FHWA REGION	STATE	PROJECT NUMBER	SHEET NUMBER	TOTAL SHEETS	FINALIZED PLANS
9	ARIZ.	F-037-3-602	1	53	

DRAWING NUMBER	D-3-T-611

STATE OF ARIZONA
DEPARTMENT OF TRANSPORTATION

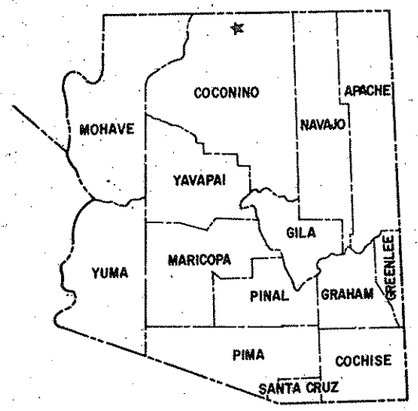
HIGHWAYS DIVISION

RIGHT OF WAY PLAN OF THE

NAVAJO BRIDGE – FREDONIA HIGHWAY
EAST KAIBAB BNDRY.– WEST KAIBAB BNDRY.
U.S. 89 A
PROJECT NO. F-037-3-602

COCONINO COUNTY DISTRICT NO. 5

LENGTH OF PROJECT = 27.846 Miles



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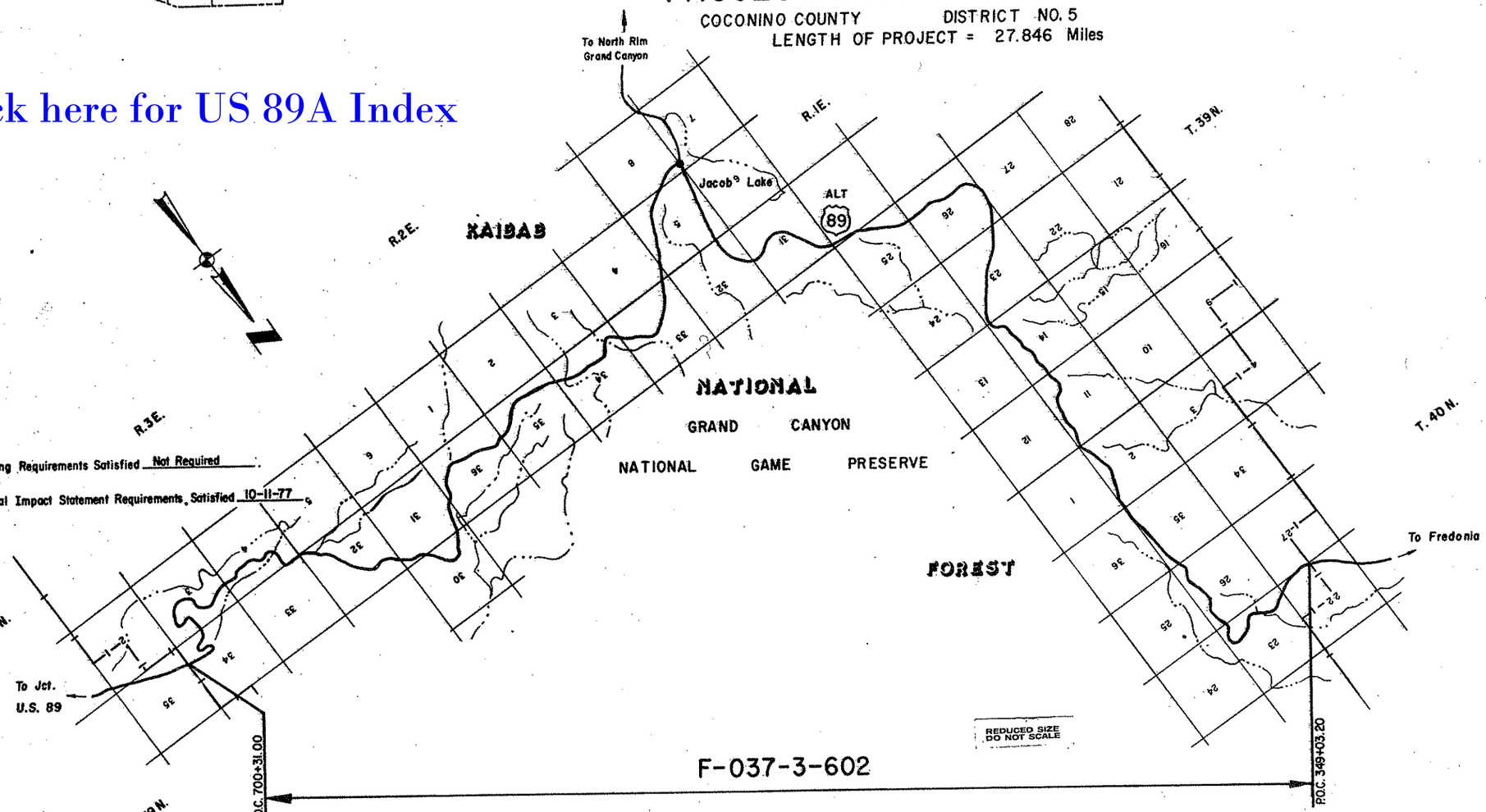

Public Hearing Requirements Satisfied Not Required.

Environmental Impact Statement Requirements Satisfied 10-11-77

Approved:

DEPUTY STATE ENGINEER 12-1-77 DATE

ARIZONA DEPARTMENT OF TRANSPORTATION BOARD
Approved for Right of Way Acquisition in accordance with Resolution Number 77-14-A-43 Dated 8-23-77

Oscar T. Lyon, Jr. State Engineer

CHIEF DEPUTY STATE ENGINEER 12-5-77 DATE

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

DIVISION ENGINEER DATE

BRUNING 44-512

Click here for US 89A Index

NAVAJO BRIDGE–FREDONIA HIGHWAY
EAST KAIBAB BNDRY.–WEST KAIBAB BNDRY.
COCONINO COUNTY

REVISIONS					
C.O. NO.	DATE	BY	DESCRIPTION	PROJECT NO.	F-037-3-602
				DRAWING NO.	D-3-T-611
				SHEET NO.	2 OF 53
				DRAWN BY	LMF
				DATE COMP.	11·30·77
				SCALE	———

A	
Acres	Ac.
Ahead	Ahd.
And	&
And Wife	et ux
And Others	et al
And Husband	et vir
Angle	∠
Approximate	Approx.
Arbitrary	Arb.
Asphalt	Asph.
At	@
Avenue	Ave.
B	
Back	Bk.
Bank Protection	B.P.
Barbed Wire	B.W.
Bearing	Brng.
Beginning	Beg.
Book	Bk.
Borrow	Bor.
Boulevard	Blvd.
Boundary	Bndry.
Brass Cap	B.C.
Bridge	Br.
Building	Bldg.
Bureau of Indian Affairs	B.I.A.
Bureau of Land Management	B.L.M.
Bureau of Reclamation	B.R.
C	
Calculated	Calc. or C.
Cattle Guard	C.G.
Center	Ctr.
Center to Center	C. to C.
Centerline	℄
Channel	Chan.
Concrete	Conc.
Concrete Box Culvert	C.B.C.
Construction	Constr.
Contractor	Cont.
Corner	Cor.
Corrugated Metal Pipe	C.M.P.
County	Co.
Creek	Ck.
Cubic Yard	C.Y.
Culvert	Culv.
Curve Data	
Curve to Spiral	C.S.
Degree of Change per 100'	a
Length of Curve	L
Radius	R
Spiral to Curve	S.C.
Spiral to Tangent	S.T.
Delta	△
Point of Curve	P.C.
Deflection (Total Curve)	I

Curve Data	
Point of Tangent	P.T.
Point of Compound Curve	P.C.C.
Point of Reverse Curve	P.R.C.
Point of Reverse Spiral	P.R.S.
Point of Intersection	P.I.
Degree of Curve	D
Tangent Length	T
Tangent to Spiral	T.S.
D	
Deceleration	Decel.
Deflection	Defl.
Department	Dept.
Detour	Det.
Diameter	Dia.
Distance	Dist.
Ditch and Dyke	D.&D.
Docket	Dkt.
Drawing	Dwg.
Drive	Dr.
Dyke	Dk.
Drainage	Drn.
Drainage Easement	D.E.
E	
Each	Ea.
Easement	Esmt.
East	E.
Elevation	Elev.
Embankment	Emb.
Engineer	Engr.
Equal	Eq. or =
Equation	Equa.
Excavation	Excav.
Existing	Exist.
Extend	Ext.
F	
Federal	Fed.
Feet	Ft. or '
Fence	Fc.
Flowage Easement	F.E.
Forest	For.
Found	Fnd.
Frame	Fr.
Freeway	Frwy.
Future	Fut.
G	
Galvanized	Galv.
Gauge	Ga.
Government	Govt.
Grader	Gr.
Guard	Gd.

H	
Headwall	Hdwl.
Highway	Hwy.
House	Hse.
I	
Inch	In. or "
Include	Incl.
Interchange	Intcg.
Iron Pipe	I.P.
Irrigation	Irr.
J	
Joint	Jt.
Junction	Jct.
L	
Left	Lt.
Length	Lgth.
Line	Ln.
Linear Feet	L.F.
Local Tangent Bearing	L.T.B.
M	
Manhole	M.H.
Material	Matl.
Maximum	Max.
Median	Med.
Mile	Mi.
Mile Post	M.P.
Minimum	Mim.
Minute	'
Miscellaneous	Misc.
Monument	Mon.
Mountain	Mt.
N	
National	Natl.
North	N.
Number	No.
O	
Opening	Opng.
Outside Diameter	O.D.
Office	Off.
P	
Page	Pg.
Parcel	Par.
Parkway	Pkwy.
Per	/
Per Cent	%
Place	Pl.
Point on Curve	P.O.C.
Point on Tangent	P.O.T.
Point on Semi-Tangent	P.O.S.T.
Power Line	P.L.

Private	Pvt.
Project	Proj.
Property	Prop.
Proposed	Propsd
Protection	Prot.
Q	
Quadrant	Quad.
R	
Railroad	R.R.
Range	Rng. or R.
Record	Rec. or (R)
Reinforced	Reinf.
Reinforced Concrete Pipe	R.C.P.
Required	Reqd.
Reservation	Res.
Right	Rt.
Right of Way	R/W
Road	Rd.
Roadway	Rdwy
S	
Second	"
Section	Sec.
Sheet	Sht.
Skew	Sk.
Slope Easement	S.E.
South	S.
Specifications	Specs.
Square	Sq.
Square Feet	ϕ
State Route	S.R.
Station	Sta
Street	St.
Subdivision	Subdiv.
Survey	Sur.
T	
Telegraph	Tlg.
Telephone	Tel.
Township	Twp. or T.
Temporary Construction Easement	T.C.E.
Traffic Interchange	T.I.
Turnout	T.O.
Typical	Typ.
U	
United States General Land Office	U.S.G.L.O.
Underground	Ungnd.
V	
Vertical	Vert.
W	
West	W
West Bound	W.B.
Warranty Deed	W.D.
Y	
Yard	Yd.

STANDARD ABBREVIATIONS

DRAWING 44-512

Click here for US 89A Index

NAVAJO BRIDGE–FREDONIA HIGHWAY
EAST KAIBAB BNDRY.–WEST KAIBAB BNDRY.
COCONINO COUNTY

REVISIONS					
C.O. No.	DATE	BY	DESCRIPTION	PROJECT NO.	F-037-3-602
				DRAWING NO.	D-3-T-611
				SHEET NO.	3 OF 53
				DRAWN BY	LMF
				DATE COMP.	11-30-77
				SCALE	—

ITEM	SYMBOL
HIGHWAY SURVEY CENTERLINE	
HIGHWAY CONSTRUCTION CENTERLINE	
HIGHWAY CENTERLINE (EXISTING)	
HIGHWAY RIGHT OF WAY LINE (NEW)	
HIGHWAY RIGHT OF WAY LINE (EXISTING)	
CONTROLLED ACCESS (FULL)	
CONTROLLED ACCESS (PARTIAL)	
CONTROLLED ACCESS (EXISTING)	
RAILROAD RIGHT OF WAY LINE	
RAILROAD RIGHT OF WAY LINE COMMON TO HIGHWAY RIGHT OF WAY LINE (EXISTING)	
NATIONAL OR STATE BOUNDARY LINE	
FOREST, NATIONAL MONUMENT, MILITARY OR INDIAN RESERVATION	
COUNTY LINE	
TOWNSHIP OR RANGE LINE	
SECTION LINE	
QUARTER OR MID SECTION LINE	
SIXTEENTH OR GOVERNMENT LOT LINE	
LAND GRANT BOUNDARY LINE	
CITY LIMITS BOUNDARY LINE	
SUBDIVISION OR LOT BOUNDARY LINE	
PROPERTY OWNERSHIP BOUNDARY LINE	
PROPERTY LEASE BOUNDARY LINE	L
SURVEY MEANDER LINE	
POWER LINE	
POWER TRANSMISSION LINE	
TELEPHONE OR TELEGRAPH LINE	
TELEPHONE AND POWER LINE (COMBINATION)	
UNDERGROUND TELEPHONE CABLE	T
WATER UTILITY LINE	W 6"
NATURAL GAS UTILITY LINE	G 2"
SANITARY SEWER LINE	S 8"
STORM SEWER LINE	SS 36"

ITEM	SYMBOL
HIGHWAY SLOPE OR DRAINAGE EASEMENT (NEW)	
HIGHWAY SLOPE OR DRAINAGE EASEMENT (EXISTING)	
TEMPORARY CONSTRUCTION EASEMENT (NEW)	
ROAD (NEW) (SHOULDER TO SHOULDER WIDTH)	
ROAD (EXISTING) (SHOULDER TO SHOULDER WIDTH)	
RAILROAD TRACK	
RIVER OR CREEK (CONTINUOUS FLOW)	
RIVER OR CREEK (INTERMITTENT FLOW)	
NATURAL DRAINAGE OR A WASH	
CANAL, CHANNEL, OR DITCH (NEW)	
CANAL, CHANNEL, OR DITCH (EXISTING)	
IRRIGATION DITCH OR LINE (NEW)	IRR
IRRIGATION DITCH OR LINE (EXISTING)	IRR
DYKE OR LEVEE (NEW)	
DYKE OR LEVEE (EXISTING)	
BANK PROTECTION	
RETAINING WALL	
CONSTRUCTION OR SLOPE LIMITS	
WIRE OR BARBED WIRE FENCE	
CHAIN LINK FENCE	
WOOD FENCE	
STONE FENCE	
ROAD GUARD (NEW)	
ROAD GUARD (EXISTING)	
CURB	
CURB AND GUTTER	
DEPRESSED CURB WITH GUTTER (NEW)	
DEPRESSED CURB WITH GUTTER (EXISTING)	
TREES (DECIDUOUS)	
TREES (CONIFEROUS)	
HEDGE OR SHRUBBERY	

EXIST. PAVEMENT

NEW PAVEMENT

EXIST. PAVEMENT, TO BE OBLITERATED

NEW STRUCTURES (BRIDGES, ETC. NOT COVERED BY PAVEMENT)

EXCESS TAKE

STANDARD SYMBOLS

ITEM	SYMBOL
BRIDGE (NEW)	
BRIDGE (EXISTING)	
PIPE CULVERT (NEW)	
PIPE CULVERT (EXISTING)	
BOX CULVERT (NEW)	
BOX CULVERT (EXISTING)	
CATTLE GUARD (NEW)	
CATTLE GUARD (EXISTING)	
GATE (NEW)	
GATE (EXISTING)	
FORD (NEW)	
FORD (EXISTING)	
TRAFFIC DIRECTIONAL FLOW ARROWS	
DRAINAGE DIRECTIONAL FLOW ARROWS	
PROPERTY LIMIT ARROWS	
LEASE LIMIT ARROWS	L
PROPERTY TIE BARS	
SURVEY MONUMENT, NEW	
SURVEY MONUMENT, EXISTING	
NEW RIGHT OF WAY CONTROL POINT	
RIGHT OF WAY MARKER, EXISTING	

NORTH ARROW

FOUND SEC. COR. or 1/4 COR.

UNFOUND SEC. COR. or 1/4 COR.

3 FOUND CENTER SEC.

3 UNFOUND CENTER SEC.

5/32" Diameter Circle. No. 1 Rapidograph Pen, Or Equal.

SECTION CORNER

1/2" Diameter Circle. No. 1 Rapidograph Pen, Or Equal.

CENTER OF SECTION

5/32" Diameter Circle. No. 1 Rapidograph Pen, Or Equal.

1/4 CORNER

7-614 PARCEL BUBBLE Size 3/4" 7-614 7-614-L1

BRUNING 44.512

NAVAJO BRIDGE–FREDONIA HIGHWAY
EAST KAIBAB BNDRY.–WEST KAIBAB BNDRY.
COCONINO COUNTY

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REVISIONS			
C.O. No.	DATE	BY	DESCRIPTION
5237	10-30-78	A.G.	Rev'd area Par. 3-173

PROJECT NO.	F-037-3-602
DRAWING NO.	D-3-T-611
SHEET NO.	4 OF 53
DRAWN BY	LMF
DATE COMP.	11-30-77
SCALE	—

OWNERSHIP RECORD / ACQUISITION RECORD

PARCEL NUMBER	OWNER	DESCRIPTION	TOTAL AREA	AREA REQUIRED GROSS INCLUDING EXISTING R/W	AREA REQUIRED NET EXCLUDING EXISTING R/W	EASEMENT AREA	REMAINDER LEFT	REMAINDER RIGHT	SHEET NUMBER	COMMISSION APPROVAL	TYPE & DATE OF INSTRUMENT	RECORDED DATE	RECORDED BOOK	RECORDED PAGE
3-178	United States of America, Kaibab National Forest	PT. OF SEC. 30,31,32,33,34, T.39 N. R.3 E.			95.9 Ac.				7,8,11-17					
		PT. OF SEC. 3,4,5, T.38 N. R.3 E. (PROTRACTED)			69.4 Ac.				8-12					
		PT. OF SEC. 31-36, T.39 N. R.2 E. (PROTRACTED)			160.6 Ac.				17-26, 31-34	1-30-80	Easement 10-12-79	11-20-79	771	188-200
		PT. OF NW¼ SEC. 4, SEC. 5, NE¼ SEC. 7, NW¼ SEC. 8, T.38 N. R.2 E.			65.2 Ac.				25-31					
		PT. OF SEC. 2,11,14,23,25,26,36, T.39 N. R.1 E.			174.6 Ac.				34-47					
		PT. OF SE¼ SEC. 22,23,26,27,35, T.40 N. R.1 E.			94.5 Ac.				47-53					

REDUCED SIZE
DO NOT SCALE

CHECKED BY Jim Blackmon

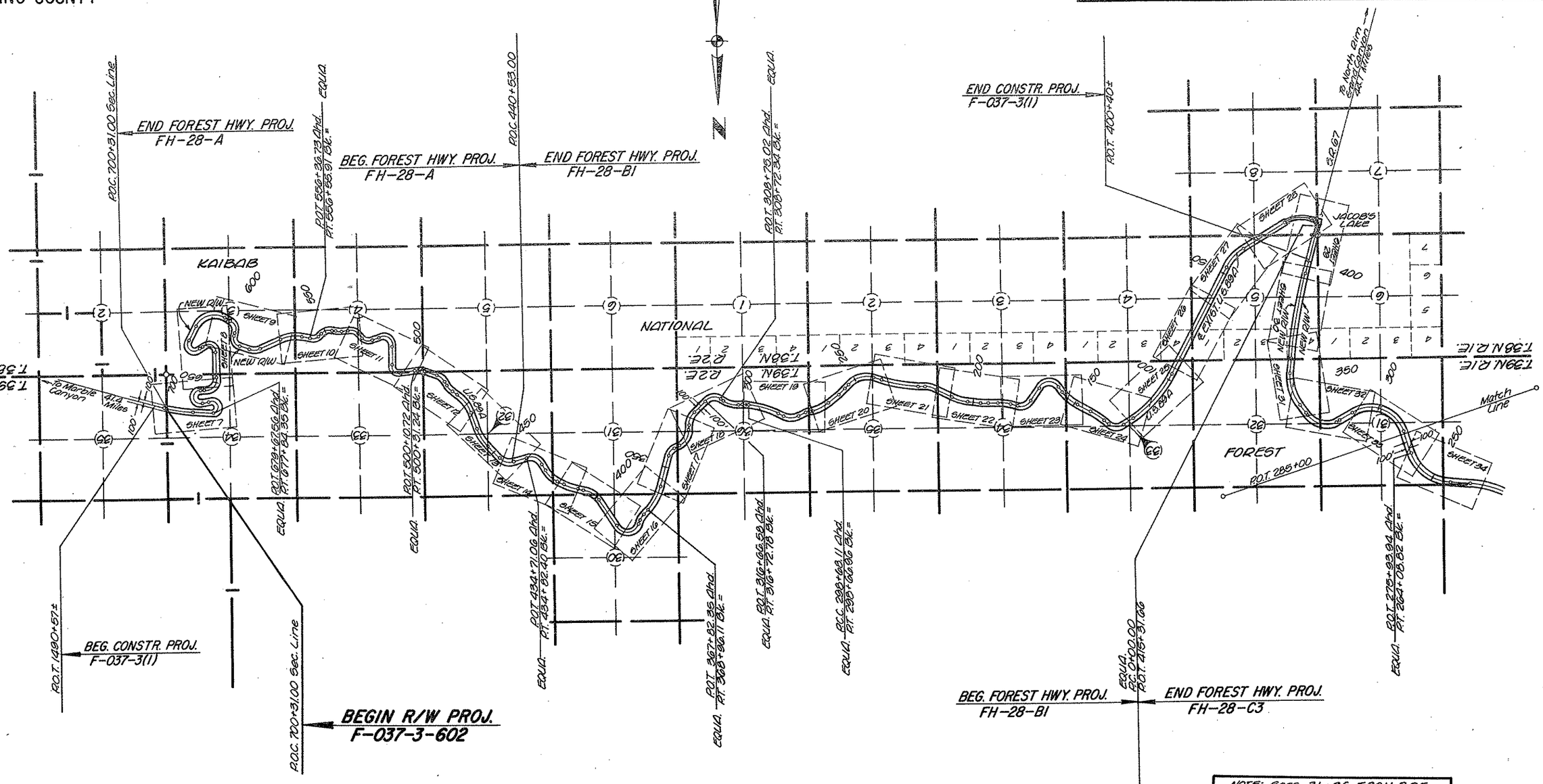
HARD COPY

BRUNING 44-513

NAVAJO BRIDGE–FREDONIA HIGHWAY
EAST KAIBAB BNDRY.–WEST KAIBAB BNDRY.
COCONINO COUNTY

REVISIONS			
C.O. No.	DATE	BY	DESCRIPTION
5237	10-30-78	KS	Rev'd New R/W from 8+00 to 411+00±

PROJECT NO.	F-037-3-602
DRAWING NO.	D-3-T-611
SHEET NO.	5 OF 53
DRAWN BY	LMF
DATE COMP.	11-30-77
SCALE	See Below



VICINITY MAP

SCALE: 1"=2000'

NOTE: Secs. 31-36, T.39N. R.2E. & Secs. 3-6, T.38N, R.3E. are Protracted Sections.

NOTE: There is no Exist. R/W of Record.

NOTE: For centerline bearings and curve information see Plan sheets.

REDUCED SIZE DO NOT SCALE

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HARD COPY. Forest Plans (As Bits) as shown

CHECKED BY Jim Bergeson

JG 44-512

NAVAJO BRIDGE–FREDONIA HIGHWAY
EAST KAIBAB BNDRY.–WEST KAIBAB BNDRY.
COCONINO COUNTY

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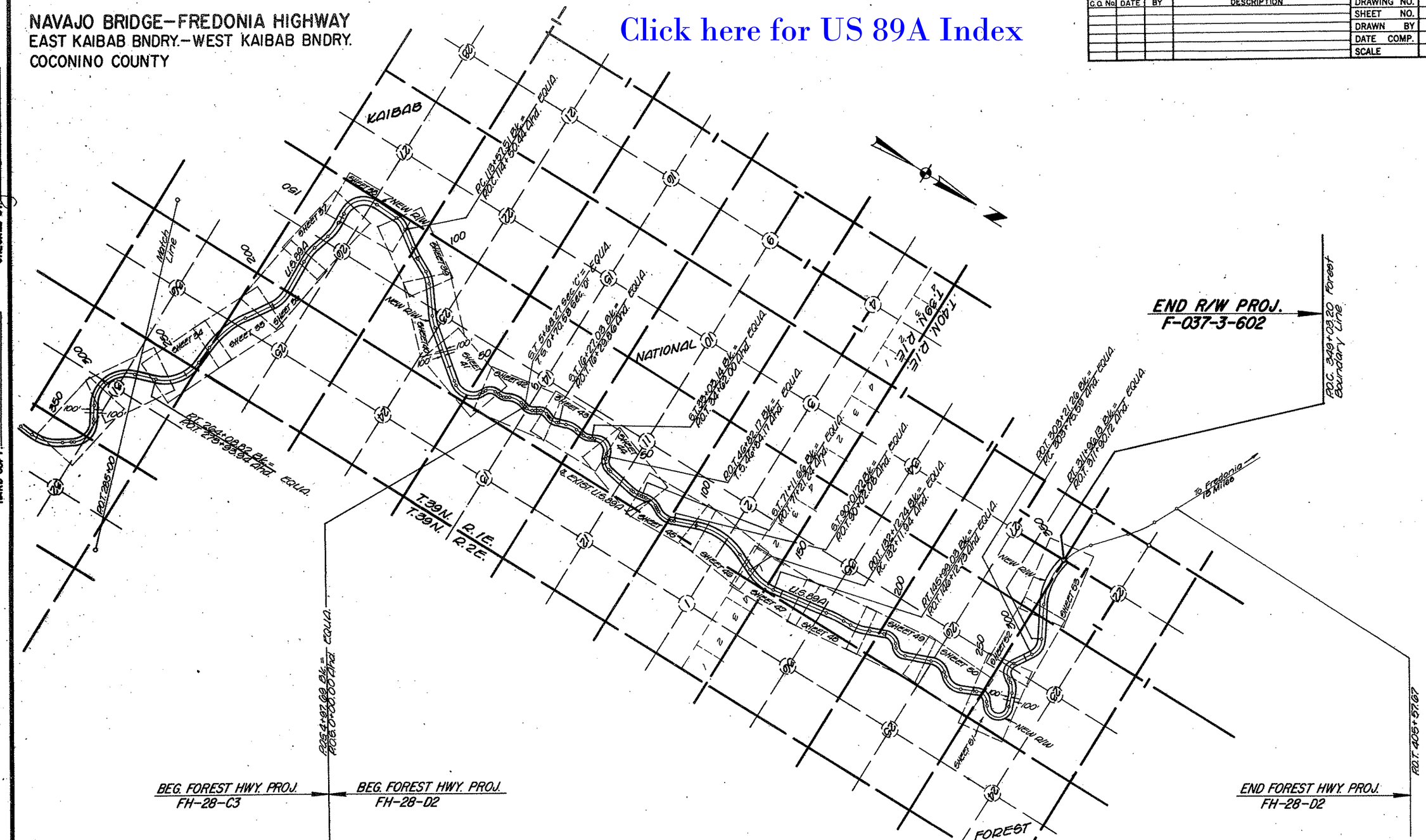
REVISIONS				
C.O. No.	DATE	BY	DESCRIPTION	
				PROJECT NO. F-037-3-602
				DRAWING NO. 0-3-T-611
				SHEET NO. 6 OF 53
				DRAWN BY LMF
				DATE COMP. 11-30-77
				SCALE See Below



NOTE: There is no Exist. R/W of Record.

NOTE: For centerline bearings and curve information see Plan sheets.

VICINITY MAP

SCALE: 1" = 2000'

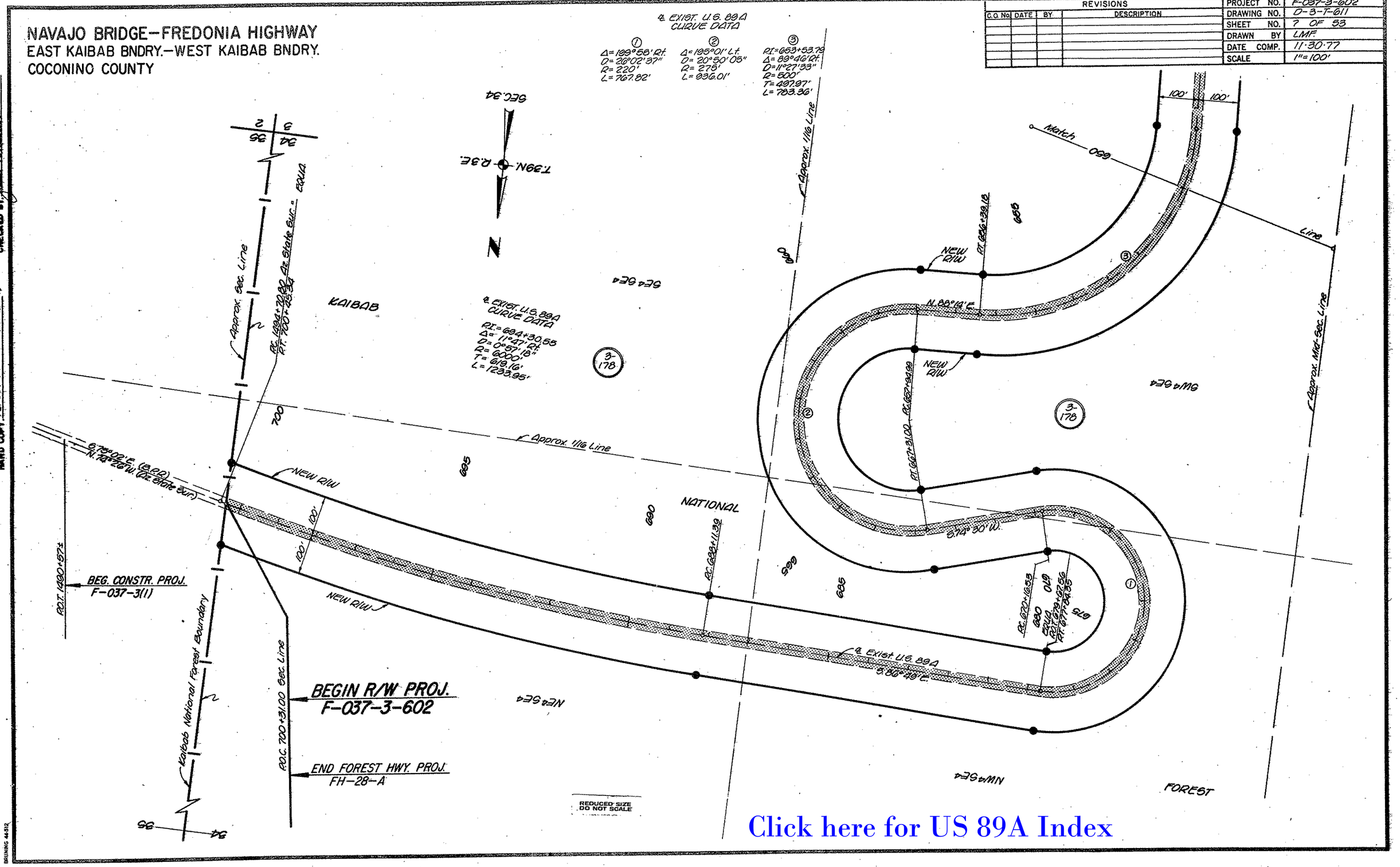
REDUCED SIZE DO NOT SCALE

HARD COPY, Forest Plans (Ice Bits) as shown CHECKED BY

BRUNING 44-512

NAVAJO BRIDGE–FREDONIA HIGHWAY
EAST KAIBAB BNDRY.–WEST KAIBAB BNDRY.
COCONINO COUNTY

REVISIONS				
C.O. No.	DATE	BY	DESCRIPTION	
				PROJECT NO. F-037-3-602
				DRAWING NO. D-3-T-611
				SHEET NO. 7 OF 53
				DRAWN BY LMF
				DATE COMP. 11-30-77
				SCALE 1"=100'



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HARD COPY Forest Plans (As Bilt) CHECKED BY Jim Schneider

FH-28-A

DRAWING 44-512

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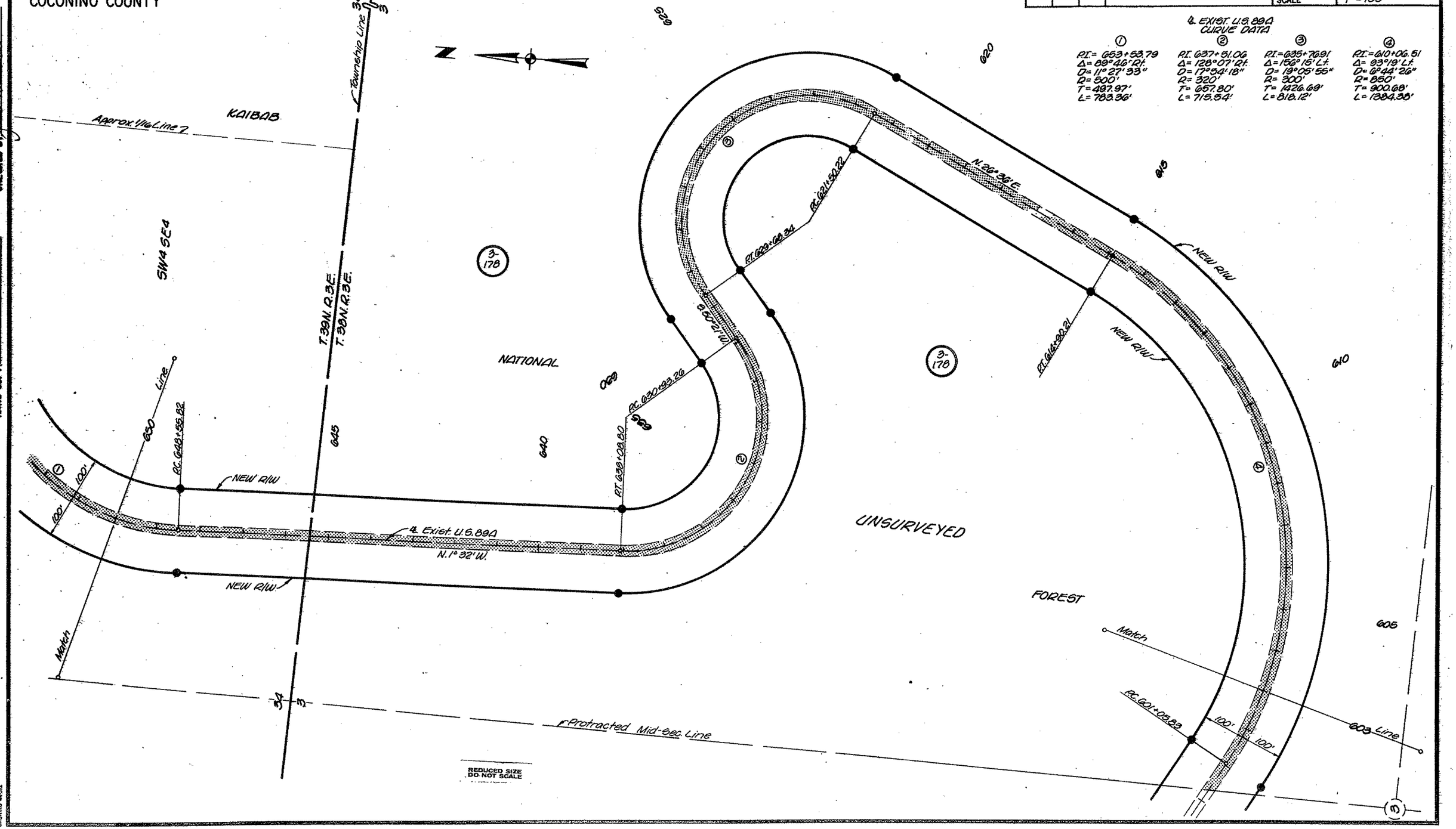
NAVAJO BRIDGE—FREDONIA HIGHWAY
EAST KAIBAB BNDRY.—WEST KAIBAB BNDRY.
COCONINO COUNTY

REVISIONS					
C.O. No	DATE	BY	DESCRIPTION	PROJECT NO.	F-037-3-602
				DRAWING NO.	D-3-T-611
				SHEET NO.	8 OF 53
				DRAWN BY	LMF
				DATE COMP.	11-30-77
				SCALE	1"=100'

℄ EXIST. U.S. 89A CURVE DATA

①	②	③	④
P.I.= 653+53.79	P.I. 637+51.06	P.I.=635+76.91	P.I.=610+06.51
Δ= 89°46' Rt.	Δ= 128°07' Rt.	Δ=156°15' Lt.	Δ= 93°19' Lt.
D= 11°27' 33"	D= 17°54' 18"	D= 18°05' 55"	D= 6°44' 26"
R= 500'	R= 320'	R= 300'	R= 850'
T= 497.97'	T= 657.80'	T= 1426.69'	T= 900.68'
L= 783.36'	L= 715.54'	L= 818.12'	L= 1384.38'



REDUCED SIZE DO NOT SCALE

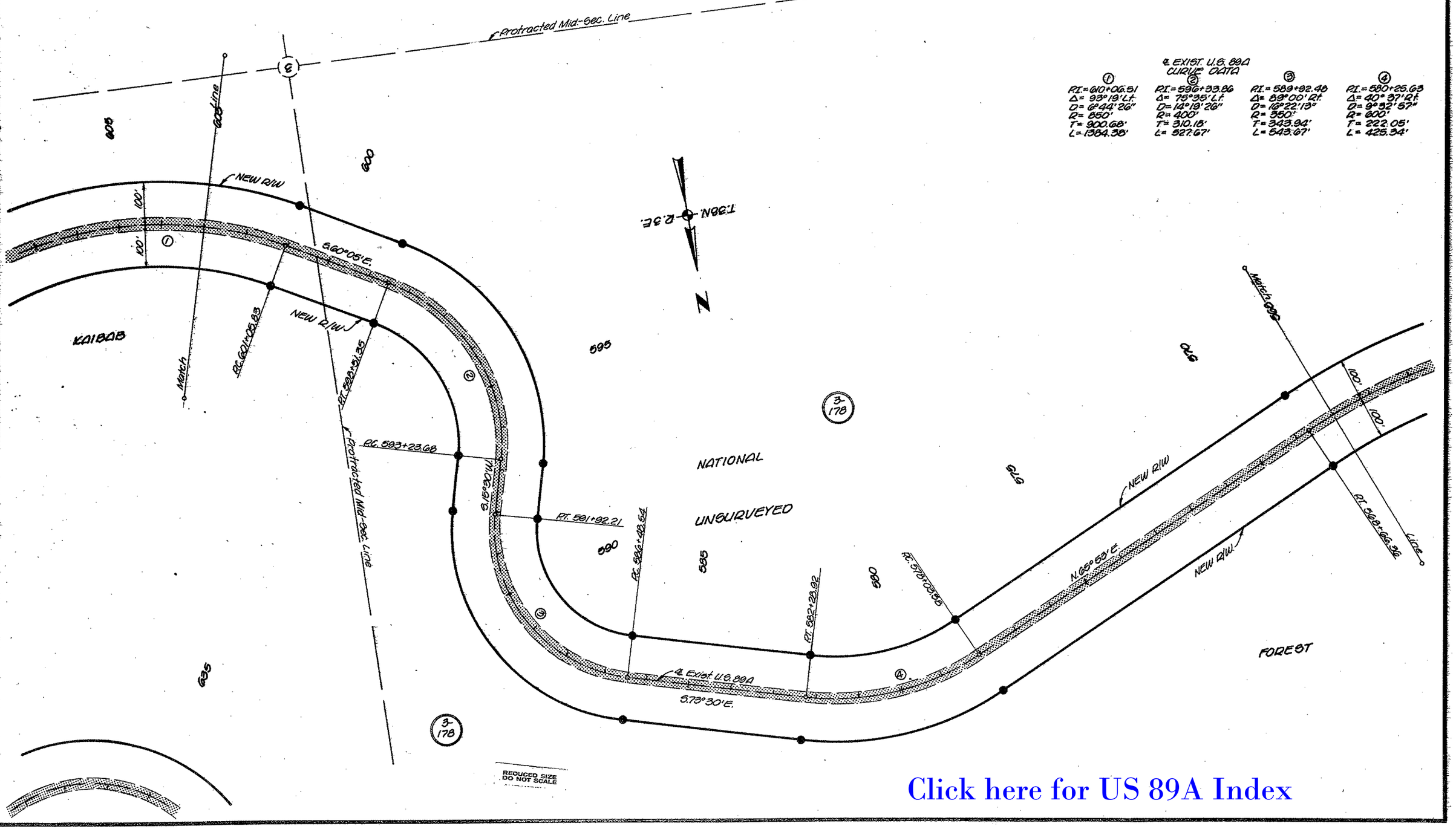
FH-28-A (Rev 8/76)
HARD COPY: Forest Plans
CHECKED BY: Karl Bannister

BRUNING 44-512

NAVAJO BRIDGE–FREDONIA HIGHWAY
EAST KAIBAB BNDRY.–WEST KAIBAB BNDRY.
COCONINO COUNTY

REVISIONS			
C.O. No.	DATE	BY	DESCRIPTION

PROJECT NO.	F-037-3-602
DRAWING NO.	D-3-T-611
SHEET NO.	9 OF 53
DRAWN BY	LMF
DATE COMP.	11-30-77
SCALE	1"=100'



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HARD COPY Forest Plans (As Bits) FH-28-A

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BRUNING 44-512

NAVAJO BRIDGE–FREDONIA HIGHWAY
EAST KAIBAB BNDRY.–WEST KAIBAB BNDRY.
COCONINO COUNTY

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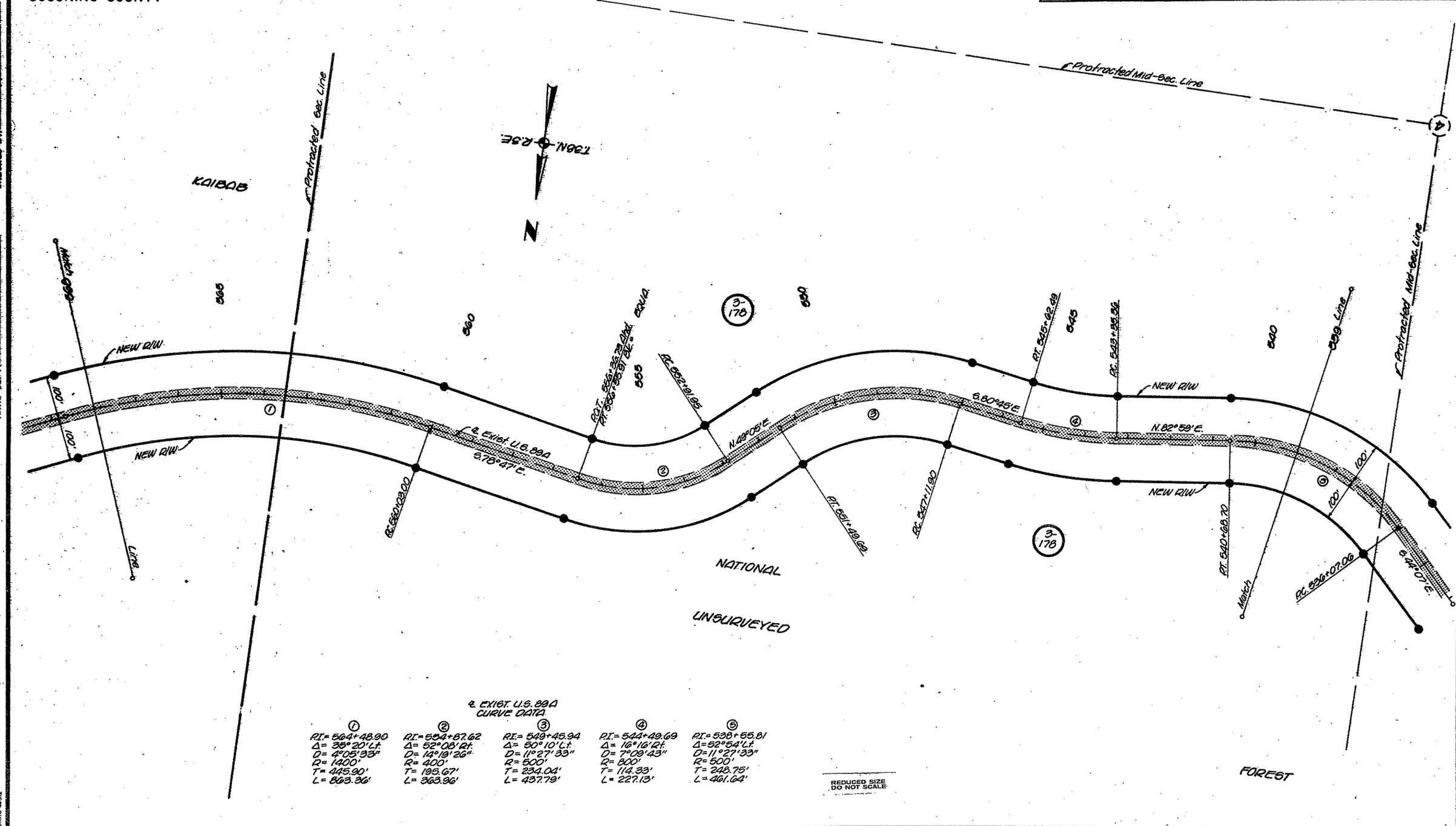
REVISIONS			
C.O. No.	DATE	BY	DESCRIPTION

PROJECT NO.	F-037-3-602
DRAWING NO.	D-3-T-611
SHEET NO.	10 OF 53
DRAWN BY	LMF
DATE COMP.	11·30·77
SCALE	1"=100'



℄ EXIST. U.S. 89A CURVE DATA

①	②	③	④	⑤
P.I.= 564+48.90	P.I.= 554+87.62	P.I.= 549+45.94	P.I.= 544+49.69	P.I.= 538+55.81
Δ= 35°20' Lt.	Δ= 52°08' Rt.	Δ= 50°10' Lt.	Δ= 16°16' Rt.	Δ=52°54' Lt.
D= 4°05'33"	D= 14°19'26"	D= 11°27'33"	D= 7°09'43"	D=11°27'33"
R= 1400'	R= 400'	R= 500'	R= 800'	R= 500'
T= 445.90'	T= 195.67'	T= 234.04'	T= 114.33'	T= 248.75'
L= 863.36'	L= 363.96'	L= 437.79'	L= 227.13'	L= 461.64'

REDUCED SIZE DO NOT SCALE

HARD COPY Forest Plans (As Bltd.)
CHECKED BY
BRUNING 44-512

NAVAJO BRIDGE–FREDONIA HIGHWAY
EAST KAIBAB BNDRY.–WEST KAIBAB BNDRY.
COCONINO COUNTY

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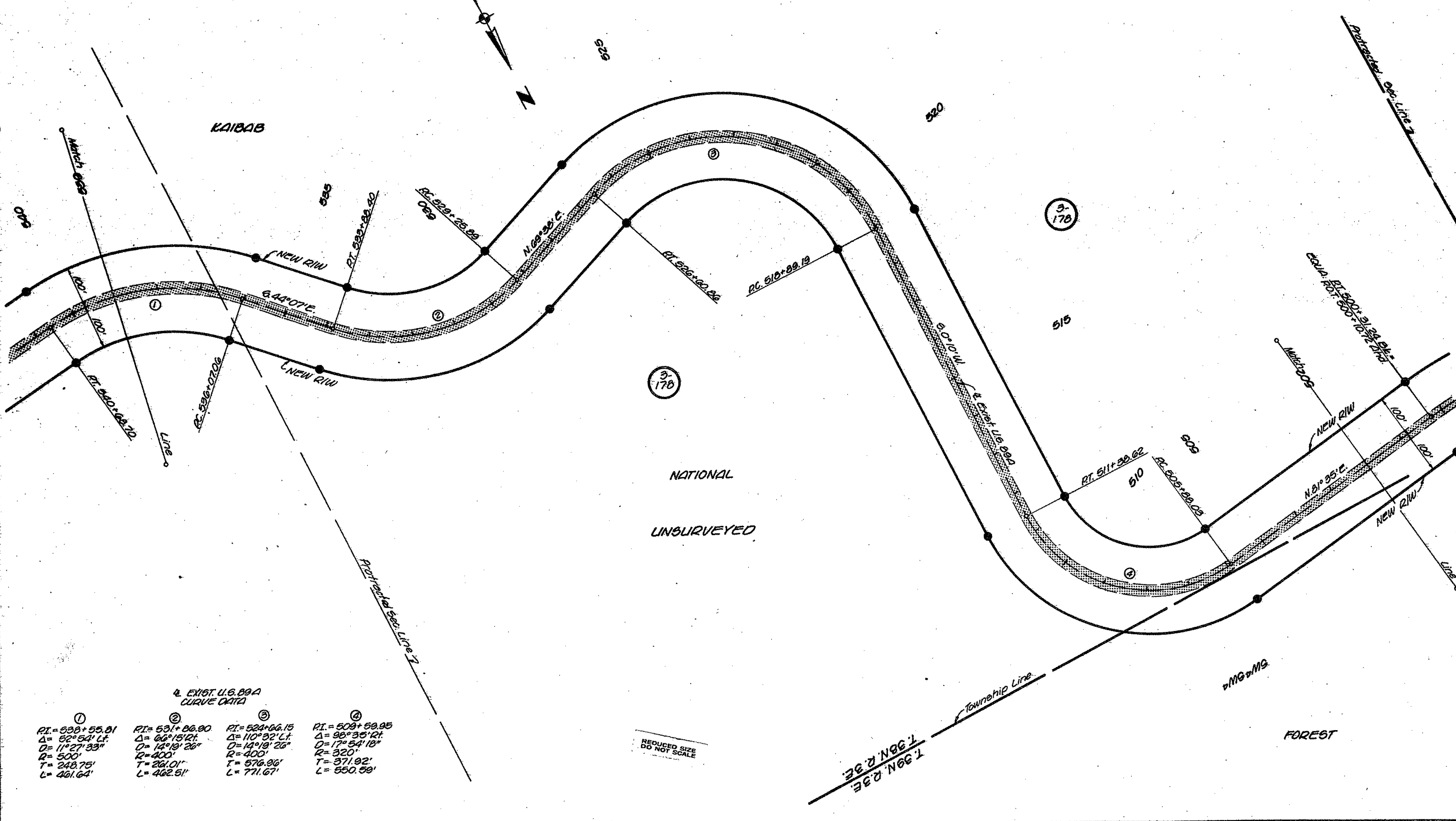
REVISIONS			
C.O. No.	DATE	BY	DESCRIPTION

PROJECT NO.	F-037-3-602
DRAWING NO.	D-3-T-611.
SHEET NO.	11 OF 53
DRAWN BY	LMF.
DATE COMP.	11-30-77
SCALE	1"=100'

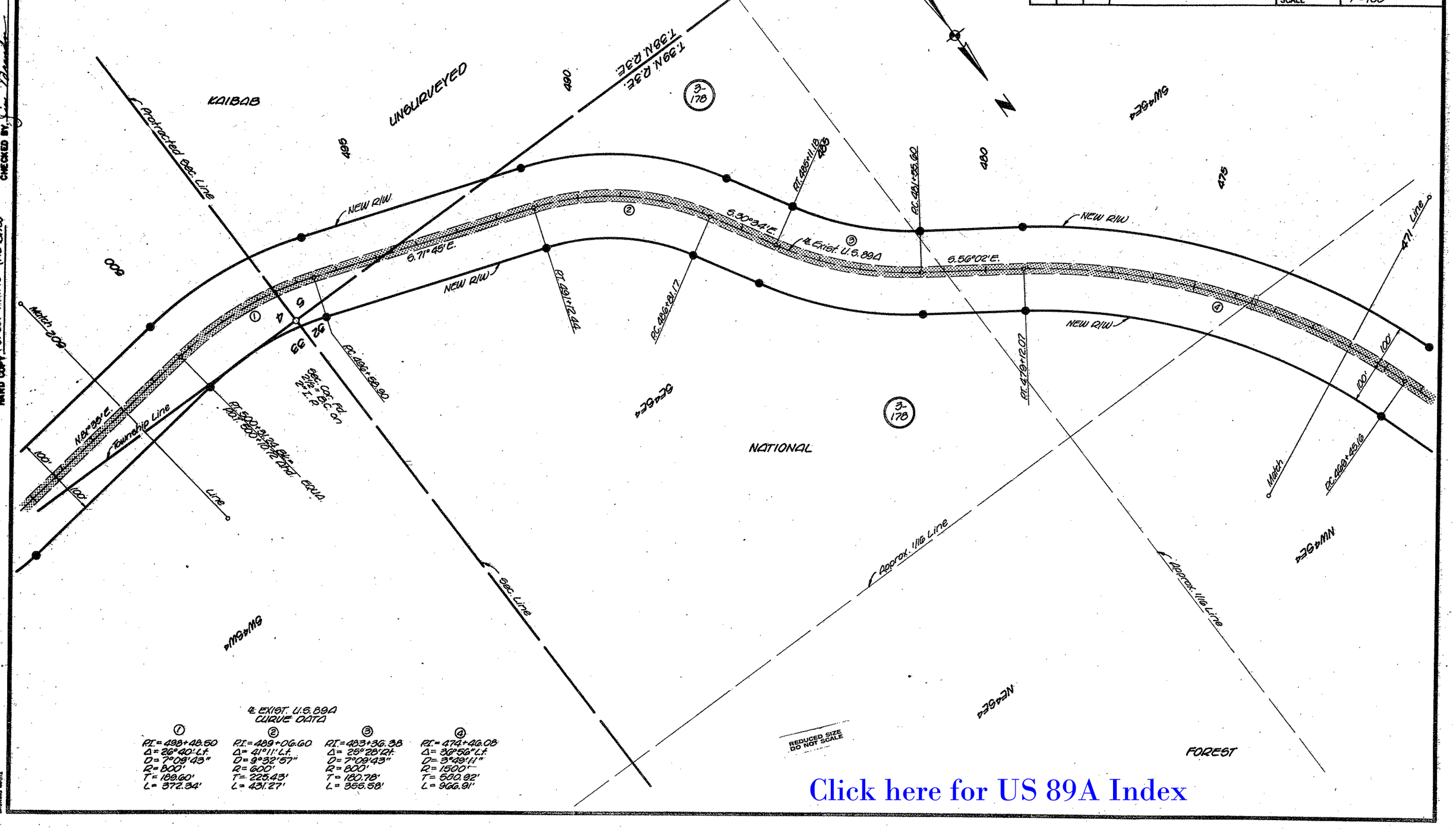


HARD COPY Forest plans (AS Blt)
CHECKED BY
TT 20-A
BRUNING 44-512

NAVAJO BRIDGE–FREDONIA HIGHWAY
EAST KAIBAB BNDRY.–WEST KAIBAB BNDRY.
COCONINO COUNTY

REVISIONS			
C.O. No.	DATE	BY	DESCRIPTION

PROJECT NO.	F-037-3-602
DRAWING NO.	D-3-T-611
SHEET NO.	12 OF 53
DRAWN BY	LMF
DATE COMP.	11-30-77
SCALE	1"=100'



℄ EXIST. U.S. 89A CURVE DATA

①	②	③	④
P.I.= 498+48.50	P.I.= 489+06.60	P.I.= 483+36.38	P.I.= 474+46.08
Δ= 26°40'Lt.	Δ= 41°11'Lt.	Δ= 25°28'Rt.	Δ= 36°56"Lt.
D= 7°09'43"	D= 9°32'57"	D= 7°09'43"	D= 3°49'11"
R= 800'	R= 600'	R= 800'	R= 1500'
T= 188.60'	T= 225.43'	T= 180.78'	T= 500.82'
L= 372.94'	L= 431.27'	L= 355.58'	L= 966.91'

HARD COPY Forest Plans (No B/L) CHECKED BY Jim Ramsey

TT-20-A

DRAWING 46-512

Click here for US 89A Index

NAVAJO BRIDGE–FREDONIA HIGHWAY
EAST KAIBAB BNDRY.–WEST KAIBAB BNDRY.
COCONINO COUNTY

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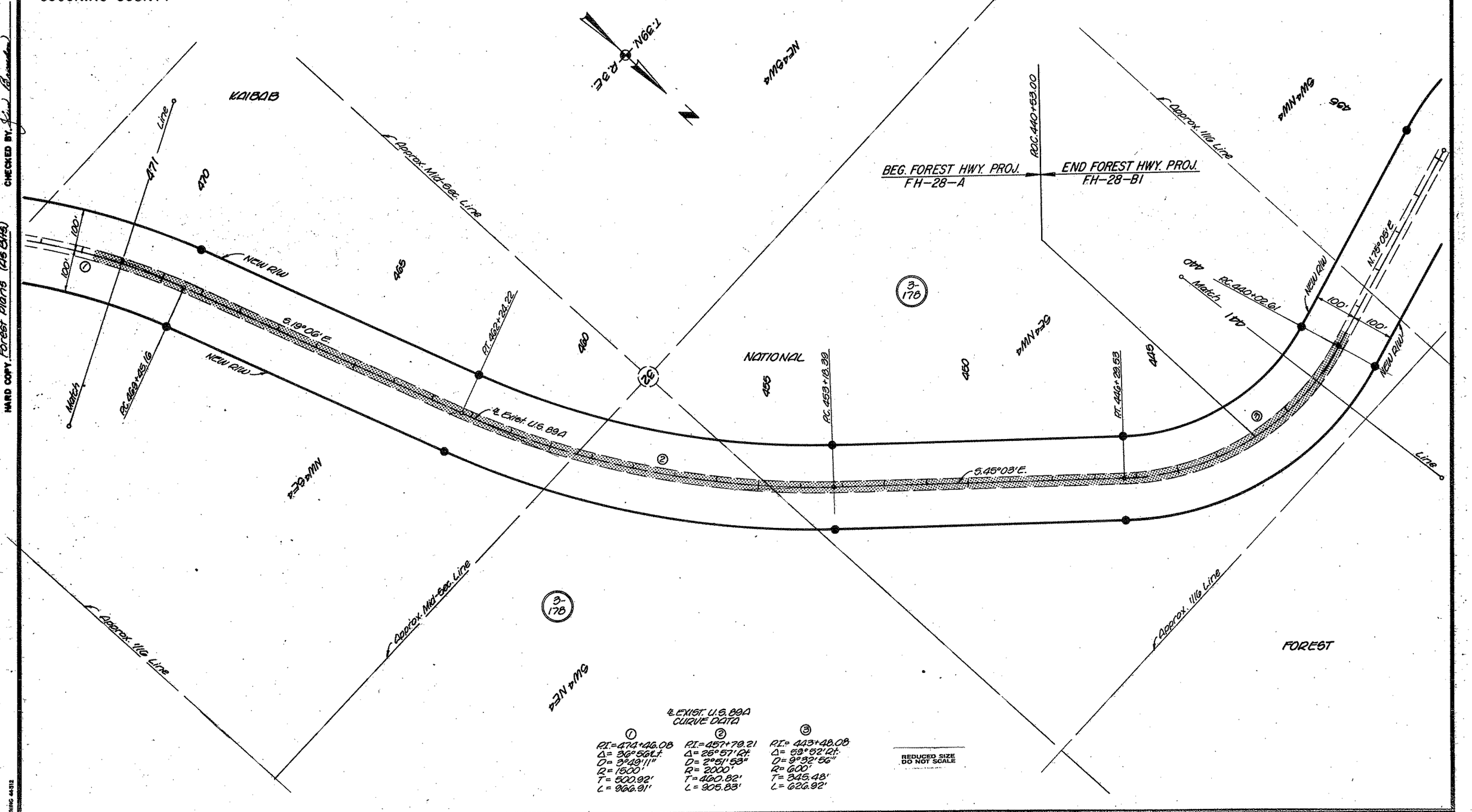
REVISIONS			
C.O. No.	DATE	BY	DESCRIPTION

PROJECT NO.	F-037-3-602
DRAWING NO.	D-3-T-611
SHEET NO.	13 OF 53
DRAWN BY	LMF
DATE COMP.	11·30·77
SCALE	1"=100'



℄ EXIST. U.S. 89A CURVE DATA

①	②	③
P.I.=474+46.08	P.I.=457+79.21	P.I.=443+48.08
Δ= 36°56'Lt.	Δ= 25°57'Rt.	Δ= 59°52'Rt.
D= 3°49'11"	D= 2°51'53"	D= 9°32'56"
R= 1500'	R= 2000'	R= 600'
T= 500.92'	T= 460.82'	T= 345.48'
L= 966.91'	L= 905.83'	L= 626.92'

REDUCED SIZE DO NOT SCALE

HARD COPY Forest plans (As Bits)

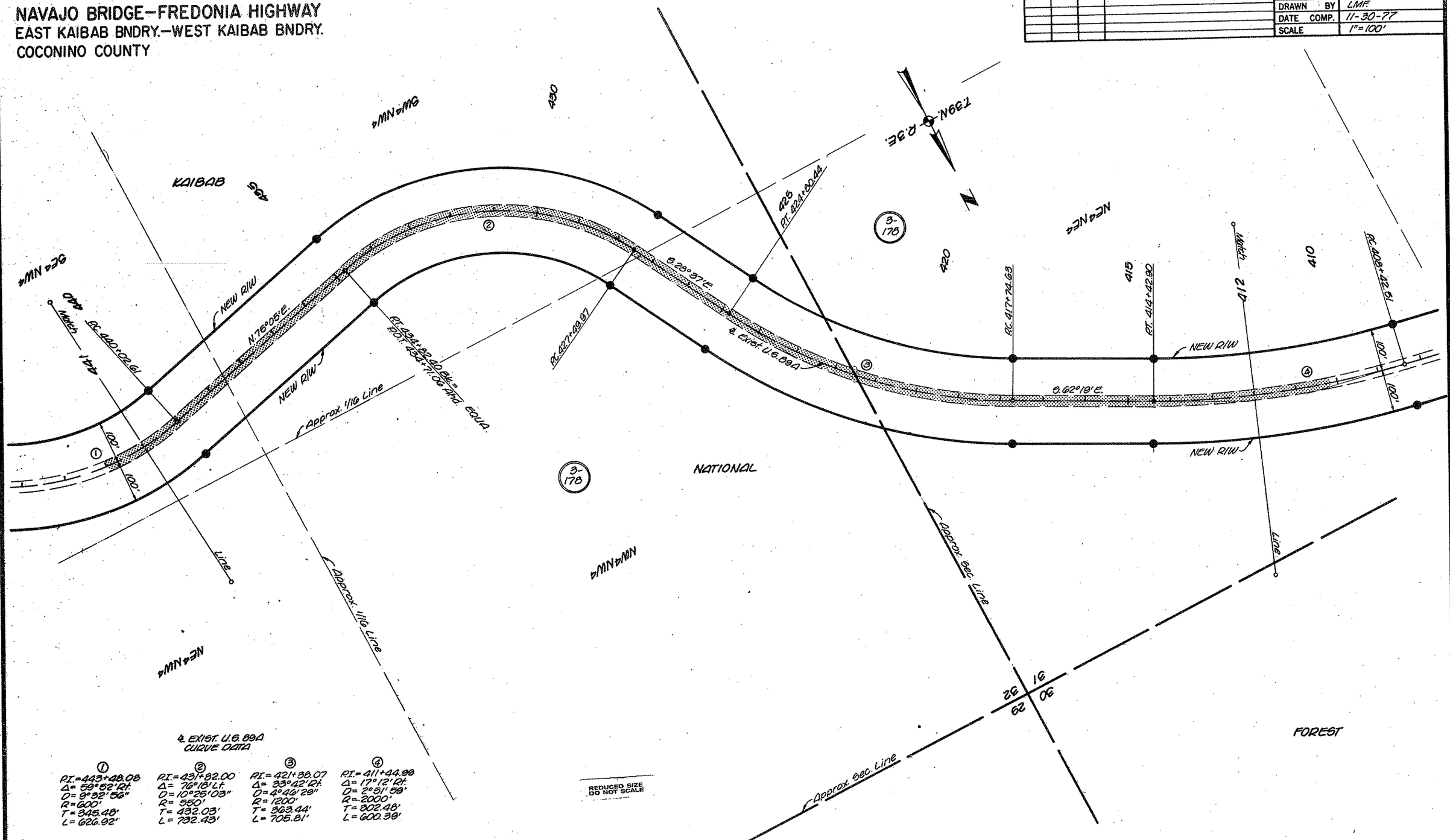
CHECKED BY

BRUNING 44-512

NAVAJO BRIDGE–FREDONIA HIGHWAY
EAST KAIBAB BNDRY.–WEST KAIBAB BNDRY.
COCONINO COUNTY

REVISIONS			
C.O. No.	DATE	BY	DESCRIPTION

PROJECT NO.	F-037-3-602
DRAWING NO.	D-3-T-611
SHEET NO.	14 OF 53
DRAWN BY	LMF
DATE COMP.	11-30-77
SCALE	1"=100'



℄ EXIST. U.S. 89A CURVE DATA

①	②	③	④
P.I.=443+48.08	P.I.=431+82.00	P.I.=421+38.07	P.I.=411+44.99
Δ= 59°52'Rt.	Δ= 76°18'Lt.	Δ= 33°42'Rt.	Δ= 17°12'Rt.
D= 9°32'56"	D= 10°25'03"	D= 4°46'29"	D= 2°51'59"
R=600'	R= 550'	R= 1200'	R= 2000'
T= 345.48'	T= 432.03'	T= 363.44'	T= 302.48'
L= 626.92'	L= 732.43'	L= 705.81'	L= 600.39'

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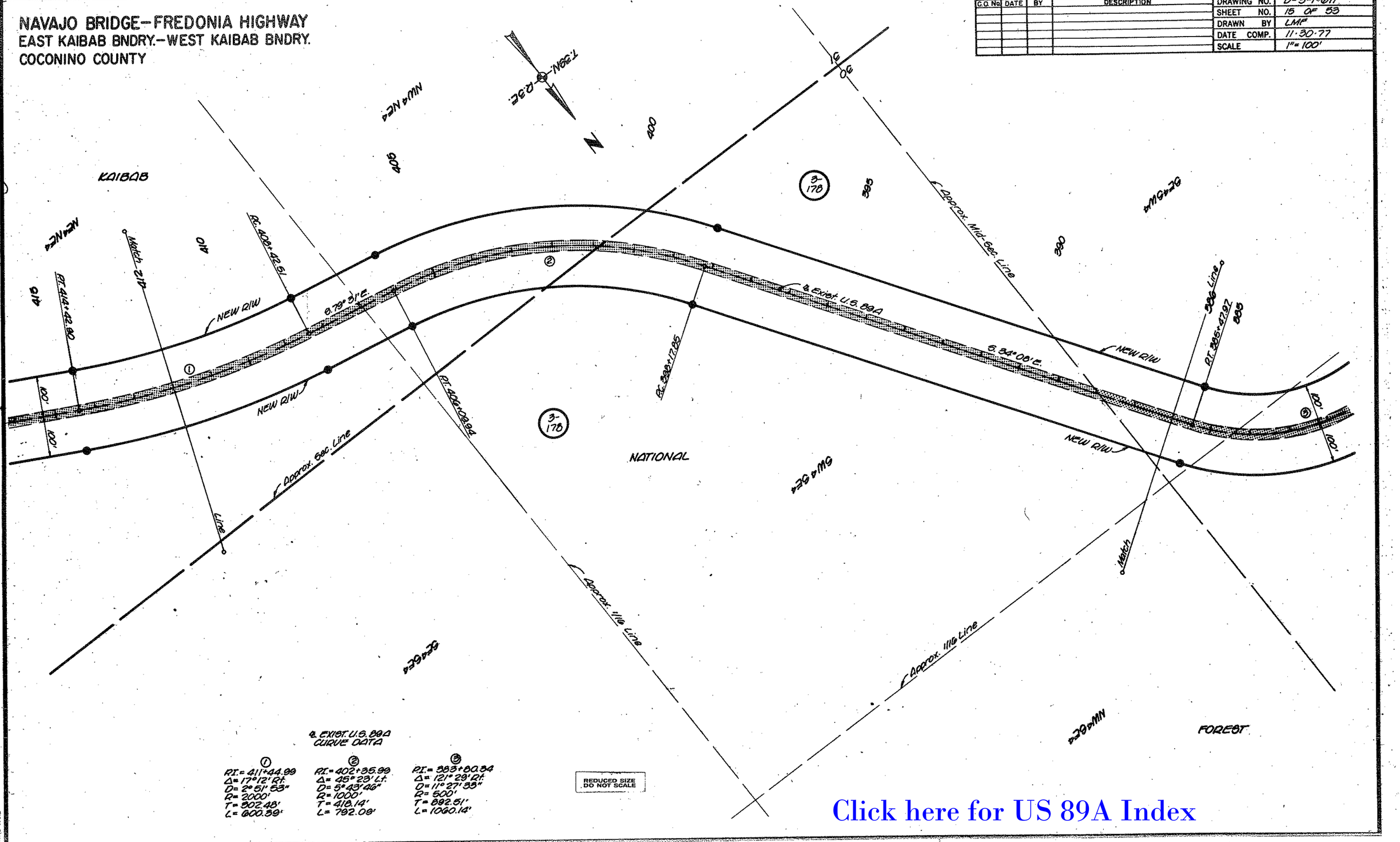
COCONINO COUNTY

REVISIONS			
C.O. No.	DATE	BY	DESCRIPTION

PROJECT NO.	F-037-3-602
DRAWING NO.	D-3-T-611
SHEET NO.	15 OF 53
DRAWN BY	LMF
DATE COMP.	11·30·77
SCALE	1"= 100'



℄ EXIST. U.S. 89A CURVE DATA

①	②	③
P.I.= 411+44.99	P.I.= 402+35.99	P.I.= 383+80.34
Δ= 17°12' Rt.	Δ= 45°23' Lt.	Δ= 121°29' Rt.
D= 2°51' 53"	D= 5°43' 46"	D= 11°27' 33"
R= 2000'	R= 1000'	R= 500'
T= 302.48'	T= 418.14'	T= 892.51'
L= 600.39'	L= 792.09'	L= 1060.14'

REDUCED SIZE DO NOT SCALE

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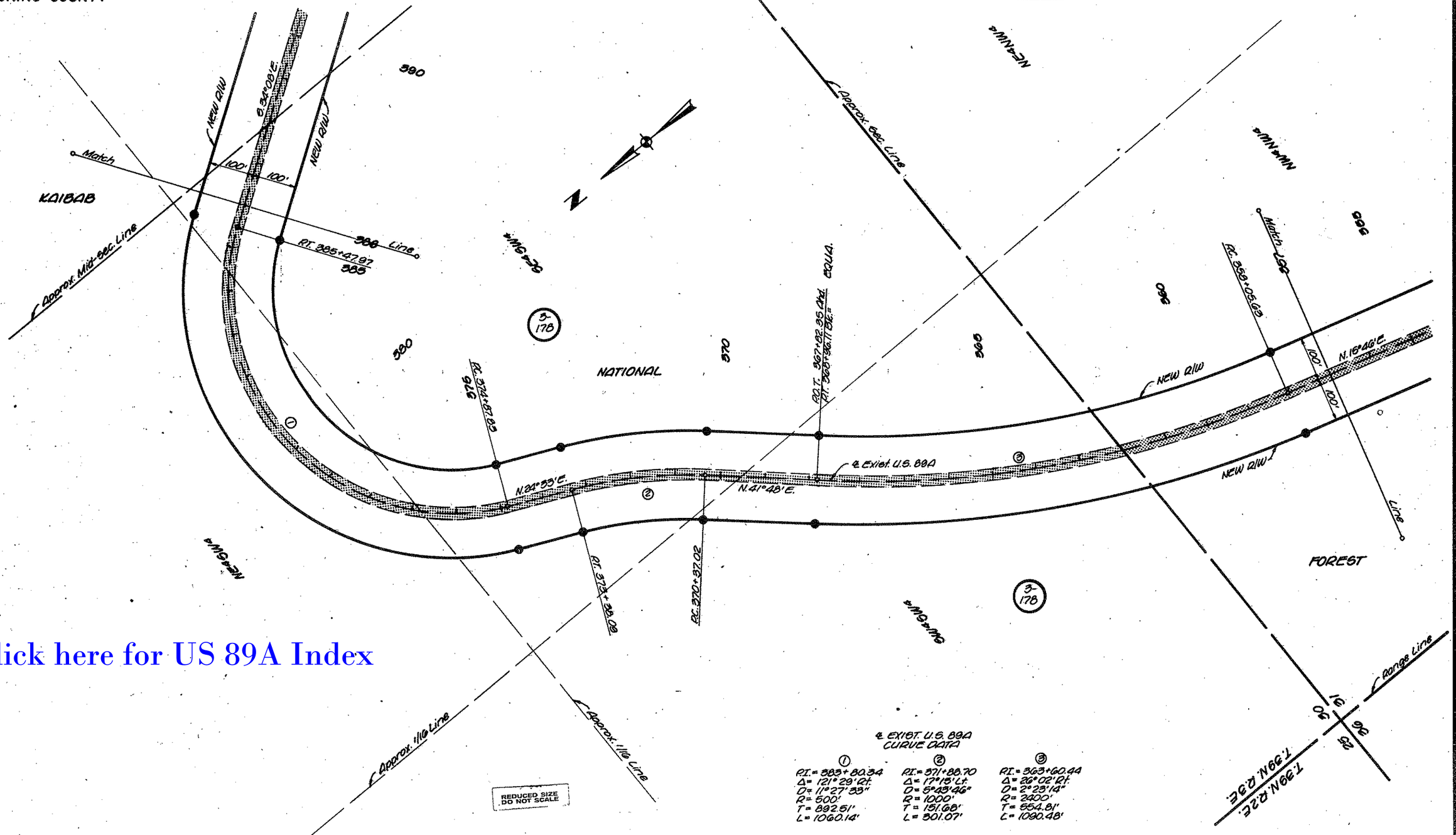
COCONINO COUNTY

REVISIONS			
C.O. No.	DATE	BY	DESCRIPTION

PROJECT NO.	F-037-3-602
DRAWING NO.	D-3-T-611
SHEET NO.	16 OF 53
DRAWN BY	LMF
DATE COMP.	11-30-77
SCALE	1" = 100'



℄ EXIST. U.S. 89A CURVE DATA

①	②	③
P.I. = 383+80.34	P.I. = 371+88.70	P.I. = 363+60.44
Δ = 121°29'Rt.	Δ = 17°15'Lt.	Δ = 26°02'Rt.
D = 11°27'33"	D = 5°43'46"	D = 2°23'14"
R = 500'	R = 1000'	R = 2400'
T = 892.51'	T = 151.68'	T = 554.81'
L = 1060.14'	L = 301.07'	L = 1090.48'

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HARD COPY Forest Plane (As Bit)

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B-URSIG 44-312

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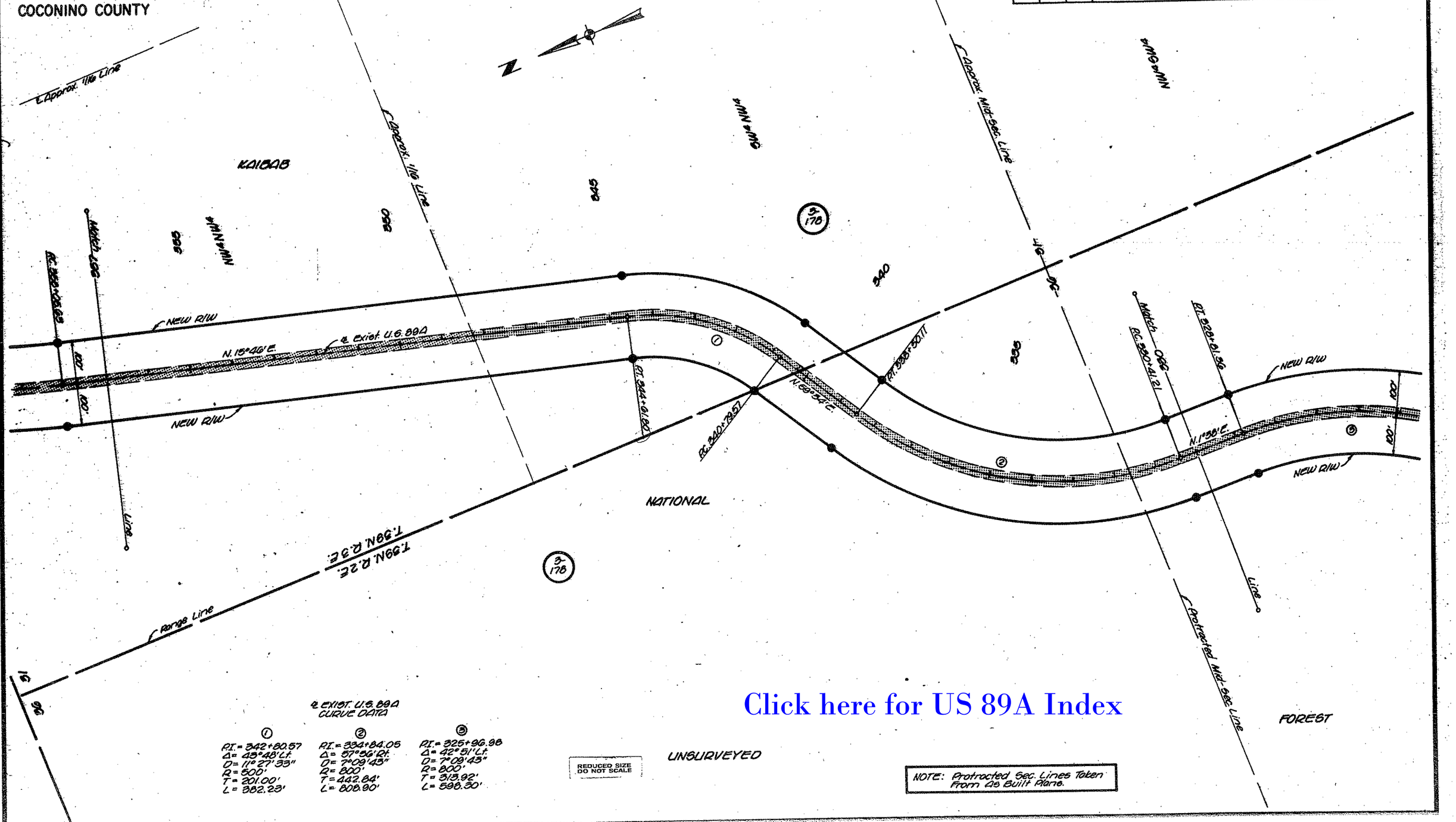
COCONINO COUNTY

REVISIONS			
C.O. No.	DATE	BY	DESCRIPTION

PROJECT NO.	F-037-3-602
DRAWING NO.	D-3-T-611
SHEET NO.	17 OF 53
DRAWN BY	LMF
DATE COMP.	11-30-77
SCALE	1"=100'



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COCONINO COUNTY

REVISIONS			
C.O. No.	DATE	BY	DESCRIPTION

PROJECT NO.	F-037-3-602
DRAWING NO.	0-3-T-611
SHEET NO.	18 OF 83
DRAWN BY	LMF
DATE COMP.	11-30-77
SCALE	1"=100'

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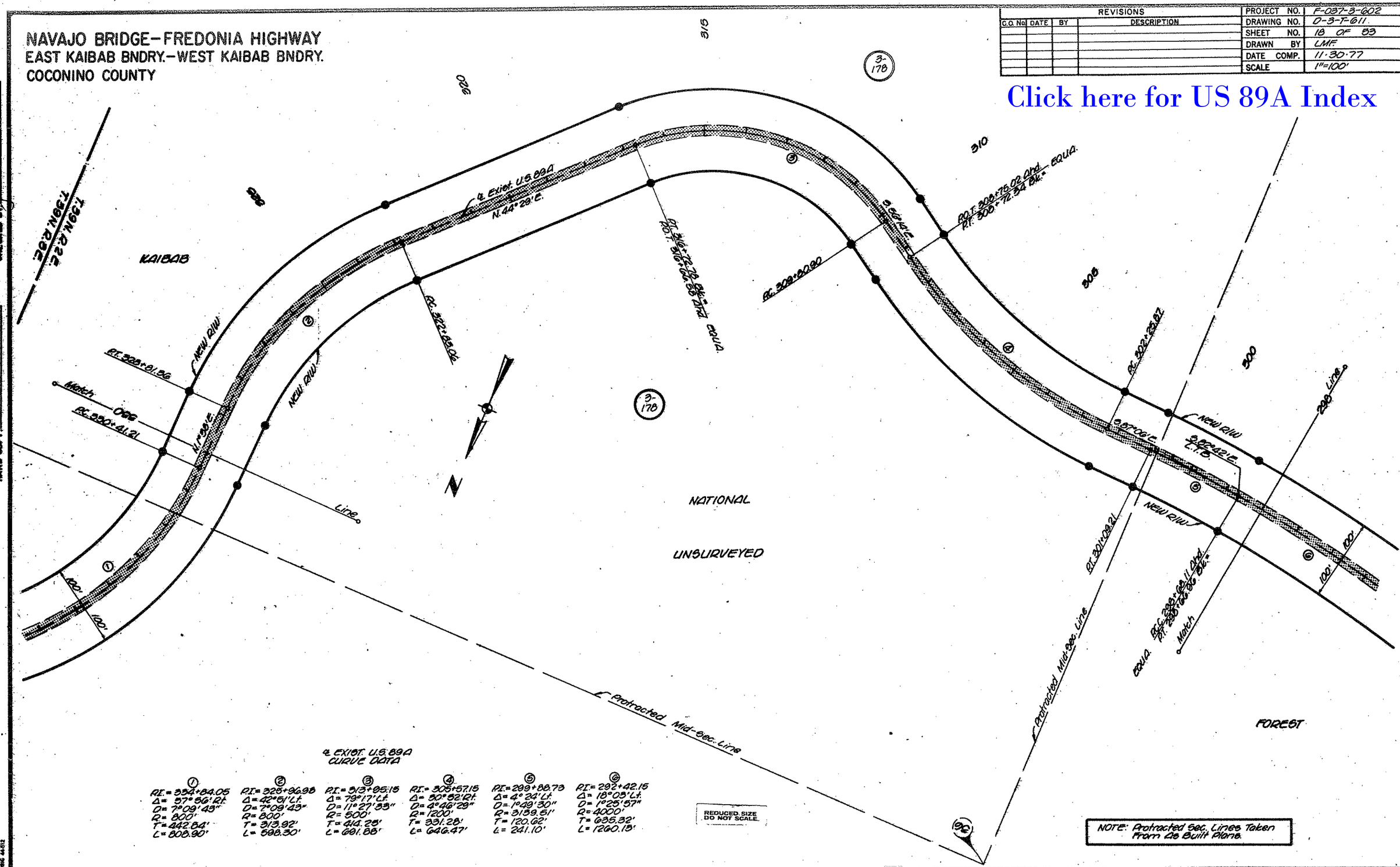

℄ EXIST. U.S. 89A CURVE DATA

①	②	③	④	⑤	⑥
P.I.= 334+84.05	P.I.= 326+96.98	P.I.= 313+85.15	P.I.= 305+57.15	P.I.= 299+88.73	P.I.= 292+42.15
Δ= 57°56' Rt.	Δ= 42°61' Lt.	Δ= 79°17' Lt.	Δ= 50°52' Rt.	Δ= 4°24' Lt.	Δ= 18°03' Lt.
D= 7°09'43"	D= 7°09'43"	D= 11°27'33"	D= 4°46'29"	D= 1°49'30"	D= 1°25'57"
R= 800'	R= 800'	R= 500'	R= 1200'	R= 3139.51'	R= 4000'
T= 442.84'	T= 313.92'	T= 414.25'	T= 331.28'	T= 120.62'	T= 635.32'
L= 808.90'	L= 598.30'	L= 661.88'	L= 646.47'	L= 241.10'	L= 1260.13'

REDUCED SIZE DO NOT SCALE

NOTE: Protracted Sec. Lines Taken From As Built Plans.

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HF-20-51
BRUNING 44-512

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COCONINO COUNTY

REVISIONS					
C.O. No.	DATE	BY	DESCRIPTION	PROJECT NO.	F-037-3-602
				DRAWING NO.	0-3-T-611
				SHEET NO.	19 OF 53
				DRAWN BY	LMF
				DATE COMP.	11·30·77
				SCALE	1"=100'

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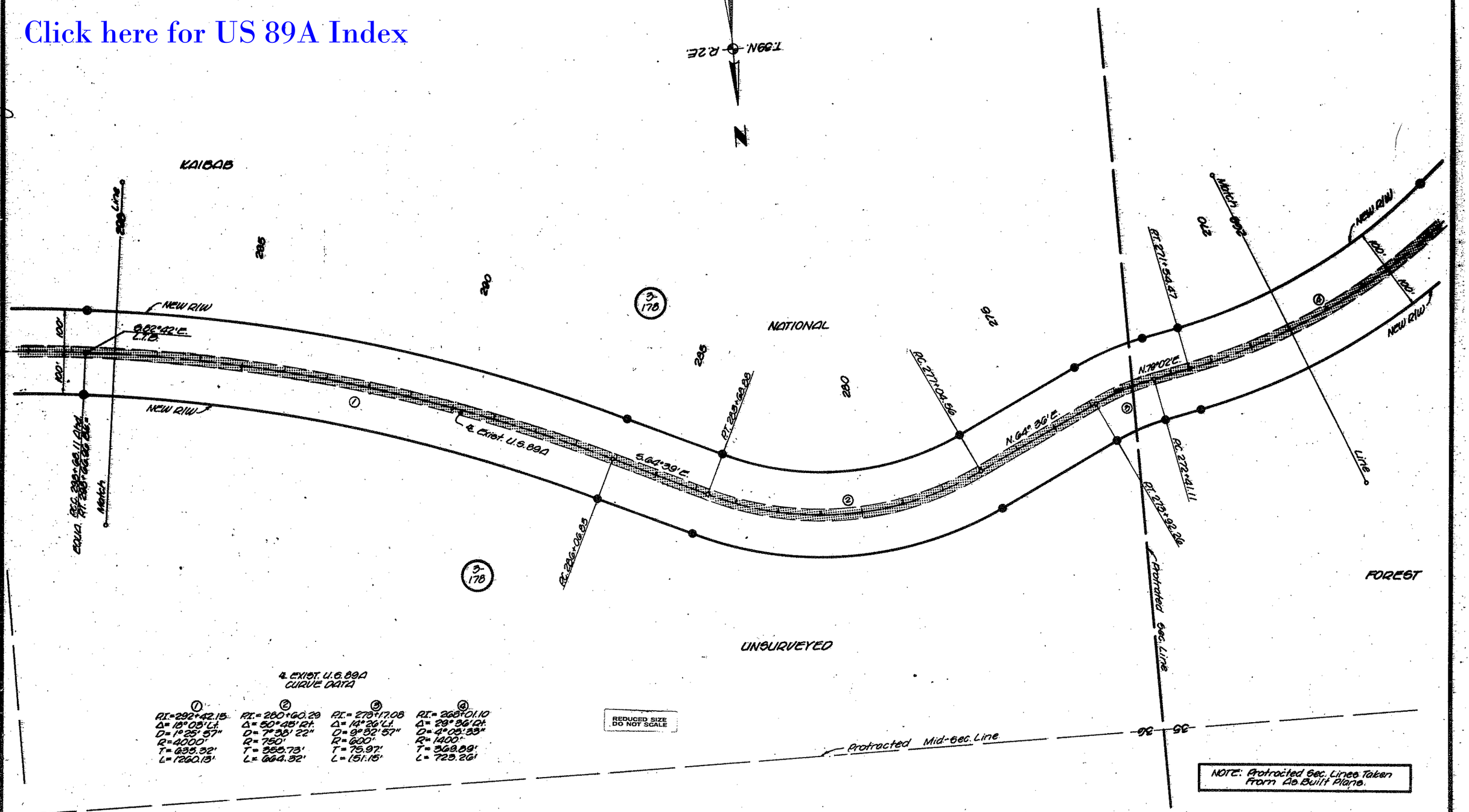

℄ EXIST. U.S. 89A CURVE DATA

①	②	③	④
P.I.=292+42.15	P.I.=280+60.29	P.I.=273+17.08	P.I.=268+01.10
Δ=18°03' Lt.	Δ=50°45' Rt.	Δ=14°26' Lt.	Δ=29°36' Rt.
D=1°25'57"	D=7°38'22"	D=9°32'57"	D=4°05'33"
R=4000'	R=750'	R=600'	R=1400'
T=635.32'	T=355.73'	T=75.97'	T=369.89'
L=1260.13'	L=664.32'	L=151.15'	L=723.26'

REDUCED SIZE DO NOT SCALE

NOTE: Protracted Sec. Lines Taken From As Built Plans.

HARD COPY Forest Plans (As Bltd) FH-25-81

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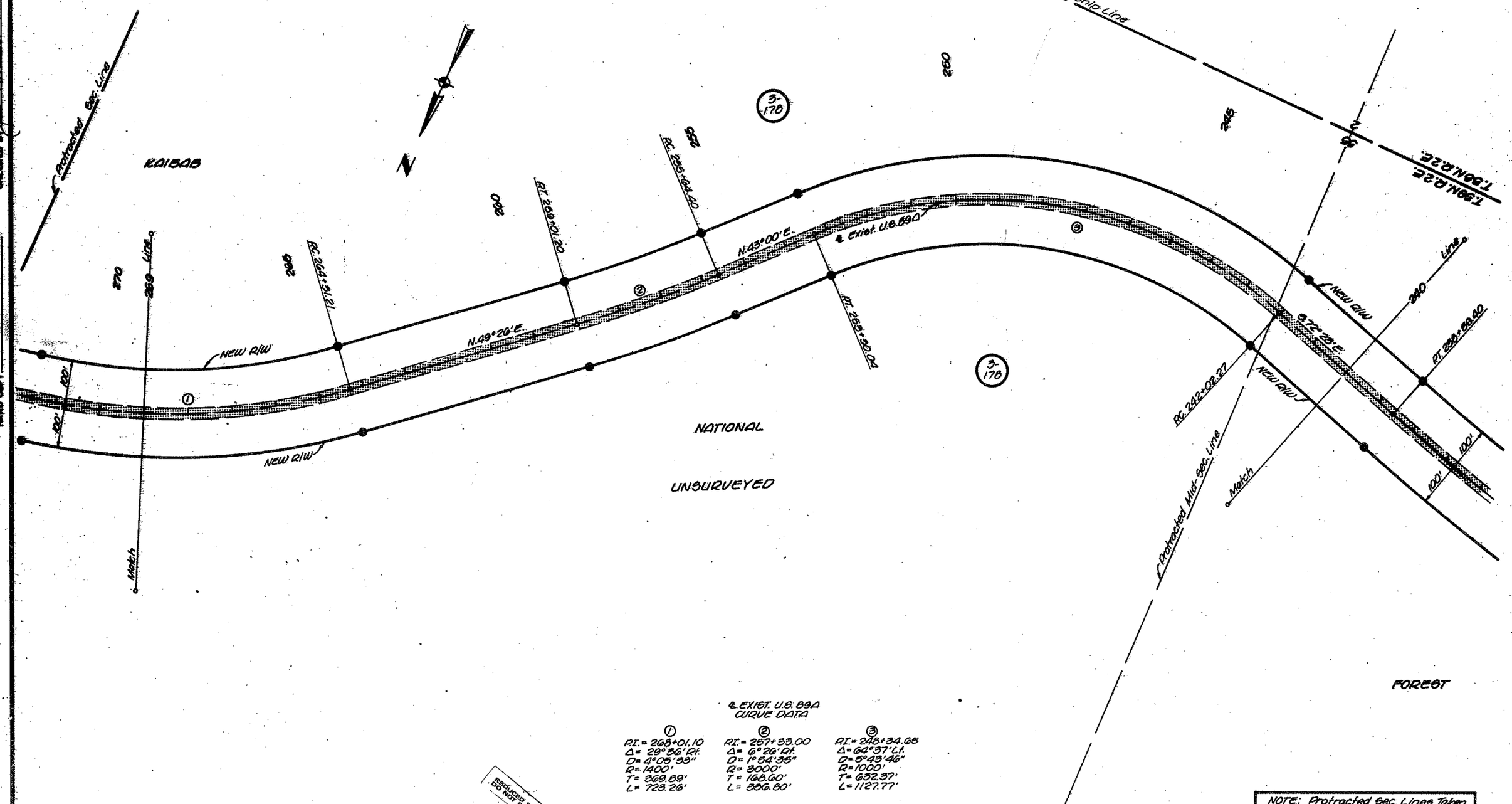
COCONINO COUNTY

REVISIONS			
C.O. No.	DATE	BY	DESCRIPTION

PROJECT NO.	F-037-3-602
DRAWING NO.	D-3-T-611
SHEET NO.	20 OF 53
DRAWN BY	LMF
DATE COMP.	11-30-77
SCALE	1"=100'



℄ EXIST. U.S. 89A CURVE DATA

①	②	③
P.I. = 268+01.10	P.I. = 257+33.00	P.I. = 248+34.65
Δ = 29°36' Rt.	Δ = 6°26' Rt.	Δ = 64°37' Lt.
D = 4°05'33"	D = 1°54'35"	D = 5°43'46"
R = 1400'	R = 3000'	R = 1000'
T = 369.89'	T = 168.60'	T = 632.37'
L = 723.26'	L = 336.80'	L = 1127.77'

NOTE: Protracted Sec. Lines Taken From As Built Plans.

REDUCED SIZE DO NOT SCALE

FH-28-81 Forest Plans (As Bits)

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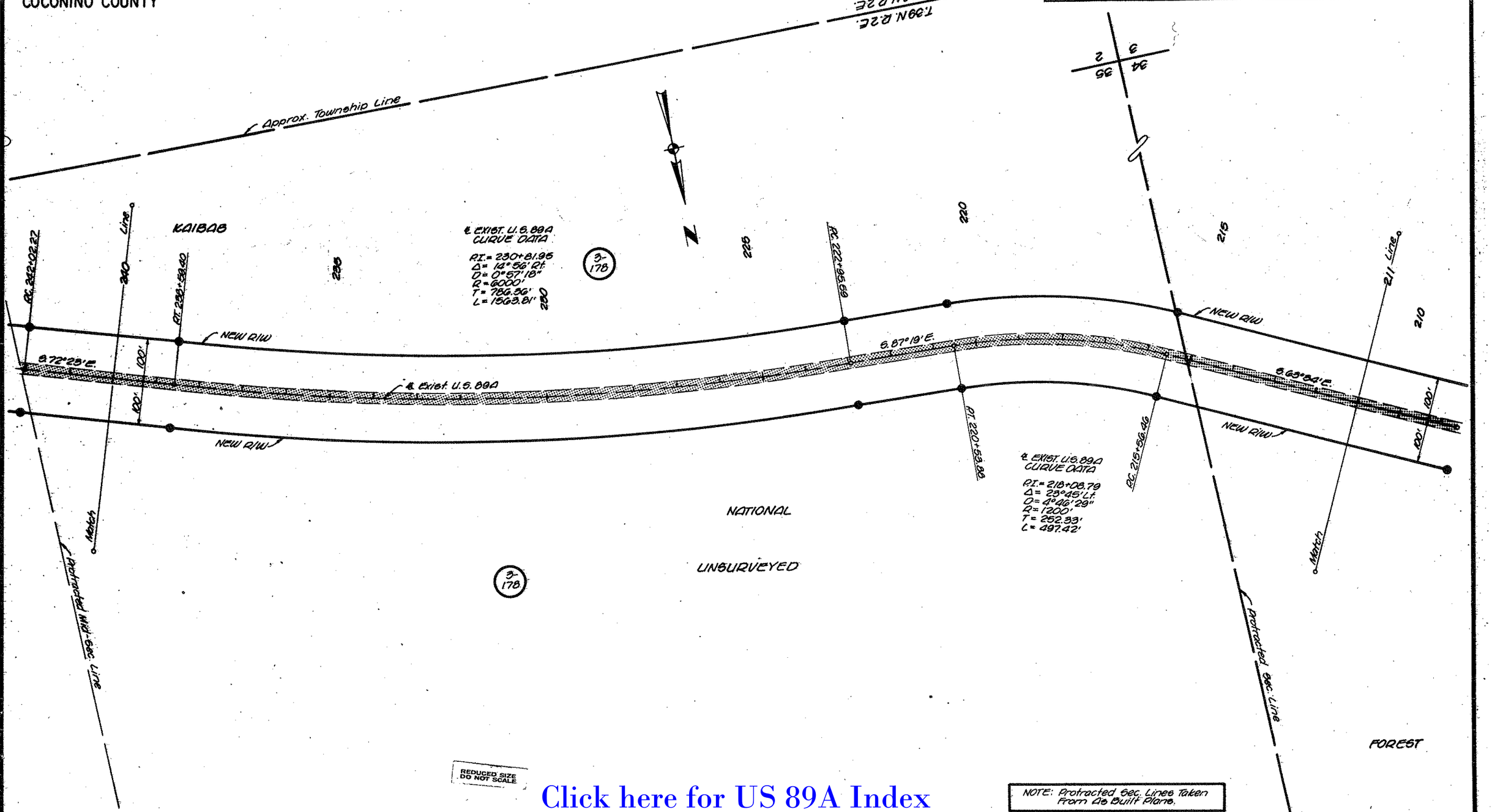
COCONINO COUNTY

REVISIONS			
C.O. No.	DATE	BY	DESCRIPTION

PROJECT NO.	F-037-3-602
DRAWING NO.	D-3-1-611
SHEET NO.	21 OF 53
DRAWN BY	LMF.
DATE COMP.	11-30-77
SCALE	1"=100'



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COCONINO COUNTY

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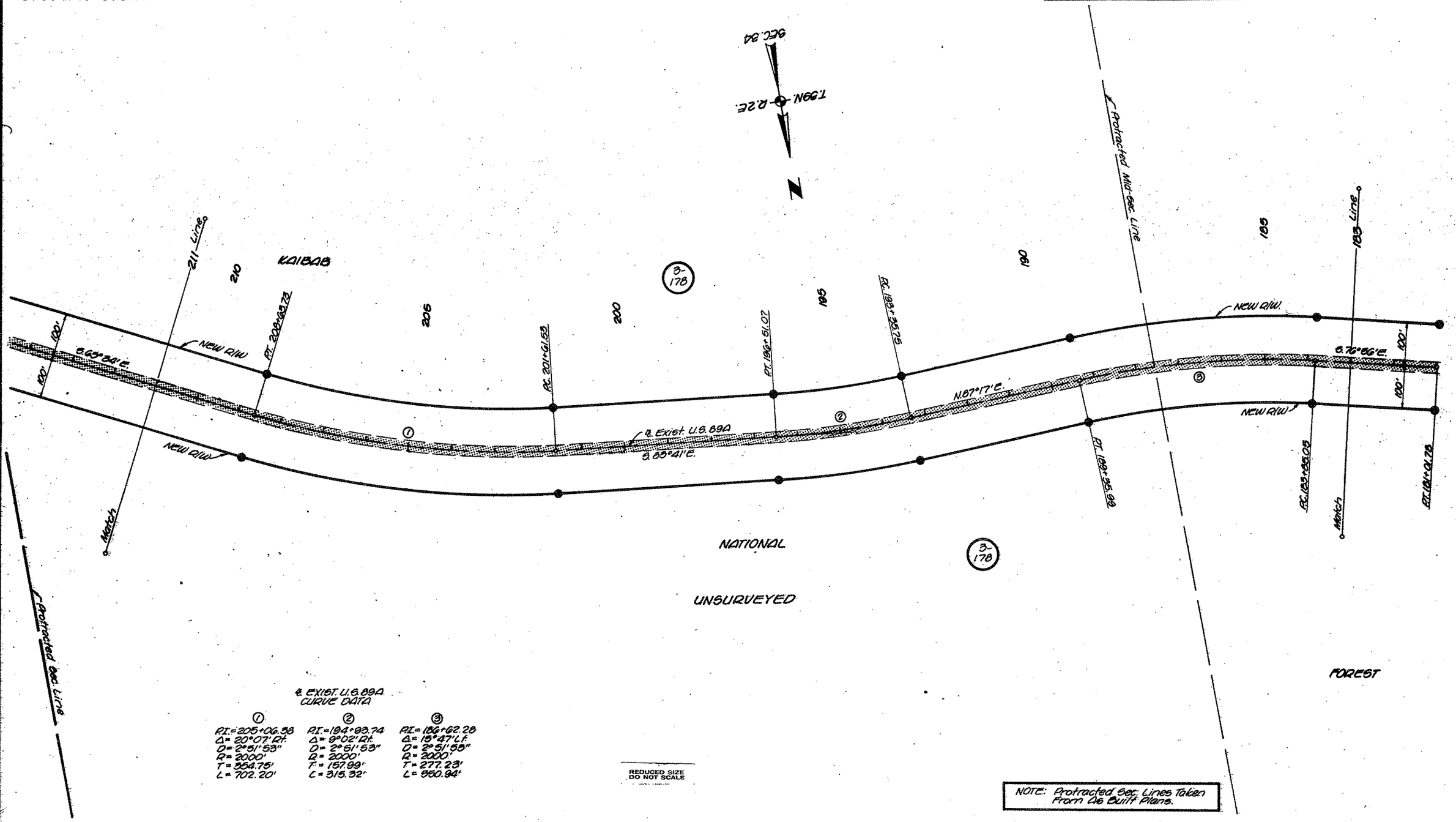
REVISIONS			
C.O. No.	DATE	BY	DESCRIPTION

PROJECT NO.	F-037-3-602
DRAWING NO.	D-3-T-611
SHEET NO.	22 OF 53
DRAWN BY	LMF
DATE COMP.	11-30-77
SCALE	1"=100'



℄ EXIST. U.S. 89A CURVE DATA

①	②	③
P.I.=205+06.38	P.I.=194+93.74	P.I.=186+62.28
Δ=20°07' Rt.	Δ=9°02' Rt.	Δ=15°47' Lt.
D=2°51'53"	D=2°51'53"	D=2°51'53"
R=2000'	R=2000'	R=2000'
T=354.75'	T=157.99'	T=277.23'
L=702.20'	L=315.32'	L=550.94'

REDUCED SIZE DO NOT SCALE

NOTE: Protracted Sec. Lines Taken From As Built Plans.

HARD COPY Forest Plans (As Bltg) TH-20-81

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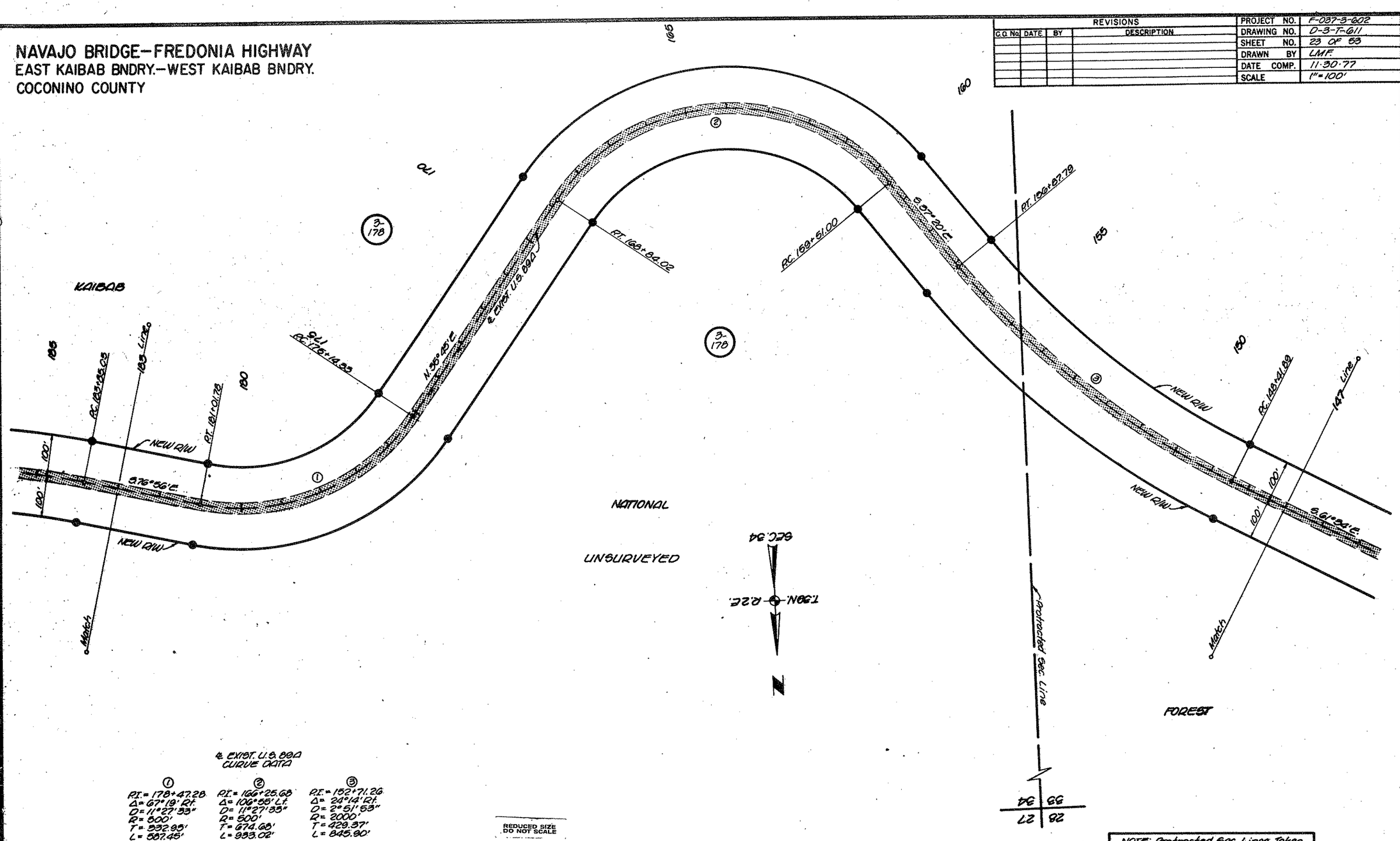
COCONINO COUNTY

REVISIONS					
C.O. No.	DATE	BY	DESCRIPTION	PROJECT NO.	F-037-3-602
				DRAWING NO.	D-3-T-611
				SHEET NO.	23 OF 53
				DRAWN BY	LMF
				DATE COMP.	11-30-77
				SCALE	1"=100'



℄ EXIST. U.S. 89A CURVE DATA

①	②	③
P.I. = 178+47.28	P.I. = 166+25.68	P.I. = 152+71.26
Δ = 67°19' Rt.	Δ = 106°55' Lt.	Δ = 24°14' Rt.
D = 11°27'33"	D = 11°27'33"	D = 2°51'53"
R = 500'	R = 500'	R = 2000'
T = 332.95'	T = 674.68'	T = 429.37'
L = 587.45'	L = 933.02'	L = 845.90'

REDUCED SIZE DO NOT SCALE

NOTE: Protracted Sec. Lines Taken From As Built Plans.

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COCONINO COUNTY

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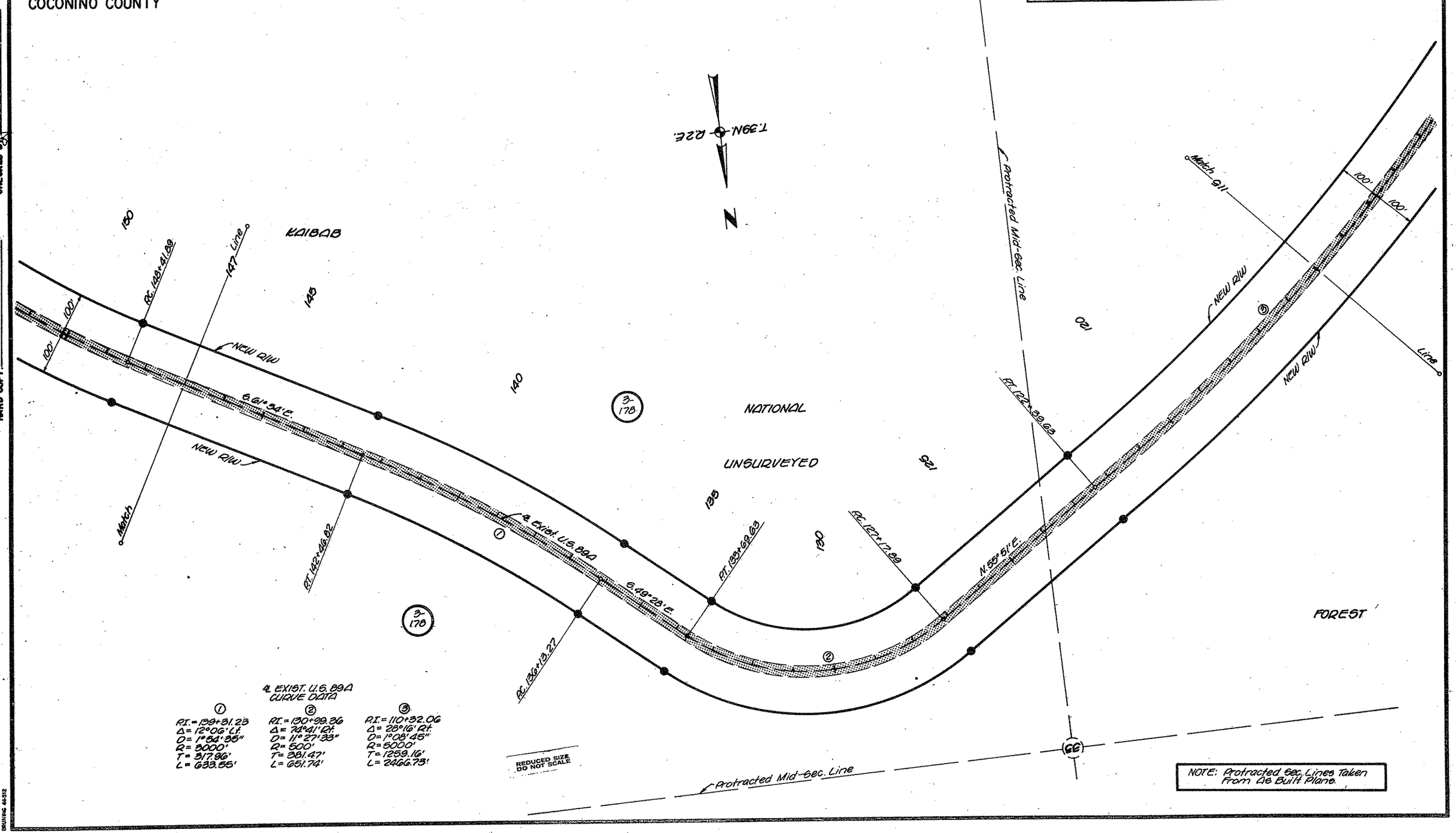
REVISIONS			
C.O. No.	DATE	BY	DESCRIPTION

PROJECT NO.	F-037-3-602
DRAWING NO.	D-3-T-611
SHEET NO.	24 OF 55
DRAWN BY	LMF
DATE COMP.	11·30·77
SCALE	1"=100'



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DRAWING 44-512

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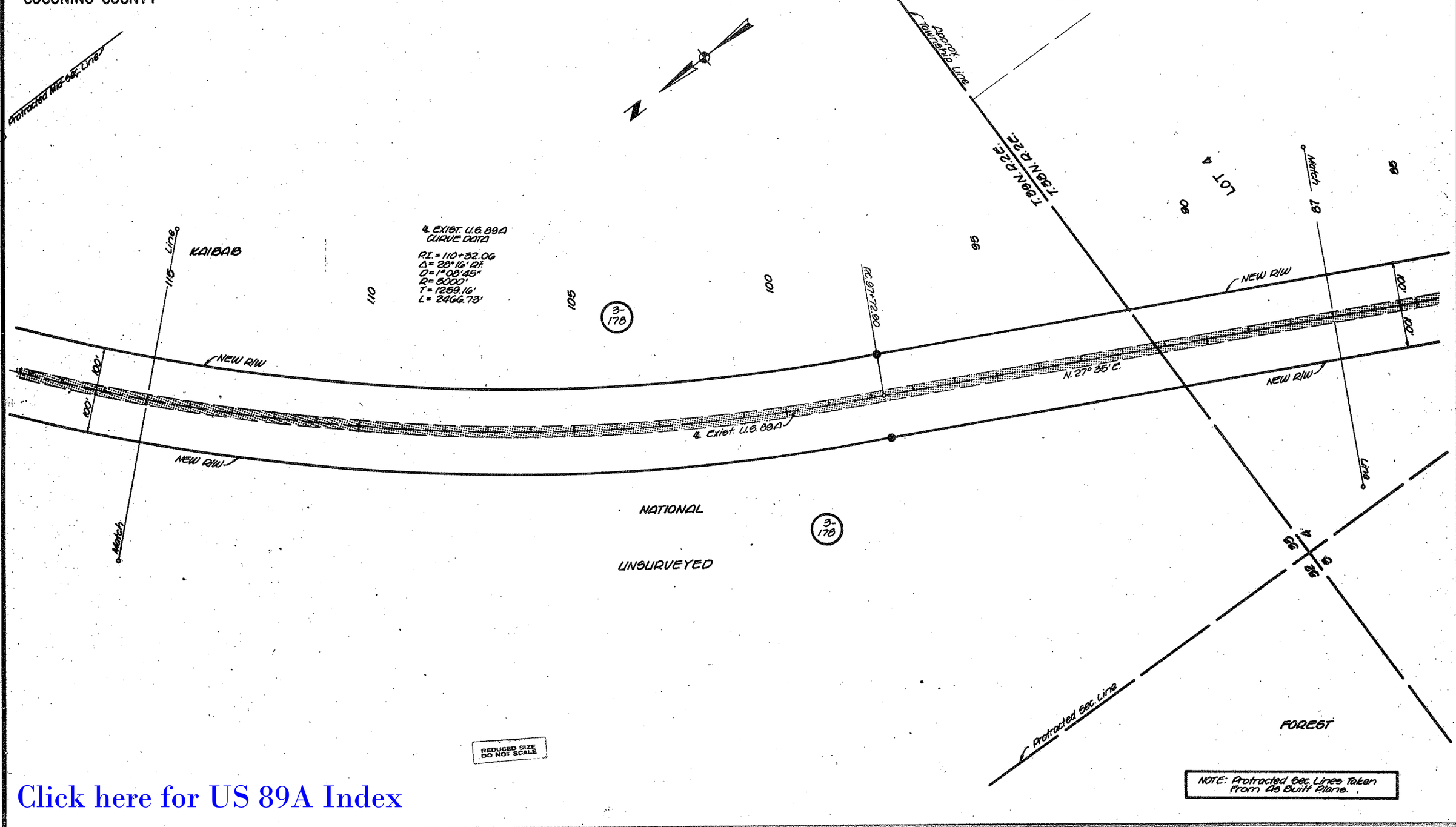
EAST KAIBAB BNDRY.–WEST KAIBAB BNDRY.
COCONINO COUNTY

REVISIONS			
C.O. No.	DATE	BY	DESCRIPTION

PROJECT NO.	F-037-3-602
DRAWING NO.	D-3-T-611
SHEET NO.	25 OF 53
DRAWN BY	LMF
DATE COMP.	11-30-77
SCALE	1"=100'



NOTE: Protracted Sec. Lines Taken From As Built Plans.

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COCONINO COUNTY

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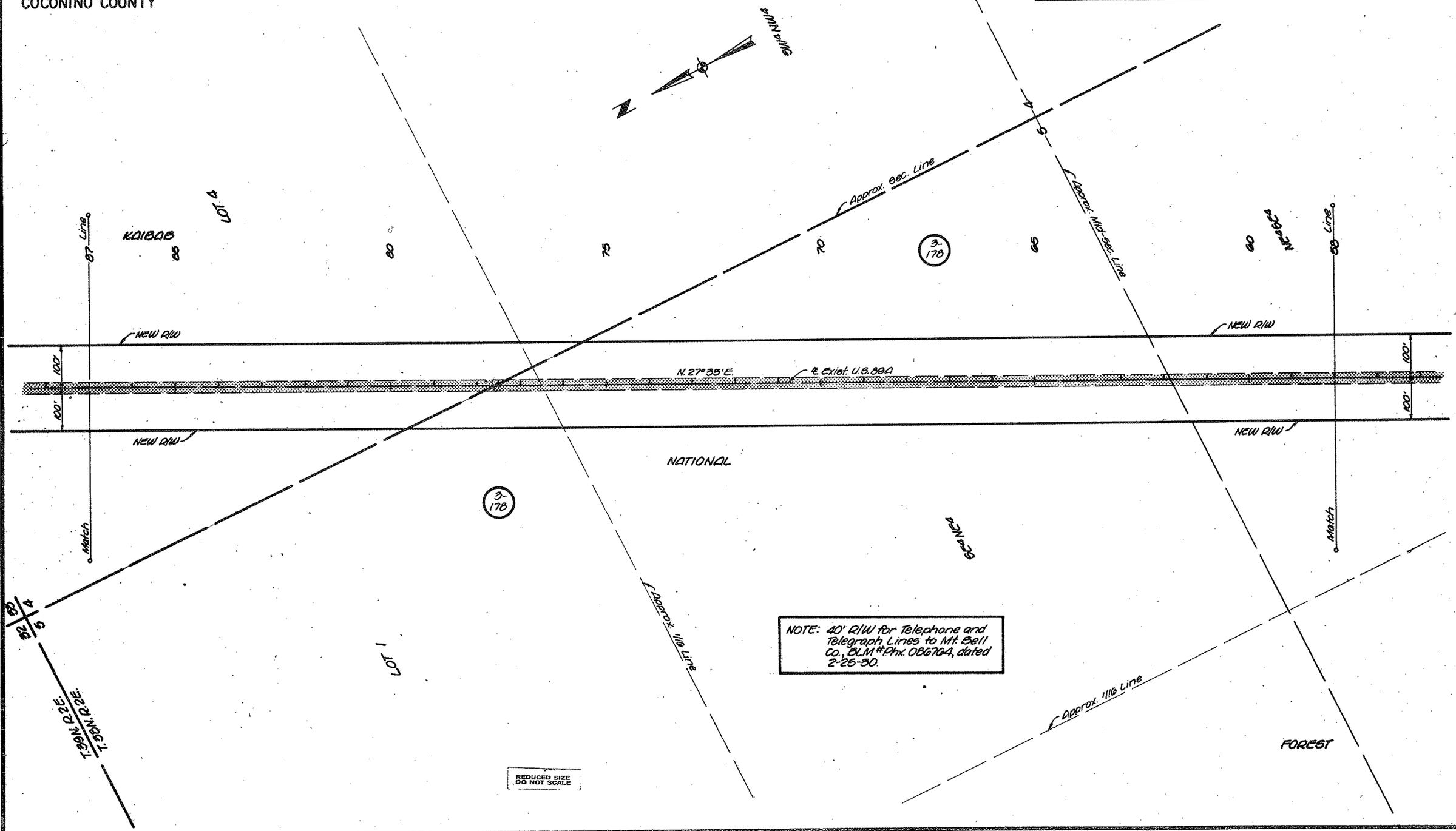
REVISIONS			
C.O. No.	DATE	BY	DESCRIPTION

PROJECT NO.	F-037-3-602
DRAWING NO.	D-3-T-611
SHEET NO.	26 OF 53
DRAWN BY	LMF
DATE COMP.	11-30-77
SCALE	1" = 100'



NOTE: 40' R/W for Telephone and Telegraph Lines to Mt. Bell Co., BLM #Phx. 086764, dated 2-25-30.

REDUCED SIZE DO NOT SCALE

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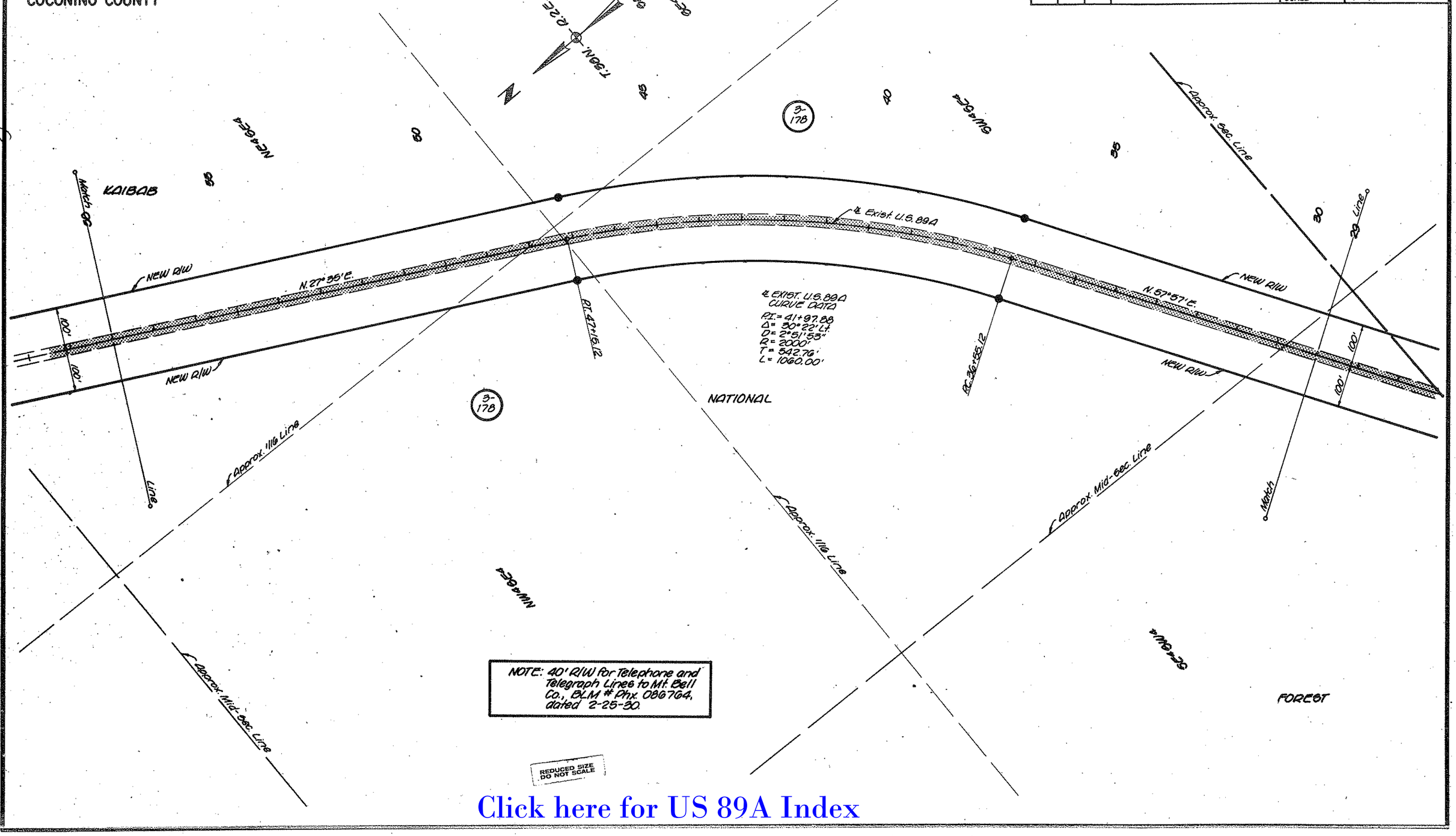
COCONINO COUNTY

REVISIONS			
C.O. No.	DATE	BY	DESCRIPTION

PROJECT NO.	F-037-3-602
DRAWING NO.	D-3-T-611
SHEET NO.	27 OF 53
DRAWN BY	LMF
DATE COMP.	11·30·77
SCALE	1"=100'



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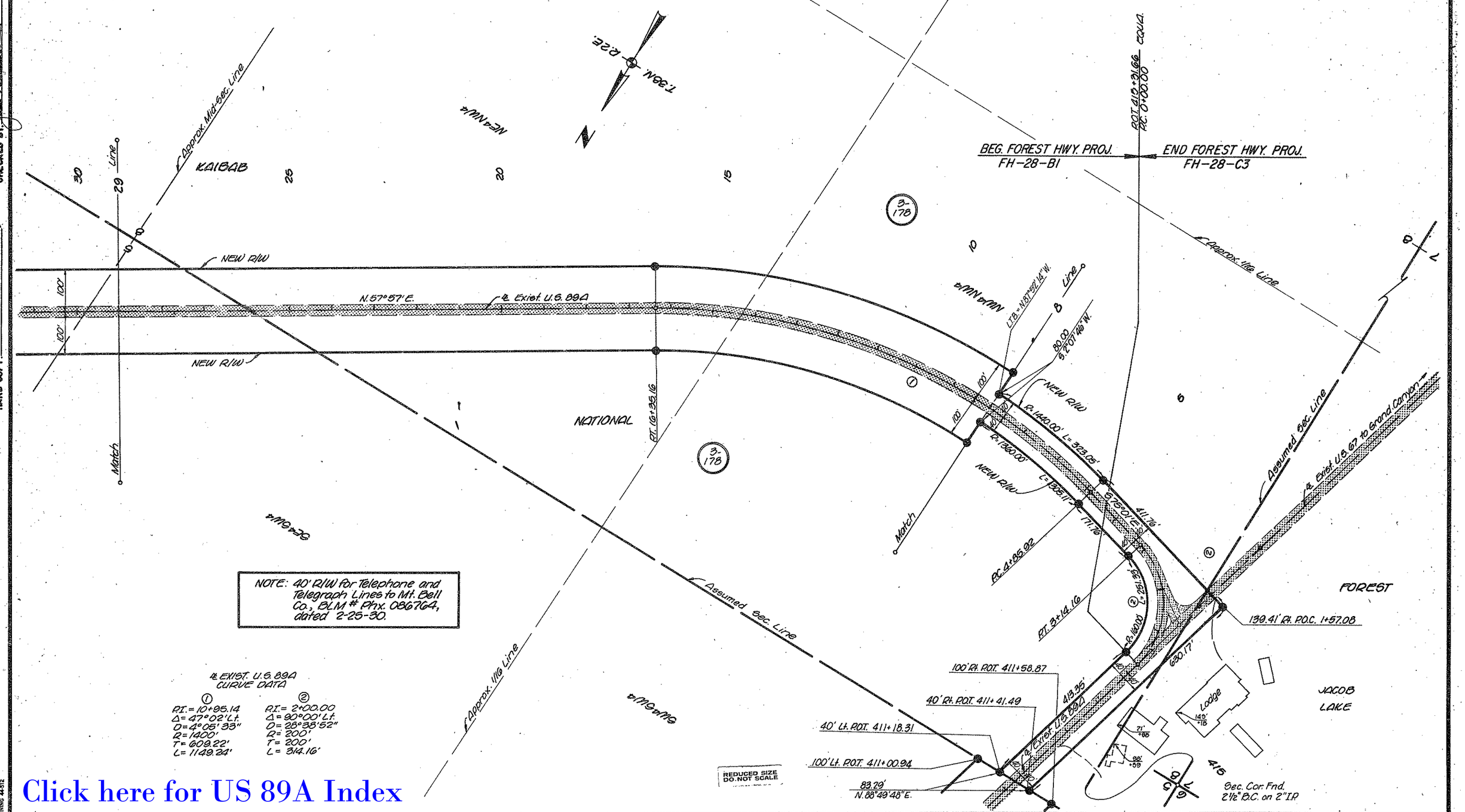
COCONINO COUNTY

REVISIONS			
C.O. No.	DATE	BY	DESCRIPTION
5237	10-27-78	KS	Rev'd New R/W from 8+00 to 411±

PROJECT NO.	F-037-3-602
DRAWING NO.	0-3-T-611
SHEET NO.	28 OF 83
DRAWN BY	LMF
DATE COMP.	11-30-77
SCALE	1" = 100'



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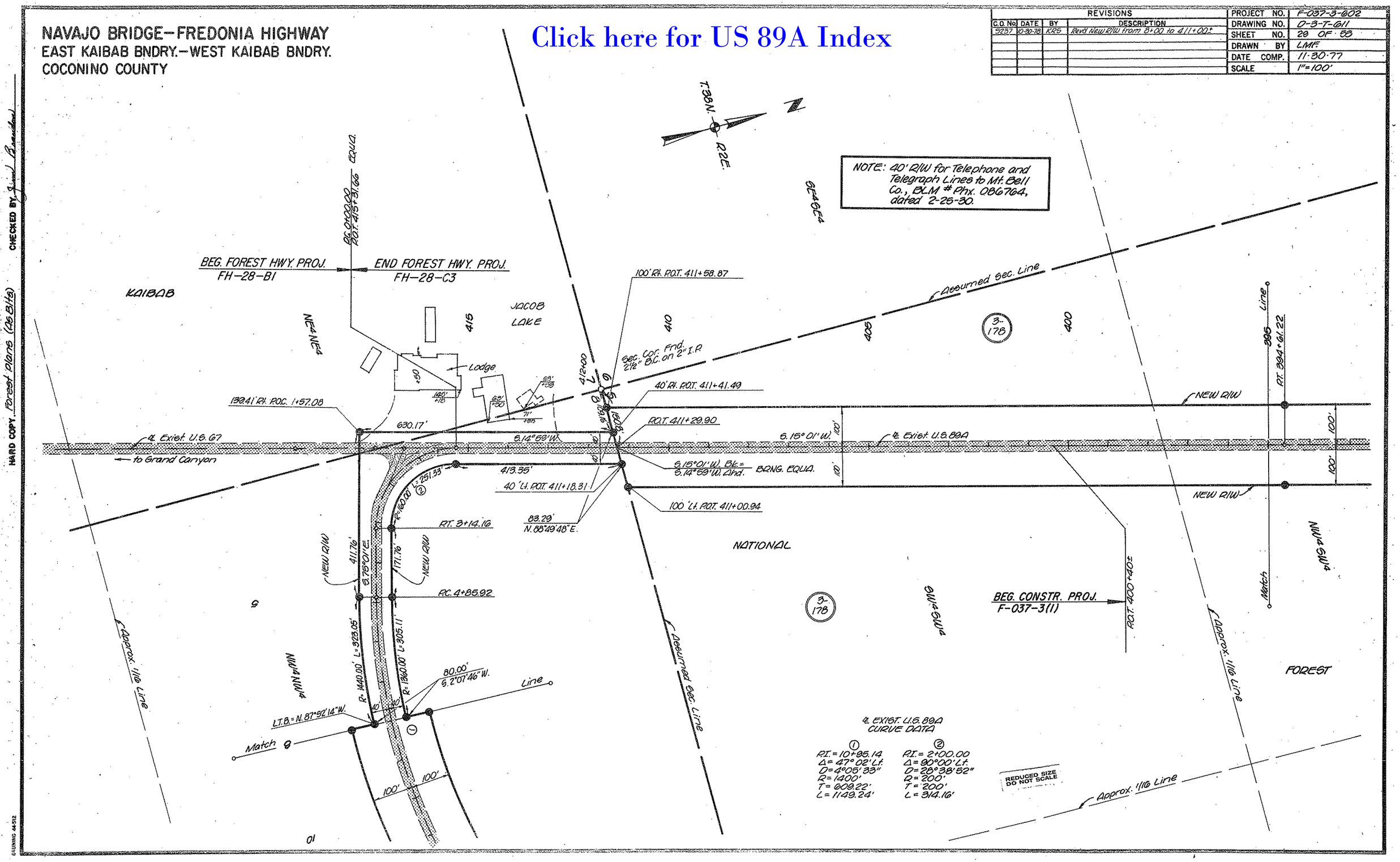
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EAST KAIBAB BNDRY.–WEST KAIBAB BNDRY.
COCONINO COUNTY
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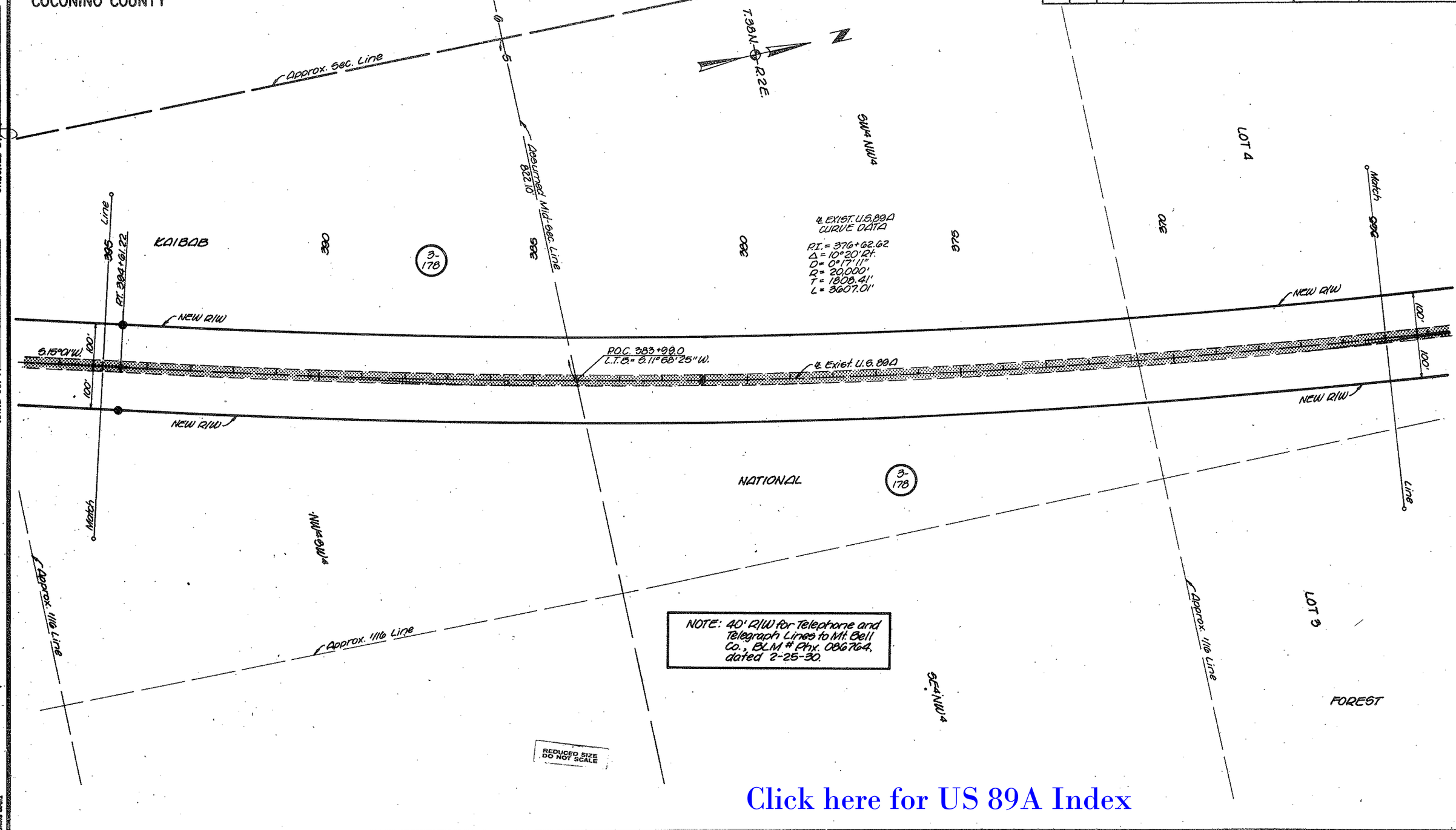
REVISIONS
C.O. No. DATE BY DESCRIPTION
5257 10-30-78 KRS Rev'd New R/W from 8+00 to 411+00±
PROJECT NO. F-037-3-602
DRAWING NO. D-3-T-611
SHEET NO. 29 OF 53
DRAWN BY LMF
DATE COMP. 11-30-77
SCALE 1"=100'
NOTE: 40' R/W for Telephone and Telegraph Lines to Mt. Bell Co., BLM # Phx. 086764, dated 2-25-30.
T.38N.
R.2E.
BEG. FOREST HWY. PROJ. FH-28-B1
END FOREST HWY. PROJ. FH-28-C3
KAIBAB
JACOB LAKE
Lodge
Assumed Sec. Line
100' Rt. P.O.T. 411+58.87
Sec. Cor. Fnd. 2½" B.C. on 2" I.P.
40' Rt. P.O.T. 411+41.49
P.O.T. 411+29.90
139.41' Rt. P.O.C. 1+57.08
630.17'
S.14°59'W.
S.15°01'W.
℄ Exist. U.S. 67
to Grand Canyon
℄ Exist. U.S. 89A
S.15°01'W. Bk.= S.14°59'W. Ahd. BRNG. EQUA.
413.35'
40' Lt. P.O.T. 411+18.31
100' Lt. P.O.T. 411+00.94
83.29' N.88°49'48"E.
P.T. 3+14.16
P.C. 4+85.92
NEW R/W
NATIONAL
FOREST
BEG. CONSTR. PROJ. F-037-3(1)
P.O.T. 400+40±
Approx. 1/16 Line
Match
Line
℄ EXIST. U.S. 89A CURVE DATA
① P.I.=10+95.14 Δ=47°02'Lt. D=4°05'33" R=1400' T=609.22' L=1149.24'
② P.I.=2+00.00 Δ=90°00'Lt. D=28°38'52" R=200' T=200' L=314.16'
REDUCED SIZE DO NOT SCALE
HARD COPY Forest Plans (As Bits)
CHECKED BY
GRUNING 44-512

NAVAJO BRIDGE–FREDONIA HIGHWAY
EAST KAIBAB BNDRY.–WEST KAIBAB BNDRY.
COCONINO COUNTY

REVISIONS			
C.O. No.	DATE	BY	DESCRIPTION

PROJECT NO.	F-037-3-602
DRAWING NO.	D-3-T-611
SHEET NO.	30 OF 53
DRAWN BY	LMF
DATE COMP.	11-30-77
SCALE	1"=100'



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FH-28-C3
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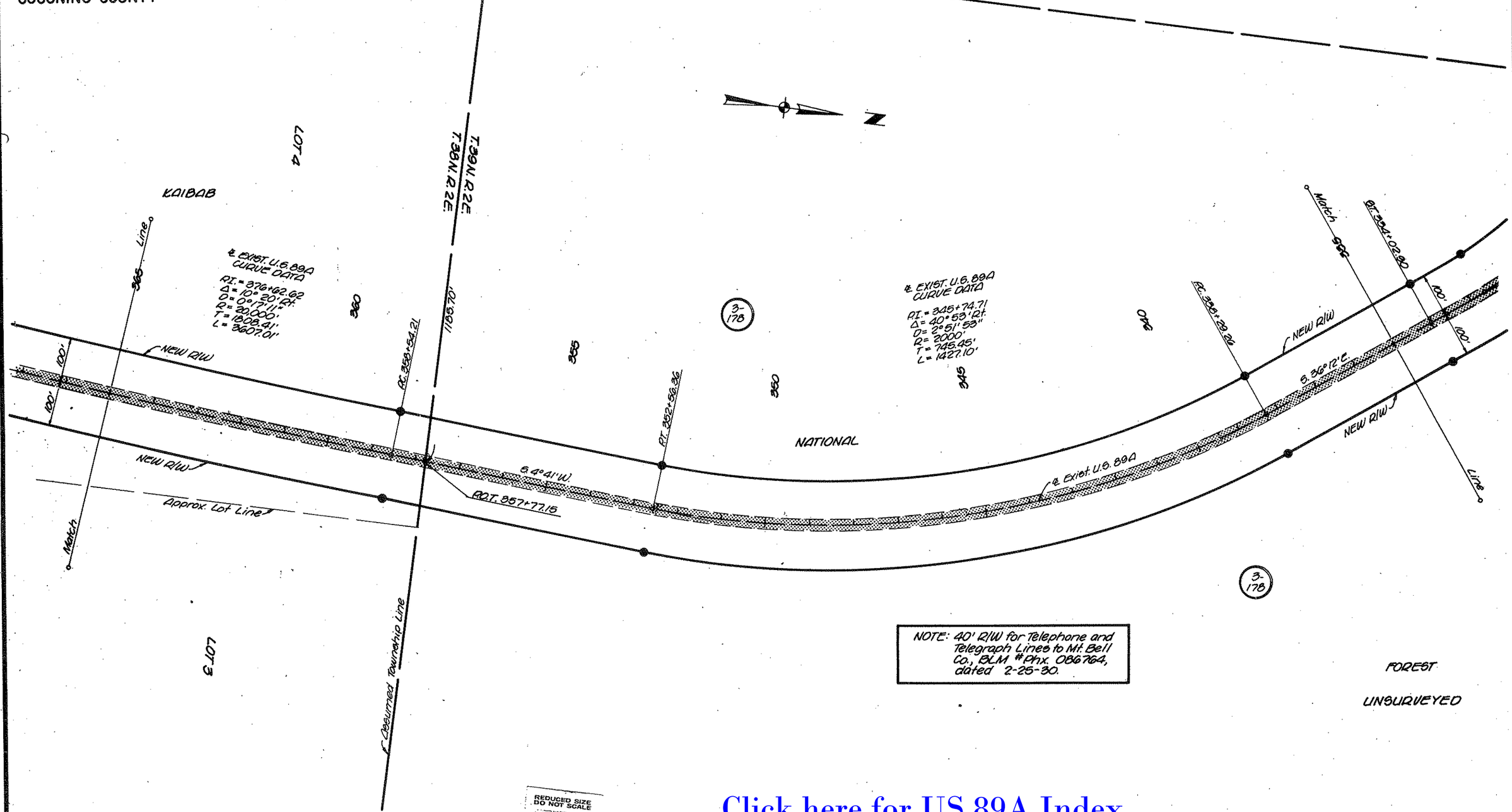
EAST KAIBAB BNDRY.–WEST KAIBAB BNDRY.
COCONINO COUNTY

REVISIONS					
C.O. No.	DATE	BY	DESCRIPTION	PROJECT NO.	F-037-3-602
				DRAWING NO.	D-3-T-611
				SHEET NO.	31 OF 53
				DRAWN BY	LMF.
				DATE COMP.	11-30-77
				SCALE	1" = 100'



NOTE: 40' R/W for Telephone and Telegraph Lines to Mt. Bell Co., BLM #Phx. 086764, dated 2-25-30.

HARD COPY FR-25-C3 (Forest Plans (DB 816))
CHECKED BY

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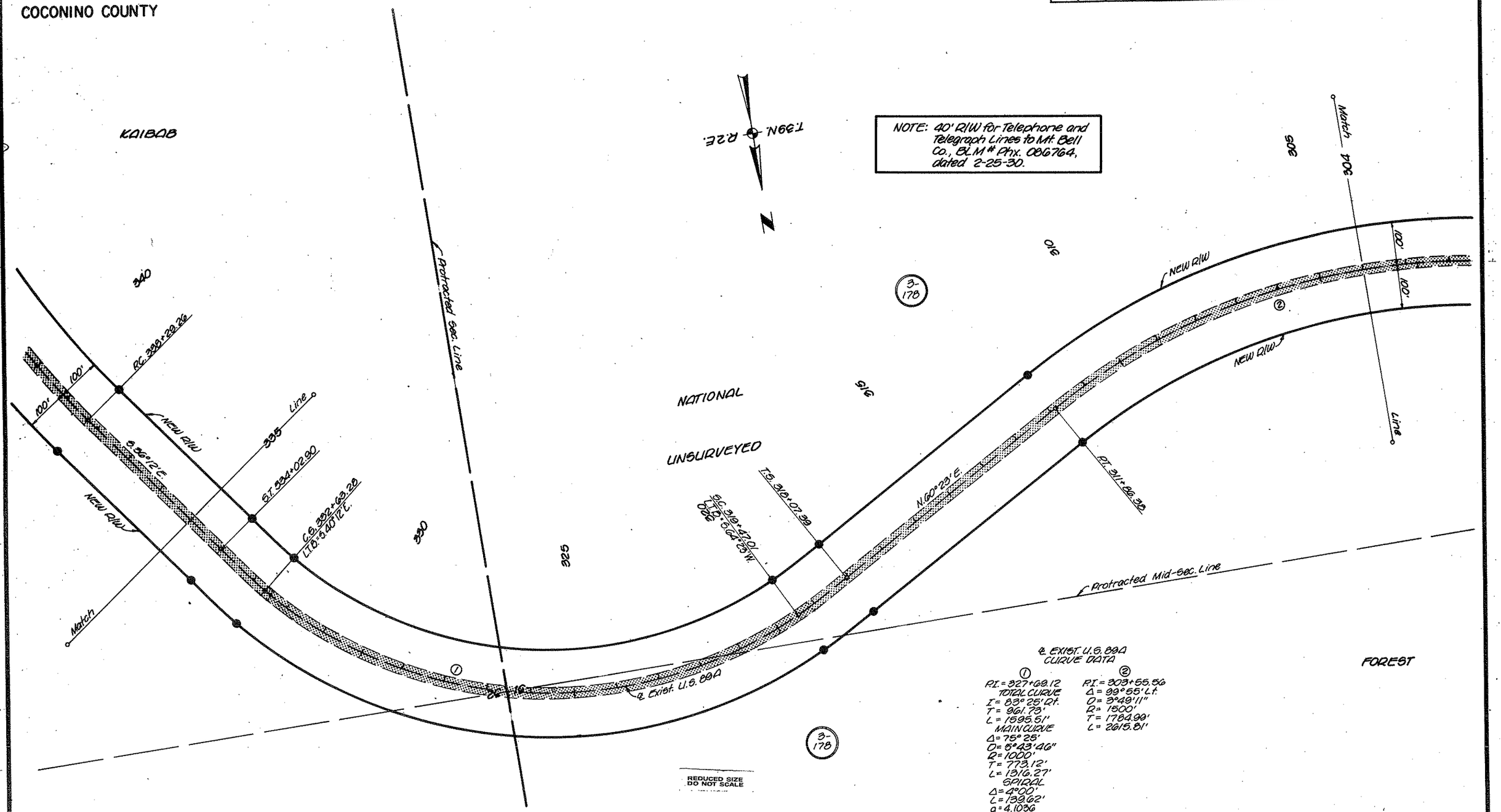
REVISIONS			
C.O. No.	DATE	BY	DESCRIPTION

PROJECT NO.	F-037-3-602
DRAWING NO.	D-3-T-611
SHEET NO.	32 OF 53
DRAWN BY	LMF
DATE COMP.	11-30-77
SCALE	1"=100'

NAVAJO BRIDGE–FREDONIA HIGHWAY
EAST KAIBAB BNDRY.–WEST KAIBAB BNDRY.
COCONINO COUNTY



℄ EXIST. U.S. 89A CURVE DATA

①	②
P.I. = 327+69.12	P.I. = 303+55.56
TOTAL CURVE	Δ = 99°55' Lt.
I = 83°25' Rt.	D = 3°49'11"
T = 961.73'	R = 1500'
L = 1595.51'	T = 1784.99'
MAIN CURVE	L = 2615.81'
Δ = 75°25'	
D = 5°43'46"	
R = 1000'	
T = 773.12'	
L = 1316.27'	
SPIRAL	
Δ = 4°00'	
L = 139.62'	
a = 4.1036	

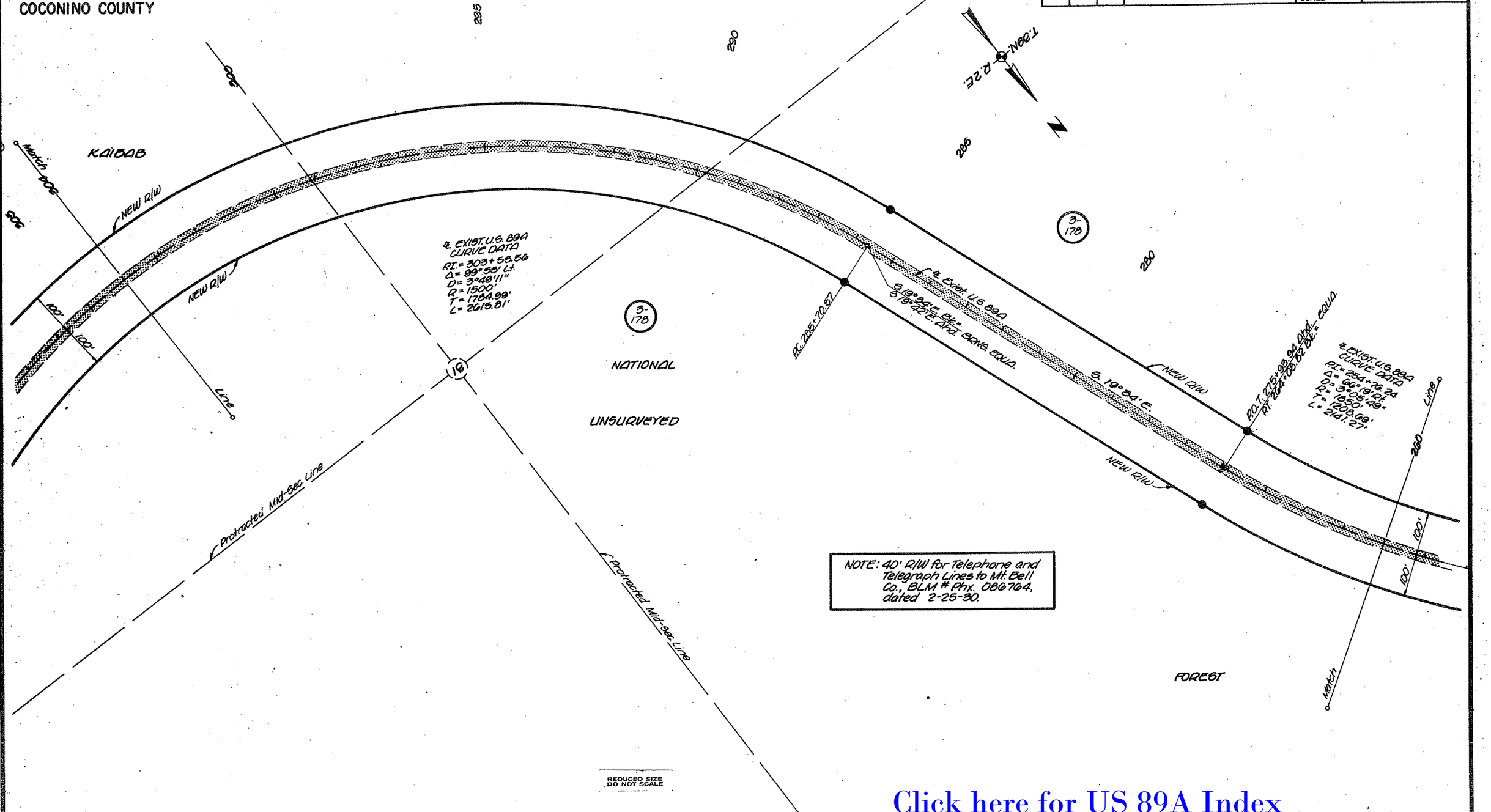
CHECKED BY Jim Brandon

HARD COPY FH-28-C3 Forest Plans (As Bltd.)

BRUNING 44-312

NAVAJO BRIDGE–FREDONIA HIGHWAY
EAST KAIBAB BNDRY.–WEST KAIBAB BNDRY.
COCONINO COUNTY

REVISIONS				
C.O. No.	DATE	BY	DESCRIPTION	
				PROJECT NO. F-037-3-602
				DRAWING NO. D-3-T-611
				SHEET NO. 33 OF 55
				DRAWN BY LMF
				DATE COMP. 11-30-77
				SCALE 1" = 100'



NOTE: 40' R/W for Telephone and Telegraph Lines to Mt. Bell Co., BLM # Phx. 086764, dated 2-25-30.

REDUCED SIZE DO NOT SCALE

HARD COPY Forest Plans (06 01/15) CHECKED BY Kim Brandon

FH-28-C-3

DRAWING 44-512

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NAVAJO BRIDGE–FREDONIA HIGHWAY
EAST KAIBAB BNDRY.–WEST KAIBAB BNDRY.
COCONINO COUNTY

REVISIONS			
C.O. No.	DATE	BY	DESCRIPTION

PROJECT NO.	F-037-3-602
DRAWING NO.	D-3-T-611
SHEET NO.	34 OF 53
DRAWN BY	LMF
DATE COMP.	11-30-77
SCALE	1"=100'

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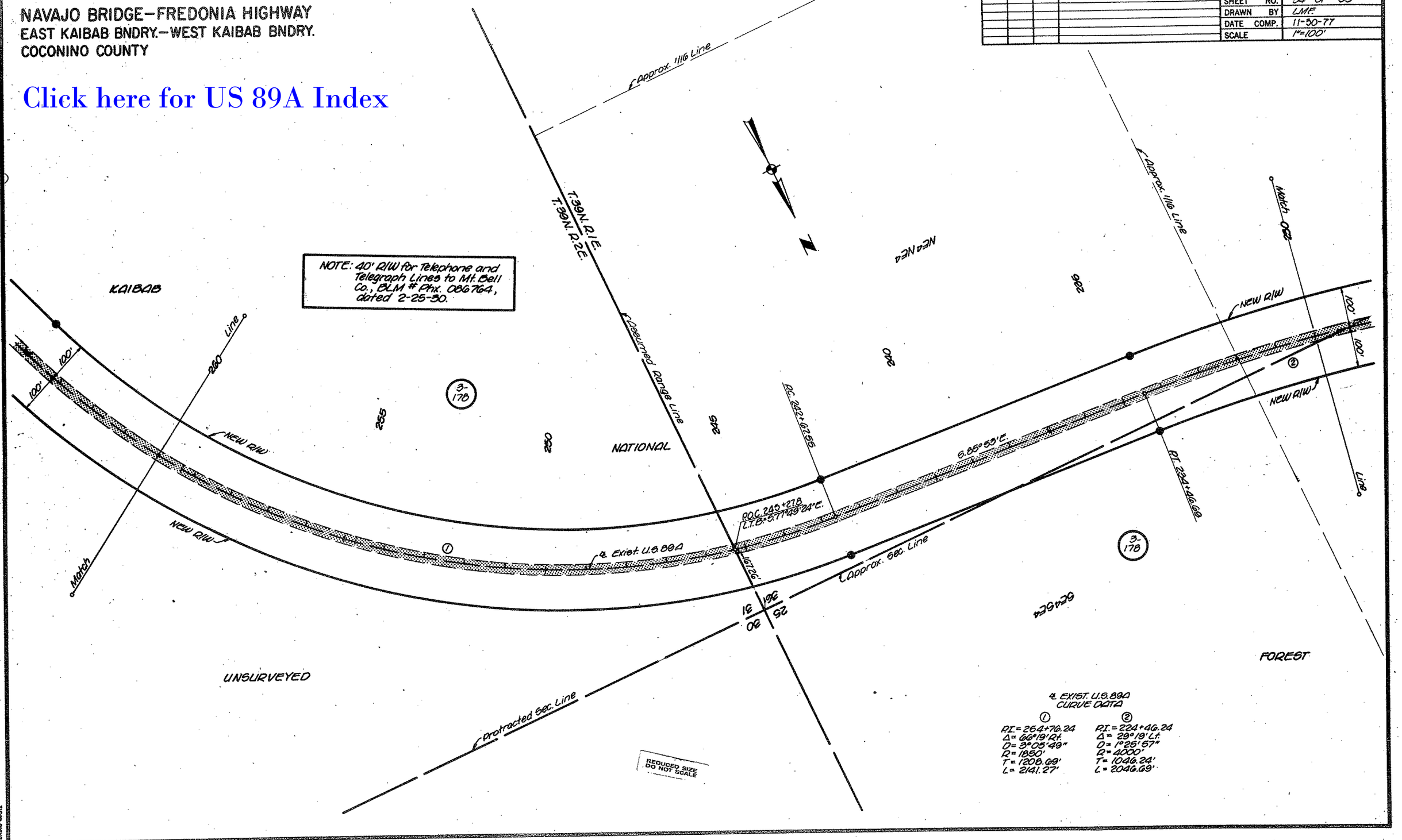


℄ EXIST. U.S. 89A CURVE DATA

①	②
P.I.=254+76.24	P.I.=224+46.24
Δ=66°19'Rt.	Δ=29°19'Lt.
D=3°05'49"	D=1°25'57"
R=1850'	R=4000'
T=1208.69'	T=1046.24'
L=2141.27'	L=2046.69'

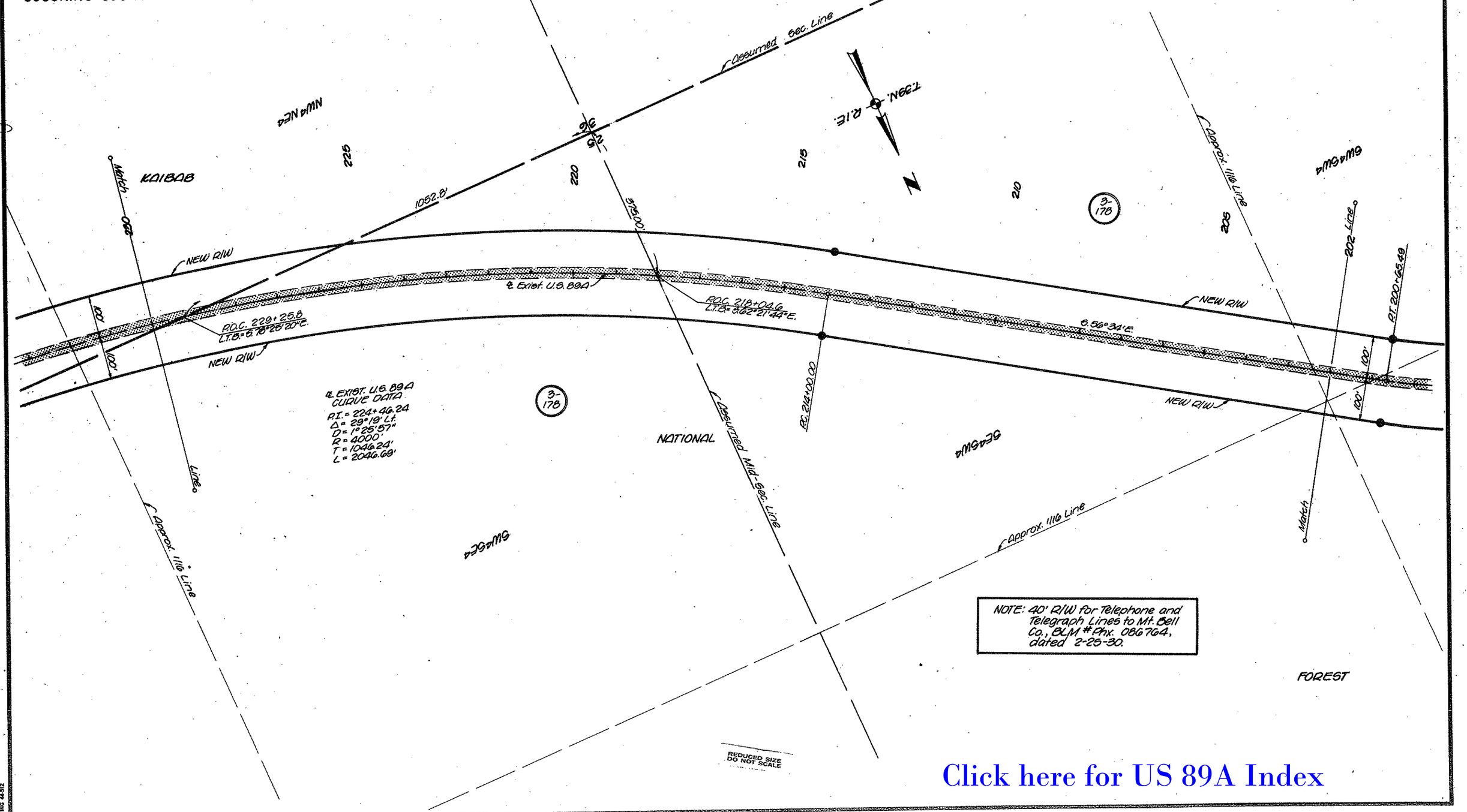
HARD COPY FH-28-C3 Forest Plans (As Bltd)

CHECKED BY Jim Brandon

DRAWING 44-512

NAVAJO BRIDGE–FREDONIA HIGHWAY
EAST KAIBAB BNDRY.–WEST KAIBAB BNDRY.
COCONINO COUNTY

REVISIONS					
C.O. No.	DATE	BY	DESCRIPTION	PROJECT NO.	F-037-3-602
				DRAWING NO.	0-3-T-611
				SHEET NO.	35 OF 53
				DRAWN BY	LMF
				DATE COMP.	11-30-77
				SCALE	1"=100'



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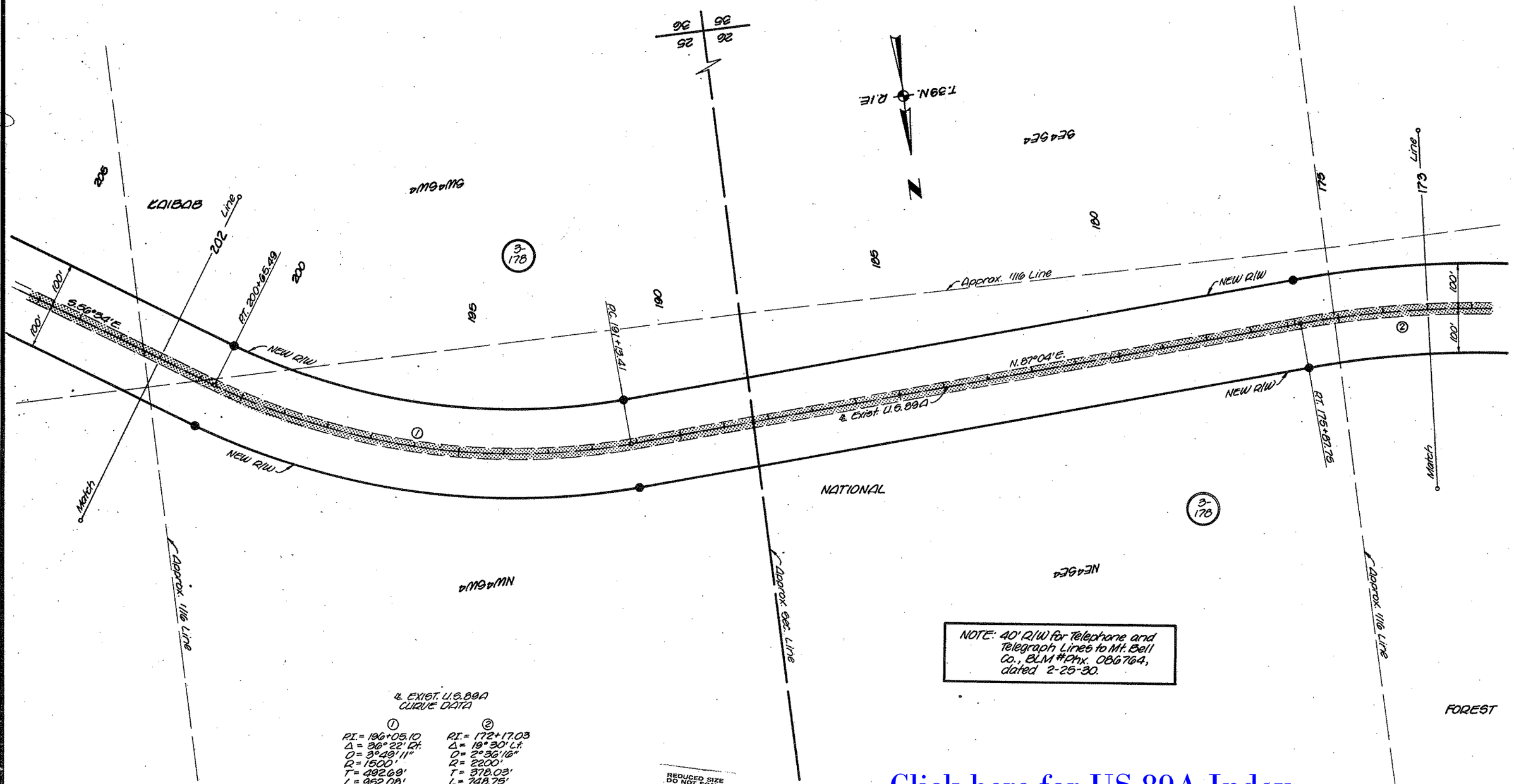
FH-28-C 9

BRUNING 44-512

NAVAJO BRIDGE—FREDONIA HIGHWAY
EAST KAIBAB BNDRY.—WEST KAIBAB BNDRY.
COCONINO COUNTY

REVISIONS			
C.O. No.	DATE	BY	DESCRIPTION

PROJECT NO.	F-037-3-602
DRAWING NO.	D-3-T-611
SHEET NO.	36 OF 53
DRAWN BY	LMF
DATE COMP.	11-30-77
SCALE	1"=100'



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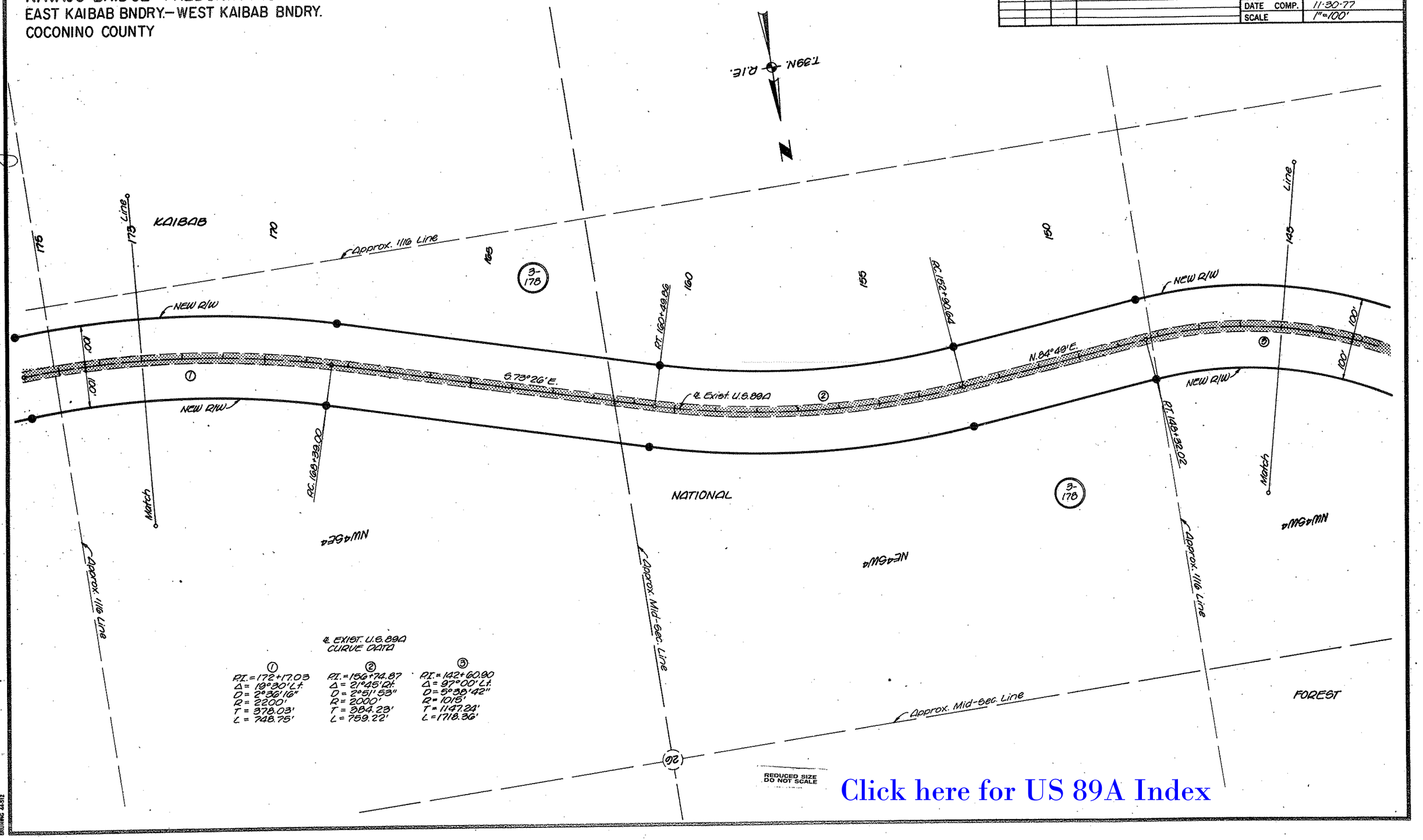
NAVAJO BRIDGE–FREDONIA HIGHWAY
EAST KAIBAB BNDRY.–WEST KAIBAB BNDRY.
COCONINO COUNTY

REVISIONS			
C.O. No.	DATE	BY	DESCRIPTION

PROJECT NO.	F-037-3-602
DRAWING NO.	D-3-T-611
SHEET NO.	37 OF 53
DRAWN BY	LMF
DATE COMP.	11-30-77
SCALE	1"=100'



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NAVAJO BRIDGE—FREDONIA HIGHWAY
EAST KAIBAB BNDRY.—WEST KAIBAB BNDRY.
COCONINO COUNTY

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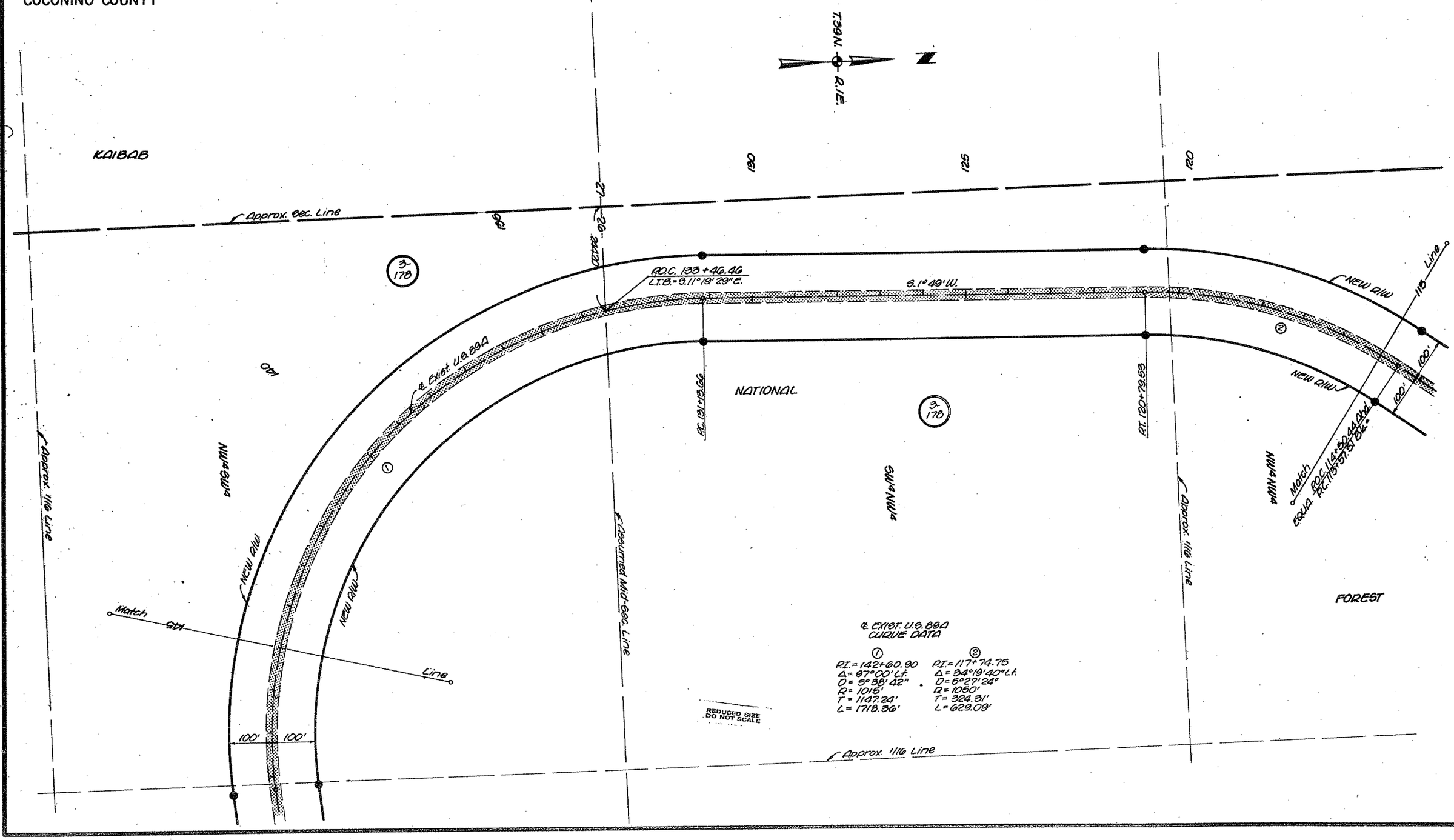
REVISIONS			
C.O. No.	DATE	BY	DESCRIPTION

PROJECT NO.	F-037-3-602
DRAWING NO.	0-3-T-611
SHEET NO.	38 OF 53
DRAWN BY	LMF
DATE COMP.	11-30-77
SCALE	1"=100'



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HARD COPY Forest Plans (As Bltd.)
FH-28-C3

NAVAJO BRIDGE–FREDONIA HIGHWAY
EAST KAIBAB BNDRY.–WEST KAIBAB BNDRY.
COCONINO COUNTY

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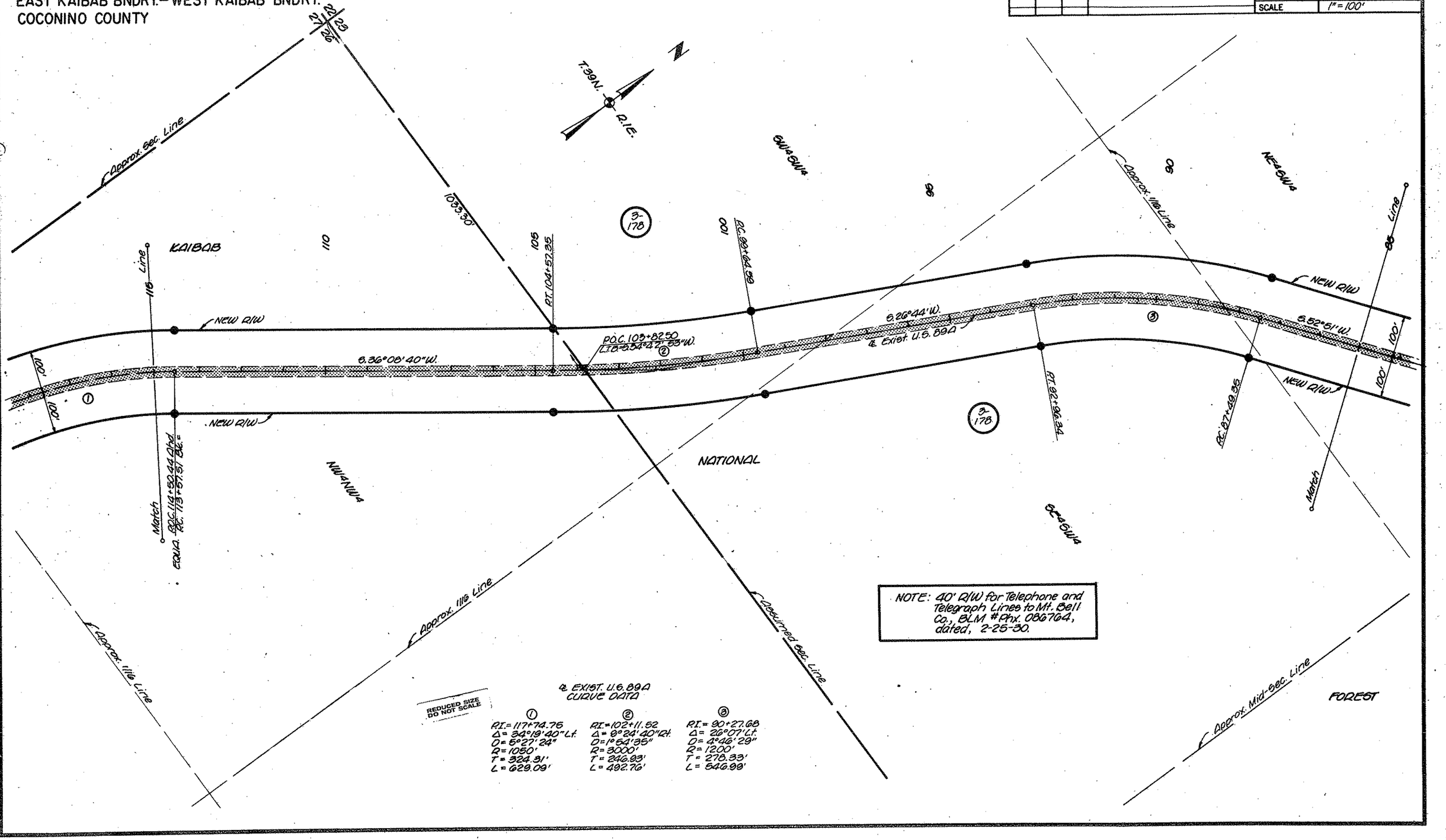
REVISIONS					
C.O. No.	DATE	BY	DESCRIPTION	PROJECT NO.	F-087-3-602
				DRAWING NO.	D-3-F-611
				SHEET NO.	39 OF 53
				DRAWN BY	LMF
				DATE COMP.	11-30-77
				SCALE	1"=100'



NOTE: 40' R/W for Telephone and Telegraph Lines to Mt. Bell Co., BLM #Phx. 086764, dated, 2-25-80.

℄ EXIST. U.S. 89A CURVE DATA

①	②	③
P.I.= 117+74.76	P.I.= 102+11.52	P.I.= 90+27.68
Δ= 34°19'40" Lt.	Δ= 8°24'40" Rt.	Δ= 26°07' Lt.
D= 5°27'24"	D= 1°54'35"	D= 4°46'29"
R= 1050'	R= 3000'	R= 1200'
T= 324.31'	T= 246.93'	T= 278.33'
L= 629.09'	L= 492.76'	L= 546.98'

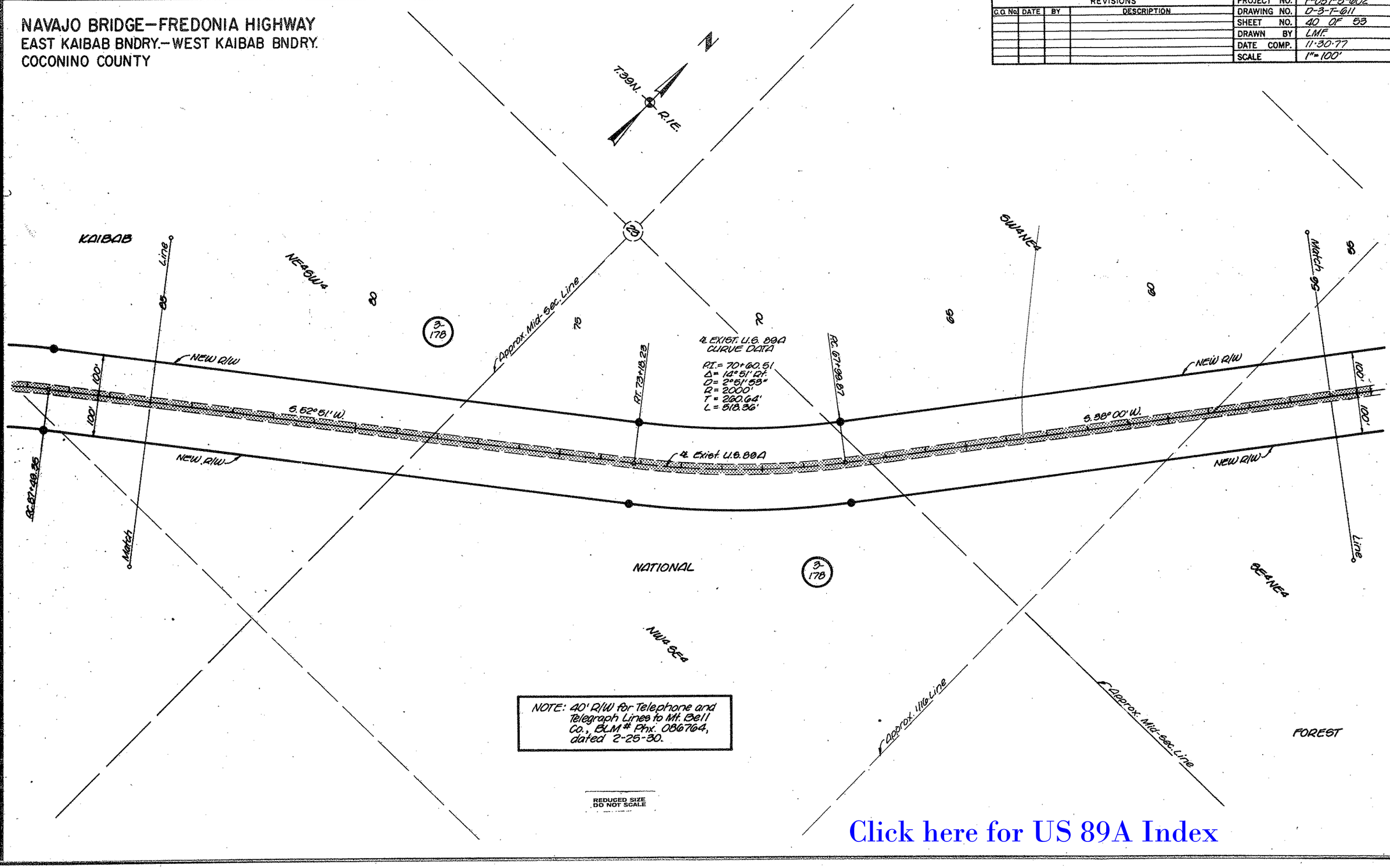
HARD COPY Forest Plans (Ds. Bits) CHECKED BY Jim Brown FH-28-C3

BRUNING 44-512

NAVAJO BRIDGE—FREDONIA HIGHWAY
EAST KAIBAB BNDRY.—WEST KAIBAB BNDRY.
COCONINO COUNTY

REVISIONS			
C.O. No.	DATE	BY	DESCRIPTION

PROJECT NO.	F-037-3-602
DRAWING NO.	D-3-T-611
SHEET NO.	40 OF 53
DRAWN BY	LMF
DATE COMP.	11-30-77
SCALE	1"=100'



NOTE: 40' R/W for Telephone and Telegraph Lines to Mt. Bell Co., BLM# Phx. 086764, dated 2-25-30.

REDUCED SIZE DO NOT SCALE

FH-28-C3
HARD COPY Forest Plans (As Blts.)
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BRUNING 44-512

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NAVAJO BRIDGE–FREDONIA HIGHWAY
EAST KAIBAB BNDRY.–WEST KAIBAB BNDRY.
COCONINO COUNTY

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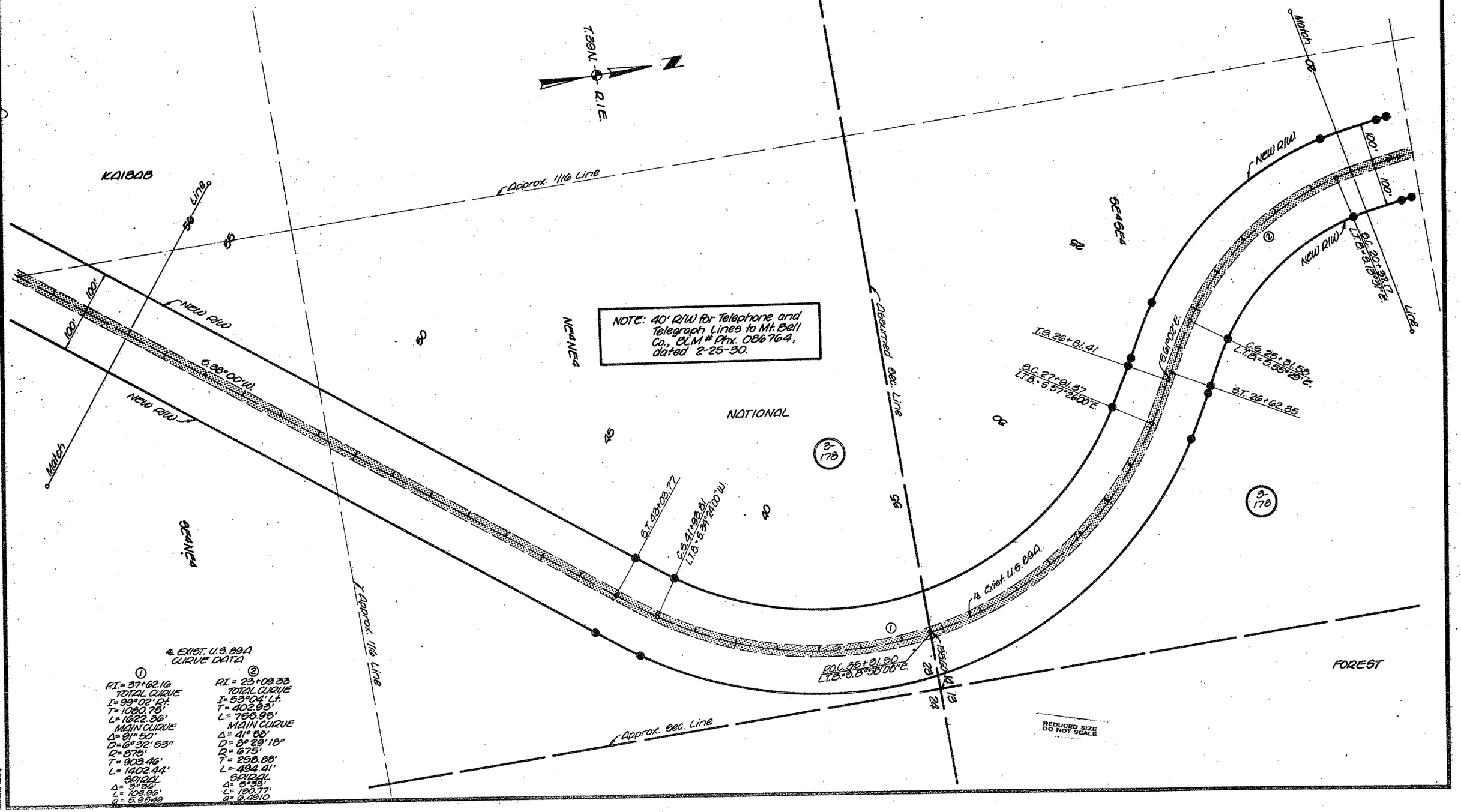
REVISIONS			
C.O. No.	DATE	BY	DESCRIPTION

PROJECT NO.	F-087-3-602
DRAWING NO.	0-3-T-611
SHEET NO.	41 OF 53
DRAWN BY	LMF
DATE COMP.	11-30-77
SCALE	1"=100'



℄ EXIST. U.S. 89A CURVE DATA

①	②
P.I.= 37+62.16	P.I.= 23+09.33
TOTAL CURVE	TOTAL CURVE
I= 99°02' Rt.	I= 53°04' Lt.
T= 1080.75'	T= 402.93'
L= 1622.36'	L= 766.95'
MAIN CURVE	MAIN CURVE
Δ= 91°50'	Δ= 41°58'
D= 6°32'53"	D= 8°29'18"
R= 875'	R= 675'
T= 903.46'	T= 258.88'
L= 1402.44'	L= 494.41'
SPIRAL	SPIRAL
Δ= 3°36'	Δ= 6°33'
L= 109.96'	L= 130.77'
a= 5.9540	a= 6.4910

REDUCED SIZE DO NOT SCALE

DRAWING 44-512

HARD COPY ... Forest Plans (Ga. Bits) CHECKED BY ... FH-28-C3

NAVAJO BRIDGE–FREDONIA HIGHWAY
EAST KAIBAB BNDRY.–WEST KAIBAB BNDRY.
COCONINO COUNTY

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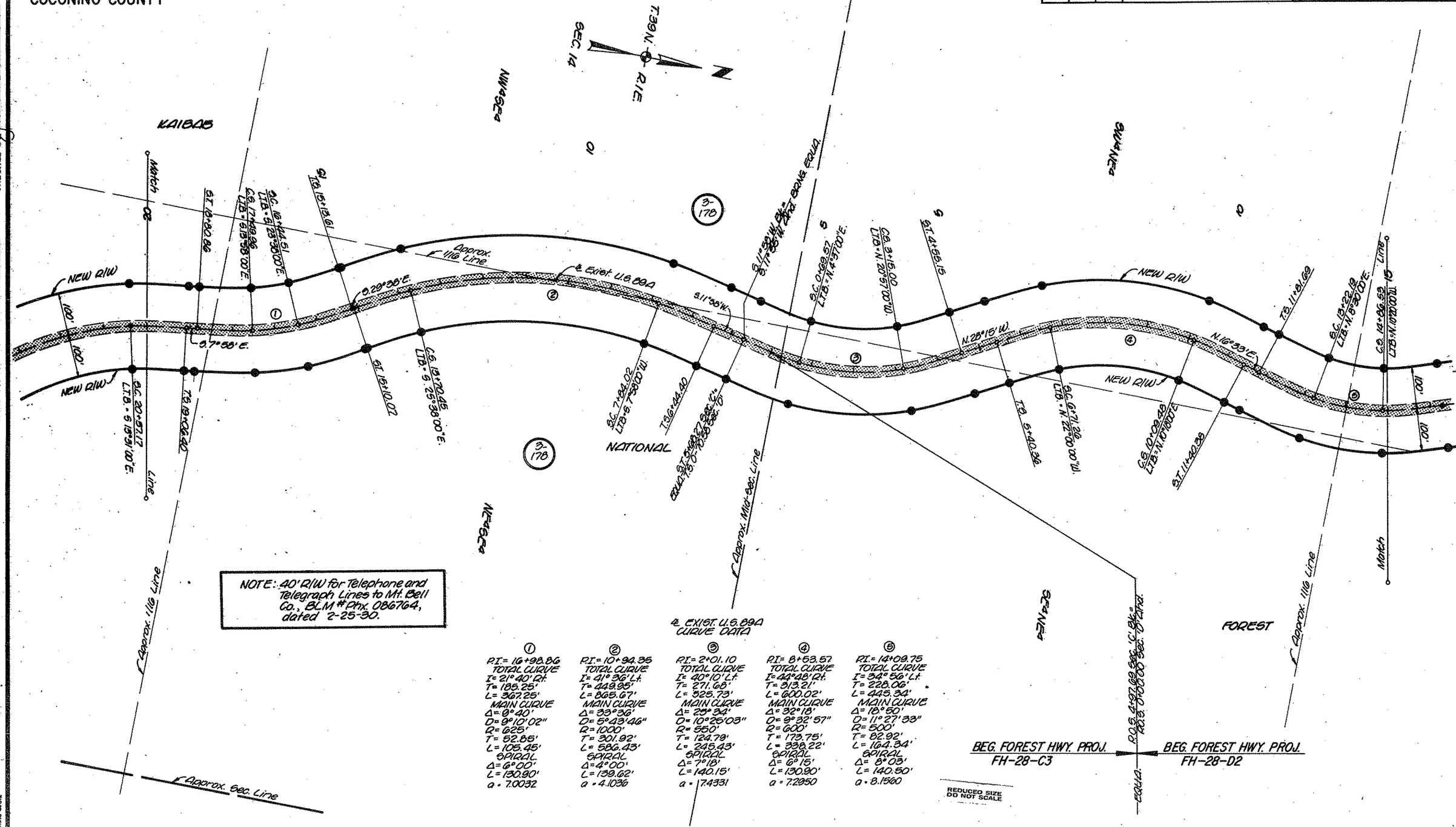
REVISIONS				
C.O. No.	DATE	BY	DESCRIPTION	
				PROJECT NO. F-037-3-602
				DRAWING NO. D-3-T-611
				SHEET NO. 42 OF 53
				DRAWN BY LMF.
				DATE COMP. 11-30-77
				SCALE 1"=100'



NOTE: 40' R/W for Telephone and Telegraph Lines to Mt. Bell Co., BLM #Phx. 086764, dated 2-25-30.

℄ EXIST. U.S. 89A CURVE DATA

①	②	③	④	⑤
P.I.= 16+98.86	P.I.= 10+94.35	P.I.= 2+01.10	P.I.= 8+53.57	P.I.= 14+09.75
TOTAL CURVE	TOTAL CURVE	TOTAL CURVE	TOTAL CURVE	TOTAL CURVE
I= 21° 40' Rt.	I= 41° 36' Lt.	I= 40° 10' Lt.	I= 44° 48' Rt.	I= 34° 56' Lt.
T= 185.25'	T= 449.95'	T= 271.68'	T= 313.21'	T= 228.06'
L= 367.25'	L= 865.67'	L= 525.73'	L= 600.02'	L= 445.34'
MAIN CURVE	MAIN CURVE	MAIN CURVE	MAIN CURVE	MAIN CURVE
Δ= 0° 40'	Δ= 33° 36'	Δ= 25° 34'	Δ= 32° 18'	Δ= 18° 50'
D= 9° 10' 02"	D= 5° 43' 46"	D= 10° 25' 03"	D= 9° 32' 57"	D= 11° 27' 33"
R= 625'	R= 1000'	R= 550'	R= 600'	R= 500'
T= 52.85'	T= 301.92'	T= 124.79'	T= 173.75'	T= 82.92'
L= 105.45'	L= 586.43'	L= 245.43'	L= 338.22'	L= 164.34'
SPIRAL	SPIRAL	SPIRAL	SPIRAL	SPIRAL
Δ= 6° 00'	Δ= 4° 00'	Δ= 7° 18'	Δ= 6° 15'	Δ= 8° 03'
L= 130.90'	L= 139.62'	L= 140.15'	L= 130.90'	L= 140.50'
a = 7.0032	a = 4.1036	a = 7.4331	a = 7.2950	a = 8.1560

FH-28-C3 & D2
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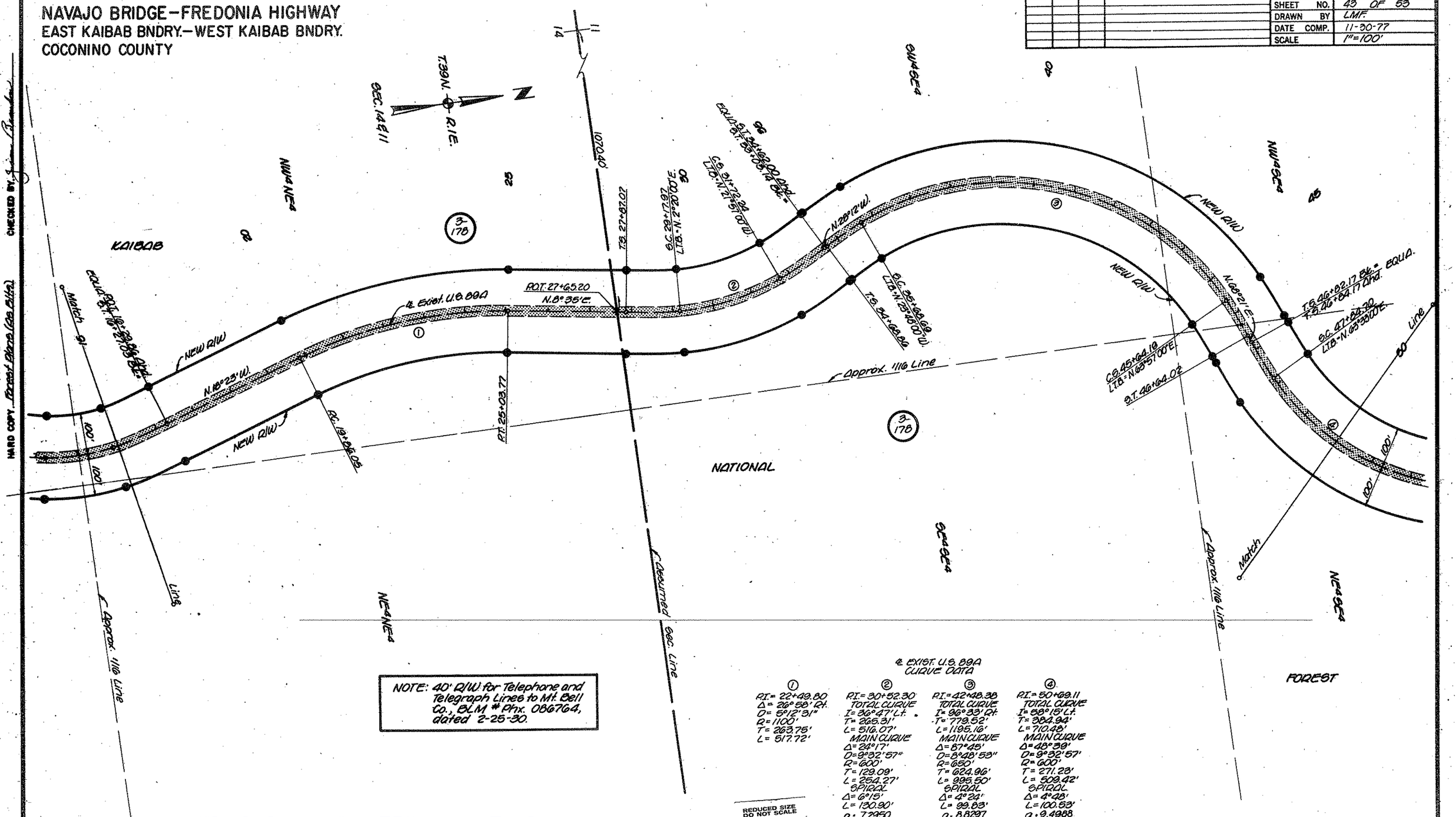
BLUPRINT 44-512

NAVAJO BRIDGE–FREDONIA HIGHWAY
EAST KAIBAB BNDRY.–WEST KAIBAB BNDRY.
COCONINO COUNTY

REVISIONS			
C.O. No.	DATE	BY	DESCRIPTION

PROJECT NO.	F-037-3-602
DRAWING NO.	0-3-7-611
SHEET NO.	43 OF 53
DRAWN BY	LMF.
DATE COMP.	11-30-77
SCALE	1"=100'



NOTE: 40' R/W for Telephone and Telegraph Lines to Mt. Bell Co., BLM # Phx. 066764, dated 2-25-30.

℄ EXIST. U.S. 89A CURVE DATA

①	②	③	④
P.I.= 22+49.80	P.I.= 30+52.30	P.I.= 42+48.38	P.I.= 50+69.11
Δ= 26°58' Rt.	TOTAL CURVE	TOTAL CURVE	TOTAL CURVE
D= 5°12'31"	I= 36°47' Lt.	I= 96°33' Rt.	I= 58°15' Lt.
R= 1100'	T= 265.31'	T= 779.52'	T= 384.94'
T= 263.75'	L= 516.07'	L= 1195.16'	L= 710.48'
L= 517.72'	MAIN CURVE	MAIN CURVE	MAIN CURVE
	Δ= 24°17'	Δ= 87°45'	Δ= 48°39'
	D= 9°32'57"	D= 8°48'58"	D= 9°32'57"
	R= 600'	R= 650'	R= 600'
	T= 129.09'	T= 624.96'	T= 271.28'
	L= 254.27'	L= 995.50'	L= 509.42'
	SPIRAL	SPIRAL	SPIRAL
	Δ= 6°15'	Δ= 4°24'	Δ= 4°48'
	L= 130.90'	L= 99.83'	L= 100.53'
	a = 7.2950	a. 8.8297	a = 9.4988

REDUCED SIZE DO NOT SCALE

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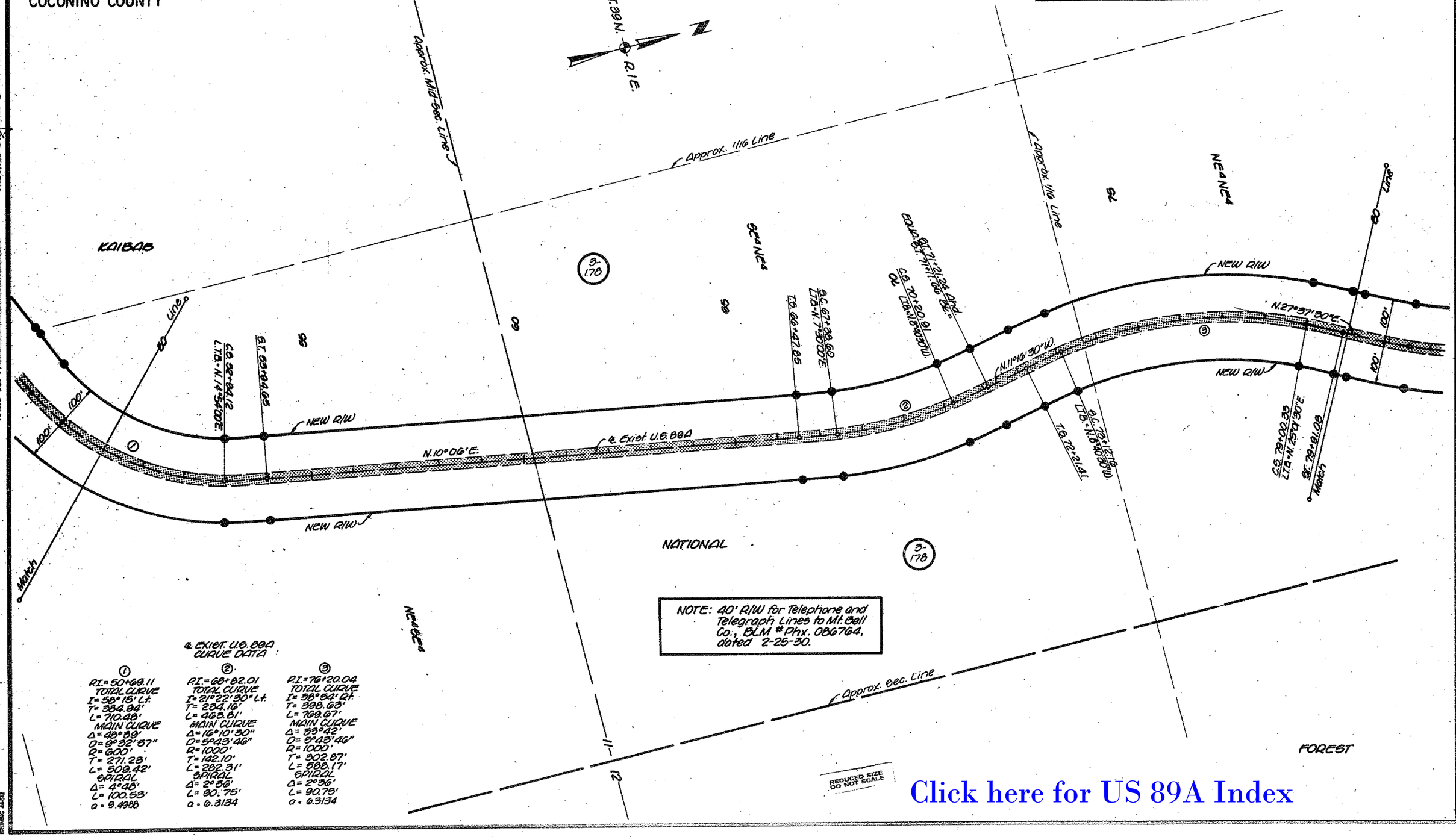
DRAWING 44-512

NAVAJO BRIDGE–FREDONIA HIGHWAY
EAST KAIBAB BNDRY.–WEST KAIBAB BNDRY.
COCONINO COUNTY

REVISIONS					
C.O. No.	DATE	BY	DESCRIPTION	PROJECT NO.	F-037-3-602
				DRAWING NO.	0-3-T-611
				SHEET NO.	44 OF 53
				DRAWN BY	LMF
				DATE COMP.	11-30-77
				SCALE	1"=100'



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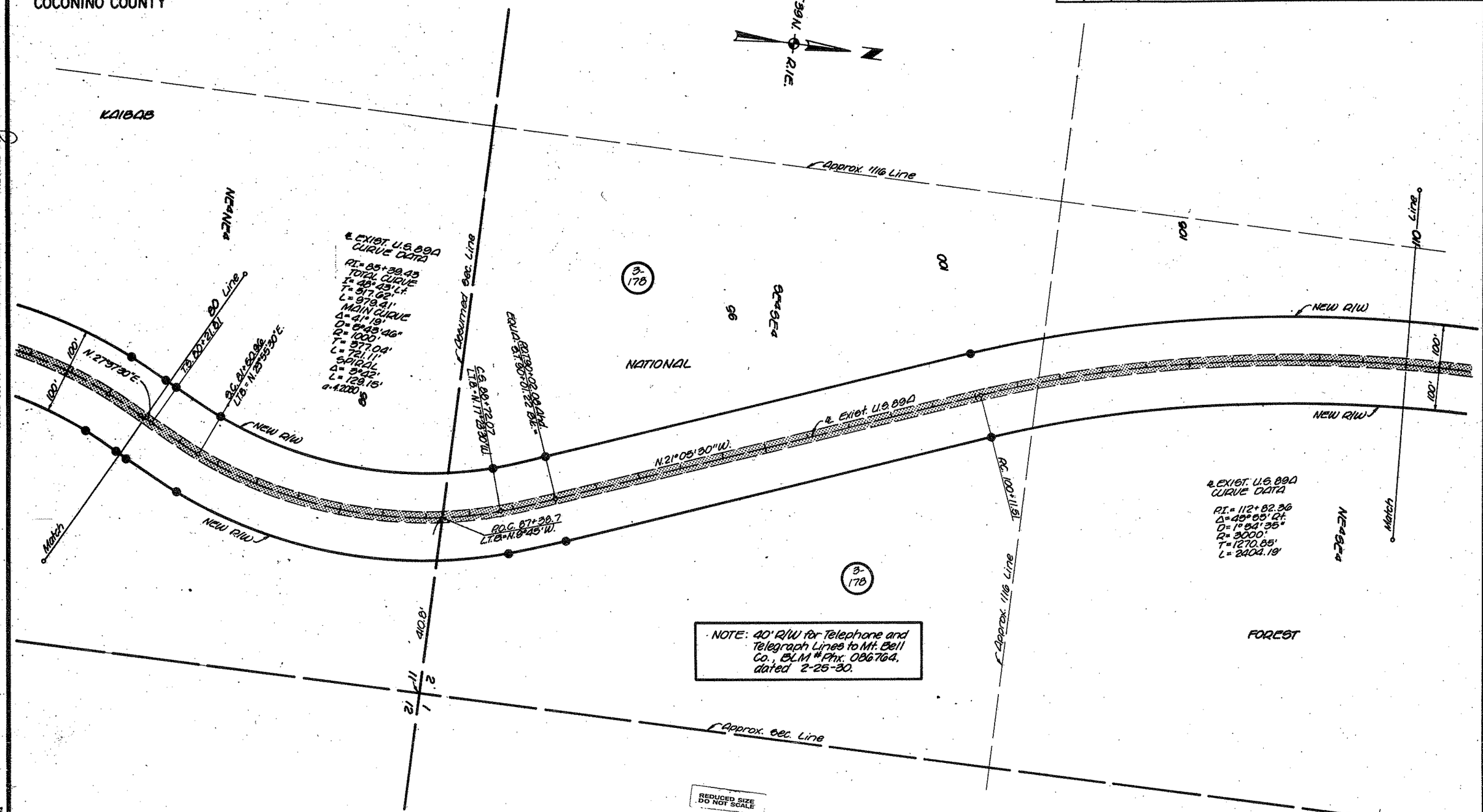
DRAWING 44-612

NAVAJO BRIDGE—FREDONIA HIGHWAY
EAST KAIBAB BNDRY.—WEST KAIBAB BNDRY.
COCONINO COUNTY

REVISIONS			
C.O. No.	DATE	BY	DESCRIPTION

PROJECT NO.	F-037-3-602
DRAWING NO.	D-3-T-611
SHEET NO.	45 OF 53
DRAWN BY	LMF
DATE COMP.	11-30-77
SCALE	1"=100'



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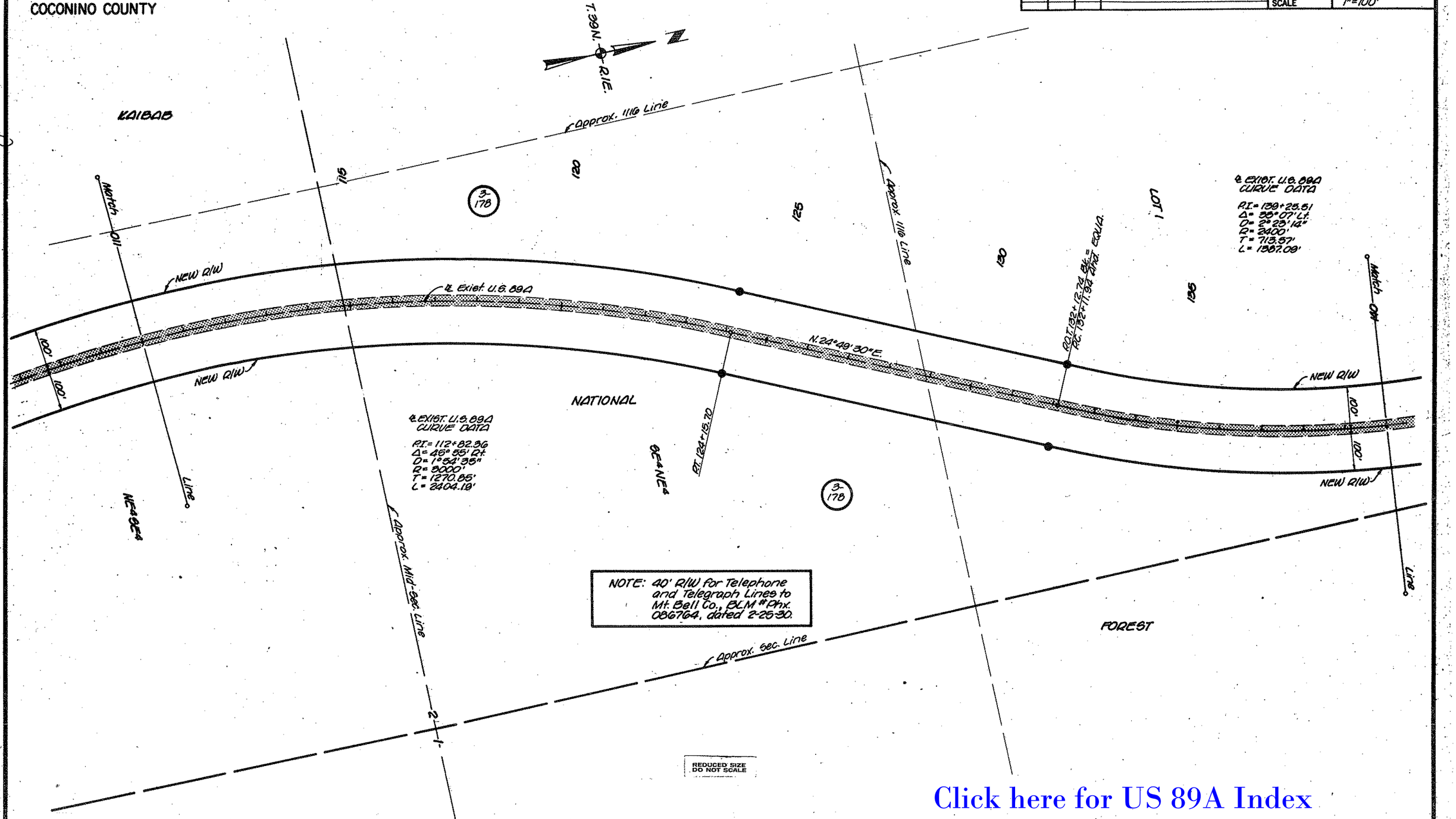
NAVAJO BRIDGE—FREDONIA HIGHWAY
EAST KAIBAB BNDRY.—WEST KAIBAB BNDRY.
COCONINO COUNTY

REVISIONS			
C.O. No.	DATE	BY	DESCRIPTION

PROJECT NO.	F-037-3-602
DRAWING NO.	D-3-T-611
SHEET NO.	46 OF 53
DRAWN BY	LMF
DATE COMP.	11-30-77
SCALE	1"=100'



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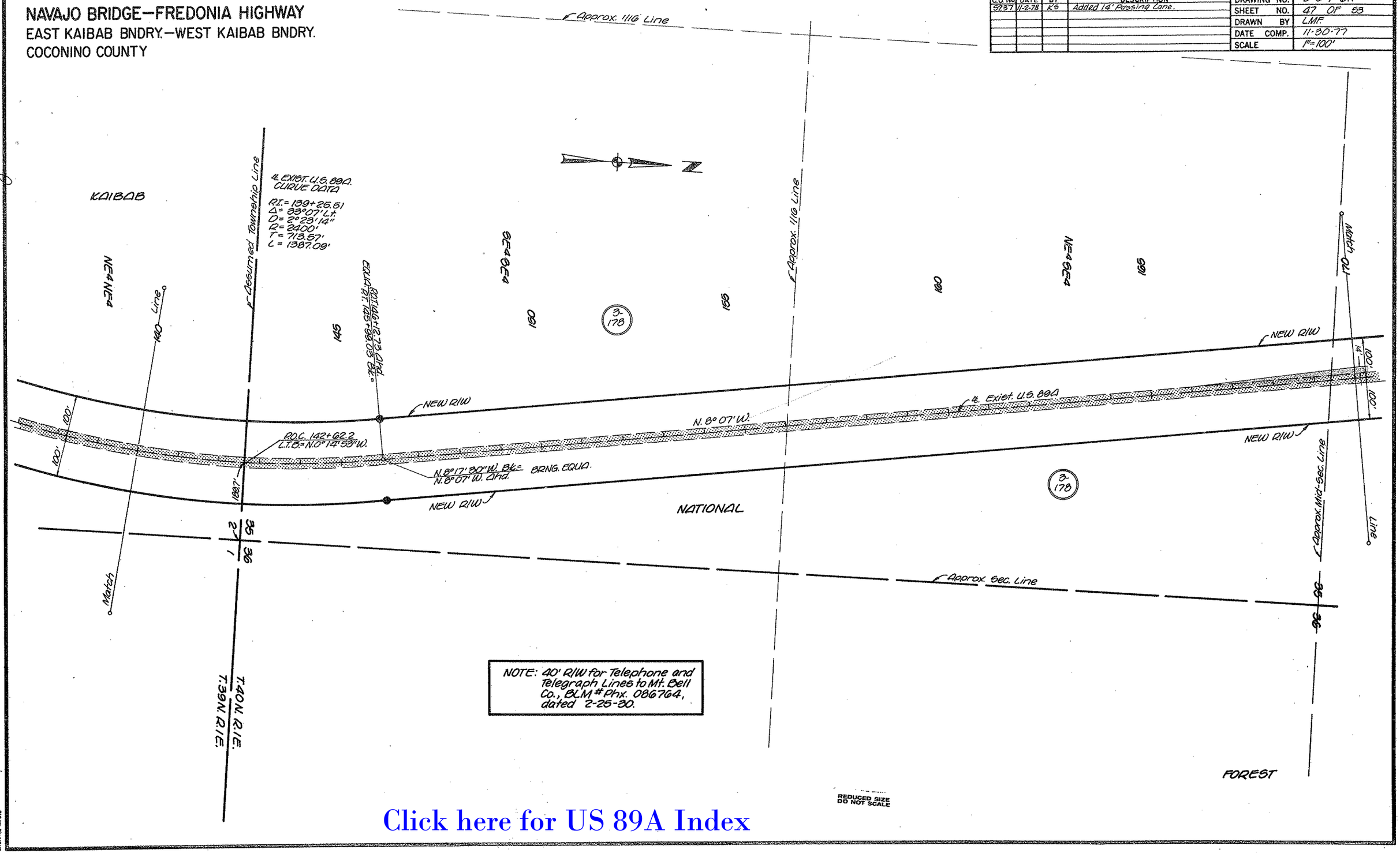
DRAWING 44-512

NAVAJO BRIDGE—FREDONIA HIGHWAY
EAST KAIBAB BNDRY.—WEST KAIBAB BNDRY.
COCONINO COUNTY

REVISIONS			
C.O. No.	DATE	BY	DESCRIPTION
5237	11-2-78	KS	Added 14' Passing Lane.

PROJECT NO.	F-037-3-602
DRAWING NO.	D-3-T-611
SHEET NO.	47 OF 53
DRAWN BY	LMF
DATE COMP.	11-30-77
SCALE	1"=100'



NOTE: 40' R/W for Telephone and Telegraph Lines to Mt. Bell Co., BLM # Phx. 086764, dated 2-25-30.

REDUCED SIZE DO NOT SCALE

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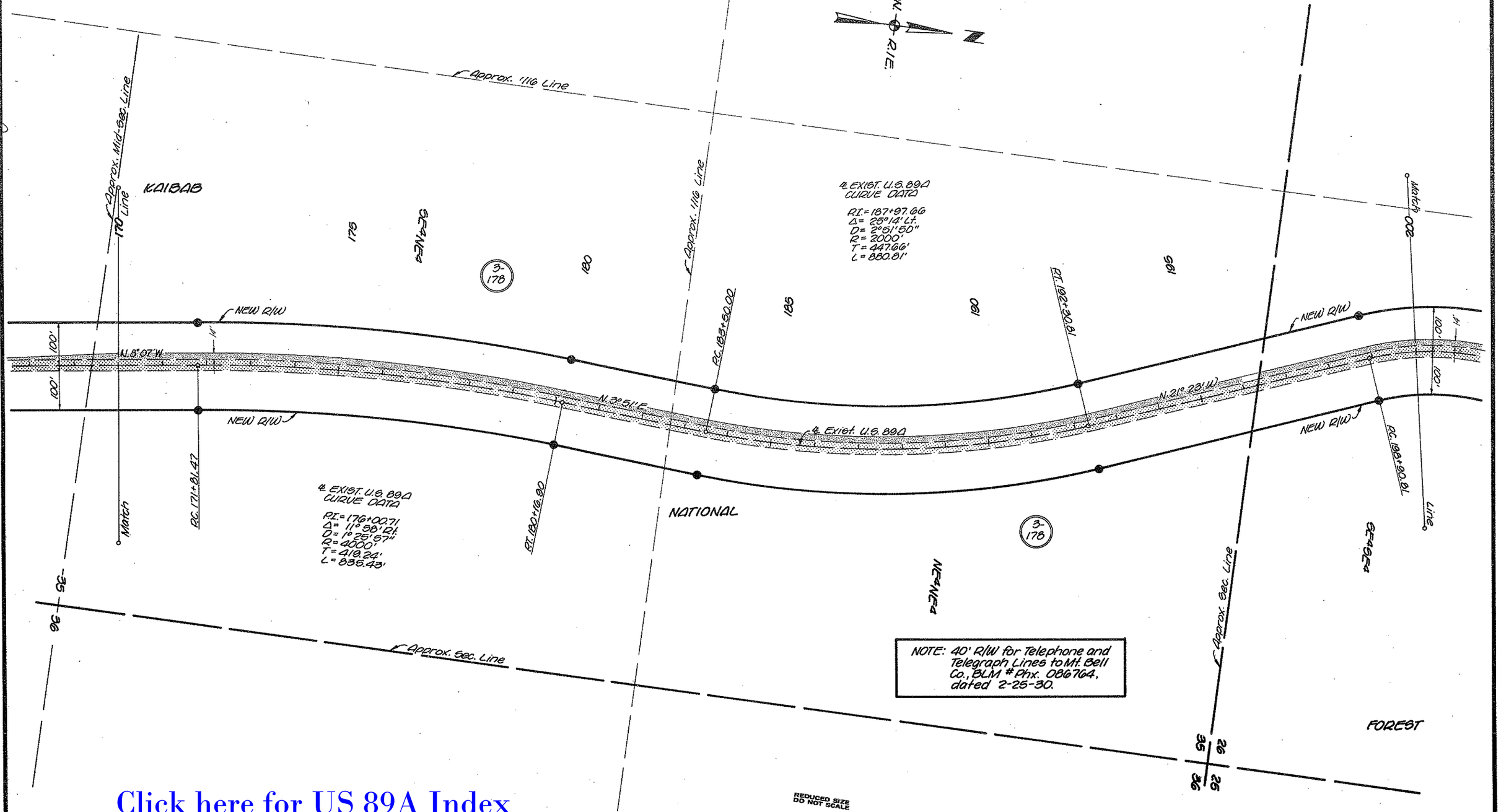
NAVAJO BRIDGE—FREDONIA HIGHWAY
EAST KAIBAB BNDRY.—WEST KAIBAB BNDRY.
COCONINO COUNTY

REVISIONS			
C.O. No.	DATE	BY	DESCRIPTION
5237	11-02-78	KS	Added 14' Passing Lane.

PROJECT NO.	F-037-3-602
DRAWING NO.	D-3-T-611
SHEET NO.	48 OF 53
DRAWN BY	LMF
DATE COMP.	11-30-77
SCALE	1"=100'



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HARD COPY Forest Plans (As Bits)

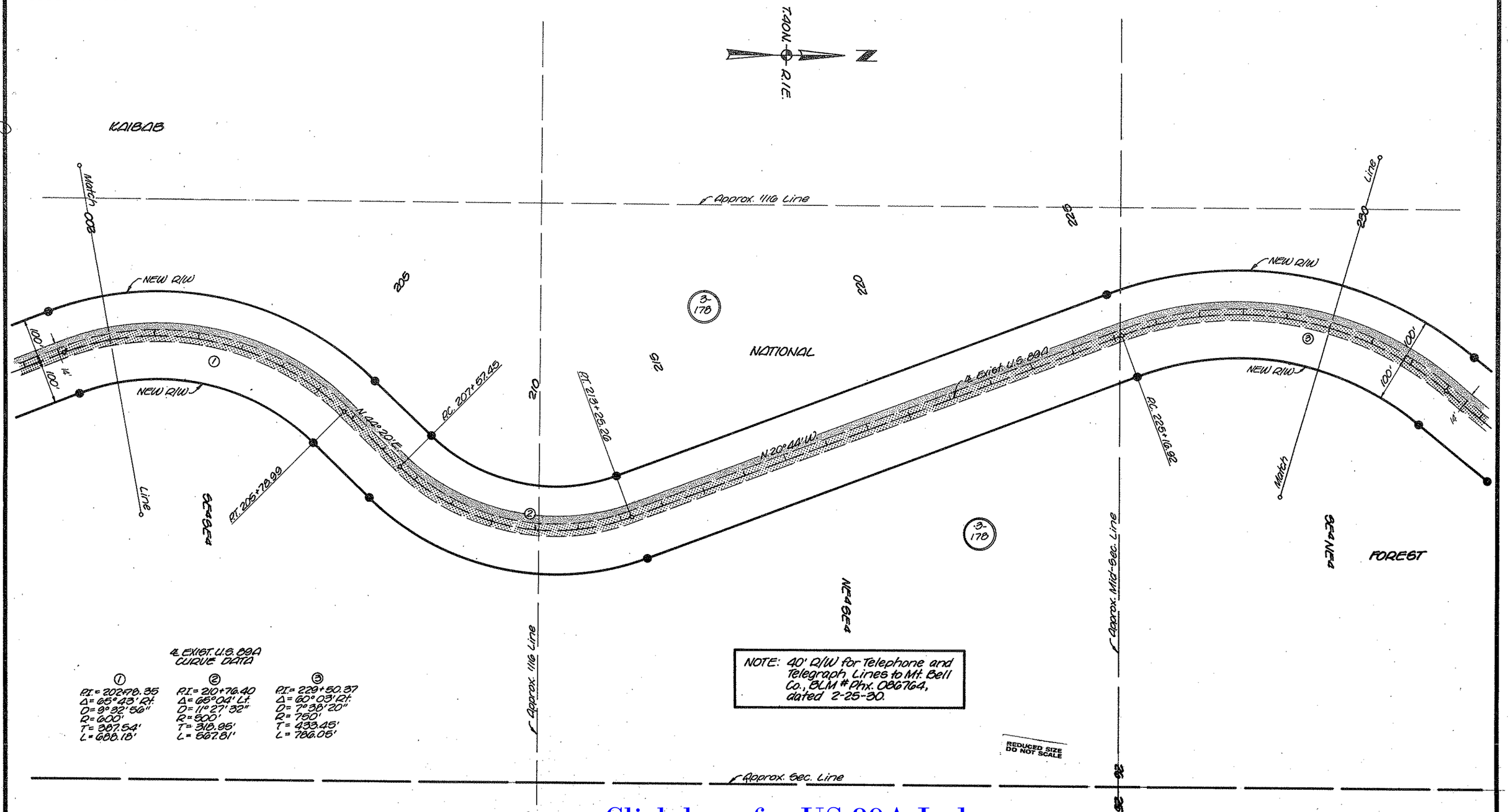
FH-28-D2

BRUNING 44-512

NAVAJO BRIDGE—FREDONIA HIGHWAY
EAST KAIBAB BNDRY.—WEST KAIBAB BNDRY.
COCONINO COUNTY

REVISIONS			
C.O. No.	DATE	BY	DESCRIPTION
5237	11-2-78	KS	Added 14' passing Lane

PROJECT NO.	F-037-3-602
DRAWING NO.	D-3-T-611
SHEET NO.	49 OF 53
DRAWN BY	LMF
DATE COMP.	11-30-77
SCALE	1"=100'



℄ EXIST. U.S. 89A CURVE DATA

①	②	③
P.I.= 202+78.35	P.I.= 210+76.40	P.I.= 229+50.37
Δ= 65°43' Rt.	Δ= 65°04' Lt.	Δ= 60°03' Rt.
D= 9°32'56"	D= 11°27'32"	D= 7°38'20"
R= 600'	R= 500'	R= 750'
T= 387.54'	T= 318.95'	T= 433.45'
L= 688.18'	L= 567.81'	L= 786.05'

NOTE: 40' R/W for Telephone and Telegraph Lines to Mt. Bell Co., BLM # Phx. 086764, dated 2-25-30.

REDUCED SIZE DO NOT SCALE

FH-28-02

HARD COPY. Forest Plans (As Bits)

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BRUNING 44-512

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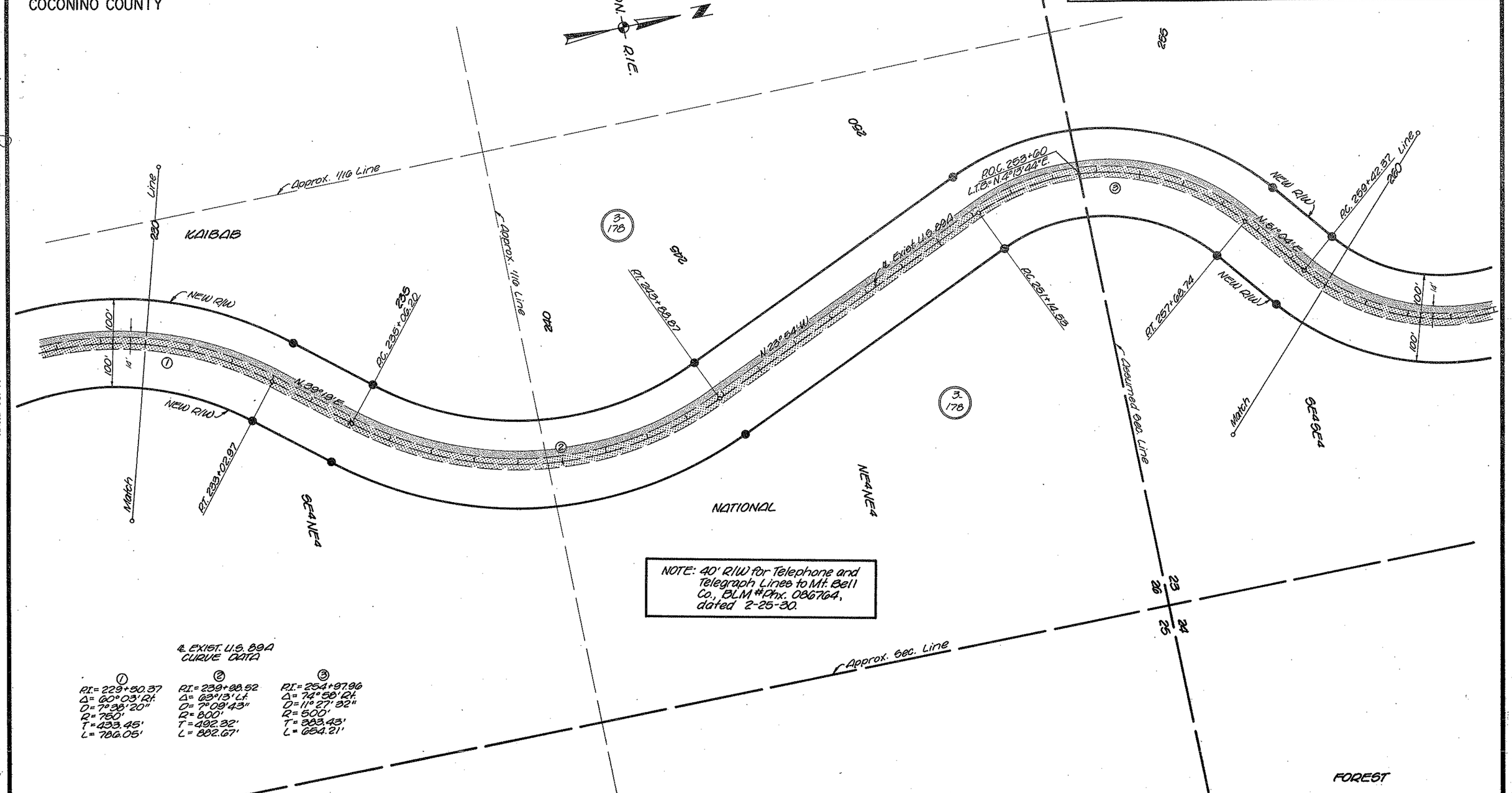
NAVAJO BRIDGE—FREDONIA HIGHWAY

EAST KAIBAB BNDRY.—WEST KAIBAB BNDRY.

COCONINO COUNTY

REVISIONS				
C.O. No.	DATE	BY	DESCRIPTION	
9237	11-2-78	KG	Added 14' passing lane.	

PROJECT NO.	F-037-3-602
DRAWING NO.	0-3-T-611
SHEET NO.	50 OF 53
DRAWN BY	LMF.
DATE COMP.	11-30-77
SCALE	1"=100'



NOTE: 40' R/W for Telephone and Telegraph Lines to Mt. Bell Co., BLM #Phx. 086764, dated 2-25-30.

℄ EXIST. U.S. 89A CURVE DATA

①	②	③
P.I.= 229+50.37	P.I.= 239+88.52	P.I.= 254+97.96
Δ= 60°03' Rt.	Δ= 63°13' Lt.	Δ= 74°58' Rt.
D= 7°38'20"	D= 7°09'43"	D= 11°27'32"
R= 750'	R= 800'	R= 500'
T= 433.45'	T= 492.32'	T= 383.43'
L= 786.05'	L= 882.67'	L= 654.21'

REDUCED SIZE DO NOT SCALE

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HARD COPY, Forest Blacks (As Bldg.) FH-28-02
CHECKED BY Jewel Bradshaw
BRUNING 44-512

NAVAJO BRIDGE—FREDONIA HIGHWAY
EAST KAIBAB BNDRY.—WEST KAIBAB BNDRY.
COCONINO COUNTY

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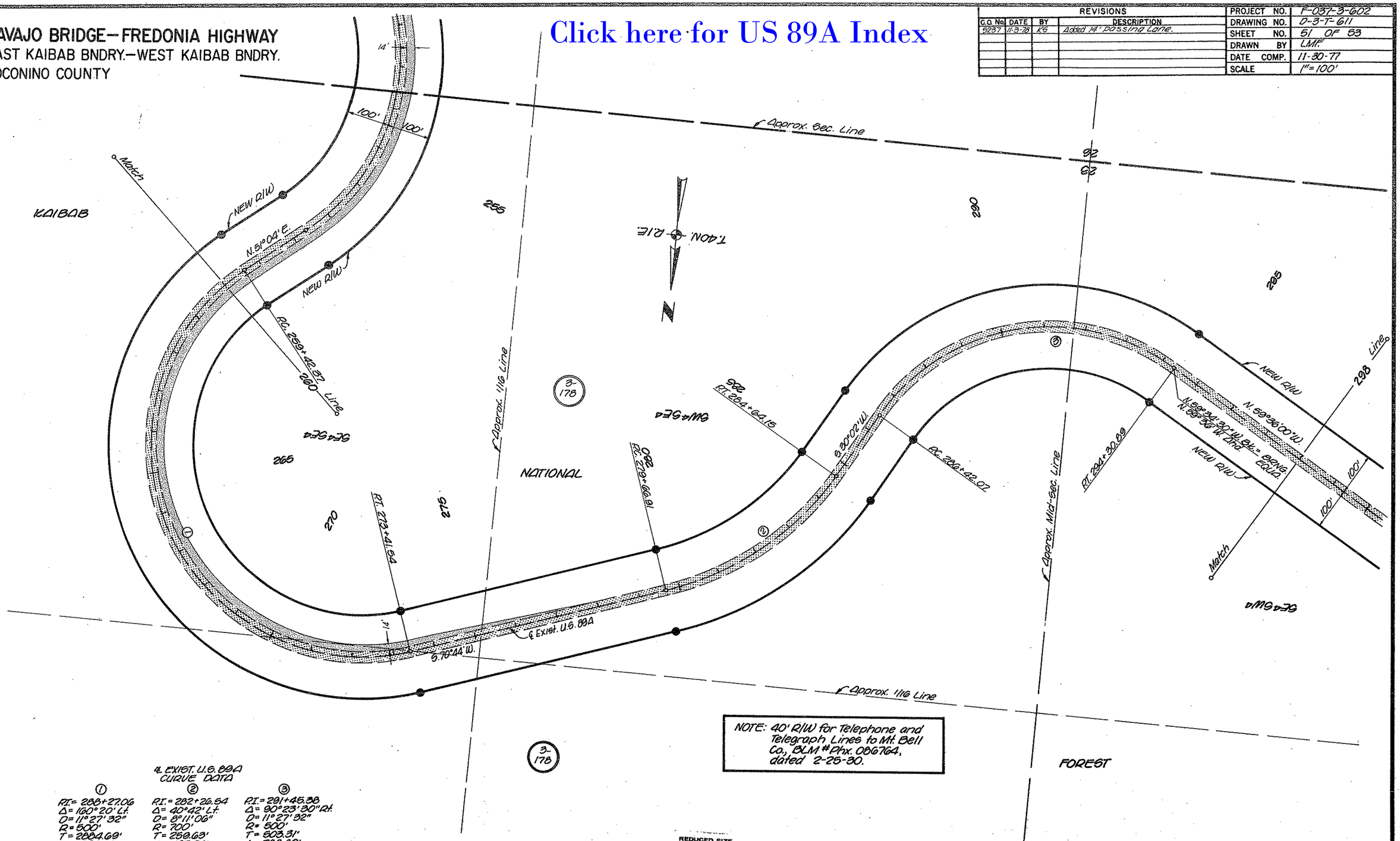
REVISIONS			
C.O. No.	DATE	BY	DESCRIPTION
5237	11-3-78	KS	Added 14' passing Lane.

PROJECT NO.	F-037-3-602
DRAWING NO.	D-3-T-611
SHEET NO.	51 OF 53
DRAWN BY	LMF
DATE COMP.	11-30-77
SCALE	1"=100'



NOTE: 40' R/W for Telephone and Telegraph Lines to Mt. Bell Co., BLM # Phx. 086764, dated 2-25-30.

℄ EXIST. U.S. 89A CURVE DATA

①	②	③
P.I.= 288+27.06	P.I.= 282+26.54	P.I.= 291+45.38
Δ= 160°20' Lt.	Δ= 40°42' Lt.	Δ= 90°23'30" Rt.
D= 11°27'32"	D= 8°11'06"	D= 11°27'32"
R= 500'	R= 700'	R= 500'
T= 2884.69'	T= 259.63'	T= 503.31'
L= 1399.17'	L= 497.24'	L= 788.82'

REDUCED SIZE DO NOT SCALE

HARD COPY. Forest Plans (As Bltg.) FH-28-02

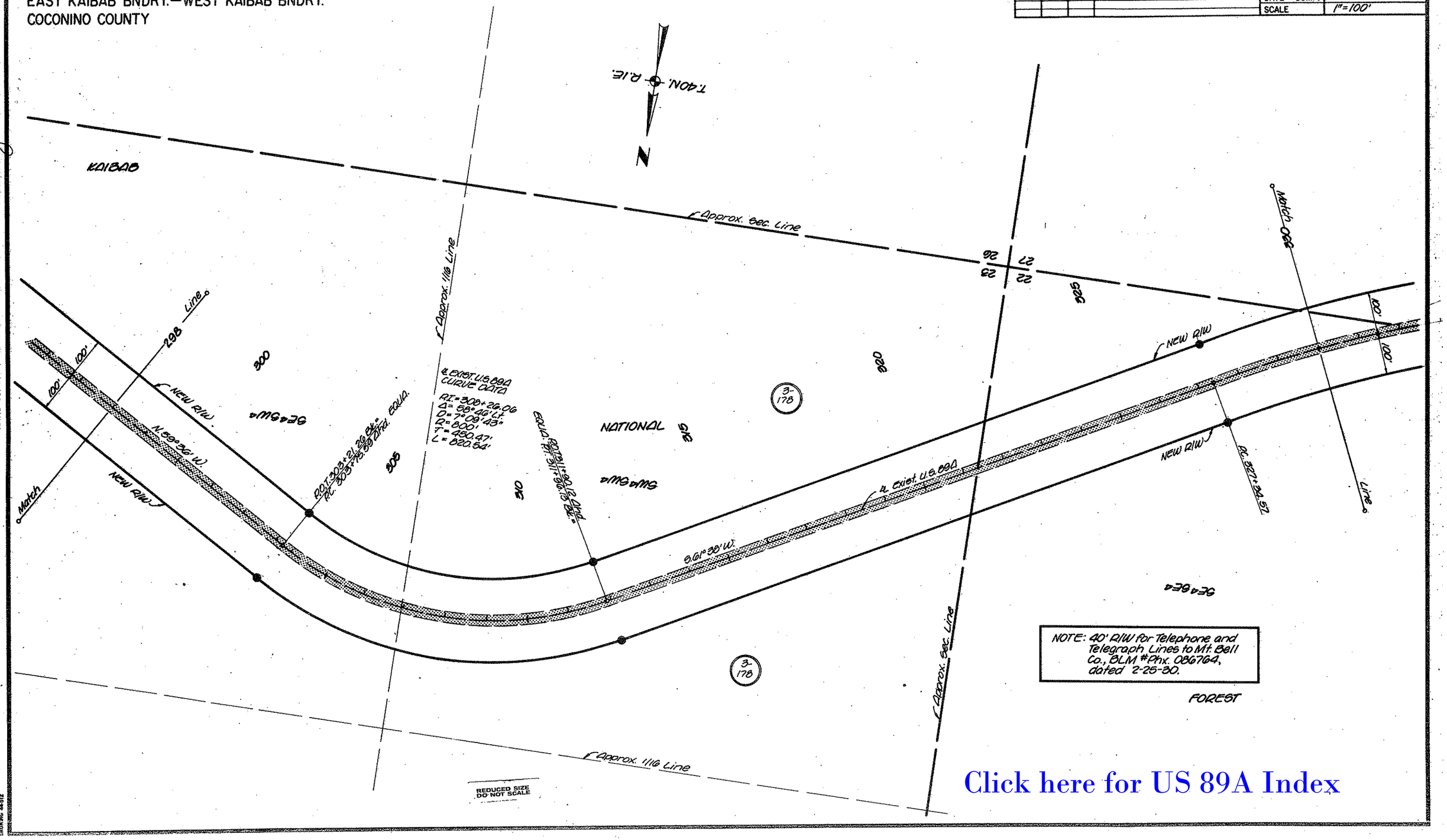
CHECKED BY

BRUNING 44-512

NAVAJO BRIDGE—FREDONIA HIGHWAY
EAST KAIBAB BNDRY.—WEST KAIBAB BNDRY.
COCONINO COUNTY

REVISIONS			
C.O. No.	DATE	BY	DESCRIPTION

PROJECT NO.	F-037-3-602
DRAWING NO.	D-3-T-611
SHEET NO.	52 OF 53
DRAWN BY	LMF
DATE COMP.	11·30·77
SCALE	1"=100'



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HARD COPY FH-28-02 Forest Plans (As Bits)

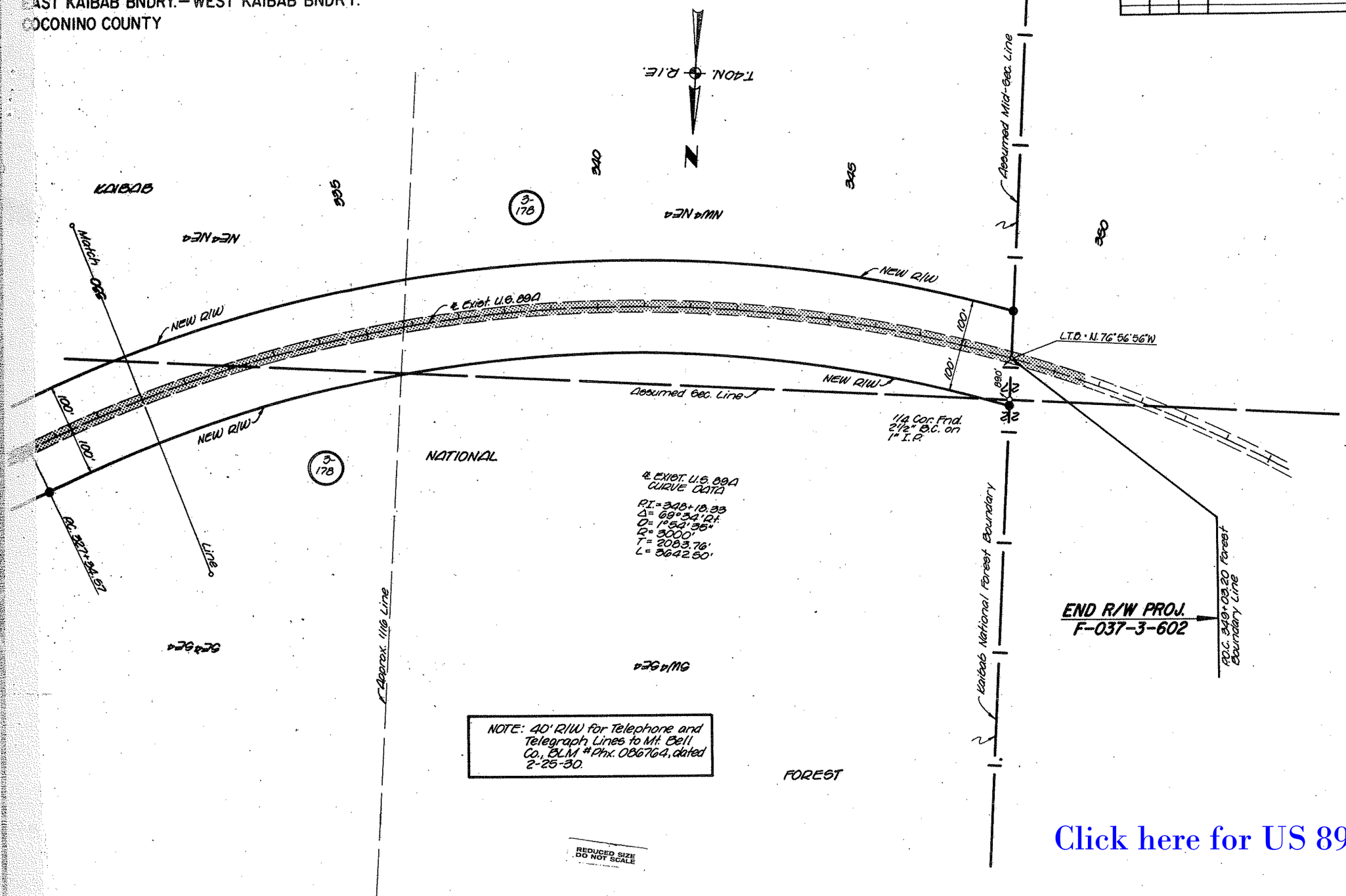
CHECKED BY

ERUNING 44-512

NAVAJO BRIDGE–FREDONIA HIGHWAY
EAST KAIBAB BNDRY.–WEST KAIBAB BNDRY.
COCONINO COUNTY

REVISIONS			
C.O. No.	DATE	BY	DESCRIPTION

PROJECT NO.	F-037-3-602
DRAWING NO.	D-3-T-611
SHEET NO.	53 OF 53
DRAWN BY	LMF
DATE COMP.	11-30-77
SCALE	1"=100'



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