

## **Cornfield Arroyo Seco Specific Plan (CASP) CPC-2009-598-SP**

### **Commentary on the building and site design criteria as they apply to industrial facility design**

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The Cornfield Arroyo Seco Specific Plan as currently written contains many disincentives for new industrial developments. In the material following there is a focus on the physical constraints the CASP places on new industrial development, the ramifications of those constraints, and suggested approaches to mitigate the negative impact they would have on new industrial development.

This discussion is organized into issues relating to building size, building facade and configuration, parking standards, and design requirement costs. First is an outline of specific suggestions to mitigate the current requirements. After the itemized outline is a more extensive discussion of the reasons underlying the suggestions.

- In Section 2.2 change the 300' limitation on building length to a requirement for visual relief in the building architecture at a 200' maximum. (no blank walls longer than 200')
- In Section 2.2 –F change the 600' limitation on block length to allowing the existing block length to remain without requiring subdivision down to 600'
- In Section 2.3 – C change the percentage for dedicated active use along the street frontage of an industrial building to 33% on an 'active street' and 15% on an 'industrial active street.'
- In Section 2.3 – C change the requirement to record deed restrictions on these active uses on industrial facilities to making them a requirement of the architectural expression.
- In Section 25- B change the standard parking ratio for all industrial uses from 1 stall per 1,000 square feet to allow up to 1 stall per 500 square feet for manufacturing uses
- In Sections 2.2 to 2.6 consider creating a point matrix similar to the LEED green building certification matrix instead of hard design requirements that add up to an onerous cost burden in developing new buildings

Also, there remains an inclusion of barriers in the City of LA to the demolition of buildings. Section 1.2 –B makes it clear that demolition is an undesirable event from the City's point of view. In fact, demolition reestablishes land value appropriate for zoning and paves the way for redevelopment. A vacant site is the best 'for sale' sign there is.

### **Building size issue**

Modern Industrial buildings are required to be inherently flexible as technology and products evolve rapidly and alter the optimum configurations for manufacturing production processes and rapid

retrieval distribution methods. Many industrial companies tend to grow (or shrink) in sudden fashion, often in cyclical patterns.

There is a dramatic economy of scale in the relation between the size of an industrial facility and its construction cost per square foot. The curve is hyperbolic, with cost approaching infinity as size approaches zero. Some of our industrial facilities exceed 2 million square feet in area. A biotech manufacturing headquarters we designed in Northridge is over 500,000 square feet in area. At the opposite end of the scale, we have also designed buildings targeted at very small industrial users at around 8,000 square feet. At this scale it is far more common to create a larger multi-tenant building to house several small users and still achieve some economies of scale.

The combination of flexibility and the economy of scale in building cost tend to push today's industrial buildings into larger sizes than most of those currently existing within the CASP project area. There are five industrial buildings that have been built in the last ten years in the CASP vicinity. They are all larger than their neighboring older buildings and none of them complies with all of the design criteria currently contained in the CASP. One issue has to do with the intent of some of the plan restrictions to limit building size.

Section 2.2 - B (page 47) has wording that limits the length of buildings along a street frontage to 300'. Many of the block widths in the existing industrial areas are between 150 and 300 feet. Strict application of this 300' limit would effectively limit buildings to 20,000 to 40,000 square feet unless they take up entire blocks. All five of the industrial facilities built in the last ten years are larger than this.

Industrial buildings closer in scale to current demand such as those five could be developed with the CASP if the current wording of the CASP in this area could be directed at providing visual relief in otherwise flat building facades at no more than 200 feet apart while still allowing an overall building length longer than 300'. It runs counter to the need for industrial buildings to be flexible and the economic reality of the economy of scale to proscriptively limit industrial building sizes to fewer than 40,000 square feet.

Section 2.2 – F (page 48) limits maximum block length to 600 feet throughout the industrial designated areas. This again functions as a proscriptive limit on industrial building sizes by limiting site area.

Many industrial operations receive frequent delivery of material by truck. They also ship primarily by truck. A normal big rig truck configuration in California is about 72 feet long end to end. These trucks require a minimum of 130' of clearance to make a 90 degree turn away from a truck dock. If one end of a building has a truck dock and the other has two rows of parking then the building would be limited to less than 340 feet on a 600 foot block.

Several existing blocks in the industrial areas exceed this 600 foot limit. The longest appears to be about 1,300 feet long. Wording that allows existing industrial blocks to remain at their current length and not be subdivided to 600 feet would allow much more flexibility in the scale of future industrial buildings without impacting current conditions.

These changes in wording to sections 2.2 B and F could maintain most of intent to create future industrial development at a reasonable street scale and still allow enough flexibility within the CASP area to attract many industrial operations.

## **Building street façade design and building configuration issue**

The need for flexibility in today's industrial facility goes beyond the issue of size. Industrial facilities tend to be less articulated because an open plan of simple geometry is always the most flexible design. An industrial operation is not like a house that combines a set of single purpose rooms, it is like the open loft that industrial facilities are often converted into. Highly articulated plans lead to rapid obsolescence, inefficiency, and expense. The five industrial facilities built in the area in the last ten years are all simple block shapes with minimal glass and architectural articulation.

Section 2.3 – C (beginning on page 50) proposes a hierarchy of four street types within the project that have different levels of street façade requirements. A majority of streets within the existing industrial areas are designated as some form of 'active' street and buildings on them are required to have 75%, 50%, or 25% of their street frontage occupied by 'active' uses. These active uses are identified as retail, residential, office, or lobbies.

The 75% and 50% requirements preclude almost all new industrial facilities of this size because they simply do not have that high a percentage of these types of uses. It is perhaps possible to meet this requirement along with the similar requirement for 'transparency' by extensive windows along the street. That means putting in windows along the street into the back of house manufacturing, assembly, or distribution operations. There are very few industrial operations that would be willing to occupy such a facility.

The lowest 'active' street designation is the 'active industrial street' and it requires 25% of a buildings street frontage be occupied by 'active' uses. This percentage is achievable in a few operations, but not by a majority. None of the five industrial buildings built in the last five years (which all occupy one of these active street designations) would meet the requirements of section 2.3.

The range of the percentage of glass and active use on a street frontage of industrial buildings we have designed at HPA are across the entire scale from 0% to 100%. Looking at a sample of ten facilities that are fairly typical of today's industrial building there is an average glass and architectural treatment equating to active uses to be just under 18% of the street frontage taken as lineal feet.

Lowering the required glass and active use space from 25% to 15% along streets designated as 'active industrial streets' would fit the actual profile of an industrial use much better. Lowering the requirement for an industrial use on an 'active street' from 50% to 33% would greatly enlarge the pool of potential industrial users for those buildings.

There is also wording in here that indicates processing deed restrictions for these active use requirements. Rigidifying the pattern of use within an industrial facility ignores the rate of change inherent in these operations. It would seem that the requirement to architecturally provide the visual relief and scale that these restrictions are aimed at should be sufficient. Requiring deed restrictions on use patterns within a building would seem to make them very inflexible and undesirable to industrial users.

## **Parking Standard issue**

Industrial facilities that house manufacturing or distribution operations in LA require 1 space for every 500 square feet. This requirement is usually excessive for a pure distribution operation and appropriate for some manufacturing operations. Many manufacturing operations are people intensive and look for parking on a ratio of 1 space for each 250 square feet.

Section 2.5 – B limits parking dedicated for an industrial facility to 1 space for each 1,000 square feet. Extra ‘public’ parking may be provided, but this means security issues will surface for the building user. This parking limitation will be a deterrent to many manufacturing industrial users that are the most prized job producing operations.

Allowing a manufacturing user to dedicate parking for their operation up to the current LA zoning requirement of 1 space for 500 square feet will attract many manufacturers and not place an undue burden on the traffic in the area.

### **Design requirements cost issue**

The overall effect of the extensive design requirements in sections 2.3 to 2.6 is to significantly increase the cost of developing a new industrial facility in the CASP area. It is possible that the provisions aimed at minimizing bird strikes on windows will not place an onerous burden on a project’s cost, but as a whole these requirements will increase the cost of developing a 30,000 square foot industrial building in the CASP area by *at least* 35% over a similar building nearby but not inside the CASP boundary.

The framework for LEED certification by the USGBC faces the same predicament. They have managed to minimize the cost burden in order to keep LEED certification economically viable by designing a flexible point system framework with only a few ‘hard’ requirements. The CASP proposes all ‘hard’ requirements for visual transparency, small scale, exterior lighting, interior lighting controls, ‘green’ parking lots, dedication of 2% of building area to public space, renewable energy generation, highly reflective roof surfaces, and bird strike mitigation for window areas.

None of the issues that these requirements aspire to address should be ignored. But when they are all imposed in equal weight upon the cost of erecting a new building within the CASP boundary it creates a significant disincentive to redevelop industrial facilities. It would be worth some additional time and effort to design a more flexible framework for these many requirements that allow tradeoffs as does the LEED certification system. It may be politically difficult to weigh bird strike protection against renewable energy generation, but the result may make taking our medicine a bit more palatable.

Hopefully these suggestions foster consideration and thought. The planning process is thick with trees, in fact with leaves on limbs on trees, and the big picture of the forest is difficult to hold onto. If an objective of the CASP is to preserve industrial land uses and provide new employment opportunities in industrial operations, then some of the limbs in the CASP forest require trimming.

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