

BEFORE THE LAND USE BOARD OF APPEALS
OF THE STATE OF OREGON

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COLUMBIA RIVER TELEVISION,)
)
Petitioner,)
)
vs.)
)
MULTNOMAH COUNTY and GREATER)
PORTLAND BROADCASTING CORP.,)
)
Respondent.)

LUBA No. 84-016

FINAL OPINION
AND ORDER ON REMAND

On remand from the Court of Appeals.

Mark R. Feichtinger and David G. Ellis, Portland, filed the
Petition for Review and argued the cause on behalf of
petitioner. With them on the brief were Stoel, Rives, Boley,
Fraser & Wyse.

Stephen T. Janik, Portland, filed a response brief and
argued the cause on behalf of Respondent Greater Portland
Broadcasting Corp. With him on the brief were Ball, Janik &
Novack.

No appearance by Multnomah County.

DUBAY, Referee; BAGG, Referee, participated in the decision.

AFFIRMED 01/07/86

You are entitled to judicial review of this Order.
Judicial review is governed by the provisions of ORS 197.850.

1 Opinion by DuBay.

2 NATURE OF DECISION

3 This appeal is of the county's approval of a community
4 service designation to allow construction of a television and
5 radio transmitting tower.

6 FACTS

7 The county planning commission approved the applicant's
8 proposal to build an 1,129 foot tower on high ground west of
9 the City of Portland. Petitioner, the owner of a tower on land
10 adjacent to the proposed tower site, appealed the decision to
11 the county board of commissioners. After additional hearings,
12 the commissioners upheld the planning commission's approval.

13 County Ordinance 330, codified as Multnomah County Code
14 (MCC) 11.15.7035, regulates the location of TV towers in urban
15 residential areas of the county. To minimize proliferation of
16 new towers, the ordinance promotes sharing space so that six TV
17 antennas can be located on either of two new towers. MCC
18 11.15.7035(A). New towers must be constructed to accommodate
19 the maximum number of additional antenna users technically
20 practicable, and the tower owners must negotiate for, and lease
21 tower space to, other antenna owners. MCC
22 11.15.7035(B)(6).¹ Although space for a television antenna
23 is available on petitioner's tower, the decision under review
24 allows construction of a new tower without using the available
25 space on petitioner's tower.

26

1 FIRST ASSIGNMENT OF ERROR

2 Petitioner alleges the county decision was based on a
3 standard (parity of signal strength) which is not in the county
4 zoning ordinance. The applicable standard, according to
5 petitioner, is in MCC 11.15.7035(B)(1):

6 "Shared Use of Existing Towers.

7 "A new transmission tower shall not be permitted in an
8 urban residential district unless the applicant makes
9 a good faith effort to substantially demonstrate that
10 no existing or planned tower approved after the
effective date of this ordinance can accommodate the
applicant's proposed antenna/transmitter as described
below."

11 The county found the applicant had demonstrated compliance
12 with this criterion. To arrive at this conclusion, the county
13 found (1) petitioner's tower could not support an antenna as
14 heavy as proposed, and (2) the tower could not provide
15 broadcast coverage as well as the proposed tower. This
16 assignment of error challenges the latter finding.

17 The only available location for applicant's antenna on the
18 existing tower is 305 feet below the top of the tower. The
19 county found the low position "would result in a substantial
20 loss in market coverage amounting to an unusual cost of
21 accommodation," and "would be an economical hardship to require
22 the applicant to locate its antenna on the . . . (petitioner's)
23 tower considering the demonstrated loss of signal coverage at
24 that location."

25 Petitioner says the county based its decision on a new and
26 unwritten criterion by using parity of signal strength as a

1 standard to measure compliance with MCC 11.15.7035(B)(1).
2 According to petitioner, the county's reliance on a new
3 standard not set forth in the county's ordinance violates ORS
4 215.416(6).²

5 Petitioner's arguments are summarized as follows:

- 6 1. There is no language in Ordinance 330 addressing
7 parity of signal strength of different antennas
8 on the same tower, nor is parity defined.
- 9 2. At the hearing, the county commissioners
10 recognized that the ordinance lacked a standard
11 based on parity of signal strength.
- 12 3. The person responsible for drafting Ordinance 330
13 testified that parity among users of one tower
14 was not considered in the ordinance.
- 15 4. Decisional authority supports the view that ORS
16 215.416(6) requires that county regulations must
17 set forth all standards and criteria.
- 18 5. If parity of signal strength is to be an element
19 of "accommodation" as used in Ordinance 330, it
20 may not be imposed in the first instance in
21 quasi-judicial proceedings.

22 Applicants for new towers must give existing tower owners
23 certain information about the proposed antenna. MCC
24 11.15.7035(B)(1)(c)(i) and (F)(2)(e) through (l). The
25 applicant must also ask the tower owner whether the tower can
26 structurally accommodate the proposed antenna and whether
shared use of the tower would be precluded by reasons of radio
interference. In addition, the tower owner must be asked what
fees will be charged for the applicant's use.

The county code has no provisions for comparisons between
signal coverage possible from different locations on one

1 tower.³ Neither does the code specify what facts must or can
2 be considered in assessing whether an existing tower can
3 accommodate a proposed antenna. The structural strength of the
4 tower, certainly, is a factor, but we do not believe, as
5 petitioner seems to assert that "accommodation" as used in MCC
6 11.15.7035(B)(1) is limited to consideration of structural
7 strength.⁴

8 ORS 215.416(8) does not require perfect standards, but only
9 standards that are clear enough for an applicant to know what
10 must be shown during the application process. Lee v. City of
11 Portland, 57 Or App 798, 646 P2d 662 (1982). Whether a general
12 standard adequately informs an applicant what he must show to
13 obtain a permit calls for a reasonableness test similar to the
14 approach we used in Dougherty v. Tillamook Co., 12 Or LUBA 20
15 (1984). In Dougherty the petitioners claimed findings
16 addressing a generally-worded standard (significant impact on
17 non-resource related development) did not take account of
18 several possible conflicts cited by petitioners. We held it is
19 unreasonable to require findings on all possible conflicts.
20 Only facts and circumstances a reasonable person would take
21 into account under a generally-worded standard need be
22 addressed.

23 In contrast with Dougherty, where the petitioner alleged
24 insufficient facts were considered, petitioner here alleges too
25 many facts were considered. Nevertheless, a test similar to
26 the test formulated in Dougherty will identify what factors may

1 be considered in order to conclude a general standard is
2 satisfied. Using this approach, the test here is if it is
3 reasonable to consider equality of broadcast coverage with
4 other television stations when assessing whether an existing
5 tower can accommodate the antenna for a new station.

6 As we noted, an applicant is required to submit certain
7 information about the proposed antenna to existing tower
8 owners. The information enables the tower owner to advise the
9 applicant if the tower can accommodate the proposed antenna.
10 The height of the proposed antenna must be submitted and
11 considered by the tower owner.⁵ Since the ordinance requires
12 tower owners to take account of antenna heights, we conclude
13 antenna height and the effect of antenna height on the
14 applicant's broadcasting requirements are reasonable
15 considerations in assessing whether the general standard of MCC
16 11.15.7035(B)(1) is satisfied. We therefore reject
17 petitioner's claim the county did not base its decision on the
18 standards in the zoning ordinance.

19 The first assignment of error is denied.

20 SECOND ASSIGNMENT OF ERROR

21 Petitioner says the findings that the existing tower can
22 not accommodate the proposed antenna are not supported by
23 substantial evidence. As noted previously, the county found
24 the tower can not accommodate the antenna for two reasons: (1)
25 the tower can not structurally support the antenna; and (2) use
26 of the available position on the tower would result in a

1 substantial loss in broadcast coverage. In this assignment of
2 error, petitioner challenges the evidentiary bases of both
3 findings.

4 Tower Strength

5 The county's order sets out the physical characteristics of
6 the proposed antenna and its co-axial cable.⁶ Both applicant
7 and petitioner presented expert evidence about the existing
8 tower's design strength. The applicant's expert, Mr. R. E.
9 Skinner, provided a report based upon the design specification
10 submitted to the county in 1982 when the tower was approved.
11 According to the Skinner report, the available TV antenna
12 location was designed for use by a Washington public television
13 station, Channel 14. The report asserts the proposed antenna
14 and cable requires greater structural capacity than designed
15 for the antenna and cable of Channel 14. The report notes the
16 proposed antenna is 5 percent heavier and has 22 percent
17 greater windloading than the Channel 14 antenna. The weight of
18 the 8 3/16 inch transmission cable for the proposed antenna is
19 34 percent greater than the 6 1/8 inch cable Channel 14 would
20 have used. Record 954.

21 The Skinner report concludes:

22 "that the KPDX tower cannot, as constructed,
23 structurally accommodate the proposed Channel 24
24 antenna and transmission line and it is even
25 questionable about accommodating the designed for
26 Channel 14 antenna. Further, we doubt that it can be
strengthened to accommodate the increased loads. It

1 already has one of the steepest, if not the steepest,
2 top guy angles of any guyed tower ever constructed."
Record 353.

3 Petitioner's evidentiary challenge asserts the Skinner
4 report is not reliable because it is based on a false
5 assumption. Petitioner presented evidence that its tower had
6 the design capacity available to support more than the Channel
7 14 antenna considered by Skinner. When the county approved
8 petitioner's tower in 1982, only two FM antenna locations were
9 required. However, the tower was designed to support three FM
10 antennae. Petitioner contends the design capacity for the
11 third FM antenna is "unused" and may be allocated to help
12 support the proposed antenna. According to petitioner, the
13 Skinner report is based on the erroneous assumption that the
14 only load bearing capacity of the tower is the capacity for the
15 Channel 14 antenna and does not take account of the unused
16 capacity to support the third FM antenna. Petitioner argues
17 that the Skinner report is based on this erroneous assumption
18 and, therefore, is not substantial evidence.

19 ORS 197.835(8)(a)(C) states this Board may reverse or
20 remand a land use decision "not supported by substantial
21 evidence in the whole record." Substantial evidence has been
22 defined as evidence "a reasonable mind could accept to support
23 a conclusion." Braidwood v. City of Portland, 24 Or App 477,
24 546 P2d 777 (1976). Where the evidence on each side of an
25 issue is conflicting and believable, a decision based on any of
26 the evidence is supported by substantial evidence.

1 Homebuilders v. Metro Service District, 54 Or App 60, 63 P2d
2 1320 (1981). This Board has consistently applied this rule
3 when presented with the argument that a decision is not
4 supported by substantial evidence because conflicting evidence
5 is so strong it shows the relied upon evidence is not
6 credible. Citizens to Save the Willamette v. Portland, 12 Or
7 LUBA 244 (1984); Moore v. Clackamas Co., 11 Or LUBA 103 (1984);
8 Sanders v. Clackamas Co., 10 Or LUBA 231 (1984). We apply this
9 principle here and reject petitioner's substantial evidence
10 claim.

11 The Skinner report states that county permit construction
12 files, including drawings and calculations, were reviewed as
13 part of the analysis of tower strength. While the analysis
14 focused on a comparison between Channel 24 antenna and cable
15 requirements and Channel 14 antenna and cable requirements, the
16 report concludes the tower is not strong enough to accommodate
17 the proposed antenna and transmission line. The report adds
18 that the tower may not be strong enough to accommodate the
19 originally planned for Channel 14 antenna. The Skinner report
20 is credible evidence.

21 Evidence offered by petitioners to support the claim that
22 the Skinner report ignored an essential factor in the analysis
23 is no more than the conclusion of petitioner's expert, Mr.
24 Windle. Mr. Windle concludes the additional weight of the
25 Channel 24 antenna and co-axial cable could be accommodated
26 because the original tower design called for an additional FM

1 radio broadcast antenna. This statement is simply Mr. Windle's
2 conclusion about design strength based upon design
3 specifications for the tower. The Skinner report reaches the
4 opposite conclusion also based on the design specifications for
5 the tower. In such a case, where believable experts use the
6 same facts to arrive at different conclusions, the county is
7 entitled to choose between them. We find no error as alleged.

8 Broadcast Coverage

9 Petitioner next challenges the evidentiary support for
10 findings that use of the third position on petitioner's tower
11 will result in critical loss of market coverage. Petitioner
12 states two bases for the challenge: (1) the applicant's
13 experts erroneously assumed the applicant would broadcast with
14 reduced power because the existing tower cannot support an 8
15 3/16 inch cable; and (2) applicant's experts significantly
16 overestimated the number of viewer households affected by
17 reduced antenna height.

18 Projections of signal coverage from the lower location on
19 the existing tower compared to the proposal are also the
20 subject of conflicting expert evidence. The applicant's
21 evidence was in several engineering reports. Record 328, 355,
22 952, and 995. The Skinner report dated January 14, 1984,
23 Record 355, includes calculations of variations in broadcast
24 area coverage resulting from two conditions: (1) use of the
25 lower position on the existing tower and (2) the effect,
26 compared with the proposed tower, of reduced power.⁷

1 Based on the effect of height alone, the Skinner report
2 estimates a 13.4 percent difference in coverage area between
3 the two antenna locations. The combined effect of reduced
4 power and use of the lower position would result in a 25
5 percent reduction in coverage. In addition, the report
6 included information about the radio-shadowing effect of
7 topographic obstacles. Although several topographic features
8 were identified which could cause such shadowing, no estimates
9 of coverage losses were quantified.

10 As we previously noted, substantial evidence supports the
11 findings that the load bearing capacity for the existing tower
12 is not adequate for the proposed antenna and its power cable.
13 This means a smaller cable must be used which will inhibit the
14 antenna's power output. The explanation in the Skinner report
15 of the variation in area coverage resulting from use of the
16 lower tower position and reduced power output provides
17 evidentiary support for the conclusion that the area within the
18 Grade B contours would be 25 percent less than from the
19 proposed tower. (A Grade B contour is a FCC defined term used
20 to describe a station's geographical service area.) The
21 finding that the area within Contour B resulting from use of
22 the existing tower would be 25 percent less than the area
23 resulting from use of the proposed tower is supported by
24 substantial evidence in the record.

25 Petitioner also contends these engineering reports do not
26 accurately show the number of viewer households affected. The

1 number is inaccurate, says petitioner, because it includes the
2 total viewer households for each county that had any part of
3 the county within the projected Grade B contour. Because
4 significant portions of some counties lie outside the Grade B
5 contour, petitioner contends it is not reasonable to use whole
6 county numbers to calculate viewer households affected by the
7 reduced area coverage. Petitioner's experts contend
8 transmission from the lower location at the maximum power
9 permitted by the applicant's license will reach only two
10 percent fewer households than transmission from the top of the
11 proposed tower. One consultant concluded the potential
12 audience is essentially the same whether the proposed antenna
13 is mounted on a new tower or on the lower location on the
14 existing tower. Record 412.

15 The county found the applicant's experts more
16 persuasive.⁸ The order states:

17 "The Board finds a loss of viewer households will be
18 based on facts such as the height of the antenna,
19 signal strength and shadowing. Taken together these
20 factors will lead to a loss of at least the 25 percent
21 or 175,000 viewer households claimed by the
22 applicant." Record 56.

23 We agree with petitioner that evidence in the record does
24 not support the finding 175,000 viewer households will be lost
25 by reducing the geographic service area by 25 percent. The
26 applicant's exhibits demonstrate substantial areas with
significant populations are erroneously included in the
calculations to arrive at the 175,000 figure.⁹

1 Even though the county's conclusion that 175,000 viewer
2 households would be lost lacks evidentiary support, the
3 deficiency does not require sustaining this assignment of
4 error. The county found the reduced geographic service area to
5 be significant for reasons besides the number of households
6 affected. For example, the county found there would be
7 significant loss in signal strength to homes in the immediate
8 coverage area. Further, the seven mile radius reduction in
9 Grade B contours "would mean loss of coverage in most of Salem,
10 Cascade Locks, and populous areas of Northern Polk and Marion
11 Counties, Oregon and Cowlitz and Skamania Counties,
12 Washington." Record 46. The loss in coverage from broadcast
13 shadows was also a factor in the findings.

14 Petitioner does not allege these findings lack evidentiary
15 support or that they are less significant than the number of
16 viewer households that could be affected. The county's
17 conclusion that the applicant's broadcast coverage requirements
18 would be significantly curtailed by use of the existing tower
19 does not stand or fall on the accuracy of the number of viewer
20 households affected. Remand or reversal is not required
21 because a non-essential finding has no evidentiary basis.
22 Chemeketa Industries v. City of Salem, ___ Or LUBA ___ (1985)
23 (LUBA No. 85-053, Slip Op. dated 11/13/85).

24 This assignment of error is denied.

25 THIRD AND FOURTH ASSIGNMENTS OF ERROR

26 These assignments of error each challenge the county's

1 finding of compliance with setback requirements. The setback
2 standards are in MCC 11.15.7035(B)(4). This section provides:

3 "(4) Site size and tower setbacks.

4 "(a) The site shall be of a size and shape
5 sufficient to provide an adequate setback
6 from the base of the tower to any property
7 line abutting an urban residential district,
8 public property, or public street. Such
9 setback shall be sufficient to:

10 "(i) Provide for an adequate vegetative,
11 topographic or other buffer, as
12 provided in MCC.7035(B)(7) and (11),

13 "(ii) Preserve the privacy of adjoining
14 residential property.

15 "(iii) Protect adjoining property from the
16 potential impact of tower failure and
17 ice falling from the tower by being
18 large enough to accommodate such
19 failure and ice on the site, based on
20 the engineer's analysis required in
21 MCC.7035(D)(3)(d) and (e), and

22 "(iv) Protect the public from NIER in
23 excess of the standard of
24 MCC.7035(F)(1).

25 "(b) A site is presumed to be of sufficient site
26 when it:

"(i) Meets the requirements of (a) (iii)
and (iv) above,

"(ii) Provides a setback equal to 20
percent of the height of the tower
above grade between the base of the
tower to any property line abutting
an urban residential district, public
property, or public street, and

"(iii) Provides a setback equal to or
exceeding the rear yard setback
required for the adjoining property
where the adjoining property is not
in an urban residential district nor
a public property or a public street."

1 The county characterizes the setback criteria in
2 subsection (a), quoted above, as the subjective setback
3 standard. The alternative criterion in subsection (b) is
4 called the objective standard.

5 Petitioner's third assignment of error challenges the
6 finding that the proposal complies with the 20 percent
7 standard, i.e., the objective standard, in MCC
8 11.15.7035(B)(4)(b)(ii). The fourth assignment of error
9 challenges the finding that the proposal satisfies the
10 subjective standard in MCC 11.15.7035(B)(4)(u)(iii). The
11 county found:

12 "...the proposed KTAH Tower complies with the 20
13 percent tower standard for parcels west, north and
south of the site." (Emphasis supplied.)

14 In the third assignment of error petitioner says this
15 finding is wrong because the tower would be 200 feet from the
16 north property line (Record 33) which is only 17.7 percent of
17 the proposed 1,129 foot high tower.

18 We agree. Simple mathematics show 20 percent of 1,129
19 equals 225.8 feet. The evidence does not support the finding
20 that the proposed 200 foot setback meets the ordinance standard
21 requiring setbacks more than 20 percent of antenna height.

22 This lack of evidentiary support may not require a remand
23 or reversal. The county also found the north setback would
24 protect adjacent property from falling ice and the debris from
25 tower failure. This finding, addressing the subjective test of
26 MCC 11.15.7035(B)(4)(a), is also challenged by petitioner in

1 the fourth assignment of error. According to petitioner, the
2 evidence provided by applicant's expert contradicts the
3 county's finding.¹⁰

4 The county found the tower will be designed to fail under
5 stress in a planned sequence that limits debris spread. This
6 finding is based on the Skinner report. The report states
7 debris from collapse of guyed towers is generally contained
8 within a radius from the tower base of 20 percent or less of
9 the tower's height. In addition, the report states:

10 "[T]he proposed tower is to be designed for controlled
11 collapse in the event of overload and consequent
12 failure so as to maximize the probability of
13 containment of debris in the smallest area possible
14 (and definitely within the property boundaries)."
15 Record 352.

16 We find this evidence in the Skinner report about the tower
17 design for the purpose of debris containment is substantial
18 evidence that the tower is designed to fall within the property
19 boundaries. The county's conclusion that the existing tower on
20 property north of the proposed tower would be protected from
21 debris fall is supported by the Skinner report.

22 Therefore, even though the evidence does not support the
23 finding the tower meets the objective criteria in
24 MCC.7035(B)(4)(b)(ii), the evidence supports findings that the
25 alternative criteria in MCC.7035(B)(4)(a) are satisfied. As a
26 result, we deny petitioner's evidentiary challenge to the
findings of setback compliance.

Affirmed.

FOOTNOTES

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4 ¹ Petitioner's tower was the first tower approved under
5 Ordinance 330.

6 ²
7 ORS 215.416(6) states:

8 "Approval or denial of a permit application shall be
9 based on standards and criteria which shall be set
10 forth in the zoning ordinance or other appropriate
11 ordinance or regulation of the county and which shall
12 relate approval or denial of a permit application to
the zoning ordinance and comprehensive plan for the
area in which the proposed use of land would occur and
to the zoning ordinance and comprehensive plan for the
county as a whole.

13 ³
14 The code standards for new towers do take account of signal
15 strength parity with existing towers. MCC 11.15.7035(B)(7)(d)
states in part:

16 "Towers shall be the minimum height necessary to
17 provide parity with existing similar tower supported
antenna..."

18 ⁴
19 While the general term "accommodation" is used in MCC
20 11.15.7035(B)(1), the more specific term, "structural
21 accommodation", is used in other parts of the code. See MCC
22 11.15.7035(B)(1)(c)(ii). The former term is obviously broader
23 in scope than the latter.

24 ⁵
25 MCC 11.15.7035(B)(1)(c) relies in part:

26 "[T]he applicant shall provide each such (tower) owner
with the height, length, weight and other relevant
data about the antenna...." (Emphasis supplied.)

The "other relevant data" to be submitted to the tower owners
is listed in MCC 11.15.7035(F)(2)(a) - (1). One of the listed

1 items is the height of the antenna above ground.

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4 This 7800 pound antenna is 61.4 feet long and an average
5 10.75 inches in diameter with a horizontal wind load of 4,977
6 pounds. The co-axial cable is 8 3/16 inches in diameter and
7 weighs 4,347 pounds with a horizontal wind load of 36,100
8 pounds. Record 34.

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11 The Skinner report assumes transmissions from the third
12 position on the existing tower would be limited by use of the
13 6 1/8 inch cable designed for Channel 14.

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16 The county's reasons for rejecting petitioner's evidence
17 may be summarized as follows:

- 18 1. One of petitioner's reports is clouded by
19 understating the proposed antenna height above
20 average terrain by 42 feet.
- 21 2. One of opponent's consultants confirmed that area
22 coverage from the lower position would be 12.2
23 percent less from the lower position and another
24 said coverage would be 13 percent less.
- 25 3. The existing tower could not safely support the
26 cable necessary to provide the power assumed in
calculations by the opponent's experts.
4. At least one broadcaster refused to locate on the
lower position because of broadcast coverage
problems.
5. The applicant's witnesses were considered more
consistent and historically reliable."

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29 The application for the community service designation
30 includes a table listing all counties in the Portland
31 television coverage area and the estimated number of viewer
32 households in each county. See Record 989. Some of the
33 counties are indicated as being "in the Grade B signal map."
34 The total number of viewer households in those counties is
35 shown to be 693,800. A comment to the table notes a "25%
36 reduction in coverage would equal a loss of 175,000 viewer
households." However, the map in the application shows

1 portions of the counties indicated are outside the Grade B
2 contours. Because portions of the counties are outside the
3 Grade B contours, it is unreasonable to include the number of
viewer households for the whole of each affected county in the
loss calculation.

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5 The report by applicant's engineering consultant states guy
6 wires generally constrain tower collapse to a distance from the
tower base equal to guy wire length minus the distance from the
guy anchor to the base. He concluded the maximum distance of
7 debris fall for the proposed tower would be 678 feet (Record
1004).

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