



**BROADWAY VOLVO PLANNED AREA DEVELOPMENT (PAD) ZONE
PROPOSED REVISIONS
Environmentally Conscious Design Practices**

C. Environmentally Conscious Design Practices.

Each development shall include five or more of the following (and the use of item 1 shall count as two toward the five required):

1. Adaptive reuse of an existing structure.
2. Provide shade for at least 70% of parking areas, pedestrian areas, and bicycle parking facilities.
3. Provide 100% desert-adapted plant species. Species chosen must adhere to the Arizona Department of Water Resources Tucson AMA Drought Tolerant/Low Water Use Plant List.
4. Provide Energy Star or cool roof rated at least 0.65 reflectivity and at least 85% emissivity.
5. Use LED outdoor lighting of less than or equal to 3600 kelvin, and full cut-off fixtures.
6. Provide solar panels on roof or shade structures.
7. Provide green roof with at least 4" of growth medium or a similar vegetated treatment.
8. Provide porous concrete or permeable paving adjacent to planting areas.
9. ~~Provide vegetated "greenwalls" (covered by live plant material) on trellises.~~
10. Provide low-e glass better than the minimum requirement per the International Energy Conservation Code for all windows.
11. Implement Car Share use or Bike Share use.
12. Implement secure bike parking garage.
13. Incorporate innovative design practice such as alternative methods of energy savings or production.
14. Incorporate innovative design practices that result in a 50% reduction in water use from plumbing standards.
15. Incorporate innovative design practices that use recycled materials for paving from content site paving/building materials.
16. Use reclaimed water harvested from mechanical systems and treated for landscaping.

BROADWAY VOLVO PLANNED AREA DEVELOPMENT ZONE - COMMENTS RECEIVED DRAFT

Key Issue 6

Key Word	Existing Section Location in Original PAD	Comment Received
Environmentally Conscious Design Practices	Part 3. Section R	<p>3) On the last page of the document your office provided it is stated, "Use reclaimed water from municipal source or harvested from mechanical systems and treated for landscaping."</p> <p>Tucson Water does not have any reclaimed water facilities in the vicinity of this project and does not plan on extending reclaimed water to this site. Therefore, I assume reference is being made to greywater which has as its source the discharge from sinks, showers, baths, clothes washing machines and dish washers.</p>
Environmentally Conscious Design Practices	Part 3. Section R	Part 3. Section R. 'Environmentally Conscious Design Practices' list provides only minimal environmental beneficial impact.
Environmentally Conscious Design Practices	Part 3. Section R	Include LEED standards as a requirement
Environmentally Conscious Design Practices	Part 3. Section R	Define the minimum size of solar panels
Environmentally Conscious Design Practices	Part 3. Section R	Be clearer that ALL lighting should conform to the City's Outdoor Lighting Code / Dark Skies Ordinance – think the item on the list is really pointing out use of LED
Environmentally Conscious Design Practices	Part 3. Section R	Consolidate all the shade items
Environmentally Conscious Design Practices	Part 3. Section R	Covered parking should be solar covered
Environmentally Conscious Design Practices	Part 3. Section R	5 design practices are too few to require. Require more!
Environmentally Conscious Design Practices	Part 3. Section R	All "Shade" items should be included as one option
Environmentally Conscious Design Practices	Part 3. Section R	Page 40: #L. Energy and Water Conservation Standards: This section mandates best practices. Yet, the developer can get credit for meeting the environmentally conscious standards by using some of the practices listed. Are these practices somehow super-best practices? What is the distinction? If best practices are mandated then there is no need for additional credit.
Environmentally Conscious Design Practices	Part 3. Section R	Page 42. #R: Environmentally Conscious Design Practices: a) Overall, this section needs to be completely revised (if it is included at all). First, requiring only five standards will lead to a minimal project. Secondly, some of the standards seem to be mandated within the document. There are lots of other environmental issues that should either be optional or required, such as requiring solar panels on covered parking.

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Key Word	Existing Section Location in Original PAD	Comment Received
Environmentally Conscious Design Practices	Part 3. Section R	<p>R. Environmentally conscious design practices. These are an interesting list of practices I understand were adapted from those of the Main Gate overlay. While many are commendable, to only have to do 5 is ridiculous. The developer SHALL be required to do at least 12 of the 19 listed below. [I have split some apart.]</p> <ol style="list-style-type: none"> 1. Provide shade for at least 70% of parking areas. 2. Provide shade for at least 70% of pedestrian areas. 3. Provide direct access connections from transit stops. 4. Provide shade for Short Term Bicycle Parking Facilities. 5. Provide 100% desert-adapted plant species. Species chosen must adhere to the Arizona Department of Water Resources Tucson AMA Drought Tolerant/Low Water Use Plant List. 6. Provide Energy Star or cool roof rated at least 0.65 reflectivity and at least 85% emissivity. 7. Use LED outdoor lighting of less than or equal to 3600 kelvin to comply with City of Tucson Outdoor Lighting Code. 8. Provide solar panels on roof or shade structures. 9. Provide green roof with at least 4" of growth medium or a similar
Environmentally Conscious Design Practices	Part 3. Section R	Including 'direct access to transit connections' is weak; should be required
Environmentally Conscious Design Practices	Part 3. Section R	The Energy and Water Conservation/Environmentally Conscious Design Practices requirements are almost meaningless. A developer could easily address 5 components with just a couple of design elements. For example, shade components should all be under the same heading, not broken into 3 different points.
Environmentally Conscious Design Practices	Part 3. Section R	Incorporating multiple best practices in environmentally sustainable design is of utmost importance, both for Tucson's reputation as a growing leader in that area, as well as the future economic stability of the development, lowering electricity and water use through solar panels, shade design, low water use native desert plant landscaping, street side planting basins, etc
Environmentally Conscious Design Practices	Part 3. Section R	<p>VII. ENVIRONMENTAL DESIGN STANDARDS</p> <p>Items 1, 2, and 4 should not count towards the 5 out of 17 green practices. These dilute the real green design impacts of this project. Each item is shade related, they should be grouped together as one item, if included at all. Item number 8 requires use of solar panels but does not specify the size of the solar array. A minimum system size should be included to prevent developers from installing a novelty solar panel just to get the standard met while not actually producing significant green energy.</p>

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