

Solar Access Provisions for New Development

11.15.6805. Purpose

The purposes of the solar access provisions for new development are to ensure that land in the urban portions of Multnomah County is divided so that structures can be oriented to maximize solar access and to minimize shade on adjoining properties from structures and trees.

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11.15.6899 Definitions

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11.15.6810 Applicability

The solar design standard in Section .6815 shall apply to applications for a development to create lots in LR-40, LR-30, LR-20, LR-10, LR-7.5, LR-7, LR-5, R-40, R-30, R-20, R-10, and R-7 zones and for single family detached dwellings in any urban zone, except to the extent the approval authority finds that the applicant has shown one or more of the conditions listed in Sections .6820 and .6822 exist, and exemptions or adjustments provided for therein are warranted. *[Amended 1999, Ord. 932 § VIII]*

11.15.6815 Design Standard

At least 80 percent of the lots in a development subject to this Ordinance shall comply with one or more of the options in this Section.

A. Basic Requirement (*see* Figure 9). A lot complies with Section .6815 if it:

1. Has a north-south dimension of 90 feet or more; and
2. Has a front lot line that is oriented within 30 degrees of a true east-west axis.

B. Protected Solar Building Line Option (*see* Figure 10). In the alternative, a lot complies with Section .6815 if a solar building line is used to protect solar access as follows:

1. A protected solar building line for the lot to the north is designated on the plat, or documents recorded with the plat;
2. The protected solar building line for the lot to the north is oriented within 30 degrees of the true east-west axis;

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3. There is at least 70 feet between the protected solar building line on the lot to the north and the middle of the north-south dimension of the lot to the south, measured along a line perpendicular to the protected solar building line;
4. There is at least 45 feet between the protected solar building line and the northern edge of the buildable area of the lot, or habitable structures are situated so that at least 80 percent of their south-facing wall will not be shaded by structures or non-exempt vegetation.

C. Performance Option. In the alternative, a lot complies with Section .6815 if:

1. Habitable structures built on that lot will have their long axis oriented within 30 degrees of a true east-west axis and at least 80 percent of their ground floor south wall protected from shade by structures and non-exempt trees; or
2. Habitable structures built on that lot will have at least 32 percent of their glazing and 500 square feet of their roof area which faces within 30 degrees of south and is protected from shade by structures and non-exempt trees.

11.15.6820 Exemptions from Design Standard

A development is exempt from Section .6815 if the Planning Director finds the applicant has shown that one or more of the following conditions apply to the site. A development is partially exempt from Section .6815 to the extent the Planning Director finds the applicant has shown that one or more of the following conditions apply to a corresponding portion of the site. If a partial exemption is granted for a given development, the remainder of the development shall comply with Section .6815.

- A. Slopes The site, or a portion of the site for which the exemption is sought, is sloped 20 percent or more in a direction greater than 45 degrees east or west of true south, based on a topographic survey by a licensed professional land surveyor.
- B. Off-Site Shade The site, or a portion of the site for which the exemption is sought, is within the shadow pattern of off-site features, such as but not limited to structures, topography, or non-exempt vegetation, which will remain after development occurs on the site from which the shade is originating.
 1. Shade from an existing or approved off-site dwelling in a single family residential zone and from topographic features is assumed to remain after development of the site.
 2. Shade from an off-site structure in a zone other than a single family residential zone is assumed to be the shadow pattern of the existing or approved development thereon or the shadow pattern that would result from the largest structure allowed at the closest setback on adjoining land, whether or not that structure now exists.
 3. Shade from off-site vegetation is assumed to remain after development of the site if: the trees that cause it are situated in a required setback; or they are part of a developed area, public park, or legally reserved open space; or they are in or separated from the developable remainder of a parcel by an undevelopable area or feature; or they are part of landscaping required pursuant to local law.
 4. Shade from other off-site sources is assumed to be shade that exists or that will be cast by development for which applicable local permits have been approved on the date a complete application for the development is filed.

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C. On-Site Shade The site, or a portion of the site for which the exemption is requested, is:

1. Within the shadow pattern of on-site features such as, but not limited to structures and topography which will remain after the development occurs; or
2. Contains non-exempt trees at least 30 feet tall and more than 6 inches in diameter measured 4 feet above the ground which have a crown cover over at least 80 percent of the site or relevant portion. The applicant can show such crown cover exists using a scaled survey or an aerial photograph. If granted, the exemption shall be approved subject to the condition that the applicant preserve at least 50 percent of the trees that cause the shade that warrants the exemption. The applicant shall file a note on the plat or other document in the office of the County Recorder binding the applicant to comply with this requirement.

The county shall be made a party of any covenant or restriction created to enforce any provision of this ordinance. The covenant or restriction shall not be amended without written county approval.

11.15.6822 Adjustments to Design Standard

The Planning Director shall reduce the percentage of lots that must comply with Section .6815 to the minimum extent necessary if it finds the applicant has shown one or more of the following site characteristics apply.

A. Density and Cost If the design standard in Section .6815 is applied, either the resulting density is less than that proposed, or on-site site development costs (*e.g.* grading, water, storm drainage and sanitary systems, and roads) and solar related off-site site development costs are at least 5 percent more per lot than if the standard is not applied. The following conditions, among others, could constrain the design of a development in such a way that compliance with Section .6815 would reduce density or increase per lot costs in this manner. The applicant shall show which if any of these or other similar site characteristics apply in an application for a development.

1. The portion of the site for which the adjustment is sought has a natural grade that is sloped 10 percent or more and is oriented greater than 45 degrees east or west of true south based on a topographic survey of the site by a professional land surveyor.
2. There is a significant natural feature on the site, identified as such in the comprehensive plan or development ordinance, that prevents given streets or lots from being oriented for solar access, and it will exist after the site is developed.
3. Existing road patterns must be continued through the site or must terminate on-site to comply with applicable road standards or public road plans in a way that prevents given streets or lots in the development from being oriented for solar access.
4. An existing public easement or right-of-way prevents given streets or lots in the development from being oriented for solar access.

B. Development Amenities If the design standard in Section .6815 applies to a given lot or lots, significant development amenities that would otherwise benefit the lot(s) will be lost or impaired. Evidence that a significant diminution in the market value of the lot(s) would result from having the lot(s) comply with Section .6815 is relevant to whether a significant development amenity is lost or impaired. Development amenities which may merit design adjustments include, but are not limited to the following:

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1. Views of volcanic peaks in the Cascade Range;
 2. Substantial open space, recreation or aesthetic features added by the applicant;
 3. Existing Goal 5 Features identified in the Comprehensive Framework Plan.
- C. Existing Shade Non-exempt trees at least 30 feet tall and more than 6 inches in diameter measured 4 feet above the ground have a crown cover over at least 80 per cent of the lot and at least 50 percent of the crown cover will remain after development of the lot. The applicant can show such crown cover exists using a scaled survey of non-exempt trees on the site or using an aerial photograph.
1. Shade from non-exempt trees is assumed to remain if: the trees are situated in a required setback; or they are part of an existing or proposed park, open space, or recreational amenity; or they are separated from the developable remainder of their parcel by an undevelopable area or feature; or they are part of landscaping required pursuant to local law; and they do not need to be removed for a driveway or other development.
 2. Also, to the extent the shade is caused by on-site trees or off-site trees on land owned by the applicant, it is assumed to remain if the applicant files in the office of the County Recorder a covenant binding the applicant to retain the trees causing the shade on the affected lots.

11.15.6825 Protection from Future Shade

Structures and non-exempt vegetation must comply with the *Solar Balance Point* sections for existing lots (reference 11.15.6840 - .6868) if located on a lot that is subject to the solar design standard in Section .6815, or if located on a lot south of and adjoining a lot that complies with Section .6815.

The applicant shall file a note on the plat or other documents in the office of the County Recorder binding the applicant and subsequent purchasers to comply with the future shade protection standards in Section .6825. The county shall be made a party of any covenant or restriction created to enforce any provision of this ordinance. The covenant or restriction shall not be amended without written county approval.

11.15.6828 Application

An application for approval of a development subject to this ordinance shall include:

- A. Maps and text sufficient to show the development complies with the solar design standard of Section .6815, except for lots for which an exemption or adjustment from Section .6815 is requested, including at least:
 1. The north-south lot dimension and front lot line orientation of each proposed lot.
 2. Protected solar building lines and relevant building site restrictions, if applicable.
 3. For the purpose of identifying trees exempt from Section .6825, a map showing existing trees at least 30 feet tall and over 6 inches in diameter at a point 4 feet above grade, indicating their height, diameter and species, and stating that they are to be retained and are exempt.
 4. Copies of all private restrictions relating to solar access.

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- B. If an exemption or adjustment to Section .6815 is requested, maps and text sufficient to show that given lots or areas in the development comply with the standards for such an exemption or adjustment in Section .6820, or .6822 respectively.

11.15.6830 Procedure

Development requests subject to Solar Access Provisions in the preceding sections (11.15.6805-.6828) shall be decided as prescribed by Chapter 11.45, Land Divisions.

11.15.6832 Appeal and Review Procedures

- A. A Planning Director decision on a Land Division request subject to Sections 11.15.6810-.6828 may be appealed to the Planning Commission pursuant to Sections 11.15.8290-.8295.
- B. A Planning Commission decision on a Land Division request subject to Sections 11.15.6810-.6828 may be reviewed by The Board of County Commissioners as prescribed by Sections 11.15.8260-.8285.

11.15.6835 Solar Balance Point Provisions

The purposes of these provisions are to promote the use of solar energy, to minimize shading of structures by structures and accessory structures, and, where applicable, to minimize shading of structures by trees. Decisions related to these provisions are intended to be ministerial.

11.15.6840 Applicability

This ordinance applies to an application for a building permit for all structures in LR-40, LR-30, LR-20, LR-10, LR-7.5, LR-7, LR-5, R-40, R-30, R-20, R-10, R-7 zones, and all single family detached structures in any urban zone, except to the extent the approval authority finds the applicant has shown that one or more of the conditions listed in Sections .6855 or .6858 exists, and exemptions or adjustments provided therein are warranted. In addition, non exempt vegetation planted on lots subject to the provisions of Section .6825 of the Solar Access Provisions for New Development shall comply with the shade point height standards as provided in Sections .6850 and .6855 of this ordinance. *[Amended 1999, Ord. 932 § VIII]*

11.15.6845 Solar Site Plan Required

An applicant for a building permit for a structure subject to this ordinance shall submit a site plan that shows the maximum shade point height allowed under Section .6850 and the allowed shade on the proposed structure's solar features as provided in .6860. If applicable, the site plan shall also show the solar balance point for the structure as provided in Section .6865.

11.15.6850 Maximum Shade Point Height Standard

The height of the shade point shall comply with either subsection A or B below.

- A. Basic Requirement. The height of the shade point shall be less than or equal to the height specified in Table A or computed using the following formula. If necessary, interpolate between the 5 foot dimensions listed in Table A.

$$H=[(2xSRL)-N+150]/5$$

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Table B. Maximum Permitted Shade Point (In Feet)													
Distance to Shade Reduction Line from Northern Lot Line (In Feet)	North-South Lot Dimension (In Feet)												
	100+	95	90	85	80	75	70	65	60	55	50	45	40
70	40	40	40	41	42	43	44						
65	38	38	38	39	40	41	42	43					
60	36	36	36	37	38	39	40	41	42				
55	34	34	34	35	36	37	38	39	40	41			
50	32	32	32	33	34	35	36	37	38	39	40	41	42
45	30	30	30	31	32	33	34	35	36	37	38	39	40
40	28	28	28	29	30	31	32	33	34	35	36	37	38
35	26	26	26	27	28	29	30	31	32	33	34	35	36
30	24	24	24	25	26	27	28	29	30	31	32	33	34
25	22	22	22	23	24	25	26	27	28	29	30	31	32
20	20	20	20	21	22	23	24	25	26	27	28	29	30
15	18	18	18	19	20	21	22	23	24	25	26	27	28
10	16	16	16	17	18	19	20	21	22	23	24	25	26
5	14	14	14	15	16	17	18	19	20	21	22	23	24

Where: H = the maximum allowed height of the shade point (see Figures 4 and 5);

SRL = shade reduction line [the distance between the shade point and the northern lot line (see Figure 6)]; and

N = the north-south lot dimension, provided that a north-south lot dimension more than 90 feet shall use a value of 90 feet for this section.

Provided, the maximum allowed height of the shade point may be increased one foot above the amount calculated using the formula or Table A for each foot that the average grade at the rear property line exceeds the average grade at the front property line.

- B. Performance Option The proposed structure, or applicable nonexempt vegetation, will shade not more than 20 percent of the south-facing glazing of existing habitable structure(s), or, where applicable, the proposed structure or non-exempt vegetation comply with Section .6815(B) or .6815(C) the Solar Access Provisions for New Development. If Section .6815(B), Protected Solar Building Line, is used, non-exempt trees and the shade point of structures shall be set back from the protected solar building line 2.5 feet for every 1 foot of height of the structure or of the mature height of non-exempt vegetation over 2 feet.

11.15.6855 Exemption from the Maximum Shade Point Height Standard

The Planning Director shall exempt a proposed structure or nonexempt vegetation from Sections .6845 and .6850 of this ordinance if the applicant shows that one or more of the conditions in this Section exist, based on plot plans or plats, corner elevations or other topographical data, shadow patterns, suncharts or photographs, or other substantial evidence submitted by the applicant.

- A. Exempt Lot When created the lot was subject to the Solar Access Provisions for New Development and was not subject to the provisions of Section .6825 of that ordinance.
- B. Pre-Existing Shade The structure or applicable non-exempt vegetation will shade an area that is shaded by one or more of the following:
 - 1. An existing or approved building or structure;
 - 2. A topographic feature;
 - 3. A non-exempt tree that will remain after development of the site. It is assumed a tree will remain after development if it: is situated in a building setback required by local law; is part of a developed area or landscaping required by local law; is within a public park, or landscape strip, or legally reserved open space; is in or separated from the developable remainder of a parcel by an undevelopable area or feature; or is on the applicant's property and not affected by the development. A duly executed covenant also can be used to preserve trees causing such shade.
- C. Slope The site has an average slope that exceeds 20 percent in a direction greater than 45 degrees east or west of true south based on a topographic survey by a licensed professional land surveyor.
- D. Insignificant Benefit The proposed structure or nonexempt vegetation shades one or more of the following:
 - 1. An undevelopable area;
 - 2. The wall of an unheated space, such as a typical garage;
 - 3. Less than 20 square feet of south-facing glazing.
- E. Public Improvement The proposed structure is a publicly owned improvement.

11.15.6858 Adjustments to the Maximum Shade Point Height Standard

The Planning Director shall increase the maximum permitted height of the shade point determined using Section .6850 to the extent it finds the applicant has shown one or more of the following conditions exist, based on plot plans or plats, corner elevations or both topographical data, shadow patterns, suncharts or photographs, or other substantial evidence submitted by the applicant.

- A. Physical Conditions Physical conditions preclude development of the site in a manner that complies with Section .6850, due to such things as a lot size less than 3000 square feet, unstable or wet soils, or a drainage way, public or private easement, or right-of-way.
- B. Conflict between the Maximum Shade Point Height and Allowed Shade on the Solar Feature Standards A proposed structure may be sited to meet the solar balance point standard described in Section .6865 or be sited as near to the solar balance point as allowed by Section .6865, if:
 - 1. When the proposed structure is sited to meet the maximum shade point height standard determined using Section .6850, its solar feature will potentially be shaded as determined using Section .6960; and
 - 2. The application includes a form provided by the county that:
 - a. Releases the applicant from complying with Section .6850 and agrees that the proposed structure may shade an area otherwise protected by Section .6850;

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- b. Releases the county from liability for damages resulting from the adjustment;
 - c. Is signed by the owner(s) of the properties that would be shaded by the proposed structure more than allowed by the provisions of Section .6850.
3. Before the county issues a permit for a proposed structure for which an adjustment has been granted pursuant to Section .6858(B), the applicant shall file the form provided for in Subsection (B)2 above in the office of the County Recorder with the deeds to the affected properties.

11.15.6860 Analysis of Allowed Shade on Solar Feature

- A. The applicant is exempt from Section .6860 if the lot(s) south of and adjoining the applicant's property is exempt from Section .6850 of this ordinance.
- B. Applicants shall be encouraged to design and site a proposed habitable structure so that the lowest height of the solar feature(s) will not be shaded by buildings or nonexempt trees on lot(s) to the south. The applicant shall complete the following calculation procedure to determine if the solar feature(s) of the proposed structure will be shaded. To start, the applicant shall choose which of the following sources of shade originating from adjacent lot(s) to the south to use to calculate the maximum shade height at the north property line:
 - 1. Existing structure(s) or non-exempt trees; or
 - 2. The maximum shade that can be cast from future buildings or non-exempt trees, based on Table C. If the lot(s) to the south can be further divided, then the north-south dimension shall be assumed to be the minimum lot width required for a new lot in that zone.
- C. The height of the lowest point of any solar feature of the proposed structure shall be calculated with respect to either the average elevation or the elevation at the midpoint of the front lot line of the lot to the south.
- D. The applicant shall determine the height of the shadow that may be cast upon the applicant's solar feature by the source of shade selected in Subsection (B) by using the following formula or Table B.

$$SFSH = SH (SGL/2.5)$$

Where:

SFSH = the allowed shadow height on the solar feature (see Figure 8).

SH = the height of the shade at the northern lot line of lot(s) to the south as determined in Section Table C.

SGL = the solar gain line (the distance from the solar feature to the northern lot line of adjacent lot(s) to the south, see Figure 7).

Table B. Maximum Permitted Height of Shadow at Solar Feature (In Feet)											
Distance from Solar Gain Line to Lot Line (In Feet)	Allowed Shade Height at Northern Lot Line of Adjacent Lot(s) to the South (In Feet)										
	22	21	20	19	18	17	16	15	14	13	12
50	2	1									

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45	4	3	2	1								
40	6	5	4	3	2	1						
35	8	7	6	5	4	3	2	1				
30	10	9	8	7	6	5	4	3	2	1		
25	12	11	10	9	8	7	6	5	4	3	2	
20	14	13	12	11	10	9	8	7	6	5	4	
15	16	15	14	13	12	11	10	9	8	7	6	
10	18	17	16	15	14	13	12	11	10	9	8	
5	20	19	18	17	16	15	14	13	12	11	10	

Table C may be used to determine (SH) in the above formula.

Table C													
North-South Lot Dimension of Adjacent Lot(s) to the South	100	95	90	85	80	75	70	65	60	55	50	45	40
Allowed Shade Height at the North Property Line of Adjacent Lot(s) to the South	12	12	12	13	14	15	16	17	18	19	20	21	22

E. If the allowed shade height on the solar feature calculated in Subsection (D) is higher than the lowest height of the solar feature calculated in Subsection (C) the applicant shall be encouraged to consider any changes to the house design or location which would make it practical to locate the solar feature so that it will not be shaded in the future.

11.15.6865 Solar Balance Point

If a structure does not comply with the maximum shade point height standard in Section .6850 and the allowed shade on a solar feature standard in Section .6860, then the solar balance point of the lot shall be calculated (*see* Figure 8). The solar balance point is the point on the lot where a structure would most nearly comply with both of these standards, (*i.e.* the variation from both standards is minimized.).

11.15.6868 Yard Setback Adjustment

The county shall grant an adjustment to the side, and/or rear yard setback requirement(s) by up to 50 percent and up to 25 percent to a front yard setback, if necessary to build a proposed structure so it complies with either the shade point height standard in Section .6850, the allowed shade on a solar feature standard in Section .6860, or the solar balance point standard in Section .6865 as provided herein (see Figure 8). This adjustment is not intended to encourage reductions in available solar access or unnecessary modification of setback requirements, and shall apply only if necessary for a structure to comply with the applicable provisions of this ordinance. (The following list illustrates yard adjustments permitted under this section:)

A. LR-5 Zone(s):

1. A front yard setback may be reduced to not less than (15) feet.
2. A rear yard setback may be reduced to not less than (7.5) feet.
3. A side yard setback may be reduced to not less than (3) feet.

B. LR-7 Zone(s):

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1. A front yard setback may be reduced to not less than (15) feet.
2. A rear yard setback may be reduced to not less than (7.5) feet.
3. A side yard setback may be reduced to not less than (3) feet.

C. R-10 Zone(s):

1. A front yard setback may be reduced to not less than (22.5) feet.
2. A rear yard setback may be reduced to not less than (12.5) feet.
3. A side yard setback may be reduced to not less than (5) feet.

11.15.6870 Review Process

A Planning Director determination on a Building Permit request subject to the preceding Solar Balance Point Provisions (Sections 11.15.6835-.6868) may be appealed as provided by Sections 11.15.8290-.8295.

11.15.6875 Solar Access Permit Provisions

The purpose of the following sections is to protect solar access features on lots designated or used for a single family detached dwelling under some circumstances. It authorizes owners of such lots to apply for a permit that, if granted, prohibits solar features from being shaded by certain future vegetation on and off the permittees site.

11.15.6878 Applicability

An owner or contract purchaser of property may apply for and/or be subject to a solar access permit for a solar feature if that property is in a LR-40, LR-30, LR-20, LR-10, LR-7.5, LR-7, LR-5, R-40, R-30, R-20, R-10, R-7 zone, or is or will be developed with a single family dwelling in any urban zone. The county's decision whether or not to grant a solar access permit is intended to be ministerial. *[Amended 1999, Ord. 932 § VIII]*

11.15.6880 Approval Standards for a Solar Access Permit

The Planning Director shall approve an application for a solar access permit if the applicant shows:

- A. The application is complete;
- B. The Information it contains is accurate; and
- C. Non-exempt vegetation on the applicant's property does not shade the solar feature.

11.15.6885 Duties Created by Solar Access Permit

A. A party to whom the county grants a solar access permit shall:

1. Record the permit, legal descriptions of the properties affected by the permit, the solar access height limit, and the site plan required in Section .6888(C) with such modifications as required by the County Recorder, with the deeds to the properties affected by it, indexed by the names of the owners of the affected properties, and pay the fees for such filing;

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2. Install the solar feature in a timely manner as provided in Section .6895; and
 3. Maintain non-exempt vegetation on the site so it does not shade the solar feature.
- B. An owner of property burdened by a solar access permit shall be responsible and pay all costs for keeping nonexempt vegetation from exceeding the solar access height limit. However, vegetation identified as exempt on the site plan required in Section .6888(C) (*e.g.*, vegetation an owner shows was in the ground on the date an application for a solar access permit is filed, and solar friendly vegetation) are exempt from the solar access permit.

11.15.6888 Application Contents

An application for a solar access permit shall contain the following information:

- A. A legal description of the applicant's lot and a legal description, owners' names, and owners' addresses for lots all or a portion of which are within 150 feet of the applicant's lot and 54 degrees east and west of true south measured from the east and west corners of the applicant's south lot line. The records of the County Tax Assessor shall be used to determine who owns property for purposes of an application. The failure of a property owner to receive notice shall not invalidate the action if a good faith attempt was made to notify all persons who may be affected.
- B. A scaled plan of the applicant's property showing:
 1. Vegetation in the ground as of the date of the application if, when mature, that vegetation could shade the solar feature.
 2. The approximate height above grade of the solar feature, its location, and its orientation relative to true south.
- C. A scaled plan of the properties on the list required in Subsection (A) above showing:
 1. Their approximate dimensions; and
 2. The approximate location of all existing vegetation on each property that could shade the solar feature(s) on the applicant's property.
- D. For each affected lot, the requested solar access height limit. The solar access height limit is a series of contour lines establishing the maximum permitted height for non-exempt vegetation on lots affected by a Solar Access Permit (*see* Figure 11). The contour lines begin at the bottom edge of a solar feature for which a permit is requested and rise in five foot increments at an angle to the south not less than 21.3 degrees from the horizon and extend not more than 54 degrees east and west of true south. Notwithstanding the preceding, the solar access height limit at the northern lot line of any lot burdened by a solar access permit shall allow non-exempt vegetation on that lot whose height causes not more shade on the benefitted property than could be caused by a structure that complies with the Solar Balance Point Provisions for existing lots.
- E. The appropriate fee. *[Amended 2000, Ord. 944 § 4]*
- F. If available, a statement signed by the owner(s) of some or all of the property(ies) to which the permit will apply if granted verifying that the vegetation shown on the plan submitted pursuant to Section .6888(C) above accurately represents vegetation in the ground on the date of the application. The county shall provide a form for that purpose. The signed statements provided for herein are permitted but not required for a complete application.

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11.15.6890 Application Review Process

- A. Unless waived by the Planning Director, prior to filing an application for a solar access permit, an applicant or applicant's representative will pay the required fee and meet with the Planning Director or his/her designate to discuss the proposal and the requirements for an application. If a meeting is held, the Planning Director shall convey a written summary of the meeting to the applicant by mail within 7 calendar days of the meeting. *[Amended 2000, Ord. 944 § 5]*
- B. After the pre-application meeting is held or waived, the applicant may file an application containing the information required in Section .6888above.
- C. Within 10 calendar days after an application is filed, the Planning Director or his/her designate shall determine whether the application is complete and if it is not complete notify the applicant in writing, and specify what is required to make it complete.
- D. Within 14 calendar days after the Planning Director decides an application for a solar access permit is complete, the Planning Director or his/her designate shall issue a written decision tentatively approving or denying the request, together with reasons therefore, based on the standards of Section .6880.
 1. If the tentative decision is to deny the permit, the Planning Director shall mail a copy of the decision to the applicant.
 2. If the tentative decision is to approve the permit, and the owners of all affected properties verified the accuracy of the plot plan as permitted under Section .6888(F), the Planning Director shall send a copy of the tentative decision to the applicant and to the owners of affected properties who did not sign the verification statement pursuant to Section .6888(F) by certified mail, return receipt requested. If the Planning Director determines that the owners of a given property, affected by the permit are not the occupants of that property, then the Planning Director shall also send a copy of the notice to the occupants of the property.
 - a. The notice sent to the applicant shall include a sign that says...*A solar access permit for the property has been tentatively approved* and that informs readers where to obtain more information. The applicant shall be instructed to conspicuously post the sign so it is visible from right-of-way adjoining the property, and to sign and return a form provided by the Planning Director certifying that the sign was posted as provided herein not more than 14 days after the tentative decision was mailed.
 - b. The notice shall include the plot plans required inSections .6888(B) and (C) above, the proposed solar access height limits, and duties created by the permit.
 - c. The notice shall request recipients to verify that the plot plan shows all non-exempt vegetation on the recipient's property, and to send the Planning Director comments in writing within 14 calendar days after the tentative decision is mailed if the recipient believes the applicant's plot plan is inaccurate.
 3. Within 28 days after notice of a tentative decision is mailed to affected parties, the Planning Director shall consider responses received from affected parties and/or an inspection of the site, modify the plot plan and the permit to be consistent with the accurate information, and issue a final decision. The Planning Director shall send a copy of the permit and solar access height limits to the owners of each property affected by the permit by certified mail, return receipt requested.

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- E. If the application is approved, the applicant shall record the permit, associated solar access height limits, legal descriptions for the affected properties, and the site plan required in Section .6888(C) with such modifications as required by the Planning Director and the office of the County Recorder, with the deeds to the properties affected by it before the permit is effective.

11.15.6892 Permit Enforcement Process

- A. Enforcement request A solar access permittee may request the county to enforce the solar access permit by providing the following information to the Planning Director:
 - A. A copy of the solar access permit and the plot plans submitted with the permit;
 - B. The legal description of the lot(s) on which alleged non-exempt vegetation is situated, the address of the owner(s) of that property, and a scaled site plan of the lot(s) showing the non-exempt vegetation; and
 - C. Evidence the vegetation violates the solar access permit, such as a sunchart photograph, shadow pattern, and/or photographs.
- B. Enforcement Process If the Planning Director determines the request for enforcement is complete, he/she shall initiate an enforcement action pursuant to zoning violation procedures. Provided the Planning Director shall not enforce the permit against vegetation the owner of which shows was in the ground on the date the permit application was filed with the county.

11.15.6895 Expiration and Extension of a Solar Access Permit

- A. Expiration Every permit issued by the Planning Director under the provisions of Section .6890 shall expire if the construction of the solar feature protected by such permit is not commenced within 180 days from the date of such permit, or if the construction of the solar feature protected by such permit is suspended or abandoned at any time after the work is commenced for a period of 180 days. Before such work can be recommenced, a new permit shall be first obtained to do so, and the fee therefor shall be one-half the amount required for a new permit for such work, provided no changes have been made or will be made in the original plans and specifications for such work; and provided further that such suspension or abandonment has not exceeded one year. If the permittee does not show construction of the solar feature will be started within 180 days of the date of the permit or the extension, or if the solar feature is removed, the Planning Director shall terminate the permit by recording a notice of expiration in the office of the County Recorder with the deeds to the affected properties.
- B. Extension Any permittee holding an unexpired permit may apply for an extension of the time within which he or she may commence work under that permit when he or she is unable to commence work within the time required by this Section for good and satisfactory reasons. The Planning Director may extend the time for action by the permittee for a period not exceeding 180 days upon written request by the permittee showing that circumstances beyond the control of the permittee have prevented actions from being taken. No permit shall be extended more than once.

11.15.6899 Definitions

The following definitions shall apply to MCC 11.15.6805-.6895.

Crown Cover The area within the drip line or perimeter of the foliage of a tree.

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Development Any short plat, partition, subdivision or planned unit development that is created under the county's land division or zoning regulations.

Exempt Tree or Vegetation The full height and breadth of vegetation that the Planning Director has identified as *solar friendly* and listed in the Solar Friendly Tree Report, 1987; and any vegetation listed on a plat map, a document recorded with the plat, or a solar access permit as exempt.

Front Lot Line For purposes of the solar access regulations, a lot line abutting a street. For corner lots the front lot line is that with the narrowest frontage. When the lot line abutting a street is curved, the front lot line is the chord or straight line connecting the ends of the curve. For a flag lot, the front lot line is the lot line that is most parallel to and closest to the street, excluding the pole portion of the flag lot (*see* Figure 1).

Non-Exempt Tree or Vegetation. Vegetation that is not exempt.

Northern Lot Line The lot line that is the smallest angle from a line drawn east-west and intersecting the northernmost point of the lot, excluding the pole portion of a flag lot. If the north line adjoins an undevelopable area other than a required yard area, the northern lot line shall be at the north edge of the undevelopable area. If two lot lines have an identical angle relative to a line drawn east-west, then the northern lot line shall be a line 10 feet in length within the lot parallel with and at a maximum distance from the front lot line (*see* Figure 2).

North-South Dimension The length of a line beginning at the mid-point of the northern lot line and extending in a southerly direction perpendicular to the northern lot line until it reaches a property boundary (*see* Figure 3).

Protected Solar Building Line A line on a plat or map recorded with the plat that identifies the location on a lot where a point two feet above may not be shaded by structures or non-exempt trees (*see* Figure 10).

Shade A shadow cast by the shade point of a structure or vegetation when the sun is at an altitude of 21.3 degrees and an azimuth ranging from 22.7 degrees east and west of true south.

Shade Point The part of a structure or non-exempt tree that casts the longest shadow onto the adjacent northern lot(s) when the sun is at an altitude of 21.3 degrees and an azimuth ranging from 22.7 degrees east and west of true south; except a shadow caused by a narrow object such as a mast or whip antenna, a dish antenna with a diameter of 3 feet or less, a chimney, utility pole or wire. The height of the shade point shall be measured from the the shade point to either the average elevation at the front lot line or the elevation at the midpoint of the front lot line. If the shade point is located at the north end of a ridgeline of a structure oriented within 45 degrees of a true north-south line, the shade point height computed according to the preceding sentence may be reduced by 3 feet. If a structure has a roof oriented within 45 degrees of a true east-west line with a pitch that is flatter than 5 feet (vertical) in 12 feet (horizontal) the shade point height will be the eave of the roof. If such a roof has a pitch that is 5 feet in 12 feet or steeper, the shade point will be the peak of the roof (*see* Figures 4 and 5).

Shade Reduction Line A line drawn parallel to the northern lot line that intersects the shade point (*see* Figure 6).

Shadow Pattern A graphic representation of an area that would be shaded by the shade point of a structure or vegetation when the sun is at an altitude of 21.3 degrees and an azimuth ranging between 22.7 degrees east and west of true south (*see* Figure 12).

Solar Access Height Limit A series of contour lines establishing the maximum permitted height for non-exempt vegetation on lots affected by a Solar Access Permit (*see* Figure 11).

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Solar Access Permit A document issued by the county that describes the maximum height that non-exempt vegetation is allowed to grow on lots to which a solar access permit applies.

Solar Feature A device or combination of devices or elements that does or will use direct sunlight as a source of energy for such purposes as heating or cooling of a structure, heating or pumping of water, and generating electricity. Examples of a solar feature include a window that contains at least 20 square feet of glazing oriented within 45 degrees east and west of true south, a solar greenhouse, or a solar hot water heater. A solar feature may be used for purposes in addition to collecting solar energy, including but not limited to serving as a structural member or part of a roof, wall, or window. A south-facing wall without windows and without other features that use or collect solar energy is not a solar feature for purposes of this ordinance.

Solar Gain Line A line parallel to the northern property line(s) of the lot(s) south of and adjoining a given lot including lots separated only by a street, that intersects the solar feature on that lot (*see* Figure 7).

South or South Facing True south, or 20 degrees east of magnetic south.

Sun Chart One or more photographs that plot the position of the sun between 10:30 a.m. and 1:30 p.m. on January 21, prepared pursuant to guidelines issued by the Planning Director. The sunchart shall show the southern skyline through a transparent grid on which is imposed solar altitude for a 45-degree and 30 minute northern latitude in 10-degree increments and solar azimuth from true south in 15-degree increments.

Undeveloped Area An area that cannot be used practicably for a habitable structure because of natural conditions, such as slopes exceeding 20 percent in a direction greater than 45 degrees east or west of true south, severe topographic relief, water bodies, or conditions that isolate one portion of a property from another portion so that access is not practicable to the unbuildable portion; or man-made conditions, such as existing development which isolates a portion of the site and prevents its further development; setbacks or development restrictions that prohibit development of a given area of a lot by law or private agreement; or existence or absence of easements or access rights that prevent development of a given area.

Figure 1. Front Lot Line

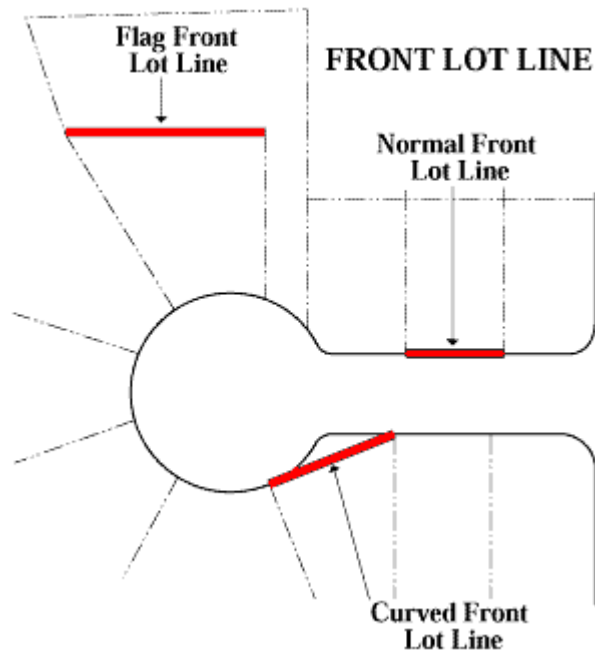


Figure 2. Northern Lot Line

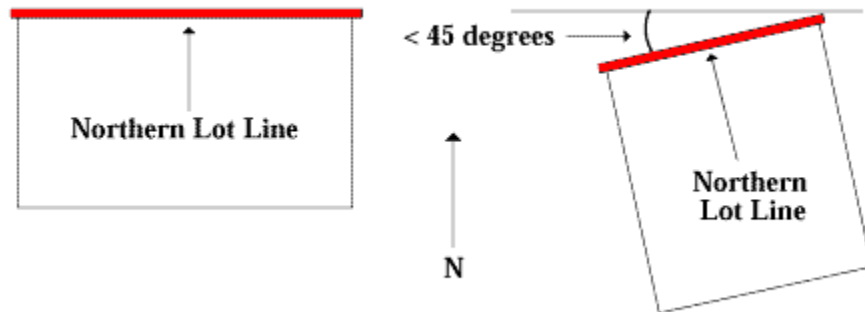


Figure 3. North-South Dimension of the Lot

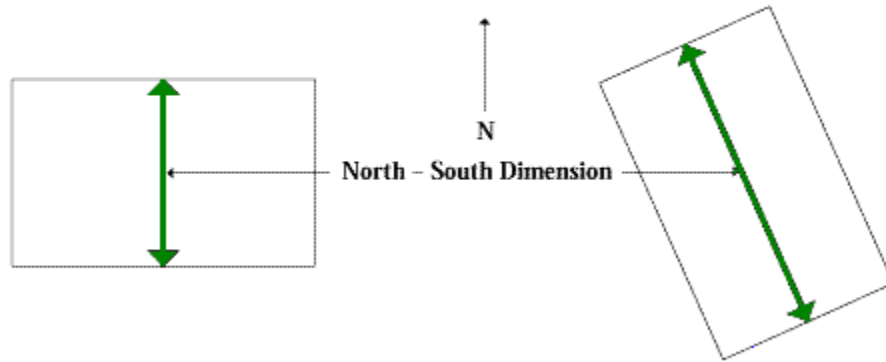


Figure 4. Height of the Shade Point of the Structure

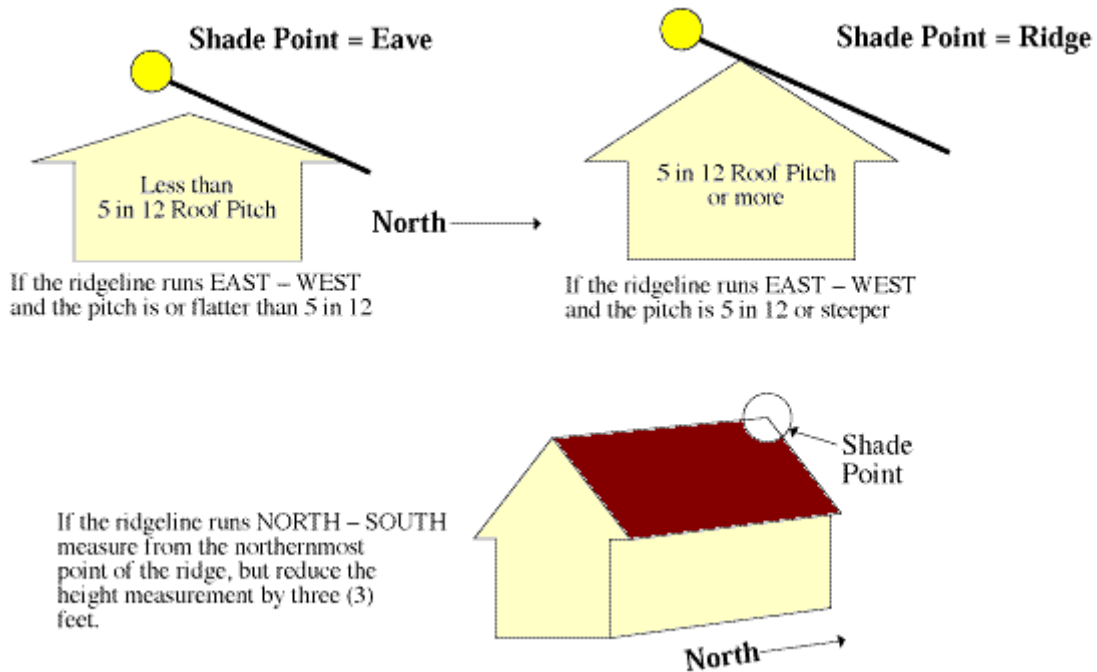


Figure 5. Shade Point Height

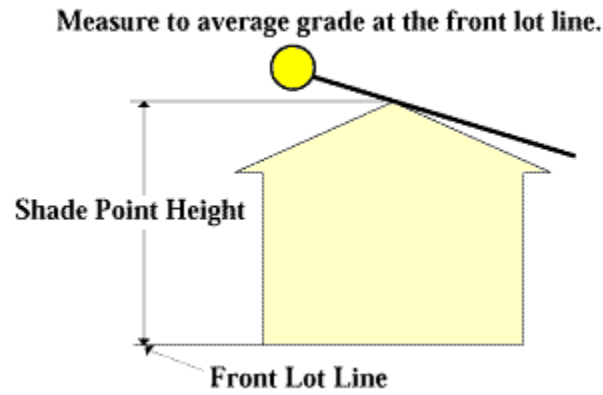


Figure 6. Shade Reduction Line

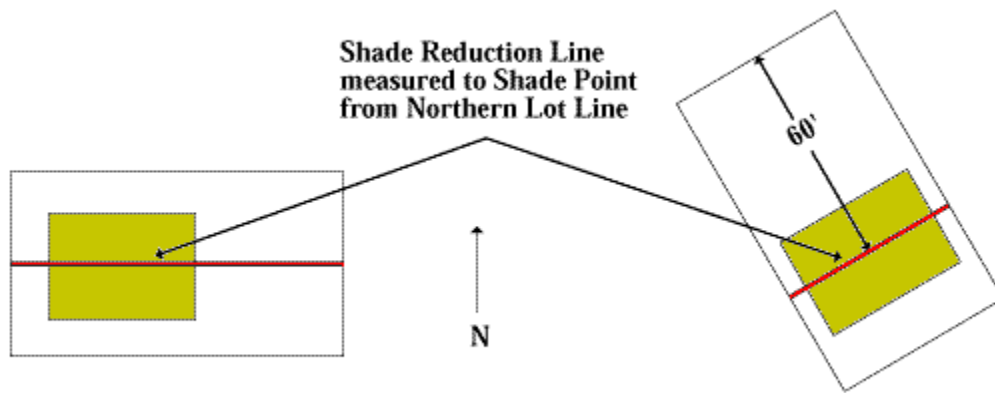


Figure 7. Solar Gain Line

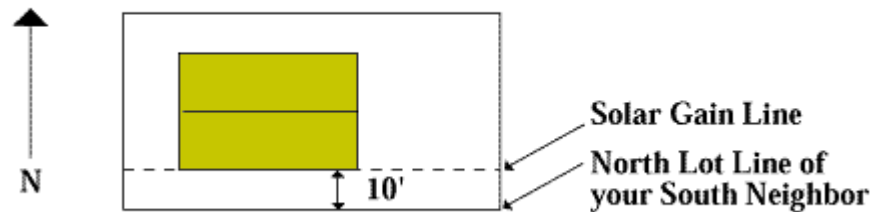


Figure 8. Solar Balance Point Standard

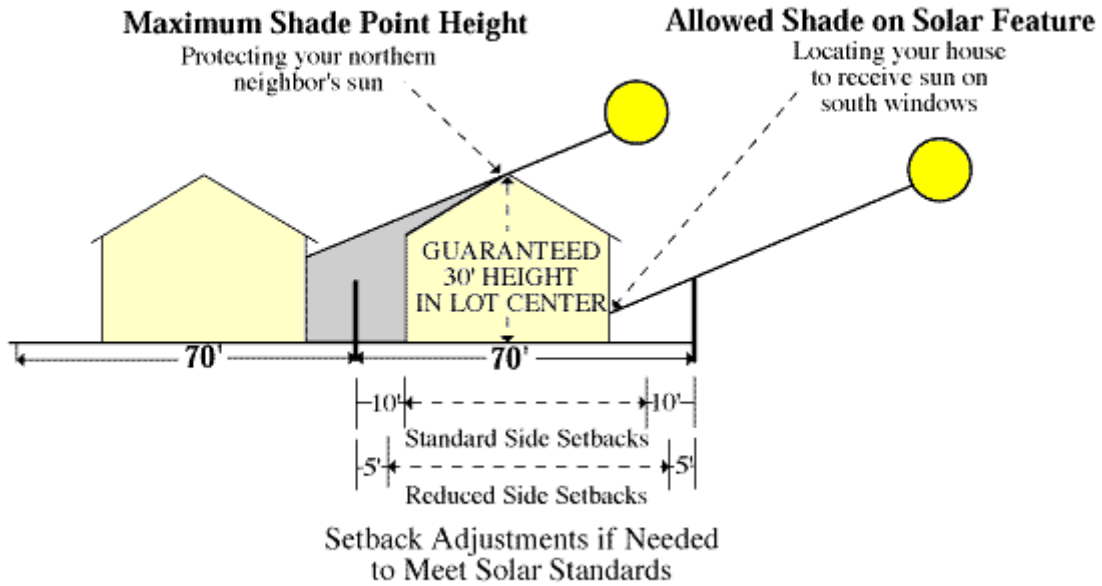
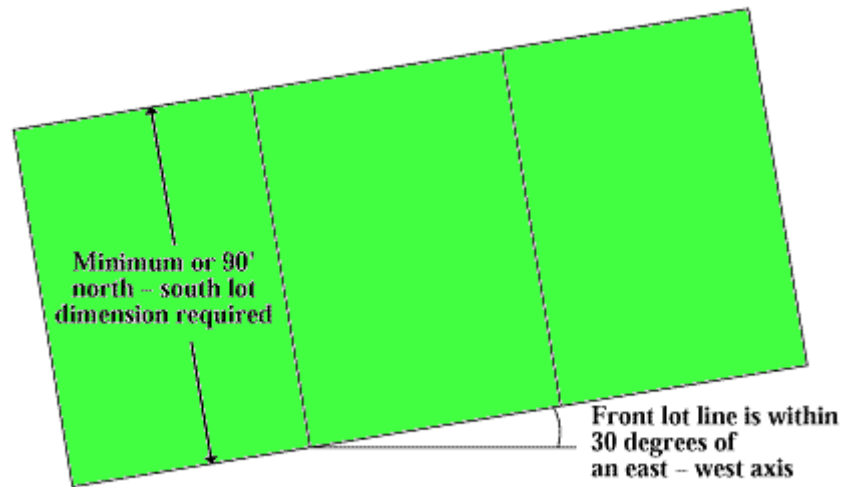


Figure 9. Solar Lot Option 1-Basic Requirements



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Figure 10. Solar Lot Option 2-Protected Solar Building Line

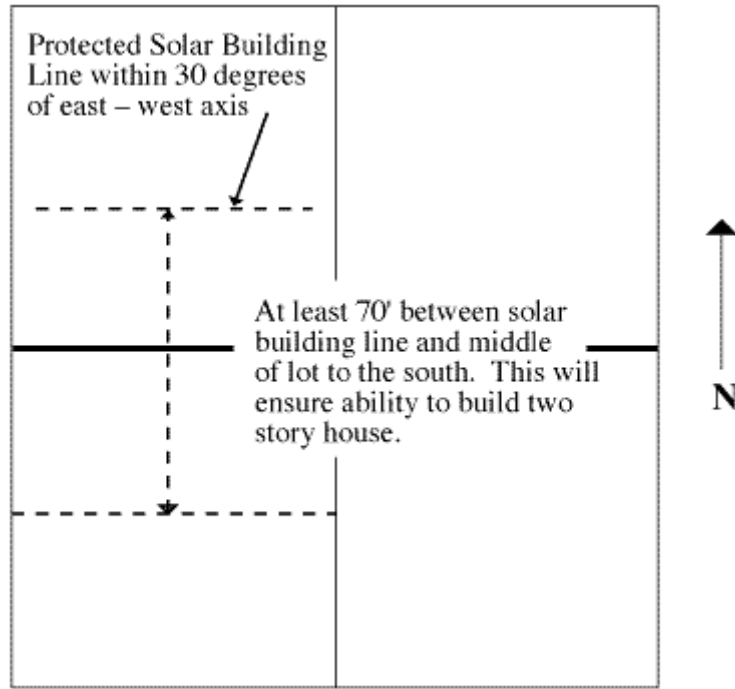
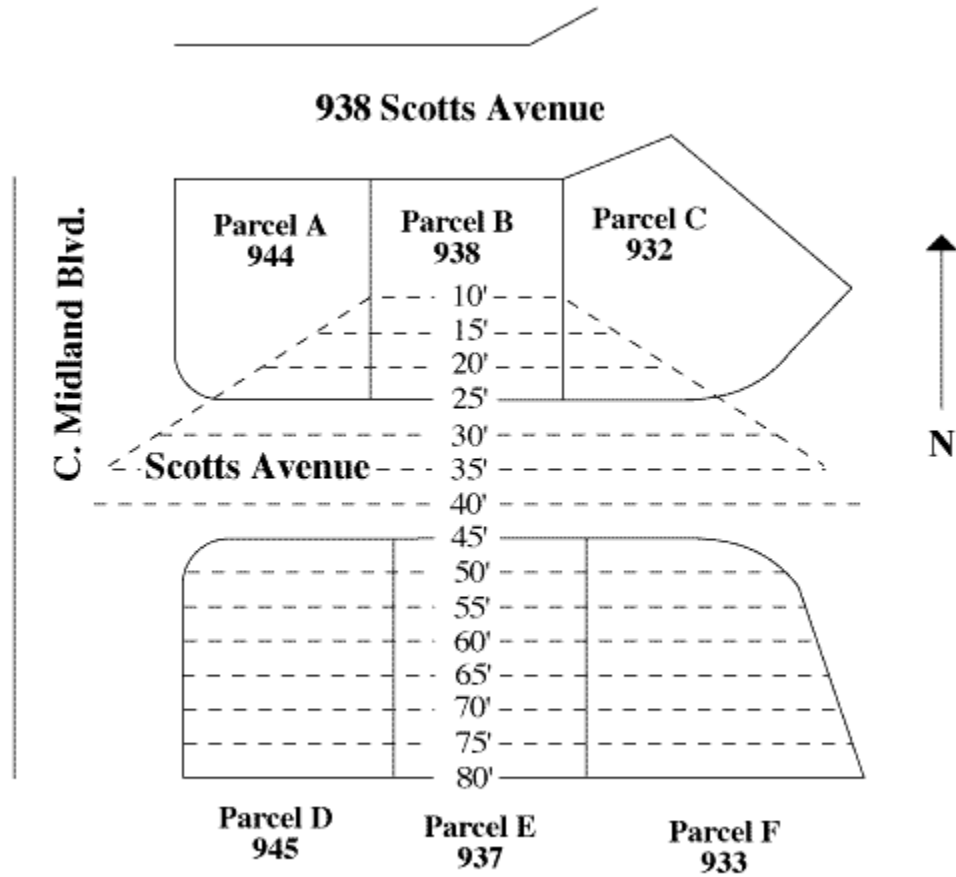


Figure 11. Solar Access Height Limit



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Figure 12. Shadow Pattern

