Design Review Reviewed: A Comparison of Administrative Versus Discretionary Design Review

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Most American cities use design review to improve the visual quality and compatibility of ordinary nonhistoric projects. They often use a discretionary design review process. How well does discretionary design review improve community appearance by keeping building projects compatible with their surroundings? This article presents two complementary studies aimed at answering this question. For a neighborhood in Columbus, Ohio, our research team did a physical inventory of the compatibility of 96 projects that underwent discretionary design review and 68 that did not. The latter projects met less restrictive administrative appearance controls present in the zoning ordinance. The team also surveyed 39 residents for their opinions of a subset of projects built according to either the discretionary review of the design or the administrative controls. The results indicate that discretionary design review is not demonstrably better than administrative review. Communities can use methods like the ones discussed here to evaluate their own design review programs. They may find that the replacement of discretionary design review with more explicit administrative appearance controls achieves the intended compatibility more efficiently.

Urban form results from many activities by many actors, including governing bodies, developers, banks, and independent groups (Bacow, 1995). To shape the design decisions of these agencies and individuals, urban designers use a variety of administrative, regulatory, and financial techniques (Shirvani, 1985). This article centers on one such technique: design review. Design review differs from most zoning, subdivision, and building regulations in its emphasis on appearance. Local governments say they use design review to serve such purposes as improving quality of life, enhancing a unique place, promoting vitality, creating comfortable places for pedestrians, protecting property values, promoting compatible development, or improving community appearance (Scheer, 1994). Critics complain that design review is cosmetic, limits designer creativity, and unnecessarily intrudes on private property (Lightner, 1992). Yet most courts support design review and hold aesthetics alone as an adequate public purpose in land use

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regulation (Mandelker, 1993; Smardon & Karp, 1993). In early decisions, courts found aesthetics to be an adequate government purpose if it advanced other legitimate purposes, such as the protection of property value. In Berman v. Parker (1954), however, the U.S. Supreme Court went further to state that the values of public welfare include "spiritual as well as physical, aesthetic as well as monetary. It is within the power of the legislature to determine that the community should be beautiful as well as healthy" (p. 33). Most State courts followed suit. Design review might also raise problems with free speech (Costonis, 1989; Lightner, 1992; Scheer, 1994). For example, if the review goes beyond regulating "the time, place and manner of architectural expression . . . [to] totally exclude an architectural style . . . courts could hold [this an] invalid prohibition on the content of free speech" (Mandelker, 1993, p. 479). However, the courts have consistently supported regulation of design over free speech, although in such cases the local government may have the burden of showing that design review serves a legitimate public interest, such as aesthetics (Mandelker, 1993).

Design review remains a major tool that local governments use to improve community appearance. A study of 1114 U.S. cities found that more than 90% had architectural appearance controls (International City Management Association, 1984). A later survey of 700 city and county planning departments obtained usable responses from 369 cities and towns (Lightner, 1993). Most of them (78%, 83% when counties were dropped, and 93% of cities having more than 100,000 residents) had some form of design review, and only 3% "limited design review to historic districts" (p. 1). Most of these ordinances apply to single-family residences (Mandelker, 1993).

In areas with design review, private and public proposals for development must be approved by the design review board to proceed. Typically, one submits a design to local planning staff, who may approve it, disapprove it, or ask for modifications. A planning (or review) commission or a staff member makes the decision. The review may evaluate many factors, such as architectural excellence, visual bulk, style, scale, materials, or environmental or historical factors, but it most often evaluates the compatibility of projects with their surroundings (Lightner, 1993; Preiser & Rohane, 1988). Court support for zoning rests on the compatibility principle: Courts allow communities to protect areas from incompatible uses. Thus appearance controls for compatibility eases substantive due process problems (Mandelker, 1993). Psychological studies also suggest that humans need visual compatibility and order, especially in residential areas (Nasar, 1998). Compatibility does not necessarily require one to mimic the surroundings. Rather it refers to the degree to which a proposal has features that make it appear to fit with its surroundings. Project approval often rests on the appraisal of the compatibility of the proposed project.1

Communities vary in the amount of discretion left to the reviewers in deciding whether or not to approve a proposal. Discretionary design review refers to ordinances in which the decision rests on the reviewers' personal discretion. Administrative design review refers to ordinances that limit personal discretion by requiring projects to satisfy clear, precise, and measurable standards (Shirvani, 1985). As most U.S. cities lack the standards for administrative review (Lightner, 1993), they typically rely on a discretionary approach. This approach leaves them vulnerable to charges of abuse for being arbitrary, capricious, or vague (Hinshaw, 1995; Lai, 1994; Poole, 1987). To avoid such problems, communities have a compelling need to know how specific modifications of the physical environment will affect community appearance, and they need to develop clear guidelines or controls to support their objectives. They need to know how well design review boards perform, especially with discretionary reviews. Does discretionary design

review improve the publicly perceived compatibility and appearance of developments? Previous research suggests that it does not.

A series of studies in California found that more often than not, discretionary design review by a board did not result in buildings that the public found more appealing (see Stamps, 1997a). Consider one case study that examined the performance of discretionary design review in the Oakland Hills Restoration Area, California (Stamps & Nasar, 1997). After a 1991 fire destroyed more than 2500 houses in Oakland Hills, the Oakland Hills Restoration Area rebuilt rapidly. People built many houses without design review. Later, the local planning department set up a discretionary design review process, in which planning staff served as reviewers. The criteria the reviewers had for evaluating the projects were vague. For example, one criterion referred to not having an adverse effect on the "livability of adjacent homes" or "the harmony of neighborhood appearance." At the time of the study, the Oakland Hills Restoration area had completed 257 projects prior to discretionary design review and 476 under discretionary design review. Because all of the rebuilt houses had many characteristics in common, such as topography, planning process, demography, geographical location, trees, utility poles, street furniture, and car parking, the Oakland Hills Restoration Area provided a good opportunity to evaluate the performance of design review by comparing popular responses to houses built under discretionary design review to ones built with no design review.

Forty-two local and 40 nonlocal observers viewed photographs of seven projects selected at random from the design review projects and seven selected at random from projects with no design review. The results indicated that design review did not make a noticeable difference. Though the observers judged the discretionary design review houses as slightly more pleasant than the houses built without design review or appearance codes, the difference did not achieve statistical significance. Beyond statistical significance, the study examined the magnitude of effect. Cohen (1988) discusses three effect sizes—small, medium, and large. The analysis indicated a small effect (0.14). This means that the Oakland Hills Restoration Area discretionary design review had a nearly undetectable effect on public preferences.

In cases when design review deals with issues beyond appearance, such as functional effects of a structure through its site plan or building bulk, public opinion may not be the sole criterion. In the more typical case in which design review focuses on appearance, measures of the responses of individuals exposed to the project represent appropriate measures of success.

**Design Review in a Columbus, Ohio Neighborhood**

No single study in one city can fully evaluate the performance of design review in the hundreds of communities that use it. The projects, designers, reviewers, criteria and degree of review board discretion may affect the result. We offer the present research to suggest that individual communities evaluate the performance of design review, and as an example of how they might go about such an evaluation.

The research reported here adds to the information provided in the Oakland study in several ways. First, it tests the performance of discretionary design review in a different city: Columbus, Ohio. Second, it does so in the context of additions and renovations, rather than new buildings. Third, to improve internal validity, it matches and compares discretionary design review projects with neighboring administrative review projects. Fourth, while the Oakland study compared discretionary design review with no design review, the present research
comparatively reviews discretionary review with administrative review of mandatory appearance controls (such as roof pitch) in the zoning ordinance. Fifth, it looks at several dimensions of response and uses a multiple method approach. One method examines the physical compatibility of the houses resulting from the discretionary design review and those resulting from the administrative review; the second examines residents' ratings of preference and compatibility of the discretionary review and administrative review projects. 

The study centered on the University district, one of fourteen designated Area Commission Neighborhoods in Columbus, Ohio. Such neighborhoods elect their own commissioners to oversee development issues in the neighborhood and forward recommendations to City Council. The University District contains approximately 45,000 households in an area of 2 square miles. In September, 1990 the City of Columbus extended the jurisdiction of an appearance/compatibility review board from a core area of the University District to the full district on an interim basis for a 27-month trial period. To proceed, proposed projects had to meet zoning requirements for appearance and gain approval from this review board. The review board had no explicit criteria. Many projects in the outer district were completed both before and after the city established the interim design review board to do discretionary review. Prior to this design review process, the neighborhood had only an administrative review process in which residential projects had to satisfy some appearance controls in the zoning ordinance.

The research grew from a request from the City. In December, 1992, city planners asked the first author for help in determining whether the City should continue the discretionary design review for the outer area. The city attorney indicated that for the City to continue, he had to be convinced that the level of regulation would be legally defensible. In the research, we compared projects completed under administrative review only with those completed under discretionary design review. Recall that we use the term administrative review to refer to a process removing discretion from the reviewers rather than to identify who does the review. City staff in the zoning department conducted the administrative reviews. One city planning staff member and a panel of residents appointed by the City made the discretionary review decisions. Consistent with national data showing that a majority of design review commissioners come from fields other than design, such as business, real estate, education, law, engineering, or home building (Sanders & Getzels, 1987), the panel had people from various backgrounds as well as design professionals.

Methodology

We evaluated 164 projects—96 completed under discretionary design review (DR) and 68 completed earlier under administrative review (AR). The 96 DR projects included all applications heard by the interim review board during the 27-month trial period that were approved and eventually constructed. At the time of the study, the board had reviewed applications for 113 projects, 17 of which, though approved, had not yet completed construction. We also selected 68 AR projects from a list of building permits issued during the year prior to the establishment of the interim design review board. We chose AR projects that matched as closely as possible the neighborhood locations and type of work performed on the DR projects. For example, if a DR project involved new siding, we chose an AR project from the same block that involved new siding.

First, we conducted a physical inventory of the compatibility of the specific building features (e.g., roof pitch, siding material, lot coverage, deck size) that were considered in the
discretionary review and administrative review work, and gave each relevant feature a "compatibility" rating. Next, we had the public rate the compatibility of and their preferences for the appeal of selected discretionary design review and administrative review projects. We used two approaches to mitigate biases inherent in each one. The physical inventory evaluations allowed us to obtain ratings for a large number of discretionary and administrative review projects, but it did not assess popular reactions. The public ratings obtained popular reactions, but the research design limited it to a small number of projects. Together, the approaches allowed us to get compatibility judgments for every discretionary design review and administrative review project completed between September 1989 and December 1992, plus public appraisals of a selected subset of projects from that same time period.

Physical Inventory Evaluations of Compatibility

We constructed a checklist covering a comprehensive set of the physical features in all the projects under study. The checklist included the address, type of modification, broad categories of work, and features within those categories that could affect compatibility (See Figure 1).

FIGURE 1. Physical Inventory Checklist for Building Features

Our judges scored whether or not each project feature was compatible with the rest of the building and the surrounding neighborhood. For reliability, we would have preferred to have a large number of judges complete the physical inventory on all 164 projects, but this proved impractical. Instead we enlisted seven graduate students in city and regional planning. To improve consistency, we had these judges run through pretests in which each person rated the same building followed by comparison and discussion of the ratings. The process was repeated until all judges had given consistent responses for three buildings. Then the seven students divided into teams of two or three members to inventory their subset of the properties.

The judges made their evaluations independently. They visited each project location and evaluated only the work completed under design review. While the yes/no choice may have overlooked degrees of compatibility, this simplification was necessary in order to inventory so many projects in a such a short period. We assigned each project one score between 0 and 100, representing the percentage of the relevant features judged as compatible.

Results. The physical inventory evaluations did not show the DR projects as more compatible than the AR projects; we found no significant differences in scores. The tally revealed a mean compatibility score of 87.7% (SD = 15.00) for DR work and 84.4% (SD = 23.24) for AR work. Though the results seem to favor the DR process, the difference did not achieve statistical significance. Further, the magnitude of the effect was small. This means that the difference may have resulted from chance, and that discretionary design review had a relatively undetectable effect on the rated compatibility.4

The physical inventory evaluations suggested that the addition of DR did not produce a meaningful improvement in compatibility over what resulted from AR. It is possible, however, that because the physical inventory was conducted by a small sample of judges, though it was
comprehensive, it did not reflect the perceptions of the public who experience the buildings on a regular basis. Also, the sum of the ratings of various elements of each building may not accurately reflect public perceptions. We therefore conducted a second study to gather and examine public evaluations of DR and AR designs.

Public Evaluations of Compatibility and Preference

For the public evaluations, we sought pairs of projects similar to one another in location, kind of building, and type of work, but differing in whether they were AR or DR projects. We photographed all AR projects completed during the 12-month period prior to the start of the discretionary design review process and all DR projects completed during the 27-month period of the interim discretionary design review. Each photograph presented a color view of the target building from directly across the street. To show the building in its setting, the photograph included portions of the building on either side of the target building. We used color photographs because research consistently confirms that responses to color photos accurately reflect on-site response (Stamps, 1990). As the interviewees (see below) lived in the same neighborhood, we assumed they would judge the target buildings against their broader sense of their neighborhood's character.

For purposes of experimental control, we used a subset of the DR and AR projects for the public evaluation. We selected pairs of DR and AR buildings that had similar kinds of structures, locations, types of work, and other site features. For example, we compared DR and AR buildings of similar size; DR porch projects with AR porch projects, DR siding projects with AR siding projects, etc.; and we compared DR and AR buildings that had similar amounts of vegetation. In each case, we tried to control features other than the type of design review that might affect ratings. This process led to six pairs of projects; see Figure 2 for a black and white version of one color photo pair used in the study.

FIGURE 2. One of the six pairs of University District buildings used in the public opinion survey.
Note: Photos had no labels during the experiment.

For each matched pair, we obtained paired comparison evaluations by surveying area residents. Interviewers worked in teams of two or three in each subarea of the study area, where they selected residences at random to recruit participants for the survey. They randomly choose streets, cross streets, number of houses from the corner, and the side of street. They returned to the selected addresses in early morning and late afternoon. If they failed to get an interview, they selected at random one of the five houses surrounding the target house.

A questionnaire given to participants stated that they would see photos of pairs of buildings. It asked them to respond to a marked building in each photo. The interviewers shuffled the photograph pairs before each interview to reduce potential order effects on responses. They also randomly varied the order of the placement of the DR and AR projects on the right or left. The photographs did not have labels, and we did not inform participants which project had gone through discretionary design review and which had gone through administrative
review. As each photograph showed several buildings, we placed a dot above the building that we wanted participants to judge.

For each pair, the interviewers called attention to the kind of work done (e.g., siding, front porch, roof). To reduce biases from considering other portions of the buildings, participants were instructed to consider only the remodeling work. Participants then answered two or three of the following questions:

1) When you look at the [name of work done] on each pair of buildings, which one better fits with its neighboring buildings?
2) When you look at the [name of work done] on each pair of buildings, which one do you like better?
3) When you look at the [name of work done] on each pair of buildings, which one do you think would command a higher rent?

The interviewers told participants that if they felt the same about the two buildings, they could answer "neither."

Design review often seeks to create more compatible and more pleasant results. We used the first two questions to look at those aspects of design review. Of the various ways to obtain responses, we chose a rank order procedure which involved ordering projects relative to each other. We considered other kinds of scales and checklists, but studies have found that these different kinds of measurement scales produce similar results (Gould & White, 1974; Stamps, 1997a). Rank order approach offers additional benefits. It tends to produce a higher level of agreement among respondents, and it has greater efficiency in that it allows one to obtain responses to many scenes rapidly (Brush, 1976; Zube, Pitt, & Anderson, 1974).

Thirty-nine residents took part in the survey. We had 19 participants answer all three questions, and to reduce biases for judgments of like or fit on one another, we had 20 participants answer the like and rent questions only and 20 participants answer the fit and rent questions only. We varied the order of the questions to reduce systematic bias from question order. The interviewers also requested demographic information: whether the respondent had owned or rented, whether they owned any other properties in the area, how long they had lived at their present address, and whether or not they thought the area needs some form of regulation to ensure that new buildings, additions, and changes fit their surroundings.

Results. Of the 39 participants, most (72%) said they were renters. Their tenure in the area varied. Most (67%) said they had lived there for more than a year (1-3 years, 41%; more than 3 years, 26%). They should have had enough familiarity with the area to make judgments about the target house's compatibility with the neighborhood. This sample had enough participants to allow statistical comparisons.

Tests of results by question order did not reveal significant differences. Therefore, we combined the data and examined the 25 responses to fit, and the 33 responses to like. Table 1 shows the percentages of participants who evaluated DR or AR work as a better fit to the surroundings, or better liked. It also shows the associated test statistics when differences were significant. For each measure, DR work received scores lower than or equal to those for AR work.

Fit. As shown in Table 1, more participants judged DR projects the better fit in three project pairs (A, C, and D) and AR in two project pairs (B and E), but only one difference achieved statistical significance. For project pair E, significantly more people selected AR as the
better fit. Adjusting for multiple comparisons, this effect becomes statistically insignificant. The analysis also looked at the effect size, calculated by transforming the $X^2$ into a standardized difference between the means, $d$ (Judd et al., 1991). Project pair E achieved a large effect ($d = 1.21$) strongly favoring the AR project over the DR one.

**TABLE 1. Resident ratings of fit to surroundings, and preference for DR versus AR projects.**

<table>
<thead>
<tr>
<th>Better fit</th>
<th>DR</th>
<th>AR</th>
<th>Neither</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Pair</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A (n=25)</td>
<td>44.0%</td>
<td>28.0%</td>
<td>28.0%</td>
</tr>
<tr>
<td>B (n=25)</td>
<td>28.0</td>
<td>44.0</td>
<td>28.0</td>
</tr>
<tr>
<td>C (n=25)</td>
<td>48.0</td>
<td>40.0</td>
<td>12.0</td>
</tr>
<tr>
<td>D (n=25)</td>
<td>48.0</td>
<td>20.0</td>
<td>32.0</td>
</tr>
<tr>
<td>E (n=25)*</td>
<td>20.0</td>
<td>68.0</td>
<td>12.0</td>
</tr>
<tr>
<td>F (n=25)</td>
<td>40.0</td>
<td>40.0</td>
<td>20.0</td>
</tr>
<tr>
<td>Mean*</td>
<td>38.0</td>
<td>40.0</td>
<td>22.0</td>
</tr>
<tr>
<td>Total (or better)</td>
<td>62.0</td>
<td>38.0</td>
<td>—</td>
</tr>
</tbody>
</table>

Significant differences, Bonferonni adjusted for multiple comparisons

E: AR+Neither better than DR: $X^2 = 9.0, 1 df, p < .02$

<table>
<thead>
<tr>
<th>Better liked</th>
<th>DR</th>
<th>AR</th>
<th>Neither</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Pair</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A (n=33)*</td>
<td>0.0%</td>
<td>90.9%</td>
<td>9.1%</td>
</tr>
<tr>
<td>B (n=33)</td>
<td>63.6</td>
<td>18.2</td>
<td>18.2</td>
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<tr>
<td>C (n=33)</td>
<td>39.4</td>
<td>48.5</td>
<td>12.1</td>
</tr>
<tr>
<td>D (n=33)</td>
<td>42.5</td>
<td>42.4</td>
<td>12.1</td>
</tr>
<tr>
<td>E (n=33)</td>
<td>30.3</td>
<td>57.6</td>
<td>12.1</td>
</tr>
<tr>
<td>F (n=33)</td>
<td>39.4</td>
<td>39.4</td>
<td>21.2</td>
</tr>
<tr>
<td>Mean*</td>
<td>35.9</td>
<td>49.5</td>
<td>14.1</td>
</tr>
<tr>
<td>Total (or better) n</td>
<td>37.9</td>
<td>62.1</td>
<td>—</td>
</tr>
</tbody>
</table>

Significant differences, Bonferonni adjusted for multiple comparisons

A: AR better than DR: $X^2 = 30.0, 1 df, p < .02$

A: AR+Neither better than DR: $X^2 = 33.0, 1 df, p < .02$

TOTAL: AR+Neither better than DR: $X^2 = 11.64, 1 df, p < .02$

*Significant differences, Bonferonni adjusted for multiple comparisons:

For discretionary design review to be justifiable, it should produce work that more than equals the fit of work done under administrative review: It should yield better results. To test
whether it did in our study, we compared the number of people judging DR work as a better fit to those choosing AR work or neither. The results of these comparisons suggested that discretionary design review is not demonstrably better than administrative review. For all six project pairs, 62.0% of participants rated the fit of the AR projects as equal to or better than that of the DR projects. Considering multiple claims, this became statistically insignificant, but it had a large effect \( (d = 1.72) \). The results for each pair paralleled those for the full set: A majority of the participants rated the fit of the AR project as equal to or better than that of the DR project. The differences achieved statistical significance for two pairs, B and E, but with multiple claims, only the comparison in pair E remained significant. The effect sizes varied from medium \( (B: d = .86) \) to large \( (E: d = 1.80) \) against DR. Residents thus judged the fit of these AR projects as noticeably better than the fit of the DR projects.

**Like.** Taible 1 also shows that the AR project was better liked in three pairs \((A, C, \text{ and } E)\), while the DR project was better liked in one pair \(B\). The differences achieved statistical significance for two pairs, A and B. With multiple claims, only the comparison in pair A remained statistically significant. Both A and B had large effect sizes, with A favoring AR \( (d = 11.57) \) and B favoring DR \( (d = 1.15) \). The comparison of those judging DR as better liked versus those judging AR as equal to or better than DR does not offer support for discretionary design review. For all six pairs, 62.1% of the participants rated the AR projects as equally or better liked than the DR projects. This remained statistically significant under multiple claims. It also had a large effect \( (d = 1.72) \). The findings held for the comparisons of each pair. In five of the six pairs, fewer participants liked the DR projects better than liked the AR project equally or better. The differences achieved statistical significance for two comparisons \((A \text{ and } E)\), but with multiple claims, only the comparison in pair A remained statistically significant. The comparisons for A and E had a large and medium effect size, respectively \((A: d = 4.00; E: d = .69)\).

In sum, the results show that residents rated DR projects as having a poorer fit for pair E and for the full set, with large effect sizes for each. For preferences, the results show DR projects rated as less liked for pair A and the full set, with large effect sizes for each.

**Discussion**

The public opinion data on the six project pairs suggest that projects done under discretionary design review produced results that were viewed as neither more compatible nor more preferable than projects undergoing administrative review. These findings agree with the broader findings from the physical inventory, which indicated only minor differences in physical compatibility between the DR and AR projects. Both sets of findings result from a relatively small sample of respondents evaluating a small set of changes, additions, or remodeling of existing houses. Though limited, they agree with findings from larger samples of respondents evaluating the overall impact of completed projects \(\text{(Stamps, 1997a; Stamps & Nasar, 1997)}\).

As the present research only evaluated *completed* projects, it does not indicate whether discretionary design review had improved any projects as initially *proposed*. The results do indicate that discretionary design review failed to yield projects more compatible than or preferred to those approved through only administrative review. Because discretionary design review involves extra cost, resources, and time for both the City and individuals proposing
changes, the findings did not support it as a cost effective procedure. Columbus discontinued the discretionary design review process for the tested area.

Can we rely on public opinion over the informed judgment of design reviewers? Yes. Federal and state law support design review to improve the built environment for the public (Costonis, 1989), but the judgments of design professionals and other outsiders on such boards often differ from the judgments of residents (Nasar, 1999). Though some people believe the public will eventually follow the views of the experts, research suggests otherwise. Public preferences are remarkably stable over time. For example, a series of studies of an award-winning building found that negative public evaluations of the building remained unchanged 10 years after completion of the project (Nasar, 1999). When a developer proposed the Transamerica Tower in San Francisco, local planners objected. Public opinion obtained 2 years, 18 years, and 23 years after construction revealed that the public initially liked the building and continued to do so (Stamps, 1997b). A study of 20 buildings in San Francisco revealed similar stability in public evaluations (Stamps, 1997b). In sum, research indicates that compared to judgments by design professionals, public opinion polls offer a better indicator of likely long-term public preferences.

**Conclusion**

Through a two-part study, we sought to determine whether discretionary design review adequately served the purpose of enhancing aesthetics in building designs, often mandated by local governments. The approaches also demonstrate methods for evaluating the effectiveness of both types of review. Placing discretionary design review and administrative review projects in matched pairs for the survey portion of the present study provided greater internal validity than the previous Oakland study (Stamps & Nasar, 1997) by controlling for extraneous variables. However, its reliance on a small sample of projects and survey participants may have reduced the generalizability of the findings. In response to this limitation, the Columbus study supplemented the small sample by examining compatibility judgments for all of its 164 projects.

The Oakland and Columbus findings differ in detail, but both show potential problems with discretionary design review. For the Columbus additions and renovations, the administrative review projects outscored those subject to discretionary design review in popular judgments of compatibility and preference. The physical inventory evaluations showed the discretionary design review work as slightly more compatible, but this difference did not achieve statistical significance, and the strength of the effect was small. For Oakland, the discretionary design review houses emerged as preferred to the houses that had no design review, but the strength of the effect was again relatively small. The findings replicate other work highlighting problems with discretionary design review (Stamps, 1997a). Though limited, our research agrees with a larger set of data. A meta-analysis of several design review studies in California indicated an insignificant correlation ($n = 42, r = .09$) between discretionary design review and public preferences (Stamps, 1997a).

The meta-analysis and the present study did not examine the effects of the makeup of the review board on the results. Research has consistently found that for evaluations of appearance, design professionals and outsiders differ from local residents and the public (Brower, 1988; Nasar, 1994). Though these findings may point to some benefits of design review panels of non-professionals and residents for issues of community appearance, those who choose to serve on
review commissions may judge design differently from their neighbors. Ambiguous criteria may also skew their judgments.

Our results point to the need for continued evaluations of design review in various contexts, and the present research offers methods that planners can use for such evaluations. The present findings suggest that communities could opt for administrative design controls over discretionary design review. Administrative controls involve less cost and time, and, if the present results are accurate, they produce designs that are judged equal to or better than those obtained through discretionary design review. However, the lower scores for discretionary design review projects may have resulted from the absence of explicit criteria or criteria based on scientific evidence to guide the reviewers’ judgments. Communities may reduce problems by improving the discretionary design review procedures, through replacing ambiguous or unstated criteria with clear, specific, and explicit criteria. Courts have upheld challenges on the grounds of vagueness (Blaeser, 1994; Lai, 1994). For example, in Anderson v. City of Issaquah (1993), an appeals court in Washington decided against unconstitutionally vague provisions such as "compatible", stating that "aesthetic standards . . . must be drafted to give clear guidance to all parties concerned. Applicants must have an understandable statement of what is expected" (p. 82). The Supreme Court has also placed a greater burden on local governments to demonstrate the benefit of their regulatory actions and has called for heightened judicial scrutiny for land-use regulations (Dolan v. City of Tigard, 1994; Nollan v. California Coastal Commission, 1987). Implicit or arbitrary appearance guidelines and controls may not provide an adequate legal basis for design review decisions.

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Notes

To prevent monotony, some ordinances require moderate but not excessive variation from the typical appearance in the surrounding neighborhood (Mandelker, 1993).

We also examined the minutes of review board meetings to understand the basis for decisions and to make recommendations for guidelines that could help applicants. This article does not include the analysis of the meeting minutes.

Recent U.S. Supreme Court decisions suggest that although aesthetics represents an adequate basis for control, in some cases local governments may have a greater burden to show an adequate public purpose (Lai, 1994; Mandelker, 1993).

For this test, we transformed the $F$ value into the standardized difference between the means ($d = .03$). According to Cohen (1988), this represents a small effect.

The question about rent related to a specific interest of City officials. As the rent variable does not link to the theoretical framework, we do not present results for it other than to note that they echo the findings for the other variables.

The question about support for regulations related to a specific interest of City officials. As the support variable does not link to the theoretical framework, we do not present results for it other than to note that most respondents (63%) favored regulation to ensure that design changes fit their surroundings.

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