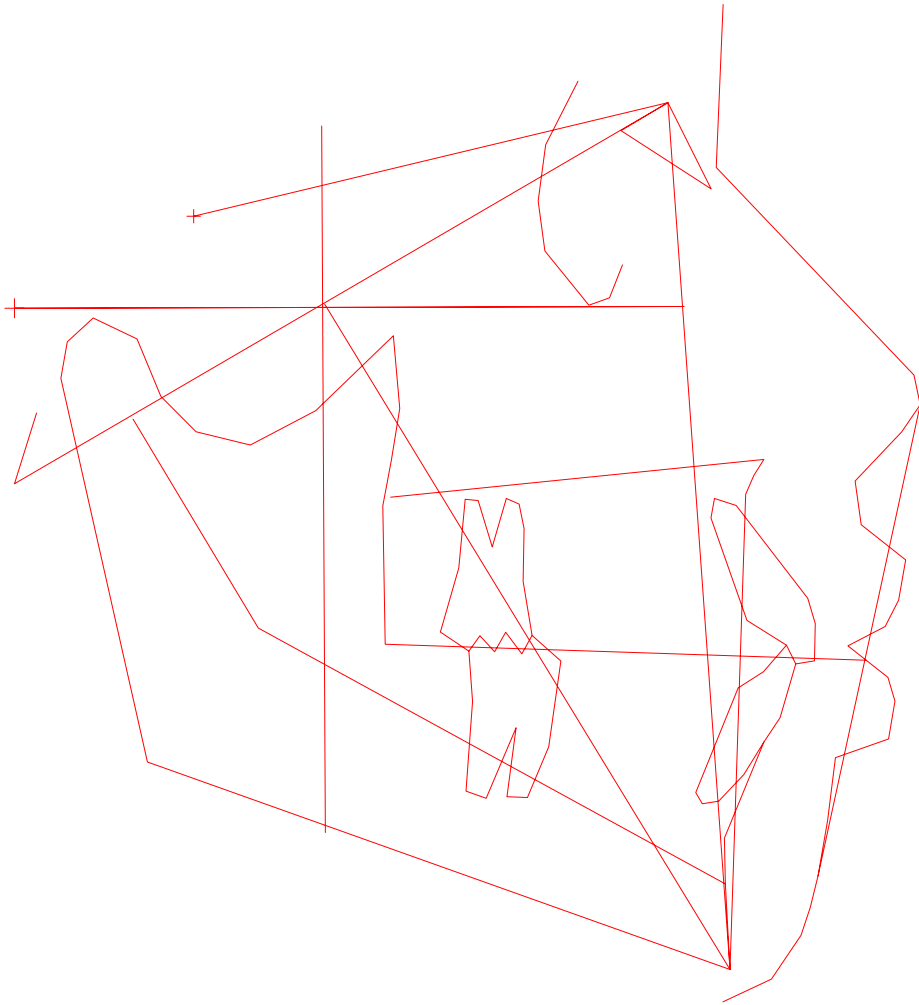


CASE: 0000 0033 1
AFRICAN AMERICAN SAMPLE
Dr. TRAINING
F (BL) Black
AGE: 12.5
X: 03/30/2000 - R: 02/21/2003
MISSING PERMANENT TEETH

VISUAL NORMS

RMO®

R ————— | ————— L



AFRICAN AMERICAN SAMPLE
Dr. Training

RMO Case Number: 0000 0033 1 X-Ray date: 03/30/2000 Age: 12.5
RMO Run date: 02/21/2003 Birthdate: 09/27/1987 Sex: Female 2

Reference: C C D

C C D - O R T H O D O N T I C C O N D I T I O N S

LATERAL BEFORE TREATMENT

FACTOR	MEASURED VALUE	CLINICAL NORM	CLINICAL DEVIATIONS FROM NORM
# - Appears on tracing			

===== DENTAL RELATIONS =====

01 Molar Relation	-2.0 mm	-3.0 mm	0.3
03 Canine Relation	-1.8 mm	-2.0 mm	0.1
05 Incisor Overjet	2.5 mm	2.5 mm	0.0
07 Incisor Overbite	-0.2 mm	2.5 mm	-1.3 *
09 Mand Incisor Extrusion	0.7 mm	1.3 mm	-0.3
#11 Interincisal Angle	96.0 dq	120.0 dq	-4.0 ***

===== DENTAL TO SKELETON =====

#18 A6 Molar Position to PTV	16.0 mm	15.5 mm	0.2
#20 B1 to A-Po Plane	9.7 mm	4.9 mm	2.1 **
22 A1 to A-Po Plane	12.2 mm	7.4 mm	2.2 **
#24 B1 Inclination to A-Po	43.6 dg	26.0 dg	4.4 ***
26 A1 Inclination to A-Po	40.4 dg	34.0 dg	1.6 *
27 Occlusal Plane to Xi	-0.5 mm	-1.3 mm	0.2
28 Inclination of Occl Plane	22.4 dq	25.5 dq	-0.8
54 B1 Inclination to FH	36.2 dg	65.0 dg	-5.8 ***

===== ESTHETICS =====

29 Lower Lip to Esthetic Plane	9.1 mm	5.5 mm	1.8 *
30 Upper Lip Length	32.4 mm	26.2 mm	3.1 ***
31 Lip Embrasure to Occl Plane	-2.5 mm	-3.0 mm	0.2
58 NasoLabial Angle	100.1 dq	108.0 dq	-1.6 *

===== NASOPHARYNGEAL AIRWAY =====

62 N-S-Ba	129.0 dq	129.6 dq	-0.1
63 Ba-S-PNS	56.0 dq	63.0 dq	-2.8 **
85 Airway Percent	39.3 %	59.1 %	-1.4 *
86 Linder-Aronson AD1	15.4 mm	24.3 mm	-1.7 *
87 Linder-Aronson AD2	14.2 mm	19.9 mm	-1.4
88 Distance PTV to Adenoid	8.4 mm	12.1 mm	-0.8

C C D - S K E L E T A L C O N D I T I O N S

LATERAL BEFORE TREATMENT

FACTOR	MEASURED VALUE	CLINICAL NORM	CLINICAL DEVIATIONS FROM NORM
# - Appears on tracing			

===== SKELETAL RELATIONS =====

#13 Convexity	7.6 mm	7.3 mm	0.1
#15 Lower Facial Height	46.6 dg	47.3 dg	-0.2
84 Present Patient Height	NOT AVAILABLE		
91 Posterior face height	75.4 mm		
92 Anterior face height	118.2 mm		
93 Posterior/Anterior ratio	63.8 %		
94 Saddle Angle	123.2 dg	123.0 dg	0.1
96 Condylion-A point	88.5 mm	87.8 mm	0.2
97 Condylion-Gnathion	111.3 mm	111.4 mm	0.0
95 Max-Mand Differential	22.8 mm	24.2 mm	-0.4
98 Menton-ANS	71.4 mm	64.1 mm	1.5 *

===== JAW TO CRANIUM =====

#32 Facial Depth	88.8 dg	95.5 dg	-2.2 **
#34 Facial Axis	86.6 dq	90.0 dq	-0.9
#36 Maxillary Depth	96.4 dg	102.3 dg	-2.0 **
37 Maxillary Height	57.3 dg	54.2 dg	1.0 *
38 Palatal Plane to FH	4.2 dg	6.1 dg	-0.5
#39 Mandibular Plane to FH	26.1 dg	17.5 dg	1.4 *
77 Ba-N-A	70.7 dg	63.0 dg	2.6 **
76 S-N-A	86.3 dg	87.4 dg	-0.3
78 S-N-B	78.9 dg	80.5 dg	-0.4
69 A-N-B Difference	7.4 dg	7.0 dg	0.2
75 Total Facial Height	61.2 dg	60.0 dg	0.4

===== INTERNAL STRUCTURE =====

40 Cranial Deflection	29.4 dg	30.0 dg	-0.2
42 Cranial Length Anterior	56.5 mm	54.5 mm	0.6
44 Ramus Height (CF-Go)	65.4 mm	60.4 mm	1.3 *
46 Ramus Xi Position	73.0 dg	79.0 dg	-2.1 **
48 Porion Location (Por to PTV)	-40.2 mm	-40.3 mm	0.0
#50 Mandibular Arc	29.6 dg	29.2 dg	0.1
51 Corpus Length	70.6 mm	69.3 mm	0.3

AFRICAN AMERICAN SAMPLE
Dr. Training

RMO Case Number: 0000 0033 1 X-Ray date: 03/30/2000 Age: 12.5
RMO Run date: 02/21/2003 Birthdate: 09/27/1987 Sex: Female 2

Reference: I N F

P A T I E N T I N F O R M A T I O N

S I G N I F I C A N T C O N S I D E R A T I O N S

===== NAME =====

CONDITION

CCD FACTORS

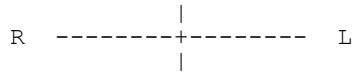
Patient name: AFRICAN AMERICAN SAMPLE
Doctor name: TRAINING
Age: 12.5
X-Ray date: 03/30/2000
RMO Case Number:
RMO Run date: 02/21/2003

===== HORIZONTAL =====

Bimaxillary Protrusion 11,24

===== MISSING PERMANENT TEETH =====

===== VERTICAL =====



Open Bite 7

===== HEIGHT PREDICTION =====

===== TRANSVERSE =====

No height prediction possible
Current height not known

===== AIRWAY ANALYSIS =====

===== SYMMETRY =====

If the patient is clinically diagnosed
as a mouthbreather, mouthbreathing may be
caused by adenoid blockage of the airway.

===== BOLTON ANALYSIS =====

===== SPECIAL CONSIDERATIONS =====

Not Available - Upper and lower arch not analyzed

===== COMMENTS =====

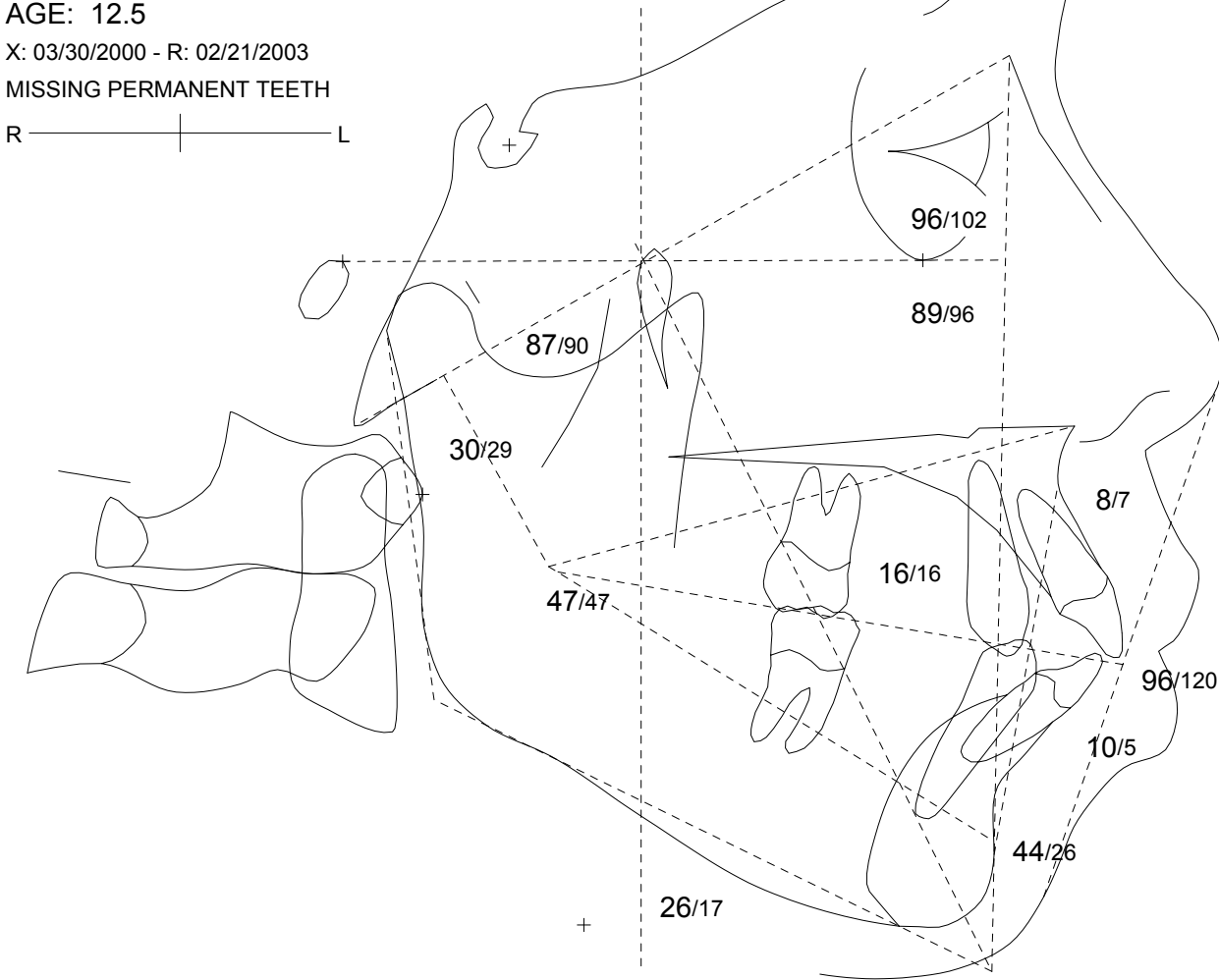
No analysis of frontal x-ray. Upper and lower arch
expansion decisions based on available data only.

CASE: 0000 0033 1
 AFRICAN AMERICAN SAMPLE
 Dr. TRAINING
 F (BL) Black
 AGE: 12.5
 X: 03/30/2000 - R: 02/21/2003
 MISSING PERMANENT TEETH

TRACING

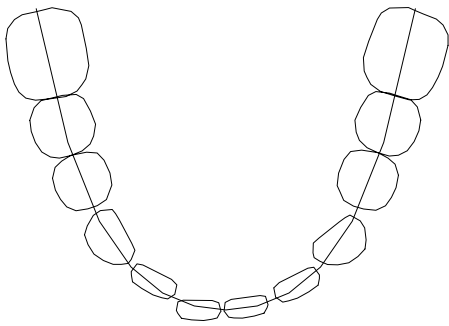
RMO®

BEFORE TREATMENT



MEASURED VALUE/NORM

R L



EXCESS 6.4 MM
 LEEWAY 0.0 MM

SIGNIFICANT CONSIDERATIONS

CONDITION	REASON
Bimaxillary Protrusion	Possible
Open Bite	
Adenoid blockage of the airway?	

FACIAL PATTERN: MESOFACIAL

# FACTORS	MEASURED VALUE	NORM	CLINICAL DEVIATION
Interincisal Angle	96.0 dg	120.0 dg	-4.0 ***
Convexity	7.6 mm	7.3 mm	0.1
Lower Facial Height	46.6 dg	47.3 dg	-0.2
A6 Molar Position to PTV	16.0 mm	15.5 mm	0.2
B1 to A-Po Plane	9.7 mm	4.9 mm	2.1 **
B1 Inclination to A-Po	43.6 dg	26.0 dg	4.4 ***
Facial Depth	88.8 dg	95.5 dg	-2.2 **
Facial Axis	86.6 dg	90.0 dg	-0.9
Maxillary Depth	96.4 dg	102.3 dg	-2.0 **
Mandibular Plane to FH	26.1 dg	17.5 dg	1.4 *
Mandibular Arc	29.6 dg	29.2 dg	0.1

AFRICAN AMERICAN SAMPLE
Dr. Training

RMO Case Number: 0000 0033 1 X-Ray date: 03/30/2000 Age: 12.5
RMO Run date: 02/21/2003 Birthdate: 09/27/1987 Sex: Female 2

Reference: G T N

===== G U I D E T O A L T E R N A T I V E T R E A T M E N T P L A N N I N G =====

Facial Pattern	-0.1 C.D.	Probability of Lower Third Molar (based on space available)		
Vertical Description	MESOFACIAL	Impaction	Eruption	Eruption
			Questionable	Functional
Auxiliary Appliances				
Headgear	HIGH PULL			
	LIGHT FORCES	47.%	50.%	3.%
Activator	NEUTRAL			
Palate Separation	N/A - No Arch and Frontal data			
Convexity Objective	Reduce 0.4 mm			

Lower Arch Length Discrepancy (original arch) 6.4 mm Excess
Including useable leeway (E) space

* * * L O W E R A R C H * * *	Required Tooth Movement	Effect on Arch Length	Resulting Discrepancy

Lower Incisor to Ideal	Lt: 5.4 mm Bwd. Rt: 5.8 mm Bwd.	10.3 mm Decrease	3.9 mm Shortage
Buccal Expansion to Ideal Arch Form		0.0 mm Increase	3.9 mm Shortage
Incisors & Convexity to Cephalometric Limit	2.0 mm Fwd.	4.0 mm Increase	0.1 mm Excess
Lower Molar Distal Movement	1.2 mm	2.4 mm Increase	Not Req'd

* * * U P P E R A R C H * * *

Movement of First Molar (non-ext.) Required for Class I	0.8 mm Mesial
Resulting Expected Space for 2nd & 3rd Molars at Maturity (non-ext.)	18.0 mm
Required Space for 2nd Molars	9.0 mm to 11.0 mm
Required Space for 2nd & 3rd Molars	18.0 mm to 22.0 mm

*** Indicated Treatment using Dr's Personalized Decision Program ***

Upper Arch	NON-EXTRACTION
Lower Arch	NON-EXTRACTION
Lower Incisor	Backward 3.8 mm
Buccal Expansion	Gain 0.0 mm
Lower Molar Movement	Backward 0.4 mm

Teeth Sizes:	L6	L5	L4	L3	L2	L1	R1	R2	R3	R4	R5	R6	TOTAL	SUM OF INCISOR	NORM
Lower Arch :	11.7	8.0	7.8	7.8	6.5	5.9	5.9	6.5	7.9	7.5	8.0	11.9	95.4	24.8 MM	23.1

AFRICAN AMERICAN SAMPLE
Dr. TrainingRMO Case Number: 0000 0033 1 X-Ray date: 03/30/2000 Age: 12.5
RMO Run date: 02/21/2003 Birthdate: 09/27/1987 Sex: Female 2

Reference: W R N

W O R K U P

R A T I O N A L E

===== ORIGINAL CONDITION =====

Facial pattern: -0.1 CD - Mesofacial
 Lower arch form: Normal

Missing permanent teeth: R -----+----- L
 |
 |

Lower arch length discrepancy (ALD) 6.4 mm EXCESS
 Leeway space 0.0 mm ---
 Maximum use of leeway space 0.0 mm
 Total arch length discrepancy 6.4 mm EXCESS

===== COMPUTER DECISION =====

based on Dr. Training's individualized standards

UPPER ARCH: NON-EXTRACTION

Convexity change REDUCE 0.4 mm

LOWER ARCH: NON-EXTRACTION

Lower incisor BACKWARD 3.8 mm
 Buccal Expansion NONE
 Lower molar BACKWARD 0.4 mm

Extracted teeth
 |
 R -----+----- L
 |

===== AUXILIARY APPLIANCES =====

Activator: NEUTRAL
 Palate separation: N/A - No Arch and Frontal data
 Headgear: HIGH PULL
 LIGHT FORCES

===== POST TREATMENT =====

Pentamorphic arch form: Ovoid
 Arch length relapse: 0.2 mm

Lower third molar probabilities
 (based on space available)

Impaction: 47 %
 Marginal: 50 %
 Functional: 3 %

===== REASONS FOR LOWER ARCH DECISION =====

Mandibular Arch Length Analysis

1. Initial Conditions
 - A. Original Arch Length 6.4 mm excess
 - B. Useable Leeway Space 0.0 mm
 - C. Total Initial Discrepancy (A+B) 6.4 mm excess
2. Maximum Permissible Arch Length Increase (Within Doctor Limits)
 Due To:
 - D. Lower Incisor Repositioning 6.3 mm decrease
 - E. Buccal Expansion 0.0 mm
 - F. Lower Molar Distal Movement 2.0 mm increase
 - G. Total Possible Increase (D+E+F) 4.3 mm decrease
3. Resultant Arch Length Discrepancy 2.1 mm excess
 Considering All Possible Arch Length Increases (C+G)
4. Resultant Computer Decision Non-Extraction
5. Work-Up Presented Is NON-EXTRACTION

===== REASONS FOR UPPER ARCH DECISION =====

1. Convexity change 0.4 mm reduce
2. Upper incisor tip movement for overbite/overjet ideal to lower 3.1 mm backward
3. First molar movement required 0.1 mm backward
4. First molar movement clinical limit 5.0 mm backward
5. Work-Up Presented Is NON-EXTRACTION

===== COMMENTS =====

UPPER ARCH				LOWER ARCH			
ACTIVITY	DESCRIPTION	MONTHS	NOTES	ACTIVITY	DESCRIPTION	MONTHS	NOTES
	CORRECT CONVEXITY RETRACT 4 AND/OR 5	0 1			RETRACT 3	0 1	
	RETRACT 3	0 2				0 2	
		0 3			EXTRUDE 1 ALIGN/LEVEL BUCCAL SEGS RETRACT INCISORS	0 3	
		0 4				0 4	
		0 5				0 5	
	RETRACT INCISORS ALIGN/LEVEL BUCCAL SEGS	0 6				0 6	
	PROGRESS RECORDS	0 7			PROGRESS RECORDS	0 7	
		0 8			IDEAL ARCH	0 8	
		0 9				0 9	
	IDEAL ARCH	1 0				1 0	
		1 1				1 1	
		1 2				1 2	
	FINAL ARCH	1 3			FINAL ARCH	1 3	
	POST TX RECORDS	1 4			POST TX RECORDS	1 4	
		1 5				1 5	
		1 6				1 6	
		1 7				1 7	
		1 8				1 8	
		1 9				1 9	
		2 0				2 0	
		2 1				2 1	
		2 2				2 2	
		2 3				2 3	
		2 4				2 4	

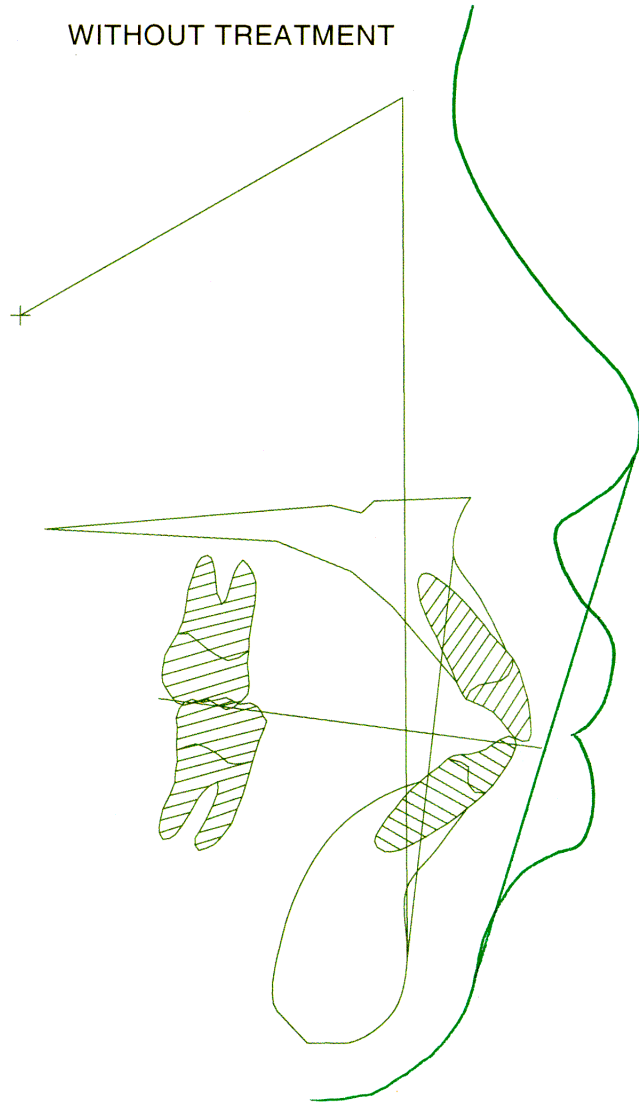
0000 0033 1
BLACK FEMALE
F 12.5

LONG RANGE GROWTH FORECAST COMPARISON RMO®

NON-EXTRACTION

02/17/2003

WITHOUT TREATMENT



LOWER THIRD MOLAR PROBABILITIES

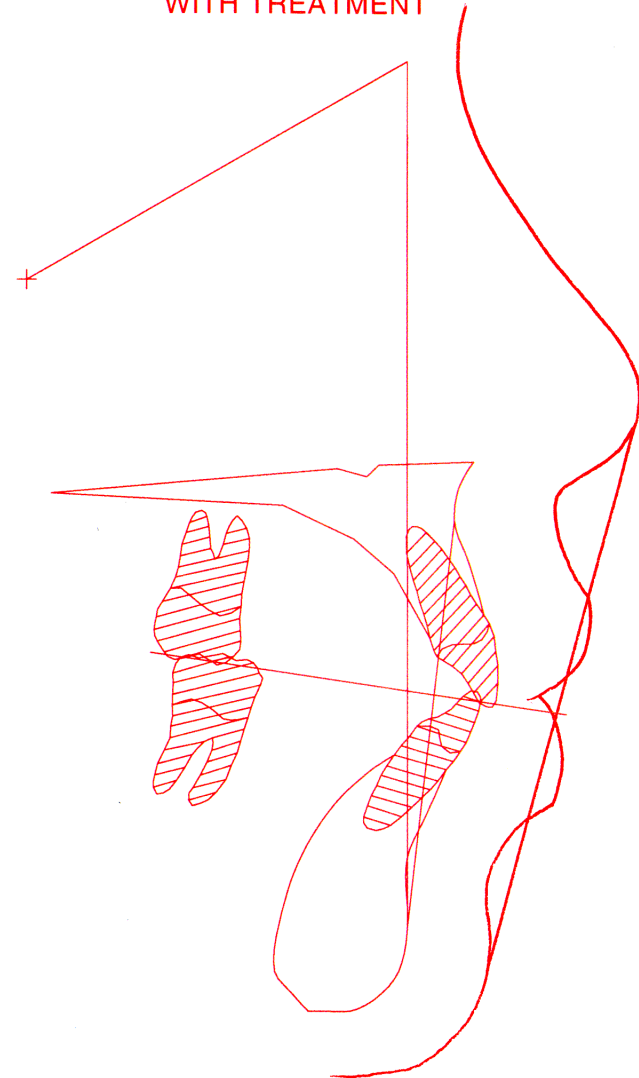
(BASED ON SPACE AVAILABLE)

IMPACTION: 42 %

MARGINAL: 53 %

FUNCTIONAL: 5 %

WITH TREATMENT



LOWER THIRD MOLAR PROBABILITIES

(BASED ON SPACE AVAILABLE)

IMPACTION: 54 %

MARGINAL: 44 %

FUNCTIONAL: 2 %

ARCH LENGTH DECREASE POST TX

0.2 MM TOTAL

CASE: 0000 0033 1

BLACK SAMPLE

Dr. TRAINING

F (BL) Black

AGE: 12.5

X: 03/30/2000 - R: 02/20/2003

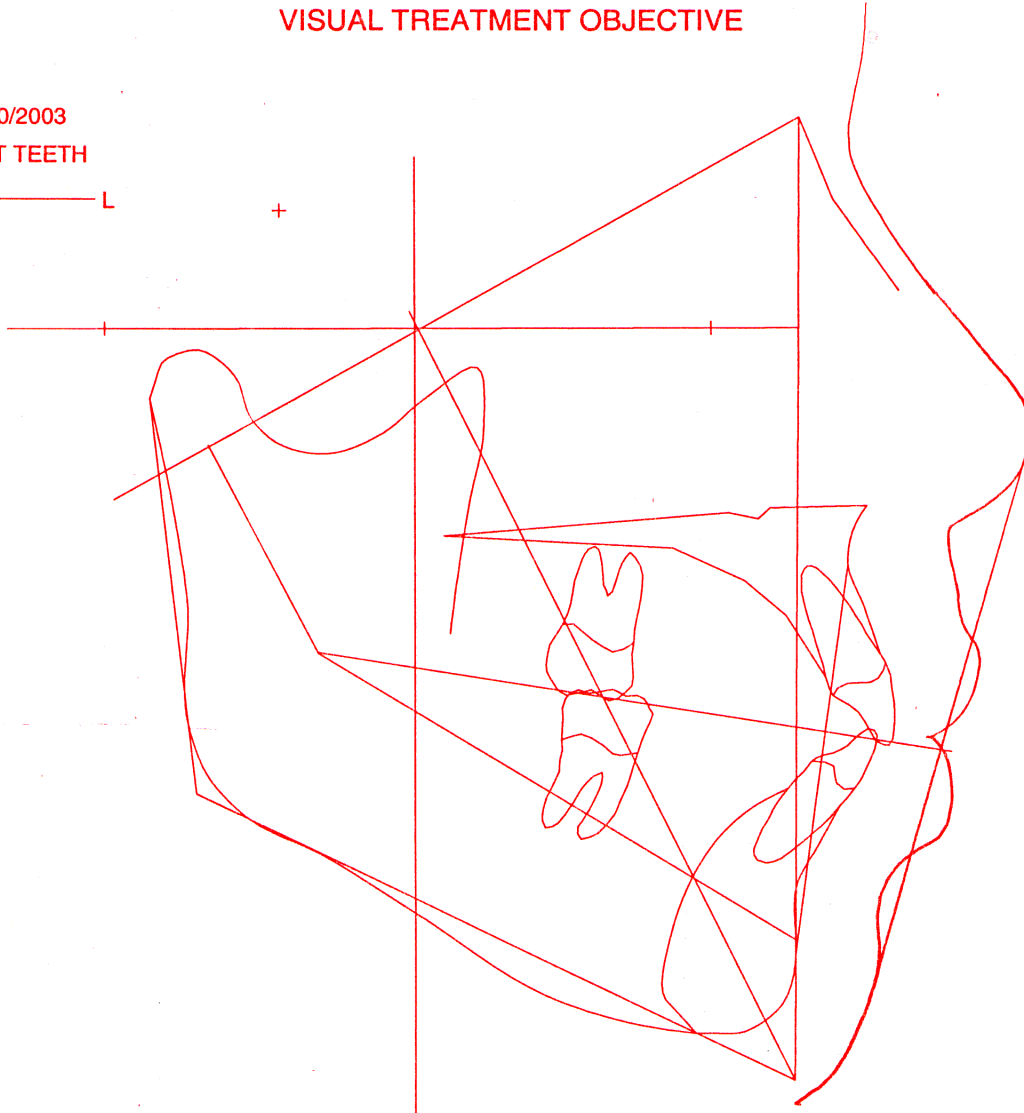
MISSING PERMANENT TEETH

R ————— L

NON-EXTRACTION VTO

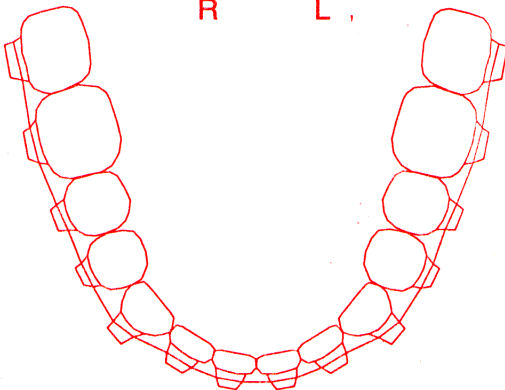
RMO®

VISUAL TREATMENT OBJECTIVE



SUGGEST
 OVOID
 RMO PREFORMED
 PENTAMORPHIC ARCHWIRE

R L



ESPECIALLY PREPARED FOR Dr. TRAINING

WORKUP PERFORMED

Upper: NON-EXTRACTION

Lower: NON-EXTRACTION

PREDICTION PERIOD

15.1 months

HEIGHT PREDICTION

N/A - Current height unknown

COMMENTS

GROWTH UNITS

15.1 months: 1.5

3RD MOLAR PREDICTION

Impaction: 47 %

Marginal: 50 %

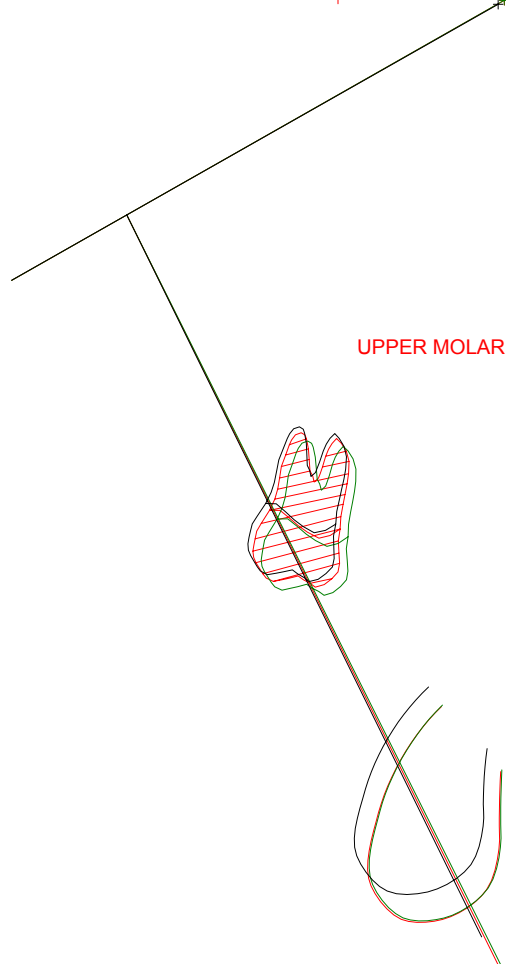
Functional: 3 %

0000 0033 1
 AFRICAN AMERICAN SAMPLE
 F 12.5 02/21/2003

NON-EXTRACTION TREATMENT DESIGN

RMO®

EXTRACT R L



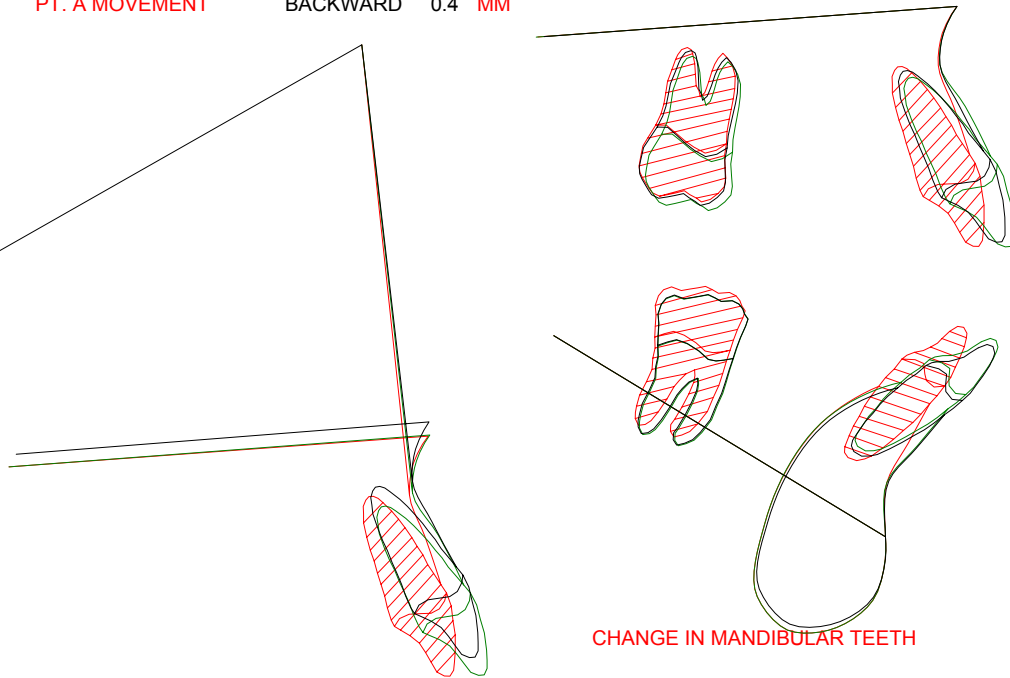
UPPER MOLAR CHANGE

MANDIBULAR GROWTH

MAXILLARY CHANGE

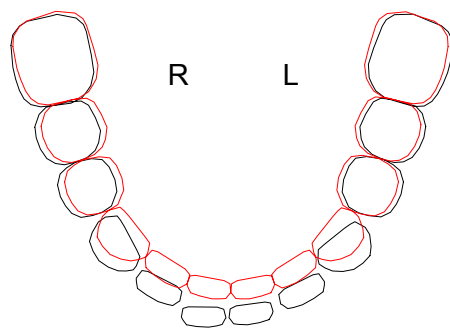
CHANGE IN MAXILLARY TEETH

PT. A MOVEMENT BACKWARD 0.4 MM



CHANGE IN MANDIBULAR TEETH

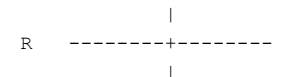
LOWER INCISOR	BWD(RT)	3.8	MM
LOWER MOLAR	BWD	0.4	MM



WORKUP PRESENTED

Upper arch: NON-EXTRACTION
 Lower arch: NON-EXTRACTION

MISSING PERMANENT TEETH



COMMENTS

— ORIGINAL
 — GROWTH W/O TREATMENT
 — TREATMENT OBJECTIVE

AFRICAN AMERICAN SAMPLE
Dr. TrainingRMO Case Number: 0000 0033 1 X-Ray date: 03/30/2000 Age: 12.5
RMO Run date: 02/21/2003 Birthdate: 09/27/1987 Sex: Female 2

Reference: S A

S T E I N E R A N A L Y S I S

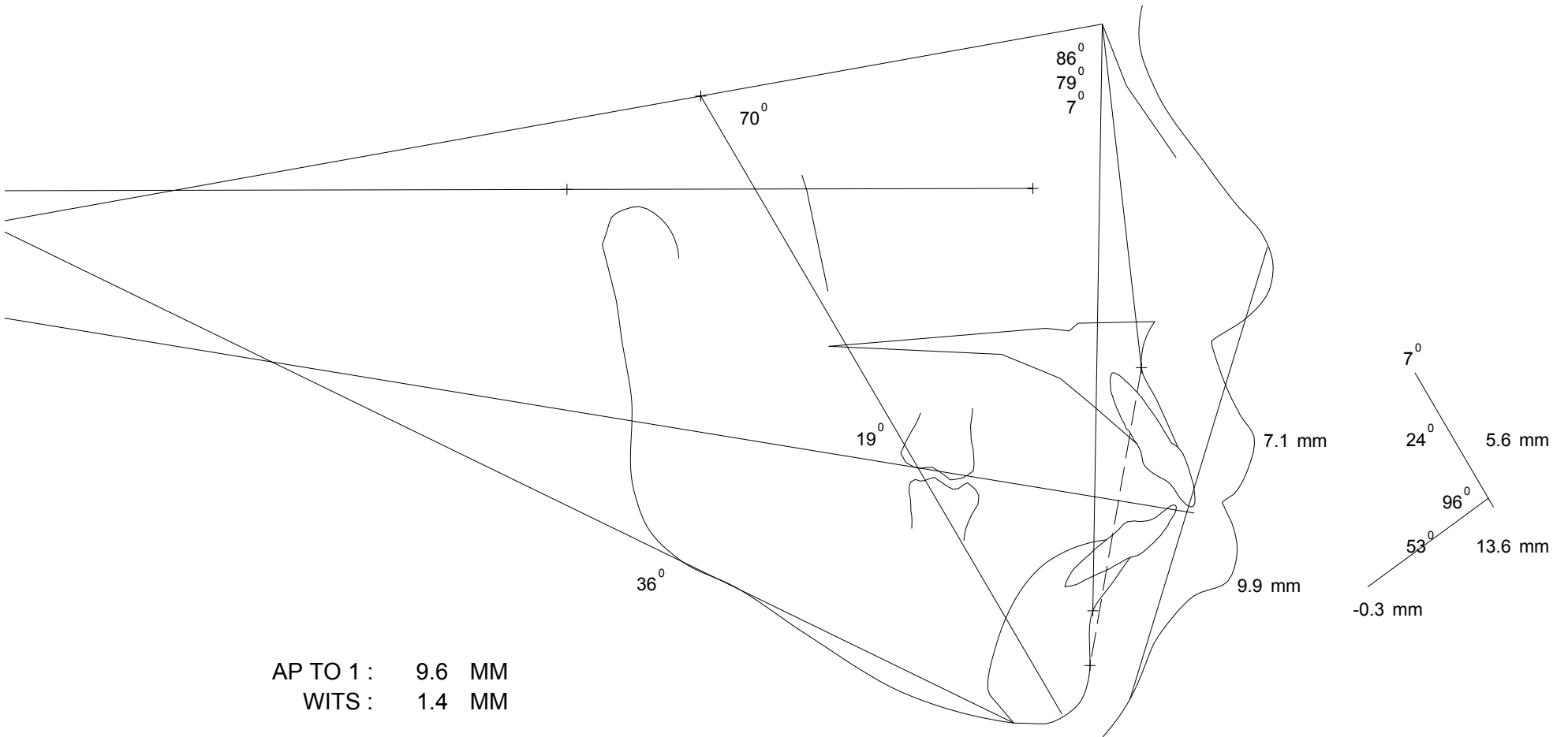
===== BEFORE TREATMENT =====

Factor	Measured Value	Clinical Norm	Clinical Deviations From Norm
SNA	86.3 dg	87.4 dg	-0.3
SNB	78.9 dg	80.5 dg	-0.4
ANB	7.4 dg	7.0 dg	0.2
SND	74.5 dg	77.0 dg	-0.7
A1 to NA	5.6 mm	2.6 mm	1.0 *
A1 to NA	23.8 dg	21.4 dg	0.3
B1 to NB	13.6 mm	8.9 mm	2.0 **
B1 to NB	52.8 dg	34.7 dg	2.6 **
A1 to B1	96.0 dg	117.0 dg	-2.2 **
OCC.PL/SN	19.5 dg	18.3 dg	0.3

0000 0033 1
AFRICAN AMERICAN SAMPLE
F 12.5 02/21/2003

STEINER ANALYSIS

RMO®



AP TO 1 : 9.6 MM
WITS : 1.4 MM

