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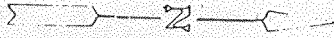
Allen Ross
728 Birdie
Grand Junction, CO 81506

R. Park Lanborn
728 Wedge Drive
Grand Junction, CO 81506

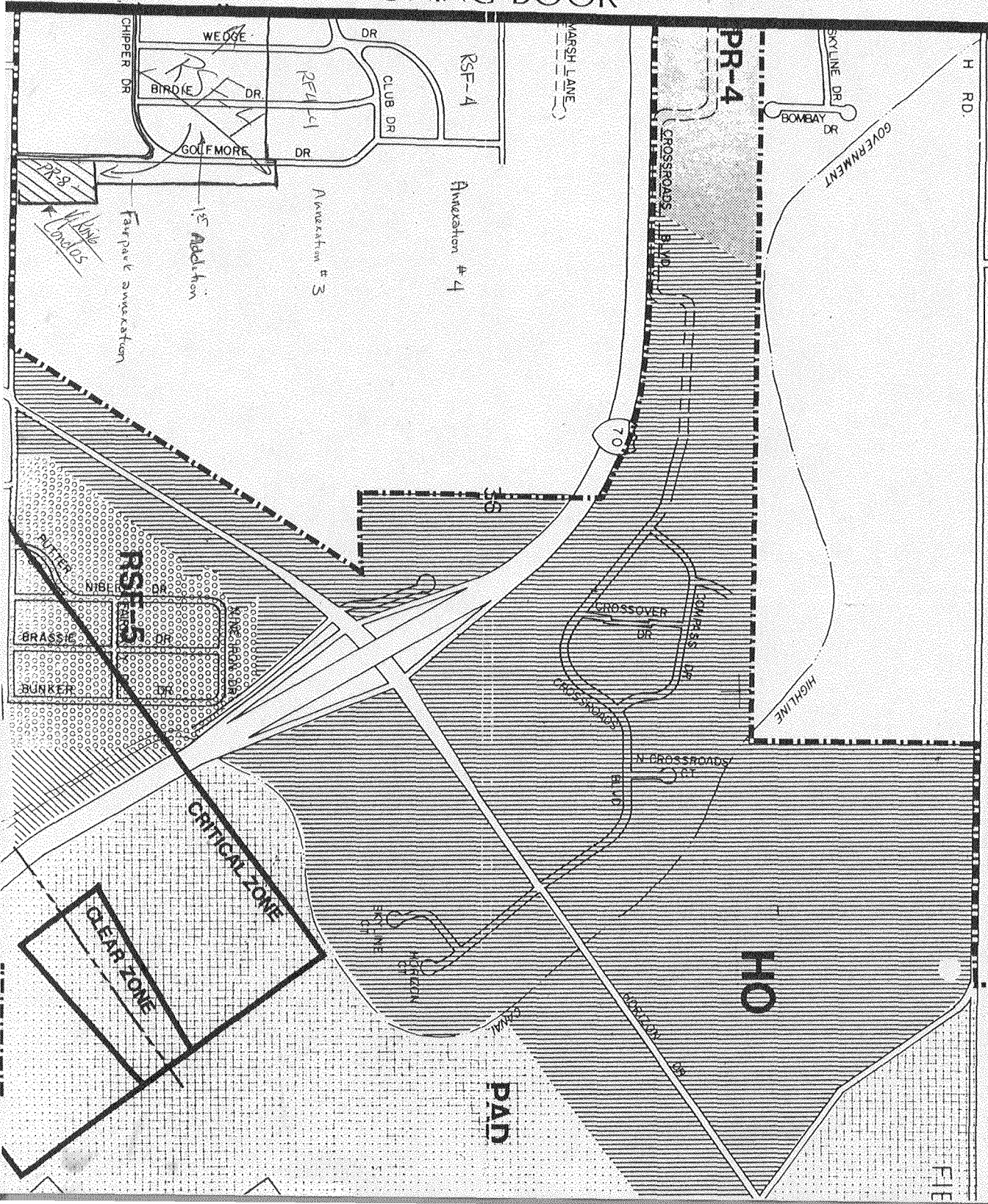
Harold E. Daniels
726 Birdie Drive
Grand Junction, CO 81506



SCALE 1:500
REVISED



CITY OF GRAND JUNCTION ZONING BOOK



#1-85 ZONE OF ANNEXATIONS IN 1985 TO THE CITY OF GRAND JUNCTION

Petitioner: City of Grand Junction. A request to zone the following annexation.
(Copies available at the Grand Junction Planning Department, 559 White Ave.
Room #60, 244-1648)

A. Fairway Park Annexation #3 (East of 12th Street, South of Club Drive)

RSF-4 (Residential Single Family at 4 units per acre)

Lots 5, 6, 7 Block 6; Lots 1 through 4 and 8 through 11 Block 5;
Lots 1 through 4 and 9 through 12 Block 4; Lots 1 and 2 Block 3. All
in Fairway Park Subdivision. Also, that part of Lot 4 Block 7 Fairway
Park 1st Addition described as beginning at Southeast corner Lot 2
Block 3 Fairway Park Subdivision thence West 163.8 feet, thence North
65° East 85 feet, thence South 67°31' East 93.9 feet to beginning.

Consideration of Zone of Annexation.

#1-85 Zone of Annexations in 1985 to the City of Grand Junction.

Petitioner: City of Grand Junction. A request to zone the following annexations.
(Copies available at the Grand Junction Planning Department, 559 White Avenue #60,
244-1628)

Golfmore Dr North of G. road

A. Fairway Park First Addition (East of ~~12th Street, North of Chipper Drive~~)

RSF-4 (Residential Single Family at 4 units per acre)

Beginning at a point 660 feet North of the Southwest Corner of Section 36, Township 1 North, Range 1 West, Ute Meridian, Thence East along the centerline of Chipper Drive to the intersection with the centerline of Golfmore Drive, thence North 372.06 Feet to a point East of the Northeast Corner of Lot 5, Block 5, Fairway Park Subdivision, thence West to the West line of Section 36, thence South to the point of beginning.

Above being Lot 5, Block 5, Fairway Park Subdivision and the 1st Addition to Fairway Park Subdivision except a part of Lot 4, Block 7, Fairway Park 1st Addition described as beginning at the Southeast Corner of Lot 2, Block 3, Fairway Park, thence West 163.8 Feet, Thence North 65° East 85 Feet, thence South $67^{\circ}31'$ East 93.9 Feet to the beginning.

Lots 8-14, Block 6, Fairway Park Subdivision.

#1-85 ZONE OF ANNEXATION IN 1985 TO THE CITY OF GRAND JUNCTION.

Petitioner: City of Grand Junction. A request to zone the following annexation:

A. Fairway Park Annexation #4 to

RSF-4 (Residential Single Family, 4 units per acre.)

Lots 1-4, Block 6; Lots 1-5, Block 2; Lots 1-7, Block 1,
all in Fairway Park Subdivision.

And Lot 3 of Duncan Minor Subdivision.

(Copies available at the Grand Junction Planning Department,
559 White Ave., Room #60, 244-1648.)

Consideration of Zone of Annexation.

1 85

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#1-85 Zone of Annexations in 1985 to the City of Grand Junction.

Petitioner: City of Grand Junction. A request to zone the following annexations.
(Copies available at the Grand Junction Planning Department, 559 White Avenue #60,
244-1628)

B. Fairway Park Subdivision (East of 12th Street, North of Chipper Drive)

PR8 (Planned Residential at 8 units per acre)

Lots 15 and 16, Block 6 Fairway Park Subdivision and beginning at the North-east Corner of Lot 15, thence East 100 Feet, thence South 310 Feet, Thence West 100 Feet, thence North 310 Feet to Beginning.

#1-85 Zone of annexations in 1985

Hearings:

A GJPC - 1-29-85 - APPROVED

GJPC - 2/26/85 - approved PRB VICKING CENDES

GJPC 10/29/85 Approved to RSF-4 Annexation #4 Fairway Park

CIC 11/20/85 Approved to RSF-4 Annexation #4 Fairway Park

12/04/85 ORDINANCE #2249 Fairway Park Annex #4 RSF-4

RECEIVED GRAND JUNCTION
PLANNING DEPARTMENT

DEC 23 1985

December 23, 1985

Grand Junction Planning Department
559 White Ave. Room 60
Grand Junction, Co. 81501

ATTN: Mr. Bob Goldin
Senior City Planner

Dear Mr. Goldin,

Attached you will find the new approach and departure procedures for our helicopter operations at Foresight Park. As before, I have made them a part of our company operations manual.

I am assuming you have received the results of the latest noise tests from the Mesa County Health Department. Our purpose of the study was threefold:

1. We wanted to determine approximate noise levels the surrounding neighbors could expect from their yards. Accordingly, we made the measurements from Mr. & Mrs Wanzer's front yard, up near the road. I feel that the decibel levels shown, from that point, would necessarily be the loudest possible. The second measurement point was located in the parking lot at the horse arena by the corner of $P\frac{1}{2}$ and 25 Roads to address the concerns of of the neighbors at the west end of the park.
2. We wanted a comparison of ground level noise from a helicopter overhead at 1,000 feet vs. 1,500 feet.
3. We wanted to be able to determine which type of approach and from which direction would offer the least amount of noise exposure for both sound level and duration. The same was done for departures.

The study was conducted with two unpracticed pilots flying the aircraft, again, to present a worst possible condition scenario. I also wanted to see how much of an effect pilot technique would have on noise. I, therefore, demonstrated the type of approach we wanted, and then turned over the controls of the aircraft to the other pilots. From then on, I rode along as an observer. Interestingly enough, it did not seem to matter who was doing the flying, as long as the noise abatement procedures were followed as outlined.

The results were about what I expected. While the new procedures attached reflect some minor changes, essentially they will not have much of an impact on noise when compared to the old procedures. I raised the altitude limits and restricted the approach and departure points. The heliport remains restricted to one departure and one approach per day, and noise exposure is limited to 8 minutes total. In actuality, our average has been under 7 minutes.

I believe when we put the trees in this spring, it will drastically reduce the noise across the street. We expect the trees to more or less "absorb" the noise rather than deflect it, as a fence would. Just as important, is value the trees will provide.

When we get together for the workshop we'll evaluate and compare all the results and information. I'm confident satisfactory arrangements can be made to the mutual benefit of both Mountain Bell and our surrounding neighbors. Let me know if I need to bring any other material to the workshop. Otherwise, I'll see you then.

Sincerely,

Mike Fergione



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Denver Regional Council of Governments

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MOUNTAIN BELL FILE COPY # 17-85

June 9, 1986

Mr. Mike Southerland, Planner Grand Junction Planning Department 559 White Avenue Room 60 Grand Junction, Colorado 81501

Dear Mike:

As promised, I have prepared a sample noise assessment for the two Mountain Bell helicopter landing areas. The first was calculated to be 200 feet from the property line of the sensitive residential area (hangar pad), the second was established at 800 feet (front lot pad). The ingress-egress routes were assumed to be to the south away from the residential area. Daily frequency of usage included one departure-one arrival to the hangar pad and ten departures-ten arrivals to the front lot pad.

A summary of the variables used in the noise formula assessment is as follows:

- Helicopter type: Bell 206L
Hangar Pad - 200' to property line
Number of operations (N) = 1 departure 1 arrival
Sound Exposure Levels (See Note) = 89.2 dBA (departure) 89.3 dBA (arrival)
Front Lot - 800' to property line
Number of operations (N) = 10 arrivals 10 departures
Sound Exposure Levels (See Note) = 80.1 dBA (departure) 80.9 dBA (arrival)

NOTE: Helicopter Noise Exposure Curves, Report No. FAA-EE-82-16, Table I-2, November 1982.

Based on these factors, the following average 24-hour Noise Equivalent Levels (Leq) result:

Hangar Pad: 42.9 dBA
Front Lot: 44.2 dBA
Combined: 46.6 dBA

According to HUD and EPA, the following are considered normally compatible community sound levels:

Board Officers
Linda Morton, Chairwoman
Sonya B. Blackstock, Vice Chairman
Robert L. Tonsing, Secretary-Treasurer
T.J. "Ted" Hackworth, Immediate Past Chairman
Robert D. Farley, Executive Director

Executive Committee
Sonya B. Blackstock, Chairman
Thomas R. Eggert, Vice Chairman
Marjorie E. Clement
T.J. "Ted" Hackworth
Linda Morton

Federico Peña
Ronald K. Stewart
Robert L. Tonsing
Leo M. Younger, Jr.

Mr. Mike Southerland, Planner
June 9, 1986
Page 2

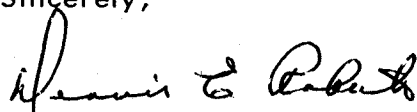
<u>Type of Usage</u>	<u>24-Hour Leq (dBA)</u>
Residential	
Suburban	57
Urban	67
City Center	72
Commercial	72
Industrial	77

From this assessment, it appears the Mountain Bell operation produces one-half of the allowable noise permitted within a suburban residential area. (Note: An increase of 10 dB represents a doubling of the noise.) These numbers are, however, based on national standards and are not meant to reflect current conditions or standards in Grand Junction. However, as the local code does not contain any specific Leq noise limits, it must be assumed the national averages would be applicable.

I hope this information is helpful in your assessment of helicopter activity. As I stated at the meeting, the FAA's methodology is used in the Denver Metropolitan Area, accepted by EPA and HUD, and has been adopted by the helicopter industry as the most comprehensive method available to local governments for evaluating helicopter noise. I encourage Grand Junction to consider this as an objective method for determining impacts in their heliport siting approval process.

A detailed description of the calculations is enclosed. If you have any questions, please give me a call.

Sincerely,



Dennis E. Roberts
Regional Aviation Planner

DER:rce

Enclosure

cc: Mr. Richard Bucknell
 Mr. Mike Fergione

Detailed Assessment of Mountain Bell Heliport Facilities

(Based on FAA A/C 150-5020-2)

HANGAR PAD

L = (approach) @ 200' = 89.3 dBA

L = (departure) @ 200' = 89.2 dBA

Operations (N) : 1 arrival per day
1 departure per day

$$L_{eq} = 10 * \text{LOG} \left(N * \left(10^{\frac{8.93}{10}} + 10^{\frac{8.92}{10}} \right) \right)$$

86,400

L = 42.9 dBA
eq

PARKING PAD

L = (approach) @ 800' = 80.9 dBA

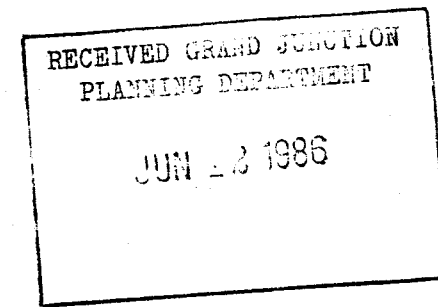
L = (departure) @ 800' = 80.1 dBA

Operations (N) : 10 Arrivals per day
10 Departures per day

$$L_{eq} = 10 * \text{LOG} \left(10 * \left(10^{\frac{8.09}{10}} + 10^{\frac{8.01}{10}} \right) \right)$$

86,400

L = 44.2 dBA
eq



Detailed Assessment of Mountain Bell Heliport Facilities (Cont.)

(Based on FAA A/C 150-5020-2)

COMBINED OPERATIONS (both pads)

L = (approach) @ 200' : 89.3 dBA

Operations (N) : 1 in--1 out

L = (departure) @ 200' : 89.2 dBA

L = (approach) @ 800' : 80.9 dBA

Operations (N) : 10 in--10 out

L = (departure) @ 800' : 80.1 dBA

$$L_{eq} \text{ (Combined)} = 10 * \text{LOG} \left(\frac{1 * [1 * 10^{8.92} + 10^{8.93}] + [10 * 10^{8.09} + 10^{8.01}]}{86,400} \right)$$

$$L_{eq} \text{ (Combined)} = 46.59 \text{ dBA}$$

Note: Helicopter noise outputs based on the following report:

Helicopter Noise Exposure Curves for use in Environmental
Impact Assessments, DOT-FAA, Report No.
FAA-EE-82-16, Table I-1, November 1982.

Helicopter Noise Exposure Curves

for Use in

Environmental Impact Assessment

by
J. Steven Newman
Edward J. Rickley
Tyrone L. Bland

November 1982
Final Report

U.S. Department of Transportation
Federal Aviation Administration
Office of Environment and Energy
Washington, D.C. 20591

Document Is Available to the U.S.
Public Through the National
Technical Information Service
Springfield, Virginia 22161

Report No. FAA-EE-82-16



U.S. Department
of Transportation
**Federal Aviation
Administration**

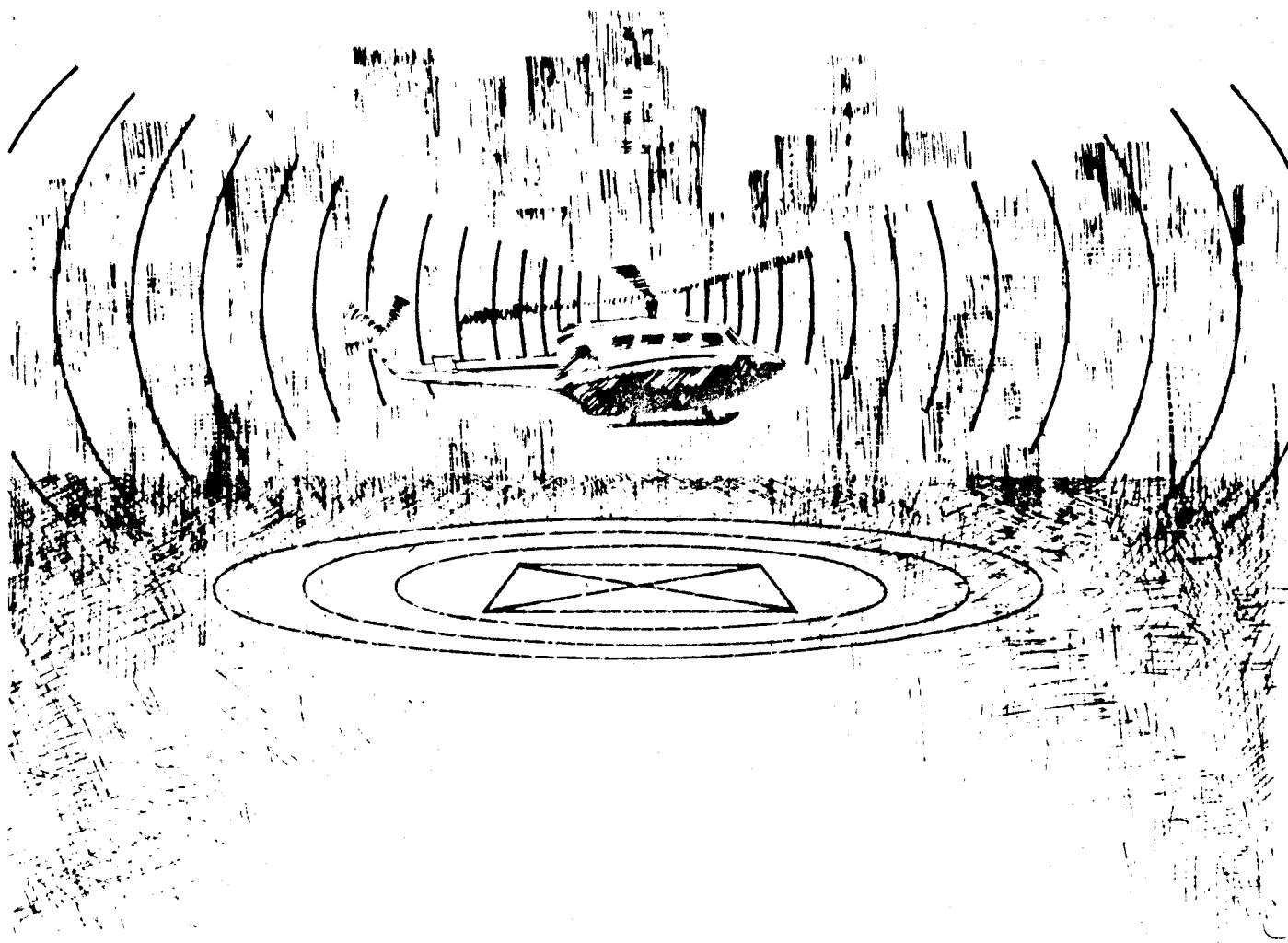


TABLE: I1

BELL 206L TAKEOFF/APPROACH DATA TABLE

<u>CPA Distance (FT)</u>	<u>TAKEOFF SEL (dB)</u>	<u>APPROACH SEL (dB)</u>
200	89.2	89.3
400	84.9	85.2
600	82.3	82.7
800	80.1	80.9
1000	78.7	79.4
2000	73.4	74.7
4000	67.9	69.4
6000	63.9	65.7
10000	58.3	60.4

Takeoff Notes

Vy (Speed for best rate of climb) = 52 kts

BRC (Best rate of climb) = 1380 feet per minute (fpm)

Climb Angle (degrees) = 15.2°

Climb Gradient (Run/Rise) = 3.7

Takeoff Weight = 4,000 lbs

Approach Notes

Vy (Speed for best rate of climb) = 52 kts

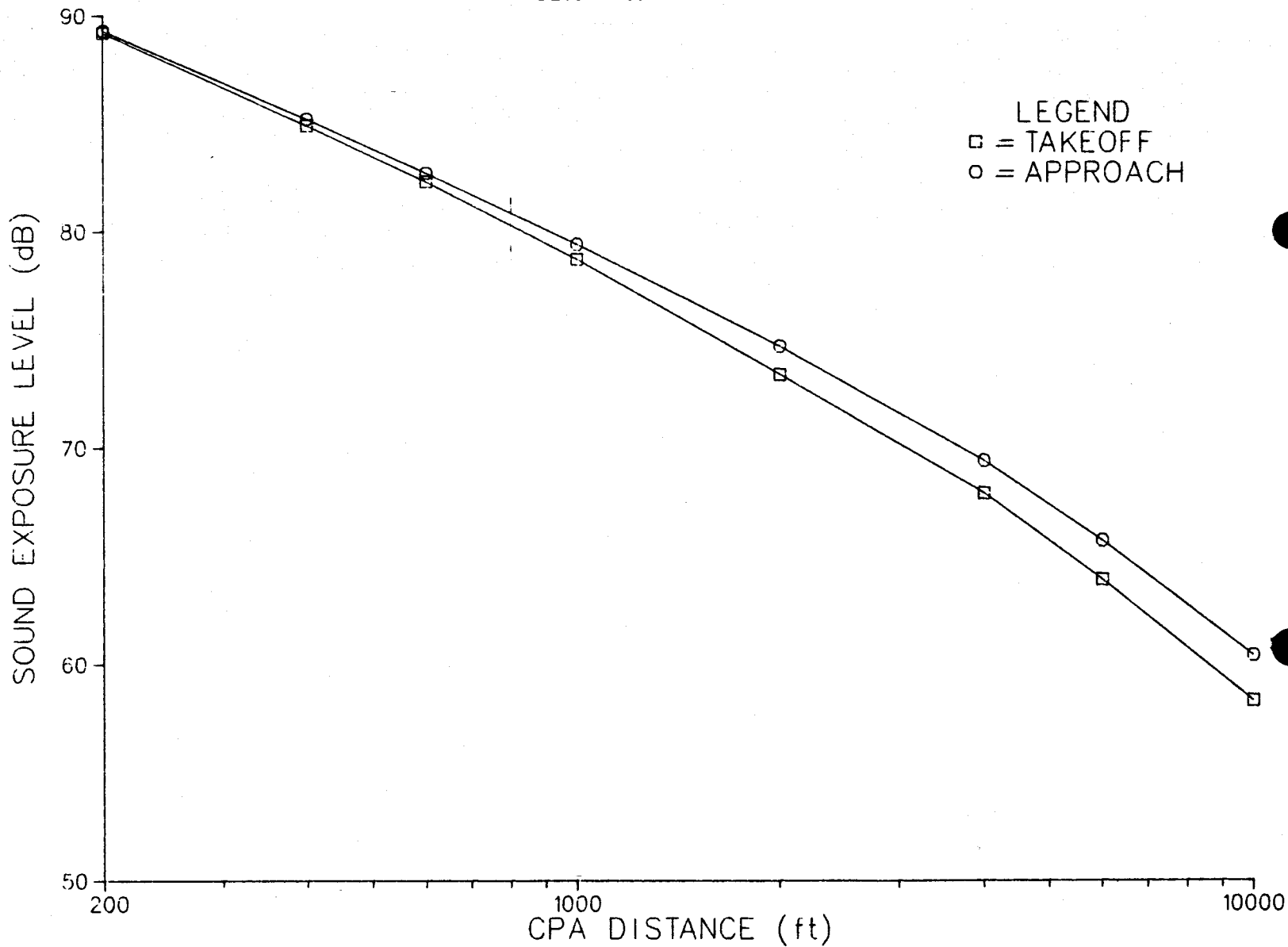
Approach Angle (degrees) = 6°

BELL 206L NOISE CURVES

SEL versus CPA Distance

TAKEOFF/APPROACH

FIGURE 11





Grand Junction Planning Department
559 White Ave. Room 60
Grand Junction, Colorado 81501-2643
(303) 244-1628

February 10, 1986

Mr. Mike Fergione
Mountain Bell Telephone Co.

Dear Mike:

As we discussed, I've met with Karl Metzner, Director of Planning, on your dilemma of Mtn. Bell wanting to plant trees along F 1/4 Road, but not without approval of your heliport operations.

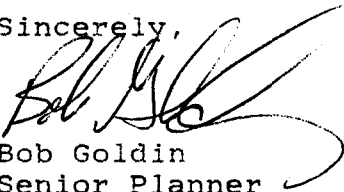
We plan on meeting with the Growth and Planning Committee of the City Council on March 4, 1986 and with the Grand Junction Planning Commission at a workshop on March 11, 1986 to go over what directions and decisions our department should pursue in regards to heliport operations. A hearing date of March 25, 1986 has been tentatively set for the Grand Junction Planning Commission to review your heliport.

The results of these meetings and hearings will determine what criteria, if any, we will attempt to utilize in developing heliport regulations and especially what the Mtn. Bell heliport facility may be required to do.

You are invited to attend these meetings to provide input and your perspectives on heliport operations. An agenda will be developed as soon as possible. I'm sorry we cannot accommodate you sooner; we originally planned on February 4th, but the meeting was postponed until March at the City Manager's request.

If you have questions, please feel free to call.

Sincerely,


Bob Goldin
Senior Planner

BG/tt

xc: Karl Metzner
Mike Sutherland