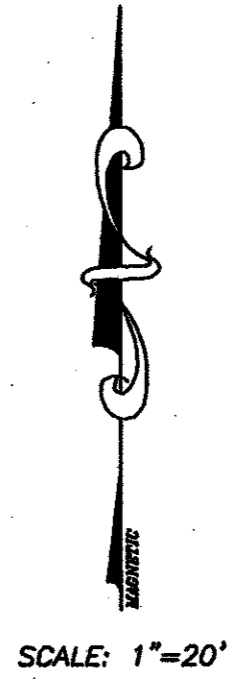


GRADING NOTES

1. REGRADE SWALE 1.4% MIN. HORIZONTALLY AND 4:1 MIN VERTICALLY. CONTROL SPOT GRADES ARE SHOWN ALONG PROPOSED CENTERLINE AND REFLECT FLOWLINE OF PROPOSED SWALE.
2. SWALE AREA PLANT MATERIALS MUST BE SUITABLE FOR USE UNDER LOCAL CLIMATE AND SOIL CONDITIONS. IN GENERAL, HYDROSEEDING OR SODDING BERMUDA GRASS IS ACCEPTABLE DURING THE SUMMER MONTHS (MAY 1 TO AUGUST 30). WINTER RYE OR FESCUE GRASS MAY BE PLANTED DURING TIMES OTHER THAN THE SUMMER MONTHS AS A TEMPORARY MEASURE UNTIL SUCH TIME AS THE PERMANENT PLANTING CAN BE MADE.
3. COORDINATE EXCAVATION WITH OWNER TO PROTECT TREES.



NOTES:

1. ALL IMPROVEMENTS AND UTILITY CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE TOWN OF ADDISON SPECIFICATIONS AND STANDARD DETAILS, AND THE PROJECT SPECIFICATIONS.
2. ALL CASING PIPES SHALL HAVE A MINIMUM OF 3/16" WALL THICKNESS.

PROJECT BENCHMARK
SQUARE CUT IN THE TOP OF CURB AT THE END OF CURVE LOCATED ON THE DRIVEWAY ON THE NORTH SIDE OF KELLER-SPRINGS ROAD, APPROX. 500 FEET WEST OF DALLAS PARKWAY
ELEVATION = 626.24

LEGEND

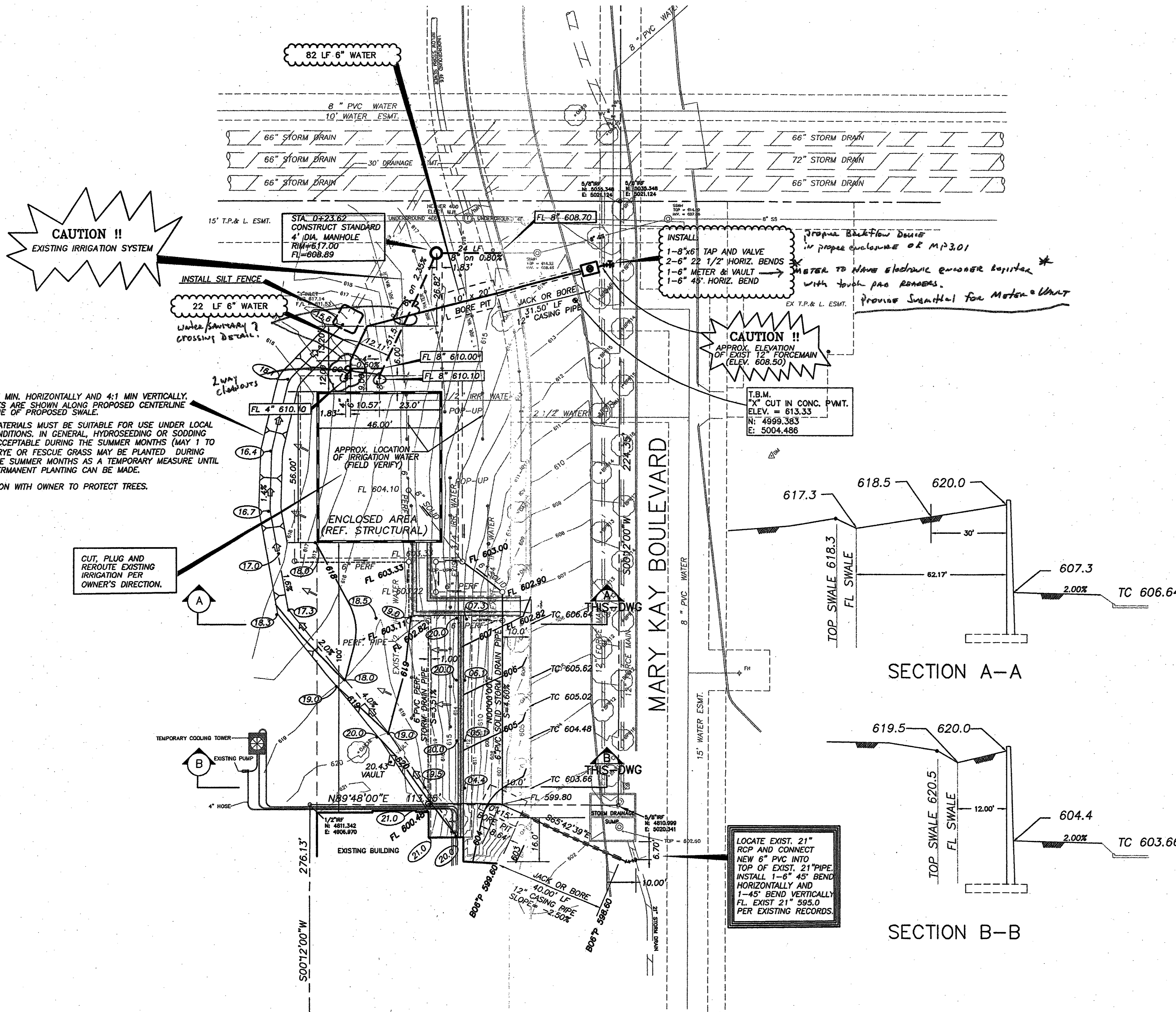
---	PROPOSED SANITARY SEWER
---	PROPOSED WATER LINE
○	PROPOSED SANITARY SEW MH
●	EXISTING SANITARY SEW MH
---	PROPOSED SOLID SD PIPE
---	PROPOSED PERF. SD PIPE
---	PROPOSED PIPE BY OTHERS (SEE S-04)

SECTION A-A

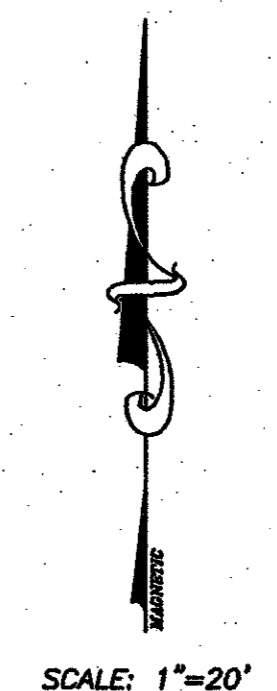
SECTION B-B

LOCATE EXIST. 21" RCP AND CONNECT NEW 6" PVC INTO TOP OF EXIST. 21" PIPE. INSTALL 1-6" 45° BEND HORIZONTALLY AND 1-45° BEND VERTICALLY. FL. EXIST 21" 595.0 PER EXISTING RECORDS.

STATE OF TEXAS
PAUL M. HAMES
66791
REGISTERED PROFESSIONAL ENGINEER
8/6/03
Paul M. Hames



- GRADING NOTES**
1. REGRADE SWALE 1.4% MIN. HORIZONTALLY AND 4:1 MIN VERTICALLY. CONTROL SPOT GRADES ARE SHOWN ALONG PROPOSED CENTERLINE AND REFLECT FLOWLINE OF PROPOSED SWALE.
 2. SWALE AREA PLANT MATERIALS MUST BE SUITABLE FOR USE UNDER LOCAL CLIMATE AND SOIL CONDITIONS. IN GENERAL, HYDROSEEDING OR SODDING BERMUDA GRASS IS ACCEPTABLE DURING THE SUMMER MONTHS (MAY 1 TO AUGUST 30). WINTER RYE OR FESCUE GRASS MAY BE PLANTED DURING TIMES OTHER THAN THE SUMMER MONTHS AS A TEMPORARY MEASURE UNTIL SUCH TIME AS THE PERMANENT PLANTING CAN BE MADE.
 3. COORDINATE EXCAVATION WITH OWNER TO PROTECT TREES.



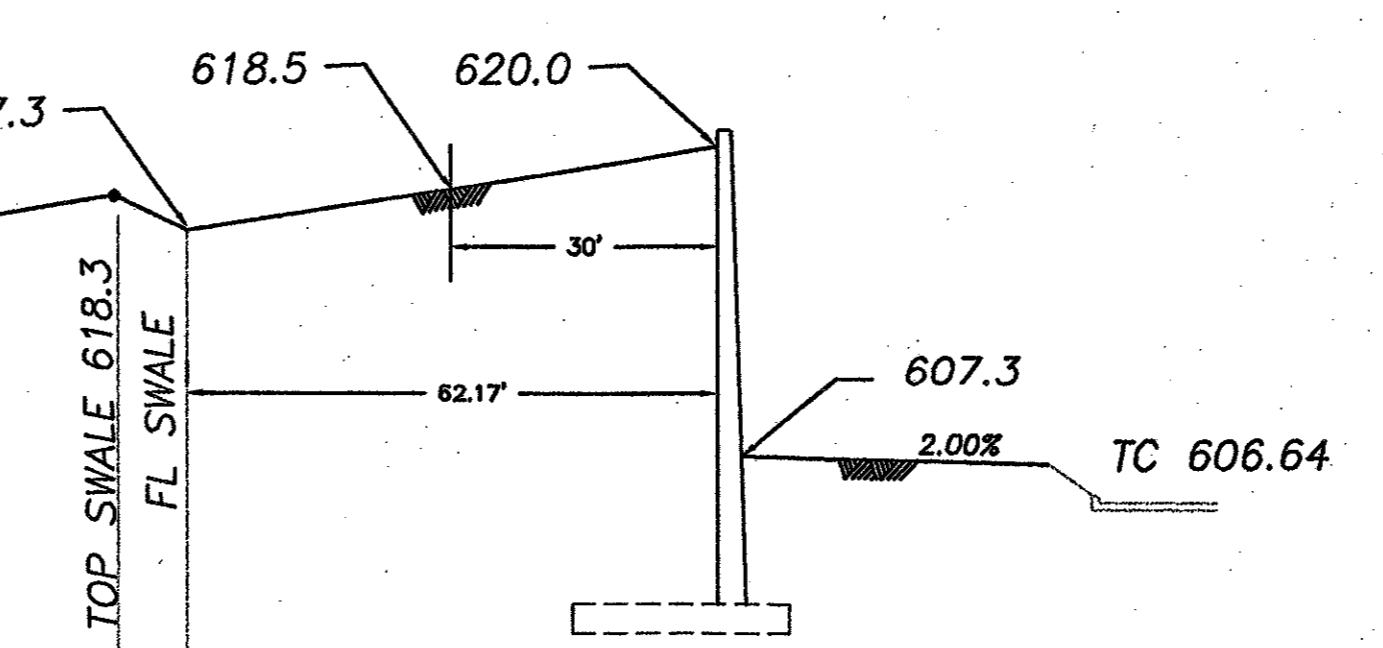
SCALE: 1"=20'

NOTES:

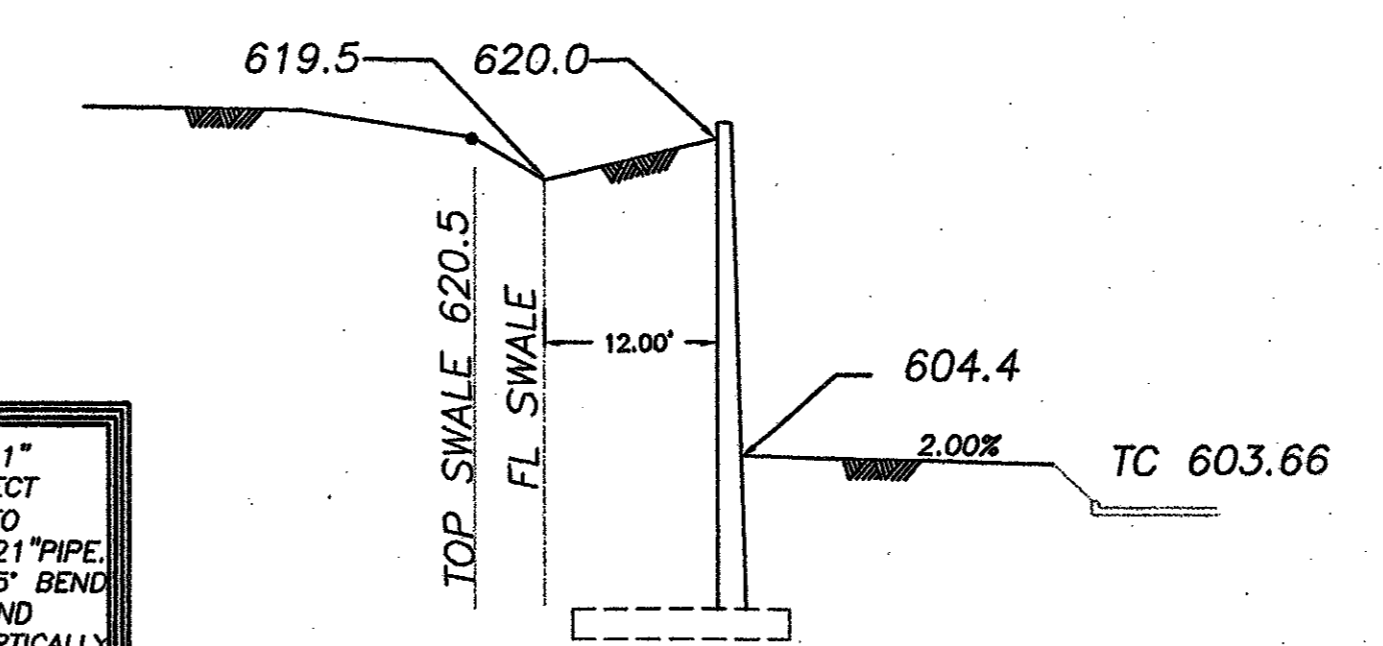
ALL IMPROVEMENTS AND UTILITY CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE TOWN OF ADDISON SPECIFICATIONS AND STANDARD DETAILS, AND THE PROJECT SPECIFICATIONS.

PROJECT BENCHMARK
 SQUARE CUT IN THE TOP OF CURB AT THE END OF CURVE LOCATED ON THE DRIVEWAY ON THE NORTH SIDE OF KELLER-SPRINGS ROAD, APPROX. 500 FEET WEST OF DALLAS PARKWAY
 ELEVATION = 626.24

SECTION A-A



SECTION B-B



LEGEND

- PROPOSED SANITARY SEWER
- PROPOSED WATER LINE
- PROPOSED SANITARY SEW MH
- EXISTING SANITARY SEW MH
- PROPOSED SOLID SD PIPE
- PROPOSED PERF. SD PIPE
- PROPOSED PIPE BY OTHERS (SEE S-04)

DFW Consulting Group, Inc.
 8410 Sterling
 Irving, TX 75063
 (972) 929-1199

PATE ENGINEERS
 6150 QUINCY DRIVE
 SUITE 5-700
 DALLAS, TEXAS 75247
 FAX (214) 357-2888
 JOB NO. 11430000



Mary Kay, Inc.
 Corporate 1
 Addison, Texas
 Cooling Tower Addition

Project Revisions

Project Number
 02110

Issue Date
 23 July 2003

Sheet Title
Civil Utility & Grading Plan
 Sheet Number

C.01

STATE OF TEXAS
 PALL M. HAMES
 66791
 REGISTERED PROFESSIONAL ENGINEER
 7/23/03
 Paul M. Hames

X:\projects\11430000\dwg\mky\mky\mky.dwg, 7/16/2003 10:52:59 AM, KMH

MARY KAY, Inc.

CORPORATE 1

Addison, Texas

COOLING TOWER ADDITION

CIVIL

PATE ENGINEERS
8150 BROOKRIVER DR.
SUITE S-700
DALLAS, TEXAS 75247
PHONE (214) 357-2981
FAX (214) 357-2985

STRUCTURAL

THE REEDY GROUP
8588 NORTHWEST PLAZA DRIVE
SUITE 214
DALLAS, TEXAS 75225
PHONE (214) 373-0164
FAX (214) 373-0170

M.E.P.

DFW CONSULTING GROUP
8410 STERLING
IRVING, TEXAS 75063
PHONE (214) 929-1199
FAX (214) 929-4691

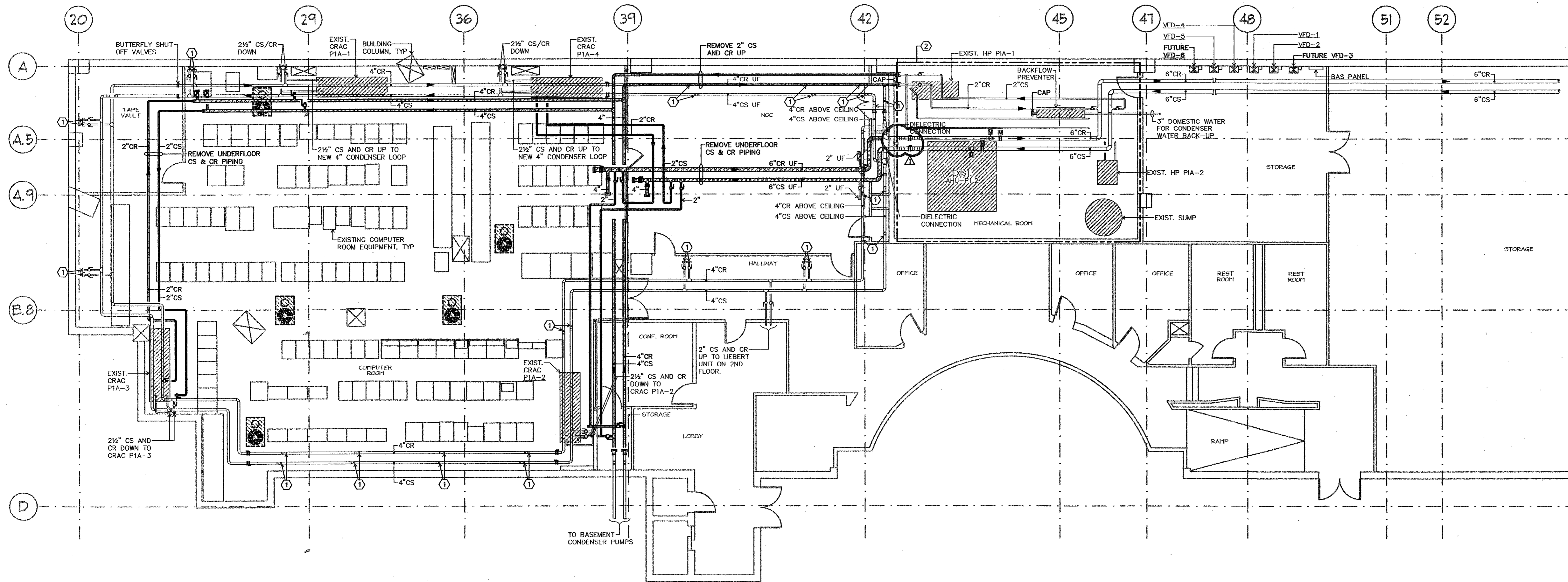
ALL MECHANICAL EQUIPMENT SHALL BE SCREENED FROM
FOLDED AND ASBESTOS FIBERS WITH MATERIALS
APPROVED BY THE BUILDING OFFICIAL.

SPECIAL INSPECTOR REQUIRED FOR
ALL STRUCTURAL ELEMENTS. THE
ENGINEER SHALL SUBMIT A LETTER
STATING THE STRUCTURE WAS
CONSTRUCTED PER THE 2000 IBC
AND IS SAFE FOR OCCUPANCY.

Plumbing Notes:
All plumbing shall conform to the
2000 International Plumbing Code.
Field inspections will prevail in
error of plan review.
Las Folse Chief Plumbing Inspector
Town of Addison 972-450-2887
lfolse@ci.addison.tx.us

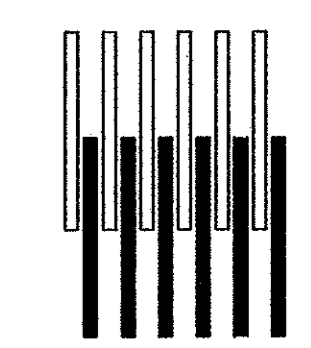
PLEASE REVIEW THESE CHECK
PRINTS W/NEXT SUBMITTAL

SHEET INDEX			SHEET INDEX		
ISSUE DATE	SHEET NO.	TITLE	ISSUE DATE	SHEET NO.	TITLE
07/23/03	G.01	GENERAL INFORMATION	07/23/03	DMEP1.00	PARTIAL DEMOLITION SITE PLAN - MECH/ELECT/PLBG - PHASE D
07/23/03	C.01	CIVIL UTILITY AND GRADING PLAN	07/23/03	MP3.01	ENLARGED PLAN - MECH/PLBG - PHASE A
07/23/03	S-01	GENERAL NOTES	07/23/03	M3.02	COOLING TOWER SECTION AND RISER - MECHANICAL
07/23/03	S-02	FOUNDATION FRAMING PLAN	07/23/03	M3.03	RISER DIAGRAMS - MECHANICAL
07/23/03	S-03	MEZZANINE FRAMING PLAN FLOOR PLAN	07/23/03	M4.01	DETAILS - MECHANICAL
07/23/03	S-04	WATERPROOFING AND DRAINAGE PLAN	07/23/03	MP5.01	SCHEDULES - MECHANICAL/PLUMBING
07/23/03	S-05	SECTIONS AND DETAILS	07/23/03	EP2.01A	LEVEL P-1 PARTIAL PLAN - ELECTRICAL - PHASE A
07/23/03	S-06	SECTIONS AND DETAILS	07/23/03	EP2.01B	LEVEL P-1 PARTIAL PLAN - ELECTRICAL - PHASE B
07/23/03	S-07	SECTIONS AND DETAILS	07/23/03	EP3.01	ENLARGED PLANS - ELECTRICAL - PHASE A
07/23/03	S-08	PARTIAL FLOOR PLAN - STRUCTURAL	07/23/03	EP3.02	SOFFIT CONDUIT ROUTING PLAN - ELECTRICAL
07/23/03	MEP1.00	PARTIAL SITE PLAN - MECH/ELECT/PLBG - PHASE A	07/23/03	EP4.01	ELECTRICAL SINGLE LINE, SCHEDULES AND DETAILS
07/23/03	M2.01B	LEVEL P-1 PARTIAL PLAN - CONDENSER WATER LOOP - PHASE B	07/23/03	EN1.01	ENERGY CODE COVER SHEET
07/23/03	M2.01C	LEVEL P-1 PARTIAL PLAN - CONDENSER WATER LOOP - PHASE C	07/23/03	TC-1	TEMPERATURE CONTROLS
07/23/03	DM2.01D	LEVEL P-1 PARTIAL DEMOLITION PLAN - CONDENSER WATER LOOP - PHASE D			



01 LEVEL P-1 PARTIAL DEMOLITION PLAN - CONDENSER WATER LOOP - PHASE D
 SCALE: 1/8" = 1'-0"

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 Irving, TX 75063
 (972) 929-1199



Gregory Scott Hinkle
 6/6/03



Mary Kay, Inc.
 Corporate 1
 Addison, Texas
 Cooling Tower Addition

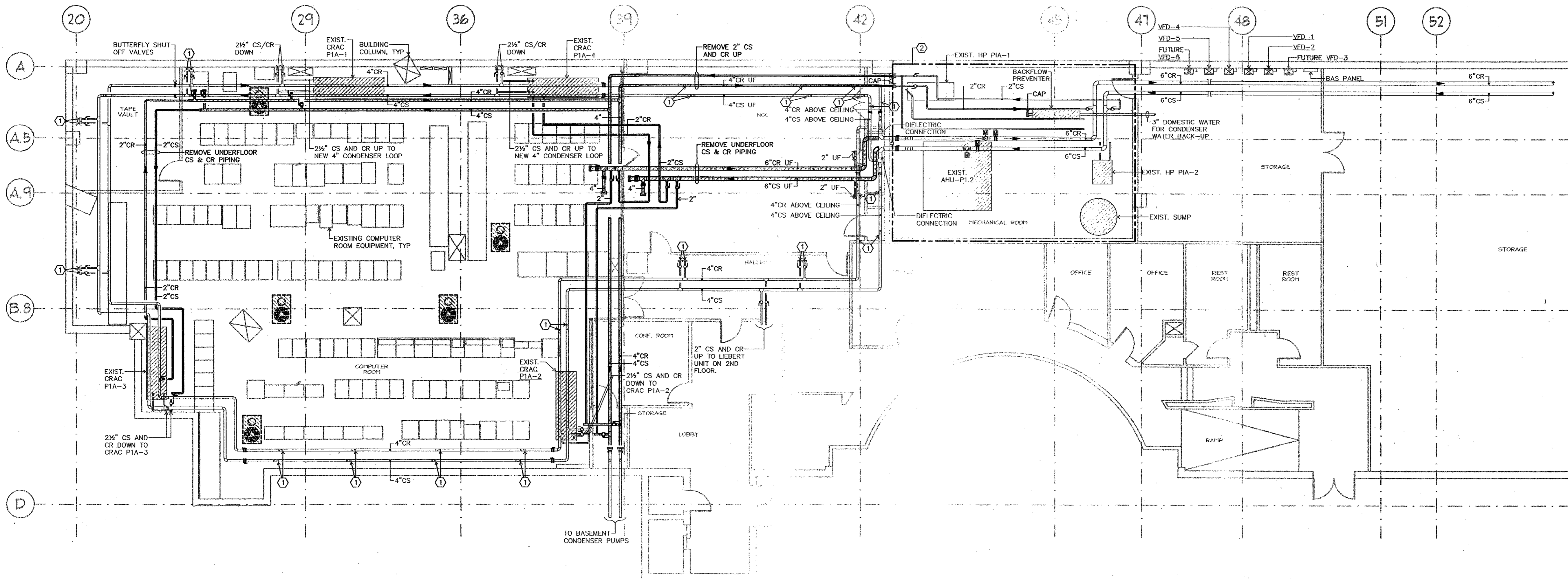
Project Revisions
 ▲ ADDENDUM 1 08/06/03

Project Number
 02110

Issue Date
 JULY 23, 2003

Sheet Title
**MECHANICAL
 PARTIAL DEMOLITION
 PLAN - PHASE D**
 Sheet Number
DM2.01D

KEYED NOTES BY SYMBOL "O"
 ① 2 1/2" CS AND CR TAPS FOR FUTURE CONNECTION.
 ② REFERENCE SHEET M3.03 FOR DEMOLITION RISER DIAGRAM IN THIS AREA.

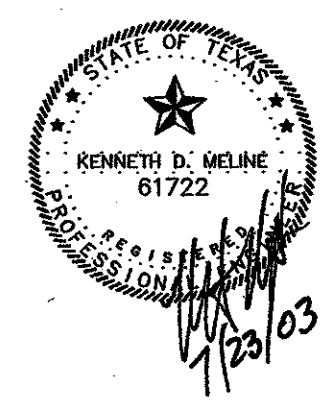


01 LEVEL P-1 PARTIAL DEMOLITION PLAN - CONDENSER WATER LOOP - PHASE D 

SCALE: 1/8" = 1'-0"

KEYED NOTES BY SYMBOL "O"	
①	2 1/2" CS AND CR TAPS FOR FUTURE CONNECTION.
②	REFERENCE SHEET M.3.03 FOR DEMOLITION RISER DIAGRAM IN THIS AREA.

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 Irving, TX 75063
 (972) 929-1199



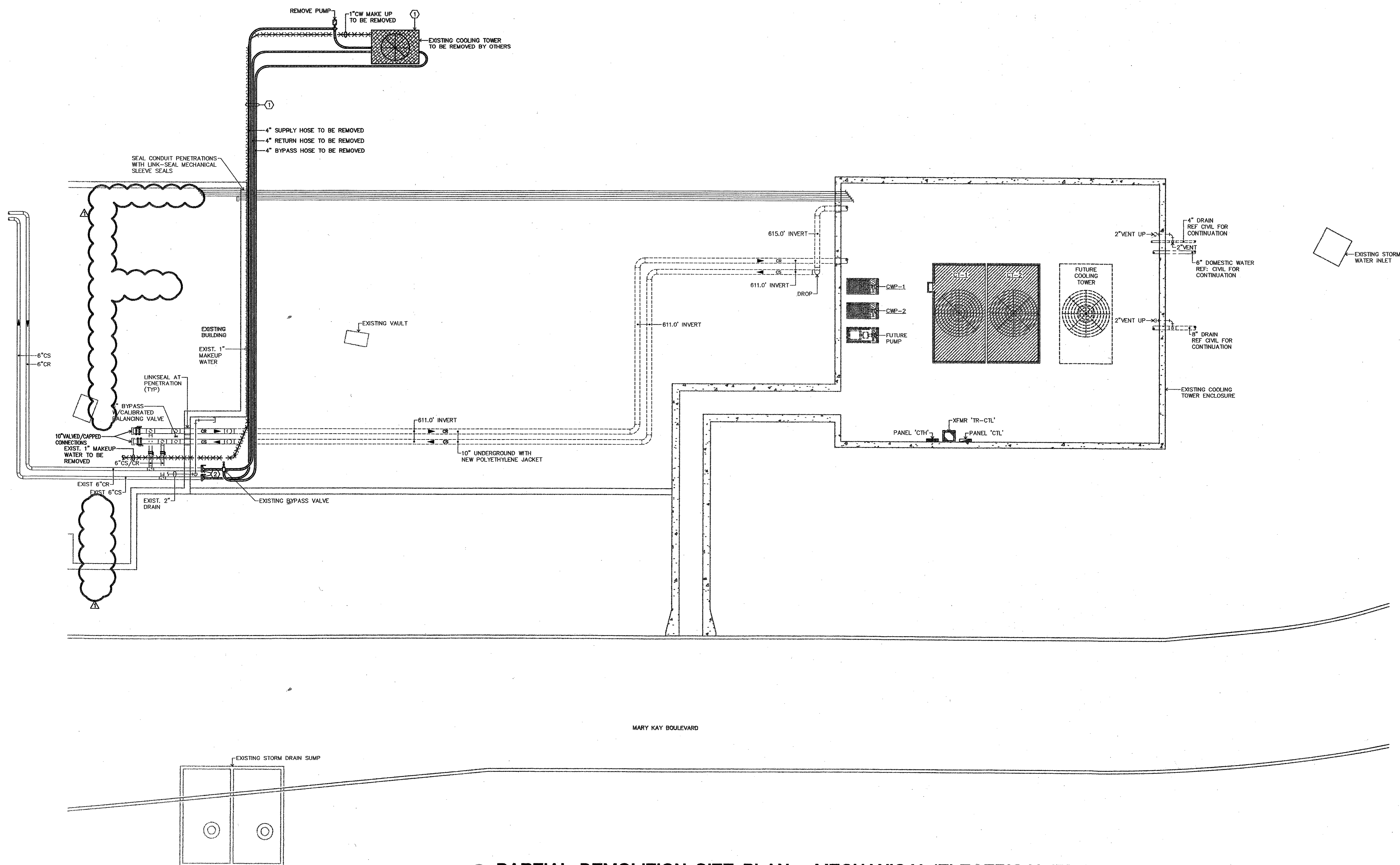
Mary Kay, Inc.
 Corporate 1
 Addison, Texas
 Cooling Tower Addition

Project Revisions

Project Number
02110

Issue Date
JULY 23, 2003

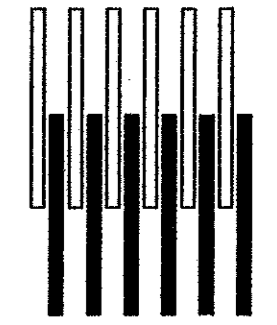
Sheet Title
**MECHANICAL
 PARTIAL DEMOLITION
 PLAN - PHASE D**
 Sheet Number
DM2.01D



01 PARTIAL DEMOLITION SITE PLAN - MECHANICAL/ELECTRICAL/PLUMBING - PHASE D
 SCALE: 1/8" = 1'-0"

KEYED NOTES BY SYMBOL "O"	
①	EXISTING COOLING TOWER, PIPING, CONTROLS, AND TEMPORARY HOSES TO BE REMOVED BY OTHERS.
②	PROVIDE BLIND FLANGE CAP AT 6" VALVE.

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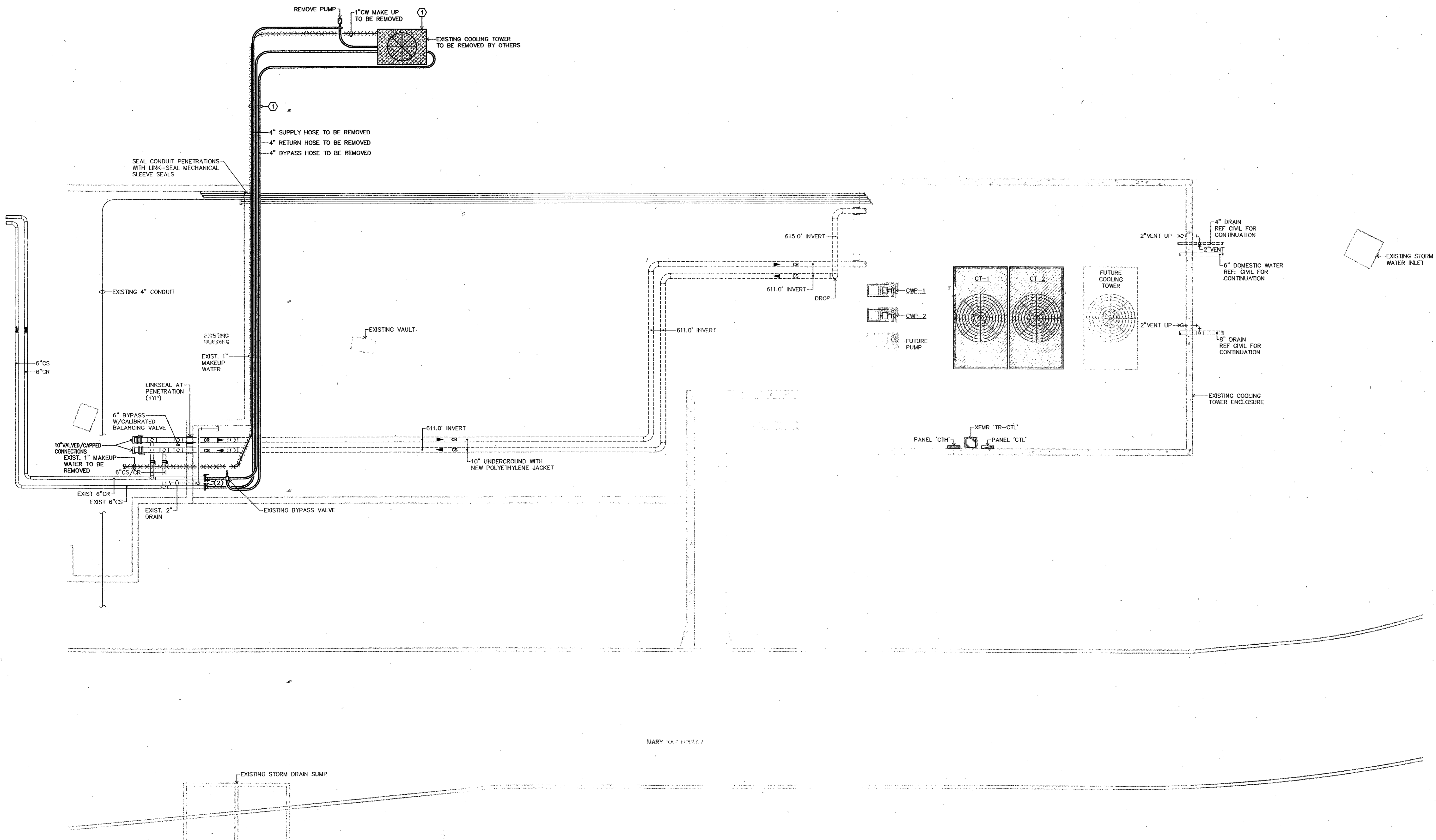
Mary Kay, Inc.
 Corporate 1
 Addison, Texas
 Cooling Tower Addition

Project Revisions
 ▲ ADDENDUM #1 08/06/03

Project Number
 02110

Issue Date
 JULY 23, 2003

Sheet Title
 DEMO. SITE PLAN -
 MECH/ELEC/PLUMB
 PHASE D
 Sheet Number
DMEP1.00



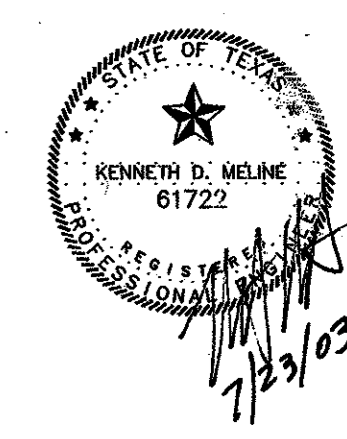
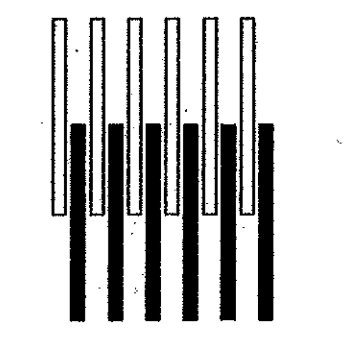
01 PARTIAL DEMOLITION SITE PLAN - MECHANICAL/ELECTRICAL/PLUMBING - PHASE D

SCALE: 1/8" = 1'-0"



KEYED NOTES BY SYMBOL "O"	
①	EXISTING COOLING TOWER, PIPING, CONTROLS, AND TEMPORARY HOSES TO BE REMOVED BY OTHERS.
②	PROVIDE BLIND FLANGE CAP AT 6" VALVE.

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 Irving, TX 75063
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Mary Kay, Inc.
 Corporate 1
 Addison, Texas
 Cooling Tower Addition

Project Revisions

Project Number
02110

Issue Date
JULY 23, 2003

Sheet Title
**DEMO. SITE PLAN -
 MECH/ELEC/PLUMB
 PHASE D**
 Sheet Number
DMEP1.00

Lighting Compliance Certificate
2001 IECC

COMcheck-EZ Software Version 2.4 Release 2
 Data filename: J:\02110\E_loads\Untitled.cck

Checked By/Date

Section 1: Project Information

Project Name: May Kay - Cooling Tower
 Designer/Contractor: _____
 Telephone: _____
 Document Author: _____
 Telephone: _____
 Date: _____

Section 2: General Information

Building Use Description by: Activity Type
 Activity Type(s) Other Floor Area 2370
 Project Description (check one):
 New Construction Addition Alteration Unconditioned Shell (File Affidavit)

Section 3: Requirements Checklist

- Bldg. Dept. Use
- Interior Lighting
1. Total actual watts must be less than or equal to total allowed watts
- | | | |
|---------------|--------------|---------------|
| Allowed Watts | Actual Watts | Complies(Y/N) |
| 2370 | 1000 | YES |
- Exterior Lighting
2. Efficacy greater than 45 lumens/W
- Exceptions: Specialized lighting highlighting features of historic buildings; signage; safety or security lighting; low-voltage landscape lighting.
- Controls, Switching, and Wiring
3. Independent controls for each space (switch/occupancy sensor).
- Exception: Areas that must be continuously lighted.
4. Master switch at entry to hotel/motel guest room.
5. Two switches or dimmer in each space to provide uniform light reduction capability.
- Exceptions: Only one luminaire in space; An occupant-sensing device controls the area; The area is a corridor, storage, restroom, or lobby; Areas that must be continuously lighted.
6. Photocell/astronomical time switch on exterior lights.
- Exceptions: Areas requiring lighting during daylight hours
7. Tandem wired one-lamp and three-lamp ballasted luminaires.
- Exceptions: Electronic high-frequency ballasts; Luminaires not on same switch

Section 4: Compliance Statement

The proposed lighting design represented in this document is consistent with the building plans, specifications and other calculations submitted with this permit application. The proposed lighting system has been designed to meet the 2001 IECC requirements in COMcheck-EZ Version 2.4 Release 2.

Chris Carroll Chris Carroll 2/27/03
 Principal Lighting Designer-Name Signature Date

Lighting Application Worksheet
2001 IECC

COMcheck-EZ Software Version 2.4 Release 2

Section 1: Allowed Lighting Power Calculation

A	B	C	D
Area Category	Floor Area (ft ²)	Total Allowed Watts (watts/ft ²)	Allowed Watts (B x C)
Other	2370	1	2370
Total Allowed Watts =			2370

Section 2: Actual Lighting Power Calculation

A	B	C	D	E	F
Fixture ID	Fixture Description / Lamp Description / Wattage Per Lamp / Ballast	Lamps / Fixture	# of Fixtures	Watt	(D x E)
HID	100W MH Area Lighting / Metal Halide 100W / Electronic	1	10	100	1000
Total Actual Watts =					1000

Section 3: Compliance Calculation

If the Total Allowed Watts minus the Total Actual Watts is greater than or equal to zero, the building complies.

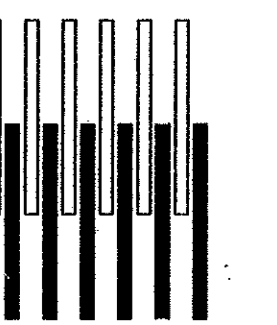
Total Allowed Watts = 2370
 Total Actual Watts = 1000
 Project Compliance = 1370

Lighting PASSES: Design 38% better than code

ENERGY CODE COMPLIANCE STATEMENT

Section 101.4 of the 2000 IECC states that the intent of the code is to establish minimum prescriptive and performance-related regulations for the design of energy efficient buildings that provide facilities for public assembly, educational, business, mercantile, institutional, storage and residential occupancies designed primarily for human occupancy. The Mary Kay Cooling Tower documents modify the mechanical and electrical systems for the computer room that primarily support data center equipment loads, not human occupancy. Therefore, the drawings issued for Mary Kay Cooling Tower are in compliance with the 2001 IECC.

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Mary Kay, Inc.
 Corporate 1
 Addison, Texas
 Cooling Tower Addition

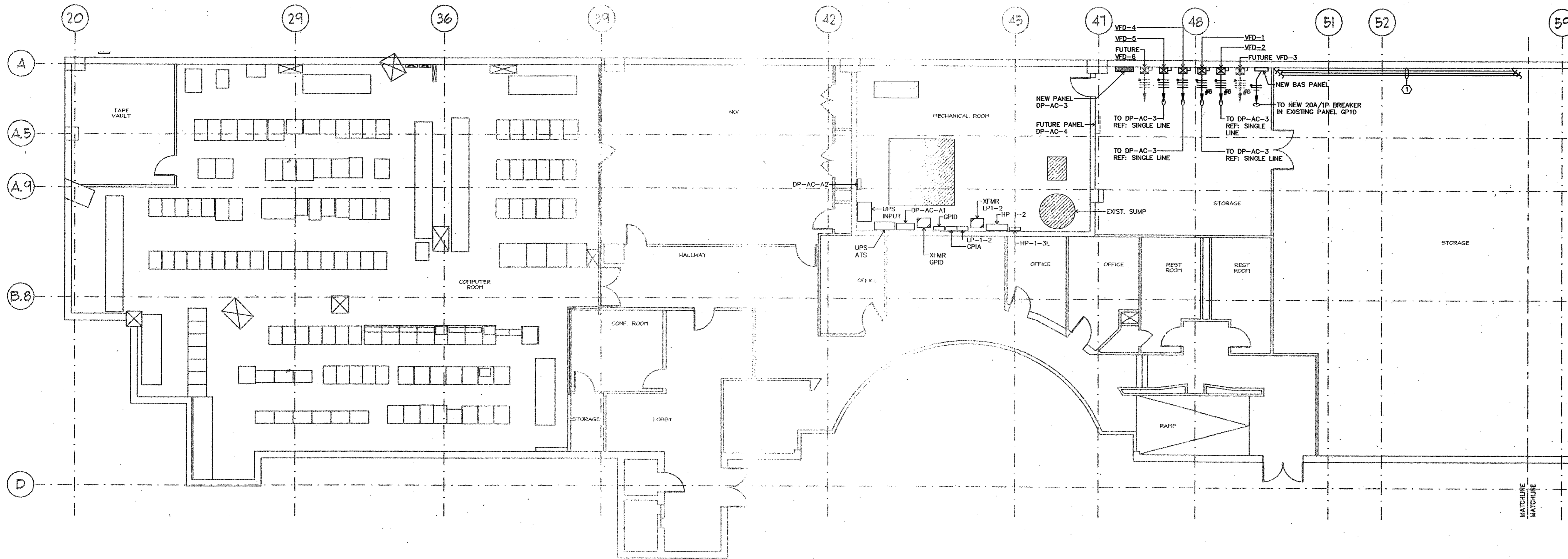
Project Revisions

Project Number
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Issue Date
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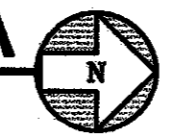
Sheet Title
 ENERGY CODE

Sheet Number
 EN1.01



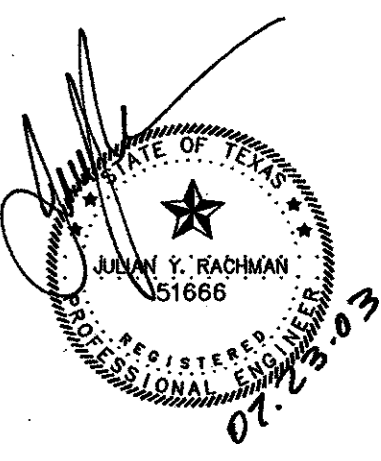
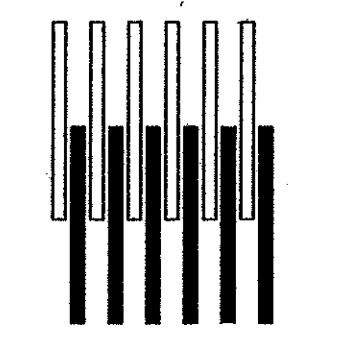
01 LEVEL P-1 - PARTIAL PLAN - ELECTRICAL - PHASE A

SCALE: 1/8" = 1'-0"



KEYED NOTES BY SYMBOL "O"
 ① CONTROL / VFD CONDUITS ROUTED TO NEW COOLING TOWER PIT. PROVIDE (2) 4" CONDUITS FOR VFD ELECTRICAL CONNECTION TO COOLING TOWER FANS AND (1) 4" CONDUIT FOR CONTROL WIRING.

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 8410 Sterling
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 (972) 929-1199



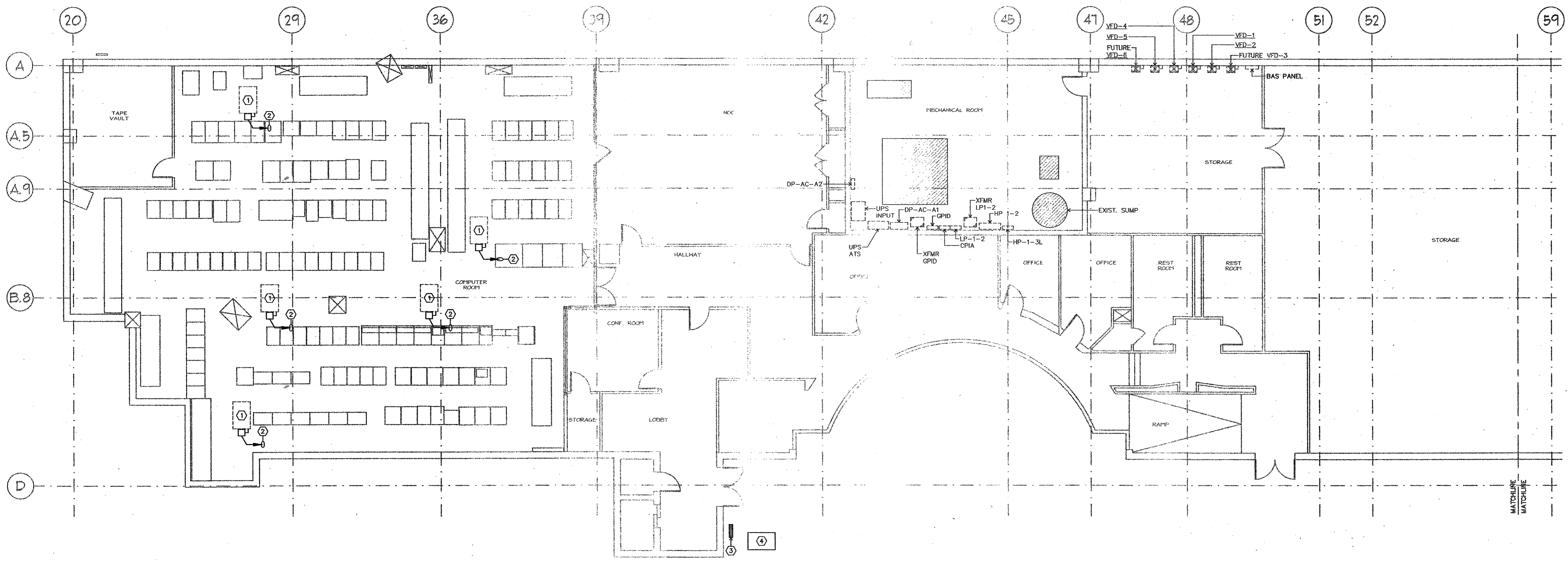
Mary Kay, Inc.
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 Addison, Texas
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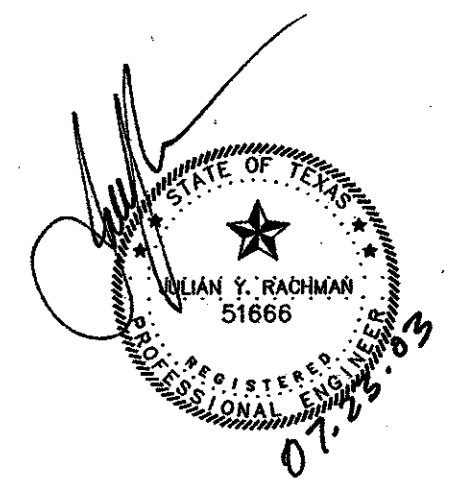
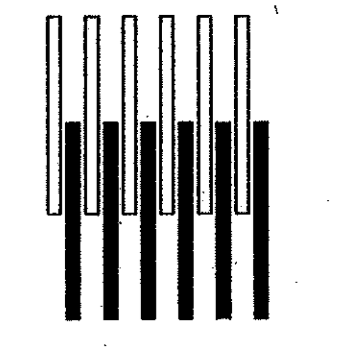
Sheet Title
**PARTIAL PLAN
 ELECTRICAL
 PHASE A**
 Sheet Number
EP2.01A



01 LEVEL P-1 - PARTIAL PLAN - ELECTRICAL - PHASE B
 SCALE: 1/8" = 1'-0"

KEYED NOTES BY SYMBOL "O"	
①	TEMPORARY SPOT COOLER. RE: 01/DM2.01C FOR DETAILS.
②	TEMPORARY POWER CORD WITH (3) #12 & (1) #12 GND. TO TEMPORARY GENERATOR LOAD CENTER.
③	TEMPORARY 480V GENERATOR LOAD CENTER.
④	TEMPORARY 100KW ROLL-UP GENERATOR.

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 Irving, TX 75063
 (972) 929-1199



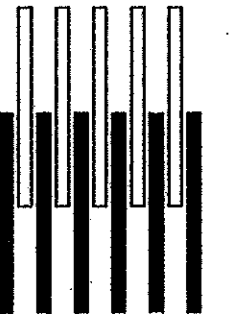
Mary Kay, Inc.
 Corporate 1
 Addison, Texas
 Cooling Tower Addition

Project Revisions

Project Number
02110

Issue Date
JULY 23, 2003

Sheet Title
**PARTIAL PLAN
ELECTRICAL
PHASE B**
 Sheet Number
EP2.01B



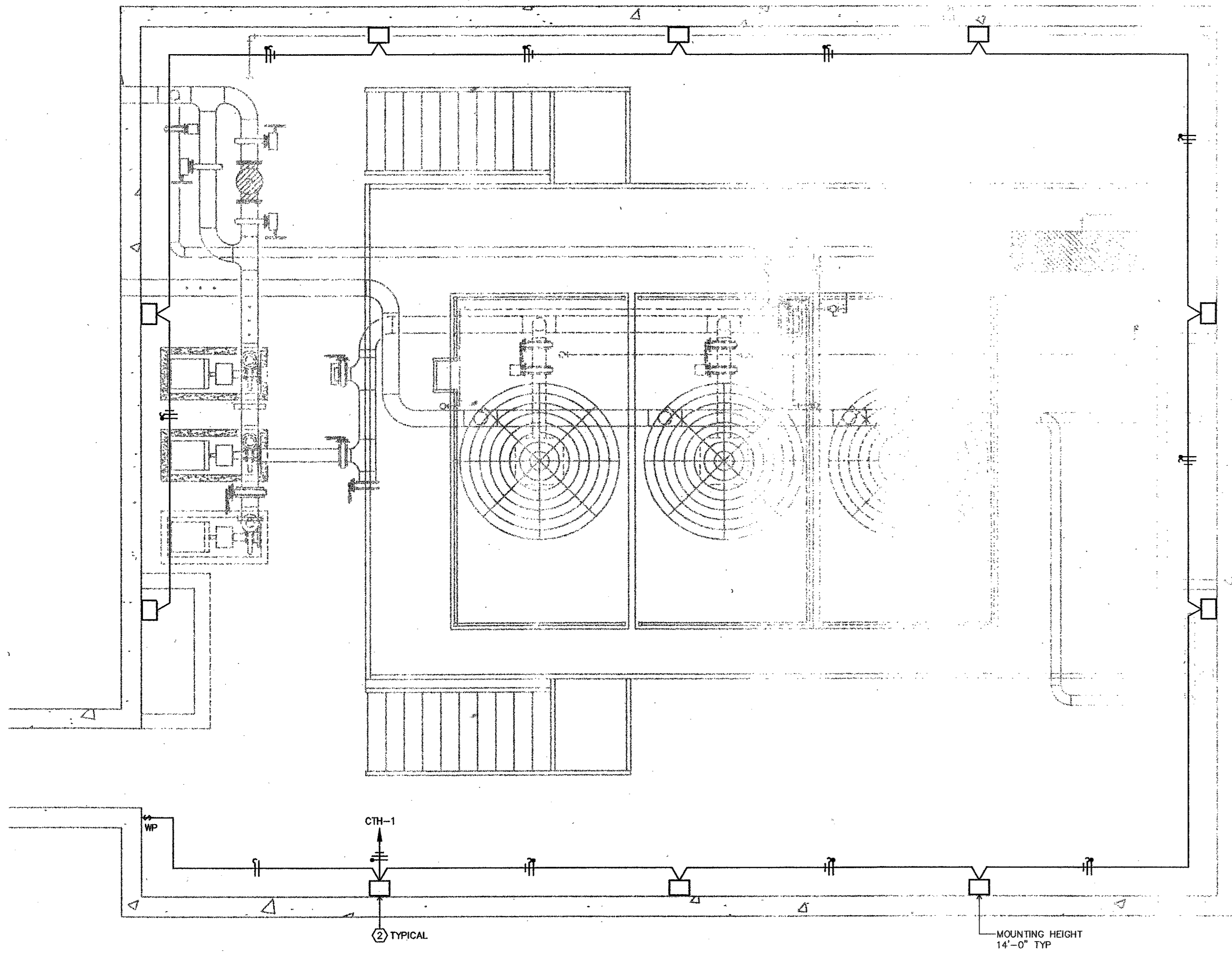
Mary Kay, Inc.
 Corporate 1
 Addison, Texas
 Cooling Tower Addition

Project Revisions

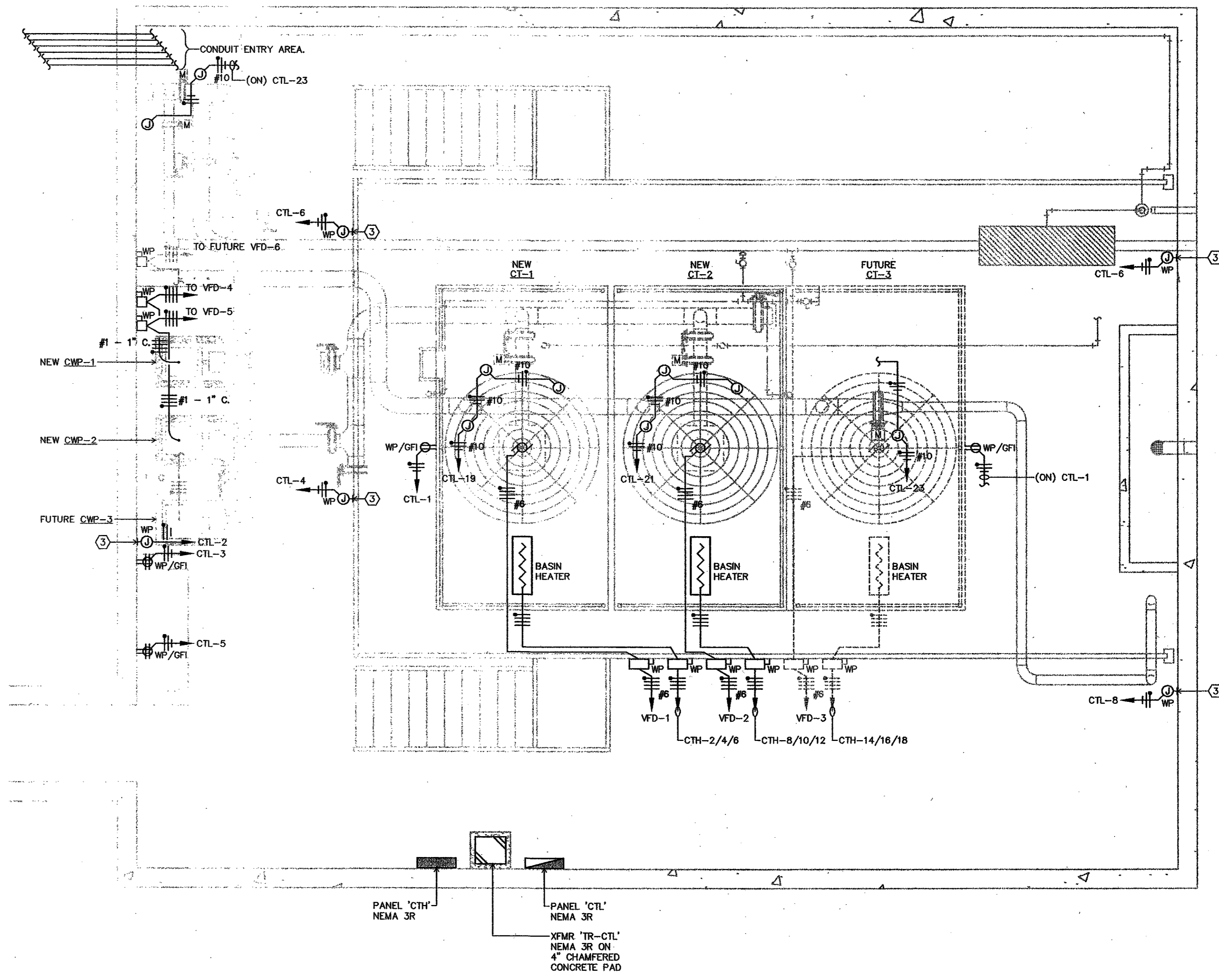
Project Number
 02110

Issue Date
 JULY 23, 2003

Sheet Title
 ENLARGED PLANS
 ELECTRICAL
 PHASE-A
 Sheet Number
 EP3.01



02 ENLARGED PLAN - LIGHTING - PHASE A
 SCALE: 1/4" = 1'-0"



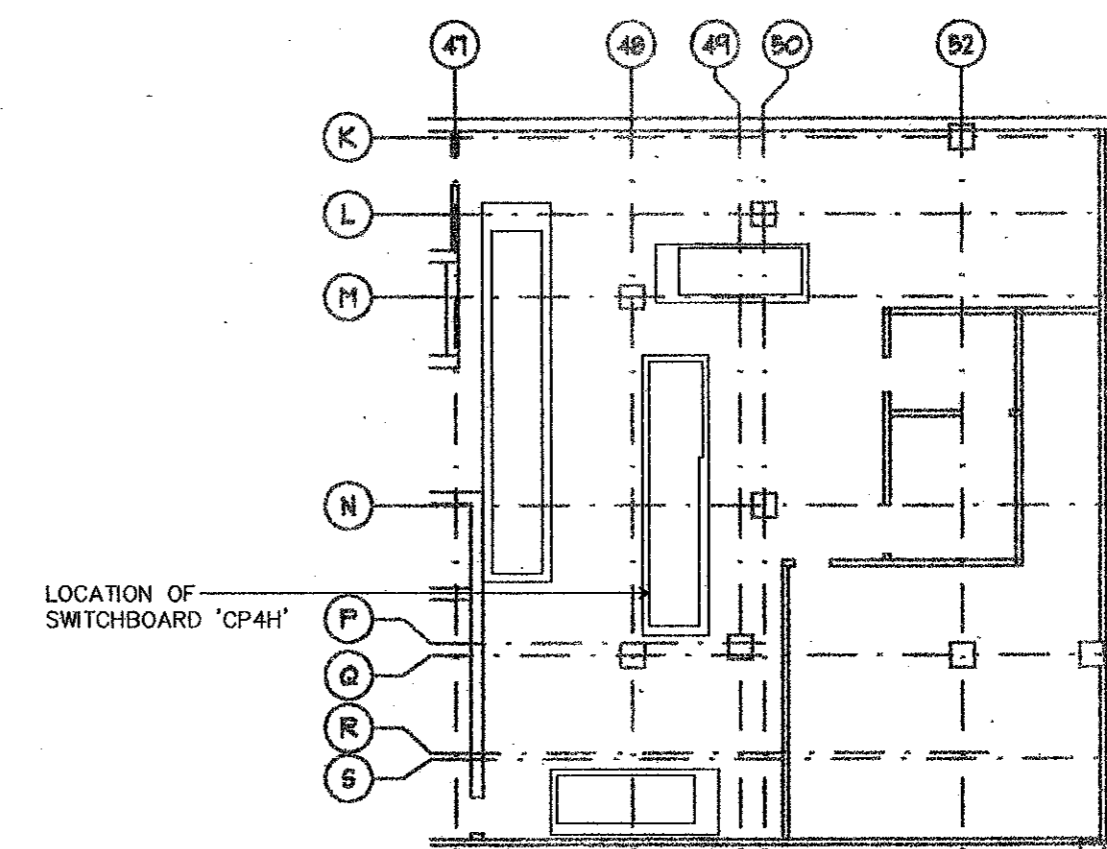
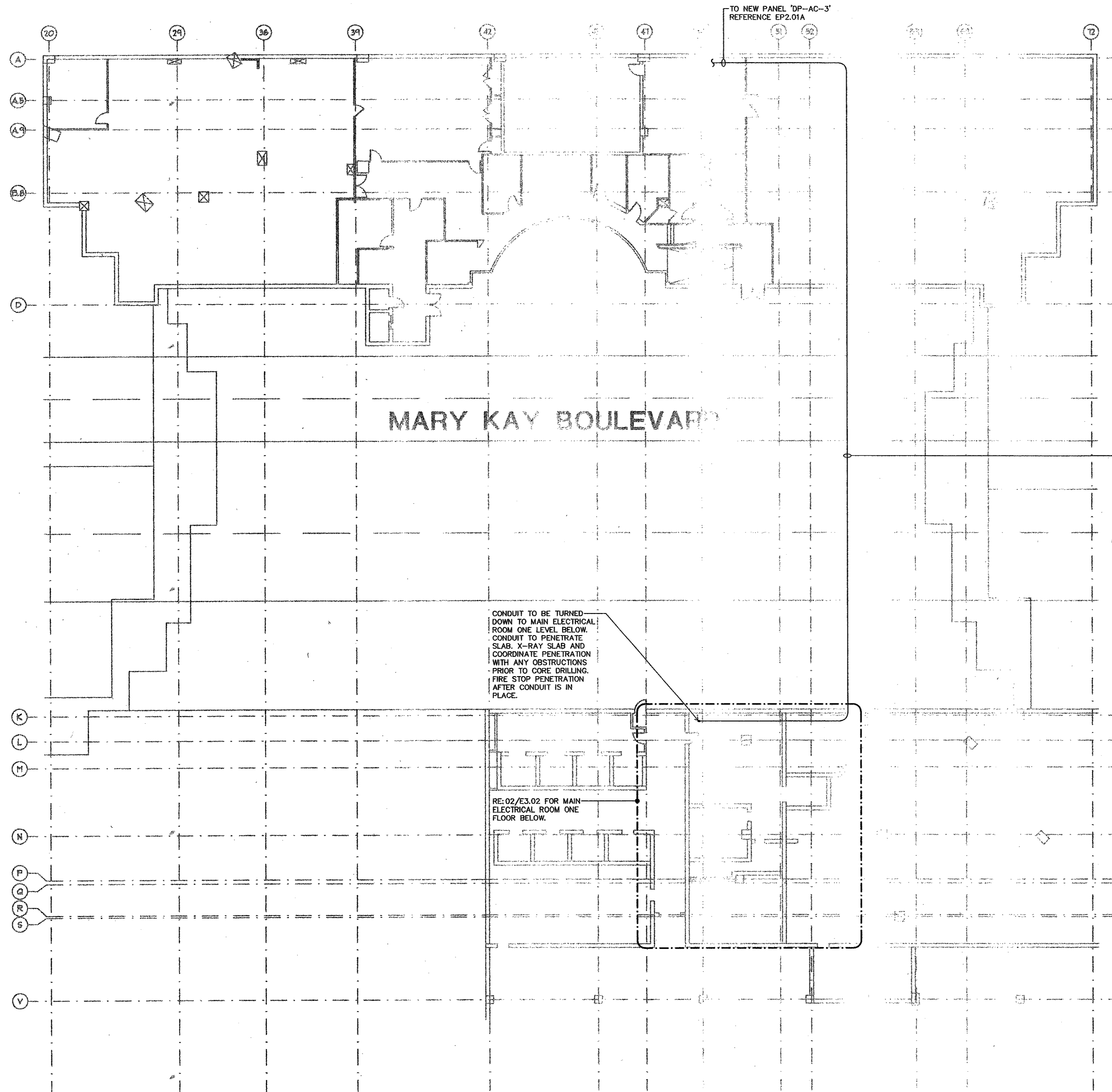
01 ENLARGED PLAN - ELECTRICAL - PHASE A
 SCALE: 1/4" = 1'-0"

GENERAL NOTE(S):

- 1) ALL ELECTRICAL DEVICES THIS AREA TO BE NEMA 4X RATED FOR CORROSIVE ENVIRONMENT. GROUND-BINDS KRYONUM MATERIAL OR APPROVED EQUAL IS ACCEPTABLE.
- 2) ALL RIGID CONDUIT THIS AREA TO BE PVC COATED METAL CONDUIT AS MANUFACTURED BY ROB ROY OR APPROVED EQUAL.

KEYED NOTES BY SYMBOL "O":

- 1) HEAVY-DUTY DISCONNECT SWITCH WITH INTEGRAL AUXILIARY CONTACT, CONTACT TO TURN OFF ASSOCIATED VFD WHEN DISCONNECT SWITCH IS OPENED.
- 2) WEATHERPROOF PULSE-START METAL HALIDE LIGHTING FIXTURE FIXTURE TYPE SPAULDING # MEX-MT00PS MOUNTED 14" ABOVE SLAB. PROVIDE (1) 100W METAL HALIDE LAMP PER FIXTURE PER MANUFACTURERS SPECIFICATIONS.
- 3) J-BOX FOR ELECTRICAL CONNECTION TO HEAT TRACE THIS AREA.



02 FLOOR PLAN ELECTRICAL - MAIN ELECTRICAL ROOM
 SCALE: 1/16" = 1'-0"

01 SOFFIT CONDUIT ROUTING PLAN - ELECTRICAL
 SCALE: 1/16" = 1'-0"

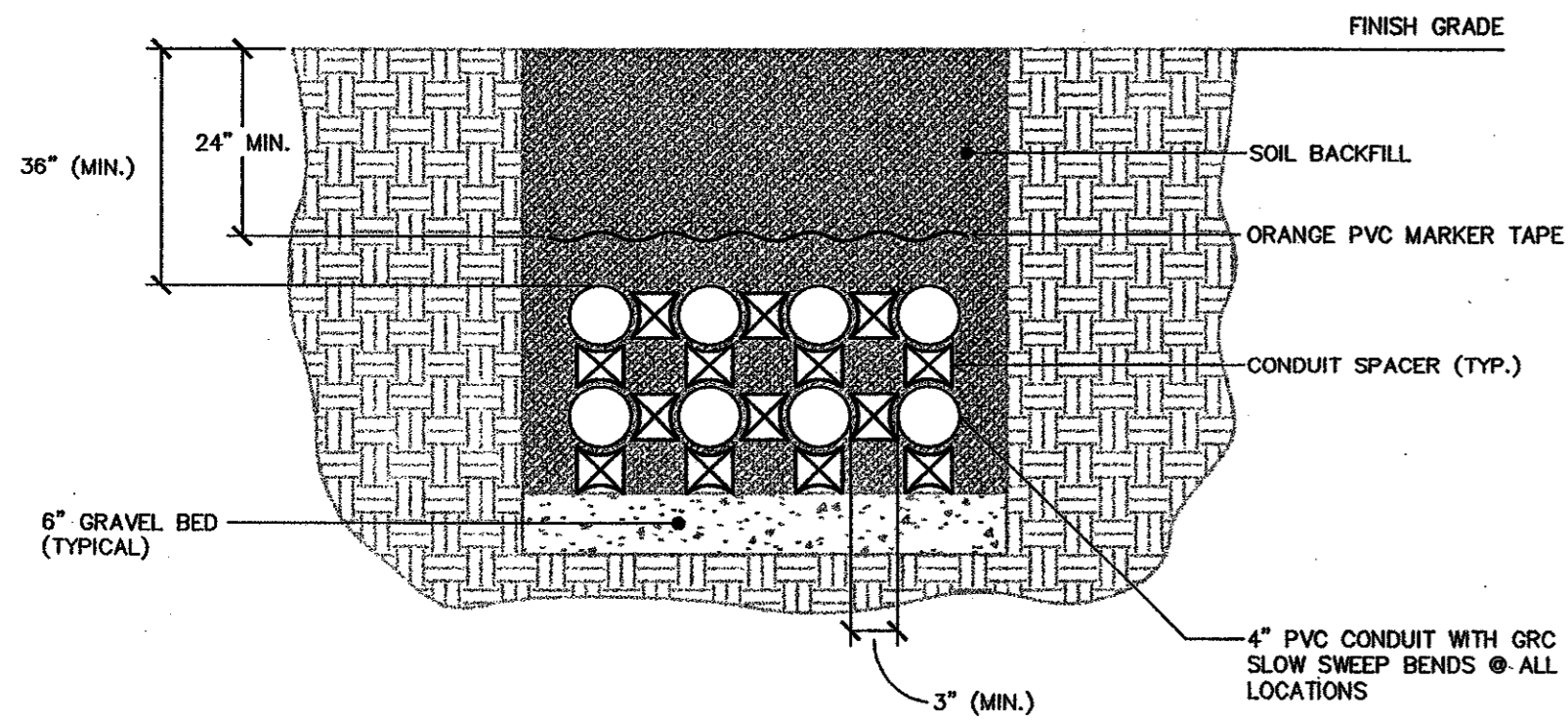


Project Revisions

Project Number
 02110

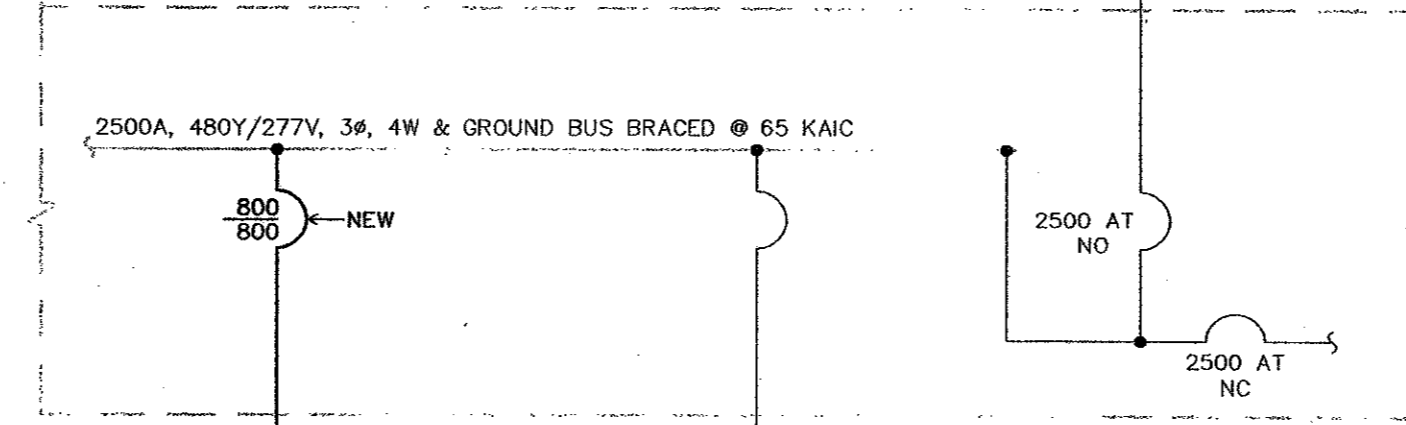
Issue Date
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Sheet Title
 SOFFIT CONDUIT
 ROUTING PLAN
 ELECTRICAL
 Sheet Number
EP3.02

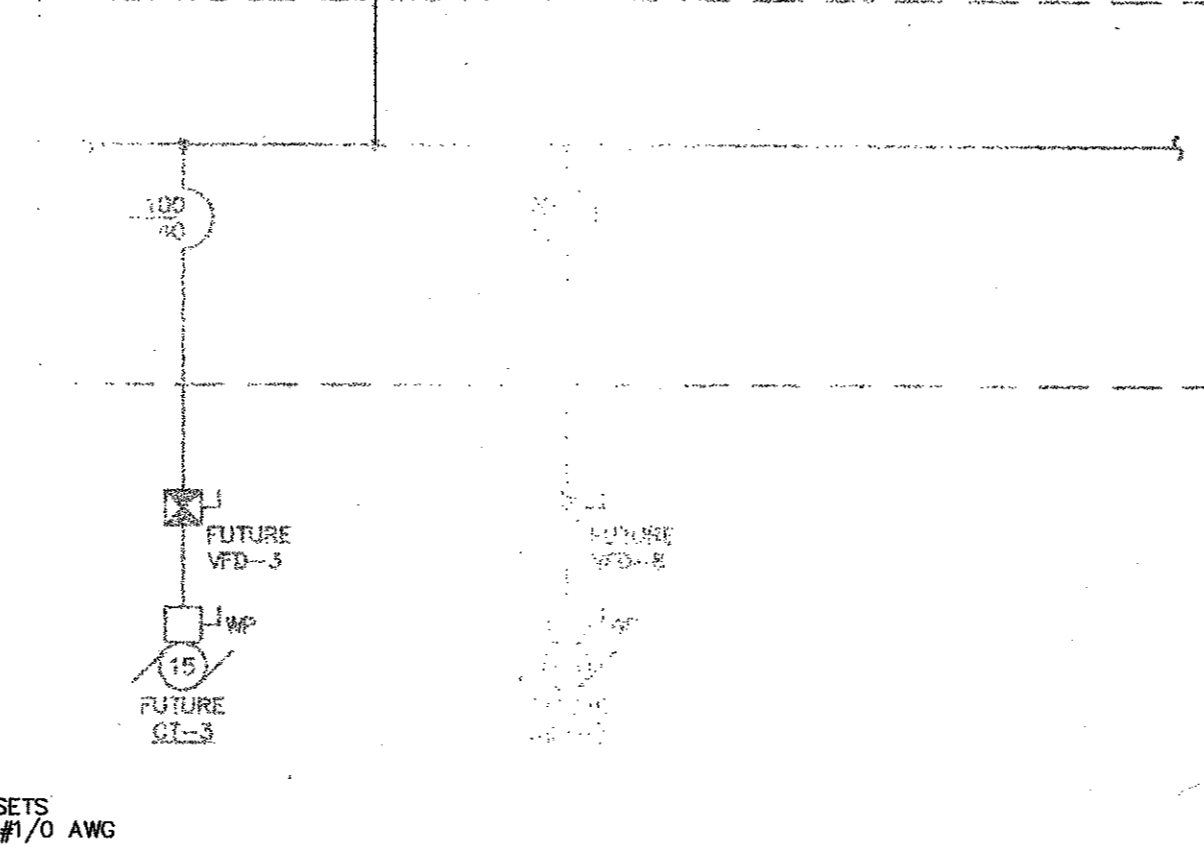


02 TRENCH DETAIL - (2x4)
NOT TO SCALE

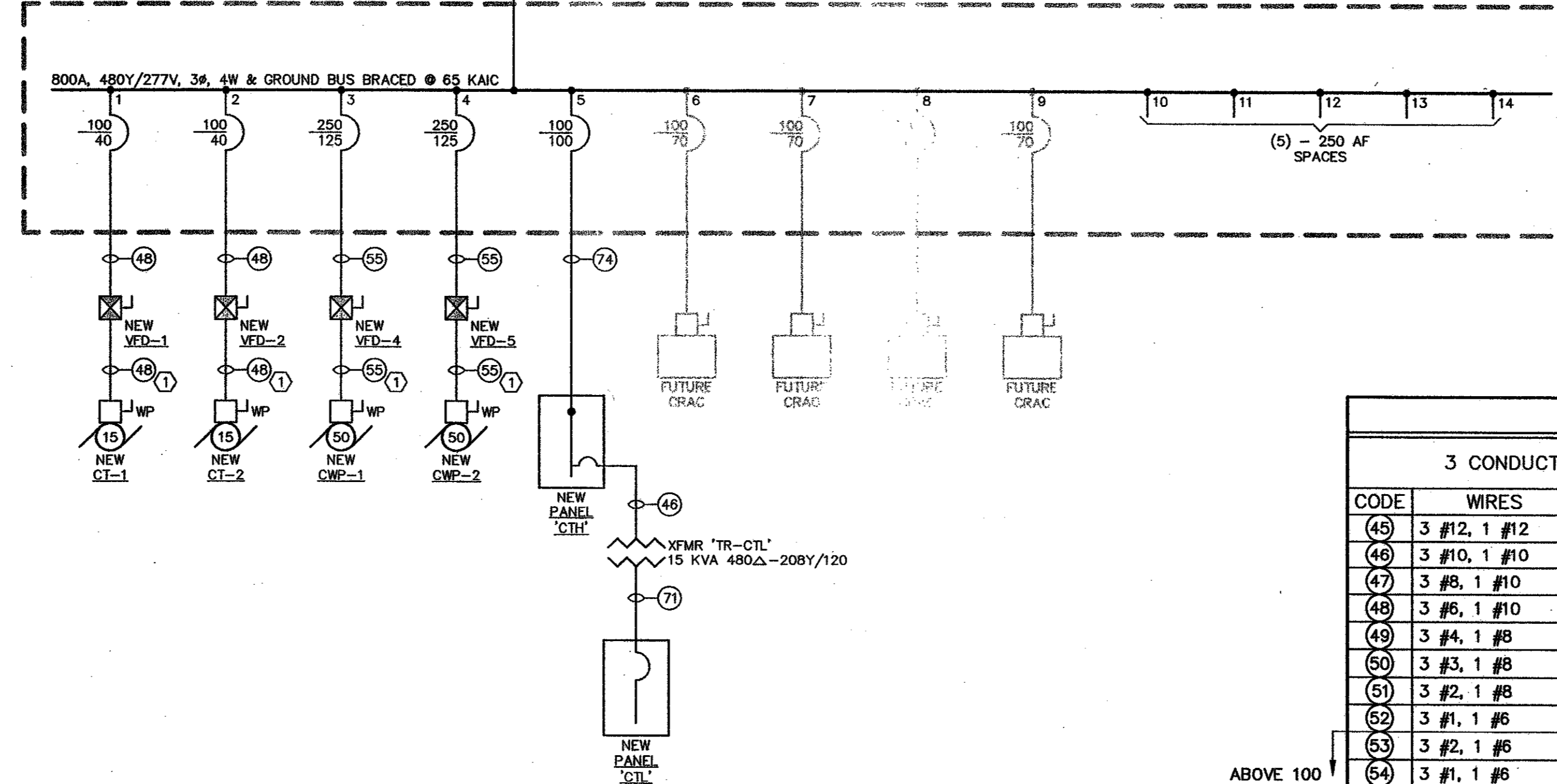
PARTIAL EXISTING SWITCHBOARD 'CP4H'



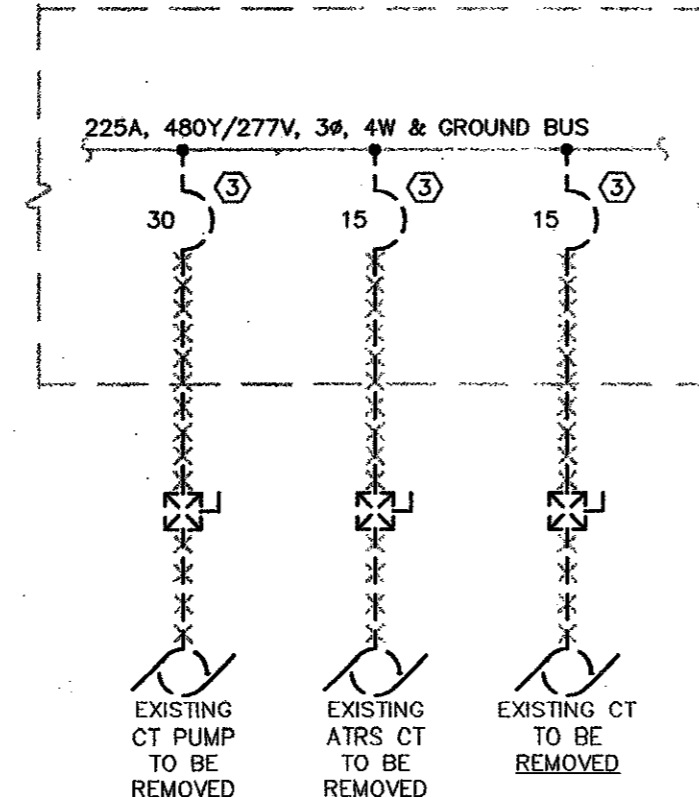
FUTURE 'DP-AC-4'



NEW PANEL 'DP-AC-3'



PARTIAL EXISTING PANEL 'DP-AC-A2'



PANEL (CTL) SCHEDULE

DESCRIPTION	QTY	VOLT-AMPS							PHASE	VOLT-AMPS							AREA (SF)	DESCRIPTION
		RECEP	MOTOR	HEAT	KITCH	COMP	OTHER	RECEP		MOTOR	HEAT	KITCH	COMP	OTHER				
RECEP	1	120							1	20						1	20	HEAT TRACING
WATER TREAT	1	120							3	4						1	20	HEAT TRACING
WATER TREAT	1	120							5	6						1	20	HEAT TRACING
SPARE	1	120							7	8						1	20	HEAT TRACING
SPARE	1	120							9	10						1	20	HEAT TRACING
SPACE	1								11	12						1		SPACE
SPACE	1								13	14						1		SPACE
SPACE	1								15	16						1		SPACE
SPACE	1								17	18						1		SPACE
MOV'S	1	130							19	20						1		SPACE
MOV'S	1	130							21	22						1		SPACE
MOV'S	1	130							23	24						1		SPACE
TOTALS			2400	5400	0	0	0	0	0	0	0	0	0	0	0	8000	0	TOTALS

PANEL (CTH) SCHEDULE

DESCRIPTION	QTY	VOLT-AMPS							PHASE	VOLT-AMPS							AREA (SF)	DESCRIPTION
		RECEP	MOTOR	HEAT	KITCH	COMP	OTHER	RECEP		MOTOR	HEAT	KITCH	COMP	OTHER				
LIGHTING	1	20							1	2						3	20	BASIN
SPARE	1	20							3	4						3	20	HEATER-1
SPARE	1	20							5	6						3	20	BASIN
SPARE	1	20							7	8						3	20	HEATER-2
SPARE	1	20							9	10						3	20	BASIN
SPACE	1								11	12						3	20	FUTURE
SPACE	1								13	14						3	20	BASIN
SPACE	1								15	16						3	20	HEATER-3
SPACE	1								17	18						3	20	SPACE
[XFR]	3	25							19	20						3	20	SPACE
[TR-CTL]	1	0							21	22						3	20	SPACE
TOTALS		80	2400	5400	0	0	0	0	0	0	0	0	0	0	0	3800	0	TOTALS

KEYED NOTES BY SYMBOL 'O'

① (2) #12 FROM DISCONNECT CONTACT TO VFD.

② EXISTING CIRCUIT BREAKER TO REMAIN. UPDATE PANEL SCHEDULE TO INDICATE BREAKER AS SPARE.

FEEDER SCHEDULE

CODE	3 CONDUCTOR			COPPER CONDUCTORS WITH GROUND WIRE			4 CONDUCTOR		
	WIRES	CONDUIT	SIZE	AMP	DEG.	CODE	WIRES	CONDUIT	
(45)	3 #12, 1 #12	3/4"	#12	20	60	(67)	4 #12, 1 #12	3/4"	
(46)	3 #10, 1 #10	3/4"	#10	30	60	(68)	4 #10, 1 #10	3/4"	
(47)	3 #8, 1 #10	3/4"	#8	40	60	(69)	4 #8, 1 #10	1"	
(48)	3 #6, 1 #10	1"	#6	55	60	(70)	4 #6, 1 #10	1"	
(49)	3 #4, 1 #8	1-1/4"	#4	70	60	(71)	4 #4, 1 #8	1-1/4"	
(50)	3 #3, 1 #8	1-1/4"	#3	85	60	(72)	4 #3, 1 #8	1-1/4"	
(51)	3 #2, 1 #8	1-1/4"	#2	95	60	(73)	4 #2, 1 #8	1-1/2"	
(52)	3 #1, 1 #6	1-1/2"	#1	110	60	(74)	4 #1, 1 #6	2"	
(53)	3 #2, 1 #6	1-1/4"	#2	115	75	(75)	4 #2, 1 #6	1-1/2"	
(54)	3 #1, 1 #6	1-1/2"	#1	130	75	(76)	4 #1, 1 #6	2"	
(55)	3 #1/0, 1 #6	1-1/2"	#1/0	150	75	(77)	4 #1/0, 1 #6	2"	
(56)	3 #2/0, 1 #6	2"	#2/0	175	75	(78)	4 #2/0, 1 #6	2"	
(57)	3 #3/0, 1 #6	2"	#3/0	200	75	(79)	4 #3/0, 1 #6	2-1/2"	
(58)	3 #4/0, 1 #4	2"	#4/0	230	75	(80)	4 #4/0, 1 #4	2-1/2"	
(59)	3 #250MCM, 1 #4	2-1/2"	#250MCM	255	75	(81)	4 #250MCM, 1 #4	3"	
(60)	3 #300MCM, 1 #4	2-1/2"	#300MCM	285	75	(82)	4 #300MCM, 1 #4	3"	
(61)	3 #350MCM, 1 #3	3"	#350MCM	310	75	(83)	4 #350MCM, 1 #3	3"	
(62)	3 #400MCM, 1 #3	3"	#400MCM	335	75	(84)	4 #400MCM, 1 #3	3"	
(63)	3 #500MCM, 1 #3	3"	#500MCM	380	75	(85)	4 #500MCM, 1 #3	4"	
(64)	3 #600MCM, 1 #2	4"	#600MCM	420	75	(86)	4 #600MCM, 1 #2	4"	
(65)	3 #700MCM, 1 #2	4"	#700MCM	460	75	(87)	4 #700MCM, 1 #2	4"	
(66)	3 #750MCM, 1 #2	4"	#750MCM	475	75	(88)	4 #750MCM, 1 #2	4"	

FEEDER SCHEDULE NOTES:

1) WHERE PARALLEL FEEDERS ARE RUN, RESIZE GROUND WIRE PER NEC TABLE 250-95.

2) RESIZE MOTOR CKT. GROUND WIRES PER OVERCURRENT DEVICE AS SCHEDULED IN NEC TABLE 250-95.

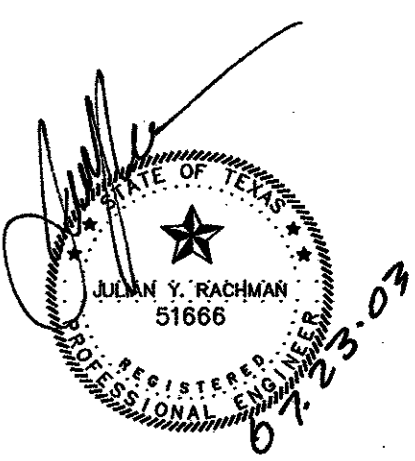
INDICATES NO. OF PARALLEL SETS

G=# INDICATES SIZE AND QUANTITY OF GROUNDING CONDUCTOR(S)

N=# INDICATES SIZE AND QUANTITY OF GROUNDING CONDUCTOR(S)

01 SINGLE LINE DIAGRAMS - ELECTRICAL
NOT TO SCALE

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(972) 929-1199



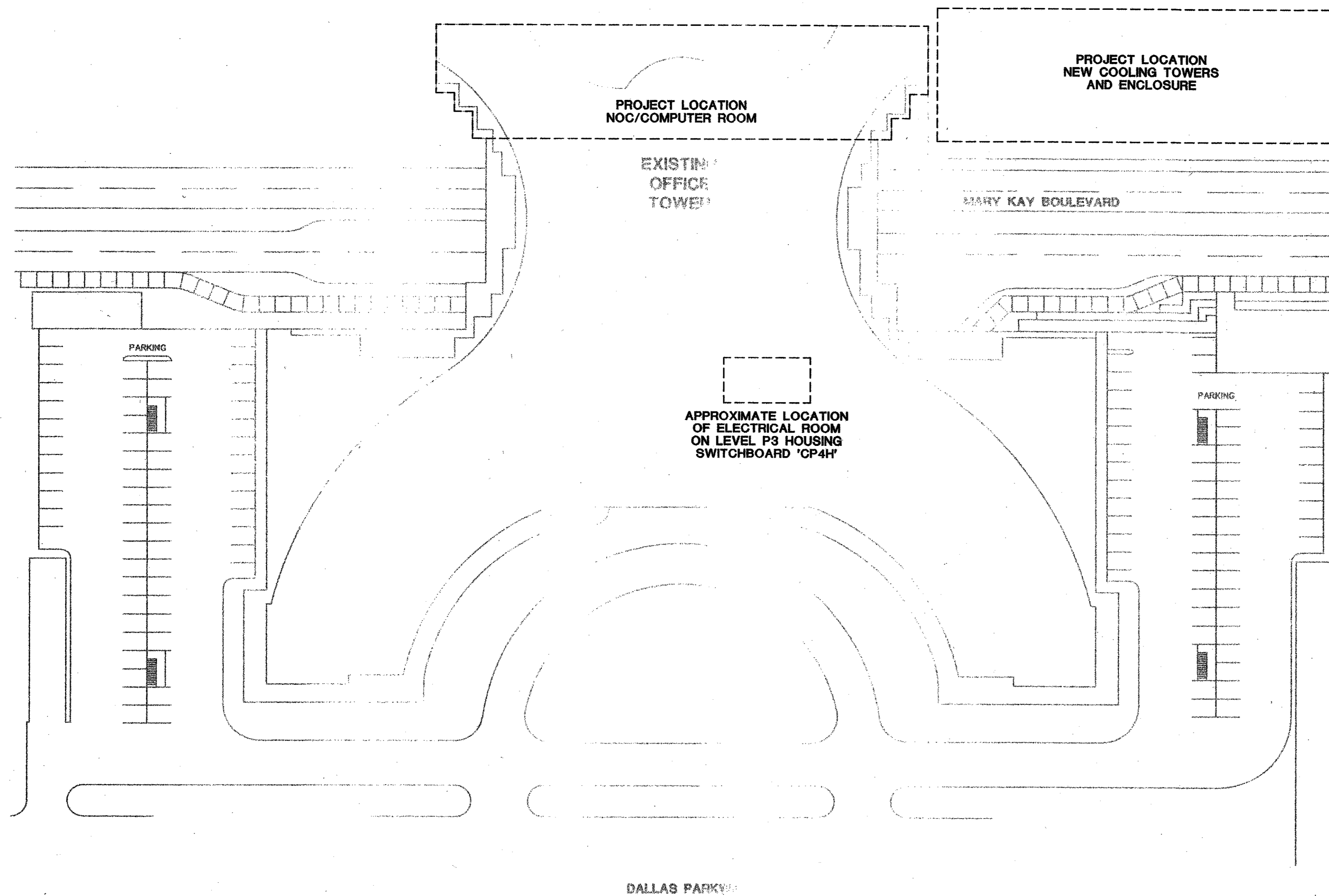
Mary Kay, Inc.
Corporate 1
Addison, Texas
Cooling Tower Addition

Project Revisions

Project Number
02110

Issue Date
JULY 23, 2003

Sheet Title
SINGLE LINE DIAGRAM AND DETAILS ELECTRICAL
Sheet Number
EP4.01



01 SITE PLAN
SCALE: 1" = 40'-0"

GENERAL INFORMATION

THE MARY KAY NOC/COMPUTER ROOM REQUIRES THE ADDITION OF TWO NEW COOLING TOWERS TO PROVIDE COOLING TO THE EXISTING COMPUTER ROOM AIR CONDITION UNITS AND HEAT PUMPS, AND PROVIDE REDUNDANCY IN THE EVENT OF TOWER OR PUMP FAILURES.

THE PROJECT CONSISTS OF INSTALLING TWO NEW COOLING TOWERS AND CONDENSER WATER PUMPS INSIDE A NEW COOLING TOWER ENCLOSURE AND MODIFYING THE EXISTING CONDENSER WATER PIPING INSIDE THE EXISTING NOC/COMPUTER ROOM. THE CONSTRUCTION WILL OCCUR IN FOUR PHASES.

PHASE A INCLUDES THE INSTALLATION OF TWO NEW COOLING TOWERS IN A NEW TOWER ENCLOSURE, AND NEW UNDERGROUND CONDENSER WATER PIPING TO THE NORTH WALL OF THE EXISTING BUILDING. THE TOWERS WILL BE SET ON A NEW STEEL SUPPORT SYSTEM WITHIN THE ENCLOSURE. THE CONDENSER WATER LOOP WILL HAVE A 6 INCH DOMESTIC WATER EMERGENCY BACK-UP, WITH DISCHARGE TO A NEW 8 INCH SANITARY DRAIN PIPE.

PHASE B CONSISTS OF WORK INSIDE THE NOC/COMPUTER ROOM. THE NEW 4" CONDENSER WATER PIPING LOOP WILL BE CONNECTED TO THE EXISTING 6" CONDENSER WATER LOOP AND INSTALLED ABOVE THE COMPUTER ROOM CEILING. TEMPORARY, PORTABLE AC UNITS WILL PROVIDE TEMPORARY SPACE CONDITIONING.

PHASE C INCLUDES INSTALLING NEW ISOLATION VALVES TO ISOLATE THE NEW CONDENSER WATER LOOP FROM THE ORIGINAL CONDENSER WATER LOOP. THE FOUR EXISTING CRAC UNITS WILL BE RECONNECTED TO THE NEW 4 INCH PIPE LOOP.

PHASE D CONSISTS OF REMOVAL OF THE TEMPORARY COOLING TOWER AND PIPING, AND DEMOLITION OF THE REMAINING ABANDONED UNDERFLOOR CONDENSER PIPING.

ALL CONTROLS WORK SHALL BE PERFORMED BY ENTECH, AND ENTECH WILL CONTRACT DIRECTLY WITH MARY KAY FOR THIS WORK. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WORK WITH ENTECH.

THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING THERMOWELLS REQUIRED BY ENTECH, AND FOR PROVIDING 110V POWER TO THE EXTERIOR CONTROL VALVES AND 110V POWER TO THE ENTECH CONTROL PANELS. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE PURCHASE AND INSTALLATION OF THE CONTROL SYSTEM MOTORIZED VALVES AND ACTUATORS.

ALL WATER TREATMENT WORK SHALL BE PERFORMED BY AQUATECH, AND SHALL BE UNDER THE GENERAL CONTRACTORS CONTRACT. AQUATECH POINT OF CONTACT IS JIRI VALES, 972-485-1171.

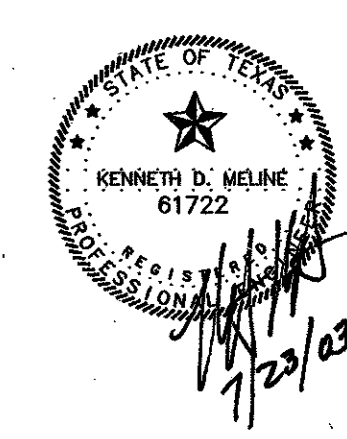
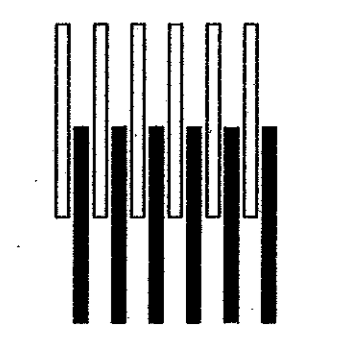
APPLICABLE CODES:

- 2000 INTERNATIONAL BUILDING CODE
- 2000 INTERNATIONAL PLUMBING CODE
- 2000 INTERNATIONAL MECHANICAL CODE
- 2000 INTERNATIONAL ENERGY CODE
- 2000 INTERNATIONAL FIRE CODE
- 2003 NATIONAL ELECTRIC CODE

PROJECT INFORMATION

LOCATION:
1625 Dallas Parkway
Addison, Tx 75379

DFW Consulting Group, Inc.
8410 Sterling
Irving, TX 75063
(972) 929-1199



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Addison, Texas
Cooling Tower Addition

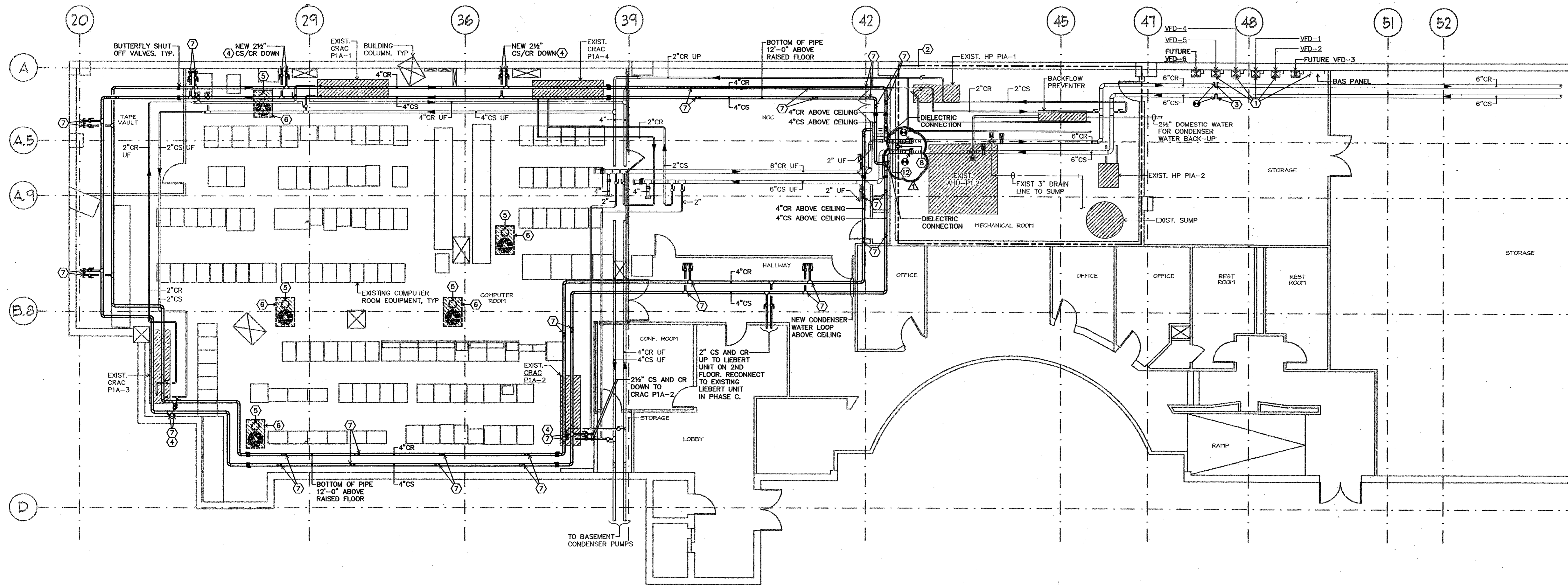
Project Revisions

Project Number
02110

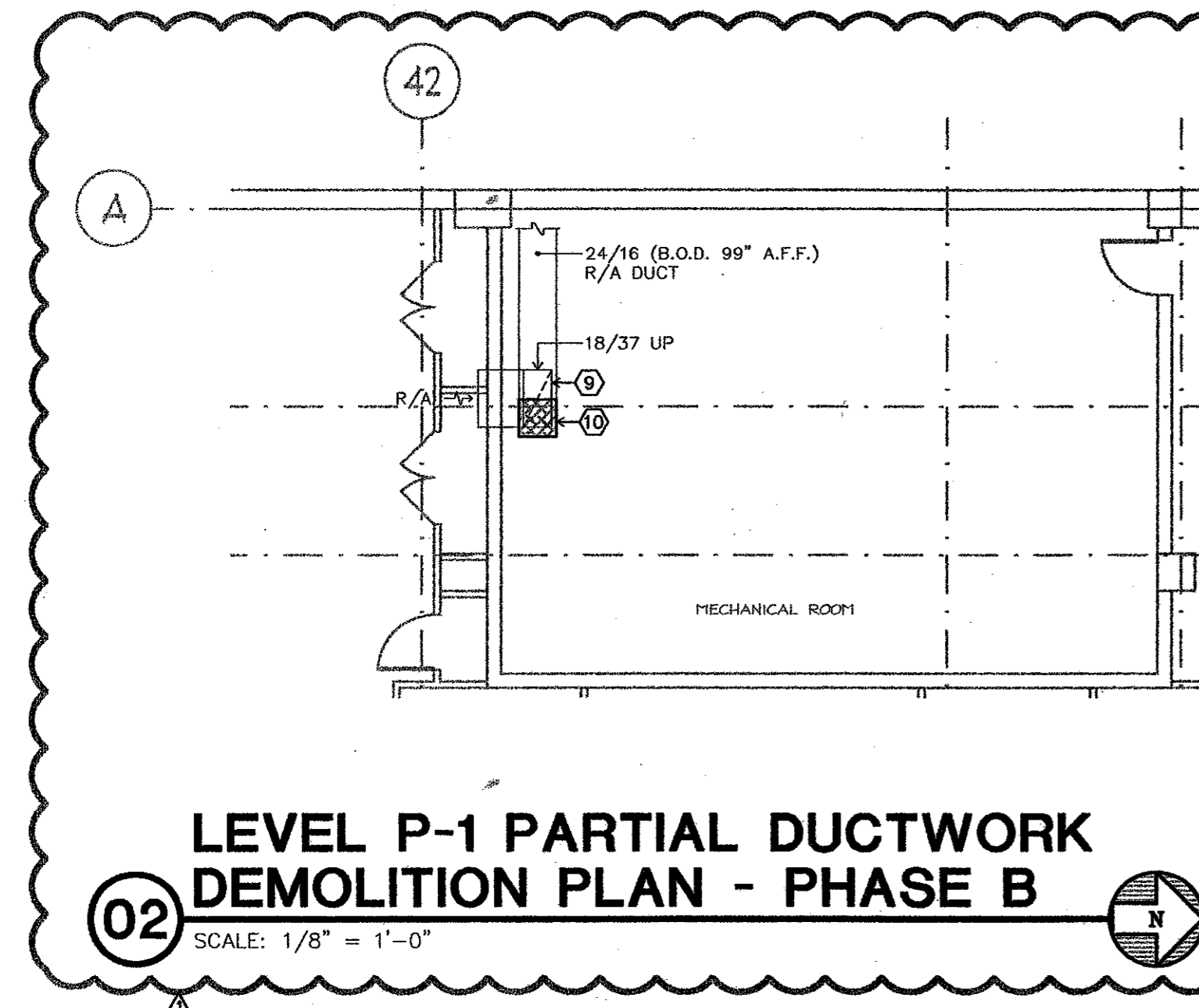
Issue Date
JULY 23, 2003

Sheet Title
GENERAL INFORMATION

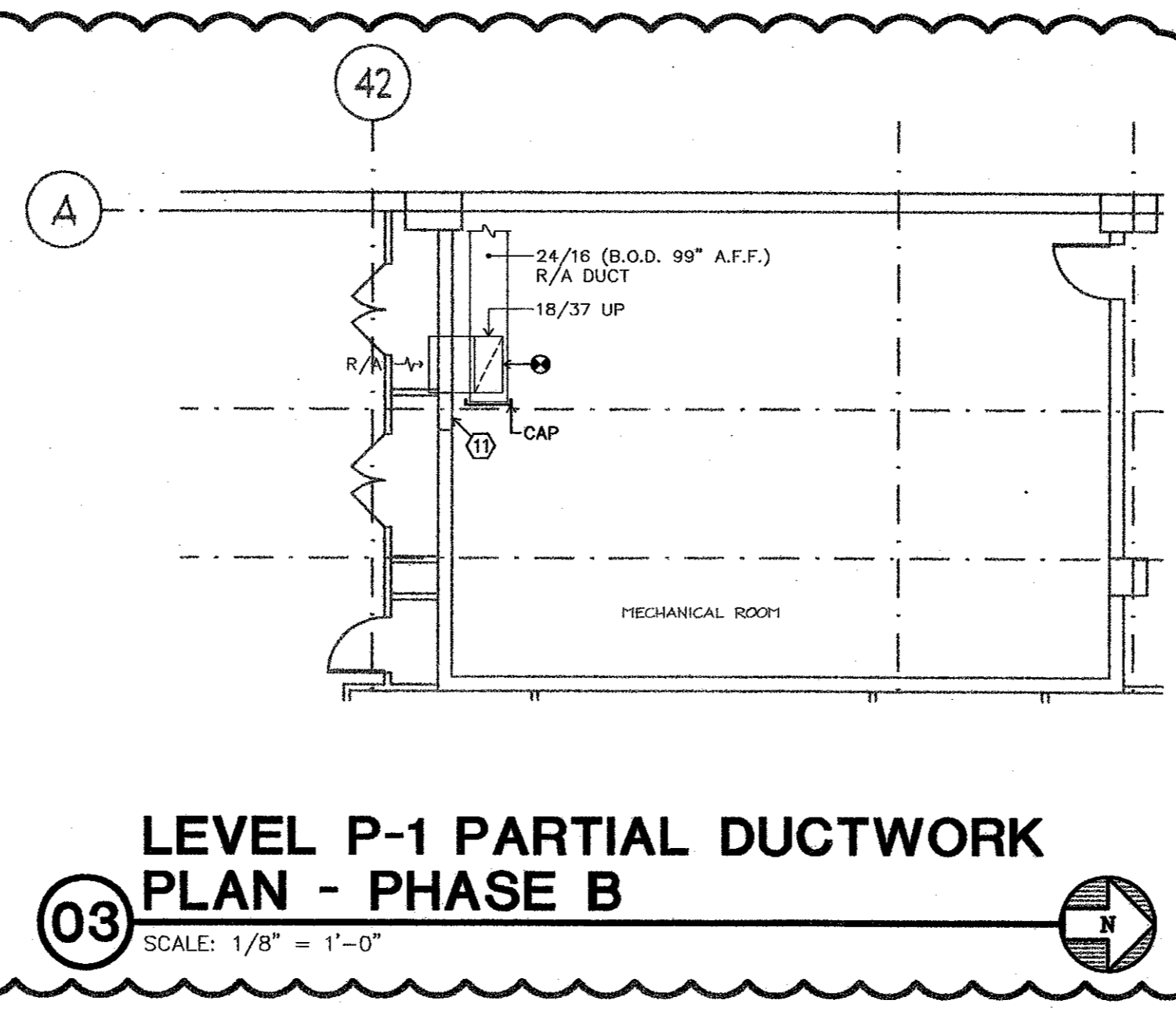
Sheet Number
G.01



01 LEVEL P-1 PARTIAL PLAN - CONDENSER WATER LOOP - PHASE B
 SCALE: 1/8" = 1'-0"



02 LEVEL P-1 PARTIAL DUCTWORK DEMOLITION PLAN - PHASE B
 SCALE: 1/8" = 1'-0"



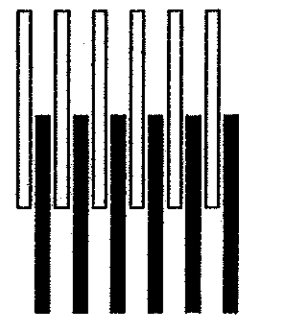
03 LEVEL P-1 PARTIAL DUCTWORK PLAN - PHASE B
 SCALE: 1/8" = 1'-0"

GENERAL PHASING NOTE(S):

- 1.) INSTALL NEW 4" OVERHEAD CONDENSER PIPING UP TO EXISTING 6" CS & CR AT CL42/AS.
- 2.) INSTALL TEMPORARY AC UNITS.
- 3.) VALVE CRAC PIA-2 SO IT IS SERVED BY THE EXISTING 4" CS & CR UF.
- 4.) CONNECT NEW CONDENSER PIPING INTO EXISTING 6" CS & CR ABOVE CEILING. THE EXISTING 6" CS & CR UF IS NOW ABANDONED.

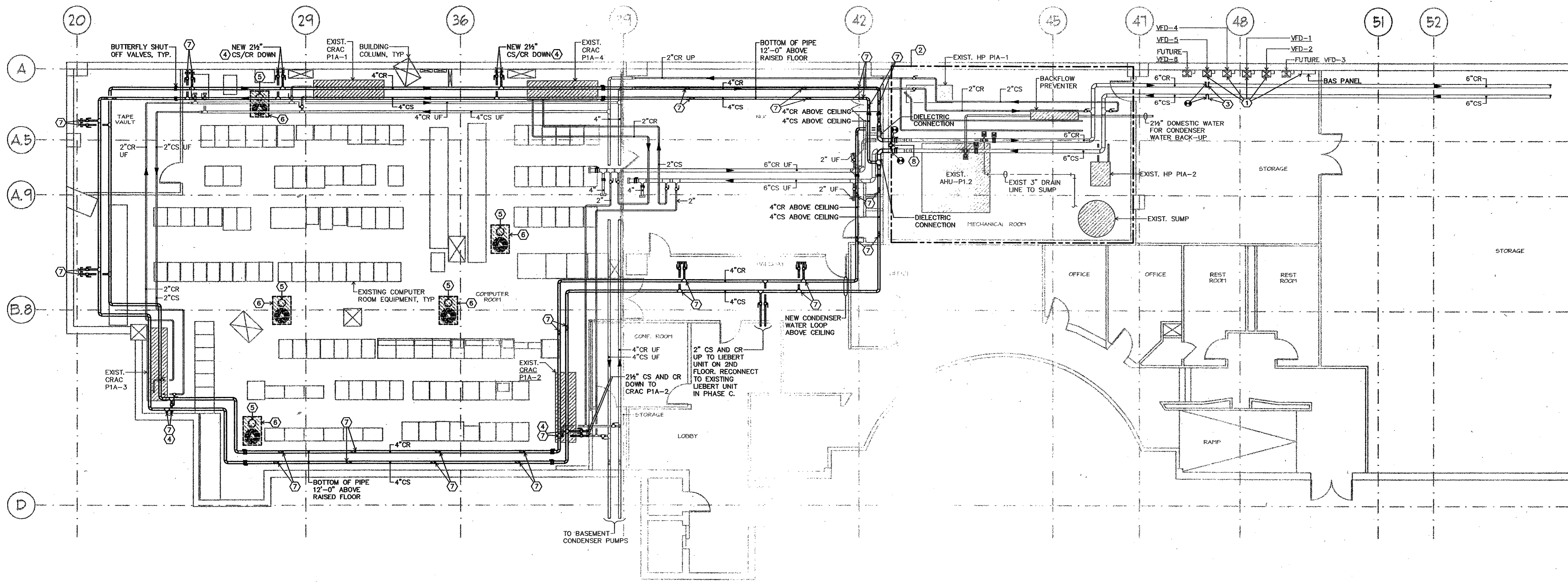
KEYED NOTES BY SYMBOL "O"

1. INSTALL VFD'S & BAS PANEL AS PART OF PHASE A.
2. REFER TO M3.03 FOR RISER DIAGRAMS, THIS AREA.
3. INSTALL NEW THERMOWELL WHILE SYSTEM IS RUNNING ON CITY WATER.
4. FURR OUT AROUND 2 1/2" CS AND CR PIPING DROPS TO CRAC UNITS TO ENCLOSE PIPING FROM COMPUTER ROOM FLOOR TO CEILING LEVEL. PAINT TO MATCH EXISTING.
5. PROVIDE (2) TWO 14" FLEX DUCTS FOR TEMPORARY S/A DISTRIBUTION FROM EACH TEMPORARY SPOT COOLER. REROUTE TEMPORARY S/A DUCTWORK AS REQUIRED FOR TEMPORARY CONDITIONING WHEN PERFORMING PIPING MODIFICATIONS TO INDIVIDUAL UNITS. ROUTE 26" CONDENSER FLEX DUCT TO ABOVE LAY-IN CEILING.
6. PROVIDE 5 TON SPOT COOLER FOR TEMPORARY CONDITIONING EQUAL TO SPOT COOLERS MODEL 50 HU.
7. 2 1/2" TAPS WITH 2 1/2" BALL VALVE AND CAP FOR FUTURE CRAC INSTALLATION.
8. NEW DIFFERENTIAL PRESSURE TRANSMITTER.
9. RELOCATE 18/37 R/A DUCT 24" WEST OF ITS PRESENT LOCATION. RE-CONNECT TO THE 24/16 R/A DUCT.
10. REMOVE 24" OF 24/16 R/A DUCT TO ALLOW THE 6" CONDENSER PIPING TO PASS.
11. PATCH 24" WIDE HOLE TO MATCH EXISTING.
12. B.O.P. 12'-0" ABOVE FINISHED CONCRETE FLOOR.



Gregory Scott Hunt
 8/16/03



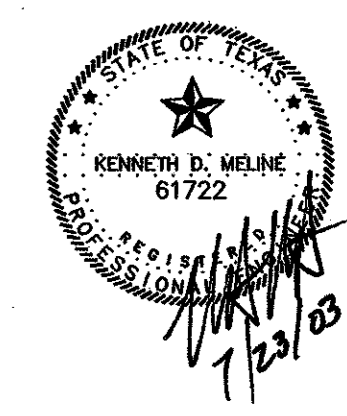
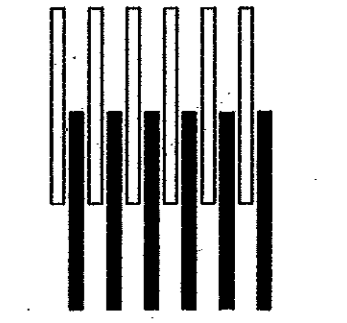


01 LEVEL P-1 PARTIAL PLAN - CONDENSER WATER LOOP - PHASE B
 SCALE: 1/8" = 1'-0"

- GENERAL PHASING NOTE(S):**
- 1.) INSTALL NEW 4" OVERHEAD CONDENSER PIPING UP TO EXISTING 6" CS & CR AT CL42/AS.
 - 2.) INSTALL TEMPORARY AC UNITS.
 - 3.) VALVE CRAC P1A-2 SO IT IS SERVED BY THE EXISTING 4" CS & CR UF.
 - 4.) CONNECT NEW CONDENSER PIPING INTO EXISTING 6" CS & CR ABOVE CEILING. THE EXISTING 6" CS & CR UF IS NOW ABANDONED.

- KEYED NOTES BY SYMBOL "O"**
- 1) INSTALL VFD'S & BAS PANEL AS PART OF PHASE A.
 - 2) REFER TO M3.03 FOR RISER DIAGRAMS, THIS AREA.
 - 3) INSTALL NEW THERMOWELL WHILE SYSTEM IS RUNNING ON CITY WATER.
 - 4) FURR OUT AROUND 2 1/2" CS AND CR PIPING DROPS TO CRAC UNITS TO ENCLOSE PIPING FROM COMPUTER ROOM FLOOR TO CEILING LEVEL. PAINT TO MATCH EXISTING.
 - 5) PROVIDE (2) TWO 14" FLEX DUCTS FOR TEMPORARY S/A DISTRIBUTION FROM EACH TEMPORARY SPOT COOLER. REROUTE TEMPORARY S/A DUCTWORK AS REQUIRED FOR TEMPORARY CONDITIONING WHEN PERFORMING PIPING MODIFICATIONS TO INDIVIDUAL UNITS. ROUTE 26" CONDENSER FLEX DUCT TO ABOVE LAY-IN CEILING.
 - 6) PROVIDE 5 TON SPOT COOLER FOR TEMPORARY CONDITIONING EQUAL TO SPOT COOLERS MODEL 50 HU.
 - 7) 2 1/2" TAPS WITH 2 1/2" BALL VALVE AND CAP FOR FUTURE CRAC INSTALLATION.
 - 8) NEW DIFFERENTIAL PRESSURE TRANSMITTER.

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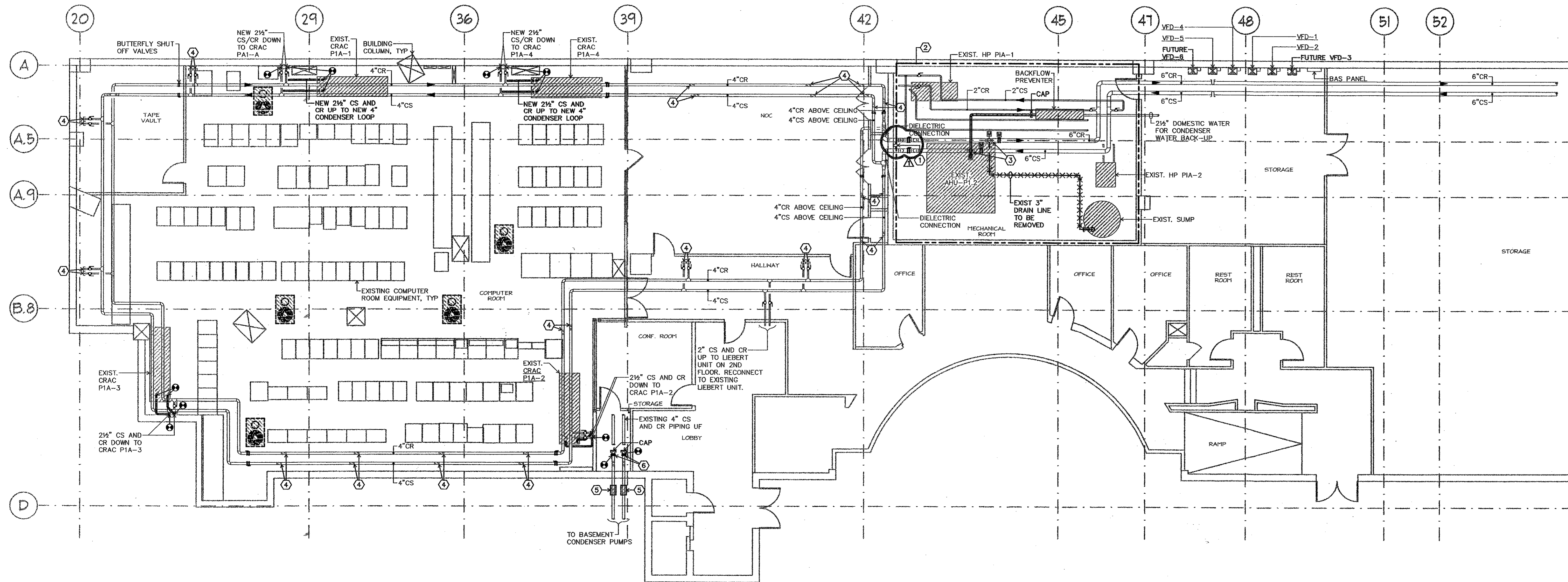
Mary Kay, Inc.
 Corporate 1
 Addison, Texas
 Cooling Tower Addition

Project Revisions

Project Number
 02110

Issue Date
 JULY 23, 2003

Sheet Title
MECHANICAL
PARTIAL PLAN
PHASE B
 Sheet Number
M2.01B



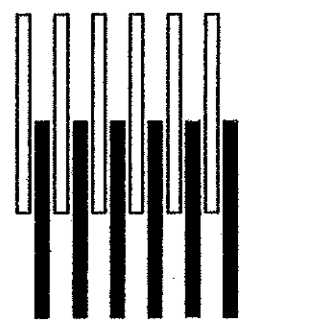
01 LEVEL P-1 PARTIAL PLAN - CONDENSER WATER LOOP - PHASE C
 SCALE: 1/8" = 1'-0"

- GENERAL PHASING NOTE(S):**
- CONNECT CRAC P1A-4 TO NEW 4" CS & CR PIPING ABOVE CEILING.
 - CONNECT CRAC P1A-2 TO NEW 4" CS & CR PIPING ABOVE CEILING.
 - CONNECT CRAC P1A-1 TO NEW 4" CS & CR PIPING ABOVE CEILING.
 - CONNECT CRAC P1A-3 TO NEW 4" CS & CR PIPING ABOVE CEILING.
 - PROVIDE LINE FREEZE AT 4" CS & CR PIPING UF.
 - INSTALL NEW 4" ISOLATION VALVES.
 - DISCONNECT BACKFLOW PREVENTER PIPING.

- GENERAL NOTE(S):**
- EXISTING UNDERFLOOR PIPING INSIDE DATA CENTER NOT SHOWN FOR CLARITY.

- KEYED NOTES BY SYMBOL "O"**
- DIFFERENTIAL PRESSURE TRANSMITTER.
 - REFERENCE SHEET M3.03 FOR DEMOLITION RISER DIAGRAM IN THIS AREA.
 - PROVIDE BLIND FLANGE CAP.
 - FUTURE 2 1/2" CS AND CR TAPS.
 - PROVIDE 4" LINE FREEZE APPROXIMATELY WHERE SHOWN.
 - PROVIDE 4" MANUAL ISOLATION VALVES.

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 Irving, TX 75063
 (972) 929-1199



Gregory Scott Hunt
 8/16/03



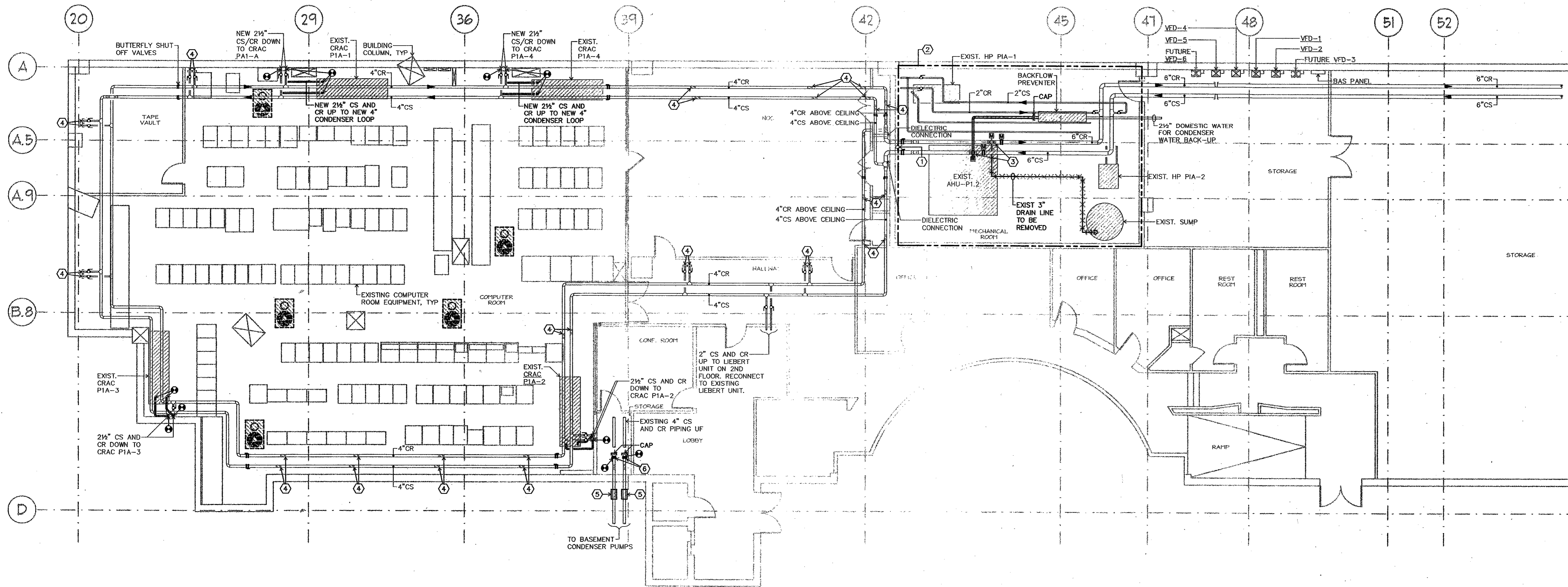
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Project Revisions
 ADDENDUM 1 08/06/03

Project Number
 02110

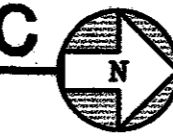
Issue Date
 JULY 23, 2003

Sheet Title
**MECHANICAL
 FLOOR PLAN
 PHASE C**
 Sheet Number
M2.01C



01 LEVEL P-1 PARTIAL PLAN - CONDENSER WATER LOOP - PHASE C

SCALE: 1/8" = 1'-0"

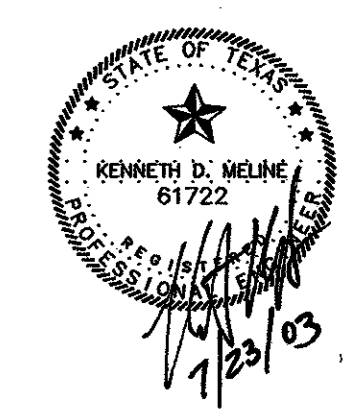
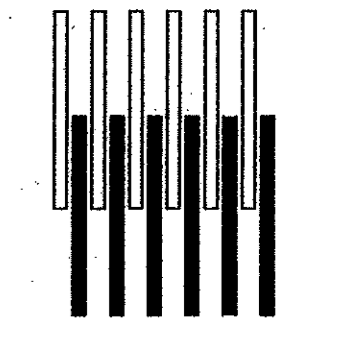


- GENERAL PHASING NOTE(S):**
- 1.) CONNECT CRAC P1A-4 TO NEW 4" CS & CR PIPING ABOVE CEILING.
 - 2.) CONNECT CRAC P1A-2 TO NEW 4" CS & CR PIPING ABOVE CEILING.
 - 3.) CONNECT CRAC P1A-1 TO NEW 4" CS & CR PIPING ABOVE CEILING.
 - 4.) CONNECT CRAC P1A-3 TO NEW 4" CS & CR PIPING ABOVE CEILING.
 - 5.) PROVIDE LINE FREEZE AT 4" CS & CR PIPING UF.
 - 6.) INSTALL NEW 4" ISOLATION VALVES.
 - 7.) DISCONNECT BACKFLOW PREVENTER PIPING.

- GENERAL NOTE(S):**
- 1.) EXISTING UNDERFLOOR PIPING INSIDE DATA CENTER NOT SHOWN FOR CLARITY.

- KEYED NOTES BY SYMBOL "O":**
- ① DIFFERENTIAL PRESSURE TRANSMITTER.
 - ② REFERENCE SHEET M3.03 FOR DEMOLITION RISER DIAGRAM IN THIS AREA.
 - ③ PROVIDE BLIND FLANGE CAP.
 - ④ FUTURE 2 1/2" CS AND CR TAPS.
 - ⑤ PROVIDE 4" LINE FREEZE APPROXIMATELY WHERE SHOWN.
 - ⑥ PROVIDE 4" MANUAL ISOLATION VALVES.

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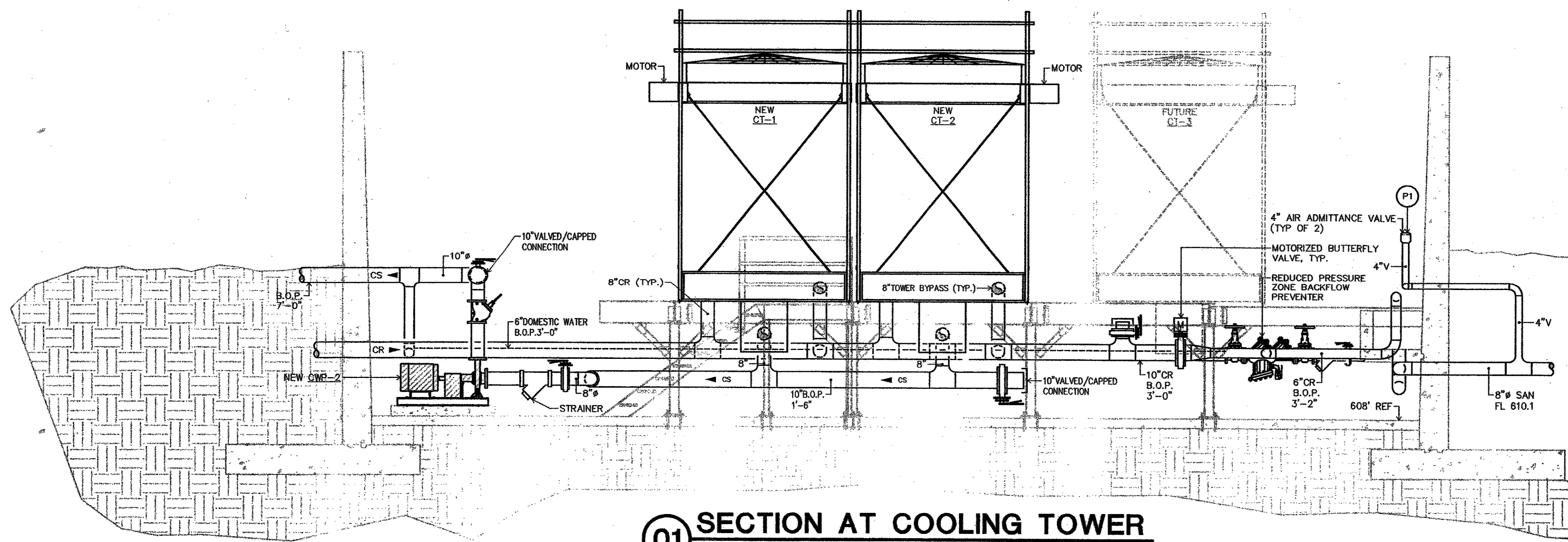
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 Cooling Tower Addition

Project Revisions

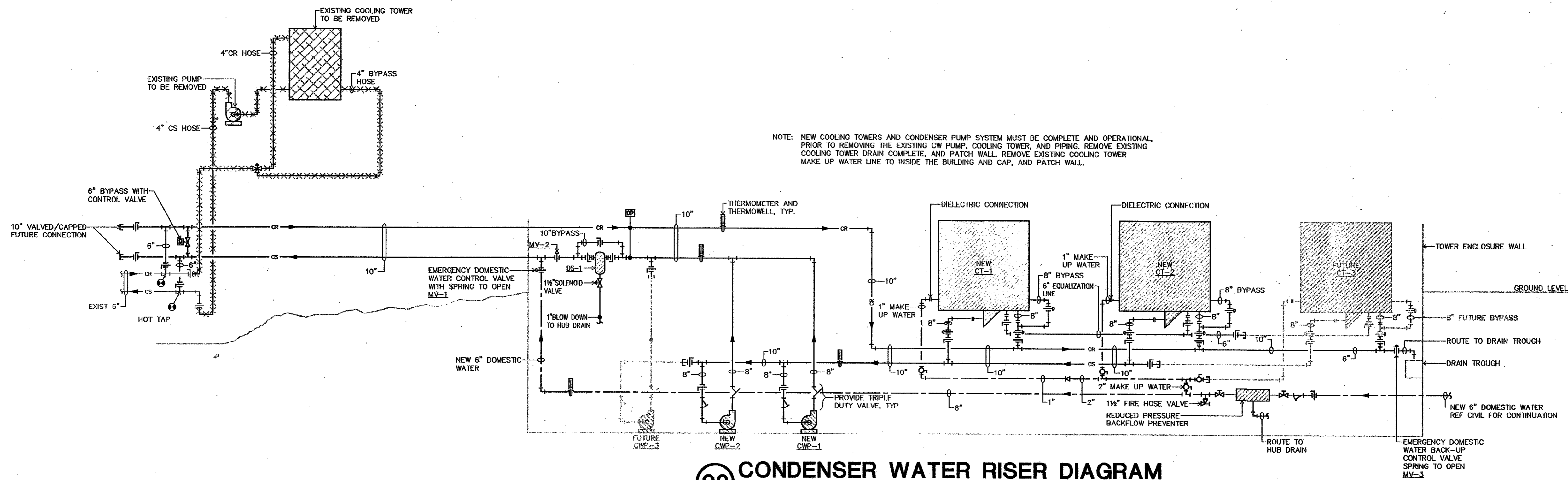
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02110

Issue Date
JULY 23, 2003

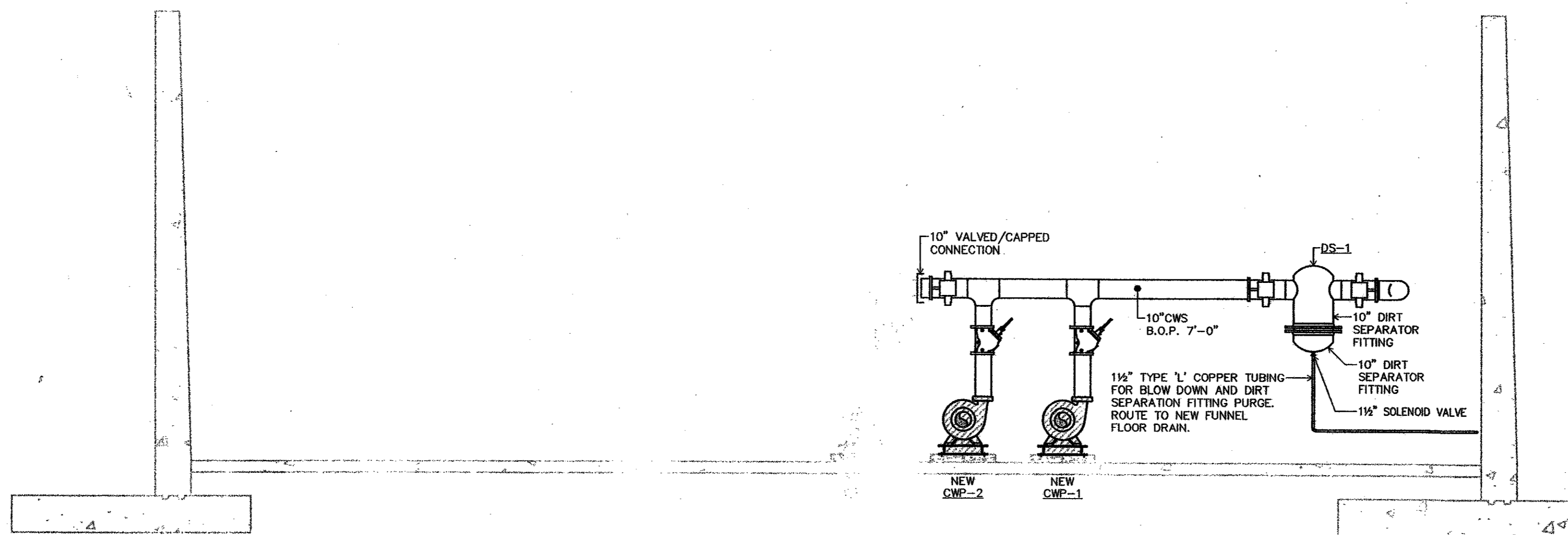
Sheet Title
**MECHANICAL
 FLOOR PLAN
 PHASE C**
 Sheet Number
M2 01C



01 SECTION AT COOLING TOWER
SCALE: 1/4" = 1'-0"



02 CONDENSER WATER RISER DIAGRAM
NOT TO SCALE



03 DIRT SEPARATOR SECTION
SCALE: 1/4" = 1'-0"

GENERAL NOTE(S):
1.) ELECTRIC ACTUATORS SHALL BE TYPE BETTIS MODEL EM-SRS.

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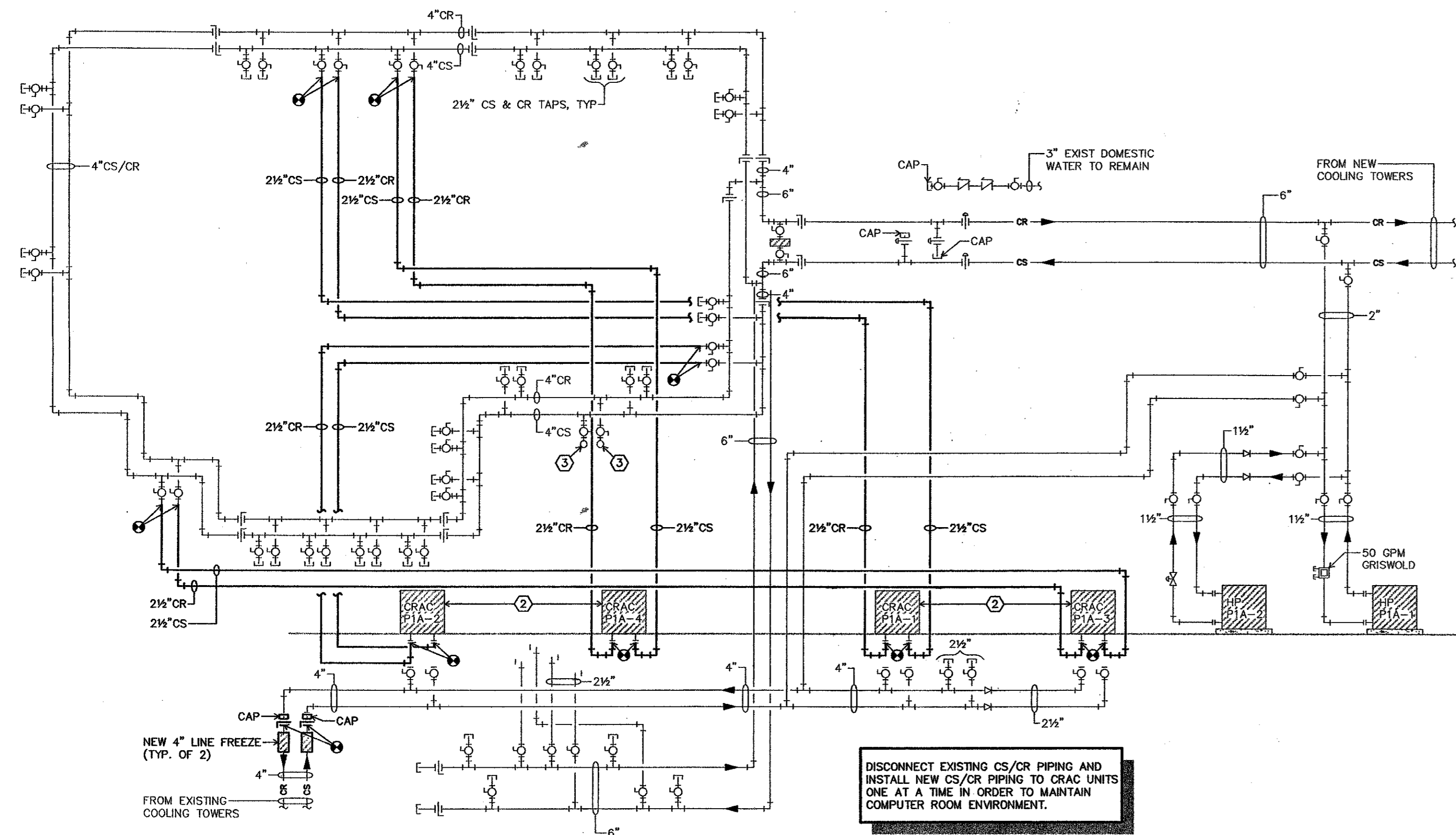
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Corporate 1
Addison, Texas
Cooling Tower Addition

Project Revisions

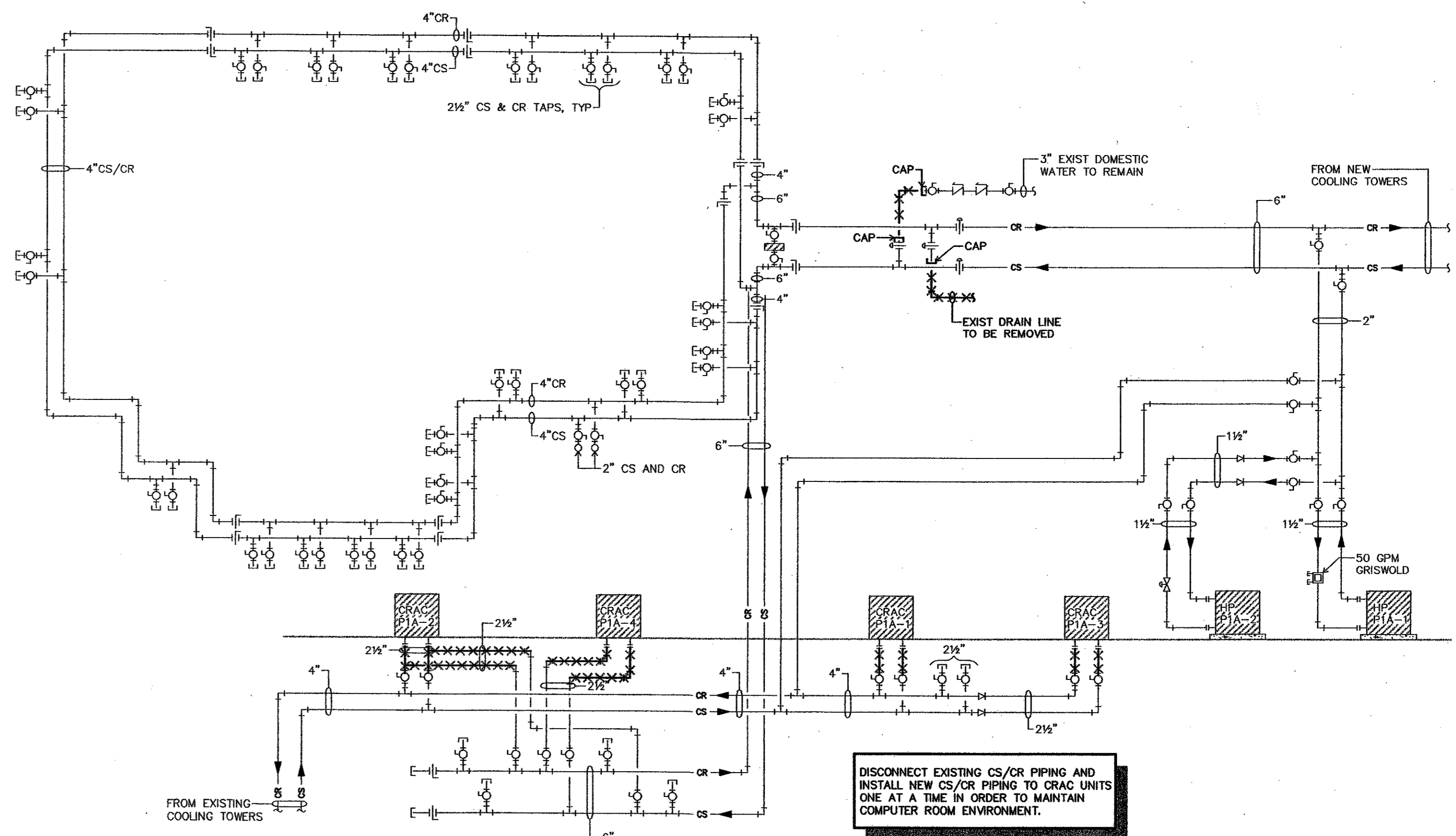
Project Number
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Issue Date
JULY 23, 2003

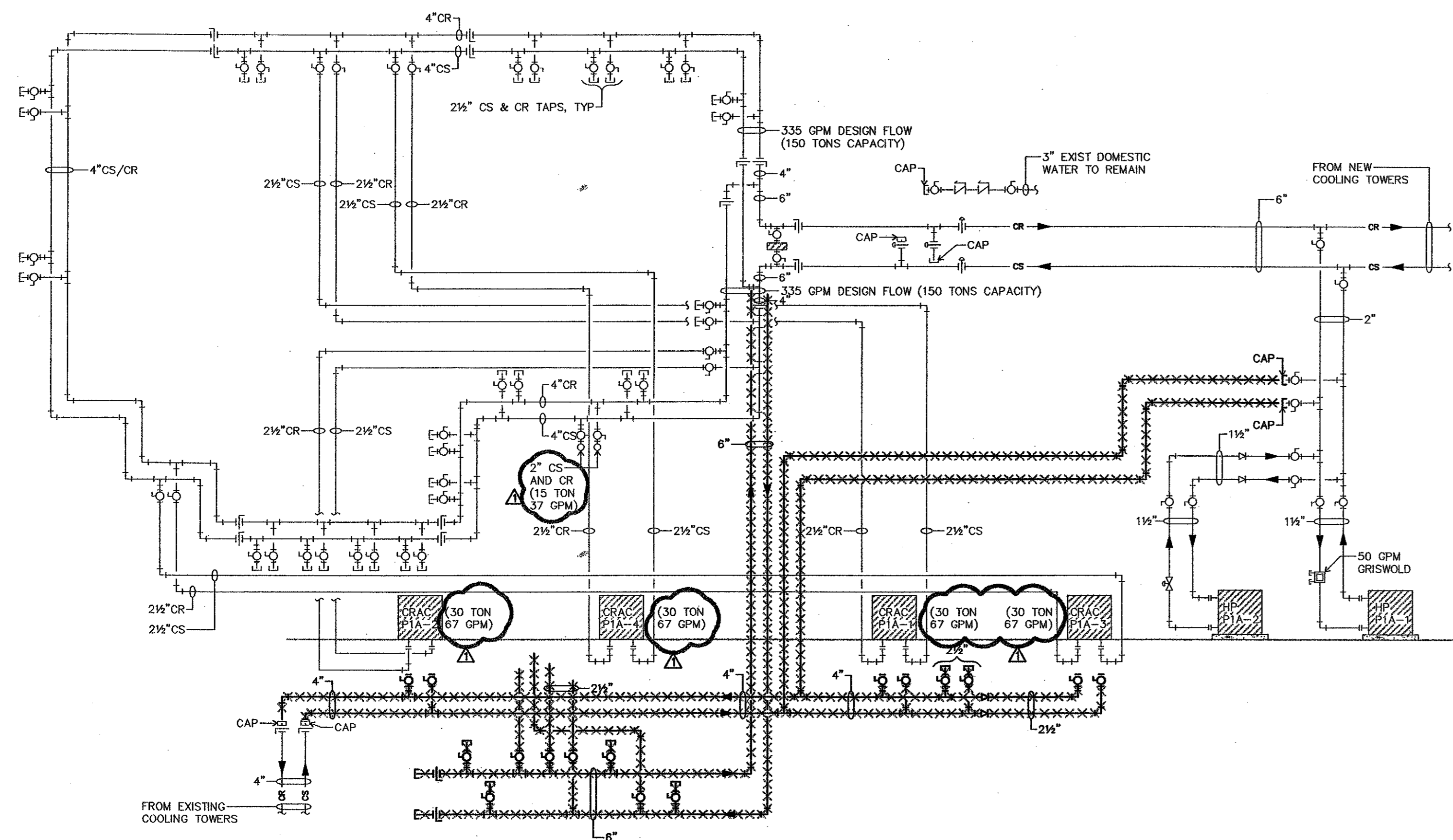
Sheet Title
**COOLING TOWER
SECTIONS & RISER
MECHANICAL**
Sheet Number
M3.02



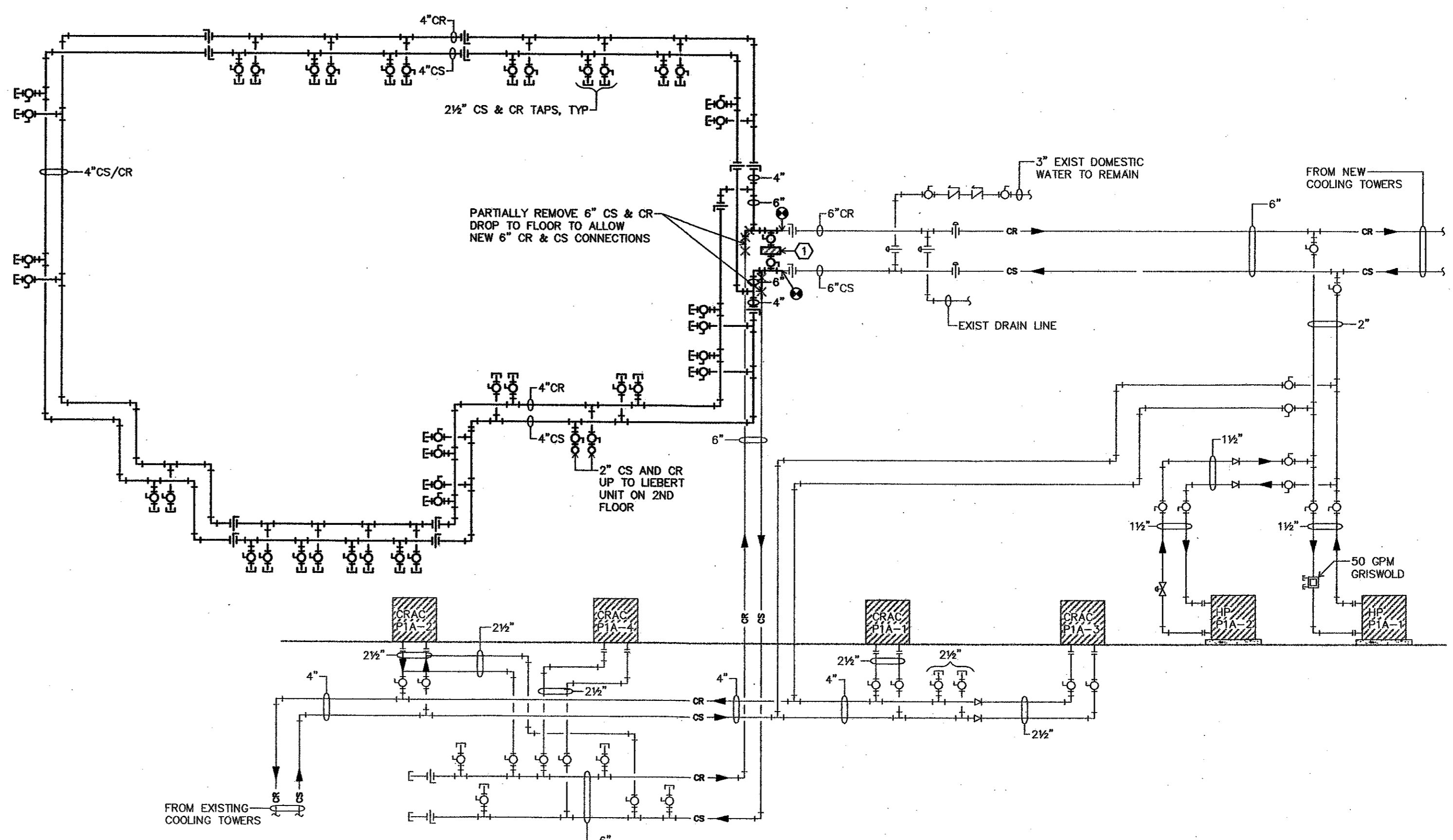
03 PHASE C - NEW
NOT TO SCALE



02 PHASE C - DEMOLITION
NOT TO SCALE



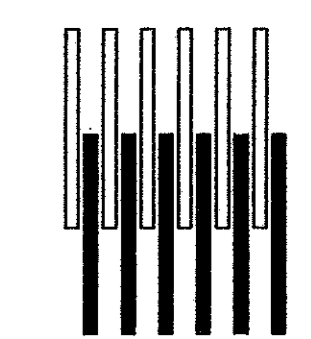
04 PHASE D - DEMOLITION
NOT TO SCALE



01 PHASE B - NEW
NOT TO SCALE

KEYED NOTES BY SYMBOL "O"	
①	NEW DIFFERENTIAL PRESSURE TRANSMITTER.
②	RETROFIT CRAC UNITS WITH NEW 2-WAY VALVES BY CERTIFIED LIEBERT TECHNICIAN.
③	CONNECT NEW PIPING TO EXISTING LIEBERT UNIT ON 2ND FLOOR. CAP THE EXISTING 2" PIPING AND ABANDON IN PLACE.

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Gregory Scott White
8/6/03



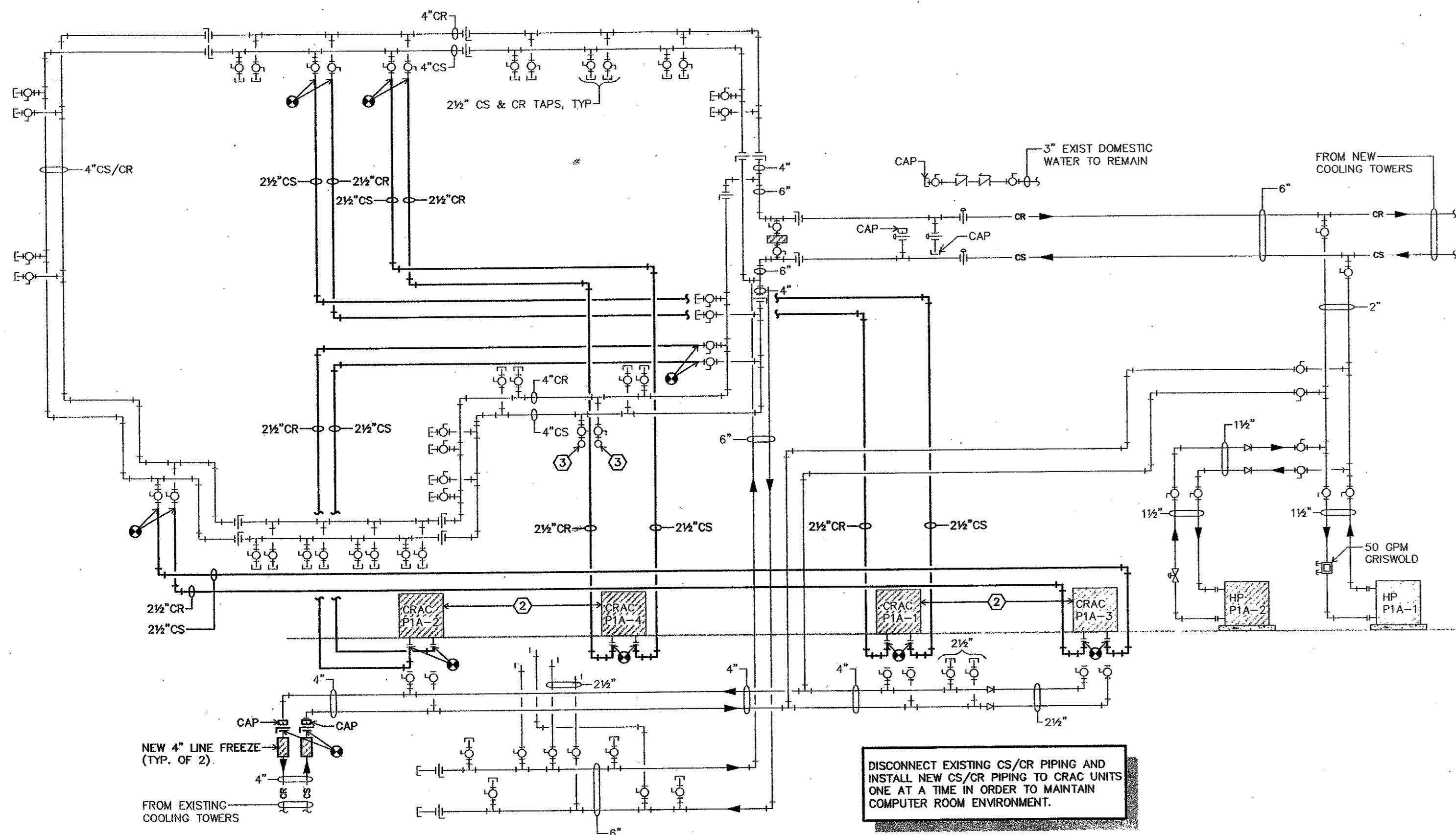
Mary Kay, Inc.
Corporate 1
Addison, Texas
Cooling Tower Addition

Project Revisions
▲ ADDENDUM # 08/06/03

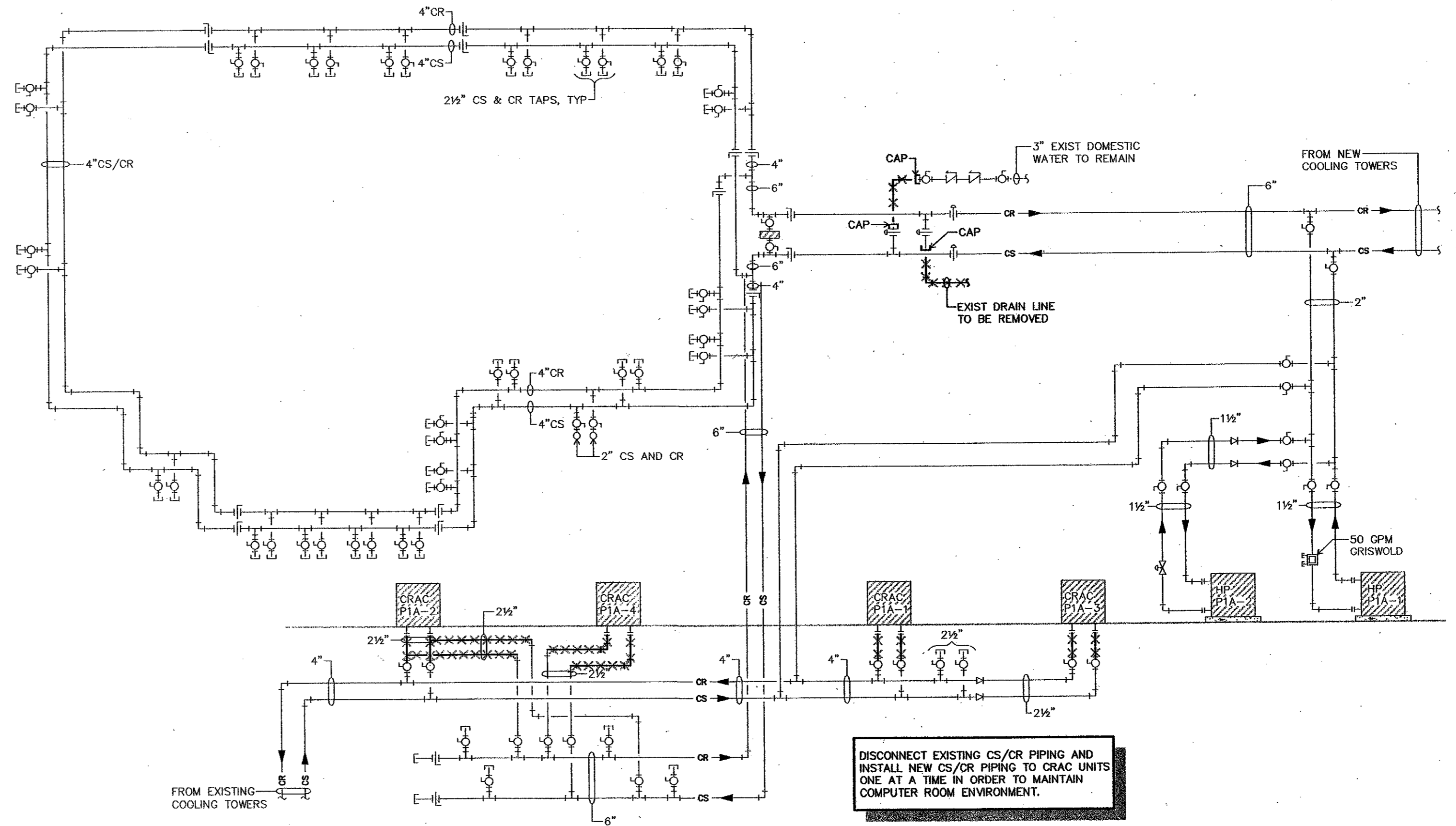
Project Number:
02110

Issue Date
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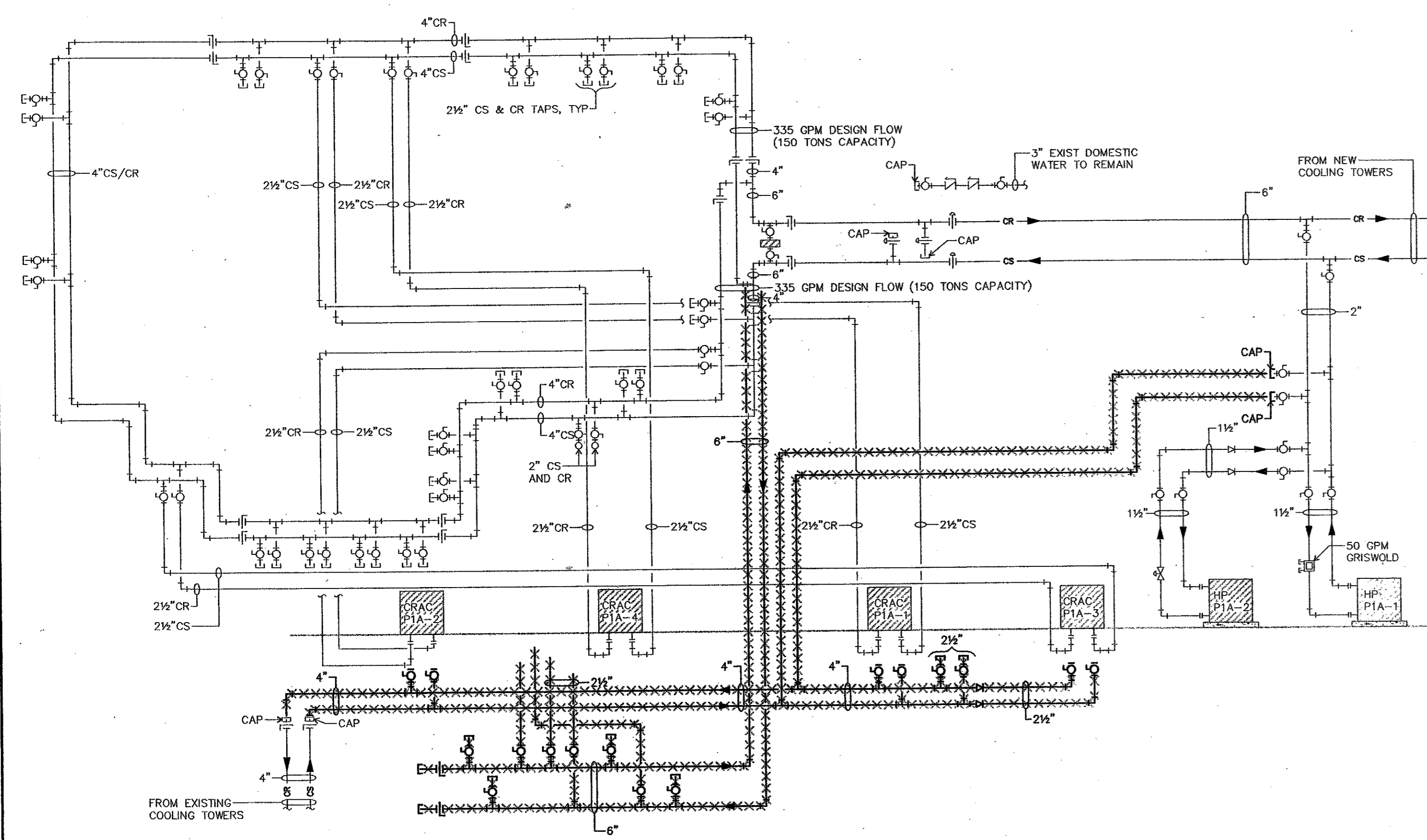
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**RISER
DIAGRAMS -
MECHANICAL**
Sheet Number
M3.03



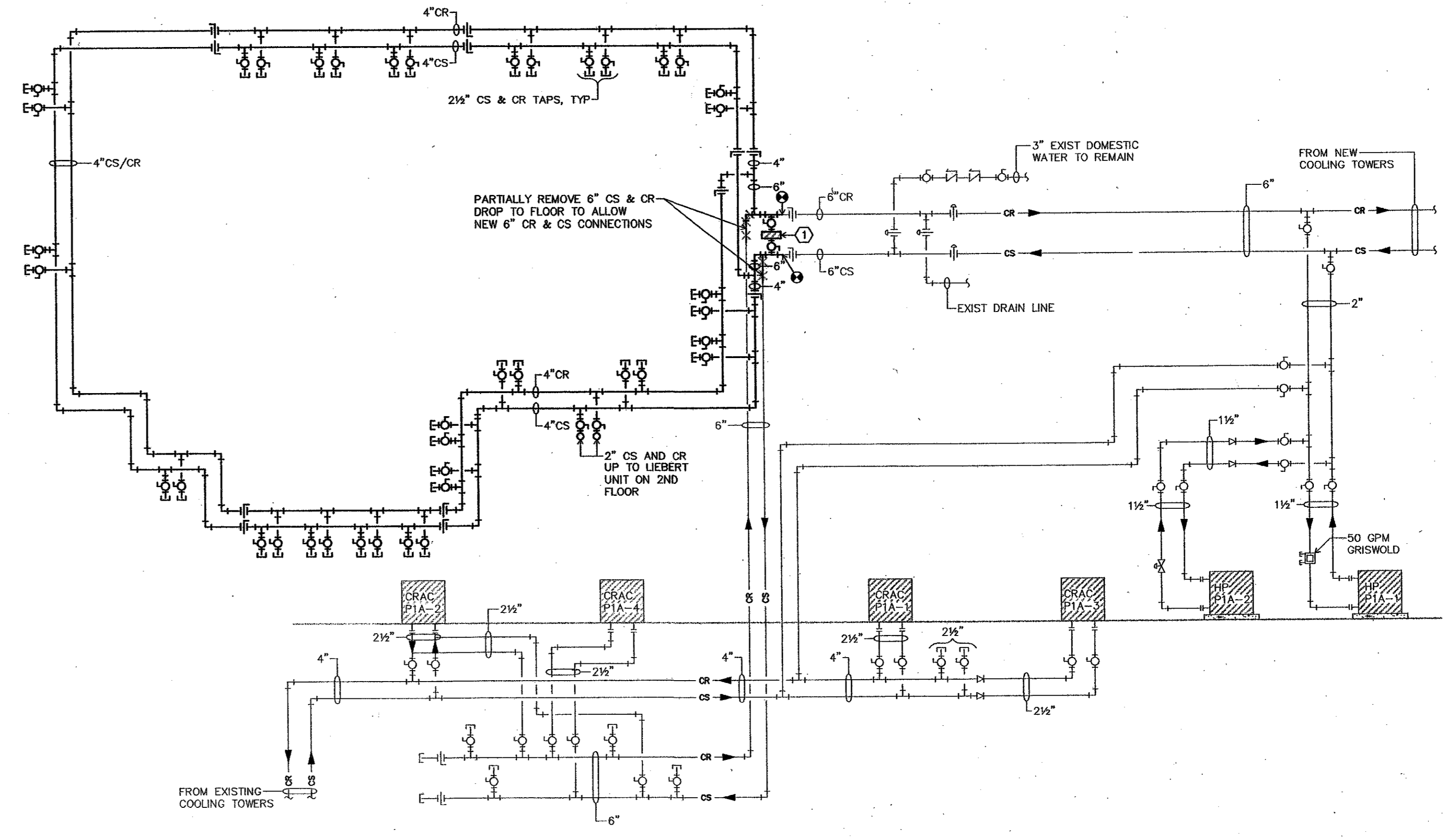
03 PHASE C - NEW
NOT TO SCALE



02 PHASE C - DEMOLITON
NOT TO SCALE



04 PHASE D - DEMOLITION
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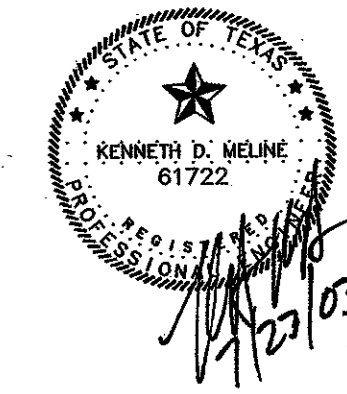
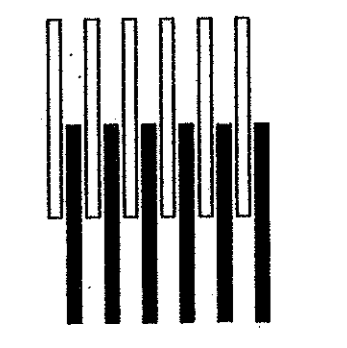


01 PHASE B - NEW
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KEYED NOTES BY SYMBOL "O"

- NEW DIFFERENTIAL PRESSURE TRANSMITTER.
- RETROFIT CRAC UNITS WITH NEW 2-WAY VALVES BY CERTIFIED LIEBERT TECHNICIAN.
- CONNECT NEW PIPING TO EXISTING LIEBERT UNIT ON 2ND FLOOR. CAP THE EXISTING 2" PIPING AND ABANDON IN PLACE.

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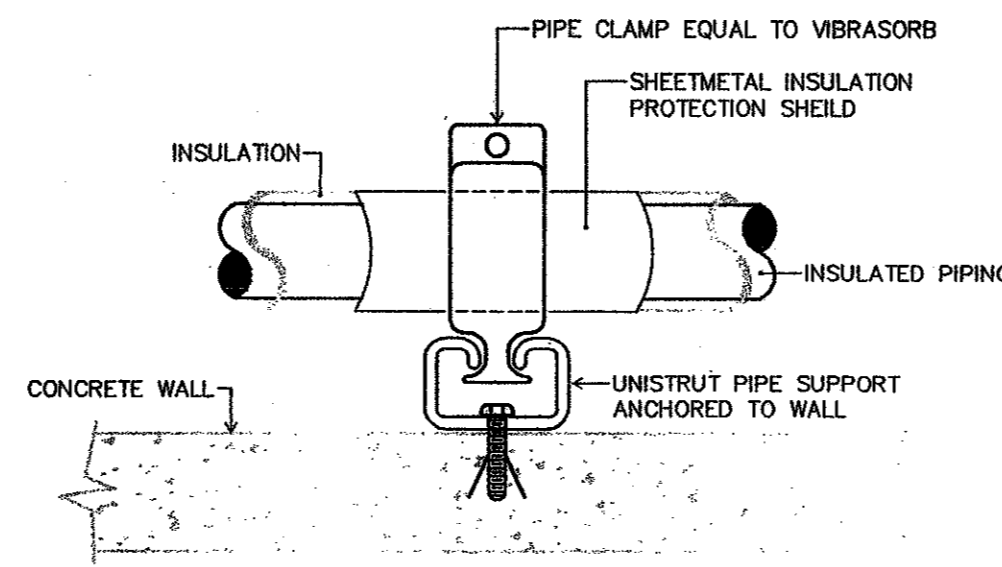
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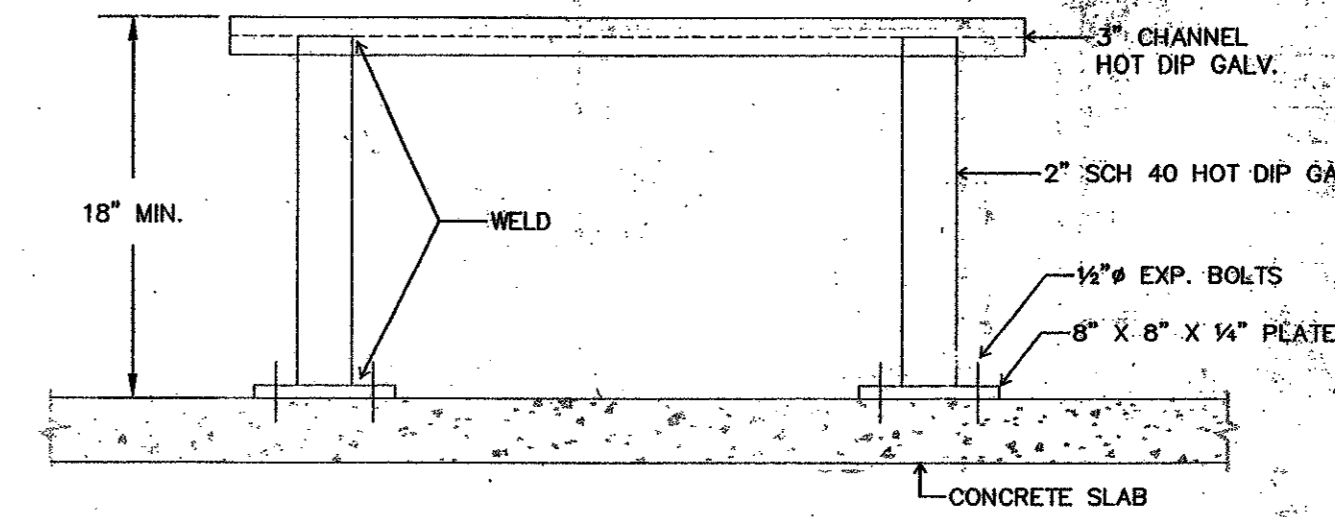
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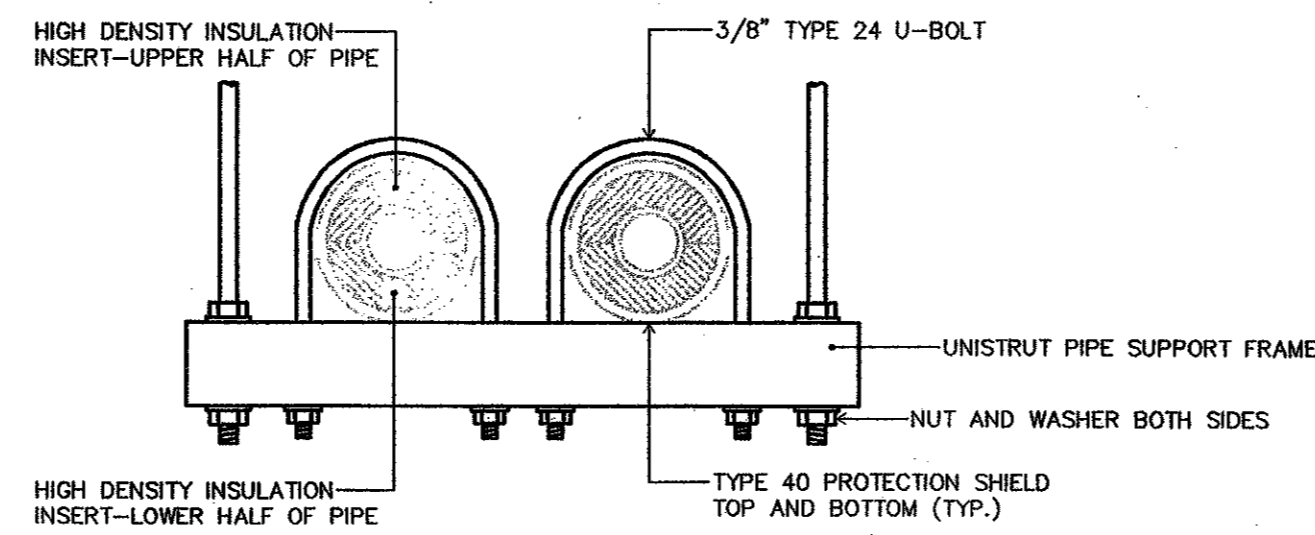
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**RISER
DIAGRAMS -
MECHANICAL**
Sheet Number
M3.03



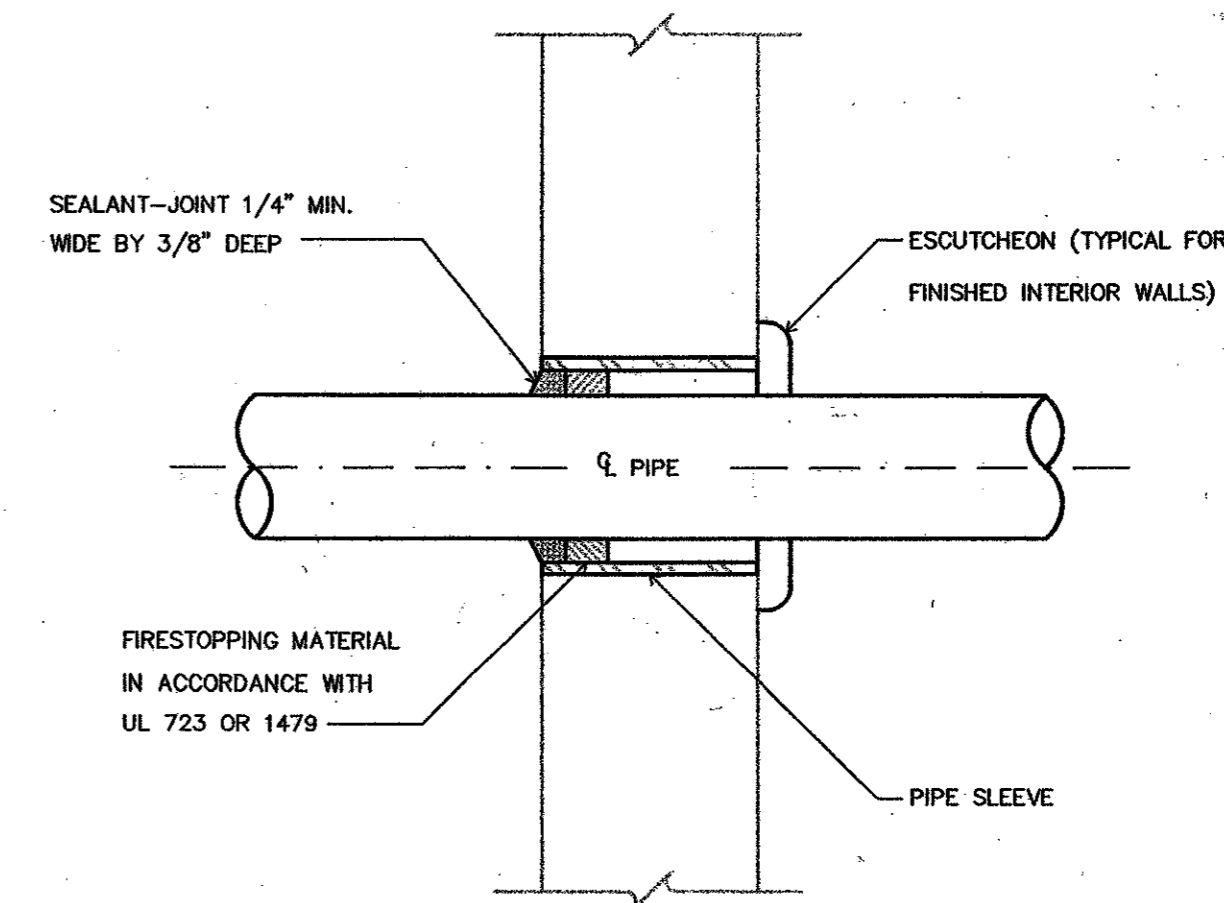
08 SMALL PIPE SUPPORT DETAIL
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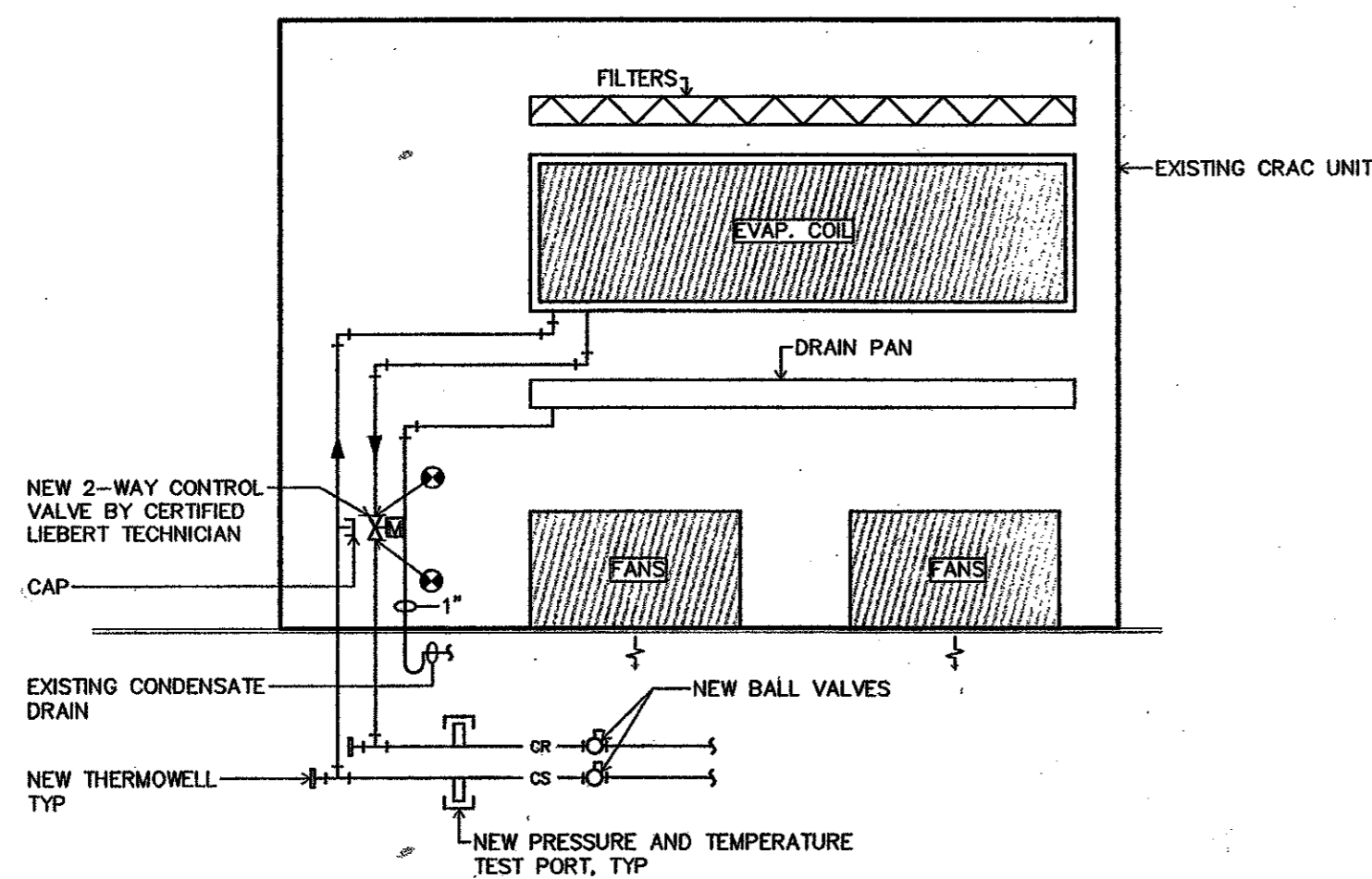
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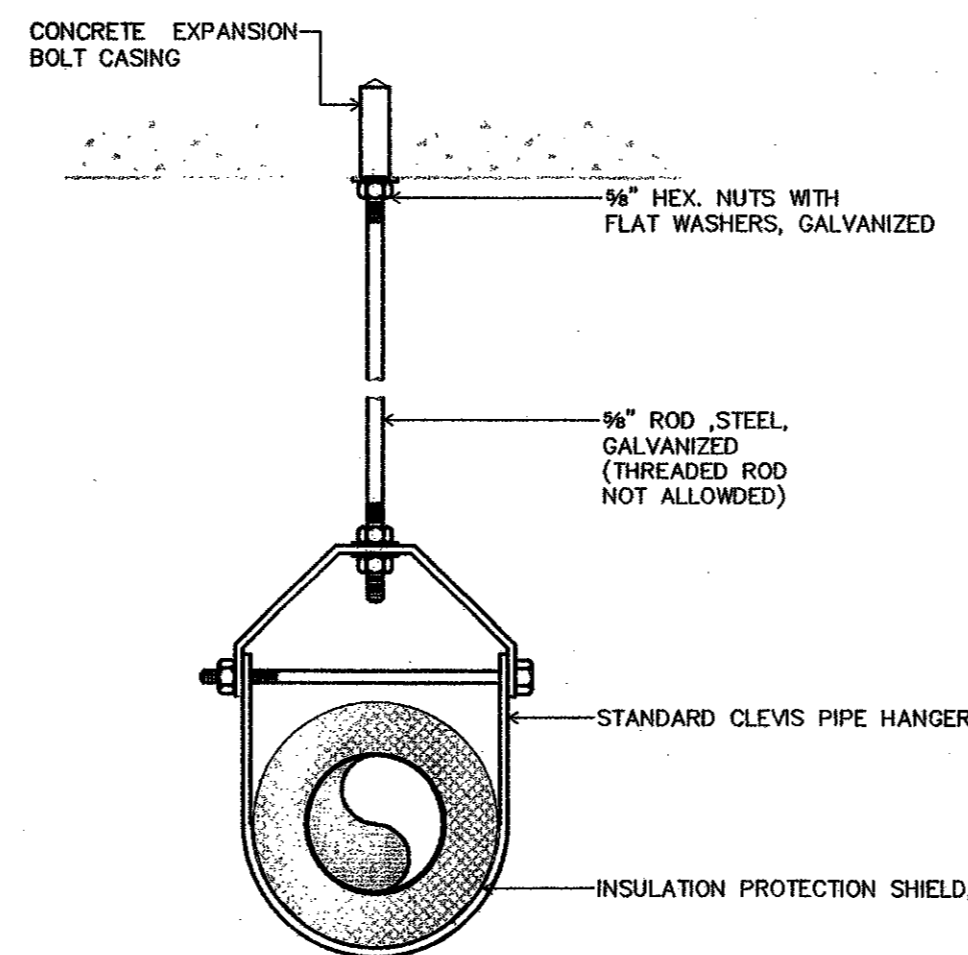
07 HORIZONTAL PIPE SUPPORT DETAIL
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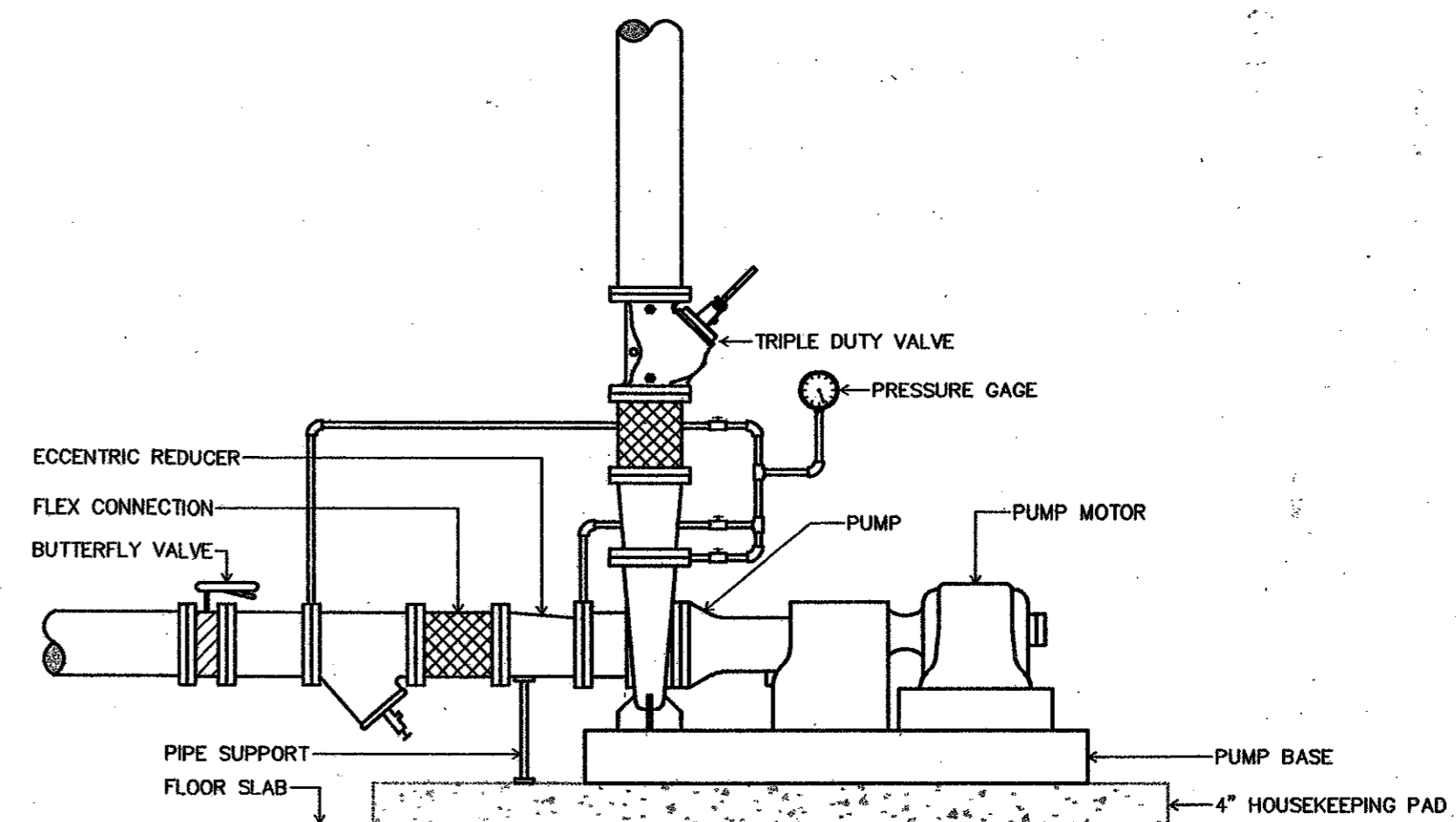
03 TYPICAL FIRE WALL PENETRATION DETAIL
NOT TO SCALE



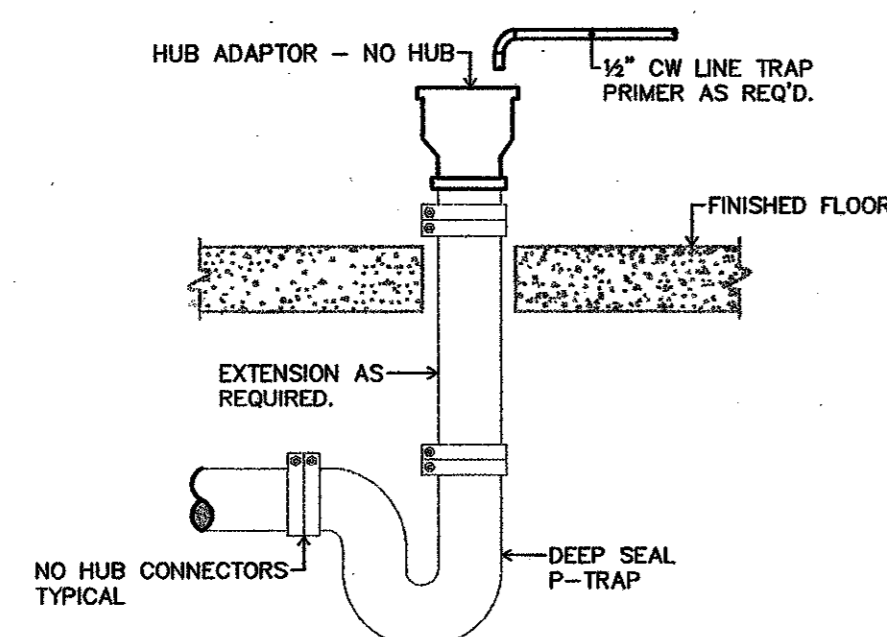
10 TYPICAL CRAC UNIT PIPING SCHEMATIC
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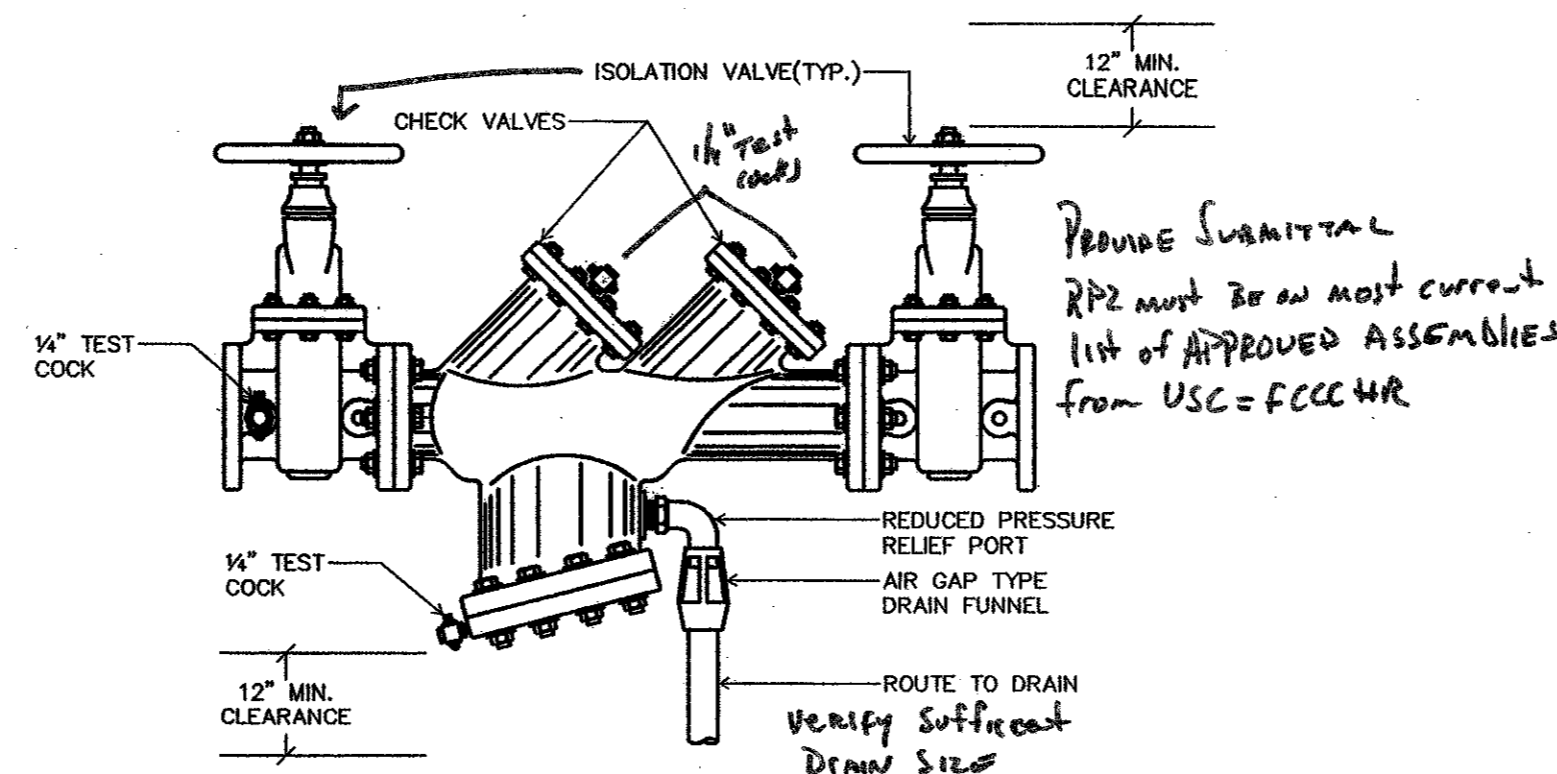
06 PIPE HANGER
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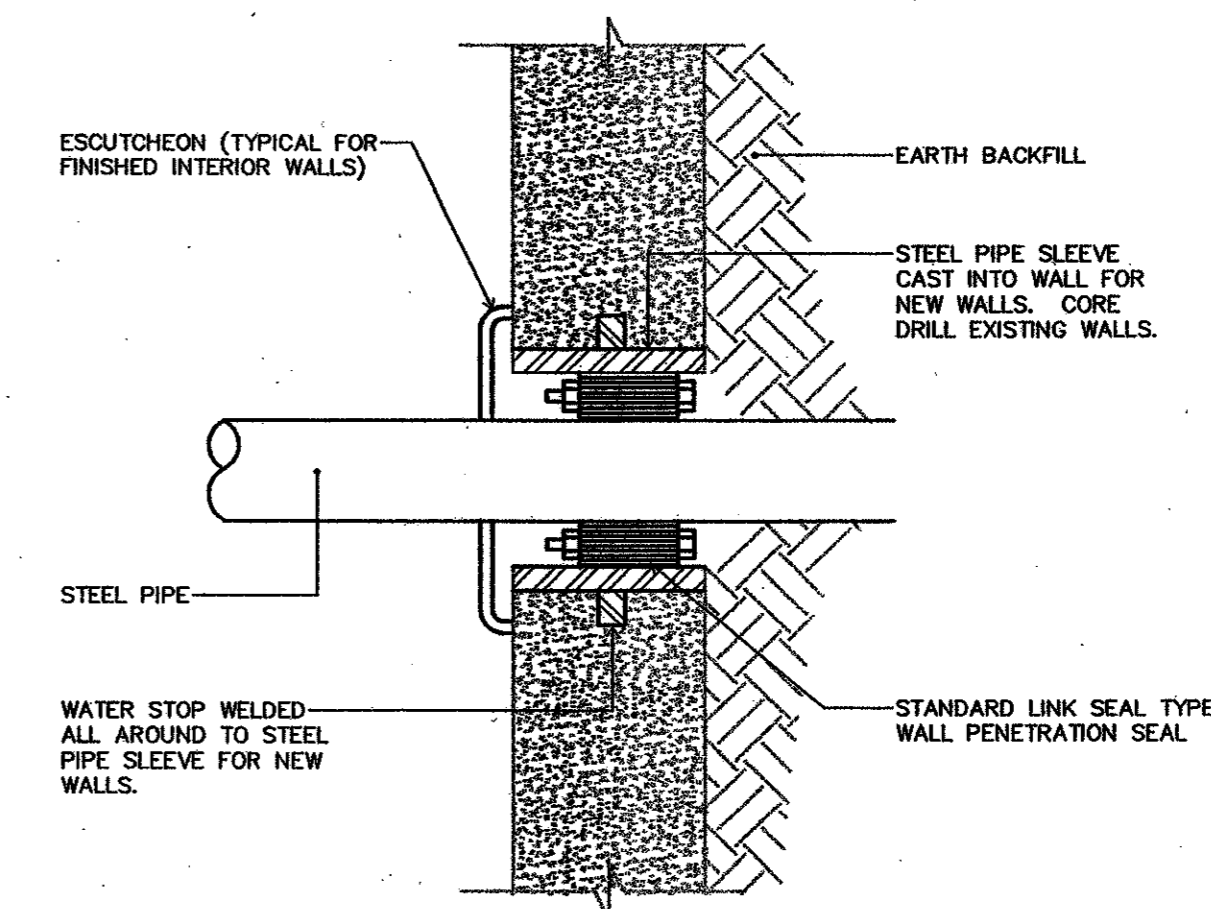
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09 HUB DRAIN DETAIL
NOT TO SCALE



05 BACKFLOW PREVENTER DETAIL
NOT TO SCALE



01 TYPICAL PIPE WALL PENETRATION BELOW GRADE
NOT TO SCALE



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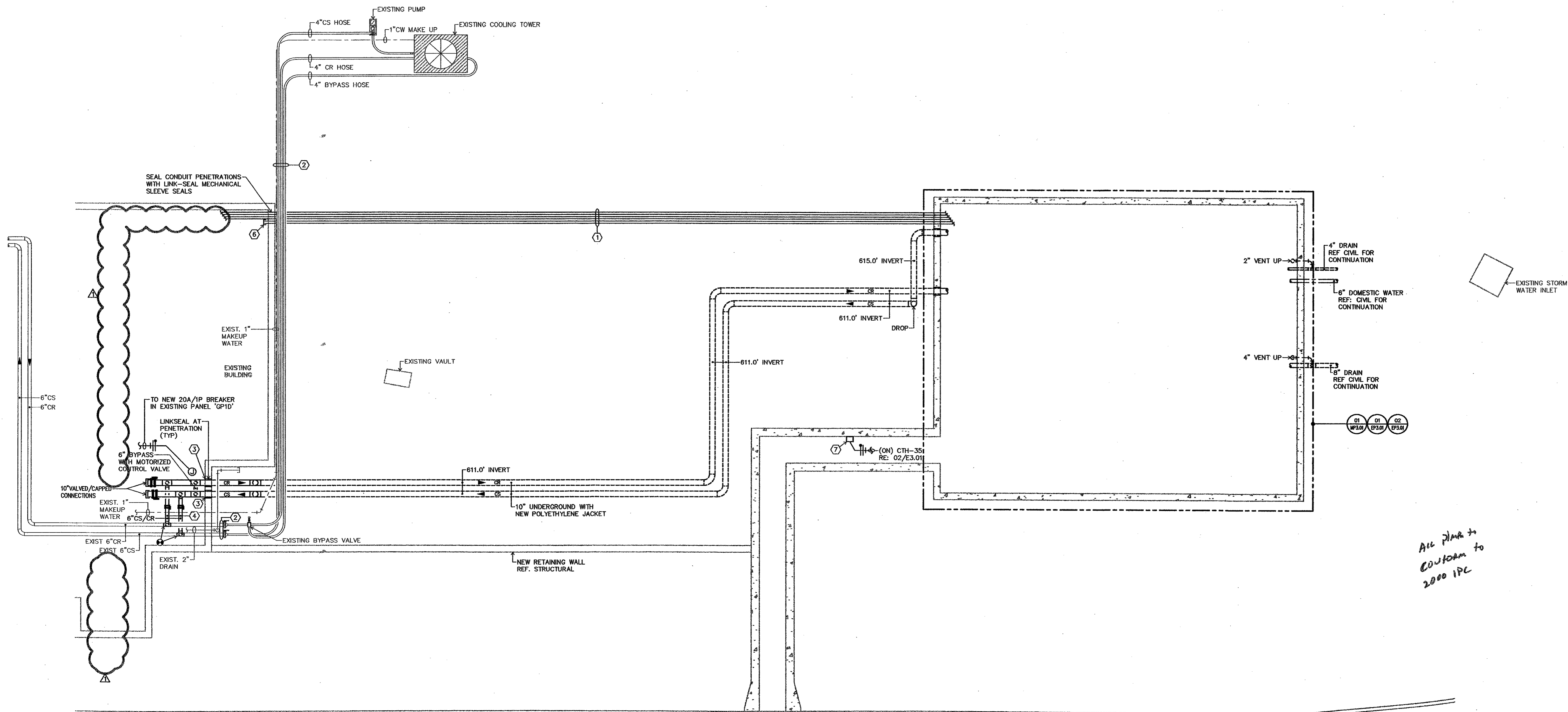
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Issue Date
JULY 23, 2003

Sheet Title
DETAILS -
MECHANICAL

Sheet Number
M4.01

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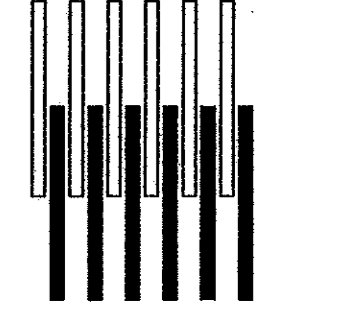


All plans to conform to 2000 IPC

01 PARTIAL SITE PLAN - MECHANICAL/ELECTRICAL/PLUMBING - PHASE A
 SCALE: 1/8" = 1'-0"

- KEYED NOTES BY SYMBOL "O"**
- ① NEW DUCT BANK FOR ELECTRICAL CONDUITS FROM BUILDING TO NEW COOLING TOWER PIT. RE: 02/EP4.01 FOR DETAIL.
 - ② COORDINATE EXCAVATION, PIPE INSTALLATION, AND BACK FILLING WITH EXISTING PIPING WHICH IS TO REMAIN IN SERVICE.
 - ③ PENETRATE WALL AT SAME ELEVATION AS EXISTING 6" CS/CR.
 - ④ BUILDING CONDENSER WATER LOOP TO OPERATE ON CITY WATER WHILE NEW CONDENSER WATER SYSTEM IS CONNECTED.
 - ⑤ NOT USED.
 - ⑥ (3) 4" SPARE CONDUITS FOR FUTURE ELECTRICAL CONNECTIONS. PROVIDE NYLON PULL CORD FOR EACH. CONDUITS TO BE STUBBED THRU WALL 6" AND CAPPED.
 - ⑦ WEATHERPROOF PULSE-START METAL HALIDE LIGHTING FIXTURE TYPE SPAULDING # MRK-M100PS MOUNTED 14" ABOVE SLAB. PROVIDE (1) 100W METAL HALIDE LAMP PER FIXTURE PER MANUFACTURER'S SPECIFICATIONS. PROVIDE INTEGRAL PHOTOCELL THIS FIXTURE ONLY.

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STATE OF TEXAS
 GREGORY SCOTT HUNT
 72520
Gregory Scott Hunt
 8/6/03



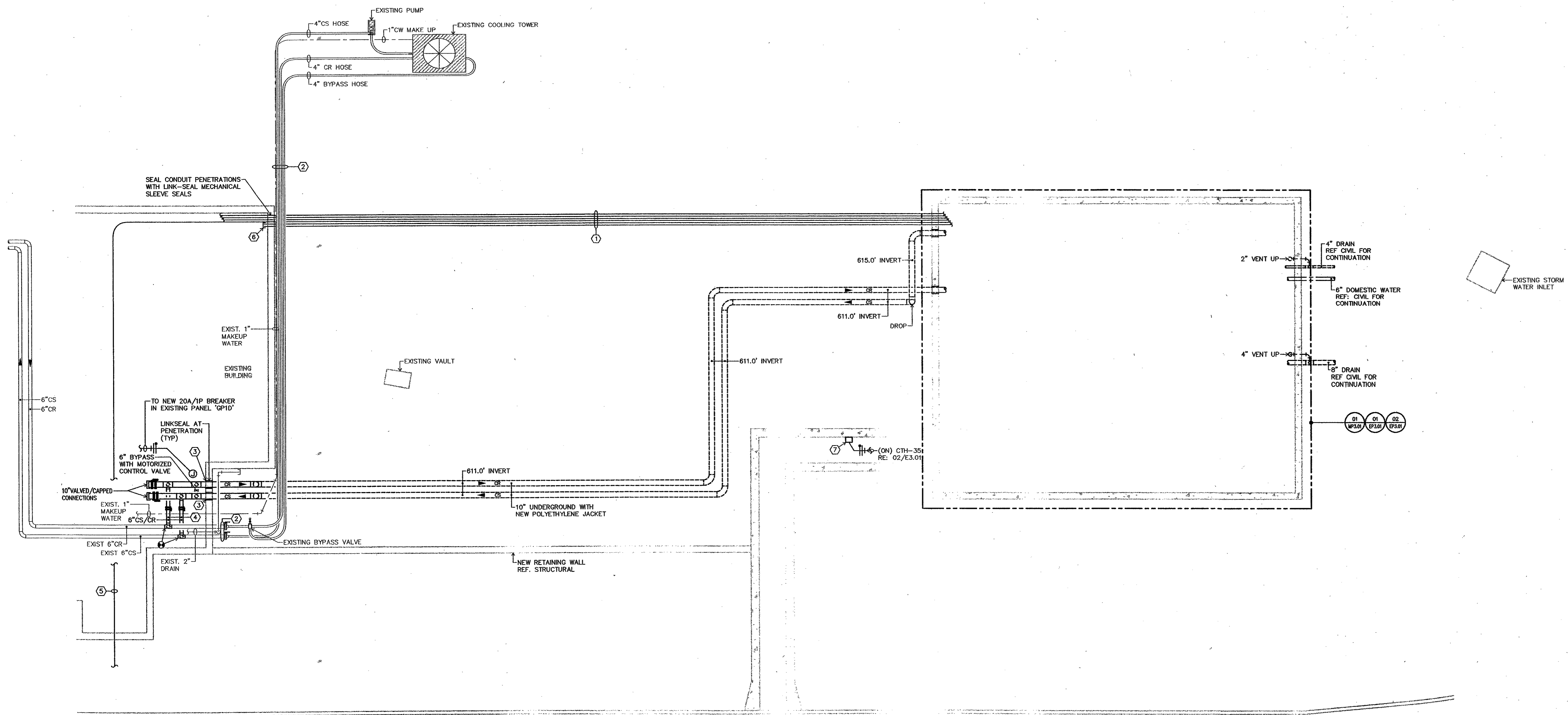
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 ADDENDUM 1 08/06/03

Project Number
 02110

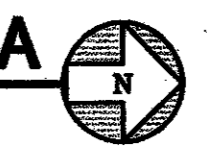
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Sheet Title
PARTIAL SITE PLAN - MECH/ELEC/PLUMB PHASE A
 Sheet Number
MEP1.00

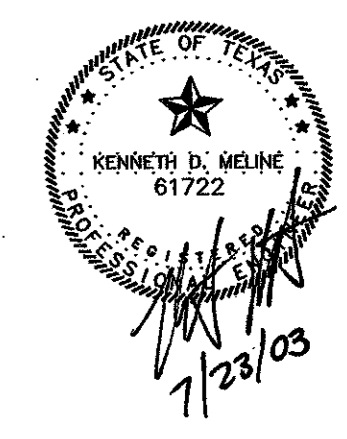


01 PARTIAL SITE PLAN - MECHANICAL/ELECTRICAL/PLUMBING - PHASE A

SCALE: 1/8" = 1'-0"



KEYED NOTES BY SYMBOL "O"	
①	NEW DUCT BANK FOR ELECTRICAL CONDUITS FROM BUILDING TO NEW COOLING TOWER PIT. RE: 02/EP4-01 FOR DETAIL.
②	COORDINATE EXCAVATION, PIPE INSTALLATION, AND BACK FILLING WITH EXISTING PIPING WHICH IS TO REMAIN IN SERVICE.
③	PENETRATE WALL AT SAME ELEVATION AS EXISTING 6" CS/CR.
④	BUILDING CONDENSER WATER LOOP TO OPERATE ON CITY WATER WHILE NEW CONDENSER WATER SYSTEM IS CONNECTED.
⑤	PROVIDE (1) 4" CONDUIT FOR ELECTRICAL FEEDER FROM SWITCHBOARD 'CPAH' TO PANEL 'CTH' IN NEW COOLING TOWER PIT.
⑥	(2) 4" SPARE CONDUITS FOR FUTURE ELECTRICAL CONNECTIONS TO FUTURE CT-3. PROVIDE NYLON PULL CORD FOR EACH. CONDUITS TO BE STUBBED THRU WALL 6" AND CAPPED.
⑦	WEATHERPROOF PULSE-START METAL HALIDE LIGHTING FIXTURE TYPE SPAULDING # MKK-MH00'S MOUNTED 14" ABOVE SLAB. PROVIDE (1) 100W METAL HALIDE LAMP PER FIXTURE PER MANUFACTURERS SPECIFICATIONS. PROVIDE INTEGRAL PHOTOCELL THIS FIXTURE ONLY.



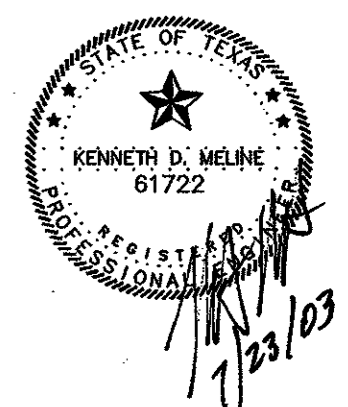
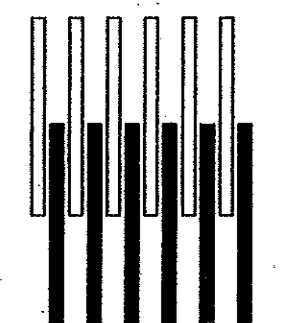
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Project Number
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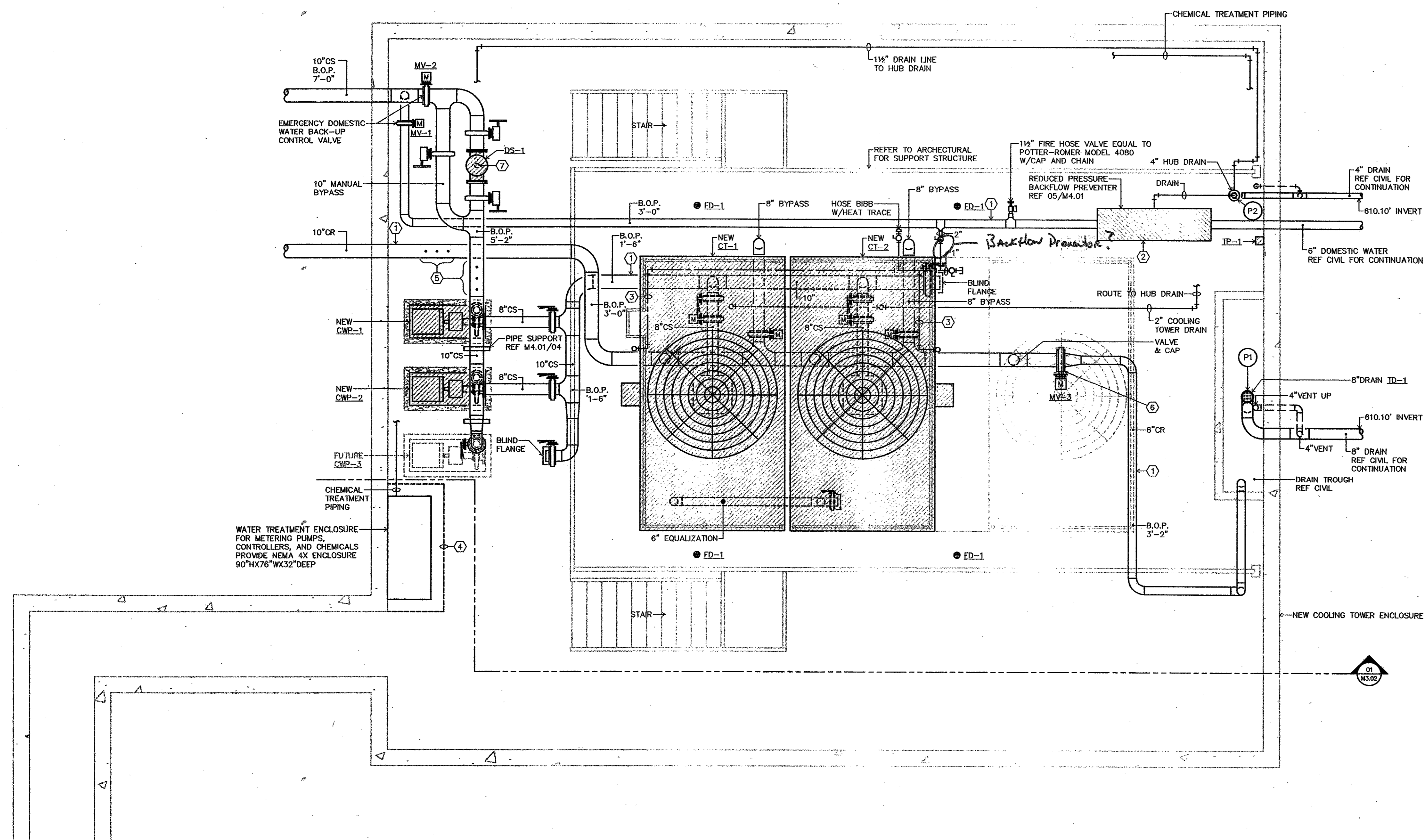
Issue Date
 JULY 23, 2003

Sheet Title
**PARTIAL SITE PLAN -
 MECH/ELEC/PLUMB
 PHASE A**
 Sheet Number
MEP1.00



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 Addison, Texas
 Cooling Tower Addition

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Plumbing Notes:
 All plumbing shall conform to the
 2000 International Plumbing Code.
 Field inspections will prevail in
 error of plan review.
 Les Foise Chief Plumbing Inspector
 Town of Addison 972-450-2887
 lfoise@ci.addison.tx.us

01 ENLARGED PLAN - MECHANICAL/PLUMBING - PHASE A
 SCALE: 1/4" = 1'-0"

KEYED NOTES BY SYMBOL "O"	
①	HEAT TRACE ALL EXPOSED DOMESTIC AND CONDENSER WATER PIPING.
②	8" REDUCED PRESSURE BACKFLOW PREVENTER AND STRAINER. PIPE DRAIN TO HUB DRAIN.
③	1" MAKE UP WATER. HEAT TRACE PIPING.
④	WATER TREATMENT AREA. HEAT TRACE AND INSULATE ALL WATER TREATMENT PIPING. PROVIDE HEATER IN PUMP CABINET ENCLOSURE.
⑤	PROVIDE (3) 1" BALL VALVE TAPS WITH CAPS ON THE CS AND CR PIPING FOR WATER TREATMENT PIPE CONNECTIONS.
⑥	MOTORIZED BUTTERFLY VALVE, TYP.
⑦	ROUTE 1/2" TYPE "L" COPPER LINE WITH SOLENOID VALVE FROM BOTTOM OF DIRT SEPARATOR FITTING TO HUB DRAIN. 1" LINE TO SERVE AS BLOW DOWN AND DIRT SEPARATOR FITTING PURGE.

Project Number
02110

Issue Date
JULY 23, 2003

Sheet Title
**ENLARGED PLAN
 MECH/PLBG
 PHASE A**
 Sheet Number
MP3.01

PUMP SCHEDULE															
MARK	LOCATION	SERVES	PUMP					MOTOR				MFG.	MODEL NO.	REMARKS	
			GPM	HEAD (FT)	EFF. (%)	TYPE	WORKING PRESSURE	SEAL	RPM	BHP	HP				VOLTS
CWP-1	TOWER ENCLOSURE	CT-1	900	125	82.19	CENT.	175 PSI	MECH.	1750	34.75	50	460/3#	BELL & GOSSETT	1510 5G	①②
CWP-2	TOWER ENCLOSURE	CT-2	900	125	82.19	CENT.	175 PSI	MECH.	1750	34.75	50	460/3#	BELL & GOSSETT	1510 5G	①②

① VARIABLE FREQUENCY DRIVE ON PUMPS
② PROVIDE INVERTER DUTY MOTORS

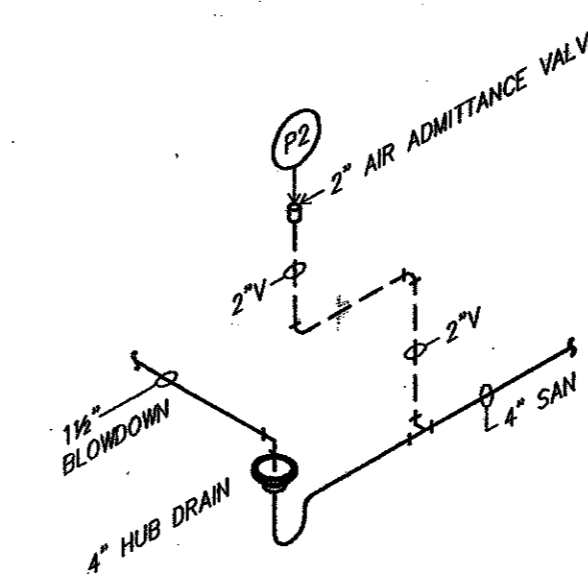
COOLING TOWER SCHEDULE											
MARK	GPM	E.W.T. (°F)	L.W.T. (°F)	WB (°F)	MOTOR		BASIN HEATER		MANUFACTURER	MODEL NO.	REMARKS
					HP	VOLTS/PH	KW	VOLTS/PH			
CT-1	900	95	85	78	15	460/3#	12	460/3#	MARLEY	NCB304	①②③
CT-2	900	95	85	78	15	460/3#	12	460/3#	MARLEY	NCB304	①②③

① VARIABLE FREQUENCY DRIVE ON FANS
② PROVIDE INVERTER DUTY MOTORS
③ PROVIDE HARDWARE DAM FOR VARIABLE FLOW PUMPING. 500 GPM MINIMUM FLOW THROUGH EACH TOWER.

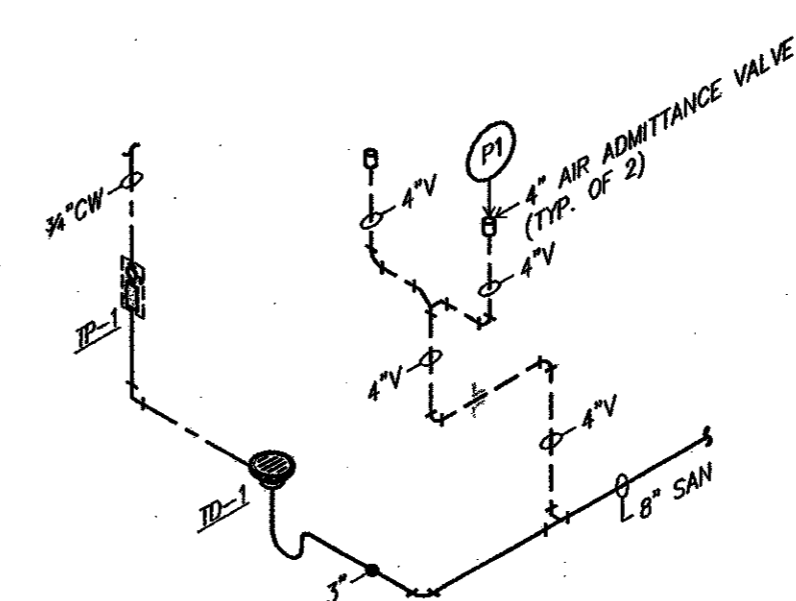
VARIABLE FREQUENCY DRIVE SCHEDULE					
MARK	SERVES	MOTOR		REMARKS	
		HP	VOLTS		
VFD-1	CT-1	15	460/3#	PROVIDE OUTPUT LINE REACTORS AND MANUAL BYPASS	
VFD-2	CT-2	15	460/3#	PROVIDE OUTPUT LINE REACTORS AND MANUAL BYPASS	
VFD-4	CWP-1	50	460/3#	PROVIDE OUTPUT LINE REACTORS AND MANUAL BYPASS	
VFD-5	CWP-2	50	460/3#	PROVIDE OUTPUT LINE REACTORS AND MANUAL BYPASS	

PLUMBING FIXTURE SCHEDULE	
FD-1	J.R. SMITH MODEL 2250 FLOOR DRAIN COMPLETE WITH CAST IRON GRATE SLOTTED SEDIMENT BUCKET.
ID-1	JOSAM MODEL 23510-50 SERIES CAST IRON GARAGE DRAIN WITH ROUND EXTRA HEAVY DUTY GRATE.
TP-1	PRECISION PLUMBING PRODUCTS MODEL SP-500-115V TRAP PRIMER VALVE.

DIRT SEPARATOR FITTING SCHEDULE	
DS-1	10" DIRT SEPARATOR FITTING FOR CONDENSER WATER SYSTEM EQUAL TO SPIROTERM MODEL TH1000FL. FABRICATED STEEL, RATED FOR 150 PSIG DESIGN PRESSURE, SELECTED FOR LESS THAN 2.0 FEET WATER PRESSURE DROP AND A VELOCITY NOT TO EXCEED 10 FEET PER SECOND AT 1800 GPM.



② PLUMBING RISER DIAGRAM
NOT TO SCALE

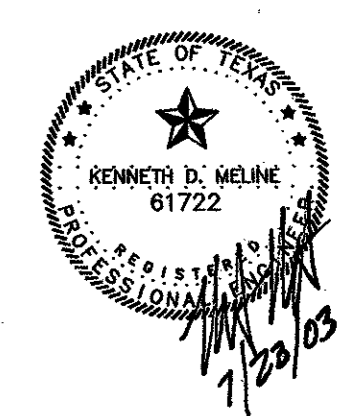


① PLUMBING RISER DIAGRAM
NOT TO SCALE

SYMBOLS AND ABBREVIATIONS	
SYMBOL / ABBREVIATION	DESCRIPTION
XXXXXX	EXISTING PIPING TO BE REMOVED
---	THIN LINE WEIGHTS REPRESENT EXISTING WORK
---	BOLD LINE WEIGHTS REPRESENT NEW WORK
—○—	PIPE, TURNED UP
—⊖—	PIPE, TURNED DOWN
—○—	CONNECTION, BOTTOM
—○—	CONNECTION, TOP
—┘—	ELBOW
—┘—	TEE
—┘—	CAP
—┘—	STRAINER
—┘—	UNION
—┘—	FLANGE
—┘—	CONCENTRIC REDUCER
—┘—	ECCENTRIC REDUCER
—┘—	ANGLE VALVE
—┘—	BALL VALVE
—┘—	BUTTERFLY VALVE
—┘—	CHECK VALVE
—┘—	GATE VALVE
—┘—	GLOBE VALVE
—┘—	PLUG VALVE
—┘—	PRESSURE RELIEF VALVE
—┘—	PRESSURE REDUCING VALVE
—┘—	AUTOMATIC BUTTERFLY VALVE
—┘—	AUTOMATIC 2-WAY VALVE
—┘—	AUTOMATIC 3-WAY VALVE
—┘—	CONNECT NEW TO EXISTING
—┘—	TRIPLE DUTY VALVE
A.F.F.	ABOVE FINISHED FLOOR
BDD	BACKDRAFT DAMPER
BHP	BRAKE HORSEPOWER
CD	CONDENSATE DRAIN
CFM	CUBIC FEET PER MINUTE
CHR	CHILLED WATER RETURN
CHS	CHILLED WATER SUPPLY
CR	CONDENSER WATER RETURN
CS	CONDENSER WATER SUPPLY
EAT	ENTERING AIR TEMPERATURE
ESP	EXTERNAL STATIC PRESSURE
EWI	ENTERING WATER TEMPERATURE
EXH.	EXHAUST
FD	FLOOR DRAIN
FSD	COMBINATION FIRE SMOKE DAMPER
GPM	GALLONS PER MINUTE
HG	REFRIGERANT HOT GAS
HP	HORSEPOWER
HR	HEATING HOT WATER RETURN
HS	HEATING HOT WATER SUPPLY
KW	KILOWATT
O/A	OUTSIDE AIR
OBD	OPPOSED BLADE DAMPER
OCD	OVERFLOW CONDENSATE DRAIN
PBD	PARALLEL BLADE DAMPER
PSI	POUNDS PER SQUARE INCH
R/A	RETURN AIR
RL	REFRIGERANT LIQUID
RS	REFRIGERANT SUCTION
S/A	SUPPLY AIR
UF	UNDER FLOOR
U.N.O.	UNLESS NOTED OTHERWISE
V.I.F.	VERIFY IN FIELD

Plumbing Notes:
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Issue Date
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Sheet Title
SCHEDULES -
MECH/PLBG

Sheet Number
MP5.01

GENERAL NOTES

GENERAL LANDSCAPE AND IRRIGATION NOTES

- A. ON SHEET C-01, NOTE THAT THE TREE LOCATED NORTH OF THE EXISTING BUILDING, ALONG THE 620' CONTOUR LINE, ADJACENT THE TEMPORARY COOLING TOWER, SHALL REMAIN IN PLACE WITH ADEQUATE ROOT PROTECTION DURING EXCAVATION AS REQUIRED IN THE ADD ALTERNATE NO. 1 WORK. CONTRACTOR'S OPTION: THE SUBJECT TREE MAY BE REMOVED, STORED ON SITE, PROTECTED AND REPLANTED PROVIDED IT IS REMOVED BY AN APPROVED METHOD AND REPLACED WITH LIKE KIND AND SIZE IF DAMAGED.
- B. IRRIGATION NOTE: CONTRACTOR TO PROVIDE AN AS-BUILT PLAN FOR ENGINEER'S REVIEW LOCATING ALL EXISTING LANDSCAPE IRRIGATION SYSTEMS, WIRING, CONTROLS, ETC. WITHIN AREA OF WORK. CONTRACTOR SHALL SUBMIT A REVISED LANDSCAPE IRRIGATION SYSTEM FOR IRRIGATING NEWLY CONTOURED SITE. SALVAGING AND REUSE OF EXISTING HEADS, CONTROLLERS IS ALLOWED. PROVIDED NEW MAIN AND SECONDARY LINES, WIRING, ETC., AS-REQUIRED TO PROPERLY WATER THE SITE TO EXISTING AS-BUILT CONDITIONS.
- C. PLANTING NOTE: CONTRACTOR TO PROVIDE A REPLANTING PLAN FOR ENGINEER'S REVIEW INDICATING SITE PREPARATION AND INSTALLATION OF NEW OR SALVAGED TOP SOIL AND GRASS WITHIN NEW AREAS EAST, WEST AND NORTH OF SPECIFIED CONCRETE RETAINING WALL AND ENCLOSURE IMPROVEMENTS. PROVIDE GRASS TO MATCH EXISTING TO REMAIN IN ADJACENT LAWN AREAS ALONG MARY KAY WAY. CONTRACTOR SHALL WARRANT GRASS TO BE IN A HEALTHY CONDITION FOR 4 WEEKS BEYOND PROJECT CLOSE-OUT.
- D. PLANTING NOTE: CONTRACTOR SHALL REPAIR ALL SITE AREAS USED FOR STAGING, DRIVEWAYS AND WORK AREAS TO EXISTING AS-BUILT CONDITION AS-REQUIRED BY THE WORK PROCESS. SUBMIT AS-BUILT PLAN, PICTURES, ETC., AS-REQUIRED TO DOCUMENT SITE CONDITIONS PRIOR TO CONSTRUCTION ACTIVITIES.

MISCELLANEOUS

- A. COMPLY WITH CITY OF ADDISON, 2000 INTERNATIONAL BUILDING CODE WITH AMENDMENTS.
VERIFY ALL CONDITIONS ON JOBSITE AND REPORT ANY DISCREPANCIES TO THE ENGINEER.

DESIGN LIVE LOADS

- 1. MEZZANINE GRATING AREA 100 PSF
- 2. WIND LOAD BASIC WIND SPEED 90 MPH, EXPOSURE B

FOUNDATIONS

- A. DRILLED PIERS ARE DESIGNED FOR AN ALLOWABLE END BEARING PRESSURE WHEN PENETRATING INTO FIRM GREY LIMESTONE A MINIMUM OF 3 FEET, FOUND AT DEPTHS OF 15 TO 17 FEET. NOTIFY ENGINEER IF BEARING NOT ENCOUNTERED IN 20 FEET OF DEPTH. INSPECTION OF PIERS BY TESTING AGENCY IS REQUIRED.

BASE RESISTANCE ALLOWABLE	40,000 PSF
SIDE RESISTANCE IN GREY LIMESTONE	4,000 PSF
UPLIFT RESISTANCE IN GREY LIMESTONE	3,000 PSF
UPLIFT PRESSURE IN TOP 11.5 FEET IN CLAY	1,000 PSF

COMPLY WITH GEOTECHNICAL REPORT #PB5140 DATED 10/16/2002, BY PATTON, BURKE & THOMPSON, LLC.

- B. BACKFILL BELOW SLABS, NOT ON ROCK, ON GRADE SHALL BE ON 12 INCHES OF SELECT FILL MATERIAL PLACED IN LOOSE LIFTS UP TO 10 INCHES AND COMPACTED TO APPROXIMATELY 95 PERCENT (+/-3%) DENSITY, AT OR NEAR OPTIMUM MOISTURE, AS DETERMINED BY ASTM D-698. MAKE TWO COMPACTION TESTS OF SUBGRADE AND EACH FILL LIFT. SUBGRADE SHALL BE SCARIFIED TO A DEPTH OF 12 INCHES, WETTED TO 3% MIN. ABOVE OPTIMUM AND RECOMPACTED TO BETWEEN 95 & 100% OF OPTIMUM DENSITY.
- C. SELECT FILL SHALL BE VERY SANDY CLAY TO CLAYEY SAND WITH A LIQUID LIMIT OF LESS THAN 35. THE PLASTICITY INDEX SHALL BE BETWEEN 4 AND 12. AT EXTERIOR GRADE BEAMS PROVIDE COHESIVE CLAY BACKFILL OUTSIDE BUILDING LINE. SUBMIT SAMPLES OF FILL SOILS FOR DENSITY DETERMINATION.
- D. DO NOT BACKFILL BEHIND CHILLER WALLS UNTIL FLOOR SLAB HAS BEEN PLACED AND CURED.

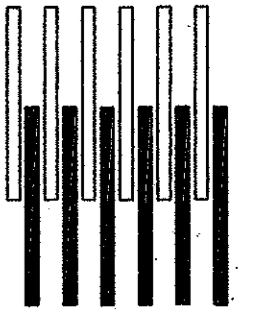
CAST IN PLACE CONCRETE

- A. REINFORCED CONCRETE SHALL CONFORM TO 1996 ACI-318 BUILDING CODE AND ACI-301 SPECIFICATIONS. REINFORCING STEEL SHALL BE DETAILED, FABRICATED AND PLACED IN ACCORDANCE WITH CRSI MANUAL OF STANDARD PRACTICE.
- B. CAST-IN-PLACE CONCRETE SHALL BE NORMAL WEIGHT WITH A MINIMUM COMPRESSIVE STRENGTH FOR ALL STRUCTURES OF 4000 PSI AT 28 DAYS. PROVIDE A MINIMUM OF 6 SACKS/CY OF CEMENT.
- C. CONCRETE SHALL NOT EXCEED A SLUMP OF 5" +/-1" AT POINT OF DISCHARGE, HAVE 5 % +/-1% ENTRAINED AIR WITH ASTM C260 ADMIXTURE, AND WATER REDUCING ADMIXTURE ASTM C494 TYPE A OR D. FLYASH IS NOT PERMITTED. AGGREGATE SHALL MEET ASTM C33, 1" MAX. SIZE.
- D. BARS CALLED FOR AS CONTINUOUS (TOP & BOTTOM, TYP) SHALL HAVE STAGGERED LAPS OF 30 BAR DIAMETERS (1'-6" MINIMUM) AND THE CAGE SHALL HAVE 6 CORNER BARS AT JUNCTIONS, LAP INTERIOR TO EXTERIOR AND EXTERIOR TO EXTERIOR AND INTERIOR TO INTERIOR. INSTALL 2 ADDITIONAL STIRRUPS AT 6" O.C. AT ENDS OF ALL BEAMS (EACH SIDE OF PIERS.)
- E. REINFORCING BARS SHALL BE ASTM A615-GRADE 60, EXCEPT #3 AND #4 BARS SHALL BE GRADE 40. WELDED WIRE FABRIC SHALL BE ASTM A82 AND A185.
- F. PROVIDE #3 BARS X 2'-0" DIAGONALLY AROUND ALL PENETRATIONS OR HOLES LARGER THAN 4" THROUGH BEAMS OR SLABS.

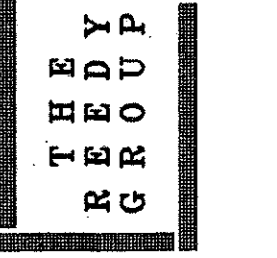
STRUCTURAL STEEL

- A. ALL STRUCTURAL METAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE CURRENT APPLICABLE PROVISION OF THE AISC "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES" AND THE "SPECIFICATIONS FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS."
- B. SUBMIT SHOP DRAWINGS INDICATING ALL MEMBERS DIMENSION, SECTIONS INCLUDING ANCHOR BOLT LAYOUT AND WELDS PER AISC STANDARDS. CONTRACTOR SHALL COORDINATE ALL DIMENSIONS OF FABRICATED STEEL, FOR DIMENSION, CLEARANCES, AND INSTALLATION WITH ARCHITECTURAL DRAWINGS AND THE WORK OF OTHER TRADES.
- C. ALL STRUCTURAL STEEL ELEMENTS SHALL BE ASTM A-36 STEEL, EXCEPT STEEL PIPE SHALL BE ASTM A53 TYPE B OR S AND TUBE STEEL SHALL BE ASTM A500, GRADE B, FY+46KSI. ALL STEEL SHALL BE G-60 HOT DIPPED GALVANIZED.
- D. WELDING SHALL COMPLY WITH AWS CODE D1.1.
- E. FIELD CONNECTIONS SHALL BE BOLTED OR WELDED. WELDED CONNECTIONS SHALL BE MADE BY A CERTIFIED WELDER, WITH CURRENT YEARS CERTIFICATION FOR THE TYPE OF WELDING TO BE PERFORMED.
- F. ALL BOLTS (EXCEPT ANCHOR BOLTS) CONNECTION STEEL TO STEEL SHALL BE ASTM A325F LOAD-INDICATOR BOLTS. ANCHOR BOLTS SHALL BE ASTM A307 OR ASTM A36 THREADED RODS WITH PL 1/4 X 3 X 3 WASHERS BETWEEN NUTS @ EMBED ENDS.
ANCHOR BOLT SUBSTITUTE: HILTI HY-150 EPOXY - SET BOLTS OR HILTI HVA EPOXY CAPSULE ANCHOR W/HAS 3/4" X 9-5/8" THREADED ROD EMBEDDED 7" INTO DRILLED CLEANED HOLE PER MANUFACTURER'S INSTRUCTIONS.
- G. GROUT BELOW BASEPLATES SHALL BE SIKA GROUT 212.
- H. BEAM CONNECTIONS SHALL BE DESIGNED TO CARRY AT LEAST HALF THE LOADS SHOWN IN THE "ALLOWABLE LOADS ON BEAMS" TABLES IN SECTION 2 OF THE AISC HANDBOOK, EIGHTH EDITION, UNLESS OTHERWISE NOTED.
- I. STEEL FLOOR AND STAIR TREAD GRATING SHALL BE BY McNICHOOLS 1-800-237-3820, HOT DIPPED GALVANIZED, AND AS FOLLOWS:
FLOOR GRATING: SERIES GW 1 3/4" x 3/16" SECURED TO STRUCTURE WITH TYPE GG FASTENERS INSTALLED IN ACCORDANCE WITH MFG. INSTRUCTIONS.
STAIR TREADS: TYPE B STANDARD, SERIES GW, 10 15/16" WIDE.
ALL BOLTS AND FASTENERS SHALL BE HOT DIPPED GALVANIZED.
- J. ALL STRUCTURAL STEEL SHALL BE HOT DIP GALVANIZED IN ACCORDANCE WITH G-60 STANDARDS.

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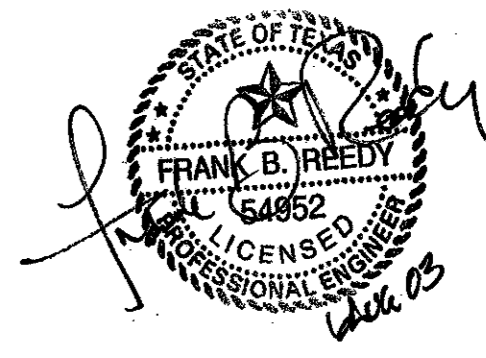
Project Revisions
ADDENDUM 1, 8/6/03

Project Number
02110

Issue Date
23 July 2003

Sheet Title
GENERAL NOTES

Sheet Number
S-01



GENERAL NOTES

MISCELLANEOUS

- A. COMPLY WITH CITY OF ADDISON, 2000 INTERNATIONAL BUILDING CODE WITH AMENDMENTS.
VERIFY ALL CONDITIONS ON JOBSITE AND REPORT ANY DISCREPANCIES TO THE ENGINEER.

DESIGN LIVE LOADS

- B. 1. MEZZANINE GRATING AREA 100 PSF
2. WIND LOAD BASIC WIND SPEED 90 MPH, EXPOSURE B

FOUNDATIONS

- A. DRILLED PIERS ARE DESIGNED FOR AN ALLOWABLE END BEARING PRESSURE WHEN PENETRATING INTO FIRM GREY LIMESTONE A MINIMUM OF 3 FEET, FOUND AT DEPTHS OF 15 TO 17 FEET. NOTIFY ENGINEER IF BEARING NOT ENCOUNTERED IN 20 FEET OF DEPTH. INSPECTION OF PIERS BY TESTING AGENCY IS REQUIRED.

BASE RESISTANCE ALLOWABLE	40,000 PSF
SIDE RESISTANCE IN GREY LIMESTONE	4,000 PSF
UPLIFT RESISTANCE IN GREY LIMESTONE	3,000 PSF
UPLIFT PRESSURE IN TOP 11.5 FEET IN CLAY	1,000 PSF

COMPLY WITH GEOTECHNICAL REPORT #PB5140 DATED 10/16/2002, BY PATTON, BURKE & THOMPSON, LLC.

- B. BACKFILL BELOW SLABS, NOT ON ROCK, ON GRADE SHALL BE ON 12 INCHES OF SELECT FILL MATERIAL PLACED IN LOOSE LIFTS UP TO 10 INCHES AND COMPACTED TO APPROXIMATELY 95 PERCENT (+/-3%) DENSITY, AT OR NEAR OPTIMUM MOISTURE, AS DETERMINED BY ASTM D-698. MAKE TWO COMPACTION TESTS OF SUBGRADE AND EACH FILL LIFT. SUBGRADE SHALL BE SCARIFIED TO A DEPTH OF 12 INCHES, WETTED TO 3% MIN. ABOVE OPTIMUM AND RECOMPACTED TO BETWEEN 95 & 100% OF OPTIMUM DENSITY.
- C. SELECT FILL SHALL BE VERY SANDY CLAY TO CLAYEY SAND WITH A LIQUID LIMIT OF LESS THAN 35. THE PLASTICITY INDEX SHALL BE BETWEEN 4 AND 12. AT EXTERIOR GRADE BEAMS PROVIDE COHESIVE CLAY BACKFILL OUTSIDE BUILDING LINE. SUBMIT SAMPLES OF FILL SOILS FOR DENSITY DETERMINATION.
- D. DO NOT BACKFILL BEHIND CHILLER WALLS UNTIL FLOOR SLAB HAS BEEN PLACED AND CURED.

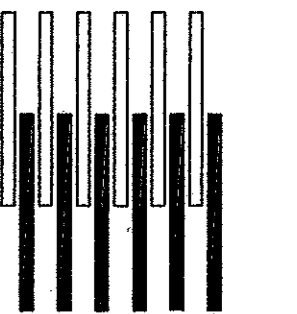
CAST IN PLACE CONCRETE

- A. REINFORCED CONCRETE SHALL CONFORM TO 1996 ACI-318 BUILDING CODE AND ACI-301 SPECIFICATIONS. REINFORCING STEEL SHALL BE DETAILED, FABRICATED AND PLACED IN ACCORDANCE WITH CRSI MANUAL OF STANDARD PRACTICE.
- B. CAST-IN-PLACE CONCRETE SHALL BE NORMAL WEIGHT WITH A MINIMUM COMPRESSIVE STRENGTH FOR ALL STRUCTURES OF 4000 PSI AT 28 DAYS. PROVIDE A MINIMUM OF 6 SACKS/CY OF CEMENT.
- C. CONCRETE SHALL NOT EXCEED A SLUMP OF 5" +/- 1" AT POINT OF DISCHARGE, HAVE 5% +/- 1% ENTRAINED AIR WITH ASTM C260 ADMIXTURE, AND WATER REDUCING ADMIXTURE ASTM C494 TYPE A OR D. FLYASH IS NOT PERMITTED. AGGREGATE SHALL MEET ASTM C33, 1" MAX. SIZE.
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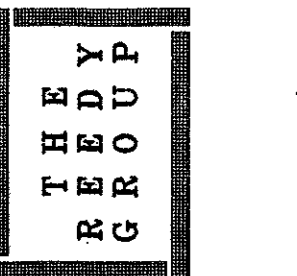
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Project Revisions

Project Number
02110

Issue Date

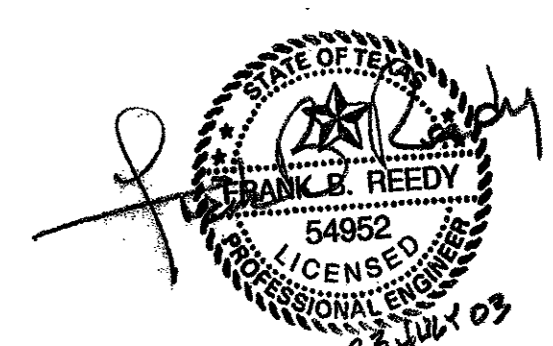
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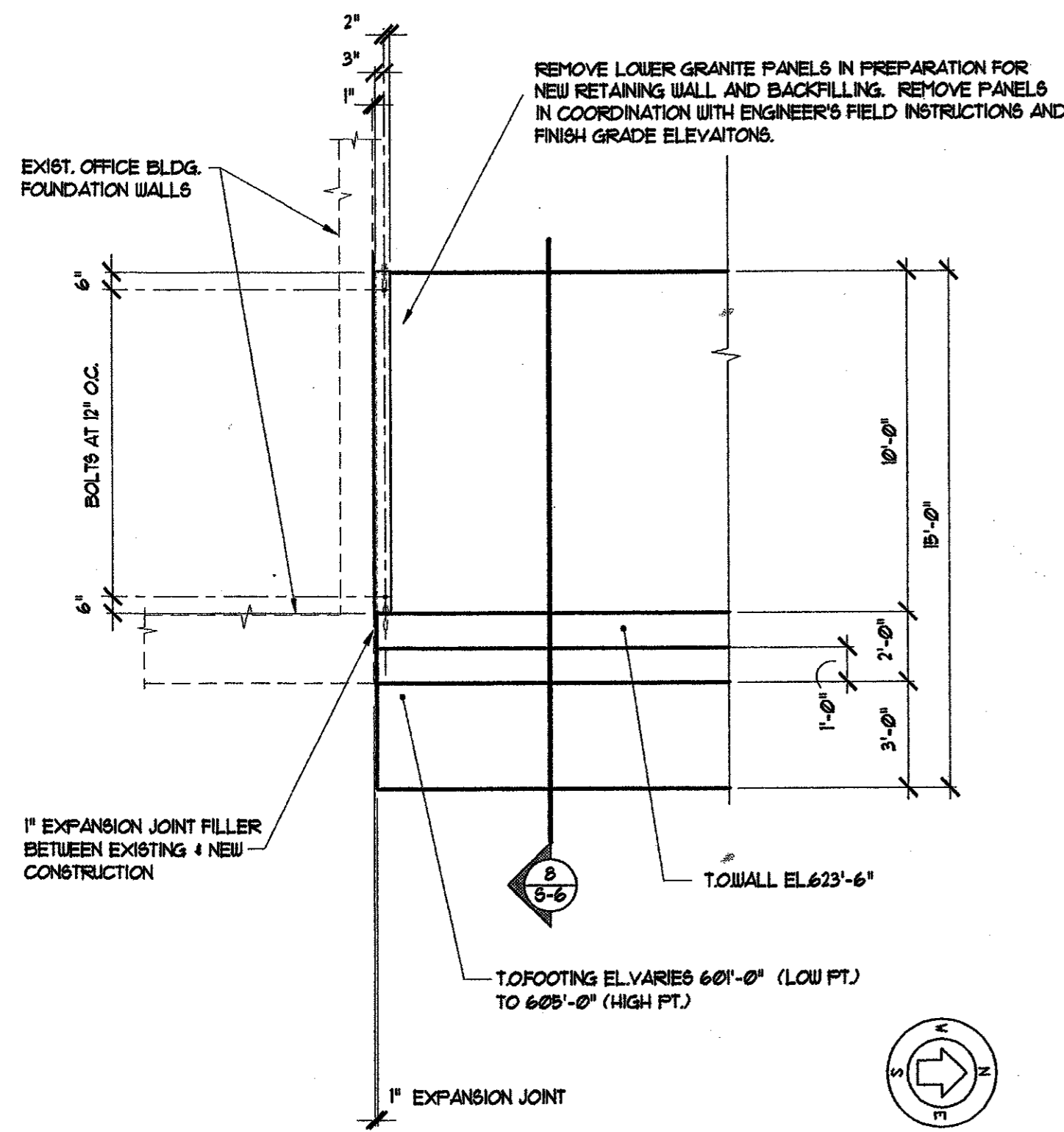
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GENERAL NOTES

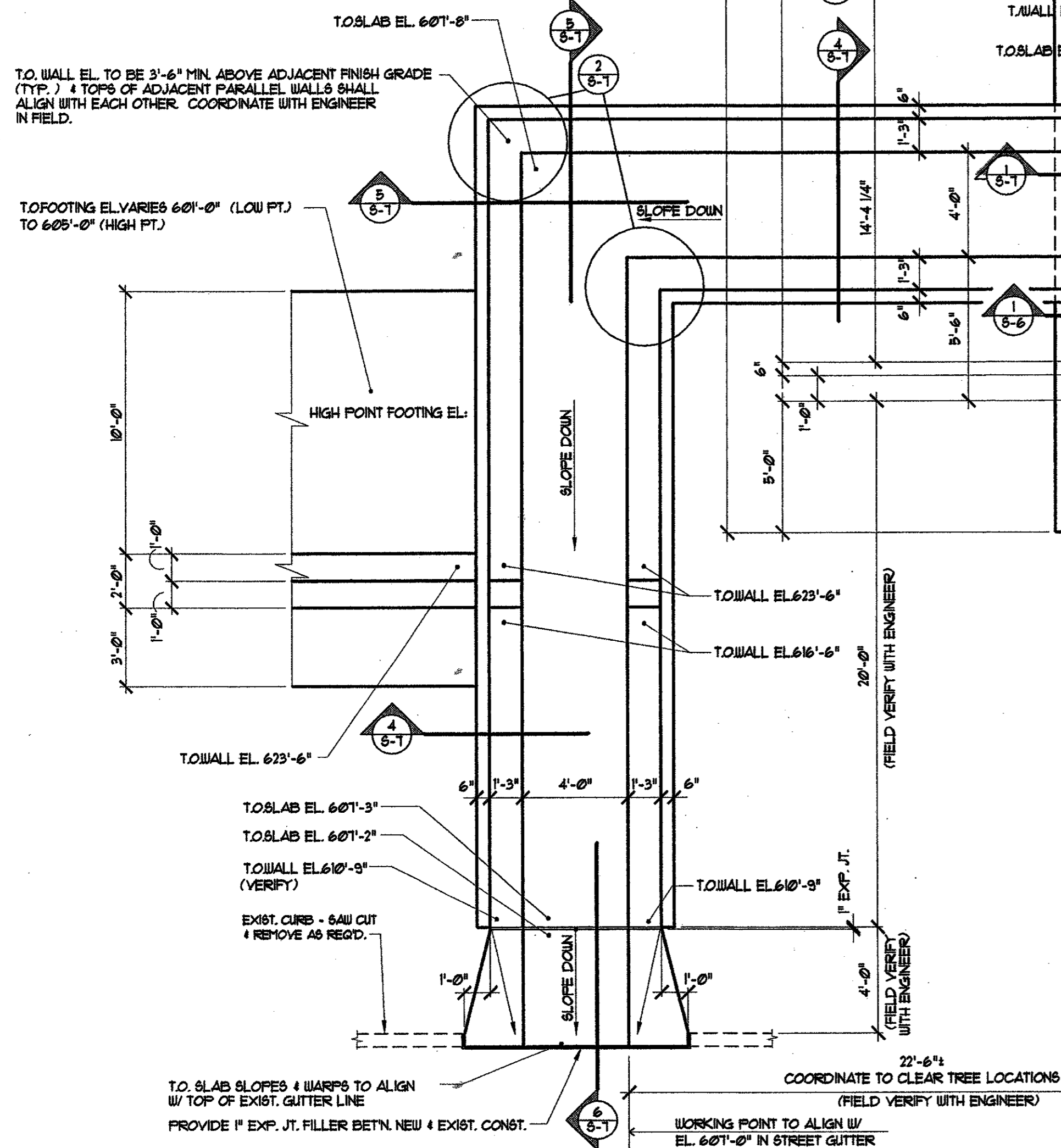
Sheet Number

S-01





2 WING WALL FOUNDATION FRAMING PLAN
SCALE: 1/4" = 1'-0"
SECTION INDICATES LOW END OF RETAINING WALL



1 PIT FOUNDATION FRAMING PLAN
SCALE: 1/4" = 1'-0"

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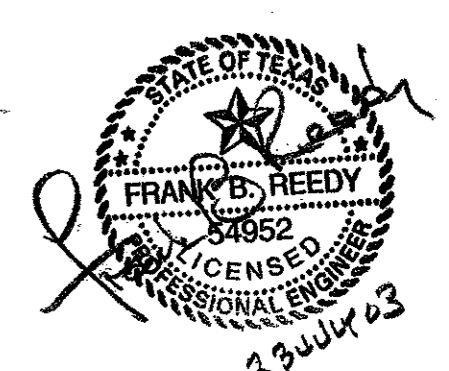
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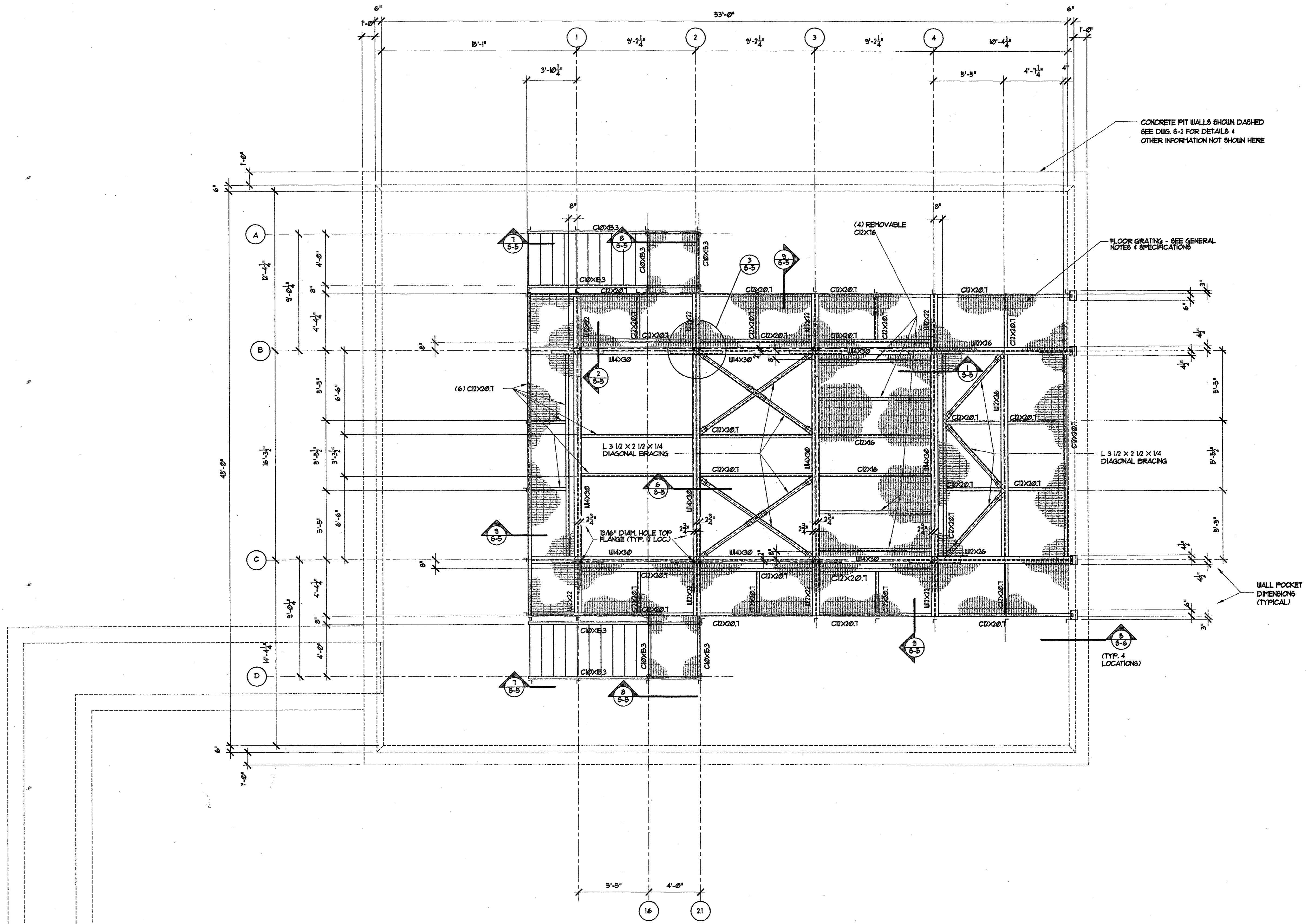
Project Number
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Sheet Title
**FOUNDATION
FRAMING PLAN**

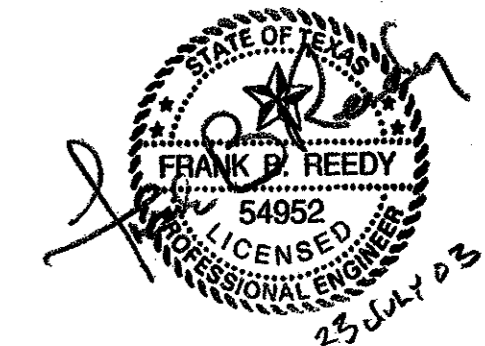
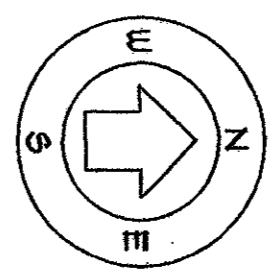
Sheet Number
S-02





1 MEZZANINE FRAMING PLAN
SCALE: 1/4" = 1'-0"

NOTE: ALL STEEL SHALL BE HOT DIP GALVANIZED



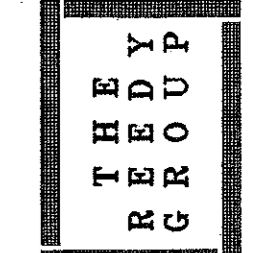
CONCRETE PIT WALLS SHOWN DASHED
SEE DIAG. 5-2 FOR DETAILS &
OTHER INFORMATION NOT SHOWN HERE

FLOOR GRATING - SEE GENERAL
NOTES & SPECIFICATIONS

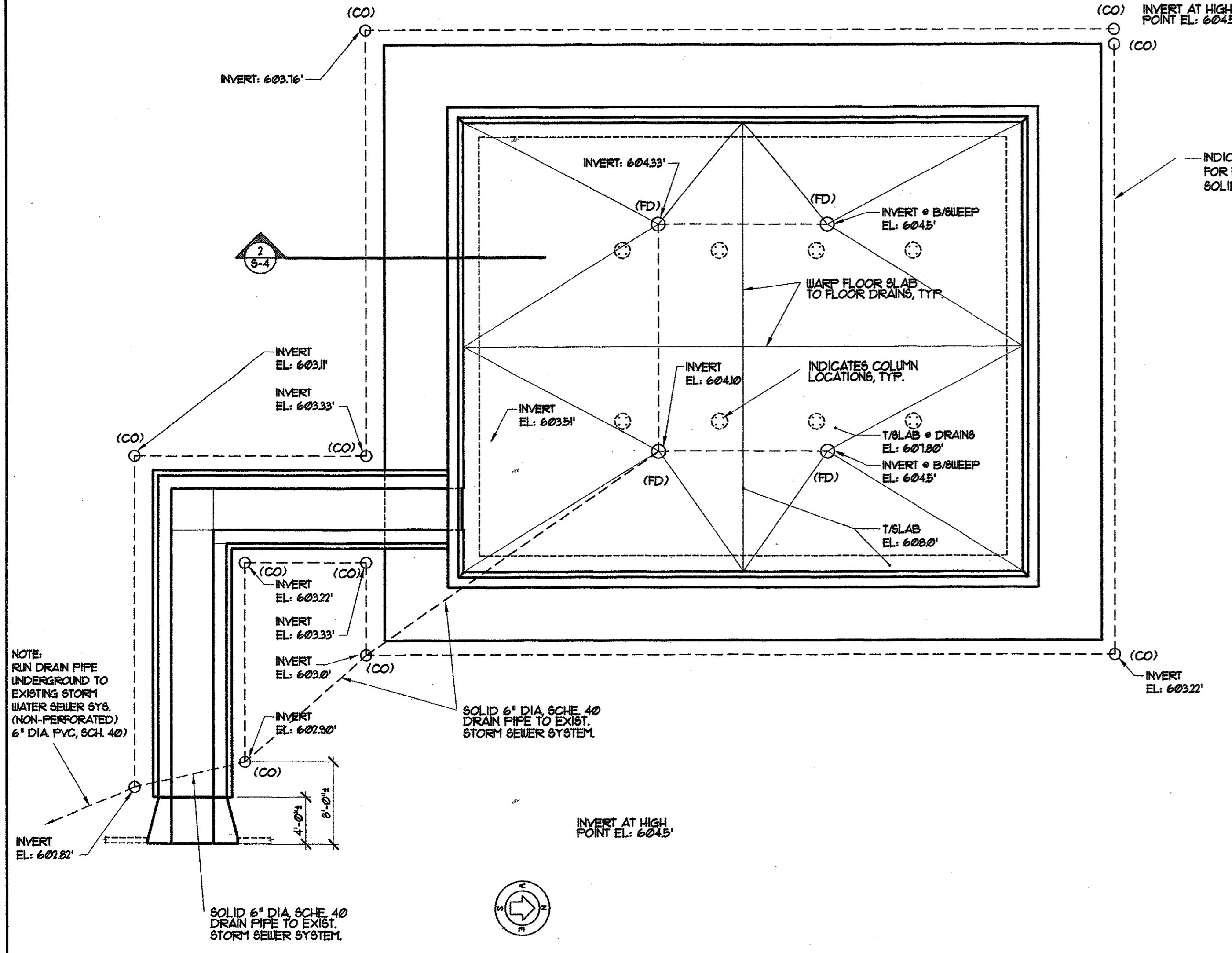
L 3 1/2 X 2 1/2 X 1/4
DIAGONAL BRACING

WALL POCKET
DIMENSIONS
(TYPICAL)

(TYP. 4
LOCATIONS)



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1 WATER PROOFING & DRAINAGE KEY PLAN
SCALE: 1/8" = 1'-0"

INDICATES DRAIN PIPE FOR FRENCH DRAIN SYSTEM. SOLID 6" DIA. SCHE. 40, TYP.

CONTINUOUS CAULK JOINT
PROVIDE A CONTINUOUS 12 GA. TERMINATION BAR AT THE TOP OF THE WATERPROOFING SYSTEM, TYP.

PROVIDE PENETRATING CONCRETE SEALER ON ALL CONCRETE EXPOSED TO WEATHER PER SPECIFICATIONS.

MIRADRI SHEET WALL WATERPROOFING MEMBRANE INSTALLED IN ACCORDANCE W/ MFG. INSTRUCTIONS

MIRADRAIN SHEET FRENCH DRAIN FABRIC INSTALLED IN ACCORDANCE W/ MFG. INSTRUCTIONS

COMPACTED CLAY FILL WITH A 5% SLOPE TO BED THE MIRADRAIN SHEET FABRIC

CONTINUOUS WATERSTOP, TYP. W/ CON'T 2 x 4 KEY, TYP.

MIRAFI FABRIC WRAP AROUND DRAIN PIPE AND SETTING BED INSTALLED IN ACCORDANCE W/ MFG. INSTRUCTIONS

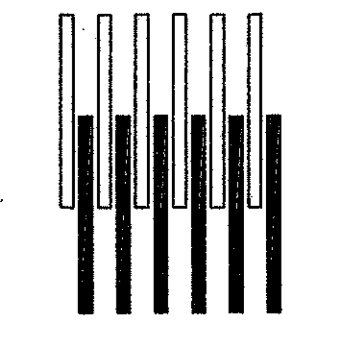
GRANULAR FILL

6" PVC PERFORATED DRAIN PIPE W/ CLEAN OUTS PER PLAN SET ON 3" GRANULAR FILL LEVELING BED GRADED TO MAINTAIN A DOWNWARD FALL TO GRAVITY DRAIN TO ADJACENT CITY CURB AND GUTTER (SCHED. 40 PVC, TYP.)

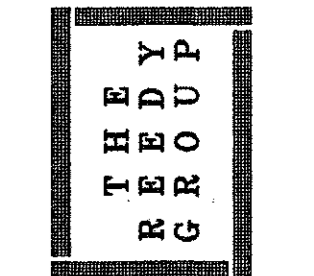
PVC SHALL BE PERFORATED W/ 2 ROWS OF 1/2" DIA. HOLES SPACED AT 1'-0" O.C. AND PLACED 60 DEGREES APART FROM PIPE CENTER LINE.

2 SECTION @ RETAINING WALL
SCALE: 3/4" = 1'-0"

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Project Revisions
ADDENDUM 1, 8/6/03

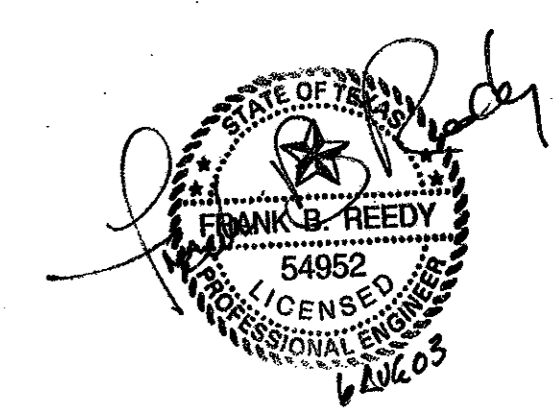
Project Number
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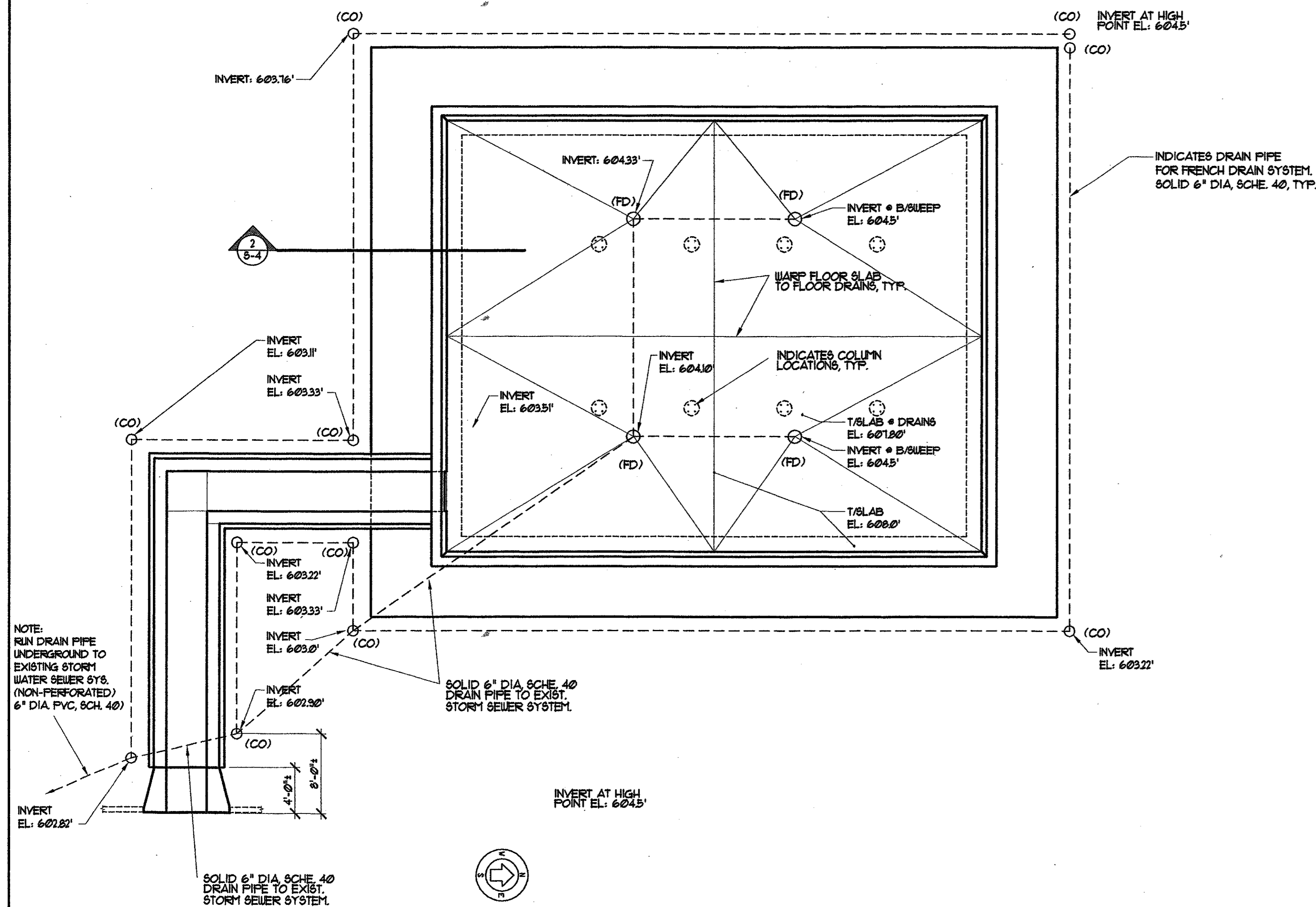
Issue Date

23 July 2003

Sheet Title
WATERPROOFING & DRAINAGE PLAN

Sheet Number
S-04





1 WATER PROOFING & DRAINAGE KEY PLAN
SCALE: 1/8" = 1'-0"

INDICATES DRAIN PIPE FOR FRENCH DRAIN SYSTEM. SOLID 6" DIA, SCH. 40, TYP.

CONTINUOUS CAULK JOINT

PROVIDE A CONTINUOUS 12 GA TERMINATION BAR AT THE TOP OF THE WATERPROOFING SYSTEM, TYP.

PROVIDE PENETRATING CONCRETE SEALER ON ALL CONCRETE EXPOSED TO WEATHER PER SPECIFICATIONS.

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MIRADRAIN SHEET FRENCH DRAIN FABRIC INSTALLED IN ACCORDANCE W/ MFG. INSTRUCTIONS

COMPACTED CLAY FILL WITH A 5% SLOPE TO BED THE MIRADRAIN SHEET FABRIC

CONTINUOUS WATERSTOP, TYP. W/ CON'T 2 x 4 KEY, TYP.

MIRAFI FABRIC WRAP AROUND DRAIN PIPE AND SETTING BED INSTALLED IN ACCORDANCE W/ MFG. INSTRUCTIONS

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2 SECTION @ RETAINING WALL
SCALE: 3/4" = 1'-0"



Project Revisions

Project Number: 02110

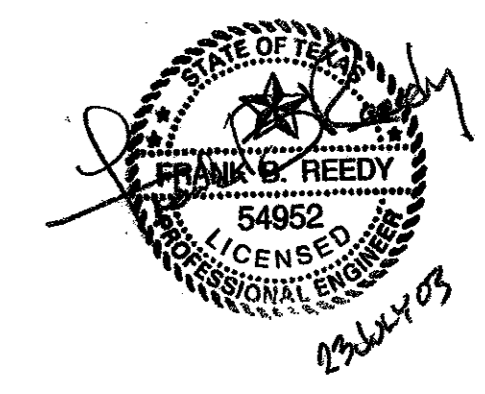
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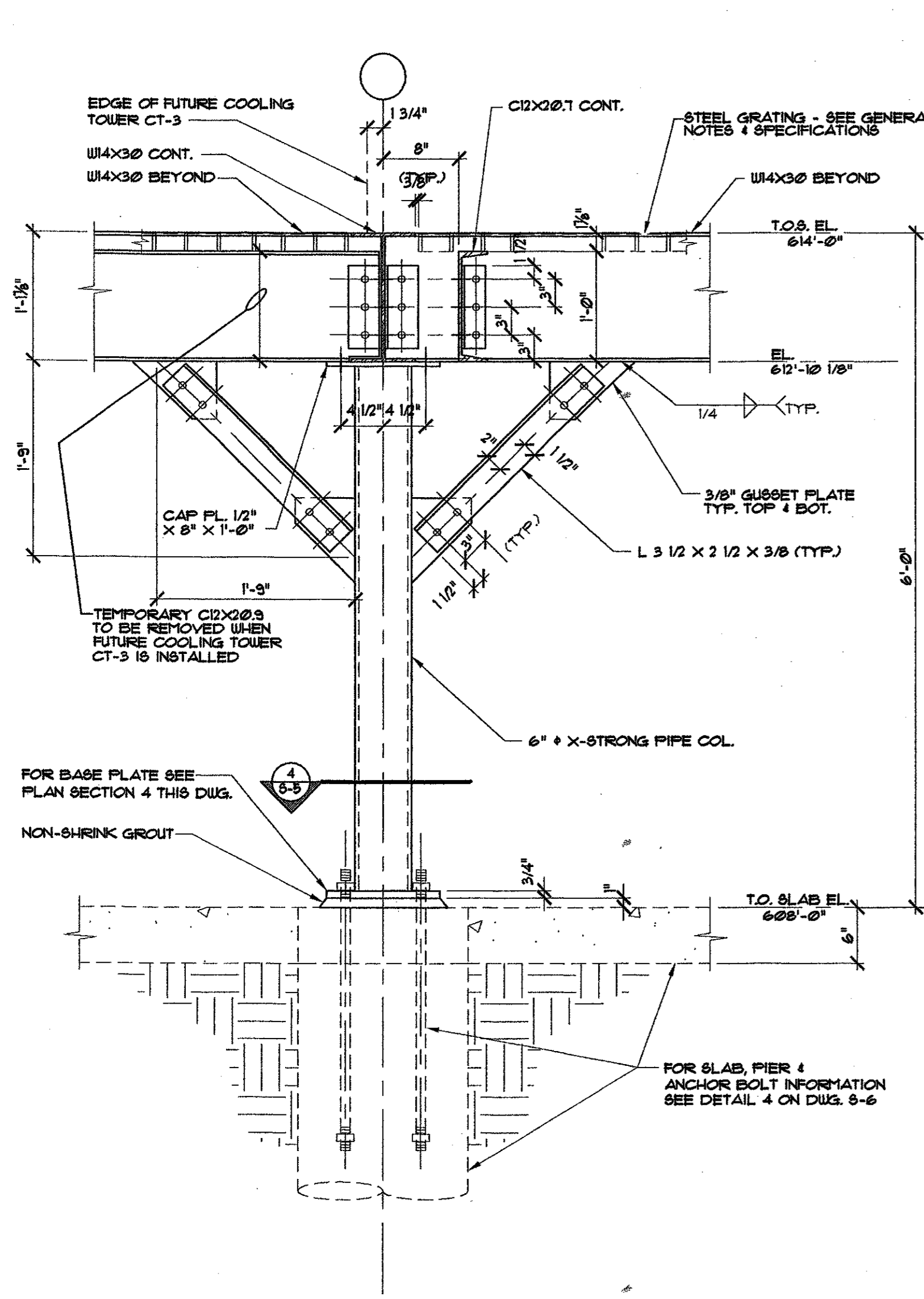
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WATERPROOFING & DRAINAGE PLAN

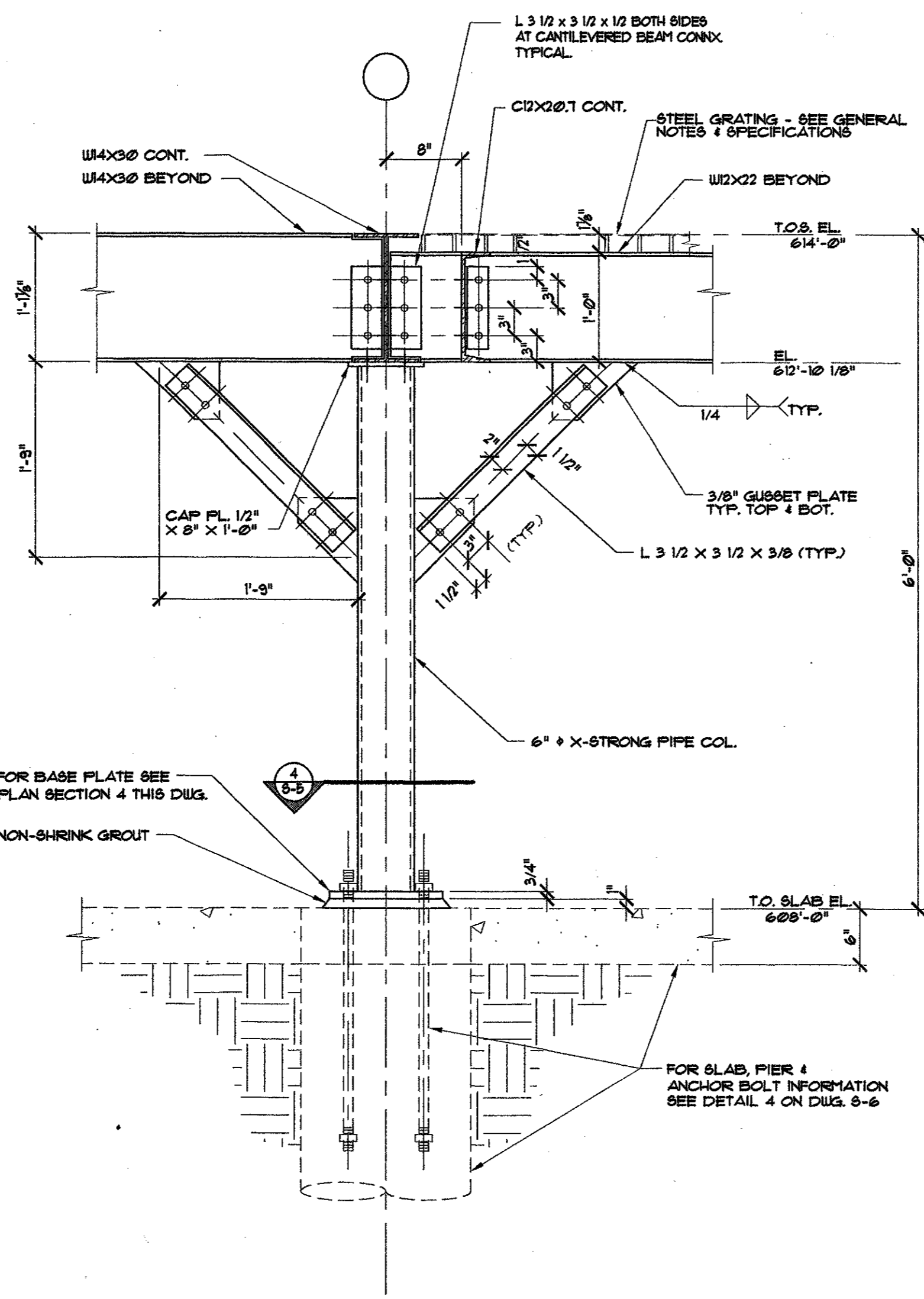
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S-04

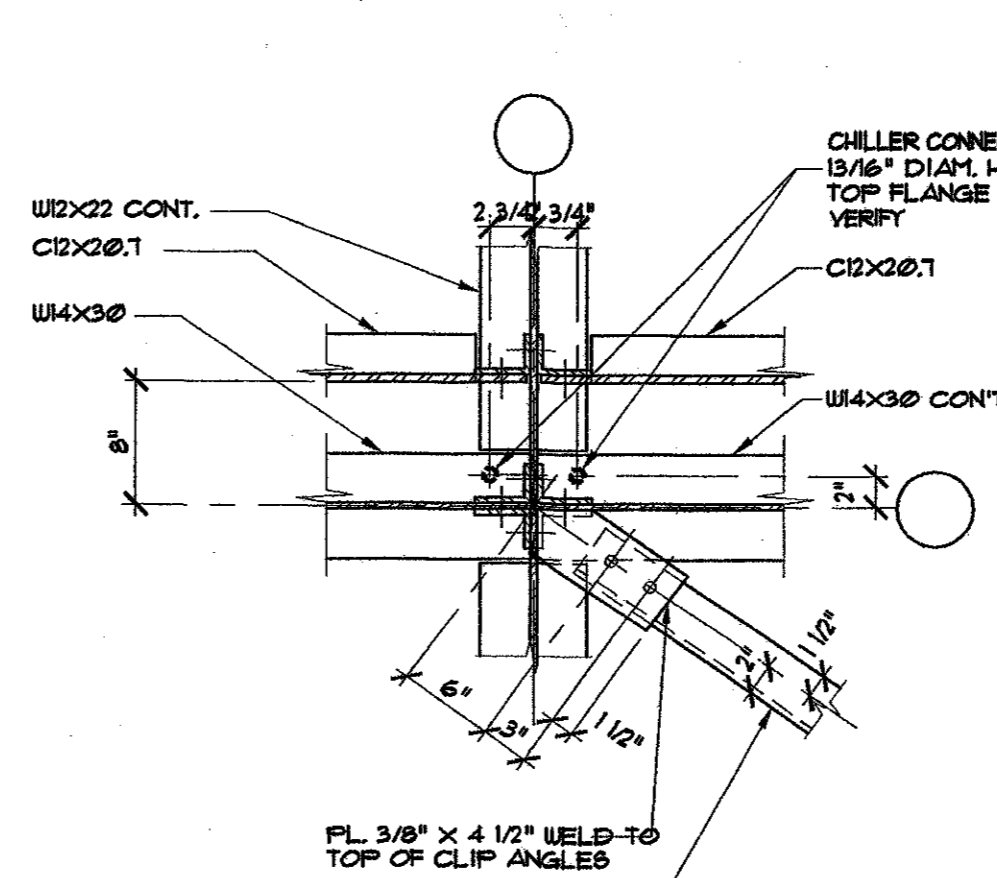




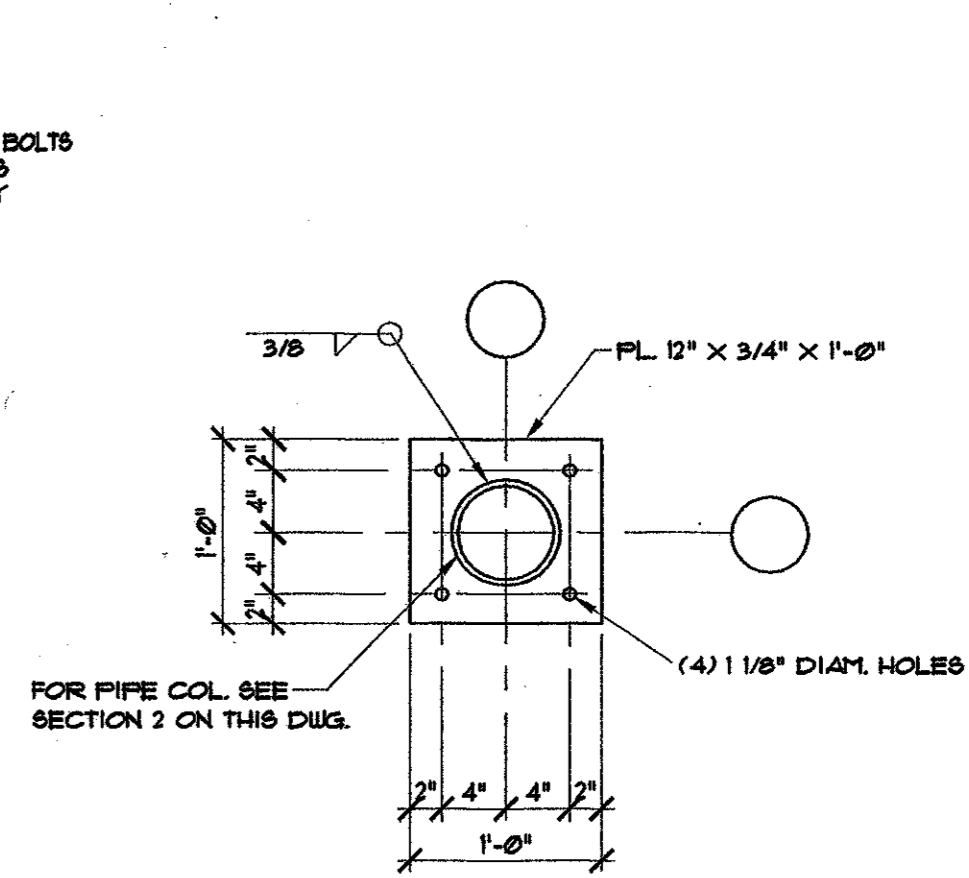
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SCALE: 1" = 1'-0"



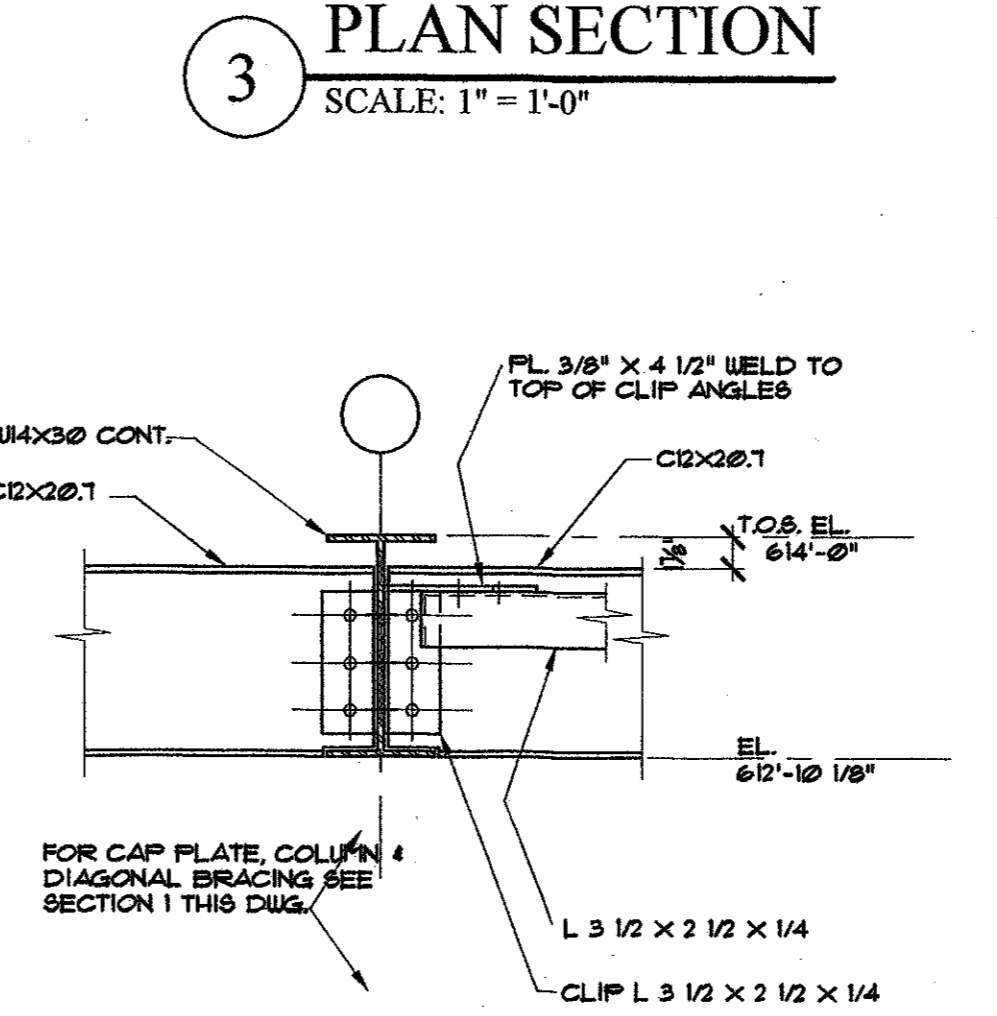
2 SECTION
SCALE: 1" = 1'-0"



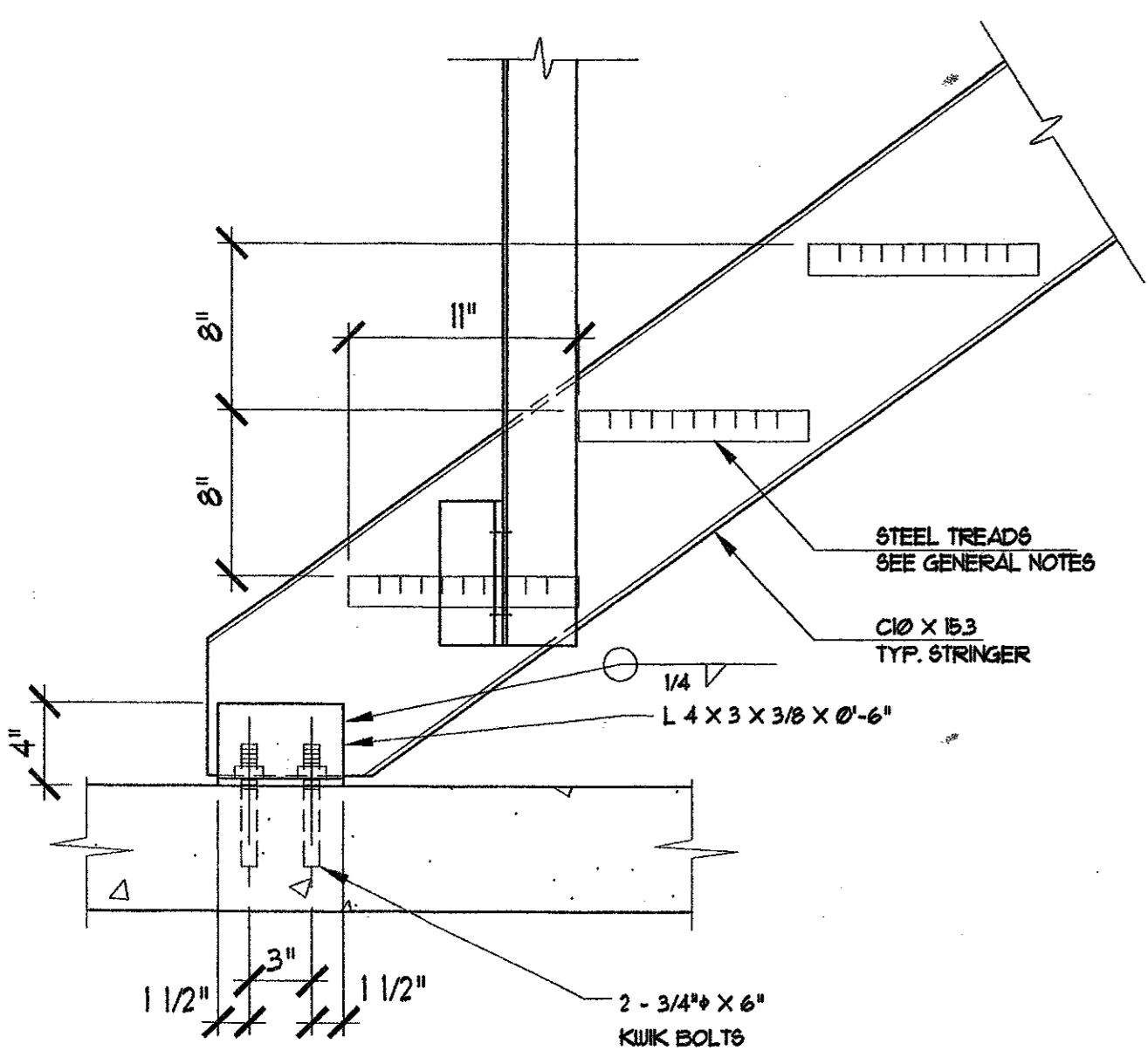
3 PLAN SECTION
SCALE: 1" = 1'-0"



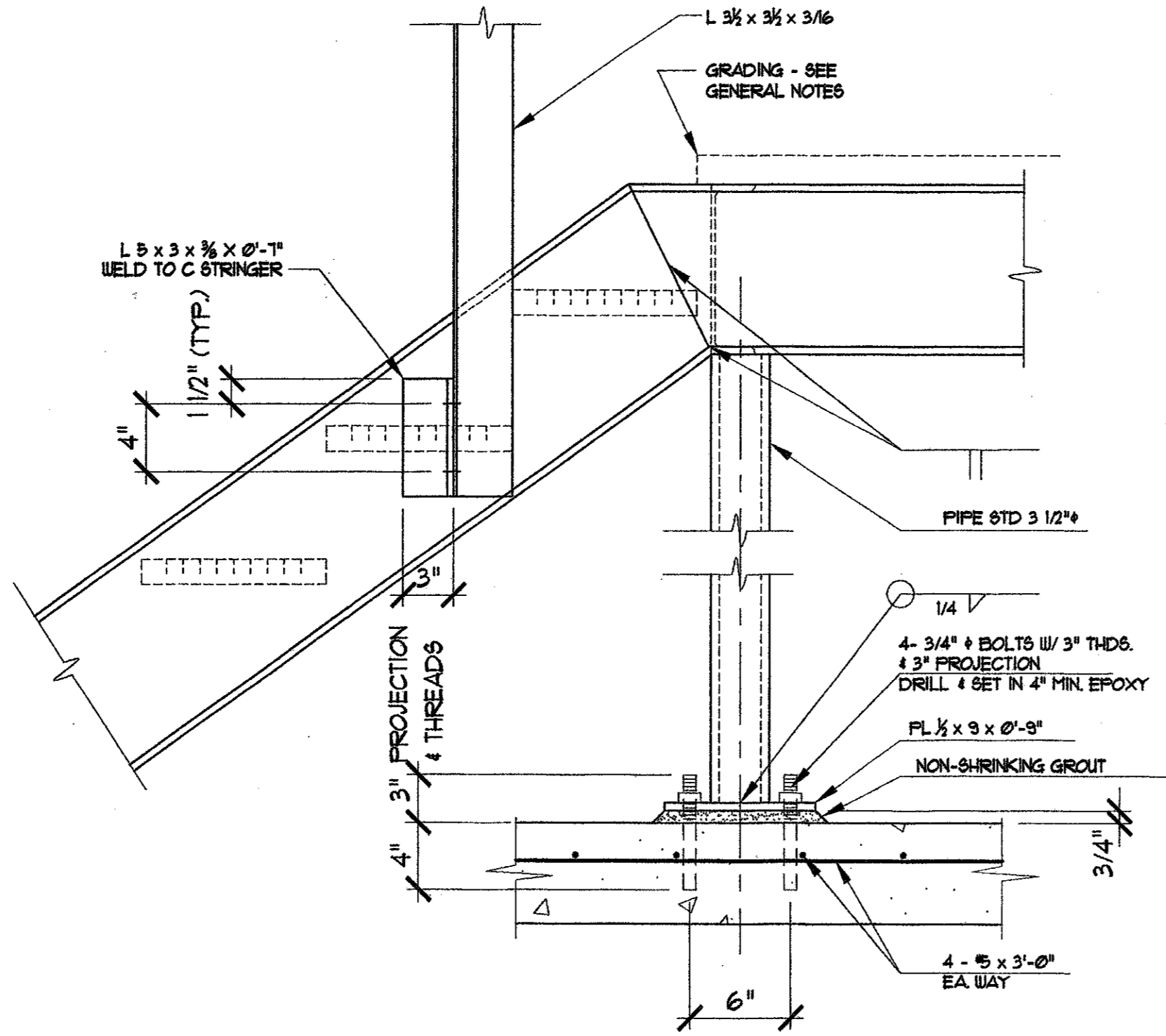
4 PLAN SECTION
SCALE: 1" = 1'-0"



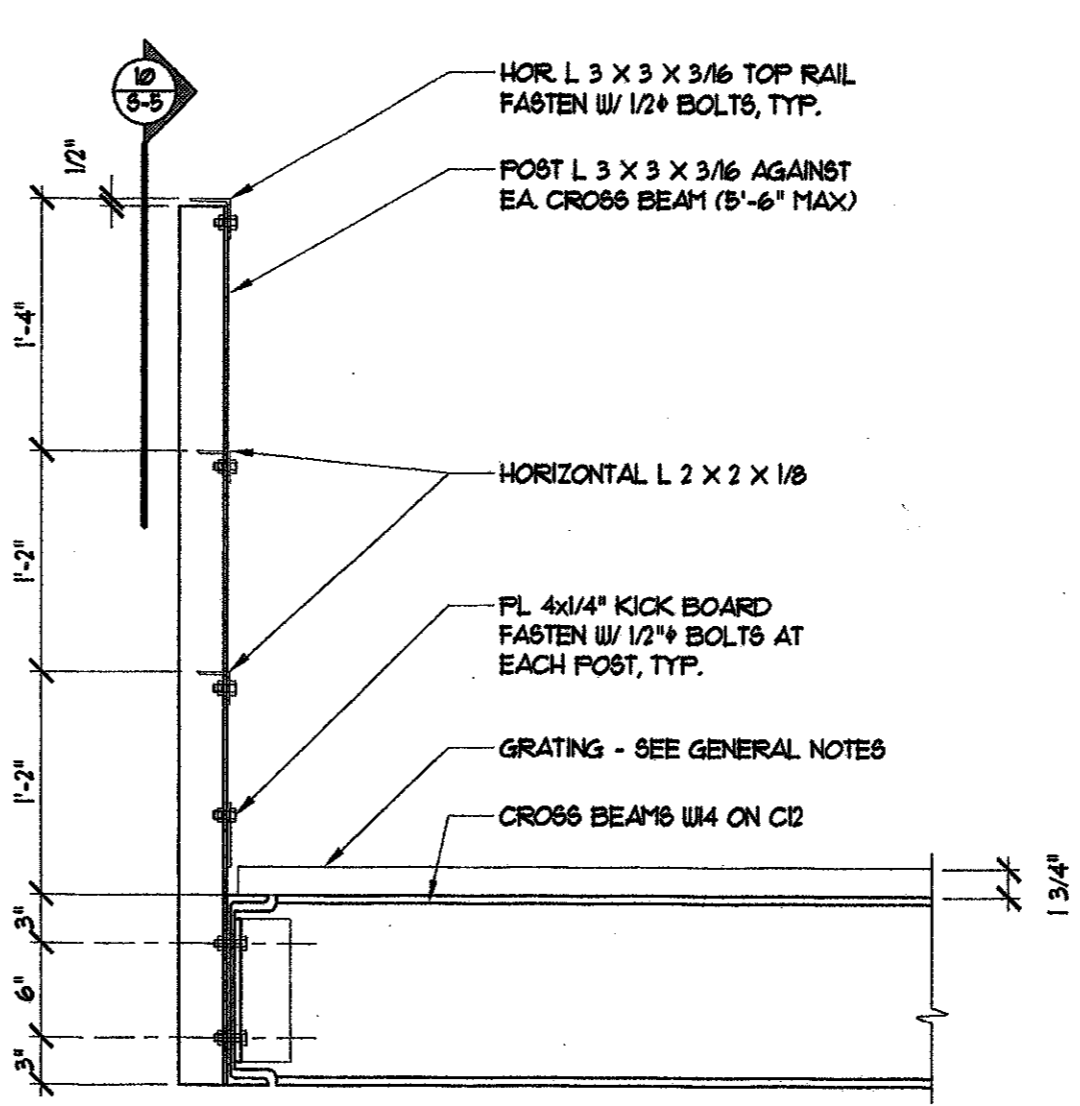
6 SECTION
SCALE: 1" = 1'-0"



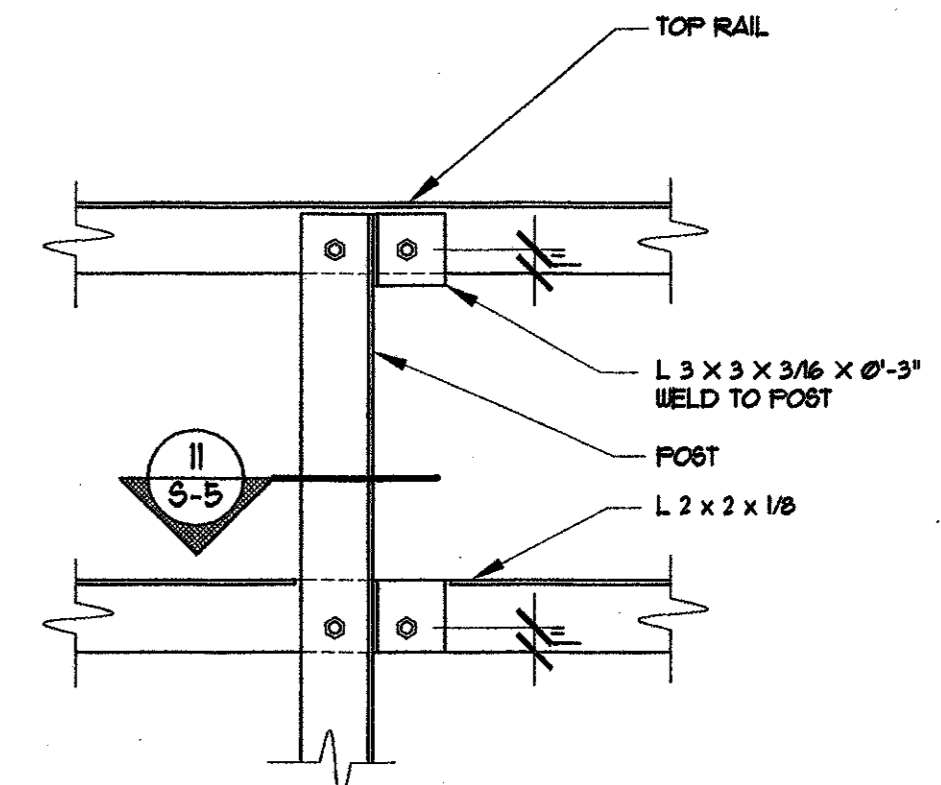
7 TYP. TREAD CONNX.
SCALE: 1 1/2" = 1'-0"



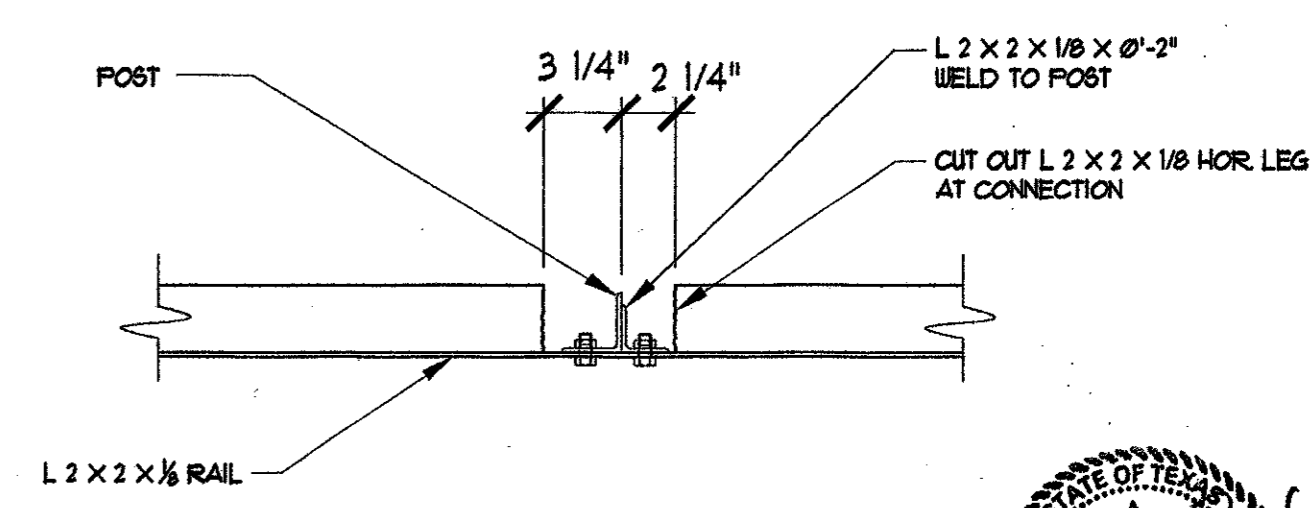
8 LANDING
SCALE: 1 1/2" = 1'-0"



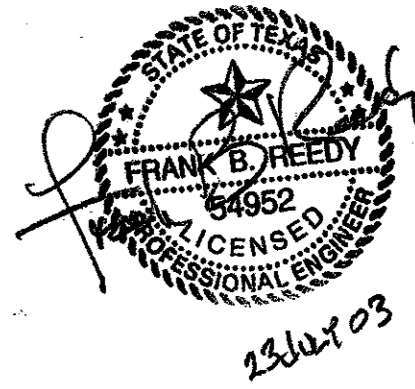
9 HAND RAIL DETAIL
SCALE: 1" = 1'-0"



10 TYP. POST-RAIL CONNX.
SCALE: 1 1/2" = 1'-0"



11 TYP. POST-RAIL CONNX.
SCALE: 1 1/2" = 1'-0"



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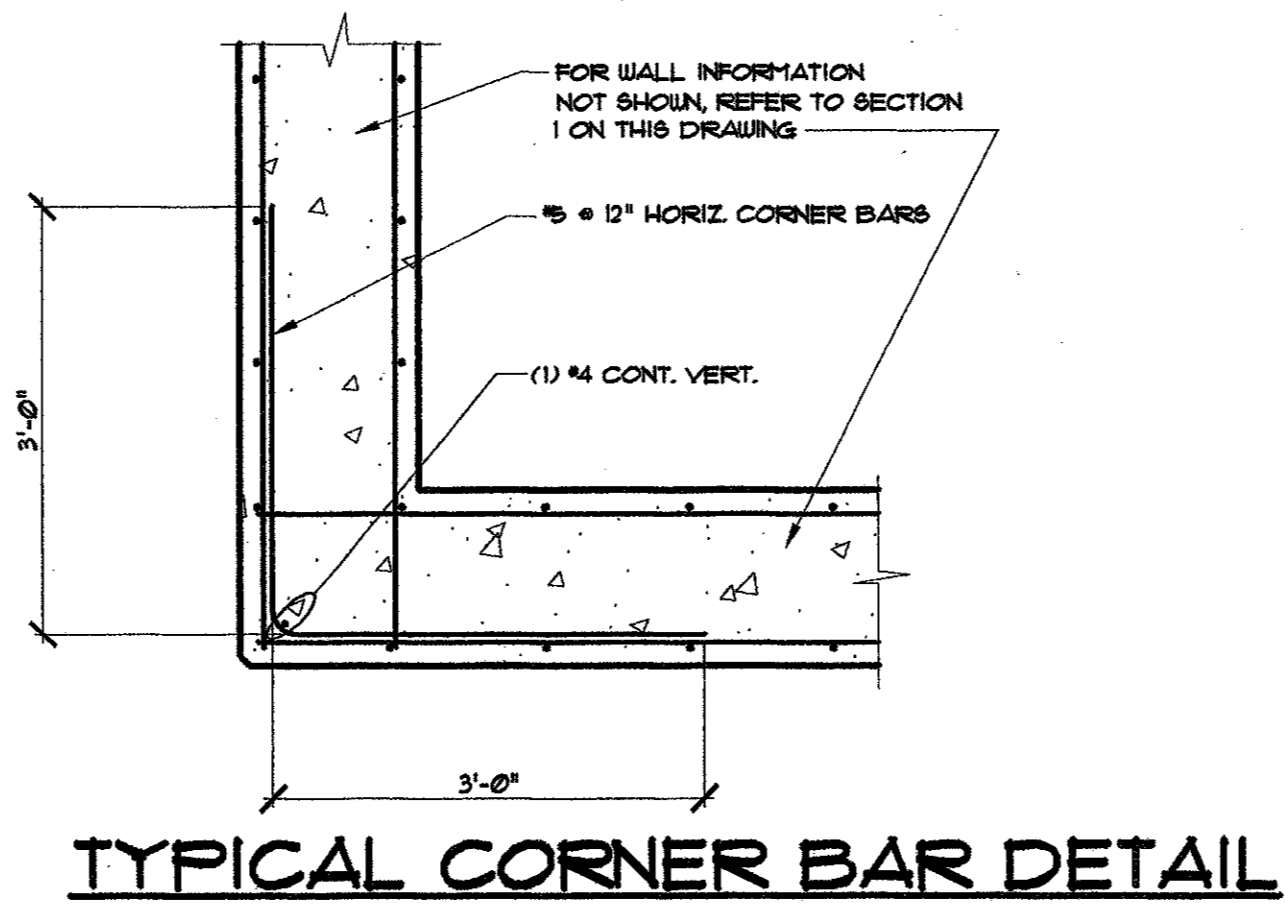
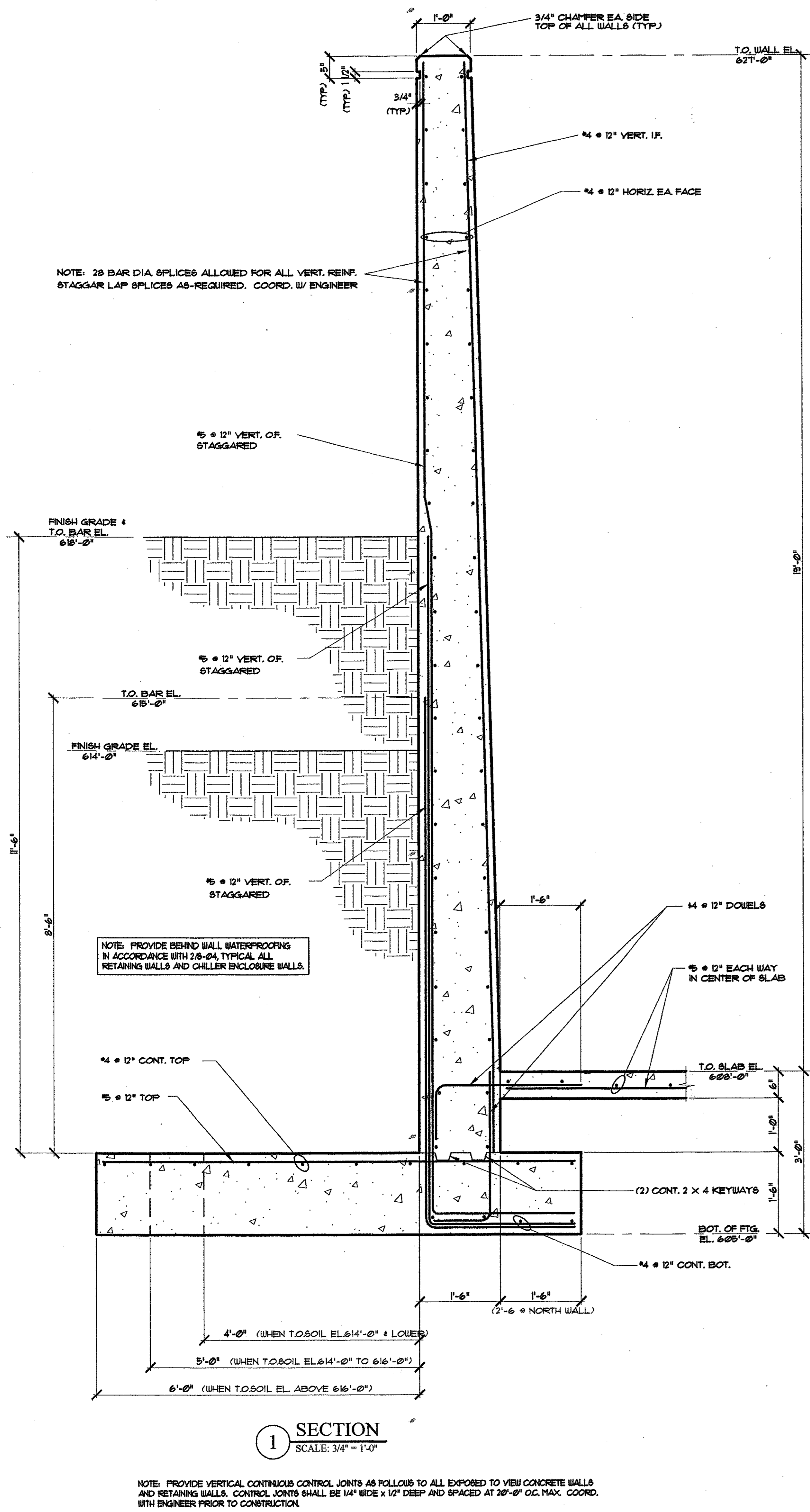
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23 July 2003

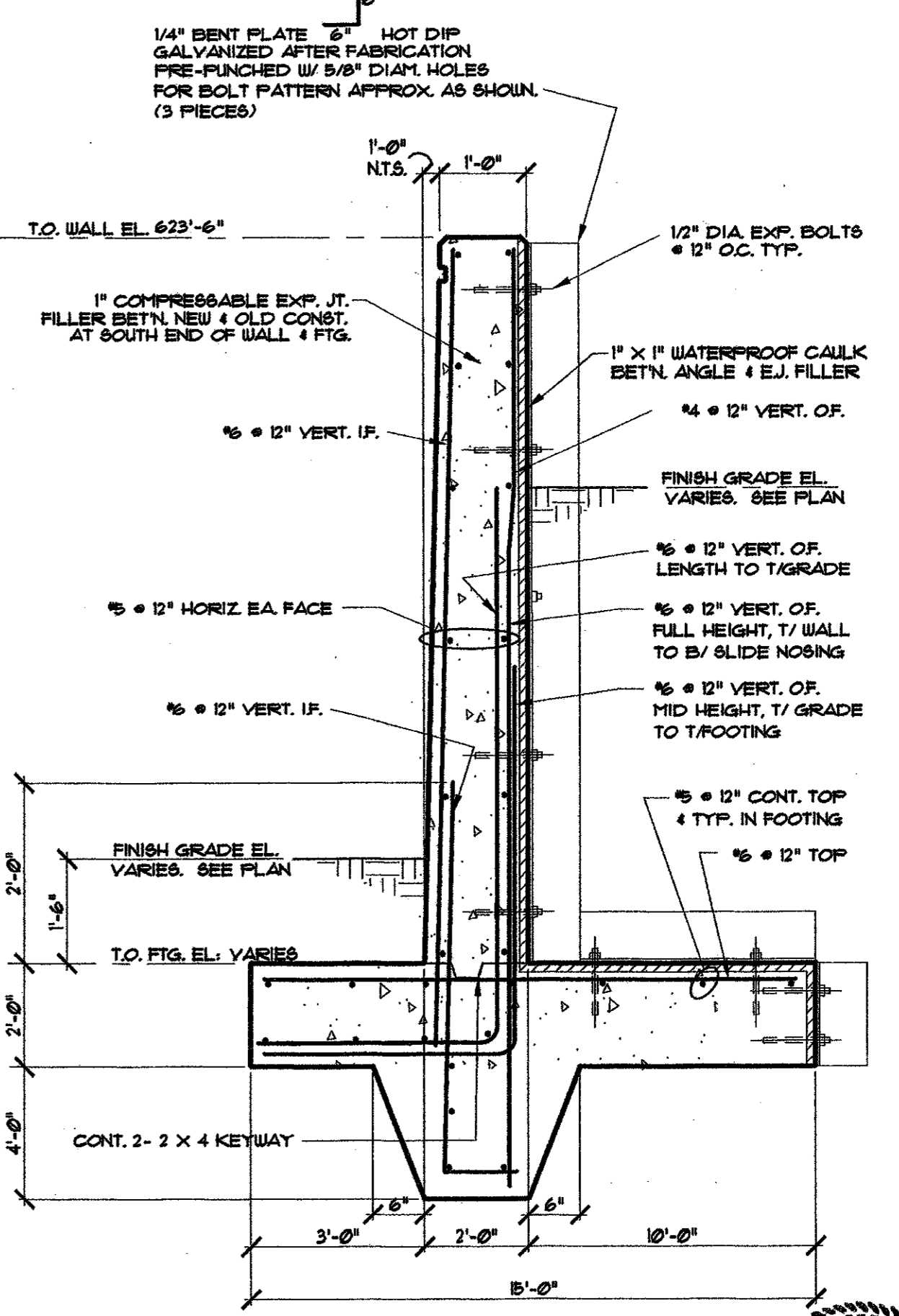
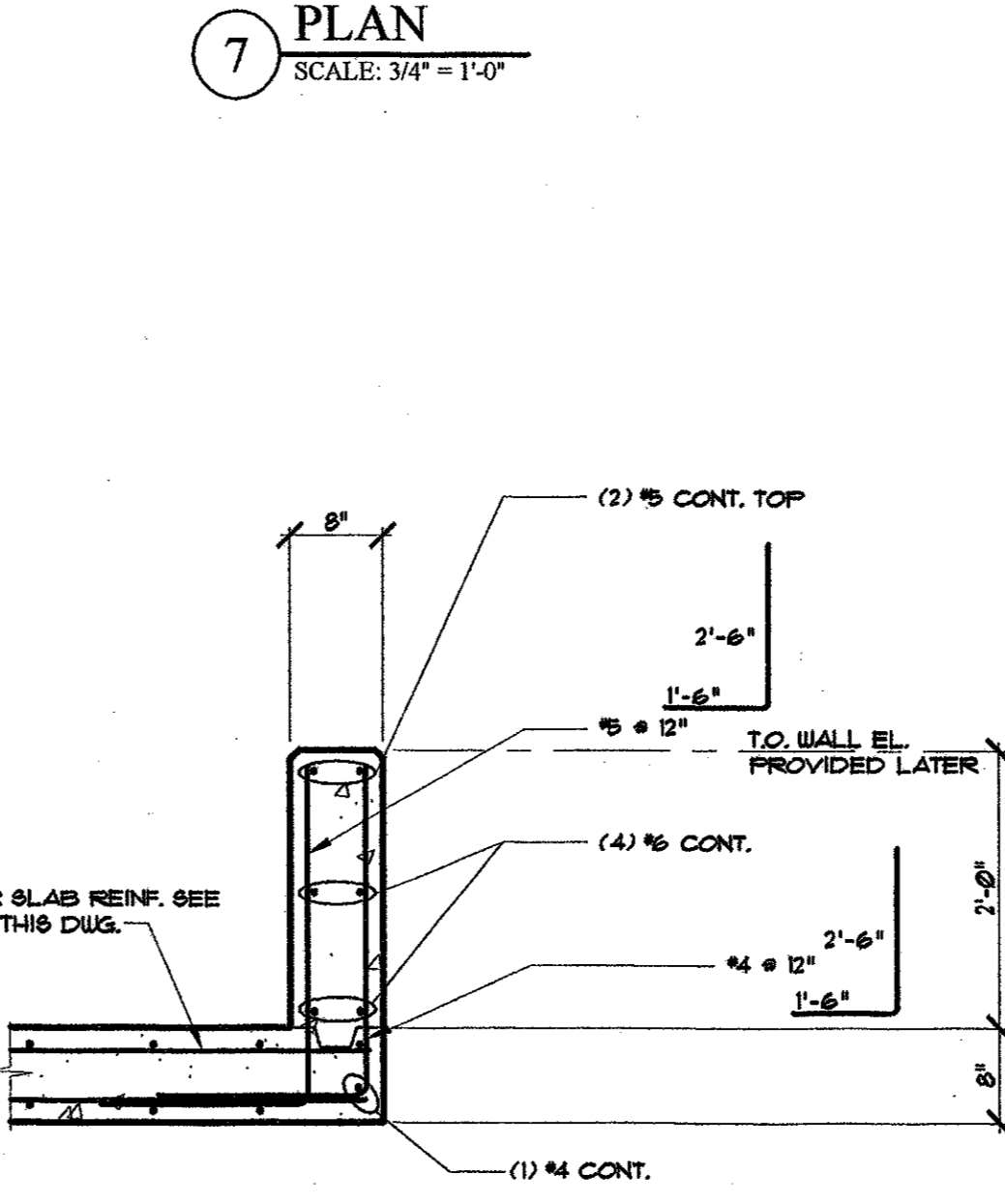
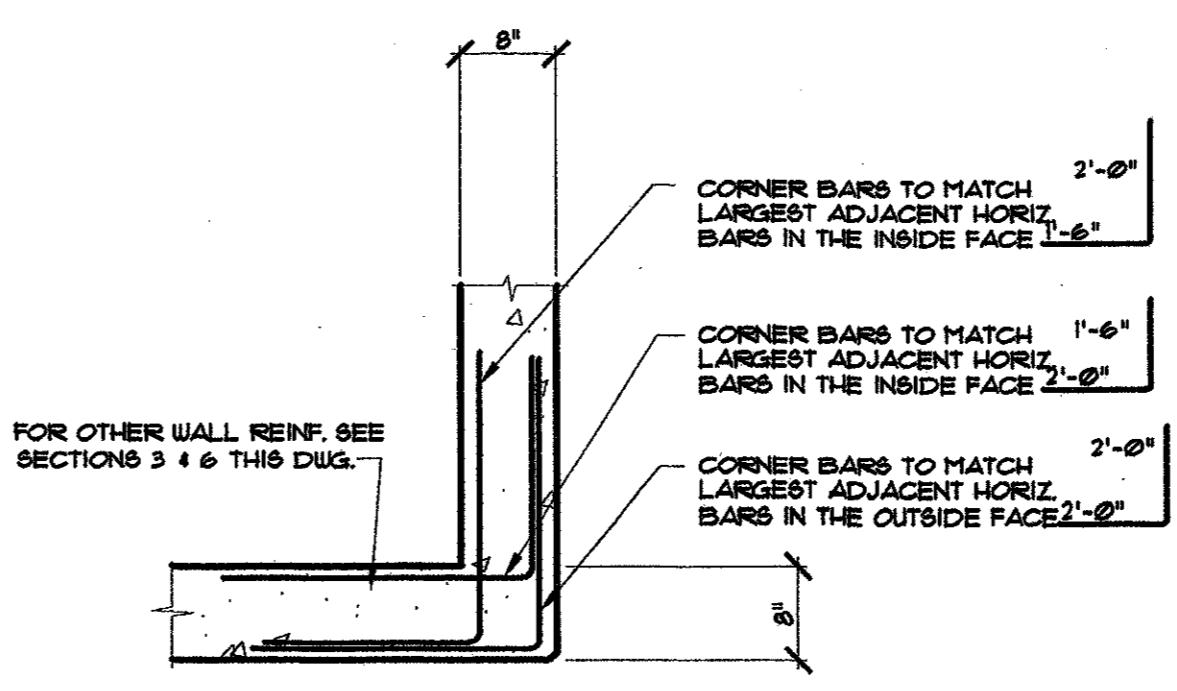
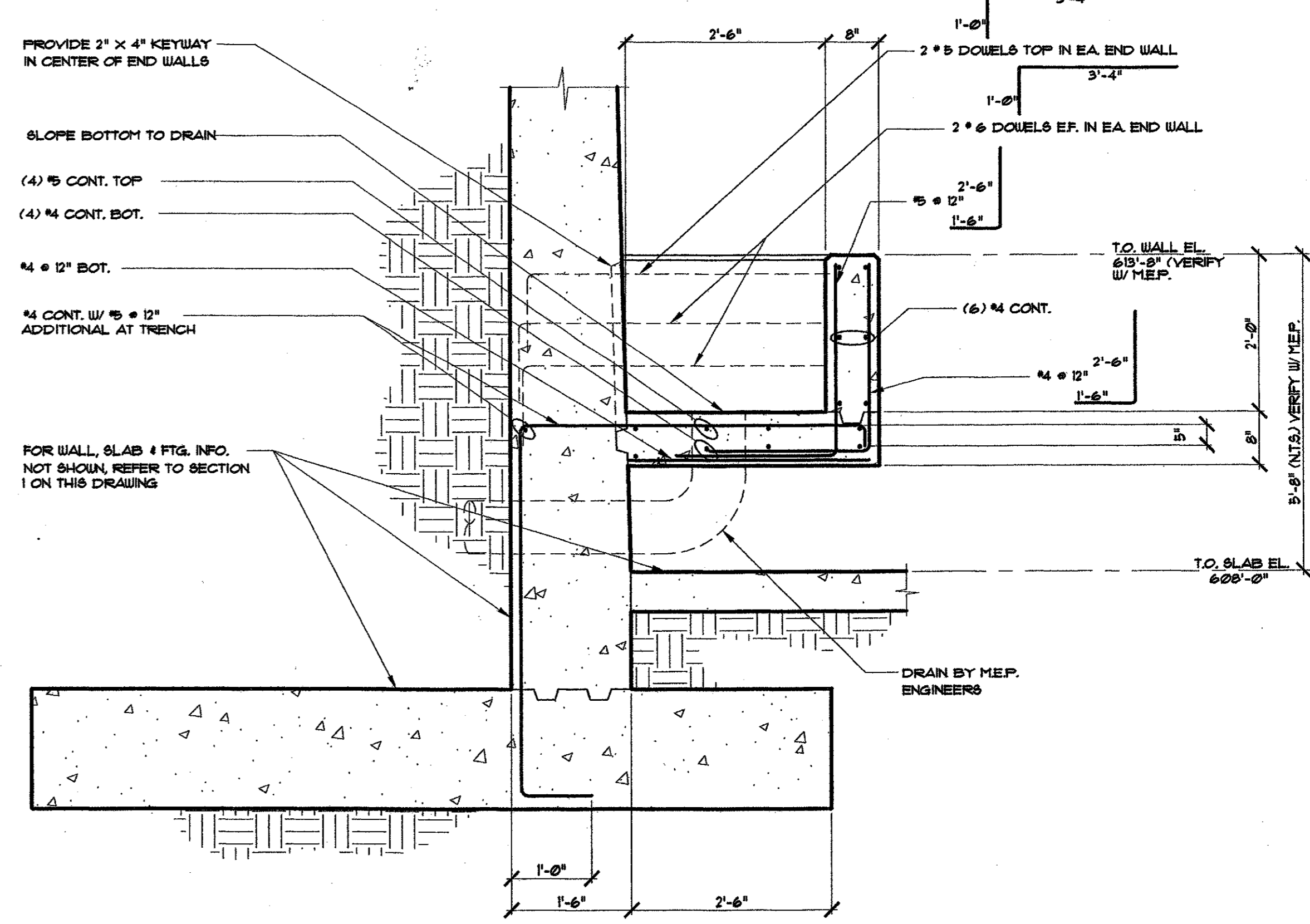
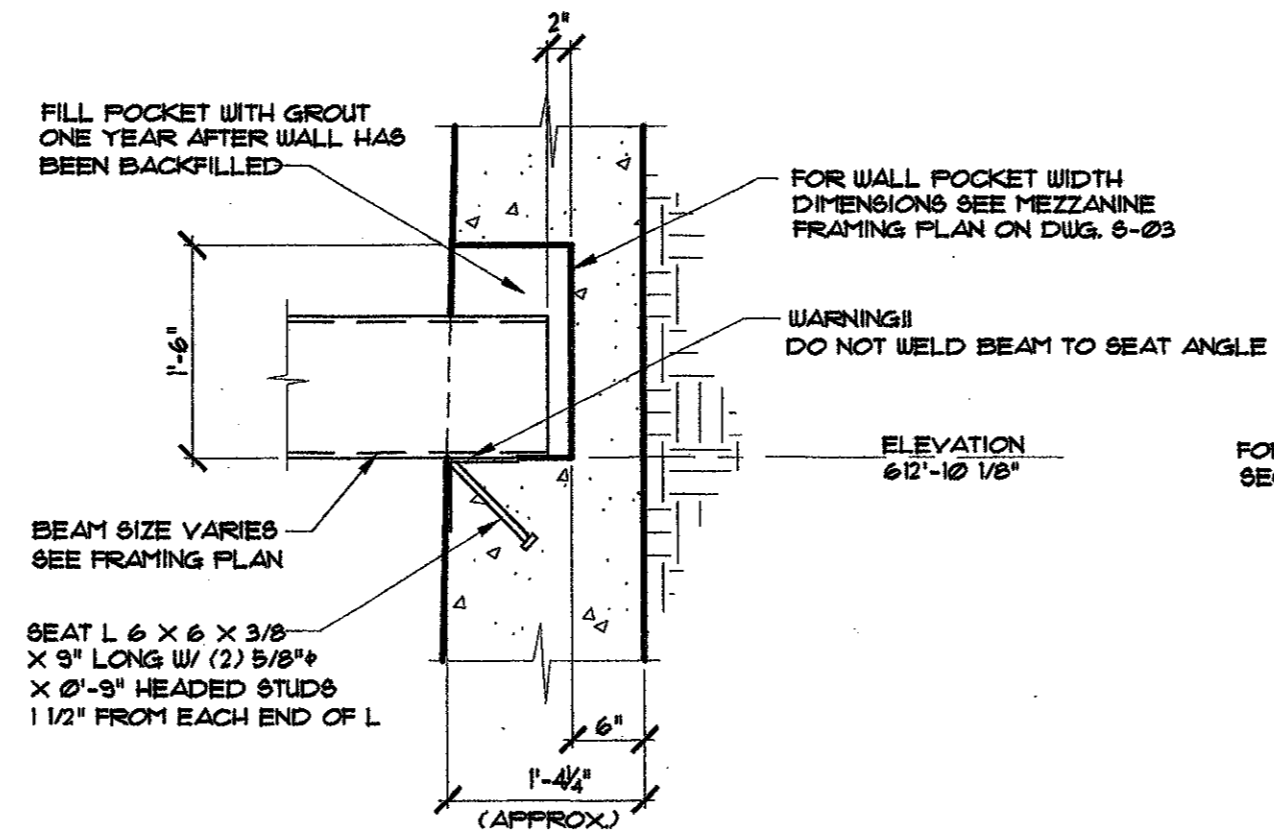
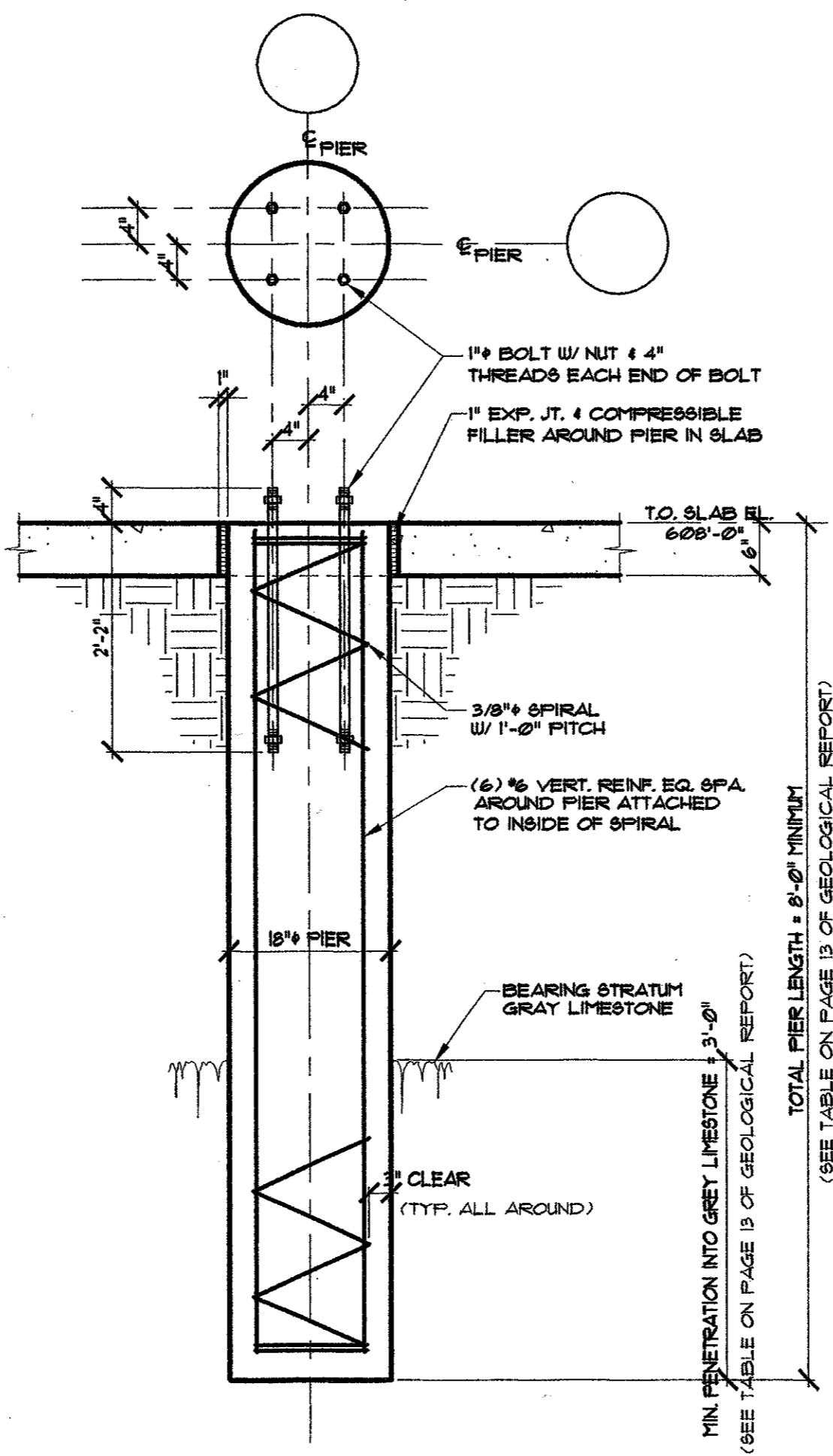
Sheet Title
SECTIONS & DETAILS

Sheet Number

S-05



2 PLAN
SCALE: 3/4" = 1'-0"



NOTE: PROVIDE VERTICAL CONTINUOUS CONTROL JOINTS AS FOLLOWS TO ALL EXPOSED TO VIEW CONCRETE WALLS AND RETAINING WALLS. CONTROL JOINTS SHALL BE 1/2" DEEP AND SPACED AT 20'-0" O.C. MAX. COORD. WITH ENGINEER PRIOR TO CONSTRUCTION.



Project Revisions

Project Number
02110

Issue Date

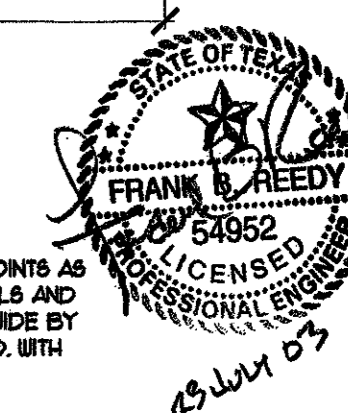
23 July 2003

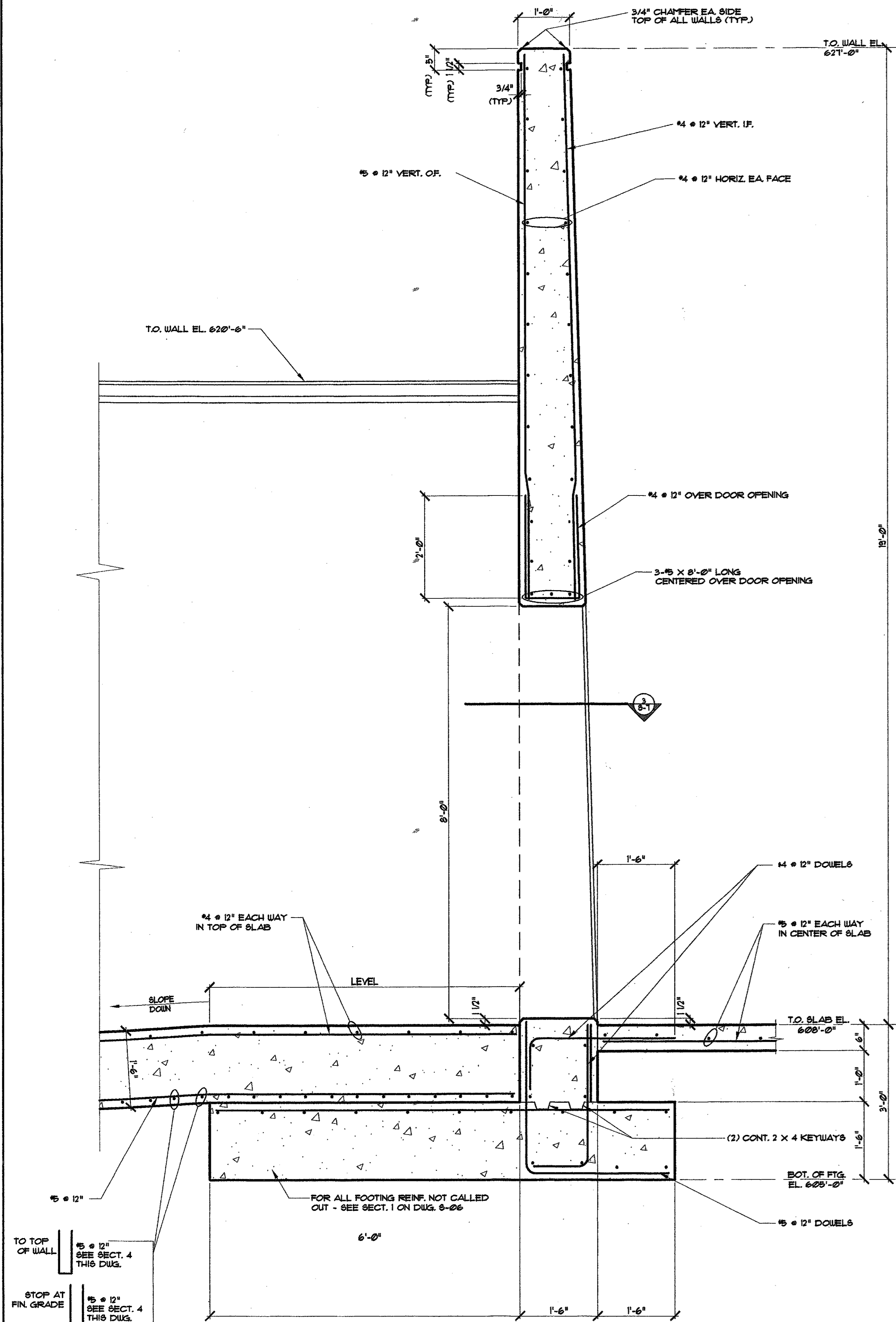
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SECTIONS & DETAILS

Sheet Number

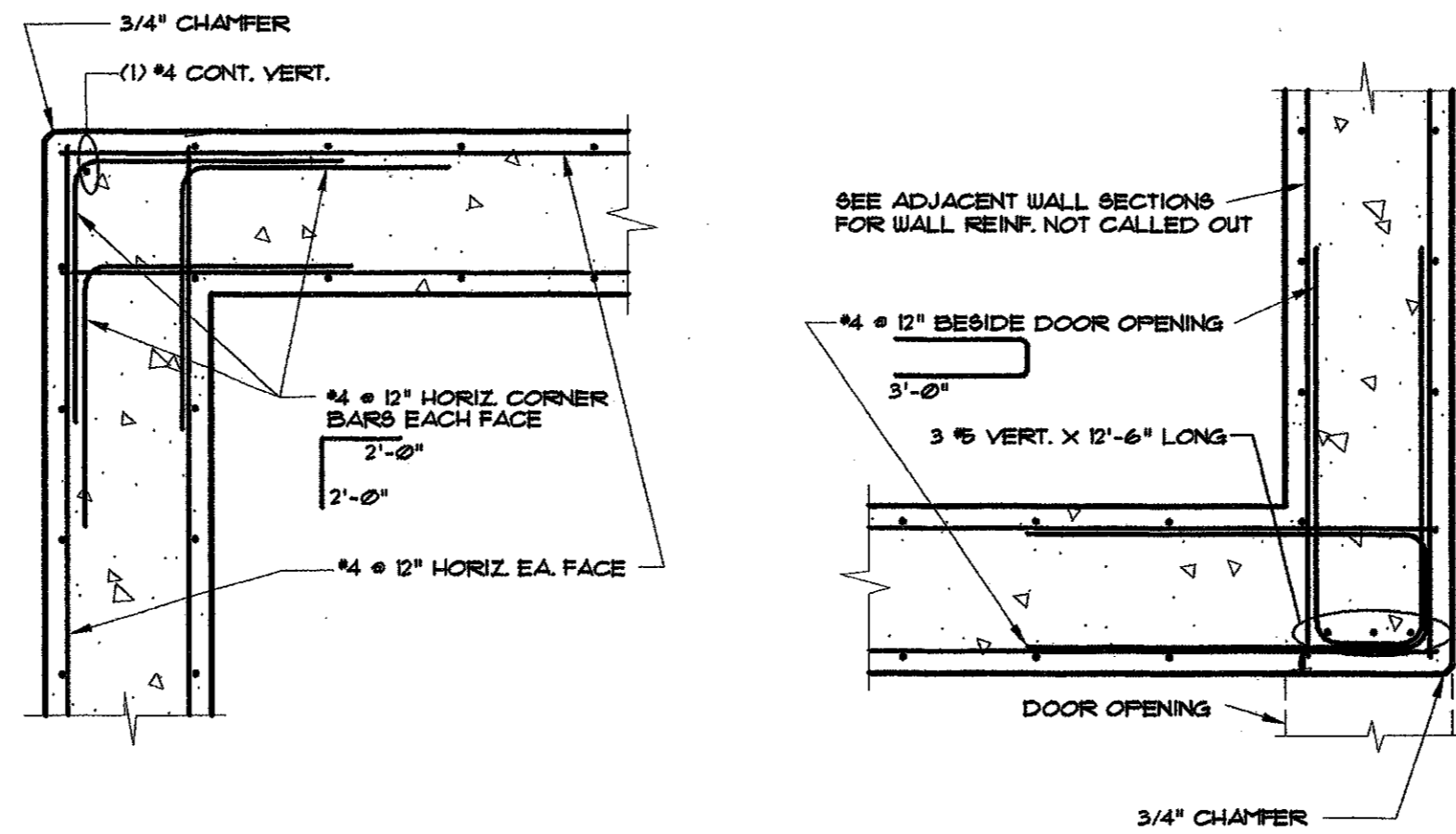
S-06



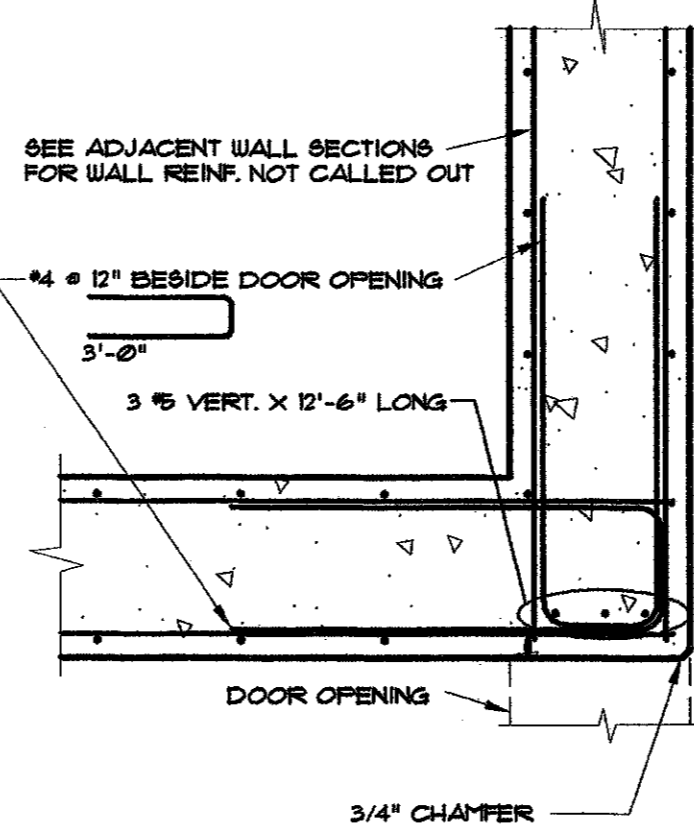


1 SECTION
SCALE: 3/4" = 1'-0"

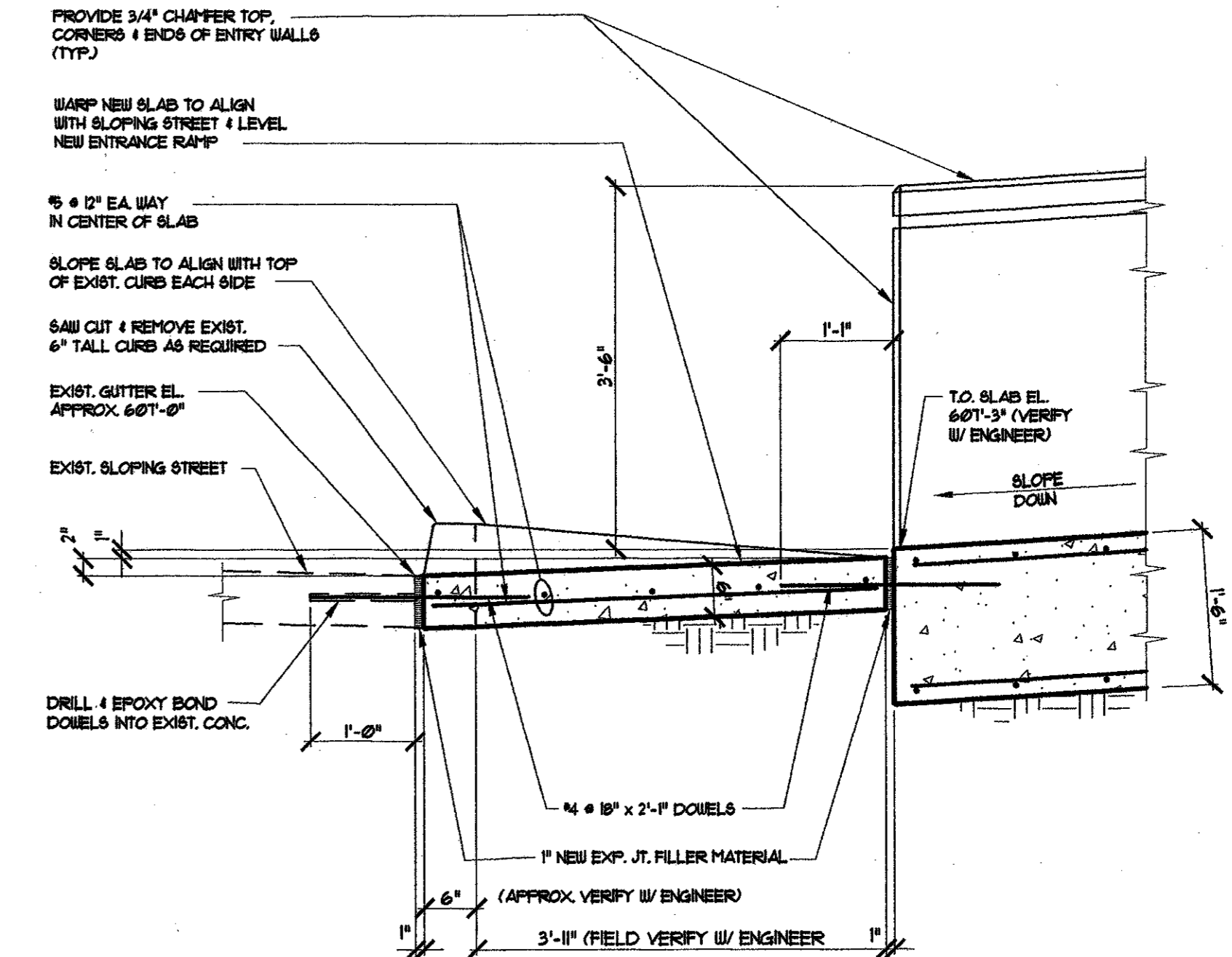
NOTE: PROVIDE VERTICAL CONTINUOUS CONTROL JOINTS AS FOLLOWS TO ALL EXPOSED TO VIEW CONCRETE WALLS AND RETAINING WALLS. CONTROL JOINTS SHALL BE 1/4" WIDE BY 12" DEEP AND SPACED AT 20'-0" O.C. MAX. COORD. WITH ENGINEER PRIOR TO CONSTRUCTION. TYP. ALL WALLS.



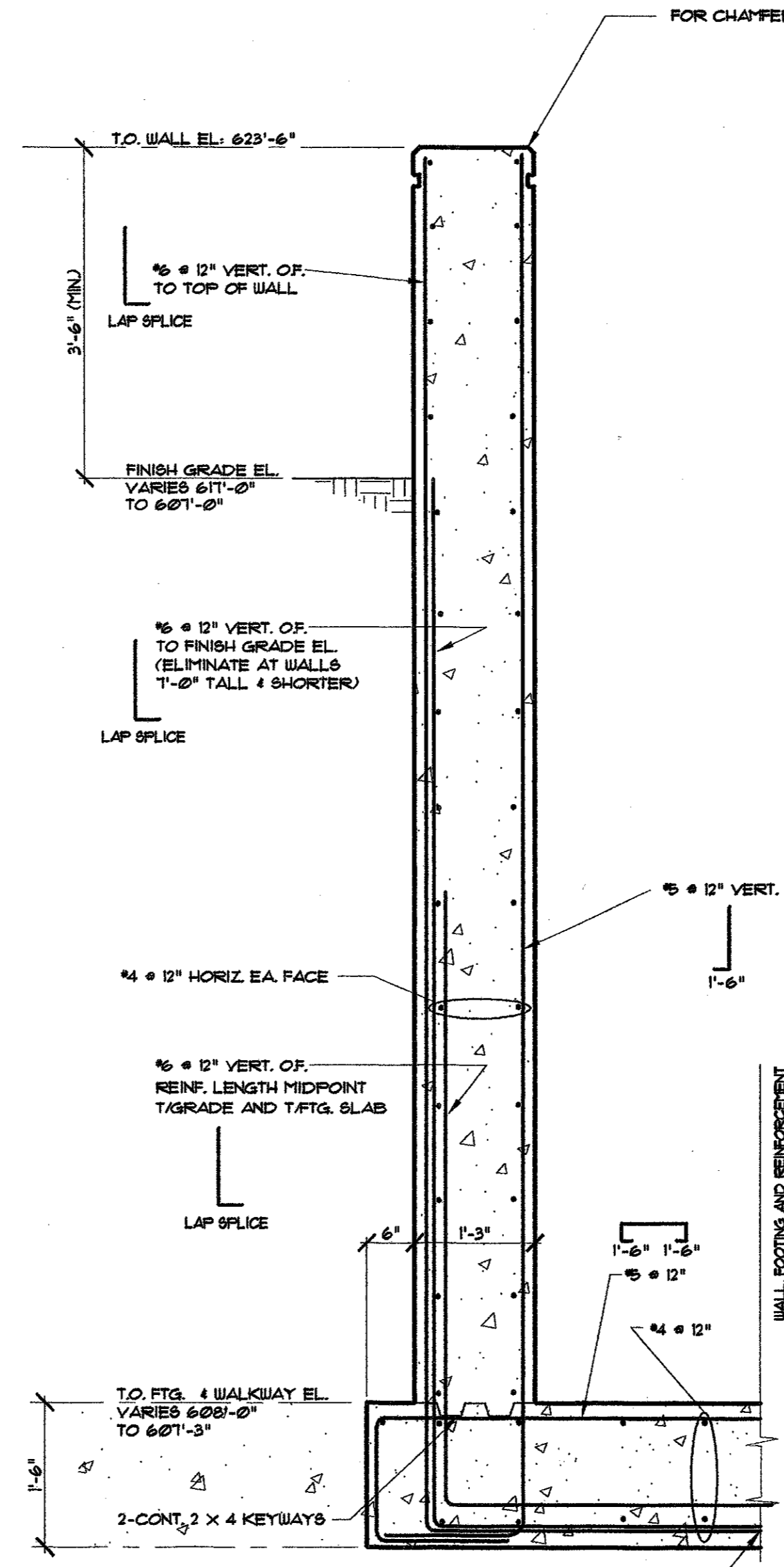
ENTRANCE WALLS
2 PLAN
SCALE: 3/4" = 1'-0"



DOOR JAMB
3 PLAN
SCALE: 3/4" = 1'-0"



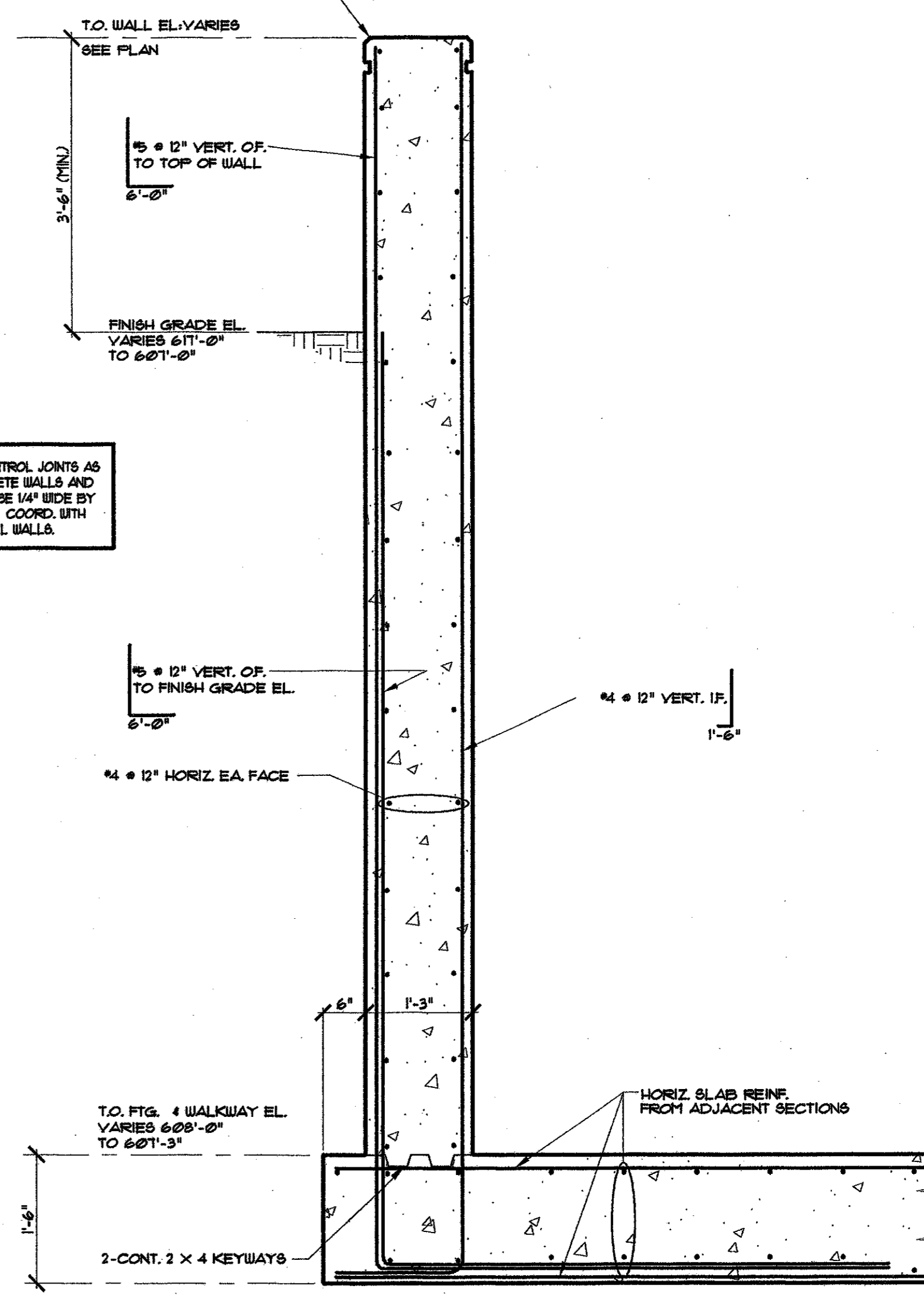
SECTION
SCALE: 3/4" = 1'-0"



4 SECTION
SCALE: 3/4" = 1'-0"

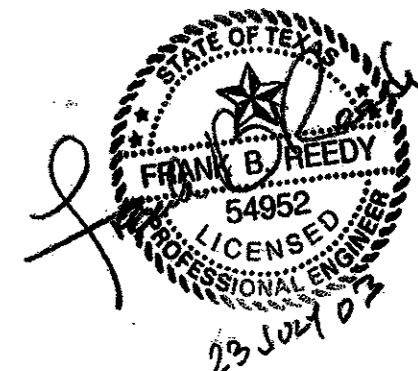
NOTE: PROVIDE BEHIND WALL WATERPROOFING IN ACCORDANCE WITH 2-6-04 TYPICAL ALL RETAINING WALLS AND CHILLER ENCLOSURE WALLS.

NOTE: PROVIDE VERTICAL CONTINUOUS CONTROL JOINTS AS FOLLOWS TO ALL EXPOSED TO VIEW CONCRETE WALLS AND RETAINING WALLS. CONTROL JOINTS SHALL BE 1/4" WIDE BY 12" DEEP AND SPACED AT 20'-0" O.C. MAX. COORD. WITH ENGINEER PRIOR TO CONSTRUCTION. TYP. ALL WALLS.



5 SECTION
SCALE: 3/4" = 1'-0"

NOTE: PROVIDE BEHIND WALL WATERPROOFING IN ACCORDANCE WITH 2-6-04 TYPICAL ALL RETAINING WALLS AND CHILLER ENCLOSURE WALLS.



DFW Consulting Group, Inc.
8410 Sterling
Irving, TX 75063
(972) 929-1199

Structural Engineering
Architectural Engineering
8588 Northwest Plaza Drive
Suite 214
Dallas, Texas 75225
214-373-0164
214-373-0170 Fax
reedygrp@swbell.net

T H E
R E D D U
G R O

Mary Kay, Inc.
Corporate 1
Addison, Texas
Cooling Tower Addition

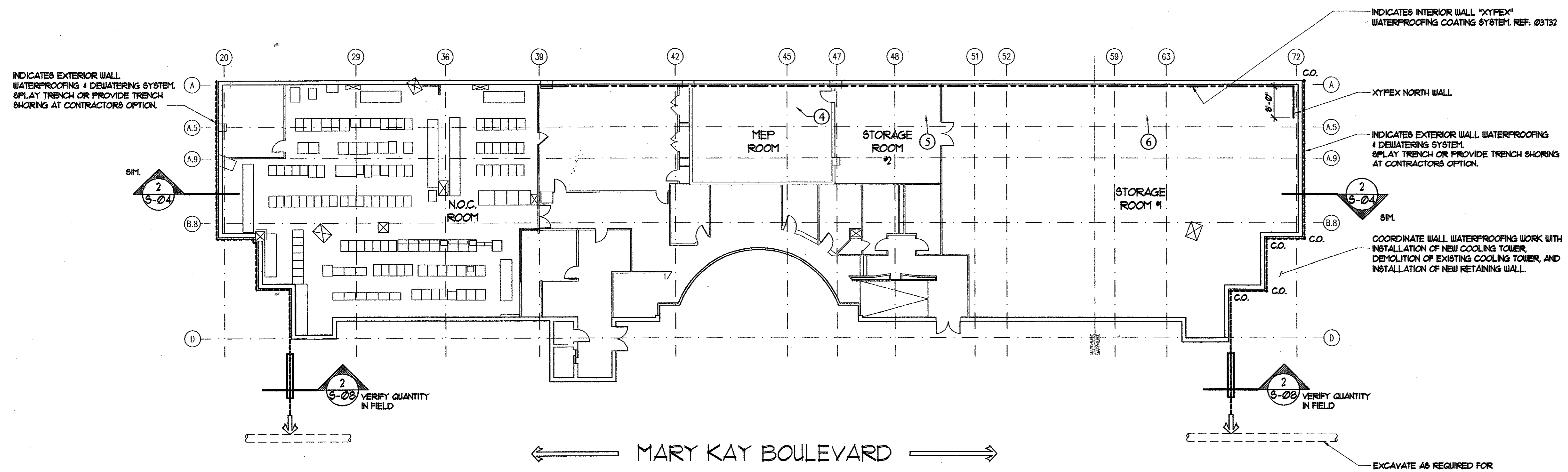
Project Revisions

Project Number
02110

Issue Date
23 July 2003

Sheet Title
SECTIONS
& DETAILS

Sheet Number
S-07

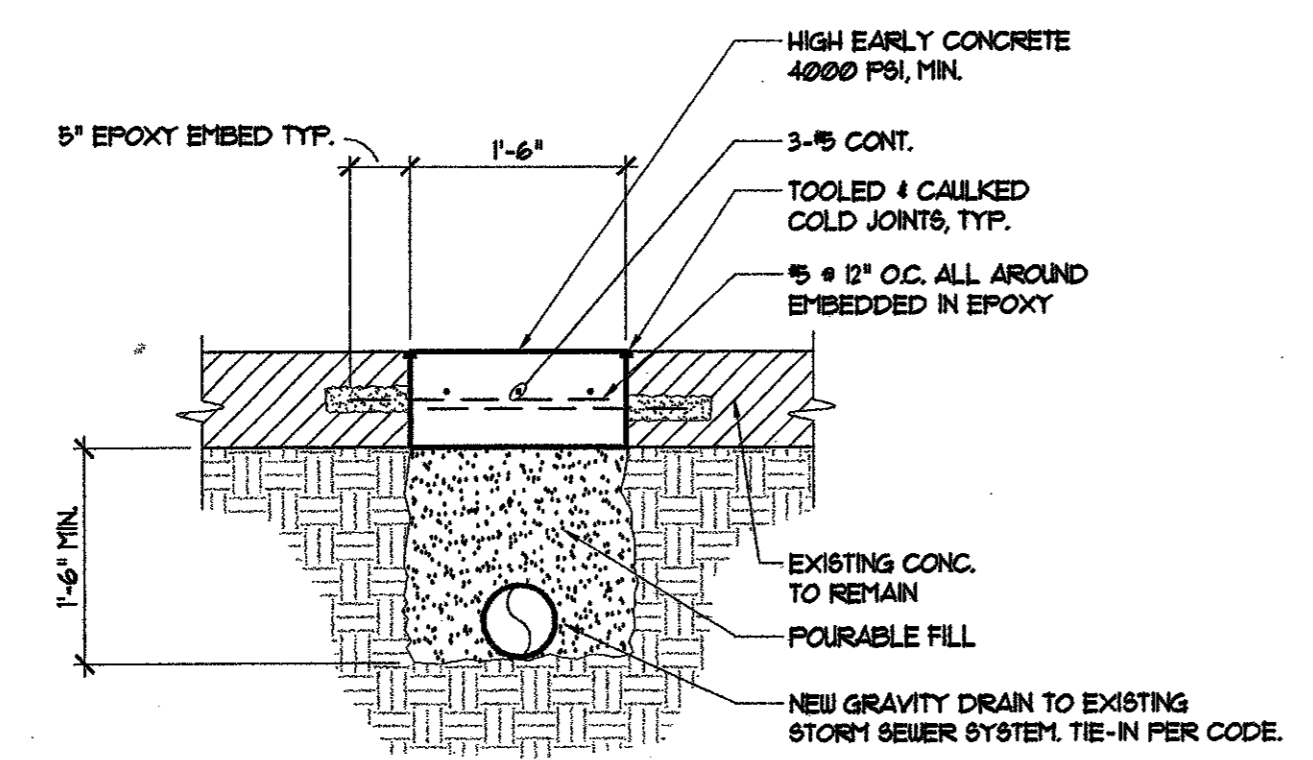


PLAN NOTES:

- ① REMOVE SPOILAGE FROM SITE.
- ② REPLANT LANDSCAPING TO MATCH EXIST. REMOVED.
- ③ RETAIN SOME SPOILAGE TO FILL EXCAVATION. COMPACT FILL MATERIALS PER SPEC.
- ④ URETHANE INJECT 50 LF. OF CRACKS IN CEILING STRUCTURE. XYFEX 322 SF. OF WEST WALL.
- ⑤ URETHANE INJECT 50 LF. OF CRACKS IN CEILING STRUCTURE. XYFEX 2320 SF. OF WEST AND NORTH WALLS. REMOVE AND REPLACE 325 SF. OF SUSPENDED CEILING GRID AS REQUIRED TO INSPECT AND INJECT CEILING STRUCTURE.
- ⑥ URETHANE INJECT 100 LF. OF CRACKS IN CEILING STRUCTURE. XYFEX 1520 SF. OF WEST WALL. REMOVE AND REPLACE 1020 SF. OF SUSPENDED CEILING GRID AS REQUIRED TO INSPECT AND INJECT CEILING STRUCTURE.

1 PARTIAL FLOOR PLAN
SCALE: 1/16" = 1'-0"

WORK SPECIFIED ON THIS SHEET IS TO BE PERFORMED UNDER AN ALTERNATE BID.
REFER TO THE SPECIFICATIONS FOR BID INFORMATION.



2 SECTION AT PAVEMENT
SCALE: 3/4" = 1'-0"

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Irving, TX 75063
(972) 929-1199

Structural Engineering
Architectural Engineering
8588 Northwest Plaza Drive
Suite 214
Dallas, Texas 75225
214-378-0170 Fax
reedgcp@earthlink.net



Mary Kay, Inc.
Corporate 1
Addison, Texas
Cooling Tower Addition

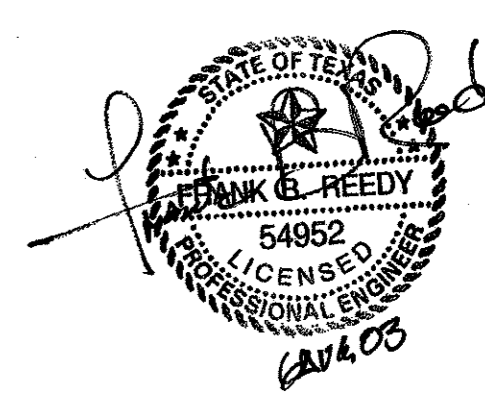
Project Revisions
▲ ADDENDUM 1, 8/6/03

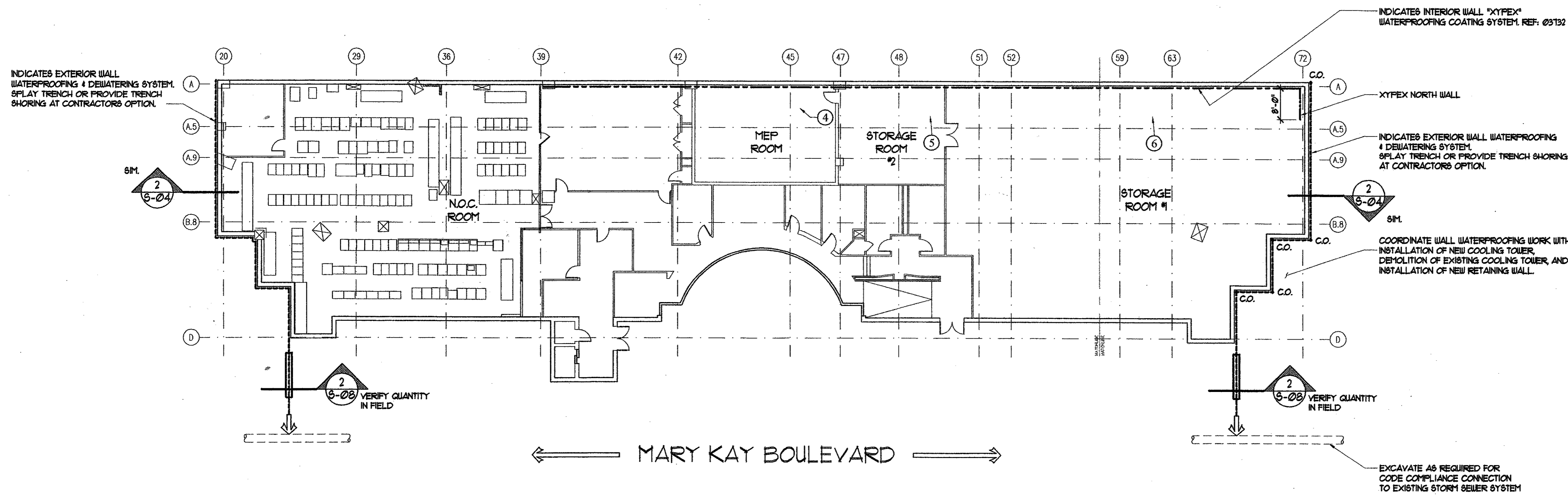
Project Number
02110

Issue Date
23 July 2003

Sheet Title
PARTIAL
FLOOR PLAN

Sheet Number
S-08



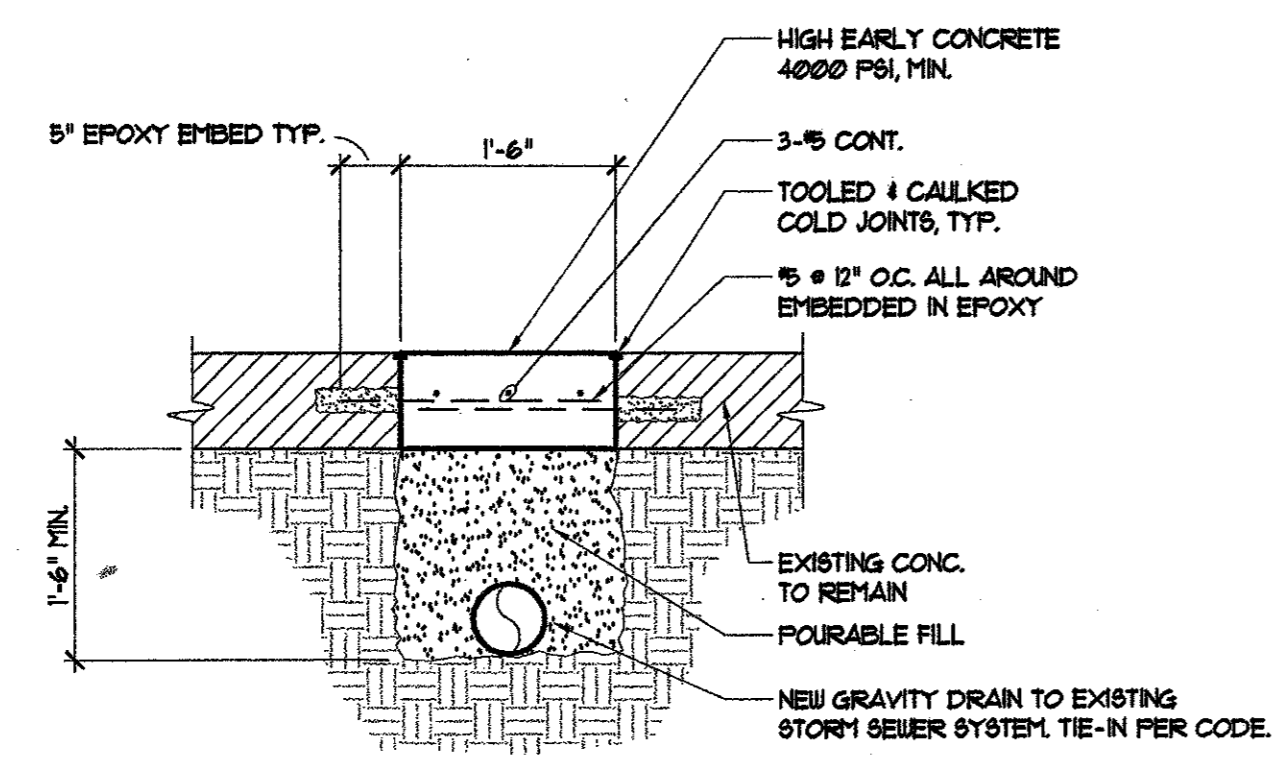


PLAN NOTES:

- 1 REMOVE SPOILAGE FROM SITE.
- 2 REPLANT LANDSCAPING TO MATCH EXIST. REMOVED
- 3 RETAIN SOME SPOILAGE TO FILL EXCAVATION. COMPACT FILL MATERIALS PER SPEC.
- 4 URETHANE INJECT 5/8 LF. OF CRACKS IN CEILING STRUCTURE. XYPEX 300 SF. OF WEST WALL.
- 5 URETHANE INJECT 5/8 LF. OF CRACKS IN CEILING STRUCTURE. XYPEX 400 SF. OF WEST WALL. REMOVE AND REPLACE 32 SF. OF SUSPENDED CEILING GRID AS REQUIRED TO INSPECT AND INJECT CEILING STRUCTURE.
- 6 URETHANE INJECT 1/2 LF. OF CRACKS IN CEILING STRUCTURE. XYPEX 600 SF. OF WEST WALL. REMOVE AND REPLACE 100 SF. OF SUSPENDED CEILING GRID AS REQUIRED TO INSPECT AND INJECT CEILING STRUCTURE.

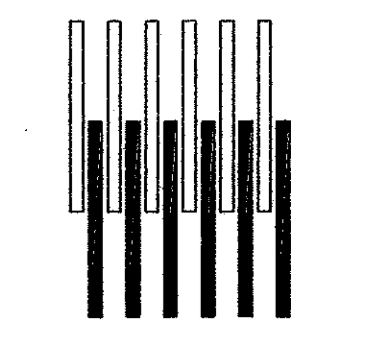
1 PARTIAL FLOOR PLAN
SCALE: 1/16" = 1'-0"

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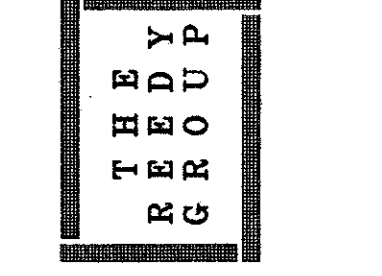


2 SECTION AT PAVEMENT
SCALE: 3/4" = 1'-0"

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8410 Sterling
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Mary Kay, Inc.
Corporate 1
Addison, Texas
Cooling Tower Addition

Project Revisions

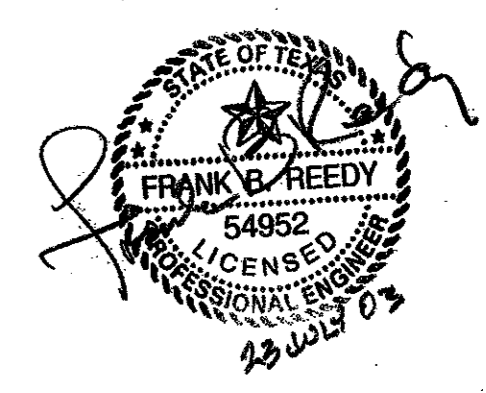
Project Number
02110

Issue Date

23 July 2003

Sheet Title
PARTIAL FLOOR PLAN

Sheet Number
S-08



Lynn Chandler

From: Slade Strickland
Sent: Thursday, October 30, 2003 4:19 PM
To: 'ken.robblins@mkcorp.com'
Cc: Ron Lee; Lynn Chandler
Subject: Cooling Tower Project - Tree Transplant

Consider this as approval to transplant the existing live oak on the northwest corner of the Mary Kay building to the end of the tree row along the NDT service road on the southeast corner of the building.

Thanks you.

Slade Strickland
Director of Parks and Recreation
Town of Addison, Texas
O - 972-450-2869
F - 972-450-2834
sstrickland@ci.addison.tx.us
Town of Addison City Government

Lynn Chandler

From: Slade Strickland
Sent: Thursday, October 30, 2003 4:27 PM
To: 'ken.robins@nkc corp.com'
Cc: Ron Lee; Lynn Chandler
Subject: Cooling Tower Project - Potential Red Cedar Construction Encroachment

We are in agreement that there exists the possibility of construction activity near the native red cedar located northwest of the construction site. The Town of Addison recommends that the cedar be preserved; however, it is agreed that root system damage, and possibly, complete removal may be necessary. If so, there will be no tree mitigation required.

Thank you.

Slade Strickland

Director of Parks and Recreation

Town of Addison, Texas

O - 972-450-2869

F - 972-450-2834

sstrickland@ci.addison.tx.us

Town of Addison City Government

Larry Adair—972-241-9411-x 217
FAX: 972-484-6013



Fax

To: Steve Chulchin—City of Addison From: Larry Adair

Fax: 972-450-2837 Pages: 5

Phone: 972-450-2886 Date: 11/7/2003

Re: Submittals for Mary Kay Cooling Tower CC:

Urgent For Review Please Comment Please Reply Please Recycle

● **Comments:** Steve: Following backflow preventer, water meter and vault submittal is for your review. Please advise if you need anything else.

Thanks for your help and cooperation.


Larry

Need Redwood Pressure
Principle ~~DETECTOR~~ Assembly RAL

Cobrao Model # is ~~40-70C~~ other 6" options ~~Ames 5000~~
Watts 009 NRS
Watts 909 RPD A
Watts 826 VD

Submit meter spec to match with ours, Turbine bypass
 meter w/ electronic anc odor register with touch pads.
 RAL 11/6/03

SUBMITTAL DATA

Oslin Nation Co.***MECHANICAL EQUIPMENT FOR HVAC, PROCESS, INDUSTRY*****5510 S. WESTMORELAND #300 • DALLAS, TX 75237 • PHONE (214) 631-6650 • (800) 293-2506 • FAX (972) 988-1446**

Date: October 9, 2003
 Project: Mary Kay Cooling Tower
 Engineer: DFW Consulting
 Contractor: Brandt

Backflow Preventers

Quantity	Model	Inches
1	40-200	6"

Contraco Reduced Pressure Principle Backflow Preventer to protect against back pressure or back siphonage. Bronze body with stainless steel springs and fasteners. Furnished with ball valves. Each furnished with 1) model 40-200-X1 air gap drain.

Submitted by:

B. Hoyer

Bud Hoyer

BACKFLOW PREVENTERS

SERIES 40-200

REDUCED PRESSURE PRINCIPLE SIZES 6" — 8" — 10"



DESCRIPTION

The Conbraco Series 40-200 Reduced Pressure Backflow Preventer consists of two independently acting, spring-loaded check valves with a differential pressure relief valve located between the check valves. The relief valve module is easily removed from the ductile iron check valve body. Pressure sensing passages are built into the relief valve module to prevent possible damage from mishandling or vandalism. The unit is available with inlet and outlet shutoff valves. Four test cocks, three on the backflow preventer valve body and one on the inlet shutoff valve, complete the assembly.

OPERATION

During normal flow conditions, the two check valves are held off their seats, supplying water downstream. The relief valve is held shut by supply pressure acting through the internal sensing passage, on the relief valve diaphragm. In the area between the check valves, called the zone, the pressure is maintained at approximately 7 PSI lower than supply pressure. Should a back-pressure or back-siphonage condition occur, the second check valve will seal, prohibiting the back-flow of water. Should the second check valve become fouled, the pressure in the zone will increase causing the differential relief valve to open to atmosphere. This will maintain the pressure in the zone at least 2 PSI lower than supply pressure.

FEATURES

- Maximum protection against back-pressure/back-siphonage
- Removable bronze seats
- Replaceable discs
- Internal sensing passage
- Designed for easy maintenance
- Low head loss
- Economical
- Corrosion resistant
- Maximum working pressure 175 PSI
- Operating temperature range 33°F-140°F

APPROVALS

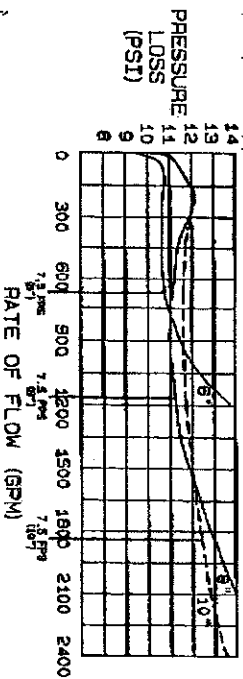
The Series 40-200 is approved under ASSE 1013, AWWA IAPMO, CSA B64.4, FM, UL Classified and USCG's FCC&HR, UL, FM approved backflow preventers must include OS&Y gate valves.



MATERIALS

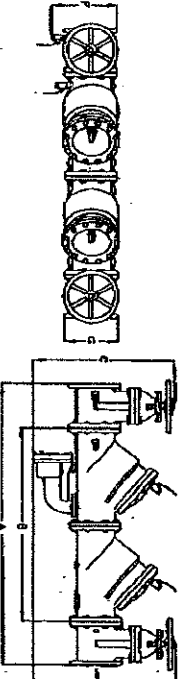
2. Springs	Stainless Steel
4. C.V. Discs	EPDM
6. R.V. Diaphragm	Buna N and Nylon
8. R.V. Body	Epoxy Coated (FDA Approved) Ductile Iron — For 8" and 10" only

FLOW CURVES



DIMENSIONS (IN.) — WEIGHTS (LBS.)

A	68	75	88-1/4
B	30-1/2	38-1/2	44
C	OS & Y (OPEN)	19	22-1/2
D	NRS	11-1/2	16
E	Net Wt. (Less Gate Valves)	430	715
F	Net Wt. (w/OS & Y Valves)	754	1210
G	Shipping Wt. (w/NRS Valves)	834	1325
			2318



ORDERING NUMBER

6"	— 40-20C	SUFFIX NUMBERS
8"	— 40-20E	-01 less gate valves
10"	— 40-20G	-02 with NRS gate valves -03 with OS & Y gate valves

BACKFLOW PREVENTERS

TEST KIT

DESCRIPTION

The Contraco Backflow Preventer Test Kits are compact, lightweight and portable testing devices. They come equipped with a gauge, hoses and all required adapter fittings. Also included is a flexible strap for hanging the gauge, instructions and a plastic carrying case.

MODEL

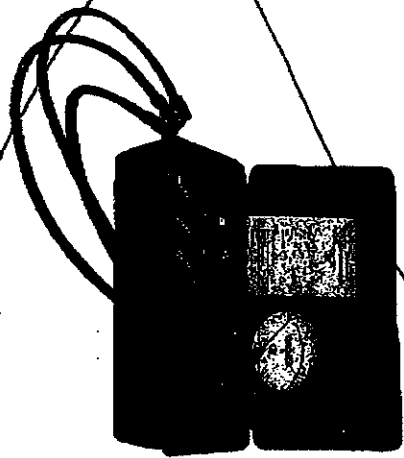
DESCRIPTION

WEIGHT

ALL DCV

780 lbs.

40-100-TK



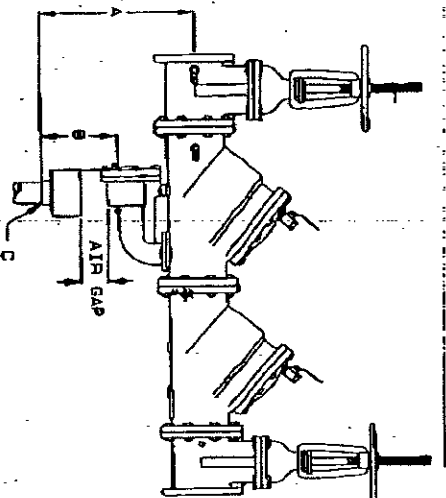
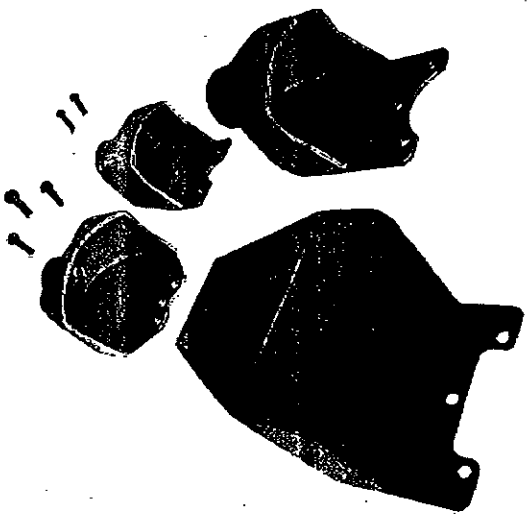
AIR GAP DRAIN

DESCRIPTION

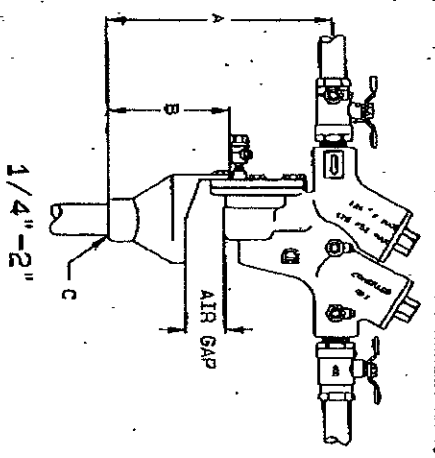
The Contraco Air Gap Drain (AGD) is designed to funnel minor relief valve discharges, due to line pressure fluctuations and/or minor check valve fouling, into the drainage system. Drain piping is easily attached to the drain's threaded bottom.

DIMENSIONS (IN.) - WEIGHTS (LBS.)

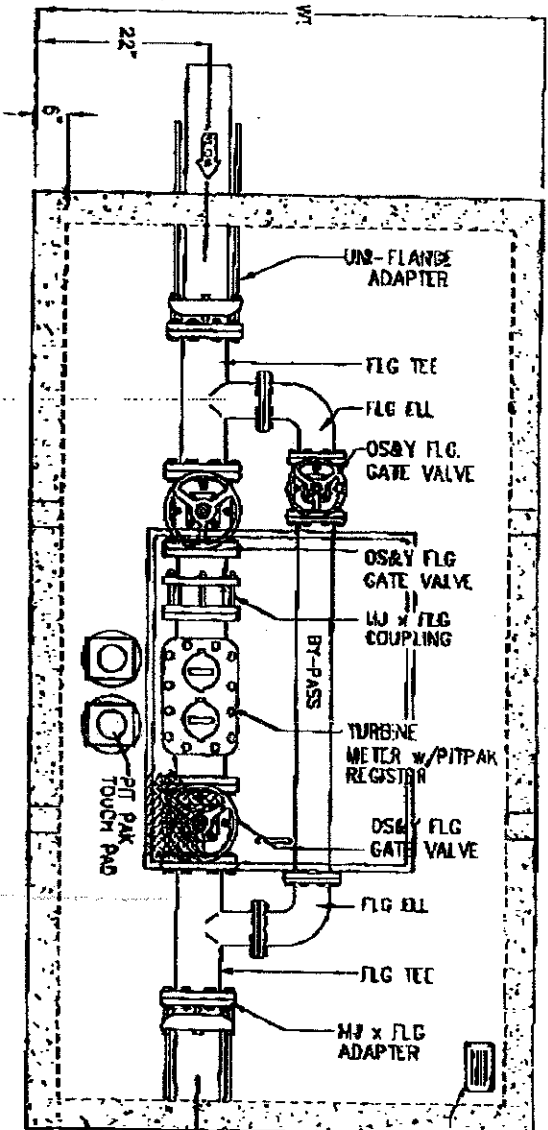
MODEL	DESCRIPTION	WEIGHT
1/4 3/8 1/2"	40-200-XA	8-7/16 5 1 NPT 230
1-1/4 & 2"	40-200-X1	11-1/4 5-3/8 1 NPT 340
4"	40-200-X2	20 9-7/8 2 NPT 1100
8"	40-200-X3	22-5/16 12-5/16 3 NPT 1245



C 1 1/2" - 10"

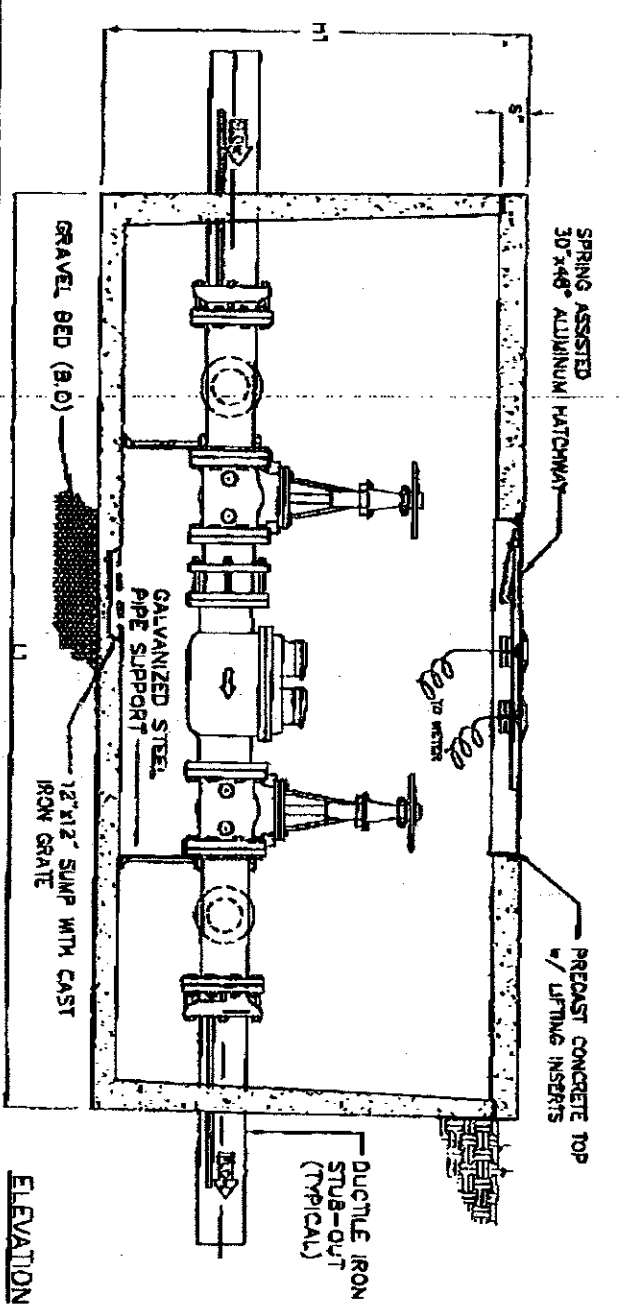


C 1/4" - 2"



MODEL	SIZE	BY PASS	LJ	WT	H1	WEIGHT LBS
DMT-ADS	6"	6"	11'0"	8'-0"	6'-0"	22,500

PLAN VIEW



ELEVATION

Specifications

CONCRETE :

Class 1 concrete with design strength of 4500 PSI or 28 days. Unit is of monolithic construction at floor and first stage of wall with sectional floor to required depth.

REINFORCEMENT:

Grade 60 reinforced. Steel rebar conforming to ASTM A615 on required centers or equal.

HATCHWAY:

1/4" Aluminum diamond plate cover, with 1/4" extruded aluminum frame. Hatch to be furnished with 316 Stainless Steel snap lock & brass hinges.

Engineering Data

The water assembly shall be factory assembled in vault & hydrostatically tested prior to delivery. Field acquisition & preparation shall be complete prior to delivery. Pipe, valves and fittings of the assembly shall be approved by one or more of the following associations:



PROJECT : MARY KAY COOLING TOWER
 CUSTOMER : TRI-DAL
 ENGINEER :

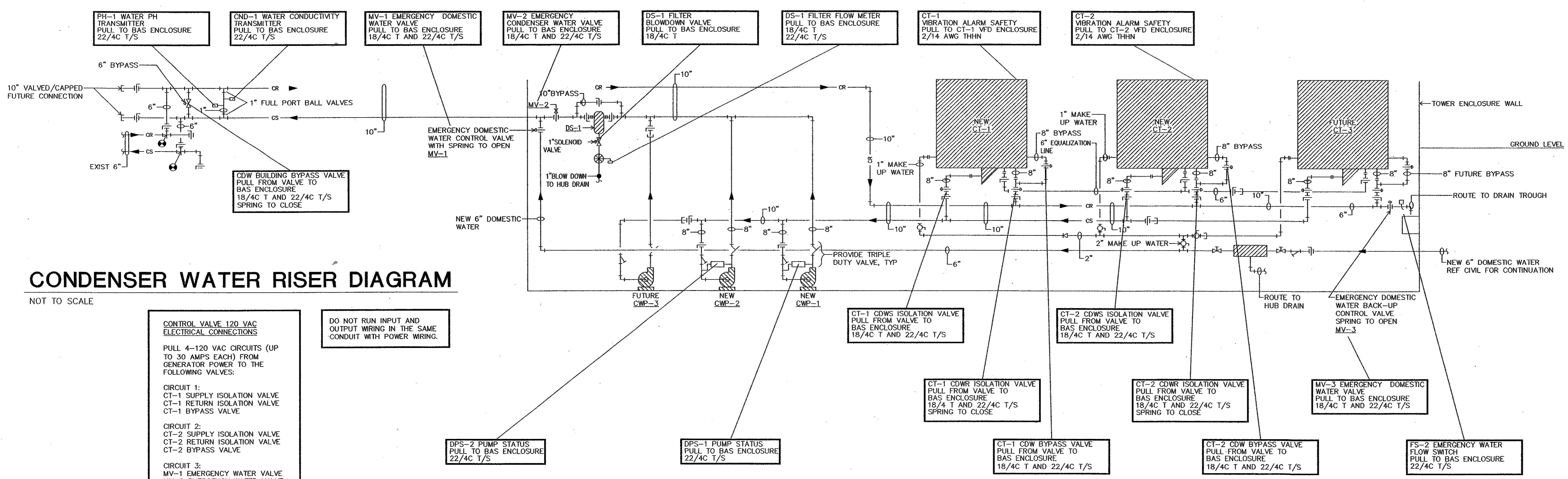
PARK
 EQUIPMENT COMPANY

WAT 800-256-8041

TORNTON AT

ADDISON
6" TURBINE WATER METER ASSEMBLY FOR DOMESTIC SERVICE

SCALE NONE
 DATE 1/99
 DWG. NO. DMT-AD
 REV. A

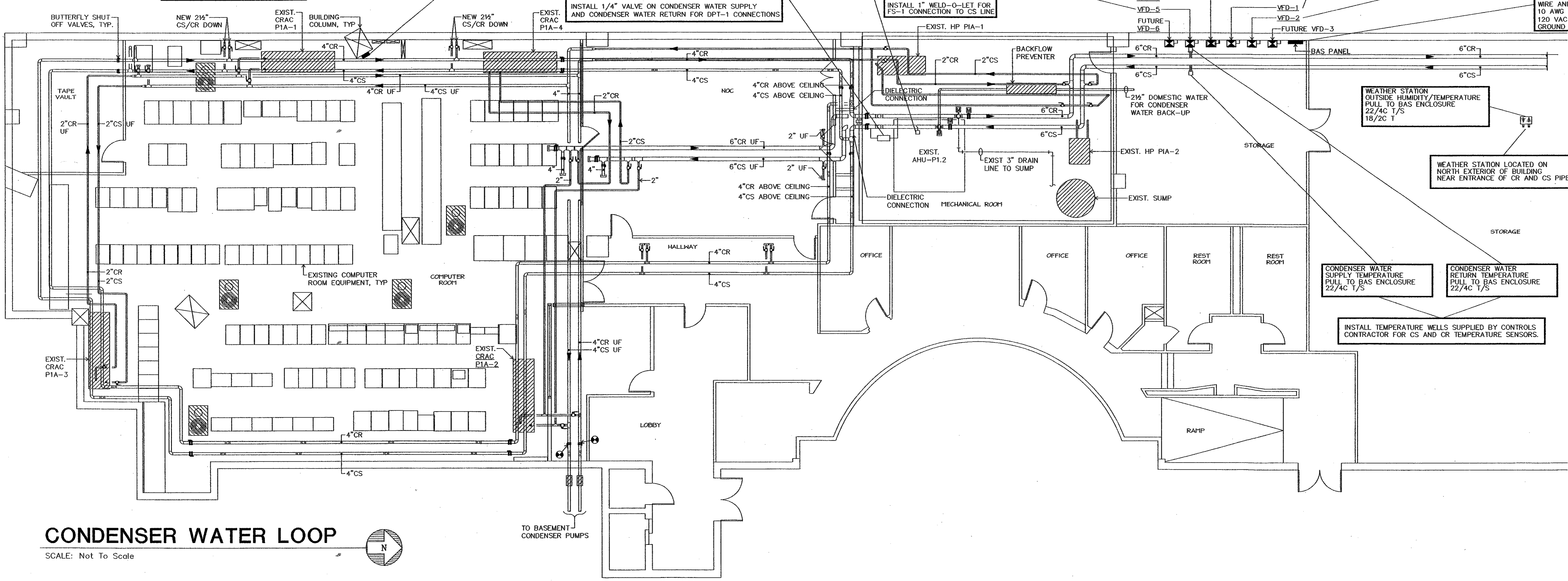


CONDENSER WATER RISER DIAGRAM
NOT TO SCALE

CONTROL VALVE 120 VAC ELECTRICAL CONNECTIONS
PULL 4-120 VAC CIRCUITS (UP TO 30 AMP'S EACH) FROM GENERATOR POWER TO THE FOLLOWING VALVES:
CIRCUIT 1:
CT-1 SUPPLY ISOLATION VALVE
CT-1 RETURN ISOLATION VALVE
CT-1 BYPASS VALVE
CIRCUIT 2:
CT-2 SUPPLY ISOLATION VALVE
CT-2 RETURN ISOLATION VALVE
CT-2 BYPASS VALVE
CIRCUIT 3:
MV-1 EMERGENCY WATER VALVE
MV-2 EMERGENCY WATER VALVE
MV-3 EMERGENCY WATER VALVE
FILTER BLOW DOWN VALVE
CIRCUIT 4:
CDW BUILDING BYPASS VALVE
FIELD VERIFY THE EXACT NUMBER OF CIRCUITS AND NECESSARY AMPERAGE FOR EACH.

DO NOT RUN INPUT AND OUTPUT WIRING IN THE SAME CONDUIT WITH POWER WIRING.

EXISTING NOC PANEL WILL BE REWORKED. SIX ADDITIONAL INPUTS FROM THE BAS WILL BE ADDED FROM THE BAS PANEL TO THE REWORKED NOC PANEL.
PULL BETWEEN BAS AND NOC 6-22/4C T/S



CONDENSER WATER LOOP
SCALE: Not To Scale

BAS ENCLOSURE POWER FROM GENERATOR POWER PULL 2-12 AWG THHN STRANDED WIRE AND ONE GREEN INSULATION TO 120 VAC CIRCUIT W/DEDICATED GROUND



Mary Kay, Inc.
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Sheet Title
Temperature Controls
Sheet Number

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