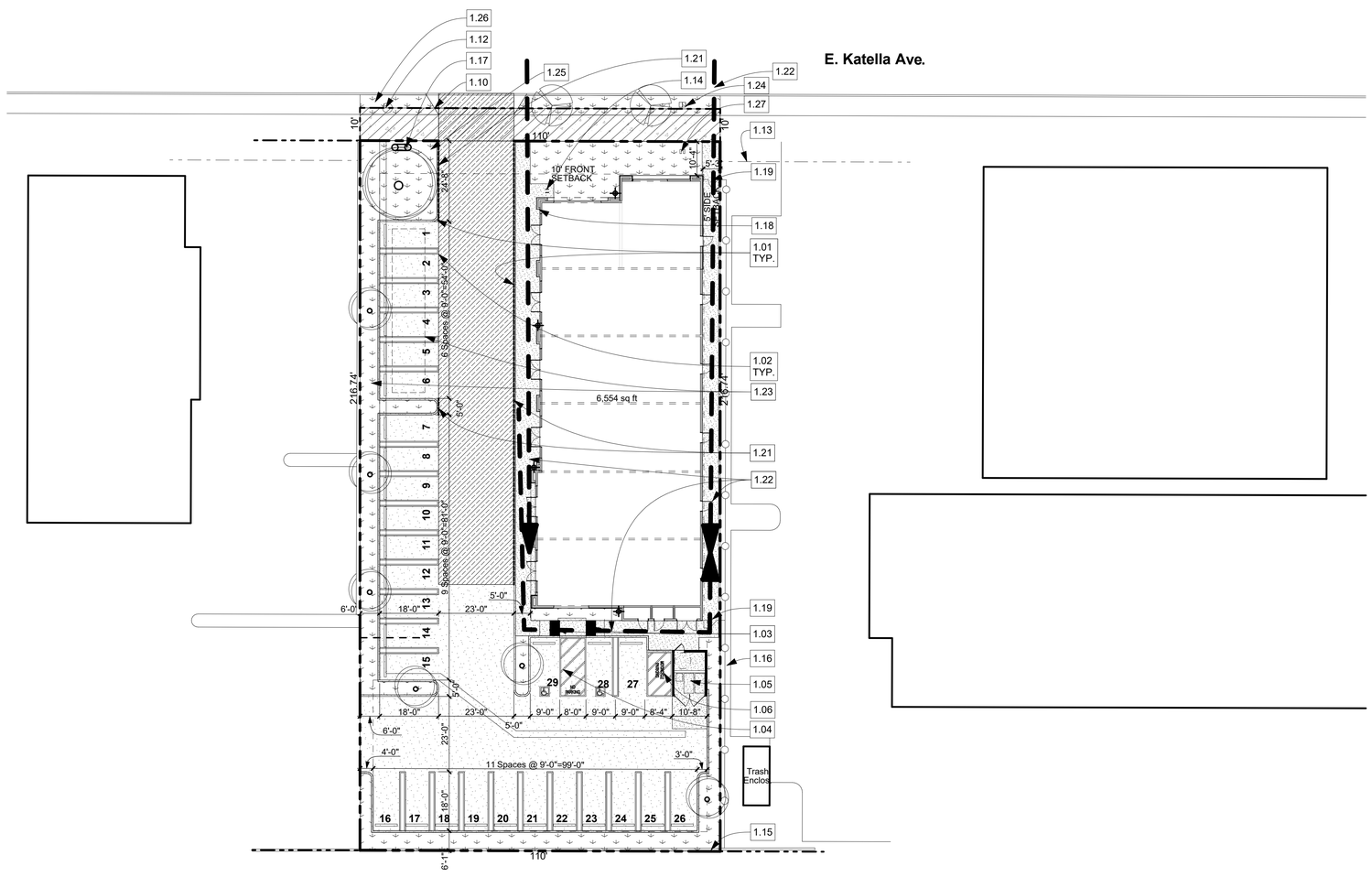
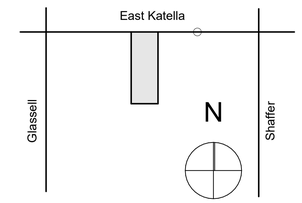


1 Proposed Site Plan
SCALE: 1" = 20'

Vicinity Map



Site Plan Keynotes

1.01 (N) 6" High concrete curb
1.02 (N) 27 standard parking stalls and 2 ADA accessible stalls.
1.03 (N) Truncated domes at the bottom of accessible slope, details to be provided per CBC Chapter 11 Requirements with Construction Documents
1.04 (N) ADA parking stall striping 3' O.C. details to be provided per CBC Chapter 11 Requirements with Construction Documents.
1.05 (N) Trash enclosure, Capacity - (2) 2 yard dumpsters and 1 50 Gallon Organics Waste Can
1.06 (N) Motorcycle parking stall
1.10 (E) Monument sign pole to be removed.
1.12 (E) Telephone pole to remain. Protect in place.
1.13 (E) Adjoining property line.
1.14 Bike Rack
1.15 (E) Site Masonry Wall - To Remain
1.16 (E) 6' High Metal Fence - To Remain
1.17 Location of FDC as per FD. Per City Fire Ordinance 6.7.3, a hydrant shall be located within 40' of this location. FDC location may not be within 40' of the building
1.18 General Location of Knox Box Required by FD
1.19 Provide Lockable Gate to match existing wrought iron fence.
1.21 Dense Dash Insicates Fire Lane Marking on Curb per City of Orange Design Standards
1.22 Arrows Reflect Extent of 150' Hose Access
1.23 Dashed Area Indicates Temporary Loading Zone to be Signed to reflect use during non business hours. Final hours TBD by owner but is estimated to be allowed from 8pm - 7 am.
1.24 Water Meters 1 Master meter and 1 Irrigation Meter.
1.25 Fire Lane Signage Per City of Orange Fire Department Standards. See FD2
1.26 New Hydrant
1.27 Backflow Prevention Valve. Final Size to Be Determined and Coordinated with Landscape Screening

Site Plan Legend

(N) Landscaping, refer to Landscape Drawings.
(N) A.C. paving, refer to Civil Drawings
(N) Raised conc. sidewalk
Area of Existing Site to be Dedicated to the City of Orange Under Separate Process.
Proposed Fire Lane to be Demarcated By Painted Curbs per COO Standard Details

N

Project Data

Project Address:	232 E. Katella Ave. Orange, CA 92867
Owner/Developer:	Katella Commercial LLC 531 Catalina Road Fullerton CA 92835
Applicant/Architect:	DSEA, Inc. 145 S. Olive St. Orange, CA 92866 PH: (714) 639-3958 Attn: Doug Ely
APN#:	375-151-20 Lot K of the Van De Graff Tract
EXISTING ZONE:	C-P
EXISTING LOT AREA:	23,841 sf (+1,100sf in P.R.O.W.)
PROPOSED USE:	Commercial
OCCUPANCY GROUP:	B / M
CONSTRUCTION TYPE:	V-B (Fully Sprinklered) Wood Stud
PARKING REQUIRED:	6,554 sf @ (5 spaces per 1,000sf) 32.770 3.277 (10% reduction for administrative adj. 29.493 < 29.5 29 Total Parking Stalls + Motorcycle parking
PARKING PROVIDED:	(50sf) Designated motorcycle parking area 2 Accessible parking stalls 27 Regular parking stalls 29 Total Parking Stalls + Motorcycle parking
PROPOSED STORIES:	(1) Story
PROPOSED AREA:	6,554 sq.ft.
PROPOSED LOT COVERAGE:	28.4%

PROJECT DESCRIPTION:
This project involves the demolition of an existing single story commercial building and the construction of a new single story multi-tenant pad building. Anticipated tenant uses are business and mercantile occupancy group type tenants. The parking area will be reconfigured and will include new A.C. paving, new landscaping, new concrete sidewalks and a new trash enclosure built per city standards.

Project Team Directory

Architect:
DSEA, Inc.
145 S. Olive St.
Orange, CA 92866
PH: 714.639-3958
Attn: Douglas Ely

Civil Engineer
Cal Land Engineering
576 E. Lambert Road,
Brea, CA 92821
PH: 714-671-1050
Attn: Alex Sun

Landscape Architect
Tierra Group, LA #3388
6 San Ricardo
RSM, CA 92688
PH: 949.713.4333
Attn: Lisa Pierce

MEP Site Lighting Consultant
MEP Energy Solutions Group
PO Box 6390
LaQuinta, CA 92248
PH: 714.975.3501
Attn: Bennett Healy

Sheet Index

Architectural
A1.1 Title Sheet, Proposed Site Plan, Project Data and Sheet Index
A1.2 Existing Site Photos
A2.1 Proposed Floor Plan
A3.1 Proposed Roof Plan
A4.1 Proposed Exterior Elevations
A4.2 Proposed Exterior Elevations
A5.1 Proposed Perspective Views

Civil
Preliminary Grading Plan
Water Utility Plan

Landscape Architectural
L1 Planting Plan
L2 Irrigation Plan
L3 Irrigation Details
L4 Planting Details
L5 Specifications

Site Lighting Photometric
E1.0 Electrical Site Lighting Photometric Plan

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Title Sheet, Proposed Site Plan, Project Data and Sheet Index

4/12/2021

East Katella Retail Center

New Retail Center

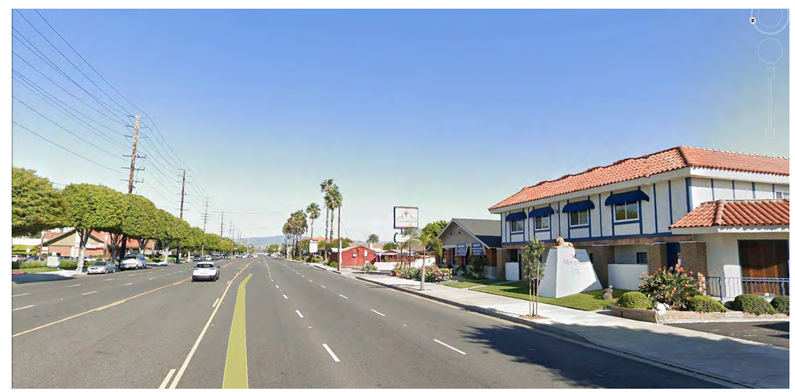
232 E. Katella Ave., Orange CA 92867

Plotted on 4/12/2021 at 10:46 AM P:\714 E Katella Commercial\714 BIM-CAD Files\714 ArchiCAD Models\714 E. Katella DR Comments.pln

A1.1

Looking SW Along Katella

View at Site From SW Corner



Looking E Along Katella

Existing Structure Fronting katella

Adjacent Restaurant Property

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Existing Site Photos

4/12/2021

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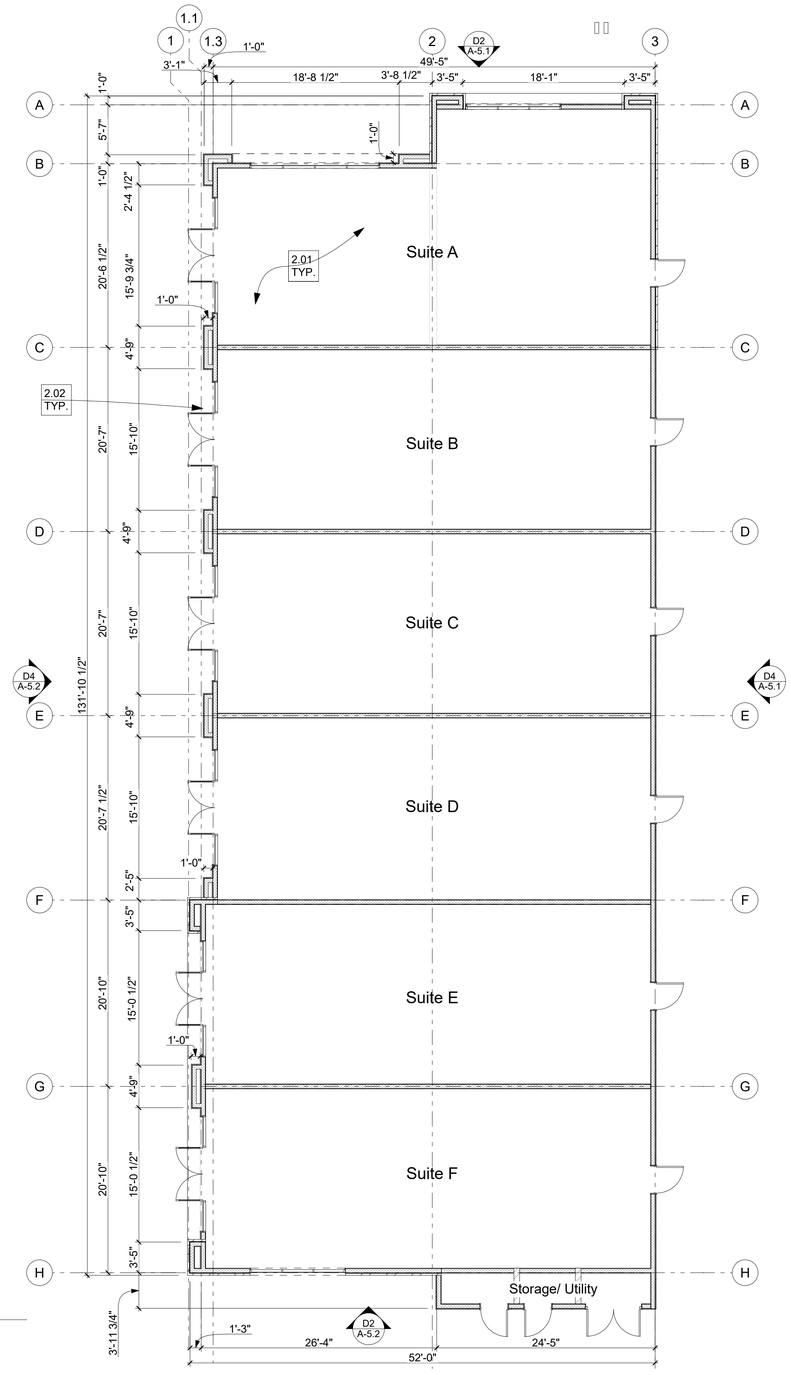
A1.2



1 Proposed Floor Plan
SCALE: 1/8" = 1'-0"

N

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Proposed Floor Plan

4/12/2021

East Katella Retail Center

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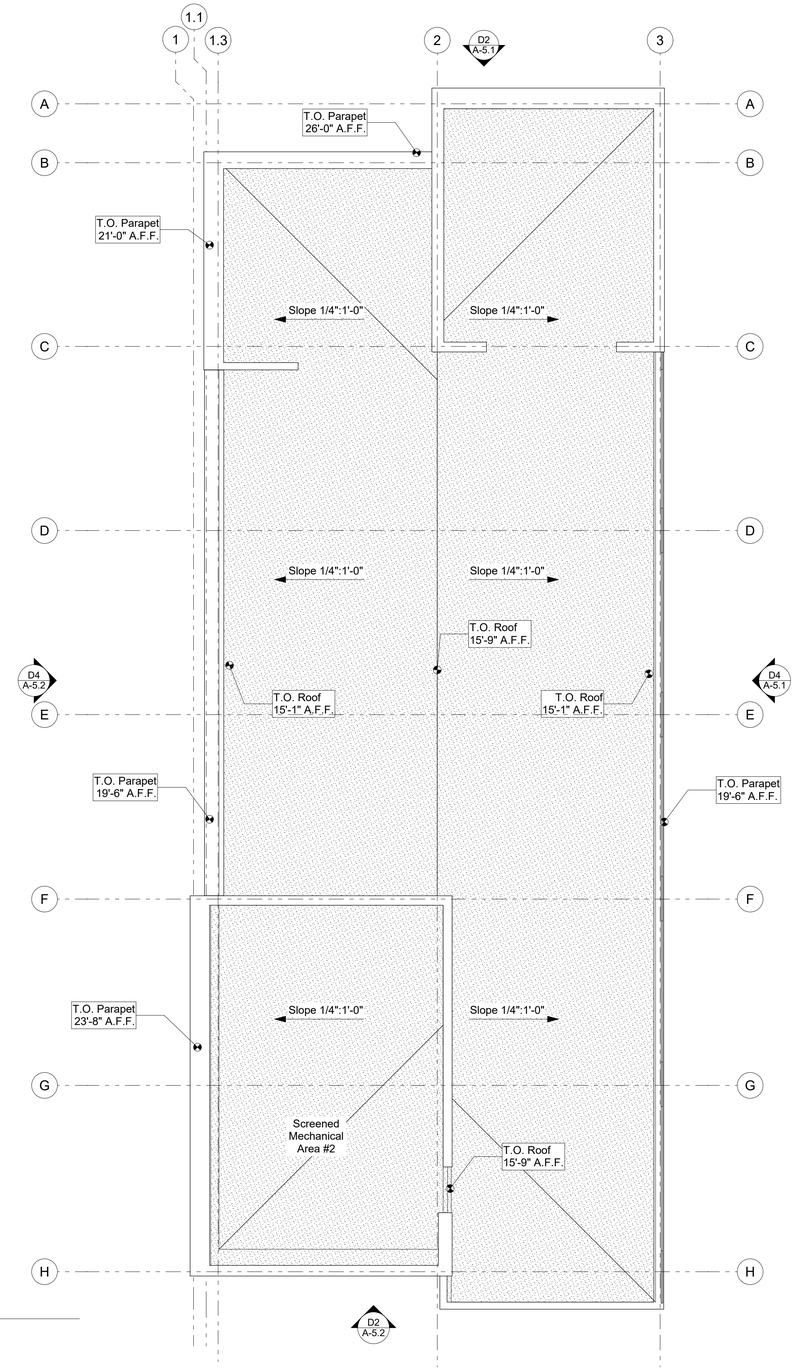
A2.1



1 Proposed Roof Plan
SCALE: 1/8" = 1'-0"

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Proposed Roof Plan

4/12/2021

East Katella Retail Center

New Retail Center

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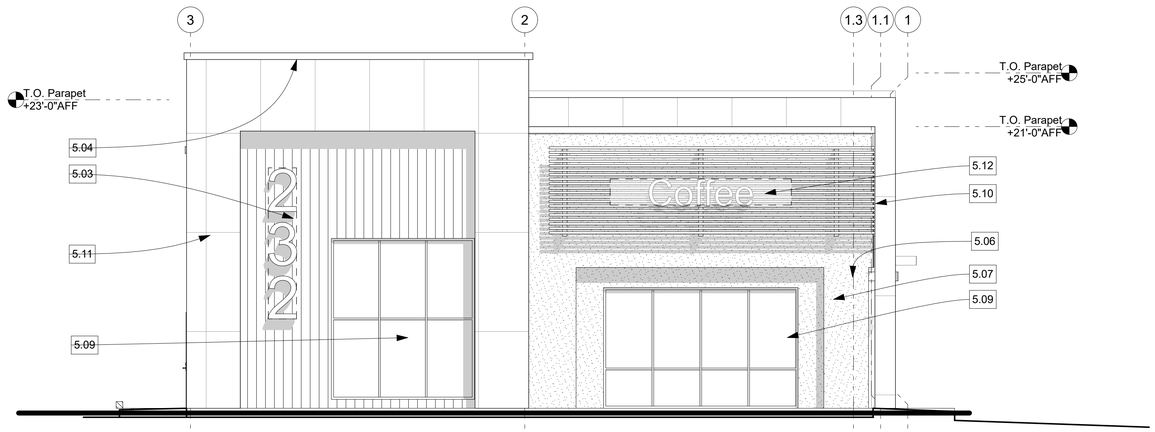
A3.1

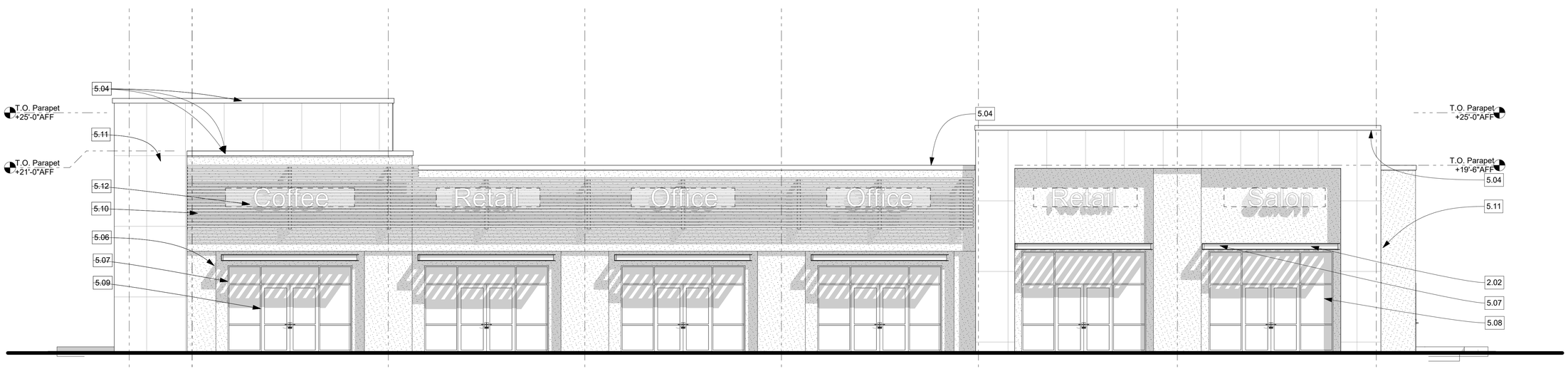
Keynotes

2.02	Painted Aluminium sun shade
5.03	Aluminum paneling 6" O.C.
5.04	6" Aluminum parapet trim.
5.06	Exterior plaster with integral color & medium float finish.
5.07	Exterior Plaster with integral color over wood or foam trim
5.08	Anodized aluminum storefront system.
5.09	Double pane storefront glazing.
5.10	Slatted aluminum screen for mounting tenant signage
5.11	Metal Panel System
5.12	Tenant Signage



1 Proposed North Exterior Elevation

SCALE: 3/16" = 1'-0"



2 Proposed West Exterior Elevation

SCALE: 3/16" = 1'-0"

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Proposed Exterior Elevations

4/12/2021

East Katella Retail Center

New Retail Center

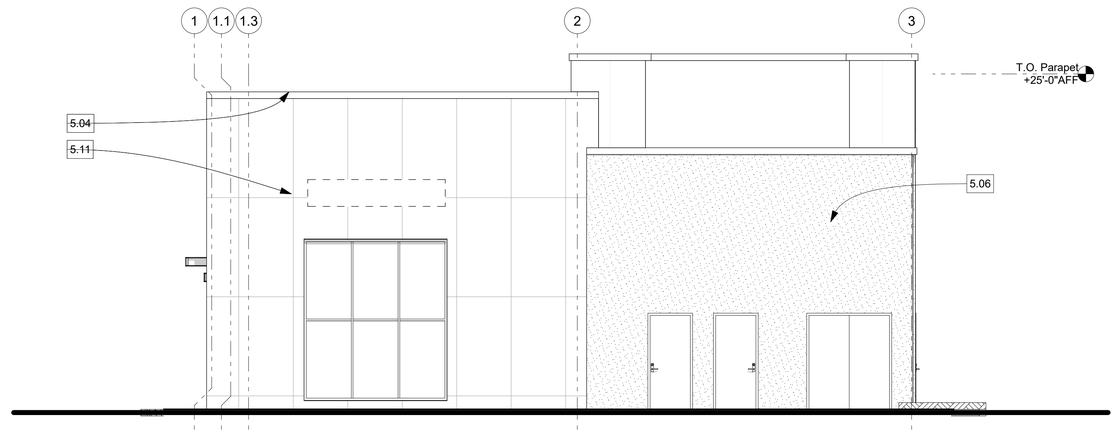
232 E. Katella Ave., Orange CA 92867

Plotted on 4/12/2021 at 10:46 AM P:\714 E Katella Commercial\714 BIM-CAD Files\714 ArchiCAD Models\714 E Katella DR Comments.pln

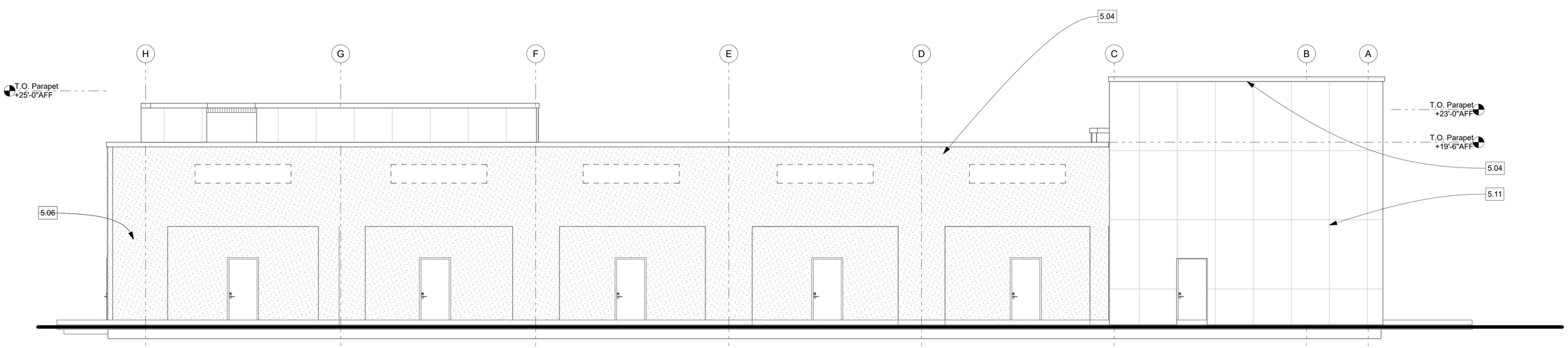
A4.1

Keynotes

5.04 6" Aluminum parapet trim.
5.06 Exterior plaster with integral color & medium float finish.
5.11 Metal Panel System



1 Proposed South Exterior Elevation
SCALE: 3/16" = 1'-0"



2 Proposed East Exterior Elevation
SCALE: 3/16" = 1'-0"

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Proposed Exterior Elevations

4/12/2021

East Katella Retail Center

New Retail Center

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A4.2

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Proposed Perspective Views

4/12/2021

East Katella Retail Center

New Retail Center

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A5.1

CITY OF ORANGE FIRE DEPARTMENT NOTES

INSPECTION REQUIREMENTS

1. OFD site inspections are required for this project. Please schedule all field inspections at least 48 hours in advance. Call the Fire Prevention office at (714) 288-2541 for Inspection Scheduling.
2. A lumber drop inspection shall be performed prior to delivery to the site. All-weather access roads capable of supporting 68,000 lbs., topped with asphalt, concrete, or equivalent shall be in place and hydrants operational at time of lumber drop inspection.
3. For projects with fuel modification, a vegetation clearance inspection is required prior to a lumber drop inspection. To schedule an appointment call the Fire Prevention office at (714) 288-2541.
4. Phased installation of fire access roads requires additional inspections.
5. An original approved, signed, wet-stamped OFD fire master plan shall be available on-site.
6. Access roads and hydrants shall be maintained and remain clear of obstructions at all times.
7. Areas where parking is not permitted shall be clearly identified.
8. Obstruction of fire lanes and hydrants may result in cancellation or suspension of inspections and a notice of correction or citation will be issued.
9. Temporary fuel tanks of 60 or more gallons shall be reviewed, inspected, and permitted by the OFD prior to installation and use.
10. The project address shall be clearly posted and visible from the public road during construction.
11. All gates which are required for fire department access shall be equipped with either a Knox or fire department padlock.
12. Buildings of four or more stories shall be provided with stairs and a standpipe before reaching 40 feet in height.

GENERAL REQUIREMENTS

13. Fire lane widths shall be measured from top face of the curb to top face of the curb for fire lanes with standard curbs and gutters and from flow-line to flow-line for fire lanes with modified curb designs (e.g., rolled, ramped, etc). The developer is responsible to verify that all approved public works or grading department street improvement plans or precise grading plans conform to the minimum street width measurements per the approved OFD Fire Master Plan.
14. Permanent, temporary, and phased emergency access roads shall be designed and maintained to support an imposed load of 68,000 lbs. and surfaced to provide all-weather driving capabilities.
15. Additional fire lane markings may be required at the time of inspection depending on field conditions.
16. Address numbers shall be located and be of a color and sized so as to be plainly visible and legible from the roadway.
17. Access gates shall be approved prior to installation and shall be in compliance with Chapter 5 of the CFC.
18. Approved access walkways shall be provided to all required openings and all rescue windows.
19. Vegetation shall be selected and maintained in such a manner as to allow immediate access to all hydrants, valves, fire department connections, pull stations, extinguishers, sprinkler risers, alarm control panels, rescue windows, and other devices or areas used for firefighting purposes. Vegetation or building features shall not obstruct address numbers or inhibit the functioning of alarm bells, horns, or strobes.
20. Dumpsters and trash containers larger than 1.5 cubic yards shall not be stored in buildings or placed within 5 feet of combustible walls, openings or combustible roof eave lines unless protected by an approved sprinkler system.
21. Any future modification to the approved Fire Master Plan or approved site plan, including but not limited to road width, grade, speed humps, turning radii, gates or other obstructions, shall require review, inspection, and approval by the OFD.
22. Approval of this plan shall not be construed as approval of any information or project conditions other than those items and requirements identified in related portions of the 2016 CFC and CBC and Orange Municipal Code. This project may be subject to additional requirements not stated herein upon examination of actual site and project conditions or disclosure of additional information.

PROJECT-SPECIFIC REQUIREMENTS (Include only those notes that are applicable to the project as designed; some notes may need to be modified to address specific project conditions)

23. An underground piping plan is required for the installation of an automatic fire sprinkler system or for a private fire hydrant system. A separate plan submittal is required.
24. An automatic fire sprinkler system shall be installed in accordance with applicable codes and ordinances, amendments, and guidelines. Sprinkler systems, other than those listed in CFC Chapter 9, shall be monitored by an approved central station. Separate plan submittals for the sprinkler and monitoring systems are required. Design of an automatic fire sprinkler system shall be based on a current flow test (within 12 months of the submitted design) which has been conduct per NFPA 13 requirements and witnessed by a fire department representative and per Orange Municipal Code.
25. A fire alarm system shall be installed in accordance with applicable codes and ordinances, amendments, and guidelines. A separate plan submittal is required.

Site Plan Keynotes

0.01	(E) Single story building to be demolished in its entirety.
0.07	(E) Surface to remain, protect.
1.01	(N) 6" High concrete curb
1.02	(N) 27 standard parking stalls and 2 ADA accessible stalls.
1.03	(N) Truncated domes at the bottom of accessible slope, details to be provided per CBC Chapter 11 Requirements with Construction Documents
1.04	(N) ADA parking stall striping 3' O.C. details to be provided per CBC Chapter 11 Requirements with Construction Documents.
1.05	(N) Trash enclosure, Capacity - (2) 4 yard dumpsters
1.06	(N) Motorcycle parking stall
1.10	(E) Monument sign pole to be removed.
1.12	(E) Telephone pole to remain. Protect in place.
1.13	(E) Adjoining property line.
1.14	Bike Rack
1.15	(E) Site Masonry Wall - To Remain
1.16	(E) 6' High Metal Fence - To Remain
1.17	Location of FDC as per FD. Per City Fire Ordinance 6.7.3, a hydrant shall be located within 40' of this location. FDC location may not be within 40' of the building
1.18	General Location of Knox Box Required by FD
1.19	Provide Lockable Gate to match existing wrought iron fence.
1.20	Existing Fire Hydrant #2512. Distance greater than 250' from new building
1.21	Dense Dash Insicates Fire Lane Marking on Curb per City of Orange Design Standards
1.22	Arrows Reflect Extent of 150' Hose Access
1.23	Dashed Area Indicates Temporary Loading Zone to be Signed to reflect use during non business hours. Final hours TBD by owner but is estimated to be allowed from 8pm - 7 am.
1.24	Water Meters
1.25	Fire Lane Signage Per City of Orange Fire Department Standards. See FD2
1.26	New Hydrant
2.01	Floor finish, see room schedule on sheet X-X.X for more information.
2.02	Painted Aluminium sun shade
5.03	Aluminum paneling 6" O.C.
5.04	6" Aluminum parapet trim.
5.06	Exterior plaster with integral color & medium float finish.
5.07	Exterior Plaster with integral color over wood or foam trim Sheet metal coping
5.08	Anodized aluminum storefront system.
5.09	Double pane storefront glazing.
5.10	Slatted aluminum screen for mounting tenant signage
5.11	Metal Panel System
5.12	Tenant Signage Sheet metal coping

Project Team Directory

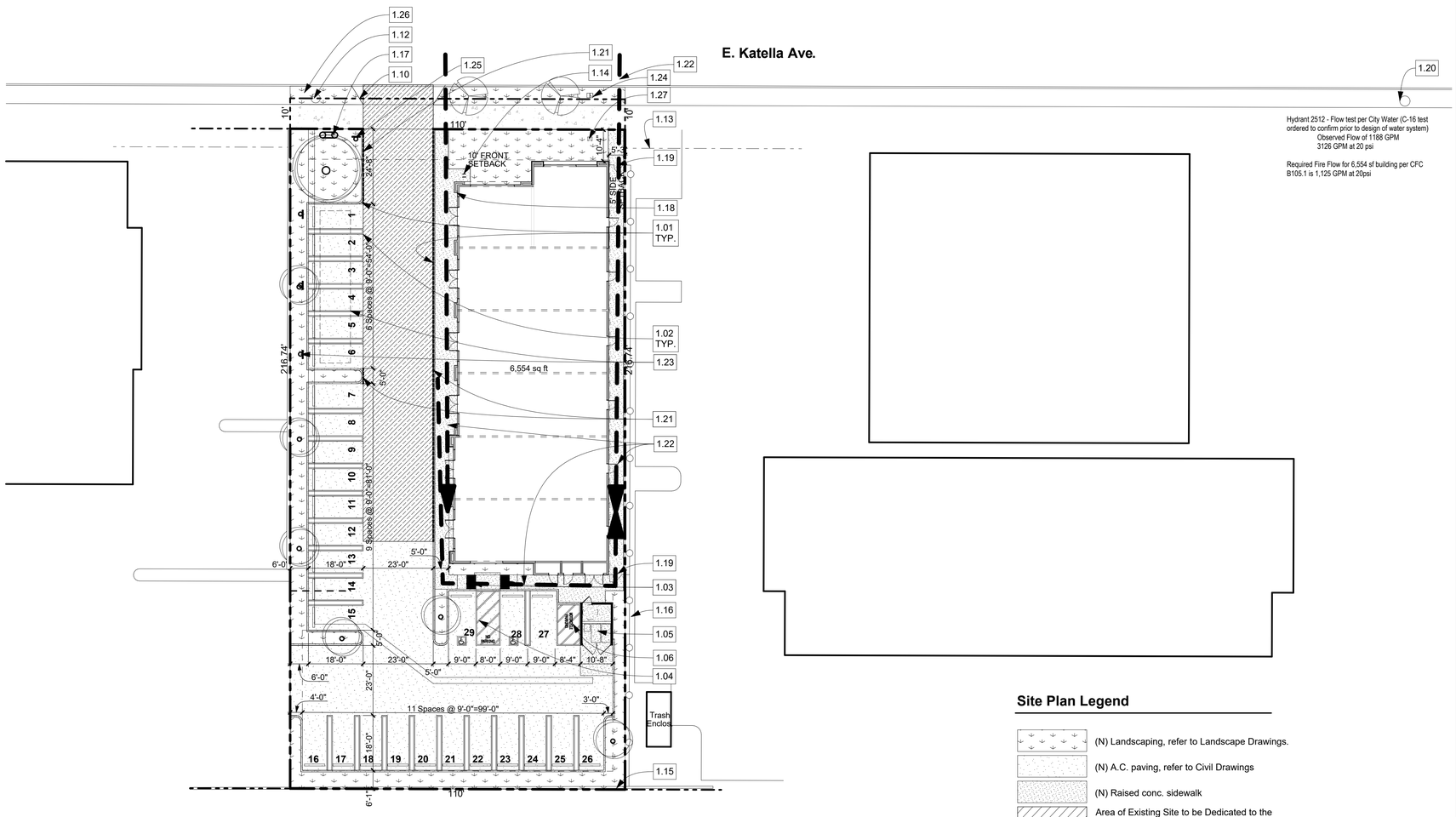
Owner:
Katella Commenrcial, LLC
531 Catalina Road
Fullerton, CA 92835
PH: 714.595.6603
Attn: Haroon Ali

Architect:
DSEA, Inc.
145 S. Olive St.
Orange, CA 92866
PH: 714.639-3958
Attn: Douglas Ely

Civil Engineer
Cal Land Engineering
576 E. Lambert Road,
Brea, CA 92821
PH: 714-671-1050
Attn: Alex Sun

Landscape Architect
Koheid Design
5312 Bolsa Avenue
Huntington Beach, CA 92649
PH: 714.403.5798
Attn: Travis Gramberg

MEP Consultant
MEP Energy Solutions Group, Inc.
P.O. Box #6390
La Quinta, CA 92248
714-975-3501
Attn: Bennett Healy



Site Plan Legend

- (N) Landscaping, refer to Landscape Drawings.
- (N) A.C. paving, refer to Civil Drawings
- (N) Raised conc. sidewalk
- Area of Existing Site to be Dedicated to the City of Orange Under Separate Process.
- Proposed Fire Lane to be Demarcated By Painted Curbs per COO Standard Details

Project Data

Project Address:	232 E. Katella Ave. Orange, CA 92867
Owner/Developer:	Katella Commercial LLC 531 Catalina Road Fullerton CA 92835
Applicant/Architect:	DSEA, Inc. 145 S. Olive St. Orange, CA 92866 PH: (714) 639-3958 Attn: Doug Ely
APN#:	375-151-20 Lot K of the Van De Graff Tract
EXISTING ZONE:	C-P
EXISTING LOT AREA:	23,841 sf (+1,100sf in P.R.O.W.)
PROPOSED USE:	Commercial
OCCUPANCY GROUP:	B / M
CONSTRUCTION TYPE:	V-B (Fully Sprinklered NFPA 13) Wood Stud
PARKING REQUIRED:	6,554 sf @ (5 spaces per 1,000sf) 32.770 3.277 (10% reduction for administrative adj. 29.493 < 29.5 29 Total Parking Stalls + Motorcycle parking
PARKING PROVIDED:	(50sf) Designated motorcycle parking area 2 Accessible parking stalls 27 Regular parking stalls 29 Total Parking Stalls + Motorcycle parking
PROPOSED STORIES:	(1) Story
PROPOSED AREA:	6,554 sq.ft.
PROPOSED LOT COVERAGE:	28.4%

PROJECT DESCRIPTION:
This project involves the demolition of an existing single story commercial building and the construction of a new single story multi-tenant pad building. Anticipated tenant uses are business and mercantile occupancy group type tenants. The parking area will be reconfigured and will include new A.C. paving, new landscaping, new concrete sidewalks and a new trash enclosure built per city standards.

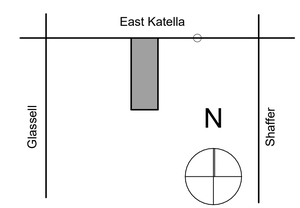
BUILDING AREA MODIFICATION (CBC 506.1)
ALLOWABLE BUILDING AREA PER STORY:
ALLOWABLE AREA Aa = {At + [At x If] + [At x Is]} CBC 506.1

FOR B: Aa = 36,000 sf
FOR M: Aa = 36,000 sf

ALLOWABLE AREA PER FLOOR
(ACTUAL AREA / Aa) (CBC 506.4)

FIRST FLOOR: B/M 6,554 / 36,000= .18 < 1.0

Vicinity Map



N

D4 Proposed Site Plan
SCALE: 1" = 20'

DSEA
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dely@dsearchitecture.com

Stamp and Signature

Consultant

East Katella Retail Center
New Retail Center
232 E. Katella Ave., Orange CA 92867

Fire Department Master Plan

Revisions	By

Job No:	*** PROJECT NUMBER ***
Date:	4/12/2021
Scale:	as noted
Drawn by:	*** CAD TECHNICIAN ***
Checked by:	Doug Ely

FD 1

Plotted on 4/12/2021 at 10:46 AM P:/714 E Katella Commercial/714 BIM-CAD Files/714 Archi/CAD Models/714 E Katella DR Comments.pln

Additional verbiage shall be 1" bold, condensed red lettering on white reflective background. Where parking stalls are not present, sign may omit "except in designated stalls" and sign height may be reduced to 18".

Specifications for the rest of the sign shall match those of standard fire lane no parking signs.

All sign and lettering dimensions shown are *minimums*. "Arial Narrow" font used is used in sample above though other legible sans-serif fonts may be acceptable.

Signs shall be securely mounted facing the direction of travel and clearly visible to oncoming traffic entering the designated area. Signs shall be made of durable material and installed per Attachments 13 and 14.

C4 FD 2 Fire Lane Signage

NOT TO SCALE

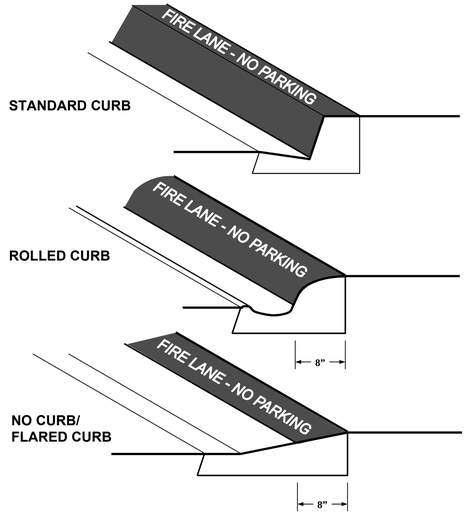
All sign and lettering dimensions shown are minimums. "Arial Narrow" font used is used in sample above though other legible sans-serif fonts may be acceptable.

This sign shall be posted at all vehicle entrances to areas marked with either red curbs or fire lane "No Parking" signs. Signs shall be securely mounted facing the direction of travel and clearly visible to oncoming traffic entering the designated area. Signs shall be made of durable material and installed per Attachments 13 and 14.

Towing company contact information is required for all properties with a standing written agreement for services with a towing company per the California Vehicle Code.

B4 FD 2 Fire Lane Entrance Signage

NOT TO SCALE



1. Fire lane entrance sign(s) shall also be provided per Attachment 10 or 11.
2. Curbs shall be painted OSHA safety red.
3. "FIRE LANE – NO PARKING" shall be painted on top of curb in 3" white lettering at a spacing of 30' on center or portion thereof.

A4 FD 2 OFCA Fire lane ID

NOT TO SCALE

DSEA
ARCHITECTURE | PLANNING | 3D MODELING
145 S. Olive Street
Orange, CA 92866
T: 714.639.3958
F: 714.639.1744
dely@dsearchitecture.com

Stamp and Signature

Consultant

East Katella Retail Center
New Retail Center
232 E. Katella Ave., Orange CA 92867

Fire Department Master Plan Details

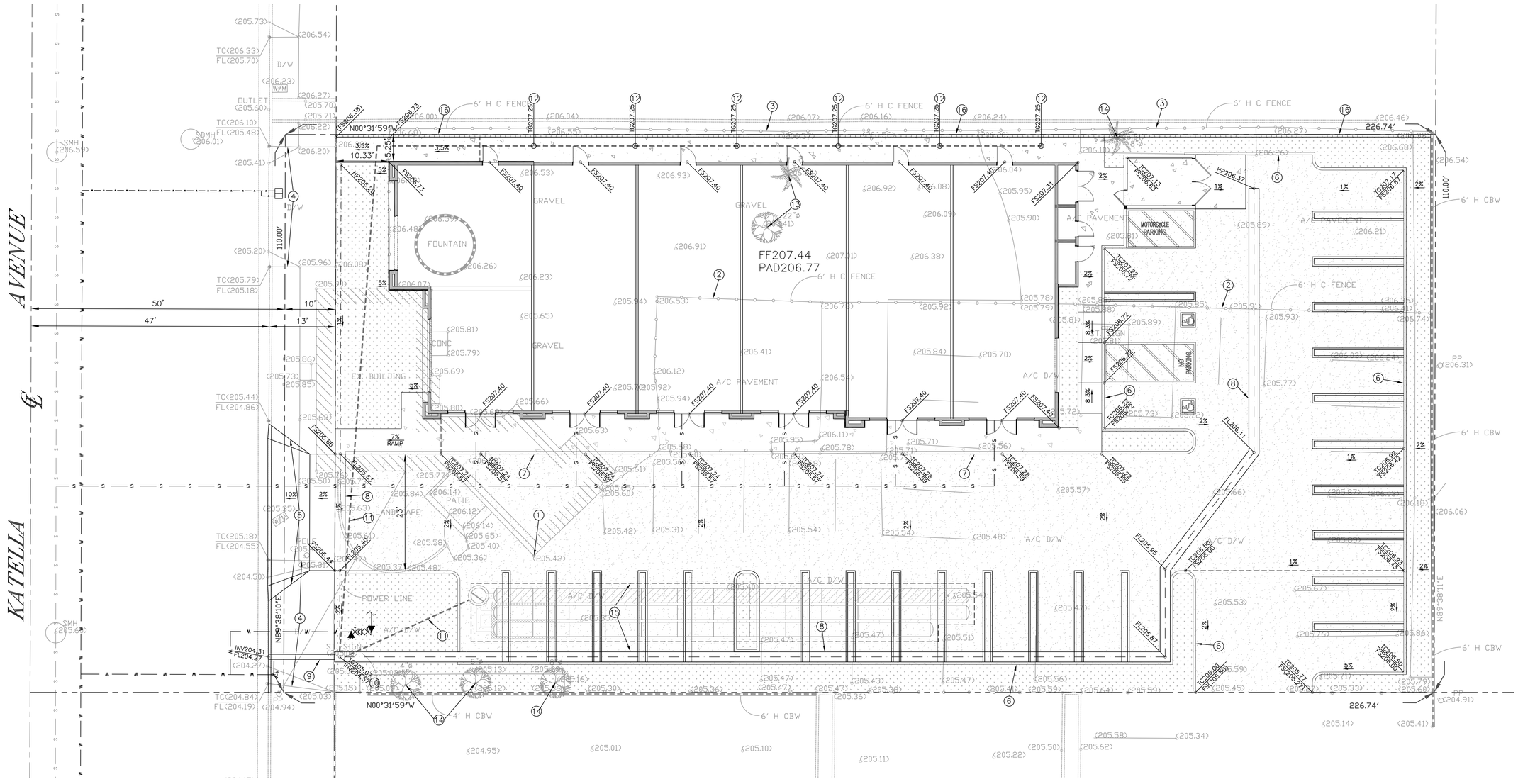
Revisions	By

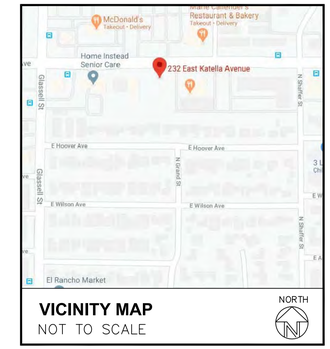
Job No:	*** PROJECT NUMBER ***
Date:	4/12/2021
Scale:	as noted
Drawn by:	*** CAD TECHNICIAN ***
Checked by:	Doug Ely

FD 2

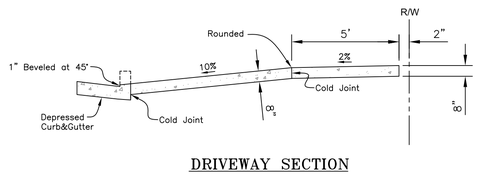
Plotted on 4/12/2021 at 10:46 AM P:/714 E Katella Commercial/714 BIM-CAD Files/714 Archi/CAD Models/714 E Katella DR Comments.pln

PRELIMINARY GRADING PLAN





VICINITY MAP
NOT TO SCALE
NORTH



DRIVEWAY SECTION

LEGAL DESCRIPTION:

A PORTION OF LOT K OF THE VAN DE GRAFF TRACT, IN THE COUNTY OF ORANGE, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 4, PAGE 440, OF MISCELLANEOUS RECORDS, IN THE COUNTY RECORDER OFFICE OF SAID COUNTY.

APN: 375–151–20

BENCH MARK:

BENCHMARK NO. 3L–27–71

FOUND 3 3\4" OCS ALUMINUM BENCHMARK DISK STAMPED "3L–27–71", SET IN THE NORTHWESTERLY CORNER OF A 4 FT. BY 36 FT. CONCRETE CATCH BASIN. MONUMENT IS LOCATED IN THE SOUTHEASTERLY CORNER OF THE INTERSECTION OF GLASSELL STREET AND KATELLA AVENUE, 42 FT. SOUTHERLY OF THE CENTERLINE OF KATELLA AVENUE AND 119 FT. EASTERLY OF THE CENTERLINE OF GLASSELL STREET. MONUMENT IS SET LEVEL WITH THE SIDEWALK.

ELEVATION: 201.094'

CONSTRUCTION NOTES:

1. EXISTING STRUCTURE TO BE REMOVED
2. EXISTING FENCE TO BE REMOVED
3. EXISTING FENCE TO REMAIN
4. EXISTING DRIVEWAY APPROACH TO BE REMOVED
5. CONSTRUCT NEW DRIVEWAY APPROACH PER CITY OF ORANGE STD. PLAN 115
6. PROPOSED 6" CURB
7. PROPOSED 8" CURB
8. PROPOSED 24" WIDE V-GUTTER
9. PROPOSED PARKWAY DRAIN
10. PROPOSED 24"X24" CATCH BASIN
11. PROPOSED DRAINAGE PIPE
12. PROPOSED 6" AREA DRAIN
13. EXISTING TREE TO BE REMOVED
14. EXISTING TREE TO REMAIN
15. PROPOSED STORMTECH CHAMBER PER WQMP REQUIREMENT
16. PROPOSED GARDEN WALL

REGISTERED PROFESSIONAL ENGINEER
JACK C. S. LEE
40870
Exp. 3-31-21
CIVIL
STATE OF CALIFORNIA

N

0 10 20

1"=10'

FOR CITY USE ONLY

SP–XXXX

REVISIONS

NO.	DATE	DESCRIPTION	APPROVED

PREPARED BY:

CALLAND ENGINEERING INC.,
576 E. LAMBERT ROAD,
BREA, CA 92821
TEL.: (714) 671–1050

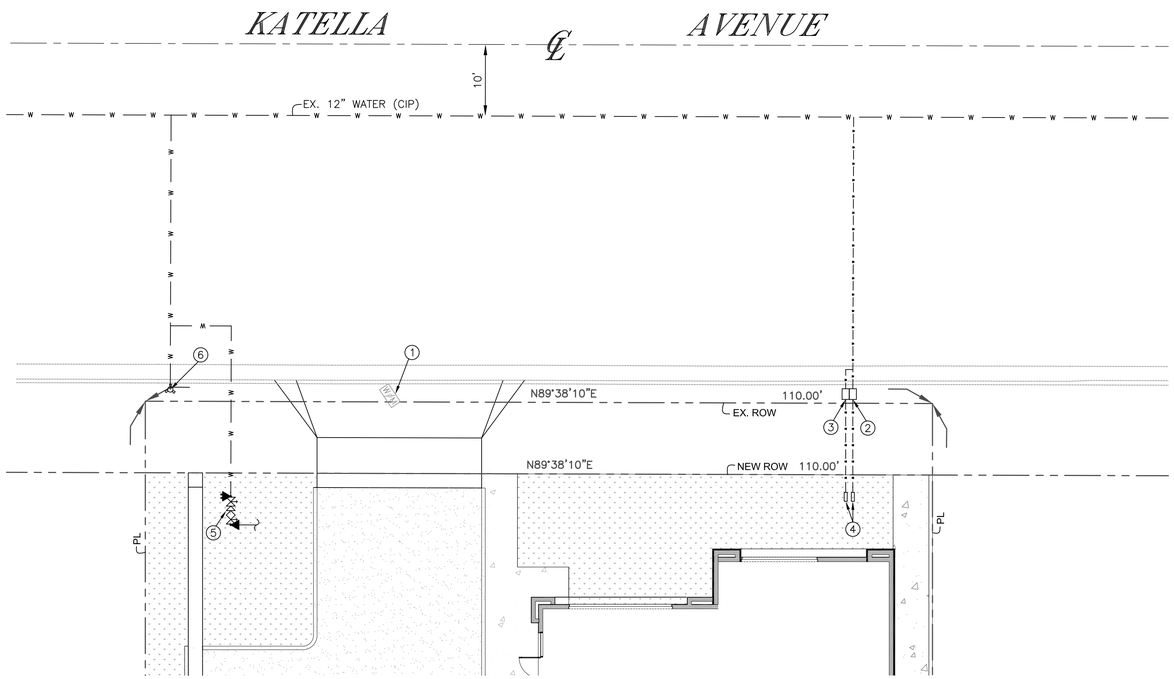
PRE–GRADING PLAN

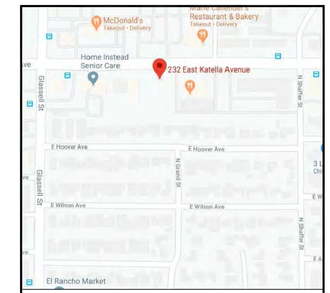
SITE ADDRESS: NEW RETAIL CENTER
232 E. KATELLA AVENUE,
ORANGE, CA92867

SCALE: 1" = 10' | DRAWN BY: A.S. | CHECKED BY:

CITY OF ORANGE SHEET 1 OF 1

WATER UTILITY PLAN





VICINITY MAP
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BENCH MARK:

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ELEVATION: 201.094'

CONSTRUCTION NOTES:

1. EXISTING WATER METER AND SERVICE TO BE ABANDONED PER OWD STANDARD
2. INSTALL 2" MIN MASTER WATER METER AND SERVICE FOR RETAILS
3. INSTALL ONE 1" WATER METER AND SERVICE FOR IRRIGATION
4. INSTALL BACKFLOW PREVENTER WHICH MUST BE LEAD-FREE AND APPROVED BY OWD PRIOR TO INSTALLATION
5. INSTALL 4" DCDA AND SERVICE FOR FIRE WHICH MUST BE LEAD-FREE AND APPROVED BY OWD PRIOR TO INSTALLATION
6. INSTALL NEW FIRE HYDRANT AND SERVICE

REGISTERED PROFESSIONAL ENGINEER
JACK C. S. LEE
40870
Exp. 3-31-21
CIVIL
STATE OF CALIFORNIA

REVISIONS

NO.	DATE	DESCRIPTION	APPROVED

PREPARED BY:

CALLAND ENGINEERING INC.,
576 E. LAMBERT ROAD,
BREA, CA 92821
TEL.: (714) 671-1050

N

0 10 20
1"=10'

WATER UTILITY PLAN

SITE ADDRESS: NEW RETAIL CENTER
232 E. KATELLA AVENUE,
ORANGE, CA92867

SCALE: 1" = 10' | DRAWN BY: A.S. | CHECKED BY:

CITY OF ORANGE SHEET 1 OF 1

FOR CITY USE ONLY

SP-XXXX

PLANT LEGEND

SYMBOL	ABBREV	BOTANICAL / COMMON NAME	QUANTITY	SIZE	H_2O USE
		TREES			
	LAG IND	LAGERSTROEMIA INDICA 'CATAWBA' / PINK CRAPE MYRTLE (To be installed with root control barrier & double staked)	4	15 GAL	M
	LAU NOB	LAURUS NOBILIS 'SARATOGA' / SARATOGA LAUREL (To be installed in 3'x3' new tree wells @ 30' o.c. per City Stds.)	2	24" BOX	L
	EXISTING	EXISTING UNHEALTHY AND DISFIGURED DWARF PINE TREES (To be removed)	3	4"-6" DIA.	---
	EXISTING	EXISTING FICUS NITIDA / INDIAN LAUREL TREE (To be removed)	1	22" DIA.	---
	EXISTING	EXISTING AREACASTRUM ROMANZOFFIANUM / QUEEN PALM (To be removed)	1	8"DIA.	---
	RAP 'MB'	RAPHIOLEPIS "MAJESTIC BEAUTY" STD. / INDIA HAWTHORNE (To be installed with root control barrier & double staked)	3	15 GAL	M
		GROUND COVERS			
	MULCH	3" LAYER OF BLACK 'FOREST FLOOR' BARK MULCH (Throughout all planting areas to retain moisture)	---	---	---
	SEN SER	SENECIO SERPENS / COMPACT BLUE CHALK STICK	FLATS	L	12"oc △ Spacing

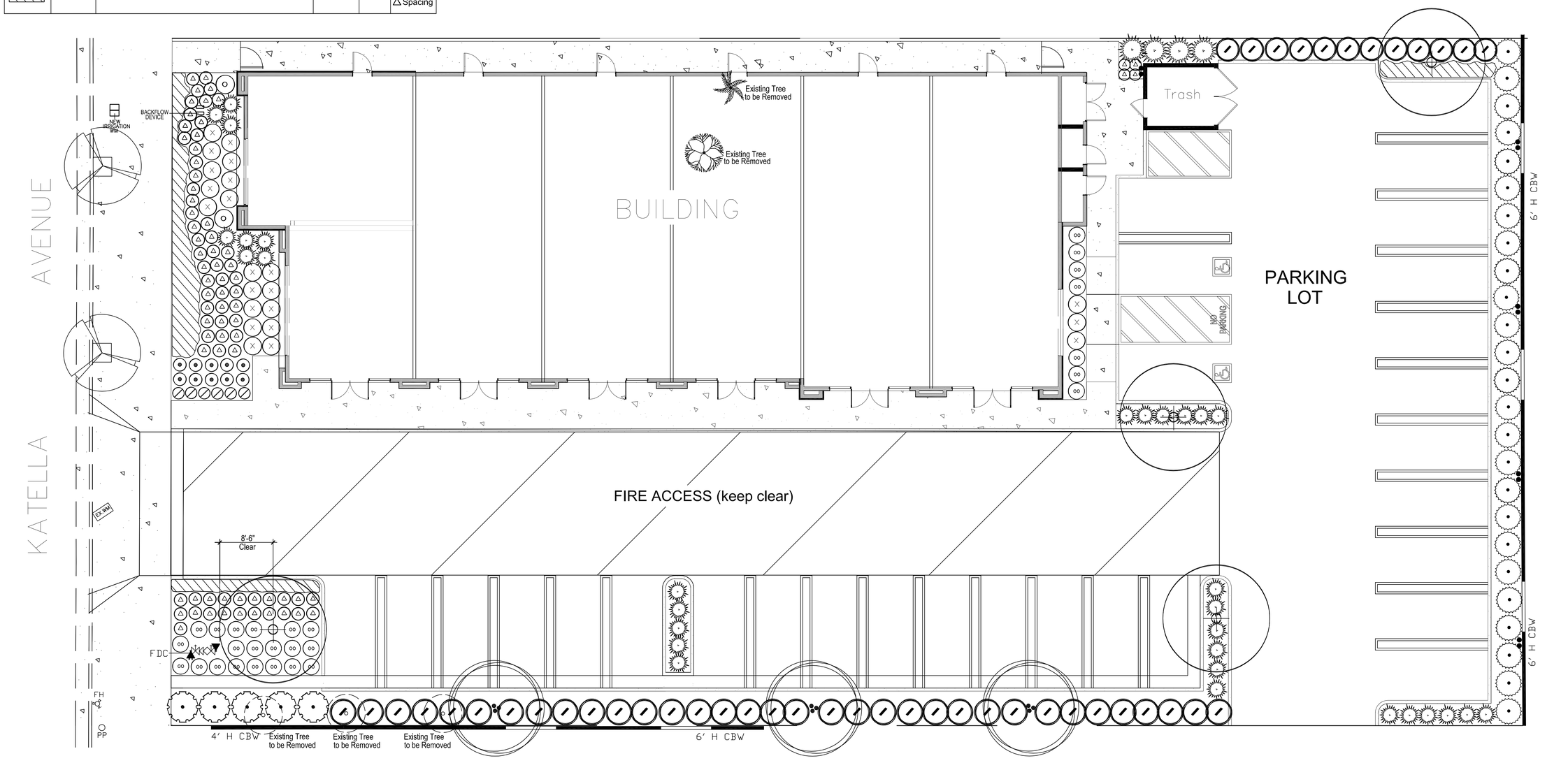
SYMBOL	ABBREV	BOTANICAL / COMMON NAME	QUANTITY	SIZE	H_2O USE
		SHRUBS & VINE			
	AGA 'BG'	AGAVE 'BLUE GLOW' / BLUE GLOW AGAVE	10	1 GAL	L
	ALO 'AR'	ALOE 'ALWAYS RED' / ALWAYS RED ALOE	71	1 GAL	L
	DIA 'LR'	DIANELLA 'LITTLE REV' / LITTLE REV DIANELLA	35	5 GAL	L
	ECH 'AG'	ECHEVERIA 'AFTERGLOW' / PURPLE ECHEVERIA	6	1 GAL	L
	EUO JAP	EUONYMUS JAP. 'AUREO-MARGINATA' / GOLDEN EUONYMUS	25	5 GAL	M
	JUN VIR	JUNIPERUS VIRGIN. 'BLUE ARROW' / UPRIGHT BLUE JUNIPER	2	15 GAL	L
	LIG JAP	LIGUSTRUM JAPONICUM / WAXLEAF PRIVET	46	5 GAL	M
	PIT CRA	PITTOSPORUM TOBIRA 'CREAM DE MINT' / COMPACT TOBIRA	22	5 GAL	M
	PIT VAR	PITTOSPORUM TOBIRA 'VARIEGATA' / VARIEGATED TOBIRA	5	5 GAL	M
	STI TEN	STIPA TENUISSIMA / MEXICAN FEATHER GRASS	27	5 GAL	L
	NOTE:	ALL SHRUBS TO BE PLANTED A MINIMUM OF 2' CLEAR FROM THE BASE OF THE BUILDING.			
	FIC PUM	FICUS PUMILA / CREEPING FIG (lean against wall w/stake intact)	5	1 GAL	M

PLANTING NOTES

- SOIL LABORATORY TO ANALYZE THE SITE SOIL IN PLANTING AREAS TO DETERMINE THE AGRICULTURAL SUITABILITY AND FERTILITY. THE LABORATORY SHALL SUBMIT A WRITTEN REPORT OF THEIR FINDINGS WITH ANY RECOMMENDATIONS FOR THE AMENDING OF THE SOIL TO THE OWNER AND THE LANDSCAPE ARCHITECT TO BE IMPLEMENTED BY THE CONTRACTOR IN ADDITION TO THE ORIGINAL SOIL PREPARATION MIX.
- SOIL PREPARATION AMENDMENTS (PER 1000 SQUARE FEET):
  - 3 CUBIC YARDS OF NITROGEN STABILIZED & MINERALIZED
  - 150 POUNDS AGRICULTURAL GYPSUM
  - 50 POUNDS GRO-POWER PLUS
- THE REQUIRED SITE SPECIFIC SOILS REPORT AND ITS RECOMMENDATIONS WILL DICTATE THE FINAL SOIL PREPARATION REQUIREMENTS.
- FOR WEED CONTROL, CONTINUE TO IRRIGATE THOROUGHLY FOR A PERIOD OF TWO (2) TO THREE (3) WEEKS OR UNTIL THE WEED SEEDS HAVE GERMINATED. WHEN THERE IS SUFFICIENT WEED SEED GERMINATION, THE CONTRACTOR SHALL APPLY A POST EMERGENT WEED KILLER, ACCORDING TO THE DIRECTIONS OF A LICENSED PEST CONTROL APPLICATOR. THE CONTRACTOR SHALL THEN WAIT AN ADDITIONAL ONE (1) WEEK TO ALLOW THE WEED KILLER TO DISSIPATE PRIOR TO PLANTING.
- BACKFILL MIX FOR TREE AND SHRUB PLANTING (PER CUBIC YARD):
  - 2/3 CUBIC YARD ON SITE SOIL
  - 1/3 CUBIC YARD ORGANIC AMENDMENT (I.E. NITROLIZED SHAVINGS)
  - 1 POUND IRON SULFATE (20% IRON, 10% SULFUR)
  - 2 POUNDS 6-20-20 COMMERCIAL FERTILIZER
  - 10 POUNDS GRO-POWER PLUS
- PROVIDE AGRIFORM OR GRO-POWER PLANTING TABLETS (7 & 21 GRAMS) IN EACH PLANTING PIT AS FOLLOWS:
  - (1) ONE TABLET (7 GRAMS) FOR EACH GROUND COVER
  - (1) ONE TABLET (21 GRAMS) FOR EACH 1 GALLON CONTAINER
  - (3) THREE TABLETS (63 GRAMS) FOR EACH 5 GALLON CONTAINER
  - (5) FIVE TABLETS (105 GRAMS) FOR EACH 15 GALLON CONTAINER
- CULTIVATE (ROTOTIL) PLANTING AREAS TO A DEPTH OF SIX (6) INCHES WITH THE REQUIRED SOIL PREPARATION AMENDMENTS, WET THOROUGHLY AND ALLOW TO SETTLE, REPEAT THIS PROCEDURE UNTIL SOIL IS STABLE ENOUGH TO HOLD A UNIFORM AND SMOOTH CONSISTENCY TO ALLOW FOR DRAINAGE AND AIR PENETRATION.

IMPORTANT NOTES

- SEE CIVIL ENGINEER'S GRADING PLAN FOR ALL DRAINAGE DESIGN.
- NOTIFY COMMUNITY SERVICES DEPARTMENT AT: (714) 532-6464 FOR LANDSCAPE INSPECTION PRIOR TO EXCAVATION OF PLANTING FOR PLANT MATERIAL , CITY STREET TREES, AND SETBACK REQUIREMENTS. 48 HOURS NOTICE IS REQUIRED.



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TIERRA GROUP
Landscape Architecture / Planning
California Licensed Landscape Architect # 3388

PLANTING PLAN

LANDSCAPE ARCHITECTURAL PLANS FOR:

EAST KATELLA RETAIL CENTER

232 E. KATELLA AVENUE
ORANGE, CA 92867

LICENSED LANDSCAPE ARCHITECT
LISA A. PIERCE
No. 3388
Signature
4/30/22
Renewal Date
3/10/21
Date
STATE OF CALIFORNIA

DRAWN BY: LP
PLOT DATE: 3/10/21
SCALE: 1"=10'

SHEET
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OF 5

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NOTE: IRRIGATION PLAN IS DIAGRAMMATIC. CONTRACTOR SHALL ROUTE PIPING IN ORDER TO AVOID OBJECTS LIKE LIGHT STANDARDS, TRANSFORMER PADS, EQUIPMENT VAULTS, SUB-SURFACE ROCK TOO LARGE TO REMOVE, ETC.

CONTRACTOR SHALL COMPUTE EXACT FLOW BASED UPON FINAL PLANTING. CONTRACTOR SHALL NOT EXCEED SPECIFIED VALVE CAPACITY IN TERMS OF MANUFACTURER'S RECOMMENDED FLOW VS. FRICTION LOSS SPECIFICATIONS.

PIPE SIZING CHART

PIPE SIZE	FLOW (GPM)
3/4"	0-8
1"	8-12
1-1/4"	12-20
1-1/2"	20-30
2"	30 +

CONSTRUCTION NOTE:

COORDINATE SLEEVING FOR MAINLINE AND LATERAL LINES THROUGH WALLS AND WITH PAVING PRIOR TO POURING CONCRETE, AND WITH TREE, SHRUB, AND DRAIN LOCATIONS.

CONTROLLER LOCATION:

120 VOLT 2 AMP 60 CYCLE POWER AVAILABLE. REFER TO LEGEND FOR ADDITIONAL INFORMATION. IRRIGATION CONTRACTOR TO MAKE FINAL HOOK-UP OF FIELD WIRES.

BEFORE YOU DIG
CALL: TOLL FREE
1-800
227-2600
UNDERGROUND SERVICE ALERT
TWO WORKING DAYS BEFORE YOU DIG

"CAUTION": REMEMBER THAT THE USA CENTER NOTIFIES ONLY THOSE UTILITIES BELONGING TO THE CENTER. THERE COULD BE OTHER UTILITIES PRESENT AT THE WORK SITE. THE CENTER WILL INFORM YOU OF WHOM THEY WILL NOTIFY.

POINT OF CONNECTION

TIE INTO NEW 1" POTABLE WATER METER (BY GENERAL CONTRACTOR) AND PROVIDE BACKFLOW PREVENTER (IMMEDIATELY BEHIND WATER METER IN PLANTER AREA), MASTER VALVE, BALL VALVE AND REMOTE CONTROL VALVES AS SHOWN. INSTALL ALL EQUIPMENT IN PLANTER AREA - SHOWN FOR CLARITY.

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY EXISTING STATIC WATER PRESSURE PRIOR TO COMMENCING WORK AND TO NOTIFY THE LANDSCAPE ARCHITECT OF ANY DISCREPANCIES. FAILURE TO DO SO MAY RESULT IN CHANGES TO THE IRRIGATION PLAN AT NOT COST TO THE OWNER.

COMPLIANCE STATEMENT:

I HAVE COMPLIED WITH THE CRITERIA OF WATER EFFICIENT LANDSCAPES SECTION IX OF THE CITY OF ORANGE LANDSCAPE STANDARDS AND SPECIFICATIONS AND APPLIED THEM ACCORDINGLY FOR THE EFFICIENT USE OF WATER IN THE IRRIGATION DESIGN PLAN.

LISA A. PIERCE, LANDSCAPE ARCHITECT #3388 — DATE: 3/10/2021

IRRIGATION LEGEND

SYMBOL	MFG/MODEL NO.	DESCRIPTION	PSI	FLOW
	RAIN BIRD RWS-B-C-1402	ROOT WATERING SYSTEM (2) PER TREE, (3) PER PALM	30	0.50 GPM
		NON-PRESSURE LATERAL PVC SCH 40 WITH PVC SCH 40 FITTINGS, BURY SLEEVE PVC MIN. 12" BELOW GRADE FOR PEDESTRIAN, 30" FOR VEHICULAR. SIZE NOTED.		
		PIPE SLEEVING PVC SCH 80 FOR MAINLINE AND LATERALS UNDER VEHICULAR PAVING, SCH 40 FOR MAINLINE AND LATERALS UNDER PEDESTRIAN PAVING. EXTEND 12" BEYOND PAVING.		
		WIRE SLEEVING PVC SCH 80 FOR WIRES UNDER VEHICULAR PAVING, SCH 40 FOR WIRES UNDER PEDESTRIAN PAVING. EXTEND 12" BEYOND PAVING.		
		RAIN BIRD XQF-75-18 SUPPLY EXHAUST HEADER		
		RAIN BIRD XFS SUB-SURFACE DRIPLINE XFS-CV-06-12 (0.60 GPH EMITTERS AT 12" O.C.). INSTALL LATERALS SPACED AT 18" O.C. MAX.		
(Not Shown)		RAIN BIRD FLUSH VALVE. INSTALL PER MANUFACTURER'S RECOMMENDATIONS		
(Not Shown)		RAIN BIRD AIR/VACUUM RELIEF VALVE. INSTALL AT HIGH POINT OF SYSTEM		
		RAIN BIRD XCZ-100-PRF REMOTE CONTROL VALVE (DRIP ASSEMBLY) - 1".		
		RAIN BIRD 100-PEB REMOTE CONTROL VALVE - 1".		
		RAIN BIRD 33DLRC QUICK COUPLING VALVE WITH KEY - 3/4".		
		NIBCO T-580-A BALL VALVE - LINE SIZE.		
		GRISWOLD #2230 NORMALLY CLOSED PRESSURE REGULATING MASTER VALVE - 3/4".		
		WATTS LF825Y LEAD FREE REDUCED PRESSURE BACKFLOW PREVENTER (OR CITY APPROVED EQUAL) IN VANDAL RESISTANT ENCLOSURE MODEL SBBC-20SS BY V.I.T./STRONGBOX (PAINTED GREEN) - 3/4".		
M		NEW POTABLE WATER IRRIGATION METER - 1".		
A		RAIN BIRD ESPME3 4 STATION MODULAR IRRIGATION CONTROLLER WITH (1) ADDITIONAL 3 STATION MODULE (FOR A TOTAL OF 7 STATIONS). INSTALL ON SIDE OF TRASH ENCLOSURE IN STAINLESS STEEL ENCLOSURE. PROVIDE WITH LNK-WIFI MODULE AND WR2-RFC RAIN SENSOR PER MANUFACTURER'S SPECIFICATIONS. FINAL LOCATION OF CONTROLLER TO BE APPROVED BY LANDSCAPE ARCHITECT.		

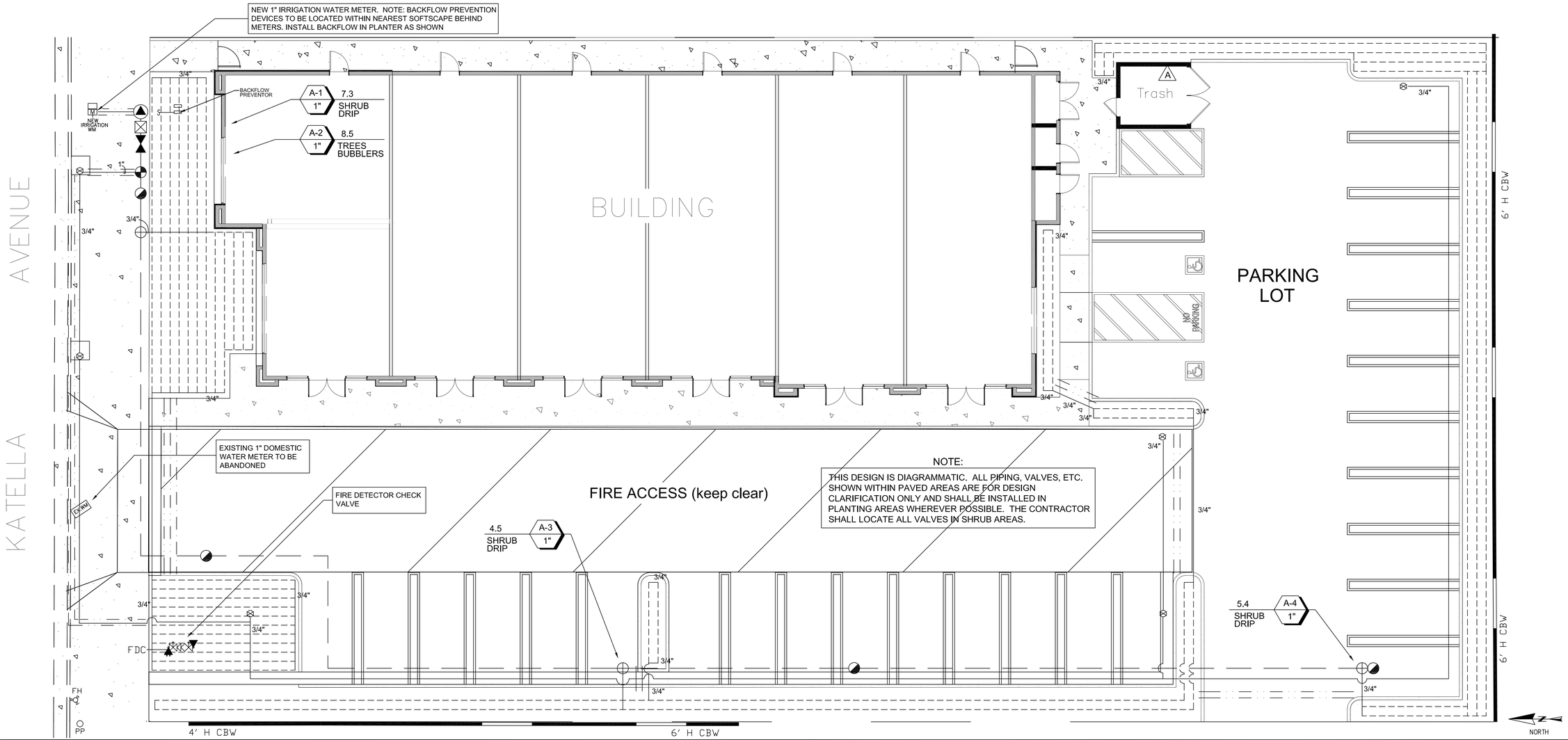
VALVE NUMBER
FLOW IN G.P.M.
HYDROZONE
VALVE SIZE

IMPORTANT NOTE

NOTIFY COMMUNITY SERVICES DEPARTMENT @ (714) 532-6464 FOR LANDSCAPE INSPECTION PRIOR TO EXCAVATION OF PLANTING FOR PLANT MATERIAL, CITY STREET TREES & SETBACK REQUIREMENTS. 48 HOURS NOTICE REQUIRED.

IRRIGATION NOTES

1. ALL MAIN LINE PIPING AND CONTROL WIRES UNDER PAVING SHALL BE INSTALLED IN SEPARATE SLEEVES. MAIN LINE SLEEVE SIZE SHALL BE A MINIMUM OF TWICE (2X) THE DIAMETER OF THE PIPE TO BE SLEEVED. CONTROL WIRE SLEEVES SHALL BE OF SUFFICIENT SIZE FOR THE REQUIRED NUMBER OF WIRES UNDER PAVING.
2. ALL LATERAL LINE PIPING UNDER PAVING SHALL BE PVC SCHEDULE 40 PIPE AND SHALL BE INSTALLED PRIOR TO PAVING.
3. PIPE SIZES SHALL CONFORM TO THOSE SHOWN ON THE DRAWINGS. NO SUBSTITUTIONS OF SMALLER PIPE SIZES SHALL BE PERMITTED, BUT SUBSTITUTIONS OF LARGER SIZES MAY BE APPROVED. ALL DAMAGED AND REJECTED PIPE SHALL BE REMOVED FROM THE SITE AT THE TIME OF SAID REJECTION.
4. FINAL LOCATION OF THE AUTOMATIC CONTROLLER SHALL BE APPROVED BY OWNER'S AUTHORIZED REPRESENTATIVE.
5. 120 VAC ELECTRICAL POWER SOURCE AT CONTROLLER LOCATION SHALL BE PROVIDED BY OTHERS. THE IRRIGATION CONTRACTOR SHALL MAKE THE FINAL CONNECTION FROM THE ELECTRICAL SOURCE TO THE CONTROLLER.
6. ALL SPRINKLER HEADS SHALL BE SET PERPENDICULAR TO FINISH GRADE UNLESS OTHERWISE SPECIFIED.
7. THE IRRIGATION CONTRACTOR SHALL FLUSH AND ADJUST ALL SPRINKLER HEADS AND VALVES FOR OPTIMUM COVERAGE WITH MINIMAL OVERSPRAY ONTO WALKS, STREETS, WALLS, ETC.
8. THIS DESIGN IS DIAGRAMMATIC. ALL PIPING, VALVES, ETC. SHOWN WITHIN PAVED AREAS ARE FOR DESIGN CLARIFICATION ONLY AND SHALL BE INSTALLED IN PLANTING AREAS WHEREVER POSSIBLE. THE CONTRACTOR SHALL LOCATE ALL VALVES IN SHRUB AREAS.
9. ALL SPRINKLER EQUIPMENT NOT OTHERWISE DETAILED OR SPECIFIED SHALL BE INSTALLED AS PER MANUFACTURER'S RECOMMENDATIONS AND SPECIFICATIONS.
10. NOTIFY LAND. ARCH. PRIOR TO INSTALLATION IF ANY DISCREPANANCIES OCCUR.
11. INSTALL RAIN BIRD PCS SCREENS AS NECESSARY IN ORDER TO PREVENT OVERSPRAY ONTO WALK, WALLS, COLUMNS, ETC.
12. ALL IRRIGATION EQUIPMENT INCLUDING BACKFLOW PREVENTERS ARE TO BE SCREENED FROM VIEW.
13. ALL LATERAL AND MAIN LINE INSTALLED UNDER AC PAVING TO BE PROVIDED WITH PIPE SLEEVING (2 TIMES LINE SIZE). INSTALL PER CITY SPECIFICATIONS.
14. DO NOT WILLFULLY INSTALL THE SPRINKLER SYSTEM AS SHOWN ON THE DRAWINGS WHEN IT IS OBVIOUS IN THE FIELD THAT UNKNOWN OBSTRUCTIONS, GRADE DIFFERENCES OR DIFFERENCES IN THE AREA DIMENSIONS EXIST THAT MIGHT NOT HAVE BEEN CONSIDERED IN THE ENGINEERING. SUCH OBSTRUCTIONS OR DIFFERENCES SHOULD BE BROUGHT TO THE ATTENTION OF THE OWNER'S AUTHORIZED REPRESENTATIVE. IN THE EVENT THIS NOTIFICATION IS NOT PERFORMED, THE IRRIGATION CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY REVISIONS NECESSARY.
15. IT IS THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO FAMILIARIZE HIMSELF WITH ALL GRADE DIFFERENCES, LOCATION OF WALLS, RETAINING WALLS, STRUCTURES AND UTILITIES. THE IRRIGATION CONTRACTOR SHALL REPAIR OR REPLACE ALL ITEMS DAMAGED BY HIS WORK. HE SHALL COORDINATE HIS WORK WITH OTHER CONTRACTORS FOR THE LOCATION AND INSTALLATION OF PIPE SLEEVES AND LATERALS THROUGH WALLS, UNDER ROADWAYS AND PAVING, ETC.
16. REFER TO SPECIFICATIONS FOR STANDARDS OF MATERIALS AND WORKMANSHIP.
17. ALL LATERAL UNDER PAVING SHALL BE PVC SCH 40 AND INSTALLED IN A SLEEVE PER SPECIFICATIONS.
18. IRRIGATION CONTRACTOR SHALL ESTABLISH WATERING SCHEDULE FOR THIS PROJECT BASED ON SOIL, PLANT TYPE & ENVIRONMENTAL CONDITIONS. IF AN IRRIGATION SCHEDULE IS PROVIDED, IT IS TO BE USED AS A GUIDE ONLY.



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Landscape Architecture / Planning
California Licensed Landscape Architect # 3388

IRRIGATION PLAN

LANDSCAPE ARCHITECTURAL PLANS FOR:
EAST KATELLA RETAIL CENTER
232 E. KATELLA AVENUE
ORANGE, CA 92867

LICENSED LANDSCAPE ARCHITECT
LISA A. PIERCE
3388
Signature
4/30/22
Renewal Date
3/10/21
Date
STATE OF CALIFORNIA

DRAWN BY:	LP
PLOT DATE:	3/10/21
SCALE:	1"=10'

SHEET
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OF 5

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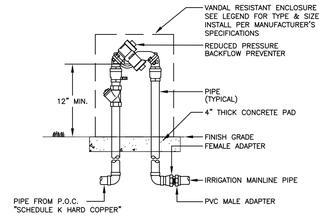
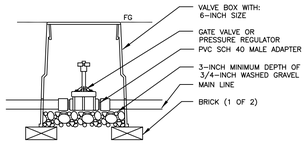
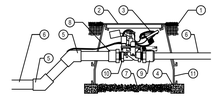


NOTE:
1. INSTALL BACKFLOW PREVENTER AS REQUIRED BY LOCAL CODES AND HEALTH DEPARTMENT. VERIFY LOCAL REQUIREMENTS PRIOR TO INSTALLATION.
2. INSTALL IN SHRUB AREA ONLY
3. ALL PIPE & FITTINGS TO BE "SCHEDULE K HARD COPPER".

A BACKFLOW PREVENTER



B GATE VALVE OR REGULATOR

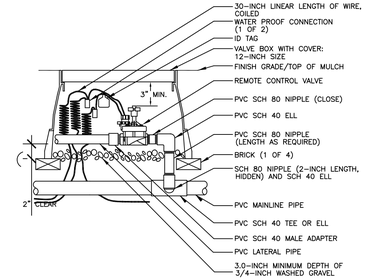


NOT TO SCALE

1. FINISH GRADE
2. GREEN VALVE BOX & LOCKABLE COVER
3. CONTROL WIRES WITH 12" MIN. SERVICE COIL AND WATERPROOF WIRE SPLICE CONNECTORS - WIRE COLORS PER SPECIFICATIONS
4. CONTINUOUS BRICK SUPPORTS
5. PVC 45 DEGREE ELL (TYP.)
6. PVC MAINLINE - LENGTH AS REQUIRED - SEE SPECIFICATIONS FOR TYPE AND DEPTH
7. GRAVEL (1 CU. FT.)
8. PVC MALE ADAPTER
9. PVC MALE ADAPTER - BUSH DOWN TO FLOW METER SIZE IF APPLICABLE
10. MASTER VALVE - REFER TO LEGEND
11. VALVE BOX EXTENSIONS AS REQUIRED

NOTES:
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.
2. DO NOT SCALE DRAWINGS.

C MASTER VALVE

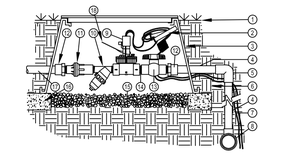


D REMOTE CONTROL VALVE

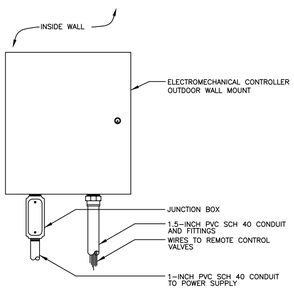
LEGEND

1. FINISH GRADE.
2. CONTROL WIRES WITH 36" SERVICE COIL AND WATER PROOF WIRE CONNECTIONS, DBY OR EQUAL.
3. RECTANGULAR PLASTIC VALVE BOX. HEAT BRAND STATION NUMBER ON LID IN 2" HIGH CHARACTERS.
4. PVC MAINLINE PER SPECIFICATIONS (LENGTH AS REQUIRED).
5. SCH 40 PVC ELL (SxS).
6. NATIVE SOIL PER SPECIFICATIONS.
7. CONTROL WIRES TO CONTROLLER.
8. PVC MAINLINE FITTING.
9. TORO 700 INLINE VALVE.
10. TORO 150 MESH Y-FILTER (").
11. TORO 25 PSI LOW FLOW PRESSURE REGULATOR (").
12. SCH 40 PVC MALE ADAPTER.
13. SCH 40 PVC BALL VALVE (").
14. SCH 80 PVC CLOSE NIPPLE (").
15. PEA GRAVEL SUMP. MINIMUM 6" DEEP.
16. BRICK SUPPORTS (4 COMMON BRICKS REQUIRED).
17. LATERAL LINE TO DRIP SYSTEM.
18. RECYCLED WATER ID TAG, IF REQUIRED.

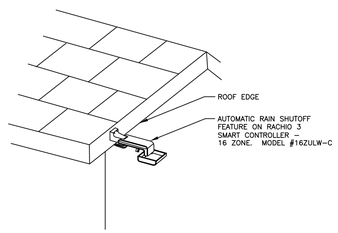
NOTES:
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.
2. DO NOT SCALE DRAWINGS.



E DRIP CONTROL ZONE KIT

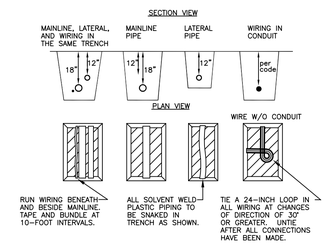


F CONTROLLER



NOTE:
1. FOR COMPLETE INSTALLATION INSTRUCTIONS, SEE INSTRUCTIONS ENCLOSED WITH RAIN CHECK.

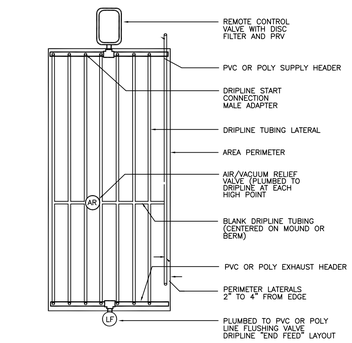
G AUTOMATIC RAIN SHUTOFF



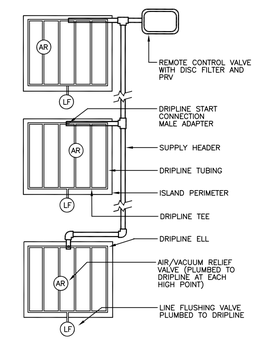
MINIMUM PIPE AND SLEEVE COVERAGE SHALL BE AS FOLLOWS:

A. PRESSRE LINES: LESS THAN 3" IN DIAMETER - 18" COVER
3" TO 5.2" IN DIAMETER - 24" COVER
6" OR GREATER IN DIAMETER - 36" COVER
B. LATERAL LINES: 12" COVER
C. SLEEVES UNDER ROADS:
6" OR LESS IN DIAMETER - 36" COVER GREATER THAN 6" IN DIAMETER - 48" COVER SCHEDULE 80 PVC
D. SLEEVES UNDER PAVING (NON-ROADS): SAME AS ABOVE SCHEDULE 40 PVC

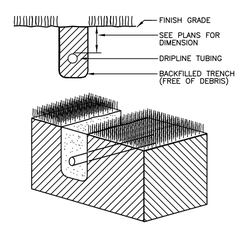
H TRENCHING AND SLEEVING



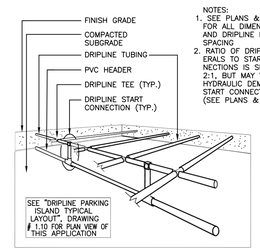
I DRIPLINE END FEED LAYOUT



J GENERAL DRIPLINE LAYOUT

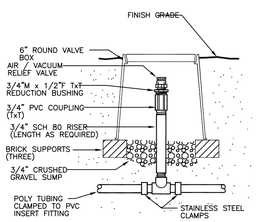


K DRIPLINE TRENCHING

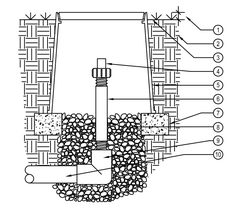


NOTES:
1. SEE PLANS & LEGEND FOR ALL DIMENSIONS AND DRIPLINE LATERAL SPACING
2. RATIO OF DRIPLINE LATERALS TO START CONNECTIONS IS SHOWN AT 2:1, BUT MAY VARY PER HYDRAULIC DEMAND ON START CONNECTION. (SEE PLANS & LEGEND)

L DRIPLINE SUB-HEADER



M AIR/VACUUM RELIEF



NOTES:
1. USE ONE FLUSH VALVE FOR EVERY 7 GPM PER ZONE. LOCATE AT LOW POINTS. FLUSH RATE IS 0.8 GPM. FLUSH PRESSURE IS 2 PSI. REFER TO TORO PUBLICATION #AL7111 FOR SPECIFICATIONS.
2. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
3. DO NOT SCALE DRAWING.
4. THIS DRAWING IS INTENDED FOR USE BY ARCHITECTS, ENGINEERS, CONTRACTORS, CONSULTANTS AND DESIGN PROFESSIONALS FOR PLANNING PURPOSES ONLY. THIS DRAWING MAY NOT BE USED FOR CONSTRUCTION.
5. ALL INFORMATION CONTAINED HEREIN WAS CURRENT AT THE TIME OF DEVELOPMENT BUT MUST BE REVIEWED AND APPROVED BY THE PRODUCT MANUFACTURER TO BE CONSIDERED ACCURATE.
6. CONTRACTOR'S NOTE: FOR PRODUCT AND COMPANY INFORMATION VISIT www.CADdetails.com/info AND ENTER REFERENCE NUMBER 065-188x.

N FLUSH VALVE ON PVC-EII

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 (ETo)[a]: 49.7

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

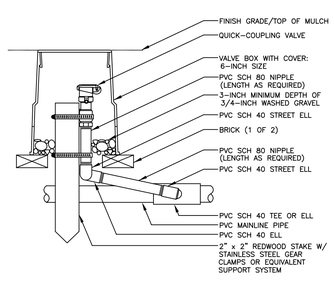
	Hydrozone #/Planting Description	Location	Plant Factor[b] (PF)	Irrigation Method[c]	Irrigation Efficiency[c] (IE)	ETAF (PF/IE)	Landscape Area (sq-ft)	ETAF x Area	Estimated Total Water Use[d] (ETWU)
Regular Landscape Area									
1	LOW SHRUBS	SITE	0.30	DRIP	0.81	0.37	1,675	620.4	19,116
2	LOW TREES	SITE	0.30	BUBBLERS	0.75	0.40	63	25.2	777
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									

Average	*Total*	*Total*
0.37	1,738	645.6
Average ETAF for Regular Landscape Areas[e] (circle one):	**In Compliance**	**Not In Compliance**

Special Landscape Area							
SLA-1					0	0	
SLA-2							
SLA-3							
SLA-4							
SLA-5							
				Totals	1,738	645.6	

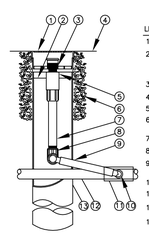
Total Landscape Area	1,738
Site wide ETAF	645.6
ETWU Total	19,893
Maximum Allowed Water Allowance (MAWA)[f]	24,100

23



NOTE:
1. FURNISH FITTINGS AND PIPING NOMINALLY SIZED IDENTICAL TO NOMINAL QUICK COUPLING VALVE INLET SIZE.

O QUICK-COUPLING VALVE



LEGEND
1. 4" GRATE
2. DEEP ROOT WATERING SYSTEM, REFER TO LEGEND FOR FULL MODEL #.
3. DRIP EMITTER. REFER TO LEGEND.
4. FINISH GRADE.
5. CHECK VALVE.
6. PEA GRAVEL. INSTALL ALL AROUND.
7. 1/2" SCHED. 80 PVC RISER.
8. 1/2" MARLEX ELL.
9. SWING PIPE, 12" PIPE SWING ASSEMBLY.
10. 1/2" MALE NPT INLET
11. PVC SCHEDULE TEE OR ELL.
12. LATERAL LINE.
13. 4" BASKET WEAVE CONTAINER.

NOTE:
- USE TEFLON TAPE ON ALL SWING JOINTS.
- INSTALL TRIPLE SWING JOINTS WITH ALTERNATING MARLEX AND PVC SCHEDULE 40 STREET ELLS.

P SUBGRADE BUBBLER

IRRIGATION SCHEDULE - INITIAL-ESTABLISHMENT PERIOD

TIMING CHART					MINUTES OF OPERATION PER CYCLE												
STATION	VALVE SIZE	GPM	HYDRO-ZONE	NO. OF DAYS	CYCLES/ DAY	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.
A1	1"	7.3	DRIP	6	2	10	13	15	18	18	20	24	24	18	15	13	10
A2	1"	8.5	TREES	6	2	2	2	2	5	5	5	6	6	5	2	2	2
A3	1"	4.5	DRIP	6	2	10	13	15	18	18	20	24	24	18	15	13	10
A4	1"	5.4	DRIP	6	2	10	13	15	18	18	20	24	24	18	15	13	10

IRRIGATION SCHEDULE - POST-ESTABLISHMENT PERIOD

TIMING CHART					MINUTES OF OPERATION PER CYCLE												
STATION	VALVE SIZE	GPM	HYDRO-ZONE	NO. OF DAYS	CYCLES/ DAY	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.
A1	1"	7.3	DRIP	5	1	10	13	15	18	18	20	24	24	18	15	13	10
A2	1"	8.5	TREES	5	1	2	2	2	5	5	5	6	6	5	2	2	2
A3	1"	4.5	DRIP	5	1	10	13	15	18	18	20	24	24	18	15	13	10
A4	1"	5.4	DRIP	5	1	10	13	15	18	18	20	24	24	18	15	13	10

IRRIGATION SCHEDULES ARE A GUIDELINE ONLY AND DO NOT PROVIDE FOR CHANGING WEATHER CONDITIONS, ETC. CONTRACTOR MAY NEED TO MAKE SLIGHT ADJUSTMENTS IN THE FIELD TO MAINTAIN COVERAGE AND MOISTURE CONTENT IN THE SOIL FOR PROPER AND REQUIRED PLANT GROWTH.

LANDSCAPE INSPECTION SCHEDULE

- PRE-JOB CONFERENCE
- ROUGH GRADING / EROSION CONTROL
- FINAL GRADING / SOIL AMENDMENTS / PRE-PLANT WEED CONTROL
- PLANT MATERIAL DELIVERY
- PLANT PIT EXCAVATION / AMENDMENTS / INSTALLATION
- TREE STAKING
- GROUND COVER OR TURF PLANTING OR HYDROSEEDING
- START OF MAINTENANCE
- FINAL INSPECTION AND ACCEPTANCE

PSI LOSS CALCULATIONS:

VALVE #A2 8.5 GPM

WATER METER	0.30
MAINLINE - SCH 40 PVC (70 LF)	0.20
BACKFLOW PREVENTER	11.00
PVC LATERALS	2.00
FITTINGS	0.30
REMOTE CONTROL VALVE	2.90
PRESSURE REQUIRED AT HEAD	30.00
ELEVATION LOSS	0.00
MISCELLANEOUS	2.00
TOTAL PRESSURE LOSS	48.70
STATIC PRESSURE	65.00
RESIDUAL PRESSURE	16.30

Lisa A. Pierce
6 San Ricardo
Rancho Santa Margarita
California 92688-2543
LPIERCE@TIERRAGROUP-LA.COM
Phone: (949) 713-4333
Fax: (949) 713-4233

TIERRA GROUP
Landscape Architecture / Planning
California Licensed Landscape Architect # 3388

IRRIGATION DETAILS & CALCULATIONS

LANDSCAPE ARCHITECTURAL PLANS FOR:
EAST KATELLA RETAIL CENTER
232 E. KATELLA AVENUE
ORANGE, CA 92867

LICENSED LANDSCAPE ARCHITECT
LISA A. PIERCE No. 3388
Signature
4/30/22
Renewal Date
3/10/21
Date
STATE OF CALIFORNIA

DRAWN BY: LP
PLOT DATE: 3/10/21
SCALE: NONE

SHEET
L-3
OF 5

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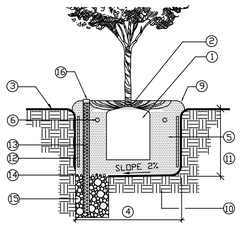
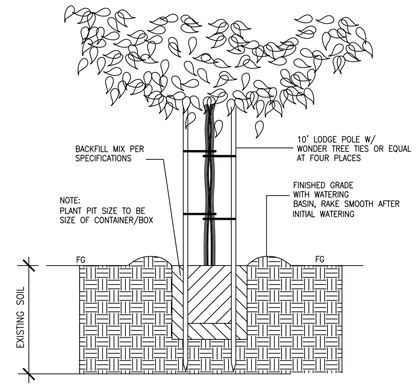


① ROOTBALL.
② CROWN-1" ABOVE FINISH GRADE.
③ FINISH GRADE.
④ 2 X ROOTBALL WIDTH.
⑤ BACKFILL MIX (SEE SPECS.).
⑥ PLANT TABLETS (SEE SPECS.).
⑨ 4" HIGH WATERING BASIN WITH 2" DEPTH MULCH.
⑩ UNDISTURBED NATIVE SOIL.
⑪ DEPTH OF ROOTBALL + 6".
⑫ INSTALL DEEPROOT BARRIERS ON ALL TREES WITHIN 5' OF PAVING, CURBS, WALLS OR BUILDINGS AND ALL STREET TREES.
⑬ PROVIDE 4" PERFORATED DRAIN TUBE 1/2" ABOVE FINISH GRADE. PROVIDE FILTER SOCK FOR ENTIRE LENGTH OF PIPE. TIE KNOT AT BOTTOM. (2) PER TREE
⑭ FILTER FABRIC ABOVE GRAVEL SUMP.
⑮ 12" DIAMETER X 3'-0" DEEP SUMP. FILL WITH 3/4" GRAVEL. COORDINATE INSTALLATION W/ INSPECTION / SIPHON TUBE.
⑯ BLACK T-CAP SECURED TO MALE ADAPTER. PAINT EXPOSED PIPE AND CAP BROWN.

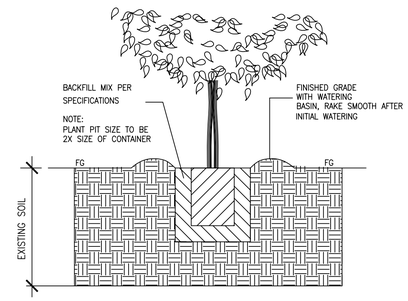
NOTES:

- UNTANGLE MATTED ROOTS BY LOOSENING ALL ROOTS AT EDGE OF ROOTBALL WITH WATER FROM HOSE.
- REFER TO SPECIFICATIONS FOR FERTILIZER REQUIREMENTS.
- TREE TIES TO BE 'WONDER TIES' OR EQUAL.
- KEEP WEEDS AND GROUNDCOVER OUT OF WATERING BASIN.

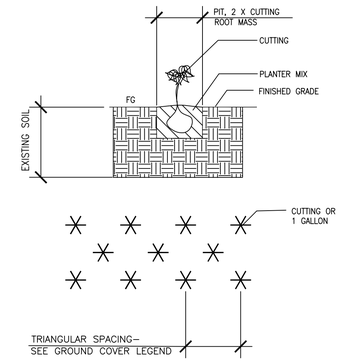
A TREE PLANTING



B TREE STAKING DETAIL



C SHRUB PLANTING DETAIL



D GROUND COVER PLANTING

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 East Katella Retail Center (project name, mailing address and telephone).

(2) The landscape project for the property located at 232 E. Katella Ave. Orange, Calif. 92867 (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 Water Efficient Landscape Section IX contained in the City of Orange Landscape Standards and Specifications (Municipal Code Sections 16.50.040) and the Guidelines for Implementation of the Water Efficient Landscape Section IX in the City of Orange Landscape Standards 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 Section IX of City of Orange Landscape Standards and Specifications and the Guidelines for Implementation of Water Efficient Landscapes Section IX of the City of Orange Landscape Standards and Specifications.

LISA Pierce — Print Name
3/10/21 — Date
Lisa Pierce — Signature
#3388 — License Number
6 San Ricardo Rancho Santa Margarita, CA. 92688 — Address
(949) 713-4333 — Telephone
lpierce@tierragroupla.com — E-mail Address

Landscape Design Professional's Stamp
(If Appropriate)

LICENSED LANDSCAPE ARCHITECT LISA A. PIERCE No. 3388 Signature Renewal Date Date STATE OF CALIFORNIA

CERTIFICATION OF COMPLETION

Lisa A. Pierce
6 San Ricardo
Rancho Santa Margarita
California 92688-2543
LPIERCE@TIERRAGROUPLA.COM
Phone: (949) 713-4333
Fax: (949) 713-4233

TIERRA GROUP
Landscape Architecture / Planning
California Licensed Landscape Architect # 3388

PLANTING DETAILS & CERTIFICATION OF COMPLETION

LANDSCAPE ARCHITECTURAL PLANS FOR:
EAST KATELLA RETAIL CENTER
232 E. KATELLA AVENUE
ORANGE, CA 92867

LICENSED LANDSCAPE ARCHITECT LISA A. PIERCE No. 3388 Signature 4/30/22 Renewal Date 3/10/21 Date STATE OF CALIFORNIA

DRAWN BY:	LP
PLOT DATE:	3/10/21
SCALE:	NONE

SHEET
L-4
OF 5

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PLANTING SPECIFICATIONS

GENERAL REQUIREMENTS

A. THE AGREEMENT, GENERAL CONDITIONS, SUPPLEMENTARY GENERAL CONDITIONS AND DIVISION ONE GENERAL REQUIREMENTS ARE A PART OF THIS SECTION AND APPLY TO THIS SECTION AS FULLY AS IF REPEATED HERE.

B. SCOPE: FURNISH AND INSTALL ALL LANDSCAPE PLANTING COMPLETE AS INDICATED ON THE DRAWINGS AS SPECIFIED HEREIN, INCLUDING BUT NOT LIMITED TO THE FOLLOWING:

1. PERFORM ALL FINISHED GRADING AND REMOVAL OF EXISTING WEEDS.
2. PROVIDE AND PLACE ALL SOIL ADDITIVES.
3. FURNISH AND PLACE ALL SOIL MIXES.
4. FURNISH AND INSTALL PLANT MATERIALS.
5. FURNISH AND INSTALL ALL STAKING AND GUYING.
6. PROVIDE SIXTY (60) DAY MAINTENANCE OF PLANTING.
7. GUARANTEES.
8. CLEANUP.

C. QUALITY CONTROL

1. SAMPLES AND DELIVERY OF MATERIALS:

   A. SAMPLES OF PREPARED PLANTING MIXTURE AND SOIL ADDITIVES, SHALL BE SUBMITTED TO OWNER FOR ACCEPTANCE.

   B. SUBSTITUTIONS WILL NOT BE PERMITTED, EXCEPT IF PROOF IS SUBMITTED THAT ANY MATERIAL SPECIFIED IS NOT OBTAINABLE, THEN A PROPOSAL WILL BE CONSIDERED FOR THE USE OF THE NEAREST EQUIVALENT, WITH AN EQUITABLE ADJUSTMENT OF CONTRACT PRICE. ALL SUBSTITUTIONS ARE SUBJECT TO APPROVAL OF THE OWNER OR HIS AGENT.

2. GUARANTEE: ALL TREES SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR AND ALL OTHER PLANT MATERIAL SHALL BE GUARANTEED FOR A PERIOD OF SIX (6) MONTHS, UPON FINAL ACCEPTANCE OF PLANTING BY THE OWNER OR HIS AGENT.

3. MAINTENANCE PERIOD: CONTRACTOR SHALL MAINTAIN ALL PLANTING AND PLANT MATERIAL FOR A PERIOD OF SIXTY (60) DAYS, AFTER COMPLETION AND FINAL ACCEPTANCE OF WORK BY OWNER.

4. INSPECTIONS: ALL INSPECTIONS HEREIN SPECIFIED SHALL BE MADE BY THE OWNER OR HIS AGENT. THE CONTRACTOR SHALL REQUEST INSPECTIONS AT LEAST THREE WORKING DAYS IN ADVANCE OF THE TIME INSPECTION IS REQUIRED. INSPECTIONS SHALL BE REQUIRED FOR THE FOLLOWING PARTS OF THE WORK:

   A. WHEN FINE GRADING AND SOIL PREPARATION ARE COMPLETED.
   B. PLANT MATERIAL AFTER DELIVERY TO SITE, FOR FIELD SPOTTING BY OWNER OR HIS AGENT.
   C. SPECIMEN TREES AT SOURCE, FOR TAGGING BY OWNER OR HIS AGENT.
   D. FINAL INSPECTION OF COMPLETED PLANTING BY OWNER OR HIS AGENT.

MATERIALS

A. SOIL AMENDMENTS:

COMMERCIAL FERTILIZER SHALL CONSIST OF THE FOLLOWING GUARANTEED PERCENTAGES DELIVERED IN SACKS WITH MANUFACTURER'S LABEL SHOWING WEIGHT AND ANALYSIS ON EACH SACK: 6(N)–20(P)–20(K). ORGANIC AMENDMENTS SHALL BE DERIVED FROM NITROGEN STABILIZED ORGANIC RESIDUES AND SHALL BE AERATED, FREE OF OBJECTIONABLE ODOR AND OF VIABLE WEED SEED.

SOIL SULFUR OF STANDARD COMMERCIAL GRADE.

GYPSUM OF STANDARD AGRICULTURAL GRADE.

B. PLANT MATERIALS:

PLANTS SHALL BE NURSERY GROWN AND TYPICAL OF THEIR SPECIES OR VARIETY AND SHALL BE OF NORMAL GROWTH HABITS. PLANTS SHALL BE HEALTHY, VIGOROUS AND WELL BRANCHED, AND DENSELY FOLIATED WHEN IN LEAF.

PLANTS SHALL CONFORM IN AT LEAST THE MINIMUM REQUIREMENTS NOTED ON THE PLAN, LEGEND OR PALETTE. THE ROOT BALL SHALL BE INTACT AND SHOW EVIDENCE OF A WELL DEVELOPED ROOT WITHOUT BEING ROOT BOUND. PLANTS SHALL HAVE GROWN IN THE DELIVERED CONTAINER SYSTEM FOR AT LEAST ONE YEAR.

PLANTS SHALL BE FREE OF DISEASES, INSECTS, PESTS, EGGS OR LARVAE.

PLANTS SHALL NOT BE PRUNED, EXCEPT AT THE DIRECTION OF THE OWNER OR OWNER'S AGENT.

TREES SHALL HAVE STURDY TRUNKS AND NORMAL BRANCHING, WHICH ARE INTACT AND WITHOUT CUTS OR ABRASIONS.

ALL PLANTS SHALL BE NURSERY GROWN UNDER CLIMATE CONDITIONS SIMILAR TO THOSE IN THE LOCALITY OF THE PROJECT FOR AT LEAST TWO YEARS.

QUANTITIES NECESSARY TO COMPLETE THE WORK SHOWN ON PLANS SHALL BE FURNISHED BY THE CONTRACTOR. ANY DISCREPANCY IN THE QUANTITIES GIVEN ON PLAN OR LEGEND SHALL BE BROUGHT TO THE OWNER, BEFORE SUBMITTING BID.

QUANTITIES GIVEN IN THE DRAWINGS ARE FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. QUANTITIES SHOWN ON PLAN ARE TO BE VERIFIED BY THE CONTRACTOR BEFORE SUBMITTING BID.

EXECUTION

A. CONTRACTOR IS RESPONSIBLE FOR VERIFYING LOCATIONS OF ALL UTILITY LINES, IRRIGATION LINES, ETC. SO THAT PROPER PRECAUTIONS MAY BE TAKEN NOT TO DISTURB OR DAMAGE SUCH IMPROVEMENTS. IN THE EVENT OF CONFLICT BETWEEN UTILITIES, ETC. AND PLANT LOCATIONS, THE CONTRACTOR SHALL PROMPTLY NOTIFY THE OWNER, WHO SHALL ARRANGE FOR THE RELOCATION OF PLANT MATERIAL. FAILING TO FOLLOW THIS PROCEDURE, THE CONTRACTOR SHALL AT HIS OWN EXPENSE, MAKE ANY AND ALL REPAIRS FOR DAMAGE RESULTING FROM HIS WORK.

REMOVE ROCK AND/OR OTHER OBSTRUCTIONS, TO PERMIT PROPER INSTALLATION OF PLANTING MATERIAL.

B. GRADING AND SOIL PREPARATION:

FINISHED GRADES: GENERAL CONTRACTOR SHALL BE RESPONSIBLE TO BRING ALL GRADES TO ± .10 PERCENT IN LANDSCAPE AREAS.

SCARIFY ALL SOIL WITH THE EXCEPTION OF SLOPES OVER 3:1, TO A MINIMUM DEPTH OF 4".

SOIL CONDITIONING: APPLY SOIL CONDITIONERS IN THE FOLLOWING AMOUNTS TO ALL AREAS UNLESS NOTED OTHERWISE BY LANDSCAPE SOILS REPORT:

1. 8 CUBIC YARDS OF NITROGEN STABILIZED MULCH PER 1000 SQUARE FEET.
2. 30 POUNDS OF 6–20–20 COMMERCIAL FERTILIZER, PER 1000 SQUARE FEET.
3. 100 POUNDS OF AGRICULTURAL GYPSUM PER 1000 SQUARE FEET.
4. REMOVAL OF ALL ROCKS AND FOREIGN MATTER OVER 1" IN DIAMETER, FROM TILLED AREAS.

C. TURF AND PLANTINGS

FIELD SPOT PLANTS PER PLAN AND SECURE APPROVAL FROM OWNER OR OWNER'S AGENT BEFORE DIGGING PITS. MAKE NECESSARY ADJUSTMENTS IN LOCATIONS AND EXCAVATE PITS AS FOLLOWS:

PLANT SIZE:	PIT WIDTH:	PIT DEPTH:
24" BOX	4.0'	22"
36" BOX	5.5'	32"
48" BOX	7.5'	36"
1 GALLON	15"	10.5"
5 GALLON	25"	20.5"
15 GALLON	41"	30.5"

THE BOTTOMS OF ALL PLANT PITS SHALL BE LOOSENED AN ADDITIONAL 5" BELOW DEPTHS NOTED AND DUSTED WITH GYPSUM AT THE RATE OF ONE CUP PER 5 GALLON PLANT, WITH A EQUAL RATIO MORE FOR LARGER SIZED PLANT MATERIAL. CANS AND BOXES SHALL BE REMOVED CAREFULLY TO AVOID BREAKING AT THE ROOTBALL. REMOVE CANS OR BOXES AFTER PLACEMENT, INCLUDING BOTTOMS OF BOXED SPECIMENS.

ALL BACKFILL FOR TREES, SHRUBS AND VINES SHALL BE AS PER FOLLOWS PER 10 CUBIC YARDS:
7 CUBIC YARDS OF NATIVE TOP SOIL.
3 CUBIC YARDS OF NITROGEN STABILIZED MULCH.
20 POUNDS OF 6–20–20 COMMERCIAL FERTILIZER.
100 POUNDS OF AGRICULTURAL GYPSUM.
10 POUNDS OF FERRIC SULFATE.

ADJUST DEPTH OF PLANT SO IT'S CROWN SHALL STAND AT FINISHED GRADE. ALL PLANTS SHALL BE SET IN A WATERING BASIN.

ALL TREES AND SHRUBS SHALL INCLUDE 21 GRAM AGRIFORM FERTILIZER TABLETS AS FOLLOWS:
6 TABLETS FOR 24" BOX OR LARGER.
4 TABLETS PER 15 GALLON PLANT.
3 TABLETS PER 5 GALLON PLANT.
1 TABLET PER 1 GALLON PLANT.

D. GROUND COVER PLANTING:

PLANTING PITS FOR GROUND COVER SHALL BE 4" MINIMUM IN DEPTH. PLANTS SHALL BE SPACED AS INDICATED ON DRAWINGS AND LEGENDS. SOIL SHALL BE FIRMLY PRESSED AROUND EACH PLANT AND EXCESS SOIL REMOVED FROM CROWN.

EACH SECTION OF GROUND COVER SHALL BE THOROUGHLY WATERED, IMMEDIATELY UPON COMPLETION OF PLANTING.

E. STAKING:

STAKE TREES AT TIME OF PLANTING. ALL 15 GALLON TREES SHALL BE STAKED USING LODGE POLE STAKES PER DETAIL AND/OR LOCAL REQUIREMENTS. LOCAL REQUIREMENTS TAKE PRECEDENCE..

F. CLEAN UP:

DURING THE COURSE OF THE WORK, REMOVE SURPLUS MATERIALS FROM THE SITE AND LEAVE PREMISES, SIDEWALKS AND ROADS IN A NEAT AND CLEAN CONDITION. EXCESS TOP SOIL IS TO BE REMOVED FROM SITE.

CLEAN UP AND REMOVE ALL DEBRIS AND SURPLUS MATERIALS UPON COMPLETION OF WORK, LEAVING THE PREMISES IN A NEAT AND CLEAN CONDITION, SATISFACTORY TO THE OWNER. REMOVE ALL TAGS, LABELS, TIES AND NURSERY STAKES FROM ALL PLANTS, UNLESS DIRECTED OTHERWISE.

G. GUARANTEE AND REPLACEMENT:

ALL BOXED AND CONTAINER SPECIMEN PLANT MATERIAL SHALL BE GUARANTEED TO BE IN GOOD HEALTHY AND FLOURISHING CONDITION, OF ACTIVE GROWTH, AT THE END OF ONE YEAR, FROM THE DATE OF ACCEPTANCE BY OWNER. ALL GALLON CONTAINERS SHALL BE GUARANTEED FOR 6 MONTHS FROM THE DATE OF ACCEPTANCE BY OWNER. ALL GUARANTEES SHALL BE IN WRITING AND A PART OF THE CONTRACT DOCUMENTS.

H. MAINTENANCE:
AN AUTOMATIC IRRIGATION SYSTEM SHALL BE PROVIDED FOR MAINTAINING MOISTURE REQUIREMENTS. HAND WATERING OF NEWLY PLANTED TREES AND SHRUBS SHALL BE REQUIRED ONCE A WEEK, FOR THREE WEEKS. CULTIVATE, WEED AND WATER AS REQUIRED DURING MAINTENANCE PERIOD. ALL PLANTING AREAS SHALL BE FREE OF WEEDS AT CONCLUSION OF MAINTENANCE PERIOD.

I. FINAL INSPECTION:

FINAL INSPECTION OF LAWNS AND PLANTING AREAS WILL BE MADE ONE WEEK PRIOR TO THE CONCLUSION OF THE MAINTENANCE PERIOD. CONTRACTOR SHALL NOTIFY THE OWNER OR OWNER'S AGENT, 3 WORKING DAYS PRIOR TO INSPECTION.

IRRIGATION SPECIFICATIONS

GENERAL REQUIREMENTS

A. THE AGREEMENT, GENERAL CONDITIONS, SUPPLEMENTARY GENERAL CONDITIONS AND DIVISION ONE GENERAL REQUIREMENTS ARE A PART OF THIS SECTION AND APPLY TO THIS SECTION, AS IF FULLY REPEATED HERE.

B. SCOPE

1. WORK SPECIFIED IN THIS SECTION: FURNISH ALL LABOR, TOOLS, MATERIALS, APPLIANCES, TEXTS, PERMITS, TAXES, ETC., NECESSARY FOR THE INSTALLATION OF A COMPLETE IRRIGATION SYSTEM AS SPECIFIED AND SHOWN ON THE DRAWINGS, LEGENDS AND DETAILS. REMOVAL OF DEBRIS, ROCKS, SOIL, ETC., AS A RESULT OF CONTRACTOR'S WORK, FROM THE SITE.

2. THE SYSTEM SHALL EFFICIENTLY AND EVENLY IRRIGATE ALL PLANTED AREAS WITH A MINIMUM OF OVER SPRAY, COMPLETE IN EVERY RESPECT AND SHALL BE LEFT READY FOR OPERATION, TO THE SATISFACTION OF THE OWNER OR OWNER'S AGENT.

3. ALL WORK SHALL BE PER LOCAL, COUNTY AND STATE CODES AND, PERFORMED IN A WORKMANSHIP LIKE MANNER, STANDARD TO THE INDUSTRY, TO THE SATISFACTION OF THE OWNER OR OWNER'S AGENT.

C. QUALITY CONTROL

1. MATERIAL LIST: A COMPLETE MATERIAL LIST SHALL BE SUBMITTED TO THE OWNER FOR APPROVAL PRIOR TO PERFORMING WORK. MATERIAL LIST SHALL INCLUDE THE MANUFACTURER, MODEL NUMBERS AND DESCRIPTION OF ALL MATERIAL, AND EQUIPMENT TO BE USED ON PROJECT.

2. AS BUILT DRAWINGS: AFTER COMPLETION OF IRRIGATION SYSTEM, THE CONTRACTOR SHALL SUBMIT TO THE OWNER, ON REPRODUCIBLE MEDIA OR DISK THE FOLLOWING DIMENSIONED FROM TWO PERMANENT POINTS OF REFERENCE:

   A. POINT OF CONNECTION.
   B. CONNECTION TO EXISTING ELECTRICAL POWER.
   C. ROUTING OF MAIN LINES.
   D. GATE VALVES .
   E. ROUTING OF CONTROL WIRING.
   F. QUICK COUPLING VALVES.
   G. CONTROLLER AND WATER SENSORS.
   H. BACKFLOW PREVENTER.

3. OPERATION AND MAINTENANCE MANUALS:

   A. PREPARE AND DELIVER TO THE OWNER WITHIN 10 CALENDAR DAYS PRIOR TO THE COMPLETION OF CONSTRUCTION, TWO HARD COVER BINDERS CONTAINING THE FOLLOWING INFORMATION:

      1. INDEX SHEET, STATING CONTRACTOR'S PHONE NUMBER, ADDRESS, LIST OF EQUIPMENT MANUFACTURERS AND THEIR ADDRESSEES, AND THEIR PHONE NUMBERS.
      2. GUARANTEE STATEMENTS.
      3. COMPLETE OPERATING AND MAINTENANCE INSTRUCTIONS FOR ALL EQUIPMENT.

MATERIALS

A. GENERAL: USE ONLY NEW MATERIAL AS NOTED ON DRAWINGS, LEGENDS AND SPECIFIED HEREIN.

B. PVC PRESSURE MAINLINE PIPE AND FITTINGS:

1. PIPE SHALL BE MADE FROM AN NSF APPROVED TYPE I, GRADE I, PVC, CONFORMING TO ASTM RESIN SPECIFICATION D1784. ALL PIPE MUST MEET REQUIREMENTS AS SET FORTH IN FEDERAL SPECIFICATION PS–22–70.
2. ALL FITTINGS SHALL BE SCH. 40, UNLESS NOTED OTHERWISE ON PLANS OR DETAILS.
3. SOLVENT CEMENT AND PRIMER FOR PVC SOLVENT WELDED PIPE AND FITTINGS SHALL BE OF TYPE PRESCRIBED BY MANUFACTURER.
4. ALL PVC PIPE MUST BEAR THE FOLLOWING MARKINGS:
   A. MANUFACTURER'S NAME.
   B. NOMINAL PIPE SIZE.
   C. SIZE, CLASS AND PRESSURE RATING.

C. PVC NON–PRESSURE LATERAL LINE PIPING:

1. NON–PRESSURE LATERAL LINE PIPING SHALL BE PVC CLASS 200 WITH SOLVENT WELDED JOINTS UNLESS NOTED OTHERWISE ON PLANS OR LEGENDS.
2. PIPE SHALL BE MADE FROM NSF APPROVED TYPE I, GRADE II PVC COMPOUND CONFORMING TO ASTM RESIN SPECIFICATION D1784. ALL PIPE MUST MEET REQUIREMENTS SET FORTH IN FEDERAL SPECIFICATIONS PS–22–70

D. QUICK COUPLING VALVES:

1. QUICK COUPLING VALVE SHALL HAVE A BRASS BODY DESIGNED FOR A MINIMUM WORKING PRESSURE OF 150 PSI.

E, GATE VALVES:

1. GATE VALVES SHALL BE BRONZE BODY PER IRRIGATION LEGEND.

F. BACKFLOW PREVENTION UNIT:
1. THE BACKFLOW PREVENTER SHALL OPERATE ON A REDUCED PRESSURE PRINCIPAL AS PER IRRIGATION LEGEND.

G. CONTROL WIRING

1, CONNECTION BETWEEN THE AUTOMATIC CONTROLLERS AND THE ELECTRIC CONTROL VALVES SHALL BE MADE WITH DIRECT BURIAL COPPER WIRE. CONTROL WIRE SHALL BE WHITE WITH A DIFFERENT COLOR STRIPE FOR EACH AUTOMATIC VALVE. INSTALL IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS. FIELD SPLICES BETWEEN VALVE AND CONTROLLER WILL NOT BE ALLOWED UNLESS WRITTEN PERMISSION IS OBTAINED FROM OWNER. ALL WIRING SHALL BE #14 UNLESS SPECIFIED OTHERWISE.
2. WIRING SHALL OCCUPY THE SAME TRENCH AND SHALL BE INSTALLED ALONG THE SAME ROUTE AS THE PRESSURE SUPPLY LINE WHENEVER POSSIBLE.
3. WIRING SHALL BE TAPED TOGETHER AT INTERVALS OF TEN FEET.
4. EXPANSION COILS SHALL BE PROVIDED EVERY 100' OF WIRING.
5. ALL SPLICES SHALL BE MADE WITH 3M WATERPROOF SPLICES OR EQUAL.

H. AUTOMATIC CONTROLLER:

1. THE AUTOMATIC CONTROLLER SHALL BE AS NOTED IN IRRIGATION LEGEND.

I. ELECTRIC CONTROL VALVE:

1. THE ELECTRIC CONTROL VALVE SHALL BE A NORMALLY CLOSED, 24 VOLT, 60 CYCLE VALVE AS NOTED IN IRRIGATION LEGEND.

2. ALL VALVES TO BE AS NOTED IN IRRIGATION LEGEND.

J. CONTROL VALVE BOXES :

1. ALL VALVES TO BE IN BROOKS PLASTIC BOXES WITH COVERS, OR EQUAL.

K. SPRINKLER HEADS

1. ALL SPRINKLER HEADS SHALL BE AS NOTED IN IRRIGATION LEGEND.
2. RISER AND SWING JOINT ASSEMBLIES SHALL BE FABRICATED IN ACCORDANCE WITH DETAILS SHOWN ON PLANS. PRE MANUFACTURED SWING JOINTS WILL BE CONSIDERED.

L. EQUIPMENT TO BE FURNISHED:

1. SUPPLY AS A PART OF THE CONTRACT THE FOLLOWING:
   A. TWO VALVES KEYS FOR GATE VALVES.
   B. TWO KEYS FOR EACH AUTOMATIC CONTROLLER.
   C. TWO QUICK COUPLER KEYS AND MATCHING HOSE SWIVELS, FOR EACH TYPE OF QUICK COUPLING VALVE INSTALLED.

EXECUTION

A. PRODUCT DELIVERY, STORAGE AND HANDLING:

1. ALL PVC PIPE SHALL BE TRANSPORTED IN A VEHICLE WHICH ALLOWS THE LENGTHS OF PIPE TO LAY FLAT SO AS NOT TO SUBJECT THE PIPE TO BINDING, BENDING, OR CONCENTRATED EXTERNAL LOADS AT ANY POINT.
2. ANY SECTION OF PIPE THAT HAS BEEN DENTED OR DAMAGED WILL BE DISCARDED AND IF INSTALLED, SHALL BE REPLACED WITH NEW PIPING AT NO ADDITIONAL COST TO THE OWNER.

B. LAYOUT:

1. IRRIGATION DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE WORK TO BE INSTALLED. DUE TO THE SCALE OF THE DRAWINGS, IT IS NOT POSSIBLE TO INDICATE ALL OFFSETS, FITTINGS, SLEEVES, ETC., WHICH MAY BE REQUIRED. ALL SCALED DIMENSIONS ARE APPROXIMATE. CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS BEFORE SUBMITTING BID TO OWNER AND PRIOR TO STARTING ANY WORK.
2. EXERCISE EXTREME CARE IN EXCAVATING AND WORKING NEAR EXISTING UTILITIES. CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGES TO UTILITIES WHICH ARE CAUSED BY HIS WORK OR NEGLECT. CHECK EXISTING UTILITIES DRAWINGS, CIVIL DRAWINGS AND ARCHITECTURAL DRAWINGS FOR NEW AND EXISTING UTILITY LOCATIONS BEFORE ANY START OF WORK.
3. PRIOR TO INSTALLATION, THE CONTRACTOR SHALL STAKE OUT ALL PRESSURE SUPPLY LOCATIONS, VALVES, HEADS AND CONTROLLERS.

C. INSTALLATION:

1. WATER SUPPLY:

   A. CONNECT IRRIGATION SYSTEM TO GATE VALVE OR METER, AS SUPPLIED BY OWNER. CONFIRM WATER SUPPLY BEFORE SUBMITTING BID AND START OF WORK.

2. ELECTRICAL SUPPLY:

   A. CONNECT ELECTRICAL CONNECTIONS FOR AUTOMATIC CONTROLLER TO NEAREST 120 VOLT SOURCE, AS SUPPLIED BY OWNER. CONFIRM LOCATION BEFORE SUBMITTING BID.

3. TRENCHING:

   A. DIG TRENCHES STRAIGHT AND TRUE. SUPPORT PIPE CONTINUOUSLY ON BOTTOM OF TRENCH. LAY PIPE TO AN EVEN GRADE. TRENCHING EXCAVATION SHALL FOLLOW APPROXIMATE LAYOUT AS INDICATED ON PLAN.
   B. PROVIDE MINIMUM COVER OF 18" FOR ALL PRESSURE BEARING LINES.
   C. PROVIDE MINIMUM COVER OF 12" FOR ALL LATERAL LINES.
   D. PROVIDE MINIMUM COVER OF 18" FOR ALL CONTROL WIRING.

4. BACK FILLING:

   A. TRENCHES SHALL NOT BE BACK FILLED UNTIL ALL REQUIRED TESTS ARE PERFORMED TRENCHES SHALL BE CAREFULLY BACK FILLED WITH THE EXCAVATED MATERIAL, FREE FROM LARGE CLODS OF EARTH OR STONES EXCEEDING 1/2" IN DIAMETER. BACKFILL SHALL BE COMPACTED TO A DRY DENSITY EQUAL TO ADJACENT GRADES WITHOUT DIPS, SUNKEN AREAS, HUMPS OR OTHER IRREGULARITIES.
   B. FLOODING OF TRENCHES SHALL NOT BE PERMITTED.
   C. IF SETTLEMENT OCCURS AND SUBSEQUENT ADJUSTMENT IN PIPE, VALVES, SPRINKLER HEADS, LAWNS, PLANTING, ETC., ARE NECESSARY, THE CONTRACTOR SHALL MAKE ALL REQUIRED ADJUSTMENTS, AT ON COST TO THE OWNER.

5. TRENCHING AND BACK FILLING UNDER PAVING:

   A. TRENCHES LOCATED UNDER AREAS OF PAVING, ASPHALT, CONCRETE OR FOUNDATIONS SHALL BE BACK FILLED WITH SAND, 6" MINIMUM BELOW PIPE AND 3" MINIMUM ABOVE PIPE. FIELD COMPACT TO 95% COMPACTED. ALL TRENCHES SHALL BE LEFT FLUSH WITH ADJOINING GRADE. CONTRACTOR SHALL SET IN PLACE ALL PIPING AND CAP AS REQUIRED, AND PRESSURE TEST ALL PIPING PRIOR TO PAVING.
   B. WHERE ANY CUTTING OR BREAKING OF CONCRETE OR PAVING IS NECESSARY, IT SHALL BE DONE AND REPLACED BY THE CONTRACTOR AS PART OF CONTRACT COST. PERMISSION TO CUT OR BREAK CONCRETE OR PAVING SHALL BE OBTAINED FROM THE OWNER, IN WRITING, PRIOR TO WORK.

6. LINE CLEARANCE:

   A. ALL LINES SHALL HAVE A MINIMUM CLEARANCE OF 6" FROM LINES OF OTHER TRADES. PARALLEL IRRIGATION LINES SHALL NOT BE INSTALLED DIRECTLY OVER EACH OTHER.

7. AUTOMATIC CONTROLLER:

   A. INSTALL PER MANUFACTURER'S SPECIFICATIONS. REMOTE CONTROL VALVES SHALL BE CONNECTED TO CONTROLLER IN NUMERICAL SEQUENCE, AS PER PLAN.

8. HIGH VOLTAGE WIRING FOR AUTOMATIC CONTROLLER:

   A. 120 VOLT POWER CONNECTION TO AUTOMATIC CONTROLLER SHALL BE PROVIDED BY OWNER.
   B. ALL ELECTRICAL WORK SHALL CONFORM TO LOCAL, CITY AND COUNTY CODE.

9. REMOTE CONTROL VALVES:

   A. INSTALL PER PLAN AND IRRIGATION DETAILS. WHEN VALVES ARE GROUPED TOGETHER ALLOW AT LEAST TWELVE INCHES BETWEEN VALVES. INSTALL EACH CONTROL VALVE IN A SEPARATE VALVE BOX.

10. IRRIGATION HEADS:

   A. INSTALL IRRIGATION HEADS AS PER PLAN AND IRRIGATION DETAILS. SPACING OF HEADS SHALL NOT EXCEED THE MAXIMUM INDICATED ON DRAWINGS. CONTRACTOR TO PROVIDE FULL COVERAGE IN ALL PLANTED AREAS, WITH A MINIMUM OF OVER SPRAY.

11. FLUSHING OF IRRIGATION SYSTEM:

   A. AFTER ALL IRRIGATION LINES AND RISERS ARE IN PLACE AND FULLY CONNECTED, PRIOR TO INSTALLATION OF IRRIGATION HEADS, THE CONTROL VALVES SHALL BE OPENED AND SYSTEM FULLY FLUSHED.

   B. IRRIGATION HEADS SHALL BE INSTALLED ONLY AFTER FLUSHING OF THE SYSTEM HAS BEEN COMPLETED AND INSPECTED BY OWNER OR OWNER'S AGENT.

12. ADJUSTMENT OF IRRIGATION SYSTEM:

   A. THE CONTRACTOR SHALL FLUSH AND ADJUST ALL IRRIGATION HEADS FOR OPTIMUM PERFORMANCE AND TO PREVENT OVER SPRAY ON WALKS, ROADWAYS AND BUILDINGS.
   B. IF IT IS DETERMINED THAT ADJUSTMENTS OF THE IRRIGATION EQUIPMENT WILL PROVIDE MORE ADEQUATE COVERAGE, THE CONTRACTOR SHALL MAKE SUCH ADJUSTMENTS PRIOR TO PLANTING. ADJUSTMENTS MAY ALSO INCLUDE CHANGES IN NOZZLE SIZES AND DEGREES OF ARC AS REQUIRED, AT NO ADDITIONAL COST TO OWNER.
   C. ALL IRRIGATION HEADS SHALL BE SET PERPENDICULAR TO FINISHED GRADES UNLESS OTHERWISE INDICATED ON PLAN.

13. TESTING,, MAINTENANCE AND GUARANTEES

   A. TEST ALL PRESSURE LINES AND ALL PIPING UNDER PAVING WITH HYDROSTATIC PRESSURE OF 150 PSI FOR 24 HOUR&FTER TESTING, IF LEAKS DEVELOP, REPLACE JOINTS, PIPE, ETC., AS REQUIRED AND RETEST AT NO ADDITIONAL COST TO OWNER.
   B. WHEN IRRIGATION SYSTEM IS COMPLETED, PERFORM TEST COVERAGE IN PRESENCE OF OWNER. AREAS THAT ARE NOT FULLY COVERED SHALL BE ADJUSTED AS REQUIRED UNTIL FULL COVERAGE IS OBTAINED, AT NO ADDITIONAL COST TO OWNER.
   C. MAINTENANCE PERIOD FOR IRRIGATION SYSTEM SHALL BE 60 DAYS FROM DATE OF ACCEPTANCE.
   D. CONTRACTOR SHALL GUARANTEE IRRIGATION SYSTEM AND EQUIPMENT FOR A PERIOD OF ONE CALENDAR YEAR FROM DATE OF ACCEPTANCE BY OWNER.

IMPORTANT NOTE
SITE SPECIFIC SOILS REPORT WILL SUPERCEDE THE GUIDELINES
SOIL PREPARATION RECOMMENDATIONS SHOWN.

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Landscape Architecture / Planning
California Licensed Landscape Architect # 3388

LANDSCAPE SPECIFICATIONS

LANDSCAPE ARCHITECTURAL PLANS FOR:
EAST KATELLA RETAIL CENTER
232 E. KATELLA AVENUE
ORANGE, CA 92867

LICENSED LANDSCAPE ARCHITECT
LISA A. PIERCE No. 3388
Signature
4/30/22
Renewal Date
3/10/21
Date
STATE OF CALIFORNIA

DRAWN BY:	LP
PLOT DATE:	3/10/21
SCALE:	NONE

SHEET
L–5
OF 5

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ARC1 LED
Architectural Wall Luminaire

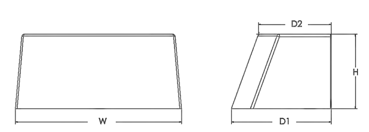
Catalog Number
Notes
Type

Hit the Tab key or mouse over the page to see all interactive elements.

Introduction
The Lithonia Lighting ARC LED wall-mounted luminaires provide both architectural styling and visually comfortable illumination while providing the high energy savings and low initial costs for quick financial payback.

ARC1 delivers up to 3,000 lumens with a soft, non-pixelated light source, creating a visually comfortable environment. The compact size of ARC1, with its integrated emergency battery backup option, is ideal for over-the-door applications.

Specifications
Depth (D1): 6.5"
Depth (D2): 4.75"
Height: 5"
Width: 11"
Weight: (without options) 7 lbs



ARC LED Family Overview

Luminaire	Standard EM, 0°C	Cold EM, -20°C	Approximate Lumens (4000K) P1	P2	P3	P4	P5
ARC1 LED	4W	--	1,500	2,000	3,000	--	--
ARC2 LED	4W	8W	1,500	2,000	3,000	4,000	6,500

Ordering Information
EXAMPLE: ARC1 LED P2 40K MVOLT PE DDBXD

Series	Package	Color Temperature	Voltage	Options	Finish
ARC1 LED	P1 1,500 Lumens P2 2,000 Lumens P3 3,000 Lumens	30K 3000K 40K 4000K 50K 5000K	MVOLT 347[1]	E4WH Emergency battery backup, CEC compliant (4W, 0°C min)[1] PE Button type photocell for dusk-to-dawn operation DMG 0-10V dimming wires pulled outside fixture (for use with an external control, ordered separately)[2] SPD6KV 6kV surge protection[1] FAO Field adjustable light output device. Allows for easy adjustment to the desired light levels, from 20% to 100%[2]	DDBXD Dark bronze DBLXD Black DNAXD Natural aluminum DWHXD White DSSXD Sandstone DDBTXD Textured dark bronze DBLBXD Textured black DNATXD Textured natural aluminum DWHGXD Textured white DSSTXD Textured sandstone

Accessories
Ordered and shipped separately.
WSBBW DDBXD U — Surface - mounted back box (specify finish)

NOTES
1 347V not available with E4WH.
2 FAO not available with DMG.

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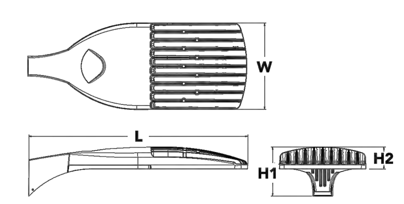
D-Series Size 1
LED Area Luminaire

d"series

Catalog Number
Notes
Type

Hit the Tab key or mouse over the page to see all interactive elements.

Specifications
EPA: 1.01 ft² (0.09 m²)
Length: 33" (83.8 cm)
Width: 13" (33.0 cm)
Height H1: 7-1/2" (19.0 cm)
Height H2: 3-1/2"
Weight (max): 27 lbs (12.2 kg)



Introduction
The modern styling of the D-Series is striking yet unobtrusive - making a bold, progressive statement even as it blends seamlessly with its environment. The D-Series distills the benefits of the latest in LED technology into a high performance, high efficacy, long-life luminaire.

The outstanding photometric performance results in sites with excellent uniformity, greater pole spacing and lower power density. It is ideal for replacing up to 750W metal halide in pedestrian and area lighting applications with typical energy savings of 65% and expected service life of over 100,000 hours.

A+ Capable options indicated by this color background.

Ordering Information
EXAMPLE: DSX1 LED P7 40K T3M MVOLT SPA NLTAIR2 PIRHN DDBXD

DSX1 LED

Series	LEDs	Color temperature	Distribution	Voltage	Mounting
DSX1 LED	Forward optics P1 P4 P7 P2 P5 P8 P3 P6 P9 Rotated optics P10[1] P12[1] P11[1] P13[1]	30K 3000 K 40K 4000 K 50K 5000 K	T1S Type I short (Automotive) T2S Type II short T2M Type II medium T3S Type III short T3M Type III medium T4M Type IV medium TFTM Forward throw medium T5VS Type V very short[2] T5S Type V short[2] T5M Type V medium[2] T5W Type V wide[2] BLC Backlight control[3] LCCO Left corner cutoff[3] RCCO Right corner cutoff[3]	MVOLT[4] 120[5] 208[5] 240[5] 277[5] 347[5] 480[5]	Shipped included SPA Square pole mounting RPA Round pole mounting WBA Wall bracket[2] SPUMBA Square pole universal mounting adaptor[6] RPUMBA Round pole universal mounting adaptor[6] Shipped separately KMA8 DDBXD U Mast arm mounting bracket adaptor (specify finish)[7]

Control options		Other options	Finish (required)
Shipped installed NLTAIR2 nLight AIR generation 2 enabled[8] PIRHN Network, high/low motion/ambient sensor[9] PER NEMA twist-lock receptacle only (controls ordered separate)[10] PER5 Five-pin receptacle only (controls ordered separate)[10,11] PER7 Seven-pin receptacle only (controls ordered separate)[10,11] DMG 0-10v dimming wires pulled outside fixture (for use with an external control, ordered separately)[13] DS Dual switching[13,14,15]	PIR High/low, motion/ambient sensor, 8-15' mounting height, ambient sensor enabled at 5fc[16,17] PIRH High/low, motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 5fc[16,17] PIR1FC3V High/low, motion/ambient sensor, 8-15' mounting height, ambient sensor enabled at 1fc[16,17] PIRH1FC3V Bi-level, motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 1fc[16,17] FAO Field adjustable output[15]	Shipped installed HS House-side shield[18] SF Single fuse (120, 277, 347V)[5] DF Double fuse (208, 240, 480V)[5] L90 Left rotated optics[1] R90 Right rotated optics[1] Shipped separately BS Bird spikes[19] EGS External glare shield	DDBXD Dark bronze DBLXD Black DNAXD Natural aluminum DWHXD White DDBTXD Textured dark bronze DBLBXD Textured black DNATXD Textured natural aluminum DWHGXD Textured white

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D-Series Size 2
LED Wall Luminaire

d"series

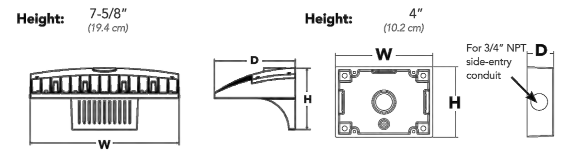
Buy American

Catalog Number
Notes
Type

Hit the Tab key or mouse over the page to see all interactive elements.

Specifications
Luminaire
Width: 18-1/2" (47.0 cm) Weight: 21 lbs (9.5 kg)
Depth: 10" (25.4 cm)
Height: 7-5/8" (19.4 cm)

Back Box (BBW)
Width: 5-1/2" (14.0 cm) BBW Weight: 1 lbs (0.5 kg)
Depth: 1-1/2" (3.8 cm)
Height: 4" (10.2 cm)



A+ Capable Luminaire
This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and system-level interoperability.

- All configurations of this luminaire meet the Acuity Brands' specification for chromatic consistency
- This luminaire is A+ Certified when ordered with DTL® controls marked by a shaded background. DTL DLL equipped luminaires meet the A+ specification for luminaire to photocontrol interoperability1
- This luminaire is part of an A+ Certified solution for ROAM® or XPoint™ Wireless control networks, providing out-of-the-box control compatibility with simple commissioning, when ordered with drivers and control options marked by a shaded background¹

To learn more about A+, visit www.acuitybrands.com/aplus.

1. See ordering tree for details.
2. A+ Certified Solutions for ROAM require the order of one ROAM node per luminaire. Sold Separately: Link to Roam; Link to DTL DLL

A+ Capable options indicated by this color background.

Ordering Information
EXAMPLE: DSXW2 LED 30C 700 40K T3M MVOLT DDBTXD

DSXW2 LED

Series	LEDs	Drive Current	Color temperature	Distribution	Voltage	Mounting	Control Options
DSXW2 LED	20C 20 LEDs (two engines) 30C 30 LEDs (three engines)	350 350 mA 530 530 mA 700 700 mA 1000 1000 mA[1] (1 A)	30K 3000 K 40K 4000 K 50K 5000 K AMBPC Amber phosphor converted[2]	T2S Type II Short T2M Type II Medium T3S Type III Short T3M Type III Medium T4M Type IV Medium TFTM Forward Throw Medium	MVOLT[3] 120[4] 208[4] 240[4] 277[4] 347[4,5] 480[4,5]	Shipped included (blank) Surface mounting bracket Shipped separately[6] BBW Surface-mounted back box (for conduit entry)	Shipped installed PE Photoelectric cell, button type[7] PER NEMA twist-lock receptacle only (control ordered separate)[8] PER5 Five-wire receptacle only (control ordered separate)[8,9] PER7 Seven-wire receptacle only (control ordered separate)[8,9] DMG 0-10v dimming wires pulled outside fixture (for use with an external control, ordered separately) PIR 180° motion/ambient light sensor, <15' mtg ht[10,11] PIRH 180° motion/ambient light sensor, 15-30' mtg ht[10,11] PIR1FC3V Motion/ambient sensor, 8-15' mounting height, ambient sensor enabled at 1fc[11,12] PIRH1FC3V Motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 1fc[11,12]

Other Options		Finish (required)
Shipped installed SF Single fuse (120, 277, 347V)[3] DF Double fuse (208, 240, 480V)[3] HS House-side shield[4] SPD Separate surge protection[13]	Shipped separately[13] BSW Bird-deterrent spikes VG Vandal guard	DDBXD Dark bronze DBLXD Black DNAXD Natural aluminum DWHXD White DSSXD Sandstone DDBTXD Textured dark bronze DBLBXD Textured black DNATXD Textured natural aluminum DWHGXD Textured white DSSTXD Textured sandstone

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Performance Data
Lumen Output
Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Contact factory for performance data on any configurations not shown here.

Performance Package	System Watts	30K (3000K, 80 CRI) Lumens	LPW	B	U	G	40K (4000K, 80 CRI) Lumens	LPW	B	U	G	50K (5000K, 80 CRI) Lumens	LPW	B	U	G
P1	11W	1,376	127	0	0	0	1,454	134	0	0	0	1,464	135	0	0	0
P2	17W	2,035	121	1	0	1	2,151	128	1	0	1	2,165	129	1	0	1
P3	25W	2,859	117	1	0	1	3,021	123	1	0	1	3,041	124	1	0	1

Electrical Load

Performance Package	System Watts	Current (A) 120V	208V	240V	277V	347V
P1	11W	0.111	0.061	0.053	0.047	0.045
P2	17W	0.139	0.081	0.071	0.063	0.060
P3	25W	0.208	0.122	0.108	0.097	0.081

Lumen Output in Emergency Mode (4000K, 80 CRI)

Option	Lumens
E4WH	620

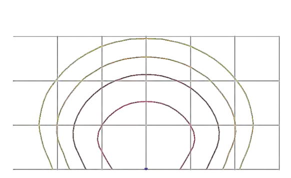
Lumen Ambient Temperature (LAT) Multipliers
Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

Ambient		Lumen Multiplier
0°C	32°F	1.04
10°C	50°F	1.02
20°C	68°F	1.01
25°C	77°F	1.00
30°C	86°F	0.99
40°C	104°F	0.97

Projected LED Lumen Maintenance
Data references the extrapolated performance projections for the platforms noted in a 25°C ambient, based on 10,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11). To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

Operating Hours	0	25,000	50,000	100,000
Lumen Maintenance Factor	0.97	>0.96	>0.95	>0.91

Photometric Diagrams
To see complete photometric reports or download .ies files for this product, visit the Lithonia Lighting ARC LED homepage. Tested in accordance with IESNA LM-79 and LM-80 standards.



ARC1 LED P3 40K

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Performance Data
Lumen Output
Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts Contact factory for performance data on any configurations not shown here.

Forward Optics

LED Count	Drive Current	Power Package	System Watts	Dist. Type	30K (3000 K, 70 CRI) Lumens	B	U	G	LPW	40K (4000 K, 70 CRI) Lumens	B	U	G	LPW	50K (5000 K, 70 CRI) Lumens	B	U	G	LPW
30	530	P1	54W	T1S	6,457	2	0	2	120	6,956	2	0	2	129	7,044	2	0	2	130
				T2S	6,450	2	0	2	119	6,949	2	0	2	129	7,037	2	0	2	130
				T2M	6,483	1	0	1	120	6,984	2	0	2	129	7,073	2	0	2	131
				T3S	6,279	2	0	2	116	6,764	2	0	2	125	6,850	2	0	2	127
				T3M	6,468	1	0	2	120	6,967	1	0	2	129	7,056	1	0	2	131
				T4M	6,327	1	0	2	117	6,816	1	0	2	126	6,902	1	0	2	128
				TFTM	6,464	1	0	2	120	6,963	1	0	2	129	7,051	1	0	2	131
				T5VS	6,722	2	0	0	124	7,242	3	0	0	134	7,334	3	0	0	136
				T5S	6,728	2	0	1	125	7,248	2	0	1	134	7,340	2	0	1	136
				T5M	6,711	3	0	1	124	7,229	3	0	1	134	7,321	3	0	2	136
				T5W	6,667	3	0	2	123	7,182	3	0	2	133	7,273	3	0	2	135
				BLC	5,299	1	0	1	98	5,709	1	0	2	106	5,781	1	0	2	107
				LCCO	3,943	1	0	2	73	4,248	1	0	2	79	4,302	1	0	2	80
				RCCO	3,943	1	0	2	73	4,248	1	0	2	79	4,302	1	0	2	80
30	700	P2	70W	T1S	8,249	2	0	2	118	8,886	2	0	2	127	8,999	2	0	2	129
				T2S	8,240	2	0	2	118	8,877	2	0	2	127	8,989	2	0	2	128
				T2M	8,283	2	0	2	118	8,923	2	0	2	127	9,036	2	0	2	129
				T3S	8,021	2	0	2	115	8,641	2	0	2	123	8,751	2	0	2	125
				T3M	8,263	2	0	2	118	8,901	2	0	2	127	9,014	2	0	2	129
				T4M	8,083	2	0	2	115	8,708	2	0	2	124	8,818	2	0	2	126
				TFTM	8,257	2	0	2	118	8,896	2	0	2	127	9,008	2	0	2	129
				T5VS	8,588	3	0	0	123	9,252	3	0	0	132	9,369	3	0	0	134
				T5S	8,595	3	0	1	123	9,259	3	0	1	132	9,376	3	0	1	134
				T5M	8,573	3	0	2	122	9,236	3	0	2	132	9,353	3	0	2	134
				T5W	8,517	3	0	2	122	9,175	4	0	2	131	9,291	4	0	2	133
				BLC	6,770	1	0	2	97	7,293	1	0	2	104	7,386	1	0	2	106
				LCCO	5,038	1	0	2	72	5,427	1	0	2	78	5,496	1	0	2	79
				RCCO	5,038	1	0	2	72	5,427	1	0	2	78	5,496	1	0	2	79
30	1050	P3	102W	T1S	11,661	2	0	2	114	12,562	3	0	3	123	12,721	3	0	3	125
				T2S	11,648	2	0	2	114	12,548	3	0	3	123	12,707	3	0	3	125
				T2M	11,708	2	0	2	115	12,613	2	0	2	124	12,773	2	0	2	125
				T3S	11,339	2	0	2	111	12,215	3	0	3	120	12,370	3	0	3	121
				T3M	11,680	2	0	2	115	12,582	2	0	2	123	12,742	2	0	2	125
				T4M	11,426	2	0	3	112	12,309	2	0	3	121	12,465	2	0	3	122
				TFTM	11,673	2	0	2	114	12,575	2	0	3	123	12,734	2	0	3	125
				T5VS	12,140	3	0	1	119	13,078	3	0	1	128	13,244	3	0	1	130
				T5S	12,150	3	0	1	119	13,089	3	0	1	128	13,254	3	0	1	130
				T5M	12,119	4	0	2	119	13,056	4	0	2	128	13,221	4	0	2	130
				T5W	12,040	4	0	3	118	12,970	4	0	3	127	13,134	4	0	3	129
				BLC	9,570	1	0	2	94	10,310	1	0	2	101	10,440	1	0	2	102
				LCCO	7,121	1	0	3	70	7,671	1	0	3	75	7,768	1	0	3	76
				RCCO	7,121	1	0	3	70	7,671	1	0	3	75	7,768	1	0	3	76
30	1250	P4	125W	T1S	13,435	3	0	3	107	14,473	3	0	3	116	14,657	3	0	3	117
				T2S	13,421	3	0	3	107	14,458	3	0	3	116	14,641	3	0	3	117
				T2M	13,490	2	0	2	108	14,532	3	0	3	116	14,716	3	0	3	118
				T3S	13,064	3	0	3	105	14,074	3	0	3	113	14,252	3	0	3	114
				T3M	13,457	2	0	2	108	14,497	2	0	2	116	14,681	2	0	2	117
				T4M	13,165	2	0	3	105	14,182	2	0	3	113	14,362	2	0	3	115
				TFTM	13,449	2	0	3	108	14,488	2	0	3	116	14,672	2	0	3	117
				T5VS	13,987	4	0	1	112	15,068	4	0	1	121	15,259	4	0	1	122
				T5S	13,999	3	0	1	112	15,080	3	0	1	121	15,271	3	0	1	122
				T5M	13,963	4	0	2	112	15,042	4	0	2	120	15,233	4	0	2	122
				T5W	13,872	4	0	3	111	14,944	4	0	3	120	15,133	4	0	3	121
				BLC	11,027	1	0	2	88	11,879	1	0	2	95	12,029	1	0	2	96
				LCCO	8,205	1	0	3	66	8,839	1	0	3	71	8,951	1	0	3	72
				RCCO	8,205	1	0	3	66	8,839	1	0	3	71	8,951	1	0	3	72
30	1400	P5	138W	T1S	14,679	3	0	3	106	15,814	3	0	3	115	16,014	3	0	3	116
				T2S	14,664	3	0	3	106	15,797	3	0	3	114	15,997	3	0	3	116
				T2M	14,739	3	0	3	107	15,878	3	0	3	115	16,079	3	0	3	117
				T3S	14,274	3	0	3	103	15,377	3	0	3	111	15,572	3	0	3	113
				T3M	14,704	2	0	3	107	15,840	3	0	3	115	16,040	3	0	3	116
				T4M	14,384	2	0	3	104	15,496	3	0	3	112	15,692	3	0	3	114
				TFTM	14,695	2	0	3	106	15,830	3	0	3	115	16,030	3	0	3	116
				T5VS	15,283	4	0	1	111	16,464	4	0	1	119	16,672	4	0	1	121
				T5S	15,295	3	0	1	111	16,477	4	0	1	119	16,686	4	0	1	121
				T5M	15,257	4	0	2	111	16,435	4	0	2	119	16,644	4	0	2	121
				T5W	15,157	4	0	3	110	16,328	4	0	3	118	16,534	4	0	3	120
				BLC	12,048	1	0	2	87	12,979	1	0	2	94	13,143	1	0	2	95
				LCCO	8,965	1	0	3	65	9,657	1	0	3	70	9,780	1	0	3	71
				RCCO	8,965	1	0	3	65	9,657	1	0	3	70	9,780	1	0	3	71

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Ordering Information
Accessories
Ordered and shipped separately.

DLL127F 1.5 JU	Photocell - SSL twist-lock (120-277V)[14]
DLL347F 1.5 CUL JU	Photocell - SSL twist-lock (347V)[14]
DLL480F 1.5 CUL JU	Photocell - SSL twist-lock (480V)[14]
DSHORT SBK U	Shorting cap (Included when ordering PER, PER5 or PER7)[14]
DSXWHS U	House-side shield (one per light engine)
DSXWBSW U	Bird-deterrent spikes
DSXW2VG U	Vandal guard accessory
DSXW2BBW DDBXD U	Back box accessory (specify finish)

For more control options, visit DTL and ROAM online.

NOTES
1 1000mA is not available with AMBPC.
2 AMBPC is not available with 1000mA.
3 MVOLT driver operates on any line voltage from 120-277V (50/60 Hz).
4 Single fuse (SF) requires 120, 277 or 347 voltage option. Double fuse (DF) requires 208, 240 or 480 voltage option.
5 Available with 30 LED/700mA options only (DSXW2 LED 30C 700). DMG option not available.
6 Also available as a separate accessory; see Accessories information.
7 Photocontrol (PE) requires 120, 208, 240, 277 or 347 voltage option. Not available with motion/ambient light sensors (PIR or PIRH).
8 Photocell ordered and shipped as a separate line item from Acuity Brands Controls. See accessories. Shorting Cap included.
9 If ROAM® node required, it must be ordered and shipped as a separate line item from Acuity Brands Controls. Shorting Cap included.
10 Reference Motion Sensor table on page 3.
11 Reference PER Table on page 3 for functionality.
12 PIR and PIR1FC3V specify the SensorSwitch SBGR-10-ODP control; PIRH and PIRH1FC3V specify the SensorSwitch SBGR-6-ODP control; see Motion Sensor Guide for details. Dimming driver standard. Not available with PER5 or PER7. Separate on/off required.
13 See the electrical section on page 2 for more details.
14 Requires luminaire to be specified with PER option. Ordered and shipped as a separate line item. See PER Table.

Performance Data
Lumen Output
Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Contact factory for performance data on any configurations not shown here.

LEDs	Drive Current (mA)	System Watts	Dist. Type	30K Lumens	B	U	G	LPW	40K Lumens	B	U	G	LPW	50K Lumens	B	U	G	LPW
20C (20 LEDs)	350 mA	25W	T2S	2,783	1	0	1	111	2,989	1	0	1	120	3,008	1	0	1	120
			T2M	2,709	1	0	1	108	2,908	1	0	1	116	2,926	1	0	1	117
			T3S	2,748	1	0	1	110	2,951	1	0	1	118	2,969	1	0	1	119
			T3M	2,793	1	0	1	112	2,999	1	0	1	120	3,018	1	0	1	121
			T4M	2,756	1	0	1	110	2,959	1	0	1	118	2,977	1	0	1	119
			TFTM	2,753	1	0	1	110	2,956	1	0	1	118	2,975	1	0	1	119
	530 mA	36W	T2S	4,030	1	0	1	112	4,327	1	0	1	120	4,354	1	0	1	121
			T2M	3,920	1	0	1	109	4,210	1	0	1	117	4,236	1	0	1	118
			T3S	3,978	1	0	1	111	4,272	1	0	1	119	4,299	1	0	1	119
			T3M	4,044	1	0	2	112	4,343	1	0	2	121	4,370	1	0	2	121
			T4M	3,990	1	0	1	111	4,284	1	0	1	119	4,310	1	0	1	120
			TFTM	3,987	1	0	1	111	4,281	1	0	1	119	4,308	1	0	1	120
	700 mA	47W	T2S	5,130	1	0	1	109	5,509	1	0	1	117	5,544	1	0	1	118
			T2M	4,991	1	0	2	106	5,360	1	0	2	114	5,393	1	0	2	115
			T3S	5,066	1	0	1	108	5,440	1	0	1	116	5,474	1	0	1	116
			T3M	5,148	1	0	2	110	5,529	1	0	2	118	5,563	1	0	2	118
			T4M	5,080	1	0	2	108	5,455	1	0	2	116	5,488	1	0	2	117
			TFTM	5,075	1	0	2	108	5,450	1	0	2	116	5,484	1	0	2	117
	1000 mA	73W	T2S	7,147	2	0	2	98	7,675	2	0	2	105	7,723	1	0	2	104
			T2M	6,954	2	0	2	95	7,467	2	0	2	102	7,514	2	0	2	103
			T3S	7,057	1	0	2	97	7,579	1	0	2	104	7,627	1	0	2	104
			T3M	7,172	2	0	3	98	7,702	2	0	3	106	7,751	2	0	3	106
			T4M	7,076	1	0	2	97	7,599	1	0	2	104	7,646	1	0	2	105
			TFTM	7,071	1	0	2	97	7,594	1	0	2	104	7,641	1	0	2	105
30C (30 LEDs)	350 mA	36W	T2S	4,160	1	0	1	116	4,467	1	0	1	124	4,494	1	0	1	125
			T2M	4,048	1	0	1	112	4,346	1	0	2	121	4,373	1	0	2	121
			T3S	4,108	1	0	1	114	4,411	1	0	1	123	4,438	1	0	1	123
			T3M	4,174	1	0	2	116	4,483	1	0	2	125	4,510	1	0	2	125
			T4M	4,119	1	0	1	114	4,423	1	0	2	123	4,450	1	0	2	124
			TFTM	4,115	1	0	1	114	4,419	1	0	1	123	4,446	1	0	1	124
	530 mA	54W	T2S	6,001	1	0	1	111	6,444	1	0	1	119	6,484	1	0	1	120
			T2M	5,838	1	0	2	108	6,270	2	0	2	116	6,308	2	0	2	117
			T3S	5,926	1	0	2	110	6,364	1	0	2	118	6,403	1	0	2	119
			T3M	6,023	1	0	2	112	6,467	1	0	2	120	6,507	1	0	2	121
			T4M	5,942	1	0	2	110	6,380	1	0	2	118	6,420	1	0	2	119
			TFTM	5,937	1	0	2	110	6,376	1	0	2	118	6,415	1	0	2	119
	700 mA	71W	T2S	7,403	2	0	2	104	8,170	2	0	2	115	8,221	2	0	2	116
			T2M	7,609	2	0	2	107	7,949	2	0	2	112	7,998	2	0	2	113
			T3S	7,513	1	0	2	106	8,068	1	0	2	114	8,118	1	0	2	114
			T3M	7,635	2	0	3	108	8,199	2	0	3	115	8,250	2	0	3	116
			T4M	7,534	1	0	2	106	8,089	1	0	2	114	8,140	1	0	2	115
			TFTM	7,527	1	0	2	106	8,082	2	0	2	114	8,134	2	0	2	115
	1000 mA	109W	T2S	10,468	2	0	2	96	11,241	2	0	2	103	11,311	2	0	2	104
			T2M	10,184	2	0	3	93	10,936	2	0	3	100	11,005	2	0	3	101
			T3S	10,335	2	0	2	95	11,099	2	0	2	102	11,169	2	0	2	102
			T3M	10,505	2	0	3	96	11,280	2	0	3	103	11,351	2	0	3	104
			T4M	10,365	2	0	2	95	11,129	2	0	2	102	11,198	2	0	2	103
			TFTM	10,356	2	0	2	95	11,121	2	0	3	102	11,190	2	0	3	103

Note:
Available with phosphor-converted amber LED's (nomenclature AMBPC). These LED's produce light with 97+% >530 nm. Output can be calculated by applying a 0.7 factor to 4000 K lumen values and photometric files.

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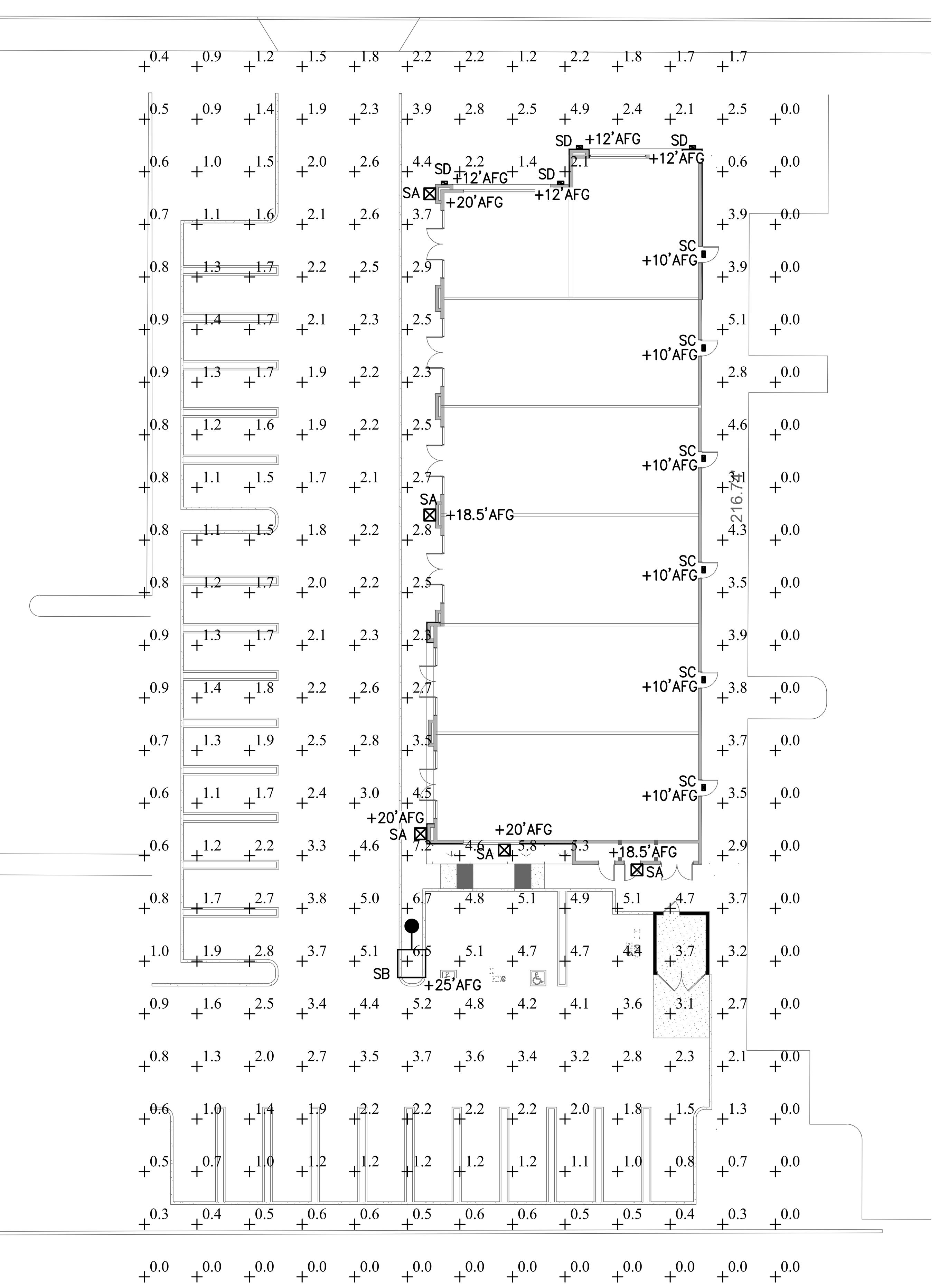
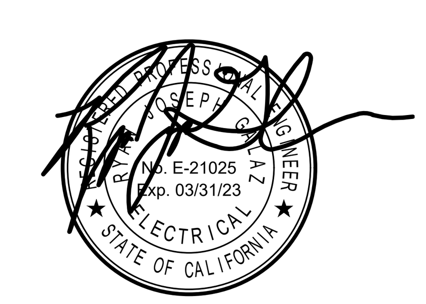
Schedule

Symbol	Label	QTY	Manufacturer	Catalog Number	Description	Lamp	Number Lamps	Filename	Lumens per Lamp	LLF	Wattage	Efficiency	Distribution
⊠	SA	5	Lithonia Lighting	DSXW2 LED 30C 1000 50K T4M MVOLT	DSXW2 LED WITH 3 LIGHT ENGINES, 30 LED's, 1000mA DRIVER, 5000K LED, TYPE 4 MEDIUM OPTIC	LED	1	DSXW2_LED_30C_1000_50K_T4M_MVOLT.ies	11198	0.9	109	100%	TYPE IV, SHORT, BUG RATING: B2 - U0 - G2
	SB	1	Lithonia Lighting	DSX1 LED P4 50K T4M MVOLT HS	DSX1 LED P4 50K T4M MVOLT with houseside shield	LED	1	DSX1_LED_P4_50K_T4M_MVOLT_HS.ies	10217	0.9	125	100%	TYPE III, SHORT, BUG RATING: B1 - U0 - G2
	SC	6	Lithonia Lighting	ARC1 LED P2 40K	ARC1 LED WITH P2 - PERFORMANCE PACKAGE, 4000K	LED	1	ARC1_LED_P2_40K.ies	2150	0.9	16.7843	100%	TYPE III, VERY SHORT, BUG RATING: B1 - U0 - G1
	SD	4	Lithonia Lighting	ARC1 LED P1 40K	ARC1 LED WITH P1 - PERFORMANCE PACKAGE, 4000K	LED	1	ARC1_LED_P1_40K.ies	1454	0.9	10.8751	100%	TYPE III, VERY SHORT, BUG RATING: B0 - U0 - G0

Statistics

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Calc Zone #3	+	2.0 fc	7.2 fc	0.0 fc	N/A	N/A





ELECTRICAL SITE LIGHTING PHOTOMETRIC PLAN (1)
1'=20'-0"
N

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ELECTRICAL SITE LIGHTING PHOTOMETRIC PLAN
04/01/2021

East Katella Retail Center
New Retail Center
232 E. Katella Ave., Orange CA 92867

E1.0