- 2

NUMBER OF STRIPS IN SEGMENT---------- 11

I-GRID NUMBER AT START OF SEGMENT---------- 2

I-GRID NUMBER AT END OF SEGMENT---------- 3

STRIP NO	STRIP ID	START J-GRID	END J-GRID	STRIP WIDTH
1	*	1	3	0.910
2	*	3	5	0.910
3	*	5	7	0.910
4	*	7	9	0.910
5	*	9	11	0.910
6	*	11	13	0.910
7	*	13	15	1.600
8	*	15	17	2.000
9	*	17	19	2.100
10	*	19	21	3.100
11	*	21	23	3.000
12	*	23	25	1.600
13	*	26	27	1.600

PROYECTO: EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.

S L A B R E I N F O R C I N G F O R I - S E G M E N T 2

STRIP	WIDTH	PLACING	I 2	I 1.22	I 3
		J 1			
*	0.91	TOP			
*	0.91	BOTTOM			
		J 3			
		J 3			
*	0.91	TOP			
*	0.91	BOTTOM			
		J 5			
		J 5			
*	0.91	TOP			
*	0.91	BOTTOM			
		J 7			
		J 7			
*	0.91	TOP			
*	0.91	BOTTOM			
		J 9			
		J 9	(7)		
*	0.91	TOP	29.996		
*	0.91	BOTTOM			
		J 11			

		J 11	(7)	
*	0.91	TOP	22.417	
*	0.91	BOTTOM		
		J 13		
		J 13	(7)	
*	3.60	TOP	22.757	
*	3.60	BOTTOM		
		J 15		
		J 15	(4)	
*	2.00	TOP	20.481	
*	2.00	BOTTOM		
		J 17		
		J 17	(4)	
*	2.10	TOP	22.905	
*	2.10	BOTTOM		
		J 19		
		J 19	(4)	
*	3.10	TOP	22.293	
*	3.10	BOTTOM		
		J 21		
		J 21	(5)	
*	3.60	TOP	25.754	
*	3.60	BOTTOM		
		J 23		
		J 23	(1)	
*	1.60	TOP	30.128	
*	1.60	BOTTOM		
		J 25		
		J 25	(1)	
*	1.60	TOP	34.906	
*	1.60	BOTTOM		
		J 27		

		2	3
STRIP	WIDTH	PLACING	1.22
		I	I

PROYECTO. EDIFICIO
DISEÑO DE CIMENTACION, M.K S.

S L A B R E I N F O R C I N G D E S I G N

I-DIRECTION SEGMENT NUMBER---------- 3

NUMBER OF STRIPS IN SEGMENT---------- 13

I-GRID NUMBER AT START OF SEGMENT---------- 3

I-GRID NUMBER AT END OF SEGMENT---------- 4

STRIP NO	STRIP ID	START J-GRID	END J-GRID	STRIP WIDTH
1	*	1	3	0.910
2	*	3	5	0.910
3	*	5	7	0.910
4	*	7	9	0.910
5	*	9	11	0.910
6	*	11	13	0.910
7	*	13	15	1.600
8	*	15	17	2.000
9	*	17	19	2.100
10	*	19	21	3.100
11	*	21	23	3.600
12	*	23	25	1.600
13	*	25	27	1.600

PROYECTO: EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.

S L A B R E I N F O R C I N G F O R I - S E G M E N T -

				I	I
STRIP	WIDTH	PLACING		1.21	
				3	4
		J 1			
*	0.91	TOP			
*	0.91	BOTTOM			
		J 3			
		J 3			
*	0.91	TOP			
*	0.91	BOTTOM			
		J 5			
		J 5			
*	0.91	TOP			
*	0.91	BOTTOM			
		J 7			
		J 7	(7)		
*	0.91	TOP	43.295		
*	0.91	BOTTOM			
		J 9			
		J 9	(7)		
*	0.91	TOP	33.842		
*	0.91	BOTTOM			
		J 11			
		J 11	(7)		
*	0.91	TOP	35.596		
*	0.91	BOTTOM			
		J 13			
		J 13	(7)		
*	3.60	TOP	21.736		
*	3.60	BOTTOM			
		J 15			
		J 15	(4)		
*	2.00	TOP	22.090		
*	2.00	BOTTOM	2.992		
		J 17	(4)		
		J 17	(4)		
*	2.10	TOP	22.203		
*	2.10	BOTTOM			
		J 19			
		J 19	(4)		
*	3.10	TOP	22.977		
*	3.10	BOTTOM			
		J 21			
		J 21	(5)		
*	3.60	TOP	25.489		
*	3.60	BOTTOM			
		J 23			
		J 23	(1)		
*	1.60	TOP	48.918		
*	1.60	BOTTOM			
		J 25			
		J 25	(1)		

```
*          1.60      TOP     17.546
*          1.60   BOTTOM
                    J 27

                          3         4
STRIP     WIDTH PLACING       1.21
                          I         I
```


PROYECTO: EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.

S L A B R E I N F O R C I N G D E S I G N

I-DIRECTION SEGMENT NUMBER---------- 4

NUMBER OF STRIPS IN SEGMENT---------- 13

I-GRID NUMBER AT START OF SEGMENT---------- 4

I-GRID NUMBER AT END OF SEGMENT---------- 5

STRIP NO	STRIP ID	START J-GRID	END J-GRID	STRIP WIDTH
1	*	1	3	0.910
2	*	3	5	0.910
3	*	5	7	0.910
4	*	7	9	0.910
5	*	9	11	0.910
6	*	11	13	0.910
7	*	13	15	1.600
8	*	15	17	2.000
9	*	17	19	2.100
10	*	19	21	3.100
11	*	21	23	1.600
12	*	23	25	1.600
13	*	25	27	1.600

PROYECTO: EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.

S L A B R E I N F O R C I N G F O R I - S E G M E N T 4

```
                          I         I
STRIP     WIDTH PLACING       1.22
                          4         5

                    J  1
*          0.91      TOP
*          0.91   BOTTOM
                    J  3

                    J  3
*          0.91      TOP
*          0.91   BOTTOM
                    J  5

                    J  5
*          0.91      TOP
*          0.91   BOTTOM
                    J  7

                    J  7      (  7)
*          0.91      TOP     53.577
*          0.91   BOTTOM      1.274
                    J  9      (  8)

                    J  9      (  7)
*          0.91      TOP     48.864
*          0.91   BOTTOM      0.086
                    J 11      (  8)

                    J 11      (  7)
*          0.91      TOP     44.259
*          0.91   BOTTOM
                    J 13

                    J 13      (  4)
*          3.60      TOP      2.721
*          3.60   BOTTOM      0.054
                    J 15      (  8)

                    J 15      (  4)
*          2.00      TOP      3.846
*          2.00   BOTTOM      0.000
                    J 17      (  8)

                    J 17      (  4)
*          2.10      TOP      3.625
*          2.10   BOTTOM
                    J 19

                    J 19      (  4)
*          3.10      TOP      4.037
*          3.10   BOTTOM
                    J 21

                    J 21      (  4)
*          3.60      TOP      3.107
*          3.60   BOTTOM
                    J 23

                    J 23      (  1)
*          1.60      TOP     60.485
*          1.60   BOTTOM
                    J 25

                    J 25      (  1)
*          1.60      TOP     61.465
*          1.60   BOTTOM
                    J 27

                          4         5
STRIP     WIDTH PLACING       1.22
                          I         I
```


PROYECTO EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.

S L A B R E I N F O R C I N G D E S I G N

I-DIRECTION SEGMENT NUMBER---------- 5

NUMBER OF STRIPS IN SEGMENT---------- 13

I-GRID NUMBER AT START OF SEGMENT---------- 5

I-GRID NUMBER AT END OF SEGMENT---------- 6

STRIP NO	STRIP ID	START J-GRID	END J-GRID	STRIP WIDTH
1	*	1	3	0.910
2	*	3	5	0.910
3	*	5	7	0.910
4	*	7	9	0.910
5	*	9	11	0.910
6	*	11	13	0.910
7	*	13	15	1.600
8	*	15	17	2.000
9	*	17	19	2.100

10	*	19	21	3.100
11	*	21	23	3.600
12	*	23	25	1.600
13	*	25	27	1.600

PROYECTO: EDIFICIO
DISEÑO DE CIMENTACION, M.K S.

S L A B R E I N F O R C I N G F O R I - S E G M E N T 5

STRIP	WIDTH	PLACING	I 5	I 6
		J 1		
*	0.91	TOP		
*	0.91	BOTTOM		
		J 3		
		J 3		
*	0.91	TOP		
*	0.91	BOTTOM		
		J 5		
		J 5	(7)	
*	0.91	TOP	70.649	
*	0.91	BOTTOM	3.375	
		J 7	(8)	
		J 7	(7)	
*	0.91	TOP	67.150	
*	0.91	BOTTOM	1.809	
		J 9	(8)	
		J 9	(7)	
*	0.91	TOP	67.638	
*	0.91	BOTTOM	0.768	
		J 11	(8)	
		J 11	(7)	
*	0.91	TOP	56.158	
*	0.91	BOTTOM	1.172	
		J 13	(8)	
		J 13	(7)	
*	3.60	TOP	1.116	
*	3.60	BOTTOM	0.155	
		J 15	(8)	
		J 15	(6)	
*	2.00	TOP	1.470	
*	2.00	BOTTOM		
		J 17		
		J 17	(8)	
*	2.10	TOP	2.061	
*	2.10	BOTTOM		
		J 19		
		J 19	(8)	
*	3.10	TOP	1.713	
*	3.10	BOTTOM		
		J 21		
		J 21	(5)	
*	3.60	TOP	1.459	
*	3.60	BOTTOM		
		J 23		
		J 23	(1)	
*	1.60	TOP	67.771	
*	1.60	BOTTOM		
		J 25		
		J 25	(1)	
*	1.60	TOP	61.054	
*	1.60	BOTTOM		
		J 27		

STRIP	WIDTH	PLACING	5 1	6 21

PROYECTO: EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.

S L A B R E I N F O R C I N G D E S I G N

I-DIRECTION SEGMENT NUMBER----------	6
NUMBER OF STRIPS IN SEGMENT----------	13
I-GRID NUMBER AT START OF SEGMENT----------	6
I-GRID NUMBER AT END OF SEGMENT----------	7

STRIP NO	STRIP ID	START J-GRID	END J-GRID	STRIP WIDTH
1	*	1	3	0.910
2	*	3	5	0.910
3	*	5	7	0.910
4	*	7	9	0.910
5	*	9	11	0.910
6	*	11	13	0.910
7	*	13	15	3.600
8	*	15	17	2.000
9	*	17	19	2.100
10	*	19	21	3.100
11	*	21	23	3.600
12	*	23	25	1.600
13	*	25	27	1.600

PROYECTO: EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.

S L A B R E I N F O R C I N G F O R I - S E G M E N T 6

STRIP	WIDTH	PLACING	I 6	I 7
		J 1		
*	0.91	TOP		
*	0.91	BOTTOM		
		J 3		
		J 3		
*	0.91	TOP		
*	0.91	BOTTOM		
		J 5		
		J 5	(7)	
*	0.91	TOP	51.323	
*	0.91	BOTTOM	5.583	
		J 7	(8)	
		J 7	(7)	
*	0.91	TOP	51.866	
*	0.91	BOTTOM	1.763	
		J 9	(6)	

```
                    J  9        ( 7)
*          0.91      TOP      50.680
*          0.91   BOTTOM       2.274
                    J 11        ( 8)

                    J 11        ( 7)
*          0.91      TOP      56.677
*          0.91   BOTTOM       6.253
                    J 13        ( 8)

                    J 13        ( 7)
*          3.60      TOP       1.316
*          3.60   BOTTOM       0.061
                    J 15        ( 8)

                    J 15        ( 7)
*          2.00      TOP       1.070
*          2.00   BOTTOM
                    J 17

                    J 17        ( 6)
*          2.10      TOP       1.526
*          2.10   BOTTOM
                    J 19

                    J 19        ( 6)
*          3.10      TOP       1.154
*          3.10   BOTTOM
                    J 21

                    J 21        ( 1)
*          3.60      TOP       1.340
*          3.60   BOTTOM
                    J 23

                    J 23        ( 1)
*          1.60      TOP      60.137
*          1.60   BOTTOM
                    J 25

                    J 25        ( 1)
*          1.60      TOP      61.035
*          1.60   BOTTOM
                    J 27

                          6         7
STRIP     WIDTH PLACING     1 22      1
                          I         I
CSI / SAFE - SLAB AND BASEMAT ANALYSIS BY THE FINITE ELEMENT METHOD      69
                                SAFE_FILE:pmicim3.PST/SAFERC_FILE:diciment.OUT
PROYECTO: EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.

S L A B   R E I N F O R C I N G   D E S I G N

I-DIRECTION SEGMENT NUMBER----------------          7

NUMBER OF STRIPS IN SEGMENT---------------         13

I-GRID NUMBER AT START OF SEGMENT----------          7

I-GRID NUMBER AT END  OF SEGMENT----------          8


 STRIP  STRIP       START       END        STRIP
   NO   ID         J-GRID     J-GRID      WIDTH

    1   *             1          3        0.910
    2   *             3          5        0.910
    3   *             5          7        0.910
    4   *             7          9        0.910
    5   *             9         11        0.910
    6   *            11         13        0.910
    7   *            13         15        3.600
    8   *            15         17        2.000
    9   *            17         19        2.100
   10   *            19         21        3.100
   11   *            21         23        3.600
   12   *            23         25        1.600
   13   *            25         27        1.600
CSI / SAFE - SLAB AND BASEMAT ANALYSIS BY THE FINITE ELEMENT METHOD      70
                                SAFE_FILE:pmicim3.PST/SAFERC_FILE:diciment.OUT
PROYECTO: EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.

S L A B   R E I N F O R C I N G   F O R   I - S E G M E N T

                          I         I
STRIP     WIDTH PLACING     1.21
                          7         8

                    J  1
*          0.91      TOP
*          0.91   BOTTOM
                    J  3

                    J  3        ( 7)
*          0.91      TOP      97.091
*          0.91   BOTTOM       4.308
                    J  5        ( 8)

                    J  5        ( 7)
*          0.91      TOP      43.847
*          0.91   BOTTOM       4.572
                    J  7        ( 8)

                    J  7        ( 7)
*          0.91      TOP       2.892
*          0.91   BOTTOM       0.198
                    J  9        ( 8)

                    J  9        ( 7)
*          0.91      TOP       2.826
*          0.91   BOTTOM       0.234
                    J 11        ( 8)

                    J 11        ( 7)
*          0.91      TOP      82.981
*          0.91   BOTTOM       6.953
                    J 13        ( 8)

                    J 13        ( 7)
*          3.60      TOP       2.326
*          3.60   BOTTOM       0.672
                    J 15        ( 8)

                    J 15        ( 1)
*          2.00      TOP       2.156
*          2.00   BOTTOM       0.324
                    J 17        ( 9)

                    J 17        ( 6)
*          2.10      TOP       2.664
*          2.10   BOTTOM       0.072
                    J 19        ( 9)

                    J 19        ( 1)
*          3.10      TOP       2.534
*          3.10   BOTTOM       0.409
                    J 21        ( 8)

                    J 21        ( 1)
*          3.60      TOP       2.552
*          3.60   BOTTOM       0.429
                    J 23        ( 7)

                    J 23        ( 1)
*          1.60      TOP      61.912
```

```
*          1.60   BOTTOM
                    J 25

                    J 25        ( 1,
*          1.60     TOP       60.451
*          1.60   BOTTOM
                    J 27

                          7         8
STRIP     WIDTH PLACING     1.21
                          I         I
CSI / SAFE - SLAB AND BASEMAT ANALYSIS BY THE FINITE ELEMENT METHOD      71
                                        SAFE_FILE:pmicim3.PST/SAFERC_FILE:diciment.OUT
PROYECTO  EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.


S L A B   R E I N F O R C I N G   D E S I G N

1-DIRECTION SEGMENT NUMBER----------------          8

NUMBER OF STRIPS IN SEGMENT---------------          13

I-GRID NUMBER AT START OF SEGMENT----------          8

I-GRID NUMBER AT END   OF SEGMENT----------          9


   STRIP  STRIP        START        END         STRIP
     NO   ID          J-GRID      J-GRID       WIDTH

      1   *              1           3          0.910
      2   *              3           5          0.910
      3   *              5           7          0.910
      4   *              7           9          0.910
      5   *              9           11         0.910
      6   *              11          13         0.910
      7   *              13          15         1.600
      8   *              15          17         2.000
      9   *              17          19         2.100
     10   *              19          21         3.100
     11   *              21          23         3.600
     12   *              23          25         1.600
     13   *              25          27         1.600
CSI / SAFE - SLAB AND BASEMAT ANALYSIS BY THE FINITE ELEMENT METHOD      72
                                        SAFE_FILE:pmicim3.PST/SAFERC_FILE:diciment.OUT
PROYECTO  EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.


S L A B   R E I N F O R C I N G   F O R   I - S E C M E N T    8

                          I         I
STRIP     WIDTH PLACING     1.22
                          8         9

                    J  1
*          0.91     TOP
*          0.91   BOTTOM
                    J  3

                    J  3        ( 7)
*          0.91     TOP       73.888
*          0.91   BOTTOM        4.066
                    J  5        ( 8)

                    J  5        ( 7,
*          0.91     TOP        1.063
*          0.91   BOTTOM        0.125
                    J  7        ( 8,

                    J  7        ( 7,
*          0.91     TOP        1.774
*          0.91   BOTTOM        0.277

                    J  9        ( 8)

                    J  9        ( 7)
*          0.91     TOP        1.466
*          0.91   BOTTOM        0.221
                    J 11        ( 8)

                    J 11        ( 7)
*          0.91     TOP       75.619
*          0.91   BOTTOM        0.782
                    J 13        ( 8)

                    J 13        ( 7)
*          3.60     TOP        0.863
*          3.60   BOTTOM        0.434
                    J 15        ( 8)

                    J 15        ( 7)
*          2.00     TOP        0.547
*          2.00   BOTTOM        0.281
                    J 17        ( 8)

                    J 17        ( 2)
*          2.10     TOP        0.844
*          2.10   BOTTOM        0.054
                    J 19        ( 8)

                    J 19        ( 1)
*          3.10     TOP        0.444
*          3.10   BOTTOM        0.024
                    J 21        ( 5)

                    J 21        ( 9)
*          3.60     TOP        0.796
*          3.60   BOTTOM        0.002
                    J 23        ( 7)

                    J 23        ( 1)
*          1.60     TOP       63.027
*          1.60   BOTTOM
                    J 25

                    J 25        ( 1)
*          1.60     TOP       57.341
*          1.60   BOTTOM
                    J 27

                          8         9
STRIP     WIDTH PLACING     1.22
                          I         I
CSI / SAFE - SLAB AND BASEMAT ANALYSIS BY THE FINITE ELEMENT METHOD      73
                                        SAFE_FILE:pmicim3.PST/SAFERC_FILE:diciment.OUT
PROYECTO  EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.


S L A B   R E I N F O R C I N G   D E S I G N

I-DIRECTION SEGMENT NUMBER----------------          9

NUMBER OF STRIPS IN SEGMENT---------------          12

I-GRID NUMBER AT START OF SEGMENT----------          9

I-GRID NUMBER AT END   OF SEGMENT----------          10


   STRIP  STRIP        START        END         STRIP
     NO   ID          J-GRID      J-GRID       WIDTH

      1   *              1           3          0.910
      2   *              3           5          0.910
      3   *              5           7          0.910
      4   *              7           9          0.910
      5   *              9           11         0.910
```

6	*	11	13	0.910
7	*	13	15	1.600
8	*	15	17	2.000
9	*	17	19	2.100
10	*	19	21	3.100
11	*	21	23	3.600
12	*	23	25	1.600
13	*	25	27	1.600

PROYECTO: EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.

S L A B R E I N F O R C I N G F O R I - S E G M E N T 9

STRIP	WIDTH	PLACING	I 9	I 10
		J 1	(7)	
*	0.91	TOP	54.074	
*	0.91	BOTTOM	1.082	
		J 3	(8)	
		J 3	(7)	
*	0.91	TOP	52.083	
*	0.91	BOTTOM	1.064	
		J 5	(8)	
		J 5	(7)	
*	0.91	TOP	1.033	
*	0.91	BOTTOM	0.128	
		J 7	(8)	
		J 7	(7)	
*	0.91	TOP	1.042	
*	0.91	BOTTOM	0.268	
		J 9	(8)	
		J 9	(7)	
*	0.91	TOP	1.349	
*	0.91	BOTTOM	0.225	
		J 11	(8)	
		J 11	(7)	
*	0.91	TOP	73.583	
*	0.91	BOTTOM	0.704	
		J 13	(8)	
		J 13	(7)	
*	3.60	TOP	0.754	
*	3.60	BOTTOM	0.380	
		J 15	(8)	
		J 15	(2)	
*	2.00	TOP	0.636	
*	2.00	BOTTOM	0.182	
		J 17	(9)	
		J 17	(2)	
*	2.10	TOP	1.206	
*	2.10	BOTTOM	0.042	
		J 19	(8)	
		J 19	(3)	
*	3.10	TOP	0.791	
*	3.10	BOTTOM	0.052	
		J 21	(5)	
		J 21	(3)	
*	3.60	TOP	0.855	
*	3.60	BOTTOM	0.005	
		J 23	(7)	

		J 23	(1)	
*	1.60	TOP	50.629	
*	1.60	BOTTOM		
		J 25		
		J 25	(1)	
*	1.60	TOP	56.208	
*	1.60	BOTTOM		
		J 27		

STRIP	WIDTH	PLACING	9 I 1.21	10 I

PROYECTO: EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.

S L A B R E I N F O R C I N G D E S I G N

I-DIRECTION SEGMENT NUMBER---------- 10

NUMBER OF STRIPS IN SEGMENT---------- 13

I-GRID NUMBER AT START OF SEGMENT---------- 10

I-GRID NUMBER AT END OF SEGMENT---------- 17

STRIP NO	STRIP ID	START J-GRID	END J-GRID	STRIP WIDTH
1	*	1	3	0.91m
2	*	3	5	0.91m
3	*	5	7	0.910
4	*	7	9	0.910
5	*	9	11	0.910
6	*	11	13	0.910
7	*	13	15	1.600
8	*	15	17	2.000
9	*	17	19	2.100
10	*	19	21	3.100
11	*	21	23	3.600
12	*	23	25	1.600
13	*	25	27	1.600

PROYECTO: EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.

S L A B R E I N F O R C I N G F O R I - S E G M E N T 10

STRIP	WIDTH	PLACING	I 10	I 11	I 12	I 13	I 14	I 15
		J 1	(7)	(7)	(7)			
*	0.91	TOP	39.067	19.890	21.920			
*	0.91	BOTTOM	0.896		0.000			
		J 3	(2)		(8)			
		J 3	(7)	(7)	(7)	(7)	(7)	
*	0.91	TOP	29.691	15.325	11.240	15.760	16.638	
*	0.91	BOTTOM	0.644				0.000	
		J 5	(8)				(8)	
		J 5	(7)	(7)	(7)	(7)	(7)	
*	0.91	TOP	1.618	2.182	5.430	6.873	8.207	
*	0.91	BOTTOM	0.165	0.196				
		J 7	(8)	(7)				
		J 7	(1)	(1)	(1)	(1)	(1)	

```
*          0.0..     TOP     1.469     1.989     3.767     5.489     6.376
*          0.91   BOTTOM     0.217
                     J  9     ( 8)

                     J  9     ( 1)      ( 1)      ( 1)      ( 1)      ( 1)
*          0.91      TOP     1.170     7.159     8.487     8.893     8.926
*          0.91   BOTTOM     0.083
                     J 11     ( 8)

                     J 11     ( 7)      ( 1)      ( 1)      ( 1)      ( 1)
*          0.91      TOP    52.944    27.845    20.323    16.224    13.652
*          0.91   BOTTOM
                     J 13

                     J 13     ( 1)      ( 1)      ( 2)      ( 6)      ( 6)
*          3.60      TOP     3.018     7.889     8.556     9.144     9.959
*          3.60   BOTTOM     0.339
                     J 15     ( 8)

                     J 15     ( 2)      ( 2)      ( 2)      ( 2)      ( 2)
*          2.00      TOP     3.770     6.139     7.933     8.446     8.431
*          2.00   BOTTOM     0.202     1.118
                     J 17     ( 9)      ( 3)

                     J 17     ( 2)      ( 2)      ( 2)      ( 2)      ( 2)
*          2.10      TOP     3.565    16.522    15.028    12.604    10.961
*          2.10   BOTTOM     0.071
                     J 19     ( 5)

                     J 19     ( 3)      ( 3)      ( 3)      ( 3)      ( 3)
*          3.10      TOP     4.031     7.664     8.210     8.413     8.357
*          3.10   BOTTOM     0.143
                     J 21     ( 4)

                     J 21     ( 1)      ( 1)      ( 1)      ( 1)      ( 1)
*          3.60      TOP     3.270     9.395    10.305    10.100     9.643
*          3.60   BOTTOM     0.098
                     J 23     ( 7)

                     J 23     ( 1)      ( 1)      ( 1)      ( 1)      ( 1)
*          1.60      TOP    39.023    27.651    23.576    20.550    18.048
*          1.60   BOTTOM
                     J 25

                     J 25     ( 1)      ( 1)      ( 1)      ( 1)      ( 1)
*          1.60      TOP    36.338    23.531    21.849    19.955    17.978
*          1.60   BOTTOM
                     J 27

                          10        11        12        13        14        15
STRIP     WIDTH PLACING      1.22      0.21      0.21      0.21      0.21
                          I         I         I         I         I         I
CSI / SAFE - SLAB AND BASEMAT ANALYSIS BY THE FINITE ELEMENT METHOD       77
                                        SAFE_FILE.pmicim3.PST/SAFERC_FILE:dicament.OUT
PROYECTO: EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.

S L A B   R E I N F O R C I N G   F O R   I - S E G M E N T   10

                          I         I         I
STRIP     WIDTH PLACING      0.21      0.21
                          15        16        17

                     J  1
*          0.91      TOP
*          0.91   BOTTOM
                     J  3

                     J  3
*          0.91      TOP
*          0.91   BOTTOM
                     J  5

                     J  5     ( 7)      ( 4)
```

```
*          0...      TOP    10.664    13.234
*          0.91   BOTTOM              0.000
                     J  7              ( 6)

                     J  7     ( 1)      ( 1)
*          0.91      TOP     7.255     8.225
*          0.91   BOTTOM
                     J  9

                     J  9     ( 1)      ( 1)
*          0.91      TOP     8.944     8.821
*          0.91   BOTTOM
                     J 11

                     J 11     ( 1)      ( 1)
*          0.91      TOP    11.829    10.415
*          0.91   BOTTOM
                     J 13

                     J 13     ( 2)      ( 2)
*          3.60      TOP    10.793    11.748
*          3.60   BOTTOM
                     J 15

                     J 15     ( 2)      ( 2)
*          2.00      TOP     8.257     7.743
*          2.00   BOTTOM
                     J 17

                     J 17     ( 2)      ( 2)
*          2.10      TOP     9.744     8.745
*          2.10   BOTTOM
                     J 19

                     J 19     ( 3)      ( 3)
*          3.10      TOP     8.025     7.945
*          3.10   BOTTOM
                     J 21

                     J 21     ( 1)      ( 3)
*          3.60      TOP     9.024     8.364
*          3.60   BOTTOM
                     J 23

                     J 23     ( 1)      ( 1)
*          1.60      TOP    15.913    14.060
*          1.60   BOTTOM
                     J 25

                     J 25     ( 1)      ( 1)
*          1.60      TOP    16.912    14.118
*          1.60   BOTTOM
                     J 27

                          15        16        17
STRIP     WIDTH PLACING      0.21      0.21
                          I         I         I
CSI / SAFE - SLAB AND BASEMAT ANALYSIS BY THE FINITE ELEMENT METHOD       78
                                        SAFE_FILE.pmicim3.PST/SAFERC_FILE:dicament.OUT
PROYECTO: EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.

S L A B   R E I N F O R C I N G   D E S I G N

I-DIRECTION SEGMENT NUMBER----------                11

NUMBER OF STRIPS IN SEGMENT----------               3,

I-GRID NUMBER AT START OF SEGMENT----------         17

I-GRID NUMBER AT END   OF SEGMENT----------         21

    STRIP  STRIP        START       END         STAIR
```

NO	L-	-GRID	-GRID	WID-
1	*	1	3	0.910
2	*	3	5	0.910
3	*	5	7	0.910
4	*	7	9	0.910
5	*	9	11	0.910
6	*	11	13	0.910
7	*	13	15	3.600
8	*	15	17	2.000
9	*	17	19	2.100
10	*	19	21	3.100
11	*	21	23	3.600
12	*	23	25	1.600
13	*	25	27	1.600

PROYECTO EDIFICIO
DISEÑO DE CIMENTACION, M.K S.

S L A B R E I N F O R C I N G F O R I - S E G M E N T 11

STRIP	WIDTH	PLACING	I 0.21 17	I 0.21 18	I 0.21 19	I 0.21 20	I 0.21 21	I 0.21 22
		J 1						
*	0.91	TOP						
*	0.91	BOTTOM						
		J 3						
		J 3						
*	0.91	TOP						
*	0.91	BOTTOM						
		J 5						
		J 5						
*	0.91	TOP						
*	0.91	BOTTOM						
		J 7						
		J 7	(1)	(1,				
*	0.91	TOP	9.463	11.947				
*	0.91	BOTTOM		0.000				
		J 9		(7)				
		J 9	(1)	(1)	(1)	(1)		
*	0.91	TOP	8.754	9.005	10.051	12.615		
*	0.91	BOTTOM				0.000		
		J 11				(2)		
		J 11	(1)	(1,	(1)	(6)	(6)	
*	0.91	TOP	9.182	8.537	8.153	9.941	10.829	
*	0.91	BOTTOM						
		J 13						
		J 13	(2)	(2)	(2)	(2)	(2)	
*	3.60	TOP	11.951	9.891	8.018	6.296	4.408	
*	3.60	BOTTOM						
		J 15						
		J 15	(2)	(2,	(2)	(2)	(2)	
*	2.00	TOP	7.038	6.468	5.928	5.855	5.902	
*	2.00	BOTTOM						
		J 17						
		J 17	(2)	(2)	(2)	(2)	(3)	
*	2.10	TOP	7.947	7.013	6.211	5.417	4.467	
*	2.10	BOTTOM					0.384	
		J 19					(6)	
		J 19	(3)	(3,	(3)	(3)	(3)	
*	3.10	TOP	6.990	6.404	5.819	5.261	5.049	
*	3.10	BOTTOM						

		J 21	(3)	(3)	(3)	(3)	(3)
*	3.60	TOP	7.064	6.500	6.076	5.184	4.248
*	3.60	BOTTOM					
		J 23					
		J 23	(1)	(1)	(1)	(3)	(3)
*	1.60	TOP	12.344	10.966	9.732	9.309	9.538
*	1.60	BOTTOM					
		J 25					
		J 25	(1)	(1)	(1)	(3)	(3)
*	1.60	TOP	12.471	10.741	9.786	10.812	11.419
*	1.60	BOTTOM					
		J 27					

STRIP	WIDTH	PLACING	17 I 0.21	18 I 0.21	19 I 0.21	20 I 0.21	21 I 0.21	22 I

PROYECTO: EDIFICIO
DISEÑO DE CIMENTACION, M K.S.

S L A B R E I N F O R C I N G F O R I - S E G M E N T 11

STRIP	WIDTH	PLACING	I 0.21 22	I 0.21 23
		J 1		
*	0.91	TOP		
*	0.91	BOTTOM		
		J 3		
		J 3		
*	0.91	TOP		
*	0.91	BOTTOM		
		J 5		
		J 5		
*	0.91	TOP		
*	0.91	BOTTOM		
		J 7		
		J 7		
*	0.91	TOP		
*	0.91	BOTTOM		
		J 9		
		J 9		
*	0.91	TOP		
*	0.91	BOTTOM		
		J 11		
		J 11	(1)	
*	0.91	TOP	10.943	
*	0.91	BOTTOM	1.294	
		J 13	(6)	
		J 13	(2)	
*	3.60	TOP	2.572	
*	3.60	BOTTOM	1.010	
		J 15	(6)	
		J 15	(2)	
*	2.00	TOP	2.208	
*	2.00	BOTTOM	0.670	
		J 17	(6)	
		J 17	(3)	
*	2.10	TOP	2.869	
*	2.10	BOTTOM	2.681	

```
                    J 15        ( 7)

                    J 19        ( 2)
*           3.10      TOP       2.441
*           3.10    BOTTOM      0.496
                    J 21        ( 7)

                    J 21        ( 3)
*           3.60      TOP       2.469
*           3.60    BOTTOM      0.746
                    J 23        ( 1)

                    J 23        ( 3)
*           1.60      TOP       4.397
*           1.60    BOTTOM      0.438
                    J 25        ( 1)

                    J 25        ( 3)
*           1.60      TOP       5.838
*           1.60    BOTTOM      1.063
                    J 27        ( 9)

                          22          23
STRIP     WIDTH PLACING         0.21
                       I            I
CSI / SAFE - SLAB AND BASEMAT ANALYSIS BY THE FINITE ELEMENT METHOD      81
                                    SAFE_FILE:pmicim3.FST/SAFERC_FILE:dicimont.OUT
PROYECTO: EDIFICIO
DISEÑO DE CIMENTACION, H.K.S.


S L A B   R E I N F O R C I N G   D E S I G N

J-DIRECTION SEGMENT NUMBER----------------          1

NUMBER OF STRIPS IN SEGMENT---------------         16

J-GRID NUMBER AT START OF SEGMENT----------          1

J-GRID NUMBER AT END   OF SEGMENT----------          3


    STRIP  STRIP        START       END         STRIP
      NO   ID          I-GRID      I-GRID       WIDTH

       1   *              1           2         1.210
       2   *              2           3         1.220
       3   *              3           4         1.210
       4   *              4           5         1.220
       5   *              5           6         1.210
       6   *              6           7         1.220
       7   *              7           8         1.210
       8   *              8           9         1.220
       9   *              9          10         1.210
      10   *             10          11         1.220
      11   *             11          13         0.420
      12   *             13          15         0.420
      13   *             15          17         0.420
      14   *             17          19         0.420
      15   *             19          21         0.420
      16   *             21          23         0.420
CSI / SAFE - SLAB AND BASEMAT ANALYSIS BY THE FINITE ELEMENT METHOD      82
                                    SAFE_FILE:pmicim3.FST/SAFERC_FILE.dicimont.OUT
PROYECTO: EDIFICIO
DISEÑO DE CIMENTACION, H.K.S.


S L A B   R E I N F O R C I N G   F O R   J - S E G M E N T    1


                      J           J           J
STRIP     WIDTH PLACING       0.45        0.46
                         1           2           3

                  I 1
```

```
*           1.21      TOP
*           1.21    BOTTOM
                    I  2

                    I  2
*           1.22      TOP
*           1.22    BOTTOM
                    I  3

                    I  3
*           1.21      TOP
*           1.21    BOTTOM
                    I  4

                    I  4
*           1.22      TOP
*           1.22    BOTTOM
                    I  5

                    I  5
*           1.21      TOP
*           1.21    BOTTOM
                    I  6

                    I  6
*           1.22      TOP
*           1.22    BOTTOM
                    I  7

                    I  7
*           1.21      TOP
*           1.21    BOTTOM
                    I  8

                    I  8
*           1.22      TOP
*           1.22    BOTTOM
                    I  9

                    I  9                                  ( 3)
*           1.21      TOP                               0.795
*           1.21    BOTTOM                              8.369
                    I 10                                  ( 1)

                    I 10        ( 2)        ( 6)
*           1.22      TOP       0.000       1.814
*           1.22    BOTTOM      5.799       5.328
                    I 11        ( 4)        ( 1)

                    I 11        ( 7)        ( 7)
*           0.42      TOP       7.234       4.416
*           0.42    BOTTOM      9.052       3.801
                    I 13        ( 7)        ( 8)

                    I 13
*           0.42      TOP
*           0.42    BOTTOM
                    I 15

                    I 15
*           0.42      TOP
*           0.42    BOTTOM
                    I 17

                    I 17
*           0.42      TOP
*           0.42    BOTTOM
                    I 19

                    I 19
*           0.42      TOP
*           0.42    BOTTOM
                    I 21

                    I 21
*           0.42      TOP
```

```
          0...  BOTTOM
                I 23

                        1           2           3
STRIP     WIDTH PLACING       0.45        0.46
                        J           J           J
CSI / SAFE - SLAB AND BASEMAT ANALYSIS BY THE FINITE ELEMENT METHOD      83
                                    SAFE_FILE:pmicim3.FST/SAFERC_FILE:diciment.OUT
PROYECTO: EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.

S L A B   R E I N F O R C I N G   D E S I G N

J-DIRECTION SEGMENT NUMBER----------                2

NUMBER OF STRIPS IN SEGMENT----------               16

J-GRID NUMBER AT START OF SEGMENT----------          3

J-GRID NUMBER AT END   OF SEGMENT----------          5


   STRIP  STRIP        START       END         STRIP
     NO   ID          I-GRID      I-GRID       WIDTH

      1   *               1           2         1.210
      2   *               2           3         1.220
      3   *               3           4         1.210
      4   *               4           5         1.220
      5   *               5           6         1.210
      6   *               6           7         1.220
      7   *               7           8         1.210
      8   *               8           9         1.220
      9   *               9          10         1.210
     10   *              10          11         1.220
     11   *              11          13         0.420
     12   *              13          15         0.420
     13   *              15          17         0.420
     14   *              17          19         0.420
     15   *              19          21         0.420
     16   *              21          23         0.420
CSI / SAFE - SLAB AND BASEMAT ANALYSIS BY THE FINITE ELEMENT METHOD      84
                                    SAFE_FILE:pmicim3.FST/SAFERC_FILE:diciment.OUT
PROYECTO: EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.

S L A B   R E I N F O R C I N G   F O R   J - S E G M E N T    2

                        3           3           3
STRIP     WIDTH PLACING       0.45        0.46
                        3           4           5

                  I  1
*           1.21    TOP
*           1.21  BOTTOM
                  I  2

                  I  2
*           1.22    TOP
*           1.22  BOTTOM
                  I  3

                  I  3
*           1.21    TOP
*           1.21  BOTTOM
                  I  4

                  I  4
*           1.22    TOP
*           1.22  BOTTOM
                  I  5

                  I  5
*           1.21    TOP
*           1.21  BOTTOM
                  I  6

                  I  6
*           1.22    TOP
*           1.22  BOTTOM
                  I  7

                  I  7                    (  3)          (  3)
*           1.21    TOP                   0.998          0.998
*           1.21  BOTTOM                 13.532          7.819
                  I  8                    (  4)          (  4)

                  I  8                    (  3)          (  2)
*           1.22    TOP                   0.613          1.565
*           1.22  BOTTOM                  9.782          7.819
                  I  9                    (  4)          (  4)

                  I  9                    (  3)          (  4)
*           1.21    TOP                   0.529          0.555
*           1.21  BOTTOM                  7.330          7.367
                  I 10                    (  4)          (  4)

                  I 10                    (  6)          (  7)
*           1.22    TOP                   4.172          0.275
*           1.22  BOTTOM                  2.494          0.097
                  I 11                    (  9)          (  9)

                  I 11                    (  7)          (  7)
*           0.42    TOP                   6.984         11.136
*           0.42  BOTTOM                  3.347          5.274
                  I 13                    (  8)          (  8)

                  I 13                    (  6)          (  7)
*           0.42    TOP                   4.125          7.073
*           0.42  BOTTOM                  5.272          6.362
                  I 15                    (  8)          (  3)

                  I 15
*           0.42    TOP
*           0.42  BOTTOM
                  I 17

                  I 17
*           0.42    TOP
*           0.42  BOTTOM
                  I 19

                  I 19
*           0.42    TOP
*           0.42  BOTTOM
                  I 21

                  I 21
*           0.42    TOP
*           0.42  BOTTOM
                  I 23

                        3           4           5
STRIP     WIDTH PLACING       0.45        0.46
                        J           J           J
CSI / SAFE - SLAB AND BASEMAT ANALYSIS BY THE FINITE ELEMENT METHOD      85
                                    SAFE_FILE:pmicim3.FST/SAFERC_FILE:diciment.OUT
PROYECTO: EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.

S L A B   R E I N F O R C I N G   D E S I G N

J-DIRECTION SEGMENT NUMBER----------                3

NUMBER OF STRIPS IN SEGMENT----------               16

J-GRID NUMBER AT START OF SEGMENT----------          5
```

J-GRID NUMBER AT END OF SEGMENT---------- 7

STRIP NO	STRIP ID	START I-GRID	END I-GRID	STRIP WIDTH
1	*	1	2	1.210
2	*	2	3	1.220
3	*	3	4	1.210
4	*	4	5	1.220
5	*	5	6	1.210
6	*	6	7	1.220
7	*	7	8	1.210
8	*	8	9	1.220
9	*	9	10	1.210
10	*	10	11	1.220
11	*	11	13	0.420
12	*	13	15	0.420
13	*	15	17	0.420
14	*	17	19	0.420
15	*	19	21	0.420
16	*	21	23	0.420

PROYECTO: EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.

S L A B R E I N F O R C I N G F O R J - S E G M E N T 3

STRIP	WIDTH	PLACING	J 5	J 6	J 7
		I 1			
*	1.21	TOP			
*	1.21	BOTTOM			
		I 2			
		I 2			
*	1.22	TOP			
*	1.22	BOTTOM			
		I 3			
		I 3			
*	1.21	TOP			
*	1.21	BOTTOM			
		I 4			
		I 4			
*	1.22	TOP			
*	1.22	BOTTOM			
		I 5			
		I 5			(6)
*	1.21	TOP			1.751
*	1.21	BOTTOM			15.427
		I 6			(4)
		I 6	(2)	(6)	
*	1.22	TOP	3.262	1.445	
*	1.22	BOTTOM	9.838	9.992	
		I 7	(5)	(5)	
		I 7	(2)	(6)	
*	1.21	TOP	2.673	0.629	
*	1.21	BOTTOM	10.064	0.164	
		I 8	(5)	(9)	
		I 8	(7)	(6)	
*	1.22	TOP	0.531	0.967	
*	1.22	BOTTOM	0.098	0.244	
		I 9	(4)	(9)	
		I 9	(7)	(7)	
*	1.21	TOP	0.628	0.400	
*	1.21	BOTTOM	0.051	0.270	
		I 10	(8)	(8)	
		I 10	(7)	(7)	
*	1.22	TOP	1.054	0.365	
*	1.22	BOTTOM	0.036	0.100	
		I 11	(8)	(8)	
		I 11	(4)	(4)	
*	0.42	TOP	3.367	1.320	
*	0.42	BOTTOM	4.431	4.754	
		I 13	(21	(2)	
		I 13	(4)	(5)	
*	0.42	TOP	1.962	0.086	
*	0.42	BOTTOM	5.924	5.909	
		I 15	(2)	(2)	
		I 15	(7)	(5)	
*	0.42	TOP	5.038	1.171	
*	0.42	BOTTOM	12.082	7.856	
		I 17	(6)	(11	
		I 17			
*	0.42	TOP			
*	0.42	BOTTOM			
		I 19			
		I 19			
*	0.42	TOP			
*	0.42	BOTTOM			
		I 21			
		I 21			
*	0.42	TOP			
*	0.42	BOTTOM			
		I 23			

STRIP	WIDTH	PLACING	J 5	J 6	J 7

PROYECTO: EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.

S L A B R E I N F O R C I N G D E S I G N

J-DIRECTION SEGMENT NUMBER---------- 4

NUMBER OF STRIPS IN SEGMENT---------- 16

J-GRID NUMBER AT START OF SEGMENT---------- 7

J-GRID NUMBER AT END OF SEGMENT---------- 9

STRIP NO	STRIP ID	START I-GRID	END I-GRID	STRIP WIDTH
1	*	1	2	1.210
2	*	2	3	1.220
3	*	3	4	1.210
4	*	4	5	1.220
5	*	5	6	1.210
6	*	6	7	1.220
7	*	7	8	1.210
8	*	8	9	1.220
9	*	9	10	1.210
10	*	10	11	1.220
11	*	11	12	0.420

	12	*	13	15	0.42v
	13	*	15	17	0.420
	14	*	17	19	0.420
	15	*	19	21	0.420
	16	*	21	23	0.420

PROYECTO: EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.

S L A B R E I N F O R C I N G F O R J - S E G M E N T 6

STRIP		WIDTH	PLACING	J 7	J 8	J 9
			I 1			
*		1.21	TOP			
*		1.21	BOTTOM			
			I 2			
			I 2			
*		1.22	TOP			
*		1.22	BOTTOM			
			I 3			
			I 3		(8)	
*		1.21	TOP		1.850	
*		1.21	BOTTOM		10.949	
			I 4		(7)	
			I 4	(3)	(3)	
*		1.22	TOP	0.821	0.123	
*		1.22	BOTTOM	14.639	11.835	
			I 5	(4)	(4)	
			I 5			
*		1.21	TOP			
*		1.21	BOTTOM	11.434	10.603	
			I 6	(4)	(4)	
			I 6	(2)	(2)	
*		1.22	TOP	0.575	0.265	
*		1.22	BOTTOM	7.969	6.807	
			I 7	(5)	(5)	
			I 7	(6)	(7)	
*		1.21	TOP	0.437	0.415	
*		1.21	BOTTOM	0.250	0.275	
			I 8	(8)	(8)	
			I 8	(7)	(7)	
*		1.22	TOP	0.454	0.222	
*		1.22	BOTTOM	0.422	0.450	
			I 9	(8)	(8)	
			I 9	(7)	(7)	
*		1.21	TOP	0.186	0.039	
*		1.21	BOTTOM	0.384	0.397	
			I 10	(8)	(8)	
			I 10	(7)	(7)	
*		1.22	TOP	0.127	0.061	
*		1.22	BOTTOM	0.126	0.136	
			I 11	(8)	(8)	
			I 11			
*		0.42	TOP			
*		0.42	BOTTOM	5.198	6.430	
			I 13	(3)	(3)	
			I 13			
*		0.42	TOP			
*		0.42	BOTTOM	6.295	7.422	
			I 15	(1)	(1)	
			I 15			
*		0.42	TOP			
*		0.42	BOTTOM	6.732	7.297	
			I 17	(1)	(7)	
			I 17	(5)		
*		0.42	TOP	0.206		
*		0.42	BOTTOM	10.225	9.196	
			I 19	(7)	(7)	
			I 19			
*		0.42	TOP			
*		0.42	BOTTOM			
			I 21			
			I 21			
*		0.42	TOP			
*		0.42	BOTTOM			
			I 23			

STRIP		WIDTH	PLACING	7 J	8 J	9 J
			I 1		(8)	

PROYECTO: EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.

S L A B R E I N F O R C I N G D E S I G N

J-DIRECTION SEGMENT NUMBER---------- 5

NUMBER OF STRIPS IN SEGMENT---------- 16

J-GRID NUMBER AT START OF SEGMENT---------- 9

J-GRID NUMBER AT END OF SEGMENT---------- 11

STRIP NO		STRIP ID	START I-GRID	END I-GRID	STRIP WIDTH
1	*		1	2	1.210
2	*		2	3	1.220
3	*		3	4	1.210
4	*		4	5	1.220
5	*		5	6	1.210
6	*		6	7	1.220
7	*		7	8	1.210
8	*		8	9	1.220
9	*		9	10	1.210
10	*		10	11	1.220
11	*		11	13	0.420
12	*		13	15	0.420
13	*		15	17	0.420
14	*		17	19	0.420
15	*		19	21	0.420
16	*		21	23	0.420

PROYECTO: EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.

S L A B R E I N F O R C I N G F O R J - S E G M E N T 5

STRIP		WIDTH	PLACING	J 9	J 10	J 11
			I 1		(8)	

*	1...	TOP		6.10:
*	1.21	BOTTOM		7.756
		I 2		(7)
		I 2	(8)	(8)
*	1.22	TOP	6.112	2.438
*	1.22	BOTTOM	9.227	7.462
		I 3	(7)	(7)
		I 3	(8)	(8)
*	1.21	TOP	0.704	0.048
*	1.21	BOTTOM	9.006	9.741
		I 4	(7)	(6)
		I 4		
*	1.22	TOP		
*	1.22	BOTTOM	9.746	9.043
		I 5	(6)	(6)
		I 5		
*	1.21	TOP		
*	1.21	BOTTOM	10.103	8.477
		I 6	(6)	(7)
		I 6	(6)	(7)
*	1.22	TOP	0.329	1.163
*	2.22	BOTTOM	5.709	6.184
		I 7	(1)	(8)
		I 7	(7)	(7)
*	1.21	TOP	0.424	0.816
*	1.21	BOTTOM	0.265	0.231
		I 8	(8)	(8)
		I 8	(7)	(7)
*	1.22	TOP	0.229	0.457
*	1.22	BOTTOM	0.654	0.336
		I 9	(8)	(8)
		I 9	(7)	(6)
*	1.21	TOP	0.128	0.527
*	1.21	BOTTOM	0.397	0.296
		I 10	(8)	(8)
		I 10	(6)	(6)
*	1.22	TOP	0.102	0.125
*	1.22	BOTTOM	0.138	0.253
		I 11	(8)	(5)
		I 11		
*	0.42	TOP		
*	0.42	BOTTOM	8.630	16.960
		I 13	(1)	(1)
		I 13		
*	0.42	TOP		
*	0.42	BOTTOM	8.542	8.901
		I 15	(1)	(1)
		I 15		
*	0.42	TOP		
*	0.42	BOTTOM	7.597	7.653
		I 17	(7)	(7)
		I 17		
*	0.42	TOP		
*	0.42	BOTTOM	7.619	7.588
		I 19	(7)	(7)
		I 19	(8)	(9)
*	0.42	TOP	0.643	1.606
*	0.42	BOTTOM	11.002	9.928
		I 21	(7)	(7)
		I 21		
*	0.42	TOP		
*	0.42	BOTTOM		
		I 23		

STRIP	WIDTH	PLACING	9 J 0.45	10 J 0.46	11 J
			11	12	13
		I 1	(8)	(8)	
*	1.21	TOP	6.133	7.578	
*	1.21	BOTTOM	6.263	14.891	
		I 2	(7)	(7)	
		I 2	(8)	(8)	
*	1.22	TOP	2.706	2.851	
*	1.22	BOTTOM	7.778	12.664	
		I 3	(7)	(7)	
		I 3			
*	1.21	TOP			
*	1.21	BOTTOM	11.400	15.310	
		I 4	(7)	(7)	
		I 4			
*	1.22	TOP			
*	1.22	BOTTOM	8.965	7.724	
		I 5	(6)	(6)	

CSI / SAFE - SLAB AND BASEMAT ANALYSIS BY THE FINITE ELEMENT METHOD 91
SAFE_FILE:pmicam3.PST/SAFERC_FILE:diciment.OUT

PROYECTO: EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.

S L A B R E I N F O R C I N G D E S I G N

J-DIRECTION SEGMENT NUMBER---------- 6

NUMBER OF STRIPS IN SEGMENT---------- 16

J-GRID NUMBER AT START OF SEGMENT---------- 11

J-GRID NUMBER AT END OF SEGMENT---------- 12

STRIP NO	STRIP ID	START I-GRID	END I-GRID	STRIP WIDTH
1	*	1	2	1.210
2	*	2	3	1.220
3	*	3	4	1.210
4	*	4	5	1.220
5	*	5	6	1.210
6	*	6	7	1.220
7	*	7	8	1.210
8	*	8	9	1.220
9	*	9	10	1.210
10	*	10	11	1.220
11	*	11	13	0.420
12	*	13	15	0.420
13	*	15	17	0.420
14	*	17	19	0.420
15	*	19	21	0.420
16	*	21	23	0.420

CSI / SAFE - SLAB AND BASEMAT ANALYSIS BY THE FINITE ELEMENT METHOD 92
SAFE_FILE:pmicam3.PST/SAFERC_FILE:diciment.OUT

PROYECTO: EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.

S L A B R E I N F O R C I N G F O R J - S E G M E N T 6

		I 5	(7)	(7)
*	1.21	TOP	1.964	1.898
*	1.21	BOTTOM	3.991	1.248
		I 6	(1)	(9)
		I 6	(7)	(7)
*	1.22	TOP	2.769	2.880
*	1.22	BOTTOM	4.930	2.556
		I 7	(8)	(8)
		I 7	(7)	(6)
*	1.21	TOP	3.166	1.032
*	1.21	BOTTOM	2.949	2.336
		I 8	(8)	(8)
		I 8	(6)	(6)
*	1.22	TOP	2.425	2.487
*	1.22	BOTTOM	0.532	0.462
		I 9	(7)	(7)
		I 9	(6)	(6)
*	1.21	TOP	2.278	2.244
*	1.21	BOTTOM	0.050	0.169
		I 10	(3)	(4)
		I 10		(4)
*	1.22	TOP		0.609
*	1.22	BOTTOM	3.106	2.992
		I 11	(1)	(1)
		I 11		(9)
*	0.42	TOP		0.025
*	0.42	BOTTOM	9.826	7.251
		I 13	(1)	(2)
		I 13		(9)
*	0.42	TOP		0.403
*	0.42	BOTTOM	7.568	5.800
		I 15	(1)	(6)
		I 15	(9)	(9)
*	0.42	TOP	0.982	0.688
*	0.42	BOTTOM	6.705	7.040
		I 17	(7)	(7)
		I 17	(3)	(9)
*	0.42	TOP	0.663	1.367
*	0.42	BOTTOM	7.908	8.658
		I 19	(7)	(7)
		I 19	(3)	(3)
*	0.42	TOP	3.929	3.756
*	0.42	BOTTOM	8.545	11.351
		I 21	(7)	(7)
		I 21	(3)	(9)
*	0.42	TOP	7.119	5.975
*	0.42	BOTTOM	8.291	19.998
		I 23	(7)	(7)

		J 11	J 12	J 13
STRIP	WIDTH	PLACING	0.45	0.46

PROYECTO: EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.

S L A B R E I N F O R C I N G D E S I G N

J-DIRECTION SEGMENT NUMBER---------- 7

NUMBER OF STRIPS IN SEGMENT---------- 16

J-GRID NUMBER AT START OF SEGMENT---------- 13

J-GRID NUMBER AT END OF SEGMENT---------- 14

STRIP NO	STRIP ID	START I-GRID	END I-GRID	STRIP WIDTH
1	*	1	2	1.210
2	*	2	3	1.220
3	*	3	4	1.210
4	*	4	5	1.220
5	*	5	6	1.210
6	*	6	7	1.220
7	*	7	8	1.210
8	*	8	9	1.220
9	*	9	10	1.210
10	*	10	11	1.220
11	*	11	13	0.420
12	*	13	15	0.420
13	*	15	17	0.420
14	*	17	19	0.420
15	*	19	21	0.420
16	*	21	23	0.420

PROYECTO. EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.

S L A B R E I N F O R C I N G F O R J - S E G M E N T 7

			J 1.80	J
STRIP	WIDTH	PLACING	J3	J4
		I 1	(8)	
*	1.21	TOP	7.450	
*	1.21	BOTTOM	17.698	
		I 2	(6)	
		I 2	(8)	
*	1.22	TOP	6.718	
*	1.22	BOTTOM	14.836	
		I 3	(6)	
		I 3	(9)	
*	1.21	TOP	9.106	
*	1.21	BOTTOM	21.496	
		I 4	(6)	
		I 4	(6)	
*	1.22	TOP	0.530	
*	1.22	BOTTOM	0.708	
		I 5	(6)	
		I 5	(2)	
*	1.21	TOP	0.153	
*	1.21	BOTTOM	0.490	
		I 6	(5)	
		I 6	(6)	
*	1.22	TOP	0.300	
*	1.22	BOTTOM	0.401	
		I 7	(6)	
		I 7	(7)	
*	1.21	TOP	1.208	
*	1.21	BOTTOM	1.025	
		I 8	(2)	
		I 8	(7)	
*	1.22	TOP	2.548	
*	1.22	BOTTOM	2.829	
		I 9	(1)	

		I 9	(1)	
*	1.21	TOP	2.340	
*	1.21	BOTTOM	2.582	
		I 10	(1)	
		I 10	(6)	
*	1.22	TOP	0.854	
*	1.22	BOTTOM	0.699	
		I 11	(6)	
		I 11	(3)	
*	0.42	TOP	8.630	
*	0.42	BOTTOM	18.961	
		I 13	(3)	
		I 13	(8)	
*	0.42	TOP	7.136	
*	0.42	BOTTOM	13.941	
		I 15	(7)	
		I 15	(8)	
*	0.42	TOP	8.083	
*	0.42	BOTTOM	13.133	
		I 17	(7)	
		I 17	(8)	
*	0.42	TOP	8.205	
*	0.42	BOTTOM	13.035	
		I 19	(7)	
		I 19	(8)	
*	0.42	TOP	8.724	
*	0.42	BOTTOM	14.073	
		I 21	(7)	
		I 21	(9)	
*	0.42	TOP	10.790	
*	0.42	BOTTOM	15.970	
		I 23	(7)	

		13		14
STRIP	WIDTH	PLACING	1.80	
		J		J

PROYECTO: EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.

S L A B R E I N F O R C I N G D E S I G N

J-DIRECTION SEGMENT NUMBER---------- 8

NUMBER OF STRIPS IN SEGMENT---------- 16

J-GRID NUMBER AT START OF SEGMENT---------- 14

J-GRID NUMBER AT END OF SEGMENT---------- 15

STRIP NO	STRIP ID	START I-GRID	END I-GRID	STRIP WIDTH
1	*	1	2	1.210
2	*	2	3	1.220
3	*	3	4	1.210
4	*	4	5	1.220
5	*	5	6	1.210
6	*	6	7	1.220
7	*	7	8	1.210
8	*	8	9	1.220
9	*	9	10	1.210
10	*	10	11	1.220
11	*	11	13	0.420
12	*	13	15	0.420
13	*	15	17	0.420
14	*	17	19	0.420
15	*	19	21	0.420
16	*	21	23	0.420

PROYECTO: EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.

S L A B R E I N F O R C I N G F O R J - S E G M E N T 8

		J		J
STRIP	WIDTH	PLACING	1.80	
		14		15
		I 1	(8)	
*	1.21	TOP	12.640	
*	1.21	BOTTOM	36.636	
		I 2	(6)	
		I 2	(9)	
*	1.22	TOP	11.691	
*	1.22	BOTTOM	25.437	
		I 3	(6)	
		I 3	(9)	
*	1.21	TOP	8.565	
*	1.21	BOTTOM	25.780	
		I 4	(6)	
		I 4	(9)	
*	1.22	TOP	0.460	
*	1.22	BOTTOM	0.230	
		I 5	(6)	
		I 5	(9)	
*	1.21	TOP	0.793	
*	1.21	BOTTOM	0.426	
		I 6	(2)	
		I 6	(9)	
*	1.22	TOP	0.655	
*	1.22	BOTTOM	0.396	
		I 7	(11)	
		I 7	(8)	
*	1.21	TOP	1.216	
*	1.21	BOTTOM	1.074	
		I 8	(1)	
		I 8	(8)	
*	1.22	TOP	2.475	
*	1.22	BOTTOM	2.308	
		I 9	(1)	
		I 9	(8)	
*	1.21	TOP	2.382	
*	1.21	BOTTOM	2.591	
		I 10	(1)	
		I 10	(8)	
*	1.22	TOP	1.002	
*	1.22	BOTTOM	0.871	
		I 11	(6)	
		I 11	(8)	
*	0.42	TOP	10.022	
*	0.42	BOTTOM	35.341	
		I 13	(7)	
		I 13	(8)	
*	0.42	TOP	9.776	
*	0.42	BOTTOM	32.892	

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                I 15      ( 7)

              * I 15      ( 8)
*         0.42    TOP    10.024
*         0.42 BOTTOM    33.896
                I 17      ( 7)

                I 17      ( 8)
*         0.42    TOP    10.736
*         0.42 BOTTOM    36.232
                I 19      ( 7)

                I 19      ( 9)
*         0.42    TOP    11.561
*         0.42 BOTTOM    10.011
                I 21      ( 7)

                I 21      ( 9)
*         0.42    TOP    12.462
*         0.42 BOTTOM    16.836
                I 23      ( 7)

                   16          15
STRIP     WIDTH PLACING      1.80
                    J           J
CSI / SAFE - SLAB AND BASEMAT ANALYSIS BY THE FINITE ELEMENT METHOD      97
                                    SAFE_FILE:pmicim3.F8T/SAFE8C_FILE:diciment.OUT
PROYECTO: EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.


S L A B   R E I N F O R C I N G   D E S I G N

J-DIRECTION SEGMENT NUMBER----------------        9

NUMBER OF STRIPS IN SEGMENT---------------       16

J-GRID NUMBER AT START OF SEGMENT----------       15

J-GRID NUMBER AT END   OF SEGMENT----------       16


   STRIP  STRIP        START       END         STRIP
     NO   ID          I-GRID     I-GRID       WIDTH

      1   *              1          2         1.210
      2   *              2          3         1.220
      3   *              3          4         1.210
      4   *              4          5         1.220
      5   *              5          6         1.210
      6   *              6          7         1.220
      7   *              7          8         1.210
      8   *              8          9         1.220
      9   *              9         10         1.210
     10   *             10         11         1.220
     11   *             11         13         0.420
     12   *             13         15         0.420
     13   *             15         17         0.420
     14   *             17         19         0.420
     15   *             19         21         0.420
     16   *             21         23         0.420
CSI / SAFE - SLAB AND BASEMAT ANALYSIS BY THE FINITE ELEMENT METHOD      98
                                    SAFE_FILE:pmicim3.F8T/SAFE8C_FILE:diciment.OUT
PROYECTO: EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.


S L A B   R E I N F O R C I N G   F O R   J - S E G M E N T    9


                    J           J
STRIP     WIDTH PLACING      0.50
                   15          16

                I 1       ( 9)

*         1.21    TOP    17.022
*         1.21 BOTTOM    37.119
                I 2       ( 6)

                I 2       ( 9)
*         1.22    TOP    13.517
*         1.22 BOTTOM    25.146
                I 3       ( 6)

                I 3       ( 9)
*         1.21    TOP    11.629
*         1.21 BOTTOM    25.506
                I 4       ( 6)

                I 4       ( 5)
*         1.22    TOP     0.459
*         1.22 BOTTOM     0.374
                I 5       ( 7)

                I 5       ( 8)
*         1.21    TOP     0.336
*         1.21 BOTTOM     0.222
                I 6       ( 6)

                I 6       ( 4)
*         1.22    TOP     0.330
*         1.22 BOTTOM     0.430
                I 7       ( 6)

                I 7       ( 1)
*         1.21    TOP     1.251
*         1.21 BOTTOM     0.289
                I 8       ( 6)

                I 8       ( 1)
*         1.22    TOP     3.183
*         1.22 BOTTOM     0.060
                I 9       ( 6)

                I 9       ( 1)
*         1.21    TOP     2.864
*         1.21 BOTTOM     0.169
                I 10      ( 7)

                I 10      ( 9)
*         1.22    TOP     0.777
*         1.22 BOTTOM     0.152
                I 11      ( 7)

                I 11      ( 8)
*         0.42    TOP    11.232
*         0.42 BOTTOM    36.652
                I 13      ( 7)

                I 13      ( 8)
*         0.42    TOP     9.778
*         0.42 BOTTOM    34.758
                I 15      ( 7)

                I 15      ( 8)
*         0.42    TOP    11.873
*         0.42 BOTTOM    33.086
                I 17      ( 7)

                I 17      ( 8)
*         0.42    TOP    13.762
*         0.42 BOTTOM    34.750
                I 19      ( 7)

                I 19      ( 8)
*         0.42    TOP    16.022
*         0.42 BOTTOM    39.282
                I 21      ( 7)

                I 21      ( 8)
*         0.42    TOP    18.784
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*          0...  BOTTOM    47.165
                   I 23      ( 7)

                        15        16
STRIP     WIDTH PLACING      0.50
                        J         J
CSI / SAFE - SLAB AND BASEMAT ANALYSIS BY THE FINITE ELEMENT METPOD      99
                                    SAFE_FILE:pmicim3.PST/SAFERC_FILE:diciment.OUT
PROYECTO: EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.

S L A B   R E I N F O R C I N G   D E S I G N

J-DIRECTION SEGMENT NUMBER----------------          10

NUMBER OF STRIPS IN SEGMENT---------------          16

J-GRID NUMBER AT START OF SEGMENT----------         16

J-GRID NUMBER AT END   OF SEGMENT----------         17


   STRIP  STRIP        START       END         STRIP
     NO   ID          I-GRID      I-GRID       WIDTH

      1   *              1           2         1.210
      2   *              2           3         1.220
      3   *              3           4         1.216
      4   *              4           5         1.220
      5   *              5           6         1.210
      6   *              6           7         1.220
      7   *              7           8         1.210
      8   *              8           9         1.220
      9   *              9          10         1.210
     10   *             10          11         1.220
     11   *             11          13         0.420
     12   *             13          15         0.420
     13   *             15          17         0.420
     14   *             17          19         0.420
     15   *             19          21         0.420
     16   *             21          23         0.420
CSI / SAFE - SLAB AND BASEMAT ANALYSIS BY THE FINITE ELEMENT METHOD     100
                                    SAFE_FILE:pmicim3.PST/SAFERC_FILE:diciment.OUT
PROYECTO: EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.

S L A B   R E I N F O R C I N G   F O R   J - S E G M E N T   10

                        J         J
STRIP     WIDTH PLACING      1.50
                        16        17

                   I  1      ( 9)
*          1.21     TOP     17.413
*          1.21  BOTTOM     27.504
                   I  2      ( 6)

                   I  2      ( 9)
*          1.22     TOP     18.198
*          1.22  BOTTOM     23.940
                   I  3      ( 6)

                   I  3      ( 9)
*          1.21     TOP     21.520
*          1.21  BOTTOM     23.814
                   I  4      ( 6)

                   I  4      ( 5)
*          1.22     TOP      0.825
*          1.22  BOTTOM      0.174
                   I  5      ( 2)

*          1.21     TOP      0.211
*          1.21  BOTTOM      0.468
                   I  6      ( 6)

                   I  6      ( 9)
*          1.22     TOP      0.231
*          1.22  BOTTOM      0.481
                   I  7      ( 6)

                   I  7      ( 9)
*          1.21     TOP      0.210
*          1.21  BOTTOM      0.940
                   I  8      ( 6)

                   I  8      ( 9)
*          1.22     TOP      0.288
*          1.22  BOTTOM      2.215
                   I  9      ( 1)

                   I  9      ( 9)
*          1.21     TOP      0.303
*          1.21  BOTTOM      2.068
                   I 10      ( 7)

                   I 10      ( 3)
*          1.22     TOP      0.502
*          1.22  BOTTOM      0.706
                   I 11      ( 4)

                   I 11      ( 3)
*          0.42     TOP     24.416
*          0.42  BOTTOM     34.253
                   I 13      ( 7)

                   I 13      ( 8)
*          0.42     TOP     21.166
*          0.42  BOTTOM     32.935
                   I 15      ( 7)

                   I 15      ( 8)
*          0.42     TOP     18.885
*          0.42  BOTTOM     32.112
                   I 17      ( 7)

                   I 17      ( 8)
*          0.42     TOP     17.493
*          0.42  BOTTOM     33.375
                   I 19      ( 7)

                   I 19      ( 8)
*          0.42     TOP     16.631
*          0.42  BOTTOM     35.410
                   I 21      ( 7)

                   I 21      ( 8)
*          0.42     TOP     16.718
*          0.42  BOTTOM     36.925
                   I 23      ( 7)

                        16        17
STRIP     WIDTH PLACING      1.50
                        J         J
CSI / SAFE - SLAB AND BASEMAT ANALYSIS BY THE FINITE ELEMENT METHOD     101
                                    SAFE_FILE.pmicim3 PST/SAFERC_FILE.diciment.OUT
PROYECTO: EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.

S L A B   R E I N F O R C I N G   D E S I G N

J-DIRECTION SEGMENT NUMBER----------------          11

NUMBER OF STRIPS IN SEGMENT---------------          16

J-GRID NUMBER AT START OF SEGMENT----------         17
```

J-GRID NUMBER AT END OF SEGMENT---------- 18

STRIP NO	STRIP ID	START I-GRID	END I-GRID	STRIP WIDTH
1	*	1	2	1.210
2	*	2	3	1.220
3	*	3	4	1.210
4	*	4	5	1.220
5	*	5	6	1.210
6	*	6	7	1.220
7	*	7	8	1.210
8	*	8	9	1.220
9	*	9	10	1.210
10	*	10	11	1.220
11	*	11	13	0.420
12	*	13	15	0.420
13	*	15	17	0.420
14	*	17	19	0.420
15	*	19	21	0.420
16	*	21	23	0.420

CSI / SAFE - SLAB AND BASEMAT ANALYSIS BY THE FINITE ELEMENT METHOD 102
SAFE_FILE:pmicim3.PST/SAFERC_FILE diciment OUT

PROYECTO. EDIFICIO
DISEÑO DE CIMENTACION, M.K S.

S L A B R E I N F O R C I N G F O R J - S E G M E N T 11

STRIP	WIDTH	PLACING	J 1.00 J	
			17	18
		I 1	(9)	
*	1.21	TOP	18.003	
*	1.21	BOTTOM	40.143	
		I 2	(6)	
		I 2	(9)	
*	1.22	TOP	19.678	
*	1.22	BOTTOM	25.888	
		I 3	(6)	
		I 4	(9)	
*	1.21	TOP	21.709	
*	1.21	BOTTOM	31.336	
		I 4	(6)	
		I 4	(5)	
*	1.22	TOP	0.868	
*	1.22	BOTTOM	0.854	
		I 5	(6)	
		I 5	(9)	
*	1.21	TOP	1.009	
*	1.21	BOTTOM	0.484	
		I 6	(6)	
		I 6	(9)	
*	1.22	TOP	0.953	
*	1.22	BOTTOM	0.501	
		I 7	(6)	
		I 7	(8)	
*	1.21	TOP	1.571	
*	1.21	BOTTOM	0.959	
		I 8	(6)	
		I 8	(8)	
*	1.22	TOP	2.911	
*	1.22	BOTTOM	2.345	
		I 9	(8)	
*	1.21	TOP	2.710	
*	1.21	BOTTOM	2.140	
		I 10	(7)	
		I 10	(9)	
*	1.22	TOP	1.158	
*	1.22	BOTTOM	0.712	
		I 11	(6)	
		I 11	(8)	
*	0.42	TOP	25.327	
*	0.42	BOTTOM	45.916	
		I 13	(7)	
		I 13	(8)	
*	0.42	TOP	20.208	
*	0.42	BOTTOM	41.544	
		I 15	(7)	
		I 15	(8)	
*	0.42	TOP	18.060	
*	0.42	BOTTOM	41.324	
		I 17	(7)	
		I 17	(8)	
*	0.42	TOP	17.995	
*	0.42	BOTTOM	43.497	
		I 19	(7)	
		I 19	(8)	
*	0.42	TOP	16.984	
*	0.42	BOTTOM	47.835	
		I 21	(7)	
		I 21	(8)	
*	0.42	TOP	17.793	
*	0.42	BOTTOM	54.387	
		I 23	(7)	

STRIP	WIDTH	PLACING	17 1.00 J	18

PROYECTO BDIFICIO
DISEÑO DE CIMENTACION, M.K.S.

S L A B R E I N F O R C I N G D E S I G N

J-DIRECTION SEGMENT NUMBER---------- 12

NUMBER OF STRIPS IN SEGMENT---------- 16

J-GRID NUMBER AT START OF SEGMENT---------- 18

J-GRID NUMBER AT END OF SEGMENT---------- 19

STRIP NO	STRIP ID	START I-GRID	END I-GRID	STRIP WIDTH
1	*	1	2	1.210
2	*	2	3	1.220
3	*	3	4	1.210
4	*	4	5	1.220
5	*	5	6	1.210
6	*	6	7	1.220
7	*	7	8	1.210
8	*	8	9	1.220
9	*	9	10	1.210
10	*	10	11	1.220
11	*	11	13	0.420

```
      12  *              13        15         0.420
      13  *              15        17         0.420
      14  *              17        19         0.420
      15  *              19        21         0.420
      16  *              21        23         0.420
CSI / SAFE - SLAB AND BASEMAT ANALYSIS BY THE FINITE ELEMENT METHOD     104
                                   SAFE_FILE pmicam3.FST/SAFERC_FILE:diciment.OUT
PROYECTO: EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.

S L A B   R E I N F O R C I N G   F O R   J - S E G M E N T   12

                              J         J
STRIP     WIDTH PLACING      0.50
                            18          19

                      I  1      ( 9)
*          1.21        TOP     25.999
*          1.21     BOTTOM     42.320
                      I  2      ( 6)

                      I  2      ( 9)
*          1.22        TOP     20.810
*          1.22     BOTTOM     29.037
                      I  3      ( 6)

                      I  3      ( 9)
*          1.21        TOP     20.323
*          1.21     BOTTOM     30.638
                      I  4      ( 6)

                      I  4      ( 5)
*          1.22        TOP      0.716
*          1.22     BOTTOM      0.341
                      I  5      ( 7)

                      I  5      ( 9)
*          1.21        TOP      0.542
*          1.21     BOTTOM      0.230
                      I  6      ( 6)

                      I  6      ( 5)
*          1.22        TOP      0.673
*          1.22     BOTTOM      0.456
                      I  7      ( 6)

                      I  7      ( 11)
*          1.21        TOP      1.503
*          1.21     BOTTOM      0.310
                      I  8      ( 6)

                      I  8      ( 11)
*          1.22        TOP      3.414
*          1.22     BOTTOM      0.061
                      I  9      ( 7)

                      I  9      ( 11)
*          1.21        TOP      3.067
*          1.21     BOTTOM      0.219
                      I 10      ( 7)

                      I 10      ( 9)
*          1.22        TOP      0.935
*          1.22     BOTTOM      0.301
                      I 11      ( 7)

                      I 11      ( 8)
*          0.42        TOP     19.619
*          0.42     BOTTOM     16.503
                      I 13      ( 7)

                      I 13      ( 8)
*          0.42        TOP     18.376
*          0.42     BOTTOM     16.759
                      I 15      ( 7)

                      I 15      ( 8)
*          0.42        TOP     19.290
*          0.42     BOTTOM     40.055
                      I 17      ( 7)

                      I 17      ( 8)
*          0.42        TOP     21.184
*          0.42     BOTTOM     42.621
                      I 19      ( 7)

                      I 19      ( 8)
*          0.42        TOP     23.611
*          0.42     BOTTOM     48.113
                      I 21      ( 7)

                      I 21      ( 9)
*          0.42        TOP     27.787
*          0.42     BOTTOM     60.130
                      I 23      ( 7)

                              18          19
STRIP     WIDTH PLACING      0.50
                              J           J
CSI / SAFE - SLAB AND BASEMAT ANALYSIS BY THE FINITE ELEMENT METHOD     105
                                   SAFE_FILE:pmicam3 FST/SAFERC_FILE:diciment.OUT
PROYECTO: EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.

S L A B   R E I N F O R C I N G   D E S I G N

J-DIRECTION SEGMENT NUMBER----------------          11

NUMBER OF STRIPS IN SEGMENT---------------          16

J-GRID NUMBER AT START OF SEGMENT----------         19

J-GRID NUMBER AT END   OF SEGMENT----------         20


    STRIP  STRIP        START       END         STRIP
      NO   ID          I-GRID      I-GRID       WIDTH

       1   *              1           2         1.210
       2   *              2           3         1.220
       3   *              3           4         1.210
       4   *              4           5         1.220
       5   *              5           6         1.210
       6   *              6           7         1.220
       7   *              7           8         1.210
       8   *              8           9         1.220
       9   *              9          10         1.210
      10   *             10          11         1.220
      11   *             11          13         0.420
      12   *             13          15         0.420
      13   *             15          17         0.420
      14   *             17          19         0.420
      15   *             19          21         0.420
      16   *             21          23         0.420
CSI / SAFE - SLAB AND BASEMAT ANALYSIS BY THE FINITE ELEMENT METHOD     106
                                   SAFE_FILE.pmicam3.FST/SAFER._FILE:diciment.OUT
PROYECTO: EDIFICIO
DISEÑO DE CIMENTACION, M.K.S

S L A B   R E I N F O R C I N G   F O R   J - S E G M E N T   13

                              J         J
STRIP     WIDTH PLACING      1.50
                            19          20

                      I  1      ( 9)
```

1	*	13	15	0.42
13	*	15	17	0.42
14	*	17	19	0.42
15	*	19	21	0.42
16	*	21	23	0.42

PROYECTO: EDIFICIO
DISEÑO DE CIMENTACION, H.K.S.

S L A B R E I N F O R C I N G F O R J - S E G M E N T 12

STRIP	WIDTH	PLACING	J 18	J 19
		I 1	(9)	
*	1.21	TOP	23.999	
*	1.21	BOTTOM	42.320	
		I 2	(6)	
		I 2	(9)	
*	1.22	TOP	20.810	
*	1.22	BOTTOM	29.037	
		I 3	(6)	
		I 3	(9)	
*	1.21	TOP	20.323	
*	1.21	BOTTOM	30.636	
		I 4	(6)	
		I 4	(5)	
*	1.22	TOP	0.716	
*	1.22	BOTTOM	0.341	
		I 5	(7)	
		I 5	(9)	
*	1.21	TOP	0.542	
*	1.21	BOTTOM	0.230	
		I 6	(6)	
		I 6	(5)	
*	1.22	TOP	0.673	
*	1.22	BOTTOM	0.456	
		I 7	(6)	
		I 7	(3)	
*	1.21	TOP	1.503	
*	1.21	BOTTOM	0.310	
		I 8	(6)	
		I 8	(3)	
*	1.22	TOP	3.434	
*	1.21	BOTTOM	0.061	
		I 9	(7)	
		I 9	(3)	
*	1.21	TOP	3.087	
*	1.21	BOTTOM	0.219	
		I 10	(7)	
		I 10	(9)	
*	1.22	TOP	0.935	
*	1.22	BOTTOM	0.301	
		I 11	(7)	
		I 11	(8)	
*	0.42	TOP	19.619	
*	0.42	BOTTOM	14.503	
		I 13	(7)	
		I 13	(8)	
*	0.42	TOP	18.376	
*	0.42	BOTTOM	40.759	
		I 15	(7)	
		I 15	(8)	
*	0.42	TOP	19.390	
*	0.42	BOTTOM	40.055	
		I 17	(7)	
		I 17	(8)	
*	0.42	TOP	21 '84	
*	0.42	BOTTOM	42 621	
		I 19	(7)	
		I 19	(8)	
*	0.42	TOP	23.611	
*	0 42	BOTTOM	46.113	
		I 21	(7)	
		I 21	(9)	
*	0.42	TOP	27.787	
*	0.42	BOTTOM	60.130	
		I 23	(7)	

STRIP	WIDTH	PLACING	J 18	J 19

PROYECTO: EDIFICIO
DISEÑO DE CIMENTACION, H.K.S.

S L A B R E I N F O R C I N G D E S I G N

J-DIRECTION SEGMENT NUMBER---------- 11

NUMBER OF STRIPS IN SEGMENT---------- 16

J-GRID NUMBER AT START OF SEGMENT---------- 19

J-GRID NUMBER AT END OF SEGMENT---------- 20

STRIP NO	STRIP ID	START I-GRID	END I-GRID	STRIP WIDTH
1	*	1	2	1.210
2	*	2	3	1.220
3	*	3	4	1.210
4	*	4	5	1.220
5	*	5	6	1.210
6	*	6	7	1.220
7	*	7	8	1.210
8	*	8	9	1.220
9	*	9	10	1.210
10	*	10	11	1.220
11	*	11	12	0.420
12	*	13	15	0.420
13	*	15	17	0.420
14	*	17	19	0.420
15	*	19	21	0.420
16	*	21	23	0.420

PROYECTO EDIFICIO
DISEÑO DE CIMENTACION, H.K.S.

S L A B R E I N F O R C I N G F O R J - S E G M E N T 1.

STRIP	WIDTH	PLACING	J 19	J 20
		I 1	(9)	

```
*          1...      TOP     23.111
*          1.21   BOTTOM     12.012
                     I  2      ( 6)

                     I  2      ( 9)
*          1.22      TOP     25.226
*          1.22   BOTTOM     27.375
                     I  3      ( 6)

                     I  3      ( 9)
*          1.21      TOP     30.368
*          1.21   BOTTOM     27.432
                     I  4      ( 6)

                     I  4      ( 9)
*          1.22      TOP      0.990
*          1.22   BOTTOM      0.196
                     I  5      ( 6)

                     I  5      ( 9)
*          1.21      TOP      0.471
*          1.21   BOTTOM      0.522
                     I  6      ( 6)

                     I  6      ( 9)
*          1.22      TOP      0.486
*          1.22   BOTTOM      0.533
                     I  7      ( 6)

                     I  7      ( 9)
*          1.21      TOP      0.469
*          1.21   BOTTOM      0.991
                     I  8      ( 6)

                     I  8      ( 9)
*          1.22      TOP      0.535
*          1.22   BOTTOM      2.205
                     I  9      ( 7)

                     I  9      ( 8)
*          1.21      TOP      0.556
*          1.21   BOTTOM      2.141
                     I 10      ( 7)

                     I 10      ( 8)
*          1.22      TOP      0.615
*          1.22   BOTTOM      0.762
                     I 11      ( 7)

                     I 11      ( 8)
*          0.42      TOP     35.034
*          0.42   BOTTOM     40.361
                     I 13      ( 7)

                     I 12      ( 8)
*          0.42      TOP     30.272
*          0.42   BOTTOM     39.345
                     I 15      ( 7)

                     I 15      ( 8)
*          0.42      TOP     24.768
*          0.42   BOTTOM     38.845
                     I 17      ( 7)

                     I 17      ( 8)
*          0.42      TOP     24.557
*          0.42   BOTTOM     38.671
                     I 19      ( 7)

                     I 19      ( 8)
*          0.42      TOP     23.402
*          0.42   BOTTOM     38.436
                     I 21      ( 7)

                     I 21      ( 8)
*          0.42      TOP     23.153
```

```
*             0 ..  BOTTOM     40.935
                     I 23      ( 7)

                          19        20
STRIP     WIDTH PLACING          1.60
                          J         J
CSI / SAFE - SLAB AND BASEMAT ANALYSIS BY THE FINITE ELEMENT METHOD     107
                                SAFE_FILE:pmlcim3.FST/SAFERC_FILE:diciment.OUT
PROYECTO: EDIFICIO
DISEÑO DE CIMENTACION, M.K.S


S L A B   R E I N F O R C I N G   D E S I G N

J-DIRECTION SEGMENT NUMBER----------          14

NUMBER OF STRIPS IN SEGMENT----------          16

J-GRID NUMBER AT START OF SEGMENT----------    20

J-GRID NUMBER AT END   OF SEGMENT----------    21


    STRIP  STRIP        START       END         STRIP
      NO   ID          I-GRID      I-GRID       WIDTH

       1   *              1           2         1.210
       2   *              2           3         1.220
       3   *              3           4         1.210
       4   *              4           5         1.220
       5   *              5           6         1.210
       6   *              6           7         1.220
       7   *              7           8         1.210
       8   *              8           9         1.220
       9   *              9          10         1.210
      10   *             10          11         1.220
      11   *             11          13         0.420
      12   *             13          15         0.420
      13   *             15          17         0.420
      14   *             17          19         0.420
      15   *             19          21         0.420
      16   *             21          23         0.420
CSI / SAFE - SLAB AND BASEMAT ANALYSIS BY THE FINITE ELEMENT METHOD     108
                                SAFE_FILE:pmdcim3.FST/SAFERC_FILE:diciment.OUT
PROYECTO. EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.


S L A B   R E I N F O R C I N G   F O R   J - S E G M E N T   14


                          J         J
STRIP     WIDTH PLACING          1.60
                          20        21

                     I  1      ( 9)
*          1.21      TOP     24.638
*          1.21   BOTTOM     26.049
                     I  2      ( 6)

                     I  2      ( 9)
*          1.22      TOP     24.486
*          1.22   BOTTOM     23.588
                     I  3      ( 6)

                     I  3      ( 9)
*          1.21      TOP     30.457
*          1.21   BOTTOM     26.195
                     I  4      ( 6)

                     I  4      ( 9)
*          1.22      TOP      1.041
*          1.22   BOTTOM      0.426
                     I  5      ( 6)
```

		I 5	(9)	
*	1.21	TOP	1.162	
*	1.21	BOTTOM	0.527	
		I 6	(6)	
		I 6	(9)	
*	1.22	TOP	1.145	
*	1.22	BOTTOM	0.564	
		I 7	(6)	
		I 7	(9)	
*	1.21	TOP	1.772	
*	1.21	BOTTOM	1.002	
		I 8	(6)	
		I 8	(8)	
*	1.22	TOP	3.063	
*	1.22	BOTTOM	2.282	
		I 9	(7)	
		I 9	(9)	
*	1.21	TOP	2.810	
*	1.21	BOTTOM	2.209	
		I 10	(7)	
		I 10	(9)	
*	1.22	TOP	1.250	
*	1.22	BOTTOM	0.741	
		I 11	(7)	
		I 11	(8)	
*	0.42	TOP	35.913	
*	0.42	BOTTOM	37.445	
		I 13	(7)	
		I 13	(8)	
*	0.42	TOP	29.308	
*	0.42	BOTTOM	33.194	
		I 15	(7)	
		I 15	(8)	
*	0.42	TOP	25.845	
*	0.42	BOTTOM	32.161	
		I 17	(7)	
		I 17	(8)	
*	0.42	TOP	24.027	
*	0.42	BOTTOM	32.979	
		I 19	(7)	
		I 19	(8)	
*	0.42	TOP	23.434	
*	0.42	BOTTOM	33.758	
		I 21	(7)	
		I 21	(8)	
*	0.42	TOP	25.451	
*	0.42	BOTTOM	34.695	
		I 23	(7)	

STRIP	WIDTH	PLACING	20 J	21 J
			1.60	

PROYECTO: EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.

S L A B R E I N F O R C I N G D E S I G N

J-DIRECTION SEGMENT NUMBER---------- 15

NUMBER OF STRIPS IN SEGMENT---------- 16

J-GRID NUMBER AT START OF SEGMENT---------- 21

J-GRID NUMBER AT END OF SEGMENT---------- 22

STRIP NO	STRIP ID	START J-GRID	END I-GRID	STRIP WIDTH
1	*	1	2	1.210
2	*	2	3	1.220
3	*	3	4	1.210
4	*	4	5	1.210
5	*	5	6	1.210
6	*	6	7	1.220
7	*	7	8	1.210
8	*	8	9	1.220
9	*	9	10	1.210
10	*	10	11	1.210
11	*	11	13	0.420
12	*	13	15	0.420
13	*	15	17	0.420
14	*	17	19	0.420
15	*	19	21	0.420
16	*	21	23	0.420

PROYECTO: EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.

S L A B R E I N F O R C I N G F O R J - S E G M E N T 15

STRIP	WIDTH	PLACING	J 1.80	J 22
			21	
		I 1	(9)	
*	1.21	TOP	22.966	
*	1.21	BOTTOM	28.640	
		I 2	(6)	
		I 2	(9)	
*	1.22	TOP	24.783	
*	1.22	BOTTOM	22.342	
		I 3	(6)	
		I 3	(9)	
*	1.21	TOP	35.757	
*	1.21	BOTTOM	25.253	
		I 4	(6)	
		I 4	(9)	
*	1.22	TOP	1.050	
*	1.22	BOTTOM	0.197	
		I 5	(6)	
		I 5	(5)	
*	1.21	TOP	0.742	
*	1.21	BOTTOM	0.591	
		I 6	(6)	
		I 6	(9)	
*	1.22	TOP	0.894	
*	1.22	BOTTOM	0.687	
		I 7	(7)	
		I 7	(11)	
*	1.21	TOP	1.174	
*	1.21	BOTTOM	1.223	
		I 8	(7)	
		I 8	(11)	
*	1.22	TOP	2.650	
*	1.22	BOTTOM	2.574	
		I 9	(7)	

			I 9	(1)	
*	1.21		TOP	2.477	
*	1.21		BOTTOM	2.395	
			I 10	(7)	
			I 10	(8)	
*	1.22		TOP	1.011	
*	1.22		BOTTOM	0.725	
			I 11	(7)	
			I 11	(8)	
*	0.42		TOP	40.018	
*	0.42		BOTTOM	35.716	
			I 13	(7)	
			I 13	(8)	
*	0.42		TOP	31.439	
*	0.42		BOTTOM	32.998	
			I 15	(7)	
			I 15	(8)	
*	0.42		TOP	26.836	
*	0.42		BOTTOM	32.238	
			I 17	(7)	
			I 17	(8)	
*	0.42		TOP	24.022	
*	0.42		BOTTOM	32.777	
			I 19	(7)	
			I 19	(8)	
*	0.42		TOP	22.579	
*	0.42		BOTTOM	34.537	
			I 21	(7)	
			I 21	(8)	
*	0.42		TOP	22.729	
*	0.42		BOTTOM	39.044	
			I 23	(7)	

						21		22	
STRIP		WIDTH	PLACING			1.80			
					J		J		

PROYECTO: EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.

S L A B R E I N F O R C I N G D E S I G N

J-DIRECTION SEGMENT NUMBER---------- 16

NUMBER OF STRIPS IN SEGMENT---------- 16

J-GRID NUMBER AT START OF SEGMENT---------- 22

J-GRID NUMBER AT END OF SEGMENT---------- 23

STRIP NO	STRIP ID	START I-GRID	END I-GRID	STRIP WIDTH
1	*	1	2	1.210
2	*	2	3	1.220
3	*	3	4	1.210
4	*	4	5	1.220
5	*	5	6	1.210
6	*	6	7	1.220
7	*	7	8	1.210
8	*	8	9	1.220
9	*	9	10	1.210
10	*	10	11	1.220
11	*	11	13	0.420
12	*	13	15	0.420
13	*	15	17	0.420
14	*	17	19	0.420
15	*	19	21	0.420
16	*	21	23	0.420

PROYECTO EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.

S L A B R E I N F O R C I N G F O R J - S E G M E N T 16

						J		J	
STRIP		WIDTH	PLACING			1.80			
						22		23	
				I 1	(9)				
*	1.21		TOP	24.610					
*	1.21		BOTTOM	17.981					
				I 2	(6)				
				I 2	(9)				
*	1.22		TOP	25.658					
*	1.22		BOTTOM	17.478					
				I 3	(6)				
				I 3	(9)				
*	1.21		TOP	32.508					
*	1.21		BOTTOM	21.133					
				I 4	(7)				
				I 4	(8)				
*	1.22		TOP	1.201					
*	1.22		BOTTOM	0.788					
				I 5	(7)				
				I 5	(8)				
*	1.21		TOP	2.010					
*	1.21		BOTTOM	0.797					
				I 6	(7)				
				I 6	(8)				
*	1.22		TOP	2.006					
*	1.22		BOTTOM	0.580					
				I 7	(7)				
				I 7	(8)				
*	1.21		TOP	2.723					
*	1.21		BOTTOM	1.125					
				I 8	(6)				
				I 8	(9)				
*	1.22		TOP	3.991					
*	1.22		BOTTOM	2.549					
				I 9	(7)				
				I 9	(9)				
*	1.21		TOP	3.864					
*	1.21		BOTTOM	2.353					
				I 10	(7)				
				I 10	(9)				
*	1.22		TOP	1.485					
*	1.22		BOTTOM	0.868					
				I 11	(7)				
				I 11	(8)				
*	0.42		TOP	40.944					
*	0.42		BOTTOM	30.921					
				I 13	(6)				
				I 13	(8)				
*	0.42		TOP	33.379					
*	0.42		BOTTOM	19.813					

		I 15	(7)
		I 15	(8)
*	0.42	TOP	27.418
*	0.42	BOTTOM	21.662
		I 17	(7)
		I 17	(8)
*	0.42	TOP	24.687
*	0.42	BOTTOM	22.469
		I 19	(7)
		I 19	(8)
*	0.42	TOP	24.025
*	0.42	BOTTOM	22.939
		I 21	(7)
		I 21	(8)
*	0.42	TOP	25.727
*	0.42	BOTTOM	24.601
		I 23	(7)

			22	23
STRIP	WIDTH	PLACING	J	J
			1.80	

CSI / SAFE - SLAB AND BASEMAT ANALYSIS BY THE FINITE ELEMENT METHOD 113
SAFE_FILE:pmicim3.PST/SAFERC_FILE:dicimmnt.OUT

PROYECTO: EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.

S L A B R E I N F O R C I N G D E S I G N

J-DIRECTION SEGMENT NUMBER---------- 17

NUMBER OF STRIPS IN SEGMENT---------- 16

J-GRID NUMBER AT START OF SEGMENT---------- 23

J-GRID NUMBER AT END OF SEGMENT---------- 24

STRIP NO	STRIP ID	START I-GRID	END I-GRID	STRIP WIDTH
1	*	1	2	1.210
2	*	2	3	1.220
3	*	3	4	1.210
4	*	4	5	1.220
5	*	5	6	1.210
6	*	6	7	1.220
7	*	7	8	1.210
8	*	8	9	1.220
9	*	9	10	1.210
10	*	10	11	1.220
11	*	11	13	0.420
12	*	13	15	0.420
13	*	15	17	0.420
14	*	17	19	0.420
15	*	19	21	0.420
16	*	21	23	0.420

CSI / SAFE - SLAB AND BASEMAT ANALYSIS BY THE FINITE ELEMENT METHOD 114
SAFE_FILE:pmicim3.PST/SAFERC_FILE:dicimmnt.OUT

PROYECTO: EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.

S L A B R E I N F O R C I N G F O R J - S E G M E N T 17

			J	J
STRIP	WIDTH	PLACING	0.50	
			23	24

		I 1	(9)
*	1.21	TOP	20.206
*	1.21	BOTTOM	10.876
		I 2	(7)
		I 2	(9)
*	1.22	TOP	19.565
*	1.22	BOTTOM	11.034
		I 3	(7)
		I 3	(9)
*	1.21	TOP	18.410
*	1.21	BOTTOM	15.049
		I 4	(7)
		I 4	(9)
*	1.22	TOP	9.584
*	1.22	BOTTOM	6.698
		I 5	(7)
		I 5	(9)
*	1.21	TOP	8.655
*	1.21	BOTTOM	3.314
		I 6	(8)
		I 6	(9)
*	1.22	TOP	13.083
*	1.22	BOTTOM	5.264
		I 7	(7)
		I 7	(9)
*	1.21	TOP	12.632
*	1.21	BOTTOM	4.867
		I 8	(7)
		I 8	(8)
*	1.22	TOP	7.059
*	1.22	BOTTOM	1.646
		I 9	(9)
		I 9	(8)
*	1.21	TOP	2.564
*	1.21	BOTTOM	1.536
		I 10	(6)
		I 10	(8)
*	1.22	TOP	6.914
*	1.22	BOTTOM	6.572
		I 11	(6)
		I 11	(8)
*	0.42	TOP	13.946
*	0.42	BOTTOM	15.944
		I 13	(6)
		I 13	(8)
*	0.42	TOP	16.322
*	0.42	BOTTOM	15.175
		I 15	(6)
		I 15	(8)
*	0.42	TOP	16.214
*	0.42	BOTTOM	13.938
		I 17	(6)
		I 17	(8)
*	0.42	TOP	16.358
*	0.42	BOTTOM	12.558
		I 19	(6)
		I 19	(8)
*	0.42	TOP	20.131
*	0.42	BOTTOM	13.205
		I 21	(6)
		I 21	(8)
*	0.42	TOP	26.885

```
                0.... BOTTOM    18.565
                    I 23        ( 6)

                          23          24
STRIP     WIDTH PLACING                0.50
                          J           J
CSI / SAFE - SLAB AND BASEMAT ANALYSIS BY THE FINITE ELEMENT METHOD     115
                                  SAFE_FILE:pmicam3.PST/SAFERC_FILE:diciment.OUT
PROYECTO: EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.


S L A B   R E I N F O R C I N G   D E S I G N

J-DIRECTION SEGMENT NUMBER----------------------        18

NUMBER OF STRIPS IN SEGMENT---------------------        16

J-GRID NUMBER AT START OF SEGMENT---------------        24

J-GRID NUMBER AT END   OF SEGMENT---------------        25


    STRIP  STRIP        START       END         STRIP
      NO   ID          I-GRID      I-GRID       WIDTH

       1   *              1           2         1.210
       2   *              2           3         1.220
       3   *              3           4         1.210
       4   *              4           5         1.220
       5   *              5           6         1.210
       6   *              6           7         1.220
       7   *              7           8         1.210
       8   *              8           9         1.220
       9   *              9          10         1.210
      10   *             10          11         1.220
      11   *             11          13         0.420
      12   *             13          15         0.420
      13   *             15          17         0.420
      14   *             17          19         0.420
      15   *             19          21         0.420
      16   *             21          23         0.420
CSI / SAFE - SLAB AND BASEMAT ANALYSIS BY THE FINITE ELEMENT METHOD     116
                                  SAFE_FILE:pmicam3.PST/SAFERC_FILE:diciment.OUT
PROYECTO: EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.


S L A B   R E I N F O R C I N G   F O R   J - S E G M E N T   18

                          J           J
STRIP     WIDTH PLACING                1.10
                          24          25

                    I  1        ( 9)
*         1.21       TOP       17.869
*         1.21    BOTTOM        7.573
                    I  2        ( 6)

                    I  2        ( 9)
*         1.22       TOP       20.047
*         1.22    BOTTOM        7.220
                    I  3        ( 6)

                    I  3        ( 9)
*         1.21       TOP       14.260
*         1.21    BOTTOM        9.736
                    I  4        ( 7)

                    I  4        ( 9)
*         1.22       TOP        8.986
*         1.22    BOTTOM        6.365
                    I  5        ( 7)

                    I  5        ( 9)
*         1.21       TOP        8.184
*         1.21    BOTTOM        4.329
                    I  6        ( 7)

                    I  6        ( 9)
*         1.22       TOP       13.721
*         1.22    BOTTOM        2.981
                    I  7        ( 7)

                    I  7        ( 8)
*         1.21       TOP       13.434
*         1.21    BOTTOM        2.866
                    I  8        ( 7)

                    I  8        ( 8)
*         1.22       TOP        6.661
*         1.22    BOTTOM        2.417
                    I  9        ( 7)

                    I  9        ( 8)
*         1.21       TOP        5.387
*         1.21    BOTTOM        3.202
                    I 10        ( 6)

                    I 10        ( 8)
*         1.22       TOP        7.535
*         1.22    BOTTOM        6.057
                    I 11        ( 6)

                    I 11        ( 8)
*         0.42       TOP       11.360
*         0.42    BOTTOM        9.421
                    I 13        ( 6)

                    I 13        ( 8)
*         0.42       TOP       13.386
*         0.42    BOTTOM        9.442
                    I 15        ( 6)

                    I 15        ( 8)
*         0.42       TOP       11.875
*         0.42    BOTTOM        9.181
                    I 17        ( 6)

                    I 17        ( 8)
*         0.42       TOP       10.641
*         0.42    BOTTOM        8.913
                    I 19        ( 7)

                    I 19        ( 8)
*         0.42       TOP       19.867
*         0.42    BOTTOM        8.550
                    I 21        ( 7)

                    I 21        ( 8)
*         0.42       TOP       18.946
*         0.42    BOTTOM        9.556
                    I 23        ( 7)

                          24          25
STRIP     WIDTH PLACING                1.10
                          J           J
CSI / SAFE - SLAB AND BASEMAT ANALYSIS BY THE FINITE ELEMENT METHOD     117
                                  SAFE_FILE:pmicam3.PST/SAFERC_FILE:diciment.OUT
PROYECTO: EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.


S L A B   R E I N F O R C I N G   D E S I G N

J-DIRECTION SEGMENT NUMBER----------------------        19

NUMBER OF STRIPS IN SEGMENT---------------------        16

J-GRID NUMBER AT START OF SEGMENT---------------        25
```

J-GRID NUMBER AT END OF SEGMENT---------- 26

STRIP NO	STRIP ID	START I-GRID	END I-GRID	STRIP WIDTH
1	*	1	2	1.210
2	*	2	3	1.220
3	*	3	4	1.210
4	*	4	5	1.220
5	*	5	6	1.210
6	*	6	7	1.220
7	*	7	8	1.210
8	*	8	9	1.220
9	*	9	10	1.210
10	*	10	11	1.220
11	*	11	13	0.420
12	*	13	15	0.420
13	*	15	17	0.420
14	*	17	19	0.420
15	*	19	21	0.420
16	*	21	23	0.420

PROYECTO: EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.

S L A B R E I N F O R C I N G F O R J - S E G M E N T 19

STRIP	WIDTH	PLACING	I 1 (9)	J 1.10 J
			25	26
*	1.21	TOP		16.219
*	1.21	BOTTOM		3.948
			I 2 (6)	
			I 2 (9)	
*	1.22	TOP		11.631
*	1.22	BOTTOM		4.876
			I 3 (6)	
			I 3 (9)	
*	1.21	TOP		11.144
*	1.21	BOTTOM		6.976
			I 4 (6)	
			I 4 (9)	
*	1.22	TOP		7.760
*	1.22	BOTTOM		5.176
			I 5 (7)	
			I 5 (9)	
*	1.21	TOP		7.327
*	1.21	BOTTOM		3.828
			I 6 (7)	
			I 6 (9)	
*	1.22	TOP		7.108
*	1.22	BOTTOM		2.830
			I 7 (7)	
			I 7 (8)	
*	1.21	TOP		6.447
*	1.21	BOTTOM		2.339
			I 8 (7)	
			I 8 (8)	
*	1.22	TOP		6.369
*	1.22	BOTTOM		2.156
			I 9 (7)	
			I 9 (8)	
*	1.21	TOP		6.884
*	1.21	BOTTOM		3.072
			I 10 (6)	
			I 10 (8)	
*	1.22	TOP		7.550
*	1.22	BOTTOM		4.531
			I 11 (7)	
			I 11 (8)	
*	0.42	TOP		9.452
*	0.42	BOTTOM		5.218
			I 13 (7)	
			I 13 (8)	
*	0.42	TOP		10.891
*	0.42	BOTTOM		4.965
			I 15 (7)	
			I 15 (8)	
*	0.42	TOP		12.228
*	0.42	BOTTOM		4.836
			I 17 (7)	
			I 17 (8)	
*	0.42	TOP		12.900
*	0.42	BOTTOM		4.659
			I 19 (7)	
			I 19 (8)	
*	0.42	TOP		16.351
*	0.42	BOTTOM		4.563
			I 21 (7)	
			I 21 (8)	
*	0.42	TOP		15.622
*	0.42	BOTTOM		5.288
			I 23 (7)	

STRIP	WIDTH	PLACING	J 1.10 J
			25 26

PROYECTO: EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.

S L A B R E I N F O R C I N G D E S I G N

J-DIRECTION SEGMENT NUMBER---------- 20

NUMBER OF STRIPS IN SEGMENT---------- 16

J-GRID NUMBER AT START OF SEGMENT---------- 26

J-GRID NUMBER AT END OF SEGMENT---------- 27

STRIP NO	STRIP ID	START I-GRID	END I-GRID	STRIP WIDTH
1	*	1	2	1.210
2	*	2	3	1.220
3	*	3	4	1.210
4	*	4	5	1.220
5	*	5	6	1.210
6	*	6	7	1.220
7	*	7	8	1.210
8	*	8	9	1.220
9	*	9	10	1.210
10	*	10	11	1.220
11	*	11	13	0.420

12	*	13	15	0.420
13	*	15	17	0.420
14	*	17	19	0.420
15	*	19	21	0.420
16	*	21	23	0.420

PROYECTO: EDIFICIO
DISEÑO DE CIMENTACION, M.K.S.

S L A B R E I N F O R C I N G F O R J - S E G M E N T 20

STRIP	WIDTH	PLACING	J 26	J 27
		I 1	(9)	
*	1.21	TOP	15.617	
*	1.21	BOTTOM	2.933	
		I 2	(9)	
		I 2	(9)	
*	1.22	TOP	10.724	
*	1.22	BOTTOM	0.939	
		I 3	(6)	
		I 3	(9)	
*	1.21	TOP	4.656	
*	1.21	BOTTOM	1.689	
		I 4	(6)	
		I 4	(9)	
*	1.22	TOP	7.868	
*	1.22	BOTTOM	1.890	
		I 5	(6)	
		I 5	(9)	
*	1.21	TOP	7.341	
*	1.21	BOTTOM	1.449	
		I 6	(6)	
		I 6	(9)	
*	1.22	TOP	2.906	
*	1.22	BOTTOM	1.074	
		I 7	(7)	
		I 7	(9)	
*	1.21	TOP	2.884	
*	1.21	BOTTOM	0.869	
		I 8	(7)	
		I 8	(8)	
*	1.22	TOP	6.169	
*	1.22	BOTTOM	0.853	
		I 9	(7)	
		I 9	(8)	
*	1.21	TOP	7.024	
*	1.21	BOTTOM	1.538	
		I 10	(7)	
		I 10	(8)	
*	1.22	TOP	3.914	
*	1.22	BOTTOM	1.774	
		I 11	(7)	
		I 11	(8)	
*	0.42	TOP	3.489	
*	0.42	BOTTOM	1.775	
		I 13	(7)	
		I 13	(8)	
*	0.42	TOP	4.739	
*	0.42	BOTTOM	1.747	
		I 15	(7)	
		I 15	(8)	
*	0.42	TOP	7.911	
*	0.42	BOTTOM	1.668	
		I 17	(7)	
		I 17	(8)	
*	0.42	TOP	11.076	
*	0.42	BOTTOM	1.656	
		I 19	(7)	
		I 19	(8)	
*	0.42	TOP	16.916	
*	0.42	BOTTOM	1.086	
		I 21	(7)	
		I 21	(8)	
*	0.42	TOP	26.774	
*	0.42	BOTTOM	10.451	
		I 23	(8)	

STRIP	WIDTH	PLACING	J 26	J 27

DISEÑO DE LA COLUMNAS

CONKER

(Archivo de Salida)

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

Concrete Frame Design Processor for ETABS

Version 6.12

20 Aug 2098 22:45 61

EDIFICIO TISSOT. DISEÑO DE COLUMNAS DE CONCRETO.
UNIDADES MKS. ACI 318-89

DESIGN CODE TYPE----------	2 (ACI 318-89)
NUMBER OF FRAMES TO BE DESIGNED/CHECKED----	1
NUMBER OF LOAD COMBINATIONS----------	17
ETABS DEAD LOAD CONDITION NUMBER----------	1
ETABS LIVE LOAD CONDITION NUMBER----------	2
NUMBER OF NAMED MATERIAL PROPERTIES----	1
NUMBER OF COLUMN DESIGN PROPERTY SETS-----	4
NUMBER OF BEAM DESIGN PROPERTY SETS-------	0
NUMBER OF CURVES PER INTERACTION VOLUME----	7
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-------	0
FLAG FOR MAP OF BEAM SHEAR STEEL----------	0
FLAG FOR MAP OF COLUMN DESIGN/CHECK-------	1
FLAG FOR MAP OF COLUMN SHEAR STEEL--------	0
FLAG FOR MAP OF JOINT SHEAR STRESS RATIOS--	0
FLAG FOR MAP OF B/C MOMENT CAPACITY RATIOS-	0

EDIFICIO TISSOT. DISEÑO DE COLUMNAS DE CONCRETO.
UNIDADES MKS. ACI 318-89

DESIGN LOADING COMBINATION DATA

LOAD	TYPE	I	J	J1	A	B	C	D1	D2
1	0	1.400	1.700	0.000	0.000	0.000	0.000	0.000	0.000
2	0	1.050	1.280	0.000	1.400	0.420	0.000	0.000	0.000
3	0	1.050	1.280	0.000	1.400	-0.420	0.000	0.000	0.000
4	0	1.050	1.280	0.000	-1.400	0.420	0.000	0.000	0.000
5	0	1.050	1.280	0.000	-1.400	-0.420	0.000	0.000	0.000
6	0	1.050	1.280	0.000	0.420	1.400	0.000	0.000	0.000
7	0	1.050	1.280	0.000	-0.420	1.400	0.000	0.000	0.000
8	0	1.050	1.280	0.000	0.420	-1.400	0.000	0.000	0.000
9	0	1.050	1.280	0.000	-0.420	-1.400	0.000	0.000	0.000
10	0	0.900	0.000	0.000	1.430	0.420	0.000	0.000	0.000
11	0	0.900	0.000	0.000	1.430	-0.420	0.000	0.000	0.000
12	0	0.900	0.000	0.000	-1.430	0.420	0.000	0.000	0.000
13	0	0.900	0.000	0.000	-1.430	-0.420	0.000	0.000	0.000
14	0	0.900	0.000	0.000	0.420	1.430	0.000	0.000	0.000
15	0	0.900	0.000	0.000	-0.420	1.430	0.000	0.000	0.000
16	0	0.900	0.000	0.000	0.420	-1.430	0.000	0.000	0.000
17	0	0.900	0.000	0.000	-0.420	-1.430	0.000	0.000	0.000

EDIFICIO TISSOT. DISEÑO DE COLUMNAS DE CONCRETO.
UNIDADES MKS. ACI 318-89

MATERIAL PROPERTIES

ID	TYPE	ELASTIC MODULUS (Kg/sqm)	POISSONS RATIO	UNIT WEIGHT (Kg/cum)	UNIT MASS	COEFF OF EXPANSION
1	S	0.2100E+11	0.3000	0.7850E+04	0.8012E+03	0.0000E+00
2	C	0.2214E+10	0.1800	0.2400E+04	0.2446E+03	0.0000E+00
3	W	0.2214E+10	0.1800	0.2400E+04	0.2446E+03	0.0000E+00
4	D	0.2214E+02	0.1800	0.2400E+04	0.0000E+00	0.0000E+00
5	D	0.2100E+11	0.3000	0.7850E+04	0.8012E+03	0.0000E+00

MATERIAL PROPERTIES FOR DESIGN

ID	TYPE	YIELD STRENGTH FY (Kg/sqm)	FC(FM) (Kg/sqm)	FIELD STRENGTH FYS (Kg/sqm)	FCS(FMS) (Kg/sqm)	ALLOWABLES FBMAJ (Kg/sqm)	FBMIN (Kg/sqm)
1	S	0.253E+08				0.000E+00	0.000E+00
2	C	0.420E+08	0.250E+07	0.281E+08	0.250E+07		
3	W	0.420E+08	0.250E+07	0.420E+08	0.250E+07		

EDIFICIO TISSOT. DISEÑO DE COLUMNAS DE CONCRETO.
UNIDADES MKS. ACI 318-89

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	2	0.9000	0.4000	0.05000	0.00000	0.00000
2	RR	2	0.9000	0.4000	0.05000	0.00000	0.00000
3	RR	2	0.9000	0.4000	0.05000	0.00000	0.00000
4	AISC	1					
5	RR	2	0.9000	0.4000	0.05000	0.00000	0.00000
6	RR	2	0.5000	0.3000	0.05000	0.00000	0.00000
7	AISC	1					
8	AISC	1					
9	RR	2	0.9000	0.4000	0.05000	0.00000	0.00000
10	AISC	1					

EDIFICIO TISSOT. DISEÑO DE COLUMNAS DE CONCRETO.
UNIDADES MKS. ACI 318-89

SECTION PROPERTIES FOR BEAMS

SEC. 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	USER	5							
2	AISC	1							
3	AISC	1							
4	AISC	1							
5	AISC	1							
6	RECT	4							
7	USER	5							
8	AISC	1							
9	AISC	1							
10	AISC	1							

EDIFICIO TISSOT. DISEÑO DE COLUMNAS DE CONCRETO.
UNIDADES MKS. ACI 318-89

FRAME NUMBER---------- 1

FRAMING TYPE---------- 1 (SISMIC)

COLUMN PROPERTY REASSIGNMENT FLAG---------- 0
BEAM PROPERTY REASSIGNMENT FLAG---------- 0

YIELD OVERSTRENGTH FACTOR---------- 1.25

FRAME ID NUMBER---------- 5
NUMBER OF STORY LEVELS---------- 17
NUMBER OF COLUMN LINES---------- 38
NUMBER OF BAYS---------- 62
NUMBER OF BRACING ELEMENTS---------- 60
NUMBER OF PANEL ELEMENTS---------- 100
NUMBER OF COLUMN LATERAL LOAD PATTERNS---- 0
NUMBER OF BEAM SPAN LOAD PATTERNS---------- 201
MAXIMUN NUMBER OF LOADS PER BEAM SPAN---- 5

EDIFICIO TISSOT. DISEÑO DE COLUMNAS DE CONCRETO.
UNIDADES MKS. ACI 318-89

DESIGN OF COLUMN ELEMENTS (ACI 318-89)

FRAME ID .... EDIFICIO TISSOT
LEVEL ID N00

COL ID	COLUMN SIZE MAJOR X (m)	MINOR (m)	STR PT	MOMENT INTERACTION PU (T)	MMAJ (T-m)	MMIN (T-m)	COMBO	REBAR (sqcm)	DIR	VU (T)	COMBO	A (/m) (sqcm)
1	0.90 X	0.40							MAJOR	9	< 1>	4.75
	RR								MINOR	4	< 7>	5.46
			TOP	6	17	3	<17>	36.00				
			BOT	6	4	9	<17>	36.00				
2	0.90 X	0.40							MAJOR	9	< 1>	4.73
	RR								MINOR	4	< 6>	5.45
			TOP	4	17	3	<17>	36.00				
			BOT	4	4	10	<17>	36.00				
3	0.90 X	0.40							MAJOR	18	< 6>	9.25
	RR								MINOR	3	<15>	3.91
			TOP	13	17	2	<17>	36.00				
			BOT	13	11	7	<17>	36.00				
4	0.90 X	0.40							MAJOR	18	< 3>	9.26
	RR								MINOR	3	<17>	3.90
			TOP	12	17	2	<17>	36.00				
			BOT	12	11	8	<17>	36.00				
5	0.90 X	0.40							MAJOR	20	< 1>	10.26
	RR								MINOR	0	<15>	1.03
			TOP	14	17	1	<17>	36.00				
			BOT	14	14	3	<17>	36.00				
6	0.90 X	0.40							MAJOR	20	< 1>	10.30
	RR								MINOR	0	<14>	1.02
			TOP	12	17	1	<17>	36.00				
			BOT	12	..	3	<17>	36.00				
7	0.90 X	0.40							MAJOR	20	< 1>	10.24
	RR								MINOR	2	<15>	3.09
			TOP	9	16	1	<17>	36.00				
			BOT	9	14	5	<17>	36.00				
9	0.90 X	0.40							MAJOR	20	< 1>	10.22
	RR								MINOR	2	<14>	3.08
			TOP	8	16	1	<17>	36.00				
			BOT	8	14	6	<17>	36.00				
10	0.90 X	0.40							MAJOR	16	< 1>	8.36
	RR								MINOR	3	< 8>	4.63
			TOP	12	17	2	<17>	36.00				
			BOT	12	11	7	<17>	36.00				
11	0.90 X	0.40							MAJOR	16	< 1>	8.29
	RR								MINOR	3	< 9>	4.48
			TOP	11	13	2	<17>	36.00				
			BOT	11	12	8	<17>	36.00				

EDIFICIO TISSOT. DISEÑO DE COLUMNAS DE CONCRETO.
UNIDADES MKS. ACI 318-89

DESIGN OF COLUMN ELEMENTS (ACI 318-89)

FRAME ID .... EDIFICIO TISSOT
LEVEL ID N12

COL ID	COLUMN SIZE MAJOR X (m)	MINOR (m)	STR PT	MOMENT INTERACTION PU (T)	MMAJ (T-m)	MMIN (T-m)	COMBO	REBAR (sqcm)	DIR	VU (T)	COMBO	A (/m) (sqcm)
1	0.90 X	0.40							MAJOR	6	< 5>	2.98
	RR								MINOR	4	< 8>	5.59
			TOP	11	4	4	<17>	36.00				
			BOT	11	8	6	<17>	36.00				
2	0.90 X	0.40							MAJOR	6	< 2>	2.96
	RR								MINOR	4	< 9>	5.60
			TOP	9	4	5	<12>	36.00				
			BOT	9	8	6	<17>	36.00				
3	0.90 X	0.40							MAJOR	18	< 5>	8.67
	RR								MINOR	4	<15>	5.63
			TOP	33	11	5	<17>	36.00				
			BOT	33	11	7	<17>	36.00				
4	0.90 X	0.40							MAJOR	17	< 2>	8.88
	RR								MINOR	4	<14>	5.63
			TOP	31	11	5	<17>	36.00				
			BOT	31	11	7	<17>	36.00				
5	0.90 X	0.40							MAJOR	19	< 4>	9.81
	RR								MINOR	6	<15>	7.25
			TOP	28	13	8	<17>	36.00				
			BOT	28	13	9	<17>	36.00				
6	0.90 X	0.40							MAJOR	19	< 3>	9.83
	RR								MINOR	6	<14>	7.25
			TOP	25	13	8	<17>	36.00				
			BOT	25	13	10	<17>	36.00				
7	0.90 X	0.40							MAJOR	18	< 6>	9.14
	RR								MINOR	5	<16>	5.99
			TOP	14	12	1	<17>	36.00				
			BOT	14	12	8	<17>	36.00				
9	0.90 X	0.40							MAJOR	19	< 3>	9.80
	RR								MINOR	5	<17>	5.99
			TOP	11	12	7	<17>	36.00				
			BOT	11	12	8	<17>	36.00				
10	0.90 X	0.40							MAJOR	14	< 5>	7.24
	RR								MINOR	4	< 7>	5.09
			TOP	23	9	5	<17>	36.00				
			BOT	23	11	6	<17>	36.00				
12	0.90 X	0.40							MAJOR	14	< 3>	7.25
	RR								MINOR	4	< 6>	5.06
			TOP	20	10	5	<17>	36.00				
			BOT	20	11	7	<17>	36.00				

EDIFICIO TISSOT. DISEÑO DE COLUMNAS DE CONCRETO.
UNIDADES MKS. ACI 318-89

DESIGN OF COLUMN ELEMENTS (ACI 318-89)

FRAME ID .... EDIFICIO TISSOT
LEVEL ID N11

COL ID	COLUMN SIZE MAJOR (m)	X MINOR (m)	STR PT	/------MOMENT INTERACTION------/ PU (T)	MMAJ (T-m)	MMIN (T-m)	COMBO	REBAR (aqcm)	/----SHEAR DIRN	VU (T)	DESIGN----/ COMBO	A (/m) (aqcm)
1	0.90	X 0.40							MAJOR	8	<12>	4.27
	RR								MINOR	4	< 7>	5.80
			TOP	38	15	5	<17>	36.00				
			BOT	38	3	8	<17>	36.00				
2	0.90	X 0.40							MAJOR	8	<11>	4.27
	RR								MINOR	4	< 6>	5.79
			TOP	33	15	5	<17>	36.00				
			BOT	33	3	8	<17>	36.00				
3	0.90	X 0.40							MAJOR	17	<12>	8.80
	RR								MINOR	3	<16>	4.11
			TOP	48	18	4	<17>	36.00				
			BOT	48	12	6	<17>	36.00				
4	0.90	X 0.40							MAJOR	17	<11>	8.82
	RR								MINOR	3	<17>	4.10
			TOP	41	14	4	<17>	36.00				
			BOT	41	12	6	<17>	36.00				
5	0.90	X 0.40							MAJOR	11	<15>	5.59
	RR								MINOR	2	<15>	2.82
			TOP	43	15	2	<17>	36.00				
			BOT	43	14	3	<17>	36.00				
6	0.90	X 0.40							MAJOR	11	<16>	5.62
	RR								MINOR	2	<14>	2.81
			TOP	36	15	2	<17>	36.00				
			BOT	36	15	6	<17>	36.00				
7	0.90	X 0.40							MAJOR	18	<13>	9.25
	RR								MINOR	3	<14>	3.78
			TOP	27	15	3	<17>	36.00				
			BOT	27	14	5	<17>	36.00				
9	0.90	X 0.40							MAJOR	18	<11>	9.31
	RR								MINOR	3	<15>	3.79
			TOP	21	15	6	<17>	36.00				
			BOT	21	14	6	<17>	36.00				
10	0.90	X 0.40							MAJOR	17	<13>	8.57
	RR								MINOR	4	< 8>	5.65
			TOP	21	16	5	<17>	36.00				
			BOT	21	12	8	<17>	36.00				
12	0.90	X 0.40							MAJOR	17	<11>	8.62
	RR								MINOR	4	< 9>	5.67
			TOP	16	12	5	<17>	36.00				
			BOT	16	11	8	<17>	36.00				

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STABS_FILE:PM15.PST/CONNER_FILE:CKPM13_4.CNK

EDIFICIO TISSOT. DISEÑO DE COLUMNAS DE CONCRETO.
UNIDADES MKS. ACI 318-89

DESIGN OF COLUMN ELEMENTS (ACI 318-89)

FRAME ID .... EDIFICIO TISSOT
LEVEL ID N10

COL ID	COLUMN SIZE MAJOR (m)	X MINOR (m)	STR PT	/------MOMENT INTERACTION------/ PU (T)	MMAJ (T-m)	MMIN (T-m)	COMBO	REBAR (aqcm)	/----SHEAR DIRN	VU (T)	DESIGN----/ COMBO	A (/m) (aqcm)
1	0.90	X 0.40							MAJOR	8	<12>	4.36
	RR								MINOR	5	<16>	6.95
			TOP	46	3	7	<17>	36.00				
			BOT	46	11	8	<17>	36.00				
2	0.90	X 0.40							MAJOR	8	<10>	4.36
	RR								MINOR	5	<17>	6.95
			TOP	40	3	7	<17>	36.00				
			BOT	40	11	8	<17>	36.00				
3	0.90	X 0.40							MAJOR	21	<12>	10.73
	RR								MINOR	6	<15>	7.99
			TOP	72	14	7	<17>	36.00				
			BOT	72	15	9	<17>	36.00				
4	0.90	X 0.40							MAJOR	21	<10>	10.73
	RR								MINOR	6	<14>	7.99
			TOP	66	14	8	<17>	36.00				
			BOT	66	15	10	<17>	36.00				

5	0.90	X 0.40							MAJOR	9	<11>	4.27
	RR								MINOR	7	<16>	8.14
			TOP	58	16	10	<17>	36.00				
			BOT	58	16	11	<17>	36.00				
6	0.90	X 0.40							MAJOR	6	<12>	3.36
	RR								MINOR	7	<15>	8.54
			TOP	48	16	10	<17>	36.00				
			BOT	48	16	12	<17>	36.00				
7	0.90	X 0.40							MAJOR	11	<17>	5.71
	RR								MINOR	6	<16>	7.31
			TOP	28	15	8	<17>	36.00				
			BOT	28	15	9	<17>	36.00				
9	0.90	X 0.40							MAJOR	11	<16>	5.89
	RR								MINOR	6	<17>	7.30
			TOP	18	16	8	<17>	36.00				
			BOT	18	16	10	<17>	36.00				
10	0.90	X 0.40							MAJOR	10	<17>	4.98
	RR								MINOR	4	<16>	5.24
			TOP	32	12	7	<17>	36.00				
			BOT	32	15	8	<17>	36.00				
12	0.90	X 0.40							MAJOR	10	<16>	5.15
	RR								MINOR	4	<17>	5.23
			TOP	24	13	7	<17>	36.00				
			BOT	24	12	8	<17>	36.00				

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STABS_FILE:PM15.PST/CONNER_FILE:CKPM13_4.CNK

EDIFICIO TISSOT. DISEÑO DE COLUMNAS DE CONCRETO.
UNIDADES MKS. ACI 318-89

DESIGN OF COLUMN ELEMENTS (ACI 318-89)

FRAME ID .... EDIFICIO TISSOT
LEVEL ID N9

COL ID	COLUMN SIZE MAJOR (m)	X MINOR (m)	STR PT	/------MOMENT INTERACTION------/ PU (T)	MMAJ (T-m)	MMIN (T-m)	COMBO	REBAR (aqcm)	/----SHEAR DIRN	VU (T)	DESIGN----/ COMBO	A (/m) (aqcm)
1	0.90	X 0.40							MAJOR	6	< 7>	3.41
	RR								MINOR	4	< 7>	5.41
			TOP	97	17	5	<17>	36.00				
			BOT	97	4	7	<17>	36.00				
2	0.90	X 0.40							MAJOR	6	< 6>	3.39
	RR								MINOR	4	< 6>	5.27
			TOP	87	17	6	<17>	36.00				
			BOT	87	3	7	<17>	36.00				
3	0.90	X 0.40							MAJOR	11	<15>	5.65
	RR								MINOR	2	<15>	3.24
			TOP	68	15	3	<17>	36.00				
			BOT	68	15	5	<17>	36.00				
4	0.90	X 0.40							MAJOR	11	<14>	5.59
	RR								MINOR	2	<14>	3.21
			TOP	78	16	3	<17>	36.00				
			BOT	78	15	5	<17>	36.00				
5	0.90	X 0.40							MAJOR	9	<11>	4.45
	RR								MINOR	0	<11>	0.61
			TOP	71	17	1	<17>	36.00				
			BOT	71	17	3	<17>	36.00				
6	0.90	X 0.40							MAJOR	8	<12>	4.43
	RR								MINOR	0	<13>	0.59
			TOP	56	17	1	<17>	36.00				
			BOT	56	17	3	<17>	36.00				
7	0.90	X 0.40							MAJOR	12	<17>	6.22
	RR								MINOR	2	<16>	3.26
			TOP	41	17	3	<17>	36.00				
			BOT	41	17	5	<17>	36.00				
9	0.90	X 0.40							MAJOR	13	<16>	6.40
	RR								MINOR	2	<17>	3.26
			TOP	27	17	3	<17>	36.00				
			BOT	27	17	5	<17>	36.00				
10	0.90	X 0.40							MAJOR	15	< 9>	7.68
	RR								MINOR	4	< 8>	5.62
			TOP	11	17	5	<17>	36.00				
			BOT	11	15	8	<17>	36.00				
12	0.90	X 0.40							MAJOR	15	< 8>	7.66
	RR								MINOR	4	< 9>	5.63
			TOP	-2	14	5	<17>	36.00				

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                  BOT     -2      ..      8   .7> 36.0.
                                        PAGE  13
                                     ETABS_FILE:PMI5 P5T/CONKER_FILE:CXPMI3_4.CNK
EDIFICIO TISSOT. DISEÑO DE COLUMNAS DE CONCRETO.
UNIDADES MKS. ACI 318-89

DESIGN OF COLUMN ELEMENTS   (ACI 318-89)

FRAME ID .... EDIFICIO TISSOT
LEVEL ID .... N8

COL   COLUMN SIZE STR /------MOMENT INTERACTION------/ /----SHEAR  DESIGN----/
 ID MAJOR X MINOR  PT     PU    MMAJ    MMIN COMBO REBAR  DIRN   VU COMBO A (/m)
     (m)     (m)          (T)   (T-m)   (T-m)       (sqcm)       (T)      (sqcm)
  1  0.90 X  0.40                                          MAJOR   7  <10>   3.78
     RR                                                    MINOR   6  <15>   7.18
                  TOP    107      4       9  <17> 36.00
                  BOT    107     13      10  <17> 36.00
  2  0.90 X  0.40                                          MAJOR   7  <12>   3.77
     RR                                                    MINOR   6  <14>   7.19
                  TOP     57      4       9  <17> 36.00
                  BOT     57     13      11  <17> 36.00
  3  0.90 X  0.40                                          MAJOR  15  <10>   7.44
     RR                                                    MINOR   8  <15>  10.17
                  TOP    114     16       9  <17> 36.00
                  BOT    114     18      12  <17> 36.00
  4  0.90 X  0.40                                          MAJOR  15  <12>   7.44
     RR                                                    MINOR   8  <14>  10.19
                  TOP    101     16      10  <17> 36.00
                  BOT    101     18      13  <17> 36.00
  5  0.90 X  0.40                                          MAJOR  12  <11>   6.09
     RR                                                    MINOR   2  <11>   3.50
                  TOP     87     18      11  <17> 36.00
                  BOT     87     19      13  <17> 36.00
  6  0.90 X  0.40                                          MAJOR  12  <12>   6.07
     RR                                                    MINOR   2  <13>   3.33
                  TOP     48     18      11  <17> 36.00
                  BOT     48     19      14  <17> 36.00
  7  0.90 X  0.40                                          MAJOR  13  <17>   6.51
     RR                                                    MINOR   7  <16>   8.61
                  TOP     41     17       9  <17> 36.00
                  BOT     41     18      12  <17> 36.00
  9  0.90 X  0.40                                          MAJOR  13  <16>   6.73
     RR                                                    MINOR   7  <17>   8.62
                  TOP     21     17       9  <17> 36.00
                  BOT     21     18      12  <17> 36.00
 10  0.90 X  0.40                                          MAJOR  11  <17>   5.74
     RR                                                    MINOR   5  <16>   6.23
                  TOP     22     14       7  <17> 36.00
                  BOT     22     17       9  <17> 36.00
 12  0.90 X  0.40                                          MAJOR  12  <16>   5.95
     RR                                                    MINOR   5  <17>   6.22
                  TOP      3     15       7  <17> 36.00
                  BOT      3     14      10  <17> 36.00
                                        PAGE  14
                                     ETABS_FILE:PMI6.P5T/CONKER_FILE:CXPMI3_4.CNK
EDIFICIO TISSOT. DISEÑO DE COLUMNAS DE CONCRETO.
UNIDADES MKS. ACI 318-89

DESIGN OF COLUMN ELEMENTS   (ACI 318-89)

FRAME ID .... EDIFICIO TISSOT
LEVEL ID .... N7

COL   COLUMN SIZE STR /------MOMENT INTERACTION------/ /----SHEAR  DESIGN----/
 ID MAJOR X MINOR  PT     PU    MMAJ    MMIN COMBO REBAR  DIRN   VU COMBO A (/m)
     (m)     (m)          (T)   (T-m)   (T-m)       (sqcm)       (T)      (sqcm)
  1  0.90 X  0.40                                          MAJOR   8  <10>   4.14
     RR                                                    MINOR   5  < 7>   6.31
                  TOP    178     18       7  <17> 36.00
                  BOT    178      7       7  <17> 36.00
  2  0.90 X  0.40                                          MAJOR   8  <12>   4.15
     RR                                                    MINOR   5  < 6>   6.30
                  TOP    162     18       7  <17> 36.00
                  BOT    162      6       8  <17> 36.00
  3  0.90 X  0.40                                          MAJOR  15  <10>   7.44
     RR                                                    MINOR   .  <15>   ..12
                  TOP    131     17       5  <17> 36.00
                  BOT    131     17       6  <17> 36.00
  4  0.90 X  0.40                                          MAJOR  15  <12>   7.45
     RR                                                    MINOR   3  <14>   4.10
                  TOP    112     17       5  <17> 36.00
                  BOT    112     17       6  <17> 36.00
  5  0.90 X  0.40                                          MAJOR  13  <11>   6.65
     RR                                                    MINOR   0  <11>   0.66
                  TOP     97     18       2  <17> 36.00
                  BOT     97     20       3  <17> 36.00
  6  0.90 X  0.40                                          MAJOR  13  <12>   6.62
     RR                                                    MINOR   0  <13>   0.62
                  TOP     73     18       2  <17> 36.00
                  BOT     73     20       3  <17> 36.00
  7  0.90 X  0.40                                          MAJOR  13  <11>   6.66
     RR                                                    MINOR   3  <16>   3.66
                  TOP     56     18       4  <17> 36.00
                  BOT     56     20       5  <17> 36.00
  9  0.90 X  0.40                                          MAJOR  13  <13>   6.78
     RR                                                    MINOR   3  <17>   3.84
                  TOP     29     18       4  <17> 36.00
                  BOT     29     20       5  <17> 36.00
 10  0.90 X  0.40                                          MAJOR  17  < 9>   8.49
     RR                                                    MINOR   5  < 8>   6.20
                  TOP    -15     19       7  <17> 36.00
                  BOT    -15     18       8  <17> 36.00
 12  0.90 X  0.40                                          MAJOR  17  < 8>   8.40
     RR                                                    MINOR   5  < 9>   6.22
                  TOP    -42     15       7  <17> 36.00
                  BOT    -42     17       8  <17> 36.00
                                        PAGE  15
                                     ETABS_FILE:PMI5 P5T/CONKER_FILE:CXPMI3_4.CNK
EDIFICIO TISSOT. DISEÑO DE COLUMNAS DE CONCRETO.
UNIDADES MKS. ACI 318-89

DESIGN OF COLUMN ELEMENTS   (ACI 318-89)

FRAME ID .... EDIFICIO TISSOT
LEVEL ID .... N6

COL   COLUMN SIZE STR /------MOMENT INTERACTION------/ /----SHEAR  DESIGN----/
 ID MAJOR X MINOR  PT     PU    MMAJ    MMIN COMBO REBAR  DIRN   VU COMBO A (/m)
     (m)     (m)          (T)   (T-m)   (T-m)       (sqcm)       (T)      (sqcm)
  1  0.90 X  0.40                                          MAJOR   9  <10>   4.56
     RR                                                    MINOR   5  <15>   6.77
                  TOP    167      7       8  <17> 36.00
                  BOT    167     16       9  <17> 36.00
  2  0.90 X  0.40                                          MAJOR   9  <12>   4.56
     RR                                                    MINOR   5  <14>   6.78
                  TOP    171      7       8  <17> 36.00
                  BOT    171     16       9  <17> 36.00
  3  0.90 X  0.40                                          MAJOR  19  <10>   9.78
     RR                                                    MINOR   7  <15>   9.52
                  TOP    158     17       9  <17> 36.00
                  BOT    158     20      11  <17> 36.00
  4  0.90 X  0.40                                          MAJOR  19  <12>   9.78
     RR                                                    MINOR   7  <14>   9.53
                  TOP    127     17       9  <17> 36.00
                  BOT    127     20      12  <17> 36.00
  5  0.90 X  0.40                                          MAJOR  17  <11>   8.41
     RR                                                    MINOR   2  <11>   3.48
                  TOP    114     19      11  <17> 36.00
                  BOT    114     22      12  <17> 36.00
  6  0.90 X  0.40                                          MAJOR  17  <12>   8.40
     RR                                                    MINOR   2  <13>   3.31
                  TOP     64     19      11  <17> 36.00
                  BOT     64     22      13  <17> 36.00
  7  0.90 X  0.40                                          MAJOR  15  <11>   7.73
     RR                                                    MINOR   6  <16>   8.29
                  TOP     54     18       9  <17> 36.00
                  BOT     54     21      11  <17> 36.00
  9  0.90 X  0.40                                          MAJOR  15  <13>   7.60
     RR                                                    MINOR   6  <17>   8.29
                  TOP     22     18       9  <17> 36.00
                  BOT     22     21      11  <17> 36.00
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10  ..90 X  ...0                                          .AJOR   ..  <11>    .84
    RR                                                    MINOR   4   <16>   5.91
                      TOP    -2     15      7   <17> 36.00
                      BOT    -2     20      8   <17> 36.00
12  0.90 X  0.40                                          MAJOR   16  < 8>   8.17
    RR                                                    MINOR   4   <17>   5.90
                      TOP   -36     16      7   <17> 36.00
                      BOT   -36     17      9   <17> 36.00
                                                 PAGE   16
                                        ETABS_FILE:PM15.PST/CONKER_FILE:CKPM13_4.CNK
EDIFICIO TISSOT. DISEÑO DE COLUMNAS DE CONCRETO.
UNIDADES MKS. ACI 318-89

DESIGN OF COLUMN ELEMENTS   (ACI 318-89)

FRAME ID .... EDIFICIO TISSOT
LEVEL ID .... N5

COL   COLUMN SIZE STR /------MOMENT INTERACTION------/ /----SHEAR   DESIGN----/
 ID MAJOR X MINOR  PT      PU    MMAJ   MMIN COMBO REBAR  DIRN    VU COMBO A (/m)
      (m)    (m)          (T)  (T-m)  (T-m)       (sqcm)          (T)       (sqcm)
  1 0.90 X  0.40                                         MAJOR   10  <10>   5.28
    RR                                                   MINOR   4   < 7>   4.86
                      TOP  -101     19      6   <14> 40.50
                      BOT   279     11      7   <17> 36.00
  2 0.90 X  0.40                                         MAJOR   10  <12>   5.29
    RR                                                   MINOR   4   < 6>   4.85
                      TOP  -201     19      6   <15> 41.52
                      BOT   256     10      6   <17> 36.00
  3 0.90 X  0.40                                         MAJOR   18  <10>   9.29
    RR                                                   MINOR   2   <15>   2.57
                      TOP   176     17      4   <17> 36.00
                      BOT   176     19      4   <17> 36.00
  4 0.90 X  0.40                                         MAJOR   18  <12>   9.30
    RR                                                   MINOR   2   <14>   2.55
                      TOP   147     17      4   <17> 36.00
                      BOT   147     19      4   <17> 36.00
  5 0.90 X  0.40                                         MAJOR   17  <11>   8.77
    RR                                                   MINOR   0   <11>   0.56
                      TOP   120     19      3   <17> 36.00
                      BOT   120     22      3   <17> 36.00
  6 0.90 X  0.40                                         MAJOR   17  <12>   8.74
    RR                                                   MINOR   0   <13>   0.54
                      TOP    86     19      2   <17> 36.00
                      BOT    86     22      2   <17> 36.00
  7 0.90 X  0.40                                         MAJOR   17  <11>   8.82
    RR                                                   MINOR   2   <16>   2.74
                      TOP    68     19      3   <17> 36.00
                      BOT    68     22      3   <17> 36.00
  8 0.90 X  0.40                                         MAJOR   17  <13>   8.74
    RR                                                   MINOR   2   <17>   2.74
                      TOP    29     19      3   <17> 36.00
                      BOT    29     22      4   <17> 36.00
 10 0.90 X  0.40                                         MAJOR   18  <11>   9.33
    RR                                                   MINOR   4   < 8>   5.21
                      TOP  -100     17      6   <16> 38.59
                      BOT  -100     20      6   <16> 40.79
 12 0.90 X  0.40                                         MAJOR   18  <13>   9.28
    RR                                                   MINOR   4   < 9>   5.22
                      TOP  -101     16      6   <17> 38.80
                      BOT  -101     19      6   <17> 40.93
                                                 PAGE   17
                                        ETABS_FILE:PM15.PST/CONKER_FILE:CKPM13_4.CNK
EDIFICIO TISSOT. DISEÑO DE COLUMNAS DE CONCRETO.
UNIDADES MKS. ACI 318-89

DESIGN OF COLUMN ELEMENTS   (ACI 318-89)

FRAME ID .... EDIFICIO TISSOT
LEVEL ID .... N6

COL   COLUMN SIZE STR /------MOMENT INTERACTION------/ /----SHEAR   DESIGN----/
 ID MAJOR X MINOR  PT      PU    MMAJ   MMIN COMBO REBAR  DIRN    VU COMBO A (/m)
      (m)    (m)          (T)  (T-m)  (T-m)       (sqcm)          (T)       (sqcm)
  1 0.90 X  0.40                                         MAJOR   18  <10>   5.13
    RR                                                   MINOR   5   <15>   6.45
                      TOP   -100     -      8   <16> 38.34
                      BOT   -100     17     8   <16> 40.73
  2 0.90 X  0.40                                         MAJOR   10  <12>   5.12
    RR                                                   MINOR   5   <14>   6.45
                      TOP   -103     1      8   <15> 39.42
                      BOT   -103     17     8   <15> 41.71
  3 0.90 X  0.40                                         MAJOR   23  <10>   11.57
    RR                                                   MINOR   7   <15>   9.27
                      TOP    200     18     9   <17> 36.00
                      BOT    200     23     10  <17> 36.00
  4 0.90 X  0.40                                         MAJOR   23  <12>   11.57
    RR                                                   MINOR   7   <14>   9.28
                      TOP    167     18     9   <17> 36.00
                      BOT    167     23     11  <17> 36.00
  5 0.90 X  0.40                                         MAJOR   20  <11>   10.25
    RR                                                   MINOR   2   <11>   3.31
                      TOP    138     19     10  <17> 36.00
                      BOT    138     24     12  <17> 36.00
  6 0.90 X  0.40                                         MAJOR   20  <12>   10.23
    RR                                                   MINOR   2   <13>   3.15
                      TOP     96     19     10  <17> 36.00
                      BOT     96     24     12  <17> 36.00
  7 0.90 X  0.40                                         MAJOR   19  <11>   9.57
    RR                                                   MINOR   6   <16>   7.75
                      TOP     70     19     8   <17> 36.00
                      BOT     70     23     10  <17> 36.00
  9 0.90 X  0.40                                         MAJOR   19  <13>   9.88
    RR                                                   MINOR   6   <17>   7.75
                      TOP     24     19     9   <17> 36.00
                      BOT     24     23     10  <17> 36.00
 10 0.90 X  0.40                                         MAJOR   19  <11>   9.52
    RR                                                   MINOR   4   <16>   5.27
                      TOP    -95     17     6   <16> 37.69
                      BOT    -95     20     8   <16> 40.65
 12 0.90 X  0.40                                         MAJOR   19  <13>   9.41
    RR                                                   MINOR   4   <17>   5.27
                      TOP    -96     16     6   <17> 37.74
                      BOT    -96     20     8   <17> 40.55
                                                 PAGE   18
                                        ETABS_FILE:PM15.PST/CONKER_FILE:CKPM13_4.CNK
EDIFICIO TISSOT. DISEÑO DE COLUMNAS DE CONCRETO.
UNIDADES MKS. ACI 318-89

DESIGN OF COLUMN ELEMENTS   (ACI 318-89)

FRAME ID .... EDIFICIO TISSOT
LEVEL ID .... N3

COL   COLUMN SIZE STR /------MOMENT INTERACTION------/ /----SHEAR   DESIGN----/
 ID MAJOR X MINOR  PT      PU    MMAJ   MMIN COMBO REBAR  DIRN    VU COMBO A (/m)
      (m)    (m)          (T)  (T-m)  (T-m)       (sqcm)          (T)       (sqcm)
  1 0.90 X  0.40                                         MAJOR   12  <10>   6.33
    RR                                                   MINOR   2   < 7>   3.04
                      TOP   -175     19     5   <14> 58.89
                      BOT   -173     1      2   <14> 46.97
  2 0.90 X  0.40                                         MAJOR   12  <12>   6.28
    RR                                                   MINOR   2   < 6>   3.00
                      TOP   -178     20     5   <15> 60.34
                      BOT   -178     1      2   <15> 50.23
  3 0.90 X  0.40                                         MAJOR   21  <10>   10.62
    RR                                                   MINOR   0   <14>   0.01
                      TOP    217     17     5   <17> 36.00
                      BOT    217     22     5   <17> 36.00
  4 0.90 X  0.40                                         MAJOR   21  <12>   10.64
    RR                                                   MINOR   0   <15>   0.60
                      TOP    177     17     4   <17> 36.00
                      BOT    177     22     4   <17> 36.00
  5 0.90 X  0.40                                         MAJOR   20  <11>   10.16
    RR                                                   MINOR   0   <11>   0.19
                      TOP    139     19     2   <17> 36.00
                      BOT    139     25     2   <17> 36.00
  6 0.90 X  0.40                                         MAJOR   20  <12>   10.13
    RR                                                   MINOR   0   <13>   0.19
                      TOP     94     19     2   <17> 36.00
                      BOT     94     25     2   <17> 36.00
  7 0.90 X  0.40                                         MAJOR   20  <11>   10.25
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										MINOR	4	<16>	4.27
				TOP	86	19	2	<17>	36.00				
				BOT	16	57	0	<11>	37.89				
9	0.90	X	0.40							MAJOR	20	<13>	10.17
	RR									MINOR	1	<17>	1.27
				TOP	32	19	2	<17>	36.00				
				BOT	18	56	0	<13>	37.55				
10	0.90	X	0.40							MAJOR	21	<11>	10.77
	RR									MINOR	3	< 8>	3.66
				TOP	-175	17	5	<16>	57.93				
				BOT	-175	23	4	<16>	61.44				
12	0.90	X	0.40							MAJOR	21	<13>	10.74
	RR									MINOR	3	< 9>	3.67
				TOP	-177	17	5	<17>	58.18				
				BOT	-177	22	4	<17>	61.70				

EDIFICIO TISSOT. DISEÑO DE COLUMNAS DE CONCRETO.
UNIDADES MKS. ACI 318-89

DESIGN OF COLUMN ELEMENTS (ACI 318-89)

FRAME ID .... EDIFICIO TISSOT
LEVEL ID N2

COL ID	COLUMN SIZE MAJOR (m)	X	MINOR (m)	STR PT	/------MOMENT PU (T)	MMAJ (T-m)	INTERACTION------/ MMIN (T-m)	COMBO	REBAR (sqcm)	/----SHEAR DIRN	VU (T)	DESIGN----/ COMBO	A (/m) (sqcm)
1	0.90	X	0.40							MAJOR	11	<10>	5.84
	RR									MINOR	4	<15>	5.17
				TOP	-172	1	7	<16>	56.62				
				BOT	-172	19	6	<14>	58.88				
2	0.90	X	0.40							MAJOR	11	<12>	5.86
	RR									MINOR	4	<14>	5.17
				TOP	-177	1	7	<16>	58.04				
				BOT	-177	19	6	<15>	60.21				
5	0.90	X	0.40							MAJOR	25	<10>	12.77
	RR									MINOR	6	<14>	7.56
				TOP	232	16	8	<17>	36.00				
				BOT	-9	65	2	<10>	46.56				
4	0.90	X	0.40							MAJOR	25	<12>	12.78
	RR									MINOR	6	<15>	7.66
				TOP	188	16	8	<17>	36.00				
				BOT	-6	65	2	<12>	46.09				
5	0.90	X	0.40							MAJOR	23	<11>	11.56
	RR									MINOR	2	<11>	2.71
				TOP	157	18	7	<17>	36.00				
				BOT	46	65	1	<11>	44.23				
6	0.90	X	0.40							MAJOR	23	<12>	11.64
	RR									MINOR	2	<13>	2.60
				TOP	104	18	8	<17>	36.00				
				BOT	54	65	2	<12>	44.46				
7	0.90	X	0.40							MAJOR	22	<11>	11.00
	RR									MINOR	5	<16>	6.22
				TOP	92	18	7	<17>	36.00				
				BOT	11	63	3	<11>	46.18				
9	0.90	X	0.40							MAJOR	22	<13>	10.91
	RR									MINOR	5	<17>	6.24
				TOP	31	18	7	<17>	36.00				
				BOT	13	63	3	<13>	48.77				
10	0.90	X	0.40							MAJOR	22	<11>	11.19
	RR									MINOR	3	<16>	3.61
				TOP	-170	16	5	<16>	58.86				
				BOT	-170	23	5	<16>	60.99				
12	0.90	X	0.40							MAJOR	22	<13>	10.98
	RR									MINOR	3	<17>	3.62
				TOP	-172	15	5	<17>	56.03				
				BOT	-172	22	5	<17>	60.73				

EDIFICIO TISSOT. DISEÑO DE COLUMNAS DE CONCRETO.
UNIDADES MKS. ACI 318-89

DESIGN OF COLUMN ELEMENTS (ACI 318-89)

FRAME ID .... EDIFICIO TISSOT

LEVEL ID .... ..

COL ID	COLUMN SIZE MAJOR (m)	X	MINOR (m)	STR PT	/------MOMENT PU (T)	MMAJ (T-m)	INTERACTION------/ MMIN (T-m)	COMBO	REBAR (sqcm)	/----SHEAR DIRN	VU (T)	DESIGN----/ COMBO	A (/m) (sqcm)
1	0.90	X	0.40							MAJOR	11	<10>	6.47
	RR									MINOR	0	<14>	0.27
				TOP	606	25	16	< 9>	79.69				
				BOT	606	25	16	< 9>	79.69				
2	0.90	X	0.40							MAJOR	12	<12>	6.39
	RR									MINOR	0	<15>	0.27
				TOP	614	25	16	< 8>	83.52				
				BOT	614	25	16	< 8>	83.52				
3	0.90	X	0.40							MAJOR	22	<10>	10.90
	RR									MINOR	1	<18>	2.00
				TOP	249	12	6	<17>	36.00				
				BOT	321	86	8	< 5>	66.39				
4	0.90	X	0.40							MAJOR	22	<12>	10.92
	RR									MINOR	1	<15>	2.02
				TOP	195	12	5	<17>	36.00				
				BOT	325	87	8	< 3>	67.67				
5	0.90	X	0.40							MAJOR	21	<11>	10.71
	RR									MINOR	0	<10>	0.75
				TOP	147	14	4	<17>	36.00				
				BOT	95	93	2	< 3>	73.09				
6	0.90	X	0.40							MAJOR	21	<12>	10.68
	RR									MINOR	0	<12>	0.60
				TOP	96	14	2	<17>	36.00				
				BOT	94	93	2	< 4>	73.61				
7	0.90	X	0.40							MAJOR	22	<11>	11.08
	RR									MINOR	0	<16>	0.64
				TOP	106	14	3	<17>	36.00				
				BOT	367	95	10	< 4>	92.42				
9	0.90	X	0.40							MAJOR	22	<13>	10.96
	RR									MINOR	0	<17>	0.61
				TOP	48	14	1	<17>	36.00				
				BOT	364	95	9	< 2>	91.86				
10	0.90	X	0.40							MAJOR	25	< 9>	12.39
	RR									MINOR	0	< 3>	0.87
				TOP	685	28	18	< 7>	116.59				
				BOT	521	96	14	< 4>	138.99				
12	0.90	X	0.40							MAJOR	25	< 8>	12.49
	RR									MINOR	0	< 5>	0.92
				TOP	668	28	18	< 6>	116.23				
				BOT	510	99	13	< 2>	140.48				

EDIFICIO TISSOT. DISEÑO DE COLUMNAS DE CONCRETO.
UNIDADES MKS. ACI 318-89

DESIGN OF COLUMN ELEMENTS (ACI 318-89)

FRAME ID .... EDIFICIO TISSOT
LEVEL ID .... MEZ

COL ID	COLUMN SIZE MAJOR (m)	X	MINOR (m)	STR PT	/------MOMENT PU (T)	MMAJ (T-m)	INTERACTION------/ MMIN (T-m)	COMBO	REBAR (sqcm)	/----SHEAR DIRN	VU (T)	DESIGN----/ COMBO	A (/m) (sqcm)
1	0.90	X	0.40							MAJOR	26	< 2>	12.68
	RR									MINOR	7	<15>	9.18
				TOP	620	26	16	< 9>	86.30				
				BOT	404	107	10	< 5>	122.78				
2	0.90	X	0.40							MAJOR	26	< 4>	13.19
	RR									MINOR	7	<14>	9.35
				TOP	628	26	17	< 6>	98.24				
				BOT	412	109	11	< 3>	129.95				
3	0.90	X	0.40							MAJOR	19	<10>	9.66
	RR									MINOR	7	<14>	9.01
				TOP	259	10	7	<17>	36.00				
				BOT	349	81	9	< 5>	62.54				
4	0.90	X	0.40							MAJOR	19	<12>	9.71
	RR									MINOR	7	<15>	9.30
				TOP	196	10	5	<17>	36.00				
				BOT	352	81	9	< 3>	63.68				
5	0.90	X	0.40							MAJOR	16	<11>	8.33
	RR									MINOR	3	<11>	3.39

				TOP	.63	..	4	.7> 36.0.							
				BOT	111	79	7	< 3> 55.49							
	6	0.90	X	0.40						MAJOR	16	<12>	8.35		
		RR								MINOR	3	<13>	3.74		
				TOP	106	12	5	<17> 36.00							
				BOT	33	75	6	<13> 54.97							
	7	0.90	X	0.40						MAJOR	14	<11>	7.33		
		RR								MINOR	5	<16>	6.94		
				TOP	102	13	3	<17> 36.00							
				BOT	383	76	10	< 6> 60.67							
	9	0.90	X	0.40						MAJOR	14	<13>	7.24		
		RR								MINOR	5	<17>	7.10		
				TOP	36	13	4	<17> 36.00							
				BOT	378	75	10	< 2> 58.89							
	10	0.90	X	0.40						MAJOR	15	< 9>	7.75		
		RR								MINOR	7	<16>	8.52		
				TOP	709	29	19	< 7>127.47							
				BOT	709	29	19	< 7>127.47							
	12	0.90	X	0.40						MAJOR	14	< 8>	7.20		
		RR								MINOR	7	<17>	8.71		
				TOP	708	29	19	< 6>127.08							
				BOT	708	29	19	< 6>127.08							
	13	0.90	X	0.40						MAJOR	46	< 5>	22.97		
		RR								MINOR	8	< 7>	10.63		
				TOP	8	23	6	<17> 36.00							
				BOT	0	41	10	< 3> 67.60							

EDIFICIO TISSOT. DISEÑO DE COLUMNAS DE CONCRETO.
UNIDADES MKS. ACI 318-89

DESIGN OF COLUMN ELEMENTS (ACI 318-89)

FRAME ID .... EDIFICIO TISSOT
LEVEL ID .... MEZ

COL ID	COLUMN SIZE MAJOR X (m)	MINOR (m)	STR PT	MOMENT INTERACTION PU (T)	MMAJ (T-m)	MMIN (T-m)	COMBO	REBAR (sqcm)	DESIGN DIRN	SHEAR VU (T)	COMBO	A (/m) (sqcm)
14	0.90	X 0.40							MAJOR	52	< 3>	25.73
	RR								MINOR	8	< 6>	10.53
			TOP	0	7	7	<17>	36.00				
			BOT	0	38	0	< 5>	82.21				

EDIFICIO TISSOT. DISEÑO DE COLUMNAS DE CONCRETO.
UNIDADES MKS. ACI 318-89

DESIGN OF COLUMN ELEMENTS (ACI 318-89)

FRAME ID .... EDIFICIO TISSOT
LEVEL ID .... PB

COL ID	COLUMN SIZE MAJOR X (m)	MINOR (m)	STR PT	MOMENT INTERACTION PU (T)	MMAJ (T-m)	MMIN (T-m)	COMBO	REBAR (sqcm)	DESIGN DIRN	SHEAR VU (T)	COMBO	A (/m) (sqcm)
1	0.90	X 0.40							MAJOR	7	<14>	3.43
	RR								MINOR	0	< 6>	0.89
			TOP	-112	30	1	<14>	49.45				
			BOT	-112	17	0	<14>	40.95				
2	0.90	X 0.40							MAJOR	6	<15>	2.96
	RR								MINOR	0	< 7>	0.89
			TOP	-116	28	1	<15>	48.76				
			BOT	-116	15	0	<15>	40.96				
3	0.90	X 0.40							MAJOR	26	<11>	12.91
	RR								MINOR	0	< 2>	0.52
			TOP	-1	35	0	<10>	39.28				
			BOT	56	6	2	<17>	36.00				
4	0.90	X 0.40							MAJOR	26	<12>	12.93
	RR								MINOR	0	< 4>	0.49
			TOP	-2	35	0	<12>	39.53				
			BOT	95	6	2	<17>	36.00				
5	0.90	X 0.40							MAJOR	25	<11>	12.29
	RR								MINOR	0	<16>	0.62
			TOP	56	16	1	<17>	36.00				
			BOT	56	5	1	<17>	36.00				
6	0.90	X 0.40							MAJOR	22	<12>	10.82
	RR								MINOR	0	<17>	0.61
			TOP	36	16	0	<17>	36.00				
			BOT	36	5	1	<17>	36.00				
7	0.90	X 0.40							MAJOR	23	<11>	11.58
	RR								MINOR	0	< 8>	0.52
			TOP	28	15	0	<17>	36.00				
			BOT	28	5	0	<17>	36.00				
9	0.90	X 0.40							MAJOR	23	<12>	11.62
	RR								MINOR	0	<16>	0.58
			TOP	3	15	0	<17>	36.00				
			BOT	3	5	0	<17>	36.00				
10	0.90	X 0.40							MAJOR	22	<11>	10.76
	RR								MINOR	1	<16>	1.23
			TOP	-35	48	1	<11>	41.49				
			BOT	-58	4	2	<17>	36.00				
12	0.90	X 0.40							MAJOR	17	<13>	8.27
	RR								MINOR	1	<16>	1.32
			TOP	-27	55	1	<13>	45.02				
			BOT	-93	3	2	<17>	36.00				
13	0.90	X 0.40							MAJOR	28	< 5>	13.64
	RR								MINOR	3	< 7>	3.65
			TOP	-14	57	2	<11>	44.48				
			BOT	-7	6	4	<17>	36.00				

EDIFICIO TISSOT. DISEÑO DE COLUMNAS DE CONCRETO.
UNIDADES MKS. ACI 318-89

DESIGN OF COLUMN ELEMENTS (ACI 318-89)

FRAME ID .... EDIFICIO TISSOT
LEVEL ID .... PB

COL ID	COLUMN SIZE MAJOR X (m)	MINOR (m)	STR PT	MOMENT INTERACTION PU (T)	MMAJ (T-m)	MMIN (T-m)	COMBO	REBAR (sqcm)	DESIGN DIRN	SHEAR VU (T)	COMBO	A (/m) (sqcm)
15	0.90	X 0.40							MAJOR	21	<12>	10.51
	RR								MINOR	3	< 7>	3.56
			TOP	-17	8	5	<17>	36.00				
			BOT	-17	4	4	<17>	36.00				
24	0.50	X 0.30							MAJOR	0	< 5>	0.78
	RR								MINOR	0	< 4>	0.57
			TOP	0	0	0	<17>	15.00				
			BOT	0	0	0	<17>	15.00				
25	0.50	X 0.30							MAJOR	0	<13>	0.65
	RR								MINOR	0	< 7>	0.66
			TOP	-1	0	0	<17>	15.00				
			BOT	-1	0	0	<17>	15.00				
26	0.50	X 0.30							MAJOR	0	<10>	0.80
	RR								MINOR	0	< 8>	0.59
			TOP	-7	0	0	<17>	15.00				
			BOT	-7	0	0	<17>	15.00				

EDIFICIO TISSOT. DISEÑO DE COLUMNAS DE CONCRETO.
UNIDADES MKS. ACI 318-89

DESIGN OF COLUMN ELEMENTS (ACI 318-89)

FRAME ID .... EDIFICIO TISSOT
LEVEL ID S1

COL ID	COLUMN SIZE MAJOR X (m)	MINOR (m)	STR PT	MOMENT INTERACTION PU (T)	MMAJ (T-m)	MMIN (T-m)	COMBO	REBAR (sqcm)	DESIGN DIRN	SHEAR VU (T)	COMBO	A (/m) (sqcm)
1	0.90	X 0.40							MAJOR	3	<11>	1.75
	RR								MINOR	0	<15>	0.52
			TOP	158	6	4	<17>	36.00				
			BOT	158	6	4	<17>	36.00				
2	0.90	X 0.40							MAJOR	3	<13>	1.68
	RR								MINOR	0	<16>	0.57
			TOP	136	7	3	<17>	36.00				
			BOT	136	5	3	<17>	36.00				
3	0.90	X 0.40							MAJOR	7	<11>	3.75
	RR								MINOR	0	<15>	0.62

			TOP	.42	-	3	.7> 36.00				
			BOT	112	4	3	<17> 36.00				
4	0.90 X	0.40						MAJOR	7	<12>	3.75
	RA							MINOR	0	<14>	0.62
			TOP	91	5	2	<17> 36.00				
			BOT	91	3	2	<17> 36.00				
5	0.90 X	0.40						MAJOR	7	<11>	3.49
	RA							MINOR	0	<16>	0.80
			TOP	61	4	1	<17> 36.00				
			BOT	61	3	1	<17> 36.00				
6	0.90 X	0.40						MAJOR	7	<12>	3.50
	RA							MINOR	0	<17>	0.81
			TOP	40	4	1	<17> 36.00				
			BOT	40	3	1	<17> 36.00				
7	0.90 X	0.40						MAJOR	6	<11>	3.27
	RA							MINOR	0	<16>	0.82
			TOP	15	4	1	<17> 36.00				
			BOT	15	3	1	<17> 36.00				
9	0.90 X	0.40						MAJOR	6	<12>	3.26
	RA							MINOR	0	<16>	0.86
			TOP	-8	4	1	<17> 36.00				
			BOT	-8	3	1	<17> 36.00				
10	0.90 X	0.40						MAJOR	6	<11>	3.13
	RA							MINOR	0	<16>	1.02
			TOP	-27	4	1	<17> 36.00				
			BOT	-27	3	1	<17> 36.00				
12	0.90 X	0.40						MAJOR	5	<12>	2.48
	RA							MINOR	0	<17>	1.07
			TOP	-52	3	1	<17> 36.00				
			BOT	-52	2	1	<17> 36.00				
13	0.90 X	0.40						MAJOR	8	<13>	4.18
	RA							MINOR	1	<16>	1.26
			TOP	-22	4	2	<17> 36.00				
			BOT	-22	3	2	<17> 36.00				

EDIFICIO TISSOT. DISEÑO DE COLUMNAS DE CONCRETO.
UNIDADES MKS. ACI 318-89

DESIGN OF COLUMN ELEMENTS (ACI 318-89)

FRAME ID .... EDIFICIO TISSOT
LEVEL ID .... SJ

COL ID	COLUMN SIZE MAJOR X MINOR (m)	(n)	STR PT	/-------MOMENT INTERACTION-------/ PU (T)	MMAJ (T-m)	MMIN (T-m)	COMBO	REBAR (sqcm)	/----SHEAR DESIGN----/ DIAN	VU (T)	COMBO	A (/m (sqcm)
18	0.50 X	0.40							MAJOR	6	< 3>	2.52
	RA								MINOR	1	<17>	1.32
			TOP	-36	0	2	<17>	36.00				
			BOT	-36	0	2	<17>	36.00				
24	0.50 X	0.30							MAJOR	0	<13>	0.31
	RA								MINOR	0	< 7>	0.44
			TOP	0	0	0	<17>	15.00				
			BOT	0	0	0	<17>	15.00				
25	0.50 X	0.30							MAJOR	0	<10>	0.31
	RA								MINOR	0	< 7>	0.36
			TOP	-3	0	0	<17>	15.00				
			BOT	-3	0	0	<17>	15.00				
26	0.50 X	0.30							MAJOR	0	< 2>	0.34
	RA								MINOR	0	< 7>	0.19
			TOP	-8	0	0	<17>	15.00				
			BOT	-8	0	0	<17>	15.00				

EDIFICIO TISSOT. DISEÑO DE COLUMNAS DE CONCRETO.
UNIDADES MKS. ACI 318-89

BEAM-COLUMN JOINT ANALYSIS (ACI 318-89)

FRAME ID .... EDIFICIO TISSOT
LEVEL ID NJ3

COL ID	JOINT DIR	SHEAR FORCE (T)	EFFECTV AREA (sqm)	SHEAR STRESS (T/sqm)	ALLOW STRESS (T/sqm)	STRESS RATIO	BEAM/COLUMN STRENGTH RATIO
1	MAJOR	0.00	0.36	0.000	427.63b	0.000	0.000
	MINOR	0.00	0.36	0.000	427.63b	0.000	0.000
2	MAJOR	0.00	0.36	0.000	427.636	0.000	0.000
	MINOR	0.00	0.36	0.000	427.636	0.000	0.000
3	MAJOR	0.00	0.36	0.000	427.636	0.000	0.000
	MINOR	0.00	0.36	0.000	427.63b	0.000	0.000
4	MAJOR	0.00	0.36	0.000	427.63b	0.000	0.000
	MINOR	0.00	0.36	0.000	427.63b	0.000	0.000
5	MAJOR	0.00	0.36	0.000	427.63b	0.000	0.000
	MINOR	0.00	0.36	0.000	427.636	0.000	0.000
6	MAJOR	0.00	0.36	0.000	427.63b	0.000	0.000
	MINOR	0.00	0.36	0.000	427.636	0.000	0.000
7	MAJOR	0.00	0.36	0.000	427.636	0.000	0.000
	MINOR	0.00	0.36	0.000	427.636	0.000	0.000
9	MAJOR	0.00	0.36	0.000	427.63b	0.000	0.000
	MINOR	0.00	0.36	0.000	427.636	0.000	0.000
10	MAJOR	0.00	0.36	0.000	427.636	0.000	0.000
	MINOR	0.00	0.36	0.000	427.636	0.000	0.000
12	MAJOR	0.00	0.36	0.000	427.63b	0.000	0.000
	MINOR	0.00	0.36	0.000	427.636	0.000	0.000

EDIFICIO TISSOT. DISEÑO DE COLUMNAS DE CONCRETO.
UNIDADES MKS. ACI 318-89

BEAM-COLUMN JOINT ANALYSIS (ACI 318-89)

FRAME ID .... EDIFICIO TISSOT
LEVEL ID N12

COL ID	JOINT DIR	SHEAR FORCE (T)	EFFECTV AREA (sqm)	SHEAR STRESS (T/sqm)	ALLOW STRESS (T/sqm)	STRESS RATIO	BEAM/COLUMN STRENGTH RATIO
1	MAJOR	0.00	0.36	0.000	427.636	0.000	0.000
	MINOR	0.00	0.36	0.000	427.63b	0.000	0.000
2	MAJOR	0.00	0.36	0.000	427.636	0.000	0.000
	MINOR	0.00	0.36	0.000	427.63b	0.000	0.000
3	MAJOR	0.00	0.36	0.000	427.636	0.000	0.000
	MINOR	0.00	0.36	0.000	427.63b	0.000	0.000
4	MAJOR	0.00	0.36	0.000	427.636	0.000	0.000
	MINOR	0.00	0.36	0.000	427.63b	0.000	0.000
5	MAJOR	0.00	0.36	0.000	427.63b	0.000	0.000
	MINOR	0.00	0.36	0.000	427.63b	0.000	0.000
6	MAJOR	0.00	0.36	0.000	427.636	0.000	0.000
	MINOR	0.00	0.36	0.000	427.636	0.000	0.000
7	MAJOR	0.00	0.36	0.000	427.63b	0.000	0.000
	MINOR	0.00	0.36	0.000	427.636	0.000	0.000
9	MAJOR	0.00	0.36	0.000	427.63b	0.000	0.000
	MINOR	0.00	0.36	0.000	427.636	0.000	0.000
10	MAJOR	0.00	0.36	0.000	427.636	0.000	0.000
	MINOR	0.00	0.36	0.000	427.636	0.000	0.000
12	MAJOR	0.00	0.36	0.000	427.636	0.000	0.000
	MINOR	0.00	0.36	0.000	427.636	0.000	0.000

EDIFICIO TISSOT. DISEÑO DE COLUMNAS DE CONCRETO.

UNIDADES MKS. ACI 318-89

BEAM-COLUMN JOINT ANALYSIS (ACI 318-89)

FRAME ID .... EDIFICIO TISSOT
LEVEL ID MJ1

COL ID	JOINT DIR	SHEAR FORCE (T)	EFFECTV AREA (sqm)	SHEAR STRESS (T/sqm)	ALLOW STRESS (T/sqm)	STRESS RATIO	BEAM/COLUMN STRENGTH RATIO
1	MAJOR	0.00	0.36	0.000	427.636	0.000	3.000
	MINOR	0.00	0.36	0.000	427.636	0.000	3.000
2	MAJOR	0.00	0.36	0.000	427.636	0.000	3.000
	MINOR	0.00	0.36	0.000	427.636	0.000	3.000
3	MAJOR	0.00	0.36	0.000	427.636	0.000	3.000
	MINOR	0.00	0.36	0.000	427.636	0.000	3.000
4	MAJOR	0.00	0.36	0.000	427.636	0.000	3.000
	MINOR	0.00	0.36	0.000	427.636	0.000	3.000
5	MAJOR	0.00	0.36	0.000	427.636	0.000	3.000
	MINOR	0.00	0.36	0.000	427.636	0.000	3.000
6	MAJOR	0.00	0.36	0.000	427.636	0.000	3.000
	MINOR	0.00	0.36	0.000	427.636	0.000	3.000
7	MAJOR	0.00	0.36	0.000	427.636	0.000	3.000
	MINOR	0.00	0.36	0.000	427.636	0.000	3.000
9	MAJOR	0.00	0.36	0.000	427.636	0.000	3.000
	MINOR	0.00	0.36	0.000	427.636	0.000	3.000
10	MAJOR	0.00	0.36	0.000	427.636	0.000	3.000
	MINOR	0.00	0.36	0.000	427.636	0.000	3.000
12	MAJOR	0.00	0.36	0.000	427.636	0.000	3.000
	MINOR	0.00	0.36	0.000	427.636	0.000	3.000

BEAM-COLUMN JOINT ANALYSIS (ACI 318-89)

FRAME ID .... EDIFICIO TISSOT
LEVEL ID MJ0

COL ID	JOINT DIR	SHEAR FORCE (T)	EFFECTV AREA (sqm)	SHEAR STRESS (T/sqm)	ALLOW STRESS (T/sqm)	STRESS RATIO	BEAM/COLUMN STRENGTH RATIO
1	MAJOR	0.00	0.36	0.000	427.636	0.000	3.000
	MINOR	0.00	0.36	0.000	427.636	0.000	3.000
2	MAJOR	0.00	0.36	0.000	427.636	0.000	3.000
	MINOR	0.00	0.36	0.000	427.636	0.000	3.000
3	MAJOR	0.00	0.36	0.000	427.636	0.000	3.000
	MINOR	0.00	0.36	0.000	427.636	0.000	3.000
4	MAJOR	0.00	0.36	0.000	427.636	0.000	3.000
	MINOR	0.00	0.36	0.000	427.636	0.000	3.000
5	MAJOR	0.00	0.36	0.000	427.636	0.000	3.000
	MINOR	0.00	0.36	0.000	427.636	0.000	3.000
6	MAJOR	0.00	0.36	0.000	427.636	0.000	3.000
	MINOR	0.00	0.36	0.000	427.636	0.000	3.000
7	MAJOR	0.00	0.36	0.000	427.636	0.000	3.000
	MINOR	0.00	0.36	0.000	427.636	0.000	3.000
9	MAJOR	0.00	0.36	0.000	427.636	0.000	3.000

	MINOR	0.00	0.36	0.000	427.636	0.000	3.000
10	MAJOR	0.00	0.36	0.000	427.636	0.000	3.000
	MINOR	0.00	0.36	0.000	427.636	0.000	3.000
12	MAJOR	0.00	0.36	0.000	427.636	0.000	3.000
	MINOR	0.00	0.36	0.000	427.636	0.000	3.000

BEAM-COLUMN JOINT ANALYSIS (ACI 318-89)

FRAME ID .... EDIFICIO TISSOT
LEVEL ID N9

COL ID	JOINT DIR	SHEAR FORCE (T)	EFFECTV AREA (sqm)	SHEAR STRESS (T/sqm)	ALLOW STRESS (T/sqm)	STRESS RATIO	BEAM/COLUMN STRENGTH RATIO
1	MAJOR	0.00	0.36	0.000	427.636	0.000	0.000
	MINOR	0.00	0.36	0.000	427.636	0.000	0.000
2	MAJOR	0.00	0.36	0.000	427.636	0.000	0.000
	MINOR	0.00	0.36	0.000	427.636	0.000	0.000
3	MAJOR	0.00	0.36	0.000	427.636	0.000	0.000
	MINOR	0.00	0.36	0.000	427.636	0.000	0.000
4	MAJOR	0.00	0.36	0.000	427.636	0.000	0.000
	MINOR	0.00	0.36	0.000	427.636	0.000	0.000
5	MAJOR	0.00	0.36	0.000	427.636	0.000	0.000
	MINOR	0.00	0.36	0.000	427.636	0.000	0.000
6	MAJOR	0.00	0.36	0.000	427.636	0.000	0.000
	MINOR	0.00	0.36	0.000	427.636	0.000	0.000
7	MAJOR	0.00	0.36	0.000	427.636	0.000	0.000
	MINOR	0.00	0.36	0.000	427.636	0.000	0.000
9	MAJOR	0.00	0.36	0.000	427.636	0.000	0.000
	MINOR	0.00	0.36	0.000	427.636	0.000	0.000
10	MAJOR	0.00	0.36	0.000	427.636	0.000	0.000
	MINOR	0.00	0.36	0.000	427.636	0.000	0.000
12	MAJOR	0.00	0.36	0.000	427.636	0.000	0.000
	MINOR	0.00	0.36	0.000	427.636	0.000	0.000

BEAM-COLUMN JOINT ANALYSIS (ACI 318-89)

FRAME ID .... EDIFICIO TISSOT
LEVEL ID N8

COL ID	JOINT DIR	SHEAR FORCE (T)	EFFECTV AREA (sqm)	SHEAR STRESS (T/sqm)	ALLOW STRESS (T/sqm)	STRESS RATIO	BEAM/COLUMN STRENGTH RATIO
1	MAJOR	0.00	0.36	0.000	427.636	0.000	0.000
	MINOR	0.00	0.36	0.000	427.636	0.000	0.000
2	MAJOR	0.00	0.36	0.000	427.636	0.000	0.000
	MINOR	0.00	0.36	0.000	427.636	0.000	0.000
3	MAJOR	0.00	0.36	0.000	427.636	0.000	0.000
	MINOR	0.00	0.36	0.000	427.636	0.000	0.000
4	MAJOR	0.00	0.36	0.000	427.636	0.000	0.000
	MINOR	0.00	0.36	0.000	427.636	0.000	0.000

	MAJOR	0.00	0.36	0.000	4.. .636	- .00	9....
	MINOR	0.00	0.36	0.000	427.636	0.000	9.000
6	MAJOR	0.00	0.36	0.000	427.636	0.000	9.000
	MINOR	0.00	0.36	0.000	427 636	0.000	9.000
7	MAJOR	0.00	0.36	0.000	427.636	0.000	9 000
	MINOR	0.00	0.36	0 000	427.636	0.000	9.000
9	MAJOR	0.00	0.36	0.000	427.636	0.000	9.000
	MINOR	0.00	0.36	0.000	427.636	0.000	9.000
10	MAJOR	0.00	0.36	0.000	427.636	0.000	9.000
	MINOR	0.00	0.36	0.000	427.636	0.000	9.000
12	MAJOR	0.00	0.36	0.000	427 636	0.000	9.000
	MINOR	0.00	0.36	0.000	427.636	0.000	9.000

EDIFICIO TISSOT. DISEÑO DE COLUMNAS DE CONCRETO.
UNIDADES MKS. ACI 318-89

BEAM-COLUMN JOINT ANALYSIS (ACI 318-89)

FRAME ID .... EDIFICIO TISSOT
LEVEL ID .... N°

COL ID	JOINT DIR	SHEAR FORCE (T)	EFFECTV AREA (sqm)	SHEAR STRESS (T/sqm)	ALLOW STRESS (T/sqm)	STRESS RATIO	BEAM/COLUMN STRENGTH RATIO
1	MAJOR	0.00	0.36	0.000	427.636	0.000	9.000
	MINOR	0.00	0.36	0.000	427.636	0.000	9.000
2	MAJOR	0.00	0.36	0.000	427.636	0.000	9.000
	MINOR	0.00	0.36	0 000	427.636	0.000	9.000
3	MAJOR	0.00	0.36	0.000	427.636	0.000	9.000
	MINOR	0.00	0.36	0.000	427.636	0.000	9.000
4	MAJOR	0.00	0.36	0.000	427.636	0.000	9.000
	MINOR	0.00	0.36	0.000	427.636	0.000	9.000
5	MAJOR	0.00	0.36	0.000	427.636	0.000	9.000
	MINOR	0.00	0.36	0.000	427.636	0.000	9.000
6	MAJOR	0.00	0.36	0.000	427.636	0.000	9.000
	MINOR	0.00	0.36	0.000	427.636	0.000	9.000
7	MAJOR	0.00	0.36	0.000	427.636	0.000	9.000
	MINOR	0.00	0.36	0.000	427.636	0.000	9.000
9	MAJOR	0.00	0.36	0.000	427.636	0.000	9.000
	MINOR	0.00	0.36	0.000	427.636	0.000	9.000
10	MAJOR	0.00	0.36	0.000	427.636	0.000	9.000
	MINOR	0.00	0.36	0.000	427.636	0.000	9.000
12	MAJOR	0.00	0.36	0 000	427.636	0.000	9.000
	MINOR	0.00	0.36	0 000	427.636	0.000	9.000

EDIFICIO TISSOT. DISEÑO DE COLUMNAS DE CONCRETO.
UNIDADES MKS. ACI 318-89

BEAM-COLUMN JOINT ANALYSIS (ACI 318-89)

FRAME ID .... EDIFICIO TISSOT
LEVEL ID ... N6

COL ID	JOINT DIR	SHEAR FORCE (T)	EFFECTV AREA (sqm)	SHEAR STRESS (T/sqm)	ALLOW STRESS (T/sqm)	STRESS RATIO	BEAM/COLUMN STRENGTH RATIO
1	MAJOR	0.00	0 36	0 000	427.636	0.000	9.000
	MINOR	0 00	0 36	0.000	427 636	0.000	9.000

2	MAJOR	0.00	0.36	0.000	427.636	0.000	0.000
	MINOR	0.00	0.36	0.000	427.636	0.000	0.000
3	MAJOR	0.00	0.36	0.000	427.636	0.000	0.000
	MINOR	0.00	0 36	0.000	427.636	0.000	0 000
4	MAJOR	0.00	0.36	0.000	427.636	0 000	0 000
	MINOR	0.00	0.36	0.000	427.636	0.000	0 000
5	MAJOR	0.00	0 36	0 000	427.636	0.000	0.000
	MINOR	0.00	0 36	0.000	427.636	0.000	0.000
6	MAJOR	0.00	0.36	0.000	427.636	0.000	0.000
	MINOR	0.00	0.36	0.000	427.636	0.000	0.000
7	MAJOR	0.00	0.36	0.000	427.636	0.000	0 000
	MINOR	0.00	0.36	0.000	427.636	0.000	0 000
9	MAJOR	0.00	0.36	0 000	427.636	0.000	0 000
	MINOR	0.00	0.36	0.000	427.636	0 000	0 000
10	MAJOR	0.00	0.36	0 000	427.636	0.000	0 000
	MINOR	0.00	0.36	0.000	427.636	0.000	0 000
12	MAJOR	0.00	0.36	0 000	427.636	0.000	0.000
	MINOR	0.00	0.36	0.000	427.636	0.000	0.000

EDIFICIO TISSOT. DISEÑO DE COLUMNAS DE CONCRETO.
UNIDADES MKS. ACI 318-89

BEAM-COLUMN JOINT ANALYSIS (ACI 318-89)

FRAME ID .... EDIFICIO TISSOT
LEVEL ID N6

COL ID	JOINT DIR	SHEAR FORCE (T)	EFFECTV AREA (sqm)	SHEAR STRESS (T/sqm)	ALLOW STRESS (T/sqm)	STRESS RATIO	BEAM/COLUMN STRENGTH RATIO
1	MAJOR	0.00	0.36	0.000	427.636	0 000	0.000
	MINOR	0.00	0.36	0.000	427.636	0.000	0.000
2	MAJOR	0.00	0.36	0.000	427 636	0 000	0.000
	MINOR	0.00	0.36	0.000	427.636	0.000	0.000
3	MAJOR	0.00	0.36	0.000	427 636	0.000	0.000
	MINOR	0.00	0.36	0.000	427.636	0 000	0.000
4	MAJOR	0.00	0.36	0 000	427.636	0 000	0.000
	MINOR	0.00	0.36	0 000	427.636	0 000	0.000
5	MAJOR	0.00	0.26	0 000	427.636	0.000	0.000
	MINOR	0.00	0.26	0.000	427.636	0.000	0.000
6	MAJOR	0.00	0.36	0.000	427 636	0.000	0.000
	MINOR	0.00	0.36	0.000	427 636	0.000	0.000
7	MAJOR	0.00	0.36	0 000	427 636	0.000	0.000
	MINOR	0.00	0.36	0 000	427.636	0.000	0.000
9	MAJOR	0.00	0 36	0.000	427.636	0.000	0.000
	MINOR	0.00	0.36	0 000	427.636	0 000	0.000
10	MAJOR	0.00	0 36	0 000	427.636	0 000	0.000
	MINOR	0.00	0 36	0.000	427.636	0 000	0.000
12	MAJOR	0.00	0 36	0 000	427 636	0.000	0.000
	MINOR	0.00	0.36	0.000	427.636	0.000	0.000

EDIFICIO TISSOT. DISEÑO DE COLUMNAS DE CONCRETO.
UNIDADES MKS. ACI 318-89

BEAM-COLUMN JOINT ANALYSIS (ACI 318-89)

FRAME ID .... EDIFICIO TISSOT
LEVEL ID N4

COL ID	JOINT DIR	SHEAR FORCE (T)	EFFECTV AREA (sqm)	SHEAR STRESS (T/sqm)	ALLOW STRESS (T/sqm)	STRESS RATIO	BEAM/COLUMN STRENGTH RATIO
1	MAJOR	0.00	0.36	0.000	427.636	0.000	9.000
	MINOR	0.00	0.36	0.000	427.636	0.000	9.000
2	MAJOR	0.00	0.36	0.000	427.636	0.000	9.000
	MINOR	0.00	0.36	0.000	427.636	0.000	9.000
3	MAJOR	0.00	0.36	0.000	427.636	0.000	9.000
	MINOR	0.00	0.36	0.000	427.636	0.000	9.000
4	MAJOR	0.00	0.36	0.000	427.636	0.000	9.000
	MINOR	0.00	0.36	0.000	427.636	0.000	9.000
5	MAJOR	0.00	0.36	0.000	427.636	0.000	9.000
	MINOR	0.00	0.36	0.000	427.636	0.000	9.000
6	MAJOR	0.00	0.36	0.000	427.636	0.000	9.000
	MINOR	0.00	0.36	0.000	427.636	0.000	9.000
7	MAJOR	0.00	0.36	0.000	427.636	0.000	9.000
	MINOR	0.00	0.36	0.000	427.636	0.000	9.000
9	MAJOR	0.00	0.36	0.000	427.636	0.000	9.000
	MINOR	0.00	0.36	0.000	427.636	0.000	9.000
10	MAJOR	0.00	0.36	0.000	427.636	0.000	9.000
	MINOR	0.00	0.36	0.000	427.636	0.000	9.000
12	MAJOR	0.00	0.36	0.000	427.636	0.000	9.000
	MINOR	0.00	0.36	0.000	427.636	0.000	9.000

EDIFICIO TISSOT. DISEÑO DE COLUMNAS DE CONCRETO.
UNIDADES MKS. ACI 318-89

BEAM-COLUMN JOINT ANALYSIS (ACI 318-89)

FRAME ID .... EDIFICIO TISSOT
LEVEL ID N3

COL ID	JOINT DIR	SHEAR FORCE (T)	EFFECTV AREA (sqm)	SHEAR STRESS (T/sqm)	ALLOW STRESS (T/sqm)	STRESS RATIO	BEAM/COLUMN STRENGTH RATIO
1	MAJOR	0.00	0.36	0.000	427.636	0.000	9.000
	MINOR	0.00	0.36	0.000	427.636	0.000	9.000
2	MAJOR	0.00	0.36	0.000	427.636	0.000	9.000
	MINOR	0.00	0.36	0.000	427.636	0.000	9.000
3	MAJOR	0.00	0.36	0.000	427.636	0.000	9.000
	MINOR	0.00	0.36	0.000	427.636	0.000	9.000
4	MAJOR	0.00	0.36	0.000	427.636	0.000	9.000
	MINOR	0.00	0.36	0.000	427.636	0.000	9.000
5	MAJOR	0.00	0.36	0.000	427.636	0.000	9.000
	MINOR	0.00	0.36	0.000	427.636	0.000	9.000
6	MAJOR	0.00	0.36	0.000	427.636	0.000	9.000
	MINOR	0.00	0.36	0.000	427.636	0.000	9.000
7	MAJOR	0.00	0.36	0.000	427.636	0.000	9.000
	MINOR	0.00	0.36	0.000	427.636	0.000	9.000
9	MAJOR	0.00	0.36	0.000	427.636	0.000	9.000
	MINOR	0.00	0.36	0.000	427.636	0.000	9.000
10	MAJOR	0.00	0.36	0.000	427.636	0.000	9.000

	MINOR	0.00	0.36	0.000	427.636	0.000	9.000
12	MAJOR	0.00	0.36	0.000	427.636	0.000	9.000
	MINOR	0.00	0.36	0.000	427.636	0.000	9.000

EDIFICIO TISSOT. DISEÑO DE COLUMNAS DE CONCRETO.
UNIDADES MKS. ACI 318-89

BEAM-COLUMN JOINT ANALYSIS (ACI 318-89)

FRAME ID .... EDIFICIO TISSOT
LEVEL ID N2

COL ID	JOINT DIR	SHEAR FORCE (T)	EFFECTV AREA (sqm)	SHEAR STRESS (T/sqm)	ALLOW STRESS (T/sqm)	STRESS RATIO	BEAM/COLUMN STRENGTH RATIO
1	MAJOR	0.00	0.36	0.000	427.636	0.000	0.000
	MINOR	0.00	0.36	0.000	427.636	0.000	0.000
2	MAJOR	0.00	0.36	0.000	427.636	0.000	0.000
	MINOR	0.00	0.36	0.000	427.636	0.000	0.000
3	MAJOR	0.00	0.36	0.000	427.636	0.000	0.000
	MINOR	0.00	0.36	0.000	427.636	0.000	0.000
4	MAJOR	0.00	0.36	0.000	427.636	0.000	0.000
	MINOR	0.00	0.36	0.000	427.636	0.000	0.000
5	MAJOR	0.00	0.36	0.000	427.636	0.000	0.000
	MINOR	0.00	0.36	0.000	427.636	0.000	0.000
6	MAJOR	0.00	0.36	0.000	427.636	0.000	0.000
	MINOR	0.00	0.36	0.000	427.636	0.000	0.000
7	MAJOR	0.00	0.36	0.000	427.636	0.000	0.000
	MINOR	0.00	0.36	0.000	427.636	0.000	0.000
9	MAJOR	0.00	0.36	0.000	427.636	0.000	0.000
	MINOR	0.00	0.36	0.000	427.636	0.000	0.000
10	MAJOR	0.00	0.36	0.000	427.636	0.000	0.000
	MINOR	0.00	0.36	0.000	427.636	0.000	0.000
12	MAJOR	0.00	0.36	0.000	427.636	0.000	0.000
	MINOR	0.00	0.36	0.000	427.636	0.000	0.000

EDIFICIO TISSOT. DISEÑO DE COLUMNAS DE CONCRETO.
UNIDADES MKS. ACI 318-89

BEAM-COLUMN JOINT ANALYSIS (ACI 318-89)

FRAME ID .... EDIFICIO TISSOT
LEVEL ID N1

COL ID	JOINT DIR	SHEAR FORCE (T)	EFFECTV AREA (sqm)	SHEAR STRESS (T/sqm)	ALLOW STRESS (T/sqm)	STRESS RATIO	BEAM/COLUMN STRENGTH RATIO
1	MAJOR	0.00	0.36	0.000	427.636	0.000	0.000
	MINOR	0.00	0.36	0.000	427.636	0.000	0.000
2	MAJOR	0.00	0.36	0.000	427.636	0.000	0.000
	MINOR	0.00	0.36	0.000	427.636	0.000	0.000
3	MAJOR	0.00	0.36	0.000	427.636	0.000	0.000
	MINOR	0.00	0.36	0.000	427.636	0.000	0.000
4	MAJOR	0.00	0.36	0.000	427.636	0.000	0.000
	MINOR	0.00	0.36	0.000	427.636	0.000	0.000
5	MAJOR	0.00	0.36	0.000	427.636	0.000	0.000
	MINOR	0.00	0.36	0.000	427.636	0.000	0.000

.	MAJOR	0.00	0.36	.000	4. .e36	...00	0....
	MINOR	0.00	0.36	0.000	427.636	0.000	0.000
7	MAJOR	0.00	0.36	0.000	427.636	0.000	0.000
	MINOR	0.00	0.36	0.000	427.636	0.000	0.000
9	MAJOR	0.00	0.36	0.000	427.636	0.000	0.000
	MINOR	0.00	0.36	0.000	427.636	0.000	0.000
10	MAJOR	0.00	0.36	0.000	427.636	0.000	0.000
	MINOR	0.00	0.36	0.000	427.636	0.000	0.000
12	MAJOR	0.00	0.36	0.000	427.636	0.000	0.000
	MINOR	0.00	0.36	0.000	427.636	0.000	0.000

EDIFICIO TISSOT. DISEÑO DE COLUMNAS DE CONCRETO.
UNIDADES MKS. ACI 318-89

BEAM-COLUMN JOINT ANALYSIS (ACI 318-89)

FRAME ID .... EDIFICIO TISSOT
LEVEL ID .... MEZ

COL ID	JOINT DIR	SHEAR FORCE (T)	EFFECTV AREA (sqm)	SHEAR STRESS (T/sqm)	ALLOW STRESS (T/sqm)	STRESS RATIO	BEAM/COLUMN STRENGTH RATIO
1	MAJOR	0.00	0.36	0.000	427.636	0.000	0.000
	MINOR	0.00	0.36	0.000	427.636	0.000	0.000
2	MAJOR	0.00	0.36	0.000	427.636	0.000	0.000
	MINOR	0.00	0.36	0.000	427.636	0.000	0.000
3	MAJOR	0.00	0.36	0.000	427.636	0.000	0.000
	MINOR	0.00	0.36	0.000	427.636	0.000	0.000
4	MAJOR	0.00	0.36	0.000	427.636	0.000	0.000
	MINOR	0.00	0.36	0.000	427.636	0.000	0.000
5	MAJOR	0.00	0.36	0.000	427.636	0.000	0.000
	MINOR	0.00	0.36	0.000	427.636	0.000	0.000
6	MAJOR	0.00	0.36	0.000	427.636	0.000	0.000
	MINOR	0.00	0.36	0.000	427.636	0.000	0.000
7	MAJOR	0.00	0.36	0.000	427.636	0.000	0.000
	MINOR	0.00	0.36	0.000	427.636	0.000	0.000
9	MAJOR	0.00	0.36	0.000	427.636	0.000	0.000
	MINOR	0.00	0.36	0.000	427.636	0.000	0.000
10	MAJOR	0.00	0.36	0.000	427.636	0.000	0.000
	MINOR	0.00	0.36	0.000	427.636	0.000	0.000
12	MAJOR	0.00	0.36	0.000	427.636	0.000	0.000
	MINOR	0.00	0.36	0.000	427.636	0.000	0.000
13	MAJOR	0.00	0.36	0.000	427.636	0.000	0.000
	MINOR	0.00	0.36	0.000	427.636	0.000	0.000
18	MAJOR	0.00	0.36	0.000	427.636	0.000	0.000
	MINOR	0.00	0.36	0.000	427.636	0.000	0.000
24	MAJOR	0.00	0.15	0.000	427.636	0.000	0.000
	MINOR	0.00	0.15	0.000	427.636	0.000	0.000
25	MAJOR	0.00	0.15	0.000	427.636	0.000	0.000
	MINOR	0.00	0.15	0.000	427.636	0.000	0.000
26	MAJOR	0.00	0.15	0.000	427.636	0.000	0.000
	MINOR	0.00	0.15	0.000	427.636	0.000	0.000

EDIFICIO TISSOT. DISEÑO DE COLUMNAS DE CONCRETO.
UNIDADES MKS. ACI 318-89

BEAM-COLUMN JOINT ANALYSIS (ACI 318-89)

FRAME ID .... EDIFICIO TISSOT
LEVEL ID .... PB

COL ID	JOINT DIR	SHEAR FORCE (T)	EFFECTV AREA (sqm)	SHEAR STRESS (T/sqm)	ALLOW STRESS (T/sqm)	STRESS RATIO	BEAM/COLUMN STRENGTH RATIO
1	MAJOR	0.00	0.36	0.000	427.636	0.000	0.000
	MINOR	0.00	0.36	0.000	427.636	0.000	0.000
2	MAJOR	0.00	0.36	0.000	427.636	0.000	0.000
	MINOR	0.00	0.36	0.000	427.636	0.000	0.000
3	MAJOR	0.00	0.36	0.000	427.636	0.000	0.000
	MINOR	0.00	0.36	0.000	427.636	0.000	0.000
4	MAJOR	0.00	0.36	0.000	427.636	0.000	0.000
	MINOR	0.00	0.36	0.000	427.636	0.000	0.000
5	MAJOR	0.00	0.36	0.000	427.636	0.000	0.000
	MINOR	0.00	0.36	0.000	427.636	0.000	0.000
6	MAJOR	0.00	0.36	0.000	427.636	0.000	0.000
	MINOR	0.00	0.36	0.000	427.636	0.000	0.000

7	MAJOR	0.00	0.36	0.000	427.636	0.000	0.000
	MINOR	0.00	0.36	0.000	427.636	0.000	0.000
9	MAJOR	0.00	0.36	0.000	427.636	0.000	0.000
	MINOR	0.00	0.36	0.000	427.636	0.000	0.000
10	MAJOR	0.00	0.36	0.000	427.636	0.000	0.000
	MINOR	0.00	0.36	0.000	427.636	0.000	0.000
12	MAJOR	0.00	0.36	0.000	427.636	0.000	0.000
	MINOR	0.00	0.36	0.000	427.636	0.000	0.000
13	MAJOR	0.00	0.36	0.000	427.636	0.000	0.000
	MINOR	0.00	0.36	0.000	427.636	0.000	0.000
18	MAJOR	0.00	0.36	0.000	427.636	0.000	0.000
	MINOR	0.00	0.36	0.000	427.636	0.000	0.000
24	MAJOR	0.00	0.15	0.000	427.636	0.000	0.000
	MINOR	0.00	0.15	0.000	427.636	0.000	0.000
25	MAJOR	0.00	0.15	0.000	427.636	0.000	0.000
	MINOR	0.00	0.15	0.000	427.636	0.000	0.000
26	MAJOR	0.00	0.15	0.000	427.636	0.000	0.000
	MINOR	0.00	0.15	0.000	427.636	0.000	0.000

DISEÑO DE TRABES
(ACERO)
STEELER

(Archivo de Salida)

E T A B S / S T E E L E R

Steel Frame Stress Check Processor for ETABS

Version P6.10

20 Aug 2098 22:41:57

DISENO EDIFICIO TISSOT, MKS, AISC ASD
ISCH

FRAME ID .... EDIFICIO TISSOT
LEVEL ID .... CM

AISC SPECIFICATION, LRFD 1993
COLUMN INTERACTION DETAILS

COL ID	CHECK TYPE	<---BREAK DOWN---> AXIAL	MAJOR	MINOR	<-K-FACTORS-> MAJOR	MINOR	<-UNSUP LENGTHS-> MAJOR (m)	MINOR (m)	<MOM MAG FACTORS> MAJOR	MINOR
20					1.13	1.02	3.19	3.19		
	(C)	0.038	0.051	0.475					1.000	1.001
	(T)	0.004	0.023	0.270					1.000	1.000
21					1.21	1.01	3.19	3.19		
	(C)	0.003	0.082	0.230					1.000	1.000
	(T)	0.001	0.104	0.265					1.000	1.000
22					1.24	1.01	3.19	3.19		
	(C)	0.012	0.090	0.263					1.000	1.000
24					1.54	1.01	3.19	3.24		
	(C)	0.004	0.068	0.184					1.000	1.000
	(T)	0.002	0.029	0.255					1.000	1.000
25					1.16	1.02	3.19	3.24		
	(C)	0.029	0.052	0.078					1.000	1.000
	(T)	0.001	0.006	0.077					1.000	1.000
26					1.23	1.02	3.19	3.24		
	(C)	0.024	0.150	0.023					1.000	1.000
	(T)	0.010	0.141	0.024					1.000	1.000

DISENO EDIFICIO TISSOT, MKS, AISC ASD
ISCH

FRAME ID .... EDIFICIO TISSOT
LEVEL ID M13

AISC SPECIFICATION, LRFD 1993
COLUMN INTERACTION DETAILS

COL ID	CHECK TYPE	<---BREAK DOWN---> AXIAL	MAJOR	MINOR	<-K-FACTORS-> MAJOR	MINOR	<-UNSUP LENGTHS-> MAJOR (m)	MINOR (m)	<MOM MAG FACTORS> MAJOR	MINOR
20					1.19	1.02	3.19	3.19		
	(C)	0.099	0.255	0.723					1.000	1.161
	(T)	0.002	0.069	0.083					1.000	1.000
21					1.16	1.01	3.19	3.19		
	(C)	0.018	0.323	0.382					1.000	1.000
	(T)	0.000	0.058	0.397					1.000	1.000
22					1.17	1.01	3.19	3.19		
	(C)	0.030	0.102	0.251					1.000	1.000
24					1.45	1.01	3.19	3.24		
	(C)	0.022	0.169	0.182					1.000	1.032
	(T)	0.012	0.138	0.336					1.000	1.000
25					1.21	1.02	3.19	3.24		
	(C)	0.035	0.056	0.544					1.000	1.000
	(T)	0.001	0.028	0.554					1.000	1.000
26					1.31	1.03	3.19	3.24		
	(C)	0.056	0.059	0.416					1.000	1.073
	(T)	0.008	0.090	0.215					1.000	1.000

DISENO EDIFICIO TISSOT, MKS, AISC ASD
ISCH

FRAME ID .... EDIFICIO TISSOT
LEVEL ID M12

AISC SPECIFICATION, LRFD 1993
COLUMN INTERACTION DETAILS

COL ID	CHECK TYPE	<---BREAK DOWN---> AXIAL	MAJOR	MINOR	<-K-FACTORS-> MAJOR	MINOR	<-UNSUP LENGTHS-> MAJOR (m)	MINOR (m)	<MOM MAG FACTORS> MAJOR	MINOR
20					1.19	1.02	3.19	3.19		
	(C)	0.089	0.267	0.954					1.000	1.077
	(T)	0.007	0.246	0.476					1.000	1.000
21					1.16	1.01	3.19	3.19		
	(C)	0.062	0.355	0.668					1.000	1.000
	(T)	0.004	0.266	0.631					1.000	1.000
22					1.17	1.01	3.19	3.19		
	(C)	0.062	0.089	0.445					1.000	1.078
24					1.45	1.01	3.19	3.24		
	(C)	0.059	0.172	0.318					1.000	1.034
	(T)	0.003	0.210	0.301					1.000	1.000
25					1.21	1.02	3.19	3.24		
	(C)	0.083	0.134	0.761					1.000	1.117
	(T)	0.015	0.166	0.553					1.000	1.000
26					1.31	1.03	3.19	3.24		
	(C)	0.065	0.069	0.762					1.000	1.067
	(T)	0.001	0.109	0.222					1.000	1.000

DISENO EDIFICIO TISSOT, MKS, AISC ASD
ISCH

FRAME ID .... EDIFICIO TISSOT
LEVEL ID M11

AISC SPECIFICATION, LRFD 1993
COLUMN INTERACTION DETAILS

COL ID	CHECK TYPE	<---BREAK DOWN---> AXIAL	MAJOR	MINOR	<-K-FACTORS-> MAJOR	MINOR	<-UNSUP LENGTHS-> MAJOR (m)	MINOR (m)	<MOM MAG FACTORS> MAJOR	MINOR
20					1.19	1.02	3.19	3.19		
	(C)	0.366	0.184	1.011					1.000	1.279
	(T)	0.006	0.055	0.751					1.000	1.000
21					1.16	1.03	3.19	3.19		
	(C)	0.319	0.278	0.674					1.000	1.252
22					1.17	1.01	3.19	3.19		
	(C)	0.216	0.017	0.618					1.000	1.128

24				1.45	1.01	3.19	3.24		
	(C)	0.213	0.254	0.163				1.000	1.168
	(T)	0.033	0.259	0.298				1.000	1.000
25					1.21	1.02	3.19	3.24	
	(C)	0.320	0.333	0.437				1.001	1.139
	(T)	0.010	0.289	0.560				1.000	1.000
26					1.31	1.03	3.19	3.24	
	(C)	0.201	0.042	0.623				1.000	1.117

DISENO EDIFICIO TISSOT, MKS, AISC ASD
ISCH

FRAME ID . .. EDIFICIO TISSOT
LEVEL ID . .. N10

AISC SPECIFICATION, LRFD 1993
COLUMN INTERACTION DETAILS

COL ID	CHECK TYPE	<---BREAK DOWN---> AXIAL	MAJOR	MINOR	<-K-FACTORS-> MAJOR	MINOR	<-UNSUP LENGTHS-> MAJOR (m)	MINOR (m)	<MOM MAG FACTORS> MAJOR	MINOR
20					1.22	1.05	3.19	3.19		
	(C)	0.356	0.219	1.138					1.000	1.252
	(T)	0.036	0.231	0.750					1.000	1.000
21					1.21	1.02	3.19	3.19		
	(C)	0.331	0.283	0.854					1.000	1.236
22					1.22	1.03	3.19	3.19		
	(C)	0.322	0.006	0.699					1.000	1.259
24					1.55	1.05	3.19	3.24		
	(C)	0.325	0.232	0.365					1.000	1.261
	(T)	0.012	0.298	0.251					1.000	1.000
25					1.27	1.05	3.19	3.24		
	(C)	0.327	0.188	0.803					1.000	1.234
	(T)	0.009	0.336	0.463					1.000	1.000
26					1.39	1.07	3.19	3.24		
	(C)	0.374	0.120	0.672					1.000	1.241

DISENO EDIFICIO TISSOT, MKS, AISC ASD
ISCH

FRAME ID .... EDIFICIO TISSOT
LEVEL ID N9

AISC SPECIFICATION, LRFD 1993
COLUMN INTERACTION DETAILS

COL ID	CHECK TYPE	<---BREAK DOWN---> AXIAL	MAJOR	MINOR	<-K-FACTORS-> MAJOR	MINOR	<-UNSUP LENGTHS-> MAJOR (m)	MINOR (m)	<MOM MAG FACTORS> MAJOR	MINOR
20					1.54	1.11	3.19	3.19		
	(C)	0.081	0.122	0.520					1.000	1.052
	(T)	0.006	0.157	0.331					1.000	1.000
21					1.29	1.04	3.19	3.19		
	(C)	0.071	0.109	0.460					1.000	1.025
22					1.31	1.06	3.19	3.19		
	(C)	0.068	0.000	0.370					1.000	1.012
24					1.75	1.06	3.19	3.24		
	(C)	0.031	0.090	0.213					1.000	1.000
	(T)	0.013	0.165	0.140					1.000	1.000
25					1.38	1.11	3.19	3.24		
	(C)	0.061	0.146	0.349					1.000	1.000
	(T)	0.008	0.226	0.059					1.000	1.000
26					1.54	1.14	3.19	3.24		
	(C)	0.066	0.085	0.286					1.000	1.089
	(T)	0.002	0.075	0.068					1.000	1.000

DISENO EDIFICIO TISSOT, MKS, AISC ASD
ISCH

FRAME ID .... EDIFICIO TISSOT
LEVEL ID N8

AISC SPECIFICATION, LRFD 1993
COLUMN INTERACTION DETAILS

COL ID	CHECK TYPE	<---BREAK DOWN---> AXIAL	MAJOR	MINOR	<-K-FACTORS-> MAJOR	MINOR	<-UNSUP LENGTHS-> MAJOR (m)	MINOR (m)	<MOM MAG FACTORS> MAJOR	MINOR
20					1.38	1.14	3.19	3.19		
	(C)	0.084	0.139	0.554					1.000	1.000
	(T)	0.014	0.196	0.339					1.000	1.000
21					1.34	1.05	3.19	3.19		
	(C)	0.033	0.194	0.595					1.000	1.000
22					1.36	1.07	3.19	3.19		
	(C)	0.080	0.051	0.368					1.000	1.025
24					1.85	1.07	3.19	3.24		
	(C)	0.090	0.139	0.146					1.000	1.045
	(T)	0.011	0.176	0.126					1.000	1.000
25					1.44	1.14	3.19	3.24		
	(C)	0.080	0.154	0.361					1.000	1.053
	(T)	0.006	0.245	0.046					1.000	1.000
26					1.61	1.18	3.19	3.24		
	(C)	0.091	0.054	0.327					1.000	1.013
	(T)	0.009	0.056	0.137					1.000	1.000

DISENO EDIFICIO TISSOT, MKS, AISC ASD
ISCH

FRAME ID .... EDIFICIO TISSOT
LEVEL ID N7

AISC SPECIFICATION, LRFD 1993
COLUMN INTERACTION DETAILS

COL ID	CHECK TYPE	<---BREAK DOWN---> AXIAL	MAJOR	MINOR	<-K-FACTORS-> MAJOR	MINOR	<-UNSUP LENGTHS-> MAJOR (m)	MINOR (m)	<MOM MAG FACTORS> MAJOR	MINOR
20					1.38	1.14	3.19	3.19		
	(C)	0.226	0.094	0.487					1.000	1.051
	(T)	0.022	0.136	0.389					1.000	1.000
21					1.36	1.05	3.19	3.19		
	(C)	0.054	0.076	0.688					1.000	1.000
22					1.36	1.07	3.19	3.19		
	(C)	0.236	0.001	0.603					1.000	1.036
	(T)	0.003	0.040	0.356					1.000	1.000
24					1.85	1.07	3.19	3.24		
	(C)	0.222	0.169	0.113					1.002	1.017
	(T)	0.019	0.203	0.112					1.000	1.000
25					1.44	1.14	3.19	3.24		
	(C)	0.082	0.169	0.331					1.000	1.000
	(T)	0.004	0.149	0.103					1.000	1.000
26					1.61	1.18	3.19	3.24		
	(C)	0.233	0.091	0.243					1.000	1.031
	(T)	0.006	0.303	0.172					1.000	1.000

DISENO EDIFICIO TISSOT, MKS, AISC ASD
ISCH

FRAME ID .... EDIFICIO TISSOT
LEVEL ID N6

AISC SPECIFICATION, LRFD 1993
COLUMN INTERACTION DETAILS

COL ID	CHECK TYPE	<---BREAK DOWN---> AXIAL	MAJOR	MINOR	<-K-FACTORS-> MAJOR	MINOR	<-UNSUP LENGTHS-> MAJOR (m)	MINOR (m)	<MOM MAG FACTORS> MAJOR	MINOR
20					1.25	1.08	3.19	3.19		
	(C)	0.226	0.107	0.561					1.000	1.025
	(T)	0.038	0.145	0.462					1.000	1.000
21					1.18	1.01	3.19	3.19		
	(C)	0.053	0.180	0.721					1.000	1.000

22					1.19	1.04	3.19	3.19	
	(C)	0.287	0.008	0.424					1.000	1.067
	(T)	0.011	0.056	0.396					1.000	1.000
24					1.42	1.04	3.19	3.28	
	(C)	0.274	0.148	0.127					1.000	1.109
	(T)	0.022	0.205	0.102					1.000	1.000
25					1.23	1.08	3.19	3.28	
	(C)	0.207	0.158	0 301					1.000	1 077
	(T)	0.003	0.158	0.125					1.000	1.000
26					1.31	1 09	3.19	3.28	
	(C)	0.273	0.098	0.278					1.000	1.055
	(T)	0.002	0.105	0.220					1.000	1.000

DISEÑO EDIFICIO TISSOT, MKS, AISC ASD
ISCH

FRAME ID .... EDIFICIO TISSOT
LEVEL ID N5

AISC SPECIFICATION, LRFD 1993
COLUMN INTERACTION DETAILS

COL ID	CHECK TYPE	<---BREAK DOWN---> AXIAL	MAJOR	MINOR	<-K-FACTORS-> MAJOR	MINOR	<-UNSUP LENGTHS-> MAJOR (m)	MINOR (m)	<MOM MAG FACTORS> MAJOR	MINOR
20					1.03	1.01	2.75	2.75		
	(C)	0.258	0.057	0.573					1.000	1.044
	(T)	0.038	0.063	0.514					1.000	1.000
21					1.02	1.00	2.75	2.75		
	(C)	0.072	0.079	0.790					1.000	1.000
22					1.03	1.01	2.75	2.75		
	(C)	0.320	0.001	0.477					1.000	1.040
	(T)	0.022	0.038	0.448					1.000	1.000
24					1.07	1.01	2 75	2.87		
	(C)	0.301	0.178	0.138					1.000	1.018
	(T)	0.032	0.239	0.090					1.000	1.000
25					1.03	1.01	2.75	2.87		
	(C)	0.209	0.172	0.291					1.000	1.000
	(T)	0.002	0.193	0.121					1.000	1.000
26					1.05	1.02	2.75	2.87		
	(C)	0.298	0.110	0.250					1.000	1.052
	(T)	0.036	0.155	0.210					1.000	1.000

DISEÑO EDIFICIO TISSOT, MKS, AISC ASD
ISCH

FRAME ID .... EDIFICIO TISSOT
LEVEL ID N4

AISC SPECIFICATION, LRFD 1993
COLUMN INTERACTION DETAILS

COL ID	CHECK TYPE	<---BREAK DOWN---> AXIAL	MAJOR	MINOR	<-K-FACTORS-> MAJOR	MINOR	<-UNSUP LENGTHS-> MAJOR (m)	MINOR (m)	<MOM MAG FACTORS> MAJOR	MINOR
20					1.04	1.02	2.75	2.75		
	(C)	0.076	0.074	0.323					1.000	1.000
	(T)	0.027	0.113	0.234					1.000	1.000
21					1.03	1.01	2.75	2.75		
	(C)	0.041	0.108	0.402					1.000	1.000
22					1.03	1.01	2.75	2.75		
	(C)	0.221	0.006	0.237					1.000	1.000
	(T)	0.021	0.034	0.232					1.000	1.000
24					1.09	1.01	2.75	2.87		
	(C)	0.230	0.102	0.067					1.000	1.010
	(T)	0.023	0.141	0.048					1.000	1.000
25					1.04	1.02	2 75	2.87		
	(C)	0.054	0.210	0.115					1.000	1.017
	(T)	0.000	0.114	0.072					1.000	1.000
26					1.06	1.02	2.75	2.87		
	(C)	0.256	0.123	0.051					1.000	1.009
	(T)	0.019	0.096	0.107					1.000	1.000

DISEÑO EDIFICIO TISSOT, MKS, AISC ASD
ISCH

FRAME ID .... EDIFICIO TISSOT
LEVEL ID N3

AISC SPECIFICATION, LRFD 1993
COLUMN INTERACTION DETAILS

COL ID	CHECK TYPE	<---BREAK DOWN---> AXIAL	MAJOR	MINOR	<-K-FACTORS-> MAJOR	MINOR	<-UNSUP LENGTHS-> MAJOR (m)	MINOR (m)	<MOM MAG FACTORS> MAJOR	MINOR
20					1.04	1.02	2.75	2.75		
	(C)	0.208	0.007	0.277					1.000	1.000
	(T)	0.036	0.035	0.267					1.000	1.000
21					1.04	1.01	2.75	2.75		
	(C)	0.058	0.046	0.425					1.000	1.000
22					1.04	1.01	2.75	2.75		
	(C)	0.258	0.004	0.259					1.000	1.000
	(T)	0.029	0.023	0.252					1.000	1.000
24					1.10	1.01	2.75	2.87		
	(C)	0.239	0.113	0.071					1.000	1.000
	(T)	0.038	0.151	0 037					1.000	1.000
25					1.05	1.02	2.75	2.87		
	(C)	0.069	0.235	0.118					1.000	1.000
	(T)	0.005	0.031	0.082					1.000	1.000
26					1.07	1.03	2.75	2.87		
	(C)	0.307	0.143	0.044					1.000	1.006
	(T)	0.043	0.126	0 080					1.000	1.000

DISEÑO EDIFICIO TISSOT, MKS, AISC ASD
ISCH

FRAME ID .... EDIFICIO TISSOT
LEVEL ID N2

AISC SPECIFICATION, LRFD 1993
COLUMN INTERACTION DETAILS

COL ID	CHECK TYPE	<---BREAK DOWN---> AXIAL	MAJOR	MINOR	<-K-FACTORS-> MAJOR	MINOR	<-UNSUP LENGTHS-> MAJOR (m)	MINOR (m)	<MOM MAG FACTORS> MAJOR	MINOR
20					1.08	1.02	2.75	2.75		
	(C)	0.219	0.031	0.278					1.000	1.000
	(T)	0.037	0.088	0.245					1.000	1.000
21					1.04	1.01	2.75	2.75		
	(C)	0.062	0.099	0.424					1.000	1 000
22					1.04	1.01	2.75	2.75		
	(C)	0.296	0.006	0.259					1.000	1.000
	(T)	0.038	0.017	0.263					1.000	1.000
24					1 10	1.01	2.75	2.87		
	(C)	0.275	0.118	0.081					1.000	1.000
	(T)	0.033	0.156	0.045					1.000	1.000
25					1.05	1.02	2.75	2.87		
	(C)	0.086	0.251	0.123					1.000	1.000
	(T)	0.003	0.259	0.028					1.000	1.000
26					1.07	1.03	2 75	2.87		
	(C)	0.362	0.161	0.048					1.000	1 075
	(T)	0.058	0.143	0.096					1.000	1 000

DISEÑO EDIFICIO TISSOT, MKS, AISC ASD
ISCH

FRAME ID .... EDIFICIO TISSOT
LEVEL ID N1

AISC SPECIFICATION, LRFD 1993
COLUMN INTERACTION DETAILS

COL ID	CHECK TYPE	<---BREAK DOWN---> AXIAL	MAJOR	MINOR	<-K-FACTORS-> MAJOR	MINOR	<-UNSUP LENGTHS-> MAJOR (m)	MINOR (m)	<MOM MAG FACTORS> MAJOR	MINOR

ID	TYPE	AXIAL	MAJOR MINOR	MAJOR	MINOR	MAJOR (m)	MINOR (m)	MAJOR	MINOR
20				1.03	1.02	2.75	2.75		
	(C)	0.248	0.043 0.289					1.000	1.000
	(T)	0.047	0.146 0.266					1.000	1.000
21				1.01	1.01	2.75	2.75		
	(C)	0.078	0.085 0.413					1.000	1.000
22				1.05	1.01	2.75	2.75		
	(C)	0.322	0.072 0.272					1.000	1.000
	(T)	0.048	0.114 0.276					1.000	1.000
24				1.10	1.01	2.75	2.87		
	(C)	0.307	0.136 0.112					1.000	1.000
	(T)	0.071	0.162 0.061					1.000	1.000
25				1.05	1.02	2.75	2.87		
	(C)	0.210	0.257 0.112					1.000	1.000
	(T)	0.013	0.295 0.046					1.000	1.000
26				1.07	1.03	2.75	2.87		
	(C)	0.421	0.201 0.050					1.000	1.063
	(T)	0.207	0.286 0.014					1.000	1.000

DISENO EDIFICIO TISSOT, MKS, AISC ASD
ISCH

FRAME ID .... EDIFICIO TISSOT
LEVEL ID .... MEZ

AISC SPECIFICATION, LRFD 1993
COLUMN INTERACTION DETAILS

COL ID	CHECK TYPE	AXIAL	MAJOR MINOR	MAJOR	MINOR	MAJOR (m)	MINOR (m)	MAJOR	MINOR
20				1.05	1.02	2.75	2.75		
	(C)	0.226	0.002 0.197					1.000	1.000
	(T)	0.033	0.088 0.176					1.000	1.000
21				1.06	1.01	2.75	2.75		
	(C)	0.222	0.021 0.208					1.000	1.000
22				1.05	1.01	2.75	2.75		
	(C)	0.337	0.030 0.174					1.000	1.000
	(T)	0.040	0.102 0.199					1.000	1.000
24				1.00	1.00	2.75	2.87		
	(C)	0.345	0.230 0.092					1.000	1.000
	(T)	0.083	0.257 0.085					1.000	1.000
25				1.00	1.00	2.75	2.87		
	(C)	0.216	0.268 0.089					1.000	1.000
	(T)	0.023	0.309 0.074					1.000	1.000
26				1.39	1.04	2.75	2.87		
	(C)	0.572	0.287 0.019					1.000	1.000
	(T)	0.244	0.280 0.014					1.000	1.000

DISENO EDIFICIO TISSOT, MKS, AISC ASD
ISCH

FRAME ID .... EDIFICIO TISSOT
LEVEL ID .... PB

AISC SPECIFICATION, LRFD 1993
COLUMN INTERACTION DETAILS

COL ID	CHECK TYPE	AXIAL	MAJOR MINOR	MAJOR	MINOR	MAJOR (m)	MINOR (m)	MAJOR	MINOR
20				1.05	1.02	2.75	2.75		
	(C)	0.231	0.066 0.017					1.000	1.000
	(T)	0.030	0.043 0.050					1.000	1.000
41				1.07	1.01	2.75	2.75		
	(C)	0.266	0.111 0.014					1.000	1.000
22				1.04	1.01	2.75	2.75		
	(C)	0.361	0.052 0.048					1.000	1.000
	(T)	0.030	0.048 0.033					1.000	1.000

DISENO EDIFICIO TISSOT, MKS, AISC ASD
ISCH

FRAME ID .... EDIFICIO TISSOT
LEVEL ID S1

AISC SPECIFICATION, LRFD 1993
COLUMN INTERACTION DETAILS

COL ID	CHECK TYPE	AXIAL	MAJOR MINOR	MAJOR	MINOR	MAJOR (m)	MINOR (m)	MAJOR	MINOR
20				1.18	1.17	2.75	2.75		
	(C)	0.250	0.032 0.019					1.000	1.000
	(T)	0.008	0.034 0.006					1.000	1.000
21				1.19	1.16	2.75	2.75		
	(C)	0.304	0.070 0.005					1.000	1.000
22				1.18	1.16	2.75	2.75		
	(C)	0.402	0.024 0.015					1.000	1.000
	(T)	0.017	0.033 0.004					1.000	1.000

DISENO EDIFICIO TISSOT, MKS, AISC ASD
ISCH

FRAME ID .... EDIFICIO TISSOT
LEVEL ID .... CM

AISC SPECIFICATION, LRFD 1993
BEAM INTERACTION DETAILS

BEAM ID	CHECK TYPE	AXIAL	MAJOR MINOR	MAJOR	MINOR	MAJOR (m)	MINOR (m)	MAJOR	MINOR
12				1.00	1.00	3.92	3.92		
	(T)	0.000	0.144 0.000					1.000	1.000
13				1.00	1.00	1.92	1.92		
	(T)	0.000	0.133 0.000					1.000	1.000
16				1.00	1.00	4.04	4.04		
	(T)	0.000	0.144 0.000					1.000	1.000
17				1.00	1.00	1.87	1.87		
	(T)	0.000	0.132 0.000					1.000	1.000
26				1.00	1.00	1.37	1.37		
	(T)	0.000	0.039 0.000					1.000	1.000
28				1.00	1.00	3.07	3.07		
	(T)	0.000	0.042 0.000					1.000	1.000
30				1.00	1.00	3.93	3.93		
	(T)	0.000	0.031 0.000					1.000	1.000

DISENO EDIFICIO TISSOT, MKS, AISC ASD
ISCH

FRAME ID .... EDIFICIO TISSOT
LEVEL ID N13

AISC SPECIFICATION, LRFD 1993
BEAM INTERACTION DETAILS

BEAM ID	CHECK TYPE	AXIAL	MAJOR MINOR	MAJOR	MINOR	MAJOR (m)	MINOR (m)	MAJOR	MINOR
3				1.00	1.00	13.50	3.60		
	(T)	0.000	0.378 0.000					1.000	1.000
8				1.00	1.00	4.05	4.05		
	(T)	0.000	1.726 0.000					1.000	1.000
9				1.00	1.00	2.05	2.05		
12				1.00	1.00	3.92	3.92		
	(T)	0.000	0.151 0.000					1.000	1.000
13				1.00	1.00	1.92	1.92		
	(T)	0.000	0.099 0.000					1.000	1.000
16				1.00	1.00	4.04	4.04		

	(T)	0.000	0.204	0.000					1.000	1.000
17					1.00	1.00	1 87	1.87		
	(T)	0.000	0.087	0.000					1.000	1.000
19					1.00	1.00	2.80	0.90		
	(T)	0.000	0.239	0.000					1.000	1.000
20					1.00	1.00	3.20	0.90		
	(T)	0.000	0.073	0.000					1.000	1.000
21					1.00	1.00	3.20	0.90		
	(T)	0.000	0.079	0.000					1.000	1.000
22					1.00	1.00	3.20	0.90		
	(T)	0.000	0.210	0.000					1.000	1.000
25					1.00	1.00	1.33	1.33		
	(T)	0.000	0.589	0.000					1.000	1.000
26					1.00	1.00	1.37	1.37		
	(T)	0.000	0.185	0.000					1.000	1.000
27					1.00	1.00	1.33	1.33		
	(T)	0.000	0.567	0.000					1.000	1.000
28					1.00	1.00	3.07	3.07		
	(T)	0.000	0.062	0.000					1.000	1.000
29					1.00	1.00	1.33	1.33		
	(T)	0.000	0.036	0.000					1.000	1.000
30					1.00	1.00	3.93	3.93		
	(T)	0.000	0.048	0.000					1.000	1.000
33					1.00	1.00	2.80	0.90		
	(T)	0.000	0.238	0.000					1.000	1.000
34					1.00	1.00	3.20	0.90		
	(T)	0.000	0.073	0.000					1.000	1.000
35					1.00	1.00	3.20	0.90		
	(T)	0.000	0.080	0.000					1.000	1.000
36					1.00	1.00	3.20	0.90		
	(T)	0.000	0.210	0.000					1.000	1.000
40					1.00	1.00	13.50	3.60		
	(T)	0.000	0.364	0.000					1.000	1.000
45					1.00	1.00	3.60	3.60		
	(C)	0.011	0.211	0.182					1.001	1.016
	(T)	0.006	0.051	0.244					1.000	1.000

FRAME ID .... EDIFICIO TISSOT
LEVEL ID N13

AISC SPECIFICATION, LRFD 1993
BEAM INTERACTION DETAILS

BEAM ID	CHECK TYPE	<---BREAK DOWN---> AXIAL	MAJOR	MINOR	<-K-FACTORS-> MAJOR	MINOR	<-UNSUP LENGTHS-> MAJOR (m)	MINOR (m)	<MOM MAG FACTORS> MAJOR	MINOR
47					1.00	1.00	3.60	3.60		
	(C)	0.043	0.324	0 183					1.004	1.052
	(T)	0.005	0.215	0.158					1.000	1.000

FRAME ID .... EDIFICIO TISSOT
LEVEL ID N12

AISC SPECIFICATION, LRFD 1993
BEAM INTERACTION DETAILS

BEAM ID	CHECK TYPE	<---BREAK DOWN---> AXIAL	MAJOR	MINOR	<-K-FACTORS-> MAJOR	MINOR	<-UNSUP LENGTHS-> MAJOR (m)	MINOR (m)	<MOM MAG FACTORS> MAJOR	MINOR
3					1.00	1.00	13.50	3.60		
	(T)	0.000	0.529	0.000					1.000	1.000
9					1.00	1.00	2.05	2.05		
	(T)	0.000	0.082	0.000					1.000	1.000
12					1.00	1.00	3.92	3.92		
	(T)	0.000	0.202	0.000					1.000	1.000
13					1.00	1.00	1.92	1.92		
	(T)	0.000	0.108	0.000					1.000	1.000
16					1.00	1.00	4.04	4.04		
	(T)	0.000	0.274	0.000					1.000	1.000
17					1.00	1.00	1.87	1.87		
	(T)	0.000	0.076	0 000					1.000	1.000
20					1.00	1.00	3.20	0.90		
	(T)	0.000	0.250	0.000					1.000	2 000
21					1.00	1.00	3.20	0.90		
	(T)	0.000	0.232	0.000					1.000	1.000
22					1.00	1.00	3.20	0.90		
	(T)	0.000	0.082	0.000					1.000	1.000
26					1.00	1.00	1.37	1.37		
	(T)	0.000	0.280	0.000					1.000	1.000
27					1.00	1.00	1 33	1.33		
	(T)	0.000	0.056	0.000					1.000	1.000
28					1.00	1.00	3.07	3.07		
	(T)	0.000	0.277	0 000					1.000	1.000
29					1.00	1.00	1.33	1.33		
	(T)	0.000	0.056	0 000					1.000	1.000
30					1.00	1.00	3.93	3.93		
	(T)	0.000	0.146	0.000					1.000	1.000
34					1.00	1.00	3.20	0.90		
	(T)	0.000	0.251	0.000					1.000	1.000
35					1.00	1.00	3.20	0.90		
	(T)	0.000	0.232	0.000					1.000	1.000
36					1.00	1.00	3.20	0.90		
	(T)	0.000	0.081	0.000					1.000	1.000
40					1.00	1.00	13.50	3.60		
	(T)	0.000	0.520	0.000					1.000	1 000
46					1.00	1.00	1.80	0.90		
	(T)	0.000	0.347	0.000					1.000	1.000
51					1.00	1.00	1.80	0.90		
	(T)	0.000	0.346	0.000					1.000	1.000
52					1.00	1.00	1.80	0.90		
	(T)	0.000	0.346	0.000					1.000	1.000
53					1.00	1.00	1.80	0.90		
	(T)	0.000	0.347	0 000					1.000	1.000

FRAME ID .... EDIFICIO TISSOT
LEVEL ID N13

AISC SPECIFICATION, LRFD 1993
BEAM INTERACTION DETAILS

BEAM ID	CHECK TYPE	<---BREAK DOWN---> AXIAL	MAJOR	MINOR	<-K-FACTORS-> MAJOR	MINOR	<-UNSUP LENGTHS-> MAJOR (m)	MINOR (m)	<MOM MAG FACTORS> MAJOR	MINOR
3					1.00	1.00	13.50	3.60		
	(T)	0.000	0.633	0.000					1.000	1.000
8					1.00	1.00	4.05	4.05		
	(T)	0.000	2.336	0.000					1.000	1.000
9					1.00	1.00	2.05	2.05		
12					1.00	1.00	3.92	3.92		
	(T)	0.000	0.212	0.000					1.000	1.000
13					1.00	1.00	1.92	1.92		
	(T)	0.000	0.112	0.000					1.000	1.000
16					1.00	1.00	4 04	4.04		
	(T)	0.000	0.363	0.000					1.000	1.000
17					1.00	1.00	1.87	1.87		
	(T)	0.000	0 178	0 000					1.000	1.000
19					1.00	1.00	2 80	0.90		
	(T)	0.000	0.099	0.000					1.000	1.000
20					1.00	1.00	3.20	0.90		
	(T)	0.000	0.227	0.000					1.000	1.000
21					1.00	1.00	3.20	0 90		
	(T)	0.000	0.233	0.000					1.000	1.000
22					1.00	1.00	3.20	0.90		
	(T)	0.000	0.089	0.000					1.000	1.000
25					1.00	1.00	1 33	1.33		
	(T)	0.000	0.701	0.000					1.000	1.000
26					1.00	1.00	1.37	1.37		

	(T)	0.000	0.083	0.000					1.000	1.000
27					1.00	1.00	1.33	1.33		
	(T)	0.000	0.693	0.000					1.000	1.000
28					1.00	1.00	3.07	3.07		
	(T)	0.000	0.146	0.000					1.000	1.000
29					1.00	1.00	1.33	1.33		
	(T)	0.000	0.049	0.000					1.000	1.000
30					1.00	1.00	3.93	3.93		
	(T)	0.000	0.168	0.000					1.000	1.000
33					1.00	1.00	2.80	0.90		
	(T)	0.000	0.099	0.000					1.000	1.000
34					1.00	1.00	3.20	0.90		
	(T)	0.000	0.227	0.000					1.000	1.000
35					1.00	1.00	3.20	0.90		
	(T)	0.000	0.233	0.000					1.000	1.000
36					1.00	1.00	3.20	0.90		
	(T)	0.000	0.088	0.000					1.000	1.000
40					1.00	1.00	13.50	3.60		
	(T)	0.000	0.614	0.000					1.000	1.000
45					1.00	1.00	3.60	3.60		
	(C)	0.005	0.233	0.127					1.000	1.000
	(T)	0.005	0.254	0.108					1.000	1.000

DISEÑO EDIFICIO TISSOT, MKS, AISC ASD
ISCH

FRAME ID .... EDIFICIO TISSOT
LEVEL ID N11

AISC SPECIFICATION, LRFD 1993
BEAM INTERACTION DETAILS

BEAM ID	CHECK TYPE	<---BREAK DOWN---> AXIAL	MAJOR	MINOR	<-K-FACTORS-> MAJOR	MINOR	<-UNSUP LENGTHS-> MAJOR (m)	MINOR (m)	<NOM MAG FACTORS> MAJOR	MINOR
47					1.00	1.00	3.60	3.60		
	(C)	0.238	0.257	0.127					1.000	1.000
	(T)	0.024	0.256	0.108					1.000	1.000

DISEÑO EDIFICIO TISSOT, MKS, AISC ASD
ISCH

FRAME ID .... EDIFICIO TISSOT
LEVEL ID N10

AISC SPECIFICATION, LRFD 1993
BEAM INTERACTION DETAILS

BEAM ID	CHECK TYPE	<---BREAK DOWN---> AXIAL	MAJOR	MINOR	<-K-FACTORS-> MAJOR	MINOR	<-UNSUP LENGTHS-> MAJOR (m)	MINOR (m)	<NOM MAG FACTORS> MAJOR	MINOR
3					1.00	1.00	13.50	3.60		
	(T)	0.000	0.722	0.000					1.000	1.000
9					1.00	1.00	2.05	2.05		
	(T)	0.000	0.082	0.000					1.000	1.000
12					1.00	1.00	3.92	3.92		
	(T)	0.000	0.256	0.000					1.000	1.000
13					1.00	1.00	1.92	1.92		
	(T)	0.000	0.139	0.000					1.000	1.000
16					1.00	1.00	4.04	4.04		
	(T)	0.000	0.448	0.000					1.000	1.000
17					1.00	1.00	1.87	1.87		
	(T)	0.000	0.256	0.000					1.000	1.000
20					1.00	1.00	3.20	0.90		
	(T)	0.000	0.287	0.000					1.000	1.000
21					1.00	1.00	3.20	0.90		
	(T)	0.000	0.295	0.000					1.000	1.000
22					1.00	1.00	3.20	0.90		
	(T)	0.000	0.082	0.000					1.000	1.000
26					1.00	1.00	1.37	1.37		
27	(T)	0.000	0.305	0.000	1.00	1.00	1.33	1.33	1.000	1.000
28	(T)	0.000	0.056	0.000	1.00	1.00	3.07	3.07	1.000	1.000
29	(T)	0.000	0.325	0.000	1.00	1.00	1.33	1.33	1.000	1.000
30	(T)	0.000	0.056	0.000	1.00	1.00	3.93	3.93	1.000	1.000
34	(T)	0.000	0.188	0.000	1.00	1.00	3.20	0.90	1.000	1.000
35	(T)	0.000	0.287	0.000	1.00	1.00	3.20	0.90	1.000	1.000
36	(T)	0.000	0.285	0.000	1.00	1.00	3.20	0.90	1.000	1.000
40	(T)	0.000	0.084	0.000	1.00	1.00	13.50	3.60	1.000	1.000
46	(T)	0.000	0.711	0.000	1.00	1.00	1.80	0.90	1.000	1.000
51	(T)	0.000	0.371	0.000	1.00	1.00	1.00	0.90	1.000	1.000
52	(T)	0.000	0.369	0.000	1.00	1.00	1.80	0.90	1.000	1.000
53	(T)	0.000	0.371	0.000	1.00	1.00	1.00	0.90	1.000	1.000

DISEÑO EDIFICIO TISSOT, MKS, AISC ASD
ISCH

FRAME ID .... EDIFICIO TISSOT
LEVEL ID N9

AISC SPECIFICATION, LRFD 1993
BEAM INTERACTION DETAILS

BEAM ID	CHECK TYPE	<---BREAK DOWN---> AXIAL	MAJOR	MINOR	<-K-FACTORS-> MAJOR	MINOR	<-UNSUP LENGTHS-> MAJOR (m)	MINOR (m)	<NOM MAG FACTORS> MAJOR	MINOR
3					1.00	1.00	13.50	3.60		
	(T)	0.000	0.824	0.000					1.000	1.000
8					1.00	1.00	4.05	4.05		
	(T)	0.000	2.336	0.000					1.000	1.000
9					1.00	1.00	2.05	2.05		
12					1.00	1.00	3.85	3.85		
	(T)	0.000	0.352	0.000					1.000	1.000
13					1.00	1.00	1.85	1.85		
	(T)	0.000	0.218	0.000					1.000	1.000
16					1.00	1.00	4.04	4.04		
	(T)	0.000	0.502	0.000					1.000	1.000
17					1.00	1.00	1.87	1.87		
	(T)	0.000	0.293	0.000					1.000	1.000
19					1.00	1.00	2.80	0.90		
	(C)	0.000	0.073	0.000					1.000	1.000
20					1.00	1.00	3.20	0.90		
	(T)	0.000	0.291	0.000					1.000	1.000
21					1.00	1.00	3.20	0.90		
	(T)	0.000	0.294	0.000					1.000	1.000
22					1.00	1.00	3.20	0.90		
	(T)	0.000	0.077	0.000					1.000	1.000
25					1.00	1.00	1.33	1.33		
	(T)	0.000	0.738	0.000					1.000	1.000
26					1.00	1.00	1.34	1.34		
	(T)	0.000	0.128	0.000					1.000	1.000
27					1.00	1.00	1.33	1.33		
	(T)	0.000	0.724	0.000					1.000	1.000
28					1.00	1.00	3.04	3.04		
	(T)	0.000	0.226	0.000					1.000	1.000
29					1.00	1.00	1.33	1.33		
	(T)	0.000	0.049	0.000					1.000	1.000
30					1.00	1.00	3.90	3.90		
	(T)	0.000	0.233	0.000					1.000	1.000
33					1.00	1.00	2.80	0.90		
	(T)	0.000	0.075	0.000					1.000	1.000
34					1.00	1.00	3.20	0.90		
	(T)	0.000	0.292	0.000					1.000	1.000
35					1.00	1.00	3.20	0.90		

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   (T)     0.... 0.295 ..000                                       1...0   1.0..
 36                                 1.00  1.00      3.20     0.90
   (T)     0.000 0.078 0.000                                       1.000   1.000
 40                                 1.00  1.00     13.50     3.60
   (T)     0.000 0.804 0.000                                       1.000   1.000
 45                                 1.00  1.00      3.60     3.60
   (C)     0.007 0.307 0.048                                       1.001   1.008
   (T)     0.003 0.281 0.060                                       1.000   1.000
                                            PAGE   27
                                      ETABS_FILE:PMI5.PST/STEELER_FILE:PMID3.DTL
DISENO EDIFICIO TISSOT, MKS, AISC ASD
ISCH

FRAME ID .... EDIFICIO TISSOT
LEVEL ID .... N9

AISC SPECIFICATION, LRFD 1993
BEAM    INTERACTION DETAILS

BEAM CHECK   <---BREAK DOWN---><-K-FACTORS-><-UNSUP LENGTHS-><MOM MAG FACTORS>
  ID TYPE     AXIAL MAJOR MINOR  MAJOR MINOR    MAJOR    MINOR     MAJOR   MINOR
                                                 (m)      (m)

 47                                 1.00  1.00      3.60     3.60
   (C)     0.026 0.272 0.073                                       1.003   1.031
   (T)     0.011 0.272 0.060                                       1.000   1.000
                                            PAGE   28
                                      ETABS_FILE:PMI5.PST/STEELER_FILE:PMID3.DTL
DISENO EDIFICIO TISSOT, MKS, AISC ASD
ISCH

FRAME ID .... EDIFICIO TISSOT
LEVEL ID .... N8

AISC SPECIFICATION, LRFD 1993
BEAM    INTERACTION DETAILS

BEAM CHECK   <---BREAK DOWN---><-K-FACTORS-><-UNSUP LENGTHS-><MOM MAG FACTORS>
  ID TYPE     AXIAL MAJOR MINOR  MAJOR MINOR    MAJOR    MINOR     MAJOR   MINOR
                                                 (m)      (m)

  3                                 1.00  1.00     13.50     3.60
   (T)     0.000 0.912 0.000                                       1.000   1.000
  9                                 1.00  1.00      2.05     2.05
   (T)     0.000 0.082 0.000                                       1.000   1.000
 12                                 1.00  1.00      3.85     3.85
   (T)     0.000 0.427 0.000                                       1.000   1.000
 13                                 1.00  1.00      1.85     1.85
   (T)     0.000 0.281 0.000                                       1.000   1.000
 16                                 1.00  1.00      4.05     4.05
   (T)     0.000 0.541 0.000                                       1.000   1.000
 17                                 1.00  1.00      1.88     1.88
   (T)     0.000 0.328 0.000                                       1.000   1.000
 20                                 1.00  1.00      3.20     0.90
   (T)     0.000 0.328 0.000                                       1.000   1.000
 21                                 1.00  1.00      3.20     0.90
   (T)     0.000 0.342 0.000                                       1.000   1.000
 22                                 1.00  1.00      3.20     0.90
   (T)     0.000 0.126 0.000                                       1.000   1.000
 26                                 1.00  1.00      1.34     1.34
   (T)     0.000 0.370 0.000                                       1.000   1.000
 27                                 1.00  1.00      1.33     1.33
   (T)     0.000 0.056 0.000                                       1.000   1.000
 28                                 1.00  1.00      3.04     3.04
   (T)     0.000 0.421 0.000                                       1.000   1.000
 29                                 1.00  1.00      1.33     1.33
   (T)     0.000 0.056 0.000                                       1.000   1.000
 30                                 1.00  1.00      3.90     3.90
   (T)     0.000 0.278 0.000                                       1.000   1.000
 34                                 1.00  1.00      3.20     0.90
   (T)     0.000 0.329 0.000                                       1.000   1.000
 35                                 1.00  1.00      3.20     0.90
   (T)     0.000 0.341 0.000                                       1.000   1.000
 36                                 1.00  1.00      3.20     0.90
   (T)     0.000 0.126 0.000                                       1.000   1.000
 40                                 1.00  1.00     13.50     3.60
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   (T)     0.... 0.890 ..000                                       1...0   1.0..
 46                                 1.00  1.00      1.80     0.90
   (T)     0.000 0.432 0.000                                       1.000   1.000
 51                                 1.00  1.00      1.00     0.90
   (T)     0.000 0.430 0.000                                       1.000   1.000
 52                                 1.00  1.00      1.80     0.90
   (T)     0.000 0.430 0.000                                       1.000   1.000
 53                                 1.00  1.00      1.00     0.90
   (T)     0.000 0.432 0.000                                       1.000   1.000
                                            PAGE   29
                                      ETABS_FILE:PMI5.PST/STEELER_FILE:PMID3.DTL
DISENO EDIFICIO TISSOT, MKS, AISC ASD
ISCH

FRAME ID .... EDIFICIO TISSOT
LEVEL ID .... N7

AISC SPECIFICATION, LRFD 1993
BEAM    INTERACTION DETAILS

BEAM CHECK   <---BREAK DOWN---><-K-FACTORS-><-UNSUP LENGTHS-><MOM MAG FACTORS>
  ID TYPE     AXIAL MAJOR MINOR  MAJOR MINOR    MAJOR    MINOR     MAJOR   MINOR
                                                 (m)      (m)

  3                                 1.00  1.00     13.50     3.60
   (T)     0.000 0.990 0.000                                       1.000   1.000
  8                                 1.00  1.00      4.05     4.05
   (T)     0.000 2.336 0.000                                       1.000   1.000
  9                                 1.00  1.00      2.05     2.05
 12                                 1.00  1.00      3.85     3.85
   (T)     0.000 0.465 0.000                                       1.000   1.000
 13                                 1.00  1.00      1.85     1.85
   (T)     0.000 0.316 0.000                                       1.000   1.000
 16                                 1.00  1.00      4.05     4.05
   (T)     0.000 0.601 0.000                                       1.000   1.000
 17                                 1.00  1.00      1.88     1.88
   (T)     0.000 0.398 0.000                                       1.000   1.000
 19                                 1.00  1.00      2.80     0.90
   (T)     0.000 0.085 0.000                                       1.000   1.000
 20                                 1.00  1.00      3.20     0.90
   (T)     0.000 0.319 0.000                                       1.000   1.000
 21                                 1.00  1.00      3.20     0.90
   (T)     0.000 0.319 0.000                                       1.000   1.000
 22                                 1.00  1.00      3.20     0.90
   (T)     0.000 0.096 0.000                                       1.000   1.000
 25                                 1.00  1.00      1.33     1.33
   (T)     0.000 0.739 0.000                                       1.000   1.000
 26                                 1.00  1.00      1.34     1.34
   (T)     0.000 0.358 0.000                                       1.000   1.000
 27                                 1.00  1.00      1.33     1.33
   (T)     0.000 0.721 0.000                                       1.000   1.000
 28                                 1.00  1.00      3.04     3.04
   (T)     0.000 0.280 0.000                                       1.000   1.000
 29                                 1.00  1.00      1.33     1.33
   (T)     0.000 0.049 0.000                                       1.000   1.000
 30                                 1.00  1.00      3.90     3.90
   (T)     0.000 0.272 0.000                                       1.000   1.000
 33                                 1.00  1.00      2.80     0.90
   (T)     0.000 0.086 0.000                                       1.000   1.000
 34                                 1.00  1.00      3.20     0.90
   (T)     0.000 0.319 0.000                                       1.000   1.000
 35                                 1.00  1.00      3.20     0.90
   (T)     0.000 0.320 0.000                                       1.000   1.000
 36                                 1.00  1.00      3.20     0.90
   (T)     0.000 0.095 0.000                                       1.000   1.000
 40                                 1.00  1.00     13.50     3.60
   (T)     0.000 0.970 0.000                                       1.000   1.000
 45                                 1.00  1.00      3.60     3.60
   (C)     0.000 0.306 0.046                                       1.000   1.000
   (T)     0.000 0.308 0.045                                       1.000   1.000
                                            PAGE   30
                                      ETABS_FILE:PMI5.PST/STEELER_FILE:PMID3.DTL
DISENO EDIFICIO TISSOT, MKS, AISC ASD
ISCH

FRAME ID .... EDIFICIO TISSOT
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LEVEL ID N7

AISC SPECIFICATION, LRFD 1993
BEAM INTERACTION DETAILS

BEAM ID	CHECK TYPE	<---BREAK DOWN---> AXIAL	MAJOR	MINOR	<-K-FACTORS-> MAJOR	MINOR	<-UNSUP LENGTHS-> MAJOR (m)	MINOR (m)	<MOM MAG FACTORS> MAJOR	MINOR
47					1.00	1.00	3.60	3.60		
	(C)	0.036	0.266	0.054					1.004	1.004
	(T)	0.024	0.266	0.046					1.000	1.000

DISENO EDIFICIO TISSOT, MKS, AISC ASD
ISCH

FRAME ID .... EDIFICIO TISSOT
LEVEL ID N6

AISC SPECIFICATION, LRFD 1993
BEAM INTERACTION DETAILS

BEAM ID	CHECK TYPE	<---BREAK DOWN---> AXIAL	MAJOR	MINOR	<-K-FACTORS-> MAJOR	MINOR	<-UNSUP LENGTHS-> MAJOR (m)	MINOR (m)	<MOM MAG FACTORS> MAJOR	MINOR
3					1.00	1.00	13.50	3.60		
	(T)	0.000	1.063	0.000					1.000	1.000
9					1.00	1.00	2.05	2.05		
	(T)	0.000	0.082	0.000					1.000	1.000
12					1.00	1.00	3.85	3.85		
	(T)	0.000	0.482	0.000					1.000	1.000
13					1.00	1.00	1.85	1.85		
	(T)	0.000	0.349	0.000					1.000	1.000
16					1.00	1.00	4.05	4.05		
	(T)	0.000	0.650	0.000					1.000	1.000
17					1.00	1.00	1.88	1.88		
	(T)	0.000	0.665	0.000					1.000	1.000
20					1.00	1.00	3.20	0.90		
	(T)	0.000	0.323	0.000					1.000	1.000
21					1.00	1.00	3.20	0.90		
	(T)	0.000	0.338	0.000					1.000	1.000
22					1.00	1.00	3.20	0.90		
	(T)	0.000	0.117	0.000					1.000	1.000
26					1.00	1.00	1.34	1.34		
	(T)	0.000	0.335	0.000					1.000	1.000
27					1.00	1.00	1.33	1.33		
	(T)	0.000	0.056	0.000					1.000	1.000
28					1.00	1.00	3.04	3.04		
	(T)	0.000	0.398	0.000					1.000	1.000
29					1.00	1.00	1.33	1.33		
	(T)	0.000	0.056	0.000					1.000	1.000
30					1.00	1.00	3.90	3.90		
	(T)	0.000	0.267	0.000					1.000	1.000
34					1.00	1.00	3.20	0.90		
	(T)	0.000	0.325	0.000					1.000	1.000
35					1.00	1.00	3.20	0.90		
	(T)	0.000	0.338	0.000					1.000	1.000
36					1.00	1.00	3.20	0.90		
	(T)	0.000	0.117	0.000					1.000	1.000
40					1.00	1.00	13.50	3.60		
	(T)	0.000	1.041	0.000					1.000	1.000
46					1.00	1.00	1.80	0.90		
	(T)	0.000	0.410	0.000					1.000	1.000
51					1.00	1.00	1.00	0.90		
	(T)	0.000	0.409	0.000					1.000	1.000
52					1.00	1.00	1.80	0.90		
	(T)	0.000	0.409	0.000					1.000	1.000
53					1.00	1.00	1.00	0.90		
	(T)	0.000	0.410	0.000					1.000	1.000

DISENO EDIFICIO TISSOT, MKS, AISC ASD
ISCH

FRAME ID .... EDIFICIO TISSOT
LEVEL ID N5

AISC SPECIFICATION, LRFD 1993
BEAM INTERACTION DETAILS

BEAM ID	CHECK TYPE	<---BREAK DOWN---> AXIAL	MAJOR	MINOR	<-K-FACTORS-> MAJOR	MINOR	<-UNSUP LENGTHS-> MAJOR (m)	MINOR (m)	<MOM MAG FACTORS> MAJOR	MINOR
3					1.00	1.00	13.50	3.60		
	(T)	0.000	1.124	0.000					1.000	1.000
8					1.00	1.00	4.05	4.05		
	(T)	0.000	2.336	0.000					1.000	1.000
9					1.00	1.00	2.05	2.05		
12					1.00	1.00	3.85	3.85		
	(T)	0.000	0.071	0.000					1.000	1.000
13					1.00	1.00	1.85	1.85		
	(T)	0.000	0.053	0.000					1.000	1.000
16					1.00	1.00	4.05	4.05		
	(T)	0.000	0.095	0.000					1.000	1.000
17					1.00	1.00	1.88	1.88		
	(T)	0.000	0.074	0.000					1.000	1.000
19					1.00	1.00	2.80	0.90		
	(T)	0.000	0.097	0.000					1.000	1.000
20					1.00	1.00	3.20	0.90		
	(T)	0.000	0.337	0.000					1.000	1.000
21					1.00	1.00	3.20	0.90		
	(T)	0.000	0.335	0.000					1.000	1.000
22					1.00	1.00	3.20	0.90		
	(T)	0.000	0.120	0.000					1.000	1.000
25					1.00	1.00	1.33	1.33		
	(T)	0.000	0.097	0.000					1.000	1.000
26					1.00	1.00	1.34	1.34		
	(T)	0.000	0.022	0.000					1.000	1.000
27					1.00	1.00	1.33	1.33		
	(T)	0.000	0.095	0.000					1.000	1.000
28					1.00	1.00	3.04	3.04		
	(T)	0.000	0.038	0.000					1.000	1.000
29					1.00	1.00	1.33	1.33		
30					1.00	1.00	3.90	3.90		
	(T)	0.000	0.037	0.000					1.000	1.000
33					1.00	1.00	2.80	0.90		
	(T)	0.000	0.099	0.000					1.000	1.000
34					1.00	1.00	3.20	0.90		
	(T)	0.000	0.337	0.000					1.000	1.000
35					1.00	1.00	3.20	0.90		
	(T)	0.000	0.336	0.000					1.000	1.000
36					1.00	1.00	3.20	0.90		
	(T)	0.000	0.119	0.000					1.000	1.000
40					1.00	1.00	13.50	3.60		
	(T)	0.000	1.104	0.000					1.000	1.000
45					1.00	1.00	3.60	3.60		
	(C)	0.001	0.039	0.010					1.000	1.001
	(T)	0.001	0.038	0.011					1.000	1.000

DISENO EDIFICIO TISSOT, MKS, AISC ASD
ISCH

FRAME ID .... EDIFICIO TISSOT
LEVEL ID N5

AISC SPECIFICATION, LRFD 1993
BEAM INTERACTION DETAILS

BEAM ID	CHECK TYPE	<---BREAK DOWN---> AXIAL	MAJOR	MINOR	<-K-FACTORS-> MAJOR	MINOR	<-UNSUP LENGTHS-> MAJOR (m)	MINOR (m)	<MOM MAG FACTORS> MAJOR	MINOR
47					1.00	1.00	3.60	3.60		
	(C)	0.006	0.035	0.011					1.000	1.004
	(T)	0.005	0.033	0.010					1.000	1.000

DISENO EDIFICIO TISSOT, MKS, AISC ASD

ISC..

FRAME ID .... EDIFICIO TISSOT
LEVEL ID N4

AISC SPECIFICATION, LRFD 1993
BEAM INTERACTION DETAILS

BEAM ID	CHECK TYPE	<---BREAK DOWN---> AXIAL	MAJOR	MINOR	<-K-FACTORS-> MAJOR	MINOR	<-UNSUP LENGTHS-> MAJOR (m)	MINOR (m)	<MOM MAG FACTORS> MAJOR	MINOR
3					1.00	1.00	13.50	3.60		
	(T)	0.000	1.178	0.000					1.000	1.000
9					1.00	1.00	2.05	2.05		
	(T)	0.000	0.082	0.000					1.000	1.000
12					1.00	1.00	3.80	3.80		
	(T)	0.000	0.073	0.000					1.000	1.000
13					1.00	1.00	1.80	1.80		
	(T)	0.000	0.057	0.000					1.000	1.000
16					1.00	1.00	4.04	4.04		
	(T)	0.000	0.099	0.000					1.000	1.000
17					1.00	1.00	1.87	1.87		
	(T)	0.000	0.082	0.000					1.000	1.000
20					1.00	1.00	3.20	0.90		
	(T)	0.000	0.330	0.000					1.000	1.000
21					1.00	1.00	3.20	0.90		
	(T)	0.000	0.345	0.000					1.000	1.000
22					1.00	1.00	3.20	0.90		
	(T)	0.000	0.146	0.000					1.000	1.000
26					1.00	1.00	1.32	1.32		
	(T)	0.000	0.049	0.000					1.000	1.000
27					1.00	1.00	1.32	1.32		
28					1.00	1.00	3.02	3.02		
	(T)	0.000	0.055	0.000					1.000	1.000
29					1.00	1.00	1.32	1.32		
30					1.00	1.00	3.88	3.88		
	(T)	0.000	0.038	0.000					1.000	1.000
34					1.00	1.00	3.20	0.90		
	(T)	0.000	0.331	0.000					1.000	1.000
35					1.00	1.00	3.20	0.90		
	(T)	0.000	0.346	0.000					1.000	1.000
36					1.00	1.00	3.20	0.90		
	(T)	0.000	0.146	0.000					1.000	1.000
40					1.00	1.00	13.50	3.60		
	(T)	0.000	1.158	0.000					1.000	1.000
46					1.00	1.00	1.80	0.90		
	(T)	0.000	0.439	0.000					1.000	1.000
51					1.00	1.00	1.00	0.90		
	(T)	0.000	0.438	0.000					1.000	1.000
52					1.00	1.00	1.80	0.90		
	(T)	0.000	0.438	0.000					1.000	1.000
53					1.00	1.00	1.00	0.90		
	(T)	0.000	0.439	0.000					1.000	1.000

DISENO EDIFICIO TISSOT, MKS, AISC ASD
ISCH

FRAME ID .... EDIFICIO TISSOT
LEVEL ID N3

AISC SPECIFICATION, LRFD 1993
BEAM INTERACTION DETAILS

BEAM ID	CHECK TYPE	<---BREAK DOWN---> AXIAL	MAJOR	MINOR	<-K-FACTORS-> MAJOR	MINOR	<-UNSUP LENGTHS-> MAJOR (m)	MINOR (m)	<MOM MAG FACTORS> MAJOR	MINOR
3					1.00	1.00	13.50	3.60		
	(T)	0.000	1.215	0.000					1.000	1.000
8					1.00	1.00	4.05	4.05		
	(T)	0.000	2.336	0.000					1.000	1.000
9					1.00	1.00	2.05	2.05		
12					1.00	1.00	3.80	3.80		
	(T)	0.000	0.076	0.000					1.000	1.000
1-					1.00	1.00	1.80	1.80		
	(T)	0.000	0.061	0.000					1.000	1.000
16					1.00	1.00	4.04	4.04		
	(T)	0.000	0.101	0.000					1.000	1.000
17					1.00	1.00	1.87	1.87		
	(T)	0.000	0.090	0.000					1.000	1.000
19					1.00	1.00	2.80	0.90		
	(T)	0.000	0.148	0.000					1.000	1.000
20					1.00	1.00	3.20	0.90		
	(T)	0.000	0.350	0.000					1.000	1.000
21					1.00	1.00	3.20	0.90		
	(T)	0.000	0.346	0.000					1.000	1.000
22					1.00	1.00	3.20	0.90		
	(T)	0.000	0.161	0.000					1.000	1.000
25					1.00	1.00	1.32	1.32		
	(T)	0.000	0.088	0.000					1.000	1.000
26					1.00	1.00	1.32	1.32		
	(T)	0.000	0.025	0.000					1.000	1.000
27					1.00	1.00	1.32	1.32		
	(T)	0.000	0.087	0.000					1.000	1.000
28					1.00	1.00	3.02	3.02		
	(T)	0.000	0.040	0.000					1.000	1.000
29					1.00	1.00	1.32	1.32		
30					1.00	1.00	3.88	3.88		
	(T)	0.000	0.038	0.000					1.000	1.000
33					1.00	1.00	2.80	0.90		
	(T)	0.000	0.148	0.000					1.000	1.000
34					1.00	1.00	3.20	0.90		
	(T)	0.000	0.351	0.000					1.000	1.000
35					1.00	1.00	3.20	0.90		
	(T)	0.000	0.347	0.000					1.000	1.000
36					1.00	1.00	3.20	0.90		
	(T)	0.000	0.162	0.000					1.000	1.000
40					1.00	1.00	13.50	3.60		
	(T)	0.000	1.197	0.000					1.000	1.000
45					1.00	1.00	3.60	3.60		
	(C)	0.000	0.033	0.006					1.000	1.000
	(T)	0.000	0.035	0.006					1.000	1.000

DISENO EDIFICIO TISSOT, MKS, AISC ASD
ISCH

FRAME ID .... EDIFICIO TISSOT
LEVEL ID N3

AISC SPECIFICATION, LRFD 1993
BEAM INTERACTION DETAILS

BEAM ID	CHECK TYPE	<---BREAK DOWN---> AXIAL	MAJOR	MINOR	<-K-FACTORS-> MAJOR	MINOR	<-UNSUP LENGTHS-> MAJOR (m)	MINOR (m)	<MOM MAG FACTORS> MAJOR	MINOR
47					1.00	1.00	3.60	3.60		
	(C)	0.005	0.031	0.006					1.000	1.000
	(T)	0.004	0.028	0.006					1.000	1.000

DISENO EDIFICIO TISSOT, MKS, AISC ASD
ISCH

FRAME ID .... EDIFICIO TISSOT
LEVEL ID N2

AISC SPECIFICATION, LRFD 1993
BEAM INTERACTION DETAILS

BEAM ID	CHECK TYPE	<---BREAK DOWN---> AXIAL	MAJOR	MINOR	<-K-FACTORS-> MAJOR	MINOR	<-UNSUP LENGTHS-> MAJOR (m)	MINOR (m)	<MOM MAG FACTORS> MAJOR	MINOR
3					1.00	1.00	13.50	3.60		
	(T)	0.000	1.227	0.000					1.000	1.000
9					1.00	1.00	2.05	2.05		
	(T)	0.000	0.082	0.000					1.000	1.000
12					1.00	1.00	3.80	3.80		

	(T)	0.000	0.073	0.000					1.000	1.000
13					1.00	1.00	1.80	1.80		
	(T)	0.000	0.061	0.000					1.000	1.000
16					1.00	1.00	4.04	4.04		
	(T)	0.000	0.101	0.000					1.000	1.000
17					1.00	1.00	1.87	1.87		
	(T)	0.000	0.099	0.000					1.000	1.000
20					1.00	1.00	3.20	0.90		
	(T)	0.000	0.307	0.000					1.000	1.000
21					1.00	1.00	3.20	0.90		
	(T)	0.000	0.326	0.000					1.000	1.000
22					1.00	1.00	3.20	0.90		
	(T)	0.000	0.173	0.000					2.000	1.000
26					1.00	1.00	1.32	1.32		
	(T)	0.000	0.049	0.000					1.000	1.000
27					1.00	1.00	1.32	1.32		
28					1.00	1.00	3.02	3.02		
	(T)	0.000	0.052	0.000					1.000	1.000
29					1.00	1.00	1.32	1.32		
30					1.00	1.00	3.88	3.88		
	(T)	0.000	0.037	0.000					1.000	1.000
34					1.00	1.00	3.20	0.90		
	(T)	0.000	0.308	0.000					1.000	1.000
35					1.00	1.00	3.20	0.90		
	(T)	0.000	0.327	0.000					1.000	1.000
36					1.00	1.00	3.20	0.90		
	(T)	0.000	0.174	0.000					1.000	1.000
40					1.00	1.00	13.50	3.60		
	(T)	0.000	1.212	0.000					1.000	1.000
46					1.00	1.00	1.80	0.90		
	(T)	0.000	0.493	0.000					1.000	1.000
51					1.00	1.00	1.00	0.90		
	(T)	0.000	0.869	0.000					1.000	1.000
52					1.00	1.00	1.80	0.90		
	(T)	0.000	0.493	0.000					1.000	1.000
53					1.00	1.00	1.00	0.90		
	(T)	0.000	0.470	0.000					1.000	1.000

DISENO EDIFICIO TISSOT, MKS, AISC ASD
ISCH

FRAME ID .... EDIFICIO TISSOT
LEVEL ID N1

AISC SPECIFICATION, LRFD 1993
BEAM INTERACTION DETAILS

BEAM ID	CHECK TYPE	<---BREAK DOWN---> AXIAL	MAJOR	MINOR	<-K-FACTORS-> MAJOR	MINOR	<-UNSUP LENGTHS-> MAJOR (m)	MINOR (m)	<MOM MAG FACTORS> MAJOR	MINOR
3					1.00	1.00	13.50	3.60		
	(T)	0.000	1.179	0.000					1.000	1.000
8					1.00	1.00	4.05	4.05		
	(T)	0.000	2.326	0.000					1.000	1.000
9					1.00	1.00	2.05	2.05		
12					1.00	1.00	3.80	3.80		
	(T)	0.000	0.072	0.000					1.000	1.000
13					1.00	1.00	1.80	1.80		
	(T)	0.000	0.063	0.000					1.000	1.000
16					1.00	1.00	4.04	4.04		
	(T)	0.000	0.097	0.000					1.000	1.000
17					1.00	1.00	1.87	1.87		
	(T)	0.000	0.106	0.000					1.000	1.000
19					1.00	1.00	2.80	0.90		
	(T)	0.000	0.216	0.000					1.000	1.000
20					1.00	1.00	3.20	0.90		
	(T)	0.000	0.335	0.000					1.000	1.000
22					1.00	1.00	3.20	0.90		
	(T)	0.000	0.327	0.000					1.000	1.000
22					1.00	1.00	3.20	0.90		
	(T)	0.000	0.213	0.000					1.000	1.000
25					1.00	1.00	1.32	1.32		
	(T)	0.000	0.075	0.000					1.000	1.000
26					1.00	1.00	1.32	1.32		
	(T)	0.000	0.028	0.000					1.000	1.000
27					1.00	1.00	1.32	1.32		
	(T)	0.000	0.075	0.000					1.000	1.000
28					1.00	1.00	3.02	3.02		
	(T)	0.000	0.037	0.000					1.000	1.000
29					1.00	1.00	1.32	1.32		
30					1.00	1.00	3.88	3.88		
	(T)	0.000	0.035	0.000					1.000	1.000
33					1.00	1.00	2.80	0.90		
	(T)	0.000	0.215	0.000					1.000	1.000
34					1.00	1.00	3.20	0.90		
	(T)	0.000	0.335	0.000					1.000	1.000
35					1.00	1.00	3.20	0.90		
	(T)	0.000	0.327	0.000					1.000	1.000
36					1.00	1.00	3.20	0.90		
	(T)	0.000	0.215	0.000					1.000	1.000
40					1.00	1.00	13.50	3.60		
	(T)	0.000	1.167	0.000					1.000	1.000
45					1.00	1.00	3.60	3.60		
	(C)	0.002	0.024	0.000					1.000	1.002
	(T)	0.000	0.030	0.001					1.000	1.000

DISENO EDIFICIO TISSOT, MKS, AISC ASD
ISCH

FRAME ID .... EDIFICIO TISSOT
LEVEL ID N1

AISC SPECIFICATION, LRFD 1993
BEAM INTERACTION DETAILS

BEAM ID	CHECK TYPE	<---BREAK DOWN---> AXIAL	MAJOR	MINOR	<-K-FACTORS-> MAJOR	MINOR	<-UNSUP LENGTHS-> MAJOR (m)	MINOR (m)	<MOM MAG FACTORS> MAJOR	MINOR
47					1.00	1.00	3.60	3.60		
	(C)	0.005	0.026	0.006					1.000	1.004
	(T)	0.003	0.020	0.001					1.000	1.000

DISENO EDIFICIO TISSOT, MKS, AISC ASD
ISCH

FRAME ID .... EDIFICIO TISSOT
LEVEL ID N82

AISC SPECIFICATION, LRFD 1993
BEAM INTERACTION DETAILS

BEAM ID	CHECK TYPE	<---BREAK DOWN---> AXIAL	MAJOR	MINOR	<-K-FACTORS-> MAJOR	MINOR	<-UNSUP LENGTHS-> MAJOR (m)	MINOR (m)	<MOM MAG FACTORS> MAJOR	MINOR
3					1.00	1.00	13.50	3.60		
	(T)	0.000	1.007	0.000					1.000	1.000
12					1.00	1.00	3.80	3.80		
	(T)	0.000	0.057	0.000					1.000	1.000
13					1.00	1.00	1.80	1.80		
	(T)	0.000	0.048	0.000					1.000	1.000
16					1.00	1.00	4.04	4.04		
	(T)	0.000	0.080	0.000					1.000	1.000
17					1.00	1.00	1.87	1.87		
	(T)	0.000	0.095	0.000					1.000	1.000
20					1.00	1.00	3.20	0.90		
	(T)	0.000	0.244	0.000					1.000	1.000
21					1.00	1.00	3.20	0.90		
	(T)	0.000	0.279	0.000					1.000	1.000
22					1.00	1.00	3.20	0.90		
	(T)	0.000	0.200	0.000					1.000	1.000
23					1.00	1.00	3.20	3.20		
	(T)	0.000	0.551	0.000					1.000	1.000
25					1.00	1.00	1.32	1.32		
	(T)	0.000	0.115	0.000					1.000	1.000
26					1.00	1.00	1.32	1.32		
	(T)	0.000	0.045	0.000					1.000	1.000

2				1.00	1.00	1.32	1.32			
	(T)	0.000	0.051	0.000					1.000	1.000
26				1.00	1.00	3.02	3.02			
	(T)	0.000	0.033	0.000					1.000	1.000
29				1.00	1.00	1.32	1.32			
	(T)	0.000	0.102	0.000					1.000	1.000
30				1.00	1.00	3.88	3.88			
	(T)	0.000	0.031	0.000					1.000	1.000
34				1.00	1.00	3.20	0.90			
	(T)	0.000	0.247	0.000					1.000	1.000
35				1.00	1.00	3.20	0.90			
	(T)	0.000	0.282	0.000					1.000	1.000
36				1.00	1.00	3.20	0.90			
	(T)	0.000	0.202	0.000					1.000	1.000
37				1.00	1.00	3.20	3.20			
	(T)	0.000	0.532	0.000					1.000	1.000
40				1.00	1.00	13.50	3.60			
	(T)	0.000	0.991	0.000					1.000	1.000
46				1.00	1.00	1.80	0.90			
	(T)	0.000	0.761	0.000					1.000	1.000
51				1.00	1.00	1.00	0.90			
	(T)	0.000	0.818	0.000					1.000	1.000
52				1.00	1.00	1.80	0.90			
	(T)	0.000	0.755	0.000					1.000	1.000

DISEÑO EDIFICIO TISSOT, MKS, AISC ASD
ISCH

FRAME ID .... EDIFICIO TISSOT
LEVEL ID .... MEZ

AISC SPECIFICATION, LRFD 1993
BEAM INTERACTION DETAILS

BEAM CHECK	<---BREAK DOWN--->		<-K-FACTORS->		<-UNSUP LENGTHS->		<MOM MAG FACTORS>	
ID TYPE	AXIAL	MAJOR	MINOR	MAJOR	MINOR	MAJOR (m)	MINOR (m)	MAJOR	MINOR
53				1.00	1.00	1.00	0.90		
(T)	0.000	0.826	0.000					1.000	1.000

DISEÑO EDIFICIO TISSOT, MKS, AISC ASD
ISCH

FRAME ID .... EDIFICIO TISSOT
LEVEL ID .... . PB

AISC SPECIFICATION, LRFD 1993
BEAM INTERACTION DETAILS

BEAM CHECK	<---BREAK DOWN--->			<-K-FACTORS->		<-UNSUP LENGTHS->		<MOM MAG FACTORS>	
ID TYPE	AXIAL	MAJOR	MINOR	MAJOR	MINOR	MAJOR (m)	MINOR (m)	MAJOR	MINOR
12				1.00	1.00	3.80	3.80		
(T)	0.000	0.022	0.000					1.000	1.000
13				1.00	1.00	1.80	1.80		
(T)	0.000	0.011	0.000					1.000	1.000
14				1.00	1.00	3.98	3.98		
(T)	0.000	0.024	0.000					1.000	1.000
25				1.00	1.00	1.32	1.32		
(T)	0.000	0.056	0.000					1.000	1.000
26				1.00	1.00	1.29	1.29		
(T)	0.000	0.023	0.000					1.000	1.000
27				1.00	1.00	1.32	1.32		
(T)	0.000	0.078	0.000					1.000	1.000
28				1.00	1.00	2.99	2.99		
(T)	0.000	0.011	0.000					1.000	1.000
29				1.00	1.00	1.32	1.32		
(T)	0.000	0.065	0.000					1.000	1.000
30				1.00	1.00	3.85	3.85		
(T)	0.000	0.012	0.000					1.000	1.000
31				1.00	1.00	3.60	3.60		
(T)	0.000	1.153	0.000					1.000	1.000
32				1.00	1.00	3.60	3.60		
(T)	0.000	1.353	0.000					1.000	1.000
54				1.00	1.00	3.12	3.12		
(T)	0.000	0.376	0.000					1.000	1.000
55				1.00	1.00	2.32	2.32		
(T)	0.000	0.017	0.000					1.000	1.000
56				1.00	1.00	1.52	1.52		
(T)	0.000	0.017	0.000					1.000	1.000

DISEÑO EDIFICIO TISSOT, MKS, AISC ASD
ISCH

FRAME ID .... EDIFICIO TISSOT
LEVEL ID S1

AISC SPECIFICATION, LRFD 1993
BEAM INTERACTION DETAILS

BEAM CHECK	<---BREAK DOWN--->			<-K-FACTORS->		<-UNSUP LENGTHS->		<MOM MAG FACTORS>	
ID TYPE	AXIAL	MAJOR	MINOR	MAJOR	MINOR	MAJOR (m)	MINOR (m)	MAJOR	MINOR
12				1.00	1.00	3.80	3.80		
13				1.00	1.00	1.80	1.80		
(T)	0.000	0.014	0.000					1.000	1.000
14				1.00	1.00	3.98	3.98		
(T)	0.000	0.018	0.000					1.000	1.000
25				1.00	1.00	1.32	1.32		
(T)	0.000	0.054	0.000					1.000	1.000
26				1.00	1.00	1.29	1.29		
27				1.00	1.00	1.32	1.32		
(T)	0.000	0.076	0.000					1.000	1.000
28				1.00	1.00	2.99	2.99		
29				1.00	1.00	1.32	1.32		
(T)	0.000	0.068	0.000					1.000	1.000
31				1.00	1.00	3.60	3.60		
(T)	0.000	1.153	0.000					1.000	1.000
32				1.00	1.00	3.60	3.60		
(T)	0.000	1.353	0.000					1.000	1.000
54				1.00	1.00	3.12	3.12		
(T)	0.000	0.376	0.000					1.000	1.000
55				1.00	1.00	2.32	2.32		
(T)	0.000	0.018	0.000					1.000	1.000
56				1.00	1.00	1.52	1.52		
(T)	0.000	0.016	0.000					1.000	1.000

DISEÑO EDIFICIO TISSOT, MKS, AISC ASD
ISCH

FRAME ID .... EDIFICIO TISSOT
LEVEL ID N13

AISC SPECIFICATION, LRFD 1993
BRACE INTERACTION DETAILS

BRC CHECK	<---BREAK DOWN--->			<-K-FACTORS->		<-UNSUP LENGTHS->		<MOM MAG FACTORS>	
ID TYPE	AXIAL	MAJOR	MINOR	MAJOR	MINOR	MAJOR (m)	MINOR (m)	MAJOR	MINOR
1				1.00	1.00	5.02	5.02		
(C)	0.255	0.000	0.000					1.023	1.191
(T)	0.080	0.000	0.000					1.000	1.000
15				1.00	1.00	5.02	5.02		
(C)	0.259	0.000	0.000					1.024	1.195
(T)	0.070	0.000	0.000					1.000	1.000
29				1.00	1.00	5.02	5.02		
(C)	0.260	0.000	0.000					1.024	1.195
(T)	0.071	0.000	0.000					1.000	1.000
43				1.00	1.00	5.02	5.02		
(C)	0.258	0.000	0.000					1.024	1.194
(T)	0.079	0.000	0.000					1.000	1.000

DISEÑO EDIFICIO TISSOT, MKS, AISC ASD

ISCH

FRAME ID .... EDIFICIO TISSOT
LEVEL ID N12

AISC SPECIFICATION, LRFD 1993
BRACE INTERACTION DETAILS

BRC ID	CHECK TYPE	<---BREAK DOWN---> AXIAL	MAJOR	MINOR	<-K-FACTORS-> MAJOR	MINOR	<-UNSUP LENGTHS-> MAJOR (m)	MINOR (m)	<MOM MAG FACTORS> MAJOR	MINOR
2					1.00	1.00	5.02	5.02		
	(C)	0.264	0.000	0.000					1.024	1.199
	(T)	0.055	0.000	0.000					1.000	1.000
16					1.00	1.00	4.74	4.74		
	(C)	0.227	0.000	0.000					1.020	1.156
	(T)	0.035	0.000	0.000					1.000	1.000
30					1.00	1.00	4.74	4.74		
	(C)	0.231	0.000	0.000					1.020	1.159
	(T)	0.036	0.000	0.000					1.000	1.000
44					1.00	1.00	5.02	5.02		
	(C)	0.269	0.000	0.000					1.025	1.204
	(T)	0.054	0.000	0.000					1.000	1.000

DISENO EDIFICIO TISSOT, MKS, AISC ASD
ISCH

FRAME ID .... EDIFICIO TISSOT
LEVEL ID N11

AISC SPECIFICATION, LRFD 1993
BRACE INTERACTION DETAILS

BRC ID	CHECK TYPE	<---BREAK DOWN---> AXIAL	MAJOR	MINOR	<-K-FACTORS-> MAJOR	MINOR	<-UNSUP LENGTHS-> MAJOR (m)	MINOR (m)	<MOM MAG FACTORS> MAJOR	MINOR
3					1.00	1.00	5.02	5.02		
	(C)	0.619	0.000	0.000					1.059	1.636
	(T)	0.339	0.000	0.000					1.000	1.000
17					1.00	1.00	5.02	5.02		
	(C)	0.626	0.000	0.000					1.060	1.649
	(T)	0.325	0.000	0.000					1.000	1.000
31					1.00	1.00	5.02	5.02		
	(C)	0.630	0.000	0.000					1.060	1.656
	(T)	0.327	0.000	0.000					1.000	1.000
45					1.00	1.00	5.02	5.02		
	(C)	0.623	0.000	0.000					1.059	1.643
	(T)	0.340	0.000	0.000					1.000	1.000

DISENO EDIFICIO TISSOT, MKS, AISC ASD
ISCH

FRAME ID .... EDIFICIO TISSOT
LEVEL ID N10

AISC SPECIFICATION, LRFD 1993
BRACE INTERACTION DETAILS

BRC ID	CHECK TYPE	<---BREAK DOWN---> AXIAL	MAJOR	MINOR	<-K-FACTORS-> MAJOR	MINOR	<-UNSUP LENGTHS-> MAJOR (m)	MINOR (m)	<MOM MAG FACTORS> MAJOR	MINOR
4					1.00	1.00	5.02	5.02		
	(C)	0.564	0.000	0.000					1.053	1.549
	(T)	0.259	0.000	0.000					1.000	1.000
18					1.00	1.00	4.74	4.74		
	(C)	0.483	0.000	0.000					1.043	1.402
	(T)	0.205	0.000	0.000					1.000	1.000
32					1.00	1.00	4.74	4.74		
	(C)	0.492	0.000	0.000					1.044	1.413
	(T)	0.210	0.000	0.000					1.000	1.000
46					1.00	1.00	5.02	5.02		
	(C)	0.468	0.000	0.000					1.038	1.000
	(T)	0.257	0.000	0.000					1.000	1.000

DISENO EDIFICIO TISSOT, MKS, AISC ASD
ISCH

FRAME ID .... EDIFICIO TISSOT
LEVEL ID N9

AISC SPECIFICATION, LRFD 1993
BRACE INTERACTION DETAILS

BRC ID	CHECK TYPE	<---BREAK DOWN---> AXIAL	MAJOR	MINOR	<-K-FACTORS-> MAJOR	MINOR	<-UNSUP LENGTHS-> MAJOR (m)	MINOR (m)	<MOM MAG FACTORS> MAJOR	MINOR
5					1.00	1.00	5.02	5.02		
	(C)	0.890	0.000	0.000					1.087	2.269
	(T)	0.479	0.000	0.000					1.000	1.000
19					1.00	1.00	5.02	5.02		
	(C)	0.904	0.000	0.000					1.088	2.314
	(T)	0.462	0.000	0.000					1.000	1.000
33					1.00	1.00	5.02	5.02		
	(C)	0.910	0.000	0.000					1.089	2.336
	(T)	0.465	0.000	0.000					1.000	1.000
47					1.00	1.00	5.02	5.02		
	(C)	0.896	0.000	0.000					1.088	2.290
	(T)	0.461	0.000	0.000					1.000	1.000

DISENO EDIFICIO TISSOT, MKS, AISC ASD
ISCH

FRAME ID .... EDIFICIO TISSOT
LEVEL ID N8

AISC SPECIFICATION, LRFD 1993
BRACE INTERACTION DETAILS

BRC ID	CHECK TYPE	<---BREAK DOWN---> AXIAL	MAJOR	MINOR	<-K-FACTORS-> MAJOR	MINOR	<-UNSUP LENGTHS-> MAJOR (m)	MINOR (m)	<MOM MAG FACTORS> MAJOR	MINOR
6					1.00	1.00	5.02	5.02		
	(C)	0.805	0.000	0.000					1.078	2.024
	(T)	0.382	0.000	0.000					1.000	1.000
20					1.00	1.00	4.74	4.74		
	(C)	0.694	0.000	0.000					1.062	1.699
	(T)	0.312	0.000	0.000					1.000	1.000
34					1.00	1.00	4.74	4.74		
	(C)	0.706	0.000	0.000					1.064	1.720
	(T)	0.319	0.000	0.000					1.000	1.000
48					1.00	1.00	5.02	5.02		
	(C)	0.811	0.000	0.000					1.079	2.039
	(T)	0.381	0.000	0.000					1.000	1.000

DISENO EDIFICIO TISSOT, MKS, AISC ASD
ISCH

FRAME ID .... EDIFICIO TISSOT
LEVEL ID N7

AISC SPECIFICATION, LRFD 1993
BRACE INTERACTION DETAILS

BRC ID	CHECK TYPE	<---BREAK DOWN---> AXIAL	MAJOR	MINOR	<-K-FACTORS-> MAJOR	MINOR	<-UNSUP LENGTHS-> MAJOR (m)	MINOR (m)	<MOM MAG FACTORS> MAJOR	MINOR
7					1.00	1.00	5.02	5.02		
	(C)	0.670	0.000	0.000					1.065	1.315
	(T)	0.473	0.000	0.000					1.000	1.000
21					1.00	1.00	5.02	5.02		
	(C)	0.673	0.000	0.000					1.065	1.317

	(C)	0.[illegible]6	0.000	[illegible].000				[illegible].00	[illegible]
35					1.00	1.00	5.02	5.02	
	(C)	0.678	0.000	0.000				1.086	1.320
	(T)	0.458	0.000	0.000				1.000	1.000
49					1.00	1.00	5.02	5.02	
	(C)	0.671	0.000	0.000				1.085	1.318
	(T)	0.475	0.000	0.000				1.000	1.000

DISEÑO EDIFICIO TISSOT, MKS, AISC ASD
ISCH

FRAME ID .... EDIFICIO TISSOT
LEVEL ID N6

AISC SPECIFICATION, LRFD 1993
BRACE INTERACTION DETAILS

BRC ID	CHECK TYPE	<---BREAK DOWN---> AXIAL	MAJOR	MINOR	<-K-FACTORS-> MAJOR	MINOR	<-UNSUP LENGTHS-> MAJOR (m)	MINOR (m)	<MOM MAG FACTORS> MAJOR	MINOR
8					1.00	1.00	5.02	5.02		
	(C)	0.533	0.000	0.000					1.000	1.292
	(T)	0.394	0.000	0.000					1.000	1.000
22					1.00	1.00	4.74	4.74		
	(C)	0.554	0.000	0.000					1.063	1.221
	(T)	0.320	0.000	0.000					1.000	1.000
36					1.00	1.00	4.74	4.74		
	(C)	0.563	0.000	0.000					1.064	1.225
	(T)	0.326	0.000	0.000					1.000	1.000
50					1.00	1.00	5.02	5.02		
	(C)	0.637	0.000	0.000					1.080	1.295
	(T)	0.393	0.000	0.000					1.000	1.000

DISEÑO EDIFICIO TISSOT, MKS, AISC ASD
ISCH

FRAME ID .... EDIFICIO TISSOT
LEVEL ID N5

AISC SPECIFICATION, LRFD 1993
BRACE INTERACTION DETAILS

BRC ID	CHECK TYPE	<---BREAK DOWN---> AXIAL	MAJOR	MINOR	<-K-FACTORS-> MAJOR	MINOR	<-UNSUP LENGTHS-> MAJOR (m)	MINOR (m)	<MOM MAG FACTORS> MAJOR	MINOR
9					1.00	1.00	5.02	5.02		
	(C)	0.775	0.000	0.000					1.099	1.383
	(T)	0.534	0.000	0.000					1.000	1.000
23					1.00	1.00	5.02	5.02		
	(C)	0.775	0.000	0.000					1.099	1.383
	(T)	0.516	0.000	0.000					1.000	1.000
37					1.00	1.00	5.02	5.02		
	(C)	0.779	0.000	0.000					1.100	1.386
	(T)	0.518	0.000	0.000					1.000	1.000
51					1.00	1.00	5.02	5.02		
	(C)	0.779	0.000	0.000					1.100	1.386
	(T)	0.537	0.000	0.000					1.000	1.000

DISEÑO EDIFICIO TISSOT, MKS, AISC ASD
ISCH

FRAME ID .... EDIFICIO TISSOT
LEVEL ID N4

AISC SPECIFICATION, LRFD 1993
BRACE INTERACTION DETAILS

BRC ID	CHECK TYPE	<---BREAK DOWN---> AXIAL	MAJOR	MINOR	<-K-FACTORS-> MAJOR	MINOR	<-UNSUP LENGTHS-> MAJOR (m)	MINOR (m)	<MOM MAG FACTORS> MAJOR	MINOR
10					1.00	1.00	5.02	5.02		
	(C)	0.763	0.000	0.000					1.098	1.375
	(T)	0.470	0.000	0.000					1.000	1.000
24					1.00	1.00	4.74	4.74		
	(C)	0.672	0.000	0.000					1.077	1.281
	(T)	0.389	0.000	0.000					1.000	1.000
38					1.00	1.00	4.74	4.74		
	(C)	0.683	0.000	0.000					1.078	1.287
	(T)	0.396	0.000	0.000					1.000	1.000
52					1.00	1.00	5.02	5.02		
	(C)	0.767	0.000	0.000					1.098	1.378
	(T)	0.470	0.000	0.000					1.000	1.000

DISEÑO EDIFICIO TISSOT, MKS, AISC ASD
ISCH

FRAME ID .... EDIFICIO TISSOT
LEVEL ID N3

AISC SPECIFICATION, LRFD 1993
BRACE INTERACTION DETAILS

BRC ID	CHECK TYPE	<---BREAK DOWN---> AXIAL	MAJOR	MINOR	<-K-FACTORS-> MAJOR	MINOR	<-UNSUP LENGTHS-> MAJOR (m)	MINOR (m)	<MOM MAG FACTORS> MAJOR	MINOR
11					1.00	1.00	5.02	5.02		
	(C)	0.817	0.000	0.000					1.111	1.441
	(T)	0.569	0.000	0.000					1.000	1.000
25					1.00	1.00	5.02	5.02		
	(C)	0.852	0.000	0.000					1.111	1.439
	(T)	0.548	0.000	0.000					1.000	1.000
39					1.00	1.00	5.02	5.02		
	(C)	0.858	0.000	0.000					1.111	1.443
	(T)	0.551	0.000	0.000					1.000	1.000
53					1.00	1.00	5.02	5.02		
	(C)	0.861	0.000	0.000					1.112	1.444
	(T)	0.571	0.000	0.000					1.000	1.000

DISEÑO EDIFICIO TISSOT, MKS, AISC ASD
ISCH

FRAME ID .... EDIFICIO TISSOT
LEVEL ID N2

AISC SPECIFICATION, LRFD 1993
BRACE INTERACTION DETAILS

BRC ID	CHECK TYPE	<---BREAK DOWN---> AXIAL	MAJOR	MINOR	<-K-FACTORS-> MAJOR	MINOR	<-UNSUP LENGTHS-> MAJOR (m)	MINOR (m)	<MOM MAG FACTORS> MAJOR	MINOR
12					1.00	1.00	5.02	5.02		
	(C)	0.891	0.000	0.000					1.116	1.467
	(T)	0.628	0.000	0.000					1.000	1.000
26					1.00	1.00	4.74	4.74		
	(C)	0.799	0.000	0.000					1.093	1.353
	(T)	0.449	0.000	0.000					1.000	1.000
40					1.00	1.00	4.74	4.74		
	(C)	0.811	0.000	0.000					1.095	1.360
	(T)	0.457	0.000	0.000					1.000	1.000
54					1.00	1.00	5.02	5.02		
	(C)	0.895	0.000	0.000					1.117	1.471
	(T)	0.529	0.000	0.000					1.000	1.000

DISEÑO EDIFICIO TISSOT, MKS, AISC ASD
ISCH

FRAME ID .... EDIFICIO TISSOT
LEVEL ID N1

AISC SPECIFICATION, LRFD 1993
BRACE INTERACTION DETAILS

BRC CHECK ID	TYPE	<---BREAK DOWN---> AXIAL	MAJOR	MINOR	<-K-FACTORS-> MAJOR	MINOR	<-UNSUP LENGTHS-> MAJOR (m)	MINOR (m)	<NOM MAG FACTORS> MAJOR	MINOR
13					1.00	1.00	5.02	5.02		
	(C)	0.918	0.000	0.000					1.120	1.488
	(T)	0.571	0.000	0.000					1.000	1.000
27					1.00	1.00	5.02	5.02		
	(C)	0.910	0.000	0.000					1.119	1.482
	(T)	0.582	0.000	0.000					1.000	1.000
41					1.00	1.00	5.02	5.02		
	(C)	0.922	0.000	0.000					1.120	1.491
	(T)	0.551	0.000	0.000					1.000	1.000
55					1.00	1.00	5.02	5.02		
	(C)	0.923	0.000	0.000					1.121	1.492
	(T)	0.573	0.000	0.000					1.000	1.000

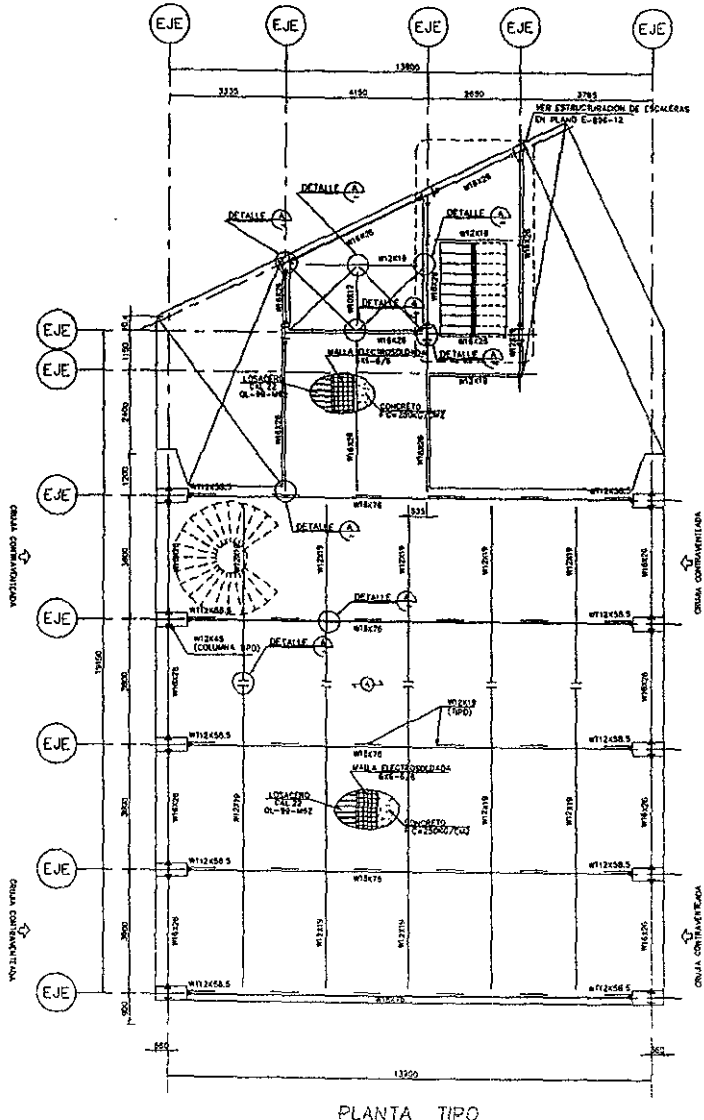
DISEÑO EDIFICIO TISSOT, MKS, AISC ASD
ISCH

FRAME ID .... EDIFICIO TISSOT
LEVEL ID .... MEZ

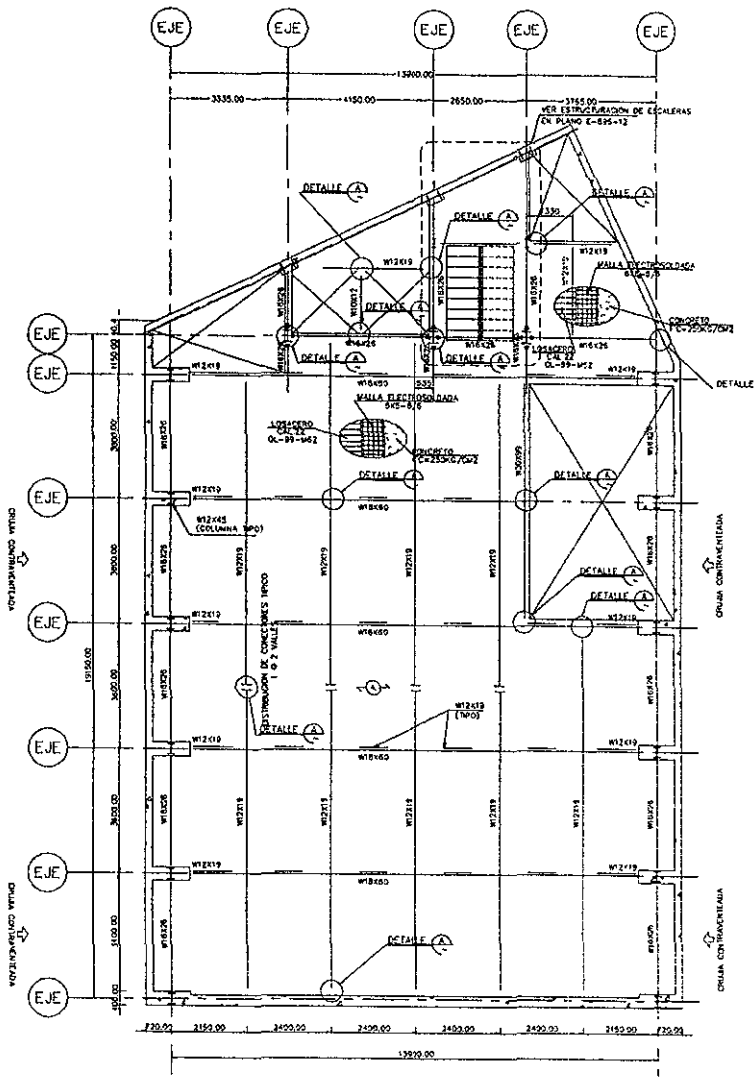
AISC SPECIFICATION, LRFD 1993
BRACE INTERACTION DETAILS

BRC CHECK ID	TYPE	<---BREAK DOWN---> AXIAL	MAJOR	MINOR	<-K-FACTORS-> MAJOR	MINOR	<-UNSUP LENGTHS-> MAJOR (m)	MINOR (m)	<NOM MAG FACTORS> MAJOR	MINOR
14					1.00	1.00	5.02	5.02		
	(C)	0.938	0.000	0.000					1.123	1.505
	(T)	0.504	0.000	0.000					1.000	1.000
28					1.00	1.00	4.74	4.74		
	(C)	0.865	0.000	0.000					1.102	1.394
	(T)	0.429	0.000	0.000					1.000	1.000
42					1.00	1.00	4.74	4.74		
	(C)	0.874	0.000	0.000					1.103	1.400
	(T)	0.435	0.000	0.000					1.000	1.000
56					1.00	1.00	5.02	5.02		
	(C)	0.953	0.000	0.000					1.125	1.517
	(T)	0.513	0.000	0.000					1.000	1.000

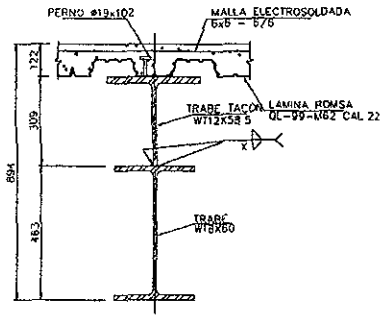
PLANOS Y DETALLES
(Cortesía de Enrique Martínez Romero S.A.)


EJE
DETALLE
VER ESTRUCTURACION DE ESCALERAS EN PLANO E-E96-12
MALLA ELECTROSOLDADA
CONCRETO
LOSACERO
CRUJIA CONTRAVENTEADA

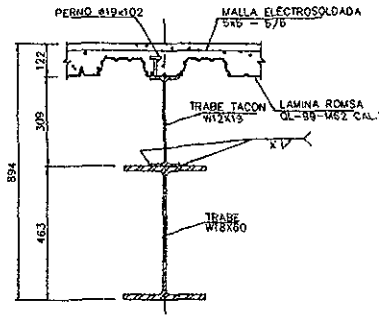
PLANTA TIPO



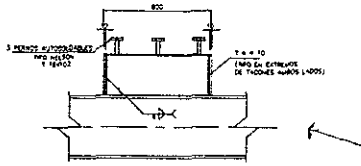
PLANTA VESTIBULO N.T.C. -0.05



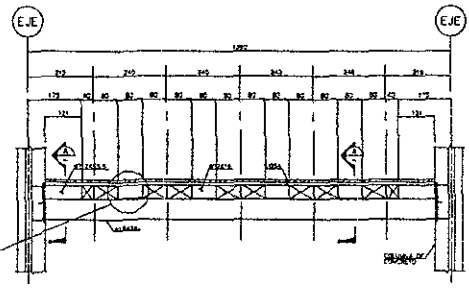
SECCION A
TRABE TACON EN EXTREMO



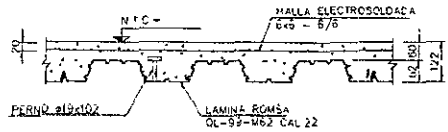
SECCION A
TRABE TACON CENTRAL



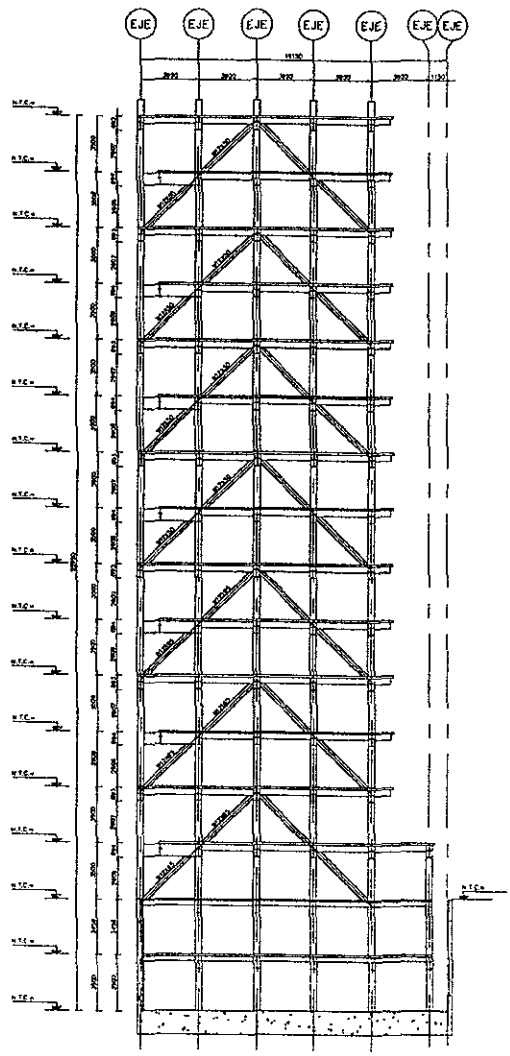
DISTRIBUCION DE CONECTORES EN TACONES



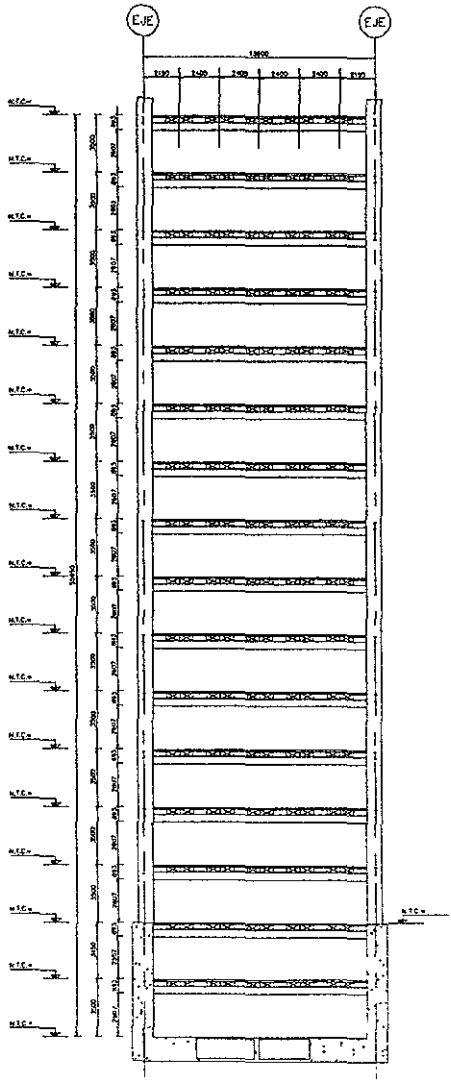
TRABE TACON TIPICA



DETALLE TIPO DE LOSACERO



ELEVACION EN LONGITUDINAL



ELEVACION TRANSVERSAL

RECOMENDACIONES PARA CONSTRUCCIÓN

PROCEDIMIENTO CONSTRUCTIVO PARA EL COLADO DE PILAS

Excavación Para la excavación requerida para efectuar la construcción de la cimentación y liga de la estructura con las pilas existentes, se propone utilizar como elemento de retención en la colindancia con la calle, un muro de concreto lanzado con anclas postensadas, que permitirá efectuar la excavación en toda el área para descubrir las pilas. La excavación se efectuará con taludes verticales hasta el nivel -2 5 m, construyendo en forma descendente el muro de concreto lanzado en tableros e instalando la primera línea de anclaje a 2.0 m: se repite este proceso hasta alcanzar el nivel -4.5m, colocando la segunda línea de anclaje a 4 0m, para seguir con la excavación hasta el nivel -6 0 m (fig 7). Se deberá prever la colocación de concreto lanzado en la colindancia con el edificio de 12 niveles

Levantamiento de pilas y revisión geotécnica. Llegando al nivel de cabeza de las pilas, se deberá efectuar un levantamiento topográfico para determinar la ubicación precisa de cada pila, recalcular sus momentos de inercia y revisar el número de pilas adicionales que se requerirán, así como su ubicación para aprovechar al máximo las pilas existentes

Construcción de pilas complementarias. Una vez efectuada la revisión geotécnica, se procederá a construir las pilas adicionales requeridas para garantizar los factores de seguridad requeridos por el Reglamento de Construcciones vigente; la construcción de las pilas se efectuará desde el fondo de la excavación, siguiendo los lineamientos constructivos indicados en este informe.

Liga Estructural. Posteriormente al fraguado de las pilas, se excavará manualmente para descubrir las cabezas de las pilas y demoler el concreto contaminado de la parte superior, así como preparar la liga de acero de refuerzo de la pila con los armados de las contratrabes de rigidización de cimentación.

Estructura de contención

Previo a la excavación se colocarán de perfiles metálicos en la colindancia con la calle para apoyar el muro de concreto lanzado, que tendrá las siguientes características:

a) Las viguetas estarán conformadas por perfiles metálicos IPR de 12"x 4" y peso de 28.3 kg/m que se desplantarán a 8.5 m de profundidad; las viguetas se hincarán a cada 1 5 m con perforación previa, inyectando mortero con un f'c=150 kg/cm^2 en los 2.0 m inferiores.
b) El concreto lanzado tendrá un espesor medio de 8cm, reforzado con una malla electrosoldada 6x6-10/10 al centro, debiéndose utilizar un concreto de f'c=250 kg/cm^2.
c) El muro berlín deberá quedar abovedado, por lo que se requerirá desconchar el terreno del orden de 20 cm al centro de los claros entre vigueta y vigueta.
d) El anclaje se efectuará mediante dos líneas colocadas a cada 2.0 y 4.0 m de profundidad, respectivamente; las anclas se colocarán cada 3.0 m; la fuerza resistente se transmitirá a las viguetas verticales por medio de vigas madrinas formadas por perfiles IPR de 12" x 6.5" con peso de 46.2 kg/m (Fig 8).
e) Las anclas deberán tener una inclinación descendente de 30° y un bulbo inyectado con mortero (f'c= 200 kg/cm^2) a una presión de 2 kg/cm^2 y 6.0 m de longitud, que quedará empotrado en las tobas localizadas a partir de los 8.0 m de profundidad; su refuerzo estará constituido por una varilla de 1 ¼" de diámetro y llevará un postensado de 15 ton, debiéndose utilizar centradores para su colocación (Tabla 3 y Fig 8).

Tabla 3. Longitudes de las anclas de tensión

	Ubicación	Longitud total	Longitud del bulbo	Longitud libre
Línea superior	2.0 m de prof	14.00 m	6.00 m	8.00 m
Línea inferior	4.0 m de prof	18.00 m	6.00 m	12.00 m

Debido a que con excepción de la colindancia con la calle, todo el perímetro de la excavación colindará con muros estructurales de los edificios vecinos cimentados sobre pilas, no se tendrán problemas de estabilidad en estos linderos.

Pilas de cimentación

Para cada pila se llevará un registro con todos los detalles relevantes durante su construcción, incluyendo al menos información relativa a:

Fabricación. Se llevará un registro detallado de la construcción de cada pila, que incluya la fecha de fabricación y visto bueno de la supervisión, las tolerancias serán de 5 cm respecto a la longitud de la pila y de 1 cm en las dimensiones de la sección transversal.

Control Topográfico. Es indispensable con equipo topográfico para referenciar los ejes y niveles de colocación de las pilas, es decir, los de proyecto reales.

Equipo de perforación. Deberá utilizarse un equipo de perforación con la herramienta adecuada para garantizar la verticalidad del barreno, minimizar la alteración del suelo adyacente a la excavación, obtener una perforación limpia y conservar las dimensiones de proyecto en toda la profundidad, evitando la sobrexcavación lateral y vertical del terreno.

Localización de Pilas

La localización de pilas deberá quedar definida en el predio de acuerdo a las medidas que para tal efecto se indican en el plano correspondiente, las que deberán ser rectificadas con base a los datos del proyecto arquitectónico.

Perforación

Las perforaciones se ejecutarán con los diámetros y profundidades indicadas en el plano correspondiente así como el equipo y herramientas de perforación capaces de cortar los diferentes tipos de estratos (perforadora rotatoria con bote). Deberá contemplarse el uso de trepano en caso de detectarse boleos; al alcanzar el nivel de desplante de las pilas se tendrá que verificar mediante la clasificación del material excavado, que éste corresponda al recomendado para el apoyo de las pilas.
El material suelto que se acumule en el fondo de la perforación se retirará en su totalidad empleando herramientas de limpieza adecuadas (cuchara o bote) para garantizar el apoyo adecuado de las pilas

Armado de pilas

Se colocará el armado especificado para las pilas teniendo especial cuidado de que las varillas queden con el recubrimiento indicado en el proyecto (recubrimiento libre mínimo de 5cm entre paños de estribos y perforación, se recomienda usar separadores) y centrado en la lumbrera.

Colado de pilas

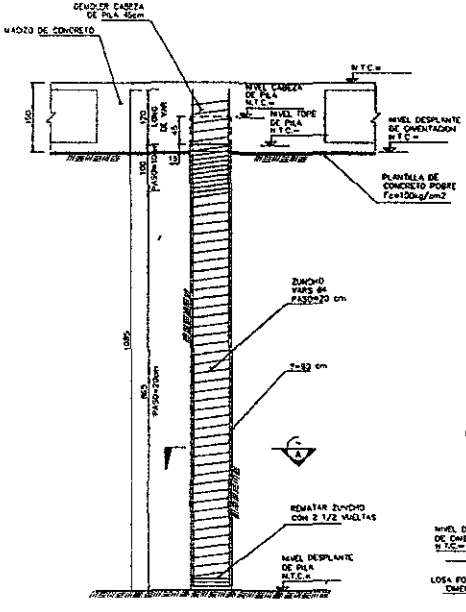
El tiempo máximo para iniciar el colado de una pila, una vez concluida la perforación no excederá de cuatro horas. El concreto para el colado de las pilas deberá tener un revenimiento de 18+-2cm, y se utilizará tubo trenie hermético manteniendo el extremo inferior del tubo embebido en el concreto fresco un mínimo de 1.5m El tiempo permitido entre ollas de concreto será de 30 minutos máximo.
Se colará la pila hasta los niveles indicados en el plano utilizando el método trenie y cuidando que el extremo inferior de la trompa empleada para depositar el concreto este en posición correcta para evitar la segregación del mismo, se deberán obtener tres cilindros para prueba del concreto por cada $3m^3$ de concreto colado debiéndose probar éstos a los 7, 14, y 28 días .
Se podrá utilizar un aditivo retardador de fraguado para obtener una fluidez adecuada, las pilas no podrán ser coladas en etapas; por lo que se deberán tomar en cuenta todas las medidas que garanticen un colado continuo hasta llegar a la cota inferior de apoyo a la cimentación. Ninguna cabeza de la pila deberá quedar colada a una cota inferior a la indicada para el apoyo de la losa y contratrabes, siendo preferible efectuar el colado a mayor altura y posteriormente demoler la parte de la pila excedente hasta llegar a la cota especificada. El colado se llevará hasta 40 cm por arriba del nivel de desplante del cajón, para eliminar el concreto contaminado y permitir la liga estructural de las pilas.

Tolerancias

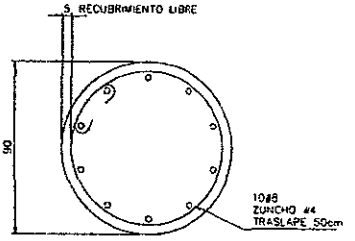
Se limitará la tolerancia a +-5cm respecto a la longitud total de la pila y a +-1cm en cuanto a la sección transversa y colocación del acero de refuerzo. El desplome máximo de la perforación de las pilas, desde el nivel del brocal hasta el nivel de desplante será como máximo de ésta longitud 1/500.

Notas adicionales

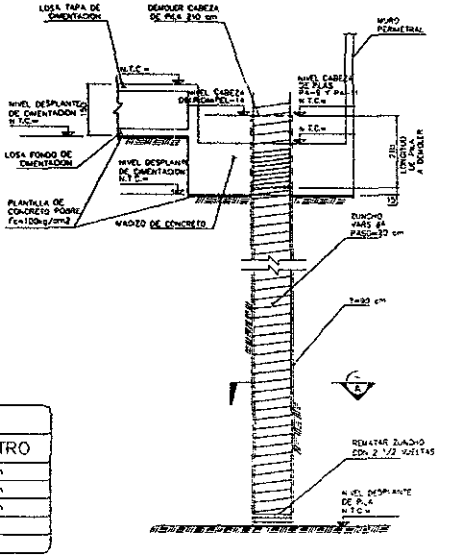
Para la estabilización de la colindancia con la calle, se propone un muro de concreto lanzado (espesor medio de 8 cm) complementado con 3 líneas de 6 anclas de tensión colocadas a 2.0 y 4.0 m de profundidad.
Las anclas deberán tener una inclinación descendente de 30º y bulbo de 6.0 m de longitud empotrado dentro de las tobas limosas que inician a los 8.0 m de profundidad; su refuerzo estará constituido por una varilla de 1 ¼" y llevarán un postensado de 15 ton por ancla.
Se deberá verificar que el trazo de las anclas no interfiera con colectores, tuberías de agua potable y/o líneas telefónicas, en cuyo caso deberá revisarse el procedimiento de excavación.



ARMADO TIPICO DE PILA PA



SECCION A



DESCABECE DE PILAS PA-9, PA-11 Y PEL 14

TABLA DE PILAS		
TIPO	CARACTERISTICA	DIAMETRO
PA	ADICIONAL	90 cm
PEL	EXISTENTE A LIGAR	80 cm
PED	EXISTENTE A DESLIGAR	80 cm

NOTAS GENERALES DE CONSTRUCCIÓN
(ACERO Y CONCRETO)

ACERO

1. Especificaciones de materiales:

   *Perfiles laminados de sección W tipo americano de columnas de acero A572 GR50
   Fy= 3500Kg/cm²
   *Las placas de conexiones serán de acero A36 Fy= 2530 Kg/cm²
   *Toda la soldadura será con electrodos serie E-70XX según normas AWS última edición
   * Todos los tornillos serán de alta resistencia A-325 Tipo LOHR de Tensión controlada con una rondana plana endurecida

2. La designación de los perfiles corresponden a la del manual AISC (American Institute of Steel Construction) última edición.
3. Los planos no son de taller, sólo muestran la geometría básica de la estructura , perfiles y conexiones típicas .
4. Toda la estructura deberá ser protegida con pintura anticorrosiva , si ésta se daña durante el transporte y montaje tendrá que restaurarse inmediatamente después de concluido el montaje.

CONCRETO

1. El concreto tendrá una resistencia de f'c= 250Kg/cm² con agregado máximo de 19 mm (3/4")
2. El acero de refuerzo tendrá un Fy= 4200Kg/cm²

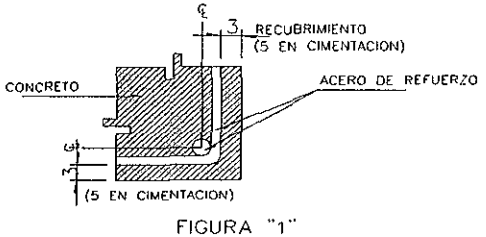


FIGURA "1"

3. El recubrimiento mínimo de varilla y elementos estructurales será de acuerdo a la siguiente figura.

4. S e deberá emplear concreto estructural clase "I" peso volumétrico en estado fresco superior a 2.2 ton/m³, módulo de elasticdad= 14000☆f'c
5. Se permiten paquetes de tres varillas en trabes amarrándolas correctamente

6. Las longitudes de anclaje y traslape de las varillas cumplirán con la siguiente Tabla a menos que se indique otra forma en el dibujo.

Lo = LONGITUD DE ANCLAJE EN cms
Lt = LONGUITUD DE TRASLAPE EN cms

VARILLAS	PULGADAS	Lt	Lo
#3	3/8"	40	40
#4	1/2"	50	50
#5	5/8"	75	75
#6	3/4"	75	75
#8	1"	VER NOTA No 11	100
#10	1 1/4	VER NOTA No 11	125
#12	1 1/2"	VER NOTA No 11	150

7. Para las varillas del #8 o mayores se evitaran traslapes, en estos casos se usarán MUFAS como se indica en la siguiente figura.

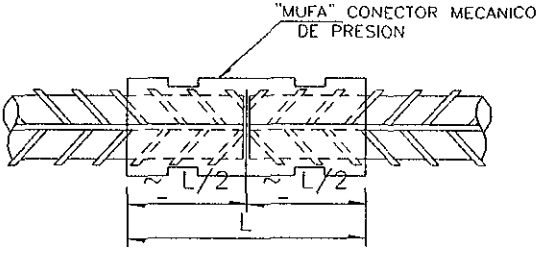


FIGURA "2"

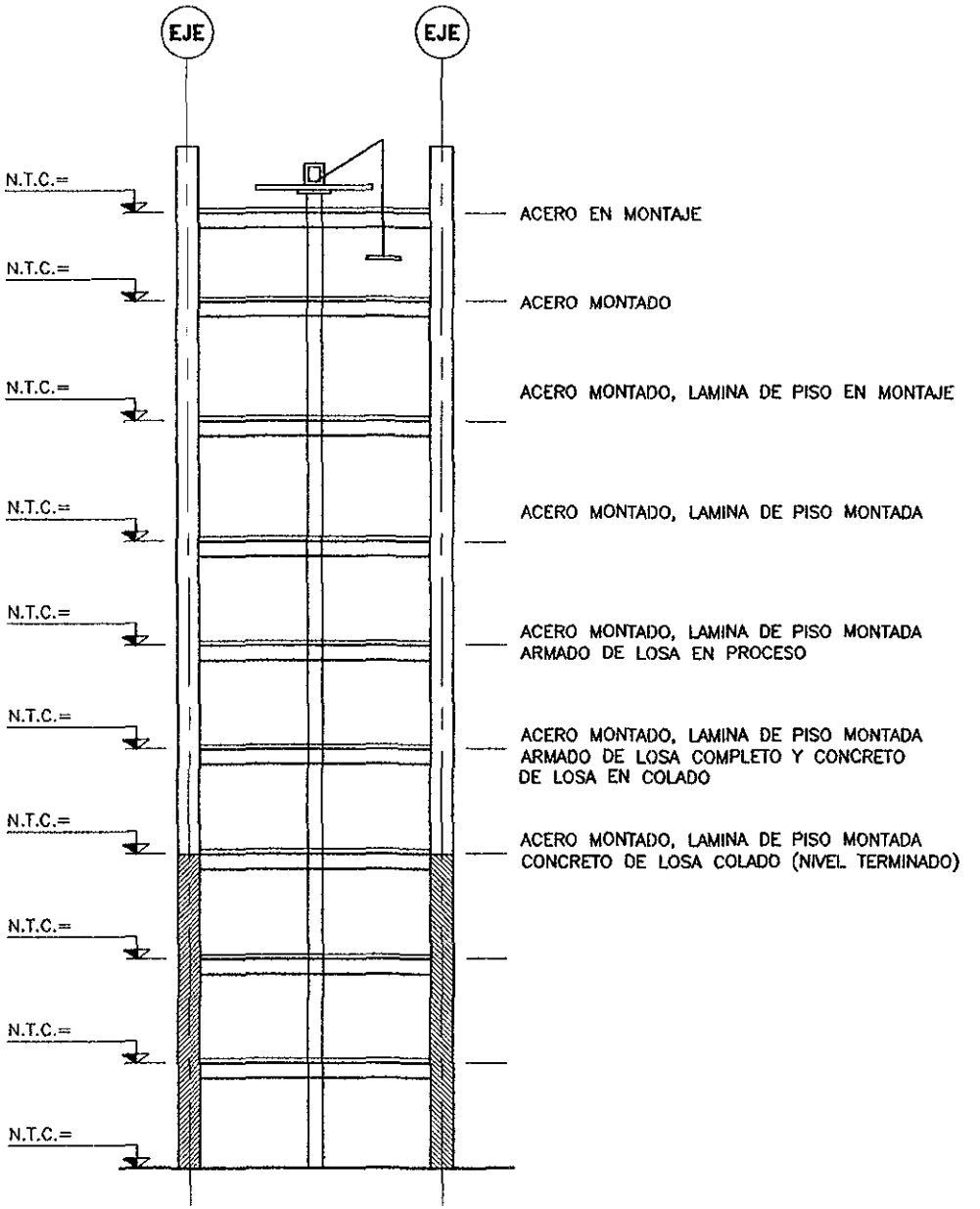
CONCLUSIONES

Se ha estudiado la estructuración de un edificio esbelto de concreto y acero ubicado en la Ciudad de México en zona II de acuerdo al reglamento de construcciones del Distrito Federal (ref. 1)

Para satisfacer las condiciones del proyecto arquitectónico, así como para lograr un comportamiento sísmico adecuado (esto fue particularmente difícil de lograr, debido a la proximidad de edificios colindantes y a los requerimientos reglamentarios vigentes), se optó por una estructuración con base en marcos contraventeados en una dirección y marcos dúctiles no contraventeados en la otra.

Para rigidizar la estructura en la dirección esbelta, se decidio usar columnas de sección compuesta (perfil de acero recubierto de concreto reforzado), así como trabes taconadas debido a la longitud del claro.

La cimentación se resolvió a base de pilas de concreto reforzado y losa con contratrabes, ésta se analizó utilizando el programa SAFE (Slab Analysis of Finite Element)



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