

Appendix K. Fire Protection Service Information



August 30, 2023

City of Placentia
Attn: Andrew Gonzales
401 E. Chapman Ave
Placentia, CA 92870

Subject: Development Plan Review for 777 W. Orangethorpe Ave, F23-048

As requested, a review of the subject property was completed. The following fire conditions shall apply:

1. The project shall comply with all requirements set forth by the California Code of Regulations Title 24 Parts 1-12 respectively.
2. The adopted edition of the California Code of Regulations, Title 24, Parts 1 through 12, and the Placentia Municipal Code shall apply at the time the architectural plans are submitted for construction permits.
3. Prior to the to the issuance of a grading permits, evidence of sufficient fire flow hours shall be provided to the City of Placentia Fire Prevention. The City of Placentia Fire Prevention Water Available/Fire Flow Form shall be utilized.
4. A fire department access road complying with the CFC, Chapter 5 and the approved fire department access plans shall be installed prior to building construction.
5. The fire department access road shall be inspected by Placentia Fire Prevention Bureau prior to building construction.
6. The fire department access road shall remain unobstructed at all times.
7. A fire department connection (FDC) shall be provided and located within 100 feet of a public fire hydrant. The use of a private hydrant may be used with the use of an aboveground check valve to prevent the flow from the FDC back to the fire hydrant, and with the approval of Placentia Fire Prevention Fire Prevention Bureau. The fire hydrant that supports the FDC shall be on the same side of the street. A vehicle access roadway/approach shall not be placed between the FDC and fire hydrant.
8. All required fire hydrants shall be installed and operational prior to building construction. All fire hydrants shall remain operational during construction.

9. All required fire hydrants shall be readily visible and immediately accessible. A clear space of not less than 3-feet shall be maintained at all times.
10. Prior to construction a temporary address sign shall be posted and clearly visible from the street.
11. The permanent building address shall be provided and either internally or externally lighted during hours of darkness. The address shall be clearly visible from the street fronting the property and comply with California Fire Code Section 505.1 for size and color.
12. Placentia Fire Prevention Bureau approval shall be obtained prior to the storage and/or use of hazardous materials as defined by the California Fire Code.
13. The building shall be provided with an automatic fire sprinkler system in accordance with NFPA 13. Construction plans shall be submitted for review and approval to the City of Placentia Fire Prevention prior to installation.
14. Prior to building final, the building shall be provided with a Knox Lock key box located no more than seven-feet above the finished surfaced and near the main entrance door.
15. Prior to the issuance of a Certificate of Occupancy the building shall be provided with an emergency radio communication enhancement system. The emergency radio communication enhancement system shall meet the requirements of CFC § 510 and all applicable subsection. The system shall be installed and inspected by the City of Placentia Fire Prevention Bureau prior to the Certificate of Occupancy being issued.
16. A copy of all approved alternate means and methods shall be placed on the architectural plans prior to submitting them for review and approval by the city.

Respectfully,

A handwritten signature in black ink, appearing to read "D. Grubb", written in a cursive style.

Dennis J. Grubb, CFPE

2019 CBC - BUILDING CODE ANALYSIS - HEIGHT AND AREA - TYPE III-A CONSTRUCTION											
Building Use	Occup. Group	Const. Type	Sprinklers (903.3.1.1)	Allowable Ht / Stories	Height Provided	Allowable Building Area				Max Bldg Area per Bldg Section	Avg. Bldg Area per Story (5-St)
						Tab. 506.2	Nonsprinklered (Sec. 506.2.3)	Frontage Increase (Sec. 506.3)	Sec 506.2.3		
Parking Structure	S-2	II-A	NFPA 13	UL	8 Tiers	117,000	-	-	-	117,000	-
Leasing Office	B	III-A	NFPA 13	85' / 6 St.	1 St.	85,500	-	-	-	-	-
Recreation/Fitness	A-3	III-A	NFPA 13	85' / 4 St.	1 St.	14,000	-	-	-	14,000	-
Residential Dwelling Units	R-2	III-A	NFPA 13	85' / 5 St.	60' / 5 St.	24,000	+ (24,000 x 0)] x 2	-	-	48,000	9,600
Residential Dwelling Units	R-2	III-A	NFPA 13	85' / 5 St.	60' / 5 St.	24,000	+ (24,000 x 0.25)] x 2	-	-	60,000	12,000
Residential Dwelling Units	R-2	III-A	NFPA 13	85' / 5 St.	60' / 5 St.	24,000	+ (24,000 x 0.50)] x 2	-	-	72,000	14,400

- NOTES:**
- Approved sprinklers (NFPA 13) used for Height and Story increase, NOT area increase
 - Frontage increase $I = [F/P - 0.25]W/30$; (0-1 side = 0 st increase; 2 sides = 6,000 sf increase; 3 sides = 12,000 sf increase)
 - 2019 CBC Section 510.2 & 510.4 allows multiple stories below a horizontal assembly (podium)
 - Highest occupiable floor level is less than 75' above lowest level of fire department access and therefore building is not considered a High-rise per Section 202
 - Building corridors shall comply with the requirements of CBC Section 1020
 - Building Exit Passageways shall comply with the requirements of CBC Section 1024
 - Where an exit enclosure is extended to an exit discharge or a public way by an exit passageway, the exit enclosure shall be separated from the exit passageway by a fire barrier constructed in accordance with CBC Section 707 or a horizontal assembly constructed in accordance with Section 711, or both.
 - 50' max. dead-end corridor where the building is equipped with an approved automatic fire sprinkler system (NFPA 13) per CBC Section 1020.4

BUILDING PROJECT DESCRIPTION

A 248 UNIT DEVELOPMENT CONSISTING OF A 5-STORY TYPE III-A RESIDENTIAL BUILDING SURROUNDING 6.9 LEVELS OF TYPE II-A PARKING STRUCTURE

GROSS LAND AREA 118,541 SQ. FT. ± **2.72 ACRES**
RESIDENTIAL GROSS AREA: 250,681 SQ. FT.
PARKING STRUCTURE GROSS AREA 151,900 SQ. FT.
TOTAL UNITS: 248 UNITS

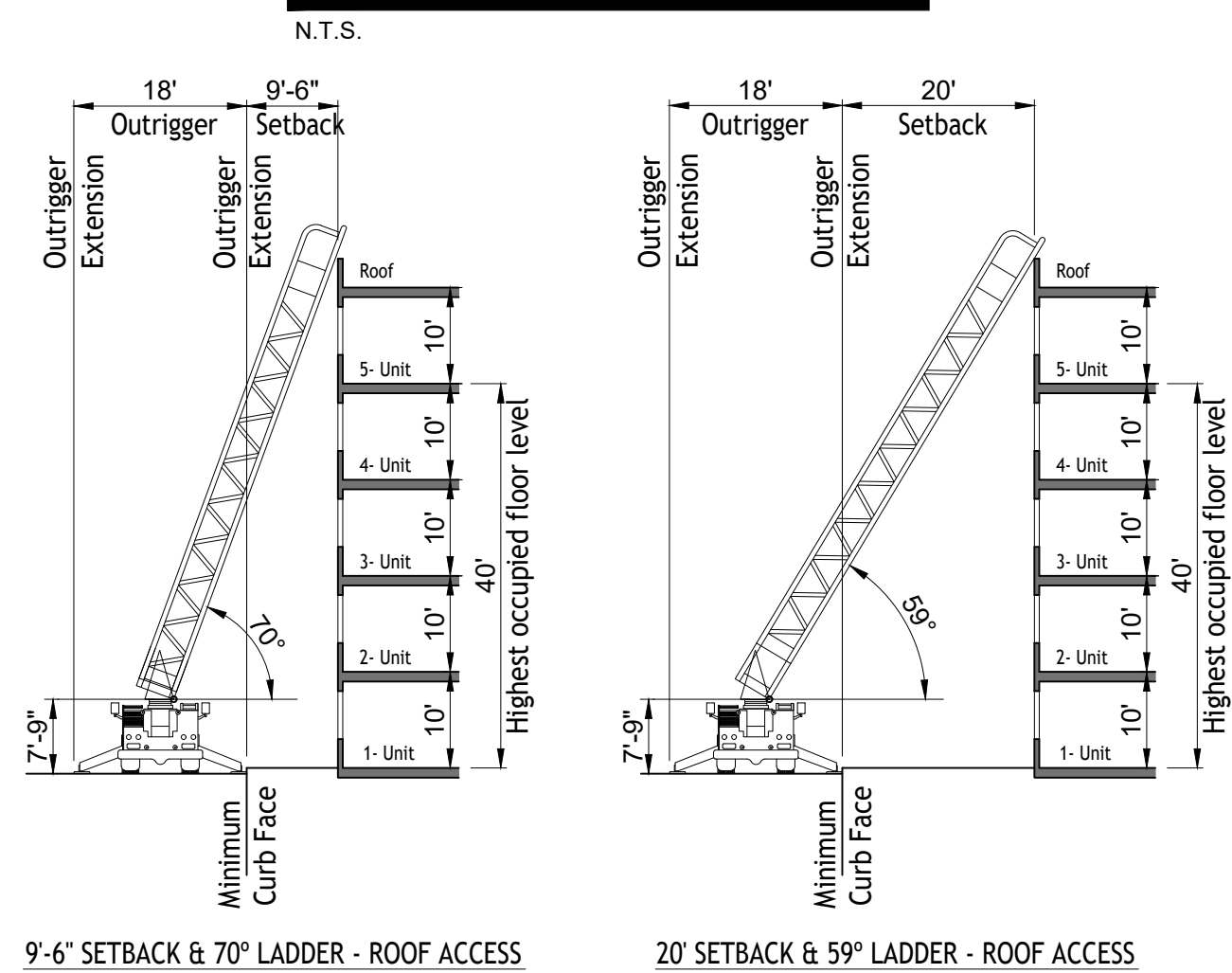
Orangethorpe Mixed-Use

TABLE C105.1 NUMBER AND DISTRIBUTION OF FIRE HYDRANTS			
FIRE-FLOW REQUIREMENT (gpm)	MINIMUM NUMBER OF HYDRANTS	AVERAGE SPACING BETWEEN HYDRANTS** (feet)	MAXIMUM DISTANCE FROM ANY POINT ON STREET OR ROAD FRONTAGE TO A HYDRANT*
1,750 or less	1	500	250
2,000-2,250	2	450	225
2,500	3	450	225
3,000	3	400	225
3,500-4,000	4	350	210
4,500-5,000	5	300	180
5,500	6	300	180
6,000	6	250	150
6,500-7,000	7	250	150
7,500 or more	8 or more*	200	120

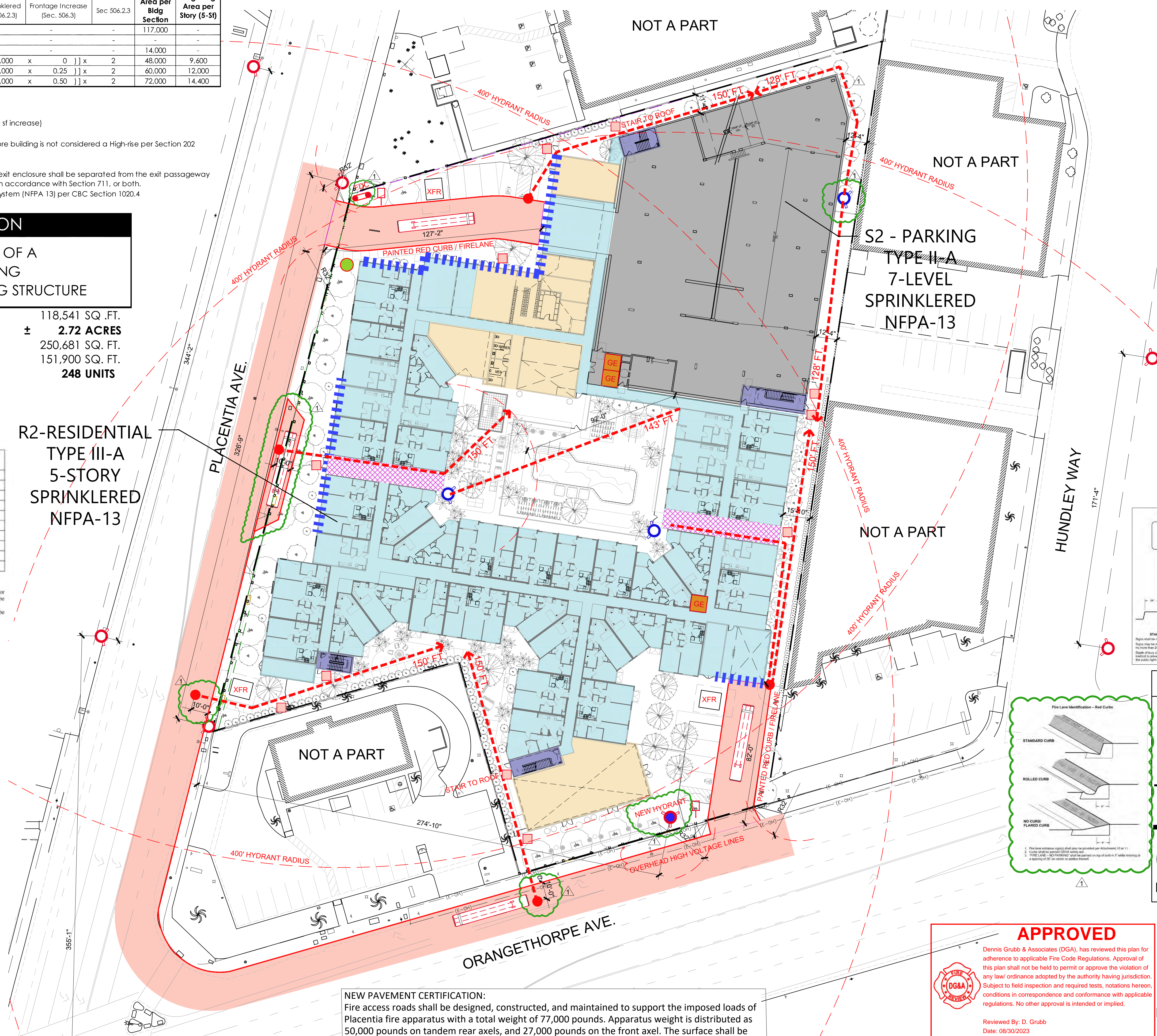
- For SI: 1 foot = 304.8 mm, 1 gallon per minute = 3.785 L/m.
 a. Reduce by 100 feet for dead-end streets or roads.
 b. Where streets are provided with median dividers which cannot be crossed by fire fighters pulling hose lines, or where arterial streets are provided with four or more traffic lanes and have a traffic count of more than 30,000 vehicles per day, hydrant spacing shall average 500 feet on each side of the street and be arranged on an alternating basis up to a fire-flow requirement of 7,000 gallons per minute and 400 feet for higher fire-flow requirements.
 c. Where new water mains are extended along streets where hydrants are not needed for protection of structures or similar fire problems, fire hydrants shall be provided at spacing not to exceed 1,000 feet to provide for transportation hazards.
 d. Reduce by 50 feet for dead-end streets or roads.
 e. One hydrant for each 1,000 gallons per minute or fraction thereof.

SITE PROVISION: 3 HYDRANTS ON SAME SIDE OF STREET @ 426' AVG. SPACING; 6 TOTAL HYDRANTS (INCLUDING 2 ACROSS STREET) @ 345' AVG. SPACING

AERIAL LADDERING



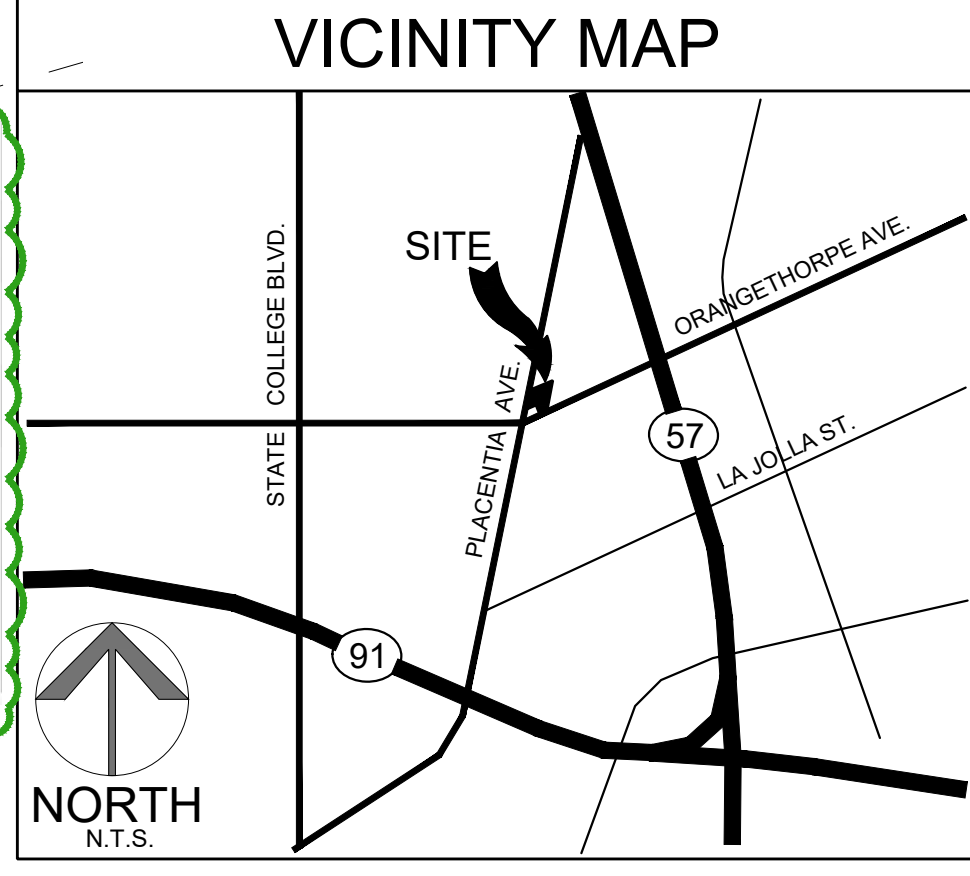
R2-RESIDENTIAL TYPE III-A 5-STORY SPRINKLERED NFPA-13



LEGEND

- FIRE APPARATUS
- LOCATIONS WITH MINIMUM OF 4" HIGH WITH MINIMUM STROKE WIDTH OF 1/2". FINAL COUNT AND LOCATION SHALL BE FINALIZED WITH THE LOCAL JURISDICTION AND THE FIRE CODE OFFICIAL
- FIRE DEPARTMENT CONNECTION
- FIRE LANE ENTRANCE SIGN. SEE DETAIL THIS PAGE
- KNOX BOX / LOCKED KEY SWITCH
- GURNEY SIZED ELEVATOR(S)
- EXISTING PUBLIC FIRE HYDRANT
- NEW PUBLIC FIRE HYDRANT
- NEW WHARF HYDRANT WITHIN COURTYARD (OR BUILDING FACE MOUNTED)
- FIRELANE RED CURB. REFER TO DETAIL
- 150'-0" HOSE PULL
- AERIAL TRUCK LADDER ACCESS TO BUILDING (REFER TO DETAIL)
- BUILDING FOOTPRINT - GROUND FLOOR RETAIL OR LEASING/AMENITY (WITH RESIDENTIAL ABOVE)
- BUILDING FOOTPRINT - RESIDENTIAL R2 OCCUPANCY, 5 STORIES TYPE III-A CONST. SPRINKLERED THROUGHOUT
- 3-HOUR CMU FIRE RATED EXIT CORRIDOR ANY DOORS WITHIN THIS SHALL BE RATED COMMENSURATE WITH THIS RATING AND CAN BE HELD OPEN WITH AN AUTOMATIC RELEASE TIED TO THE FIRE ALARM SYSTEM
- EXIT STAIR (ROOF ACCESS WHERE NOTED)
- 25'-0" WIDE PAVED FIRELANE

NOTICE
 NO PARKING IN AREAS MARKED AS FIRE LANE
 VIOLATING VEHICLES WILL BE CITED OR TOWED AT OWNER'S EXPENSE



PARCEL MAP: A.P.N. 339-112-27

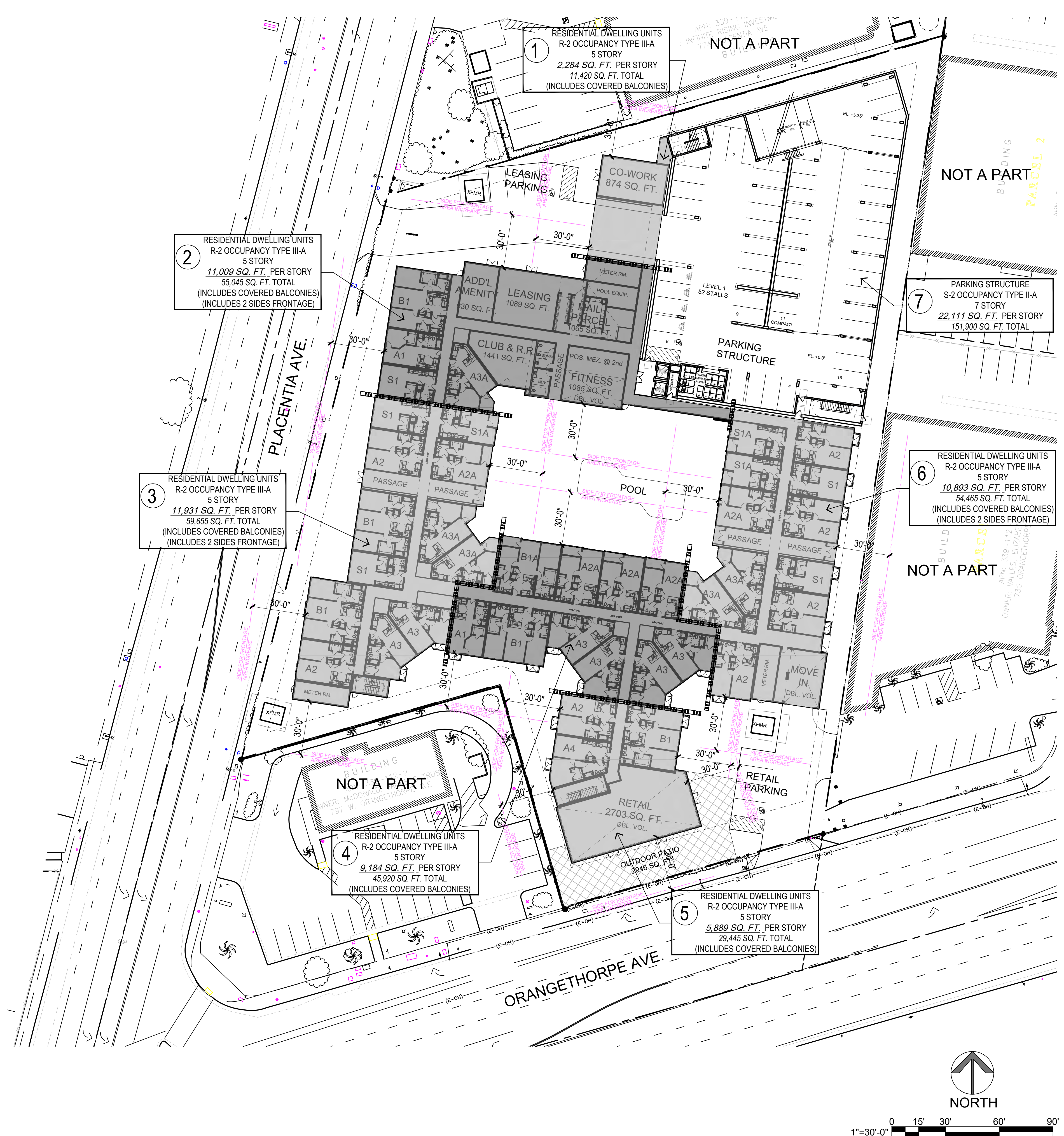
APPROVED
 Dennis Grubb & Associates (DGA) has reviewed this plan for adherence to applicable Fire Code Regulations. Approval of this plan shall not be held to permit or approve the violation of any law or ordinance adopted by the authority having jurisdiction. Subject to field inspection and required tests, notations hereon, conditions in correspondence and conformance with applicable regulations. No other approval is intended or implied.
 Reviewed By: D. Grubb
 Date: 08/30/2023

NEW PAVEMENT CERTIFICATION:
 Fire access roads shall be designed, constructed, and maintained to support the imposed loads of Placentia fire apparatus with a total weight of 77,000 pounds. Apparatus weight is distributed as 50,000 pounds on tandem rear axels, and 27,000 pounds on the front axel. The surface shall be designed, constructed, and maintained to provide all-weather driving capabilities. A 20-foot minimum road width is required.

RESIDENTIAL BUILDING
 Fire Master Plan - Site

AO Architecture. Design. Relationships.
FMP-1
 Scale 1" = 30'
 Job No. 2021-204
 Date 08-29-2023

ORANGETHORPE AVE MIXED USE
 777 ORANGETHORPE AVENUE - PLACENTIA, CA
 ORANGETHORPE INVESTMENT PARTNERS LLC



2
RESIDENTIAL DWELLING UNITS
R-2 OCCUPANCY TYPE III-A
5 STORY
11,009 SQ. FT. PER STORY
55,045 SQ. FT. TOTAL
(INCLUDES COVERED BALCONIES)
(INCLUDES 2 SIDES FRONTAGE)

3
RESIDENTIAL DWELLING UNITS
R-2 OCCUPANCY TYPE III-A
5 STORY
11,931 SQ. FT. PER STORY
59,655 SQ. FT. TOTAL
(INCLUDES COVERED BALCONIES)
(INCLUDES 2 SIDES FRONTAGE)

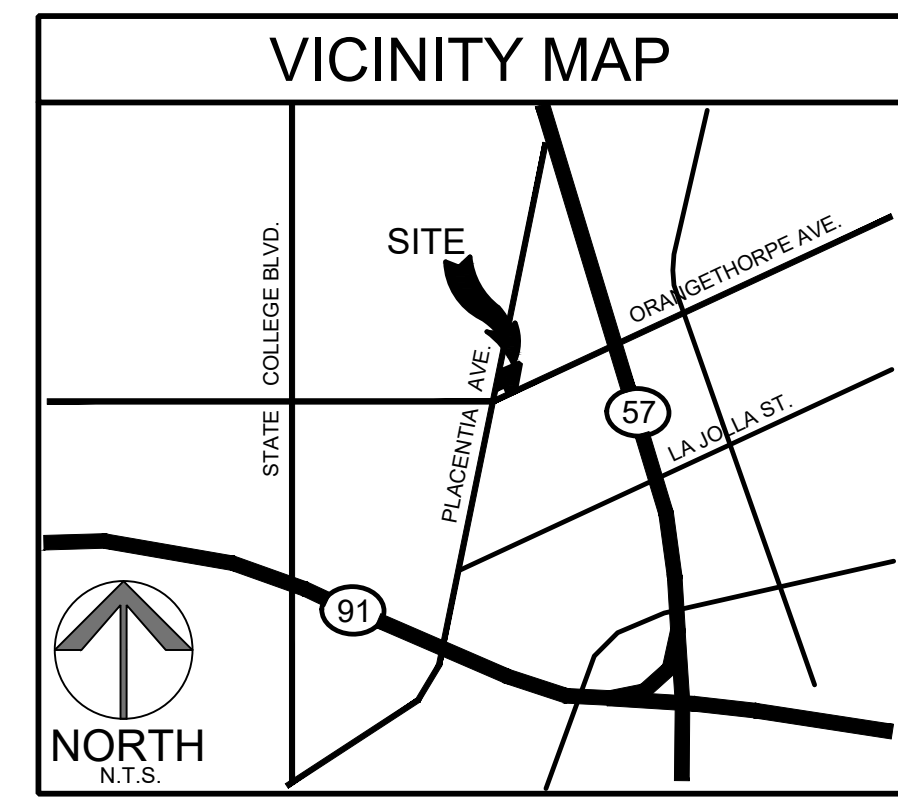
4
RESIDENTIAL DWELLING UNITS
R-2 OCCUPANCY TYPE III-A
5 STORY
9,184 SQ. FT. PER STORY
45,920 SQ. FT. TOTAL
(INCLUDES COVERED BALCONIES)

5
RESIDENTIAL DWELLING UNITS
R-2 OCCUPANCY TYPE III-A
5 STORY
5,889 SQ. FT. PER STORY
29,445 SQ. FT. TOTAL
(INCLUDES COVERED BALCONIES)

6
RESIDENTIAL DWELLING UNITS
R-2 OCCUPANCY TYPE III-A
5 STORY
10,893 SQ. FT. PER STORY
54,465 SQ. FT. TOTAL
(INCLUDES COVERED BALCONIES)
(INCLUDES 2 SIDES FRONTAGE)

7
PARKING STRUCTURE
S-2 OCCUPANCY TYPE II-A
7 STORY
22,111 SQ. FT. PER STORY
151,900 SQ. FT. TOTAL

1
RESIDENTIAL DWELLING UNITS
R-2 OCCUPANCY TYPE III-A
5 STORY
2,284 SQ. FT. PER STORY
11,420 SQ. FT. TOTAL
(INCLUDES COVERED BALCONIES)



2019 CBC - BUILDING CODE ANALYSIS - HEIGHT AND AREA - TYPE III-A CONSTRUCTION

Building Use	Occup. Group	Const. Type	Sprinklers (903.3.1.1)	Allowable Ht / Stories	Height Provided	Allowable Building Area			Max Bldg Area per Bldg Section	Avg. Bldg Area per Story (5-5)
						Tab. 506.2	Nonsprinklered (Sec. 506.2.3)	Frontage Increase (Sec. 506.3)		
Parking Structure	S-2	II-A	NFPA 13	UL	8 Tiers	117,000	-	-	117,000	-
Leasing Office	B	III-A	NFPA 13	85' / 6 St.	1 St.	85,500	-	-	-	-
Recreation/Fitness	A-3	III-A	NFPA 13	85' / 4 St.	1 St.	14,000	-	-	-	-
Residential Dwelling Units	R-2	III-A	NFPA 13	85' / 5 St.	60' / 5 St.	24,000	+ (24,000 x 0)] x 2	48,000	9,600
Residential Dwelling Units	R-2	III-A	NFPA 13	85' / 5 St.	60' / 5 St.	24,000	+ (24,000 x 0.25)] x 2	60,000	12,000
Residential Dwelling Units	R-2	III-A	NFPA 13	85' / 5 St.	60' / 5 St.	24,000	+ (24,000 x 0.50)] x 2	72,000	14,400

- NOTES:
- Approved sprinklers (NFPA 13) used for Height and Story increase. NOT area increase
 - Frontage Increase $I = [F/P - 0.25] W/30$; [0-1 side = 0 sf increase; 2 sides = 6,000 sf increase; 3 sides = 12,000 sf increase]
 - 2019 CBC Section 510.2 & 510.4 allows multiple stories below a horizontal assembly (podium)
 - Highest occupiable floor level is less than 75' above lowest level of fire department access and therefore building is not considered a High-rise per Section 202
 - Building corridors shall comply with the requirements of CBC Section 1020
 - Building Exit Passageways shall comply with the requirements of CBC Section 1024
 - Where an exit enclosure is extended to an exit discharge or a public way by an exit passageway, the exit enclosure shall be separated from the exit passageway by a fire barrier constructed in accordance with CBC Section 707 or a horizontal assembly constructed in accordance with Section 711, or both.
 - 50' max. dead-end corridor where the building is equipped with an approved automatic fire sprinkler system (NFPA 13) per CBC Section 1020.4

Placentia Fire Department Access & Water Plan Notes
All of the notes listed in the INSPECTION REQUIREMENTS and GENERAL REQUIREMENTS sections shall be placed, verbatim, on the plan under the heading "FIRE DEPARTMENT ACCESS & WATER NOTES."

- INSPECTION REQUIREMENTS**
1. Placentia site inspections are required for this project. Please schedule all field inspections at least 48 hours in advance. Inspections canceled after 1 p.m. on the day before the scheduled date will be subject to a re-inspection fee. Call (714) 993-8135 OR email FireCRR@placentia.org to schedule inspections.
 2. A lumber drop inspection shall be performed prior to bringing combustible materials (or combustible fixtures and finishes for structures of non-combustible construction). All-weather access roads capable of supporting 77,000 lbs., topped with asphalt, concrete, or equivalent shall be in place and hydrants operational at time of lumber drop inspection.
 3. For projects with fuel modification, a vegetation clearance inspection is required prior to a lumber drop inspection. Use the fuel modification plan service request number to schedule the vegetation clearance inspection.
 4. Phased installation of fire access roads requires additional inspections not covered by the fees paid at plan submittal. Contact (714) 993-8135 to arrange for additional inspections that may be needed and any fees that may be due.
 5. An original approved, signed, wet-stamped Placentia fire access & water plan shall be available on-site at time of inspection.
 6. Access roads and hydrants shall be maintained and remain clear of obstructions at all times during and after construction. Areas where parking is not permitted shall be clearly identified at all times. Obstruction of fire lanes and hydrants may result in cancellation or suspension of inspections.
 7. Temporary fuel tanks of 60 or more gallons shall be reviewed, inspected, and permitted by the Placentia Fire Department, City of Placentia prior to use.
 8. The project address shall be clearly posted and visible from the public road during construction.
 9. All gates in construction fencing shall be equipped with either a Knox or breakaway padlock.
 10. Buildings of four or more stories shall be provided with stairs and a standpipe before reaching 40 feet in height.
- GENERAL REQUIREMENTS**
11. Fire lane widths shall be measured from top face of the curb to top face of the curb for fire lanes with standard curbs and gutters and from flow-line to flow-line for fire lanes with modified curb designs (e.g., rolled, ramped, etc.). The developer is responsible to verify that all approved public works or grading department street improvement plans or precise grading plans conform to the minimum street width measurements per the approved Placentia fire department access & water plan and standards identified in Placentia Fire Community Risk Reduction Access & Water Guideline for all portions of the fire access roads.
 12. Permanent, temporary, and phased emergency access roads shall be designed and maintained to support an imposed load of 77,000 lbs. and surfaced to provide all-weather driving capabilities.
 13. Fire lane signs and red curbs shall meet the specifications shown in Placentia Fire Community Risk Reduction Access & Water Guideline and shall be installed as described therein. Additional fire lane markings may be required at the time of inspection depending on field conditions.
 14. All fire hydrants shall have a "Blue Reflective Pavement Marker" indicating their location per the Placentia standard. On private property markers are to be maintained in good condition by the property owner.
 15. Address numbers shall be located and be of a color and size so as to be plainly visible and legible from the roadway from which the building is addressed in accordance with Placentia Fire Community Risk Reduction Access & Water Guideline.
 16. Access gates shall be approved prior to installation and shall be in compliance with Chapter 5 of the CFC and Placentia Prevention Bureau Access & Water Guideline.
 17. Approved access walkways shall be provided to all required openings and all rescue windows.
 18. Vegetation shall be selected and maintained in such a manner as to allow immediate access to all hydrants, valves, fire department connections, pull stations, extinguishers, sprinkler risers, alarm control panels, rescue windows, and other devices or areas used for firefighting purposes. Vegetation or building features shall not obstruct address numbers or inhibit the functioning of alarm bells, horns, or strobes.
 19. Dumpsters and trash containers larger than 1.5 cubic yards shall not be stored in buildings or placed within 5 feet of combustible walls, openings or combustible roof eave lines unless protected by an approved sprinkler system.
 20. Any future modification to the approved Placentia Fire Community Risk Reduction Access & Water Plan or approved site plan, including but not limited to road width, grade, speed humps, turning radii, gates or other obstructions, shall require review, inspection, and approval by the Placentia Fire Department, City of Placentia.
 21. Approval of this plan shall not be construed as approval of any information or project conditions other than those items and requirements identified in Placentia Fire Community Risk Reduction Access & Water Guideline and related portions of the CFC and CBC. This project may be subject to additional requirements not stated herein upon examination of actual site and project conditions or disclosure of additional information.

Fire access roads shall be designed, constructed, and maintained to support the imposed loads of Placentia fire apparatus with a total weight of 77,000 pounds. Apparatus weight is distributed as 50,000 pounds on tandem rear axles, and 27,000 pounds on the front axle. The surface shall be designed, constructed, and maintained to provide all-weather driving capabilities. A 20-foot minimum road width is required.

