

AUSTIN CITY CLERK  
RECEIVED

To: **Marc Anthony Ott, City Manager, Austin, Texas**  
c/o City Clerk, Austin, Texas

From: **Bob Thompson**  
3310-A Doolin Drive  
Austin, Texas 78704  
(512)-444-0019

Subject: **Appeal of Drainage Charge Admin. Rule No. R161-15.22, Section 9.5.5(B)(a)**

Date: **May 25, 2016**

**Dear Mr. Ott:**

**On behalf of myself and many thousands of other similarly situated single family homeowners, including 15 of the 32 persons who previously submitted comments regarding the proposed Drainage Charge Administrative Rules, I appeal the decision by the Watershed Protection Department (WPD) to include in the definition of impervious area [c.f., Section 9.5.5(B)(a) of the Drainage Charge Administrative Rules], for purposes of the Drainage Utility Fee (DUF), incidental roof overhangs of up to two feet, above pervious ground cover below. (Such incidental roof overhangs are herein referred to as "rooftop eaves" for short.)**

**The reasons for appealing this rule are detailed below. I incorporate into this appeal, by reference, my prior comments dated February 15, 2016, which appeared in Attachment B to the Comments and Responses for City of Austin Proposed Drainage Charge Administrative Rules, as well as the comments of the other 14 individuals protesting against this same rooftop eave rule, whose comments appeared in the same Comments and Responses or in Attachments A and C thereto. The "Common Responses for Drainage Charge Administrative Rules Comments" appeared as Attachment D to these Comments and Responses, and contains the comments and responsive arguments from WPD regarding the rooftop eave issue, as well as other issues in the rules.**

**There are two primary reasons that WPD should not have included incidental rooftop eaves as impervious cover for purposes of the DUF:**

- (1) Such inclusion not only conflicts with, but is actually diametrically opposed to, the longstanding treatment of incidental rooftop eaves [as not being considered to be impervious cover] by the City of Austin under its regulation of the permitted impervious cover (IC) within zoning districts and for building permits. Therefore the WPD policy is completely inconsistent with the longstanding COA policy with which homeowners and developers are intimately familiar.**
- (2) This "redefinition" of incidental rooftop eaves as IC by WPD may be seen to be largely responsible for the huge increase in the Drainage Fee burden borne by single family property owners, from about \$18.3M to about \$24.2M, or from about 22% to**

about 29% of the total DUF collected—once the “phase-in” cap is removed. [These figures are extracted from WPD materials published in mid-2015; excerpts are attached hereto.] Such momentous cost-shifting, primarily from non-residential property owners to single family property owners, should have been explicitly authorized by the Austin City Council, once Council had been properly advised that the redefinition of rooftop eaves as IC would result in such cost-shifting. The City Council was not advised that the rooftop eave policy was being revised, or that it would have this much financial effect. An Administrative Rule is not the proper place to make such momentous fiscal decisions.

Before elaborating further on these two primary points, it may be helpful to provide some context by addressing some related issues, and some of the responses given by WPD within their Attachment D.

The definition of impervious cover found in the Austin City Codes, as well as in the Ordinance No. 20150625-021 directing a revised DUF, is “any surface that prevents the infiltration of water into the ground, such as roads, parking areas, concrete, and buildings.” Although “buildings” are mentioned, rooftop overhangs or eaves are not mentioned. The part of a “building” which “prevents” the infiltration of water into the ground is the ground-level foundation—not the roof. Particularly, incidental eaves do not prevent such infiltration, provided that there are avenues for pervious cover beneath eaves to become wet during a rainstorm. [And numerous such avenues have been discussed elsewhere in the referenced material.] Perhaps this is why Austin decided long ago not to include incidental eaves as IC in the context of complying with IC restrictions in zoning districts and for building permits. [Residential Permit Application “C” contains the instruction that for impervious cover, “Roof overhangs which do not exceed two feet or which are used for solar screening are not included in building coverage or impervious cover.”] In the discussion of zoning IC limitations, only two dimensional (ground-level) plats are presented. Austin homeowners who have dealt with the City regarding impervious cover uniformly think of IC as “ground-level” impediments to water infiltration—such as concrete. Likewise, they think of the grass and flower beds which they maintain up to the edge of their foundation as pervious cover which helps to absorb and therefore retard water runoff, and for which they should not be penalized thru an incrementally higher DUF which effectively pretends that such vegetation is concrete.

The WPD response within Attachment D properly notes that there is no uniform treatment of eaves as IC or as not-IC, among other cities. Some cities treat them one way, and other cities treat them the other way. However, I will venture to guess that few if any other cities treat eaves simultaneously and inconsistently both ways, as WPD would have Austin do! Most cities would recognize that inconsistent policy is bad policy. Austin confronted this policy decision long ago, and decided to treat incidental eaves as not impervious cover. WPD should be willing to conform their own DUF policy to this prior decision, for the sake of consistency and avoiding confusion among the public.

Likewise, the WPD response within Attachment D notes that they have located no scholarly academic studies of the effects of eaves upon water infiltration into the ground, or upon runoff. [Ideally, one would desire measurements of water infiltration and runoff around

houses identical except for the presence or absence of eaves.] This absence of data should have been sufficient for WPD to conform their DUF policy to the existing non-IC treatment of eaves. Instead, WPD presents scientific speculation (without any reported experimental data collection) of the possible effects of rooftops upon water flow concentration, and upon the eventual “time of concentration” of floodwaters in the surrounding storm drain system, in an apparent attempt to justify an inconsistent DUF treatment of eaves as IC.

It is, of course, easy to offer countervailing scientific speculation. For example, rainwater whose flow may be concentrated upon a rooftop, does not reach the surrounding drainage system until it has transited the surrounding acreage of the homeowner, where flow concentrations may reasonably be expected to be broken up and diffused to a great extent, with considerable absorption into the pervious ground around the house, including the pervious ground cover beneath any eaves. Very few homeowners have the experience of observing concentrated “rivers” of runoff flowing away from their houses after a rainfall. The “time of concentration” parameter mentioned by WPD sounds like a parameter commonly found in Corp of Engineers’ water runoff codes, which are typically applied to an entire watershed, typically covering square miles rather than only an acre or so around someone’s house. In such large scale analysis, considerable spacial and temporal “averaging” effects typically occur to diffuse localized flow concentrations. The rainstorm itself may have spatial and temporal variations as it moves through or near the watershed, and flows from one part of the watershed may peak at different times from flows elsewhere in the watershed. All of this scientific speculation should be beside the point: scientific speculation should not be the basis of DUF policy.

It may also be observed that if WPD’s “rooftop flow concentration” arguments were taken seriously, they might be more logically applied to justify a higher DUF for all rooftops (not just eaves), as opposed to ground-level impervious cover such as sidewalks. This much alteration in Austin’s treatment of IC is evidently too much even for WPD; however, they are fine with inconsistent definitions of IC by different City Departments.

When a single family property owner buys a lot and works with a designer to obtain plans for construction of a house upon the lot, he and his designer are well aware of the limitation that for an SF3 zoned lot, IC must be less than 45%. This limitation is motivated to restrain the amount of rainwater runoff and lessen the contribution of such SF lots to flooding. In enforcing this 45% limitation, the Planning and Development Review Department does not consider incidental eaves of less than two feet width to be IC. Very many SF3 lots within Austin are built out to this 45% IC entitlement limit. This existing, longstanding treatment of eaves as not-IC is what SF property owners, and their neighborhood associations, are familiar with. Now, with this new WPD policy of defining IC differently for eaves, a lot which has the maximum 45% IC according to the Planning and Development Review Department, will probably have 50% IC according to the WPD, as a result of their different, inconsistent definition of IC. This can only cause massive confusion among homeowners. Moreover, they may be justifiably irritated that they are being charged an incremental DUF on the vegetated area around their foundations, underneath their eaves. Homeowners do not understand why this vegetated area is considered to be contributing to runoff, any more than an equal square footage of vegetation not overhung by an eave.

WPD also states, in an attempt to justify inconsistent treatment of eaves as IC or as not-IC, that "City of Austin engineers" consider eaves as IC when designing drainage improvements. However, single family property owners are unaware of these internal COA deliberations. The only familiarity that SF property owners have had with IC has been with the zoning IC limitations, for which eaves are not treated as IC. Therefore to such SF property owners, this new WPD policy of treating eaves as IC will be starkly inconsistent.

WPD also asserts that "for commercial site plan permitting purposes, the City considers all roof eaves as impervious cover." Although the treatment of IC for commercial property may logically differ from its treatment for residential property, I would note that this allegation by WPD is at least controversial. Attached to this appeal is a copy of some email correspondence between WPD personnel and Mr. Ron Thrower, an experienced consultant to developers. Mr. Thrower asserts that 17 of 18 engineers that he polled were found to disagree with WPD's statement of how eaves have been treated in commercial site planning.

Next consider the second major point of this appeal: that the redefinition of eaves as IC causes a major portion of the increase in the DUF cost burden borne by SF property owners. WPD's own figures [see two pages of attachments] show that, disregarding the phase-in "cap", the SF cost burden was projected to increase from \$18.3M under the prior "ERU Method" to \$24.2M under the new IC-based method (and including the redefinition of eaves as IC). Correspondingly, the pie chart distribution of DUF costs indicates that the SF property owner share of the total DUF was projected to increase from 22% of the total DUF to 29% under the new method. This projected cost increase of \$5.9M represents a relative 32% increase to such SF property owners. [Note that  $\$24.2\text{M}/\$18.3\text{M} = 1.32$ , and consistently,  $29\%/22\% = 1.32$ .] It was previously alleged, and it remains true, that most of this increase is attributable to the redefinition of eaves as IC, although this conclusion was not disclosed to City Council by WPD.

WPD appears to wish to dispute this conclusion, in some comments in their Attachment D. Let us consider their own example in some detail. They consider the example of a median single family property with 3,100 SF of impervious cover (per the WPD definition), corresponding to 45% IC (per the WPD definition), with 400 SF of eaves. It may be deduced that the lot size is  $3100 \text{ SF} / 0.45 = 6,888.89 \text{ SF}$ .

From the WPD website, it may be seen that the formula for DUF for the 2015-2016 FY has been  $\text{DUF} = \$0.005 \times \text{IC}(\text{SF}) \times [1.5425 \times (\% \text{IC}) + 0.1933]$ . The term in brackets is called an adjustment factor. It may be immediately computed that if eaves are treated as 100% IC per the new WPD definition, then for this median property,  $\text{DUF} = \$13.76$  per month.

By comparison, under the former ERU method, the charge was \$9.80 per month for most SF property. [ $\$13.76/\$9.80 = 1.40$ ]

Now consider the case that eaves are not considered to be IC, and suppose that the homeowner has completely pervious cover at ground level beneath the eaves. For this case,  $\text{IC} = 2700 \text{ SF} = 39.19\% \times 6,888.89 \text{ SF}$ . The DUF may again be immediately computed to be

**DUF = \$10.77 per month. Although this is more than the former ERU charge of \$9.80 per month, it is much less than the charge of \$13.76 per month under the WPD redefinition of eaves as IC. [ $\$10.77/\$9.80 = 1.10$ ;  $\$13.76/\$10.77 = 1.28$ ;  $\$13.76 - \$10.77 = \$2.99$  per month excess DUF charge.]**

**Although the DUF should ideally be individualized property-by-property, for purposes of projections the question arises as to what percentage of the ground underneath eaves is typically IC? Everyone agrees that actual IC on the ground should be treated as IC, whether or not eaves are overhead. The City possesses no data on this question. My own observations suggest that typically, only 15% - 25% of the ground underneath incidental eaves is actually IC. This corresponds to sidewalks that approach a door, or concrete patios adjacent to the building foundation, or perhaps a driveway approaching a garage. Most SF homeowners appear to maintain pervious vegetation under most of their eaves.**

**Suppose that a typical SF property possesses 20% of actual IC on the ground beneath its eaves. Then for the WPD example, but disregarding eaves above pervious ground cover as not being IC, there would be actual IC =  $2780 \text{ SF} = 40.35\% \times 6,888.89 \text{ SF}$ , and the DUF may again be immediately computed to be \$11.34 per month. This is again more than the former ERU charge of \$9.80 per month, but it remains much less than the charge of \$13.76 per month under the WPD redefinition of eaves as 100% IC. [ $\$11.34/\$9.80 = 1.16$ ;  $\$13.76/\$11.34 = 1.21$ ;  $\$13.76 - \$11.34 = \$2.42$  per month excess DUF charge.]**

**It is this excess charge of perhaps \$2.42 per month = \$29.04 per year for the typical SF home with the median amount of IC, which is solely attributable to the redefinition of eaves as IC by WPD. The fact of the redefinition of eaves as IC was not emphasized to Council, and the fiscal impact of this redefinition was completely undisclosed. It is clear that this impact is very significant. If the DUF of \$13.76 per month which results from treating eaves as 100% IC corresponds to the \$24.2M collected in the aggregate from SF property owners, then if eaves were disregarded and only tend to overhang 20% IC, the reduced DUF of \$11.34 per month would only bring in \$19.9M and there would result a revenue shortfall of about (\$4.3M). However, everyone agrees that WPD must have adequate DUF revenues, and so under such an interpretation of eaves which produces less DUF fees from SF property owners, the overall DUF coefficient should be increased to recapture the lost revenues. I estimate that an increase of a bit over 5% should be sufficient to recapture the lost revenues.**

**The final upshot of this estimate is that if eaves were disregarded as IC for the DUF just as they are for zoning IC limitations, and if typical eaves overlay about 20% of actual IC on the ground below, and if the DUF coefficient were adjusted to preserve the overall DUF revenues, then the SF property owner share of the DUF fees would only have increased from \$18.3M under the ERU method to about \$21M under this revised DUF method, rather than to \$24.2M under the proposed DUF method which treats all eaves as IC. The SF property owner portion of the DUF "pie" would only have increased from 22% to about 25%, rather than to 29% as proposed by WPD. It is correct to state that most of the increase proposed for SF property by WPD resulted from the redefinition of eaves as IC, and this was not disclosed to Council. Under the revised DUF method which disregards eaves as IC above pervious ground cover below, the DUF "pie" would be comprised of 25%**

SF property, 19% MF property, and 56% non-residential (mainly commercial) property. Compared to the former ERU method "pie", SF property would increase from 22% to 25%; MF property would decrease from 27% to 19%; and non-residential property would increase from 51% to 56%.

However, with WPD not only transiting to an IC-based DUF, but also redefining eaves to now be 100% IC, there is an additional 4% shift in the cost burden of the DUF "pie" onto SF property, with a (1%) reduction to MF property and a (3%) reduction to non-residential property. It is this additional 4% cost shift—corresponding to over \$3M—onto SF property owners which results solely from the WPD redefinition of eaves as IC. This is what was completely undisclosed to City Council. This is what was slipped into being by WPD as an Administrative Rule, via the redefinition of eaves as impervious cover. This is improper. This is the subject of my Appeal.

In their commentary within Attachment D, WPD states that they attribute increases in the SF property portion of the DUF to the fact that the prior ERU method charges were based on an underestimate of the amount of SF impervious cover. This may have been correct, and indeed, even without a redefinition of eaves as IC, the SF portion of the DUF "pie" would increase from 22% to 25%. WPD simply does not wish to admit that there is a significant additional incremental increase in the SF cost burden of around 4% of the DUF "pie" which is attributable solely to the redefinition of eaves as IC.

Also within Attachment D, WPD offers the suggestion that if eaves were "only" counted as 75% IC, rather than as 100% IC, the DUF savings to the SF home with median IC would only be slight. In the first place, this suggestion is extremely self-serving by WPD, since if one "assumes" that eaves are only a tiny [25%] bit pervious, naturally the savings resulting from this perviousness will be small. Moreover, WPD appears to have under-computed even these small savings. Going back to the suggested parameters, eaves with 75% IC would produce total IC = 3000 SF = 43.55% x 6,888.89 SF, and the DUF may be immediately computed to be DUF = \$12.98 per month, down from \$13.76 per month for eaves which are 100% IC. Therefore, the small 25% pervious cover underneath these eaves would actually produce a DUF savings of  $\$13.76 - \$12.98 = \$0.76$  per month—rather than the savings of \$0.35 per month claimed by WPD. As stated above, we believe that a more realistic estimate of the typical pervious cover beneath eaves would produce much more significant savings: perhaps around \$2.42 per month = \$29.04 per year for a more typical SF property.

WPD also included within Attachment D the peculiar statement that "Adjusting the charge for the percent of impervious cover has had a mitigating effect on the increased charges for single-family residences." A more accurate statement of the situation is that the new DUF formula is quite sensitive to IC, since it enters both as IC(SF) as well as in the adjustment factor as (%IC). Since the %IC term tends to dominate the adjustment factor, the DUF is approximately quadratically dependent upon the IC of the lot in question. If anything, this extra sensitivity to IC hurts SF property as a class, since if eaves are converted from non-IC to IC as proposed by WPD, the percentage impact of this change upon the DUF is about twice the percentage increase of the IC itself. In general, the sensitivity of the DUF to IC means that SF property with relatively large IC may bear a much higher burden, while SF

property with relatively low IC will bear a lower burden. But all SF property will be hurt by having eaves newly counted as IC.

If this Appeal is successful, and WPD is directed to not treat as impervious cover eaves above pervious ground below, the required revisions may be efficiently accomplished in several ways. First of all, we protestants have always been willing to allow WPD adequate time to accomplish the revision. We are hopeful that this might be accomplished by the beginning of the next fiscal year, but if that is impractical, then it should be done by the succeeding fiscal year. Second, it is universally agreed that the change should be revenue-neutral overall. Hence, the rate coefficient should be adjusted to preserve the overall revenue from the DUF.

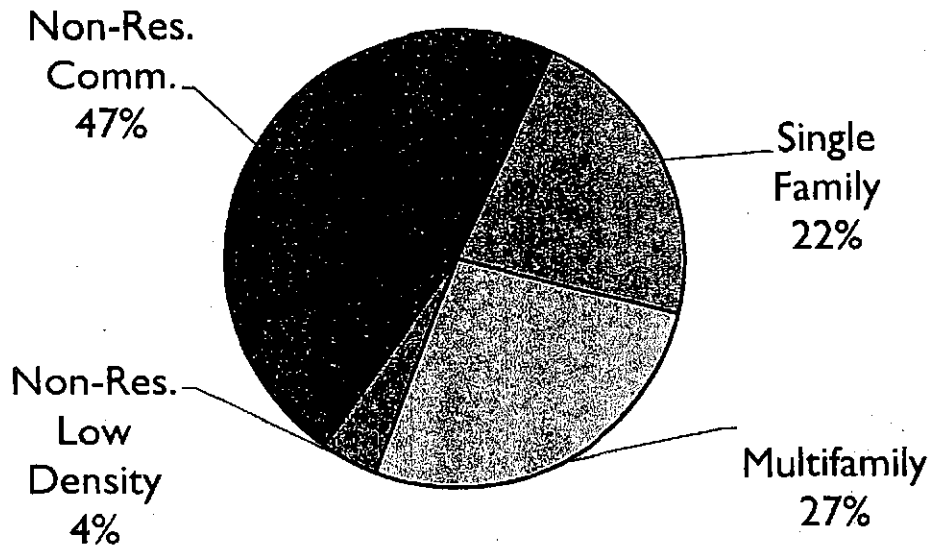
Third, if WPD is wedded to its approach of aerial data acquisition to assess IC, then it should first subtract two feet from the observed rooftop perimeter to eliminate the area of the incidental eaves. Next, it should add back two feet of IC which appears from the aerial data to be "approaching" the building. This would be such things as sidewalks, driveways, or patios; and the IC under the eaves would be two feet times the observed width of the approaching feature. As an alternative procedure, WPD might trade off accuracy for simplicity, and assume an average percentage of IC underneath SF eaves. However, if this is done, WPD should adopt a realistically small percentage (e.g., more like 20% than 75%). The most important thing is that SF property owners should be able to demonstrate on appeal if their property actually has less IC than has been presumed by WPD. The governing rule should be that underneath incidental eaves, the only IC is actual IC on the ground. It might also be noted that no one is pointing a gun to the head of WPD and demanding that they rely upon aerial data. A simpler approach would be for WPD to instead rely upon TCAD data or site plan data, or to simply assume that all SF property has been developed to the maximum IC permitted for its zoning district (e.g., 45% for SF3 property). Then any property owner who had less IC could demonstrate this upon appeal.

WPD has protested within Attachment D that it would be expensive for them to administer the change to remove eaves from the estimate of IC. They suggest that the administrative cost might approach \$0.35 per month per SF property. However, this fear seems overblown. Since Austin probably contains some 200,000 SF properties (houses and duplexes, combined), this would correspond to a cost of some \$0.84M annually. However, most of the cost is a one-time charge to revise the computer coding to subtract the two feet of eaves, and once automated, the ongoing costs should be fairly modest. Adopting some approach other than relying upon aerial data could well bring cost savings in the long run. Given the unavoidable challenge of interpreting aerial data correctly despite tree foliage, it might even turn out that another approach would be more accurate.

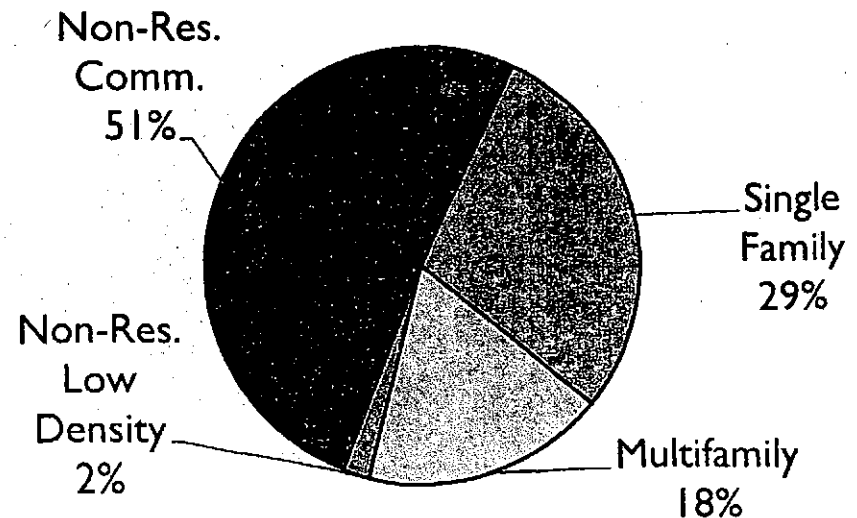
In conclusion, for the reasons explained herein, I appeal the decision by WPD to include within their Administrative Rules, in Section 9.5.5(B)(a), a definition of impervious area which includes incidental rooftop eaves of up to two feet width, above pervious ground cover below. The definition should instead be made consistent with that long employed by the Planning and Development Review Department for the limitation of impervious cover within zoning districts.

# Current & Proposed Share of Charge by Land Use Category

## Current Share: ERU Method



## Proposed Share: Amount & Pct. Impervious Area





FROM 8-12-2015 MEMORANDUM OF VICTORIA J. LI, P.E., DIRECTOR, W.P.D.

Example: Transition Cap on Increase for Single Family Customers						
Proposed Citywide FY 16 Monthly Base Rate (\$/ft <sup>2</sup> impervious area):		\$ 0.00500		Revised Citywide FY 16 Monthly Base Rate with 50% Cap (\$/ft <sup>2</sup> impervious area):		\$ 0.00525
Annual Drainage Charge						
Land Use	FY15	FY16	FY16 with 50% Cap	% Change from FY15 to FY16	% Change with 50% Cap	% Change with 75% Cap
Single Family	\$ 18.3M	\$ 24.2M	\$ 21.1M	32%	15%	25%
Multi Family	\$ 17.1M	\$ 15.4M	\$ 16.2M	-10%	-5%	-8%
Non Residential	\$ 39.6M	\$ 43.9M	\$ 46.2M	11%	17%	14%
TOTAL		\$83.5M				

The analysis indicates that the phase-in option would reduce the FY16 increase in drainage charge for single family customers as a class from 32% to 15% using a 50% cap, and from 32% to 25% using a 75% cap. Due to the reduction in revenue from single family customers, the citywide base rate would need to be adjusted upward to achieve the same annual budget. The effect of increasing the base rate for all customers would result in a greater drainage charge increase for nonresidential customers, e.g., from 11% to 17% using a 50% cap.

The impact of the 50% or 75% cap on the drainage charge increase to single family monthly charges is illustrated in the graphs attached to this memo. The analysis shows that the phase-in option will result in the greatest reduction in charge to customers with impervious cover greater than 4,000 square feet which is greater than the citywide median value of 3,100 square feet. Since the largest portion of benefit from the cap would be realized by those with the largest amounts of impervious cover, as opposed to what may be typical for lower-income single family owners, staff recommends that no cap be adopted.

- B. **Drainage Charge Exemptions:** At its June 25 meeting, City Council briefly considered the possibility of discontinuing all exemptions to the drainage charge that are not state mandated. At that time, WPD was specifically requested to inform potentially impacted parties and to "ask for feedback on how that would affect their operations."

Section 580.003 of the Texas Local Government Code states that the City may not collect a drainage charge "from a state agency or a public or private institution of higher education." However, the City currently provides four other exemptions that are allowed, but not mandated, by Section 552.053. These are listed in Section 15-2-13 of the recently amended City Code:

- 1) a county;
- 2) the City, if the property is publicly maintained right-of-way;
- 3) an independent school district;
- 4) property owned and occupied by an organization that is exempt from taxation (as a religious organization) and that participates in a program that provides housing for the homeless, at a monetary amount at least equal to the drainage charge.

The City contacted Travis County, the City of Austin Public Works Department, the seven independent school districts with properties in the City, and the 18 organizations that receive funding allowed by the exemption that pertains to religious organizations. Letters and email received so far as written feedback from a number of the independent school districts and organizations involved with housing for the homeless are attached. The way that the exemption for religious organizations has been working is unique and is also explained in the attachments. Feedback from the Travis County Commissions Court will be transmitted to the Council at a later date.

**Subj:** FW: Impervious Cover  
**Date:** 4/29/2016 9:06:50 A.M. Central Daylight Time  
**From:** ront@throwerdesign.com  
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FYI

## Ron Thrower Thrower Design

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**From:** Nuccitelli, Saul [mailto:Saul.Nuccitelli@austintexas.gov]  
**Sent:** Friday, April 29, 2016 8:59 AM  
**To:** Ron Thrower; Hollon, Matt  
**Cc:** Lesniak, Chuck  
**Subject:** RE: Impervious Cover

Hi Ron,

Not sure if you've read the response to comments that were sent out on Wednesday to stakeholders as part of the adoption of the DUF Admin Rules. I'm attaching it for your reference. In particular, there is multi-page response to the eaves comment.

Please keep in mind, this response and interpretation is focused on the assessment of eaves as part of the drainage charge, in particular affirming the use of the aerial planimetric data for the assessment of the drainage fee. Since the drainage charge is computing unique charges for over 200,000 accounts citywide, there needs to be an efficient and automated way to compute the charge. As with anything in hydrology, there is not a totally correct answer, but we've found that response time (time of concentration) is more of a driver of flood impact than infiltration, which for this topic correlates that roof pitch drives more peak flow than the soil under eaves may offset. We feel this is a more fair and efficient way to distribute the drainage charge rather than trying to manipulate the aerial planimetric data to somehow partially offset some estimate of eaves. Even if we tried, we wouldn't know which buildings have eaves, much less gutters.

This response (and the recently adopted DUF admin rules) does not change existing building permitting practice for the definition of Building Coverage and its exclusion of eaves <2ft wide in zoning calculations. Perhaps that addresses your biggest concern.

Hope that helps.

**Saul A. Nuccitelli II, PE, CFM**  
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Friday, April 29, 2016 AOL: JRT3308

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**From:** Ron Thrower [<mailto:ront@throwerdesign.com>]  
**Sent:** Friday, April 29, 2016 8:03 AM  
**To:** Nuccitelli, Saul <[Saul.Nuccitelli@austintexas.gov](mailto:Saul.Nuccitelli@austintexas.gov)>; Hollon, Matt <[Matt.Hollon@austintexas.gov](mailto:Matt.Hollon@austintexas.gov)>  
**Cc:** Lesniak, Chuck <[chuck.lesniak@austintexas.gov](mailto:chuck.lesniak@austintexas.gov)>  
**Subject:** RE: Impervious Cover

Saul, Matt, Chuck,

First – thanks for the dialogue. Chuck and I took it up in the hall yesterday morning, so I’m looping him in.

Second – from what I gather now from you all at the City is that your position is that all overhangs are 100% impervious cover. As I mentioned to Chuck yesterday, this means that every site plan that I have done in the past 30 years is in error, which is disconcerting to me. But I’m not alone, which should be disconcerting to the City. I polled 18 engineers yesterday. Of those 18, only one counted all overhangs as impervious cover. Four count an overhang over 2’ as impervious cover (which is how we have done it). But that leaves 13 that do not count overhangs at all.

I’m not sure that you all appreciate the impact of an “all overhang as IC” position especially when it comes to urban development. Think about this. Overhangs provide architectural and important elements to design with shaded window awnings or larger, deeper overhangs to deal with the sun in certain areas. Further, this position is now a direct impact to urban development where the impervious cover is set by “zoning” with two outcomes – 1) The potential yield is reduced because of the overhangs now exceeding IC for projects in Urban Watersheds, and 2) Buildings without overhangs are severely deficient in design that then detracts from an intended urban form.

It is severally incomprehensible to assume that every overhang, regardless of depth (or height for that matter – consider an overhang 60’ in the air) impacts the ability for rainwater to hit the ground and be absorbed. The overhang does not cover the ground. Rainwater gets to the areas under an overhang with almost any and every storm event.

I continue to be troubled over this issue and have stirred up a bit of a hornets nest. I know the City has spent a lot of time wringing their hands over this issue and now the development community as well. At some point the departmental silos need to make a decision on what is best for Austin. An approach to impervious cover that is a typical City of Austin over-the-top, belt and suspenders that does not make a lot of sense, or, understand that these types of decisions are contrary to many other policies for Austin – units, yields, shade, design, health, form, etc..

**Ron Thrower**  
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Friday, April 29, 2016 AOL: JRT3308

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**From:** Nuccitelli, Saul [mailto:Saul.Nuccitelli@austintexas.gov]  
**Sent:** Tuesday, April 26, 2016 5:06 PM  
**To:** Hollon, Matt; Ron Thrower  
**Subject:** RE: Impervious Cover

Hi Ron,

Happy to talk with you about this whenever. Meanwhile, here is a (somewhat) short answer.

For the drainage utility fee (DUF), starting in Nov 2015, we started charging lot by lot impervious cover based on aerial mapping (which includes rooftops). This is consistent with our historical use of aerial mapping for drainage design and construction projects (which is a driver for our department's cost of service). We understand that there is an inconsistency on eave interpretation between drainage impact and building permitting (that existed even before the DUF changed). While we continue to feel the best science is to include rooftops as IC, we are working on ways to possibly resolve that inconsistency.

I also understand your point about the Solar Farm and I think we should add more clarity in the code/rules, not just on eaves, but on all impervious surfaces that overhang the ground. Awnings, shade structures, solar panels, etc. We should continue to better answer the question - When should an impervious surface be considered impervious cover?

**Saul A. Nuccitelli B, PE, CFM**  
 Value Engineering, Safety, and Data Management Division  
 Watershed Protection Department, City of Austin  
 505 Barton Springs Drive, 12<sup>th</sup> Floor, Austin, TX 78704  
 P: (512) 974-6550  
[saul.nuccitelli@austintexas.gov](mailto:saul.nuccitelli@austintexas.gov)

**From:** Hollon, Matt  
**Sent:** Tuesday, April 26, 2016 3:02 PM  
**To:** Ron Thrower <ront@throwerdesign.com>  
**Cc:** Nuccitelli, Saul <Saul.Nuccitelli@austintexas.gov>  
**Subject:** RE: Impervious Cover

Ron,

Greetings! Saul Nuccitelli is the man you want to talk to about this issue—he is super knowledgeable about it after many discussions related to the Drainage Utility Charge (based on impervious cover). I've cc-ed him on here and his phone is 512.974.6550.

Matt

Matt Hollon | Environmental Program Manager, Planning & GIS  
 City of Austin | Watershed Protection Department  
 505 Barton Springs Rd. 11th Floor; Austin, Texas 78704  
 512.974.2212 voice | 512.974.2846 fax

Friday, April 29, 2016 AOL: JRT3308

From: Ron Thrower [mailto:ront@throwerdesign.com]  
Sent: Tuesday, April 26, 2016 11:52 AM  
To: Hollon, Matt <Matt.Hollon@austintexas.gov>  
Subject: Impervious Cover

Matt,

Seems like I have been around a long time, yet still seems like I am finding out new things every day. This time it is "what is impervious cover?". I understand what it states in the ECM and what was previously in the LDC. For decades it was determined that incidental overhangs were not considered impervious cover and that incidental was an overhang of 2' or less. Mind you, this has been the understanding for decades because overhangs / eaves do not cover the ground are only a real impediment with larger overhangs. Now I'm hearing that this applies to single-family only and that all commercial overhangs, regardless of the overhang depth, is 100% impervious cover.

As a side note – I argued with the City in their determination that the solar panels on the Solar Farm in Webberville were not counted as impervious cover because these were large panels that throw a lot of shade and do impede rainfall from hitting the ground. The city argument for not counting it was because the water would hit the panel and then drop to the ground. My response was "Like a roof". But they decided that for all that development for the Solar Farm that only the roads and actual buildings count as impervious cover which equated to a less than 18% impervious cover and...no water quality required.

So, when is an overhang impervious and when is it not?

## Ron Thrower Thrower Design

510 South Congress Avenue, Suite 207  
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—Original Message—

From: "McGehee, Dana" <Dana.McGehee@austintexas.gov>  
To: "McGehee, Dana" <Dana.McGehee@austintexas.gov>  
Subject: Drainage Utility Fee Rules Adopted  
Date: Wed, 27 Apr 2016 20:09:18 +0000

Hello,

The final drainage utility fee rule was adopted today, April 27, 2016. Attached to this email you will find several documents:

Friday, April 29, 2016 AOL: JRT3308

- Rule Adoption Notice
- Adopted Rule
- Backup Documents:
  - Redline version of DCM Section 9 showing changes from original emergency rule (underlined) and from the rule proposed on January 28, 2016 (highlighted) – *Pages 1-9*
  - Comments and Responses Spreadsheet – *Pages 10-15*
  - Attachments A, B, and C: comment letters from stakeholders – *Pages 16-22*
  - Attachment D: Common Responses for Fee Structure, WPD Programs and Roof Eaves/Austin Drainage Charge – *Pages 23-27*

The rule will be hosted on the City's online code website, MuniCode (<https://www.municode.com/library/>), in the near future as a new Drainage Criteria Manual Section 9.

In the meantime, you may review and download the DUF rule either by accessing Watershed's FTP site (<ftp://ftp.ci.austin.tx.us/wpdrpostings/Drainage%20Utility%20Fee%20Rule/>) or on the City of Austin's Drainage Charge website (<http://www.austintexas.gov/drainagecharge>).

Please note that it may take a day or so to get the final documents up on the Drainage Charge Website.

Please feel free to contact me with any questions.

Regards,  
Dana

Dana McGehee  
City of Austin  
Watershed Protection Department  
Phone: (512) 974-2634  
505 Barton Springs Road, Suite 1200  
Austin, TX 78704

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