Chapter 3.40

DESIGN STANDARDS FOR DENSITY BONUSES

The Planning Department is assigned responsibility for administration of these design standards.

Section 1. GENERAL

The purpose of establishing and applying barrier-free standards for elderly or retirement housing and domiciliary care facilities and handicapped, low-income and energy efficient standards for community unit plans and planned unit developments is to encourage the provision of housing to meet the special needs of individuals and families and encourage energy efficient housing by means of density bonuses.

Complying with the General or Individual Unit Standards of Section 2 may permit an increase in dwelling unit density within the boundaries of an elderly or retirement housing facility. Approval of such increases above the density permitted under a comparable community unit plan without bonuses shall be dependant on conditions established for the special permit.

Complying with one or a combination of the following sections, Section 3 through 5, (Sections 3, 4 and 5 shall also comply with Section 6 security standards for handicapped and low-income housing), may permit an increase in density within the boundaries of the community unit plan or planned unit development of up to but not exceeding 20 percent of the density permitted under the community unit plan density standards. However, the total possible density increase using the following sections may not be granted dependent upon the character of the development and impacts upon adjacent land uses.

Section 2. BARRIER FREE STANDARDS FOR ELDERLY OR RETIREMENT HOUSING AND DOMICILIARY CARE FACILITIES

These standards are intended to reduce restrictions in the built environment for people who have temporary or permanent loss of mobility. Common areas shall be those accessible to the general public, whereas individual units shall generally refer to private residence.

2.1 General Standards

These design standards generally apply to site development and common areas as well as certain dwelling unit features.

1. Sidewalks, curb cuts and ramps shall be designed so that each building is accessible to the handicapped.
2. Each dwelling unit shall be accessible by sidewalks, ramps and/or passenger elevator and no vertical obstruction greater than 1/2 inch.
3. Common corridors shall be at least 4 1/2 feet wide.
4. Doorways serving a common area shall have a clear opening of at least 32 inches (with door opened to 90 degrees). (Note that a standard 32 inch door does not meet this standard.) The clear opening may be reduced to no less that 30 inches if the

doorway can be approached from both directions directly from a room or the end of a hallway or 90 degrees from a hallway if the hall is a minimum of 4 feet 2 inches wide.

5. Each doorway leading from one common area to another or to the outdoors from a common area shall have a level platform or clear floor area with a minimum of 5' x 5' or 5 1/2' x 4 1/2' if the door swings in toward the platform and 5' x 3 1/2' otherwise. The platform shall extend one foot beyond the side of the door opposite the hinge if the door swings in toward the platform and otherwise extend six (6) inches beyond the side of the door.
6. Passenger elevators shall have minimum clear dimensions of 5' x 5' or 6' 3" x 4' 8" or 6' 8" x 4' 0" and a clear opening of 32 inches. If a passenger elevator is required, at least one elevator shall be able to accommodate a 76 inch ambulance stretcher in a horizontal position.
7. Lever latches on push-pull type door serving common areas shall be used.
8. Lock and door latch shall not require the simultaneous use of both hands on doors serving common areas.
9. Windows in the living room and any bedrooms except for skylights and clerestory windows shall be located so that the lowest glassed portion of the window is no higher than 34 inches for common areas and individual units.
10. Switches and controls for lights and appliances, latches, and locks for doors and windows and electric receptacles for common areas and individual units shall be located no higher than four (4) feet (with no vertical obstruction greater than three (3) feet high and no horizontal obstruction greater than 18 inches deep) and no lower than two (2) feet (with no vertical obstruction lower than 29 inches and no horizontal obstruction more than 12 inches deep).
11. Bathrooms for individual units shall be constructed to accommodate the future addition of grab bars around the bathtub area or shower (for location, see Section 3 type "B" unit).
12. Floor surfacing in common areas shall permit wheelchairs to maneuver easily.

2.2 Individual Unit Standards

These standards apply to only the entrance and interior design of individual dwelling units.

1. Private corridors or hallways shall be at least 3 1/2 feet wide.
2. Doorways shall have a clear opening of at least 32 inches (with door opened to 90 degrees). (Note that a standard 32 inch door does not meet this standard.) The clear opening may be reduced to no less than 30 inches if the doorway can be approached from both directions directly from a room or the end of a hallway or 90 degrees from a hallway if the hall is a minimum of 4 feet 2 inches wide.
3. Each doorway shall have a level platform or clear floor area a minimum of 5' x 5' or 5 1/2' x 4 1/2' if the door swings in toward the platform and 5' x 3 1/2' otherwise. The platform shall extend one foot beyond the side of the door opposite the hinge if the door swings in toward the platform and otherwise extends six (6) inches beyond the side of the door.

4. All rooms including kitchen and bathroom shall have a minimum clear floor area forming a circle with a five (5) feet diameter or an oval with the dimensions 5 1/2' x 4 1/2'. Except that in a bathroom a lavatory may project 12 inches or less into said minimum clear space provided that a clear height of not less than 29 inches under that portion of the lavatory projecting the minimum clear space shall be provided.
5. Lock and door latch shall not require the simultaneous use of both hands.
6. All exterior doors shall have a wide-angle (180 degree minimum) door viewer mounted no higher than 46 inches nor lower than 44 inches from the interior floor.
7. Closets shall allow for clothes rods to be lowered to four (4) feet.

Section 3. HOUSING FOR THE HANDICAPPED

3.1 Criteria

Housing for the handicapped shall be dwelling units of two types, type "A" and type "B". The type "A" dwelling unit is intended for the family with one or more members who are handicapped but where the household head is able-bodied. The type "B" unit is intended for those households where the head of the household is handicapped and other members of the family may also be handicapped.

Both type "A" and type "B" dwelling units shall meet the following criteria:

1. Sidewalks shall be at least four (4) feet wide and have a slope not to exceed five (5) percent or a slope of 8.33 percent (1 foot rise in 12 feet run) if run does not exceed 30 feet.
2. Curb cuts with a minimum width of four (4) feet and a maximum slope of 8.33 percent shall be required where sidewalks cross roadways, drives or parking lots.
3. A parking staff with a minimum width if 12 feet shall be required for each dwelling unit.
4. Each building shall be accessible by sidewalks and/or ramps and without a vertical rise greater than 1/2 inch.
5. Each dwelling unit shall be accessible by sidewalks, ramps and/or passenger elevator and no vertical rise greater than 1/2 inch.
6. Common corridors shall be at least 4 1/2 feet wide.
7. Private corridors or hallways shall be at least 3 1/2 feet wide.
8. Doorways shall have a clear opening of at least 32 inches (with door opened to 90 degrees). (Note that a standard 32 inch door does not meet this standard). The clear opening may be reduced to no less than 30 inches if the doorway can be approached from both directions directly from a room or the end of a hallway or 90 degrees from a hallway if the hall is a minimum of 4 feet 2 inches wide.
9. Each doorway shall have a level platform or clear floor area a minimum of 5' x 5' or 5 1/2' x 4 1/2' if the door swings in toward the platform and 5' x 3 1/2' otherwise. The platform shall extend one foot beyond the side of the door opposite the hinge if the door swings toward the platform and otherwise extends six (6) inches beyond the side of the door.

10. Passenger elevators shall have minimum clear dimensions of 5' x 5' or 6'3" x 4'8" or 6'8" x 4'0", and a clear opening of 32 inches. If a passenger elevator is required, at least one elevator shall be able to accommodate a 76 inch ambulance stretcher in a horizontal position.
11. All rooms including kitchen and bathroom shall have a minimum clear floor area forming a circle with a five (5) feet diameter or an oval with the dimensions 5 1/2' x 4 1/2'. Except that in a bathroom a lavatory may project 12 inches or less into said minimum clear space provided that a clear height or not less than 29 inches under that portion of the lavatory projecting into minimum clear space shall be provided.
12. Floor surfacing shall permit wheelchairs to maneuver easily.
13. Lever of push-pull type door latches shall be used.
14. Lock and door latch shall not require the simultaneous use of both hands.
15. All exterior doors shall have a wide-angle (180 degree minimum) door viewer mounted no higher than 46 inches nor lower than 44 inches from the interior floor.
16. Closets shall allow for clothes rods to be lowered to four (4) feet.
17. Windows in the living room and any bedrooms except for skylights and clerestory windows shall be located so that the lowest glassed portion of the window is no higher than 34 inches.
18. Switches and controls for lights and appliances, latches and locks for doors and windows, and electric receptacles shall be located no higher than four (4) feet (with no vertical obstruction greater than three (3) feet high and no horizontal obstruction greater than 18 inches deep) and no lower than two (2) feet (with no vertical obstruction lower than 29 inches and no horizontal obstruction more than 12 inches deep).

For each type "A" dwelling unit, the kitchen and at least one bathroom shall meet the following criteria:

1. Kitchen shall provide:
    a. One lowered or adjustable work space that is at least 32 inches wide and 18 inches deep, no higher than 34 inches, preferably 30 inches with an open space of not below less than 12 inches deep, 29 inches high and 32 inches wide.
    b. A kitchen range with controls on the front or side.
    c. Kitchens in units occupied by quadriplegics need not comply with "a" or "b" above.

2. Bathroom shall provide:
    a. A bath tub capable of the future addition of a lift. Bath tub must have hand held shower sprayer or an adjustment bar with a flexible hose that is at least 69 inches long.
    b. Where a shower only is planned, it must have a threshold of no higher than 1/2 inch and shall meet requirements of type "B" unit.

c. Bathroom shall be designed and constructed to accommodate the future addition of grab bars around the toilet and bath tub area or shower (for location, see type "B" unit).

For each type "B" dwelling unit, the kitchen and at least one bathroom shall meet the following criteria:

1. Kitchen shall provide:
   a. One lowered or adjustable work space that is at least 32 inches wide and 18 inches deep, no higher than 34 inches, preferably 30 inches with an open space of not below less than 12 inches deep, 29 inches high and 32 inches wide.
   b. A counter top range, mounted no higher than 34 inches with controls on the front or side, with a clear space below of not less than 12 inches deep, 29 inches high, and 32 inches wide with the underside insulated to protect from burns and electrical short.
   c. An eye level oven mounted no higher than 34 inches, preferably 30 inches with side controls with a pull-out board located adjacent to the oven.
   d. A kitchen sink with the rim no higher than 34 inches from the floor; a clear space under the sink exclusive of bowl and waste pipe of not less than 12 inches deep, 29 inches high and 32 inches wide; and a single lever faucet mounted at the side of the sink.
   e. The hot water pipe and the waste water pipe insulated to protect from burns.
   f. All drawers with suspension rollers.
   g. At least one cupboard that is at least 18 inches wide and 49 inches high with adjustable pull-out shelves.

2. Bathroom shall provide:
   a. A shower with a threshold no higher than 1/2 inch; an interior minimum clear floor area forming a circle with a diameter of five (5) feet or an oval with the dimensions of 5' x 3' or 4' x 4'; a fixed or retractable seat made of a water resistive material, a minimum of 15 inches deep and 20 inches wide and 17 to 20 inches high; a single lever water control accessible from the seat; and a hand held shower head on a flexible hose of not less than 69 inches long with a vertical height adjustment bar at least four (4) feet long.
   b. Grab bars having a minimum length of 12 inches and an outside diameter of 1 1/2 inches and wall clearance of 1 1/2 inches and capable of supporting a minimum loan of 250 pounds; mounted horizontally on both walls adjacent to the shower seat, 10 inches above the seat and at least 18 inches long; and mounted vertically on the wall opposite the seat extending 3 feet to 5 feet above the floor; and mounted horizontally at one side and read of the toilet so that the lowest point is 10 inches above the toilet seat, and extends not less than six (6) inches in front of the toilet bowl; and mounted vertically 12 inches from the front of the toilet bowl extending from 12 inches above the height of the toilet seat to 30 inches above the toilet seat.

c. A bathroom sink with a rim no higher than 34 inches, a clear space under the sink exclusive of the bowl and waste pipe of not less than 12 inches deep, 29 inches high, and 32 inches wide; and a single lever faucet.
d. The hot water pipe and waste water pipe insulated to protect from burns.
e. One mirror and shelf no higher than 40 inches.

3.2 Density Bonus Computations

Community unit plans and planned unit developments may be eligible for additional density as follows:

1. For each three (3) units of type "A" provided, one (1) additional unit will be permitted.
2. For each one (1) unit of type "B" provided, one (1) additional unit will be permitted.

Section 4. HOUSING FOR THE LOW INCOME

4.1 Criteria/General

Housing for the low-income shall be a dwelling unit that is provided under a contract with the Federal and State government or agency or the City of Lincoln that would provide assurances that the units will be made available for low-income individuals and families.

4.2 Density Bonus Computation

Community unit plans and planned unit development may be eligible for increased density according to the following:

a. For each four (4) low-income units provided, one (1) additional unit will be permitted.

Section 5. ENERGY EFFICIENT HOUSING

Bonuses of up to 20% in dwelling units may be awarded to community unit plans and planned unit developments which qualify under the following requirements and provisions:

1. The proponents shall provide the following information:
   a. A tree shadow plan cast by the solar zenith on December 21st and June 21st at an azimuth of 45° due south from each building envelope.
   b. A building shadow plan cast by the solar zenith on December 21st and June 21st at an azimuth of 45° due south from each building envelope.
   c. A copy of the restrictive covenants indicating energy related provisions, to be approved by the City. (See example at the end of this chapter.)

2. The proposal will be reviewed utilizing the following criteria:
   a. Site selection: In order to maximize the solar access, the development should place highest densities on south facing slopes. Lower densities should be sited on north facing slopes. Development of north slopes should be maintained.
   b. Street layout: Streets should be oriented on an east/west axis to the greatest possible extent. Orientation can vary up to 20 degrees from this axis. Topography shall be considered in variation from this guideline.
   c. Lot layout: Lots should be oriented with their greatest dimension north and south to the greatest extent possible. Orientation of the north/south axis should vary no more than 20 degrees from the north/south axis.
   d. Building siting: The long axis of a building envelope should be oriented east and west to the greatest possible extent. Building orientation can vary up to 20 degrees from due south. Buildings should be sited as close to the north lot line or lines as possible to increase yard space to the south for better owner control of shading. Zero lot line and clustering techniques should be used when good solar access is not possible for single family detached units. Tall buildings should be sited to the north of shorter ones. Tall buildings should be set back from adjacent development in the same way.
   e. Building Form: The shapes of buildings should be designed to maximize solar utilization and minimize negative environmental factors such as exposed perimeter. Size and height of building envelopes shall be shown on the building shadow plan.
   f. Landscaping: New trees shall be an appropriate genus species as indicated in City guidelines (Parks Department). All trees shall be named and shown at their mature size. They shall be located with respect to buildings or possible solar collectors and other environmental factors in order to provide solar heat gain or shade as appropriate. In selecting trees for landscaping, the mature design height and canopy size shall be considered. These dimensions are available in the "Approved Planting List" in the Planning Department.
   g. Other Considerations, including but not limited to:
      1. Identification and design for prevailing winds including building exposure and windbreaks. (The wind rose for the municipal airport should be used as a guide for this and micro climate factors of the site utilized to modify if appropriate.
      2. Thermal air flow (air shed).
      3. Provision for non-auto transportation modes.
      4. Provisions in the covenants that:
         a. East and west windows will be provided with adjustable solar screens.
         b. South facing window areas will be 90% shaded at noon central standard time on June 21st by overhangs or other devices; this does not include those windows designed as passive solar plates. Such overhangs shall permit solar

penetration of 80% on December 22nd at 12:00 noon Standard Time.

c. That structure shall not shade the south-facing building envelope of adjoining property.

3. Method of Bonus Award:

a. Maximum increase of 20% dwelling units as approved through the C.U.P. density standards.

1. The bonus (or 20%) shall be determined by the eligibility of solar access criteria as illustrated in the shadow plans and review items. Shadow plans will be reviewed as to the number of building envelopes with clear access to solar energy. The items listed in item 2, Section 4, will be reviewed against the proposal and their implementation and effectiveness in accomplishing energy objectives.

Areas under consideration for this Bonus Provision that are intended to be, or are, under multiple ownership must provide restrictive covenants similar to the attached example in order to qualify for this bonus provision.

Section 6. SECURITY STANDARDS; HOUSING FOR LOW-INCOME AND HANDICAPPED.

Each low income and handicapped dwelling unit for which density bonus has been granted and structure containing such units shall comply with the following security standards:

6.1 Keying Requirements

Each low income or handicapped dwelling unit shall have locks using combinations which are interchange free from locks used in all other separate dwellings in the community unit plan or planned unit development.

6.2 Door Assemblies

A. Frames, Strikes, Jambs, Hinges.

Installation and construction frames, strikes, jambs and hinges shall be as follows:

1. Door jambs of wood, composite or pressed board shall be installed with solid backing in such a manner than no voids exist between the strike side of the jamb and the frame opening for a vertical distance of 24 inches on each side of the strike.
2. In wood framing, horizontal blocking shall be placed between studs at door lock height for three (3) stud spaces on each side of the door opening. Trimmers shall be full length from the header to the floor with solid backing against sole plates.

3. Door stops on wooden jambs for in-swinging doors shall be of one piece construction with the jamb, or shall be attached to the jamb with an adhesive such that the strength of the bond is greater than that of the wood from which the jamb and stop are made, and there shall be no visible gap between the jamb and the stop.
4. Hollow steel door frames shall be filled with grout and shall be attached to the supporting wall.
5. The strike plate for deadbolts on all exterior door frames shall be as follows:
    a. The strike plate on all wood-frame doors shall be constructed of minimum 16 U.S. gauge steel, bronze or brass and secured to the jamb by a minimum of four (4) screws, which must penetrate at least two (2) inches into solid backing beyond surface to which the strike is attached.
    b. The strike plat on hollow steel frames must be of minimum 16 U.S. gauge steel, bronze or brass and secured to the jamb by at least two threaded fasteners which are joined to pre-threaded holes in the jamb which have been reinforced at the point of juncture to the equivalent strength of 8 U.S. gauge steel. Self-threading fasteners may not be used for this purpose.
6. Hinges for out-swinging doors shall be equipped with non-removable hinge pins or a mechanical interlock to preclude removal of the door from the exterior by removing the hinge pins.

B. Doors

1. Except for vehicular access doors, all exterior swinging doors of any residential unit, of any building which contains one or more residential unit, or of any passage connecting a garage to a residential unit or any building which contains one or more residential units shall be constructed and equipped as follows:
    a. All wood doors shall be of solid core construction with a minimum thickness of 1 3/4 inches, or with panels not less than 9/16 inch thick at the thinnest exposed part of the panel.
    b. All hollow steel doors shall be of minimum 16 U.S. gauge steel and have sufficient reinforcement to maintain the designed thickness of the door at any point at which a locking devise is installed; such reinforcement being sufficient to prevent collapsing of the door around any locking device.
    c. Insulated doors shall be sheathed in a minimum of 20 U.S. gauge steel or a material of equivalent resistance to cutting, tearing, impact and burning. Sheathing shall be securely attached to a rigid wood or metal frame, reinforced at points where hinges are attached, and include a wood lock block or metal reinforcing at each point at which a lock is to be installed.

d. Wood or metal framed sliding glass doors shall be constructed and installed in a manner which prevents the movable door from being lifted out of the frame in the fully closed position.

e. Aluminum or wood framed glass swinging doors shall not be used except as provided in Section II.B (1) (j).

f. The inactive leaf or double doors shall be equipped with metal flushbolts having a minimum embedment of 5/8 inch into the head and threshold of the door frame.

g. Each door shall be equipped with a single cylinder deadbolt lock as follows:

   1. Horizontal-throw deadbolt lock shall employ a deadbolt which has a minimum projection of one (1) inch and an embedment of at least 3/4 inch into the strike. The cylinder shall have a cylinder guard, a minimum of five pin tumblers and shall be connected to the inner portion of the lock by connecting machine screws (or equivalent fasteners) of at least 1/4 inch in diameter.
   2. Vertical-throw deadbolt lock shall incorporate a cylinder which is protected by a cylinder guard, which has a minimum of five (5) pin tumblers and which shall be connected to the inner portion of the lock by connecting machine screws (or equivalent fasteners) of at least 1/4 inch in diameter. Spring-actuated vertical throw primary deadbolt lock may be used.
   3. Other than spring-actuated vertical-throw primary deadbolt locks, not other spring-actuated lock may be used unless supplemented by a key-activated deadbolt lock.
   4. Unit locksets which contain a deadbolt lock and a latching mechanism in the same assembly may be used in place of a latch-bolt lock supplemented by a deadbolt lock, providing the dead-bolt and cylinder meet the requirements of (1) and (2) above.
   5. Wood or metal framed sliding glass doors shall be equipped with a hooked deadbolt mechanism which does not rely on spring pressure for latching, or where a spring-actuated latch is used, shall be equipped with a key-operated pin lock. Cylinders shall comply with the requirements of (1) and (2) above except that a cylinder guard shall not be required when no portion of the cylinder is exposed to the exterior of the dwelling.

h. No glazing shall be placed in the door or in the surrounding wall which is within 40 inches of any part of the deadbolt lock unless said glazing is protected by:

1. Iron or steel grills of at least 1/8 inch material with a minimum of two (2) inch mesh secured on the inside of the glazing, or on the outside of the glazing by non-removable fasteners, or
2. Iron or steel bars of at least 1/2 inch round of 1" x 1/4" flat material spaced not more than five (5) apart, secured on the inside of the glazing, or on the outside of the glazing by non-removable fasteners, and
3. Items described in (1) and (2) of these provisions shall not interfere with the operation of opening windows, if such windows are required to be openable by applicable City ordinances.
4. Wood or metal framed sliding glass (patio) doors are exempt from the requirements of (1) and (2) of this provision provided that the door contains break-resistant glazing which meets or exceeds the standards contained in U.L. Bulletin 972, Burglary Resisting Glazing Material, or its successor(s); or fully tempered glass, per A.N.S.I. Z 97.1 or its successor.

i. All exterior doors shall be equipped with a wide-angle (180 degrees) door viewed mounted no higher than 58 inches from the interior floor.

j. For the purpose of these requirements, the term exterior door does not include screen doors, storm doors, sash door or jalousie doors used in conjunction with a primary door which meets or exceeds these standards.

2. Vehicular access doors shall conform to the following standards:

a. Wood doors shall have panels a minimum of 5/16 inch in thickness with the locking hardware being attached to the support framing.

b. Aluminum doors shall be a minimum thickness of .0215 inches and riveted together a minimum of 18 inches on center along the outside seams. There shall be a full width horizontal beam attached to the main door structure which shall meet the pilot, or pedestrian access door framing within three (3) inches of the strike area of the pilot or pedestrian access door.

c. Fiberglass doors shall have panels a minimum density of five (5) ounces per square foot.

d. Doors utilizing a cylinder lock shall have a minimum five (5) pin tumbler operation with the locking bar or bolt extending into the receiving guide a minimum of one (1) inch.

e. Doors that exceed 16 feet in width shall have two lock receiving points; or, if the door does not exceed 19 feet, a single bolt may be used is placed in the center of the door with the locking point located either at the floor or door frame header; or torsion spring counter balance type hardware may be used.

f. Doors with slide bolt assemblies shall have frames a minimum of .120 inches in thickness, with a minimum bolt diameter of 3/8 inch and protrude at least 1 1/2 inches into the receiving guide. The slide bolt shall be attached to the door with bolts not removable from the outside. Rivets shall not be used to attach slide bolt assemblies.

g. Where doors are operated by electrical closing and opening devices, no other means of securing the door need be provided.

6.3 Window Assemblies

All accessible window assemblies shall be constructed, equipped and installed in accordance with the following:

A. For the purpose of these requirements, windows shall be deemed accessible if located less than twelve feet from the ground or from any surface which would permit access, or less than six feet horizontally from any adjacent structure, utility pole or landscape feature which would permit access; and which are larger than 96 inches in area with the smallest linear dimension exceeding six (6) inches.

B. Jalousie and louvered windows shall not be used in any window assembly which is accessible.

C. Sashes shall be constructed and installed in a manner which prevents their removal from the exterior of the dwelling when in other than the fully open position.

D. Where storm windows are installed, they shall not be capable of removal from the exterior of the dwelling.

E. All accessible windows with the exception of crank-operated casement windows will have a locking device which is not spring-actuated and which when engaged, fastens all movable sashes to a substantial immovable part of the frame or supporting wall, or fastens movable sashes to each other in such a way that none of the sashes can be moved.

1. The locking device must be capable of securing the window assembly in the fully closed position, and in partly open positions of no more than six (6) inches.
2. The locking device does not have to be key operated.
3. Where an auxiliary locking device is necessary to meet this provision, it shall be mounted to the window assembly using the most secure method compatible with the material of the window framing, but in general;
   a. No self-threading fasteners may be used unless no other method of fastening is possible.
   b. Where wood screws are used to mount a locking device to wood framed windows, the screws shall be as long as the dimension of the framing member will allow, but in any case no less than 3/4 inch.
4. For the purpose of these requirements, crescent sash locks and spring-actuated latches are not locking devices.

F. Plantings, screens or fences which will conceal the exterior sill of the window or any portion of the window assembly above the sill at full maturity will not be used in or around accessible window assemblies.

6.4 Street Numbers and Other Identifying Data

A. Street Numbers and other identifying data shall be displayed as follows:
   1. All dwellings shall display a street number in a prominent location on the street side of the residence in such a position that the number is easily visible to approaching emergency vehicles. The numerals shall be no less than four (4) inches in height and shall be of a contrasting color to the background to which they are attached.
   2. There shall be positioned at each entrance of a multiple family dwelling complex an illuminated diagramatic representation of the complex which shows the location of the viewer and the unit designations within the complex. In addition, each individual unit within the complex shall display a prominent identification number, not less than four (4) inches in height, which is easily visible to approaching vehicular and/or pedestrian traffic.
   3. Identification numbers shall no be obscured by any required exterior screens of plantings, nor positioned such that the natural growth of plantings will eventually obscure or conceal the numbers.

B. Lighting in multiple family dwellings shall be as follows:
   1. Aisles, passageways and recesses related to and within the building complex shall be illuminated with an intensity of at least .25 building footcandles at the ground level during the hours of darkness. Lighting devices shall be protected by weather and vandalism resistant covers.
   2. Open parking lots and car ports shall be provided with a maintained minimum of .2 footcandle of light on the parking surface during the hours of darkness. Lighting devices shall be protected from weather and vandalism resistant covers.

Section 7. PRESERVATION OF FARM LAND IN COMMUNITY UNIT PLANS IN THE AG ZONING DISTRICT.

A 20% density bonus may be granted where the City Council finds that the owner has made maximum feasible efforts to preserve existing cultivated and pasture land in a proposed community unit plan, and no new public streets or roads are to be dedicated. The design of such community plan shall accomplish the following design objectives:

1. Preservation of the rural character of the open fields and pastures and natural wooded areas.
2. Preservation of natural habitats.
3. Preservation of natural drainage courses.
4. Preservation of existing natural topography.

EXAMPLE OF RESTRICTIVE COVENANT
FOR SOLAR RELATED DENSITY BONUS

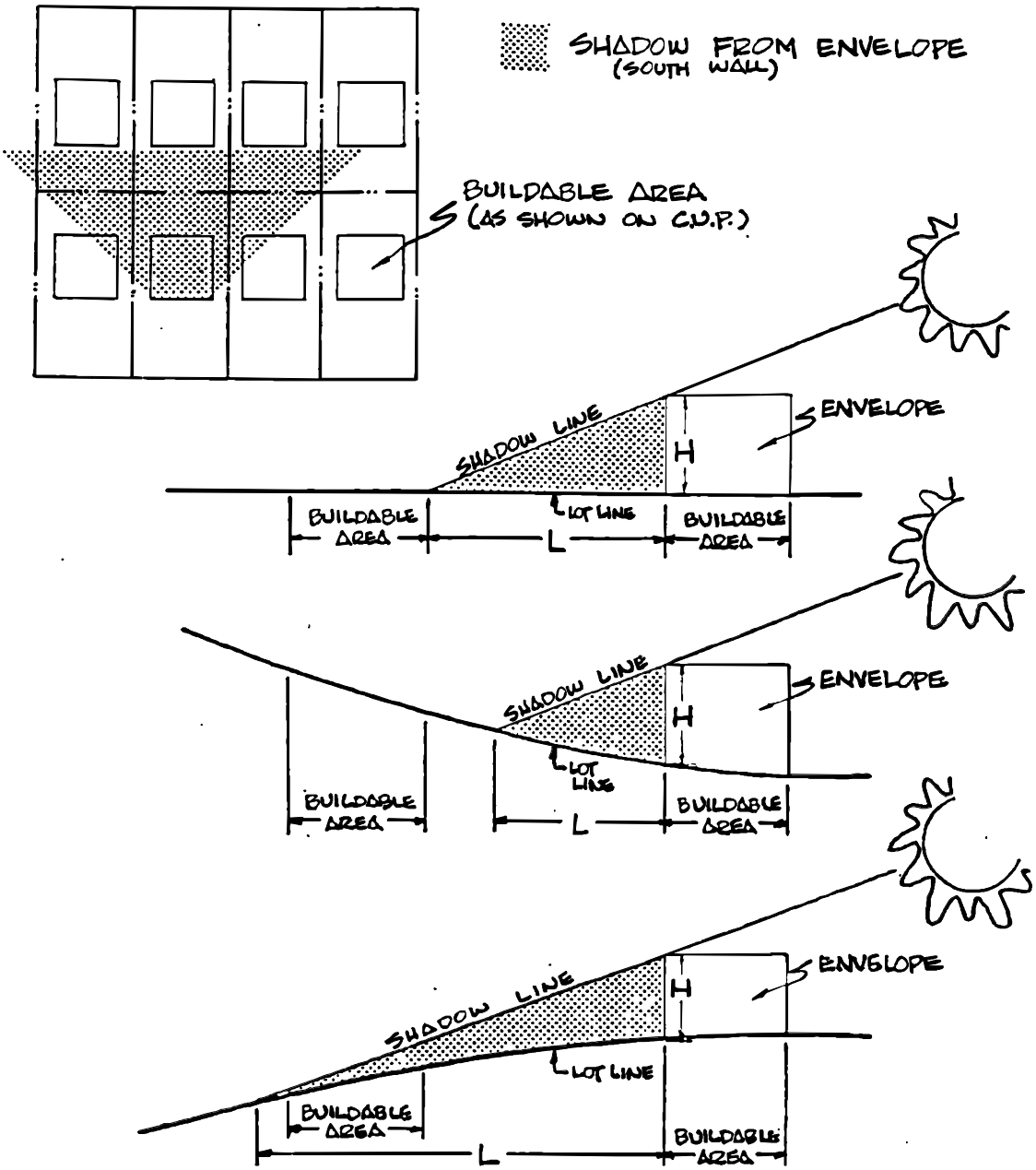
RESTRICTIVE COVENANTS OF (*NAME OF DEVELOPMENT*)
IN (*MUNICIPALITY OR COUNTY*)

The following restrictive covenants are incorporated in this deed and in all other deeds to parcels within the (*name of development*), which is located in (*complete legal description of the development*), as recorded in (*legal records of named county*). These covenants are binding upon all present and future owners of land within this development with the same effect as if they were incorporated in each subsequent deed.

(1) No vegetation, structure, fixture or other object shall be so situated that it casts a shadow onto the south half of the building envelope for any building described in the community unit plan on December 22 between the hours of 9:00 a.m. and 3:00 p.m. Solar Time, provided that this restriction does not apply to utility wires and similar objects which obstruct little light and which are needed and situated for reasonable use of the property in a manner consistent with other covenants in this deed. Shadows for structures approved in the CUP be calculated from north wall of the building envelope. By adopting this covenant, the landowners within this development recognize the desirability of creating and maintaining a common plan to ensure access to sunlight for solar energy collectors.

The introductory two sentences in this model covenant would preface the list of restrictive covenants, which in some developments might number more than 20. Of course, "covenant (1)" alone would be valid were it one in a list of other covenants if the list were validly incorporated into a plat or deed and the covenant were consistent with others in the list.

TABLE A



Latitude 40°

0% slope

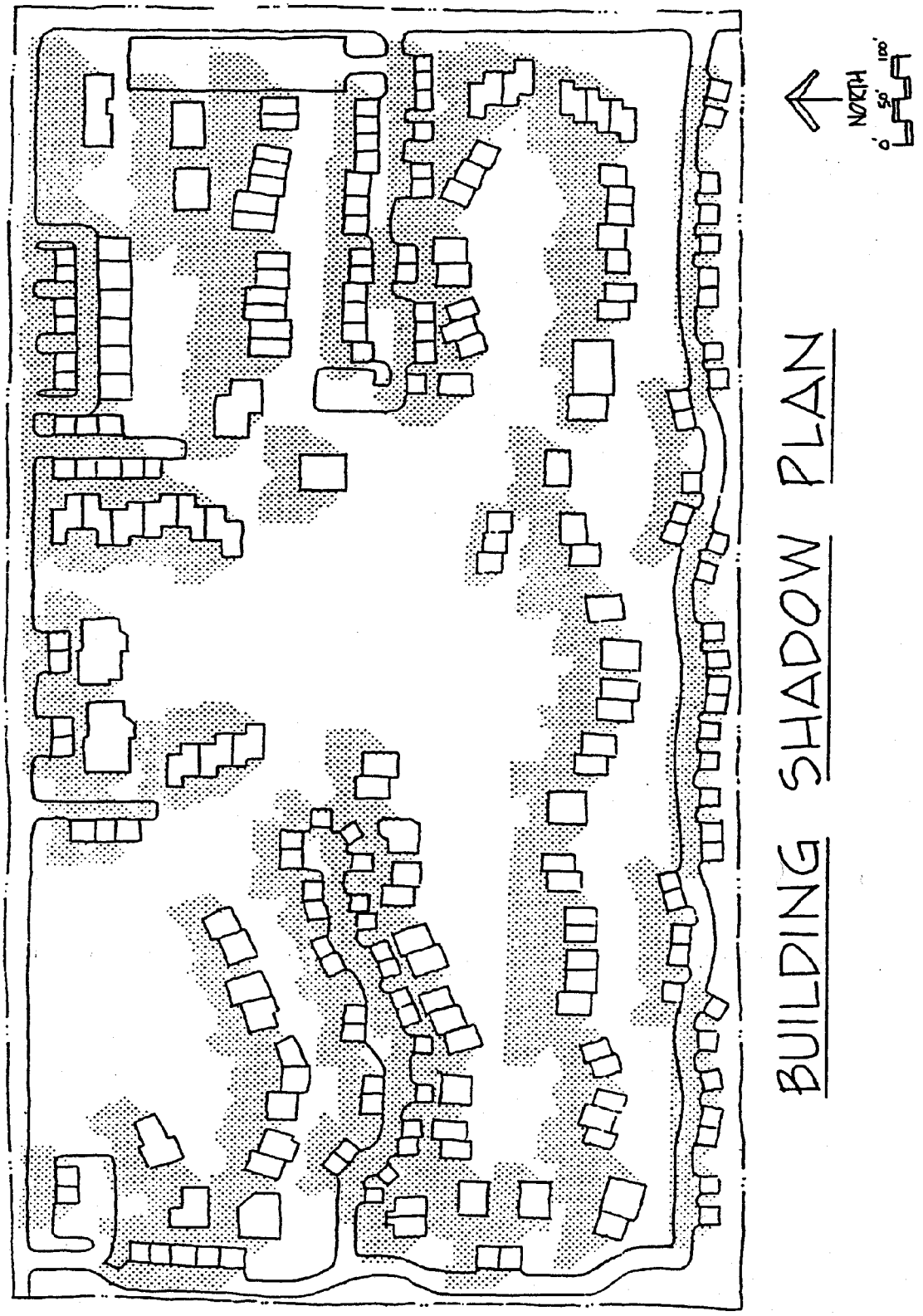
DIRECTION OF SLOPE

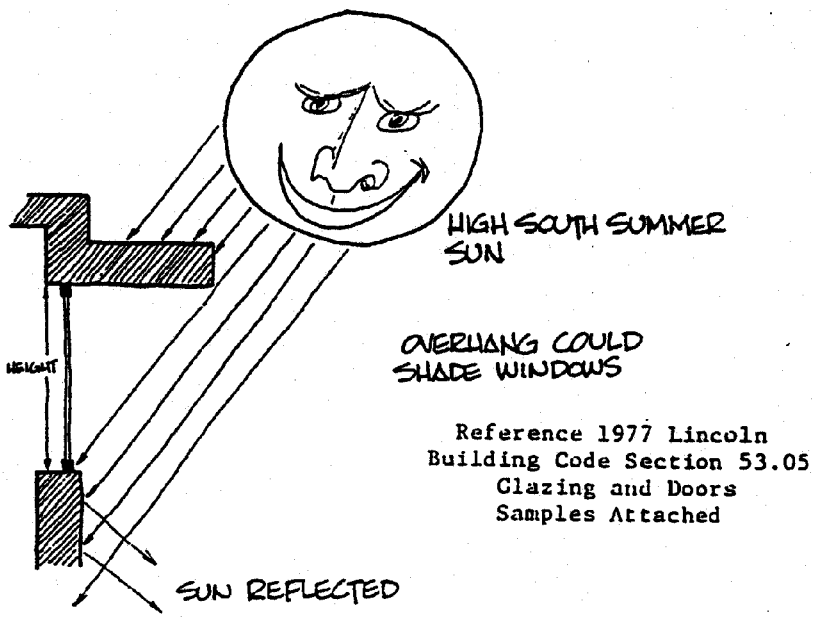
	N			NE			E			SE			S			SW			W			NW	
	AM	N	PM	AM	N	PM	AM	N	PM	AM	N	PM	AM	N	PM	AM	N	PM	AM	N	PM	AM	N	PM
0%	4.8	2.0	4.8	4.8	2.0	4.8	4.8	2.0	4.8	4.8	2.0	4.8	4.8	2.0	4.8	4.8	2.0	4.8	4.8	2.0	4.8	4.8	2.0	4.8
5%	5.7	2.2	5.7	4.8	2.2	6.2	4.1	2.0	5.7	3.8	1.9	4.8	4.1	1.8	4.1	4.8	1.9	3.8	5.7	2.0	4.1	6.2	2.2	4.8
10%	7.2	2.5	7.2	4.8	2.3	9.1	3.6	2.0	7.2	3.2	1.8	4.8	3.6	1.7	3.6	4.8	1.8	3.2	7.2	2.0	3.6	9.1	2.3	4.8
15%	9.6	2.9	9.6	4.8	2.6	16.6	3.2	2.0	9.1	2.8	1.7	4.8	3.2	1.6	3.2	4.8	1.7	2.8	9.6	2.0	3.2	16.6	2.6	4.8
20%	14.5	3.4	14.5	4.8	2.8	97.5	2.8	2.0	14.5	2.6	1.6	4.8	2.8	1.6	2.8	4.8	1.6	2.4	14.5	2.0	2.8	97.5	2.8	4.8

L (LENGTH OF SHADOW) = H (HEIGHT) x F (FACTOR)

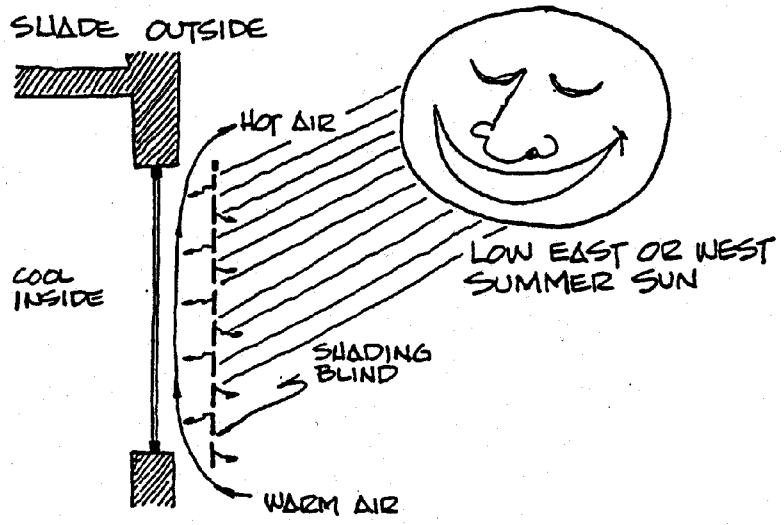
SOURCE: "PLANNING SOLAR NEIGHBORHOODS", LIVING SYSTEMS

TREE SHADOW PLAN
LEGEND (TREE SYM.)
15' HEIGHT
20' HEIGHT
25' HEIGHT
40' HEIGHT
NORTH
0
50'
100'


BUILDING SHADOW PLAN
NORTH
0' 50' 100'

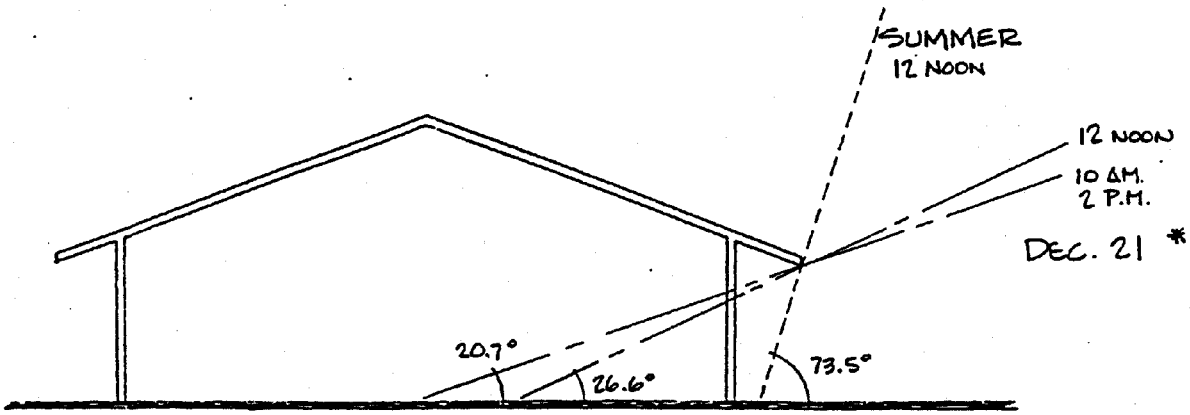


Reference 1977 Lincoln Building Code Section 53.05 Glazing and Doors Samples Attached

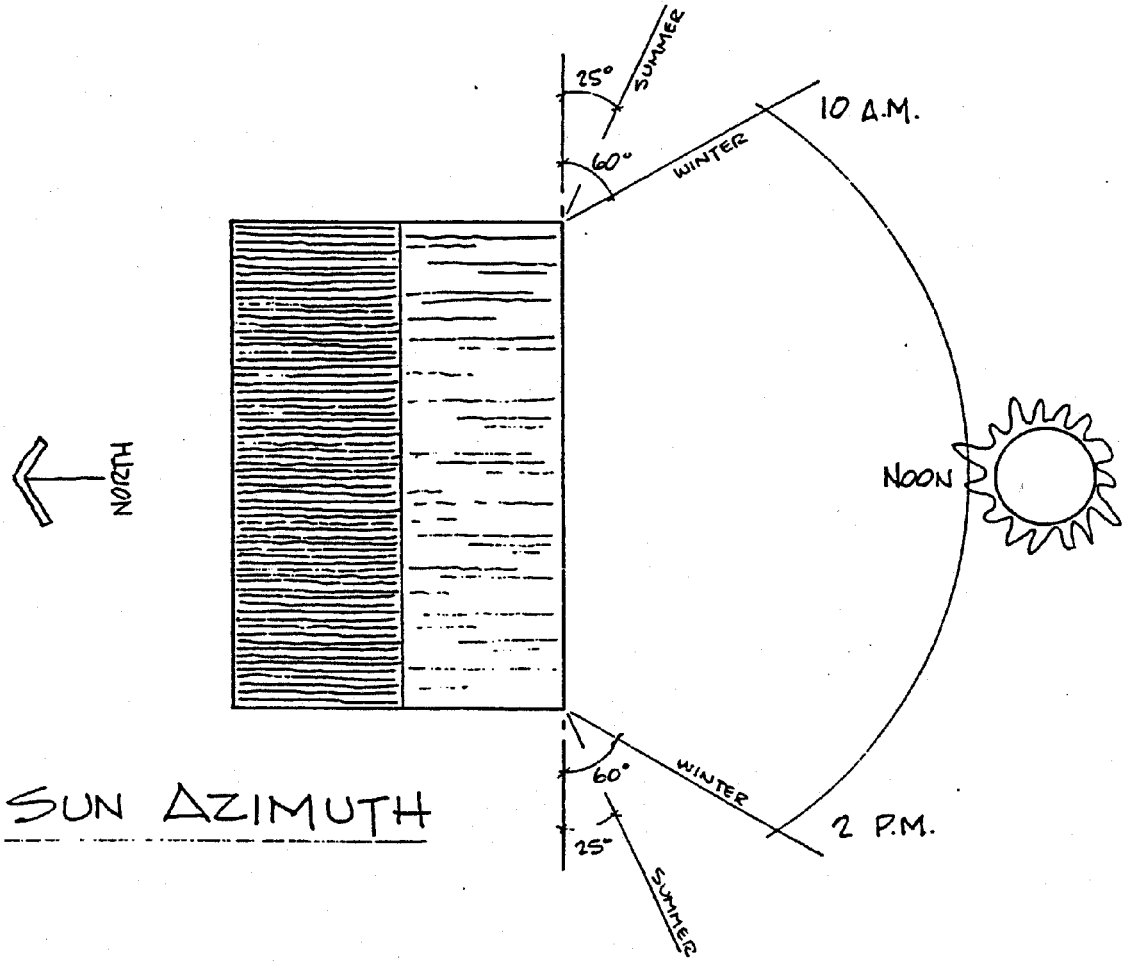


SOURCE: DAVIS, CALIF.

SOLAR RIGHTS - THE WINTER SUN



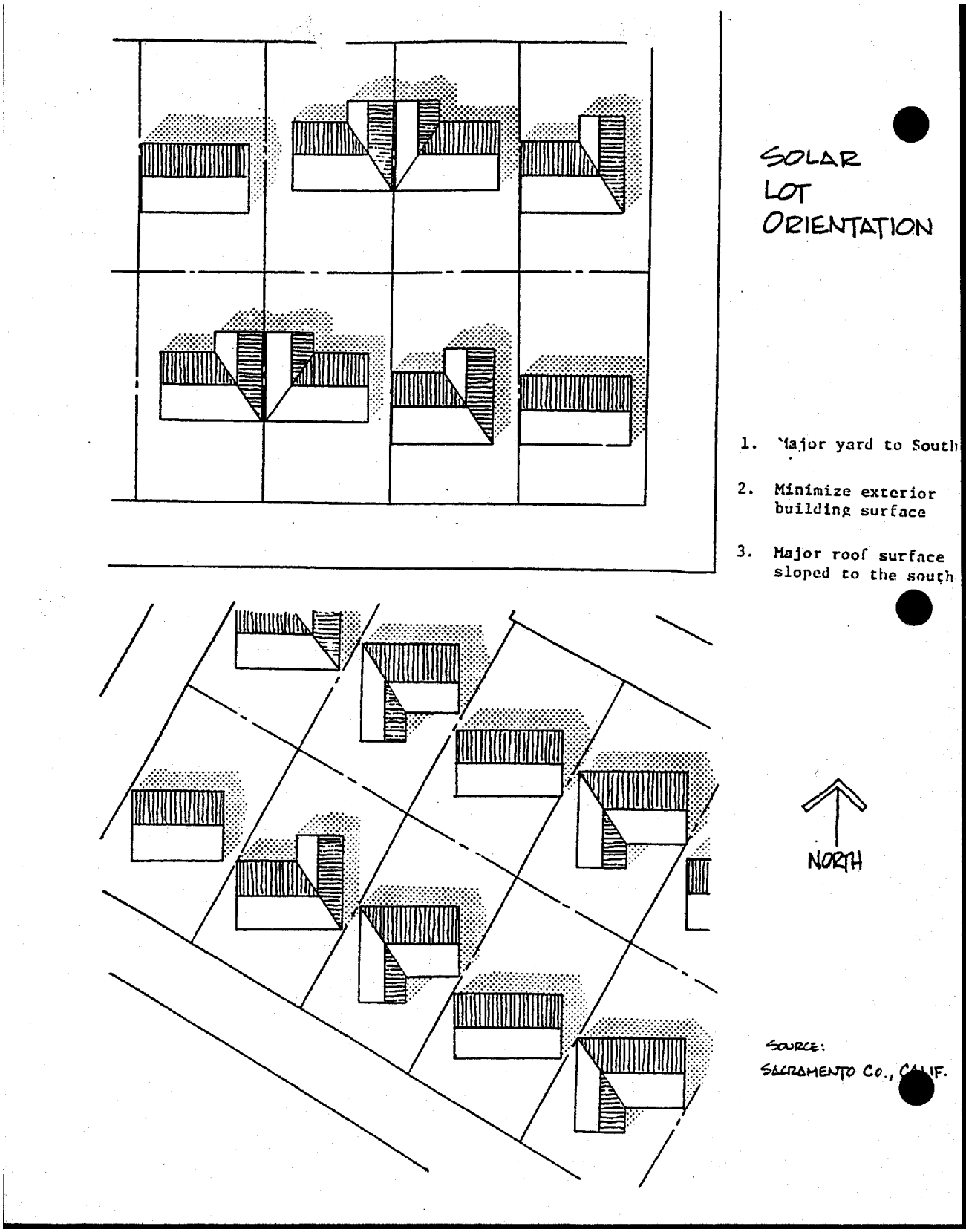
SUN ALTITUDE



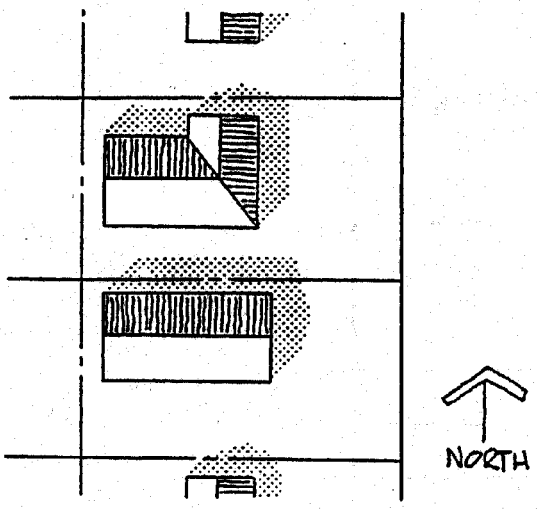
SUN AZIMUTH

* ADJUSTED TO 40° N. LATITUDE.
LINCOLN IS BETWEEN 40°45' & 40°52'

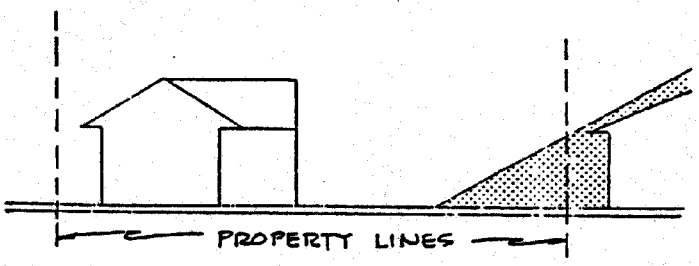
SOURCE: SACRAMENTO, CALIF.


SOLAR
LOT
ORIENTATION
1. Major yard to South
2. Minimize exterior building surface
3. Major roof surface sloped to the south
NORTH
SOURCE:
SACRAMENTO CO., CALIF.

SOLAR ORIENTATION ON A NORTH/SOUTH STREET



HOUSES SHOULD HAVE MAJOR YARDS TO SOUTH TO ALLOW FULL EXPOSURE TO THE WINTER SUN FOR SOLAR HEATING.

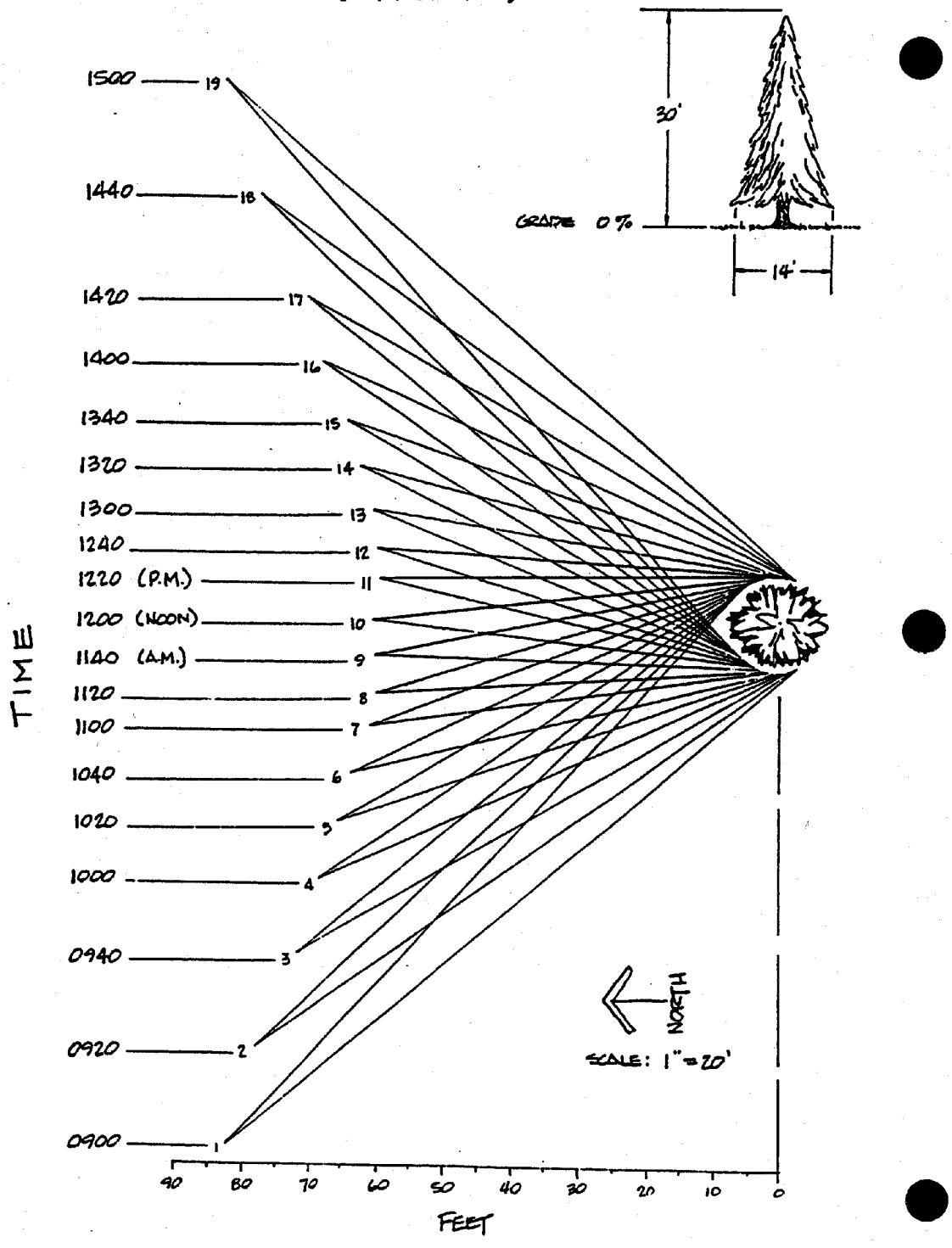


BUILDINGS DO NOT SHADE EACH OTHER.

SOURCE: SACRAMENTO CO., CALIF.

TREE SHADOW ON 21 DECEMBER

(LATITUDE 38°)



SOURCE: COLORADO SPRINGS