

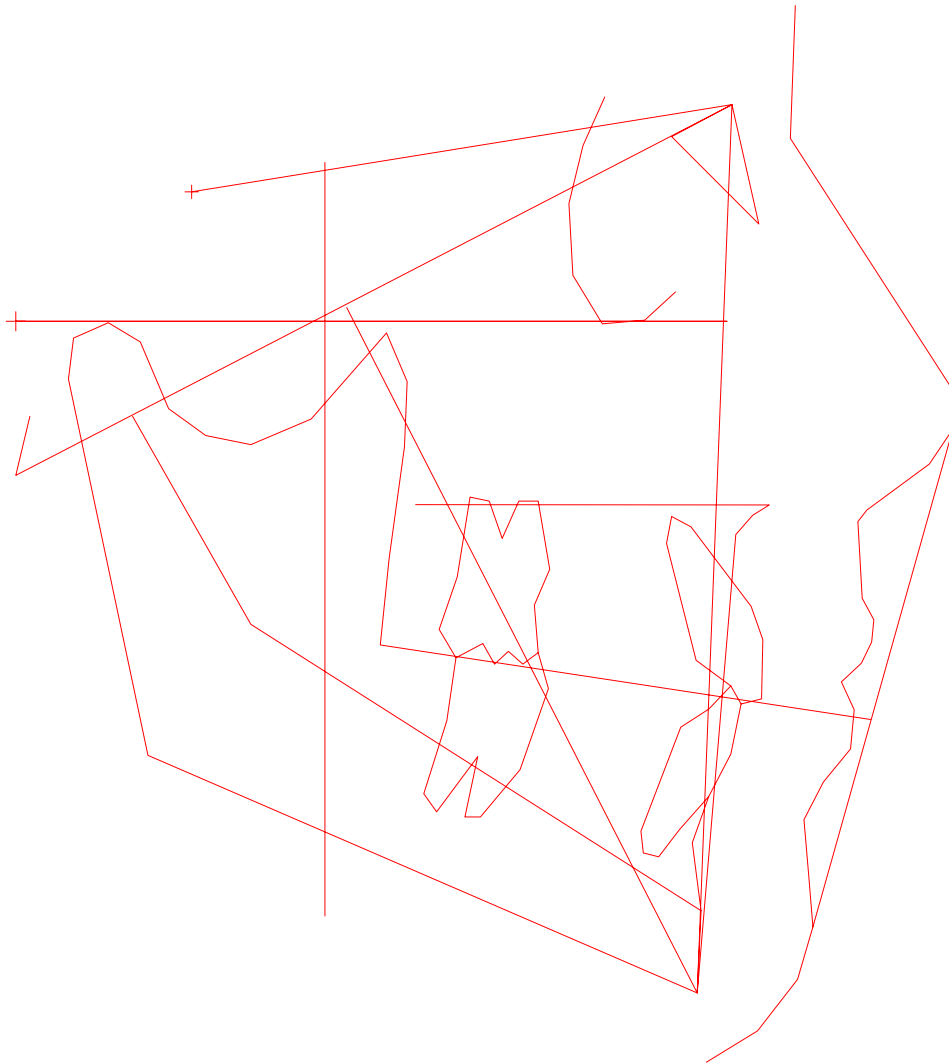
CASE: 0000 0036 1
NON EXTRACTION
Dr. TRAINING
M (CA) Caucasian
AGE: 11.0

VISUAL NORMS

RMO®

X: 02/04/2003 - R: 02/21/2003
MISSING PERMANENT TEETH

R ————— | ————— L



NON EXTRACTION
Dr. Training

RMO Case Number: 0000 0036 1
RMO Run date: 02/21/2003

X-Ray date: 02/04/2003
Birthdate: 02/12/1992

Age: 11.0
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	0.6 mm	-3.0 mm	1.2 *
03 Canine Relation	0.1 mm	-2.0 mm	0.7
05 Incisor Overjet	2.1 mm	2.5 mm	-0.1
07 Incisor Overbite	2.4 mm	2.5 mm	0.0
09 Mand Incisor Extrusion	1.8 mm	1.3 mm	0.3
#11 Interincisal Angle	128.1 dq	130.0 dq	-0.3

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

#18 A6 Molar Position to PTV	17.9 mm	14.0 mm	1.3 *
#20 B1 to A-Po Plane	3.4 mm	1.0 mm	1.0 *
22 A1 to A-Po Plane	5.5 mm	3.5 mm	0.9
#24 B1 Inclination to A-Po	25.1 dg	22.0 dg	0.8
26 A1 Inclination to A-Po	26.7 dg	28.0 dg	-0.3
27 Occlusal Plane to Xi	-0.6 mm	-0.2 mm	-0.1
28 Inclination of Occl Plane	21.2 dq	23.7 dq	-0.6
54 B1 Inclination to FH	60.1 dg	65.0 dg	-1.0 *

===== ESTHETICS =====

29 Lower Lip to Esthetic Plane	1.7 mm	-1.5 mm	1.6 *
30 Upper Lip Length	24.3 mm	25.8 mm	-0.8
31 Lip Embrasure to Occl Plane	-4.0 mm	-3.0 mm	-0.5
58 NasoLabial Angle	121.0 dq	115.0 dq	1.2 *

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

62 N-S-Ba	133.2 dq	129.6 dq	0.7
63 Ba-S-PNS	59.1 dq	63.0 dq	-1.6 *
85 Airway Percent	39.7 %	57.2 %	-1.2
86 Linder-Aronson AD1	16.3 mm	23.3 mm	-1.4
87 Linder-Aronson AD2	13.0 mm	18.8 mm	-1.5 *
88 Distance PTV to Adenoid	6.0 mm	10.9 mm	-1.0

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	4.5 mm	2.3 mm	1.1 *
#15 Lower Facial Height	40.9 dg	45.0 dg	-1.0 *
84 Present Patient Height	147.0 cm	142.2 cm	
91 Posterior face height	75.0 mm		
92 Anterior face height	114.3 mm		
93 Posterior/Anterior ratio	65.6 %		
94 Saddle Angle	127.8 dg	123.0 dg	1.6 *
96 Condylion-A point	90.4 mm	88.5 mm	0.6
97 Condylion-Gnathion	115.0 mm	110.3 mm	1.0 *
95 Max-Mand Differential	24.6 mm	21.5 mm	1.1 *
98 Menton-ANS	66.3 mm	64.8 mm	0.6

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

#32 Facial Depth	90.7 dg	87.3 dg	1.1 *
#34 Facial Axis	90.9 dg	90.0 dg	0.3
#36 Maxillary Depth	95.3 dg	90.0 dg	1.8 *
37 Maxillary Height	53.8 dg	53.9 dg	0.0
38 Palatal Plane to FH	3.8 dg	1.0 dg	0.8
#39 Mandibular Plane to FH	21.6 dg	25.4 dg	-0.8
77 Ba-N-A	68.0 dg	63.0 dg	1.7 *
76 S-N-A	84.7 dg	82.0 dg	0.8
78 S-N-B	80.0 dg	80.0 dg	0.0
69 A-N-B Difference	4.7 dg	2.0 dg	1.0 *
75 Total Facial Height	56.1 dg	60.0 dg	-1.3 *

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

40 Cranial Deflection	29.5 dg	27.0 dg	0.8
42 Cranial Length Anterior	58.4 mm	59.9 mm	-0.6
44 Ramus Height (CF-Go)	62.9 mm	60.5 mm	0.7
46 Ramus Xi Position	74.8 dg	76.0 dg	-0.4
48 Porion Location (Por to PTV)	-40.7 mm	-41.4 mm	0.3
#50 Mandibular Arc	32.7 dg	27.2 dg	1.4 *
51 Corpus Length	72.3 mm	71.4 mm	0.4

NON EXTRACTION
Dr. TrainingRMO Case Number: 0000 0036 1
RMO Run date: 02/21/2003X-Ray date: 02/04/2003 Age: 11.0
Birthdate: 02/12/1992 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: NON EXTRACTION
Doctor name: TRAINING
Age: 11.0
X-Ray date: 02/04/2003
RMO Case Number:
RMO Run date: 02/21/2003

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

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

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

Assumed skeletal age: 11.0
Current height: 147.0 cms
Amount of adult growth achieved: 80.4 %
Expected adult height: 182.9 cms

===== 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 =====

Class II malocclusion	1
due to the upper molar	18
Skeletal Class II	13
due to the maxilla	32,36

===== VERTICAL =====

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

===== TRANSVERSE =====

===== SYMMETRY =====

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

===== COMMENTS =====

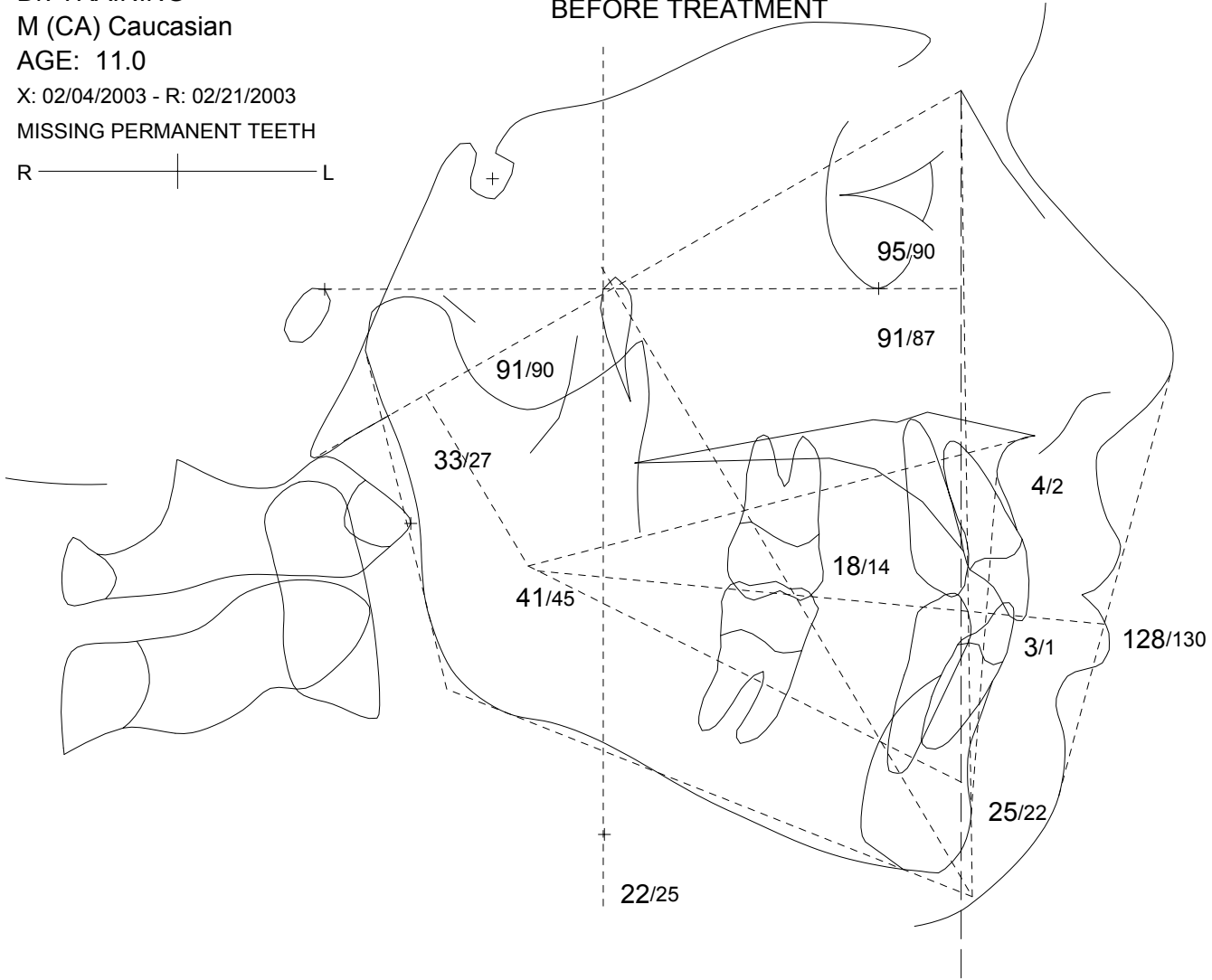
C1 1 Lt/C1 2 Rt, diagnosis of Rt
No analysis of frontal x-ray. Upper and lower arch
expansion decisions based on available data only.

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 NON EXTRACTION
 Dr. TRAINING
 M (CA) Caucasian
 AGE: 11.0
 X: 02/04/2003 - R: 02/21/2003
 MISSING PERMANENT TEETH
 R ————— L

TRACING

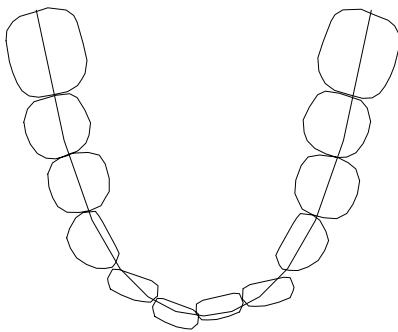
RMO®

BEFORE TREATMENT



MEASURED VALUE/NORM

R L



EXCESS 0.2 MM
 LEEWAY 0.0 MM

SIGNIFICANT CONSIDERATIONS

CONDITION	REASON
Class II malocclusion	due to the upper molar
Skeletal Class II	due to the maxilla
Skeletal Deep Bite	due to the mandible
Adenoid blockage of the airway?	Probably not

FACIAL PATTERN: MILD BRACHYFACIAL

# FACTORS	MEASURED VALUE	NORM	CLINICAL DEVIATION
Intercincisal Angle	128.1 dg	130.0 dg	-0.3
Convexity	4.5 mm	2.3 mm	1.1 *
Lower Facial Height	40.9 dg	45.0 dg	-1.0 *
A6 Molar Position to PTV	17.9 mm	14.0 mm	1.3 *
B1 to A-Po Plane	3.4 mm	1.0 mm	1.0 *
B1 Inclination to A-Po	25.1 dg	22.0 dg	0.8
Facial Depth	90.7 dg	87.3 dg	1.1 *
Facial Axis	90.9 dg	90.0 dg	0.3
Maxillary Depth	95.3 dg	90.0 dg	1.8 *
Mandibular Plane to FH	21.6 dg	25.4 dg	-0.8
Mandibular Arc	32.7 dg	27.2 dg	1.4 *

NON EXTRACTION
Dr. Training

RMO Case Number: 0000 0036 1 X-Ray date: 02/04/2003 Age: 11.0
RMO Run date: 02/21/2003 Birthdate: 02/12/1992 Sex: Male 1

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	0.8 C.D.	Probability of Lower Third Molar (based on space available)		
Vertical Description	MILD BRACHYFACIAL	Impaction	Eruption	Eruption
Auxiliary Appliances			Questionable	Functional
Headgear	CERVICAL		Function	
	LIGHT FORCES	14.%	41.%	45.%
Activator	NOT INDICATED			
Palate Separation	N/A - No Arch and Frontal data			
Convexity Objective	Reduce 1.1 mm			

Lower Arch Length Discrepancy (original arch) 0.2 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: 2.4 mm Bwd. Rt: 3.3 mm Bwd.	5.1 mm Decrease	4.9 mm Shortage
Buccal Expansion to Ideal Arch Form		1.9 mm Increase	3.0 mm Shortage
Incisors & Convexity to Cephalometric Limit	3.4 mm Fwd.	6.8 mm Increase	3.8 mm Excess
Lower Molar Distal Movement	1.8 mm	3.6 mm Increase	Not Req'd

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

Movement of First Molar (non-ext.)	
Required for Class I	3.0 mm Distal
Resulting Expected Space for 2nd & 3rd Molars at Maturity (non-ext.)	21.8 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 1.8 mm
Buccal Expansion	Gain 1.9 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 :	11.3	8.2	8.3	8.2	7.0	6.4	6.4	7.0	8.2	8.0	8.1	11.4	98.5	26.8 MM	23.0

NON EXTRACTION
Dr. TrainingRMO Case Number: 0000 0036 1
RMO Run date: 02/21/2003X-Ray date: 02/04/2003 Age: 11.0
Birthdate: 02/12/1992 Sex: Male 1

Reference: W R N

W O R K U P

R A T I O N A L E

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

Facial pattern: 0.8 CD - Mild Brachyfacial
 Lower arch form: Narrow tapered

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

Lower arch length discrepancy (ALD) 0.2 mm EXCESS
 Leeway space 0.0 mm ---
 Maximum use of leeway space 0.0 mm
 Total arch length discrepancy 0.2 mm EXCESS

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

based on Dr. Training's individualized standards

UPPER ARCH: NON-EXTRACTION

Convexity change REDUCE 1.1 mm

LOWER ARCH: NON-EXTRACTION

Lower incisor BACKWARD 1.8 mm
 Buccal Expansion GAIN 1.9 mm
 Lower molar BACKWARD 0.4 mm

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

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

Activator: NOT INDICATED
 Palate separation: N/A - No Arch and Frontal data
 Headgear: CERVICAL
 LIGHT FORCES

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

Pentamorphic arch form: Narrow tapered
 Arch length relapse: 2.4 mm

Lower third molar probabilities
(based on space available)

Impaction: 14 %
 Marginal: 41 %
 Functional: 45 %

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

Mandibular Arch Length Analysis

1. Initial Conditions
 - A. Original Arch Length 0.2 mm excess
 - B. Useable Leeway Space 0.0 mm
 - C. Total Initial Discrepancy (A+B) 0.2 mm excess
2. Maximum Permissible Arch Length Increase (Within Doctor Limits)
 Due To:
 - D. Lower Incisor Repositioning 1.7 mm increase
 - E. Buccal Expansion 1.9 mm increase
 - F. Lower Molar Distal Movement 3.6 mm increase
 - G. Total Possible Increase (D+E+F) 7.2 mm increase
3. Resultant Arch Length Discrepancy 7.4 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 1.1 mm reduce
2. Upper incisor tip movement for overbite/overjet ideal to lower 1.0 mm backward
3. First molar movement required 3.2 mm backward
4. First molar movement clinical limit 5.0 mm backward
5. Work-Up Presented Is NON-EXTRACTION

===== COMMENTS =====

Cl 1 Lt/Cl 2 Rt, diagnosis of Rt

NON EXTRACTION
0000 0036 1

M 11.0

SEQUENCES WORKSHEET

02/21/2003
NON-EXTRACTION

RMO®

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

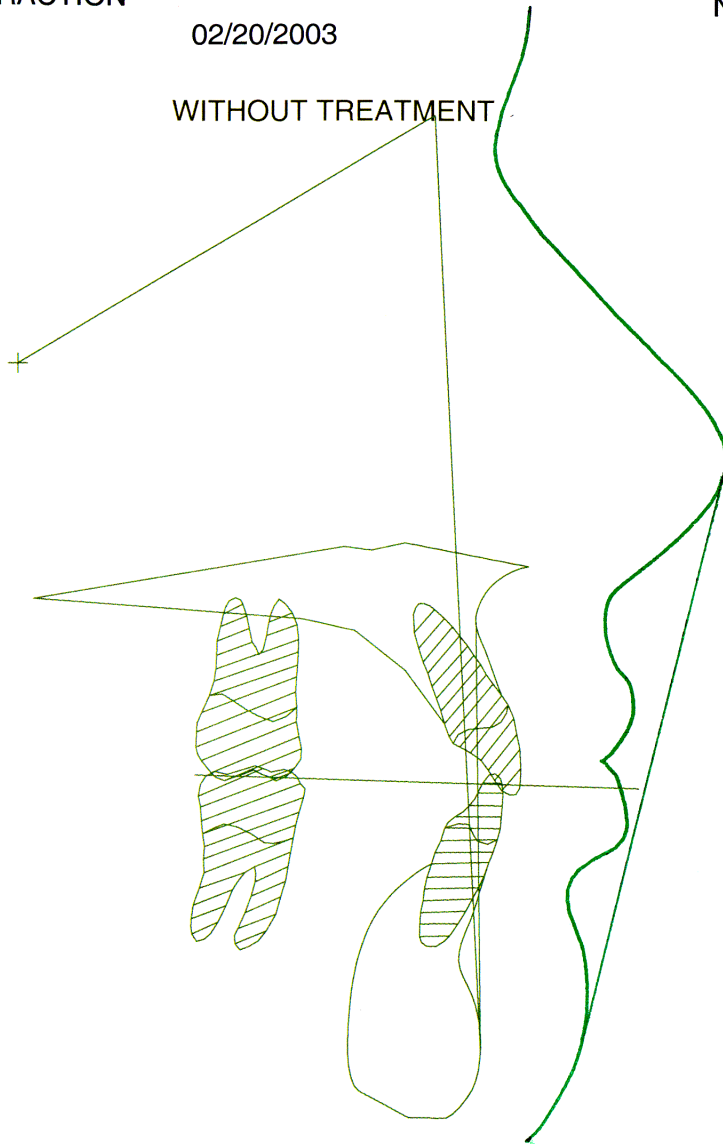
0000 0036 1
NON EXTRACTION
M 11.0

LONG RANGE GROWTH FORECAST COMPARISON RMO®

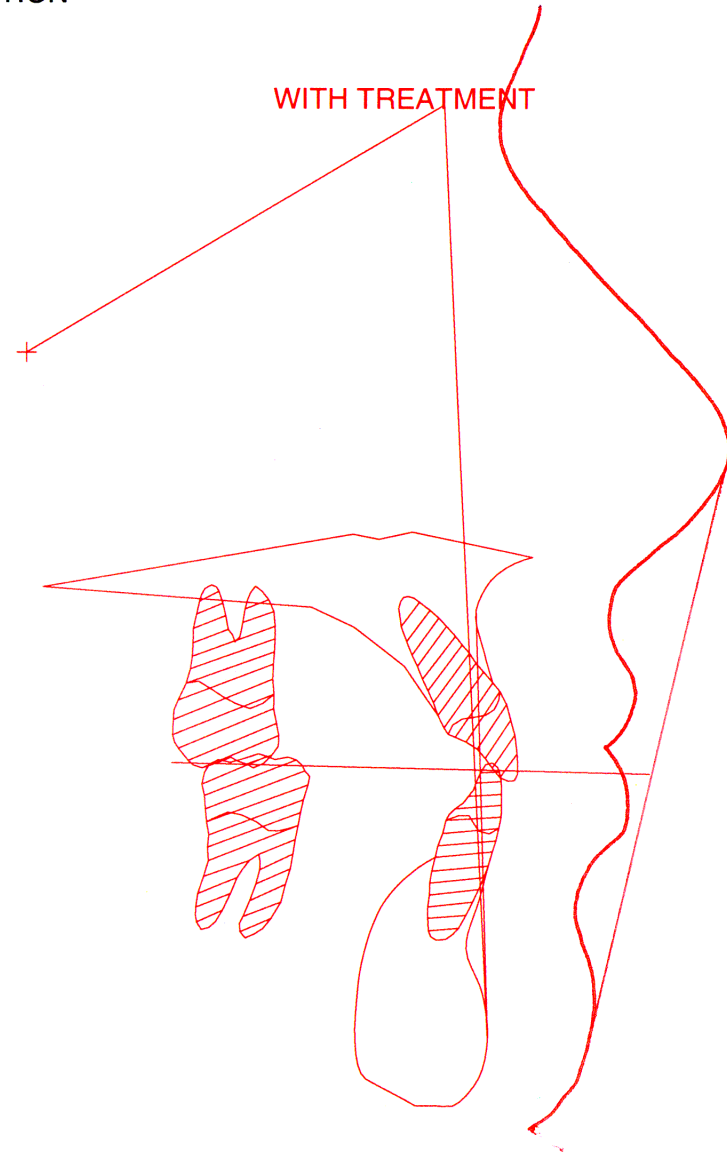
02/20/2003

NON-EXTRACTION

WITHOUT TREATMENT



WITH TREATMENT



LOWER THIRD MOLAR PROBABILITIES (BASED ON SPACE AVAILABLE)

IMPACTION: 11 %
MARGINAL: 37 %
FUNCTIONAL: 52 %

CURRENT HEIGHT: 147.0 CM
EXPECTED MATURE HEIGHT: 182.9 CM

LOWER THIRD MOLAR PROBABILITIES (BASED ON SPACE AVAILABLE)

IMPACTION: 14 %
MARGINAL: 41 %
FUNCTIONAL: 45 %

ARCH LENGTH DECREASE POST TX
2.4 MM TOTAL

CASE: 0000 0036 1
NON EXTRACTION
Dr. TRAINING
M (CA) Caucasian
AGE: 11.0

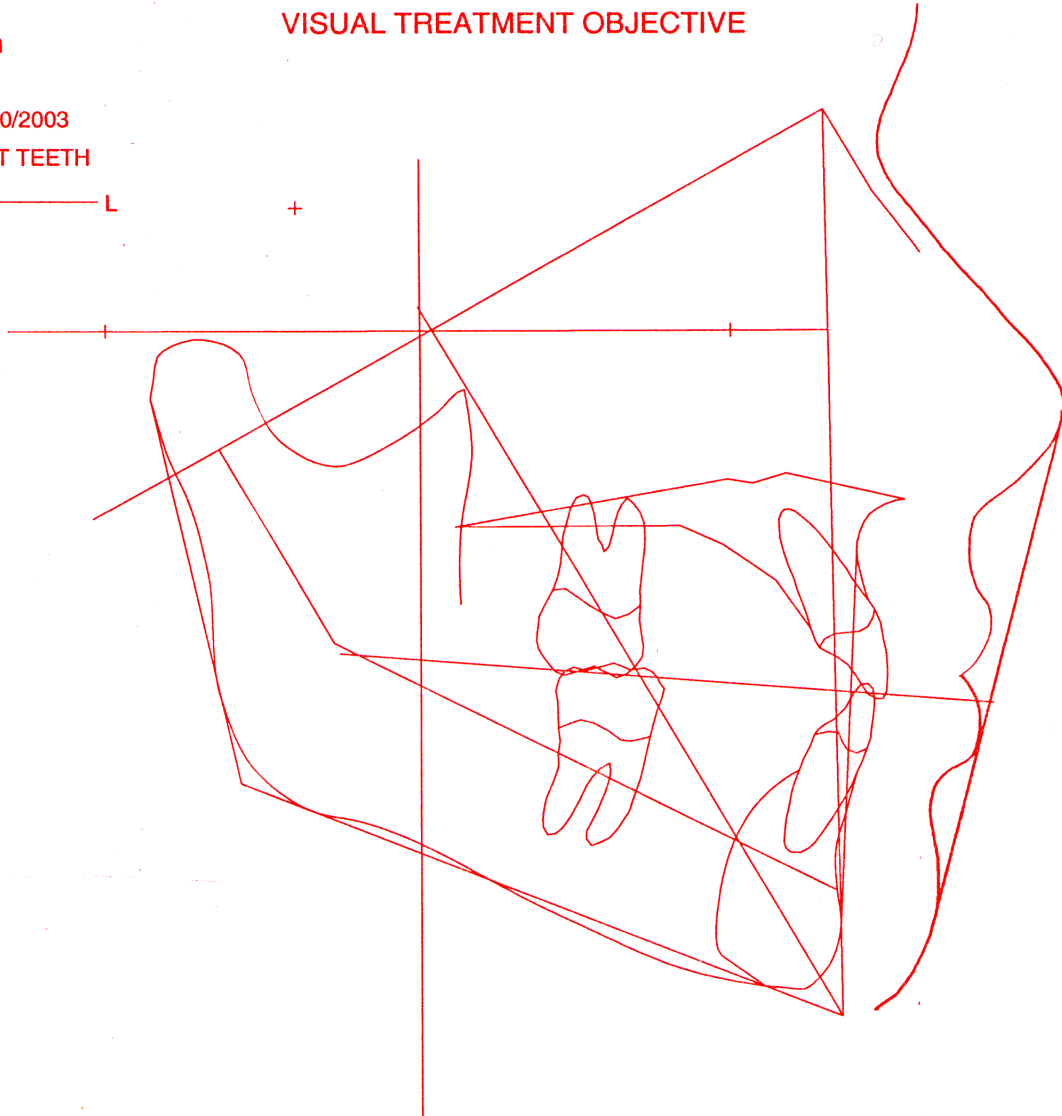
X: 02/04/2003 - R: 02/20/2003
MISSING PERMANENT TEETH

R ————— | ————— L

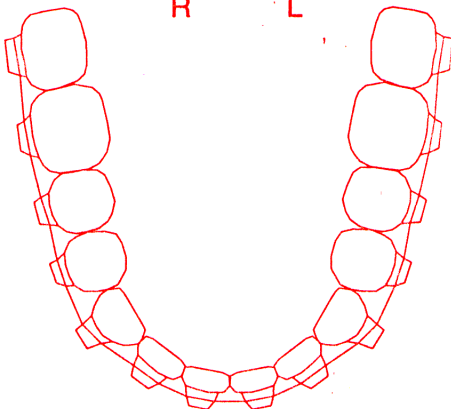
NON-EXTRACTION VTO

RMO®

VISUAL TREATMENT OBJECTIVE



SUGGEST
NARROW TAPERED
RMO PREFORMED
PENTAMORPHIC ARCHWIRE
R L



ESPECIALLY PREPARED FOR Dr. TRAINING

WORKUP PERFORMED

Upper: NON-EXTRACTION
Lower: NON-EXTRACTION

PREDICTION PERIOD

16.0 months

HEIGHT PREDICTION

Current height: 147.0 cms
Mature height: 182.9 cms

COMMENTS

CI 1 Lt/CI 2 Rt, diagnosis of Rt

GROWTH UNITS
16.0 months: 1.0

3RD MOLAR PREDICTION

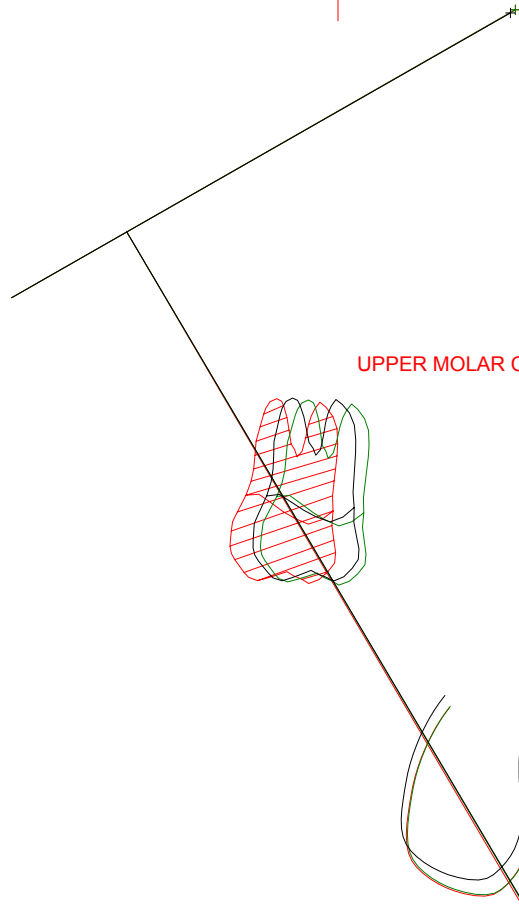
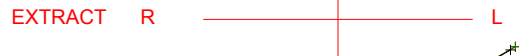
Impaction: 14 %
Marginal: 41 %
Functional: 45 %

0000 0036 1
 NON EXTRACTION
 M 11.0

NON-EXTRACTION TREATMENT DESIGN

RMO®

02/21/2003



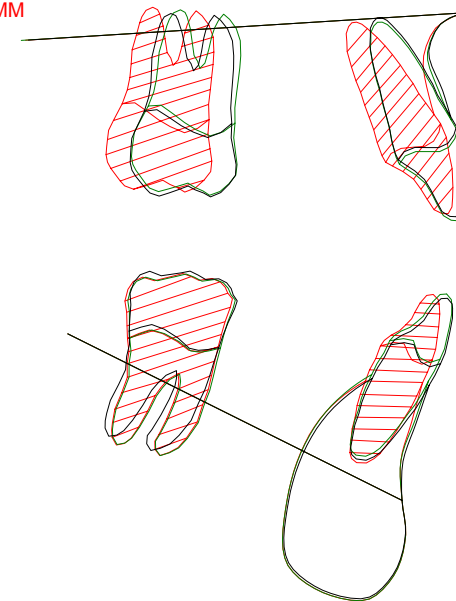
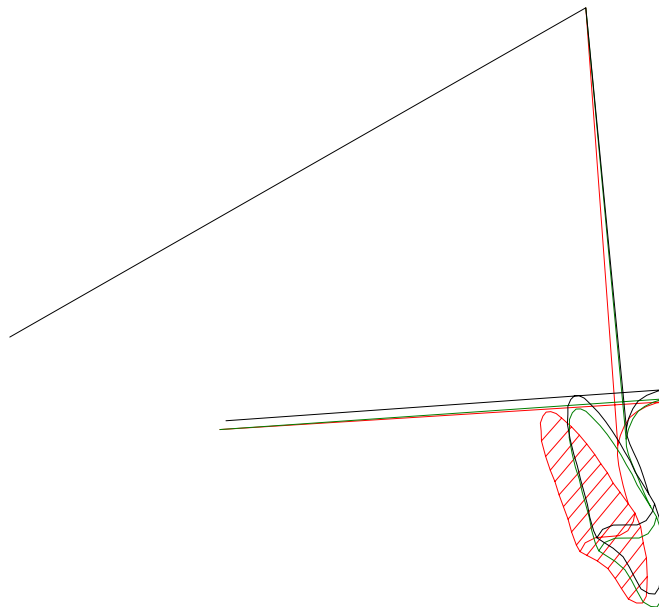
UPPER MOLAR CHANGE

MANDIBULAR GROWTH

MAXILLARY CHANGE

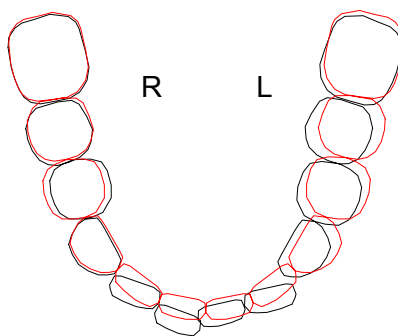
CHANGE IN MAXILLARY TEETH

PT. A MOVEMENT BACKWARD 1.1 MM



CHANGE IN MANDIBULAR TEETH

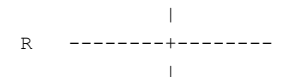
LOWER INCISOR	BWD(RT)	1.8	MM
LOWER MOLAR	BWD	0.4	MM



WORKUP PRESENTED

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

MISSING PERMANENT TEETH



COMMENTS

CI 1 Lt/CI 2 Rt, diagnosis of Rt

— ORIGINAL
 — GROWTH W/O TREATMENT
 — TREATMENT OBJECTIVE

NON EXTRACTION
Dr. TrainingRMO Case Number: 0000 0036 1
RMO Run date: 02/21/2003X-Ray date: 02/04/2003
Birthdate: 02/12/1992Age: 11.0
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	84.7 dg	82.0 dg	0.8
SNB	80.0 dg	80.0 dg	0.0
ANB	4.7 dg	2.0 dg	1.0 *
SND	75.9 dg	76.0 dg	0.0
A1 to NA	1.6 mm	4.0 mm	-0.8
A1 to NA	16.6 dg	22.0 dg	-0.7
B1 to NB	6.2 mm	4.0 mm	0.9
B1 to NB	30.5 dg	25.0 dg	0.8
A1 to B1	128.1 dg	131.0 dg	-0.3
OCC.PL/SN	16.0 dg	14.0 dg	0.5

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M 11.0

02/21/2003

STEINER ANALYSIS

RMO®

