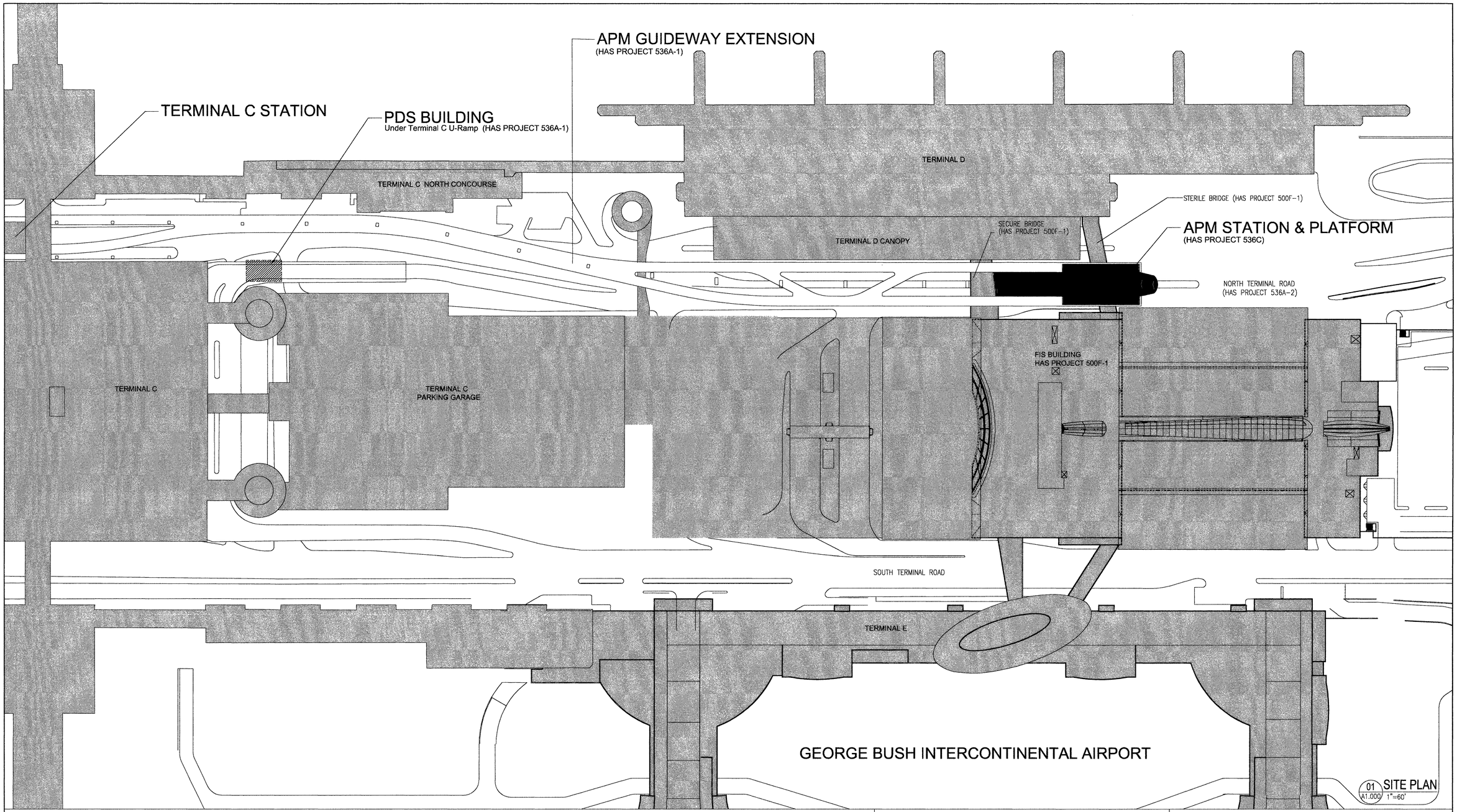
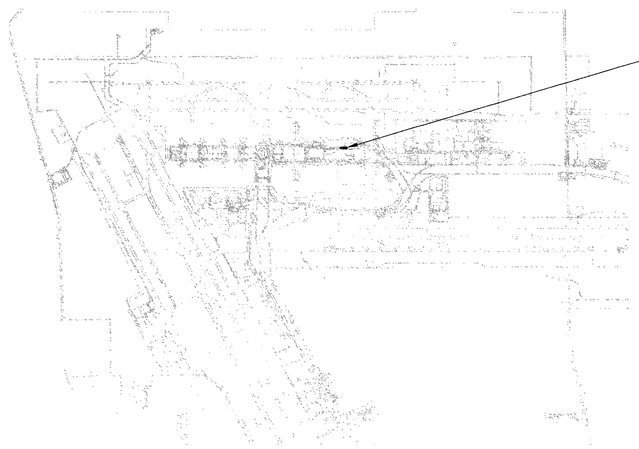


01 SITE PLAN
A1.000 1"=60'



02 KEY MAP
A1.000 N.T.S.

GENERAL NOTES:

- **FOR CIVIL, ROADWAYS, AND TRAFFIC CONTROL PLANS REFER TO HAS PROJECT 536A-2.**
- **THE CONTRACTOR MUST COORDINATE THE CONSTRUCTION OF THE APM STATION & PLATFORM (HAS PROJECT 536C) WITH THE FOLLOWING PROJECTS:**
  - **-APM GUIDEWAY EXTENSION (HAS 536A-1)**
  - **-FIS, SECURE BRIDGE & STERILE BRIDGE (HAS 500F-1)**
  - **-ROADWAYS (HAS PROJECT 536A-2)**
  - **-SITE UTILITIES (HAS 536A-3)**

N

RECORD DRAWINGS
DO NOT MODIFY
Rey de la Reza Architects, Inc.
13 May 2005

Note: Information used to develop these documents was taken from Record of the Work Drawings prepared by the construction contractor, Clark Construction Group - Texas. The information provided by the contractor was not verified by the design firm named above.

NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

0' 60' 120' 180'
SCALE: 1" = 60'

PLOT DATE: 02/04/02 HAS FILE: HAS36CA1000

HOUSTON AIRPORT SYSTEM
GEORGE BUSH
INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

Lee Elliott
1009 W.RANDOL MILL RD
ARLINGTON,TX 76012
Tel: 817.261.1446
Tel: 817.861.3296

REY DE LA REZA ARCHITECTS, INC
ARCHITECTURE PLANNING INTERIOR DESIGN
1245 WEST 15TH ST.
HOUSTON,TX 77008
Tel: 713.868.3121
Tel: 713.802.0112

REVISIONS		
NO. DESCRIPTION	DATE	BY
ISSUED FOR BID	10/19/01	
RECORD SET	05/13/05	EM

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION + PLATFORM

GENERAL SITE PLAN

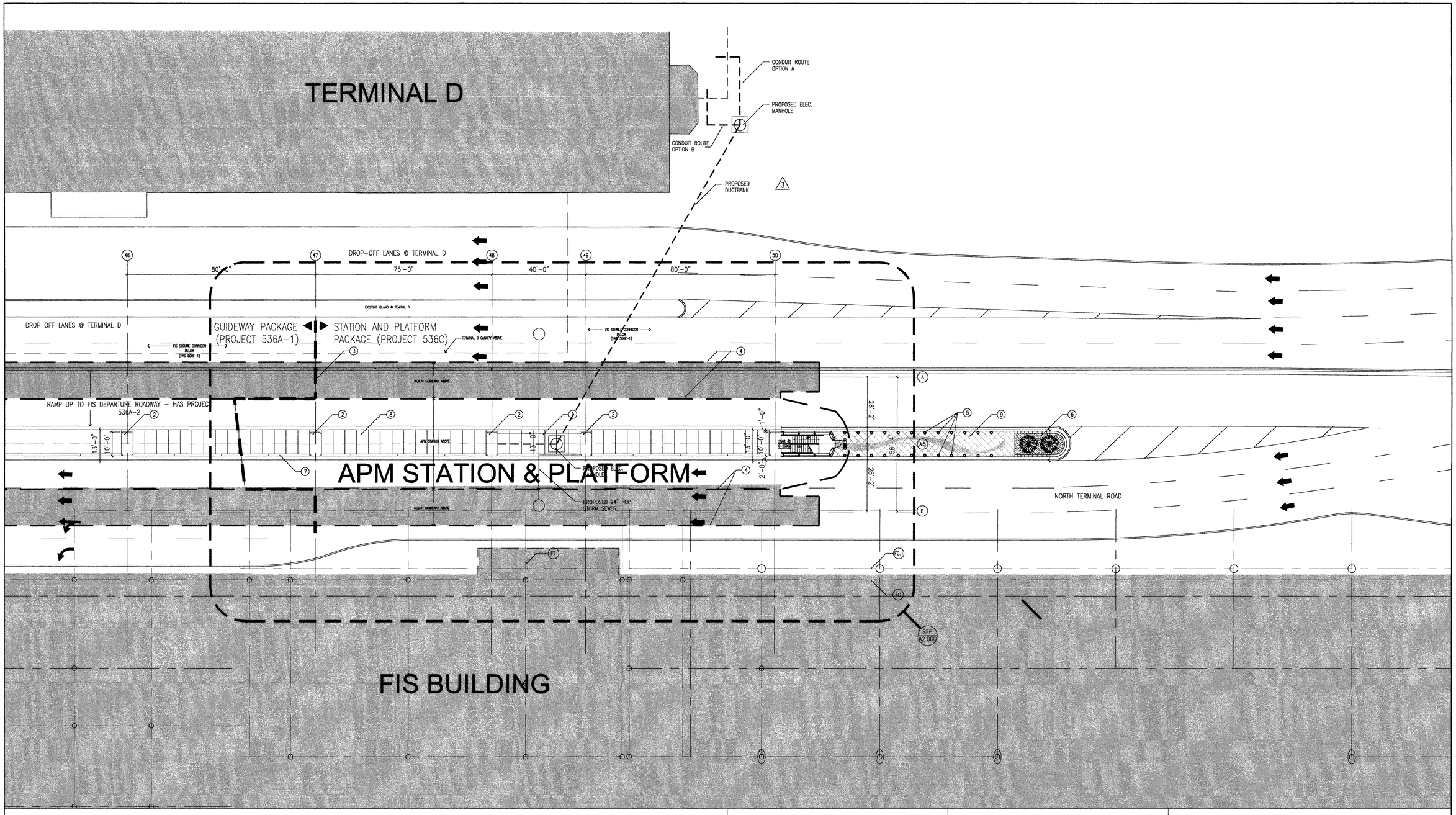
PROJECT MGR:	HEM
DESIGNER:	SG
DRAWN BY:	SEM
CHECKED BY:	AB
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	1"=60'
DATE:	09/14/01

REGISTERED ARCHITECT Rey de la Reza 6672-5 STATE OF TEXAS

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	1140
C.I.P. NO.	A-0354
H.A.S. NO.	536C
SHEET NO.	A1.000



KEYED NOTES:

1. 13'-0" ISLAND BY OTHERS N.I.C. (HAS PROJECT 536A-2)
2. C.I.P. CONCRETE COLUMN
3. PROJECT LIMIT BETWEEN APM GUIDEWAY PACKAGE (HAS 536A-1) AND APM STATION AND PLATFORM (HAS 536C)
4. APM STATION & PLATFORM ABOVE
5. BOLLARDS BY OTHERS N.I.C. (LANDSCAPING PROJECT)
6. PLANTER - PRECAST CONCRETE BY OTHERS N.I.C. (LANDSCAPING PROJECT)
7. 2'-3" HIGH PROTECTION WALL N.I.C. - CONCRETE (HAS PROJECT 536A-2)
8. CONCRETE PAVEMENT WITH CONTROL JOINT BY OTHERS N.I.C. (LANDSCAPING PROJECT)
9. PAVERS N.I.C. (LANDSCAPING PROJECT)

GENERAL NOTES:

FOR CIVIL, ROADWAYS, AND TRAFFIC CONTROL PLANS REFER TO HAS PROJECT 536A-2.

N

RECORD DRAWINGS
DO NOT MODIFY
Rey de la Reza Architects, Inc.
13 May 2005

Note: Information used to develop these documents was taken from Record of the Work Drawings prepared by the construction contractor, Clark Construction Group - Texas.
The information provided by the contractor was not verified by the design firm named above.

NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

0' 8' 16' 32' 48'

SCALE: 1/16" = 1'-0"

PLOT DATE: 02/04/02 HAS FILE:A536CA1100

HOUSTON AIRPORT SYSTEM
GEORGE BUSH INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

Lea Elliott
1099 W.RANDOL MILL RD
ARLINGTON,TX,76012
Tel: 817.261.1446
Tel: 817.861.3266

REY DE LA REZA ARCHITECTS, INC
ARCHITECTURE PLANNING INTERIOR DESIGN
1245 WEST 18TH ST.
HOUSTON,TX,77008
Tel: 713.868.3121
Tel: 713.802.0112

REVISIONS

NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
1	RECORD SET	05/13/05	EM

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

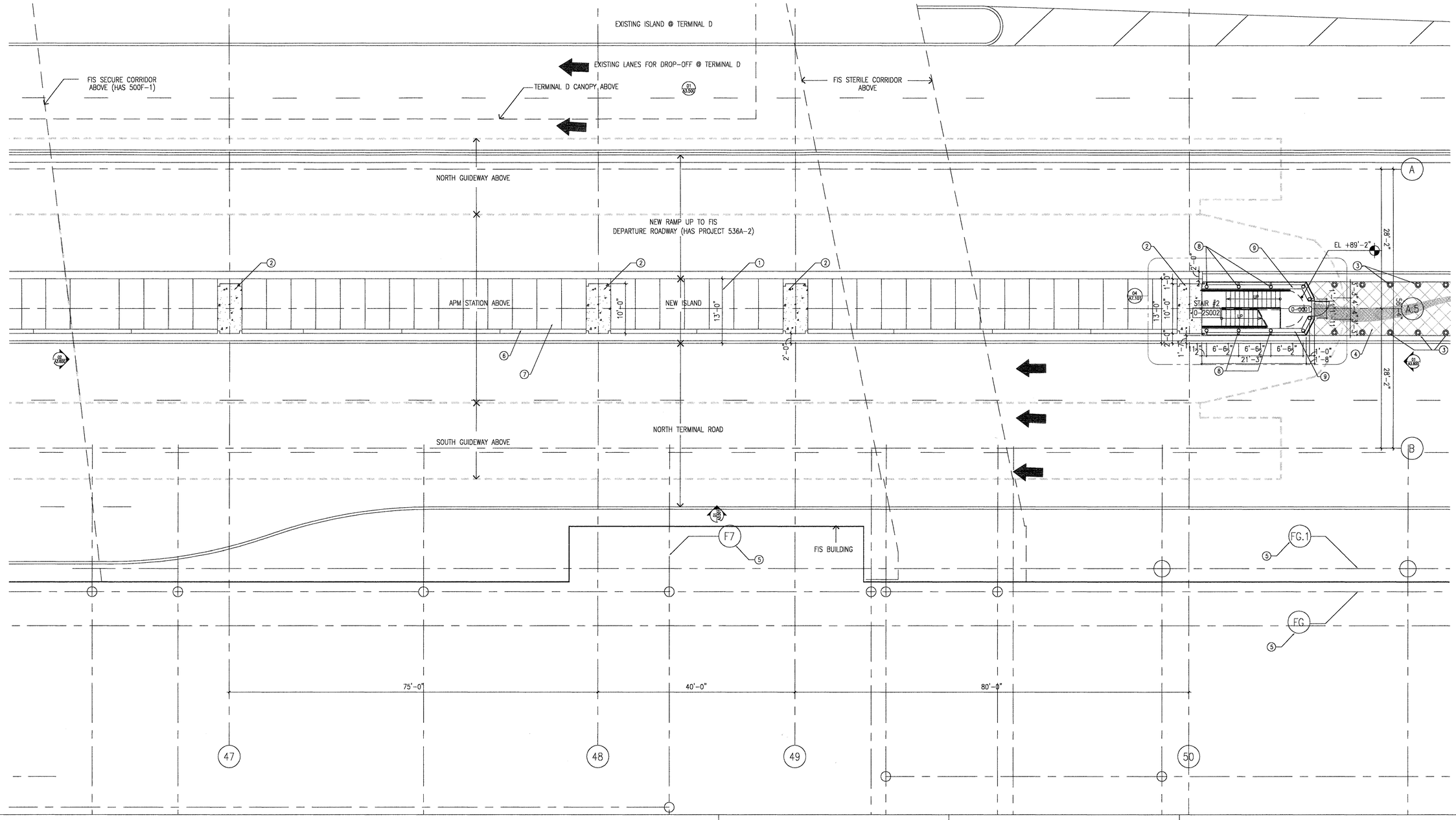
APM STATION + PLATFORM

APM STATION SITE PLAN

PROJECT MGR:	HEM
DESIGNER:	SC
DRAWN BY:	SEM
CHECKED BY:	AB
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	1/16"=1'-0"
DATE:	09/14/01

REGISTERED ARCHITECT Rey de la Reza 4612-8 STATE OF TEXAS

APPROVED BY:	DATE:
DIRECTOR HOUSTON AIRPORT SYSTEM	
PROJECT NO.	1140
C.I.P. NO.	A-0354
H.A.S. NO.	536C
SHEET NO.	A1.100



KEYED NOTES:

1. 13'-0" ISLAND N.I.C. – REFER HAS PROJECT 536A-2
2. C.I.P. CONCRETE COLUMN
3. BOLLARDS BY OTHERS N.I.C. (HAS LANDSCAPING PROJECT)
4. PAVERS BY OTHERS N.I.C. (HAS LANDSCAPING PROJECT)
5. FIS COLUMN GRID – REFER HAS PROJECT 500F-1
6. 2'-3" HIGH PROTECTION WALL – CONCRETE – N.I.C. – BY OTHERS (HAS PROJECT 536A-2)
7. CONCRETE PAVEMENT WITH CONTROL JOINT BY OTHERS N.I.C. (LANDSCAPING PROJECT)
8. 8" STEEL PIPE – SUPPORT OF CURTAIN WALL CW-5 – PAINT
9. 2'-3" HIGH X 1'-6" CONCRETE WALL – C.I.P. ARCHITECTURAL CONCRETE

GENERAL NOTES:

FOR CIVIL, ROADWAYS, AND TRAFFIC CONTROL PLANS REFER TO HAS PROJECT 536A-2.

N

RECORD DRAWINGS
DO NOT MODIFY
Rey de la Reza Architects, Inc.
13 May 2005

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The information provided by the contractor was not verified by the design firm named above.

NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

0' 4' 8' 16' 24'

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

PLOT DATE: 02/04/02 HAS FILE: HAS36G42000

HOUSTON AIRPORT SYSTEM
GEORGE BUSH INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

Lea Elliott
1999 W.RANDOL MILL RD.
ARLINGTON,TX,76012
Tel: 817.261.1446
Tel: 817.861.3299

REY DE LA REZA ARCHITECTS, INC.
ARCHITECTURE PLANNING INTERIOR DESIGN
1245 WEST 15TH ST.
HOUSTON,TX,77008
Tel: 713.868.3121
Tel: 713.802.0112

REVISIONS

NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
	RECORD SET	05/13/05	EM

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION + PLATFORM

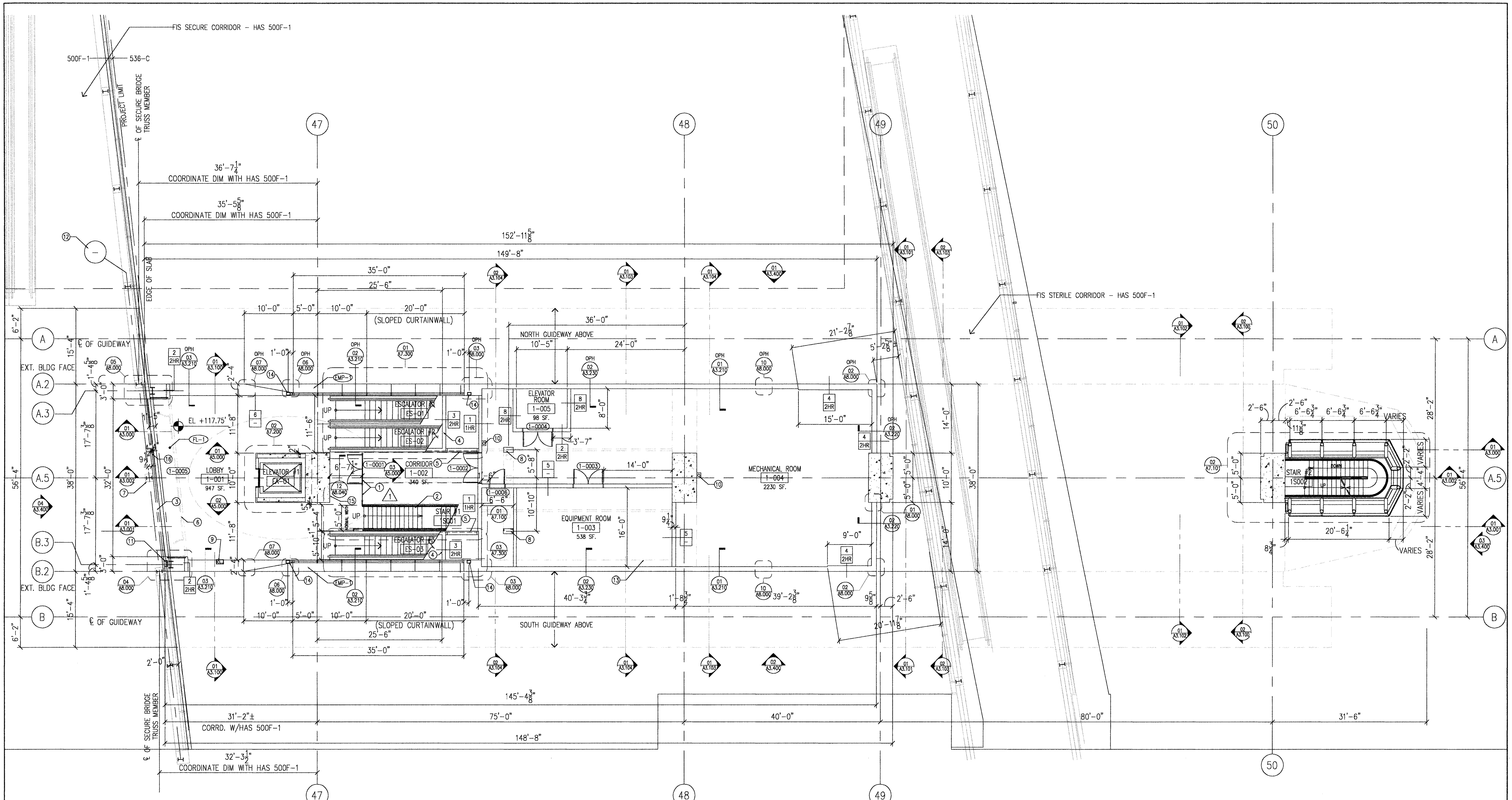
GROUND LEVEL PLAN

PROJECT MGR:	HEM
DESIGNER:	SG
DRAWN BY:	SEM
CHECKED BY:	AB
DRAWING STANDARD:	
	ISEP 07.20.2000
SCALE:	1/8"=1'0"
DATE:	09/14/01

REGISTERED ARCHITECT Rey de la Reza 4612-B STATE OF TEXAS

APPROVED BY:	DATE:
DIRECTOR HOUSTON AIRPORT SYSTEM	

PROJECT NO.	1140
C.I.P. NO.	A-0354
H.A.S. NO.	536C
SHEET NO.	A2.000



LOBBY LEVEL PLAN

01 / A2.100 — 1/8"=1'-0"

KEYED NOTES

1. GLASS GATE AND FIXED GLASS PANEL. FASTENED TO 2 1/2" DIAM. SSTL POLES WELDED TO EMBEDDED PLATES. 3/8" GLASS PANELS TEMPERED. RE DETAIL 12/A8.040 (revision 1)
2. STEEL PAN STAIRS WITH TERRAZZO FILL TYPE F6-1
3. EXPANSION JOINT N.I.C. BY OTHERS (HAS 500F-1) – RE 500F-1 FOR DETAIL @ CONCRETE SLAB
4. EDGE OF ESCALATOR PIT
5. POWDERCOATED ALUMINIUM LOUVERS UNDER ESCALATORS
6. HORIZONTAL EXIT 2HR FIRE RATED ROLLING DOOR WITH SWINGING EGRESS DOOR TYPE SAFESCAPE T2500 FIRE DOORS FROM McKEON
7. CLADDING AROUND BRIDGE COLUMN BY PROJECT 500F-1 – N.I.C.
8. CONCRETE COLUMN 12"x24" RE: STRUCTURAL
9. FIRE EXTINGUISHER CABINET
10. FIRE EXTINGUISHER – WALL MOUNTED BRACKET
11. FIRE VALVE CABINET
12. SECURE BRIDGE COLUMN GRID LINE (REFER HAS PROJECT 500F-1) – TO BE COORDINATED WITH 500F
13. CHASE ABOVE – AROUND PIPES CROSSING EQUIPMENT ROOM
14. 9"x7"x1/2" STEEL COLUMNS SUPPORT OF FRAME FOR CW2-A AND CW2-B CURTAIN WALLS – SECURE TO CONCRETE FLOOR AND CONCRETE BEAM ABOVE. RE: STRUCTURAL
    THE EMBEDDED LENGTH FOR (6) 3/4"DIA. A325 THREADED RODS IS 10"
    GRIND SMOOTH CONTACT SURFACE OF PLATE AND CONCRETE BEAM.
15. CONCRETE COLUMN IN LOBBY – PAINT
16. EDGE OF APM STATION CONCRETE SLAB

GENERAL NOTES:

- OVERALL DIMENSIONS @ SECURE BRIDGE TO BE COORDINATED WITH HAS PROJECT 500F-1 – AND FIELD VERIFIED
- (FL-1) TERRAZZO FLOOR
- (EMP-1) EXTERIOR POWDERCOATED METAL WALL PANEL– ALUMINIUM PANEL 1/8" THICK – TYPE SERIES 3000 MODIFIED FROM UNA-CLAD – COPPER SALES OR EQUAL
  POWDERCOATED FINISH – KYNAR 500

N

RECORD DRAWINGS
DO NOT MODIFY
Rey de la Reza Architects, Inc.
13 May 2005

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NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

0' 4' 8' 16' 24'

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

HOUSTON AIRPORT SYSTEM
GEORGE BUSH
INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

Lea+Elliott
1009 W.RANDOL MILL RD.
ARLINGTON,TX,76012
Tel: 817.261.1446
Tel: 817.861.3296

RdlR
REY DE LA REZA ARCHITECTS, INC.
ARCHITECTURE PLANNING INTERIOR DESIGN
1245 WEST 18TH ST.
HOUSTON,TX,77008
Tel: 713.868.3121
Tel: 713.802.0112

REVISIONS

NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
1	ADDENDUM 1	02/01/02	SG
2	RECORD SET	05/13/05	EM

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION + PLATFORM

LOBBY LEVEL PLAN

PROJECT MGR:	HEM
DESIGNER:	SG
DRAWN BY:	SEM
CHECKED BY:	AB
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	1/8"=1'0"
DATE:	09/14/01

REGISTERED ARCHITECT Rey de la Reza 4612-8 STATE OF TEXAS

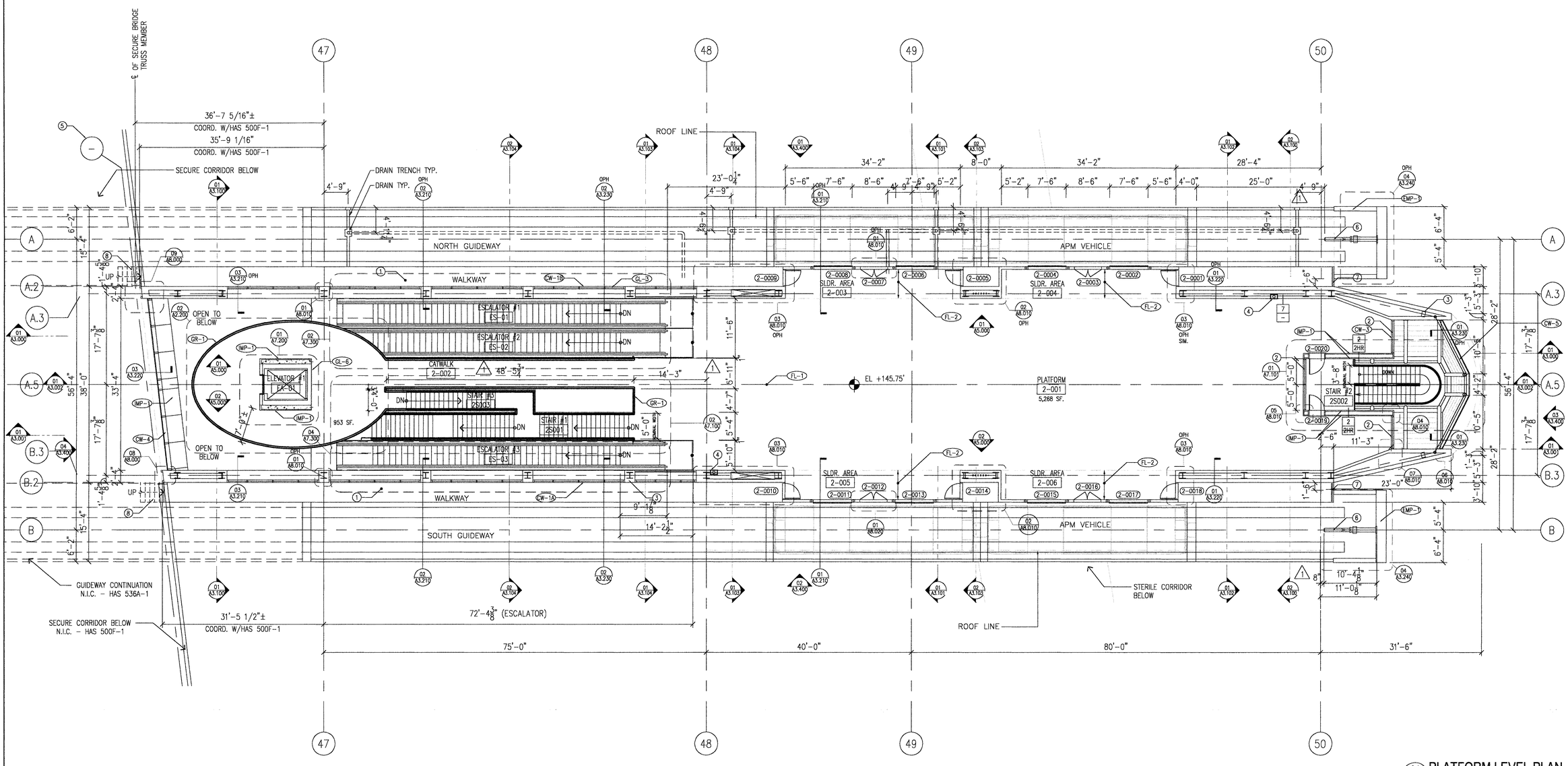
APPROVED BY: DATE:

DIRECTOR HOUSTON AIRPORT SYSTEM

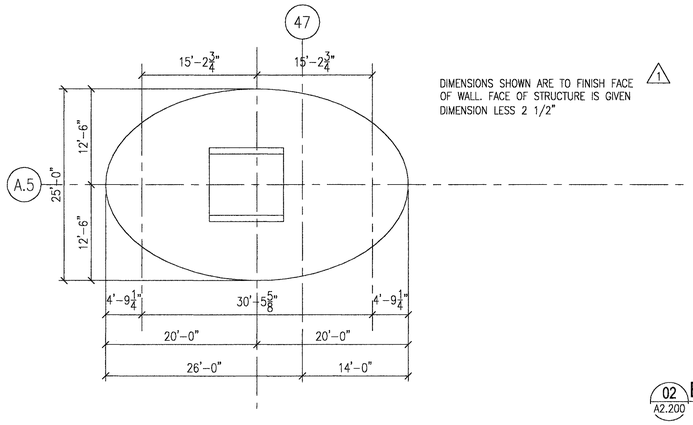
PROJECT NO.	1140
C.I.P. NO.	A-0354
H.A.S. NO.	536C
SHEET NO.	A2.100

10

PLOT DATE: 02/04/02 HAS FILE: IA536CA2100



01 A2.200 PLATFORM LEVEL PLAN 1/8"=1'-0"



02 A2.200 ELLIPSE GEOMETRY 1/8"=1'-0"

DIMENSIONS SHOWN ARE TO FINISH FACE OF WALL. FACE OF STRUCTURE IS GIVEN DIMENSION LESS 2 1/2" (1)

KEYED NOTES

1. CONCRETE WALKWAY
2. SPRINKLERS ON BOTH SIDES OF THE CURTAIN WALL ALLOWING A 2HR FIRE RATING - FOR SPRINKLERS REFER TO PLUMBING
3. STEEL COLUMN WITH 3HR FIREPROOFING - RE STRUCTURAL- UL ASSEMBLY HX723
4. FIRE EXTINGUISHER CABINET
5. SECURE BRIDGE TRUSS GRID LINE (REFER HAS PROJECT 500F)
6. RETROFIT BUFFER BY HAS 536D - N.I.C.
7. STEEL GUARDRAIL - PAINT - SAME CONSTRUCTION AS GUARDRAIL @ STAIR #2
8. STEEL STAIR N.I.C. HAS PROJECT 536A-1 TO BE COORDINATED WITH HAS 536A-1

GENERAL NOTES:

- OVERALL DIMENSIONS @ SECURE BRIDGE TO BE COORDINATED WITH HAS PROJECT 500F - AND FIELD VERIFIED

(CW-1A) CURTAIN WALL SYTEM TYPE 1A
(GL-3) 1 1/4" INSULATED GLAZING UNIT WITH FRIT.
(GL-6) LAMINATED GLASS - RE SHEET A7.200
(GR-1) GLASS GUARDRAIL
(FL-1) TERRAZZO FLOOR - TYPE 1
(FL-2) TERRAZZO FLOOR - TYPE 2
(MP-1) INTERIOR STAINLESS STEEL WALL PANELS
(EMP-1) EXTERIOR POWDERCOATED METAL WALL PANEL
(CW-3) CURTAIN WALL SYTEM TYPE 3
(CW-4) CURTAIN WALL SYTEM TYPE 4
(CW-5) CURTAIN WALL SYTEM TYPE 5
(CW-1B) CURTAIN WALL SYTEM TYPE 1B

N

RECORD DRAWINGS
DO NOT MODIFY
Rey de la Reza Architects, Inc.
13 May 2005
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NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

0' 4' 8' 16' 24'

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

PLOT DATE: 02/04/02 HAS FILE:\A536CA2200

HOUSTON AIRPORT SYSTEM
GEORGE BUSH INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

Lea Elliott
1099 W.RANDOL MILL RD.
ARLINGTON,TX,76012
Tel: 817.261.1446
Tel: 817.861.3299

REY DE LA REZA ARCHITECTS, INC.
ARCHITECTURE PLANNING INTERIOR DESIGN
1345 WEST 18TH ST.
HOUSTON,TX,77008
Tel: 713.868.3121
Tel: 713.802.0112

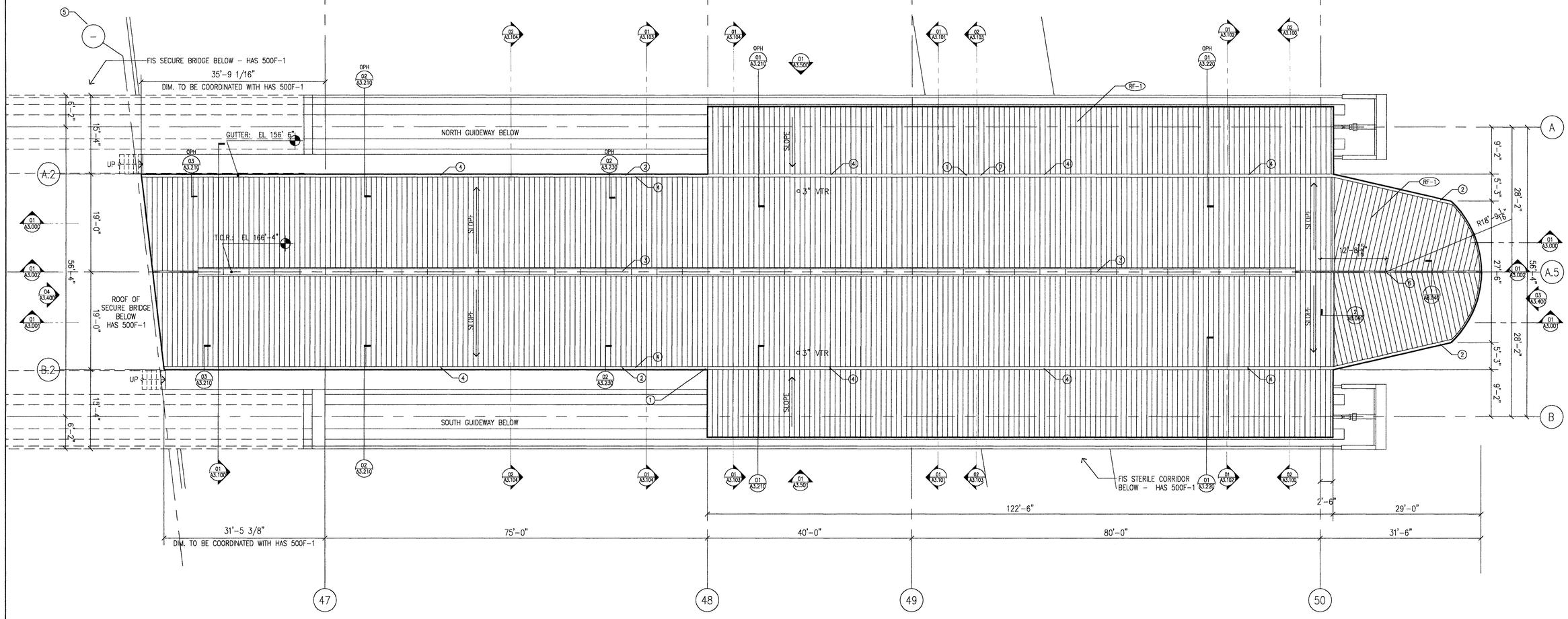
REVISIONS			
NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
1	ADDENDUM 1	02/01/02	SG
2	RECORD SET	05/13/05	EM

SERVICES + EXPANSION + PROGRAM
INTERNATIONAL + APM STATION + PLATFORM
PLATFORM LEVEL PLAN

PROJECT MGR:	HEM
DESIGNER:	SG
DRAWN BY:	SEM
CHECKED BY:	AB
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	1/8"=1'0"
DATE:	09/14/01

REGISTERED ARCHITECT Rey de la Reza 9072-9 STATE OF TEXAS

APPROVED BY:	DATE:
DIRECTOR HOUSTON AIRPORT SYSTEM	
PROJECT NO.	1140
C.I.P. NO.	A-0354
H.A.S. NO.	536C
SHEET NO.	A2.200



KEYED NOTES:

1. DOWNSPOUT – FOR LOCATION REFER TO PLUMBING
2. STAINLESS STEEL GUTTER – 16GA – RE SHEET A8.020
3. SKYLIGHT: DOUBLE GLAZED LOW RISE VAULT WITH CIRCULAR END GLAZING – RE SHEET A2.880
4. EXPANSION JOINT IN STAINLESS STEEL GUTTER – RE SHEET 4/A8.020
5. SECURE BRIDGE COLUMN GRID LINE (REFER HAS PROJECT 500F – EXACT LOCATION TO BE COORDINATED WITH HAS 500F)
6. CENTER POINT OF CURVE @ EDGE OF ROOF
7. OVERFLOW DRAIN – RE. PLUMBING

GENERAL NOTES:

- OVERALL DIMENSIONS @ SECURE BRIDGE TO BE COORDINATED WITH HAS PROJECT 500F – AND FIELD VERIFIED

(RF-1) STANDING SEAM METAL ROOF – TYPE UC3 FROM UNA – CLAD – COPPER SALES OR EQUAL – HIGH PERFORMANCE COATING KYNAR 500 – COLOR SILVER METALLIC

N

RECORD DRAWINGS
DO NOT MODIFY
Rey de la Reza Architects, Inc.
13 May 2005

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NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

0' 4' 8' 16' 24'

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

PLOT DATE: 09/04/02 HAS FILE: HAS350\A2300

HOUSTON AIRPORT SYSTEM
GEORGE BUSH
INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

Lea Elliott
1009 W.RANDOL MILL RD.
ARLINGTON,TX,76012
Tel: 817.261.1446
Tel: 817.861.3286

REY DE LA REZA ARCHITECTS, INC
ARCHITECTURE PLANNING INTERIOR DESIGN
1245 WEST 18TH ST.
HOUSTON,TX,77008
Tel: 713.868.3121
Tel: 713.802.0112

REVISIONS			
NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
	RECORD SET	05/13/05	EM

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

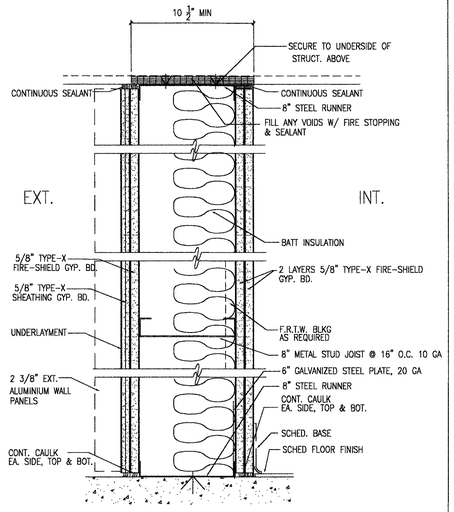
APM STATION + PLATFORM

ROOF PLAN

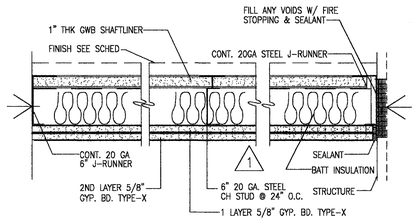
PROJECT MGR:	HEM
DESIGNER:	SG
DRAWN BY:	SEM
CHECKED BY:	AB
DRAWING STANDARD:	
	ISEP 07.20.2000
SCALE:	1/8"=1'0"
DATE:	09/14/01

REGISTERED ARCHITECT Rey de la Reza 4612-8 STATE OF TEXAS

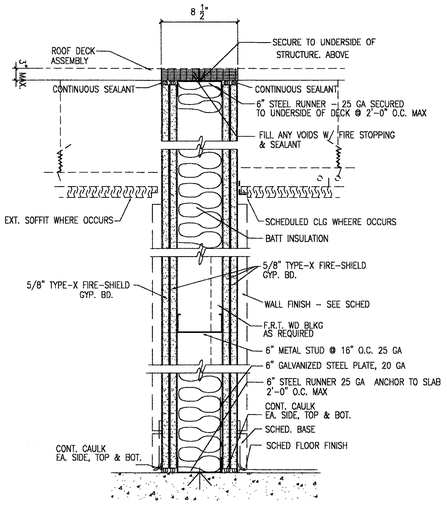
APPROVED BY:	DATE:
DIRECTOR HOUSTON AIRPORT SYSTEM	
PROJECT NO.	1140
C.I.P. NO.	A-0354
H.A.S. NO.	536C
SHEET NO.	A2.300



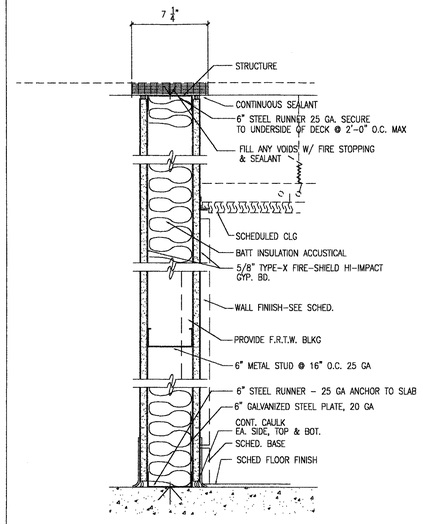
4 WALL TYPE 4
EXT. WALL @ MECHANICAL ROOM 2 HR – UL# U411



3 WALL TYPE 3
2 HR – ICBO EVALUATION SERVICES INC., EVALUATION REPORT NO. 3579

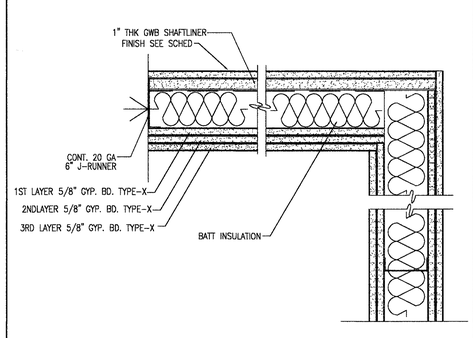


2 WALL TYPE 2
2 HR – UL# U411

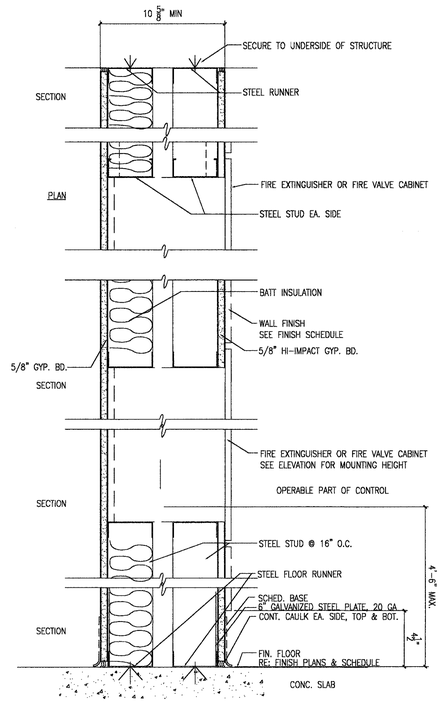


1 WALL TYPE 1
1 HR – UL# U465

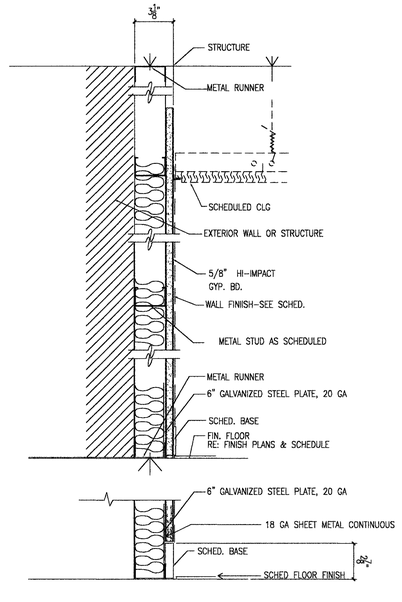
GENERAL NOTES:



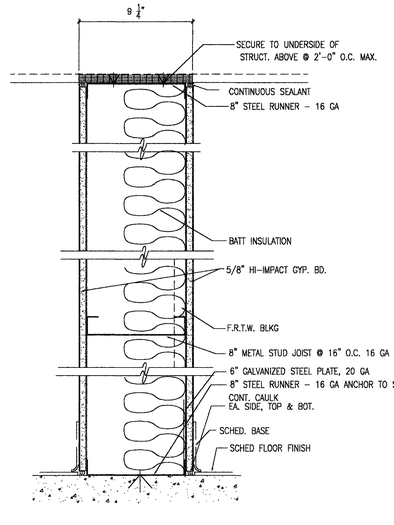
8 WALL TYPE 8
2 HR – ICBO EVALUATION SERVICES INC., EVALUATION REPORT NO. 3579



7 FIRE EXTINGUISHER CABINET
TYPICAL



6 WALL TYPE 6
TYPICAL FURRED WALL



5 WALL TYPE 5
EQUIPMENT ROOM

RECORD DRAWINGS
DO NOT MODIFY
Rey de la Reza Architects, Inc.
13 May 2005

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HOUSTON AIRPORT SYSTEM
GEORGE BUSH INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

Lee Elliott
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ARLINGTON,TX,76012
Tel: 817.261.1446
Tel: 817.861.3295

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Tel: 713.802.0112

REVISIONS		
NO. DESCRIPTION	DATE	BY
ISSUED FOR BID	10/19/01	
1 ADDENDUM 1	02/01/02	SG
2 RECORD SET	05/13/05	EM

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION + PLATFORM

PARTITION TYPES

PROJECT MGR:	HEM
DESIGNER:	SG
DRAWN BY:	SEM
CHECKED BY:	AB
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	AS NOTED
DATE:	09/14/01

REGISTERED ARCHITECT Rey de la Reza 4672-8 STATE OF TEXAS

APPROVED BY:	DATE:
DIRECTOR HOUSTON AIRPORT SYSTEM	
PROJECT NO.	1140
C.I.P. NO.	A-0354
H.A.S. NO.	536C
SHEET NO.	A2.700

13

PLOT DATE: 02/04/02 HAS FILE: HAS36C42700

DOOR SCHEDULE

DOOR NUMBER	OPENING SIZE	DOOR			FRAME					FIRE RATING MIN.	HARDWARE	REMARKS
		DOOR TYPE	MATERIAL	FINISH	MATERIAL	FINISHES	FRAME JAMB	FRAME HEAD	SILL			
0-0001	3'-0"x7'-0"	C	ALUM	PAINT	ALUM	PAINT	–	_	_	_	HW-6	POWDERCOATED – WITH 3'x2'-3" LOUVER PANEL – INSECT MESH INSIDE FACE PERFORATED ALUMINIUM
1-0001	6'-0"x3'-0"		GLASS									GLASS GATE. REFER TO DWG 12/A8.040 FOR DETAILS AND HARDWARE
1-0002	6'-0"x7'-0"	B	HM		SSTL	SSTL	T1	T1		60	HW-2	LOBBY FACE SSTL CLAD – INT. FACE PAINTED
1-0003	6'-0"x7'-0"	B	HM	PNT	STEEL	PNT	T1	T1			HW-1	
1-0004	6'-0"x7'-0"	B	HM	PNT	STEEL	PNT	T1	T1		90	HW-1	
1-0005	33'-6"x12'-0"	F			SSTL STEEL		T1	T1		120	HW-7	McKEON SAFESCAPE T2500 FIRE DOOR WITH 2 SWINGING EGRESS DOORS WITH SSTL PANELS ON SIDE IN OPEN POSITION RE: DOOR TYPE D
1-0006	3'-0"x7'-0"	A	HM	PNT	STEEL	PNT	T1	T1			HW-8	
2-0001	2'-8"x6'-8"	D	HM		SSTL	SSTL	T2	T2			HW-3	INT. FACE SSTL CLAD EXT. FACE POWDERCOATED STEEL
2-0002	SLIDING DOOR	_	_	_	_	_	_	_	_	_	_	BY VECHICLE SUPPLIER – 536D
2-0003	5'-4"x6'-8"	E	HM	SSTL	SSTL	SSTL	T1	T1			HW-4	WITH GLASS PANEL – 1/2" TEMPERED GLASS
2-0004	SLIDING DOOR	_	_	_	_	_	_	_	_	_	_	BY VECHICLE SUPPLIER – 536D
2-0005	2'-8"x6'-8"	D	HM		SSTL	SSTL	T2	T2			HW-3	INT. FACE SSTL CLAD EXT. FACE POWDERCOATED STEEL
2-0006	SLIDING DOOR	_	_	_	_	_	_	_	_	_	_	BY VECHICLE SUPPLIER – 536D
2-0007	5'-4"x6'-8"	E	HM	SSTL	SSTL	SSTL	T1	T1			HW-4	WITH GLASS PANEL – 1/2" TEMPERED GLASS
2-0008	SLIDING DOOR	_	_	_	_	_	_	_	_	_	_	BY VECHICLE SUPPLIER – 536D
2-0009	2'-8"x6'-8"	D	HM		SSTL	SSTL	T2	T2			HW-3	INT. FACE SSTL CLAD EXT. FACE POWDERCOATED STEEL
2-0010	2'-8"x6'-8"	D	HM		SSTL	SSTL	T2	T2			HW-3	INT. FACE SSTL CLAD EXT. FACE POWDERCOATED STEEL
2-0011	SLIDING DOOR	_	_	_	_	_	_	_	_	_	_	BY VECHICLE SUPPLIER – 536D
2-0012	5'-4"x6'-8"	E	HM	SSTL	SSTL	SSTL	T1	T1			HW-4	WITH GLASS PANEL – 1/2" TEMPERED GLASS
2-0013	SLIDING DOOR	_	_	_	_	_	_	_	_	_	_	BY VECHICLE SUPPLIER – 536D
2-0014	2'-8"x6'-8"	D	HM		SSTL	SSTL	T2	T2			HW-3	INT. FACE SSTL CLAD EXT. FACE POWDERCOATED STEEL
2-0015	SLIDING DOOR	_	_	_	_	_	_	_	_	_	_	BY VECHICLE SUPPLIER – 536D
2-0016	5'-4"x6'-8"	E	HM	SSTL	SSTL	SSTL	T1	T1			HW-4	WITH GLASS PANEL – 1/2" TEMPERED GLASS
2-0017	SLIDING DOOR	_	_	_	_	_	_	_	_	_	_	BY VECHICLE SUPPLIER – 536D
2-0018	2'-8"x6'-8"	D	HM		STEEL	SSTL	T2	T2			HW-3	INT. FACE SSTL CLAD EXT. FACE POWDERCOATED STEEL
2-0019	3'-0"x7'-0"	D	HM	SSTL	SSTL	SSTL	T1	T1		90	HW-5	
2-0020	3'-0"x7'-0"	D	HM	SSTL	SSTL	SSTL	T1	T1		90	HW-5	

1

LEGEND:

SLDR SLIDING DOORS
HM HOLLOW METAL
TBD TO BE DETERMINED
PNT PAINT
SSTL STAINLESS STEEL
ALUM POWDERCOATED ALUMINIUM

T1: FRAME FACE DIMENSION 2" RE: 01/A2.801 FOR JAMB. RE: 02/A2.801 FOR HEAD
T2: FRAME FACE DIMENSION 1 1/2" RE: 03/A2.801 FOR JAMB. RE: 04/A2.801 FOR HEAD

NOTE:
HARDWARE SCHEDULE

FOR DOOR TYPE
REFER SHEET A2.801

DOOR HARDWARE SCHEDULE

HW-1
3 PR BUTT HINGES
1 LEVER LOCKSET (STOREROOM FUNCTION)
1 REGULAR OR PARALLEL CLOSER
1 FLOOR STOP
1 SET SILENCERS
1 SET FLUSHBOLTS
1 DUSTPROOF STRIKE

HW-2
3 PR BUTT HINGES
1 LEVER LOCKSET (STOREROOM FUNCTION)
1 REGULAR OR PARALLEL CLOSER
2 FLOOR STOPS
1 SET SILENCERS
1 SET FLUSHBOLTS
1 DUSTPROOF STRIKE
1 ELECTROMAGNETIC LOCK
1 POWER TRANSFER
2 DOOR ALARM CONTACTS

HW-3
1 ½ PR BUTT HINGES
2 CYLINDERS
1 LEVER LOCKSET EXIT DEVICE
1 CLOSER
1 THRESHOLD – TYPE 2
1 FLOOR STOP
1 SET WEATHERSTRIPPING
1 DOOR ALARM CONTACT

HW-4
2 SETS OFFSET PIVOT HINGES
4 CYLINDERS
2 LEVER LOCKSET EXIT DEVICE
2 CLOSERS
2 THRESHOLD – TYPE 2
1 SET WEATHERSTRIPING

HW-5
1SET OFFSET PIVOT HINGES
2 CYLINDERS
1 LEVER LOCKSET EXIT DEVICE
1 CLOSER
1 SET WEATHERSTRIPPING
1 FLOOR STOP
1 THRESHOLD – TYPE 1
1 DOOR ALARM CONTACT

HW-6
HINGES BY DOOR MANUFACTURER
1 SIDE PIVOT
1 CYLINDER
1 RIM EXIT DEVICE (NO OUTSIDE PULL)
1 CLOSER
1 SET WEATHERSTRIPPING
1 THRESHOLD

HW-7
6 CYLINDERS
HINGES, PANIC DEVICES AND BALANCE OF HARDWARE BY DOOR MANUF.

HW-8
1 1/2 PR BUTT HINGES
1 LEVER LOCKSET (STOREROOM FUNCTION)
1 REGULAR OR PARALLEL CLOSER
1 FLOOR STOPS
1 SET SILENCERS
1 SET FLUSHBOLTS
1 DUSTPROOF STRIKE
1 ELECTROMAGNETIC LOCK
1 POWER TRANSFER
1 DOOR ALARM CONTACTS

NOTE: COORDINATE ALL DOOR HARDWARE WITH THE SECURITY REQUIREMENTS SHOWN ON SHEETS Q0.000 THROUGH Q5.101

ROOM FINISH SCHEDULE

NO.	NAME	FLOOR	BASE	WALL				CEILING	HEIGHT	REMARKS
				NORTH	EAST	SOUTH	WEST			
1-0001	LOBBY	FL-1	B-1	PA-1	_	PA-1	_	PA-2	28'	PAINTED GWB CEILING UNDER BALCONY AND CATWALK SSTL CEILING AC-2 @ ROLLING DOOR AREA
1-0002	CORRIDOR	FL-1	B-1	LV	IMP-1	LV	PA-3	PA-2	28'	
1-0003	EQUIP. ROOM	CN-1	B-3	PA-2	PA-2	PA-2	PA-2	PA-2	VARIED	
1-0004	MECH. ROOM	CN-1	B-3	PA-2	PA-2	PA-2	PA-2	PA-3	28'	
1-0005	ELEV. & ESC. ROOM	CN-1	B-3	PA-2	PA-2	PA-2	PA-2	PA-2		
2-0001	PLATFORM	FL-1	B-1	PA-1	_	PA-1	_	AC-1	VARIED	
2-0002	CATWALK	FL-1	B-1	_	_	_	_	AC-1	VARIED	
2-0003	SLDR. AREA	FL-2	B-1	IMP-1	IMP-1	_	IMP-1	AC-2		
2-0004	SLDR. AREA	FL-2	B-1	IMP-1	IMP-1	_	IMP-1	AC-2		
2-0005	SLDR. AREA	FL-2	B-1	_	IMP-1	IMP-1	IMP-1	AC-2		
2-0006	SLDR. AREA	FL-2	B-1	_	IMP-1	IMP-1	IMP-1	AC-2		

LEGEND AND FINISH SCHEDULE:

POWDERCOAT COLORS ON METAL

COLOR #1: WHITE VANILLA CREAM DURANAR UC 63699
COLOR #2: SILVER METALLIC KYNAR 500 – FROM UNA-CLAD COPPER SALES, INC. STANDARD COLORS
COLOR #3: CUSTOM COLOR BLUE SILVER METALLIC KYNAR 500

INTERIOR FINISH:

BASE
B-1 STAINLESS STEEL – 4" HIGH NDN-DIRECTIONAL MACHINE POLISH
B-2 RUBBER BASE, 4" HIGH, COVED

FLOOR
FL-1 EPOXY TERRAZZO TYPE 1 TO BE SELECTED – 3/8" THK
FL-2 EPOXY TERRAZZO TYPE 2 TO BE SELECTED
CN-1 CONCRETE SEALER

PAINTS
PA-1 "DUROPLEX" PAINTING BY TRIARCH INDUSTRIES OR EQUAL – FINISH: CUSTOM COLOR TO BE DETERMINED BY ARCHITECT, TEXTURED FLOAT
PA-2 PAINT ON GWB
PA-3 PAINT ON CONCRETE

METAL
IMP-1 INTERIOR STAINLESS STEEL WALL METAL PANELS – NGAGE SYSTEM BY BAKER METAL PRODUCTS INC. – 1/16" THK MIN. – FINISH: NON-DIRECTIONAL MACHINE POLISH
EMP-2 ALUMINIUM LOUVERS TYPE THIN LINES FROM INDUSTRIAL LOUVERS INC. 1 1/2" THICK OR EQUAL POWDERCOATED COLOR #2

CEILING
AC-1 PRE-FINISHED CURVED PERFORATED METAL CEILING, TYPE ALUMA VAULT SYSTEM 1000 BY GORDON MANUFACTURER WITH BLACK NON WOVEN ACCOUSTICAL MAT – PATTER ITEM # R316 ROUND 3/16" x 0.65" STAGGERED CENTERS OPEN AREA 7% – CUSTOM COLOR: EQUAL TO BRIGHT SILVER 399 x 440 FROM BAKER METAL PRODUCT INC. FLUROPON CLASSIC II COLOR SELECTOR
AC-2 REMOVABLE FLAT STAINLESS STEEL METAL PANELS. FINISH – NON DIRECTIONAL MACHINE POLISH

EXTERIOR MATERIAL FINISH:

EMP-1 EXTERIOR POWDERCOATED WALL METAL PANELS – ALUMINIUM PANEL 1/8" THICK – TYPE SERIE 3000 MODIFIED FROM UNA-CLAD – COPPER SALES OR EQUAL –POWDERCOATED KYNAR 500 COLOR #1 OR COLOR #2 AS NOTED IN ARCHITECTURAL DRAWINGS

EMP-2 ALUMINIUM LOUVERS TYPE THIN LINES FROM INDUSTRIAL LOUVERS INC. – 1 1/2" THICK OR EQUAL POWDERCOATED COLOR #2

RF-1 STANDING SEAM METAL ROOF– TYPE UC3 FROM UNA-CLAD – COPPER SALES, INC OR EQUAL– POWDERCOATED KYNAR 500: COLOR #2

- 12" ALUMINIUM CHANNEL ON FACADES: POWDERCOATED KYNAR 500: COLOR #1
- GUARDRAILS @ STAIR#2 AND STRUCTURAL FRAME: PAINT
- ALL CURTAIN WALLS MULLIONS AND COVER PLATES: POWDERCOATED COLOR#2
- PAINT ALL VISIBLE CONCRETE FACES AT INTERIOR AND EXTERIOR: CAST-IN-PLACE COLUMNS, BEAMS, SLABS, CEILING, STAIRS... COLORS TO BE DETERMINED BY ARCHITECT.

RECORD DRAWINGS
DO NOT MODIFY
Rey de la Reza Architects, Inc.
13 May 2005
Note: Information used to develop these documents was taken from Record of the Work Drawings prepared by the construction contractor, Clark Construction Group - Texas
The information provided by the contractor was not verified by the design firm named above.

HOUSTON AIRPORT SYSTEM
GEORGE BUSH INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

Lea Elliott
1000 W.RANDOL MILL RD.
ARLINGTON,TX,7601
Tel: 817.261.1446
Tel: 817.861.3286

REY DE LA REZA ARCHITECTS, INC
ARCHITECTURE PLANNING INTERIOR DESIGN
1045 WEST 18TH ST.
HOUSTON,TX,7008
Tel: 713.868.3121
Tel: 713.802.0112

REVISIONS

NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
1	ADDENDUM 1	02/01/02	SG
2	RECORD SET	05/13/05	EM

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION + PLATFORM

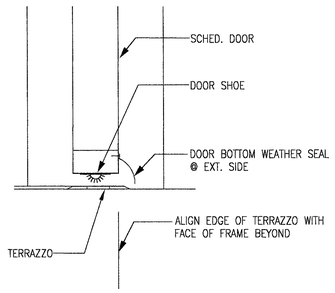
DOOR SCHEDULE AND ROOM SCHEDULE

PROJECT MGR:	HEM
DESIGNER:	SG
DRAWN BY:	SEM
CHECKED BY:	AB
DRAWING STANDARD:	
	ISEP 07.20.2000
SCALE:	NTS
DATE:	09/14/01

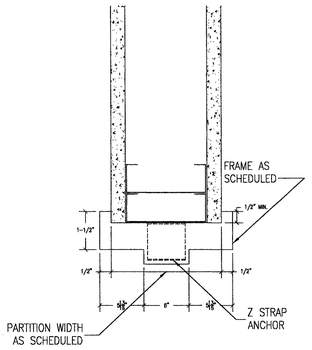
REGISTERED ARCHITECT Rey de la Reza 4612 STATE OF TEXAS

APPROVED BY:	DATE:
DIRECTOR HOUSTON AIRPORT SYSTEM	
PROJECT NO.	1140
C.I.P. NO.	A-0354
H.A.S. NO.	536C
SHEET NO.	A2.800

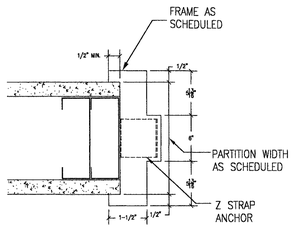
PLOT DATE: 02/04/02 HAS FILE:HAS36CA2800.DWG



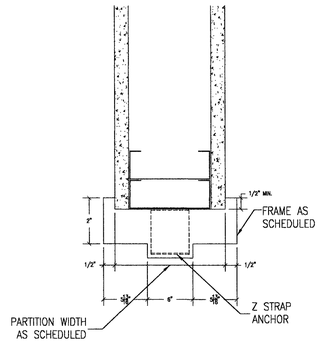
05 A2.801 **SILL TYPE 1** 1-1/2"=1'-0"



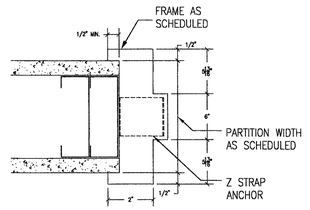
04 A2.801 **HEAD DETAIL FRAME TYPE 2** 1- 1/2"=1'-0"



03 A2.801 **JAMB DETAIL FRAME TYPE 2** 1-1/2"=1'-0"



02 A2.801 **HEAD DETAIL FRAME TYPE 1** 1-1/2"=1'-0"



01 A2.801 **JAMB DETAIL FRAME TYPE 1** 1-1/2"=1'-0"

RECORD DRAWINGS
DO NOT MODIFY
Rey de la Reza Architects, Inc.
13 May 2005

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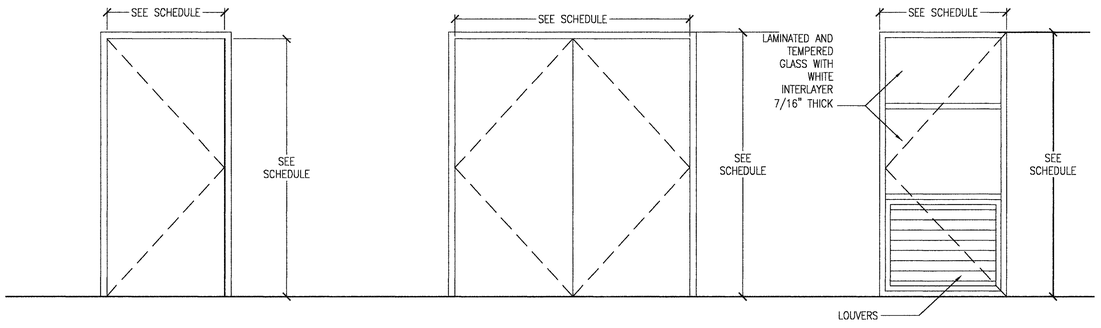

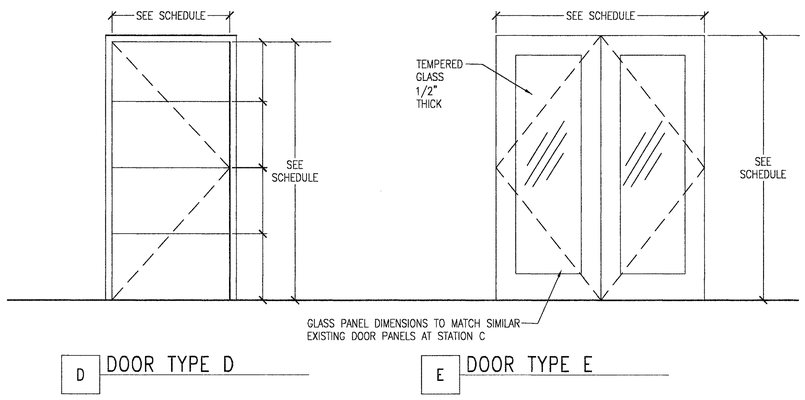

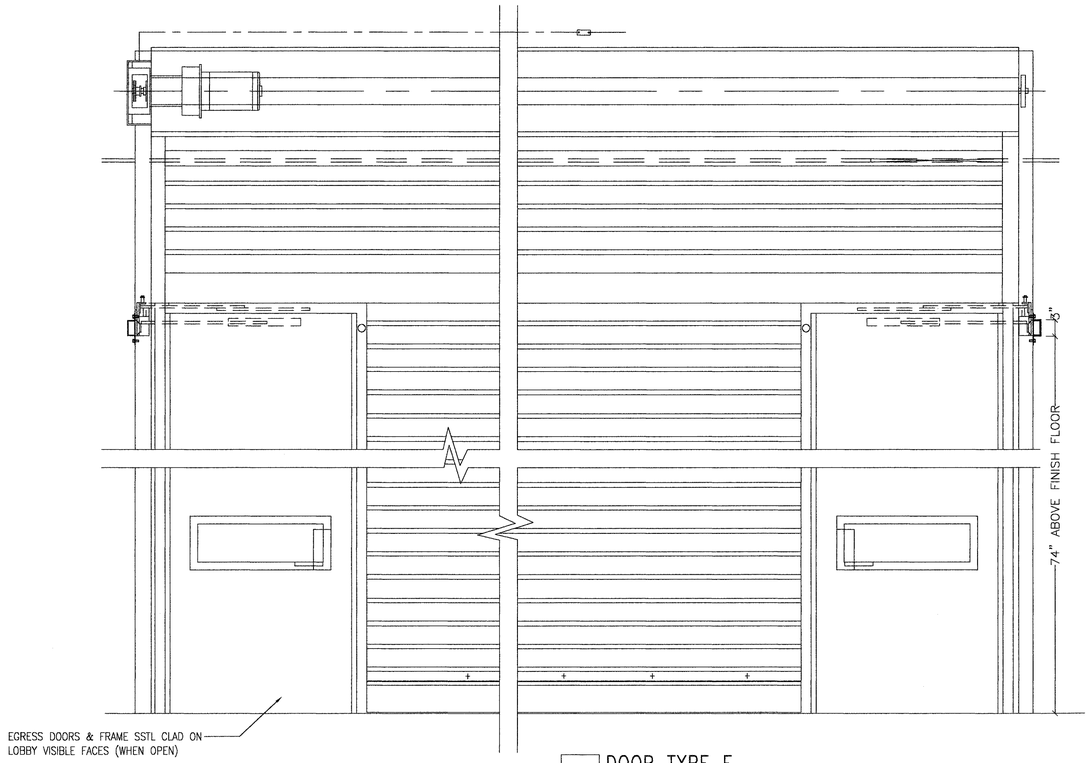

06 A2.801 **DOOR TYPES** 1"=1'-0"

HOUSTON AIRPORT SYSTEM
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Lea Elliott
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ARLINGTON,TX,76012
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REVISIONS			
NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
	RECORD SET	05/13/05	EM

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION + PLATFORM

DOOR TYPES AND DETAILS

PROJECT MGR:	HEM
DESIGNER:	SG
DRAWN BY:	SEM
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DRAWING STANDARD:	
	ISEP 07.20.2000
SCALE:	NTS
DATE:	09/14/01

REGISTERED ARCHITECT Rey de la Reza 4672-8 STATE OF TEXAS

APPROVED BY:	DATE:
DIRECTOR HOUSTON AIRPORT SYSTEM	
PROJECT NO.	1140
C.I.P. NO.	A-0354
H.A.S. NO.	536C
SHEET NO.	A2.801

15

PLOT DATE: 02/04/02 HAS FILE:HAS36CA2801.DWG

RECORD DRAWINGS
DO NOT MODIFY
Rey de la Reza Architects, Inc.
13 May 2005

Note: Information used to develop these documents was taken from Record of the Work Drawings prepared by the construction contractor, Clark Construction Group - Texas.
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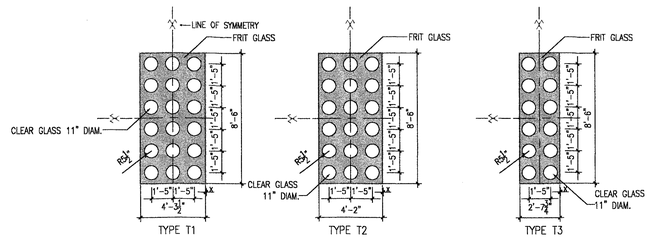
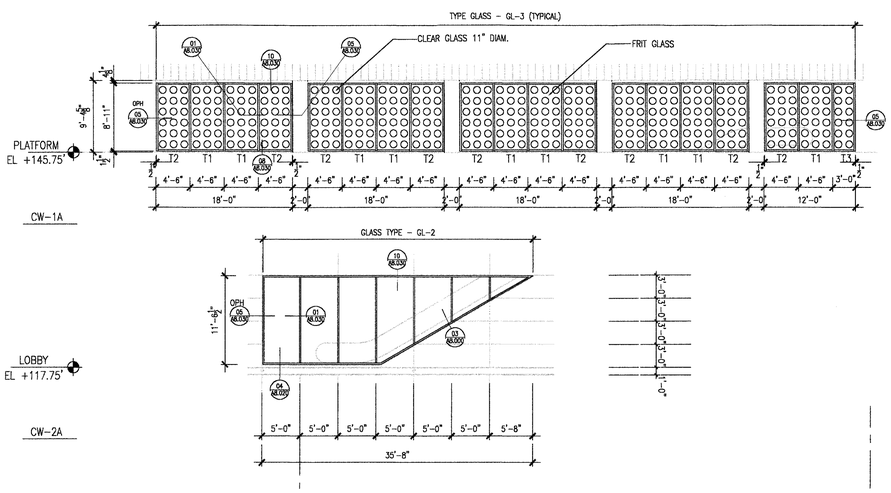
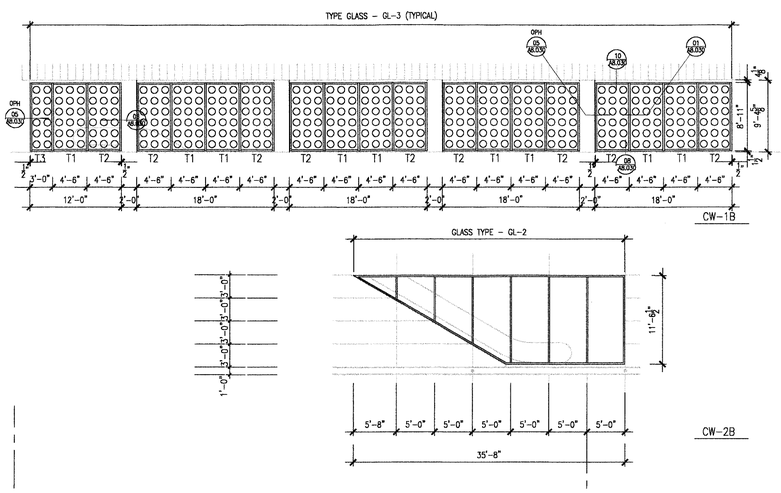


06 FRIT GLASS @ CURTAIN WALLS CW-1A & CW-1B
A2.850 1/4"=1'-0"

WINDOW AND GLASS SCHEDULE				
CURTAIN WALL NUMBER	TYPE OF FRAME	COLOR OF MULLIONS AND COVER	TYPE OF GLASS	REMARKS
CW-1A	F-1	COLOR# 2	GL-3	CUSTOM FRIT PATTERN ON GLASS
CW-1B	F-1	COLOR# 2	GL-3	CUSTOM FRIT PATTERN ON GLASS 1
CW-2A	F-1	COLOR# 2	GL-2	SILL MULLION TO FOLLOW ESCALATOR SLOPE
CW-2B	F-1	COLOR# 2	GL-2	SILL MULLION TO FOLLOW ESCALATOR SLOPE
CW-3	F-1	COLOR# 2	GL-2	TOP MULLIONS CURVED
CW-4	F-2	COLOR# 2	GL-1 AND GL-5	TOP MULLIONS CURVED
CW-5	F-3	COLOR# 2	GL-4	BUTT-GLAZED VERTICAL JOINTS CUSTOM EXTRUDED VERTICAL MULLIONS @ ANGLED CORNERS



03 SOUTH CURTAIN WALLS CW-1A & CW-2A
A2.850 1/8"=1'-0"



02 NORTH CURTAIN WALLS CW-1B & CW-2B
A2.850 1/8"=1'-0"

LEGEND:

TYPE OF FRAME

F-1 2 1/2" x 7 1/2" ALUMINIUM HORIZONTAL AND VERTICAL MULLIONS – 1600 WALL SYSTEM 1 BY KAWNEER OR EQUAL – POWDERCOATED FINISH – SILVER/PEWTER METALIC COLOR – STEEL REINFORCEMENT AS REQUIRED FOR WIND LOADS

F-2 2 1/2" x 10 1/2" VERTICAL ALUMINIUM MULLIONS WITH STEEL REINFORCEMENT – STEEL REINFORCEMENT AS REQUIRED FOR WIND LOADS
2 1/2" x 7 1/2" HORIZONTAL ALUMINIUM MULLIONS – SILVER/PEWTER METALIC COLOR
1600 WALL SYSTEM 1 BY KAWNEER OR EQUAL – POWDERCOAT FINISH – SILVER/PEWTER METALIC COLOR

F-3 2 1/2" x 6 1/2" ALUMINIUM HORIZONTAL AND VERTICAL MULLIONS – CW-250 CURTAIN WALL SYSTEM BY VISTAWALL OR EQUAL: CUSTOM.
BUTT – GLAZING @ VERTICAL JOINTS, CUSTOM EXTRUDED MULLIONS @ ANGLED CORNERS

TYPE OF GLASS

GL-1 1" INSULATING GLASS – LOW E: 1/4" TEMPERED GRAY EXTERIOR LITE, 1/2" AIR SPACE, 1/4" TEMPERED INTERIOR CLEAR LITE– VIRACON VE3-2M OR EQUAL

GL-2 1" INSULATING GLASS – 1/4" TEMPERED CLEAR LITE, 1/2" AIR SPACE, 1/4" TEMPERED CLEAR LITE

GL-3 1" INSULATING GLASS – 1/4" TEMPERED CLEAR EXTERIOR LITE WITH ENCAPSULATED FRIT PATTERN ON INSIDE FACE, 1/2" AIR SPACE, 1/4" TEMPERED CLEAR INTERIOR LITE. CUSTOM COLOR FOR FRIT TO BE SELECTED.

GL-4 7/16" LAMINATED/PATTERNED GLASS – TWO (2) LAYERS/LITES 3/16" CLEAR FLOAT GLASS LAMINATED OVER A .03 INCH THICK (MIN.) PVB INTER-LAYER SHEET MATERIAL. GLASS LITES TO BE HEAT STRENGTHENED INDEPENDENTLY PRIOR TO LAMINATING COMPLYING WITH MANUFACTURERS STANDARDS. PVB INTER-LAYER LAMINATE: SINGLE SHEET MATERIAL CONSISTING OF INTREGAL TRANSLUCENT SILVER METALLIC CIRCULAR SHAPES (DOTS) DISPLACED UNIFORMLY WITHIN A CLEAR BACKGROUND. COMPOSITE LAMINATED GLASS PANEL(S) SYSTEM PROVIDES FOR THE DIFUSSION (TRANSMITTING) OF LIGHT IN THE PERCENTAGES INDICATED ON THE DRAWINGS. HIGHEST DENSITY AT THE BOTTOM TO LOWEST DENSITY AT THE TOP. REFERENCE SPECIFICATIONS AND ARCHITECTS SAMPLES.

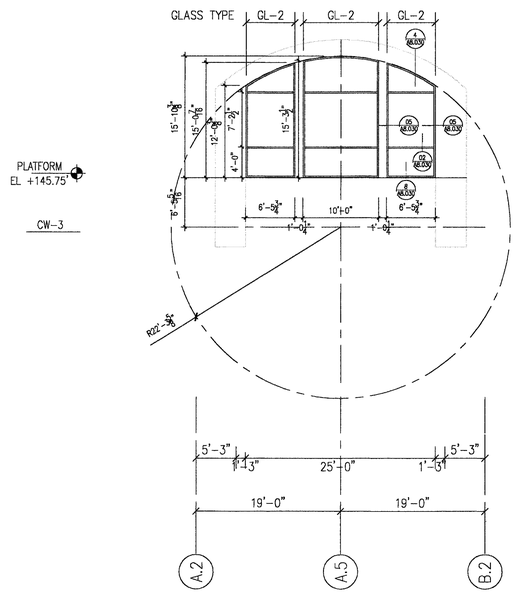
1

GL-5 1" INSULATING GLASS – 1/4" TEMPERED CLEAR EXTERIOR LITE, 1/2" AIR SPACE, 1/4" TEMPERED BLUE GLASS INTERIOR LITE, VERSALUX BLUE 2000 BY VIRACON OR EQUAL

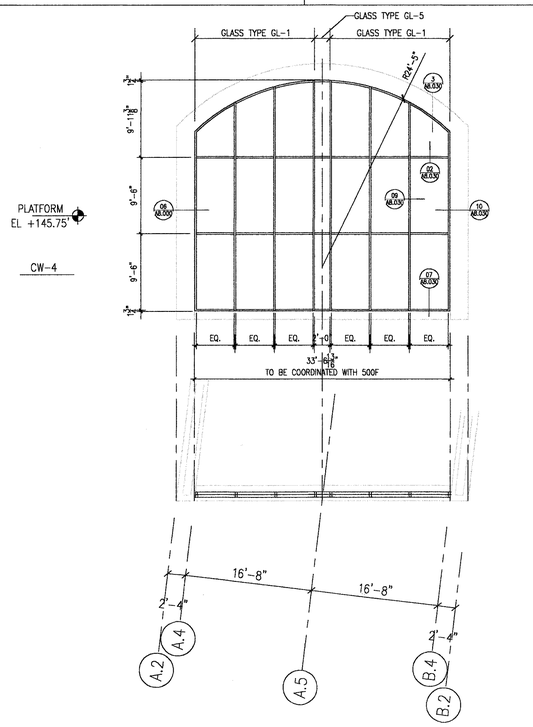
GENERAL NOTES

- DIMENSIONS OF ALL CURTAIN WALLS TO BE FIELD VERIFIED
- PROVIDE MOCH-UP 24"x 24" SAMPLE OF EACH CURTAIN WALL SYSTEM SHOWING CONNECTION BETWEEN HORIZONTAL AND VERTICAL MULLIONS WITH THE APPROVED COLOR FINISH
- PROVIDE 12"x12" SAMPLE OF EACH GLASS TYPE
- PROVIDE 24"x24" SAMPLE OF GLASS TYPE GL-3
- SAMPLE SIZES AND MOCK-UPS IN THESE NOTES SUPERCEED THE SPECIFICATIONS. OTHER REQUIREMENTS OF THE SPECIFICATIONS SHALL NOT BE AFFECTED BY THESE NOTES

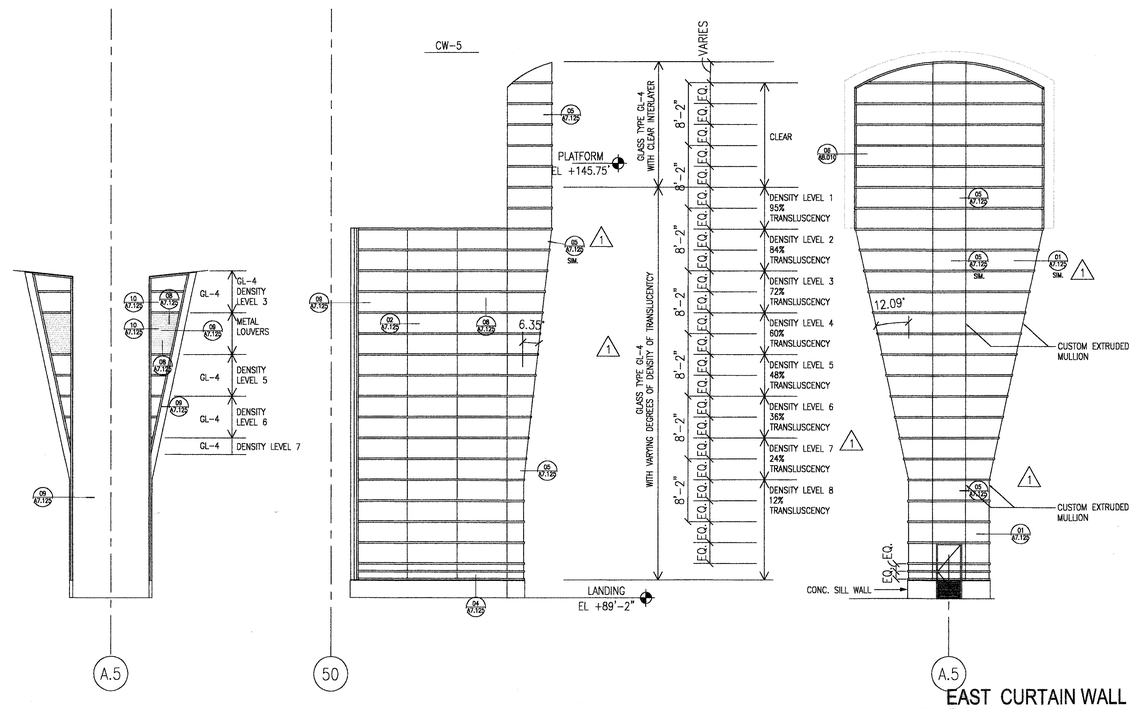
01 WINDOW SCHEDULE
A2.850



06 EAST CURTAIN WALL - INTERIOR CW-3
A2.850 1/8"=1'-0"



05 WEST CURTAIN WALL CW-4
A2.850 1/8"=1'-0"



04 EAST CURTAIN WALL CW-5
A2.850 1/8"=1'-0"

HOUSTON AIRPORT SYSTEM
GEORGE BUSH INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

Lee Elliott
1099 W.RANDOL MILL RD.
ARLINGTON,TX,76012
Tel: 817.261.1446
Tel: 817.861.3266

REY DE LA REZA ARCHITECTS, INC
ARCHITECTURE PLANNING INTERIOR DESIGN
1245 WEST 18TH ST.
HOUSTON,TX,77008
Tel: 713.868.3121
Tel: 713.802.0112

REVISIONS

NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
1	ADDENDUM 1	02/01/02	SG
2	RECORD SET	05/13/03	EM

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION + PLATFORM
WINDOW SCHEDULE
CURTAIN WALLS

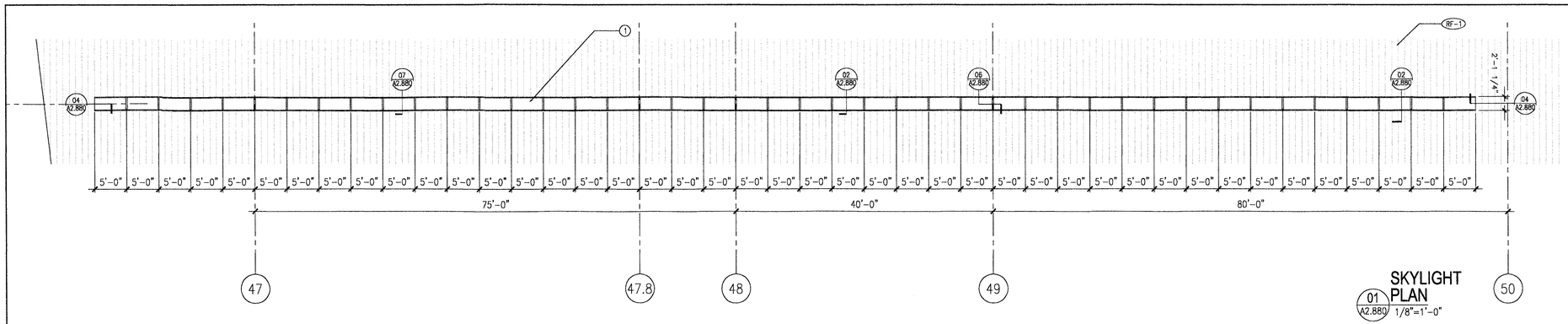
PROJECT MGR:	HEM
DESIGNER:	SG
DRAWN BY:	SEM
CHECKED BY:	AB
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	1/8"=1'0"
DATE:	09/14/01

REGISTERED ARCHITECT Rey de la Reza 16172 STATE OF TEXAS

APPROVED BY:	DATE:
DIRECTOR HOUSTON AIRPORT SYSTEM	
PROJECT NO.	1140
C.I.P. NO.	A-0354
H.A.S. NO.	536C
SHEET NO.	A2.850

16

PLOT DATE: 02/04/02 HAS FILE:\A536C\A2850



01 A2.880 SKYLIGHT PLAN 1/8"=1'-0"

04 A2.880 SKYLIGHT SECTION @END 3"=1'-0"

03 A2.880 SKYLIGHT TRANSVERSE SECTION 3"=1'-0"

02 A2.880 SKYLIGHT CROSS SECTION 3"=1'-0"

07 A2.880 SKYLIGHT CROSS SECTION 3"=1'-0"

06 A2.880 SECTION @ PTZ CAMERA 3"=1'-0"

05 A2.880 SKYLIGHT SECTION 6"=1'-0"

GENERAL NOTES:

RF-1	STANDING SEAM METAL ROOF– TYPE UC3 FROM UNA–CLAD – COPPER SALES OR EQUAL– POWDERCOATED KYNAR 500: COLOR#2 SILVER METALLIC
AC-1	PRE–FINISHED CURVED, PERFORATED METAL CEILING PANEL – TYPE ALUMA VAULT SYSTEM 1000 BY GORDON MANUFACTURER – WITH BLACK NON WOVEN ACCOUSTICAL MAT

RECORD DRAWINGS
DO NOT MODIFY
Rey de la Reza Architects, Inc.
13 May 2005

Note: Information used to develop these documents was taken from Record of the Work Drawings prepared by the construction contractor, Clark Construction Group - Texas. The information provided by the contractor was not verified by the design firm named above.

KEYED NOTES:

①	DOUBLE GLAZED LOW RISE VAULT SKYLIGHT
②	INSULATED CLOSURE
③	EXTRUDED ALUMINIUM CHANNEL – POWDERCOATED
④	ALUMINIUM CLADDING 1/8" THK. POWDERCOATED KYNAR 500 CUSTOM COLOR: BLUE SILVER METALLIC
⑤	5/8" GYPSUM SHEATHING TYPE–X
⑥	3" METAL DECK + 1HR FIREPROOFING
⑦	W16 BEAM + 3 HR FIREPROOFING – RE STRUCTURAL
⑧	CONTINUOUS STEEL Z CLIP – 12 GA
⑨	CURVED CEILING PANELS TYPE AC–1
⑩	HOLD DOWN CLIP
⑪	CURVED CEILING TEE : SYSTEM 1000 ALUMA–VAULT FROM CORDON OR EQUAL
⑫	RIGID INSULATION – UL FIRE CLASSIFIED
⑬	EXTRUDED ALUMINIUM FRAME – POWDERCOATED – COLOR #2 – SILVER METALLIC
⑭	STEEL CHANNEL + 3 HR FIREPROOFING – RE STRUCTURAL
⑮	LIGHT FIXTURE WITH BLUE SLEEVE
⑯	OUTER ACRYLIC GLAZING
⑰	INNER ACRYLIC GLAZING
⑱	STEEL BEAM + 3HR FIREPROOFING – RE STRUCTURAL
⑲	ROOFING UNDERLAYMENT TYPE VYCOR ULTRA FROM GRACE MANUFACTURER OR EQUAL
⑳	PREFINISHED FLASHING POWDERCOATED – COLOR #2
㉑	FASTENER @ SIDE CLADDING
㉒	PREFINISHED POWDERCOATED METAL FLASHING
㉓	PREFINISHED STANDING SEAM PANEL
㉔	PREFINISHED J CHANNEL
㉕	SEALANT
㉖	WEEP HOLE
㉗	SPRAY FIREPROOFING
㉘	Z CLIP – 20 G.A.
㉙	2" GALVANIZED STEEL Z CLIP – 20 G.A. SECURE TO DECK @ 2' O.C. MAX.
㉚	BATT INSULATION FIXED ON Z CLIP – TYPE FIRE SAFE INSULATION BY ROCKWOOL OR EQUAL UL CLASSIFIED PRODUCT
㉛	FASTENER
㉜	3 5/8" METAL STUD 16GA @ 24" O.C.
㉝	3 5/8" STEEL RUNNER
㉞	BRACING AS REQUIRED FOR STABILITY
㉟	1/4" THICK BENT STEEL PLATES WELD TO CHANNEL BEAM OR TO W BEAM SIM
㊱	BENT STEEL PLATE 1/8" THICK – POWDERCOATED COLOR #2
㊲	PTZ CAMERA – RE SECURITY

NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

0' 3" 6" 1'
SCALE: 3" = 1'-0"

HOUSTON AIRPORT SYSTEM
GEORGE BUSH
INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

Lea+Elliott
1009 W.RANDOL MILL RD.
ARLINGTON,TX,76012
Tel: 817.261.1446
Tel: 817.861.3296

RdlR
REY DE LA REZA ARCHITECTS, INC.
ARCHITECTURE PLANNING INTERIOR DESIGN
1245 WEST 18TH ST.
HOUSTON,TX,77008
Tel: 713.868.3121
Tel: 713.802.0112

REVISIONS

NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
	RECORD SET	05/13/05	EM

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION + PLATFORM

SKYLIGHT DETAILS

PROJECT MGR:	HEM
DESIGNER:	SG
DRAWN BY:	SEM
CHECKED BY:	AB
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	AS NOTED
DATE:	09/14/01

Rey de la Reza 4612-8

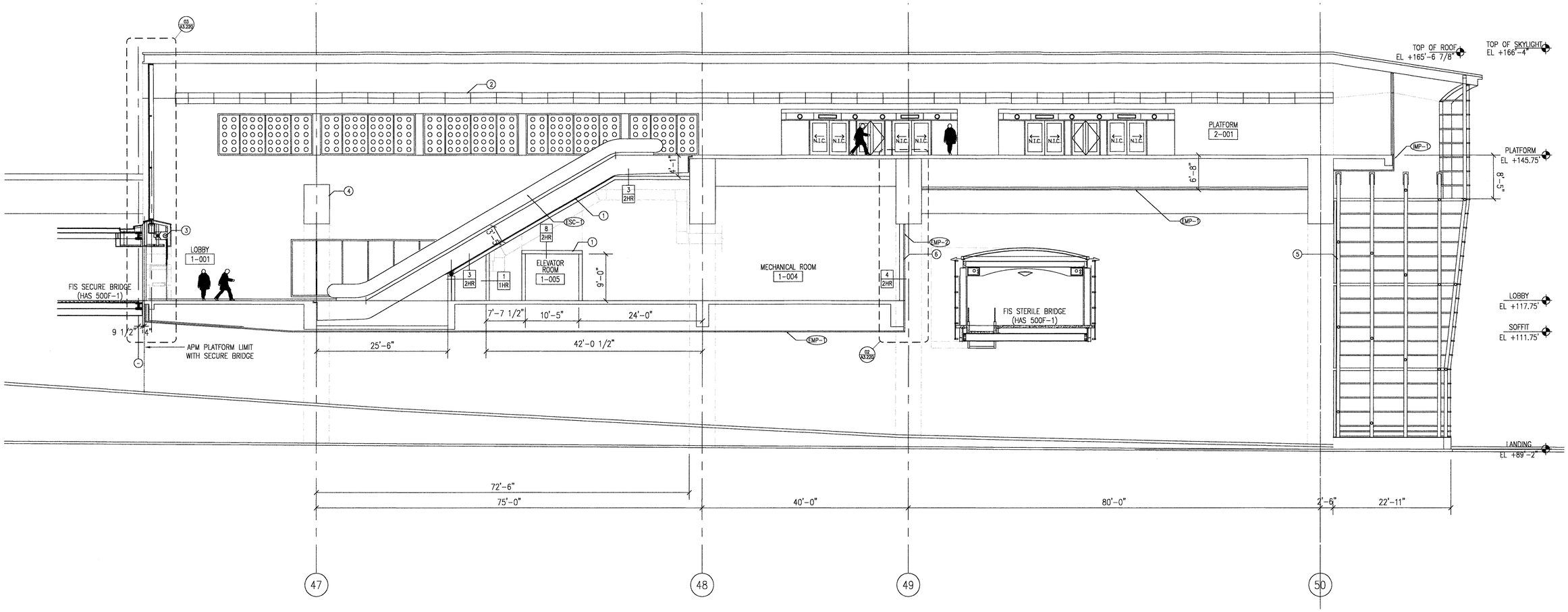
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	1140
C.I.P. NO.	A–0354
H.A.S. NO.	536C
SHEET NO.	A2.880

17

PLOT DATE: 02/04/02 HAS FILE: IA536CA2880



LONGITUDINAL SECTION @ ESCALATORS BETWEEN COLUMN LINES A & A.5

01 A3.000 1/8"=1'-0"

KEYED NOTES:

1. PARTITION – 2HR FIRE RATING
2. A/C DUCT SSTL CLAD
3. 2HR ROLL-UP DOOR WITH 2 SWINGING EGRESS DOORS BY McKEON MANUFACTURER OR EQUAL
4. CONCRETE BEAM – ARCHITECTURAL CONCRETE
5. 8" STEEL PIPES – CURTAIN WALL STRUCTURAL FRAME – PAINT – RE STRUCTURAL
6. INTERIOR FACE OF LOUVERS CLOSED BY 1/8" THK ALUMINIUM SHEET WELDED CONTINUOUSLY TO FRAME

GENERAL NOTES:

- CURVED ROOF AND SKYLIGHT NOT REPRESENTED ON LONGITUDINAL SECTIONS FOR CLARITY

(IMP-1) INTERIOR STAINLESS STEEL WALL PANELS MULTI DIRECTIONNAL MACHINE POLISH

(EMP-1) EXTERIOR POWDERCOAT METAL WALL PANEL– ALUMINIUM PANEL 1/8" THICK – TYPE SERIES 3000 MODIFIED FROM UNA–CLAD – COPPER SALES OR EQUAL
POWDERCOAT KYNAR 500 – FOR COLOR RE. SCHEDULE SHEET A2.800

(ESC-1) MONTGOMERY KONE TRANSIT ESCALATOR WITH GLASS BALUSTRADE

(EMP-2) POWDERCOAT ALUMINIUM LOUVERS
–WITH INSECT MESH WHEN USED BY MECHANICAL
–CLOSED WITH ALUMINIUM SHEET WELDED TO FRAME WHEN NOT USED BY MECHANICAL
RE: MECHANICAL FOR OPENINGS

N

RECORD DRAWINGS
DO NOT MODIFY
Rey de la Reza Architects, Inc.
13 May 2005

Note: Information used to develop these documents was taken from Record of the Work Drawings prepared by the construction contractor, Clark Construction Group - Texas.
The information provided by the contractor was not verified by the design firm named above.

NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

0' 4' 8' 16' 24'

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

PLOT DATE: 02/04/02 HAS FILE:IAS36CA3000

HOUSTON AIRPORT SYSTEM
GEORGE BUSH
INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

Lea Elliott
1099 W.RANDOL MILL RD.
ARLINGTON,TX,76012
Tel: 817.261.1446
Tel: 817.861.3296

REY DE LA REZA ARCHITECTS, INC
ARCHITECTURE PLANNING INTERIOR DESIGN
1245 WEST 18TH ST.
HOUSTON,TX,7008
Tel: 713.868.3121
Tel: 713.802.0112

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	ISSUED FOR BID	10/19/01	
	RECORD SET	05/13/05	EM

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION + PLATFORM

LONGITUDINAL SECTION

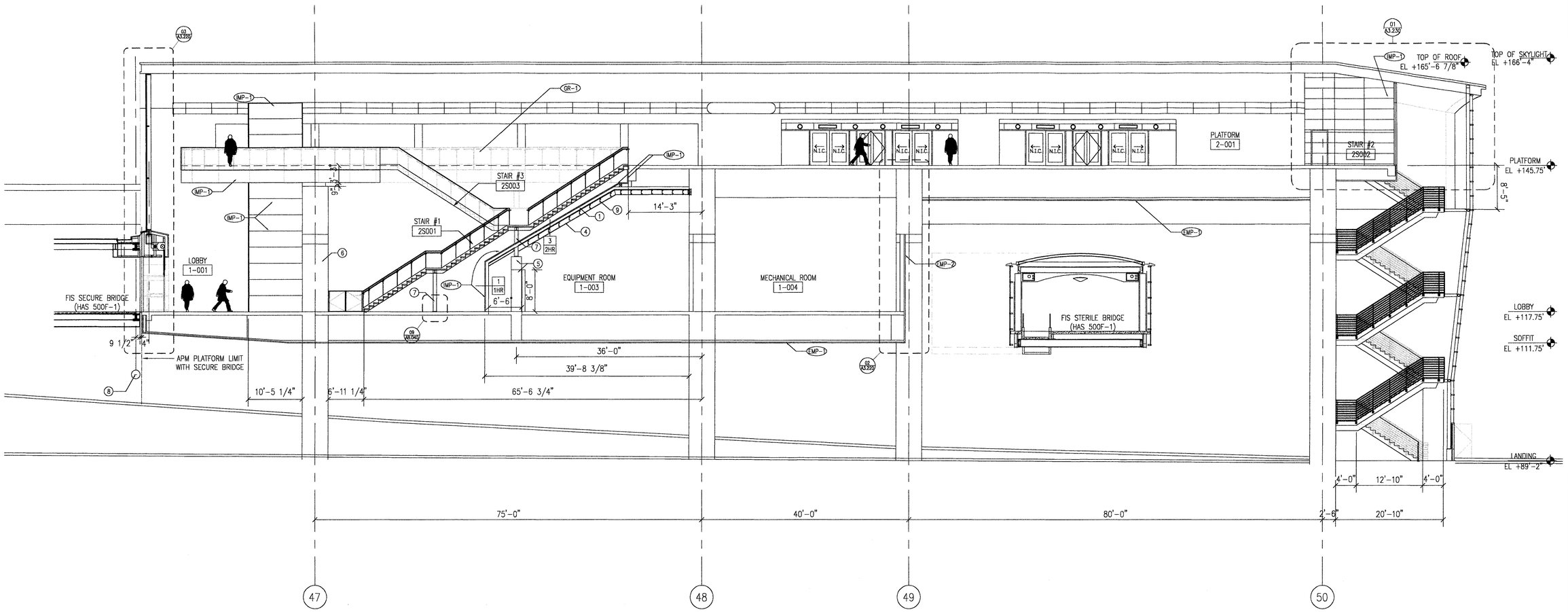
PROJECT MGR:	HEM
DESIGNER:	SG
DRAWN BY:	SEM
CHECKED BY:	AB
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	1/8"=1'0"
DATE:	09/14/01

REGISTERED ARCHITECT Rey de la Reza 4972 STATE OF TEXAS

APPROVED BY:	DATE:
DIRECTOR HOUSTON AIRPORT SYSTEM	

PROJECT NO.	1140
C.I.P. NO.	A-0354
H.A.S. NO.	536C
SHEET NO.	A3.000

18



LONGITUNAL SECTION @ STAIRS BETWEEN COLUMN LINES A.5 & B

01 A3.001 1/8"=1'-0"

KEYED NOTES:

1. PARTITION – 2HR FIRE RATING – ICBO EVALUATION SERVICE INC., EVALUATION REPORT NO. 3579
2. A/C DUCT SSTL CLAD
3. 2HR ROLL-UP DOOR
4. STEEL BEAM WITH 3HR SPRAY FIREPROOFING
5. CONCRETE COLUMN AND CONCRETE BEAM – RE STRUCTURE
6. CONCRETE COLUMN – ARCHITECTURAL CONCRETE
7. 8" STEEL TUBE & BASE PLATE–ANCHOR TO CONCRETE – SUPPORT OF STAIR LANDING
8. SECURE BRIDGE COLUMN GRID LINE. LOCATION TO BE COORDINATED WITH HAS 500F-1
9. 8" STEEL STUD @ 2' O.C. 10 GA – SECURED TO W12 BEAM AND WALL – TO SUSPEND CABLE TRAYS AND CONDUITS IN EQUIPMENT ROOM

GENERAL NOTES:

- GR-1 GLASS GUARDRAIL
- IMP-1 INTERIOR STAINLESS STEEL WALL PANELS MULTI DIRECTIONNAL MACHINE POLISH
- EMP-1 EXTERIOR POWDERCOAT METAL WALL PANEL– ALUMINIUM PANEL 1/8" THICK – TYPE SERIES 3000 MODIFIED FROM UNA–CLAD – COPPER SALES OR EQUAL. POWDERCOAT KYNAR 500 – FOR COLOR RE. SCHEDULE SHEET A2.800
- ESC-1 MONTGOMERY KONE TRANSIT ESCALATOR WITH GLASS BALUSTRADE
- EMP-2 POWDERCOAT ALUMINIUM LOUVERS –WITH INSECT MESH WHEN USED BY MECHANICAL –CLOSED WITH ALUMINIUM SHEET WELDED TO FRAME WHEN NOT USED BY MECHANICAL RE: MECHANICAL FOR OPENINGS

N

RECORD DRAWINGS
DO NOT MODIFY
Rey de la Reza Architects, Inc.
13 May 2005
Note: Information used to develop these documents was taken from Record of the Work Drawings prepared by the construction contractor, Clark Construction Group - Texas.
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NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

0' 4' 8' 16' 24'

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

PLOT DATE: 02/04/02 HAS FILE: HAS36CA3001

HOUSTON AIRPORT SYSTEM
GEORGE BUSH INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

Lea Elliott
1099 W RANDOL MILL RD.
ARLINGTON,TX,76012
Tel: 817.261.1446
Tel: 817.861.3298

REY DE LA REZA ARCHITECTS, INC
ARCHITECTURE PLANNING INTERIOR DESIGN
1345 WEST 18TH ST.
HOUSTON,TX,77008
Tel: 713.868.3121
Tel: 713.802.0112

REVISIONS			
NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
	RECORD SET	05/13/05	EM

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION + PLATFORM

LONGITUDINAL SECTION

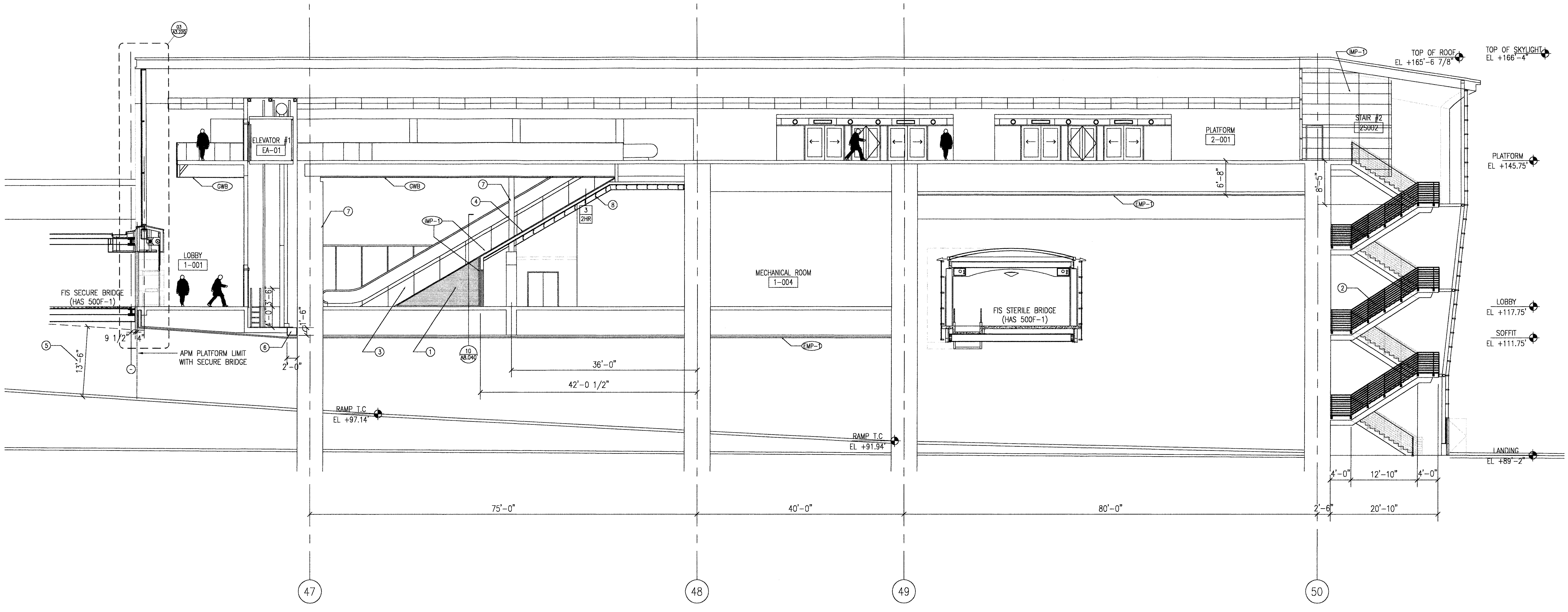
PROJECT MGR:	HEM
DESIGNER:	SG
DRAWN BY:	SEM
CHECKED BY:	AB
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	1/8"=1'0"
DATE:	09/14/01

REGISTERED ARCHITECT Rey de la Reza 462-B STATE OF TEXAS

APPROVED BY:	DATE:

DIRECTOR HOUSTON AIRPORT SYSTEM

PROJECT NO.	1140
C.I.P. NO.	A-0354
H.A.S. NO.	5360
SHEET NO.	19 A3.001



LONGITUNAL SECTION @ COLUMN LINE A.5

01 A3.002 1/8"=1'-0"

KEYED NOTES:

1. METAL LOUVERS WITH POWDERCOATED FINISH – COLOR#2
2. STEEL GUARDRAIL – PAINT
3. SSTL CLADDING ON ESCALATOR VISIBLE FACES
4. PARTITION SLOPE TO MATCH ESCALATOR SLOPE
5. MINIMUM CLEARANCE AT RAMP UP TO FIS DEPARTURE: 13'6" TO BE COORDINATED WITH HAS PROJECT 536A-2
6. STEEL PAN @ SUMP PIT – RE: STRUCTURAL WITH WATER PROOFING MEMBRANE TYPE VYCOR ULTRA FROM GRACE MANUFACTURER OR EQUAL
7. CONCRETE COLUMN – PAINT
8. 8" STEEL STUD @ 2' O.C. 10 GA – SECURED TO W12 BEAM AND WALL – TO SUSPEND CABLE TRAYS AND CONDUITS IN EQUIPMENT ROOM

GENERAL NOTES:

- (IMP-1) INTERIOR STAINLESS STEEL WALL PANELS MULTI DIRECTIONNAL MACHINE POLISH
- (EMP-1) EXTERIOR POWDERCOAT METAL WALL PANEL– ALUMINIUM PANEL 1/8" THICK – TYPE SERIES 3000 MODIFIED FROM UNA-CLAD – COPPER SALES OR EQUAL
  POWDERCOAT KYNAR 500 – FOR COLOR RE. SCHEDULE SHEET A2.800
- (GWB) PAINT GYPSUM BOARD

N

RECORD DRAWINGS
DO NOT MODIFY
Rey de la Reza Architects, Inc.
13 May 2005

Note: Information used to develop these documents was taken from Record of the Work Drawings prepared by the construction contractor, Clark Construction Group - Texas. The information provided by the contractor was not verified by the design firm named above.

NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

0' 4' 8' 16' 24'

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

HOUSTON AIRPORT SYSTEM
GEORGE BUSH
INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

Lea+Elliott
1009 W.RANDOL MILL RD.
ARLINGTON,TX,76012
Tel: 817.261.1446
Tel: 817.861.3296

RdlR
REY DE LA REZA ARCHITECTS, INC.
ARCHITECTURE PLANNING INTERIOR DESIGN
1245 WEST 18TH ST.
HOUSTON,TX,77008
Tel: 713.868.3121
Tel: 713.802.0112

REVISIONS

NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
	RECORD SET	05/13/05	EM

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION + PLATFORM

LONGITUDINAL SECTION

PROJECT MGR:	HEM
DESIGNER:	SG
DRAWN BY:	SEM
CHECKED BY:	AB
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	1/8"=1'0"
DATE:	09/14/01

REGISTERED ARCHITECT Rey de la Reza 4612-8 STATE OF TEXAS

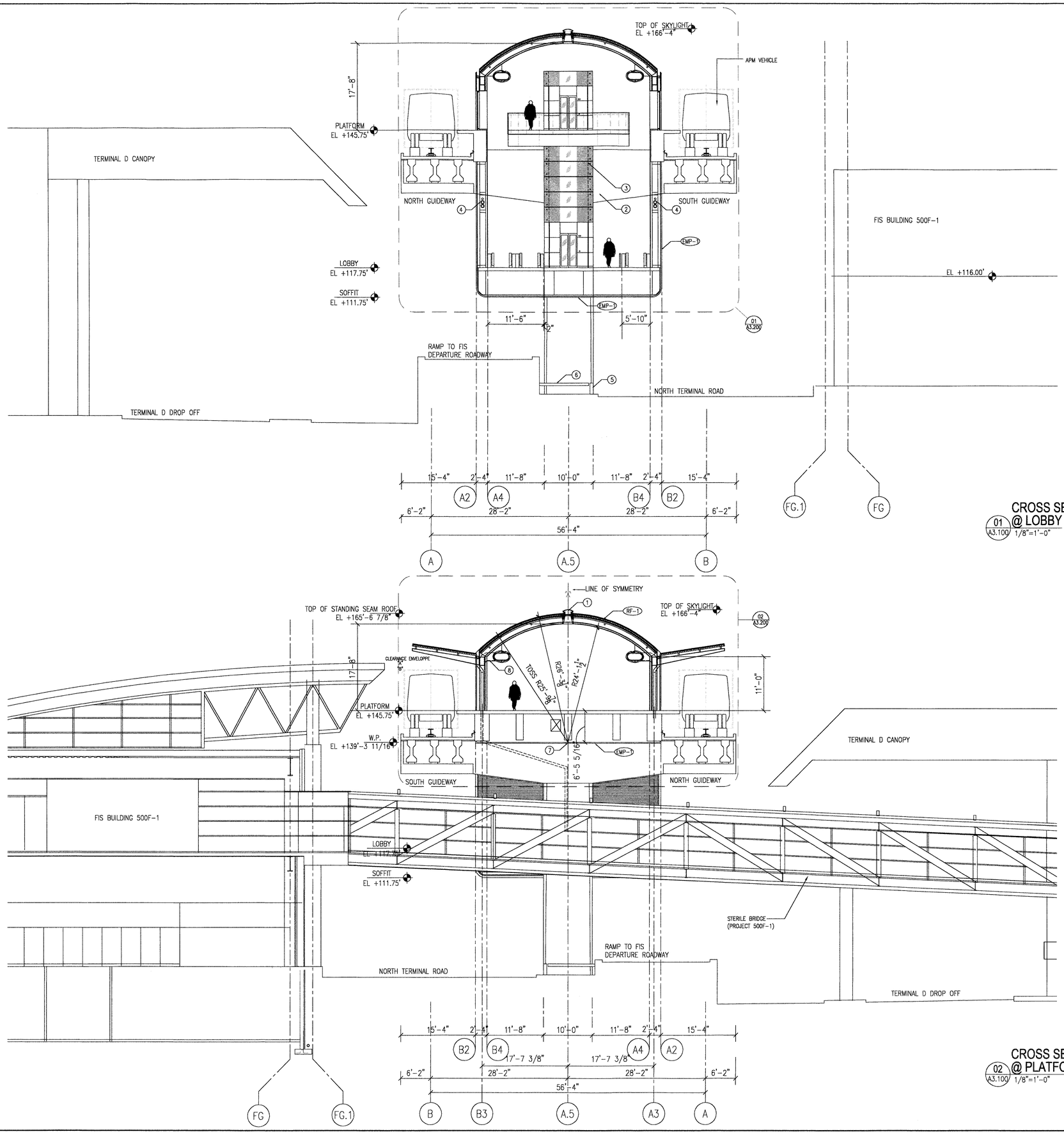
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	1140
C.I.P. NO.	A-0354
H.A.S. NO.	536C
SHEET NO.	A3.002

20

PLOT DATE: 02/04/02 HAS FILE:IA536CA3002



CROSS SECTION @ LOBBY

01 / A3.100 1/8"=1'-0"

CROSS SECTION @ PLATFORM

02 / A3.100 1/8"=1'-0"

GENERAL NOTES:

EMP-1 EXTERIOR POWDERCOAT METAL WALL PANEL– ALUMINIUM PANEL 1/8" THICK – TYPE SERIES 3000 MODIFIED FROM UNA–CLAD – COPPER SALES OR EQUAL
POWDERCOAT KYNAR 500 – FOR COLOR RE. SCHEDULE SHEET A2.800

RF-1 STANDING SEAM METAL ROOF– TYPE UC3 FROM UNA–CLAD – COPPER SALES OR EQUAL – WIDTH 1'–0"– POWDERCOAT KYNAR 500: COLOR#2 SILVER METALLIC

KEYED NOTES:

1. SKYLIGHT – RE SHEET A2.880
2. C.I.P. CONCRETE BEAM – ARCHITECTURAL CONCRETE
3. LAMINATED GLASS WITH PARTIAL WHITE INTERLAYER
4. MEP SUPPLY FROM FIS BRIDGE (500F–1) HOT WATER, CHILLED WATER, SPRINKLER, WATER, ELECTRICAL – REFER TO MEP – AND COORDINATE WITH 500F–1 @ SECURE BRIDGE
5. 2'3" HIGH C.I.P. CONCRETE WALL BY OTHERS – N.I.C. –HAS 536A–2
6. CONCRETE PAVEMENT BY OTHERS – N.I.C. – (HAS LANDSCAPING PROJECT)
7. CENTER POINT OF CURVED ROOF AND CEILING
8. SSTL CLADDING @ DUCT CONNECTION – 1/16" THK – MULTI DIRECTIONNAL MACHINE POLISH

NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

0' 4' 8' 16' 24'

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

HOUSTON AIRPORT SYSTEM
GEORGE BUSH INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

Lee Elliott
1099 W.RANDOL MILL RD.
ARLINGTON,TX,76012
Tel: 817.261.1446
Tel: 817.861.3266

REY DE LA REZA ARCHITECTS, INC
ARCHITECTURE PLANNING INTERIOR DESIGN
1749 WEST 16TH ST.
HOUSTON,TX,77008
Tel: 713.868.3121
Tel: 713.802.0112

REVISIONS

NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
	RECORD SET	05/13/05	EM

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION + PLATFORM

CROSS SECTIONS

PROJECT MGR:	HEM
DESIGNER:	SG
DRAWN BY:	SEM
CHECKED BY:	AB
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	1/8"=1'0"
DATE:	09/14/01

REGISTERED ARCHITECT Rey de la Reza 4612 STATE OF TEXAS

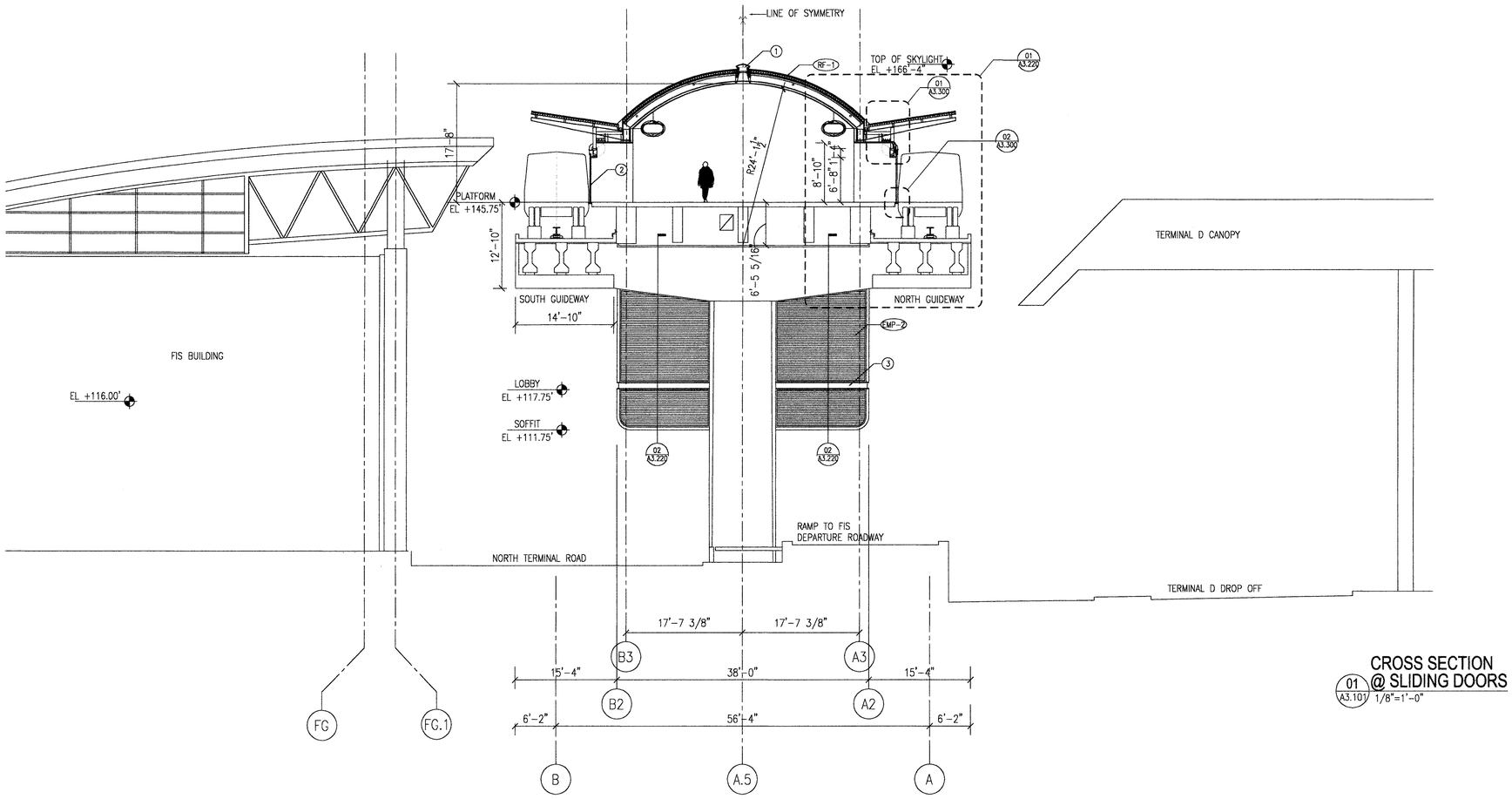
APPROVED BY: DATE:

DIRECTOR HOUSTON AIRPORT SYSTEM

PROJECT NO.	1140
C.I.P. NO.	A–0354
H.A.S. NO.	536C
SHEET NO.	A3.100

21

PLOT DATE: 02/04/02 HAS FILE: IA536CA3100



CROSS SECTION @ SLIDING DOORS

01 / A3.101 — 1/8"=1'-0"

GENERAL NOTES:

- OVERALL DIMENSIONS @ SLIDING DOORS TO BE COORDINATED WITH HAS 536D

(EMP-2) POWDERCOAT ALUMINUM LOUVERS
–WITH INSECT MESH WHEN USED BY MECHANICAL
–CLOSED WITH 1/8" THK ALUMINUM SHEET WELDED CONTINUOUSLY TO FRAME WHEN NOT USED BY MECHANICAL
RE: MECHANICAL FOR OPENINGS

(RF-1) STANDING SEAM METAL ROOF– TYPE UC3 FROM UNA–CLAD – COPPER SALES OR EQUAL – WIDTH 1'–0"– POWDERCOAT KYNAR 500; COLOR#2 SILVER METALLIC

KEYED NOTES:

1. SKYLIGHT – RE SHEET A2.880
2. SLIDING DOORS N.I.C. – TO BE COORDINATED WITH HAS 536D
3. 12" ALUMINIUM CHANNEL – POWDERCOATED COLOR#1 – FASTENING NOT VISIBLE; ANCHORED TO STRUCTURE BY ALUM PLATE WELD TO BACK OF CHANNEL

NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

0' 4' 8' 16' 24'

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

RECORD DRAWINGS
DO NOT MODIFY
Rey de la Reza Architects, Inc.
13 May 2005

Note: Information used to develop these documents was taken from Record of the Work Drawings prepared by the construction contractor, Clark Construction Group - Texas
The information provided by the contractor was not verified by the design firm named above.

HOUSTON AIRPORT SYSTEM
GEORGE BUSH INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

Lee Elliott
1099 W RANDOL MILL RD.
ARLINGTON,TX,76012
Tel: 817.261.1446
Tel: 817.861.3256

REY DE LA REZA ARCHITECTS, INC.
ARCHITECTURE PLANNING INTERIOR DESIGN
1245 WEST 18TH ST.
HOUSTON,TX,77008
Tel: 713.868.3121
Tel: 713.802.0112

REVISIONS

NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
	RECORD SET	05/13/05	EM

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION + PLATFORM

CROSS SECTIONS

PROJECT MGR:	HEM
DESIGNER:	SG
DRAWN BY:	SEM
CHECKED BY:	AB
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	1/8"=1'0"
DATE:	09/14/01

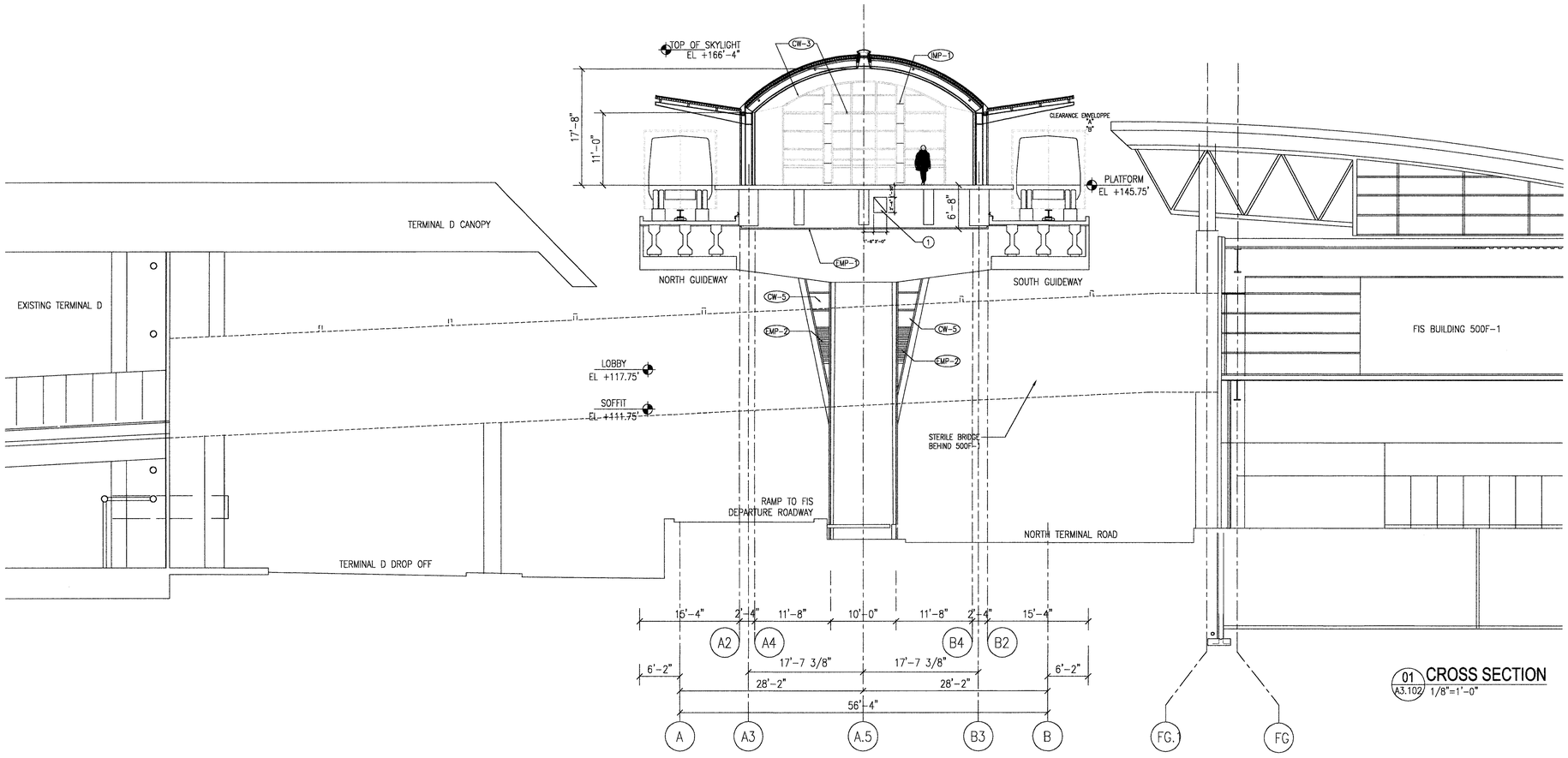
REGISTERED ARCHITECT Rey de la Reza 4612-15 STATE OF TEXAS

APPROVED BY: DATE:

DIRECTOR HOUSTON AIRPORT SYSTEM

PROJECT NO.	1140
C.I.P. NO.	A-0354
H.A.S. NO.	536C
SHEET NO.	A3.101

PLOT DATE: 02/04/22 HAS FILE:HAS36CA3101



01 A3.102 CROSS SECTION
1/8"=1'-0"

GENERAL NOTES:

CW-3 CURTAIN WALL TYPE 3 – RE WINDOW SCHEDULE SHEET A2.850

CW-5 CURTAIN WALL TYPE 5 – RE WINDOW SCHEDULE SHEET A2.850

IMP-1 INTERIOR STAINLESS STEEL WALL PANELS MULTI DIRECTIONNAL MACHINE POLISH

EMP-2 POWDERCOAT ALUMINIUM LOUVERS

EMP-1 EXTERIOR POWDERCOAT METAL WALL PANEL– ALUMINIUM PANEL 1/8" THICK – TYPE SERIES 3000 MODIFIED FROM UNA–CLAD – COPPER SALES OR EQUAL POWDERCOAT KYNAR 500 – FOR COLOR RE. SCHEDULE SHEET A2.800

KEYED NOTES:

1 A/C DUCT THROUGH CONCRETE BENTS 50 AND 49 – RE MECHANICAL AND STRUCTURAL

RECORD DRAWINGS
DO NOT MODIFY
Rey de la Reza Architects, Inc.
13 May 2005

Note: Information used to develop these documents was taken from Record of the Work Drawings prepared by the construction contractor, Clark Construction Group - Texas.
The information provided by the contractor was not verified by the design firm named above.

NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

0' 4' 8' 16' 24'

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

HOUSTON AIRPORT SYSTEM
GEORGE BUSH
INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

Lee Elliott
1009 W.RANDOL MILL RD.
ARLINGTON,TX,76012
Tel: 817.261.1446
Tel: 817.861.3296

REY DE LA REZA ARCHITECTS, INC.
ARCHITECTURE PLANNING INTERIOR DESIGN
1245 WEST 18TH ST.
HOUSTON,TX,77008
Tel: 713.868.3121
Tel: 713.802.0112

REVISIONS

NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
	RECORD SET	05/13/05	EM

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION + PLATFORM

CROSS SECTIONS

PROJECT MGR:	HEM
DESIGNER:	SG
DRAWN BY:	SEM
CHECKED BY:	AB
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	1/8"=1'0"
DATE:	09/14/01

REGISTERED ARCHITECT — Rey de la Reza — 4912 — STATE OF TEXAS

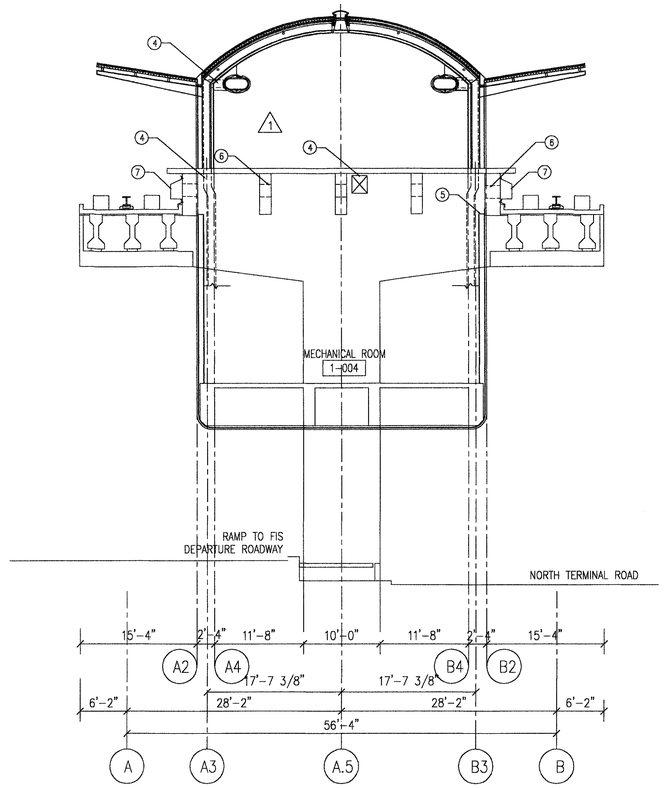
APPROVED BY:	DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

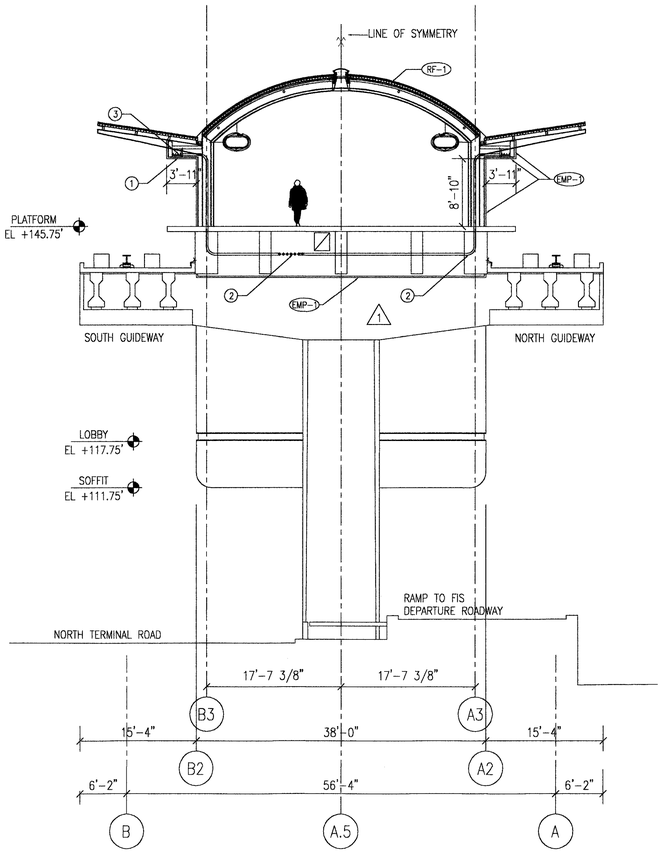
PROJECT NO.	1140
C.I.P. NO.	A-0354
H.A.S. NO.	538C
SHEET NO.	A3.102

23 A3.102

PLOT DATE: 02/04/02 HAS FILE: IAS36CA3102



CROSS SECTION
@ MECHANICAL ROOM
01 / A3.103 — 1/8"=1'-0"



CROSS SECTION
@ PLATFORM
02 / A3.103 — 1/8"=1'-0"

GENERAL NOTES:

EMP-1 EXTERIOR POWDERCOAT METAL WALL PANEL–
ALUMINIUM PANEL 1/8" THICK – TYPE SERIES
3000 MODIFIED FROM UNA–CLAD – COPPER SALES
OR EQUAL.
POWDERCOAT KYNAR 500 – FOR COLOR RE.
SCHEDULE SHEET A2.800

RF-1 STANDING SEAM METAL ROOF– TYPE UC3 FROM
UNA–CLAD – COPPER SALES OR EQUAL –
WIDTH 1'–0"– POWDERCOAT KYNAR 500: COLOR#2
SILVER METALLIC

KEYED NOTES:

1. EXTERIOR SOFFIT – METAL PANEL TYPE EMP–1
2. SIX 2–1/2" AND ONE 1–1/4" CONDUITS: RE ELECTRICAL RE STRUCTURAL TO BE COORDINATED WITH 536D (1)
3. CONTINUOUS CABLE TRAY N.I.C. RE 536D
4. A/C DUCT – RE MECHANICAL
5. 8"x8" STEEL ANGLE
6. 20"X30" PENETRATION FOR CONDUITS FROM GUIDEWAY. RE. STRUCTURAL. RE ELECTRICAL TO BE COORDINATED WITH PROJECT 536D
7. GALVANIZED STEEL COVER AND SEALANT @ CONDUITS PENETRATION .

(1)

RECORD DRAWINGS
DO NOT MODIFY
Rey de la Reza Architects, Inc.
13 May 2005
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0' 4' 8' 16' 24'
SCALE: 1/8" = 1'-0"

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GEORGE BUSH INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

Lee Elliott
1009 W.RANDOL MILL RD.
ARLINGTON,TX,76012
Tel: 817.261.1446
Tel: 817.861.3296

REY DE LA REZA ARCHITECTS, INC.
ARCHITECTURE PLANNING INTERIOR DESIGN
1245 WEST 18TH ST.
HOUSTON,TX,77008
Tel: 713.868.3121
Tel: 713.802.0112

REVISIONS

NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
1	REVISION #1	01/27/03	SG
2	RECORD SET	05/13/05	EM

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION + PLATFORM

CROSS SECTIONS

PROJECT MGR:	HEM
DESIGNER:	JG
DRAWN BY:	SEM
CHECKED BY:	AB
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	1/8"=1'0"
DATE:	09/14/01

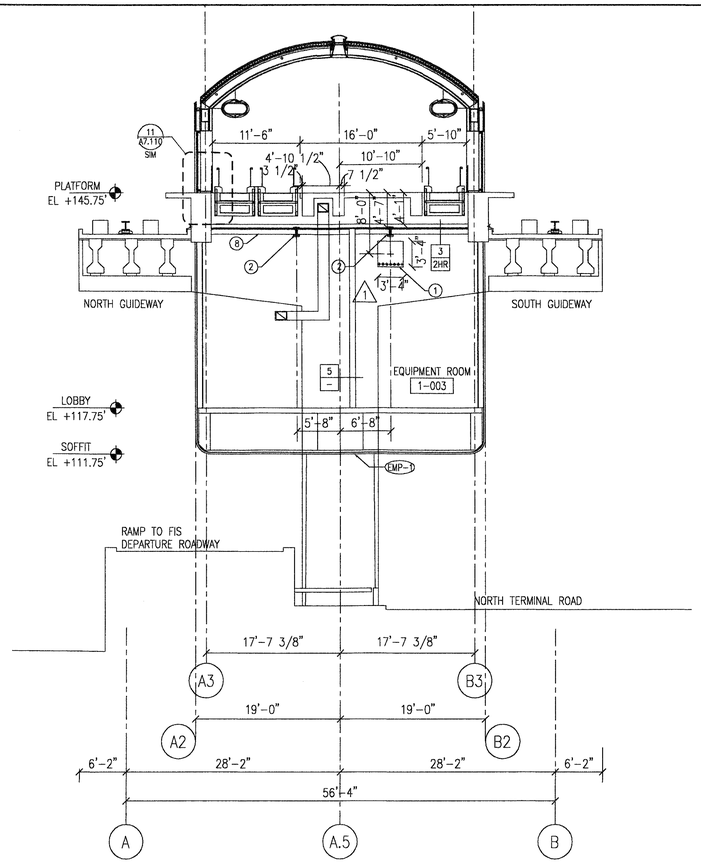
REGISTERED ARCHITECT Rey de la Reza 4612-8 STATE OF TEXAS

APPROVED BY: DATE:

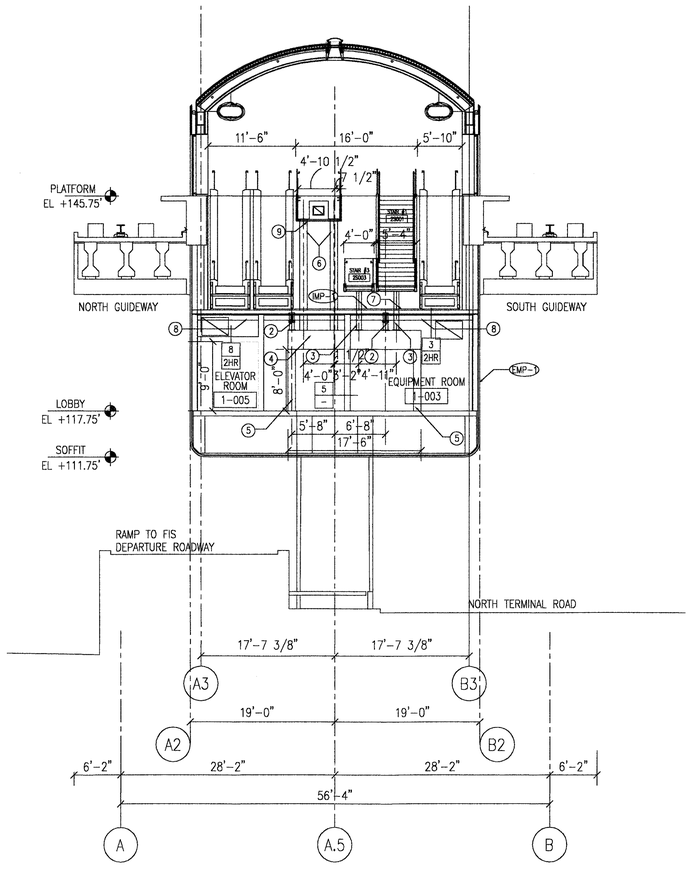
DIRECTOR HOUSTON AIRPORT SYSTEM

PROJECT NO.	1140
C.I.P. NO.	A-0354
H.A.S. NO.	536C
SHEET NO.	A3.103

PLOT DATE: 02/04/02 HAS FILE:\A536C\A3103



CROSS SECTION
@ EQUIPMENT ROOM
01 / A3.104 — 1/8"=1'-0"



CROSS SECTION
@SLOPE WALL STRUCTURE
02 / A3.104 — 1/8"=1'-0"

GENERAL NOTES:

EMP-1 EXTERIOR POWDERCOAT METAL WALL PANEL– ALUMINIUM PANEL 1/8" THICK – TYPE SERIES 3000 MODIFIED FROM UNA–CLAD – COPPER SALES OR EQUAL POWDERCOAT KYNAR 500 – FOR COLOR RE. SCHEDULE SHEET A2.800

RF-1 STANDING SEAM METAL ROOF– TYPE UC3 FROM UNA–CLAD – COPPER SALES OR EQUAL – WIDTH 1'-0"– POWDERCOAT KYNAR 500: COLOR#2 SILVER METALLIC

IMP-1 INTERIOR STAINLESS STEEL WALL PANELS MULTI DIRECTIONNAL MACHINE POLISH

KEYED NOTES:

1. OPENNING IN CONCRETE BENT FOR CONDUITS. RE. STRUCTURAL RE. ELECTRICAL TO BE COORDINATED WITH HAS 536D (1)
2. W12 BEAM WITH 3 HR FIREPROOFING SUPPORT OF SLOPE WALL RE STRUCTURAL
3. 8" STEEL TUBE & BASE PLATE SUPPORT OF STAIR LANDING – PAINT
4. 2'x2'–6" CONCRETE BEAM – RE STRUCTURAL – PAINT
5. 2'x1' CONCRETE COLUMN – RE. STRUCTURAL – PAINT
6. 12"x12" CONCRETE COLUMNS – RE. STRUCTURAL – PAINT
7. SSTL METAL PANELS TYPE IMP–1 ON VISIBLE FACES OF SLOPE WALL UNDER CATWALK AND STAIRS
8. 8" STEEL STUD @ 2' O.C. 10 GA – SECURED TO W12 BEAM AND WALL – TO SUSPEND CABLE TRAYS AND CONDUITS
9. 1/2" X 1/2" ALUMINIUM REVEAL @ GYPSUM CEILING AROUND BOTH 12" COLUMNS

RECORD DRAWINGS
DO NOT MODIFY
Rey de la Reza Architects, Inc.
13 May 2005

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0' 4' 8' 16' 24'

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

HOUSTON AIRPORT SYSTEM
GEORGE BUSH
INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

Lee Elliott
1009 W.RANDOL MILL RD.
ARLINGTON,TX,76012
Tel: 817.261.1446
Tel: 817.861.3266

REY DE LA REZA ARCHITECTS, INC.
ARCHITECTURE PLANNING INTERIOR DESIGN
1045 WEST 18TH ST.
HOUSTON,TX,77008
Tel: 713.868.3121
Tel: 713.802.0112

REVISIONS

NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
1	ADDENDUM 1	02/01/02	SG
2	REVISION #1	01/27/03	SG
3	RECORD SET	05/13/05	EM

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION + PLATFORM

CROSS SECTIONS

PROJECT MGR:	HEM
DESIGNER:	SG
DRAWN BY:	SEM
CHECKED BY:	AB
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	1/8"=1'0"
DATE:	09/14/01

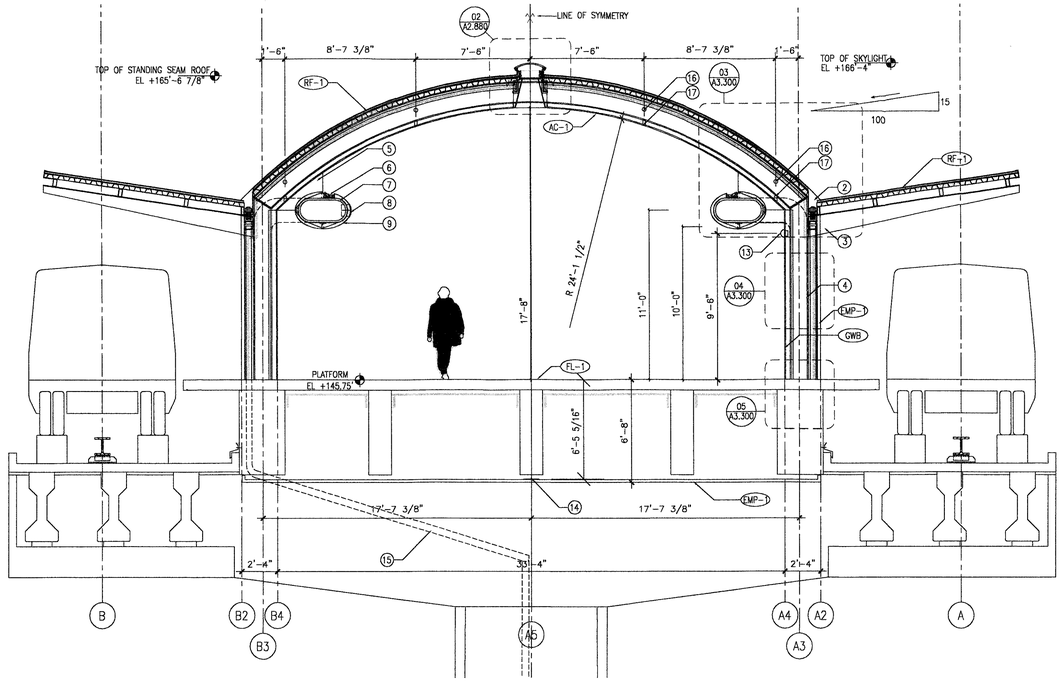
REGISTERED ARCHITECT Rey de la Reza 16072-6 STATE OF TEXAS

APPROVED BY: DATE:

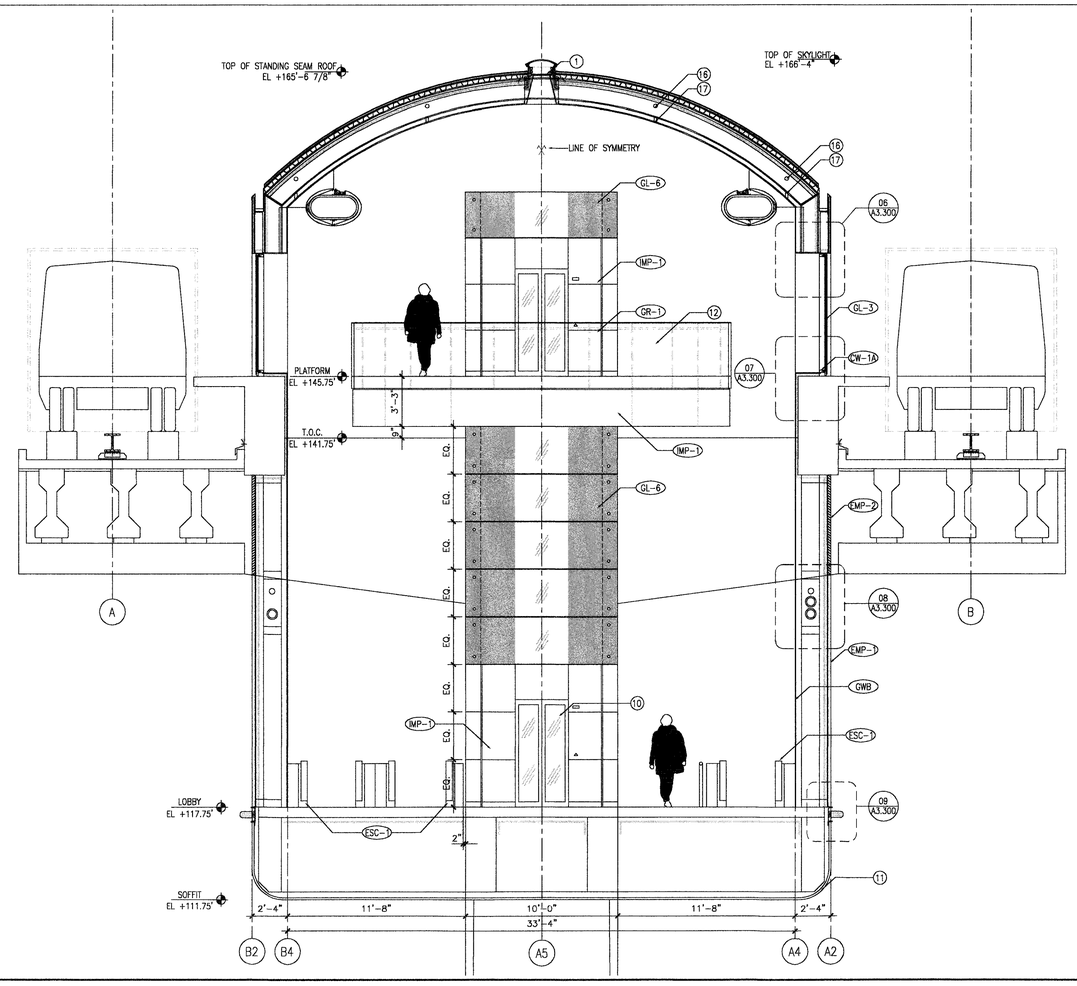
DIRECTOR HOUSTON AIRPORT SYSTEM

PROJECT NO.	1140
C.I.P. NO.	A-0354
H.A.S. NO.	536C
SHEET NO.	25 A3.104

PLOT DATE: 02/04/02 HAS FILE: HAS36CA3104



CROSS SECTION @PLATFORM
02 / A3.200 1/4"=1'-0"



CROSS SECTION @LOBBY
01 / A3.200 1/4"=1'-0"

GENERAL NOTES:

- RF-1 STANDING SEAM METAL ROOF- TYPE UC3 FROM UNA-CLAD - COPPER SALES OR EQUAL - WIDTH 1'-0"- POWDERCOAT KYNAR 500: COLOR#2 SILVER METALLIC
- IMP-1 INTERIOR STAINLESS STEEL WALL PANELS MULTI DIRECTIONNAL MACHINE POLISH
- EMP-1 EXTERIOR POWDERCOAT METAL WALL PANEL- ALUMINIUM PANEL 1/8" THICK - TYPE SERIES 3000 MODIFIED FROM UNA-CLAD - COPPER SALES OR EQUAL POWDERCOAT KYNAR 500 - FOR COLOR RE. SCHEDULE SHEET A2.800
- CW-1A INTEGRATED STRUCTURAL CURTAINWALL SYTEM TYPE 1A - RE WINDOW SCHEDULE SHEET A2.850
- GL-3 1" INSULATED GLAZING UNIT WITH FRIT.
- GL-6 1/2" THK LAMINATED GLASS WITH PARTIAL WHITE INTERLAYER
- AC-1 PRE-FINISHED CURVED, PERFORATED METAL CEILING PANEL - TYPE ALUMA VAULT SYSTEM 1000 BY CORDON MANUFACTURER- OR EQUAL WITH BLACK NON WOVEN ACCOUSTICAL MAT
- GWB PAINT GYPSUM BOARD
- FL-1 TERRAZZO FLOOR
- GR-1 GLASS GUARDRAIL - CURVED @ ELLIPTICAL BALCONY
- ESC-1 MONTGOMERY KONE TRANSIT ESCALATOR WITH GLASS BALUSTRADE

KEYED NOTES:

1. SKYLIGHT - RE A2.880
2. SSTL GUTTER - RE A8.020
3. CANOPY STEEL STRUCTURE - HIGH PERFORMANCE PAINTING
4. STEEL COLUMN WITH 3HR FIREPROOFING
5. SSTL METAL CLAD - 1/16" THK - MULTI DIRECTIONNAL MACHINE POLISH
6. INDIRECT LIGHT - RE: ELECTRICAL
7. OVAL A/C DUCT - RE MECHANICAL
8. ALUMINIUM LINEAR SLOT DIFFUSER - RE: MECHANICAL
9. ELLIPTICAL SSTL CLAD - 1/16" THK - MULTI DIRECTIONNAL MACHINE POLISH - RE A9.000
10. GLAZED DOOR - 7/16" LAMINATED GLASS
11. CURVED METAL PANEL - TYPE EMP-1 - RADIUS 2'
12. CURVED GLASS AND HANDRAIL @ ELLIPTICAL BALCONY
13. WALL MOUNT FIXED CAMERA - RE SECURITY
14. CENTER POINT OF CURVED ROOF AND CEILING
15. DOWNSPOUT IN CONC. BENT - RE PLUMBING AND STRUCTURAL
16. 3" HOLES IN ALL CURVED W16 BEAM FOR SPRINKLER PIPING
17. PROPOSED SPRINKLER HEAD LOCATION

RECORD DRAWINGS
DO NOT MODIFY
Rey de la Reza Architects, Inc.
13 May 2005
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NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

0' 2' 4' 8' 12'
SCALE: 1/4" = 1'-0"

HOUSTON AIRPORT SYSTEM
GEORGE BUSH INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

Lee Elliott
1009 W.RANDOL MILL RD.
ARLINGTON,TX,76012
Tel: 817.261.1446
Tel: 817.861.3286

REY DE LA REZA ARCHITECTS, INC.
ARCHITECTURE PLANNING INTERIOR DESIGN
1245 WEST 18TH ST.
HOUSTON,TX,77008
Tel: 713.868.3121
Tel: 713.802.0112

REVISIONS

NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
	RECORD SET	05/13/05	EM

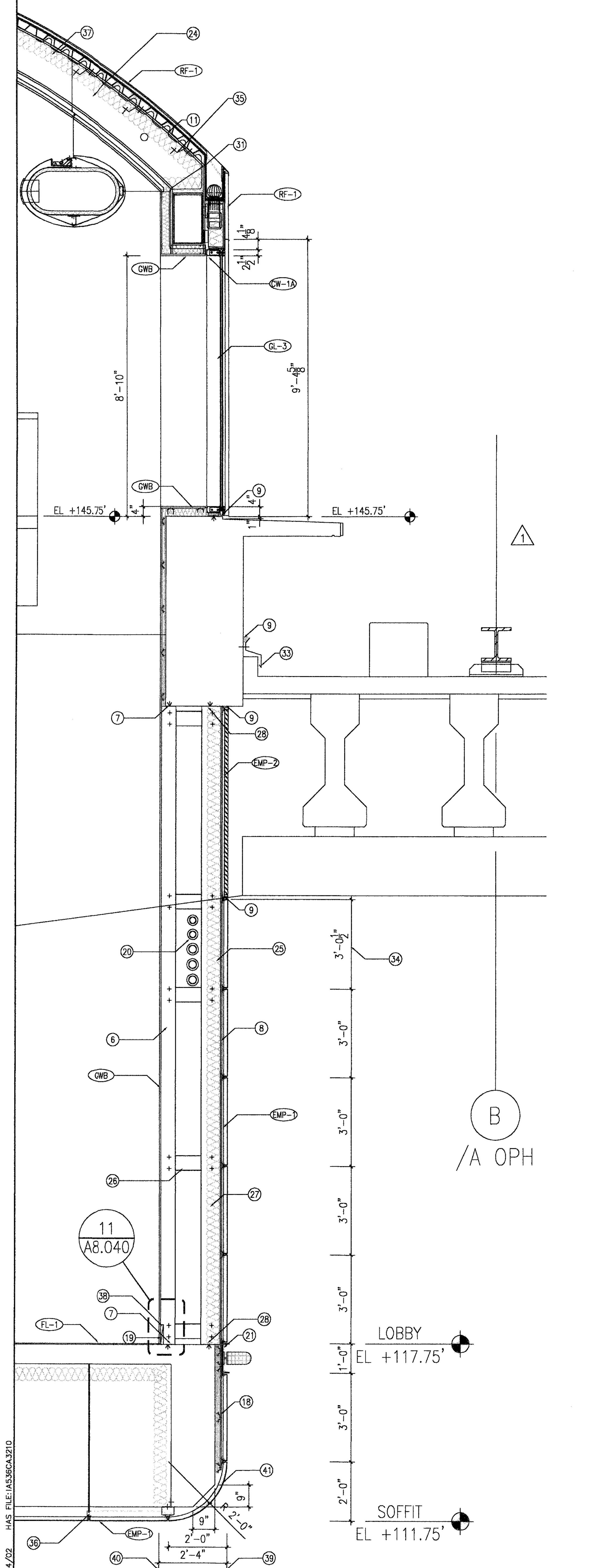
INTERNATIONAL + SERVICES + EXPANSION + PROGRAM
APM STATION + PLATFORM
CROSS SECTIONS

PROJECT MGR:	HEM
DESIGNER:	SG
DRAWN BY:	SEM
CHECKED BY:	AB
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	1/4"=1'0"
DATE:	09/14/01

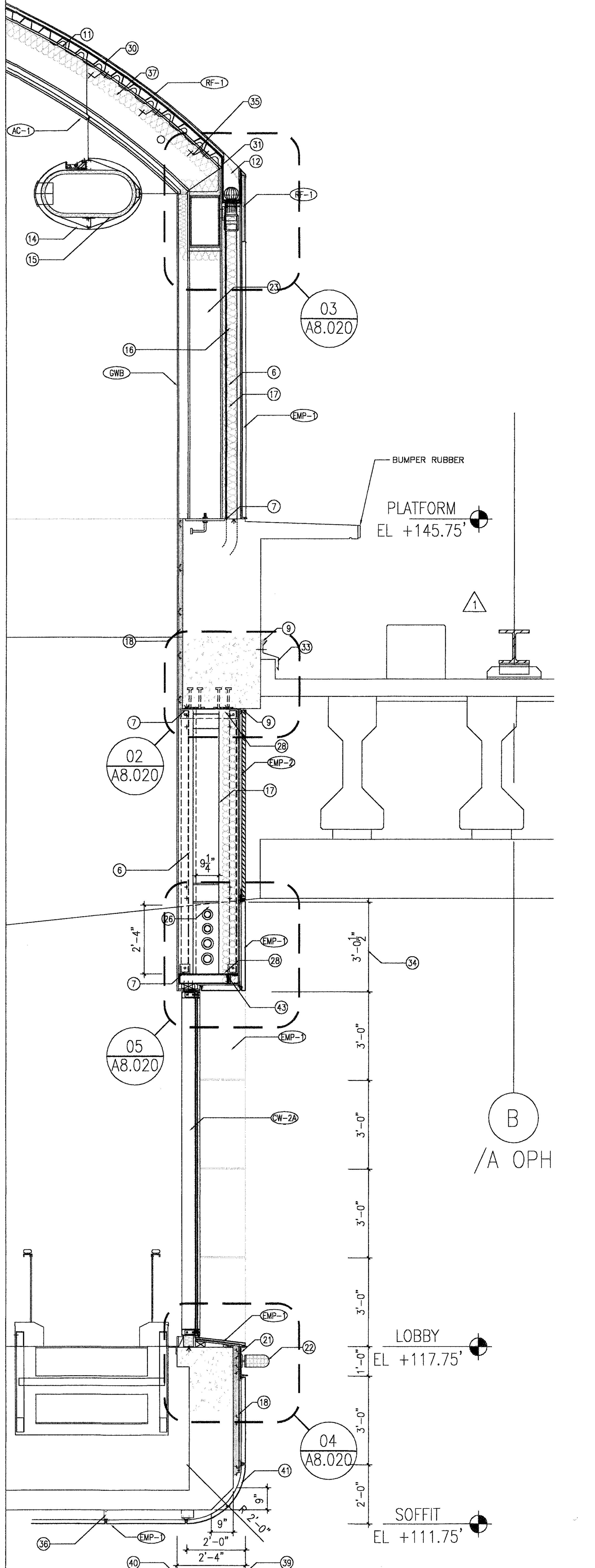
REGISTERED ARCHITECT Rey de la Reza 4612-8 STATE OF TEXAS

APPROVED BY:	DATE:
DIRECTOR HOUSTON AIRPORT SYSTEM	
PROJECT NO.	1140
C.I.P. NO.	A-0354
H.A.S. NO.	536C
SHEET NO.	26 A3.200

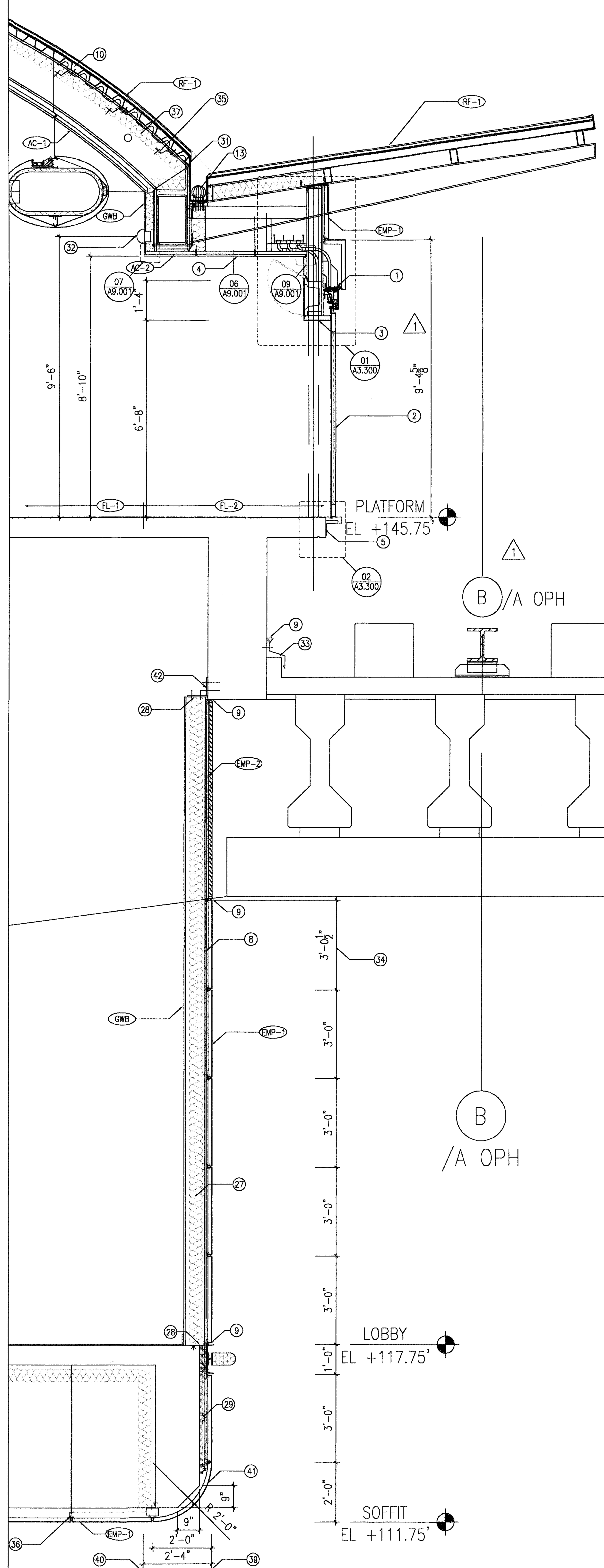
PLOT DATE: 02/04/02 HAS FILE:HAS36CA3200



03 WALL SECTION 03
A3.210 1/2"=1'-0"



02 WALL SECTION 02
A3.210 1/2"=1'-0"



01 WALL SECTION 01
A3.210 1/2"=1'-0"

GENERAL NOTES:

- (CW-1A) INTEGRATED STRUCTURAL CURTAINWALL SYTEM TYPE 1A – RE WINDOW SCHEDULE
- (CW-2A) INTEGRATED STRUCTURAL CURTAINWALL SYTEM TYPE 2A – RE WINDOW SCHEDULE A2.850
- (GL-3) 1" INSULATED GLAZING UNIT WITH FRIT. RE WINDOW AND GLASS SCHEDULE A2.850
- (EMP-1) EXTERIOR POWDERCOATED WALL METAL PANELS – ALUMINIUM PANEL 1/8" THICK – TYPE SERIES 3000 MODIFIED FROM UNA-CLAD – COPPER SALES OR EQUAL –POWDERCOATED KYNAR 500
- (EMP-2) POWDERCOATED ALUMINIUM LOUVERS
  –WITH INSECT MESH WHEN USED BY MECHANICAL
  –CLOSED WITH 1/8" THK ALUMINIUM SHEET WELDED CONTINUOUSLY TO FRAME WHEN NOT USED BY MECHANICAL – RE MECHANICAL FOR OPENINGS
- (RF-1) STANDING SEAM METAL ROOF– TYPE UC3 FROM UNA-CLAD – COPPER SALES OR EQUAL– POWDERCOATED KYNAR 500: COLOR#2 SILVER METALLIC
- (GWB) PAINT 5/8" HI-IMPACT GYPSUM BOARD ON METAL STUDS
- (AC-1) PRE-FINISHED CURVED, PERFORATED METAL CEILING PANEL – TYPE ALUMA VAULT SYSTEM 1000 BY GORDON MANUFACTURER – WITH BLACK NON WOVEN ACCOUSTICAL MAT
- (AC-2) REMOVABLE SSTL CEILING PANELS SSTL MULTI DIRECTIONAL MACHINE POLISH
- (FL-1) TERRAZZO FLOOR TYPE 1
- (FL-2) TERRAZZO FLOOR TYPE 2

KEYED NOTES:

1. 6" STEEL CHANNEL FIXED ON METAL POSTS – RE SHEET A8.040
2. SLIDING DOOR BY OTHERS 536D– N.I.C. – DIMENSIONS TO BE COORDINATED WITH 536D
3. STAINLESS STEEL HEAD
4. REMOVABLE SSTL CEILING PANELS TYPE AC-2
5. STEEL ANGLE ANCHOR TO CONCRETE SLAB – SUPPORT OF SLIDING DOORS THRESHOLD
6. 6" METAL STUD @ 16" O.C 16 GA. (1)
7. 6" STEEL RUNNER
8. 1/2" SHEATHING
9. SEALANT & BACKER ROD
10. 5/8" GYPSUM SHEATHING TYPE X
11. 3" METAL DECK + 1HR SPRAY APPLIED FIREPROOFING
12. SSTL GUTTER – 16 GA
13. BASKET STRAINER
14. ALUM. CLAD – POWDERCOATED
15. A/C DUCT – RE MECHANICAL
16. DOWNSPOUT – RE PLUMBING
17. BATT INSULATION
18. RIGID INSULATION
19. SCHEDULED BASE – RECESSED – ALIGNED WITH FINISH FACE OF WALL
20. CHS, CHR, HWR, HWS, DUCTS AND SPRINKLER SUPPLY – REFER TO MEP PLANS
21. 12 " ALUMINIUM CHANNEL– POWDERCOATED COLOR #1 – FASTENERS NOT VISIBLE: ANCHORED TO STRUCTURE BY ALUM PLATES WELDED @ CHANNEL BACK SIDE
22. BLUE SAFETY LIGHT
23. STEEL COLUMN + 3HR FIREPROOFING
24. STEEL BEAM + 3HR FIREPROOFING
25. UNDERLAYMENT
26. BRACING
27. 8" METAL STUD JOIST @ 16" O.C 10 GA.
28. 8" STEEL RUNNER
29. SHIM + SUBGIRT – SECURE TO CONCRETE
30. ROOFING UNDERLAYMENT TYPE VYCOR ULTRA FROM GRACE MANUFACTURER OR EQUAL
31. 1/4" BENT STEEL PLATE – WELD TO STRUTURE
32. FIXED CAMERA – RE SECURITY
33. EXTRUDED ALUMINIUM FLASHING – POWDERCOAT FINISH
34. PANEL DIMENSION TO BE FIELD VERIFIED ALL METAL PANELS PERFECTLY ALIGNED
35. 3' Z CLIP – 20 GA @ 24" O.C. – SECURE TO DECK BEFORE APPLYING SPRAY FIREPROOFING
36. SOFFIT SUSPENSION GRID: METAL STUDS AND 1/4" SUSPENSION RODS – STUD BRACING AS REQUIRED
37. BATT INSULATION @ ROOF FIXED TO STEEL Z CLIP
38. WOOD BLOCKING BEFORE APPLYING SPRAY FIREPROOFING
39. COLUMN LINE B2: EXT. METAL PANELS FINISH FACE – A2 @ OPH
40. COLUMN LINE B4: INT. FINISH FACE – A4 @ OPH
41. CURVED METAL PANEL TYPE EMP-1 – R 2'-0"
42. 8"x8" STEEL ANGLE – ANCHORED TO CONCRETE BEAM
43. 20"x4" STEEL TUBE– RE STRUCTURAL

NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

0' 1' 2' 4' 6'
SCALE: 1/2" = 1'-0"

HOUSTON AIRPORT SYSTEM
GEORGE BUSH
INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

Lea+Elliott
1009 W.RANDOL MILL RD.
ARLINGTON,TX,76012
Tel: 817.261.1446
Tel: 817.861.3296

RdlR
REY DE LA REZA ARCHITECTS, INC.
ARCHITECTURE PLANNING INTERIOR DESIGN
1245 WEST 18TH ST.
HOUSTON,TX,77008
Tel: 713.868.3121
Tel: 713.802.0112

REVISIONS

NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
1	REVISION #1	01/27/03	SG
3	RECORD SET	05/13/05	EM

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION + PLATFORM

WALL SECTIONS

PROJECT MGR:	HEM
DESIGNER:	SG
DRAWN BY:	SEM
CHECKED BY:	AB
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	1/2"=1'0"
DATE:	09/14/01

REGISTERED ARCHITECT
Rey de la Reza
4612-8
STATE OF TEXAS

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

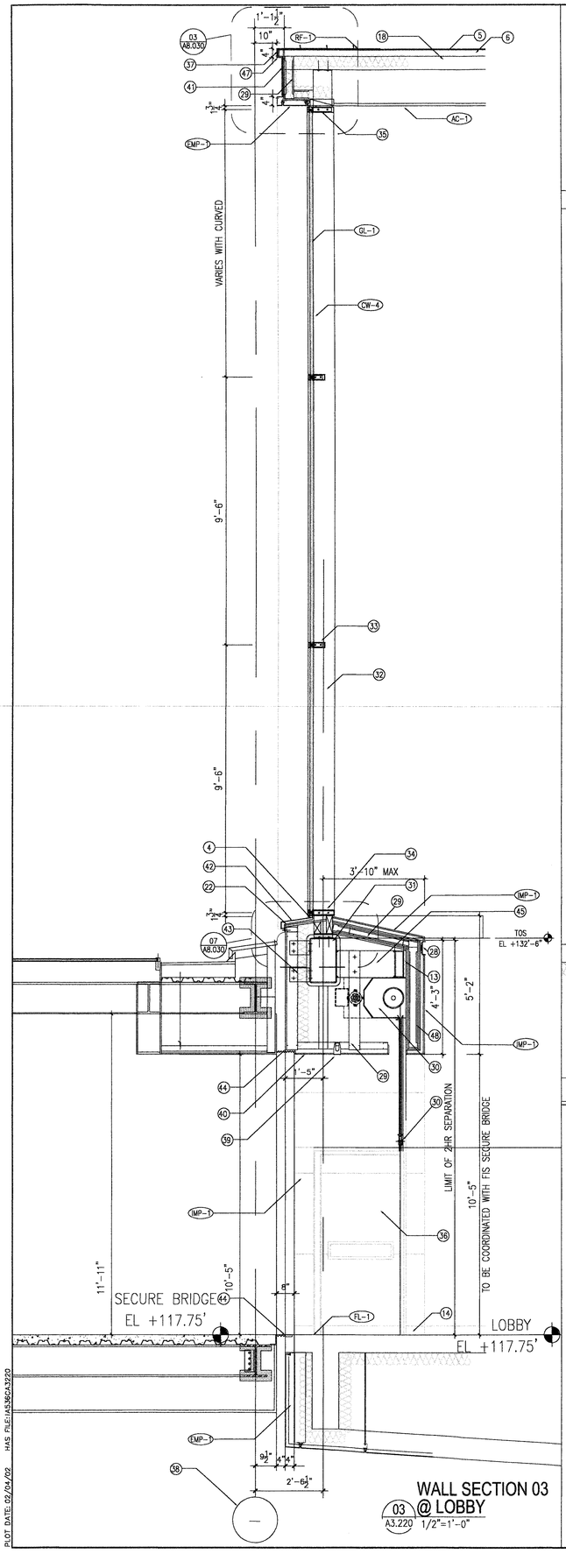
PROJECT NO. 1140

C.I.P. NO. A-0354

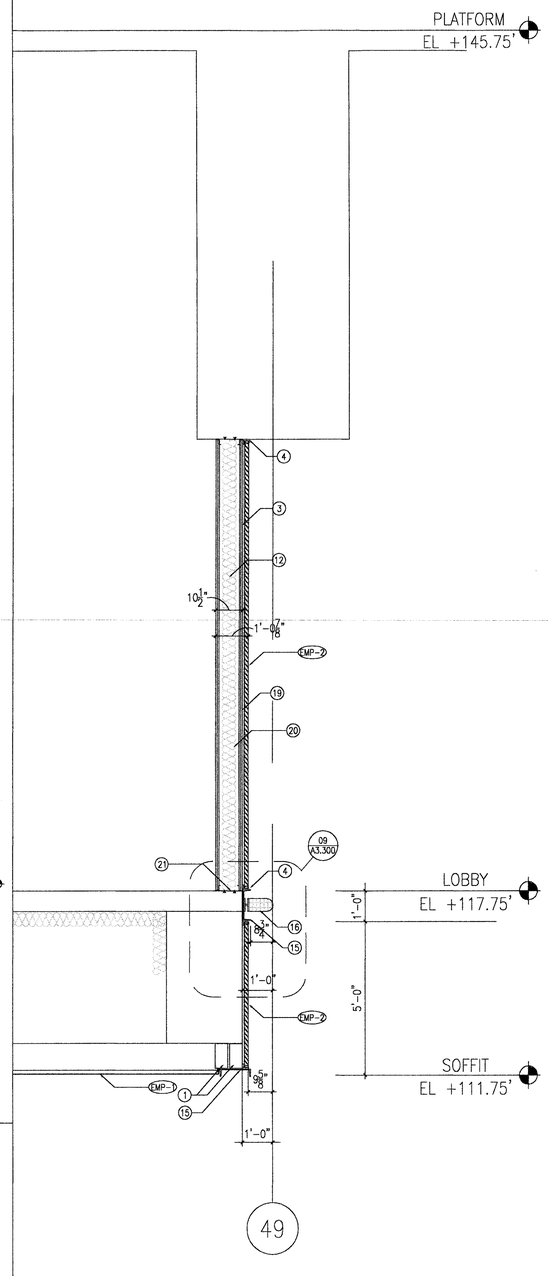
H.A.S. NO. 536C

SHEET NO.
27 A3.210

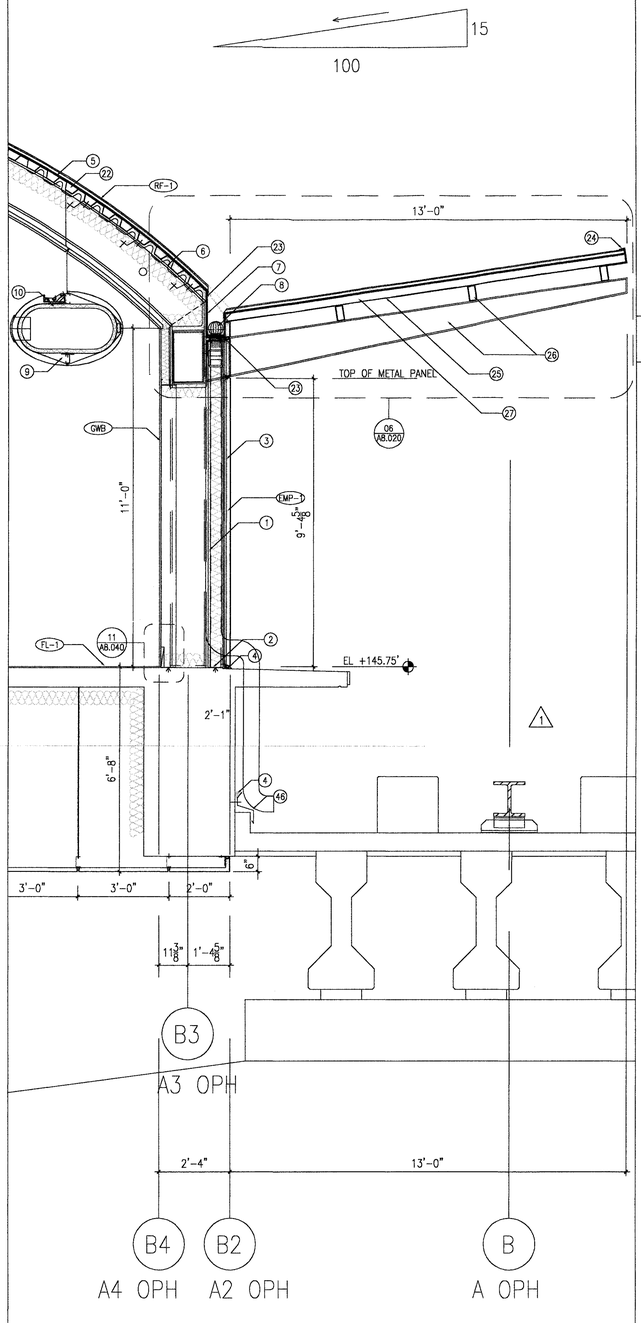
PLOT DATE: 02/04/02 HAS FILE:IA536CA3210



WALL SECTION 03
03 A3.220 @ LOBBY 1/2"=1'-0"



WALL SECTION 02
02 A3.220 @ MECHANICAL ROOM 1/2"=1'-0"



WALL SECTION 01
01 A3.220 @ CANOPY 1/2"=1'-0"

GENERAL NOTES:

- OVERALL DIMENSIONS @ SLIDING DOORS TO BE COORDINATED WITH HAS 536D
- (CW-4) INTEGRATED STRUCTURAL CURTAINWALL SYTEM TYPE 4 – RE WINDOW SCHEDULE SHEET A2.850
- (GL-1) 1" INSULATED GLAZING
- (EMP-1) EXTERIOR POWDERCOATED WALL METAL PANELS – ALUMINUM PANEL 1/8" THICK – TYPE SERIES 3000 MODIFIED FROM UNA-CLAD – COPPER SALES OR EQUAL –POWDERCOATED KYNAR 500
- (EMP-2) POWDERCOATED ALUMINUM LOUVERS –WITH INSECT MESH WHEN USED BY MECHANICAL –CLOSED WITH 1/8" THK ALUMINIUM SHEET WELDED CONTINUOUSLY TO FRAME WHEN NOT USED BY MECHANICAL – RE: MECHANICAL FOR OPENINGS
- (RF-1) STANDING SEAM METAL ROOF– TYPE UC3 FROM UNA-CLAD – COPPER SALES OR EQUAL– POWDERCOATED KYNAR 500; COLOR#2 SILVER METALLIC
- (GWB) PAINT 5/8" HI-IMPACT GYPSUM BOARD ON METAL STUDS
- (AC-1) PRE-FINISHED CURVED, PERFORATED METAL CEILING PANEL – TYPE ALUMA VAULT SYSTEM 1000 BY GORDON MANUFACTURER – WITH BLACK NON WOVEN ACCOUSTICAL MAT
- (FL-1) TERRAZO FLOOR
- (IMP-1) INTERIOR STAINLESS STEEL WALL PANELS SSTL MULTI DIRECTIONAL MACHINE POLISH

KEYED NOTES:

1. 6" METAL STUD @ 16" O.C 16 GA.
2. 6" STEEL RUNNER
3. 1/2" SHEATING
4. SEALANT & BACKER ROD
5. 5/8" GYPSUM SHEATING TYPE X
6. 3" METAL DECK + 1HR FIREPROOFING
7. SSTL GUTTER – 16 GA
8. BASKET STRAINER
9. STAINLESS STEEL CLAD – MULTI DIRECTIONAL MACHINE POLISH
10. A/C DUCT – RE MECHANICAL
11. DOWNSPOUT – RE PLUMBING
12. BATT INSULATION
13. 4"x12" STEEL TUBE – SUPPORT OF 2 HR ROLLING DOOR – WITH 2 HR FIREPROOFING
14. SCHEDULED BASE – RECESSED – ALIGNED WITH SSTL PANELS
15. 12 " ALUMINIUM CHANNEL– THERMOCOATED COLOR #1 – FASTENERS NOT VISIBLE: ANCHORED TO STRUCTURE BY ALUM PLATES WELDED @ CHANNEL BACK SIDE
16. BLUE SAFETY LIGHT
17. STEEL COLUMN + 3HR FIREPROOFING
18. STEEL BEAM + 3HR FIREPROOFING
19. UNDERLAYMENT
20. 6" METAL STUD JOIST @ 16" O.C 20 GA.
21. 8" STEEL RUNNER
22. ROOFING UNDERLAYMENT TYPE VYCOR ULTRA FROM GRACE MANUFACTURER OR SIMILAR
23. 1/4" BENT STEEL PLATE – WELDED TO STRUTURE
24. PREFINISHED FLASHING POWDERCOATED – COLOR# 2
25. PERFORATED ALUMINIUM SHEET – 1/8 " THK – POWDERCOATED COLOR# 2 SECURED TO DECK BY POP RIVETS – ALL RIVETS ALIGNED – GRID TO BE DETERMINED
26. CANOPY STEEL STRUCTURE – PAINT
27. GALVANIZED STEEL DECK
28. 6" ALUMINIUM CHANNEL – ANODIZED – MIRROR POLISHED – FASTENERS NOT VISIBLE
29. METAL STUD CONSTRUCTION – SECURED TO STEEL STRUCTURE BY Z CLIPS BRACING AS REQUIRED
30. 2HR FIRE RATED ROLLING DOOR – SAFESCAPE T2500 FIRE DOOR BY MC KEON MANUFACTURER– RE DOOR SCHEDULE
31. 20"x8" STEEL TUBE WITH 3HR FIREPROOFING
32. 2 1/2"x10" VERTICAL MULLION WITH STEEL REINFORCEMENT
33. 2 1/2"x7 1/2" HORIZONTAL MULLION
34. 2 1/2"x10 1/2" HORIZONTAL MULLION
35. 2 1/2"x10 1/2" CURVED MULLION – SAME CURVE THAN CEILING
36. SWINGING EGRESS DOOR FROM 2HR FIRE RATED DOOR SYSTEM – POCKETED IN WALL SSTL CLADDING FINISH ON VISIBLE FACES INCLUDING FRAME PUSHING BAR AND DOOR ALIGNED WITH WALL FINISH FACE
37. STEEL Z @ EDGE OF ROOF– 1/8" THK – CURVED
38. FIS SECURE BRIDGE COLUMN GRID LINE – PROJECT 500F–1 LOCATION TO BE COORDINATED WITH HAS 500F–1
39. DOWNLIGHT
40. SSTL CEILING – TYPE AC–2
41. HONEYCOMBED ALUMINIUM PANEL – 1/2" THK – POWDERCOATED COLOR #2
42. ALUMINIUM FLASHING – POWDERCOATED COLOR #2
43. STEEL CLIP SECURE TO BEAM
44. DILATATION JOINT BY OTHERS – 500F–1 CONCRETE SLAB DETAIL @ STATION TO BE COORDINATED WITH 500F–1
45. STEEL TUBES 4"x12" WELDED TO BEAM 20"x12" @ 24" O.C. – 2 HR FIREPROOFING
46. EXTRUDED ALUMINIUM FLASHING – POWDERCOATED
47. SHEET METAL CLADDING – POWDERCOATED COLOR #2
48. 2 HR GYPSUM PARTITION TYPE 2 UL # U411

RECORD DRAWINGS
DO NOT MODIFY
Rey de la Reza Architects, Inc.
13 May 2005
Note: Information used to develop these documents was taken from Record of the Work Drawings prepared by the construction contractor, Clark Construction Group - Texas.
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NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

0' 2' 4' 8' 12'

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

HOUSTON AIRPORT SYSTEM
GEORGE BUSH INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

Lee Elliott
1099 W.RANDOL MILL RD.
ARLINGTON,TX,76012
Tel: 817.261.1440
Tel: 817.861.3266

REY DE LA REZA ARCHITECTS, INC.
ARCHITECTURE PLANNING INTERIOR DESIGN
1245 WEST 18TH ST.
HOUSTON,TX,77008
Tel: 713.868.3121
Tel: 713.802.0112

REVISIONS

NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
1	REVISION #1	01/27/03	SG
2	RECORD SET	05/13/05	EM

SERVICES • EXPANSION • PROGRAM
INTERNATIONAL

APM STATION + PLATFORM

WALL SECTIONS

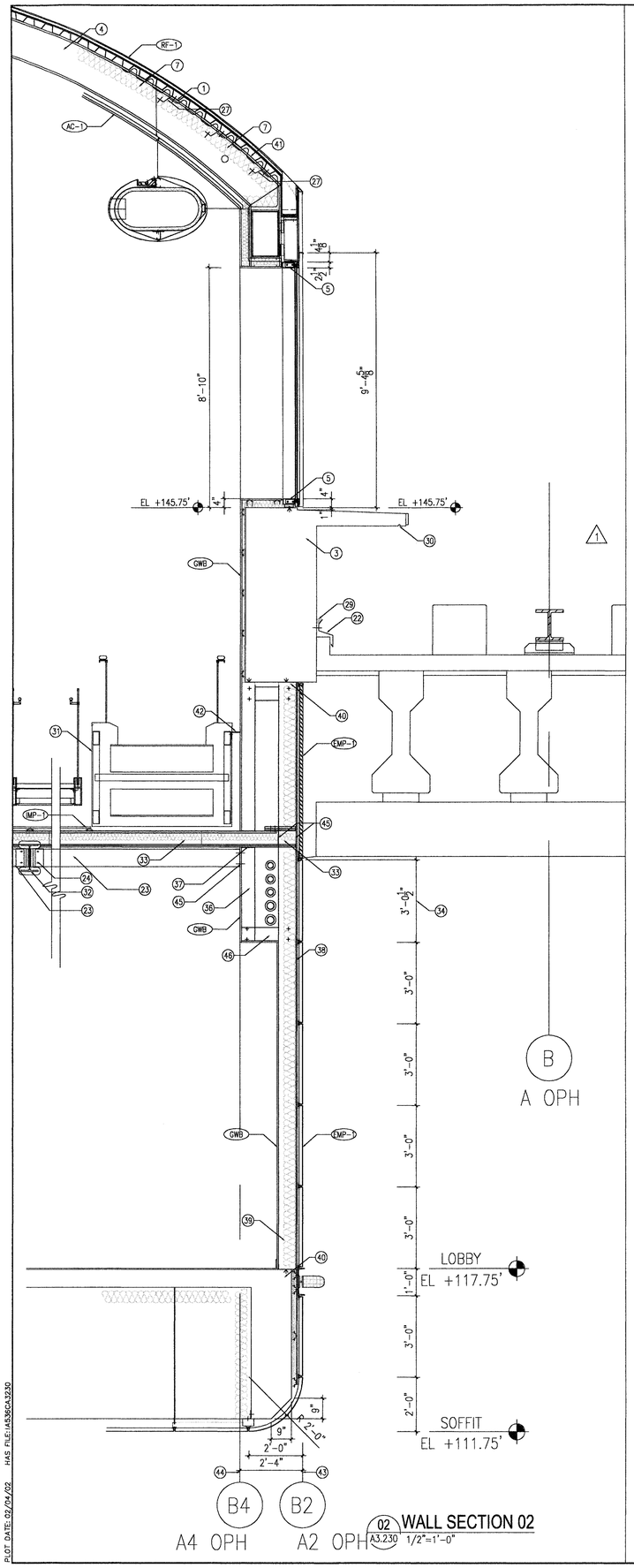
PROJECT MGR:	HEM
DESIGNER:	SG
DRAWN BY:	SEM
CHECKED BY:	AB
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	1/2"=1'0"
DATE:	09/14/01

REGISTERED ARCHITECT Rey de la Reza 4672-B STATE OF TEXAS

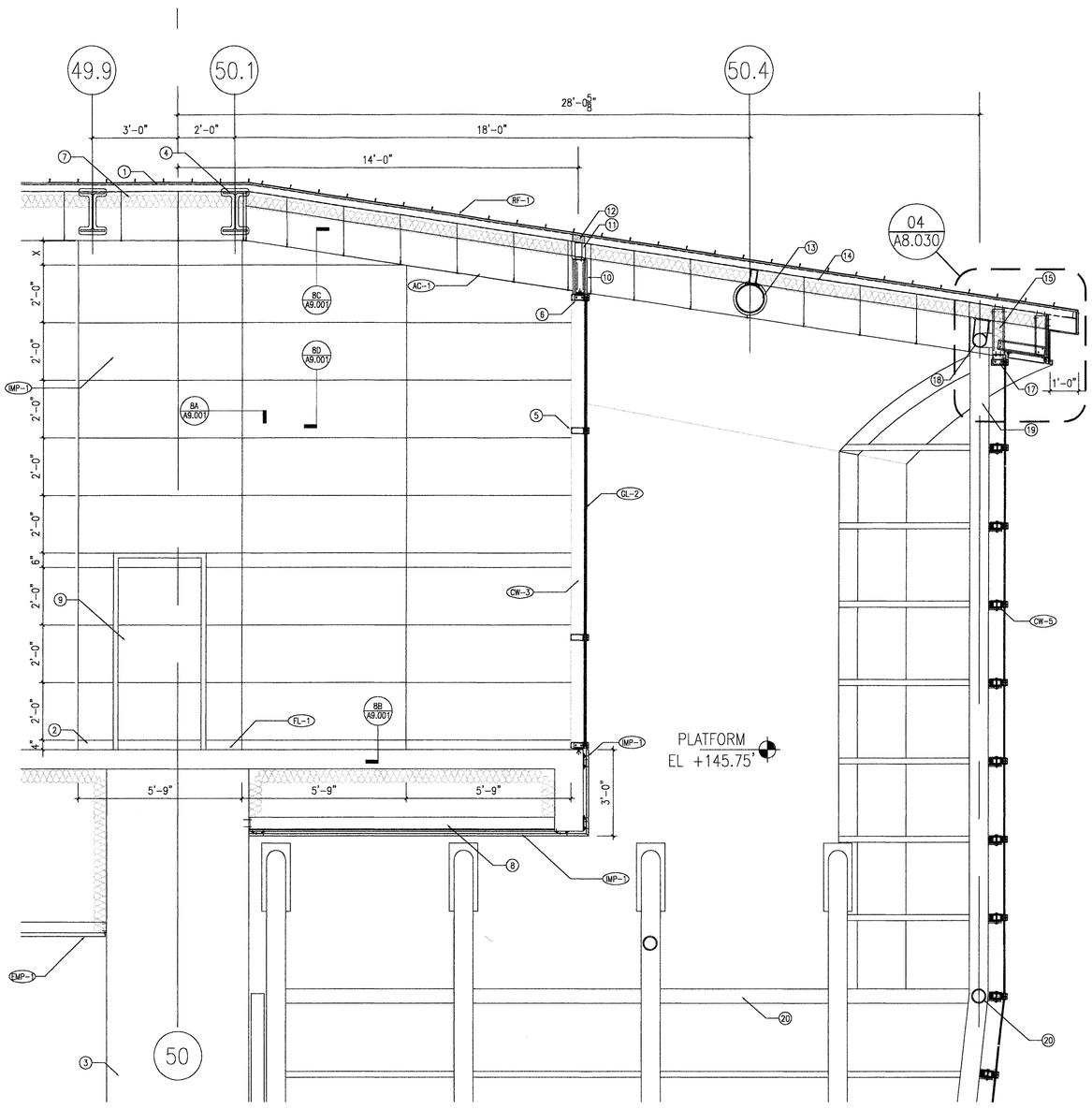
APPROVED BY:	DATE:
DIRECTOR HOUSTON AIRPORT SYSTEM	

PROJECT NO.	1140
C.I.P. NO.	A-0354
H.A.S. NO.	536C
SHEET NO.	A3.220

PLOT DATE: 02/04/02 HAS FILE:\HAS36CA3220



02 A3.230 **WALL SECTION 02** 1/2"=1'-0"



01 A3.230 **WALL SECTION 01 @EAST CURTAIN WALL CW3** 1/2"=1'-0"

GENERAL NOTES:

- CW-3 INTEGRATED STRUCTURAL CURTAINWALL SYTEM TYPE 3 – RE WINDOW SCHEDULE SHEET A2.850
- CW-5 INTEGRATED STRUCTURAL CURTAINWALL SYTEM TYPE 5 – RE WINDOW SCHEDULE SHEET A2.850
- GL-2 1" INSULATED GLAZING
- EMP-1 EXTERIOR POWDERCOATED WALL METAL PANELS – ALUMINUM PANEL 1/8" THICK – TYPE SERIES 3000 MODIFIED FROM UNA-CLAD – COPPER SALES OR EQUAL –POWDERCOATED KYNAR 500
- EMP-2 POWDERCOATED ALUMINUM LOUVERS –WITH INSECT MESH WHEN USED BY MECHANICAL –CLOSED WITH 1/8" THK ALUMINUM SHEET WELDED CONTINUOUSLY TO FRAME WHEN NOT USED BY MECHANICAL – RE: MECHANICAL FOR OPENINGS
- RF-1 STANDING SEAM METAL ROOF– TYPE UC3 FROM UNA–CLAD – COPPER SALES OR EQUAL– POWDERCOATED KYNAR 500: COLOR#2 SILVER METALLIC
- GWB PAINT 5/8" HI–IMPACT GYPSUM BOARD ON METAL STUDS
- AC-1 PRE–FINISHED CURVED, PERFORATED METAL CEILING PANEL – TYPE ALUMA VAULT SYSTEM 1000 BY GORDON MANUFACTURER – WITH BLACK NON WOVEN ACCOUSTICAL MAT
- FL-1 TERRAZZO FLOOR
- IMP-1 INTERIOR STAINLESS STEEL WALL PANELS MULTI DIRECTIONAL MACHINE POLISH
- FOR CLARITY, STAIR #2 NOT REPRESENTED IN STECTION 01

KEYED NOTES:

1. 3" METAL DECK + 1HR FIREPROOFING
2. SSTL BASE – ALIGN WITH SSTL PANELS FINISH FACE
3. CONCRETE BEAM
4. STEEL BEAM + 1HR FIREPROOFING – RE STRUCTURAL
5. 2 1/2"x7 1/2" HORIZONTAL MULLION
6. 2 1/2"x7 1/2" CURVED MULLION – SAME CURVE AS CEILING
7. BATT INSULATION ON Z CLIPS
8. METAL STUD CONSTRUCTION – SUPPORT OF SSTL PANELS
9. SCHEDULED DOOR – SSTL FINISH BOTH SIDE – SSTL FRAME
10. 2 HR GYPSUM PARTITION TYPE 2 UL# U411
11. 3"x6" STEEL TUBES WELD BETWEEN LONGITUDINAL BEAMS @ TOP OF CURTAIN WALL CW-3 2 HR SPRAY APPLIED FIREPROOFING
12. FIRESTOP ASSEMBLY UL HW-D-0045
13. 12" DIAM. CURVED PIPE WITH 3 HR FIREPROOFING – RE STRUCTURAL
14. 6" STEEL TUBES WITH 3HR FIREPROOFING– RE STRUCTURAL
15. 6" STUDS SECURE TO DECK AND TO 1/4" GUSSETS WELDED TO 6" TUBE
16. GALVANIZED STEEL Z CLIP – 20 GA
17. CURVED MULLION
18. 6" STEEL PIPE WITH 3 HR SPRAY APPLIED FIREPROOFING
19. 8" STEEL PIPE – PAINT
20. 6" STEEL HORIZONTAL PIPE – PAINT
21. NOT USED
22. EXTRUDED ALUMINUM FLASHING – POWDERCOATED
23. 8" GALVANIZED STEEL STUD 10 GA. @ 2' O.C. – SECURED TO W12 BEAM AND TO 8" RUNNER @ WALL – TO SUSPEND CABLE TRAYS AND CONDUITS IN EQUIPMENT ROOM
24. GALVANISED STEEL ANGLE 20 GA TO SECURE 8" STUD TO W12 BEAM
25. NOT USED SUPPORT OF METAL PANELS TYPE EMP–1
26. CURVED METAL PANEL TYPE EMP–1
27. 3" GALVANIZED STEEL Z CLIP – 20 GA @ 24 O.C. SECURE TO DECK BEFORE FIREPROOFING
28. NOT USED
29. SEALANT & BACKER ROD
30. 1" REVEAL DRIP UNDER SIDEWALK SLAB
31. SSTL CLAD – MULTI DIRECTIONAL MACHINE POLISH
32. W12 BEAM – WITH 3 HR FIREPROOFING
33. 2 HR PARTITION – TYPE 3 UL # U438 – 6" STUDS 20 GA @ 24 O.C. EXTEND TO EXT. SHEATHING
34. PANEL DIMENSION TO BE FIELD VERIFIED ALL METAL PANELS PERFECTLY AUGNED
35. Z CLIP 20 GA @ CONNECTION WITH BEAM
36. 6" METAL STUD @ 10" O.C. 16 GA.
37. 6" STEEL RUNNER
38. 1/2" SHEATHING
39. 8" METAL STUD JOIST @ 10" O.C 10 GA.
40. 8" STEEL RUNNER
41. 5/8" GYPSUM SHEATHING TYPE X
42. SSTL CLAD 16 GA – SIMILAR DETAIL @ OPH SECTION
43. COLUMN LINE B2: EXT. METAL PANELS FINISH FACE – A2 @ OPH
44. COLUMN LINE B4: INT. FINISH FACE – A4 @ OPH
45. J TRACK – 20 GA – 3" LEG. SECURE TO 8" STUDS
46. CHASE AROUND PIPES IN EQUIPMENT ROOM

RECORD DRAWINGS
DO NOT MODIFY
Rey de la Reza Architects, Inc.
13 May 2005
Note: Information used to develop these documents was taken from Record of the Work Drawings prepared by the construction contractor, Clark Construction Group - Texas.
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NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

0' 2' 4' 8' 12'

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

HOUSTON AIRPORT SYSTEM
GEORGE BUSH INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

Lee Elliott
1999 W RANDOL MILL RD.
ARLINGTON,TX,76012
Tel: 817.261.1446
Tel: 817.861.3266

REY DE LA REZA ARCHITECTS, INC.
ARCHITECTURE PLANNING INTERIOR DESIGN
1245 WEST 18TH ST.
HOUSTON,TX,77008
Tel: 713.868.3121
Tel: 713.802.9112

REVISIONS			
NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
1	REVISION #1	01/27/03	SG
2	RECORD SET	05/13/05	EM

INTERNATIONAL + SERVICES + EXPANSION + PROGRAM

APM STATION + PLATFORM

WALL SECTIONS

PROJECT MGR:	HEM
DESIGNER:	SG
DRAWN BY:	SEM
CHECKED BY:	AB
DRAWING STANDARD:	
	ISEP 07.20.2000
SCALE:	1/2"=1'0"
DATE:	09/14/01

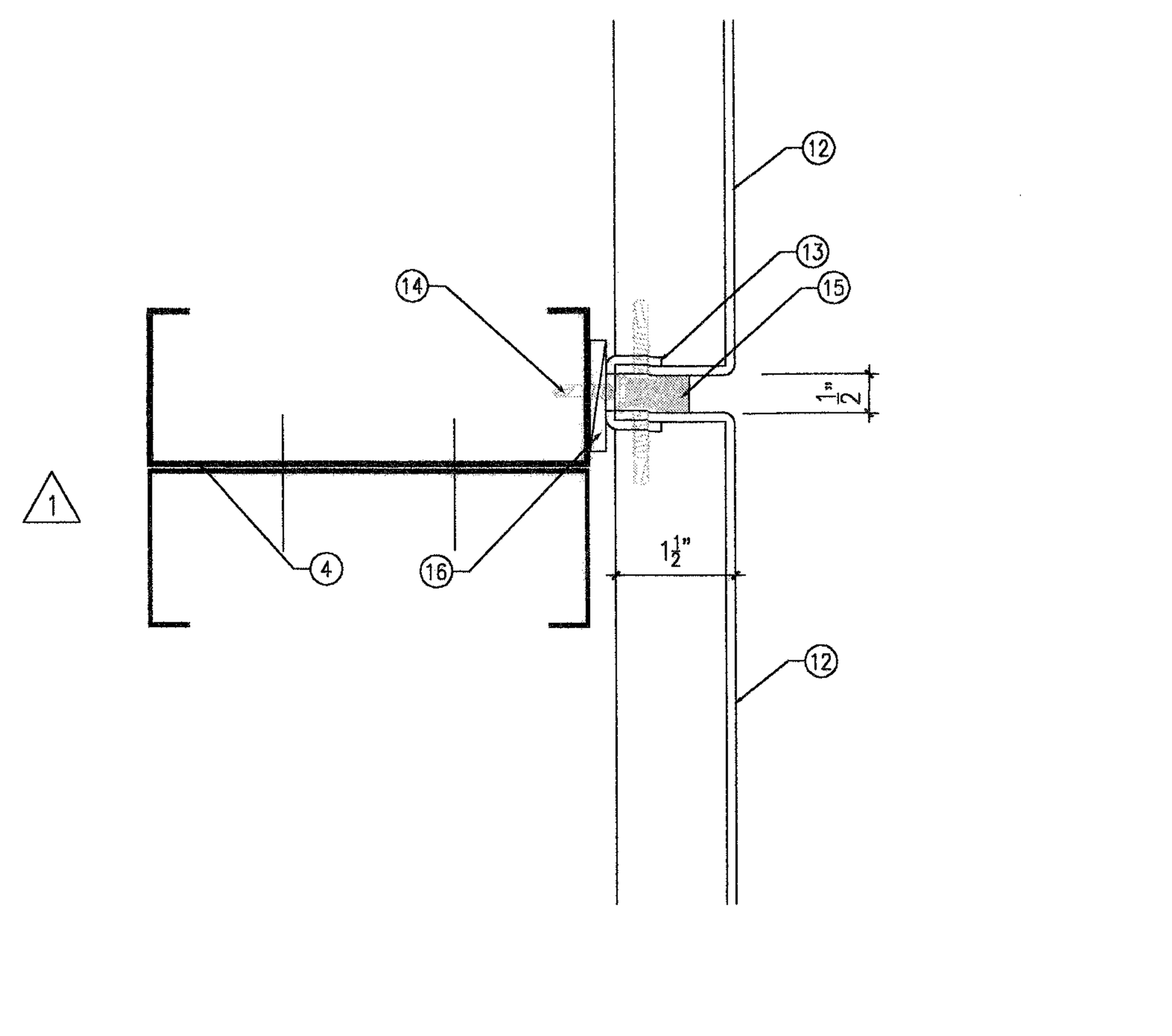
REGISTERED ARCHITECT Rey de la Reza 4612-6 STATE OF TEXAS

APPROVED BY:	DATE:

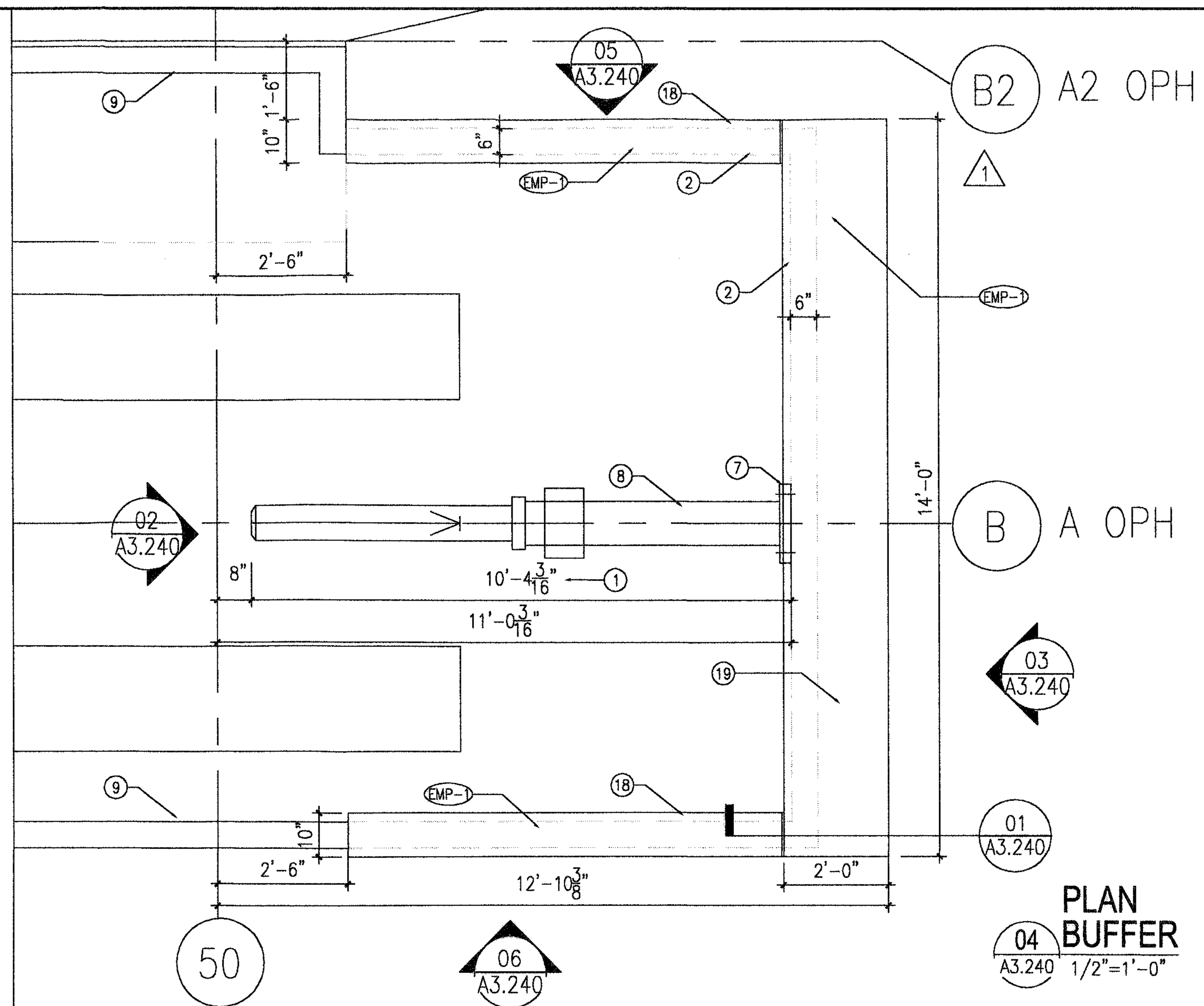
DIRECTOR HOUSTON AIRPORT SYSTEM

PROJECT NO.	1140
C.I.P. NO.	A-0308
H.A.S. NO.	536C
SHEET NO.	29 A3.230

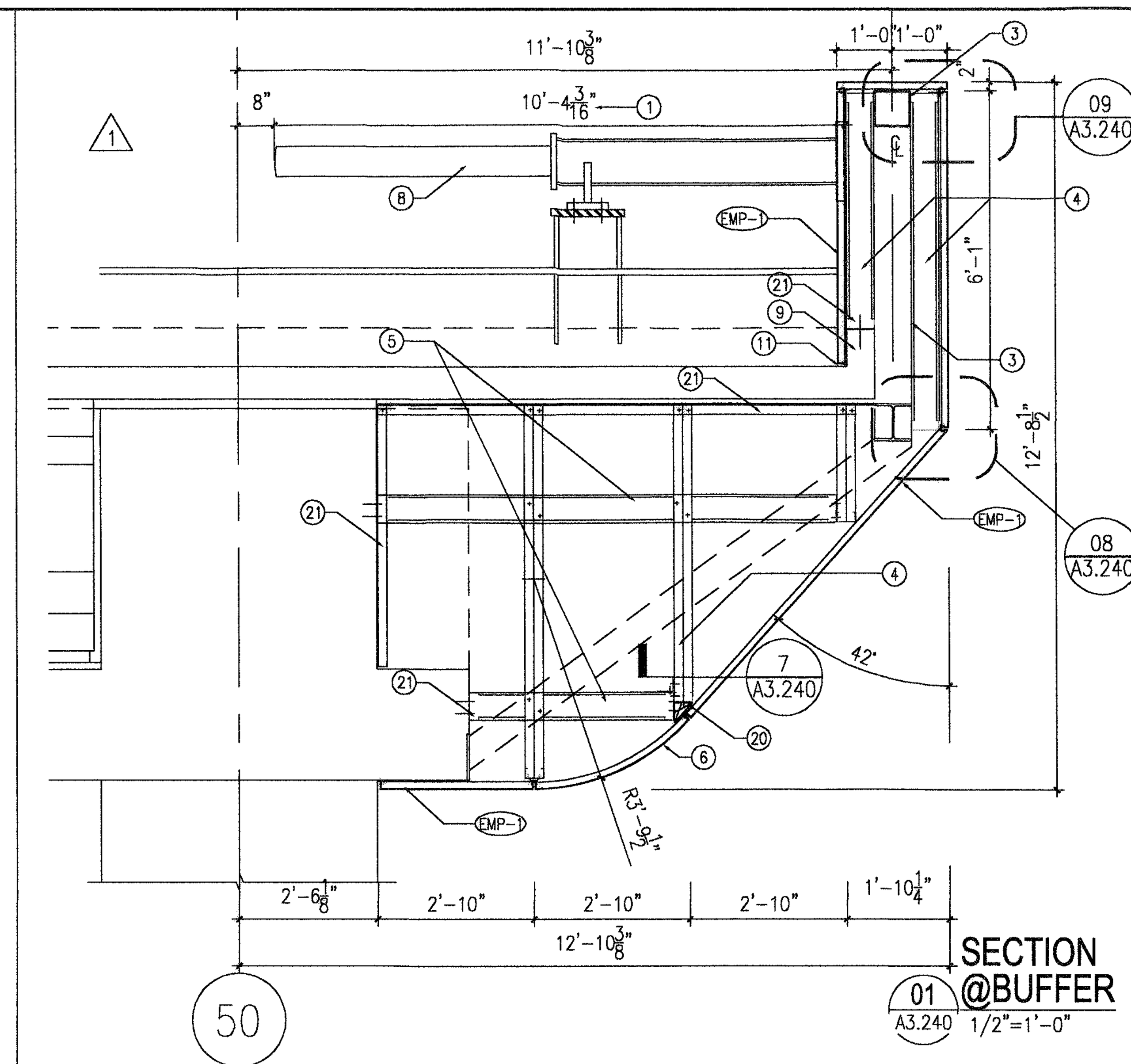
PLOT DATE: 02/04/02 HAS FILE:A536CA1230



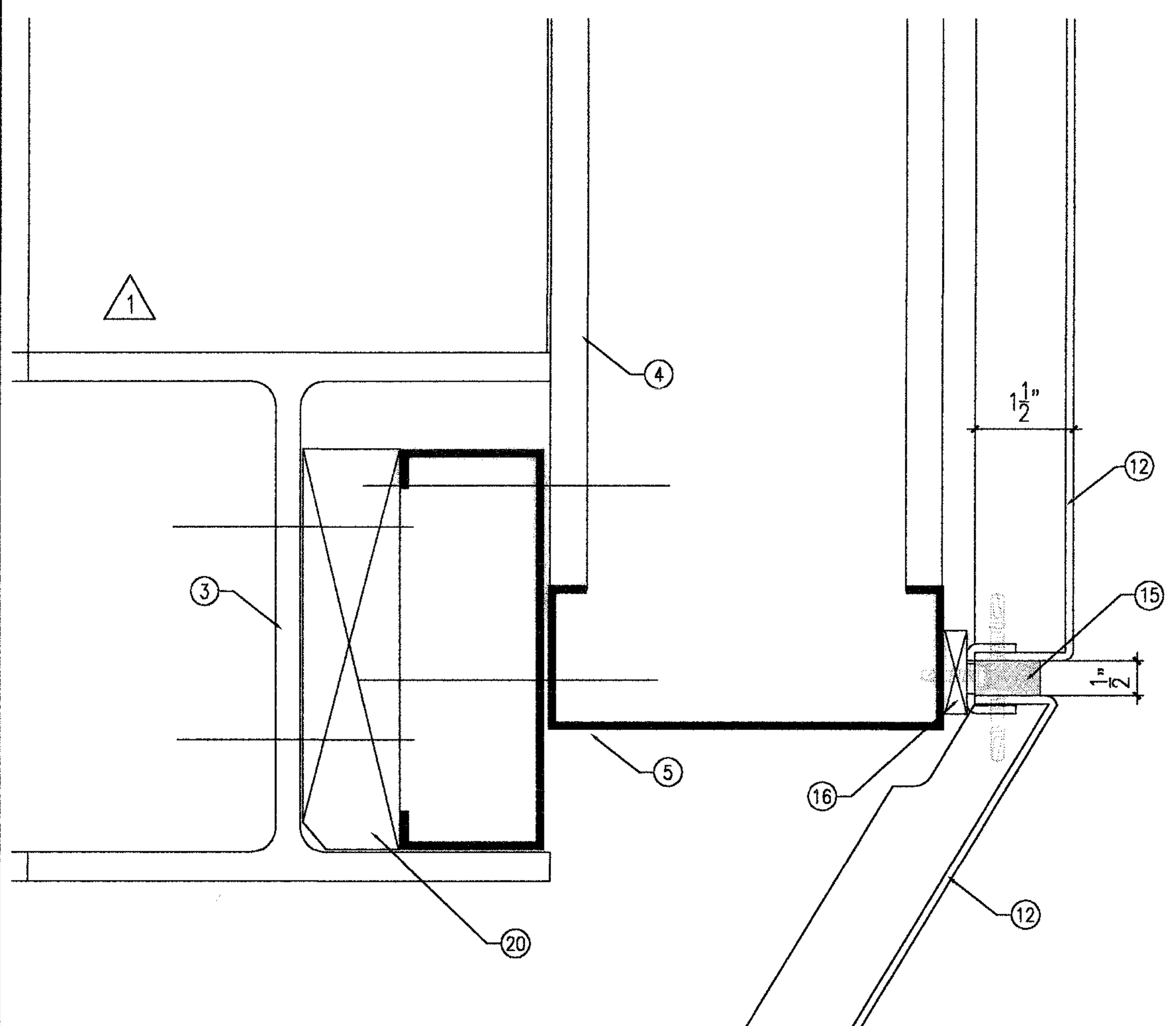
WALL PANEL DETAIL
07 / A3.240 HALF SIZE



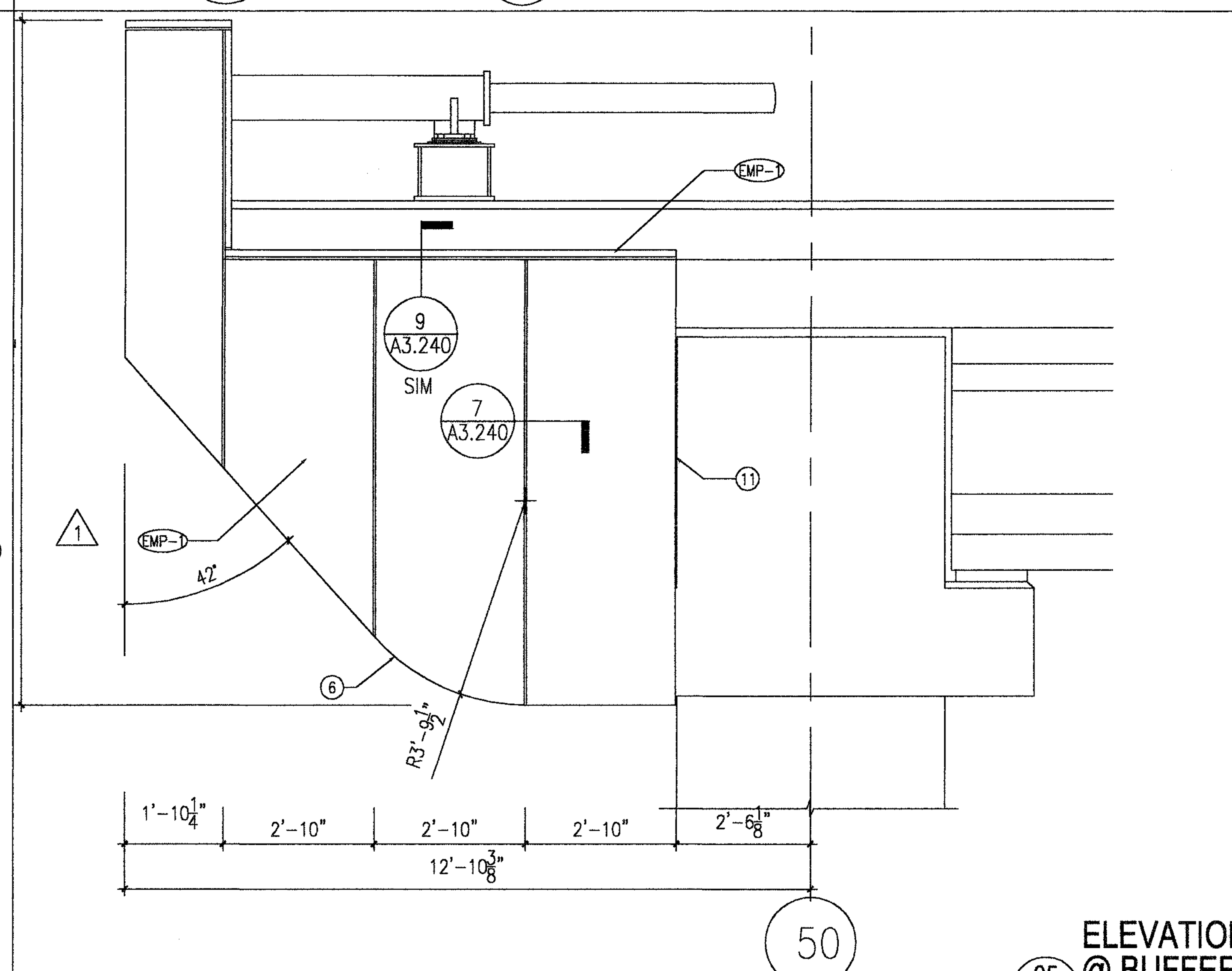
PLAN BUFFER
04 / A3.240 1/2"=1'-0"



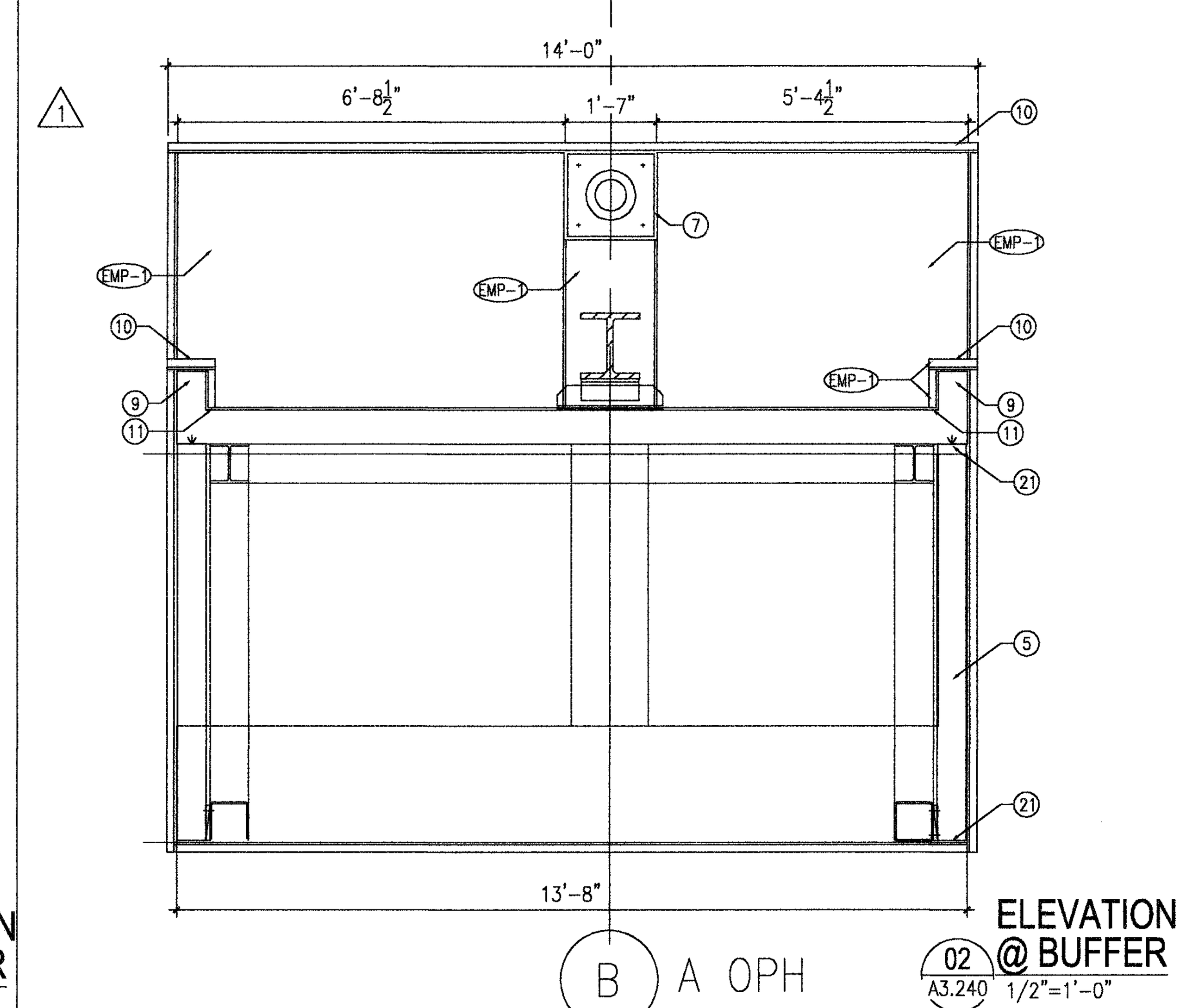
SECTION @BUFFER
01 / A3.240 1/2"=1'-0"



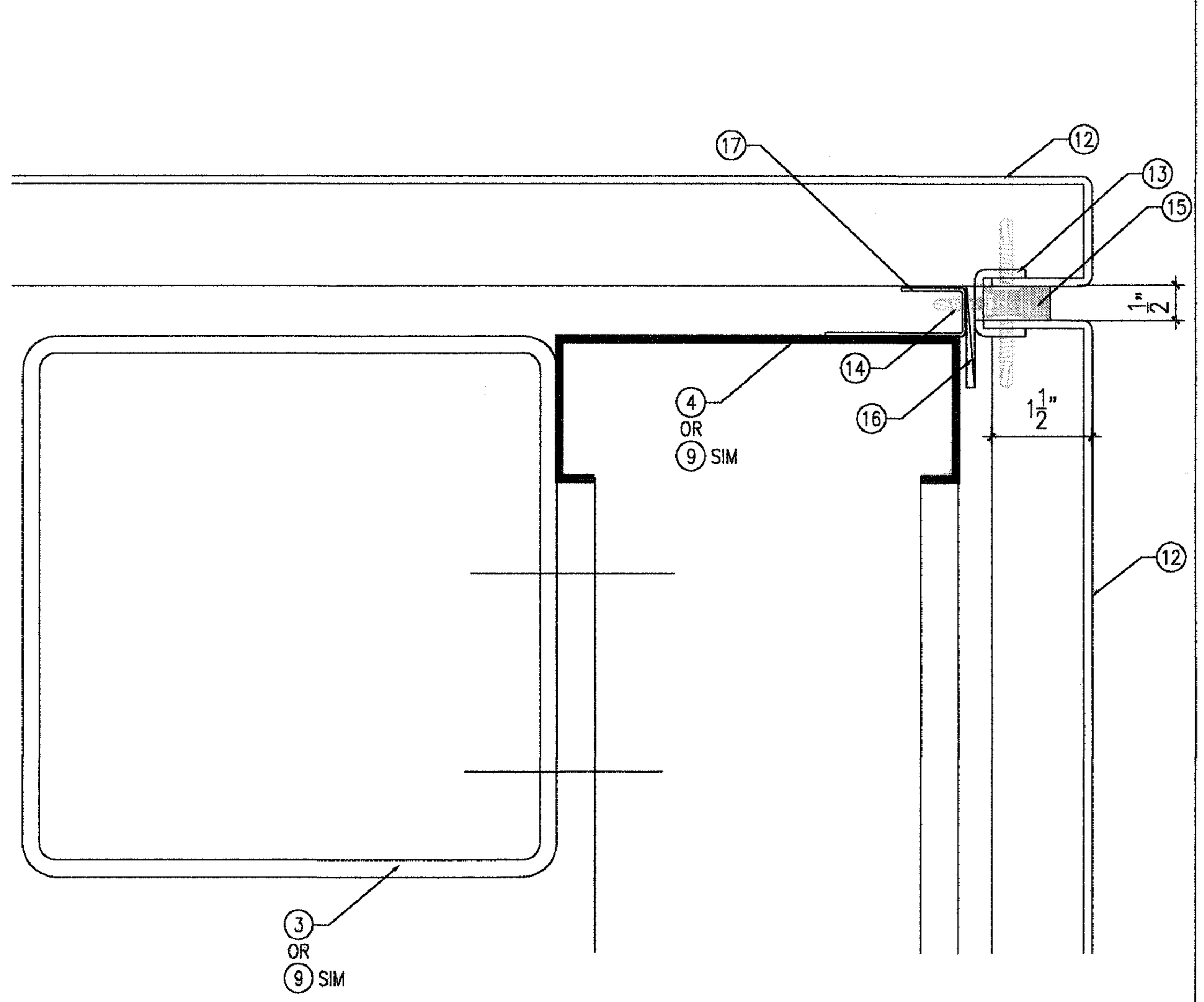
WALL PANEL DETAIL
08 / A3.240 HALF SIZE



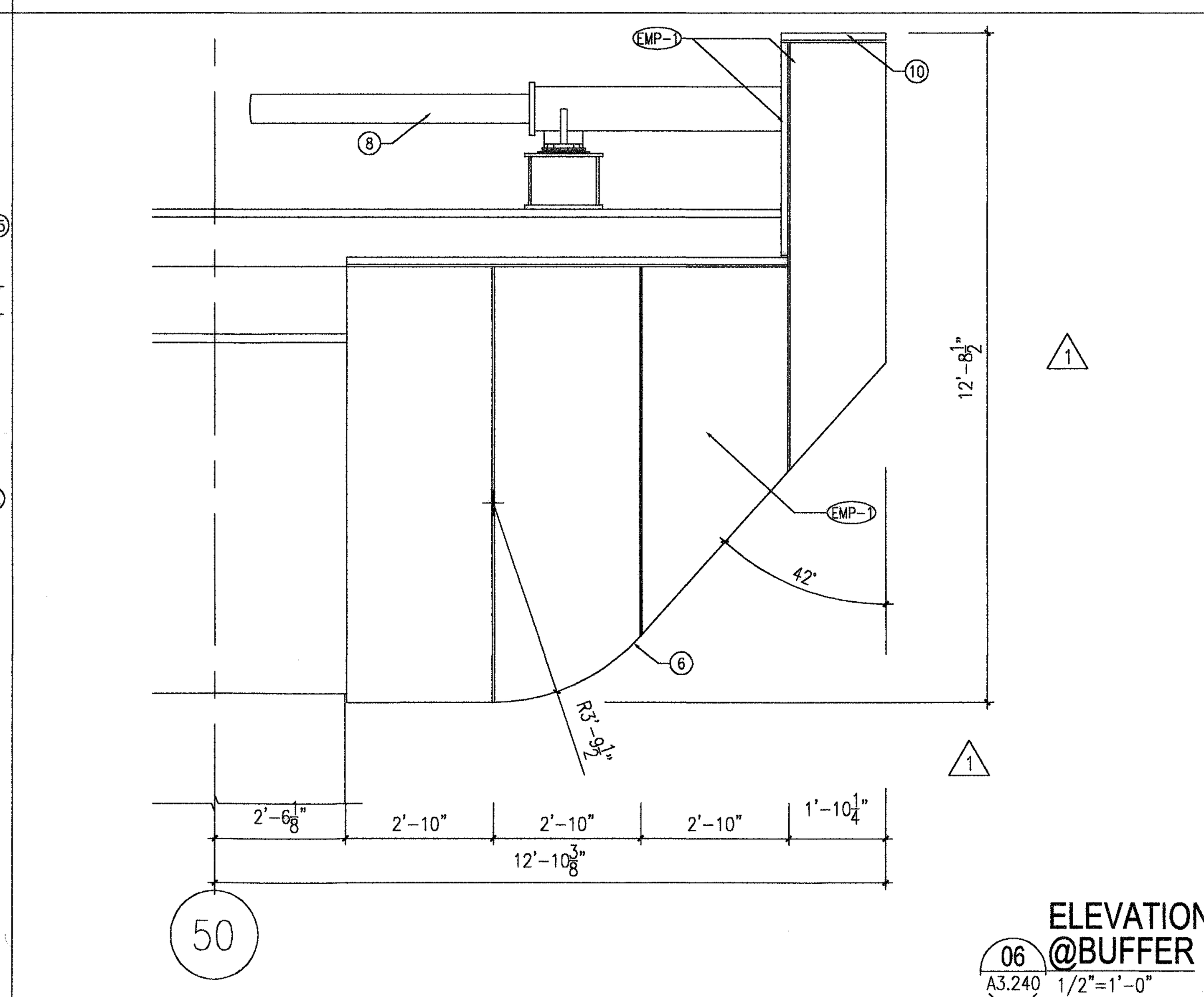
ELEVATION @ BUFFER
05 / A3.240 1/2"=1'-0"



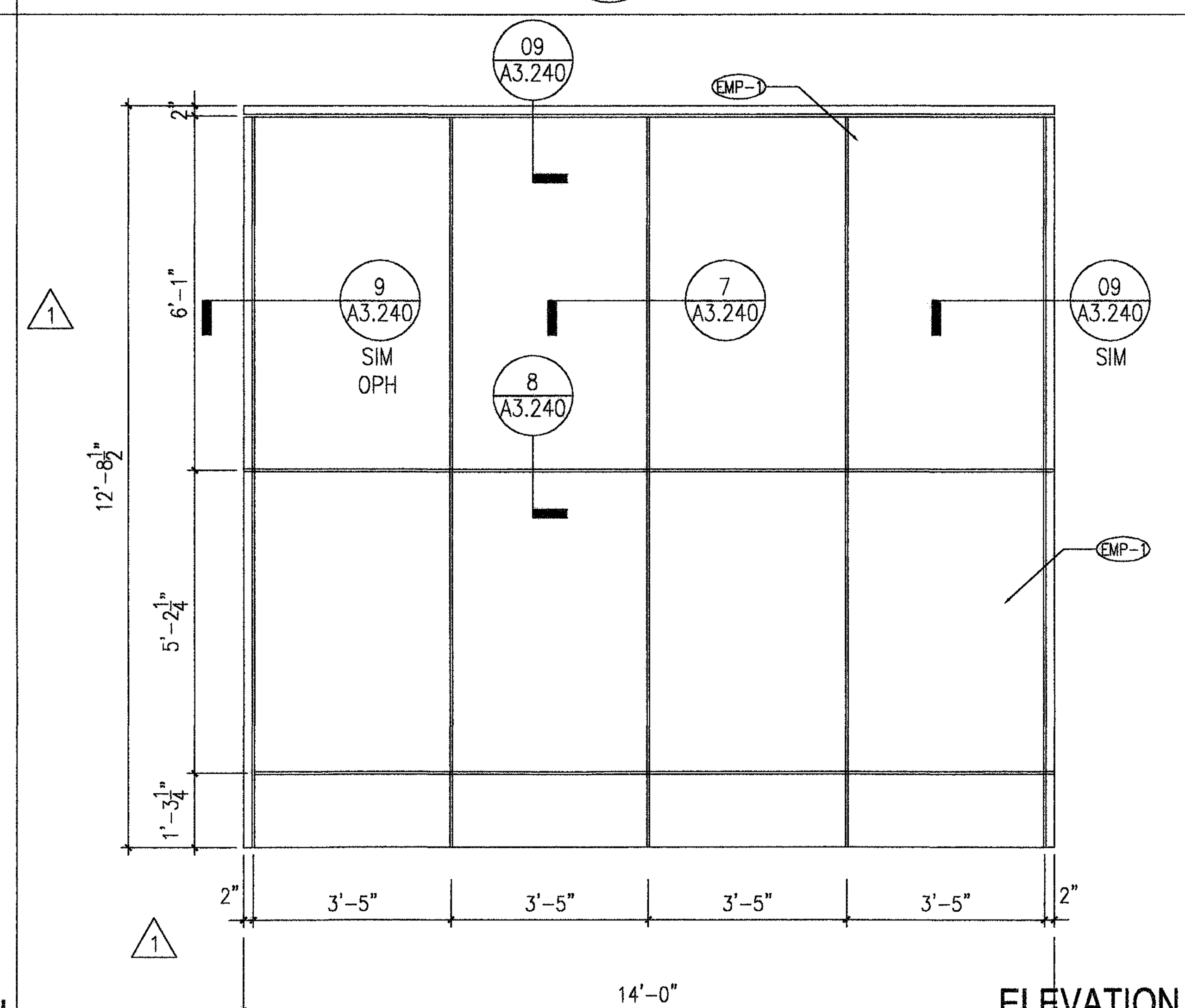
ELEVATION @ BUFFER
02 / A3.240 1/2"=1'-0"



WALL PANEL DETAIL
09 / A3.240 HALF SIZE



ELEVATION @BUFFER
06 / A3.240 1/2"=1'-0"



ELEVATION @BUFFER
03 / A3.240 1/2"=1'-0"

GENERAL NOTES:

EMP-1 EXTERIOR POWDERCOATED WALL METAL PANELS – ALUMINIUM PANEL 1/8" THICK – TYPE SERIES 3000 MODIFIED FROM UNA-CLAD – COPPER SALES OR EQUAL – POWDERCOATED KYNAR 500

- FIELD VERIFY CONCRETE AND STEEL STRUCTURE @ BUFFER
- SEAL METAL PANELS @ CONCRETE STRUCTURE AND GUIDEWAY CURB WATERTIGHT.

KEYED NOTES:

1. LENGTH OF BUFFER
2. EDGE OF GUIDEWAY CONCRETE CURB
3. STEEL STRUCTURE WELD TO W18 COLUMN @ BUFFER – RE STRUCTURAL
4. DOUBLE 6" METAL STUDS @ PANELS VERTICAL JOINTS SECURE TO STRUCTURE, 16 GA WITH 6" STEEL RUNNER @ TOP AND BOTTOM
5. 6" STUD CONSTRUCTION SECURE TO STRUCTURE, 16 GA SUPPORT OF METAL PANELS TYPE EMP-1. BRACING AS REQUIRED
6. CURVED METAL PANEL TYPE EMP-1
7. PENETRATION THROUGH METAL PANELS @ BUFFER SHALL BE SEALED
8. RETROFIT BUFFER BY HAS 536D – N.I.C.– TO BE COORDINATED WITH 536D
9. CONCRETE CURB @ GUIDEWAY
10. TOP PANEL IN ONE PIECE SEALED
11. SEALANT AND BACKER ROD – COLOR OF SEALANT MATCH COLOR OF PANELS
12. 1/8" ALUM. PANEL TYPE EMP-1 – POWDERCOATED
13. 3/4"x3/4" ALUMINIUM CLIP WITH SELF TAPPING SCREWS OR RIVETS
14. SELF TAPPING FASTENERS
15. PRECOMPRESSED EXPANDING FOAM SEALANT TYPE COLORSEAL BY EMSEAL OR EQUAL. STANDARD COLOR TO MATCH COLOR OF METAL PANELS
16. SHIM
17. J CHANNEL
18. ONE SINGLE METAL PANEL @ TOP OF CURB
19. ONE SINGLE METAL PANEL @ TOP OF BUFFER STRUCTURE
20. BLOCKING
21. 6" STEEL RUNNER ANCHORED TO STRUCTURE

RECORD DRAWINGS
DO NOT MODIFY
Rey de la Reza Architects, Inc.
13 May 2005

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0' 2' 4' 8' 12'
SCALE: 1/4" = 1'-0"

HOUSTON AIRPORT SYSTEM
GEORGE BUSH INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

Lea+Elliott
1009 W.RANDOL MILL RD.
ARLINGTON,TX,76012
Tel: 817.261.1446
Tel: 817.861.3296

RdlR
REY DE LA REZA ARCHITECTS, INC
ARCHITECTURE PLANNING INTERIOR DESIGN
1245 WEST 18TH ST.
HOUSTON,TX,77008
Tel: 713.868.3121
Tel: 713.802.0112

REVISIONS

NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
1	ADDENDUM 1	02/01/02	SG
2	RECORD SET	05/13/05	EM

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION + PLATFORM
SECTION + ELEVATIONS @ BUFFER

PROJECT MGR:	HEM
DESIGNER:	SG
DRAWN BY:	SEM
CHECKED BY:	AB
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	AS NOTED
DATE:	09/14/01

REGISTERED ARCHITECT · Rey de la Reza · 4612-8 · STATE OF TEXAS

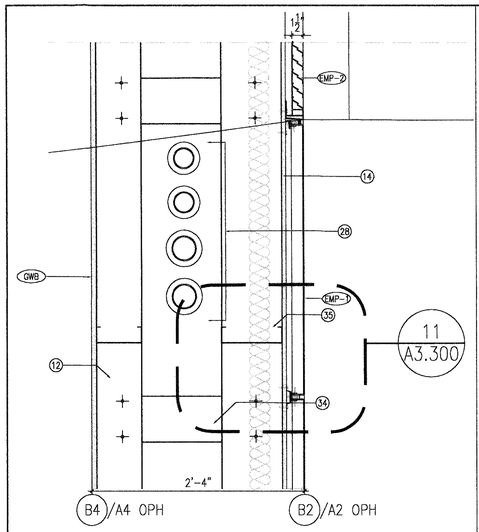
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

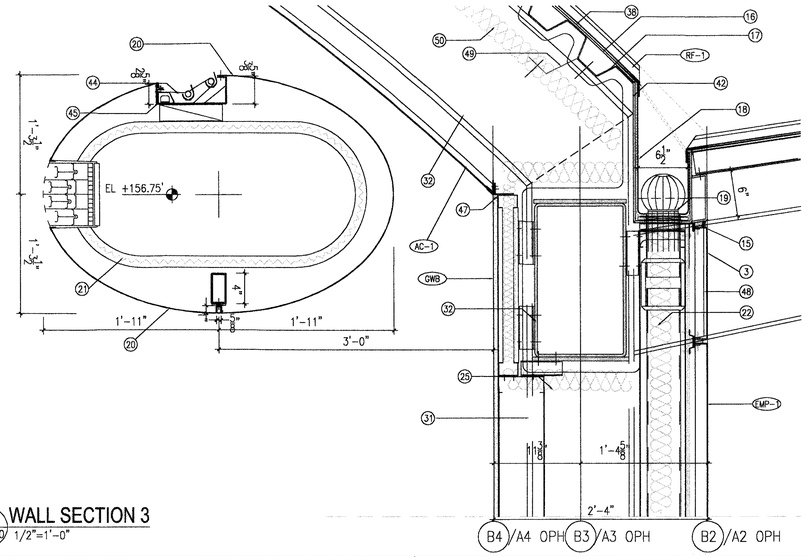
PROJECT NO.	1140
C.I.P. NO.	A-0268
H.A.S. NO.	536C
SHEET NO.	A3.240

30

PLOT DATE: 02/04/02 HAS FILE: IA536CA3240



08 WALL SECTION 8
A3.300 1 1/2"=1'-0"



03 WALL SECTION 3
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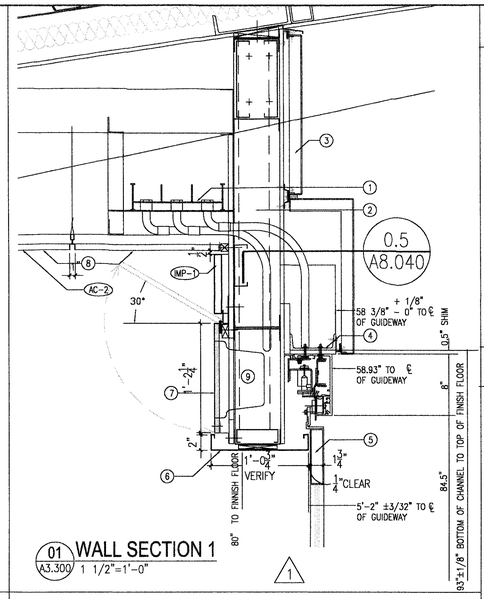

01 WALL SECTION 1
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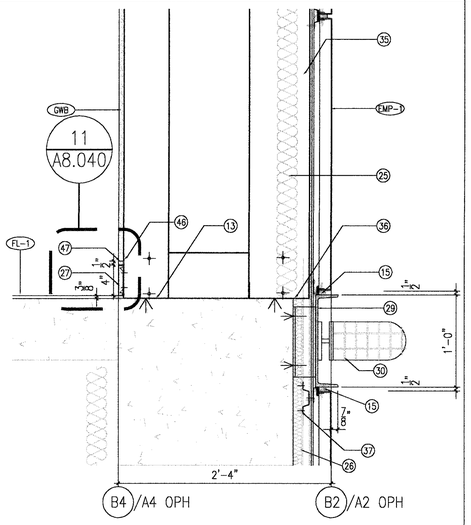

09 WALL SECTION 9
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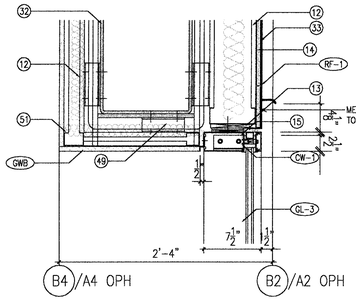

06 WALL SECTION 6
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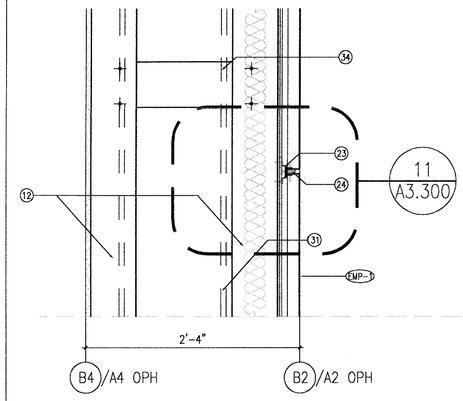

04 WALL SECTION 4
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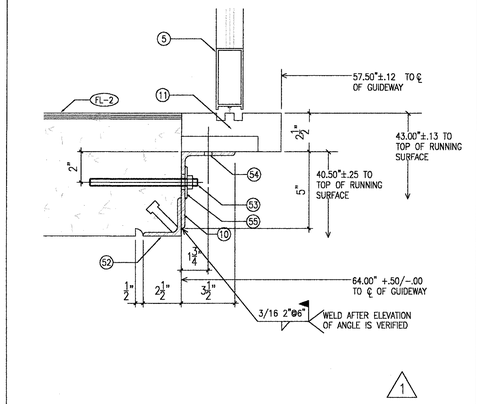
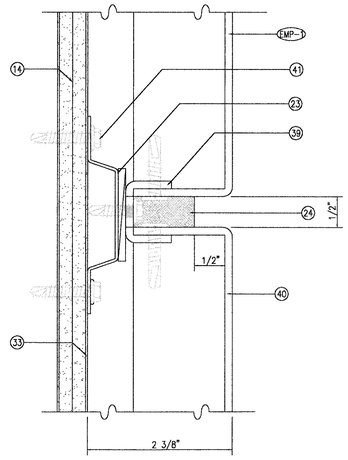
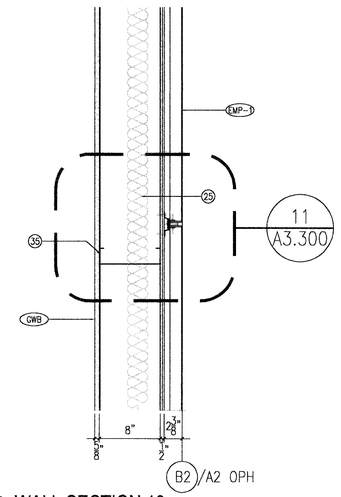


02 THRESHOLD DETAIL
A3.300 3"=1'-0"



11 WALL PANEL HORIZONTAL JOINT DETAIL
A3.300 1"=1"



10 WALL SECTION 10
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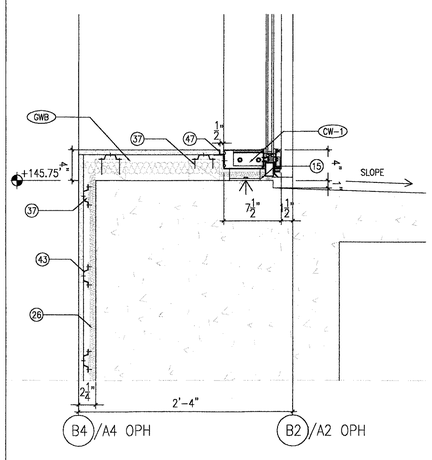

07 WALL SECTION 7
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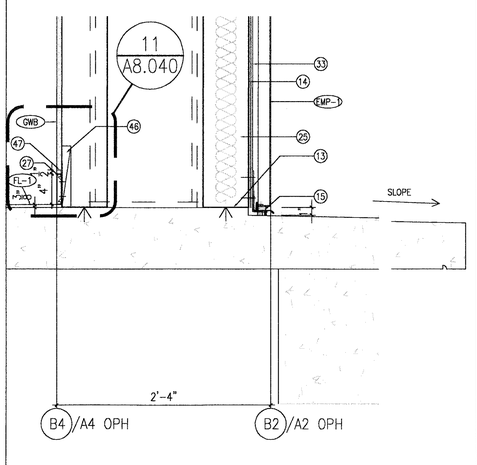

05 WALL SECTION 5
A3.300 1 1/2"=1'-0"

GENERAL NOTES:

- OVERALL DIMENSIONS @ SLIDING DOORS TO BE COORDINATED WITH HAS 536D
- CW-1A INTEGRATED STRUCTURAL CURTAINWALL SYTEM TYPE 1A
- EMP-1 EXTERIOR POWDERCOATED WALL METAL PANELS – ALUMINIUM PANEL 1/8" THICK – TYPE SERIES 3000 MODIFIED FROM UNA-CLAD – COPPER SALES OR EQUAL – POWDERCOATED KYNAR 500
- EMP-2 POWDERCOATED ALUMINIUM LOUVERS –WITH INSECT MESH WHEN USED BY MECHANICAL –CLOSED WITH 1/8" THK ALUMINUM SHEET WELDED CONTINUOUSLY TO FRAME WHEN NOT USED BY MECHANICAL – RE MECHANICAL FOR OPENINGS
- RF-1 STANDING SEAM METAL ROOF– TYPE UC3 FROM UNA-CLAD – COPPER SALES OR EQUAL– THERMOCOATED KYNAR 500: COLOR#2 SILVER METALLIC
- GWB PAINT 5/8" HI-IMPACT GYPSUM BOARD ON METAL STUDS
- AC-1 PRE-FINISHED CURVED, PERFORATED METAL CEILING PANEL – TYPE ALUMA VAULT SYSTEM 1000 BY CORDON MANUFACTURER – WITH BLACK NON WOVEN ACCOUSTICAL MAT
- AC-2 REMOVABLE SSTL CEILING PANELS SSTL MULTI DIRECTIONAL MACHINE POLISH
- FL-1 TERRAZZO FLOOR TYPE 1
- FL-2 TERRAZZO FLOOR TYPE 2
- EMP-1 INTERIOR STAINLESS STEEL WALL PANELS

KEYED NOTES:

1. CABLE TRAY IN CEILING BY OTHERS N.I.C. – HAS PROJECT 536D
2. SLIDING DOOR POST – RE STRUCTURAL –RE: DET 6, 7, & 8 SHEET A8.040
3. EXTERIOR METAL PANELS – TYPE EMP-1 – DIMS TO BE FIELD VERIFIED
4. 6" STEEL CHANNEL FIXED ON METAL POSTS – RE DET 6, 7 & 8 SHEET A8.040
5. SLIDING DOOR BY OTHERS N.I.C. – HAS PROJECT 536D
6. STAINLESS STEEL DOOR FRAME – 16 GA
7. OPERABLE PANEL – STAINLESS STEEL CLAD ON 1/2" PLYWOOD – 16GA – FOR HARDWARE: RE SIMILAR CONSTRUCTION @ STATION C – TO BE COORDINATED WITH 536D
8. REMOVABLE SSTL CEILING PANELS – TYPE AC-2
9. SIGNAGE PANEL OR SPEAKER – N.I.C. – 536D
10. 5"x3 1/2"x1/4" CONT. STEEL ANGLE ANCHOR TO CONCRETE SLAB AND WELD TO EMBEDDED ANGLE AFTER ELEVATION IS VERIFIED. INSTALL AFTER RUNNINGS BEAMS ARE INSTALLED INSTALL 77'-4" LONG OF STEEL ANGLE AT NORTH AND SOUTH GUIDEWAYS (TOTAL LENGTH 154'-8") CENTER B/W SLIDING DOORS
11. SILL BY OTHERS N.I.C. – HAS PROJECT 536D
12. 6" METAL STUD @ 16" O.C. 16 GA.
13. 6" STEEL RUNNER
14. 1/2" SHEATHING
15. SEALANT & BACKER ROD – COLOR OF SEALANT MATCH COLOR OF PANELS
16. 5/8" GYPSUM SHEATHING TYPE X
17. 3" METAL DECK + 1 HR FIREPROOFING
18. SSTL GUTTER – 16GA
19. BASKET STRAINER
20. ALUM. CLAD – POWDERCOATED
21. A/C DUCT
22. DOWNSPOUT
23. ISOLATOR SHIM + 1/2" HAT CHANNEL
24. PRECOMPRESSED EXPANDING FOAM SEALANT TYPE COLORSEAL BY EMSEAL OR EQUAL. STANDARD COLOR TO MATCH COLOR OF METAL PANELS
25. BATT INSULATION
26. RIGID INSULATION
27. SSTL BASE– 14 GA – RECESSED ALIGNED WITH WALL FINISH FACE
28. CHS, CHR, HWR, HWS, DUCTS – REFER TO MEP DWG.
29. 12" ALUMINIUM CHANNEL– POWDERCOATED – COLOR #1 – FASTENERS NOT VISIBLE–ANCHOR TO STRUCTURE BY 1/4" ALUM. PLATE WELDED @ BACK OF CHANNEL – TYPICAL LENGTH 20' SILICONE @ JOINTS MATCH COLOR OF FINISH
30. BLUE SAFETY LIGHT
31. STEEL COLUMN + 3HR FIREPROOFING
32. STEEL BEAM + 3HR FIREPROOFING
33. UNDERLAYMENT
34. BRACING AS REQUIRED
35. 8" METAL STUD JOIST @ 16" O.C 10 GA.
36. 8" STEEL RUNNER
37. SHIM + SUBGIRT ANCHOR TO CONCRETE
38. ROOFING UNDERLAYMENT TYPE VYCOR ULTRA FROM GRACE MANUFACTURER OR EQUAL
39. 3/4"x3/4" ALUMINIUM CLIP WITH SELF TAPPING SCREWS OR RIVETS
40. 1/8" PLATE ALUMINIUM – POWDERCOATED
41. SELF TAPPING FASTENERS
42. STEEL PLATE – 1/4" THK. – WELD TO STRUCTURE
43. FURRING CHANNELS SECURE TO CONCRETE
44. SCHEDULED LIGHT FIXTURE – RE ELECTRICAL
45. BENT STEEL PLATE – 1/8" THICK – RE SHEET A9.000 SUPPORT OF LIGHT FIXTURE AND SSTL DUCT–CLADDING – PERFECTLY HORIZONTAL AND ALIGNED
46. 6" GALVANIZED STEEL PLATE 20 GA – FASTENED TO STUD @ BASE
47. 1/2" EXTRUDED ALUM. PROFILE @ REVEAL – PRE–FINISHED
48. 1/2" STEEL PLATE – WELD @ FLANGE OF CANOPY BEAM – PAINT
49. Z CLIP @ 2' O.C.– GALVANIZED STEEL – 20GA
50. BATT INSULATION FIX TO Z CLIPS
51. 2 1/2" METAL STUD – 20GA @ 16" O.C.
52. CONT. L 2 1/2"x2 1/2"x1/4" W/ 5/8" DIA. HEADED CONC. ANCHORS, 4" LONG @ 2'-0" O.C.
53. 5/8" DIA A325 TREATED ROD IN VERT. SLOTTED HOLE @ 2'-0" O.C., INSTALL W/ EPOXY GROUT:6" MIN EMBEDMENT. WELD NUT TO WASHER AND WASHER TO ANGLE AFTER ELEVATION VERIFIED
54. 0.562"x1.25" SLOTTED HOLES @ 18.00" C.C MAX
55. 2" O.D. WASHER WELD TO NUT AND TO ANGLE WHEN ELEVATION OF ANGLE IS VERIFIED

RECORD DRAWINGS

DO NOT MODIFY

Rey de la Reza Architects, Inc.

13 May 2005

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HOUSTON AIRPORT SYSTEM
GEORGE BUSH INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

Lea Elliott
1006 W.RANDOL MILL RD.
ARLINGTON,TX,76012
Tel: 817.261.1446
Tel: 817.861.3286

REY DE LA REZA ARCHITECTS, INC
ARCHITECTURE PLANNING INTERIOR DESIGN
1245 WEST 18TH ST.
HOUSTON,TX,77008
Tel: 713.868.3121
Tel: 713.802.0112

REVISIONS			
NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
1	REVISION #1	01/27/03	SG
2	RECORD SET	05/11/05	EM

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION + PLATFORM

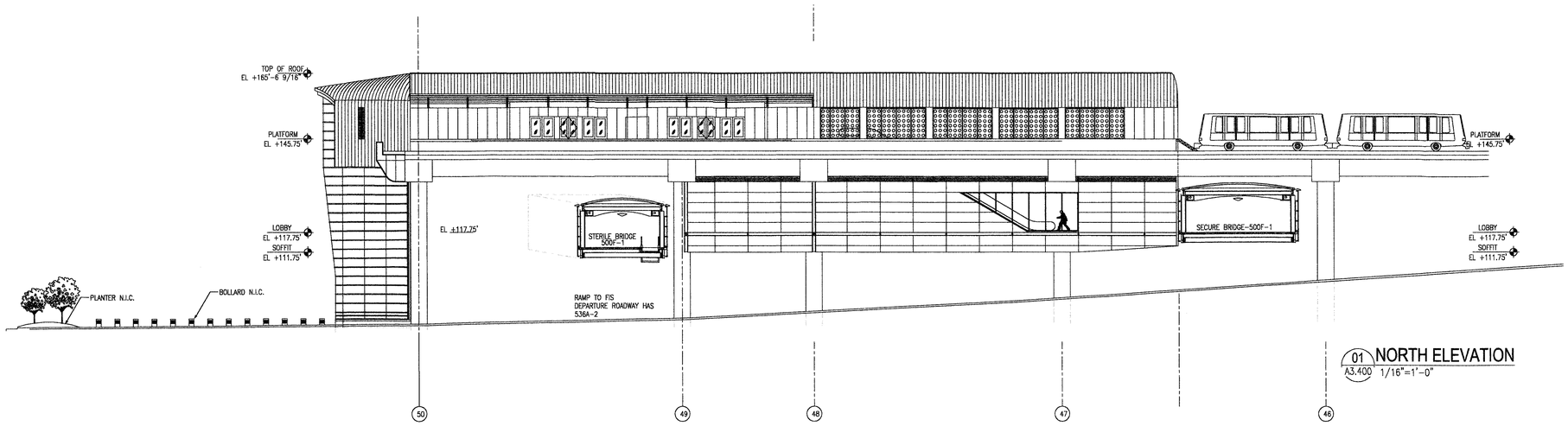
WALL DETAILS

PROJECT MGR:	HEM
DESIGNER:	SG
DRAWN BY:	SEM
CHECKED BY:	AB
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	AS NOTED
DATE:	09/14/01

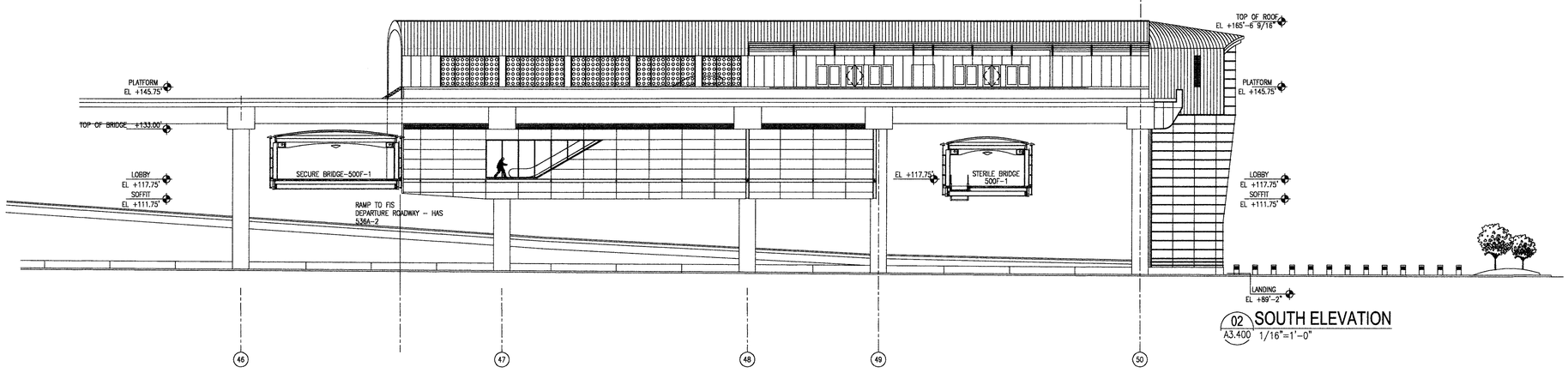
REGISTERED ARCHITECT Rey de la Reza 4612-8 STATE OF TEXAS

APPROVED BY:	DATE:
DIRECTOR HOUSTON AIRPORT SYSTEM	
PROJECT NO.	1140
C.I.P. NO.	A-0354
H.A.S. NO.	536C
SHEET NO.	A3.300

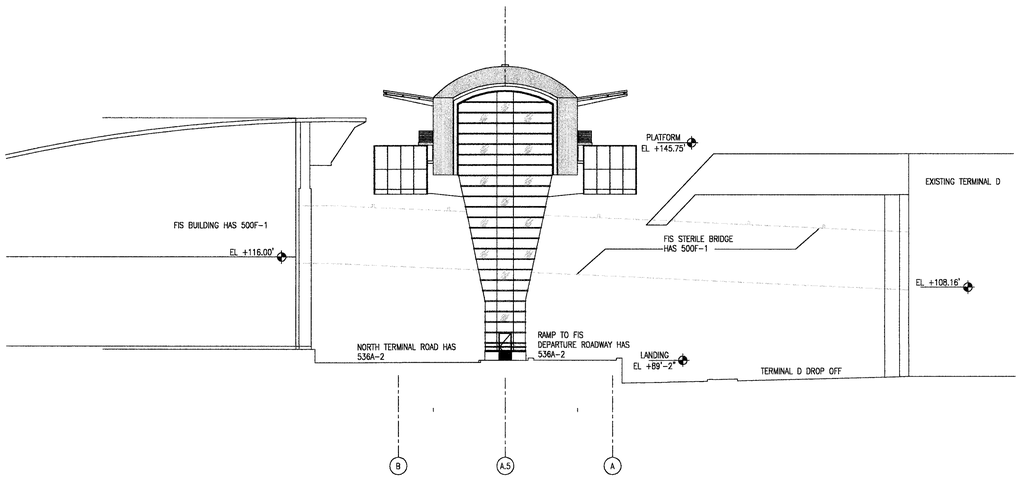
PLOT DATE: 02/04/02 H4S FILE: HA536CA3300



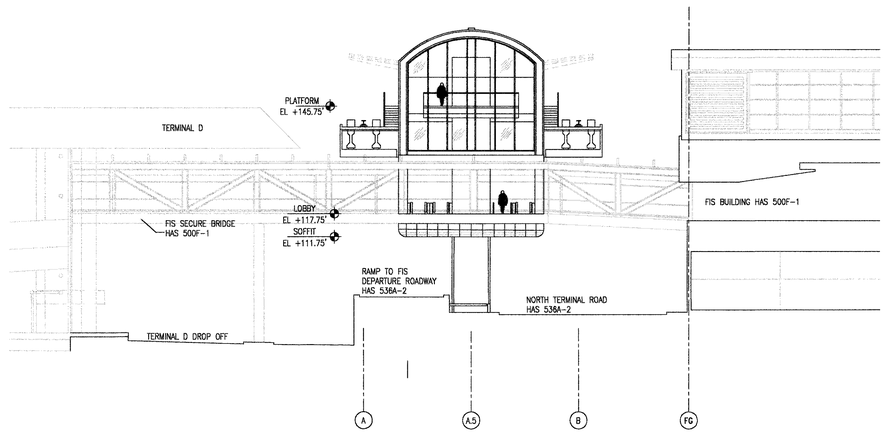
01 NORTH ELEVATION
A3.400 1/16"=1'-0"



02 SOUTH ELEVATION
A3.400 1/16"=1'-0"



03 EAST ELEVATION
A3.400 1/16"=1'-0"



04 WEST ELEVATION
A3.400 1/16"=1'-0"

RECORD DRAWINGS
DO NOT MODIFY
Rey de la Reza Architects, Inc.
13 May 2005

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PLOT DATE: 02/04/02 HAS FILE: IA536CA3502

HOUSTON AIRPORT SYSTEM
GEORGE BUSH
INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

Lea Elliott
1006 W.RANDOL MILL RD.
ARLINGTON,TX,76012
Tel: 817.261.1446
Tel: 817.861.3299

REY DE LA REZA ARCHITECTS, INC
ARCHITECTURE PLANNING INTERIOR DESIGN
1345 WEST 18TH ST.
HOUSTON,TX,77008
Tel: 713.868.3121
Tel: 713.802.0112

REVISIONS			
NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
	RECORD SET	05/13/05	EM

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION + PLATFORM

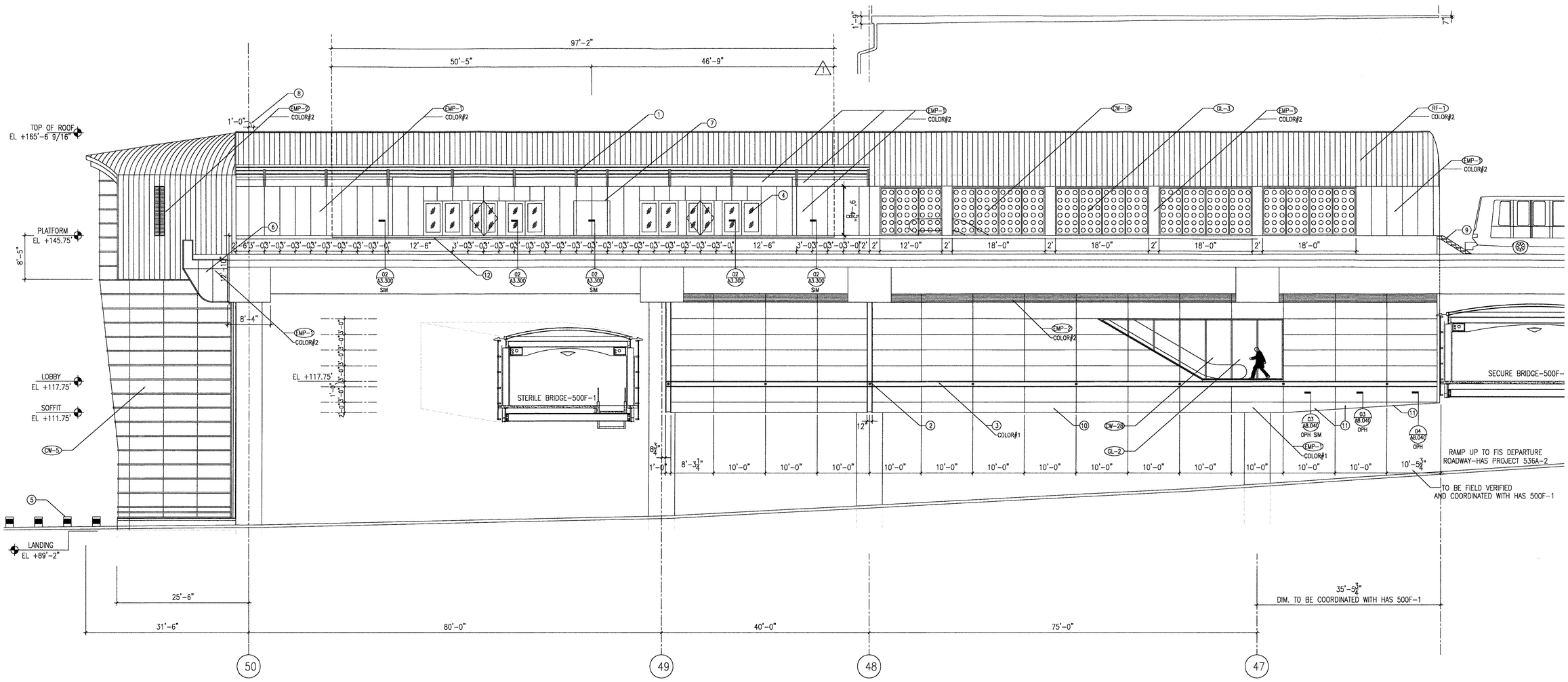
ELEVATIONS

PROJECT MGR:	HEM
DESIGNER:	SG
DRAWN BY:	SEM
CHECKED BY:	AB
DRAWING STANDARD:	
	ISEP 07.20.2000
SCALE:	1/16"=1'0"
DATE:	09/14/01

REGISTERED ARCHITECT Rey de la Reza 4672-5 STATE OF TEXAS

APPROVED BY:	DATE:
DIRECTOR HOUSTON AIRPORT SYSTEM	

PROJECT NO.	1140
C.I.P. NO.	A-0354
H.A.S. NO.	536C
SHEET NO.	A3.400



01 NORTH ELEVATION
A3.500 1/8"=1'-0"

KEYED NOTES:

1. CANOPY ABOVE CARS
2. BLUE SAFETY LIGHT – RE ELECTRICAL
3. 12" ALUMINUM CHANNEL POWDERCOATED COLOR#1
4. STATION SLIDING DOOR N.I.C.– HAS PROJECT 536D
5. BOLLARDS N.I.C.– HAS LANDSCAPING PROJECT
6. BUFFER'S STRUCTURE–METAL CLAD
7. SOFFIT BETWEEN DOORS: EXTERIOR ALUMINIUM PANEL TYPE EMP–1
8. TYPICAL WIDTH OF STANDING SEAM ROOFPANELS 1'. ROOFPANELS PERFECTLY ALIGNED WITH BUILDING GRID
9. STAIR N.I.C. 536A–1
10. CURVED METAL PANEL TYPE EMP–1 R. 2'–0"
11. PARTIALLY CURVED PANEL WELDED TO FLAT PANEL @ SLOPED SOFFIT RE SHEET A8.040
12. STEEL ANGLE FOR THRESHHOLD SUPPORT RE 02/A3.300

GENERAL NOTES:

- CW–1A CURTAINWALL SYTEM TYPE 1A – RE WINDOW SCHEDULE SHEET A2.850
- CW–1B CURTAINWALL SYTEM TYPE 1B – RE WINDOW SCHEDULE SHEET A2.850
- CW–2A CURTAINWALL SYTEM TYPE 2A – RE WINDOW SHEDULE SHEET A2.850
- CW–2B CURTAINWALL SYTEM TYPE 2B– RE WINDOW SCHEDULE A2.850
- GL–2 1" INSULATED GLAZING UNIT– INTERIOR AND EXTERIOR GLASS TEMPERED – RE GLASS SCHEDULE SHEET A2.850
- GL–3 1" INSULATED GLAZING UNIT WITH FRIT. RE GLASS SCHEDULE SHEET A2.850
- EMP–1 EXTERIOR POWDERCOATED METAL WALL PANEL– ALUMINIUM PANEL 1/8" THICK – TYPE SERIES 3000 MODIFIED FROM UNA–CLAD – COPPER SALES OR EQUAL POWDERCOATED KYNAR 500 – FOR COLOR RE. SCHEDULE SHEET A2.800
- EMP–2 POWDERCOATED ALUMINIUM LOUVERS –WITH INSECT MESH WHEN USED BY MECHANICAL –CLOSED WITH ALUMINIUM SHEET WELDED TO FRAME WHEN NOT USED BY MECHANICAL RE: MECHANICAL FOR OPENINGS
- RF–1 STANDING SEAM METAL ROOF– TYPE UC3 FROM UNA–CLAD – COPPER SALES OR EQUAL –WIDTH 1' – POWDERCOATED KYNAR 500 – COLOR#2 SILVER METALLIC
- CW–5 INTEGRATED STURCTURAL CURTAIN WALL SYSTEM TYPE 5 – RE WINDOW SCHEDULE SHEET A2.850

N

RECORD DRAWINGS
DO NOT MODIFY
Rey de la Reza Architects, Inc.
13 May 2005

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NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

0' 4' 8' 16' 24'

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

HOUSTON AIRPORT SYSTEM
GEORGE BUSH
INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

Lee Elliott
1099 W.RANDOL MILL RD.
ARLINGTON,TX,76012
Tel: 817.261.1446
Tel: 817.861.3286

REY DE LA REZA ARCHITECTS, INC.
ARCHITECTURE PLANNING INTERIOR DESIGN
1245 WEST 18TH ST.
HOUSTON,TX,77008
Tel: 713.868.3121
Tel: 713.802.0112

REVISIONS

NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
1	REVISION #1	01/27/03	SG
2	RECORD SET	05/13/05	EM

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION + PLATFORM

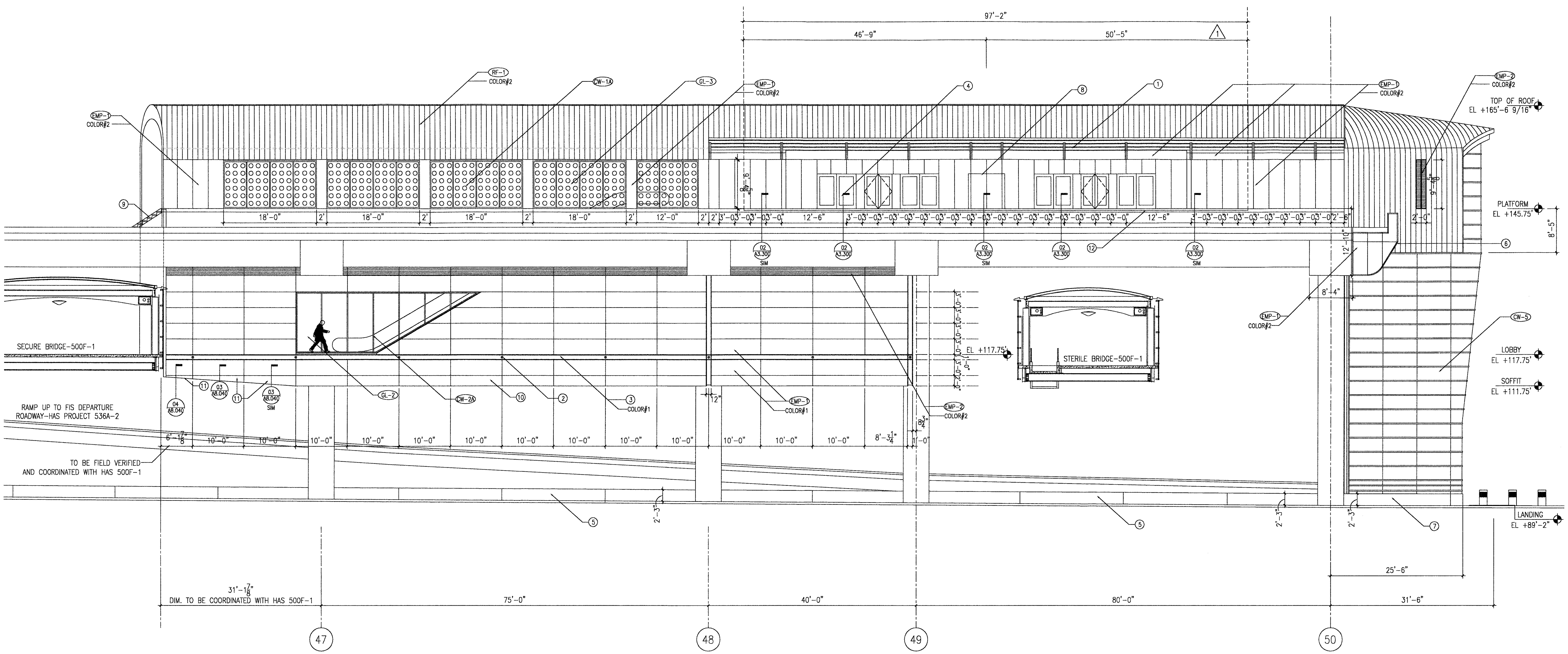
NORTH ELEVATION

PROJECT MGR:	HEM
DESIGNER:	SG
DRAWN BY:	SEM
CHECKED BY:	AB
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	1/8"=1'0"
DATE:	09/14/01

REGISTERED ARCHITECT Rey de la Reza 9612-8 STATE OF TEXAS

APPROVED BY:	DATE:
DIRECTOR HOUSTON AIRPORT SYSTEM	
PROJECT NO.	1140
C.I.P. NO.	A–0354
H.A.S. NO.	536C
SHEET NO.	A3.500

PLOT DATE: 02/04/02 HAS FILE:\A536CA3500



01 SOUTH ELEVATION
A3.501 1/8"=1'-0"

KEYED NOTES:

1. CANOPY ABOVE CARS
2. BLUE SAFETY LIGHT – RE ELECTRICAL
3. 12" ALUMINIUM CHANNEL POWDERCOATED COLOR#1
4. STATION SLIDING DOOR N.I.C. HAS PROJECT 536D
5. PRECAST CONCRETE WALL BTW 10' CONC. COLUMNS– N.I.C.– HAS PROJECT 536A-2
6. BUFFER'S STRUCTURE-METAL CLAD
7. 2'-3" HIGH C.I.P. CONCRETE WALL @ STAIR#2– ARCHICTECTURAL CONCRETE
8. SOFFIT BETWEEN DOORS: EXTERIOR ALUMINIUM PANEL TYPE EMP-1
9. STAIR N.I.C. 536A-1
10. CURVED METAL PANEL TYPE EMP-1 R. 2'-0"
11. PARTIALLY CURVED PANEL WELDED TO FLAT PANEL @ SLOPED SOFFIT RE SHEET A8.040
12. STEEL ANGLE FOR THRESHHOLD SUPPORT RE 02/A3.300

GENERAL NOTES:

- CW-1A — CURTAINWALL SYTEM TYPE 1A – RE WINDOW SCHEDULE SHEET A2.850
- CW-1B — CURTAINWALL SYTEM TYPE 1B – RE WINDOW SCHEDULE SHEET A2.850
- CW-2A — CURTAINWALL SYTEM TYPE 2A – RE WINDOW SHEDULE SHEET A2.850
- CW-2B — CURTAINWALL SYTEM TYPE 2B– RE WINDOW SCHEDULE A2.850
- GL-2 — 1" INSULATED GLAZING UNIT– INTERIOR AND EXTERIOR GLASS TEMPERED – RE GLASS SCHEDULE SHEET A2.850
- GL-3 — 1" INSULATED GLAZING UNIT WITH FRIT. RE GLASS SCHEDULE SHEET A2.850
- EMP-1 — EXTERIOR POWDERCOATED METAL WALL PANEL– ALUMINIUM PANEL 1/8" THICK – TYPE SERIES 3000 MODIFIED FROM UNA-CLAD – COPPER SALES OR EQUAL POWDERCOATED KYNAR 500 – FOR COLOR RE. SCHEDULE SHEET A2.800
- EMP-2 — POWDERCOATED ALUMINIUM LOUVERS –WITH INSECT MESH WHEN USED BY MECHANICAL –CLOSED WITH 1/8" THK ALUMINIUM SHEET WELDED CONTINUOUSLY TO FRAME WHEN NOT USED BY MECHANICAL RE: MECHANICAL FOR OPENINGS
- RF-1 — STANDING SEAM METAL ROOF– TYPE UC3 FROM UNA-CLAD – COPPER SALES OR EQUAL – WIDTH 1'– POWDERCOATED KYNAR 500 – COLOR#2 SILVER METALLIC
- CW-5 — INTEGRATED STURCTURAL CURTAIN WALL SYSTEM TYPE 5 – RE WINDOW SCHEDULE SHEET A2.850

N

RECORD DRAWINGS

DO NOT MODIFY
Rey de la Reza Architects, Inc.
13 May 2005

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0' 4' 8' 16' 24'
SCALE: 1/8" = 1'-0"

HOUSTON AIRPORT SYSTEM
GEORGE BUSH
INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

Lea+Elliott
1009 W.RANDOL MILL RD.
ARLINGTON,TX,76012
Tel: 817.261.1446
Tel: 817.861.3296

RdlR
REY DE LA REZA ARCHITECTS, INC.
ARCHITECTURE PLANNING INTERIOR DESIGN
1245 WEST 18TH ST.
HOUSTON,TX,77008
Tel: 713.868.3121
Tel: 713.802.0112

REVISIONS

NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
1	REVISION #1	01/27/03	SG
2	RECORD SET	05/13/05	EM

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION + PLATFORM

SOUTH ELEVATION

PROJECT MGR:	HEM
DESIGNER:	SG
DRAWN BY:	SEM
CHECKED BY:	AB
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	1/8"=1'0"
DATE:	09/14/01

REGISTERED ARCHITECT Rey de la Reza 4612-8 STATE OF TEXAS

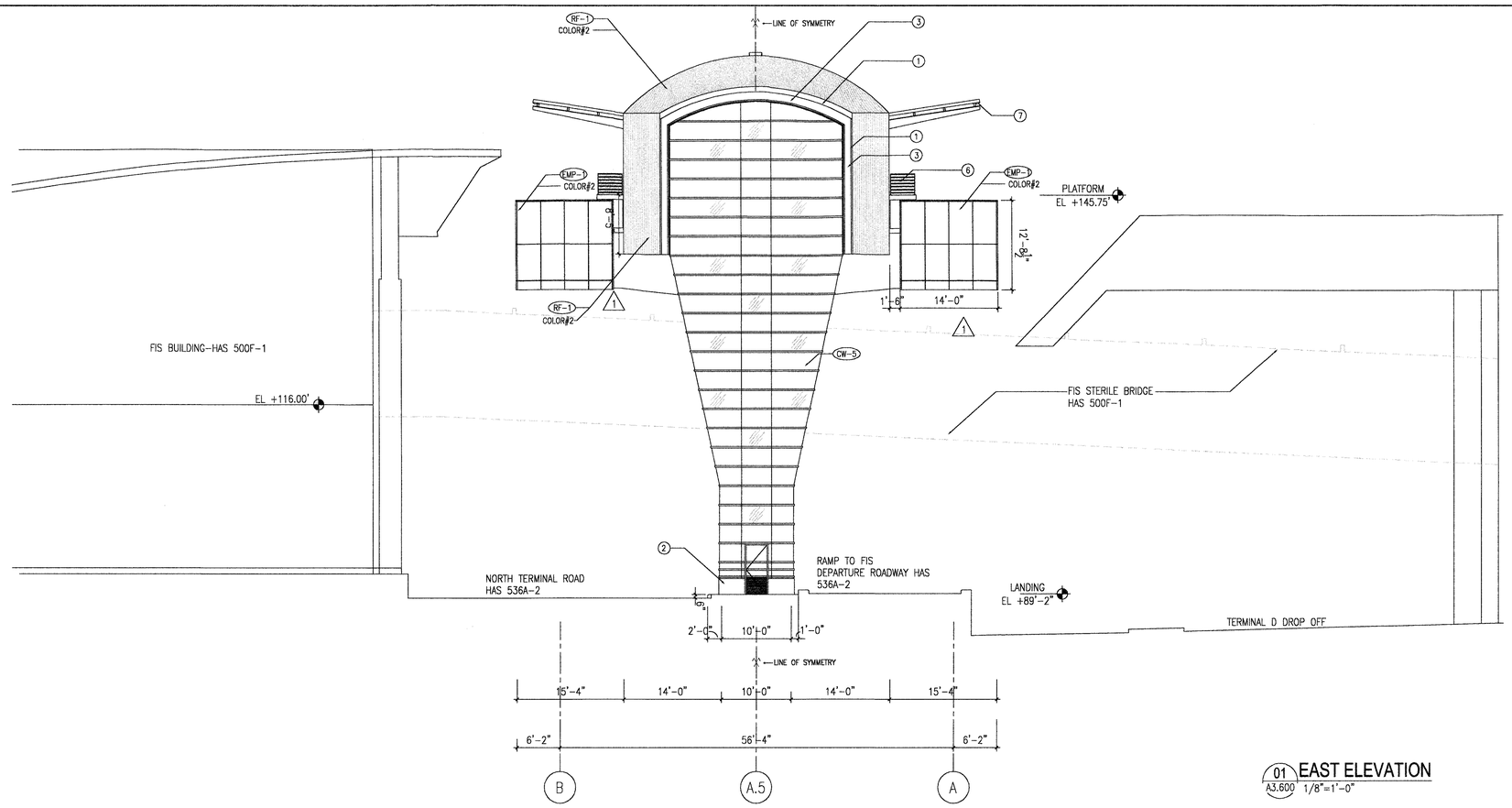
APPROVED BY: DATE:

DIRECTOR HOUSTON AIRPORT SYSTEM

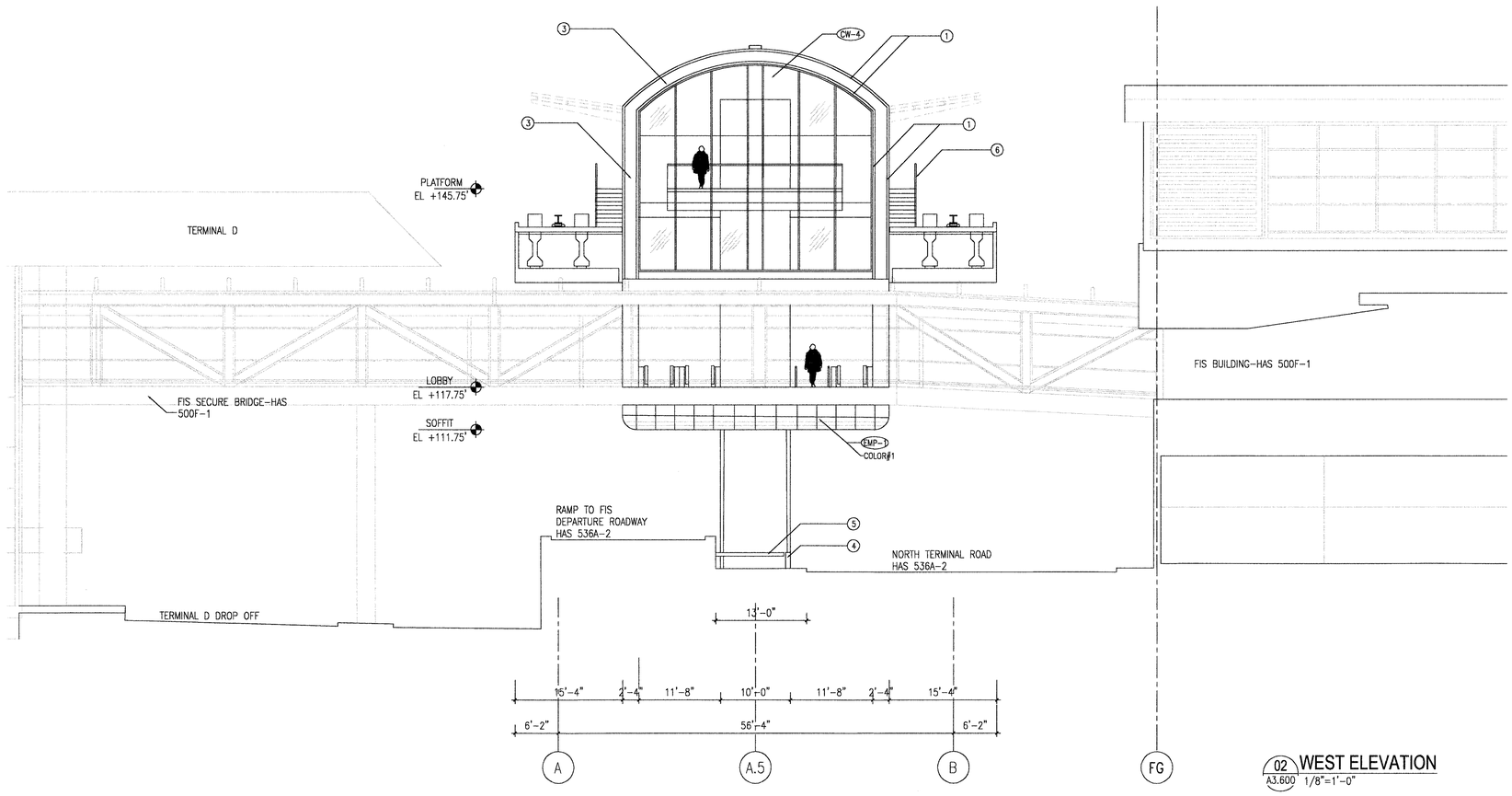
PROJECT NO.	1140
C.I.P. NO.	A-0354
H.A.S. NO.	536C
SHEET NO.	A3.501

34

PLOT DATE: 02/04/02 HAS FILE:1A536CA3501



01 EAST ELEVATION
A3.600 1/8"=1'-0"



02 WEST ELEVATION
A3.600 1/8"=1'-0"

GENERAL NOTES:

CW-4 CURTAIN WALL SYTEM
TYPE 4 – RE WINDOW SCHEDULE SHEET A2.850

CW-5 CURTAIN WALL SYTEM
TYPE 5 – RE WINDOW SCHEDULE A2.850

EMP-1 EXTERIOR POWDERCOATED METAL WALL PANEL– ALUMINUM PANEL 1/8" THICK – TYPE SERIES 3000 MODIFIED FROM UNA-CLAD – COPPER SALES OR EQUAL
POWDERCOATED KYNAR 500 – FOR COLOR RE. SCHEDULE SHEET A2.800

RF-1 STANDING SEAM METAL ROOF– TYPE UC3 FROM UNA-CLAD – COPPER SALES OR EQUAL –
WIDTH 1'– POWDERCOATED KYNAR 500 – COLOR#2 SILVER METALLIC

KEYED NOTES:

1. EXT. CLADDING – PREFORMED POWDERCOATED METAL SHEET – COLOR#2
2. 2'–3" HIGH C.I.P. CONCRETE WALL – ARCHITECTURAL CONCRETE
3. RIGID HONEYCOMBED ALUMINIUM PANEL 1/2" THICK – POWDERCOATED COLOR #2
4. PRECAST CONCRETE WALL BTW 10' CONC. COLUMNS– N.I.C.– HAS PROJECT 536A–2
5. PAVING N.I.C.– HAS LANDSCAPING PROJECT
6. STEEL GUARDRAIL – SIMILAR TO GUARDRAIL @ STAIR#2 – PAINT COLOR#2
7. SCHEDULE LIGHT FIXTURE – RE ELECTRICAL

RECORD DRAWINGS
DO NOT MODIFY
Rey de la Reza Architects, Inc.
13 May 2005
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NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

0' 4' 8' 16' 24'

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

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GEORGE BUSH INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

Lee Elliott
1099 W.RANDOL MILL RD.
ARLINGTON,TX,76012
Tel: 817.261.1446
Tel: 817.861.3266

REY DE LA REZA ARCHITECTS, INC
ARCHITECTURE PLANNING INTERIOR DESIGN
1245 WEST 18TH ST.
HOUSTON,TX,77008
Tel: 713.868.3121
Tel: 713.802.0112

REVISIONS			
NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
1	ADDENDUM 1	02/01/02	SG
2	RECORD SET	05/13/05	EM

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION + PLATFORM

WEST + EAST ELEVATIONS

PROJECT MGR:	HEM
DESIGNER:	SG
DRAWN BY:	SEM
CHECKED BY:	AB
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	1/8"=1'0"
DATE:	09/14/01

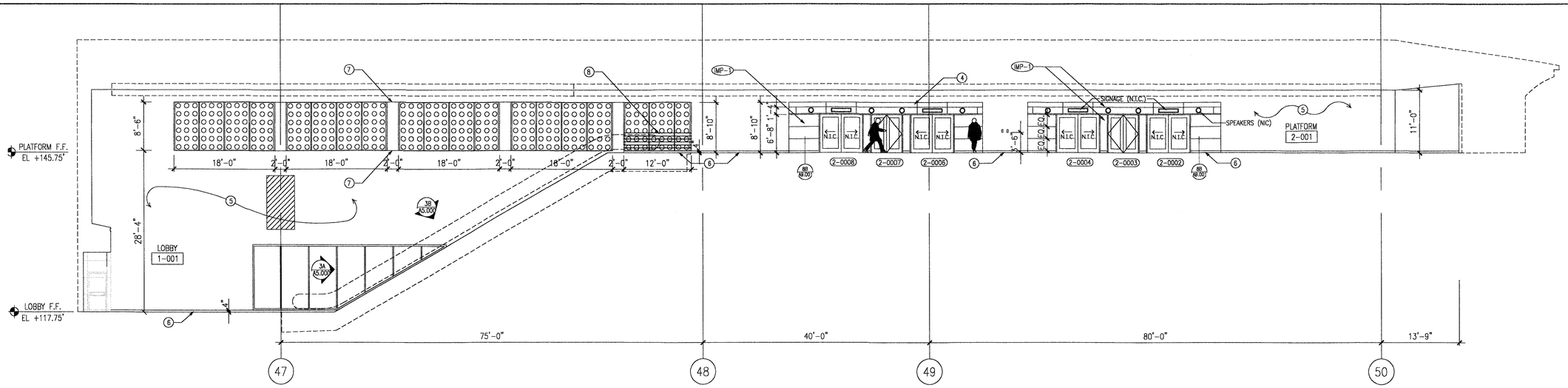
REGISTERED ARCHITECT Rey de la Reza 4612-5 STATE OF TEXAS

APPROVED BY:	DATE:

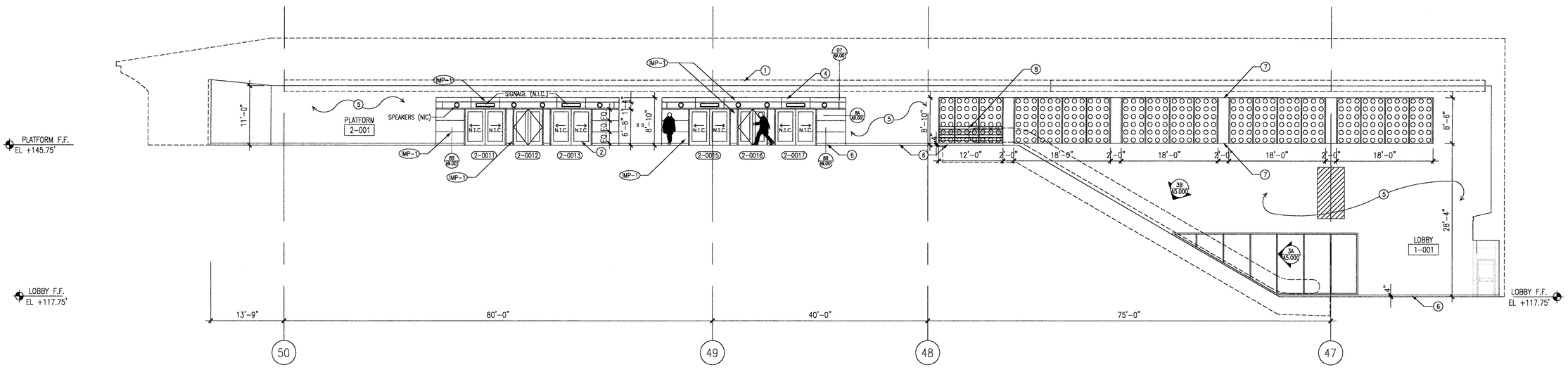
DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	1140
C.I.P. NO.	A–0354
H.A.S. NO.	536C
SHEET NO.	A3.600

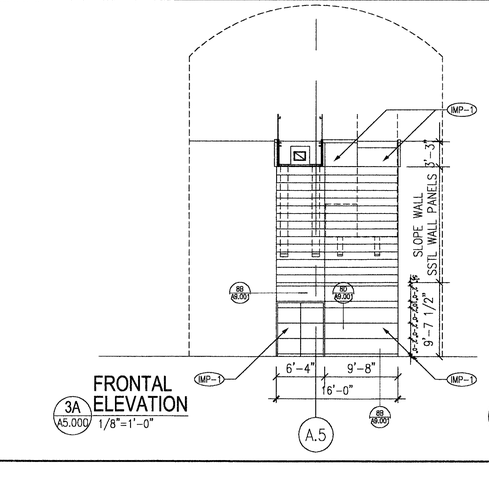
PLOT DATE: 02/04/02 HAS FILE: HAS36CA3600



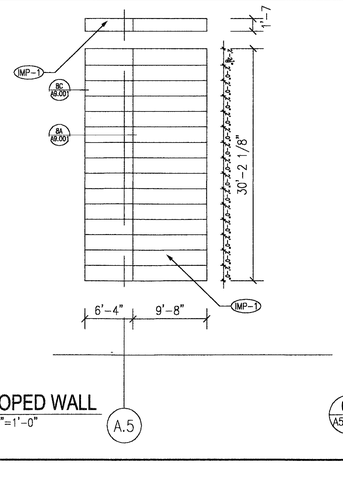
01 A5.000 INTERIOR NORTH WALL ELEVATION
1/8"=1'-0"



02 A5.000 INTERIOR SOUTH WALL ELEVATION
1/8"=1'-0"



3A A5.000 FRONTAL ELEVATION
1/8"=1'-0"



3B A5.000 SLOPED WALL
1/8"=1'-0"

03 A5.000 INTERIOR ELEVATIONS @ SLOPED WALL
1/8"=1'-0"

KEYED NOTES:

1. A/C DUCT SSTL CLAD – RE SHEET A9.000
2. STATION SLIDING DOOR BY OTHERS N.I.C.– 536D
3. NOT USED
4. SSTL CLAD
5. "DUROPLEX" PAINTING BY TRIARCH INDUSTRIES
6. SSTL BASE
7. CONTROL JOINT
8. STAINLESS STEEL WIRE GUARDRAIL –ANCHOR TO SIDE OF BAY @ 2" FROM FACE OF WALL, SIX SSTL WIRE ROPES 3/16" DIAM., 12' LONG, @ 6" O.C. AT EACH WIRE CONNECTION TO WALL USE SSTL EYE BOLT AND SSTL QUICK ATTACH FORK S0762 SERIES BY SUNCOR STAINLESS INC. OR EQUAL. 1

GENERAL NOTES:

IMP-1 INTERIOR STAINLESS STEEL WALL PANELS – 1/16" THK MIN – MULTI DIRECTIONAL MACHINE POLISH

N

RECORD DRAWINGS
DO NOT MODIFY
Rey de la Reza Architects, Inc.
13 May 2005
Note: Information used to develop these documents was taken from Record of the Work Drawings prepared by the construction contractor, Clark Construction Group - Texas
The information provided by the contractor was not verified by the design firm named above.

NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

0' 8' 16' 32' 48'
SCALE: 1/8" = 1'-0"

HOUSTON AIRPORT SYSTEM
GEORGE BUSH INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

Lea Elliott
1009 W.RANDOL MILL RD.
ARLINGTON,TX,7601Z
Tel: 817.261.1445
Tel: 817.861.3295

REY DE LA REZA ARCHITECTS, INC
ARCHITECTURE PLANNING INTERIOR DESIGN
1345 W.ESI 18TH ST.
HOUSTON,TX,7708
Tel: 713.868.3121
Tel: 713.802.0112

REVISIONS			
NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
1	ADDENDUM 1	02/01/02	SG
2	RECORD SET	05/13/05	EM

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION + PLATFORM
INTERIOR ELEVATIONS

PROJECT MGR:	HEM
DESIGNER:	SG
DRAWN BY:	SEM
CHECKED BY:	AB
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	1/8"=1'0"
DATE:	09/14/01

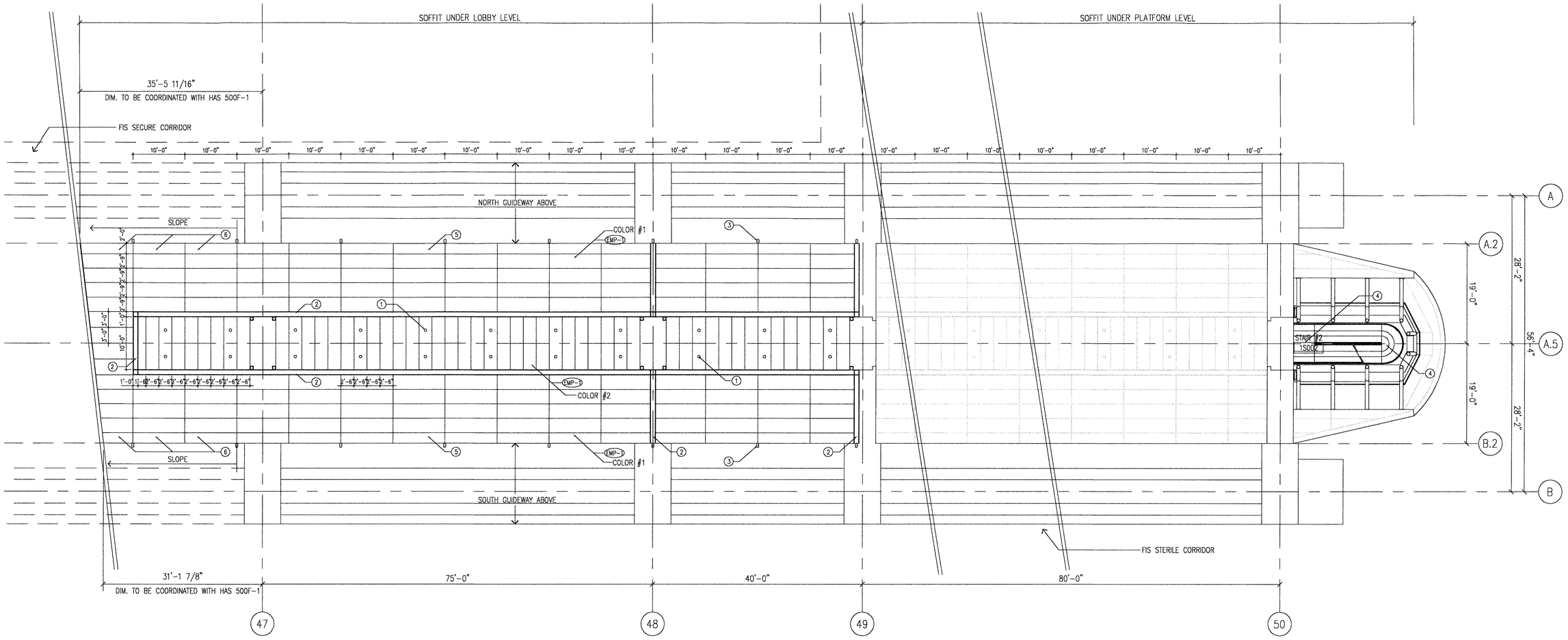
REGISTERED ARCHITECT Rey de la Reza STATE OF TEXAS 4672

APPROVED BY: DATE:

DIRECTOR HOUSTON AIRPORT SYSTEM

PROJECT NO.	1140
C.I.P. NO.	A-0354
H.A.S. NO.	536C
SHEET NO.	A5.000

PLOT DATE: 02/04/02 HAS FILE:1A536CA5000



01 REFLECTED CEILING PLAN @ GROUND LEVEL
A6.000 1/8"=1'-0"

KEYED NOTES:

1. DOWNLIGHT – RE: ELECTRICAL
2. 12" ALUMINIUM CHANNEL POWDERCOATED – KYNAR 500 – COLOR #1
3. BLUE SAFETY LIGHT – RE: ELECTRICAL
4. SCHEDULE LIGHT FIXTURE UNDER STAIR LANDING – RE: ELECTRICAL
5. CURVED PANELS TYPE EMP-1 R. 2'-0"
6. PARTIALLY CURVED PANEL WELD TO FLAT PANEL @ SLOPE SOFFIT RE A8.040

GENERAL NOTES:

- OVERALL DIMENSIONS @ SECURE BRIDGE TO BE COORDINATED WITH HAS PROJECT 500F-1 – AND FIELD VERIFIED

(EMP-1) EXTERIOR POWDERCOATED METAL WALL PANEL– ALUMINIUM PANEL 1/8" THICK – TYPE SERIES 3000 MODIFIED FROM UNA–CLAD – COPPER SALES OR EQUAL
POWDERCAOTED KYNAR 500 – FOR COLOR RE SCHEDULE SHEET A2.600

N

RECORD DRAWINGS
DO NOT MODIFY
Rey de la Reza Architects, Inc.
13 May 2005
Note: Information used to develop these documents was taken from Record of the Work Drawings prepared by the construction contractor, Clark Construction Group - Texas.
The information provided by the contractor was not verified by the design firm named above.

NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

0' 4' 8' 16' 24'
SCALE: 1/8" = 1'-0"

PLOT DATE: 02/04/02 HAS FILE: IA536CA6000

HOUSTON AIRPORT SYSTEM
GEORGE BUSH
INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

Lee Elliott
1099 W RANDOL MILL RD.
ARLINGTON,TX,76012
Tel: 817.261.1446
Tel: 817.861.3266

REY DE LA REZA ARCHITECTS, INC.
ARCHITECTURE PLANNING INTERIOR DESIGN
1245 WEST 18TH ST.
HOUSTON,TX,77008
Tel: 713.868.3121
Tel: 713.802.0112

REVISIONS

NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
	RECORD SET	05/13/05	EM

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION + PLATFORM

REFLECTED CEILING PLAN • GROUND LEVEL

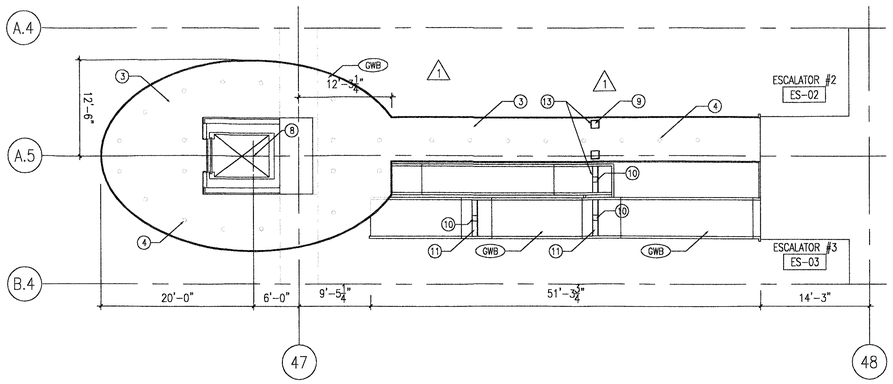
PROJECT MGR:	HEM
DESIGNER:	SG
DRAWN BY:	SEM
CHECKED BY:	AB
DRAWING STANDARD:	
	ISEP 07.20.2000
SCALE:	1/8"=1'0"
DATE:	09/14/01

REGISTERED ARCHITECT Rey de la Reza 4012-5 STATE OF TEXAS

APPROVED BY: DATE:

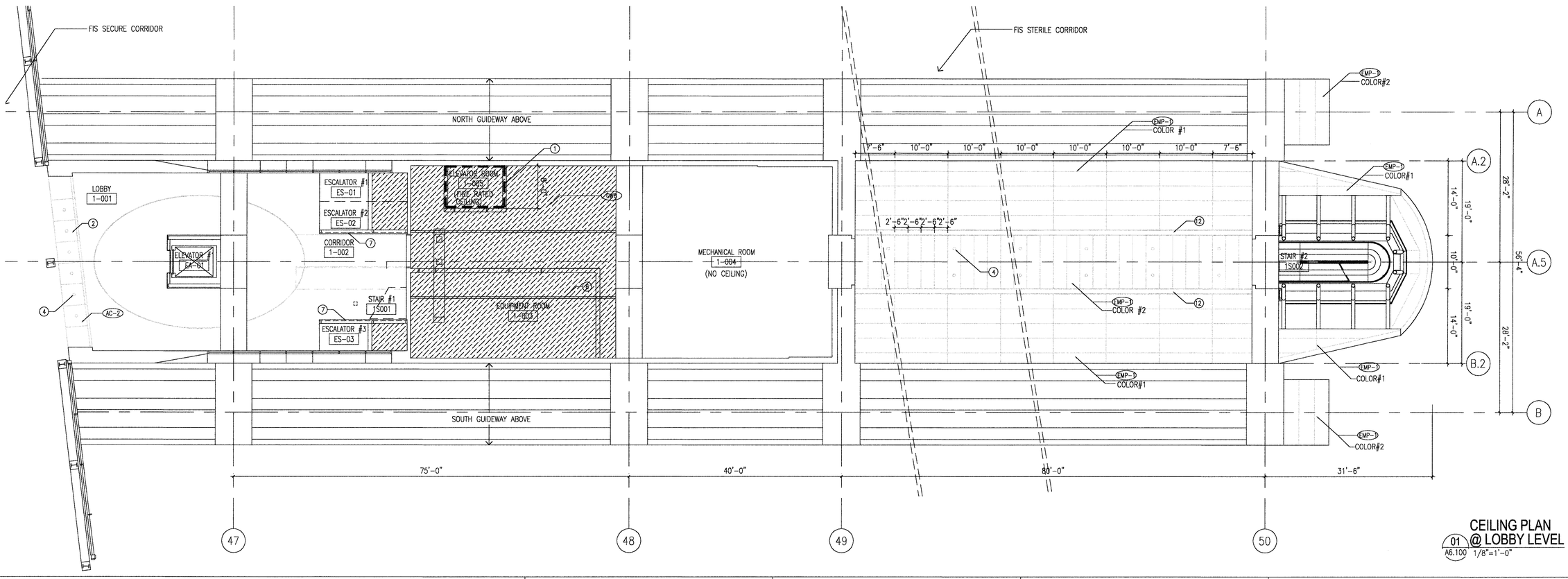
DIRECTOR HOUSTON AIRPORT SYSTEM

PROJECT NO.	1140
C.I.P. NO.	A-0354
H.A.S. NO.	536C
SHEET NO.	A6.000



CEILING @ BALCONY, CATWALK AND STAIRS

02 A6.100 1/8"=1'-0"



CEILING PLAN @ LOBBY LEVEL

01 A6.100 1/8"=1'-0"

LEGEND:

- 2 HOUR FIRE RATED SLOPE WALL RE: 3/A2.700
- DOWNLIGHT

KEYED NOTES:

1. 2 HOUR CEILING UL# U438 @ ELEVATOR ROOM – RE: LONGITUDINAL SECTION A3.000
2. REMOVABLE CEILING PANEL– TYPE AC–2
3. GYPSUM CEILING – PAINTED
4. DOWNLIGHT – RE: ELECTRICAL
5. NOT USED
6. STEEL BEAM – (RE STRUCTURAL) WITH 3HR FIREPROOFING SUPPORT OF SLOPE WALL.
7. POWDERCOATED METAL LOUVERS – COLOR #2
8. CENTER OF ELLIPSE
9. CONCRETE COLUMN UNDER CATWALK – ARCHITECTURAL CONCRETE – RE: STRUCTURAL
10. 8" STEEL COLUMN @ LANDINGS – PAINTED
11. STEEL BEAM @ LANDINGS PAINTED
12. 12" ALUMINIUM CHANNEL– POWDERCOATED COLOR #1
13. 1/2" X 1/2" REVEAL AROUND 12" CONCRETE COLUMNS AND ALONG EVERY EDGE OF GYPSUM CEILING, WITH ALUM. ANGLE PREFINISHED (1)

GENERAL NOTES:

- GWB PAINT GYPSUM BOARD
- EMP–1 EXTERIOR POWDERCOATED WALL METAL PANELS – ALUMINIUM PANEL 1/8" THICK – TYPE SERIES 3000 MODIFIED FROM UNA–CLAD – COPPER SALES OR EQUAL –POWDERCOATED KYNAR 500
- AC–2 REMOVABLE SSTL CEILING PANELS – EXPOSED SUSPENSION SYSTEM WITH 1"x1" REVEAL @ JOINTS – FROM BAKER METAL PRODUCTS INC. OR EQUAL – SSTL MULTI DIRECTIONAL MACHINE POLISH

N

NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

0' 4' 8' 16' 24'

SCALE: 1/8" = 1'–0"

PLOT DATE: 02/04/02 HAS FILE: HAS36CA6100

HOUSTON AIRPORT SYSTEM
GEORGE BUSH INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

Lee Elliott
1099 W.RANDOL MILL RD.
ARLINGTON,TX,76012
Tel: 817.261.1446
Tel: 817.861.3256

REY DE LA REZA ARCHITECTS, INC
ARCHITECTURE PLANNING INTERIOR DESIGN
1245 WEST 18TH ST.
HOUSTON,TX,77008
Tel: 713.868.3121
Tel: 713.802.0112

REVISIONS			
NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION + PLATFORM

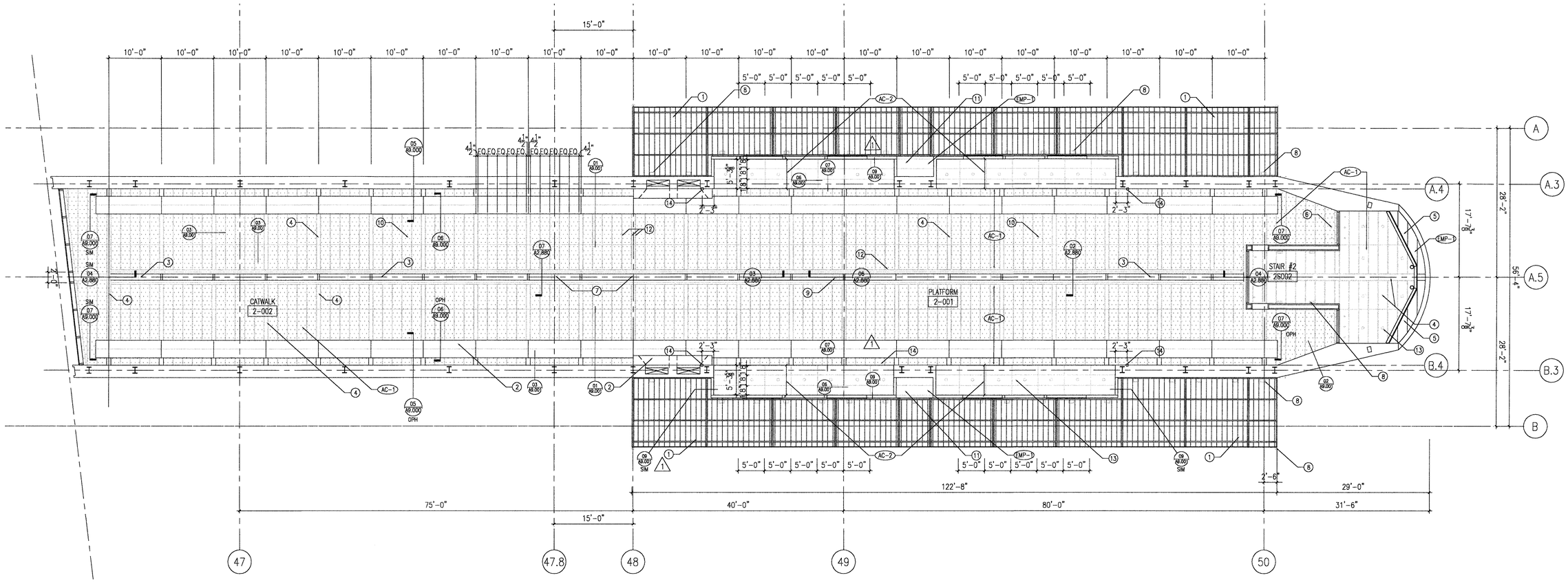
REFLECTED CEILING PLAN • LOBBY LEVEL

PROJECT MGR:	HEM
DESIGNER:	SG
DRAWN BY:	SEM
CHECKED BY:	AB
DRAWING STANDARD:	
	ISEP 07.20.2000
SCALE:	1/8"=1'0"
DATE:	09/14/01

REGISTERED ARCHITECT Rey de la Reza 4672 STATE OF TEXAS

APPROVED BY:	DATE:
DIRECTOR HOUSTON AIRPORT SYSTEM	

PROJECT NO.	1140
C.I.P. NO.	A–0354
H.A.S. NO.	536C
SHEET NO.	A6.100



REFLETED CEILING PLAN @ PLATFORM LEVEL

01 A6.200 1/8"=1'-0"

KEYED NOTES:

1. CANOPY: BOTTOM FACE PERFORATED ALUMINIUM SHEET – 1/8" THICK – POWDERCOATED COLOR #2 – FIXED TO STRUCTURE BY POP RIVETS
2. A/C DUCT – CLAD – RE SHEET A9.000
3. SKYLIGHT – RE SHEET A2.880
4. CURVED METAL CEILING PANEL TYPE AC-1 NON PERFORATED
5. EXTERIOR ALUMINIUM PANELS TYPE EMP-1 CURVED – ALIGNED WITH INTERIOR CEILING PANELS
6. SPRINKLERS ON BOTH SIDES OF THE CURTAIN WALL ALLOWING A 2HR FIRE RATING
7. METAL CLAD AROUND W BEAMS– POWERCOATED – RE SHEET 3/A2.880
8. SCHEDULED LIGHT FIXTURE – RE: ELECTRICAL
9. PTZ CAMERA IN BEAM CLADDING – RE SECURITY RE 6/A2.880
10. PERFORATED ALUMINIUM PANEL CURVED – TYPE AC-1
11. EXT. SOFFIT – BETWEEN SLIDING DOOR AREA – METAL PANEL EMP-1
12. 1" ALUMINIUM COVER CURVED – POWDERCOATED
13. DOWNLIGHT – RE ELECTRICAL CENTER IN PANEL
14. CAMERA – RE SECURITY

GENERAL NOTES:

(AC-1) PRE-FINISHED CURVED, PERFORATED METAL CEILING PANEL – TYPE ALUMA VAULT SYSTEM 1000 BY GORDON MANUFACTURER OR EQUAL – 0.032 GAGE– WITH BLACK NON WOVEN ACCOUSTICAL MAT

(AC-2) REMOVABLE SSTL CEILING PANELS – HOOK-ON CONCEALED PLANK FROM HUNTERDOUGLAS PRODUCT INC. OR EQUAL – 24 GA. SSTL MULTI DIRECTIONAL MACHINE POLISH

(EMP-1) EXTERIOR POWDERCOATED WALL METAL PANELS – ALUMINIUM PANEL 1/8" THICK – TYPE SERIES 3000 MODIFIED FROM UNA-CLAD – COPPER SALES OR EQUAL – POWDERCOATED KYNAR 500

N

RECORD DRAWINGS

DO NOT MODIFY

Rey de la Reza Architects, Inc.

13 May 2005

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NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

0' 4' 8' 16' 24'

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

PLOT DATE: 02/04/02 HAS FILE: IA536CA6200

HOUSTON AIRPORT SYSTEM
GEORGE BUSH
INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

Lea+Elliott
1009 W.RANDOL MILL RD.
ARLINGTON,TX,76012
Tel: 817.261.1446
Tel: 817.861.3296

RdlR
REY DE LA REZA ARCHITECTS, INC.
ARCHITECTURE PLANNING INTERIOR DESIGN
1245 WEST 18TH ST.
HOUSTON,TX,77008
Tel: 713.868.3121
Tel: 713.802.0112

REVISIONS

NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
1	ADDENDUM 1	02/01/02	SG
2	RECORD SET	05/13/05	EM

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION + PLATFORM

REFLECTED CEILING PLAN • PLATFORM LEVEL

PROJECT MGR:	HEM
DESIGNER:	SG
DRAWN BY:	SEM
CHECKED BY:	AB
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	1/8"=1'0"
DATE:	09/14/01

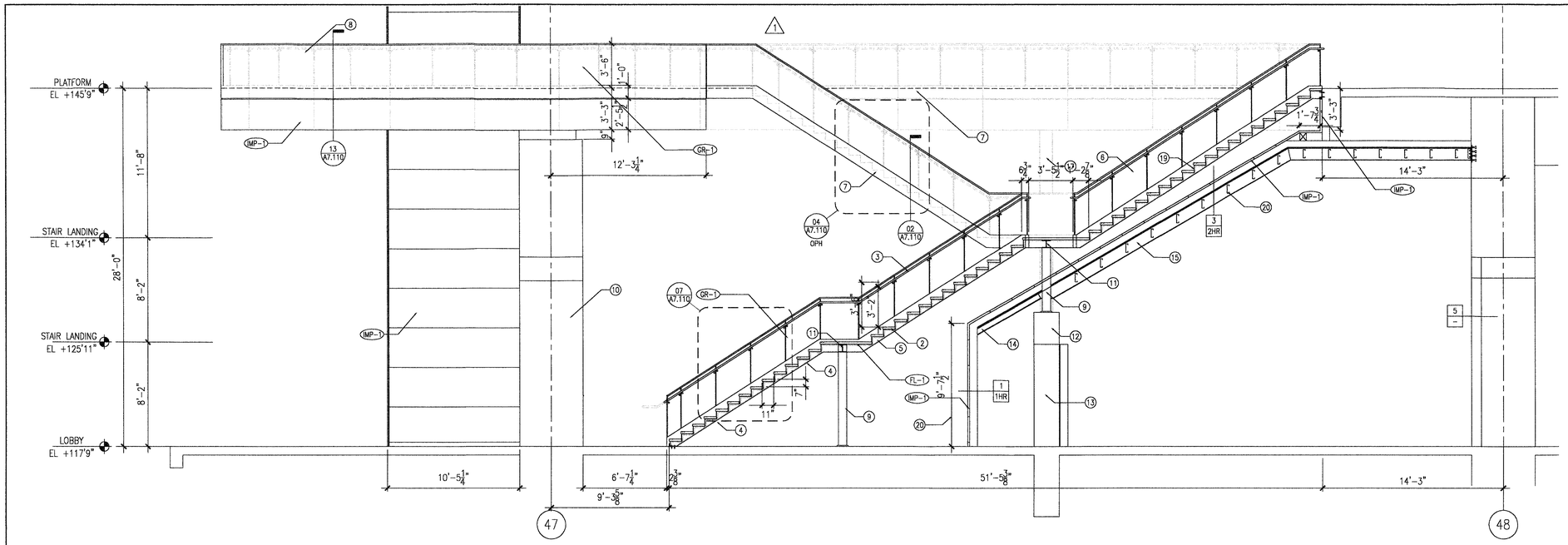
REGISTERED ARCHITECT Rey de la Reza 4612-8 STATE OF TEXAS

APPROVED BY: DATE:

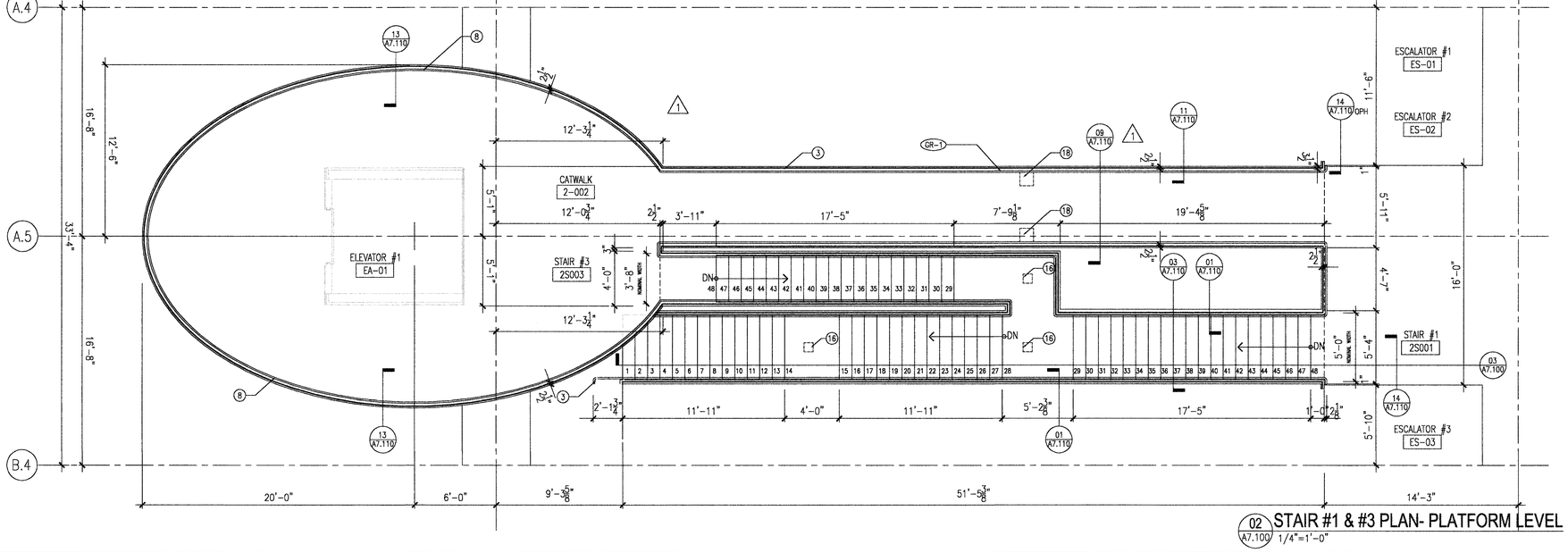
DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	1140
C.I.P. NO.	A-0354
H.A.S. NO.	536C
SHEET NO.	A6.200

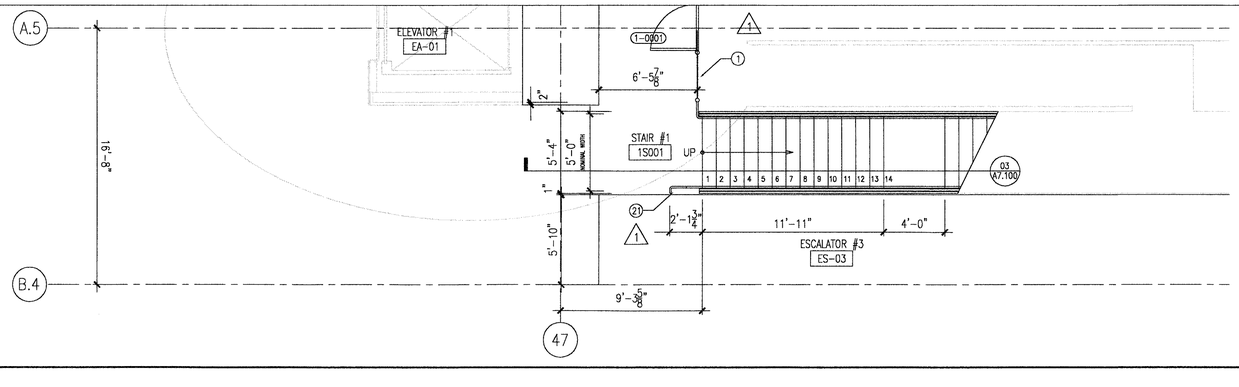
39



03 STAIRS #1 & #3 SECTION
A7.100 1/4"=1'-0"



02 STAIR #1 & #3 PLAN- PLATFORM LEVEL
A7.100 1/4"=1'-0"



01 STAIR #1 PLAN - LOBBY LEVEL
A7.100 1/4"=1'-0"

GENERAL NOTES:

GR-1 GLASS GUARDRAIL

FL-1 TERRAZO FLOOR

IMP-1 INTERIOR STAINLESS STEEL WALL PANELS – MULTI DIRECTIONAL MACHINE POLISH

KEYED NOTES:

1. GLASS GATE, RE DETAIL 12/A8.040
2. PRECAST TERRAZZO TREAD ON STEEL STAIR
3. 1 1/4" Ø STAINLESS STEEL HANDRAIL
4. PAINT GYPSUM UNDER FLIGHTS OF STAIR, BALCONY AND CATWALK
5. 12" STEEL BOXED STRINGER – SSTL CLAD
6. 1/2" TEMPERED GLASS
7. SSTL CLAD – MULTI DIRECTIONAL MACHINE POLISH
8. CURVED GUARDRAIL PANELS ALONG ELLIPTICAL BALCONY
9. STEEL TUBES 8"x8" SUPPORT OF STAIR LANDING. CONNECTED TO BEAM IN LANDING
10. CONCRETE COLUMN – ARCHITECTURAL CONCRETE
11. W BEAM WELDED BETWEEN STAIR STRINGERS
12. CONCRETE BEAM – RE STRUCTURAL
13. CONCRETE COLUMN – RE STRUCTURAL
14. WALL TYPE 3 – 2HR – UL# U438
15. W12 STEEL BEAM – RE STRUCTURAL – WITH 3HR FIREPROOFING
16. STEEL COLUMN 8"x8" BELOW LANDING
17. CONCRETE COLUMN – PAINT – RE STRUCTURAL
18. CONCRETE COLUMN BELOW CATWALK
19. SSTL CLADDING @ FACE OF RISER – 1/16" THK – MULTI DIRECTIONAL MACHINE POLISH
20. 8" STEEL STUDS – 10 GA @ 2'-0" O.C.– SECURED TO W12 BEAM AND RUNNER @ WALL
21. RETURN SSTL HANDRAIL TO GROUND AND ANCHOR TO FLOOR

NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

0' 2' 4' 8' 12'

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

HOUSTON AIRPORT SYSTEM
GEORGE BUSH INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

Lee Elliott
1009 W.RANDOL MILL RD.
ARLINGTON,TX,7612
Tel: 817.261.1446
Tel: 817.861.3296

REY DE LA REZA ARCHITECTS, INC.
ARCHITECTURE PLANNING INTERIOR DESIGN
1245 WEST 18TH ST.
HOUSTON,TX,7708
Tel: 713.868.3121
Tel: 713.802.0112

REVISIONS			
NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
1	ADDENDUM 1	02/01/02	SG
2	RECORD SET	05/13/05	EM

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

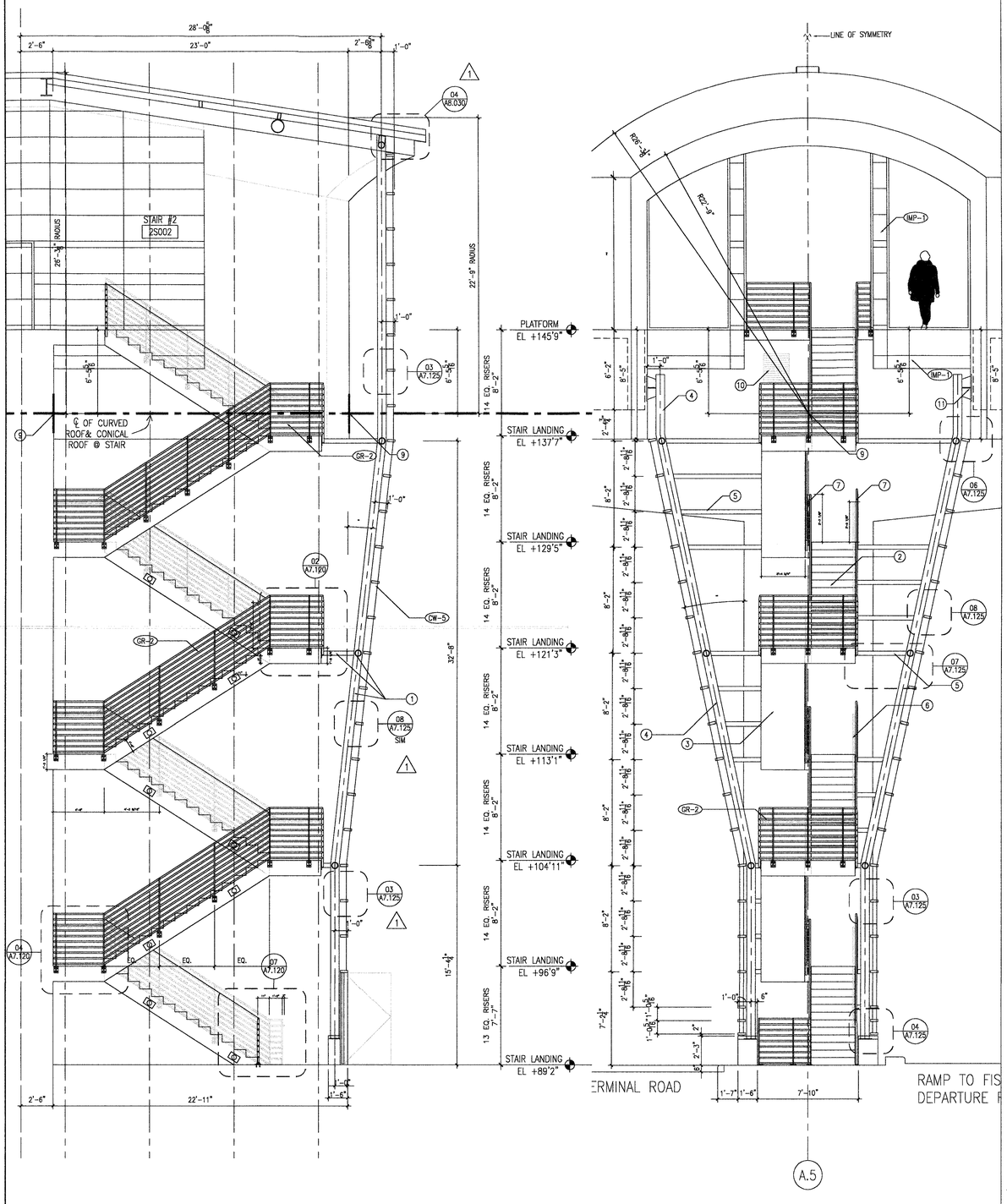
APM STATION + PLATFORM
STAIR 1 AND STAIR 3 PLANS AND SECTION

PROJECT MGR:	HEM
DESIGNER:	SG
DRAWN BY:	SEM
CHECKED BY:	AB
DRAWING STANDARD:	
	ISEP 07.20.2000
SCALE:	1/4"=1'0"
DATE:	09/14/01

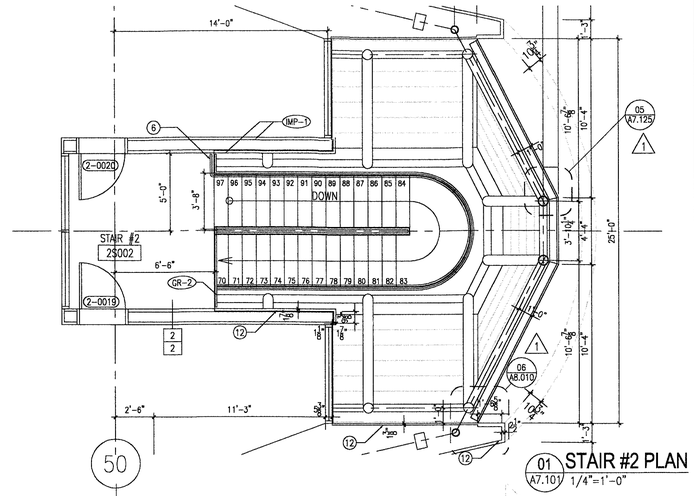
REGISTERED ARCHITECT Rey de la Reza 4612-5 STATE OF TEXAS

APPROVED BY:	DATE:
DIRECTOR HOUSTON AIRPORT SYSTEM	
PROJECT NO.	1140
C.I.P. NO.	A-0354
H.A.S. NO.	536C
SHEET NO.	A7.100

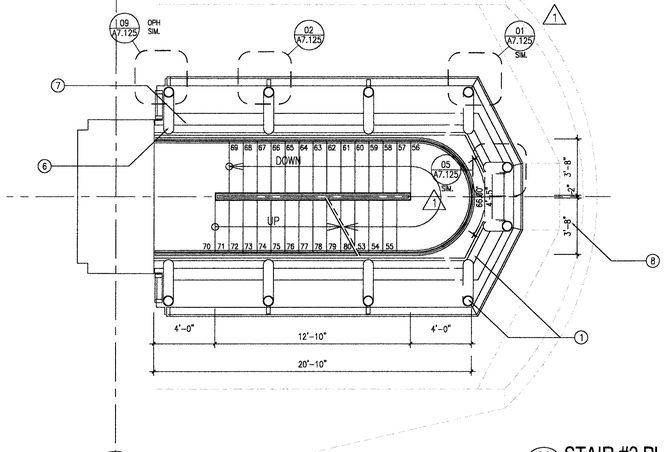
PLOT DATE: 02/04/02 HAS FILE: HAS36CA7100



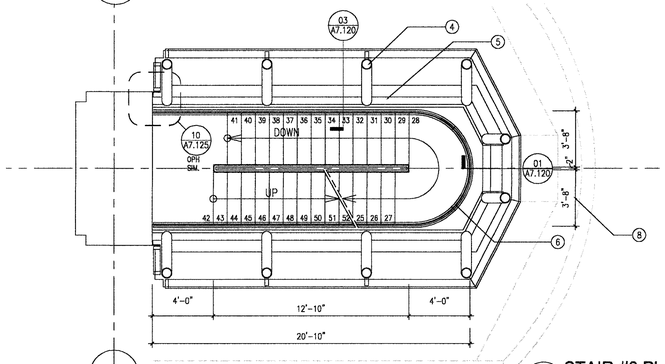
05 STAIR #2 SECTIONS
A7.101 1/4"=1'-0"



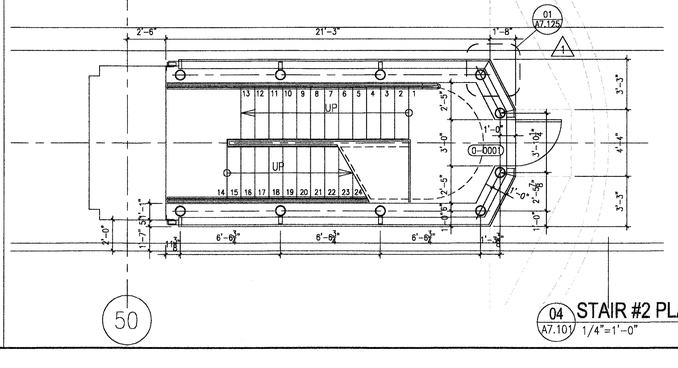
01 STAIR #2 PLAN
A7.101 1/4"=1'-0"



02 STAIR #2 PLAN
A7.101 1/4"=1'-0"



03 STAIR #2 PLAN
A7.101 1/4"=1'-0"



04 STAIR #2 PLAN
A7.101 1/4"=1'-0"

GENERAL NOTES:

GR-2 STEEL GUARDRAIL PAINT

CW-5 CURTAIN WALL TYPE 5 – RE WINDOW SCHEDULE SHEET A2.850

IMP-1 INTERIOR STAINLESS STEEL WALL PANELS – NGAGE SYSTEM BY BAKER METAL PRODUCTS INC. OR EQUAL – 1/16" THK MIN – MULTI DIRECTIONAL MACHINE POLISH

KEYED NOTES:

1. STEEL STRUCTURAL FRAME – RE STRUCTURAL– PAINT
2. CONCRETE STAIR – ARCHITECTURAL CONCRETE – PAINT
3. CONCRETE FLIGHT OF STAIR – PAINT
4. 8" STEEL PIPE – RE STRUCTURAL
5. 4" HORIZONTAL STEEL PIPE – WELD TO POST AND ANCHOR TO STAIR
6. 1 1/4" Ø STEEL PIPE HANDRAIL
7. 1 1/4" Ø STEEL PIPES GUARDRAIL – POST 1 3/4"x3/4" STEEL PLATE
8. NOMINAL STAIR WIDTH
9. CENTER OF CURVED ROOF
10. LOUVERS TYPE EMP-2 @ A/C DUCT – POWDERCOATED
11. BASE PLATE WITH STIFFENERS – ANCHOR TO CONCRETE RE STRUCTURAL
12. EDGE OF CONCRETE

RECORD DRAWINGS
DO NOT MODIFY
Rey de la Reza Architects, Inc.
13 May 2005

Note: Information used to develop these documents was taken from Record of the Work Drawings prepared by the construction contractor, Clark Construction Group - Texas. The information provided by the contractor was not verified by the design firm named above.

NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

0' 2' 4' 8' 12'
SCALE: 1/4" = 1'-0"

HOUSTON AIRPORT SYSTEM
GEORGE BUSH INTERCONTINENTAL AIRPORT HOUSTON TEXAS

Lee Elliott
1009 W.RANDOL MILL RD.
ARLINGTON,TX,76012
Tel: 817.261.1446
Tel: 817.861.3296

REY DE LA REZA ARCHITECTS, INC.
ARCHITECTURE PLANNING INTERIOR DESIGN
1245 WEST 18TH ST.
HOUSTON,TX,77008
Tel: 713.868.3121
Tel: 713.802.0112

REVISIONS			
NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
1	ADDENDUM 1	02/01/02	SG
2	RECORD SET	05/13/05	EM

SERVICES • EXPANSION • PROGRAM
INTERNATIONAL • APM STATION + PLATFORM
STAIR 2
PLANS AND SECTION

PROJECT MGR:	HEM
DESIGNER:	SG
DRAWN BY:	SEM
CHECKED BY:	AB
DRAWING STANDARD:	
	ISEP 07.20.2000
SCALE:	1/4"=1'0"
DATE:	09/14/01

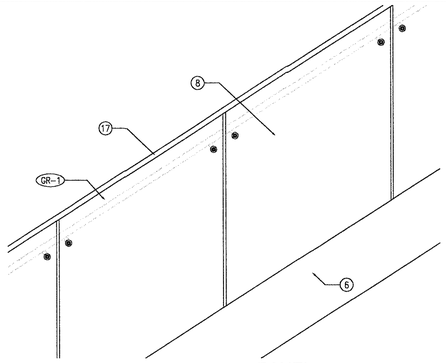
REGISTERED ARCHITECT Rey de la Reza 4012 STATE OF TEXAS

APPROVED BY: DATE:

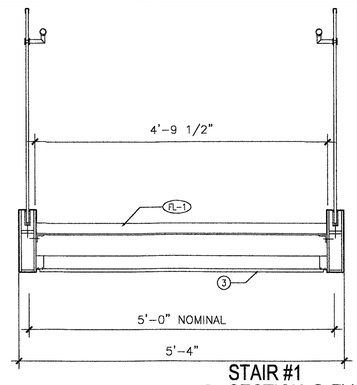
DIRECTOR HOUSTON AIRPORT SYSTEM

PROJECT NO.	1140
C.I.P. NO.	A-0354
H.A.S. NO.	536C
SHEET NO.	A7.101

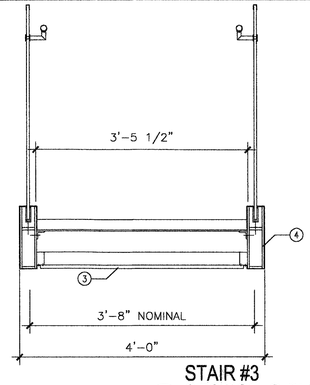
PLOT DATE: 02/04/02 HAS FILE:HAS36CA7101



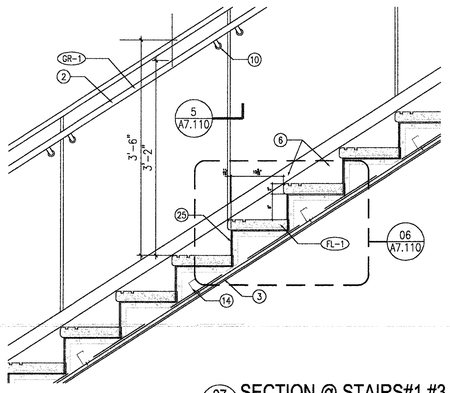
PANEL
04 A7.110 ELEVATION @ STAIRS
1"=1'-0"



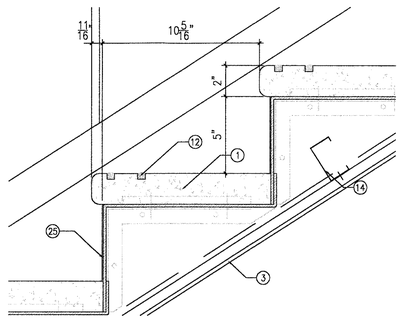
STAIR #1
03 A7.110 SECTION @ FLIGHT
1"=1'-0"



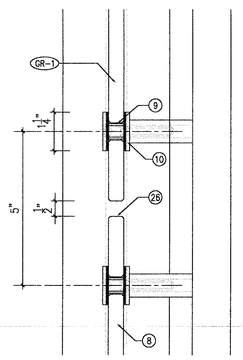
STAIR #3
02 A7.110 SECTION @ FLIGHT
1"=1'-0"



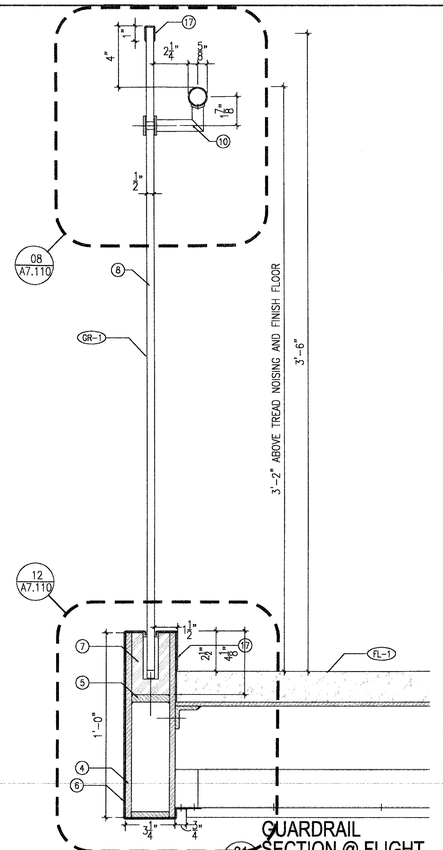
07 A7.110 SECTION @ STAIRS#1,#3
1"=1'-0"



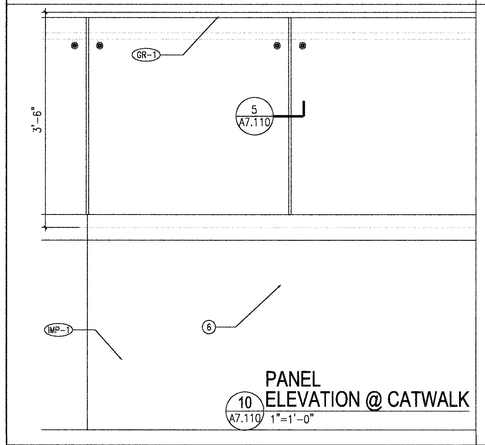
06 A7.110 SECTION @ STEP
3"=1'-0"



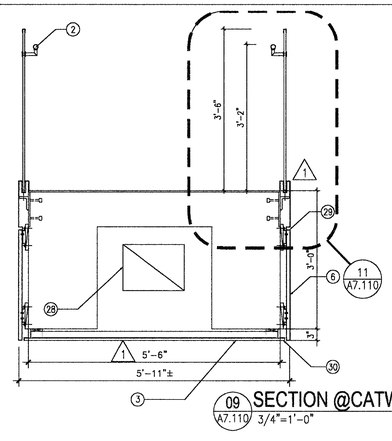
05 A7.110 PLAN DETAIL
6"=1'-0"



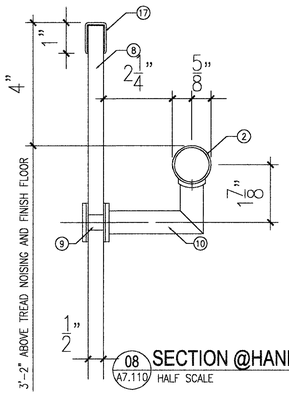
GUARDRAIL
01 A7.110 SECTION @ FLIGHT
3"=1'-0"



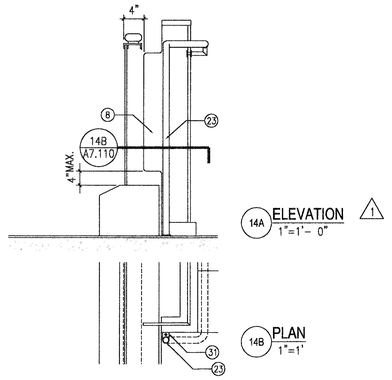
PANEL
10 A7.110 ELEVATION @ CATWALK
1"=1'-0"



09 A7.110 SECTION @CATWALK
3/4"=1'-0"



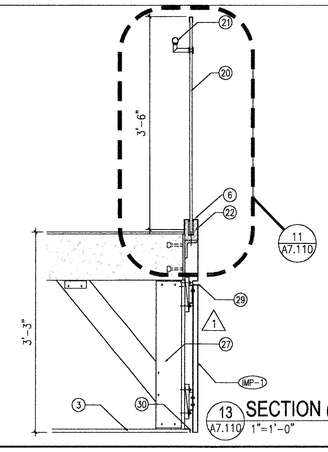
08 A7.110 SECTION @HANDRAIL
HALF SCALE



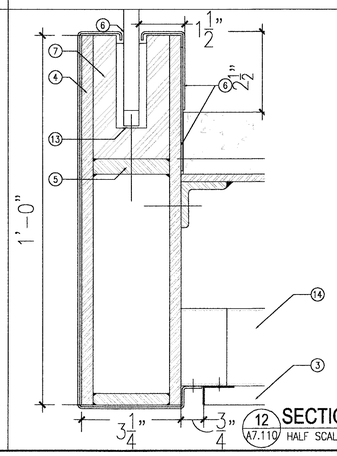
14A ELEVATION
1"=1'- 0"

14B PLAN
1"=1'

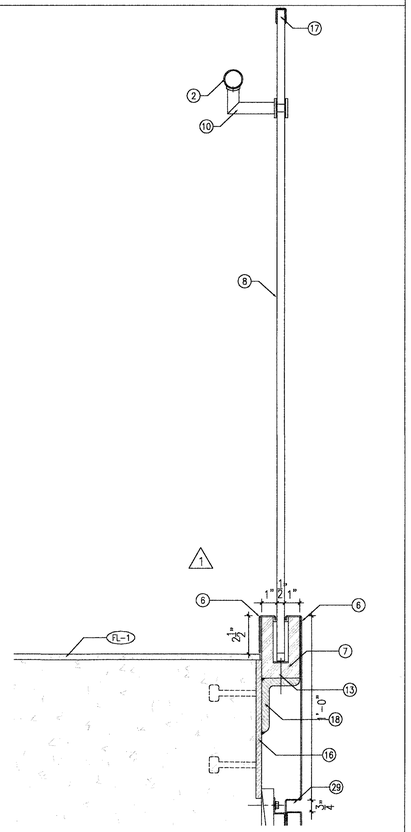
14 A7.110 GUARDRAIL@ESCALATOR
1"=1'-0"



13 A7.110 SECTION @BALCONY
1"=1'-0"



12 A7.110 SECTION @STRINGER
HALF SCALE



11 A7.110 GUARDRAIL @ CATWALK
3"=1'-0"

GENERAL NOTES:

GR-1 GLASS GUARDRAIL

FL-1 TERRAZO FLOOR

IMP-1 INTERIOR STAINLESS STEEL WALL PANELS – MULTI DIRECTIONAL MACHINE POLISH

KEYED NOTES:

1. PRECAST TERRAZZO TREAD ON STEEL STAIR
2. 1 1/4" Ø STAINLESS STEEL HANDRAIL
3. PAINT GYPSUM BOARD UNDER FLIGHTS OF STAIR, BALCONY AND CATWALK
4. 12" STEEL BOXED STRINGER – 3/8 " THICK STEEL PLATES – WELD
5. 1/2" THICK STEEL PLATE – WELD TO STRINGER
6. STAINLESS STEEL CLADDNG – 1/16" THICK – MULTI DIRECTIONNAL MACHINE POLISH
7. CONTINUOUS ALUMINIUM BASE – SIM CURVED @ ELLIPTICAL BALCONY
8. 1/2" TEMPERED GLASS – SIM CURVED @ ELLIPTICAL BALCONY
9. HOLES DRILLED IN GLASS PRIOR TO TEMPERING
10. STAINLESS STEEL BRACKET
11. NOT USED
12. ABRAISINE INSERT
13. SECURE BASE TO STRUCTURE
14. 2 1/2" METAL STUD SECURE TO STRINGER
15. NOT USED
16. 3/8" STEEL PLATE WITH STEEL STUDS EMBED IN CONCRETE – SIM CURVED @ ELLIPTICAL BALCONY
17. STAINLESS STEEL TOP CAP – ADHERE TO GLASS BY STRUCTURAL SILICONE ALL EDGES POLISHED
18. 2 1/2" x 3 1/2" x 3/8" CONT. STEEL ANGLE – WELD TO STEEL PLATE △1
19. NOT USED
20. 1/2" TEMPERED GLASS – CURVED AT BALCONY
21. STAINLESS STEEL HANDRAIL CURVED AT ELLIPTICAL BALCONY
22. CURVED ALUMINIUM BASE AT ELLIPTICAL BALCONY
23. SSTL HANDRAIL RETURN TO GROUND @ ALL TERMINATIONS AND ANCHOR TO FLOOR
24. GLASS CUT OUT @ ESCALATOR GUARDRAIL
25. SSTL CLADDING 1/16" THICK – FACE OF RISER
26. VERTICAL EDGES OF GLASS PANELS CHAMFERED AND POLISHED
27. 6" METAL STUDS 20 GA. @ 16" O.C. SECURE TO CONCRETE SLAB
28. A/C DUCT – RE MECHANICAL
29. 3/4" x 3/4" REVEAL IN SSTL CLADDING △1
30. 1/2" X 1/2" REVEAL @ EDGE OF GYPSUM CEILING. ALUMINIUM. SHOP PAINTED
31. 1/4" THCK. SSTL BASE PLATE, WELDED TO BOTTOM OF HANRAIL @ FLOOR, SANDED GRANT SMOOTH ANCHORED TO CONC. SLAB

RECORD DRAWINGS
DO NOT MODIFY
Rey de la Reza Architects, Inc.
13 May 2005

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HOUSTON AIRPORT SYSTEM
GEORGE BUSH INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

Lea Elliott
1006 W.RANDOL MILL RD.
ARLINGTON,TX,76012
Tel: 817.261.1446
Tel: 817.861.3266

REY DE LA REZA ARCHITECTS, INC.
ARCHITECTURE PLANNING INTERIOR DESIGN
1245 WEST 15TH ST.
HOUSTON,TX,77008
Tel: 713.868.3121
Tel: 713.802.0112

REVISIONS

NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
1	ADDENDUM 1	02/01/02	SG
2	RECORD SET	05/13/05	EM

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION + PLATFORM

STAIR DETAILS

PROJECT MGR:	HEM
DESIGNER:	SG
DRAWN BY:	SEM
CHECKED BY:	AB
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	AS NOTED
DATE:	09/14/01

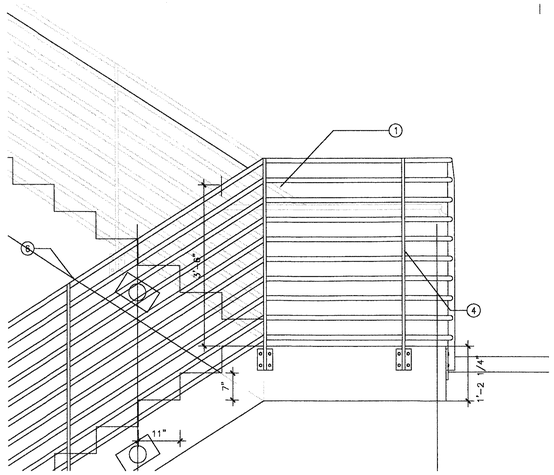
REGISTERED ARCHITECT Rey de la Reza #12-9 STATE OF TEXAS

APPROVED BY: DATE:

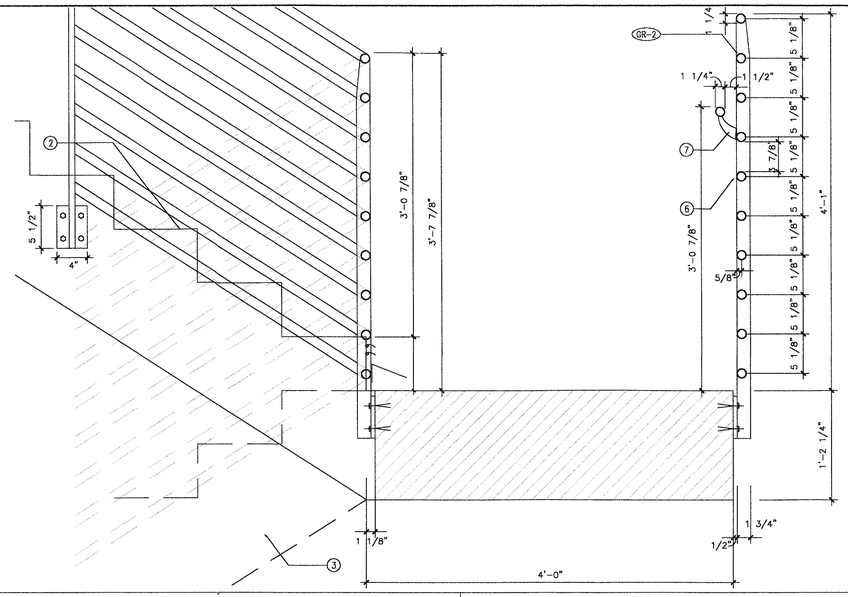
DIRECTOR HOUSTON AIRPORT SYSTEM

PROJECT NO.	1140
C.I.P. NO.	A-0354
H.A.S. NO.	536C
SHEET NO.	A7.110

PLOT DATE: 02/04/02 HAS FILE:\A536CA7110



ELEVATION @ LANDING
02 A7.120 STAIR #2
3/4"=1'-0"



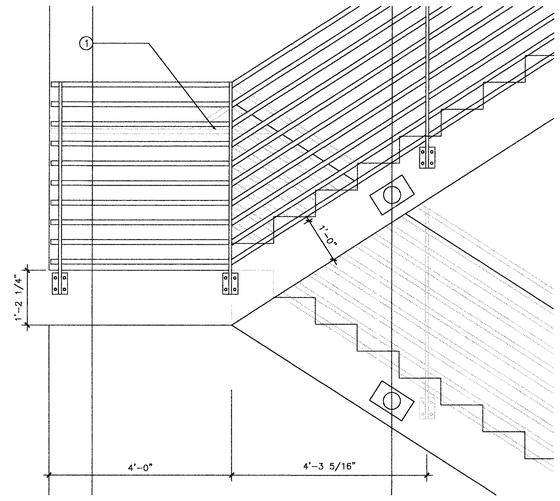
SECTION @ LANDING
01 A7.120 STAIR #2
1 1/2"=1'-0"

GENERAL NOTES:

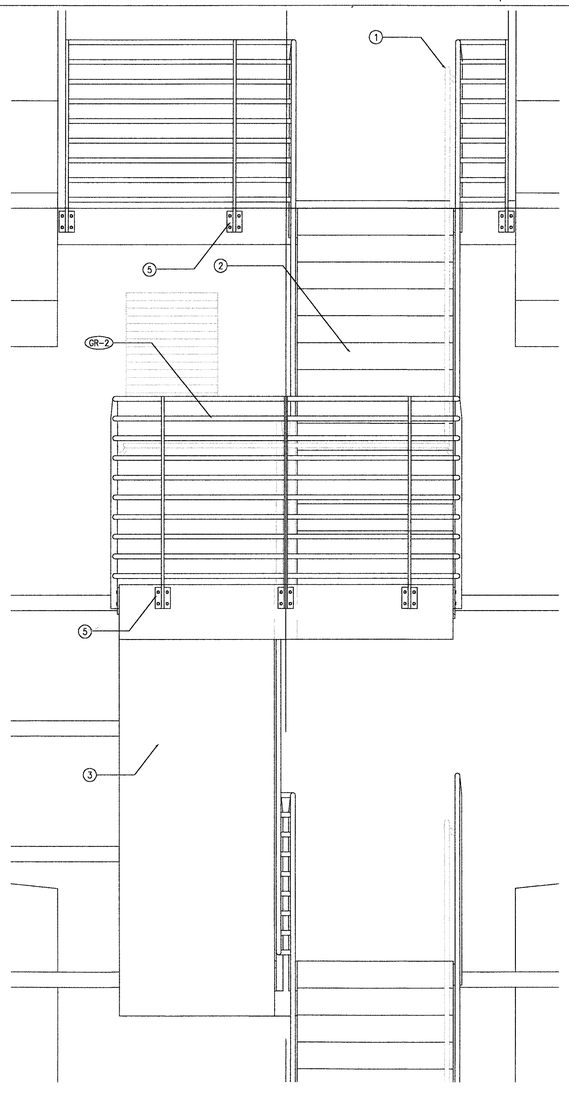
- ALL WELDING CONTINUOUS AND GROUND SMOOTH
- GR-2 STEEL GUARDRAIL – PAINT

KEYED NOTES:

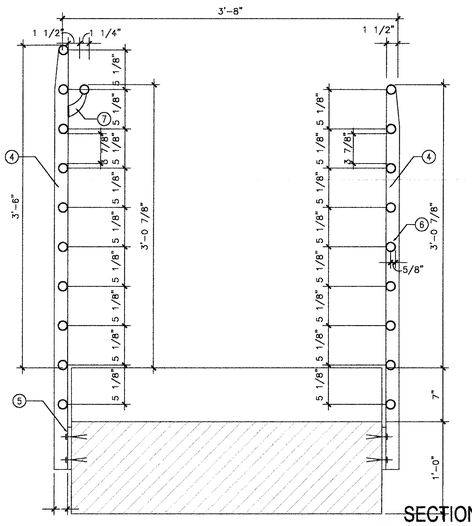
1. 1 1/4 " Ø HANDRAIL – STEEL PIPE – PAINT
2. CONCRETE STAIR – PAINT
3. CONCRETE FLIGHT OF STAIR – PAINT
4. POST – 1 3/4"x3/4" PLATE – PAINT
5. 1/2" THK STEEL PLATE – WELD TO POST – ANCHOR IN CONCRETE – PAINT
6. 1 1/4" Ø STEEL PIPE – WELD TO RAIL POST – PAINT
7. HANDRAIL SUPPORT – 1/2" PLATE – WELD TO RAIL POST AND HANDRAIL



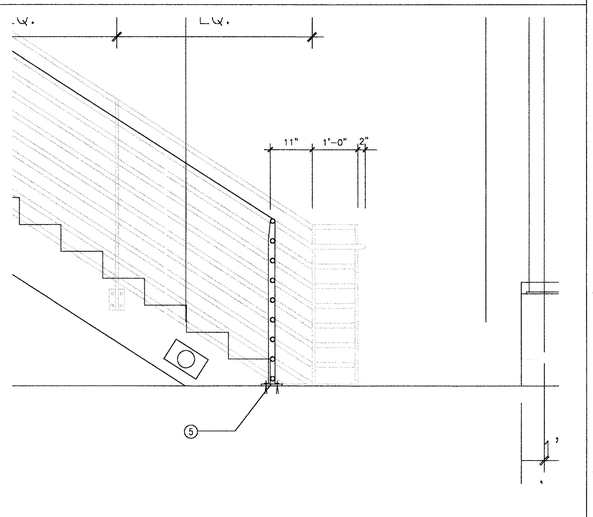
ELEVATION @ LANDING
04 A7.120 STAIR #2
3/4"=1'-0"



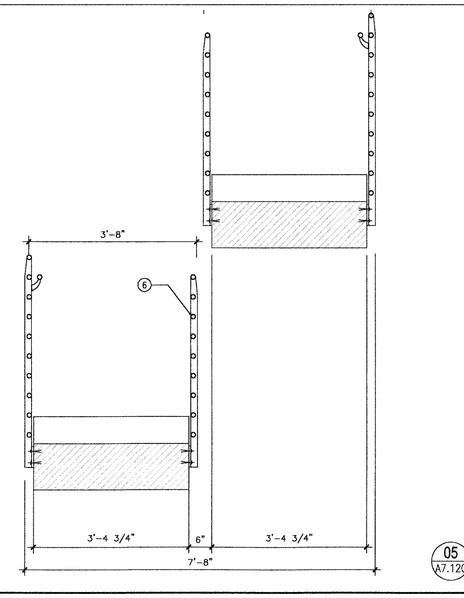
FRONT ELEVATION
06 A7.120 STAIR #2
3/4"=1'-0"



SECTION @ FLIGHT
03 A7.120 STAIR #2
1 1/2"=1'-0"



ELEVATION @ LANDING
07 A7.120 STAIR #2
3/4"=1'-0"



SECTION
05 A7.120 STAIR #2
3/4"=1'-0"

NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

0' 1' 2' 4'

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

RECORD DRAWINGS
DO NOT MODIFY
Rey de la Reza Architects, Inc.
13 May 2005

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REVISIONS			
NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
	RECORD SET	05/13/05	EM

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION + PLATFORM

STAIR2 - DETAILS

PROJECT MGR:	HEM
DESIGNER:	SG
DRAWN BY:	SEM
CHECKED BY:	AB
DRAWING STANDARD:	
	ISEP 07.20.2000
SCALE:	AS NOTED
DATE:	09/14/01

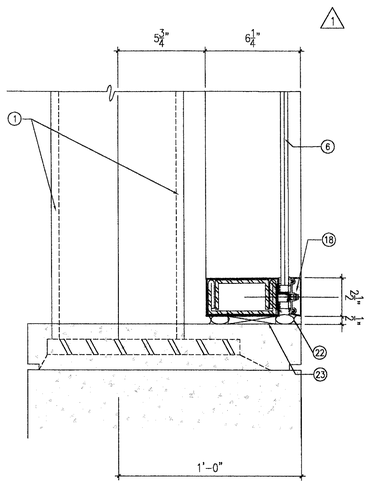
REGISTERED ARCHITECT Rey de la Reza 4672 STATE OF TEXAS

APPROVED BY:	DATE:
DIRECTOR HOUSTON AIRPORT SYSTEM	

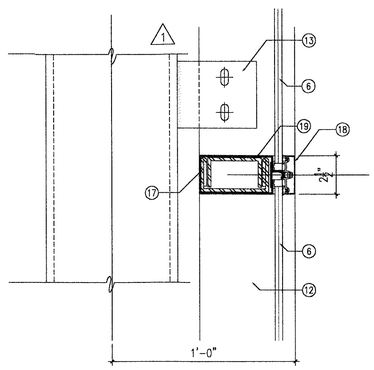
PROJECT NO.	1140
C.I.P. NO.	A-0354
H.A.S. NO.	536C
SHEET NO.	A7.120

PLOT DATE: 02/04/02 HAS FILE:A536CA7120

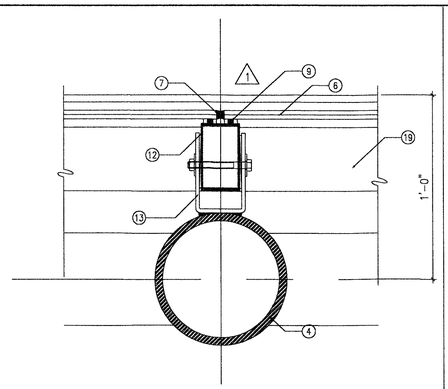
43



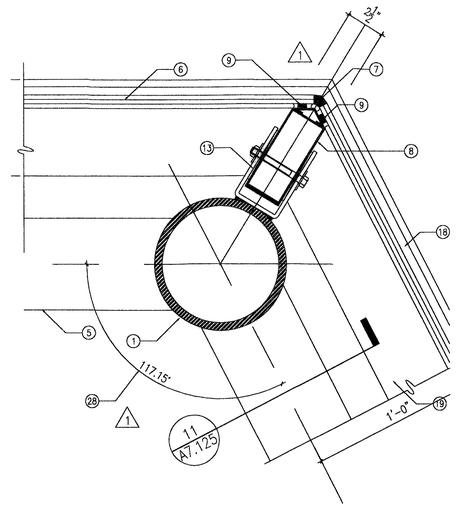
04 A7.125 SECTION @ HORIZONTAL MULLION
3"=1'



03 A7.125 SECTION @ HORIZONTAL MULLION
3"=1'



02 A7.125 PLAN DETAIL @ VERTICAL BUTT JOINT
3"=1'-0"



01 A7.125 DETAIL @ ANGLE
3"=1'-0"

GENERAL NOTES:

1

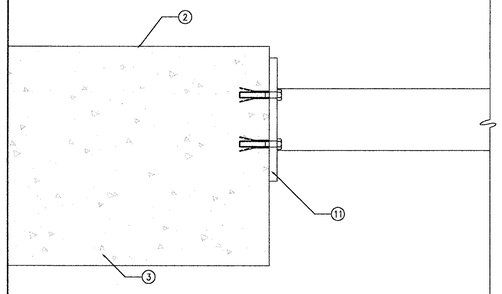
- BUTT GLAZING @ VERTICAL JOINT – WITH CUSTOM EXTRUDED MULLIONS @ ANGLES
- SELECT SILICONE SEALANT COMPATIBLE WITH PVB INTERLAYER
- FIED VERIFY CONCRETE AND STEEL STRUCTURE, ALL DIMENSIONS OF CURTAIN WALL AND ANGLES

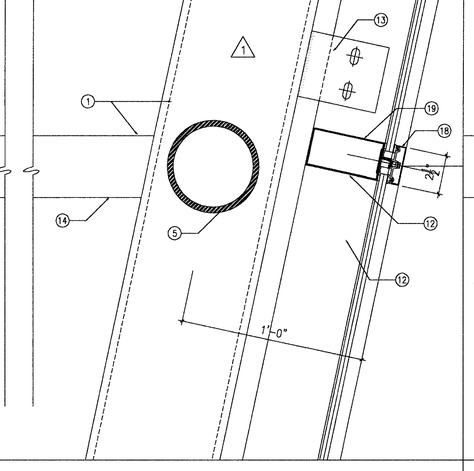
(CW–5) CURTAIN WALL TYPE 5
RE TO SCHEDULE SHEET A2.850

(EMP–1) EXTERIOR POWDERCOATED WALL METAL PANELS – ALUMINIUM PANEL 1/8" THICK – TYPE SERIES 3000 MODIFIED FROM UNA–CLAD – COPPER SALES OR EQUAL –POWDERCOATED KYNAR 500

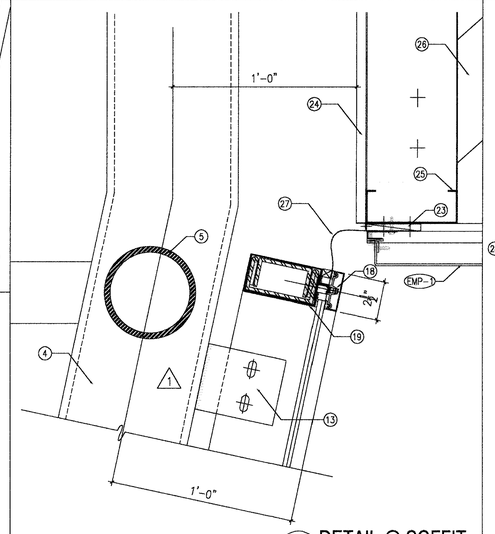
KEYED NOTES:

1. STEEL PIPE STRUCTURAL FRAME CLAD WITH CURTAIN WALL CW–5 – PAINT
2. CONCRETE STAIR – PAINT
3. CONCRETE BEAM UNDER FLIGHT OF STAIR
4. 8" STRUCTURAL STEEL PIPE COLUMN– PAINT
5. 6" HORIZONTAL STEEL PIPE WELDED TO MAIN POST – PAINT
6. GLASS TYPE GL–4 REFER TO GLASS SCHEDULE A2.850
7. SILICONE WEATHER SEAL – MATCH COLOR OF GLASS INTERLAYER 1
8. CUSTOM EXTRUDED MULLION @ ANGLE
9. STRUCTURAL SILICONE AND SPACER BARS – MATCH COLOR OF GLASS INTERLAYER 1
10. STEEL ANGLE ANCHORED IN CONCRETE COLUMN – PAINT
11. 1/2" STEEL PLATE WELDED TO 6" PIPE ANCHORED TO CONCRETE PAINT
12. VERTICAL MULLION WITH BUTT GLAZING 1
13. U SHAPE STEEL CLIP– 1/4" THICK – WELD TO STEEL COLUMN NUMBER AS REQUIRED (SAME NUMBER AND SAME ELEVATIONS PER COLUMN) – PAINT SLOTTED HOLES – SHIM AS REQUIRED
14. 4" HORIZONTAL STEEL PIPE – PAINT
15. ALUMINIUM CLIP INSIDE HORIZONTAL MULLION – SECURE TO VERTICAL MULLION
16. MECHANICAL LOUVER SET INSIDE MULLION
17. STEEL REINFORCING AS REQUIRED FOR WIND LOAD
18. ALUMINIUM COVER – POWDERCOATED
19. HORIZONTAL ALUMINIUM MULLION 6 1/4" x 2 –1/2" – POWDERCOATED 1
20. VERTICAL ALUMINIUM MULLION 6 1/4" x 2 –1/2" – POWDERCOATED
21. 1/8" THICK ALUMINIUM SHEET – BENT – POWDERCOATED
22. SEALANT AND BACKER ROD
23. SHIM
24. 5/8" GYPSUM BOARD – PAINT
25. 6" METAL STUD – 16 GA – 16 O.C.
26. BRACING AS REQUIRED
27. EXPANSION JOINT ASSEMBLY: EPDM MEMBRANE 1
28. ANGLE SLIGHTLY DIFFERENT AT SLOPE CURTAIN WALL @ SIM TO BE FIELD VERIFIED

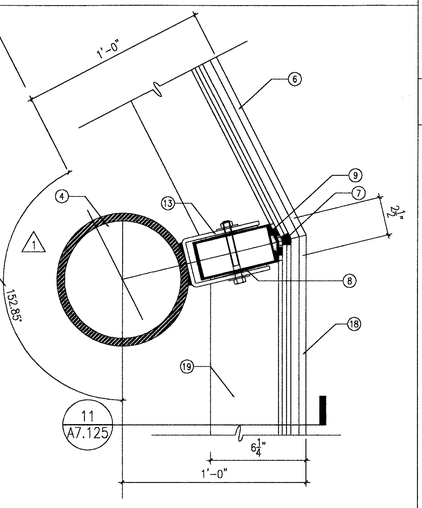




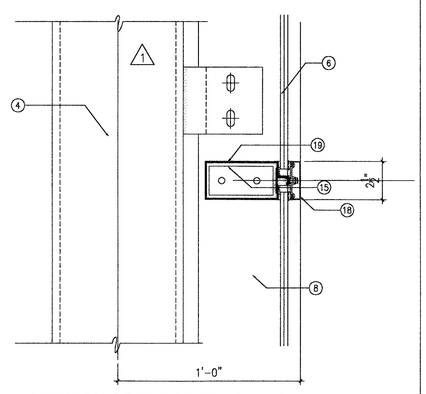
07 A7.125 CONNECTION @ STAIR LANDING
3"=1'-0"



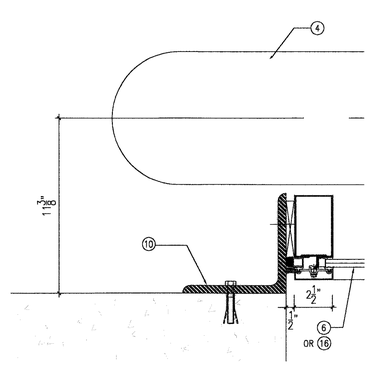
06 A7.125 DETAIL @ SOFFIT
3"=1'-0"



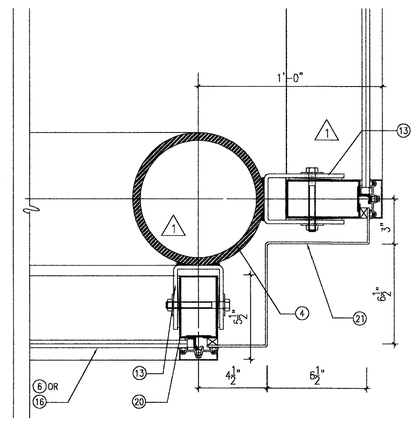
05 A7.125 DETAIL @ ANGLE
3"=1'-0"



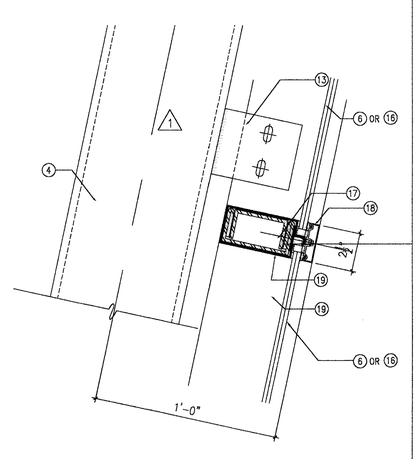
11 A7.125 MULLION CONNECTION @ ANGLE
3"=1'-0"



10 A7.125 DETAIL @ CONCRETE COLUMN
3"=1'-0"



09 A7.125 PLAN DETAIL @ ANGLE
3"=1'-0"



08 A7.125 HORIZONTAL MULLION @ SLOPE CURTAIN WALL
3"=1'-0"

RECORD DRAWINGS
DO NOT MODIFY
Rey de la Reza Architects, Inc.
13 May 2005

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REVISIONS			
NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
1	ADDENDUM 1	02/01/02	SG
2	RECORD SET	05/13/05	EM

INTERNATIONAL ✦ SERVICES ✦ EXPANSION ✦ PROGRAM

APM STATION + PLATFORM

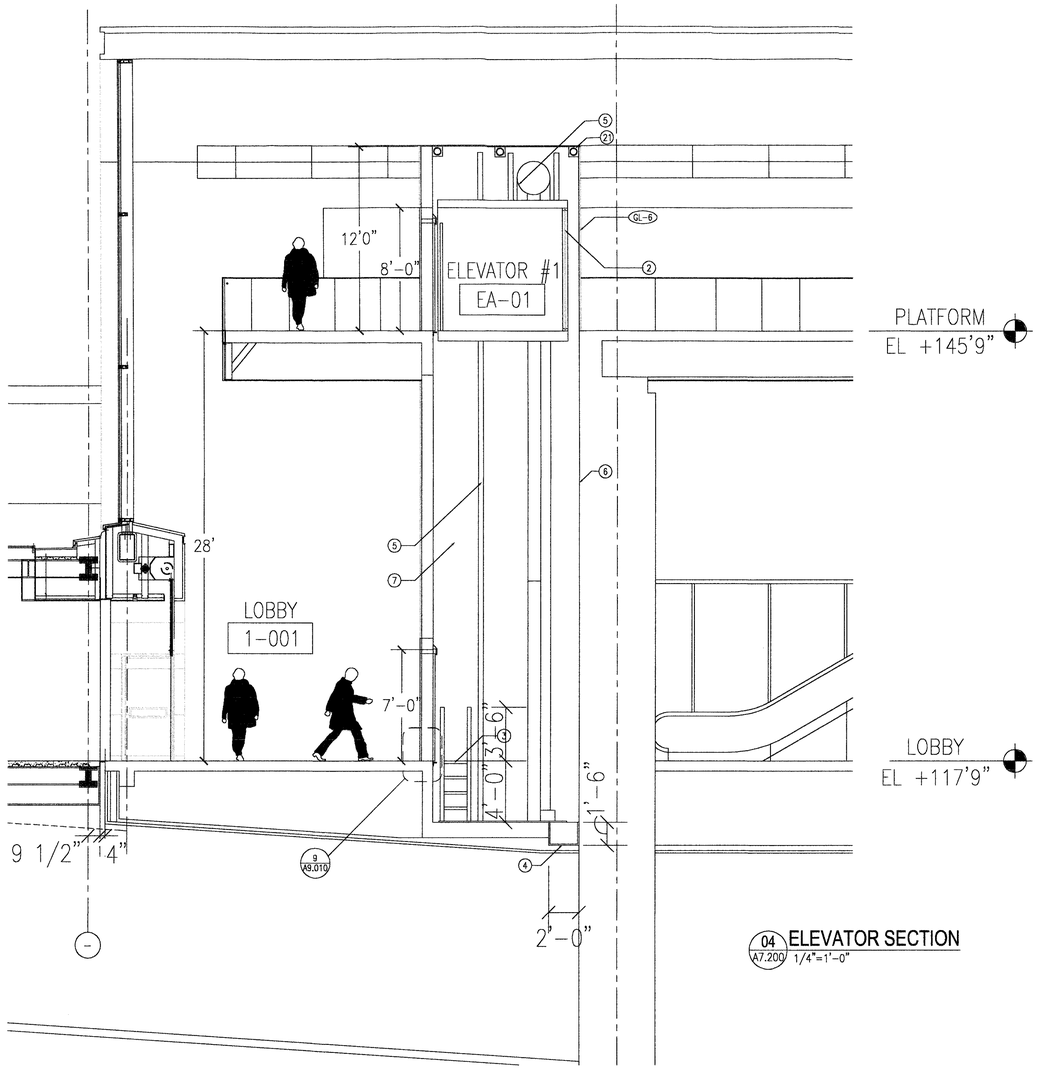
STAIR2 – CURTAIN WALL CW-5 DETAILS

PROJECT MGR:	HEM
DESIGNER:	SG
DRAWN BY:	SEM
CHECKED BY:	AB
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	AS NOTED
DATE:	09/14/01

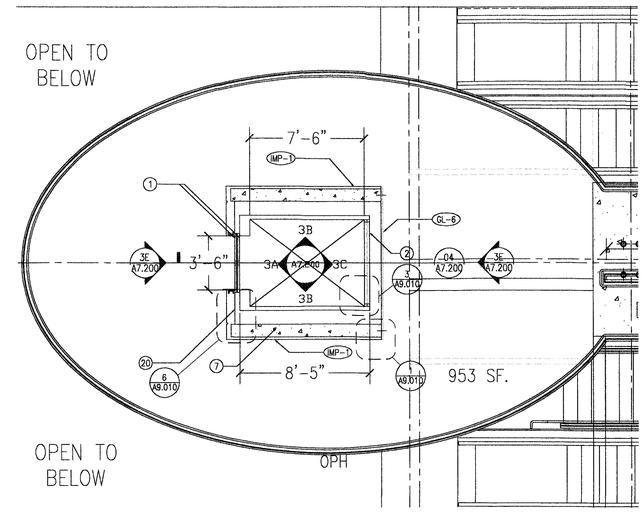
REGISTERED ARCHITECT Rey de la Reza STATE OF TEXAS #6512-0

APPROVED BY:	DATE:
DIRECTOR HOUSTON AIRPORT SYSTEM	
PROJECT NO.	1140
C.I.P. NO.	A–0354
H.A.S. NO.	536C
SHEET NO.	A7.125

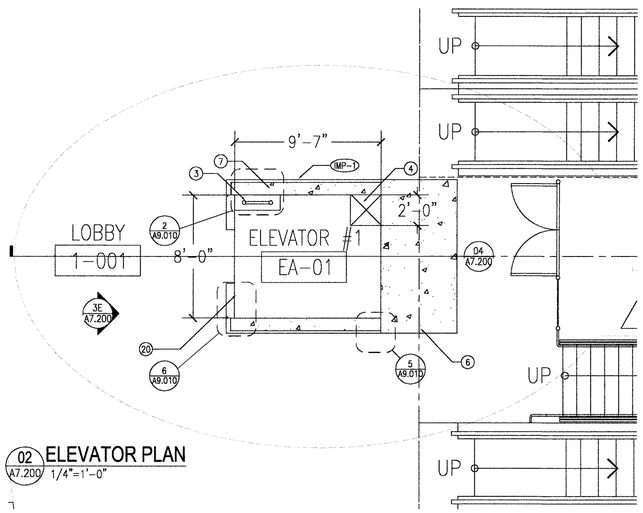
PLOT DATE: 02/04/02 HAS FILE:A536CA7125



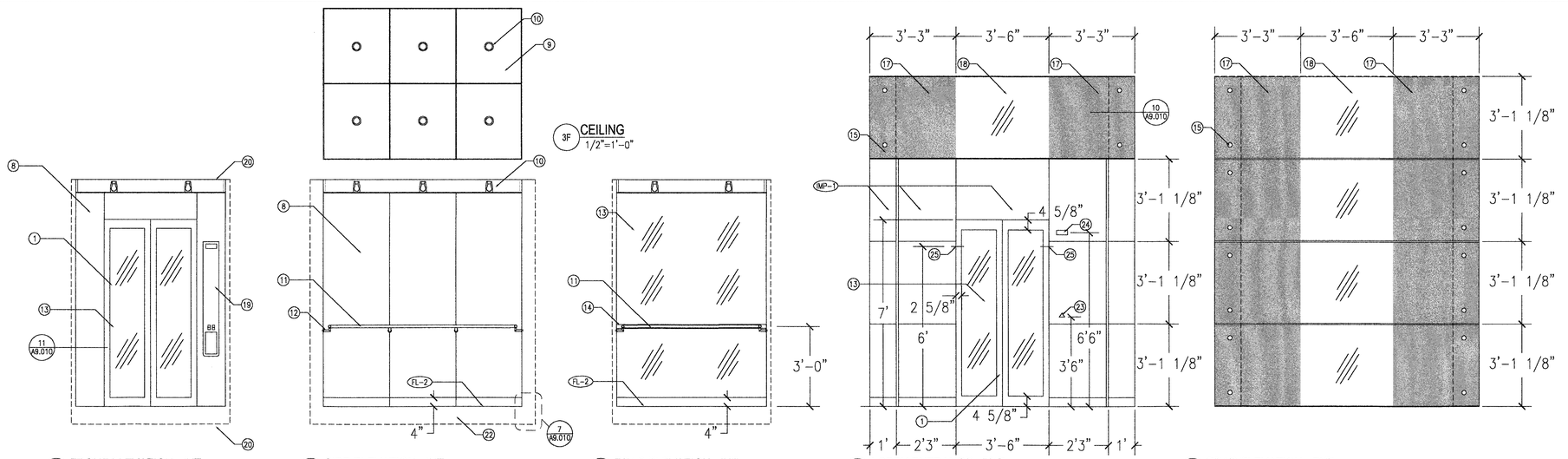
04 A7.200 ELEVATOR SECTION 1/4"=1'-0"



01 A7.200 ELEVATOR PLAN 1/4"=1'-0"



02 A7.200 ELEVATOR PLAN 1/4"=1'-0"



03 A7.200 TYPICAL INTERIOR ELEVATIONS @ ELEVATOR 1/2"=1'-0"

GENERAL NOTES:

GL-6 1/2" THK LAMINATED GLASS WITH PARTIAL WHITE INTERLAYER

FL-2 TERRAZZO FLOOR TYPE 2

IMP-1 INTERIOR STAINLESS STEEL WALL PANELS

KEYED NOTES:

1. GLASS DOORS @ HOISTWAY AND CAB – CENTER OPENNING FRAME SSTL CLAD
2. GLASS BACK @ CAB
3. LADDER – GALVANIZED STEEL–SECURE TO CONCRETE STRUCTURE – RE A9.010
4. SUMP PIT
5. ALL VISIBLE EQUIPMENT – PAINT
6. CONCRETE COLUMN – PAINT
7. CONCRETE WALLS – PAINT
8. SSTL CLADDING – 1/16" THK MIN – NON– DIRECTIONAL MACHINE POLISH
9. STAINLESS STEEL CEILING PANELS
10. DOWNLIGHT
11. SSTL HANDRAIL
12. HANDRAIL SUPPORT – SSTL
13. 1/2 " THK TEMPERED GLASS – CLEAR
14. INTERMEDIATE SSTL MULLION
15. SSTL GLASS BRACKET – 2" DIA. MAX – SECURE TO CONCRETE WALL
16. NOT USED
17. PART OF LAMINATED GLASS PANEL WITH WHITE INTERLAYER
18. PART OF LAMINATED GLASS PANEL CLEAR
19. CONTROL PANEL– SSTL
20. SHEET METAL CLADDING – POWDERCOATED
21. STEEL BEAM – RE STRUCTURAL – PAINT
22. CAB FRAME BY CAB MANUFACTURER
23. CALL BUTTONS
24. HALL LANTERN
25. TACTILE AND BRAILLE FLOOR SIGN @ BOTH JAMB

RECORD DRAWINGS
DO NOT MODIFY
Rey de la Reza Architects, Inc.
13 May 2005
Note: Information used to develop these documents was taken from Record of the Work Drawings prepared by the construction contractor, Cark Construction Group - Texas.
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NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

0' 2' 4' 8' 12'

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

HOUSTON AIRPORT SYSTEM
GEORGE BUSH INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

Lea Elliott
1009 W.RANDOL MILL RD.
ARLINGTON,TX,76012
Tel: 817.261.1446
Tel: 817.861.3286

REY DE LA REZA ARCHITECTS, INC
ARCHITECTURE PLANNING INTERIOR DESIGN
1245 WEST 18TH ST.
HOUSTON,TX,77008
Tel: 713.868.3121
Tel: 713.802.0112

REVISIONS

NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
	RECORD SET	05/13/05	EM

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION + PLATFORM
ELEVATOR PLANS AND SECTION

PROJECT MGR:	HEM
DESIGNER:	SG
DRAWN BY:	SEM
CHECKED BY:	AB
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	1/4"=1'0"
DATE:	09/14/01

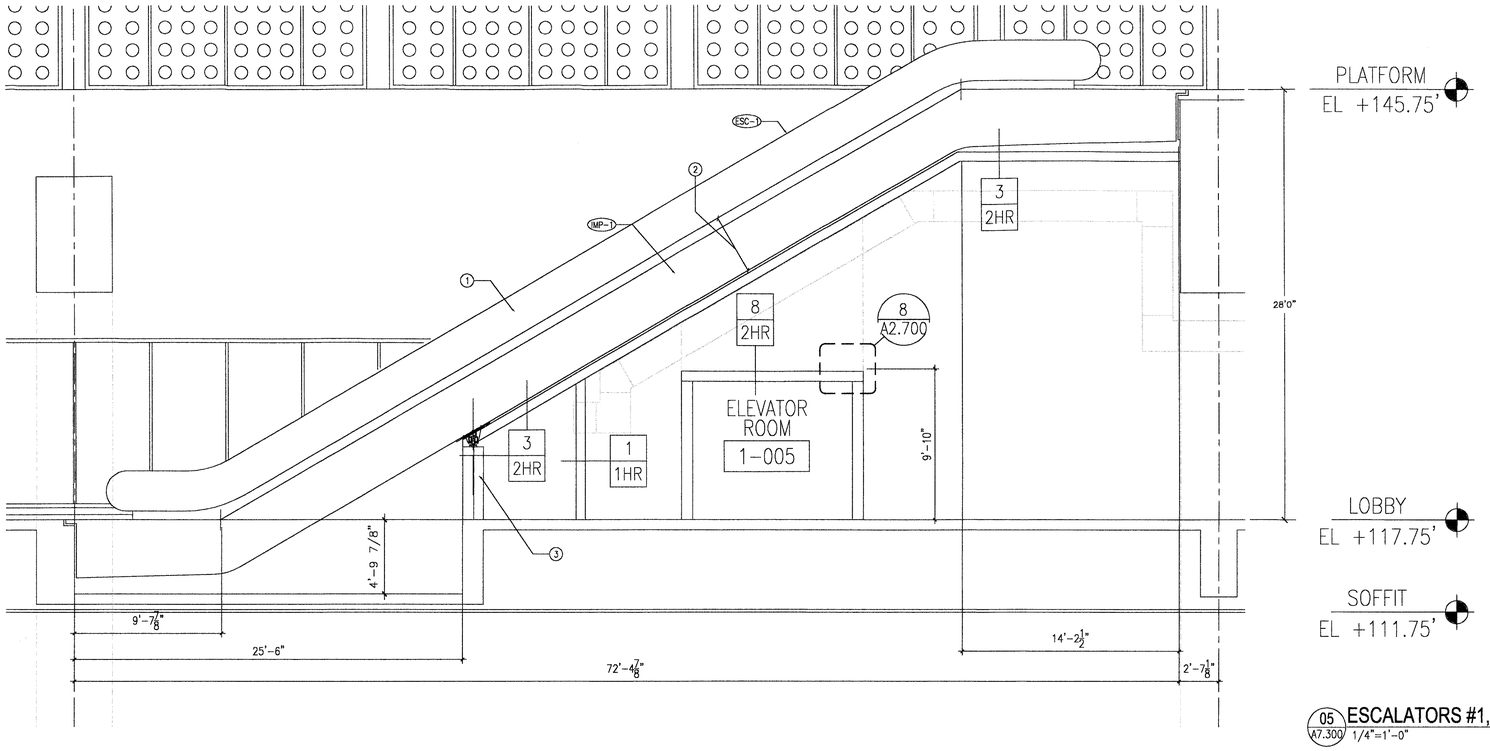
REGISTERED ARCHITECT Rey de la Reza 4612-6 STATE OF TEXAS

APPROVED BY: DATE:

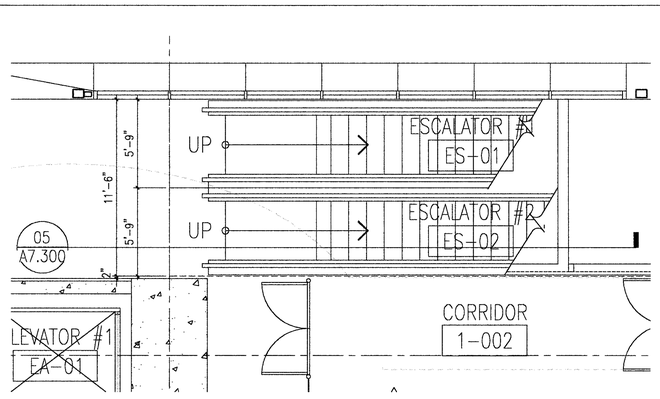
DIRECTOR HOUSTON AIRPORT SYSTEM

PROJECT NO.	1140
C.I.P. NO.	A–0354
H.A.S. NO.	536C
SHEET NO.	A7.200

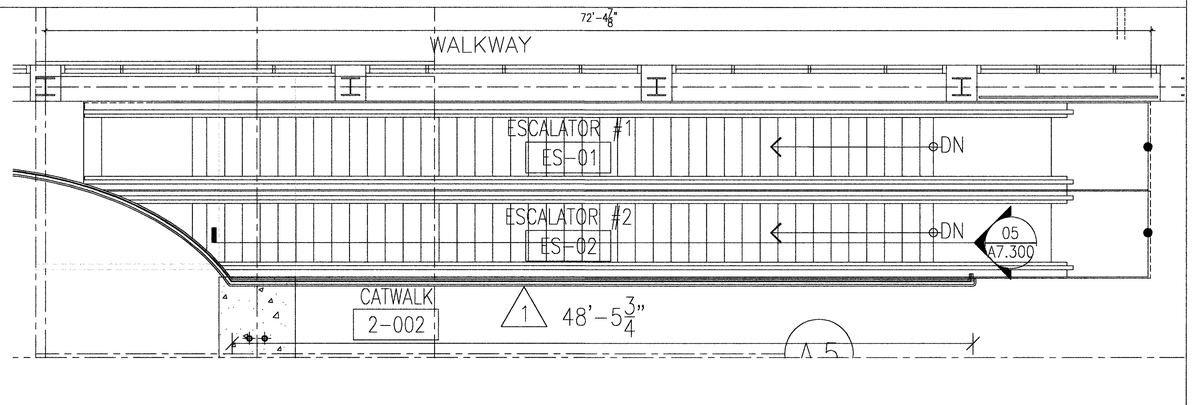
PLOT DATE: 02/04/02 H4S FILE:H4536C\7200



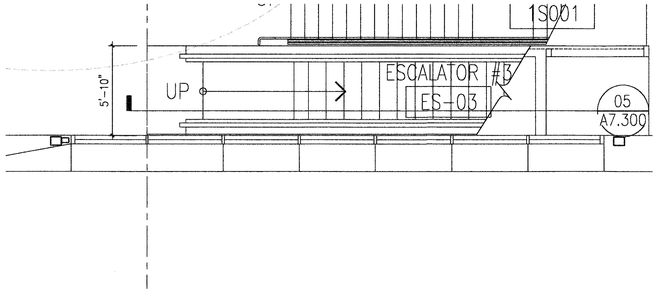
05 A7.300 ESCALATORS #1, #2 & #3
1/4"=1'-0"



01 A7.300 ESCALATOR #1 & #2 PLAN
1/4"=1'-0"



02 A7.300 ESCALATOR #1 & #2 PLAN
1/4"=1'-0"



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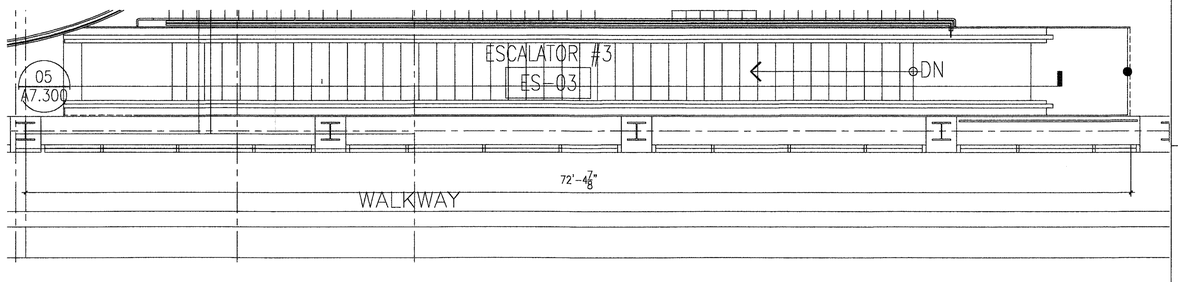
1/4"=1'-0"



04 A7.300 ESCALATOR #3 PLAN
1/4"=1'-0"

GENERAL NOTES:

(ESC-1) MONTGOMERY KONE TRANSIT ESCALATOR OR EQUAL WITH GLASS BALUSTRADE

(IMP-1) INTERIOR STAINLESS STEEL WALL PANELS

KEYED NOTES:

1. GLASS BALUSTRADE
2. SSTL CLAD ON EVERY VISIBLE FACE
3. CONCRETE SUPPORT – RE STRUCTURAL

NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

0' 2' 4' 8' 12'

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

RECORD DRAWINGS
DO NOT MODIFY
Rey de la Reza Architects, Inc.
13 May 2005
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HOUSTON TEXAS

Lee Elliott
1099 W.RANDOL MILL RD.
ARLINGTON,TX,76012
Tel: 817.261.1445
Tel: 817.861.3295

REY DE LA REZA ARCHITECTS, INC.
ARCHITECTURE PLANNING INTERIOR DESIGN
1245 WEST 18TH ST.
HOUSTON,TX,7708
Tel: 713.869.3121
Tel: 713.802.0112

REVISIONS

NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
1	ADDENDUM 1	02/01/02	SG
2	RECORD SET	05/13/05	EM

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION + PLATFORM

ESCALATORS 1, 2 AND 3
PLANS AND SECTION

PROJECT MGR:	HEM
DESIGNER:	SG
DRAWN BY:	SEM
CHECKED BY:	AB
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	1/4"=1'0"
DATE:	09/14/01

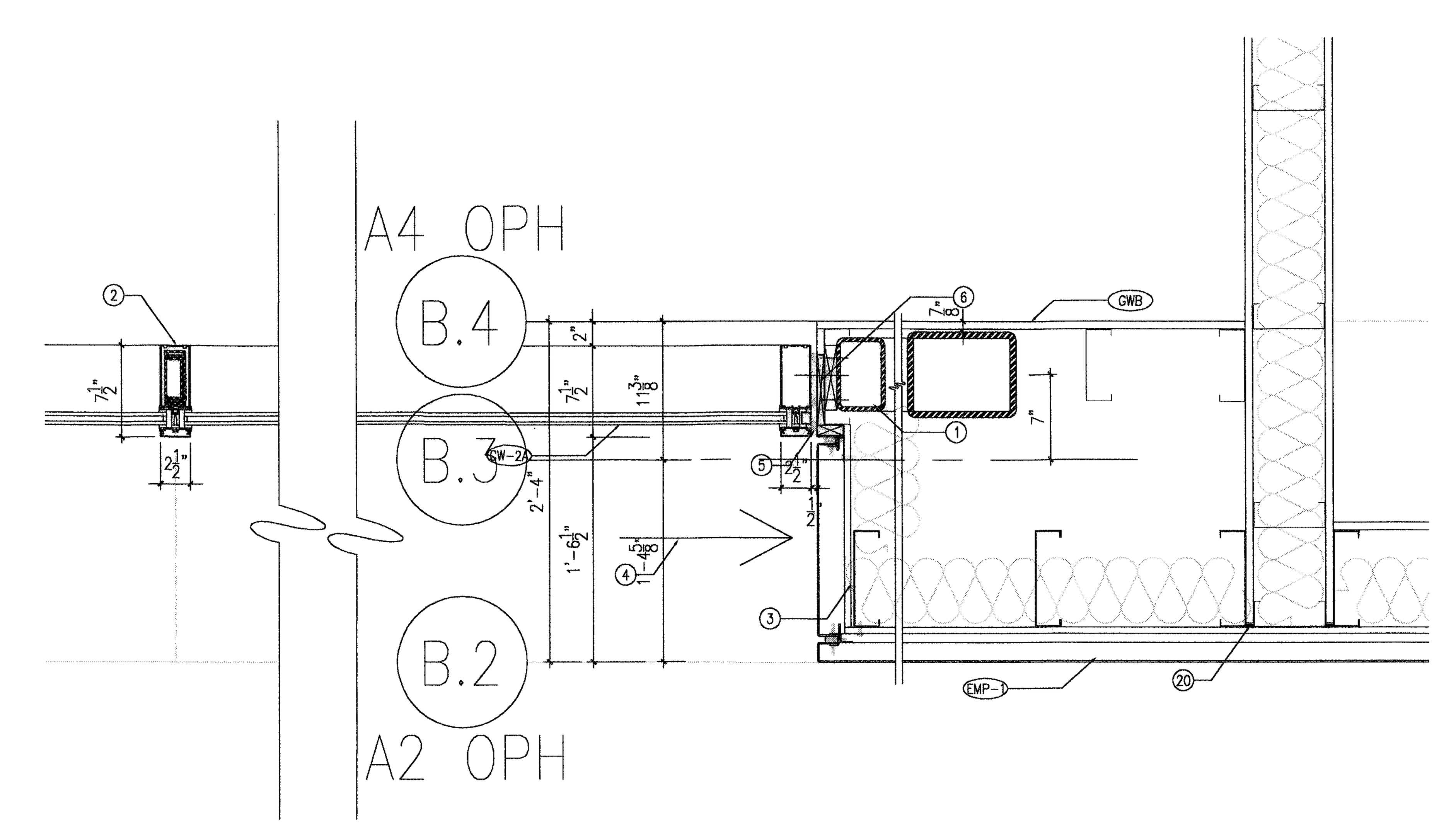
REGISTERED ARCHITECT Rey de la Reza 4612-5 STATE OF TEXAS

APPROVED BY: DATE:

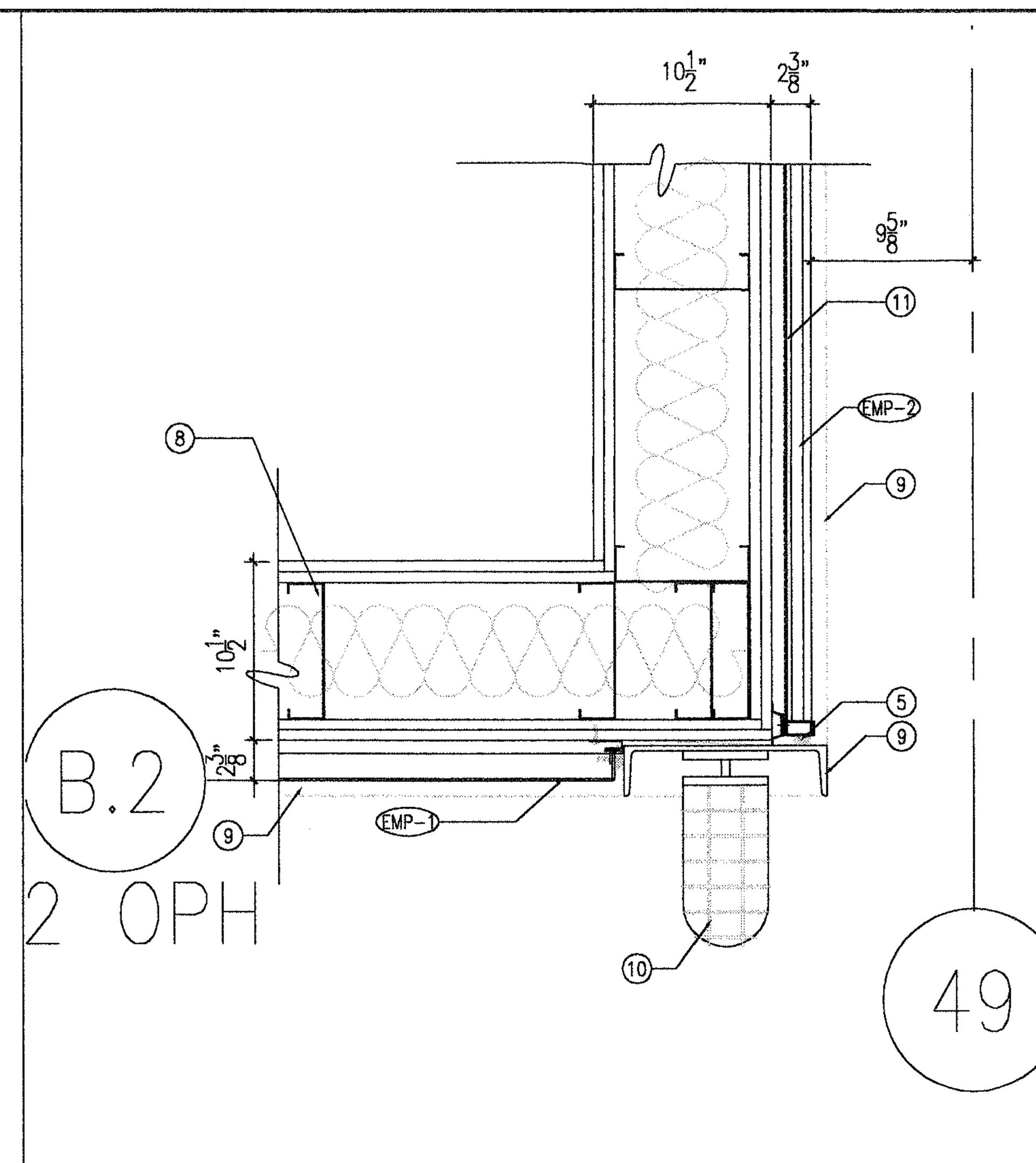
DIRECTOR HOUSTON AIRPORT SYSTEM

PROJECT NO.	1140
C.I.P. NO.	A-0354
H.A.S. NO.	536C
SHEET NO.	A7.300

PLOT DATE: 02/04/02 HAS FILE:1A536CA7300



03 WALL DETAIL
A8.000 1 1/2"=1'-0"



02 WALL DETAIL
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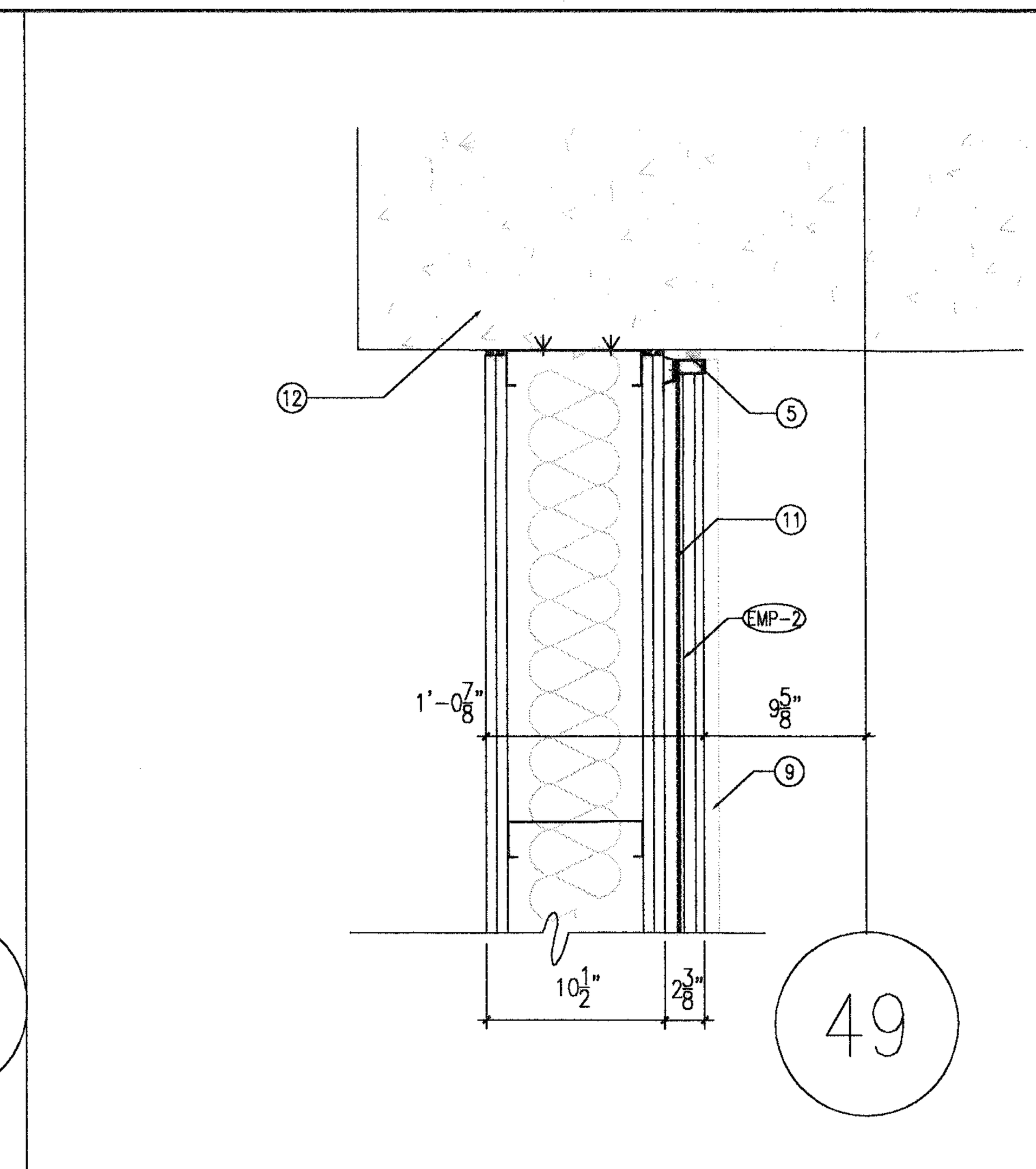

01 WALL DETAIL
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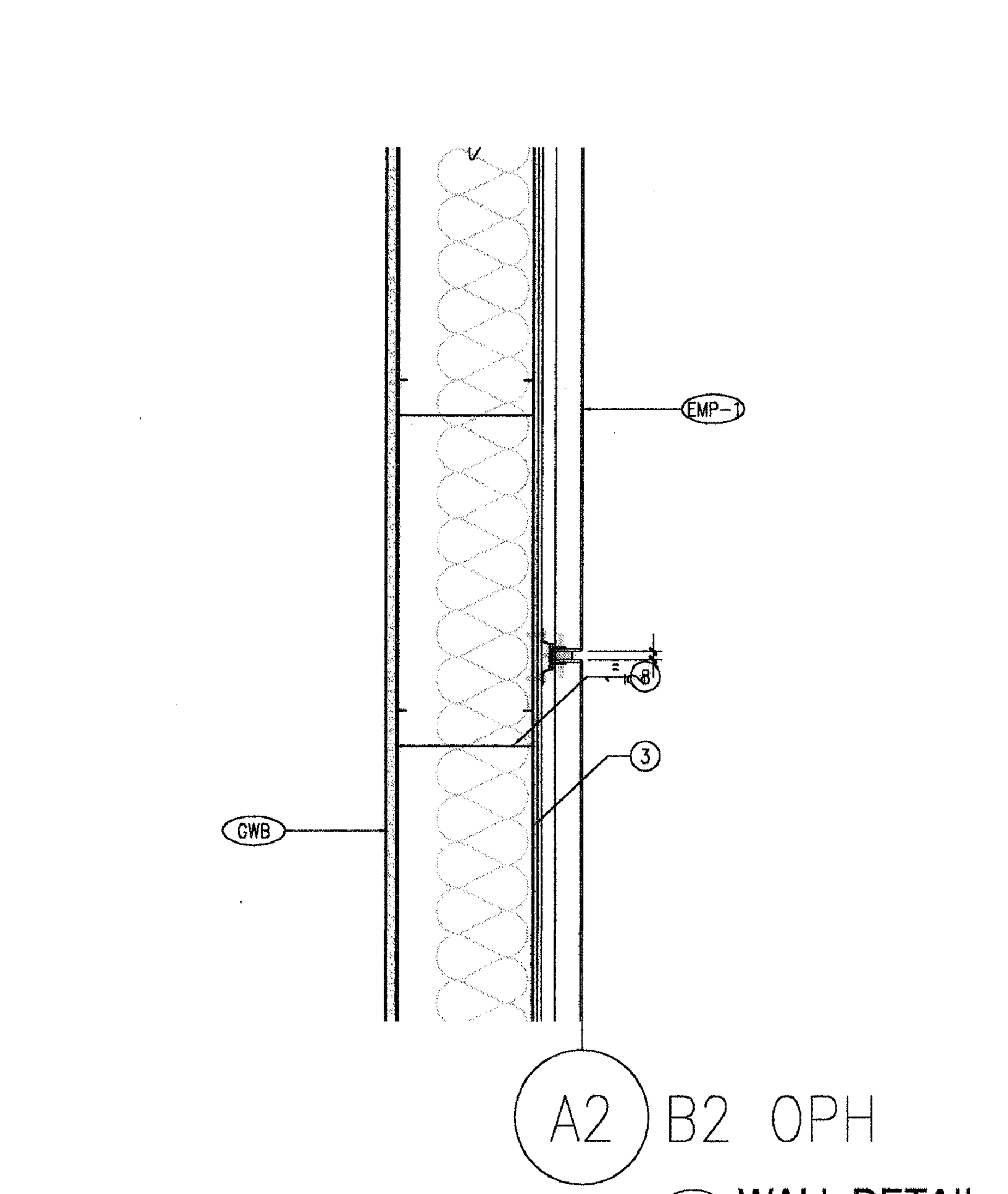

10 WALL DETAIL
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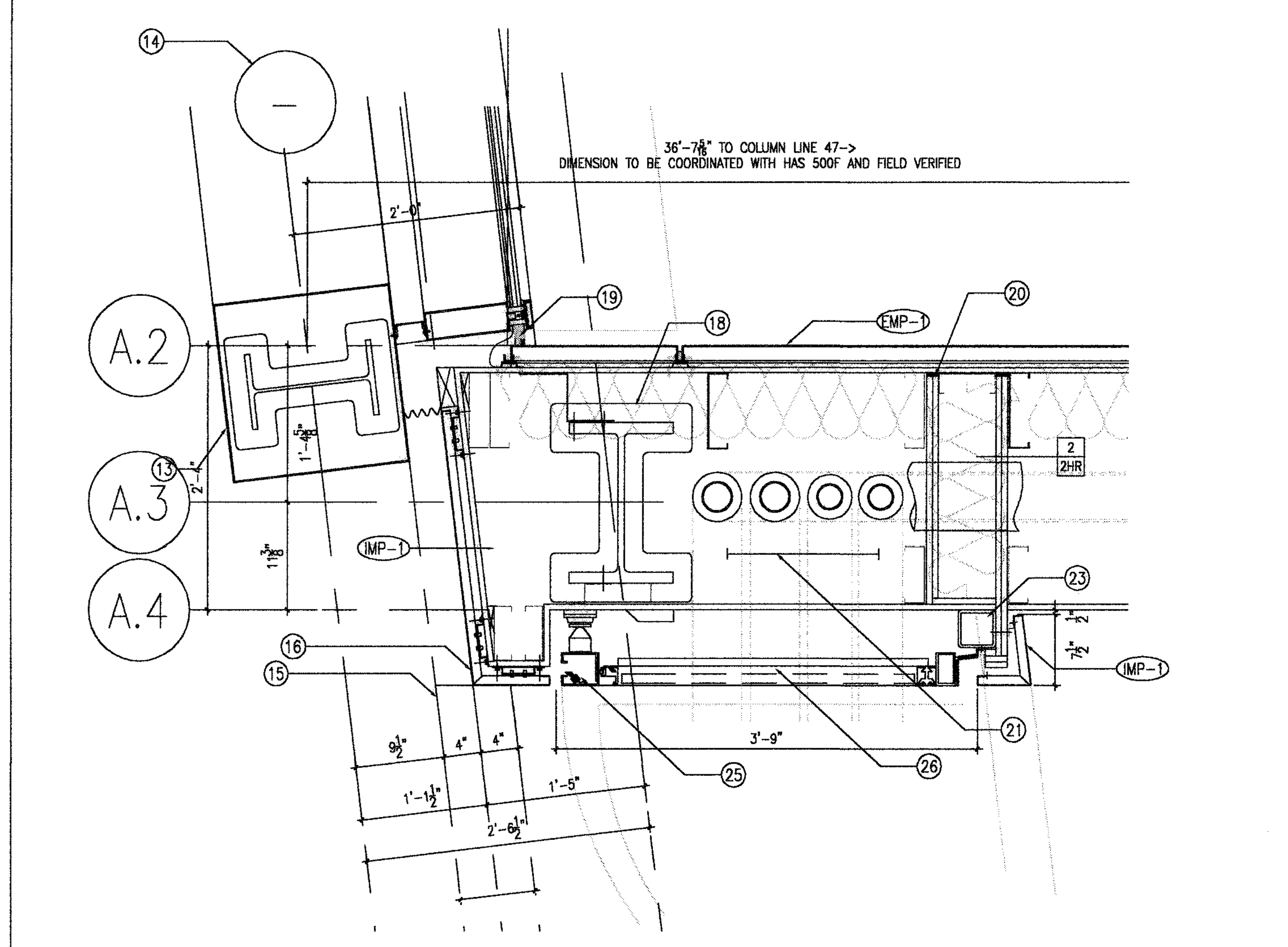

05 WALL DETAIL
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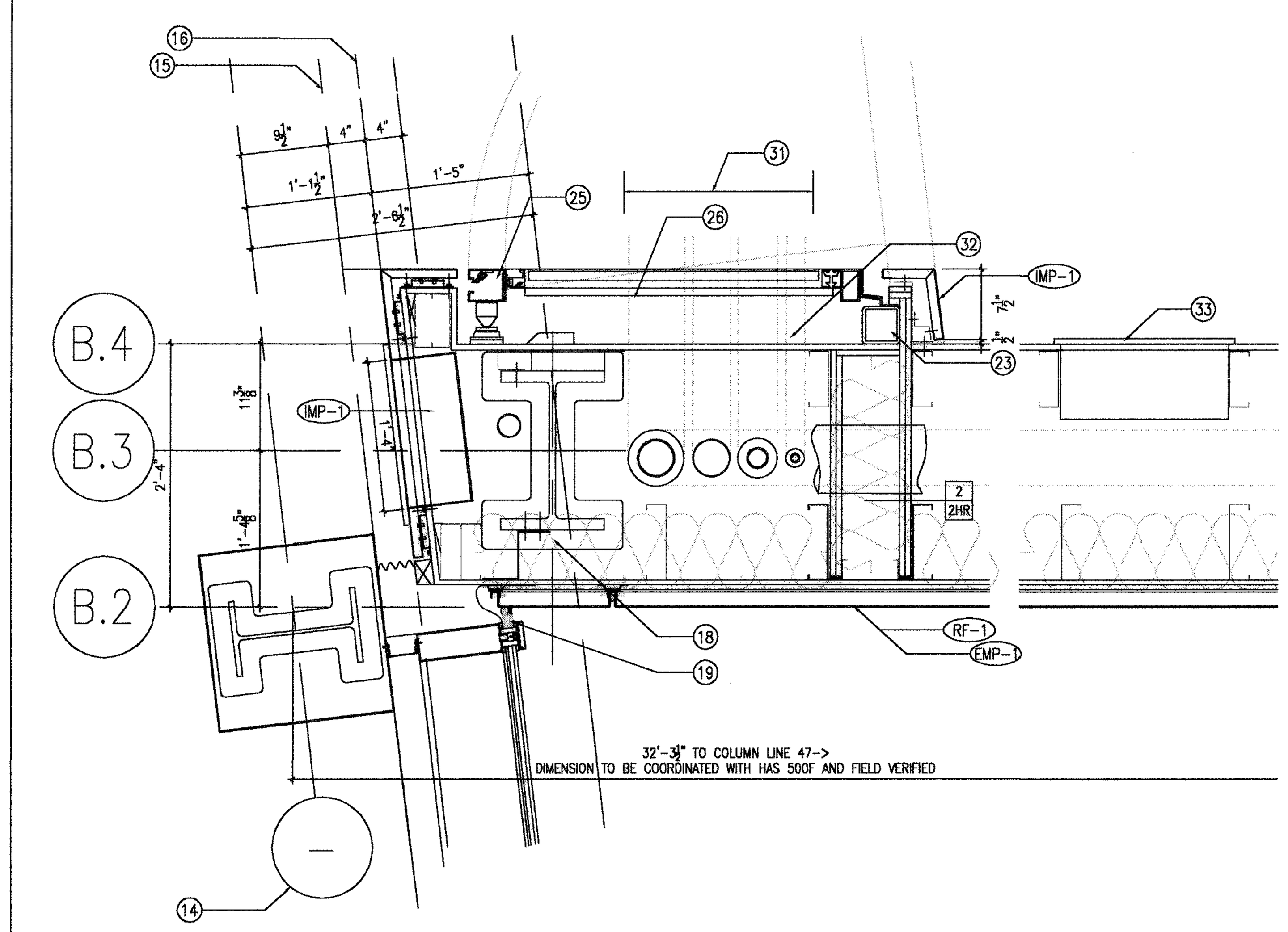

04 WALL DETAIL
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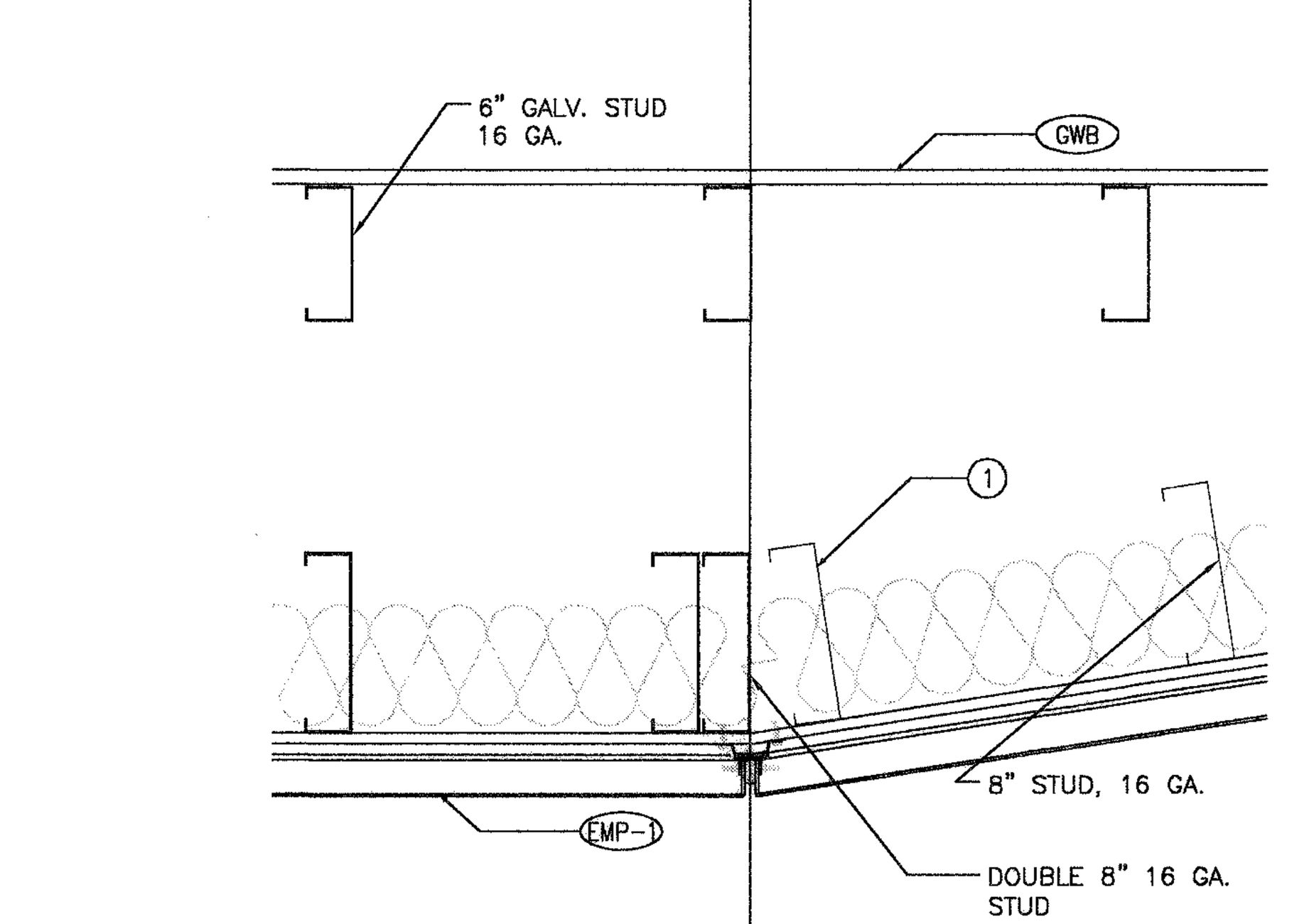

07 WALL DETAIL
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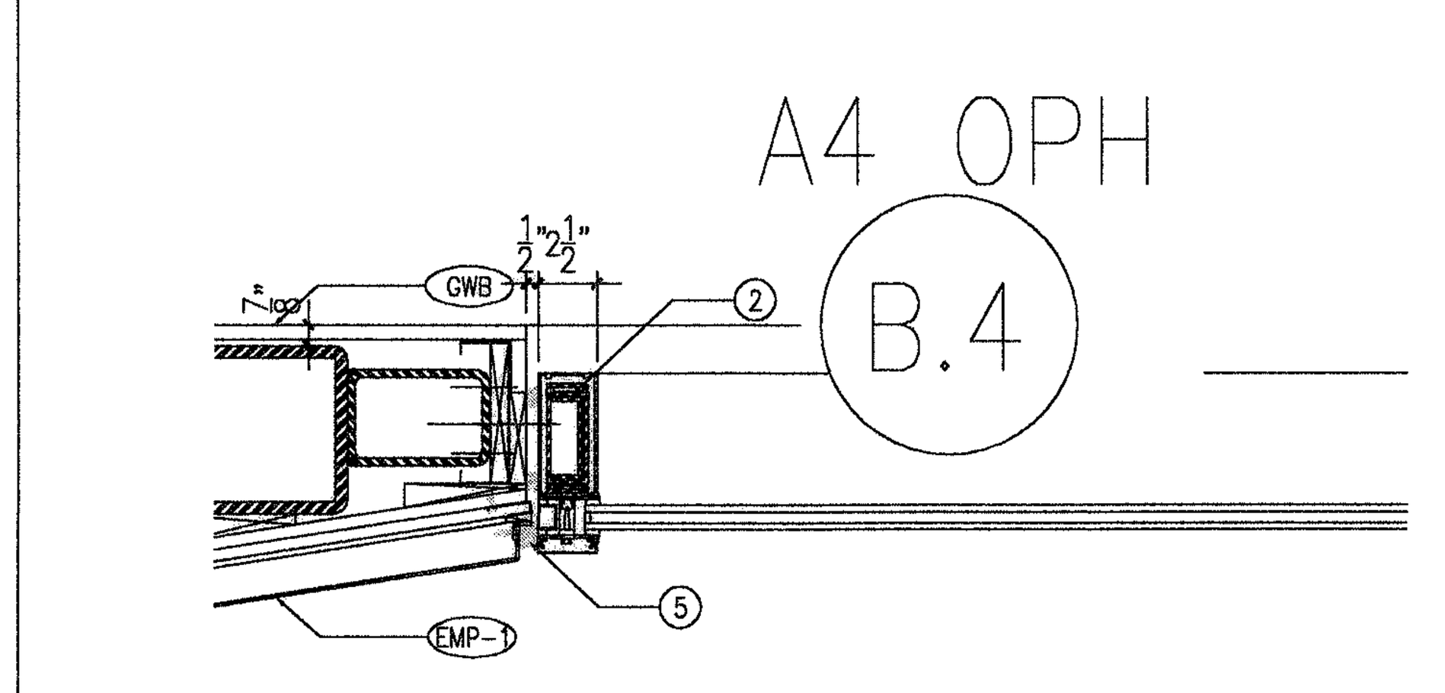

06 WALL DETAIL
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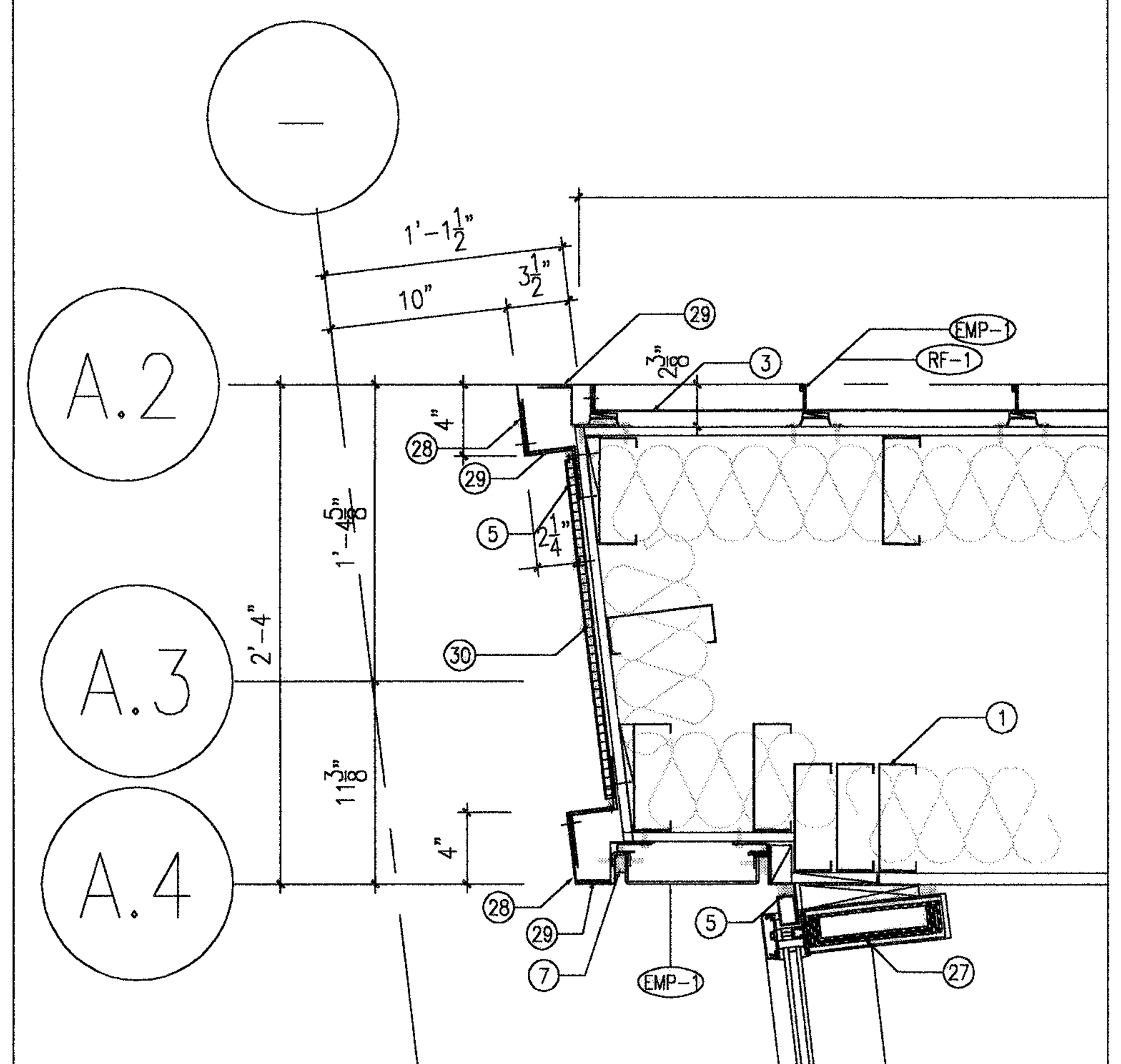

09 WALL DETAIL
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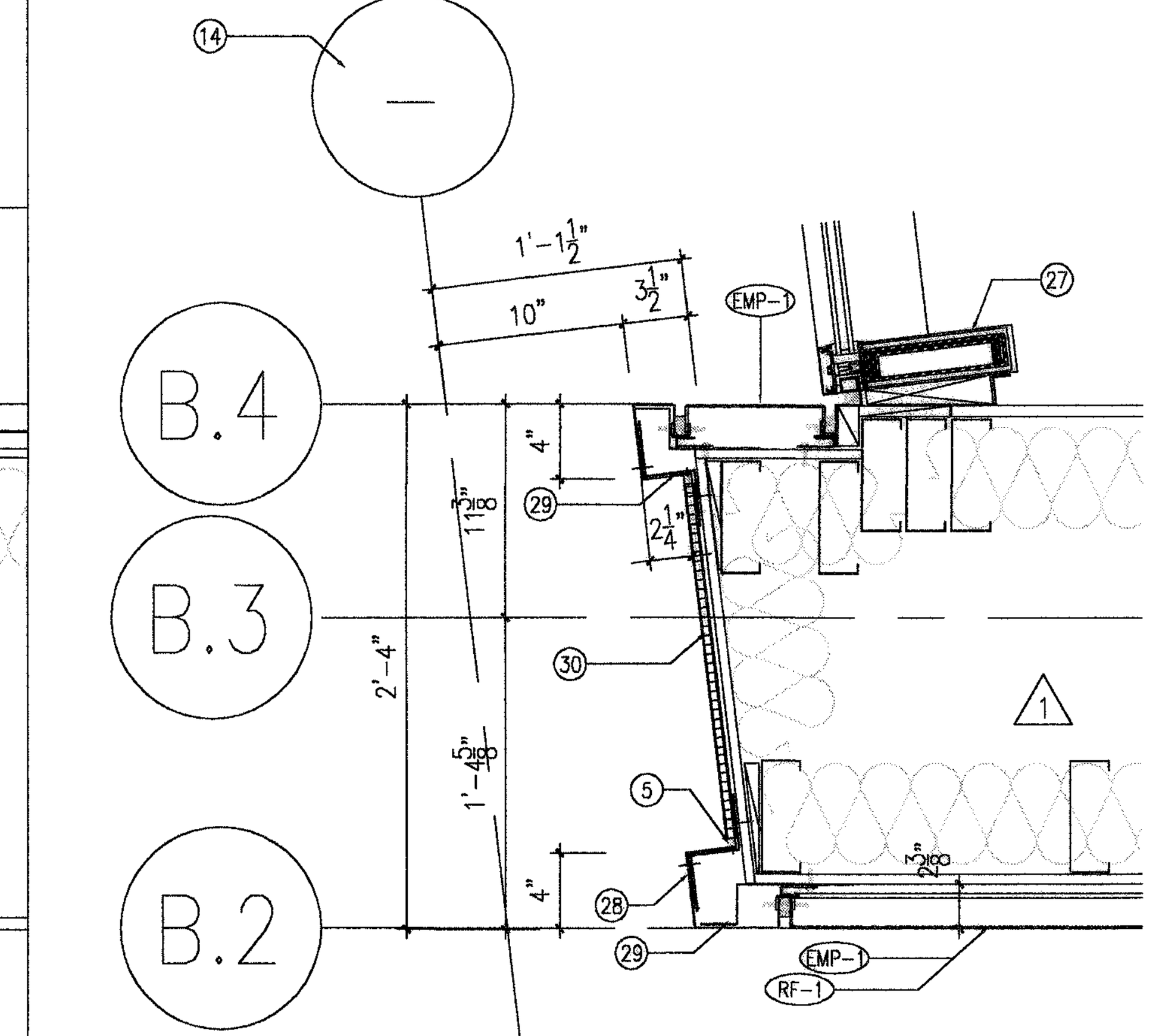

08 WALL DETAIL
A8.000 1 1/2"=1'-0"

GENERAL NOTES:

- (CW-2A) CURTAINWALL SYTEM TYPE 2A – RE WINDOW SCHEDULE SHEET A2.850
- (CW-4) INTEGRATED STRUCTURAL CURTAINWALL SYTEM TYPE 4 – RE WINDOW SCHEDULE SHEET A2.850
- (EMP-1) EXTERIOR POWDERCOATED WALL METAL PANELS – ALUMINIUM PANEL 1/8" THICK – TYPE SERIES 3000 MODIFIED FROM UNA–CLAD – COPPER SALES OR EQUAL –POWDERCOATED KYNAR 500
- (EMP-2) POWDERCOATED ALUMINIUM LOUVERS –WITH INSECT MESH WHEN USED BY MECHANICAL –CLOSED WITH 1/8" THK ALUMINIUM SHEET WELDED CONTINUOUSLY TO FRAME WHEN NOT USED BY MECHANICAL – RE: MECHANICAL FOR OPENINGS
- (RF-1) STANDING SEAM METAL ROOF– TYPE UC3 FROM UNA–CLAD – COPPER SALES OR EQUAL– POWDERCOATED KYNAR 500: COLOR#2 SILVER METALLIC
- (GWB) PAINT 5/8" HI–IMPACT GYPSUM BOARD ON METAL STUDS
- (IMP-1) INTERIOR STAINLESS STEEL WALL PANELS – NGAGE SYSTEM BY BAKER METAL PRODUCTS INC. OR EQUAL – 1/16" THK MIN – MULTI DIRECTIONAL MACHINE POLISH

KEYED NOTES:

1. METAL STUD CONSTRUCTION W/ BATT INSULATION
2. 2 1/2" x 7 1/2" ALUMINIUM VERTICAL MULLION – POWDERCOATED– STEEL REINFORCING AS REQUIRED FOR WIND LOADS
3. 1/2" SHEATHING
4. SLOPED METAL PANEL – TYPE EMP–1
5. SEALANT & BACKER ROD
6. SHIM
7. PRECOMPRESSED EXPANDING FOAM SEALANT TYPE COLORSEAL BY EMSEAL OR EQUAL. STANDARD COLOR TO MATCH COLOR OF METAL PANELS
8. 8" METAL STUD @16" O.C. – 16 GA
9. 12" ALUMINIUM CHANNEL – BOLT TO STUDS BY CONNECTING PLATE WELD PRIOR PAINTING TO CHANNEL BACK – POWDERCOATED – JOINTS PERFECTLY ALIGNED WITH CONSTRUCTION GRID – MIN LENGTH FOR HORIZONTAL CHANNEL 20'–0"
10. BLUE SAFETY LIGHT
11. ALUMINIUM SHEET WELD TO FRAME @ BACK OF LOUVERS WHEN LOUVERS NOT USED BY MECHANICAL – RE MECHANICAL FOR OPENINGS
12. CONCRETE COLUMN – PAINT
13. STEEL COLUMN & CLADDING @ SECURE BRIDGE N.I.C. BY HAS 500F
14. FIS SECURE BRIDGE COLUMN GRID LINE – HAS 500F – LOCATION TO BE COORDINATED WITH HAS 500F
15. EDGE OF SECURE BRIGE SLAB – HAS 500F
16. EDGE OF SLAB @ LOBBY
17. 8" DILATATION JOINT – N.I.C. – BY PROJECT 500F
18. W COLUMN WITH 3 HR FIREPROOFING
19. COMPRESSIBLE JOINT BY OTHERS – 500F – N.I.C.
20. SEALANT
21. CHS, CHR, HWS, HWR SUPPLY– RE MECHANICAL
22. 2HR RATED PENETRATION THROUGH 2HR PARTITION – UL SYSTEM N–C–5028
23. 4" STEEL TUBE SUPPORT OF 2 HR ROLLING DOOR – TO BE COORDINATED WITH ROLLING DOOR MANUFACTURED – WELDED TO 4" X 12" BEAM ABOVE
24. MAGNETIC HOLDER
25. SWINGING DOOR FRAME –SSTL CLAD ON VISIBLE FACE– RE MC KEON 2HR FIREDOOR
26. SWINGING EGRSS DOOR – SSTL CLAD ON VISIBLE FACE– RE MC KEON 2HR FIREDOOR
27. 2 1/2" x 10 1/2" VERTICAL ALUMINIUM MULLION – POWDERCOATED – STEEL REINFORCING AS REQUIRED FOR WIND LOADS
28. SHEET METAL – POWDERCOATED – FIXED BY POP RIVETS TO STEEL Z
29. STEEL Z @ ANGLE – CURVED @ ROOF – 1/8" THK.
30. HONEYCOMBED ALUMINIUM PANEL – 1/2" THK.– POWDERCOATED
31. SPRINKLER, FIRELINE TO FIRE VALVE CABINET, DOMESTIC WATER, ELECTRICAL CONDUIT – RE PLUMBING AND ELECTRICAL
32. RECESSED FIRE VALVE CABINET
33. FIRE VALVE AND FIRE EXTINGUISHER CABINET
34. 4" STEEL VALVE COLUMN UP TO CONCRETE BEAMS ABOVE – CURTAIN WALL STRUCTURE – RE STRUCTURAL

△1

RECORD DRAWINGS
DO NOT MODIFY
Rey de la Reza Architects, Inc.
13 May 2005

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GEORGE BUSH
INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

Lea+Elliott
1009 W.RANDOL MILL RD.
ARLINGTON,TX,76012
Tel: 817.261.1446
Tel: 817.861.3296

REY DE LA REZA ARCHITECTS, INC.
ARCHITECTURE PLANNING INTERIOR DESIGN
1245 WEST 18TH ST.
HOUSTON,TX,77008
Tel: 713.868.3121
Tel: 713.802.0112

REVISIONS

NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
1	ADDENDUM 1	02/01/02	SG
2	RECORD SET	05/13/05	EM

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION + PLATFORM

PLAN DETAILS

PROJECT MGR:	HEM
DESIGNER:	SG
DRAWN BY:	SEM
CHECKED BY:	AB
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	AS NOTED
DATE:	09/14/01

REGISTERED ARCHITECT
Rey de la Reza
4612-8
STATE OF TEXAS

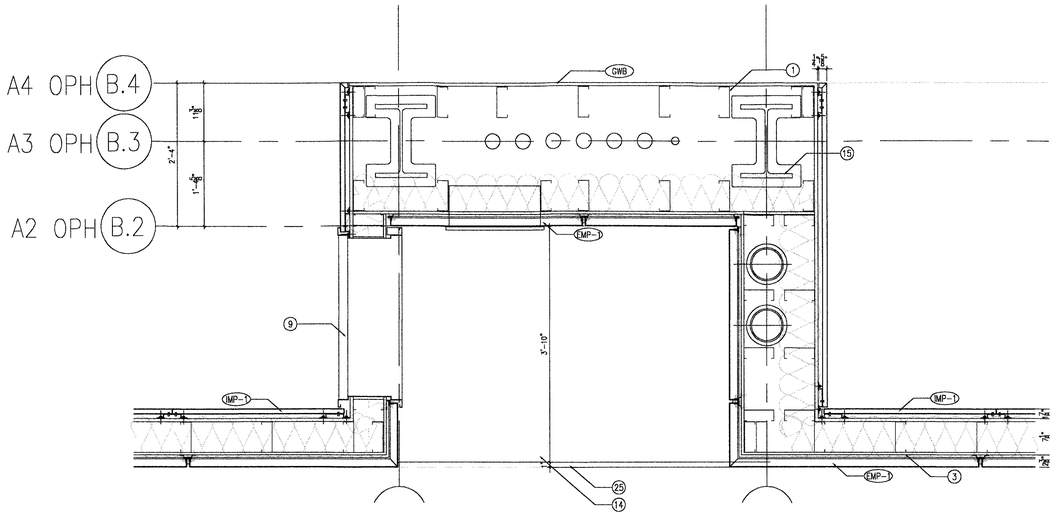
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

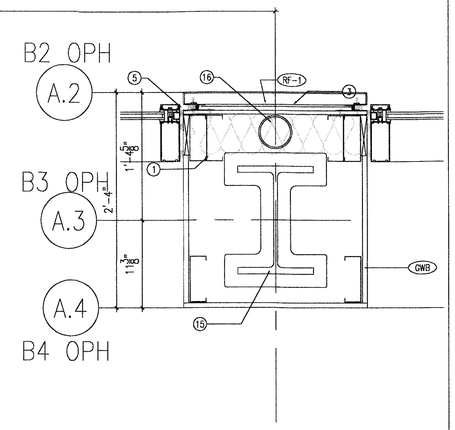
PROJECT NO.	1140
C.I.P. NO.	A–0354
H.A.S. NO.	536C
SHEET NO.	A8.000

41

PLOT DATE: 02/04/02 HAS FILE:IA536CA8000



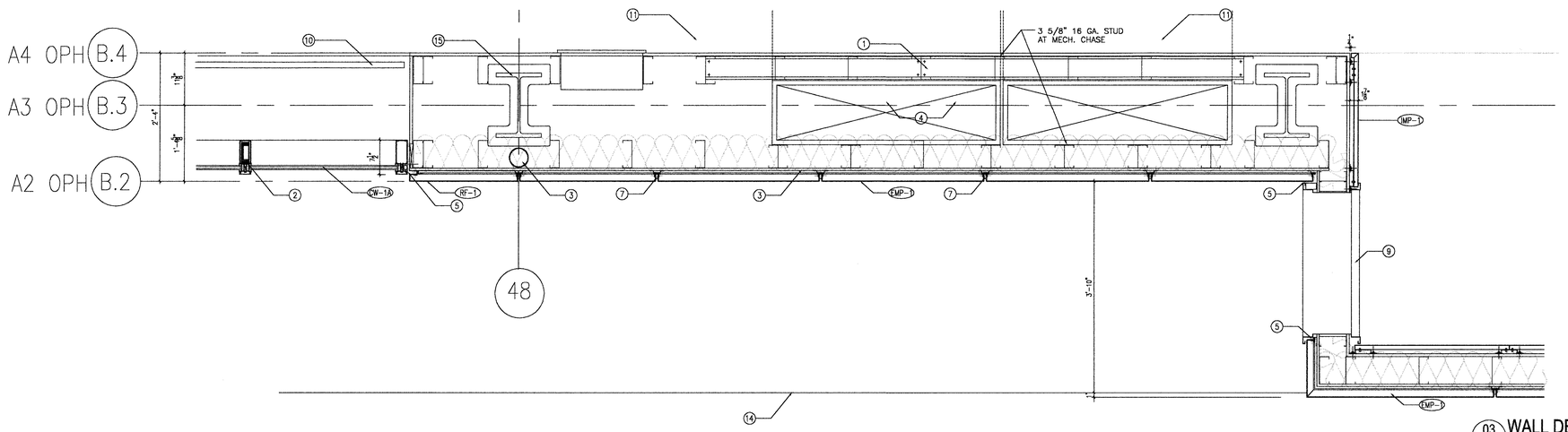
02 WALL DETAIL
A8.010 1"=1'-0"



01 WALL DETAIL
A8.010 1 1/2"=1'-0"

GENERAL NOTES:

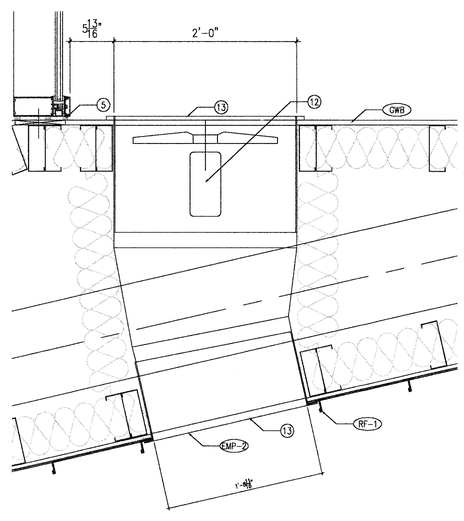
- CW-1A CURTAINWALL SYTEM TYPE 1A – RE WINDOW SCHEDULE
- CW-5 CURTAINWALL SYSTEM TYPE 5 – RE WINDOW SCHEDULE
- EMP-1 EXTERIOR POWDERCOATED WALL METAL PANELS – ALUMINUM PANEL 1/8" THICK – TYPE SERIES 3000 MODIFIED FROM UNA-CLAD – COPPER SALES OR EQUAL –POWDERCOATED KYNAR 500
- RF-1 STANDING SEAM METAL ROOF– TYPE UCJ FROM UNA-CLAD – COPPER SALES OR EQUAL– POWDERCOATED KYNAR 500: COLOR#2 SILVER METALLIC
- GWB PAINT 5/8" HI-IMPACT GYPSUM BOARD ON METAL STUDS
- EMP-2 POWDERCOATED ALUMINUM LOUVERS –WITH INSECT MESH WHEN USED BY MECHANICAL –CLOSED WITH 1/8" THK ALUMINUM SHEET WELDED CONTINUOUSLY TO FRAME WHEN NOT USED BY MECHANICAL – RE: MECHANICAL FOR OPENINGS
- IMP-1 INTERIOR STAINLESS STEEL WALL PANELS – NGAGE SYSTEM BY BAKER METAL PRODUCTS INC. OR EQUAL – 1/16" THK MIN –
- CW-3 CURTAIN WALL SYSTEMS TYPE 3



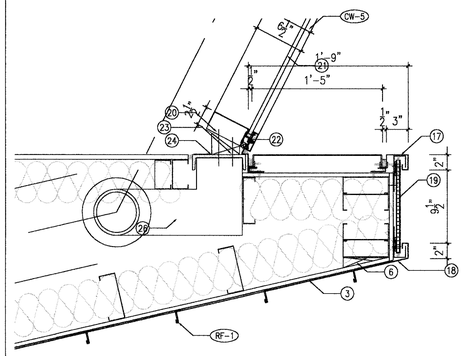
03 WALL DETAIL
A8.010 1"=1'-0"

KEYED NOTES:

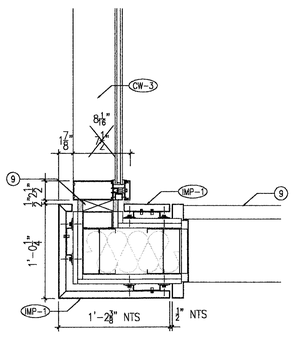
1. METAL STUD CONSTRUCTION W/ BATT INSULATION
2. 2 1/2" x 7 1/2" ALUMINUM VERTICAL MULLION – POWDERCOATED– STEEL REINFORCING AS REQUIRED FOR WIND LOADS
3. 1/2" SHEATHING
4. A/C DUCT – RE MECHANICAL
5. SEALANT & BACKER ROD
6. SHIM
7. PRECOMPRESSED EXPANDING FOAM SEALANT TYPE COLORSEAL BY EMSEAL OR EQUAL. STANDARD COLOR TO MATCH COLOR OF METAL PANELS
8. NOT USED
9. SCHED. DOOR & FRAME
10. SSTL HANDRAIL
11. A/C DUCT CONNECTION @ PLATFORM
12. FAN FOR STAIRWAY VENTILATION – RE MECHANICAL
13. ALUMINIUM LOUVERS – TYPE EMP-2 – POWDERCOATED
14. EDGE OF CONCRETE SLAB
15. STEEL COLUMN WITH 3 HR FIREPROOFING
16. DOWNSPOUT– RE PLUMBING DWG.
17. SHEET METAL – POWDERCOATED
18. STEEL Z @ ANGLE – CURVED @ ROOF – 1/8" THK.
19. HONEYCOMBED ALUMINIUM PANEL – 1/2" THK.– POWDERCOATED
20. CUSTOM EXTRUDED MULLION @ ANGLE WITH BUTT GLAZING
21. GLASS – TYPE GL-4
22. STRUCTURAL SILICONE WEATHER SEAL
23. SHIM & FLASHING
24. CONTINUOUS STEEL PLATE – 1/2"x10" – WELD TO POST BY ANGLE – PAINT
25. EDGE OF SOFFIT ABOVE
26. 6" STEEL PIPE



07 WALL DETAIL
A8.010 1 1/2"=1'-0"



06 WALL DETAIL
A8.010 1 1/2"=1'-0"



05 WALL DETAIL
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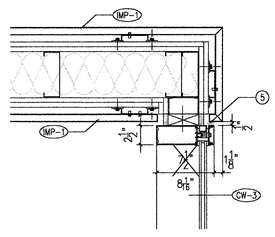

04 WALL DETAIL
A8.010 1 1/2"=1'-0"

RECORD DRAWINGS
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Rey de la Reza Architects, Inc.
13 May 2005

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ARLINGTON,TX,76012
Tel: 817.261.1446
Tel: 817.861.3296

REY DE LA REZA ARCHITECTS, INC.
ARCHITECTURE PLANNING INTERIOR DESIGN
1245 WEST 18TH ST.
HOUSTON,TX,77008
Tel: 713.868.3121
Tel: 713.802.0112

REVISIONS			
NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
1	ADDENDUM 1	02/01/02	SG
2	RECORD SET	05/13/05	EM

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION + PLATFORM

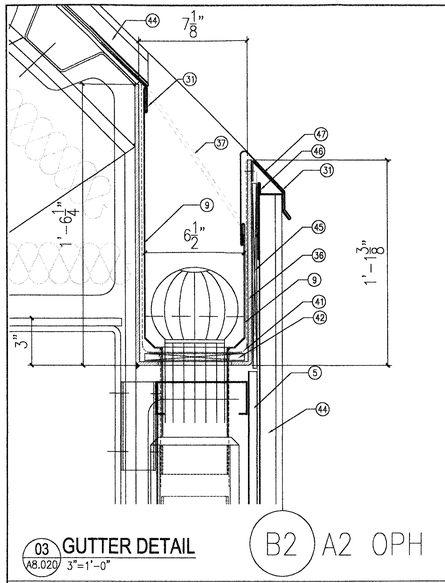
PLAN DETAILS

PROJECT MGR:	HEM
DESIGNER:	SG
DRAWN BY:	SDM
CHECKED BY:	AB
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	AS NOTED
DATE:	09/14/01

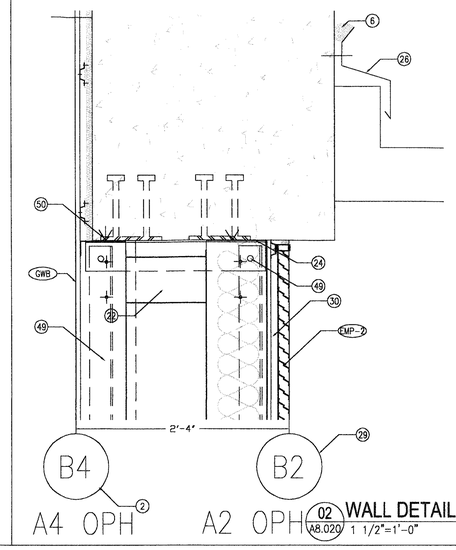
REGISTERED ARCHITECT Rey de la Reza 4612-6 STATE OF TEXAS

APPROVED BY:	DATE:
DIRECTOR HOUSTON AIRPORT SYSTEM	
PROJECT NO.	1140
C.I.P. NO.	A-0354
H.A.S. NO.	536C
SHEET NO.	A8.010

PLOT DATE: 02/04/02 HAS FILE:HAS36CA8010



03 GUTTER DETAIL
A8.020 3"=1'-0"



02 WALL DETAIL
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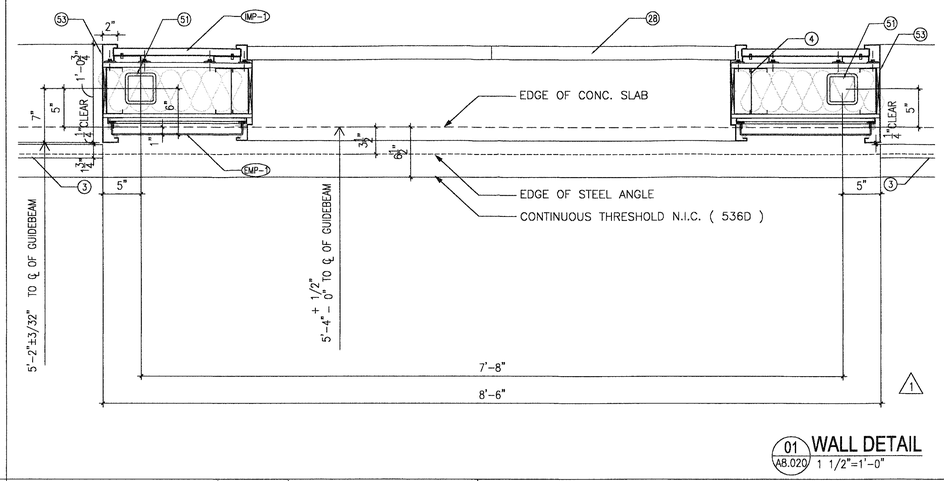


01 WALL DETAIL
A8.020 1 1/2"=1'-0"

GENERAL NOTES:

EMP-1 EXTERIOR POWDERCOATED WALL METAL PANELS – ALUMINUM PANEL 1/8" THICK – TYPE SERIES 3000 MODIFIED FROM UNA-CLAD – COPPER SALES OR EQUAL –POWDERCOATED KYNAR 500

RF-1 STANDING SEAM METAL ROOF– TYPE UC3 FROM UNA-CLAD – COPPER SALES OR EQUAL– POWDERCOATED KYNAR 500: COLOR#2 SILVER METALLIC

GWB PAINT 5/8" HI-IMPACT GYPSUM BOARD ON METAL STUDS

EMP-2 POWDERCOATED ALUMINIUM LOUVERS –WITH INSECT MESH WHEN USED BY MECHANICAL –CLOSED WITH ALUMINIUM SHEET WELDED TO FRAME WHEN NOT USED BY MECHANICAL RE: MECHANICAL FOR OPENINGS

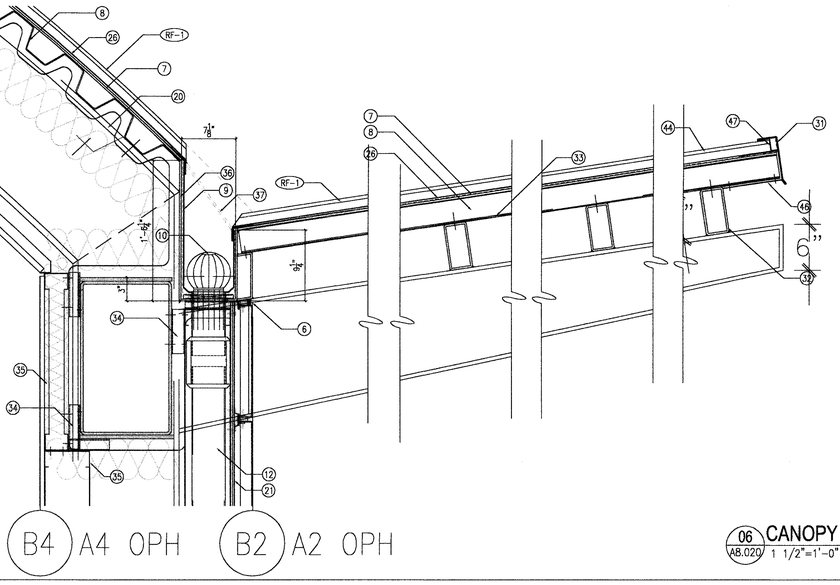
IMP-1 INTERIOR STAINLESS STEEL WALL PANELS

RECORD DRAWINGS
DO NOT MODIFY
Rey de la Reza Architects, Inc.
13 May 2005

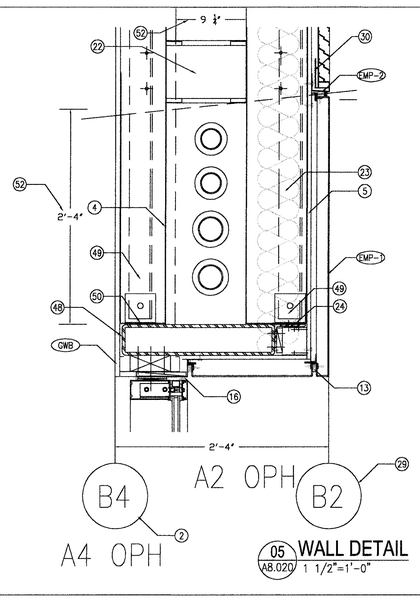
Note: Information used to develop these documents was taken from Record of the Work Drawings prepared by the construction contractor, Clark Construction Group - Texas. The information provided by the contractor was not verified by the design firm named above.

KEYED NOTES:

1. SLIDING DOOR POST – 4"x4" STEEL TUBE
2. COLUMN LINE B4: INTERIOR WALL FINISH FACE – A4 OPH
3. SLIDING DOOR BY OTHERS N.I.C. – HAS PROJECT 536D
4. 6" METAL STUD @ 16" O.C 16 GA.
5. 1/2" SHEATHING
6. SEALANT & BACKER ROD
7. 5/8" GYPSUM SHEATHING TYPE X
8. 3" METAL DECK
9. SSTL GUTTER – 16 GA
10. BASKET STRAINER – SSTL WIRE MESH
11. SSTL CLAD – 16 GA
12. DOWNSPOUT– RE PLUMBING
13. PRECOMPRESSED EXPANDING FOAM SEALANT TYPE COLORSEAL BY EMSEAL OR EQUAL. STANDARD COLOR TO MATCH COLOR OF METAL PANELS
14. BATT INSULATION
15. RIGID INSULATION
16. SSTL BASE
17. 12" ALUMINIUM CHANNEL– POWDERCOATED – FASTENERS NOT VISIBLE: ANCHOR TO STRUCTURE BY ALUM. PLATES WELDED @ CHANNEL BACK SIDE
18. BLUE SAFETY LIGHT
19. STEEL COLUMN + 3HR FIREPROOFING
20. STEEL BEAM + 1HR FIREPROOFING
21. UNDERLAYMENT
22. BRACING DEFINE
23. 8" METAL STUD JOIST @ 16" O.C 10 GA.
24. 8" STEEL RUNNER
25. SHIM + SUBGIRT
26. EXTRUDED ALUM. FLASHING POWDERCOATED
27. MARINE GRADE PLYWOOD
28. SCHED. DOOR
29. COLUMN LINE B2: EXTERIOR METAL PANELS FINISH FACE – A2 OPH
30. ALUMINIUM SHEET WELD TO FRAME @ BACK OF LOUVERS WHEN LOUVERS NOT USED BY MECHANICAL – RE MECHANICAL
31. FLASHING SHEET METAL – POWDERCOATED
32. 3"x6" STEEL TUBES – WELD TO BEAM – PAINT
33. PERFORATED ALUM. SHEET – POWDERCOATED – SECURE TO DECK
34. STEEL Z CLIP @ FIREPROOFING – 20 GA.
35. STEEL STUD FIX TO Z CLIP
36. CONTINUOUS BENT STEEL PLATE– 1/4 " THK.– WELD TO STRUCTURE
37. SSTL COVER @ EXPANSION JOINT: EXTEND 1' UNDER STANDING SEAM ROOF BOTH SIDES
38. 4" SSTL PIPE – 1/16 THK.– WELD TO SSTL GUTTER – CONTINUOUS WELDING – WATER LIGHT
39. SSTL GUTTER EXPANSION JOINT @ HIGHEST POINT – RE ROOF PLAN A2.300 FOR LOCATION
40. SSTL SHEET – 1/16" THK. MIN – WELD TO GUTTER – WATERLIGHT
41. WATERPROOFING MENBRANE TYPE VYCOR ULTRA FROM GRACE MANUFACTURER OR EQUAL UNDER SSTL GUTTER AND INSIDE 4" DOWNSPOUT – WATERLIGHT CONSTRUCTION
42. SLOPED SHIM – RIGID INSULATION BOARD
43. SLEEVE @ BASE OF SEPARATION JOINT SSTL SHEET WELDED
44. PREFINISHED UC3 STANDING SEAM PANEL
45. SHIM
46. PREFINISHED J-CHANNEL W/DRIP
47. BENT GALVANIZED STEEL PLATE 10 GA – FASTENED TO 1/4" STEEL PLATE
48. 20" X 4" STEEL TUBE – SUPPORT OF CURTAIN WALL, RE: STRUCTURAL
49. STEEL ANGLE FRAME TO SUPPORT STEEL TUBE, RE: STRUCTURAL
50. 6" STEEL RUNNER.
51. 4" STEEL COLUMN SUPPORT OF CHANNEL @ SLIDING DOORS.
52. CLEARANCE FOR MEP SUPPLIES, RE: MEP
53. JAMB OF STAINLESS STEEL DOOR FRAME @ SLIDING DOOR – 16 GA



06 CANOPY DETAIL
A8.020 1 1/2"=1'-0"



05 WALL DETAIL
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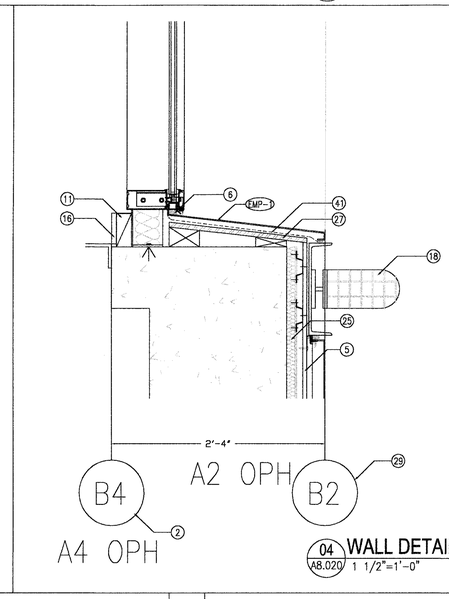

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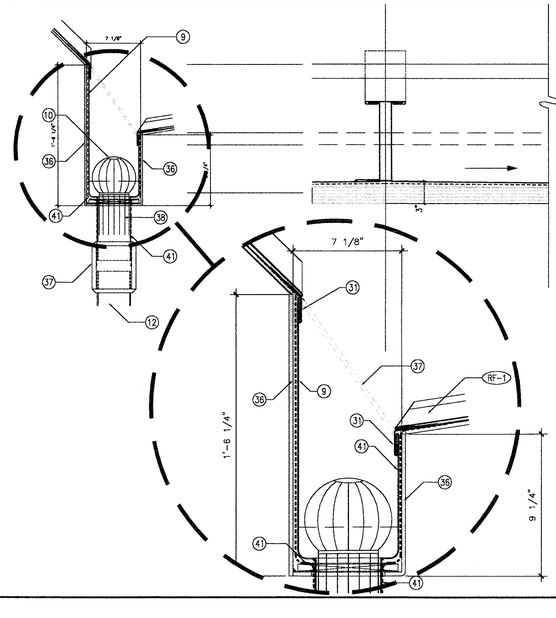
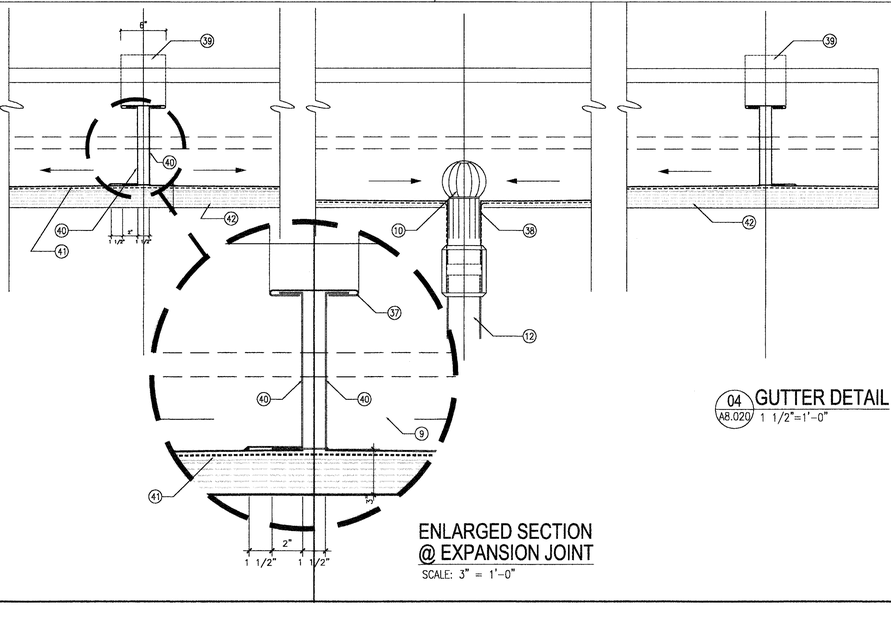


ENLARGED SECTION @ GUTTER
SCALE: 3" = 1'-0"



ENLARGED SECTION @ EXPANSION JOINT
SCALE: 3" = 1'-0"

04 GUTTER DETAIL
A8.020 1 1/2"=1'-0"

HOUSTON AIRPORT SYSTEM
GEORGE BUSH INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

Lea Elliott
1009 W.RANDOL MILL RD.
ARLINGTON,TX,76012
Tel: 817.261.1446
Tel: 817.861.3295

REY DE LA REZA ARCHITECTS, INC
ARCHITECTURE PLANNING INTERIOR DESIGN
1245 WEST 18TH ST.
HOUSTON,TX,77008
Tel: 713.869.3121
Tel: 713.802.0112

REVISIONS			
NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
1	REVISION #1	01/27/03	SG
2	ADDENDUM 1	02/01/02	SG
3	RECORD SET	05/13/05	EM

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION + PLATFORM

PLAN + SECTION DETAILS

PROJECT MGR:	HEM
DESIGNER:	SG
DRAWN BY:	SEM
CHECKED BY:	AB
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	AS NOTED
DATE:	09/14/01

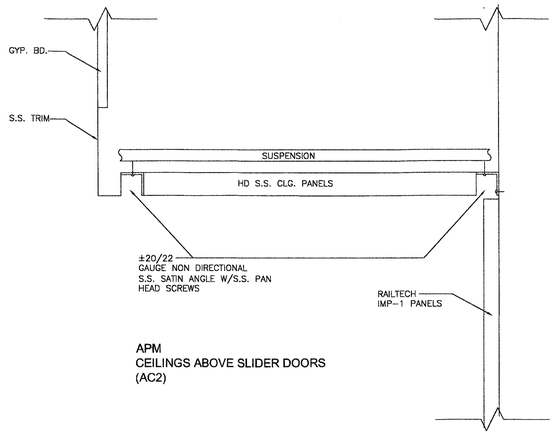
REGISTERED ARCHITECT
REY DE LA REZA
4972
STATE OF TEXAS

APPROVED BY:	DATE:

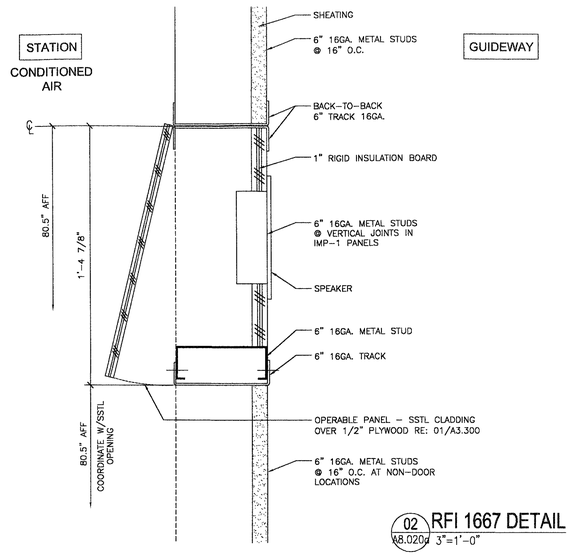
DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	1140
C.I.P. NO.	A-0354
H.A.S. NO.	536C
SHEET NO.	A8.020

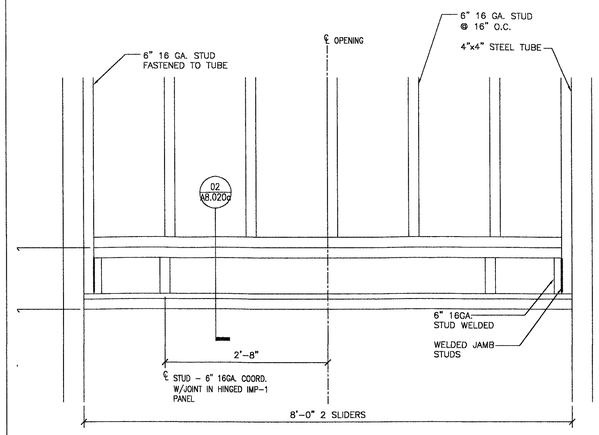
PLOT DATE: 02/04/02 HAS FILE:IA536CA8020



03 RFI 1839 DETAIL
A8.020a NTS



02 RFI 1667 DETAIL
A8.020a 3"=1'-0"



01 RFI 1667 SECTION
A8.020a 1"=1'-0"

GENERAL NOTES:

KEYED NOTES:

RECORD DRAWINGS
DO NOT MODIFY
Rey de la Reza Architects, Inc.
13 May 2005

Note: Information used to develop these documents was taken from Record of the Work Drawings prepared by the construction contractor, Clark Construction Group - Texas.
The information provided by the contractor was not verified by the design firm named above.

HOUSTON AIRPORT SYSTEM
GEORGE BUSH
INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

Lee Elliott
1099 W.RANDOL MILL RD.
ARLINGTON,TX,76012
Tel: 817.261.1446
Tel: 817.861.3266

REY DE LA REZA ARCHITECTS, INC.
ARCHITECTURE PLANNING INTERIOR DESIGN
1245 WEST 18TH ST.
HOUSTON,TX,77008
Tel: 713.868.3121
Tel: 713.802.0112

REVISIONS

NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
	RECORD SET	05/13/05	EM

INTERNATIONAL ✦ SERVICES ✦ EXPANSION ✦ PROGRAM

APM STATION + PLATFORM

RFI RESPONSES

PROJECT MGR:	HEM
DESIGNER:	SG
DRAWN BY:	SEM
CHECKED BY:	AB
DRAWING STANDARD:	
	ISEP 07.20.2000
SCALE:	AS NOTED
DATE:	09/14/01

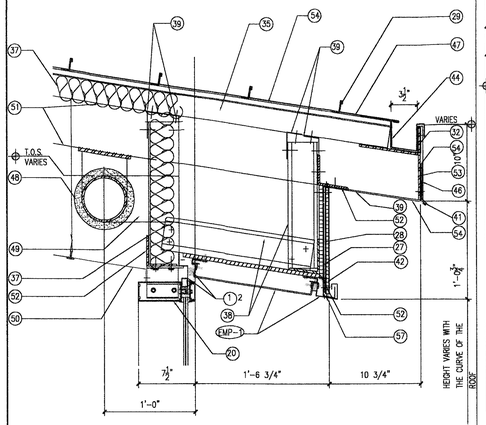
REGISTERED ARCHITECT
Rey de la Reza
4612-3
STATE OF TEXAS

APPROVED BY: DATE:

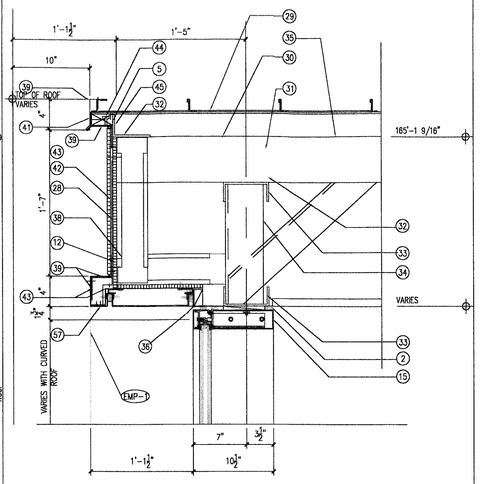
DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	1140
C.I.P. NO.	A-0354
H.A.S. NO.	536C
SHEET NO.	A8.020a

PLOT DATE: 02/04/02 HAS FILE: HAS36CA8010



04 DETAIL A8.030 1 1/2"=1'-0"



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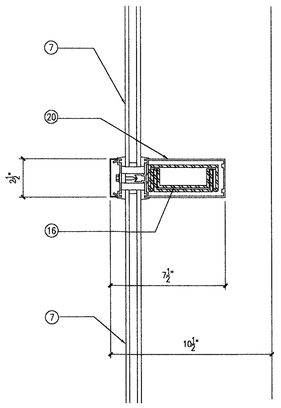

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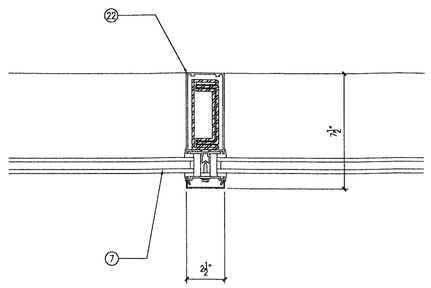

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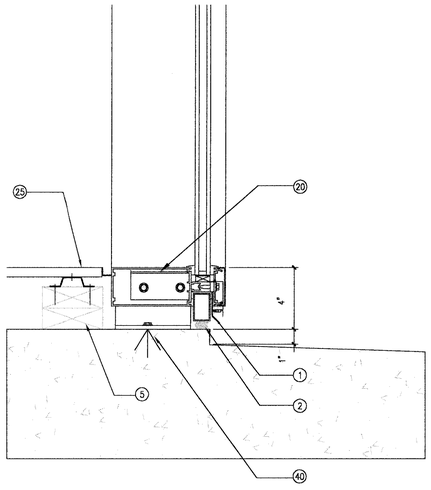

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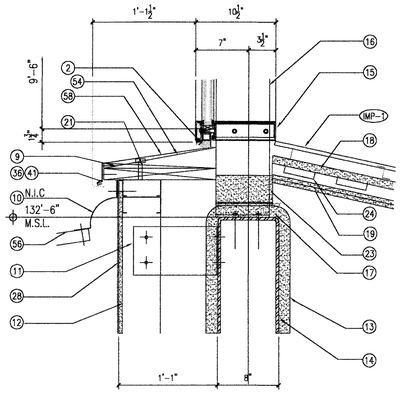

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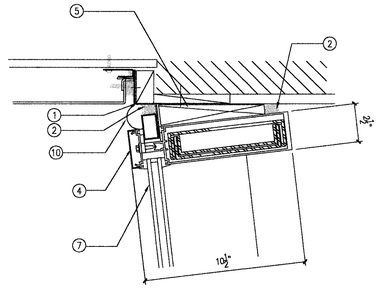

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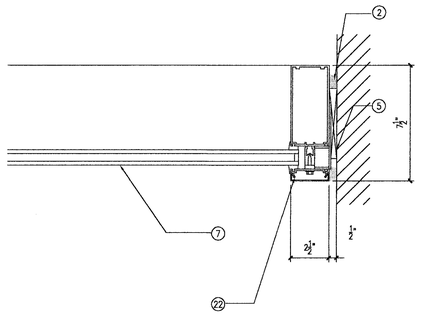

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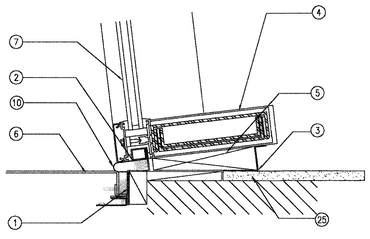
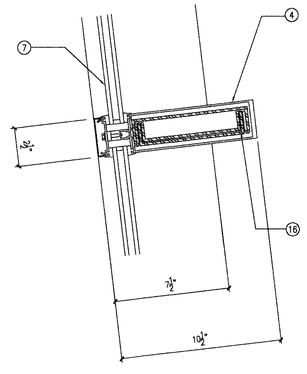


10 DETAIL A8.030 3"=1'-0"



09 DETAIL A8.030 3"=1'-0"

GENERAL NOTES:

IMP-1 INTERIOR STAINLESS STEEL WALL PANELS – MULTI DIRECTIONAL MACHINE POLISH

EMP-1 EXTERIOR POWDERCOATED WALL METAL PANELS – ALUMINIUM PANEL 1/8" THICK – TYPE SERIES 3000 MODIFIED FROM UNA-CLAD – COPPER SALES OR EQUAL –POWDERCOATED KYNAR 500

KEYED NOTES:

1. GALVANIZED SHEETMETAL FLASHING
2. SEALANT AND BACKER ROD.
3. FIELD CUT ALUMINUM –ADHERED TO SHIM AND MULLION
4. VERTICAL MULLION– 2 1/2" X 10 1/2"
5. PROVIDE SHIM AS REQUIRED.
6. WALL METAL PANELS
7. GLASS– REFER SCHEDULE
8. 6" METAL STUDS @ 24" O.C.
9. WOOD NAILER– ADHERE TO RUNNER
10. EXPANSION JOINT ASSEMBLY
11. 6" X 6" X 9" BENT PLATE– FASTEN TO STUD & BEAM @ 24" O.C.
12. EXTERIOR SHEATHING
13. 3 HOUR FIREPROOFING
14. STRUCTURAL TUBE SUPPORT
15. HORIZONTAL MULLION – 2 1/2 " X 10 1/2"
16. STEEL REINFORCEMENT AS REQUIRED BY WIND LOADING
17. L ANGLE– WELD TO VERTICAL STRUCTURAL STEEL– FASTEN TO STRUCTURAL TUBE
18. 1" SHAFTLINER
19. 2 LAYERS OF 1/2" TYPE " X" GYPSUM WALLBOARD
20. HORIZONTAL MULLION – 2 1/2" X 7 1/2"
21. 1/2" DIA. BOLT WELD TO STRUCTURE @ 24" O.C
22. VERTICAL MULLION– 2 1/2" X 7 1/2"
23. FIRESTOPPING COMPOUND BETWEEN STRUCTURAL SUPPORT
24. I STUDS @ 24" O.C.
25. 5/8" GYPSUM BOARD
26. 8" METAL STUDS @ 24" O.C.
27. 1/2" EXTERIOR SHEATHING
28. VAPOR BARRIER
29. STANDING SEAM METAL ROOF
30. TUBE STEEL– 6 X 3 X 1/4
31. 6" DIAMETER PIPE– CURVE BETWEEN TUBE STEEL
32. BENT STEEL PLATE 6" X 3" X 1/4"
33. CURVE C CHANNEL– 6X13– WELD TO PLATE ABOVE
34. L ANGLE– 5 X 5 X 1/2 @ 24" O.C.
35. 3" METAL DECK WITH 1 HOUR FIREPROOFING
36. DRIP EDGE
37. BATT INSULATION
38. 4" METAL STUDS @ 24" O.C
39. SHEET METAL CLADDING
40. ANCHOR STEEL REINFORCEMENT IN MULLION TO CONCRETE SLAB WITH ANCHOR BOLTS AND L ANGLE.
41. CONTINUOUS CLEAT TO PREVENT UPLIFT
42. HONEYCOMBED ALUMINUM PANEL
43. STEEL Z @ ANGLE– CURVE @ ROOF, 1/8" THICK
44. GUTTER – SHEET METAL – PREFINISHED – TO JOIN MAIN GUTTER @ EDGE OF ROOF
45. CURVE L ANGLE– 3 X 3 X 1/4– WELD TO STRUCTURE
46. SHEETMETAL FASCIA–FASTEN TO BENT PLATE
47. 5/8" GYP SHEATHING– TYPE X
48. 6" PIPE WITH 1 HR. FIREPROOFING
49. STEEL PLATE– 1/4" THICK WELD TO PIPE BEAM AND STUD TO TRANSFER LATERAL LOAD
50. SCHEDULED CEILING
51. TS 6 X 3 X 1/4
52. CONTINUOUS L ANGLE– 4 X 4 X 1/4
53. 1/4" THICK CAP PLATE CURVED – WELD TO 6" BEAM
54. WATERPROOFING MEMBRANE TYPE VYCOR ULTRA FROM GRACE MANUFACTURER OR EQUAL
55. MECHANICAL LOUVER SET INSIDE MULLION
56. ROOF ASSEMBLY AT BRIDGE– SEE F.I.S. BUILDING PACKAGE FOR MORE INFORMATION. 500 F-1
57. 1/4" DIA. WEEP HOLES @ 36" O.C.
58. SHEET METAL FLASHING WATERTIGHT – POWDERCOATED

RECORD DRAWINGS
DO NOT MODIFY
Rey de la Reza Architects, Inc.
13 May 2005
Note: Information used to develop these documents was taken from Record of the Work Drawings prepared by the construction contractor, Clark Construction Group - Texas. The information provided by the contractor was not verified by the design firm named above.

NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

0' 3" 6" 1'
SCALE: 3" = 1'-0"

HOUSTON AIRPORT SYSTEM
GEORGE BUSH INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

Lea Elliott
1099 W.RANDOL MILL RD.
ARLINGTON,TX,76012
Tel: 817.261.1446
Tel: 817.861.3288

REY DE LA REZA ARCHITECTS, INC
ARCHITECTURE PLANNING INTERIOR DESIGN
1245 WEST 18TH ST.
HOUSTON,TX,77008
Tel: 713.868.3121
Tel: 713.802.0112

REVISIONS			
NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
	RECORD SET	05/13/05	EM

SERVICES + EXPANSION + PROGRAM
INTERNATIONAL + PLATFORM
APM STATION
CURTAIN WALL DETAILS

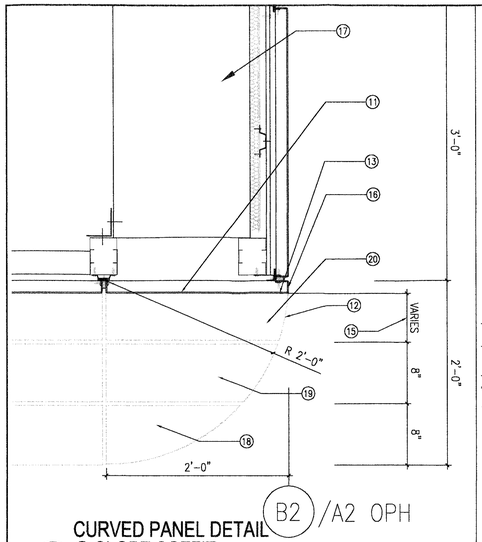
PROJECT MGR:	HEM
DESIGNER:	SG
DRAWN BY:	SEM
CHECKED BY:	AB
DRAWING STANDARD:	
	ISEP 07.20.2000
SCALE:	3"=1'-0"
DATE:	09/14/01

REGISTERED ARCHITECT 4672-S STATE OF TEXAS

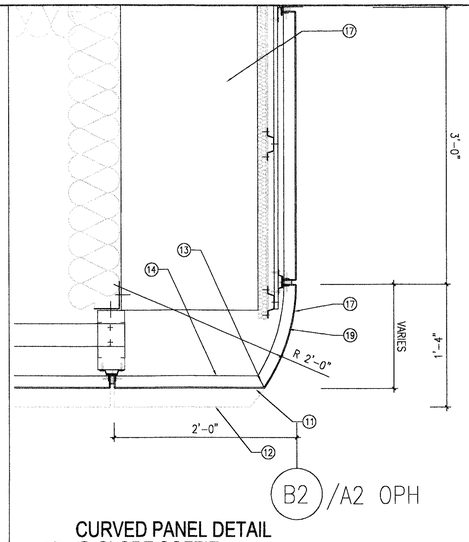
APPROVED BY:	DATE:
DIRECTOR HOUSTON AIRPORT SYSTEM	

PROJECT NO.	1140
C.I.P. NO.	A-0354
H.A.S. NO.	536C
SHEET NO.	A8.030

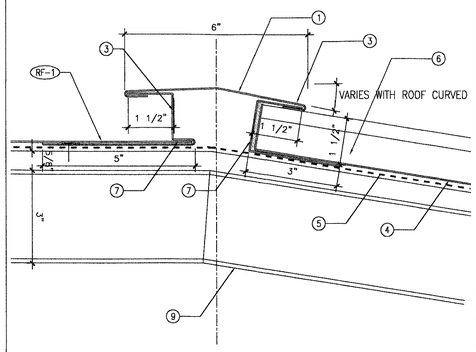
PLOT DATE: 02/04/02 HAS FILE: HAS36CA8030



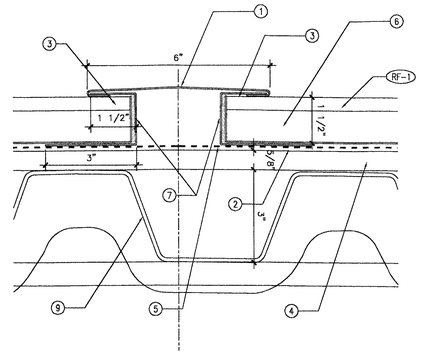
04 A8.040 CURVED PANEL DETAIL @ SLOPE SOFFIT
1-1/2"=1'-0"



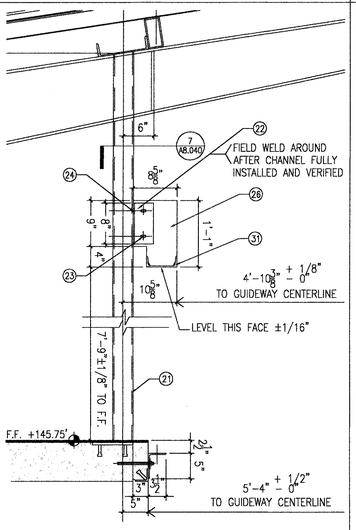
03 A8.040 CURVED PANEL DETAIL @ SLOPE SOFFIT
1-1/2"=1'-0"



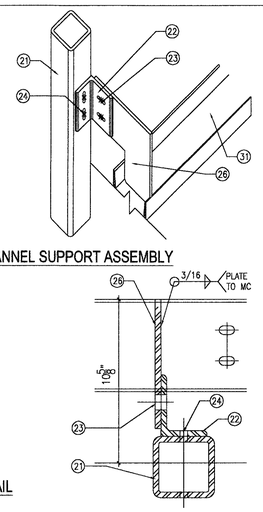
02 A8.040 DETAIL STANDING SEAM ROOF
6"=1'-0"



01 A8.040 DETAIL STANDING SEAM ROOF
6"=1'-0"



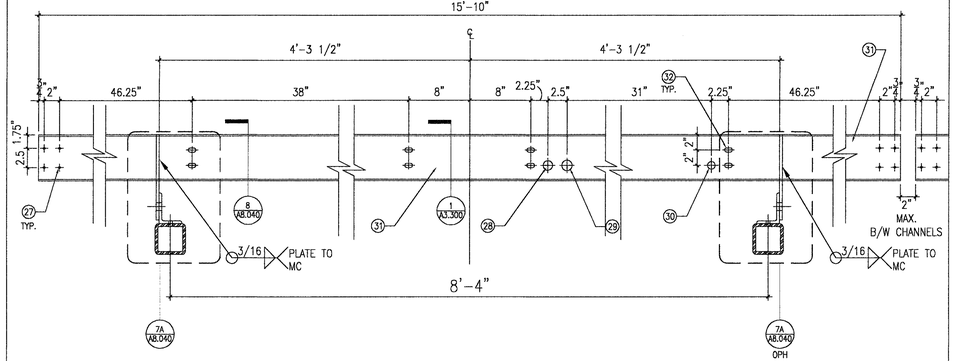
08 A8.040 SECTION DETAIL @ DOOR POST
1"=1'-0"



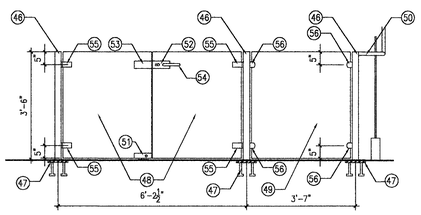
7B N.T.S DOOR CHANNEL SUPPORT ASSEMBLY

7A PLAN DETAIL
3"=1'-0"

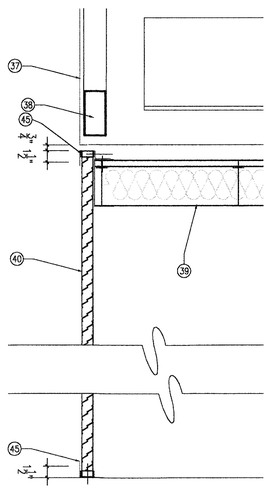
07 A8.040 DETAIL @ DOOR HEADER SUPPORT ASSEMBLY
AS NOTED



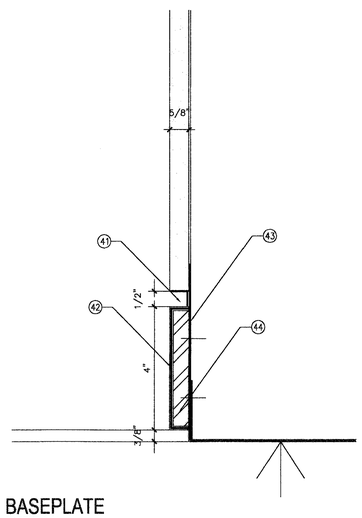
6 A8.040 STEEL HEADER CHANNEL @ SLIDING DOOR
1 1/2"=1'-0"



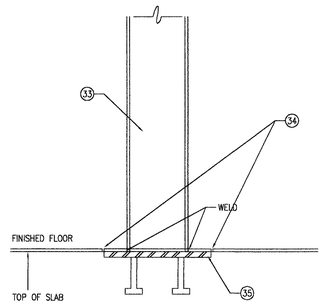
12 A8.040 GLASS GATE @ LOBBY
1/2"=1'-0"



11 A8.040 DETAIL
1-1/2"=1'-0"



10 A8.040 BASEPLATE DETAIL
HALF SCALE



09 A8.040 PLATE DETAIL AT STAIR COLUMN
1 1/2"=1'-0"

GENERAL NOTES:

(MP-1) EXTERIOR POWDERCOATED WALL METAL PANELS – ALUMINUM PANEL 1/8" THICK – TYPE SERIES 3000 MODIFIED FROM UNA-CLAD – COPPER SALES OR EQUAL – POWDERCOATED KYNAR 500

(RF-1) STANDING SEAM METAL ROOF– TYPE UC3 FROM UNA-CLAD – COPPER SALES OR EQUAL– THERMOCOATED KYNAR 500: COLOR#2 SILVER METALLIC

KEYED NOTES:

1. PREFINISHED RIDGE / HIP COPING
2. FASTENERS
3. PREFINISHED J-CHANNEL
4. 5/8" THK. GYPSUM BOARD TYPE X
5. UNDERLAYMENT
6. PREFINISHED UC-3 STANDING SEAM PANEL
7. SEALANT
8. PANEL TO BE CUT AND SET IN SEALANT WHERE REQUIRED
9. 3" METAL DECK
10. PART OF CURVED PANEL TYPE EMP-1
11. PART OF PLANE PANEL
12. LINE OF WELD ALONG INTERSECTION OF SLOPED SOFFIT PLANE AND 2'-0" CYLINDER PANELS CUT WITH WATER SAW
13. CONTINUOUS WELDING PERFECTLY SANDED
14. STIFFENERS AS REQUIRED TO MAINTAN SHAPE AND STIFFNESS OF PANEL
15. HEIGHT AND LENGHT OF LAST PANEL DIFFERENT ON NORTH AND SOUTH FACADES FINAL DIMENSIONS TO BE COORDINATED WITH SOOF-1 @ SECURE BRIDGE AND TO BE FIELD VERIFIED
16. MAXIMUM HEIGHT OF METAL PANEL SHOWN ON DRAWING
17. CONCRETE BEAM – TAPER TO 42" @ SECURE BRIGE WITH 9"X9" CHAMFER @ START OF SLOPE RE STRUCTURAL
18. WELDED PANEL 1
19. WELDED PANEL 2
20. LAST WELDED PANEL @ END HEIGHT AND LENGTH TO BE COORDINATED
21. TS 4"x4"x3/8" STEEL COLUMN △1
22. L 4"x3"x3/8"x8" STEEL ANGLE W/ HORIZONTAL & VERTICAL SLOTED HOLES AS SHOWN. FIELD WELD ALL AROUND ANGLE TO COLUMN AND PLATE AFTER CHANNEL FULLY INSTALLED AND POSITION VERIFIED
23. (2) 3/4" DIA. A 325 BOLTS IN HORIZONTAL SLOTED HOLES OF ANGLE.
24. (2) 3/4" DIA. A 325 BOLTS, THROUGH STRUCTURAL TUBE, IN VERTICAL SLOTED HOLES OF ANGLE.
25. NOT USED
26. 1/2" THK. PLATE. CUT AROUND CHANNEL TO FIT. WELD TO CHANNEL.
27. DRILL #7, TAP 1/4"-20, (8 PLACES), TYP BOTH ENDS
28. DRILL 1.25"ø, HOLE FOR VITAL CABLE △1
29. DRILL 1 3/8"ø, HOLE FOR I/O CABLE
30. DRILL 1.00"ø, HOLE FOR POWER CABLE △1
31. MC6 X 16.3" STEEL CHANNEL, 190" LONG (PLAIN STEEL). PUNCH HOLES PRIOR INSTALLATION.
32. 9/16" X 1.00" SLOT (8 PLACES)
33. 8" X 8" TS @ STAIR LANDING
34. CONTROL JOINT @ PLATE
35. EMBEDDED PL 3/4" x 14" x 14" W/ (4) 3/4"ø HEADED CONC ANCHORS, 6" EMBEDMENT
36. NOT USED △1
37. STAINLESS STEEL CLAD
38. ESCALATOR FRAME
39. PARTITION TYPE 3
40. LOUVERS, TYPE EMP-2, POWER COATED
41. 1/2" EXTRUDED ALUMINUM ANGLE AT REVEAL, PREFINISHED
42. BENT STAINLESS STEEL BASEPLATE, 14 GA, NON-DIRECTIONAL POLISH, MINIMUM LENGTH 10'-0" JOINT ALIGNED WITH BUILDING GRID, ADHERED TO 1/2" BOARD SECURED TO METAL STUDS
43. 6" GALVANIZED STEEL PLATE, 20 GA, FASTENED TO METAL STUDS
44. 1/2" PLYWOOD BOARD SECURED TO METAL STUDS
45. LOUVERS FRAME ALUMINIUM POWDERCOATED
46. STAINLESS STEEL POLE MIN SIZE 2 1/2" DIAM. 3/8" THCK. WELD TO EMBEDDED PLATE. WELD TOP CAP. GRIND SMOOTH WELDS. SSTL #4 FINISH
47. EMBEDDED STEEL PLATE 8"x8"x3/4". WITH 4 HEADED CONC. ANCHORS 3/4" DIAM. 6" LONG.
48. GLASS DOOR 3/8" TEMPERED. PUNCH ALL HOLES REQUIRED FOR HARDWARE PRIOR TEMPERING COORDINATE FINAL DIMENSIONS WITH HARDWARE REQUIREMENTS
49. FIXED GLASS PANEL 3/8" THCK TEMPERED. PUNCH HOLES REQUIRED FOR HARDWARE PRIOR TEMPERING
50. EXTEND STAIR HANRAIL TO POLE AND WELD. GRIND SMOOTH
51. PATCH LOCK FROM C.R. LAURENCE COMPANY OR EQUAL. POLISHED STAINLESS FINISH. AMR SERIES AMR205PS. WITH CYLINDER AMR205CC
52. GLASS MOUNTED LATCH WITH LOCK AND THUMBTURN FROM C.R. LAURENCE COMPANY OR EQUAL. POLISHED STAINLESS FINISH. PTH311PS
53. GLASS MOUNTED LONG PATCH LOCK KEEPER FROM C.R. LAURENCE COMPANY OR EQUAL. POLISHED STAINLESS FINISH. PTH314PS
54. TUBULAR STYLE LEVER HANDLES FROM C.R. LAURENCE COMPANY OR EQUAL. POLISHED STAINLESS FINISH. PTH SERIES PTH302PS
55. SWINGING OFFSET PIVOT HINGE FROM C.R. LAURENCE COMPANY OR EQUAL. CRL CHROME FAD44CH.
56. LARGE ROUND GLASS CLAMPS FROM C.R. LAURENCE COMPANY INC. OR EQUAL. POLISHED STAINLESS FINISH. Z145PS

RECORD DRAWINGS
DO NOT MODIFY
Rey de la Reza Architects, Inc.
13 May 2005
Note: Information used to develop these documents was taken from Record of the Work Drawings prepared by the construction contractor, Clark Construction Group - Texas. The information provided by the contractor was not verified by the design firm named above.

HOUSTON AIRPORT SYSTEM
GEORGE BUSH INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

Lee Elliott
1099 W.RANDOL MILL RD.
ARLINGTON,TX,76012
Tel: 817.261.1446
Tel: 817.861.3266

REY DE LA REZA ARCHITECTS, INC
ARCHITECTURE PLANNING INTERIOR DESIGN
1345 WEST 18TH ST.
HOUSTON,TX,7708
Tel: 713.868.3121
Tel: 713.802.0112

REVISIONS			
NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
△1	ADDENDUM 1	02/01/02	SG
△2	ADDENDUM #3	02/15/02	SG
△3	REVISION #1	01/27/03	SG
△4	RECORD SET	05/13/05	EM

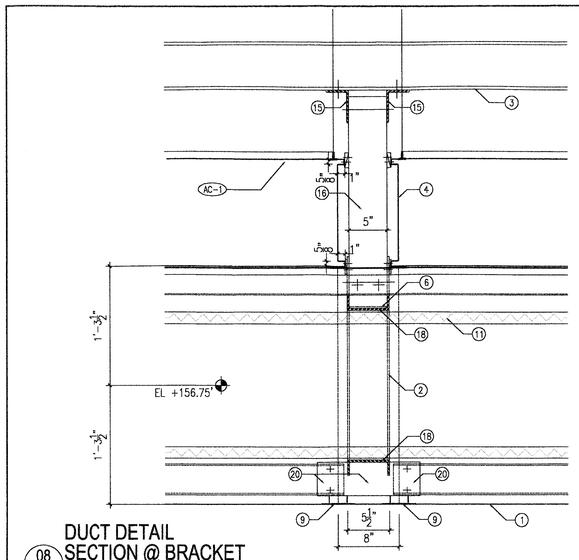
INTERNATIONAL • SERVICES • EXPANSION • PROGRAM
APM STATION + PLATFORM
DETAILS

PROJECT MGR:	HEM
DESIGNER:	SG
DRAWN BY:	SEM
CHECKED BY:	AB
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	AS NOTED
DATE:	09/14/01

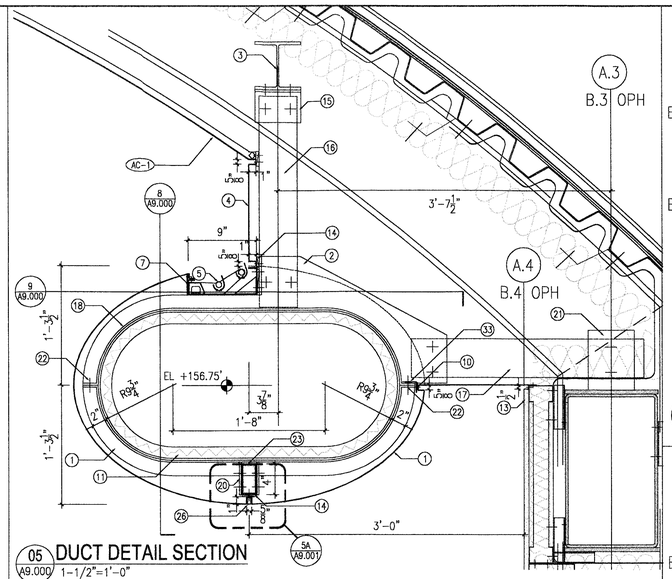
REGISTERED ARCHITECT de la Reza 4012-B STATE OF TEXAS

APPROVED BY:	DATE:
DIRECTOR HOUSTON AIRPORT SYSTEM	
PROJECT NO.	1140
C.I.P. NO.	A-0354
H.A.S. NO.	536C
SHEET NO.	52 A8.040

PLOT DATE: 02/04/02 HAS FILE:/A536CA8040



08 A9.000 DUCT DETAIL SECTION @ BRACKET
1-1/2"=1'-0"



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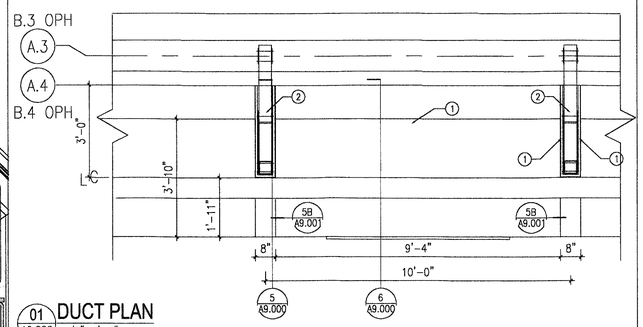
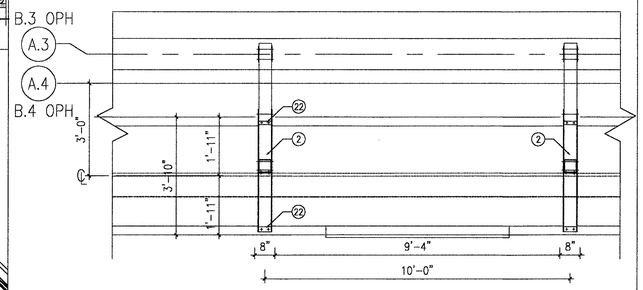
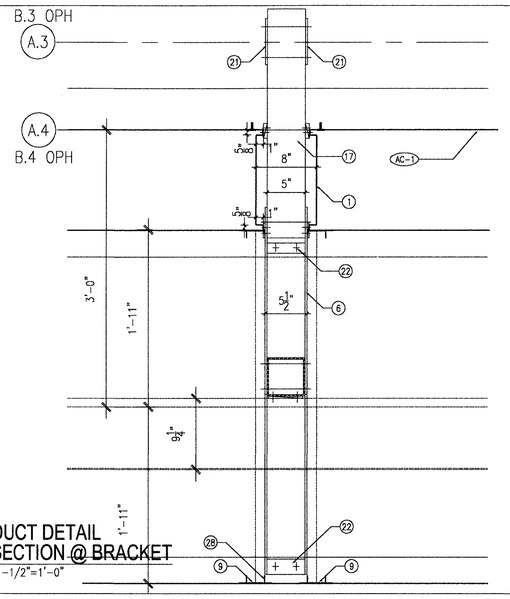


01 A9.000 DUCT PLAN
1/2"=1'-0"



02 A9.000 DUCT DETAIL PLAN @ STRUCTURE
1/2"=1'-0"



09 A9.000 DUCT DETAIL SECTION @ BRACKET
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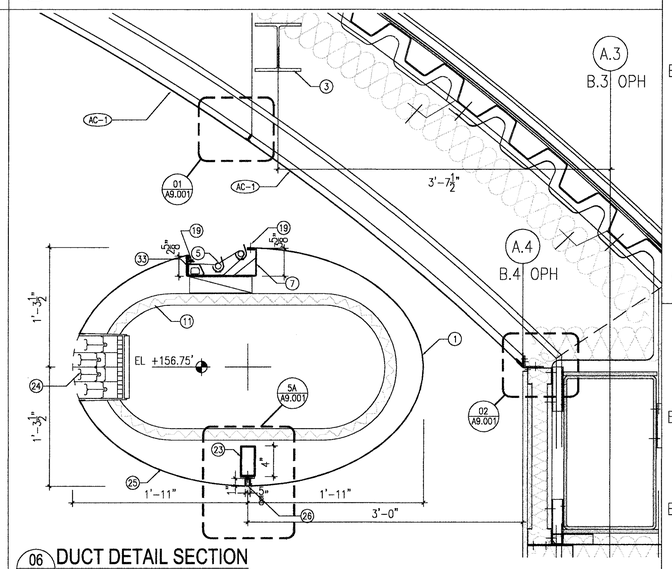

06 A9.000 DUCT DETAIL SECTION
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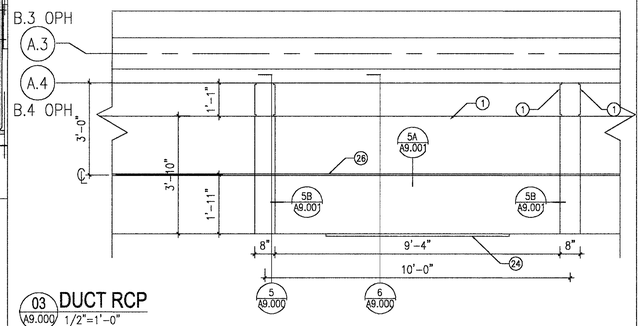
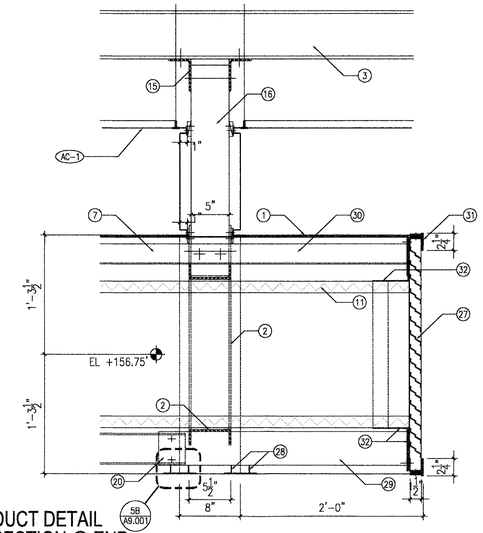


03 A9.000 DUCT RCP
1/2"=1'-0"



10 A9.000 DUCT DETAIL SECTION @ END
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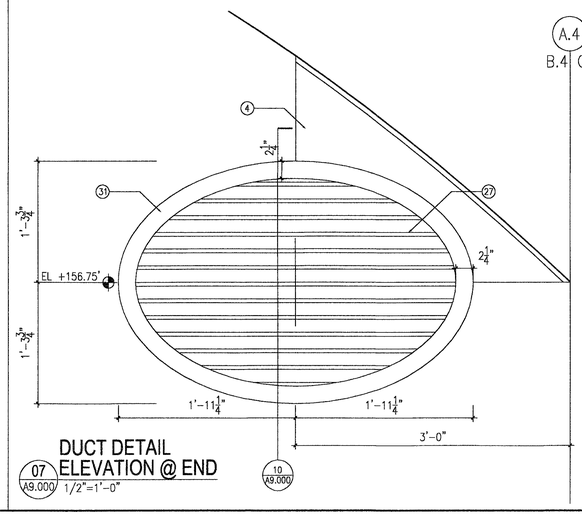
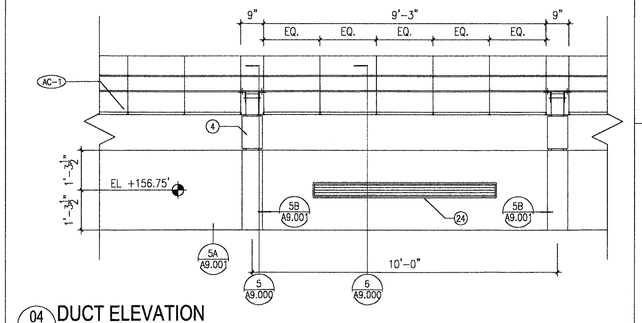


07 A9.000 DUCT DETAIL ELEVATION @ END
1/2"=1'-0"



04 A9.000 DUCT ELEVATION
1/2"=1'-0"

GENERAL NOTES:

- NO PERFORATION ALLOWED IN A/C DUCT GALVANIZED STEEL ENCLOSURE
- STEEL BRACKETS WILL BE USED TO SECURE THE A/C DUCT. THE CLADDING WILL BE FIXED TO THE STEEL FRAME.

(AC-1) PRE-FINISHED CURVED, PERFORATED METAL CEILING PANEL WITH ACOUSTICAL INSULATION - ALUMA VAULT SYSTEM 1000 BY GORDON MANUFACTURER OR EQUAL - 0.032 GA

KEYED NOTES:

1. ALUMINIUM CLADDING - 1/8" THK - PRE-FINISHED: POWDER COATED SAME COLOR THAN CEILING.
2. STEEL BRACKETS AROUND A/C DUCT @ 10'-0" O.C. BOLT TO 5"x5" STEEL TUBES SECURED TO THE STRUCTURAL BEAMS. THE STEEL BRACKETS ARE BUILT IN TWO PARTS: EACH PART IS COMPOSED OF TWO 1/4" STEEL GUSSETS WELDED TO A 5-1/2"x1/8"THK. OVAL STEEL PLATE. THE TWO PARTS ARE BOLTED TOGETHER.
3. W6 STEEL BEAM: RE STRUCTURAL
4. ALUMINIUM CLADDING AROUND VERTICAL SUPPORT : 1/8" THK. POWDERCOATED
5. SCHEDULE LIGHT FIXTURE - RE ELECTRICAL
6. 1/4" STEEL GUSSET WELDED TO 1/8"THK. STEEL PLATE
7. BENT STEEL PLATE - 1/8" THICK - GALVANIZED - SECURED TO STEEL BRACKET SHIM ON SPIRAL DUCT - PERFECTLY HORIZONTAL
8. NOT USED
9. SPLICE RING
10. ANCHOR AND SHIM AS REQUIRED
11. A/C DUCT: DOUBLE WALL OVAL SPIRAL DUCT - RE MECHANICAL
12. STEEL STUD SECURE TO METAL DECK
13. REVEAL: PRE-FINISHED EXTRUDED ALUM. CHANNEL
14. SHIM AS REQUIRED
15. STEEL ANGLE BOLTED TO W6 BEAM OR TO CURVED W16 BEAM WHEN ALIGNED
16. 5"x5" STEEL TUBE BOLTED TO STEEL ANGLES @ W6 BEAM AND TO GUSSETS @ STEEL BRACKET
17. 5"x5" STEEL TUBE BOLTED TO GUSSETS @ BEAM AND TO GUSSETS @ STEEL BRACKET
18. 5-1/2" x 1/8"THK. STEEL PLATE
19. ALUM. CLADDING FIXED TO STEEL BENT PLATE - SHIM AS REQUIRED
20. 1/4"THK. GUSSETS EACH SIDE OF STEEL TUBE: WELDED TO BRACKET STIFFENERS
21. TWO 6"x8"x1/4" GUSSETS WELDED TO THE BEAM
22. BOLTED CONNECTION B/W EACH PART OF STEEL BRACKET
23. 2"x4" STEEL TUBE- BOLTED TO GUSSETS @ STEEL BRACKETS - SPAN 10'
24. SCHED SLOT RE MECHANICAL - DIFFUSER MATERIAL, CURVE AND FINISH TO MATCH DUCT CLADDING
25. ALUM. CLADDING PANELS SECURED TO STEEL TUBE
26. EXTRUDED ALUM. INSERT- JOINTS ALIGNED WITH JOINTS @ CLADDING - POWDERCOATED
27. LOUVERS WITH ELLIPTICAL FRAME SECURED TO STEEL FRAME - PRE-FINISHED ALUM.
28. STIFFENERS @ CLADDING AS REQUIRED TO MAINTAIN SHAPE AND STIFFNESS
29. CONTINUOUS 1/4" THK. GUSSETS WELED TO BRACKET WITH WELDED STEEL PLATE @ END
30. CONTINOUS 1/8" BENT STEEL PLATE WITH WELDED PLATE @ END
31. PRE-FINISHED ELLIPTICAL ALUM. RING 1/4" THK WITH 1-1/2"x 1/8" ALUM. PLATE WELDED @ INTERIOR FACE
32. GALVANIZED STEEL SHEET METAL WRAP AROUND DUCT @ END - SEALED
33. STEEL ANGLE SECURED TO STEEL FRAME

RECORD DRAWINGS
DO NOT MODIFY
Rey de la Reza Architects, Inc.
13 May 2005

Note: Information used to develop these documents was taken from Record of the Work Drawings prepared by the construction contractor, Clark Construction Group - Texas. The information provided by the contractor was not verified by the design firm named above.

NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

0' 2' 4' 8' 12'
SCALE: 1/4" = 1'-0"

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Lee Elliott
1009 W RANDOL MILL RD
ARLINGTON,TX,76012
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Tel: 817.861.3266

REY DE LA REZA ARCHITECTS, INC.
ARCHITECTURE PLANNING INTERIOR DESIGN
1245 WEST 18TH ST.
HOUSTON,TX,77008
Tel: 713.868.3121
Tel: 713.802.0112

REVISIONS

NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
	RECORD SET	05/13/05	EM

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION + PLATFORM

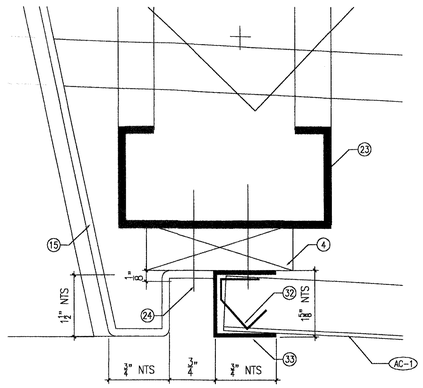
INTERIOR DETAILS

PROJECT MGR:	HEM
DESIGNER:	SG
DRAWN BY:	SEM
CHECKED BY:	AB
DRAWING STANDARD:	
	ISEP 07.20.2000
SCALE:	AS NOTED
DATE:	09/14/01

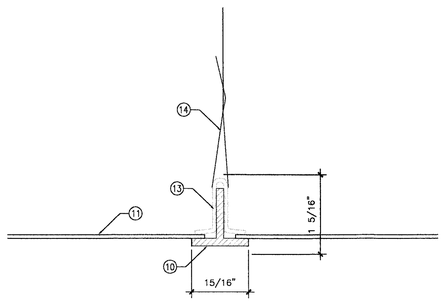
REGISTERED ARCHITECT 4572 STATE OF TEXAS

APPROVED BY:	DATE:
DIRECTOR HOUSTON AIRPORT SYSTEM	
PROJECT NO.	1140
C.I.P. NO.	A-0354
H.A.S. NO.	536C
SHEET NO.	A9.000

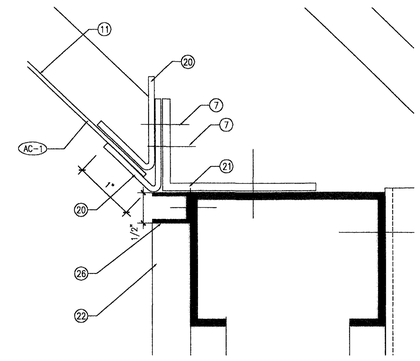
PLOT DATE: 02/04/02 HAS FILE:\AS536CA9000



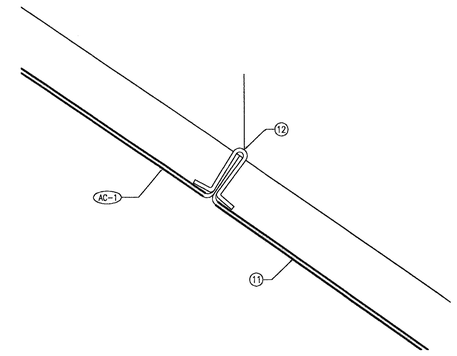
EDGE SECTION DETAIL
04 / A9.001 @ CEILING AC-1
1"=1"



TYPICAL TEE SUSPENSION
03 / A9.001 @ CEILING AC-1
1"=1"



EDGE SECTION DETAIL
02 / A9.001 @ CEILING AC-1
1"=1"



HORIZONTAL PANEL CONNECTION DETAIL
01 / A9.001 @ CEILING AC-1
1"=1"

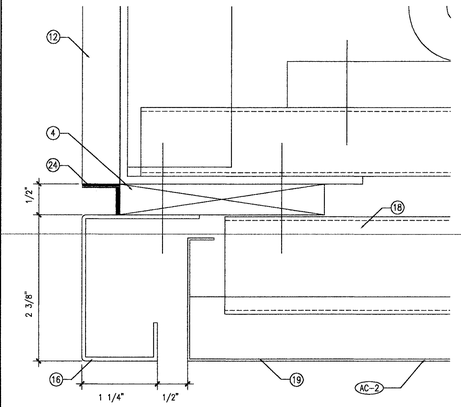
GENERAL NOTES:

(AC-1) PRE-FINISHED CURVED, PERFORATED METAL CEILING PANEL WITH ACOUSTICAL INSULATION – ALUMA VAULT SYSTEM 1000 BY GORDON MANUFACTURER OR EQUAL

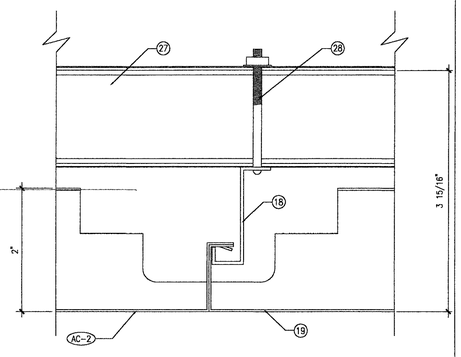
(IMP-1) INTERIOR STAINLESS STEEL WALL PANELS – DEMOUNTABLE WALL SYSTEM BY NELSON INDUSTRIAL INC. OR EQUAL – 14 GA WITH STIFFENERS –

(AC-2) REMOVABLE SSTL CEILING PANELS – HOOK-ON CONCEALED PLANK FROM HUNTERDOUGLAS PRODUCT INC. OR EQUAL – 24 GA SSTL MULTI DIRECTIONAL MACHINE POLISH

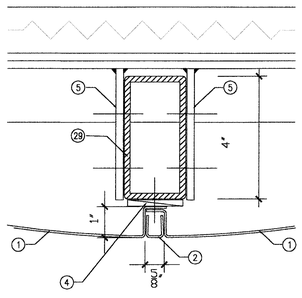
- PROVIDE 3M SOUND DEADENING TAPE ON BACK OF SSTL WALL PANELS TYPE IMP-1 AT FIRST ROWS (LESS THAN 7' HIGH) – MIN. 50% AREA COVERAGE
- PROVIDE STIFFENERS ON BACK OF SSTL PANELS TYPE IMP-1 AS REQUIRED



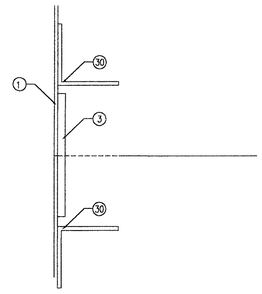
EDGE SECTION
07 / A9.001 @ CEILING AC-2
1"=1"



TYPICAL SUSPENSION DETAIL
06 / A9.001 @ CEILING AC-2
1"=1"



5A HORIZONTAL JOINT
6"=1'-0"



5B INTERMEDIATE VERTICAL JOINT
1"=1"

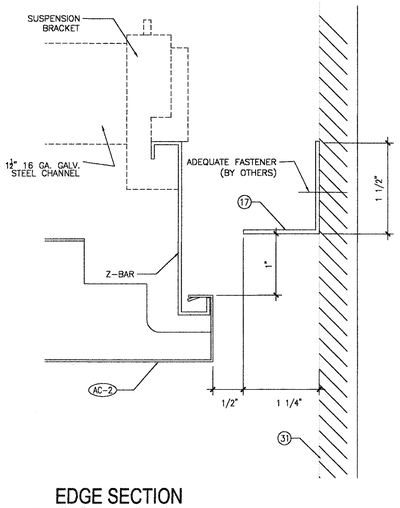
05 / A9.001 DUCT CLADDING DETAIL
AS NOTED

KEYED NOTES:

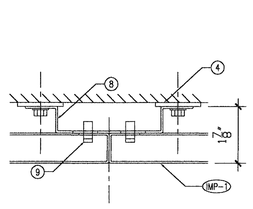
1. ALUMINIUM CLADDING – 1/8" THK – PRE-FINISHED: POWDERCOATED SAME COLOR THAN CEILING.
2. EXTRUDED ALUM. INSERT– JOINTS ALIGNED WITH JOINTS @ CLADDING – POWDERCOATED
3. SPLICE RING
4. SHIM AS REQUIRED
5. 1/4" THK STEEL GUSSET WELDED TO STEEL BRACKET AROUND DUCT
6. REVEAL– SSTL
7. FASTENER
8. ALUMINIUM GRID WITH SLOTS
9. CLIP
10. SYSTEM 100 ALUMAVAULT TEE – POWDERCOATED
11. CEILING PANEL AC-1 CONFORM TO FACTORY CURVED TEE – POWDERCOATED
12. VINYL CLIP
13. HOLD DOWN CLIP
14. 12 GA. HANGER WIRE SECURE TO STRUCTURE ABOVE
15. ALUMINIUM CLADDING @ SKYLIGHT – 1/8 THK – POWDERCOATED CUSTOM COLOR
16. BENT SSTL PLATE 16 GA
17. 1-1/2" X 1-1/2" SSTL ANGLE 16 GA
18. "Z" HOOK-ON SUSPENSION PROFILE
19. SSTL HOOK-ON PLANK CEILING PANEL – 24 GA
20. 1/8" THICK BENT ALUMINIUM PLATE – POWERCOATED
21. 1/8" THK. ALUM. ANGLE – SECURE TO STUD
22. GYPSUM BOARD
23. METAL STUD OR W16 BEAM @ SIM.
24. FASTENERS @ 12" O.C.
25. PRE-FINISHED ALUM ANGLE @ REVEAL
26. PRE-FINISHED ALUM. CHANNEL @ REVEAL
27. 1 1/2" 16 GA GALVANIZED STEEL CHANNEL
28. "U" BOLT CROSS CONNECTOR CLAMP
29. 2"x4" STEEL TUBE
30. STIFFENERS AS REQUIRED TO MAINTAIN SHAPE AND STIFFNESS OF DUCT CLADDING
31. WALL FINISH FACE
32. HOLD-DOWN CLIP
33. EXTRUDED ALUMINIUM CHANNEL. POWDERCOATED. JOINTS ALIGNED WITH CLADDING JOINTS

RECORD DRAWINGS
DO NOT MODIFY
Rey de la Reza Architects, Inc.
13 May 2005

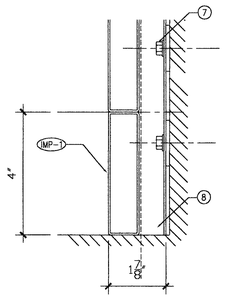
Note: Information used to develop these documents was taken from Record of the Work Drawings prepared by the construction contractor, Clark Construction Group - Texas.
The information provided by the contractor was not verified by the design firm named above.



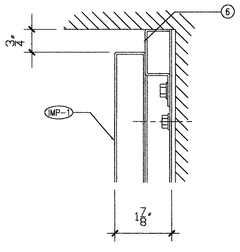
EDGE SECTION
09 / A9.001 @ CEILING AC-2
1"=1"



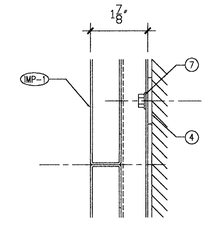
8A VERTCAL BUTT JOINT
6"=1'-0"



8B BASE DETAIL
6"=1'-0"



8C HEAD WITH REVEAL
6"=1'-0"



8D HORIZONTAL BUTT JOINT
6"=1'-0"

08 / A9.001 TYPICAL SSTL PANELS TYPE IMP-1 - DETAILS
6"=1'-0"

NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

0' 2' 4' 8' 12'

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

PLOT DATE: 02/04/02 HAS FILE:1A536CA9001

HOUSTON AIRPORT SYSTEM
GEORGE BUSH INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

Lee Elliott
1009 W.RANDOL MILL RD
ARLINGTON,TX,76012
Tel: 817.261.1446
Tel: 817.861.3266

REY DE LA REZA ARCHITECTS, INC
ARCHITECTURE PLANNING INTERIOR DESIGN
1245 WEST 18TH ST.
HOUSTON,TX,77008
Tel: 713.868.3121
Tel: 713.802.0112

REVISIONS

NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
	RECORD SET	05/13/05	EM

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

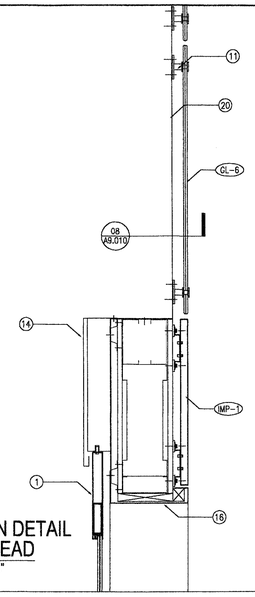
APM STATION + PLATFORM

INTERIOR DETAILS

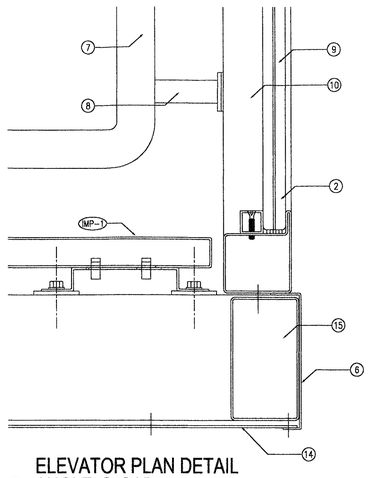
PROJECT MGR:	HEM
DESIGNER:	SG
DRAWN BY:	SEM
CHECKED BY:	AB
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	AS NOTED
DATE:	09/14/01

REGISTERED ARCHITECT Rey de la Reza 4672-B STATE OF TEXAS

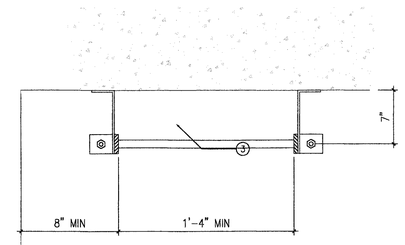
APPROVED BY:	DATE:
DIRECTOR HOUSTON AIRPORT SYSTEM	
PROJECT NO.	1140
C.I.P. NO.	A-0354
H.A.S. NO.	536C
SHEET NO.	54 A9.001



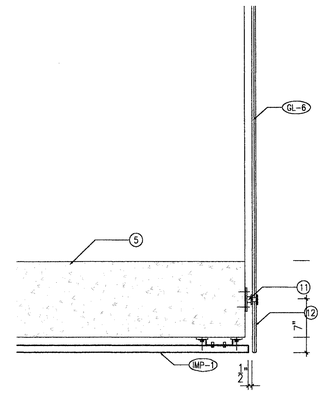
04 SECTION DETAIL DOOR HEAD
A9.010 1 1/2"=1'-0"



03 ELEVATOR PLAN DETAIL ANGLE @ CAB
A9.010 6"=1'-0"



02 LADDER
A9.010 1 1/2"=1'-0"



01 HOISTWAY PLAN DETAIL ANGLE @ PLATFORM LEVEL
A9.010 1 1/2"=1'-0"

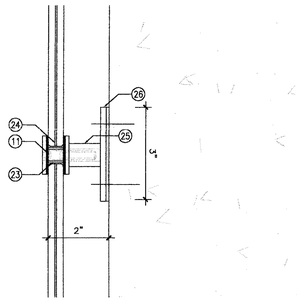
GENERAL NOTES:

GL-6 LAMINATED GLASS WITH PARTIAL WHITE INTERLAYER

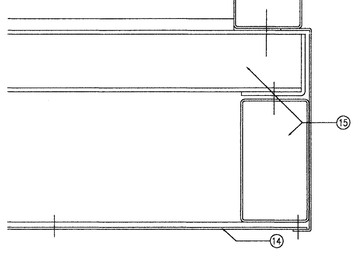
FL-2 TERRAZZO FLOOR TYPE 2

IMP-1 INTERIOR STAINLESS STEEL WALL PANELS

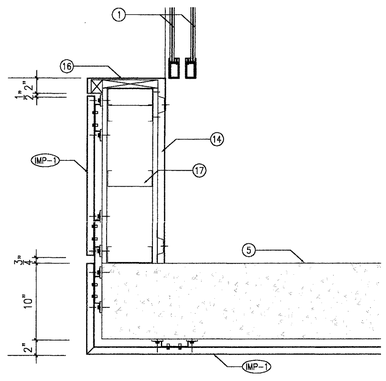
- CAB AND DOORS DETAILS TO BE COORDINATED WITH ELEVATOR MANUFACTURER.



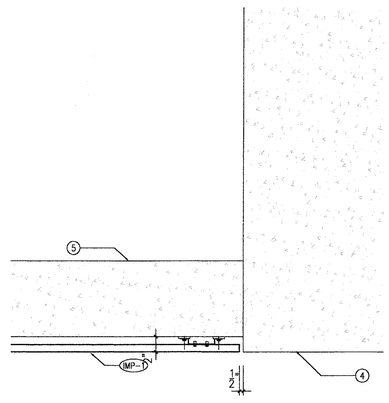
08 GLASS BRACKET DETAIL
A9.010 6"=1'-0"



07 ELEVATOR SECTION DETAIL CAB PLATFORM
A9.010 6"=1'-0"



06 HOISTWAY PLAN DETAIL ANGLE @ LOBBY
A9.010 1 1/2"=1'-0"

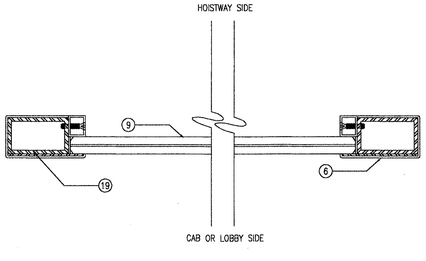


05 HOISTWAY PLAN DETAIL ANGLE @ CONCRETE COLUMN
A9.010 1 1/2"=1'-0"

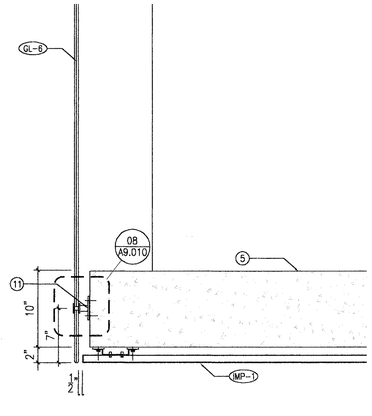
KEYED NOTES:

1. GLASS DOORS @ HOISTWAY AND CAB – CENTER OPENNING FRAME SSTL CLAD
2. GLASS BACK @ CAB
3. LADDER – GALVANIZED STEEL–SECURE TO CONCRETE STRUCTURE – RE A9.010
4. CONCRETE COLUMN – ARCHITECTURAL CONCRETE
5. CONCRETE WALL– ARCHITECTURAL CONCRETE
6. SSTL CLADDING – 1/16" THK MIN – NON–DIRECTIONAL MACHINE POLISH
7. SSTL HANDRAIL
8. HANDRAIL SUPPORT – SSTL
9. 1/2" THK LAMINATED GLASS – CLEAR
10. INTERMEDIATE SSTL MULLION
11. SSTL GLASS BRACKET – 2" DIA. MAX – SECURE TO CONCRETE WALL
12. LAMINATED GLASS PANEL WITH WHITE INTERLAYER
13. LAMINATED GLASS PANEL CLEAR
14. SHEET METAL CLADDING – POWERCOATED
15. CAB FRAME BY CAB MANUFACTURER
16. STAINLESS STEEL HEAD
17. 6" METAL STUD
18. SSTL PROFILE 2"x4"
19. DOOR FRAME – SSTL CLAD – 2 3/4" MAX.
20. EDGE OF CONCRETE WALL
21. STEEL ANGLE ANCHOR TO CONCRETE
22. DOOR SILL BY ELEVATOR MANUFACTURER
23. NYLON SPACER
24. HOLES DRILLED IN GLASS
25. 1" SSTL TUBE WELD TO PLATE
26. 3" SSTL PLATE 1/4" THK – ANCHOR TO CONCRETE

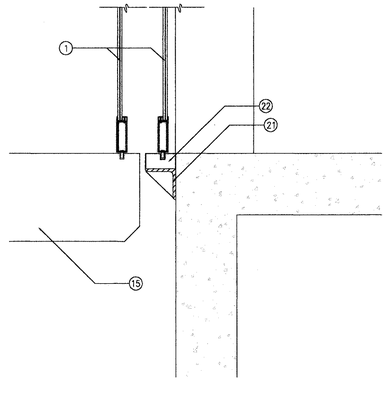
12 NOT USED DETAIL
A9.010 1 1/2"=1'-0"



11 PLAN DETAIL GLASS DOOR
A9.010 6"=1'-0"



10 HOISTWAY PLAN DETAIL ANGLE @ GLASS PANEL
A9.010 1 1/2"=1'-0"



09 ELEVATOR SECTION DETAIL SLIDING DOORS SILL
A9.010 1 1/2"=1'-0"

RECORD DRAWINGS
DO NOT MODIFY
Rey de la Reza Architects, Inc.
13 May 2005

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HOUSTON AIRPORT SYSTEM
GEORGE BUSH INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

Lea Elliott
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REVISIONS

NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
	RECORD SET	05/13/05	EM

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION + PLATFORM
ELEVATOR DETAILS

PROJECT MGR:	HEM
DESIGNER:	SG
DRAWN BY:	SEM
CHECKED BY:	AB
DRAWING STANDARD:	
	ISEP 07.20.2000
SCALE:	AS NOTED
DATE:	09/14/01

REGISTERED ARCHITECT Rey de la Reza 16212 STATE OF TEXAS

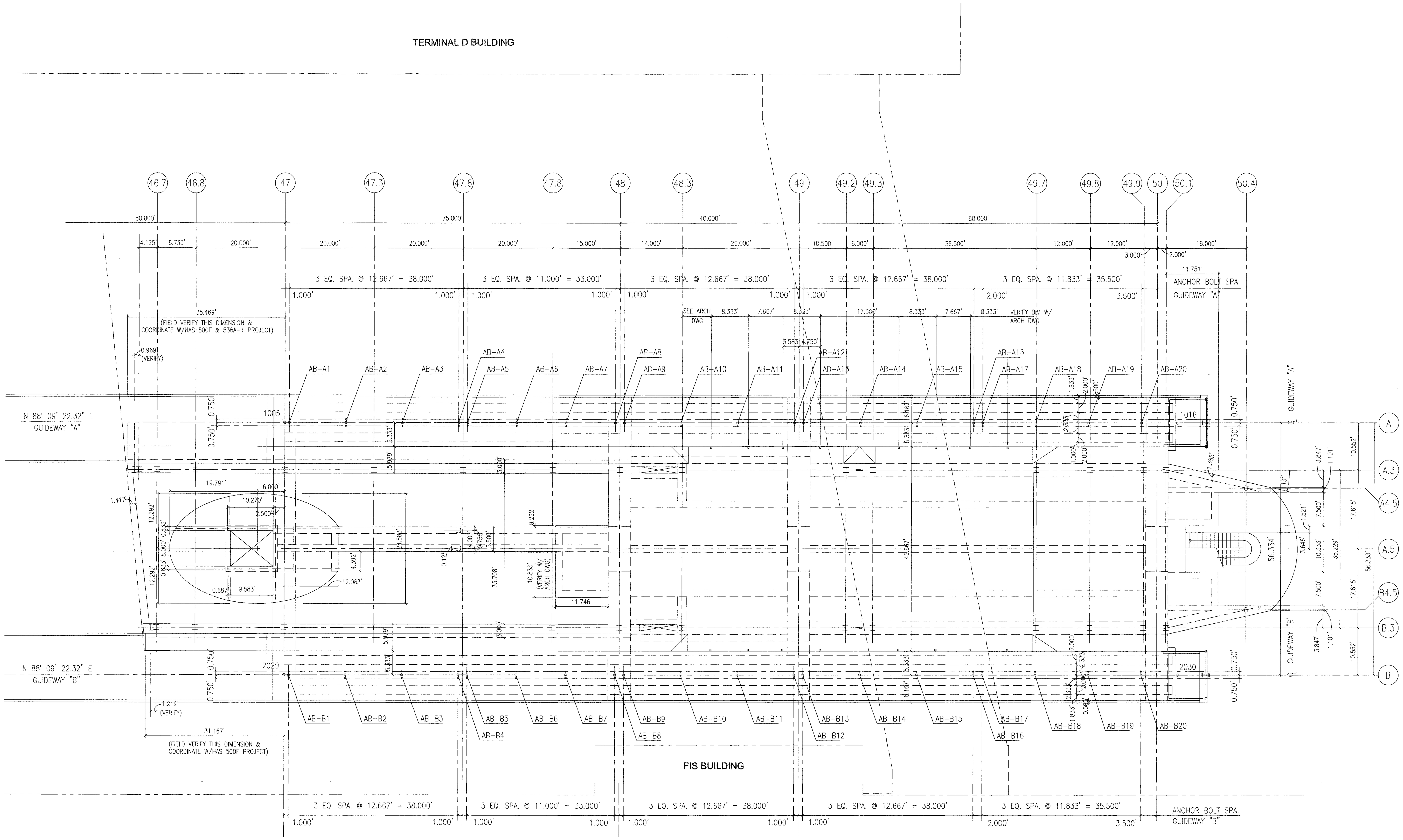
APPROVED BY:	DATE:
DIRECTOR HOUSTON AIRPORT SYSTEM	
PROJECT NO.	1140
C.I.P. NO.	A-0354
H.A.S. NO.	536C
SHEET NO.	A9.010

55

PLOT DATE: 02/04/02 HAS FILE:\A536CA9010

NOTES TO SHEET

1. ANCHOR BOLT COORDINATES ARE FOR INFORMATION AND COORDINATION INFORMATION ONLY.
2. REFER TO SHEET AB2.01 FOR ANCHOR BOLT LOCATION SCHEDULES.
3. REFER TO SHEET S1.001 FOR HORIZONTAL CONTROL ALIGNMENT STATIONING.



1 ANCHOR BOLT PLAN
AB1.01 1" = 10'-0"

0' 10 20 30
SCALE: 1"=10'

N

RECORD DRAWINGS

DO NOT MODIFY

Terry + Moore Inc.
27 May 2005

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HOUSTON AIRPORT SYSTEM
GEORGE BUSH
INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

TERRY+MOORE INC. ENGINEERS
2601 GASTON AVENUE
DALLAS, TEXAS 75226
214-828-9400
FAX 214-828-9404

REVISIONS

NO.	DESCRIPTION	DATE	BY

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION AND PLATFORM
ANCHOR BOLT PLAN

PROJECT MGR:	P.J.M.
DESIGNER:	J.P.
DRAWN BY:	D.E.B.
CHECKED BY:	P.J.M.
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	NONE
DATE:	06/06/03

STATE OF TEXAS
PATRICK J. MOORE
70673
REGISTERED PROFESSIONAL ENGINEER

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	02-2214
C.I.P. NO.	A-0354
H.A.S. NO.	536C
SHEET NO.	AB1.01

61

RECORD DRAWING

PLOT DATE 06/20/03 HAS FILE: IA536ASAB101.dwg

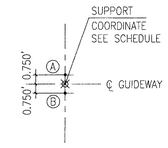
ANCHOR BOLT LOCATION SCHEDULE
GDWY "A" AT APM PLATFORM STATION "D"

DESIGNATION	STATION END	NORTHING	EASTING	TYPE
AB-A1	15+90.14	13,925,787.28	3,129,238.41	A
AB-A2	16+02.81	13,925,787.69	3,129,251.07	A
AB-A3	16+15.47	13,925,788.10	3,129,263.73	A
AB-A4	16+28.14	13,925,788.50	3,129,276.39	A
AB-A5	16+30.14	13,925,788.57	3,129,278.39	A
AB-A6	16+41.14	13,925,788.92	3,129,289.38	A
AB-A7	16+52.14	13,925,789.28	3,129,300.38	A
AB-A8	16+63.14	13,925,789.63	3,129,311.37	A
AB-A9	16+65.14	13,925,789.70	3,129,313.37	A
AB-A10	16+77.81	13,925,790.10	3,129,326.03	A
AB-A11	16+90.47	13,925,790.51	3,129,338.69	A
AB-A12	17+03.14	13,925,790.92	3,129,351.35	A
AB-A13	17+05.14	13,925,790.98	3,129,353.35	A
AB-A14	17+17.81	13,925,791.39	3,129,366.01	A
AB-A15	17+30.47	13,925,791.80	3,129,378.67	A
AB-A16	17+43.14	13,925,792.20	3,129,391.33	A
AB-A17	17+45.14	13,925,792.27	3,129,393.33	A
AB-A18	17+56.97	13,925,792.65	3,129,405.16	A
AB-A19	17+68.81	13,925,793.03	3,129,416.98	A
AB-A20	17+80.64	13,925,793.41	3,129,428.81	A

ANCHOR BOLT LOCATION SCHEDULE
GDWY "B" AT APM PLATFORM STATION "D"

DESIGNATION	STATION END	NORTHING	EASTING	TYPE
AB-B1	115+96.88	13,925,730.98	3,129,240.23	A
AB-B2	116+09.55	13,925,731.39	3,129,252.89	A
AB-B3	116+22.21	13,925,731.79	3,129,265.55	A
AB-B4	116+34.88	13,925,732.20	3,129,278.21	A
AB-B5	116+36.88	13,925,732.27	3,129,280.21	A
AB-B6	116+47.88	13,925,732.62	3,129,291.20	A
AB-B7	116+58.88	13,925,732.97	3,129,302.20	A
AB-B8	116+69.88	13,925,733.33	3,129,313.19	A
AB-B9	116+71.88	13,925,733.39	3,129,315.19	A
AB-B10	116+84.55	13,925,733.80	3,129,327.85	A
AB-B11	116+97.21	13,925,734.21	3,129,340.51	A
AB-B12	117+09.88	13,925,734.62	3,129,353.17	A
AB-B13	117+11.88	13,925,734.68	3,129,355.17	A
AB-B14	117+24.55	13,925,735.09	3,129,367.83	A
AB-B15	117+37.21	13,925,735.49	3,129,380.49	A
AB-B16	117+49.88	13,925,735.90	3,129,393.15	A
AB-B17	117+51.88	13,925,735.97	3,129,395.15	A
AB-B18	117+63.71	13,925,736.35	3,129,406.98	A
AB-B19	117+75.55	13,925,736.73	3,129,418.80	A
AB-B20	117+87.38	13,925,737.11	3,129,430.63	A

NOTE: COORDINATES SHOWN ARE FOR INFORMATION AND COORDINATION INFORMATION ONLY.



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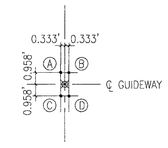

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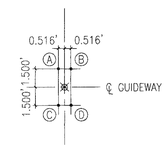

TYPE "C"

N

TYPICAL GUIDEBEAM SUPPORTS

RECORD DRAWINGS
DO NOT MODIFY
Terry + Moore Inc.
27 May 2005
Note: Information used to develop these documents was taken from Record of the Work Drawings prepared by the construction contractor, Clark Construction Group - Texas. The information provided by the contractor was not verified by the design firm named above.

HOUSTON AIRPORT SYSTEM
GEORGE BUSH INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

TERRY+MOORE INC.
ENGINEERS
2601 Gaston Avenue
Dallas, Texas 75226
214-828-9400
FAX 214-828-9404

REVISIONS

NO.	DESCRIPTION	DATE	BY

INTERNATIONAL ♦ SERVICES ♦ EXPANSION ♦ PROGRAM

APM STATION AND PLATFORM
ANCHOR BOLT LOCATION SCHEDULES

PROJECT MGR:	P.J.M.
DESIGNER:	J.P.
DRAWN BY:	S.T.
CHECKED BY:	P.J.M.
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	NONE
DATE:	06/06/03

STATE OF TEXAS
PATRICK J. MOORE
70673
REGISTERED
PROFESSIONAL ENGINEER
THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY PATRICK J. MOORE, P.E. 70673 ON 06/06/03. ALTERATION OF A SEALED DOCUMENT WITHOUT PROPER NOTIFICATION TO THE RESPONSIBLE ENGINEER IS AN OFFENSE UNDER THE TEXAS ENGINEERING PRACTICE ACT.

APPROVED BY:	DATE:
DIRECTOR HOUSTON AIRPORT SYSTEM	

PROJECT NO.	02-2214
C.I.P. NO.	A-0354
H.A.S. NO.	538C
SHEET NO.	AB2.01

RECORD DRAWING

PLOT DATE: 08/20/03 HAS FILE: HAS538C\SAB201.dwg

PLAN & ELEVATION SYMBOLS

- HID LIGHT FIXTURE, TYPE AS INDICATED
- HID LIGHT FIXTURE, TYPE AS INDICATED
- LIGHT FIXTURE, FLUORESCENT, LETTER INDICATES TYPE
- LIGHT FIXTURE, FLUORESCENT WITH EMERGENCY BATTERY PACK, LETTER INDICATES TYPE
- NEW PANELBOARD
- J — JUNCTION OR PULL BOX
- 40 — MOTOR, 3PHASE HORSEPOWER AS NOTED
- M 1/2 — MOTOR, SINGLE PHASE HORSEPOWER AS NOTED
- GROUND ROD
- GROUND ROD IN TEST WELL
- CONNECTION POINT
- — G — GROUND WIRE, #4/0 BARE STRANDED COPPER
- HOMERUN TO PANELBOARD, CIRCUIT DESIGNATION AS NOTED
- 202 — FEEDER DESIGNATION – SEE ONE LINE DIAGRAM FOR CONDUIT AND WIRE SIZES
- 1 — KEYED NOTE
- CONDUIT TURNED UP
- CONDUIT TURNED DOWN
- CAPPED CONDUIT
- S — SINGLE POLE TOGGLE SWITCH
- WP — 20A,125V DUPLEX RECEPTACLE WP = WEATHERPROOF COVER
- 20A,125V QUADRUPLEX RECEPTACLE
- NON-FUSED DISCONNECT SWITCH 30A, 3P UNLESS OTHERWISE INDICATED.
- FUSED DISCONNECT SWITCH 30A, 3P UNLESS OTHERWISE INDICATED.
- COMBINATION STARTER FVNR NEMA SIZE 1 UNLESS OTHERWISE INDICATED.
- FVNR STARTER NEMA SIZE 1 UNLESS OTHERWISE INDICATED.
- C — LIGHTING CONTACTOR
- DM — TRUE RMS SOLID STATE DIGITAL MONITOR WITH SELECTABLE FUNCTIONS.
- R — INDICATING LIGHT – LETTER DENOTES COLOR G-GREEN R-RED C-CLEAR B-BLUE W-WHITE A-AMBER
- MFAP — MAIN FIRE ALARM PANEL
- F — FIRE ALARM PULL STATION 48"AFF
- F — FIRE ALARM COMBINATION SPEAKER/STROBE 80"AFF
- V — FIRE ALARM VISUAL DEVICE, 15/75 CANDELA AS REQUIRED 80" AFF
- D S — ADDRESSABLE FIRE ALARM DUCT DETECTOR "S" INDICATES LOCATED IN SUPPLY AIR DUCTWORK "R" INDICATES LOCATED IN RETURN AIR DUCTWORK
- S — FIRE ALARM PHOTOELECTRIC SMOKE DETECTOR
- H — FIRE ALARM RATE OF RISE HEAT DETECTOR
- FS — FIRE ALARM FLOW SWITCH
- TS — FIRE ALARM TAMPER SWITCH
- TELEPHONE OUTLET 4" SQUARE X 2 1/8" DEEP BOX WITH 3/4"C TO ABOVE CEILING
- DATA OUTLET 4" SQUARE X 2 1/8" DEEP BOX WITH 3/4"C TO ABOVE CEILING
- PUSHBUTTON
- — LP — LIGHTNING PROTECTION CONDUCTOR
- LIGHTNING PROTECTION AIR TERMINAL

ONE LINE AND CONTROL DIAGRAM SYMBOLS

- MOLDED CASE CIRCUIT BREAKER – SIZE AS NOTED. THREE POLES UNLESS OTHERWISE NOTED.
- DISCONNECT SWITCH – 30A, 3P UNLESS NOTED OTHERWISE
- FUSE – QUANTITY AND RATING AS NOTED
- TRANSFORMER – DESCRIPTION, CONNECTION AND RATING AS NOTED
- TRANSFORMER – DELTA CONNECTION
- TRANSFORMER – GROUNDED WYE CONNECTION
- CURRENT TRANSFORMER (CT) – QUANTITY AND RATIO AS NOTED
- 20 — MOTOR, THREE-PHASE, HORSEPOWER AS NOTED
- MOTOR STARTER – NEMA SIZE AS INDICATED
- SPACE HEATER
- GROUND CONNECTION SPACE HEATER
- DM — TRUE RMS SOLID STATE DIGITAL MONITOR WITH SELECTABLE FUNCTIONS.
- R — INDICATING LIGHT – LETTER DENOTES COLOR G-GREEN R-RED C-CLEAR B-BLUE W-WHITE A-AMBER
- CONNECTION POINT
- 1 — KEYED NOTE
- 602 — FEEDER DESIGNATION – REFER TO PLAN DRAWINGS FOR LOCATION AND TO ONE LINE DIAGRAM FOR SIZE AND QUANTITY
- HOA SELECTOR SWITCH
- M — CONTACTOR OPERATING COIL
- NORMALLY OPEN (NO) CONTACT
- NORMALLY CLOSED (NC) CONTACT
- CR — CONTROL RELAY
- PUSHBUTTON, NC MOMENTARY CONTACT
- PUSHBUTTON, NO MOMENTARY CONTACT
- ENCLOSURE

ABBREVIATIONS

A	AMPERE (S)
AIC	AMPERES INTERRUPTING CAPACITY
AFF	ABOVE FINISHED FLOOR
ATS	AUTOMATIC TRANSFER SWITCH
BAS	BUILDING AUTOMATION SYSTEM
BRK	BREAKER
BLDG	BUILDING
C	CONDUIT
CAOP	CHILLER AUXILIARY OIL PUMP
CB	CIRCUIT BREAKER
CCP	CHILLER CONTROL PANEL
CU	COPPER
CKT	CIRCUIT
CLF	CURRENT LIMITING FUSE
DEG	DEGREE
DIV	DIVISION
DCS	DISTRIBUTED CONTROL SYSTEM
DWG	DRAWING
EA	EACH
F	FREQUENCY
FLA	FULL LOAD AMPERES
FVNR	FULL VOLTAGE NON-REVERSING
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GND	GROUND
HAS	HOUSTON AIRPORT SYSTEM
HOA	HAND-OFF- AUTOMATIC
HP	HORSEPOWER
HPF	HIGH POWER FACTOR
HPS	HIGH PRESSURE SODIUM
HTG	HEATING
JB	JUNCTION BOX
KA	KILOAMPERES
KV	KILOVOLT
KVA	KILOVOLT AMPERES
KWHD	KILOWATT-HOUR DEMAND
LR	LOCAL-REMOTE
LRA	LOCKED ROTOR AMPERES
LS	LIMIT SWITCH
MAX	MAXIMUM
MCC	MOTOR CONTROL CENTER
MCP	MOTOR CIRCUIT PROTECTOR
MCOV	MAX CONTINUOUS OPERATING VOLTAGE
MFAP	MASTER FIRE ALARM PANEL
MIN	MIINIMUM
MLO	MAIN LUGS ONLY
MOT	MOTOR
MPR	MOTOR PROTECTION RELAY
MR	MULTI-RATIO
MTD	MOUNTED
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRICAL CODE
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
NTS	NOT TO SCALE
No	NUMBER
OFCI	OWNER FURNISHED – CONTRACTOR INSTALLED
PFCC	POWER FACTOR CORRECTION CAPACITOR
O.C.	OVERCURRENT
PF	POWER FACTOR
RCP	REMOTE CONTROL PANEL
RGS	RIGID GALVANIZED STEEL
RMS	ROOT MEAN SQUARE
SSS	SOLID STATE STARTER
RVAT	REDUCED VOLTAGE AUTO-TRANSFORMER
SYM	SYMMETRICAL
SYN	SYNCHRONOUS
SWGR	SWITCHGEAR
V	VOLT(S)
VIB	VIBRATION
WP	WEATHERPROOF

LOAD ANALYSIS

DESCRIPTION	KVA	AMPS @480V 3 PHASE
LARGEST MOTOR	43.20	51.96
25% LARGEST MOTOR	10.80	12.99
OTHER MOTOR LOADS	123.69	148.78
RECEPTACLE LOAD	9.22	11.08
LIGHTING LOAD @ 125%	27.83	33.47
25% OF LIGHTING LOAD	6.96	8.37
MISCELLANEOUS LOAD	30.00	36.08
TOTAL	251.70	302.75

THE NEW SERVICE CONSISTS OF A 600A, 480Y/277V PANELBOARD SERVED WITH 2 SETS OF 4-350 KCMIL CONDUCTORS. SEE ONE LINE DIAGRAM ON SHEET E6.000.

HOUSTON AIRPORT SYSTEM
GEORGE BUSH INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

SHAH SMITH & ASSOCIATES, INC.

RdlR
REY DE LA REZA ARCHITECTS, INC.
ARCHITECTURE PLANNING INTERIOR DESIGN
1245 WEST 18TH ST.
HOUSTON,TX,77008
Tel: 713.868.3121
Tel: 713.802.0112

REVISIONS			
NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
	RECORD DRAWING	05/06/05	

INTERNATIONAL ◊ SERVICES ◊ EXPANSION ◊ PROGRAM

APM STATION + PLATFORM

LEGEND & LOAD ANALYSIS

PROJECT MGR:	A.E.BELTRAN
DESIGNER:	D.BELISLE
DRAWN BY:	D.BELISLE
CHECKED BY:	A.E.BELTRAN
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	AS NOTED
DATE:	09/14/01

RECORD DRAWING
THIS DRAWING HAS BEEN REVISED TO SHOW SIGNIFICANT CHANGES IN THE WORK MADE DURING CONSTRUCTION BASED ON MARKED-UP PRINTS, DRAWINGS AND OTHER DATA.

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO. 1061-001
C.I.P. NO. A-0354
H.A.S. NO. 536C
SHEET NO.

94 E0.000

LIGHTING FIXTURE SCHEDULE

TYPE	MANUFACTURER AND CATALOG NUMBER	DESCRIPTION	VOLTAGE	LAMPS	MOUNTING	REMARKS
FA	LITHONIA #AF10332277POGEB10WGAFPV COLUMBIA DAY-BRITE	4' INDUSTRIAL FLUORESCENT, BAKED WHITE ENAMEL REFLECTOR, 10% UPLIGHT, ELECTRONIC BALLAST 10% THD, HPF, BF 0.99, WITH WIRE GUARD	277	3-F032T8 3500K,85 CRI	CHAIN HUNG 8'-0" AFF	ELECTRONIC BALLAST <10%THD PROVIDE IN-LINE FUSE
FA1	LITHONIA #AF10332277POGEB10PS1400WGAFPV COLUMBIA DAY-BRITE	4' INDUSTRIAL FLUORESCENT, BAKED WHITE ENAMEL REFLECTOR, 10% UPLIGHT, ELECTRONIC BALLAST 10% THD, HPF, BF 0.99, WITH WIRE GUARD EMERGENCY BATTERY PACK	277	3-F032T8 3500K,85 CRI	CHAIN HUNG 8'-0" AFF	ELECTRONIC BALLAST <10%THD PROVIDE IN-LINE FUSE EMERGENCY BATTERY PACK SEE NOTE 1 BELOW
FB	NRL #ZMF26-G-B2 GUTH CROUSE HINDS	FLUORESCENT VAPOR TIGHT	120	26W FLUOR TO SUIT FIXTURE	WALL ELEV PIT	
BC1	KURT VERSEN P926 LITHONIA LIGHTOLIER INDY	COMPACT FLUORESCENT DOWNLIGHT 5 7/8" APERTURE, 10 1/4" DEEP	277	CF32DTE/830 3000K,82CRI	RECESSED	HPF ELECTRONIC BALLAST PROVIDE IN-LINE FUSE
BC2	INDY LIGHTING 610R-422-FL-BLACK PAINTED SPLAY HALO ARCHITECTURAL PRESCOLITE	COMPACT FLUORESCENT DOWNLIGHT 7 3/8" APERTURE, 10 3/4" DEEP	277	CF42DTE/830 3000K,82CRI	RECESSED	HPF MAGNETIC ENCASED AND POTTED BALLAST PROVIDE IN-LINE FUSE
BC3	KURT VERSEN P601 LITHONIA LIGHTOLIER INDY	SURFACE MOUNTED COMPACT FLUORESCENT DOWNLIGHT 8 3/8" APERTURE, 6" DEEP WITH REMOTE EMERGENCY BATTERY PACK. SEE NOTE 1 BELOW.	277	CF18DTE/830 3000K,82CRI	SURFACE	HPF ELECTRONIC BALLAST PROVIDE IN-LINE FUSE EMERGENCY BATTERY PACK MOUNT ON CEILING ADJACENT TO FIXTURE
BH1	KURT VERSEN R7302-SC LITHONIA LIGHTOLIER INDY	RECESSED METAL HALIDE DOWNLIGHT 5 7/8" APERTURE, 10 1/4" DEEP	277	MP70PAR38/U/FL 3200K,75CRI	RECESSED	MAGNETIC BALLAST PROVIDE IN-LINE FUSE
BH2	KURT VERSEN R7302-SC LITHONIA LIGHTOLIER INDY	RECESSED METAL HALIDE DOWNLIGHT 5 7/8" APERTURE, 10 1/4" DEEP	277	MP150PAR38/U/FL 3200K,75CRI	RECESSED	MAGNETIC BALLAST PROVIDE IN-LINE FUSE
BL1	ELLIPTIPAR F-305-T155-S00-277-XX WINONA LSI	2 LAMP ADJUSTABLE COVE LIGHT WITH EACH LAMP SEPARATELY ADJUSTABLE	277	T5 FP54/830/HO 3000K,82CRI	SURFACE	ELECTRONIC BALLAST 10% THD PROVIDE IN-LINE FUSE
BL1E	ELLIPTIPAR F-305-T155-S00-277-XX-E WINONA LSI	2 LAMP ADJUSTABLE COVE LIGHT WITH EACH LAMP SEPARATELY ADJUSTABLE ONE LAMP ON INTEGRAL EMERGENCY BATTERY PACK SEE NOTE 1 BELOW	277	T5 FP54/830/HO 3000K,82CRI	SURFACE	ELECTRONIC BALLAST 10% THD PROVIDE IN-LINE FUSE EMERGENCY BATTERY PACK
BL3	PRUDENTIAL CL5956 BELFER	4' FLUORESCENT STRIP WITH T5 LAMP	277	T5 FP28/840/HO 4000K,82CRI BLUE COLOR SLEEVE FOR FIXTURES AT SKYLIGHT	COVE AND ELEVATOR SIDELIGHTING GLASS SEE ARCH PLANS	ELECTRONIC BALLAST 10% THD PROVIDE IN-LINE FUSE
BS1	ERCO 33861 - DRIVER: ADVANCE XITANIUM #9137 005 18705	LED STEPLIGHT	120	INTEGRAL	SURFACE SEE ARCH PLANS	REMOTE BALLAST PROVIDE IN-LINE FUSE
BS2	PAULUHN FEPP39A-18-INX9005-BLUE STONCO	SURFACE MOUNTED BLUE GLASS ENCASED SAFETY LIGHT	120	18W CFL 4000K	SURFACE	INTEGRAL ELECTRONIC PROVIDE IN-LINE FUSE
BU1	ELLIPTIPAR T-151-035G-V-07-B-V0-0 WINONA INSIGHT	SURFACE MOUNTED ASYMMETRIC DISTRIBUTION UPLIGHT SILVER METALLIC	277	CMH35/T6G12	SURFACE	INTEGRAL MAGNETIC PROVIDE IN-LINE FUSE
BU2	ELLIPTIPAR F121-P126-E-01-277-VE0 WINONA INSIGHT	INDIRECT SURFACE MOUNTED FIXTURE WITH EXTERNAL EMERGENCY BATTERY PACK SEE NOTE 1 BELOW SILVER METALLIC	277	26W/8T4/Q/G24q-3	SURFACE WALL 4' BELOW CEILING	INTEGRAL ELECTRONIC PROVIDE IN-LINE FUSE EMERGENCY BATTERY PACK MOUNTED ADJACENT TO FIXTURE ON WALL
XA	LITHONIA #LESW1R12/277ELNSD	SINGLE FACE DIE CAST ALUMINUM EXIT SIGN WITH EMERGENCY BATTERY PACK	277	LED	UNIVERSAL SEE PLANS	UNSWITCHED
XB	LITHONIA #LESW2R12/277ELNSD	DOUBLE FACE DIE CAST ALUMINUM EXIT SIGN WITH EMERGENCY BATTERY PACK	277	LED	UNIVERSAL SEE PLANS	UNSWITCHED

(1) EMERGENCY BATTERY PACK TO OPERATE ONE LAMP AT 1400 LUMENS FOR 90 MINUTES. PROVIDE A TEST SWITCH AND MOUNT SO SWITCH EXTENDS THROUGH BALLAST COVER ADJACENT TO LAMPS. ROUTE ONE UNSWITCHED LEG TO FIXTURE. ON LOSS OF NORMAL POWER BATTERY PACK WILL OPERATE ONE LAMP FOR A MINIMUM OF 90 MINUTES. REFER TO MANUFACTURER WIRING DIAGRAM.

HOUSTON AIRPORT SYSTEM
GEORGE BUSH INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

SHAH SMITH & ASSOCIATES, INC.
2825 WILCREST, SUITE 350
HOUSTON, TEXAS 77042
Phone: 713 780 7563 Fax: 713 780 8209

RdlR
REY DE LA REZA ARCHITECTS, INC.
ARCHITECTURE PLANNING INTERIOR DESIGN
1245 WEST 18TH ST.
HOUSTON,TX,77008
Tel: 713.868.3121
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REVISIONS

NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
	RECORD DRAWING	05/06/05	

INTERNATIONAL ◦ SERVICES ◦ EXPANSION ◦ PROGRAM

APM STATION + PLATFORM

LIGHTING FIXTURE SCHEDULE

PROJECT MGR: A.E.BELTRAN
DESIGNER: D.BELISLE
DRAWN BY: D.BELISLE
CHECKED BY: A.E.BELTRAN
DRAWING STANDARD: ISEP 07.20.2000
SCALE: AS NOTED
DATE: 09/14/01

RECORD DRAWING
THIS DRAWING HAS BEEN REVISED TO SHOW SIGNIFICANT CHANGES IN THE WORK MADE DURING CONSTRUCTION BASED ON MARKED-UP PRINTS, DRAWINGS AND OTHER DATA.

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

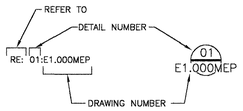
PROJECT NO. 1061-001
C.I.P. NO. A-0354
H.A.S. NO. 536C
SHEET NO.

95 E1.000

GENERAL NOTES FOR ALL WORK:

1. REMOVE, REPLACE, AND REPAIR EXISTING WALL, FLOORING, AND CEILINGS AS REQUIRED TO PERFORM THE WORK.
2. PROVIDE THE OWNER WITH A COPY OF RECORD DRAWINGS AFTER COMPLETION OF THE PROJECT
3. ALL WORK AND EQUIPMENT SHALL COMPLY WITH ALL APPLICABLE LAWS, CODES, ETC. OF ALL AUTHORITIES HAVING JURISDICTION, INCLUDING FEDERAL, STATE, DISTRICT, AND LOCAL AUTHORITIES. MODIFICATIONS REQUIRED BY THE ABOVE SAID AUTHORITIES SHALL BE MADE WITHOUT ADDITIONAL CHARGE TO THE TENANT. WHERE CONTRACT DOCUMENT REQUIREMENTS ARE IN EXCESS OF CODE REQUIREMENTS, THE CONTRACT DOCUMENTS SHALL GOVERN. DEVIATIONS FROM THE CONTRACT DOCUMENTS REQUIRED BY THE ABOVE AUTHORITIES SHALL BE SUBMITTED TO THE OWNER FOR REVIEW.
4. NEW DUCTWORK, CONDUIT, AND PIPING SHOWN ON DRAWINGS SHALL BE INSTALLED AS HIGH AS POSSIBLE. CONTRACTORS SHALL COORDINATE DUCTWORK, CONDUIT, AND PIPING INSTALLATION WITH LIGHTING FIXTURES, SPECIAL CEILING CONSTRUCTION, AIR DISTRIBUTION EQUIPMENT, ETC., AND PROVIDE ADDITIONAL RISES, DROPS, AND OFFSETS AS REQUIRED.
5. EXISTING CONDITIONS: THE MEP DESIGN SHOWN ON THESE DRAWINGS IS SUPPORTED BY EXISTING BASE BUILDING MEP SYSTEMS WHICH HAVE BEEN ASSUMED TO BE IN GOOD WORKING ORDER. ANY DEFICIENCY IN THE BASE BUILDING MEP SYSTEMS WHICH PREVENTS A COMPLETE INTERFACE WITH THE TENANT SYSTEMS OR PREVENTS THE TENANT SYSTEMS FROM BEING FULLY FUNCTIONAL AT THE COMPLETION OF CONSTRUCTION SHALL BE IDENTIFIED IN WRITING BY THE CONTRACTOR TO THE OWNER AS SOON AS PRACTICAL AFTER DISCOVERY.
6. PERMITS, FEES AND LICENSES: FEES, PERMITS AND LICENSES REQUIRED BY THE LEGALLY CONSTITUTED AUTHORITIES FOR INSTALLATION OF THE WORK ACCORDING TO THE PLANS AND SPECIFICATIONS SHALL BE OBTAINED AND PAID FOR BY THE CONTRACTOR WHO SHALL DELIVER THE ABOVE MENTIONED CERTIFICATES TO THE OWNER'S REPRESENTATIVE.
7. THE CONTRACTOR SHALL REVIEW THE SITE PRIOR TO BID SUBMISSION AND SHALL INCLUDE IN HIS BID THE COST OF REPLACEMENT, REPAIR, RELOCATION OR REMOVAL OF EXISTING MEP OR FIRE PROTECTION ELEMENTS AS REQUIRED TO COMPLETE INSTALLATION OF ALL SYSTEMS SHOWN ON THESE DRAWINGS. WORK SHOWN REQUIRES PREMIUM TIME TO AVOID DISRUPTION OF THE OTHER TENANT'S ACTIVITIES AND MEP SERVICES. CONTRACTOR SHALL CONFIRM THE REQUIREMENTS FOR PREMIUM TIME OR SPECIAL PROCEDURES WITH THE OWNER AND INCLUDE THE COST IN HIS BID PROPOSAL. THE CONTRACTOR, BY SUBMITTING HIS BID PROPOSAL AGREES TO ACCEPT ALL EXISTING SITE CONDITIONS NOT SPECIFICALLY EXCEPTED. ALL EXCEPTIONS SHALL BE PROVIDED IN WRITING TO THE OWNER.
8. DRAWINGS:
   a. BECAUSE OF THE SMALL SCALE OF THE DRAWINGS, IT IS NOT POSSIBLE TO INDICATE ALL OFFSETS, FITTINGS, AND ACCESSORIES WHICH MAY BE REQUIRED. CONTRACTOR SHALL CAREFULLY INVESTIGATE THE CONDITIONS SURROUNDING INSTALLATION OF HIS WORK AND SHALL FURNISH THE NECESSARY FITTINGS WHICH MAY BE REQUIRED TO COMPLETE THE INSTALLATION.
   b. THE DRAWINGS WERE PREPARED FROM THE BEST INFORMATION AVAILABLE AND ATTEMPT TO GIVE REASONABLE INDICATION OF EXISTING EQUIPMENT. HOWEVER, BEFORE BEGINNING WORK, THE CONTRACTOR SHALL VERIFY, IN THE FIELD, THE LOCATION AND ROUTING OF EXISTING DUCTWORK, PIPING, AIR DISTRIBUTION EQUIPMENT, ELECTRICAL FEEDERS, STRUCTURE, ETC. AND IS RESPONSIBLE FOR REROUTING EXISTING DUCTWORK, PIPING, ELECTRICAL FEEDERS, SPRINKLER BRANCH LINES, CEILING SUPPORT WIRE, ETC. AS IS REQUIRED FOR NEW INSTALLATIONS AT NO ADDITIONAL COST TO THE OWNER.
9. FIBER OPTIC CONDUITS ARE NOT TO BE MOVED FOR THE PURPOSE OF ACCOMMODATING OTHER DISCIPLINES WITHOUT HAS / IT APPROVAL. APPROVAL SHOULD ROUTE THROUGH CONSTRUCTION MANAGEMENT TO HAS / IT. TAKE ALL NECESSARY PRECAUTIONS NOT TO DAMAGE EXISTING FIBER OPTIC CONDUITS. WHEN WELDING IN CLOSE PROXIMITY TO FIBER OPTIC CONDUITS, PROTECT CONDUITS WITH HEAT / FIRE BARRIER. CONTRACTOR IS RESPONSIBLE FOR ANY FIBER OPTIC CONDUIT THAT IS DAMAGED DURING CONSTRUCTION. RESPONSIBILITY INCLUDES THE OPERATIONAL COST OF THE SYSTEMS AFFECTED BY THE DAMAGED FIBER UNTIL THOSE SYSTEMS ARE RESTORED TO 100% FUNCTIONALITY.
10. CORE DRILLING THROUGH THE ITT LEVEL WALLS TO BE SUPPLIED BY HOLES INC. (281)469-7070 OR APPROVED EQUAL.

DETAIL/DRAWING REFERENCE KEY



ELECTRICAL GENERAL NOTES:

1. INSTALL COMPONENTS IN ACCORDANCE WITH CONTRACT DRAWINGS, MANUFACTURER'S INSTRUCTIONS AND APPROVED SUBMITTAL DATA.
2. TAKE ALL NECESSARY PRECAUTIONS NOT TO DAMAGE CONTENTS OF EXISTING CONDUITS. WHEN WELDING IN CLOSE PROXIMITY TO COMMUNICATIONS CONDUIT, PROTECT CONDUIT WITH HEAT/FIRE BARRIER.
3. CONTRACTOR IS RESPONSIBLE FOR ANY CONDUIT / FIBER THAT IS DAMAGED DURING CONSTRUCTION. RESPONSIBILITY INCLUDES THE OPERATIONAL COST OF THE SYSTEMS AFFECTED BY THE DAMAGED FIBER UNTIL THOSE SYSTEMS ARE RESTORED TO 100% FUNCTIONALITY.
4. THERE SHALL BE NO MORE THAN 400 FEET OF CONDUIT BETWEEN PULL BOXES
5. THERE SHALL BE NO MORE THAN 270° OF CONDUIT BEND BETWEEN PULL BOXES

DRAWINGS:

E1.000MEP NOTES AND DETAILS
E2.200MEP PROPOSED APM POWER CONDUIT ROUTING

ABBREVIATIONS

GENERAL TERMS

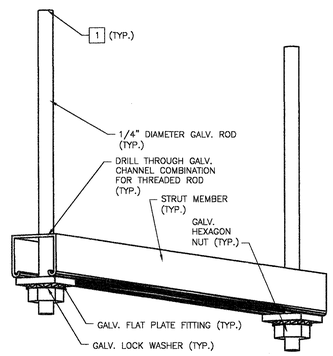
AFF	ABOVE FINISHED FLOOR
APPROX	APPROXIMATE
ASTM	AMERICAN SOCIETY OF TESTING AND MATERIALS
COMM	COMMUNICATION
DEMO	DEMOLISH
DET	DETAIL
DIA	DIAMETER
DUCT	DUCTWORK
EMT	ELECTRICAL METALLIC TUBING
EX	EXISTING
FPM	FEET PER MINUTE
GALV	GALVANIZED
HAS	HOUSTON AIRPORT SYSTEM
NEC	NATIONAL ELECTRICAL CODE
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
R.A.	RETURN AIR
REF	REFERENCE
S.A.	SUPPLY AIR
TEMP	TEMPORARY
TYP	TYPICAL
U.L.	UNDERWRITER'S LABORATORIES, INC.
XFMR	TRANSFORMER

LINE TYPE LEGEND

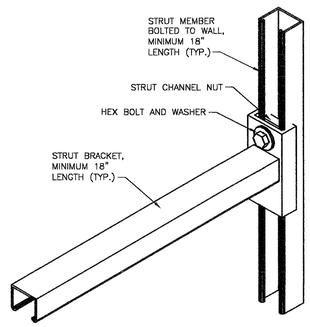
LEGEND

- NEW CONDUIT
- EXISTING PIPING / DUCT / CONDUIT
- EXISTING PIPING / DUCT / CONDUIT TO BE REMOVED

ELECTRICAL DETAILS:



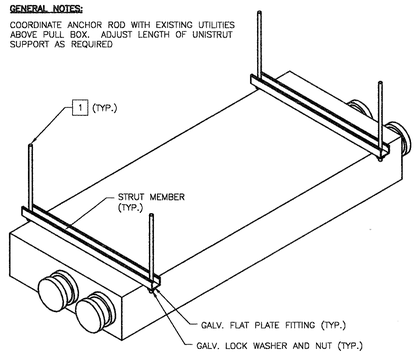
01 TYPICAL TRAPEZE STRUT SUPPORT
E1.000MEP NTS



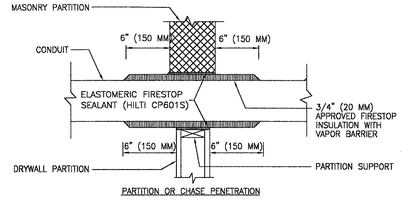
02 TYPICAL WALL MOUNTED STRUT SUPPORT
E1.000MEP NTS

GENERAL NOTES:

COORDINATE ANCHOR ROD WITH EXISTING UTILITIES ABOVE PULL BOX. ADJUST LENGTH OF UNISTRUT SUPPORT AS REQUIRED



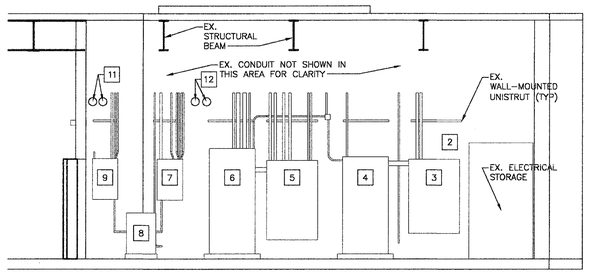
03 TYPICAL PULL BOX STRUT SUPPORT
E1.000MEP NTS



04 TYPICAL CONDUIT PENETRATION THROUGH FIRE-RATED WALL
E1.000MEP NTS

KEYED NOTES:

1 ADHESIVE ANCHORS SHALL CONSIST OF AN ALL-THREAD ANCHOR ROD, NUT, WASHER AND ADHESIVE CAPSULE. ALTERNATIVELY, ADHESIVE ANCHORS SHALL CONSIST OF A STEEL INSERT AND AN ADHESIVE CAPSULE. THE RESIN MATERIAL SHALL BE VINYL URETHANE METHACRYLATE AS PROVIDED IN HILTI HVU CAPSULES OR APPROVED EQUAL. STEEL INSERT SHALL BE HILTI HIS INSERTS OR APPROVED EQUAL. ALL-THREAD ROD SHALL BE HILTI HAS OR HAS-E RODS OR APPROVED EQUAL. IMBED ANCHOR IN CONCRETE STRUCTURE 7" MIN.



CC CORE DRILLING SECTION LOOKING EAST
E1.000MEP 1" = 4' - 0"

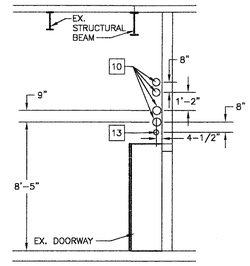
NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

0' 2' 4' 8' 12'
SCALE: 1/4" = 1'-0"

N

KEYED NOTES:

1. SEE KEYED NOTE SECTION ABOVE ON THIS SHEET
2. EX. CONDUIT
3. EX. PANEL 'EDP4'
4. EX. 'ATS-4'
5. EX. PANEL 'EDP3'
6. EX. 'ATS-3'
7. EX. PANEL 'EHA'
8. EX. XFMR
9. EX. PANEL 'ELA'
10. CORE DRILL NEW 6-1/2" HOLES FOR NEW 4" CONDUITS.
11. CORE DRILL NEW 6-1/2" HOLES FOR NEW 4" CONDUITS. REFER TO DETAIL 04:E1.000MEP
12. PATCH AND SEAL EX. CORE DRILL TO MATCH EX. WALL.
13. CORE DRILL NEW 4-1/2" HOLES FOR NEW 2" CONDUIT.



FF CORE DRILLING SECTION LOOKING EAST
E1.000MEP 1" = 4' - 0"

NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

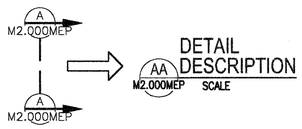
0' 2' 4' 8' 12'
SCALE: 1/4" = 1'-0"

N

FIRE SUPPRESSION GENERAL NOTES:

1. THIS SPACE IS PRESENTLY FULLY SPRINKLED WITH A WET PIPE SYSTEM INSTALLED IN ACCORDANCE WITH THE RULES AND REGULATIONS OF NFPA PAMPHLET No. 13 AND CITY OF HOUSTON FIRE DEPARTMENT POLICIES AND INTERPRETATIONS USING U.L. TESTED AND APPROVED MATERIALS AND EQUIPMENT. THE SYSTEM MODIFICATION SHALL CONFORM TO THESE REQUIREMENTS UTILIZING MATERIALS MATCHING EXISTING. SPRINKLER PIPE INSTALLATION OR MODIFICATION SHALL BE THOROUGHLY COORDINATED WITH ALL OTHER TRADES PRIOR TO TO COMMENCEMENT OF WORK
2. ALL MODIFICATIONS TO EXISTING SPRINKLER PIPE SHALL BE DEMOLISHED TO NEAREST FITTING. NO RETHREADING OF EXISTING PIPE ALLOWED
3. NEW SPRINKLER HEADS SHALL MATCH EXISTING SPRINKLER HEADS WITHIN SIMILAR NEARBY AREAS AND SHALL BE EQUAL TO RELIABLE MODEL "G1". PROVIDE SAME AS EXISTING CONCEALED COVERS AND MATCH EXISTING CEILING FINISH DETAILS WITH A FACTORY APPLIED FINISH. SPRINKLER HEADS SHALL BE INSTALLED IN THE CENTER OF ACOUSTICAL TILES
4. SPRINKLER HEADS CAN NOT BE REUSED UNDER ANY CIRCUMSTANCE
5. TEMPERATURE RATING FOR ALL SPRINKLER HEADS SHALL BE 155°F

SECTION INDICATORS:



RECORD DRAWING
DO NOT MODIFY

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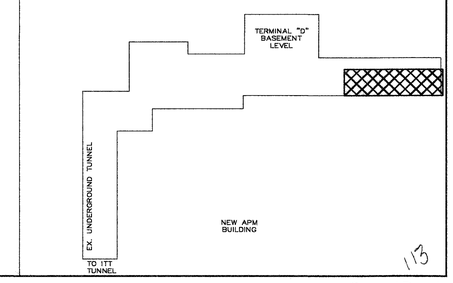
I. A. NAMAN + ASSOC., INC. 03.29.05
(Name of Design Firm) (Date)
WILLIAM HOWE MARSHALL
(Printed name and signature of person whose seal appears on Drawings)

KEY MAP



113

HOUSTON AIRPORT SYSTEM
GEORGE BUSH INTERCONTINENTAL AIRPORT HOUSTON TEXAS

I.A. NAMAN + ASSOCIATES, INC.
MEP CONSULTING ENGINEERS
TWO GREENWAY PLAZA, SUITE 700
HOUSTON, TX 77046
(713) 860-3600 (PHONE)
(713) 860-3799 (FAX)

REVISIONS

NO.	DESCRIPTION	DATE	BY
1.	BULLETIN 22C	02.03.04	CDB
2.	R.D.'S	03.29.05	CDB

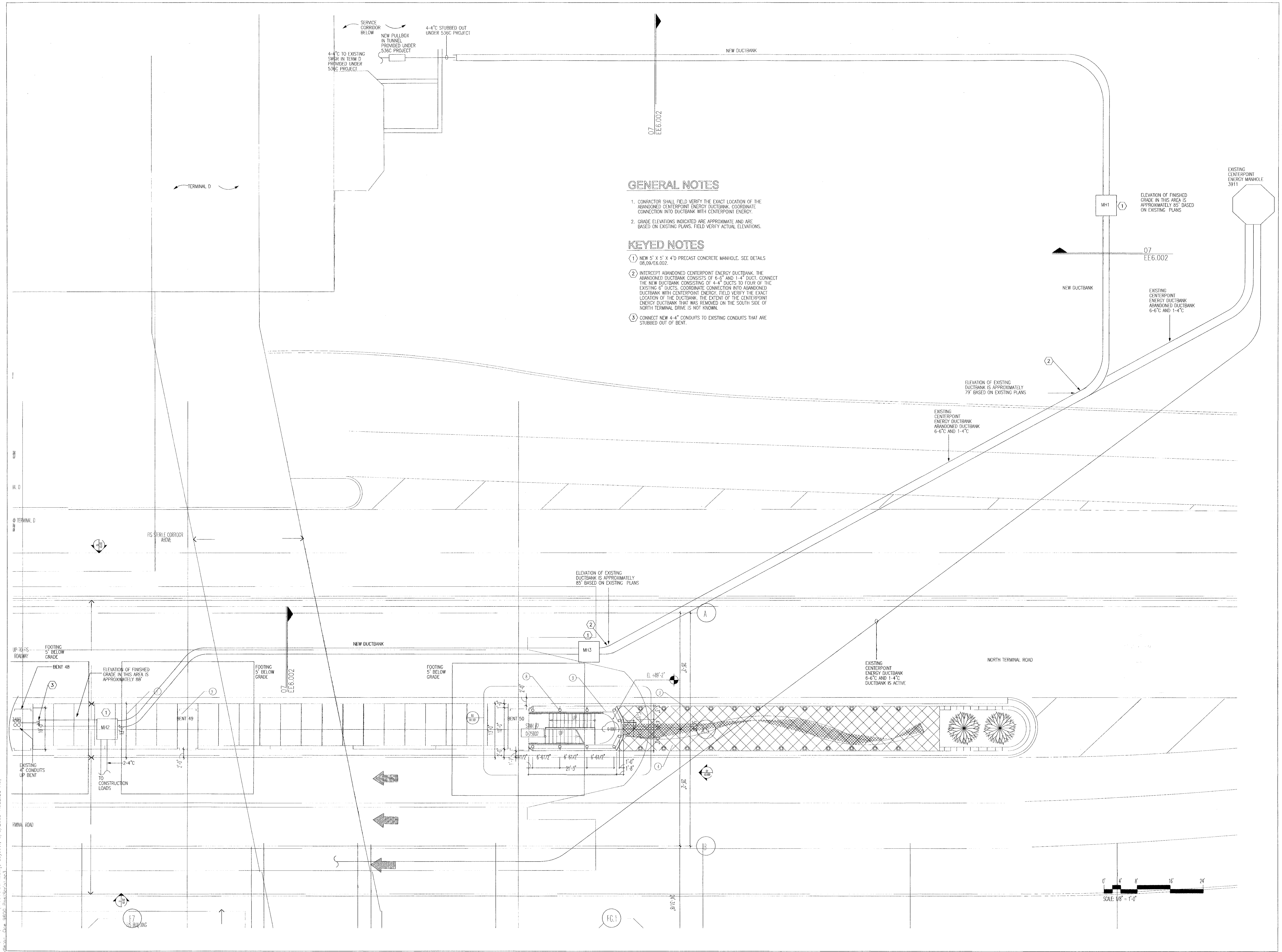
INTERNATIONAL • SERVICES • EXPANSION • PROGRAM
APM STATION + PLATFORM
NOTES AND DETAILS

PROJECT MGR:	WHM
DESIGNER:	VFS/CDB
DRAWN BY:	VFS/CDB
CHECKED BY:	VFS/CDB
DRAWING STANDARD:	
SCALE:	AS NOTED
DATE:	02.03.04

STATE OF TEXAS
WILLIAM HOWE MARSHALL
41060
REGISTERED
PROFESSIONAL ENGINEER
3/29/05

APPROVED BY:	DATE
DIRECTOR HOUSTON AIRPORT SYSTEM	
PROJECT NO.	1312
C.I.P. NO.	A-0354
H.A.S. NO.	536C
SHEET NO.	E1.000MEP

HAS FILE:1312E1-000.DWG
PLOT DATE:



GENERAL NOTES

1. CONRACTOR SHALL FIELD VERIFY THE EXACT LOCATION OF THE ABANDONED CENTERPOINT ENERGY DUCTBANK. COORDINATE CONNECTION INTO DUCTBANK WITH CENTERPOINT ENERGY.
2. GRADE ELEVATIONS INDICATED ARE APPROXIMATE AND ARE BASED ON EXISTING PLANS. FIELD VERIFY ACTUAL ELEVATIONS.

KEYED NOTES

(1) NEW 5' X 5' X 4'D PRECAST CONCRETE MANHOLE. SEE DETAILS 08,09/E6.002.

(2) INTERCEPT ABANDONED CENTERPOINT ENERGY DUCTBANK. THE ABANDONED DUCTBANK CONSISTS OF 6-6" AND 1-4" DUCT. CONNECT THE NEW DUCTBANK CONSISTING OF 4-4" DUCTS TO FOUR OF THE EXISTING 6" DUCTS. COORDINATE CONNECTION INTO ABANDONED DUCTBANK WITH CENTERPOINT ENERGY. FIELD VERIFY THE EXACT LOCATION OF THE DUCTBANK. THE EXTENT OF THE CENTERPOINT ENERGY DUCTBANK THAT WAS REMOVED ON THE SOUTH SIDE OF NORTH TERMINAL DRIVE IS NOT KNOWN.

(3) CONNECT NEW 4-4" CONDUITS TO EXISTING CONDUITS THAT ARE STUBBED OUT OF BENT.

HOUSTON AIRPORT SYSTEM
GEORGE BUSH INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

SHAH SMITH & ASSOCIATES, INC
7676 WILCREST, SUITE 350
HOUSTON, TEXAS 77042
Phone: 713-780-7663 Fax: 713-780-6208

REY DE LA REZA ARCHITECTS, INC.
ARCHITECTURE PLANNING INTERIOR DESIGN
1245 WEST 18TH ST.
HOUSTON,TX,77008
Tel: 713.868.3121
Tel: 713.802.0112

REVISIONS

NO.	DESCRIPTION	DATE	BY
1	REVISION NO. 2	4-17-2003	DBB
	RECORD DRAWING	05/06/05	

APM STATION + PLATFORM
ELECTRICAL SITE PLAN

INTERNATIONAL ◇ SERVICES ◇ EXPANSION ◇ PROGRAM

PROJECT MGR:	A.E.BELTRAN
DESIGNER:	D.BELISLE
DRAWN BY:	D.BELISLE
CHECKED BY:	A.E.BELTRAN
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	AS NOTED
DATE:	09/14/01

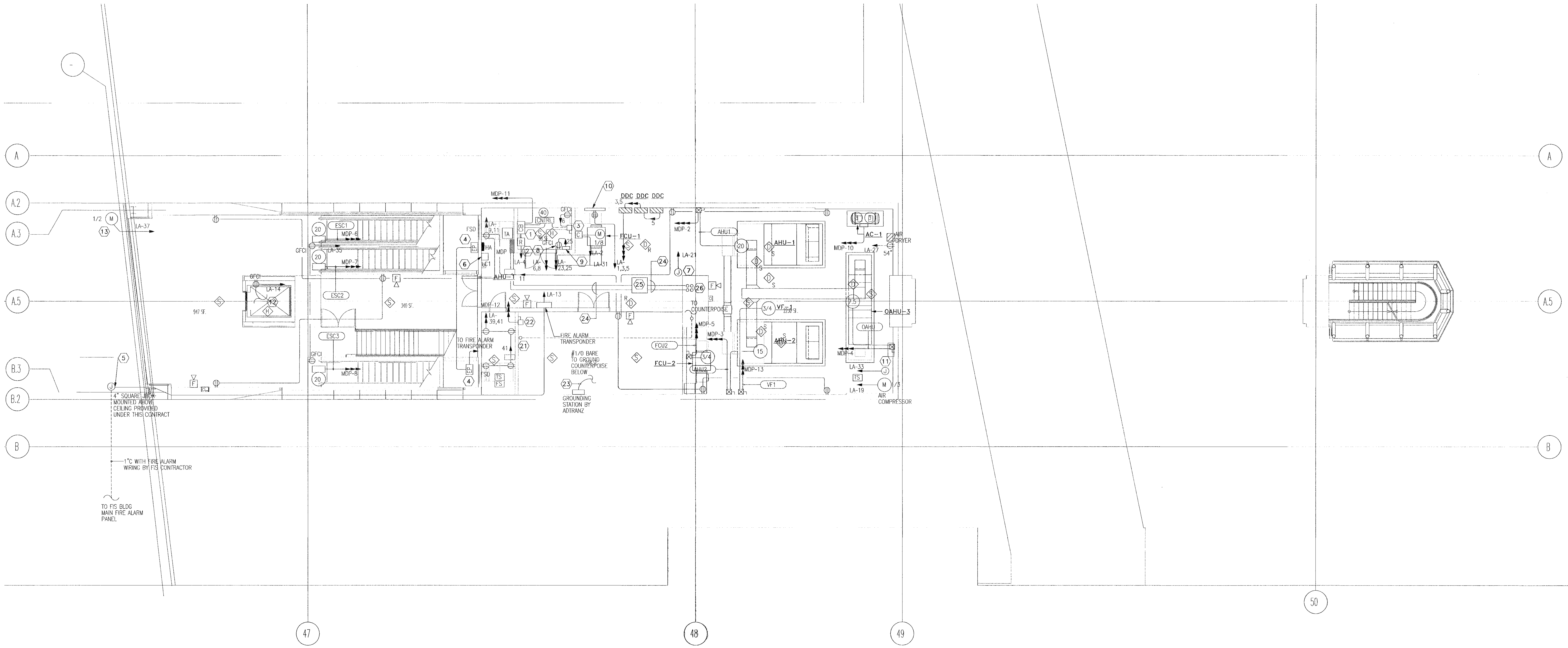
RECORD DRAWING
THIS DRAWING HAS BEEN REVISED TO SHOW SIGNIFICANT CHANGES IN THE WORK MADE DURING CONSTRUCTION BASED ON MARKED-UP PRINTS, DRAWINGS AND OTHER DATA.

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	1061-001
C.I.P. NO.	A-0354
H.A.S. NO.	536C
SHEET NO.	E1.001

96

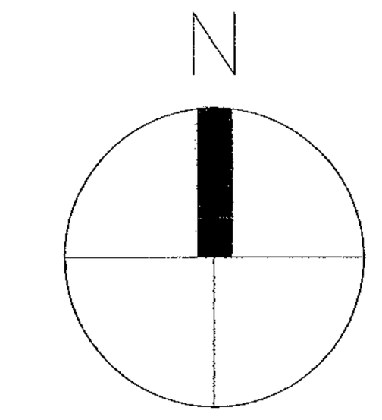


KEYED NOTES:

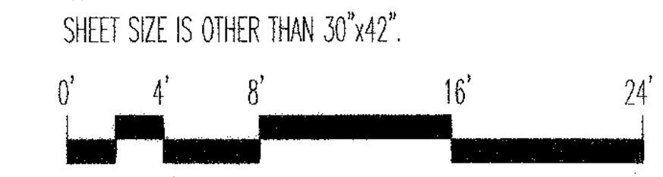
1. SHUNT TRIP CIRCUIT BREAKER WITH NORMALLY OPEN AUXILIARY CONTACT FOR BATTERY LOWERING REQUIREMENTS. CONNECT 2#14,#14 GND, 3/4"C FROM AUXILIARY CONTACT TO ELEVATOR CONTROLLER.
2. FIRE ALARM SHUTDOWN RELAY.
3. 240V, 30A/2P DISCONNECT SWITCH FOR ELEVATOR CAB LIGHTING AND RECEPTACLE CIRCUIT.
4. CONNECT "EP" SWITCH FOR FIRE SMOKE DAMPER TO FIRE ALARM TRANSPONDER.
5. TERMINATE CONDUITS IN JUNCTION BOXES AS INDICATED.
6. SEE 03/E6.001 FOR LIGHTING CONTACTOR CONTROL DIAGRAM.
7. JUNCTION BOX FOR CONNECTION TO HEAT TRACING.
8. RECEPTACLE FOR ELEVATOR SUMP PUMP SP-1.
9. ELEVATOR SUMP ALARM PANEL PROVIDED UNDER DIV 15.
10. 4'W X 8'H X 3/4"D PLYWOOD BACKBOARD FOR COMMUNICATION EQUIPMENT.
11. CONNECT 120V CIRCUIT TO VALVE PROVIDED UNDER DIVISION 15. SEE PLUMBING PLANS.
12. CONNECT RECEPTACLE IN ELEVATOR PIT TO LIGHT FIXTURE IN PIT. SEE SHEET E3.001.
13. FIRE DOOR MOTOR OPERATOR. FIRE DOOR SHALL CLOSE ON ACTIVATION OF FIRE ALARM SYSTEM.
14. NOT USED.
15. NOT USED.
16. NOT USED.
17. NOT USED.
18. NOT USED.
19. NOT USED.
20. NOT USED.
21. #1/0 GROUND IN 3/4"C. ROUTE IN SLAB, DOWN COLUMN AND CONNECT TO GROUND COUNTERPOISE. SEE E4.000. LEAVE 10' OF CONDUCTOR SLACK IN ROOM FOR CONNECTION TO UPS BY ADTRANZ.
22. DISCONNECT SWITCH FOR UPS. UPS PROVIDED BY ADTRANZ.
23. PROVIDE A 10'-0" PIGTAIL FOR CONNECTION TO GROUNDING STATION BY ADTRANZ.
24. 2-4"C EA/W 4-500KCMIL, 1#2/0 GND. BOTTOM TWO CONDUITS ARE 4" SPARES.
25. 3' X 3' X 1'D JUNCTION BOX WITH BOLTED REMOVABLE BOTTOM COVER. MOUNT TOP OF JUNCTION BOX AT 10'-0" AFF.
26. 4-4" RIGID STEEL CONDUITS DOWN COLUMN. REFER TO ARCHITECTURAL DETAILS FOR EXACT LOCATION OF CONDUITS IN COLUMN.

GENERAL NOTES:

1. SMOKE DAMPERS AND AHU'S SHALL SHUTDOWN ON ANY GENERAL FIRE ALARM.



NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".



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

HOUSTON AIRPORT SYSTEM
GEORGE BUSH
INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

SHAH SMITH & ASSOCIATES, INC.
2825 WILCREST, SUITE 350
HOUSTON, TEXAS 77042
Phone: 713 780 7563 Fax: 713 780 9209

REY DE LA REZA ARCHITECTS, INC.
ARCHITECTURE PLANNING INTERIOR DESIGN
1245 WEST 18TH ST.
HOUSTON,TX,77008
Tel: 713.868.3121
Tel: 713.802.0112

REVISIONS

NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
1	REVISION NO. 1	1-27-2003	DBB
2	REVISION NO. 2	4-17-2003	DBB
3	BULLETIN NO. 45	10-03-2003	DBB
	RECORD DRAWING	05/06/05	

INTERNATIONAL ◊ SERVICES ◊ EXPANSION ◊ PROGRAM

APM STATION + PLATFORM

LOBBY - POWER AND FIRE ALARM PLAN

PROJECT MGR:	A.E.BELTRAN
DESIGNER:	D.BELISLE
DRAWN BY:	D.BELISLE
CHECKED BY:	A.E.BELTRAN
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	AS NOTED
DATE:	09/14/01

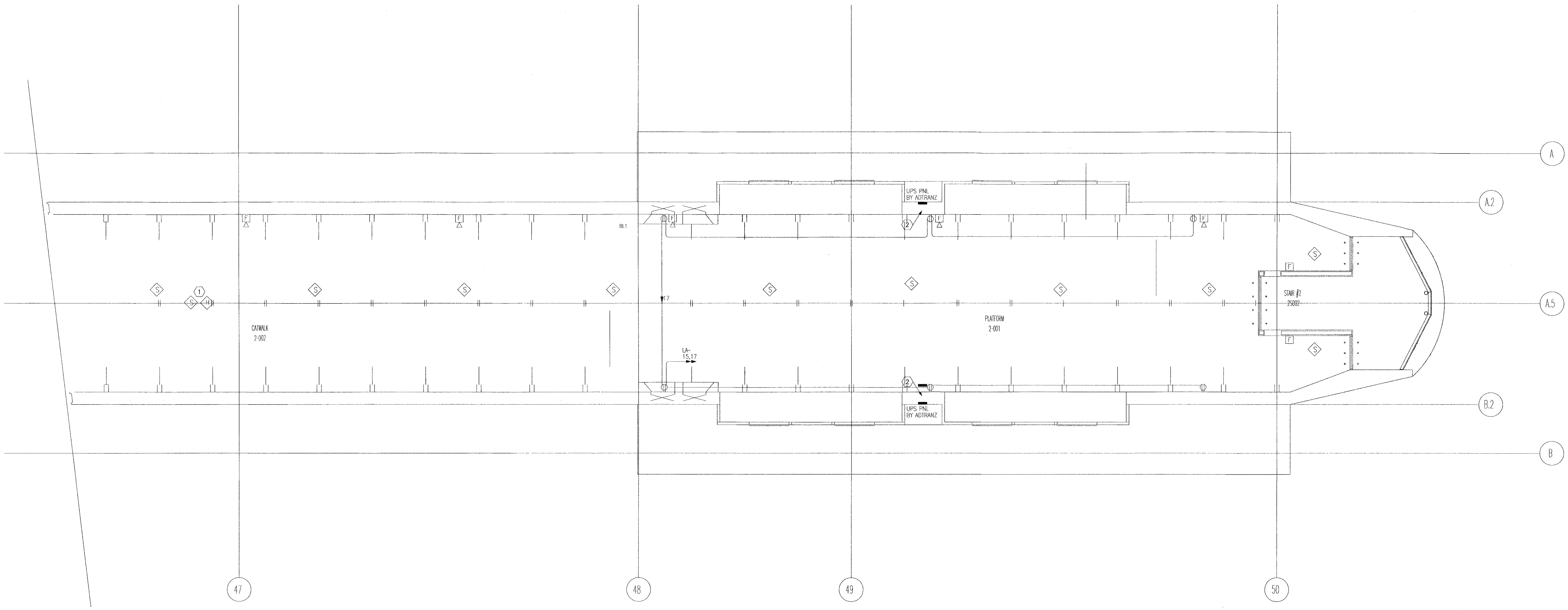
RECORD DRAWING
THIS DRAWING HAS BEEN REVISED TO SHOW SIGNIFICANT CHANGES IN THE WORK MADE DURING CONSTRUCTION BASED ON MARKED-UP PRINTS, DRAWINGS AND OTHER DATA.

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	1061-001
C.I.P. NO.	A-0354
H.A.S. NO.	536C
SHEET NO.	E2.000

97



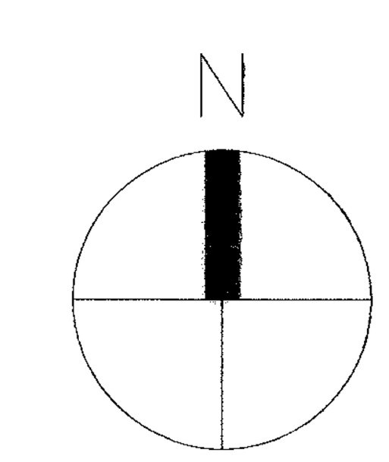
01 E2.002 PLATFORM POWER AND FIRE ALARM PLAN

1/8"=1'-0"

KEYED NOTES:

1. INSTALL DETECTORS AT TOP OF ELEVATOR SHAFT.
2. PROVIDE 6-2 1/2" RIGID GALVANIZED STEEL CONDUITS WITH NYLON PULL STRING FROM THE CABLE TRAY LOCATED ABOVE THE AUTOMATIC DOORS AT ELEVATION 155'-0" TO THE CABLE TRAY LOCATED BELOW THE PLATFORM FLOOR AT ELEVATION 138'-0". CABLE TRAY PROVIDED BY BTTS. COORDINATE EXACT LOCATION OF CABLE TRAY WITH BTTS.
3. NOT USED.
4. NOT USED.

GENERAL NOTES:



NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

0' 4' 8' 16' 24'

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

HOUSTON AIRPORT SYSTEM
GEORGE BUSH
INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

SHAH SMITH & ASSOCIATES, INC.
7825 WILCREST, SUITE 350
HOUSTON, TEXAS 77042
Phone: 713-780-7563 Fax: 713-780-8209

RdlR
REY DE LA REZA ARCHITECTS, INC.
ARCHITECTURE PLANNING INTERIOR DESIGN
1245 WEST 18TH ST.
HOUSTON,TX,77008
Tel: 713.868.3121
Tel: 713.802.0112

REVISIONS

NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
1	BULLETIN NO. 45	10/03/03	
2	BULLETIN NO. 45	03/15/04	
	RECORD DRAWING	05/06/05	

INTERNATIONAL ◇ SERVICES ◇ EXPANSION ◇ PROGRAM

APM STATION + PLATFORM

PLATFORM - POWER AND FIRE ALARM PLAN

PROJECT MGR:	A.E.BELTRAN
DESIGNER:	D.BELISLE
DRAWN BY:	D.BELISLE
CHECKED BY:	A.E.BELTRAN
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	AS NOTED
DATE:	09/14/01

RECORD DRAWING
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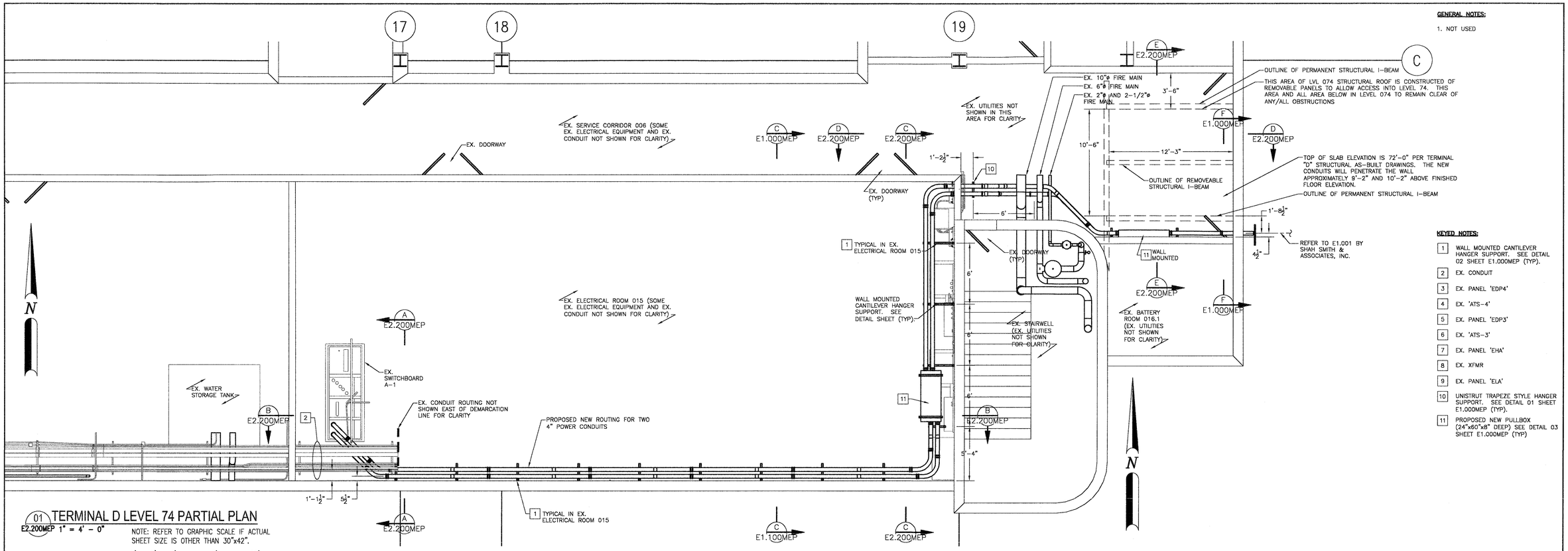
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	1061-001
C.I.P. NO.	A-0354
H.A.S. NO.	536C
SHEET NO.	98 E2.001



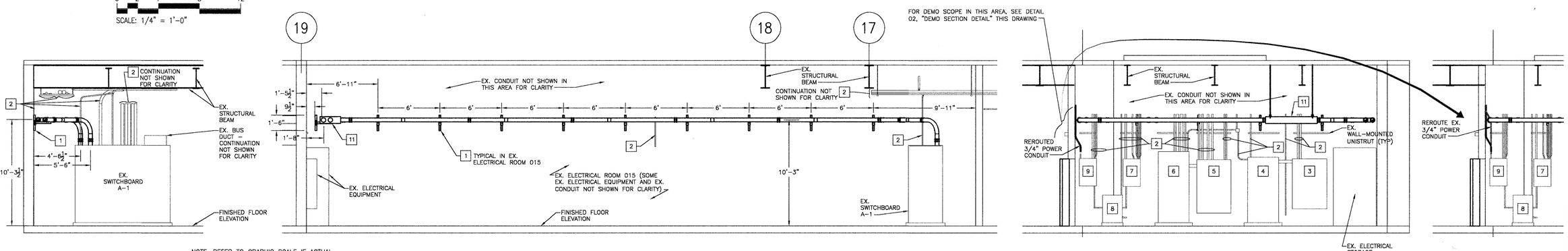
01 TERMINAL D LEVEL 74 PARTIAL PLAN

E2.200MEP 1" = 4' - 0"

NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

0' 2' 4' 8' 12'

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



AA SECTION LOOKING WEST

E2.200MEP 1" = 4' - 0"

N

NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

0' 2' 4' 8' 12'

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

BB SECTION LOOKING SOUTH

E2.200MEP 1" = 4' - 0"

NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

0' 2' 4' 8' 12'

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

CC SECTION LOOKING EAST

E2.200MEP 1" = 4' - 0"

N

NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

0' 2' 4' 8' 12'

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

02 DEMO SECTION DETAIL

E2.200MEP 1" = 4' - 0"

N

DD SECTION LOOKING SOUTH

E2.200MEP 1" = 4' - 0"

NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

0' 2' 4' 8' 12'

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

EE SECTION LOOKING EAST

E2.200MEP 1" = 4' - 0"

N

NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

0' 2' 4' 8' 12'

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

LEGEND

- NEW CONDUIT
- EXISTING PIPING / DUCT / CONDUIT
- EXISTING PIPING / DUCT / CONDUIT TO BE REMOVED

GENERAL NOTES:

1. NOT USED

KEYED NOTES:

1. WALL MOUNTED CANTILEVER HANGER SUPPORT. SEE DETAIL 02 SHEET E1.000MEP (TYP).
2. EX. CONDUIT
3. EX. PANEL 'EDP4'
4. EX. 'ATS-4'
5. EX. PANEL 'EDP3'
6. EX. 'ATS-3'
7. EX. PANEL 'EHA'
8. EX. XFMR
9. EX. PANEL 'ELA'
10. UNISTRUT TRAPEZE STYLE HANGER SUPPORT. SEE DETAIL 01 SHEET E1.000MEP (TYP).
11. PROPOSED NEW PULLBOX (24"x60"x8" DEEP) SEE DETAIL 03 SHEET E1.000MEP (TYP)

RECORD DRAWING DO NOT MODIFY

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I. A. NAMAN + ASSOC., INC. (Name of Design Firm) — 03.29.05 (Date)

WILLIAM HOWE MARSHALL (Printed name and signature of person whose seal appears on Drawings)

HOUSTON AIRPORT SYSTEM
GEORGE BUSH INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

I.A. NAMAN + ASSOCIATES, INC.
MEP CONSULTING ENGINEERS
TWO GREENWAY PLAZA, SUITE 700
HOUSTON, TX 77046
(713) 860-3600 (PHONE)
(713) 860-3799 (FAX)

REVISIONS

NO.	DESCRIPTION	DATE	BY
1.	BULLETIN 22C	02.03.04	CDB
2.	R.O.'S	03.29.05	CDB

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION + PLATFORM

PROPOSED APM POWER CONDUIT ROUTING

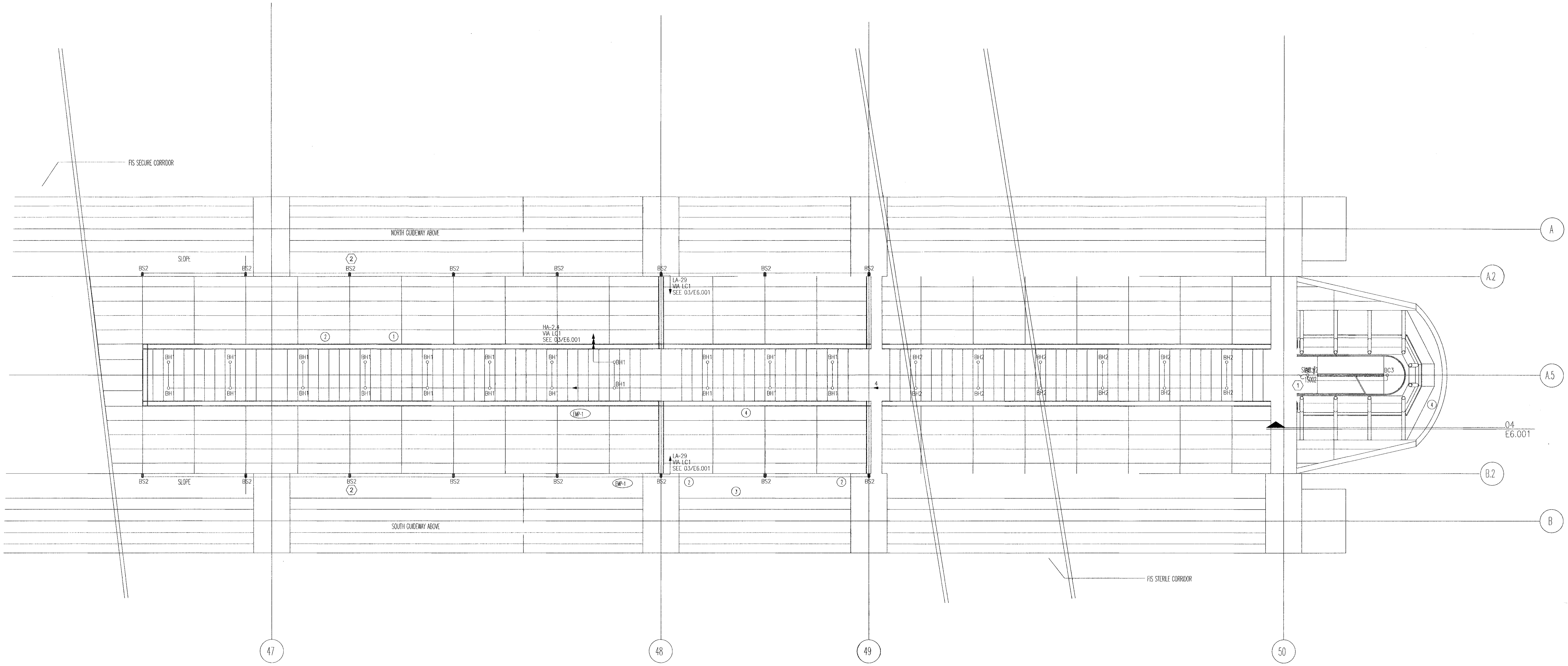
PROJECT MGR:	WHM
DESIGNER:	VFS/CDB
DRAWN BY:	VFS/CDB
CHECKED BY:	VFS/CDB
DRAWING STANDARD:	
SCALE:	AS NOTED
DATE:	02.03.04

STATE OF TEXAS — WILLIAM HOWE MARSHALL — 41060 — REGISTERED PROFESSIONAL ENGINEER — 3/29/05

APPROVED BY:	DATE
DIRECTOR HOUSTON AIRPORT SYSTEM	
PROJECT NO.	1312
C.I.P. NO.	A-0354
H.A.S. NO.	5360
SHEET NO.	E2.200MEP

114

PLOT DATE:
HAS FILE: 1312E2-200.DWG



01 GROUND LEVEL LIGHTING PLAN

E3.000 1/8"=1'-0"

KEYED NOTES:

1. CONNECT TO LIGHT FIXTURES ON LANDING ABOVE. SEE DETAIL 04/E6.001.
2. REFER TO ARCHITECTURAL PLANS FOR LIGHT FIXTURE MOUNTING DETAILS.

GENERAL NOTES:

N

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0' 4' 8' 16' 32'

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

HOUSTON AIRPORT SYSTEM
GEORGE BUSH
INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

SHAH SMITH & ASSOCIATES, INC.
2825 WILCREST, SUITE 350
HOUSTON, TEXAS 77042
Phone: 713-780-7563 Fax: 713 780 9209

REY DE LA REZA ARCHITECTS, INC.
ARCHITECTURE PLANNING INTERIOR DESIGN
1245 WEST 18TH ST.
HOUSTON,TX,77008
Tel: 713.868.3121
Tel: 713.802.0112

REVISIONS			
NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
	RECORD DRAWING	05/06/05	

INTERNATIONAL ◦ SERVICES ◦ EXPANSION ◦ PROGRAM

APM STATION + PLATFORM

GROUND LEVEL - LIGHTING PLAN

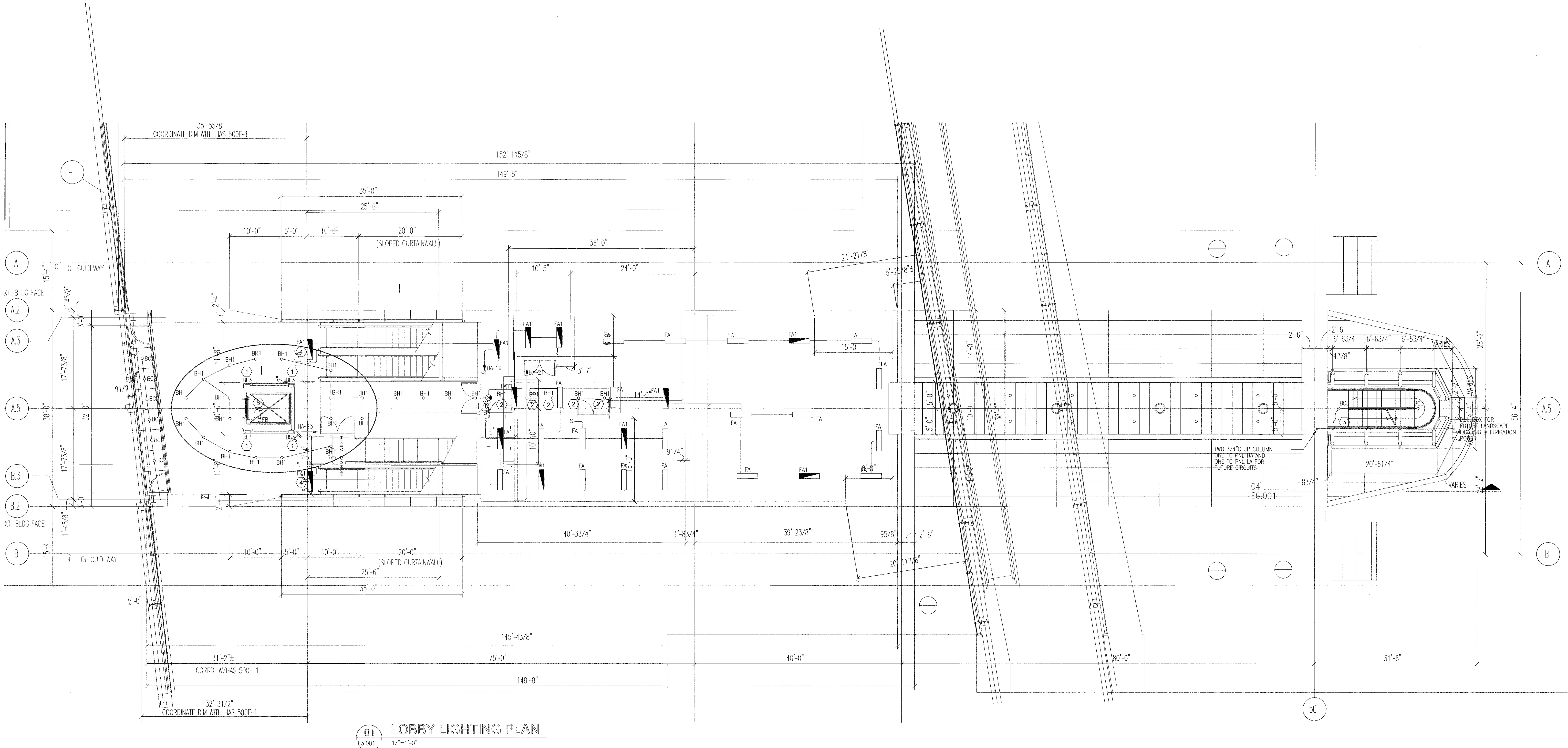
PROJECT MGR:	A.E.BELTRAN
DESIGNER:	D.BELISLE
DRAWN BY:	D.BELISLE
CHECKED BY:	A.E.BELTRAN
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	AS NOTED
DATE:	09/14/01

RECORD DRAWING
THIS DRAWING HAS BEEN REVISED TO SHOW SIGNIFICANT CHANGES IN THE WORK MADE DURING CONSTRUCTION BASED ON MARKED-UP PRINTS, DRAWINGS AND OTHER DATA.

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	1061-001
C.I.P. NO.	A-0354
H.A.S. NO.	536C
SHEET NO.	99 E3.000



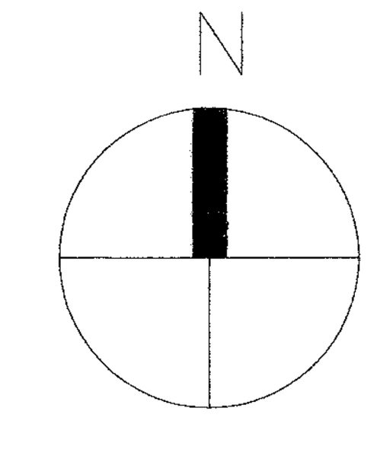
01 LOBBY LIGHTING PLAN

E3.001 1/"=1'-0"

KEYED NOTES:

1. LIGHTS ARE MOUNTED IN ELEVATOR SIDELIGHTING GLASS FOR ENTIRE LENGTH. SEE ARCHITECTURAL PLANS.
2. THIS FIXTURE IS LOCATED IN CEILING ABOVE. SEE ARCHITECTURAL PLANS.
3. CONNECT TO LIGHT FIXTURES ON LANDING ABOVE AND BELOW. SEE DETAIL 04/E6.001.
4. LIGHT FIXTURE AND SWITCH LOCATED BELOW IN ESCALATOR EQUIPMENT ROOM. COORDINATE EXACT LOCATION OF FIXTURE AND SWITCH WITH ESCALATOR INSTALLER.
5. CONNECT TO LINE SIDE OF RECEPTACLE CIRCUIT IN ELEVATOR PIT. SEE SHEET E2.000.

GENERAL NOTES:



NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

0' 4' 8' 16' 24'

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

HOUSTON AIRPORT SYSTEM

GEORGE BUSH INTERCONTINENTAL AIRPORT

HOUSTON TEXAS

SHAH SMITH & ASSOCIATES, INC.
2825 WILCREST, SUITE 350
HOUSTON, TEXAS 77042
Phone: 713 780 7563 Fax: 713 780 9209

RdlR
REY DE LA REZA ARCHITECTS, INC.
ARCHITECTURE PLANNING INTERIOR DESIGN
1245 WEST 18TH ST.
HOUSTON,TX,77008
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Tel: 713.802.0112

REVISIONS

NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
	RECORD DRAWING	05/06/05	

INTERNATIONAL ◇ SERVICES ◇ EXPANSION ◇ PROGRAM

APM STATION + PLATFORM

LOBBY - LIGHTING PLAN

PROJECT MGR:	A.E.BELTRAN
DESIGNER:	D.BELISLE
DRAWN BY:	D.BELISLE
CHECKED BY:	A.E.BELTRAN
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	AS NOTED
DATE:	09/14/01

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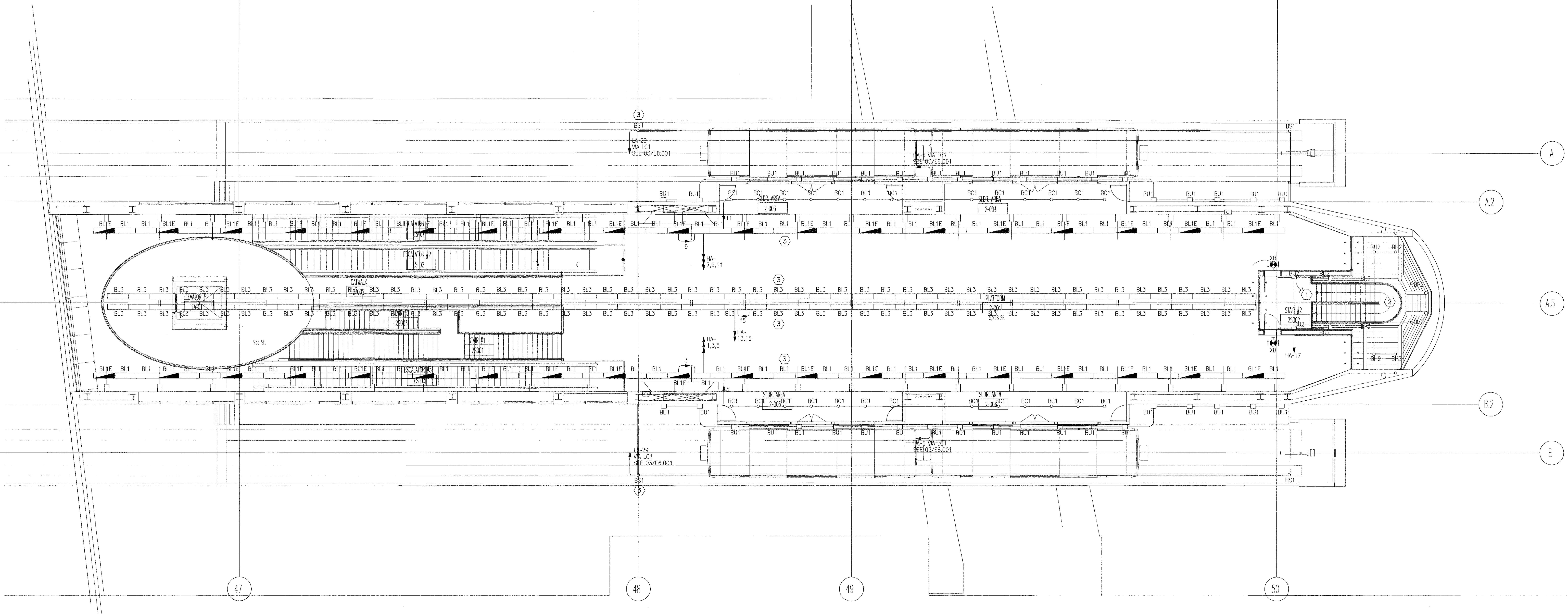
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	1061-001
C.I.P. NO.	A-0354
H.A.S. NO.	536C
SHEET NO.	E3.001

100



01 PLATFORM LIGHTING PLAN

E3.002 — 1/8"=1'-0"

KEYED NOTES:

1. CONNECT TO FIXTURES IN STAIRWELL BELOW.
2. CONDUIT SHALL BE INSTALLED IN CONCRETE STRUCTURE. NO EXPOSED CONDUIT IN STAIRWELL.
3. SEE ARCHITECTURAL PLANS FOR LIGHT FIXTURE MOUNTING DETAILS, TYPICAL.

GENERAL NOTES:

N

NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

0' 4' 8' 16' 24'

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

HOUSTON AIRPORT SYSTEM
GEORGE BUSH
INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

SHAH SMITH & ASSOCIATES, INC.
2825 WILCREST, SUITE 860
HOUSTON, TEXAS 77042
Phone: 713-780-7663 Fax: 713-780-9209

RdlR
REY DE LA REZA ARCHITECTS, INC.
ARCHITECTURE PLANNING INTERIOR DESIGN
1245 WEST 18TH ST.
HOUSTON,TX,77008
Tel: 713.868.3121
Tel: 713.802.0112

REVISIONS

NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
	RECORD DRAWING	05/06/05	

INTERNATIONAL ◊ SERVICES ◊ EXPANSION ◊ PROGRAM

APM STATION + PLATFORM

PLATFORM - LIGHTING PLAN

PROJECT MGR:	A.E.BELTRAN
DESIGNER:	D.BELISLE
DRAWN BY:	D.BELISLE
CHECKED BY:	A.E.BELTRAN
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	AS NOTED
DATE:	09/14/01

RECORD DRAWING
THIS DRAWING HAS BEEN REVISED TO SHOW SIGNIFICANT CHANGES IN THE WORK MADE DURING CONSTRUCTION BASED ON MARKED-UP PRINTS, DRAWINGS AND OTHER DATA.

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	1061-001
C.I.P. NO.	A-0354
H.A.S. NO.	536C
SHEET NO.	E3.002

101

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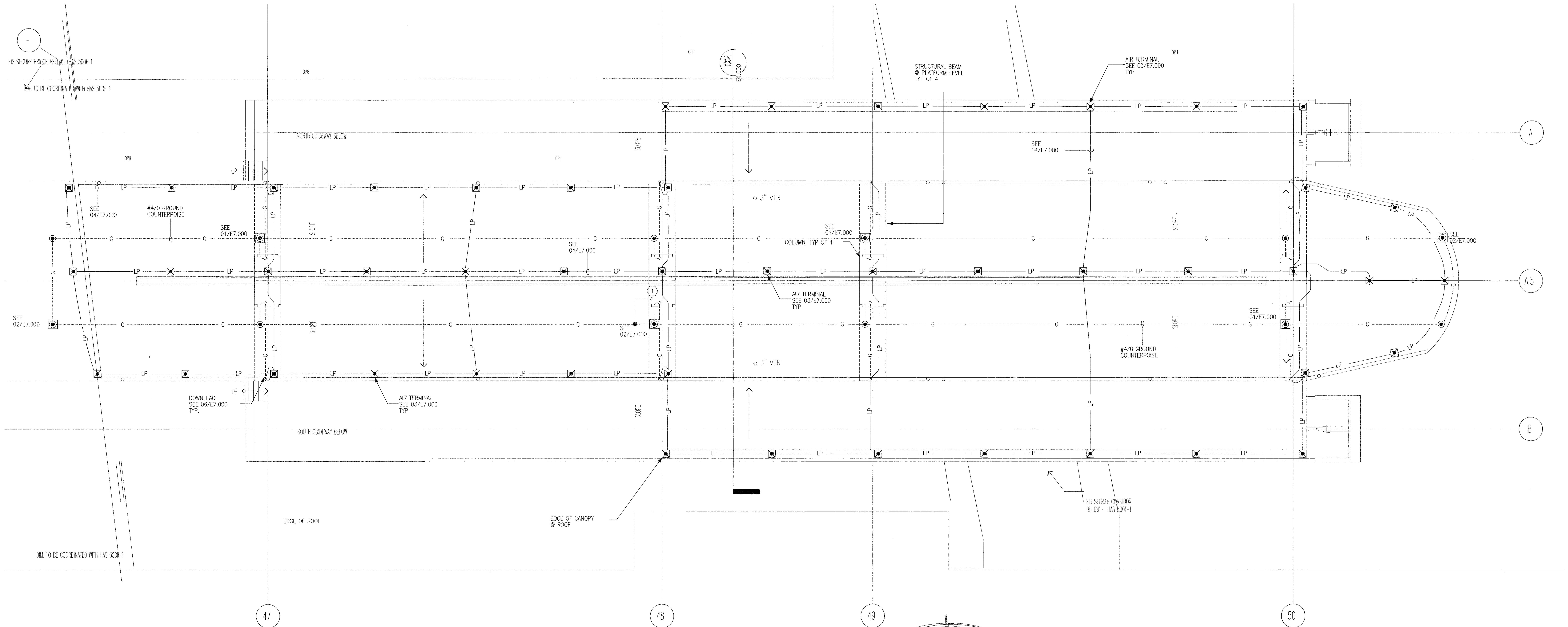
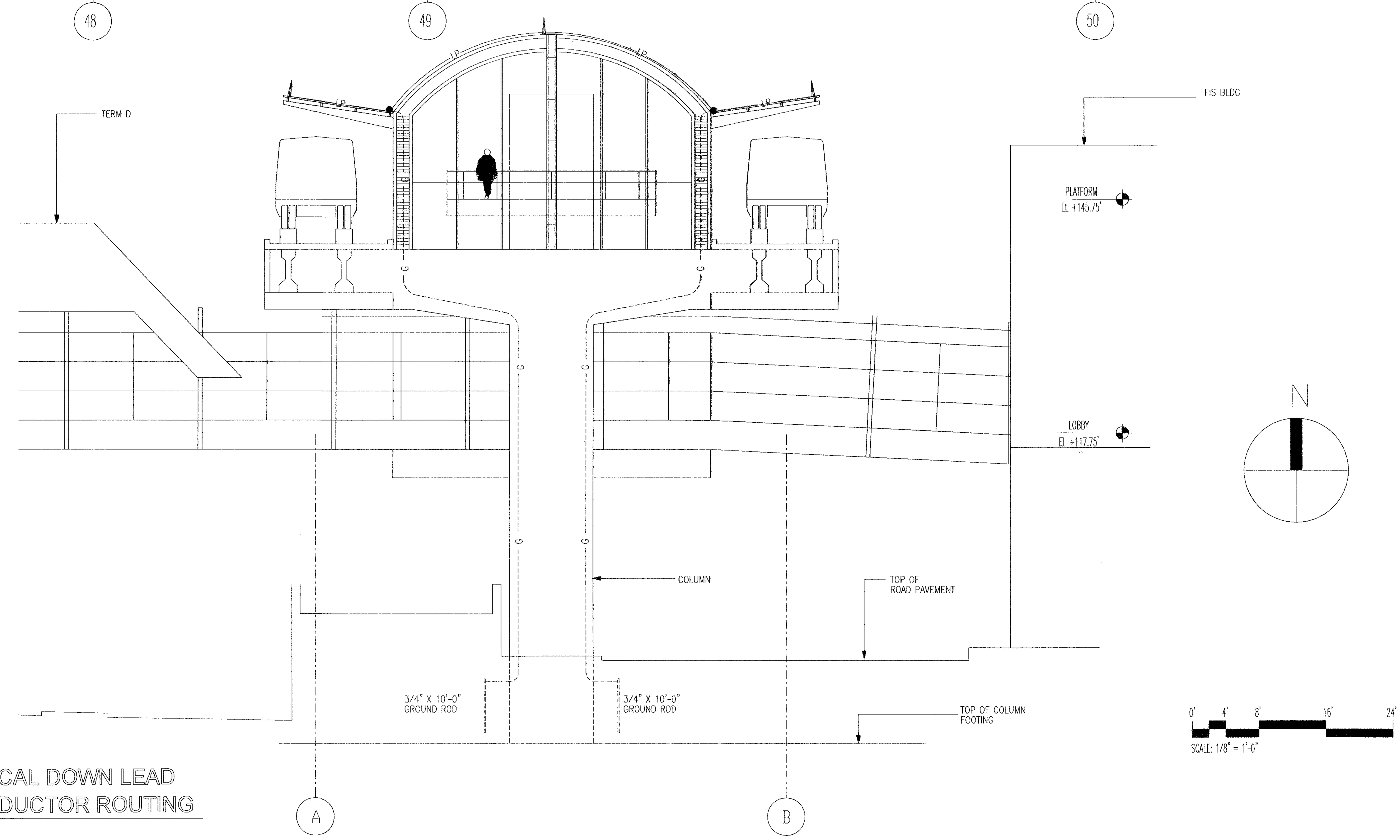


01 E4.000 **ROOF PLAN**
1/8"=1'-0"

KEYED NOTES

(1) #1/0 BARE GROUND UP TO ATC ROOM. SEE E2.000.



02 E4.000 **TYPICAL DOWN LEAD CONDUCTOR ROUTING**
1/8"=1'-0"

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GEORGE BUSH INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

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REY DE LA REZA ARCHITECTS, INC.
ARCHITECTURE PLANNING INTERIOR DESIGN
1245 WEST 18TH ST.
HOUSTON,TX,77008
Tel: 713.868.3121
Fax: 713.802.2112

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1	REVISION NO. 1	1-22-03	
	RECORD DRAWING	05/06/03	

INTERNATIONAL ◇ SERVICES ◇ EXPANSION ◇ PROGRAM

APM STATION + PLATFORM
GROUNDING & LIGHTNING PROTECTION PLAN

PROJECT MGR:	A.E.BELTRAN
DESIGNER:	D.BEUSLE
DRAWN BY:	D.BEUSLE
CHECKED BY:	A.E.BELTRAN
DRAWING STANDARD:	
	ISEP 07.20.2000
SCALE:	AS NOTED
DATE:	09/14/01

RECORD DRAWING
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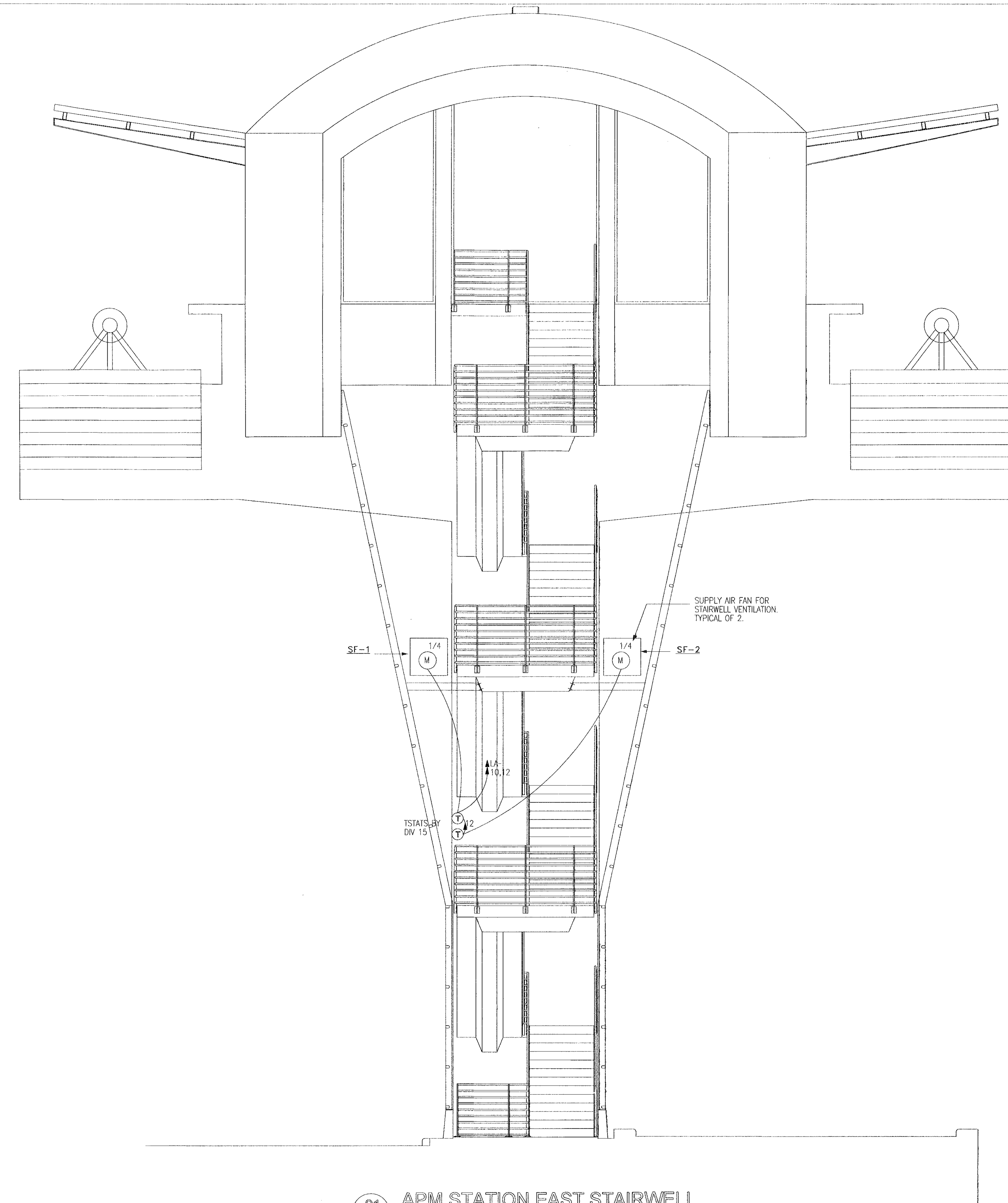
APPROVED BY: DATE:

DIRECTOR HOUSTON AIRPORT SYSTEM

PROJECT NO. 1061-001
C.I.P. NO. A-0354
H.A.S. NO. 536C
SHEET NO.
102 E4.000



01 E4.001 APM STATION EAST STAIRWELL
1/4"=1'-0"

KEYED NOTES:

GENERAL NOTES:

N

NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

0' 2' 4' 8' 12'

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

HOUSTON AIRPORT SYSTEM
GEORGE BUSH
INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

SHAH SMITH & ASSOCIATES, INC.
2825 WILCREST, SUITE 350
HOUSTON, TEXAS 77042
Phone: 713 780 7563 Fax: 713 780 9269

RdlR
REY DE LA REZA ARCHITECTS, INC.
ARCHITECTURE PLANNING INTERIOR DESIGN
1245 WEST 18TH ST.
HOUSTON,TX,77008
Tel: 713.868.3121
Tel: 713.802.0112

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INTERNATIONAL ◦ SERVICES ◦ EXPANSION ◦ PROGRAM

APM STATION + PLATFORM

ELECTRICAL EAST STAIRWELL

PROJECT MGR:	A.E.BELTRAN
DESIGNER:	D.BELISLE
DRAWN BY:	D.BELISLE
CHECKED BY:	A.E.BELTRAN
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	AS NOTED
DATE:	09/14/01

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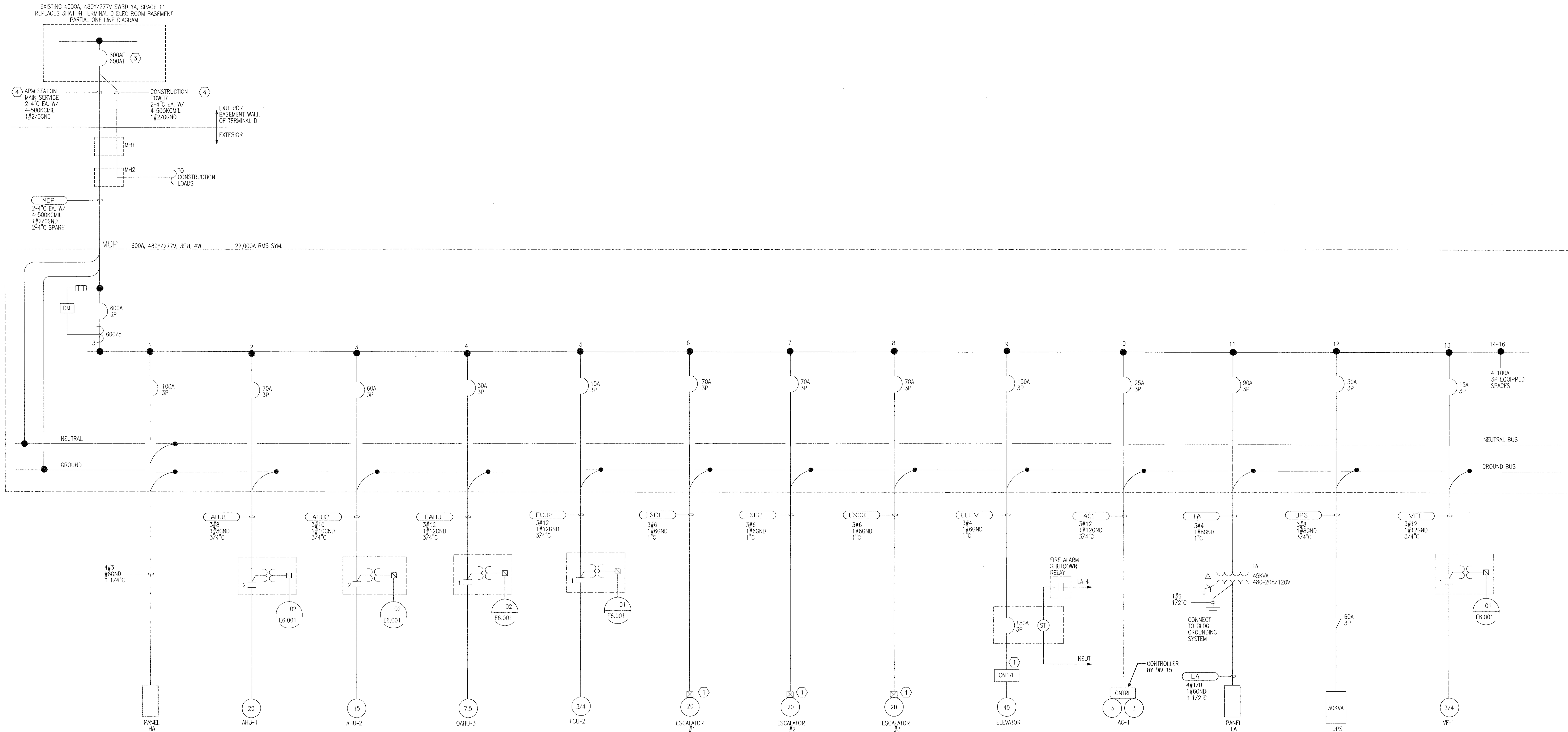
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	1061-001
C.I.P. NO.	A-0354
H.A.S. NO.	5360
SHEET NO.	103 E4.001



PANEL: LA	VOLTAGE: 208/120V	3PH	4W	AIC: 10,000KA RMS SYM	REMARKS:
ROOM NO: ELECTRICAL / MECHANICAL	BUS: 225A	☐ MLO ■ MCB		■ SURFACE ☐ FLUSH	
	LUGS: ☐ SUB-FEED	☐ FEED-THRU		■ NEMA 1 ☐ NEMA 3R	

ALL BREAKERS 20A UNLESS OTHERWISE NOTED (150 A)

WIRE&CONDUIT	VA	LOAD DESCRIPTION	CKT	CKT	LOAD DESCRIPTION	VA	WIRE&CONDUIT
2#12,#12G,3/4"C	600	DDC PNL RM 1-004	* 1	2	FCU-1	350	2#12, #12G, 3/4"C
2#12,#12G,3/4"C	600	DDC PNL RM 1-004	* 3	* 4	ELEV SHUNT TRIP CONTROL POWER	100	2#12, #12G, 3/4"C
2#12,#12G,3/4"C	600	DDC PNL RM 1-004	* 5	6	R-ELEVATOR MACHINE RM	400	2#12, #12G, 3/4"C
2#12,#12G,3/4"C	100	CONTROL POWER-LC1 RM 1-0003	* 7	8	ELEVATOR LTS AND RCPTS	600	2#12, #12G, 3/4"C
2#12,#12G,3/4"C	720	R-RM 001,2	9	10	SF-1-STAIRWELL	696	2#12, #12G, 3/4"C
2#12,#12G,3/4"C	900	R-RM 0001,2,3	11	12	SF-2-STAIRWELL	696	2#12, #12G, 3/4"C
2#12,#12G,3/4"C	720	FIRE ALARM PANEL RM 1-0003	* 13	14	R & LIGHT-ELEVATOR PIT	200	2#12, #12G, 3/4"C
2#12,#12G,3/4"C	540	R-RM 2-001	15	16	SPARE		
2#12,#12G,3/4"C	540	R-RM 2-001	17	18	SPARE		
2#10,#10G,3/4"C	864	AIR COMPRESSOR-MECH RM	19	20	SPARE		
2#12,#12G,3/4"C	600	HEAT TRACE	** 21	22	SPARE		
2#12,#12G,3/4"C	696	RECPT FOR SP-1 ELEV MACH RM	23	24	SPARE		
2#12,#12G,3/4"C	200	RECPT FOR ELEV HIGH LIQUID ALARM-ELEV MACH RM	* 25	26	SPARE		
2#12,#12G,3/4"C	600	R-AIR DRYER-MECH RM	27	28	SPARE		
2#12,#12G,3/4"C	400	L-SAFETY LIGHT & LED LIGHT	29	30	SPARE		
2#12,#12G,3/4"C	600	R-COMM-MECH RM	31	32	SPARE		
2#12,#12G,3/4"C	100	VALVE-MECH RM	33	34	SPARE		
2#12,#12G,3/4"C	800	R-ESCALATOR MACH RM	35	36	SPARE		
2#10,#10G,3/4"C	1200	FIRE DOOR	37	38	SPARE		
2#12,#12G,3/4"C	360	R-SECURITY RM	39	40	SPARE		
2#12,#12G,3/4"C	360	R-SECURITY RM	41	42	SPARE		

* LOCK-OUT DEVICE

** GFCI CIRCUIT BREAKER

13.022 KVA CONNECTED 13.022 KVA DEMAND

PANEL: HA	VOLTAGE: 480Y/277V	3PH	4W	AIC: 22,000A RMS SYM	REMARKS:
ROOM NO: ELECTRICAL / MECHANICAL	BUS: 225A	■ MLO ☐ MCB		■ SURFACE ☐ FLUSH	
	LUGS: ☐ SUB-FEED	☐ FEED-THRU		■ NEMA 1 ☐ NEMA 3R	

ALL BREAKERS 20A UNLESS OTHERWISE NOTED (225A MLO)

WIRE&CONDUIT	KVA	LOAD DESCRIPTION	CKT	CKT	LOAD DESCRIPTION	KVA	WIRE&CONDUIT
2#12,#12G,3/4"C	1960	L-RM 2-001	1	2	L-EXTERIOR	1870	2#12,#12G,3/4"C
2#12,#12G,3/4"C	1960	L-RM 2-001	3	4	L-EXTERIOR	2160	2#12,#12G,3/4"C
2#12,#12G,3/4"C	520	L-RM 2-001	5	6	L-EXTERIOR	1600	2#12,#12G,3/4"C
2#12,#12G,3/4"C	1960	L-RM 2-001	7	8	SPARE		
2#12,#12G,3/4"C	1960	L-RM 2-001	9	10	SPARE		
2#12,#12G,3/4"C	520	L-RM 2-001	11	12	SPARE		
2#12,#12G,3/4"C	1728	L-RM 2-001	13	14	SPARE		
2#12,#12G,3/4"C	1728	L-RM 2-001	15	16	SPARE		
2#12,#12G,3/4"C	1600	L-STAIR #2	17	18	SPARE		
2#12,#12G,3/4"C	2070	L-MECH,ELEV,EQUIP RM	19	20	SPARE		
2#12,#12G,3/4"C	2600	L-CATWALK/LOBBY	21	22	SPARE		
2#12,#12G,3/4"C	200	L-ELEV GLASS	23	24	SPARE		
⟨2⟩ 4#8,#8G,1"C	3000	L-GUIDEWAY	25	26	SPARE		
-		-	27	28	SPARE		
-		-	29	30	SPARE		
		SPARE	31	32	SPACE		
		SPARE	33	34	SPACE		
		SPARE	35	36	SPACE		
		SPARE	37	38	SPACE		
		SPARE	39	40	SPACE		
		SPARE	41	42	SPACE		

27.436 KVA CONNECTED 34.295 KVA DEMAND

GENERAL NOTES

A. REFERENCE SHEETS E1.000 MEP AND E2.200 MEP UNDER PROJECT 536A-1 FOR SITE PLAN AND EXISTING LOCATION FOR SWITCHGEAR IN TERMINAL D.

KEYED NOTES

1. MOTOR CONTROLLER BY EQUIPMENT VENDOR.
2. THIS CIRCUIT WILL BE CONNECTED UNDER PROJECT 536A-1, APM GUIDEWAY EXTENSION. CIRCUIT BREAKER IS PROVIDED UNDER THIS CONTRACT.
3. PROVIDE NEW G.E. POWER BREAK I 800A FRAME BREAKER WITH 600A TRIP RATING, MVT TRIP UNIT, LSIGZ2 TRIP FUNCTIONS STATIONARY MOUNTED WITH ALL REQUIRED ACCESSORIES TO MOUNT IN EXISTING SWITCHBOARD SPACE. BREAKER SHALL BE STANDARD BREAK DESIGN SUITABLE FOR 65KA AT 480V. FURNISH LUGS AS INDICATED ON THE DRAWINGS AND A NEUTRAL GROUND SENSOR. CONNECT THE CONTROL WIRING AS REQUIRED FOR THE ZONE INTERLOCK MODULE.
4. CONDUIT FROM EXTERIOR WALL OF TERMINAL D TO SWITCHBOARD IS PROVIDED UNDER CONTRACT 536C. BETWEEN NEW MANHOLES MH1 AND MH2 A SECTION OF THE DUCTBANK IS EXISTING. ALL OTHER CONDUIT IS PROVIDED UNDER THIS PROJECT. ALL CONDUCTORS ARE PROVIDED UNDER THIS PROJECT. SEE ESITE FOR ROUTING.

HOUSTON AIRPORT SYSTEM
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INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

SHAH SMITH & ASSOCIATES, INC.
2825 WILCREST, SUITE 350
HOUSTON, TEXAS 77042
Phone: 713 780 7563 Fax: 713 780 8209

REY DE LA REZA ARCHITECTS, INC.
ARCHITECTURE PLANNING INTERIOR DESIGN
1245 WEST 18TH ST.
HOUSTON,TX,77008
Tel: 713.868.3121
Tel: 713.802.0112

REVISIONS

NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
1	BULLETING 22	4-17-2003	DBB
2	BULLETIN 22A	07-01-2003	DBB
3	BULLETIN 22B	01-20-2005	DBB
	RECORD DRAWING	05/06/05	

INTERNATIONAL ◊ SERVICES ◊ EXPANSION ◊ PROGRAM

APM STATION + PLATFORM
ONE LINE DIAGRAM

PROJECT MGR:	A.E.BELTRAN
DESIGNER:	D.BELISLE
DRAWN BY:	D.BELISLE
CHECKED BY:	A.E.BELTRAN
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	AS NOTED
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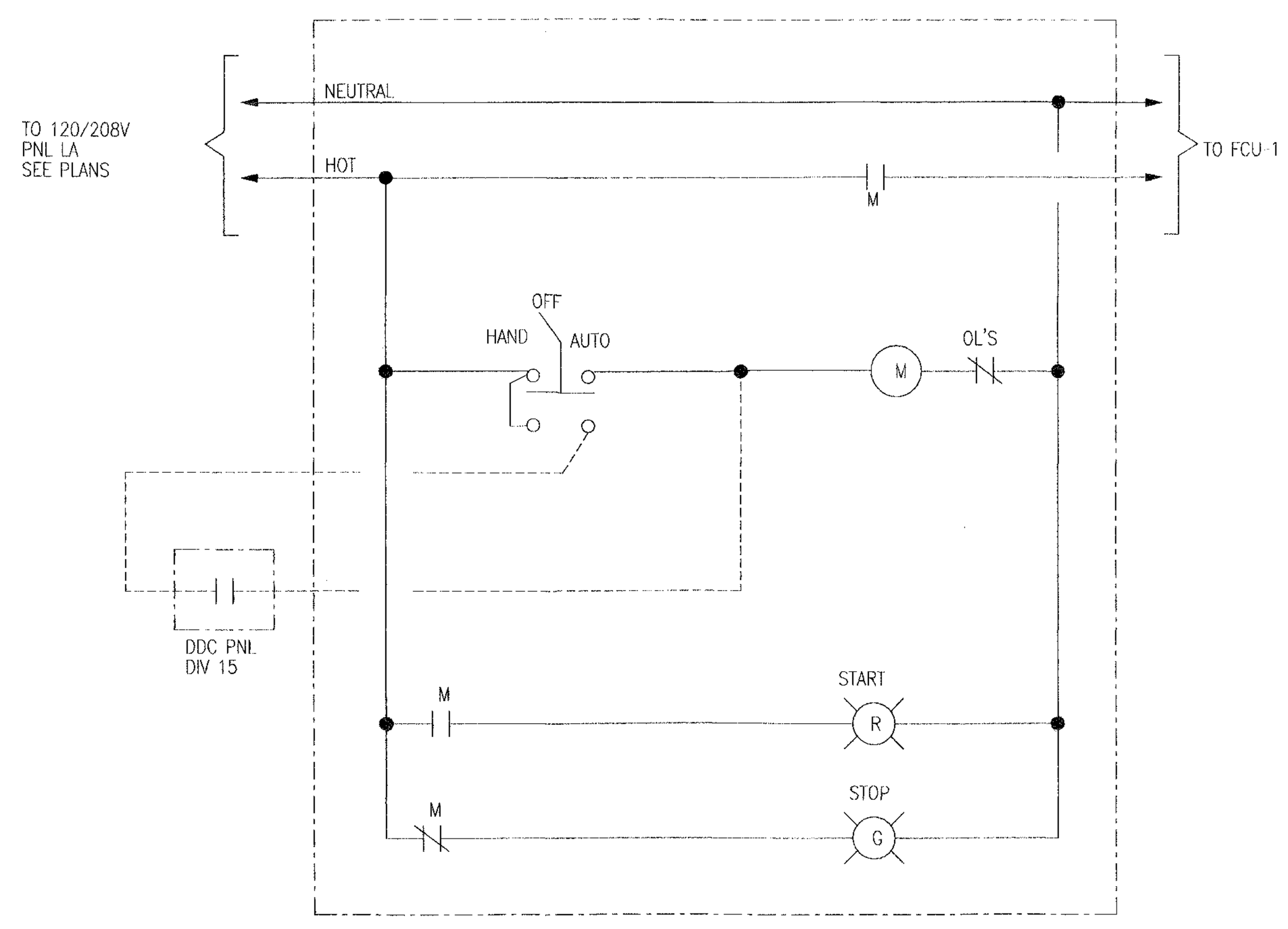
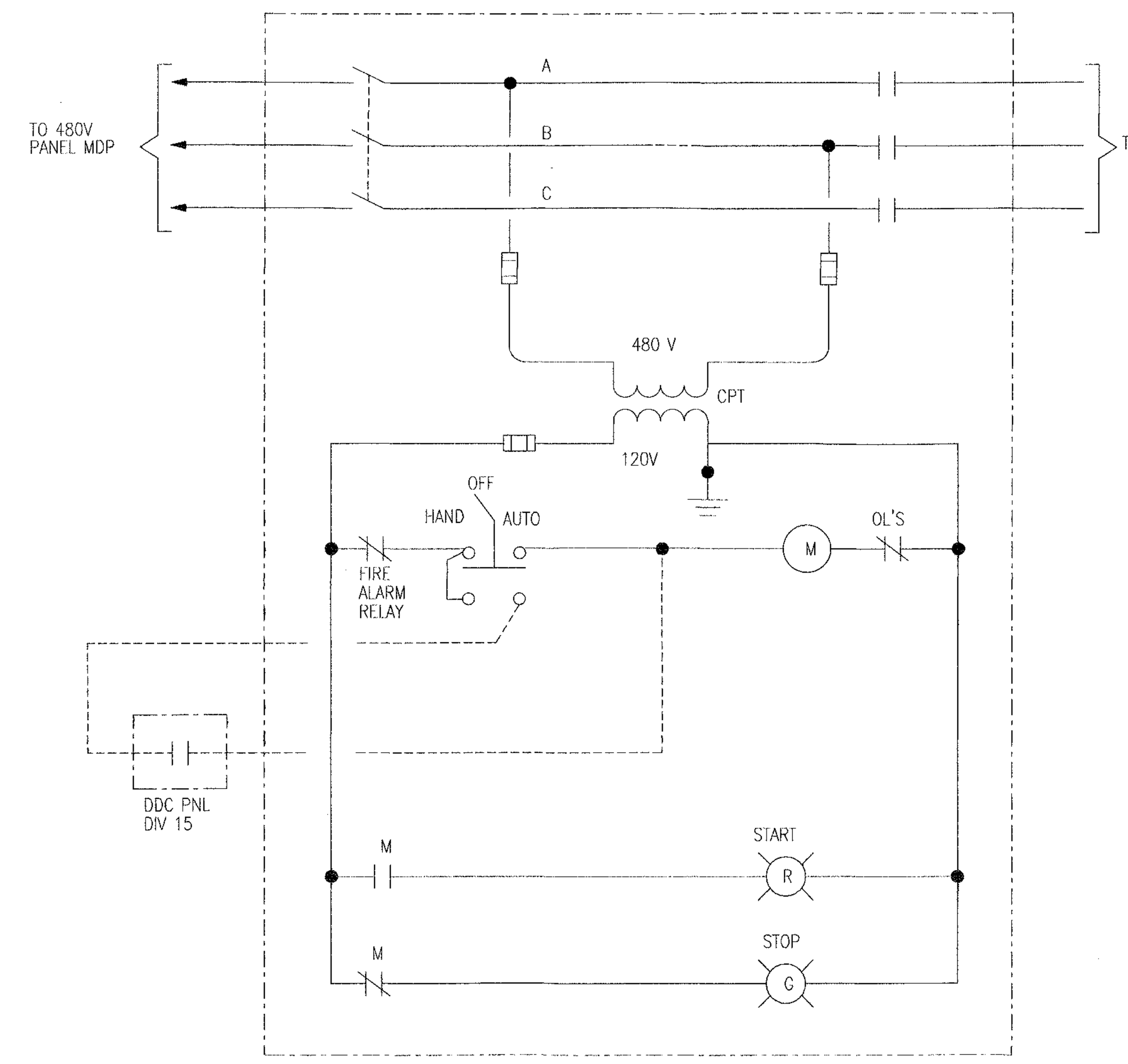
DIRECTOR
HOUSTON AIRPORT SYSTEM

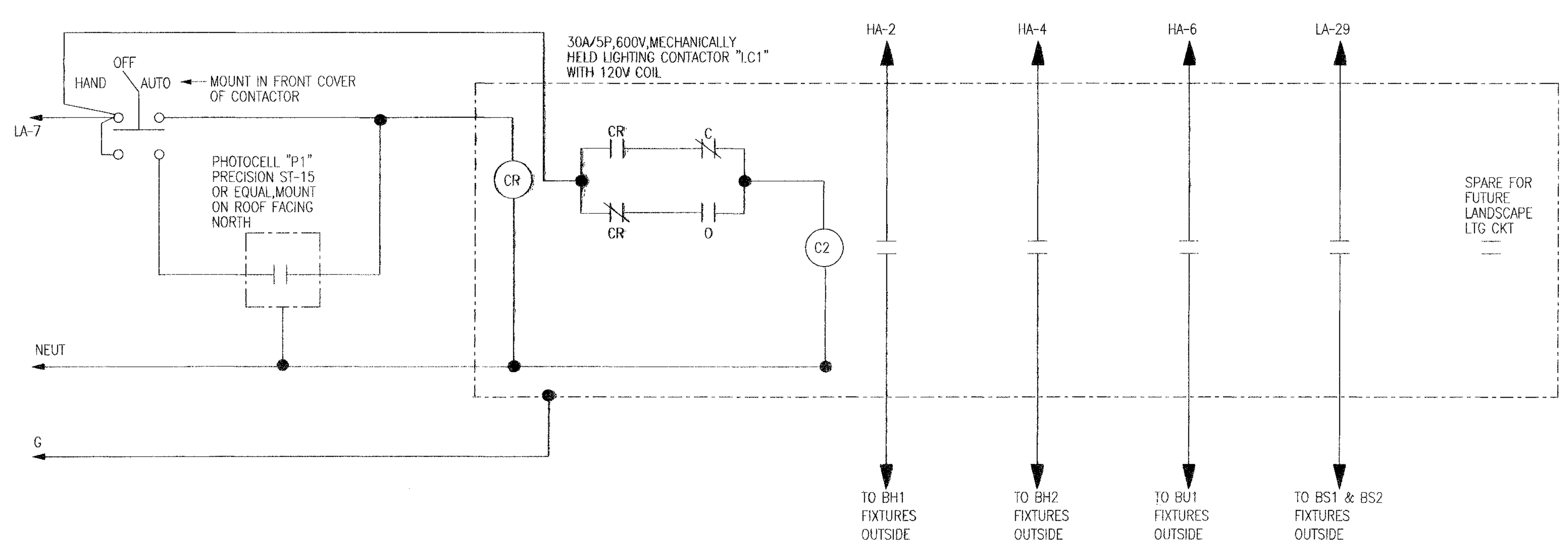
PROJECT NO.	1061-001
C.I.P. NO.	A-0354
H.A.S. NO.	536C
SHEET NO.	104 E6.000



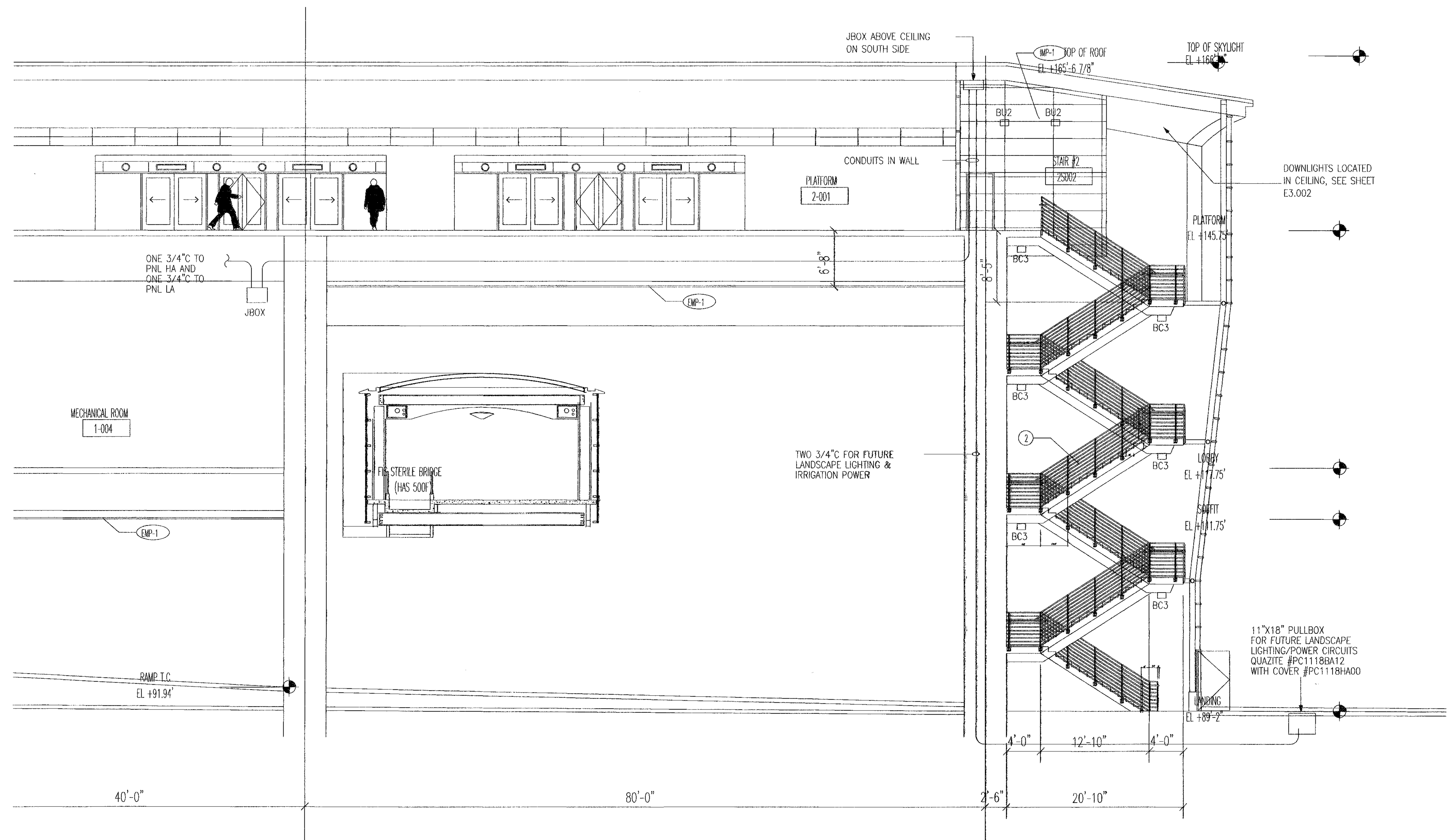
01 E6.001 CONTROL DIAGRAM FCU-1 & FCU-2
NTS



02 E6.001 CONTROL DIAGRAM AHU-1,AHU-2 & OAHU-3
NTS



03 E6.001 EXTERIOR LIGHTING CONTROL DIAGRAM
NTS



04 E6.001 STAIRWELL LIGHTING SECTION
1/8" = 1'-0"

HOUSTON AIRPORT SYSTEM
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INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

SHAH SMITH & ASSOCIATES, INC.
2825 WILCREST, SUITE 350
HOUSTON, TEXAS 77042
Phone: 713 780 7563 Fax: 713-780-9209

RdlR
REY DE LA REZA ARCHITECTS, INC.
ARCHITECTURE PLANNING INTERIOR DESIGN
1245 WEST 18TH ST.
HOUSTON,TX,77008
Tel: 713.868.3121
Tel: 713.802.0112

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INTERNATIONAL ◇ SERVICES ◇ EXPANSION ◇ PROGRAM

APM STATION + PLATFORM
ELECTRICAL DETAILS

PROJECT MGR:	A.E.BELTRAN
DESIGNER:	D.BELISLE
DRAWN BY:	D.BELISLE
CHECKED BY:	A.E.BELTRAN
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	AS NOTED
DATE:	09/14/01

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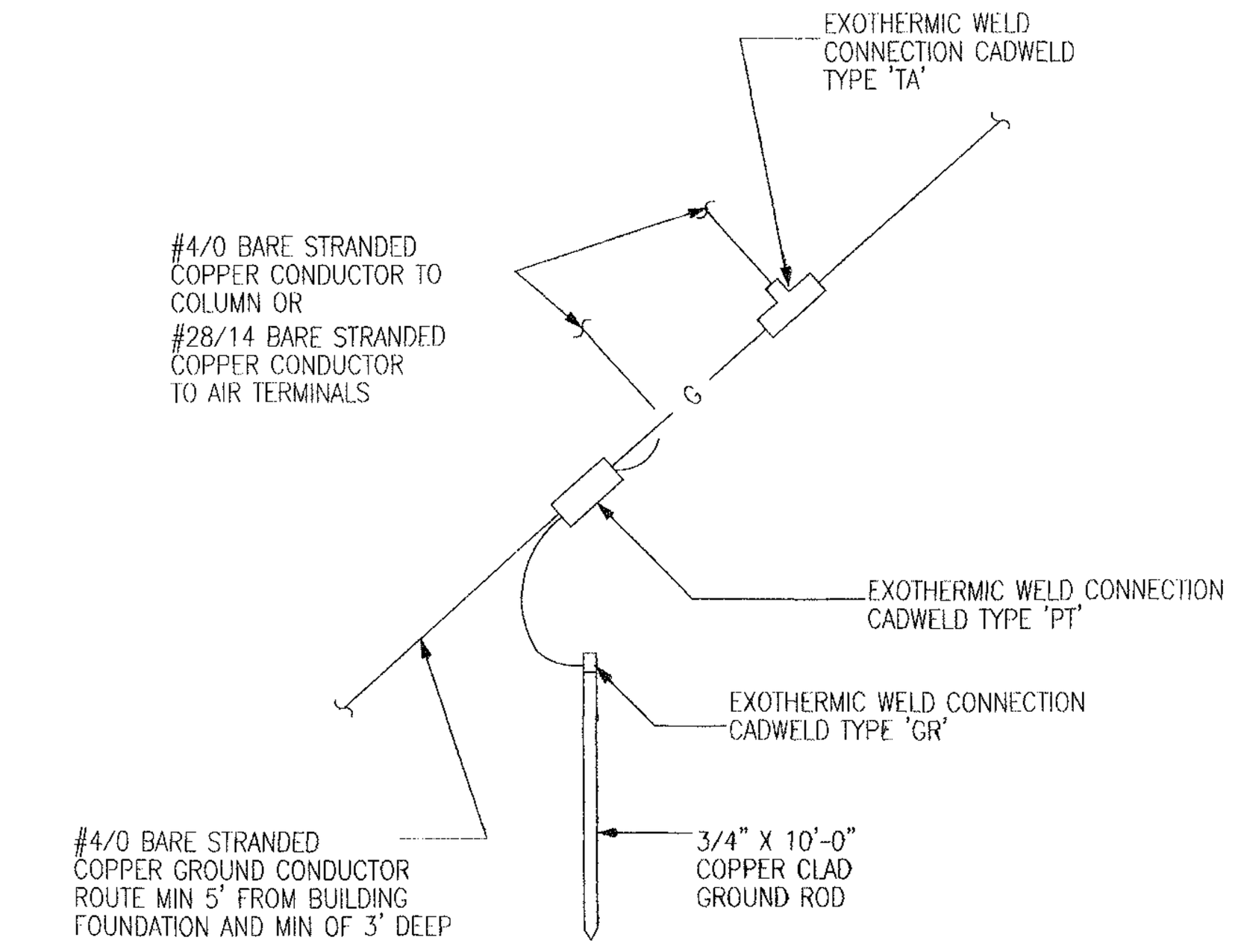
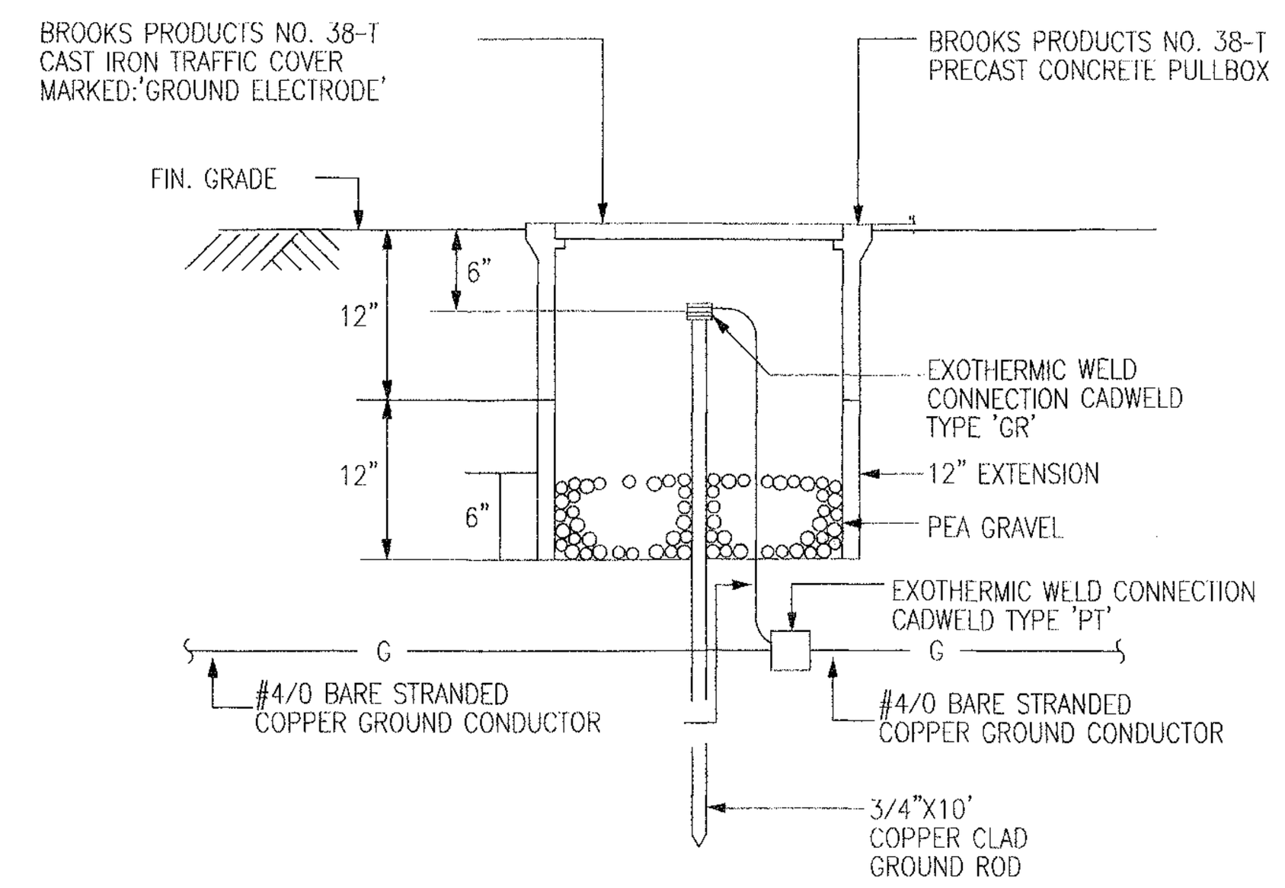
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

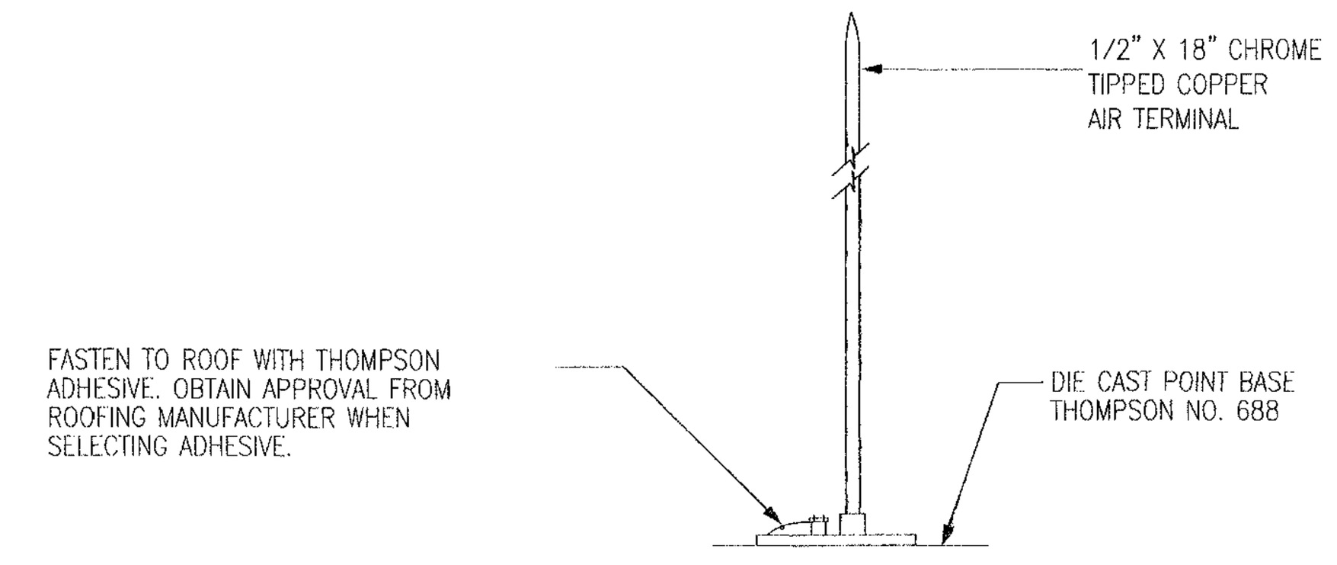
PROJECT NO. 1061-001
C.I.P. NO. A-0354
H.A.S. NO. 536C
SHEET NO.
105 E6.001



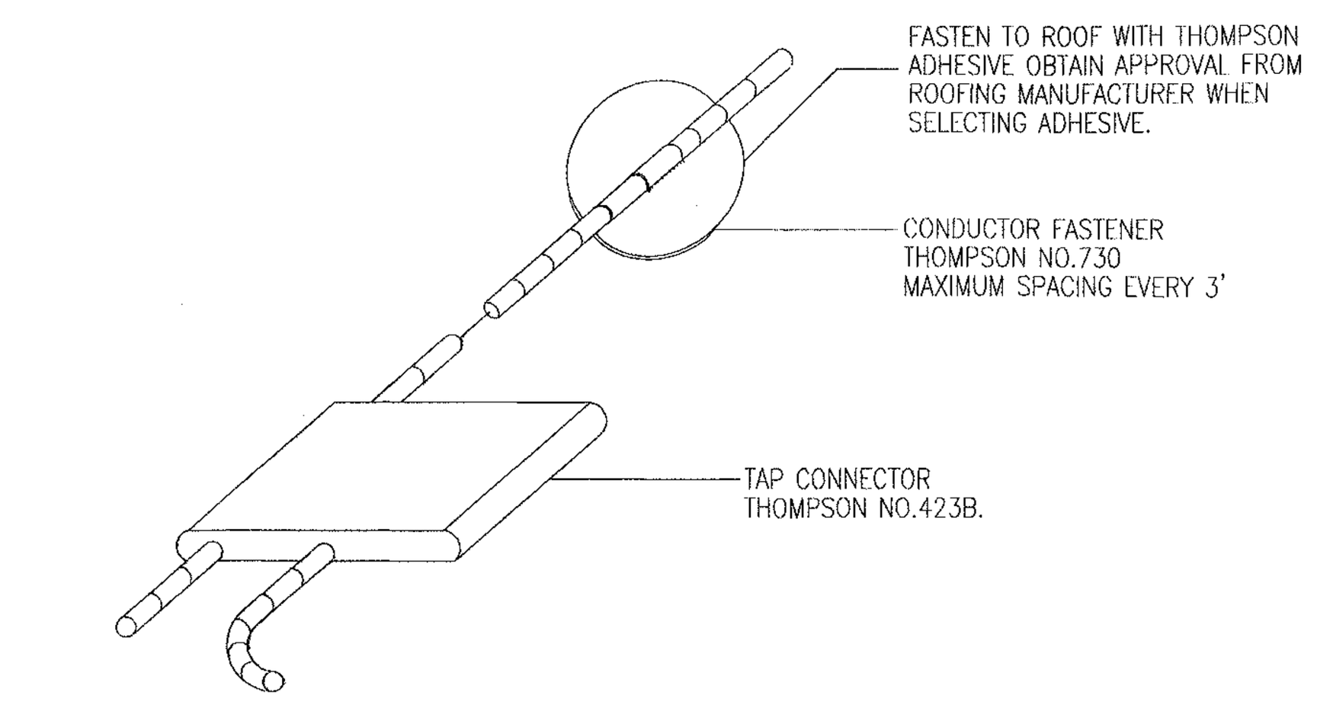
01 GROUND COUNTERPOISE DETAIL
E7.000 NTS



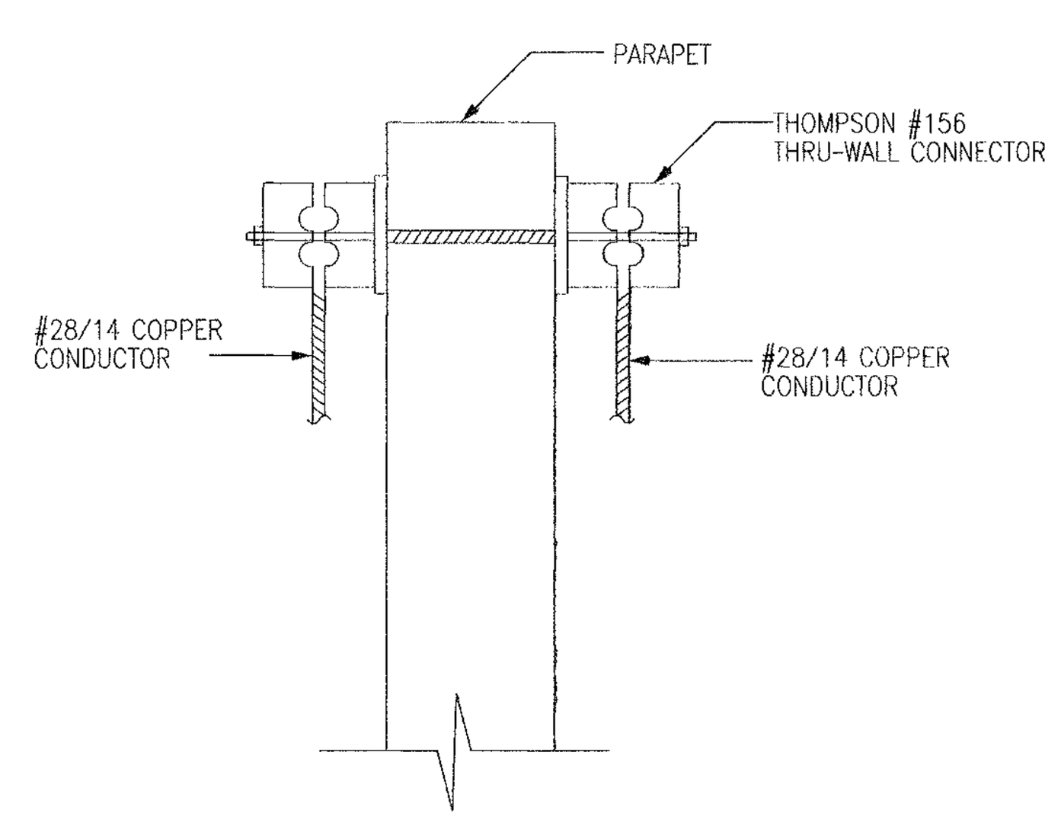
02 GROUND SYSTEM TEST WELL
E7.000 NTS



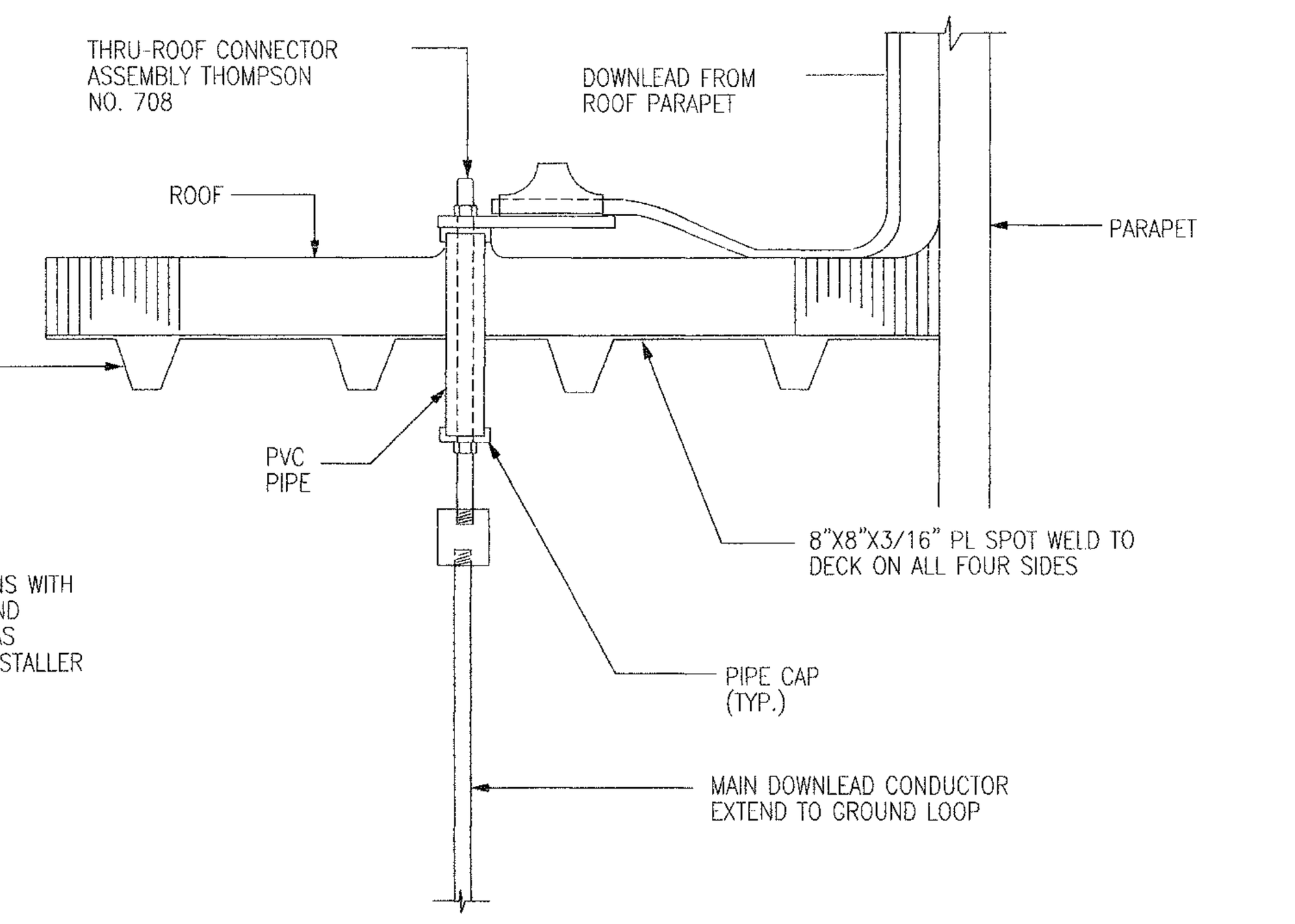
03 FLAT ROOF MOUNTED AIR TERMINAL DETAIL
E7.000 NTS



04 ROOF CABLE INSTALLATION DETAIL
E7.000 NTS

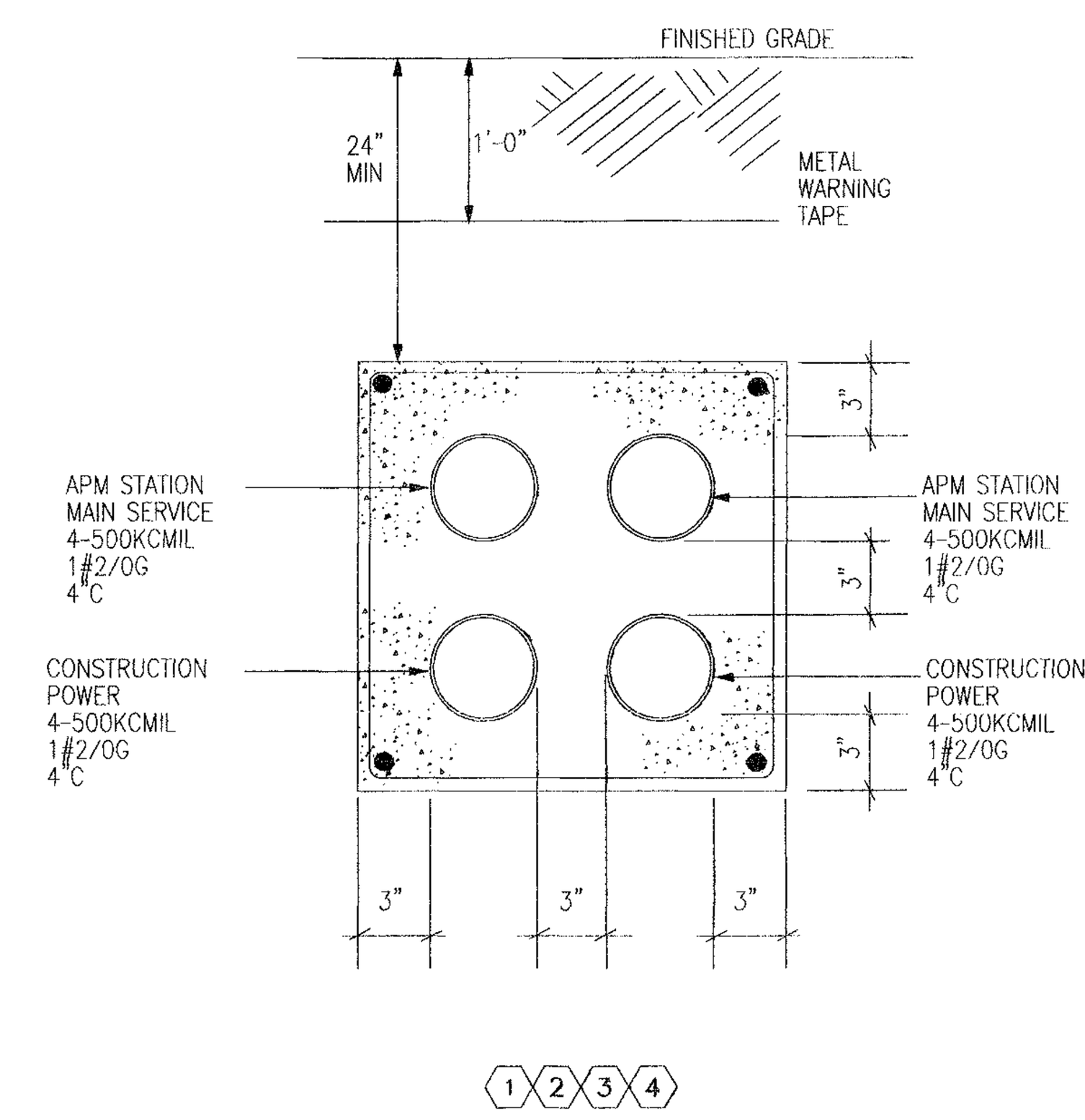


05 THROUGH WALL CONNECTOR DETAIL
E7.000 NTS



NOTE:
COORDINATE PENETRATIONS WITH INSTALLATION OF ROOF AND PROVIDE MODIFICATIONS AS REQUIRED BY ROOFING INSTALLER

06 THROUGH ROOF CONNECTOR DETAIL
E7.000 NTS



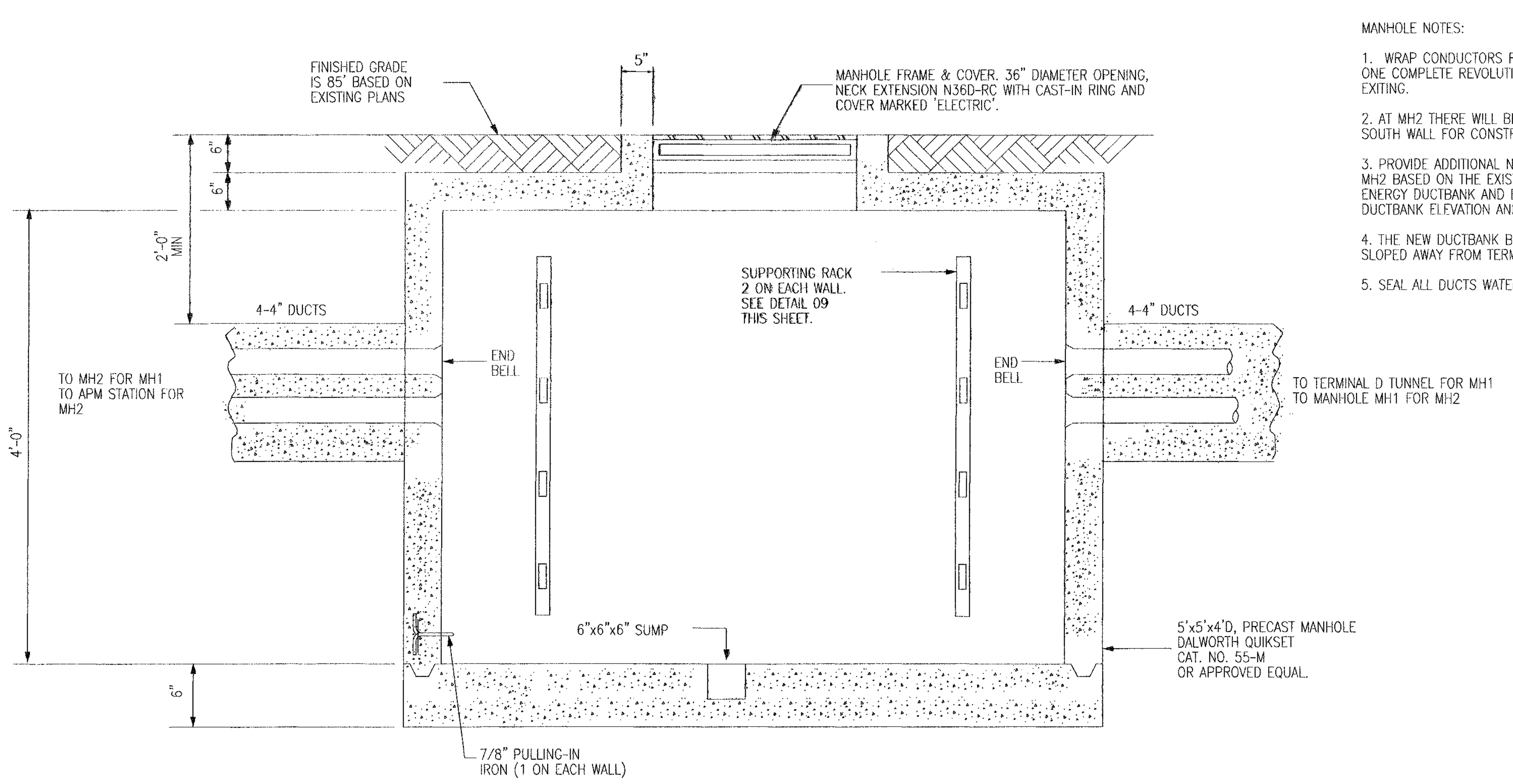
07 NEW 480V DUCTBANK
E6.002 NTS

GENERAL NOTES

1. ALL CONDUITS SHALL BE SEALED WATER TIGHT.

KEYED NOTES

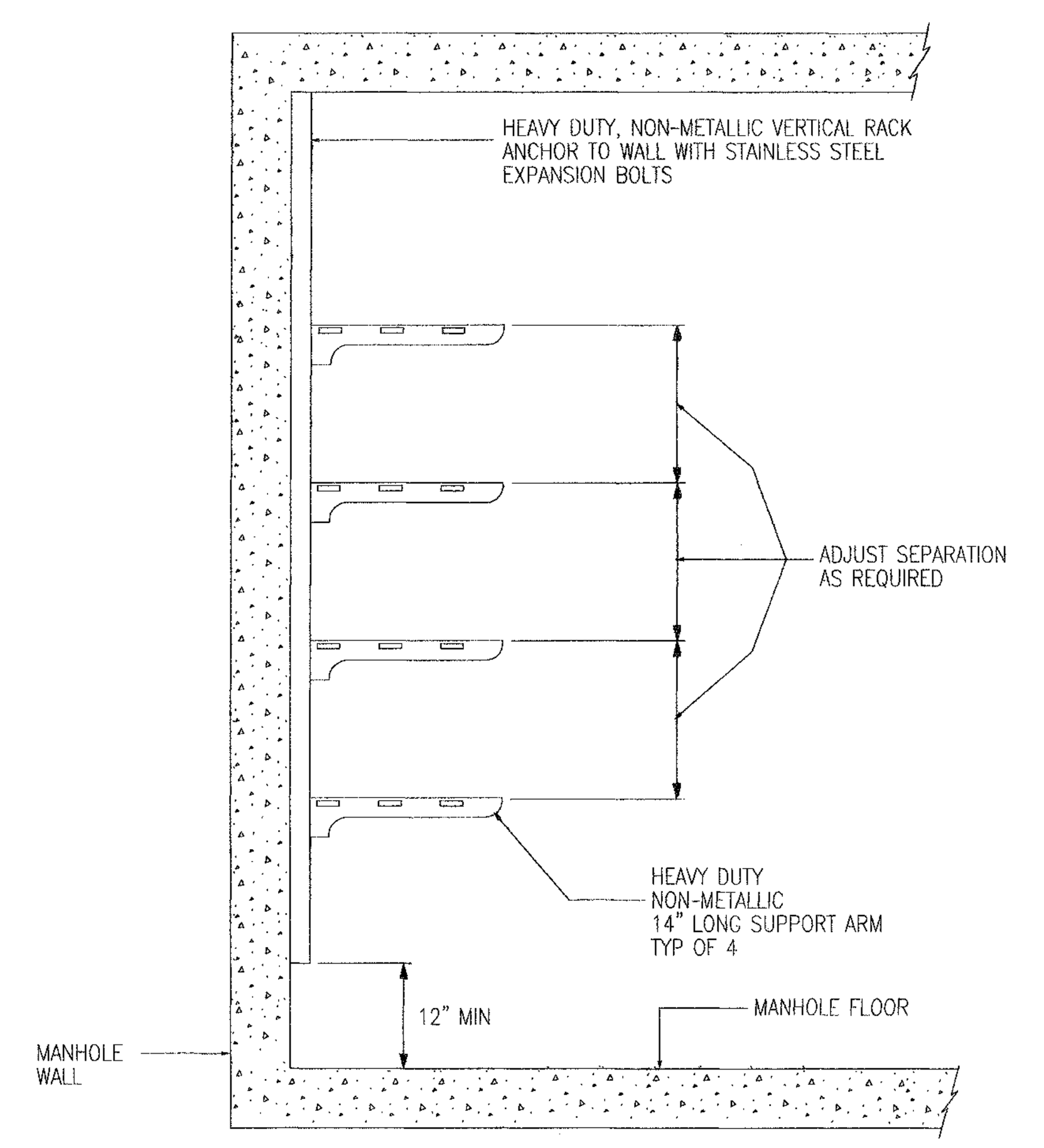
1. ALL CONDUIT SHALL BE TYPE DB, UNLESS NOTED OTHERWISE.
2. PROVIDE #4 REBAR LONGITUDINALLY IN EACH CORNER OF DUCT BANK FOR ENTIRE LENGTH.
3. PROVIDE #3 REBAR STIRRUPS ON 3'-0" CENTERS FOR ENTIRE LENGTH.
4. REFER TO SITE PLAN ON ESITE FOR ROUTING.



MANHOLE NOTES:

1. WRAP CONDUCTORS FOR APM STATION MAIN SERVICE ONE COMPLETE REVOLUTION AROUND MANHOLE BEFORE EXITING.
2. AT MH2 THERE WILL BE 2-4" DUCTS EXITING FROM THE SOUTH WALL FOR CONSTRUCTION POWER.
3. PROVIDE ADDITIONAL NECK EXTENSIONS AS REQUIRED FOR MH2 BASED ON THE EXISTING DEPTH OF THE CENTERPOINT ENERGY DUCTBANK AND EXISTING GRADE ELEVATIONS. EXISTING DUCTBANK ELEVATION AND LOCATION SHALL BE FIELD VERIFIED.
4. THE NEW DUCTBANK BETWEEN TERMINAL D AND MH1 SHALL BE SLOPED AWAY FROM TERMINAL D AT A SLOPE OF 4" PER 100'.
5. SEAL ALL DUCTS WATERTIGHT AT BOTH ENDS.

08 PRECAST CONCRETE MANHOLE DETAIL LOOKING WEST FOR MH1 LOOKING NORTH FOR MH2
E6.002 NTS



09 PRECAST CONCRETE MANHOLE DETAIL SECTION
E6.002 NTS

HOUSTON AIRPORT SYSTEM
GEORGE BUSH INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

SHAH SMITH & ASSOCIATES, INC

RdlR
REY DE LA REZA ARCHITECTS, INC.
ARCHITECTURE PLANNING INTERIOR DESIGN
1240 WEST 10TH ST.
HOUSTON, TX 77008
Tel. 713.800.3121
Tel. 713.862.0112

REVISIONS

NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	12/19/01	
1	REVISION NO. 2	4-17-2003	ESS
	RECORD DRAWING	05/06/05	

INTERNATIONAL ◇ SERVICES ◇ EXPANSION ◇ PROGRAM

APM STATION + PLATFORM
ELECTRICAL DETAILS

PROJECT MGR:	A.E.BELTRAN
DESIGNER:	D.BEUSLE
DRAWN BY:	D.BEUSLE
CHECKED BY:	A.E.BELTRAN
DRAWING STANDARD:	ISEP 07.20.2000
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H.A.S. NO.	5360
SHEET NO.	

106 E6.002

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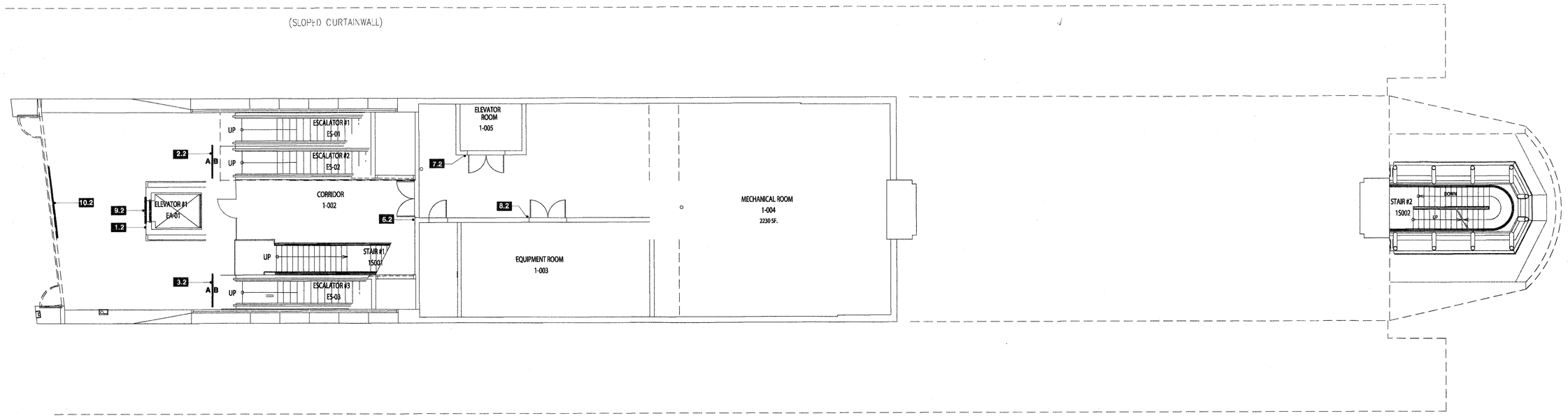


SIGN MESSAGES:

SIGN 1.2: (Elevator Call Button Sign)
LEVEL 2
Up to:
Train to
Terminals B, C

IN CASE OF FIRE EMERGENCY,
DO NOT USE ELEVATORS.
USE EXIT STAIRS.

SIGN 2.2: (New Overhead Sign)

A. (Arrow Right)
Escalator/*Escalera* (Symbol)
Train to Gates/ *Tren a las Salas* B 60 to B91, C14 to C27 (Symbol)

B. (Arrow Left) (Symbol) Gates/Salas E1 to E24
Gates/Salas D1 to D12 (Symbol) (Arrow Right)

1

SIGN 3.2: (New Overhead Sign)

A. (Arrow Up)
(Symbol) Escalator/*Escalera*
(Symbol) Train to Gates/ *Tren a las Salas* B 60 to B91, C14 to C27

B. (Arrow Left) (Symbol) Gates/Salas E1 to E24
Gates/Salas D1 to D12 (Symbol) (Arrow Right)

1

SIGN MESSAGES:

SIGN 4.2: (Not Used)

SIGN 5.2: (Not Used)

SIGN 6.2: (Permanent Room ID)
IAAPM.2.004.M
MECHANICAL ROOM
Authorized Personnel Only
(Grade Two Braille)

SIGN 7.2: (Permanent Room ID)
IAAPM.2.005.M
ELEVATOR ROOM
(Grade Two Braille)

SIGN 8.2: (Permanent Room ID)
IAAPM.2.003
EQUIPMENT ROOM
Authorized Personnel Only
(Grade Two Braille)

SIGN MESSAGES:

SIGN 9.2: (New Overhead Sign mounted to elevator fascia)
(Arrow Up) Elevator to
Terminals B, C

SIGN 10.2: (New Fascia mounted Sign)
(Arrow Left) (Symbol) Gates/Salas E1 to E24
Gates/Salas D1 to D12 (Symbol) (Arrow Right)

HOUSTON AIRPORT SYSTEM
GEORGE BUSH INTERCONTINENTAL AIRPORT HOUSTON TEXAS

morris architects
Houston Orlando Miami Los Angeles
3355 West Alabama, Suite 200
Houston, Texas 77098
(713) 622.1180 Phone
(713) 622.7021 Fax
www.morrisarchitects.com

REVISIONS

NO.	DESCRIPTION	DATE	BY
	Bulletin 54F	8/27/04	
1	Bulletin 54F.R1	12/09/04	
2	Record Drawings	4/29/05	

RECORD DRAWINGS
DO NOT MODIFY
Date: 4/29/05
Morris Architects

Note: Information used to develop these documents was taken from record of the work drawings prepared by the construction contractor.
Intex United.
the information provided was not verified by the design firm named above

INTERNATIONAL ◇ SERVICES ◇ EXPANSION ◇ PROGRAM

APM STATION & PLATFORM

SIGNAGE LOCATION PLAN
LOBBY LEVEL

PROJECT MGR: SC
DESIGNER: SC
DRAWN BY: SC
CHECKED BY: SC
DRAWING STANDARD:
SCALE: NTS
DATE: 08/27/04

REGISTERED ARCHITECT
STATE OF TEXAS
4/29/05

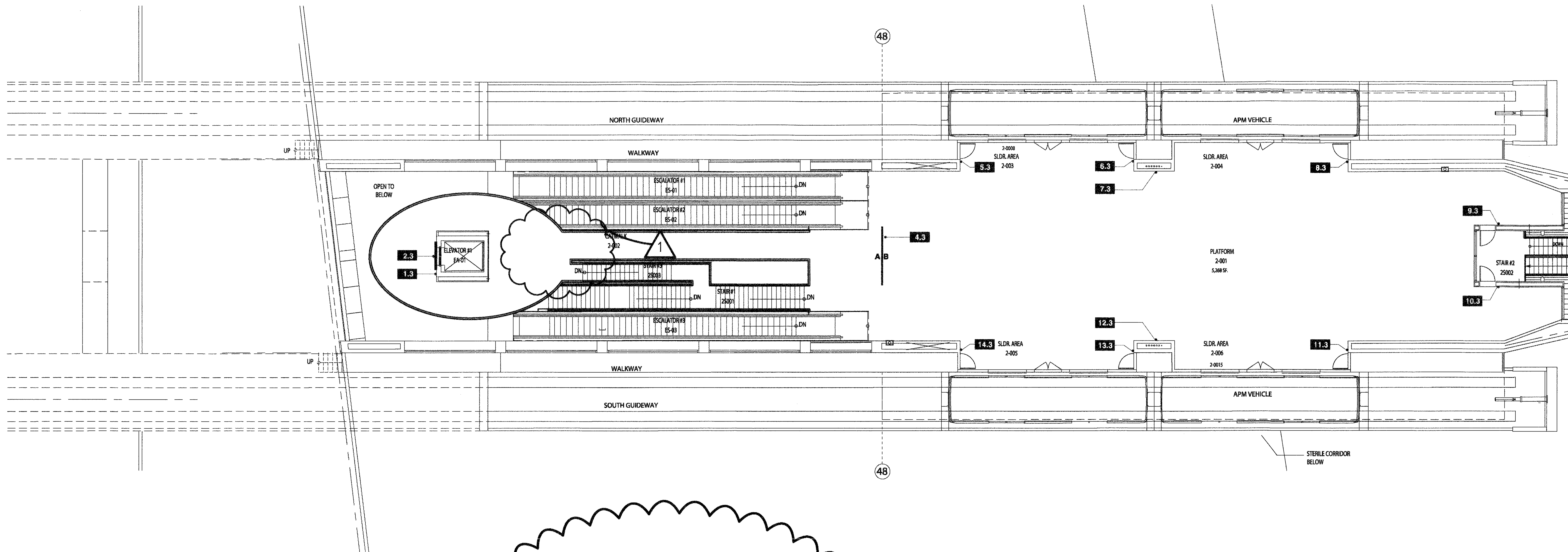
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO. 004048.000
C.I.P. NO. A-0264
H.A.S. NO. 5280
SHEET NO. G1.001

PLOT DATE: HAS FILE:

RECORD DRAWINGS



SIGN MESSAGES:

SIGN 1.3: (Elevator Call Button Sign)
LEVEL 3
DOWN TO:
Terminals D, E

IN CASE OF FIRE EMERGENCY,
DO NOT USE ELEVATORS.
USE EXIT STAIRS.

SIGN 2.3: (New Overhead Sign mounted to elevator fascia)
(Arrow Down) Elevator to Terminals D, E

SIGN 3.3: (deleted)

1

SIGN MESSAGES:

SIGN 4.3: (New Overhead Sign)

Side A: (Arrow Up)
(Symbol) Train to Gates/*Tren a las Salas*
B60 to B91, C14 to C27

Side B:
(Arrow Down Right)
(Symbol) Escalator/*Escalera*

(Arrow Up)
(Symbol) Elevator/*Elevador*

(Symbol) Gates/*Salas* D1 to D12, E1 to E24

1

SIGN 5.3: (EEO Sign)
Emergency Exit Only
Alarm Will Sound if Door is Opened
(Grade Two Braille)

SIGN 6.3: (EEO Sign)
Emergency Exit Only
Alarm Will Sound if Door is Opened
(Grade Two Braille)

SIGN MESSAGES:

SIGN 7.3: (New Wall Directional)
(Arrow Left)
(Symbol) Elevator/Elevador
(Symbol) Escaltor/Escalera
(Symbol) Gates/Salas
D1 to D12, E1 to E24

SIGN 8.3: (EEO Sign)
Emergency Exit Only
Alarm Will Sound if Door is Opened
(Grade Two Braille)

SIGN 9.3: (Stair ID Sign)
IAAPM.3.001
STAIR 2
Emergency Exit Only
Alarm Will Sound if Door is Opened
(Grade Two Braille)

SIGN 10.3: (Stair ID Sign)
IAAPM.3.001
STAIR 2
Emergency Exit Only
Alarm Will Sound if Door is Opened
(Grade Two Braille)

SIGN 11.3: (EEO Sign)
Emergency Exit Only
Alarm Will Sound if Door is Opened
(Grade Two Braille)

SIGN 12.3: (New Wall Directional)
(Arrow Right)
(Symbol) Elevator/Elevador
(Symbol) Escaltor/Escalera
(Symbol) Gates/Salas
D1 to D12, E1 to E24

SIGN MESSAGES:

SIGN 13.3: (EEO Sign)
Emergency Exit Only
Alarm Will Sound if Door is Opened
(Grade Two Braille)

SIGN 14.3: (EEO Sign)
Emergency Exit Only
Alarm Will Sound if Door is Opened
(Grade Two Braille)

HOUSTON AIRPORT SYSTEM
GEORGE BUSH
INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

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REVISIONS

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1	Bulletin 54F.R1	12/09/04	
2	Record Drawings	4/29/05	

RECORD DRAWINGS
DO NOT MODIFY
Date: 4/29/05
Morris Architects

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INTERNATIONAL ◊ SERVICES ◊ EXPANSION ◊ PROGRAM

APM STATION & PLATFORM
SIGNAGE LOCATION PLAN
PLATFORM LEVEL

PROJECT MGR: SC
DESIGNER: SC
DRAWN BY: SC
CHECKED BY: SC
DRAWING STANDARD:
SCALE: NTS
DATE:

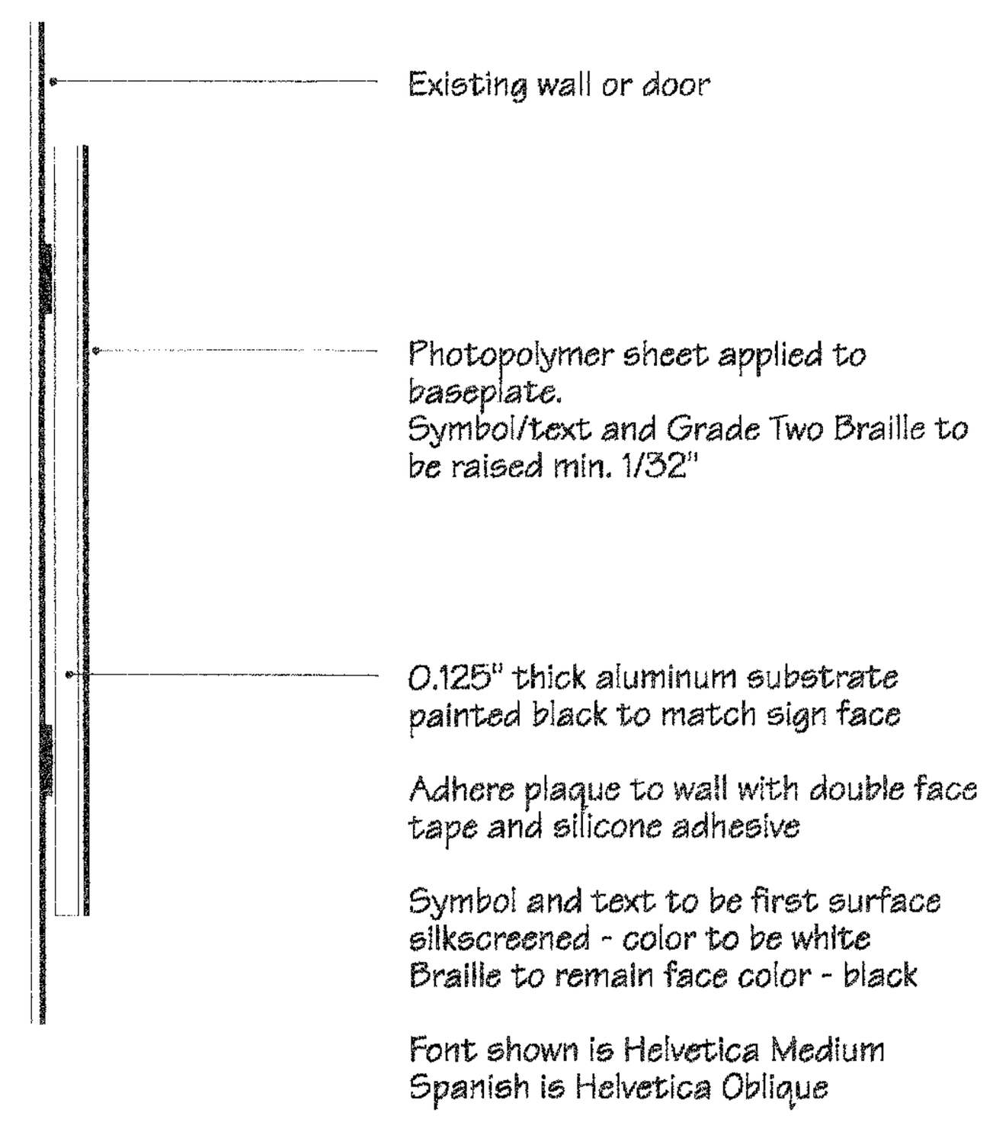
APPROVED BY: DATE:

DIRECTOR HOUSTON AIRPORT SYSTEM

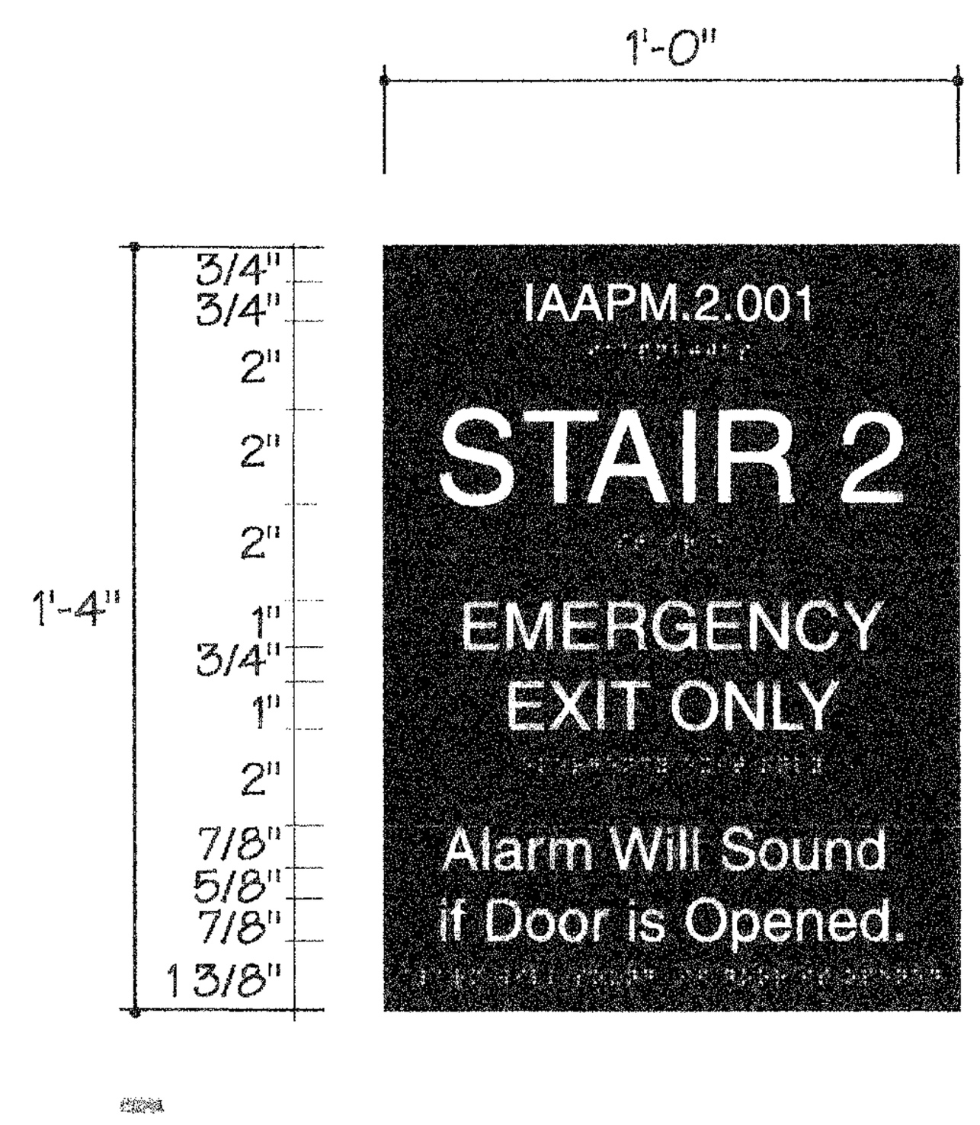
PROJECT NO.
C.I.P. NO. A-0364
H.A.S. NO.
SHEET NO.

G1.002

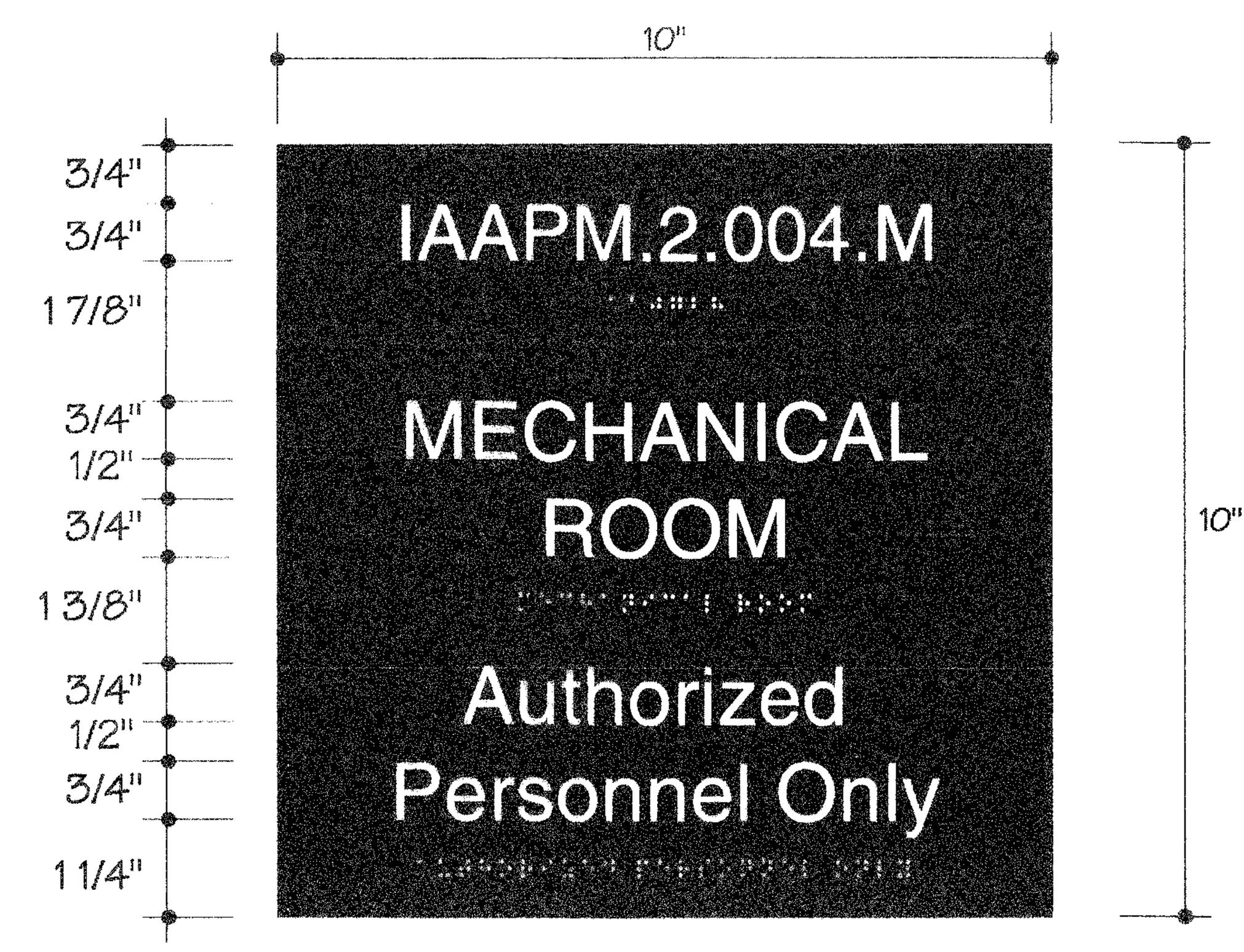
RECORD DRAWINGS



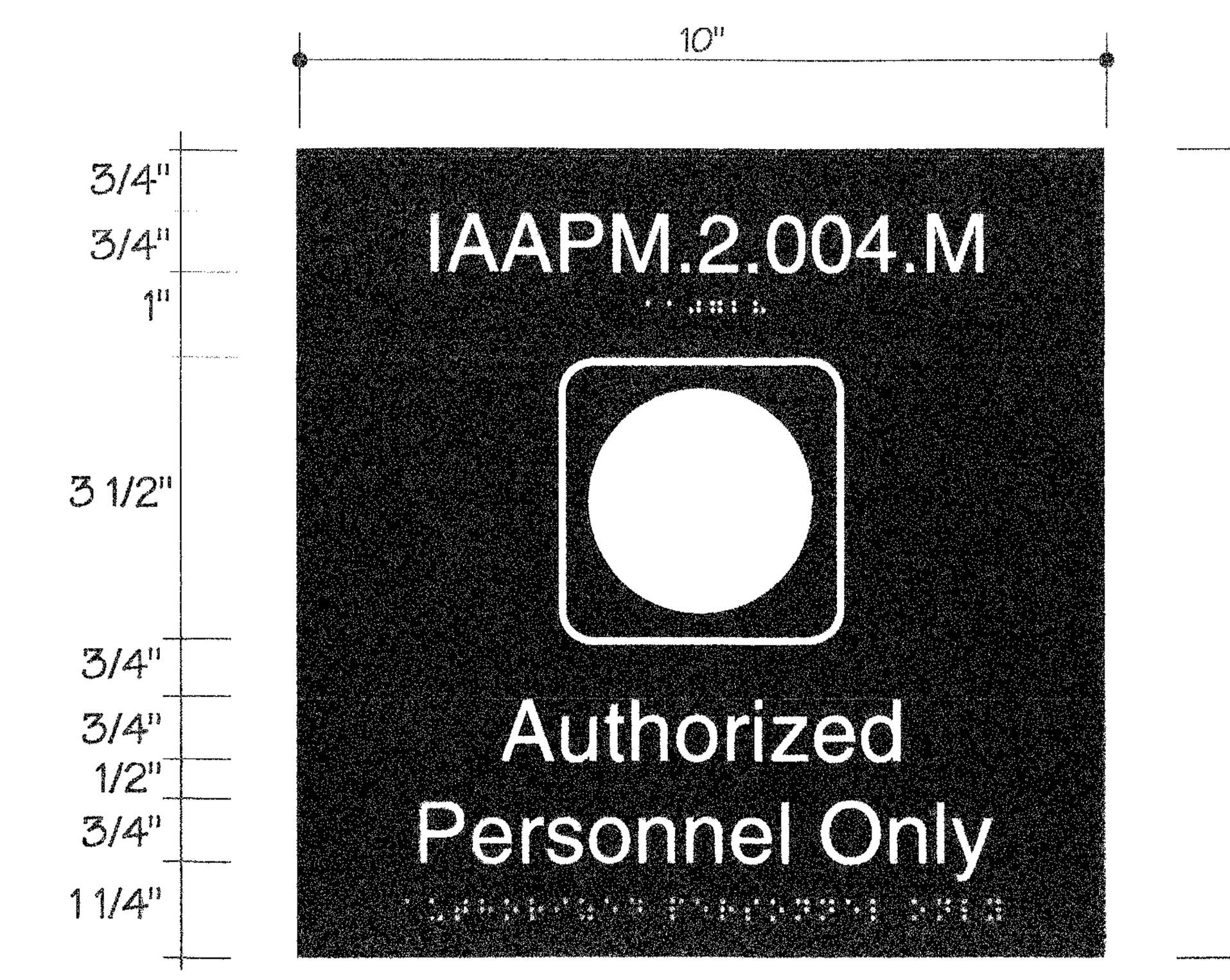
1 DETAIL SECTION - Typ. Wall Plaques
SCALE: 3" = 1'-0"



2 ELEVATION - Typ. Stair Sign
SCALE: 3" = 1'-0"

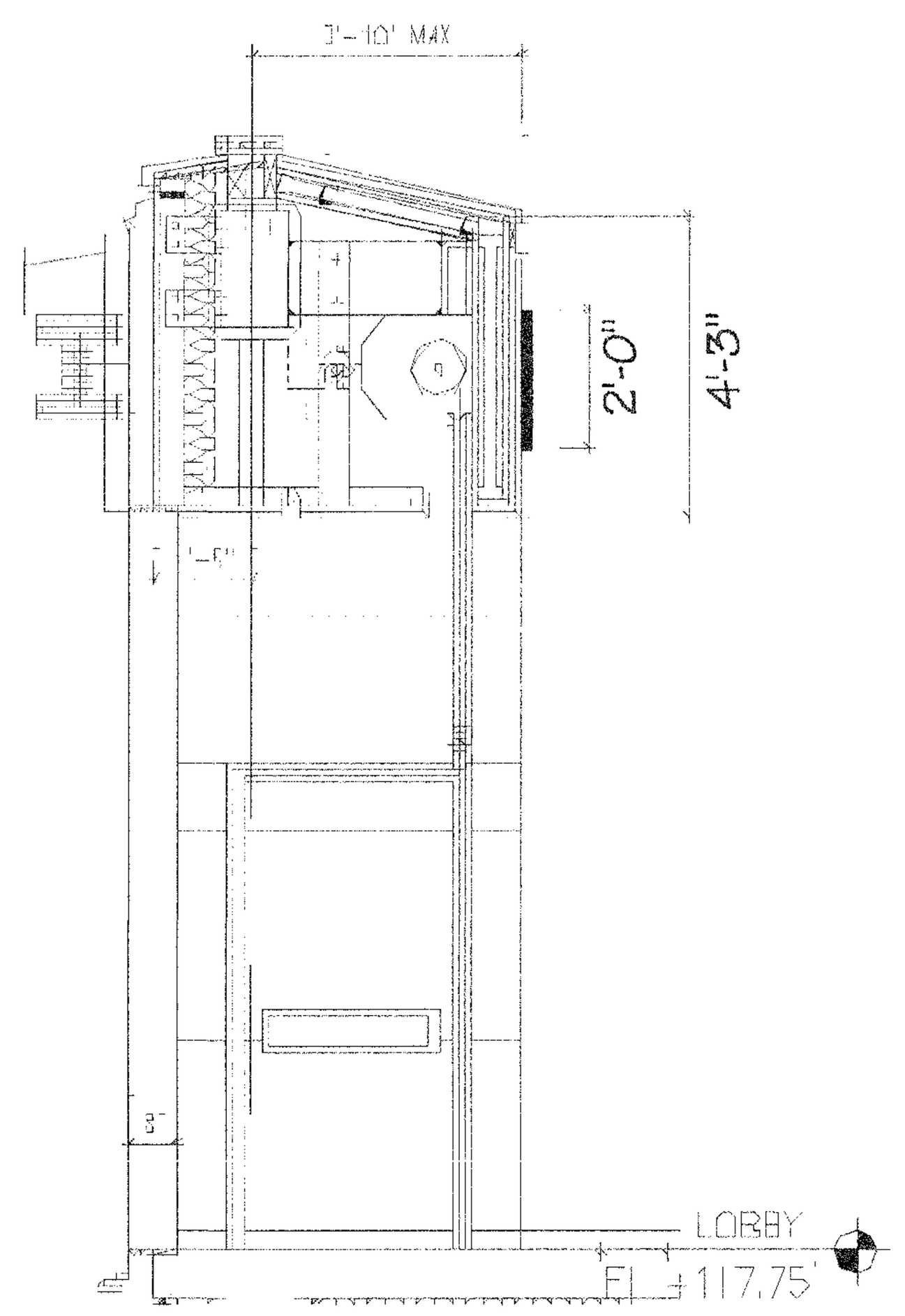


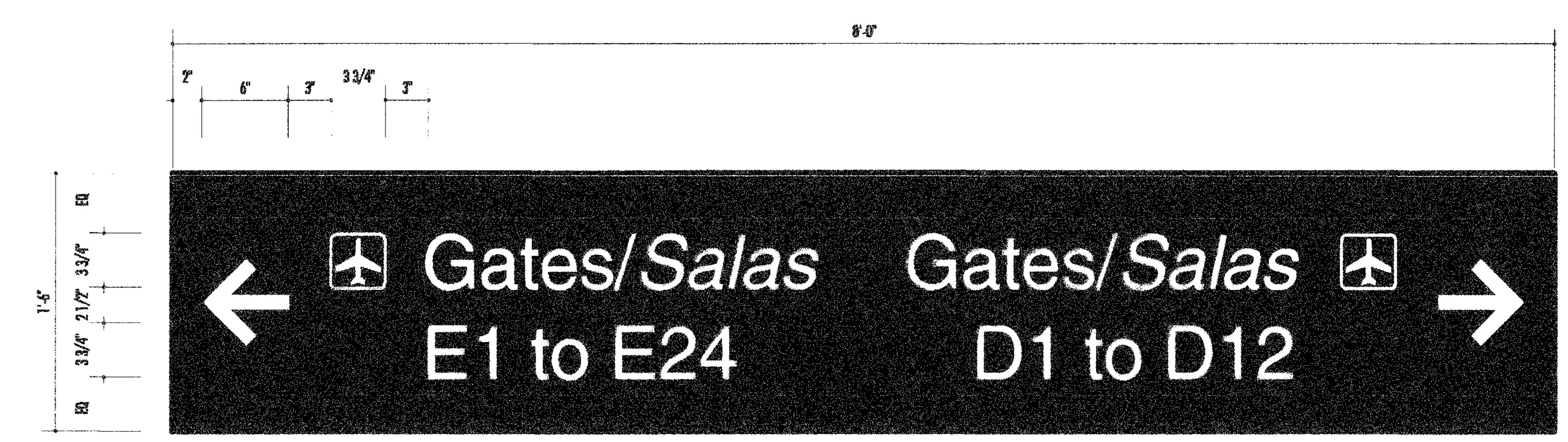
3 ELEVATION - Typ. Permanent Room ID
SCALE: Half Size



4 ELEVATION - Typ. Permanent Room ID
SCALE: Half Size

5 ELEVATION - Emergency Exit Sign
SCALE: 3" = 1'-0"

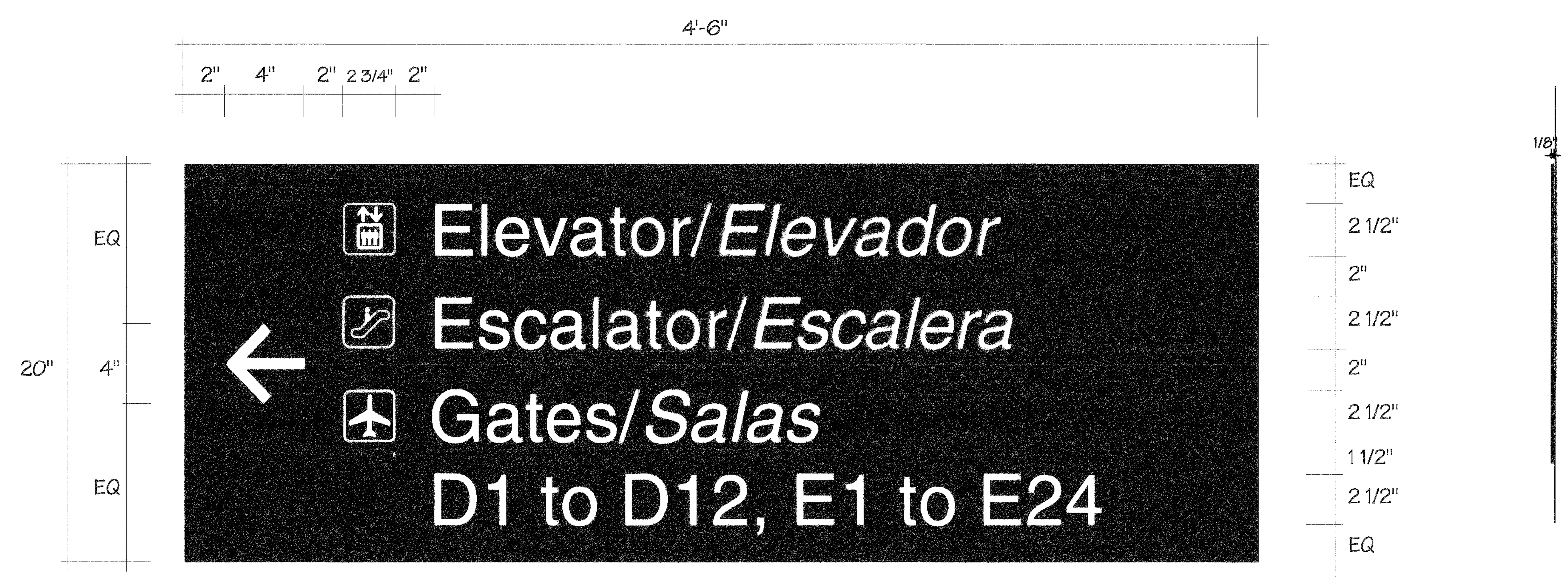




New single-sided sign mounted to stainless panel fascia as shown in section.
1/8" thick aluminum sign constructed to match existing signs in IAB. Paint sign (all visible surfaces) MAP Black Anodic 41-335 eggshell finish.
Copy, symbols and arrows are white vinyl die-cuts. Typestyle for English is Helvetica Medium, Spanish is Helvetica Regular Oblique. Symbols to match existing IAH symbols, Terminal D, typ.

6 SECTION/LAYOUT/Fascia Mounted Sign 10.2
SCALE: 1 1/2" = 1'-0

7 ELEVATION - Sign 7.3 , Wall mounted Directional
SCALE: NTS



New single-sided sign mounted to wall as shown in elevation.
1/8" thick aluminum sign constructed to match existing signs in IAB. Paint sign (all visible surfaces) MAP Black Anodic 41-335 eggshell finish.
Copy and arrow are white vinyl die-cuts. Typestyle for English is Helvetica Medium, Spanish is Helvetica Regular Oblique. Symbols to match existing IAH symbols, Terminal D, typ.

8 LAYOUT - Sign 7.3 , Wall mounted Directional *(12.3 layout similar, opposite direction)
SCALE: 3" = 1'-0"

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HOUSTON TEXAS

morris architects
Houston Orlando Miami Los Angeles
3355 West Alabama, Suite 200
Houston, Texas 77098
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(713) 622.7021 Fax
www.morrisarchitects.com

REVISIONS

NO.	DESCRIPTION	DATE	BY
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1	Bulletin 54F.R1	12/09/04	
2	Record Drawings	4/29/05	

RECORD DRAWINGS
DO NOT MODIFY
Date: 4/29/05
Morris Architects

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INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION & PLATFORM
SIGN FACE LAYOUTS

PROJECT MGR:	SC
DESIGNER:	SC
DRAWN BY:	SC
CHECKED BY:	SC
DRAWING STANDARD:	
SCALE:	NTS
DATE:	07/00/04

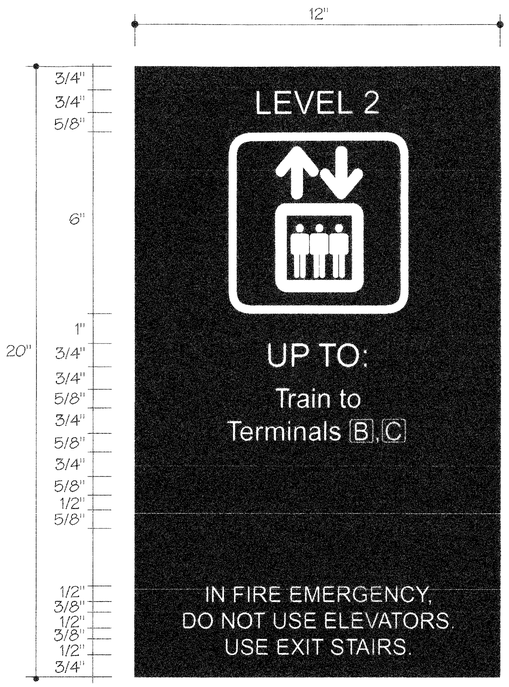
REGISTERED ARCHITECT RICHARD L. C[illegible] JR. 6606 STATE OF TEXAS
4/29/05

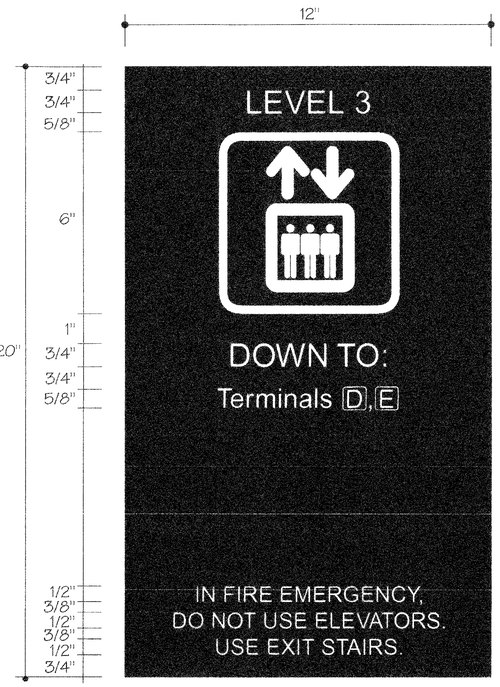
APPROVED BY: DATE:

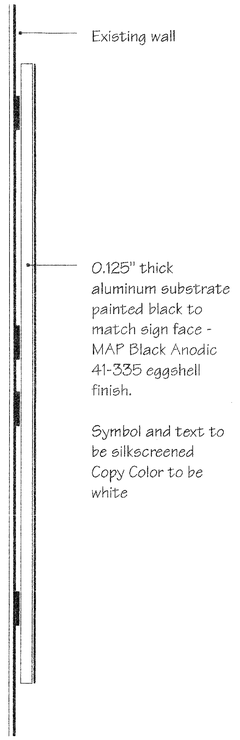
DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO. G04049.000
C.I.P. NO. A-0354
H.A.S. NO. 536C
SHEET NO.
G1.003

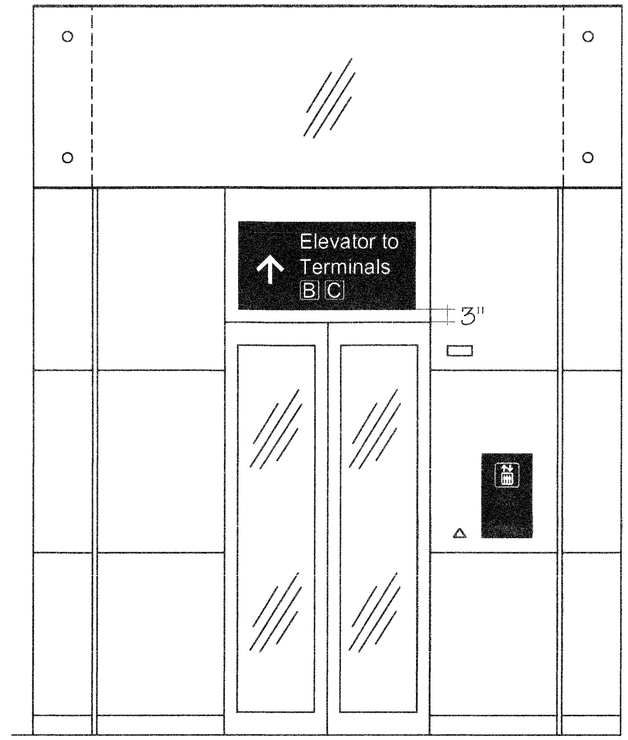
RECORD DRAWINGS



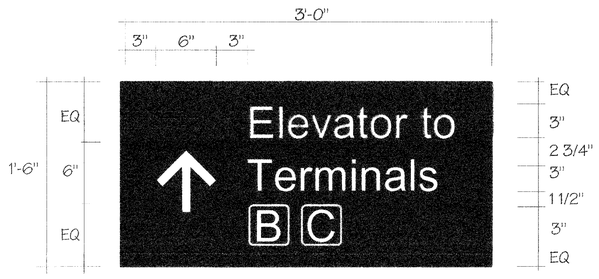




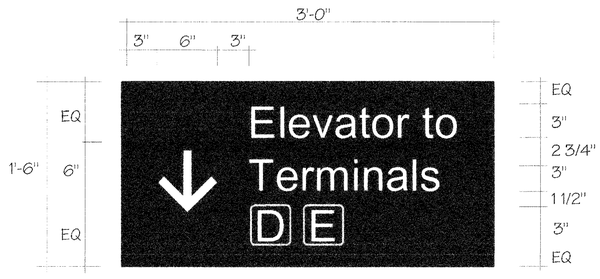
1 LAYOUT - Elevator Egress Signs 1.2, 2.3
SCALE: 3" = 1'-0"



2 ELEVATION - Elevators
SCALE: NTS



9.2 New single-sided sign mounted to glass above elevator doors. 1/8" thick aluminum sign constructed to match existing signs in IAB. Paint sign MAP Black Anodic 41-335 eggshell finish. Copy, arrow and symbols are white vinyl die-cuts. Typestyle for English is Helvetica Medium. Symbols to match existing IAH symbols, Terminal D, typ.



2.3 New single-sided sign mounted to glass above elevator doors. 1/8" thick aluminum sign constructed to match existing signs in IAB. Paint sign MAP Black Anodic 41-335 eggshell finish. Copy, arrow and symbols are white vinyl die-cuts. Typestyle for English is Helvetica Medium. Symbols to match existing IAH symbols, Terminal D, typ.

3 LAYOUT/ELEVATION- Elevator Overhead Signs 9.2, 2.3
SCALE: NTS

Sign 3.3, Side A

Sign 3.3, Side B

Fabrication details match 2.2, 3.2; mounting detail matches 4.3.

4 ELEVATION - Overhead Sign 3.3
1 1/2" = 1'-0"

HOUSTON AIRPORT SYSTEM
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HOUSTON TEXAS

morris architects
Houston Orlando Miami Los Angeles
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(713) 622-7021 Fax
www.morrisarchitects.com

REVISIONS

NO.	DESCRIPTION	DATE	BY
	Bulletin 54F	8/27/04	
1	Bulletin 54F.R1	12/09/04	
2	Record Drawings 4/29/05		

RECORD DRAWINGS
DO NOT MODIFY
Date: 4/29/05
Morris Architects

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INTERNATIONAL ◦ SERVICES ◦ EXPANSION ◦ PROGRAM

APM STATION & PLATFORM
SIGN FACE LAYOUTS 2

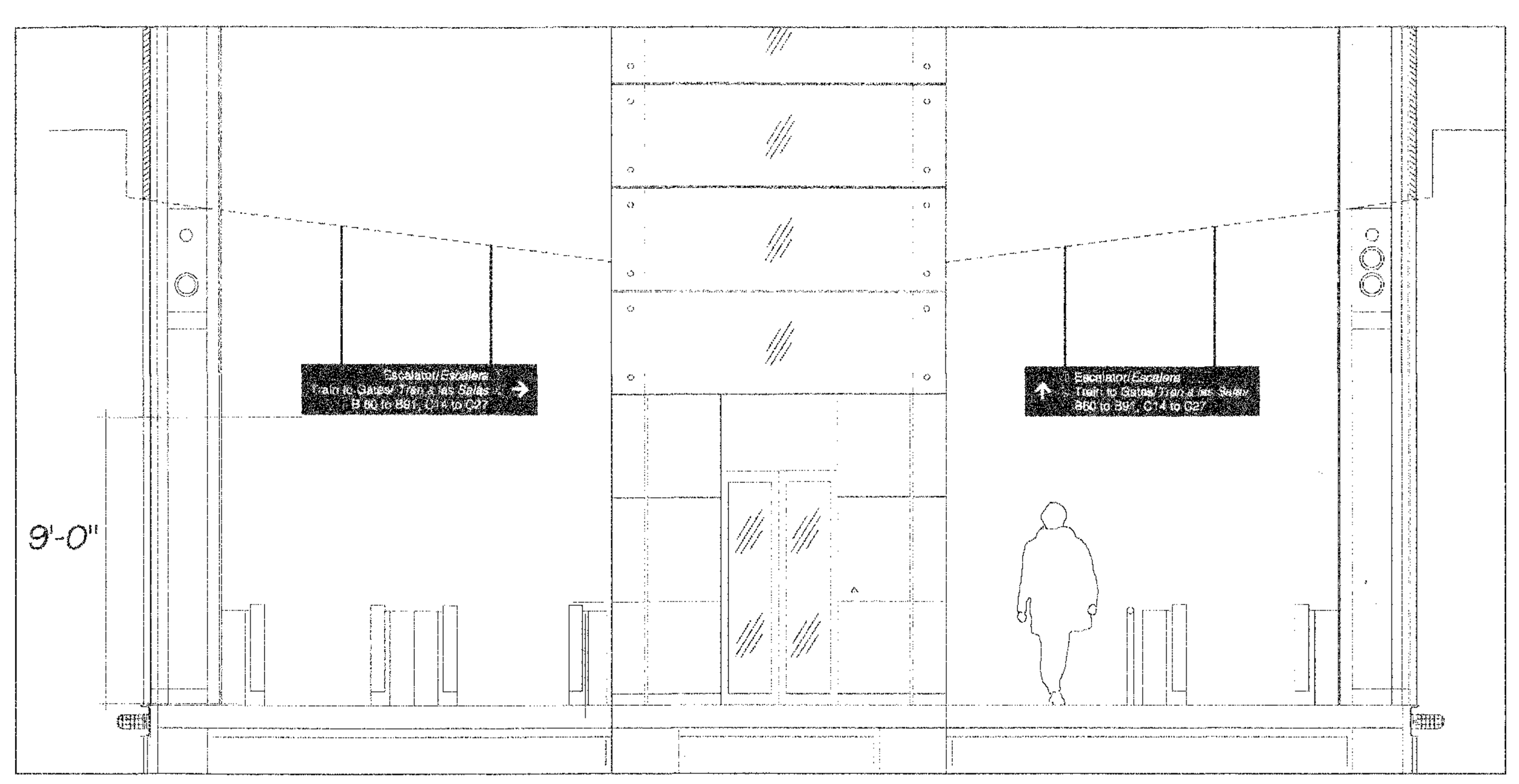
PROJECT MGR.	SG
DESIGNER	SG
DRAWN BY	SG
CHECKED BY	SG
DRAWING STANDARD	
SCALE	NTS
DATE	07/06/04

REGISTERED ARCHITECT STATE OF TEXAS 4/29/05

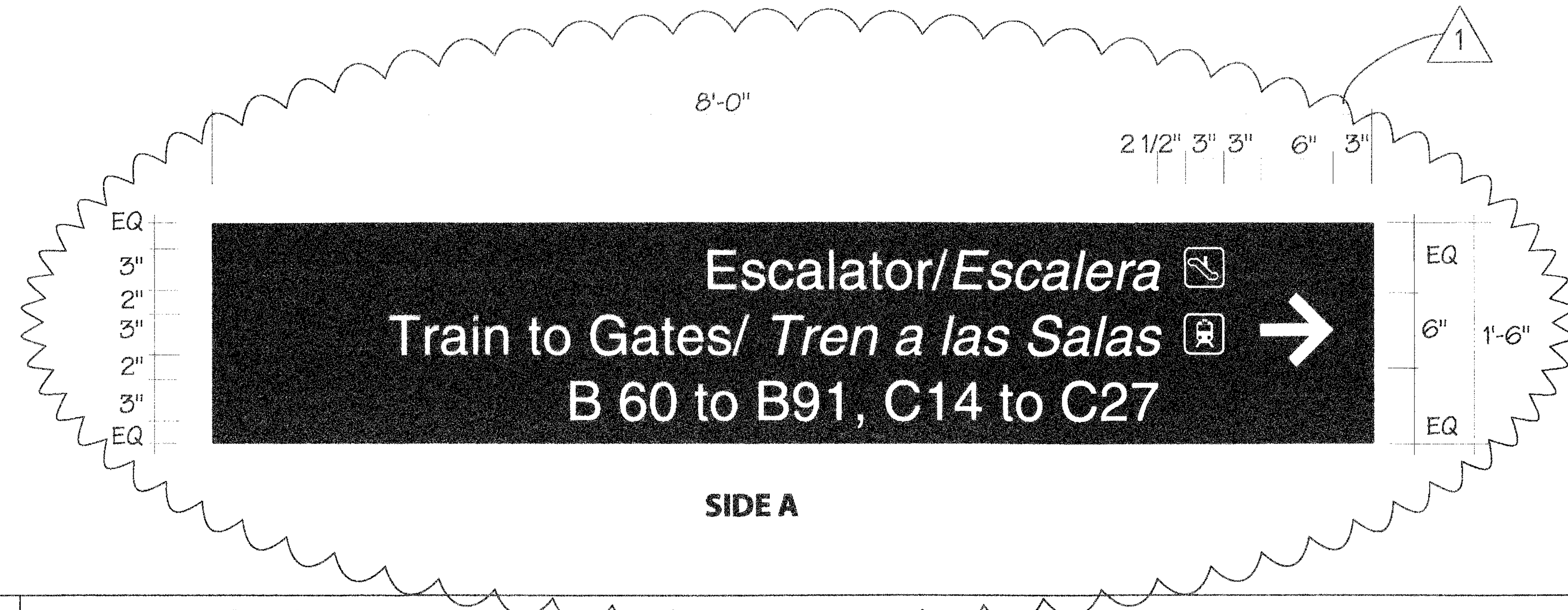
APPROVED BY: DATE:
DIRECTOR HOUSTON AIRPORT SYSTEM

PROJECT NO.	G40481.000
C.I.P. NO.	A-9064
H.A.S. NO.	5060
SHEET NO.	G1.004

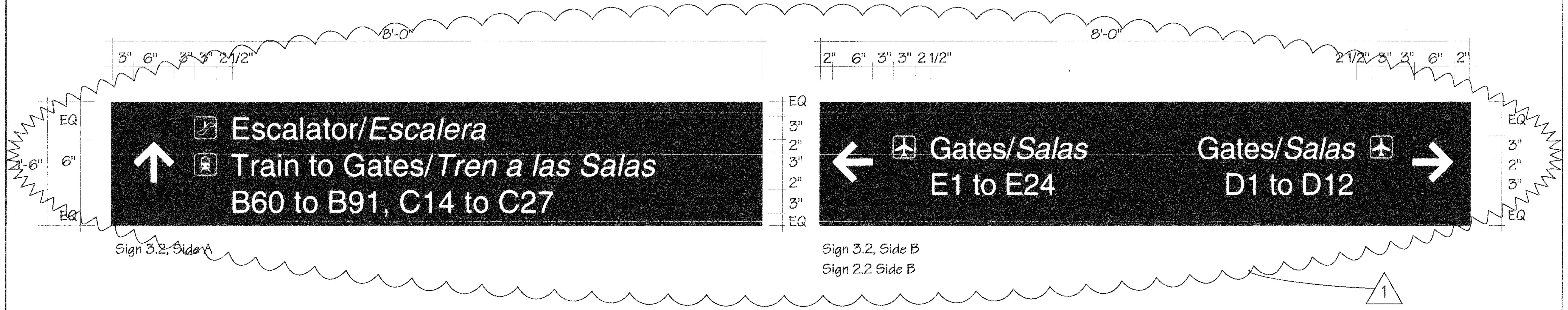
RECORD DRAWINGS



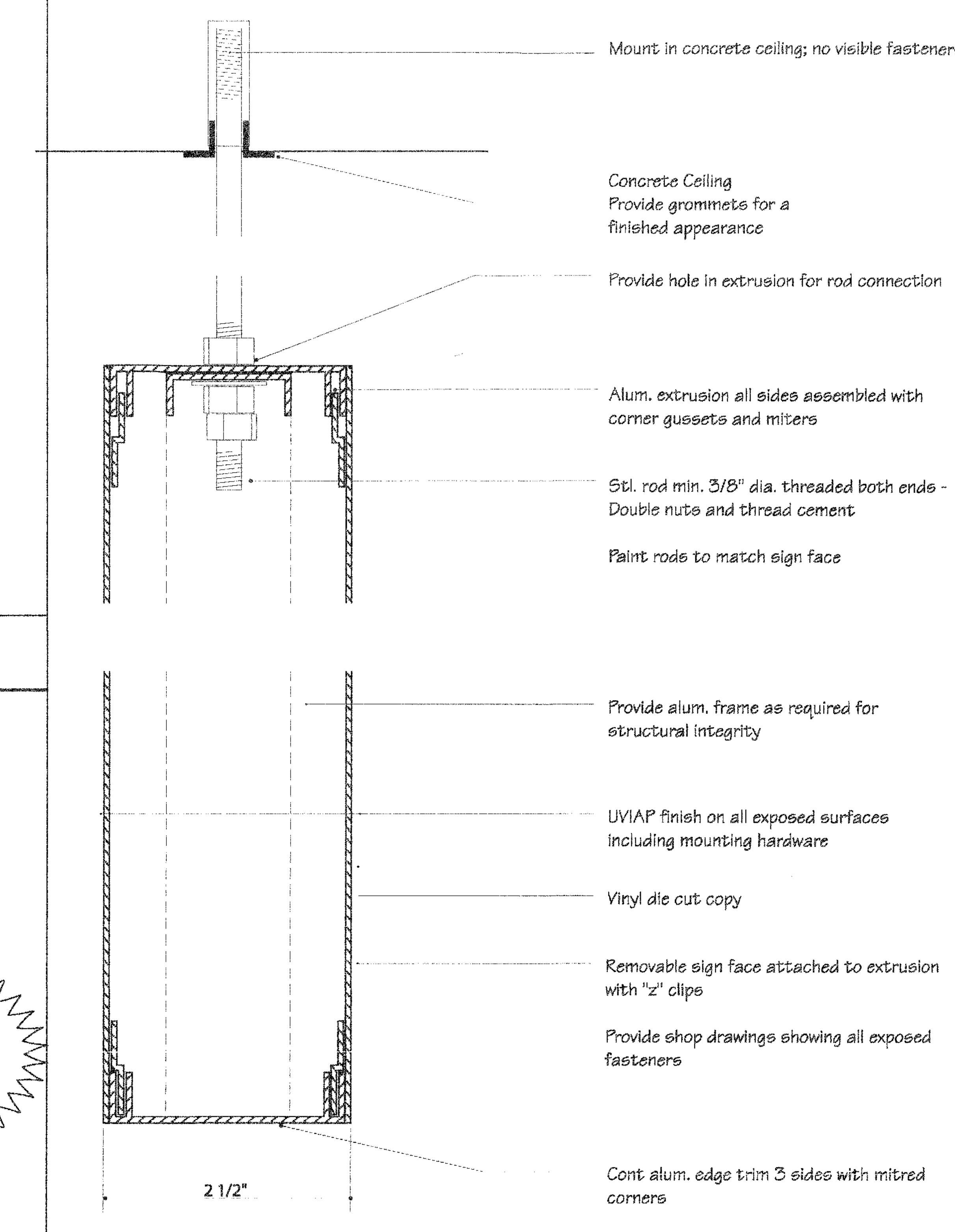
1 ELEVATION - Overhead Signs 2.2 and 3.2
SCALE: NTS



2 LAYOUT - Overhead Sign 2.2
SCALE: 1

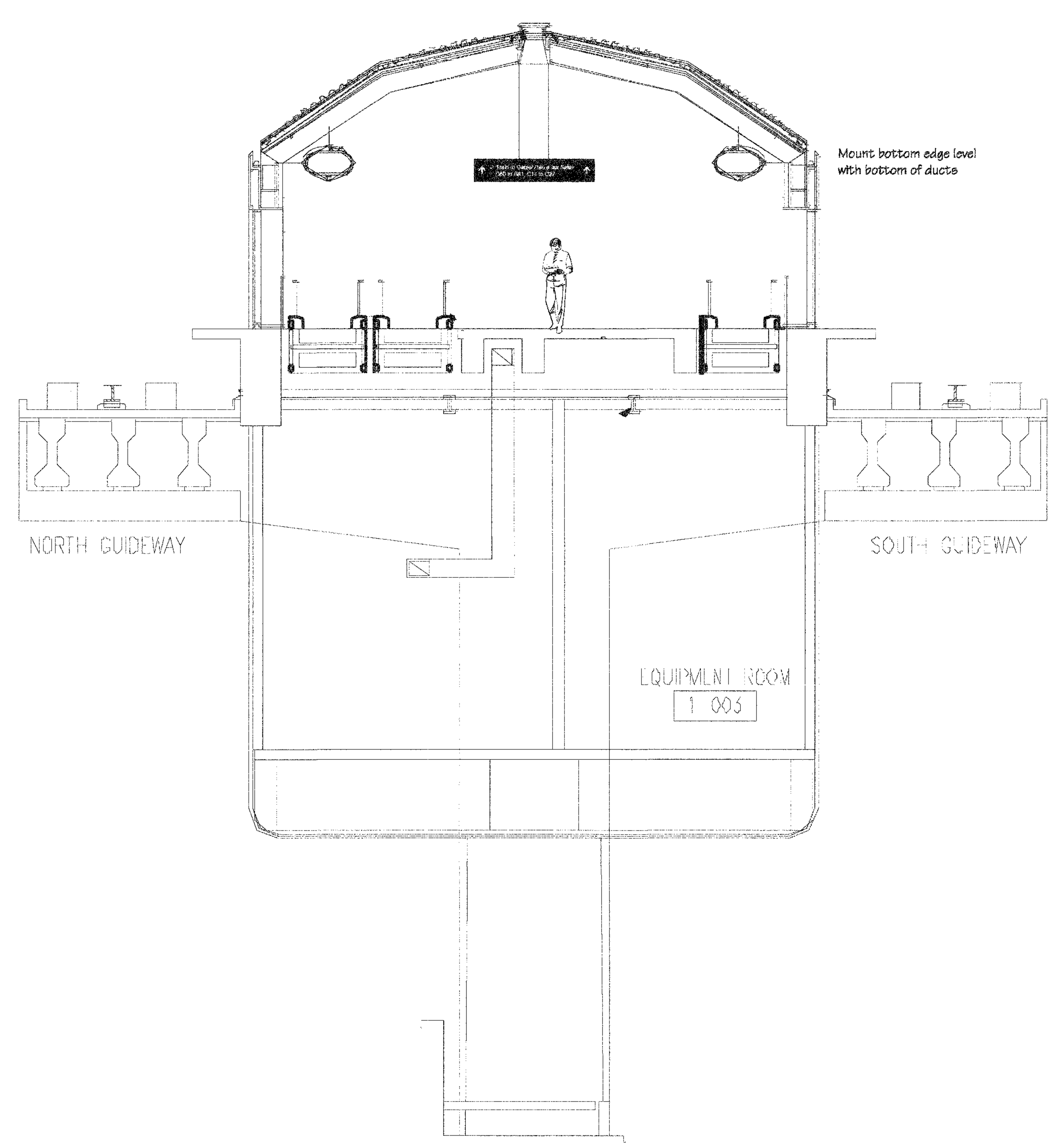


3 LAYOUT - Overhead Sign 3.2
SCALE: 1 1/2" = 1'-0

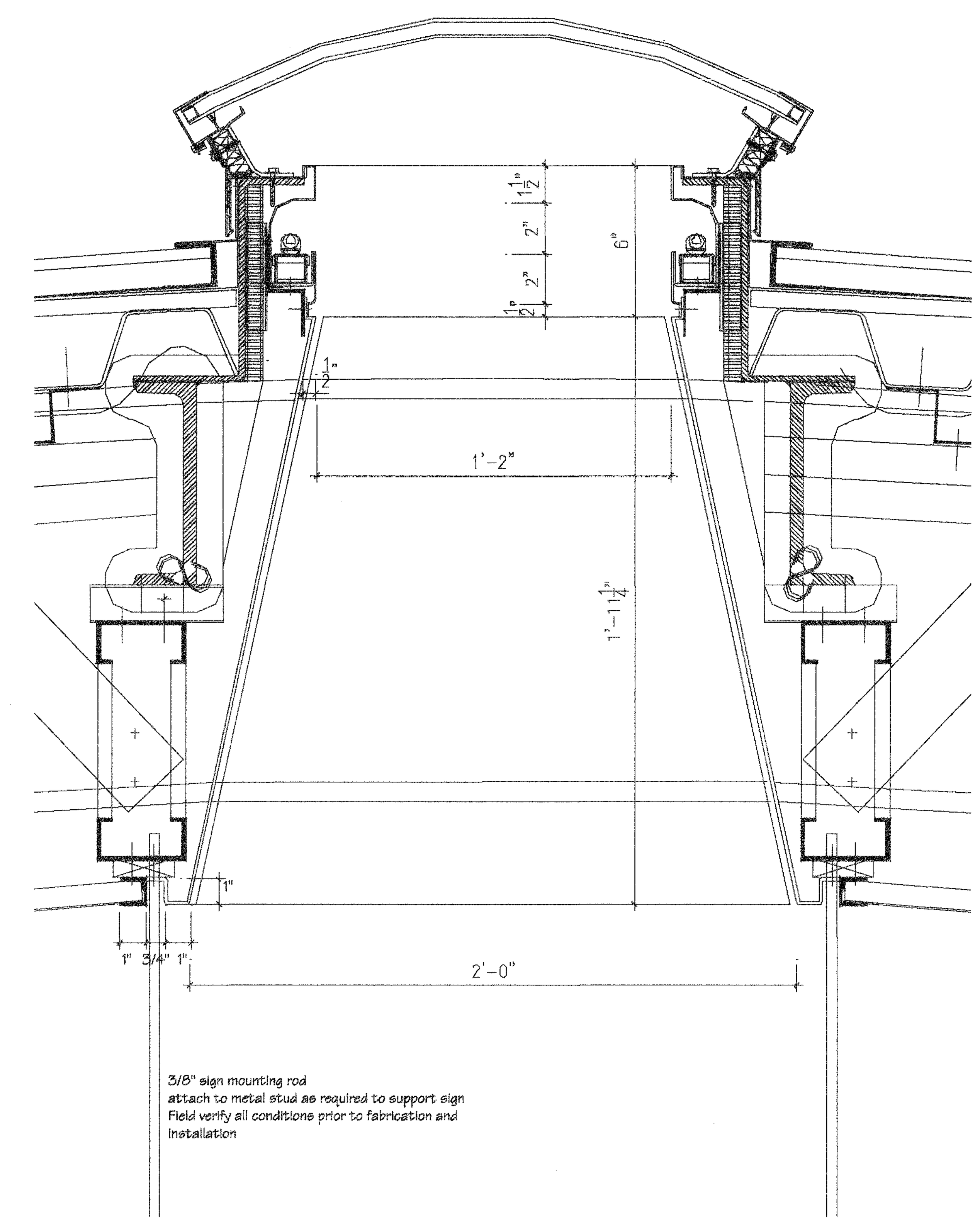


4 SECTION - Overhead Signs 2.2, 3.2 at Concrete Bulkhead
SCALE: Full Size

5 LAYOUT - Overhead Sign 4.3
SCALE: 1 1/2" = 1'-0



6 ELEVATION - Signs 3.3 and 4.3 skylight mounting
SCALE: NTS



7 DETAIL - Overhead Signs 3.3, 4.3 skylight mounting
SCALE: NTS

HOUSTON AIRPORT SYSTEM
GEORGE BUSH
INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

morris architects
Houston Orlando Miami Los Angeles
3355 West Alabama, Suite 200
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(713) 622.1180 Phone
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2	Record Drawings	4/29/05	

RECORD DRAWINGS
DO NOT MODIFY
Date: 4/29/05
Morris Architects

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INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION & PLATFORM
SIGN FACE LAYOUTS 3

PROJECT MGR:	SC
DESIGNER:	SC
DRAWN BY:	SC
CHECKED BY:	SC
DRAWING STANDARD:	
SCALE:	NTS
DATE:	07/00/04

REGISTERED ARCHITECT RICHARD L. CHAMBERS, JR. 6606 STATE OF TEXAS 4/29/05

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO. G04049.000
C.I.P. NO. A-0354
H.A.S. NO. 636C
SHEET NO.
140 G1.005

RECORD DRAWINGS

LEGEND

DISREGARD LEGEND ITEMS NOT INDICATED ON DRAWINGS

SYMBOL	ABBREV.	DESCRIPTION	SYMBOL	ABBREV.	DESCRIPTION
		SUPPLY DUCT	— CWR —	CWR	CONDENSING WATER RETURN
		O.A. RETURN OR EXH.DUCT	— HWS —	HWS	HOT WATER SUPPLY
	VD	VOLUME DAMPER	— HWR —	HWR	HOT WATER RETURN
	FD or SD	FIRE OR SMOKE DAMPER	— #S —	#S	# OF STEAM SUPPLY
		NEW DUCT OR PIPE	— #R —	#R	# OF STEAM RETURN
		EXISTING DUCT OR PIPE	— A —	A	COMPRESSED AIR
		ITEMS TO BE REMOVED		RV	PRESSURE RELIEF VALVE
	MVD	MOTORIZED VOLUME DAMPER		PRV	PRESSURE REDUCING VALVE
	12"	DENOTES ROUND DUCTWORK			THERMOMETER
	22/70 O.	DENOTED OVAL DUCTWORK			UNION
	70/22	DENOTES RECTANGULAR DUCTWORK			STRAINER
	FO	FLAT OVAL			REDUCER
	(E)	EXISTING			GAGE
	OA	OUTSIDE AIR			FLEXIBLE JOINT
	RA	RETURN AIR			ANCHOR
	AFF	ABOVE FINISHED FLOOR			VENTURI FLOW TUBE
	VFD	VARIABLE FREQUENCY DRIVE			SOLENOID VALVE
S		SMOKE DETECTOR			BALL VALVE
TS		TEMPERATURE SENSOR			GATE VALVE
T		THERMOSTAT			GLOBE VALVE
D		DUCT SMOKE DETECTOR			CHECK VALVE
H		HUMIDISTAT			VALVE BOX
PD		PRESSURE DIFFERENTIAL SENSOR			GAGE COCK
PT		PRESSURE TRANSMITTER			BUTTERFLY VALVE
FT		FLOW TRANSMITTER			PLUG VALVE
FE		FLOW ELEMENT			TWO-WAY CONTROL VALVE
— CHS —	CHS	CHILLED WATER SUPPLY			THREE-WAY CONTROL VALVE
— CHR —	CHR	CHILLED WATER RETURN			THERMOMETER WELL
— CWS —	CWS	CONDENSING WATER SUPPLY			

GENERAL NOTES

THESE GENERAL NOTES APPLY TO ALL MECHANICAL DRAWINGS.

IN ANY CASE WHERE A PIPE OR DUCT SHOWN ON A PLAN SHEET DIFFERS FROM THAT SHOWN IN A SCHEMATIC OR DETAIL. USE THE LARGER OF THE TWO SIZES SHOWN.

PIPING SHOWN ON EACH PLAN IS RUN ABOVE THE CEILING ON THE FLOOR WHERE IT IS SHOWN UNLESS OTHERWISE NOTED.

ALL ELEVATIONS INDICATED IN THIS WAY (8'-0") ARE THE ELEVATIONS FROM THE FINISHED FLOOR DIRECTLY BELOW TO THE BOTTOM OF THE BARE PIPE OR DUCT.

MOUNT TEMPERATURE SENSORS, THERMOSTATS AND HUMIDISTATS 48 INCHES ABOVE FINISHED FLOORAAND CENTERED ABOVE THE LIGHT SWITCHES WHERE BOTH OCCUR IN THE SAME LOCATION. UNLESS OTHERWISE NOTED.

NORMAL DESIGN CONDITIONS	SUMMER (1)	WINTER (2)
OUTSIDE	96 Deg. F db & 77 Deg. F wb	27 Deg. F
INSIDE	75 Deg. F db & 50% RH	70 Deg. F

PROVIDE FIRE DAMPERS IN ALL DUCTWORK PIERCING FLOORS, FIRE WALLS, AND AIR CONDITIONING CHASES. UNLESS OTHERWISE NOTED.

COORDINATE LOCATION OF CEILING AND DIFFUSERS GRILLES WITH LIGHTING PLANS.

NOTE:

1. SUMMER OUTSIDE DESIGN CONDITIONS ARE BASED ON 2 1/2% ASHRAE WEATHER DATA WITH MEAN COINCIDENT WETBULB TEMP.
2. WINTER OUTSIDE DESIGN CONDITIONS ARE BASED ON 1% ASHRAE WEATHER DATA.
3. ELECTRIC AND ELEVATOR MACHINE ROOM DESIGN TEMPERATURES ARE 80/67.

AIR HANDLING UNIT SCHEDULE

	MARK	AHU-1	AHU-2	OAHU-3	FCU-1	FCU-2
	LOCATION	MECH. RM	MECH RM.	MECH RM.	MECH RM.	MECH RM.
	TYPE	BTMZ	BTMZ	HDT	HBT	HBT
	TOTAL AIR CFM	11,319	9,975	3,900	1,200	1,800
	FRESH AIR CFM	1950	1950	3,900	-	-
	EXT SP "H 0	2.75	2.75	3.50	0.35	0.35
	TOTAL SP "H 0	4.50	4.50	4.75	-	-
	MOTOR HP	20	15	7 1/2	1/2	3/4
	VOLT	460	460	460	115	460
	PHASE	3	3	3	1	3
	HERTZ	60	60	60	60	60
COOLING COIL	COIL CFM	10,780	9,500	3,900	1,200	1,800
	MIN SEN. CAP. MBH	151.2	126.7	201.6	31,780	47,000
	MIN TOT. CAP. MBH	198.5	165.2	306.0	34,500	53,200
	MIN. ROWS	6	6	8	4	-
	ENTERING WTR GPM	28	26	41	6	9.0
	EWT °F	42	42	42	42	42
	LWT °F	57	57	57	57	54
	MIN FACE AREA SQ FT	24.5	24.5	10.1	3.0	4.25
	EDB °F	63.0	63.0	97.0	80	80
	EWB °F	57.5	57.5	74.0	67	67
HEATING COIL	COIL CFM	10,780	9,500	3,900		
	MIN FACE AREA SQ FT	11.5	11.5	7.0		
	MIN. ROWS	2	2	2		
	ENTERING WTR GPM	34	30	18		
	MIN CAP MBH	470.0	414.2	170.0		
	EAT °F	60	60	20		
	EWT °F	180	180	180		
	REMARKS	YORK AP250 20" FC FAN WHEEL	YORK AP215 18" FC FAN WHEEL	YORK AP105 12" FC FAN WHEEL	McQUAY SCB	McQUAY SCB

NOTES:

1. PROVIDE PREHEAT COIL SECTION WITH INTEGRAL FACE AND BYPASS DAMPER ON OAHU-3
2. BTMZ - INDICATES BLOW THRU MULTI-ZONE AIR HANDLING UNIT.
   HDT - INDICATES HORIZONTAL DRAW THRU AIR HANDLING UNIT
   HBT - INDICATES HORIZONTAL BLOW THRU FAN COIL UNIT WITH CABINET. WITH SUPPLY AND RETURN DUCT CONNECTIONS.
3. PROVIDE CHEMICAL FILTERS WITH OAHU-3, AND 30% ASHRAE EFFICIENCY FILTERS ON AHU-1, 2 REFER TO SPECIFICATIONS SECTION 15865.
4. PROVIDE 1" INCH FILTER ON FCU-1 AND FCU-2.

DIFFUSER & GRILLE SCHEDULE

MARK	A	B	C	D	E
CFM RANGE	350-550	400-600	650-850	900-14000	1000-2000
SUPPLY	X	X	X		X
RETURN				X	X
EXHAUST					
TYPE	LINEAL SLOT	LINEAL SLOT	LINEAL SLOT	LOUVERED	DOUBLE DEFLECTION
DUCT CONN SIZE	9" DIA	RE: M2.001	RE: M2.001	36x84	REFER M2.000
PATTERN	ADJ.	ADJ.	ADJ.	FIXED.	ADJ.
REMARKS	KRUEGER 1910 SERIES W/BOOT REFER TO 02/M5.000	KRUEGER 1910 SERIES IN DUCT REFER TO 02/M5.000	KRUEGER 1910 SERIES IN DUCT REFER TO 02/M5.000	TITUS 355 RS-HD	TITUS 111RS

NOTE:

1) TYPE "A" - PROVIDE 48" LONG x 4-1" SLOTS @ 98 CFM/LF AND NC24, SURFACE MOUNT, CONCEALED FASTENING.

2) TYPE "B" - PROVIDE 48" LONG x 4-1" SLOTS @ 115 CFM/LF AND NC20 MOUNTED BOTTOM OF DUCT FRAME STYLE L. CURVATURE TO MATCH BOTTOM OF OVAL DUCT. REFER TO ARCH. DETAIL OF DUCT WRAP.

3) TYPE "C" - PROVIDE 72" LONG x 6-1" SLOTS @ 120 CFM/LF AND NC22. FRAME STYLE L, CURVATURE TO MATCH SIDE OF OVAL DUCT. REFER TO ARCH. DETAIL OF DUCT WRAP.

4) COLOR AND FINISH OF DIFFUSER AND GRILLES AS SELECTED BY ARCHITECT.

5) TYPE "E" - GRILLE SIZED TO MATCH DUCT SIZES.

FAN SCHEDULE

MARK	SF-1 & SF-2	VF-1
SERVICE	STAIRWAY SUPPLY	STAIRWAY VENT
TYPE	DIRECT DRIVE	IN-LINE
CFM	1,170	2,490
SP "H_2O	0.375	0.75
HP	1/4	3/4
VOLTS	115	460
PH/HZ	1/60	3/60
FAN RPM	860	937
INTERLOCK WITH	T-STAT	AHU-1, 2
REMARKS	COOK APD24	SQN-HP210

NOTE:

1. PROVIDE WALL INSTALLATION PACKAGE.
2. PROVIDE MOTOR OPERATED DAMPERS AT FAN AND EXHAUST LOUVERS.
3. PROVIDE THERMOSTAT AND FAN MOTOR STARTERS AS REQUIRED.

HOUSTON AIRPORT SYSTEM
GEORGE BUSH
INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

SHAH SMITH & ASSOCIATES, INC.
2826 WILCREST, SUITE 350
HOUSTON, TEXAS 77042
Phone: 713-780-7563 Fax: 713 780 9209

RdlR
REY DE LA REZA ARCHITECTS, INC.
ARCHITECTURE PLANNING INTERIOR DESIGN
1245 WEST 18TH ST.
HOUSTON,TX,77008
Tel: 713.868.3121
Tel: 713.802.0112

REVISIONS

NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
	RECORD DRAWING	05/06/05	

INTERNATIONAL ◇ SERVICES ◇ EXPANSION ◇ PROGRAM

APM STATION + PLATFORM

LOBBY HVAC PLAN

PROJECT MGR:	A.E.BELTRAN
DESIGNER:	C. COBB
DRAWN BY:	E. STRIBLING
CHECKED BY:	C. COBB
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	AS NOTED
DATE:	09/14/01

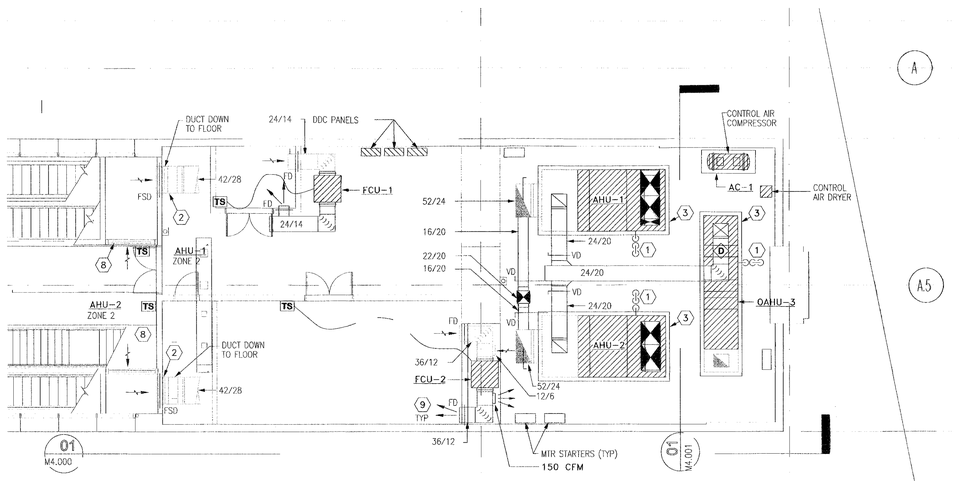
RECORD DRAWING
THIS DRAWING HAS BEEN REVISED TO SHOW SIGNIFICANT CHANGES IN THE WORK MADE DURING CONSTRUCTION BASED ON MARKED-UP PRINTS, DRAWINGS AND OTHER DATA.

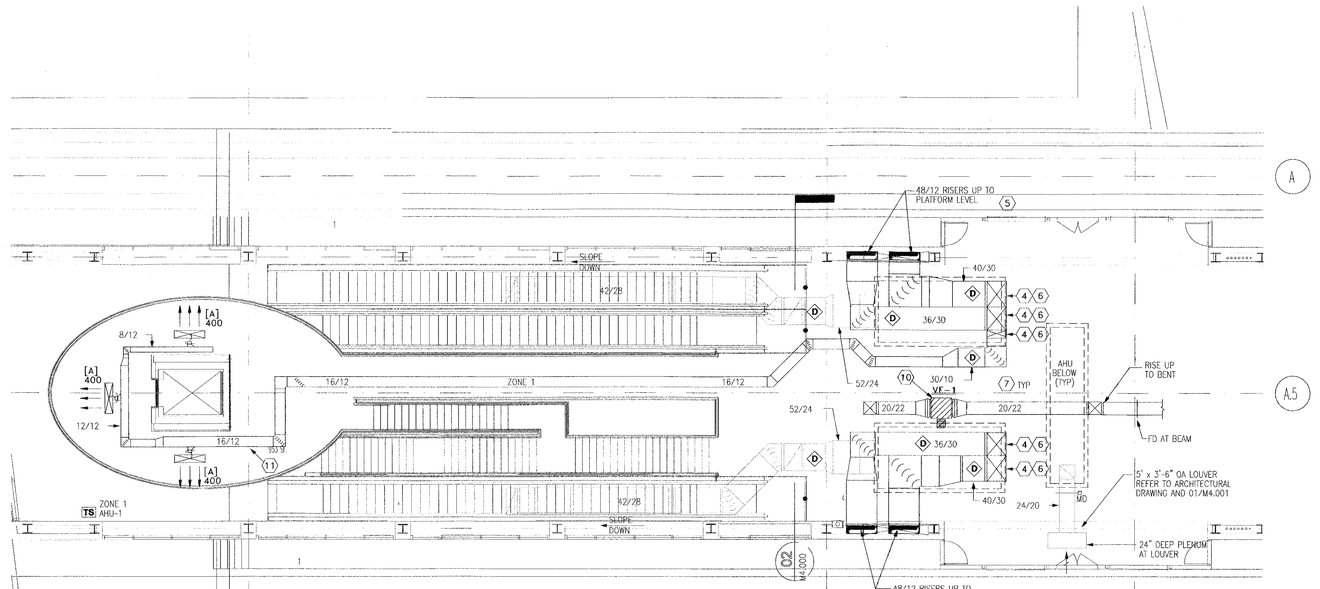
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO. 1061-001
C.I.P. NO. A-0354
H.A.S. NO. 536C
SHEET NO.

87 M0.100





48 49

APM STATION LOBBY LEVEL LOWER - HVAC PLAN

01 M2.000 1/8"=1'-0"

47

APM STATION LOBBY LEVEL UPPER - HVAC PLAN

02 M2.000 1/8"=1'-0"

48 49

KEYED NOTES:

1. PROVIDE FULL SIZE CLEANABLE COND. TRAP PIPED TO FLOOR DRAIN.
2. CONNECT 42/28 RETURN AIR DUCT TO RETURN AIR PLENUM BENEATH ESCALATOR. REFER TO ARCHITECTURAL DRAWINGS FOR RETURN AIR GRILLES AT ESCALATOR AND STAIRS.
3. INSTALL AIR UNITS ON 6-INCH HOUSEKEEPING PADS.
4. PROVIDE VOLUME CONTROL DAMPER IN VERTICAL DUCT FOR EACH ZONE.
5. PROVIDE MULTIBLADE FIRE DAMPER IN DUCT AT FIRE RATED FURR-DOWN AT BEAMS, AND AT ENTRANCE TO CHASE. REFER TO ARCHITECTURAL DRAWINGS FOR FURR-DOWN, TRANSITION TO DOUBLE WALL OVAL AT BOTTOM OF CHASE. REFER TO SPECIFICATIONS.
6. DIVIDE ZONING DAMPER SECTIONS FREE AREA PROPORTIONAL TO AIR QUANTITY PROVIDED TO EACH ZONE. INDICATE ZONE DUCT CONNECTION DIMENSIONS IN AIR UNIT SUBMITTAL.
7. PROVIDE AIR FOIL TURNING VANES IN ALL ELBOWS.
8. TRAPEZOIDAL RETURN AIR GRILLE, APPROXIMATELY 72" HIGH x 60" WIDE. REFER ARCHITECTURAL DRAWINGS FOR EXACT SHAPE AND DIMENSIONS.
9. PROVIDE VOLUME DAMPER AT (E) (4 EACH) SUPPLY GRILLES SAME SIZE AS DUCT
10. VF-1 WITH TRANSITIONS AND FLEX CONNECTIONS. SUPPORT FAN WITH VIBRATION ISOLATORS AND THRUST RESTRAINTS AS REQUIRED FROM STRUCTURE. PROVIDE FLEX CONNECTIONS AT DUCT CONNECTIONS TO FAN.
11. DUCT THRU OPENING IN DUCT BENT 47.

GENERAL NOTES:

N

NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

0' 4' 8' 16' 24'

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

HOUSTON AIRPORT SYSTEM
GEORGE BUSH INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

SHAW SMITH & ASSOCIATES, INC

REY DE LA REZA ARCHITECTS, INC.
ARCHITECTURE PLANNING INTERIOR DESIGN
1245 WEST 18TH ST.
HOUSTON, TX 77008
Tel: 713.869.3121
Tel: 713.802.0112

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INTERNATIONAL ◊ SERVICES ◊ EXPANSION ◊ PROGRAM

APM STATION + PLATFORM
LOBBY HVAC PLAN

PROJECT MGR:	A.E.BELTRAN
DESIGNER:	C. COBB
DRAWN BY:	E. STIRLING
CHECKED BY:	C. COBB
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	AS NOTED
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DIRECTOR
HOUSTON AIRPORT SYSTEM

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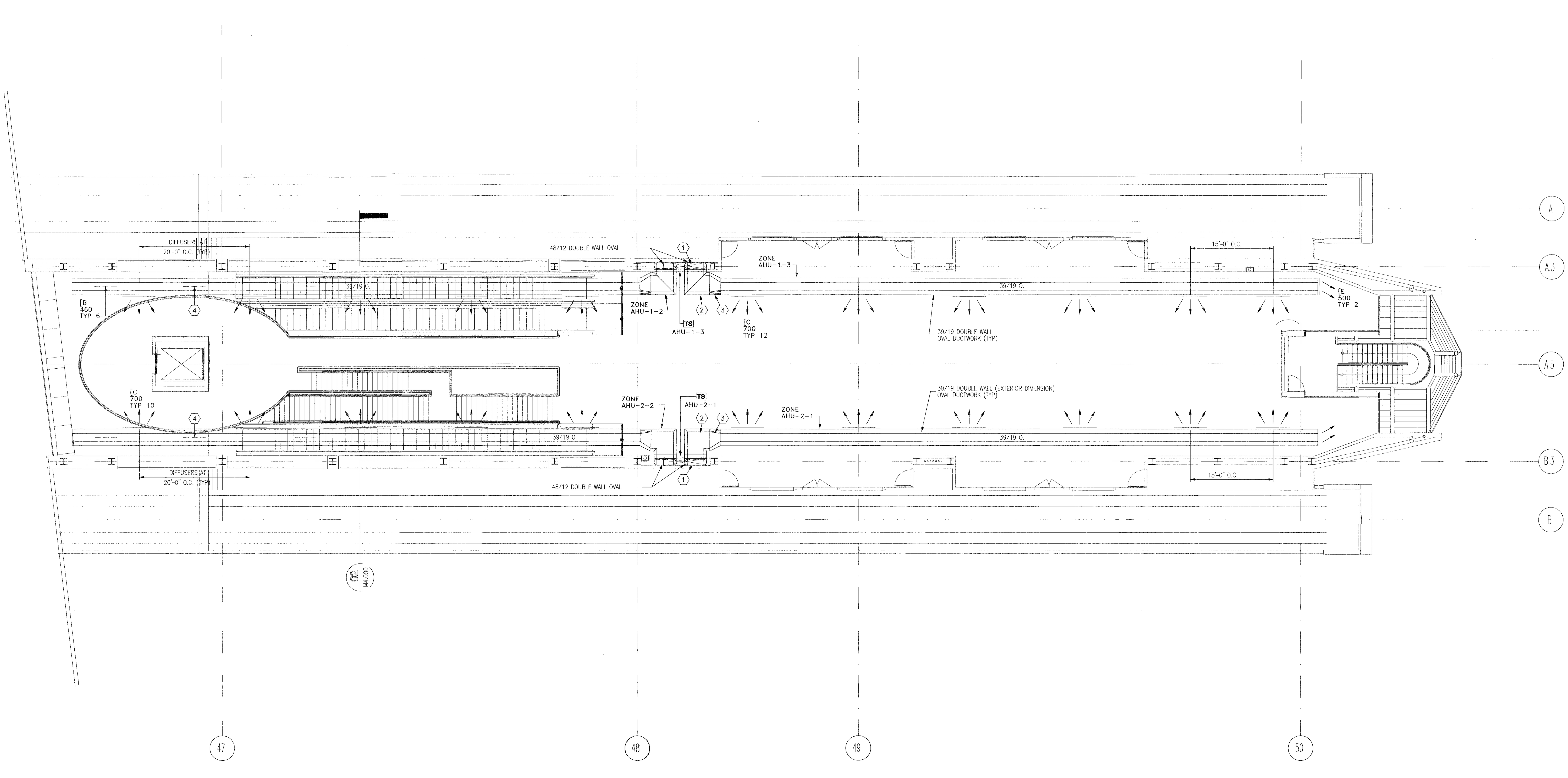
C.I.P. NO.	A-0354
H.A.S. NO.	536C
SHEET NO.	M2.000



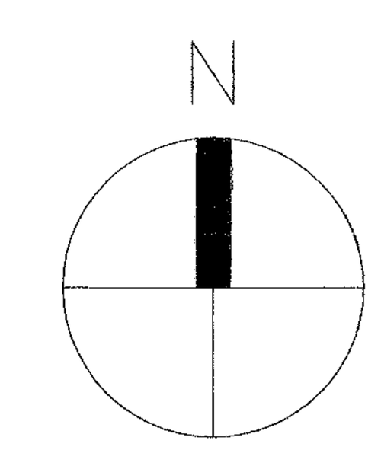
APM STATION PLATFORM LEVEL-HVAC PLAN

01 M2.001 1/8"=1'-0"

KEYED NOTES:

1. MITERED 90 DEG. DOUBLE WALL FLAT OVAL ELBOW WITH TURNING VANES (EASY BEND). PROVIDE FSD AT CHASE.
2. MITERED 90 DEG. DOUBLE WALL FLAT OVAL ELBOW WITH TURNING VANES (EASY BEND)
3. TRANSITION FROM 48/12 OVAL TO 36/19 OVAL DOUBLE WALL.
4. SLOT DIFFUSER ON BOTTOM OF DUCT DISCHARGES TO LOWER LEVEL.

GENERAL NOTES:



NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

0' 4' 8' 16' 24'

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

HOUSTON AIRPORT SYSTEM
GEORGE BUSH
INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

SHAH SMITH & ASSOCIATES, INC.
2826 WILCREST, SUITE 350
HOUSTON, TEXAS 77042
Phone: 713-780-7563 Fax: 713-780-9200

RdlR
REY DE LA REZA ARCHITECTS, INC.
ARCHITECTURE PLANNING INTERIOR DESIGN
1245 WEST 18TH ST.
HOUSTON,TX,77008
Tel: 713.868.3121
Tel: 713.802.0112

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INTERNATIONAL ◦ SERVICES ◦ EXPANSION ◦ PROGRAM

APM STATION + PLATFORM
PLATFORM HVAC PLAN

PROJECT MGR:	A.E.BELTRAN
DESIGNER:	C. COBB
DRAWN BY:	E. STRIBLING
CHECKED BY:	C. COBB
DRAWING STANDARD:	ISEP 07.20.2000
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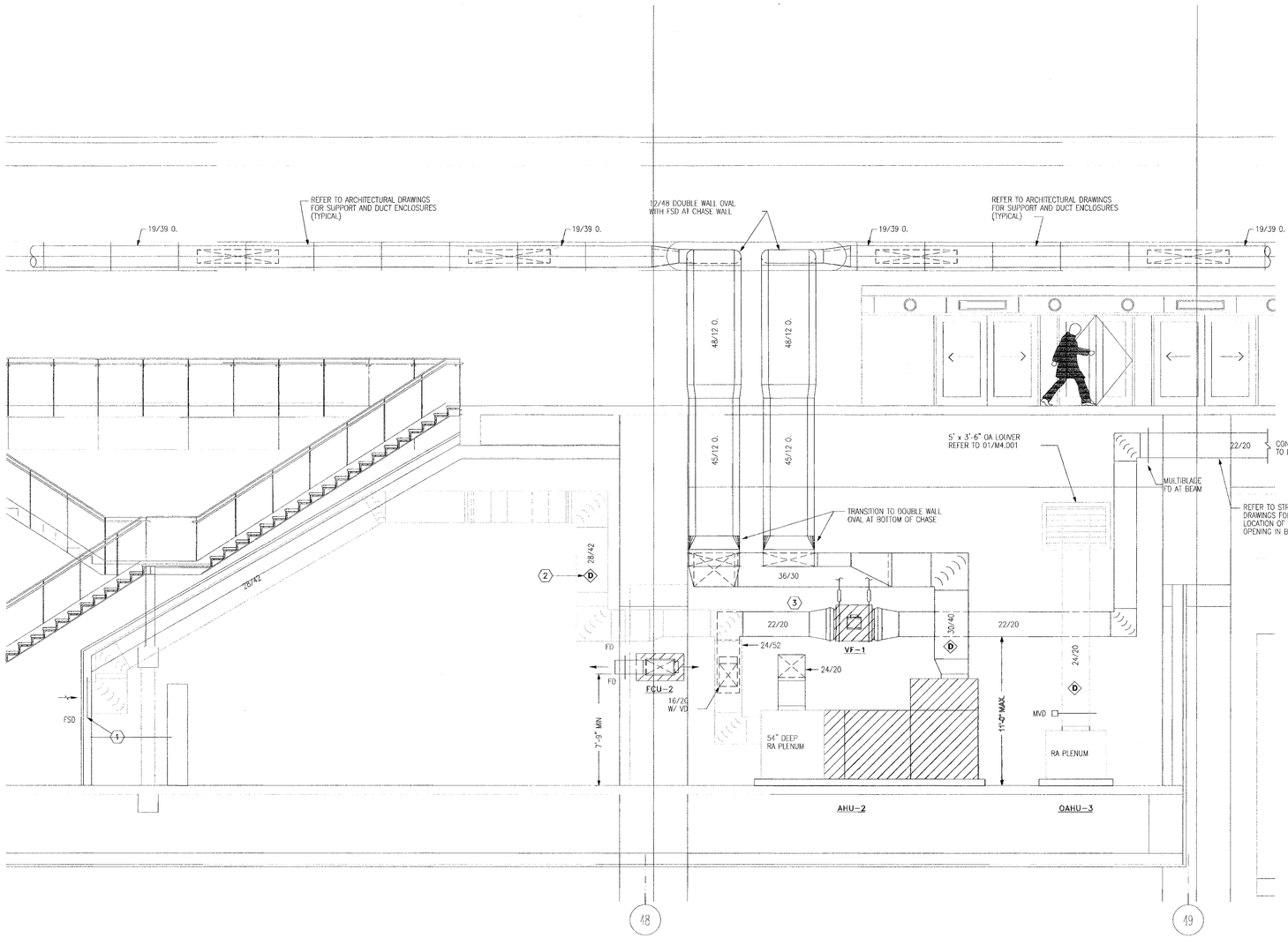
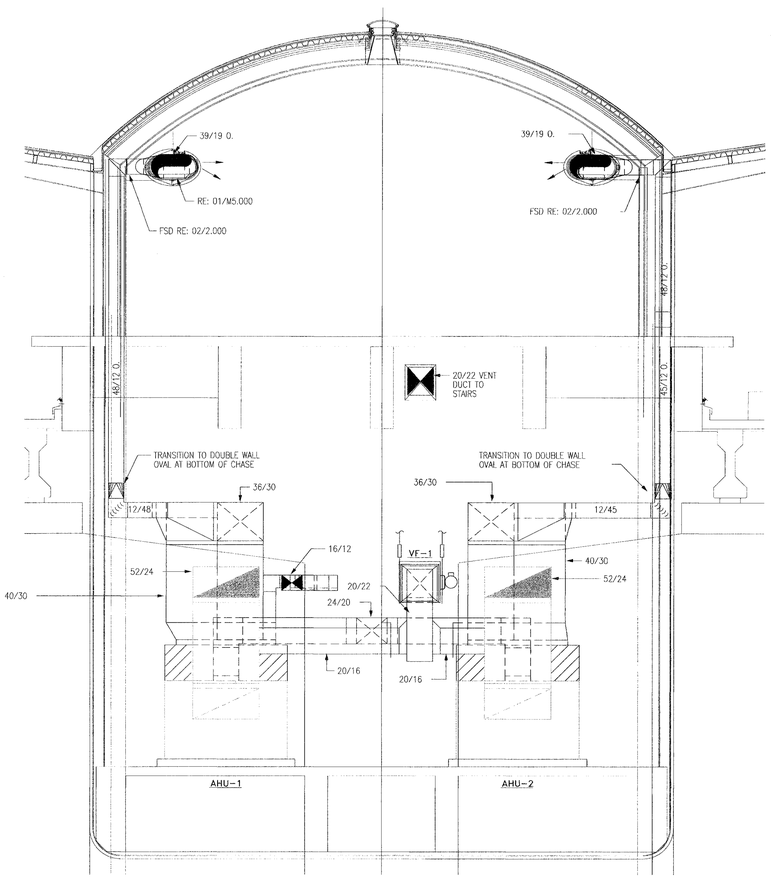
C.I.P. NO.	A-0354
H.A.S. NO.	536C
SHEET NO.	M2.001

89



01 M4.000 APM STATION-HVAC SECTION
1/4"=1'-0"



02 M4.000 APM STATION-HVAC SECTION
1/4"=1'-0"

KEYED NOTES:

1. VF-1 AND AHU-2 SHALL BE DE-ENERGIZED WHEN FSD IN RETURN DUCTWORK IS CLOSED. PROVIDE END SWITCHES, RELAYS, WIRING, CONDUIT, ETC. AS REQUIRED.
2. VF-1 AND AHU-2 SHALL BE DE-ENERGIZED THRU FIRE ALARM SYSTEM BY ◎ ACTIVATION IN RETURN AIR DUCTWORK.
3. PROVIDE THRUST RESTRAINTS AT VF-1.

GENERAL NOTES:

N

NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

0' 2' 4' 8' 12'

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

HOUSTON AIRPORT SYSTEM
GEORGE BUSH INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

SHAW SMITH & ASSOCIATES, INC.
[redacted]
REY DE LA REZA ARCHITECTS, INC.
ARCHITECTURE PLANNING INTERIOR DESIGN
12345 WEST 18TH ST.
HOUSTON, TX 77008
Tel: 713.869.3121
Tel: 713.802.0112

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INTERNATIONAL ◊ SERVICES ◊ EXPANSION ◊ PROGRAM

APM STATION + PLATFORM
HVAC SECTIONS

PROJECT MGR:	A.E.BELTRAN
DESIGNER:	C. COBB
DRAWN BY:	E. STRIBLING
CHECKED BY:	C. COBB
DRAWING STANDARD:	ISEP 07.20.2000
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PROJECT NO.	1061-001
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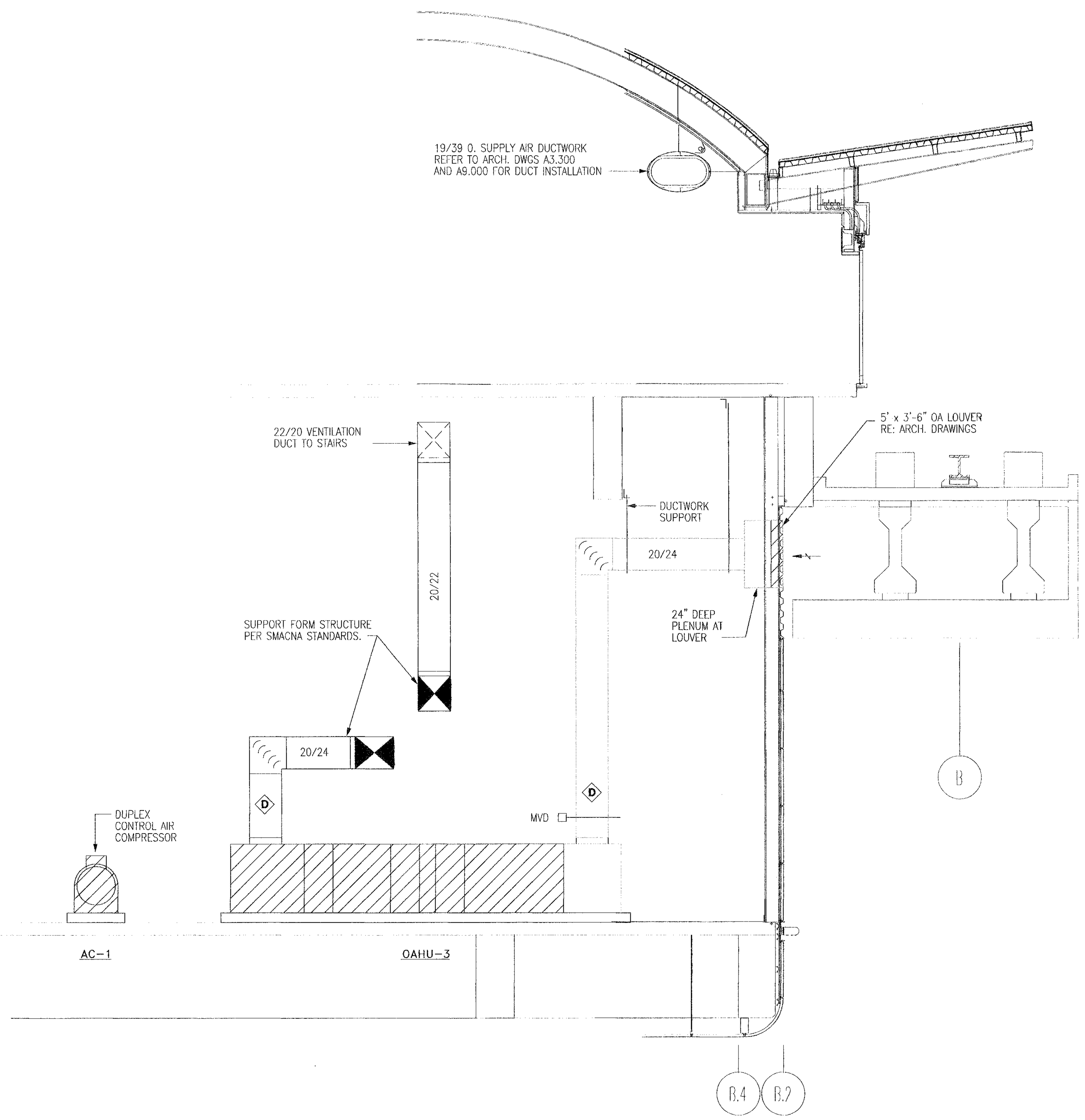
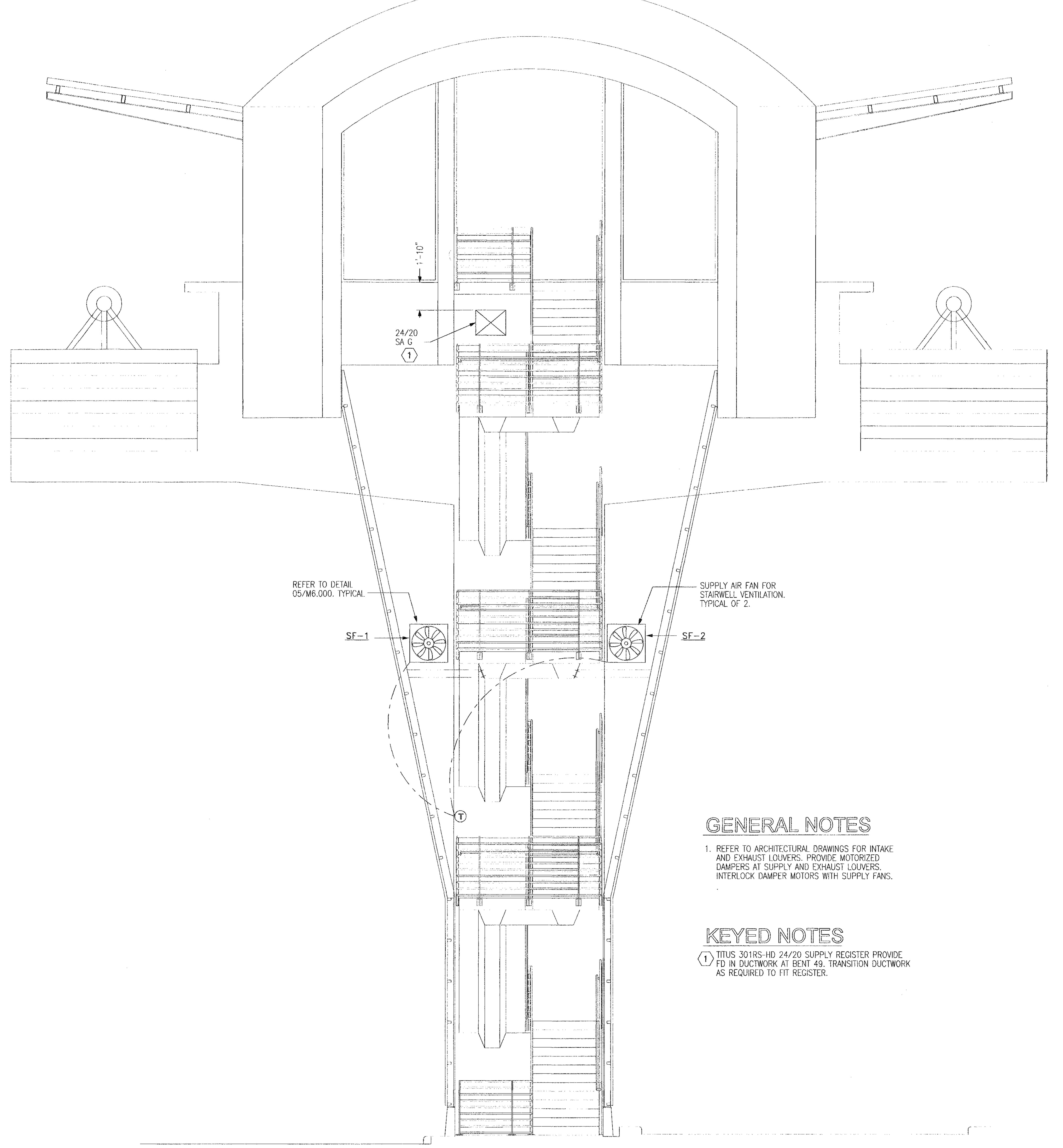
H.A.S. NO.	536C
SHEET NO.	90 M4.000



01 M4.001 APM STATION-HVAC SECTION

1/4"=1'-0"



GENERAL NOTES

1. REFER TO ARCHITECTURAL DRAWINGS FOR INTAKE AND EXHAUST LOUVERS. PROVIDE MOTORIZED DAMPERS AT SUPPLY AND EXHAUST LOUVERS. INTERLOCK DAMPER MOTORS WITH SUPPLY FANS.

KEYED NOTES

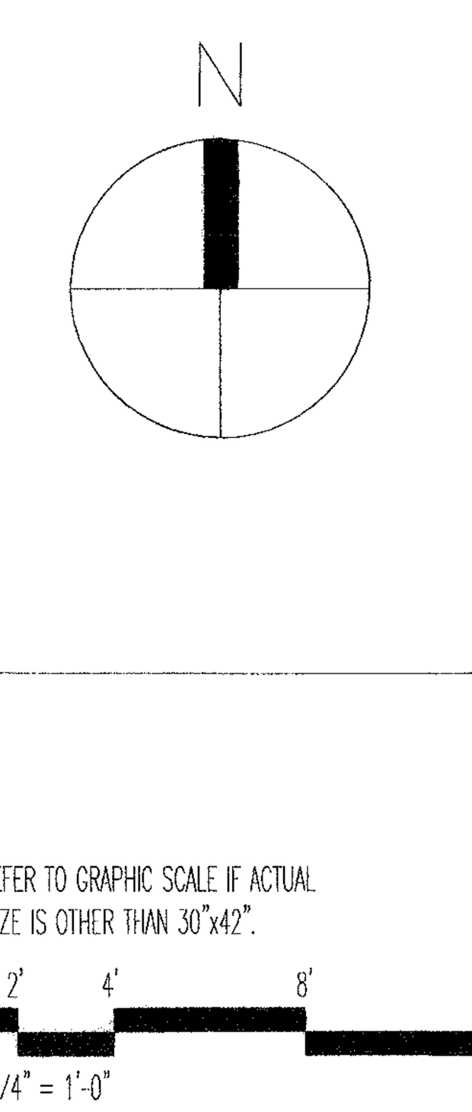
(1) TITUS 301RS-HD 24/20 SUPPLY REGISTER PROVIDE FD IN DUCTWORK AT BENT 49. TRANSITION DUCTWORK AS REQUIRED TO FIT REGISTER.

02 M4.001 APM STATION-HVAC SECTION

1/4"=1'-0"

KEYED NOTES:

GENERAL NOTES:



NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

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

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GEORGE BUSH INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

SHAH SMITH & ASSOCIATES, INC.
2825 WILCREST, SUITE 350
HOUSTON, TEXAS 77042
Phone: 713-780-7663 Fax: 713-780-9209

RdlR
REY DE LA REZA ARCHITECTS, INC.
ARCHITECTURE PLANNING INTERIOR DESIGN
1245 WEST 18TH ST.
HOUSTON,TX,77008
Tel: 713.868.3121
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INTERNATIONAL ◦ SERVICES ◦ EXPANSION ◦ PROGRAM

APM STATION + PLATFORM
HVAC SECTIONS

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DESIGNER:	C. COBB
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DRAWING STANDARD:	ISEP 07.20.2000
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HOUSTON AIRPORT SYSTEM

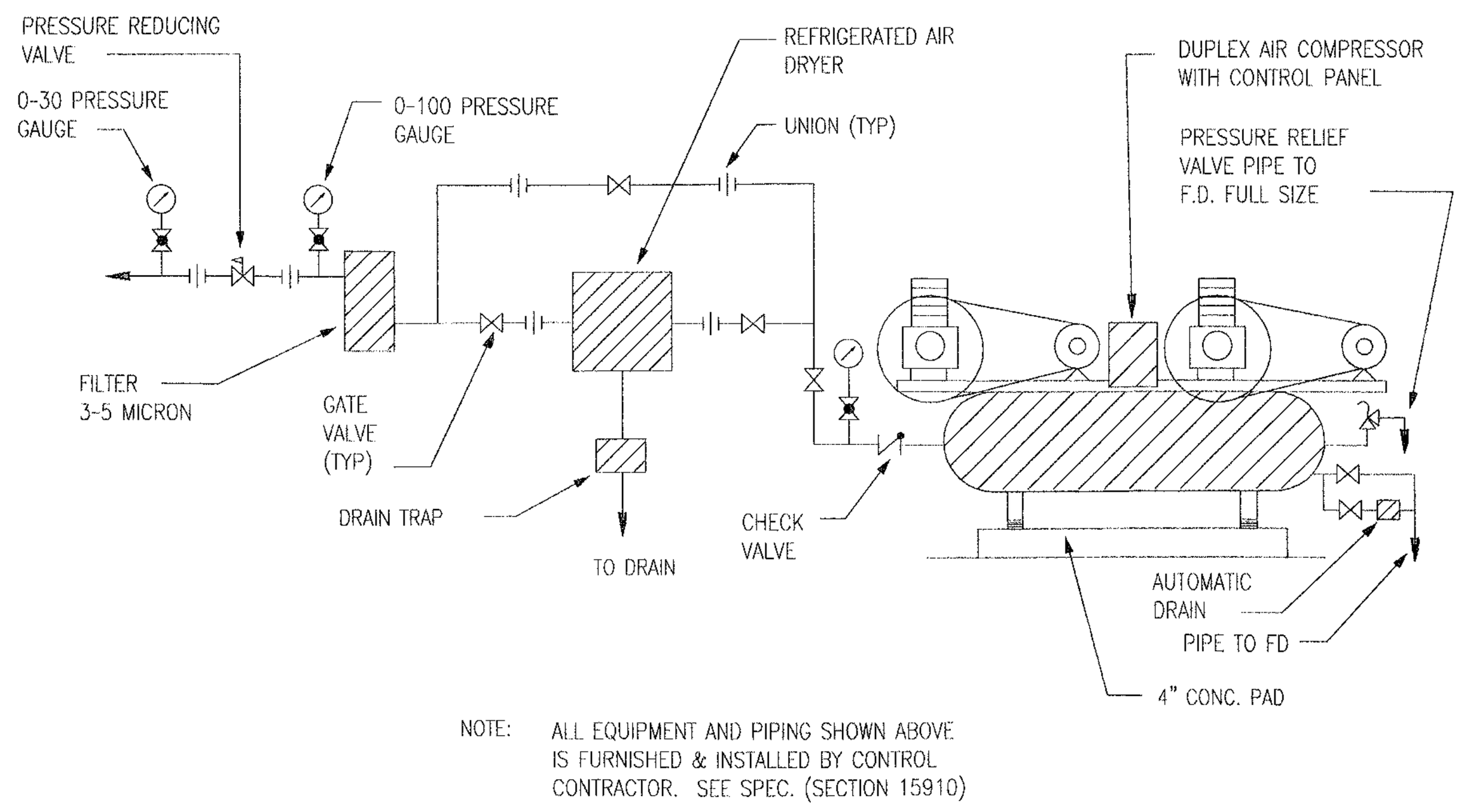
PROJECT NO. 1061-001

C.I.P. NO. A-0354

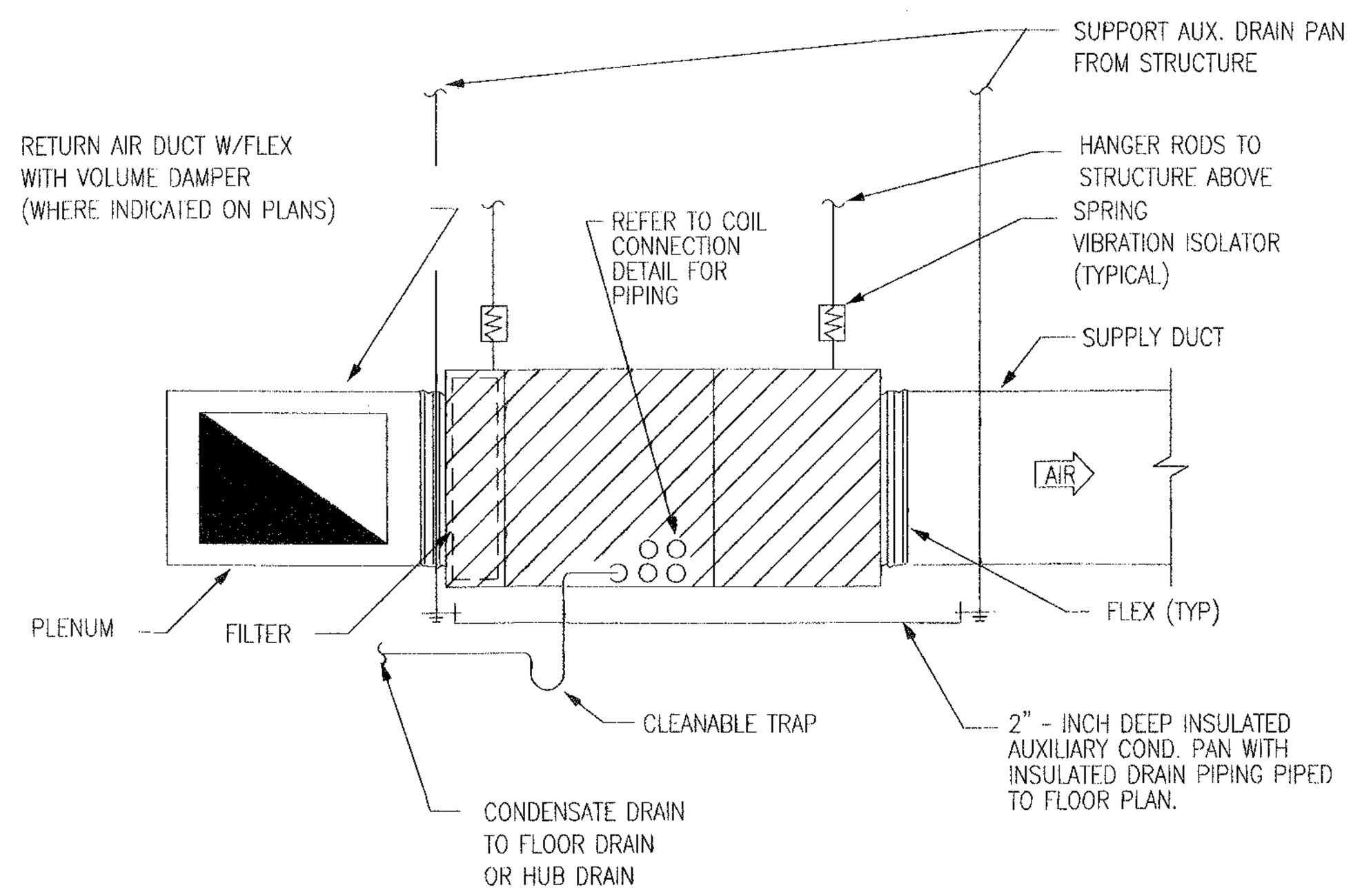
H.A.S. NO. 536C

SHEET NO.

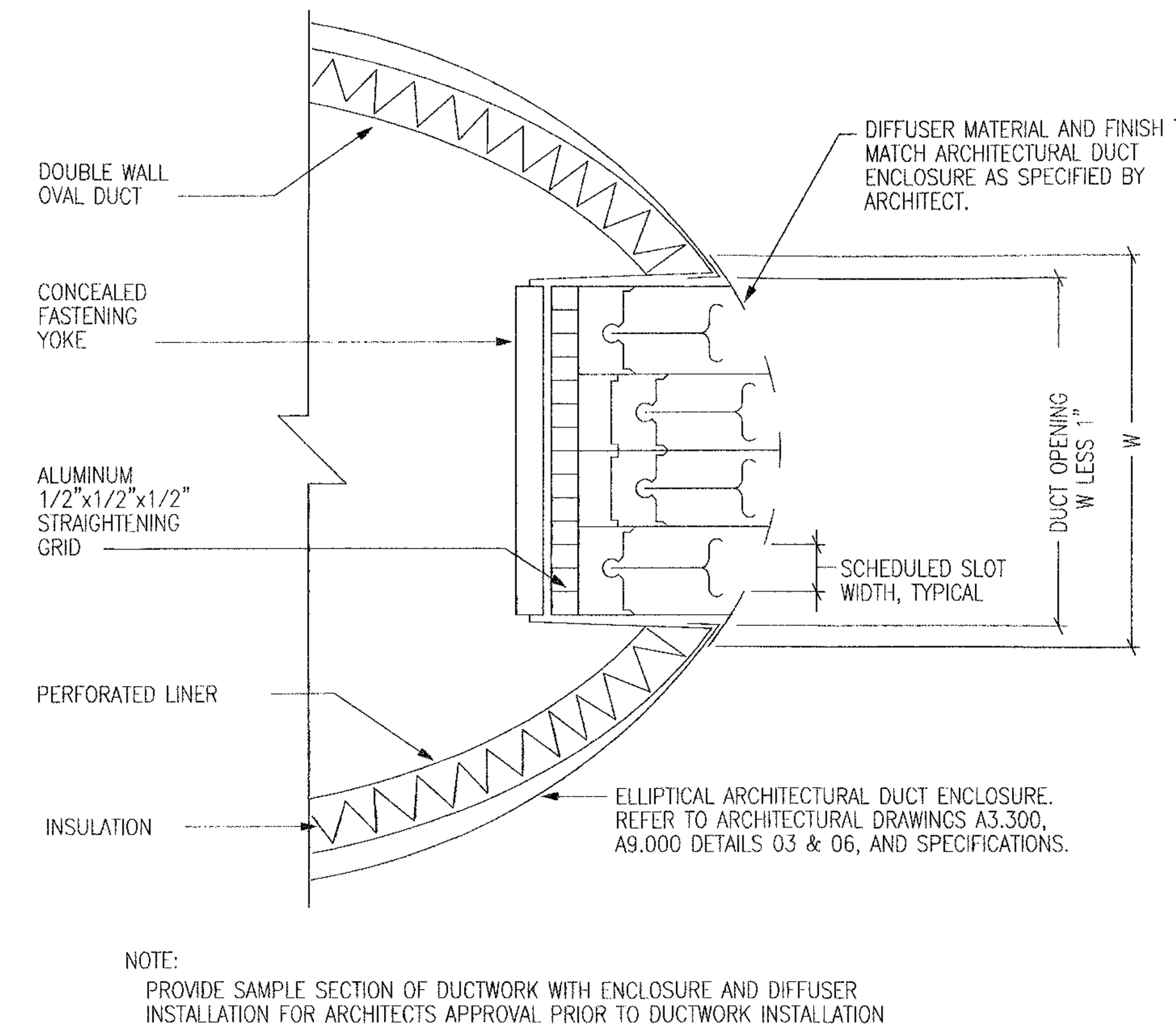
91 M4.001



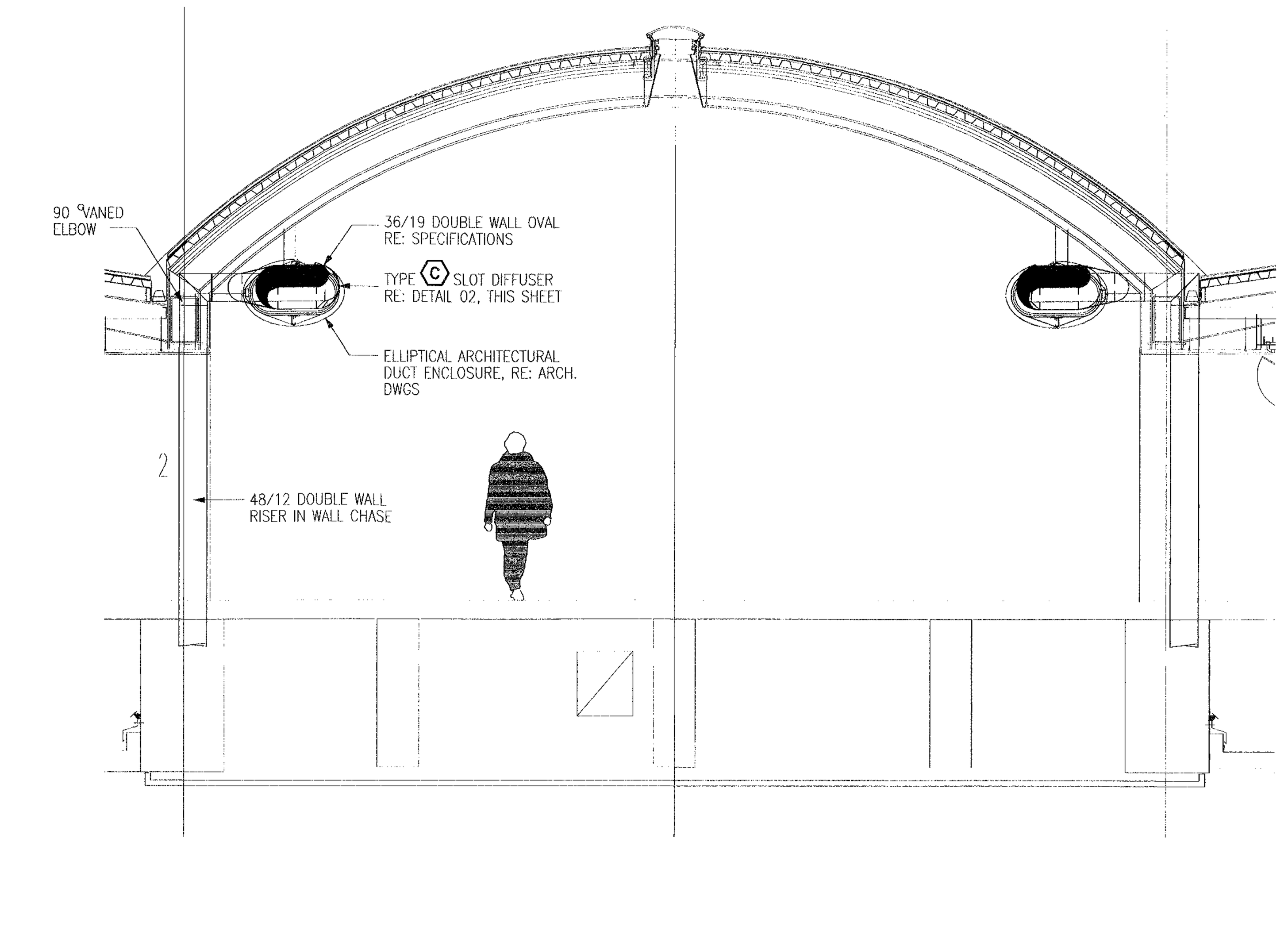
04 CONTROL AIR COMPRESSOR PIPING DETAIL
M5.000 NOT TO SCALE



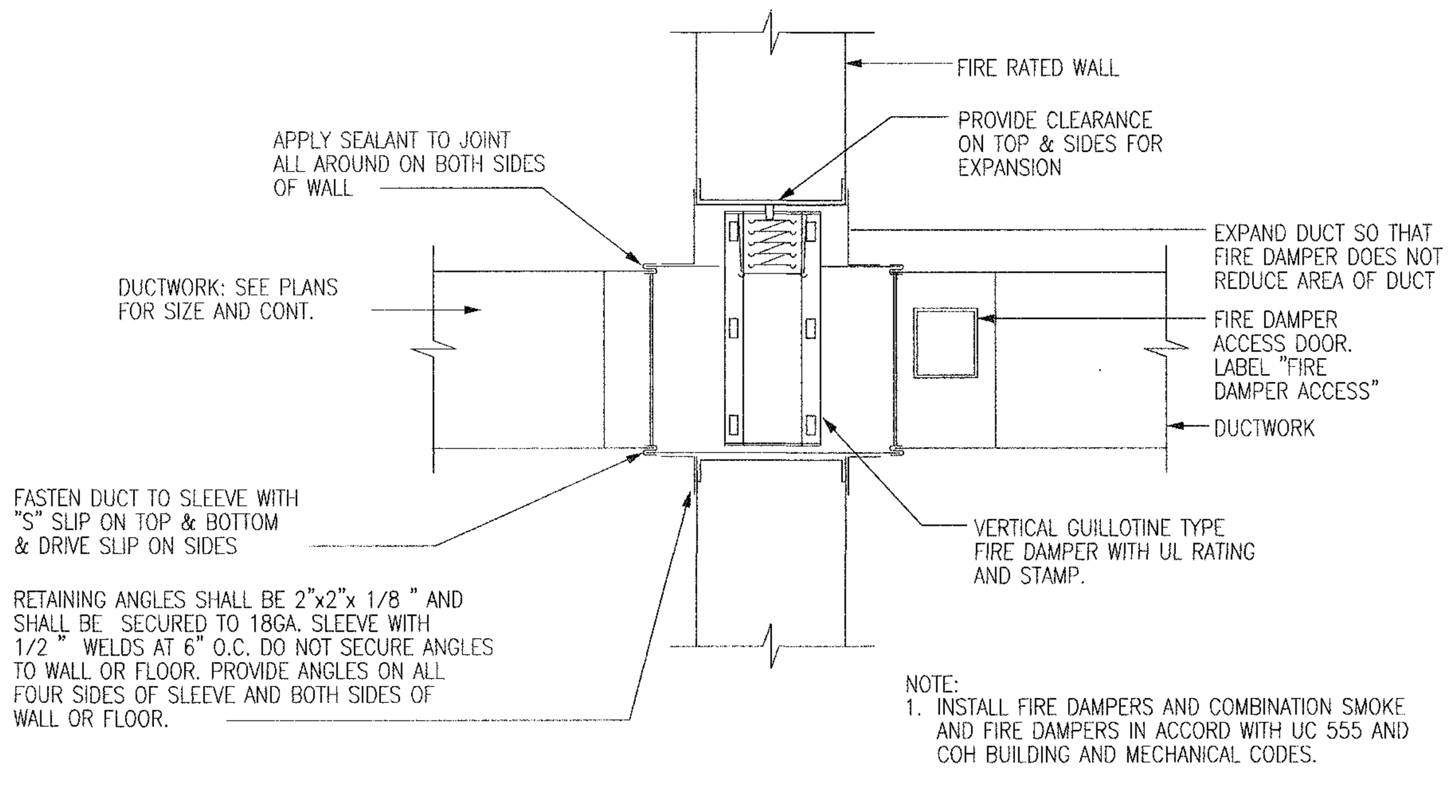
03 FAN COIL UNIT DETAIL
M5.000 NOT TO SCALE



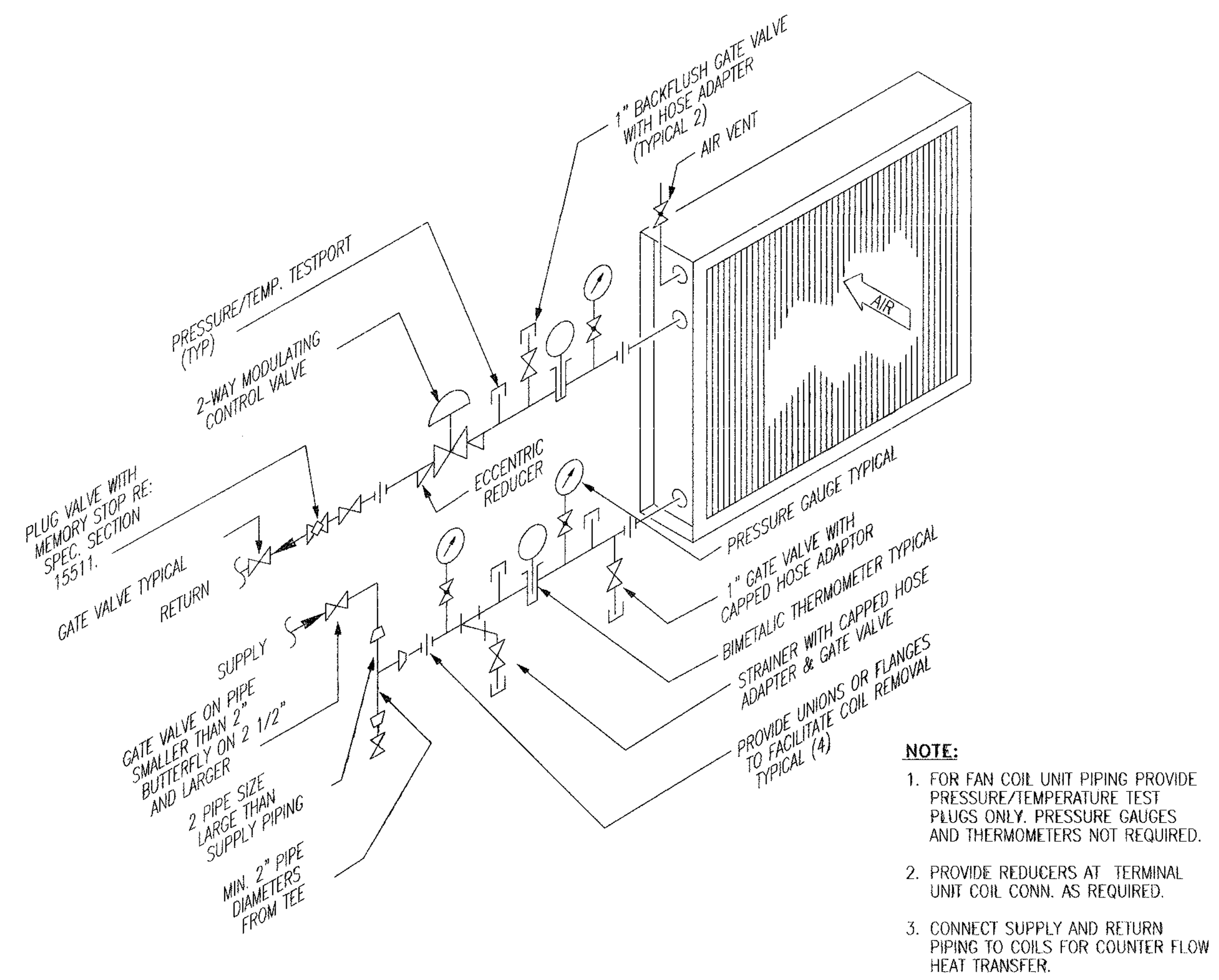
02 DIFFUSER INSTALATION DETAIL
M5.000 NOT TO SCALE



01 SECTION DETAIL
M5.000 1/4" = 1'-0"



07 DUCT PENETRATION THRU FIRE RATED WALL DETAIL
M5.000 NOT TO SCALE



NOTE:

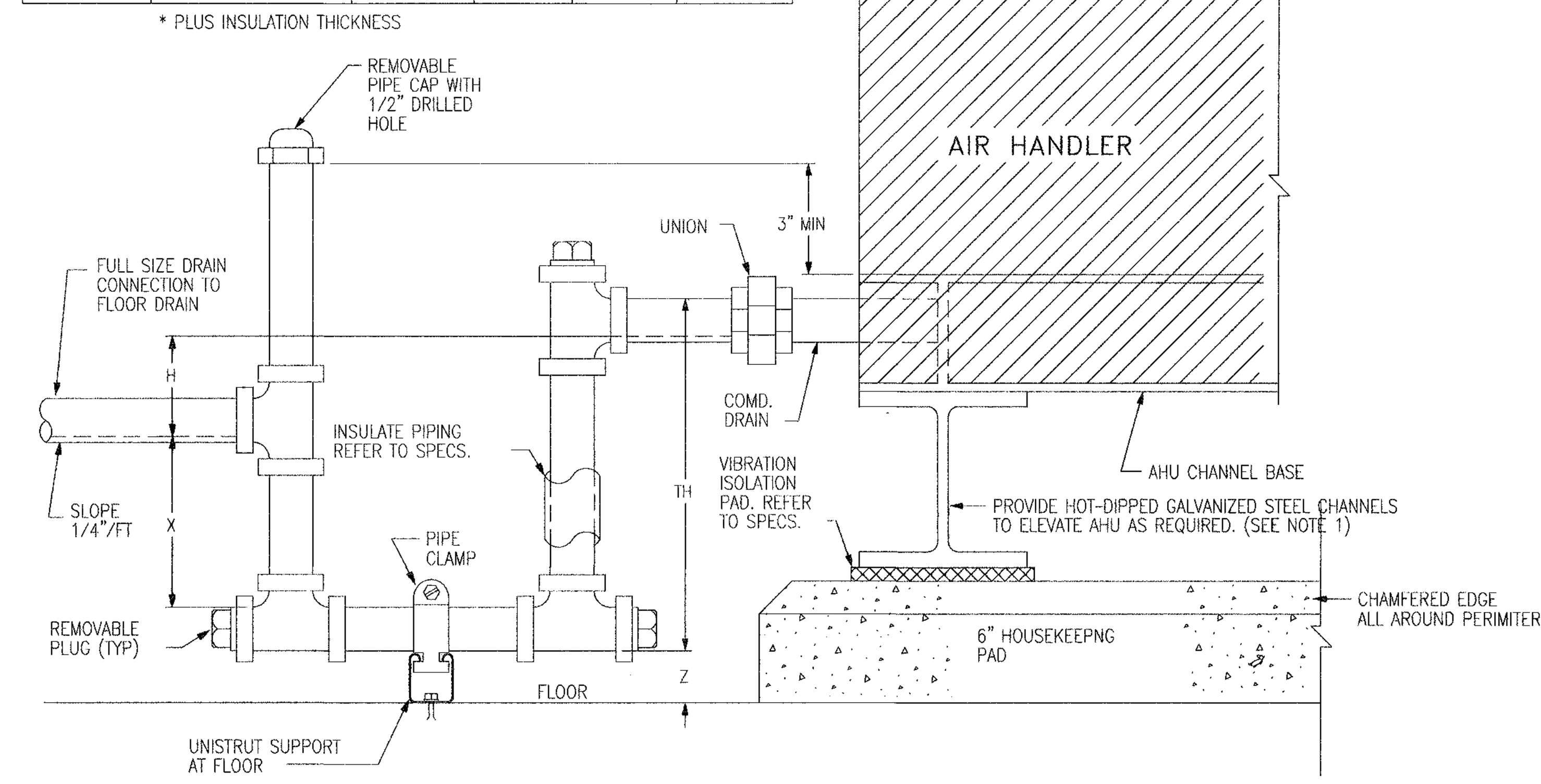
1. FOR FAN COIL UNIT PIPING PROVIDE PRESSURE/TEMPERATURE TEST PLUGS ONLY. PRESSURE GAUGES AND THERMOMETERS NOT REQUIRED.
2. PROVIDE REDUCERS AT TERMINAL UNIT COIL CONN. AS REQUIRED.
3. CONNECT SUPPLY AND RETURN PIPING TO COILS FOR COUNTER FLOW HEAT TRANSFER.

06 HOT WATER COIL CONNECTION WITH 2-WAY CONTROL VALVE
M5.000 NOT TO SCALE

AIR HANDLER TRAP DIMENSIONS (MIN)

UNIT	FAN TYPE	TH	X	H	Z * (MIN)
AHU-1,2	BLOW THRU (+)	11.5	6.5	2.0	1 3/8
OAHU-3	DRAW THRU (-)	12.0	3.0	6.0	1 3/8

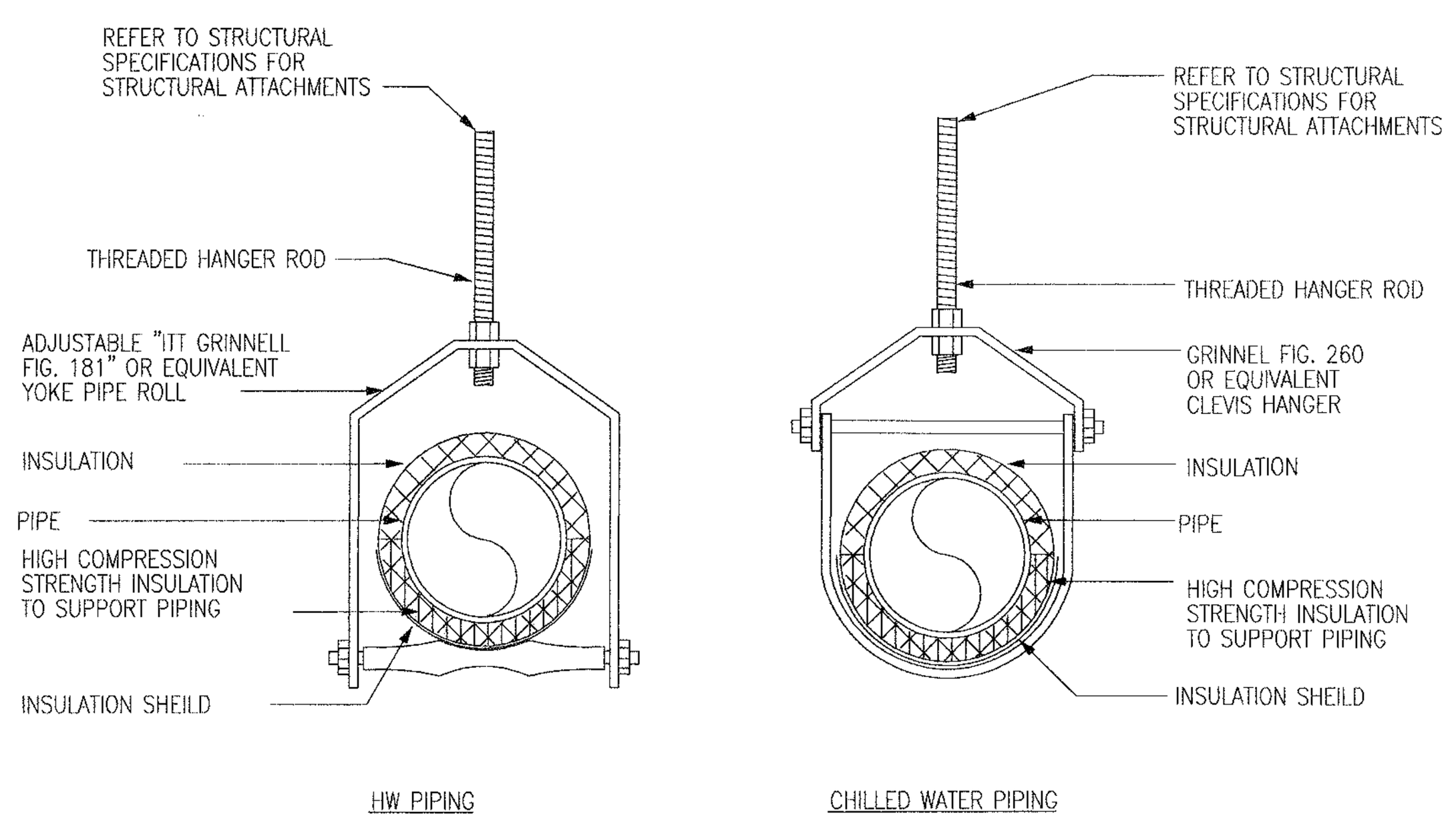
* PLUS INSULATION THICKNESS



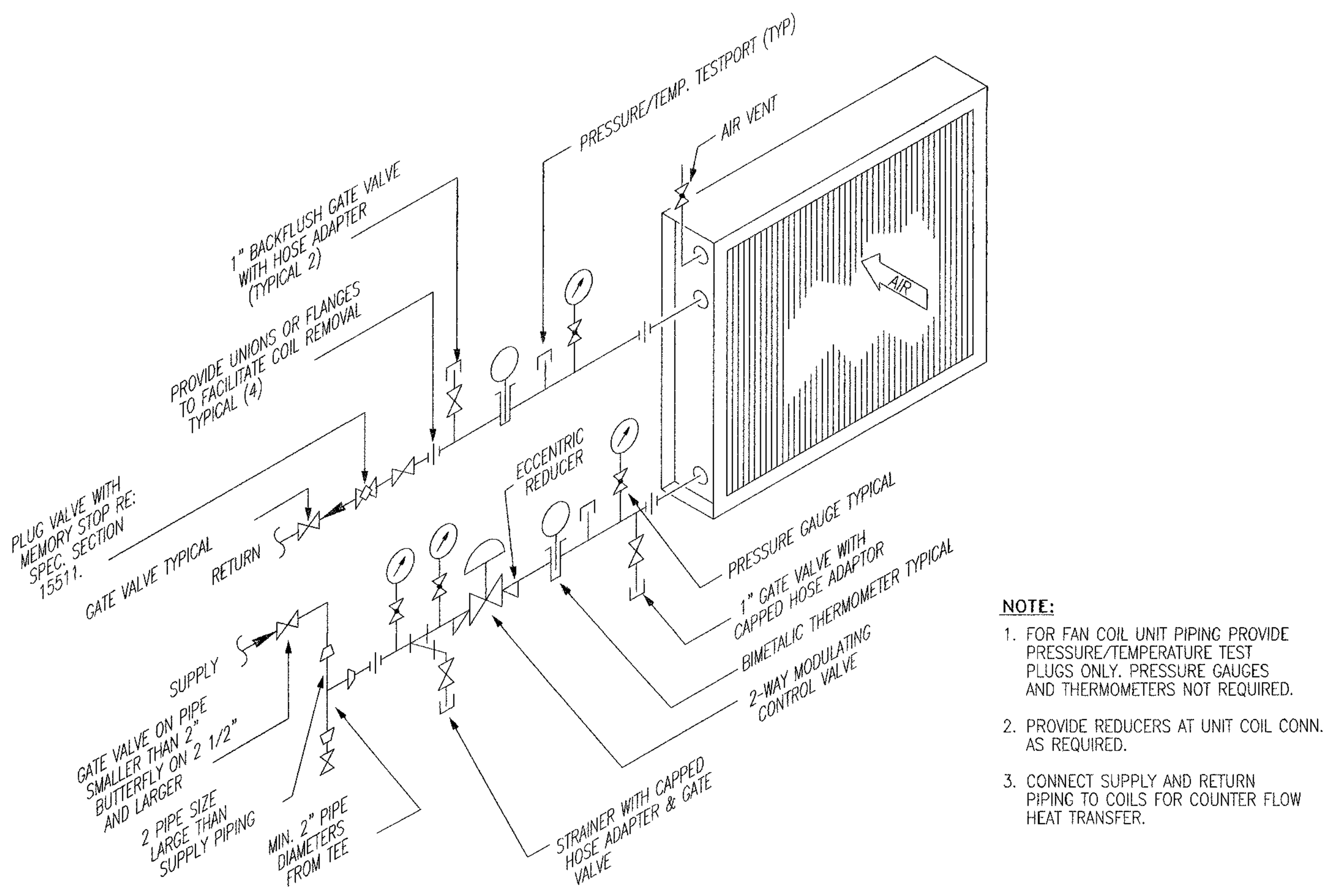
NOTES

1. IN ACCORDANCE WITH SPECIFICATIONS PROVIDE CHANNEL BASE TO SUPPORT UNIT AS REQUIRED TO ACCOMMODATE TRAP AND SLOPE OF DRAIN LINE TO FLOOR DRAIN.
2. ADJUST TRAP TO SUIT TOTAL STATIC PRESSURE OF UNITS PROVIDED.
3. PROVIDE ADDITIONAL HEIGHT AT "Z" AS REQUIRED TO ACCOMMODATE PIPING SLOPE AND ELBOW AT FLOOR DRAIN.

05 CONDENSATE DRAIN DETAIL
M5.000 NOT TO SCALE



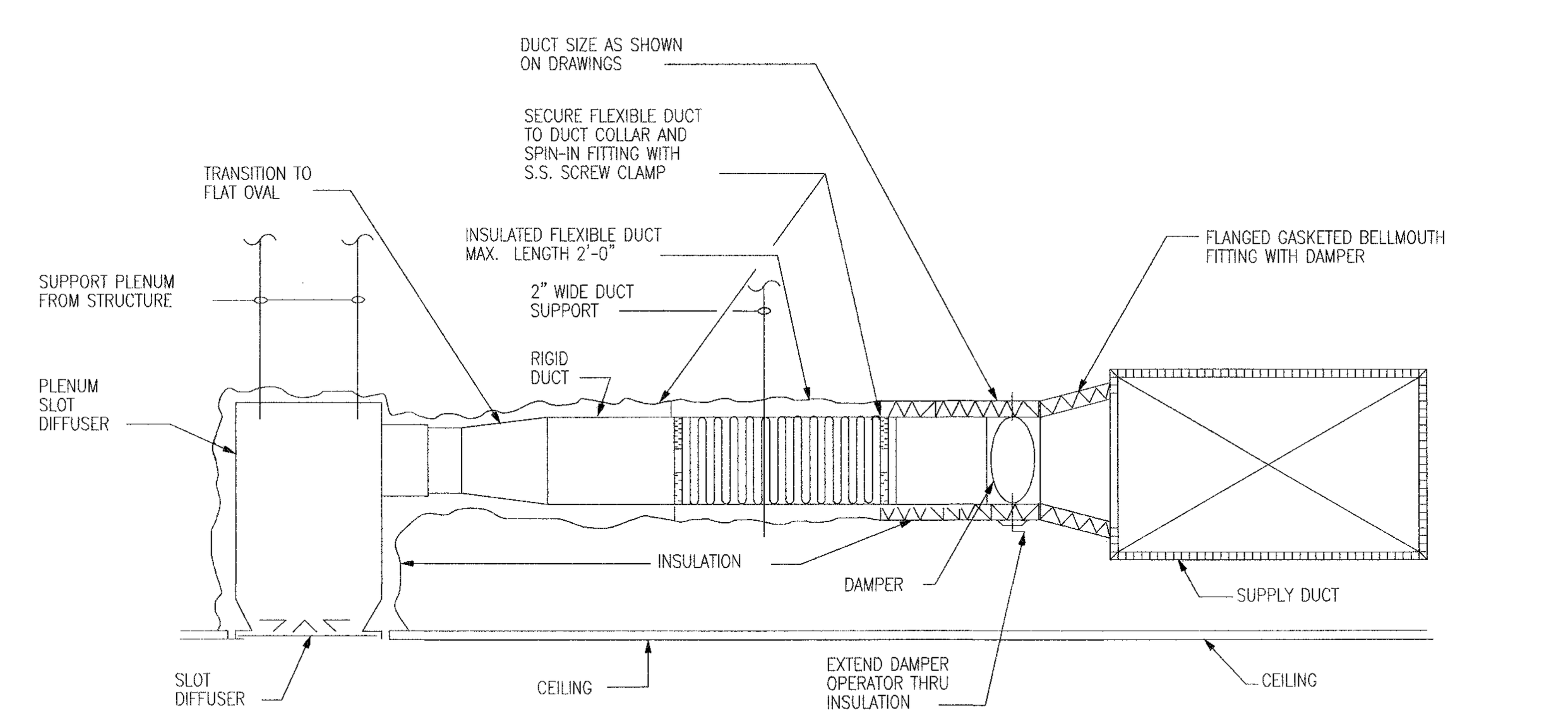
10 PIPE SUPPORT DETAIL
M5.000 NOT TO SCALE



NOTE:

1. FOR FAN COIL UNIT PIPING PROVIDE PRESSURE/TEMPERATURE TEST PLUGS ONLY. PRESSURE GAUGES AND THERMOMETERS NOT REQUIRED.
2. PROVIDE REDUCERS AT UNIT COIL CONN. AS REQUIRED.
3. CONNECT SUPPLY AND RETURN PIPING TO COILS FOR COUNTER FLOW HEAT TRANSFER.

09 CHILLED WATER COIL CONNECTION WITH 2-WAY CONTROL VALVE
M5.000 NOT TO SCALE



08 PLENUM SLOT DIFFUSER CONNECTION DETAIL
M5.000 NOT TO SCALE

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GEORGE BUSH INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

Shah Smith & Associates, Inc.

RdlR REY DE LA REZA ARCHITECTS, INC.
ARCHITECTURE PLANNING INTERIOR DESIGN
1245 WEST 18TH ST.
HOUSTON, TX 77008
Tel. 713.868.3121
Tel. 713.802.0112

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INTERNATIONAL ◊ SERVICES ◊ EXPANSION ◊ PROGRAM

APM STATION + PLATFORM
HVAC DETAILS

PROJECT MGR:	A.E.BELTRAN
DESIGNER:	C. COBB
DRAWN BY:	E. STRIBLING
CHECKED BY:	C. COBB
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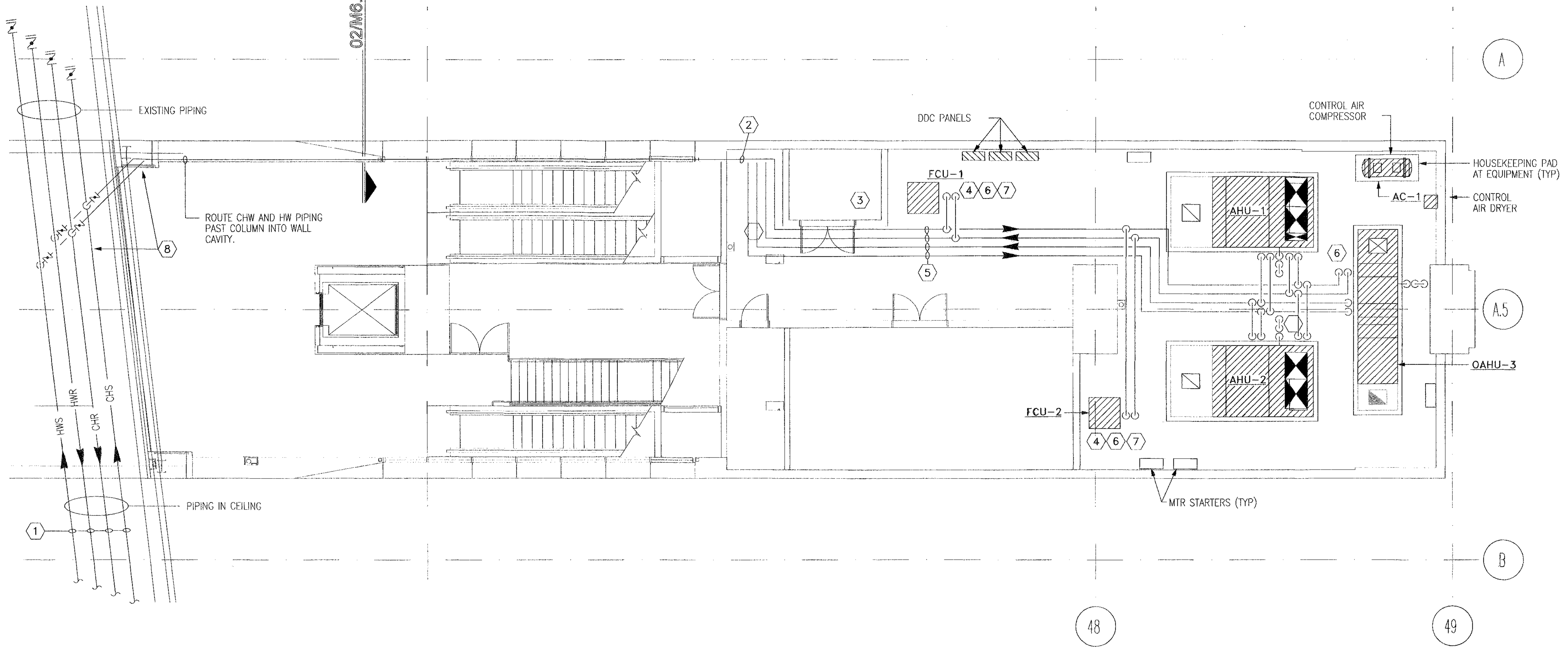
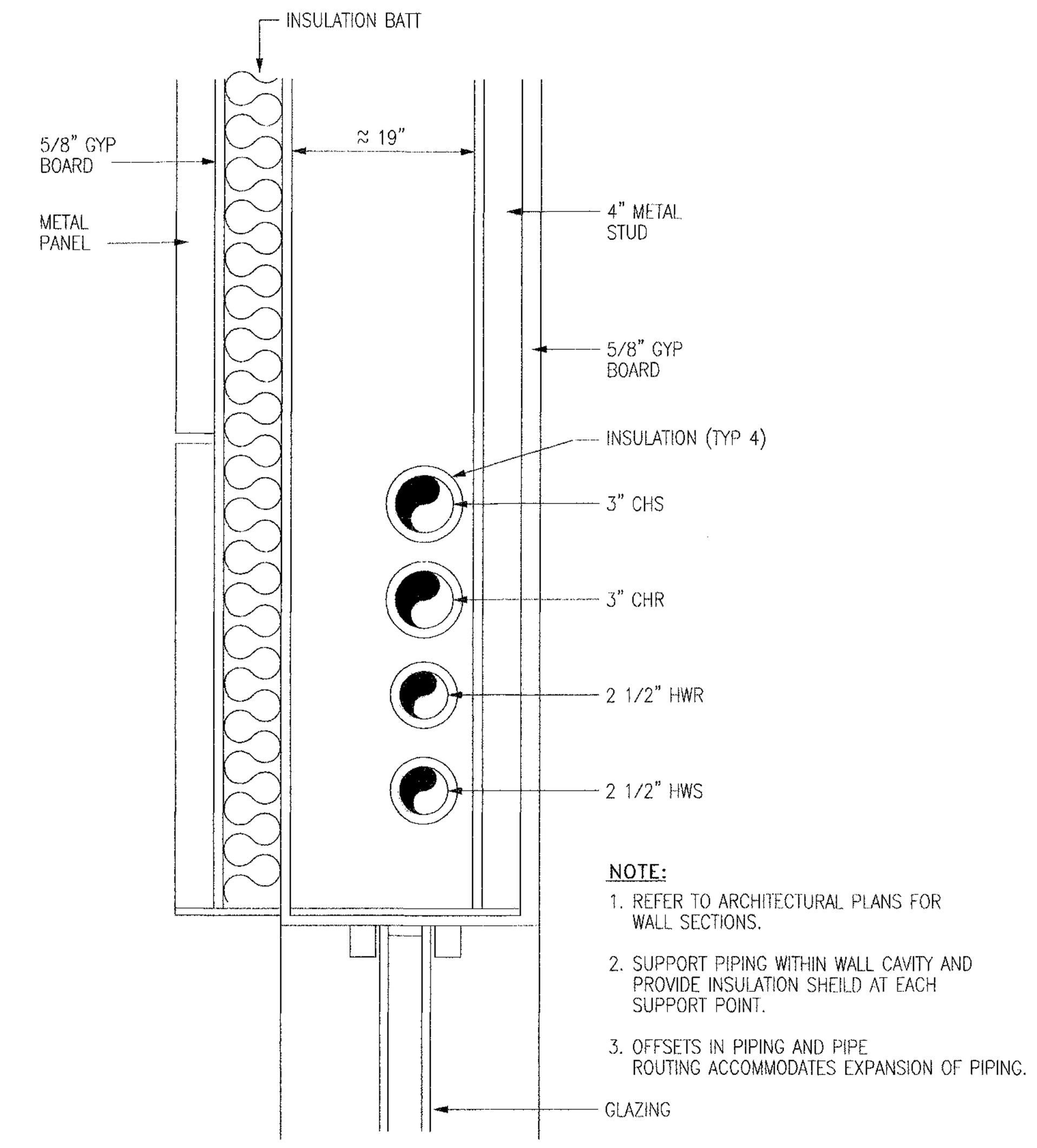
PROJECT NO.	1061-001
C.I.P. NO.	A-0354
H.A.S. NO.	536C
SHEET NO.	92 M5.000

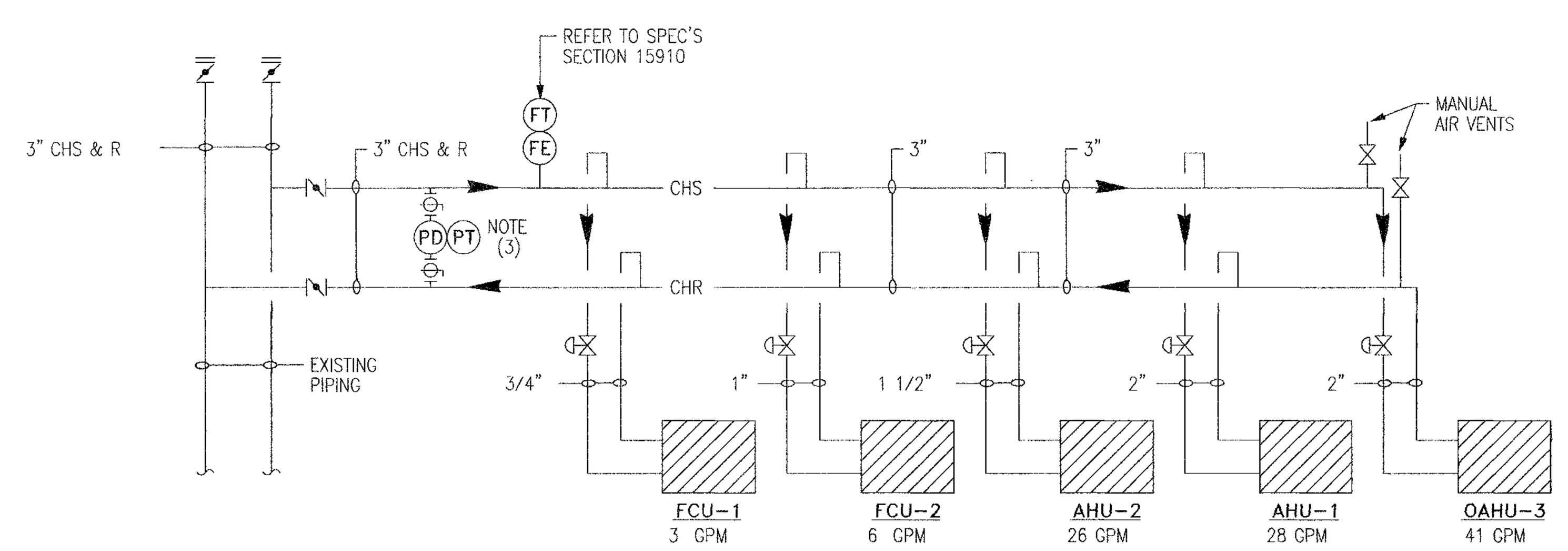


01 APM STATION LOBBY LEVEL PIPING PLAN
M6.000 1/8"=1'-0"



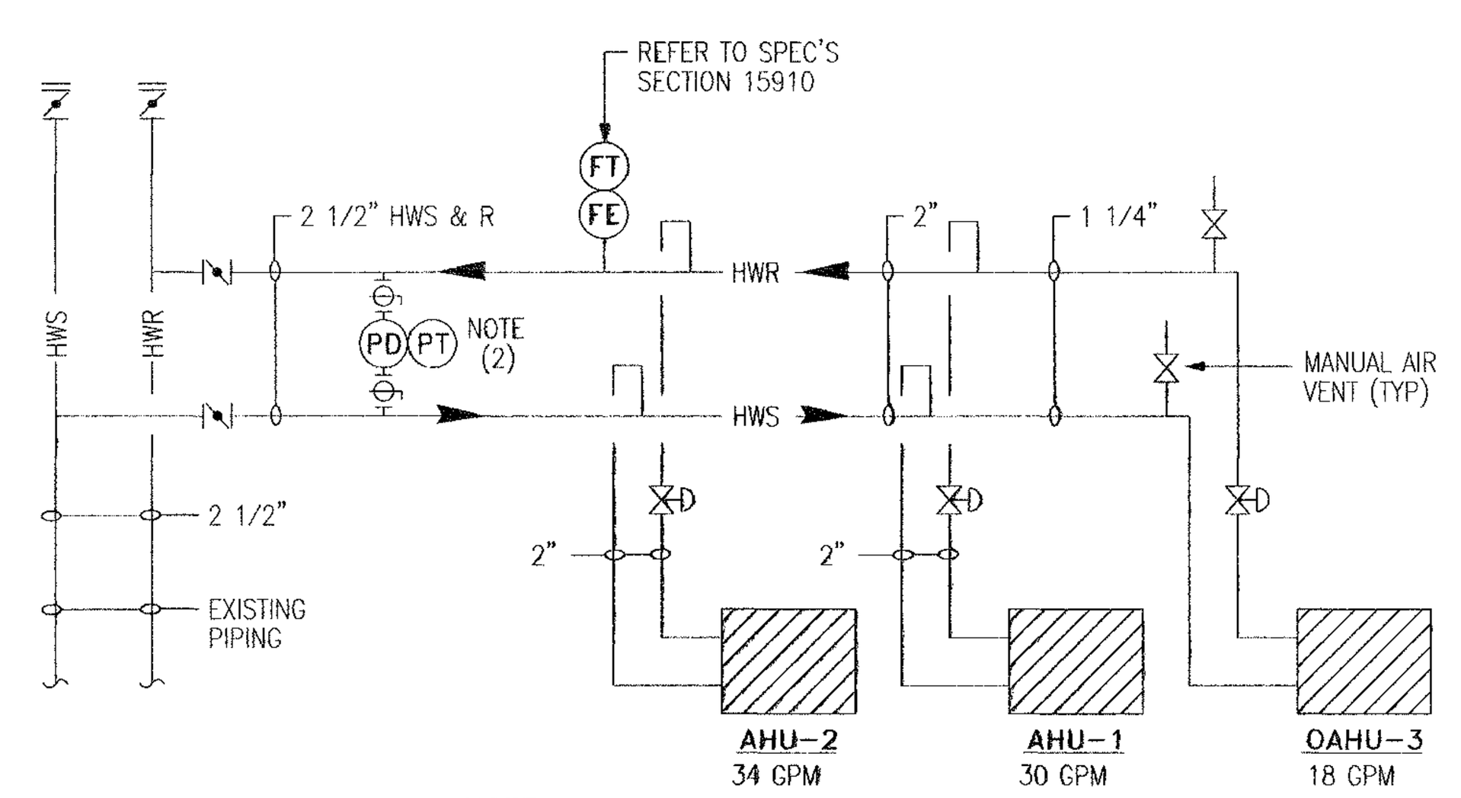
NOTE:
1. REFER TO ARCHITECTURAL PLANS FOR WALL SECTIONS.
2. SUPPORT PIPING WITHIN WALL CAVITY AND PROVIDE INSULATION SHEILD AT EACH SUPPORT POINT.
3. OFFSETS IN PIPING AND PIPE ROUTING ACCOMMODATES EXPANSION OF PIPING.

02 PARTIAL WALL SECTION
M6.000 NOT TO SCALE



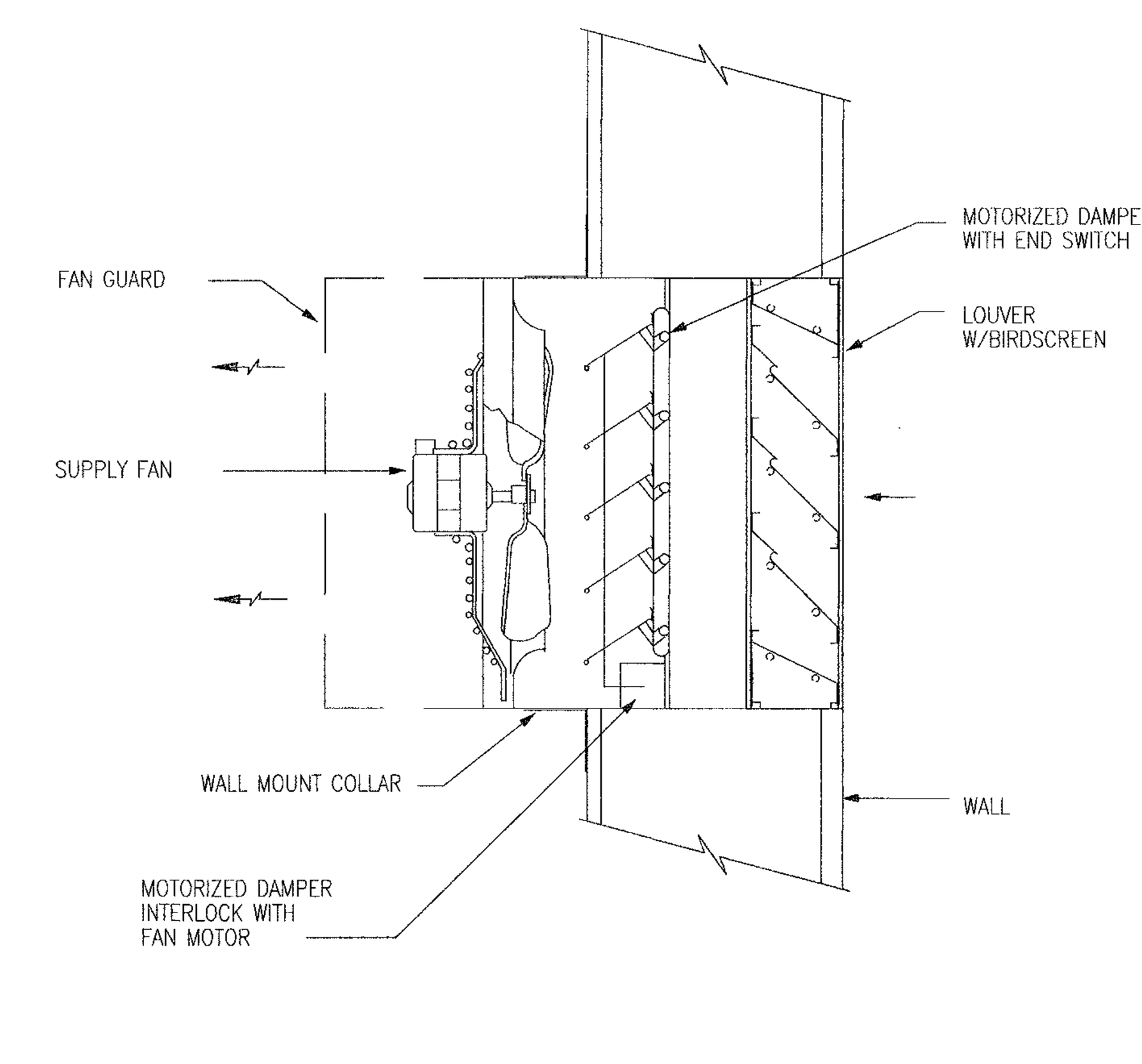
NOTE:
1. REFER TO DETAIL 09/M5.000 FOR COIL PIPING CONNECTIONS AND INSTRUMENTATION.
2. INSTRUMENTATION LOCATED IN MECHANICAL ROOM.
3. PROVIDE 3/4" DRAIN VALVES AT PIPING LOW POINTS.

03 CHILLED WATER FLOW DIAGRAM
M6.000 NOT TO SCALE



NOTE:
1. REFER TO DETAIL 06/M5.000 FOR COIL PIPING CONNECTIONS AND INSTRUMENTATION.
2. INSTRUMENTATION LOCATED IN MECHANICAL ROOM.
3. PROVIDE 3/4" DRAIN VALVES AT PIPING LOW POINTS.

04 HOT WATER FLOW DIAGRAM
M6.000 NOT TO SCALE

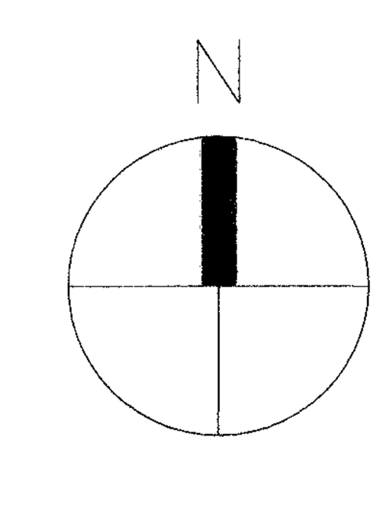


05 PROPELLER FAN DETAIL
M6.000 NOT TO SCALE

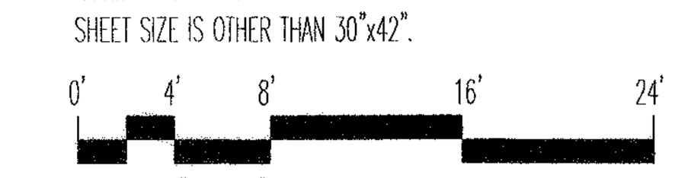
KEYED NOTES:

1. PROVIDE VALVED CONNECTIONS FOR CHW & HW BRANCHES TO SERVE APM.
2. 3" CHS & R AND 2 1/2" HWS & R INSULATED PIPING STACKED IN WALL CAVITY. REFER TO 02/M6.000
3. REFER TO PIPING SCHEMATIC, 06/M5.000, FOR ADDITIONAL INSTRUMENTATION REQUIREMENTS.
4. CHS & R PIPING IN COUNTERFLOW CONFIGURATION SERVES FCU-1 & FCU-2.
5. INSULATED CHW & HW PIPING SUPPORTED HIGH AS POSSIBLE ABOVE FLOOR ON TRAPEEZE HANGERS.
6. REFER TO CHW & HW COIL PIPING CONNECTION DETAILS, 06 AND 09/M5.000.
7. REFER TO DETAIL 03/M5.000 FOR FAN COIL UNIT INSTALLATION DETAIL.
8. OFFSET SET PIPING AS REQUIRED FROM CEILING SOFFIT TO AVOID STRUCTURE.

GENERAL NOTES:



NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".



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

HOUSTON AIRPORT SYSTEM
GEORGE BUSH INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

SHAH SMITH & ASSOCIATES, INC.
2825 WILCREST, SUITE 350
HOUSTON, TEXAS 77042
Phone: 713-780-7503 Fax: 713-780-8209

RdlR
REY DE LA REZA ARCHITECTS, INC.
ARCHITECTURE PLANNING INTERIOR DESIGN
1245 WEST 18TH ST.
HOUSTON,TX,77008
Tel: 713.868.3121
Tel: 713.802.0112

REVISIONS

NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
	RECORD DRAWING	05/06/05	

INTERNATIONAL ◦ SERVICES ◦ EXPANSION ◦ PROGRAM

APM STATION + PLATFORM
FLOW DIAGRAMS AND DETAILS

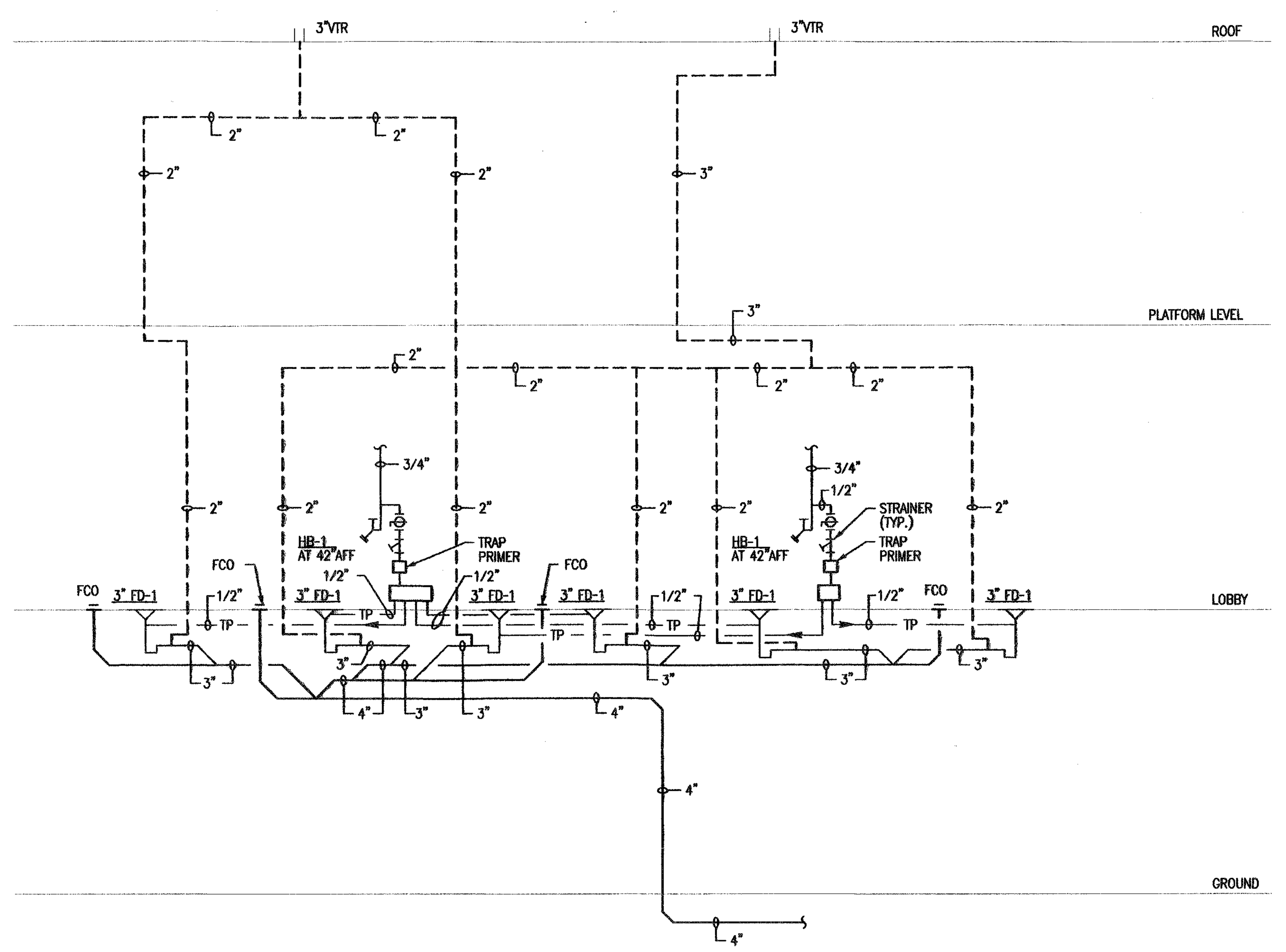
PROJECT MGR:	A.E.BELTRAN
DESIGNER:	C. COBB
DRAWN BY:	E. STRIBLING
CHECKED BY:	C. COBB
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	AS NOTED
DATE:	09/14/01

RECORD DRAWING
THIS DRAWING HAS BEEN REVISED TO SHOW SIGNIFICANT CHANGES IN THE WORK MADE DURING CONSTRUCTION BASED ON MARKED-UP PRINTS, DRAWINGS AND OTHER DATA.

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

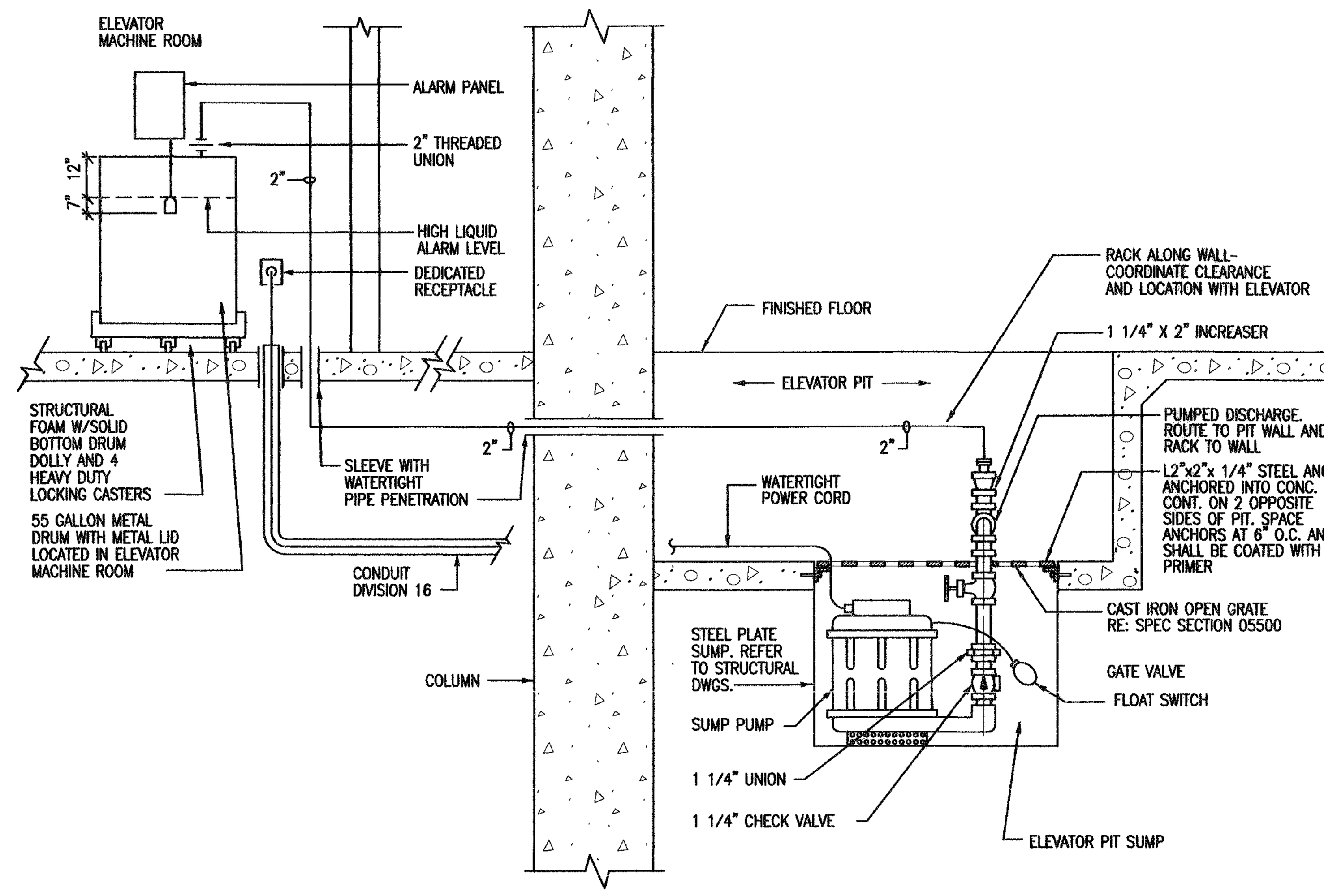
PROJECT NO. 1061-001
C.I.P. NO. A-0354
H.A.S. NO. 536C
SHEET NO.
93 M6.000



01 P0.001 **PLUMBING RISER DIAGRAM**
NO SCALE

PLUMBING LEGEND

SYMBOL	ABBREV.	DESCRIPTION	SYMBOL	ABBREV.	DESCRIPTION
DS 4 4" 1214 SQ.FT.		DOWNSPOUT & SIZE			UNION
		DOWNSPOUT NO. & ROOF AREA			BALL VALVE
	VTR	VENT THRU ROOF			GATE VALVE
		ABOVE GROUND SANITARY			CHECK VALVE
		UNDERGROUND SANITARY		FCO	FLOOR CLEANOUT
	V	VENT			CLEANOUT
— SD —	SD	ABOVE GROUND STORM DRAIN		COG	CLEANOUT AT GRADE
— — SD — —	SD	UNDERGROUND STORM DRAIN		AFF	ABOVE FINISHED FLOOR
	CW	DOMESTIC COLD WATER		IE	INVERT ELEVATION
— TP —	TP	TRAP PRIMER			
— AS —	AS	WET AUTOMATIC SPRINKLERS			
—DAS—	DAS	DRY AUTOMATIC SPRINKLERS			



03 P0.001 **ELEVATOR SUMP PUMP**
NO SCALE

PLUMBING PIPE MATERIALS SPECIFICATION

SERVICE	PIPE	FITTING
EQUIPMENT DRAINS AND OVERFLOWS	TYPE "L" HARD DRAWN COPPER (ASTM B88)	SOLDERED (95-5) WROUGHT COPPER, ANSI B16.22
SANITARY DRAINAGE AND VENT ABOVE GRADE	SERVICE WEIGHT CAST IRON, CISPI 301	SERVICE WEIGHT NO-HUB FITTINGS WITH HEACY WEIGHT NO-HUB COUPLINGS CISPI 310, SIMILAR TO ANACO "HUSKEY", CLAMP-ALL, MISSION "HW" OR TYLER WIDE BODY
SANITARY DRAINAGE AND VENT BELOW GRADE	HOT-DIP COATED SERVICE WEIGHT CAST IRON BELL & SPIGOT, ASTM A74.	SERVICE WEIGHT CAST IRON BELL & SPIGOT FITTINS WITH NEOPRENE GASKETS, ASTM C564.
STORM AND OVERFLOW DRAINAGE ABOVE GRADE	SERVICE WEIGHT CAST IRON, CISPI 301	FOR SIZES UP TO 8": SERVICE WEIGHT NO-HUB FITTINGS WITH HEAVY WEIGHT NO-HUB COUPLINGS CISPI 310, SIMILAR TO ANACO "HUSKEY",CLAMP-ALL OR MISSION "HW".FOR SIZES OVER 8": SERVICE WEIGHT BELL & SPIGOT FITTINGS WITH ELASTOMER GASKETS, ASTM C564
SANITARY SEWER, STORM AND OVERFLOW DRAINAGE WHERE CAST IN BENTS, BEAMS AND COLUMNS	SCHEDULE 40 TYPE 1 PVC	DWV PATTERN PVC FITTINGS WITH SOLVENT CEMENT JOINTS
STORM AND OVERFLOW DRAINAGE BELOW GRADE	HOT-DIP COATED SERVICE WEIGHT CAST IRON BELL & SPIGOT, ASTM A74.	SERVICE WEIGHT CAST IRON HUBBED FITTINGS WITH NEOPRENE GASKETS, ASTM C564.
DOMESTIC WATER ABOVE GRADE	TYPE "L" HARD DRAWN COPPER (ASTM B88)	ANSI B16.22 WROUGHT COPPER WITH 95-5 SOLDER LEAD-FREE JOINTS, ASTM B32

UNIONS: CLASS 150, 300 POUND WATER-OIL-GAS SERVICE BRONZE. UNION WITH GROUND JOINT AND BRASS SEAT, ANSI B16.39.

GENERAL NOTES

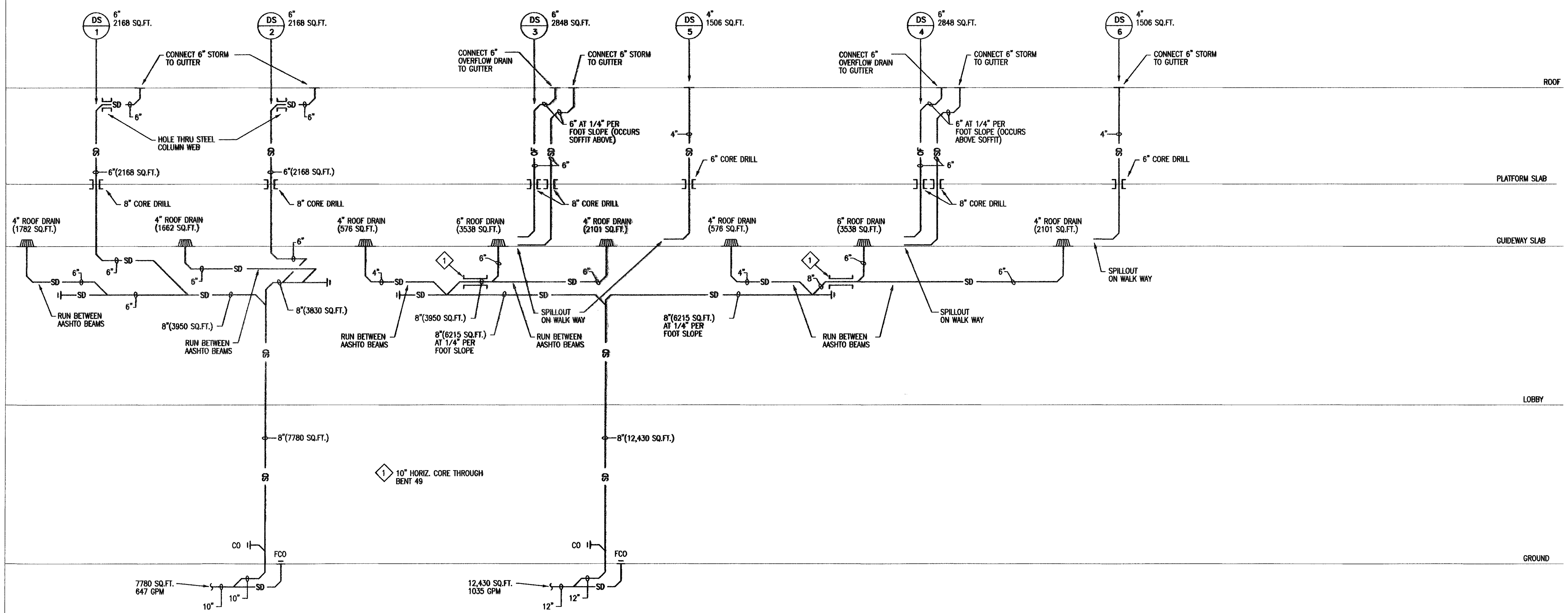
1. PRIOR TO WORK CONTRACTOR SHALL TIGHTLY COORDINATE PLUMBING WORK WITH OTHER TRADES.
2. PROVIDE A UNION DOWNSTREAM FROM EACH BALL VALVE.
3. DRAWINGS ARE DIAGRAMATIC IN NATURE, NOT ALL REQUIRED PIPE ELBOWS, TEES, AND ASSOCIATED FITTINGS ARE SHOWN. PROVIDE A COMPLETE WORKING PLUMBING SYSTEM PER THE SPECIFICATIONS AND CITY OF HOUSTON PLUMBING CODE.
4. PROVIDE A WET AUTOMATIC SPRINKLER SYSTEM THROUGHOUT, EXCEPT WHERE A DRY PIPE SPRINKLER SYSTEM IS INDICATED ON DRAWINGS. COMPLY WITH NFPA 13 AND SPECIFICATIONS SECTION 15330.
5. FIRE PROTECTION PIPING SHALL BE COORDINATED AROUND OTHER TRADES, SUCH AS PLUMBING, HVAC AND ELECTRICAL.
6. PROVIDE AN IN-LINE Y-STRAINER UPSTREAM OF ALL TRAP PRIMERS.
7. INSULATE AND HEAT TRACE TRAP PRIMER PIPING WHERE EXPOSED TO FREEZING TEMPERATURES. INSULATE WASTE, VENT AND STORM PIPING WHERE EXPOSED TO FREEZING TEMPERATURES.
8. PROVIDE A WATER CURTAIN TYPE SPRINKLER SYSTEM WHERE INDICATED ON DRAWINGS, AND CONFORMING TO GUIDELINES SET FORTH IN NFPA13.
9. PROVIDE SHOP DWGS. INDICATING EXACT LOCATION & COORDINATION WITH STRUCTURAL REBAR WHERE PIPING IS CAST IN CONC. BEAMS, BENTS AND COLUMNS. COORDINATE PLUMBING SHOP DWGS. WHERE PIPING IS CAST IN STRUCT. BEAMS & COLUMNS WITH STRUCTURAL APPROVED SHOP DWGS. COORDINATE INSTALLATION OF PIPING WITH CONSTRUCTION OF STUCTURAL COMPONENTS.

PLUMBING ROUGH-IN SCHEDULE

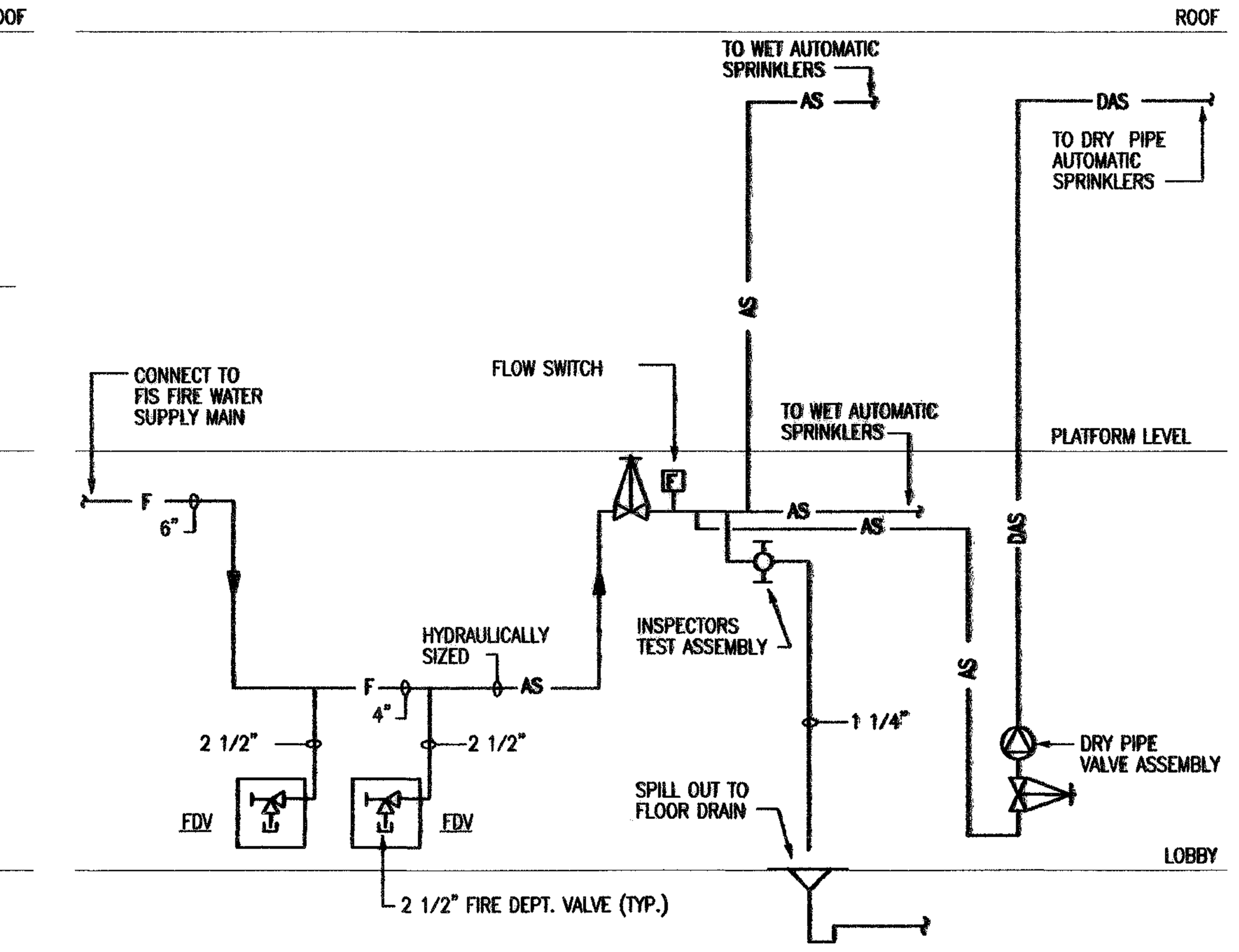
MINIMUM SIZES (INCHES)					
FIXTURE	SOIL	WASTE	VENT	HOT WATER	COLD WATER
HB-1	-	-	-	-	3/4
FD-1	-	3	2	-	-

PUMP SCHEDULE

MARK	SERVICE	TDH (FEET)	FLOW RATE (GPM)	ELECTRICAL DATA					REMARKS
				HP	RPM	VOLT	PHASE	HERTZ	
SP-1	ELEVATOR SUMP	20	10	1/4	1550	120	1	60	HYDROMATIC NO. W25



02 P0.001 **STORM RISER DIAGRAM**
NO SCALE



04 P0.001 **FIRE PROTECTION RISER DIAGRAM**
NO SCALE

HOUSTON AIRPORT SYSTEM
GEORGE BUSH INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

SHAH SMITH & ASSOCIATES, INC.
2825 WILCREST, SUITE 350
HOUSTON, TEXAS 77042
Phone: 713-780-7563 Fax: 713-780-9209

REY DE LA REZA ARCHITECTS, INC
ARCHITECTURE PLANNING INTERIOR DES
1245 WEST 18TH ST.
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REVISIONS			
NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
	RECORD DRAWING	05/06/05	
1	BULLETIN #33 09/22/03		

INTERNATIONAL ◊ SERVICES ◊ EXPANSION ◊ PROGRAM

APM STATION + PLATFORM
PLUMBING LEGEND, SCHEDULE AND RISERS

PROJECT MGR:	A.E.BELTRAN
DESIGNER:	C. COBB
DRAWN BY:	E. STRIBLING
CHECKED BY:	C. COBB
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	AS NOTED
DATE:	09/14/01

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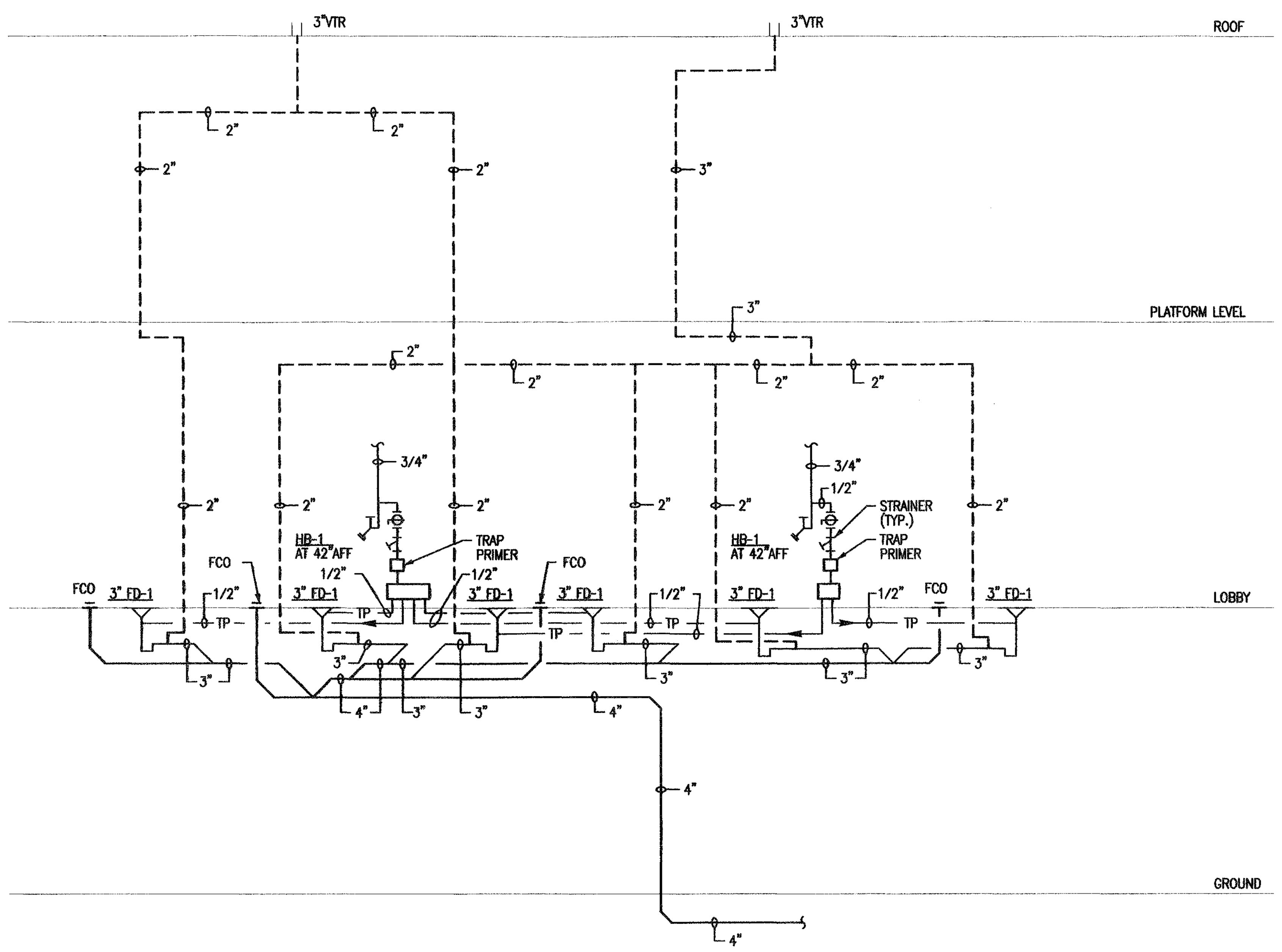
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

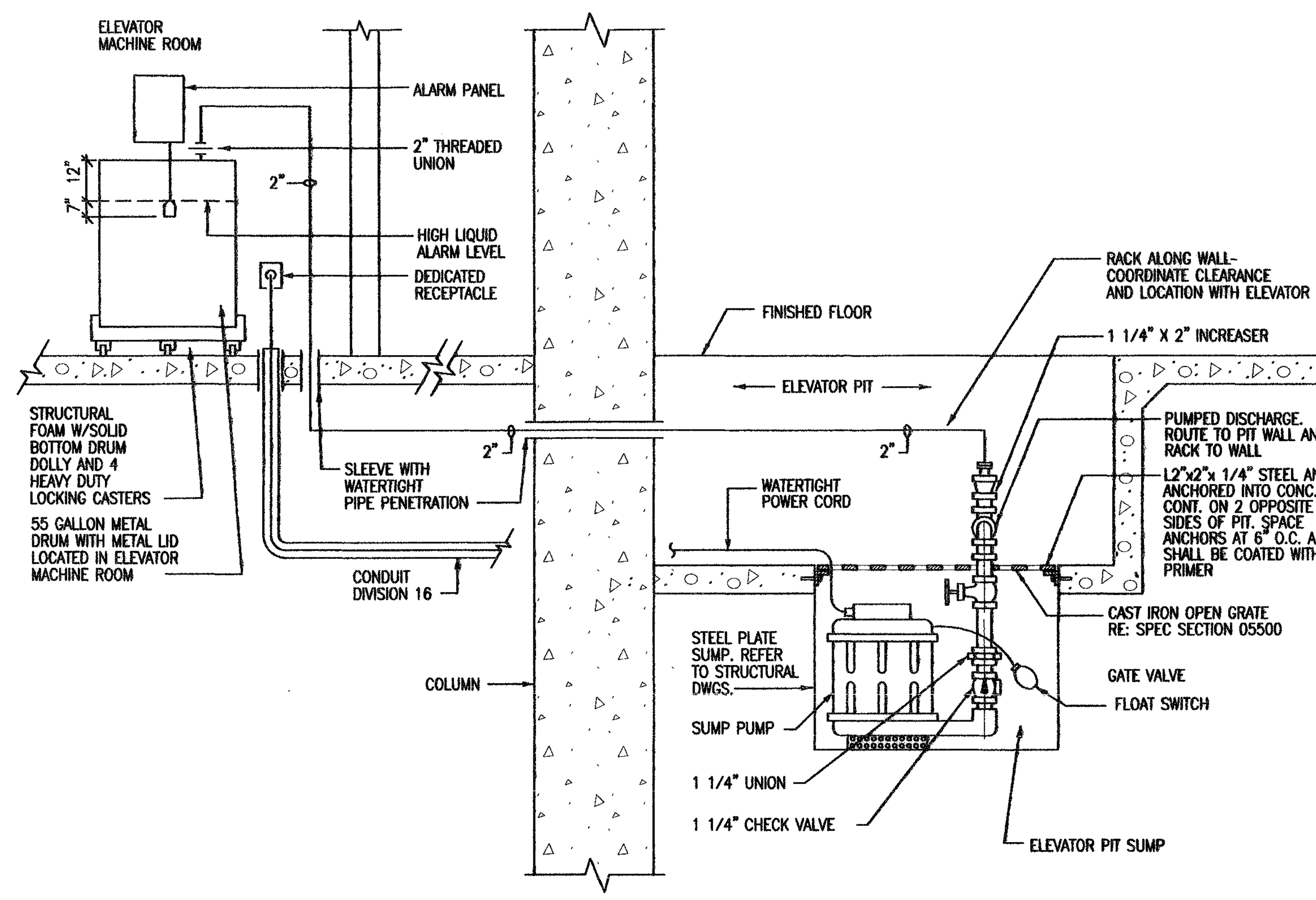
PROJECT NO. 1061-001
C.I.P. NO. A-0354
H.A.S. NO. 536C
SHEET NO.
107 P0.001



01 PLUMBING RISER DIAGRAM
P0.001 NO SCALE

PLUMBING LEGEND

SYMBOL	ABBREV.	DESCRIPTION	SYMBOL	ABBREV.	DESCRIPTION
DS 4 — 4"		DOWNSPOUT & SIZE	—‖—		UNION
1214 SQ.FT.		DOWNSPOUT NO. & ROOF AREA	—⌀—		BALL VALVE
┘└	VTR	VENT THRU ROOF	—⋈—		GATE VALVE
———		ABOVE GROUND SANITARY	—/—		CHECK VALVE
— — — —		UNDERGROUND SANITARY	——Ø	FCO	FLOOR CLEANOUT
- - - - -	V	VENT	——⊣		CLEANOUT
—— SD ——	SD	ABOVE GROUND STORM DRAIN		COG	CLEANOUT AT GRADE
— — SD — — —	SD	UNDERGROUND STORM DRAIN		AFF	ABOVE FINISHED FLOOR
——— - ———	CW	DOMESTIC COLD WATER		IE	INVERT ELEVATION
—— TP ——	TP	TRAP PRIMER			
—— AS ——	AS	WET AUTOMATIC SPRINKLERS			
——DAS——	DAS	DRY AUTOMATIC SPRINKLERS			



03 ELEVATOR SUMP PUMP
P0.001 NO SCALE

PLUMBING PIPE MATERIALS SPECIFICATION

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UNIONS: CLASS 150, 300 POUND WATER-OIL-GAS SERVICE BRONZE. UNION WITH GROUND JOINT AND BRASS SEAT, ANSI B16.39.

GENERAL NOTES

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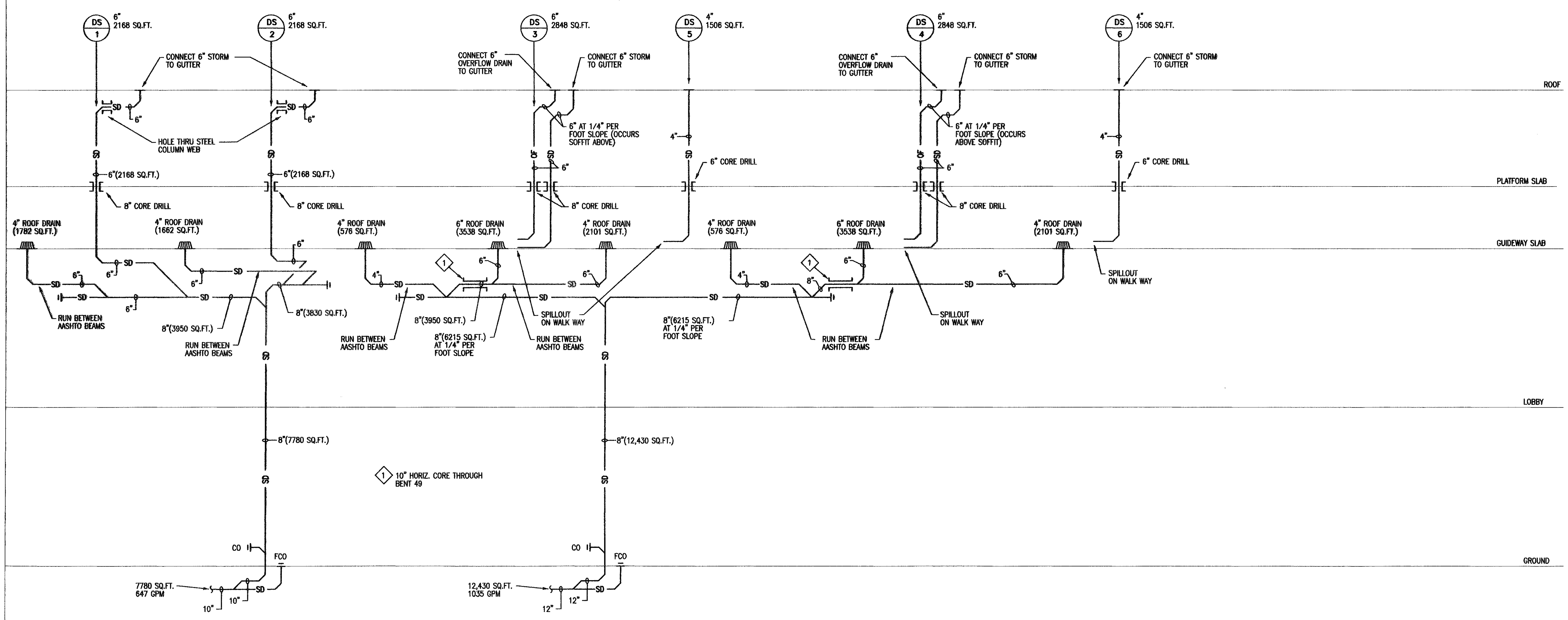
PLUMBING ROUGH-IN SCHEDULE

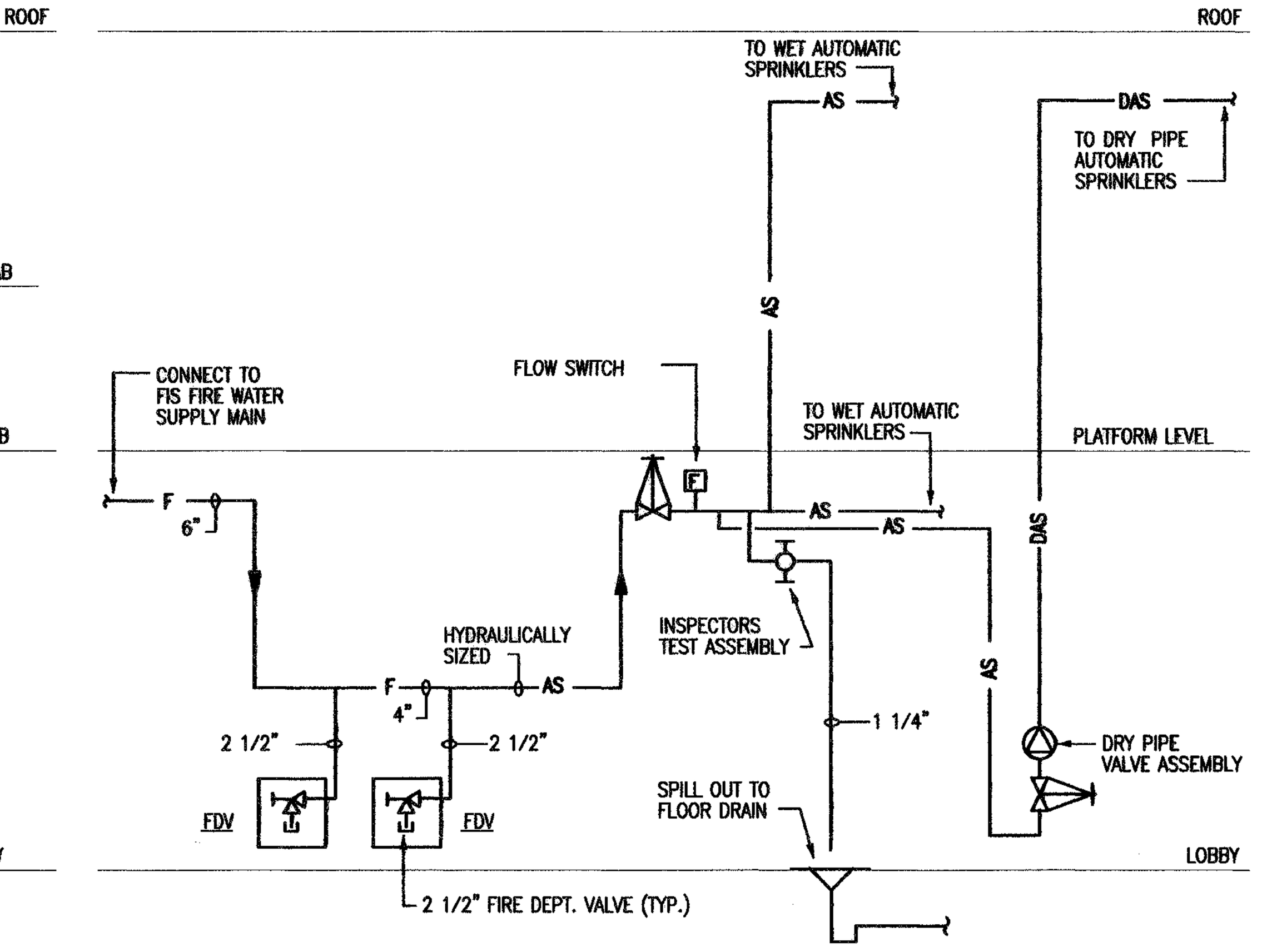
MINIMUM SIZES (INCHES)					
FIXTURE	SOIL	WASTE	VENT	HOT WATER	COLD WATER
HB-1	-	-	-	-	3/4
FD-1	-	3	2	-	-

PUMP SCHEDULE

MARK	SERVICE	TDH (FEET)	FLOW RATE (GPM)	ELECTRICAL DATA: HP	RPM	VOLT	PHASE	HERTZ	REMARKS
SP-1	ELEVATOR SUMP	20	10	1/4	1550	120	1	60	HYDROMATIC NO. W25



02 STORM RISER DIAGRAM
P0.001 NO SCALE



04 FIRE PROTECTION RISER DIAGRAM
P0.001 NO SCALE

HOUSTON AIRPORT SYSTEM
GEORGE BUSH
INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

SHAH SMITH & ASSOCIATES, INC.
2825 WILCREST, SUITE 350
HOUSTON, TEXAS 77042
Phone: 713-780-7583 Fax: 713-780-6209

REY DE LA REZA ARCHITECTS, IN
ARCHITECTURE PLANNING INTERIOR DES
1245 WEST 18TH ST.
HOUSTON,TX,77008
Tel: 713.868.3121
Tel: 713.802.0112

REVISIONS			
NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
	RECORD DRAWING	05/06/05	
1	BULLETIN #33 09/22/03		

INTERNATIONAL ◊ SERVICES ◊ EXPANSION ◊ PROGRAM

APM STATION + PLATFORM

PLUMBING LEGEND, SCHEDULE AND RISERS

PROJECT MGR:	A.E.BELTRAN
DESIGNER:	C. COBB
DRAWN BY:	E. STRIBLING
CHECKED BY:	C. COBB
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	AS NOTED
DATE:	09/14/01

RECORD DRAWING
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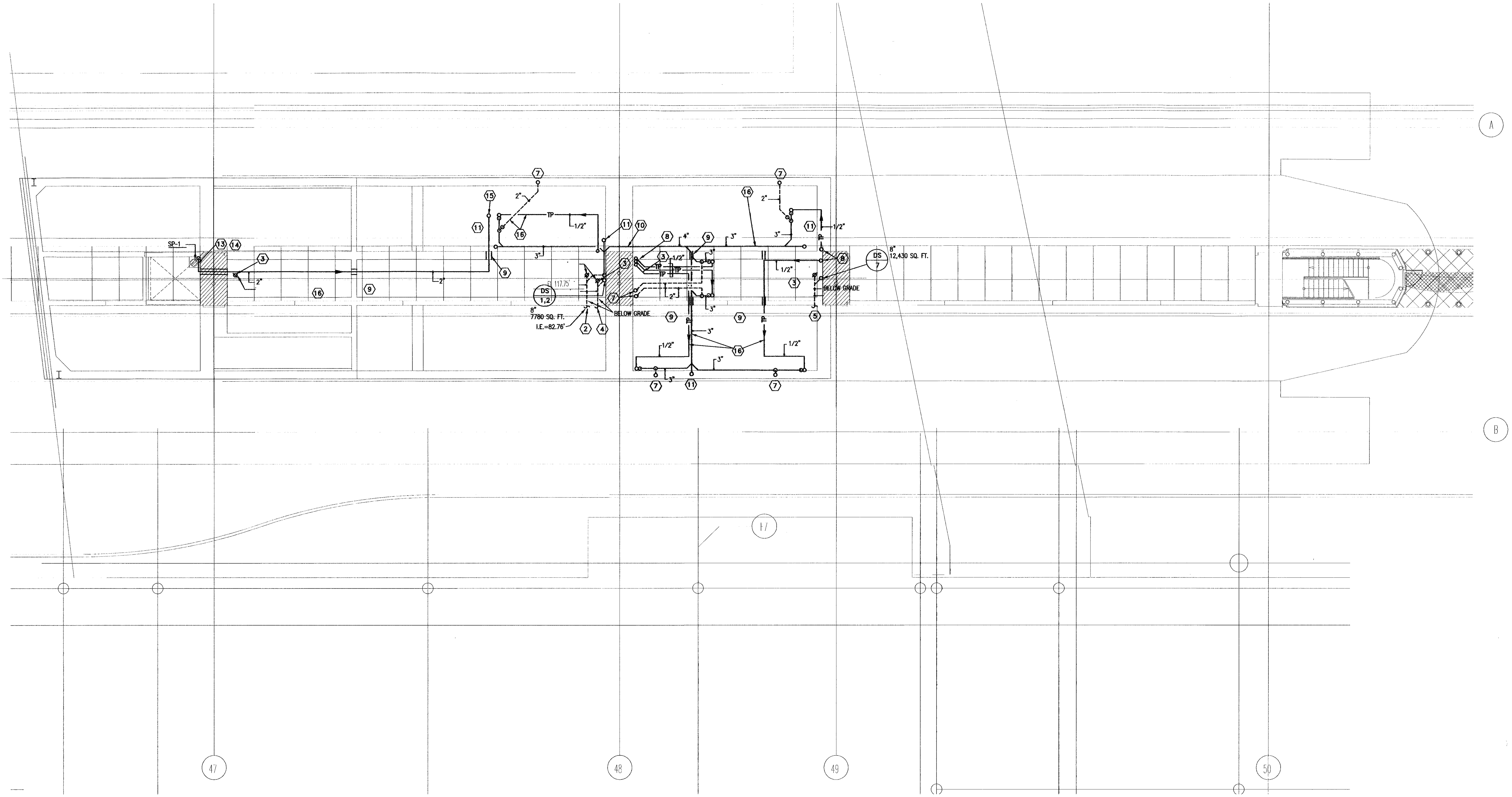
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	1061-001
C.I.P. NO.	A-0354
H.A.S. NO.	536C
SHEET NO.	P0.001

108



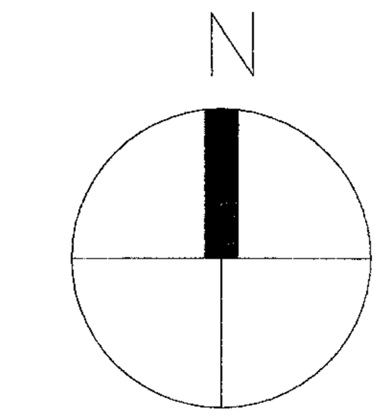
01 P2.001 GROUND FLOOR PLUMBING PLAN
1/8"=1'-0"

KEYED NOTES:

1. NOT USED
2. 4" SANITARY SEWER (BELOW GRADE). REFER TO HAS JOB NO. 536A-3 FOR CONT. 36 DFU-23GPM
3. FLUSH CLEANOUT WITH PAVING.
4. 10" STORM SEWER (BELOW GRADE) REFER TO HAS JOB NO. 536A-2 FOR CONT. 7780 SQ.FT.-647GPM
5. 12" STORM SEWER (BELOW GRADE) REFER TO HAS JOB NO. 536A-2 FOR CONT. 12,430 SQ.FT.-1035GPM
6. NOT USED
7. 2" VENT UP.
8. 1/2" TRAP PRIMER LINES FROM ABOVE.
9. ROUTE PIPING THRU SLEEVE IN CONCRETE BEAM. REFER TO STRUCTURAL DWGS. FOR LOCATION.
10. CAST 4" WASTE IN CONCRETE BEAM. REFER TO STRUCTURAL DWGS. FOR LOCATION.
11. UP TO FCO (CAST IN CONCRETE BEAM).
12. CAST DOWNSPOUT AND WASTE LINE IN COLUMN. REFER TO STRUCTURAL DWGS. FOR LOCATION.
13. SUMP PUMP LOCATED IN ELEVATOR PIT SUMP. 2" SUMP PUMP DISCHARGE LINE OUT OF PIT - ROUTE AS SHOWN.
14. 2" PUMP DISCHARGE THROUGH SLEEVE IN COLUMN, COORDINATE WITH STRUCTURAL DWGS.
15. 2" PUMP DISCHARGE UP.
16. LOCATED IN SOFFIT.

GENERAL NOTES:

1. COORDINATE STORM SEWER STUB-OUTS WITH JOB NO.536A-2. COORDINATE SANITARY SEWER STUB-OUTS WITH JOB NO.536A-3.
2. INSULATE & HEAT TRACE TRAP PRIMER PIPING WHERE IN SOFFIT.
3. INSULATE WASTE & VENT PIPING WHERE LOCATED IN SOFFIT.
4. PROVIDE CLEANOUT CAST IN COLUMN & BASE OF DOWNSPOUTS.
5. COORDINATE LOCATION OF PIPE WITH CONCRETE REBAR PRIOR TO INSTALLATION AND APPROVED STRUCTURAL DWGS.
6. PIPING CAST IN CONCRETE BEAMS, BENTS AND COLUMNS SHALL BE SCHEDULE 40 PVC WITH DWV PATTERN FITTINGS WITH SOLVENT CEMENT JOINTS.



NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

0' 4' 8' 16' 24'

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

HOUSTON AIRPORT SYSTEM
GEORGE BUSH
INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

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REVISIONS

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	ISSUED FOR BID	10/19/01	
	RECORD DRAWING	05/06/05	
1	BULLETIN #33 09/22/03		

INTERNATIONAL ◇ SERVICES ◇ EXPANSION ◇ PROGRAM

APM STATION + PLATFORM
GROUND FLOOR PLUMBING

PROJECT MGR:	A.E.BELTRAN
DESIGNER:	C. COBB
DRAWN BY:	E. STRIBLING
CHECKED BY:	C. COBB
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	AS NOTED
DATE:	09/14/01

RECORD DRAWING
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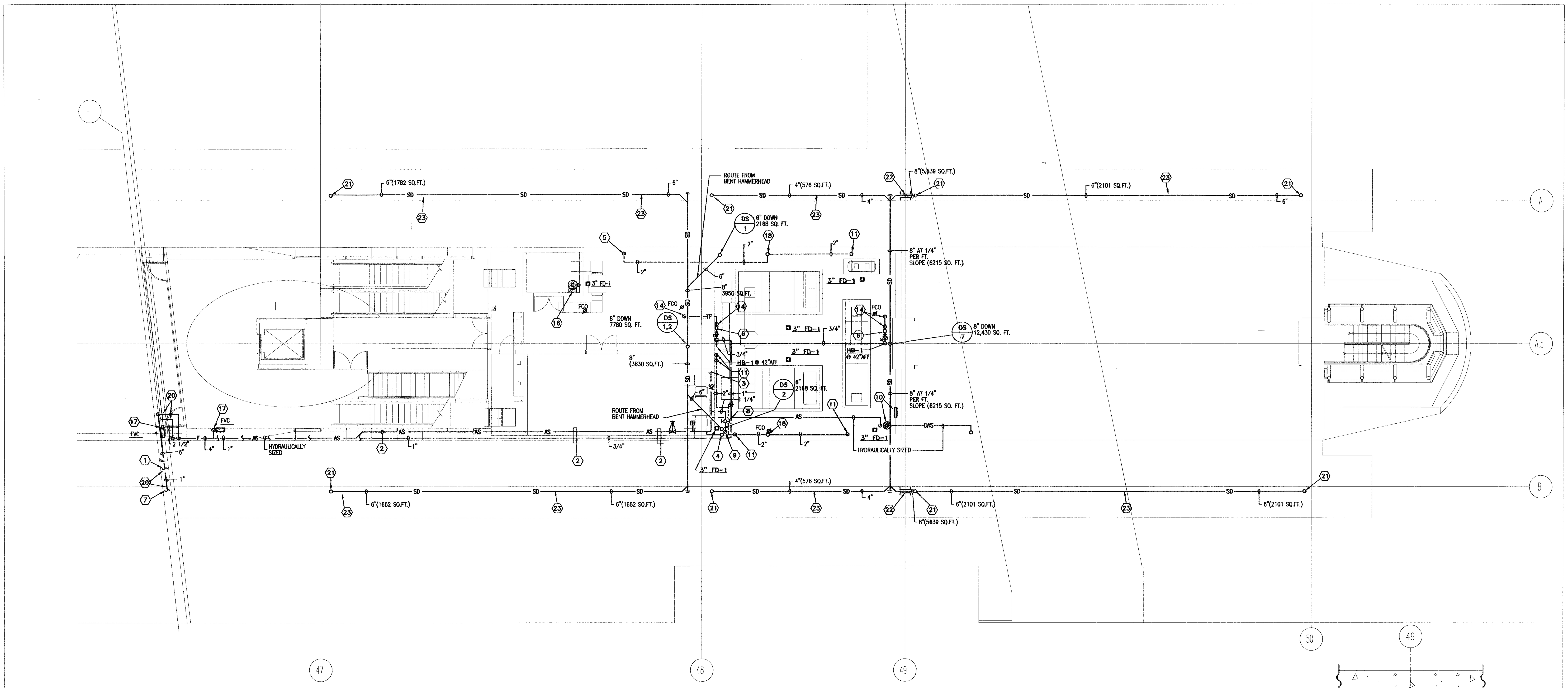
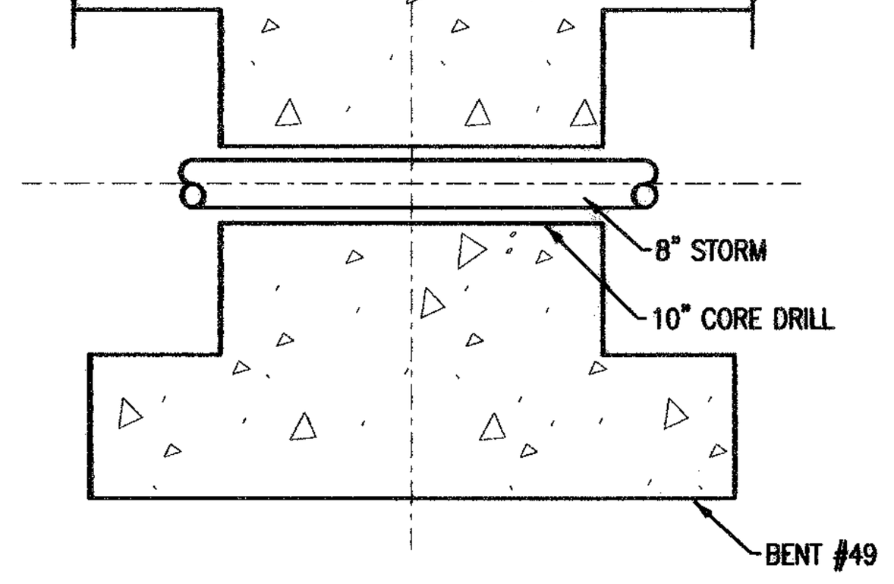
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	1061-001
C.I.P. NO.	A-0354
H.A.S. NO.	536C
SHEET NO.	109 P2.001



01 P2.002 LOBBY LEVEL PLUMBING PLAN
1/8"=1'-0"



02 P2.002 SECTION
NO SCALE

KEYED NOTES:

1. FIELD ROUTE 6" FIRE PROTECTION LINE TO FIS BUILDING AND CONNECT TO FIRE WATER SUPPLY MAIN. PROJECT NO. 500F-1
2. ROUTE PIPING CONCEALED IN WALL CHASE.
3. TO WET AUTOMATIC SPRINKLERS.
4. SPRINKLER SUPPLY LINE UP.
5. 2" VENT UP
6. TRAP PRIMER.
7. FIELD ROUTE 1" DOMESTIC COLD WATER TO FIS BUILDING AND CONNECT TO DOMESTIC COLD WATER MAIN. PROJECT NO. 500F-1.
8. SPRINKLER SYSTEM INSPECTOR'S TEST ASSEMBLY
9. 1 1/4" FIRE DRAIN TO SPILL OUT AT FLOOR DRAIN.
10. DRY PIPE SPRINKLER SYSTEM DELUGE VALVE AND AIR COMPRESSOR.
11. 2" VENT FROM BELOW.
12. CAST STORM DRAINAGE PIPING (MINIMUM 1/8" PER FOOT SLOPE) IN CONCRETE BEAM.REFER TO S3.002 FOR DETAIL AND EXACT LOCATION. COORDINATE WITH STRUCTURAL AND ARCHITECTURAL.
13. CAST DOWNSPOUT IN CONCRTE COLUMN. REFER TO S7.102 FOR DETAIL AND EXACT LOCATION.
14. 1/2" TP LINE DOWN THRU SLAB.
15. CAST FLOOR CLEANOUT IN SLAB AND FLOOR SUPPORT CONCRETE BEAM.
16. 2" ELEVATOR PIT SUMP PUMP DISCHARGE FROM BELOW. 55 GALLON DRUM WITH ELEVATOR PIT SUMP PUMP ALARM PANEL. REFER TO P0.001 FOR DETAIL.
17. 2 1/2" FIRE LINE TO FIRE VALVE CABINET. REFER TO ARCH. DWGS. FOR EXACT LOCATION OF CABINET.
18. 3" VENT UP
19. REFER TO S6.702 FOR LOCATION OF STORM LINE.
20. ROUTE PIPING IN SOFFIT. COORDINATE WITH ARCH. DWGS.
21. 4" STORM FROM ABOVE. CAST IN CONCRETE BENT. CONNECT STORM TO 4" ROOF DRAIN.
22. 10" DIAMETER CORE DRILL AT BENT 49.
23. ALL PIPING UNDER GUIDEWAY SHALL BE RUN BETWEEN AASHTO BEAMS AND ABOVE LOWER EDGE OF THE AASHTO BEAMS.

GENERAL NOTES:

1. PROVIDE A WATER CURTAIN TYPE SPRINKLER SYSTEM TO PROTECT ESCALATORS. SPRINKLER HEADS ADDITIONAL TO THE SPRINKLER SYSTEM FOR THE FLOOR SHOULD BE PROVIDED AS OUTLINED IN NFPA 13.
2. NO PLUMBING PIPING SHALL BE ALLOWED WITHIN ELEVATOR/ESCALATOR MACHINE ROOMS; EXCEPT FOR SPRINKLER PIPING SERVING ONLY THOSE ROOMS, ELEVATOR SUMP PUMP DISCHARGE PIPING, AND 55 GALLON DRUM & PANEL.
3. COORDINATE LOCATION OF PIPE WITH CONCRETE REBAR PRIOR TO INSTALLATION AND APPROVED STRUCTURAL DWGS. (SLOPE STORM PIPING AT A MIN. 1/8" PER FT.)
4. PIPING CAST IN CONCRETE BEAMS, BENTS AND COLUMNS SHALL BE SCHEDULE 40 PVC WITH DWV PATTERN FITTINGS WITH SOLVENT CEMENT JOINTS.
5. REFER TO A3.200 FOR PROPOSED LOCATION OF SPRINKLER HEADS AND SUPPLY LINES.

N

NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".
0' 4' 8' 16' 24'
SCALE: 1/8" = 1'-0"

HOUSTON AIRPORT SYSTEM
GEORGE BUSH
INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

SHAH SMITH & ASSOCIATES, INC.
2925 WILCREST, SUITE 350
HOUSTON, TEXAS 77042
Phone: 713-780-7563 Fax: 713-780-6209

RdlR
REY DE LA REZA ARCHITECTS, IN
ARCHITECTURE PLANNING INTERIOR DES
1245 WEST 18TH ST.
HOUSTON,TX,77008
Tel: 713.868.3121
Tel: 713.802.0112

REVISIONS

NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
	RECORD DRAWING	05/06/05	
1	BULLETIN #33 09/22/03		

INTERNATIONAL ◦ SERVICES ◦ EXPANSION ◦ PROGRAM

APM STATION + PLATFORM
LOBBY LEVEL PLUMBING

PROJECT MGR:	A.E.BELTRAN
DESIGNER:	C. COBB
DRAWN BY:	E. STRIBLING
CHECKED BY:	C. COBB
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	AS NOTED
DATE:	09/14/01

RECORD DRAWING
THIS DRAWING HAS BEEN REVISED TO SHOW SIGNIFICANT CHANGES IN THE WORK MADE DURING CONSTRUCTION BASED ON MARKED-UP PRINTS, DRAWINGS AND OTHER DATA.

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO. 1061-001
C.I.P. NO. A-0354
H.A.S. NO. 536C
SHEET NO.
110 P2.002

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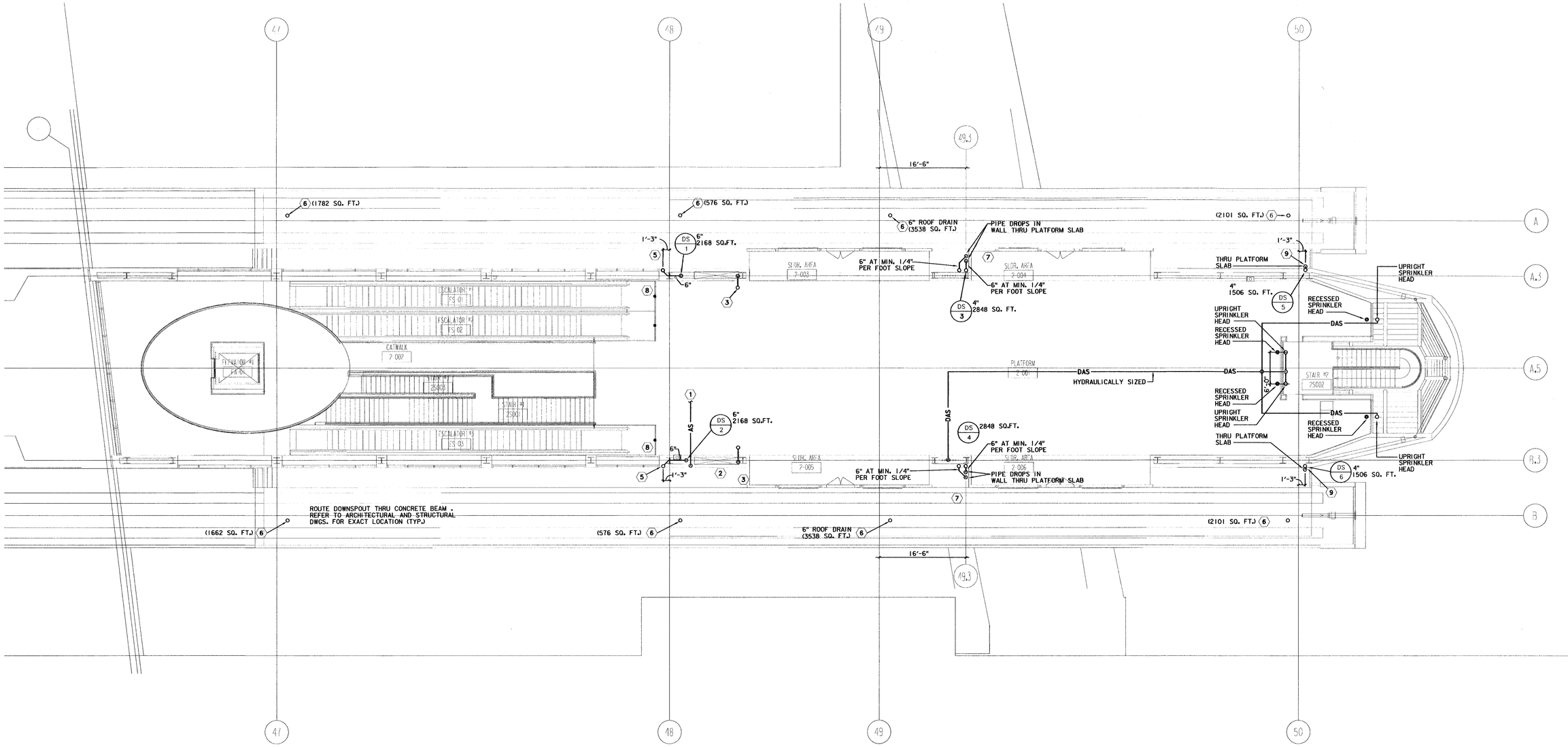


01 PLATFORM LEVEL PLUMBING PLAN
P2.003 1/8"=1'-0"

KEYED NOTES:

1. TO WET AUTO SPRINKLERS.
2. HYDRAULICALLY SIZE SPRINKLER SUPPLY LINE FROM BELOW.
3. 3" VENT FROM BELOW AND UP.
4. CONNECT 4" OVERFLOW DRAIN TO GUTTER OVERFLOW DRAIN OUTLET. MAKE CONNECTION W/HEAVY DUTY NO-HUB COUPLING TO GUTTER. ROUTE 4" OVERFLOW AT 1/2" PER FOOT SLOPE. CONNECT TO DOWNSPOUT.
5. CONNECT 4" STORM TO GUTTER DRAIN OUTLET W/HEAVY-DUTY NO-HUB COUPLING.
6. REFER TO 6/S6.502 & 11/S6.502 FOR DETAIL. ROOF DRAIN PROVIDED BY STRUCTURAL TRADE.
7. CORE DRILL THROUGH SIDEWALK & ROUTE OVERFLOW DRAIN & STORM THRU CORED HOLE. DISCHARGE OVERFLOW DRAIN & STORM DRAIN LINES ONTO GUIDEWAY. REFER TO ARCH. DWGS. FOR DETAIL
8. ROUTE 6" STORM THRU HOLE CUT IN COLUMN WEB. REFER TO STRUCT. FOR SIZE, LOCATION AND REQUIRED REINFORCING
9. CORE DRILL THROUGH SIDEWALK & ROUTE STORM THRU CORED HOLE- DISCHARGE ONTO GUIDEWAY. REFER TO ARCH. DWGS. FOR DETAIL.

GENERAL NOTES:

1. PROVIDE A WATER CURTAIN TYPE SPRINKLER SYSTEM TO PROTECT ESCALATORS AND GLASS STAIRWELL SPRINKLER HEADS ADDITIONAL TO THE SPRINKLER SYSTEM FOR THE FLOOR SHOULD BE PROVIDED AS OUTLINED IN NFPA 13. AT STAIRWELL, INSTALL SPRINKLER HEADS ON EACH SIDE OF GLAZING AT 6'-0" O.C. AND 1'-0" FROM GLAZING. SPRINKLER HEADS OUTSIDE WILL BE ON DRY PIPE SYSTEM.
2. COORDINATE LOCATION OF PIPE WITH CONCRETE REBAR PRIOR TO INSTALLATION AND APPROVED STRUCTURAL DWGS.
3. PIPING CAST IN CONCRETE BEAMS, BENTS AND COLUMNS SHALL BE SCHEDULE 40 PVC WITH DWV PATTERN FITTINGS WITH SOLVENT CEMENT JOINTS.
4. REFER TO A3.200 FOR PROPOSED LOCATION OF SPRINKLER HEADS AND SUPPLY LINES.

N

NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"X42".

0' 4' 8' 16' 24'

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

HOUSTON AIRPORT SYSTEM
GEORGE BUSH INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

SWANK SMITH & ASSOCIATES, INC.
REY DE LA REZA ARCHITECTS, INC.
ARCHITECTURE PLANNING INTERIOR DESIGN
1245 WEST 18TH ST.
HOUSTON,TX.77008
Tel: 713.868.3121
Tel: 713.802.2112

REVISIONS

NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
	RECORD DRAWING	05/06/05	
1	BULLETIN #33	09/22/03	

INTERNATIONAL ◊ SERVICES ◊ EXPANSION ◊ PROGRAM

APM STATION + PLATFORM

PLATFORM LEVEL PLUMBING

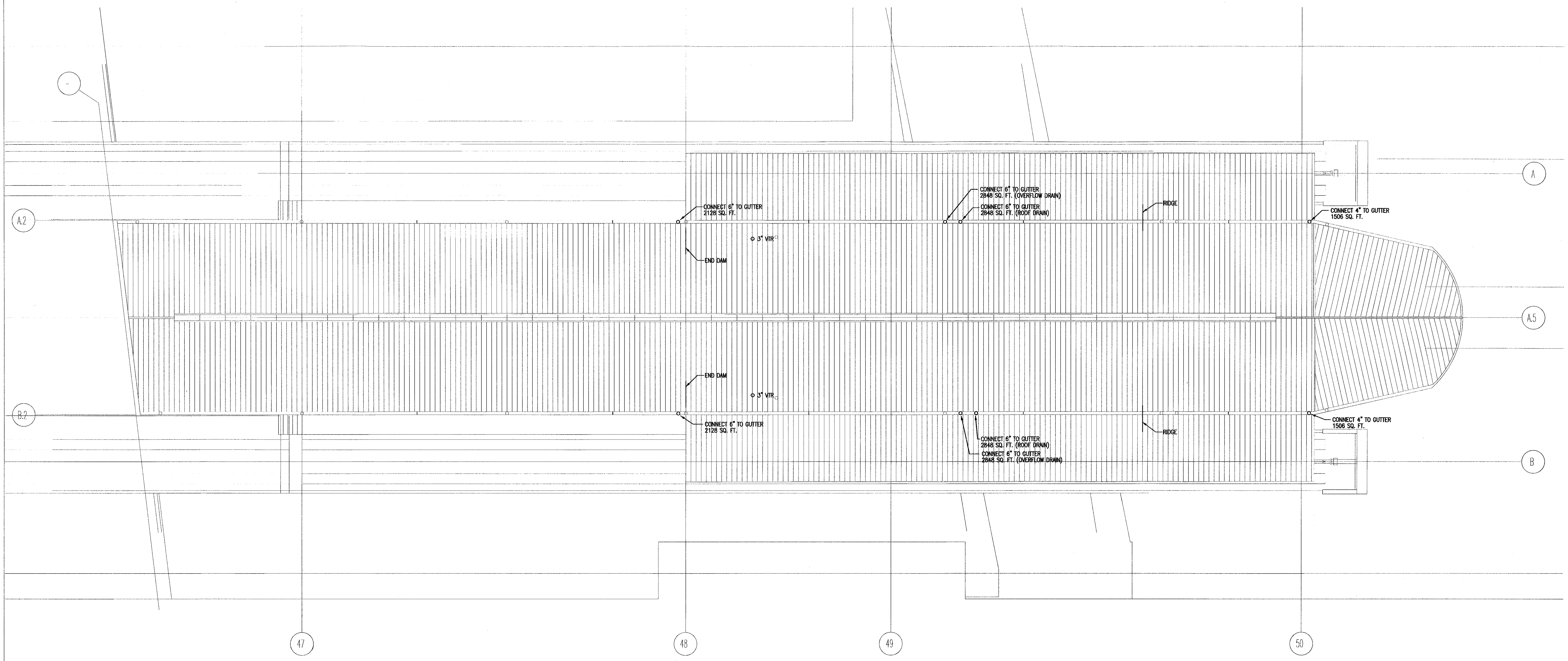
PROJECT MGR: A.E.BELTRAN
DESIGNER: C. COBB
DRAWN BY: E. STRIBLING
CHECKED BY: C. COBB
DRAWING STANDARD: ISEP 07.20.2000
SCALE: AS NOTED
DATE: 09/14/01

RECORD DRAWING
THIS DRAWING HAS BEEN REVISED TO SHOW SIGNIFICANT CHANGES IN THE WORK MADE DURING CONSTRUCTION BASED ON MARKED-UP PRINTS, DRAWINGS AND OTHER DATA.

APPROVED BY: DATE:

DIRECTOR HOUSTON AIRPORT SYSTEM

PROJECT NO. 1061-001
C.I.P. NO. A-0354
H.A.S. NO. 536C
SHEET NO. P2.003

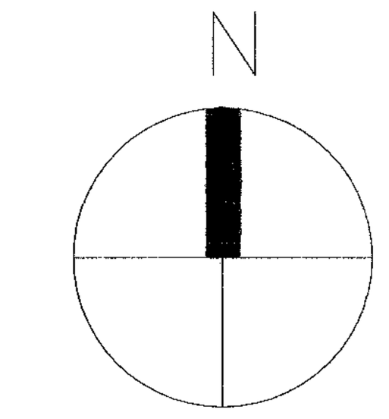


01 P2.004 **ROOF PLAN**
1/8"=1'-0"

KEYED NOTES:

GENERAL NOTES:

1. COORDINATE EXACT LOCATION OF STORM DRAINAGE PIPING CONNECTION TO GUTTERS WITH ARCH. DWGS.



NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

0' 4' 8' 16' 24'
SCALE: 1/8" = 1'-0"

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GEORGE BUSH
INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

SHAH SMITH & ASSOCIATES, INC.
2825 WILCREST, SUITE 350
HOUSTON, TEXAS 77042
Phone: 713-780-7563 Fax: 713-780-8209

REY DE LA REZA ARCHITECTS, IN
ARCHITECTURE PLANNING INTERIOR DES
1245 WEST 18TH ST.
HOUSTON,TX,77008
Tel: 713.868.3121
Tel: 713.802.0112

REVISIONS

NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
	RECORD DRAWING	05/06/05	
1	BULLETIN #33 09/22/03		

INTERNATIONAL ◇ SERVICES ◇ EXPANSION ◇ PROGRAM

APM STATION + PLATFORM
ROOF PLAN

PROJECT MGR:	A.E.BELTRAN
DESIGNER:	C. COBB
DRAWN BY:	E. STRIBLING
CHECKED BY:	C. COBB
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	AS NOTED
DATE:	09/14/01

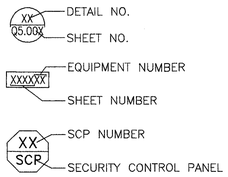
RECORD DRAWING
THIS DRAWING HAS BEEN REVISED TO SHOW SIGNIFICANT CHANGES IN THE WORK MADE DURING CONSTRUCTION BASED ON MARKED-UP PRINTS, DRAWINGS AND OTHER DATA.

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	1061-001
C.I.P. NO.	A-0354
H.A.S. NO.	536C
SHEET NO.	112 P2.004

CONVENTIONS



GENERAL NOTES

1. ALL SECURITY SYSTEM EQUIPMENT, FURNISHINGS, CONDUIT, CABLING AND OTHER RELATED MATERIALS AND INTERFACES SHALL BE INSTALLED IN ACCORDANCE WITH PROJECT CONSTRUCTION SCHEDULES.
2. SECURITY SYSTEM EQUIPMENT, FURNISHINGS, CONDUIT, CABLING AND OTHER RELATED MATERIALS SHALL BE INSTALLED AS SHOWN.
3. EQUIPMENT MOUNTING PLYWOOD SHALL BE 3/4" FIRE RATED AND PAINTED WHITE.
4. ALL CONDUIT (NEW) SHALL NOT BE LESS THAN 1" DIAMETER AND NO MORE THAN 40% FILLED.
5. ALL SECURITY JUNCTION BOXES ARE TO BE TAMPER PROTECTED AND CONNECTED TO INDIVIDUAL MONITOR POINTS.
6. SECURITY CONTROL PANELS SHALL BE INSTALLED AT LOCATIONS AS SHOWN.
7. CONTRACTOR SHALL ENSURE THAT ALL SECURITY INTERFACES WITH FIRE, ELECTRICAL AND DOOR HARDWARE PROJECT PACKAGES ARE PROVIDED AND THAT WORK IS COMPLETE AND CORRECTLY INSTALLED.
8. CONTRACTOR SHALL FURNISH AND INSTALL CABLING AND CONDUIT FROM SECURITY DEVICE LOCATIONS TO DESIGNATED EQUIPMENT ROOM.
9. THE BOTTOM OF ALL CARD READERS AND KEYPAD DEVICES SHALL NOT EXCEED 45 INCHES AFF.
10. ALL CCTV CAMERA LOCATIONS SHALL BE COORDINATED WITH OWNER BEFORE INSTALLATION.
11. UNLESS OTHERWISE NOTED ALL SECURITY SYSTEM RELATED CONDUIT IS TO ROOM 1-003.
12. SECURITY SYSTEM INTERFACES INCLUDE INTEGRATION WITHIN THE SYSTEM AND OTHER PROJECT PACKAGES.
13. CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING AND INSTALLING CABLING. CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR FURNISHING AND INSTALLING CONDUIT FROM ALL SECURITY EQUIPMENT DEVICE LOCATIONS TO DESIGNATED EQUIPMENT ROOM.
14. ALL DOOR LOCKING MECHANISMS AND HARDWARE, SHALL BE FURNISHED AND INSTALLED BY DOOR HARDWARE CONTRACTOR. ALL WIRING AND LOW VOLTAGE TERMINATIONS ARE TO BE DONE BY THE SECURITY CONTRACTOR.
15. POWER SUPPLIES FOR CAMERAS, SECURITY CONTROL PANEL, AUDIO / VISUAL ALARM HORNS, AND FIBER TRANSCEIVERS SHALL BE PROVIDED BY SECURITY CONTRACTOR.
16. ALL SECURITY DEVICES SHALL BE POWERED BY EMERGENCY BACK UP POWER CIRCUITS.

ABBREVIATIONS

A	INTRUSION DETECTION ALARM CONTACT
AFF	ABOVE FINISHED FLOOR
AH	ALARM HORN
AV	ALARM HORN/STROBE LIGHT
BLDG	BUILDING
C	CONDUIT/CENTER
CC	COMMUNICATION CONTRACTOR
CCTV	CLOSED CIRCUIT TELEVISION
CR	CARD READER
CPU	CENTRAL PROCESSING UNIT/COMPUTER
D	DURESS ALARM
EC	ELECTRICAL CONTRACTOR
EPH	ELECTRIFIED PANIC HARDWARE
FRP	FIRE RELEASE PANEL
JB	JUNCTION BOX
MPH	MECHANICAL PANIC HARDWARE
MUX	MULTIPLEXER
OFF	OFFICE
OPNS	OPERATIONS
PIR	PASSIVE INFRARED
PTZ	PAN, TILT, AND ZOOM
REX	REQUEST TO EXIT DEVICE
SC	SECURITY CONTRACTOR
SJB	SECURITY JUNCTION BOX
SM	SECURITY SYSTEM MONITOR
SS	SECURITY SYSTEM
TBD	TO BE DETERMINED
TDR	TIME DELAY RELEASE

SYMBOL LIST

- (A) DOOR ALARM CONTACT
- [AV] ALARM HORN/STROBE LIGHT
- [CR] CARDREADER
- (J) JUNCTION BOX 4" X 4"
- [JB] SECURITY JUNCTION BOX WITH TAMPER SWITCH
- [PS] POWER SUPPLY
- [REX] REQUEST TO EXIT PASSIVE INFRARED
- FIXED CAMERA
- (PTZ) PAN, TILT, ZOOM CAMERA
- SECURITY CONTROL PANEL

CABLE SCHEDULE		
TYPE	WIRE DESCRIPTION	USAGE (TYPICAL)
A	3 PAIR, 18 AWG STRANDED, INDIVIDUALLY SHEILDED AND DRAINED PAIRS	READER CABLE
B	1 PAIR, 18 AWG STRANDED	REX/DOOR CONTACT/CAMERA/AV POWER
C	RG 59-U COAXIAL CABLE 20 AWG CENTER COND, 95% OVERALL BRAID	VIDEO CABLE
D	1 PAIR, 16 AWG STRANDED	NETWORK CABLE
E	1 PAIR, 18 AWG STRANDED, SHIELDED	PTZ DATA

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GRA
Glover/Resnick and Associates, Inc.
215 Estates Drive, Suite 3
Roceville, CA 95678
(916) 786-3552
Fax (916) 786-3821

REVISIONS

NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
1	RECORD DWGS	04/22/05	JM

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION + PLATFORM

COVER SHEET, CONVENTIONS AND NOTES

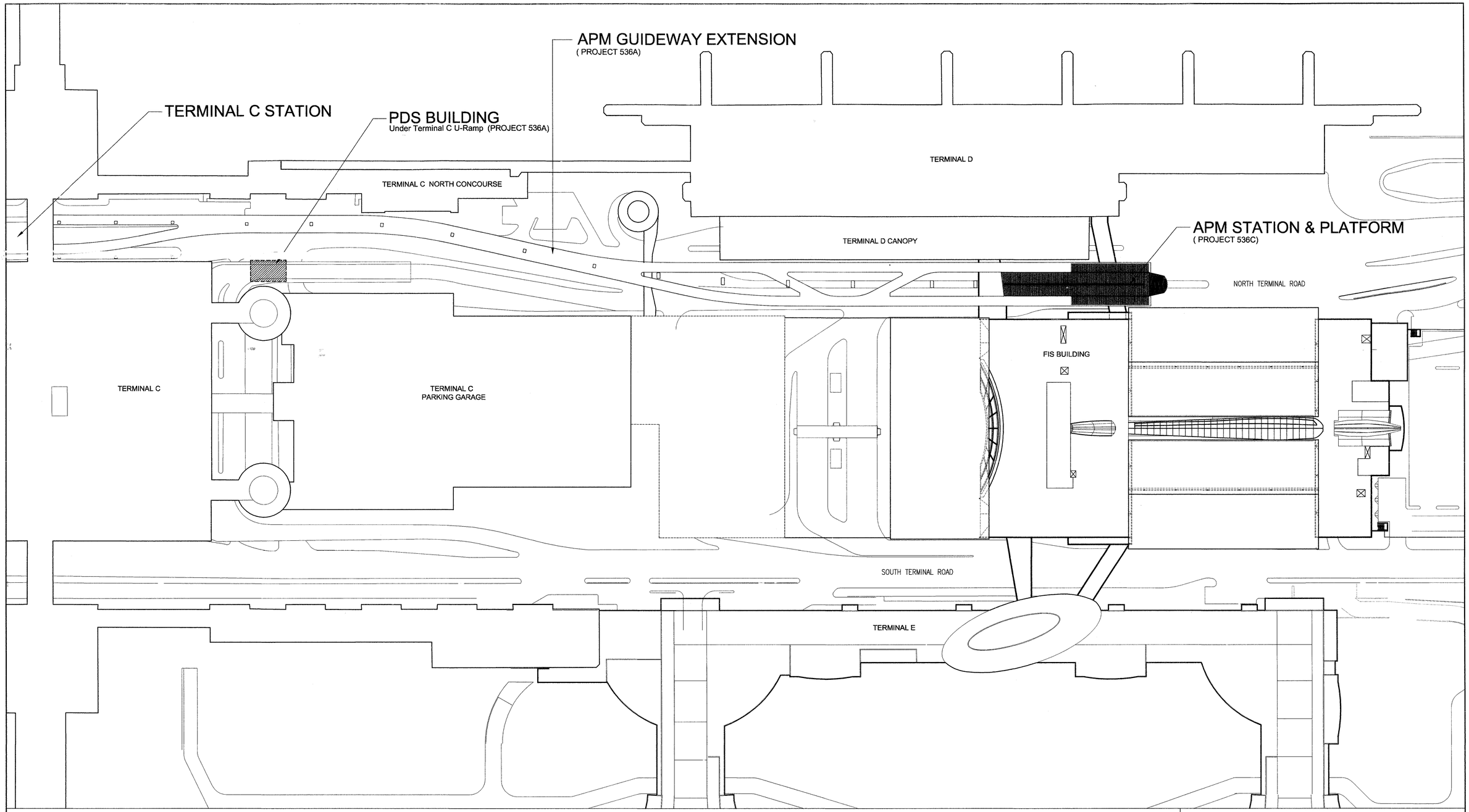
PROJECT MGR:	W. GLOVER
DESIGNER:	G. RESNICK
DRAWN BY:	K. BUTLER
CHECKED BY:	
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	N/A
DATE:	September 19, 2001

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO. 1140
C.I.P. NO. A-0354
H.A.S. NO. 536C
SHEET NO. 115 Q0.000

RECORD DRAWINGS - APRIL 22, 2005



GENERAL NOTES:

N

NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

0' 60' 120' 180'

SCALE: 1" = 60'

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GEORGE BUS
INTERCONTINENTAL AIRPORT
HOUSTON TEXA

GBA
Glover/Resnick and Associates, Inc.
215 Estates Drive, Suite 3
Roseville, CA 95678
(916) 786-3552
Fax (916) 786-3821

REVISIONS			
NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
1	RECORD DWGS	04/22/05	JM

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION + PLATFORM

GENERAL SITE PLAN

PROJECT MGR:	W. GLOVER
DESIGNER:	G. RESNICK
DRAWN BY:	R. BUTLER
CHECKED BY:	
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	1"=60'
DATE:	September 14, 2001

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO. 1140

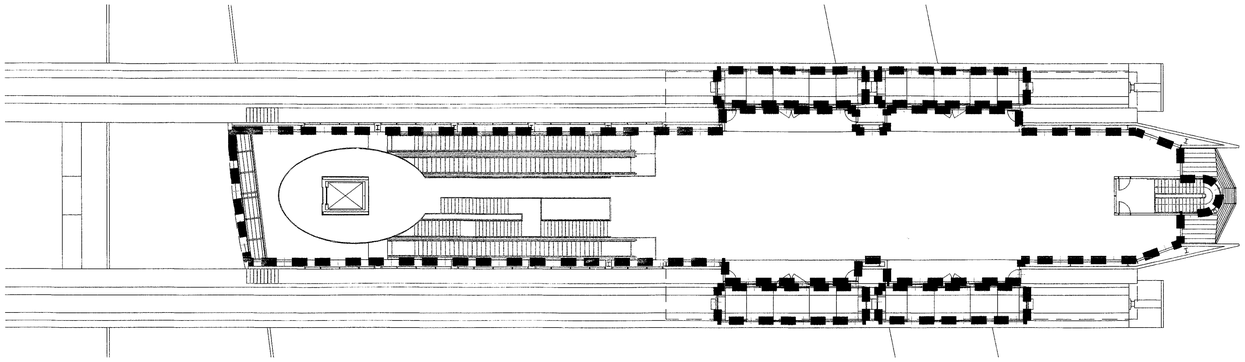
C.I.P. NO. A-0354

H.A.S. NO. 536C

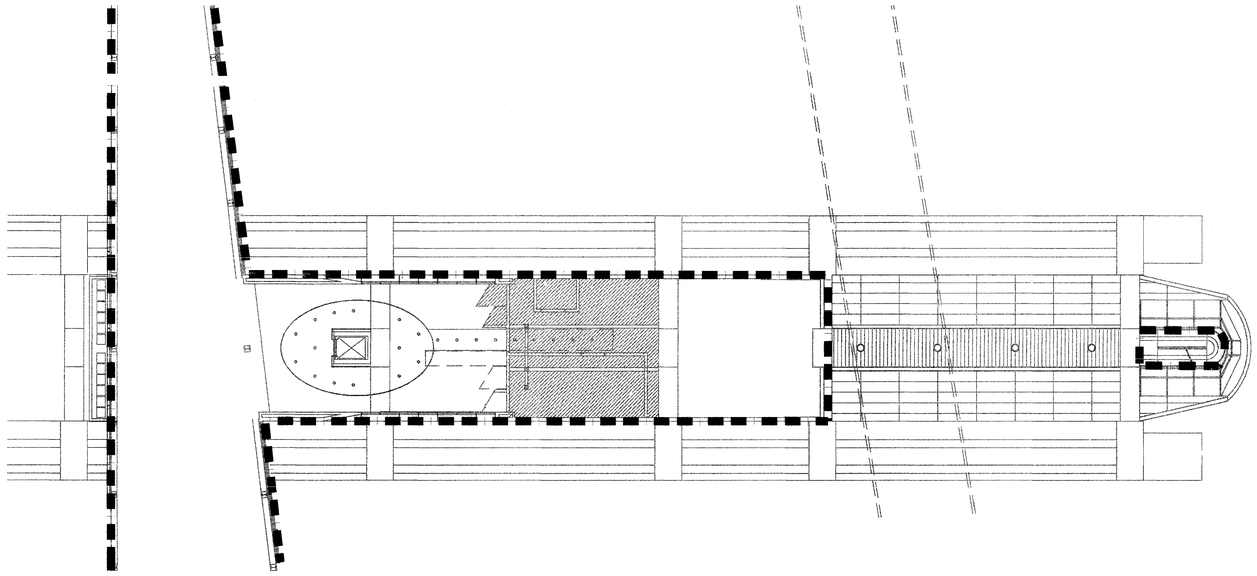
SHEET NO.

1/6 Q1.000

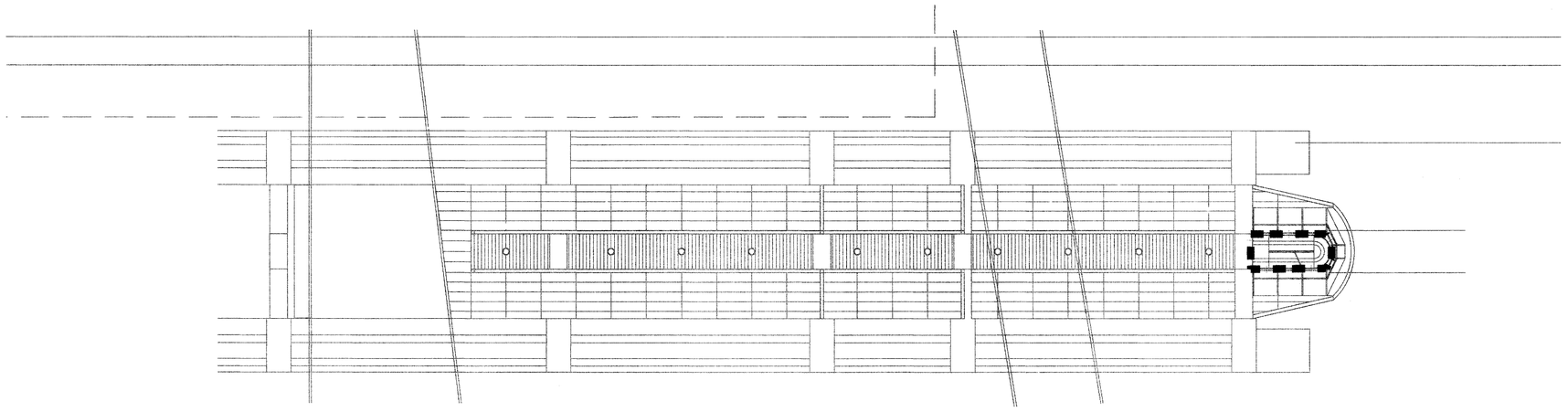
RECORD DRAWINGS - APRIL 22, 2005



01 Z2.000 PLATFORM LEVEL
1/16"=1'-0"



02 Z2.000 LOBBY LEVEL
1/16"=1'-0"



03 Z2.000 GROUND FLOOR
1/16"=1'-0"

GENERAL NOTES:

SECURED AREA

N

NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

0' 8' 16' 32' 48'

SCALE: 1/16" = 1'-0"

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GEORGE BUS
INTERCONTINENTAL AIRPORT
HOUSTON TEXA

GRA
Glover/Resnick and Associates, Inc.
215 Estates Drive,
Suite 3
Roseville, CA 95678
(916) 786-3552
Fax (916) 786-3821

REVISIONS			
NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
1	RECORD DWGS	04/22/05	JM

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION + PLATFORM

DEMARCATION PLAN

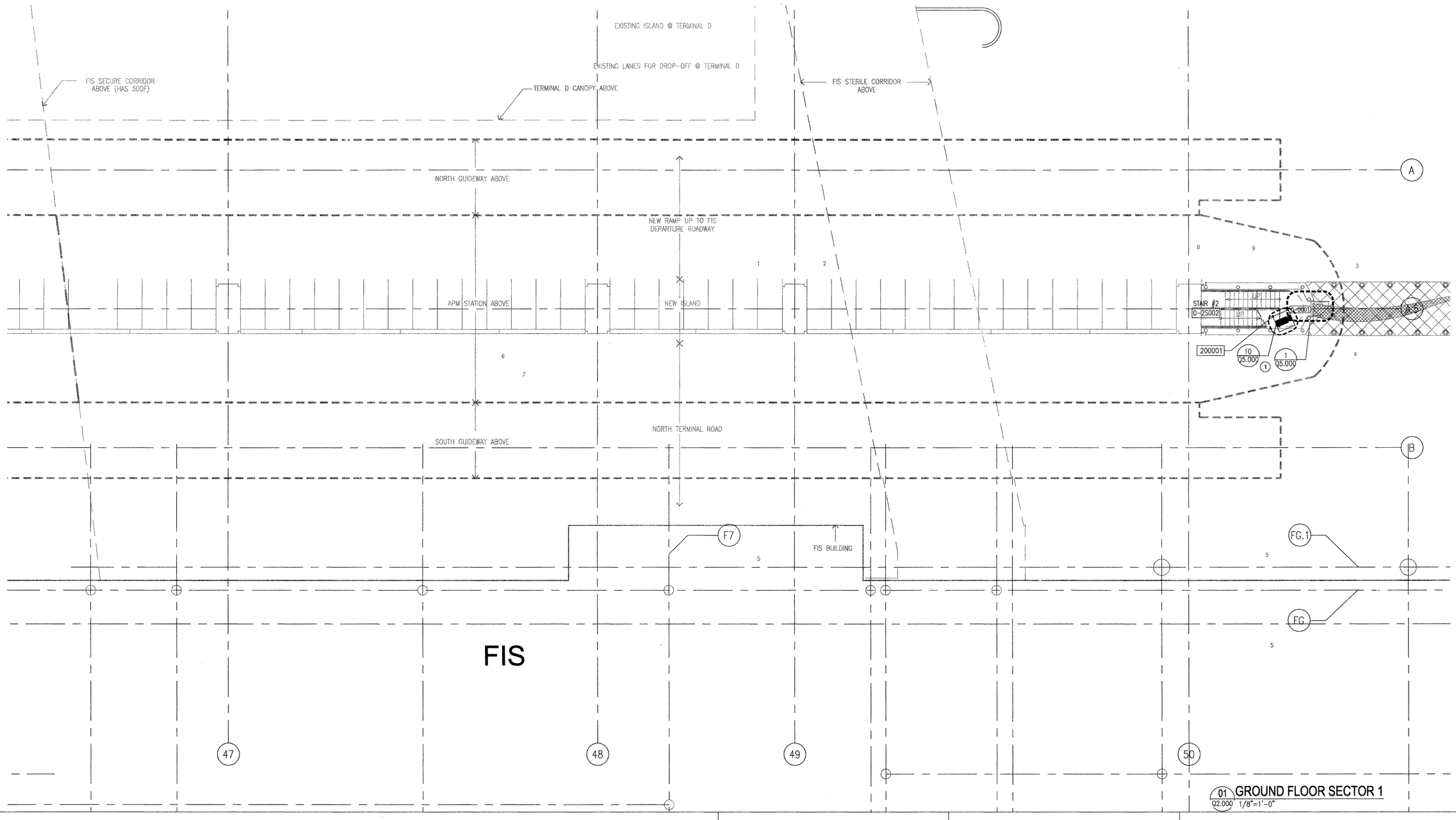
PROJECT MGR:	W. GLOVER
DESIGNER:	G. RESNICK
DRAWN BY:	R. BUTLER
CHECKED BY:	
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	1/16"=1'-0"
DATE:	September 14, 2001

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	1140
C.I.P. NO.	A-0354
H.A.S. NO.	536C
SHEET NO.	Q1.100

RECORD DRAWINGS - APRIL 22, 2005



01 GROUND FLOOR SECTOR 1
02.000 1/8"=1'-0"

KEYED NOTES:

1. CONTRACTOR SHALL FIELD VERIFY MOUNTING REQUIREMENTS FOR STAIR #2 FIXED CAMERA.

GENERAL NOTES:

N

NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

0' 4' 8' 16' 24'

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

HOUSTON AIRPORT SYSTEM
GEORGE BUS
INTERCONTINENTAL AIRPORT
HOUSTON TEXA

GRA
Glover/Resnick and Associates, Inc.
215 Estates Drive, Suite 3
Roseville, CA 95678
(916) 786-3552
Fax (916) 786-3821

REVISIONS			
NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
1	RECORD DWGS	04/22/05	JM

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

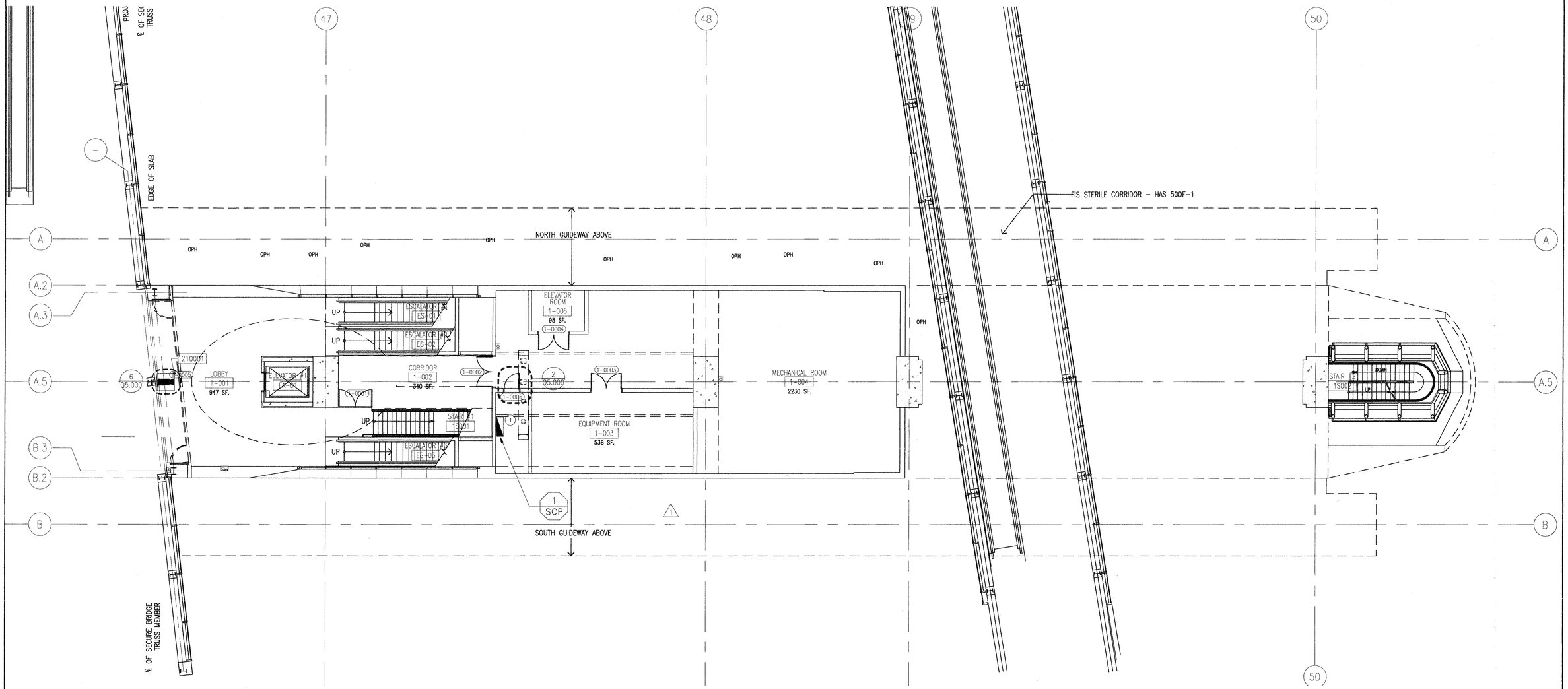
APM STATION + PLATFORM

GROUND FLOOR

PROJECT MGR:	W. GLOVER
DESIGNER:	G. RESNICK
DRAWN BY:	R. BUTLER
CHECKED BY:	
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	1/8"=1'0"
DATE:	September 14, 2001

APPROVED BY:	DATE:
DIRECTOR HOUSTON AIRPORT SYSTEM	
PROJECT NO.	1140
C.I.P. NO.	A-0354
H.A.S. NO.	536C
SHEET NO.	118 Q2.000

RECORD DRAWINGS - APRIL 22, 2005



01 LOBBY LEVEL SECTOR 1
Q2.100 1/8"=1'-0"

KEYED NOTES

1. SEE SHEET Q5.101 FOR SECURITY EQUIPMENT LAYOUT.

GENERAL NOTES:

N

NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

0' 4' 8' 16' 24'

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

PLOT DATE: 04.22.05 HAS FILE: IA536002-100

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INTERCONTINENTAL AIRPORT
HOUSTON TEXA

GRA
Glover/Resnick and Associates, Inc.
215 Estates Drive, Suite 3
Roseville, CA 95678
(916) 786-3552
Fax (916) 786-3821

REVISIONS

NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
1	BULLETIN #60	04/16/04	RB
2	RECORD DWGS	04/22/05	JM

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION + PLATFORM

LOBBY LEVEL

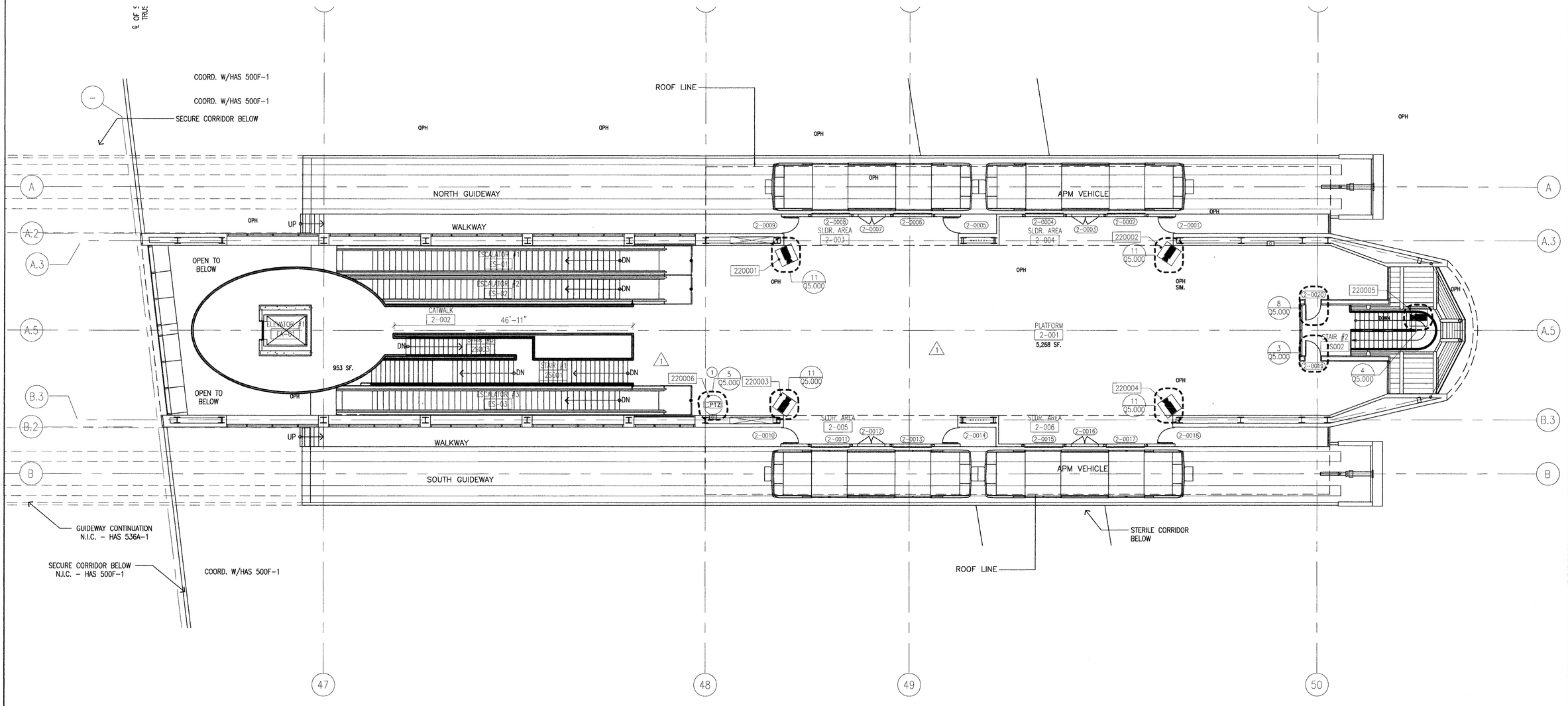
PROJECT MGR:	W. GLOVER
DESIGNER:	G. RESNICK
DRAWN BY:	R. BUTLER
CHECKED BY:	
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	1/8"=1'0"
DATE:	September 14, 2001

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	1140
C.I.P. NO.	A-0354
H.A.S. NO.	536C
SHEET NO.	1/9 Q2.100

RECORD DRAWINGS – APRIL 22, 2005



01 PLATFORM LEVEL SECTOR 1
Q2.200 1/8"=1'-0"

KEYED NOTES

1. PTZ CAMERA SHALL BE PENDANT MOUNTED FROM DUCT SUPPORT STRUCTURE.
2. DOOR TO BE MONITORED ONLY BY BOMBARDIER. △1

GENERAL NOTES:

N

NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

0' 4' 8' 16' 24'

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

PLOT DATE: 04.22.05 HAS_FILE:HAS536Q22-200

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INTERCONTINENTAL AIRPORT
HOUSTON TEXA

GRA
Glover/Resnick and Associates, Inc.
215 Estates Drive, Suite 3
Roseville, CA 95678
(916) 786-3552
Fax (916) 786-3821

REVISIONS

NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
△1	BULLETIN #60	04/16/04	RB
△2	RECORD DWGS	04/22/05	JM

INTERNATIONAL ◆ SERVICES ◆ EXPANSION ◆ PROGRAM

APM STATION + PLATFORM

PLATFORM LEVEL

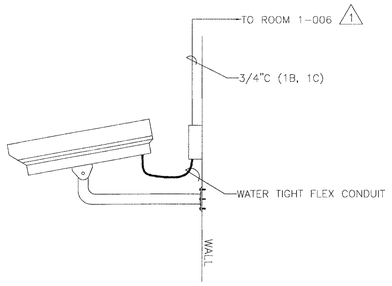
PROJECT MGR:	W. GLOVER
DESIGNER:	G. RESNICK
DRAWN BY:	R. BUTLER
CHECKED BY:	
DRAWING STANDARD:	ISEP. 07.20.2000
SCALE:	1/8"=1'0"
DATE:	September 14, 2001

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

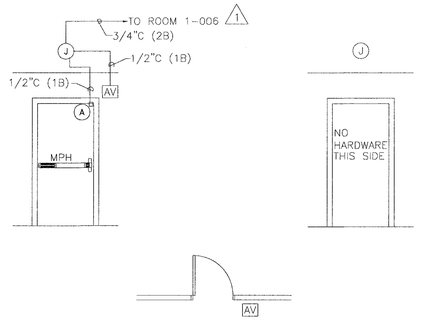
PROJECT NO.	1140
C.I.P. NO.	A-0354
H.A.S. NO.	536C
SHEET NO.	Q2.200

RECORD DRAWINGS - APRIL 22, 2005

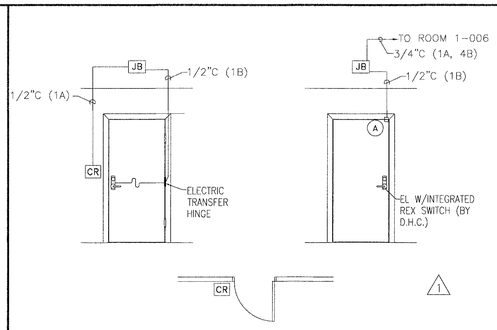


NOTE:
FIXED CAMERAS TO HAVE VARIABLE VIEW LENSES PER SPECIFICATIONS.

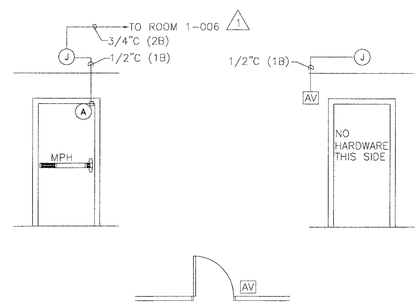
4 WALL/COLUMN MOUNT FIXED CAMERA
Q5.000 NOT TO SCALE



3 EMERGENCY EXIT DOOR
Q5.000 NOT TO SCALE



2 CONTROL ACCESS DOORS
Q5.000 NOT TO SCALE



1 EMERGENCY EXIT DOOR
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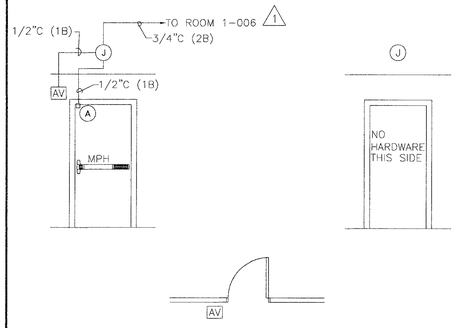

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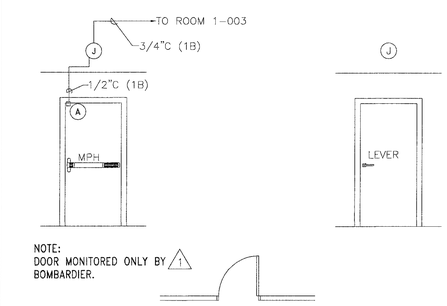
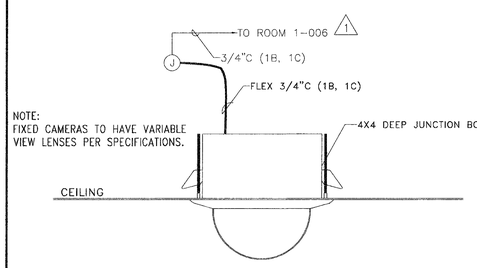
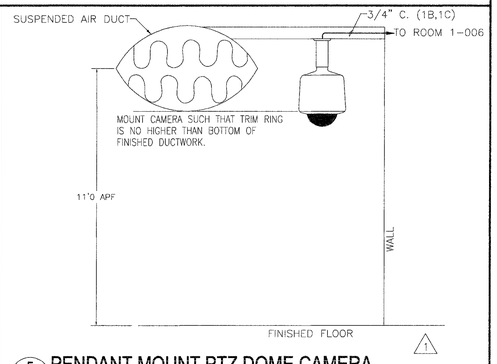


7 GUIDEWAY EMERGENCY EXIT
Q5.000 NOT TO SCALE



6 CEILING/WALL MOUNT FIXED CAMERA
Q5.000 NOT TO SCALE



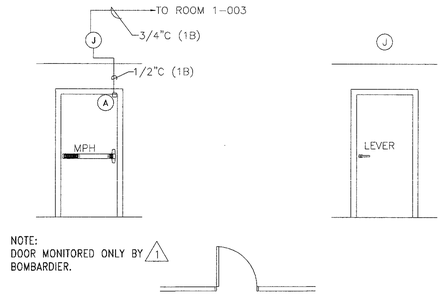
5 PENDANT MOUNT PTZ DOME CAMERA
Q5.000 NOT TO SCALE

	LEVEL	PORTAL/ ROOM NO.	LOCATION	DETAIL	CR	REX	A	AV	TO ROOM	PANEL NO.
1	GROUND FLOOR	0-0001 1	Q2.000	1			1	1	1-006	1
2	LOBBY LEVEL	1-0006 1	Q2.100	2	1	1	1		1-006 1	1
3	PLATFORM LEVEL	2-0019	Q2.200	3			1	1 1	1-006 1	1
4	PLATFORM LEVEL	2-0020	Q2.200	8			1	1	1-006	1
5	PLATFORM LEVEL	2-0001 *	Q2.200	7			1		1-003	1
6	PLATFORM LEVEL	2-0005 *	Q2.200	7			1		1-003	1
7	PLATFORM LEVEL	2-0009 *	Q2.200	9			1		1-003	1
8	PLATFORM LEVEL	2-0010 *	Q2.200	7			1		1-003	1
9	PLATFORM LEVEL	2-0014 *	Q2.200	9			1		1-003	1
10	PLATFORM LEVEL	2-0018 *	Q2.200	9			1		1-003	1

* = MONITORED BY BOMBARDIER ONLY 1

1

- ACCESS CONTROL POINT SCHEDULE
Q5.000 NOT TO SCALE



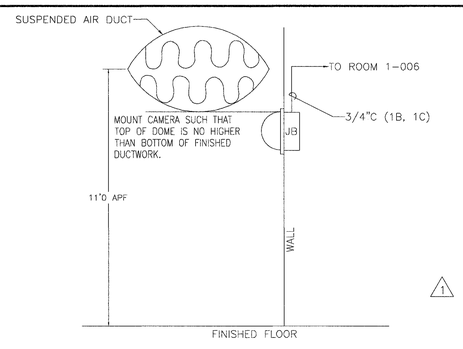
9 GUIDEWAY EMERGENCY EXIT
Q5.000 NOT TO SCALE

NUMBER	CAMERA	SHEET	DETAIL	WALL/COLUMN MOUNT FIXED CAMERA	CEILING MOUNT PTZ DOME CAMERA	CEILING MOUNT FIXED DOME CAMERA	MESH MOUNT FIXED CAMERA	WALL MOUNT FIXED DOME CAMERA	ROOM NUMBER
1	200001	Q2.000	10				1		1-006
2	210001	Q2.100	6			1			1-006
3	220001 *	Q2.200	11					1	1-006
4	220002 *	Q2.200	11					1	1-006
5	220003 *	Q2.200	11					1	1-006
6	1 220004 *	Q2.200	11					1	1-006
7	220005	Q2.200	4	1					1-006
8	220006	Q2.200	5		1				1-006

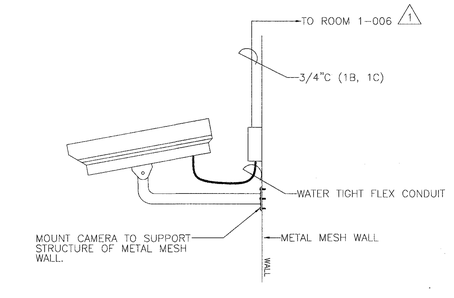
* = SHARE CAMERA SIGNAL WITH BOMBARDIER. 1

1

- CCTV POINT SCHEDULE
Q5.000 NOT TO SCALE



11 WALL MOUNT FIXED DOME CAMERA
Q5.000 NOT TO SCALE



10 MESH MOUNT FIXED CAMERA
Q5.000 NOT TO SCALE

CABLE SCHEDULE		
TYPE	WIRE DESCRIPTION	USAGE (TYPICAL)
A	3 PAIR, 18 AWG STRANDED, INDIVIDUALLY SHEILDED AND DRAINED PAIRS	READER CABLE
B	1 PAIR, 18 AWG STRANDED	REX/DOOR CONTACT/CAMERA/AV POWER
C	RG 59-U COAXIAL CABLE 20 AWG CENTER COND, 95% OVERALL BRAID	VIDEO CABLE
D	1 PAIR, 16 AWG STRANDED	NETWORK CABLE
E	1 PAIR, 18 AWG STRANDED, SHIELDED	PTZ DATA

HOUSTON AIRPORT SYSTEM
GEORGE BUS
INTERCONTINENTAL AIRPORT
HOUSTON TEXA

GRA
Glover/Resnick and Associates, Inc.
215 Estates Drive, Suite 3
Roseville, CA 95678
(916) 786-3552
Fax (916) 786-3821

REVISIONS			
NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
1	BULLETIN #60	04/16/04	RB
2	RECORD DWGS	04/22/05	JM

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION + PLATFORM

SECURITY DETAILS AND POINT SCHEDULES

PROJECT MGR:	W. GLOVER
DESIGNER:	G. RESNICK
DRAWN BY:	R. BUTLER
CHECKED BY:	
DRAWING STANDARD:	
	ISEP 07.20.2000
SCALE:	N/A
DATE:	September 14, 2001

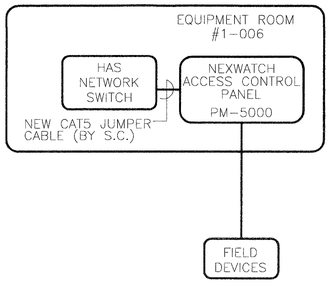
APPROVED BY: DATE:

DIRECTOR HOUSTON AIRPORT SYSTEM

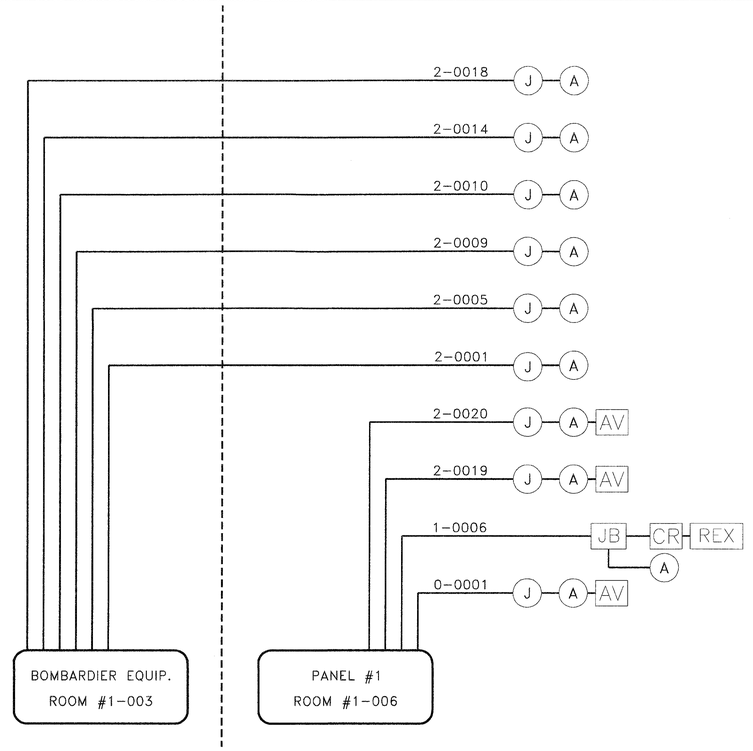
PROJECT NO.	1140
C.I.P. NO.	A-0354
H.A.S. NO.	536C
SHEET NO.	Q5.000

PLOT DATE: 04.22.05 HAS FILE:\A536C05000

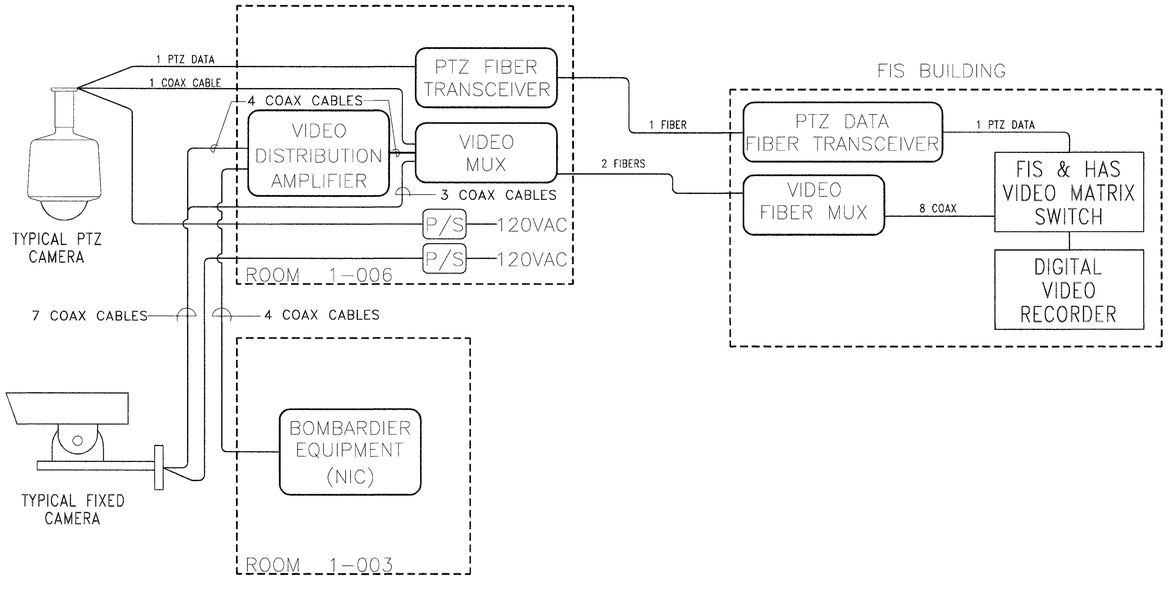
RECORD DRAWINGS - APRIL 22, 2005



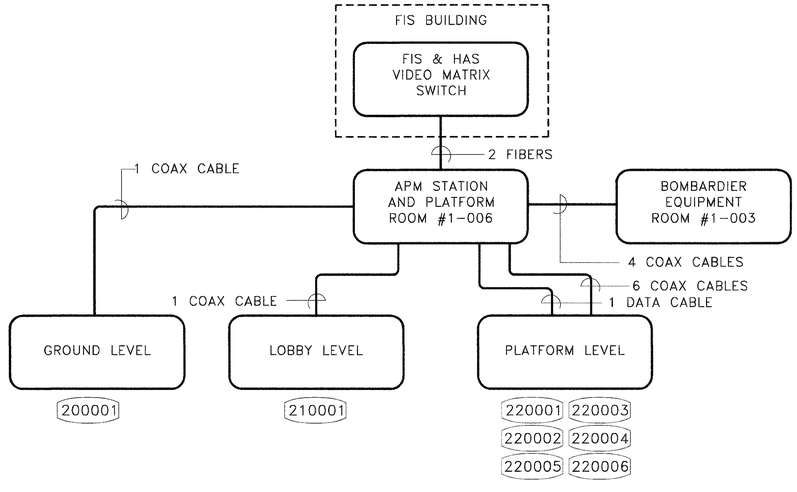
1 Q5.100 ACCESS CONTROL SYSTEM BLOCK DIAGRAM



2 Q5.100 ACCESS CONTROL PANEL DIAGRAM



3 Q5.100 CCTV BLOCK DIAGRAM



4 Q5.100 CCTV RISER DIAGRAM

HOUSTON AIRPORT SYSTEM
GEORGE BUS
INTERCONTINENTAL AIRPORT
HOUSTON TEXA

GRA
Glover/Resnick and Associates, Inc.
215 Estates Drive, Suite 3
Roseville, CA 95678
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Fax (916) 786-3821

REVISIONS			
NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
1	BULLETIN #60	04/16/04	RB
	ENTIRE SHEET REVISED		
2	RECORD DWGS	04/22/05	JM

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION + PLATFORM

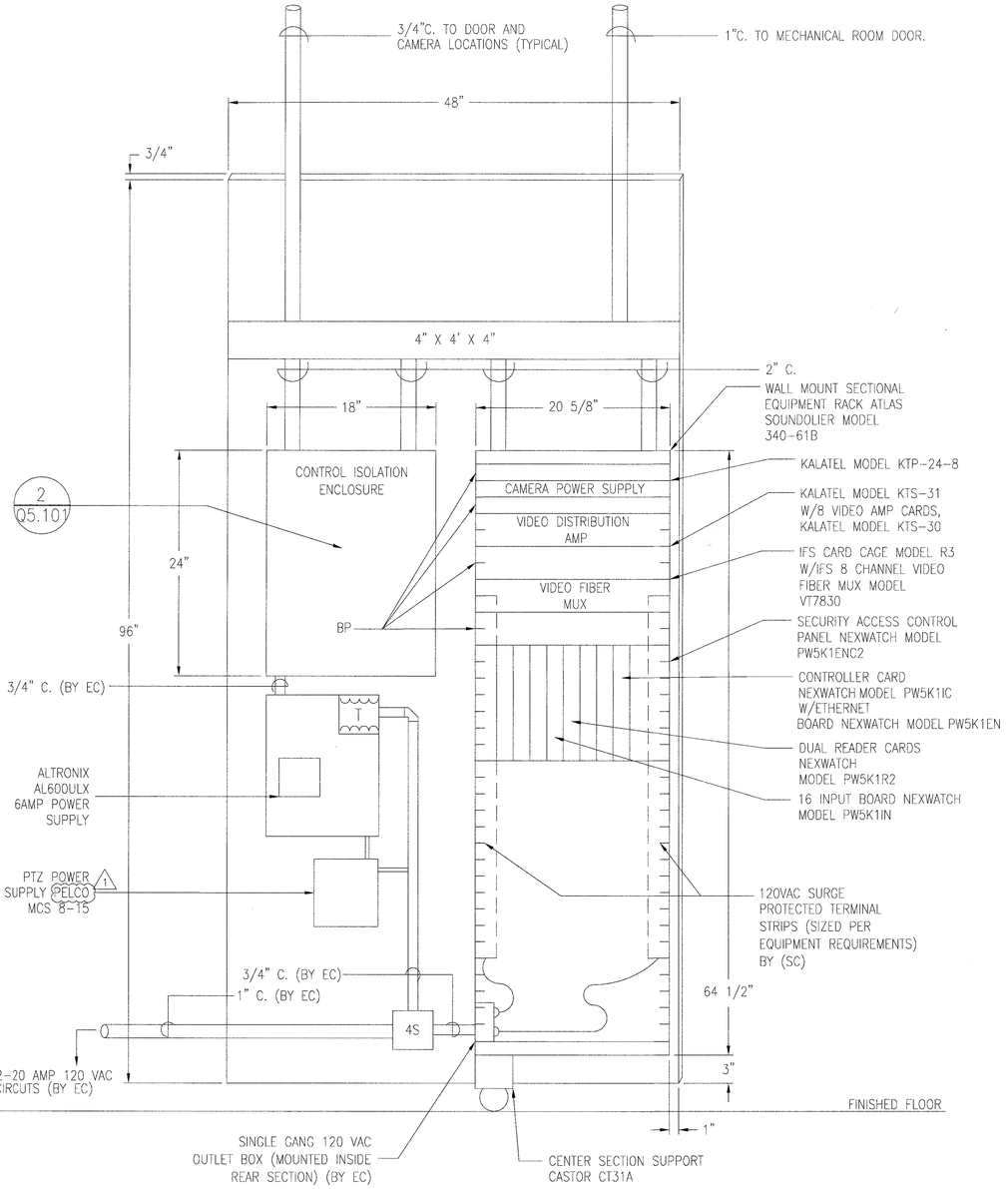
BLOCK AND RISER DIAGRAMS

PROJECT MGR:	W. GLOVER
DESIGNER:	G. RESNICK
DRAWN BY:	R. BUTLER
CHECKED BY:	
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	N/A
DATE:	September 14, 2001

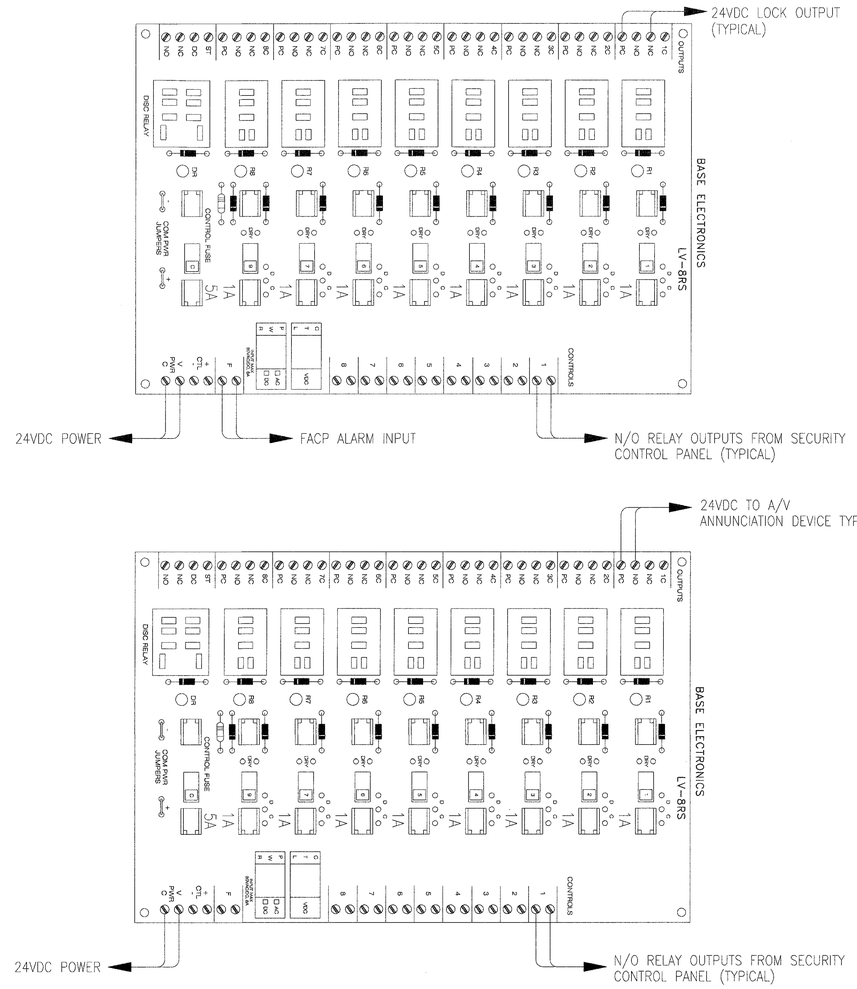
APPROVED BY:	DATE:
DIRECTOR HOUSTON AIRPORT SYSTEM	
PROJECT NO.	1140
C.I.P. NO.	A-0354
H.A.S. NO.	5360
SHEET NO.	Q5.100

PLOT DATE: 04.22.05 HAS FILE: A536Q5100

RECORD DRAWINGS - APRIL 22, 2005



1 ROOM #215 SECURITY EQUIPMENT LAYOUT
Q5.101 NOT TO SCALE



NOTES:
1. PROVIDE IDEC RELAY FOR ALL RELAY BASES.
2. PROVIDE FUSES AS INDICATED

2 SECURITY EQUIPMENT RACK CONFIGURATION
Q5.101 NOT TO SCALE

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GEORGE BUS
INTERCONTINENTAL AIRPORT
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REVISIONS			
NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
1	BULLETIN #60	04/16/04	RE
2	RECORD DWGS	04/22/05	JV

INTERNATIONAL ♦ SERVICES ♦ EXPANSION ♦ PROGRAM

APM STATION + PLATFORM

SECURITY EQUIPMENT CONFIGURATIONS

PROJECT MGR:	W. GLOVER
DESIGNER:	G. RESNICK
DRAWN BY:	R. BUTLER
CHECKED BY:	
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	N/A
DATE:	September 14, 2001

APPROVED BY:	DATE:
EGW	9/14/01

DIRECTOR HOUSTON AIRPORT SYSTEM

PROJECT NO.	1140
C.I.P. NO.	A-0354
H.A.S. NO.	5360
SHEET NO.	Q5.101

RECORD DRAWINGS - APRIL 22, 2005

PLOT DATE: 04.22.05 HAS FILE: IAS36Q0S101

GENERAL NOTES

1. DESIGN LOADS

DESIGN LIVE LOADS:

ROOF	20 PSF
MECHANICAL/EQUIPMENT ROOMS	150 PSF
CORRIDOR/LOBBY	100 PSF
PLATFORM	100 PSF
VEHICLE LOAD	IN ACCORDANCE WITH LOADS PROVIDED BY BOMBARDIER
WIND LOADS:	90 MPH BASIC SPEED (EXPOSURE C)
MAIN WIND FRAME	20 PSF
COMPONENTS	40 PSF
UPLIFT (NET)	15 PSF

DESIGN DEAD LOADS: WEIGHT OF STRUCTURE PLUS

MEP	8 PSF
SPRINKLER SYSTEM	2 PSF
MISCELLANEOUS	5 PSF
ELECTRICAL/MECHANICAL LOADS	WEIGHT OF EQUIPMENT FURNISHED + PADS

2. THE CONTRACTOR SHALL EXAMINE THE ARCHITECTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS FOR REQUIRED OPENINGS TO BE PROVIDED. VERIFY SIZE AND LOCATION OF ALL OPENINGS.
3. ANY REQUIRED CHANGES TO THE STRUCTURE DUE TO THE ACCEPTANCE OF ALTERNATES AND/OR SUBSTITUTES IS THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE SUBMITTED TO THE OWNER FOR APPROVAL.
4. THE CONTRACTOR SHALL COMPARE STRUCTURAL SECTIONS WITH ARCHITECTURAL SECTIONS AND REPORT ANY DISCREPANCY TO THE OWNER PRIOR TO FABRICATION OR INSTALLING STRUCTURAL MEMBERS.
5. DETAILS AND SECTIONS SHOWN FOR THE INDIVIDUAL STRUCTURES ARE INTENDED TO BE TYPICAL FOR THE STRUCTURE AND SHALL BE CONSTRUED TO APPLY TO ANY SIMILAR SITUATION ELSEWHERE ON THE STRUCTURE EXCEPT WHERE SHOWN OTHERWISE. STANDARD DETAILS SHALL APPLY TO ALL STRUCTURES WHERE APPLICABLE.
6. THE UNIFORM BUILDING CODE IS THE AUTHORITY HAVING JURISDICTION.
7. SLOPE ALL CONCRETE SURFACES TO DRAIN TO FLOOR DRAINS, TRENCH DRAINS, ETC. MINIMUM SLOPE IS 1/8" PER FOOT. UNLESS SHOWN OTHERWISE.
8. THE USE OF REPRODUCTIONS OF THESE CONTRACT DRAWINGS BY CONTRACTOR, SUB-CONTRACTOR, ERECTOR, FABRICATOR OR MATERIAL SUPPLIER IN LIEU OF PREPARATION OF SHOP DRAWINGS SIGNIFIES HIS ACCEPTANCE OF INFORMATION SHOWN AS CORRECT AND OBLIGATES HIMSELF TO ANY EXPENSE, REAL OR IMPLIED, ARISING DUE TO THEIR USE.

FOUNDATION NOTES

1. FOUNDATION DESIGN IS BASED ON THE GEOTECHNICAL INVESTIGATION (SOIL REPORT) AS FOLLOWS:

   "FINAL GEOTECHNICAL EVALUATION REPORT FOR THE AUTOMATED PEOPLE MOVER (APM) (APM) AT GEORGE BUSH INTERCONTINENTAL AIRPORT", ATSER PROJECT NO. H1-24-008 H1-24-008 DATED MARCH 29, 2001.

   THE SOIL REPORT IS AVAILABLE TO THE GENERAL CONTRACTOR UPON REQUEST TO THE OWNER. THE INFORMATION INCLUDED THEREIN MAY BE USED BY THE GENERAL CONTRACTOR FOR HIS GENERAL INFORMATION ONLY. THE ARCHITECT AND ENGINEER AND OWNER WILL NOT BE RESPONSIBLE FOR THE ACCURACY OR APPLICABILITY OF SUCH DATA THEREIN.

EMBEDS IN CONCRETE ELEMENTS NOTES

1. EMBED SUPPLIER SHALL PREPARE SHOP DRAWINGS BASED ON STRUCTURAL AND ARCHITECTURAL DETAILS AND GENERAL REQUIREMENTS OF THE CONTRACT DOCUMENTS. INDICATE SPECIFIC LOCATIONS, SIZES, ETC. THESE DRAWINGS SHALL BE USED TO INSTALL EMBEDS.
2. UNLESS NOTED OTHERWISE, ALL WELD PLATES SHALL BE 3/4" THICK.
3. CONTRACTOR TO COORDINATE WITH EMBED SUPPLIER AND VARIOUS TRADES AND PRODUCT SUPPLIERS AND PROVIDE NECESSARY INFORMATION TO EMBED SUPPLIER SO THAT SHOP DRAWINGS CAN BE PREPARED.
4. WHEREVER SPACE PERMITS, ALL WELD PLATES SHALL BE INSTALLED SO THAT STUDS LINE UP VERTICALLY.
5. MINIMUM WELD SIZE TO ATTACH SUPPORTED STEEL ANGLES, CHANNELS, POSTS HANGERS, BRACKETS, ETC., SHALL BE 1/4" CONTINUOUS FILLET WELD.
6. PROVIDE ERECTION BOLTS, GUSSET PLATES, ETC., IF REQUIRED.
7. EMBEDS DIRECTLY EXPOSED TO WEATHER SHALL BE GALVANIZED.

PRESTRESSED CONCRETE BEAM NOTES

1. DESIGNED IN ACCORDANCE WITH CURRENT A.A.S.H.T.O. SPECIFICATIONS.
2. ALL CONCRETE FOR PRESTRESSED CONCRETE BEAM SHALL BE CLASS H.
3. WHEN SHOWN ON THE DRAWINGS, THE FABRICATOR HAS THE OPTION OF FURNISHING EITHER THE DESIGNED DEPRESSED STRAND BEAM OR AN APPROVED OPTIONAL BEAM DESIGN USING STRESS RELIEVED OR LOW RELAXATION STRANDS. OPTIONAL DESIGNS FOR BEAMS 120 FOOT OR LONGER SHALL HAVE A CALCULATED RESIDUAL CAMBER EQUAL TO OR GREATER THAN THAT OF THE DESIGNED BEAM.
4. PRESTRESS LOSSES FOR THE DESIGNED BEAMS HAVE BEEN CALCULATED ACCORDING TO THE CURRENT A.A.S.H.T.O. STANDARD AND INTERIM SPECIFICATIONS FOR A RELATIVE HUMIDITY OF 75%. OPTIONAL DESIGNS SHALL LIKEWISE CONFORM.
5. CERTAIN BEAMS WITH DEPRESSED STRANDS ARE SUBJECT TO CRACKING IN THE END OF THE BEAM. WHEN SUCH CRACKS OCCUR, ALL SUBSEQUENT BEAMS OF THE SAME TYPE AND STRAND PATTERN SHALL HAVE STRANDS WRAPPED IN THE FOLLOWING MANNER:
   A. ALTERNATE ROWS OF DEPRESSED STRANDS SHALL BE WRAPPED FOR 2 FEET FROM EACH END OF THE BEAM.
   B. ONE HALF OF THE STRAIGHT STRANDS, AS NEARLY AS POSSIBLE, SHALL BE WRAPPED FOR 4 FEET FROM EACH END OF THE BEAM.
   C. THE WRAPPING PATTERN SHALL BE SYMMETRICAL ABOUT THE VERTICAL AXIS OF THE BEAM FOR BOTH DEPRESSED AND STRAIGHT STRANDS.
   D. STRANDS SHALL BE WRAPPED SO THAT THE CENTERS OF GRAVITY OF THE DEPRESSED STRANDS AND THE STRAIGHT STRANDS WILL REMAIN WITHIN 1 INCH OF THEIR ORIGINAL LOCATION.
   E. STRANDS SHALL BE TIGHTLY WRAPPED WITH PLASTIC TUBING. BOTH ENDS AND THE SEAM OF THE TUBE SHALL BE SEALED WITH WATERPROOF TAPE.
   F. REVISED SHOP DRAWINGS WILL NOT BE REQUIRED.
6. FOR DEPRESSED STRAND DESIGNED BEAMS, STRANDS SHALL BE LOCATED AS LOW AS POSSIBLE ON THE 2" GRID SYSTEM SHOWN HEREON UNLESS A NON-STANDARD STRAND PATTERN IS INDICATED. FILL ROW "Z", THEN ROW "Y", THEN ROW "X", ETC., BEGINNING EACH ROW IN THE "A" POSITION AND WORKING OUTWARD UNTIL THE REQUIRED NUMBER OF STRANDS IS REACHED. ALL STRANDS IN THE "A" POSITION SHALL BE DEPRESSED, MAINTAINING THE 2" SPACING SO THAT THE UPPER TWO STRANDS ARE IN THE POSITION SHOWN IN THE TABLE AT THE BEAM ENDS.
7. INITIAL PRETENSION FOR 1/2" 270 K STRANDS = 28.9 K FOR STRESS RELIEVED STRANDS OR 31.0 K FOR LOW RELAXATION STRANDS.
8. DESIGN SHOWN BASED ON INITIAL PRETENSION OF 31.0 K.

CONCRETE NOTES

1. CONCRETE CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE AMERICAN CONCRETE INSTITUTE BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE, ACI 318 AND COMMENTARY (LATEST EDITION).
2. CONCRETE SHALL HAVE 28-DAY COMPRESSIVE STRENGTH OF 4000 PSI.
3. ALL CONCRETE SHALL BE NORMAL WEIGHT CONCRETE AND SHALL WEIGH NO MORE THAN 150 PCF. SEE CONCRETE SPEC'S FOR SLUMP REQUIREMENTS.
4. DETAILING, FABRICATION AND ERECTION OF REINFORCED BARS SHALL COMPLY WITH ACI "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES." (ACI 315).
5. STEEL REINFORCING BARS SHALL BE DEFORMED BARS CONFORMING TO ASTM A 615. GRADE 60.
6. PROVIDE TWO NO. 5 X 4' -0" BAR AT RE-ENTRANT CORNERS, PLACED ON THE DIAGONAL WITH 1-INCH CLEARANCE FROM CORNER AND TOP OF SLAB INCLUDING ANY RECTILINEAR HOLES.
7. ALL EQUIPMENT HOUSEKEEPING PADS SHALL BE 6" THICK UNLESS SHOWN OTHERWISE REINFORCED WITH #3 @ 12" EW, DOWEL TO SLAB WITH #3 DOWELS @ 24" EW. FOR SIZES AND LOCATIONS OF PADS, SEE MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS AND SPECIFICATIONS, UNLESS NOTED OTHERWISE.
8. FOR LOCATION, SIZE AND TYPE OF EMBEDDED INSERTS REQUIRED FOR HANGER CONNECTION POINTS TO CONCRETE STRUCTURE FOR MECHANICAL OR ELECTRICAL PIPE, DUCTS, PLUMBING, FIRE SPRINKLER, CONDUIT, EQUIPMENT, ETC.,, REFER TO MECHANICAL, PLUMBING OR ELECTRICAL CONTRACT DOCUMENTS.
9. LAP CONTINUOUS REINFORCING BARS – PER SCHEDULE. LAP BEAM TOP BARS AT CENTERLINE OF SPAN AND BEAM BOTTOM BARS AT CENTERLINE OF SUPPORT.
10. CONCRETE COVER
    1. EXCEPT AS OTHERWISE SHOWN, PROVIDE A CLEAR COVER MEASURED FROM REINFORCEMENT TO THE FACE OF THE CONCRETE AS LISTED.

SURFACES	MINIMUM COVER IN INCHES
INTERIOR NOT EXPOSED TO WEATHER	
SLABS AND WALLS	3/4
BEAMS	1-1/2
EXTERIOR NOT IN CONTACT WITH EARTH OR WATER	
SLABS AND WALLS, NO. 5 AND SMALLER BARS	1
SLABS AND WALLS, NO. 6 THRU NO. 11 BARS FORMED SURFACES	1-1/2
BEAMS	2
EXTERIOR FORMED SURFACES IN CONTACT WITH EARTH OR WATER	
SLAB AND WALLS NO. 5 AND SMALLER BARS	1-1/2
BEAMS	2
FOOTINGS	
SLABS AND WALLS, NO. 6 THRU NO. 11	2-1/2
TOP AND SIDES	2
BOTTOM	3
ALL SURFACES CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH	3

11. BEAM WIDTH AND DEPTH DIMENSIONS SHOWN ARE FOR FORMED CONDITIONS. IF THE BEAMS ARE CAST AGAINST "EARTH FORMS" THE WIDTH SHALL BE INCREASED 2" AND THE DEPTH 1" AND ALL STEEL SHALL HAVE A MINIMUM 3" CLEAR COVER.
12. THE LOCATION OF CONSTRUCTION JOINTS SHALL BE AS SHOWN ON THE DRAWINGS AND/OR APPROVED BY THE OWNER. CONSTRUCTION JOINTS SHALL BE MADE IN THE CENTER OF SPANS WITH VERTICAL BULKHEADS UNLESS NOTED OTHERWISE. THERE SHALL BE NO HORIZONTAL CONSTRUCTION JOINTS IN CONCRETE POURS.
13. PROVIDE FULL EMBEDMENT WITH 90° HOOKS FOR ALL DOWELS UNLESS SHOWN OTHERWISE. DOWEL SIZE AND SPACING IS SAME AS MAIN REINFORCING.
14. HORIZONTAL WALL REINFORCEMENT SHALL BE CONTINUOUS WITH 90-DEGREE BENDS AND 12-INCH RETURNS ALONG EACH WALL AT CORNERS, UNLESS SHOWN OTHERWISE.
15. NO CONCRETE SHALL BE PLACED IN THE GUIDEWAY SLAB UNTIL THE DIAPHRAGMS ARE IN PLACE, THE DIAPHRAGM CONCRETE HAS REACHED A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4000 P.S.I., AND THE NUTS OF BARS ON HAVE SUBSEQUENTLY BEEN FIRMLY TIGHTENED.

STEEL NOTES

1. STEEL SHAPES AND PLATES SHALL CONFORM TO ASTM A 36 UNO. STEEL TUBES SHALL CONFROM TO ASTM A500, GRADE B. STEEL PIPES SHALL CONFORM TO ASTM A53 GRADE B.
2. DETAIL, FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL COMPLY WITH THE AISC "SPECIFICATIONS FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS, "AISC" CODE OF STANDARD PRACTICE" AS MODIFIED IN THE PROJECT SPECIFICATION, AND ALL UPDATING PUBLICATIONS, MIN WELD SHALL BE 3/16" FILLET.
3. UNLESS SHOWN OTHERWISE ON THE DRAWINGS, CONNECTIONS SHALL BE FIELD WELDED. BOLTS SHALL CONFORM TO ASTM A325. CONNECTION SHALL BE A MINIMUM OF TWO BOLTS. "CONNECTIONS NOT DETAILED OR NOTED SHALL BE AS FOLLOWS: BEAM TO BEAM OR BEAM TO COLUMN CONNECTIONS SHALL CONFORM TO "FRAME BEAM CONNECTIONS" OR "SINGLE PLATE SHEAR CONNECTIONS" PART 4 OF AISC MANUAL AND SHALL BE DESIGNED FOR THE SHEAR LISTED IN THE TABLE FOR ALLOWABLE LOADS ON BEAMS" PART 2 AISC MANUAL UNLESS NOTED OTHERWISE. PIPE TO PIPE CONNECTIONS SHALL BE FIELD WELDED. COPE PIPE END TO FIT THE CURVED SURFACE.
4. WELDING SHALL CONFORM TO THE AMERICAN WELDING SOCIETY "STRUCTURAL WELDING CODE," LATEST EDITION. ELECTRODES SHALL CONFORM TO AWS A5.5, E70XX. ULTRASONIC INSPECTION SHALL BE PROVIDED FOR ANY FULL PENETRATION WELDS.
5. ALL MISCELLANEOUS WELDS (FIELD OR SHOP) SHALL BE MINIMUM SIZE FILLET ALL AROUND IN ACCORDANCE WITH AISC. WELDING OF CONTINUOUS MEMBERS SHALL BE A MINIMUM OF 3-INCHES OF 3/16-INCH FILLET STITCH WELD AT 12-INCHES O.C., STAGGERED EACH SIDE, UNLESS OTHERWISE NOTED.
6. SPLICING OF STRUCTURAL STEEL MEMBERS IS PROHIBITED WITHOUT THE APPROVAL OF THE OWNER AS TO LOCATION AND TYPE OF SPLICE.
7. ANCHOR BOLTS SHALL COMPLY WITH ASTM A 307 UNO AND SHALL BE SET USING RIGID TEMPLATES. PROVIDE ANCHOR BOLTS FOR ALL EQUIPMENT WHEN ANCHOR BOLTS ARE NOT PROVIDED BY THE MANUFACTURER. ANCHOR BOLTS SIZE AND LENGTH SHALL CONFORM TO THE REQUIREMENTS AND/OR RECOMMENDATIONS OF THE EQUIPMENT MANUFACTURER. PROVIDE TEMPLATES TO ACCURATELY POSITION THE ANCHOR BOLTS.
8. BURNING OF HOLES IN STRUCTURAL STEEL IS PROHIBITED. ANY MEMBER WITH BURNED HOLES SHALL BE REPLACED.
9. STRUCTURAL STEEL SHALL BE PUNCHED FOR WOOD BLOCKING AND NAILERS. SEE ARCHITECT'S DRAWINGS.
10. GROUT UNDER BASE PLATE SHALL BE NON-SHRINK GROUT. PRE GROUTING OF THE BASE PLATES WILL NOT BE PERMITTED.
11. SEE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR FIREPROOFING REQUIREMENTS.
12. EXAMINE THE ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR ALL ITEMS REQUIRED TO BE HOT-DIP GALVANIZED AFTER FABRICATION. GALVANIZING DAMAGED IN FIELD SHALL HAVE DAMAGE REPAIRED AS SPECIFIED.
13. WELD 3/8" CAP PLATE TO THE TOP OF ALL COLUMNS.

STEEL DECK

1. CONFORM TO SPECIFICATIONS OF THE STEEL DECK INSTITUTE LATEST EDITION.
2. TYPE – ASTM A446 GRADES A THRU E OR A611 GRADES C THRU E AND A525, G60.
3. ROOF DECK:
   – FOR SPAN 11'-6" OR LESS: 3" DEEP, TYPE N, 22 GA, GALV.
   – FOR SPAN OVER 12': 3" DEEP, TYPE N, 20 GA, GALV.
4. FORM DECK (PMDF) AT GUIDEWAY SLAB: 2" DEEP SEE NOTE AND DETAIL ON S5-502.

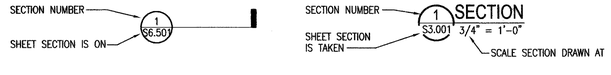
ROOF CONSTRUCTION

1. SUSPEND NO MECHANICAL, ELECTRICAL, PLUMBING OR OTHER EQUIPMENT FROM METAL DECK.
2. FURNISH ALL SIZES AND LOCATIONS OF ROOF OPENINGS TO SUIT ACTUAL MECHANICAL EQUIPMENT PURCHASED.
3. LOCATION OF ROOF TOP MOUNTED UNITS NOT SHOWN ON STRUCTURAL DRAWINGS ARE SUBJECT TO REVIEW BY THE ARCHITECT.
4. OPENINGS OVER 10" – USE L3 1/2X3 1/2X 1/4 FRAME.

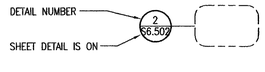
SYMBOLS

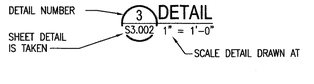
SECTION AND DETAIL CROSS REFERENCES:

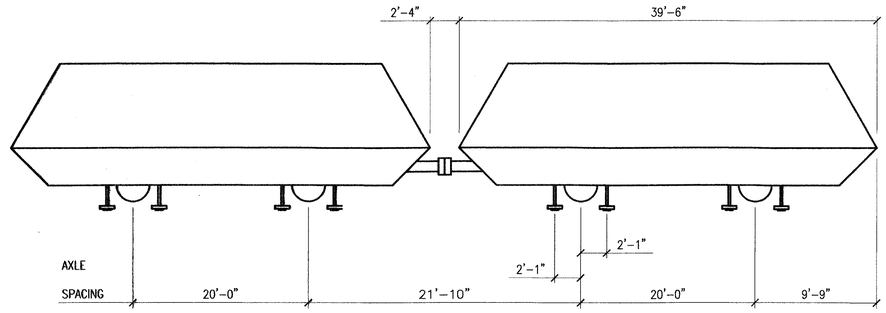
SECTION



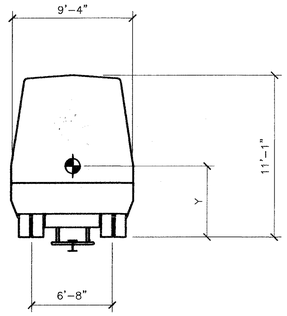
DETAIL







	AXLE LOAD	AXLE LOAD	AXLE LOAD	AXLE LOAD	Y
AW0 EMPTY VEHICLE	16.5 KIPS	16.5 KIPS	16.5 KIPS	16.5 KIPS	44.0"
AW1 NORMAL LOAD (100 PASSENGERS @ 160 LBS)	24.5 KIPS	24.5 KIPS	24.5 KIPS	24.5 KIPS	54.0"
AW2 MAXIMUM LOAD (150 PASSENGERS @ 160 LBS)	28.5 KIPS	28.5 KIPS	28.5 KIPS	28.5 KIPS	59.0"



VEHICLE LOAD

DEVELOPMENT AND LAP LENGTHS FOR REINFORCEMENT

F'c = 4000 psi
Fy = 60000 psi

TOP BARS*

BAR SIZE	DEVELOPMENT LENGTH (IN)	LAP LENGTH (IN)
3	14	23
4	19	29
5	24	36
6	28	45
7	33	57
8	42	72
9	54	92
10	69	118
11	84	143

OTHER BARS

BAR SIZE	DEVELOPMENT LENGTH (IN)	LAP LENGTH (IN)
3	12	16
4	15	21
5	18	26
6	22	31
7	25	40
8	30	51
9	38	65
10	49	84
11	60	102

* TOP BARS ARE HORIZONTAL BARS PLACED SO THAT MORE THAN 12 INCHES OF CONCRETE IS CAST IN THE MEMBER BELOW THE BAR

RECORD DRAWINGS
DO NOT MODIFY

DATE: MAY 6, 2005

HUITT-ZOLLARS, INC.

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HOUSTON AIRPORT SYSTEM
GEORGE BUSH INTERCONTINENTAL AIRPORT HOUSTON TEXAS

HUITT-ZOLLARS
Huitt-Zollars, Inc. Engineering / Architecture
1500 Oaky Ashford, Suite 200, Houston, TX 77077
Phone (281) 496-0066 Fax (281) 496-0220

CHARLES F. TERRY, INC.
Consulting Engineers
2901 Gaston Avenue
Dallas, Texas 75226
(214)828-9400 FAX 214/828-9404

REVISIONS

NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION & PLATFORM
STRUCTURAL GENERAL NOTES AND DETAILS

PROJECT MGR:	GRW
DESIGNER:	JJC
DRAWN BY:	KLV
CHECKED BY:	MMR
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	
DATE:	09/14/01

FOR RECORD DRAWING ONLY
STATE OF TEXAS
MOEIN MICHAEL REYHANI
83454
PROFESSIONAL ENGINEER
09/14/01

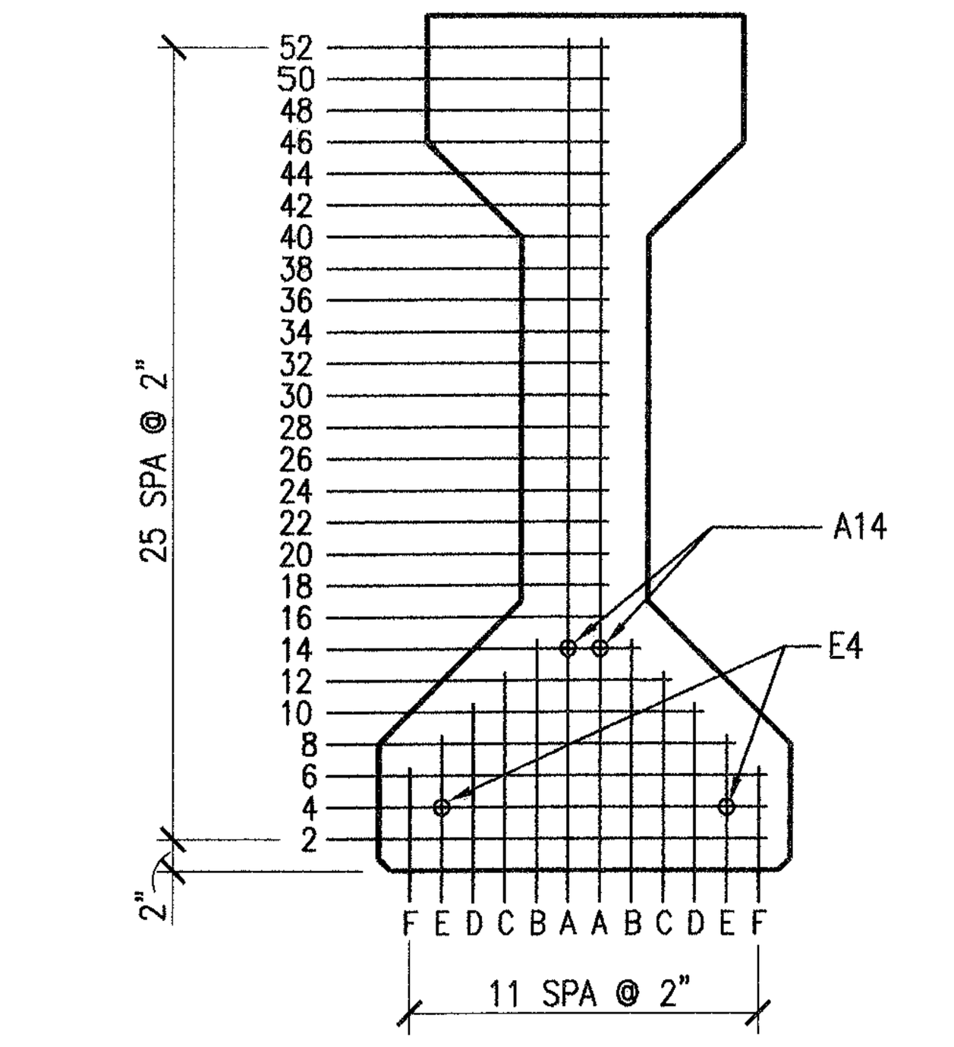
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO. 02-2025-01
C.I.P. NO. A-0354
H.A.S. NO. 536C
SHEET NO. S0.100

PLOT DATE: 10/19/01 HAS FILE: IAS36CS0100.DWG

DESIGNED BEAMS (DEPRESSED STRANDS)														OPTIONAL DESIGN		
STRUCTURE	SPAN	BEAM NO.	BEAM TYPE	NON-STD. STRAND PATTERN	PRESTRESSING STRANDS: TOTAL NO	PRESTRESSING STRANDS: TOTAL SIZE	PRESTRESSING STRANDS: TOTAL STRGTH	PRESTRESSING STRANDS: TOTAL "e" ℄ in.	PRESTRESSING STRANDS: "e" END in.	PRESTRESSING STRANDS: DEPRESSED NO	PRESTRESSING STRANDS: DEPRESSED TO	CONCRETE: RELEASE STRGTH f'ci (psi)	CONCRETE: MINIMUM 28 DAY COMP. STRGTH f'c (psi)	DN.LOAD COMP. STRESS (TOP ℄) fct (psi)	DN.LOAD TENSILE STRESS (BOTT ℄) fcb (psi)	REQUIRED MINIMUM ULTIMATE MOMENT CAPACITY (Ft.Kips)
APM STATION AND PLATFORM (AT TERMINAL D)	47	1–6	IV	—	30	1/2	270	21.15	11.95	6	A–52	4000	5000	1684	1535	2570
	48	1–6	IV	—	14	1/2	270	22.46	22.46	0	STRAIGHT	4000	5000	432	416	678
	49	1–6	IV	—	32	1/2	270	21.00	12.38	6	A–52	4000	5000	1925	1769	2884

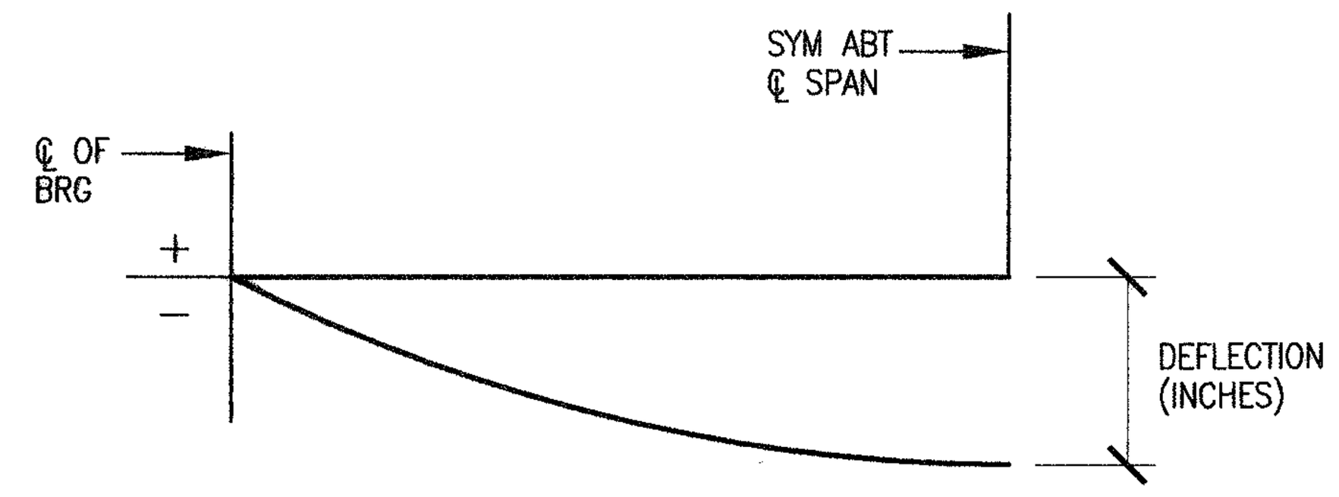


1 S0.201 AASHTO TYPE IV BEAM DETAIL
NTS

GUIDEWAY PRESTRESSED BEAM DEFLECTION AND CAMBER SUMMARY TABLE

SPAN NO.	BEAM NO.	BEAM TYPE	(1)THEOR. CAMBER (INCHES)	SLAB DL DEFLECTION (INCHES)	SUPERIMPOSED DL DEFLECTION (INCHES)	(2) TRAIN DEAD LOAD DEFLECTION (INCHES)	(3) TRAIN LIVE LOAD DEFLECTION (INCHES)
47	1–6	IV	+2.014	–0.214	–0.290	–0.144	–0.098
48	1–6	IV	+0.336	–0.011	–0.018	–0.010	–0.007
49	1–6	IV	+2.383	–0.237	–0.384	–0.191	–0.129

(1) CAMBER: THEORETICAL VALUE BASED ON BEAM UPWARD DEFLECTION DUE TO PRESTRESS FORCE MINUS BEAM OWN WEIGHT DOWNWARD DEFLECTION
(2) TRAIN LL: DEFLECTION OF TRAIN LL BASED ON TWO AW2 + ONE AW0
(3) TRAIN LL: DEFLECTION OF TRAIN LL BASED ON ONE AW0 + HALF AW1



5 S0.201 DEFLECTION DIAGRAM
NTS

NOTES TO SHEET

1. REFER TO SHEET S0.100 FOR STRUCTURAL GENERAL NOTES.
2. REFER TO SHEET S3.004 FOR GUIDEWAY BEAM FRAMING PLAN.
3. REFER TO SHEET S5.501 FOR PRESTRESSED CONCRETE BEAM STANDARD DETAILS.

RECORD DRAWINGS
DO NOT MODIFY

DATE: MAY 6, 2005

HUITT-ZOLLARS, INC.

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CHARLES F. TERRY, INC.
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REVISIONS			
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INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION & PLATFORM
PRESTRESSED CONCRETE BEAM SCHEDULES AND DETAILS

PROJECT MGR: GRW
DESIGNER: JUC
DRAWN BY: KLV
CHECKED BY: MMR
DRAWING STANDARD: ISEP 07.20.2000
SCALE: As Noted
DATE: 09/14/01

FOR RECORD DRAWING ONLY
STATE OF TEXAS
MOEIN MICHAEL BEYHANI
83454
LICENSED PROFESSIONAL ENGINEER
5/6/05

APPROVED BY: DATE:

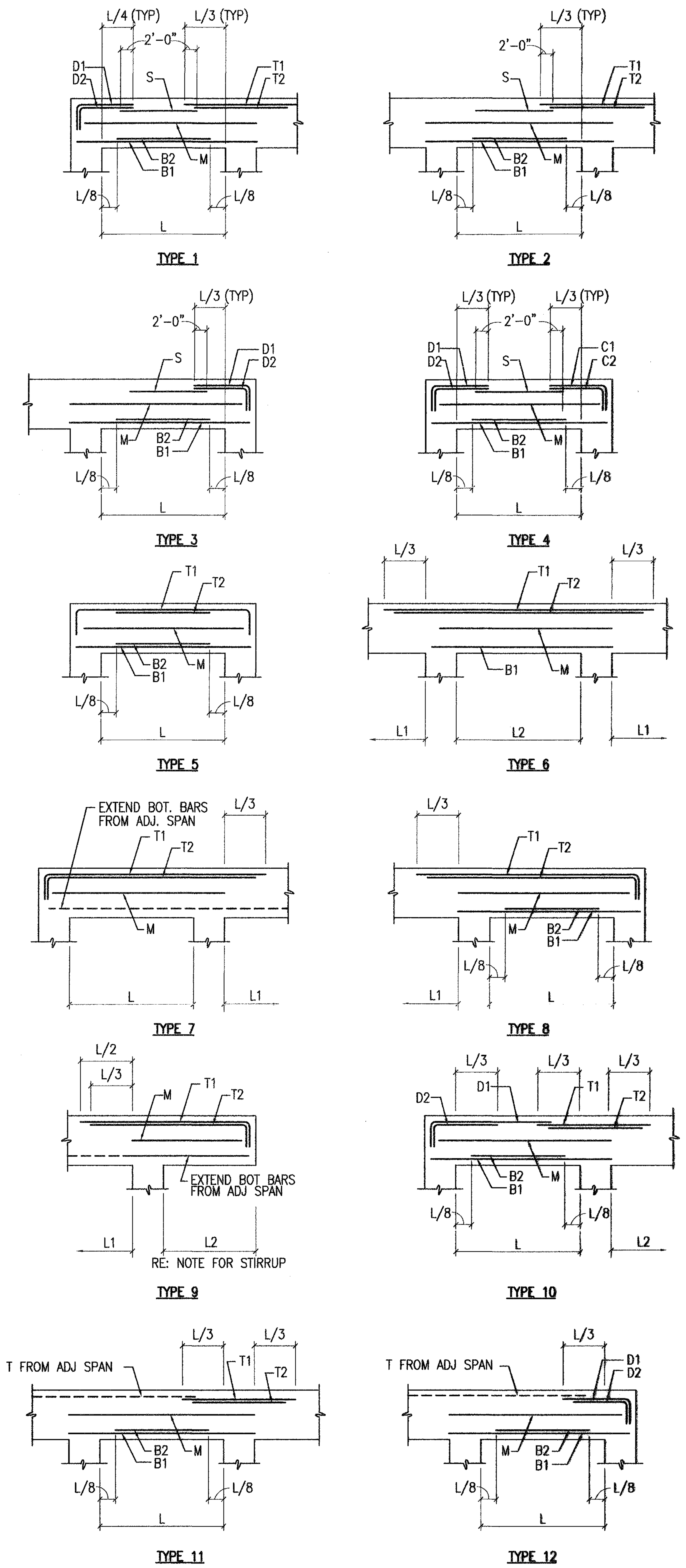
DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO. 02–2025–01
C.I.P. NO. A–0354
H.A.S. NO. 536C
SHEET NO.
57 S0.201

PLOT DATE: 10/19/01 HAS FILE: IAS36CS0201.DWG

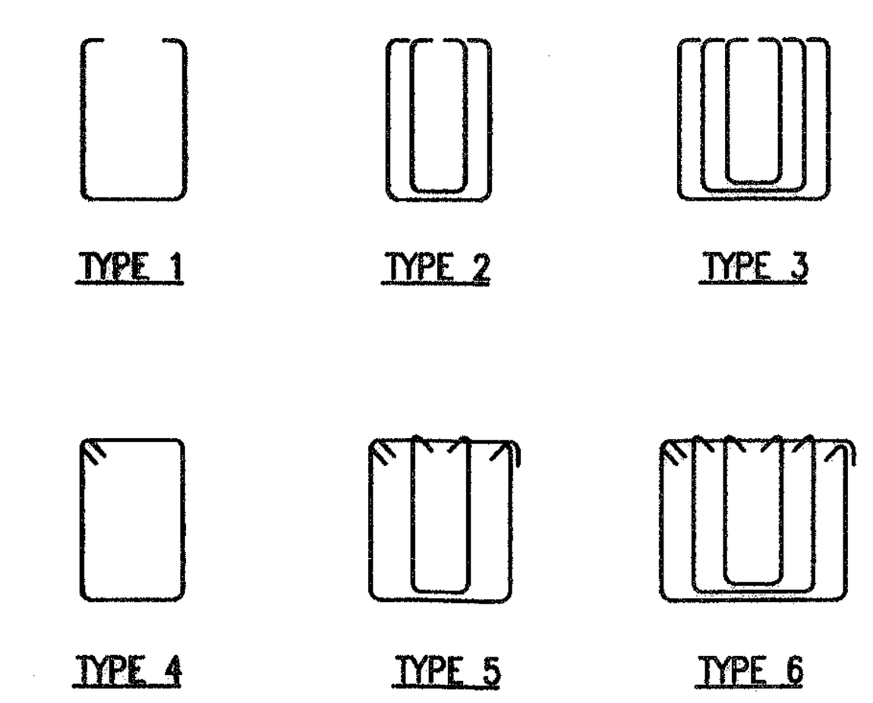
CONCRETE BEAM SCHEDULE

MARK	SIZE WIDTH (INCH)	SIZE DEPTH (INCH)	TYPE	D1 / D2	S	B1 / B2	T1 / T2	C1 / C2	M	STIRRUPS SIZE	STIRRUPS TYPE	STIRRUPS SPACING	REMARKS
B101	23	66	9	— / —	— / —	— / —	8 #11 / 8 #11	— / —	4 #6 / —	#4	5	10"	TAPER TO 42 INCHES @ BOTTOM-SEE ARCH
B102	23	66	2	— / —	2 #11 / —	6 #11 / 6 #11	8 #11 / 6 #11	— / —	4 #6 / —	#4	5	12"	
B103	23	66	3	4 #9 / 2 #9	2 #9 / —	4 #9 / 2 #9	— / —	— / —	4 #6 / —	#4	4	12"	
B104	18	60	9	— / —	— / —	— / —	6 #11 / 6 #11	— / —	4 #6 / —	#4	5	10"	TAPER TO 42 INCHES
B105	18	66	2	— / —	2 #11 / —	6 #11 / 6 #11	6 #11 / 6 #11	— / —	4 #6 / —	#4	5	12"	
B106	18	66	3	4 #8 / 2 #8	2 #8 / —	4 #8 / 2 #8	— / —	— / —	4 #6 / —	#4	4	12"	
B107	18	60	9	— / —	— / —	— / —	6 #11 / 6 #11	— / —	4 #6 / —	#4	5	10"	TAPER TO 42 INCHES
B108	18	66	2	— / —	2 #11 / —	6 #11 / 6 #11	6 #11 / 6 #11	— / —	4 #6 / —	#4	5	12"	
B109	18	66	3	4 #8 / 2 #8	2 #8 / —	4 #8 / 2 #8	— / —	— / —	4 #6 / —	#4	4	12"	
B110	23	66	9	— / —	— / —	— / —	8 #11 / 8 #11	— / —	4 #6 / —	#4	5	10"	TAPER TO 42 INCHES
B111	23	66	2	— / —	2 #11 / —	6 #11 / 6 #11	8 #11 / 6 #11	— / —	4 #6 / —	#4	5	12"	
B112	23	66	3	4 #9 / 2 #9	2 #9 / —	4 #9 / 2 #9	— / —	— / —	4 #6 / —	#4	4	12"	
B113	12	42	1	2 #8 / —	2 #8 / —	2 #8 / 2 #8	2 #8 / —	— / —	2 #6 / —	#4	4	12"	
B114	12	42	2	— / —	2 #8 / —	2 #8 / 2 #8	2 #8 / —	— / —	2 #6 / —	#4	4	12"	
B115	12	42	3	2 #8 / —	2 #8 / —	2 #8 / 2 #8	— / —	— / —	2 #6 / —	#4	4	12"	
B116	12	60	5	— / —	— / —	2 #8 / —	2 #8 / —	— / —	4 #6 / —	#3	1	12"	
B117	12	66	5	— / —	— / —	2 #8 / 2 #8	2 #8 / —	— / —	4 #6 / —	#4	4	12"	
B118	12	66	1	2 #8 / —	2 #8 / —	2 #8 / —	2 #8 / —	— / —	4 #6 / —	#4	4	12"	
B119	12	66	2	— / —	2 #8 / —	2 #8 / —	2 #8 / —	— / —	4 #6 / —	#4	4	12"	
B120	12	66	3	2 #8 / —	2 #8 / —	2 #8 / —	— / —	— / —	4 #6 / —	#4	4	12"	
B121	24	66	5	— / —	— / —	4 #8 / —	4 #8 / —	— / —	4 #6 / —	#4	5	12"	STIRRUP SPACING IS THE SAME IN ENTIRE LENGTH OF BEAM
B122	24	30	5	— / —	— / —	4 #8 / —	4 #8 / —	— / —	2 #6 / —	#4	5	12"	STIRRUP SPACING IS THE SAME IN ENTIRE LENGTH OF BEAM
GB1	18	36	3	2 #8 / 2 #8	4 #11 / —	2 #8 / 2 #8	— / —	— / —	2 #6 / —	#4	5	12"	CONTINUE S BAR AS T2 BAR OF GB3
GB2	18	36	5	— / —	— / —	2 #8 / 2 #8	2 #6 / 2 #6	— / —	2 #6 / —	#4	4	9"	
GB3	18	36	9	— / —	— / —	— / —	4 #11 / 4 #11	— / —	2 #6 / —	#4	5	9"	
GB4	24	36	5	— / —	— / —	2 #8 / 2 #8	2 #8 / 2 #8	— / —	2 #6 / —	#4	5	12"	
B201	36	74	9	— / —	— / —	— / —	10 #11 / 10 #11	— / —	10 #8 / —	#4	5	12"	STIRR SPACING IS UNIFORM IN ENTIRE LENGTH OF BEAM. CONTINUE "M" REINF INTO B202
B202	36	74	2	— / —	2 #10 / 2 #10	8 #10 / 8 #10	8 #10 / 8 #10	— / —	10 #8 / —	#4	5	12"	
B203	24	74	2	— / —	2 #10 / 2 #10	6 #10 / 6 #10	9 #11 / 9 #11	— / —	6 #6 / —	#4	4	12"	
B204	36	74	2	— / —	2 #10 / 2 #10	8 #11 / 8 #11	6 #10 / 4 #10	— / —	6 #6 / —	#4	5	12"	
B205	24	40	5	— / —	— / —	2 #8 / —	2 #9 / —	— / —	2 #6 / —	#4	1	6"	
B206	18	74	1	4 #8 / 2 #8	2 #8 / —	4 #8 / 2 #8	4 #10 / 4 #10	— / —	6 #6 / —	#4	1	12"	
B207	18	74	3	4 #8 / 2 #8	2 #8 / —	4 #10 / 4 #10	— / —	— / —	6 #6 / —	#4	1	12"	
B208	12	34	9	— / —	— / —	2 #8 / —	2 #8 / 2 #8	— / —	2 #6 / —	#4	4	6"	PROVIDE BOTTOM REINF PER SCHEDULE
B209	18	74	2	— / —	2 #8 / —	4 #8 / 2 #8	4 #10 / 4 #10	— / —	6 #6 / —	#4	1	12"	
B210	18	74	2	4 #8 / 2 #8	2 #8 / —	4 #10 / 4 #10	— / —	— / —	6 #6 / —	#4	1	12"	
B211	18	36	9	— / —	— / —	— / —	4 #8 / 2 #8	— / —	2 #6 / —	#4	1	6"	
B212	12	34	5	— / —	— / —	2 #6 / —	2 #6 / —	— / —	2 #6 / —	#3	1	12"	
B213	18	36	9	— / —	— / —	— / —	4 #8 / 2 #8	— / —	2 #6 / —	#4	1	6"	PROVIDE 2 #8 BOT BAR. CONTINUE ALL REINF INTO NEXT BEAM & BEND @ END OF PLATFORM
B214	18	36	1	2 #8 / 2 #8	2 #8 / —	2 #8 / 2 #8	2 #8 / 2 #8	— / —	2 #6 / —	#4	1	12"	CONTINUE "D" BAR INTO ADJACENT BEAM WHERE APPLICABLE
B215	18	36	3	2 #8 / 2 #8	2 #8 / —	2 #8 / 2 #8	— / —	— / —	2 #6 / —	#4	1	12"	CONTINUE "D" BAR INTO ADJACENT BEAM WHERE APPLICABLE
B216	12	40	5	— / —	— / —	2 #8 / —	2 #8 / —	— / —	2 #6 / —	#3	1	12"	
B217	18	36	5	— / —	— / —	4 #10	4 #8 / —	— / —	4 #8 / —	#4	5	6"	STIRRUP SPACING IS UNIFORM IN THE ENTIRE LENGTH
B218	12	36	5	— / —	— / —	2 #8 / —	2 #8 / —	— / —	2 #6 / —	#4	4	12"	B, T & M REINF ARE ADD'L REINF INSIDE WALL
B219	36	74	9	— / —	— / —	— / —	6 #10 / 4 #10	— / —	2 #6 / —	#4	5	12"	T & M REINF ARE CONTINUATION OF T & M FROM BEAM B204. STIRR SPACING IS UNIFORM
B220	12	74	4	— / —	— / —	2 #8 / —	2 #8 / —	— / —	2 #6 / —	#3	1	12"	
B221	18	36	5	— / —	— / —	2 #8 / —	2 #8 / —	— / —	2 #6 / —	#4	5	12"	

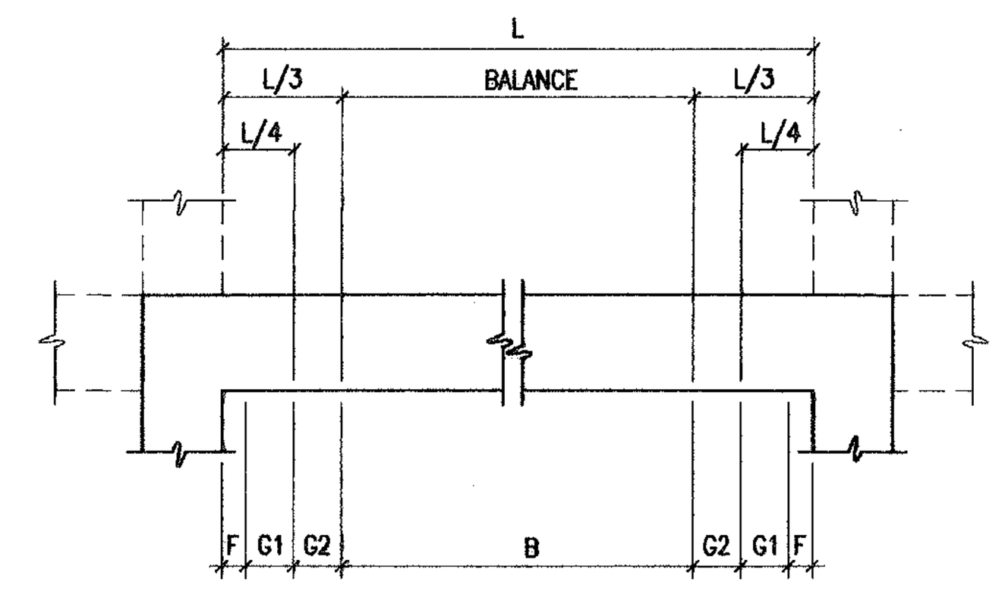


1 DETAIL-BEAM REINFORCING
S0.301 NTS

NOTE: M BARS ARE AT EACH FACE OF THE BEAM (TYP).



2 DETAIL-STIRRUP TYPE
S0.301 NTS



NOTE: STIRRUP SPACING IS UNIFORM FOR THE ENTIRE LENGTH OF CANTILEVER BEAMS.

STIRRUP GROUPING NOTES:

F=DISTANCE IN INCHES EQUALS TO HALF OF STIRRUP SPACING AS SHOWN ON BEAM SCHEDULE.
G1=PROVIDE STIRRUP SPACING AS SHOWN ON BEAM SCHEDULE FOR THIS DISTANCE.
G2=WITHIN THIS DISTANCE, PROVIDE STIRRUP WITH TWO TIMES THE SPACING AS SHOWN ON BEAM SCHEDULE, BUT IN NO CASE SHALL THE SPACING BE GREATER THAN HALF BEAM DEPTH LESS 5 INCHES.
B (BALANCE)=WITHIN THIS DISTANCE, PROVIDE STIRRUPS WITH THREE TIMES THE SPACING AS SHOWN ON SCHEDULE BUT IN NO CASE SHALL THE SPACING BE GREATER THAN BEAM DEPTH LESS 5 INCHES.

3 DETAIL-STIRRUP GROUPING
S0.301 NTS

NOTES TO SHEET

RECORD DRAWINGS
DO NOT MODIFY

DATE: MAY 6, 2005

HUITT-ZOLLARS, INC.

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CHARLES F. TERRY, INC.
Consulting Engineers
2601 Gaston Avenue
Dallas, Texas 75226
214/[illegible] FAX 214/[illegible]

REVISIONS

NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
1	ADDENDUM #1	02/01/02	MR

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION & PLATFORM
CONCRETE BEAM/SLAB SCHEDULES AND REINFORCING DETAILS

PROJECT MGR: GRW
DESIGNER: JUC
DRAWN BY: KLV
CHECKED BY: MMR
DRAWING STANDARD: ISEP 07.20.2000
SCALE: AS NOTED
DATE: 09/14/01

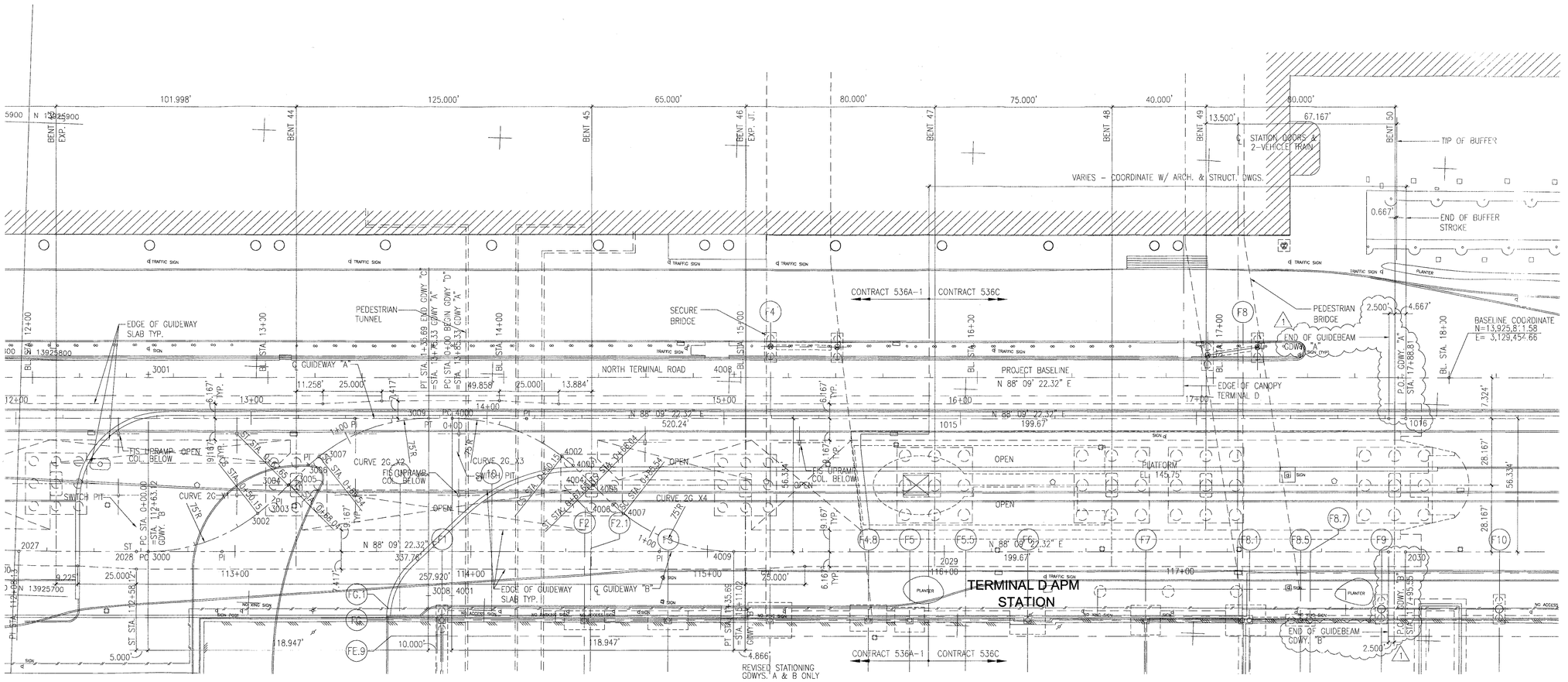
FOR RECORD DRAWING ONLY
STATE OF TEXAS
MOEIN MICHAEL REYHANI
83454
LICENSED PROFESSIONAL ENGINEER

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO. 02-2025-01
C.I.P. NO. A-0354
H.A.S. NO. 536C
SHEET NO.
58 S0.301

PLOT DATE: 10/19/01 HAS FILE: IA536CS0301.dwg



1 S1.004 HORIZONTAL CONTROL ALIGNMENT

0' 20 40 60

SCALE: 1"=20'

NOTES:

1. ALL ELEVATIONS ARE REFERENCED TO NAVD 88 (JUNE 1991 ADJUSTMENT), AND BASED ON THE CITY OF HOUSTON SURVEY, MONUMENTATION AND MAPPING PROGRAM.
2. ALL COORDINATES ARE REFERENCED TO THE TEXAS STATE PLANE COORDINATE SYSTEM (SOUTH CENTRAL ZONE) NAD 83 (1993 ADJUSTMENT), SURFACE COORDINATES.
3. SEE SCHEDULES BELOW FOR HORIZONTAL ALIGNMENT CONTROL POINTS FOR CONTRACT 536C, SEE CONTRACT 536A -1 FOR OTHER DATA.
4. HORIZONTAL CONTROL ALIGNMENT POINTS 1016 & 2030 INDICATE END OF PISTON STROKE FOR APM BUFFER AT APM STATION PLATFORM (4.667' EAST OF CL BENT 50).
5. HORIZONTAL CONTROL ALIGNMENT POINTS 1015 & 2029 INDICATE INTERFACE POINTS BETWEEN CONTRACTS 536A-1 AND 536C (ALONG CL BENT 47).

HORIZONTAL ALIGNMENT GUIDEWAY "A"

POINT	BEARING	DISTANCE	NORTHING	EASTING
1015	BEGIN GDWY. "A" AT CL BENT 47 STATION= N 88d 09' 22.32" E	15 + 89.14 199.67' (TANGENT)	13,925,787.25	3,129,237.41
1016	END GDWY. STATION =	17 + 88.81	13,925,793.67	3,129,436.98

1

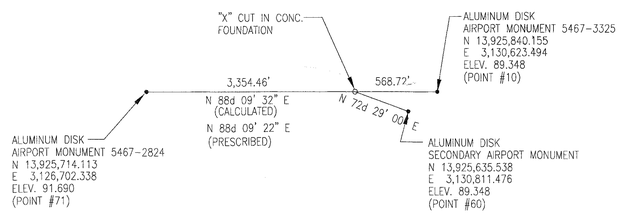
HORIZONTAL ALIGNMENT GUIDEWAY "B"

POINT	BEARING	DISTANCE	NORTHING	EASTING
2029	BEGIN GDWY. "B" AT CL BENT 47 STATION= N 88d 09' 22.32" E	115 + 95.88 199.67' (TANGENT)	13,925,730.95	3,129,239.23
2030	END GDWY. STATION =	117 + 95.55	13,925,737.37	3,129,438.80

1 1

BENCHMARKS:

- CITY OF HOUSTON SURVEY MARKER 5467-2824 LOCATED BETWEEN MARRIOTT HOTEL AND TERMINAL "C" PARKING GARAGE. PREVIOUSLY KNOWN AS A.S.D. POINT #71.
- CITY OF HOUSTON SURVEY MARKER 5467-3325 LOCATED IN THE PARKING LOT NEAR GATE NV12 AND EAST OF TERMINAL "D". PREVIOUSLY KNOWN AS A.S.D. POINT #10.
- CITY OF HOUSTON SECONDARY AIRPORT MONUMENT SURVEY MARKER POINT #60.



N

HORIZONTAL CONTROL BENCHMARKS

RECORD DRAWINGS
DO NOT MODIFY
Terry + Moore Inc.
27 May 2005
Note: Information used to develop these documents was taken from Record of the Work Drawings prepared by the construction contractor, Clark Construction Group - Texas. The information provided by the contractor was not verified by the design firm named above.

HOUSTON AIRPORT SYSTEM
GEORGE BUSH INTERCONTINENTAL AIRPORT HOUSTON TEXAS

CHARLES F. TERRY, INC.
Consulting Engineers
2001 Gaston Avenue
Dallas, Texas 75226
214/828-9400 FAX 214/828-9424

HUITT-ZOLLARS
Huitt-Zollars, Inc. Engineering / Architecture
Texas Freeway, Suite 800, Houston, TX 77002-1808
Phone (281) 496-0066 Fax (281) 496-0220

REVISIONS

NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	DB
	REVIEW	4/11/02	DB
1	CONFORM PLAN 7/31/03		DB
	GEOMETRY & CURVE DATA W/ BTTS/TCI & ZIMMERMAN DWGS.		

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION AND PLATFORM
HORIZONTAL CONTROL ALIGNMENT

PROJECT MGR:	P.J.M.
DESIGNER:	P.J.M.
DRAWN BY:	D.E.B.
CHECKED BY:	P.J.M.
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	1"=20'
DATE:	09/14/01

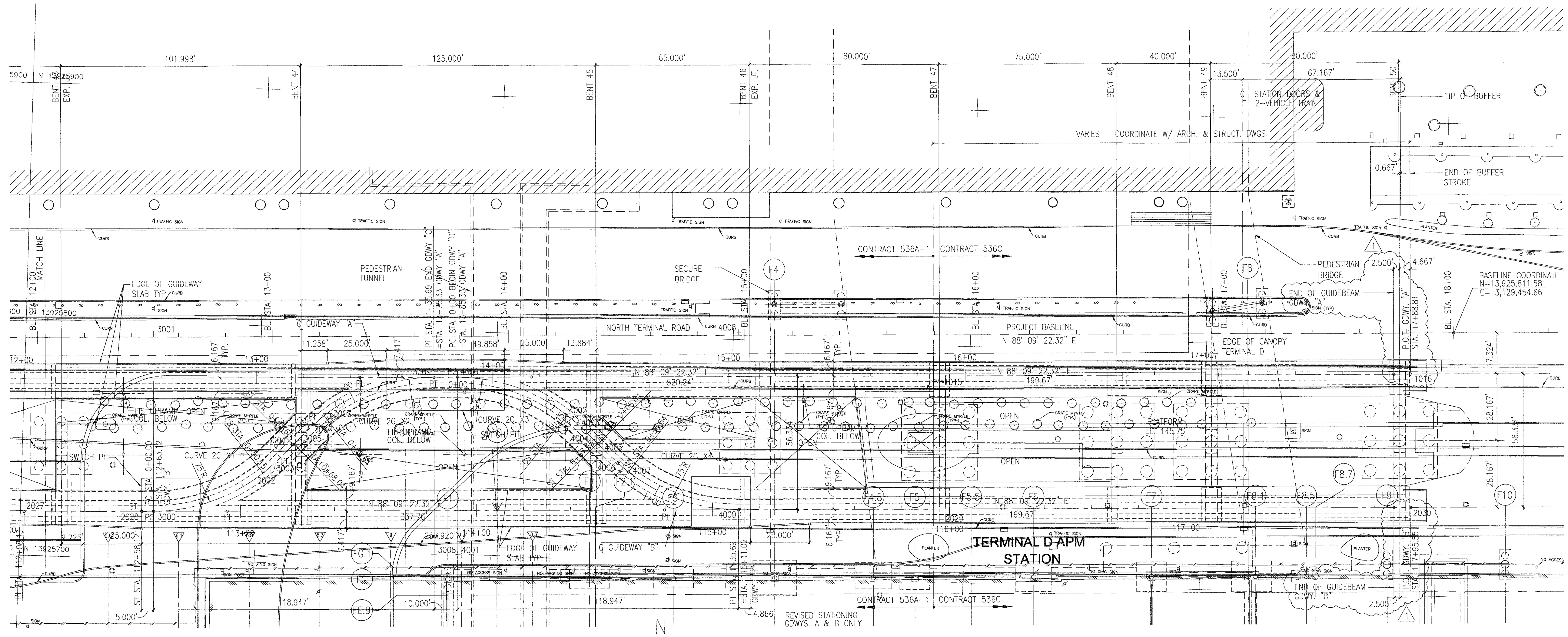
STATE OF TEXAS
PATRICK J. MOORE
70673
REGISTERED
PROFESSIONAL ENGINEER
THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY PATRICK J. MOORE, P.E. 70673 ON 07/31/03. ALTERATION OF A SEALED DOCUMENT WITHOUT NOTIFICATION OF THE AUTHORIZED ENGINEER IS AN OFFENSE UNDER THE TEXAS ENGINEERING PRACTICE ACT.

APPROVED BY:	DATE:
DIRECTOR HOUSTON AIRPORT SYSTEM	
PROJECT NO.	98-1965.1
C.I.P. NO.	A-0354
H.A.S. NO.	536C
SHEET NO.	S1.001

59

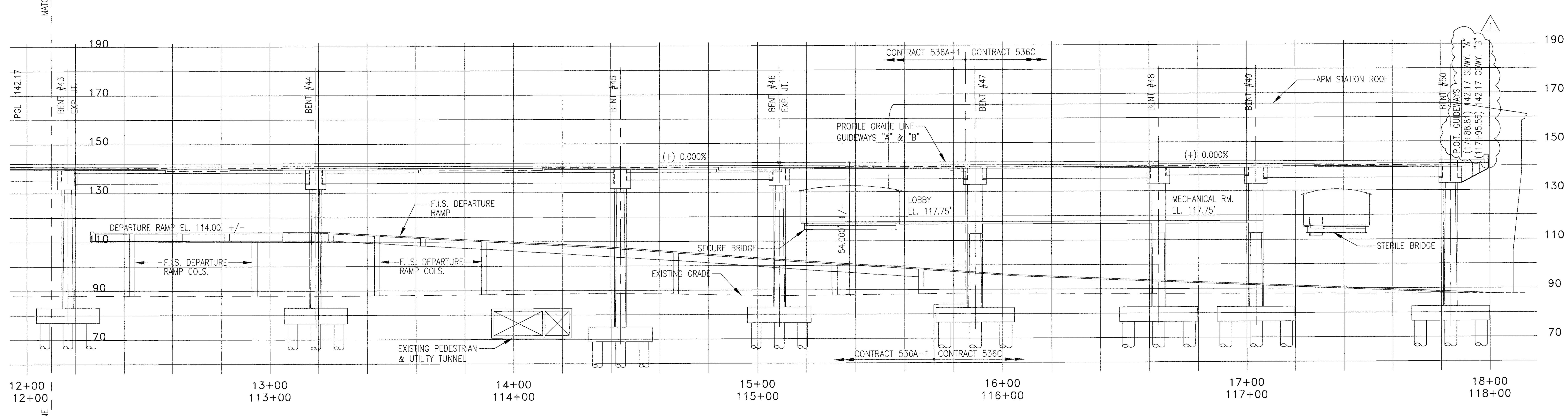
RECORD DRAWING

PLOT DATE: 07/31/03 H:\AS_FILE\AS36CS1001.dwg



1 S1.104 APM GUIDEWAY PLAN

SCALE: 1"=20'



2 S1.104 APM GUIDEWAY PROFILE

SCALE: 1"=20'

RECORD DRAWINGS

DO NOT MODIFY

Terry + Moore Inc.
27 May 2005

Note: Information used to develop these documents was taken from Record of the Work Drawings prepared by the construction contractor, Clark Construction Group - Texas. The information provided by the contractor was not verified by the design firm named above.

NOTES:

1. ALL ELEVATIONS ARE REFERENCED TO NAVD 88 (JUNE 1991 ADJUSTMENT), AND BASED ON THE CITY OF HOUSTON SURVEY, MONUMENTATION AND MAPPING PROGRAM.
2. ALL COORDINATES ARE REFERENCED TO THE TEXAS STATE PLANE COORDINATE SYSTEM (SOUTH CENTRAL ZONE) NAD 83 (1993 ADJUSTMENT), SURFACE COORDINATES.

HOUSTON AIRPORT SYSTEM
GEORGE BUSH INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

CHARLES F. TERRY, INC.
Consulting Engineers

HUITT-ZOLLARS

NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	DB
	REVIEW	4/11/02	DB
1	CONFORM PLAN	7/31/03	DB
	GEOMETRY & CURVE DATA w/ BTTS/TCI & ZIMMERMAN DWGS.		

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION AND PLATFORM

APM GUIDEWAY PLAN + PROFILE

PROJECT MGR:	P.J.M.
DESIGNER:	P.J.M.
DRAWN BY:	D.E.B.
CHECKED BY:	P.J.M.
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	1"=20'
DATE:	09/14/01

STATE OF TEXAS
PATRICK J. MOORE
70673
REGISTERED PROFESSIONAL ENGINEER

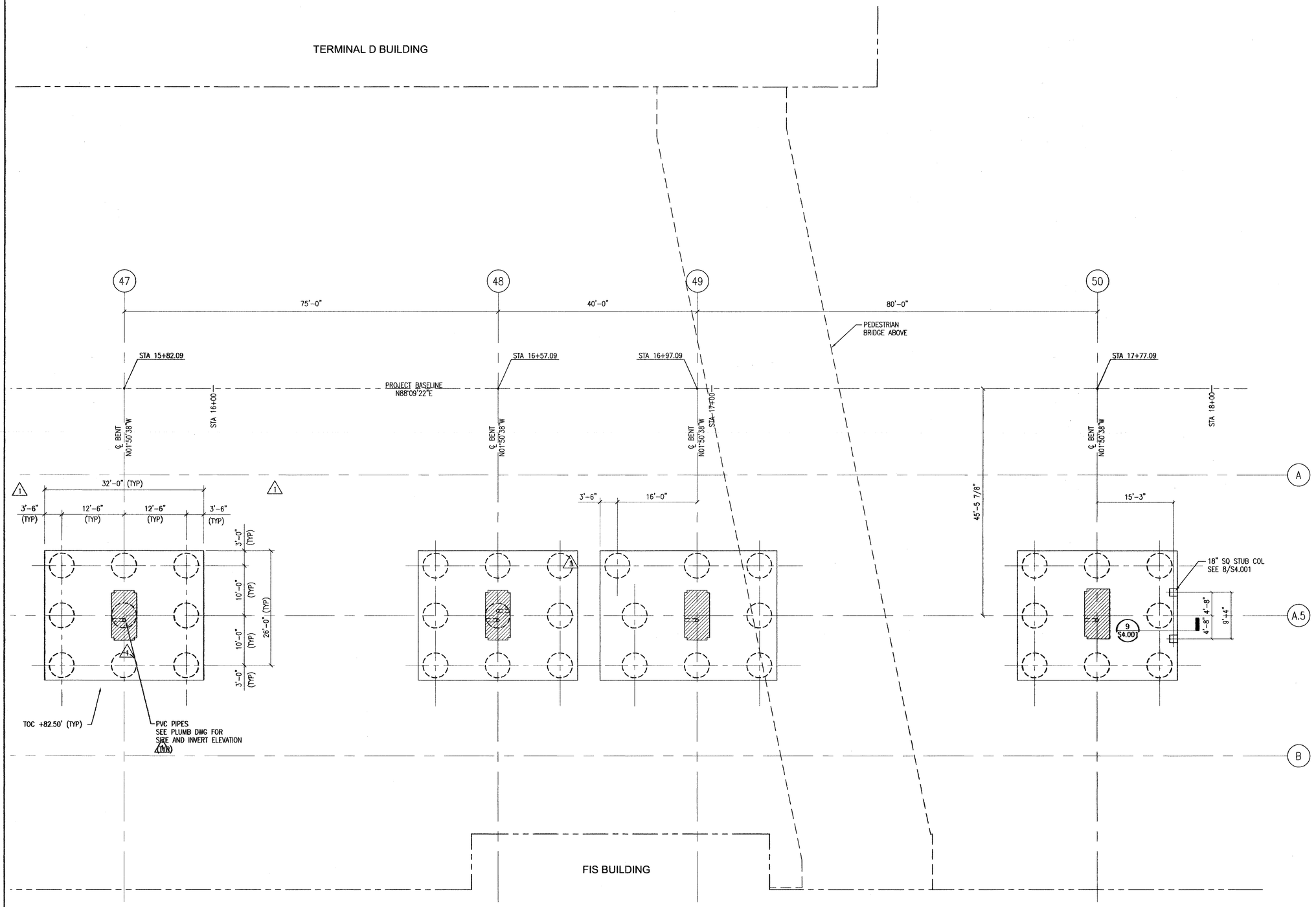
APPROVED BY: DATE:

DIRECTOR HOUSTON AIRPORT SYSTEM

PROJECT NO.	98-1965.1
C.I.P. NO.	A-0354
H.A.S. NO.	536C
SHEET NO.	60 S1.101

RECORD DRAWING

PLOT DATE: 07/31/03



1 S2.001 FOUNDATION PLAN 1/8"=1'-0"

NOTES TO SHEET

1. REFER TO SHEET S0.100 FOR STRUCTURAL GENERAL NOTES.
2. REFER TO SHEET S6.001 FOR DRILLED SHAFT FOOTING DETAIL.

N

NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

0' 4' 8' 16' 24'

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

RECORD DRAWINGS DO NOT MODIFY

DATE: MAY 6, 2005

HUITT-ZOLLARS, INC.

NOTE: INFORMATION USED TO DEVELOP THESE DOCUMENTS WAS TAKEN FROM RECORD OF THE WORK DRAWINGS PREPARED BY THE CONSTRUCTION CONTRACTOR, CLARK/MISSION A JOINT VENTURE. THE INFORMATION PROVIDED BY THE CONTRACTOR WAS NOT VERIFIED BY THE DESIGN FIRM NAMED ABOVE.

HOUSTON AIRPORT SYSTEM
GEORGE BUSH INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

HUITT-ZOLLARS
Huitt-Zollars, Inc. Engineering / Architecture
1500 Oaky Ashford, Suite 200, Houston, TX 77077
Phone (281) 496-3066 Fax (281) 496-4220

CHARLES F. TERRY, INC.
Consulting Engineers
2801 Gaston Avenue
Dallas, Texas 75226
214/823-9420 FAX 214/823-9494

REVISIONS

NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

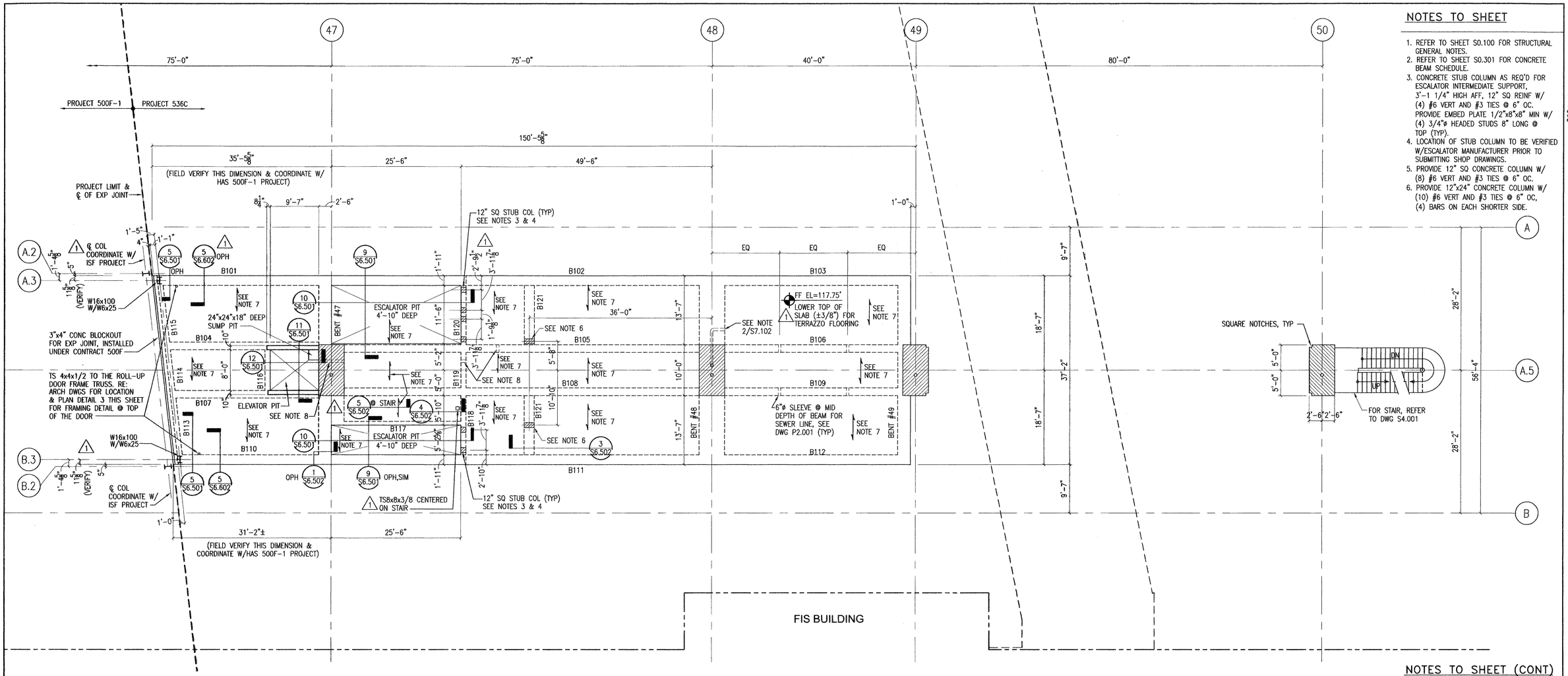
APM STATION & PLATFORM
FOUNDATION PLAN

PROJECT MGR:	GRW
DESIGNER:	JJC
DRAWN BY:	KLV
CHECKED BY:	MMR
DRAWING STANDARD:	
	ISEP 07.20.2000
SCALE:	1/8"=1'-0"
DATE:	09/14/01

FOR RECORD DRAWING ONLY
STATE OF TEXAS
MOEN MICHAEL REHANI
83454
PROFESSIONAL ENGINEER
5/16/05

APPROVED BY:	DATE:
DIRECTOR HOUSTON AIRPORT SYSTEM	
PROJECT NO.	02-2025-01
C.I.P. NO.	A-0354
H.A.S. NO.	536C
SHEET NO.	S2.001

PLOT DATE: 10/19/01 HAS FILE: 1A536CS2001.DWG



NOTES TO SHEET

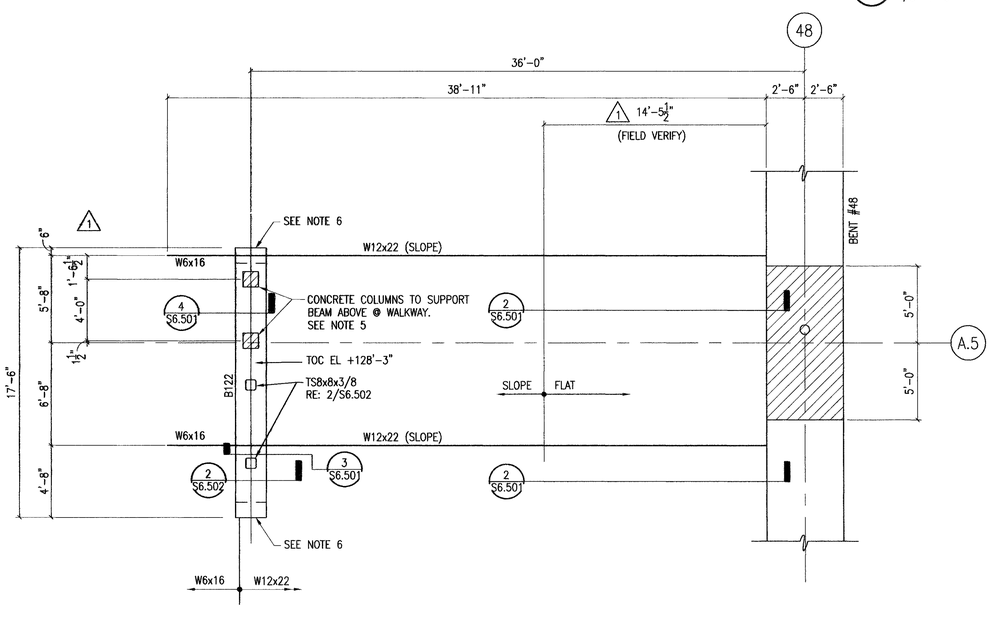
1. REFER TO SHEET S0.100 FOR STRUCTURAL GENERAL NOTES.
2. REFER TO SHEET S0.301 FOR CONCRETE BEAM SCHEDULE.
3. CONCRETE STUB COLUMN AS REQ'D FOR ESCALATOR INTERMEDIATE SUPPORT, 3'-1 1/4" HIGH AFF, 12" SQ REINF W/ (4) #6 VERT AND #3 TIES @ 6" OC. PROVIDE EMBED PLATE 1/2"x8"x8" MIN W/ (4) 3/4"ø HEADED STUDS 8" LONG @ TOP (TYP).
4. LOCATION OF STUB COLUMN TO BE VERIFIED W/ESCALATOR MANUFACTURER PRIOR TO SUBMITTING SHOP DRAWINGS.
5. PROVIDE 12" SQ CONCRETE COLUMN W/ (8) #6 VERT AND #3 TIES @ 6" OC.
6. PROVIDE 12"x24" CONCRETE COLUMN W/ (10) #6 VERT AND #3 TIES @ 6" OC, (4) BARS ON EACH SHORTER SIDE.

NOTES TO SHEET (CONT)

7. 8" THK SLAB W/#5 @ 12" CONT T&B IN NORTH-SOUTH DIRECTION AND #4 CONT TEMPERATURE REINF @ 16" T&B IN EAST-WEST DIRECTION. #5 TOP REINF IS CONT THROUGH ALL ADJACENT SLABS. CONTINUE & BEND THIS #5 TOP REINF FOR 3'-6" MIN INTO END SUPPORTS ALONG THE FAR END FACE.
8. PVC SLEEVE THROUGH BENT, SEE NOTE 2 ON DWG S7.102

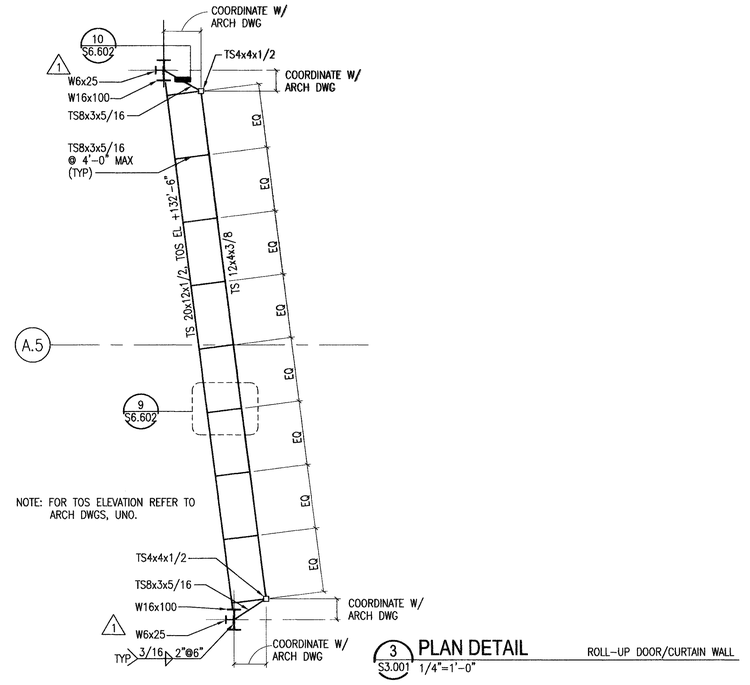
1 LOBBY LEVEL FRAMING PLAN

S3.001 1/8"=1'-0" FIN. FLR. EL +117'-9"



2 STAIR LANDING AND SHAFT WALL SUPPORT FRAMING PLAN

S3.001 1/4"=1'-0"



3 PLAN DETAIL

S3.001 1/4"=1'-0" ROLL-UP DOOR/CURTAIN WALL

N

NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

0' 2' 4' 8' 12'

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

NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

0' 4' 8' 16' 24'

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

RECORD DRAWINGS
DO NOT MODIFY

DATE: MAY 6, 2005

HUITT-ZOLLARS, INC.

NOTE: INFORMATION USED TO DEVELOP THESE DOCUMENTS WAS TAKEN FROM RECORD OF THE WORK DRAWINGS PREPARED BY THE CONSTRUCTION CONTRACTOR, CLARK/MISSION A JOINT VENTURE. THE INFORMATION PROVIDED BY THE CONTRACTOR WAS NOT VERIFIED BY THE DESIGN FIRM NAMED ABOVE.

HOUSTON AIRPORT SYSTEM
GEORGE BUSH INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

HUITT-ZOLLARS
Huitt-Zollars, Inc. Engineering / Architecture
1500 Oaky Ashford, Suite 200, Houston, TX 77077
Phone (281) 496-0068 Fax (281) 496-0220

CHARLES F. TERRY, INC.
Consulting Engineers
2901 Gaston Avenue
Dallas, Texas 75226
214/565-9400 FAX 214/565-9404

REVISIONS			
NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID 10/19/01		
1	ADDENDUM #1	02/01/02	MR

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION & PLATFORM

LOBBY LEVEL FRAMING PLANS

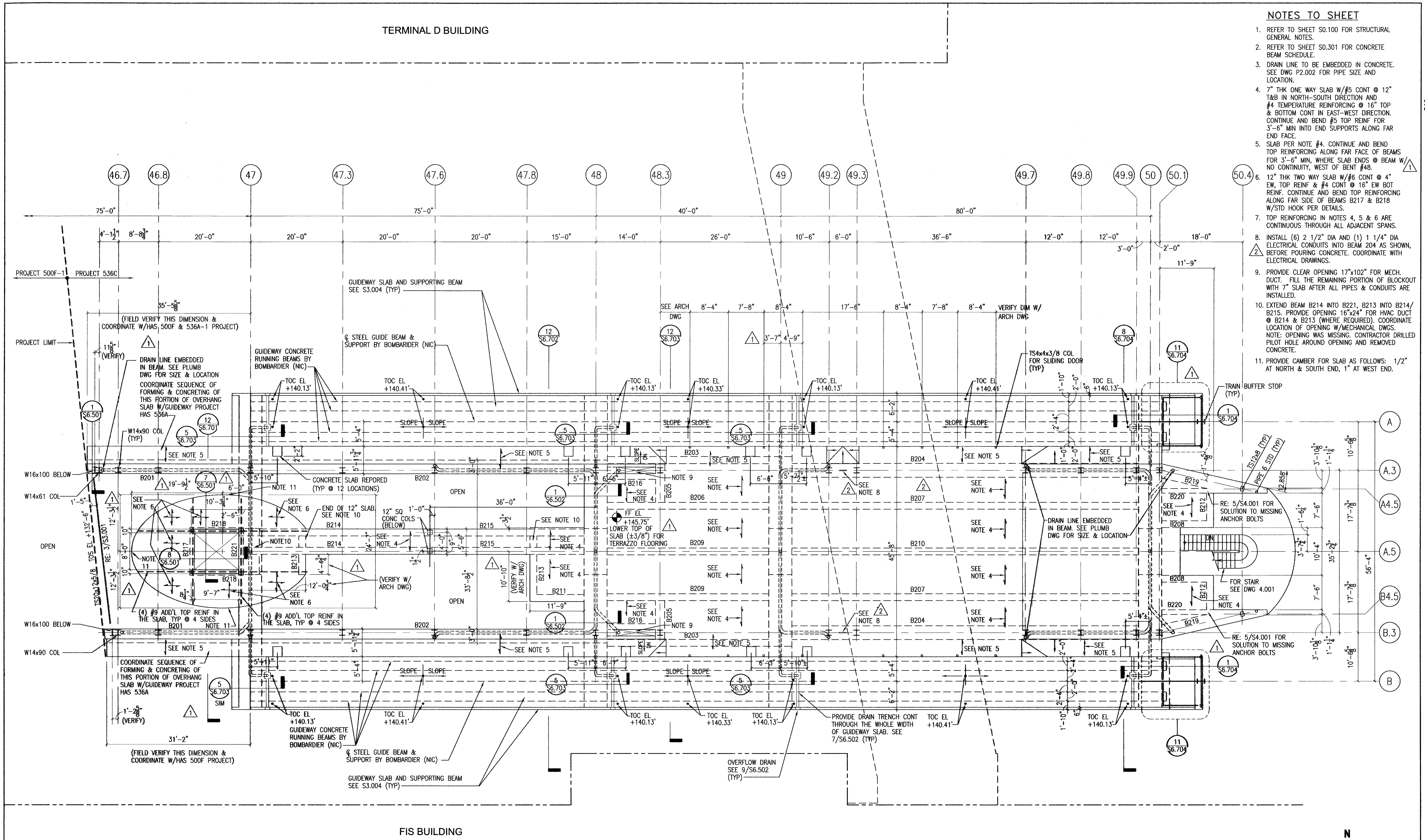
PROJECT MGR:	GRW
DESIGNER:	JJC
DRAWN BY:	KLV
CHECKED BY:	MMR
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	1/8"=1'-0"
DATE:	09/14/01

FOR RECORD DRAWING ONLY

STATE OF TEXAS
MOEIN MICHAEL REYHANI
83454
LICENSED
PROFESSIONAL ENGINEER
5/14/02

APPROVED BY:	DATE:
DIRECTOR HOUSTON AIRPORT SYSTEM	
PROJECT NO.	02-2025-01
C.I.P. NO.	A-0354
H.A.S. NO.	536C
SHEET NO.	S3.001

PLOT DATE:10/19/01 HAS FILE:\A536CS3001.DWG



NOTES TO SHEET

1. REFER TO SHEET S0.100 FOR STRUCTURAL GENERAL NOTES.
2. REFER TO SHEET S0.301 FOR CONCRETE BEAM SCHEDULE.
3. DRAIN LINE TO BE EMBEDDED IN CONCRETE. SEE DWG P2.002 FOR PIPE SIZE AND LOCATION.
4. 7" THK ONE WAY SLAB W/#5 CONT @ 12" T&B IN NORTH-SOUTH DIRECTION AND #4 TEMPERATURE REINFORCING @ 16" TOP & BOTTOM CONT IN EAST-WEST DIRECTION. CONTINUE AND BEND #5 TOP REINF FOR 3'-6" MIN INTO END SUPPORTS ALONG FAR END FACE.
5. SLAB PER NOTE #4. CONTINUE AND BEND TOP REINFORCING ALONG FAR FACE OF BEAMS FOR 3'-6" MIN, WHERE SLAB ENDS @ BEAM W/NO CONTINUITY, WEST OF BENT #48.
6. 12" THK TWO WAY SLAB W/#6 CONT @ 4" EW, TOP REINF & #4 CONT @ 16" EW BOT REINF. CONTINUE AND BEND TOP REINFORCING ALONG FAR SIDE OF BEAMS B217 & B218 W/STD HOOK PER DETAILS.
7. TOP REINFORCING IN NOTES 4, 5 & 6 ARE CONTINUOUS THROUGH ALL ADJACENT SPANS.
8. INSTALL (6) 2 1/2" DIA AND (1) 1 1/4" DIA ELECTRICAL CONDUITS INTO BEAM 204 AS SHOWN, BEFORE POURING CONCRETE. COORDINATE WITH ELECTRICAL DRAWINGS.
9. PROVIDE CLEAR OPENING 17"x102" FOR MECH. DUCT. FILL THE REMAINING PORTION OF BLOCKOUT WITH 7" SLAB AFTER ALL PIPES & CONDUITS ARE INSTALLED.
10. EXTEND BEAM B214 INTO B221, B213 INTO B214/B215. PROVIDE OPENING 16"x24" FOR HVAC DUCT @ B214 & B213 (WHERE REQUIRED). COORDINATE LOCATION OF OPENING W/MECHANICAL DWGS. NOTE: OPENING WAS MISSING. CONTRACTOR DRILLED PILOT HOLE AROUND OPENING AND REMOVED CONCRETE.
11. PROVIDE CAMBER FOR SLAB AS FOLLOWS: 1/2" AT NORTH & SOUTH END, 1" AT WEST END.

1 PLATFORM LEVEL FRAMING PLAN
S3.002 1/8" = 1'-0" FIN. FLR. EL +145'-9", UNO

N

NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

0' 4' 8' 16' 24'

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

RECORD DRAWINGS DO NOT MODIFY

DATE: MAY 6, 2005

HUITT-ZOLLARS, INC.

NOTE: INFORMATION USED TO DEVELOP THESE DOCUMENTS WAS TAKEN FROM RECORD OF THE WORK DRAWINGS PREPARED BY THE CONSTRUCTION CONTRACTOR, CLARK/MISSION A JOINT VENTURE. THE INFORMATION PROVIDED BY THE CONTRACTOR WAS NOT VERIFIED BY THE DESIGN FIRM NAMED ABOVE.

HOUSTON AIRPORT SYSTEM
GEORGE BUSH INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

HUITT-ZOLLARS

CHARLES F. TERRY, INC. Consulting Engineers

REVISIONS

NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
1	ADDENDUM #1	02/01/02	MR
2	REVISION #1	01/27/03	MR

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION & PLATFORM
PLATFORM LEVEL FRAMING PLAN

PROJECT MGR:	GRW
DESIGNER:	JJC
DRAWN BY:	KLV
CHECKED BY:	MMR
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	1/8"=1'-0"
DATE:	09/14/01

FOR RECORD DRAWING ONLY

STATE OF TEXAS — MOEIN MICHAEL REYHANI — 63454

APPROVED BY: DATE:

DIRECTOR HOUSTON AIRPORT SYSTEM

PROJECT NO.	02-2025-01
C.I.P. NO.	A-0354
H.A.S. NO.	536C
SHEET NO.	S3.002

65

PLOT DATE: 10/19/01 HAS FILE: IA536CS3002.dwg

BEAM SCHEDULE NOTES

FR1 = W16x77 CURVED ROOF BEAM & W14x90 COL
FR2 = W16x77 CURVED ROOF BEAM & W14x90 COL
FR3 = W16x77 CURVED ROOF BEAM & W14x90 COL
FR4 = W16x77 CURVED ROOF BEAM & W14x90 COL
FR5 = PIPE 12 X-STRONG CURVED ROOF BEAM & TS 12x8x1/2 COL
FR6 = W12x65 CURVED ROOF BEAM & W14x90 COL.

RB1 = W16 (SPLIT W12x45 SECTION TO FORM W16-W6 TAPERED BEAM)
RB2 = W16x77 (CURVED)
RB3 = W14x34 (CURVED) (1)
RB4 = C8x11.5
RB5 = TS 20x12x3/8
RB6 = TS 20x12x5/8
RB7 = W14x34 (CURVED)
RB8 = TS 6x3x1/4 (FIELD SPLICE CONNECTION @ SUPPORT W/PARTIAL PENETRATION WELD)
RB9 = W14x34 (CURVED)
RB10= W16x40
RB11= W16x77
C10 = C10x15.3 W/FLANGES TURNED UP VERTICALLY (SEE ARCH DWGS FOR TOS ELEVATION IN RELATION TO DOOR FRAME AND ENCLOSURE)

NOTES TO SHEET

1. REFER TO SHEET S0.100 FOR STRUCTURAL GENERAL NOTES.
2. TOS=+156'-11 1/4" FOR PIPE 6 STD COL. PROVIDE 1/4" THK CAP PLATE WELDED TO PIPE AND PROVIDE 1" THK WING PLATE CONNECTION, FIELD WELD TO RB5.
3. TOS=+156'-7 7/8" FOR PIPE 6 DIAGONAL.
4. TOS=+160'-5" FOR PIPE 6 DIAGONAL @ CONNECTION TO COLUMN. COPE PIPE AND FIELD WELD TO COLUMN @ EACH END.
5. PROVIDE CAP PLATE 1/4" THK, TOS=+160'-7" TO PIPE 6 STD COLUMN.
6. PROVIDE 2" CAMBER TO RB1 AT END OF CANTILEVER.
7. LOCATE W6x20 VERTICAL AND AT CENTER OF FRAME AND ROOF BEAM. PROVIDE SIMPLE SHEAR CONNECTION AT EACH END.
8. PROVIDE 1/4" THK CAP PLATE BOLTED TO BOTTOM OF C10. PROVIDE 1/2" THK x 8" SQ BASE PLATE WELDED TO COL AND (4) 1/2"ø x 1'-0" ANCHOR BOLTS. BASE PLATE TO BE POSITION FLUSH WITH EDGE OF SLAB. PROVIDE BLOCK-OUT IN SLAB SO THAT TOP OF BASE PLATE IS SAME ELEVATON AS TOP OF SLAB. SEE ARCH DWG FOR LOCATION OF TS4.
9. PROVIDE CAP PLATE WITH AB FOR W14x61 SIMILAR TO W14x90. FOR CAP PLATE CONN TO RB5 SEE 12/S6.601 (SIM).
10. PROVIDE 6"ø OPENING AT MID DEPTH OF RB11. VERIFY SIZE & LOCATION WITH PLUMBING DRAWINGS.

TERMINAL D BUILDING

FIS BUILDING

PROJECT 500F-1 PROJECT 536C

NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

0' 4' 8' 16' 24'

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

1 S3.003 ROOF FRAMING PLAN 1/8"=1'-0"

RECORD DRAWINGS
DO NOT MODIFY
DATE: MAY 6, 2005
HUITT-ZOLLARS, INC.
NOTE: INFORMATION USED TO DEVELOP THESE DOCUMENTS WAS TAKEN FROM RECORD OF THE WORK DRAWINGS PREPARED BY THE CONSTRUCTION CONTRACTOR, CLARK/MISSION A JOINT VENTURE. THE INFORMATION PROVIDED BY THE CONTRACTOR WAS NOT VERIFIED BY THE DESIGN FIRM NAMED ABOVE.

HOUSTON AIRPORT SYSTEM
GEORGE BUSH INTERCONTINENTAL AIRPORT HOUSTON TEXAS

HUITT-ZOLLARS
Huitt-Zollars, Inc. Engineering / Architecture
1800 Bering Ashford, Suite 200, Houston, TX 77077
Phone (281) 496-0006 Fax (281) 496-0220

CHARLES F. TERRY, INC.
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2901 Gaston Avenue
Dallas, Texas 75226
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REVISIONS

NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
1	ADDENDUM #1	02/01/02	MR

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION & PLATFORM

ROOF FRAMING PLAN

PROJECT MGR:	GRW
DESIGNER:	JJC
DRAWN BY:	KLV
CHECKED BY:	MMR
DRAWING STANDARD:	
	ISEP 07.20.2000
SCALE:	1/8"=1'-0"
DATE:	09/14/01

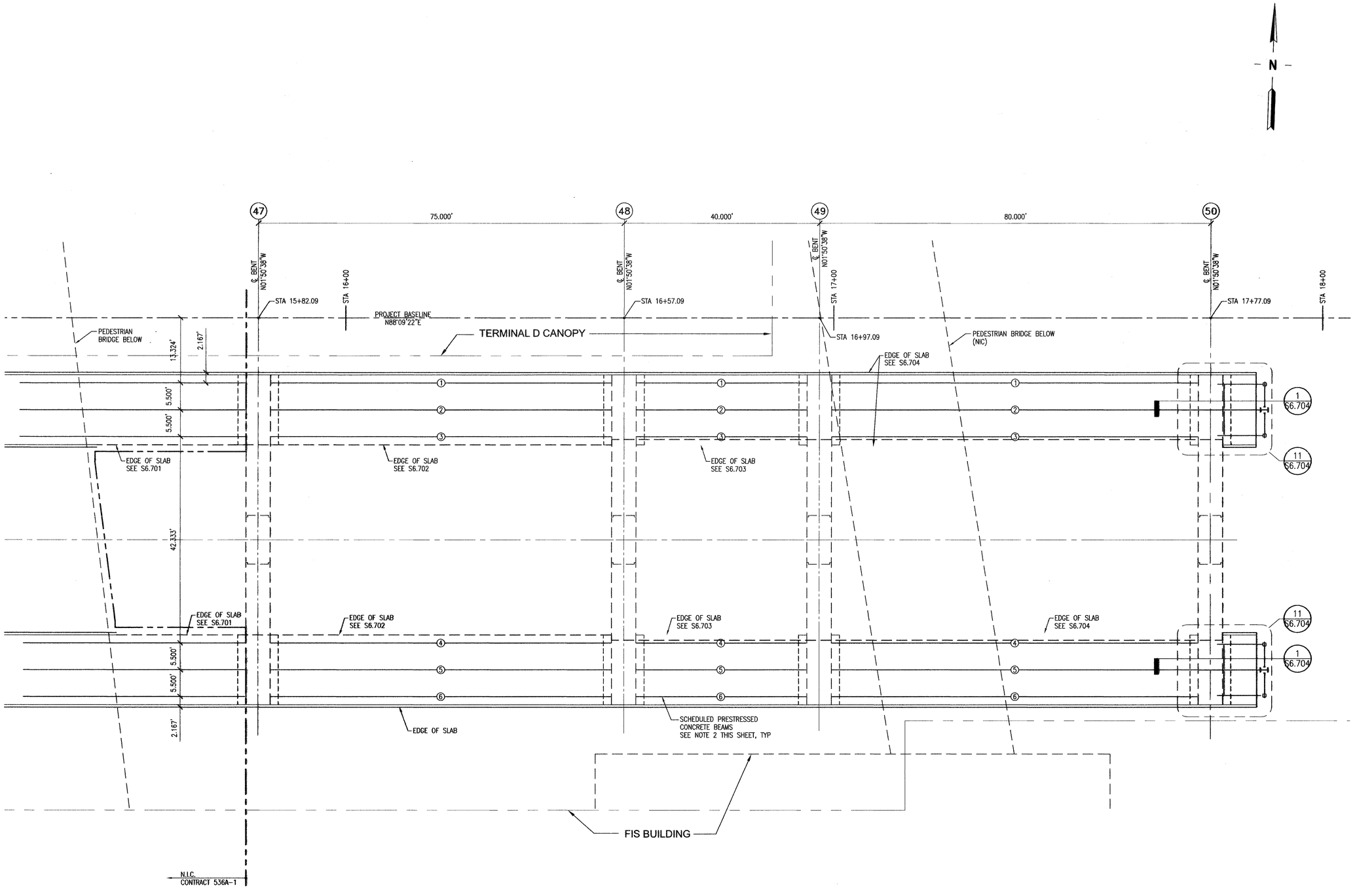
FOR RECORD DRAWING ONLY
STATE OF TEXAS
MOEN MICHAEL REYHANI
83454
LICENSED PROFESSIONAL ENGINEER
5/16/05

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO. 02-2025-01
C.I.P. NO. A-0354
H.A.S. NO. 536C
SHEET NO. S3.003

PLOT DATE:10/19/01 HAS FILE:HAS36CS3003.DWG



1 S3.004 APM GUIDEWAY FRAMING PLAN
1" = 10'

NOTES TO SHEET

1. REFER TO SHEET S0.100 FOR STRUCTURAL GENERAL NOTES.
2. REFER TO SHEET S0.201 FOR PRESTRESSED CONCRETE BEAM SCHEDULES.

RECORD DRAWINGS
DO NOT MODIFY

DATE: MAY 6, 2005

HUITT-ZOLLARS, INC.

NOTE: INFORMATION USED TO DEVELOP THESE DOCUMENTS WAS TAKEN FROM RECORD OF THE WORK DRAWINGS PREPARED BY THE CONSTRUCTION CONTRACTOR, CLARK/MISSION A JOINT VENTURE. THE INFORMATION PROVIDED BY THE CONTRACTOR WAS NOT VERIFIED BY THE DESIGN FIRM NAMED ABOVE.

HOUSTON AIRPORT SYSTEM
GEORGE BUSH INTERCONTINENTAL AIRPORT HOUSTON TEXAS

HUITT-ZOLLARS
Huitt-Zollars, Inc. Engineering / Architecture
1500 Daly Ashford, Suite 200, Houston, TX 77077
Phone (281) 496-0066 Fax (281) 496-0220

CHARLES F. TERRY, INC.
Consulting Engineers
2501 Gaston Avenue
Dallas, Texas 75226
214/828-9400 FAX 214/828-9404

REVISIONS

NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION & PLATFORM
APM GUIDEWAY BEAM FRAMING PLAN

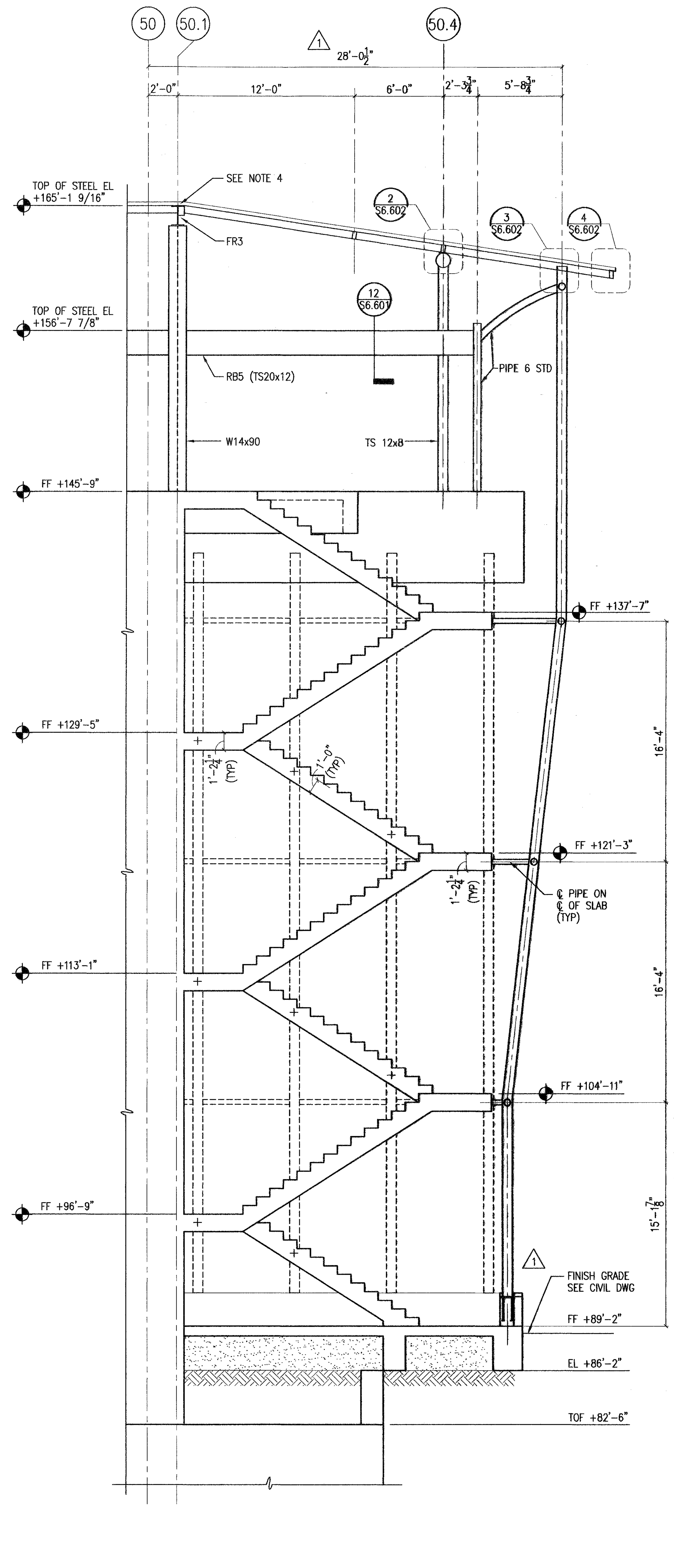
PROJECT MGR:	GRW
DESIGNER:	JJC
DRAWN BY:	CTA
CHECKED BY:	MMR
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	1"=10'
DATE:	09/14/01

FOR RECORD DRAWING ONLY

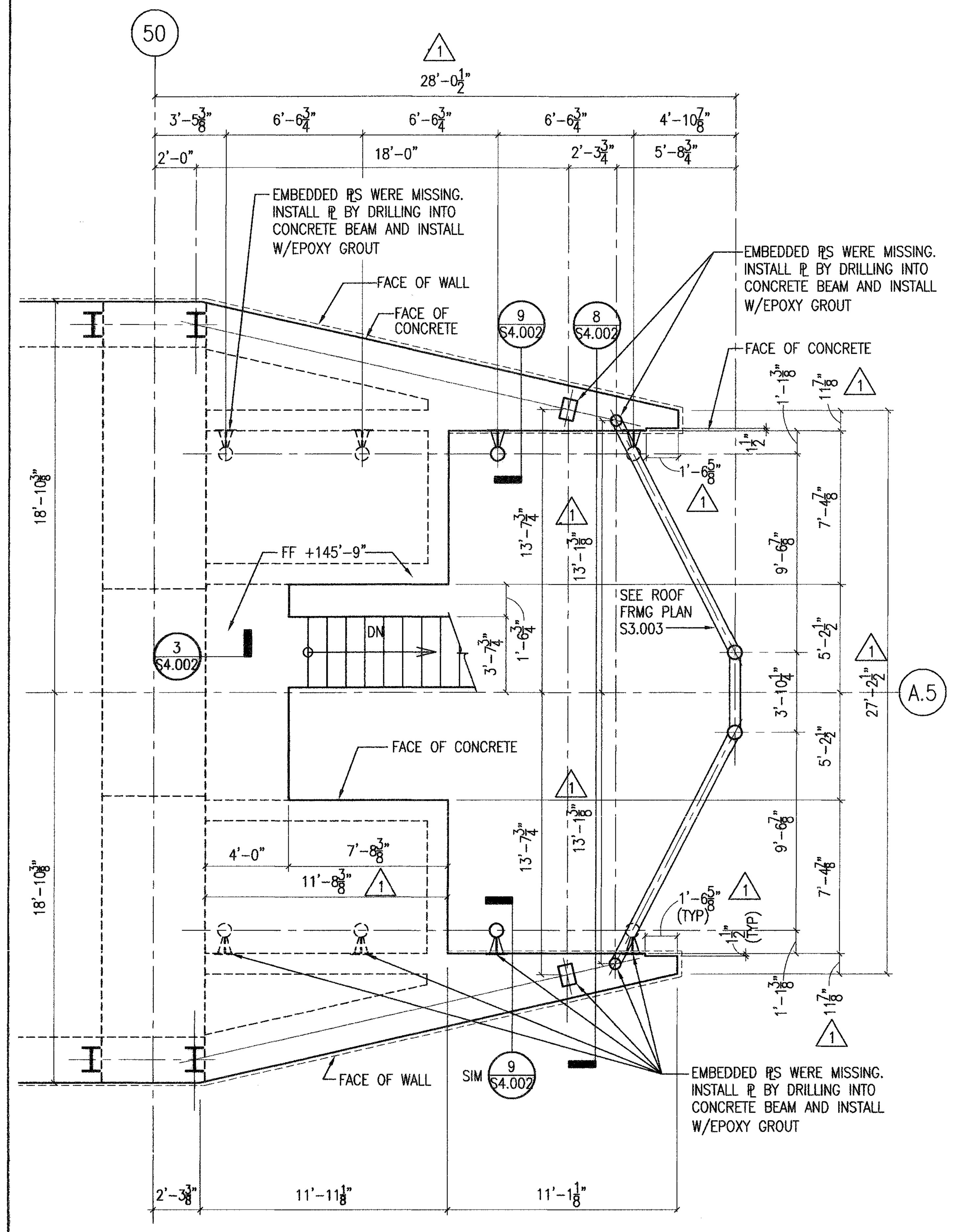
STATE OF TEXAS
MOEN MICHAEL ROTHWELL
85454
LICENSED PROFESSIONAL ENGINEER
5/06/05

APPROVED BY:	DATE:
DIRECTOR HOUSTON AIRPORT SYSTEM	
PROJECT NO.	02-2025-01
C.I.P. NO.	A-0354
H.A.S. NO.	536C
SHEET NO.	S3.004

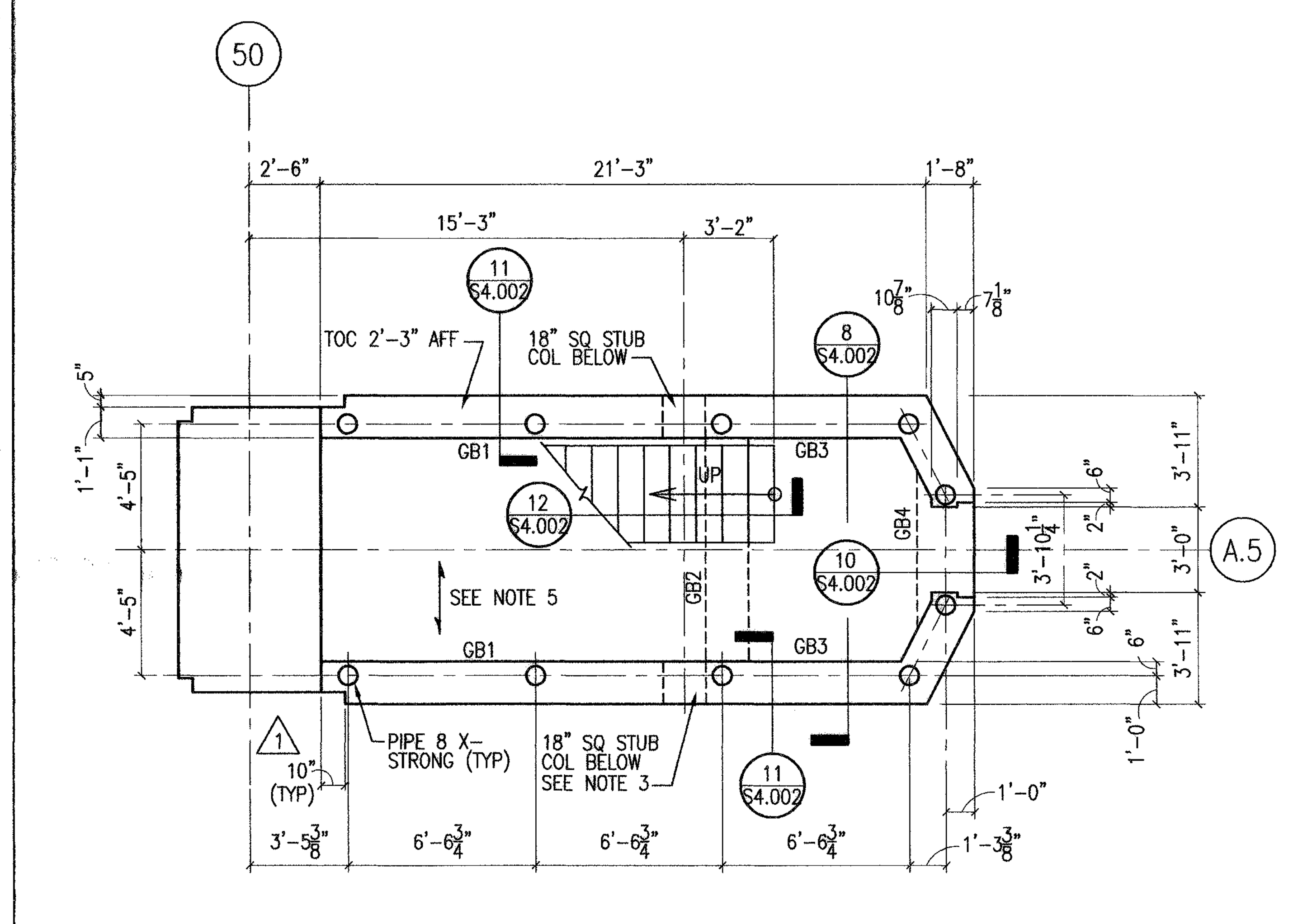
PLOT DATE:10/19/01 HAS FILE:\A536CS3004.DWG



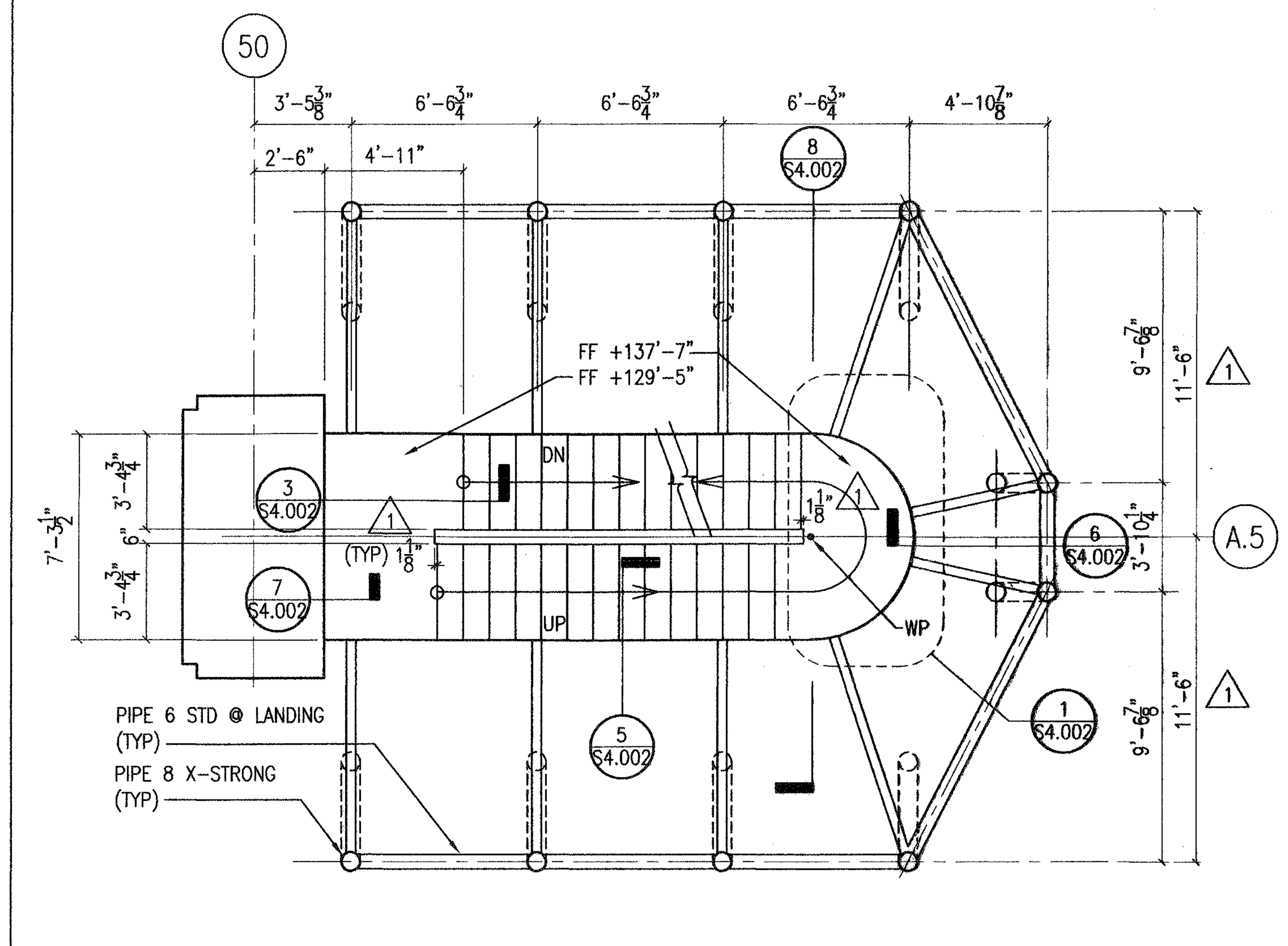
9 OVERALL STAIR SECTION
S4.001 1/4"=1'-0"



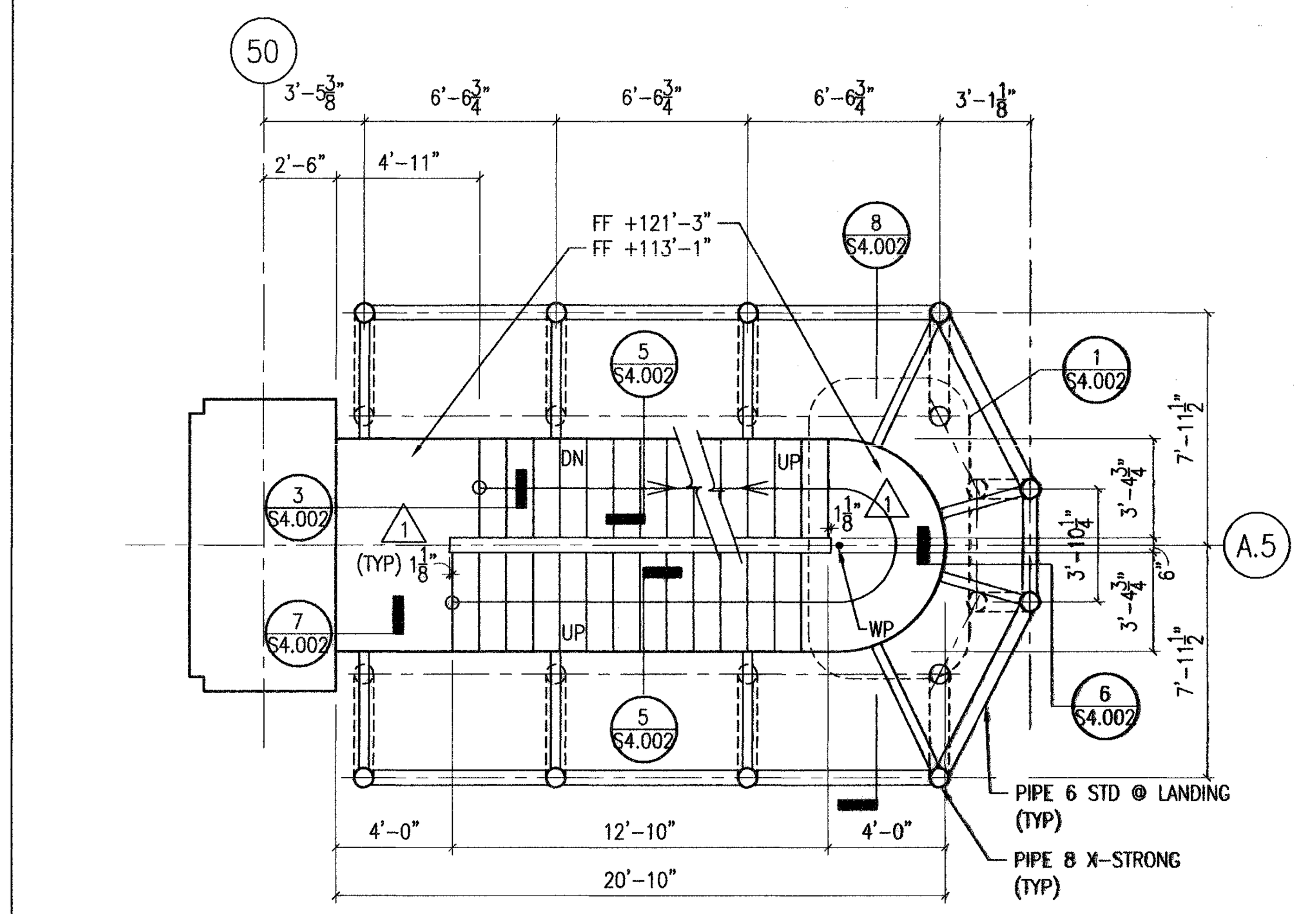
5 STAIR #2 FRAMING PLAN-LEVEL +145'-9"
S3.002 1/4"=1'-0"



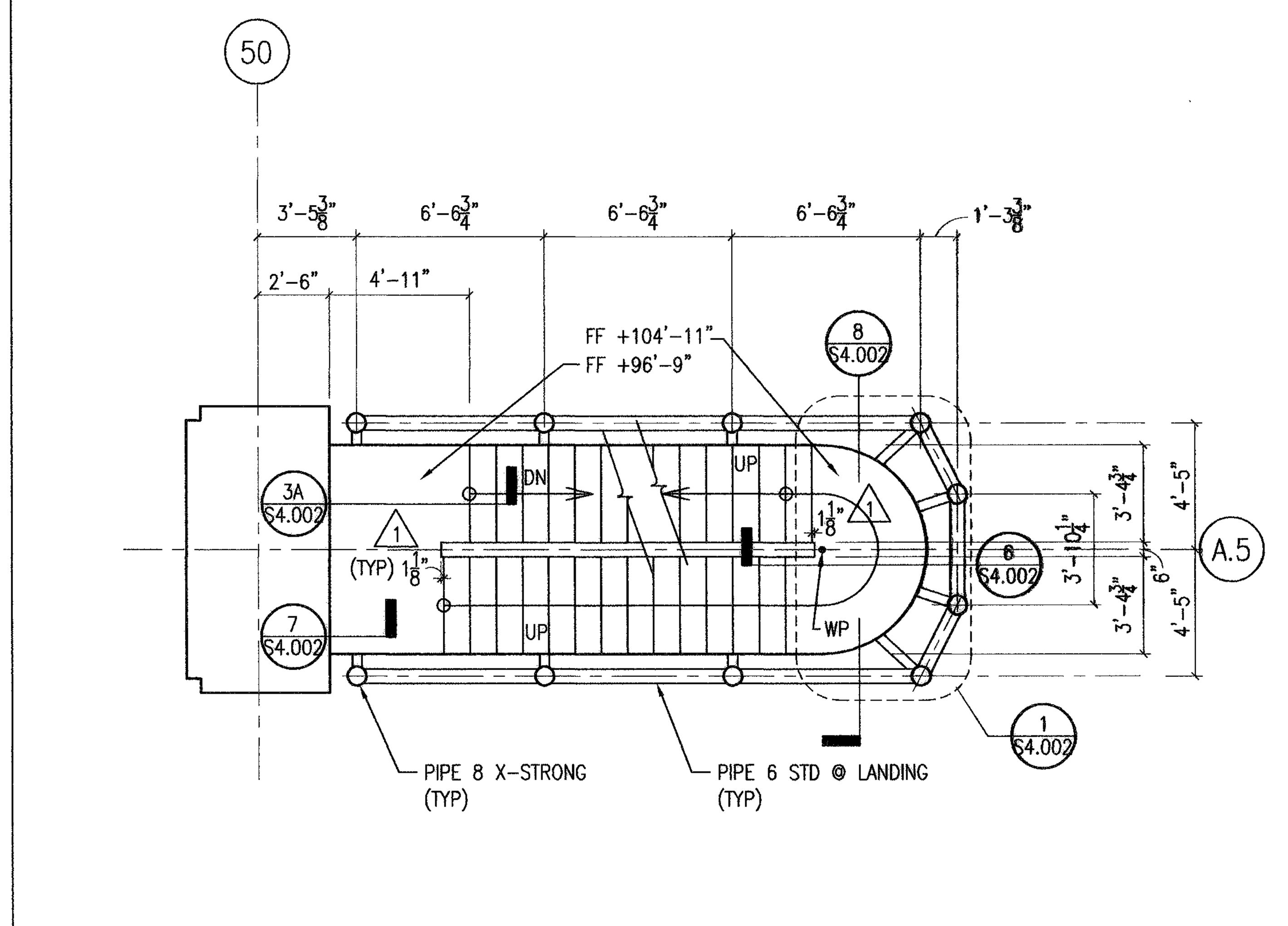
8 GROUND FLOOR PLAN, FF +89'-2"
S2.001 1/4"=1'-0"



1 STAIR #2 LANDING PLAN-FF +137'-7"
S4.001 1/4"=1'-0"



4 STAIR #2 LANDING PLAN-FF +121'-3"
S4.001 1/4"=1'-0"



7 STAIR #2 LANDING PLAN-FF +104'-11"
S3.001 1/4"=1'-0"

NOTES TO SHEET

1. REFER TO SHEET S0.100 FOR STRUCTURAL GENERAL NOTES.
2. REFER TO SHEET S0.301 FOR CONCRETE BEAM SCHEDULE.
3. PROVIDE STUB COLUMN WITH (8) #8 VERT REINF AND #4 @ 6" OC TIES WITH SAME SIZE AND NUMBER OF DOWELS INTO PIER CAP.
4. PROVIDE WELDED BEAM CONNECTION FOR RB8 TO FR1 AND FR3. SEE DETAIL 10/S6.601
5. 8" THK SLAB WITH #5 @ 12" EW, T&B.

NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

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

RECORD DRAWINGS
DO NOT MODIFY

DATE: MAY 6, 2005

HUITT-ZOLLARS, INC.

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HOUSTON AIRPORT SYSTEM
GEORGE BUSH INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

HUITT-ZOLLARS

CHARLES F. TERRY, INC. Consulting Engineers

REVISIONS

NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
1	ADDENDUM #1	02/01/02	MR

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION & PLATFORM
STAIR FRAMING PLANS AND SECTIONS

PROJECT MGR:	GRW
DESIGNER:	JUC
DRAWN BY:	KLV
CHECKED BY:	MMR
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	AS NOTED
DATE:	09/14/01

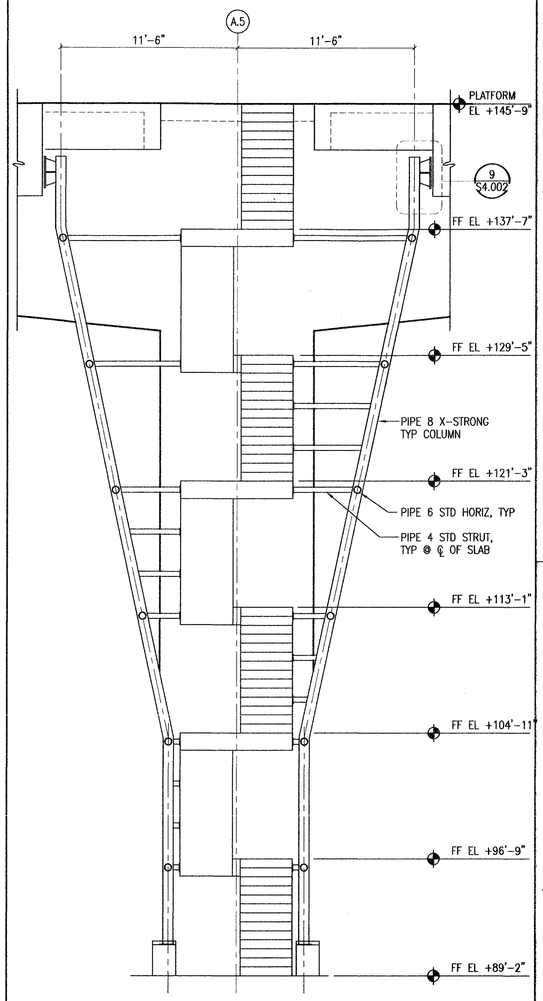
FOR RECORD DRAWING ONLY

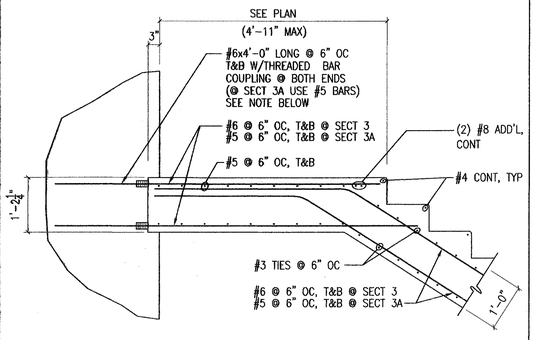
APPROVED BY: DATE:

DIRECTOR HOUSTON AIRPORT SYSTEM

PROJECT NO.	02-2025-01
C.I.P. NO.	A-0354
H.A.S. NO.	536C
SHEET NO.	S4.001

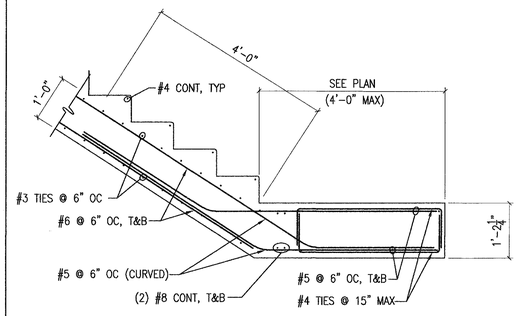
PLOT DATE:10/19/01 HAS FILE:IA536CS4001.DWG



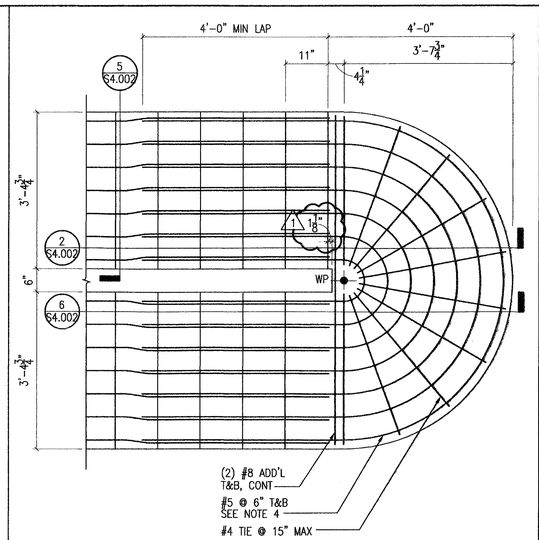


NOTE: AT PLATFORM LEVEL, OMIT THREADED COUPLING AND RUN TOP BAR CONTINUOUSLY INTO ADJACENT SPAN SLAB.

3A S4.001 3 S4.001 SECTION 3/4"=1'-0"



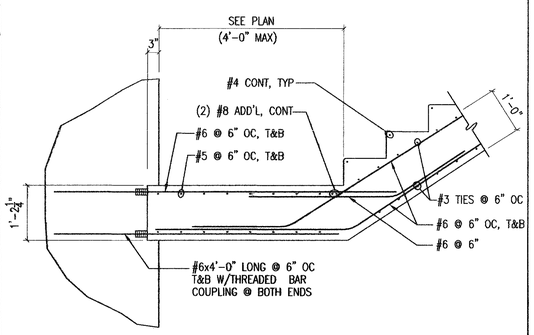
2 S4.002 SECTION 3/4"=1'-0"



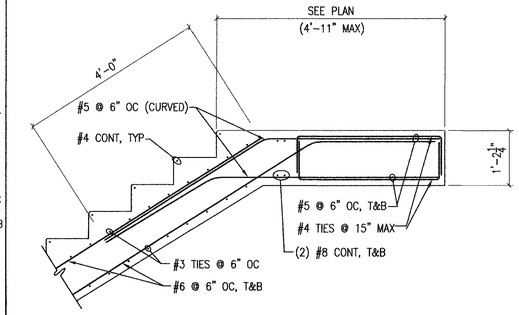
1 S4.001 DETAIL 3/4"=1'-0"

NOTES TO SHEET

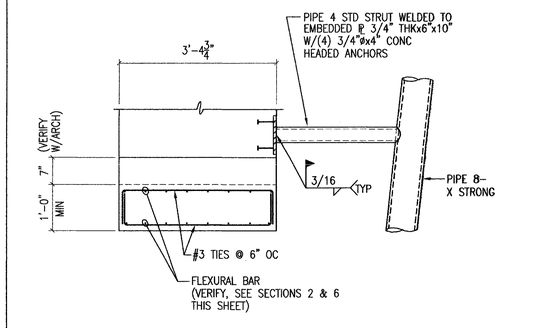
1. REFER TO SHEET S0.100 FOR STRUCTURAL GENERAL NOTES.
2. REFER TO SHEET S0.301 FOR CONCRETE BEAM SCHEDULE.
3. POSITION EMBEDDED ℙ FOR STRUT BRACING TO BE PARALLEL TO BOTTOM OF SLAB. COORDINATE LOCATION OF SLAB REINF WITH LOCATION OF EXPANSION BOLT PRIOR TO CONCRETING.
4. LAP SPLICE MAY BE PROVIDED IN LIEU OF CONT CIRCUMFERENTIAL REINF AS SHOWN. CONTRACTOR SHALL PROPOSE SPLICE LOCATION FOR ENGINEER'S APPROVAL PRIOR TO SUBMITTING SHOP DRAWINGS.



8 S4.001 SECTION 1/4"=1'-0"

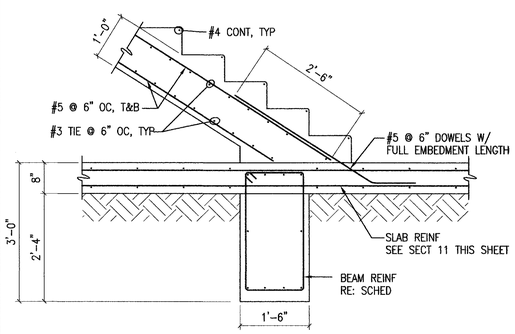


7 S4.001 SECTION 3/4"=1'-0"

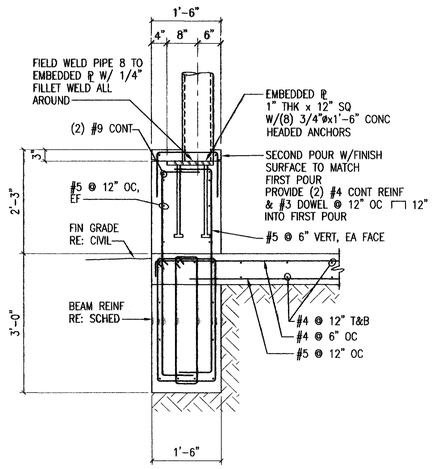


6 S4.002 SECTION 3/4"=1'-0"

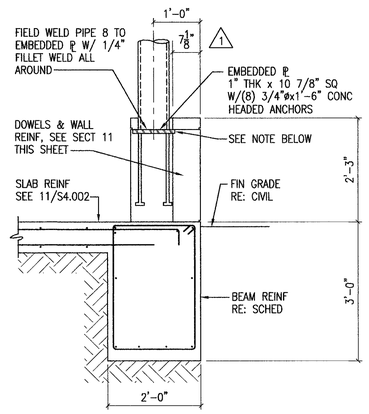
5 S4.002 SECTION 3/4"=1'-0"



12 S4.001 SECTION 3/4"=1'-0"



11 S4.001 SECTION 3/4"=1'-0"



NOTE: FIELD CUT TO FORM NOTCH @ CORNER OF EMBEDDED PLATE. NOTCH TO BE 1" FROM FACE OF CONCRETE WALL.

10 S4.001 SECTION 3/4"=1'-0"

NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

0' 1' 2' 4'

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

RECORD DRAWINGS
DO NOT MODIFY

DATE: MAY 6, 2005

HUITT-ZOLLARS, INC.

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2801 Gaston Avenue
Dallas, Texas 75226
(214)823-4420 FAX 214/823-0404

REVISIONS

NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
1	ADDENDUM #1	02/01/02	MR

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION & PLATFORM
STAIR SECTIONS AND DETAILS

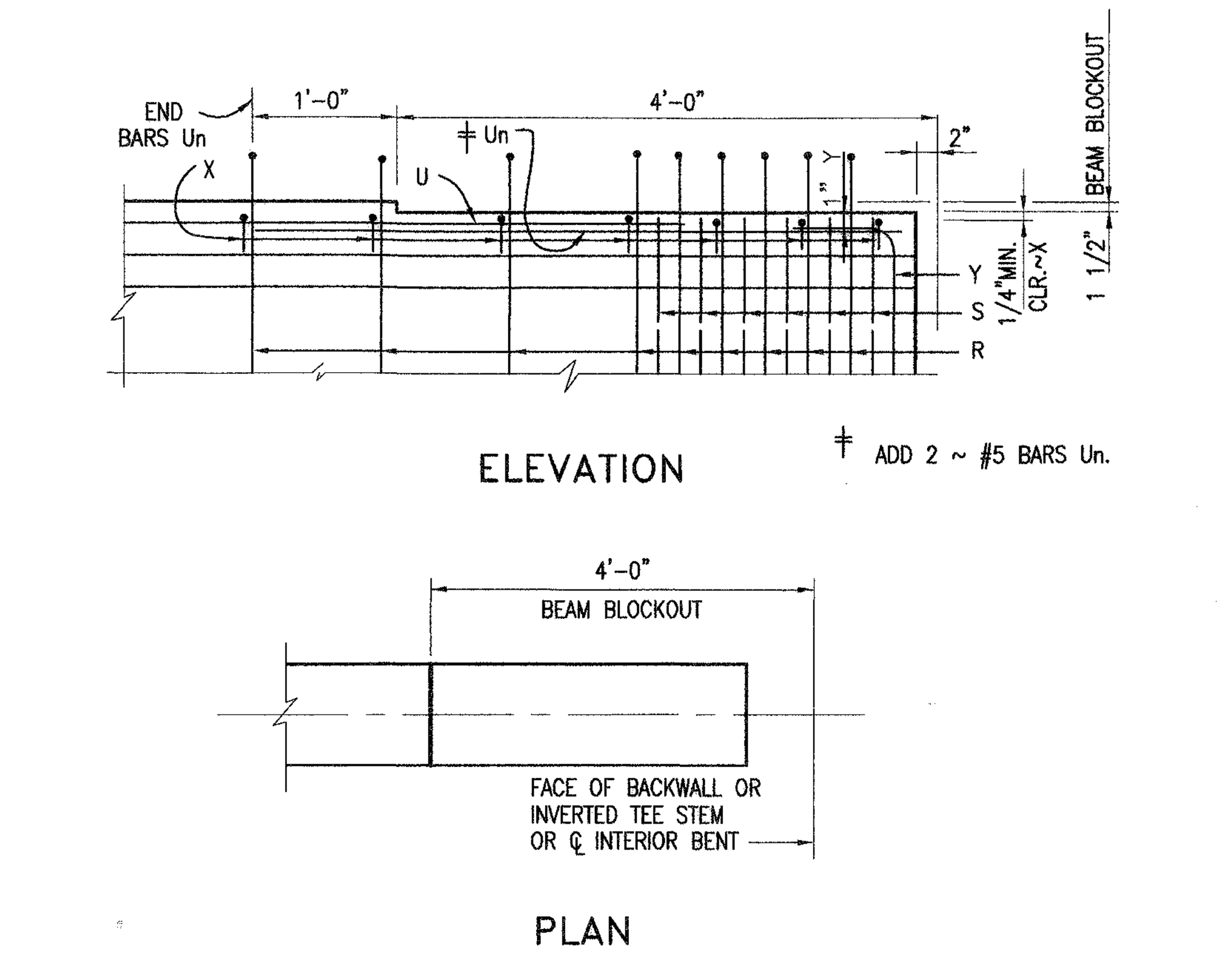
PROJECT MGR:	GRW
DESIGNER:	JUC
DRAWN BY:	KLV
CHECKED BY:	MMR
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	AS NOTED
DATE:	09/14/01

FOR RECORD DRAWING ONLY

STATE OF TEXAS
MOEIN MICHAEL KEYHANI
85454
LICENSED
PROFESSIONAL ENGINEER
6/06/05

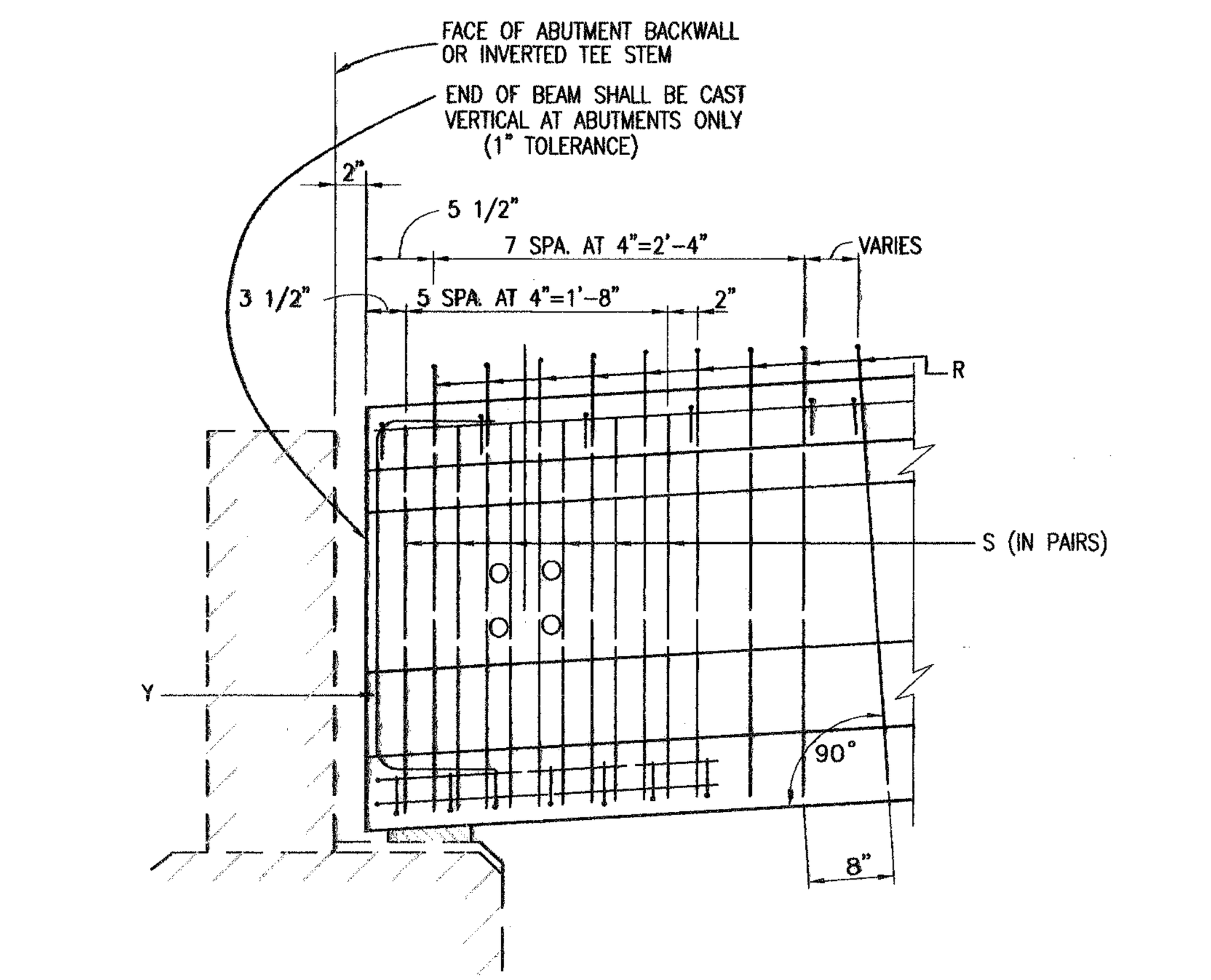
APPROVED BY:	DATE:
DIRECTOR HOUSTON AIRPORT SYSTEM	
PROJECT NO.	02-2025-01
C.I.P. NO.	A-0354
H.A.S. NO.	536C
SHEET NO.	S4.002

PLOT DATE:10/19/01 HAS FILE:I:\AS36\S4002.DWG



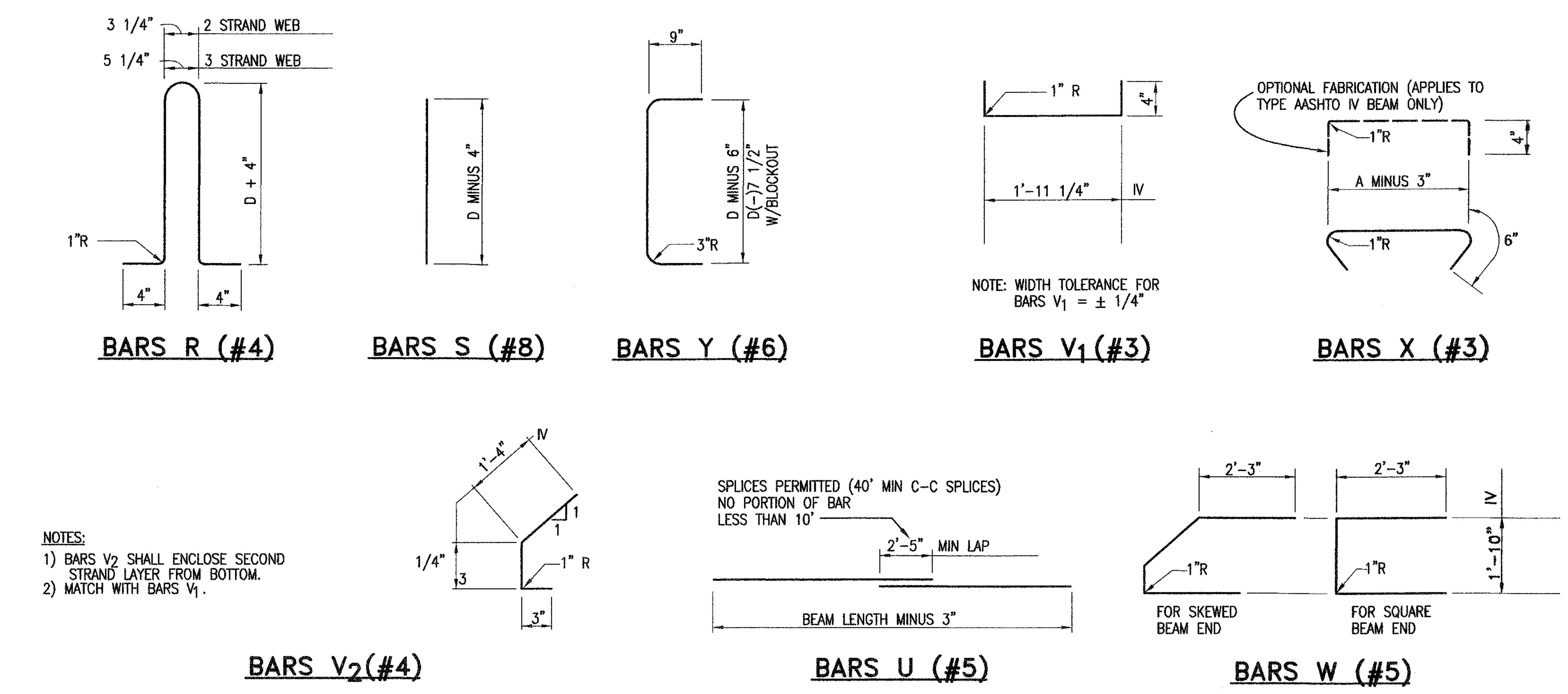
NOTE: BEAM BLOCKOUT REQUIRED ONLY WHEN BEAM HAUNCH AT ℄ BRG. IS LESS THAN 2".

4 S5.501 BLOCKOUT DETAIL FOR THICKENED SLAB END OPTION
NTS

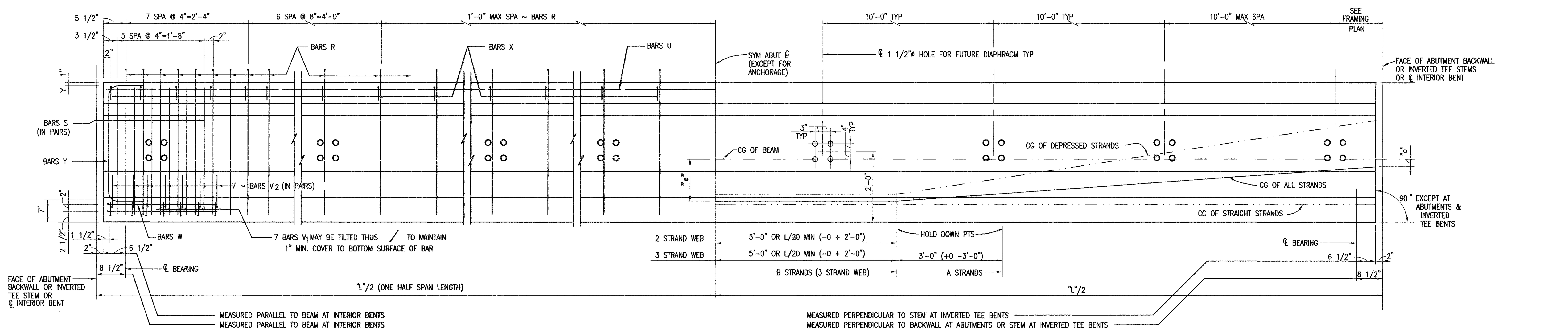


NOTE:
REINFORCING PATTERNS SHOWN ABOVE ARE TO BE USED AS GUIDES IN DETERMINING THE REINFORCEMENT FOR THE ACTUAL BEAM TYPE AND SKEW ANGLE USED. IN GENERAL, THE DISTANCES BETWEEN CONSECUTIVE BARS R AND OR S SHALL BE 2". THIS SPACING MAY BE VARIED IN ORDER TO AVOID DIAPHRAGM HOLES, HOWEVER, A MINIMUM CROSS SECTIONAL AREA EQUIVALENT TO THAT OF BARS R AND S IN SQUARE BEAM END SHALL BE PROVIDED.

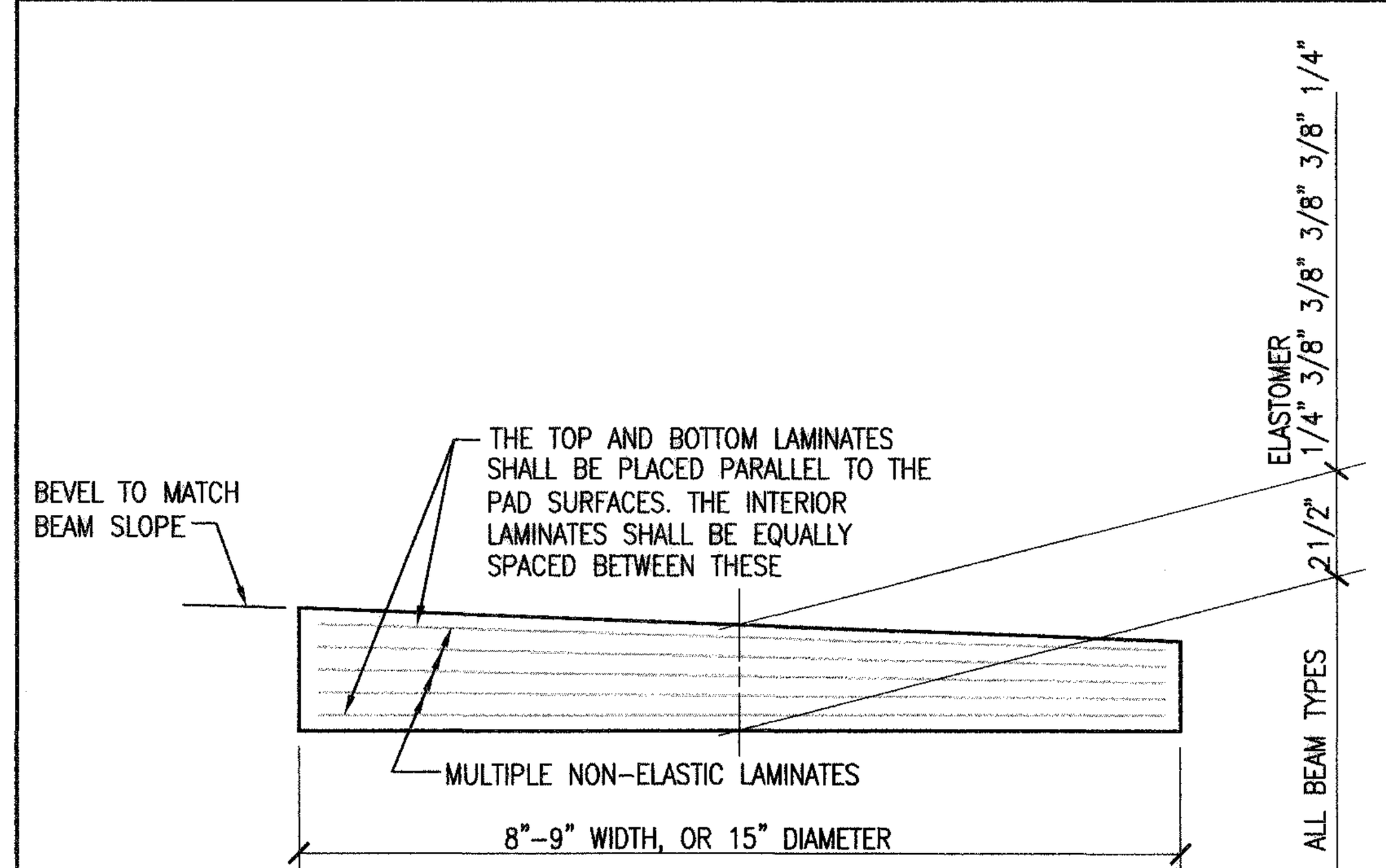
3 S5.501 ELEVATION OF BEAM @ ABUTMENT OR INVERTED TEE BENT
NTS



1 S5.501 ELEVATION OF BEAM @ ABUTMENT OR INVERTED TEE BENT
NTS

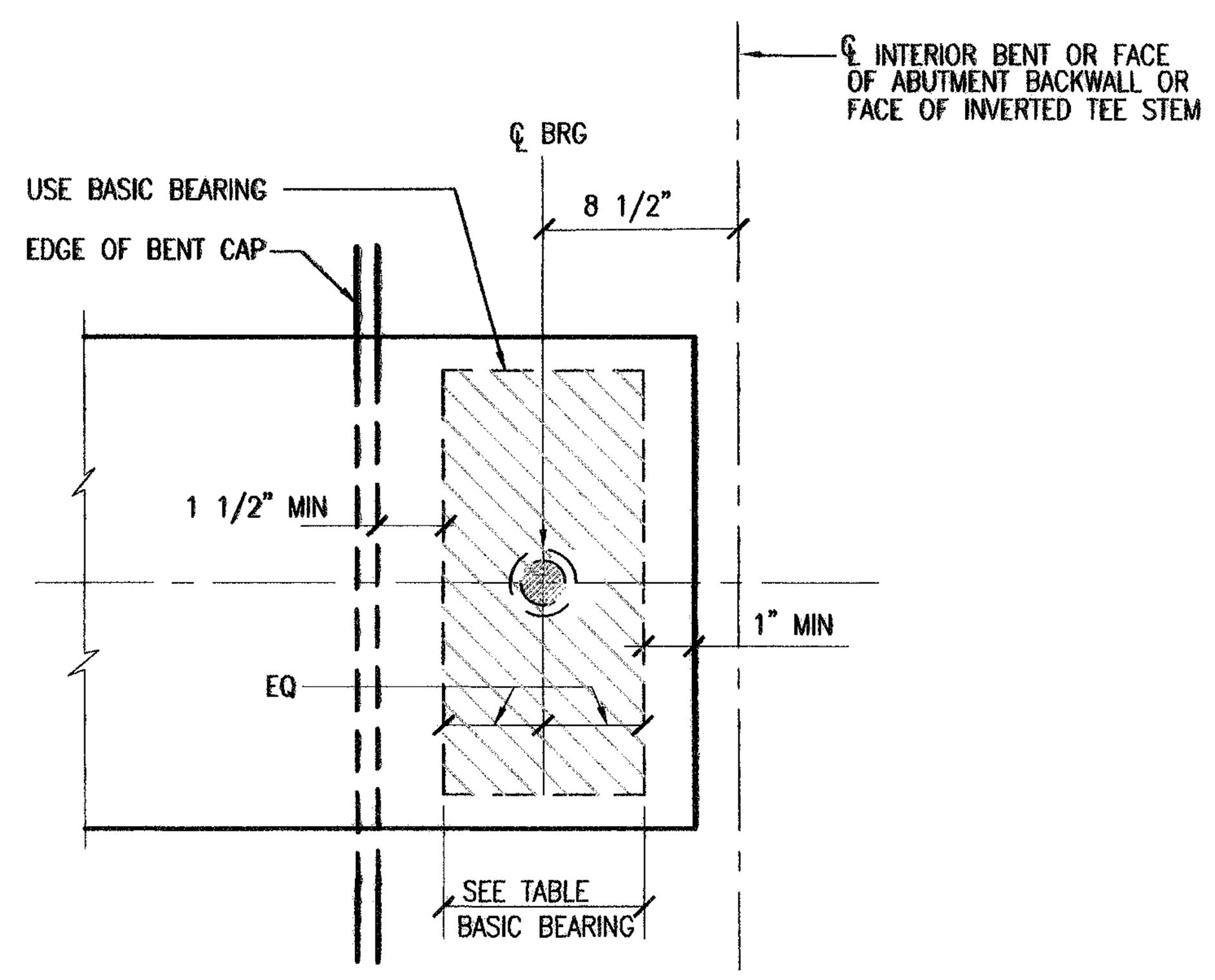


5 S5.501 ELEVATION OF BEAM
NTS

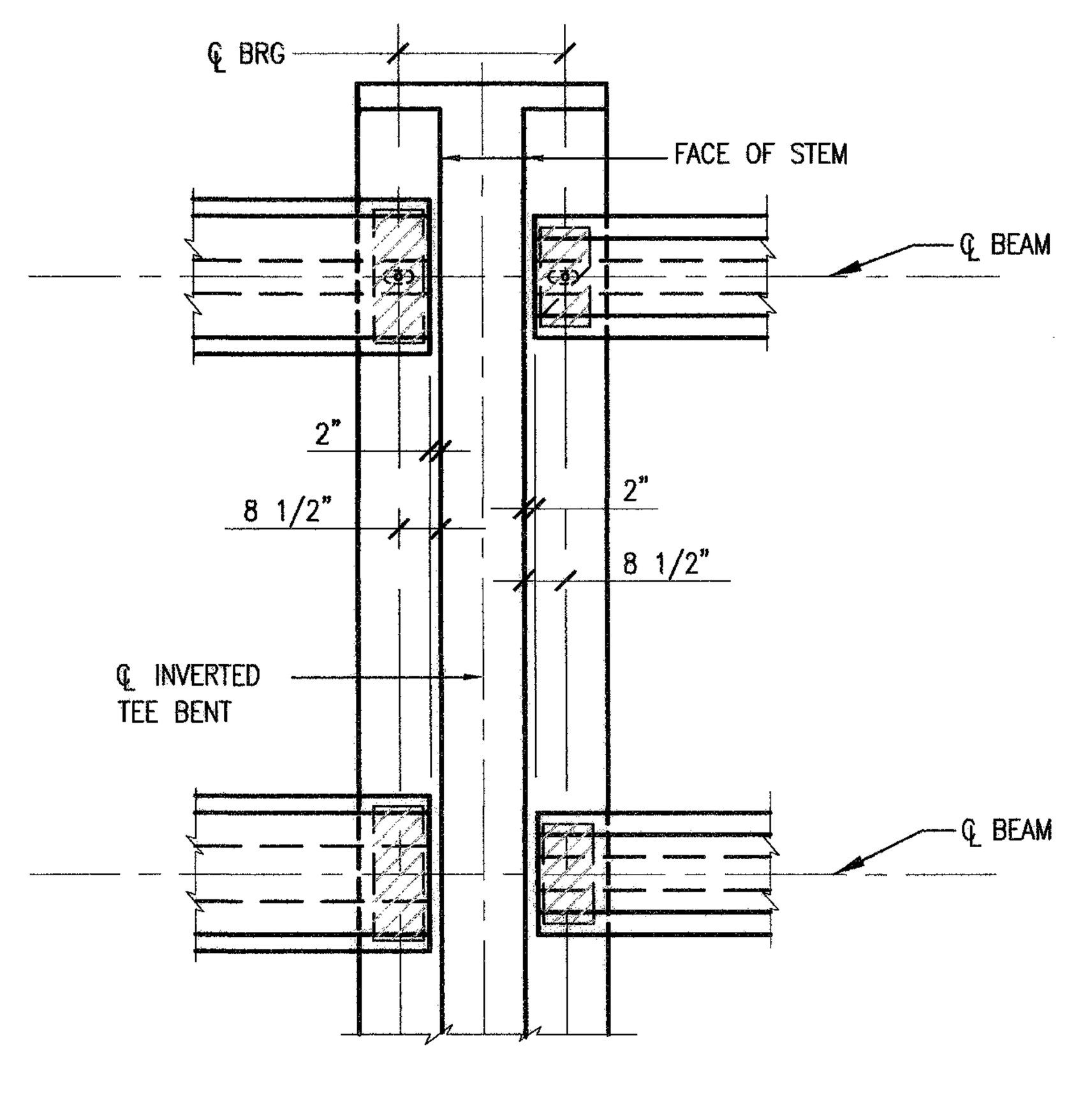


BASIC BEARINGS	
BM TYPE	SIZE, THICKNESS "T" & DESCRIPTION
IV	9" x 22" x 2 1/2" LAMINATED

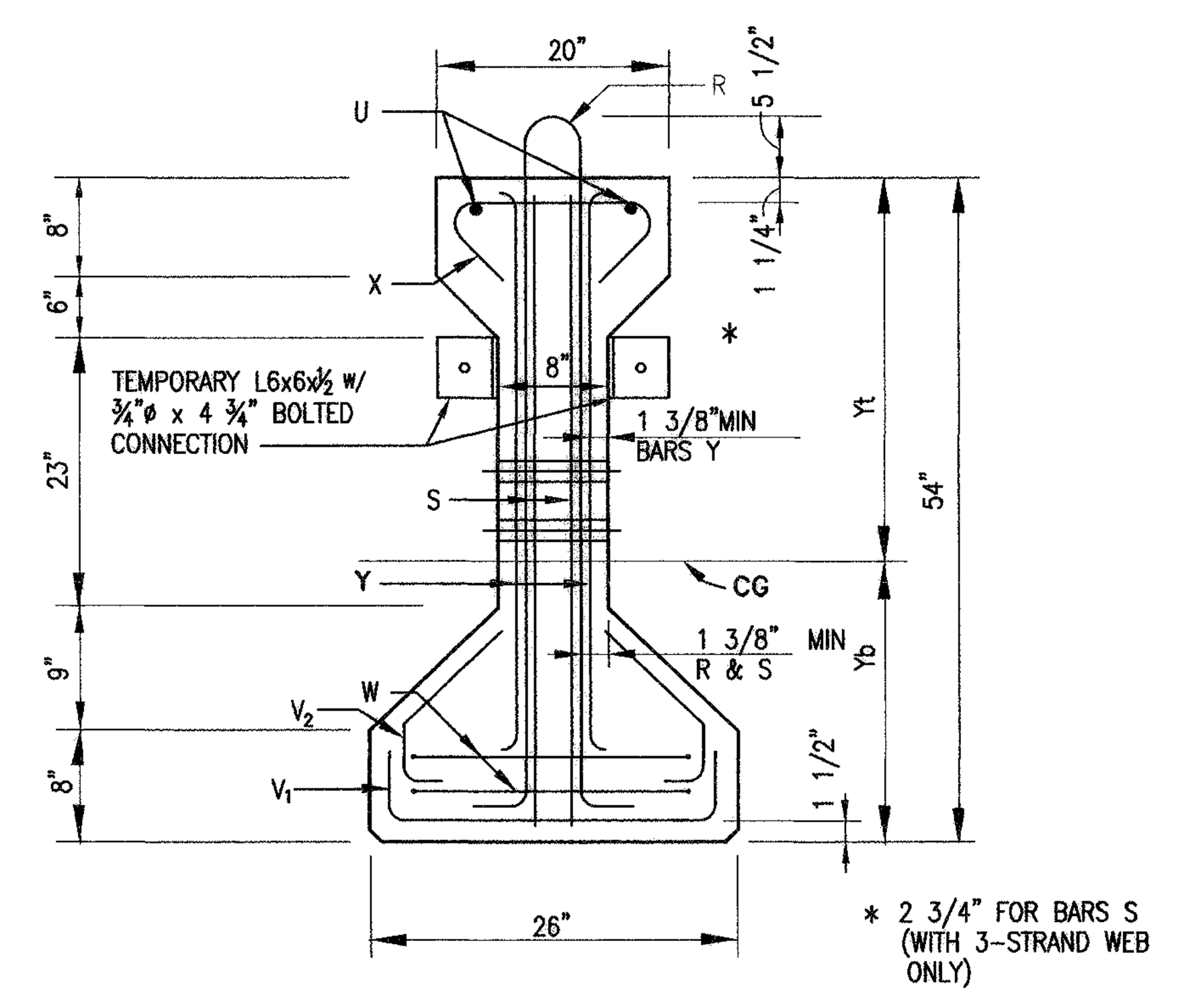
12 S5.501 LAMINATED BEARING DETAIL (50 DUROMETER)
NTS



11 S5.501 BASIC BEARING DETAIL
NTS



10 S5.501 BEAM END DETAIL
NTS



BEAM SECTION PROPERTY					
BEAM TYPE	Yt IN	Yb IN	AREA IN^2	I IN^4	WT P.L.F. LB
IV	29.25	24.75	788.4	260,403	821

9 S5.501 AASHTO TYPE IV BEAM DETAIL
NTS

NOTES TO SHEET

1. REFER TO SHEET S0.100 FOR STRUCTURAL GENERAL NOTES.
2. BEAMS SHALL BE SEATED ON ELASTOMERIC BEARINGS OF THE DIMENSIONS SHOWN.
3. BEARINGS SHALL BE FURNISHED WITH THEIR THICKNESS VARYING IN ONE DIRECTION DEPENDING ON THE SLOPE OF THE ERECTED BEAM.
4. CONSTANT THICKNESS BEARINGS MAY BE USED FOR MODERATE BEAM SLOPES IF THE VARIATION IS WITHIN THE ALLOWABLE DIMENSIONAL TOLERANCES GIVEN IN THE SPECIFICATIONS.
5. COST OF FURNISHING AND INSTALLING ELASTOMERIC BEARING SHALL BE INCLUDED IN UNIT PRICE BID FOR "PRESTRESSED CONCRETE BEAMS".
6. THE USE OF NATURAL RUBBER, FOR THE MANUFACTURE OF BEARING PADS. SHALL NOT BE PERMITTED.
7. AN EQUAL AREA OF WELDED WIRE FABRIC MAY BE SUBTITUTED FOR BARS R, V, S OR X IF APPROVED BY THE ENGINEER.
8. BOTTOM CORNERS OF ALL BEAM FLANGES AND OUTSIDE CORNERS OF EXTERIOR BEAM ENDS SHALL BE CHAMFERED 3/4" OR ROUNDED TO A 3/4" RADIUS.
9. THE USE OF DIAPHRAGM HOLES FOR LIFTING PURPOSES WILL NOT BE PERMITTED.
10. NO ANCHOR HOLES OR SLOTTED HOLES ARE REQUIRED AT BOTH ENDS OF BEAMS.

RECORD DRAWINGS DO NOT MODIFY

DATE: MAY 6, 2005

HUITT-ZOLLARS, INC.

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214/823-0400 FAX 214/823-0404

REVISIONS			
NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION & PLATFORM
PRESTRESSED CONCRETE BEAM STANDARD DETAILS

PROJECT MGR:	GRW
DESIGNER:	JUC
DRAWN BY:	KLV
CHECKED BY:	MMR
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	AS NOTED
DATE:	09/14/01

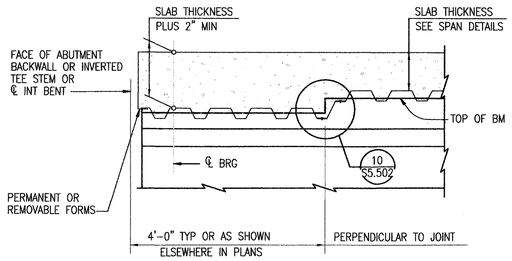
FOR RECORD DRAWING ONLY
STATE OF TEXAS
MOEIN MICHAEL REYHANI
83454
LICENSED
PROFESSIONAL ENGINEER
5/06/05

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	02-2025-01
C.I.P. NO.	A-0354
H.A.S. NO.	536C
SHEET NO.	S5.501

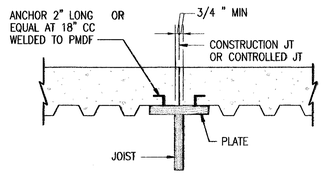
770



NOTE: SLAB THICKNESS MINUS 5/8 " IF CORRUGATIONS MATCH REINFORCING BARS

4 S5.502 THICKENED SLAB END AT ABUTMENT OR INTERIOR BENT

NTS

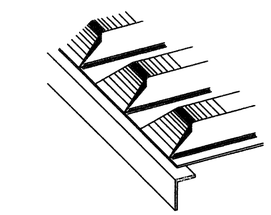


NOTE: IN SPANS WHERE PMD FORMS ARE USED, TIMBER FORMS SHALL BE USED AT CONSTRUCTION JOINTS.

ADEQUATE PROVISION SHALL BE MADE TO SUPPORT EDGE OF METAL FORM AND TO PROVIDE ANCHORAGE OF METAL FORM TO SLAB CONCRETE WHERE JOINED TO WOOD FORMS.

3 S5.502 CONSTRUCTION/CONTROL JOINT DETAIL

NTS



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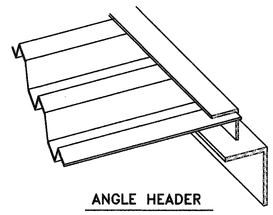
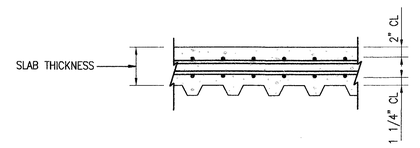


ANGLE HEADER

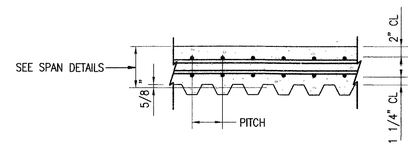
NOTE: THIS TYPE IS TO BE USED FOR SKEWED ENDS ONLY.

2 S5.502 TYPE OF END CLOSURE DETAIL

NTS



CORRUGATIONS NOT MATCHING BARS



CORRUGATIONS MATCHING BARS

THE CONTRACTOR HAS THE OPTION OF FURNISHING EITHER SYSTEM, IF PRACTICAL.

1 S5.502 TYPICAL LONGITUDINAL SLAB SECTION

NTS

NOTES TO SHEET

1. REFER TO SHEET S0.100 FOR STRUCTURAL GENERAL NOTES.

8 S5.502 DETAIL

NTS

NOTE: SLAB THICKNESS MINUS 5/8 " IF CORRUGATIONS MATCH REINFORCING BARS

SLAB END WITH CONC END DIAPHRAGM OPTION AT ABUTMENT OR INTERIOR BENT

7 S5.502 DETAIL @ BEAM END

NTS

NOTE: SLAB THICKNESS MINUS 5/8 " IF CORRUGATIONS MATCH REINFORCING BARS

SECTION THRU SLAB OVER ABUTMENT BACKWALL OR INVERTED TEE STEM

6 S5.502 SECTION

NTS

SIDE LAP DETAILS

5 S5.502 TYPICAL CORRUGATION DETAIL

NTS

NOTE: SLAB THICKNESS MINUS 5/8 " IF CORRUGATIONS MATCH REINFORCING BARS

12 S5.502 TYPICAL TRANSVERSE SECTION

NTS

11 S5.502 DETAIL

NTS

10 S5.502 SECTION THRU BREAKBACK FOR WIDENING

NTS

GENERAL NOTES:

PERMENANT METAL DECK FORMS (PMDF) SHALL BE DESIGNED FOR THE DEAD LOAD OF FORM, REINFORCEMENT AND CONCRETE PLUS 50 POUNDS PER SQUARE FOOT FOR CONSTRUCTION LOADS. THE FOLLOWING ALLOWABLE STRESSES SHALL BE USED IN THE DESIGN:

ASTM A446,GRADE	YIELD (PSI)	ALLOWABLE STRESS (PSI)
A	33,000	23,900
B	37,000	26,800
C	40,000	29,000
D	50,000	36,000
E	80,000	36,000
WELD METAL		12,400

MAXIMUM DEFLECTION UNDER THE WEIGHT OF FORMS, REINFORCEMENT AND CONCRETE, OR A MINIMUM OF 120 POUNDS PER SQUARE FOOT SHALL NOT EXCEED 1/180 OF THE FORM SPAN OR 1/2 INCH, WHICHEVER IS LESS. THE DESIGN SPAN FOR FORMS SHALL BE CLEAR DISTANCE BETWEEN BEAM FLANGES MEASURED PARALLEL TO THE FORM FLUTES MINUS 2 INCHES. THE MINIMUM THICKNESS OF THE FORMS SHALL BE 20 GAGE AND THAT OF THE SUPPORT ANGLES SHALL BE 14 GAGE. ALL FORMS SHALL BE SECURELY FASTENED TO SUPPORTS.

THIS STANDARD SHALL BE USED AS A GUIDE IN THE PREPARATION OF SHOP DETAIL DRAWINGS.

RECORD DRAWINGS
DO NOT MODIFY

DATE: MAY 8, 2005

HUITT-ZOLLARS, INC.

NOTE: INFORMATION USED TO DEVELOP THESE DOCUMENTS WAS TAKEN FROM RECORD OF THE WORK DRAWINGS PREPARED BY THE CONSTRUCTION CONTRACTOR, CLARK/MISSION A JOINT VENTURE. THE INFORMATION PROVIDED BY THE CONTRACTOR WAS NOT VERIFIED BY THE DESIGN FIRM NAMED ABOVE.

HOUSTON AIRPORT SYSTEM
GEORGE BUSH INTERCONTINENTAL AIRPORT HOUSTON TEXAS

HUITT-ZOLLARS
Huitt-Zollars, Inc. Engineering / Architecture
1500 Daily Ashford, Suite 200, Houston, TX 77077
Phone (281) 496-0068 Fax (281) 496-0220

CHARLES F. TERRY, INC.
Consulting Engineers
2601 Gaston Avenue
Dallas, Texas 75226
214/828-9400 FAX 214/828-9404

REVISIONS			
NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION & PLATFORM
PERMANENT METAL DECK FORMS

PROJECT MGR:	GRW
DESIGNER:	JJC
DRAWN BY:	KLV
CHECKED BY:	MMR
DRAWING STANDARD:	
	ISEP 07.20.2000
SCALE:	AS NOTED
DATE:	09/14/01

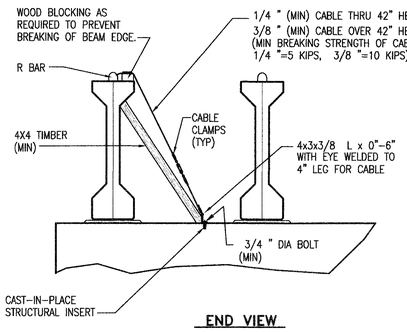
FOR RECORD DRAWING ONLY
STATE OF TEXAS
MOEIN MICHAEL REYHANI
85454
LICENSED
PROFESSIONAL ENGINEER
5/14/05

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO. 02-2025-01
C.I.P. NO. A-0354
H.A.S. NO. 536C
SHEET NO. S5.502

PLOT DATE: 10/19/01 H:\AS FILE: \A536CS5502.DWG



END VIEW

4 DIAGONAL BRACING DETAILS (1)

S5.503 NTS (TO BE USED ON BOTH ENDS OF THE FIRST BEAM ERECTED IN THE SPAN.)

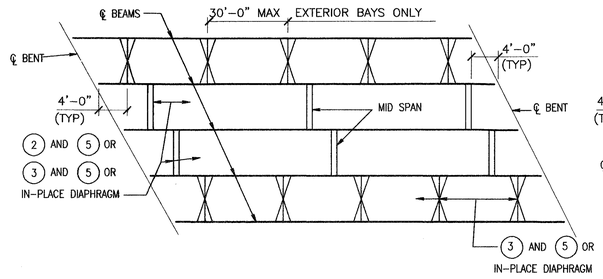
INDICATES DIAGONAL BRACING (1)

INDICATES BOTTOM BRACING (2) WITH TEMPORARY TOP BRACING (4) OR "X" BRACING (3) WITH PERMANENT TOP BRACING (5).

INDICATES PERMANENT TOP BRACING (5)

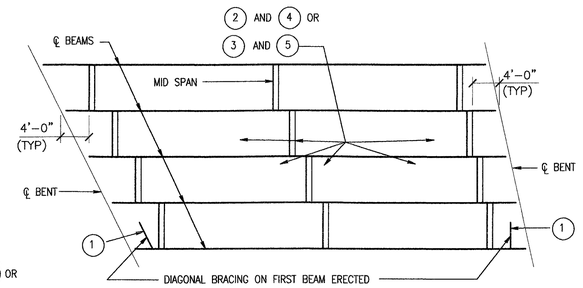
INDICATES BOTTOM BRACING (2) OR "X" BRACING (3), EITHER ONE WITH PERMANENT TOP BRACING (5) OR AN IN-PLACE DIAPHRAGM ONLY.

INDICATES "X" BRACING (3) & PERMANENT TOP BRACING (5) OR AN IN-PLACE DIAPHRAGM ONLY.



2 SLAB PLACEMENT BRACING

S5.503 NTS (NORMAL SPANS AND ALL SKEWS)



1 ERECTION BRACING

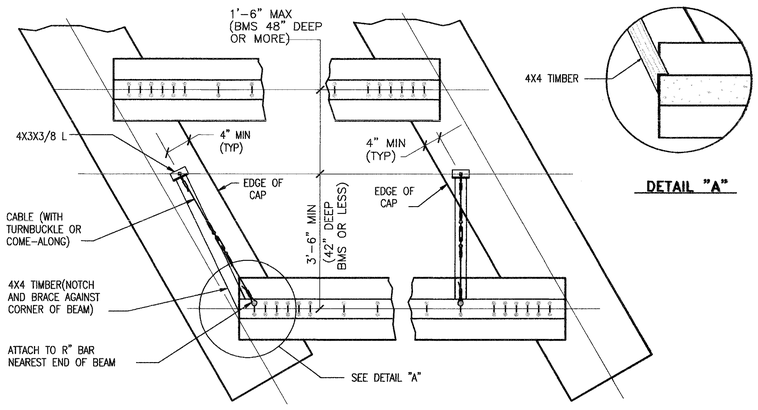
S5.503 NTS (NORMAL SPANS AND ALL SKEWS)

NOTES TO SHEET

1. ERECTION BRACING:
   ERECTION BRACING DETAILS ARE CONSIDERED MINIMUM FOR FULFILLING THE REQUIREMENTS OF SPECIFICATIONS FOR BRACING TYPE IV PRESTRESSED CONCRETE BEAMS ERECTED IN THE SPAN OVER A TRAVELED WAY OR RAILROAD, AND IN THOSE SPANS GENERALLY PARALLEL TO A TRAVELED WAY OR RAILROAD AND WITHIN A DISTANCE EQUAL TO THE DIFFERENCE IN ELEVATION BETWEEN THE TOP OF CAP UPON WHICH THE BEAMS ARE BEING ERECTED AND THE TRAVELED WAY, OR 30 FT, WHICHEVER IS GREATER.
   REQUIRED ERECTION BRACING SHALL BE PLACED IMMEDIATELY AFTER ERECTION OF EACH BEAM AND REMAIN IN PLACE UNTIL DIAPHRAGM BARS ON ARE TIGHTENED OR ADDITIONAL BRACING AS REQUIRED FOR SLAB PLACEMENT IS IN PLACE.

2. SLAB PLACEMENT BRACING:
   THE DETAILS FOR SLAB PLACEMENT BRACING ARE CONSIDERED MINIMUM FOR FULFILLING THE REQUIREMENTS OF SPECIFICATIONS.
   REQUIRED SLAB PLACEMENT BRACING SHALL REMAIN IN PLACE UNTIL SLAB CONCRETE HAS ATTAINED A FLEXURAL STRENGTH OF 500 PSI.

3. GENERAL:
   THE CONTRACTOR SHALL SUBMIT HIS PROPOSED BRACING DETAILS. THE ENGINEER FOR APPROVAL PRIOR TO ERECTION.
   SYSTEMS EQUAL TO OR BETTER THAN THOSE SHOWN MAY BE USED PROVIDED DETAILS OF SUCH SYSTEMS ARE SUBMITTED TO AND APPROVED BY THE ENGINEER PRIOR TO ERECTION.
   USE OF THESE SYSTEMS AND/OR DETAILS DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY FOR THE ADEQUACY OF THE BRACING AND THE SAFETY OF THE STRUCTURE.
   REMOVAL OF BRACING FOR SHORT PERIODS OF TIME TO ALIGN BEAMS IS PERMISSIBLE.
   BOTTOM FLANGE BRACING AT BEAM ENDS MAY BE OMITTED WHEN ALL BEAMS ARE FIXED WITH DOWEL BARS OR WHEN ERECTION IS ON STEEL CAPS OR FLOOR BEAMS CONTAINING BEARING SEATS WHICH RESTRICT LATERAL MOVEMENT.
   ALL TURN-BUCKLES, COME-ALONGS AND OTHER CONNECTIONS SHALL BE CAPABLE OF DEVELOPING THE FULL STRENGTH OF THE CABLE SHOWN HEREON.

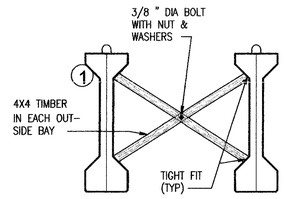


DETAIL "A"

PLAN

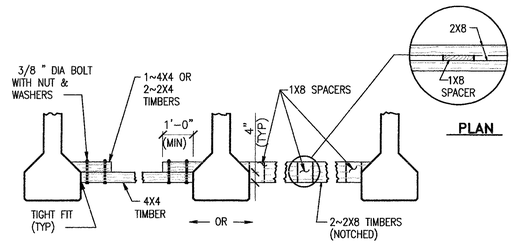
7 DIAGONAL BRACING DETAILS

S5.503 NTS



6 "X" BRACING (3)

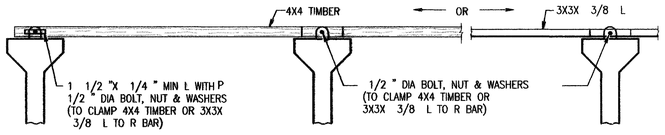
S5.503 NTS



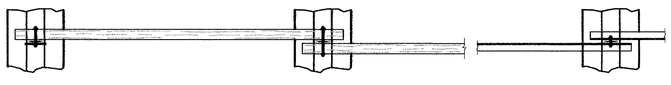
ELELVATION

5 BOTTOM FLANGE BRACING DETAILS (2)

S5.503 NTS



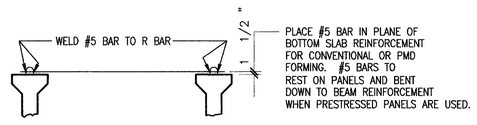
ELELVATION



PLAN

10 TEMPORARY TOP BRACING (4)

S5.503 NTS



9 PERMANENT TOP BRACING (5)

S5.503 NTS

RECORD DRAWINGS
DO NOT MODIFY

DATE: MAY 6, 2005

HUITT-ZOLLARS, INC.

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HOUSTON AIRPORT SYSTEM
GEORGE BUSH INTERCONTINENTAL AIRPORT HOUSTON TEXAS

HUITT-ZOLLARS
Huitt-Zollars, Inc. Engineering / Architecture
1500 Dairy Ashford, Suite 200, Houston, TX 77077
Phone (281) 496-1006 Fax (281) 496-5220

CHARLES F. TERRY, INC.
Consulting Engineers
2501 Gaston Avenue
Dallas, Texas 75226
214/823-3402 FAX 214/823-6404

REVISIONS

NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION & PLATFORM
PRESTRESSED CONCRETE BEAM
MINIMUM ERECTION AND BRACING REQUIREMENTS

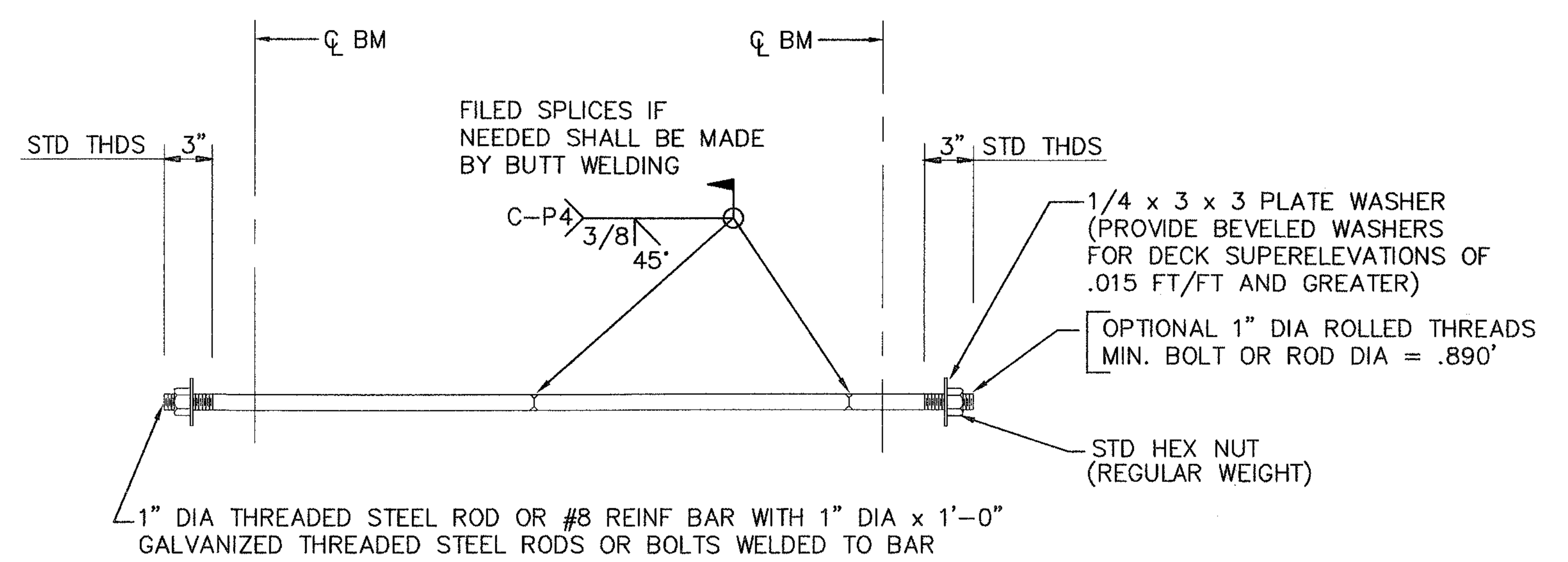
PROJECT MGR:	GRW
DESIGNER:	JJC
DRAWN BY:	KLV
CHECKED BY:	MMR
DRAWING STANDARD:	
	ISEP 07.20.2000
SCALE:	AS NOTED
DATE:	09/14/01

FOR RECORD DRAWING ONLY
STATE OF TEXAS
MOEIN MICHAEL REYHANI
86454
PROFESSIONAL ENGINEER
5/6/05

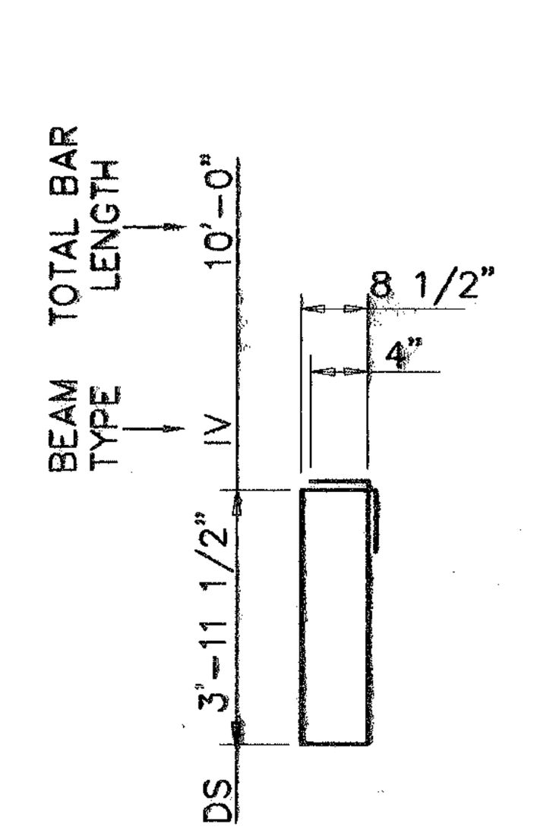
APPROVED BY:	DATE:
DIRECTOR HOUSTON AIRPORT SYSTEM	

PROJECT NO.	02-2025-01
C.I.P. NO.	A-0354
H.A.S. NO.	536C
SHEET NO.	S5.503

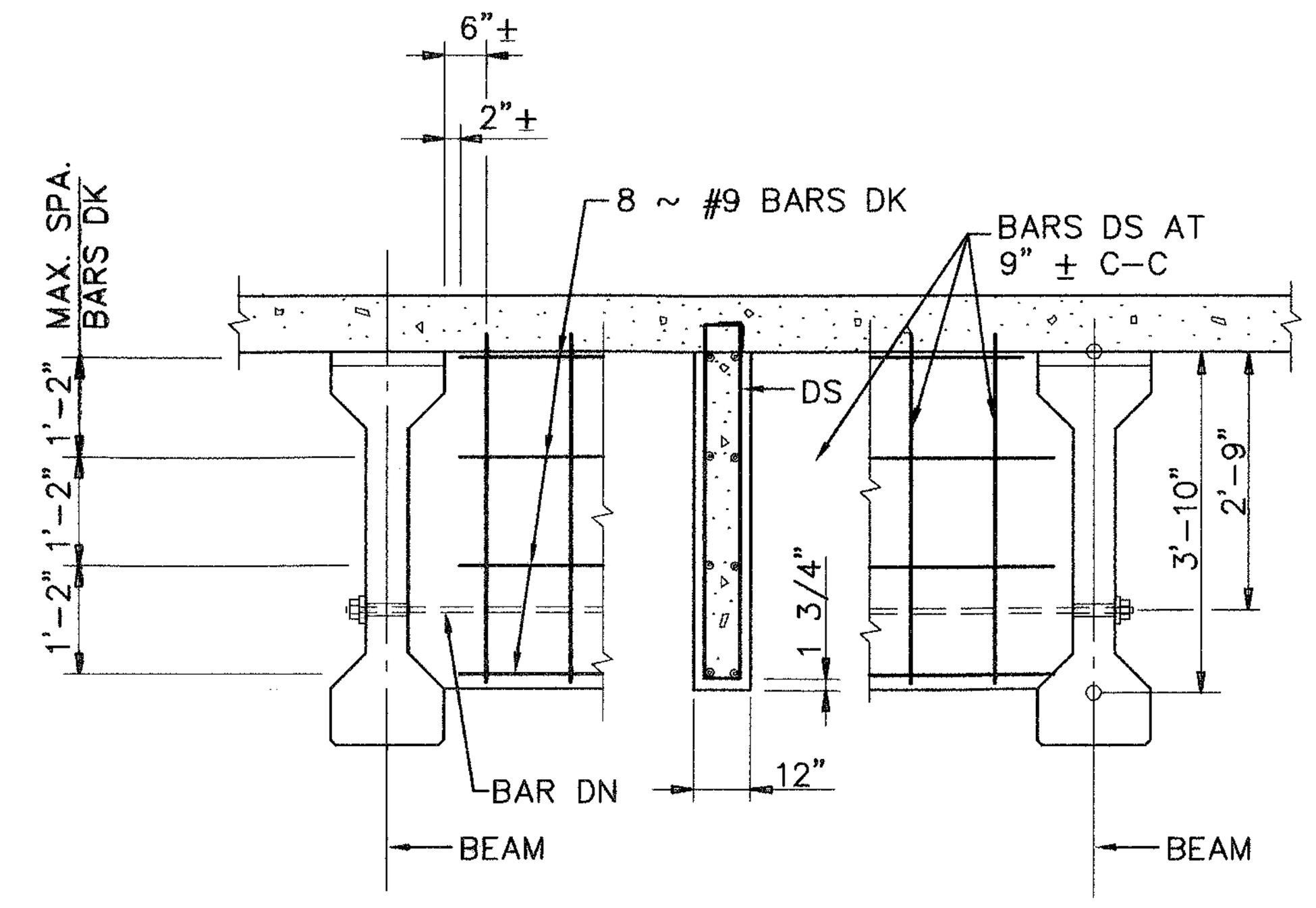
PLOT DATE: 10/19/01 HAS FILE: IAS36CS5503.DWG



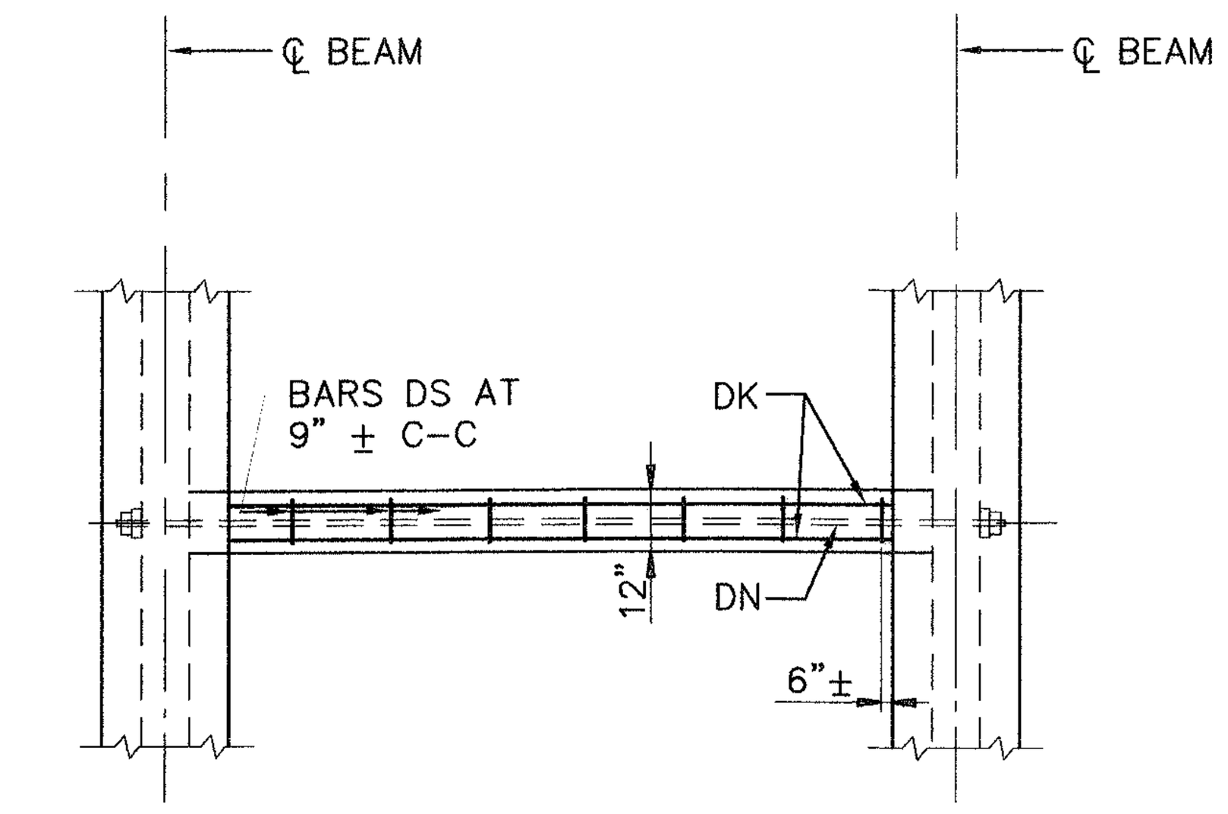
BARS DN



#4 BARS DS

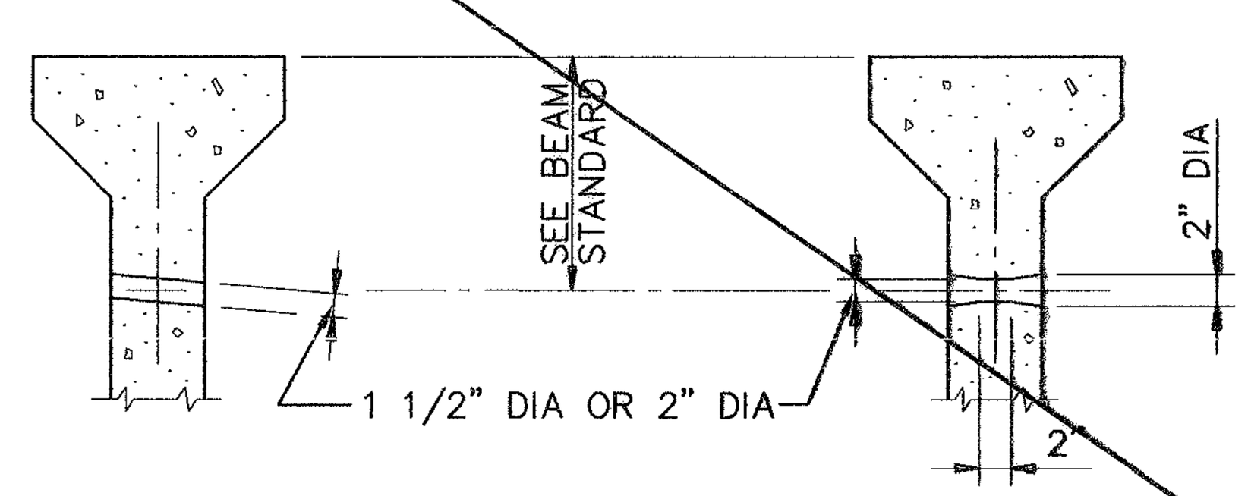


ELEVATION

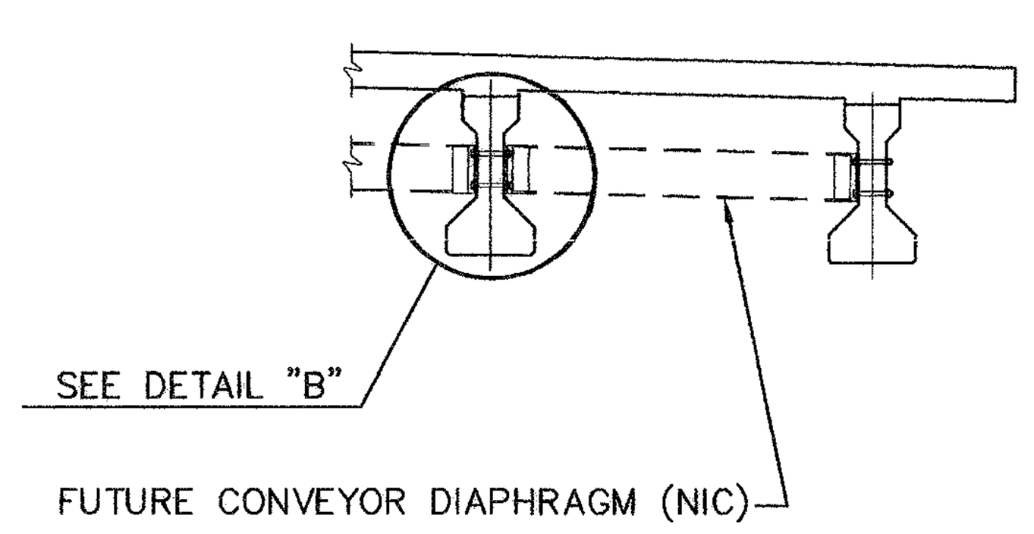


PLAN

1 CONCRETE DIAPHRAGM DETAILS
S5.504 NTS



DIAPHRAGM HOLE LOCATIONS



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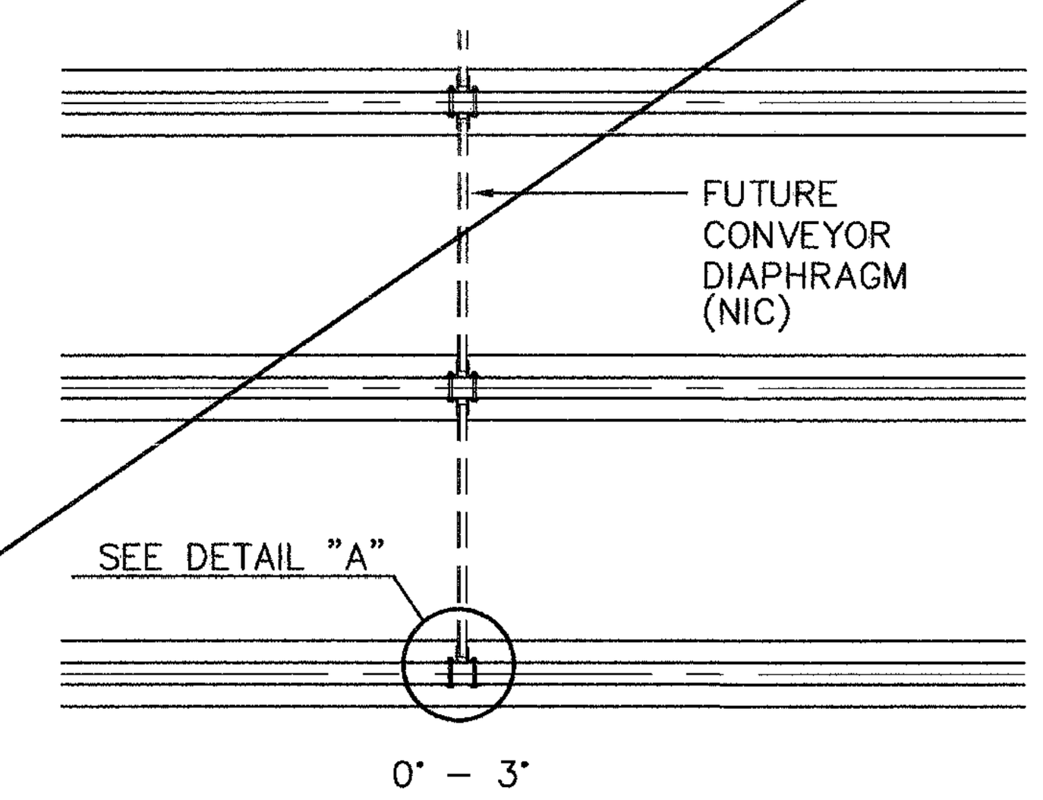
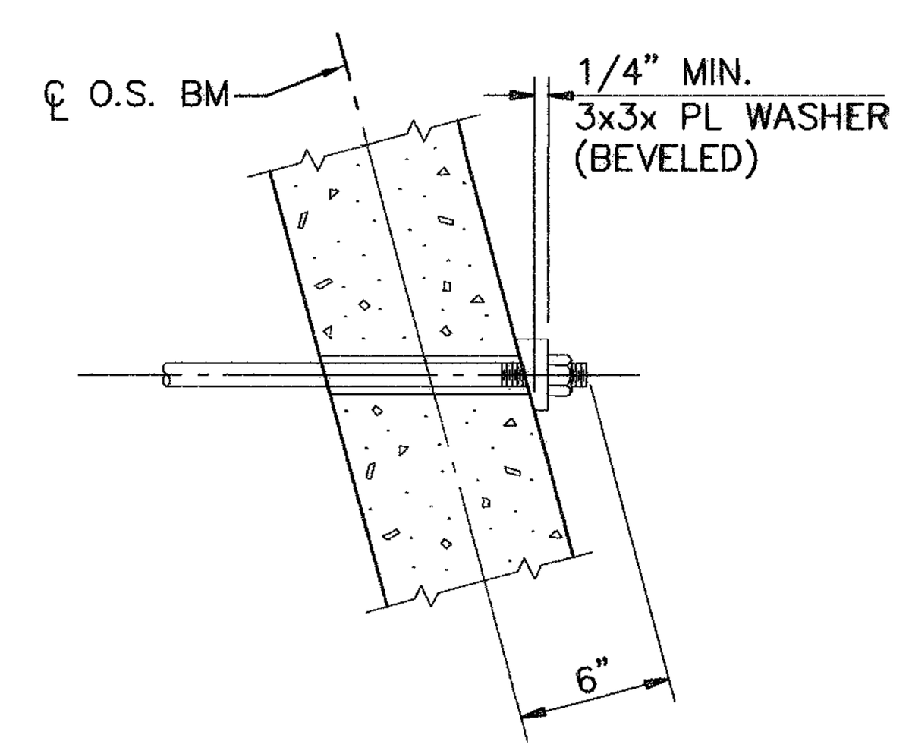
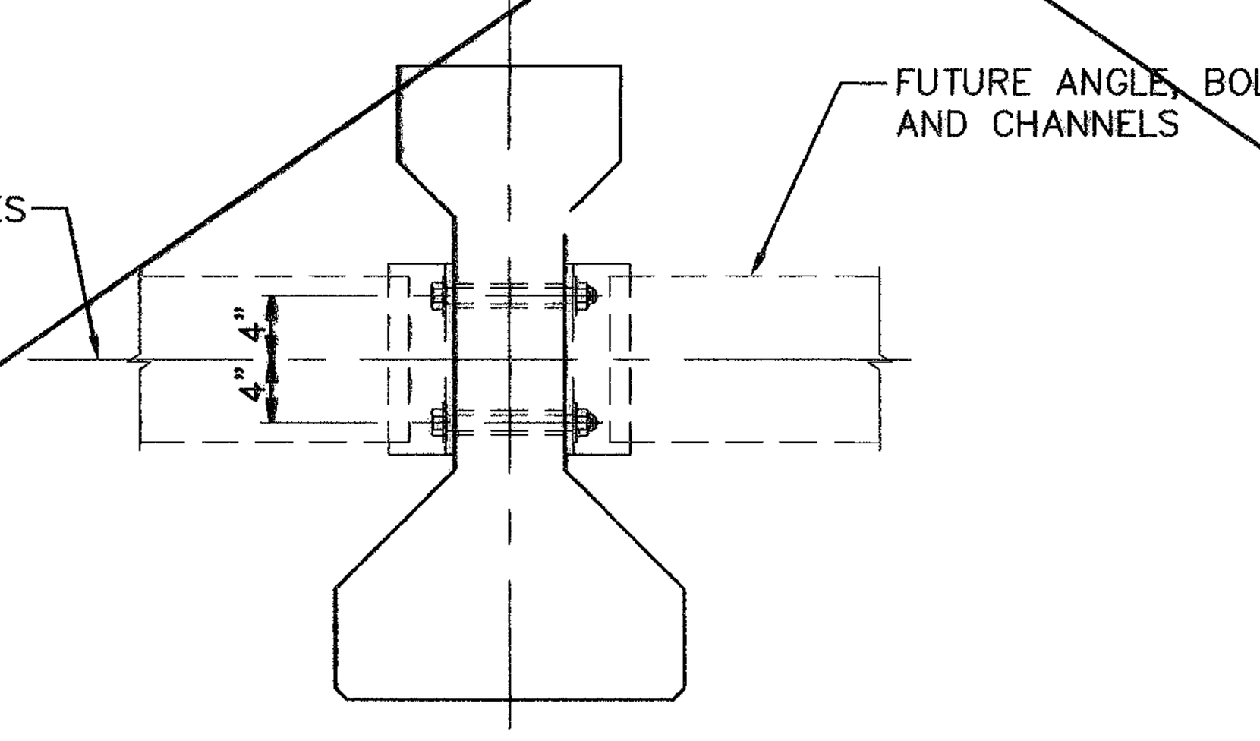


PLAN

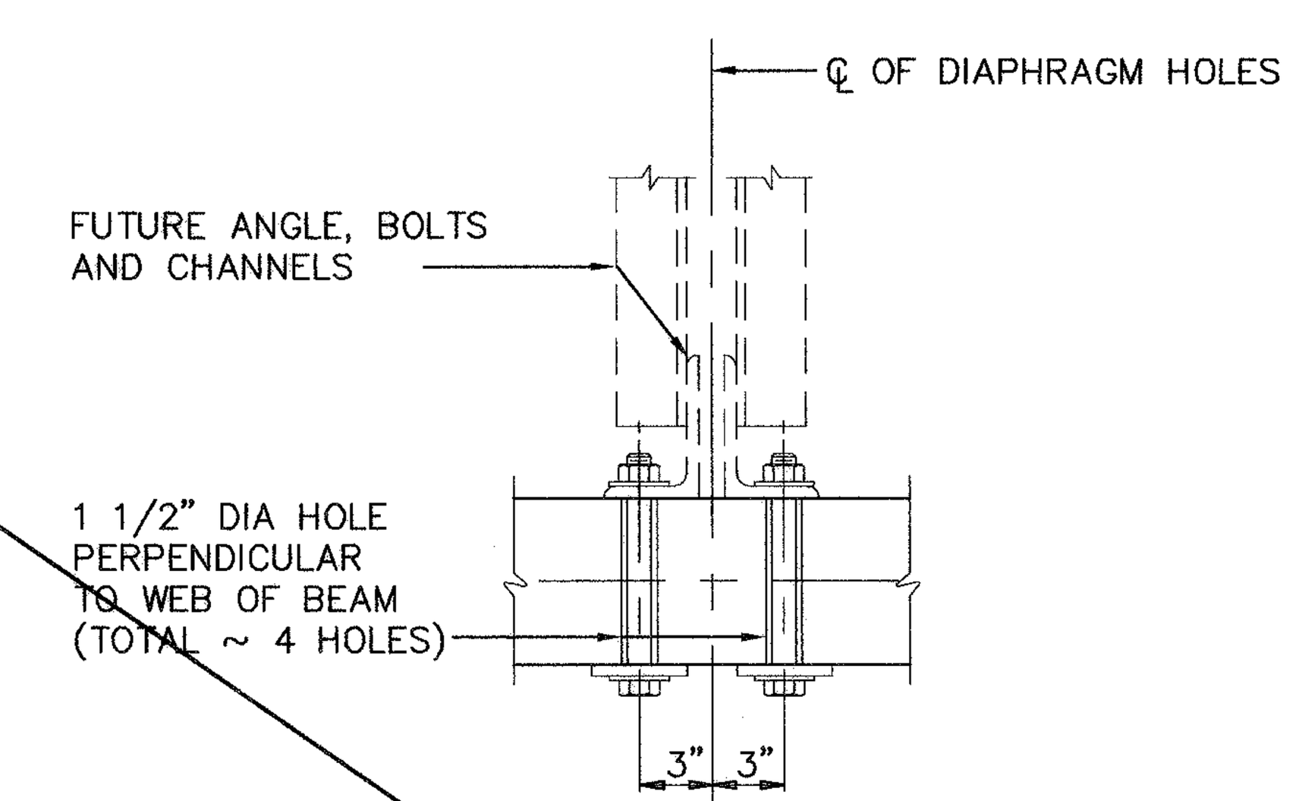
NOT USED



BARS DN
(SKEWS THRU 15°)



DETAIL "B"



DETAIL "A"

9 FUTURE CONVEYOR DIAPHRAGM DETAILS (NIC)
S5.504 NTS

NOTES TO SHEET

1. CONCRETE DIAPHRAGM NOTES:
   ALL CAST-IN-PLACE CONCRETE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4000 PSI.
   NO CONCRETE SHALL BE PLACED IN THE BRIDGE SLAB UNTIL THE DIAPHRAGMS ARE IN PLACE. THE DIAPHRAGM CONCRETE HAS REACHED A MINIMUM 28 DAY COMRESSIVE STRENGTH OF 4000 PSI, AND THE NUTS OF BARS DN HAVE SUBSEQUENTLY BEEN FIRMLY TIGHTENED.
2. BARS DN NOTE;
   AFTER FABRICATION, THE NUTS, PLATES, SLEEVES, AND NOT LESS THAN 10" OF EACH END OF THE THREADED BAR SHALL BE GALVANIZED. PLATE WASHERS, NUTS, AND PIPE SLEEVES ARE TO BE CONSIDERED SUBSIDIARY TO REINFORCING STEEL.

RECORD DRAWINGS
DO NOT MODIFY

DATE: MAY 6, 2005

HUITT-ZOLLARS, INC.

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HOUSTON AIRPORT SYSTEM
GEORGE BUSH INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

HUITT-ZOLLARS

CHARLES F. TERRY, INC. Consulting Engineers

REVISIONS			
NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION & PLATFORM
CONCRETE DIAPHRAGM AND MISCELLANEOUS DETAILS

PROJECT MGR:	CRW
DESIGNER:	JUC
DRAWN BY:	KLV
CHECKED BY:	MMR
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	AS NOTED
DATE:	09/14/01

FOR RECORD DRAWING ONLY

STATE OF TEXAS
MOEIN MICHAEL REDVANI
83454
LICENSED PROFESSIONAL ENGINEER

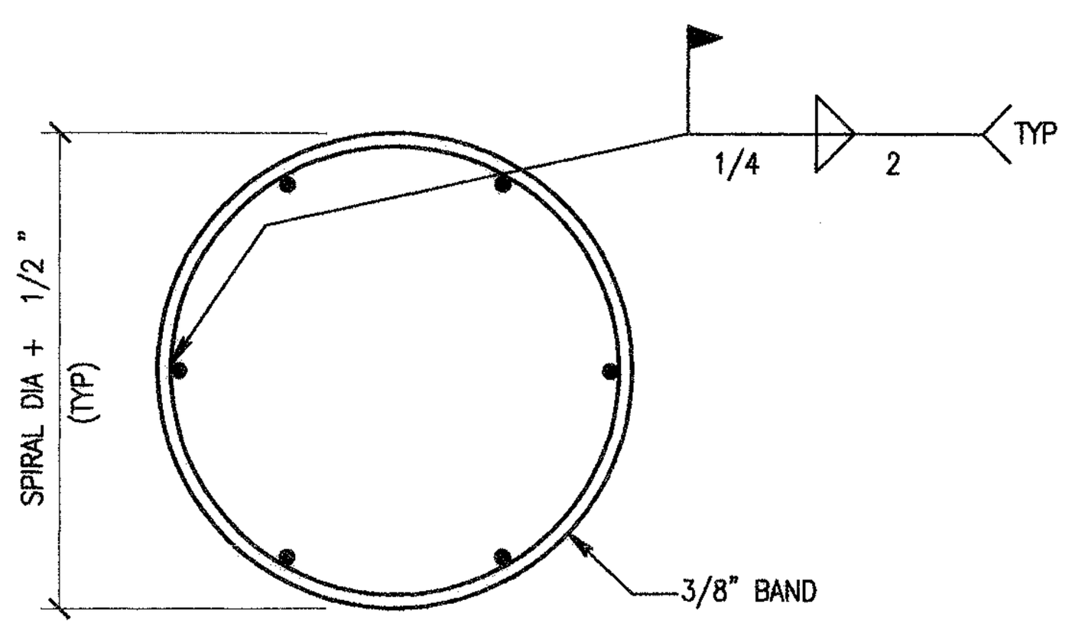
APPROVED BY: DATE:

DIRECTOR HOUSTON AIRPORT SYSTEM

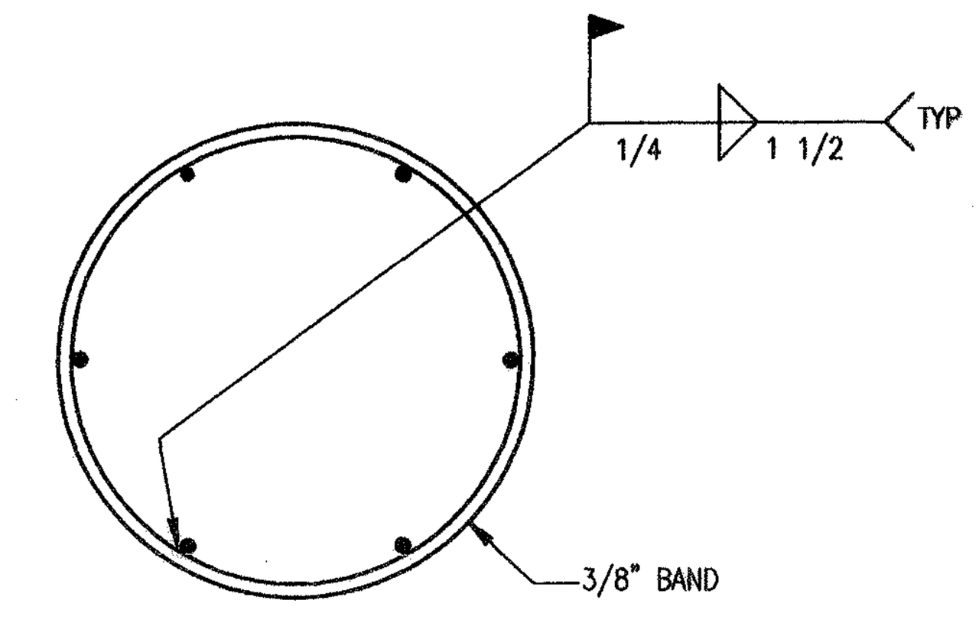
PROJECT NO.	02-2025-01
C.I.P. NO.	A-0354
H.A.S. NO.	536C
SHEET NO.	S5.504

73

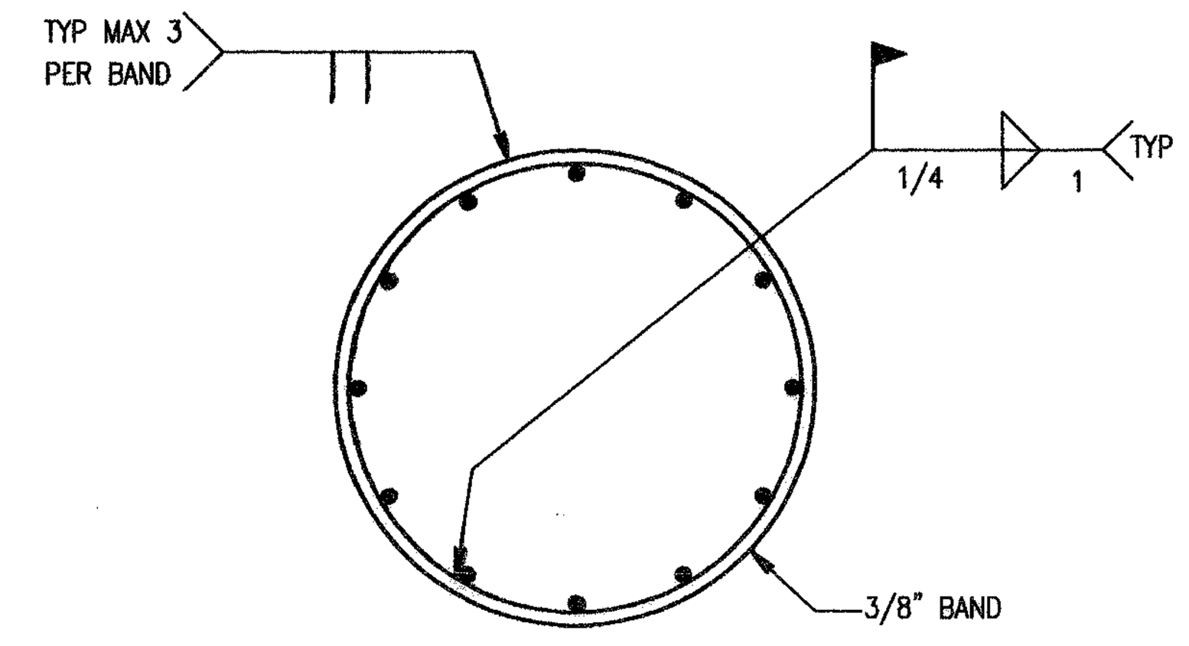
PLOT DATE: 10/19/01 HAS FILE: IA536CS5504.DWG



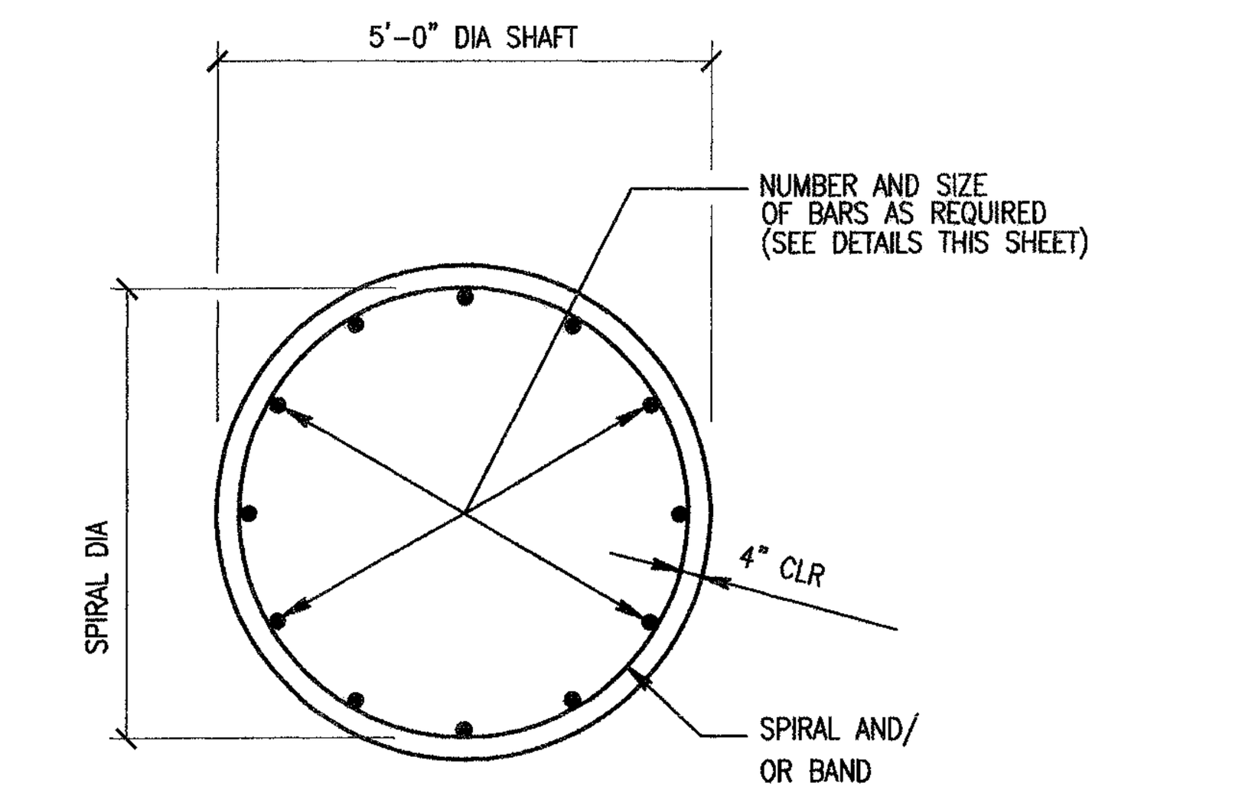
(4/S6.001) BOTTOM BAND DETAIL
NTS



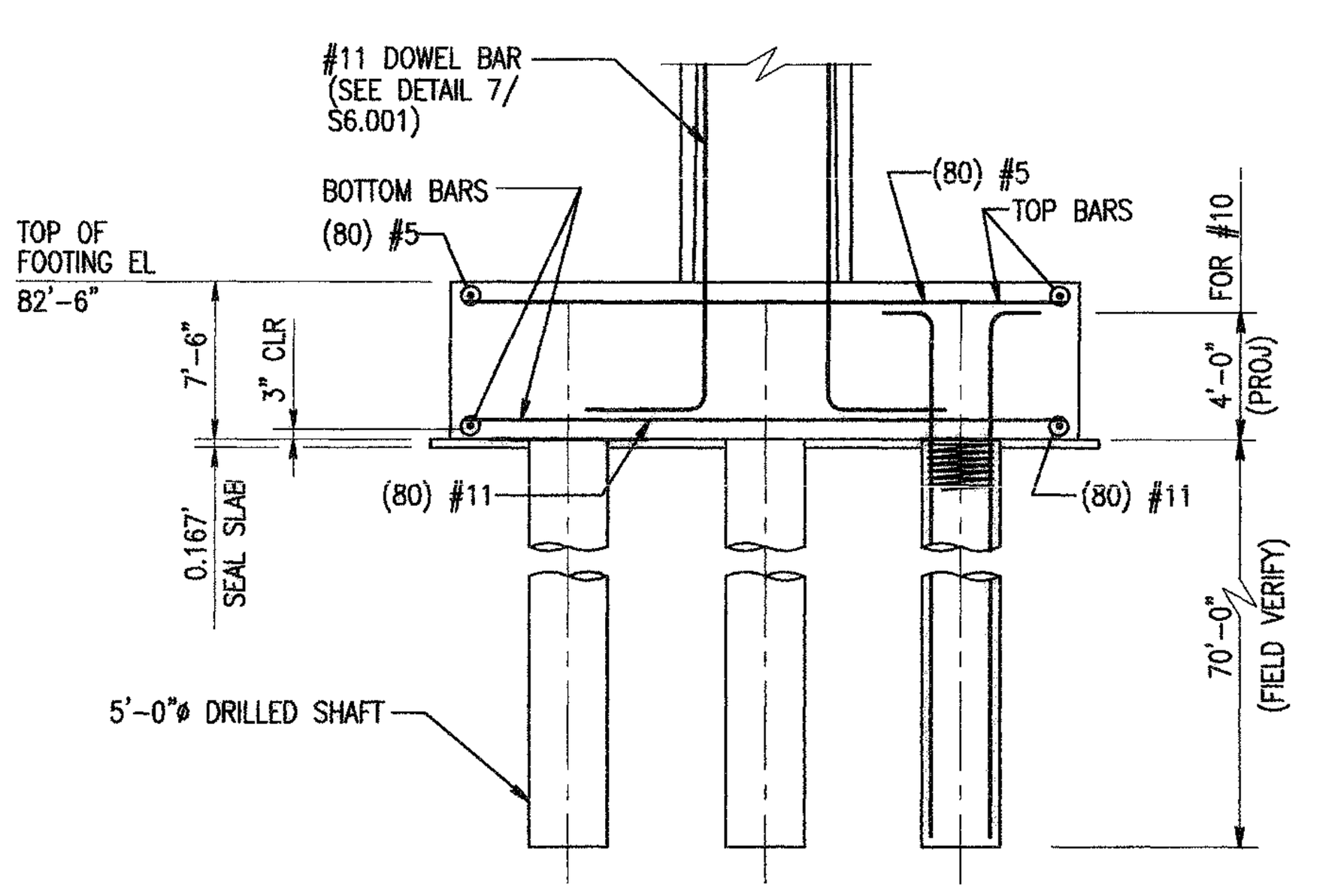
(3/S6.001) INTERIOR BAND DETAIL
NTS



(2/S6.001) TOP BAND DETAIL
NTS

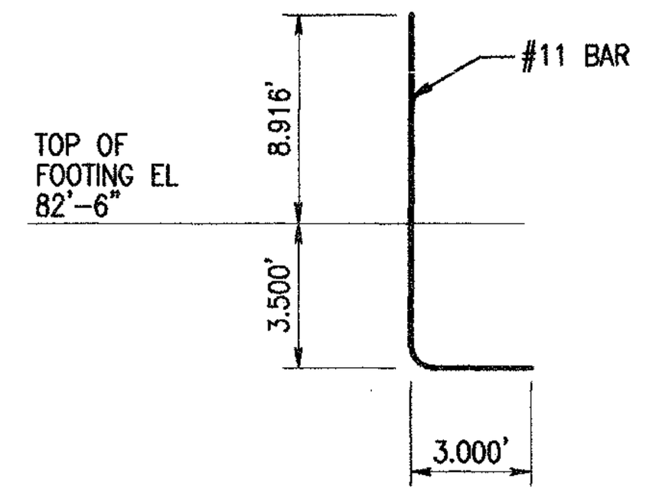


(1/S6.001) SECTION THRU SHAFT
NTS

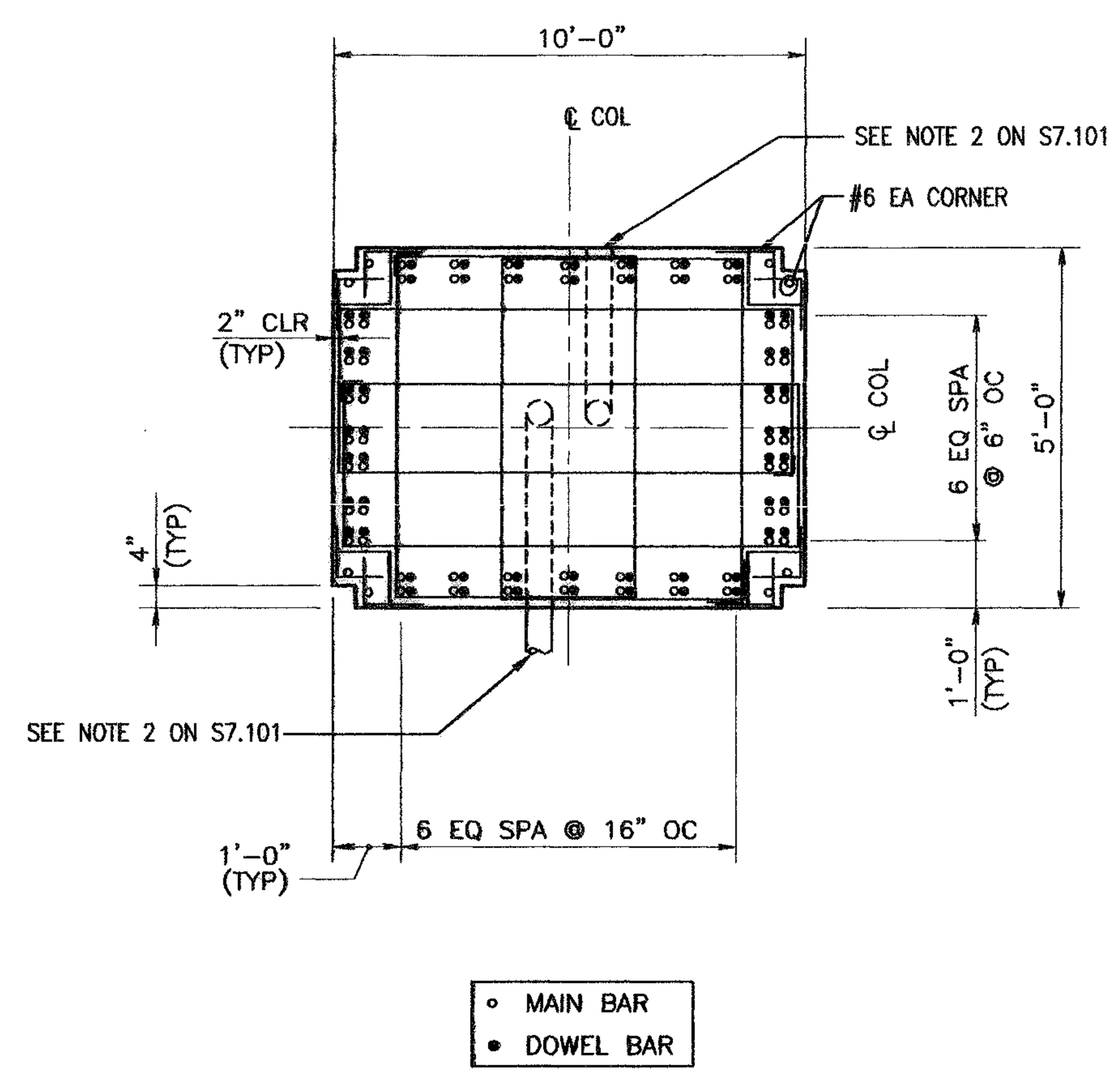


NOTES:
1. REFER TO DWGS S2.001, S6.001 AND SECTIONS 11A/S2 & 12A/S3 FOR ADDITIONAL INFORMATION.
2. AFTER CONCRETING ANY DRILLED PIER ALLOW A SEVEN DAY PERIOD BEFORE DRILLING ADJACENT PIERS.

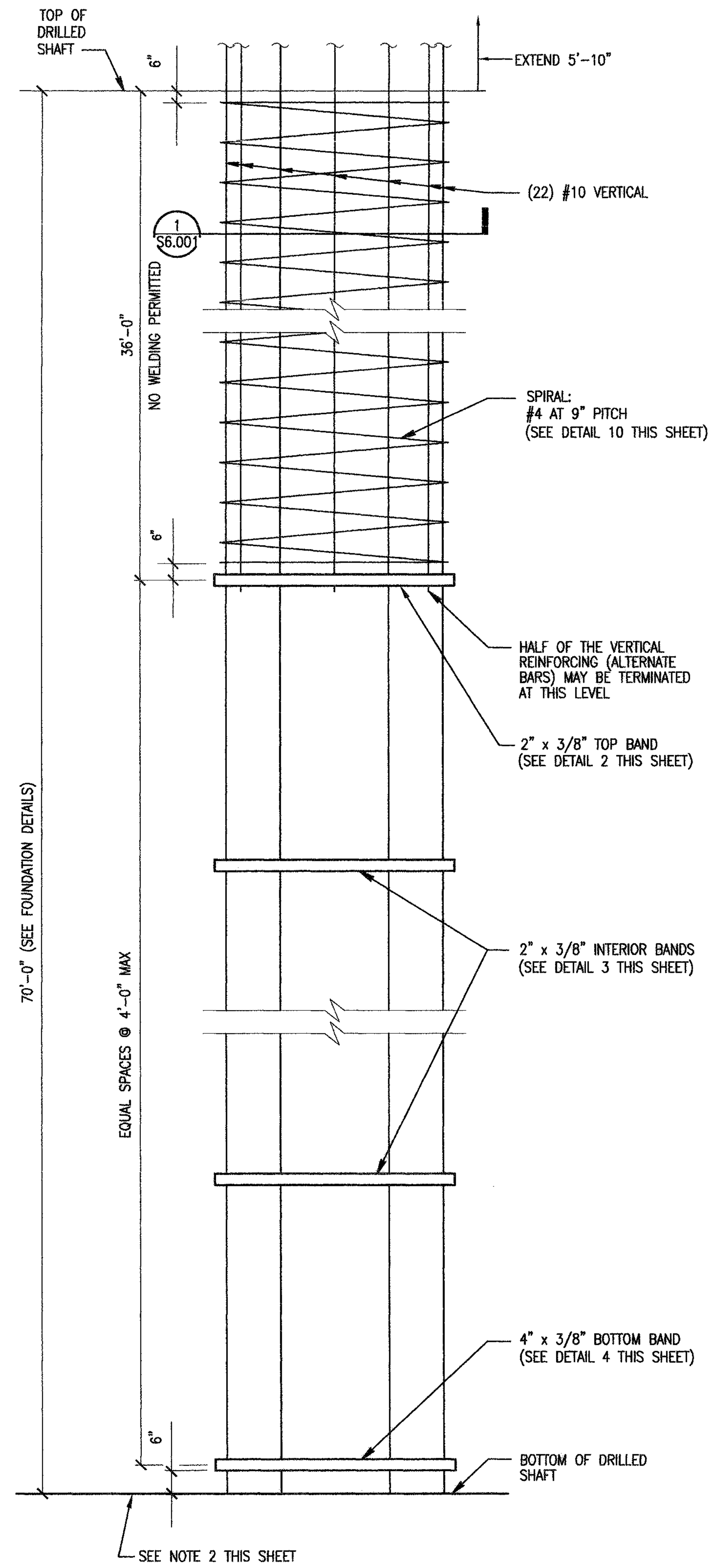
(8/S6.001) SECTION
NTS

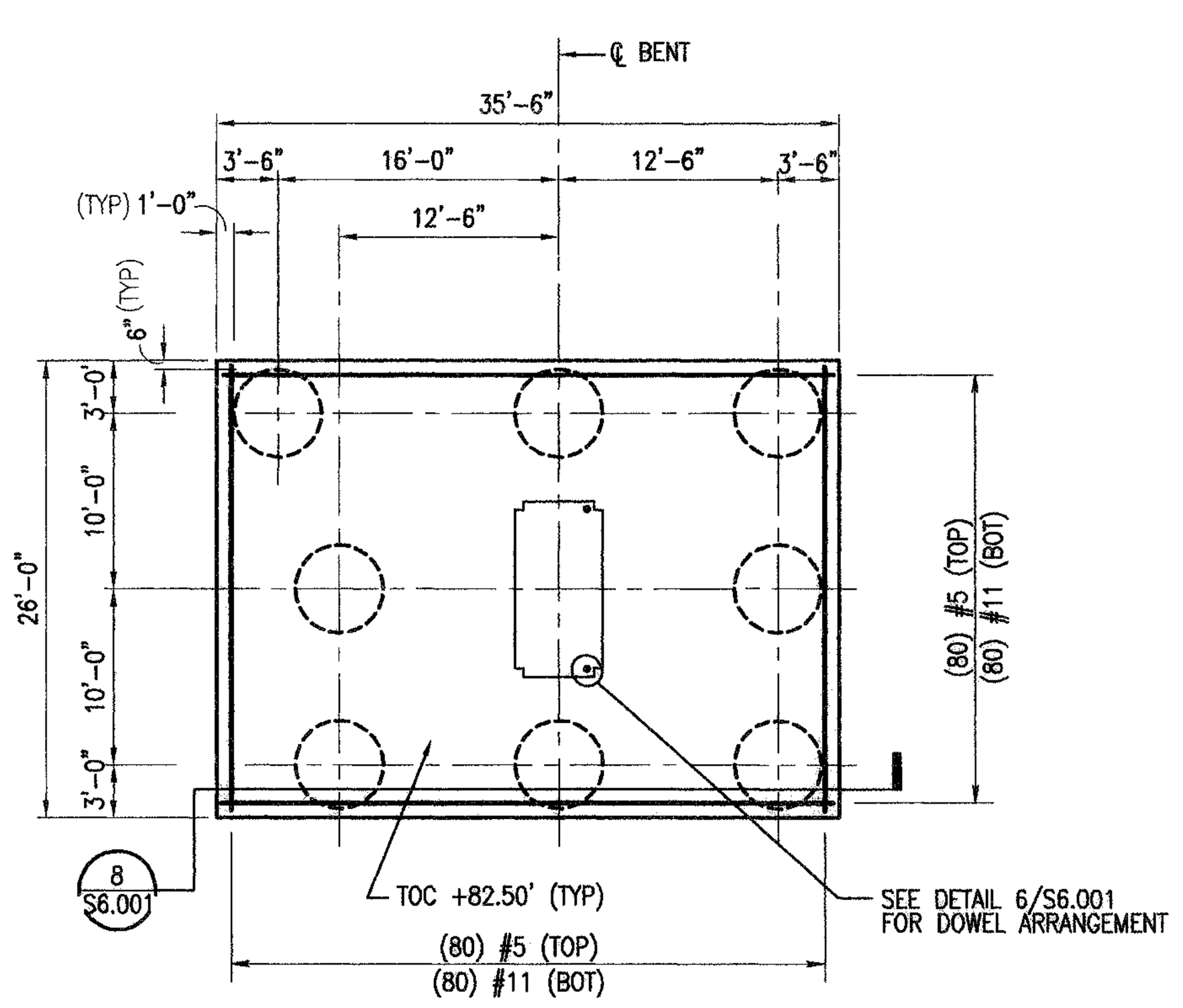


(7/S6.001) REINFORCING DOWEL DETAIL
NTS

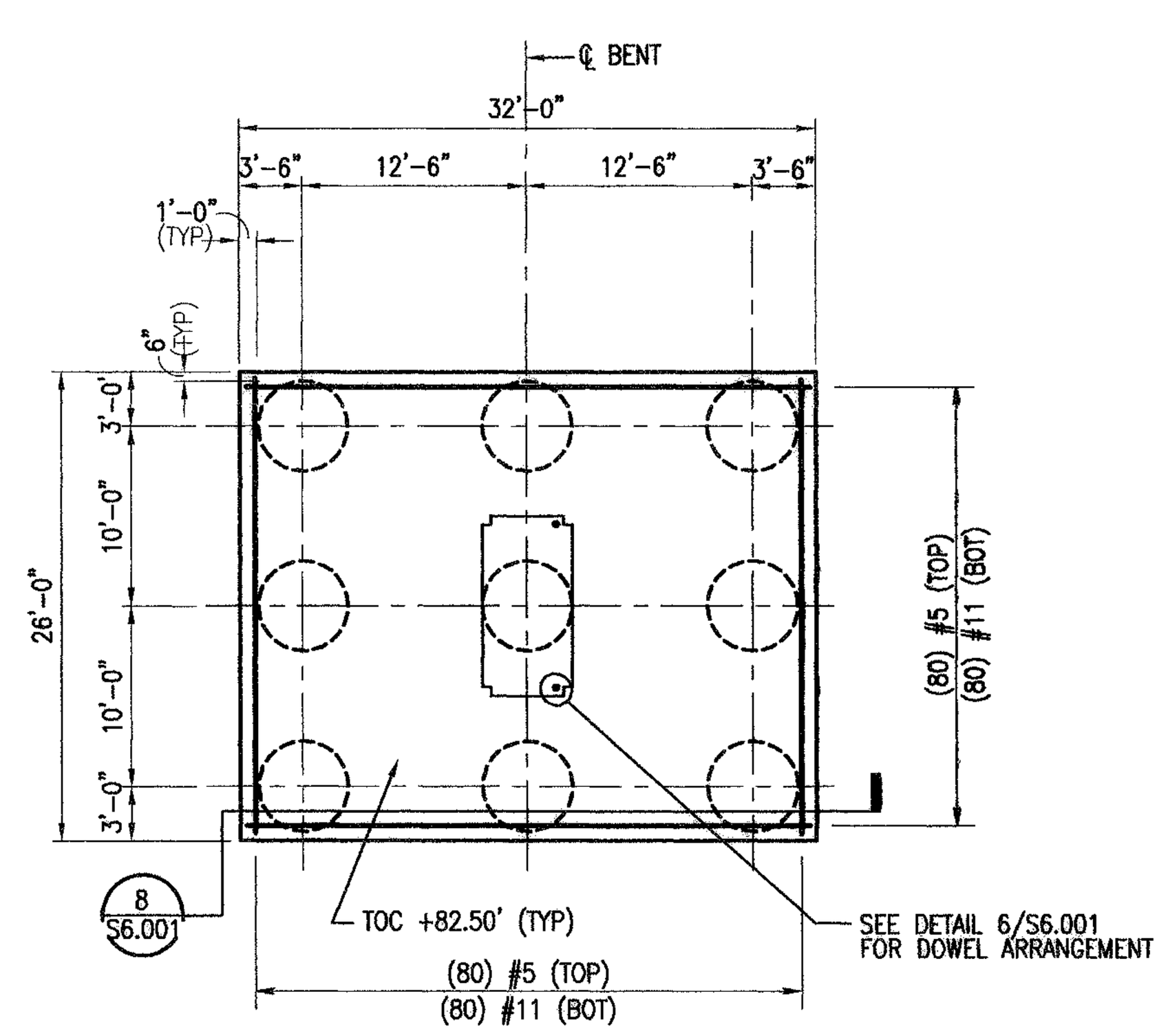


(6/S6.001) DOWEL ARRANGEMENT DETAIL
NTS

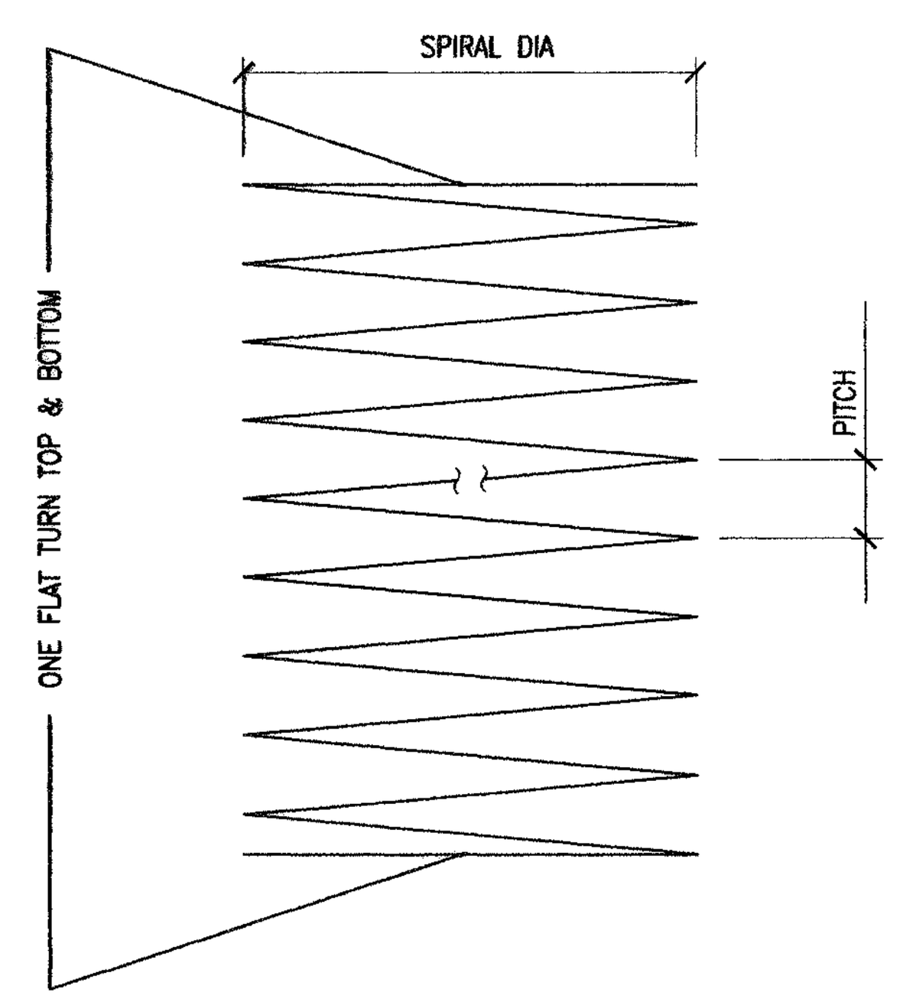




(12/S6.001) FOOTING PLAN FOR BENT #49
NTS



(11/S6.001) FOOTING PLAN FOR BENT #47, #48 & #50
NTS



(10/S6.001) SPIRAL DETAILS
NTS

(9/S6.001) DRILLED SHAFT REINFORCEMENT DETAIL
NTS

NOTES TO SHEET

1. REFER TO SHEET S0.100 FOR STRUCTURAL GENERAL NOTES.
2. VERTICAL BARS MAY BE SUPPORTED ON BOTTOM OF DRILLED HOLE IF MATERIAL IS FIRM ENOUGH TO DO SO WHEN CONCRETE IS PLACED.
3. SEE "FOUNDATION PLAN" FOR FOUNDATION LOCATION & ORIENTATION. (SHEET S2.001)
4. DRILLED SHAFT REINFORCING STEEL, INCLUDING STEEL BANDS SHALL BE INCLUDED IN THE BID FOR DRILLED SHAFTS.
5. A 30 DIAMETER LAP SPLICE WILL BE REQUIRED FOR EACH BAR. THE LAP SPLICE SHALL BE POSITIONED AT THE LOWER END OF THE CAGE.

RECORD DRAWINGS
DO NOT MODIFY

DATE: MAY 6, 2005

HUITT-ZOLLARS, INC.

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HOUSTON AIRPORT SYSTEM
GEORGE BUSH
INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

HUITT-ZOLLARS
Huitt-Zollars, Inc. Engineering / Architecture
1500 Dairy Ashford, Suite 200, Houston, TX 77077
Phone (281) 496-0066 Fax (281) 496-0220

CHARLES F. TERRY, INC.
Consulting Engineers
2601 Gaston Avenue
Dallas, Texas 75226
214/826-9400 FAX 214/826-6406

REVISIONS			
NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM
APM STATION & PLATFORM
DRILLED SHAFT AND FOOTING DETAILS

PROJECT MGR:	GRW
DESIGNER:	JWE
DRAWN BY:	KWA
CHECKED BY:	MMR
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	AS NOTED
DATE:	09/14/01

FOR RECORD DRAWING ONLY
STATE OF TEXAS
MOEIN MICHAEL REYHANI
83454
LICENSED
PROFESSIONAL ENGINEER
5/06/05

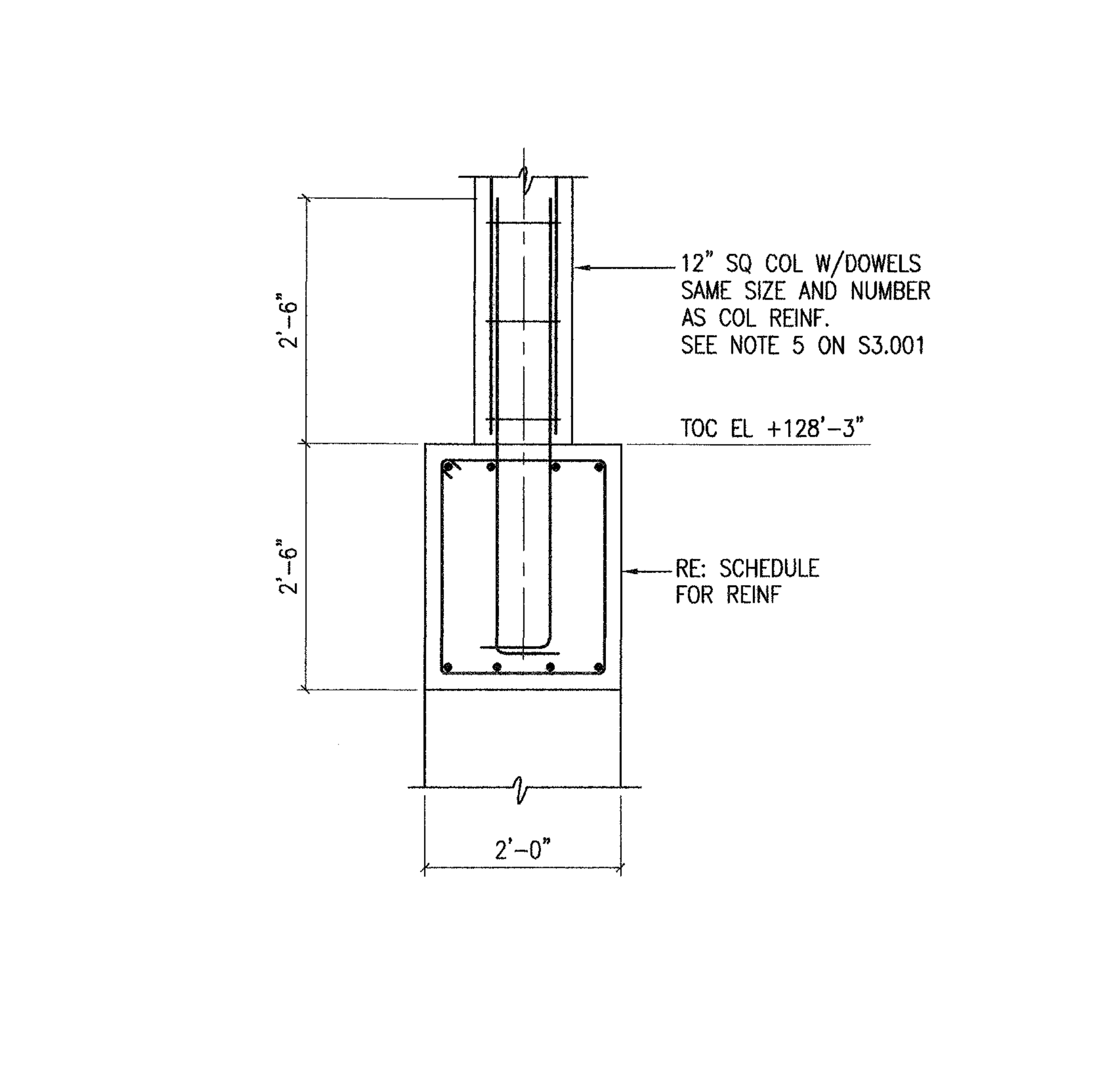
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

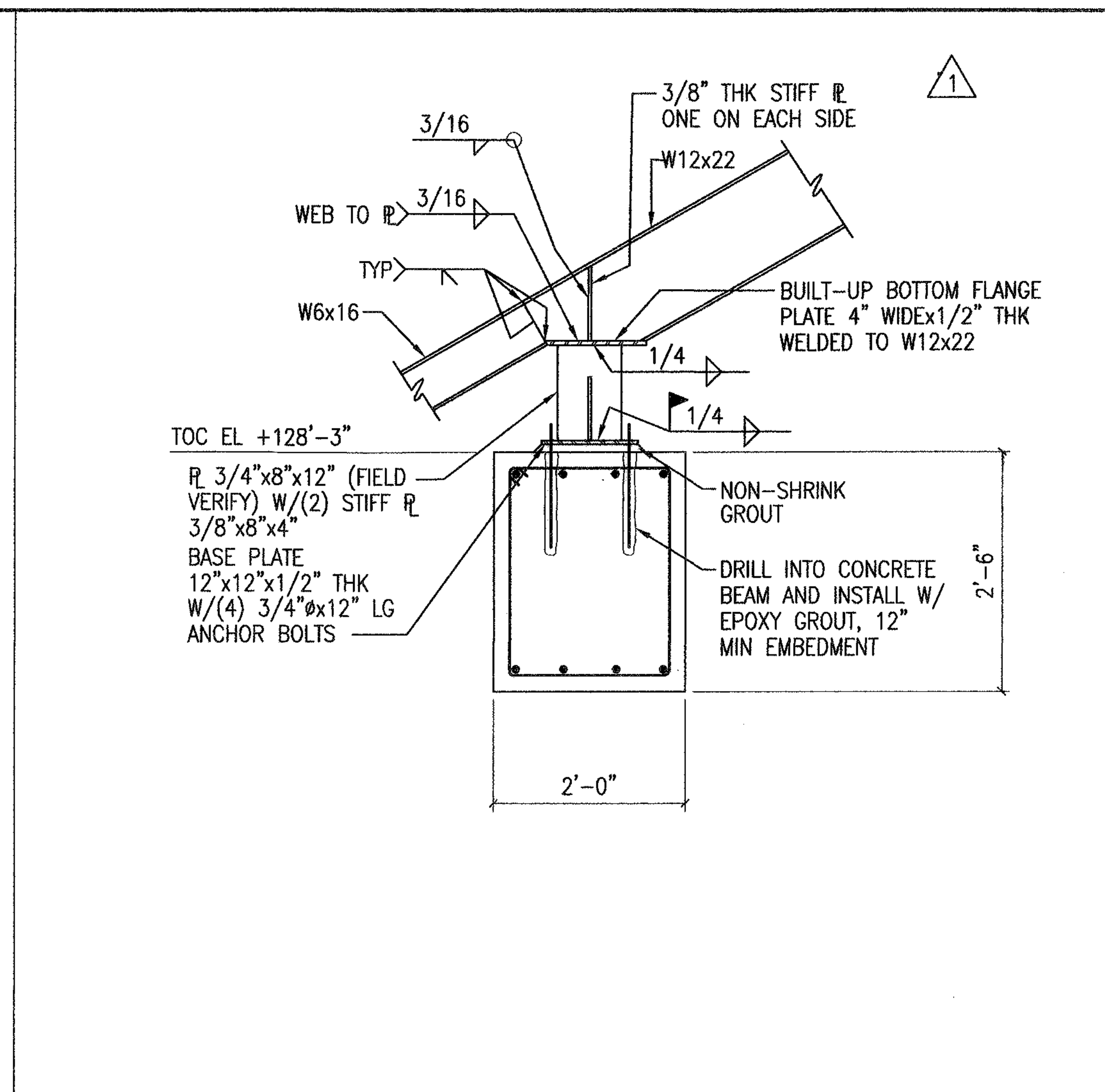
PROJECT NO.	02-2025-01
C.I.P. NO.	A-0354
H.A.S. NO.	536C
SHEET NO.	S6.001

74

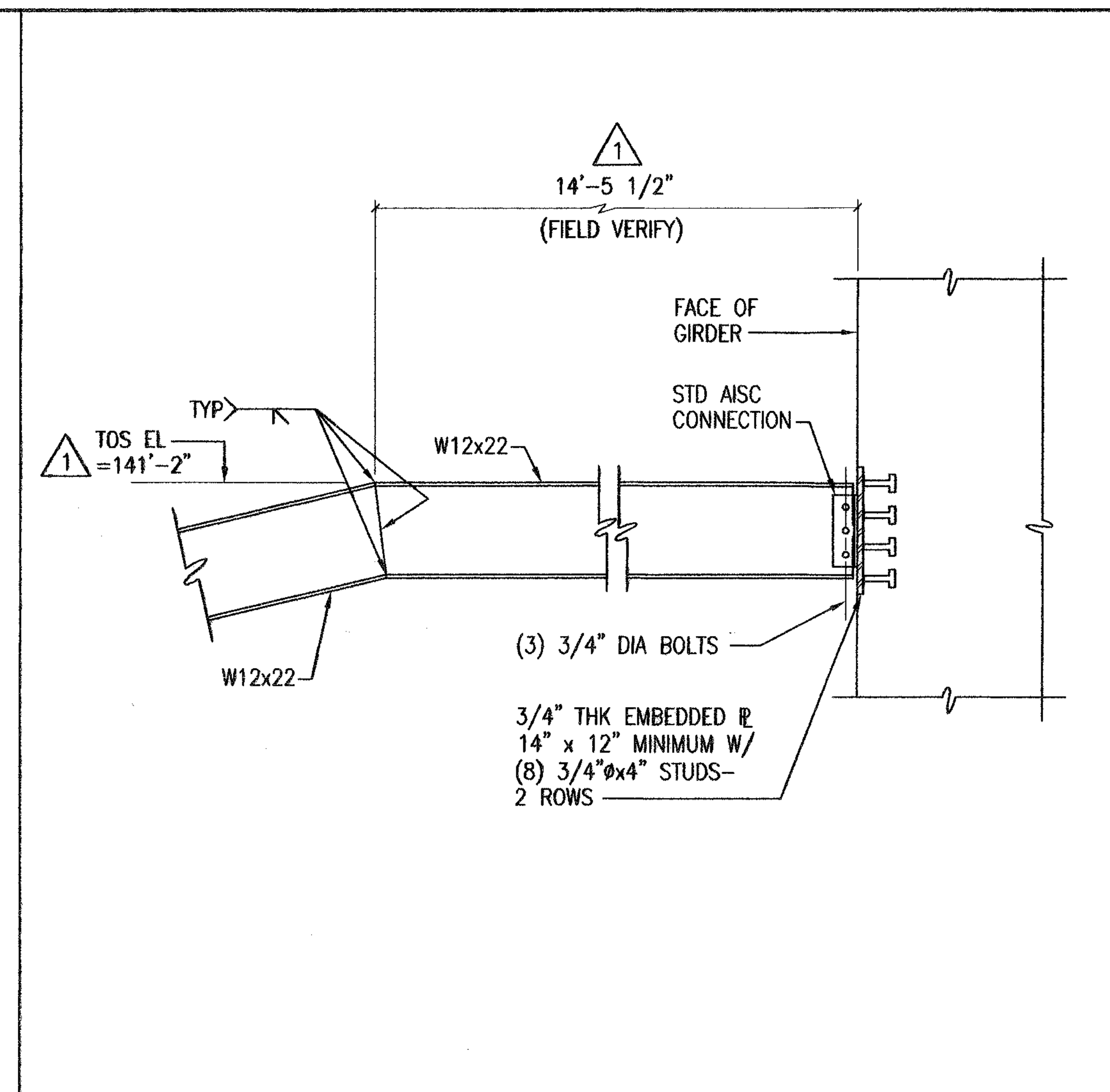
PLOT DATE: 10/19/01 HAS FILE: IA536CS6001.DWG



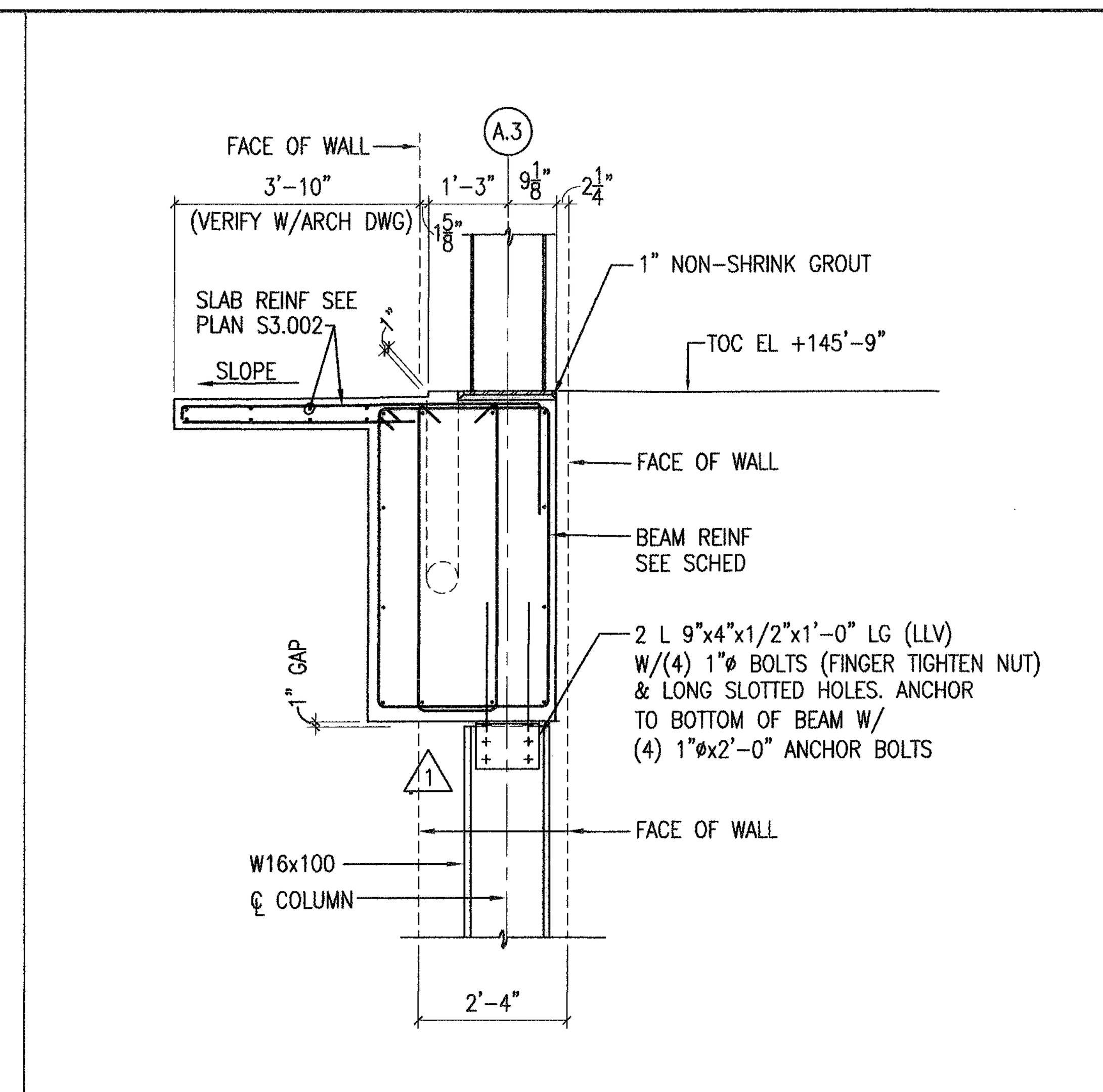
4 SECTION S3.001 3/4"=1'-0"



3 SECTION S3.001 3/4"=1'-0"



2 SECTION S3.001 3/4"=1'-0"



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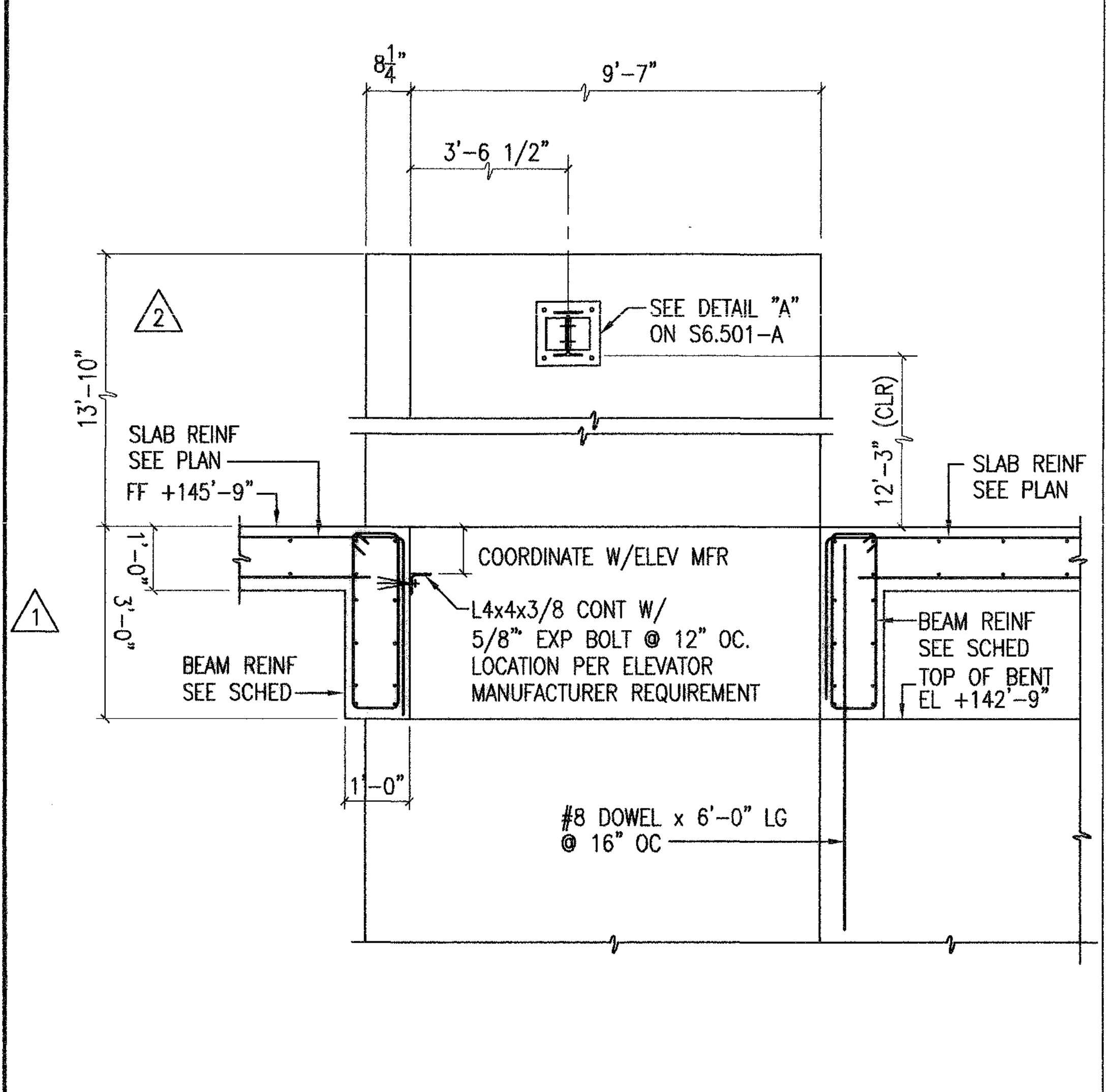
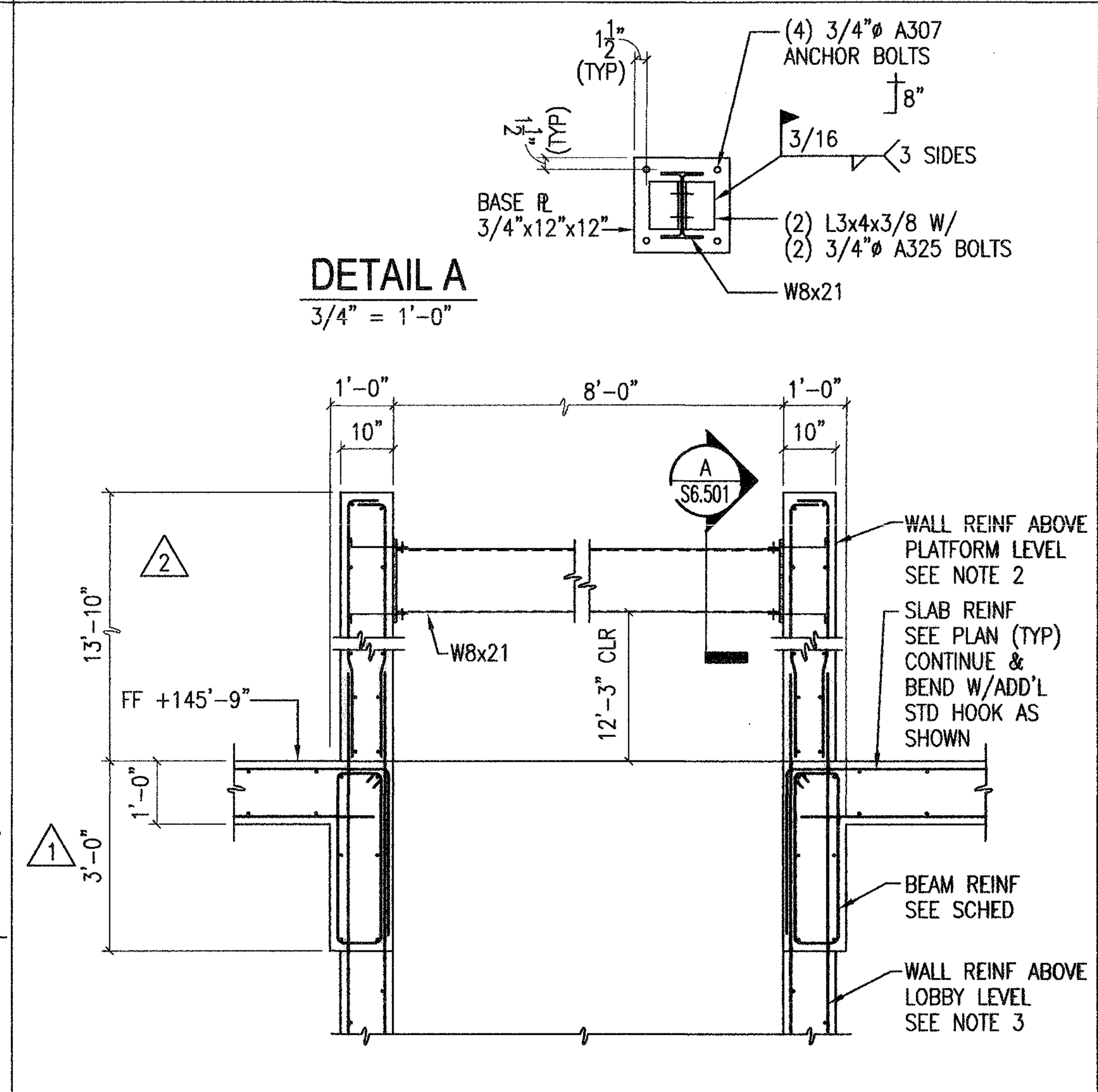
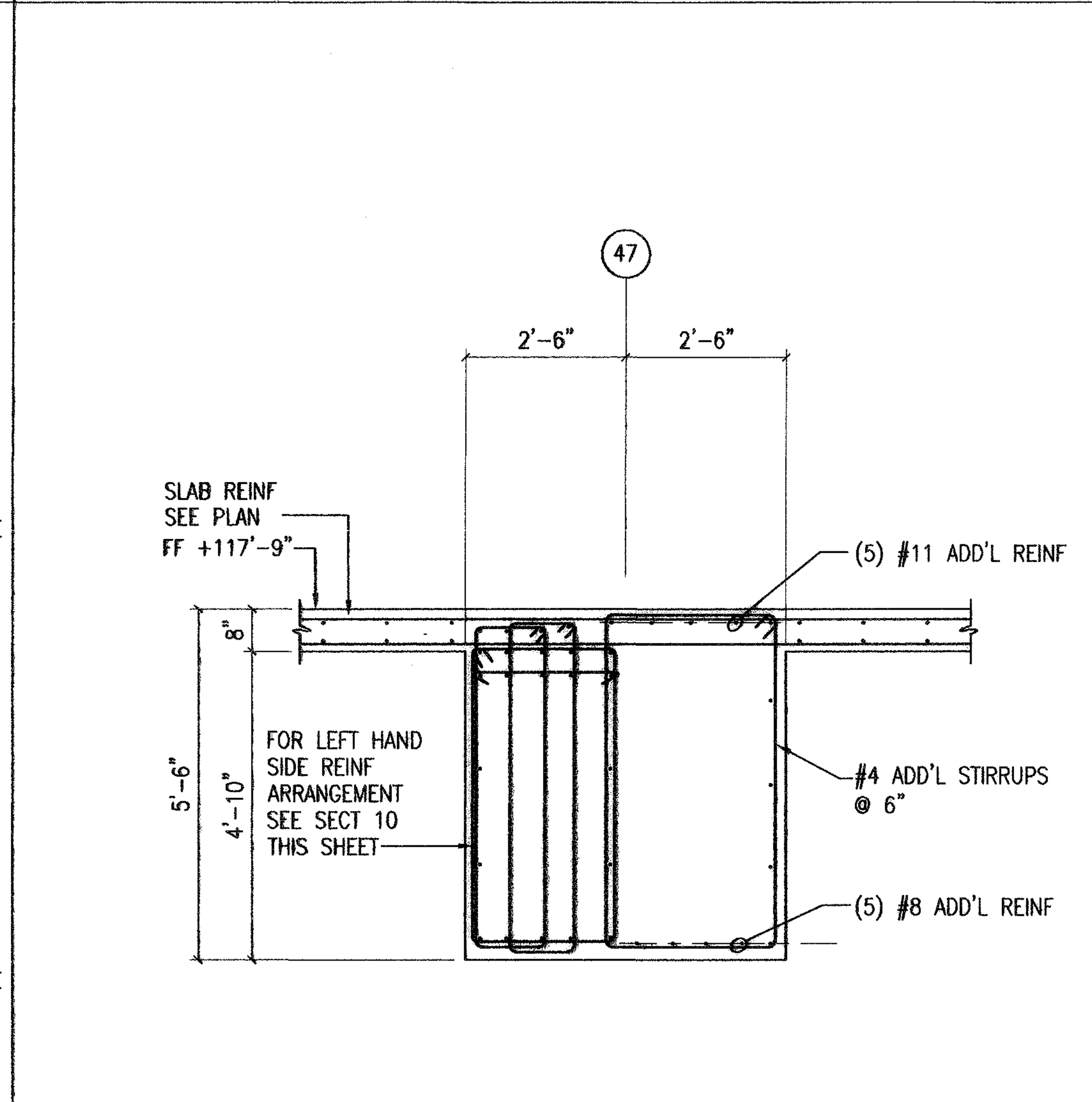


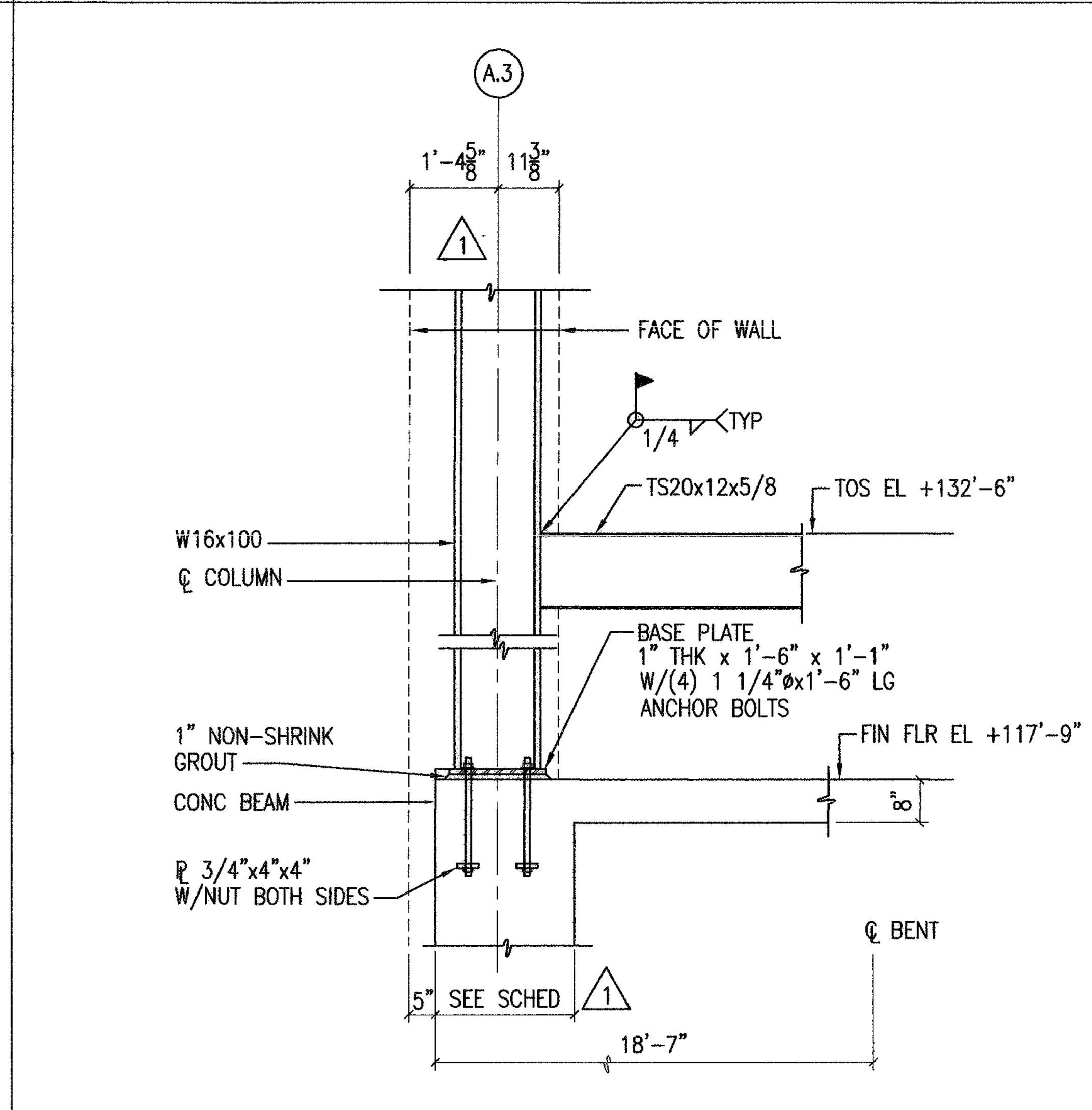
8 SECTION S3.002 1/2"=1'-0"



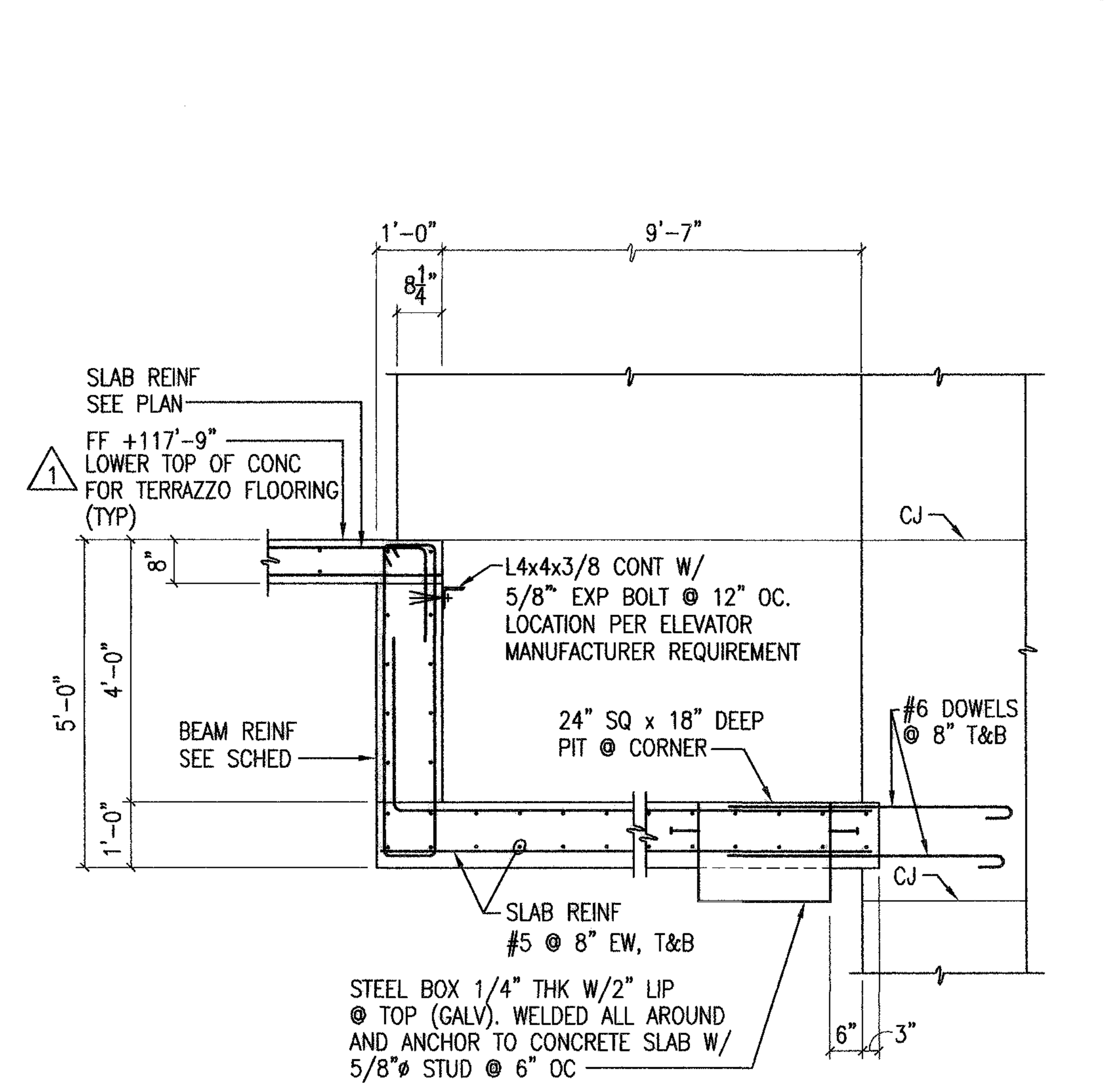
7 SECTION S3.002 1/2"=1'-0"



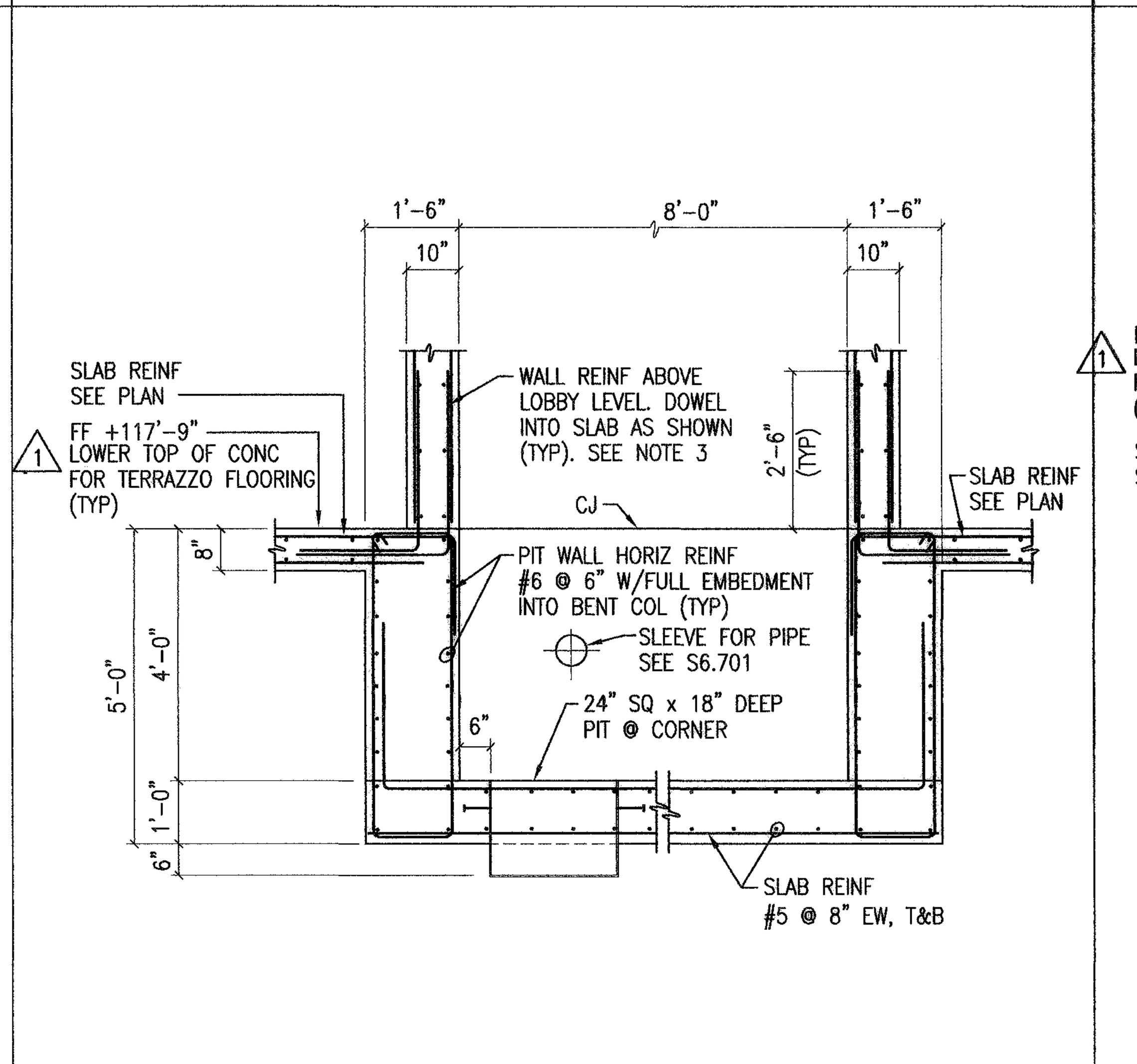
6 SECTION S7.101 1/2"=1'-0"



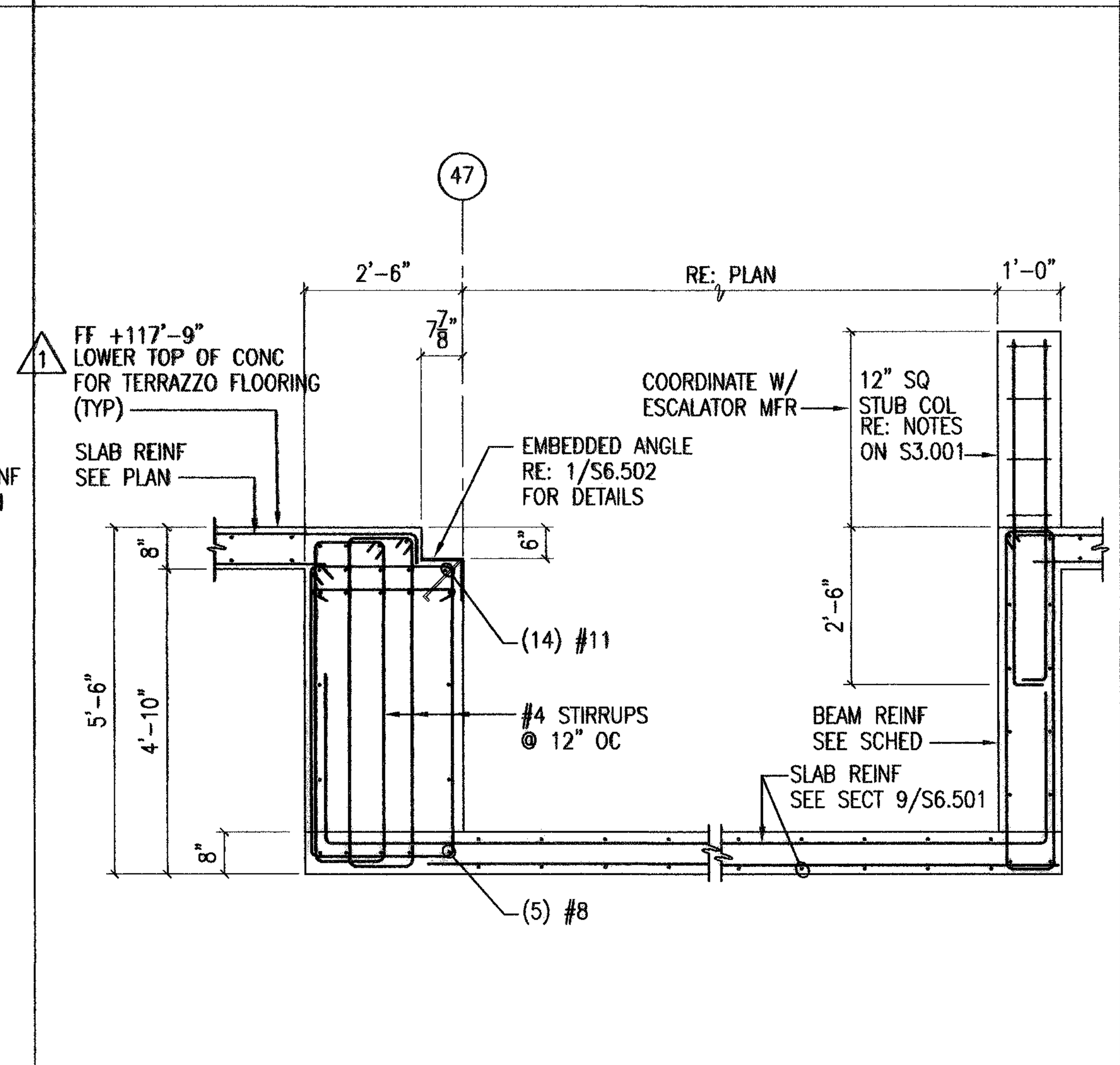
5 SECTION S3.001 1/2"=1'-0"



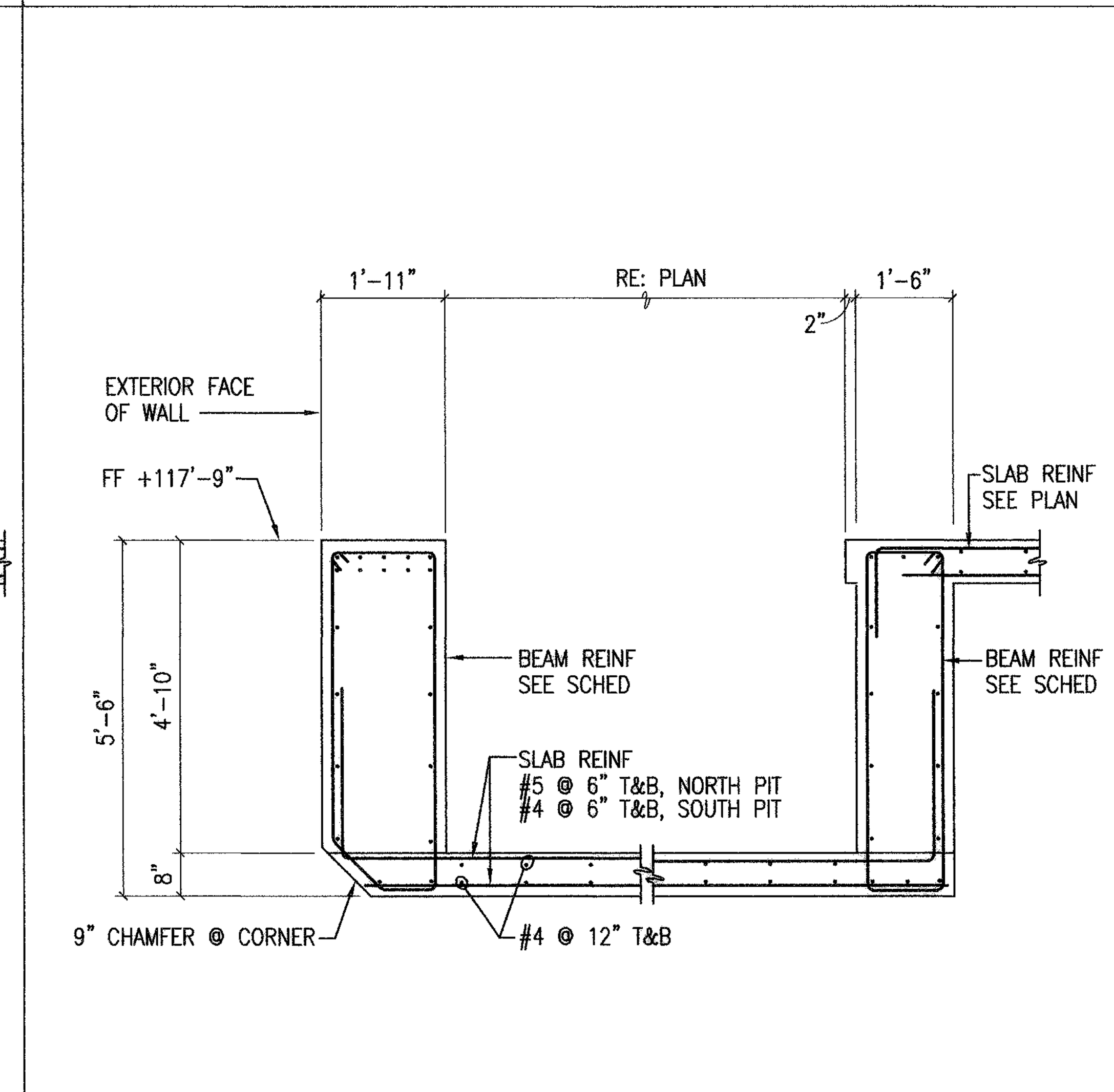
12 SECTION S3.001 1/2"=1'-0"



11 SECTION S3.001 1/2"=1'-0"



10 SECTION S3.001 1/2"=1'-0"



9 SECTION S3.001 1/2"=1'-0"

NOTES TO SHEET

1. REFER TO SHEET S0.100 FOR STRUCTURAL GENERAL NOTES.
2. PROVIDE #5 @ 12" OC (VERT) AND #4 @ 12" OC (HORIZ) EA FACE FOR WALL REINF.
3. PROVIDE #5 @ 9" OC (VERT) AND #5 @ 6" OC (HORIZ, ANCHORED INTO BENT COL WITH FULL EMBEDMENT LENGTH), EACH FACE (TYP).

NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".
SCALE: 1/2" = 1'-0"

NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".
SCALE: 3/4" = 1'-0"

RECORD DRAWINGS
DO NOT MODIFY

DATE: MAY 6, 2005

HUITT-ZOLLARS, INC.

NOTE: INFORMATION USED TO DEVELOP THESE DOCUMENTS WAS TAKEN FROM RECORD OF THE WORK DRAWINGS PREPARED BY THE CONSTRUCTION CONTRACTOR, CLARK/MISSION A JOINT VENTURE. THE INFORMATION PROVIDED BY THE CONTRACTOR WAS NOT VERIFIED BY THE DESIGN FIRM NAMED ABOVE.

HOUSTON AIRPORT SYSTEM
GEORGE BUSH INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

HUITT-ZOLLARS

CHARLES F. TERRY, INC. Consulting Engineers

REVISIONS

NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
1	ADDENDUM #1	02/01/02	MR

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION & PLATFORM
SECTIONS AND DETAILS

PROJECT MGR:	GRW
DESIGNER:	JUC
DRAWN BY:	KLV
CHECKED BY:	MMR
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	AS NOTED
DATE:	09/14/01

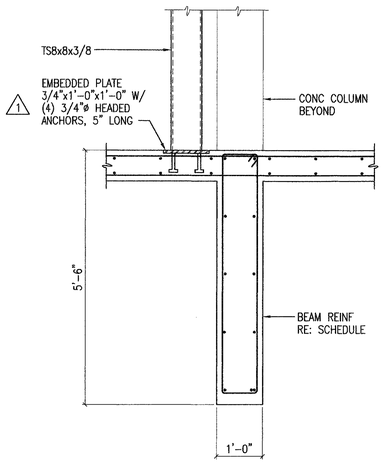
FOR RECORD DRAWING ONLY

APPROVED BY: DATE:

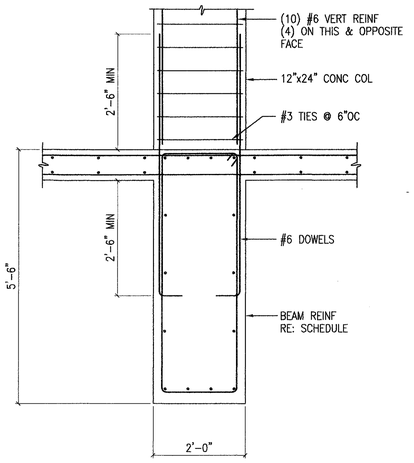
DIRECTOR HOUSTON AIRPORT SYSTEM

PROJECT NO.	02-2025-01
C.I.P. NO.	A-0354
H.A.S. NO.	5360
SHEET NO.	S6.501

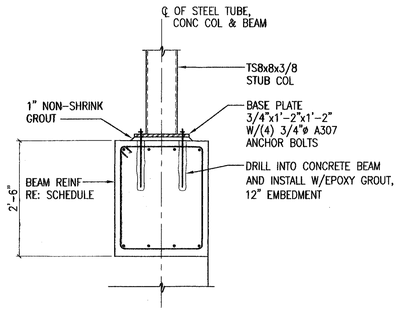
PLOT DATE: 10/19/01 HAS FILE: IAS36CS6501.DWG



4 S3.001 **SECTION** 3/4"=1'-0"

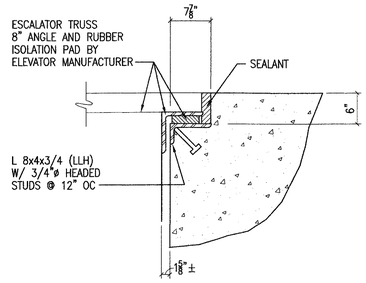


3 S3.001 **SECTION** 3/4"=1'-0"



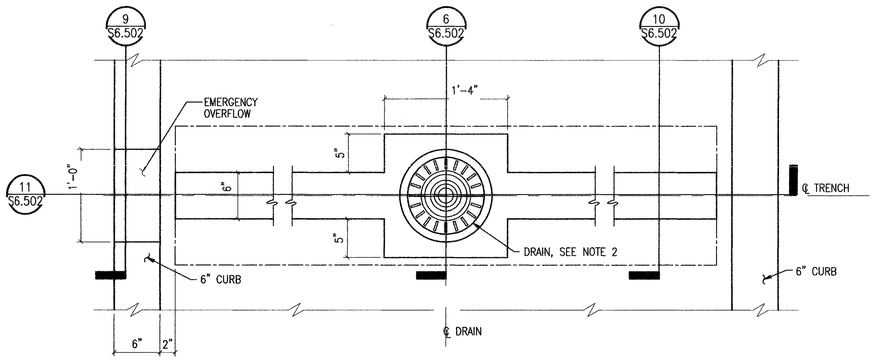
NOTE: LOCATION OF STEEL TUBE CENTERLINE IS NOT ON BEAM CENTERLINE IN SIM CONDITION.

2 S3.001 **SECTION** 3/4"=1'-0"

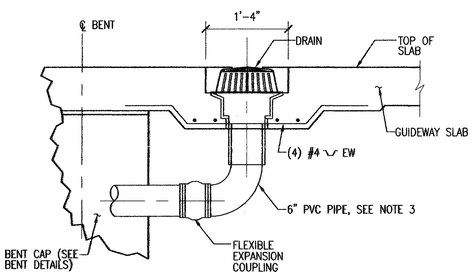


1 S3.002 **TYPICAL SECTION** 1"=1'-0"

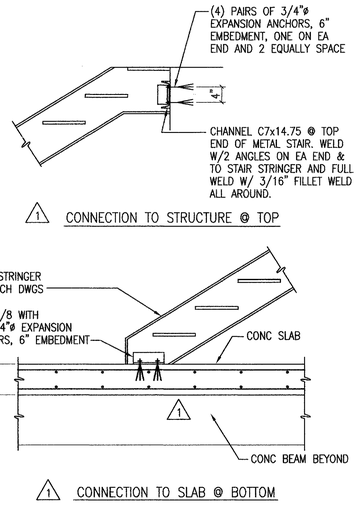
ESCALATOR CONNECTION TO STRUCTURE @ TOP & BOTTOM



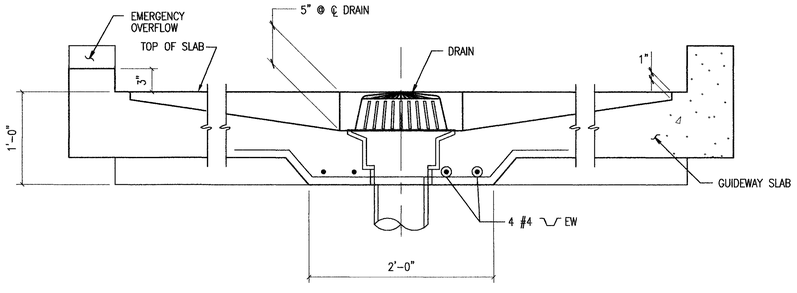
7 S3.002 **TRENCH DRAIN PLAN** 1 1/2"=1'-0"



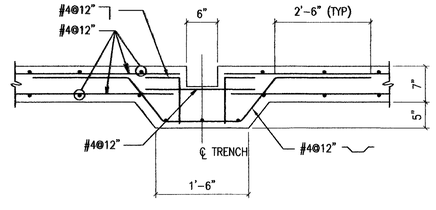
6 S6.502 **SECTION** 1"=1'-0"



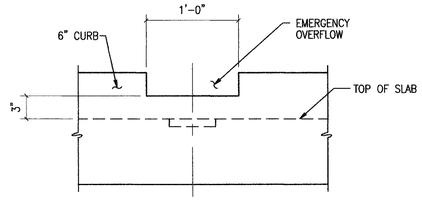
5 S3.001 **SECTION** 3/4"=1'-0"



11 S6.502 **TRENCH DRAIN SECTION** 1 1/2"=1'-0"



10 S6.502 **SECTION** 1"=1'-0"



9 S6.502 **SECTION** 1 1/2"=1'-0"

NOTES TO SHEET

1. REFER TO SHEET S0.100 FOR STRUCTURAL GENERAL NOTES.
2. DRAINS SHALL BE "MARATHON ROOFING PRODUCTS BIG BODY PVC BB-6" OR APPROVED EQUAL.
3. PVC PIPE SHALL HAVE A MINIMUM SLOPE OF 2%.

NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

0' 6" 1' 2'

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

NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

0' 1' 2' 3'

SCALE: 1" = 1'-0"

NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

0' 1' 2' 4'

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

RECORD DRAWINGS DO NOT MODIFY

DATE: MAY 6, 2005

HUITT-ZOLLARS, INC.

NOTE: INFORMATION USED TO DEVELOP THESE DOCUMENTS WAS TAKEN FROM RECORD OF THE WORK DRAWINGS PREPARED BY THE CONSTRUCTION CONTRACTOR, CLARK/MISSION A JOINT VENTURE. THE INFORMATION PROVIDED BY THE CONTRACTOR WAS NOT VERIFIED BY THE DESIGN FIRM NAMED ABOVE.

HOUSTON AIRPORT SYSTEM
GEORGE BUSH INTERCONTINENTAL AIRPORT HOUSTON TEXAS

HUITT-ZOLLARS
Huitt-Zollars, Inc. Engineering / Architecture
1500 Oaky Ambient, Suite 200, Houston, TX 77077
Phone (281) 465-0065 Fax (281) 496-0229

CHARLES F. TERRY, INC.
Consulting Engineers
2901 Gaston Avenue
Dallas, Texas 75226
214/826-9901 FAX 214/826-9404

REVISIONS

NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
1	ADDENDUM #1	02/01/02	MR

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION & PLATFORM

SECTIONS AND DETAILS

PROJECT MGR:	GRW
DESIGNER:	JUC
DRAWN BY:	KLV
CHECKED BY:	MMR
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	AS NOTED
DATE:	09/14/01

FOR RECORD DRAWING ONLY

STATE OF TEXAS — MOEN MICHAEL ROTHAM — 85454 — REGISTERED PROFESSIONAL ENGINEER — 5/06/05

APPROVED BY: DATE:

DIRECTOR HOUSTON AIRPORT SYSTEM

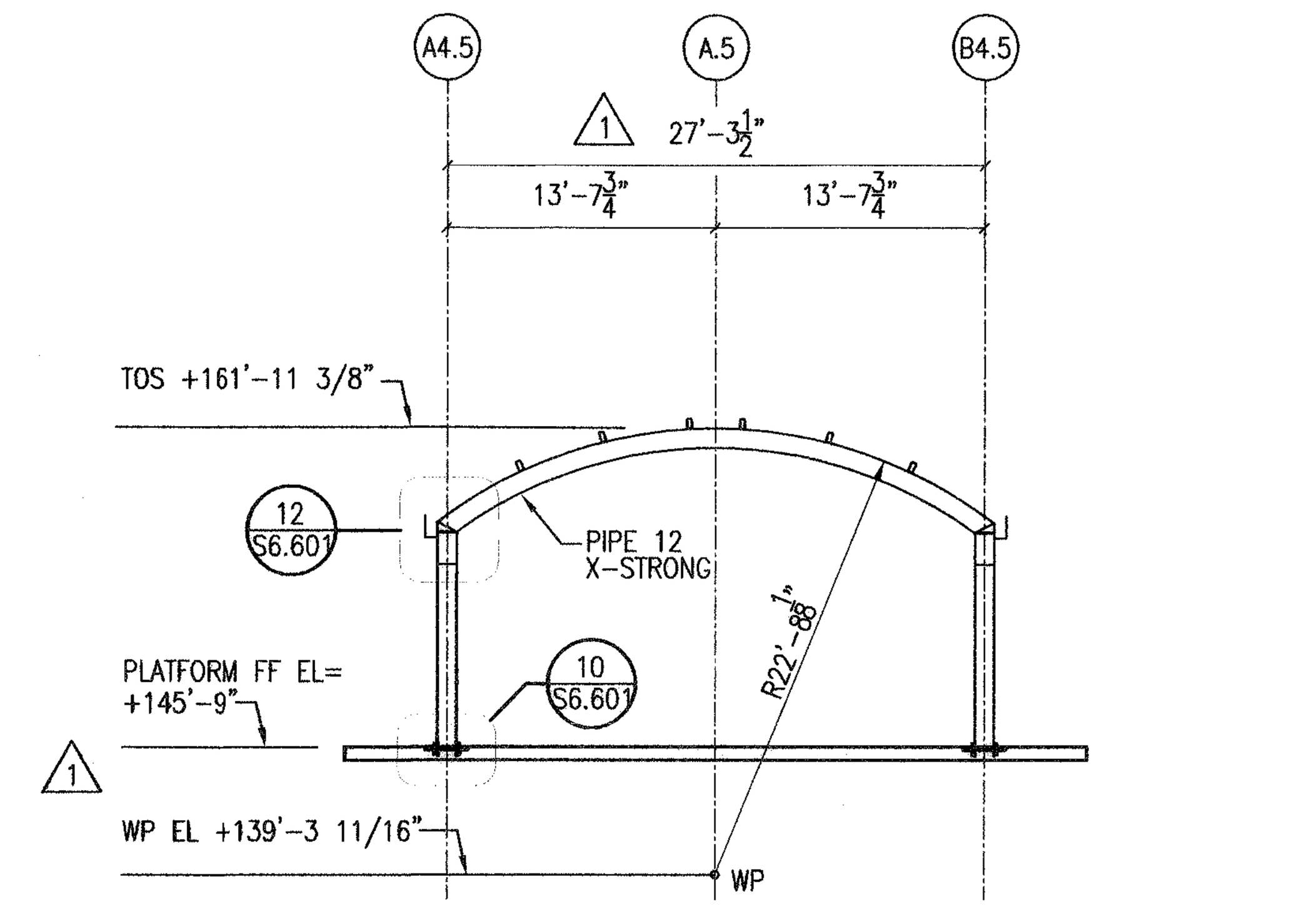
PROJECT NO. 02-2025-01

C.I.P. NO. A-0354

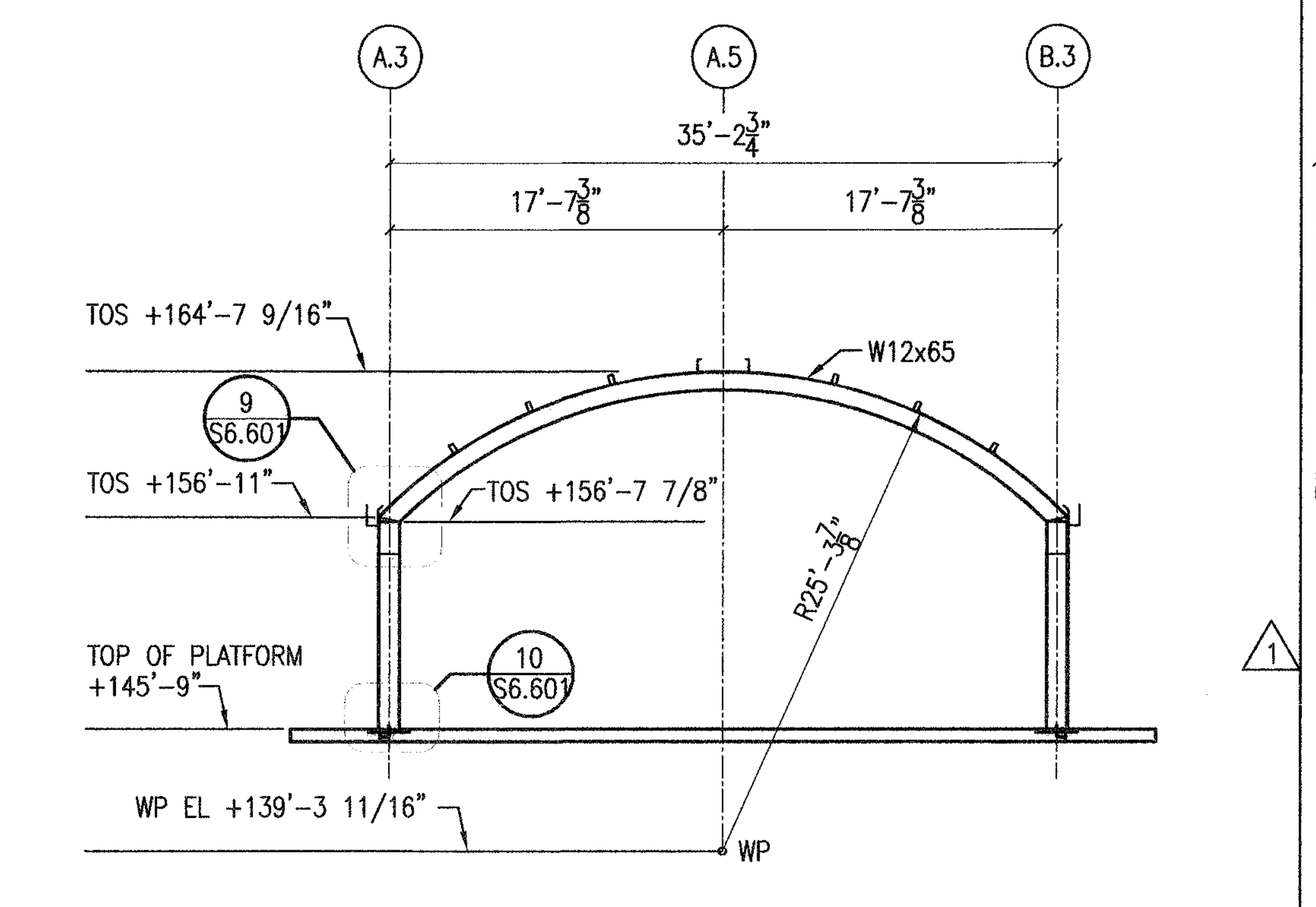
H.A.S. NO. 536C

SHEET NO. S6.502

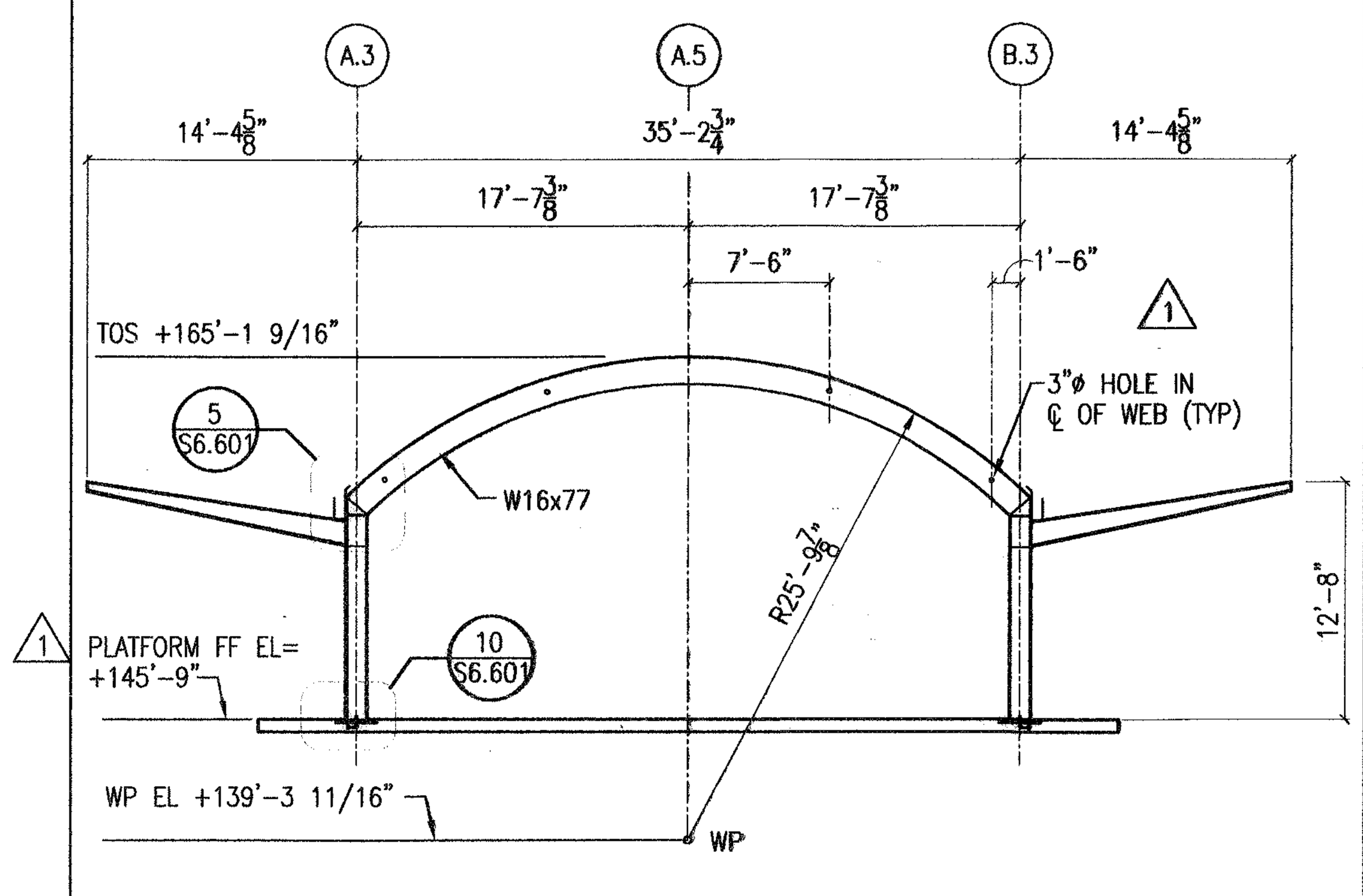
PLOT DATE:10/19/01 HAS FILE:\AS36\CS6502.DWG



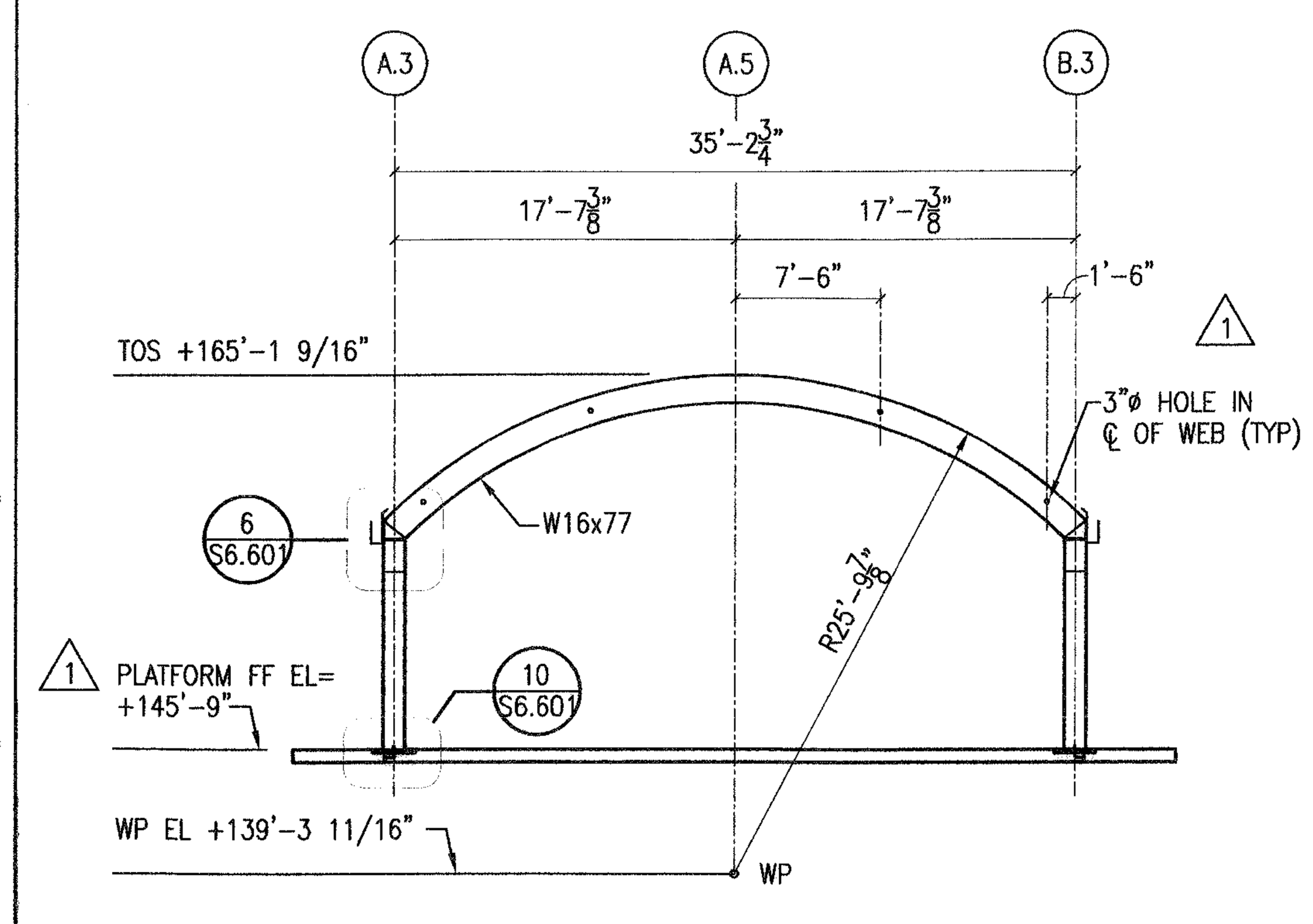
4 DETAIL-FRAME FR5
S3.003 1/8"=1'-0"



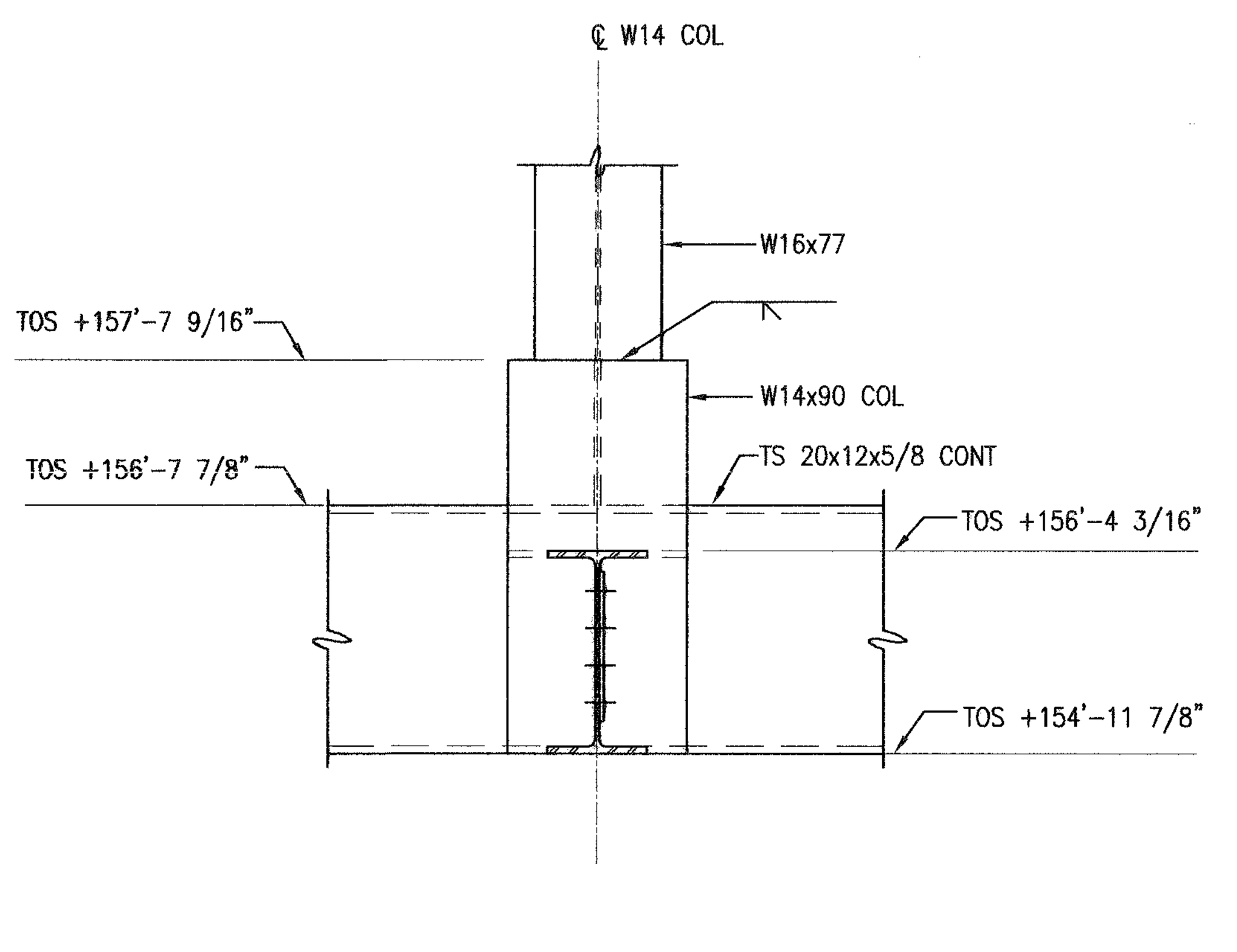
3 DETAIL-FRAME FR6
S3.003 1/8"=1'-0"



2 DETAIL-FRAME FR1 & FR2 WITH CANOPY
S3.003 1/8"=1'-0"

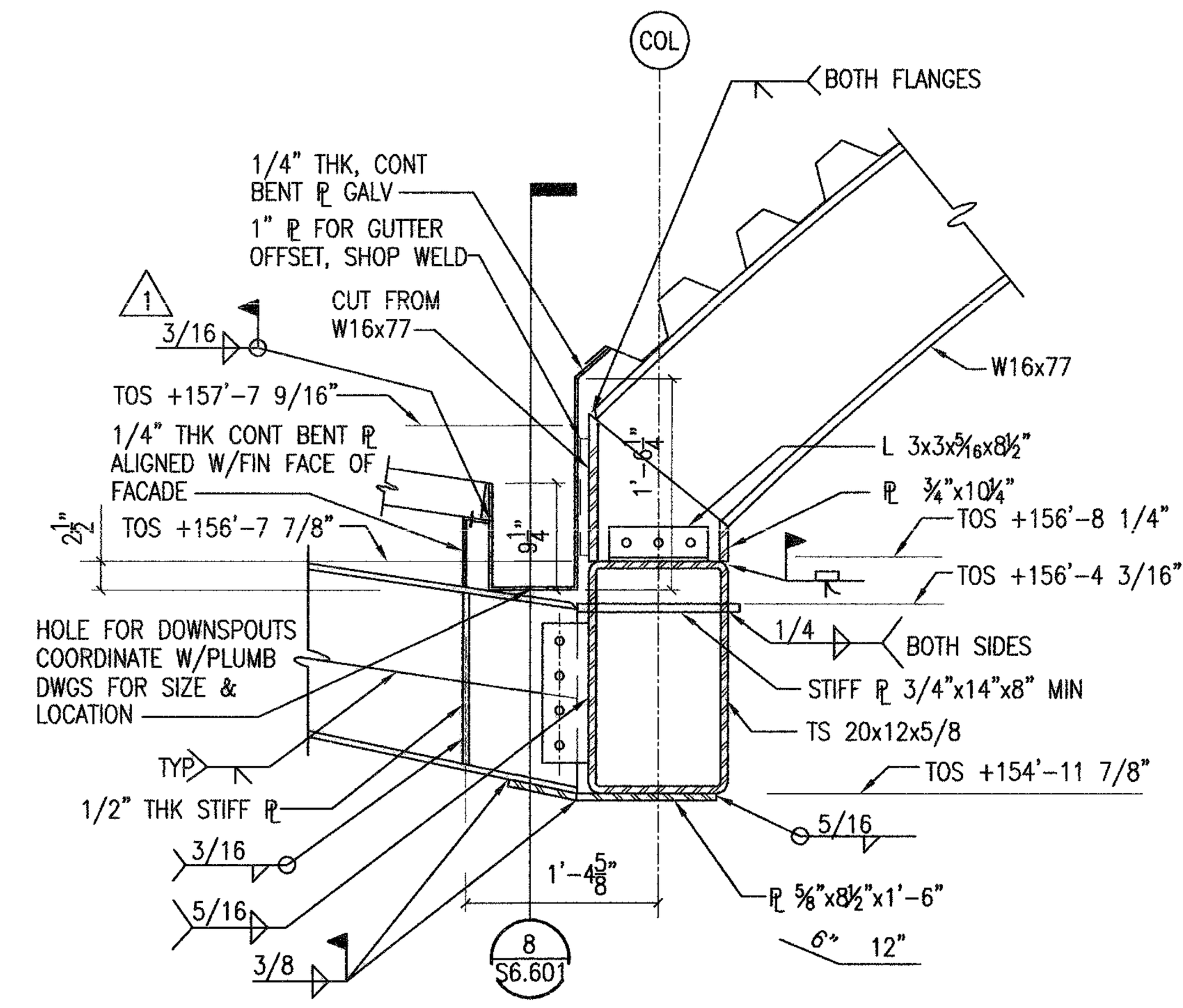


1 DETAIL-FRAME FR1, FR2, FR3
S3.003 1/8"=1'-0"



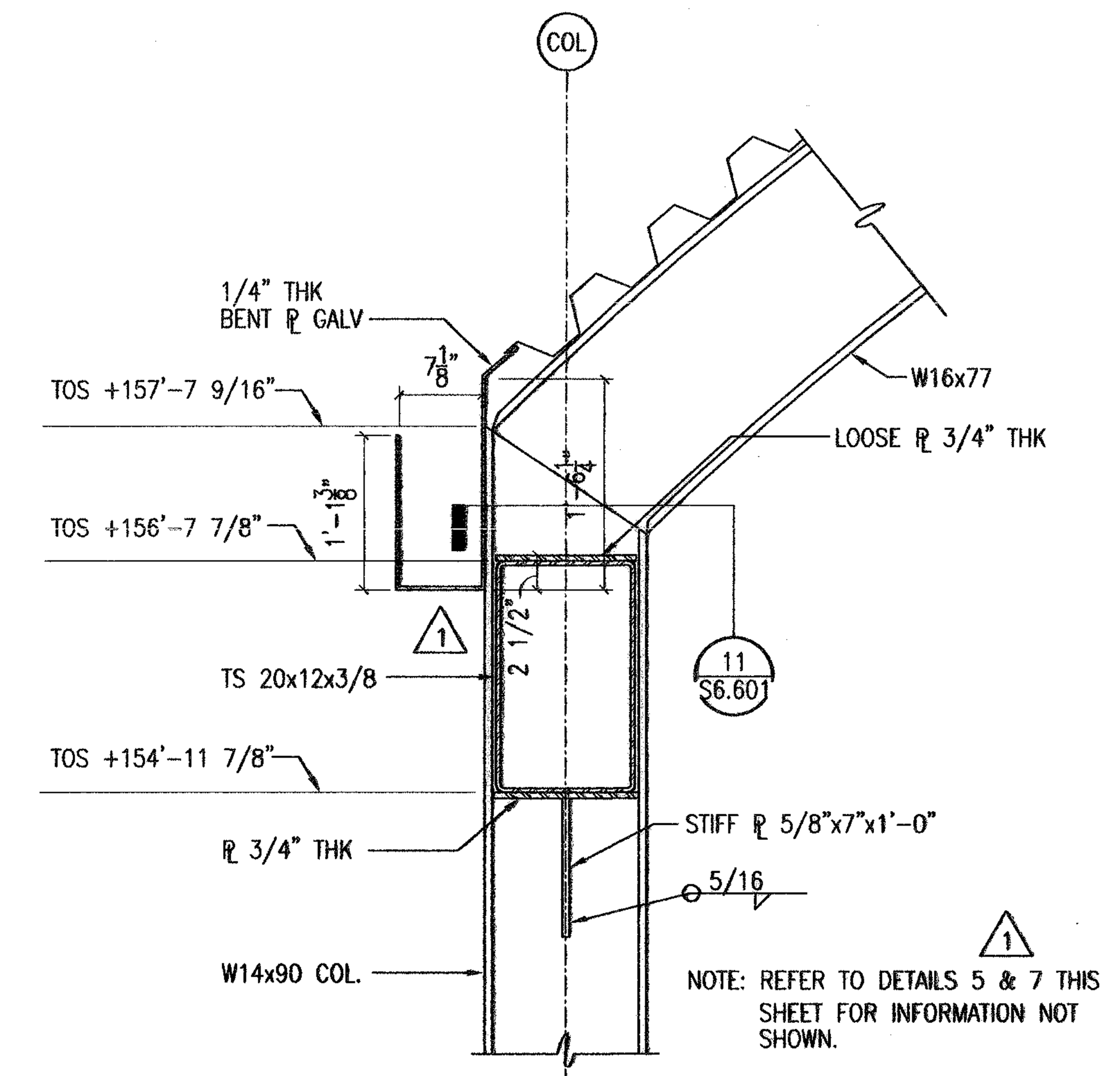
NOTE: REFER TO DETAIL 7 THIS SHEET FOR INFORMATION NOT SHOWN.

8 SECTION
S6.601 1"=1'-0"



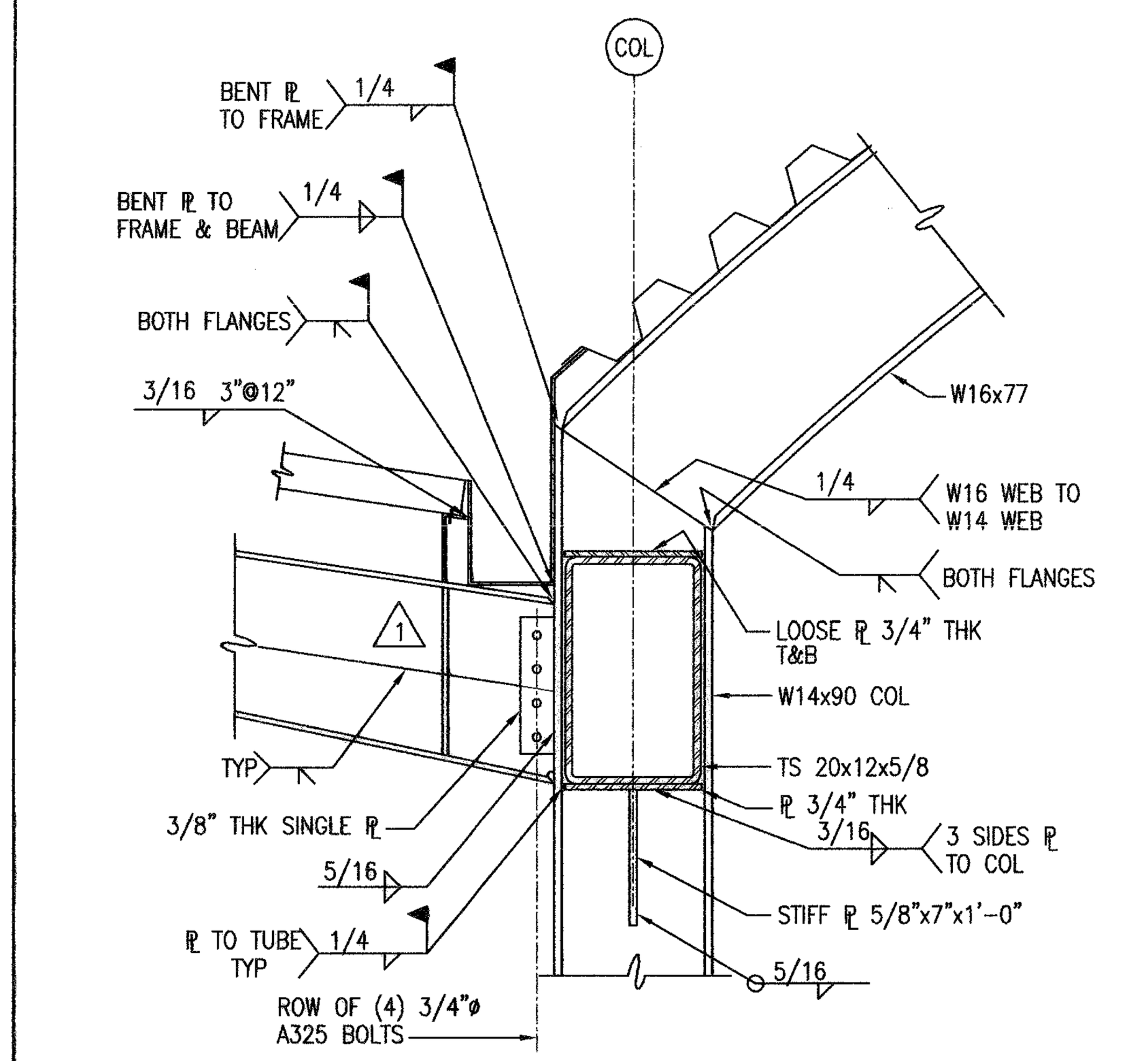
NOTE: REFER TO DETAIL 5 THIS SHEET FOR INFORMATION NOT SHOWN.

7 DETAIL
S6.601 1"=1'-0"



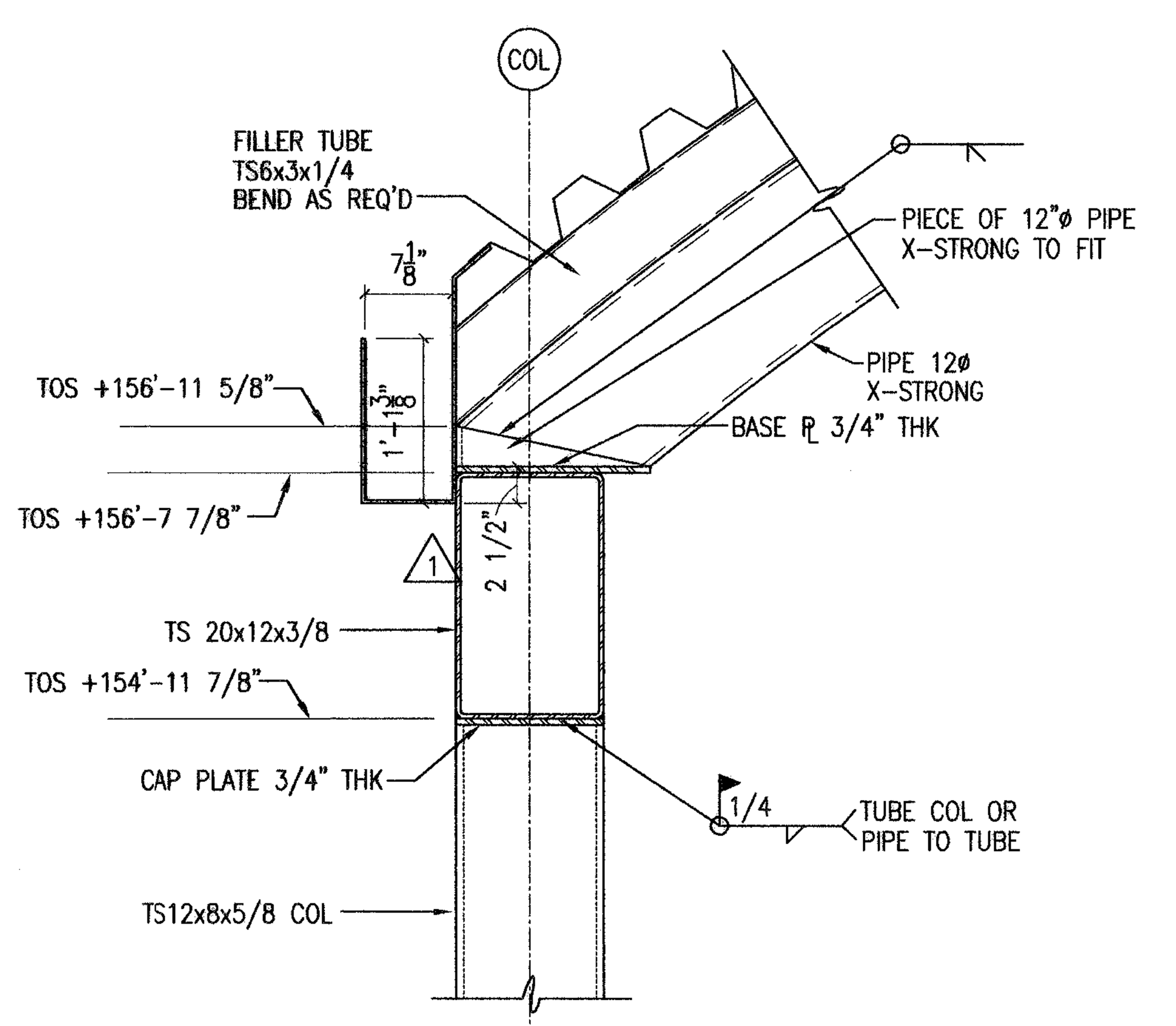
NOTE: REFER TO DETAILS 5 & 7 THIS SHEET FOR INFORMATION NOT SHOWN.

6 DETAIL
S6.601 1"=1'-0"



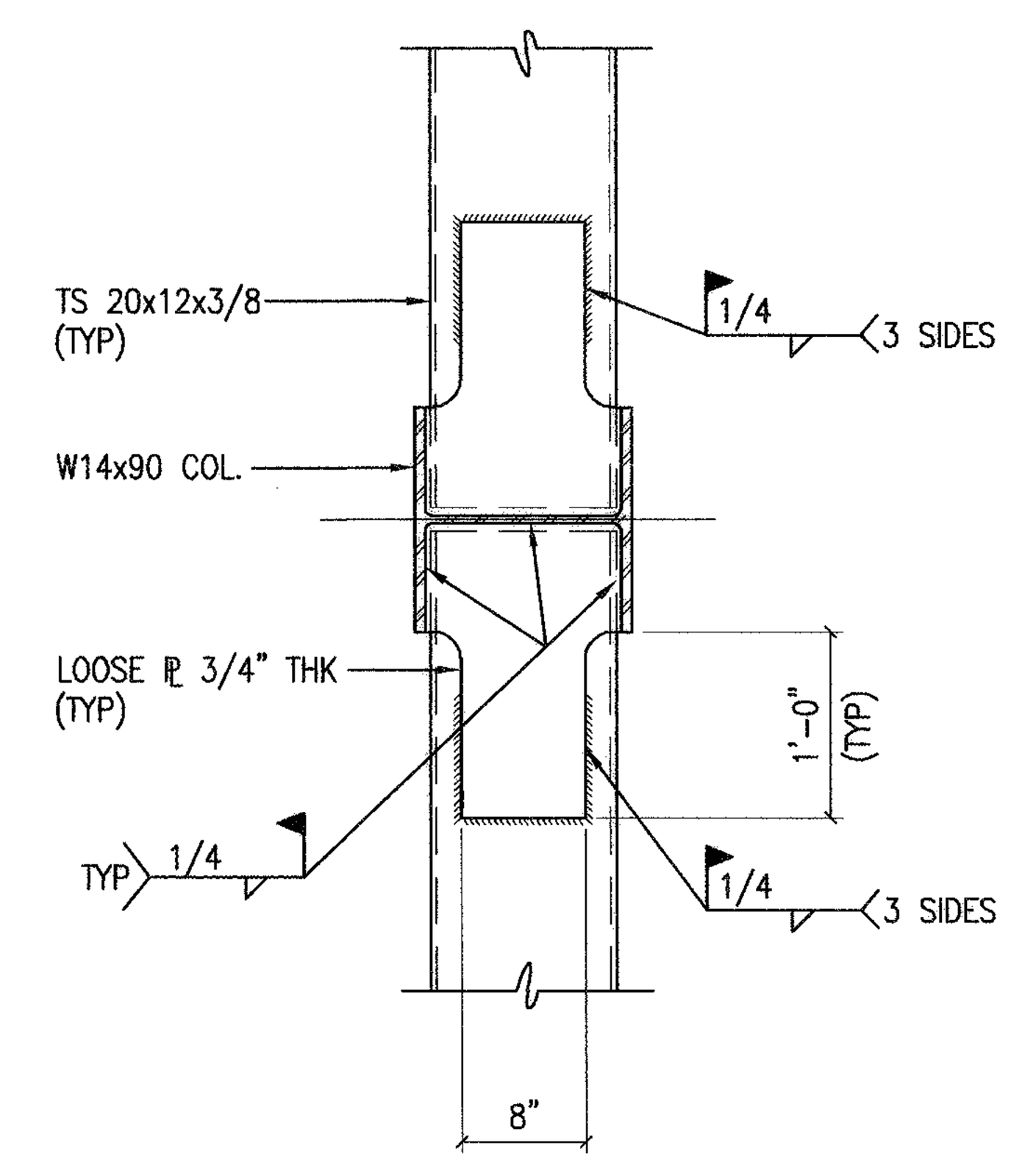
NOTE: REFER TO DETAIL 7 THIS SHEET FOR INFORMATION NOT SHOWN.

5 DETAIL
S6.601 1"=1'-0"



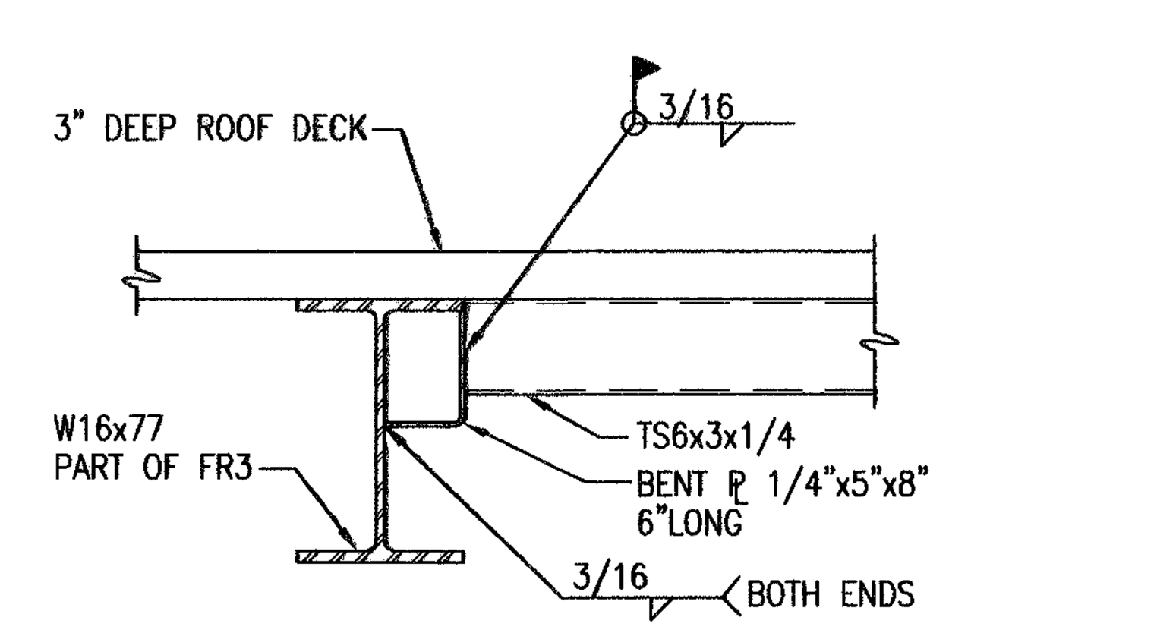
NOTE: REFER TO DETAIL 5 THIS SHEET FOR INFORMATION NOT SHOWN.

12 DETAIL
S6.601 1"=1'-0"

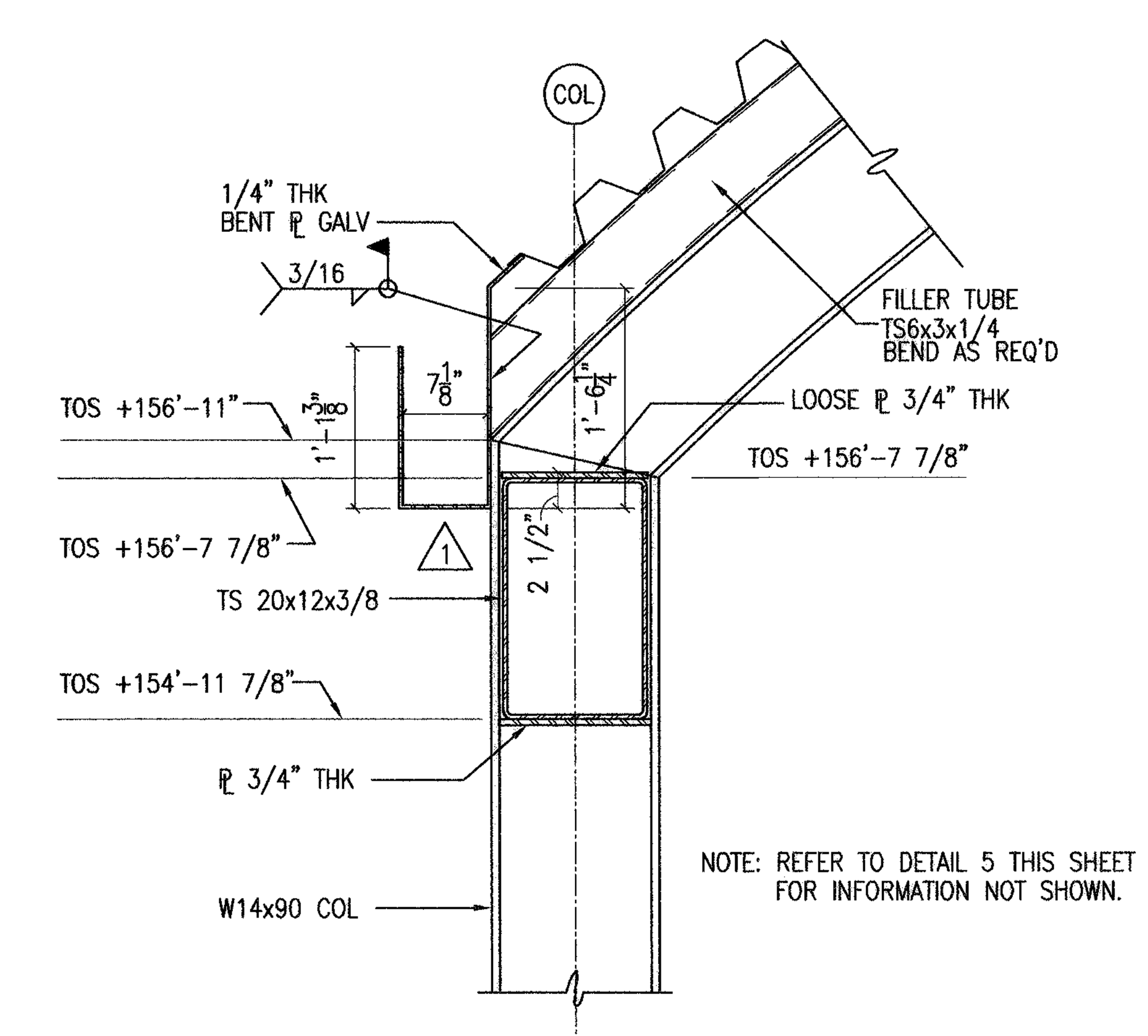


11 SECTION
S6.601 1"=1'-0"

NOTE: REFER TO DETAIL 5 THIS SHEET FOR INFORMATION NOT SHOWN.



10 DETAIL
S3.003 1"=1'-0"



NOTE: REFER TO DETAIL 5 THIS SHEET FOR INFORMATION NOT SHOWN.

9 DETAIL
S6.601 1"=1'-0"

NOTES TO SHEET

1. REFER TO SHEET S0.100 FOR STRUCTURAL GENERAL NOTES.

NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

SCALE: 1" = 1'-0"

NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

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

RECORD DRAWINGS
DO NOT MODIFY

DATE: MAY 6, 2005

HUITT-ZOLLARS, INC.

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HOUSTON AIRPORT SYSTEM
GEORGE BUSH INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

HUITT-ZOLLARS

CHARLES F. TERRY, INC. Consulting Engineers

REVISIONS		
NO. DESCRIPTION	DATE	BY
ISSUED FOR BID	10/19/01	
1 ADDENDUM #1	02/01/02	MR

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION & PLATFORM
STEEL SECTIONS AND DETAILS

PROJECT MGR:	GRW
DESIGNER:	JJC
DRAWN BY:	KLV
CHECKED BY:	MMR
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	AS NOTED
DATE:	09/14/01

FOR RECORD DRAWING ONLY

STATE OF TEXAS
MOEIN MICHAEL REYHANI
63454

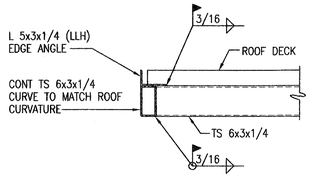
APPROVED BY: DATE:

DIRECTOR HOUSTON AIRPORT SYSTEM

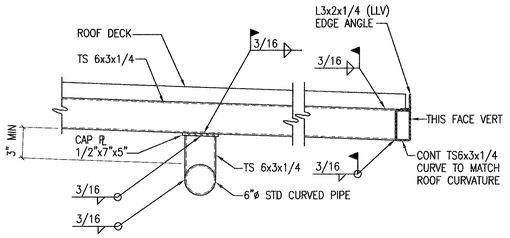
PROJECT NO.	02-2025-01
C.I.P. NO.	A-0354
H.A.S. NO.	536C
SHEET NO.	S6.601

77

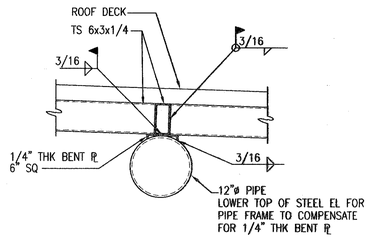
PLOT DATE:10/19/01 HAS FILE: IA536S6601.DWG



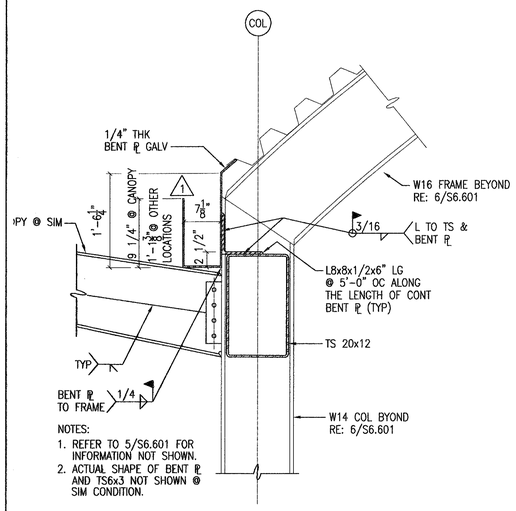
4 SECTION S3.003 1"=1'-0"



3 SECTION S3.003 1"=1'-0"



2 SECTION S3.003 1"=1'-0"



1 TYPICAL SECTION S3.003 1"=1'-0" BENT PLATE SUPPORT BETWEEN FRAMES

8 SECTION S6.602 1"=1'-0" HEADER BEAM HANGER

7 PLAN DETAIL S6.602 1"=1'-0"

6 SECTION S6.602 1/8"=1'-0" CURTAIN WALL @ NORTH & SOUTH 1

5 SECTION S3.001 1"=1'-0"

12 SECTION S3.003 1"=1'-0" @ END OF CANOPY, EAST & WEST 1

11 SECTION S3.003 1"=1'-0" @ END OF CANOPY, NORTH & SOUTH 1

10 SECTION S3.001 1"=1'-0"

9 PLAN DETAIL S3.001 1"=1'-0"

NOTES TO SHEET

1. REFER TO SHEET S0.100 FOR STRUCTURAL GENERAL NOTES.

NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

0' 4' 8' 16' 24'

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

NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

0' 1' 2' 3'

SCALE: 1" = 1'-0"

RECORD DRAWINGS
DO NOT MODIFY

DATE: MAY 6, 2005

HUITT-ZOLLARS, INC.

NOTE: INFORMATION USED TO DEVELOP THESE DOCUMENTS WAS TAKEN FROM RECORD OF THE WORK DRAWINGS PREPARED BY THE CONSTRUCTION CONTRACTOR, CLARK/MISSION A JOINT VENTURE. THE INFORMATION PROVIDED BY THE CONTRACTOR WAS NOT VERIFIED BY THE DESIGN FIRM NAMED ABOVE.

HOUSTON AIRPORT SYSTEM
GEORGE BUSH INTERCONTINENTAL AIRPORT HOUSTON TEXAS

HUITT-ZOLLARS
Huitt-Zollars, Inc. Engineering / Architecture
1000 Oaky Ashford, Suite 206, Houston, TX 77077
Phone (281) 496-0066 Fax (281) 496-0220

CHARLES F. TERRY, INC.
Consulting Engineers
2021 Gaston Avenue
Dallas, Texas 75226
(214)823-4402 FAX (214)823-4404

REVISIONS

NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
1	ADDENDUM #1	02/01/02	MR

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION & PLATFORM
STEEL SECTIONS AND DETAILS

PROJECT MGR:	GRW
DESIGNER:	JUC
DRAWN BY:	KLV
CHECKED BY:	MMR
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	AS NOTED
DATE:	09/14/01

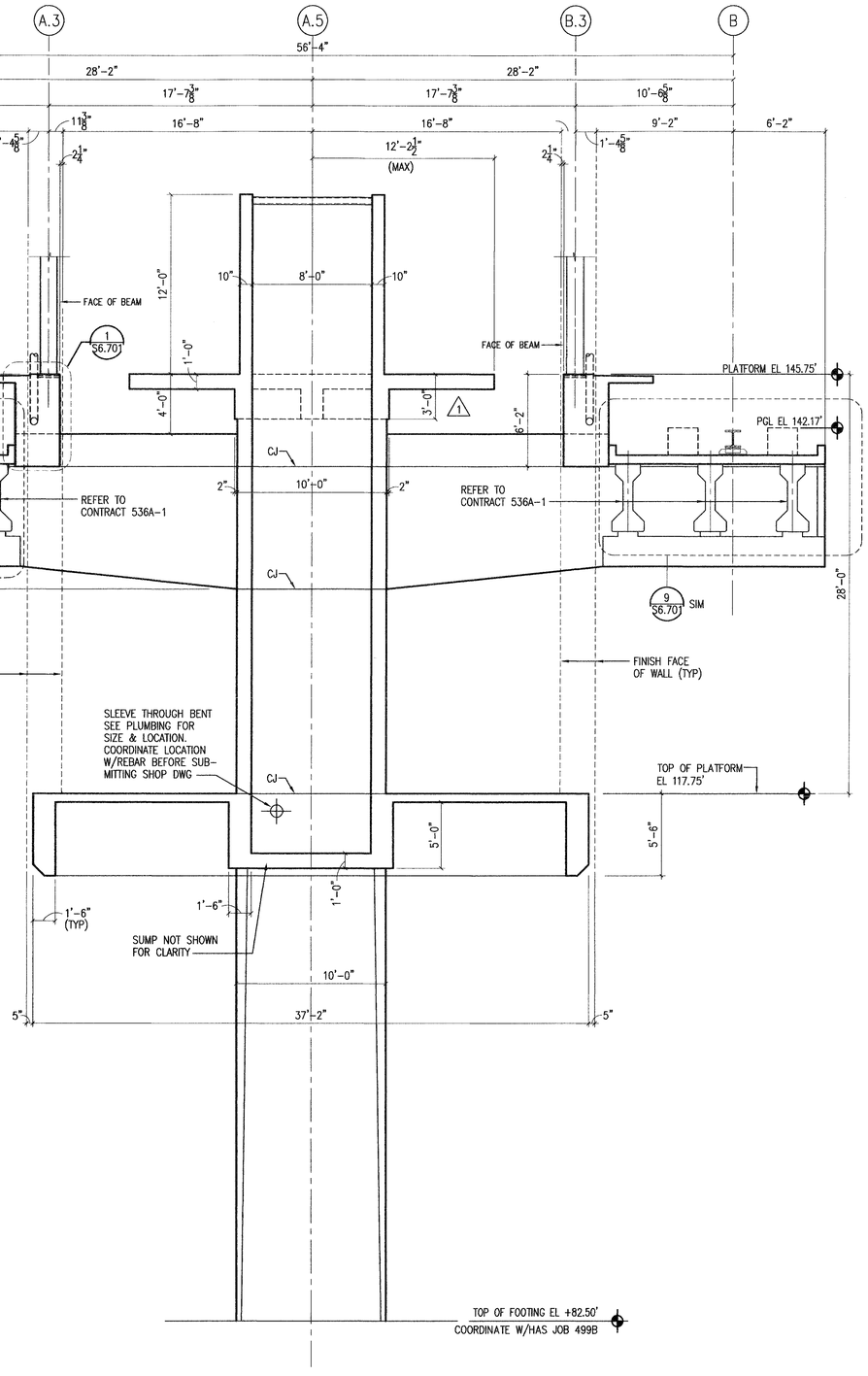
FOR RECORD DRAWING ONLY
STATE OF TEXAS
MOEEN MICHAEL REYHANI
85454
LICENSED PROFESSIONAL ENGINEER
5/06/05

APPROVED BY:	DATE:

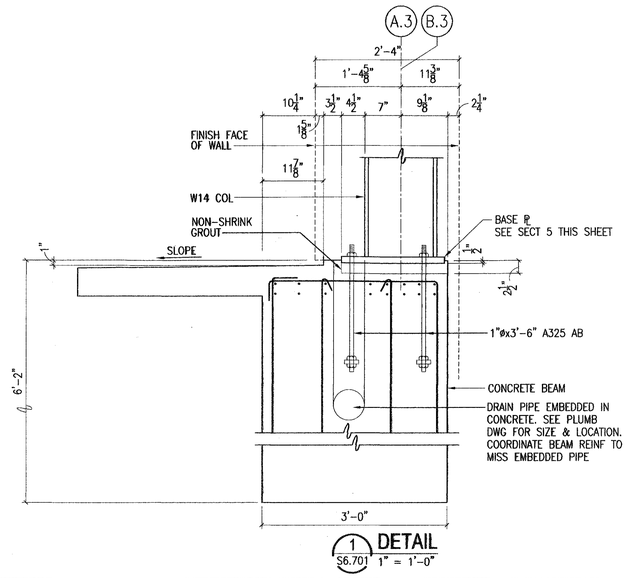
DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	02-2025-01
C.I.P. NO.	A-0354
H.A.S. NO.	536C
SHEET NO.	S6.602

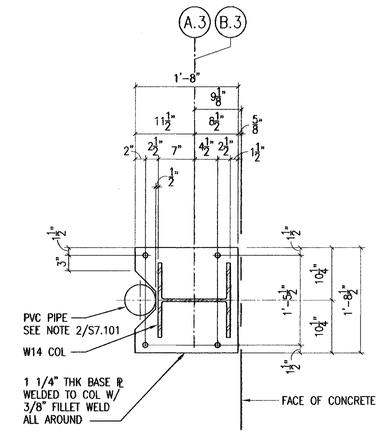
PLOT DATE: 10/19/01 HAS FILE: IA5356602.DWG



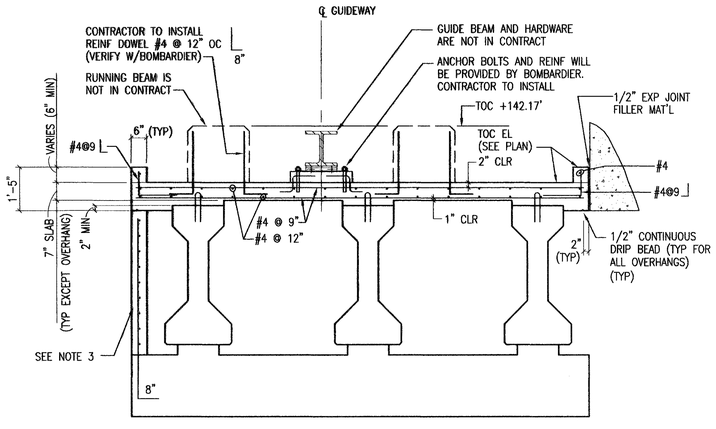
12 S3.002 **SECTION ALONG BENT #47** 1/4" = 1'-0"



1 S6.701 **DETAIL** 1" = 1'-0"



5 S6.701 **SECTION** 1" = 1'-0"



9 S6.701–S6.704 **DETAIL** 1/2" = 1'-0"

NOTES TO SHEET

1. REFER TO SHEET S0.100 FOR STRUCTURAL GENERAL NOTES.
2. REFER TO SHEET S0.201 FOR CONCRETE BEAM SCHEDULE.
3. PROVIDE 6" THK CLOSURE CONCRETE WALL REINF W/#6 @ 6" OC, VERTICAL AND #4 @ 6" OC, HORIZONTAL, TYP. SIZE OF CLOSURE IS 1'-8" WIDE AND HEIGHT IS HEIGHT OF INVERTED TEE AT BENT.

NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

0' 1' 2' 3'

SCALE: 1" = 1'-0"

NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

0' 2' 4' 8' 12'

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

NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

0' 1' 2' 4' 6'

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

RECORD DRAWINGS
DO NOT MODIFY

DATE: MAY 8, 2005

HUITT-ZOLLARS, INC.

NOTE: INFORMATION USED TO DEVELOP THESE DOCUMENTS WAS TAKEN FROM RECORD OF THE WORK DRAWINGS PREPARED BY THE CONSTRUCTION CONTRACTOR, CLARK/MISSION A JOINT VENTURE. THE INFORMATION PROVIDED BY THE CONTRACTOR WAS NOT VERIFIED BY THE DESIGN FIRM NAMED ABOVE.

HOUSTON AIRPORT SYSTEM
GEORGE BUSH INTERCONTINENTAL AIRPORT HOUSTON TEXAS

HUITT-ZOLLARS
Huitt-Zollars, Inc. Engineering / Architecture
1500 Post Oak Blvd, Suite 200, Houston, TX 77027
Phone (281) 588-0066 Fax (281) 496-0220

CHARLES F. TERRY, INC.
Consulting Engineers
2801 Gaston Avenue
Dallas, Texas 75226
214/828-9400 FAX 214/828-9404

REVISIONS

NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
1	ADDENDUM #1	02/01/02	MR

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION & PLATFORM
SECTION ALONG BENT #47

PROJECT MGR:	GRW
DESIGNER:	JJC
DRAWN BY:	KLV
CHECKED BY:	MMR
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	AS NOTED
DATE:	09/14/01

FOR RECORD DRAWING ONLY
STATE OF TEXAS
MOEN MICHAEL REYHANI
85454
LICENSED
PROFESSIONAL ENGINEER
5/4/05

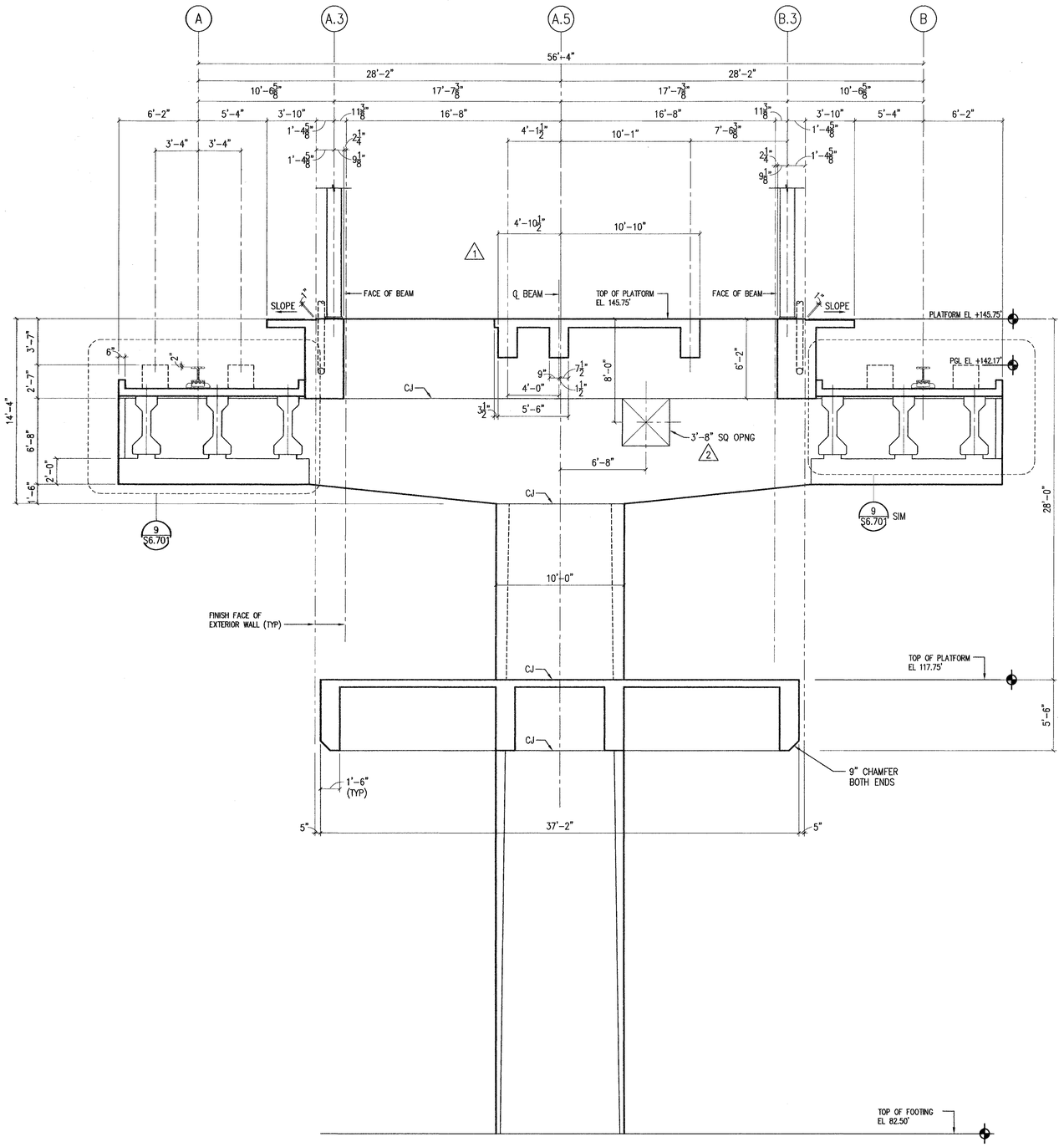
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

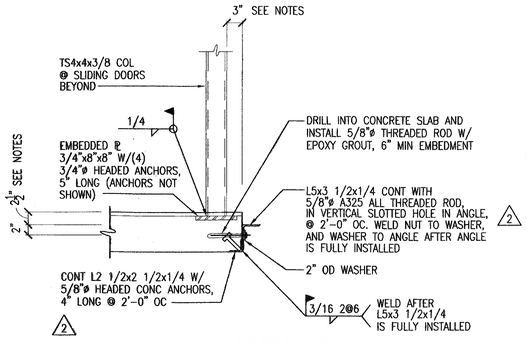
PROJECT NO. 02-2025-01
C.I.P. NO. A-0354
H.A.S. NO. 536C
SHEET NO. S6.701

79

PLOT DATE: 10/19/01 HAS FILE: IA536CS6701.dwg



12 S3.002 SECTION ALONG BENT #48
1/4" = 1'-0"

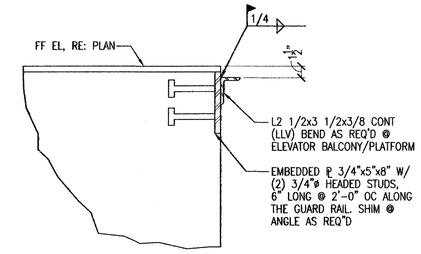


NOTE: TRAIN DOOR, COLUMN AND THRESHOLD NOT SHOWN FOR CLARITY.

NOTES:
1. COODINATE THIS SECTION W/ARCH DWGS AND 2/A3.300
2. COORDINATE DIMENSIONS W/BOMBARDIER, PROJECT #536D.

1 S3.002 SECTION
1" = 1'-0"

1 EDGE OF SLAB @ SLIDING DOORS 2



1 5 S3.002 SECTION
1 1/2" = 1'-0"

SUPPORT FOR GUARDRAIL @ CATWALK AND ELEVATOR PLATFORM/BALCONY

NOTES TO SHEET

1. REFER TO SHEET S0.100 FOR STRUCTURAL GENERAL NOTES.
2. REFER TO SHEET S0.201 FOR CONCRETE BEAM SCHEDULE.

NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

0' 2' 4' 8' 12'

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

RECORD DRAWINGS
DO NOT MODIFY

DATE: MAY 6, 2005

HUITT-ZOLLARS, INC.

NOTE: INFORMATION USED TO DEVELOP THESE DOCUMENTS WAS TAKEN FROM RECORD OF THE WORK DRAWINGS PREPARED BY THE CONSTRUCTION CONTRACTOR, CLARK/MISSION A JOINT VENTURE. THE INFORMATION PROVIDED BY THE CONTRACTOR WAS NOT VERIFIED BY THE DESIGN FIRM NAMED ABOVE.

HOUSTON AIRPORT SYSTEM
GEORGE BUSH INTERCONTINENTAL AIRPORT HOUSTON TEXAS

HUITT-ZOLLARS
Huitt-Zollars, Inc. Engineering / Architecture
1500 Daly Ashford, Suite 200, Houston, TX 77077
Phone (281) 496-0066 Fax (281) 496-0220

CHARLES F. TERRY, INC.
Consulting Engineers
2501 Gaston Avenue
Dallas, Texas 75226
214/565-9400 FAX 214/565-9494

REVISIONS

NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
1	ADDENDUM #1	02/01/02	MR
2	REVISION #1	01/27/03	MR

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION & PLATFORM
SECTION ALONG BENT #48

PROJECT MGR:	GRW
DESIGNER:	JJC
DRAWN BY:	KLV
CHECKED BY:	MMR
DRAWING STANDARD:	
	ISEP 07.20.2000
SCALE:	AS NOTED
DATE:	09/14/01

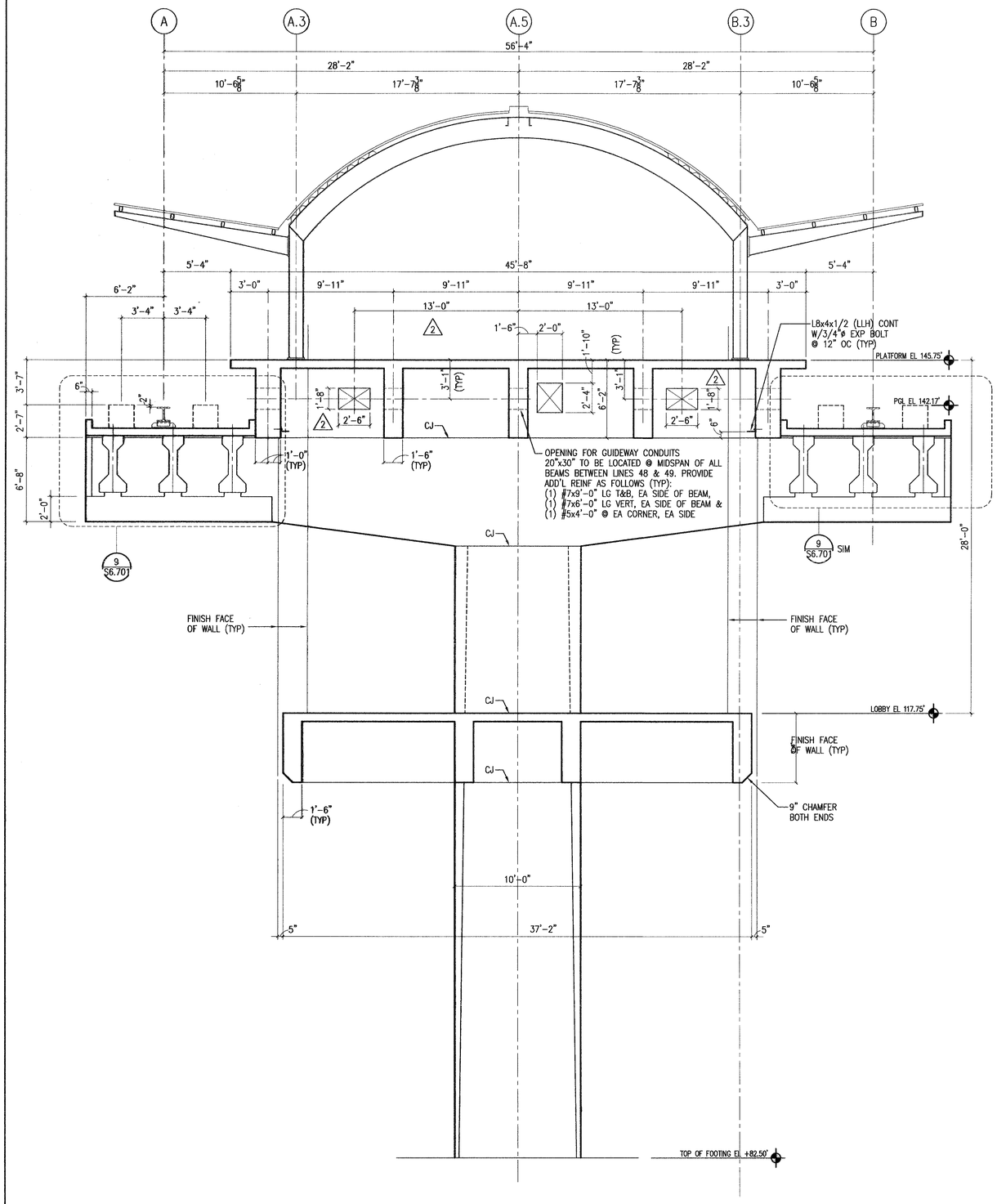
FOR RECORD DRAWING ONLY
STATE OF TEXAS
MOEIN MICHAEL REYHANI
83454
LICENSED PROFESSIONAL ENGINEER
5/06/05

APPROVED BY: DATE:

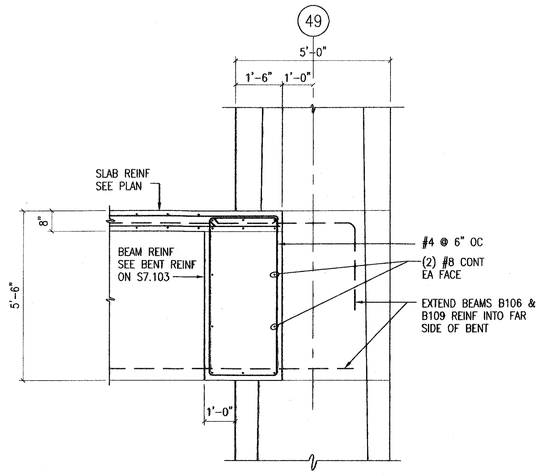
DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO. 02-2025-01
C.I.P. NO. A-0354
H.A.S. NO. 536C
SHEET NO. S6.702

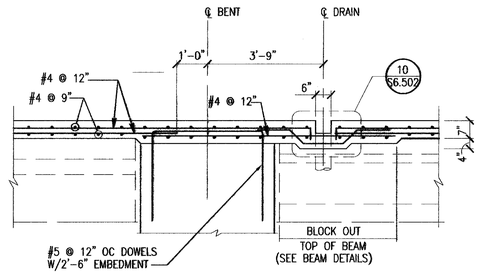
PLOT DATE: 10/19/01 HAS FILE: IAS36CS6702.DWG



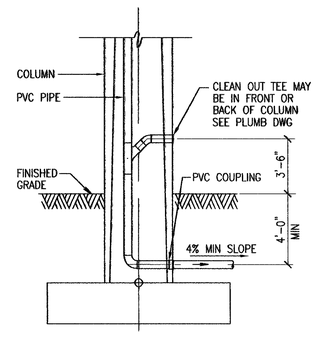
12 S3.002 **SECTION ALONG BENT #49**
1/4" = 1'-0"



1 S7.103 **SECTION**
1/2" = 1'-0"



5 S3.002 **SECTION**
1/2" = 1'-0"



TYPICAL CLEAN OUT DETAIL FOR ALL BENTS
9 S7.101–S7.104 NTS

NOTES TO SHEET

1. REFER TO SHEET S0.100 FOR STRUCTURAL GENERAL NOTES.
2. REFER TO SHEET S0.201 FOR CONCRETE BEAM SCHEDULE.

NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

0' 1' 2' 4' 6'

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

NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

0' 2' 4' 8' 12'

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

RECORD DRAWINGS DO NOT MODIFY

DATE: MAY 6, 2005

HUITT-ZOLLARS, INC.

NOTE: INFORMATION USED TO DEVELOP THESE DOCUMENTS WAS TAKEN FROM RECORD OF THE WORK DRAWINGS PREPARED BY THE CONSTRUCTION CONTRACTOR, CLARK/MISSION A JOINT VENTURE. THE INFORMATION PROVIDED BY THE CONTRACTOR WAS NOT VERIFIED BY THE DESIGN FIRM NAMED ABOVE.

HOUSTON AIRPORT SYSTEM
GEORGE BUSH INTERCONTINENTAL AIRPORT HOUSTON TEXAS

HUITT-ZOLLARS
Huitt-Zollars, Inc. Engineering / Architecture
1500 Daily Ashford, Suite 200, Houston, TX 77077
Phone (281) 496-0066 Fax (281) 496-0220

CHARLES F. TERRY, INC.
Consulting Engineers
2901 Gaston Avenue
Dallas, Texas 75226
214/828-0400 FAX 214/828-0404

REVISIONS

NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
1	NOT USED		
2	REVISION #1	01/27/03	MR

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION & PLATFORM
SECTION ALONG BENT #49

PROJECT MGR:	GRW
DESIGNER:	JJC
DRAWN BY:	KLV
CHECKED BY:	MMR
DRAWING STANDARD:	
	ISEP 07.20.2000
SCALE:	AS NOTED
DATE:	09/14/01

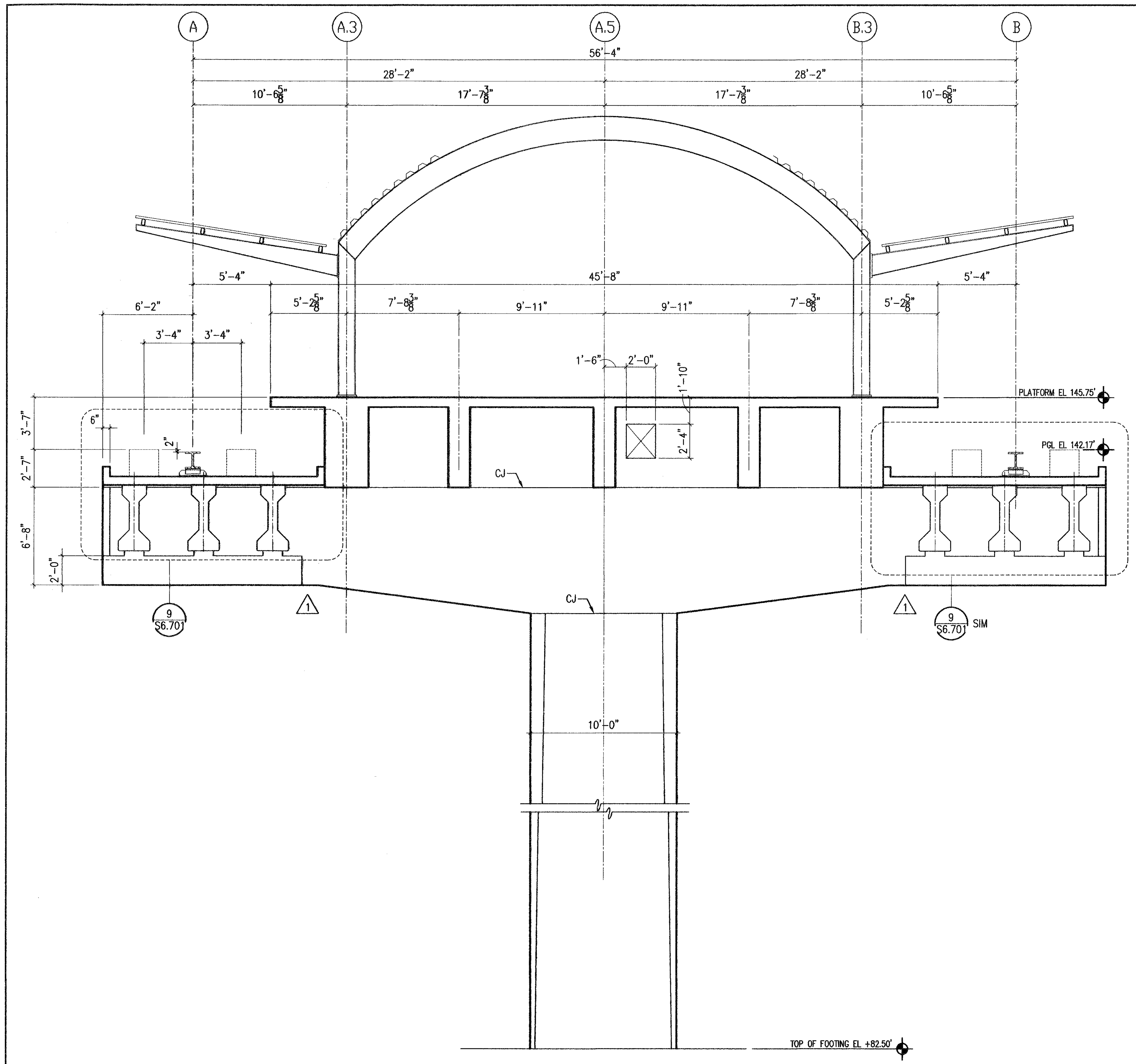
FOR RECORD DRAWING ONLY
STATE OF TEXAS
MICHEL ROTHWELL
83454
LICENSED
PROFESSIONAL ENGINEER
5/04/05

APPROVED BY: DATE:

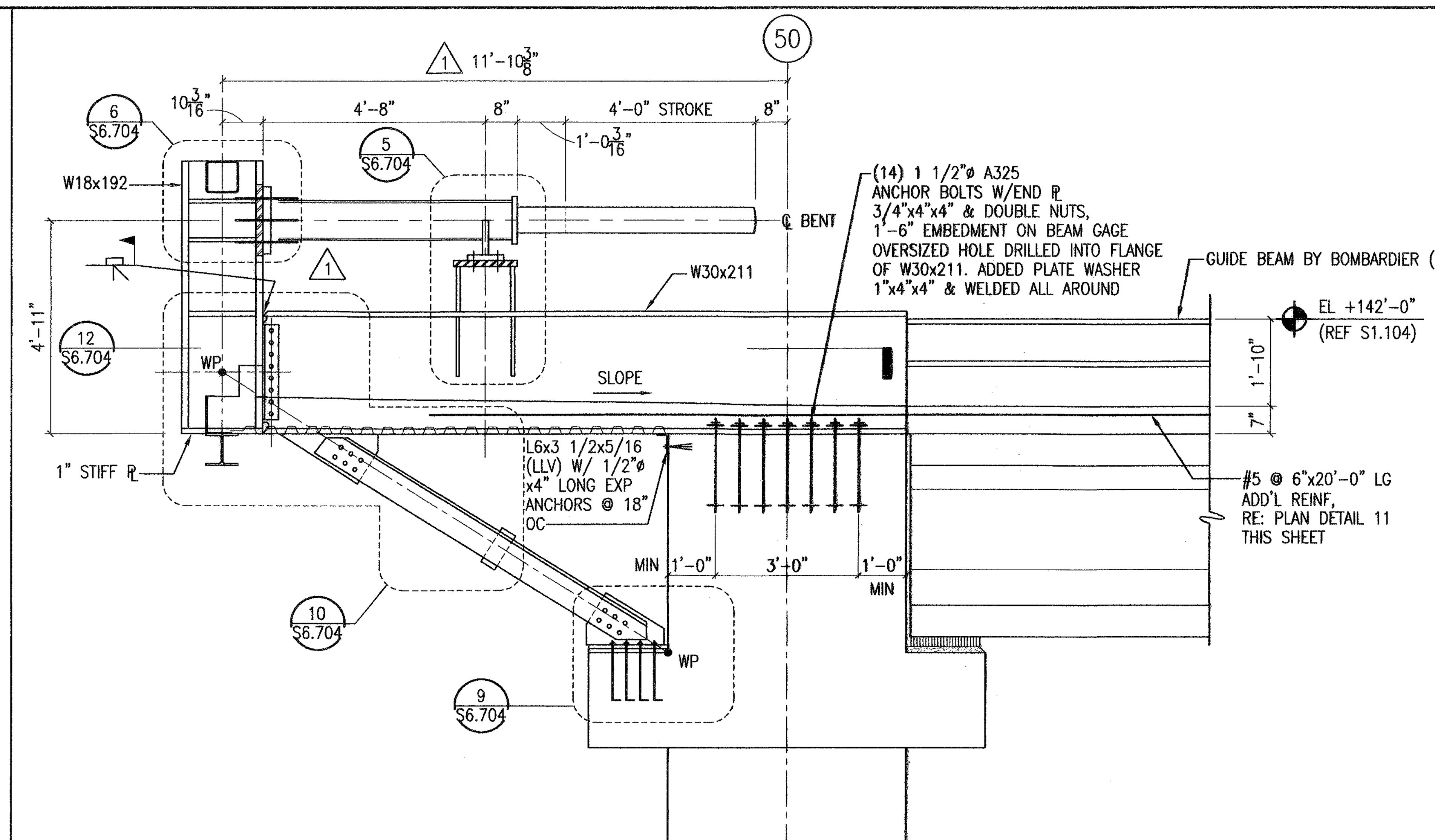
DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO. 02-2025-01
C.I.P. NO. A-0354
H.A.S. NO. 536C
SHEET NO. S6.703

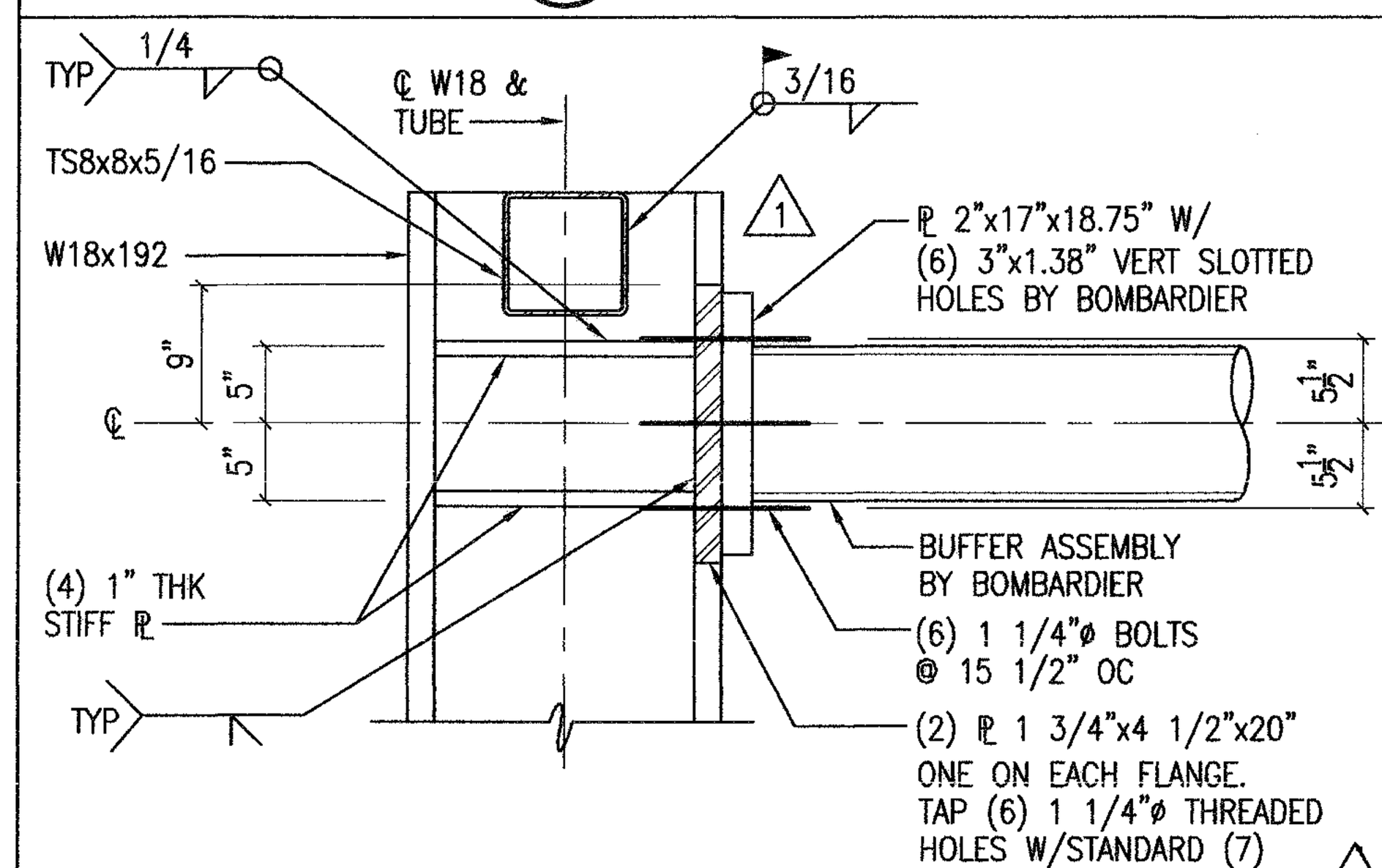
PLOT DATE: 10/19/01 HAS FILE: HAS536S6703.DWG



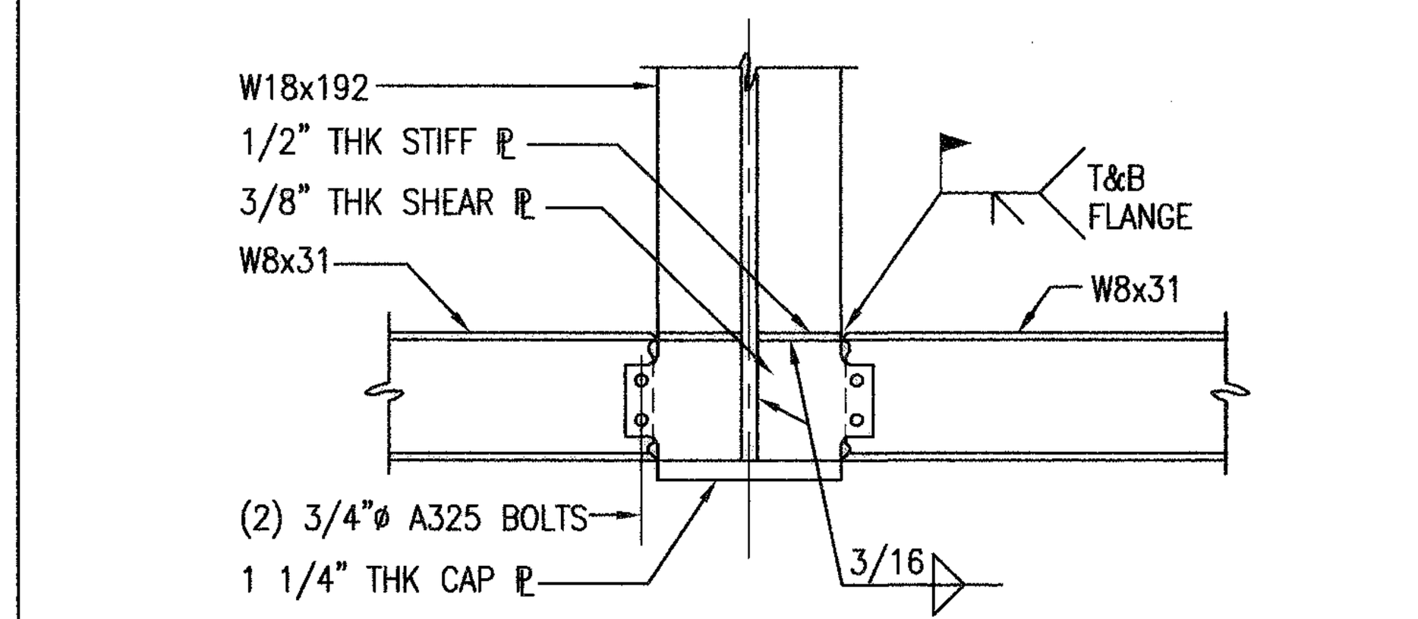
8 SECTION ALONG BENT #50
S3.002 1/4" = 1'-0"



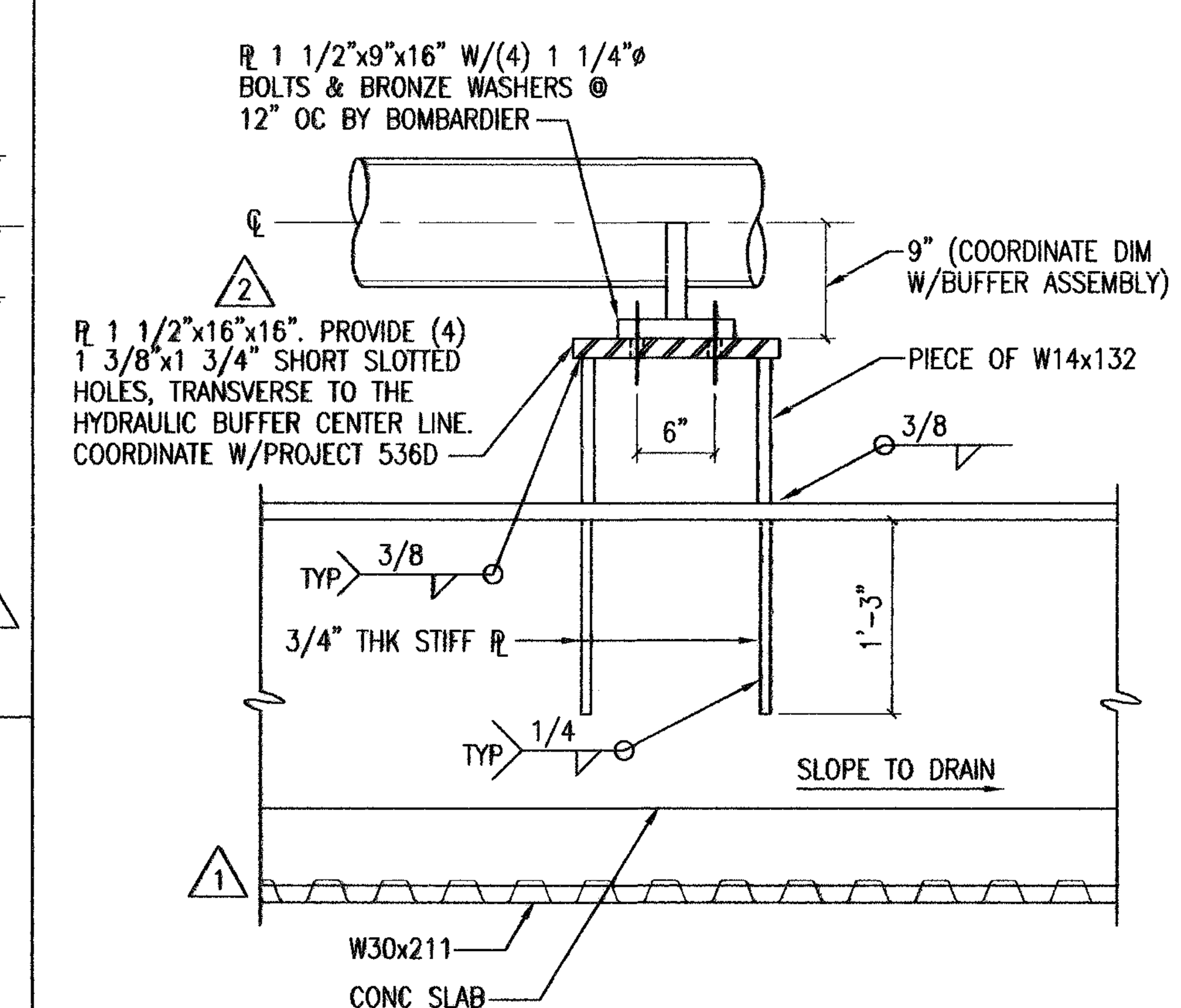
1 SECTION
S3.002, S3.004 1/2" = 1'-0"



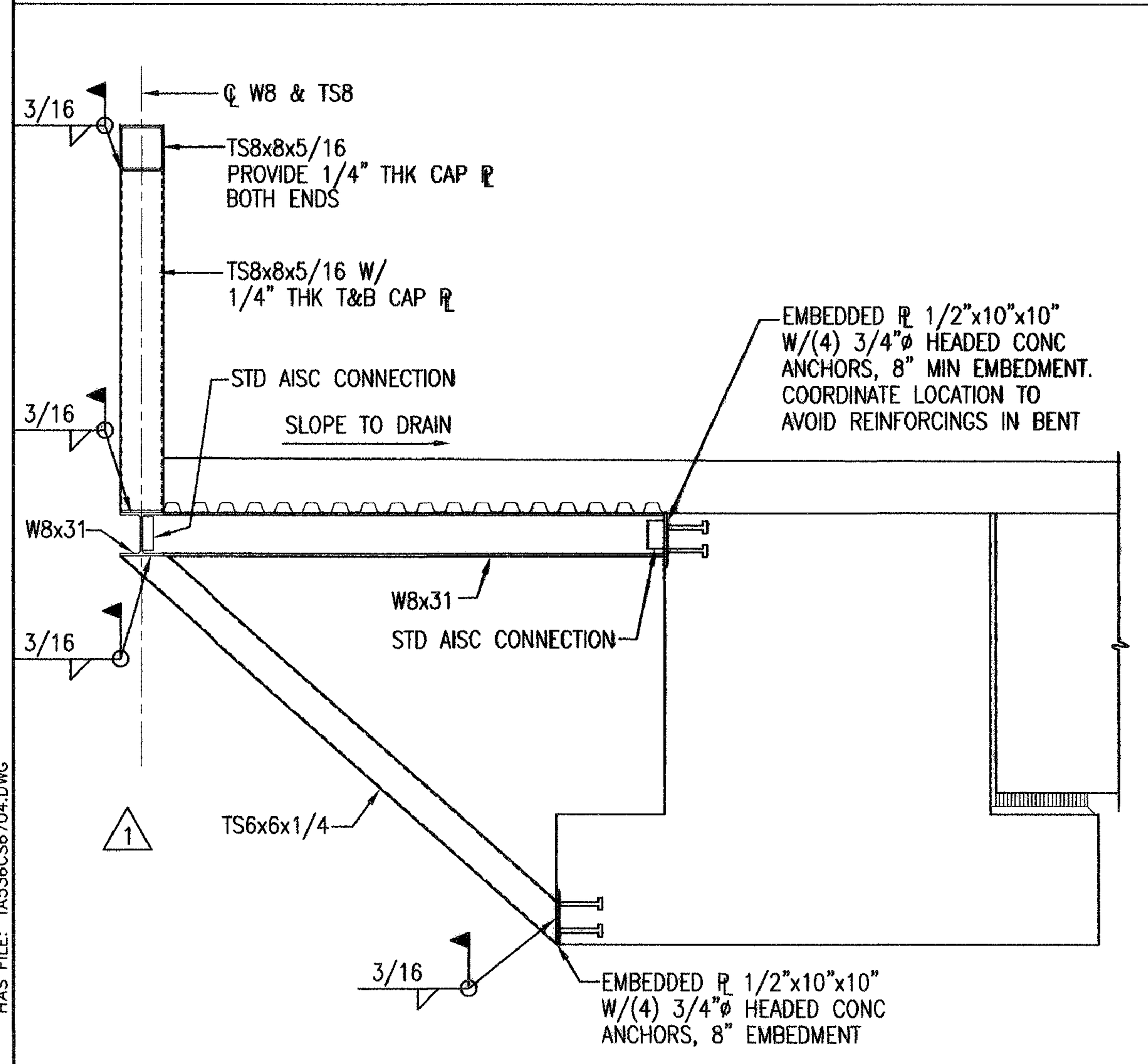
6 DETAIL
S6.704 1" = 1'-0"



6A SECTION
S6.704 1" = 1'-0"

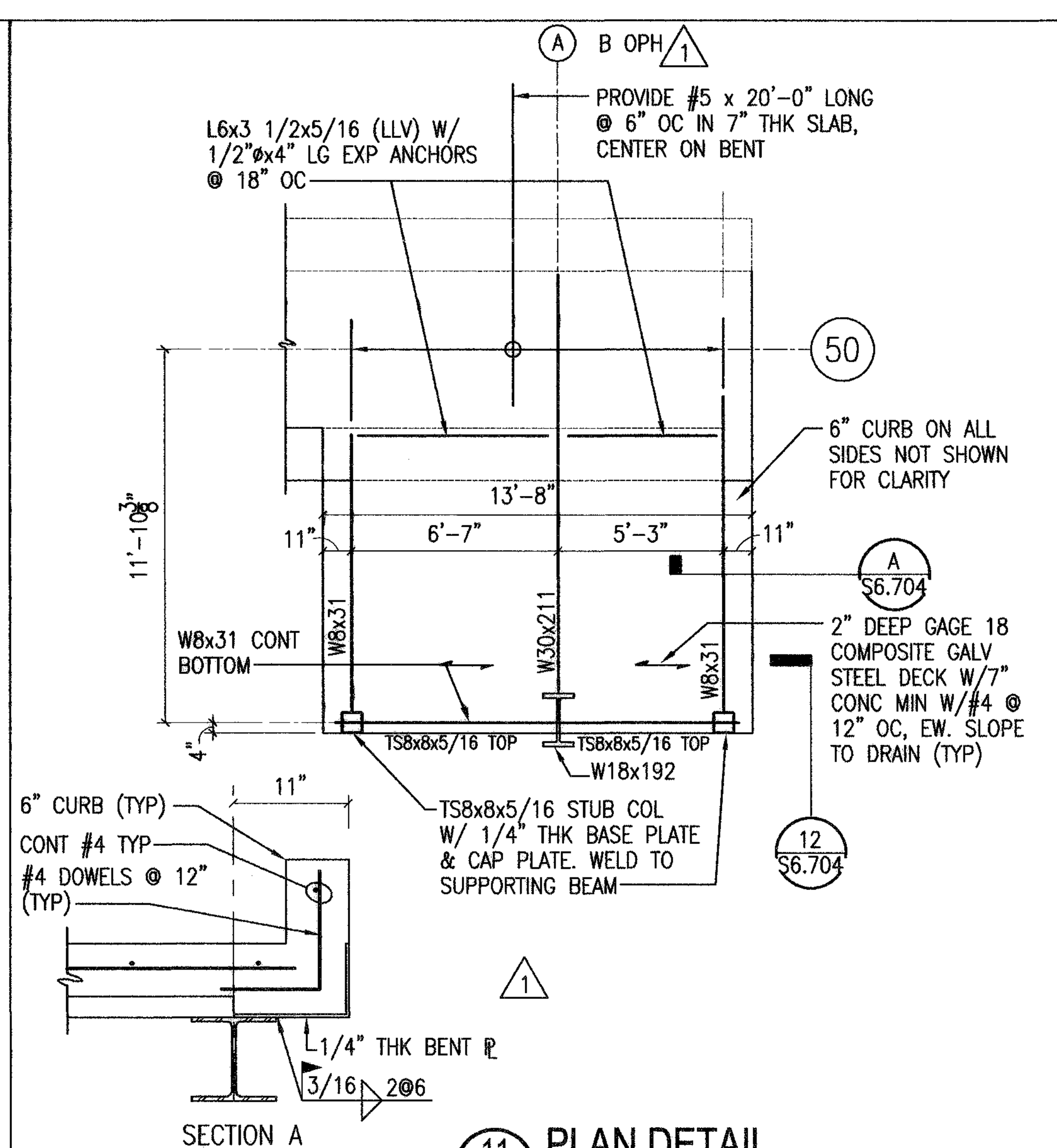


5 DETAIL
S6.704 1" = 1'-0"

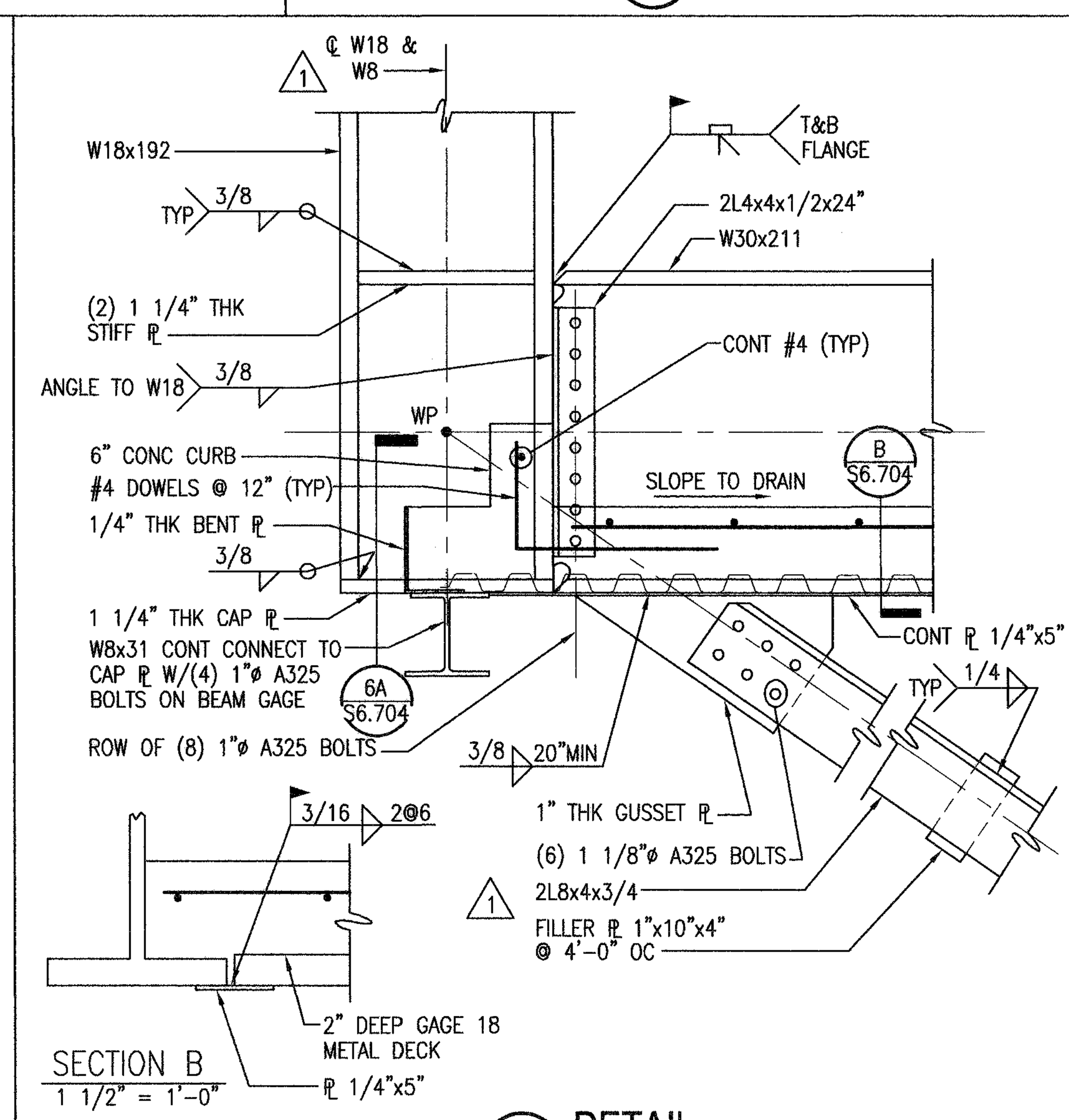


NOTE: COORDINATE TOS ELEVATION AND TOP OF EMBEDDED PLATE ELEVATION WITH DETAIL 10 THIS SHEET FOR BOTTOM OF STEEL DECK ELEVATION.

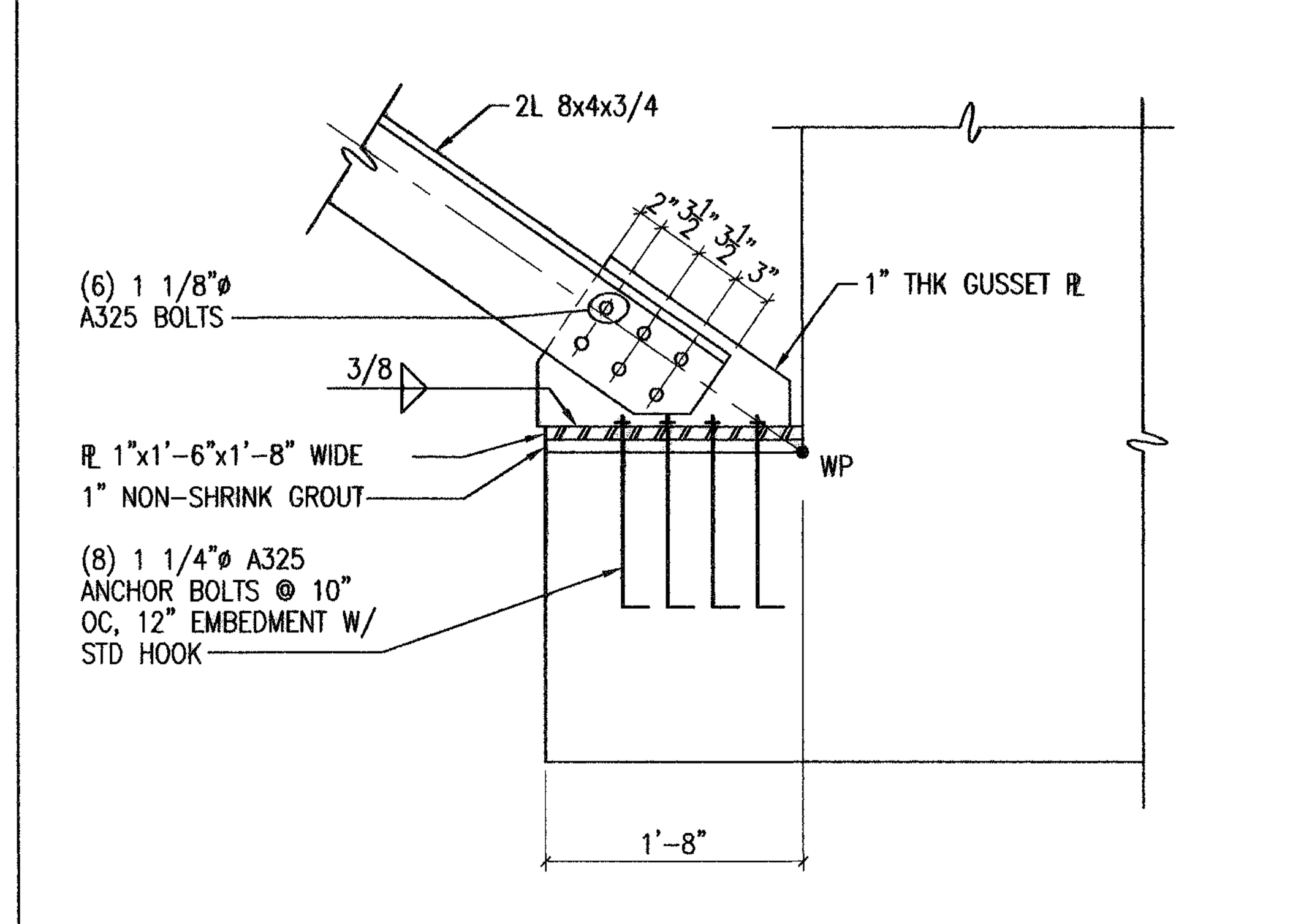
12 SECTION
S6.704 1/2" = 1'-0"



11 PLAN DETAIL
S3.002 1/4" = 1'-0"



10 DETAIL
S6.704 1" = 1'-0"



9 DETAIL
S6.704 1" = 1'-0"

NOTES TO SHEET

1. REFER TO SHEET S0.100 FOR STRUCTURAL GENERAL NOTES.
2. REFER TO SHEET S0.201 FOR CONCRETE BEAM SCHEDULE.

NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

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

NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

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

NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

SCALE: 1" = 1'-0"

RECORD DRAWINGS
DO NOT MODIFY

DATE: MAY 6, 2005

HUITT-ZOLLARS, INC.

NOTE: INFORMATION USED TO DEVELOP THESE DOCUMENTS WAS TAKEN FROM RECORD OF THE WORK DRAWINGS PREPARED BY THE CONSTRUCTION CONTRACTOR, CLARK/MISSION A JOINT VENTURE. THE INFORMATION PROVIDED BY THE CONTRACTOR WAS NOT VERIFIED BY THE DESIGN FIRM NAMED ABOVE.

HOUSTON AIRPORT SYSTEM
GEORGE BUSH INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

HUITT-ZOLLARS

CHARLES F. TERRY, INC. Consulting Engineers

MR	REVISIONS		
NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
1	ADDENDUM #1	02/01/02	MR
2	REVISION #1	01/27/03	MR

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION & PLATFORM
SECTION ALONG BENT #50

PROJECT MGR:	GRW
DESIGNER:	JJC
DRAWN BY:	KLV
CHECKED BY:	MMR
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	AS NOTED
DATE:	09/14/01

FOR RECORD DRAWING ONLY

STATE OF TEXAS
MOEIN MICHAEL REYHANI

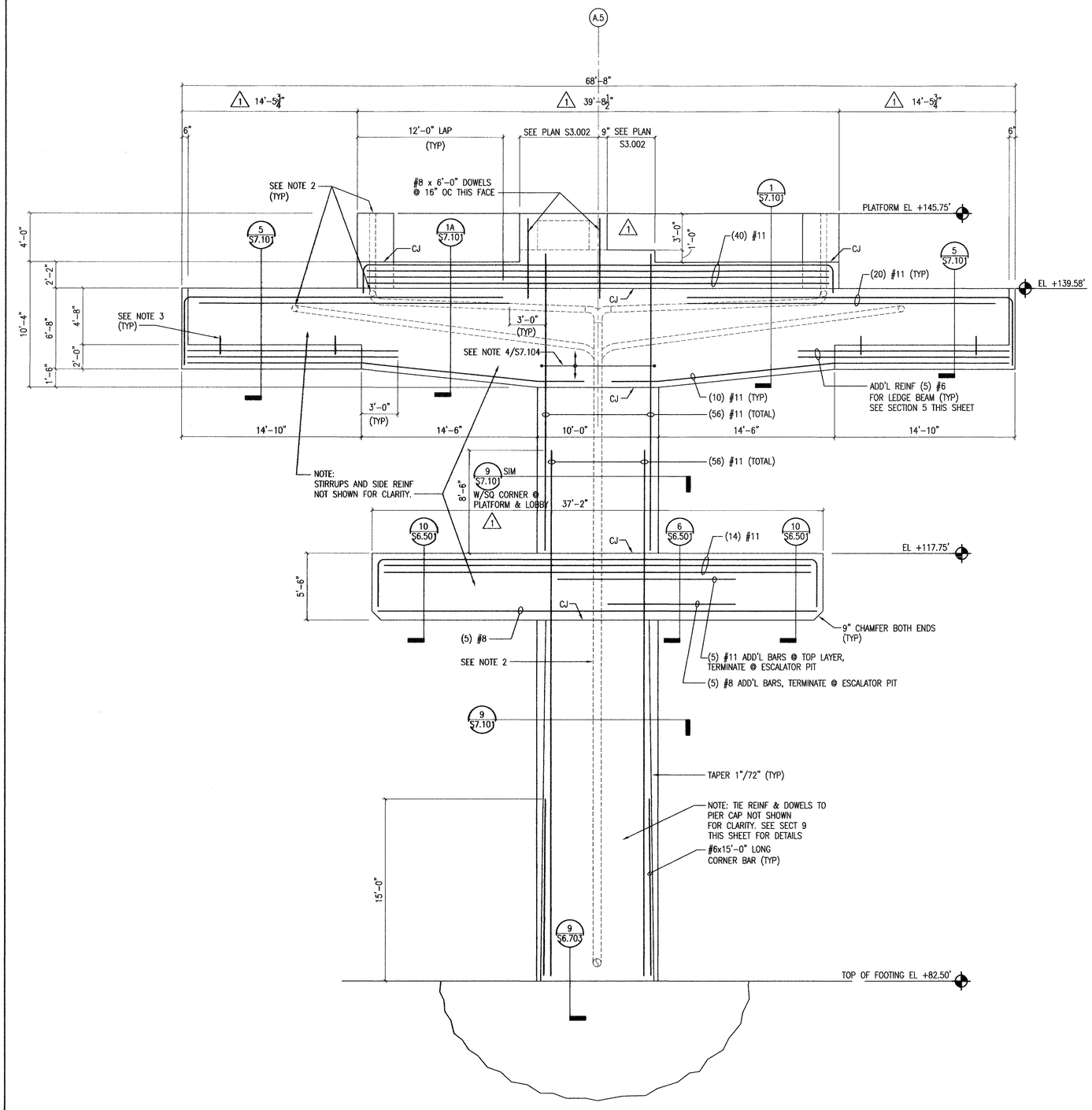
APPROVED BY: DATE:

DIRECTOR HOUSTON AIRPORT SYSTEM

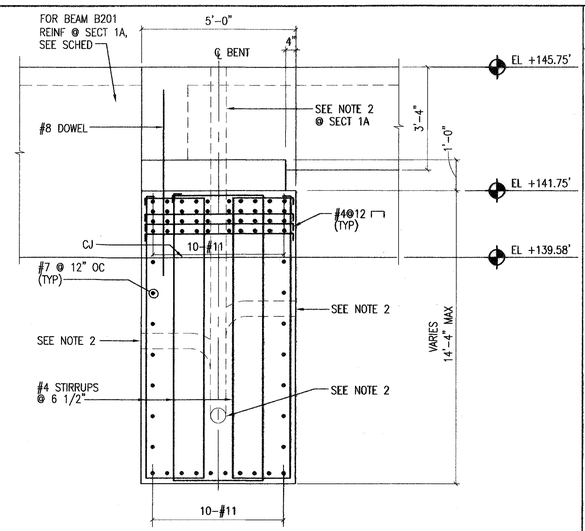
PROJECT NO.	02-2025-01
C.I.P. NO.	A-0354
H.A.S. NO.	536C
SHEET NO.	S6.704

HAS FILE: IA536CS6704.DWG

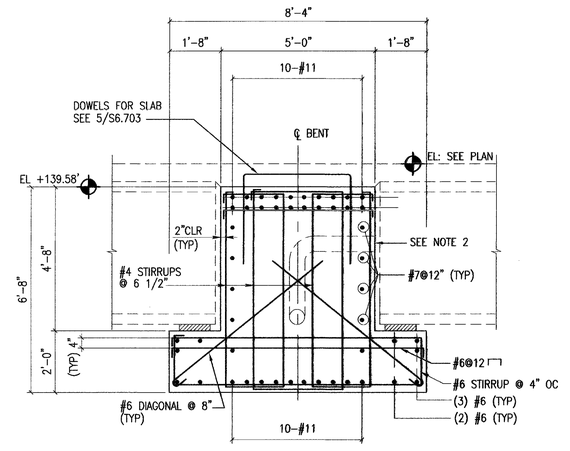
PLOT DATE:10/19/01



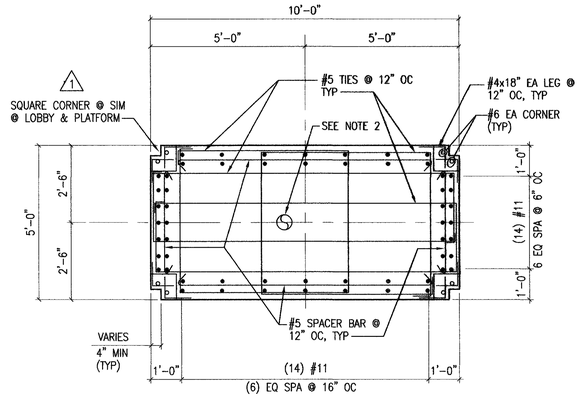
12 S3.002 BENT FRAME #47 ELEVATION 1/4" = 1'-0"



1A S7.101 1 S7.101 SECTION 1/2" = 1'-0"



5 S7.101 SECTION 1/2" = 1'-0"



9 S7.101 SECTION 1/2" = 1'-0"

NOTES TO SHEET

1. REFER TO SHEET S0.100 FOR STRUCTURAL GENERAL NOTES.
2. COORDINATE PVC PIPE SIZE, NUMBER, LOCATION AND INVERT. ELEVATION WITH PLUMBING DWGS.
3. PROVIDE 1 1/4"Øx1'-6" LONG SMOOTH DOWEL WITH 7" PROJECTION.

NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

0' 1' 2' 4' 6'

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

NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

0' 2' 4' 8' 12'

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

RECORD DRAWINGS DO NOT MODIFY

DATE: MAY 6, 2005

HUITT-ZOLLARS, INC.

NOTE: INFORMATION USED TO DEVELOP THESE DOCUMENTS WAS TAKEN FROM RECORD OF THE WORK DRAWINGS PREPARED BY THE CONSTRUCTION CONTRACTOR, CLARK/MISSION A JOINT VENTURE. THE INFORMATION PROVIDED BY THE CONTRACTOR WAS NOT VERIFIED BY THE DESIGN FIRM NAMED ABOVE.

HOUSTON AIRPORT SYSTEM
GEORGE BUSH INTERCONTINENTAL AIRPORT HOUSTON TEXAS

HUITT-ZOLLARS
Huitt-Zollars, Inc. Engineering / Architecture
1600 Smith Street, Suite 200, Houston, TX 77002
Phone (281) 496-0066 Fax (281) 496-0220

CHARLES F. TERRY, INC.
Consulting Engineers
2901 Gaston Avenue
Dallas, Texas 75226
214/823-0400 FAX 214/823-0404

REVISIONS		
NO. DESCRIPTION	DATE	BY
ISSUED FOR BID	10/19/01	
1 ADDENDUM #1	02/01/02	MR

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION & PLATFORM
BENT FRAME #47 ELEVATION

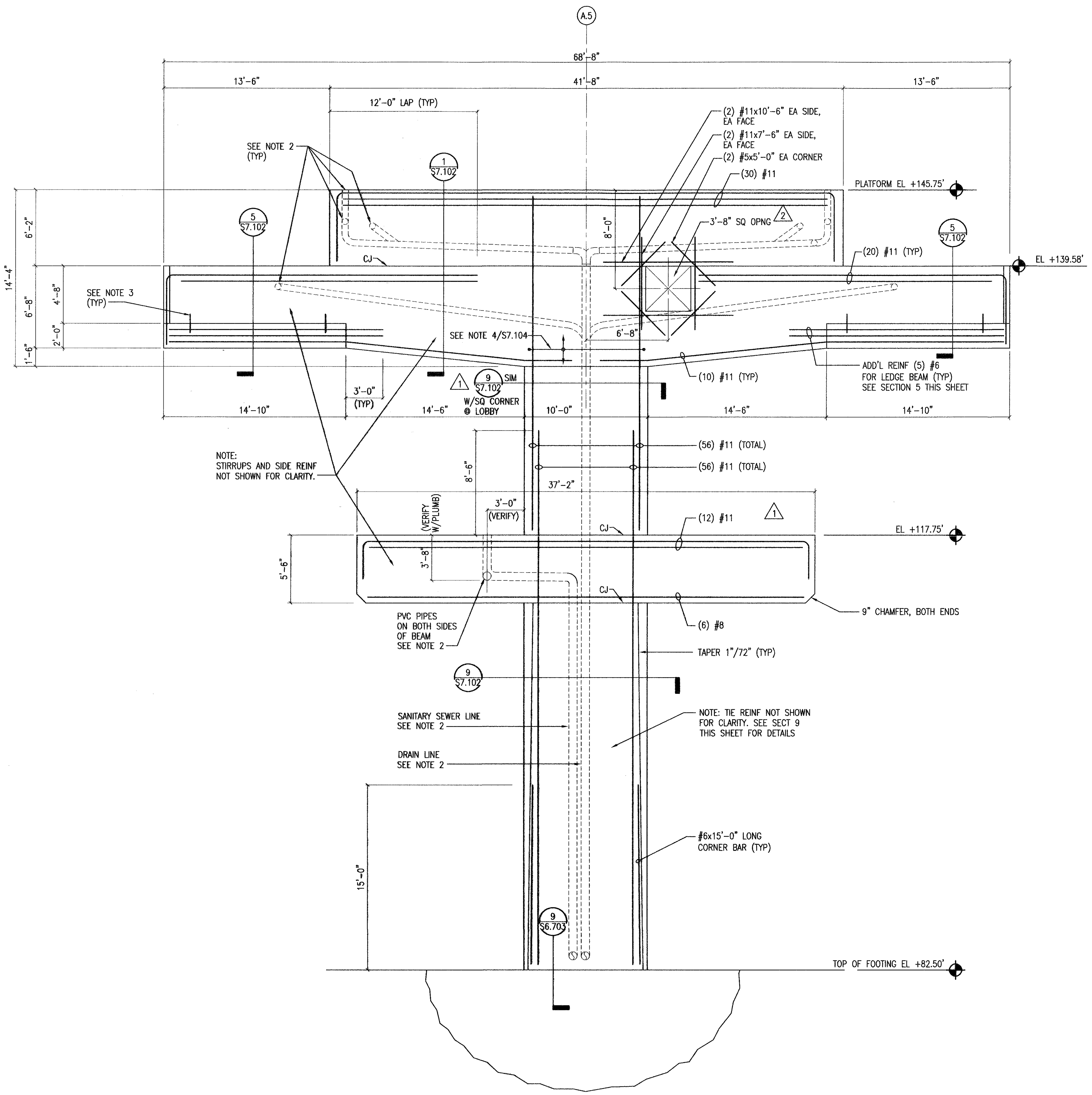
PROJECT MGR:	GRW
DESIGNER:	JJC
DRAWN BY:	KLV
CHECKED BY:	MMR
DRAWING STANDARD:	
	ISEP 07.20.2000
SCALE:	AS NOTED
DATE:	09/14/01

FOR RECORD DRAWING ONLY

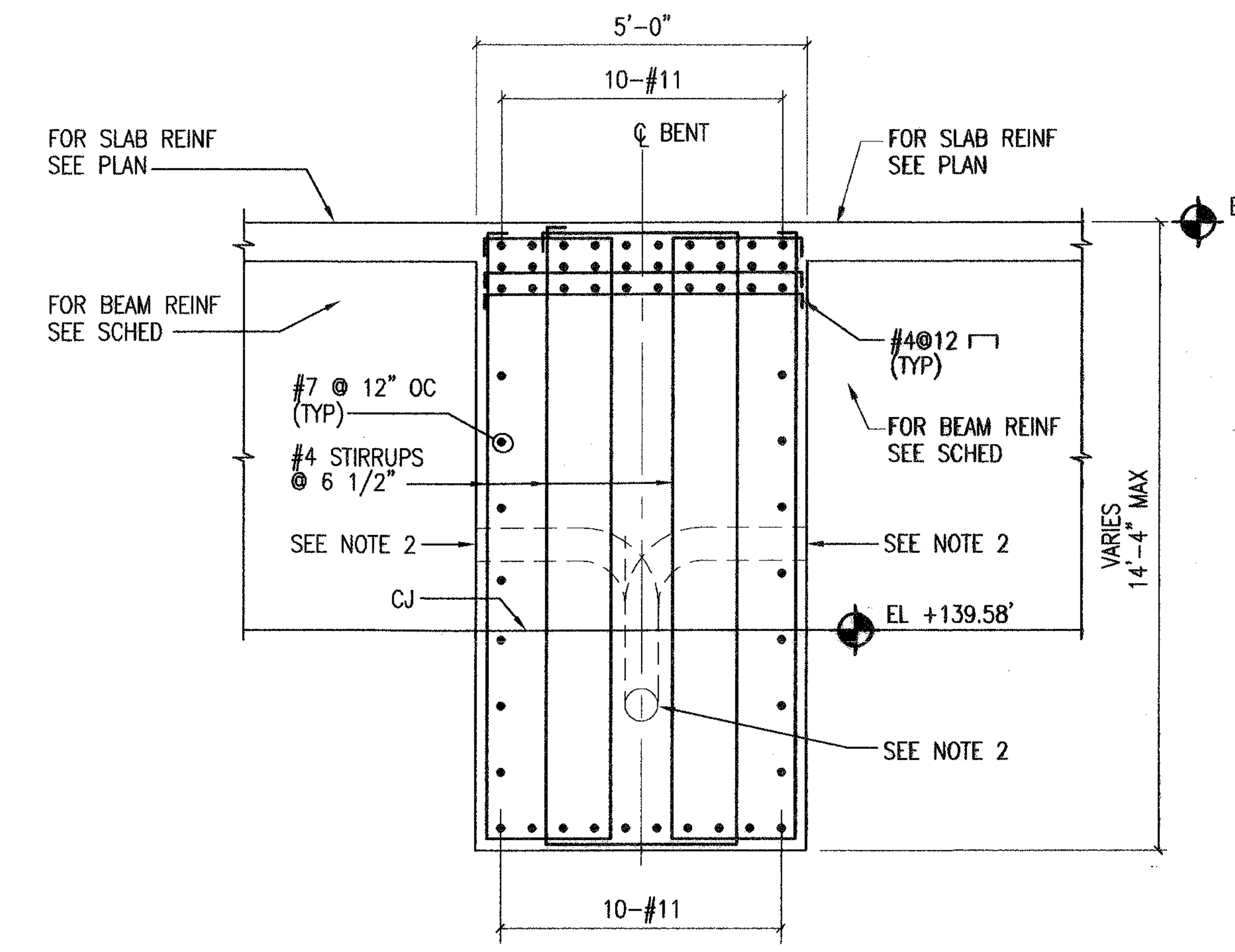
STATE OF TEXAS MOEN MICHAEL REYHANI 83454 LICENSED PROFESSIONAL ENGINEER

APPROVED BY:	DATE:
DIRECTOR HOUSTON AIRPORT SYSTEM	
PROJECT NO.	02-2025-01
C.I.P. NO.	A-0354
H.A.S. NO.	536C
SHEET NO.	S7.101

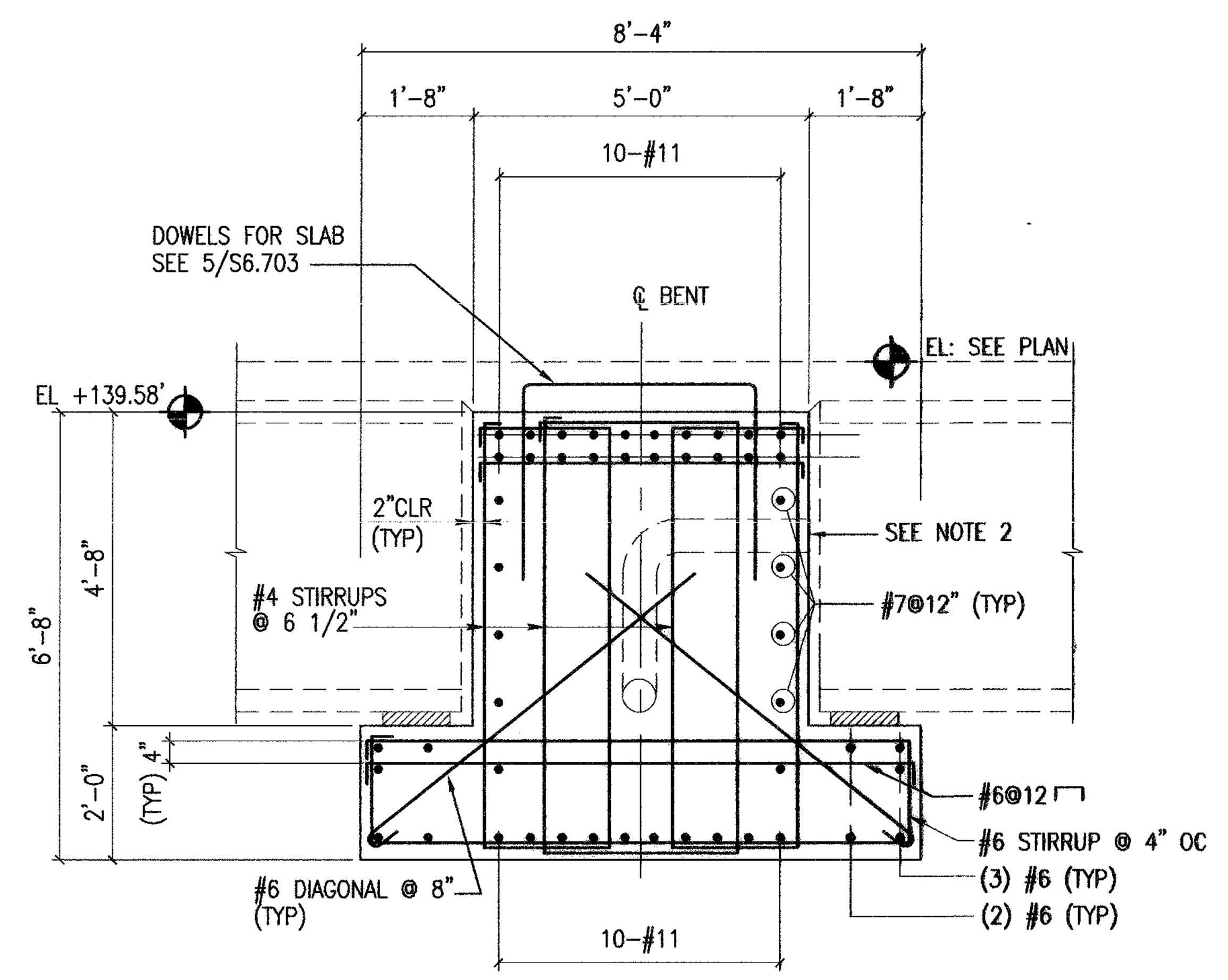
PLOT DATE: 10/19/01 HAS FILE: IA536S7101.DWG



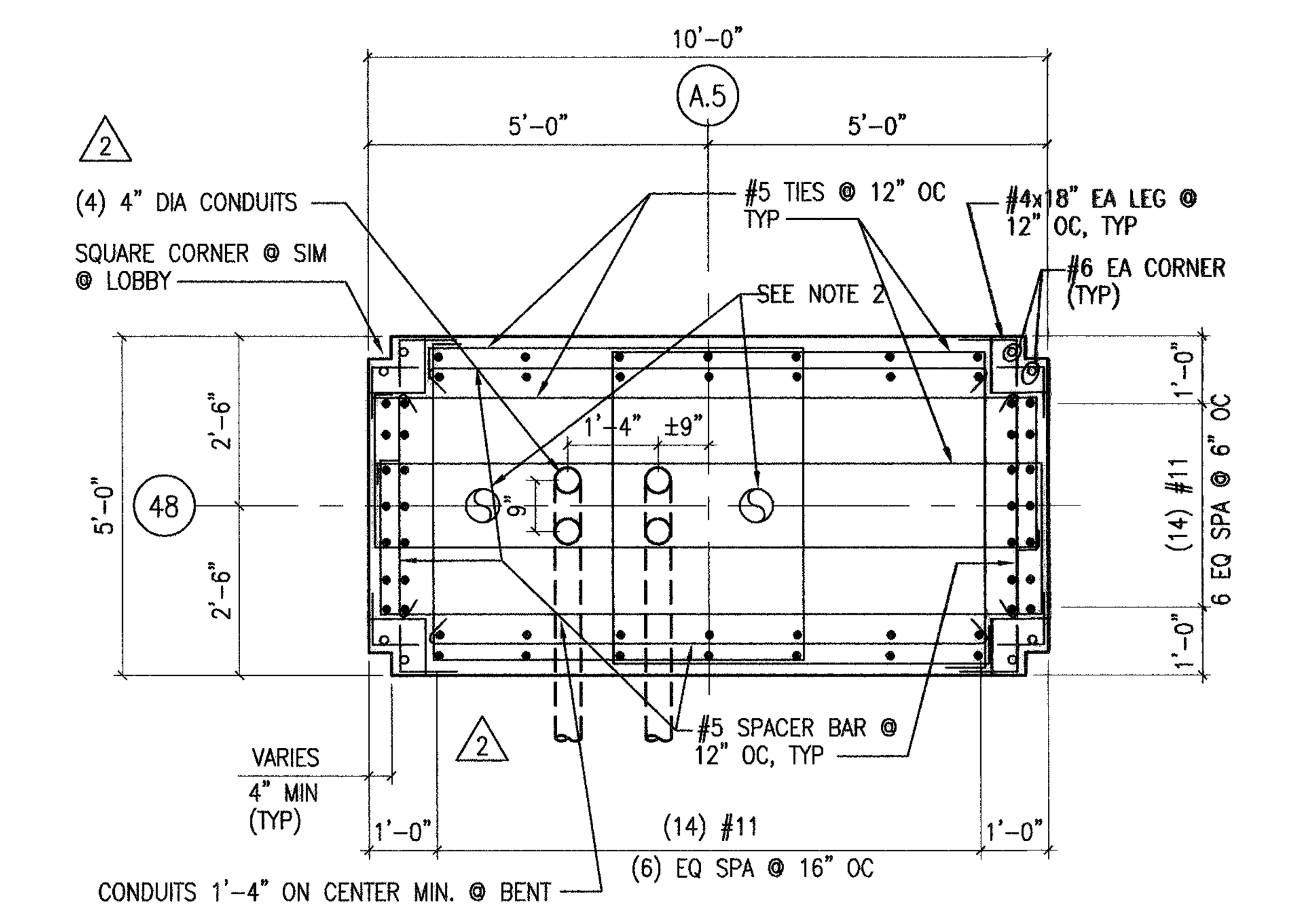
12 BENT FRAME #48 ELEVATION
S3.002 1/4" = 1'-0"



1 SECTION
S7.102 1/2" = 1'-0"



5 SECTION
S7.102 1/2" = 1'-0"



9 SECTION
S7.102 1/2" = 1'-0"

NOTES TO SHEET

1. REFER TO SHEET S0.100 FOR STRUCTURAL GENERAL NOTES.
2. COORDINATE PVC PIPE SIZE, NUMBER, LOCATION AND INVERT. ELEVATION WITH PLUMBING DWGS.
3. PROVIDE 1 1/4"øx1'-6" LONG SMOOTH DOWEL WITH 7" PROJECTION.

NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

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

NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

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

RECORD DRAWINGS
DO NOT MODIFY

DATE: MAY 6, 2005

HUITT-ZOLLARS, INC.

NOTE: INFORMATION USED TO DEVELOP THESE DOCUMENTS WAS TAKEN FROM RECORD OF THE WORK DRAWINGS PREPARED BY THE CONSTRUCTION CONTRACTOR, CLARK/MISSION A JOINT VENTURE. THE INFORMATION PROVIDED BY THE CONTRACTOR WAS NOT VERIFIED BY THE DESIGN FIRM NAMED ABOVE.

HOUSTON AIRPORT SYSTEM
GEORGE BUSH INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

HUITT-ZOLLARS

CHARLES F. TERRY, INC. Consulting Engineers

REVISIONS		
NO. DESCRIPTION	DATE	BY
ISSUED FOR BID	10/19/01	
1 ADDENDUM #1	02/01/02	MR
2 REVISION #1	01/27/03	MR

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION & PLATFORM
BENT FRAME #48 ELEVATION

PROJECT MGR:	GRW
DESIGNER:	JUC
DRAWN BY:	KLV
CHECKED BY:	MMR
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	AS NOTED
DATE:	09/14/01

FOR RECORD DRAWING ONLY

STATE OF TEXAS — MOEIN MICHAEL REYHANI — PROFESSIONAL ENGINEER

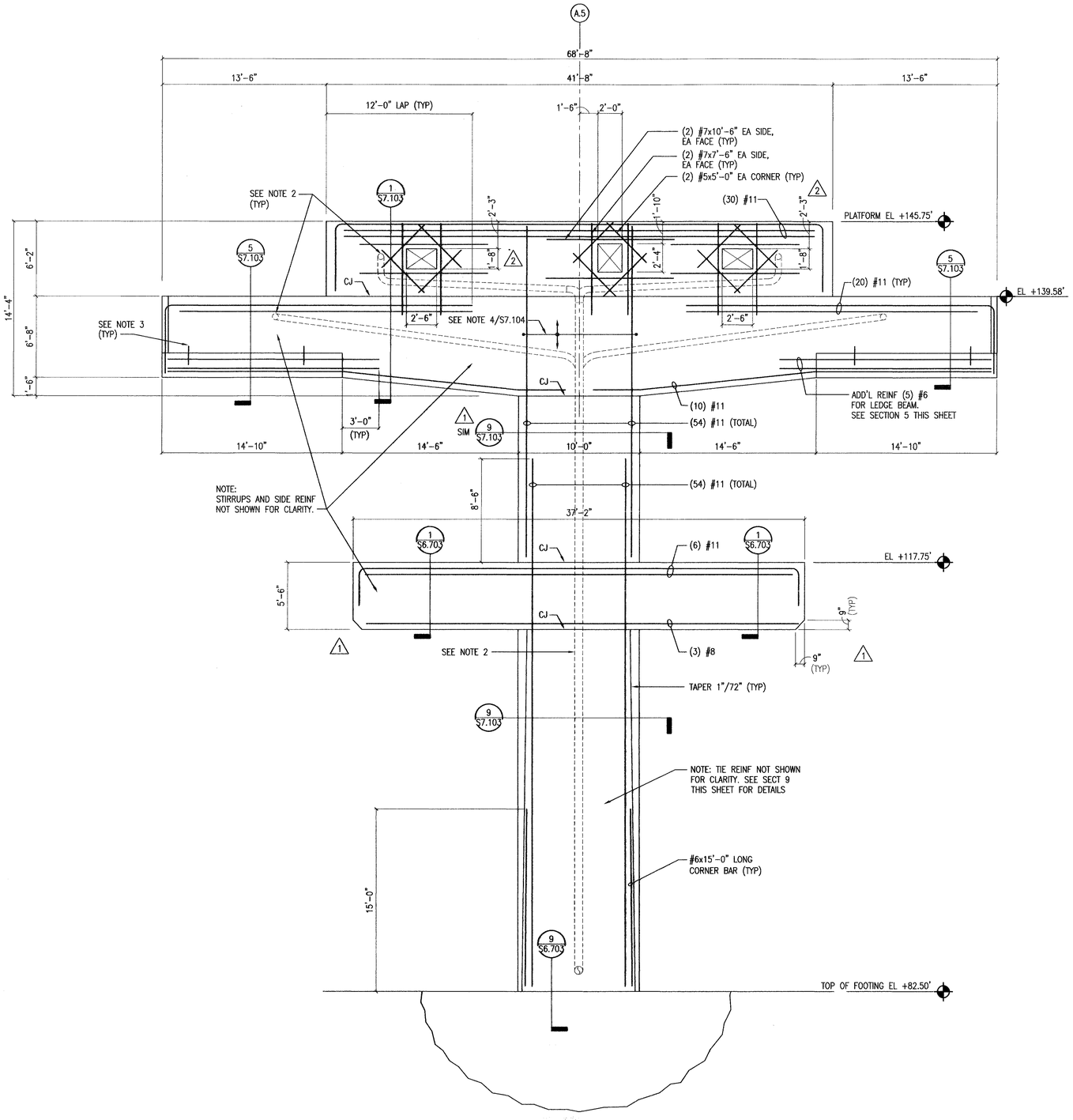
APPROVED BY: DATE:

DIRECTOR HOUSTON AIRPORT SYSTEM

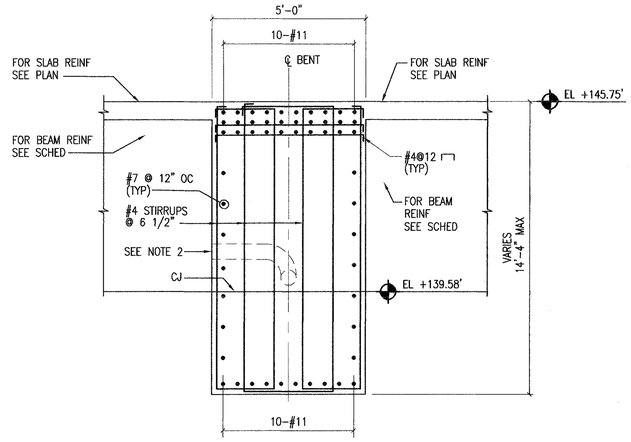
PROJECT NO.	02-2025-01
C.I.P. NO.	A-0354
H.A.S. NO.	5360
SHEET NO.	S7.102

84

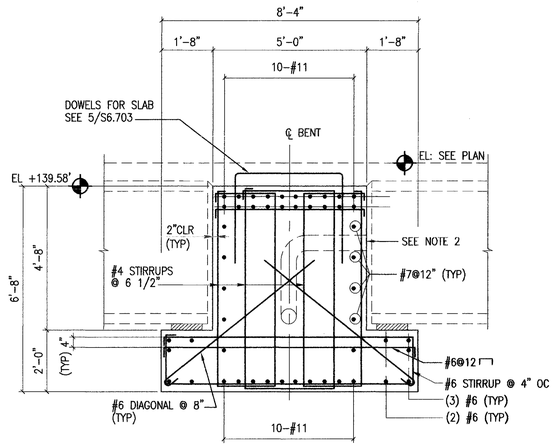
PLOT DATE: 10/19/01 HAS FILE: IAS30S7102.DWG



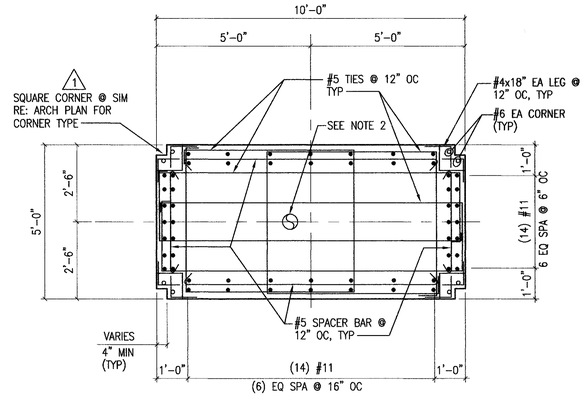
12 S3.002 **BENT FRAME #49 ELEVATION**
1/4" = 1'-0"



1 S7.103 **SECTION**
1/2" = 1'-0"



5 S7.103 **SECTION**
1/2" = 1'-0"



9 S7.103 **SECTION**
1/2" = 1'-0"

NOTES TO SHEET

1. REFER TO SHEET S0.100 FOR STRUCTURAL GENERAL NOTES.
2. COORDINATE PVC PIPE SIZE, NUMBER, LOCATION AND INVERT. ELEVATION WITH PLUMBING DWGS.
3. PROVIDE 1 1/4"ϕx1'-6" LONG SMOOTH DOWEL WITH 7" PROJECTION.

NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

0' 1' 2' 4' 6'

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

NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

0' 2' 4' 8' 12'

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

RECORD DRAWINGS DO NOT MODIFY

DATE: MAY 6, 2005

HUITT-ZOLLARS, INC.

NOTE: INFORMATION USED TO DEVELOP THESE DOCUMENTS WAS TAKEN FROM RECORD OF THE WORK DRAWINGS PREPARED BY THE CONSTRUCTION CONTRACTOR, CLARK/MISSION A JOINT VENTURE. THE INFORMATION PROVIDED BY THE CONTRACTOR WAS NOT VERIFIED BY THE DESIGN FIRM NAMED ABOVE.

HOUSTON AIRPORT SYSTEM
GEORGE BUSH INTERCONTINENTAL AIRPORT HOUSTON TEXAS

HUITT-ZOLLARS
Huitt-Zollars, Inc. Engineering / Architecture
1500 Daisy Addison, Suite 200, Houston, TX 77077
Phone (281) 495-2000 Fax (281) 495-2020

CHARLES F. TERRY, INC.
Consulting Engineers
2001 Gaston Avenue
Dallas, Texas 75246
(214)828-9400 FAX (214)828-9404

REVISIONS

NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
1	ADDENDUM #1	02/01/02	MR
2	REVISION #1	01/27/03	MR

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION & PLATFORM
BENT FRAME #49 ELEVATION

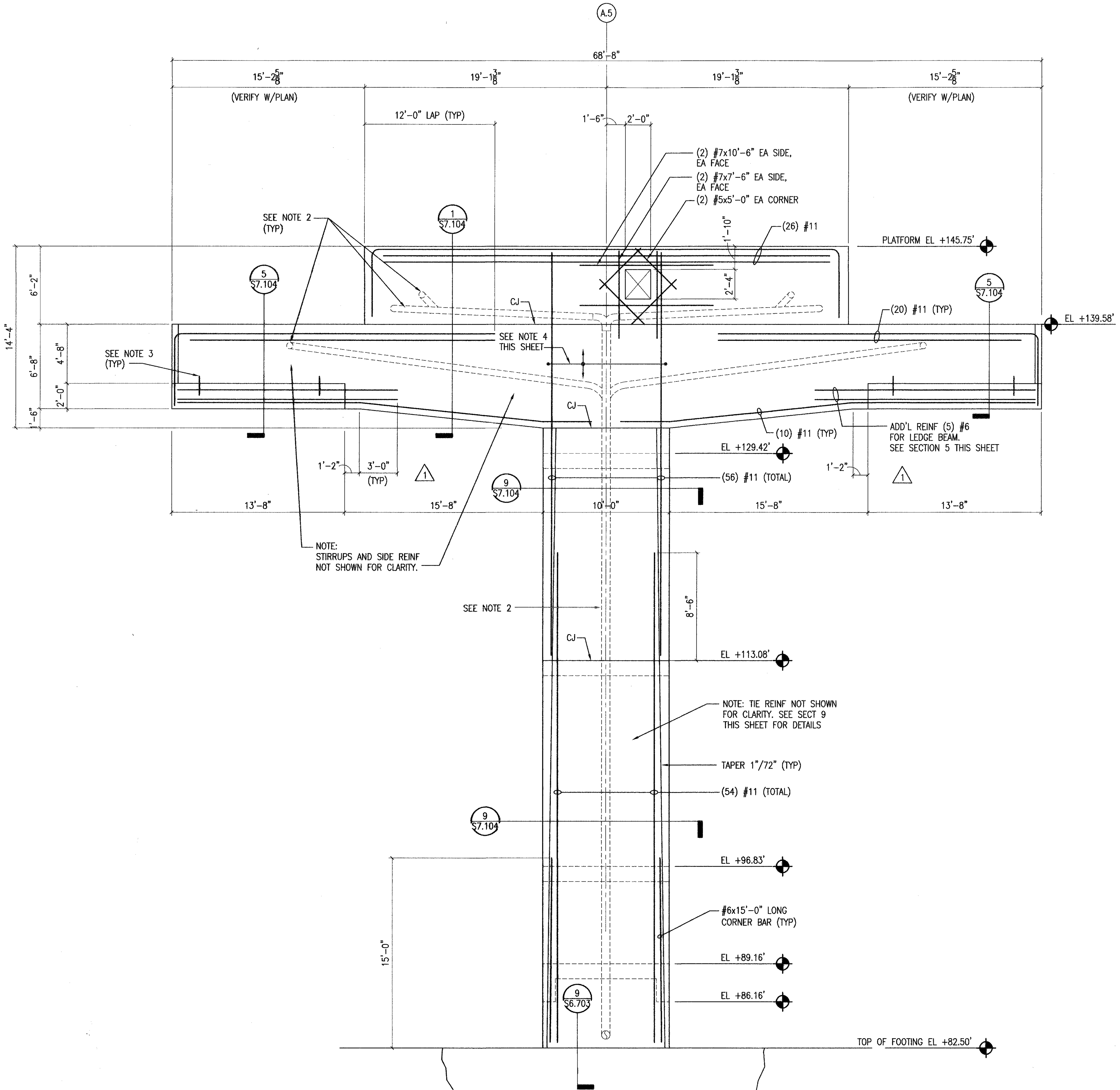
PROJECT MGR:	GRW
DESIGNER:	JUC
DRAWN BY:	KLV
CHECKED BY:	MMR
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	AS NOTED
DATE:	09/14/01

FOR RECORD DRAWING ONLY

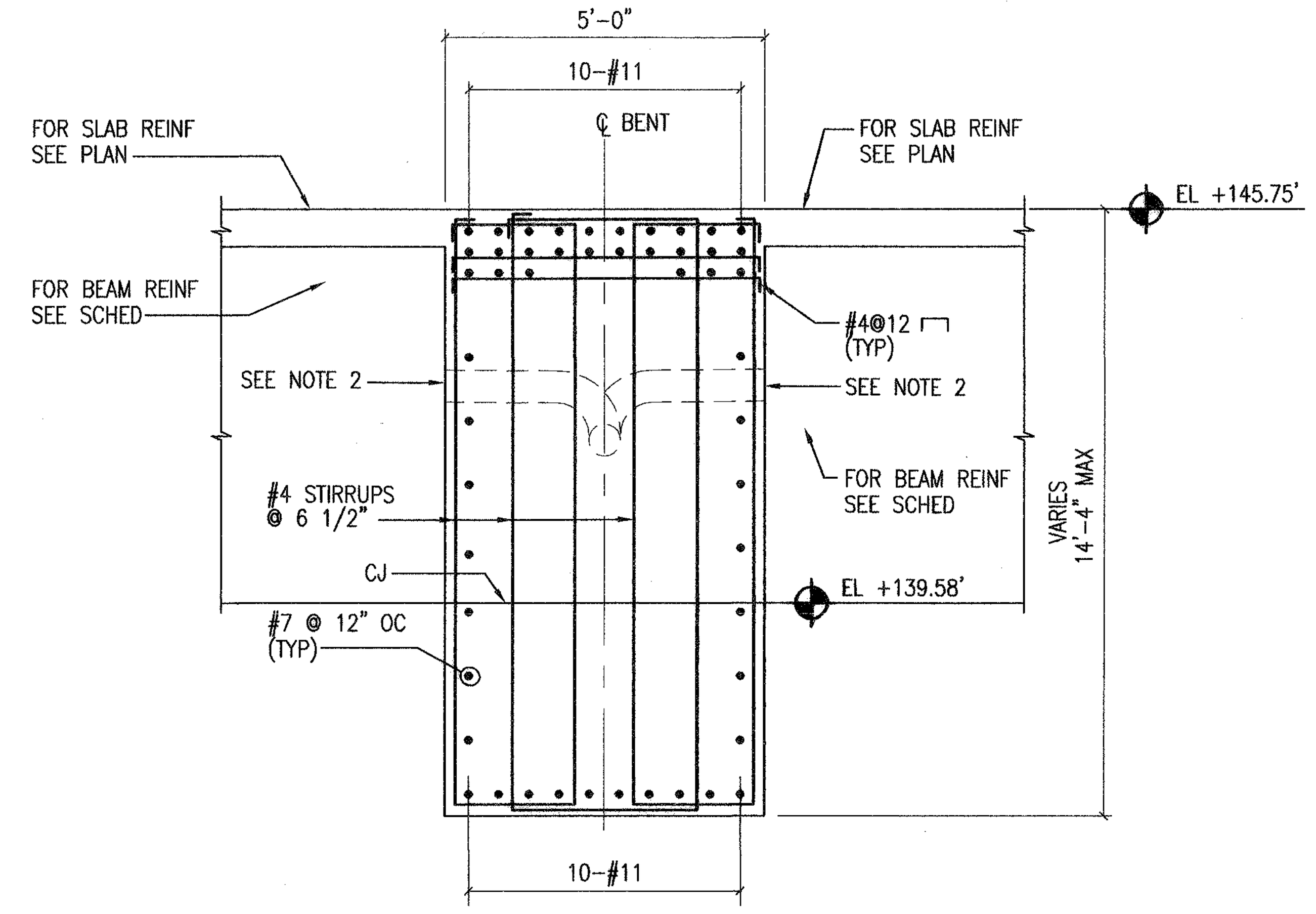
STATE OF TEXAS — MOEIN MICHAEL REYHANI — 83454 — LICENSED PROFESSIONAL ENGINEER

APPROVED BY:	DATE:
DIRECTOR HOUSTON AIRPORT SYSTEM	
PROJECT NO.	02-2025-01
C.I.P. NO.	A-0354
H.A.S. NO.	536C
SHEET NO.	S7.103

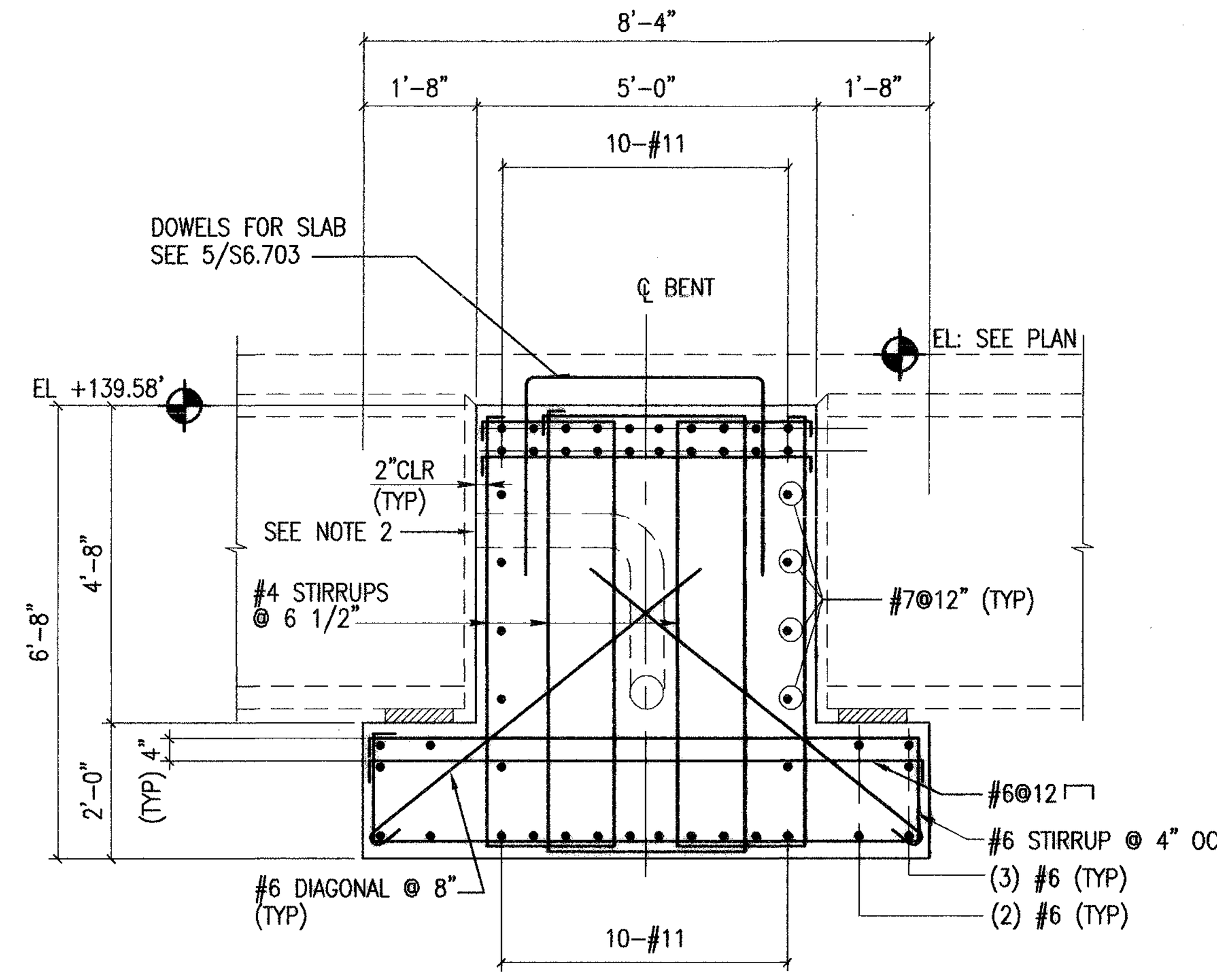
PLOT DATE:10/19/01 HAS FILE: IA536CS7103.DWG



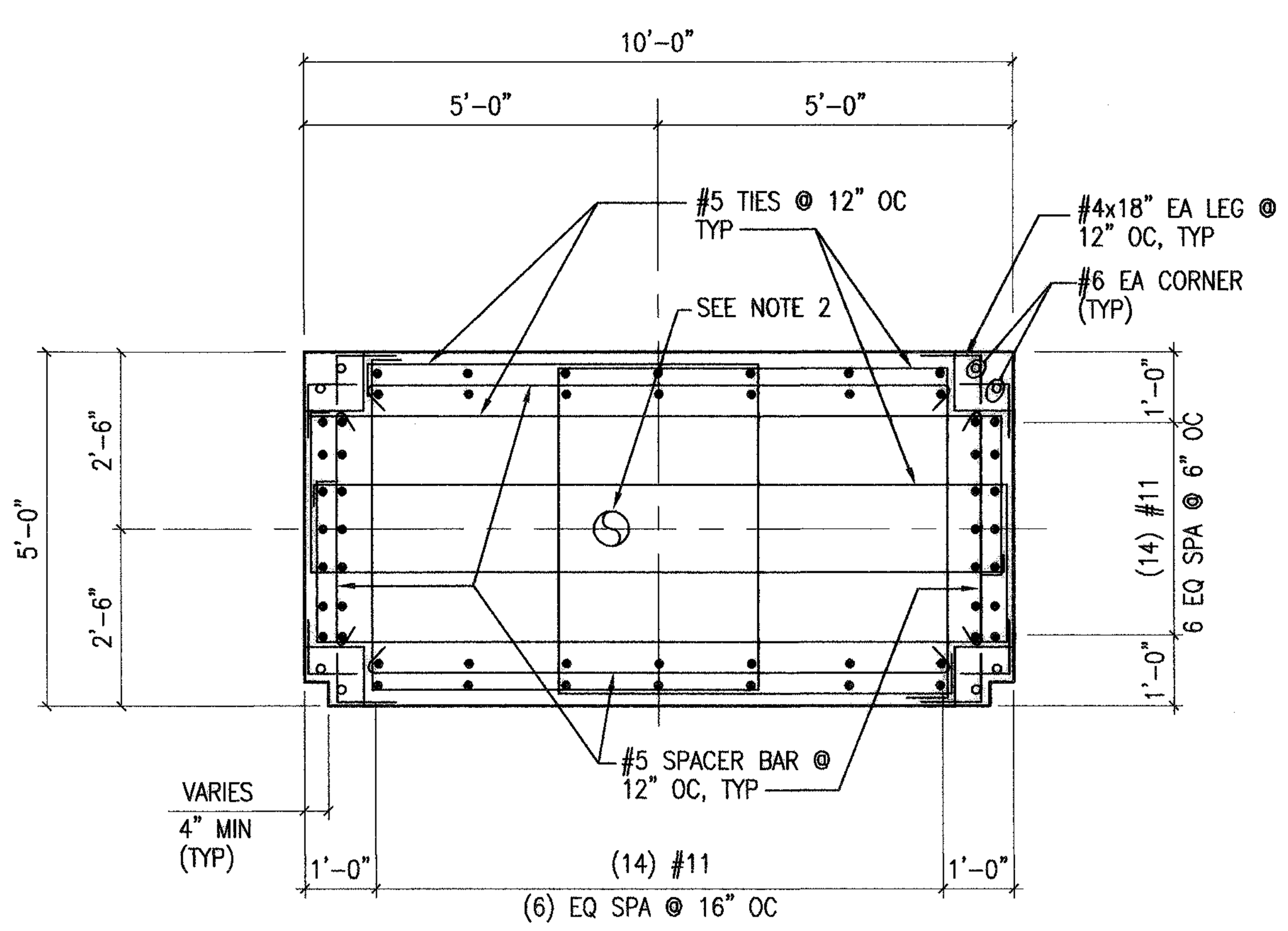
12 BENT FRAME #50 ELEVATION
S3.002 1/4" = 1'-0"



1 SECTION
S7.104 1/2" = 1'-0"



5 SECTION
S7.104 1/2" = 1'-0"



9 SECTION
S7.104 1/2" = 1'-0"

NOTES TO SHEET

1. REFER TO SHEET S0.100 FOR STRUCTURAL GENERAL NOTES.
2. COORDINATE PVC PIPE SIZE, NUMBER, LOCATION AND INVERT. ELEVATION WITH PLUMBING DWGS.
3. PROVIDE 1 1/4"øx1'-6" LONG SMOOTH DOWEL WITH 7" PROJECTION.
4. PROVIDE #5 TIES @ 12" OC SIMILAR TO 9/S7.104 INSIDE BENT GIRDER.

NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

0' 1' 2' 4' 6'

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

NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

0' 2' 4' 8' 12'

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

RECORD DRAWINGS
DO NOT MODIFY

DATE: MAY 6, 2005

HUITT-ZOLLARS, INC.

NOTE: INFORMATION USED TO DEVELOP THESE DOCUMENTS WAS TAKEN FROM RECORD OF THE WORK DRAWINGS PREPARED BY THE CONSTRUCTION CONTRACTOR, CLARK/MISSION A JOINT VENTURE. THE INFORMATION PROVIDED BY THE CONTRACTOR WAS NOT VERIFIED BY THE DESIGN FIRM NAMED ABOVE.

HOUSTON AIRPORT SYSTEM
GEORGE BUSH INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

HUITT-ZOLLARS

CHARLES F. TERRY, INC. Consulting Engineers

REVISIONS

NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
1	ADDENDUM #1	02/01/02	MR

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION & PLATFORM
BENT FRAME #50 ELEVATION

PROJECT MGR:	GRW
DESIGNER:	JJC
DRAWN BY:	KLV
CHECKED BY:	MMR
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	AS NOTED
DATE:	09/14/01

FOR RECORD DRAWING ONLY

STATE OF TEXAS — MOEIN MICHAEL REYHANI — 85434 — LICENSED PROFESSIONAL ENGINEER

APPROVED BY: DATE:

DIRECTOR HOUSTON AIRPORT SYSTEM

PROJECT NO.	02-2025-01
C.I.P. NO.	A-0354
H.A.S. NO.	536C
SHEET NO.	S7.104

PLOT DATE:10/19/01 HAS FILE: IA536CS7104.DWG

COMMUNICATIONS SYMBOLS

NOTES:

a) I = INFORMATION
M = MEDIA
O = OUTLET

b) THE LISTED ELEVATIONS ARE STANDARDS.
REFER TO PROVIDED DETAILS FOR LOCATIONS AND ELEVATIONS.

▼ MO – 1 WALL/VOICE/OFFICE AREA –(VOICE OUTLET)– 18 IN. AFF O/C (1) CATEGORY 5E UTP 4–PAIR CABLE

▼ MO – 2 ELEVATOR DEVICE/EMERGENCY INTERCOM – (VOICE OUTLET)–(1) CATEGORY 5E UTP 4–PAIR CABLE TO ELEVATOR WIRING HARNESS CONNECTION D–MARC

▼ MO – 3 WALL/VOICE/WORK AREA – (VOICE OUTLET)– 48 IN. AFF O/C (1) CATEGORY UTP 4–PAIR CABLE

▼ MO – 4 WALL/VOICE/PUBLIC AREA – (VOICE OUTLET)– 48 IN. AFF O/C (1) CATEGORY 5E EUTP 4–PAIR CABLE

▼ MO – 5 DEFRIBULATOR– (VOICE OUTLET)– 30 IN. AFF O/C (1) CATEGORY 5E UTP 4–PAIR CABLE

▽ IO – 1 WALL/DATA/OFFICE AREA – (DATA OUTLET)– 18 IN. AFF O/C (1) CATEGORY 5E UTP 4–PAIR CABLE

▼▽ IMO – 1 WALL/VOICE/DATA/OFFICE AREA – (1–VOICE/ 1–DATA OUTLET)–18 IN. AFF O/C (2) CATEGORY 5E UTP 4–PAIR CABLE

COMMUNICATION ROOM NUMBERS

ARCHITECTURAL	CONSTRUCTION	
1–0006	IDFSP.1LL	

GENERAL NOTES

1. OUTLETS OR EQUIPMENT SHOWN IN ELEVATOR EQUIPMENT ROOM ARE FOR REFERENCE ONLY. COORDINATE AND VERIFY EXACT INSTALLATION LOCATIONS WITH CONVEYANCE CONTRACTOR.
2. CONTRACTOR SHALL SUBMIT TO THE CITY ENGINEER FOR APPROVAL A CONDUIT IDENTIFICATION PLAN LISTING ASSOCIATING SYSTEMS, LOCATION AND IDENTIFICATION METHOD, AND MATERIALS TO BE USED FOR LABELING. INCLUDE IN THE TELEPHONE AND ELECTRICAL DRAWING ALL CONDUITS, AND J–BOXES
   a) ORIGINATION ROOM
   b) DESTINATION ROOM
   c) MEDIA TYPE
3. NO EXPOSED CONDUIT ALLOWED UNLESS APPROVED IN ADVANCE BY PROJECT MANAGER.
4. CONDUIT AND JUNCTION BOXES INSTALLED BY CONTRACTOR EXPOSED TO VIEW IN FINISHED SPACES SHALL BE PAINTED TO MATCH EXISTING ADJACENT SURFACES.
5. ELECTRICAL POWER CABLES SHALL NOT BE INSTALLED IN OR ATTACHED TO COMMUNICATION CABLE TRAYS.
6. CONTRACTOR SHALL NOT ABANDON WIRING, CONDUIT, J–BOXES, OR DEVICES IN PLACE. UNUSED EQUIPMENT AND SUPPORTS SHALL BE REMOVED AND DISPOSED OF
7. CONDUIT SHALL BE CONCEALED IN CEILING WHERE EVER POSSIBLE. CONTRACTOR SHALL SUBMIT ROUTING PLAN SHOWING CONDUIT PENETRATIONS TO FIRE RATED SURFACES TO CONSTRUCTION MANAGE FOR APPROVAL PRIOR TO INSTALLATION. UNINTERRUPTED FIRE RATING OF FLOORS AND WALLS SHALL BE MAINTAINED.
8. TELECOMMUNICATION OUTLET BOXES SHALL BE
   a) 4 IN. SQ. BY 2 1/2 IN. DEEP
   b) UNLESS NOTED OTHERWISE
   c) ALL COVERS OR PLATES SHALL BE DESIGNED TO FIT ONE–GANG OR TWO–GANG OUTLET BOXES
   d) PLASTER RINGS ARE NOT SUITABLE FOR SECURING SERVICE CONNECTORS
   e) BUSHING CONNECTORS SHALL BE PROVIDED TO ALL OUTLET BOXES
   f) FLUSH WITH THE FINISHED WALL
9. ALL TELECOMMUNICATION OUTLETS SHALL BE PIPED WITH ONE (1) INCH EMT CONDUIT
   a) TO INCLUDE ALL PROPER CONNECTORS
   b) TO INCLUDE ALL PROPER BUSHINGS
   c) TO INCLUDE THE SHORTEST ROUT
   d) TO INCLUDE THE LEAST AMOUNT OF BENDS
10. ALL TELECOMMUNICATION CONDUITS SHALL BE PROVIDED WITH A "TRUE TAPE" PULL STRING.
11. WHEN UTILIZING THE "TRUE TAPE" TO INSTALL THE CABLING A STANDARD PULL STRING SHALL BE PROVIDED WHEN PULLING IN ALL CABLING TO REPLACE THE "TRUE TAPE".
12. ALL TELECOMMUNICATION WALL OUTLETS SHALL BE 4 IN. SQ. BY 2 1/2 DEEP AND FLUSH TO WALL FINISH.
13. ALL TELECOMMUNICATION WALL OUTLETS SHALL CONNECT TO WALL/CEILING JUNCTION WITH A 4 IN. SQ. BY 2 1/2 DEEP JUNCTION BOX.
14. ALL JUNCTION BOXES SHALL BE PROVIDED WITH PROPER CONDUIT CUT OUTS AND BUSHINGS FOR EACH CONDUIT.
15. JUNCTION BOX/PULL BOXES SHALL PROVIDE THE FOLLOWING;

CONSTRUCTION

. 16 GAUGE OR 14 GAUGE STEEL
. SEAMS CONTINUOUSLY WELDED AND GROUND SMOOTH, NO HOLES OR KNOCKOUTS
. CONTINUOUS HINGE
. EXTERNAL SCREW CLAMPS
. EXTERNAL MOUNTING FEET
. OIL–RESISTANT GASKET AND ADHESIVE
. SPECIFY SIDE TO BE HINGED WHEN ORDERING

FINISH
ANSI 61 GRAY POLYESTER POWER COATING INSIDE AND OUT OVER PHOSPHATIZED SURFACES.

INDUSTRY STANDARDS
UL 50 TYPE 12 AND TYPE 13
NEMA/EEMAC TYPE 12 AND TYPE 13
JIC STANDARD EGP–1–1967
CSA TYPE 12
IEC 529, IP65

MISCELLANEOUS

MDF	MAIN DISTRIBUTION FRAME
MM	MULTIMODE FIBER
N.I.C.	NOT IN CONTRACT
PR	PAIR
SM	SINGLE MODE FIBER
TGB	TELECOMMUNICATIONS GROUND BUSBAR
TMGB	TELECOMMUNICATIONS MAIN GROUND BUSBAR
IDF	INTERMEDIATE DISTRIBUTION FRAME

PLOT DATE: 10/19/01 HAS FILE: HASDCTD100.DWG

HOUSTON AIRPORT SYSTEM
GEORGE BUSH INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

Ross&Baruzzini
400 N. Sam Houston Pkwy. East, Suite 110
Houston, Texas 77060
Tel: 832.327.8686 • Fax: 832.327.8689

REVISIONS

NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION + PLATFORM
COMMUNICATIONS LEGEND

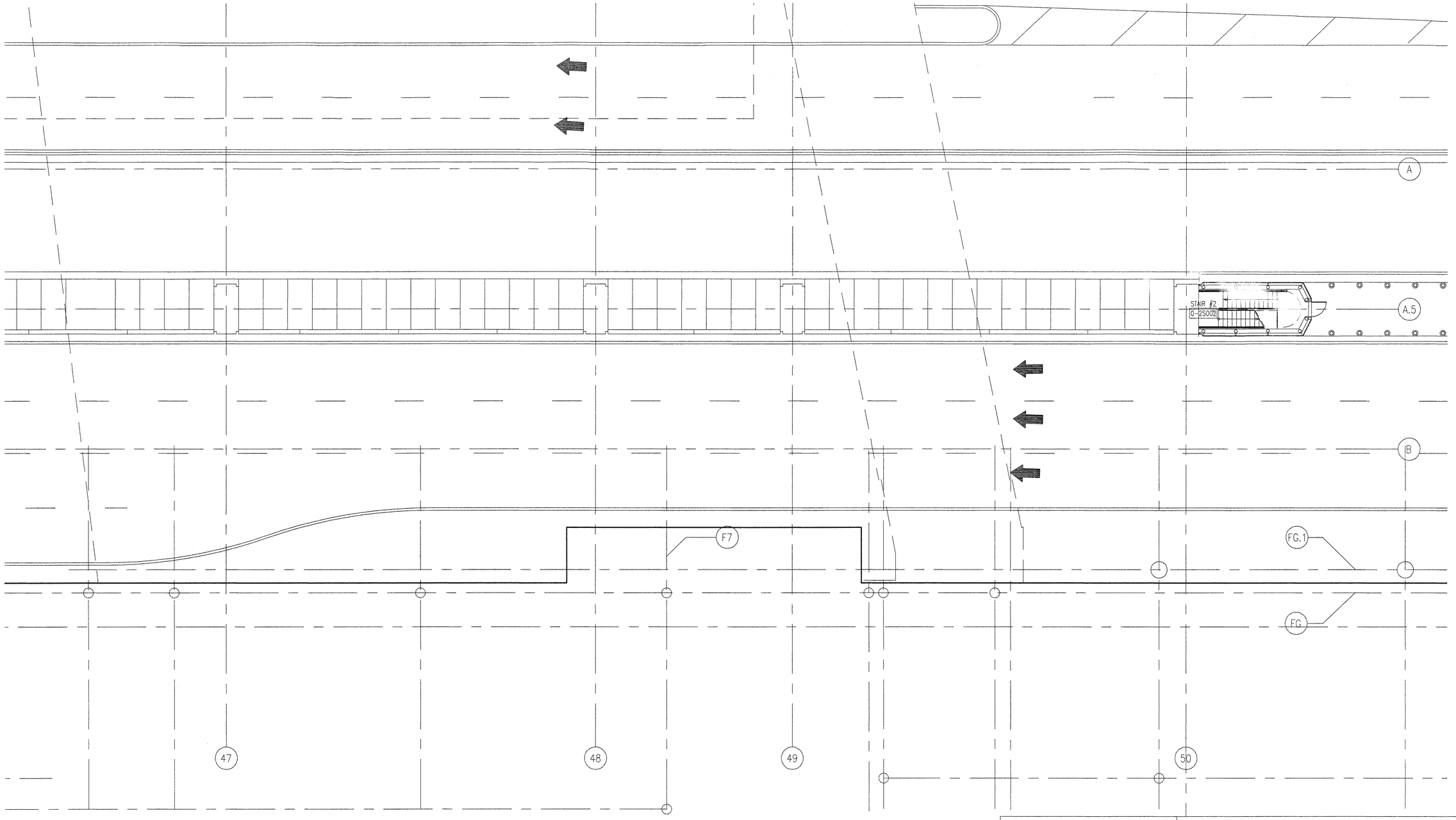
PROJECT MGR:	HK
DESIGNER:	TL
DRAWN BY:	MP
CHECKED BY:	KW
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	N.T.S.
DATE:	9/14/01

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO. 1AH08
C.I.P. NO. A–0354
H.A.S. NO. 5360
SHEET NO. T0.100

RECORD DRAWINGS



GENERAL NOTES

1) CONDUIT AND CABLE ROUTES DEPICTED HEREIN ARE RECOMMENDATIONS ONLY. ACTUAL ROUTES ARE TO BE DETERMINED BY CONTRACTOR AND APPROVED BY OWNER/OWNER REPRESENTATIVE.

N

NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

0' 4' 8' 16' 24'

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

HOUSTON AIRPORT SYSTEM
GEORGE BUSH
INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

Ross&Baruzzini
400 N. Sam Houston Pkwy. East, Suite 110
Houston, Texas 77060
Tel: 832.327.8888 • Fax: 832.327.8889

REVISIONS

NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION + PLATFORM
COMMUNICATIONS LAYOUT
GROUND FLOOR

PROJECT MGR: HK
DESIGNER: TL
DRAWN BY: MP
CHECKED BY: KW
DRAWING STANDARD: ISEP 07.20.2000
SCALE: 1/8"=1'0"
DATE: 9/14/01

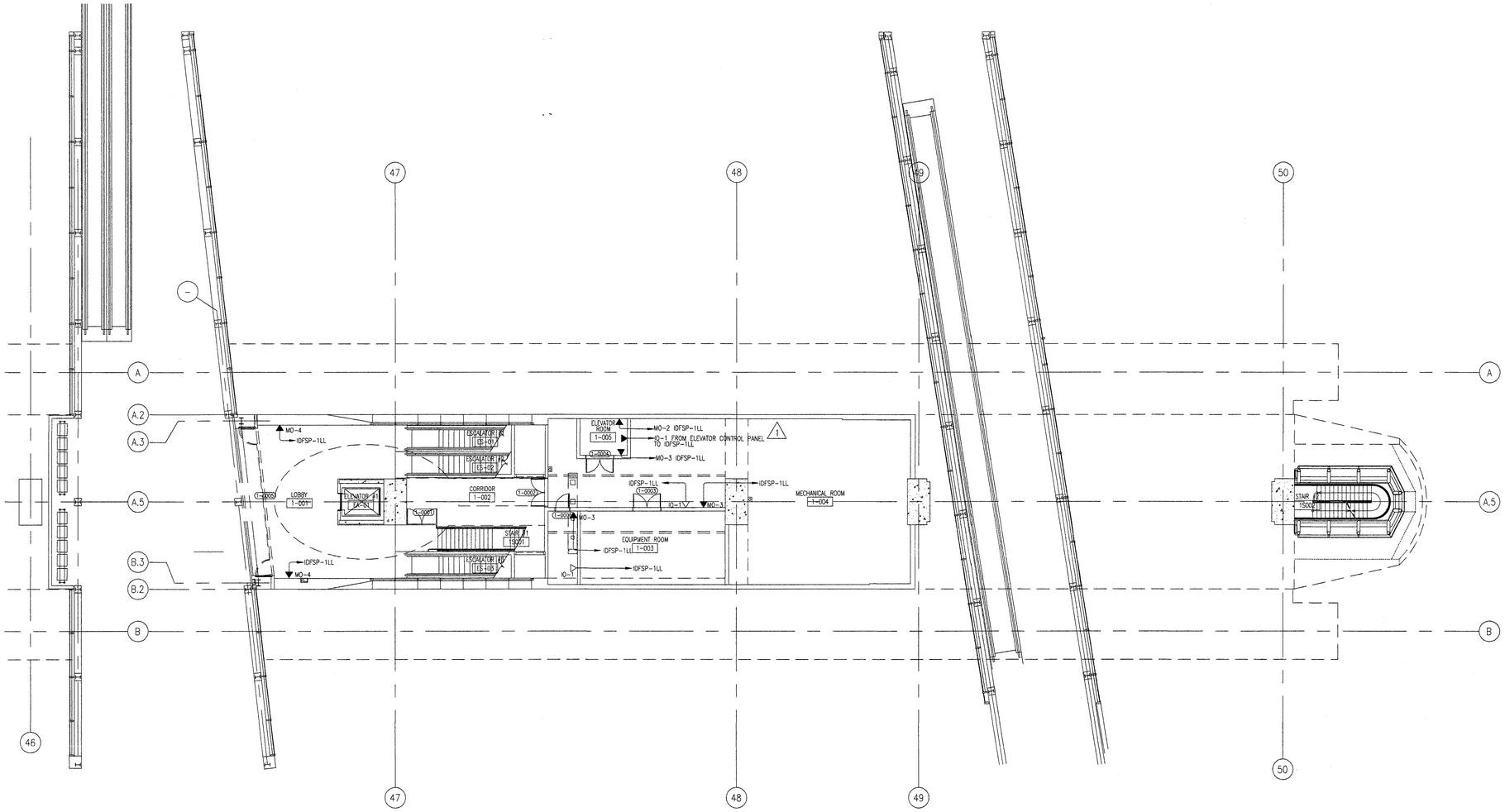
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO. 1AH08
C.I.P. NO. A-0354
H.A.S. NO. 536C
SHEET NO. T2.000

RECORD DRAWINGS

PLOT DATE:10/19/01 H:\AS FILE\A-536CT2000.DWG



GENERAL NOTES

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0' 4' 8' 16' 24'

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

HOUSTON AIRPORT SYSTEM
GEORGE BUSH INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

Ross&Baruzzini
400 N. Sam Houston Pkwy. East, Suite 110
Houston, Texas 77060
Tel: 832.327.8888 • Fax: 832.327.8889

REVISIONS

NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
1	REVISION 1	04/13/04	R&B

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION + PLATFORM
COMMUNICATIONS LAYOUT LOBBY LEVEL

PROJECT MGR:	HK
DESIGNER:	TL
DRAWN BY:	MP
CHECKED BY:	KW
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	1/8"=1'0"
DATE:	9/14/01

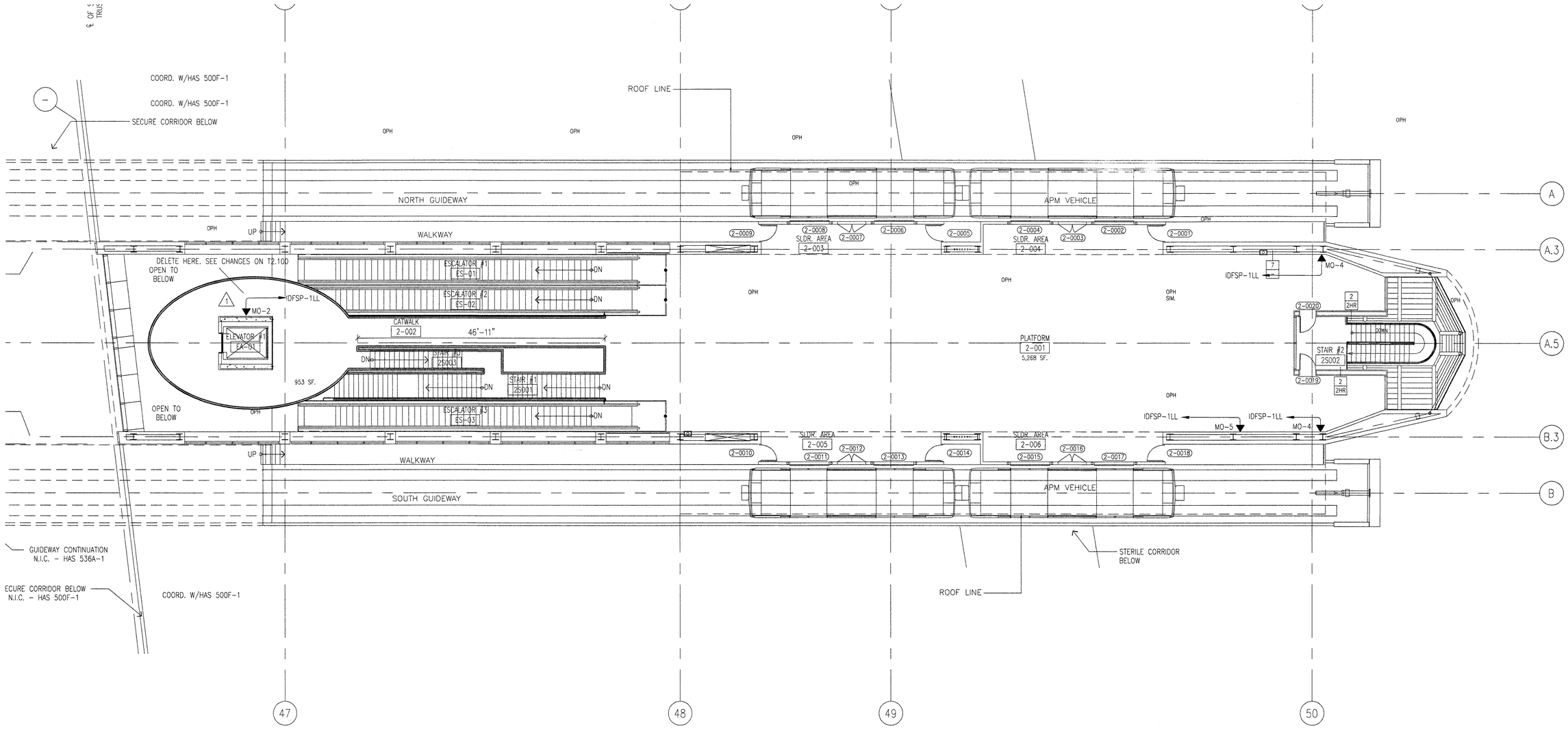
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	IAH08
C.I.P. NO.	A-0354
H.A.S. NO.	536C
SHEET NO.	T2.100

PLOT DATE: 10/19/01 HAS FILE: A536CT2100.DWG

RECORD DRAWINGS



GENERAL NOTES

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N

NOTE: REFER TO GRAPHIC SCALE IF ACTUAL SHEET SIZE IS OTHER THAN 30"x42".

0' 4' 8' 16' 24'

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

HOUSTON AIRPORT SYSTEM
GEORGE BUSH INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

Ross&Baruzzini
400 N. Sam Houston Pkwy. East, Suite 110
Houston, Texas 77060
Tel: 832.327.8888 • Fax: 832.327.8889

REVISIONS

NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
1	REVISION 1	04/13/04	R&B

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION + PLATFORM
COMMUNICATIONS LAYOUT
PLATFORM LEVEL

PROJECT MGR: HK
DESIGNER: TL
DRAWN BY: MP
CHECKED BY: KW
DRAWING STANDARD: ISEP 07.20.2000
SCALE: 1/8"=1'0"
DATE: 9/14/01

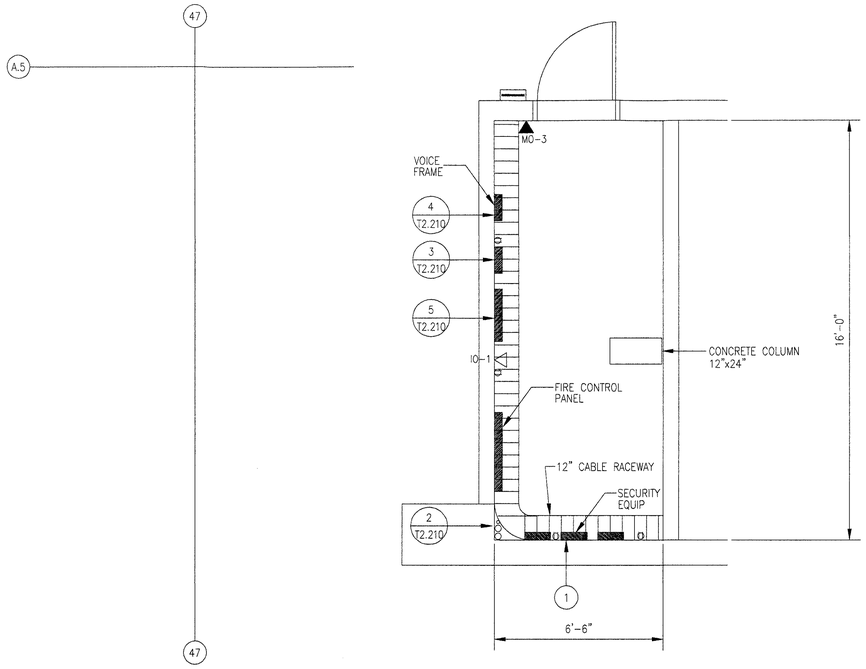
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

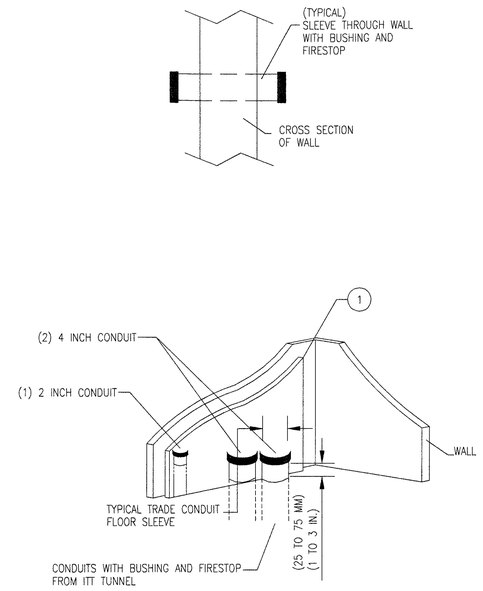
PROJECT NO. IAH08
C.I.P. NO. 0304
H.A.S. NO. 536C
SHEET NO. T2.200

RECORD DRAWINGS

PLOT DATE:10/19/01 H:\AS FILE\HAS536C\T2200.DWG



1 IDFSP.1LL (1-0006) CLOSET LAYOUT
NOT TO SCALE



2 SLEEVE/CONDUIT DETAILS
NOT TO SCALE

GENERAL NOTES

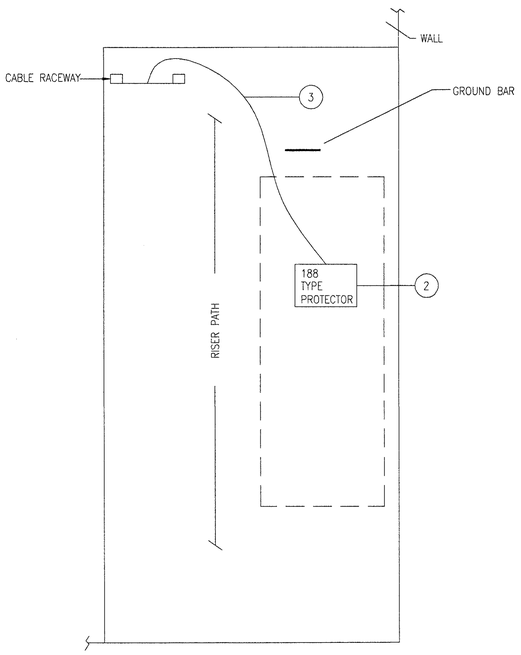
1. OVERHEAD CABLE RACEWAY 8'-0" A.F.F. TO BOTTOM OF TRAY (LENGTH AS REQUIRED). REFER TO CABLE RACEWAY MOUNTING DETAILS 1 AND 3 ON SHEET T2.006.
2. OVERHEAD CABLE RACEWAY SUSPENSION MOUNT EVERY 3'-0" ON CENTER. SEE DETAIL 2 ON SHEET T2.006.
3. INSTALL ROUNDED CORNER BRACE AT ALL TURNS AND RACEWAY INTERSECTION POINTS.
4. MOUNT EQUIPMENT CABINET TO FLOOR CENTERED UNDER CABLE RACEWAY AS SHOWN.
5. INSTALL RACK MOUNTED OPTICAL FIBER PATCH PANEL. REFER TO DETAIL 4 ON SHEET T2.006 FOR FIBER POSITIONING REQUIREMENTS.
6. CONDUIT AND CABLE ROUTES DEPICTED HEREIN ARE RECOMMENDATIONS ONLY. ACTUAL ROUTES ARE TO BE DETERMINED BY CONTRACTOR AND APPROVED BY OWNER/OWNER REPRESENTATIVE.

KEYED NOTES

(1) PROVIDE PLYWOOD ALL WALLS (TYPICAL)
- a) 3/4 IN. FIRE RATED PLYWOOD
- b) PAINTED TO MATCH W/FIRE RATED PAINT
- c) PLYWOOD SHALL BE INSTALLED VERTICALLY (VERTICAL= 8 FT.) (HORIZONTAL= 4 FT.)
- d) PLYWOOD SHALL BE INSTALLED AND BEGIN AT 9 IN. AFF (TOP OF PLYWOOD SHEET SHALL BE 8 FT. 9 IN. AFF)
- e) PLYWOOD SHALL BE TRIMMED AND/OR CUT TO PROVIDE ALL WALL OUTLETS A FLUSH WALL FINISH
- f) PLYWOOD SHALL BE TRIMMED AND/OR CUT TO PROVIDE OTHER HARDWARE PROPER SUPPORT
- g) BE PROPERLY SECURED TO WALL FINISH MATERIAL AND WALL STUDS
- h) ALL PLYWOOD SHALL HAVE A SEAM FINISH (MINIMUM EXPOSED/ VISIBLE SEAM)

(2) TYPE 188 BUILDING ENTRANCE PROTECTORS;
- a) 188EMA1-100G (110 WIRING BLOCK)
- b) SOLID STATE WITH HEAT COILS (4C1S-TYPE)(BLACK (ONE FOR EACH PAIR OF EACH PROTECTOR MODULE)

(3) AIR CORE RISER CABLE 100 PAIR (TYPE-ARMM)

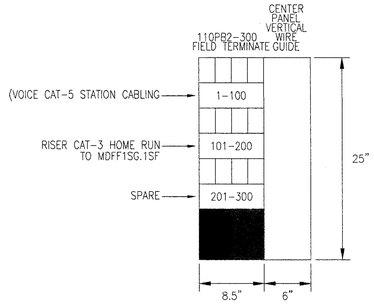


3 RISER BACKBOARD ELEVATION
NOT TO SCALE

1-100PR-110 BLOCK
CAT-5 (VOICE) STATION CABLING

101-200PR-110 BLOCK
CAT-3 (RISER) CABLING HOME RUN FROM MDFF1S.1SF (USE PAIR COUNTS 1-50)

201-300PR-110 BLOCK
SPARE



4 IDFSP.1LL (1-0006) COPPER TERMINATION LAYOUT
NTS

A.) MULTI-MODE FIBER LIU (FEEDER)
FIBER PORTS
1-12 (RISER) CABLING-HOME RUN FROM MDFF1S.1SF
13-24 SPARE

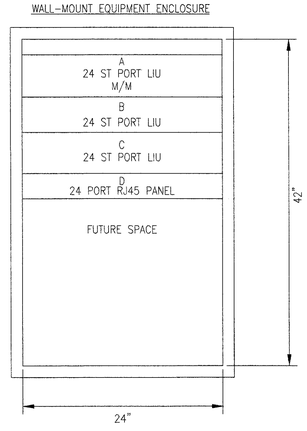
B.) SINGLE-MODE FIBER LIU (FEEDER)
FIBER PORTS
1-12 (RISER) CABLING HOME RUN FROM MDFF1S.1SF
13-24 FUTURE/SPARE

C.) SINGLE-MODE FIBER LIU (CAMERA'S)
FIBER PORTS
1-12 (FROM CAMERA'S) CABLING
13-24 FUTURE/SPARE

D.) DATA RJ-45 PATCH PANEL (24 PORT)
CAT-5 (DATA) STATION CABLING
FROM EACH AREA

NOTE:
SWING-FRAME WALL MOUNT ENCLOSURE-(INSIDE DIMENSIONS)
1. 42"HIGH x 24" WIDE x 8" DEEP
2. (BODY-STEEL)(COLOR-GRAY)
3. WITH 120 DEGREE SWING-OUT RACK FRAMES
4. KEYED/LOCKABLE DOOR
5. WITH 19" RACK MOUNTING HARDWARE
6. WITH VERTICAL WIRE MANAGERS
7. WITH HORIZONTAL WIRE MANAGERS
8. DOOR TO OPEN AS SHOWN
9. INSTALL 12" AFF FROM THE BOTTOM OF THE ENCLOSURE
10. PROVIDE SIDE FEED CABLING ACCES HOLES
11. PROVIDE THE PROPER HOLE FITTINGS FOR ALL CABLING

WALL-MOUNT EQUIPMENT ENCLOSURE



5 IDFSP.1LL (1-0006) FIBER TERMINATION LAYOUT
NTS

HOUSTON AIRPORT SYSTEM
GEORGE BUSH INTERCONTINENTAL AIRPORT HOUSTON TEXAS

Ross&Baruzzini
400 N. Sam Houston Pkwy. East, Suite 110
Houston, Texas 77060
Tel: 832.327.8688 • Fax: 832.327.8689

REVISIONS

NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION + PLATFORM

COMMUNICATION LAYOUT
IDFSP.1LL (1-0006)

PROJECT MGR:	HK
DESIGNER:	TL
DRAWN BY:	MP
CHECKED BY:	KW
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	N.T.S.
DATE:	9/14/01

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.
IAH06

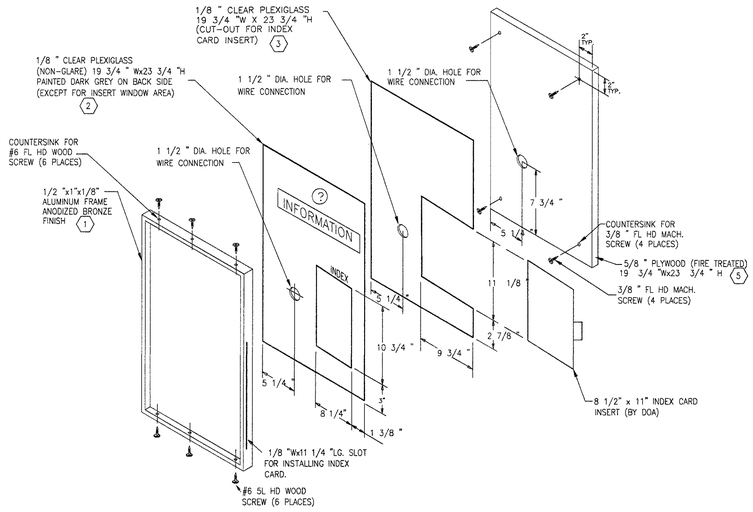
C.I.P. NO.
A-0354

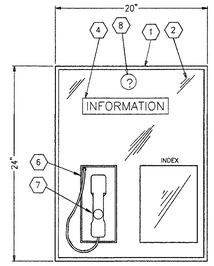
H.A.S. NO.
536C

SHEET NO.
T2.210

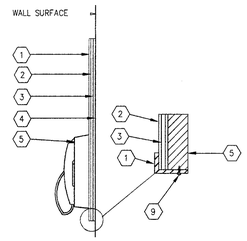
RECORD DRAWINGS

PLOT DATE: 10/19/01 HAS FILE: HAS36CT2210.DWG





FRONT VIEW



SIDE VIEW

01 — ASSEMBLY FOR COURTESY PHONE AND INFORMATION BOARD
SCALE: NONE

GENERAL NOTES

1) CONDUIT AND CABLE ROUTES DEPICTED HEREIN ARE RECOMMENDATIONS ONLY. ACTUAL ROUTES ARE TO BE DETERMINED BY CONTRACTOR AND APPROVED BY OWNER/OWNER REPRESENTATIVE.

KEYED NOTES

1. 1/2"x 1" x 1/8" ALUMINUM FRAME (ANODIZED BRONZE FINISH)
2. 1/8" CLEAR PLEXIGLASS (NON-GLARE)
3. 1/8" DARK GREY PLEXIGLASS (CUT OUT FOR INDEX CARD INSERT).
4. WHITE VINYL DIE CUT LETTERS AND STRIPES HELVETICA STYLE LETTERS
5. 5/8" FIRE TREATED PLYWOOD-PRIMED W/TWO COATS OF SEMI-GLOSS DARK GREY COLOR.
1. STAINLESS STEEL TELEPHONE UNIT MOUNTED TO PLYWOOD BACKBOARD (BY OTHERS) REFER TO SECTION 16725 OF SPECIFICATIONS.
1. 1/2" HOLE FOR TELEPHONE WIRE CONNECTION.
1. 3" DIA SYMBOL, WHITE VINYL DIE CUT
1. #6 x 1/2" LG. FLAT HEAD WOOD SCREWS TYPICAL 6 PLACES.

HOUSTON AIRPORT SYSTEM
GEORGE BUSH INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

Ross&Baruzzini
400 N. Sam Houston Pkwy. East, Suite 110
Houston, Texas 77060
Tel: 832.327.8888 • Fax: 832.327.8889

REVISIONS

NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION + PLATFORM
COMMUNICATION LAYOUT
COURTESY PHONE LAYOUT

PROJECT MGR:	HK
DESIGNER:	TL
DRAWN BY:	MP
CHECKED BY:	KW
DRAWING STANDARD:	
	ISEP 07.20.2000
SCALE:	N.T.S.
DATE:	9/14/01

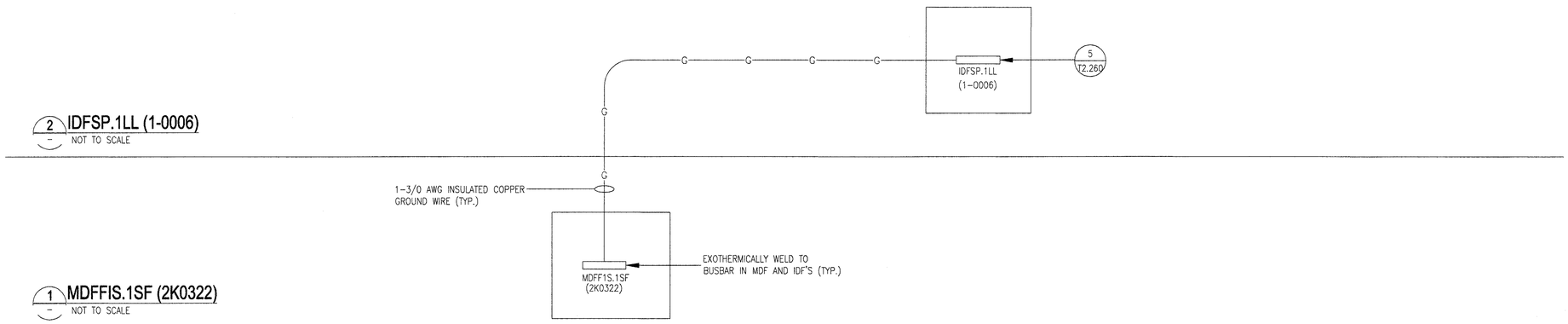
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	IAH06
C.I.P. NO.	A-0354
H.A.S. NO.	536C
SHEET NO.	T2.220

RECORD DRAWINGS

PLOT DATE: 10/19/01 HAS FILE: IA536CT2220.DWG



2 IDFSP.1LL (1-0006)
– NOT TO SCALE

1 MDFFIS.1SF (2K0322)
– NOT TO SCALE

GENERAL NOTES

1) ALL CONDUCTORS AND CONNECTORS SHALL BE U.L. LISTED.
2) ALL #3/0 AWG INSULATED COPPER CONDUIT SHALL BE INSTALLED IN 1" CONDUIT.
3) ALL CONNECTIONS AND JOINTS SHALL BE EXOTHERMICALLY WELDED.
4) PROVIDE IN ALL TELECOMMUNICATIONS CLOSTES, MDF AND IDF ROOMS 51MM WIDE BY 6MM THICK BARE COPPER CONTINUES GROUND BUSBAR AROUND THE PERMETER OF EACH ROOM 9'-00" AFF.
5) EXOTHERMICALLY WELD ALL BUSBAR JOINTS, OFFSET FROM WALL 1"
6) ATTACH BUBAR TO WALL STUDS AT 16" O/C WITH PROPER ANCHORING HARWARE TO COMPLY WITH NEC CODE. REFER TO DETAIL SHEET.
7) ALL #3/0 AWG INSULATED COPPER CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO PERMETER GROUNDING BUSBAR.
8) #3/0 AWG INSULATED COPPER CONDUCTOR SHALL COMPLY WITH NEC CODE OF EXPOSURE FROM CONDUIT TO WELD.
9) #3/0 AWG INSULATED COPPER CONDUCTOR SHALL COMPLY WITH NEC CODE OF EXPOSURE FROM CONDUCTOR INSULATION TO WELD.
10) TYPICAL – ALL CONDUITS SHALL BE PROVIDED WITH GROUND BUSHINGS.
11) ALL CONDUITS, PIPES, DUCTS, AND OTHER CONDUCTIVE MATERIALS/HARDWARESHALL BE BONDED TO THE GROUNDING BUSBAR WITH #6 AWG INSULATED COPPER CONDUCTOR WHERE THEY ENTER THE ROOM.
12) INSTALL #6 AWG INSULATED COPPER CONDUCTOR AND BOND TO EACH CABLE TARY JOINT/SECTION/SPAN TO BUSBAR.
13) ALL #6 AWG INSULATED COPPER CONDUTOR CONNECTING HARDWARE SHALL BE COPPER COMPRESSION CONNECTOR LUGS.
14) ALL PAINTED EQUIPMENT, HARDWARE, FRAMES, RACK, OR MATERIALS TO BE BONED SHALL REQUIRE A ONE INCH SQUARE OF PROPER SAND CLEANING.
15) ALL CONDUCTIVE EQUIPMENT, HARDWARE, FRAMES, RACKS, CABINETS, AND MATERIALS SHALL BE BONDED WITH #6AWG INSULATED CONDUCTOR TO THE GROUNDING BUSBAR.
16) ALL TELECOMUUNICATION ROOM FOOTPRINTS AND LAYOUTS SHOWN ARE FOR ILLISTATION PURPOSES ONLY. THE TELECOMMUNICATION ROOM GROUNDING LAYOUTS ARE TO BE GOVERNED BY ROOM AND CABLE TRAY GEOMETERY.
17) CONDUIT AND CABLE ROUTES DEPICTED HEREIN ARE RECOMMENDATIONS ONLY. ACTUAL ROUTES ARE TO BE DETERMINED BY CONTRACTOR AND APPROVED BY OWNER/OWNER REPRESENTATIVE.

HOUSTON AIRPORT SYSTEM
GEORGE BUSH
INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

Ross&Baruzzini
400 N. Sam Houston Pkwy. East, Suite 110
Houston, Texas 77060
Tel: 832.327.8888 • Fax: 832.327.8889

REVISIONS

NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	

SERVICES • EXPANSION • PROGRAM
INTERNATIONAL

APM STATION + PLATFORM
COMMUNICATION LAYOUT GROUND RISER

PROJECT MGR:	HK
DESIGNER:	TL
DRAWN BY:	MP
CHECKED BY:	KW
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	N.T.S.
DATE:	9/14/01

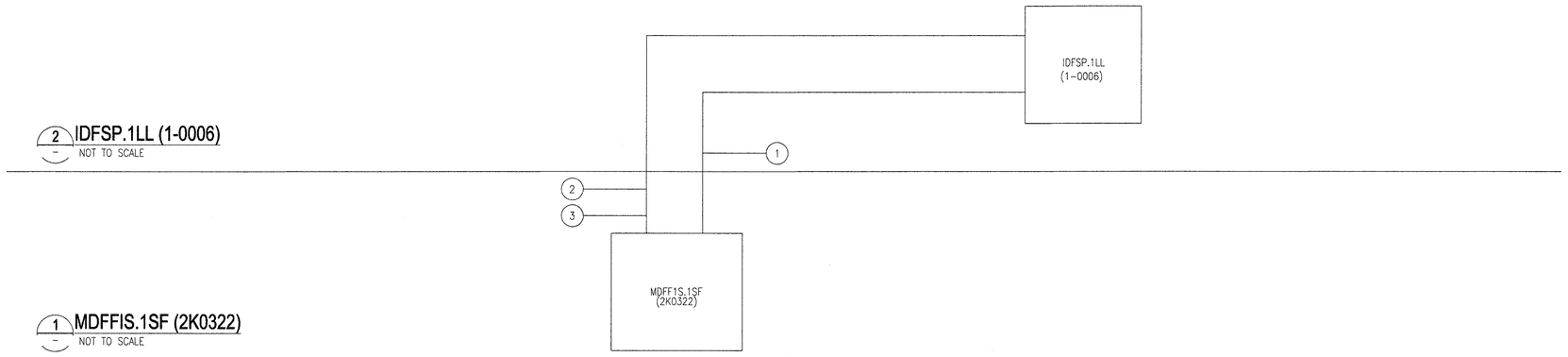
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	IAH06
C.I.P. NO.	A-0354
H.A.S. NO.	536C
SHEET NO.	30 T2.230

RECORD DRAWINGS

PLOT DATE: 10/19/01 HAS FILE: IA536CT2230.DWG



2 IDFSP.1LL (1-0006)
NOT TO SCALE

1 MDFFIS.1SF (2K0322)
NOT TO SCALE

GENERAL NOTES

1) ALL CONDUIT SHALL BE U.L. RATED
2) ALL CODUIT FITINGS SHALL BE U.L. REACTED
3) ALL CONDUIT FITTINGS SHALL COMPLY WITH "NEC" CODE
4) ALL CONDUIT FITTINGS SHALL BE ABLE TO PROVIDE A SECURE CONNECTION FOR PULLING LARGE COMMUNICATION CABLES
5) ALL CONDUITS SHALL BE PROVIDED WITH A "TRUE TAPE" PULL STRING
6) ALL CONDUITS SHALL BE PROPERLY LABELED AND LABEL LETTERING AND NUMBERING VISIBLE FROM FINISHED FLOOR
7) CONDUIT CROSSOVERS ARE NOT ACCEPTABLE
8) JUNCTION BOX/PULL BOXES SHALL PROVIDE THE FOLLOWING CONSTRUCTION;
A) 14 GAUGE STEEL AND LARGER
B) SEAMS CONTINUOUSLY WELDED AND GROUND SMOOTH
C) NO HOLES OR KNOCKOUTS
D) CONTINUOUS HINGE (WHERE POSSIBLE)
E) EXTERNAL SCREWS CLAMPS
F) EXTERNAL MOUNTING FEET
G) OIL-RESISTANT GASKET AND ADHESIVE
H) SPECIFY WHICH SIDE TO BE HINGED
FINISH;
J) ANSI 61 GRAY POLYESTER POWER COATING INSIDE AND OUT OVER PHOSPHATIZED SURFACES INDUSTRY STANDARDS;
K) UL 50 TYPE 12 AND TYPE 13 LABELING;
L) PROVIDE THE PROPER AND VISABLE LABELING AT EACH JUNCTION AND PULL BOXES CONDUIT INSTALLATION;
M) JUNCTION BOX ENTRY SIDE – CONDUITS SHALL BE INSTALLED AND PROVIDE A SMOOTH RADIUS TO THE JUNCTION BOX EXIT SIDE.
9) ALL CONDUITS SHALL BE GALVANIZED RIGID STEEL TO THE "MDF" FROM OUTSIDE BUILDING LOCATIONS
10) FROM THE "MDF" TO THE REMAINING UPPER FLOORS A CONDUIT TRANSITION FROM GALVANIZED RIGID STEEL TO EMT SHALL COMPLY WITH "NEC"CODES
11) ALL MDF AND IDF ROOM CONDUIT ENTRIES SHALL BE PROVIDED WITH THE PROPER GROUNDING BUSHINGS
12) ALL CONDUITS SHALL BE GROUNDED TO THE MDF AND IDF GROUND BUSBAR
13) REFER TO THE GROUNDING DETAIL SHEETS
14) REFER TO THE MDF AND IDF LAYOUT SHEETS FOR ALL CONDUIT WALL ENTRY
15) ALL CONDUITS IN EACH ROOM SHALL BE INSTALLED IN A MANNER WHERE ALL FUTURE CABLING SHALL CONTINUE INTO THE CABLE TRAY/RUNWAY
16) CONDUITS TO CABLE TRAY/RUNWAY TRANSITION SHALL BE PROVIDED WITH RUNWAY DROP OUT/WATER FALL CABLE EXITS
17) A CONDUIT RUN/SPAN SHALL NOT EXCEED MORE THAN 270 DEGREES IN TOTAL BENDS
18) CONDUIT AND CABLE ROUTES DEPICTED HEREIN ARE RECOMMENDATIONS ONLY. ACTUAL ROUTES ARE TO BE DETERMINED BY CONTRACTOR AND APPROVED BY OWNER/OWNER REPRESENTATIVE.

KEYED NOTES

(1) FROM MDFF1S.1SF (2K0322) TO IDFSP.1LL (1-0006)(HOME RUN)
1-50 PAIR CAT-3 RISER CABLE

(2) FROM MDFF1S.1SF (2K0322) TO IDFSP.1LL (1-0006)(HOME RUN)
1-24 M/M FIBER CABLE (USE INNERDUCT "A")

(3) FROM MDFF1S.1SF (2K0322) TO IDFSP.1LL (1-0006)(HOME RUN)
1-24 S/M FIBER CABLE (USE INNERDUCT "C")

HOUSTON AIRPORT SYSTEM
GEORGE BUSH INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

Ross&Baruzzini
400 N. Sam Houston Pkwy. East, Suite 110
Houston, Texas 77060
Tel: 832.327.8688 • Fax: 832.327.8889

REVISIONS

NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION + PLATFORM

COMMUNICATION LAYOUT
COPPER AND FIBER RISER DIAGRAM

PROJECT MGR:	HK
DESIGNER:	TL
DRAWN BY:	MP
CHECKED BY:	KW
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	N.T.S.
DATE:	9/14/01

APPROVED BY: DATE:

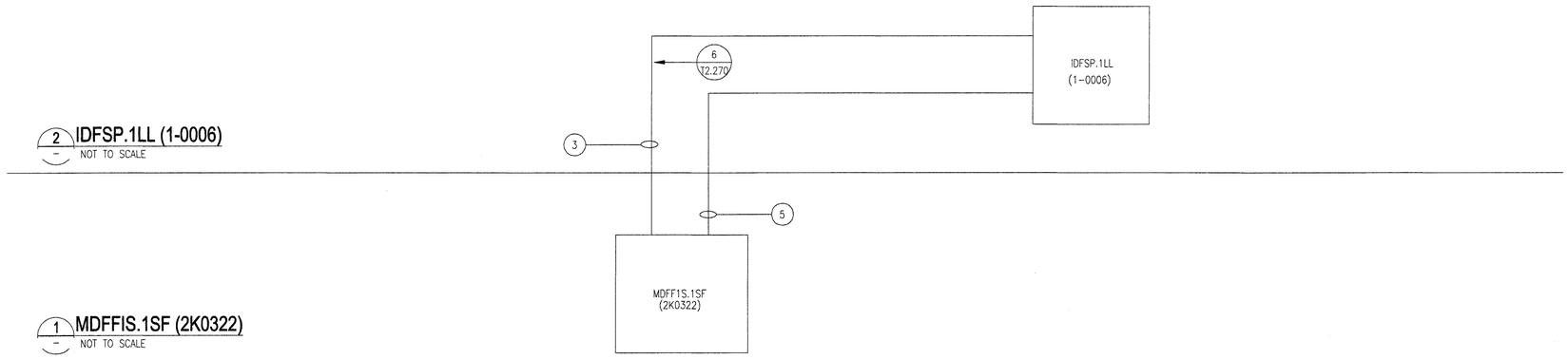
DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO. IAH06
C.I.P. NO. A-0354
H.A.S. NO. 536C
SHEET NO.

131 T2.240

RECORD DRAWINGS

PLOT DATE: 10/19/01 HAS FILE: HAS36CT2240.DWG



2 IDFSP.1LL (1-0006)
NOT TO SCALE

1 MDFFIS.1SF (2K0322)
NOT TO SCALE

GENERAL NOTES

1) ALL CONDUIT SHALL BE U.L. RATED
2) ALL CODUIT FITINGS SHALL BE U.L. REACTED
3) ALL CONDUIT FITTINGS SHALL COMPLY WITH "NEC" CODE
4) ALL CONDUIT FITTINGS SHALL BE ABLE TO PROVIDE A SECURE CONNECTION FOR PULLING LARGE COMMUNICATION CABLES
5) ALL CONDUITS SHALL BE PROVIDED WITH A "TRUE TAPE" PULL STRING
6) ALL CONDUITS SHALL BE PROPERLY LABELED AND LABEL LETTERING AND NUMBERING VISIBLE FROM FINISHED FLOOR
7) CONDUIT CROSSOVERS ARE NOT ACCEPTABLE
8) JUNCTION BOX/PULL BOXES SHALL PROVIDE THE FOLLOWING CONSTRUCTION;

A) 14 GAUGE STEEL AND LARGER
B) SEAMS CONTINUOUSLY WELDED AND GROUND SMOOTH
C) NO HOLES OR KNOCKOUTS
D) CONTINUOUS HINGE (WHERE POSSIBLE)
E) EXTERNAL SCREWS CLAMPS
F) EXTERNAL MOUNTING FEET
G) OIL-RESISTANT GASKET AND ADHESIVE
H) SPECIFY WHICH SIDE TO BE HINGED FINISH;
J) ANSI 61 GRAY POLYESTER POWER COATING INSIDE AND OUT OVER PHOSPHATIZED SURFACES INDUSTRY STANDARDS;
K) UL 50 TYPE 12 AND TYPE 13 LABELING;
L) PROVIDE THE PROPER AND VISABLE LABELING AT EACH JUNCTION AND PULL BOXES CONDUIT INSTALLATION;
M) JUNCTION BOX ENTRY SIDE – CONDUITS SHALL BE INSTALLED AND PROVIDE A SMOOTH RADIUS TO THE JUNCTION BOX EXIT SIDE.

9) ALL CONDUITS SHALL BE GALVANIZED RIGID STEEL TO THE "MDF" FROM OUTSIDE BUILDING LOCATIONS
10) FROM THE "MDF" TO THE REMAINING UPPER FLOORS A CONDUIT TRANSITION FROM GALVANIZED RIGID STEEL TO EMT SHALL COMPLY WITH "NEC"CODES
11) ALL MDF AND IDF ROOM CONDUIT ENTRIES SHALL BE PROVIDED WITH THE PROPER GROUNDING BUSHINGS
12) ALL CONDUITS SHALL BE GROUNDED TO THE MDF AND IDF GROUND BUSBAR
13) REFER TO THE GROUNDING DETAIL SHEETS
14) REFER TO THE MDF AND IDF LAYOUT SHEETS FOR ALL CONDUIT WALL ENTRY
15) ALL CONDUITS IN EACH ROOM SHALL BE INSTALLED IN A MANNER WHERE ALL FUTURE CABLING SHALL CONTINUE INTO THE CABLE TRAY/RUNWAY
16) CONDUITS TO CABLE TRAY/RUNWAY TRANSITION SHALL BE PROVIDED WITH RUNWAY DROP OUT/WATER FALL CABLE EXITS
17) A CONDUIT RUN/SPAN SHALL NOT EXCEED MORE THAN 270 DEGREES IN TOTAL BENDS
18) CONDUIT AND CABLE ROUTES DEPICTED HEREIN ARE RECOMMENDATIONS ONLY. ACTUAL ROUTES ARE TO BE DETERMINED BY CONTRACTOR AND APPROVED BY OWNER/OWNER REPRESENTATIVE.

KEYED NOTES

(1) STANDARD 4IN. EMT CONDUIT (WITHOUT INNERDUCT) FROM "IDF" FLOOR TO "CONDUIT JUNCTION BOX " TO "IDF" CEILING
(2) MULTI-CELL 4IN. EMT CONDUIT WITH(4-CELL, 1 1/4"I.D.) (PRE-INSTALLED PVC CORRUGATED INNERDUCTS) FROM "IDF" FLOOR TO "CONDUIT JUNCTION BOX " TO "IDF" CEILING
(3) MULTI-CELL 4IN. GALVANIZED STEEL CONDUIT WITH PRE-INSTALLED PVC CORRUGATED 4-1 1/4"INNERDUCTS) TO "MDFFIS.1SF (2K0322)"
(4) REFER TO THE MDF/IDF ROOM LAYOUTS FOR CONDUIT WALL ENTRY
(5) STANDARD 4IN. GALVANIZED STEEL CONDUIT TO (WITHOUT INNERDUCT) "MDF"

HOUSTON AIRPORT SYSTEM
GEORGE BUSH INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

Ross&Baruzzini
400 N. Sam Houston Pkwy. East, Suite 110
Houston, Texas 77060
Tel: 832.327.8868 • Fax: 832.327.8889

REVISIONS

NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION + PLATFORM
COMMUNICATION LAYOUT CONDUIT RISER DIAGRAM

PROJECT MGR:	HK
DESIGNER:	TL
DRAWN BY:	MP
CHECKED BY:	KW
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	N.T.S.
DATE:	9/14/01

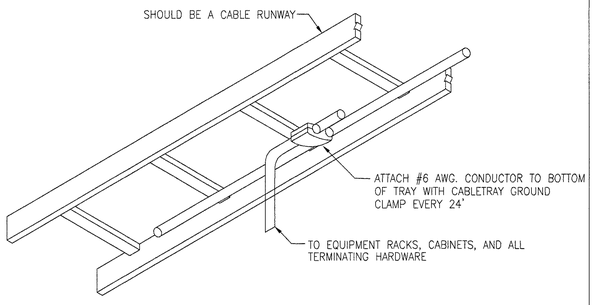
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	IAH06
C.I.P. NO.	A-0354
H.A.S. NO.	536C
SHEET NO.	T2.250

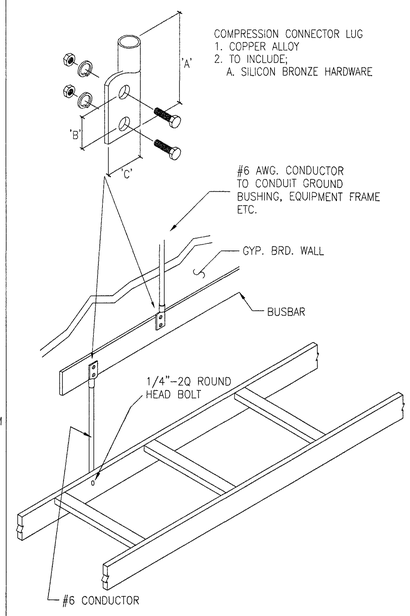
RECORD DRAWINGS

PLOT DATE: 10/19/01 HAS FILE: HAS536CT2250.DWG



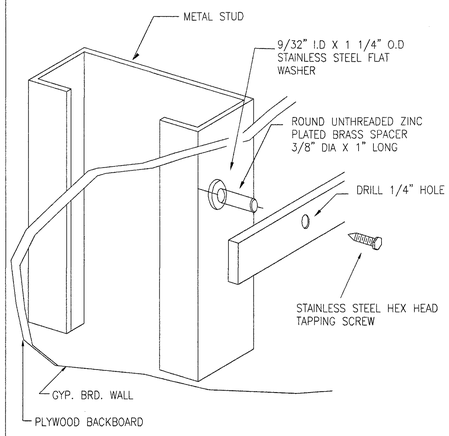
1 EQUIPMENT RACKS,CABINETS, AND ALL TERMINATING HARDWARE GROUND BUS CONDUCTOR

NOT TO SCALE



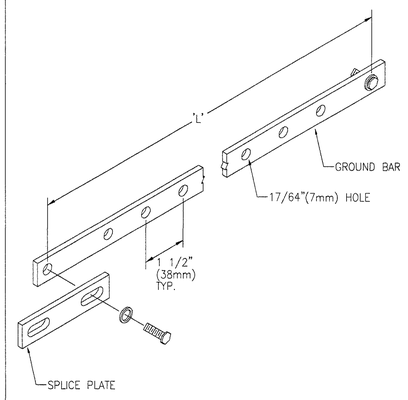
2 CONNECTIONS TO BUSBAR

NOT TO SCALE



3 CONNECTIONS TO BUSBAR

NOT TO SCALE



GROUND BAR
-USE AS RACK MOUNTED EQUIPMENT GROUNDING BUS.
-INCLUDE GROUND BAR, SPLICE PLATE (IF REQUIRED) AND #12-24 MOUNTING HARDWARE.
-MATERIAL: 3/16"(4.8mm) x 3/4"(19mm) COPPER BAR

RACK WIDTH		'L'		HOLES	WEIGHT	
in	(mm)	in	(mm)		lbs.	(kg)
19"	(482)	18 5/16"	(465)	12	1.0	(0.4)

4 GROUND BAR

NOT TO SCALE

GENERAL NOTES

1. ALL CONDUCTORS AND CONNECTORS SHALL BE U.L. LISTED.
2. ALL CONDUITS, DUCTS, AND OTHER CONDUCTIVE MATERIALS SHALL BE BONDED TO THE GROUNDING BUSBAR WITH #6 AWG CONDUCTOR WHERE THEY ENTER THE ROOM.
3. FOOTPRINT AND LAYOUT SHOWN FOR ILLUSTRATION PURPOSES ONLY. ACTUAL GROUNDING LAYOUT TO BE GOVERNED BY ROOM AND CABLETRAY GEOMETRY.
4. CONDUIT AND CABLE ROUTES DEPICTED HEREIN ARE RECOMMENDATIONS ONLY. ACTUAL ROUTES ARE TO BE DETERMINED BY CONTRACTOR AND APPROVED BY OWNER/OWNER REPRESENTATIVE.

KEYED NOTES

(1) INSTALL 51MM WIDE BY 6MM THICK BARE COPPER CONTINUOUS GROUND BUSBAR AROUND PERIMETER OF ROOM 84" A.F.F. EXOTHERMICALY WELD ALL JOINTS. OFFSET FROM WALL 1". ATTACH TO WALL STUDS AT 16" O.C. WITH TAPPING SCREW. SEE DETAIL (3) THIS SHEET.

(2) INSTALL #6 AWG GROUND CONDUCTOR TO CABLE TRAY FOR EQUIPMENT CABINET GROUND BUS. SEE DETAIL (1) THIS SHEET. BOND ALL CABLE TRAY JOINTS NOT ON PERIMETER WALLS WITH #6 AWG.

(3) EXOTHERMICALLY WELD TO PERIMETER GROUNDING BUSBAR.

(4) INSTALL #6 AWG CONDUCTOR BETWEEN EQUIPMENT CABINET GROUND BUS CONDUCTOR ON CABLE TRAY AND EQUIPMENT FRAME. SAND CLEAN 1 SQUARE INCH AREA. DRILL AND TAP FRAME. BOLT CONDUCTOR TO DEPAINTED AREA CONNECT TO CABLE TRAY GROUND CLAMP. SEE DETAIL (1) THIS SHEET.

(5) ALL CONDUITS SHALL BE BONDED TO GROUNDING BUSBAR WITH #6 AWG COPPER CONDUCTOR. SEE DETAIL (2) THIS SHEET.

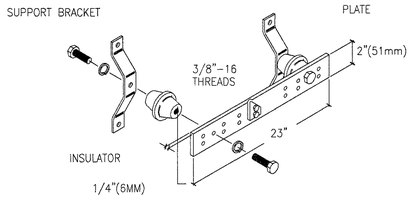
(6) BOND CABLE TRAY TO GROUNDING BUSBAR AT 24" INTERVALS WITH #6 AWG CONDUCTOR. SEE DETAIL (2) THIS SHEET.

(7) #3/0 AWG INSULATED COPPER CONDUCTOR IN 1" CONDUIT. EXOTHERMICALLY WELD TO GROUNDING BUSBAR AND TO BUILDING COUNTERPOISE.

(8) BOND POWER PANEL GROUND BUS TO GROUNDING BUSBAR WITH #6 AWG.

(9) TYPICAL CONDUIT WITH GROUND BUSHING.

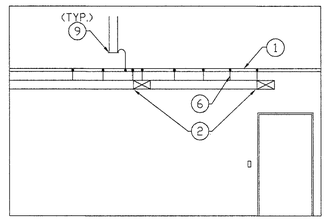
(10) BOND ALL EQUIPMENT FRAMES TO GROUNDING BUSBAR WITH #6 AWG CONDUCTOR. SAND CLEAN 1 SQUARE INCH AREA. DRILL AND TAP FRAME. BOLT CONDUCTOR TO DEPAINTED AREA.



23" WALL-MOUNTED BUS BAR
1. TO MEET EIA/TIA 607
2. STRUCTURAL STEEL
3. COPPER BAR
4. POLYESTER RESIN FIBERGLASS-INSULATORS
5. FINISH:STEEL-YELLOW ZINX DICHROMATE
6. TO INCLUDE:
   A. COPPER BAR
   B. INSULATORS
   C. SUPPORT BRACKETS AND HARDWARE
   D. BUS BAR ASSEMBLY
   E. LUGS FOR 14-8 WIRE
   F. LUGS FOR 8-4 WIRE
   G. LUGS FOR 4-1 WIRE

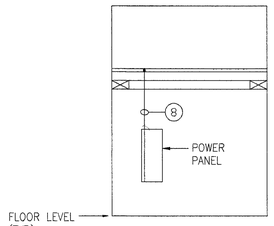
5 23" WALL-MOUNTED BUS BAR

NOT TO SCALE



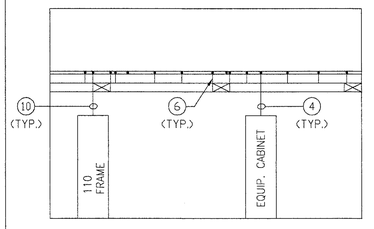
B ELEVATION

NOT TO SCALE



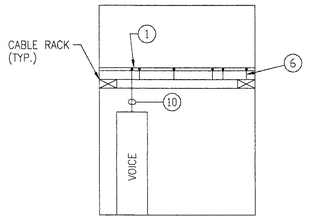
C ELEVATION

NOT TO SCALE



D ELEVATION

NOT TO SCALE



E ELEVATION

NOT TO SCALE

HOUSTON AIRPORT SYSTEM
GEORGE BUSH INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

Ross&Baruzzini
400 N. Sam Houston Pkwy. East, Suite 110
Houston, Texas 77060
Tel: 832.327.6688 • Fax: 832.327.6889

REVISIONS			
NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION + PLATFORM
COMMUNICATION LAYOUT
COMMUNICATION DETAILS

PROJECT MGR:	HK
DESIGNER:	TL
DRAWN BY:	MP
CHECKED BY:	KW
DRAWING STANDARD:	
	ISEP 07.20.2000
SCALE:	N.T.S.
DATE:	9/14/01

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO. IAH06

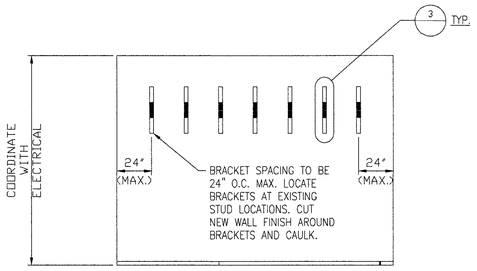
C.I.P. NO. A-0354

H.A.S. NO. 536C

SHEET NO. T2.260

RECORD DRAWINGS

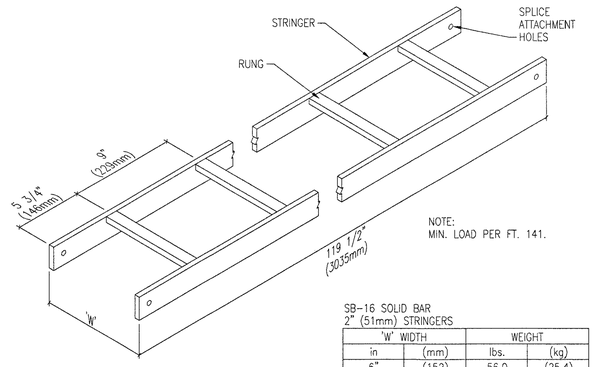
PLOT DATE: 10/19/01 HAS FILE:\A536C72260.DWG



20 GA. STUDS

1 TYPICAL CABLE RUNWAY WALL SUPPORT LOCATION
NOT TO SCALE

SOLID BAR STRINGER STYLE-2"
-1/2" (13mm) x 1" (25mm) STEEL CHANNEL WELDED RUNGS.
-YELLOW ZINC DICHROMATE (YZN) IS UL CLASSIFIED.
-13/32" (10mm) HOLES PROVIDED IN SOLID BAR STRINGERS FOR SEISMIC APPLICATIONS.
-MATERIAL: ASTM A36 STRUCTURAL STEEL BAR.
-FINISH: TELCO GRAY.

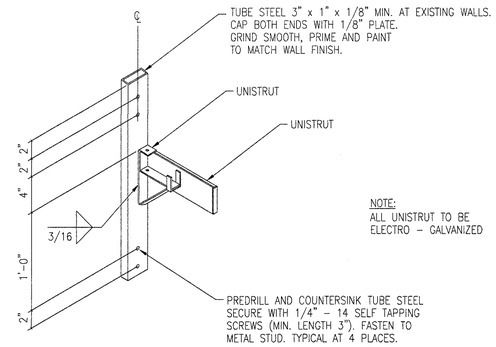


NOTE:
MIN. LOAD PER FT. 141.

SB-16 SOLID BAR
2" (51mm) STRINGERS

'W' WIDTH		WEIGHT	
in	(mm)	lbs.	(kg)
6"	(152)	56.0	(25.4)
9"	(228)	59.0	(26.7)
12"	(305)	62.0	(28.1)
24"	(609)	73.0	(33.1)

2 TYPICAL CABLE RUNWAY
NOT TO SCALE



NOTE:
ALL UNISTRUT TO BE ELECTRO - GALVANIZED

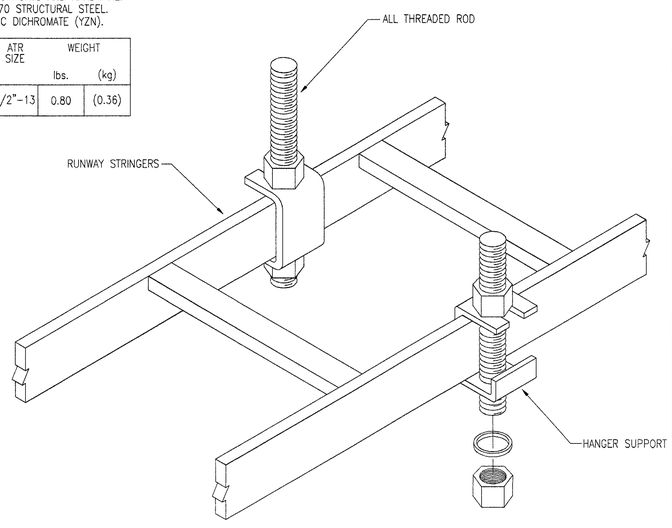
3 TYPICAL-WALL SUPPORT BRACKET
NOT TO SCALE

GENERAL NOTES

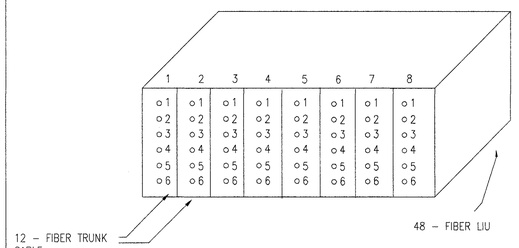
1) CONDUIT AND CABLE ROUTES DEPICTED HEREIN ARE RECOMMENDATIONS ONLY. ACTUAL ROUTES ARE TO BE DETERMINED BY CONTRACTOR AND APPROVED BY OWNER/OWNER REPRESENTATIVE.

-USE TO SUSPEND CABLE RUNWAY FROM ALL THREADED ROD.
-INCLUDE HANGER SUPPORTS AND HARDWARE.
-MATERIAL: ASTM A570 STRUCTURAL STEEL.
-FINISH: YELLOW ZINC DICHROMATE (YZN).

RUNWAY HEIGHT		ATR SIZE	WEIGHT	
in	(mm)		lbs.	(kg)
2"	(51)	1/2"-13	0.80	(0.36)



4 SLOTTED RUNWAY SUPPORT KIT
NONE

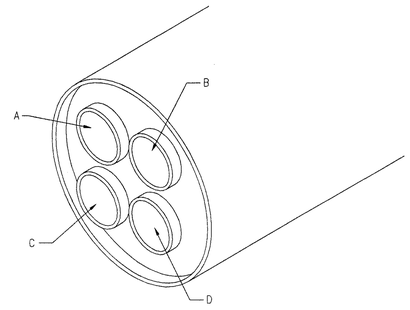


A SINGLE PANEL MAY HOLD MORE THAN ONE TRUNK CABLE.
EACH TRUNK CABLE SHALL BE CONTAINED COMPLETELY WITHIN SEVERAL PANELS

5 TYPICAL PATCH PANEL FIBER POSITIONING
NOT TO SCALE

OPTION-1
IF AVAILABLE INNER DUCT COLORS
A=ORANGE-MULTIMODE
B=GRAY-SPARE
C=YELLOW-SINGLE MODE
D=WHITE-SPARE

OPTION-2
ORANGE INNER DUCT
A=MULTIMODE
B=SPARE
C=SINGLE MODE
D=SPARE



TO BE USED WITH OPTION #1 OR #2

(FROM MDF TO WITHIN COMPLEX IDF'S)
MULTI-CELL 4 INCH EMT CONDUIT
WITH (4-CELL, 1 1/4 INCH INSIDE DIAMETER)
(PRE-INSTALLED PVC CORRUGATED INNER DUCTS)

(FROM OUTSIDE THE COMPLEX TO MDF)
MULTI-CELL 4 INCH GALVANIZED STEEL CONDUIT
WITH (4-CELL, 1 1/4 INCH INSIDE DIAMETER)
(PRE-INSTALLED PVC CORRUGATED INNER DUCTS)

6 FIBER CONDUIT AND INNER DUCT ASSIGNMENTS
NONE

HOUSTON AIRPORT SYSTEM
GEORGE BUSH INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

Ross&Baruzzini
400 N. Sam Houston Pkwy. East, Suite 110
Houston, Texas 77060
Tel: 832.327.8888 • Fax: 832.327.8889

REVISIONS			
NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION + PLATFORM
COMMUNICATION LAYOUT
COMMUNICATION DETAILS

PROJECT MGR:	HK
DESIGNER:	TL
DRAWN BY:	MP
CHECKED BY:	KW
DRAWING STANDARD:	
	ISEP 07.20.2000
SCALE:	N.T.S.
DATE:	9/14/01

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.
1AH06

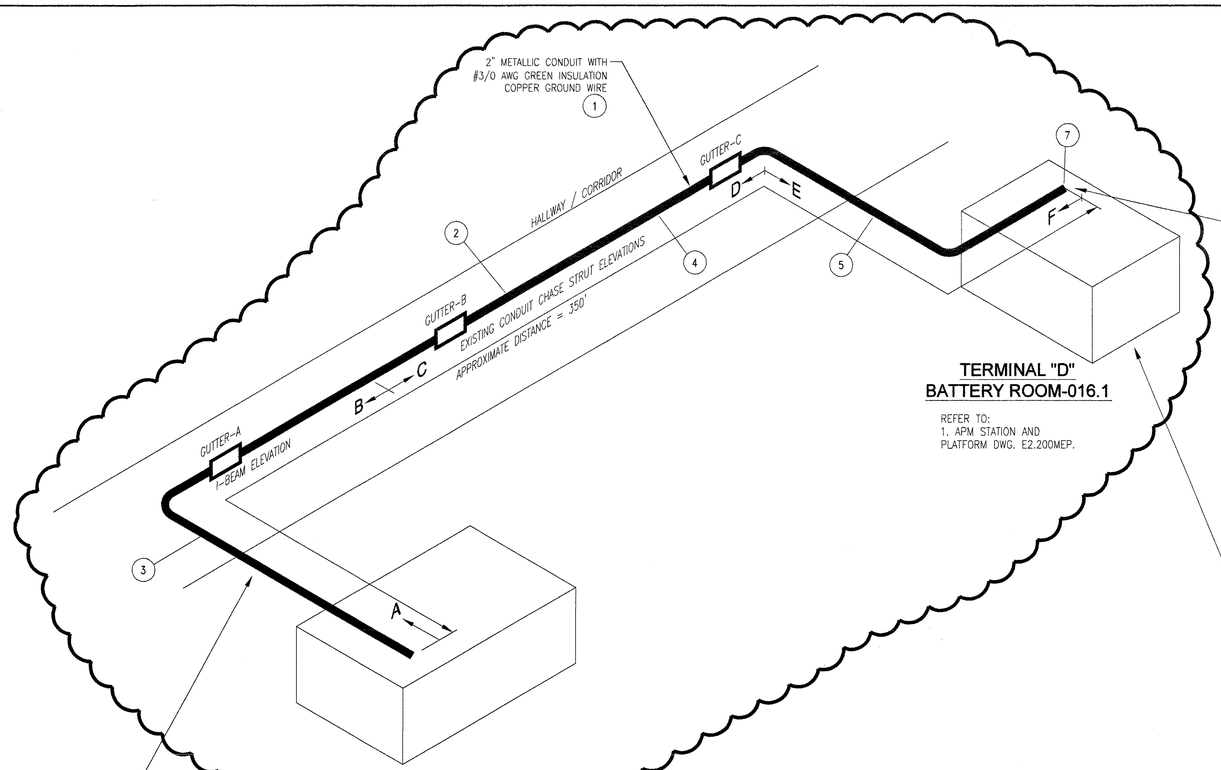
C.I.P. NO.
A-0354

H.A.S. NO.
536C

SHEET NO.
134 T2.270

RECORD DRAWINGS

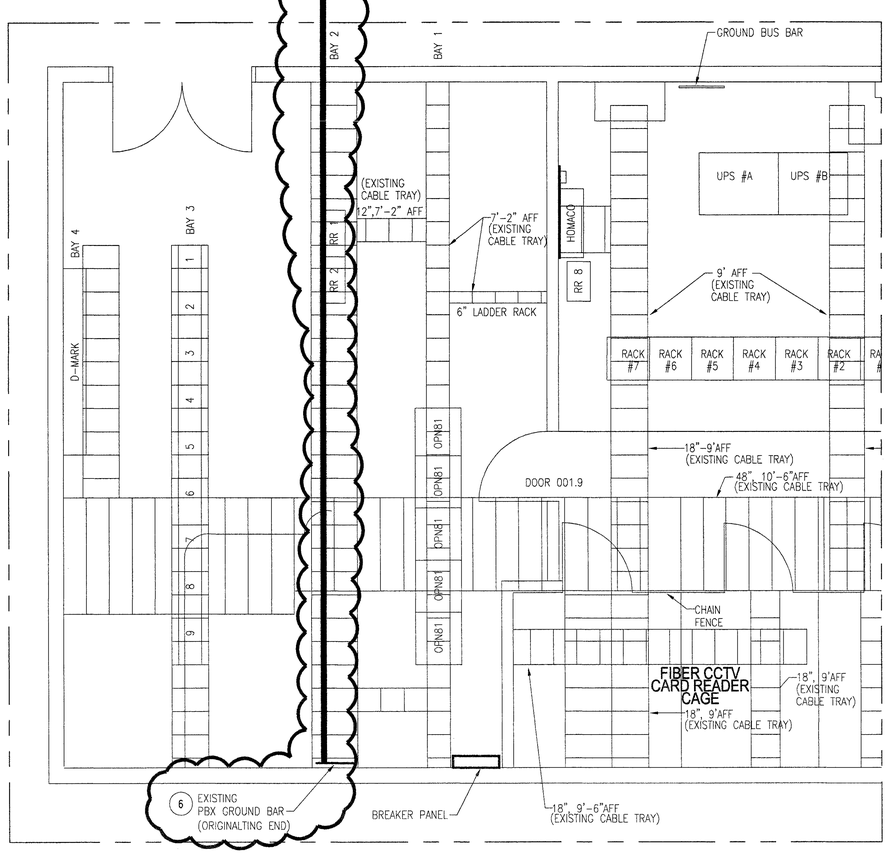
PLOT DATE: 10/19/01 HAS FILE:\A536CT2270.DWG



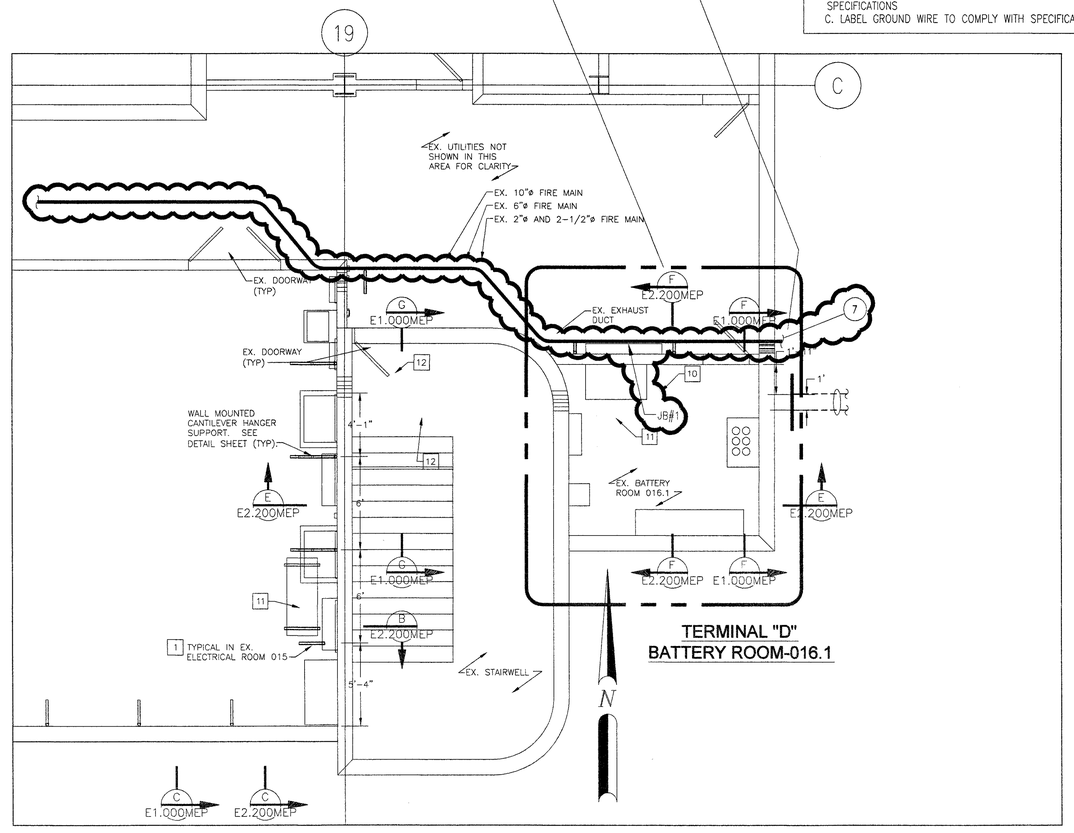
TERMINAL "D" MDF
LEVEL 74

TERMINAL "D"
BATTERY ROOM-016.1

REFER TO:
1. APM STATION AND PLATFORM DWG. E2.200MEP.



TERMINAL "D" MDF
LEVEL 74



TERMINAL "D"
BATTERY ROOM-016.1

KEYED NOTES

1) CONDUIT RACEWAY
   A. PROVIDE 1– EA. 2 INCH METALLIC CONDUIT
   B. PROVIDE THE NOTED GUTTER JUNCTION BOXES FROM POINT "A" TO POINT "F"
   C. PROVIDE A CONTINUOUS HOMERUN IN THE 2 INCH CONDUIT A #3/0 AWG GREEN ISOLATED COPPER GROUND WIRE
2) CONDUIT RACEWAY PATH
   A. INSTALL THE 2 INCH CONDUIT IN THE HALLWAY/CORRIDOR CEILING
   B. FROM SPAN/SECTION "A (DMDF/ORIGINATING END) TO SPAN/SECTION "F" (EAST/MH TO BLDG END)
3) CONDUIT RACEWAY PATH "A" TO "B" ELEVATIONS
   A. FROM SPAN/SECTION "A" TO SPAN/SECTION "B" ELEVATION – SHALL BE THE BOTTOM OF THE EXISTING CEILING [illegible]
   B. CONDUIT ROUTE IN TH[illegible] SHALL BE A[illegible] LEVEL AND BE ABOVE ALL EXISTING CABLE TRAYS
4) CONDUIT RACEWAY PATH "C" TO "D" ELEVATIONS
   A. FROM SPAN/SECTION "C" TO SPAN/SECTION "D" ELEVATIONS – SHALL BE THE TOP SIDE OF EXISTING CONDUIT CHASES TRAPEZE STRUTS
   B. THIS PATH WILL REQUIRE CONDUIT BENDS TO UTILIZE THE AVAILABLE CHASE TRAPEZE STRUT SPACE
5) CONDUIT RACEWAY PATH "E" TO "F" ELEVATIONS
   A. FROM SPAN/SECTION "E" TO SPAN/SECTION "F" ELEVATIONS – SHALL MATCH SECTION "F" END OUTSIDE WALL 2 INCH CONDUIT STUB ELEVATION
   B. CONDUIT SHALL BE INSTALLED ABOVE THE JUNCTION BOX # 1AND NOT BLOCK ACCESS
   C. PROVIDE THE REQUIRED CONDUIT CHASE STRUTS OR THE PROPER CONDUIT HANGERS
6) EXISTING DMDF GROUND BUS BAR – (ORIGINATING END)
   A. FROM APM – MDF GROUND BUS BAR (TERMINATING END)
   B. TO BE WELD #3/0 AWG GROUND WIRE TO BOTH ORIGINATING AND TERMINATING END GROUND BUS BARS
   C. ALL GROUND WIRING INSTALLATION AND CONNECTIONS SHALL COMPLY WITH T2.705, T2.724 NOTES, PROJECT SPECIFICATIONS, EIA/TIA 607 GROUNDING & BONDING, AND NEC CODES
   D. THE 2 INCH CONDUIT SHALL BE GROUNDED PER NOTE 6C ABOVE
7) BUILDING EAST END OUTSIDE WALL
   A. 2 INCH CONDUIT ENTRY STUB FROM MH
   B. EXISTING
   C. CONNECT 2 INCH CONDUIT WITH THE PROPER CONDUIT FITTINGS TO THE WALL STUB

GENERAL NOTES

1) CONDUIT BENDS
   A. PROVIDE THE LEAST AMOUNT OF BENDS AS POSSIBLE FROM POINT "A" TO POINT "F"
2) LABELING
   A. LABEL CONDUIT TO COMPLY WITH SPECIFICATIONS
   B. LABEL JUNCTION BOXES TO COMPLY WITH SPECIFICATIONS
   C. LABEL GROUND WIRE TO COMPLY WITH SPECIFICATIONS

HOUSTON AIRPORT SYSTEM
GEORGE BUSH INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

Ross&Baruzzini
400 N. Sam Houston Pkwy. East, Suite 110
Houston, Texas 77060
Tel: 832.327.8888 • Fax: 832.327.8889

REVISIONS			
NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
1	BULLETIN 22C NCR SHEET	02/03/04	R&B

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION + PLATFORM

APM STATION AND PLATFORM GROUNDING CONDUIT ROUTING

PROJECT MGR:	EP
DESIGNER:	RD
DRAWN BY:	TS
CHECKED BY:	
DRAWING STANDARD:	
SCALE:	NOT TO SCALE
DATE:	2-03-2004

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	536C
C.I.P. NO.	A-0354
H.A.S. NO.	536C
SHEET NO.	135 T2.271

RECORD DRAWINGS

PLOT DATE: 2-16-04 HAS FILE: (A536CT2271.DWG

MAYOR
LEE P. BROWN

CITY COUNCIL MEMBERS
BRUCE TATRO
CAROL MIMS GALLOWAY
MARK GOLDBERG
ADA EDWARDS
ADDIE WISEMAN
MARK ELLIS
BERT KELLER

HOUSTON AIRPORT SYSTEM

CONTROLLER
SYLVIA GARCIA

CITY COUNCIL MEMBERS
GABRIEL VASQUEZ
CAROL ALVARADO
ANNISE PARKER
GORDON QUAN
SHELLY SEKULA-RODRIGUEZ
MICHAEL BERRY
CARROLL G. ROBINSON

PLANS FOR CONSTRUCTION
OF

INTERNATIONAL SERVICES EXPANSION PROGRAM
APM STATION AND PLATFORM
AT
GEORGE BUSH INTERCONTINENTAL AIRPORT, HOUSTON, TEXAS

CONSTRUCTION PACKAGE
ISSUED FOR BID

PROJECT NO. 536C
CIP NO. A-0354

PREPARED BY

TRANSPORTATION CONSULTANT
LEA+ELLIOTT, INC.

ARCHITECT
REY DE LA REZA ARCHITECTS, INC.

STRUCTURAL ENGINEER
CHARLES F. TERRY, INC.
HUITT-ZOLLARS, INC.

MEP ENGINEER
SHAH SMITH & ASSOCIATES, INC.

CIVIL ENGINEER
BROWN & GAY ENGINEERS, INC.

SPECIALITY CONSULTANTS

LIFE SAFETY ANALYSIS
ROLF JENSEN & ASSOCIATES, INC.

GRAPHICS & SIGNAGE
MORRIS ARCHITECTS

TELECOMMUNICATION
CDI

SECURITY/ ACCESS CONTROL SYSTEMS
GLOVER/ RESNICK & ASSOCIATES, INC.

ELEVATORS, ESCALATORS
PERSOHN/ HAHN

PB TEAM
09-14-2001

RECORD DRAWINGS
DO NOT MODIFY
Rey de la Reza Architects, Inc.
13 May 2005
Note: Information used to develop these documents was taken from Record of the Work Drawings prepared by the construction contractor, Clark Construction Group - Texas.
The information provided by the contractor was not verified by the design firm named above.

536C

PLOT DATE: 02/04/02 HAS FILE: A536Z20001

HOUSTON AIRPORT SYSTEM
GEORGE BUSH
INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

Lea+Elliott
1099 W.RANDOL MILL RD
ARLINGTON,TX,76012
Tel: 817.261.1446
Tel: 817.861.3256

REY DE LA REZA ARCHITECTS, INC.
ARCHITECTURE PLANNING INTERIOR DESIGN
1245 WEST 18TH ST.
HOUSTON,TX,77008
Tel: 713.868.3121
Tel: 713.802.0112

REVISIONS

NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
	REVISED	01/11/02	
	RECORD SET	05/13/05	EM

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM
APM STATION + PLATFORM
COVER SHEET

PROJECT MGR: HEM
DESIGNER: SG
DRAWN BY: SCM
CHECKED BY: AB
DRAWING STANDARD: ISEP 07.20.2000
SCALE: NTS
DATE: 09/14/01

APPROVED BY: DATE:
DIRECTOR HOUSTON AIRPORT SYSTEM

PROJECT NO. 1140
C.I.P. NO. A-0354
H.A.S. NO. 536C
SHEET NO. Z0.001

VOLUME I

GENERAL

SHEET NUMBER	DRAWING TITLE
Z0.001	COVER SHEET
Z1.000	DRAWING INDEX
Z1.001	GENERAL NOTES, ABBREVIATIONS, SYMBOLS AND CODE REVIEW
Z1.002	UL DESIGN ASSEMBLY CLASSIFICATIONS
Z1.003	UL DESIGN FIRESTOP ASSEMBLIES
Z1.004	ADA STANDARDS
Z2.000	LIFE SAFETY EGRESS PLANS

ARCHITECTURAL

SHEET NUMBER	DRAWING TITLE
A1.000	GENERAL SITE PLAN
A1.100	APM STATION SITE PLAN
A2.000	GROUND LEVEL PLAN
A2.100	LOBBY LEVEL PLAN
A2.200	PLATFORM LEVEL PLAN
A2.300	ROOF PLAN
A2.700	PARTITION TYPES
A2.800	DOOR SCHEDULE AND ROOM SCHEDULE
A2.801	DOOR TYPES AND DETAILS
A2.850	WINDOW SCHEDULE - CURTAIN WALLS
A2.880	SKYLIGHT - DETAILS
A3.000	LONGITUDINAL SECTION
A3.001	LONGITUDINAL SECTION
A3.002	LONGITUDINAL SECTION
A3.100	CROSS SECTIONS
A3.101	CROSS SECTIONS
A3.102	CROSS SECTION
A3.103	CROSS SECTIONS
A3.104	CROSS SECTIONS
A3.200	CROSS SECTIONS
A3.210	WALL SECTIONS
A3.220	WALL SECTIONS
A3.230	WALL SECTIONS
A3.240	SECTION & ELEVATIONS @ BUFFER
A3.300	WALL DETAILS
A3.400	ELEVATIONS
A3.500	NORTH ELEVATION
A3.501	SOUTH ELEVATION
A3.600	WEST & EAST ELEVATIONS
A5.000	INTERIOR ELEVATIONS
A6.000	REFLECTED CEILING PLAN @ GROUND LEVEL
A6.100	REFLECTED CEILING PLAN @ LOBBY LEVEL
A6.200	REFLECTED CEILING PLAN @ PLATFORM LEVEL
A7.100	STAIR 1 AND STAIR 3 - PLANS AND SECTION
A7.101	STAIR 2 - PLANS AND SECTION
A7.110	STAIR 1 - DETAILS
A7.120	STAIR 2 - DETAILS
A7.125	STAIR 2 - CURTAIN WALL CW-5 DETAILS
A7.200	ELEVATOR - PLANS AND SECTION
A7.300	ESCALATORS 1, 2 AND 3 - PLANS AND SECTION
A8.000	PLAN DETAILS - LOBBY LEVEL
A8.010	PLAN DETAILS - PLATFORM LEVEL
A8.020	PLAN & SECTION DETAILS
A8.020a	RFI RESPONSES
A8.030	CURTAIN WALL DETAILS
A8.040	DETAILS
A9.000	INTERIOR DETAILS
A9.001	INTERIOR DETAILS
A9.010	ELEVATOR DETAILS

STRUCTURAL

SHEET NUMBER	DRAWING TITLE
S0.100	STRUCTURAL GENERAL NOTES AND DETAILS
S0.201	PRESTRESSED CONCRETE BEAM SCHEDULES AND DETAILS
S0.301	CONCRETE BEAM/SLAB SCHEDULES AND REINFORCING DETAILS
S1.001	HORIZONTAL CONTROL ALIGNMENT
S1.101	APM GUIDEWAY PLAN + PROFILE
S2.001	FOUNDATION PLAN
S3.001	LOBBY LEVEL FRAMING PLANS
S3.002	PLATFORM LEVEL FRAMING PLAN
S3.003	APM STATION ROOF FRAMING PLAN
S3.004	APM GUIDEWAY BEAM FRAMING PLAN
S4.001	STAIR FRAMING PLANS AND SECTIONS
S4.002	STAIR SECTIONS AND DETAILS
S5.501	PRESTRESSED CONCRETE BEAM STANDARD DETAILS
S5.502	PERMANENT METAL DECK FORMS
S5.503	PRESTRESSED CONCRETE BEAM-MINIMUM ERECTION AND BRACING REQUIREMENTS
S5.504	CONCRETE DIAPHRAM AND MISCELLANEOUS DETAILS
S6.001	DRILLED SHAFT AND FOOTING DETAILS
S6.501	SECTIONS AND DETAILS
S6.502	SECTIONS AND DETAILS
S6.601	STEEL SECTIONS AND DETAILS
S6.602	STEEL SECTIONS AND DETAILS
S6.701	SECTION ALONG BENT #47
S6.702	SECTION ALONG BENT #48
S6.703	SECTION ALONG BENT #49
S6.704	SECTION ALONG BENT #50
S7.101	BENT FRAME #47 ELEVATION
S7.102	BENT FRAME #48 ELEVATION
S7.103	BENT FRAME #49 ELEVATION
S7.104	BENT FRAME #50 ELEVATION

MECHANICAL

SHEET NUMBER	DRAWING TITLE
M0.100	HVAC LEGEND AND SCHEDULES
M2.000	LOBBY HVAC PLAN
M2.001	PLATFORM HVAC PLAN
M4.000	HVAC SECTIONS
M4.001	HVAC SECTIONS
M5.000	HVAC DETAILS
M6.000	FLOW DIAGRAMS AND DETAILS

ELECTRICAL

SHEET NUMBER	DRAWING TITLE
E0.000	LEGEND & LOAD ANALYSIS
E1.000	LIGHTING FIXTURE SCHEDULE
E2.000	LOBBY - POWER AND FIRE ALARM PLAN
E2.001	PLATFORM - POWER AND FIRE ALARM PLAN
E3.000	GROUND LEVEL - LIGHTING PLAN
E3.001	LOBBY - LIGHTING PLAN
E3.002	PLATFORM -LIGHTING PLAN
E4.000	GROUNDING & LIGHTNING PROTECTION PLAN
E4.001	ELECTRICAL EAST STAIRWELL
E6.000	ONE LINE DIAGRAM
E6.001	ELECTRICAL DETAILS
E6.002	ELECTRICAL DETAILS

PLUMBING

SHEET NUMBER	DRAWING TITLE
P0.001	PLUMBING LEGEND, SCHEDULE AND RISERS
P2.001	GROUND FLOOR PLUMBING
P2.002	LOBBY LEVEL PLUMBING
P2.003	PLATFORM LEVEL PLUMBING
P2.004	ROOF PLAN

SECURITY

SHEET NUMBER	DRAWING TITLE
Q0.000	COVER SHEET, CONVENTIONS AND NOTES
Q1.000	GENERAL SITE PLAN
Q1.100	DEMARCATION PLAN
Q2.000	GROUND FLOOR
Q2.100	LOBBY LEVEL
Q2.200	PLATFORM LEVEL
Q5.000	SECURITY DETAILS AND POINT SCHEDULES
Q5.100	BLOCK AND RISER DIAGRAMS
Q5.101	SECURITY EQUIPMENT CONFIGURATION

TELECOMMUNICATION

SHEET NUMBER	DRAWING TITLE
T0.100	COMMUNICATIONS LEGEND
T2.000	COMMUNICATIONS LAYOUT GROUND FLOOR
T2.100	COMMUNICATIONS LAYOUT LOBBY LEVEL
T2.200	COMMUNICATIONS LAYOUT PLATFORM LEVEL
T2.210	COMMUNICATIONS LAYOUT IDFSP .1LL
T2.220	COMMUNICATIONS LAYOUT COURTESY PHONE LAYOUT
T2.230	COMMUNICATIONS LAYOUT GROUND RISER
T2.240	COMMUNICATIONS LAYOUT COPPER FIBER RISER DIAGRAM
T2.250	COMMUNICATIONS LAYOUT CONDIUT RISER DIAGRAM
T2.260	COMMUNICATIONS LAYOUT COMMUNICATIONS DETAILS
T2.270	COMMUNICATIONS LAYOUT COMMUNICATIONS DETAILS

GRAPHICS & SIGNAGE

SHEET NUMBER	DRAWING TITLE
G1.001	SIGN LOCATIONS LOBBY LEVEL
G1.002	SIGN LOCATIONS PLATFORM LEVEL

RECORD DRAWINGS
DO NOT MODIFY
Rey de la Reza Architects, Inc.
13 May 2005

Note: Information used to develop these documents was taken from Record of the Work Drawings prepared by the construction contractor, Clark Construction Group - Texas.
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HOUSTON AIRPORT SYSTEM
GEORGE BUSH INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

Lee Elliott
1009 W.RANDOL MILL RD.
ARLINGTON,TX,76012
Tel. 817.261.1446
Tel. 817.861.3256

REY DE LA REZA ARCHITECTS, PLANNING INTERIOR
ARCHITECTURE
1245 WEST 18TH STREET
HOUSTON,TX,77008
Tel. 713.868.3121
Tel. 713.802.0112

REVISIONS

NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
	RECORD SET	05/13/05	EM

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM
APM STATION & PLATFORM
DRAWING INDEX

PROJECT MGR:	HEM
DESIGNER:	SG
DRAWN BY:	SEM
CHECKED BY:	AB
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	NTS
DATE:	09/14/01

REGISTERED ARCHITECT Rey de la Reza 4612-8 STATE OF TEXAS

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

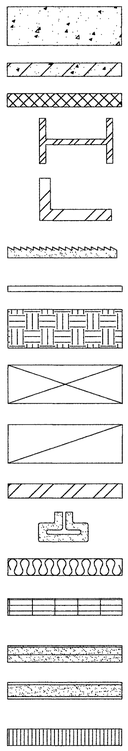
PROJECT NO.	1140
C.I.P. NO.	A-0354
H.A.S. NO.	536C
SHEET NO.	Z1.000

PLOT DATE: 02/04/02 HAS FILE: HAS36C21001

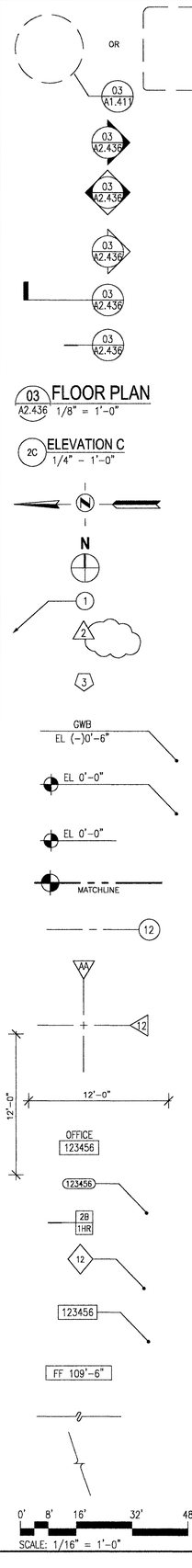
ABBREVIATIONS

ACOUS	ACOUSTICAL
AJUST	ADJUSTABLE
ADJ	ADJACENT
AD	ACCESS DOOR
AFF	ABOVE FINISH FLOOR
AGG	AGGREGATE
AHU	AIR HANDLING UNIT
ALT	ALTERNATE
ALUM	ALUMINUM
ANOD	ANODIZED
APPROX	APPROXIMATELY
AP	ACCESS PANEL
ARCH	ARCHITECT/ARCHITECTURAL
ASPH	ASPHALT
ATN	ATTENUATION/ATTENUATING
AUTO	AUTOMATIC
AUX	AUXILIARY
AVE	AVENUE
AVG	AVERAGE
A/C	AIR CONDITIONING
A/V	AUDIO VISUAL
BD	BOARD
BLDG	BUILDING
BLKG	BLOCKING
BLK	BLOCK
BM	BEAM
BOT	BOTTOM
BRG	BEARING
BRKT	BRACKET
BSMT	BASEMENT
BTW	BETWEEN
BUR	BUILT UP ROOFING
B&B	BALLED & BURLAPPED
B-B	BACK TO BACK
B.M.	BENCH MARK
B/F	BOTH FACES
CAB	CABINENT
CB	CATCH BASIN
CCTV	CLOSED CIRCUIT TELEVISION
CEM	CEMENT
CER	CERAMIC
CFMF	COLD FORMED METAL FRAMING
CHR	CHILLED WATER RETURN
CHS	CHILLED WATER SUPPLY
CIP	CAST IN PLACE
CI PIPE	CAST IRON PIPE
CJ	CONTROL JOINT
CKBD	CHALKBOARD
CLG	CEILING
CLR	CLEAR/CLEARANCE
CL	CLOSET
CMU	CONCRETE MASONRY UNIT
CNTR	COUNTER
COL	COLUMN
COMPRES	COMPRESSIBLE
COMP.	COMPOSITION
CONC	CONCRETE
COND	CONDITION
CONF	CONFERENCE
CONST	CONSTRUCTION
CONTR	CONTRACTOR
CONT	CONTINUOUS
CORRU	CORRUGATED
CORR	CORRIDOR
CG	CORNER GUARD
CSMT	CASEMENT
CTR	CENTER
CTSK	COUNTERSUNK
CT	CERAMIC TILE
CU FT	CUBIC FOOT (FEET)
CU YD	CUBIC YARD
C	CURB
C-C	CENTER TO CENTER
C.O.	CASED OPENING
DBL	DOUBLE
DEFL	DEFLECTION
DF	DRINKING FOUNTAIN
DIAG	DIAGONAL
DIA	DIAMETER
DIM	DIMENSION
DISC	DISCONNECT
DISP	DISPENSER
DL	DEAD LOAD
DMPPG	DAMPPROOFING
DN	DOWN
DOOR	DOOR
DS	DOWNSPOUT
DTL	DETAIL
DWC	DRYWALL FURRING CHANNEL
DWG	DRAWING
D	DEPTH
EA	EACH
EFOB	EXTERIOR FACE OF BUILDING
EJ	EXPANSION JOINT
ELAS	ELASTIC (ELASTOMERIC)
ELEC	ELECTRICAL
ELEV	ELEVATOR
EL	ELEVATION
EM	EMERGENCY
EP	EXPLOSION PROOF
EQUIP	EQUIPMENT
EQ	EQUAL
ESR	ELASTIC SHEET ROOFING
EWC	ELECTRONIC WATER COOLER
EWH	ELECTRIC WATER HEATER
EW	EACH WAY
EXH	EXHAUST
EXIST	EXIST
EXPAN	EXPANSION
EXP	EXPOSED
EXT	EXTERIOR
FA	FIRE ALARM
FC	FIRE CODE
FD	FLOOR DRAIN
FEC	FIRE EXTINGUISHER CABINET
FHC	FIRE HOSE CABINET
FH	FIRE HYDRANT
FIN	FINISH/FINISHED
FIXT	FIXTURE
FLRG	FLOORING
FLR	FLOOR
FLSHG	FLASHING
FLUOR	FLUORESCENT
F.P.W.	FLOOD PROTECTION WALL
FL	FLOW LINE
FM	FACTORY MUTUAL
FRPF	FIREPROOF
FRTW	FIRE RESISTANT TREATED WOOD
FSEC	FOOD SERVICE EQUIPMENT CONTRACTOR
FS	FULL SIZE
FTG	FOOTING
FT	FOOT (FEET)
FURN	FURNISH
FURR	FURRED/FURRING
FVC	FIRE VALVE CABINET
GALV	GALVANIZED
GAL	GALLON
GA	GAGE
GC	GENERAL CONTRACTOR
GD	GUARD
GEN	GENERAL
GI	GALVANIZED IRON
GL	GLASS, GLAZING
GMP	GUARANTEED MAXIMUM PRICE
GR	GRADE, GRADING
GYP	GYPSUM
GWB	GYPSUM WALL BOARD
HB	HOSE BIBB
HC	HOLLOW CORE
HDCP	HANDICAPPED
HDWD	HARDWOOD
HDWR	HARDWARE
HD	HEAD
HFS	HALF FULL SIZE
HM	HOLLOW METAL
HORIZ	HORIZONTAL
HP	HORSE POWER
HR	HOUR
HT	HEIGHT
HVAC	HEATING/VENTILATION AIR CONDITIONING
HWR	HOT WATER RETURN
HWS	HOT WATER SUPPLY
HYD	HYDRANT
ID	INSIDE DIAMETER
INCAND	INCANDESCENT
INCL	INCLUDE
INFO	INFORMATION
INSUL	INSULATION/INSULATING
INT	INTERIOR
IN	INCH
IPS	INSIDE PIPE SIZE
JAN	JANITOR
JST	JOIST
JT	JOINT
LAM	LAMINATE
LAV	LAVATORY
LGTH	LENGTH
LH	LEFT HAND
LV	LEVEL
LIN	LINEAR
LL	LIVE LOAD
LT	LIGHT
LWT	LIGHTWEIGHT
MACH	MACHINE
MAINT	MAINTENANCE
MAS	MASONRY
MATL	MATERIAL
MAX	MAXIMUM
MECH	MECHANICAL
MEMB	MEMBRANE
MEP	MECHANICAL, ELECTRICAL, PLUMBING
MFR	MANUFACTURER
MH	MANHOLE
MIN	MINIMUM
MISC	MISCELLANEOUS
ML	METAL LATH
MO	MASONRY OPENING
MR	MOISTURE RESISTANT
MTD	MOUNTED
MTG	MOUNTING
MTL	METAL
MULL	MULLION
NC	NON COMBUSTABLE
NIC	NOT IN CONTRACT
NOM	NOMINAL
NO. OR #	NUMBER
NRC	NOISE REDUCTION COEFFICIENT
NTS	NOT TO SCALE
OA	OVERALL
OC	ON CENTER(S)
OD	OUTSIDE DIAMETER
OFCI	OWNER FURNISHED/CONTRACTOR INSTALLED
OFF	OFFICE
OFOI	OWNER FURNISHED/OWNER INSTALLED
OH	OVERHEAD
OP	OPERABLE PARTITION
OPH	OPPOSITE HAND
OPNG	OPENING
OPP	OPPOSITE
ORD	OVERFLOW ROOF DRAIN
O/A	OUTSIDE AIR
PART	PARTITION
PCF	POUNDS PER CUBIC FOOT
PCP	PORTLAND CEMENT PLASTER
PCT	PORCELIAN CERMIC TILE
PERF	PERFORATED
PLAST	PLASTER
PLAS	PLASTIC
PLBG	PLUMBING
PLWD	PLYWOOD
PNL	PANEL
POL	POLISHED
PRKG	PARKING
PR	PAIR
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PTD	PAINTED
PVC	POLYVINYL CHLORIDE
PVG	PAVING
PVMT	PAVEMENT
P.L.	PROPERTY LINE
P/C	PRECAST
PFP	PREFINISHED PANEL
QT	QUARRY TILE
RCP	REINFORCED CONCRETE PIPE
RD	ROOF DRAIN
REBAR	REINFORCING BAR
RECEPT	RECEPTION
RECOM	RECOMMENDATION
REC	RECESSED
REG	REGULATION
REINF	REINFORCED
REQD	REQUIRED
RES	RESILIENT
RET	RETURN
REV	REVISION
RE	REFER TO
RFG	ROOFING
RH	RIGHT HAND
R	RISER
RM	ROOM
ROW	RIGHT OF WAY
RAD	RADIUS
R/AG	RETURN AIR GRILLE
R/A	RETURN AIR
SCHED	SCHEDULE
SC	SOLID CORE
SECT	SECTION
SF	SQUARE FEET
SHLV	SHELVES/SHELVING
SHTHG	SHEATHING
SHT	SHEET
SIM	SIMILAR
SLDR	SLIDING DOOR
SPEC	SPECIFICATION
SQ	SQUARE
SSTL	STAINLESS STEEL
STAB	STABILIZE(D)
STA	STATION
STC	SOUND TRANSMISSION COEFFICIENT
STD	STANDARD
STL	STEEL
STOR	STORAGE
STRUCT	STRUCTURE/STRUCTURAL
SUSP	SUSPENDED
SW	SWITCH
SYN	SYNTHETIC
S/AD	SUPPLY AIR DIFFUSER
TCOC	TEXTURE COATING
TC	TOP OF CURB
TEL	TELEPHONE
TEMP	TEMPERED
THK	THICK(NESS)
THRES	THRESHOLD
TKBD	TACKBOARD
TOC	TOP OF CONCRETE
TOS	TOP OF STEEL
TOSS	TOP OF STRUCTURAL STEEL
TRANS	TRANSFORMER
TRZO	TERRAZZO
T	TREAD
TTC	TELEPHONE TERMINAL CABINET
TV	TELEVISION
TYP	TYPICAL
UL	UNDERWRITERS LABORATORY
UNO	UNLESS NOTED OTHERWISE
U of H	UNIVERSITY OF HOUSTON
UR	URINAL
VAC	VACUUM
VCT	VINYL COMPOSITION TILE
VERT	VERTICAL
VEST	VESTIBULE
VTR	VENT THROUGH ROOF
VWC	VINYL WALLCOVERING
WC	WATER CLOSET
WDW	WINDOW
WD	WOOD
WF	WIDE FLANGE
WH	WALL HUNG
WI	WROUGHT IRON
WP	WATERPROOF/WATERPROOFING
WR	WATER RESISTANT
WT	WEIGHT
WWF	WELDED WIRE FABRIC
W.P.	WORK POINT
W/I	WITHIN
W/O	WITHOUT
W/	WITH
XFMR	TRANSFORMER
℄	CENTERLINE
@	AT
[	CHANNEL
ø	ROUND/DIAMETER
ℙ	PLATE
∠	ANGLE
&	AND
/	PER
□	SQUARE
X	LINE OF SYMETRY

MATERIAL SECTIONS



SYMBOLS



GENERAL NOTES

01. THESE CONSTRUCTION DOCUMENTS ARE THE INSTRUMENT OF SERVICES RENDERED; AND SHALL REMAIN THE PROPERTY OF THE HAS WHETHER THE PROJECT FOR WHICH THEY ARE MADE IS EXECUTED OR NOT. ANY USE OF THESE CONSTRUCTION DOCUMENTS OTHER THAN THIS PROJECT WITHOUT THE ARCHITECT'S CONSENT IS PROHIBITED.

02. THESE CONSTRUCTION DOCUMENTS ARE THE DIAGRAMMATIC EXPRESSION OF THE ARCHITECT'S DESIGN INTENTIONS. CONTRACTORS SHALL NEVER SCALE THE DOCUMENTS FOR MEASUREMENTS.

03. CONTRACTORS SHALL ABIDE BY ALL APPLICABLE FEDERAL, STATE AND LOCAL CODES AND ORDINANCES, AND REFER ANY CONFLICTING REQUIREMENTS OF REFERENCED CODES, STANDARDS AND PRACTICES OR INTERPRETATION OF SUCH REQUIREMENTS TO THE ARCHITECT FOR DECISION BEFORE PROCEEDING WITH THE WORK.

04. CONTRACTOR SHALL NOTIFY THE ARCHITECT ANY DISCREPANCIES BETWEEN DRAWINGS, SPECIFICATIONS AND SITE CONDITIONS IMMEDIATELY.

05. ALL SUB-CONTRACTORS SHALL DO THEIR BEST TO PROFESSIONALLY COORDINATE THEIR WORK WITH EACH OTHER, NOTIFY THE GENERAL CONTRACTOR ANY DISCREPANCIES AND DIFFICULTIES.

06. CONTRACTOR SHALL FIELD VERIFY ALL CONDITIONS AND DIMENSIONS AND SHALL OBTAIN THE ARCHITECT'S APPROVAL FOR ANY CHANGES.

07. ALL OTHER WORK REQUIRED BUT NOT SPECIFIED IN THESE DOCUMENTS, SHALL BE PERFORMED BY CONTRACTORS TO MEET THE GENERAL PRACTICING STANDARDS, BUILDING CODES, AND MANUFACTURERS' INSTRUCTIONS AND SPECIFICATIONS.

08. THE GENERAL CONTRACTOR SHALL SUBMIT COLOR SAMPLES ON ALL FINISH MATERIALS FOR APPROVAL BEFORE ORDERING.

09. CONTRACTOR SHALL VERIFY STRUCTURAL DIMENSIONS WITH ARCHITECTURAL DIMENSIONS BEFORE LAY OUT FOUNDATION.

10. ALL INTERIOR DIMENSIONS ARE MEASURED FROM FINISH FACE TO FINISH FACE, UNLESS OTHERWISE NOTED.

11. ALL INTERIOR PARTITIONS SHALL BE BRACED TO THE FLOOR/ROOF STRUCTURAL MEMBERS, UNLESS OTHERWISE NOTED.

12. ALL CONTROLS SHALL BE MOUNTED AT 42" ABOVE FINISHED FLOOR UNLESS OTHERWISE NOTED.

13. EACH DESIGN DISCIPLINE WILL BE THE PRIMARY SOURCE FOR INFORMATION REGARDING THAT SUBJECT (ARCHITECTURAL, STRUCTURAL, MECHANICAL, ELECTRICAL, ETC.) HOWEVER, IT WILL NOT BE THE ONLY SOURCE OF COORDINATION, INFORMATION OF DIMENSIONS, DETAILING AND FINISHED APPEARANCE, OR TRIM FEATURES. THE CONTRACTOR IS RESPONSIBLE FOR REVIEW OF RELATED DESIGN DOCUMENTATION.

14. REFER TO GENERAL NOTES TO EACH SERIES (FLOOR PLAN, ELEVATIONS, ETC.) CONTAINED IN SET SERIES.

15. ALL PIPE WORK AND CONDUIT PENETRATING FLOOR SLABS AND WALLS SHALL BE SLEEVED EXCEPT WHERE SHAFTS OR OPENINGS ARE PROVIDED. VOIDS WITHIN SLEEVES SHALL BE FIRESTOPPED AS SPECIFIED.

16. MECHANICAL ELECTRICAL AND PLUMBING TRADES SHALL BE RESPONSIBLE FOR PROPER SETTING OF SLEEVES AND BOXES FOR THEIR RESPECTIVE WORK IN FLOORS OR WALLS SQUARE AND FLUSH.

17. LOCATE SUSPENDED CEILING HANGERS AND CHANGES TO AVOID CONFLICT WITH OTHER TRADES. PROVIDE PROPER SPACE FOR RECESSED LIGHT FIXTURES, SPRINKLER LINES, DUCTWORK, TECHNOLOGY AND WIRING RUNS, ETC. SEE REFLECTED CEILING PLANS, MECHANICAL AND ELECTRICAL DRAWINGS FOR LOCATION OF AFFECTED DEVICES. CEILING LAYOUT FOR FINISHED SUSPENDED CEILINGS ARE SHOWN ON REFLECTED CEILING PLANS AND SHALL GOVERN THE LOCATION OF LIGHT FIXTURES DIFFUSERS, SPRINKLER HEADS, ETC.

18. DO NOT SCALE DRAWINGS. USE COMPUTER DIMENSIONS ONLY. CONTACT THE ARCHITECT WITH ANY CONFLICTS FOR RESOLUTION.

19. REVIEW ALL INFORMATION FOR EACH AREA OF WORK BEFORE PROCEEDING.

20. ALL PIPING AND CONDUIT ARE TO BE CONTAINED WITHIN PARTITIONS UNLESS NOTED OTHERWISE IN THE DOCUMENTS. IF ADDITIONAL FURROUTS ARE REQUIRED THEY WILL BE LOCATED IN THE NEAREST INSIDE CORNER.

21. THE DOCUMENTS ARE ADDRESSED TO THE CONTRACTOR AND ITS WORK REGARDLESS OF THE EXTENT OF THE SUBCONTRACTOR OR DIVISION OF THE WORK BY SUBCONTRACTOR OR TRADES.

22. THE DRAWINGS ARE DIAGRAMMATIC AND ARE INTENDED TO DEFINE THE EXTENT OF THE RELOCATION OF THE VARIOUS PARTS OF WORK TO EACH OTHER AND PROVIDE A WHOLE AND OPERATIONAL SYSTEM.

23. THE DRAWINGS AND PROJECT MANUAL ARE COMPLIMENTARY AND ANYTHING INCLUDED IN ONE BUT NOT THE OTHER SHALL BE INCLUDED AS IF INCLUDED COMPLETELY IN BOTH. IN CASE OF CONFLICTS BETWEEN THE DOCUMENTS OR WITHIN THE PROJECT MANUAL, THE ARCHITECT SHALL DETERMINE THE INTENT. IN CASE OF CONFLICT THE REQUIREMENT DEFINING THE GREATER QUANTITY AND/OR HIGHER QUALITY SHALL GOVERN, WITH NO CHANGE IN CONTRACT PRICE UNLESS OTHERWISE INDICATED IN WRITING.

23. THE CONTRACTOR SHALL COORDINATE THE MECHANICAL, PLUMBING, AND ELECTRICAL SYSTEM WITH THE ARCHITECTURAL WORK PRIOR TO CONSTRUCTION AND SHALL NOTIFY THE ARCHITECT OF ALL INCONSISTENCIES IN WRITING.

24. AT NO TIME SHALL CONTRUCTION IMPEDE NORMAL AIRPORT BUSINESS OPERATION.

CODE INFORMATION:

APPLICABLE CODES:

PROJECT NAME: AUTOMATED PEOPLE MOVER (APM) STATION AND PLATFORM

PROJECT LOCATION: GEORGE BUSH INTERCONTINENTAL AIRPORT, HOUSTON, TEXAS

APPLICABLE CODES:
1. HOUSTON BUILDING CODE (UBC) – 1997 UBC WITH 2000 CITY OF HOUSTON AMENDMENTS
2. HOUSTON FIRE CODE (UFC) – 1997 UFC WITH 2000 CITY OF HOUSTON AMENDMENTS
3. UNIFORM PLUMBING CODE 1997 EDITION
4. UNIFORM MECHANICAL CODE 1997 EDITION
5. NATIONAL ELECTRIC CODE 1998 EDITION WITH 2000 CITY OF HOUSTON AMENDMENTS
6. TEXAS ACCESSIBILITY STANDARDS
7. AMERICAN WITH DISABILITIES ACT

OCCUPANCY CLASSIFICATION

(MIXED)
PRIMARY OCCUPANCY: GROUP A, DIVISION 2.1 APM PUBLIC AREAS
SECONDARY OCCUPANCY: GROUP B-BUSINESS MEP/EQUIP. AREA

CONSTRUCTION CLASSIFICATION

A. CONSTRUCTION TYPE: TYPE I, F. R.
B. HEIGHT AND AREA LIMITS:
1. MAXIMUM HEIGHT ALLOWED UNLIMITED
2. MAXIMUM NUMBER OF STORIES UNLIMITED
3. MAXIMUM ALLOWABLE AREA UNLIMITED

FIRE RESISTIVE REQUIREMENTS

	MIN. FIRE RESISTANCE	OPENINGS
A. STRUCTURAL FRAME	3 HR	
B. FLOORS AND FLOOR CEILING	2 HR	
C. SHAFT ENCLOSURE	2 HR	
D. ROOFS	1 HR	
E. PARTITION	NC	NC
F. STAIRWAY	2 HR	1-1/2 HR
G. OCCUPANCY SEPARATION	1 HR	1 HR
H. EXT. NON BEARING WALL (GREATER THAN 20' CLEAR FROM PROP. LINE OR STRUCTURE)	NC	NO REQUIREMENTS
I. EXT. NON BEARING WALL (GREATER THAN 5' LESS THAN 20' FROM PROP. LINE OR STRUCTURE)	2 HR	3/4 HR
J. EXT. NON BEARING WALL (LESS THAN 5' FROM PROP. LINE OR STRUCTURE)	3 HR	NONE ALLOWED
K. EXT. BEARING WALL (NONE)		
L. INT. BEARING WALL (NONE)		

EXIT REQUIREMENTS

A. OCCUPANT LOAD FACTORS:
1. ASSEMBLY – APM STATION 15 SQ. FT. PER PERSON
2. BUSINESS – MEP/EQUIP. AREA 300 SQ. FT. PER PERSON

B. OCCUPANCY LOAD:
1. PLATFORM LEVEL: 341
2. LOBBY LEVEL: 6

C. NUMBER OF EXITS: 2 (OCCUPANT LOAD LESS THAN 500)

D. CALCULATION OF EXIT CAPACITY
1. STAIRS: 0.3" PER PERSON (OTHERS MEANS OF EGRESS: 0.2")
A. TOTAL WIDTH OF EXIT STAIRS 103"
B. MAXIMUM TRAVEL DISTANCE 250'
C. MAXIMUM DEAD END 20'

E. HORIZONTAL EXIT AT LOBBY LEVEL WITH A 2 HR SEPARATION

FIRE PROTECTION SYSTEM

A. FULLY SPRINKLERED
B. FIRE ALARM:
FULL COVERAGE
C. AREA OF RESCUE: NONE (NOT NECESSARY WITH SPRINKLER SYSTEM)

HOUSTON AIRPORT SYSTEM
GEORGE BUSH INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

Lea Elliott
1009 W.RANDOL MILL RD.
ARLINGTON,TX,76012
Tel: 817.261.1446
Tel: 817.861.3296

REY DE LA REZA ARCHITECTS, INC.
ARCHITECTURE PLANNING INTERIOR DESIGN
1245 WEST 18TH ST.
HOUSTON,TX,77008
Tel: 713.868.3121
Tel: 713.802.0112

REVISIONS		
NO.	DESCRIPTION	DATE BY
	ISSUED FOR BID	10/19/01
	RECORD SET	05/13/05 EM

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION + PLATFORM

GENERAL NOTES, ABBREVIATIONS,SYMBOLS, AND CODE REVIEW

PROJECT MGR:	HEM
DESIGNER:	SG
DRAWN BY:	SEM
CHECKED BY:	AB
DRAWING STANDARD:	ISEP. 07.20.2000
SCALE:	NO SCALE
DATE:	09/14/01

REGISTERED ARCHITECT Rey de la Reza 18612 STATE OF TEXAS

APPROVED BY:	DATE:
DIRECTOR HOUSTON AIRPORT SYSTEM	
PROJECT NO.	1140
C.I.P. NO.	A-0354
H.A.S. NO.	536C
SHEET NO.	Z1.001

RECORD DRAWINGS
DO NOT MODIFY
Rey de la Reza Architects, Inc.
13 May 2005
Note: Information used to develop these documents was taken from Record of the Work Drawings prepared by the construction contractor, Clark Construction Group - Texas. The information provided by the contractor was not verified by the design firm named above.

PLOT DATE: 02/04/02 HAS FILE: IA536CZ1000.DWG

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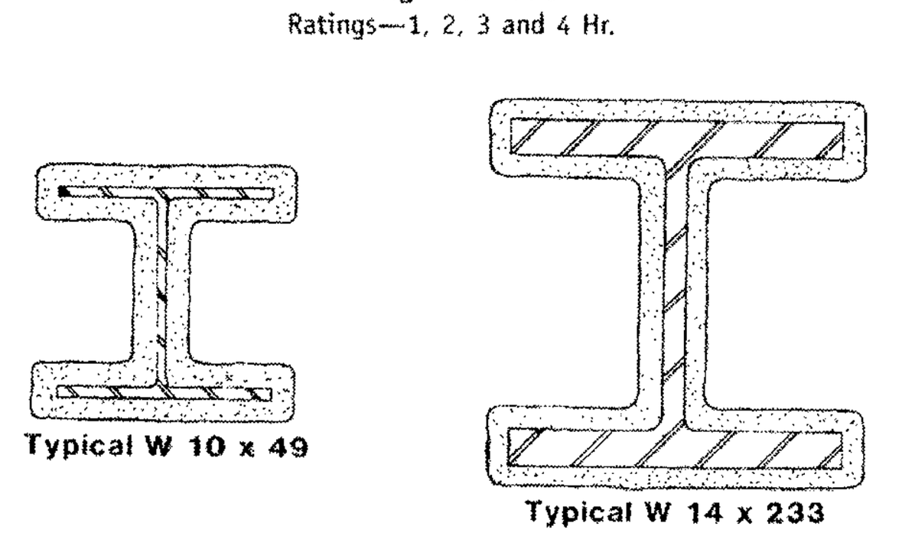
Design No. X723
Ratings—1, 2, 3 and 4 Hr.



1. **Steel Column**—Min size of column, a W8x28 with outside dimensions of 8 by 6-1/2 in. with a flange thickness of 7/16 in., a web thickness of 5/16 in. and a cross-sectional area of 8.23 sq in.
2. **Spray-Applied Fire Resistive Materials***—See table below for appropriate thickness. Applied by mixing with water and spraying in one or more coats to steel surfaces which must be clean and free of dirt, loose scale and oil. Min avg and min ind density of 15/14 pcf respectively. For method of density determination, see Design Information Section, preceding these designs.

Rating-Hr.	Min. Thickness-In.
4	2-11/16
3	2
2	1-3/8
1	3/4

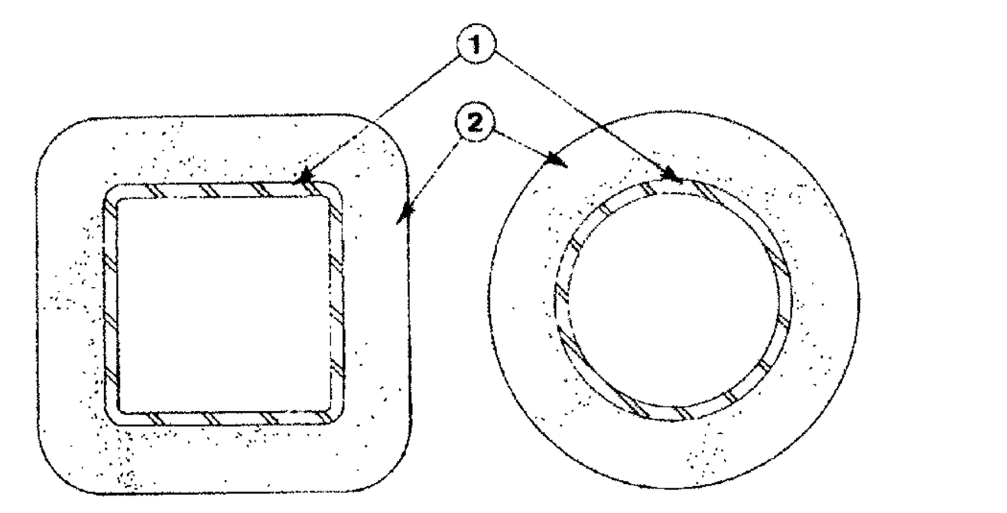
The thicknesses contained in the table below are applicable when the Spray-Applied Fire Resistive Materials thickness applied to the columns flange tips is reduced to 1/2 that shown in the table below:

Rating-Hr.	Min. Thickness-In.
4	2-15/16
3	2-1/4
2	1-1/2
1	13/16

Construction Products Div., W. R. Grace & Co. of Canada Ltd.—Types MK-4, MK-5.
Grace Construction Products—Types MK-4, MK-5, MK-6/HY, MK-6s, RG, Sonotex 1.
Grace Korea Inc.—Types MK-6/CBF, MK-6/ED, MK-6/HY, MK-6s, Sonotex 1.
Pyrok Inc.—Type LD.

Southwest Vermiculite Co., Inc.—Types 4, 5, 5EF, 5GP, 5MD, 8EF, 8GP, 8MD, 9EF, 9GP, 9MD.
Vermiculite Products, Inc.—Types MK-4, MK-5, VP4, VP5.
*Bearing the UL Classification Marking

Design No. X799
Ratings—1, 1-1/2, 2, 3 and 4 Hr

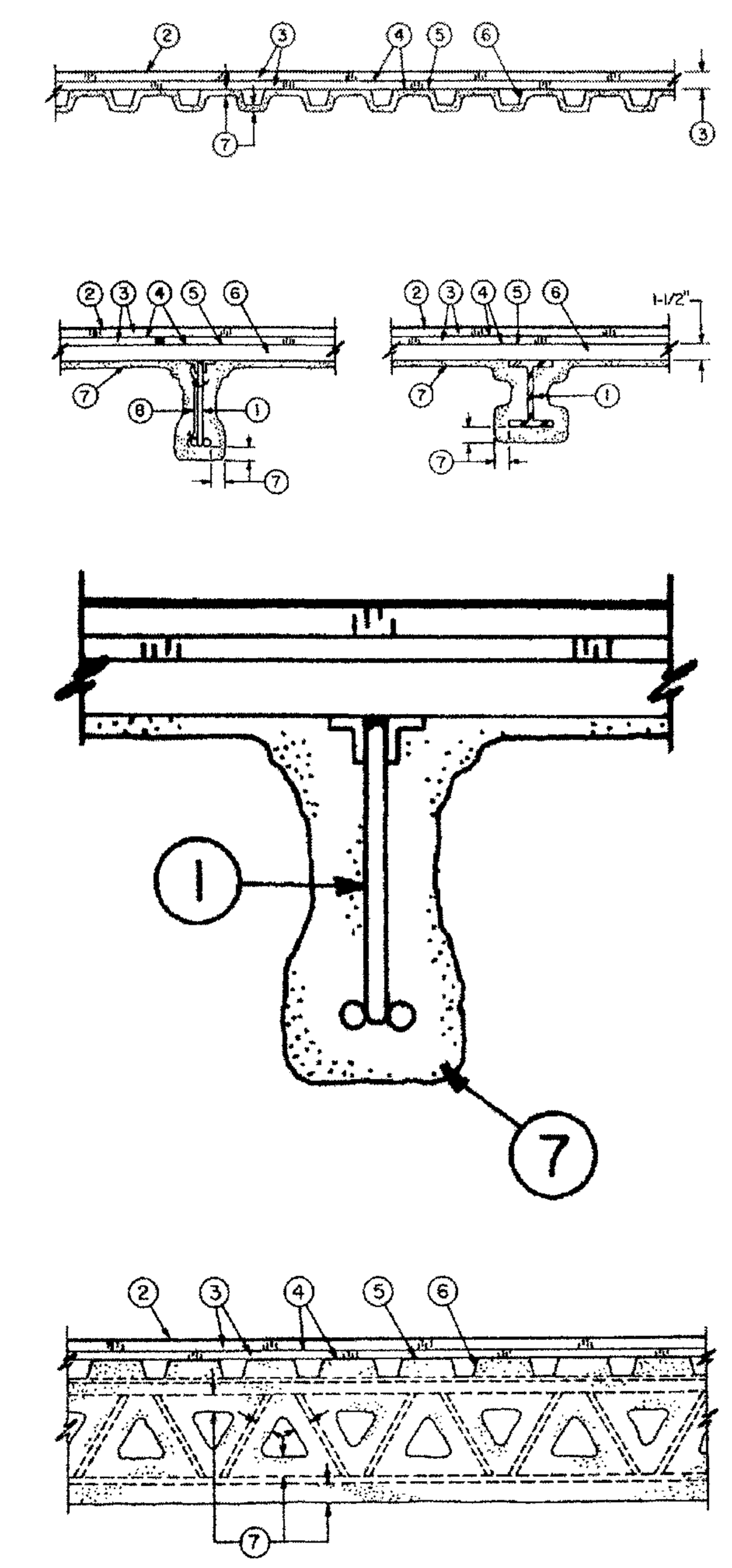


1. **Steel Pipe or Steel Tube**—Steel circular pipe (SP) or steel square or rectangular tube (ST) of min sizes as shown in the table below.
2. **Spray-Applied Fire Resistive Materials***—Applied by mixing with water and spraying in more than one coat to the thickness shown below, to steel surfaces which are clean and free of dirt, loose scale and oil. Min avg and min ind density of 18/16 pcf for Type CP-2 and 23/21 pcf for Type P-20. For method of density see Design Information Section, Sprayed Material.

Column Size In.	A/P	Minimum Thickness (In.) 1 h	1-1/2 h	2 h	3 h	4 h
ST 4x4x3/16 in.	0.18	15/16	1-5/16	1-3/4	2-9/16	3-3/8
ST 4x4x5/16 in.	0.29	7/8	1-1/16	1-7/16	2-3/16	3
ST 4x4x3/8 in.	0.34	9/16	15/16	1-5/16	2	2-3/4
ST 4x4x1/2 in.	0.44	7/16	3/4	1-1/8	1-3/4	2-3/8
ST8x8x5/8 in.	0.58	3/8	9/16	13/16	1-1/4	1-3/4
ST20x20x3/4 in	0.72	5/16	1/2	11/16	1-1/16	1-7/16
ST20x20x1 in.	0.95	1/4	3/8	1/2	13/16	1-1/8
ST20x20x1-1/2 in.	1.39	1/4	1/4	3/8	5/8	13/16
ST20x20x1-3/4 in.	1.60	1/4	1/4	3/8	1/2	3/4
ST32x32x1-1/4 in.	1.20	1/4	5/16	7/16	11/16	15/16
ST 36x24x1/2 in.	0.49	5/16	9/16	13/16	1-3/8	1-7/8
SP 4 in. pipe x 0.237 in.	0.23	7/8	1-5/16	1-13/16	2-11/16	3-5/8
SP 6 in. pipe x 0.432 in.	0.40	1/2	13/16	1-1/8	1-13/16	2-1/2

Isolatek International—Types CP-2, P-20.
Moy Yuan Industrial Ltd.—Types CP-2, P-20.
Newkem Products Corp.—Types CP-2, P-20.
P T Hume Concrete Indonesia—Type CP-2.
Prostar Contract Services PTE. Ltd.—Types CP-2, P-20.
Shin Sung Trading Co. Ltd.—Types CP-2, P-20.
*Bearing the UL Classification Marking

Design No. P711
Restrained Assembly Ratings—1, 1-1/2 or 2 Hr.
(See Items 3, 7 and 8A)
Unrestrained Assembly Ratings—1, 1-1/2 or 2 Hr.
(See Items 3, 7 and 8A)
Unrestrained Beam Rating—1, 1-1/2 or 2 Hr. (See Items 7 and 8A)



1. **Beam**—W6x16 min size. As alternate to steel beams, Joist girders—(Not shown)—20 in. min depth and 13 lb per lin ft min weight.
1A. **Steel Joists**—Types 10J4, 10H4, 12J4, 14J7 or 14K4 min size. **NOTE:** Design load shall stress 10H4 joist to a max tensile stress of 22 KSI.
2. **Roof Covering***—Consisting of hot mopped or cold application materials compatible with insulation(s) described herein which provide Class A, B or C coverings. See Roofing Materials and Systems Directory-Roof Covering Materials(TEVT).
2A. In lieu of Item 2, roof covering consisting of single-ply **Roofing Membrane*** that is either ballasted, adhered or mechanically attached as permitted under the respective manufacturer's Classification. See Fire Resistance Directory-Roofing Membranes (CHCI).
2B. **Metal Roof Deck Panels**—(Not shown)—In addition to or in lieu of Items 2 or 2A, the roof covering may consist of a mechanically fastened metal roof deck panel assembly. See Fire Resistance Directory-Metal Roof Deck Panels (CETW).
3. **Roof Insulation**—May consist of the following:
   A. **Mineral and Fiber Boards***—Min thickness 3/4 in. for the 1 and 1-1/2 hr. assembly ratings and 1-3/4 in. for the 2 hr. assembly rating. Min thickness is 1-3/4 in. when Item 2A or 2B are used. Min thickness is 3/4 in. otherwise. Max thickness 4-7/8 in. To be applied in two or more layers with adhesive applied between layers of boards and to vapor retarder or roof deck if vapor retarder is not used. As an alternate, the first layer of insulation may be attached to the roof deck by self drilling, self tapping steel screws pierced through 3-1/4 in. hexagonal steel plates spaced min. 15 in. O.C. The min cover of Spray-Applied Fire Resistive Materials to the end of the screw shall be 1/2 in. The second layer of insulation may be secured to the first layer with 30 lb of hot mopping asphalt per 100 sq. ft. Each layer of board to be offset in both directions from layer below a min of 6 in. A secondary membrane consisting of Type G1 or G2 mats or Type 15 felt may be used between layers of roof insulation. Secondary membrane secured in place with 25 lb. of hot mopping asphalt per 100 sq ft. Insulation may be installed in a single layer if the Restrained and Unrestrained Assembly Ratings are limited to 1 hr or if a 5/8 in. thick layer of gypsum sheathing is placed on the steel roof deck units. Joints between insulation and sheathing shall be staggered.
      Fibrex Insulations Inc.—FBX Baseboard and FBX Capboard.
      Owens Corning
      Roxul Inc.—Toprock.
   B. **Gypsum Wallboard**—(Classified or Unclassified, not shown) —5/8 in. thick gypsum wallboard, min weight 2.0 psf, may be used with the above insulation to obtain various Unrestrained and Restrained Assembly Ratings as described in Item 7. Installed perpendicular to the steel roof deck with joints staggered and occurring over the crests of the roof deck. Secured to the roof deck with adhesive (Item 4) or with asphalt applied to a min of 50 percent of the crest surface at a rate of 12 to 15 lbs per 100 sq ft or with mechanical fasteners. If mechanical fasteners are used, the end of the fastener shall be covered with a min 1/2 in. of Spray-Applied Fire Resistive Materials.
4. **Adhesive***—Optional—Adhesive may be used to attach each layer of roof insulation. The adhesive may be applied in 1/2 in. wide ribbons approx. 6 in. OC at 0.4 gal/100 sq ft. In lieu of adhesive, the first layer of roof insulation may be secured with asphalt applied to a min of 50 percent of the crests surface at a rate of 12 to 15 lbs. per 100 sq ft or with mechanical fasteners. If mechanical fasteners are used, the fastener shall not penetrate through the Spray-Applied Fire Resistive Materials. See Adhesives (BYWR) category for names of Classified companies
5. **Sheathing Material***—Optional. Vinyl film or paper scrim vapor barrier applied with adhesive or laid loosely on the steel roof deck, overlapped approx 2 in. at sides. See Sheathing Material (CHIZ) category for names of Classified companies.
5A. **Sheathing Material***—(Optional)—A self-adhered rubberized asphalt roofing underlayment membrane which may be placed on top of the gypsum wallboard (Item 3B) or on the roof insulation (Item 3A).
      W. R. Grace & Co., Conn Construction Products Div.—Grace Ice & Water Shield, Vycor Ultra.
5B. **Sheathing Material***—(Optional)—In lieu of Items 5 and 5A, a self-adhered rubberized asphalt roofing underlayment membrane which may be placed on top of gypsum wallboard or on the roof insulation (Item 3A).
      Carlisle Coatings & Waterproofing Inc.—CCW-707.
6. **Steel Roof Deck**—Unclassified - Min 1-1/2 in. deep and 18 in. wide, galv fluted steel deck. Min gauge is 22 MSG. Ends overlapped at supports min 1-1/2 in. and welded to supports min 12 in. OC. Adjacent units button-punched or welded together at midspan along side joints; or **Classified Steel Floor and Form Units***—Noncomposite 1-1/2 in. deep, 36 in. wide, galv fluted steel deck. Min gauge is 22 MSG. Ends overlapped at supports min 1-1/2 in. and welded to supports a max 12 in. OC. Adjacent units button-punched or welded together at midspan along side joints.
      Bowman Metal Deck/Wheeling Corrugating Company Division of Wheeling-Pittsburgh Steel Corp. —Galvanized or ptd/ptd Types BW, F and N.
      Consolidated Systems, Inc.—Types A, B, BI, F, N, NI. Units may be phos/ptd.
      Marlyn Steel Decks, Inc.—Types B, F.
      Roof Deck, Inc.—Type A, B-1, B-2 or F.
      Verco Mfg. Inc.—Types HSB, B Formlok. Units may be phos/ptd.
      Vulcraft, Div. of Nucor Corp.—Types 1.5B, 1.5BI, 1.5F, 3N, 3NI. Units may be ptd/ptd.
      Wheeling Corrugating Co., Div. of Wheeling-Pittsburgh Steel Corp.—Type B, BW, F or N. Units may be ptd/ptd.
7. **Spray-Applied Fire Resistive Materials***—Applied by mixing with water and spraying in more than one coat to a final thickness as shown above and in the table below, to steel surfaces which must be clean and free of dirt, loose scale and oil. Min avg and min ind density of 15/14 pcf respectively.

For method of density determination, refer to Design Information Section.

For the W6x16 wide flange beams, the thickness of Spray-Applied Fire Resistive Materials shall be 7/8 in. for the 1 hr Unrestrained Beam Rating, 1-3/8 in. for the 1-1/2 hr Unrestrained Beam Rating, and 1-1/2 in. for the 2 hr Unrestrained Beam Rating.

The joist protection shall be applied in the manner and at the thicknesses shown below:

Note: When metal lath is required, as indicated below, full thickness of Spray-Applied Fire Resistive Materials is to be applied over the entire support including lath.

Min Joist Size	Type of Application	Restrained Assembly Rating, Hr	Unrestrained Assembly Rating, Hr	Unrestrained Beam Rating, Hr	Thickness of Spray-Applied Resistive Materials, In.
14J7	Direct	1	1	1	1-1/2
10J4, 10H4	Direct	1	1	1	1-3/4
10J4, 10H4	Direct	1-1/2	1-1/2	1-1/2	2-1/4
10J4, 10H4	Direct	2	2	2	2-7/16
12J4, 14K4	Direct	1	1	1	2
12J4, 14K4	Direct	1-1/2	1 1/2	1-1/2	2-1/4
12J4, 14K4	Direct	2	2	2	2-7/16
12J4, 14K4	Lath	1-1/2	1 1/2	1-1/2	1-3/4
12J4, 14K4	Lath	2	2	2	1-7/8

When W6x16 beams and min size 12J4, 14J7 or 14K4 joists are used, thickness of the spray-applied resistive material applied to the roof deck units shall be:

Restrained Or Unrestrained Assembly Rating Hr	Thk Of Spray-Applied Fire Resistive Material Applied To Deck w/Gypsum Sheathing	w/o Gypsum Sheathing
1	1-3/16	1-1/4
1-1/2	1-3/16	1-1/2
2	1-7/16	1-3/4

When min size 10J4 or 10H4 joists are used, thickness of spray-applied resistive material applied to the roof deck units, with or without gypsum sheathing, shall be:

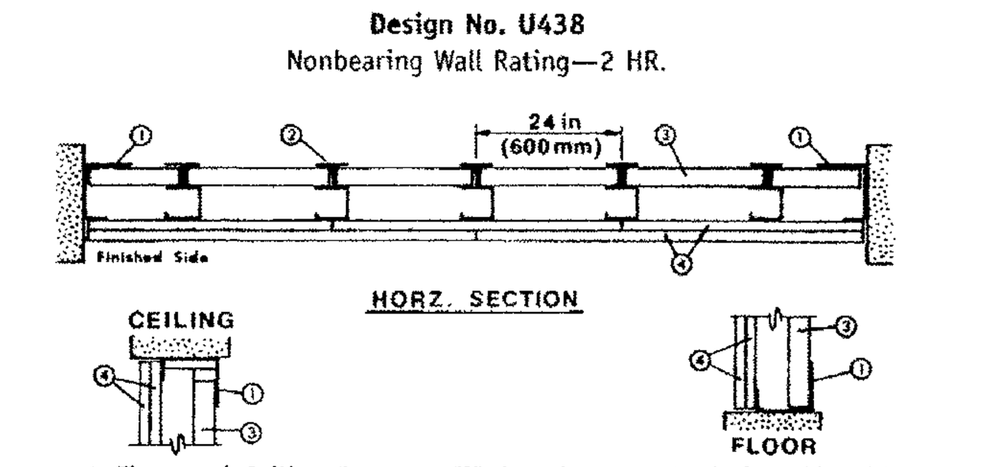
Restrained Or Unrestrained Assembly Rating Hr	Thkns Of Spray-Applied Resistive Mtls On Steel Deck In
1	1-3/8
1-1/2	1-5/8
2	1-7/8

Construction Products Div., W. R. Grace & Co. of Canada Ltd.—Types MK-4, MK-5.
Grace Construction Products—Types MK-4, MK-5, MK-6/HY, MK-6s, RG, Sonotex 1.
Grace Korea Inc.—Types MK-6/CBF, MK-6/ED, MK-6/HY, MK-6s, Sonotex 1.
Pyrok Inc.—Type LD.
Southwest Vermiculite Co., Inc.—Types 4, 5, 5EF, 5GP, 5MD, 8EF, 8GP, 8MD, 9EF, 9GP, 9MD.
Vermiculite Prods., Inc.—Types MK-4, MK-5, VP4, VP5.

8. **Metal Lath**—(Optional)—Where required, the diamond mesh, 3/8 in. expanded steel lath, 1.7 to 3.4 lb/sq yd is secured to one side of each steel joist with No. 18 SWG galv steel wire at joist web and bottom chord members, spaced 15 in. OC max. Where not required, the optional use of metal lath described and fastened as above, may be used to facilitate the spray application of Spray-Applied Fire Resistive Materials on steel bar joists and trusses. In this application, the metal lath is to be fully covered with Spray-Applied Fire Resistive Materials with no minimum thickness required.
8A. **Nonmetallic fabric mesh**—(Optional, not shown)—As an alternate to metal lath, glass fiber fabric mesh weighing approximately 2.5 oz/sq yd, polypropylene fabric mesh weighing approximately 1.25 oz/sq yd or equivalent, may be used to facilitate the spray application. The mesh is secured to one side of each joist web member. The method of attaching the mesh must be sufficient to hold the mesh and the spray-applied resistive materials in place during application until it has cured. An acceptable method of attaching the mesh is by embedding the mesh in min 1/4 in. long beads of hot melted glue. The beads of glue shall be spaced a max of 12 in. O.C. along the top chord of the bar joist. Another method to secure the mesh is by 1-1/4 in. long by 1/2 in. wide hairpin clips formed from No. 18 SWG or heavier steel wire.
9. **Bridging**—(Not shown)—In accordance with AISC current specifications. Continuous steel angles, min. size 1-1/4 by 1-1/4 by 1/8 in. welded to top and bottom chords. Bridging coated with 2-1/4 in. thickness of spray-applied resistive materials for the 1 or 1-1/2 h Assembly and Beam Rating and 2-7/16 in. for the 2 h Assembly and Beam Ratings.

*Bearing the UL Classification Marking

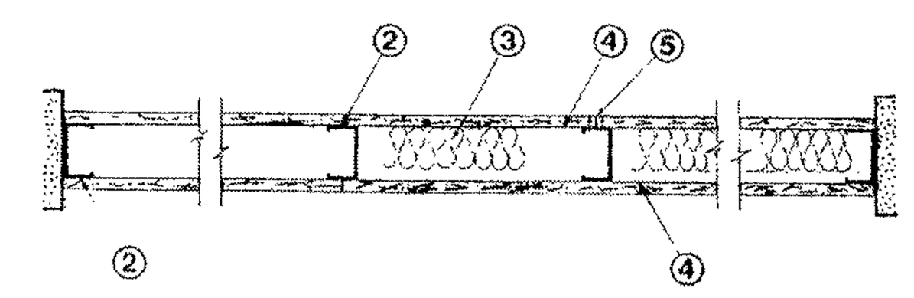
Design No. U438
Nonbearing Wall Rating—2 HR.



1. **Floor and Ceiling Runners**—"J"-shaped runner, 2-1/2 in. wide with unequal legs of 1 in. and 2 in., fabricated from 24 MSG (min 20 MSG when Item 4B is used) galv steel. Runners positioned with short leg toward finished side of wall. Runners attached to structural supports with steel fasteners located not greater than 2 in. from ends and not greater than 24 in. OC.
2. **Steel Studs**—"C-H"-shaped studs, 2-1/2 in. wide by 1-1/2 in. deep, fabricated from 25 MSG (min 20 MSG when Item 4B is used) galv steel. Cut to lengths 3/8 to 1/2 in. less than floor to ceiling height and spaced 24 in. or 600 mm OC.
2A. **Steel Studs**—(Not shown)-"E"-shaped studs installed in place of "C-H"-shaped studs (Item 2) to secure the closure liner panels at the ends of walls. Fabricated from 25 MSG (min 20 MSG when Item 4B is used) galv steel, 2-1/2 in. wide, with one leg 1 in. long and two legs 3/4 in. long. Shorter legs 1 in. apart to engage gypsum liner panels. Cut to lengths 3/8 in. less than floor to ceiling height. Sill and lintel of opening formed with "J"-shaped runners (Item 1) secured to "E"-shaped studs with angle clips and steel screws.
3. **Wallboard, Gypsum***—1 in. thick gypsum wallboard liner panels, supplied in nom 24 in. or 600 mm (for metric spacing) widths. Panels cut 1 in. less in length than floor to ceiling height. Vertical edges inserted in "H"-shaped section of "C-H" studs. Free edge of end panels attached to long leg of "J"-runners with 1-5/8 in. long Type S steel screws spaced not greater than 12 in. OC.
      Canadian Gypsum Company—Type SLX.
      United States Gypsum Co.—Type SLX.
      Yeso Panamericano SA de CV—Type SLX.
4. **Wallboard, Gypsum***—1/2 in. thick, 4 ft. or 1200 mm (for metric spacing) wide wallboard applied vertically in two layers. Inner or base layer attached to studs with 1 in. long Type S steel screws spaced 24 in. OC along the edges and in the field of the boards. Outer or face layer attached to studs and "J"-runners with 1-5/8 in. long Type S steel screws spaced 12 in. along the edges and in the field of the boards, staggered from screws in inner layer. Joints between inner and outer layers staggered.
   Outer layer joints covered with paper tape and joint compound. Exposed screw heads covered with joint compound.
   As an alternate method, inner wallboard layer applied vertically, outer wallboard layer applied horizontally. Inner layer attached to studs with 1 in. Type S steel screws spaced 24 in. OC along vertical edges and in the field. Outer layer attached to the studs and "J" runners over the inner layer with 1-5/8 in. long Type S steel screws spaced 12 in. OC in the field, along the vertical edges and to the floor and ceiling runners. Outer layer secured to inner layer wallboard with 1-1/2 in. long Type G steel screws located midway between studs and 1 in. from the horizontal joint.
      American Gypsum Co.—Type AG-C.
      Canadian Gypsum Company—Type C or WRC.
      Celotex Corp.—Type FRP.
      Continental Gypsum Company—Types CG-C, CG5-5, CGTC-C.
      G-P Gypsum Corp.—Type 5.
      James Hardie Gypsum Inc.—Type Max"C".
      Lafarge Gypsum, A Div. of Lafarge Corp.—Type LGFC-C.
      Pabco Gypsum Co.—Types PG-C.
      Republic Gypsum Co.—Type RG-C.
      Standard Gypsum Corp.—Type SG-C.
      Temple-Inland Forest Products Corp.—Type TG-C.
      United States Gypsum Co.—Type C or WRC.
      Yeso Panamericano SA de CV—Type C or WRC.
4A. **Wallboard Gypsum***—(As an alternate to Item 4) —5/8 in. thick, 4 ft wide. Attached as described in Item 4.
      Canadian Gypsum Company—Type AR, IP-X1, SCX or WRX.
      United States Gypsum Co.—Type AR, IP-X1, SCX or WRX.
      Yeso Panamericano SA de CV—Type AR, IP-X1, SCX or WRX.
4B. **Wallboard, Gypsum***—(As an alternate to Item 4 and 4A)-5/8 in. thick, 4 ft wide gypsum panels, installed as described in Item 4 with Type S-12 steel screws. The length and spacing of the screws as specified under Item 4.
      Canadian Gypsum Company—Type FRX
      United States Gypsum Company—Type FRX
5. **Batts and Blankets***—(Optional)—(Not shown)—Mineral wool or glass fiber batts partially or completely filling stud cavity. Any mineral wool or glass fiber batt material bearing the UL Classification Marking as to Fire Resistance.

*Bearing the UL Classification Marking

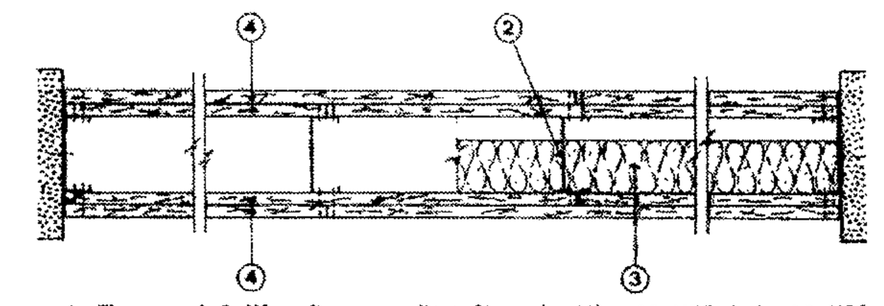
Design No. U465
Nonbearing Wall Rating—1 HR.



1. **Floor and Ceiling Runners**—(not shown)—Channel shaped runners, 3-5/8 in. wide (min), 1-1/4 in. legs, formed from min No. 25 MSG (min No. 20 MSG when Item 4C is used) galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.
2. **Steel Studs**—Channel shaped, 3-5/8 in. wide (min), 1-1/4 in. legs, 3/8 in. folded back returns, formed from min No. 25 MSG (min No. 20 MSG when Item 4C is used) galv steel spaced 24 in. OC max.
3. **Batts and Blankets***—(Optional)—Mineral wool or glass fiber batts partially or completely filling stud cavity. See Batts and Blankets (BZJZ) category for names of Classified companies.
4. **Wallboard, Gypsum***—5/8 in. thick, 4 ft wide, attached to steel studs and floor and ceiling track with 1 in. long, Type S steel screws spaced 8 in. OC. along edges of board and 12 in. OC in the field of the board. Joints oriented vertically and staggered on opposite sides of the assembly. When attached to item 6 (furring channels), wallboard is screw attached to furring channels with 1 in. long, Type S steel screws spaced 12 in. OC.
      American Gypsum Co.—Type AG-C.
      Canadian Gypsum Company—Types AR, C, IP-X2, SCX, SHX, WRC or WRX.
      Continental Gypsum Company—Types CG-C, CG5-5, CG6-6, CG9-9, CGTC-C.
      G-P Gypsum Corp.—Types 5, 9, C, GPFS6.
      James Hardie Gypsum Inc.—Type BG-C.
      Lafarge Gypsum, A Div. of Lafarge Corp.—Types LGFC6, LGFC-C.
      National Gypsum Co., Charlotte, NC—Types FSK-G, FSW-G.
      National Gypsum Co., Riyadh, Saudi Arabia—Type FR or WR.
      Pabco Gypsum Co.—Type PG-C.
      Republic Gypsum Co.—Type RG-C.
      Standard Gypsum Corp.—Type SG-C.
      Temple-Inland Forest Products Corp.—Type TG-C.
      United States Gypsum Co.—Type AR, C, IP-X2, SCX, SHX, WRC or WRX.
      Yeso Panamericano SA de CV—Type AR, C, IP-X2, SCX, SHX, WRC or WRX.
      Westroc Inc.—Type Westroc Fireboard.
4A. **Wallboard, Gypsum***—(As an alternate to Item 4)—Nom 3/4 in. thick, 4 ft wide, installed as described in Item 4 with screw length increased to 1-1/4 in.
      Canadian Gypsum Company—Type AR.
      United States Gypsum Co.—Type AR.
      Yeso Panamericano SA de CV—Type AR.
4B. **Wallboard, Gypsum***—(As an alternate to Items 4 and 4A) —5/8 in. thick installed as described in Item 4. Joint covering (Item 5) not required.
      Canadian Gypsum Company—Type WSX.
      United States Gypsum Co.—Type WSX.
      Yeso Panamericano SA de CV—Type WSX.
4C. **Wallboard, Gypsum***—(As an alternate to Item 4, 4A and 4B) —5/8 in. thick gypsum panels, installed as described in Item 4 with Type S-12 steel screws. The length and spacing of the screws as specified under Item 4.
      Canadian Gypsum Company—Type FRX.
      United States Gypsum Co.—Type FRX.
5. **Joint Tape and Compound**—Vinyl, dry or premixed joint compound, applied in two coats to joints and screw heads; paper tape, 2 in. wide, embedded in first layer of compound over all joints. As an alternate, nominal 3/32 in. thick gypsum veneer plaster may be applied to the entire surface of Classified veneer baseboard. Joints reinforced.
6. **Furring Channel**—(Optional-Not Shown)—Resilient 25 MSG galv steel furring channels spaced vertically max 24 in. OC, flange portion attached to each intersecting stud with 1/2 in. long type S-12 panhead steel screws. Not for use with Type FRX gypsum panels.

*Bearing the UL Classification Marking

Design No. U411
Nonbearing Wall Rating—2 HR.



1. **Floor and Ceiling Runner**—(Not Shown)—Min. 25 MSG (min 20 MSG when Item 4B is used) galv steel 1 in. high, return legs 2-1/2 in. wide (min), attached to floor and ceiling with fasteners 24 in. OC.
2. **Steel Studs**—Min 2-1/2 in. wide, 1-1/4 in. legs, 3/8 in. return, formed of min 25 MSG (min 20 MSG when Item 4B is used) galv steel max stud spacing 24 in. OC. Studs to be cut 3/4 in. less than assembly height.
3. **Batts and Blankets***—(Optional)—Mineral wool or glass fiber batts partially or completely filling stud cavity. Fasten each batt to wallboard base layer with a min 9/16 in. long staple. Use five staples for each 4 ft piece. Drive one staple in the center of each piece and a staple at each corner, approx 3 in. from edges. See Batts and Blankets (BZJZ) category for names of manufacturers.
4. **Wallboard, Gypsum***—5/8 in. thick, outer layer paper or vinyl surfaced. (Laminated System) Wallboard applied vertically in two layers. Inner layer attached to studs with 1 in. long Type S steel screws spaced 8 in. OC along vertical edges, and 12 in. OC in the field and outer layer laminated to inner layer with joint compound, applied with a notched spreader producing continuous beads of compound about 3/8 in. in diameter, spaced not greater than 2 in. OC. Joints of laminated outer layer offset 12 in. from inner layer joints Outer layer wallboard attached to floor and ceiling runner track with 1-5/8 in. long Type S steel screws spaced 12 in. OC.
   Optional, (Direct Attached System), Inner layer attached to studs with 1 in. long Type S steel screws spaced 16 in. OC in the field and along the vertical edges. Outer layer attached to the studs over the inner layer with 1-5/8 in. long Type S steel screws spaced 16 in. OC in the field and along the vertical edges and 12 in. OC to the floor and ceiling runners. Joints of screw-attached outer layer offset from inner layer joints. Joints of outer layer may be taped or untaped.
   Nom 3/32 in. thick gypsum veneer plaster may be applied to the entire surface of Classified veneer baseboard. Joints reinforced.
      American Gypsum Co.—Type AG-C or AGX-11.
      Boral Gypsum Inc.—Type BG-C, DDDG3, DDG2 or DDN1.
      Canadian Gypsum Company—Type AR, C, FCV, IP-X1, IP-X2, SCX, SHX, WRC, WRX or WSX.
      Celotex Corp.—Type 1 or FRP.
      Continental Gypsum Company—Types CG-3, CG-C, CG3-3, CG5-5, CG6-6, CG9-9, CGTC-C.
      G-P Gypsum Corp.—Types 5, 9, C, DGG, GPFS6.
      James Hardie Gypsum Inc.—Types Fire X, Max"C".
      Lafarge Gypsum, A Div. of Lafarge Corp.—Types LGFC3, LGFC6, LGFC-C.
      National Gypsum Co., Charlotte, NC—Type FSW, FSW-3 or FSW-G.
      National Gypsum Co., Riyadh, Saudi Arabia—Types FR, or WR.
      Pabco Gypsum—Type C, PG-3, PG-5, PG-9 or PG-C.
      Republic Gypsum Co.—Type RG-C.
      Standard Gypsum Corp.—Type SGC, SG-C or SGC-G.
      Temple-Inland Forest Products Corp.—Types T, TG-C, VPB-Type T.
      United States Gypsum Co.—Type AR, C, FCV, IP-X1, IP-X2, SCX, SHX, WRC, WRX or WSX.
      Westroc Inc.—Type Westroc Fireboard.
      Yeso Panamericano SA de CV—Type AR, C, FCV, IP-X1, IP-X2, SCX, SHX, WRC, WRX or WSX.
4A. **Wallboard, Gypsum***—(As an alternate to Item 4)—Nom 3/4 in. thick, installed as described in Item 4 with 1-1/4 in. long Type S screws for inner layer and 2-1/4 in. long Type S screws for outer layer.
      Canadian Gypsum Company—Type AR.
      United States Gypsum Co.—Type AR.
      Yeso Panamericano SA de CV—Type AR.
4B. **Wallboard, Gypsum***—(As an alternate to Item 4 and 4A) —Nom 5/8 in. thick gypsum panels, installed as described in Item 4 with Type S-12 steel screws. The length and spacing of the screws as specified under Item 4.
      Canadian Gypsum Company—Type FRX.
      United States Gypsum Company—Type FRX.

*Bearing the UL Classification Marking

RECORD DRAWINGS
DO NOT MODIFY
Rey de la Reza Architects, Inc.
13 May 2005

Note: Information used to develop these documents was taken from Record of the Work Drawings prepared by the construction contractor, Clark Construction Group - Texas. The information provided by the contractor was not verified by the design firm named above.

HOUSTON AIRPORT SYSTEM
GEORGE BUSH INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

Lea+Elliott
1009 W RANDOL MILL RD
ARLINGTON, TX 76012
Tel: 817.261.1446
Tel: 817.861.3296

R|d|R
REY DE LA REZA ARCHITECTS, INC.
ARCHITECTURE PLANNING INTERIOR DESIGN
1245 WEST 18TH ST.
HOUSTON, TX 77008
Tel: 713.868.3121
Tel: 713.802.0112

REVISIONS

NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
	RECORD SET	05/13/05	EM

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION + PLATFORM

UL DESIGN ASSEMBLY CLASSIFICATIONS

PROJECT MGR:	HEM
DESIGNER:	SG
DRAWN BY:	SEM
CHECKED BY:	AB
DRAWING STANDARD:	ISEP 07.20.2000
SCALE:	N.T.S.
DATE:	09/14/01

APPROVED BY: DATE:

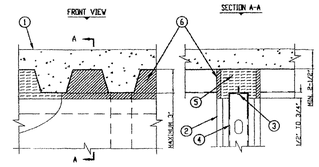
DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	1140
C.I.P. NO.	A-0354
H.A.S. NO.	536C
SHEET NO.	Z1.002

PLOT DATE: 02/04/02 HAS FILE:IA536CZ1002

UL/cUL SYSTEM NO. HW-D-0045
TOP OF WALL JOINT : 2-HR. GYPSUM WALL ASSEMBLY

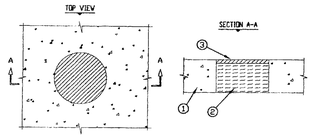
ASSEMBLY RATING = 1-HR. OR 2-HR. (DEPENDING ON RATING OF WALL AND FLOOR ASSEMBLY)
CLASS II MOVEMENT CAPABILITIES - 33% COMPRESSION OR EXTENSION



1. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE FLOOR (MIN. 2-1/2" THICK) OVER METAL DECKING (1-HR. OR 2-HR. FIRE-RATINGS).
2. GYPSUM WALL ASSEMBLY (UL/ULC CLASSIFIED U400 SERIES WALL) (1-HR. OR 2-HR. FIRE-RATING).
3. METAL DEFLECTION TRACK FASTENED TO UNDERSIDE OF THE DECK. DEFLECTION TRACK SHALL HAVE 2" FLANGES AND CONSIST OF A SINGLE TRACK OR NESTED DOUBLE TRACK SYSTEM CAPABLE OF UNRESTRICTED MOVEMENT AS REQUIRED BY DESIGNER.
4. STEEL STUDS TO BE MIN. 2-1/2" WIDE. STUD SPACING SHOULD NOT EXCEED 24" CENTER TO CENTER.
5. MINIMUM 2-3/4" OR 4" THICKNESS MINERAL WOOL (MIN. 4 PCF DENSITY), FOR 1-HR. OR 2-HR. FIRE-RATED WALLS RESPECTIVELY, TO BE FIRMLY PACKED INTO FLUTES AND RECESSED 1/2" ON EACH SIDE OF WALL TO ACCOMMODATE SEALANT.
6. MINIMUM 1/2" DEPTH HILTI CP 606 FLEXIBLE FIRESTOP SEALANT ON BOTH SIDES OF WALL ASSEMBLY.

UL/cUL SYSTEM NO. CAJ0070
BLANK OPENING IN CONCRETE FLOOR/ WALL OR BLOCK WALL

F RATING = 2-HR.
T RATING = 2-HR.

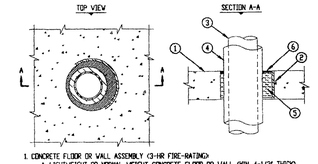


1. CONCRETE FLOOR OR WALL ASSEMBLY (2-HR. FIRE-RATING)
   A. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE FLOOR OR WALL (MINIMUM 4-1/2" THICK).
   B. ANY UL/ULC CLASSIFIED CONCRETE BLOCK WALL.
2. MINIMUM 4" THICKNESS MINERAL WOOL (MIN. 4 PCF DENSITY) TIGHTLY PACKED.
3. MINIMUM 1/2" DEPTH HILTI FS-ONE INTUMESCENT FIRESTOP SEALANT.

NOTES : 1. MAXIMUM DIAMETER OF OPENING = 7".
2. MINIMUM 1/2" DEPTH HILTI FS-ONE INTUMESCENT FIRESTOP SEALANT IS REQUIRED ON BOTH SIDES OF A WALL ASSEMBLY.

UL/cUL SYSTEM NO. CAJ5090
INSULATED METAL PIPE THROUGH CONCRETE FLOOR/WALL OR BLOCK WALL

F RATING = 3-HR.
T RATING = 0-HR.
L RATING AT AMBIENT = 4 CFM/SQ. FT.
L RATING AT 400°F = LESS THAN 1 CFM/SQ. FT.

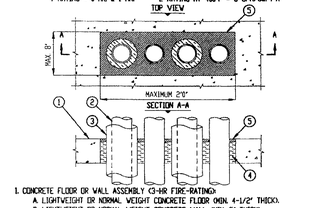


1. CONCRETE FLOOR OR WALL ASSEMBLY (3-HR FIRE-RATING)
   A. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE FLOOR OR WALL (MIN. 4-1/2" THICK).
   B. ANY UL/ULC CLASSIFIED CONCRETE BLOCK WALL.
2. (OPTIONAL) MAXIMUM 8" NOMINAL DIAMETER STEEL PIPE SLEEVE (SCHEDULE 10 OR HEAVIER).
3. PENETRATING ITEM TO BE ONE OF THE FOLLOWING
   A. MAXIMUM 4" NOMINAL DIAMETER STEEL PIPE (SCHEDULE 5 OR HEAVIER).
   B. MAXIMUM 4" NOMINAL DIAMETER COPPER PIPE.
4. MAXIMUM 3/4" AB/PVC PIPE INSULATION.
5. MINIMUM 4" THICKNESS MINERAL WOOL (MIN. 4 PCF DENSITY) TIGHTLY PACKED.
6. MINIMUM 1/4" DEPTH HILTI FS-ONE INTUMESCENT FIRESTOP SEALANT.

NOTES : 1. MAXIMUM DIAMETER OF OPENING = 8".
2. ANNULAR SPACE = MINIMUM 1/2", MAXIMUM 1-1/2".
3. MINIMUM 1/4" DEPTH HILTI FS-ONE INTUMESCENT FIRESTOP SEALANT IS REQUIRED ON BOTH SIDES OF A WALL.

UL/cUL SYSTEM NO. CAJ8041
MULTIPLE INSULATED/NON-INSULATED METAL PIPES THROUGH CONCRETE FLOOR/WALL OR BLOCK WALL

F RATING = 3-HR.
T RATING = 0-HR. & 1-HR.
L RATING AT AMBIENT = 10 CFM/SQ. FT.
L RATING AT 400°F = 6 CFM/SQ. FT.



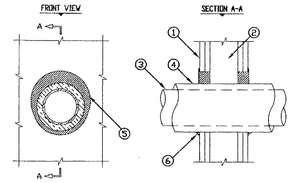
1. CONCRETE FLOOR OR WALL ASSEMBLY (3-HR FIRE-RATING)
   A. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE FLOOR (MIN. 4-1/2" THICK).
   B. LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE WALL (MIN. 5" THICK).
   C. ANY UL/ULC CLASSIFIED CONCRETE BLOCK WALL.
2. PENETRATING ITEMS TO BE ANY COMBINATION OF THE FOLLOWING (MAX. QTY. = 4)
   A. MAXIMUM 3" NOMINAL DIAMETER STEEL PIPE (SCHEDULE 10 OR HEAVIER).
   B. MAXIMUM 3" NOMINAL DIAMETER COPPER PIPE.
   C. MAXIMUM 3" NOMINAL DIAMETER STEEL CONDUIT.
   D. MAXIMUM 3" NOMINAL DIAMETER EMT.
3. OPTIONAL: MAXIMUM 1" THICK GLASS FIBER PIPE INSULATION ON ANY OR ALL PIPES.
4. MINIMUM 4" THICKNESS MINERAL WOOL (MIN. 4 PCF DENSITY) TIGHTLY PACKED.
5. MINIMUM 1/2" DEPTH HILTI FS-ONE INTUMESCENT FIRESTOP SEALANT.

NOTES : 1. MAXIMUM AREA OF OPENING IS 192 SQUARE INCHES, WITH A MAXIMUM DIMENSION OF 24 INCHES.
2. ANNULAR SPACE BETWEEN PIPES = 1-1/2".
3. ANNULAR SPACE BETWEEN PIPES AND PERIMETER OF OPENING = MINIMUM 1-5/8", MAXIMUM 2-1/2".
4. MINIMUM 1/2" DEPTH HILTI FS-ONE INTUMESCENT FIRESTOP SEALANT IS REQUIRED ON BOTH SIDES OF A WALL.

RECORD DRAWINGS
DO NOT MODIFY
Rey de la Reza Architects, Inc.
13 May 2005
Note: Information used to develop these documents was taken from Record of the Work Drawings prepared by the construction contractor, Clark Construction Group - Texas.
The information provided by the contractor was not verified by the design firm named above.

UL/cUL SYSTEM NO. W-L-5028
INSULATED METAL PIPE THROUGH L-HR. OR 2-HR. GYPSUM WALL ASSEMBLY

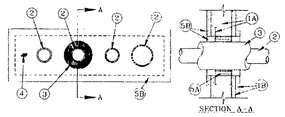
F-RATING = 1-HR. OR 2-HR.
T-RATING = 1/2-HR OR 3/4-HR.



1. GYPSUM WALL ASSEMBLY (UL/ULC CLASSIFIED U300 OR U400 SERIES) (1-HR. OR 2-HR. FIRE-RATING) (2-HR. SHOWN).
2. (NOT SHOWN) WOOD STUDS TO CONSIST OF NOMINAL 2" x 4" LUMBER. STEEL STUDS TO BE MINIMUM 2-1/2" WIDE.
3. PENETRATING ITEM TO BE ONE OF THE FOLLOWING :
   A. MAXIMUM 4" NOMINAL DIAMETER STEEL PIPE (SCHEDULE 40 OR HEAVIER).
   B. MAXIMUM 2" NOMINAL DIAMETER COPPER PIPE.
   C. MAXIMUM 4" NOMINAL DIAMETER EMT.
   D. MAXIMUM 4" NOMINAL DIAMETER STEEL CONDUIT.
4. MAXIMUM 3/4" THICK AB/PVC FLEXIBLE FOAM PIPE INSULATION.
5. HILTI FS-ONE HIGH PERFORMANCE INTUMESCENT FIRESTOP SEALANT :
   A. MINIMUM 5/8" DEPTH, FOR A 1-HR. FIRE-RATING.
   B. MINIMUM 1-1/4" DEPTH, FOR A 2-HR. FIRE-RATING.
6. MINIMUM 1/2" CROVN HILTI FS-ONE FIRESTOP SEALANT AT POINT OF CONTACT.

NOTES : 1. MAXIMUM DIAMETER OF OPENING = 7-1/2".
2. ANNULAR SPACE = MINIMUM 0", MAXIMUM 1-1/2".

System No. W-L-8003
(Formerly System No. 633)
F Ratings—1 and 2 Hr (See Item 1B)
T Rating—0 Hr
L Rating At Ambient—8 CFM/sq ft
L Rating At 400 F—Less Than 1 CFM/sq ft



1. **Wall Assembly**—The 1 or 2 h fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300 or U400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:
   A. **Studs**—Wall framing may consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. lumber spaced 16 in. OC. In 2 h fire-rated assemblies, steel studs to be min 2-1/2 in. wide and spaced max 24 in. OC. In 1 h fire rated assemblies, steel studs to be min 3-5/8 in. wide and spaced 24 in. OC. Additional studs shall be installed horizontally in such a manner to form a nom 22-3/4 in. wide by 6 in. high opening.
   B. **Wallboard, Gypsum***—5/8 in. thick, 4 ft wide with square or tapered edges. The gypsum wallboard type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual U300 or U400 Series Design in the UL Fire Resistance Directory. If the through penetrants are installed in a wood stud/gypsum wallboard assembly, the max area of opening is 87 sq. in. with max dimension of 14-1/2 in.
   The hourly F rating of the firestop system is equal to the hourly fire rating of the wall assembly in which it is installed.
2. **Through Penetrants**—Four pipes, conduits or tubing to be installed within the opening. The space between pipes, conduits or tubing shall be a nom 1-7/8 in. The space between pipes, conduits or tubing and periphery of opening shall be min 5/8 in. to max 1-15/16 in. Pipe, conduit or tubing to be rigidly supported on both sides of wall assembly. The following types and sizes of pipes, conduits or tubing may be used:
   A. **Steel Pipe**—Nom 3 in. diam (or smaller) Schedule 5 (or heavier) steel pipe.
   B. **Iron Pipe**—Nom 2 in. diam (or smaller) cast or ductile iron pipe.
   C. **Conduit**—Nom 3 in. diam (or smaller) steel electrical metallic tubing or steel conduit.
   D. **Copper Tubing**—Nom 2 in. diam (or smaller) Type L (or heavier) copper tubing.
   E. **Copper Pipe**—Nom 2 in. diam (or smaller) Regular (or heavier) copper pipe.
   F. **Polyvinyl Chloride (PVC) Pipe**—Nom 2 in. diam (or smaller) Schedule 40 PVC pipe for use in closed (process or supply) piping system.
3. **Pipe Covering**—One of the following types of pipe coverings shall be used:
   A. **Pipe and Equipment Covering—Mareriats***—Nom 1 in. thick hollow cylindrical heavy density (min 3.5 pcf) glass fiber units jacketed on the outside with an all service jacket. Longitudinal joints sealed with metal fasteners or factory-applied self-sealing lap tape. Transverse joints secured with metal fasteners or with butt tape supplied with the product. The pipe covering may be installed on one of the metallic pipes or tubing having a nom diam of 2 in. or less. The insulated pipe or tubing shall be spaced a nom 1-7/8 in. from the other through-penetrants. The space between the insulated pipe or tubing and periphery of the opening shall be a nom 1 in.
   See **Pipe and Equipment Covering—Materials** (BR6U) category in the Building Materials Directory for names of manufacturers. Any pipe covering material meeting the above specifications and bearing the UL Classification Marking with a Flame Spread Index of 25 or less and a Smoke Developed Index of 50 or less may be used.
   B. **Pipe Covering Materials***—Nom 1 in. thick unfaced mineral fiber pipe insulation having a nom density of 3.5 pcf (or heavier) and sized to the outside diam of pipe or tube. Pipe insulation secured with min 8 AWG steel wire spaced max 12 in. OC. The insulated pipe or tubing shall be spaced a nom 1-7/8 in. from the other through-penetrants. The space between insulated pipe and periphery of opening shall be a nom 1 in.
      Owens Corning HT Inc., Div of Owens Corning—High Temperature Pipe Insulation 1200, High Temperature Pipe Insulation BWT or High Temperature Pipe Insulation Thermaloc
   C. **Sheathing Material***—(Not shown)—Used in conjunction with Item 3B. Foil-scrim-kraft or all service jacket material shall be wrapped around the outer circumference of the pipe insulation (Item 3B) with the kraft side exposed. Longitudinal joints and transverse joints sealed with metal fasteners or butt tape.
   See **Sheathing Materials** (BVDV) category in the Building Materials Directory for names of manufacturers. Any sheathing material meeting the above specifications and bearing the UL Classification Marking with a Flame Spread Index of 25 or less and a Smoke Developed Index of 50 or less may be used.
4. **Cables**—Max six cables to be installed within the firestop system. Cables to be spaced 1-1/2 in. from the through-penetrants. The space between the cables and periphery of opening shall range from a min 1 in. to a max 2-7/8 in. Cables to be tightly bundled together and rigidly supported on both surfaces of wall.
   Any combination of the following types and sizes of copper conductor cables may be used:
   A. Max 25 pair No. 24 AWG (or smaller) telephone cables with polyvinyl chloride (PVC) insulation and jacket.
   B. Max 3/C (with ground)—No. 10 AWG (or smaller) nonmetallic sheathed ("Romex") cable with PVC insulation and jacket.
   C. Max 4 pair No. 18 AWG (or smaller) thermostat cables with PVC insulation and jacket.
5. **Firestop System**—The firestop system shall consist of the following:
   A. **Packing Material**—In 2 h fire-rated assemblies, min 2-1/2 in. thickness of min 6 pcf mineral wool batt insulation firmly packed into opening as a permanent form. In 1 h fire-rated assemblies, min 2-1/4 in. thickness of mineral wool batt insulation firmly packed into opening as a permanent form. Packing material to be recessed from both surfaces of wall as required to accommodate the required thickness of fill material.
   B. **Fill, Void or Cavity Material*—Caulk**—Min 1-1/4 in. thickness of fill material applied within the annulus, on both surfaces of wall. Caulk to be forced into interstices of cable group to max extent possible. Additional caulk to be installed such that a min 1 in. is lapping beyond periphery of the opening.
      Specified Technologies Inc.—SpecSeal 100, 101, 102 or 105 Sealant

*Bearing the UL Classification Marking

HOUSTON AIRPORT SYSTEM
GEORGE BUSH INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

Lar Elliott
1009 W.RANDOL MILL RD.
ARLINGTON,TX,76012
Tel: 817.261.1448
Tel: 817.861.3296

REY DE LA REZA ARCHITECTS, INC
ARCHITECTURE PLANNING INTERIOR DESIGN
1240 WEST 18TH ST.
HOUSTON,TX,77008
Tel: 713.868.3121
Tel: 713.802.0112

REVISIONS

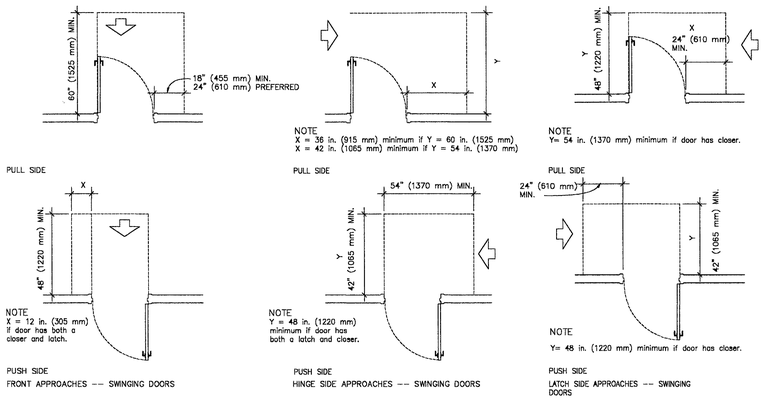
NO.	DESCRIPTION	DATE	BY
	ISSUED FOR BID	10/19/01	
	RECORD SET	05/13/05	EM

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM
APM STATION + PLATFORM
UL DESIGN FIRESTOP ASSEMBLIES

PROJECT MGR:	HEM
DESIGNER:	SG
DRAWN BY:	SEM
CHECKED BY:	AB
DRAWING STANDARD:	
	ISEP 07.20.2000
SCALE:	N.T.S.
DATE:	09/14/01

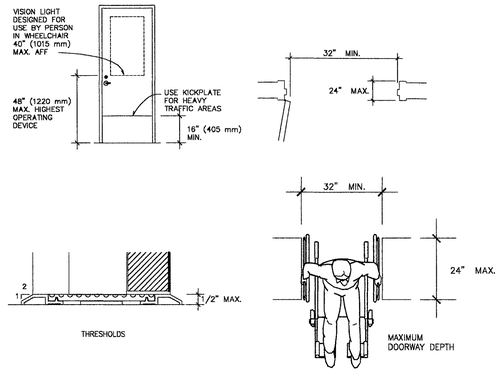
APPROVED BY:	DATE:
DIRECTOR HOUSTON AIRPORT SYSTEM	
PROJECT NO.	1140
C.I.P. NO.	A-0354
H.A.S. NO.	536C
SHEET NO.	Z1.003

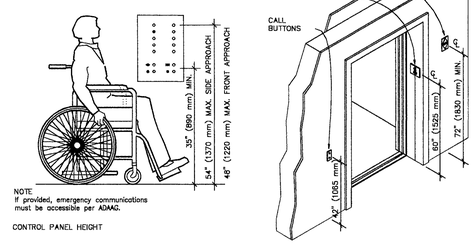
PLOT DATE: 02/04/02 HAS FILE: IAS36C21003

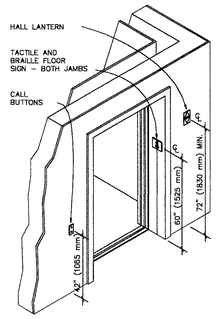


02 Z1.003 N.T.S.

MANEUVERING CLEARANCES AT DOORS

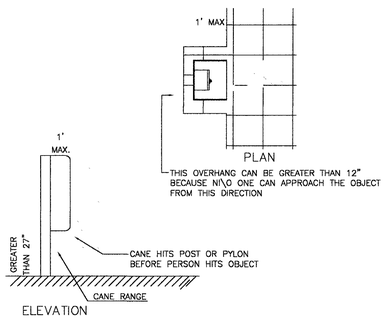






01 Z1.003 N.T.S.

ACCESSIBLE ELEVATOR



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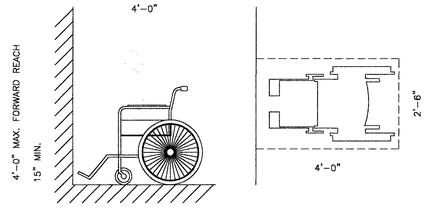
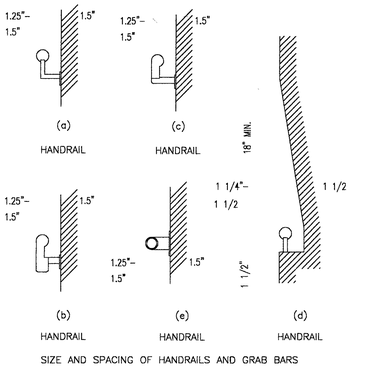
POSTS/PYLONS



05 Z1.003 N.T.S.

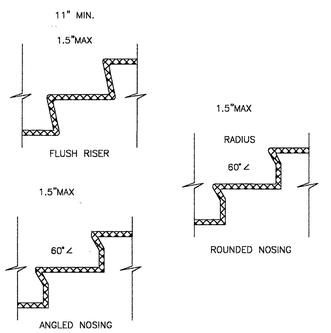
FORWARD REACH



SIZE AND SPACING OF HANDRAILS AND GRAB BARS

04 Z1.003 N.T.S.

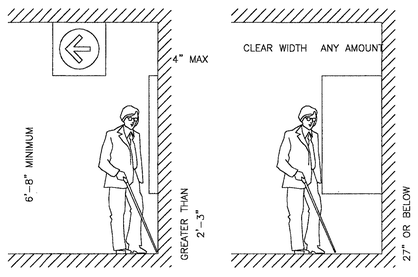
HANDRAIL DETAILS



USABLE TREAD WIDTH AND EXAMPLES OF ACCEPTABLE NOSINGS

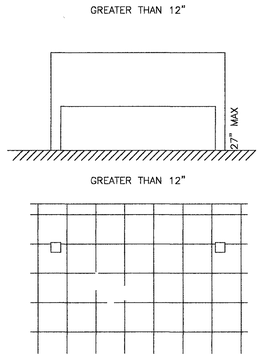
03 Z1.003 N.T.S.

TREAD & NOSINGS



11 Z1.003 N.T.S.

PROTRUDING OBJECTS



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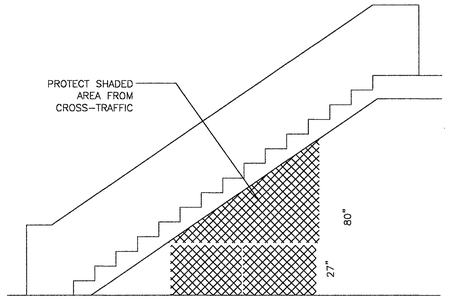
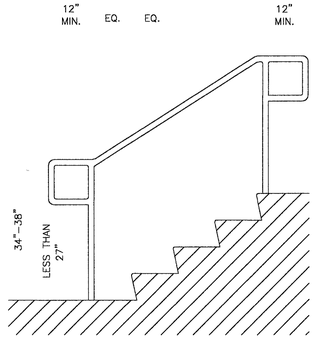
PROTRUDING OBJECTS



09 Z1.003 N.T.S.

OVERHEAD HAZARDS



07 Z1.003 N.T.S.

STAIR DETAIL

RECORD DRAWINGS
DO NOT MODIFY
Rey de la Reza Architects, Inc.
13 May 2005
Note: Information used to develop these documents was taken from Record of the Work Drawings prepared by the construction contractor, Clark Construction Group - Texas.
The information provided by the contractor was not verified by the design firm named above.

ACCESSIBILITY NOTES

1. Controls and hardware:
A. Handles, pulls, latches, locks and other operating devices on doors, windows, cabinets, plumbing fixtures and storage facilities, shall have lever or other shape which will permit operation by wrist or arm pressure and does not require tight grasping, pinching or twisting to operate.
B. The highest operable part of environmental and other controls, dispensers, receptacles and other operable equipment shall be within at least one of the reach ranges specified above and not less than 36 in. above the floor. Electrical and communications system receptacles on walls shall be mounted a minimum of 15 in. in height above the floor. Door hardware shall be mounted not more than 42 in. above finished floor, except at accessible stalls where it shall be mounted between 34 and 36 in. above finished floor.
C. Clear floor space that allows a forward or a side approach shall be provided at all controls or hardware.

2. Accessible route of travel:
A. The minimum clear width of an accessible route of travel shall be 36 in. except at doors. Where an accessible route includes a 180-degree turn around an obstruction which is less than 48 in. in width, the clear width of the accessible route of travel around the obstruction shall be 42 in. min.
B. An accessible route of travel shall have a running slope not greater than 1 vertical in 12 horizontal. Cross slopes of an accessible route of travel shall not exceed 1 vertical in 50 horizontal.
C. Protruding objects shall not reduce the clear width of an accessible route of travel or maneuvering space. Any wall-or post-mounted object with its leading edge between 27 in. and 80 in. above the floor may project no more than 4 in. into the required width within a corridor any wall-or post-mounted projection greater than 4 in. shall extend to the floor. Protruding objects shall not reduce the clear width of an accessible route of travel or maneuvering space.
C. Accessible routes from public transportation stops, accessible parking, accessible passenger loading zones & public streets or sidewalks to the accessible building entrance they serve are required and shall not exceed 5% or 1:20 slope in the direction of traver nor 2% or 1:50 in cross slope.

3. Changes in level:
A. Accessible routes of travel and accessible spaces within buildings shall have continuous common floor or ramp surfaces. Abrupt changes in height greater than 1/4 in. shall be beveled to 1 vertical in 2 horizontal changes in lever greater than 1/2 in. shall be accomplished by means of a ramp as delineated in section 5 below.
B. All surfaces shall be firm and stable. Showers; locker rooms; toilet rooms; and other areas subject to wet conditions shall have slip-resistant floors.
Grates within an accessible route of travel shall have no openings more than 1/2 in. in least clear distance between solid parts. The maximum vertical surface change shall be 1/8 in.

4. Ramps:
A. The maximum slope of a ramp shall be 1 vertical in 2 horizontal. The maximum rise for any run shall be 30 in..
B. The minimum clear width of a ramp shall not be less than 48 in. (with the exception of single-run ramps not in excess of 15 ft. in length which may have widths of not less than 36 in.
C. Exposed ramps and their approaches shall be constructed to prevent the accumulation of water on walking surfaces.
D. Curb ramps can not be located in access aisle. The access aisle must be lever, less than 2% slope. This means the curb ramp must be within the sidewalk rather than within the access aile.

5. Entrances:
A. All entrances are required to be level. Level is 2% or 1/4" per foot or less slope.

6. Doors:
A. Doors shall be capable of opening so that the clear width of the opening is not less than 32 in.. All doors shall have minimum maneuvering clearances as follows:
(a.) Where a door must be pulled to be opened, an unobstructed floor space shall extend at least 18 in. beyond the strike.
(b.) Where a door must be pushed to be opened and is equipped with a closer and a latch, an unobstructed floor space shall extend at least 12 in. beyond the strick jamb.
(c.) Where two doors are in series, the minimum distance between two hinged or pivoted doors shall be 52 in. in additon to any area needed for door swing.
B. Where provided, a door closer shall be adjusted to close from an open position of 70 degrees in not less than three seconds. To a point 3 in. (75mm) from the latch, when measured to the leading edge of the door.
C. Exit doors shall be of the side-hinged swinging or pivoted type. Exit doors shall swing in the direction of exit travel when serving any hazardous area or when serving an occupant load of 50 or more. The door latch shall release when subjected to a 15-pound force, and the door shall be set in motion when subjected to a 30-pound force. The door shall swing to full-open position when subjected to a 15-pound force. The mzximum opening force for doors located within an accessible route of travel shall not exceed 8.5 pounds for exterior hinged doors, 5 pounds for sliding or folding doors or 5-pounds for interior hinged doors. Forces shall be applied to the latch side.
D. When panic hardware is installed, the activating member shall be mounted at a height of not less than 30 in. or more than 44 in. above the floor. The unlatching force shall not exceed 15 pounds when applied in the direction of exit travel.
E. Every required exit doorway shall be of a size as to permit the installation of a door not less than 3 feet in width and not less than 6 ft.8 in.in height. When installed, exit doors shall be capable of opening so that the clear width of the exit is not less than 32 in..
F. The maximum force for pushing or pulling a door shall be as follows:
(a.) Fire doors shall have the minimum opening force allowable by the appropriate administrative authority.
(b.) Interior hinged doors: 5 LBF (22.2N)
(c.) Sliding or folding doors: 5 LBF (22.2N)
These forces do not apply to the force required to retract latch bolts or disengage other devices that may hold the door in a closed position.
G. Thresholds at doorways and thresholds shall not exeed 3/4"(19mm) in height for exterior sliding doors or 1/2"(13mm) for other types of doors.
H. Raised thresholds and floor lever changes at accessible doorways shall be beveled with a slope no greater than 1:2.

7. Bathrooms, toilet rooms, bathing facilities and shower rooms:
A. An unobstructed floor space shall be provided within bathrooms, toilet rooms, bathing facilities and shower rooms of sufficient size to inscribe a circle with a diameter not less than 60 in.. Doors in any position may encroach into this space by not more than 12 in.. The clear floor spaces at fixture, the accessible route of travel and the unobstructed floor space may overlap.
B. Grab bars shall have a nominal diameter of not less than 1 1/4 in. or more than 1 1/2 in. (32mm to 38mm) and shall provide a clearance of 1 1/2 in. (38mm) between the grab bars and the wall.
C. The grab bar which is located on the back wall behind the toilet is to be placed 6 in. from side wall.
D. The grab bar which is located on the side wall is to be placed 12 in. from the back wall.

8. Controls and operating mechanisms:
A. The highest operable part of controls, dispensers, receptacles, and other operable equipment shall be placed within at least one of the reach ranges specified in the state accessibility standards.
B. Electrical and communications system receptacles on walls shall be mounted no less than 15 in. (380mm) above the floor.
Exception:
These requirements do not apply where the use of special equipment dictates otherwise or where electrical and communications systems are not normalit intended for use by building occupants.

9. Water fountains:
A. Wall-and post-mounted cantilevered units shall have a minimum clear floor space in front of the units 30 in. in width by 52 in. in depth in order to allow a person in a wheelchair to approach the unit facing forward. Free standing or built-in units not having a clear space under them shall have a clear floor space at lease 30 in. in depth by 52 in. in width in order to allow a person in a wheelchair to make a parallel approach to the unit.
B. Wall-and post-mounted cantilevered units shall have knee space of not less than 19 in. in depth.
C. Spouts shall be located not more than 36 in. above the floor or ground surface. Spouts shall be located in the front of the unit and shall direct a flow not less than 4 in. in height, in a trajectory parallel to the front of the unit.
D. Controls shall be located not more than 6 in. from the front of the unit. The force required to activate the control shall not exceed 5 pounds.

10. Alarms:
A. If provided, alarms must be both audio and visual. At a minimum, visual visual signal appliances shall be provided in buildings and facilities in:
(a.) Restrooms and any other general usage areas (e.g., meeting rooms).
(b.) Hallways, lobbies, and any other area for common use.
B. Audible alarms shall comply with NFPA 72-1990. Audible alarms shall exceed the prevailing equivalent sound level in the room or space by at least 15 decibles or shall exceed any maximum sound level with a duration of 60 is louder. Sound levels for alarm signals shall not exceed 120 decibels.
D. Manual fire alarm devices shall be mounted not more than 48 in. above the floor provided that parallel approach is provided.
E. If single station ausible alarms are provided then single station visual alarms shall be provided.

11. Signage:
A. Raised and brailed characters and pictorial symbol signs shall be provided.
B. Facilities and elements required to be identified as accessible by this code shall used international symbol of accessibility.
C. If permanent identification is provided for rooms and spaces,then the signs shall be installed on the wall adjacent to the latch side of the door. Signs shall be centered at 60 in. (1525mm) above the finished floor.

HOUSTON AIRPORT SYSTEM
GEORGE BUSH INTERCONTINENTAL AIRPORT
HOUSTON TEXAS

Lee Elliott
1000 W.RANDOL MILL RD.
ARLINGTON,TX,7610
Tel: 817.261.1446
Tel: 817.861.3296

REY DE LA REZA ARCHITECTS, INC.
ARCHITECTURE PLANNING INTERIOR DESIGN
1045 WEST 18TH ST.
HOUSTON,TX,77008
Tel: 713.868.3121
Tel: 713.802.0112

REVISIONS		
NO. DESCRIPTION	DATE	BY
ISSUED FOR BID	10/19/01	
RECORD SET	05/13/05	EM

INTERNATIONAL • SERVICES • EXPANSION • PROGRAM

APM STATION + PLATFORM

ADA STANDARDS

PROJECT MGR:	HEM
DESIGNER:	SG
DRAWN BY:	SEM
CHECKED BY:	AB
DRAWING STANDARD:	
	ISEP 07.20.2000
SCALE:	N.T.S.
DATE:	09/14/01

REGISTERED ARCHITECT Rey de la Reza 6972 STATE OF TEXAS

APPROVED BY:	DATE:
DIRECTOR HOUSTON AIRPORT SYSTEM	
PROJECT NO.	1140
C.I.P. NO.	A-0354
H.A.S. NO.	536C
SHEET NO.	Z1.004

PLOT DATE: 02/04/02 HAS FILE:HAS36CZ1004