

**AUTHORIZED 2<sup>nd</sup> SUPPLEMENT**

**OF APPELLANT SUNLAND-TUJUNGA ALLIANCE, INC. - NO  
HOME DEPOT CAMPAIGN  
RESPONSES TO JANUARY SUBMITTAL BY LATHAM &  
WATKINS**

[Dated and due 2/2/07 in Office Zoning Administrators]

**RE: APPEAL TO THE CITY PLANNING DIRECTOR OF THE  
BUILDING & SAFETY DEPARTMENT'S ISSUANCE OF PERMITS  
FOR A NEW HOME DEPOT STORE AT 8040 FOOTHILL  
BOULEVARD, SUNLAND.<sup>1</sup>**

**[HEARING OFFICER: GARY BOOHER]**

We have thoroughly reviewed the Latham & Watkins submittals dated January 16, 2007 and January 18, 2007. In response to our structural engineers<sup>2</sup> numerous factual findings (added loads to roof, newly installed beams, seismic and engineering calculations, stronger slab tied to footings of bearing walls, etc.), Latham & Watkins, on behalf of Home Depot, provides a simple one page letter from Mr. Lee of CASCO (the construction manager). A key point is that Mr. Lee agrees and admits structural changes are being made, but those alterations and new beams are "secondary structural components" of the building. The fatal flaw with Home Depot's claim and labeling is that *no* such distinction or qualifier is found in the definitions of a "Project" or "Structural Alteration," nor does such an exception make sense in view of the intent of the Specific Plan.

In place of a Los Angeles Department of Building and Safety justification for its decision, Latham & Watkins avoids a meaningful or detailed response and uses boiler plate responses, like the "LADBS Report fully addresses all issues raised," which it clearly failed to do. Due to the vast magnitude of this work, the significant cost, the change of use from auto repair to sales, the indisputable fact that alterations are being made to structural components of the building, the serious new safety concerns and the public policy goal and the importance of implementing the Specific Plan, the public needs and deserves a detailed, analytical, and logical justification for this possibly unsafe building and the circumventing of the Foothill Boulevard Corridor Specific Plan standards. Mr. Bookbinder, a California licensed Structural Engineer, with many years of experience and who is well aware of the Los Angeles Building Code, has now

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<sup>1</sup> And all Building Permits related thereto, such as Number 06016-100000-03354/Plan Check Number B06LA01738.

<sup>2</sup> Mr. Ficcandenti, Mr. Bookbinder and Mr. Pozzo

noted many details and technical facts indicating this is a "Project". See *attached Findings*.

In the meantime, we hear a portion of the roof has collapsed! However, we have not received any information about what was going on in that area of the building or why the roof was structurally compromised. If the roof collapsed with no additional equipment being added, it obviously now must be made stronger by structural alterations. In the absence of any reasonable justification, the safety reasons set forth in this appeal, and without the required Project Permit Compliance Review, the work or any occupancy must be placed on hold or stopped.

I.

**"INTENT" OF SPECIFIC PLAN AND DEFINITIONS OF "PROJECT" AND "SIGNIFICANT PROJECT"**

1. ***To Shorten Use and Existence of Non-Conforming Structures.*** Regardless of the label ("remodeling" or "tenant improvements"), the purpose of the Specific Plan's definitions of "Project" and "Significant Project" is to prevent major private investments on improvement work to a nonconforming structure that continues the structure "as is" without the upgrades required under the Specific Plan. The ultimate purpose of zoning is to reduce all nonconforming uses and have conformity as speedily as is consistent with proper safeguards for the interests of those affected. Any change to a building that *tends to give more permanency* to a nonconforming use or building would not be consistent with this purpose.

Considering this land use planning goal and public purpose, in California, a Zoning Hearing Officer and the City of Los Angeles should be guided by "a *strict policy*" of interpretation against the extension of nonconforming structures.<sup>3</sup>

2. ***If A Significant Economic Investment Is Made For "Any" Type Of Alteration To A Support Member, That Very Act Implies Its Life Is Prolonged.*** While Section 12.03 mentions any change which would "*prolong the life* of the supporting members" of a structure, if a land owner spends significant money to make an alteration to a support member, it is implied and logical to assume that the life of the supporting member is prolonged. The "prolonged life" phrase in Section 12.03 is based on a legal concept (not engineering), that a city must provide a reasonable *amortization period* to eliminate a nonconforming building, so that there is no unconstitutional taking of property. Normally, we look at 'useful life' of the building (generally a combination of the functional use, economics, and age of the building such that it remains capable of still bringing in a reasonable economic commercial return based on the experience in the retail industry). We now have shopping centers razed and entirely rebuilt after only 30

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<sup>3</sup> *San Diego County v. McClurken* (1951) 37 Cal.2d 683, 686.

or 40 years. The IRS gives an owner 31.5 years to depreciate a commercial building.

Any alteration of the *property*, made necessary for economic reasons, adds *permanency* to its "legal nonconforming use."<sup>4</sup> In the absence of a sufficiently accurate formula or criteria for estimating a support member's life or the building's useful life, spending money on any structural alteration presumes its life is prolonged.<sup>5</sup> Mr. Bookbinder, a knowledgeable structural engineer, with many years of experience with the Los Angeles Building Code, finds it serves no purpose to speculate on calculations of the remaining life of a support member, or a number for the years such life is extended. *See attached Findings.*

It is clear that, if the new base material and stronger concrete floor were not installed, the old floor would disintegrate under the stress and weight from the fork lifts and racking system above, thus the useful life of that supporting member is prolonged. It is also clear that if the new roof beams were not installed, the added weight of the 55 new HVAC and 37 skylights could lead to serious collapse possibilities with the roof, thus, the life of that support member and the building are prolonged. Home Depot would not have undertaken the work if it would shorten the building's life!

## II.

### THE ONLY TECHNICAL CLAIMS MADE ARE IN TWO LETTERS FROM CASCO, WHICH MISINTERPRET THE DEFINITION OF "STRUCTURAL ALTERATION" AND CREATE A NEW EXCEPTION UNDER THE SPECIFIC PLAN.

1. **Roof Alterations Necessary To Support 55 New HVAC Units.** The devil is in the details.<sup>6</sup> No one contests the facts that: (a) each of the 55 new HVAC units adds weight to the roof system; (b) the new sprinkler system adds weight to that roof; and (c) the openings and removal of existing plywood or support members to create holes for the new smoke ventilation system and the 37 new skylights, weakens that roof. Even the construction manager and engineer **admit (per Mr. Lee of CASCO), structural alterations were made.** However, Mr. Lee subjectively labels that new reframing and the added beams

<sup>4</sup> *Sabek, Inc. v. County of Sonoma* (1987) 190 Cal.App.3d 163, 167-168; *Dienelt v. County of Monterey*, 113 Cal.App.2d 128, 131; *Paramount Rock Co. v. County of San Diego*, 180 Cal.App.2d 217, 229; *City of Los Altos v. Silvey* (1962) 206 Cal.App.2d 606, 609.

<sup>5</sup> Otherwise, LADBS can subjectively determine when a work does or does not extend a support member's life, which would lead to playing favorites and is not fair nor legal.

<sup>6</sup> They call the work just "remodeling" some how perhaps authorized under 2<sup>nd</sup> sentence of the Project definition, but "remodeling" never involves any structural alteration or the first part of "Project" definition would be meaningless and every owner would simply label, even a total tear down, work as remodeling.

(for example new added 3 1/2" by 16" beams, each 28 feet long) installed, as alterations to "secondary" structural components. He asserts that significant change is excused as being required by the Building Code. However, something required by the Building Code for structural safety is the essence of a "structural alteration" that triggers compliance with the Specific Plan.

Home Depot is attempting to re-define "structural alterations" to mean only changes to a "main" support member of the building and not to what an applicant labels a "secondary" support member. However, **no** such distinctions are found in the City's definition, nor does such an exception make sense. If a non-main or secondary support member failed, the building's usefulness would be hampered, if not stopped. In order to use and occupy this building, installing these new beams and the new framing must occur or the useful life of the building would be shortened. Furthermore, when considering the intent of the Specific Plan definition to phase out non-conforming structures, such subjective labeling of support members as "secondary" must be ignored or building consistency with this land use plan might be easily be avoided.

**2. The New Stronger Floor is Necessary to Support the Racking System.** Use of the phrase "such as" in Section 12.03 means the list of "bearing walls, columns, beams or girders" are just some examples of "support members," and clearly a "floor" can also be a support member. Therefore, the "on grade slab" can be a support member or an integral structural component adding strength to a wall or column for seismic reasons, or to a separate structure installed within the building.<sup>7</sup> Section 12.03 defines a "structure" as "anything constructed or erected which is supported directly or indirectly on the earth, but not including any vehicle which conforms to the California State Vehicle Act."<sup>8</sup> The large and heavy storage racking system requires a building permit and is a "structure". These racks must be safely engineered, plans reviewed by the City, erected, permanently bolted to floor and "supported" by the new slab. A "Project" includes structural alterations to a "building" or a "structure."

Mr. Bookbinder has attached a copy of the relevant LADBS racking structure installation permit form and he is aware of the Home Depot slab plans. His attached findings show this need and relationship.

In any event, **no** response has been made by Home Depot regarding the fact that the proposed racking structures must be "supported" by a stronger base and new \$897,750 floor, or those structures will tip over or collapse causing serious harm. If the present 4" slab on grade fails, the building's safety and usefulness is undermined if not stopped. In order to safely occupy this structure, the new base material and thicker and stronger 6" concrete slab must be

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<sup>7</sup> *Hopkins v. MacCulloch* (1939) 35 Cal.App.2d 442, 445

<sup>8</sup> The City codes a "BUILDING" is something more than a structure, as "any structure having a roof supported by columns or walls, for the housing, shelter or enclosure of persons, animals, chattels or property of any kind is a Building.

installed and permanently tied by rebar at the support footings, or the life of the building would be shortened.<sup>9</sup>

**3. New slab tied to foundation, is a “supporting member” for the walls.** Mr. Bookbinder’s findings indicate a seismic need and relationship. With the seismic force increase of approximately 70%, the new and stronger Slab on Grade, tied to the footings of the walls, will help resist the tendency of the shear walls to slide or move during an earthquake prolonging their useful life.

**4. The 55 exterior HVAC units on the roof are not screened.** The restrictions in the Specific Plan (Section 6A), for the subject building designate that all exterior equipment on the roof shall be screened from view. Home Depot merely alleges these numerous new roof units will be screened from view on Foothill Boulevard. Since the roof slopes away and downward from the proposed locations of the very short parapets, such units will not be screened from any angle or street, even from Foothill Boulevard, in violation of the definition of a “Project.”

**5. Drastically Under-Estimated Cost of Work; Extra-Ordinary Costly Floor.** This new Slab on Grade far exceeds the normal or average retail store floor. Its alleged costs of \$468,700, or an extremely low \$4.96 per square foot cost for 94,500 square feet is absolutely unrealistic. The minimal cost for such first class floor is \$9.50 per square foot or \$897,750. Other missing costs total \$1,900,000 for a total work cost of \$4,956,190. On a true \$4,000,000 building, or even as LADBS feels is, a \$8,100,000 Replacement Value building, with these more realistic and full costs, the total work costs to building replacement value ratio exceeds 50%.

### III.

#### **NO CITY REQUIRED “CHANGE OF USE PERMIT” HAS BEEN REQUESTED OR ISSUED EVEN THOUGH PLANS SHOW A CHANGE OF USE FROM AUTO REPAIR TO PICKUP AND PRO-DESK.**

The following examples from the “Permitted” and “Approved Plans” for Home Depot clearly show a “change of use” for the area designated S-3. According to the 2001 California Building Code, Section 311 — *Requirements for Group S Occupancies*, “Division 3 Occupancies shall include repair garages where work is limited to exchange of parts and maintenance requiring no open flame or welding, motor vehicle fuel-dispensing stations, and parking garages not classed as Group S, Division 4 open parking garages or Group U private garages.” Any other use for this area, in the former K-Mart store, will qualify as

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<sup>9</sup> In *Moore v Pettus* (1954) 260 Ala 616, 71 So 2d 814, the court held that changes in a store building, a nonconforming use, of putting in a new floor violated a zoning ordinance, which provided that a nonconforming use could not be prolonged or extended as those new improvements would make the structure more permanent.

construction requiring a Change of Use Permit and be a "Project" under the Foothill Boulevard Corridor Specific Plan. To establish that permit need, the Approved Plans show other uses (specifically checkout registers and a Pro/Contractors Desk) in detail.

*Examples:*

Drawing A1.0

Area in building Grid A-E, 9-10 is designated as S-3 USE (as per C. BUILDING CLASSIFICATION on Drawing T1)

Drawing M1.0 designates the area in building Grid B-C, 9-10 for CHECKOUT REGISTERS

Drawing E1.0 and Drawing E2.0 show enlarged openings in the interior separation wall, lighting and ceiling fans, and placement of checkout registers in building area Grid A-E, 9-10

Drawing E2.0 designates a PRO/CONTRACTOR DESK area to be built in building area Grid D-E, 9-10 (refer to Drawing E4.1 Detail E4.1-06 details on the construction of a PRO/CONTRACTOR DESK area)

Drawing P1.1 shows water pipes being added for the COFFEE MAKER in building area Grid D-E, 9-10.

IV.

**THERE IS NO LADBS JUSTIFICATION IN THE RECORD FOR THEIR DECISION - ONLY EXTENSIVE HEARSAY, CONCLUSIONARY AND NON-TECHNICAL ALLEGATIONS BY LATHAM & WATKINS.**

We have spent an extensive amount of time and effort to identify, list and explain what is actually going on at 8040 FOOTHILL BOULEVARD, but still we have no detailed explanation or factual statement from LADBS, even though required by their own rules. It seems that department has delegated its responsibility for justifying its action to this applicant. However, the letters dated January 18 and 16 from Latham & Watkins contain only simple conclusions and are entirely based on this new definition of "structural alterations". There is a total lack of support by any substantial and reliable evidence or facts in the record for the LADBS decision the work is not a Project, thus it was an arbitrary or capricious act.

V.

**MANY SERIOUS BUILDING SAFETY CONCERNS NOW DISCOVERED**

Mr. Bookbinder, a structural engineer, has performed the weight or load calculations and based on his years of experience, concern for professional engineering standards and our safety, has raised some very serious safety concerns about this 30 year old and now altered building. He notes: "The excessive number of references in the plans to an imaginary steel building and also to a Monterrey Park location are very troublesome to me." "THIS IS A DANGEROUS SPECIFICATION WAITING FOR FAILURE. Panelized roofs are special." "I have the opinion the Permit Construction Drawings contain several errors, some very significant. It happens the drawings were prepared by individuals who are unfamiliar with California Construction practices and its Building Code Regulations."

Obviously, Home Depot is trying to avoid various seismic upgrades and retrofit obligation triggers that will run up their cost and trigger this clearly a significant project, but such antics must be overlooked when the public's safety is drawn into question. *See attached Findings.*

VI.

**NO BAD FAITH PRESENT OR HARDSHIP CREATED, SINCE HOME DEPOT WAS WELL AWARE OF THE APPELLANT'S CONCERNS AND CONTEMPLATED CHALLENGE FROM DAY ONE and HOME DEPOT ASSUMED ALL RISKS TO PULL PERMITS AND BEGIN CONSTRUCTION**

We are just a grass roots organization of residents with day jobs and family commitments, but we have taken on this burden to challenge the largest warehouse store chain in the world, with its millions of dollars for legal fees, experts, campaign contributions, and contacts in the LADBS, etc. From day one, Home Depot has maneuvered the facts and has provided inconsistent and cloudy information on the costs, scope, nature and type of changes or construction work.


Once we were aware the permit was issued on July 24, 2006, we asked LADBS to explain and justify the issuance. There was a City meeting held on August 10, 2006 for that explanation. However, there were a number of items the City could not explain and would provide us with follow-up information. After looking at the follow-up information, we realized that a formal appeal must be processed. We asked about that process and were never given a clear answer about what is a rather complex and convoluted City appeal process for this type of situation. When we tried to file the appeal (September 18, 2006), we were told the LADBS staff person who could accept it was not there and to come back. A week later (September 25, 2006), LADBS finally accepted the appeal. Our ability

to challenge the LADBS issuance of a permit was also at a disadvantage because we filed our Request and Justification to Revoke the T.I. Permit based on plans that were not the stamped, "Approved Plans." We were not aware of the no "Approved Plans" problem until the Town Hall Meeting with Councilmember Greuel, LADBS and City Planning staff on November 6, 2006.

Any bad faith is on Home Depot's side. The record shows the initial Home Depot application proposed their normal and expected HD facility with demolition of the old K-Mart store. However, due to our opposition and the need for a City Project Permit Compliance Review for consistency under the Specific Plan, those prior plans were dropped as a scheme was conceived to have a new set of repackaged plans under the dubious label "tenant improvements",<sup>10</sup> all without the public's review and to avoid the City's Project Permit Compliance Review process. The No Home Depot Campaign appeal with the City was delayed for many weeks at different junctures of the process due to the City bureaucracy. The No Home Depot Campaign requested a Stop Work order on several occasions since the Home Depot began construction. Home Depot, well experienced in these adverse community reactions and aware of our contemplated challenge, continued to press forward and begin construction; it has assumed all risks of an eventual finding that this is a "Project" under the Specific Plan.

### CONCLUSION

All parties now agree that a change of use has occurred and some type of structural alterations were, and are being made. The Appellant believes based on the intent of the City's rules and Specific Plan, no matter whether such alterations are labeled "minor" or to "secondary support members", the work qualifies as a Project under the Specific Plan, which is a discretionary action and requires careful environmental review and compliance with CEQA.

  
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**ABBY DIAMOND, FOR APPELLANT,  
SUNLAND-TUJUNGA ALLIANCE, INC.  
NO HOME DEPOT CAMPAIGN**

<sup>10</sup> Even the applicant's lawyer, in a letter of May 24, 2006, indicates these are more than the normal tenant improvements and will bring this older building up to new codes.

**Findings**  
**of**  
**Arnold Bookbinder on Home Depot Plans and Work**  
**February 2, 2007**

I, Arnold Bookbinder, a California licensed structural engineer (SE 1448) with many years of experience in that profession and well aware of the Los Angeles Building Code and the Home Depot plans for the 30 year old former K-mart store at 8040 Foothill Boulevard, Sunland, find and state:

**NO "SECONDARY" SUPPORT MEMBER DISTINCTION IN CONCEPT OF "STRUCTURAL ALTERATIONS" UNDER SECTION 12.03**

One can be just as easily hurt by a collapse of a secondary beam and one (or more) of the 55 added HVAC units falling, as from a primary beam collapsing. The danger and destructive end is the same. If a main or secondary support member fails, the building's usefulness would be hampered, if not stopped. In order to safely occupy this building, the new beams and new framing at the 94 or more different locations on the roof must occur or the safe useful life of the building would be drastically shortened.

The engineer's and LADBS's goal is to have a *safe* building. Any attempts at quantifying or an analysis of a "prolonged life" is irrelevant and nonsensical to a structural engineer or the Uniform Building Code. An existing or new structural member is altered or installed to exclusively provide for the health and safety of the general public. Engineers DO NOT prepare building drawings for work on structural members to prolong its life. "Safety" has no relationship to the length of service, or length of life of a building.

**NEW SLAB ON GRADE, TIED TO FOUNDATION, IS A "SUPPORT MEMBER" TO WALLS AND STRUCTURAL COMPONENT THAT PROLONGS THE LIFE OF THE BUILDING'S FLOOR**

The Los Angeles City 1994 and 2001 Building Codes are identical with regard to seismic analysis. The stronger loads described below require the Slab on Grade of this specific building to help resist the tendency of the shear walls to slide or move during an earthquake. Because of: (a) the large dimensions of the building, (b) the lack of interim masonry shear walls, and (c) the increase in seismic force to the existing masonry shear walls, the existing shear walls will likely have to rely on the new Slab on Grade to help resist the tendency of the shear walls to slide or move during an earthquake. The revised seismic force discussed elsewhere namely includes an:

- (i) increase in dead loads – add approximately 24%;

- (ii) increase in seismic co-efficiency – add 37%.<sup>11</sup>

The increase in total force to the shear walls will be  $1.24 \times 1.37 = 1.7\%$ .

In other words, with the seismic force increase of approximately 70%, the new Slab on Grade will help resist the tendency of the shear walls to slide or move during an earthquake.

**INDISPUTABLE THAT NEW SLAB ON GRADE IS A STRUCTURAL SUPPORT MEMBER AND COMPONENT FOR RACKING SYSTEM AND FORK LIFTS**

All the underlined items on the attached City of Los Angeles Department of Building & Safety LARUCP Storage Racks Plan Review List used in plan review are structural engineering issues. See Exhibit "A". There can be no doubt that the support member for the storage rack structure is the new slab on grade necessary to support large vertical loads and/or horizontal seismic forces to prevent overturning of the storage racks.

Per Los Angeles Municipal Code Section 91.1922.1.1.2 - the new slab-on-grade for this building is a structural support member of the new and heavy racking system (a "structure" as defined in the Code) and proposed new use that will indisputably prolong and extend the anticipated life of this non-conforming building since it is necessary to allow new more intense contemplated occupant uses.

- a) The new slab must support an approximate concentrated load of 7500 pounds from the proposed extensive racking system at approximately 4' - 0" ft. on center, which the old or existing slab cannot.
- b) The slab must support impact loads from a movable forklift vehicle probably carrying a 2000 pound load as a cantilever. This loading would result in an approximate load of 1500 to 2000 pounds on each front wheel of the forklift vehicle, which the old or existing slab cannot and would deteriorate under such an occupant use.

The new stronger slab-on-grade and the necessary foundation support will prolong the anticipated life of this building by allowing this more intense use and the vertical loading imposed on the subject floor. Comment 6 will explain and continue a discussion of this issue also.

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<sup>11</sup> Note: The decreased diaphragm length and nail value reduction have no effect on the load to a shear wall.

**55 EXTERIOR HVAC UNITS ON ROOF ARE NOT EFFECTIVELY SCREENED FOR VIEWS FROM FOOTHILL BOULEVARD; AND SUCH ROOF EQUIPMENT MUST BE SCREENED FROM ALL SIDES, NOT JUST FOOTHILL BOULEVARD.**

The restrictions in the Specific Plan (Section 6A) for the subject building designate that all equipment on the roof shall be screened. Home Depot merely alleges it will be screened from view on Foothill Boulevard. Since the roof slopes away and down from the proposed very short parapets, such units will not be screened even from Foothill Boulevard. No screen support details are indicated on the drawings.

**THERE ARE SERIOUS BUILDING SAFETY CONCERNS**

**A. Actual "Dead Load" on Roof.** Actual "Dead Load" on roof is at least 24% higher than indicated on structural drawing S0.1. Mechanical equipment platforms are not detailed on the drawings. The drawings state mechanical equipment platforms are to be 5' 0" wider than the equipment. The weight of these platforms and other dead loads that have been excluded will add more actual dead load to the roof and seismic analysis of the building. The existing building roof dead loads, as stated in the construction structural permit drawings, are low because of the omissions of dead weights for the GluLam beams, new LVL beams, purlins, roof rafters, mechanical equipment platforms, equipment screens, etc.

- (a) Certain other loads appear light or missing:
  - (i)  $2 \times 6 = 2.54 / 2 = 1.3$  vs. 1.0 (per drawing S0.1) add 0.3
  - (ii) Glue Laminated beam approx  $53.5 / 28$   
(no beam stated) add 1.9
  - (iii) Purlins –  $26.7 / 8 = 3.4$  vs. 2.0 (see drawing S0.1) add 1.4

Total added weight *missing* = 3.6 pounds per square foot.

I am assuming 3.6 pounds of added weight missing on drawing S0.1. Added weight percentage  $15 + 3.6 / 15 = 1.24\%$  is approx 24% higher. Therefore, the dead load is at least 24% higher than what is indicated on structural drawing S0.1.

**B. Correct Seismic Factor.** The seismic factor for the structural roof diaphragm analysis in 1975 was, I believe, 0.186 W. Assuming the information on the drawings apply to this specific project, the present seismic factor is  $0.3575 / 1.4 = 0.255$ . Therefore, the minimum seismic factor of the Home Depot project is at least  $0.255 / 0.186 = 1.37$  higher when the added dead load is taken into consideration. The correct factor will be  $1.37 \times 1.24 = 1.72$ , therefore the diaphragm must be 1.72 times stronger than the force allegedly used in 1975 to obtain a building permit.

The site is also located approximately 2 kilometers from a known earthquake fault and the site could be affected by soil liquefaction. These conditions probably account for the high seismic factor indicated on drawing S0.1, Note 5G - DESIGN BASE SHEAR EQUAL TO 0.3575W.

**C. No continuous continuity ties.** Before 1975, a continuous continuity tie was not required. However, after 1994, continuous continuity ties, at 8' on center maximum are mandatory. No continuous continuity ties are apparent in the existing building, as of this date, to the best of my knowledge.

**D. New Roof Openings Weaken Roof.** Furthermore, the completed new roof has approximately 5 new roof openings for the length of the building adjacent to each exterior masonry shear wall. I assume these openings accumulate to approximately 25' 0" in length. These openings reduce the roof plywood diaphragm length to approximately 210' 0" minus (1'0" + 1'0" + 25'0") equal to 183' 0" approximately. The roof seismic diaphragm strength is therefore reduced to  $183/210 = 0.87$  or 87% of the original value. In other words, the strength of the existing roof diaphragm has been reduced 13%.

**E. Weaker Nails Used.** It is a proven fact that nails used to install this type of roof system in 1975 consisted of Box Power Driven nails instead of the required Common nails. Sometimes the power driven nail is also referred as a 16d sinker nail. The 16d sinker nail, or 10d Box nail is 87% of the value of the normally specified 10d Common nail. This substitution was unknown until after the 1994 Northridge earthquake, by private engineers, LA City Building Department Engineers and LA City Building Department inspectors. Therefore, we must now increase the existing diaphragm nailing by an additional 13%. The above information is documented in the Los Angeles Document titled "Training on Emergency Regulations for Wood Frame Construction", prepared by Tim McCormick, P.E., and approved by Robert Harder, Karl Deppe, Nicolino Delli Quadri, and Vic Penera, all civil or structural engineers employed by the City of Los Angeles during 1994. Please note this is the same Nicolino Delli Quadri, Chief Structural Engineer, who is Lincoln Lee's department manager. See Exhibit "B".

**F. Lack of Expansion Joints in Masonry Walls.** The long dimensions of the subject building could also provide a significant problem on several structural issues. The dimensions of this existing building, using good engineering judgment, require expansion joints in the masonry walls. In the event there is a complete lack of expansion joints in the masonry walls, this could develop into a serious structural issue. This expansion joint issue affects the roof vertical loading and the masonry lateral force resisting element, i.e. the shear walls for this building. Good engineering judgment recommends that expansion joints in masonry wall construction shall be installed at an approximate 25'0" spacing.

Please note the reinforcing steel at the roof line commonly referred to as chord reinforcing steel, must not be cut in any manner or fashion.

### THE ADVERSE AFFECT

When we total the existing roof deficiencies, the percent increase is as follows:

ITEM A	DEAD LOADS	ADD	24%
ITEM B	SEISMIC COEFFICIENT	ADD	37%
ITEM C	REDUCED DIAPHRAGM	ADD	13%
ITEM D	NAIL VALUE	ADD	13%

THESE TOTALING  $1.24 \times 1.37 \times 1.13 \times 1.13 = 2.1692$  TIMES GREATER DIAPHRAGM STRENGTH REQUIRED.

Even if I am in error by 10% or more on the dead load estimate, the existing roof is exceedingly over stressed. I cannot understand how the City of Los Angeles Department of Building and Safety structural engineers are willing to ignore the above discrepancies and significant structural analysis defects.

### OPINION

The excessive number of references in the plans to an imaginary steel building is also very troublesome to me and reference to the Monterrey Park location. The directive to install wood members with WRONG bending stresses is also a major consideration. Although my review of the Permit Construction documents in the very limited time provided is not a thorough and complete review, I have the opinion the Permit Construction Drawings contain several errors, some very significant. It happens the drawings were prepared by individuals who are unfamiliar with California Construction practices and its Building Code Regulations. Several discrepancies are evident from which I must conclude the Permit Construction Drawings was not coordinated by one individual. There are several very significant Structural Engineering issues as discussed above.

One thing in particular, is that the drawings do not state the existing building roof is "Paneled Construction." This denotes certain specialized considerations, namely, the following note should be included on the Structural Roof Framing Plan:

A paneled roof - no load shall be supported by any existing or new 2x4s or 2x6s.

I believe the current roof is of 2x6 rafters. In other words, no columns, no ducts, no light fixtures, no sprinkler lines, no plumbing line, no sewer lines, etc. can be

supported by a 2x roof rafter. All hangers for everything and anything must be supported by the existing 6x roof purlins and/or roof GluLaminated beams.

In addition, the specification on Sheet S2.0 states: "use 2x4 sub purlins @ 2'0" maximum". Noting on sheet S0.1 states: "All dimensional lumber shall be Douglas Fir No. 2, or better (substitutions not permitted) with the following minimum design values. Fc(Para) = 1350 psi."

**THIS IS A DANGEROUS SPECIFICATION WAITING FOR FAILURE.**

Panelized roofs are special. The 2x4s (when they are used), were specified as follows:

2x4 Douglas Fir select structural, Fc = 1900 psi min.

2x6 Douglas Fir Construction Grade, Fc = 1500 psi min.

The plans refer to steel joist and metal deck construction, which does not exist on the subject project at 8040 Foothill Boulevard. The sheets included are: A2.0, A6.0, S0.1, E6.1, E7.1, P4.0, FA3.0, BA3.0, BA4.0 and FS6.0.

I have made a list of the many discrepancies and incorrect matters, attached as Exhibit "C". I now wonder if there is anyone at the City who is actually watching this project?

**MISSING COSTS FOR WORK**

**A. Many Missing Items.** Also, the cost of all the trade permits must be added to the total cost. If the building was made safe, I estimate the repair for the above mentioned work would be approximately \$200,000 for the roof plywood diaphragm, and \$200,000 to install approximately 1500 continuous ties, re-nailing, and I am also including a miscellaneous fee \$50,000 for continuous inspectors and unforeseen conditions. Therefore, we may add another \$450,000 to the construction costs plus 15% contractor's overhead and profit of \$67,500. The above costs now accumulate for an added grand total of \$517,500.

Note K on Sheet S1.0 indicates Home Depot has agreed to Pre-Purchase a quantity of diamond Dowels, Lead Plate Brackett and Armour-edge Reinforcing Bars from and separately pay for the removal of 4" of material upon demolition and removal of the existing 4" concrete slab and sale of granular material. Items furnished by owner, not the contractor (FBO) are: Unit Heaters, Exhaust/intake Fans, Roof-top Units, Novar Coolers, Make-up Air Units, Relief Vents, Flexible Wiring System (sales area lighting only), UPS system [Sheet M3.0 and Sheet L3.0]. Notes indicate several fixtures shall be purchased thru Home Depot, indicating fixtures will probably be furnished either at no cost or for very little cost. [Sheet P3.0]. The Fire Service Drawings must be installed for this project, but a "not for construction" note implies this work and cost will be performed at some later date by Home Depot, therefore, it is excluded from the A.J. Padelford & Son, Inc. Cost Estimate. This "Not for Construction" note makes no sense as fire

sprinklers are required for this specific project! The single explanation I can think of is to exclude this cost from the costs submitted to the Building Department, so that the full construction cost is below the 50% Replaceable Cost Value.

**B. Under Estimated Cost of Extra Ordinary Floor.** This is not the average retail store floor and its alleged cost of \$468,700 or \$4.96 per square foot appears unrealistic. The structural drawings indicate the slab on grade is very important and a critical system to Home Depot's operations. Home Depot spends significant extra dollars to avoid cracking or other related problems for the slabs in their buildings. This conclusion based on the following extra cost items:

- I. The entire existing gravel sub-base and 4 inch slab on grade was demolished and removed.
- II. The unusual large number of expansion joints for the new thicker concrete floor, indicated on the drawings.
- III. A new added 4 inch minimum course aggregate base and a skim coat of fine aggregate base on top of the course aggregate base is specified on drawing S3.1, Detail S3.1-07. The special details at the construction and contraction joints are also stated.
- IV. Special details at the construction and contraction joints are also indicated. See drawing S3.1, Detail S3.1-06 and Detail S3.1-07. 1.
- V. The existing soil is to be tested for per cent compaction to ensure sufficient consolidation of the earth. See drawing S0.1, SPECIAL INSPECTION –  
SOILS
  - 1. Site preparation – verify that the site sub grade soils are properly prepared.
  - 2. Fill placement 12 inches thick or greater – verify material being used and lift thickness.
  - 3. Evaluation of in-place density of compacted fill 12" thick or greater
- VI. The 6" slab thickness is very good engineering, but unusual.
- VII. The use of 3,500 psi to 4,500 psi is also unusual for a Los Angeles area slab on grade.
- VIII. The use of synthetic fibers is also a special requirement to limit and prevent cracks.
- IX. The drawings do not indicate any reinforcing steel; however the LADBS approval letters stated #4@16"0c each way reinforcing steel is stated to be installed. See drawing S4.0 City of Los Angeles Soil Report Approval Letter, pg. 3, item 16.
- X. The sulfate compensating cement is required by the geotechnical report.

I feel the minimal cost for such first class floor is \$9.50 per square foot or \$897,750 for 94,500 square feet. Other missing costs total \$1,500,000 for a conservative total work cost of \$4,200,000.

**C. A Truer Picture of Cost of the Work.** When one looks at all of the needed work and quality of the new stronger slab, we find a more accurate estimate of costing is as follows:

Sheet S1.0		
Dowels	Add	\$50,000.00
Slab on Grade	Add	430,000.00
Sheet M3.0	Add	71,000.00
Sheet E3.0	Add	500,000.00
Sheet E4.	Add	25,000.00
Sheet P3.0	Add	25,000.00
Sheet FS1.0 thru FS7.0		
Fire Alarm and Security System	Add	141,750.00
Fire Sprinkler	Add	212,660.00
Roof Plywood Diaphragm	Add	200,000.00
Diaphragm/Ties	Add	200,000.00
Miscellaneous & unforeseen	Add	50,000.00
Sheet A4.1	Add	15,000.00
Sheet A5.2	Add	4,000.00
Sheet 5.3	Add	4,000.00
Sheet A8.1	Add	100,000.00
	<i>Total Add-on Cost</i>	\$2,103,410.00
	Rounded Off and Assume Add Cost only	1,900,000.00
	Plus Miscellaneous & Unforeseen @ 15%	285,000.00
	Plus AJ Padelford & Son, Inc. Costs	2,771,190.72
	<b>SUM TOTAL of COST OF WORK</b>	<b>\$4,956,190.72</b>

**REPLACEMENT VALUE OF THE, NON-UPGRADED, EXISTING BUILDING IS TOO HIGH**

I checked the replacement cost of such a building, "as is" with no upgrades, and concluded the cost to be approximately \$40.00 per square foot including a 4" Slab on Grade. This is a far cry from \$70.00 per square foot. With these discrepancies, all of Home Depot's cost items require a closer and independent verification.

*Arnold Bookbinder*

ARNOLD BOOKBINDER,  
licensed structural engineer (California SE 1448)

# EXHIBIT "A"



## City of Los Angeles LARUCP STORAGE RACKS PLAN REVIEW LIST



**PLAN CHECK NO.** \_\_\_\_\_ **PLAN CHECK EXPIRATION DATE** 18 months from submittal date  
**PCIS #(S) :** \_\_\_\_\_  
**JOB ADDRESS** \_\_\_\_\_  
**SQUARE FOOTAGE** \_\_\_\_\_ **USE ZONE** \_\_\_\_\_ **FIRE ZONE** \_\_\_\_\_ **FLOOD ZONE** \_\_\_\_\_  
**OCCUPANCY GROUP** \_\_\_\_\_ **INITIAL VALUATION** \_\_\_\_\_  
**TYPE OF CONSTRUCTION** \_\_\_\_\_ **NO. OF STORIES** \_\_\_\_\_  
**APPLICANT** \_\_\_\_\_ **TELEPHONE** \_\_\_\_\_  
**E-MAIL** \_\_\_\_\_  
**ADDRESS** \_\_\_\_\_

<b>REVIEWED BY</b> _____	<b>DATE</b> _____	<b>TELEPHONE</b> _____
<b>RECHECKED BY</b> _____	<b>DATE</b> _____	<b>TELEPHONE</b> _____

**FIRE SPRINKLER INFORMATION:**

BUILDING SPRINKLERS THROUGHOUT?                       YES                       NO  
 SPRINKLER USED IN LIEU OF ONE-HOUR CONSTRUCTION?     YES                       NO  
 SPRINKLER USED FOR AREA INCREASE?                       YES                       NO

Your application for a permit, together with plans and specifications, has been examined and you are advised that the issuance of a permit is withheld for the reasons hereinafter set forth. The approval of plans and specifications does not permit the violation of any section of the Building Code, or other local ordinance or state law.

NOTE: Numbers in parenthesis ( ) refer to Code sections of the 2001 edition of the California Building Code, Table (T), Plumbing Code (P.C.), Mechanical Code (M.C.) or Fire Code (F.C.). N.D.S. refers to The National Design Specifications. (\*) Corrections used by the City of Los Angeles that may not be used by other municipalities.

**INSTRUCTIONS**

- Corrections with circled item numbers apply to this plan check.
- In the left hand margin of the circled corrections, please indicate the sheet number and detail or note number on the plans where the corrections are made. Bring marked original plans and two corrected sets of plans, calculations and this plan review list to the verification appointment.
- Incomplete, indefinite or faded drawings or calculations will not be accepted.
- The plan check engineer will be available for conference and telephone calls between the hours of \_\_\_\_\_ and \_\_\_\_\_ on the following days: \_\_\_\_\_. **Appointments are required to verify plan check corrections.**
- Incorporate all comments as marked on checked set of plans and calculations and this corrections sheet.

## APPLICATION

- 1. Provide a key plan showing property lines, street names, and location of building(s) with proposed storage racks.
- 2. Show on the plans a complete description of the entire scope of work.
- 3. In order to issue a building permit to the agent of the property owner, a notarized letter by the owner enabling the agent to pull the permit(s) must be presented. Instead, if the permit is pulled by a licensed contractor or his/her agent, the following information is required:
  - Certificate of Workers Compensation Insurance made out to the Contractors State License Board.
  - Copy of business tax registration certificate or a newly paid receipt for one.
  - Copy of contractors state license or pocket ID.
  - Notarized letter of authorization for agents of contractor.
- 4. **Two sets of plans** and one set of calculations will be required when permit is issued. Plans shall be:
  - Quality blue or black line drawings with uniform and **light background** color.
  - Min. 18" x 24" size (24" x 36" recommended) with minimum **1/8" lettering** size
  - Sticky back details must produce prints without contrasting shades of background color.
- 5. Obtain agency clearances (see attached).

## PLAN DETAILS

- 1. Floor plan of the building is required to show location of and to differentiate between all types of proposed storage racks. Floor plan must also show aisle widths and exiting scheme from the building in which storage racks will be placed.
- 2. Building permits are required for storage racks over 5'-9" high. Structural plans, details, and calculations are required for the construction of storage racks over 8 ft. in height. (Table 16B, 2222.1)
- 3. Lower portions of posts exposed to damage by forklift trucks or other moving equipment shall have protective devices. If not so protected, the rack structure may, at the option of the building

official: (1) be designed to maintain its full design load capacity at allowable stress with the exposed post capacity reduced by one-half, or (2) be designed to maintain its full design load capacity at 50 percent increased allowable stresses with the exposed post assumed to have no carrying capacity. (2222.5)

- 4. Storage areas in connection with wholesale or retail sales shall be separated from the public area by a one-hour fire-resistive occupancy separation. (309.2.2)
- 5. Each sheet of the drawings and structural calculations shall be signed by and bear the approved stamp of an engineer or architect licensed by the State of California.

## CALCULATIONS

- 1. Design requirements:
  - a) All beam to post connections shall be capable of supporting the combined vertical dead plus live loads and a horizontal force equal to 1.5 percent of the maximum dead plus live loads at the connections. (2228.3.2)
  - b) The minimum earthquake load on storage racks shall be determined in accordance with Sec. 2228.5.2, 1632.2 and 1634.2. (Chapter 16, Table 16-O, Note# 4)
  - c) Storage racks located in buildings at levels above the ground level shall be designed to resist earthquake forces that consider the response of the building and storage rack to earthquake ground motions as specified in section 2228.6 & (2222.1).
  - d) The distribution of base shear over the height of the storage rack shall be in accordance with Sec. 2228.5.2 for racks having more than two storage levels.
- 2. For determining overturning moment, the total weight shall be assumed to act at a height equal to 1.15 times the distance from the floor to the actual center of gravity of all the horizontal forces. (2228.7.1)
- 3. Provide analysis based on loading only the top level of the rack. Assume that the force is acting through the center of gravity of the top load. (2228.7.1)
- 4. The weight of the rack contents used to determine the resisting moment shall be the same as the weight of the rack contents used in

determining the lateral forces. (2205.8) (2228.5.2)

the name(s) of the individuals or firms who will perform the work. The inspection program shall be shown on the first sheet of the structural drawings. (See attached "General Notes for Structural Observation" form)

- 5\* The rigid connection assumption for the frame design shall be demonstrated by calculation or by testing in an approved manner. (2226.1) (2227.1)
- 6. The effect of perforations on the carrying capacity of compression members may be considered by using the section properties based on the minimum net area. Provide calculations for this consideration. (2224.2)
- 7. In accordance with Section 2222.5, where racks are braced against the building structure, the building structure shall be designed for the horizontal and vertical forces listed in Sections 2226.1 and 2228.5.2 .
- 8. Support of racks by foundations, concrete floor slabs or other means shall be in conformance with Chapter 18. All values of allowable foundation pressure are for footings having a minimum width of 12 inches and a minimum depth of 12 inches into natural grade. Where storage racks are supported by slab on grade, a maximum allowable soils bearing value of 500 psf will be allowed unless a soils report recommends a higher value for slabs on grade.
- 9. Engineer of record shall verify the conditions of the existing slab on grade supporting storage racks and make his/her observations as part of the plans. Structural calculations and details shall be required for rack locations with close proximity to expansion and construction joints. In addition, the engineer shall indicate if cracks are present and provide adequate mitigation measures.
- 10. At working load the deflections of pallet racks and stacker-rack, including possible deformations in the end connections, shall not exceed 1/180 of the span measured with respect to the beam ends. (2225.2)
- 11. When the configuration of the cross section of pallet racks and stacker-rack precludes calculation of allowable loads and deflections, determination may be made with a testing program acceptable to the building official. (2225.3)
- 12\* Structural observation per Section 1702 is required for this project. The engineer of record shall prepare an inspection program, including

### NOTES ON PLANS

- 1. Provide material specifications for:
  - Concrete
  - Steel
  - Welds
  - Bolts
- 2. All rack installation and racks manufactured in conformity with the code shall display in one or more conspicuous locations a permanent plaque each not less than 50 square inches in area and showing the maximum permissible unit load in clear, legible print. (2222.5)
- 3. Deputy inspection is required for all structural welds except for welding done in an approved fabricator's shop. (1701.5.5.1)
- 4. All welding, except when performed at the shop of an approved fabricator, shall be done by certified welders.
- 5. Provide Los Angeles City Research Report Number (LARR#) for ( ) approved concrete anchors, and ( ) alternate connectors such as clips.
- 6. The clear space below sprinklers shall be a minimum of 18 inches between the top of the stored material and the ceiling sprinkler deflector. Note on plans.

### Additional Comments:

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EXHIBIT "B"

***Training on Emergency Regulations  
for Wood Frame Construction***

*by*

***Tim McCormick, P.E.***

Approved: \_\_\_\_\_

Robert Harder, Chairman  
Wood Frame Subcommittee

Approved: \_\_\_\_\_

Karl Deppe, Asst Chief  
Building Bureau

Approved: \_\_\_\_\_

Nicolino Delli Quadri, Chief  
Training & Emergency  
Management Division

Approved: \_\_\_\_\_

Vic Pendera, Chief  
Structural Plan Check

## **INTRODUCTION**

The City of Los Angeles Department of Building and Safety and the Structural Engineers Association of Southern California formed eleven subcommittees following the Northridge Earthquake. The purpose of each subcommittee was to review the seismic response of various building types and suggest any necessary code revisions to improve their performance. The Wood Frame Subcommittee made recommendations which eventually became interim law. Consistent interpretation of the interim rules and a basic understanding of their purpose is the goal of this training.

## **SCOPE**

On April 22, 1994 the emergency enforcement measures for wood frame construction became effective. The original regulations reduced the allowable shear capacity and maximum permitted height to width ratios for drywall, stucco and plywood shear walls. Some panel edge members were required to be a minimum of 3 inch nominal width and increased detailing was required on the plans. The use of rotation to distribute diaphragm loads was also prohibited.

On May 20, 1994 the original measures were expanded to require common nails on plywood shear walls permitted after May 15, 1994 and use reduced values for holdowns. Exceptions to some conditions were also allowed for non shear wall designated portland cement plaster walls, 3 inch width requirements, and one story non-habitable structures. Some plan requirements were further clarified.

On November 30, 1994 new provisions were added. Deputy inspection was required for higher shear strengths and values for 3-ply plywood panel construction were reduced. Larger plate type washers were required on the studs of holdowns and the sill plates of higher strength walls. The inter-departmental memos are attached in the Appendix<sup>A1-6</sup>.

## **PLYWOOD SHEAR WALLS**

The single most important part of the lateral force resistance system for most wood frame buildings is the shear wall. Horizontal diaphragms usually do not exceed their unblocked capacity in these buildings. The shear wall however is designed close to its allowable capacity for the given load. It is the essence of the lateral system and should get our closest scrutiny as code enforcers.

Most engineers choose a shear panel whose allowable value in Table 25 K-1<sup>1</sup> slightly exceeds the demand and then design the connections for the shear panel capacity instead of the calculated lateral load. This enables the structure to get full value out of the panel and assumes that all the factors of safety are equal for the wood and its connections. In fact, they are not, but this will remain the most frequent design technique until wood has commonly accepted load factors for all of its components.

## EXHIBIT "C"

### DISCREPANCIES NOTED

#### Sheet A2.0

G. The roof structure shall not be used for stock piling of equipment or materials unless approved, in writing, by the architect, structural engineer and the joist manufacturer.

Note 4. states: .... Coordinate with Joist Framing/Head and Smoke Vent. Refer to Detail A2.1-10. 14 weighted satellite dish location not in contract.

*In my opinion, the work "joist" refers to steel joist and metal deck construction, not 2x4 roof rafters. Also, to connect a satellite dish to an existing steel pipe column will be hazardous. The satellite dish subjected to wind forces will place an electric load on the steel column, the column was not designed for. Also, see comments for Sheet A2.1, Note 7.*

#### Sheet A2.1

Detail A2.1-10 Head and Smoke Vent.

*This opening is approximately 4'0" x 8'0" in dimension. Usually, in California, for this size of roof opening, steel plates or straps are added all around the opening. No steel plates or straps have been specified.*

#### Detail A2.1-07

*See comments on Sheet A2.0 regarding satellite dish connection. Note: the dish is not located on Drawing A2.0.*

#### Sheet A6.0

Ceiling supported by steel joists.

*This existing building is not constructed with a steel joist and metal deck system.*

#### Sheet A8.2

The Tube Frame System is indicated as being installed between Grid 2 and Grid 3 And grid F.

*Note: Drawing also indicates this system is to be located between Grid 1, Grid 3 and Grid B and Grid 5.I.*

#### Sheet S0.1

General notes for Structural Observation

Note 2 states: The owner shall employ . . .

Note 3 states: The structural observer shall provide evidence of employment by the owner . . .

Note 4 states: The owner or owner representative . . .

Note 6 states: The Structural observer shall prepare a report on the City of Monterey Park . . .

Note 8 states: The structural observer shall send the original observation report to the following inspection office . . . to the City of Sunland, California.

*In my opinion, the reference to observations on Notes 2, 3 and 1S are an error and should be changed to Home Depot. The reference to the City of Monterey Park is an error and the site is in Sunland an area within the City of Los Angeles, California.*

Under the title "Deferred Submittal Items" the following statement is expressed:

The engineer is responsible for the Design or the deferred submittal shall stamp and signed those drawings and calculations for which he/she is responsible.

1. Steel Joists
2. Metal Deck
3. Structural Steel Shop Drawings
4. Wood Trusses

*My review of the Permit Construction Documents indicates an existing wood roof building. Steel joists, metal deck, wood trusses are not specified as stated on this specific project. As a result, no structural steel shop drawings are required. The Section entitled "Structural Steel" should not be on the drawings because Structural Steel framing is not indicated on this project.*

#### Sheet S2.0

Roof Framing Plan notes:

- F. use 2x4 sub-purlins 2'0" oc. Max. at field patches.

*Under Rough Carpentry*

#### Sheet S4.0

Detail S4.0-04 refers to existing 2x4 sub purlins @ 24" on center.

I question existing 2x4 sub-purlins.

*The above statement is the first indicator anywhere on the drawings that the existing roof is constructed of wood 2X4 sub purlins at 24" on center.*

#### Sheet #6.1

Detail E6.1-06 indicates a steel joist and metal deck roof structure.

Detail E6.1-07 indicates a steel joist and metal deck roof structure.

Detail E6.1-09 indicates a steel joist structure

Detail E6.1-10 indicates a steel joist and metal deck roof structure.

*The existing roof structure is constructed of wood. No steel joist, metal decking roofing structure exist on the 8040 Foothill Boulevard specific site.*

#### Sheet E7.1-07

Support up to joists as in Detail E6.1-09.

#### Sheet E7.1-08

Support up to joists as in Detail E6.1-09.

Sheet E7.1-09

Support up to joists as in Detail E6.1-09.

Sheet E7.1-10

Support up to joists as in Detail E6.1-09.

*The existing roof structure is constructed of wood. No steel joists, metal decking roof structure exists on the 8040 Foothill Boulevard Specific site.*

Sheet P4.0

Detail P4.0-10 indicates metal roof deck structure.

Detail P4.0-14 indicates metal deck and steel joist roof structure.

Detail P4.0-14 indicates metal deck and steel joist roof structure.

*The existing roof structure is constructed of wood. No steel joists, metal decking roofing structure exists on the 8040 Foothill Boulevard Specific Site.*

Sheet FA3.0

Detail FA3.0-02 indicates steel joist structure.

*The existing roof structure is constructed of wood. No steel joists, metal decking roofing structure exists on the 8040 Foothill Boulevard Specific Site.*

Sheet BA3.0

Detail BA3.0-01 indicates steel joist roof structure.

Detail BA3.0-02 indicates steel joist roof structure.

Detail BA3.0-05 indicates steel joist roof structure.

Detail BA3.0-10 indicates steel joist roof structure.

*The existing roof structure is constructed of wood. No steel joists, metal decking roofing structure exists on the 8040 Foothill Boulevard Specific Site.*

Sheet BA4.0

Detail BA4.0-02 indicates steel joist roof structure.

Detail BA4.0-04 indicates steel joist roof structure.

*The existing roof structure is constructed of wood. No steel joists, metal decking roofing structure exists on the 8040 Foothill Boulevard Specific Site.*

Sheet FS6.0

Detail R\_U Sprinkler Drop indicates steel joist and metal deck roof structure.

Detail T-5 indicates steel joist and metal deck roof structure.

Detail Hanger ICi indicates steel joist metal roof deck structure.

Detail attachment details: indicates steel joist roof structure

Detail Longitudinal Brace Type F: indicates metal deck and steel joist roof structure.

Detail Hanger #20: indicates steel joist roof structure.

EC-25 Dome Light Details: indicate steel joist and metal deck roof structure.

Sheets FS1.0 thru FS7.0, in closing, indicate a note on all sheets:  
"Note for Construction – These Drawings are for Bid Purposes Only"