

City Planning Commission
Sacramento, California

Members in Session:

Subject: An Ordinance Adding Section 3-D-9 to the Zoning Ordinance Relating to the Regulation of Satellite Dishes (M86-015)

Summary

The Zoning Ordinance currently does not provide specific criteria for the regulation of satellite dishes. The proposed ordinance addition would provide for the regulation of satellite dishes for aesthetic and safety purposes while not imposing unreasonable limitations or excessive costs on users of satellite dish antennas. Staff recommends that the Commission approve the attached addition to the Zoning Ordinance and forward the ordinance to City Council for adoption.

Background Information

Presently satellite dishes are considered an accessory building and are regulated under the Accessory Building Regulations (Section 5) of the Zoning Ordinance. A dish, however, is not a building, and this section does not take into consideration the special characteristics of this structure nor specifically state that satellite dishes fall under the Accessory Building category. As a result most individuals are unaware that the City has satellite dish regulations and many dishes located within the City are in violation of the Accessory Building Regulations of the Zoning Ordinance. Because of this lack of specific regulations on satellite dishes, the Planning Division, Building Division and Code Enforcement Division spend a significant amount of staff time responding to inquires and complaints related to the location and visual impact of the dishes.

Planning staff has also found that due to the height, diameter and materials used to construct the dishes that they are different in appearance from conventional antennas and that the size and location of a dish on a lot can have a significant impact on the appearance and aesthetics of the surrounding neighborhood.

As a result, Planning staff has prepared an addition to the Zoning Ordinance to regulate satellite dishes. This report discusses: the requirements of the FCC in regulating satellite dishes; presents an overview of the dish regulations of other jurisdictions; explains the dish characteristics needed in order to receive a satellite delivered signal; and outlines comments from interested groups and City staff regarding the regulation of dishes. This report also proposes satellite dish regulations which attempt to achieve the following objectives:

- Meet the needs of individual property owners/residents;
- Do not impose excessive costs on the users of satellite dishes;

- Preserve neighborhood aesthetics and property values; and
- Maintain public safety requirements.

Current FCC Regulations

On January 14, 1986, the Federal Communications Commission (FCC) adopted a final ruling to preempt state and local zoning or other regulations which differentiate between satellite receive-only dishes and other types of antennas unless certain standards are met. These standards are that the local regulations:

- a. Have a reasonable and clearly defined health, safety, or aesthetic objective; and
- b. Do not operate to impose unreasonable limitations on, or prevent reception of satellite delivered signals by receive-only antennas or to impose costs on the users of such antennas that are excessive in light of the purchase and installation cost of the equipment.

The FCC also adopted a more limited form of preemption for the regulation of satellite transmitting facilities stating:

Regulation of satellite transmitting antennas is preempted in the same manner except that state and local health and safety regulation is not preempted.

These regulations became effective March 14, 1986. Any jurisdiction such as the City of Sacramento adopting legislation pertaining to satellite dishes must meet these regulations. The FCC did not provide a list of acceptable sample zoning ordinances stating that "...our preemption is intended to afford local communities some flexibility. Sample laws would curtail this flexibility."

Regulations of Other Jurisdictions

In spring of 1985 Planning staff conducted a survey of 71 California cities regarding their satellite dish regulations. Twenty-seven (27) cities indicated they had no regulations and 21 cities indicated they were working on developing ordinances. Twenty-three (23) cities indicated that they had regulations pertaining to satellite dishes. A summary of the requirements of these cities is attached as Exhibit A.

In the past month staff has conducted a survey of government agencies to determine whether any local jurisdictions have adopted an ordinance regulating satellite dishes since the recent FCC ruling. The American Planning Association (APA) indicated that they knew of no new ordinances; however, they believe that it is possible to continue to regulate satellite

dishes as long as the reason for the ordinance is clearly explained and the FCC criteria is met. The League of California Cities conducted a survey of California cities asking whether or not the City had passed an ordinance or updated an existing ordinance to meet the January 1980 FCC regulations. Thirty (30) cities responded that they had current satellite dish regulations.

Locally, the City of Folsom does not regulate satellite dishes but encourages the use of landscaping and screening. Roseville and Lincoln currently do not regulate dishes but plan to develop ordinances. Davis does not regulate dishes in single family residential areas but does require design review for dishes located in apartment or commercial areas. Sacramento County allows dish antennas to receive satellite signals in any zone as long as the distribution of signals is limited to receivers located on the same parcel or project as the antenna and the maximum height of the antenna is not three feet higher than the diameter of the dish. If signals are to rebroadcast or dish exceeds the height requirements, a use permit is required. The County adopted this regulation in January of 1985.

Characteristics of Satellite Receive-Only Dishes

The satellite receive-only dishes that are used to pick-up television programs from orbiting satellites for private home and apartment viewing, or in commercial businesses such as restaurants, bars, and motels/hotels are directed toward the Clarke Belt (Exhibits B and C). The Clarke Belt is an orbit belt for satellites 22,300 miles directly above the equator. Satellites placed in this orbit travel at the same rate as the earth's rotation thereby maintaining a stationary position in relation to the earth. A dish located in North America must be facing south in order to receive signals from satellites in the belt. According to a local satellite dish distributor approximately 130 channels are available to Sacramento viewers. Out of these, approximately 18 channels are scrambled (the electronic mixing of signals that require a decoder in order to receive a clear signal).

A television program received by an orbiting satellite originates on earth and the television program signals are transmitted up to a particular satellite in a very narrow beam. This is known as uplinking. The satellite then retransmits the signal back to earth in a widened beam (downlinking) and is received by a dish antenna which carries the signal to a television set. The beam pattern of the satellites in the Clarke Belt are shaped to cover a particular part of the earth. This is known as the footprint (Exhibit B). The center of the North American footprint is in the midwest. Because a satellite's transmitting power is very low, the further away from the center of the footprint the larger the dish is needed to receive a clear satellite signal. Therefore, while a six foot diameter dish may suffice in Colorado, a 12 foot diameter dish is necessary in Hawaii to clearly receive the same satellite signal. According to a local satellite dish distributor, a nine foot diameter dish located in the City of Sacramento will clearly receive all North American satellite signals in the Clarke Belt.

A dish must also be placed at a certain angle to receive signals according to the latitude of the proposed location. In Sacramento this angle is approximately 45° (Exhibit B). A nine foot diameter ground mounted dish, therefore, is approximately eight feet to the top of the dish (Exhibit D).

The dish itself can be made out of several different materials such as solid metal, fiberglass, solid aluminum, aluminum mesh and perforated steel. Mesh and perforated dishes will perform just as well as solid dishes as the microwave signals ignore the openings. The color of the dish also is not a factor in the reception of signals and a dish may be painted any color.

Proposed Satellite Dish Ordinance

Conventional antennas are usually not of excessive bulk and are constructed out of materials which blend in with surrounding uses. Larger antennas which exceed the height limit of the zone they are proposed to be located in require an approved variance.

A satellite dish antenna, however, is different from other antennas in that the diameter of the dish and the materials that the dish is constructed out of make the dish more obvious to an adjacent property owner or individual viewing the dish from the public right-of-way.

The attached ordinance attempts to minimize the visual impact of the dish on surrounding properties and the public right-of-way while allowing for the placement of the dish on the property which will allow the dish to receive clear satellite delivered signals.

The major features of the proposed satellite dish ordinance are outlined below:

Detached dishes in residential zones are allowed anywhere in the rear and interior sideyard and outside of the required street sideyard and front yard setback areas. Dishes must be screened from the public right-of-way by a minimum six foot high solid fence or wall. Maximum height of a dish is nine feet and maximum diameter of the dish is 10 feet. A Planning Director's Special Permit is required to locate a dish in the front yard area outside of the required front yard setback. The purpose of the special permit is to determine if the front yard is an appropriate location or if the dish could be placed on another portion of the site and receive satellite signals without placing unreasonable limitations on the property owner. If the front yard is an appropriate location, the special permit gives the Planning Director the opportunity to require adequate screening from the public right-of-way.

Attached dishes in residential zones are allowed on the main building if they are no higher than the ridge line of the main building and are not visible from the public right-of-way. Dishes proposed to be attached to an accessory structure require a Planning Director's Special Permit,

provided there is no yard area for a detached dish and the dish cannot be attached to the main structure. The purpose of the special permit is to provide for screening of the dish from adjacent properties and the public right-of-way. The maximum diameter proposed for the attached dish is 10 feet. As attached dishes have more of a visual impact on adjacent properties the dishes are required to be painted to match the color of the roof or designed to harmonize with the design of the building subject to Planning staff approval. Aluminum mesh dishes, which are translucent, are exempt from the color compatibility requirement.

Dishes in office, commercial, and industrial zones are permitted to be located outside of all required front and street side yard landscaped areas. They are also permitted to be roof mounted if they are located as far away as possible from view of the public right-of-way. The height requirement is 15 feet and not to exceed 20 percent of the height limit of the zone for roof mounted dishes. Maximum diameter is 10 feet. Screening from the public right-of-way is also required for non-aluminum mesh dishes. As broadcasting studios and communication facilities may require dish antennas of a different height and diameter a Planning Director's Special Permit is provided to review dishes that propose to exceed height and diameter requirements for these uses.

In all zones a satellite dish must meet building code requirements. If the dish is located on a site with a listed historically significant structure or in a preservation area a Planning Director's Special Permit is required in order to insure that the dish is aesthetically compatible with the historic structure on the site and/or the preservation area in which the dish is proposed to be located.

To comply with the requirements of the FCC the proposed ordinance also provides for the granting of a Planning Director's variance from the provisions of the ordinance where the applicant can demonstrate by clear and convincing evidence that a variance is necessary in order for a dish on a particular site to receive or transmit satellite signals.

Any type of antenna satellite dish or transmission tower located in a Planned Unit Development is still required to follow the special permit and development guideline regulations of the PUD.

Comments

In March of 1985 Planning staff met with members of the satellite dish industry to review a proposed list of requirements for dishes and staff has been in contact with members of the industry during the formation of the ordinance. A meeting has been scheduled to review the proposed ordinance with members of the satellite dish and broadcasting industries on Friday June 13, 1986. The results of this meeting will be presented to the Planning Commission at the June 19 meeting.

Planning staff conducted a telephone survey of realtor members of the Sacramento Board of Realtors Legislative Committee to determine what aesthetic impact satellite dishes have on home sales. Members surveyed indicated that a satellite dish located in the front yard of a residence usually will have a negative impact on the sale of the home or the sale of an adjacent home in the neighborhood. A dish located in the back yard, if screened, should not have a negative impact on a home listed "For Sale" in the neighborhood. Committee members surveyed are in support of an ordinance for the screening of satellite dishes.

The proposed ordinance has been reviewed by the City Building Division and Fire Department staff. They indicated that the proposed ordinance meets the health and safety requirements of their departments.

Recommendation

Staff recommends the following action:

1. Ratification of the Negative Declaration.
2. Recommend approval of the attached Zoning Ordinance Amendment and forward to City Council for adoption.

Respectfully submitted,


Wilfred Weitman
Senior Planner

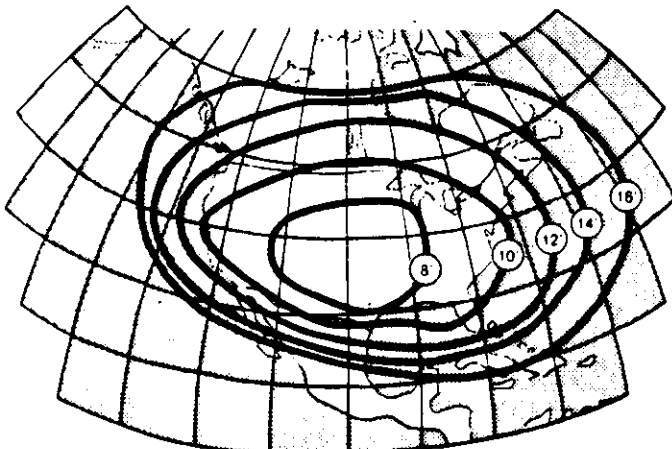
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EXHIBIT A

SATELLITE DISH REQUIREMENTS (SPRING OF 1985)

	Buena Park	Cerritos	Fairfield	Fresno	Gardena	Glendale	Hayward	Ingewood	Mountain View	Oakland	Redding	Riverside	Sacramento County	San Diego	San Francisco	San Leandro	San Mateo	Santa Ana	Santa Clara	Thousand Oaks	Torrance	Walnut Creek	West Covina	
1. Requires Building Permit	X	X	X	X	X		X	X		X		X								X	X	X		23
2. Requires Planning Director Approval Requires Design Review Board or Other Board Approval	X				X											X				X	X	X		9
3. Requires Special Use Permit in Certain Zones			X									X			X							X		7
4. Establishes Maximum Diameter	X					X								X										3
5. Establishes Maximum Height (Less Than Otherwise Allowed in Zone) Prohibited specifically in Front And Street Side Yard Area	X						X	X	X	X	X	X	X											2
6. Establishes Setbacks	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	4
7. Not To Be Visible From Street			X	X					X													X		10
8. Requires Screening	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	12
9. Requires Neutral Color No Roof Mounted Dishes In Residential Zone No Roof Mounted Dishes In Non-Residential Zone	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	16
10. Considered Accessory Use																								6
11. Limits Number of Dishes on Lot	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	11
12. No Advertising Allowed On Dish																								4
																								5
																								2
																								6
	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	3
																								1

4.6 Average North American Dish Sizes*

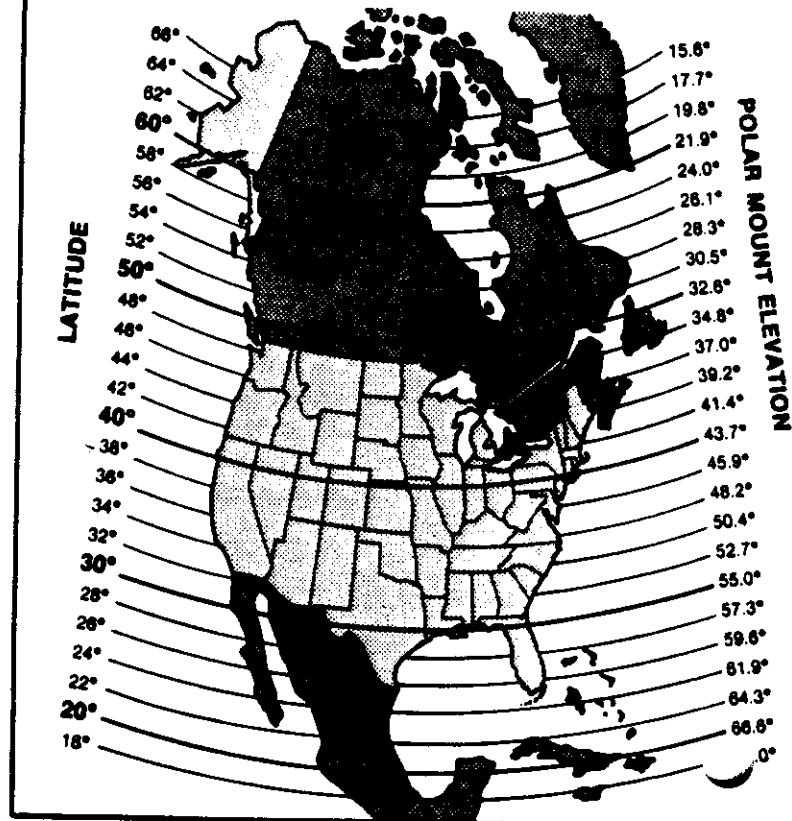


*When combined with 120° LNA and 8 dB Threshold TVRO receiver.

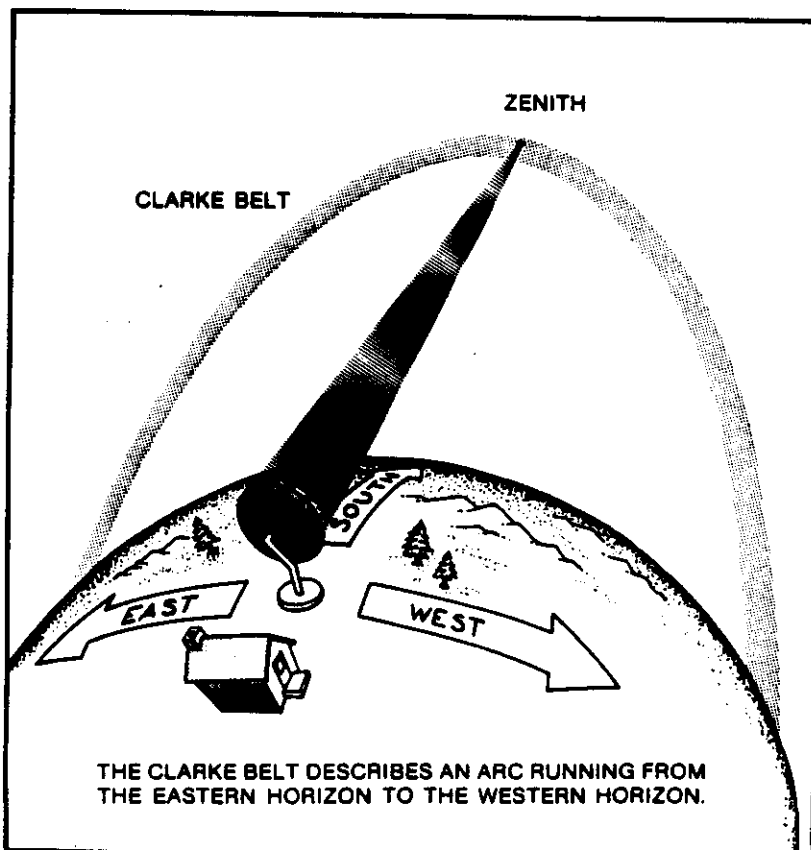
A nine foot diameter dish located in the City of Sacramento will clearly receive all N. American satellites in the Clarke Belt.

POLAR MOUNT ALIGNMENT CHART

7.8

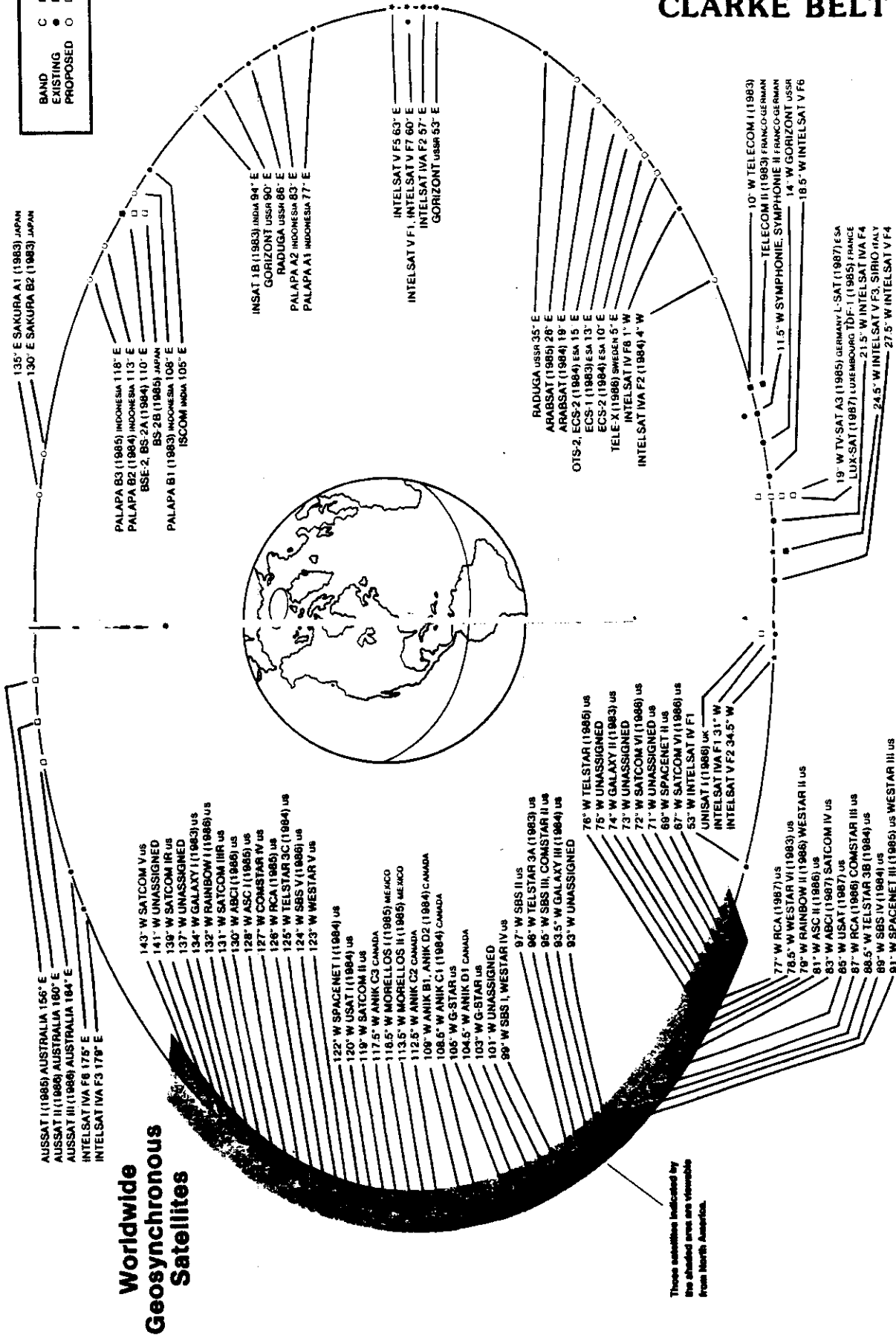
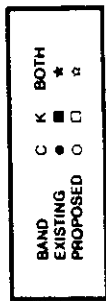


Sacramento's latitude is 38° 35 minutes north requiring a 45° angle for dish.



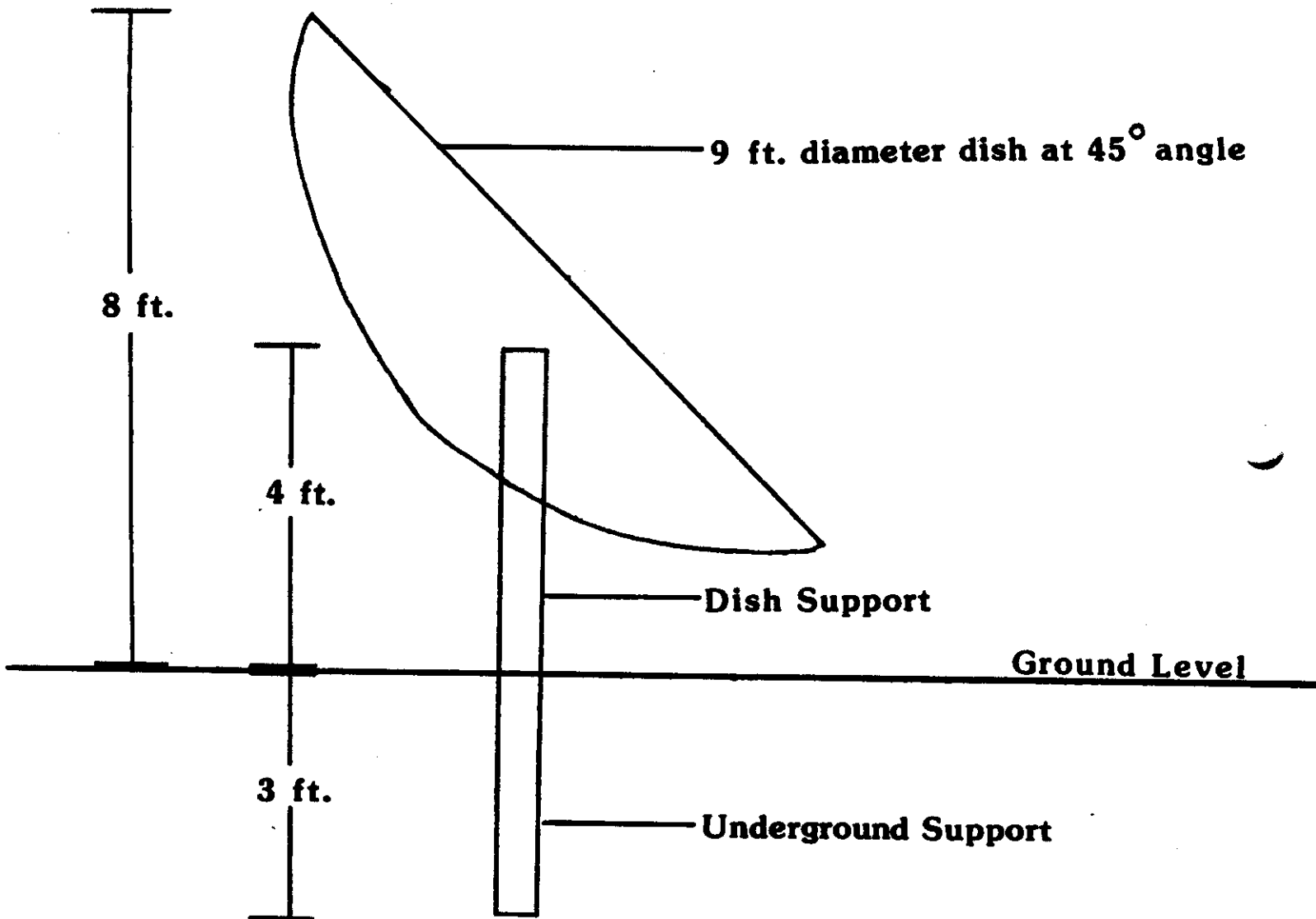
THE CLARKE BELT DESCRIBES AN ARC RUNNING FROM THE EASTERN HORIZON TO THE WESTERN HORIZON.

EXHIBIT C CLARKE BELT



These satellites indicated by the shaded area are viewable from North America.

GROUND MOUNTED SATELLITE DISH



ORDINANCE NO.

ADOPTED BY THE SACRAMENTO CITY COUNCIL ON DATE OF
ORDINANCE AMENDING THE COMPREHENSIVE ZONING
ORDINANCE OF THE CITY OF SACRAMENTO (ORDINANCE
NO. 2550, FOURTH SERIES AS AMENDED) RELATING
TO THE REGULATION OF SATELLITE DISHES (M86-015)

BE IT ENACTED BY THE COUNCIL OF THE CITY OF SACRAMENTO:

Section 3-D-9 is hereby added to the Comprehensive Zoning Ordinance of the City (Ordinance No. 2550, Fourth Series as amended) to read as follows:

9. **SATELLITE DISHES:** A satellite dish ("dish") means any instrument or device capable of transmitting or receiving television, microwave or other electronic communications from a transmitter or transmitter relay located in planetary orbit. This may include, but is not limited to, "satellite earth stations", "satellite receiving dishes", "dishes", "earth stations", "cassegrain antennas" and "parabolic antennas". Public right-of-way means any public street, highway or freeway, but not an alley. Those dishes in excess of three (3) feet in diameter shall be subject to the following regulations:
- a. **IN RESIDENTIAL ZONES** (A, RE, R-1, R-1A, R-1B, R-2, R-2A, R-2B, R-3, R-3A, R-4, R-4A, R-5, R-0), the following rules shall apply:
- I. **Detached Dishes** (A dish not attached to a building or structure; a free-standing dish):
- A. **Location:**
1. **Rear Yard and Interior Side Yard:**
- a. Notwithstanding any other provision of this Ordinance to the contrary, a dish can be located in any portion of the rear yard or interior side yard.
- b. Dishes located in interior side yard or rear yard area shall be screened from public right-of-way by a six-foot-high solid fence or wall.

2. Street Side Yard:

- a. The dish, measured from the outermost point of the dish or support, shall be located outside of the required street side yard setback.
- b. Dish must be screened from the public right-of-way by a six-foot-high solid fence or wall.

3. Front Yard:

- a. Dishes are permitted outside of the required front yard setback area, subject to a Planning Director's Special Permit. Dish shall be measured from the outermost point of the dish or support.
- b. The dish must be screened by a minimum six-foot-high solid fence or wall. Landscaping, as required by the Planning Director, shall also be required.

B. Height: Maximum height of a detached dish shall be nine feet, measured from the average grade of the yard to the highest point of the dish.

C. Diameter: The maximum diameter of the satellite dish shall be ten feet.

II. Attached Dishes (A dish attached to a building or accessory structure):

A. Location:

1. The dish may be attached to the main building if the dish, measured from its highest point, will be no higher than the ridge line of the main building and will not be visible from any public right-of-way.
2. Dishes proposed to be attached to an accessory structure require a Planning Director's Special Permit. Dishes may be attached to an accessory structure only when there is no yard area for a detached dish and the dish cannot be attached to the main structure.

B. Maximum Height:

1. Main Building: Thirty-five (35) feet, measured from the highest point of the dish. In no event shall the dish be higher than the ridge line of main building.
2. Accessory Building: Subject to Planning Director review and approval. In no event shall the dish be higher than 35 feet, measured from the highest point of the dish.

C. Diameter: Maximum diameter shall be 10 feet.

D. Color and Materials: Dishes constructed out of solid or spun aluminum, solid or perforated steel, or fiberglass shall be painted to match the color of the roof. In lieu of such painting, the dish may be designed and installed, subject to Planning staff review and approval, in a manner which will harmonize with the building's overall color and design. Dishes constructed out of aluminum mesh shall be exempt from this requirement.

III. Historically Significant Structures: Dishes proposed for location on a lot on which is located an historically significant structure listed pursuant to Chapter 32 of the City Code or on a lot which is located in a preservation area designated pursuant to Chapter 32 require a Planning Director's Special Permit.

IV. Building Code: All attached and detached satellite dishes shall meet building Code requirements.

b. IN OFFICE, COMMERCIAL AND INDUSTRIAL ZONES (OB, HC, SC, C-1, C-2, C-3, C-4, M-1, M-1(S), M-2, M-2(S), H), the following rules shall apply:

I. Location:

- A. Detached Dishes and Ground Mounted Dishes: The dish, measured from its outermost point, shall be located outside of all required front and street side yard landscaped setback areas.
- B. Roof Mounted Dishes: Roof mounted dishes shall be placed on that portion of the roof which is as far as possible away from view from the public right-of-way on which the building has frontage.

- C. No dish shall be located in any required parking or maneuvering space.
- II. Screening From Public Right-of-Way: All dishes shall be constructed out of aluminum mesh or, if constructed out of solid or spun aluminum, solid or perforated steel or fiberglass, screened from the public right-of-way by a solid fence, wall or roof parapet.
- III. Height:
- A. Detached and Ground Mounted Dishes: Maximum height shall be 15 feet, measured from the average grade of the yard to the highest point of the dish.
 - B. Roof Mounted Dishes: Maximum height shall not exceed 20 percent of the height limit for the zone and shall not be higher than 15 feet above the highest point of the roof.
 - C. A Planning Director's Special Permit may be granted for broadcasting studios and communication facilities requiring increased dish height.
- IV. Diameter: Maximum diameter shall be 10 feet, provided, however, that a larger diameter may be approved for broadcasting studios and communication facilities subject to Planning Director's Special Permit.
- V. Historically Significant Structures: Dishes proposed for location on a lot on which is located an historically significant structure listed pursuant to Chapter 32 of the City Code or on a lot which is located in a preservation area designated pursuant to Chapter 32 require a Planning Director's Special Permit.
- VI. Building Code: All dishes shall meet Building Code requirements.
- c. Notwithstanding any provision of Section 14 of this Ordinance to the contrary, a Planning Director's Variance from any provision of this Section shall be granted where the

applicant demonstrates by clear and convincing evidence that the Variance is necessary in order for the applicant to receive or transmit satellite-delivered signals.

DATE PASSED FOR PUBLICATION:

DATE ENACTED:

DATE EFFECTIVE:

MAYOR

ATTEST:

CITY CLERK

JP:lr
M86-015