



AGENDA

GARDEN GROVE PLANNING COMMISSION

REGULAR MEETING

JUNE 1, 2017

COMMUNITY MEETING CENTER
11300 STANFORD AVENUE

REGULAR SESSION - 7:00 P.M. - COUNCIL CHAMBER

ROLL CALL: CHAIR KANZLER, VICE CHAIR BRIETIGAM
COMMISSIONERS LAZENBY, LEHMAN, NGUYEN, SALAZAR,
TRUONG

Members of the public desiring to speak on any item of public interest, including any item on the agenda except public hearings, must do so during Oral Communications at the beginning of the meeting. Each speaker shall fill out a card stating name and address, to be presented to the Recording Secretary, and shall be limited to five (5) minutes. Members of the public wishing to address public hearing items shall do so at the time of the public hearing.

Any person requiring auxiliary aids and services due to a disability should contact the City Clerk's office at (714) 741-5035 to arrange for special accommodations. (Government Code §5494.3.2).

All revised or additional documents and writings related to any items on the agenda, which are distributed to all or a majority of the Planning Commissioners within 72 hours of a meeting, shall be available for public inspection (1) at the Planning Services Division during normal business hours; and (2) at the City Community Meeting Center Council Chamber at the time of the meeting.

Agenda item descriptions are intended to give a brief, general description of the item to advise the public of the item's general nature. The Planning Commission may take legislative action it deems appropriate with respect to the item and is not limited to the recommended action indicated in staff reports or the agenda.

PLEDGE OF ALLEGIANCE TO THE FLAG OF THE UNITED STATES OF AMERICA

- A. ORAL COMMUNICATIONS - PUBLIC
- B. APPROVAL OF MINUTES: May 18, 2017
- C. PUBLIC HEARING(S) (Authorization for the Chair to execute Resolution shall be included in the motion.)
 - C.1. CONDITIONAL USE PERMIT NO. CUP-103-2017
INTERPRETATION OF USE NO. IOU-002-2017

APPLICANT: SAY ENTERTAINMENT, INC. (TAM TRUONG)
LOCATION: NORTHEAST CORNER OF WESTMINSTER AVENUE
AND BROOKHURST STREET AT 13904
BROOKHURST STREET

REQUEST: Conditional Use Permit approval to allow the operation of a 3,800 square foot karaoke studio, Say Karaoke, in a tenant space previously occupied by the Alley of the Far East Restaurant, with seven private karaoke rooms and the existing kitchen to remain. Also, an Interpretation of Use to determine the compatibility between the proposed karaoke studio and the existing zoning classification. Upon approval of the requests, the Conditional Use Permit previously governing the tenant space, CUP-010-2014, which allowed for the sale of alcoholic beverages with a State Alcoholic Beverage Control (ABC) Type "41" (On-Sale, Beer and Wine, Public Eating Place) License, shall be revoked and become null and void. The site is in the C-2 (Community Commercial) zone. The project is exempt pursuant to CEQA Section Nos. 15061(b)(3) - Review for Exemption, 15301 - Existing Facilities, and 15303 - New Construction or Conversion of Small Structures.

STAFF RECOMMENDATION: Approval of Conditional Use Permit No. CUP-103-2017 and Interpretation of Use No. IOU-002-2017, subject to the recommended conditions of approval.

C.2. AMENDMENT NO. A-020-2017

APPLICANT: CITY OF GARDEN GROVE
LOCATION: CITYWIDE

REQUEST: A request for Planning Commission to recommend to the City Council, approval of an Amendment to Title 9 of the Garden Grove Municipal Code to update (per Executive Order B-29-15, State of California) the landscape water efficiency requirements (definitions, threshold, and reporting requirements) in Chapter 9.04 General Provisions, Chapter 9.08 Single-Family Residential, 9.12 Multi-Family Residential, and 9.16 Commercial, Office Professional, Industrial, and Open Space. The project is exempt pursuant to CEQA Guidelines Section 15061(b)(3) as it can be seen with certainty that there is no possibility that the activity in question may have a significant effect on the environment, and Section 15307 as the local ordinance assures the maintenance, restoration, or enhancement of a natural resource where the regulatory process involves procedures for protection of the environment.

STAFF RECOMMENDATION: Recommend approval of
Amendment No. A-020-2017 to City Council.

D. CONSENT ITEM

D.1. DISCUSS PLANNING COMMISSION START TIME

E. MATTERS FROM COMMISSIONERS

F. MATTERS FROM STAFF

G. ADJOURNMENT

GARDEN GROVE PLANNING COMMISSION
Community Meeting Center, 11300 Stanford Avenue, Garden Grove, CA 92840

Regular Meeting Minutes
Thursday, May 18, 2017

CALL TO ORDER: 7:00 p.m.

ROLL CALL: Chair Kanzler
Vice Chair Brietigam
Commissioner Lazenby
Commissioner Lehman
Commissioner Nguyen
Commissioner Salazar
Commissioner Truong

Absent: None.

PLEDGE OF ALLEGIANCE: Led by Commissioner Lazenby

ORAL COMMUNICATIONS – PUBLIC: Mr. Lordith Gonzalez asked for clarification on the Accessory Dwelling Unit (ADU) standards to apply to his property. Staff suggested he wait to see if the new ADU Ordinance was approved at the upcoming City Council meeting, and if so, to then submit an application to the City indicating his plans. Mr. Gonzalez also mentioned an issue concerning complaints in regard to a block wall. Staff directed him to contact the substandard division in City Hall.

APRIL 20, 2017 MINUTES:

Action: Received and filed.

Motion: Brietigam Second: Lehman

Ayes: (7) Brietigam, Kanzler, Lazenby, Lehman, Nguyen, Salazar, Truong

Noes: (0) None

STUDY SESSION – REVIEW OF CONDITIONAL USE PERMITS AND ALCOHOLIC BEVERAGE CONTROL (ABC) LICENSED ESTABLISHMENTS. James Colegrove, the Police Department's City Hall Liaison, with the assistance of Delia Garcia, Eric Silva, and Bryan Rushing from Alcoholic Beverage Control, addressed Conditional Use Permits and Alcoholic Beverage Control (ABC) Licensed establishments. Staff and Commissioners discussed and received input on the presentation.

MATTERS FROM COMMISSIONERS: Vice Chair Brietigam noted that the Police and Fire Departments have been understaffed for years and challenged the City Council to increase the Police force to 200 sworn officers, and the Fire Department by five, by the year 2020.

Chair Kanzler asked if staff had researched the process for changing the start time of the Planning Commission meetings from 7:00 p.m. to a more convenient time. Staff responded that the item would need to be agendized for discussion and that a resolution would need to be written that recommended the change to City Council.

Vice Chair Brietigam motioned to agendize the matter for discussion, leaving the start time open, at the next Planning Commission meeting of June 1, 2017.

Motion: Brietigam Second: Lazenby

Ayes: (7) Brietigam, Kanzler, Lazenby, Lehman, Nguyen, Salazar, Truong

Noes: (0) None

MATTERS FROM STAFF: Staff provided an update for Commissioner Lehman's request in regard to issues around Gilbert and Brookhurst Streets, and Katella Avenue. Five cases had been opened by Code Enforcement for trash and graffiti.

Staff also confirmed that Commissioner Truong had been contacted by Public Works regarding her inquiries about street maintenance in west Garden Grove.

Staff then gave a brief description of agenda items for the June 1st, June 15th, and July 6th meetings.

ADJOURNMENT: At 8:11 p.m. to the next Regular Meeting of the Garden Grove Planning Commission on Thursday, June 1, 2017, at 7:00 p.m. in the Garden Grove Council Chamber, 11300 Stanford Avenue, Garden Grove.

Motion: Lazenby Second: Brietigam

Ayes: (7) Brietigam, Kanzler, Lazenby, Lehman, Nguyen, Salazar, Truong

Noes: (0) None

Judith Moore, Recording Secretary

COMMUNITY AND ECONOMIC DEVELOPMENT DEPARTMENT PLANNING STAFF REPORT

AGENDA ITEM NO.: C.1.	SITE LOCATION: Northeast corner of Westminster Avenue and Brookhurst Street, at 13904 Brookhurst Street
HEARING DATE: June 1, 2017	GENERAL PLAN: Light Commercial
CASE NO.: Interpretation of Use No. IOU-002-2017 and Conditional Use Permit No. CUP-103-2017	ZONE: C-2 (Community Commercial)
APPLICANT: Tam Truong	CEQA DETERMINATION: Exempt
PROPERTY OWNER: Garden Grove Plaza, Inc.	APN: 099-344-13

REQUEST:

The applicant is requesting Conditional Use Permit approval to operate a 3,800 square foot karaoke studio, Say Karaoke, in a tenant space previously occupied by the Alley of the Far East Restaurant, with seven private karaoke rooms and the existing kitchen to remain. The application is being processed in conjunction with a request for an Interpretation of Use to declare that a karaoke studio is a conditionally permitted use in the C-2 (Community Commercial) zone. Upon approval of the subject request, the Conditional Use Permit previously governing the tenant space, CUP-010-2014, which allowed for the sale of alcoholic beverages with a State Alcoholic Beverage Control (ABC) Type "41" (On-Sale, Beer and Wine, Public Eating Place) License, shall be revoked and become null and void.

BACKGROUND:

The subject site is approximately 11.4 acres in area and is improved with an integrated multi-tenant retail shopping center called Garden Grove Plaza. The site consists of one (1) "L" shaped, multi-tenant building located on the north and east sides of the property, and three (3) pad buildings facing Brookhurst Street. The property is zoned C-2 (Community Commercial) and has a General Plan Land Use designation of Light Commercial. The site has vehicular access from both Westminster Avenue and Brookhurst Street. The specific 3,800 square foot in-line tenant space under application is located on the east side of the shopping center at 13904 Brookhurst Street.

The property abuts R-3 (Multiple-Family Residential) and Planned Unit Development No. PUD-108-96 zoned properties to the east, R-1 (Single-Family Residential) zoned properties to the north across an alley, C-2 zoned properties to the west across

Brookhurst Street, and C-1 (Neighborhood Commercial) zoned properties to the south across Westminster Avenue.

The subject tenant space was previously in operation as a restaurant since 2014, Alley of the Far East Restaurant, according to business license records. The restaurant was in operation with a State Alcoholic Beverage Control (ABC) Type "41" (On-Sale, Beer and Wine, Public Eating Place) License under Conditional Use Permit No. CUP-010-2014. According to California Department of Alcoholic Beverage Control records, the alcohol license was revoked on June 15, 2016, due to lack of payment. Therefore, Conditional Use Permit No. CUP-010-2014 shall be revoked and become null and void as part of the subject application.

Recent observation of the site shows that the restaurant appears to have ceased operation. The same operator, Tam Truong, is proposing the subject karaoke studio, but is not proposing the sale of alcoholic beverages for on-site consumption.

In order to allow the operation of the proposed karaoke studio, the applicant is required to obtain approval of an Interpretation of Use and a Conditional Use Permit. The City has previously approved karaoke uses in the C-2 and other commercial zones, subject to a conditional use permit; however, "karaoke studio" is not an expressly defined and listed land use in the City's land use matrix. The Interpretation of Use is required to formally recognize "karaoke studio" as a conditionally permitted use in the C-2 (Community Commercial) zone. The Conditional Use Permit is necessary in order to regulate the operation of the business and to minimize potential impacts to surrounding uses.

DISCUSSION:

INTERPRETATION OF USE:

Garden Grove's Land Use Code is a "permissive zoning" code, which means that any land use not specifically listed as a permitted use, incidental use, or conditional use in the land use matrix is prohibited. Recognizing that it is impossible to anticipate and list every precise type or variation of use, however, Garden Grove Municipal Code section 9.32.030.D.7 provides a process through which a City hearing body may determine that a use that is not expressly listed in the land use matrix, but that is nonetheless similar to other uses found to exist in the zone, is permitted in the zone, and under what conditions. This determination is referred to as an Interpretation of Use. The Planning Commission may approve an Interpretation of Use and determine that a proposed use, that is not expressly listed, is nonetheless permitted or conditionally permitted within a zone if the use (1) is similar in scale and operational characteristics to other uses permitted in that zone, (2) is consistent with the General Plan and the zone district, and (3) is compatible with other permitted uses.

"Karaoke Studio" is not expressly listed as a permitted, conditionally permitted, or incidental use in the C-2 (Community Commercial) zone (or any zone). However, the City has historically permitted karaoke studios and karaoke uses incidental to

eating establishments to operate in commercial zones, subject to obtaining a Conditional Use Permit. In addition, although "karaoke studio" is not specifically defined in the Land Use Code or expressly listed in the commercial land use matrix, minimum parking requirements for "karaoke studios" are set forth in Garden Grove Municipal Code section 9.16.040.0150. Pursuant to the proposed Interpretation of Use, the Planning Commission is being asked to formally recognize that a karaoke studio is a conditionally permitted use within the C-2 zone because of its similarity to, and compatibility with, other permitted or conditionally permitted uses.

The C-2 zone is to provide a broad range of commercial retail and service needs for the residents in the City and surrounding communities. The commercial facilities associated with this zone need to be compatible with adjoining uses and public improvements. (GGMC § 9.16.020.020.A.3). A wide variety of commercial uses are permitted or conditionally permitted in the C-2 zone, including, but not limited to, music studios, radio/TV studios, recording studios, arcades, billiards halls, bowling alleys, and eating establishments with entertainment. The existing uses within the Garden Grove Plaza shopping center include medical offices, various retail stores, coffee and tea shops, restaurants, restaurants with alcoholic beverage sales, and a supermarket.

Staff believes that karaoke studios are similar to other uses that are permitted and found in the C-2 zone, and that, provided a Conditional Use Permit is required, would be compatible with these other uses. A karaoke studio is a recreation-amusement type use that has similar operating characteristics to commercial, entertainment, and service uses currently permitted in the C-2 zone. Commercial and entertainment uses in this area are encouraged by the General Plan, and the C-2 zoning provisions allow entertainment, such as restaurants with entertainment, arcades, billiards/pool halls, bowling alleys, and cybercafés, subject to Conditional Use Permit approval to minimize any potential negative impacts to surrounding uses.

CONDITIONAL USE PERMIT:

The proposed improvements to the subject karaoke studio will consist of a waiting area and new interior walls for seven (7) private karaoke rooms in the existing dining area. The existing separate restroom facilities for men and women, the kitchen, a walk-in freezer, and a walk-in cooler will remain. Building permits for the proposed tenant improvements will not be issued until completion of the plan check phase, following approval of the Conditional Use Permit and the end of the 21-day appeal period.

The proposed karaoke studio will operate from 2:00 p.m. to 2:00 a.m., seven days a week. The proposed hours of operation are consistent with the hours of operation of other establishments in the City with live entertainment in the form of karaoke. In addition, no other types of live entertainment will be allowed, such as dancing or a disc jockey, along with no gaming machines or card games. However, if any issues should arise, the Police Department has the right to decrease the hours of operation as deemed necessary.

According to the applicant, the kitchen will be used to prepare Vietnamese/Asian fusion cuisine for patrons partaking in the karaoke activity, and no alcoholic beverages will be sold or served on the premises. Non-alcoholic drinks and dishes will be served in the private karaoke rooms, and the restaurant portion of the establishment will not be open to the general public. Common dining areas outside of the private karaoke rooms are not being proposed by the applicant.

It should be noted that if the operator of the karaoke studio requests to serve alcohol, as an added amenity, the operator will have to gain City approval via the Conditional Use Permit process.

The applicant proposes that each private karaoke room service between two to twenty guests, however, during the plan check process, the Building Division will determine the exact number of guests that will be allowed per karaoke room based on complying with the occupancy requirements for the proposed use. Furthermore, in order to provide visibility into the private karaoke rooms at all times, interior walls higher than thirty-six inches from the floor shall be transparent, colorless, non-reflective glass or similar material, and must remain unobstructed at all times to provide full visibility into the rooms. Additionally, conditions of approval will require that every karaoke room door must have an unobscured glass window fitted in the top half of the doors.

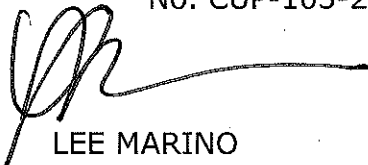
Title 9 of the Municipal Code parks restaurant uses at one (1) space per 100 square feet of gross floor area. Karaoke studios are parked at one (1) space per 200 square feet of gross floor area. Since the proposed karaoke studio will occupy a tenant space formerly occupied by a restaurant, which is parked at a higher parking ratio, no additional parking will be required for the proposed karaoke studio.

The Community and Economic Development Department and the Police Department have reviewed the request and will support the proposal.

RECOMMENDATION:

Staff recommends that the Planning Commission take the following action(s):

1. Approve Interpretation of Use No. IOU-002-2017 and Conditional Use Permit No. CUP-103-2017, subject to the recommended conditions of approval.



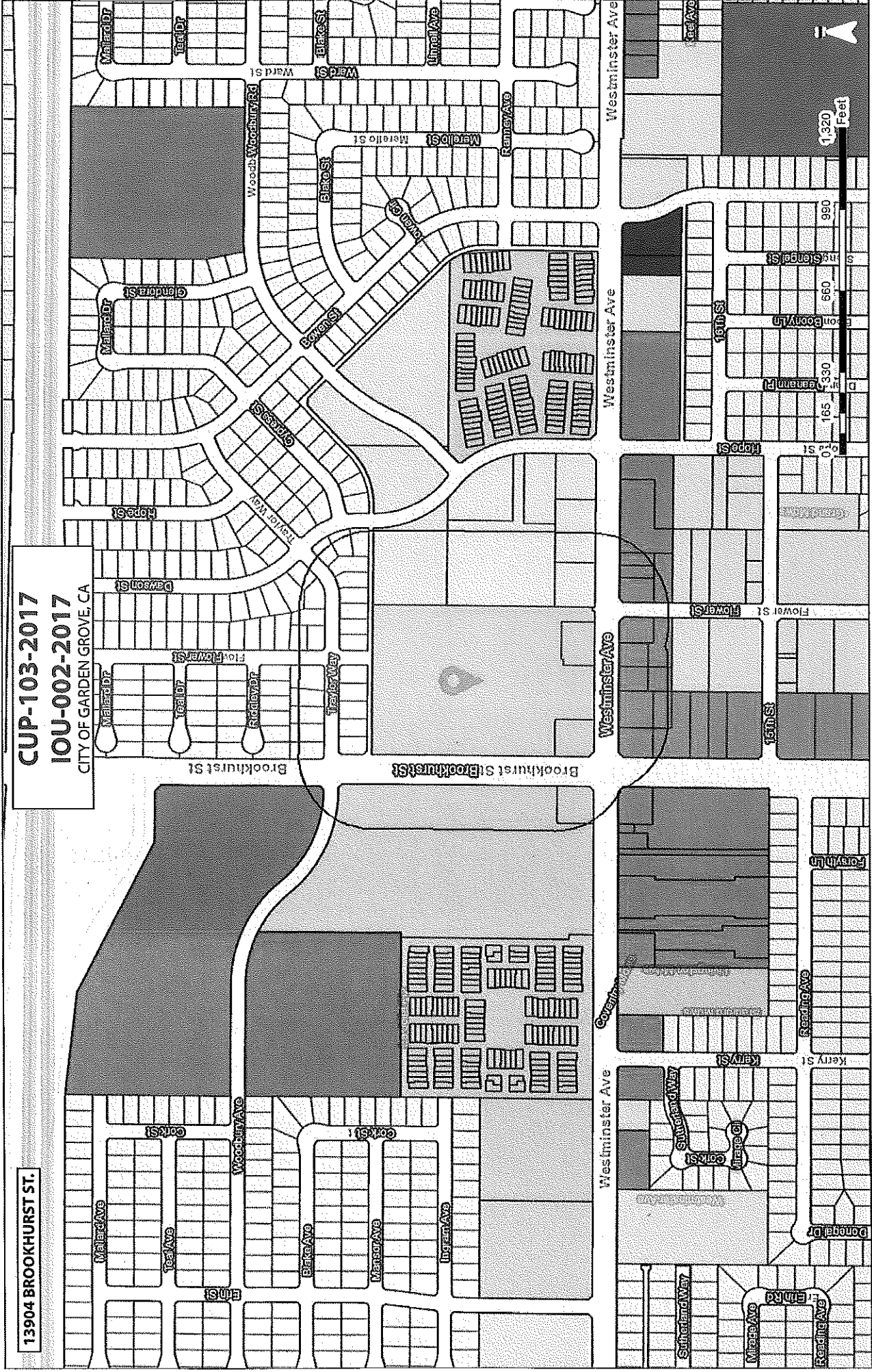
LEE MARINO
Planning Services Manager



By: Mary Medrano
Assistant Planner

13904 BROOKHURST ST.

CUP-103-2017
IOU-002-2017
CITY OF GARDEN GROVE, CA



1,320 Feet
990
660
330
165

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 Phone: (949) 539-7067
 Email: bdp@bdp.com

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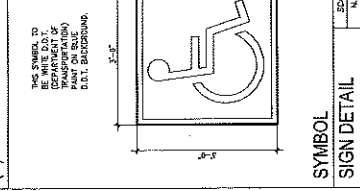
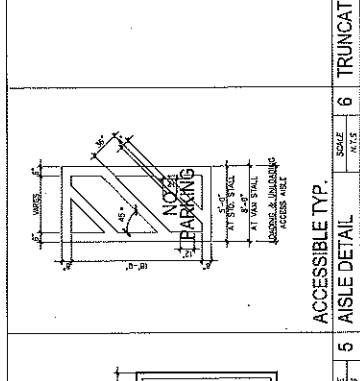
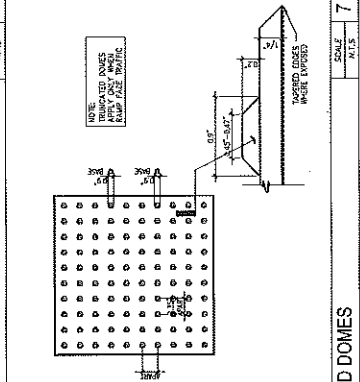
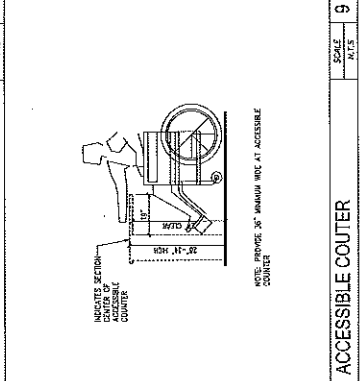
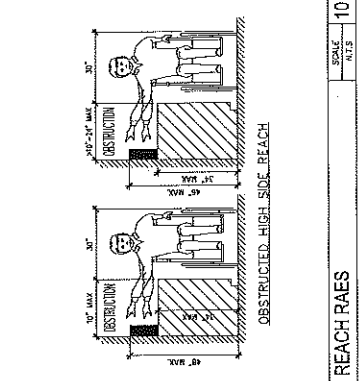
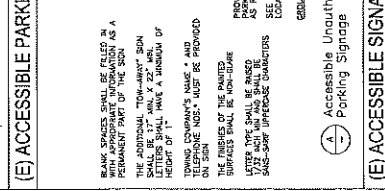
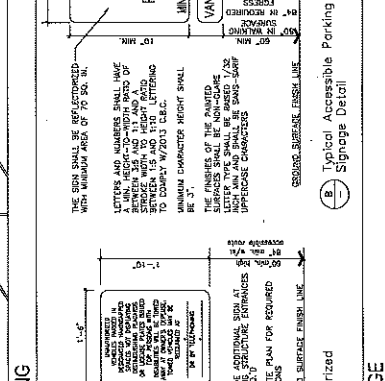
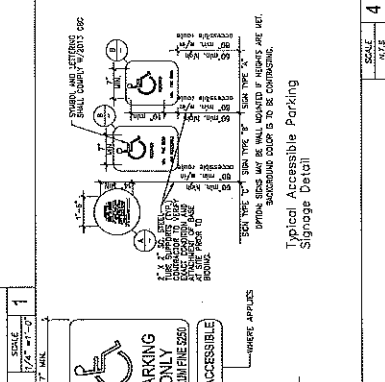
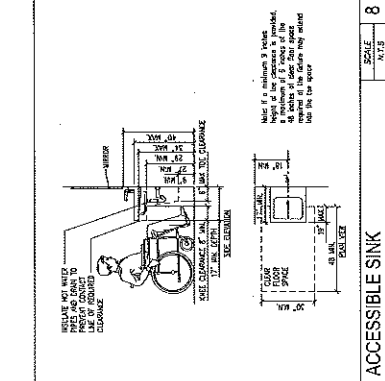
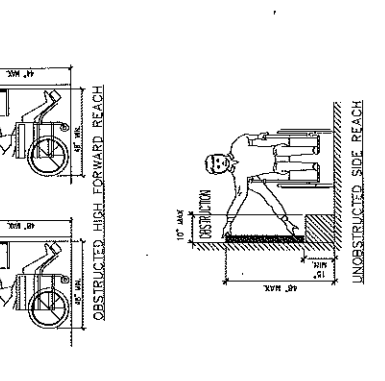
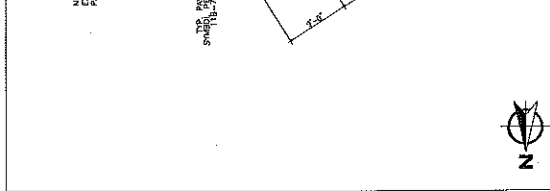
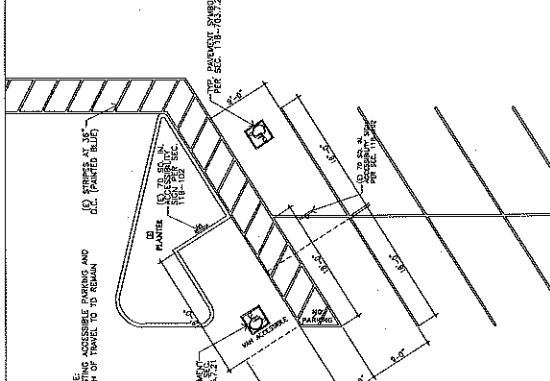
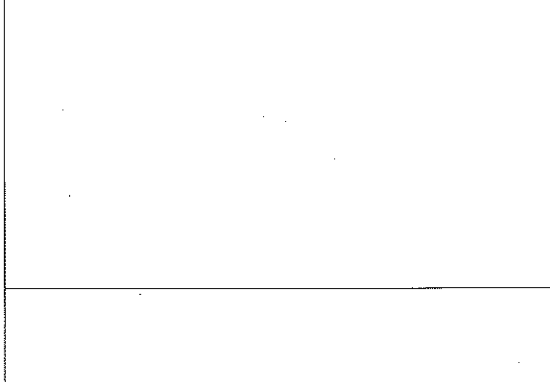
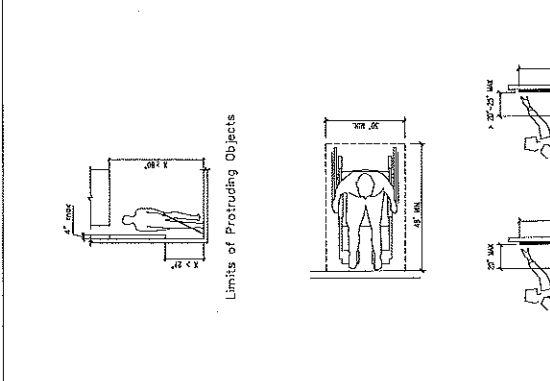
DATE: _____
 REVISION: _____

Tenant Improvement
SAY KARAOKE
 13904 Brookhurst St.,
 Garden Grove, CA 92843

ACCESSIBILITY STANDARDS

PROJECT NO: 2017-001
 DATE: SEP 9, 2017
 SCALE: AS SHOWN

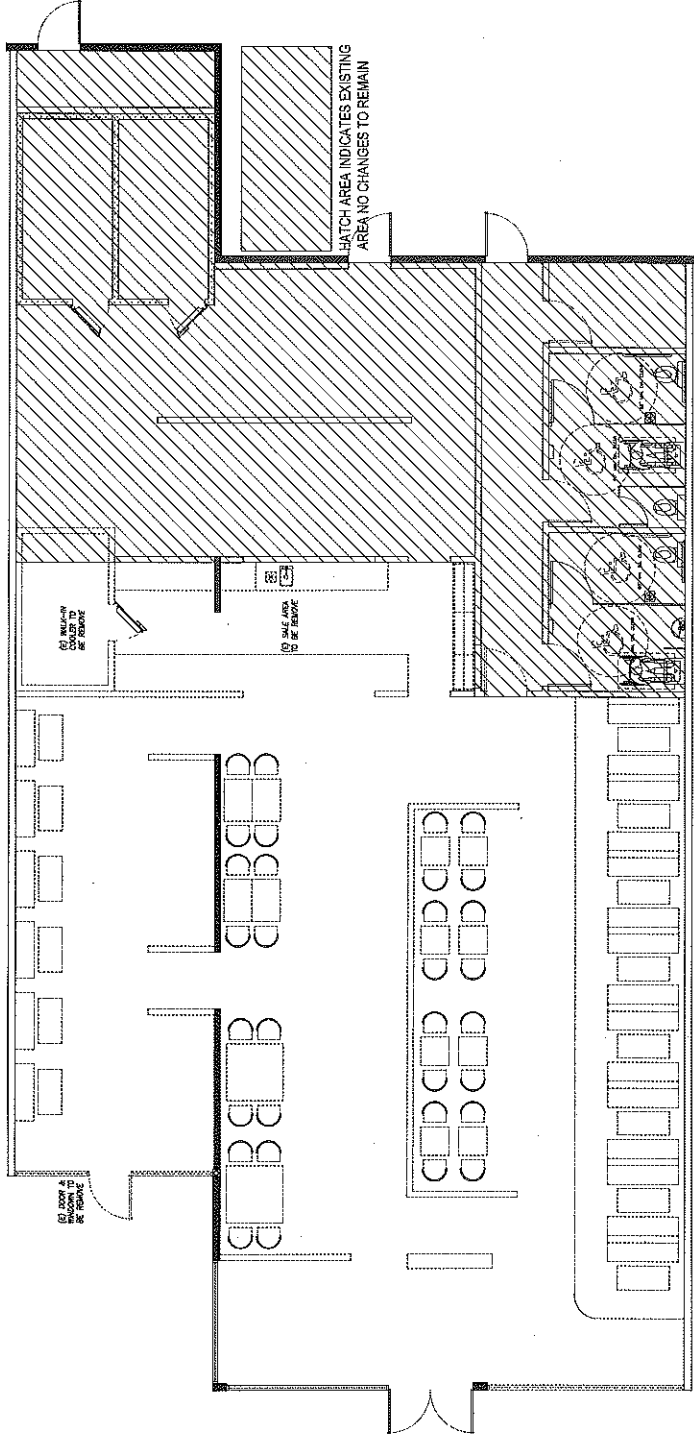
AS-1



SYMBOL	SCALE	SCALE	SCALE	SCALE	SCALE
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(E) & (N) WALLS LEGEND

- (E) EXISTING WALL NO CHANGE TO REMAIN
- (E) PARTIAL WALL NO CHANGE TO REMAIN
- (E) NEW-LOAD BEARING WALL
- (E) EXISTING PARTITION WALL SEE SHEET 201-100
- (E) EXISTING WALL TO BE DEMOLISHED
- (E) NEW WALL TO BE DEMOLISHED



(E) FLOOR PLAN & DEMO PLAN SCALE 1/8" = 1'-0" 1

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#	REVISION	DATE

Tenant Improvement
SAY KARAOKE
 13904 Brookhurst St.,
 Garden Grove, CA 92843

FLOOR PLAN

PROJECT NO: 2017-209
 DATE: Feb 3, 2017
 SCALE: AS SHOWN

A-1

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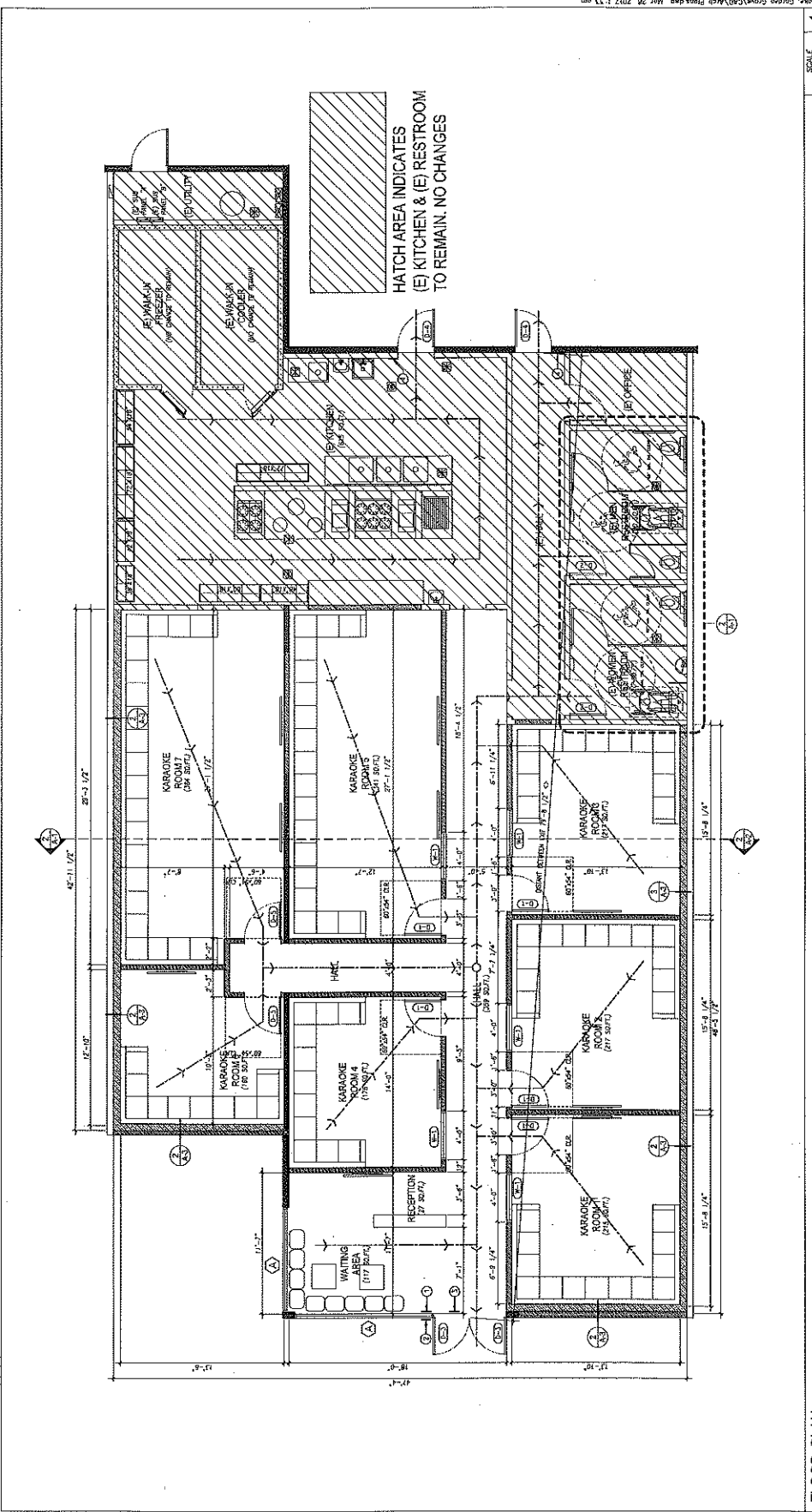


#	REVISION	DATE

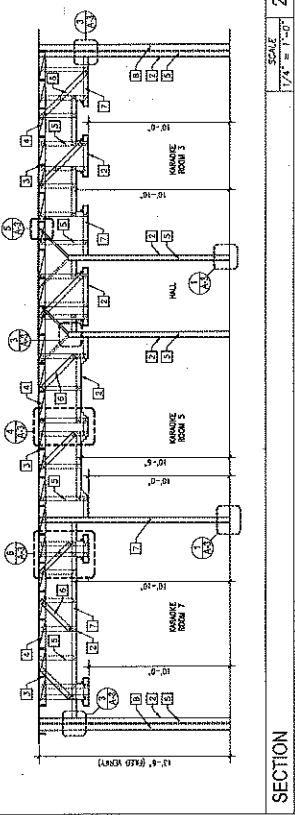
Tenant Improvement
SAY KARAOKE
 13904 Brookhurst St.,
 Garden Grove, CA 92843

FLOOR PLAN
 SHEET NO. 2017-202
 DATE: 03.3.2017
 AS REVISED

A-1



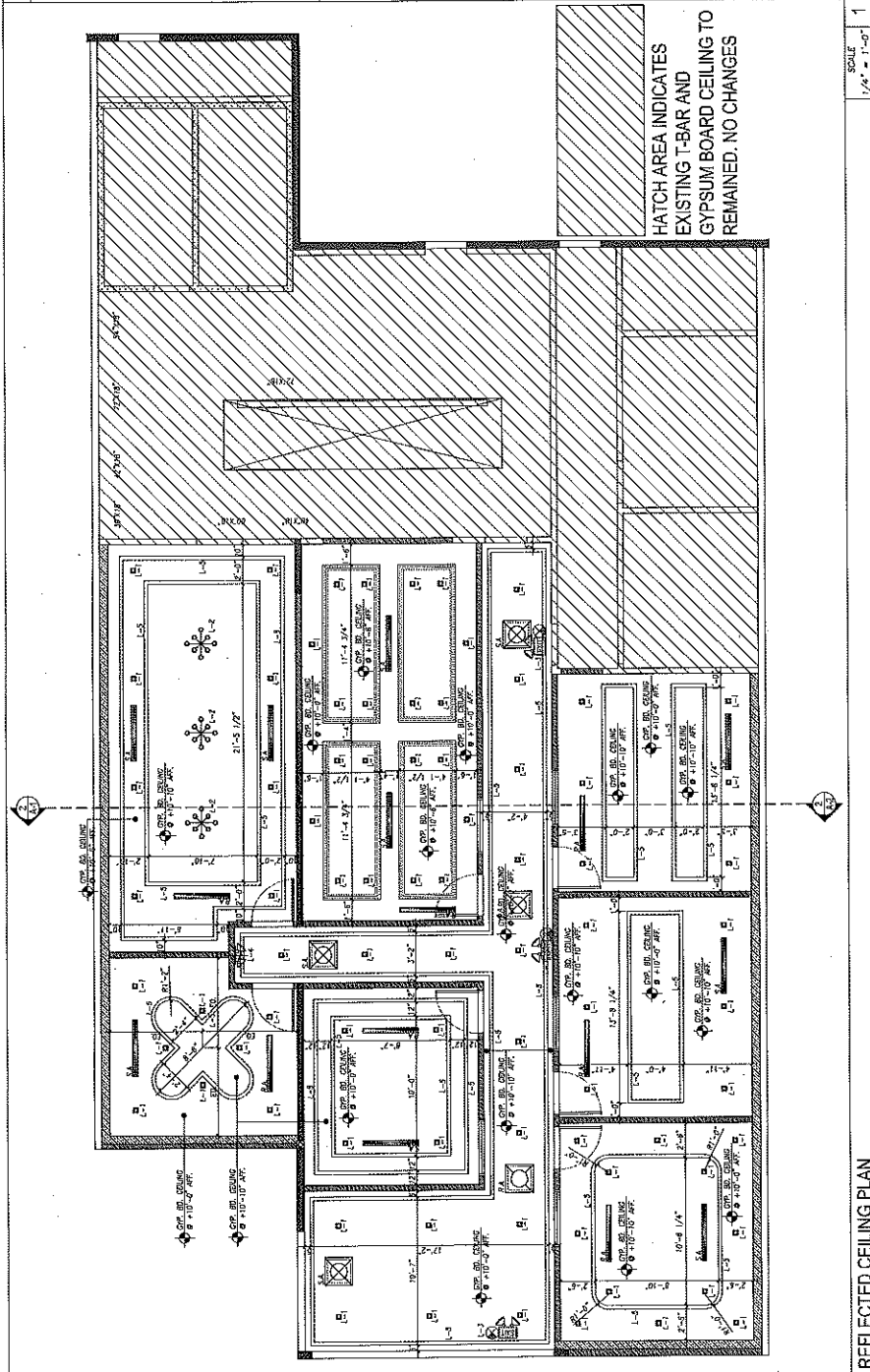
SECTION KEY NOTES	(E) & (N) WALLS LEGEND	ACCESSIBLE KEY NOTES
<p>SECTION KEY NOTES</p> <ul style="list-style-type: none"> 1 NOT USE 2 (N) 5/8" STEEL BOARD 3 2X PROSP. FINISH 4 2X BLOCKING W/ 7-10s EA. END 5 3" X 3" X 20 GA. METAL STUD 90° D.C. 6 W/ (2) #10 SCREWS EA. END 7 3" X 3" X 20 GA. BRACING 90° D.C. W/ (3) #10 SCREWS EA. END 8 3" X 3" X 20 GA. CEILING JOIST 90° D.C. W/ (2) #10 SCREWS EA. END 9 (E) EXTERIOR / PARTITION WALL 	<p>(E) & (N) WALLS LEGEND</p> <ul style="list-style-type: none"> 10 STRUCTURAL WALL NO CHANGE TO REMAIN 11 PARTITION WALL NO CHANGE TO REMAIN 12 NON-LOAD BEARING WALL 13 PARTITION WALL SIZE (LOCAL 2X4-1) 14 2X STUDS BRACING W/ (E) STUD BRACING 90° D.C. W/ (3) #10 SCREWS EA. END 15 PARTITION WALL TO BE DEMOLISH 	<p>ACCESSIBLE KEY NOTES</p> <ul style="list-style-type: none"> 1 WALKER CUT SWP W/ 4" RADIUS 30" 2 ACCESSIBLE AVENUE SWP 3 THIS DOOR IS TO REMAIN UNLOCKED WHEN THE BUILDING IS OCCUPIED 4 WALKER SWP (18"-204") 5 EXISTING FROM STATE WINDOWS 6 EXISTING DOOR & WINDOW CUT DOWN 1/4" - 1" 7 INDICATES PART OF PANEL AND GIRD



SECTION 2
 SCALE: 1/4" = 1'-0"

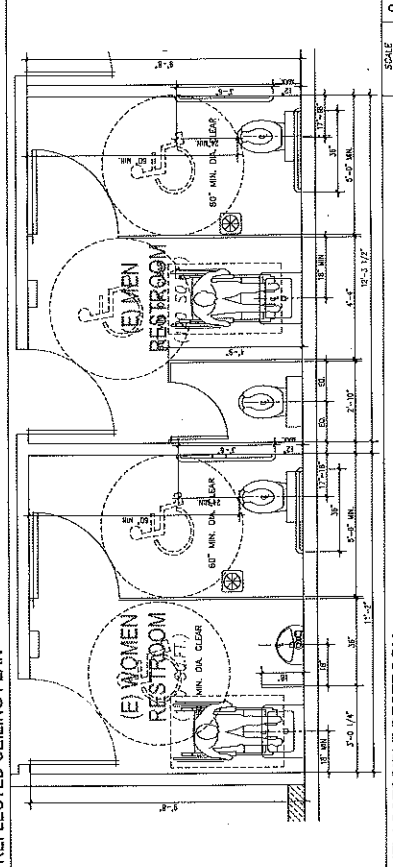
RCP LIGHT FIXTURE LEGEND:

- RCP LIGHTING FIXTURE LEGEND:
- 1-1 □ recessed down light (rtd)
 - 1-2 □ downlight
 - 1-3 □ recessed surface mounted light fixture (rsm) 4" dia. 10" h
 - 1-4 □ recessed surface mounted light fixture (rsm) 6" dia. 10" h
 - 1-5 □ surface uplight (su)
 - 1-6 □ 4" dia. surface uplight



SCALE 1/4" = 1'-0"

REFLECTED CEILING PLAN



SCALE 3/16" = 1'-0"

(E) ACCESSIBLE RESTROOM

BDP ENGINEERING CONSULTANT
 Architectural • Interior • Design
 Structural Engineering • Residential • Commercial
 1392 Cedarway Blvd., Garden Grove, CA 92643
 Phone: (949) 538-7887
 Email: bdp@bdp.com

#	REVISION	DATE

Tenant Improvement
SAY KARAOKE
 13904 Brookhurst St.,
 Garden Grove, CA 92843

REFLECTED CEILING PLAN &

PROJECT NO.	2017-100
DATE	Feb 2, 2017
DRAWN	AS PREPARED

A-2

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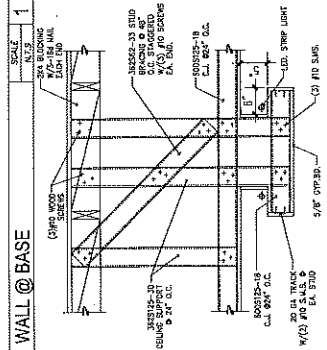
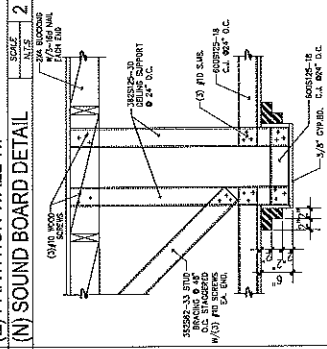
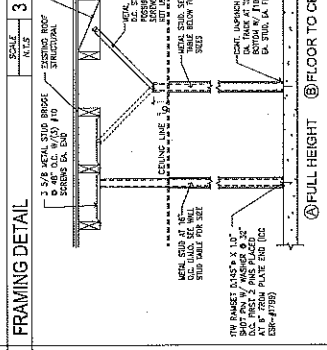
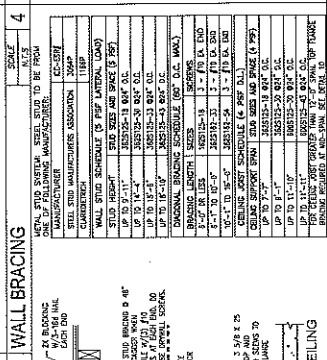
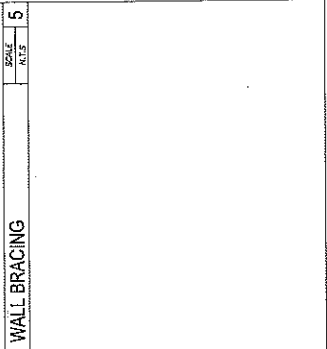
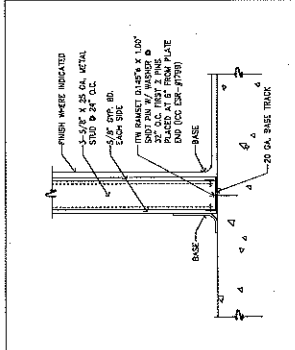
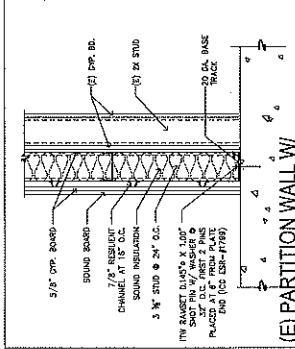
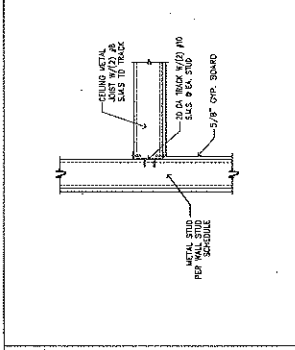
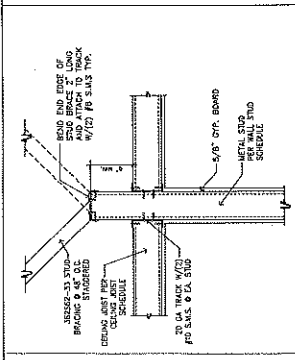
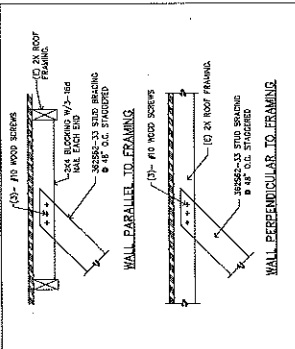
#	REVISION	DATE

Tenant Improvement
SAY KARAOKE
 13904 Brookhurst St.,
 Garden Grove, CA 92843

DETAILS

PROJECT NO.	2017-209
DATE	08.1.2017
SCALE	AS NOTED

A-3



SCALE	N.T.S.
1	WALL @ BASE
2	(E) PARTITION WALL W/ SOUND BOARD DETAIL
3	FRAMING DETAIL
4	WALL BRACING
5	WALL BRACING
6	SOFFIT FRAMING
7	SOFFIT FRAMING
8	WALL STUD & CEILING JOIST SCHEDULE
9	WALL BRACING
10	WALL BRACING

SCALE	N.T.S.
1	WALL @ BASE
2	(E) PARTITION WALL W/ SOUND BOARD DETAIL
3	FRAMING DETAIL
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6	SOFFIT FRAMING
7	SOFFIT FRAMING
8	WALL STUD & CEILING JOIST SCHEDULE
9	WALL BRACING
10	WALL BRACING



PROJECT NO. 2017-017
 DATE 01/28/2017
 # REV/SDN

Tenant Improvement
SAY KARAOKE
 13904 Brookhurst St.,
 Garden Grove, CA 92643

PANEL SCHEDULE & T24 LIGHTING COMPLIANCE
 SHEET NO. 2017-017
 DATE 01/28/2017
 AS NOTED

E-4

INDOOR LIGHTING - LIGHTING CONTROLS
 SECTION 260000 - ELECTRICAL
 PART 1 - LIGHTING CONTROLS

1. Manufacturer: PHILIPS
 2. Model: PHILIPS
 3. Description: PHILIPS

4. Control Type: PHILIPS

5. Control Location: PHILIPS

6. Control Method: PHILIPS

7. Control Features: PHILIPS

8. Control Details: PHILIPS

9. Control Notes: PHILIPS

TABLE 1: LIGHTING POWER ALLOWANCE

Area	Area Category	Power Allowance (Watts/ft²)	Area (ft²)	Total Power (Watts)
Office	Office	1.0	1000	1000
Conference Room	Conference Room	1.5	500	750
Reception	Reception	1.0	200	200
Break Room	Break Room	1.0	300	300
Storage	Storage	0.5	400	200
Restroom	Restroom	0.5	100	50
Corridor	Corridor	0.5	200	100
Stairwell	Stairwell	0.5	100	50
MECH	MECH	0.5	100	50
Roof	Roof	0.5	100	50
Other	Other	0.5	100	50
TOTAL				2300

TABLE 2: LIGHTING CONTROLS

Area	Control Type	Control Method	Control Features	Control Details	Control Notes
Office	PHILIPS	PHILIPS	PHILIPS	PHILIPS	PHILIPS
Conference Room	PHILIPS	PHILIPS	PHILIPS	PHILIPS	PHILIPS
Reception	PHILIPS	PHILIPS	PHILIPS	PHILIPS	PHILIPS
Break Room	PHILIPS	PHILIPS	PHILIPS	PHILIPS	PHILIPS
Storage	PHILIPS	PHILIPS	PHILIPS	PHILIPS	PHILIPS
Restroom	PHILIPS	PHILIPS	PHILIPS	PHILIPS	PHILIPS
Corridor	PHILIPS	PHILIPS	PHILIPS	PHILIPS	PHILIPS
Stairwell	PHILIPS	PHILIPS	PHILIPS	PHILIPS	PHILIPS
MECH	PHILIPS	PHILIPS	PHILIPS	PHILIPS	PHILIPS
Roof	PHILIPS	PHILIPS	PHILIPS	PHILIPS	PHILIPS
Other	PHILIPS	PHILIPS	PHILIPS	PHILIPS	PHILIPS

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Other	PHILIPS	PHILIPS	PHILIPS	PHILIPS	PHILIPS

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MECH	PHILIPS	PHILIPS	PHILIPS	PHILIPS	PHILIPS
Roof	PHILIPS	PHILIPS	PHILIPS	PHILIPS	PHILIPS
Other	PHILIPS	PHILIPS	PHILIPS	PHILIPS	PHILIPS

RESOLUTION NO. 5885-17

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF GARDEN GROVE APPROVING INTERPRETATION OF USE NO. IOU-002-2017 AND CONDITIONAL USE PERMIT NO. CUP-103-2017 FOR PROPERTY LOCATED AT 13904 BROOKHURST STREET, ASSESSOR'S PARCEL NO. 099-344-13.

BE IT RESOLVED that the Planning Commission of the City of Garden Grove, in a regular session assembled on June 1, 2017, hereby approves (1) Interpretation of Use No. IOU-002-2017 determining that a karaoke studio is a conditionally permitted use in the C-2 (Community Commercial) zone, and (2) Conditional Use Permit No. CUP-103-2017 to permit operation of a karaoke studio on property located on the northeast corner of Westminster Avenue and Brookhurst Street, at 13904 Brookhurst Street, Assessor's Parcel No. 099-344-13.

BE IT FURTHER RESOLVED in the matter of Interpretation of Use No. IOU-002-2017 and Conditional Use Permit No. CUP-103-2017, the Planning Commission of the City of Garden Grove does hereby report as follows:

1. The subject case was initiated by Tam Truong for Say Entertainment, Inc.
2. The applicant is requesting an Interpretation of Use and Conditional Use Permit approval to operate a 3,800 square foot karaoke studio, Say Karaoke, in a tenant space previously occupied by the Alley of the Far East Restaurant, with seven private karaoke rooms and the existing kitchen to remain.
3. The City of Garden Grove has determined that this project is not subject to the California Environmental Quality Act ("CEQA") (Cal. Pub. Resources Code Section 21000 et seq.) pursuant to Section 15061(b)(3), 15301, and 15303 of the State CEQA Guidelines (Cal. Code of Regs., Title 14, Section 15000 et seq.).
4. The property has a General Plan Land Use Designation of Light Commercial and is zoned C-2 (Community Commercial). The site is improved with a commercial shopping center.
5. Existing land use, zoning, and General Plan designation of property within the vicinity of the subject property have been reviewed.
6. Report submitted by City Staff was reviewed.
7. Pursuant to a legal notice, a public hearing was held on June 1, 2017, and all interested persons were given an opportunity to be heard.
8. The Planning Commission gave due and careful consideration to the matter at its meeting on June 1, 2017, and

BE IT FURTHER RESOLVED, FOUND AND DETERMINED that the facts and reasons supporting the conclusion of the Planning Commission, as required under Municipal Code Section 9.32.30, are as follows:

FACTS:

The subject site is approximately 11.4 acres in area and is improved with an integrated multi-tenant retail shopping center called Garden Grove Plaza. The site consists of one (1) "L" shaped, multi-tenant building located on the north and east sides of the property, and three (3) pad buildings facing Brookhurst Street. The property is zoned C-2 (Community Commercial) and has a General Plan Land Use designation of Light Commercial. The site has vehicular access from both Westminster Avenue and Brookhurst Street. The specific 3,800 square foot in-line tenant space under application is located on the east side of the shopping center at 13904 Brookhurst Street.

The subject tenant space was previously in operation as a restaurant since 2014, Alley of the Far East Restaurant, according to business license records. The restaurant was in operation with a State Alcoholic Beverage Control (ABC) Type "41" (On-Sale, Beer and Wine, Public Eating Place) License under Conditional Use Permit No. CUP-010-2014. According to California Department of Alcoholic Beverage Control records, the alcohol license was revoked on June 15, 2016, due to lack of payment. Therefore, Conditional Use Permit No. CUP-010-2014 shall be revoked and become null and void as part of the subject application.

Recent observation of the site shows that the restaurant appears to have ceased operation. The same operator, Tam Truong, is proposing the subject karaoke studio, but is not proposing the sale of alcoholic beverages for on-site consumption.

In order to allow the operation of the proposed karaoke studio, the applicant is required to obtain approval of an Interpretation of Use and a Conditional Use Permit. The Interpretation of Use is required since the zoning does not specifically identify a karaoke studio as a permitted or conditionally permitted use, and therefore, the Interpretation of Use is necessary to determine if the proposed karaoke studio is compatible with the existing zone. The Conditional Use Permit is necessary in order to regulate the operation of the business and to minimize potential impacts to surrounding uses.

FINDINGS AND REASONS:

Interpretation of Use:

1. The proposed use is similar in scale and operational characteristics to other uses permitted in the zone.

The intent of the C-2 (Community Commercial) zone is to provide a broad range of commercial retail and service needs for the residents in the City and surrounding communities. The commercial facilities associated with this zone need to be compatible with adjoining uses and public improvements. A wide variety of commercial uses are permitted or conditionally permitted in the C-2 zone, including, but not limited to, radio/TV studios, recording studios, arcades, billiards halls, bowling alleys, and eating establishments with entertainment. Karaoke studios are recreation-amusement type uses that are similar in scale and operational characteristics to these uses, each of which is conditionally permitted in the C-2 zone. The existing uses within the Garden Grove Plaza shopping center include medical offices, various retail stores, coffee and tea shops, restaurants, restaurants with alcoholic beverage sales, and a supermarket. A karaoke studio subject to Conditional Use Permit approval will be compatible with these existing uses. The tenant space that the proposed karaoke studio will occupy was formerly occupied by the Alley of the Far East Restaurant. Subject to approval of a Conditional Use Permit, the proposed karaoke studio will remain similar in scale to the previous restaurant, including the existing kitchen to remain.

2. The proposed use is consistent with the intent of the General Plan and the zone district.

The intent of the Light Commercial General Plan Land Use designation is to provide for a broad range of commercial retail and service needs for the residents of the City and surrounding communities. Policy LU-1.3 of the General Plan Land Use Element seeks to encourage a wide variety of retail and commercial services, restaurant and cultural arts/entertainment, in the appropriate locations. Also, the C-2 (Community Commercial) zone allows for commercial and recreation-amusement uses. The commercial and recreation-amusement uses allowed include, but are not limited to, restaurants, and restaurants with live entertainment, arcades, billiards/pool halls, bowling alleys, and cybercafés, subject to Conditional Use Permit approval to minimize any potential negative impacts to surrounding uses.

The proposed karaoke studio is a recreation-amusement type activity that is similar to other existing commercial, entertainment, and service uses in the zone. Commercial and entertainment uses are encouraged by the land use designation, and the C-2 (Community Commercial) zone also allows live entertainment in conjunction with restaurants. The proposed karaoke studio will be subject to a Conditional Use Permit to provide consistency with the CUP requirement for other entertainment uses located in other zones, and also to minimize any potential negative impacts to surrounding uses. Therefore, conditionally permitting a karaoke studio is consistent with the existing land use designation and the existing zone classification of the property.

3. The proposed use is compatible with other permitted uses.

The existing uses within the shopping center include medical offices, various retail stores, coffee and tea shops, restaurants, restaurants with alcoholic beverage sales, and a supermarket. The tenant space of the proposed karaoke studio was previously occupied by a restaurant named the Alley of the Far East Restaurant. Recent observation of the site shows that the restaurant appears to have ceased operation. The tenant space will be divided into seven (7) private karaoke rooms, and the existing kitchen will remain. The proposed karaoke studio can be classified as a recreation-amusement activity that is similar to other commercial, entertainment, and service activities. Commercial and entertainment uses are encouraged by the land use designation and the C-2 (Community Commercial) zone.

The proposed karaoke studio will be subject to a Conditional Use Permit in order to ensure compatibility and to minimize potential negative impacts with the surrounding uses. As conditioned, the establishment will not be allowed to sell or serve alcohol; and the business will be allowed to operate from 9:00 a.m. to 2:00 a.m., seven days a week, which are typical hours of operation allowed for other establishments in the City with live entertainment in the form of karaoke.

Conditional Use Permit:

1. The proposed use will be consistent with the City's adopted General Plan and redevelopment plan.

The subject site has a General Plan Land Use Designation of Light Commercial and is zoned C-2 (Community Commercial). The Light Commercial General Plan Land Use designation allows for a range of commercial activities that serve local residential neighborhoods and the larger community. Policy LU-1.3 of the General Plan Land Use Element seeks to encourage a wide variety of retail and commercial services, restaurant and cultural arts/entertainment, in appropriate locations. The karaoke studio is a type of recreation-amusement use that is similar to commercial, entertainment, and service uses common within the Light Commercial Land Use Designation, in which commercial and entertainment uses are encouraged.

2. The requested use at the location proposed will not: adversely affect the health, peace, comfort, or welfare of the persons residing or working in the surrounding area, or unreasonably interfere with the use, enjoyment, or valuation of the property of other persons located in the vicinity of the site,

or jeopardize, endanger, or otherwise constitute a menace to public health, safety, or general welfare.

The proposed karaoke studio would be located within a multi-tenant commercial shopping center in the C-2 (Community Commercial) zone, with an alley separating it from residential uses to the north. Currently, the businesses operating at the shopping center include medical offices, various retail stores, coffee and tea shops, restaurants, restaurants with alcoholic beverage sales, and a supermarket. Permitted hours of operation for the proposed karaoke studio will be limited to 9:00 a.m. to 2:00 a.m., seven days a week, which is consistent with the hours of operation of other establishments in the City with live entertainment in the form of karaoke. In addition, no other types of live entertainment will be allowed, such as dancing or a disc jockey, along with no gaming machines or card games. Alcoholic beverages will not be allowed to be brought in, served, or sold on the premises. The conditions of approval will minimize potential impacts to the adjoining area. Provided the conditions of approval are adhered to for the life of the project, the use will not adversely affect the health, peace, comfort, or welfare of the persons residing or working in the surrounding area, or unreasonably interfere with the use, enjoyment, or valuation of the property of other persons located in the vicinity of the site, or jeopardize, endanger, or otherwise constitute a menace to public health, safety, or general welfare.

3. The proposed site is adequate in size and shape to accommodate the yards, walls, fences, parking and loading facilities, landscaping and other development features prescribed in this title or as is otherwise required in order to integrate such use with the uses in the surrounding area.

The site is improved with a multi-tenant commercial shopping center with sufficient parking that will serve the proposed business and the existing businesses. The proposed karaoke studio will park at a retail rate, which is calculated at one (1) space per 200 square feet of floor area, per Title 9 of the Municipal Code. The karaoke studio will occupy a former restaurant tenant space that was parked at one (1) parking space per 100 square feet of gross floor area. Since the proposed karaoke studio will occupy a tenant space formerly occupied by a restaurant, which is parked at a higher parking ratio, no additional parking will be required for the proposed karaoke studio. The site is of adequate size to accommodate the proposed uses within the surrounding area, and the site is improved with landscape planters.

4. The proposed site is adequately served: by highways or streets or sufficient width and improved as necessary to carry the kind and quantity of traffic such as to be generated, and by other public or private service facilities as

required.

The site is adequately served by driveways located on Westminster Avenue and Brookhurst Street. The site is also adequately served by the public service facilities required such as public utilities: gas, electric, water, and sewer facilities.

INCORPORATION OF FACTS AND REASONS SET FORTH IN STAFF REPORT

In addition to the foregoing, the Planning Commission incorporates herein by this reference, the facts and reasons set forth in the staff report.

BE IT FURTHER RESOLVED that the Planning Commission does conclude:

1. Interpretation of Use No. IOU-002-2017 and Conditional Use Permit No. CUP-103-2017 do possess characteristics that would indicate justification of the requests in accordance with Municipal Code Section 9.32.030 (Interpretation of Use and Conditional Use Permits).
2. In order to fulfill the purpose and intent of the Municipal Code, and thereby promote the health, safety, and general welfare, the following conditions of approval, attached as Exhibit "A", shall apply to Conditional Use Permit No. CUP-103-2017.

EXHIBIT "A"

Conditional Use Permit No. CUP-103-2017

13904 Brookhurst Street
Assessor's Parcel No. 099-344-13

CONDITIONS OF APPROVAL

General Conditions

1. Each owner of the property shall execute, and the applicant shall record, a "Notice of Discretionary Permit Approval and Agreement with Conditions of Approval," as prepared by the City Attorney's Office, on the property within 30 days of approval. This Conditional Use Permit runs with the land and is binding upon the property owner, his/her/its heirs, assigns, and successors in interest.
2. All Conditions of Approval set forth herein shall be binding on and enforceable against each of the following, and whenever used herein, the term "applicant" shall mean and refer to the project applicant, Tam Truong for Say Entertainment, Inc., the current owner of the property, Garden Grove Plaza, Inc., the future owner(s) and tenant(s) of the property, and each of their respective successors and assigns, including all subsequent purchasers and/or tenants. The applicant and subsequent owner/operators of such business shall adhere to the conditions of approval for the life of the project, regardless of property ownership. Any changes of the conditions of approval require approval by the Planning Commission, except as otherwise provided herein.
3. This Conditional Use Permit only authorizes the operation of a 3,800 square foot karaoke studio as identified on the floor plan attached to these Conditions of Approval. Approval of this Conditional Use Permit shall not be construed to mean any waiver of applicable and appropriate zoning and other regulations; and wherein not otherwise specified, all requirements of the City of Garden Grove Municipal Code shall apply.
4. Minor modifications to the approved site plan, floor plan, and/or these Conditions of Approval may be approved by the Community and Economic Development Director, in his or her discretion. Proposed modifications to the approved floor plan, site plan, or Conditions of Approval that would result in the intensification of the project or create impacts that have not been previously addressed, and which are determined by the Community and Economic Development Director not to be minor in nature shall be subject to approval of new and/or amended land use entitlements by the applicable City hearing body.

5. All conditions of approval shall be implemented at the applicant's expense, except where specified in the individual condition.

Police Department

6. Live entertainment shall be permitted in the form of karaoke only.
7. There shall be no pool tables or amusement devices other than karaoke equipment maintained upon the premises at any time.
8. There shall be no gaming tables or gaming machines, as outlined in City Code Sections 8.20.010 and 8.20.050, on the premises at any time.
9. The hours of operation of the business shall be permitted only between 9:00 a.m. and 2:00 a.m., seven (7) days a week. The City of Garden Grove reserves the right to reduce hours of operation, by order of the Chief of the Police Department, in the event problems arise concerning the operation of this business.
10. There shall be no customers in or about the facility between the hours of 2:00 a.m. and 9:00 a.m., seven days a week.
11. In the event security problems occur, and at the request of the Police Department, the applicant, at his own expense, shall provide a California licensed, uniformed security guard(s) on the premises during such hours as requested by the Police Department.
12. Prior to opening the business, a central camera monitoring system shall be installed within the karaoke facility, and each individual karaoke studio room shall be equipped with an operational monitoring camera.
13. The applicant shall maintain the central camera monitoring system within the establishment, including the monitoring cameras within each individual karaoke studio room.
14. Interior walls higher than 36" from the floor shall be transparent, colorless, non-reflective glass or similar material, and must remain unobstructed at all times.

15. Each individual karaoke studio room shall maintain at least an 18"x32" unobscured glass window fitted into the top half of the doors. All doors and windows of the individual karaoke rooms shall remain clear and unobstructed, and shall provide complete visibility into the rooms at all times.
16. No items, including plants, curtains, stickers, blinds or shades, shall be placed in the area of the doors and windows of the studio rooms. The doors of the rooms shall not be equipped with locks.
17. The interior of each individual karaoke studio room, all hallways, and all common areas within the karaoke facility, shall be equipped with lighting of sufficient power to illuminate and make easily discernable the appearance and conduct of all persons within the rooms, hallways, and common areas.
18. Illumination shall meet the approval of the Garden Grove Police Department. All lighting controls shall not be equipped with dimmer switches.
19. Alcoholic beverages shall not be brought into, stored, served, or sold at the premises by the patrons, business operators, or employees of the business at any time. The sale or distribution of alcoholic beverages for consumption on or off the premises is prohibited. In the event the applicant wishes to sell alcohol for on-site consumption in the future, the applicant shall submit a new conditional use permit application for consideration by the Planning Commission.
20. No employee or agent shall solicit or accept any alcoholic or non-alcoholic beverage from any customer while in the business.
21. All pay phones located on the property, adjacent to the premises, shall be limited to out-going calls only. This condition shall be complied with within 30 days following approval of this application.
22. No employees, or contracted employees, or contracted companies for dance purposes, are permitted to perform at any time.
23. No employee or agent shall be permitted to accept money or any other thing of value from a customer for the purpose of sitting or otherwise spending time with customers while in the establishment, nor shall the business provide, permit, or make available, either gratuitous or for compensation, male or female persons who act as escorts, companions, or guests of and for the customers.

24. The business operator shall not permit "Taxi Dancing" to occur at the business wherein partners are provided for dancing or social purposes.
25. There shall be a designated staff person on-site during all hours the business is in operation.
26. There shall be no enclosed booths on the premises at any time.
27. The business shall not engage in any act that would alert patrons or employees that police or investigators are on the premises.
28. No outdoor activities of any kind shall be allowed.
29. No areas of the establishment shall be used for adult entertainment business activity, as defined in Garden Grove Municipal Code section 9.04.060, at any time. Any dancing in the establishment that is of an adult entertainment business nature is strictly prohibited.

Building Services Division

30. The tenant improvements shall comply with the requirements of the 2016 edition of the California Building Code (CBC).
31. The project shall be fire sprinklered per the 2016 edition of the California Fire Code (CFC).

Public Works Environmental Compliance

32. Commercial food use of any type shall require the installation of an approved grease control device prior to obtaining a business license.

Fire Department

33. The applicant shall provide emergency lighting, illuminated exit signs, and shall indicate the occupancy type and occupancy load per room per the 2016 edition of the California Fire Code (CFC). The establishment shall not exceed the maximum occupancy load allowed for each karaoke room at any given time.
34. Any changes to appliances are subject to Fire Department approval and must be compliant with UL 300 system fire testing standards.

Community and Economic Development Department

35. No outside storage or displays shall be permitted at any time.
36. A prominent, permanent sign stating "NO LOITERING IS ALLOWED ON OR IN FRONT OF THE PREMISES" shall be posted in a place that is clearly visible to patrons of the licensee. The sign lettering shall be four (4) to six (6) inches high with black letters on a white background. The sign shall be displayed near or at the business entrance, and shall also be visible to the public.
37. There shall be no deliveries to or from the premises before 8:00 a.m. and after 10:00 p.m., seven days a week.
38. The trash bin shall be kept inside the trash enclosure, and gates closed at all times, except during disposal and pick-up. Trash pick-up shall be at least three (3) times a week.
39. Litter shall be removed daily from the premises, including from adjacent public sidewalks, and all parking areas under the control of the licensee. These areas shall be swept or cleaned, either mechanically or manually, on a weekly basis to control debris.
40. Any property maintenance deficiencies subject to section 9.32.190 of Title 9 of the Municipal Code, shall be corrected by the property owner to the satisfaction of the Community and Economic Development Department prior to the final City clearance for this Conditional Use Permit.
41. Graffiti shall be removed from the premises, and all parking lots under the control of the licensee and/or the property owner, within 120 hours of notification or application.
42. The applicant is advised that the establishment is subject to the provisions of State Labor Code Section 6404.5 (ref: State Law AB 13), which prohibits smoking inside the establishment as of January 1, 1995.
43. No roof-mounted mechanical equipment, including exhaust vents, shall be permitted unless a method of screening complementary to the architecture of the building is approved by the Community and Economic Development Department, Planning Division. Said screening shall block visibility of any roof-mounted mechanical equipment from view of public streets and surrounding properties.

44. No satellite dish antennas shall be installed on said premises unless, and until, plans have been submitted to and approved by the Community and Economic Development Department, Planning Division. No advertising materials shall be placed thereon.
45. All rear doors shall be kept closed at all times, except to permit employee ingress and egress, and in emergencies.
46. All signs shall comply with the City of Garden Grove sign requirements. Any modification to existing signs or the installation of new signs shall require approval by the Community and Economic Development Department, Planning Services Division prior to issuance of a building permit.
47. Permits from the City of Garden Grove shall be obtained prior to displaying any temporary advertising (i.e., banners).
48. No window signage shall be allowed at any time.
49. The exterior of the premises, including adjacent public sidewalks and all parking lots under the control of the applicant, operator, or property owner, shall be illuminated during the hours of darkness the establishment is open at a minimum of two-foot candles on the parking lot surface, and with a minimum of one-foot candles of light during all other hours of darkness. Lighting in the parking area shall be directed, positioned, or shielded in such a manner so as not to unreasonably illuminate the window area of nearby residences.
50. The applicant shall receive approval of a building permit prior to commencing any construction within the tenant space.
51. A copy of the decision approving Interpretation of Use No. IOU-002-2017 and Conditional Use Permit No. CUP-103-2017 shall be kept on the premises at all times.
52. The permittee shall submit a signed letter acknowledging receipt of the decision approving Interpretation of Use No. IOU-002-2017 and Conditional Use Permit No. CUP-103-2017, and his/her agreement with all conditions of the approval.
53. There shall be no additional changes in the design of the floor plan without the approval of the Community and Economic Development Department,

Interpretation of Use No. IOU-002-2017 and
Conditional Use Permit No. CUP-103-2017
Conditions of Approval

Planning Division. Any additional changes in the approved floor plan, which has the effect of expanding or intensifying the present use, shall require a new Conditional Use Permit.

54. Conditional Use Permit No. CUP-010-2014 shall become null and void, and superseded in its entirety, by approval of CUP-103-2017.
55. The Conditional Use Permit shall be reviewed within one year from the date of this approval, and every three (3) years thereafter, in order to determine if the business is operating in compliance.
56. The applicant shall, as a condition of project approval, at its sole expense, defend, indemnify and hold harmless the City, its officers, employees, agents and consultants from any claim, action, or proceeding against the City, its officers, agents, employees and/or consultants, which action seeks to set aside, void, annul or otherwise challenge any approval by the City Council, Planning Commission, or other City decision-making body, or City staff action concerning Interpretation of Use No. IOU-002-2017 and Conditional Use Permit No. CUP-103-2017. The applicant shall pay the City's defense costs, including attorney fees and all other litigation related expenses, and shall reimburse the City for court costs, which the City may be required to pay as a result of such defense. The applicant shall further pay any adverse financial award, which may issue against the City including but not limited to any award of attorney fees to a party challenging such project approval. The City shall retain the right to select its counsel of choice in any action referred to herein.
57. Unless a time extension is granted pursuant to Section 9.32.030.D.9 of Title 9, of the Municipal Code, the use authorized by this approval of Conditional Use Permit No. CUP-103-2017 shall become null and void if the subject use or construction necessary and incidental thereto is not commenced within one (1) year of the expiration of the appeal period and thereafter diligently advanced until completion of the project.

COMMUNITY AND ECONOMIC DEVELOPMENT DEPARTMENT PLANNING STAFF REPORT

AGENDA ITEM NO: C.2	SITE LOCATION: Citywide
HEARING DATE: June 1, 2017	GENERAL PLAN: N/A
CASE NO: Amendment No. A-020-2017	ZONE: N/A
APPLICANT: City of Garden Grove	CEQA DETERMINATION: Exempt

REQUEST:

A request for the Planning Commission to recommend to the City Council, approval of an Amendment to Title 9 (Zoning Code) of the Garden Grove Municipal Code and adoption of related implementing Guidelines to update the landscape water efficiency requirements in Chapters 9.08 Single-Family Residential, 9.12 Multi-Family Residential, and 9.16 Commercial, Office Professional, Industrial, and Open Space, and 9.18 Mixed-Use, to provide new standards for water efficient landscapes in conformance with Governor Brown's Executive Order and corresponding State regulations.

BACKGROUND:

In 1992, the State of California enacted the Water Conservation in Landscaping Act, (AB 325) requiring the adoption of water efficient landscape ordinances by cities and counties throughout the state. To assist local agencies, the California Department of Water Resources (DWR) developed a Model Water Efficient Landscape Ordinance (MWELO) that established water efficient landscape design standards for urban landscapes. This MWELO served as a template for local agencies to utilize in the development of their own local water efficient landscape ordinance.

In 2004, the California Legislature passed Assembly Bill 2717 establishing a stakeholder-based Landscape Taskforce charged with formulating recommendations to improve irrigation efficiency in new and existing landscapes and to report their findings to the Governor and Legislature by December 31, 2005. The report, "Water Smart Landscapes for California: AB 2717 Landscape Task Force Findings, Recommendations, & Actions," contained 43 recommendations to achieve greater landscape water use efficiency.

In 2006, Governor Schwarzenegger signed AB 1881, amending the Water Conservation in Landscaping Act. AB 1881 added two new requirements: 1) the DWR was to update the MWELO; and 2) each city and county was to comply with the final State MWELO or update its own landscape ordinance so that it was "at least as effective as" the State's updated MWELO. Due to the new "at least as effective as"

CASE NUMBER: AMENDMENT NO. A-020-2017

clause, meeting the requirements of AB 1881 resulted in significant changes to most landscape ordinances in Orange County.

In 2009, a stakeholder group was formed under the leadership of the Municipal Water District of Orange County and the Orange County Division of the League of California Cities. The stakeholder group included representatives from the County of Orange, cities, local water agencies, Building Industry Association, Orange County Fire Authority, irrigation consultants, landscape architects, and other green industry professionals. The goal of the stakeholder group was to develop a locally-crafted Orange County Model Water Efficient Landscape Ordinance (Countywide Model Ordinance) that would meet the "at least as effective as" requirement of State law, minimize the complexity and cost of compliance, and provide consistency between local jurisdictions. This stakeholder effort resulted in the development of an abbreviated Countywide Model Ordinance and implementing Guidelines for cities across the County to use as a template. In 2010, the City of Garden Grove adopted Ordinance No. 2769 and Resolution No. 8943-10 to amend Title 9 (Zoning Code) of the Garden Grove Municipal Code and to adopt implementing Guidelines to incorporate the updated landscape water efficiency provisions based on the Countywide Model Ordinance and Guidelines. Consistent with the format of the Zoning Code, the City's landscape water efficiency provisions were included in each of Chapters 9.08, 9.12, 9.16, and 9.18.

In response to the rising concerns for California's extended period of drought, on April 1, 2015, Governor Brown signed an Executive Order B-29-15 directing DWR to update the MWELO through expedited regulations. The directive specifically listed five items that were to be addressed in the revised MWELO: (1) more efficient irrigation systems; (2) graywater usage; (3) on-site stormwater capture; (4) limiting the percentage of turf planted in landscapes; and (5) requiring local agency reporting on implementation and enforcement. DWR thereafter adopted new regulations updating the MWELO. Pursuant to these State regulations, local agencies are required to either adopt the updated MWELO or their own local or regional ordinances that are "at least as effective as" the updated MWELO in conserving water.

In response to the new 2015 landscape water efficiency requirements, the Association of California Cities - Orange County (ACC-OC), the Municipal Water District of Orange County, and the Orange County Chapter of the Building Industry Association formed a stakeholder group to develop an updated Countywide Model Ordinance (a model regional ordinance) and set of Guidelines that comply with the new State law requirements. The stakeholder group, made up of representatives from cities, water agencies, and landscape professionals drafted an updated Countywide Model Ordinance and accompanying Guidelines document, which reflect the climactic conditions of Orange County and utilize existing irrigation technologies. The updated Countywide Model Ordinance and Guidelines were reviewed by DWR and found to satisfy the new State requirements.

CASE NUMBER: AMENDMENT NO. A-020-2017

DISCUSSION:

The proposed Zoning Code Amendment A-20-2017 would update Garden Grove's landscape water efficiency provisions to comply with Governor Brown's April 1, 2015 Executive Order and updated MWELo. These changes are based on the updated Countywide Model Ordinance and Guidelines, which DWR has found to "at least as effective as" the State MWELo. Significant changes are discussed below: and are summarized as follows:

The most significant changes contained in the DWR's updated MWELo include the following: 1) the threshold size of landscaped area has been reduced, resulting in an increase in applicability of the landscape water efficiency provisions; 2) the Maximum Applied Water Allowance (MAWA) has been lowered from 70% to 55% for residential landscape projects and 45% for non-residential landscape projects; and 3) local agencies are now required to annually report to DWR on the implementation and enforcement of their local water efficient landscape ordinances.

Currently, the City's existing water efficient landscape standards are applicable to landscape areas that are 2,500 square feet or larger for new and rehabilitated landscape projects, except that the existing threshold for new landscape projects by individual homeowners on residential lots is 5,000 square feet, and there is no water efficiency requirement for rehabilitated landscape projects by individual homeowners.

The proposed changes, which are mandated by the State, will require new landscape projects as small as 500 square feet and landscape rehabilitation projects as small as 2,500 square feet to comply with the revised water efficiency requirements. The size threshold applies to residential, commercial, industrial, and institutional projects that require a permit, plan check, or design review. A good example of applicable projects include single family homeowners who rehabilitate 2,500 square feet or more of their existing landscaping; the homeowner will be required to submit plans for a building or landscape permit and will also be required to provide landscape certifications with their plans, demonstrating that their proposed landscape rehabilitation projects meet the City's updated water efficiency requirements. Recognizing the special landscape management needs of cemeteries, new and rehabilitated cemeteries are limited to Sections 2.9 and 2.10 of Appendix 1, Title 9. Projects that have new landscape area between 500 to 2,500 square feet can comply either through meeting the water calculation approach or through the prescriptive approach. The prescriptive approach includes, but is not limited to, the following:

- Incorporation of compost to a depth of 6 inches of the landscape area
- Use of climate adapted plants
- Providing a minimum of 3 inches of mulch
- Turf area to not exceed 25 percent of landscape area
- Installation of automatic irrigation controller with evapotranspiration or soil moisture sensing data.

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RECOMMENDATION:

Staff recommends that the Planning Commission:

- Adopt the proposed Resolution recommending approval of Amendment No. A-020-2017 and the Guidelines to the City Council



Lee Marino
Planning Services Manager



By: Erin Webb
Senior Planner



Nancy Mith
Contract Associate Planner

RESOLUTION NO. 5886-17

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF GARDEN GROVE RECOMMENDING THE CITY COUNCIL APPROVE AMENDMENT NO. A-020-2017, TO AMEND PORTIONS OF CHAPTERS 9.08, 9.12, 9.16, AND 9.18 OF THE CITY OF GARDEN GROVE MUNICIPAL CODE PERTAINING TO LANDSCAPE WATER EFFICIENCY STANDARDS, AND ADOPT RELATED IMPLEMENTING GUIDELINES.

BE IT RESOLVED that the Planning Commission of the City of Garden Grove, in regular session assembled on June 1, 2017, does hereby recommend the the City Council approve Amendment No. A-020-2017 and adopt the draft ordinance attached hereto as "Exhibit A".

BE IT FURTHER RESOLVED in the matter of Amendment No. A-020-2017 the Planning Commission of the City of Garden Grove does hereby report as follows:

1. The subject case was initiated by the City of Garden Grove.
2. The City of Garden Grove is proposing to amend portions of Title 9 (Zoning) of the Garden Grove Municipal code and adopt related implanting Guidelines to update the landscape water efficiency requirements in Chapter 9.08 (Single-Family Residential), 9.12 (Multi-Family Residential), 9.16 (Commercial, Office Professional, Industrial, and Open Space), and 9.18 (Mixed-Use), to provide new standards for water efficient landscapes in conformance with Governor Executive Order B-29-15 and corresponding State regulations.
3. The Planning Commission recommends the City Council find that adoption of the proposed Code amendment and updated Guidelines is exempt from environmental review under the California Environmental Quality Act (CEQA) (California Public Resources Code Section 21000 et seq.), because pursuant to Section 15307 of the State's CEQA Guidelines (14 Cal. Code Regs., § 15307), the project is covered by the CEQA Categorical Exemption for actions taken to assure the maintenance, restoration, enhancement, or protection of a natural resource where the regulatory process involves procedures for the protection of the environment. The adoption of the proposed Ordinance and Guidelines will result in the enhancement and protection of water resources in the City, and will not result in cumulative adverse environmental impacts. It is therefore exempt from the provisions of CEQA.
4. Pursuant to legal notice, a public hearing was held on June 1, 2017, and all interested persons were given an opportunity to be heard.
5. Report submitted by City staff was reviewed.
6. The Planning Commission gave due and careful consideration to the matter during its meeting of June 1, 2017.

BE IT FURTHER RESOLVED, FOUND, AND DETERMINED that the facts and reasons supporting the conclusion of the Planning Commission, as required under Municipal Code Sections 9.04.030 are as follows:

FACTS:

In 1992, the State of California enacted the Water Conservation in Landscaping Act, (AB 325) requiring the adoption of water efficient landscape ordinances by cities and counties throughout the state. To assist local agencies, The California Department of Water Resources (DWR) developed a Model Water Efficient Landscape Ordinance that established water efficient landscape design standards for urban landscapes.

In 2006, Governor Schwarzenegger signed Assembly Bill 1881 amending the Water Conservation in the Landscape Act (Act). The bill required two things: 1) DWR to update the original Model Water Efficient Landscape Ordinance; and 2) cities and counties to update local Landscape Ordinances so that they are "at least as effective as" DWR's updated Model Ordinance by January 1, 2010.

A stakeholder group was formed under the leadership of the Municipal Water District of Orange County (MWDOC) and the Orange County Division of the League of California Cities. The stakeholder group developed a locally crafted Orange County Model Water Efficient Landscape Ordinance. The intent in writing a local version of a Model Water Efficient Landscape Ordinance was to meet the "at least as effective as" requirement by the State, minimize the complexity and cost of compliance, and provide consistency between the local jurisdictions.

In 2015, Governor Brown issued an Executive Order directing the Department of Water Resources to update the State Model Water Efficient Landscape Ordinance through Expedited Regulation. Like AB 1881, Executive Order No. B-29-15 is also requiring that Local Agencies either adopt the updated State's MWELO or update an existing Local Ordinance. In response to the mandate, the City of Garden Grove has chosen to amend portions of Title 9 (Zoning) of the Garden Grove Municipal code and adopt related implementing Guidelines to update the landscape water efficiency requirements in the applicable Chapters. These changes are based on the updated Countywide Model Ordinance and Guidelines, which DWR has found to "at least as effective as" the State MWELO. Significant changes are discussed below and are summarized as follows:

The most significant changes contained in the DWR's updated MWELO include the following: 1) the threshold size of landscaped area has been reduced, resulting in an increase in applicability of the landscape water efficiency provisions; 2) the Maximum Applied Water Allowance (MAWA) has been lowered from 70% to 55% for residential landscape projects and 45% for non-residential landscape projects; and 3) local agencies are now required to annually report to DWR on the implementation and enforcement of their local water efficient landscape ordinances.

Currently, the City's existing water efficient landscape standards are applicable to landscape areas that are 2,500 square feet or larger for new and rehabilitated landscape projects, except that the existing threshold for new landscape projects by individual homeowners on residential lots is 5,000 square feet, and there is no water efficiency requirement for rehabilitated landscape projects by individual homeowners.

The proposed changes, which are mandated by the State, will require new landscape projects as small as 500 square feet and landscape rehabilitation projects as small as 2,500 square feet to comply with the revised water efficiency requirements. The size threshold applies to residential, commercial, industrial, and institutional projects that require a permit, plan check, or design review. A good example of applicable projects include single family homeowners who rehabilitate 2,500 square feet or more of their existing landscaping; the homeowner will be required to submit plans for a building or landscape permit and will also be required to provide landscape certifications with their plans, demonstrating that their proposed landscape rehabilitation projects meet the City's updated water efficiency requirements. Recognizing the special landscape management needs of cemeteries, new and rehabilitated cemeteries are limited to Sections 2.9 and 2.10 of Appendix 1, Title 9. Projects that have new landscape area between 500 to 2,500 square feet can comply either through meeting the water calculation approach or through the prescriptive approach. The prescriptive approach includes, but is not limited to, the following:

- Incorporation of compost to a depth of 6 inches of the landscape area
- Use of climate adapted plants
- Providing a minimum of 3 inches of mulch
- Turf area to not exceed 25 percent of landscape area
- Installation of automatic irrigation controller with evapotranspiration or soil moisture sensing data.

FINDINGS AND REASONS:

1. The Amendment is internally consistent with the goals, objectives and elements of the City's General Plan.

The requested Amendment is internally consistent with the goals, objectives and the elements of the General Plan. The proposed Amendment will provide specific requirements for water conservation in proposed landscape areas. These requirements will implement the "Water Resource" goal and policies in the Conservation Element of General Plan 2030.

2. The Amendment is deemed to promote the public interest, health, safety and welfare.

The Amendment will promote the public interest, health, safety, and welfare, as water conservation through reduced use and efficiency is critical for the

entire region. Reduced water consumption lessens reliance on potentially unreliable foreign water supplies and, locally, leaves more water in natural systems to benefit the local environment. Maintaining and improving water quality is essential to protect public health, wildlife and the local watershed.

INCORPORATION OF FACTS AND REASONS SET FORTH IN STAFF REPORT

In addition to the foregoing the Planning Commission incorporates herein by this reference, the facts and reasons set forth in the staff report.

BE IT FURTHER RESOLVED that the Planning Commission does conclude:

1. Amendment No. A-020-2017 possesses characteristics that would indicate justification of the request in accordance with Municipal Code Section 9.32.030.D1 (Code Amendment).
2. The Planning Commission recommends that the City Council approve Amendment No. A-020-2017 and adopt the draft Ordinance attached hereto as Exhibit "A" and the Guidelines attached hereto as Exhibit "B."

ORDINANCE NO. _____

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF GARDEN GROVE APPROVING AMENDMENT NO. A-020-2017 AMENDING AND RESTATING PORTIONS OF TITLE 9 (ZONING CODE) OF THE GARDEN GROVE MUNICIPAL CODE REGARDING LANDSCAPE WATER EFFICIENCY REQUIREMENTS.

City Attorney Summary

This Ordinance amends the Garden Grove Zoning Code to revise landscape water efficiency requirements set forth in Chapters 9.08, 9.12, 9.16, and 9.18 consistent with the updated Orange County Model Water Efficient Landscape Ordinance to be at least as effective as the State Model Water Efficient Landscape Ordinance pursuant to State law.

WHEREAS, the City of Garden Grove proposes to amend portions of Chapters 9.08, 9.12, 9.16, and 9.18 Title 9 (Zoning Code) of the Garden Grove Municipal Code and to adopt amended Guidelines for Implementation of the City of Garden Grove Landscape Water Efficiency Provisions (Appendix 1 to Title 9) to revise landscape water efficiency requirements in compliance with State law and consistent with the Orange County Model Water Efficient Landscape Ordinance;

WHEREAS, in 1992, the State of California enacted the Water Conservation in Landscaping Act, (AB 325) requiring cities and counties throughout the State to adopt water efficient landscape ordinances;

WHEREAS, following the enactment of AB 325, the Department of Water Resources (DWR) developed a model water efficient landscape ordinance (MWELo) to assist and guide cities in the enactment of their own water efficient landscape ordinances to establish water efficient landscape design standards for urban landscapes;

WHEREAS, in 2006, the State of California amended the Water Conservation in the Landscape Act (AB 1881) to direct DWR to update the original MWELo to achieve greater landscape water use efficiency and to require cities and counties to update their local water efficient landscape ordinances by 2010 so that they were "at least as effective as" the MWELo;

WHEREAS, in 2009, a stakeholder formed under the leadership of the Municipal Water District of Orange County and the Orange County Division of the League of California Cities, and including representatives from the County of Orange, cities, local water agencies, Building Industry Association, Orange County Fire Authority, irrigation consultants, landscape architects, and other green industry professionals, developed a locally-crafted Orange County Model Water Efficient Landscape Ordinance (Countywide Model Ordinance) and model implementing Guidelines that met the "at least as effective as" requirement of State law, while

minimizing the complexity and cost of compliance and providing consistency between local jurisdictions;

WHEREAS, in compliance with AB 1881, the City of Garden Grove adopted Ordinance No. 2769 in 2010 to amend Title 9 (Zoning Code) of the Garden Grove Municipal Code to incorporate updated landscape water efficiency provisions consistent with the Countywide Model Ordinance and Resolution No. 8943-10 to adopt Guidelines for implementation of those provisions;

WHEREAS, Governor Brown issued Executive Order (EO B-29-15) on April 1, 2015, directing DWR to update the MWELo by July 15, 2015 to increase water efficiency standards for new and existing landscapes through more efficient irrigation systems, graywater usage, on-site storm water capture and limiting the portion of landscaping that can be covered in turf;

WHEREAS, the California Water Commission (CWC) thereafter adopted revisions to the California Code of Regulations Title 23, Division 2, Chapter 2.7 "Model Water Efficient Landscape Ordinance", which require cities and counties to adopt local or regional water efficient landscape ordinances that are "at least as effective as" the updated MWELo;

WHEREAS, the Association of California Cities – Orange County (ACC-OC), the Municipal Water District of Orange County (MWDOC) and Building Industry Association, Orange County (BIAOC) formed a stakeholder group that developed an updated regional Countywide Model Ordinance and Guidelines that are at least effective as the updated MWELo, and which reflect the climactic conditions of Orange County and utilize existing irrigation technologies;

WHEREAS, this Ordinance is consistent with the model regional ordinance developed under the guidance of the ACC-OC, MWDOC, and BIAOC;

WHEREAS, the State Legislature has found that:

- (a) the waters of the State are of limited supply and are subject to ever increasing demands;
- (b) the continuation of California's economic prosperity is dependent on the availability of adequate supplies of water for future uses;
- (c) it is the policy of the State to promote the conservation and efficient use of water and to prevent the waste of this valuable resource;
- (d) landscapes are essential to the quality of life in California by providing areas for active and passive recreation and as an enhancement to the environment by cleaning air and water, preventing erosion, offering fire protection, and replacing ecosystems lost to development;

- (e) landscape design, installation, maintenance, and management can and should be water efficient; and
- (f) Article X, Section 2 of the California Constitution specifies that the right to use water is limited to the amount reasonably required for the beneficial use to be served, and the right does not, and shall not, extend to waste or unreasonable method of use of water;

WHEREAS, the City Council hereby finds that:

- (a) Orange County has an established, large reclaimed water infrastructure system;
- (b) allocation-based and tiered water rate structures allow public agencies to document water use in landscapes;
- (c) incentive-based water use efficiency programs have been actively implemented within Orange County since before 1991;
- (d) current local design practices in new landscapes strive to achieve the intent of the State MWELo water use goals;
- (e) water services within the City are metered and billed based on volume of use;
- (f) Orange County is a leader in researching and promoting the use of smart irrigation controllers and promotion of sustainable landscape transformation with more than 30 million square feet of turf removal;
- (g) all new irrigation controllers sold after 2012 within Orange County were smart irrigation controllers;
- (h) landscape plan submittal and review has been a long standing practice in the City; and
- (i) the average rainfall in Orange County is approximately 12 inches per year;

WHEREAS, the City, as the local water purveyor, is implementing tiered-rate billing and/or enforcement of water waste prohibitions for all existing metered landscaped areas throughout its service area;

WHEREAS, following a Public Hearing held on June 1, 2017, the Planning Commission adopted Resolution No. 5886-17 recommending approval of Amendment No. A-020-2017 and updated Guidelines for Implementation of the City of Garden Grove Landscape Water Efficiency Provisions;

WHEREAS, pursuant to a legal notice, a Public Hearing regarding the proposed adoption of this Ordinance was held by the City Council on July 11, 2017, and all interested persons were given an opportunity to be heard;

WHEREAS, on July 11, 2017, the City Council adopted Resolution No. _____ approving amended Guidelines for Implementation of the City of Garden Grove Landscape Water Efficiency Provisions, subject to the adoption and effectiveness of this Ordinance; and

WHEREAS, the City Council gave due and careful consideration to the matter.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF GARDEN GROVE HEREBY ORDAINS AS FOLLOWS:

SECTION 1: The above recital are true and correct, and are incorporated herein by reference.

SECTION 2: Consistent with the above recitals, the City Council finds that the purpose of the amendments to the City's Landscape Water Efficiency Provisions pursuant to Amendment No. A-20-2017 is to establish an alternative model acceptable under Governor Brown's April 1, 2015 Drought Executive Order (EO-B-19-25) as being "at least as effective as" the State MWELo in the context of conditions in the City in order to:

1. Promote the benefits of consistent landscape ordinances with neighboring local and regional agencies;
2. Promote the values and benefits of landscapes while recognizing the need to invest water and other resources as efficiently as possible;
3. Establish a structure for planning, designing, installing, and maintaining and managing water efficient landscapes in new construction and rehabilitated projects;
4. Establish provisions for water management practices and water waste prevention for existing landscapes;
5. Use water efficiently without waste by setting a Maximum Applied Water Allowance as an upper limit for water use and reduce water use to the lowest practical amount; and
6. Encourage the use of economic incentives that promote the efficient use of water, such as implementing a budget-based tiered-rate structure, providing rebate incentives and offering educational programs.

SECTION 3: The City Council finds that Amendment No. A-20-2017 is exempt from environmental review under the California Environmental Quality Act ("CEQA") (California Public Resources Code Section 21000 et seq.), because pursuant to Section 15307 of the state's CEQA Guidelines (14 Cal. Code Regs., § 15307), Amendment No. A-20-2017 is covered by the CEQA Categorical Exemption for actions taken to assure the maintenance, restoration, enhancement, or protection of a natural resource where the regulatory process involves procedures for the protection of the environment. The adoption of this Ordinance will result in the enhancement and protection of water resources in the City, and will not result in cumulative adverse environmental impacts. It is therefore exempt from the provisions of CEQA.

SECTION 4: The City Council finds as follows:

A. Amendment No. A-20-2017 is internally consistent with the goals, objectives and elements of the City's General Plan.

B. Amendment No. A-20-2017 is deemed to promote the public interest, health, safety and welfare.

SECTION 5: Amendment No. A-20-2017 is hereby approved, and Title 9 of the Garden Grove Municipal Code, is hereby amended as provided in Exhibit "A", pursuant to the findings set forth herein and the facts and reasons stated in Planning Commission Resolution No. 5886-17, a copy of which is on file in the Office of the City Clerk, and which is incorporated herein by reference with the same force and effect as if set forth in full. The Guidelines for Implementation of the City of Garden Grove Landscape Water Efficiency Provisions adopted pursuant to City Council Resolution No. 5886-17, and as thereafter amended, shall be attached to Title 9 as Appendix 1.

SECTION 6: If any section, subsection, subdivision, sentence, clause, phrase, word, or portion of this Ordinance is, for any reason, held to be invalid or unconstitutional by the decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of this Ordinance. The City Council hereby declares that it would have adopted this Ordinance and each section, subsection, subdivision, sentence, clause, phrase, word, or portion thereof, irrespective of the fact that any one or more sections, subsections, subdivisions, sentences, clauses, phrases, words or portions thereof be declared invalid or unconstitutional.

SECTION 7: The Mayor shall sign and the City Clerk shall certify to the passage and adoption of this Ordinance and shall cause the same, or the summary thereof, to be published and posted pursuant to the provisions of law and this Ordinance shall take effect thirty (30) days after adoption.

The foregoing Ordinance was passed by the City Council of the City of Garden Grove on the 11th day of July, 2017.

Garden Gove City Council

Ordinance No. _____

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ATTEST:

MAYOR

CITY CLERK

EXHIBIT "A"

PROPOSED LANDSCAPE WATER EFFICIENCY CODE AMENDMENTS

Section 9.08.040.045 (Definitions) of Section 9.08.040 (Single-Family Residential Development Standards) of Chapter 9.08 of Title 9 of the Garden Grove Municipal Code is hereby amended and restated to read in its entirety as follows:

9.08.040.045 Landscaping-Definitions

"The following definitions are applicable to this chapter.

"Aggregate landscape areas" pertains to the areas undergoing development as one project or for production home neighborhoods or other situations where multiple parcels are undergoing development as one project, but will eventually be individually owned.

"Applied water" means the portion of water supplied by the irrigation system to the landscape.

"Backflow prevention device" means a safety device used to prevent pollution or contamination of the water supply due to the reverse flow of water from an irrigation system.

"Budget-based tiered-rate structure" means tiered or block rates for irrigation accounts charged by the retail water agency in which the block definition for each customer is derived from lot size or irrigated area and the evapotranspiration requirements of landscaping.

"Community Aesthetics Evaluation" means a process that is performed to ensure the aesthetic standards of the community and irrigation efficiency intent is maintained when a permit, plan check or design review is not required.

"Ecological restoration project" means a project where the site is intentionally altered to establish a defined, indigenous, historic ecosystem.

"Estimated applied water use" or "EAWU" means the average annual total amount of water estimated to be necessary to keep plants in a healthy state, calculated as provided in the Guidelines. It is based on the reference evapotranspiration rate, the size of the landscape area, plant water use factors, and the relative irrigation efficiency of the irrigation system.

"Evapotranspiration adjustment factor" or "ETAF" of 0.55 for residential areas and 0.45 for non-residential areas, that, when applied to reference evapotranspiration, adjusts for plant factors and irrigation efficiency, two major influences upon the amount of water that needs to be applied to the landscape. The ETAF for new and existing (non-rehabilitated) Special Landscape Area shall not exceed 1.0. The ETAF for existing non-rehabilitated landscapes is 0.8.

"Evapotranspiration rate" means the quantity of water evaporated from adjacent soil surfaces and transpired by plants during a specific time.

"Guidelines" refers to the *Guidelines for Implementation of the Landscape Water Efficiency Provisions*, as adopted by the City Council, and as subsequently amended by resolution of the City Council, which describes procedures, calculations, and requirements for landscape projects subject to the landscape water efficiency provisions. The *Guidelines* are attached to Title 9 as Appendix 1 and may be amended from time to time by resolution of the City Council.

"Hardscapes" means any durable material or feature (pervious or non-pervious) installed in or around a landscaped area, such as pavements, pavers, stonework or walls. Pools and other water features are considered part of the landscaped area and not considered hardscapes for purposes of the landscape water efficiency provisions.

"Hydrozone" means a portion of the landscaped area having plants with similar water needs and typically irrigated by one valve/controller station. A hydrozone may be irrigated or non-irrigated. For example, a naturalized area planted with native vegetation that will not need supplemental irrigation once established is a non-irrigated hydrozone.

"Irrigation efficiency" means the measurement of the amount of water beneficially used, divided by the amount of water applied. Irrigation efficiency is derived from measurements and estimates of irrigation system characteristics and management practices. The irrigation efficiency for purposes of the landscape water efficiency provisions are 0.75 for overhead spray devices and 0.81 for drip systems.

"Landscaped area" means all the planting areas, turf areas, and water features in a landscape design plan subject to the Maximum Applied Water Allowance and Estimated Applied Water Use Calculations. The landscaped area does not include footprints of buildings or structures, sidewalks, driveways, parking lots, decks,

patios, gravel or stone walks, other pervious or non-pervious hardscapes, and other non-irrigated areas designated for non-development (e.g., open spaces and existing native vegetation).

"Landscape contractor" means a person licensed by the State of California to construct, maintain, repair, install, or subcontract the development of landscape systems.

"Landscape documentation package" means the documents required to be provided to the City for review and approval of landscape design projects, as described in the *Guidelines*.

"Landscape project" means total area of landscape in a project, as provided in the definition of "landscaped area," meeting the requirements under Section 9.08.040.055, paragraphs A, B, and C of this chapter.

"Landscape water efficiency provisions" means the following sections and paragraphs of this chapter relating to landscape water efficiency: Sections 9.08.040.040; 9.08.040.045; 9.08.040.055; and 9.08.040.060 (introductory paragraph); Section 9.08.040.060, paragraphs B, P, Q, R, S, and T; and Section 9.08.040.080, paragraph C.

"Local agency" means a local water purveyor or city or county, including a charter city or charter county, that is authorized by the City to implement, administer, and/or enforce any of the landscape water efficiency provisions on behalf of the City. The local agency may be responsible for the enforcement or delegation of enforcement of the landscape water efficiency provisions, including, but not limited to, design review, plan check, issuance of permits, and inspection of a landscape project.

"Local water purveyor" means any entity, including a public agency, city, county, or private water company that provides retail water service.

"Maximum applied water allowance" or "MAWA" means the upper limit of annual applied water for the established landscaped area as specified in the *Guidelines*. The "MAWA" is based upon the area's reference evapotranspiration, the ET adjustment factor, and the size of the landscaped area. The estimated applied water use shall not exceed the maximum applied water allowance. $MAWA = (ET_o) (0.62) [(ETAF \times LA) + ((1-ETAF) \times SLA)]$.

"Mined-land reclamation projects" means any surface mining operation with a reclamation plan approved in accordance with the Surface Mining and Reclamation Act of 1975.

"New construction" means, for the purposes of this section, a new building with a landscape or other new landscape such as a park, playground, or greenbelt without an associated building.

"Non-pervious" means any surface or natural material that does not allow for the passage of water through the material and into the underlying soil.

"Overspray" means the irrigation water that is delivered beyond the target landscaped area.

"Pervious" means any surface or material that allows the passage of water through the material and into the underlying soil.

"Permit" means an authorizing document issued by local agencies for new construction or rehabilitated landscape.

"Plant factor" or "plant water use factor" is a factor, when multiplied by ETo, that estimates the amount of water needed by plants. For purposes of the landscape water efficiency provisions, the plant factor range for very low water use plants is 0 to 0.1; the plant factor range for low water use plants is 0 to 0.3; the plant factor range for moderate water use plants is 0.4 to 0.6; and the plant factor range for high water use plants is 0.7 to 1.0. Plant factors cited in the landscape water efficiency provisions are derived from the publication "Water Use Classification of Landscape Species." Plant factors may also be obtained from horticultural researchers from academic institutions or professional associations as approved by the California Department of Water Resources (DWR).

"Recycled water" or "reclaimed water" means treated or recycled waste water of a quality suitable for non-potable uses such as landscape irrigation and water features. This water is not intended for human consumption.

"Reference evapotranspiration" or "ETo" means a standard measurement of environmental parameters which affect the water use of plants. ETo is expressed in inches per day, month, or year as represented in the Guidelines, and is an estimate of the evapotranspiration of a large field of four- to seven-inch tall, cool-season grass that is well watered. Reference evapotranspiration is used as the basis for determining the maximum applied water allowances.

"Rehabilitated landscape" means any re-landscaping project that meets the applicability criteria of Section 9.08.040.055.A, where the modified landscape area is greater than 2,500 square feet.

“Runoff” means water that is not absorbed by the soil or landscape to which it is applied and flows from the landscaped area. For example, runoff may result from water that is applied at too great a rate (application rate exceeds infiltration rate) or when there is a slope.

“Smart automatic irrigation controller” means a timing device with non-volatile memory used to remotely control valves that operate an irrigation system and which is able to self-adjust and schedule irrigation events using either evapotranspiration (weather-based) or soil moisture data.

“Special landscape area” means an area of the landscape dedicated solely to edible plants such as orchards and vegetable gardens, areas irrigated with recycled water, water features using recycled water, and areas dedicated to active play such as parks, sports fields, golf courses, and where turf provides a playing surface.

“Turf” means a ground cover surface of mowed grass. Annual bluegrass, Kentucky bluegrass, Perennial ryegrass, Red fescue, and Tall fescue are cool-season grasses. Bermudagrass, Kikuyugrass, Seashore Paspalum, St. Augustine grass, Zoysiagrass, and Buffalo grass are warm-season grasses.

“Valve” means a device used to control the flow of water in an irrigation system.

“Water Conservation Program” means the provisions set forth in Chapter 14.40 of the Garden Grove Municipal Code, as it may be amended from time to time, and implementing regulations promulgated by the City.

“Water feature” means a design element where open water performs an aesthetic or recreational function. Water features include ponds, lakes, waterfalls, fountains, artificial streams, spas, and swimming pools (where water is artificially supplied). The surface area of water features is included in the high water use hydrozone of the landscaped area. Constructed wetlands used for on-site wastewater treatment, habitat protection or stormwater best management practices that are not irrigated and used solely for water treatment or stormwater retention are not water features and, therefore, are not subject to the water budget calculation.

Section 9.08.040.055 (Landscaping-Water Efficiency) of Section 9.08.040 (Single-Family Residential Development Standards) of Chapter 9.08 of Title

9 of the Garden Grove Municipal Code is hereby amended and restated to read in its entirety as follows:

9.08.040.055 Landscaping—Water Efficiency

A. Beginning February 1, 2016, and consistent with Executive Order No. B-29-15, the landscape water efficiency provisions shall apply to the following landscape projects:

1. New landscape projects with an aggregate landscaped area equal to or greater than 500 square feet requiring a building or landscape permit, plan check, or site plan or other discretionary review;

2. Rehabilitated landscape projects with an aggregate landscaped area equal to or greater than 2,500 square feet requiring a building or landscape permit, plan check or site plan or other discretionary review;

3. New or rehabilitated landscape projects with an aggregate landscaped area of 2,500 square feet or less may comply with the performance requirements of the landscape water efficiency provisions or conform to the prescriptive measures contained in Appendix A of the Guidelines.

4. For new or rehabilitated landscape projects using treated or untreated graywater or rainwater capture on site, any lot or parcel within the project that has less than 2,500 square feet of landscape area and meets the lot or parcel's landscape water requirement (Estimated Total Water Use) entirely with the treated or untreated graywater or though stored rainwater capture on site is subject only to Appendix A of the Guidelines.

5. At cemeteries, Sections 2.9, 2.10, and Appendix C of the Guidelines shall apply to new landscape installations and Sections 2.9, 2.10, and 3 of the Guidelines shall apply to landscape rehabilitation projects.

B. The irrigation efficiency requirements set forth in subsection T.1.c.ii of Section 9.08.040.060 (Landscaping Requirements) shall apply to:

1. All landscaped areas, whether installed prior to or after January 1, 2010; and

2. All landscaped areas installed after February 1, 2016 to which Section 9.08.040.055.A is applicable.

C. The landscape water efficiency provisions do not apply to the following:

1. Registered local, state, or federal historical sites;
2. Ecological restoration projects that do not require a permanent irrigation system; or
3. Mined-land reclamation projects that do not require a permanent irrigation system; or
4. Plant collections, as part of botanical gardens and arboretums open to the public.

D. The following submittals shall be required for all landscape projects subject to the landscape water efficiency provisions:

1. Prior to installation, a landscape documentation package shall be submitted to the City for review and approval of all landscape projects subject to the landscape water efficiency provisions. Any landscape documentation package submitted to the City shall comply with the provisions of the Guidelines.

2. The landscape documentation package shall include a certification by a professional, appropriately licensed in the state of California, stating that the landscape design and water use calculations have been prepared by, or under, the supervision of the licensed professional and are certified to be in compliance with the provisions of this chapter and the Guidelines.

- a. Landscape and irrigation plans shall be submitted to the City for review and approval with appropriate water use calculations. Water use calculations shall be consistent with calculations contained in the Guidelines and shall be provided to the Water Department, as appropriate, under procedures determined by the City.

- b. Verification of compliance of the landscape installation with the approved plans shall be obtained through a certificate of completion in conjunction with a certificate of use and occupancy or permit final process, as provided in the Guidelines.

Subsections P through T of Section 9.08.040.060 (Landscaping Requirements) of Section 9.08.040 (Single-Family Residential Development Standards) of Chapter 9.08 of Title 9 of the Garden Grove Municipal Code are hereby amended and restated in their entirety to read as follows:

P. Landscaping and Irrigation Plans Required. Landscape and irrigation plans shall be required for all projects requiring approval by the hearing body and to which the landscape water efficiency provisions apply. Such plans shall be submitted for discretionary approval to the hearing body. Said plans shall be prepared in accordance with requirements and standards established pursuant to this Chapter and the Guidelines (specifically refer to sections on landscape design plan and irrigation design plan).

Q. In addition to the above, the following are requirements that shall apply to the landscape design plan and are more fully explained in the Guidelines (Appendix 1, Title 9):

1. Any plants may be used in a landscaped area, provided the estimated applied water use in the landscaped area does not exceed the maximum applied water allowance, and that the plants meet the specifications set forth in this section. The planting of trees is encouraged wherever it is consistent with the other provisions of this section. To encourage the efficient use of water, the following are highly recommended for inclusion in the landscape design plan: protection, preservation, and selection of non-invasive water-conserving plant, tree, and turf species; selection of plants based on local climate suitability, disease and pest resistance; selection of trees based on applicable City ordinances and guidelines and on size at maturity as appropriate for the planting area; selection of plants from local and regional landscape program plant lists; and selection of plants from local fuel modification plan guidelines.

2. Except as otherwise permitted in accordance with the Guidelines, plants having similar water use shall be grouped together in distinct hydrozones.

3. Plants shall be selected appropriately based upon their adaptability to the climatic, geologic and topographical conditions of the project site. Methods to achieve water efficiency shall include one or more of the following:

- a. Use the Sunset Western Climate Zone System, or equivalent generally accepted models, which takes into account temperature, humidity, elevation, terrain, latitude, and varying degrees of continental and marine influence on local climate;

- b. Recognize the horticultural attributes of plants (i.e., mature plant size, invasive surface roots) to minimize damage to property or infrastructure (e.g., buildings, sidewalks, and power lines); allow for adequate soil volume for healthy root growth; and

c. Consider the solar orientation of the site and how plant placement will maximize summer shade and winter solar gain.

R. Irrigation Requirements.

1. All landscaped areas shall be provided with an approved irrigation system that meets the requirements of this Chapter and the Guidelines. An irrigation design plan meeting the design criteria in the Guidelines shall be submitted as part of the landscape documentation package for those projects subject to Section 9.08.040.055.A.

2. Irrigation shall be performed in conformance with the City's Water Conservation Program.

S. System Design. For the efficient use of water, an irrigation system shall meet all the requirements listed in the Irrigation Design Plan provisions of the Guidelines and in the manufacturer's recommendations. The irrigation system and its related components shall be planned and designed to allow for proper installation, management, and maintenance. An irrigation design plan meeting the design criteria of the Guidelines shall be submitted as part of the landscape documentation package. Smart automatic irrigation controllers shall be required for irrigation scheduling in all irrigation systems, recommending U.S. EPA WaterSense labeled devices as applicable.

T. In addition to the above, the following are requirements that shall apply to the landscape design plan.

1. Irrigation Design Criteria.

a. Runoff and Overspray. Soil types and infiltration rate shall be considered when designing irrigation systems. All irrigation systems shall be designed to avoid runoff, low-head drainage, overspray or other similar conditions where irrigation water flows onto non-targeted areas, such as adjacent property, non-irrigated areas, hardscapes (walks, etc.), roadways or structures.

b. Special attention shall be given to avoid runoff on slopes and to avoid overspray on areas less than ten (10) feet in width in any direction. Such areas shall be irrigated with subsurface irrigation or other means that produce no runoff or overspray.

c. Irrigation Efficiency.

i. For new or rehabilitated landscape projects subject to Section 9.08.040.055.A, the estimated applied water use allowed for the landscaped areas shall not exceed the MAWA calculated using an ET adjustment factor of 0.55 for residential areas and 0.45 for non-residential areas, except for special landscaped areas where the MAWA is calculated using an ET adjustment factor of 1.0; or the design of the landscaped areas shall otherwise be shown to be equivalently water-efficient in a manner acceptable to the City, as provided in the Guidelines.

ii. Irrigation of all landscaped areas shall be conducted in a manner conforming to the rules and requirements, and shall be subject to penalties and incentives, for water conservation and water waste prevention as determined and implemented by the City.

iii. The project applicant shall understand and implement the requirements of the City's Water Conservation Program.

d. Equipment. The *Guidelines* provide design criteria for irrigation equipment in the "Irrigation Design Plan" provisions.

2. Recycled Water.

a. At such time as recycled water is available, the installation of recycled water irrigation systems (dual distribution systems) shall be required to allow for the current and future use of recycled water.

b. Irrigation systems shall make use of recycled water unless a written exemption has been granted by the local water agency, stating that recycled water meeting all health standards is not available and will not be available in the foreseeable future.

c. The recycled water irrigation systems shall be designed and operated in accordance with all local and State codes.

3. Irrigation Design Plan Specifications. Irrigation systems shall be designed to be consistent with hydrozones. Hydrozone areas shall be designated by number, letter, or other designation on both the Irrigation Design Plan and the Landscape Design Plan. The irrigation design plan shall be separate from, but use the same format as, the landscape design plan. The scale shall be the same as that used for the landscape design plan. The irrigation design plan shall fully meet those requirements found in the Guidelines, but at a minimum, shall contain:

a. Location and size of separate water meters for the landscape;

b. Location, type and size of all components of the irrigation system, including controllers, main and lateral lines, valves, sprinkler heads, moisture sensing devices, rain switches, quick couplers and backflow prevention devices;

c. Static water pressure at the point of connection to the public water supply;

d. Flow rate (gallons per minute), application rate (inches per hour), and design operating pressure (psi) for each station;

e. Irrigation schedule parameters necessary to program smart timers specified in the landscape design;

f. The following statement: "I have complied with the Landscape Water Efficiency provisions and the design criteria in the Guidelines and applied them accordingly for the efficient use of water in the irrigation design plan;" and

g. The signature of a California-licensed landscape professional.

4. Maximum Applied Water Allowance. A project's maximum applied water allowance shall be calculated in a manner acceptable to the City, as provided in the Guidelines.

5. Irrigation Schedules. For the efficient use of water, all irrigation schedules shall be developed, managed, and evaluated to utilize the minimum amount of water required to maintain plant health. Irrigation schedules shall meet the following criteria:

a. Irrigation scheduling shall be regulated by smart automatic irrigation controllers.

b. Overhead irrigation shall be scheduled in accordance with the City's Water Conservation Program. Operation of the irrigation system outside the normal watering window is allowed for auditing and system maintenance.

6. Certificate of Completion.

a. Landscape project installation shall not proceed until the landscape documentation package has been approved by the City and any ministerial permits required are issued.

b. The project applicant shall notify the City at the beginning of the installation work and at intervals, as necessary, for the duration of the landscape project work to schedule all required inspections.

c. Certification of completion of the landscape project shall be obtained through a certificate of use and occupancy or a permit final. The requirements for the final inspection and permit closure include submittal of:

i. A landscape installation certificate of completion in the form included as Appendix E in the Guidelines, which shall include: (1) certification by a landscape professional that the landscape project has been installed per the approved landscape documentation package; and (2) the following statement: "The landscaping has been installed in substantial conformance with the design plans, and complies with the City of Garden Grove Landscape Water Efficiency Provisions for the efficient use water in the landscape." Where there have been significant changes (as determined by the City) made in the field during construction, these "as-built" or record drawings shall be included with the certificate. A diagram of the irrigation plan showing hydrozones shall be kept with the irrigation controller for subsequent management purposes.

ii. Documentation of the irrigation scheduling parameters used to set the controller(s).

iii. An irrigation audit report from a local agency irrigation auditor or third party certified landscape irrigation auditor, documentation of enrollment in regional or local water purveyors' water conservation programs, and/or documentation that the MAWA and EAWU information for the landscape project has been submitted to the City or other local water purveyor, may be required at the option of the City in accordance with the Guidelines. Landscape audits shall not be conducted by the persons who designed or installed the landscape.

Section 9.12.040.075 (Definitions) of Section 9.12.040 (Multi-Family Residential Development Standards) of Chapter 9.12 of Title 9 of the Garden Grove Municipal Code is hereby amended and restated to read in its entirety as follows:

9.12.040.075 Landscaping–Definitions

"The following definitions are applicable to this chapter.

"Aggregate landscape areas" pertains to the areas undergoing development as one project or for production home neighborhoods or other situations where multiple parcels are undergoing development as one project, but will eventually be individually owned.

"Applied water" means the portion of water supplied by the irrigation system to the landscape.

"Backflow prevention device" means a safety device used to prevent pollution or contamination of the water supply due to the reverse flow of water from an irrigation system.

"Budget-based tiered-rate structure" means tiered or block rates for irrigation accounts charged by the retail water agency in which the block definition for each customer is derived from lot size or irrigated area and the evapotranspiration requirements of landscaping.

"Community Aesthetics Evaluation" means a process that is performed to ensure the aesthetic standards of the community and irrigation efficiency intent is maintained when a permit, plan check or design review is not required.

"Ecological restoration project" means a project where the site is intentionally altered to establish a defined, indigenous, historic ecosystem.

"Estimated applied water use" or "EAWU" means the average annual total amount of water estimated to be necessary to keep plants in a healthy state, calculated as provided in the Guidelines. It is based on the reference evapotranspiration rate, the size of the landscape area, plant water use factors, and the relative irrigation efficiency of the irrigation system.

"Evapotranspiration adjustment factor" or "ETAF" of 0.55 for residential areas and 0.45 for non-residential areas, that, when applied to reference evapotranspiration, adjusts for plant factors and irrigation efficiency, two major influences upon the amount of water that needs to be applied to the landscape. The ETAF for

new and existing (non-rehabilitated) Special Landscape Area shall not exceed 1.0. The ETAF for existing non-rehabilitated landscapes is 0.8.

"Evapotranspiration rate" means the quantity of water evaporated from adjacent soil surfaces and transpired by plants during a specific time.

"Guidelines" refers to the *Guidelines for Implementation of the Landscape Water Efficiency Provisions*, as adopted by the City Council, and as subsequently amended by resolution of the City Council, which describes procedures, calculations, and requirements for landscape projects subject to the landscape water efficiency provisions. The *Guidelines* are attached to Title 9 as Appendix 1 and may be amended from time to time by resolution of the City Council.

"Hardscapes" means any durable material or feature (pervious or non-pervious) installed in or around a landscaped area, such as pavements, pavers, stonework or walls. Pools and other water features are considered part of the landscaped area and not considered hardscapes for purposes of the landscape water efficiency provisions.

"Hydrozone" means a portion of the landscaped area having plants with similar water needs and typically irrigated by one valve/controller station. A hydrozone may be irrigated or non-irrigated. For example, a naturalized area planted with native vegetation that will not need supplemental irrigation once established is a non-irrigated hydrozone.

"Irrigation efficiency" means the measurement of the amount of water beneficially used, divided by the amount of water applied. Irrigation efficiency is derived from measurements and estimates of irrigation system characteristics and management practices. The irrigation efficiency for purposes of the landscape water efficiency provisions are 0.75 for overhead spray devices and 0.81 for drip systems.

"Landscaped area" means all the planting areas, turf areas, and water features in a landscape design plan subject to the Maximum Applied Water Allowance and Estimated Applied Water Use Calculations. The landscaped area does not include footprints of buildings or structures, sidewalks, driveways, parking lots, decks, patios, gravel or stone walks, other pervious or non-pervious hardscapes, and other non-irrigated areas designated for non-development (e.g., open spaces and existing native vegetation).

"Landscape contractor" means a person licensed by the State of California to construct, maintain, repair, install, or subcontract the development of landscape systems.

"Landscape documentation package" means the documents required to be provided to the City for review and approval of landscape design projects, as described in the *Guidelines*.

"Landscape project" means total area of landscape in a project, as provided in the definition of "landscaped area," meeting the requirements under Section 9.12.040.085, paragraphs A, B, and C of this chapter.

"Landscape water efficiency provisions" means the following sections and paragraphs of this chapter relating to landscape water efficiency: Sections 9.12.040.070; 9.12.040.075; 9.12.040.085; 9.12.040.090 (introductory paragraph); 9.12.040.090 paragraphs B, P, Q, R, S and T; and 9.12.040.110 paragraph C.

"Local agency" means a local water purveyor or city or county, including a charter city or charter county, that is authorized by the City to implement, administer, and/or enforce any of the landscape water efficiency provisions on behalf of the City. The local agency may be responsible for the enforcement or delegation of enforcement of the landscape water efficiency provisions, including, but not limited to, design review, plan check, issuance of permits, and inspection of a landscape project.

"Local water purveyor" means any entity, including a public agency, city, county, or private water company that provides retail water service.

"Maximum applied water allowance" or "MAWA" means the upper limit of annual applied water for the established landscaped area as specified in the *Guidelines*. The "MAWA" is based upon the area's reference evapotranspiration, the ET adjustment factor, and the size of the landscaped area. The estimated applied water use shall not exceed the maximum applied water allowance. $MAWA = (ET_o) (0.62) [(ETAF \times LA) + ((1-ETAF) \times SLA)]$.

"Mined-land reclamation projects" means any surface mining operation with a reclamation plan approved in accordance with the Surface Mining and Reclamation Act of 1975.

"New construction" means, for the purposes of this section, a new building with a landscape or other new landscape such as a park, playground, or greenbelt without an associated building.

“Non-pervious” means any surface or natural material that does not allow for the passage of water through the material and into the underlying soil.

“Overspray” means the irrigation water that is delivered beyond the target landscaped area.

“Pervious” means any surface or material that allows the passage of water through the material and into the underlying soil.

“Permit” means an authorizing document issued by local agencies for new construction or rehabilitated landscape.

“Plant factor” or “plant water use factor” is a factor, when multiplied by ETo, that estimates the amount of water needed by plants. For purposes of the landscape water efficiency provisions, the plant factor range for very low water use plants is 0 to 0.1; the plant factor range for low water use plants is 0 to 0.3; the plant factor range for moderate water use plants is 0.4 to 0.6; and the plant factor range for high water use plants is 0.7 to 1.0. Plant factors cited in the landscape water efficiency provisions are derived from the publication “Water Use Classification of Landscape Species.” Plant factors may also be obtained from horticultural researchers from academic institutions or professional associations as approved by the California Department of Water Resources (DWR).

“Recycled water” or “reclaimed water” means treated or recycled waste water of a quality suitable for non-potable uses such as landscape irrigation and water features. This water is not intended for human consumption.

“Reference evapotranspiration” or “ETo” means a standard measurement of environmental parameters which affect the water use of plants. ETo is expressed in inches per day, month, or year as represented in the Guidelines, and is an estimate of the evapotranspiration of a large field of four- to seven-inch tall, cool-season grass that is well watered. Reference evapotranspiration is used as the basis for determining the maximum applied water allowances.

“Rehabilitated landscape” means any re-landscaping project that meets the applicability criteria of Section 9.08.040.055.A, where the modified landscape area is greater than 2,500 square feet.

“Runoff” means water that is not absorbed by the soil or landscape to which it is applied and flows from the landscaped area. For example, runoff may result from water that is applied

at too great a rate (application rate exceeds infiltration rate) or when there is a slope.

"Smart automatic irrigation controller" means a timing device with non-volatile memory used to remotely control valves that operate an irrigation system and which is able to self-adjust and schedule irrigation events using either evapotranspiration (weather-based) or soil moisture data.

"Special landscape area" means an area of the landscape dedicated solely to edible plants such as orchards and vegetable gardens, areas irrigated with recycled water, water features using recycled water, and areas dedicated to active play such as parks, sports fields, golf courses, and where turf provides a playing surface.

"Turf" means a ground cover surface of mowed grass. Annual bluegrass, Kentucky bluegrass, Perennial ryegrass, Red fescue, and Tall fescue are cool-season grasses. Bermudagrass, Kikuyugrass, Seashore Paspalum, St. Augustine grass, Zoysiagrass, and Buffalo grass are warm-season grasses.

"Valve" means a device used to control the flow of water in an irrigation system.

"Water Conservation Program" means the provisions set forth in Chapter 14.40 of the Garden Grove Municipal Code, as it may be amended from time to time, and implementing regulations promulgated by the City.

"Water feature" means a design element where open water performs an aesthetic or recreational function. Water features include ponds, lakes, waterfalls, fountains, artificial streams, spas, and swimming pools (where water is artificially supplied). The surface area of water features is included in the high water use hydrozone of the landscaped area. Constructed wetlands used for on-site wastewater treatment, habitat protection or stormwater best management practices that are not irrigated and used solely for water treatment or stormwater retention are not water features and, therefore, are not subject to the water budget calculation.

Section 9.12.040.085 (Landscaping Water Efficiency) of Section 9.12.040 (Multi-Family Residential Development Standards) of Chapter 9.12 of Title 9 of the Garden Grove Municipal Code is hereby amended and restated to read in its entirety as follows:

9.12.040.085 Landscaping Water Efficiency

A. Beginning February 1, 2016, and consistent with Executive Order No. B-29-15, the landscape water efficiency provisions shall apply to the following landscape projects:

1. New landscape projects with an aggregate landscaped area equal to or greater than 500 square feet requiring a building or landscape permit, plan check, or site plan or other discretionary review;
2. Rehabilitated landscape projects with an aggregate landscaped area equal to or greater than 2,500 square feet requiring a building or landscape permit, plan check, or site plan or other discretionary;
3. New or rehabilitated landscape projects with an aggregate landscaped area of 2,500 square feet or less may comply with the performance requirements of the landscape water efficiency provisions or conform to the prescriptive measures contained in Appendix A of the Guidelines.
4. For new or rehabilitated landscape projects using treated or untreated graywater or rainwater capture on site, any lot or parcel within the project that has less than 2,500 square feet of landscape area and meets the lot or parcel's landscape water requirement (Estimated Total Water Use) entirely with the treated or untreated graywater or though stored rainwater capture on site is subject only to Appendix A of the Guidelines.
5. At cemeteries, Sections 2.9, 2.10, and Appendix C of the Guidelines shall apply to new landscape installations and Sections 2.9, 2.10, and 3 of the Guidelines shall apply to landscape rehabilitation projects.

B. The irrigation efficiency requirements set forth in subsection T.1.c.ii of Section 9.12.040.090 (Landscaping Requirements) shall apply to:

1. All landscaped areas, whether installed prior to or after January 1, 2010; and
2. All landscaped areas installed after February 1, 2016 to which Section 9.12.040.085.A is applicable.

C. The landscape water efficiency provisions do not apply to the following:

1. Registered local, state, or federal historical sites;
2. Ecological restoration projects that do not require a permanent irrigation system; or
3. Mined-land reclamation projects that do not require a permanent irrigation system; or
4. Plant collections, as part of botanical gardens and arboretums open to the public.

D. The following submittals shall be required for all landscape projects subject to the landscape water efficiency provisions:

1. Prior to installation, a landscape documentation package shall be submitted to the City for review and approval of all landscape projects subject to the landscape water efficiency provisions. Any landscape documentation package submitted to the City shall comply with the provisions of the Guidelines.
2. The landscape documentation package shall include a certification by a professional, appropriately licensed in the state of California, stating that the landscape design and water use calculations have been prepared by, or under, the supervision of the licensed professional and are certified to be in compliance with the provisions of this chapter and the Guidelines.
 - a. Landscape and irrigation plans shall be submitted to the City for review and approval with appropriate water use calculations. Water use calculations shall be consistent with calculations contained in the Guidelines and shall be provided to the Water Department, as appropriate, under procedures determined by the City.
 - b. Verification of compliance of the landscape installation with the approved plans shall be obtained through a certificate of completion in conjunction with a certificate of use and occupancy or permit final process, as provided in the Guidelines.

Subsections P through T of Section 9.12.040.090 (Landscaping Requirements) of Section 9.12.040 (Multi-Family Residential Development Standards) Chapter 9.12 of Title 9 of the Garden Grove Municipal Code are hereby amended and restated in their entirety to read as follows:

P. Landscaping and Irrigation Plans Required. Landscape and irrigation plans shall be required for all projects requiring approval by the hearing body and to which the landscape water efficiency provisions apply. Such plans shall be submitted for discretionary approval to the hearing body. Said plans shall be prepared in accordance with requirements and standards established pursuant to this Chapter and the Guidelines (specifically refer to sections on landscape design plan and irrigation design plan).

Q. In addition to the above, the following are requirements that shall apply to the landscape design plan and are more fully explained in the Guidelines (Appendix 1, Title 9):

1. Any plants may be used in a landscaped area, provided the estimated applied water use in the landscaped area does not exceed the maximum applied water allowance, and that the plants meet the specifications set forth in this section. The planting of trees is encouraged wherever it is consistent with the other provisions of this section. To encourage the efficient use of water, the following are highly recommended for inclusion in the landscape design plan: protection, preservation, and selection of non-invasive water-conserving plant, tree, and turf species; selection of plants based on local climate suitability, disease and pest resistance; selection of trees based on applicable City ordinances and guidelines and on size at maturity as appropriate for the planting area; selection of plants from local and regional landscape program plant lists; and selection of plants from local fuel modification plan guidelines.

2. Except as otherwise permitted in accordance with the Guidelines, plants having similar water use shall be grouped together in distinct hydrozones.

3. Plants shall be selected appropriately based upon their adaptability to the climatic, geologic and topographical conditions of the project site. Methods to achieve water efficiency shall include one or more of the following:

- a. Use the Sunset Western Climate Zone System, or equivalent generally accepted models, which takes into account temperature, humidity, elevation, terrain, latitude, and varying degrees of continental and marine influence on local climate;

b. Recognize the horticultural attributes of plants (i.e., mature plant size, invasive surface roots) to minimize damage to property or infrastructure (e.g., buildings, sidewalks, and power lines); allow for adequate soil volume for healthy root growth; and

c. Consider the solar orientation of the site and how plant placement will maximize summer shade and winter solar gain.

R. Irrigation Requirements.

1. All landscaped areas shall be provided with an approved irrigation system that meets the requirements of this Chapter and the Guidelines. An irrigation design plan meeting the design criteria in the Guidelines shall be submitted as part of the landscape documentation package for those projects subject to Section 9.12.040.085.A.

2. Irrigation shall be performed in conformance with the City's Water Conservation Program.

S. System Design. For the efficient use of water, an irrigation system shall meet all the requirements listed in the Irrigation Design Plan provisions of the Guidelines and in the manufacturer's recommendations. The irrigation system and its related components shall be planned and designed to allow for proper installation, management, and maintenance. An irrigation design plan meeting the design criteria of the Guidelines shall be submitted as part of the landscape documentation package. Smart automatic irrigation controllers shall be required for irrigation scheduling in all irrigation systems, recommending U.S. EPA WaterSense labeled devices as applicable.

T. In addition to the above, the following are requirements that shall apply to the landscape design plan.

1. Irrigation Design Criteria.

a. Runoff and Overspray. Soil types and infiltration rate shall be considered when designing irrigation systems. All irrigation systems shall be designed to avoid runoff, low-head drainage, overspray or other similar conditions where irrigation water flows onto non-targeted areas, such as adjacent property, non-irrigated areas, hardscapes (walks, etc.), roadways or structures.

b. Special attention shall be given to avoid runoff on slopes and to avoid overspray on areas less than ten (10) feet in

width in any direction. Such areas shall be irrigated with subsurface irrigation or other means that produce no runoff or overspray.

c. Irrigation Efficiency.

i. For new or rehabilitated landscape projects subject to Section 9.12.040.085.A, the estimated applied water use allowed for the landscaped areas shall not exceed the MAWA calculated using an ET adjustment factor of 0.55 for residential areas and 0.45 for non-residential areas, except for special landscaped areas where the MAWA is calculated using an ET adjustment factor of 1.0; or the design of the landscaped areas shall otherwise be shown to be equivalently water-efficient in a manner acceptable to the City, as provided in the Guidelines.

ii. Irrigation of all landscaped areas shall be conducted in a manner conforming to the rules and requirements, and shall be subject to penalties and incentives, for water conservation and water waste prevention as determined and implemented by the City.

iii. The project applicant shall understand and implement the requirements of the City's Water Conservation Program.

d. Equipment. The Guidelines provide design criteria for irrigation equipment in the "Irrigation Design Plan" provisions.

2. Recycled Water.

a. At such time as recycled water is available, the installation of recycled water irrigation systems (dual distribution systems) shall be required to allow for the current and future use of recycled water.

b. Irrigation systems shall make use of recycled water unless a written exemption has been granted by the local water agency, stating that recycled water meeting all health standards is not available and will not be available in the foreseeable future.

c. The recycled water irrigation systems shall be designed and operated in accordance with all local and State codes.

3. Irrigation Design Plan Specifications. Irrigation systems shall be designed to be consistent with hydrozones. Hydrozone areas shall be designated by number, letter, or other designation on both the

Irrigation Design Plan and the Landscape Design Plan. The irrigation design plan shall be separate from, but use the same format as, the landscape design plan. The scale shall be the same as that used for the landscape design plan. The irrigation design plan shall fully meet those requirements found in the Guidelines, but at a minimum, shall contain:

a. Location and size of separate water meters for the landscape;

b. Location, type and size of all components of the irrigation system, including controllers, main and lateral lines, valves, sprinkler heads, moisture sensing devices, rain switches, quick couplers and backflow prevention devices;

c. Static water pressure at the point of connection to the public water supply;

d. Flow rate (gallons per minute), application rate (inches per hour), and design operating pressure (psi) for each station;

e. Irrigation schedule parameters necessary to program smart timers specified in the landscape design;

f. The following statement: "I have complied with the Landscape Water Efficiency provisions and the design criteria in the Guidelines and applied them accordingly for the efficient use of water in the irrigation design plan;" and

g. The signature of a California-licensed landscape professional.

4. Maximum Applied Water Allowance. A project's maximum applied water allowance shall be calculated in a manner acceptable to the City, as provided in the Guidelines.

5. Irrigation Schedules. For the efficient use of water, all irrigation schedules shall be developed, managed, and evaluated to utilize the minimum amount of water required to maintain plant health. Irrigation schedules shall meet the following criteria:

a. Irrigation scheduling shall be regulated by smart automatic irrigation controllers.

b. Overhead irrigation shall be scheduled in accordance with the City's Water Conservation Program. Operation of the irrigation system outside the normal watering window is allowed for auditing and system maintenance.

6. Certificate of Completion.

a. Landscape project installation shall not proceed until the landscape documentation package has been approved by the City and any ministerial permits required are issued.

b. The project applicant shall notify the City at the beginning of the installation work and at intervals, as necessary, for the duration of the landscape project work to schedule all required inspections.

c. Certification of completion of the landscape project shall be obtained through a certificate of use and occupancy or a permit final. The requirements for the final inspection and permit closure include submittal of:

i. A landscape installation certificate of completion in the form included as Appendix E in the Guidelines, which shall include: (1) certification by a landscape professional that the landscape project has been installed per the approved landscape documentation package; and (2) the following statement: "The landscaping has been installed in substantial conformance with the design plans, and complies with the City of Garden Grove Landscape Water Efficiency Provisions for the efficient use water in the landscape." Where there have been significant changes (as determined by the City) made in the field during construction, these "as-built" or record drawings shall be included with the certificate. A diagram of the irrigation plan showing hydrozones shall be kept with the irrigation controller for subsequent management purposes.

ii. Documentation of the irrigation scheduling parameters used to set the controller(s).

iii. An irrigation audit report from a local agency irrigation auditor or third party certified landscape irrigation auditor, documentation of enrollment in regional or local water purveyors' water conservation programs, and/or documentation that the MAWA and EAWU information for the landscape project has been submitted to the City or other local water purveyor, may be required at the option of the City in accordance with the Guidelines. Landscape audits shall not be conducted by the persons who designed or installed the landscape.

**Section 9.16.040.055 (Definitions) of Section 9.16.040
(Commercial/Office, Industrial Development Standards) of Chapter 9.16 of
Title 9 of the Garden Grove Municipal Code is hereby amended and restated
to read in its entirety as follows:**

9.16.040.055 Landscaping–Definitions

“The following definitions are applicable to this chapter.

“Aggregate landscape areas” pertains to the areas undergoing development as one project or for production home neighborhoods or other situations where multiple parcels are undergoing development as one project, but will eventually be individually owned.

“Applied water” means the portion of water supplied by the irrigation system to the landscape.

“Backflow prevention device” means a safety device used to prevent pollution or contamination of the water supply due to the reverse flow of water from an irrigation system.

“Budget-based tiered-rate structure” means tiered or block rates for irrigation accounts charged by the retail water agency in which the block definition for each customer is derived from lot size or irrigated area and the evapotranspiration requirements of landscaping.

“Community Aesthetics Evaluation” means a process that is performed to ensure the aesthetic standards of the community and irrigation efficiency intent is maintained when a permit, plan check or design review is not required.

“Ecological restoration project” means a project where the site is intentionally altered to establish a defined, indigenous, historic ecosystem.

“Estimated applied water use” or “EAWU” means the average annual total amount of water estimated to be necessary to keep plants in a healthy state, calculated as provided in the Guidelines. It is based on the reference evapotranspiration rate, the size of the landscape area, plant water use factors, and the relative irrigation efficiency of the irrigation system.

“Evapotranspiration adjustment factor” or “ETAF” of 0.55 for residential areas and 0.45 for non-residential areas, that, when applied to reference evapotranspiration, adjusts for plant factors and irrigation efficiency, two major influences upon the amount of water that needs to be applied to the landscape. The ETAF for

new and existing (non-rehabilitated) Special Landscape Area shall not exceed 1.0. The ETAF for existing non-rehabilitated landscapes is 0.8.

"Evapotranspiration rate" means the quantity of water evaporated from adjacent soil surfaces and transpired by plants during a specific time.

"Guidelines" refers to the *Guidelines for Implementation of the Landscape Water Efficiency Provisions*, as adopted by the City Council, and as subsequently amended by resolution of the City Council, which describes procedures, calculations, and requirements for landscape projects subject to the landscape water efficiency provisions. The *Guidelines* are attached to Title 9 as Appendix 1 and may be amended from time to time by resolution of the City Council.

"Hardscapes" means any durable material or feature (pervious or non-pervious) installed in or around a landscaped area, such as pavements, pavers, stonework or walls. Pools and other water features are considered part of the landscaped area and not considered hardscapes for purposes of the landscape water efficiency provisions.

"Hydrozone" means a portion of the landscaped area having plants with similar water needs and typically irrigated by one valve/controller station. A hydrozone may be irrigated or non-irrigated. For example, a naturalized area planted with native vegetation that will not need supplemental irrigation once established is a non-irrigated hydrozone.

"Irrigation efficiency" means the measurement of the amount of water beneficially used, divided by the amount of water applied. Irrigation efficiency is derived from measurements and estimates of irrigation system characteristics and management practices. The irrigation efficiency for purposes of the landscape water efficiency provisions are 0.75 for overhead spray devices and 0.81 for drip systems.

"Landscaped area" means all the planting areas, turf areas, and water features in a landscape design plan subject to the Maximum Applied Water Allowance and Estimated Applied Water Use Calculations. The landscaped area does not include footprints of buildings or structures, sidewalks, driveways, parking lots, decks, patios, gravel or stone walks, other pervious or non-pervious hardscapes, and other non-irrigated areas designated for non-development (e.g., open spaces and existing native vegetation).

“Landscape contractor” means a person licensed by the State of California to construct, maintain, repair, install, or subcontract the development of landscape systems.

“Landscape documentation package” means the documents required to be provided to the City for review and approval of landscape design projects, as described in the *Guidelines*.

“Landscape project” means total area of landscape in a project, as provided in the definition of “landscaped area,” meeting the requirements under Section 9.16.040.065, paragraphs A, B, and C of this chapter.

“Landscape water efficiency provisions” means the following sections and paragraphs of this chapter relating to landscape water efficiency: Sections 9.16.040.050; 9.16.040.055; 9.16.040.065; 9.16.040.070 (introductory paragraph); 9.16.040.070 paragraphs P–T; and 9.16.040.090 paragraph C.

“Local agency” means a local water purveyor or city or county, including a charter city or charter county, that is authorized by the City to implement, administer, and/or enforce any of the landscape water efficiency provisions on behalf of the City. The local agency may be responsible for the enforcement or delegation of enforcement of the landscape water efficiency provisions, including, but not limited to, design review, plan check, issuance of permits, and inspection of a landscape project.

“Local water purveyor” means any entity, including a public agency, city, county, or private water company that provides retail water service.

“Maximum applied water allowance” or “MAWA” means the upper limit of annual applied water for the established landscaped area as specified in the *Guidelines*. The “MAWA” is based upon the area’s reference evapotranspiration, the ET adjustment factor, and the size of the landscaped area. The estimated applied water use shall not exceed the maximum applied water allowance. $MAWA = (ET_o) (0.62) [(ETAF \times LA) + ((1-ETAF) \times SLA)]$.

“Mined-land reclamation projects” means any surface mining operation with a reclamation plan approved in accordance with the Surface Mining and Reclamation Act of 1975.

“New construction” means, for the purposes of this section, a new building with a landscape or other new landscape such as a park, playground, or greenbelt without an associated building.

"Non-pervious" means any surface or natural material that does not allow for the passage of water through the material and into the underlying soil.

"Overspray" means the irrigation water that is delivered beyond the target landscaped area.

"Pervious" means any surface or material that allows the passage of water through the material and into the underlying soil.

"Permit" means an authorizing document issued by local agencies for new construction or rehabilitated landscape.

"Plant factor" or "plant water use factor" is a factor, when multiplied by ETo, that estimates the amount of water needed by plants. For purposes of the landscape water efficiency provisions, the plant factor range for very low water use plants is 0 to 0.1; the plant factor range for low water use plants is 0 to 0.3; the plant factor range for moderate water use plants is 0.4 to 0.6; and the plant factor range for high water use plants is 0.7 to 1.0. Plant factors cited in the landscape water efficiency provisions are derived from the publication "Water Use Classification of Landscape Species." Plant factors may also be obtained from horticultural researchers from academic institutions or professional associations as approved by the California Department of Water Resources (DWR).

"Recycled water" or "reclaimed water" means treated or recycled waste water of a quality suitable for non-potable uses such as landscape irrigation and water features. This water is not intended for human consumption.

"Reference evapotranspiration" or "ETo" means a standard measurement of environmental parameters which affect the water use of plants. ETo is expressed in inches per day, month, or year as represented in the Guidelines, and is an estimate of the evapotranspiration of a large field of four- to seven-inch tall, cool-season grass that is well watered. Reference evapotranspiration is used as the basis for determining the maximum applied water allowances.

"Rehabilitated landscape" means any re-landscaping project that meets the applicability criteria of Section 9.08.040.055.A, where the modified landscape area is greater than 2,500 square feet.

"Runoff" means water that is not absorbed by the soil or landscape to which it is applied and flows from the landscaped area. For example, runoff may result from water that is applied

at too great a rate (application rate exceeds infiltration rate) or when there is a slope.

“Smart automatic irrigation controller” means a timing device with non-volatile memory used to remotely control valves that operate an irrigation system and which is able to self-adjust and schedule irrigation events using either evapotranspiration (weather-based) or soil moisture data.

“Special landscape area” means an area of the landscape dedicated solely to edible plants such as orchards and vegetable gardens, areas irrigated with recycled water, water features using recycled water, and areas dedicated to active play such as parks, sports fields, golf courses, and where turf provides a playing surface.

“Turf” means a ground cover surface of mowed grass. Annual bluegrass, Kentucky bluegrass, Perennial ryegrass, Red fescue, and Tall fescue are cool-season grasses. Bermudagrass, Kikuyugrass, Seashore Paspalum, St. Augustine grass, Zoysiagrass, and Buffalo grass are warm-season grasses.

“Valve” means a device used to control the flow of water in an irrigation system.

“Water Conservation Program” means the provisions set forth in Chapter 14.40 of the Garden Grove Municipal Code, as it may be amended from time to time, and implementing regulations promulgated by the City.

“Water feature” means a design element where open water performs an aesthetic or recreational function. Water features include ponds, lakes, waterfalls, fountains, artificial streams, spas, and swimming pools (where water is artificially supplied). The surface area of water features is included in the high water use hydrozone of the landscaped area. Constructed wetlands used for on-site wastewater treatment, habitat protection or stormwater best management practices that are not irrigated and used solely for water treatment or stormwater retention are not water features and, therefore, are not subject to the water budget calculation.

Section 9.16.040.065 (Landscaping-Water Efficiency) of Section 9.16.040 (Commercial/Office, Industrial Development Standards) of Chapter 9.16 of Title 9 of the Garden Grove Municipal Code is hereby amended and restated to read in its entirety as follows:

9.16.040.065 Landscaping Water Efficiency

A. Beginning February 1, 2016, and consistent with Executive Order No. B-29-15, the landscape water efficiency provisions shall apply to the following landscape projects:

1. New landscape projects with an aggregate landscaped area equal to or greater than 500 square feet requiring a building or landscape permit, plan check, or site plan or other discretionary review;
2. Rehabilitated landscape projects with an aggregate landscaped area equal to or greater than 2,500 square feet requiring a building or landscape permit, plan check, or site plan or other discretionary;
3. New or rehabilitated landscape projects with an aggregate landscaped area of 2,500 square feet or less may comply with the performance requirements of the landscape water efficiency provisions or conform to the prescriptive measures contained in Appendix A of the Guidelines.
4. For new or rehabilitated landscape projects using treated or untreated graywater or rainwater capture on site, any lot or parcel within the project that has less than 2,500 square feet of landscape area and meets the lot or parcel's landscape water requirement (Estimated Total Water Use) entirely with the treated or untreated graywater or though stored rainwater capture on site is subject only to Appendix A of the Guidelines.
5. At cemeteries, Sections 2.9, 2.10, and Appendix C of the Guidelines shall apply to new landscape installations and Sections 2.9, 2.10, and 3 of the Guidelines shall apply to landscape rehabilitation projects.

B. The irrigation efficiency requirements set forth in subsection T.1.c.ii of Section 9.16.040.070 (Landscaping Requirements) shall apply to:

1. All landscaped areas, whether installed prior to or after January 1, 2010; and
2. All landscaped areas installed after February 1, 2016 to which Section 9.16.040.065.A is applicable.

C. The landscape water efficiency provisions do not apply to the following:

1. Registered local, state, or federal historical sites;
2. Ecological restoration projects that do not require a permanent irrigation system; or
3. Mined-land reclamation projects that do not require a permanent irrigation system; or
4. Plant collections, as part of botanical gardens and arboretums open to the public.

D. The following submittals shall be required for all landscape projects subject to the landscape water efficiency provisions:

1. Prior to installation, a landscape documentation package shall be submitted to the City for review and approval of all landscape projects subject to the landscape water efficiency provisions. Any landscape documentation package submitted to the City shall comply with the provisions of the Guidelines.
2. The landscape documentation package shall include a certification by a professional, appropriately licensed in the State of California, stating that the landscape design and water use calculations have been prepared by, or under, the supervision of the licensed professional and are certified to be in compliance with the provisions of this chapter and the Guidelines.
 - a. Landscape and irrigation plans shall be submitted to the City for review and approval with appropriate water use calculations. Water use calculations shall be consistent with calculations contained in the Guidelines and shall be provided to the Water Department, as appropriate, under procedures determined by the City.
 - b. Verification of compliance of the landscape installation with the approved plans shall be obtained through a certificate of completion in conjunction with a certificate of use and occupancy or permit final process, as provided in the Guidelines.

Subsections P through T of Section 9.16.040.070 (Landscaping Requirements) of Section 9.16.040 (Commercial/Office, Industrial Development Standards) Chapter 9.16 of Title 9 of the Garden Grove Municipal Code are hereby amended and restated in their entirety to read as follows:

P. Landscaping and Irrigation Plans Required. Landscape and irrigation plans shall be required for all projects requiring approval by the hearing body and to which the landscape water efficiency provisions apply. Such plans shall be submitted for discretionary approval to the hearing body. Said plans shall be prepared in accordance with requirements and standards established pursuant to this Chapter and the Guidelines (specifically refer to sections on landscape design plan and irrigation design plan).

Q. In addition to the above, the following are requirements that shall apply to the landscape design plan and are more fully explained in the Guidelines (Appendix 1, Title 9):

1. Any plants may be used in a landscaped area, provided the estimated applied water use in the landscaped area does not exceed the maximum applied water allowance, and that the plants meet the specifications set forth in this section. The planting of trees is encouraged wherever it is consistent with the other provisions of this section. To encourage the efficient use of water, the following are highly recommended for inclusion in the landscape design plan: protection, preservation, and selection of non-invasive water-conserving plant, tree, and turf species; selection of plants based on local climate suitability, disease and pest resistance; selection of trees based on applicable City ordinances and guidelines and on size at maturity as appropriate for the planting area; selection of plants from local and regional landscape program plant lists; and selection of plants from local fuel modification plan guidelines.

2. Except as otherwise permitted in accordance with the Guidelines, plants having similar water use shall be grouped together in distinct hydrozones.

3. Plants shall be selected appropriately based upon their adaptability to the climatic, geologic and topographical conditions of the project site. Methods to achieve water efficiency shall include one or more of the following:

- a. Use the Sunset Western Climate Zone System, or equivalent generally accepted models, which takes into account temperature, humidity, elevation, terrain, latitude, and varying degrees of continental and marine influence on local climate;

b. Recognize the horticultural attributes of plants (i.e., mature plant size, invasive surface roots) to minimize damage to property or infrastructure (e.g., buildings, sidewalks, and power lines); allow for adequate soil volume for healthy root growth; and

c. Consider the solar orientation of the site and how plant placement will maximize summer shade and winter solar gain.

R. Irrigation Requirements.

1. All landscaped areas shall be provided with an approved irrigation system that meets the requirements of this Chapter and the Guidelines. An irrigation design plan meeting the design criteria in the Guidelines shall be submitted as part of the landscape documentation package for those projects subject to Section 9.16.040.065.A.

2. Irrigation shall be performed in conformance with the City's Water Conservation Program.

S. System Design. For the efficient use of water, an irrigation system shall meet all the requirements listed in the Irrigation Design Plan provisions of the Guidelines and in the manufacturer's recommendations. The irrigation system and its related components shall be planned and designed to allow for proper installation, management, and maintenance. An irrigation design plan meeting the design criteria of the Guidelines shall be submitted as part of the landscape documentation package. Smart automatic irrigation controllers shall be required for irrigation scheduling in all irrigation systems, recommending U.S. EPA WaterSense labeled devices as applicable.

T. In addition to the above, the following are requirements that shall apply to the landscape design plan.

1. Irrigation Design Criteria.

a. Runoff and Overspray. Soil types and infiltration rate shall be considered when designing irrigation systems. All irrigation systems shall be designed to avoid runoff, low-head drainage, overspray or other similar conditions where irrigation water flows onto non-targeted areas, such as adjacent property, non-irrigated areas, hardscapes (walks, etc.), roadways or structures.

b. Special attention shall be given to avoid runoff on slopes and to avoid overspray on areas less than ten (10)

feet in width in any direction. Such areas shall be irrigated with subsurface irrigation or other means that produce no runoff or overspray.

c. Irrigation Efficiency.

- i. For new or rehabilitated landscape projects subject to Section 9.16.040.065.A, the estimated applied water use allowed for the landscaped areas shall not exceed the MAWA calculated using an ET adjustment factor of 0.55 for residential areas and 0.45 for non-residential areas, except for special landscaped areas where the MAWA is calculated using an ET adjustment factor of 1.0; or the design of the landscaped areas shall otherwise be shown to be equivalently water-efficient in a manner acceptable to the City, as provided in the Guidelines.
- ii. Irrigation of all landscaped areas shall be conducted in a manner conforming to the rules and requirements, and shall be subject to penalties and incentives, for water conservation and water waste prevention as determined and implemented by the City.
- iii. The project applicant shall understand and implement the requirements of the City's Water Conservation Program.

d. Equipment. The Guidelines provide design criteria for irrigation equipment in the "Irrigation Design Plan" provisions.

2. Recycled Water.

- a. At such time as recycled water is available, the installation of recycled water irrigation systems (dual distribution systems) shall be required to allow for the current and future use of recycled water.
- b. Irrigation systems shall make use of recycled water unless a written exemption has been granted by the local water agency, stating that recycled water meeting all health standards is not available and will not be available in the foreseeable future.
- c. The recycled water irrigation systems shall be designed and operated in accordance with all local and State codes.

3. Irrigation Design Plan Specifications. Irrigation systems shall be designed to be consistent with hydrozones. Hydrozone areas shall be designated by number, letter, or other designation on both the Irrigation Design Plan and the Landscape Design Plan. The irrigation design plan shall be separate from, but use the same format as, the landscape design plan. The scale shall be the same as that used for the landscape design plan. The irrigation design plan shall fully meet those requirements found in the Guidelines, but at a minimum, shall contain:

a. Location and size of separate water meters for the landscape;

b. Location, type and size of all components of the irrigation system, including controllers, main and lateral lines, valves, sprinkler heads, moisture sensing devices, rain switches, quick couplers and backflow prevention devices;

c. Static water pressure at the point of connection to the public water supply;

d. Flow rate (gallons per minute), application rate (inches per hour), and design operating pressure (psi) for each station;

e. Irrigation schedule parameters necessary to program smart timers specified in the landscape design;

f. The following statement: "I have complied with the Landscape Water Efficiency provisions and the design criteria in the Guidelines and applied them accordingly for the efficient use of water in the irrigation design plan;" and

g. The signature of a California-licensed landscape professional.

4. Maximum Applied Water Allowance. A project's maximum applied water allowance shall be calculated in a manner acceptable to the City, as provided in the Guidelines.

5. Irrigation Schedules. For the efficient use of water, all irrigation schedules shall be developed, managed, and evaluated to utilize the minimum amount of water required to maintain plant health. Irrigation schedules shall meet the following criteria:

a. Irrigation scheduling shall be regulated by smart automatic irrigation controllers.

b. Overhead irrigation shall be scheduled in accordance with the City's Water Conservation Program. Operation of the irrigation system outside the normal watering window is allowed

for auditing and system maintenance.

6. Certificate of Completion.

a. Landscape project installation shall not proceed until the landscape documentation package has been approved by the City and any ministerial permits required are issued.

b. The project applicant shall notify the City at the beginning of the installation work and at intervals, as necessary, for the duration of the landscape project work to schedule all required inspections.

c. Certification of completion of the landscape project shall be obtained through a certificate of use and occupancy or a permit final. The requirements for the final inspection and permit closure include submittal of:

- i. A landscape installation certificate of completion in the form included as Appendix E in the Guidelines, which shall include: (1) certification by a landscape professional that the landscape project has been installed per the approved landscape documentation package; and (2) the following statement: "The landscaping has been installed in substantial conformance with the design plans, and complies with the City of Garden Grove Landscape Water Efficiency Provisions for the efficient use water in the landscape." Where there have been significant changes (as determined by the City) made in the field during construction, these "as-built" or record drawings shall be included with the certificate. A diagram of the irrigation plan showing hydrozones shall be kept with the irrigation controller for subsequent management purposes.
- ii. Documentation of the irrigation scheduling parameters used to set the controller(s).
- iii. An irrigation audit report from a local agency irrigation auditor or third party certified landscape irrigation auditor, documentation of enrollment in regional or local water purveyors' water conservation programs, and/or documentation that the MAWA and EAWU information for the landscape project has been submitted to the City or other local water purveyor, may be required at the option of the City in accordance with the Guidelines. Landscape

audits shall not be conducted by the persons who designed or installed the landscape.

Section 9.18.120.025 (Water Efficiency Requirements) of Section 9.18.120 (Landscaping) of Chapter 9.18 (Mixed Use Regulations and Development Standards) of Title 9 of the Garden Grove Municipal Code is hereby amended and restated to read in its entirety as follows:

9.18.120.020 Water Efficiency Requirements

A. Applicability. The "landscape water efficiency provisions" set forth below and in Chapters 9.08, 9.12, and 9.16 of this Code (as defined in Sections 9.08.040.045, 9.12.040.075, and 9.16.040.055) shall apply to all development and landscape projects subject to this Chapter 9.18. Beginning February 1, 2016, and consistent with Executive Order No. B-29-15, the landscape water efficiency provisions shall apply to the following landscape projects:

1. New landscape projects with an aggregate landscaped area equal to or greater than 500 square feet requiring a building or landscape permit, plan check, or site plan or other discretionary review;
2. Rehabilitated landscape projects with an aggregate landscaped area equal to or greater than 2,500 square feet requiring a building or landscape permit, plan check or site plan or other discretionary review;
3. New or rehabilitated landscape projects with an aggregate landscaped area of 2,500 square feet or less may comply with the performance requirements of the landscape water efficiency provisions or conform to the prescriptive measures contained in Appendix A of the Guidelines.
4. For new or rehabilitated landscape projects using treated or untreated graywater or rainwater capture on site, any lot or parcel within the project that has less than 2,500 square feet of landscape area and meets the lot or parcel's landscape water requirement (Estimated Total Water Use) entirely with the treated or untreated graywater or though stored rainwater capture on site is subject only to Appendix A of the Guidelines.
5. At cemeteries, Sections 2.9, 2.10, and Appendix C of the Guidelines shall apply to new landscape installations and Sections 2.9, 2.10, and 3 of the Guidelines shall apply to landscape rehabilitation projects.

B. Exceptions. The landscape water efficiency provisions do not apply to the following:

1. Registered local, state, or federal historical sites;

2. Ecological restoration projects that do not require a permanent irrigation system; or
3. Mined-land reclamation projects that do not require a permanent irrigation system; or
4. Plant collections, as part of botanical gardens and arboretums open to the public.

C. Irrigation Design Criteria. Water-efficient irrigation design criteria, as set forth in this section, shall apply to: all landscaped areas, whether installed prior to or after January 1, 2010; and all landscaped areas installed after February 1, 2016 to which this Section 9.18.120.020 is applicable.

1. Runoff and Overspray. Soil types and infiltration rate shall be considered when designing irrigation systems. All irrigation systems shall be designed to avoid runoff, low-head drainage, overspray or other similar conditions where irrigation water flows onto non-targeted areas, such as adjacent property, non-irrigated areas, hardscapes (walks, etc.), roadways or structures.
2. Special attention shall be given to avoid runoff on slopes and to avoid overspray on areas less than ten (10) feet in width in any direction. Such areas shall be irrigated with subsurface irrigation or other means that produce no runoff or overspray.
3. Irrigation Efficiency.
 - a. For new or rehabilitated landscape projects subject to Section 9.18.120.020.A, the estimated applied water use allowed for the landscaped areas shall not exceed the MAWA calculated using an ET adjustment factor of 0.55 for residential areas and 0.45 for non-residential areas, except for special landscaped areas where the MAWA is calculated using an ET adjustment factor of 1.0; or the design of the landscaped areas shall otherwise be shown to be equivalently water-efficient in a manner acceptable to the City, as provided in the Guidelines.
 - b. Irrigation of all landscaped areas shall be conducted in a manner conforming to the rules and requirements, and shall be subject to penalties and incentives, for water conservation and water waste prevention as determined and implemented by the City.

c. The project applicant shall understand and implement the requirements of the City's Water Conservation Program.

d. Equipment. The Guidelines provide design criteria for irrigation equipment in the "Irrigation Design Plan" provisions.

D. Documentation Required. The following shall be required of all landscape projects subject to these landscape water efficiency provisions.

1. Prior to installation, a landscape documentation package shall be submitted to the City for review and approval of all landscape projects subject to the landscape water efficiency provisions. Any landscape documentation package submitted to the City shall comply with the provisions of the Guidelines.

2. The landscape documentation package shall include a certification by a professional, appropriately licensed in the State of California, stating that the landscape design and water use calculations have been prepared by, or under, the supervision of the licensed professional and are certified to be in compliance with the provisions of this chapter and the Guidelines.

a. Landscape and irrigation plans shall be submitted to the City for review and approval with appropriate water use calculations. Water use calculations shall be consistent with calculations contained in the Guidelines and shall be provided to the Water Department, as appropriate, under procedures determined by the City.

b. Verification of compliance of the landscape installation with the approved plans shall be obtained through a certificate of completion in conjunction with a certificate of use and occupancy or permit final process, as provided in the Guidelines.

E. Landscape Water Efficiency Guidelines. Guidelines for implementation of the City of Garden Grove landscape water efficiency provisions referenced in this chapter have been adopted as an Appendix to Title 9 (Land Use Code) and are maintained on file in the offices of the Planning Division of the Community and Economic Development Department.

Exhibit “B”
GUIDELINES
FOR IMPLEMENTATION OF THE
CITY OF GARDEN GROVE
LANDSCAPE WATER EFFICIENCY
PROVISIONS
(APPENDIX 1, TITLE 9)

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1. Purpose and Applicability

1.1 Purpose

- (A) The primary purpose of these Guidelines is to provide procedural and design guidance for *project applicants* proposing landscape installation or rehabilitation projects that are subject to the requirements of the *Landscape Water Efficiency Provisions* in Title 9. This document is also intended for use and reference by *City* staff in reviewing and approving designs and verifying compliance with the *Landscape Water Efficiency Provisions*. The general purpose of the *Landscape Water Efficiency Provisions* is to promote the design, installation, and maintenance of landscaping in a manner that conserves regional water resources by ensuring that landscaping projects are not unduly water-needy and that irrigation systems are appropriately designed and installed to minimize water waste.

- (B) Other regulations affecting landscape design and maintenance practices are potentially applicable and should be consulted for additional requirements. These regulations include but may not be limited to:
 - (1) State of California Assembly Bill 1881;
 - (2) National Pollutant Discharge Elimination Permit for the Municipal Separate Storm Sewer System;
 - (3) Orange County Fire Authority Regulations for Fuel Modification in the Landscape;
 - (4) Water Conservation and Drought Response Regulations of the Local Water Purveyor;
 - (5) Regulations of the Local Water Purveyor governing use of *Recycled Water*;
 - (6) Zoning Code;
 - (7) Building Code;
 - (8) Specific Plans, Master Plans, General Plan, or similar land use and planning documents; and
 - (9) Conditions of approval for a specific project

1.2 Applicability

- (A) The *Landscape Water Efficiency Provisions* and these Guidelines apply to all of the following landscape projects:

- (1) New landscape projects with an *aggregate* landscape area equal to or greater than 500 square feet, requiring a building or landscape permit, plan check or design review;
 - (2) Rehabilitated landscape projects with an *aggregate* landscape area equal to or greater than 2,500 square feet, requiring a building or landscape permit, plan check or design review;
 - (3) New or rehabilitated landscape projects with an *aggregate* landscape area of 2,500 square feet or less may comply with the performance requirements of the *Landscape Water Efficiency Provisions* or conform to the prescriptive measures contained in Appendix A ;
 - (4) For new or rehabilitated projects using treated or untreated *graywater* or rainwater capture on site, any lot or parcel within the project that has less than 2,500 square feet of landscape area and meets the lot or parcel's landscape water requirement (Estimated Total Water Use) entirely with the treated or untreated *graywater* or though stored rainwater capture on site is subject only to Appendix A Section (5).
- (B) The requirements of the Guidelines may be partially or wholly waived, at the discretion of the *City* or its designee, for landscape rehabilitation projects that are limited to replacement plantings with equal or lower water needs and where the irrigation system is found to be designed, operable and programmed consistent with minimizing water waste in accordance with local water purveyor regulations.
- (C) Unless otherwise determined by the *City*, the *Landscape Water Efficiency Provisions* and these Guidelines do not apply to:
- (1) Registered local, state, or federal historical sites;
 - (2) Ecological restoration projects that do not require a permanent irrigation system;
 - (3) Mined-land reclamation projects that do not require a permanent irrigation system; or
 - (4) Plant collections, as part of botanical gardens, and arboretums open to the public.

2. Submittal Requirements for New Landscape Installations or Landscape Rehabilitation Projects

- (A) Discretionary approval is typically required for landscape projects that are subject to site plan reviews, or where a variance from a local building code is requested, or other procedural processes apply such that standard or special conditions of

approval may be required by the *City*. Discretionary projects with conditions of approval may be approved administratively by *City* staff, or acted on formally by the Planning Commission, *City* Council, or other jurisdictional authority. A typical standard condition of approval reads:

“Landscaping for the project shall be designed to comply with the City’s Landscape Water Efficiency Provisions and with the Guidelines for Implementation of the Landscape Water Efficiency Provisions.”

Landscape or *water features* that typically require a ministerial permit (i.e., a building, plumbing, electrical, or other similar permit), thereby triggering compliance with the Landscape Water Efficiency Provisions independently of the need for discretionary approval include, but are not limited to, swimming pools, fountains or ponds, retaining walls, and overhead trellises.

2.2 Elements of the Landscape Documentation Package

- (A) A *Landscape Documentation Package* is required to be submitted by the *project applicant* for review and approval prior to the issuance of ministerial permits for landscape or *water features* by the *City*, and prior to start of construction. Unless otherwise directed by the *City*, the *Landscape Documentation Package* shall include the following elements either on plan sheets or supplemental pages as directed by the *City*:
- (1) Project Information, including, but not limited to, the following:
 - (a) Date;
 - (b) Project name;
 - (c) Project address, parcel, and/or lot number(s);
 - (d) Total *landscape area* (square feet) and rehabilitated *landscape area* (if applicable);
 - (e) Project type (e.g., new, rehabilitated, public, private, cemetery, homeowner-installed);
 - (f) Water supply type (e.g., potable, recycled, or well) and identification of the local retail water purveyor if the *project applicant* is not served by a private well;
 - (g) Checklist or index of all documents in the *Landscape Documentation Package*;
 - (h) Project contacts, including contact information for the *project applicant* and *property owner*;

- (i) *Certification of Design* in accordance with **Appendix B** of these *Guidelines* that includes a *landscape professional's* professional stamp, as applicable, signature, contact information (including email and telephone number), license number, and date, certifying the statement that “The design of this project complies with the requirements of the *City's Landscape Water Efficiency Provisions*” and shall bear the signature of the *landscape professional* as required by law; and
 - (j) Any other information the *City* deems relevant for determining whether the landscape project complies with the *Landscape Water Efficiency Provisions* and these *Guidelines*.
- (2) *Maximum Applied Water Allowance (MAWA)* and *Estimated Applied Water Use (EAWU)* expressed as annual totals including, but not limited to, the following:
 - (a) *Water Efficient Landscape Worksheet* (optional at discretion of the *City*) for the landscape project;
 - (b) *Hydrozone* information table (optional at the discretion of the *City*) for the landscape project; and
 - (c) Water budget calculations (optional at the discretion of the *City*) for the landscape project.
 - (3) A soil management report or specifications, or specification provision requiring soil testing and amendment recommendations and implementation to be accomplished during construction of the landscape project.
 - (4) A landscape design plan for the landscape project.
 - (5) An irrigation design plan for the landscape project.
 - (6) A grading design plan, unless grading information is included in the landscape design plan for the landscape project or unless the landscape project is limited to replacement planting and/or irrigation to rehabilitate an existing landscape area.

[Note: Authority Cited: Section 65595, Government Code. Reference: Section 65596, Government Code.]

2.3 Water Efficient Landscape Calculations and Alternatives

- (A) The *project applicant* shall provide the calculated *Maximum Applied Water Allowance (MAWA)* and *Estimated Applied Water Use (EAWU)* for the landscape area as part of the *Landscape Documentation Package* submittal to the *City*. The

MAWA and EAWU shall be calculated based on completing the *Water Efficient Landscape Worksheets* (in accordance with the sample worksheets in **Appendix C**) which contain information on the *plant factor*, irrigation method, *irrigation efficiency* and area associated with each *hydrozone*. Calculations are then made to show that the *evapotranspiration adjustment factor* (ETAF) for the landscape project does not exceed a factor of 0.55 for residential areas and 0.45 for non-residential areas, exclusive of *Special Landscape Areas*. The ETAF for a landscape project is based on the *plant factors* and irrigation methods selected. The *Maximum Applied Water Allowance* is calculated based on the maximum ETAF allowed (0.55 for residential areas and 0.45 for non-residential areas) and expressed as annual gallons required. The EAWU is calculated based on the plants used and irrigation method selected for the landscape design.

- (B) The EAWU allowable for the landscape area shall not exceed the MAWA. The MAWA shall be calculated using an *evapotranspiration adjustment factor* (ETAF) of 0.55 for residential areas and 0.45 for non-residential areas, except for the portion of the MAWA applicable to any *Special Landscape Areas* within the landscape project, which shall be calculated using an ETAF of 1.0. Where the design of the landscape area can otherwise be shown to be equivalently water-efficient, the *project applicant* may submit alternative or abbreviated information supporting the demonstration that the annual EAWU is less than the MAWA, at the discretion of and for the review and approval of the local agency.
- (C) Water budget calculations shall adhere to the following requirements:
 - (1) The *MAWA* shall be calculated using the *Water Efficient Landscape Worksheets* and equation presented in **Appendix C**.
 - (2) The *EAWU* shall be calculated using the *Water Efficient Landscape Worksheet* and equations presented in **Appendix C**.
 - (3) For the calculation of the *MAWA* and *EAWU*, a *project applicant* shall use the *ETo* values from the closest location listed the *Reference Evapotranspiration* Table in **Appendix D**. For geographic areas not covered in **Appendix D**, data from other cities, or zip codes, located nearby in the same *reference evapotranspiration* zone may be used.
 - (4) For calculation of the *EAWU*, the *plant water use factor* shall be determined as appropriate to the project location from the *Water Use Efficiency of Landscape Species (WUCOLS)* Species Evaluation List or from horticultural researchers with academic institutions or professional associations as approved by the California Department of water Resources (DWR). The *plant factor* ranges from 0 to 0.1 for very low water use plants, 0.1 to 0.3 for low water use plants, 0.4 to 0.6 for moderate water use plants, and 0.7 to 1.0 for high water use plants.

- (5) For calculating the *EAWU*, the *plant water use factor* shall be determined for each *valve hydrozone* based on the highest-water-use plant species within the zone. The *plant factor* for each *hydrozone* may be required to be further refined as a “*landscape coefficient*,” according to protocols defined in detail in the *WUCOLS* document, to reflect planting density and *microclimate* effects on water need at the option of the *project applicant* or the *City*.
- (6) For calculation of the *EAWU*, the area of a *water feature* shall be defined as a high water use *hydrozone* with a *plant factor* of 1.0.
- (7) For calculation of the *EAWU*, a temporarily irrigated *hydrozone* area, such as an area of highly drought-tolerant native plants that are not intended to be irrigated after they are fully established, shall be defined as a very low water use *hydrozone* with a *plant factor* of 0.1.
- (8) For calculation of the *MAWA*, the *ETAF* for *Special Landscape Areas (SLA)* shall be set at 1.0. For calculation of the *EAWU*, the *ETAF* for *SLA* shall be calculated as the *SLA plant factor* divided by the *SLA irrigation efficiency factor*.
- (9) *Irrigation efficiency (IE)* of the irrigation heads used within each *hydrozone* shall be assumed to be as follows, unless otherwise indicated by the irrigation equipment manufacturer’s specifications or demonstrated by the *project applicant*:

Irrigation Method	DU _{LQ}	DU _{LH} *	EU	IE**
Spray nozzles	65%	79%		71%
High efficiency spray nozzles	70%	82%		73%
Multi stream/Multi trajectory rotary (MSMT) nozzles	75%	85%		76%
Stream rotor nozzle	70%	82%		73%
Microspray	75%	85%		76%
Bubblers			85%	77%
Drip emitter			90%	81%
Subsurface drip			90%	81%

*DU_{LH} = .386 + (.614)(DU_{LQ})

** IE (spray) = (DU_{LH})(IME)

** IE (drip) = Emission uniformity (EU)(IME)

- (D) The *Maximum Applied Water Allowance* shall adhere to the following requirements:
 - (1) The *Maximum Applied Water Allowance* shall be calculated using the equation presented in **Appendix C**. The *reference evapotranspiration (ET_o)* values used for this calculation are from the *Reference Evapotranspiration Table* in **Appendix D** and are for planning purposes only. For actual irrigation scheduling, automatic irrigation controllers are

required and shall use current *ETo* data, such as from the California Irrigation Management Information System (CIMIS), other equivalent data, or soil moisture sensor data.

2.4 Soil and Stormwater Management

- (A) All planted landscape areas are required to have friable soil to maximize retention and infiltration. On engineered slopes, only amended planting holes need meet this requirement.
- (B) In order to reduce *runoff* and encourage healthy plant growth, a soil management report shall be completed by the *project applicant*, or his/her designee, as follows:
 - (1) Submit soil samples to a certified agronomic soils laboratory for analysis and recommendations.
 - (a) Soil sampling shall be conducted in accordance with laboratory protocol, including protocols regarding adequate sampling depth for the intended plants.
 - (b) The soil analysis may include, but is not limited to:
 1. soil texture;
 2. *infiltration rate* determined by laboratory test or soil texture *infiltration rate* table;
 3. pH;
 4. total soluble salts;
 5. sodium;
 6. percent organic matter; and
 7. recommendations.
 - (2) In projects with multiple landscape installations (i.e. production home developments or *common interest developments* that are installing landscaping) a soil sampling rate of 1 in 7 lots or approximately 15% will satisfy this requirement; evenly disbursed throughout the development. Large landscape projects shall sample at a rate equivalent to 1 in 7 lots or approximately 15% landscape area. The *project applicant*, or his/her designee, shall comply with one of the following:
 - (a) If significant mass grading is not planned, the soil analysis report shall be submitted to the local agency as part of the *Landscape Documentation Package*; or

- (b) If significant mass grading is planned, the soil analysis report shall be submitted to the *City* as part of the *Certification of Completion*.
- (c) The soil analysis report shall be made available, in a timely manner, to the professionals preparing the landscape design plans and irrigation design plans in order to make any necessary adjustments to the design plans.
- (d) The *project applicant*, or his/her designee, shall submit documentation verifying implementation of soil analysis report recommendations to the local agency with the *Certification of Completion*.

[Note: Authority Cited: Section 65595, Government Code. Reference: Section 65596, Government Code.]

- (C) It is strongly recommended that landscape areas be designed for capture and infiltration capacity that is sufficient to prevent *runoff* from impervious surfaces (i.e. roof and paved areas) from additional capacity as required by any applicable local, regional, state, or federal regulation and/or one of the following: the one inch, 24-hour rain event or the 85th percentile, 24-hour rain event.
- (D) It is recommended that storm water projects incorporate any of the following elements to improve on-site stormwater and dry weather *runoff* capture and use:
 - (1) Grade impervious surfaces, such as driveways, during construction to drain into vegetated areas.
 - (2) Minimize the area of impervious surfaces such as paved areas, roof, and concrete driveways.
 - (3) Incorporate *pervious* or porous surfaces (e.g. gravel, permeable pavers or blocks, *pervious* or porous concrete) that minimize *runoff*.
 - (4) Direct *runoff* from paved surfaces and roof areas into planting beds or landscape areas to maximize site water capture and reuse.
 - (5) Incorporate rain gardens, cisterns, and other rain harvesting or catchment systems.
 - (6) Incorporate infiltration beds, swales, basins, and drywells to capture stormwater and dry weather *runoff* and increase percolation into the soil.
 - (7) Consider constructed wetlands and ponds that retain water, equalize excess flow, and filter pollutants.

[Note: Authority cited: Section 65595, Government Code. Reference: Section 65596, Government Code.]

2.5 Landscape Design Plan

- (A) For the efficient use of water, a landscape shall be carefully designed and planned for the intended function of the project. The following design criteria shall be submitted as part of the *Landscape Documentation Package*.
 - (1) Plant Material
 - (a) Any plant may be selected for the *landscape area* provided the *EAWU* in the *landscape area* does not exceed the *MAWA*. Methods to achieve water efficiency shall include one or more of the following:
 - (2) Protection and preservation of non-*invasive* water-conserving plant, tree and *turf* species;
 - (3) Selection of water-conserving plant, tree and *turf* species;
 - (4) Selection of plants based on local climate suitability, disease and pest resistance;
 - (5) Selection of trees based on applicable *City* and local tree ordinances or tree shading guidelines, and size at maturity as appropriate for the planting area; and
 - (6) Selection of plants from local and regional landscape program plant lists.
 - (7) Selection of plants from local Fuel Modification Plan Guidelines.
- (B) Each *hydrozone* shall have plant materials with similar water use; with the exception of *hydrozones* with plants of mixed water use, as specified in Section 2.6(a)(2)(D) of these *Guidelines*.
- (C) Plants shall be selected and planted appropriately based upon their adaptability to the climatic, geologic, and topographical conditions of the project site. Methods to achieve water efficiency shall include one or more of the following:
 - (1) Use the *Sunset* Western Climate Zone System, or equivalent generally accepted models, which takes into account temperature, humidity, elevation, terrain, latitude, and varying degrees of continental and marine influence on local climate;
 - (2) Recognize the horticultural attributes of plants (i.e., mature plant size, *invasive* surface roots) to minimize damage to property or infrastructure (e.g., buildings, sidewalks, and power lines); allow for adequate soil volume for healthy root growth and

- (3) Consider the solar orientation for plant placement to maximize summer shade and winter solar gain.
 - (D) *Turf* is discouraged on slopes greater than 25% where the toe of the slope is adjacent to an impermeable hardscape and where 25% means 1 foot of vertical elevation change for every 4 feet of horizontal length (rise divided by run x 100 = slope percent).
 - (E) High water use plants, characterized by a *plant factor* of 0.7 to 1.0, are prohibited in street medians.
 - (F) A landscape design plan for projects in fire-prone areas and fuel modification zones shall comply with requirements of the local Fire Authority, where applicable. Refer to the local Fuel Modification Plan Guidelines. When conflicts between water conservation and fire safety design elements exist, the fire safety requirements shall have priority.
 - (G) The use of *invasive* plant species, such as those listed by the California Invasive Plant Council, is strongly discouraged.
 - (H) The architectural guidelines of a common interest development, which include community apartment projects, condominiums, planned developments, and stock cooperatives, shall not prohibit or include conditions that have the effect of prohibiting the use of water efficient plant species as a group.
- (1) Water Features
 - (a) Recirculating water systems shall be used for *water features*.
 - (b) Where available and consistent with public health guidelines, *recycled water* shall be used as a source for decorative *water features*.
 - (c) The surface area of a *water feature* shall be included in the high water use *hydrozone* area of the water budget calculation.
 - (d) Pool and spa covers are highly recommended.
 - (2) *Soil Preparation, Mulch* and Amendments
 - (a) Prior to planting of any materials, compacted soils shall be transformed to a friable condition. On engineered slopes, only amended planting holes need to meet this requirement.
 - (b) Soil amendments shall be incorporated according to the recommendations of the soil report and what is appropriate for plants selected.

- (c) For landscape installations, compost at a rate of a minimum of four cubic yards per 1,000 square feet of permeable area shall be incorporated to a depth of six inches into the soil. Soils with greater than 6% organic matter in the top 6 inches of soil are exempt from adding compost and tilling.
 - (d) A minimum three inch (3") layer of *mulch* shall be applied on all exposed soil surfaces of planting areas except in *turf* areas, creeping or rooting groundcovers, or direct seeding applications where *mulch* is contraindicated. To provide habitat for beneficial insects and other wildlife, up to 5% of the landscape area may be left without *mulch*. Designated insect habitat must be included in the landscape design plan as such.
 - (e) Stabilizing mulching products shall be used on slopes that meet current engineering standards such as those detailed in the USDA/USAID Low-Volume Roads Engineering Best Management Practices Field Guide.
 - (f) The mulching portion of the seed/*mulch* slurry in hydro-seeded applications shall meet the mulching requirement.
 - (g) Organic *mulch* materials made from recycled or post-consumer shall take precedence over inorganic materials or virgin forest products unless the recycled post-consumer organic products are not locally available. Organic mulches are not required where prohibited by local fuel Modification Plan Guidelines or other applicable local ordinances.
- (I) The landscape design plan, at a minimum, shall:
- (1) Delineate and label each *hydrozone* by number, letter, or other method;
 - (2) Identify each *hydrozone* as low, moderate, high water, or mixed water use. Temporarily irrigated areas of the *landscape area* shall be included in the low water use *hydrozone* for the water budget calculation;
 - (3) Identify recreational areas;
 - (4) Identify areas permanently and solely dedicated to edible plants;
 - (5) Identify areas irrigated with *recycled water*;
 - (6) Identify type of *mulch* and application depth;
 - (7) Identify soil amendments, type, and quantity;
 - (8) Identify type and surface area of *water features*;

- (9) Identify *hardscapes* (*pervious* and *non-pervious*);
- (10) Identify location and installation details, and 24-hour retention or infiltration capacity of any applicable storm water best management practices that encourage on-site retention and infiltration of storm water. *Project applicants* shall refer to the local agency or regional Water Quality Control Board for information on any applicable stormwater technical requirements. Storm water best management practices are encouraged in the landscape design plan and examples are provided in Section 2.4(C).
- (11) Identify any applicable rain harvesting or catchment technologies (e.g., rain gardens, cisterns, etc.);
- (12) Contain the following statement: “I have complied with the criteria of the *Landscape Water Efficiency Provisions* and applied them for the efficient use of water in the landscape design plan;” and
- (13) Bear the signature of a California-licensed *landscape professional*.

[Note: Authority Cited: Section 65595, Reference: Section 65596, Government Code and Section 1351, Civil Code.]

2.6 Irrigation Design Plan

- (A) This section applies to landscape areas requiring permanent irrigation, not areas that require temporary irrigation solely for the plant establishment period. For the efficient use of water, an irrigation system shall meet all the requirements listed in this section and the manufacturer’s recommendations. The irrigation system and its related components shall be planned and designed to allow for proper installation, management, and maintenance. An irrigation design plan meeting the following design criteria shall be submitted as part of the *Landscape Documentation Package*.

- (1) System

- (a) Landscape water meters, defined as either a dedicated water service meter or private sub meter, shall be installed for all non-residential irrigated landscapes of 1,000 sq. ft. but not more than 5,000 sq. ft. (the level at which Water Code 535 applies) and residential irrigated landscapes of 5,000 sq. ft. or greater. A landscape water meter may be either:

1. A customer service meter dedicated to landscape use provided by the local water purveyor; or
2. A privately owned meter or sub meter.

- (b) Automatic irrigation controllers utilizing either evapotranspiration or soil moisture sensor data with non-volatile memory shall be required for irrigation scheduling in all irrigation systems, recommending U.S. EPA WaterSense labeled devices as applicable.
- (c) *Sensors* (rain, freeze, wind, etc.), either integral or auxiliary, that suspend or alter irrigation operation during unfavorable weather conditions shall be required on all irrigation systems, as appropriate for local climatic conditions. Irrigation should be avoided during windy or freezing weather or during rain.
- (d) If the water pressure is below or exceeds the recommended pressure of the specified irrigation devices, the installation of a pressure regulating device is required to ensure that the dynamic pressure at each emission device is within the manufacturer's recommended pressure range for optimal performance.
 - 1. If the static pressure is above or below the required dynamic pressure of the irrigation system, pressure-regulating devices such as inline pressure regulators, booster pumps, or other devices shall be installed to meet the required dynamic pressure of the irrigation system.
 - 2. *Static water pressure*, dynamic or *operating pressure*, and flow reading of the water supply shall be measured at the point of connection. These pressure and flow measurements shall be conducted at the design stage. If the measurements are not available at the design stage, the measurements shall be conducted at installation.
- (e) *Backflow prevention devices* shall be required to protect the water supply from contamination by the irrigation system. A *project applicant* shall refer to the applicable *City* code (i.e., public health) for additional backflow prevention requirements.
- (f) A *master shutoff valve* shall be as close as possible to the point of connection and is required on all projects; with the exception for landscapes that make use of technologies that allow for the individual control of sprinklers that are individually pressurized in a system equipped with low pressure shut down features.
- (g) *Flow sensors* that detect high flow conditions created by system damage or malfunction are required for all non-residential landscapes and residential landscapes of 5,000 sq. ft. or larger. The flow sensor must be in combination with a *master shut-off valve*.
- (h) *Manual isolation valves* (such as a *gate valve*, *ball valve*, or *butterfly valve*) shall be required downstream of the point of connection of

the water supply to minimize water loss in case of an emergency (such as a *main line* break) or routine repair.

- (i) The irrigation system shall be designed to prevent *runoff*, low head drainage, *overspray*, or other similar conditions where irrigation water flows onto non-targeted areas, such as adjacent property, non-irrigated areas, *hardscapes*, roadways, or structures.
- (j) Relevant information from the soil management plan, such as soil type and *infiltration rate*, shall be utilized when designing irrigation systems.
- (k) The design of the irrigation system shall conform to the *hydrozones* of the landscape design plan.
- (l) All irrigation emission devices must meet the requirements set in the American National Standards Institute (ANSI) standard, American Society of Agricultural and Biological Engineers'/International Code Council's (ASABE/ICC) 802-2014 "Landscape Irrigation Sprinkler and Emitter Standard, All *Sprinkler heads* installed in the landscape must document a *distribution uniformity* low quarter of 0.65 or higher using the protocol defined in ASBE/ICC 802-2014.
- (m) Average *irrigation efficiency* (IE) for the project shall be determined in accordance with the EAWU calculation sheet in **Appendix C**. Unless otherwise indicated by the irrigation equipment manufacturer's specifications or demonstrated by the *project applicant*, the *irrigation efficiency* of the irrigation heads used within each *hydrozone* shall be as listed in Section 2.3(C)(9).
- (n) It is highly recommended that the *project applicant* or local agency inquire with the local water purveyor about peak water operating demands (on the water supply system) or water restrictions that may impact the effectiveness of the irrigation system.
- (o) In *mulched* planting areas, the use of *low volume irrigation (drip or low volume overhead irrigation)* is required to maximize water infiltration into the root zone; with the exception of areas with fuel modification requirements and/or those that require plant establishment to comply with local grading ordinances.
- (p) *Sprinkler heads* and other emission devices shall have matched *precipitation rates*, unless otherwise directed by the manufacturer's recommendations.
- (q) Head to head coverage is recommended. However, sprinkler spacing shall be designed to achieve the highest possible *distribution uniformity* using the manufacturer's recommendations.

- (r) *Swing joint* components are required on all sprinklers subject to damage that are adjacent to *hardscapes* or in high traffic areas of *turf*.
- (s) *Check valves* or *anti-drain valves* are required on all *sprinkler heads* where low point drainage could occur.
- (t) Areas less than ten (10) feet in width in any direction shall be irrigated with subsurface irrigation or other means that produces no *runoff* or *overspray*.
- (u) *Overhead* irrigation shall not be permitted within 24 inches of any non-permeable surface. Allowable irrigation within the setback from non-permeable surfaces may include drip, drip line, or other low flow non-spray technology. The setback area may be planted or unplanted. The surfacing of the setback may be *mulch*, gravel, or other porous material. These restrictions may be modified if:
 1. the *landscape area* is adjacent to permeable surfacing and no *runoff* occurs; or
 2. the adjacent non-permeable surfaces are designed and constructed to drain entirely to landscaping; or
 3. the irrigation designer for the landscape project specifies an alternative design or technology, as part of the *Landscape Documentation Package*, and clearly demonstrates strict adherence to the irrigation system design criteria in Section 2.G (A)(1) hereof. Prevention of *overspray* and *runoff* must be confirmed during an *irrigation audit*.
 4. slopes greater than 25% shall not be irrigated with an irrigation system with a *application rate* exceeding 0.75 inches per hour. This restriction may be modified if the landscape designer of the landscape project specifies an alternative design or technology, as part of the *Landscape Documentation Package*, and clearly demonstrates no *runoff* or erosion will occur. Prevention of *runoff* and erosion must be confirmed during the *irrigation audit*.

(2) *Hydrozone*

- (a) Each *valve* shall irrigate a *hydrozone* with similar site, slope, sun exposure, soil conditions, and plant materials with similar water use.
- (b) *Sprinkler heads* and other emission devices shall be selected based on what is appropriate for the plant type within that *hydrozone*.

- (c) Where feasible, trees shall be placed on separate valves from shrubs, groundcovers, and *turf* to facilitate the appropriate irrigation of trees. The mature size and extent of the root zone shall be considered when designing irrigation for the tree.
- (d) Individual *hydrozones* that mix plants of moderate and low water use or moderate and high water use may be allowed if:
 - 1. The *plant factor* calculation is based on the proportions of the respective plant water uses and their respective *plant factors*; or
 - 2. The *plant factor* of the higher water using plant is used for the calculations.
- (e) Individual *hydrozones* that mix high and low water use plants shall not be permitted.
- (f) On the landscape design plan and irrigation design plan, *hydrozone* areas shall be designated by number, letter, or other designation. On the irrigation design plan, designate the areas irrigated by each *valve* and assign a number to each *valve*.
- (g) The irrigation design plan, at a minimum, shall contain:
 - 1. the location and size of separate water meters for landscape;
 - 2. the location, type, and size of all components of the irrigation system, including controllers, main and *lateral lines*, *valves*, *sprinkler heads*, *moisture sensing devices*, rain switches, quick couplers, pressure regulators, and *backflow prevention devices*;
 - 3. *static water pressure* at the point of connection to the public water supply;
 - 4. *flow rate* (gallons per minute), application rate (inches per hour), and design *operating pressure* (pressure per square inch) for each *station*;
 - 5. irrigation schedule parameters necessary to program smart timers specified in the landscape design;
 - 6. the following statement: “I have complied with the criteria of the *Landscape Water Efficiency Provisions* and applied them accordingly for the efficient use of water in the irrigation design plan;” and
 - 7. the signature of a California-licensed *landscape professional*.

[Note: Authority Cited: Section 65595, Government Code.
Reference: Section 65596, Government Code.]

2.7 Grading Design Plan

- (A) For the efficient use of water, grading of a landscape project site shall be designed to minimize soil erosion, *runoff*, and water waste. Finished grading configuration of the *landscape area*, including pads, slopes, drainage, post-construction erosion control, and storm water control Best Management Practices, as applicable, shall be shown on the Landscape Plan unless this information is fully included in separate Grading Plans for the project, or unless the project is limited to replacement planting and/or irrigation to rehabilitate an existing *landscape area*.
- (B) The *project applicant* shall submit a landscape grading plan that indicates finished configurations and elevations of the *landscape area* including:
 - (1) Height of graded slopes;
 - (2) Drainage patterns;
 - (3) Pad elevations;
 - (4) Finish grade; and
 - (5) Storm water retention improvements, if applicable.
- (C) To prevent excessive erosion and *runoff*, it is highly recommended that the *project applicant*:
 - (1) Grade so that all irrigation and normal rainfall remains within property lines and does not drain on to non-permeable *hardscapes*;
 - (2) Avoid disruption of natural drainage patterns and undisturbed soil; and
 - (3) Avoid soil compaction in *landscape areas*.
- (D) The Grading Design Plan shall contain the following statement: “I have complied with the criteria of the ordinance and applied them accordingly for the efficient use of water in the grading design plan” and shall bear the signature of the *landscape professional*, as required by law.

[Note: Authority Cited: Section 65595, Government Code. Reference: Section 65596, Government Code.]

2.8 Certification of Completion

- (A) Landscape project installation shall not proceed until the *Landscape Documentation Package* has been approved by the *City* and any ministerial permits required are issued.
- (B) The *project applicant* shall notify the *City* at the beginning of the installation work and at intervals, as necessary, for the duration of the landscape project work to schedule all required inspections.
- (C) *Certification of Completion* of the landscape project shall be obtained through a Certificate of Use and Occupancy or a *Permit Final*. The requirements for the Final Inspection and *Permit Closure* include submittal of:
 - (1) *A Landscape Installation Certificate of Completion* in the form included as **Appendix E** of these *Guidelines*, which shall include: (i) certification by a *landscape professional* that the *landscape project* has been installed per the approved *Landscape Documentation Package*; and (ii) the following statement: “The landscaping has been installed in substantial conformance to the design plans, and complies with the provisions of the *Landscape Water Efficiency Provisions* for the efficient use of water in the landscape.”
 - (a) Where there have been significant changes (as deemed by the *City*) made in the field during construction, these “as-built” or record drawings shall be included with the certificate
 - (b) A diagram of the irrigation plan showing *hydrozones* shall be kept with the irrigation controller for subsequent management purposes.
 - (2) Documentation of the irrigation scheduling parameters used to set the *controller(s)*;
 - (3) An *irrigation audit* report from a local agency landscape irrigation auditor or third party *certified landscape irrigation auditor*, documentation of enrollment in regional or local water purveyor’s water conservation programs, and/or documentation that the MAWA and EAWU information for the *landscape project* has been submitted to the local water purveyor, may be required at the option of the *City*. Example Inspection Affidavit is included as **Appendix H**.
 - (a) Landscape audits shall not be conducted by the *person* who designed or installed the landscape.
 - (b) In large projects or projects with multiple landscape installations (i.e. production home developments or *common interest developments*) an auditing rate of 1 in 7 lots or approximately 15% will satisfy this requirement.

[Note: Authority Cited: Section 65595, Government Code. Reference: Section 65596, Government Code.]

2.9 Post-Installation Irrigation Scheduling

- (A) For the efficient use of water, all irrigation schedules shall be developed, managed, and evaluated to utilize the minimum amount of water required to maintain plant health. Irrigation schedules shall meet the following criteria:
 - (1) Irrigation scheduling shall be regulated by automatic irrigation controllers.
 - (2) *Overhead* irrigation shall be scheduled in accordance with the local water purveyor's Water Conservation Ordinance. Operation of the irrigation system outside the normal *watering window* is allowed for auditing and system maintenance.

[Note: Authority Cited: Section 65595, Government Code. Reference: Section 65596, Government Code.]

2.10 Post-Installation Landscape and Irrigation Maintenance

- (A) Landscapes shall be maintained to ensure water use efficiency in accordance with applicable existing *City* Municipal Code provisions.

3. Provisions for Existing Landscapes

- (A) Irrigation of all *landscape areas* shall be conducted in a manner conforming to the rules and requirements and shall be subject to penalties and incentives for water conservation and water waste prevention, as determined and implemented by the *local water purveyor* and as may be mutually agreed by the *City*.
- (B) The *City* and/or the regional or *local water purveyor* may administer programs such as irrigation water use analyses, irrigation surveys and/or *irrigation audits*, tiered water rate structures, water budgeting by parcel, or other approaches to achieve landscape water use efficiency community-wide to a level equivalent to or less than would be achieved by applying a *MAWA* calculated with an ETAF of 0.8 to all *landscape areas* in the *City* over one acre in size.
- (C) The architectural guidelines of a *common interest development*, including apartments, condominiums, planned developments, and stock cooperatives, shall not prohibit or include conditions that have the effect of prohibiting the use of low-water use plants as a group.

[Note: Authority Cited: Section 65595, Government Code. Reference: Section 65596, Government Code.]

4. Public Education

- (A) Publications. Education is a critical component to promote the efficient use of water in landscapes. The use of appropriate principles of design, installation, management, and maintenance that save water is encouraged in the community.
- (B) Model Homes. All model homes that are landscaped shall use signs and written information to demonstrate the principles of water efficient landscapes as described.
 - (1) Signs shall be used to identify the model as an example of a water efficient landscape featuring elements such as *hydrozones*, irrigation equipment, and others that contribute to the overall water efficient theme. Signage shall include information about the site water use as designed per the local ordinance; specify who designed and installed the site water efficient landscape; and demonstrate low water use approaches to landscaping such as using appropriate plants, alternative water sources, or rainwater catchment systems.
 - (2) Information shall be provided about designing, installing, managing, and maintaining water efficient landscapes.

[Note: Authority Cited: Section 65595, Government Code. Reference: Section 65596, Government Code.]

Appendix A: Prescriptive Compliance Option

PRESCRIPTIVE COMPLIANCE OPTION

- (A) This appendix contains prescriptive requirements which may be used as a compliance option to the Ordinance.
- (B) Compliance with the following items is mandatory and must be documented in a landscape plan in order to use the prescriptive compliance option:
 - (1) Submit a *Landscape Documentation Package* which includes the following elements:
 - (a) Date
 - (b) *Project applicant*
 - (c) Project address (if available, parcel and/or lot number (s))
 - (d) Total landscape area (square feet), including a breakdown of *turf* and plant material
 - (e) Project type (e.g., new, rehabilitated, public, private, cemetery, homeowner-installed)
 - (f) Water supply type (e.g., potable, recycled, well) and identify the local retail water purveyor if the applicant is not served by a private well
 - (g) Contact information for the *project applicant* and property owner
 - (h) Applicant signature and date with statement, "I agree to comply with the requirements of the prescriptive compliance option to the MWEL0"
 - (2) Incorporate compost at a rate of at least four cubic yards per 1,000 square feet to a depth of six inches into landscape area (unless contra-indicated by a soil test);
 - (3) Plant material shall comply with all of the following:
 - (a) For residential areas, install climate adapted plants that require occasional, little or no summer water (average *WUCOLS* plan factor 0.3) for 75% of the plant area excluding edibles and areas using *recycled water*; For non-residential areas, install climate adapted plants that require occasional, little or no summer water (average

WUCOLS plan factor 0.3) for 100% of the plant area excluding edibles and areas using *recycled water*;

- (b) A minimum three inch (3") layer of *mulch* shall be applied on all exposed soil surfaces of planting areas except in *turf* areas, creeping or rooting groundcovers, or direct seeding applications where *mulch* is contraindicated.
- (4) *Turf* shall comply with all of the following:
- (a) *Turf* shall not exceed 25% of the landscape area in residential areas, and *turf* shall not be planted in non-residential areas
 - (b) *Turf* shall not be planted on sloped areas which exceed a slope of 1 foot vertical elevation change for every 4 feet of horizontal length;
 - (c) *Turf* is prohibited in parkways less than 10 feet wide, unless the parkway is adjacent to a parking strip and used to enter and exit vehicles. Any *turf* in parkways must be irrigated by sub-surface irrigation, or by other technology that creates no *overspray* or *runoff*.
- (5) Irrigation systems shall comply with the following:
- (a) Automatic irrigation controllers are required and must use evapotranspiration or soil moisture sensor data
 - (b) Irrigation controllers shall be of a type which does not lose programming data in the event the primary power source is interrupted.
 - (c) Pressure regulators shall be installed on the irrigation system to ensure the dynamic pressure of the system is within the manufacturers recommended pressure range.
 - (d) Manual shut-off valves (such as a gate valve, ball valve, or butterfly valve) shall be installed as close as possible to the point of connection of the water supply.
 - (e) All irrigation emission devices must meet the requirements set in the ANSI standard, ASABE/ICC802-2014. "Landscape irrigation Sprinkler and Emitter Standard." All *Sprinkler heads* installed in the landscape must document a *distribution uniformity* low quarter of 0.65 or higher using the protocol defined in ASABE/ICC 802-2014.
- (C) At the time of final inspection, the permit applicant must provide the owner of the property with a certificate of completion, certificate of installation, irrigation schedule and a schedule of landscape and irrigation maintenance.

Appendix B: Certification of Landscape Design

CERTIFICATION OF LANDSCAPE DESIGN

I hereby certify that:

(1) I am a professional appropriately licensed in the State of California to provide professional landscape design services.

(2) The landscape design and water use calculations for the property located at _____
_____ (provide street address or parcel number(s)) were prepared by me or under my supervision.

(3) The landscape design and water use calculations for the identified property comply with the requirements of the City of Garden Grove Landscape Water Efficiency Provisions (See Garden Grove Municipal Code Sections 9.08.040.040, 9.12.040, 9.16.040, and 9.18.120) and the City of Garden Grove Guidelines for Implementation of the City of City of Garden Grove Landscape Water Efficiency Provisions.

(4) The information I have provided in this Certificate of Landscape Design is true and correct and is hereby submitted in compliance with the City of Garden Grove Guidelines for Implementation of the City of City of Garden Grove Landscape Water Efficiency Provisions.

Print Name

Date

Signature

License Number

Address

Telephone

E-mail Address

Landscape Design Professional's Stamp
(If applicable)

Appendix C: Water Efficient Landscape Worksheet

WATER EFFICIENT LANDSCAPE WORKSHEET

This worksheet is filled out by the project applicant and it is a required item of the Landscape Documentation Package.

Reference Evapotranspiration (ET_o)^a: _____

Landscape Area Sector Type Residential
(select one): Non-Residential

	Hydrozone #/Planting Description	Location	Plant Factor ^b (PF)	Irrigation Method ^c	Irrigation Efficiency ^c (IE)	ETAF (PF/IE)	Landscape Area (sq-ft)	ETAF x Area	Estimated Total Water Use ^d (ETWU)
Regular Landscape Area									
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									

<i>Average</i>	<i>Total</i>	<i>Total</i>

Average ETAF for Regular Landscape Areas^e (circle one): In Compliance Not In Compliance

Special Landscape Area

SLA-1									
SLA-2									
SLA-3									
SLA-4									
SLA-5									

Totals

Total Landscape Area
 Site wide ETAF
 ETWU Total

Maximum Allowed Water Allowance (MAWA)

WORKSHEET INFORMATION & EQUATIONS

^a Local monthly evapotranspiration rates are listed in Appendix D.

^b The following table can be used for common plant factors:

Plant Factor	PF
Very low water use plant	0.1
Low water use plant	0.2
Medium water use plant	0.5
High water use plant	0.8
Lawn	0.8
Pool, spa, or other water feature	1.0

^c *Irrigation efficiency* is derived from measurements and estimates of irrigation system characteristics and management practices. The minimum average *irrigation efficiency* for purposes of these *Guidelines* is 0.71. The following *irrigation efficiency* may be obtained for the listed irrigation heads with an *Irrigation Management Efficiency* of 90%:

Irrigation Method	IE
Spray nozzles	71%
High efficiency spray nozzles	73%
Multi stream/Multi trajectory rotary (MSMT) nozzles	76%
Stream rotor nozzle	73%
Microspray	76%
Bubblers	77%
Drip emitter	81%
Subsurface drip	81%

^d Estimated Total Water Use (ETWU) is the annual gallons required

$$ETWU = (ETo) \times (0.62) \times (ETAF \times Area)$$

where, ETo = annual evapotranspiration rate in inches per year
 0.62 = factor used to convert inches per year to gallons per square foot
 ETAF = plant factor ÷ irrigation efficiency

^e Average ETAF for Regular Landscape Areas must be 0.55 or below for residential areas, and 0.45 or below for nonresidential areas.

^f Maximum Allowed Water Allowance (MAWA) is the annual gallons allowed

$$MAWA = (ETo) \times (0.62) \times [(ETAF \times LA) + ((1-ETAF) \times SLA)]$$

where, ETo = annual evapotranspiration rate in inches per year
 0.62 = factor used to convert inches per year to gallons per square foot
 ETAF = plant factor ÷ irrigation efficiency
 LA = total (site wide) landscape area in square feet
 SLA = total special landscape area

Appendix D: Reference Evapotranspiration Table

REFERENCE EVAPOTRANSPIRATION (ET₀) TABLE

City	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Total (inches per year)
Aliso Viejo	2.6	2.5	3.6	4.3	5.1	5.1	5.6	5.6	4.7	3.4	2.6	2.0	47.1
Anaheim	2.7	2.7	3.3	4.6	5.3	5.6	5.9	6.0	5.1	3.4	2.6	2.0	49.2
Atwood	2.7	2.8	3.5	4.9	5.6	6.2	6.5	6.5	5.5	3.6	2.7	2.0	52.5
Balboa	2.6	2.4	3.4	4.2	4.9	4.5	5.1	5.1	4.4	3.3	2.5	2.0	44.4
Balboa Island	2.6	2.4	3.4	4.2	4.9	4.6	5.2	5.2	4.5	3.3	2.5	2.0	44.7
Brea	2.7	2.8	3.4	4.8	5.5	6.0	6.4	6.4	5.4	3.6	2.7	2.0	51.8
Buena Park	2.6	2.5	3.6	4.4	5.3	5.3	6.0	5.8	4.9	3.5	2.5	2.0	48.4
Capistrano Beach	2.6	2.5	3.5	4.2	5.0	4.7	5.3	5.3	4.6	3.3	2.5	2.0	45.4
Corona Del Mar	2.6	2.5	3.4	4.2	4.9	4.6	5.2	5.2	4.5	3.3	2.5	2.0	44.9
Costa Mesa	2.6	2.5	3.5	4.2	5.0	4.8	5.4	5.3	4.6	3.3	2.5	2.0	45.6
Coto De Caza	2.6	2.5	3.7	4.5	5.5	5.6	6.2	6.1	5.1	3.6	2.6	2.0	49.8
Cypress	2.6	2.5	3.5	4.3	5.2	5.1	5.7	5.6	4.7	3.4	2.5	2.0	47.2
Dana Point	2.6	2.5	3.5	4.2	4.9	4.7	5.2	5.2	4.5	3.3	2.5	2.0	45.1
El Modena	2.7	2.7	3.4	4.7	5.4	5.9	6.2	6.2	5.3	3.5	2.7	2.0	50.7
Foothill Ranch	2.6	2.5	3.7	4.5	5.5	5.6	6.3	6.1	5.1	3.6	2.6	2.0	50.1
Fountain Valley	2.7	2.6	3.2	4.4	4.9	5.0	5.3	5.4	4.8	3.2	2.6	2.0	46.0
Fullerton	2.7	2.7	3.3	4.6	5.3	5.7	6.0	6.0	5.2	3.4	2.6	2.0	49.7
Garden Grove	2.7	2.7	3.2	4.5	5.0	5.2	5.5	5.6	4.9	3.3	2.6	2.0	47.2
Huntington Beach	2.6	2.5	3.4	4.2	4.9	4.7	5.3	5.2	4.5	3.3	2.5	2.0	45.0
Irvine (North)	2.6	2.5	3.7	4.5	5.4	5.5	6.1	6.0	5.0	3.6	2.6	2.1	49.5
Irvine (South)	2.6	2.5	3.6	4.4	5.3	5.2	5.8	5.7	4.8	3.4	2.6	2.0	47.9

City	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Total (inches per year)
La Habra	2.6	2.5	3.7	4.5	5.6	5.6	6.4	6.2	5.1	3.6	2.6	2.0	50.4
La Palma	2.6	2.5	3.6	4.4	5.3	5.2	5.8	5.7	4.8	3.4	2.5	2.0	47.8
Ladera Ranch	2.6	2.5	3.6	4.4	5.3	5.3	5.9	5.8	4.9	3.5	2.6	2.1	48.4
Laguna (South)	2.6	2.5	3.5	4.3	5.1	4.9	5.5	5.5	4.7	3.4	2.5	2.0	46.5
Laguna Beach	2.6	2.5	3.5	4.3	5.1	4.9	5.5	5.4	4.6	3.4	2.5	2.0	48.4
Laguna Niguel	2.6	2.5	3.5	4.3	5.1	4.9	5.5	5.5	4.7	3.4	2.5	2.0	46.5
Laguna Woods	2.6	2.5	3.6	4.4	5.3	5.2	5.8	5.7	4.9	3.5	2.6	2.0	48.0
Lake Forest	2.6	2.5	3.7	4.4	5.4	5.4	6.1	5.9	5.0	3.5	2.6	2.1	49.2
Lido Isle	2.6	2.4	3.4	4.2	4.9	4.6	5.1	5.1	4.4	3.3	2.5	2.0	44.4
Los Alamitos	2.6	2.5	3.5	4.3	5.1	4.9	5.5	5.4	4.6	3.4	2.5	2.0	46.4
Midway City	2.6	2.5	3.5	4.3	5.1	4.9	5.5	5.5	4.7	3.4	2.5	2.0	46.5
Mission Viejo	2.6	2.5	3.7	4.4	5.4	5.4	6.0	5.9	4.9	3.5	2.6	2.0	48.9
Monarch Bay	2.6	2.5	3.5	4.2	4.9	4.7	5.2	5.2	4.5	3.3	2.5	2.0	45.1
Newport Beach	2.6	2.5	3.5	4.2	5.0	4.7	5.3	5.3	4.5	3.3	2.5	2.0	45.4
Orange	2.7	2.7	3.3	4.6	5.3	5.7	6.0	6.0	5.2	3.4	2.7	2.0	49.7
Placentia	2.7	2.7	3.4	4.7	5.4	5.9	6.2	6.2	5.3	3.5	2.7	2.0	50.9
Rancho Santa Margarita	2.6	2.5	3.7	4.4	5.5	5.5	6.1	6.0	5.0	3.6	2.6	2.0	49.5
Rossmoor	2.6	2.5	3.5	4.3	5.1	4.9	5.5	5.4	4.6	3.4	2.5	2.0	46.4
San Clemente	2.6	2.5	3.5	4.3	5.1	4.9	5.4	5.4	4.7	3.4	2.6	2.0	46.4
San Juan Capistrano	2.6	2.5	3.6	4.4	5.4	5.4	6.0	5.9	4.9	3.5	2.6	2.0	48.8
Santa Ana	2.6	2.6	3.4	4.5	5.2	5.3	5.7	5.7	4.9	3.4	2.6	2.0	47.8
Seal Beach	2.6	2.5	3.4	4.2	5.0	4.7	5.3	5.3	4.5	3.3	2.5	2.0	45.4
Silverado Canyon	2.6	2.5	3.7	4.5	5.6	5.8	6.5	6.3	5.2	3.6	2.6	2.0	51.0
Stanton	2.6	2.5	3.5	4.3	5.2	5.1	5.7	5.6	4.7	3.4	2.5	2.0	47.4

City	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Total (inches per year)
Sunset Beach	2.6	2.5	3.4	4.2	5.0	4.7	5.3	5.2	4.5	3.3	2.5	2.0	45.0
Surfside	2.6	2.5	3.4	4.2	5.0	4.7	5.3	5.2	4.5	3.3	2.5	2.0	45.0
Trabuco Canyon	2.6	2.5	3.7	4.5	5.5	5.6	6.2	6.1	5.1	3.6	2.6	2.0	49.8
Tustin	2.7	2.7	3.3	4.6	5.3	5.6	5.9	5.9	5.1	3.4	2.7	2.0	49.2
Villa Park	2.7	2.7	3.4	4.7	5.4	5.9	6.2	6.2	5.3	3.5	2.7	2.0	50.8
Westminster	2.6	2.5	3.5	4.3	5.1	4.9	5.5	5.5	4.7	3.4	2.5	2.0	46.5
Yorba Linda	2.7	2.8	3.5	4.9	5.7	6.3	6.6	6.6	5.6	3.7	2.7	2.0	53.1

* The values in this table were derived from California Irrigation Management Information System (CIMIS) Spatial CIMIS data by zip code. Cities with multiple zip codes present monthly averages.

Appendix E: Certificate of Completion

LANDSCAPE INSTALLATION CERTIFICATE OF COMPLETION

I hereby certify that:

(1) I am a professional appropriately licensed in the State of California to provide professional landscape design services for: _____
(project name, mailing address and telephone).

(2) The landscape project for the property located at _____
_____ (provide street address or parcel number(s)) was installed by me or under my supervision.

(3) The landscaping for the identified property has been installed in substantial conformance with the approved Landscape Documentation Package and complies with the requirements of the City of Garden Grove Landscape Water Efficiency Provisions (Municipal Code Sections 9.08.040.040, 9.12.040, 9.16.040, and 9.18.120) and the City of Garden Grove Guidelines for Implementation of the City of Garden Grove Landscape Water Efficiency Provisions for the efficient use of water in the landscape.

(4) The following elements are attached hereto:

- a. Irrigation scheduling parameters used to set the controller;
- b. Landscape and irrigation maintenance schedule;
- c. Irrigation audit report; and
- d. Soil analysis report, if not submitted with Landscape Documentation Package, and documentation verifying implementation of the soil report recommendations.

(5) The site installation complies with the following:

- a. The required irrigation system has been installed according to approved plans and specifications and if applicable, any prior approved irrigation system alternatives.

_____ Yes _____ No

- b. Sprinklers comply with ASABE/ICC 802-2014 Landscape Irrigation Sprinkler & Emitter Standard.

_____ Yes _____ No

(6) The information I have provided in this Landscape Installation Certificate of Completion is true and correct and is hereby submitted in compliance with the City of Garden Grove Guidelines for Implementation of the City of Garden Grove Landscape Water Efficiency Provisions.

Print Name

Date

Signature

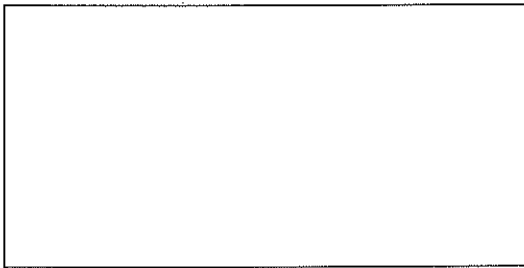
License Number

Address

Telephone

E-mail Address

Landscape Design Professional's Stamp
(If Appropriate)



DEFINITIONS

The terms used in these Guidelines have the meaning set forth below:

“*Aggregate*” area pertains to production home neighborhoods, *common interest developments*, or other situations where multiple parcels are undergoing landscape development as one project, but may eventually be individually owned or maintained.

“*Backflow prevention device*” means a safety device used to prevent pollution or contamination of the water supply due to the reverse flow of water from the irrigation system.

“*Check valve*” or “*anti-drain valve*” means a valve located under a *sprinkler head*, or other location in the irrigation system, to hold water in the system to prevent drainage from *sprinkler heads* when the sprinkler is off.

“*Certified Landscape Irrigation Auditor*” means a *person* certified to perform landscape irrigation audits by an accredited academic institution, a professional trade organization or other program such as the US Environmental Protection Agency’s WaterSense irrigation auditor certification program and Irrigation Association’s Certified Landscape Irrigation Auditor program.

“*Certification of Design*” means the certification included as Exhibit E of these Guidelines that must be included in the *Landscape Documentation Package* pursuant to Section 2.1 of these Guidelines.

“*City*” means the *City* of Garden Grove or its authorized designee.

“*Common interest developments*” means community apartment projects, condominium projects, planned developments, and stock cooperatives per Civil Code Section 1351

“*Distribution Uniformity*” or “*DU*” is a measure of how uniformly an irrigation head applies water to a specific target area and theoretically ranges from zero to 100 percent.

“*Drip*” irrigation means any non-spray *low volume irrigation* system utilizing emission devices with a *flow rate* measured in gallons per hour. *Low volume irrigation* systems are specifically designed to apply small volumes of water slowly at or near the root zone of plants.

“*Emitter*” means a *drip* irrigation emission device that delivers water slowly from the system to the soil.

“*Estimated Applied Water Use*” or “*EAWU*” means the annual total amount of water estimated to keep plants in a healthy state. It is based on factors such as *reference evapotranspiration rate*, the size of the *landscape area*, *plant water use factors*, and the *irrigation efficiency* within each *hydrozone*.

“*Evapotranspiration adjustment factor*” or “*ETAF*” of 0.55 for residential areas and 0.45 for non-residential areas, that, when applied to *reference evapotranspiration*, adjusts for *plant factors* and *irrigation efficiency*, two major influences upon the amount of water that needs to be applied to the landscape. The ETAF for new and existing (non-rehabilitated) Special Landscape Area shall not exceed 1.0. The ETAF for existing non-rehabilitated landscapes is 0.8.

“*Evapotranspiration rate*” means the quantity of water evaporated from adjacent soil and other surfaces and transpired by plants during a specified time.

“*Flow rate*” means the rate at which water flows through pipes, *valves* and emission devices, measured in gallons per minute, gallons per hour, or cubic feet per second.

“*Hardscapes*” means any durable material or feature (*pervious* and *non-pervious*) installed in or around a *landscape area*, such as pavements or walls. Pools and other *water features* are considered part of the *landscape area* and not considered *hardscapes* for purposes of these Guidelines.

“*Graywater*” means a system intreated wastewater that has not been contaminated by any toilet discharge, has not been affected by infectious, contaminated, or unhealthy bodily wastes, and does not present a threat from contamination by unhealthy processing, manufacturing, or operating wastes. *Graywater* includes, but is not limited to, wastewater from bathtubs, showers, bathroom washbasins, clothes washing machines. And laundry tubs, but does not include wastewater from kitchen sinks or dishwashers as per the Health and Safety Code (Section 17922.12). *Graywater* systems promote the efficient use of water and are encouraged to assist in on-site landscape irrigation. All *graywater* systems shall conform to the California Plumbing Code (Title 24, Part 5, Chapter 16) and any applicable local ordinance standards.

“*Hydrozone*” means a portion of the *landscape area* having plants with similar water needs and typically irrigated by one *valve/controller station*. A *hydrozone* may be irrigated or non-irrigated.

“*Infiltration rate*” means the rate of water entry into the soil expressed as a depth of water per unit of time (e.g., inches per hour).

“*Invasive*” plants species or “*noxious*” means species of plants not historically found in California that spread outside cultivated areas and can damage environmental or economic resources. *Invasive plant species* may be regulated by county agricultural agencies as *noxious species*.

“*Irrigation audit*” means an in-depth evaluation of the performance of an irrigation system conducted by a *Certified Landscape Irrigation Auditor*. An *irrigation audit* includes, but is not limited to: inspection, system tune-up, system test with *distribution uniformity* or emission uniformity, reporting *overspray* or *runoff* that causes overland flow, and preparation of an irrigation schedule.

“*Irrigation Management Efficiency*” or “*IME*” means the measurement used to calculate the *irrigation efficiency* of the irrigation system for a landscaped project. A 90% IME can be achieved

by using evapotranspiration controllers, soil moisture sensors, and other methods that will adjust irrigation run times to meet plant water needs.

“Irrigation efficiency” or “IE” means the measurement of the amount of water beneficially used divided by the amount of water applied to a *landscape area*. *Irrigation efficiency* is derived from measurements and estimates of irrigation system characteristics and management practices. The minimum average *irrigation efficiency* for purposes of these *Guidelines* is 0.71. Greater *irrigation efficiency* can be expected from well designed and maintained systems. The following *irrigation efficiency* may be obtained for the listed irrigation heads with an IME of 90%:

Irrigation Method	DU _{LQ}	DU _{LH} *	EU	IE**
Spray nozzles	65%	79%		71%
High efficiency spray nozzles	70%	82%		73%
Multi stream/Multi trajectory rotary (MSMT) nozzles	75%	85%		76%
Stream rotor nozzle	70%	82%		73%
Microspray	75%	85%		76%
Bubblers			85%	77%
Drip emitter			90%	81%
Subsurface drip			90%	81%

*DU_{LH} = .386 + (.614)(DU_{LQ})

** IE (spray) = (DU_{LH})(IME)

** IE (drip) = Emission uniformity (EU)(IME)

“Landscape coefficient” (K_L) is the product of a *plant factor* multiplied by a density factor and a *microclimate* factor. The *landscape coefficient* is derived to estimate water loss from irrigated *landscape areas* and *special landscape areas*.

“Landscape Documentation Package” means the package of documents that a *project applicant* is required to submit to the *City* pursuant to Section 2.1 of these *Guidelines*.

“Landscape Installation Certificate of Completion” means the certificate included as Exhibit F of these *Guidelines* that must be submitted to the *City* pursuant to Section 2.7(a)(1) of hereof.

“Landscape professional” means a licensed *landscape architect*, licensed landscape contractor, or any other *person* authorized to design a landscape pursuant to Sections 5500.1, 5615, 5641, 5641.1, 5641.2, 5641.3, 5641.4, 5641.5, 5641.6, 6701, 7027.5 of the California Business and Professions Code, Section 832.27 of Title 16 of the California Code of Regulations, and Section 6721 of the California Food and Agriculture Code.

“Landscape area” means all the planting areas, *turf* areas, and *water features* in a landscape design plan subject to the *Maximum Applied Water Allowance* and *Estimated Applied Water Use* calculations. The *landscape area* does not include footprints of buildings or structures, sidewalks, driveways, parking lots, decks, patios, gravel or stone walks, other *pervious* or *non-pervious hardscapes*, and other non-irrigated areas designated for non-development (e.g., open spaces and existing native vegetation).

“*Landscape Water Efficiency Provisions*” means the provisions codified in the following sections of the Garden Grove Municipal Code, pursuant to Ordinance Nos. 2769 and _____, adopted by the Garden Grove City Council on February 9, 2010, and _____, 2017, respectively, as amended: (1) Title 9, Chapter 9.08, Sections 9.08.040.040; 9.08.040.045; 9.08.040.055; 9.08.040.060, introductory paragraph and paragraphs B, P, Q, R, S, and T; and 9.08.040.080, paragraph C; (2) Title 9, Chapter 9.12, Sections 9.12.040.070; 9.12.040.075; 9.12.040.085; 9.12.040.090, introductory paragraph and paragraphs B, P, Q, R, S and T; and 9.12.040.110 paragraph C; (3) Title 9, Chapter 9.18, Sections 9.16.040.050; 9.16.040.055; 9.16.040.065; 9.16.040.070, introductory paragraph and paragraphs P through T; and 9.16.040.090 paragraph C; and (4) Title 9, Chapter 9.18, Section 9.18.120.020.

“*Lateral line*” means the water delivery pipeline that supplies water to the *emitters* or sprinklers from the *valve*.

“*Low volume irrigation*” means the application of irrigation water at low pressure through a system of tubing or *lateral lines* and low volume *emitters* such as drip, drip lines, and bubblers. *Low volume irrigation* systems are specifically designed to apply small volumes of water slowly at or near the root zone of plants.

“*Low volume overhead irrigation*” means aboveground irrigation heads with an upper flow limit of 0.5 GPM.

“*Main line*” means the pressurized pipeline that delivers water from the water source to the *valve* or outlet.

“*Manual Isolation Valve*” means a valve such as a gate valve, ball valve, or butterfly valve installed downstream of the point of connection of the water supply to shutdown water flow through mainline piping for routine maintenance and emergency repair.

“*Master shut-off valve*” an electronic valve such as a solenoid valve installed as close as possible to the point of connection and is used in conjunction with a flow sensor and flow monitoring controller technology to automatically shutdown system wide water flow in the event of high flow conditions such as mainline pipe break.

“*Maximum Applied Water Allowance*” or “*MAWA*” means the upper limit of annual applied water for the established *landscape area*, as specified in Section 2.2 of these *Guidelines*. It is based upon the area’s *reference evapotranspiration*, the *ETAF*, and the size of the *landscape area*. The *Estimated Applied Water Use* shall not exceed the *Maximum Applied Water Allowance*.

“*Microclimate*” means the climate of a small, specific area that may contrast with the climate of the overall landscape area due to factors such as wind, sun exposure, plant density, or proximity to reflective surfaces.

“*Mulch*” means any organic material such as leaves, bark, straw or compost, or inorganic mineral materials such as rocks, gravel, or decomposed granite left loose and applied to the soil surface for

the beneficial purposes of reducing evaporation, suppressing weeds, moderating soil temperature, and preventing soil erosion.

“*Non-pervious*” means any surface or natural material that does not allow for the passage of water through the material and into the underlying soil.

“*Operating pressure*” means the pressure at which the parts of an irrigation system of sprinklers are designed to operate at by the manufacturer

“*Overspray*” means the irrigation water which is delivered beyond the target area.

“*Person*” means any natural person, firm, joint venture, joint stock company, partnership, public or private association, club, company, corporation, business trust, organization, public or private agency, government agency or institution, school district, college, university, any other user of water provided by the *City* or the *local water purveyor*, or the manager, lessee, agent, servant, officer, or employee of any of them or any other entity which is recognized by law as the subject of rights or duties.

“*Pervious*” means any surface or material that allows the passage of water through the material and into the underlying soil.

“*Plant factor*” or “*plant water use factor*” is a factor, when multiplied by *ET_o*, that estimates the amount of water needed by plants. For purposes of this *Landscape Water Efficiency Provisions*, the *plant factor* range for low water use plants is 0 to 0.3; the *plant factor* range for moderate water use plants is 0.4 to 0.6; and the *plant factor* range for high water use plants is 0.7 to 1.0. *Plant factors* cited in these *Guidelines* are derived from the Department of Water Resources 2000 publication “Water Use Classification of Landscape Species.”

“*Precipitation rate*” means the rate of application of water measured in inches per hour.

“*Project applicant*” means the *person* submitting a *Landscape Documentation Package* required under Section 2.1 to request a permit, plan check, or design review from the local agency. A *project applicant* may be the property owner or his or her designee.

“*Property owner*” or “*owner*” means the record owner of real property as shown on the most recently issued equalized assessment roll.

“*Reference evapotranspiration*” or “*ET_o*” means a standard measurement of environmental parameters which affect the water use of plants. *ET_o* is given expressed in inches per day, month, or year as represented in Appendix C of these *Guidelines*, and is an estimate of the evapotranspiration of a large field of four to seven-inch tall, cool-season grass that is well watered. *Reference evapotranspiration* is used as the basis of determining the *Maximum Applied Water Allowances*.

“*Recycled water*” or “*reclaimed water*” means treated or recycled waste water of a quality suitable for non-potable uses such as landscape irrigation and *water features*. This water is not intended for human consumption.

“*Runoff*” means water which is not absorbed by the soil or landscape to which it is applied and flows from the landscape area. For example, *runoff* may result from water that is applied at too great a rate (application rate exceeds *infiltration rate*) or when there is a slope.

“*Special Landscape Areas*” or “*SLA*” means an area of the landscape dedicated solely to edible plants such as orchards and vegetable gardens, areas irrigated with *recycled water*, *water features* using *recycled water*, and areas dedicated to active play such as community pools and spas, parks, sports fields, golf courses, and where *turf* provides a playing surface.

“*Sprinkler head*” means a device which delivers water through a nozzle.

“*Static water pressure*” means the pipeline or municipal water supply pressure when water is not flowing.

“*Station*” means an area served by one *valve* or by a set of *valves* that operate simultaneously.

“*Swing joint*” means an irrigation component that provides a leak-free connection between the emission device and lateral pipeline to allow movement in any direction and to prevent equipment damage.

“*Turf*” means a ground cover surface of mowed grass. Annual bluegrass, Kentucky bluegrass, Perennial ryegrass, Red fescue, and Tall fescue are cool-season grasses. Bermudagrass, Kikuyugrass, Seashore Paspalum, St. Augustinegrass, Zoysiagrass, and Buffalo grass are warm-season grasses.

“*Valve*” means a device used to control the flow of water in an irrigation system.

“*Water Efficient Landscape Worksheets*” means the worksheets required to be completed pursuant to Section 2.2 of these *Guidelines* and which are included in Appendix C hereof.

“*Water feature*” means a design element where open water performs an aesthetic or recreational function. *Water features* include ponds, lakes, waterfalls, fountains, artificial streams, spas, and swimming pools (where water is artificially supplied). The surface area of *water features* is included in the high water use *hydrozone* of the *landscape area*. Constructed wetlands used for on-site wastewater treatment, habitat protection, or storm water best management practices that are not irrigated and used solely for water treatment or storm water retention are not *water features* and, therefore, are not subject to the water budget calculation.

“*Watering window*” means the time of day irrigation is allowed.

“*WUCOLS*” means the Water Use Classification of Landscape published by the University of California Cooperative Extension, the Department of Water Resources, and the Bureau of Reclamation, 2000. www.owue.water.ca.gov/docs/wucols00

Appendix G: Irrigation Plan Checklist

This is a voluntary compliance tool template developed by the Irrigation Association.

IRRIGATION PLAN CHECKLIST

Please complete the following checklist by checking all appropriate categories under APPLICANT column, indicating compliance with these content requirements. All submitted plans shall contain the following information:

LANDSCAPE PLAN NUMBER: _____

NAME OF PROJECT: _____

Applicant		Planner
<input type="checkbox"/>	1. Prevailing winds	<input type="checkbox"/>
<input type="checkbox"/>	2. Slope aspect and degree of slope	<input type="checkbox"/>
<input type="checkbox"/>	3. Soil type and infiltration rate	<input type="checkbox"/>
<input type="checkbox"/>	4. Vegetation type	<input type="checkbox"/>
<input type="checkbox"/>	5. Microclimates	<input type="checkbox"/>
<input type="checkbox"/>	6. Expansive or hazardous soil conditions	<input type="checkbox"/>
<input type="checkbox"/>	7. Water harvesting potential	<input type="checkbox"/>
<input type="checkbox"/>	8. Available water supply, including non-potable and recycled water	<input type="checkbox"/>
All pertinent system information is indicated, including:		
<input type="checkbox"/>	9. Irrigation zones substantially corresponding to hydrozones on the landscape plan and labeled by precipitation rates and method of application	<input type="checkbox"/>
<input type="checkbox"/>	10. Water meters	<input type="checkbox"/>
<input type="checkbox"/>	11. Tap-in location	<input type="checkbox"/>
<input type="checkbox"/>	12. Static water pressure at the point of connection	<input type="checkbox"/>
<input type="checkbox"/>	13. System controller	<input type="checkbox"/>
<input type="checkbox"/>	14. Rain sensor/shut-off device	<input type="checkbox"/>
<input type="checkbox"/>	15. Backflow preventers	<input type="checkbox"/>
<input type="checkbox"/>	16. Shut-off valves and zone control valves	<input type="checkbox"/>
<input type="checkbox"/>	17. Main line and lateral piping	<input type="checkbox"/>
<input type="checkbox"/>	18. Sprinkler heads	<input type="checkbox"/>
<input type="checkbox"/>	19. Bubblers and drip irrigation tubing runs	<input type="checkbox"/>
<input type="checkbox"/>	20. Type and size of main irrigation system components	<input type="checkbox"/>
<input type="checkbox"/>	21. Total required operating pressure for each control valve/zone	<input type="checkbox"/>
<input type="checkbox"/>	22. Graphic depiction of the locations of irrigation system components	<input type="checkbox"/>
<input type="checkbox"/>	23. Total required operating pressure for each control valve/zone	<input type="checkbox"/>
<input type="checkbox"/>	24. Any supplemental stormwater and/or runoff harvesting	<input type="checkbox"/>
System design is in conformance with the following standards:		
<input type="checkbox"/>	25. Certification of Professional Qualifications, attached	<input type="checkbox"/>
<input type="checkbox"/>	26. Pedestrian surfaces located on plan	<input type="checkbox"/>
<input type="checkbox"/>	27. Equipment installed flush with grade for safety	<input type="checkbox"/>
<input type="checkbox"/>	28. Compliance with local codes	<input type="checkbox"/>
<input type="checkbox"/>	29. Overspray onto impervious areas minimized	<input type="checkbox"/>

Appendix H: Inspection Affidavit

This is a voluntary compliance tool template developed by the Irrigation Association.

IRRIGATION INSPECTION AFFIDAVIT (To be submitted in conformance with Code Section 309.C)

Irrigation Plan File No: _____ Name of Project: _____

Irrigation Plan Designer: _____ Inspector: _____

Date(s) of inspection: _____

This project was inspected within the limits of customary access for compliance with the approved irrigation plan on file in City Planning. At least two (2) inspections were conducted. The findings are as follows:

	(Check One)	<u>Yes</u>	<u>No</u>
A. Inspection during construction to check main line in open trench:			
1. Location of main line conforms to as-built plan	_____	_____	_____
2. Size of main line conforms to plan	_____	_____	_____
3. Depth of main line conforms to plan	_____	_____	_____
4. Main line condition is undamaged	_____	_____	_____
5. Main line pressure tested with water and meter to check for visible leaks	_____	_____	_____
6. Specific observations attached if needed	_____	_____	_____
B. Inspection after completion of system installation prior to seeding or sodding:			
1. Settling along trenches is absent	_____	_____	_____
2. System components (i.e., controller, backflow preventer, rain sensor, etc.) installed as specified	_____	_____	_____
3. Rotary heads pressure tested	_____	_____	_____
4. System activated for observation of compliance	_____	_____	_____
5. Landscape components are not blocking application	_____	_____	_____
6. Each station complies with design / as-built plan	_____	_____	_____
7. Matched precipitation rates provided by zone	_____	_____	_____
8. As-built plan provided to owner	_____	_____	_____
9. Specific observations attached as needed	_____	_____	_____

I hereby certify that I am qualified to submit this Irrigation Inspection affidavit based on the qualification indicated below: (check one)

- Certified Irrigation Designer certified by The Irrigation Association, indicate year of certification _____
- State: _____ Licensed No. _____
- State Agency Phone No. (_____) _____

Name
(PRINT) _____
Signature

Date

COMMUNITY AND ECONOMIC DEVELOPMENT DEPARTMENT PLANNING STAFF REPORT

AGENDA ITEM NO.: D.1.	SITE LOCATION: N/A
HEARING DATE: June 1, 2017	GENERAL PLAN: N/A
CASE NO.: N/A	ZONE: N/A
APPLICANT: N/A	CEQA DETERMINATION: N/A

REQUEST:

The purpose of this report is to bring forward, at the Planning Commission request, discussion of changing the start time of the Planning Commission meeting.

BACKGROUND/DISCUSSION:

At the April 20, 2017 Planning Commission meeting, Chairman Kanzler proposed changing the start time of the Planning Commission meeting to 6:30 p.m. Staff responded that the procedural mechanism would be researched and noted that any change would require adoption of a Resolution.

The process to change the start time of the Planning Commission meeting is for the Planning Commission to come to a consensus on a meeting time, then adopt a Resolution recommending City Council consideration of the proposed start time. After the Planning Commission adopts the Resolution, the recommendation is forwarded to City Council for their consideration.

At the May 18, 2017 Planning Commission meeting, the Planning Commission directed Staff to schedule a discussion regarding changing the Planning Commission start time. In the event that the Planning Commission comes to a consensus, Staff has prepared the attached Draft Resolution for consideration.



Lee Marino
Planning Services Manager

RESOLUTION NO. 5888-17

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF GARDEN GROVE
RECOMMENDING A CHANGE IN THE TIME OF THEIR MEETINGS

BE IT RESOLVED that the Planning Commission of the City of Garden Grove, in regular session assembled on June 1, 2017, does hereby recommend that the City Council change the time for regular meetings of the Planning Commission from 7:00 to _____ p.m., or _____ p.m. if a study session is scheduled.