

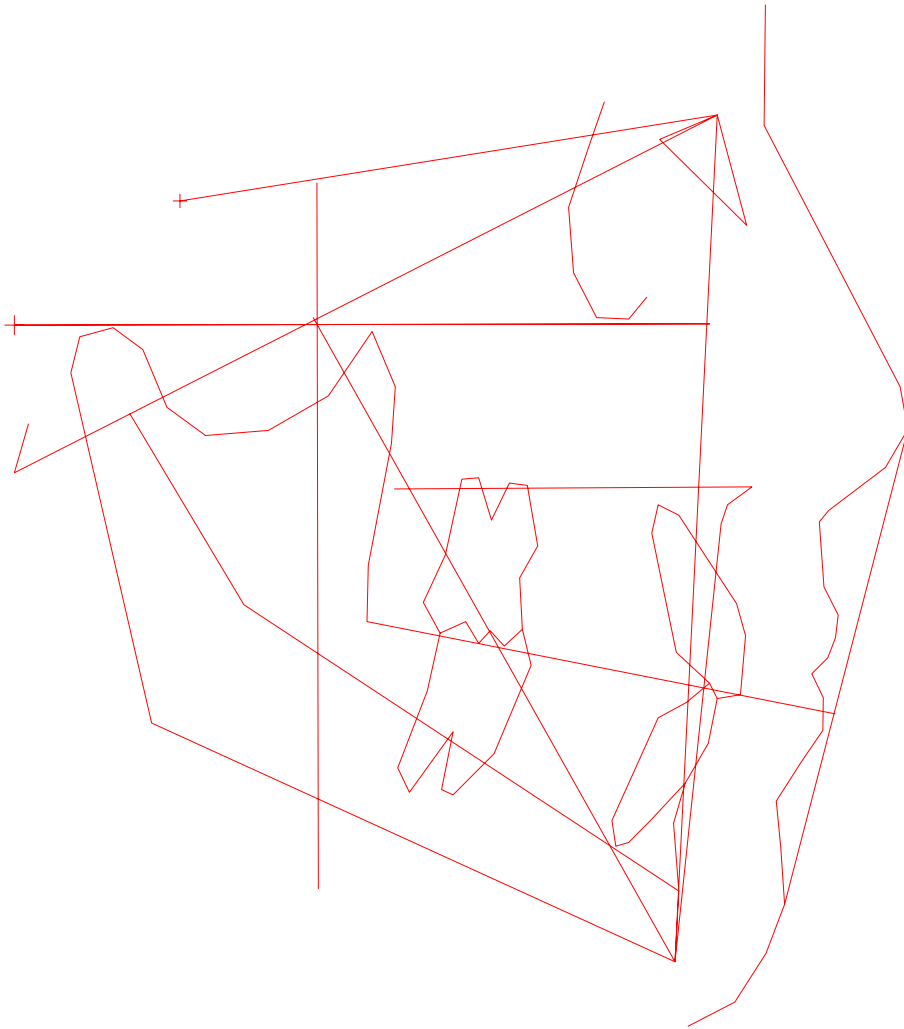
CASE: 0000 0038 1
EXTRACTION
Dr. TRAINING
M (CA) Caucasian
AGE: 8.6

VISUAL NORMS

RMO®

X: 02/06/2003 - R: 02/21/2003
MISSING PERMANENT TEETH

R ————— | ————— L



EXTRACTION
Dr. Training

RMO Case Number: 0000 0038 1
RMO Run date: 02/21/2003

X-Ray date: 02/06/2003 Age: 8.6
Birthdate: 06/30/1994 Sex: Male 1

Reference: C C D 1

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	-0.5 mm	-3.0 mm	0.8
03 Canine Relation	-3.8 mm	-2.0 mm	-0.6
05 Incisor Overjet	5.2 mm	2.5 mm	1.1 *
07 Incisor Overbite	1.4 mm	2.5 mm	-0.5
09 Mand Incisor Extrusion	2.2 mm	1.3 mm	0.5
#11 Interincisal Angle	121.6 dq	130.0 dq	-1.4 *

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

#18 A6 Molar Position to PTV	12.2 mm	11.6 mm	0.2
#20 B1 to A-Po Plane	4.6 mm	1.0 mm	1.6 *
22 A1 to A-Po Plane	9.7 mm	3.5 mm	2.8 **
#24 B1 Inclination to A-Po	22.4 dg	22.0 dg	0.1
26 A1 Inclination to A-Po	36.0 dg	28.0 dg	2.0 **
27 Occlusal Plane to Xi	2.8 mm	1.0 mm	0.6
28 Inclination of Occl Plane	21.9 dq	22.5 dq	-0.1
54 B1 Inclination to FH	56.3 dg	65.0 dg	-1.7 *

===== ESTHETICS - Lips are open on X-Ray =====

29 Lower Lip to Esthetic Plane	4.4 mm	-1.0 mm	2.7 **
30 Upper Lip Length	26.2 mm	24.7 mm	0.7
31 Lip Embrasure to Occl Plane	-4.7 mm	-3.0 mm	-0.9
58 NasoLabial Angle	106.6 dg	115.0 dg	-1.7 *

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

62 N-S-Ba	137.3 dg	129.6 dg	1.5 *
63 Ba-S-PNS	67.5 dg	63.0 dg	1.8 *
85 Airway Percent	71.9 %	54.1 %	1.2
86 Linder-Aronson AD1	26.5 mm	21.9 mm	0.9
87 Linder-Aronson AD2	21.1 mm	17.2 mm	1.0
88 Distance PTV to Adenoid	18.1 mm	9.1 mm	2.1

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	4.4 mm	2.3 mm	1.0 *
#15 Lower Facial Height	49.3 dg	45.0 dg	1.1 *
84 Present Patient Height	55.0 in	51.8 in	
91 Posterior face height	62.1 mm		
92 Anterior face height	114.8 mm		
93 Posterior/Anterior ratio	54.1 %		
94 Saddle Angle	130.0 dg	123.0 dg	2.3 **
96 Condylion-A point	83.2 mm	84.3 mm	-0.4
97 Condylion-Gnathion	106.4 mm	103.9 mm	0.6
95 Max-Mand Differential	23.2 mm	19.7 mm	1.4 *
98 Menton-ANS	66.6 mm	62.6 mm	1.4 *

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

#32 Facial Depth	83.9 dg	86.5 dg	-0.8
#34 Facial Axis	86.5 dg	90.0 dg	-1.0 *
#36 Maxillary Depth	88.5 dg	90.0 dg	-0.5
37 Maxillary Height	55.4 dg	53.0 dg	0.8
38 Palatal Plane to FH	0.3 dg	1.0 dg	-0.2
#39 Mandibular Plane to FH	34.7 dg	26.1 dg	1.9 *
77 Ba-N-A	64.7 dg	63.0 dg	0.6
76 S-N-A	76.5 dg	82.0 dg	-1.7 *
78 S-N-B	72.2 dg	80.0 dg	-2.1 **
69 A-N-B Difference	4.3 dg	2.0 dg	0.8
75 Total Facial Height	65.3 dg	60.0 dg	1.8 *

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

40 Cranial Deflection	27.4 dg	27.0 dg	0.1
42 Cranial Length Anterior	59.8 mm	57.2 mm	1.0 *
44 Ramus Height (CF-Go)	51.4 mm	57.1 mm	-1.8 *
46 Ramus Xi Position	75.4 dg	76.0 dg	-0.2
48 Porion Location (Por to PTV)	-40.7 mm	-40.2 mm	-0.2
#50 Mandibular Arc	17.8 dg	26.0 dg	-2.0 **
51 Corpus Length	64.8 mm	67.6 mm	-1.0 *

EXTRACTION
Dr. TrainingRMO Case Number: 0000 0038 1
RMO Run date: 02/21/2003X-Ray date: 02/06/2003 Age: 8.6
Birthdate: 06/30/1994 Sex: Male 1

Reference: I N F O

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

===== NAME =====

Patient name: EXTRACTION
Doctor name: TRAINING
Age: 8.6
X-Ray date: 02/06/2003
RMO Case Number:
RMO Run date: 02/21/2003

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

R		L
-----	+	-----

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

Assumed skeletal age: 8.6
Current height: 55.0 inches
Amount of adult growth achieved: 74.2 %
Expected adult height: 74.1 inches

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

If the patient is clinically diagnosed
as a mouthbreather, observed mouthbreathing
is probably not caused by adenoid blockage
of the airway.

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

Not Available - Upper and lower arch not analyzed

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

CONDITION

CCD FACTORS

===== HORIZONTAL =====

Mild Overjet	5
Skeletal Class II	13
due to the mandible	32,46,50,51

===== VERTICAL =====

Skeletal Open Bite	15
due to the mandible	37,38,39

===== TRANSVERSE =====

===== SYMMETRY =====

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

===== COMMENTS =====

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

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 AGE: 8.6

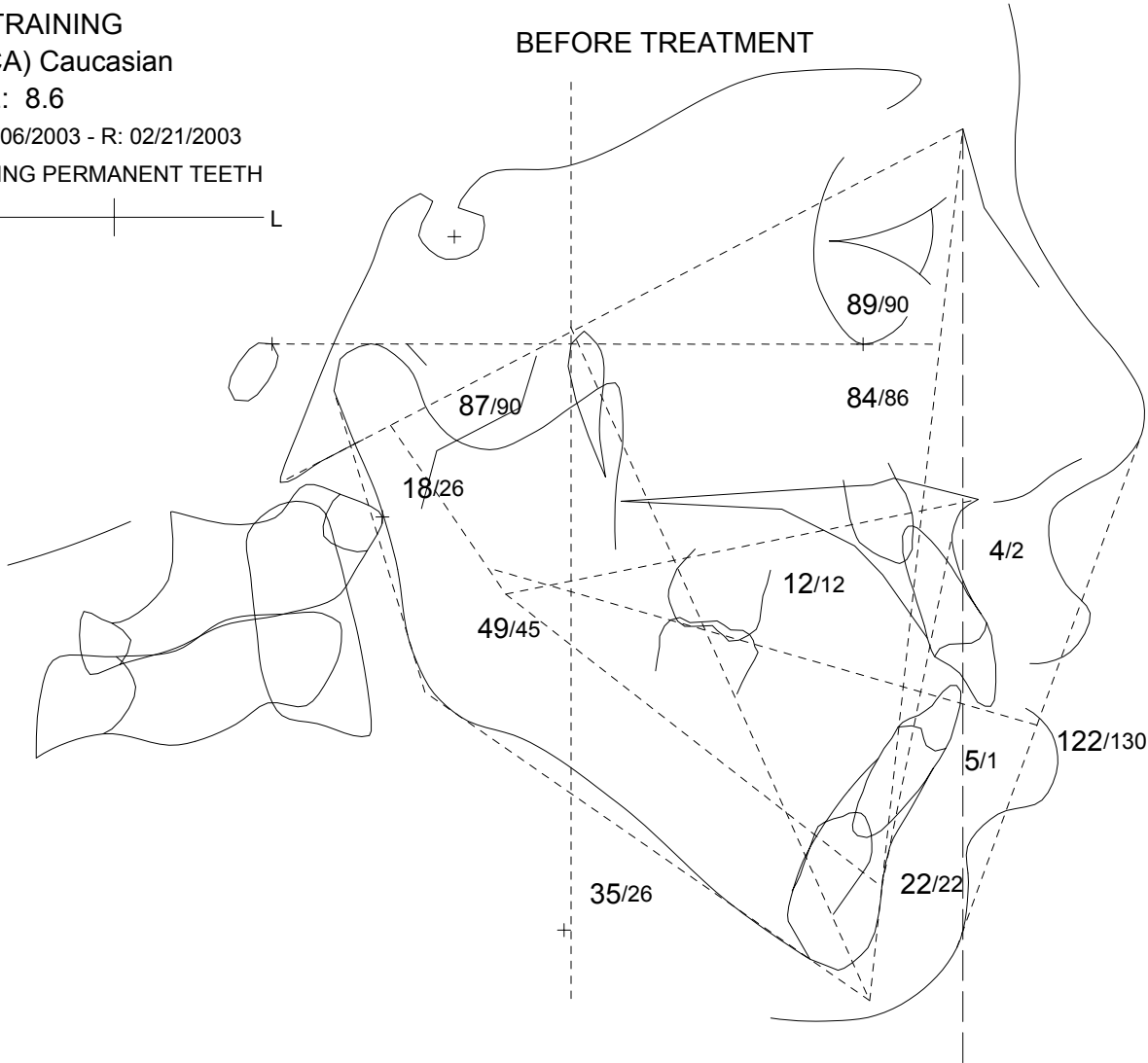
X: 02/06/2003 - R: 02/21/2003
 MISSING PERMANENT TEETH

R ————— L

TRACING

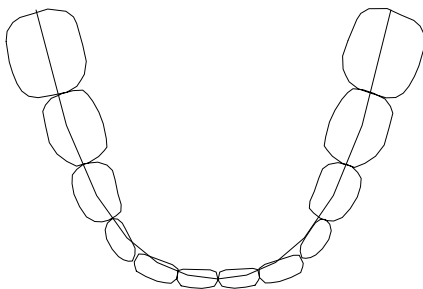
RMO®

BEFORE TREATMENT



MEASURED VALUE/NORM

R L



SHORTAGE 1.6 MM
 LEEWAY 3.9 MM

SIGNIFICANT CONSIDERATIONS

CONDITION	REASON
Mild Overjet	due to the mandible
Skeletal Class II	due to the mandible
Skeletal Open Bite	Probably not
Adenoid blockage of the airway?	

FACIAL PATTERN: DOLICHOFACIAL

# FACTORS	MEASURED VALUE	NORM	CLINICAL DEVIATION
Interincisal Angle	121.6 dg	130.0 dg	-1.4 *
Convexity	4.4 mm	2.3 mm	1.0 *
Lower Facial Height	49.3 dg	45.0 dg	1.1 *
A6 Molar Position to PTV	12.2 mm	11.6 mm	0.2
B1 to A-Po Plane	4.6 mm	1.0 mm	1.6 *
B1 Inclination to A-Po	22.4 dg	22.0 dg	0.1
Facial Depth	83.9 dg	86.5 dg	-0.8
Facial Axis	86.5 dg	90.0 dg	-1.0 *
Maxillary Depth	88.5 dg	90.0 dg	-0.5
Mandibular Plane to FH	34.7 dg	26.1 dg	1.9 *
Mandibular Arc	17.8 dg	26.0 dg	-2.0 **

EXTRACTION
Dr. Training

RMO Case Number: 0000 0038 1 X-Ray date: 02/06/2003 Age: 8.6
RMO Run date: 02/21/2003 Birthdate: 06/30/1994 Sex: Male 1

Reference: G T E

===== 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	-1.6 C.D.	Probability of Lower Third Molar (based on space available)		
Vertical Description	DOLICHOFACIAL	Impaction	Eruption	Eruption
Auxiliary Appliances			Questionable	Functional
Headgear	HIGH PULL		Function	
	LIGHT FORCES for ANCHORAGE	12.%	37.%	51.%
Activator	NEUTRAL			
Palate Separation	N/A - No Arch and Frontal data			
Convexity Objective	Reduce 0.8 mm			

Lower Arch Length Discrepancy (original arch) 2.3 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: 3.7 mm Bwd. Rt: 3.7 mm Bwd.	6.3 mm Decrease	4.0 mm Shortage
Buccal Expansion to Ideal Arch Form		0.5 mm Increase	3.5 mm Shortage
Incisors & Convexity to Cephalometric Limit	0.4 mm Fwd.	0.8 mm Increase	2.7 mm Shortage
Lower Molar Distal Movement	0.0 mm	0.0 mm Increase	2.7 mm Shortage

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

Movement of First Molar (non-ext.)	
Required for Class I	1.3 mm Distal
Resulting Expected Space for 2nd & 3rd Molars at Maturity (non-ext.)	19.1 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	EXTRACTION
Lower Arch	EXTRACTION
Lower Incisor	Backward 3.7 mm
Buccal Expansion	Gain 0.5 mm
Lower Molar Movement	Forward 5.0 mm

Teeth Sizes:	L6	L5	L4	L3	L2	L1	R1	R2	R3	R4	R5	R6	TOTAL	SUM OF INCISOR	NORM
Lower Arch :	11.3	7.5	7.3	7.1	6.1	5.5	5.5	6.1	7.1	7.3	7.5	11.3	89.6	23.2 MM	21.8

EXTRACTION
Dr. TrainingRMO Case Number: 0000 0038 1
RMO Run date: 02/21/2003X-Ray date: 02/06/2003 Age: 8.6
Birthdate: 06/30/1994 Sex: Male 1

Reference: W R E

W O R K U P

R A T I O N A L E

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

Facial pattern: -1.6 CD - Dolichofacial
 Lower arch form: Normal

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

Lower arch length discrepancy (ALD) 1.6 mm SHORTAGE
 Leeway space 3.9 mm ---
 Maximum use of leeway space 3.9 mm
 Total arch length discrepancy 2.3 mm EXCESS

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

based on Dr. Training's individualized standards

UPPER ARCH: EXTRACTION

Convexity change REDUCE 0.8 mm

LOWER ARCH: EXTRACTION

Lower incisor BACKWARD 3.7 mm

Buccal Expansion GAIN 0.5 mm

Lower molar FORWARD 5.0 mm

Extracted teeth
 4 | 4
 R -----+----- L
 5 | 5

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

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

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

Pentamorphic arch form: Normal
 Arch length relapse: 1.0 mm

Lower third molar probabilities
 (based on space available)

Impaction: 12 %
 Marginal: 37 %
 Functional: 51 %

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

Mandibular Arch Length Analysis

1. Initial Conditions
 - A. Original Arch Length 1.6 mm shortage
 - B. Useable Leeway Space 3.9 mm
 - C. Total Initial Discrepancy (A+B) 2.3 mm excess
2. Maximum Permissible Arch Length Increase (Within Doctor Limits)
 Due To:
 - D. Lower Incisor Repositioning 5.5 mm decrease
 - E. Buccal Expansion 0.5 mm increase
 - F. Lower Molar Distal Movement 0.0 mm
 - G. Total Possible Increase (D+E+F) 5.0 mm decrease
3. Resultant Arch Length Discrepancy 2.7 mm shortage
 Considering All Possible Arch Length Increases (C+G)
4. Resultant Computer Decision Extraction
5. Work-Up Presented Is EXTRACTION

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

1. Convexity change 0.8 mm reduce
2. Upper incisor tip movement for overbite/overjet ideal to lower 6.4 mm backward
3. First molar movement required 2.6 mm forward
4. First molar movement clinical limit 5.0 mm backward
5. Work-Up Presented Is EXTRACTION

===== COMMENTS =====

EXTRACTION
0000 0038 1

M 8.6

SEQUENCES WORKSHEET
PHASE I TREATMENT

02/21/2003
EXTRACTION

RMO®

UPPER ARCH				LOWER ARCH			
ACTIVITY	DESCRIPTION	MONTHS	NOTES	ACTIVITY	DESCRIPTION	MONTHS	NOTES
	CORRECT CONVEXITY INTRUDE 1	0 1			EXTRUDE 1	0 1	
		0 2				0 2	
		0 3				0 3	
	RETRACT INCISORS	0 4				0 4	
		0 5				0 5	
<u>PROGRESS RECORDS</u>		0 6		<u>PROGRESS RECORDS</u>		0 6	
		0 7				0 7	
		0 8				0 8	
		0 9				0 9	
<u>POST TX RECORDS</u>		1 0		<u>POST TX RECORDS</u>		1 0	
		1 1				1 1	
		1 2				1 2	
		1 3				1 3	
		1 4				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	

EXTRACTION
0000 0038 1

M 8.6

SEQUENCES WORKSHEET
PHASE II TREATMENT

02/21/2003
EXTRACTION

RMO®

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

0000 0038 1
EXTRACTION
M 8.6

LONG RANGE GROWTH FORECAST COMPARISON RMO®

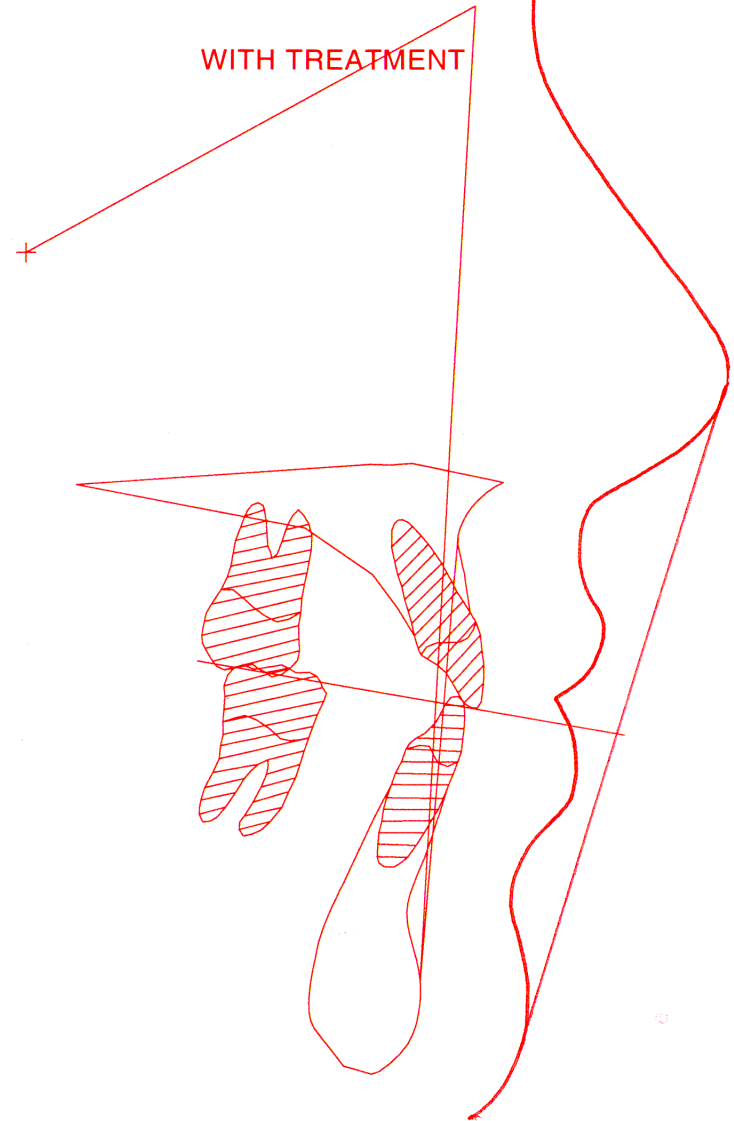
02/20/2003

EXTRACTION

WITHOUT TREATMENT



WITH TREATMENT



LOWER THIRD MOLAR PROBABILITIES (BASED ON SPACE AVAILABLE)

IMPACTION: 30 %
MARGINAL: 48 %
FUNCTIONAL: 22 %

CURRENT HEIGHT: 55.0 IN
EXPECTED MATURE HEIGHT: 74.1 IN

LOWER THIRD MOLAR PROBABILITIES (BASED ON SPACE AVAILABLE)

IMPACTION: 12 %
MARGINAL: 37 %
FUNCTIONAL: 51 %

ARCH LENGTH DECREASE POST TX
1.0 MM TOTAL

CASE: 0000 0038 1
 EXTRACTION
 Dr. TRAINING
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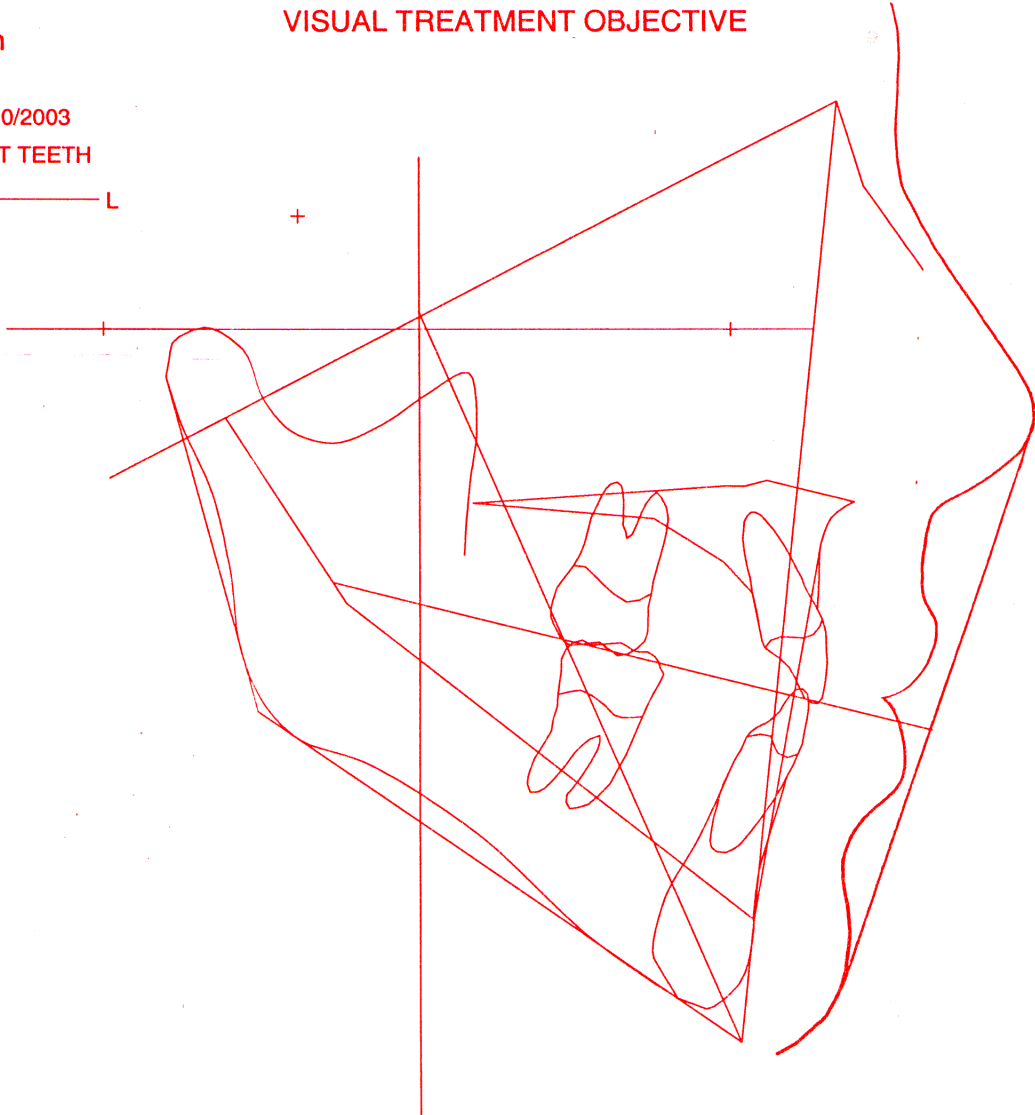
EXTRACTION VTO

RMO®

VISUAL TREATMENT OBJECTIVE

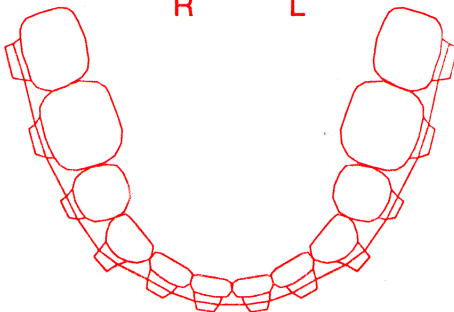
X: 02/06/2003 - R: 02/20/2003
 MISSING PERMANENT TEETH

R ————— | ————— L



SUGGEST
 NORMAL
 RMO PREFORMED
 PENTAMORPHIC ARCHWIRE

R L



ESPECIALLY PREPARED FOR Dr. TRAINING

WORKUP PERFORMED

Upper: EXTRACTION
 Lower: EXTRACTION

EXTRACTED TEETH

R $\frac{4}{5}$ | $\frac{4}{5}$ L

PREDICTION PERIOD

24.0 months

GROWTH UNITS

24.0 months: 1.8

HEIGHT PREDICTION

Current height: 55.0 inches
 Mature height: 74.1 inches

3RD MOLAR PREDICTION

Impaction: 12 %
 Marginal: 37 %
 Functional: 51 %

COMMENTS

0000 0038 1
 EXTRACTION
 M 8.6

EXTRACTION TREATMENT DESIGN

RMO®

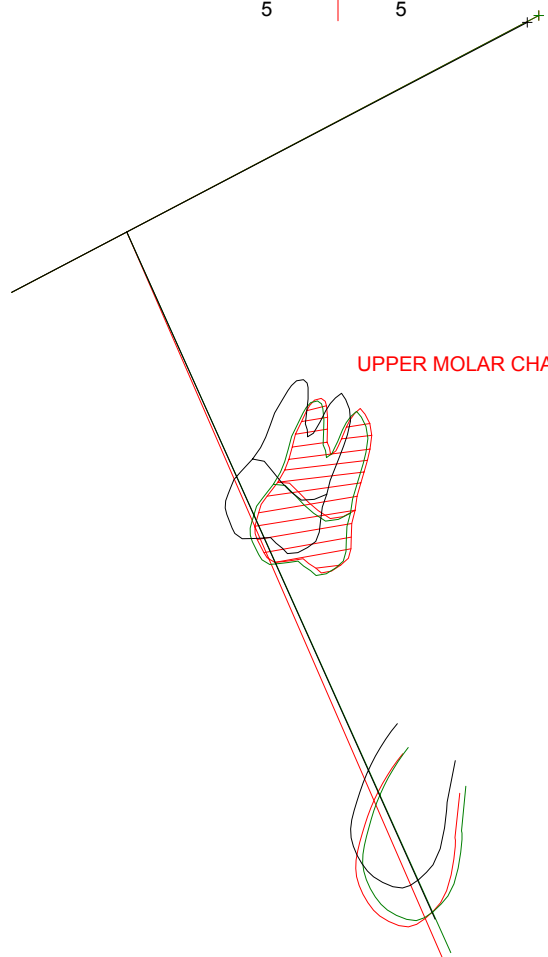
02/21/2003

EXTRACT R 4 4 L
 5 5

MAXILLARY CHANGE

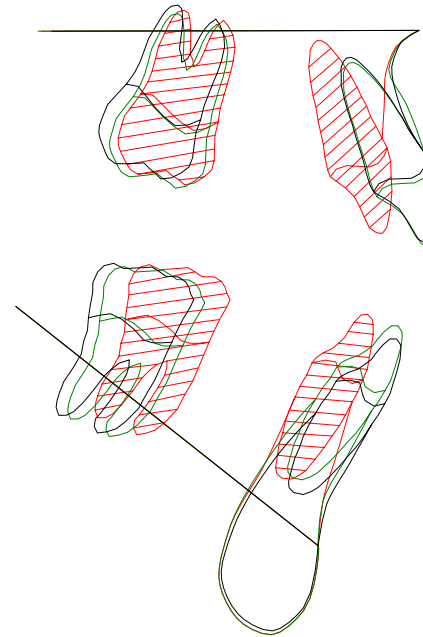
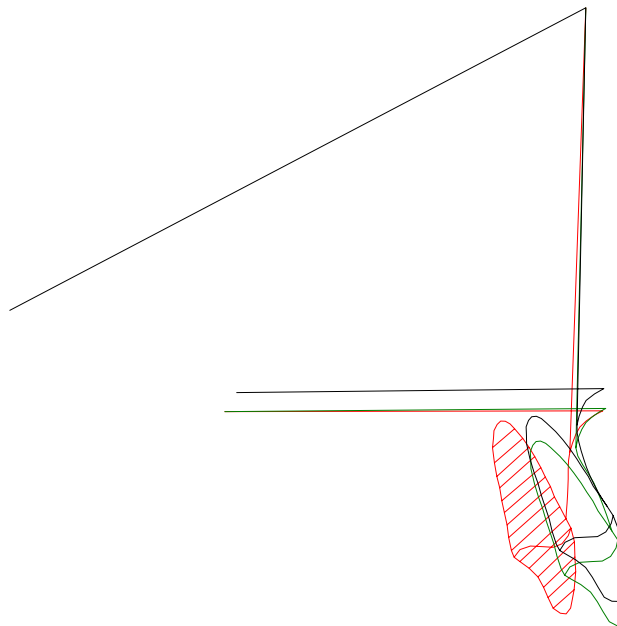
CHANGE IN MAXILLARY TEETH

PT. A MOVEMENT BACKWARD 0.8 MM



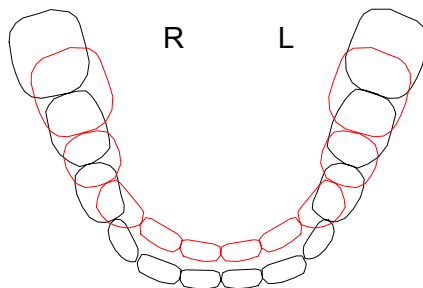
UPPER MOLAR CHANGE

MANDIBULAR GROWTH



CHANGE IN MANDIBULAR TEETH

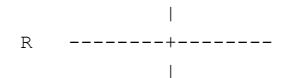
LOWER INCISOR BWD(RT) 3.7 MM
 LOWER MOLAR FWD 5.0 MM



WORKUP PRESENTED

Upper arch: EXTRACTION
 Lower arch: EXTRACTION

MISSING PERMANENT TEETH



COMMENTS

— ORIGINAL
 — GROWTH W/O TREATMENT
 — TREATMENT OBJECTIVE

EXTRACTION
Dr. TrainingRMO Case Number: 0000 0038 1
RMO Run date: 02/21/2003X-Ray date: 02/06/2003
Birthdate: 06/30/1994Age: 8.6
Sex: Male 1

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	76.5 dg	82.0 dg	-1.7 *
SNB	72.2 dg	80.0 dg	-2.1 **
ANB	4.3 dg	2.0 dg	0.8
SND	68.7 dg	76.0 dg	-2.0 **
A1 to NA	5.9 mm	4.0 mm	0.6
A1 to NA	26.2 dg	22.0 dg	0.5
B1 to NB	6.8 mm	4.0 mm	1.2 *
B1 to NB	27.9 dg	25.0 dg	0.4
A1 to B1	121.6 dg	131.0 dg	-1.0 *
OCC.PL/SN	28.0 dg	14.0 dg	3.2 ***

0000 0038 1
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M 8.6

02/21/2003

STEINER ANALYSIS

RMO®

