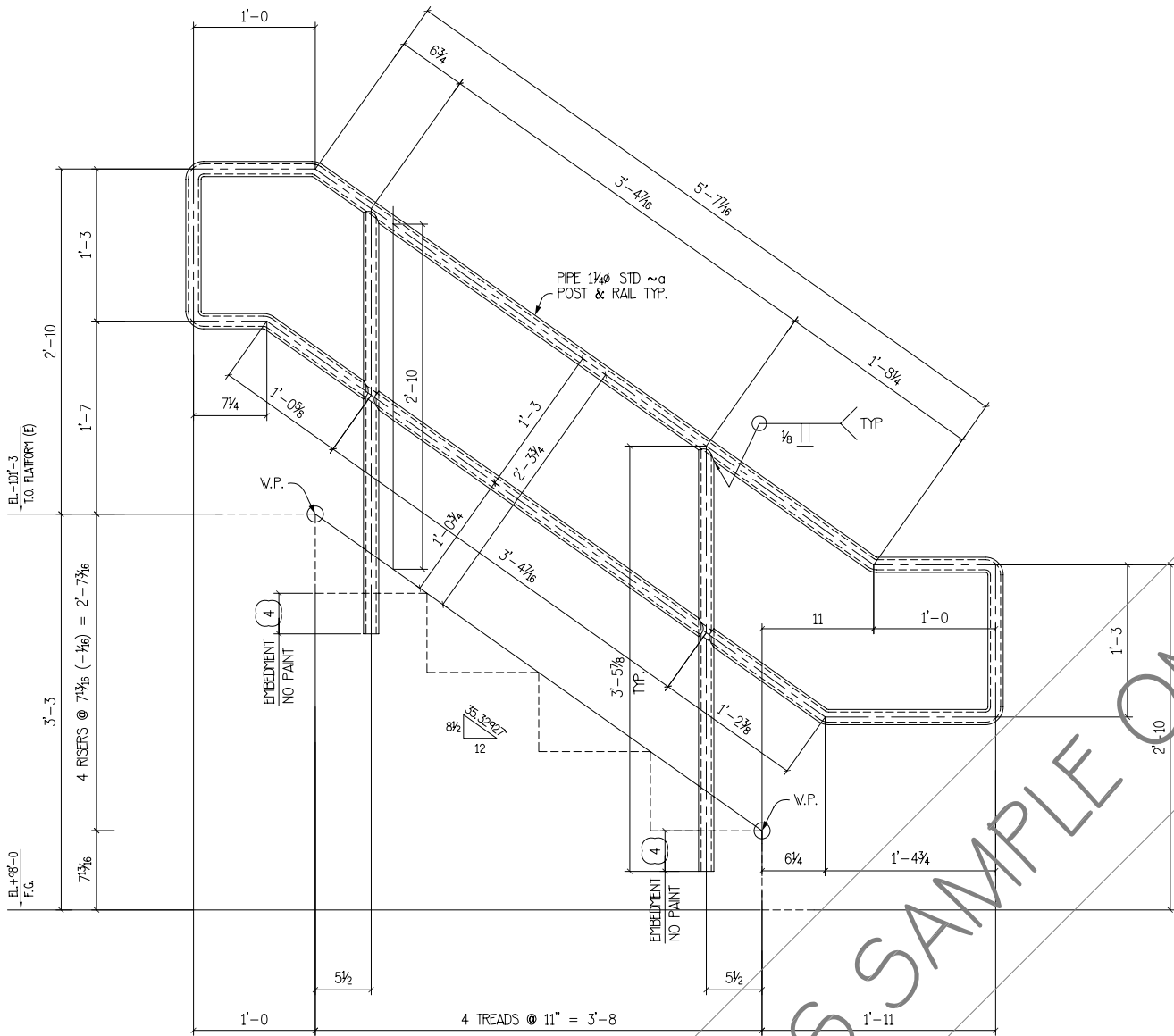




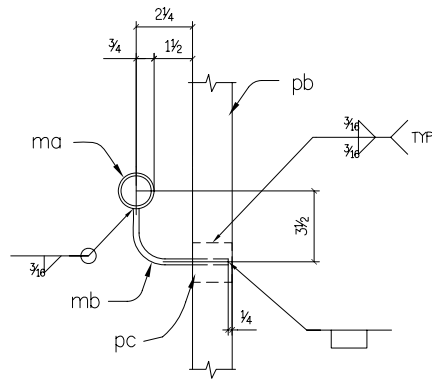
4 - HANDRAILS ~ 103A
(REF: A, B & C/AS2.11)

BILL OF MATERIALS

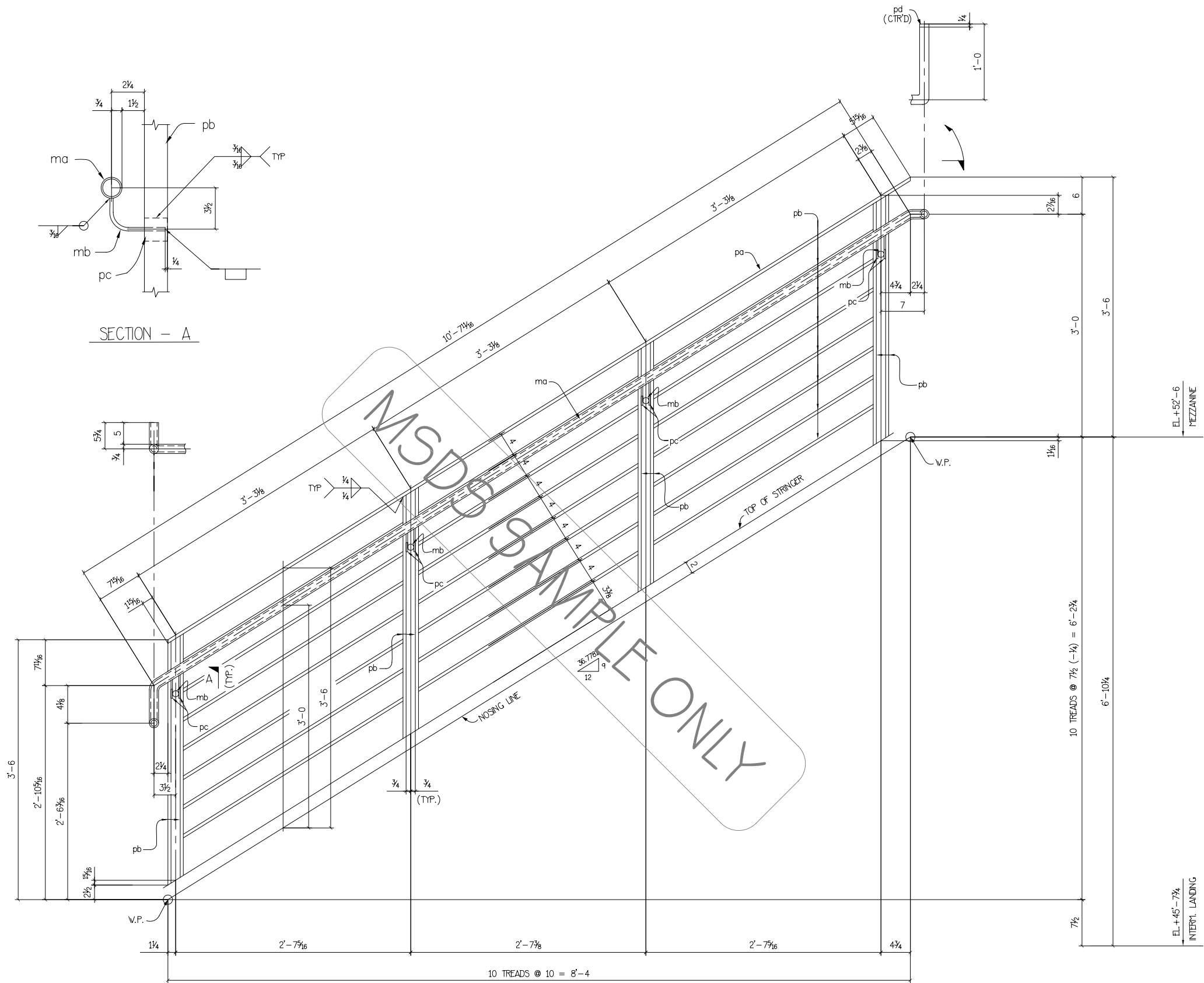
LINE	MARK	QTY.	DESCRIPTION	P L	LENGTH OR PATTERN NO.	MATERIAL	REMARKS	WEIGHT
1								
2	103A	4	HANDRAILS					
3	a	4	PIPE 1 1/4" STD		26'-0		LN. FT.	
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
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25								
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27								
28								
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30								
31								
32								
33								
34								
35								
36								
37								
38								
39								
40								
41								
42								
43								
44								

- SHOP NOTES:
- CHANNELS, ANGLES & PLATES - ASTM A36 U.N.
 - TUBE - ASTM A500 , GRADE A
 - PIPES - ASTM A53, GR.B
 - WELDING - E70XX PER AWS
 - G.A. SHEET - ASTM A569
 - ALL WELDS TO BE GRIND SMOOTH @ EXPOSED CONNECTIONS

REVISIONS			PRINT RECORD		
NO.	DATE	DESCRIPTION	DATE	QTY.	ISSUED
1	12-09-05	FOR APPROVAL			
2					
3					
4					
5					
PAINT 1 S/C PRIMER			HOLES U.N.	WELD U.N.	DRAWN BY RM
PROJECT ANDRE AGASSI COLLEGE PREPARATORY ACADEMY (GYM. & HIGH SCHOOL ADDITION)			CHK'D BY RP-1		
DESCRIPTION QUAD HANDRAIL DETAIL			JOB NO. 520		
ARCH. CARPENTER SELLERS ASSOCIATES ENG. MARTIN & PELTYN, INC.					
CUSTOMER SLETTEN CONSTRUCTION			103		



SECTION - A



ONE - HANDRAIL - 140A

REF. E-DWG: E26

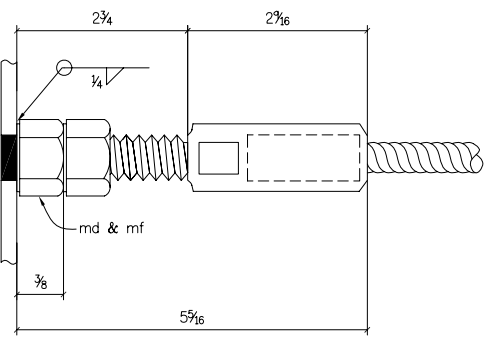
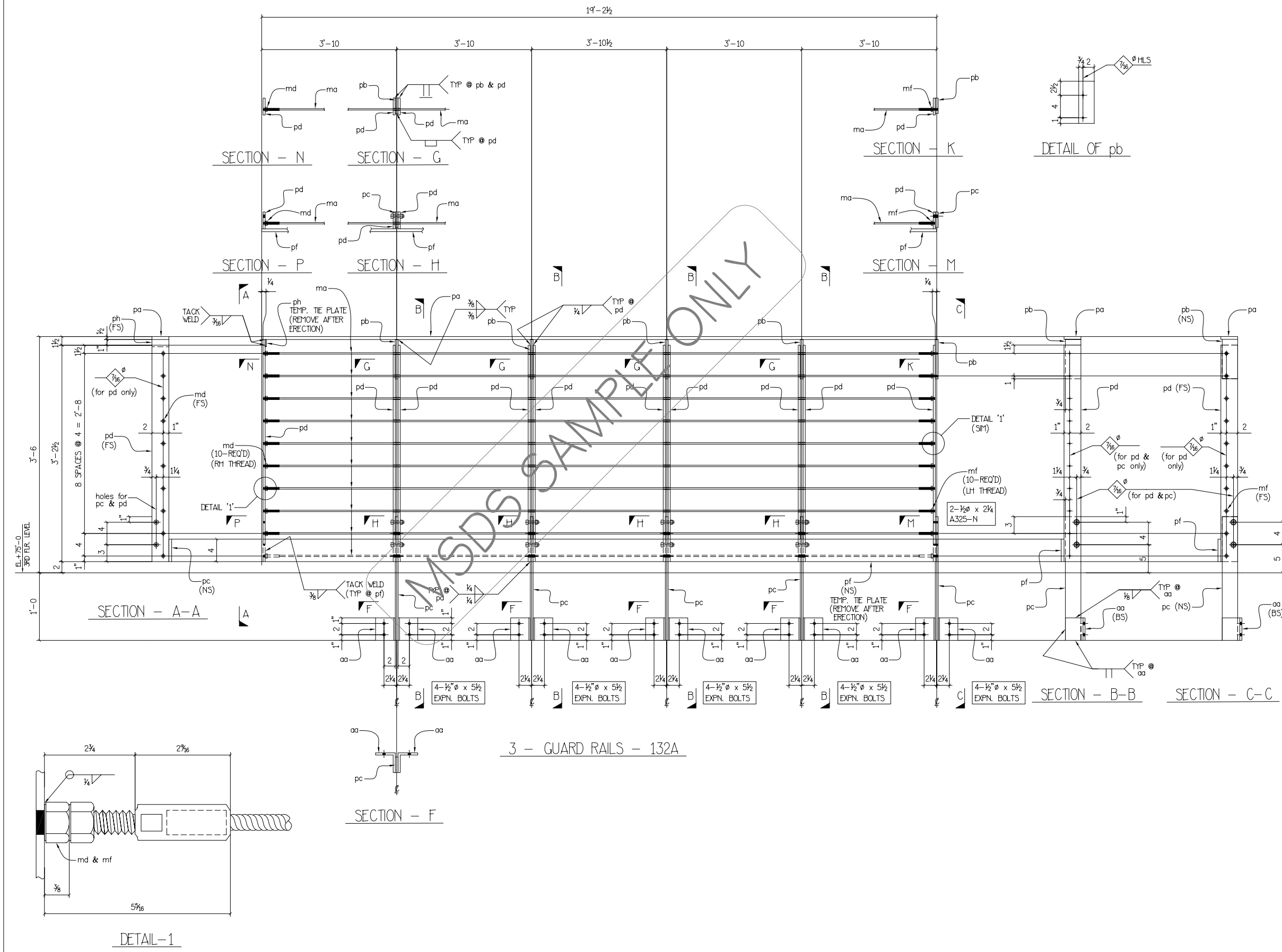
BILL OF MATERIAL

QTY.	MARK	DESCRIPTION	LENGTH FT.	IN.	TOTAL WEIGHT	REMARKS
ONE	140A	GUARDRAIL				
1	ma	TUBE 1 1/2" O.D. x 13GA	14	0		LN. FT.
4	mb	1" Ø ROD	0	7		
1	pa	FB 2 x 1/2	12	0		LN. FT.
1	pb	FB 1 1/2 x 1/2	98	0		LN. FT.
8	pc	PL 1/4 x 1 1/2	0	1 1/2		
1	pd	PL 1/4 x 1 1/2	0	1 1/2		ROUND

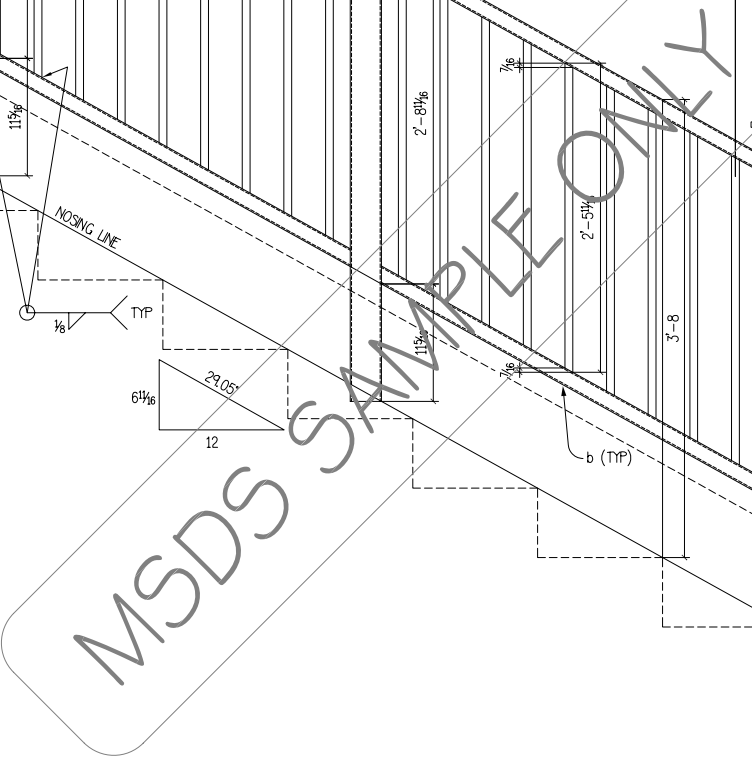
PAINT	1 S/C PRIMER	QTY.	DATE	FOR
HOLES	NONE			
GENERAL NOTES:				FIELD
All Shapes & Plates				GEN. CONTR.
Tube Steel				PROJ. MNGR.
Pipe				QUALITY ASSURANCE
Bolts 3/4"				SEPIA
Deburr all holes				FIRST APR.
Fabricate individual shapes with camber up				SHOP PRELIMINARY
All welds to E-70 XX Electrodes				CREATOR PRELIMINARY
				CHK. PRELIMINARY
				PRJ. PRELIMINARY
				SUBCONTRACT
				VENDOR

REV.	DESCRIPTION	DATE	REV.	DESCRIPTION	DATE
A	FOR APPROVAL	01/31/08	A		
A			A		

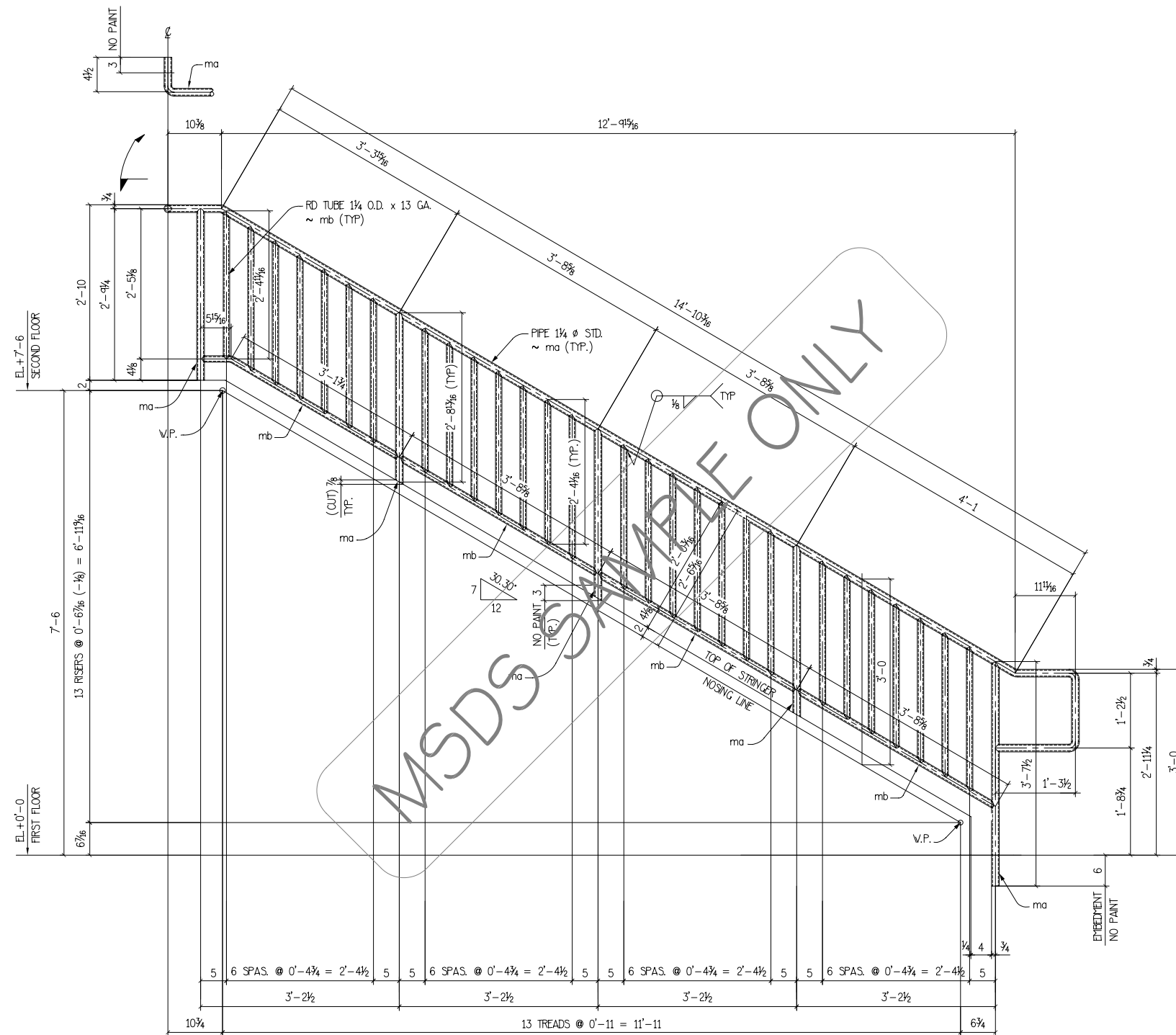
PROJECT NAME		CENTRE STREET LOFTS	
ADDRESS		SAN PEDRO, CA	
DRAWING TITLE	HANDRAIL DETAIL (UNIT J2)	DRAWN BY:	ST
Architect	ARQUITECTONICA	CHKD BY:	CM-1
Contractor	PCL CONSTRUCTION SERVICES, INC.		
Engineer	ENGLEKIRK PARTNERS		
A & E CROSS REFERENCE		JOB NO.	DRAWING NO.
		050810	A B C 140



BILL OF MATERIAL						
QTY.	MARK	DESCRIPTION	LENGTH		TOTAL	REMARKS
			FT.	IN.	WEIGHT	
3	132A	GUARD RAIL				
30	ma	AIRCRAFT CABLE 3/16"	19	1 1/4	.	V/SWAGE STUD
		W/ 3/8" THREAD BOTH ENDS				78013-1005
30	md	NUT 3/8" (RIGHT HAND THRD)				GALV.
30	mf	NUT 3/8" (LEFT HAND THRD)				GALV.
30	aa	L3 1/2 x 3 1/2 x 3/16	0	4		
3	pa	FB 3 x 1/2	19	2 1/2		
15	pb	PL 1/2 x 2 3/4	0	7 1/2		
15	pc	PL 1/2 x 2 3/4	1	10		
30	pd	FB 3 x 3/8	3	2 1/2		
3	pf	FB 4 x 1/4	19	2 1/2		
3	ph	FB 3 x 1/4	0	1 1/2		
24		3/8 BOLT W/ 1" Ø WA. 2 EACH	0	2 3/4		GALV.



					
		01/27/05		RP FOR FABRICATION	
		11/19/04		RP FOR APPROVAL	
NO.		DATE		BY	
				REVISION	
HOLES:				PAINT: GALVANIZED	
RIVETS:				MAT'L: A36 U.N.	
REF. E1 TO E4					
ARCH: HENRY WOO ARCH. ENGINEER: TAYLOR & GAINES					
DRAWN : MA DATE : 11/16/04 CHK'D : RP-5 DATE : 11-19-04					
PROJECT: FULLERTON UNION HIGH SCHOOL Location: FULLERTON, CA					ORDER NO. 6652
Contractor: ERICKSON-HALL CONSTRUCTION					DRAWING NO.
Sheet Title: STAIR #3 GUARDRAIL DETAILS					107 

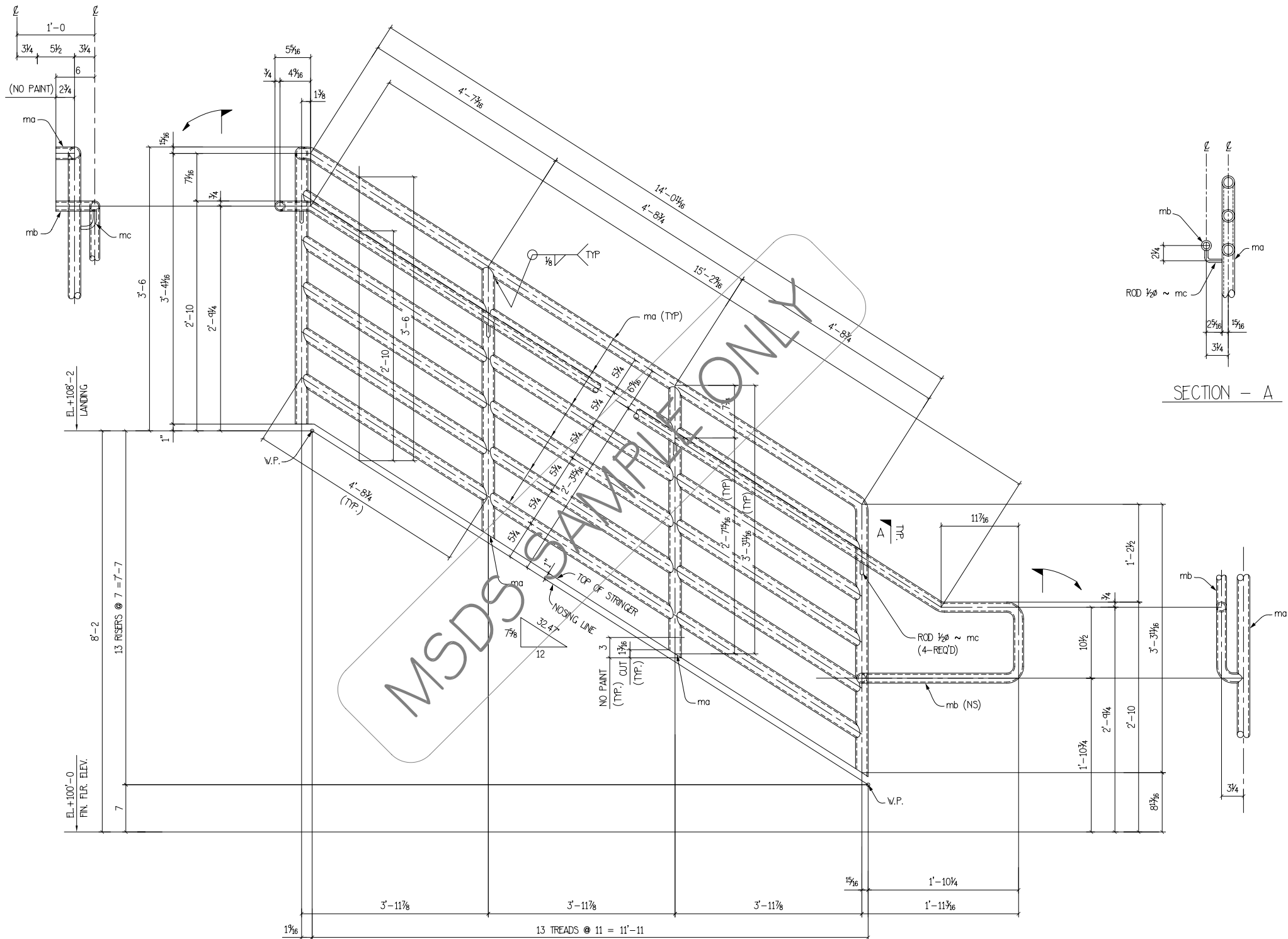


ONE - HANDRAIL - 163A

BILL OF MATERIALS

LINE	MARK	QTY.	DESCRIPTION	P L	LENGTH OR PATTERN NO.	MATERIAL	REMARKS	WEIGHT
1								
2								
3	163A	ONE	GUARD RAILS					
4	ma	1	PIPE 1 1/4" STD.		37'-0"		LN. FT.	
5	mb	1	RD TUBE 1 1/4" O.D. x 13 GA		85'-0"		LN. FT.	
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
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23								
24								
25								
26								
27								
28								
29								

Shop Notes		Revision		Job: DESERT CANYON BUSINESS PARK - BLDG. II			
		Date	No.	Remarks			
Paint	1 S/C PRIMER	05.16.05	△	FOR APPROVAL	Contractor NIGRO CONSTRUCTION, INC.		
Open Holes	13 16 Ø	08.18.05	△	FOR FABRICATION	Architect PERLMAN ARCHITECTS, INC.		
Unless Noted			△		Engineer MENDENHALL SMITH		
Wide Flgs. Bars & Plts. TCC Bolts	ASTM A992		Structure Tubes	ASTM A500	Drawn DC	Chkd. AF-4	Job No. 580-04-02
	ASTM A36		Pipe	ASTM A53			
	ASTM A325		Unless Noted on Bill of Material		Reference Dwg's: E15, E16 & E18		Sheet No. 163



ONE - GUARDRAIL - 412A

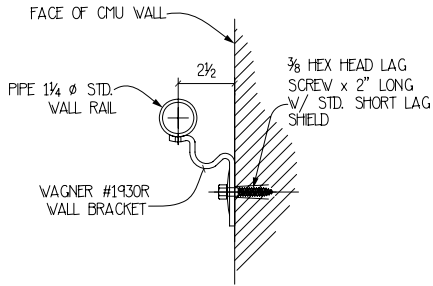
- SHOP NOTES:
- ⊗ INDICATES PAINT STRIKE SIDE.
 - ⊠ INDICATES TAIL DIMENSIONS START
 - GRIND ALL WELDS & SHAP EDGES SMOOTH.

REF. DWG.: E41, E42

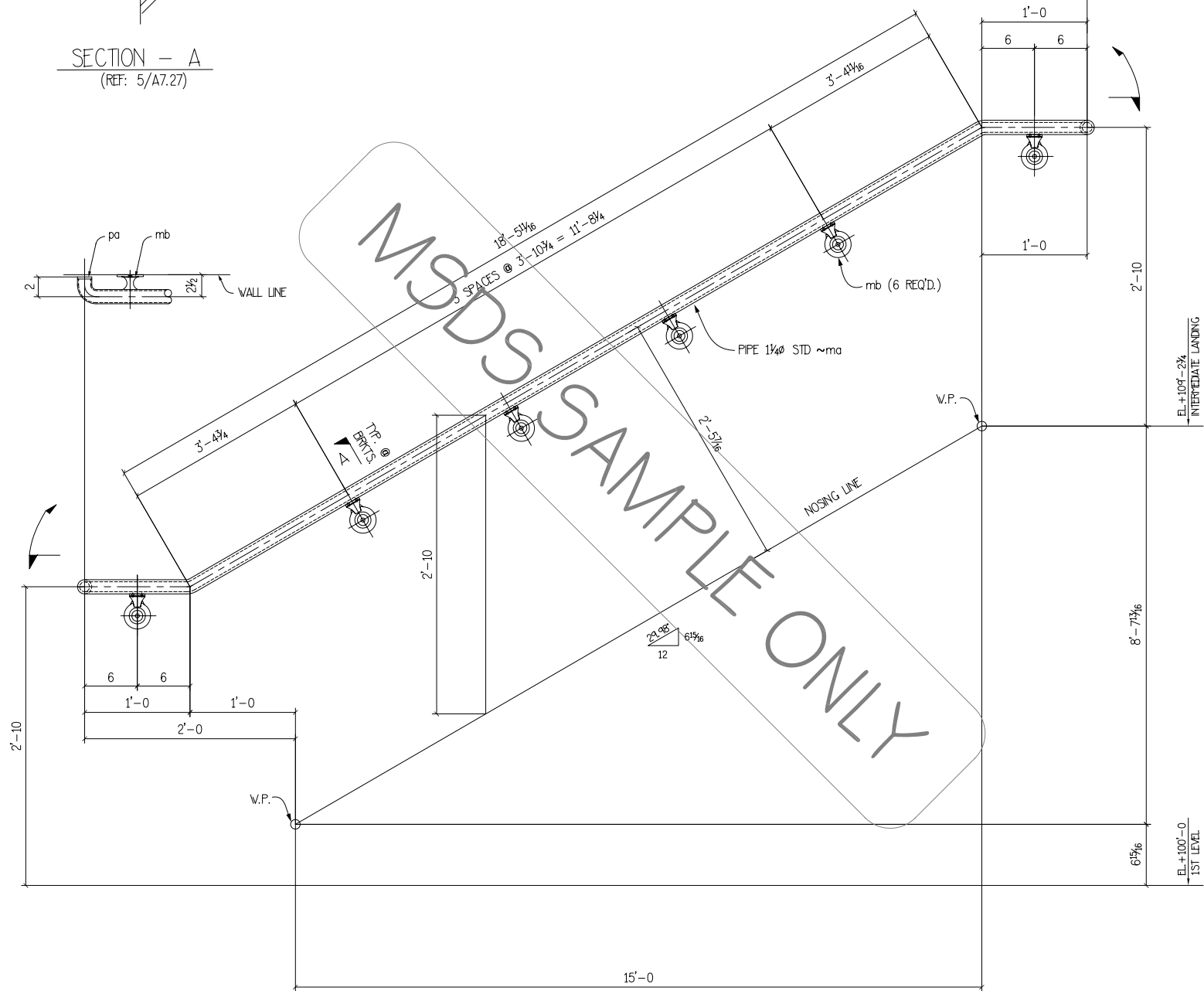
MATERIAL LIST

SHIPPING MARK	ASSEMBLY MARK	NO. PIECES	SIZE	LENGTH		NOTES
				FT.	IN.	
412A		ONE	GUARDRAIL			
	ma	1	PIPE 1 1/2" X-STG	100	0	LN. FT.
	mb	1	RD TUBE 1 1/2" O.D. x 13GA.	22	0	LN. FT.
	mc	4	ROD 1/2"	1	0	BENT

STRUCTURAL STEEL SHAPES: A500 GR.B U.N.			
SHOP PAINT	HOT DIPPED GALV.		%
FIELD PAINT			%
		TOTAL WEIGHT	
BOLTS		HOLES	NONE
NOTE		END & EDGE	
REVISIONS			
NO.		DATE	APP'D
1	FOR FABRICATION	7/5	
2			
3			
CUSTOMER: AAFES		PRINT RECORD	NO. OF PRINTS
PROJECT: L.A. AIR FORCE BASE		APPROVAL	
LOCATION: EL SEGUNDO, CALIFORNIA		FINAL APPROVAL	
STAIR #1 GUARDRAIL DETAIL		SHOP	
		ERECTION	
		CONTRACTOR	
		MAT. CONT.	
		REVISION	
		CHECKING	
ARCHITECT: CARTER - BURGESS		ENGINEER: CARTER - BURGESS	SCALE:
DRAWN BY: GB	DATE: 03/30/05		SHEET NO. 412
CHECKED BY: RP-2	DATE: 03/30/05		JOB NO.
APPROVED BY:	DATE:		412-05



SECTION - A
(REF: 5/A7.27)



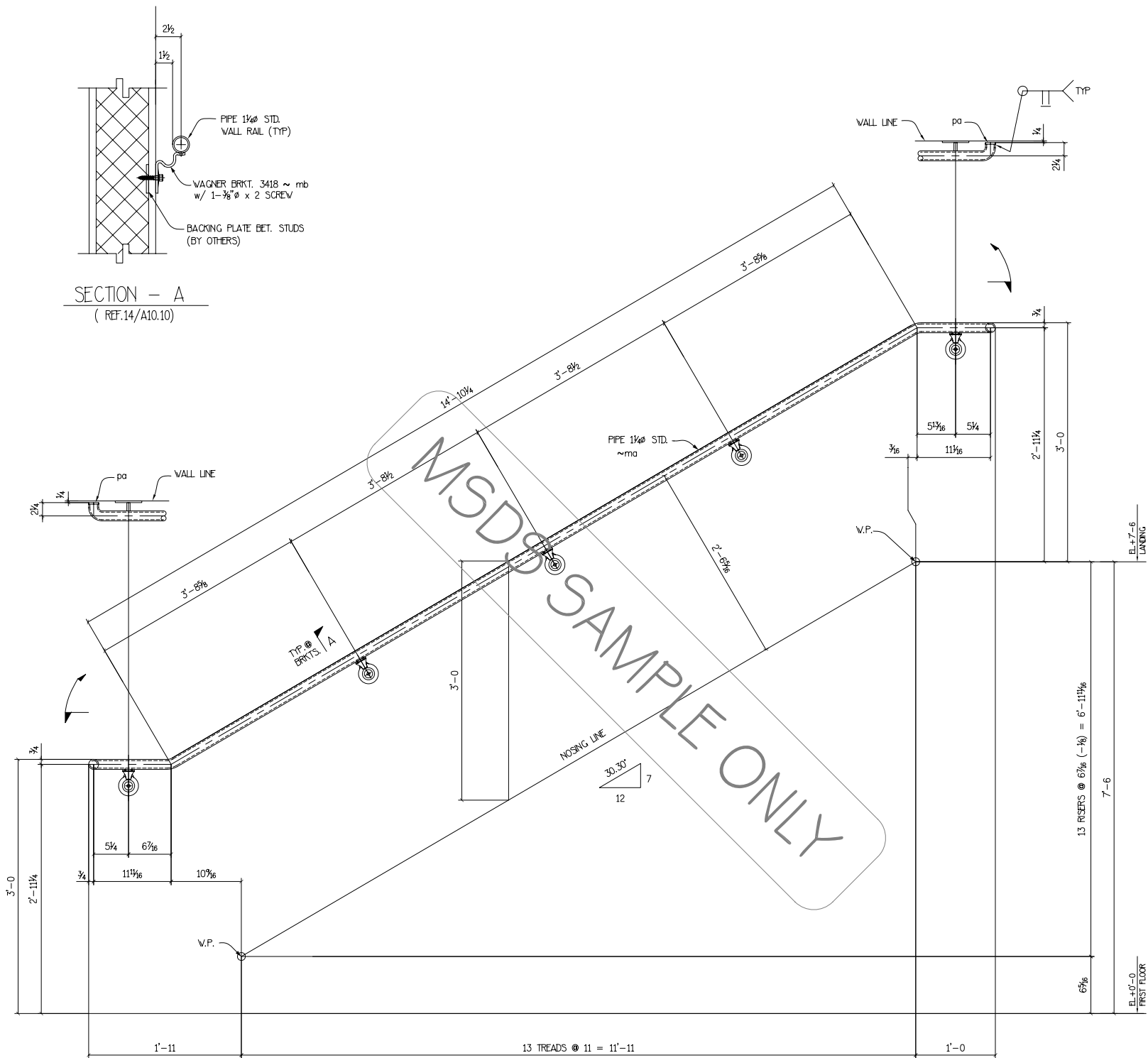
ONE - WALL RAIL - 135A

BILL OF MATERIALS

LINE	MARK	QTY.	DESCRIPTION	P L	LENGTH OR PATTERN NO.	MATERIAL	REMARKS	WEIGHT
1								
2	135A	ONE	WALL RAIL					
3	ma	1	PIPE 1 1/4\" STD.		21'-0		LN. FT.	
4	mb	6	WAGNER #1930R BRACKET				BUY-OUT	
5	pa	2	1 1/4\" x 1 1/8\"		0'-1 1/8		ROUND	
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21			FIELD BOLT					
22	6		HEX HEAD LAG SCREW 3/8\"		0'-2			
23	6		STD. SHORT LAG SHIELD 3/8\"					
24								
25								
26								
27								
28								
29								
30								
31								
32								
33								
34								
35								
36								
37								
38								
39								
40								
41								
42								
43								
44								

- SHOP NOTES:
- CHANNELS, ANGLES & PLATES - ASTM A36 U.N.
 - TUBE - ASTM A500, GRADE A
 - PIPES - ASTM A53, GR.B
 - WELDING - E70XX PER AWS
 - G.A. SHEET - ASTM A569
 - ALL WELDS TO BE GRIND SMOOTH @ EXPOSED CONNECTIONS

REVISIONS				PRINT RECORD		
NO.	DATE	DESCRIPTION		DATE	QTY.	ISSUED
1	12-04-05	FOR APPROVAL				
2						
3						
4						
5						
6						
PAINT 1 S/C PRIMER				HOLES U.N. 13/64	WELD U.N.	DRAWN BY EC
PROJECT ANDRE AGASSI COLLEGE PREPARATORY ACADEMY (GYM. & HIGH SCHOOL ADDITION)				CHK'D BY RP-1		
DESCRIPTION STAIR S-32 WALL RAIL DETAIL				JOB NO. 520		
ARCH. CARPENTER SELLERS ASSOCIATES ENG. MARTIN & PELTYN, INC.						
CUSTOMER SLETTEN CONSTRUCTION				135		

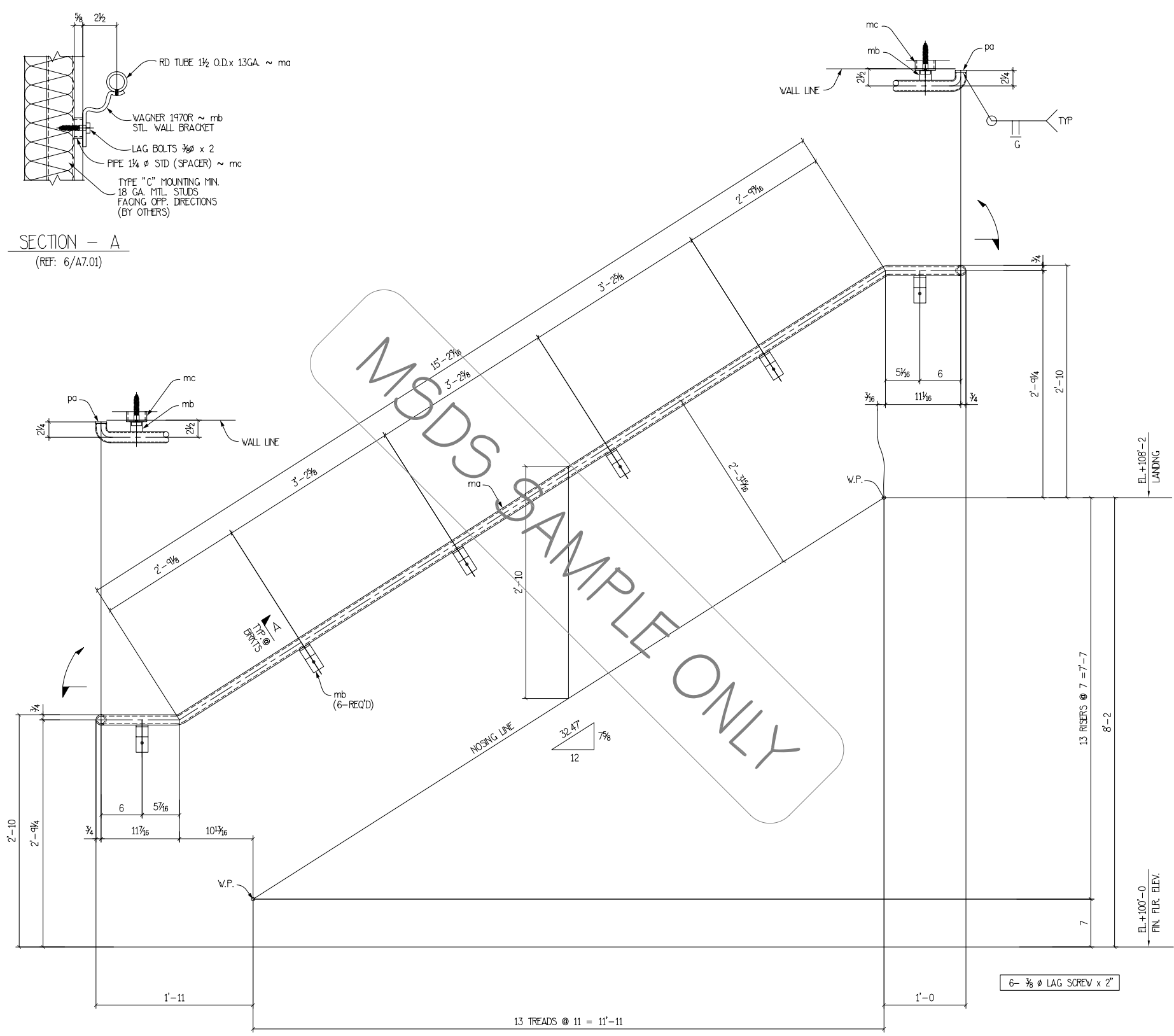


SECTION - A
(REF.14/A10.10)

2 - WALL RAILS - 166A

BILL OF MATERIALS								
LINE	MARK	QTY.	DESCRIPTION	P L	LENGTH OR PATTERN NO.	MATERIAL	REMARKS	WEIGHT
1								
2								
3	166A	2	WALL RAIL					
4	ma	2	PIPE 1 1/2" STD.		19'-0"		LN. FT.	
5	mb	10	WAGNER BRKT. 3418				BUY-OUT	
6	pa	4	PL 1/8" x 1 1/2"		0'-1 1/2"		ROUND	
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22			FIELD BOLTS					
23		10	3/8" SCREWS		0'-2"			
24								
25								
26								
27								
28								
29								

Shop Notes		Revision		Job:	
		Date	No.	Remarks	
Paint	1 S/C PRIMER	05.16.05	A	FOR APPROVAL	DESERT CANYON BUSINESS PARK - BLDG. II
Open Holes	13 16"	08.02.05	B	FOR FABRICATION	STAIR #2 WALLRAIL DETAIL
Unless Noted			C		Contractor NIGRO CONSTRUCTION, INC.
					Architect PERLMAN ARCHITECTS, INC.
					Engineer MENDENHALL SMITH
Wide Flgs.	ASTM A992	Structure Tubes	ASTM A500	Drawn	JTS
Bars & Plts.	ASTM A36	Pipe	ASTM A53	Chkd.	AF-4
TCC Bolts	ASTM A325	Unless Noted on Bill of Material		Date:	05.13.05
				Reference Dwg's:	E15, E16 & E17
					Job No. 580-04-02
					Sheet No. 166



SECTION - A
(REF: 6/A7.01)

2 - WALL RAILS - 411A
(REF: 4/A7.01)

- SHOP NOTES:
- ⊗ INDICATES PAINT STRIPE SIDE.
 - ⊠ INDICATES TAIL DIMENSIONS START
 - GRIND ALL WELDS & SHAP EDGES SMOOTH.

REF. DWG.: E41, E42, E43

MATERIAL LIST

SHIPPING MARK	ASSEMBLY MARK	NO. PIECES	SIZE	LENGTH		NOTES
				FT.	IN.	
411A		2	WALL RAIL			
	ma	2	RD TUBE 1½ O.D.x 13GA. ~ ma	35	0	LN. FT.
	mb	12	WAGNER BRKT.1970R			BUY-OUT
	mc	12	PIPE 1¼ Ø STD	0	0¾	
	pa	4	PL ½ x 1½	0	1½	ROUND

FIELD BOLT
LAG SCREW ¾ Ø 0 2

STRUCTURAL STEEL SHAPES: A500 GR.B U.N.			
SHOP PAINT	HOT DIPPED GALV.		%
FIELD PAINT			%
		TOTAL WEIGHT	
BOLTS	HOLES 9/16 Ø	UNLESS OTHERWISE NOTED	
NOTE	END & EDGE	UNLESS OTHERWISE NOTED	

REVISIONS			
NO.		DATE	APP'D
1	FOR FABRICATION	7/5	
2			
3			

CUSTOMER: AAFES		PRINT RECORD	NO. OF PRINTS
PROJECT: L.A. AIR FORCE BASE		APPROVAL	
LOCATION: EL SEGUNDO, CALIFORNIA		FINAL APPROVAL	
STAIR #1 WALLRAIL DETAIL		SHOP	
		ERECTION	
		CONTRACTOR	
		MAT. CONT.	
		REVISION	
		CHECKING	
ARCHITECT: CARTER - BURGESS		ENGINEER: CARTER - BURGESS	SCALE:
DRAWN BY: GB	DATE: 03/30/05	SHEET NO.	411
CHECKED BY: RP-2	DATE: 03/30/05	JOB NO.	412-05
APPROVED BY:	DATE:		