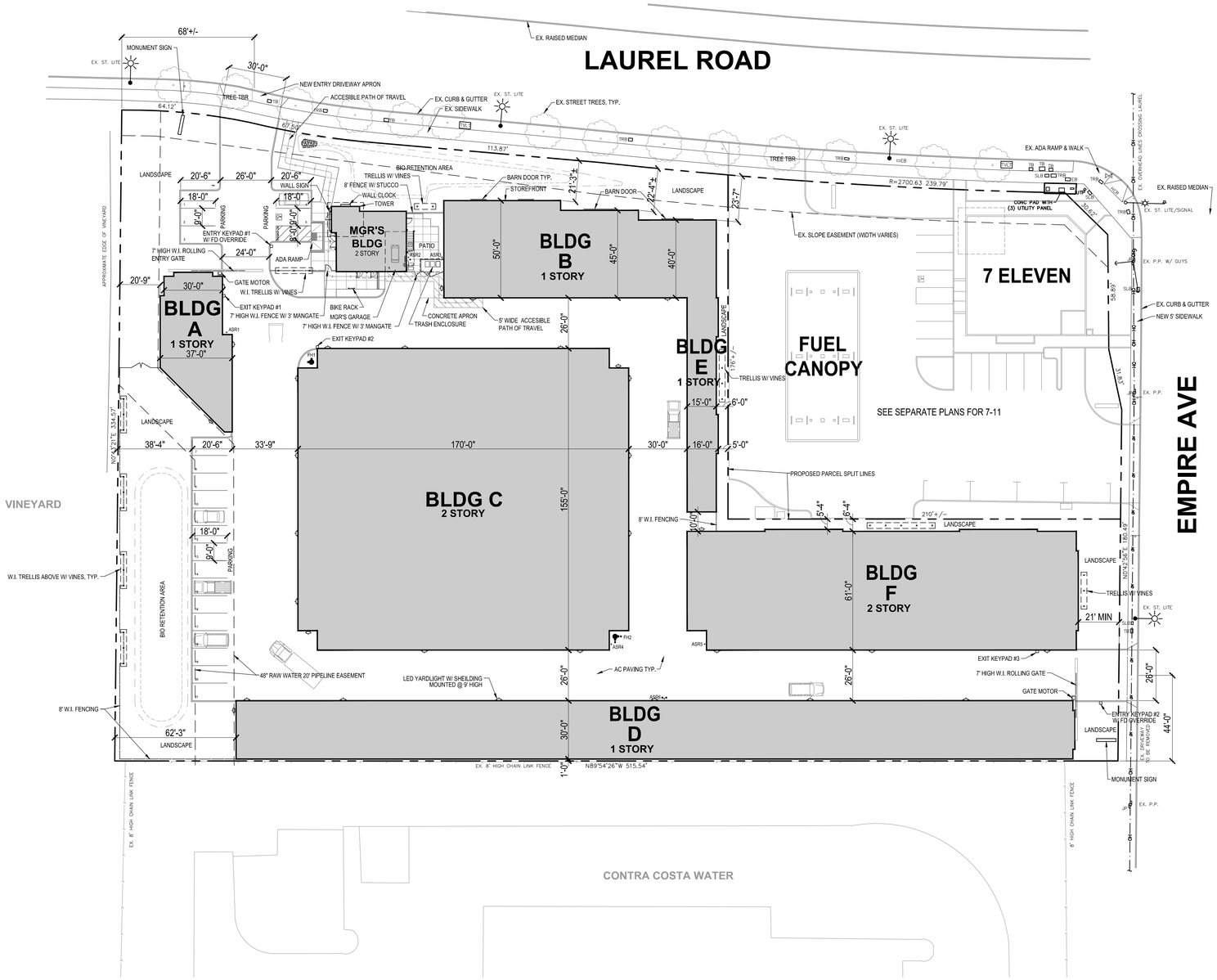
PRELIMINARY SITE PLAN

OAKLEY SELF STORAGE - LAUREL RD. @ EMPIRE AVE, OAKLEY, CA



PROJECT DATA

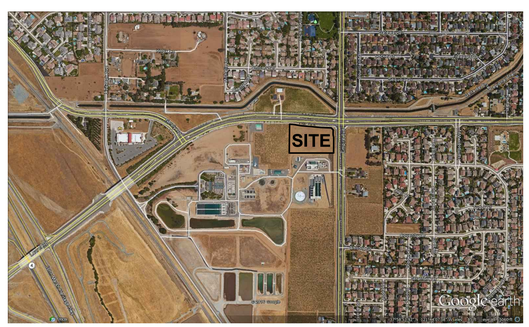
SELF STORAGE

1. SITE AREA:*	(2.855 ACRES)	124,367 S.F.
2. ASSESSOR'S PARCEL #		053-071-050
3. ZONING DISTRICT		PUBLIC, SEMI-PUBLIC (P/PS)
4. TOTAL BUILDOUT		101,997 S.F.
MGR'S BLDG	(2 STORY)	2,360 S.F.
BLDG A	(1 STORY)	2,285 S.F.
BLDG B/E	(1 STORY)	8,090 S.F.
BLDG C	(2 STORY)	51,900 S.F.
BLDG D	(1 STORY)	12,920 S.F.
BLDG F	(2 STORY)	24,442 S.F.
5. GROSS STORAGE BLDGS.		99,637 S.F.
6. NET RENTABLE		78,771 S.F.
7. TOTAL # OF UNITS		810
8. AVERAGE UNIT SIZE		97.3 S.F.
9. FOOTPRINT		62,646 S.F.
10. SITE COVERAGE / FAR		50% / 0.82
11. LANDSCAPE AREA / % OF SITE		24,772 S.F. / 19.9%
12. PARKING PROVIDED		21

* SITE AREA IS NET, AFTER PARCEL SPLIT FOR 7-11

SHEET INDEX

VICINITY MAP



Revisions	Date

DEVELOPER:
SUTTER & PIERCE EPC, LLC
190 HARTZ AVE, SUITE 200
DANVILLE, CA 94526

Cubix Construction Company License No. 144402
5 Meadowbrook Ln
Danville, California 94526 USA
Phone (925) 314-0770 FAX (925) 314-0771

OAKLEY SELF STORAGE
LAUREL RD. @ EMPIRE AVE.,
OAKLEY, CA.

PRELIMINARY SITE PLAN

Drawn By	EJB / JAW
Date	3/11/16
Scale	1" = 30'
File Name	SitePlan2
Planning File Numbers	
Sheet Number	1

SITE PLAN

LAUREL ROAD

MONUMENT SIGN

LANDSCAPE

BIO RETENTION AREA

LANDSCAPE

APPROXIMATE EDGE OF VINEYARD

MGR'S BLDG
2 STORY

PATIO

BLDG B
1 STORY

BLDG A
1 STORY

E

7 ELEVEN

SEE SEPARATE PLANS FOR 7-11

EMPIRE AVE

LANDSCAPE

VINEYARD

W.I. TRELLIS ABOVE W/ VINES, TYP.

BIO RETENTION AREA

BLDG C
2 STORY

LANDSCAPE

BLDG F
2 STORY

LANDSCAPE

LANDSCAPE

BLDG D
1 STORY

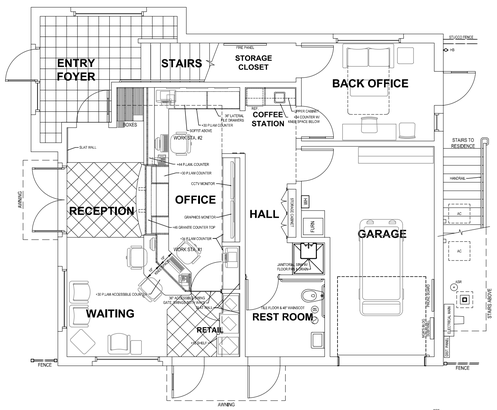
LANDSCAPE

MONUMENT SIGN

CONTRA COSTA WATER

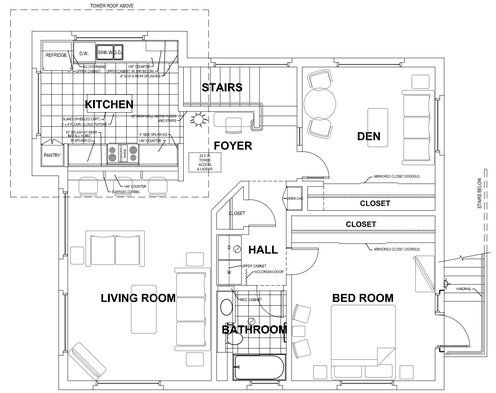
FLOOR PLANS

NOTE: NO ROOF MOUNTED EQUIPMENT



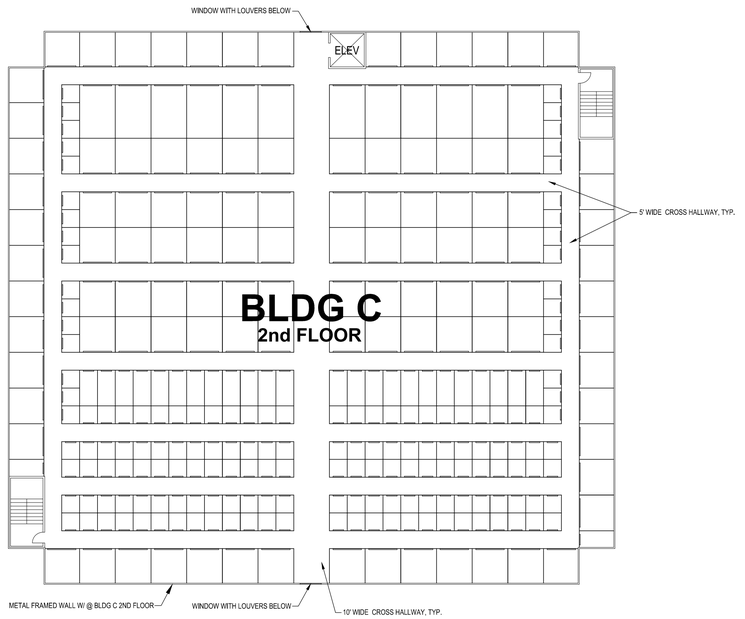
MGR'S BLDG FIRST FLOOR PLAN

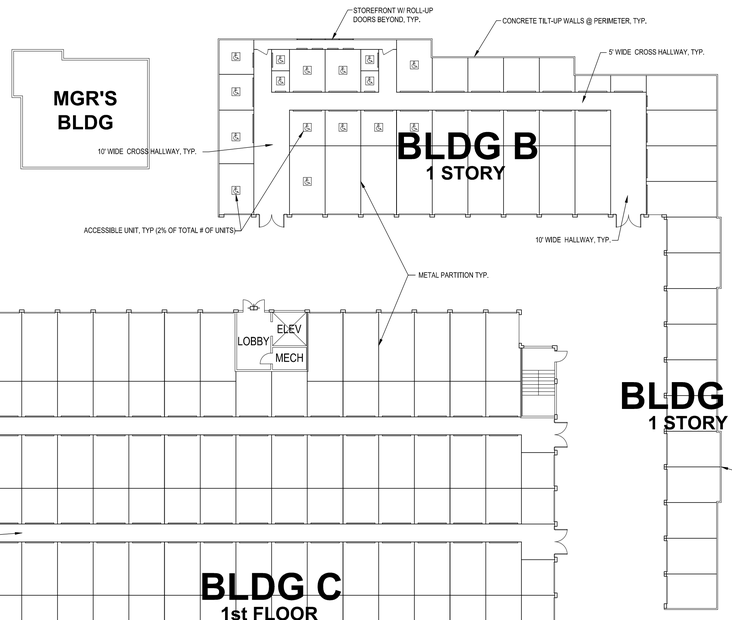
SCALE: 1" = 15'

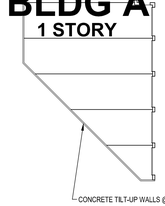


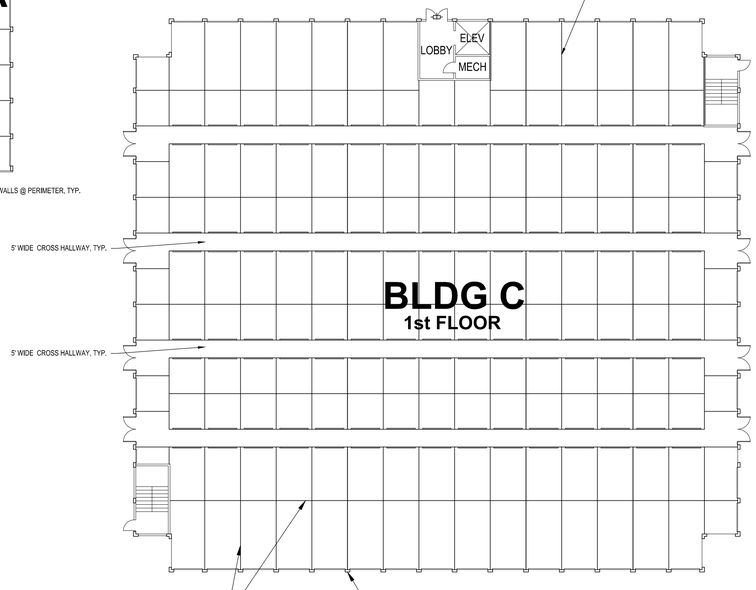
MGR'S BLDG SECOND FLOOR PLAN

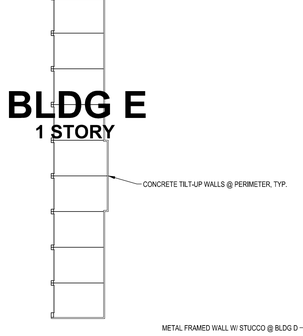
SCALE: 1" = 15'

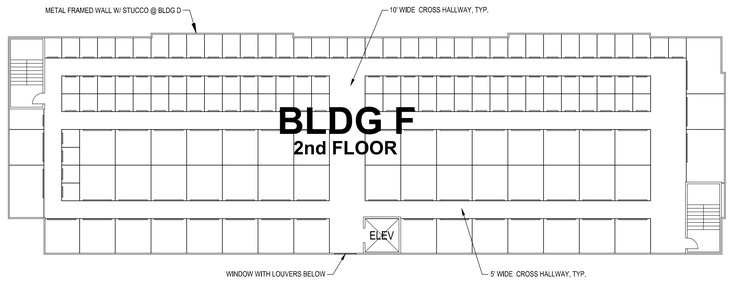


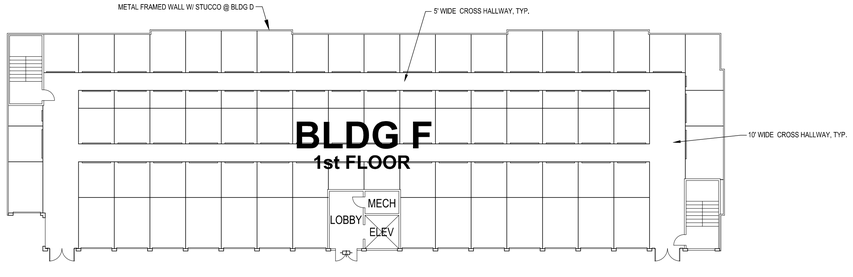


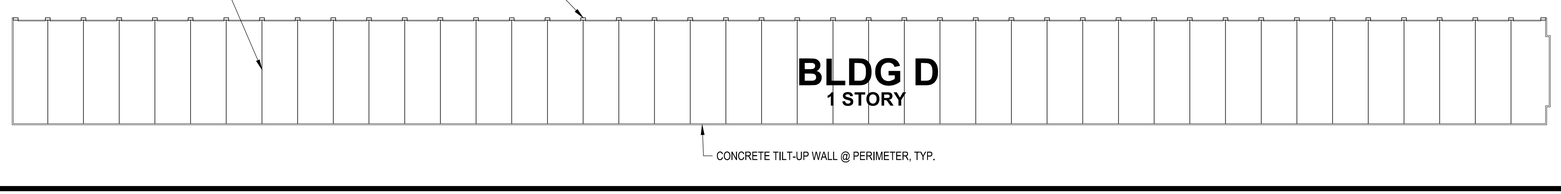












Revisions	Date

Cubix Construction Company
License No. 144402
5 Meadowbrook Ln
Danville, California 94526 USA
Phone (925) 314-0770
FAX (925) 314-0771

OAKLEY SELF STORAGE

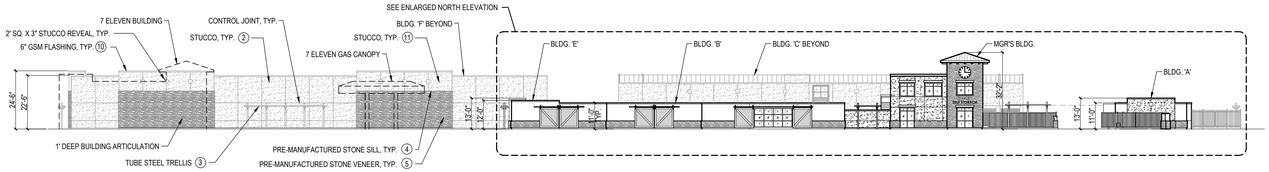
LAUREL RD. @ EMPIRE AVE.,
OAKLEY, CA.

FLOOR PLANS

Drawn By	EJB / JAW
Date	3/11/16
Scale	1" = 20'
File Name	SitePlan2
Planning File Numbers	
Sheet Number	2

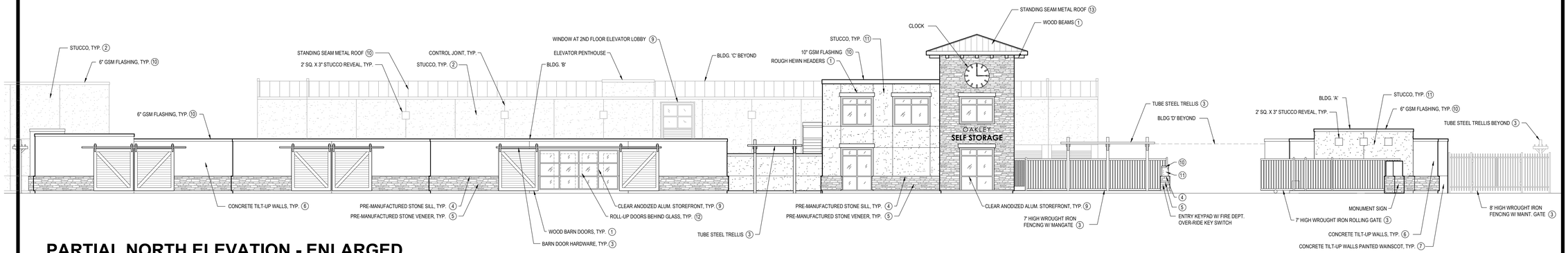
LEGEND

1	WOOD ACCENTS	WOOD W/ BEHR CEDAR NATURALTONE SEMITRANSPARENT STAIN
2	STUCCO (BODY)	LA HABRA '696 SOUTHERN MOSS' - LIGHT AVACADO
3	METAL ACCENTS	KELLY MOORE '3960-3 CLUBHOUSE' - CHARCOAL GRAY
4	ROCK SILL STONE	OWENS CORNING CULTURED STONE - GRAY
5	FAUX STONE	OWENS CORNING CULTURED STONE 'FOG SOUTHERN LEDGESTONE' CSV-2028*
6	TILT-UP WALLS	KELLY MOORE '216 MALIBU BEIGE' - LIGHT WARM TAN
7	WAINSCOT	KELLY MOORE '305 IRONWOOD' - TAUPE
8	ROLL-UP DOORS	JANUS INTERNATIONAL - BUCKSKIN
9	STOREFRONT	CLEAR ANODIZED ALUMINUM FRAME, CLEAR GLASS
10	METAL TRIM	GALVANIZED
11	ACCENT STUCCO	LA HABRA 'MARADA 3002L(17)'
12	DISPLAY ROLL-UPS	JANUS INTERNATIONAL - ROYAL BLUE
13	MGR'S BLDG ROOF	MBCI - ASH GRAY



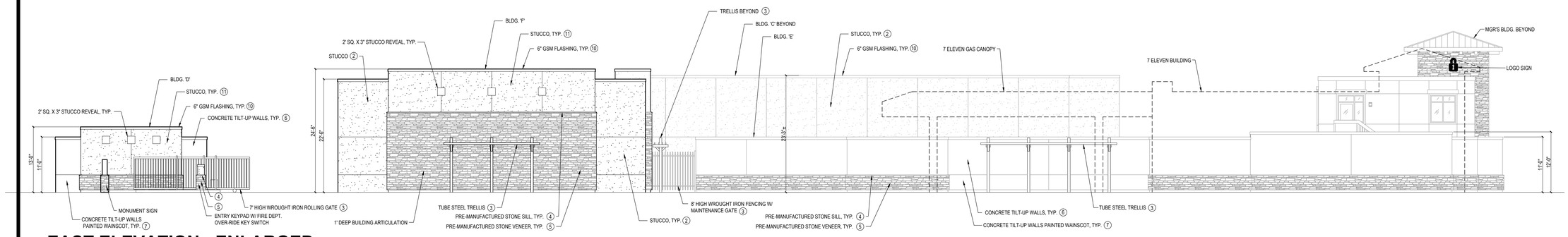
NORTH ELEVATION

SCALE: 1" =30'-0"



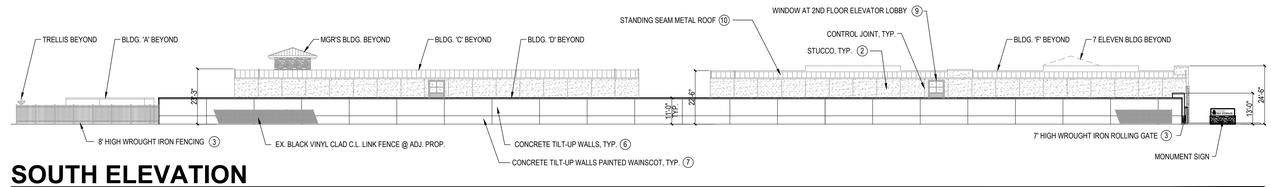
PARTIAL NORTH ELEVATION - ENLARGED

SCALE: 1" =10'-0"



EAST ELEVATION - ENLARGED

SCALE: 1" =10'-0"



SOUTH ELEVATION

SCALE: 1" =30'-0"

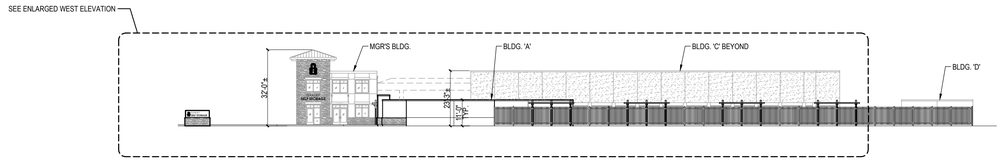
Revisions	Date

Cubix Construction Company
License No. 144402
5 Meadowbrook Lane
Danville, California 94526 USA
Phone (925) 314-0770
FAX (925) 314-0771

OAKLEY SELF STORAGE
LAUREL RD. @ EMPIRE AVE.,
OAKLEY, CA.

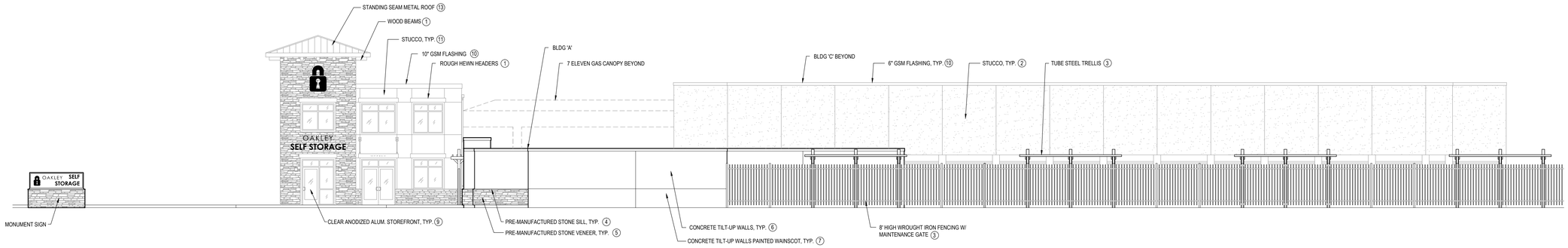
PROJECT ELEVATIONS

Drawn By	JW / EJB
Date	3/11/16
Scale	AS NOTED
File Name	Elevations1
Planning File Numbers	
Sheet Number	3A



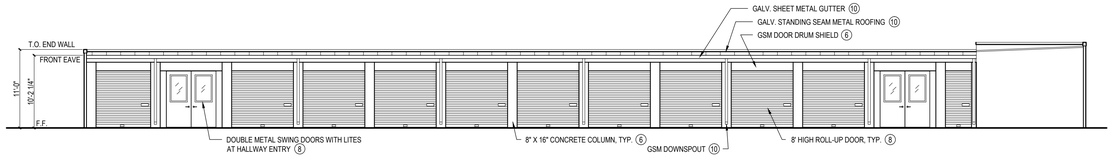
WEST ELEVATION

SCALE: 1" =10'-0"



PARTIAL WEST ELEVATION - ENLARGED

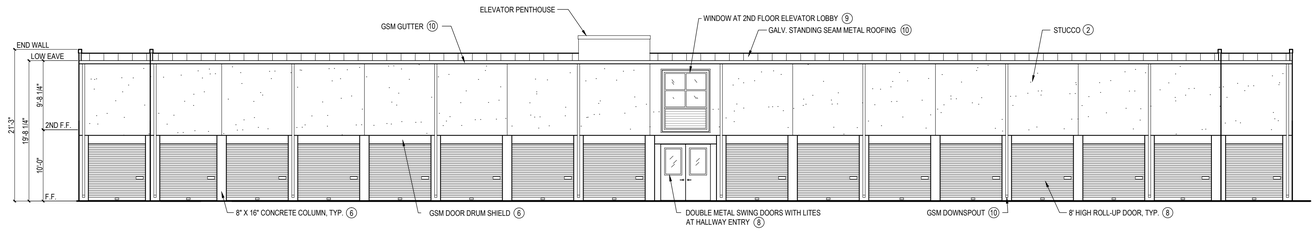
SCALE: 1" =10'-0"



TYPICAL SINGLE STORY ELEVATION (INTERIOR FACING)

BLDG B SOUTH ELEVATION SHOWN

SCALE: 1" = 10'-0"



TYPICAL TWO STORY ELEVATION (INTERIOR FACING)

BLDG C NORTH ELEVATION SHOWN

SCALE: 1" = 10'-0"

Revisions	Date

Cubix Construction Company
License No. 144402
5 Meadowbrook Lane
Danville, California 94526, USA
Phone (925) 314-0770 FAX (925) 314-0771

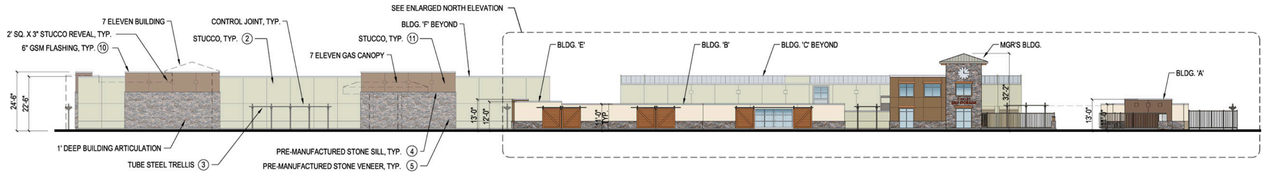
OAKLEY SELF STORAGE
LAUREL RD. @ EMPIRE AVE.,
OAKLEY, CA.

PROJECT ELEVATIONS

Drawn By	JW / EJB
Date	3/11/16
Scale	AS NOTED
File Name	Elevations1
Planning File Numbers	
Sheet Number	3B

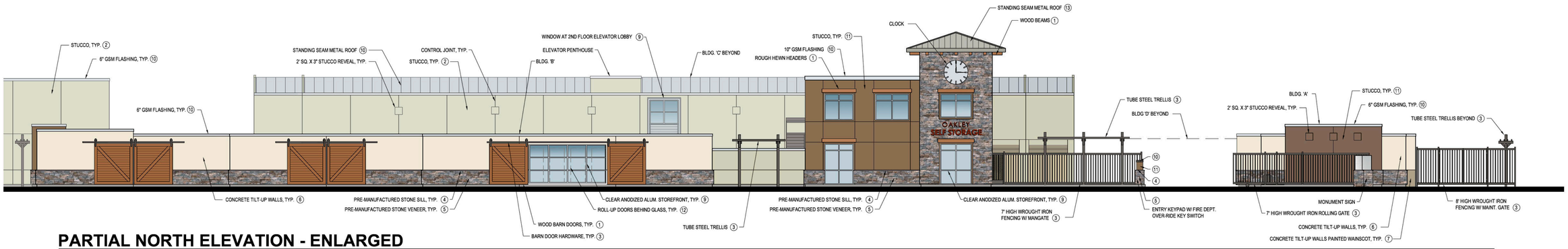
LEGEND

1	WOOD ACCENTS	WOOD W/ BEHR CEDAR NATURALTONE SEMITRANSPARENT STAIN
2	STUCCO (BODY)	LA HABRA '696 SOUTHERN MOSS' - LIGHT AVACADO
3	METAL ACCENTS	KELLY MOORE '3960-3 CLUBHOUSE' - CHARCOAL GRAY
4	ROCK SILL STONE	OWENS CORNING CULTURED STONE - GRAY
5	FAUX STONE	OWENS CORNING CULTURED STONE 'FOG SOUTHERN LEDGESTONE' CSV-2028"
6	TILT-UP WALLS	KELLY MOORE '216 MALIBU BEIGE' - LIGHT WARM TAN
7	WAINSCOT	KELLY MOORE '305 IRONWOOD' - TAUPE
8	ROLL-UP DOORS	JANUS INTERNATIONAL - BUCKSKIN
9	STOREFRONT	CLEAR ANODIZED ALUMINUM FRAME, CLEAR GLASS
10	METAL TRIM	GALVANIZED
11	ACCENT STUCCO	LA HABRA 'MARADA 3022L(17)'
12	DISPLAY ROLL-UPS	JANUS INTERNATIONAL - ROYAL BLUE
13	MGR'S BLDG ROOF	MBCI - ASH GRAY



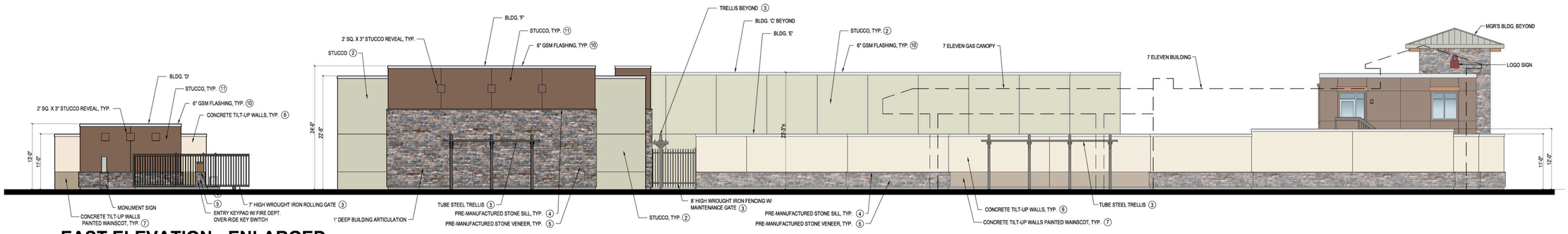
NORTH ELEVATION

SCALE: 1" =30'-0"



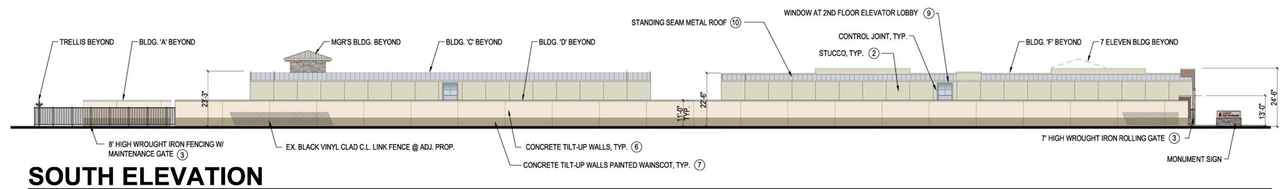
PARTIAL NORTH ELEVATION - ENLARGED

SCALE: 1" =10'-0"



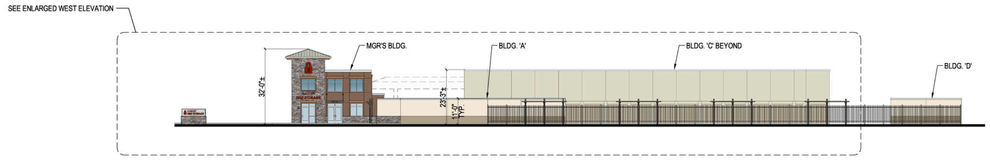
EAST ELEVATION - ENLARGED

SCALE: 1" =10'-0"



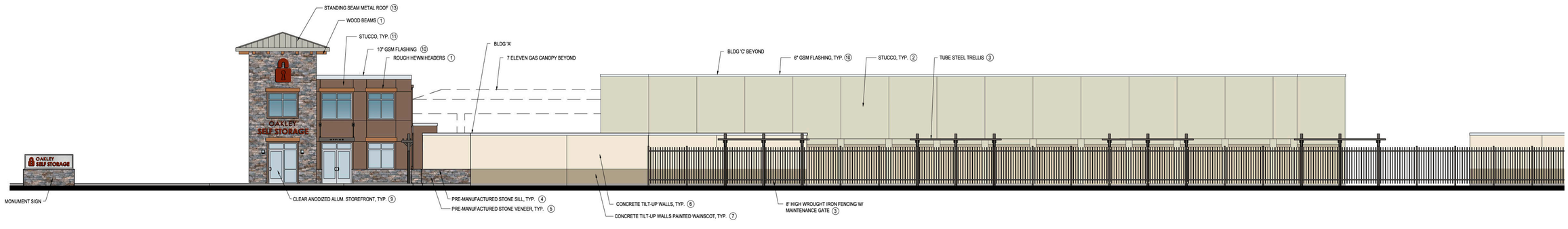
SOUTH ELEVATION

SCALE: 1" =30'-0"



WEST ELEVATION

SCALE: 1" =10'-0"



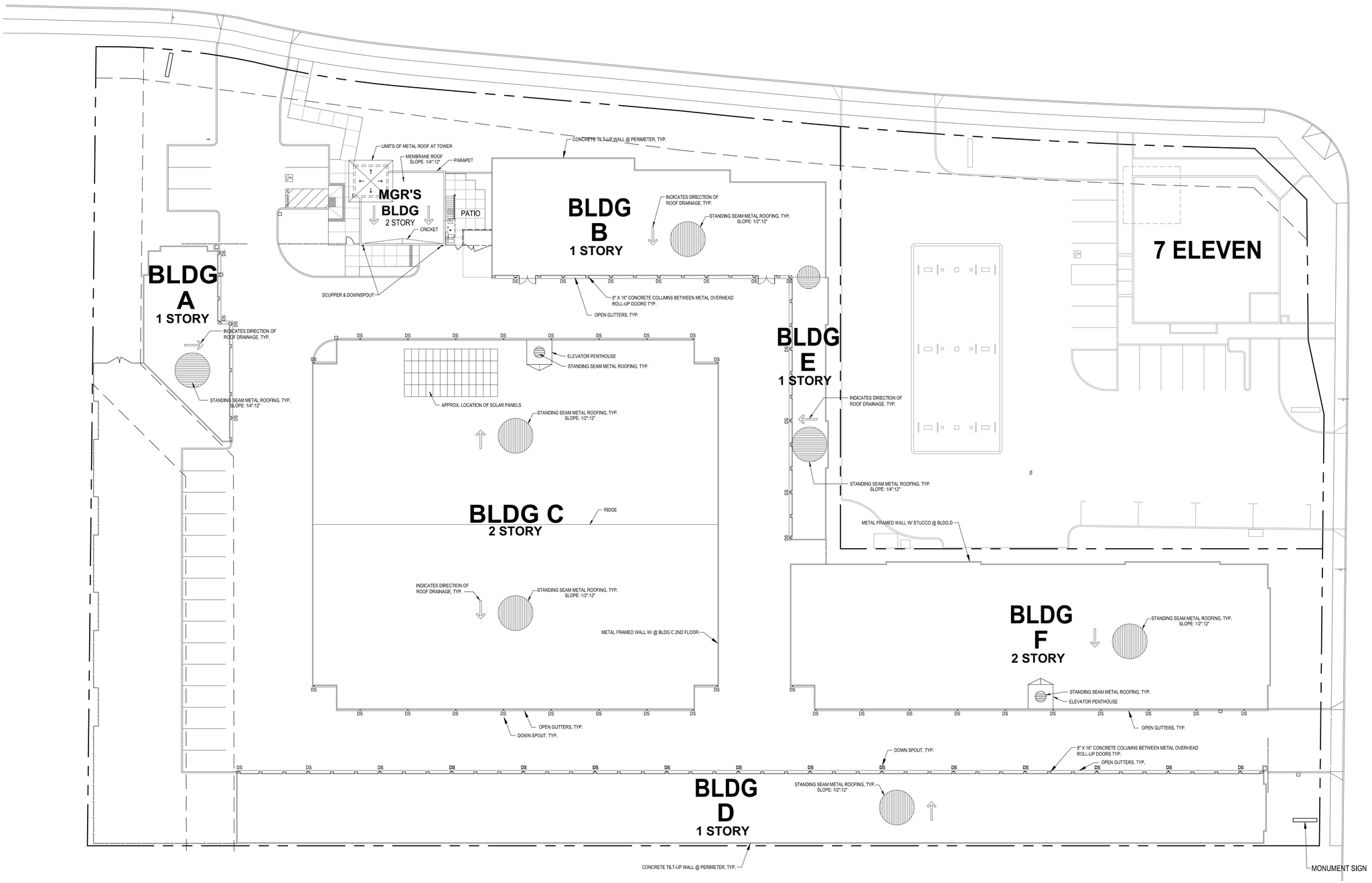
PARTIAL WEST ELEVATION - ENLARGED

SCALE: 1" =10'-0"

ROOF PLAN

REF.

Revisions	Date

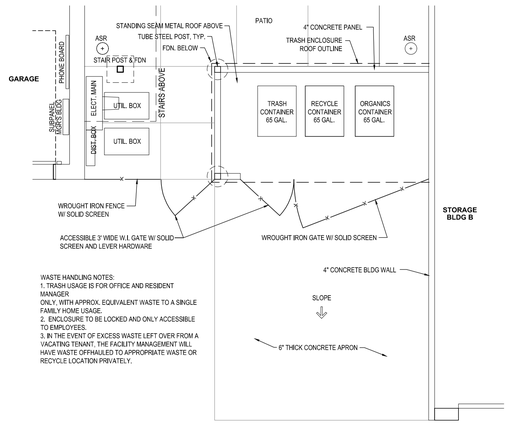


Cubix Construction Company License No. 144402
5 Meadowbrook Ln Danville, California 94526 USA
Phone (925) 314-0770 FAX (925) 314-0771

OAKLEY SELF STORAGE
LAUREL RD. @ EMPIRE AVE.,
OAKLEY, CA.

ROOF PLAN

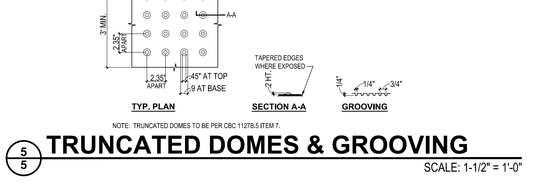
Drawn By	EJB
Date	3/11/16
Scale	1" = 20'
File Name	SitePlan2
Planning File Numbers	
Sheet Number	4



WASTE HANDLING NOTES:
1. TRASH USAGE IS FOR OFFICE AND RESIDENT MANAGER ONLY, WITH APPROX. EQUIVALENT WASTE TO A SINGLE FAMILY HOME USAGE.
2. ENCLOSURE TO BE LOCKED AND ONLY ACCESSIBLE TO EMPLOYEES.
3. IN THE EVENT OF EXCESS WASTE LEFT OVER FROM A VACATING TENANT, THE FACILITY MANAGEMENT WILL HAVE WASTE OFFHAULED TO APPROPRIATE WASTE OR RECYCLE LOCATION PRIVATELY.

1/5 TRASH ENCLOSURE PLAN

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



2/5 ENTRY GATE DETAIL

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

3/5 ACCESSIBLE MAN GATE

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

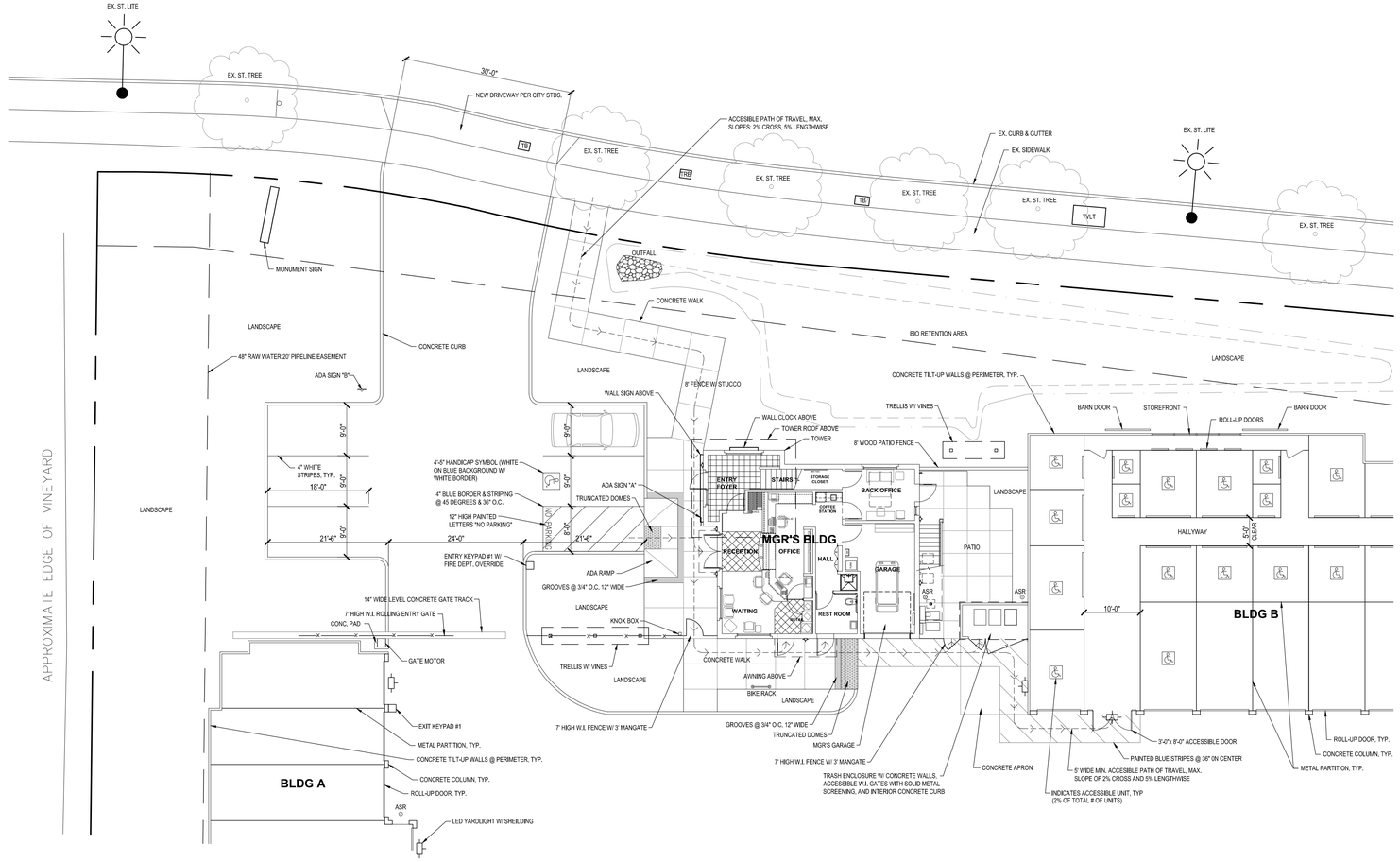
4/5 ACCESSIBLE ENTRY/EXIT DOOR

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

NOTE: TRUNCATED DOMES TO BE PER CBC 1127B.5 ITEM 7.

5/5 TRUNCATED DOMES & GROOVING

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



6/5 ENTRY PLAN

SCALE: 3/32" = 1'-0"

STORAGE BUILDING ACCESSIBILITY NOTES:

1) 2% OF ALL STORAGE UNITS TO BE ADA ACCESSIBLE UNITS: 1250 TOTAL UNITS (INCLUDING EST. FOR POTENTIAL PHASE 2) x .02 = 25 UNITS. 25 ACCESSIBLE UNITS ARE PROVIDED.
2) 6"x8" METAL PLATE W/ INTERNATIONAL SYMBOL OF ACCESSIBILITY MOUNTED AT 60" A.F.F. PER CBC 1117B.5.8 AT EACH OF THE 14 ACCESSIBLE UNITS.
3) ACCESSIBLE PATH OF TRAVEL TO HAVE MAXIMUM CROSS SLOPE OF 2% AND MAXIMUM LENGTHWISE SLOPE OF 5%.
4) ALL ACCESSIBLE DOORS TO HAVE AN OPERATING EFFORT OF 5 LBS. MAX., WHICH MAY BE INCREASED TO 15 LBS. FOR FIRE RATED ASSEMBLIES.
5) ALL ACCESSIBLE SWING DOORS TO HAVE ADA APPROVED LEVER HARDWARE.
6) ½" MAX. THRESHOLD @ ALL EXTERIOR SWING DOORS (1/2" THRESHOLD W/ 1/4" TOOLED RADIUS @ TOP OK). INTERIOR UNITS TO HAVE NO THRESHOLD.
7) ALL ACCESSIBLE SWING DOORS HAVE A 60" LEVEL LANDING ON THE PULL SIDE. (2% MAX @ EXTERIOR DOORS.)
8) OVERHEAD DOORS @ ACCESSIBLE UNITS TO HAVE EXTENDED DOOR STRAPS W/ OPEN LOOP AT THE END OF STRAP.

7/5 TRELLIS / PATIO FENCE DETAIL

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

8/5 TRASH ENCLOSURE GATES

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

9/5 ADA PARKING SIGNS

SCALE: 1" = 1'-0"

Revisions	Date

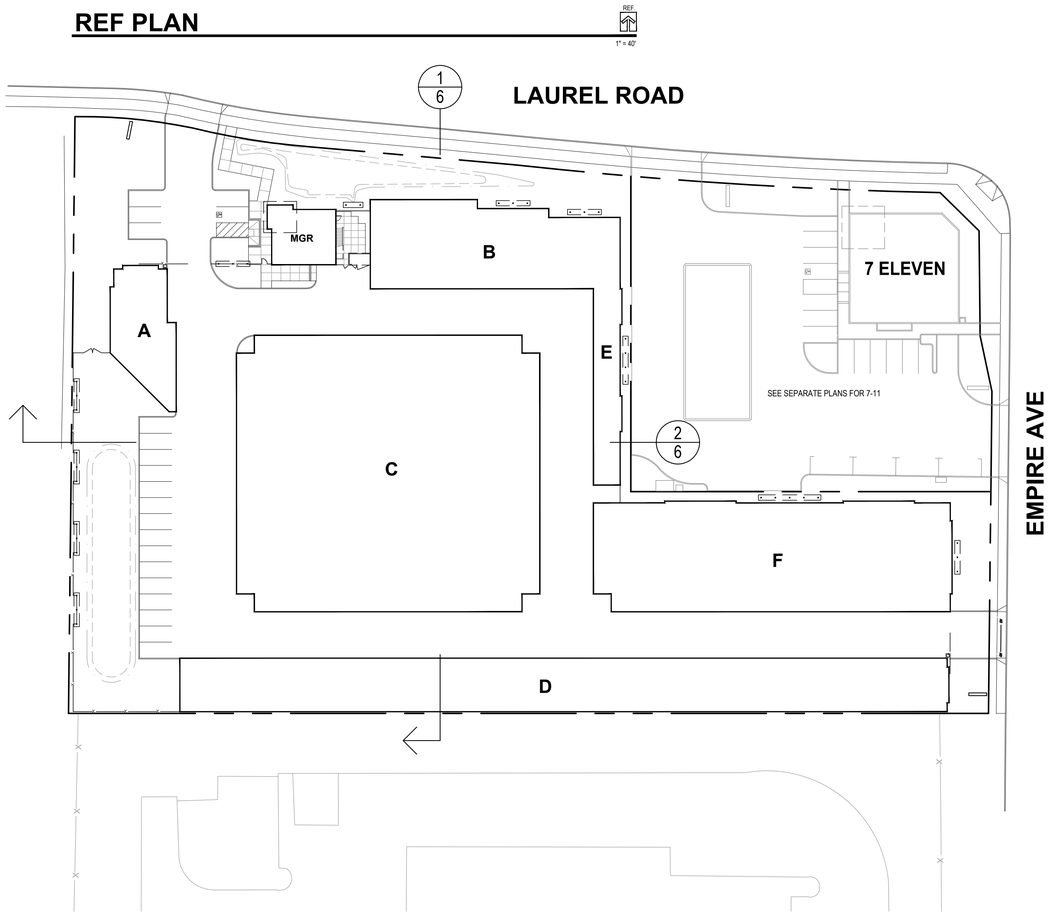
Cubix Construction Company License No. 144402
5 Meadowbrook Ln
Danville, California 94526 USA
Phone (925) 314-0770 FAX (925) 314-0771

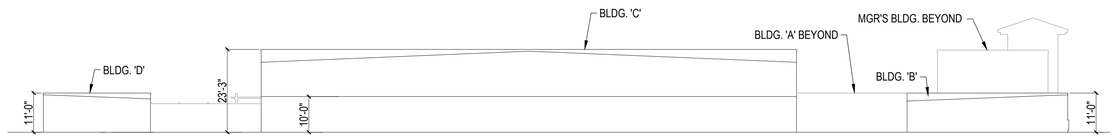
OAKLEY SELF STORAGE
LAUREL RD. @ EMPIRE AVE.,
OAKLEY CA.

MISC. DETAILS

Drawn By	EJB
Date	3/11/16
Scale	3/32" = 1' OR AS NOTED
File Name	SitePlan2
Planning File Numbers	
Sheet Number	5

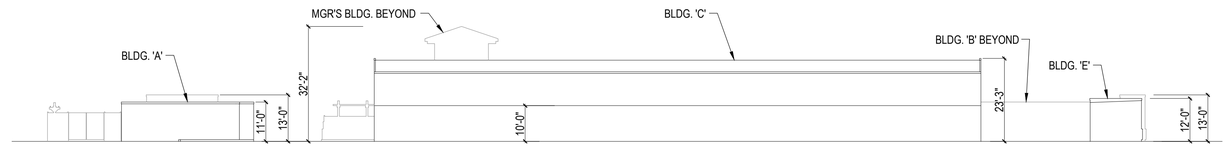
REF PLAN





1/6 CROSS SECTION LOOKING WEST

1" = 20'



2/6 CROSS SECTION LOOKING NORTH

1" = 20'

Revisions	Date

Cubix Construction Company License No. 144402
5 Meadowbrook Lane
Danville, California 94526 USA
Phone (925) 314-0770 FAX (925) 314-0771

OAKLEY SELF STORAGE
LAUREL RD. @ EMPIRE AVE.,
OAKLEY, CA.

CROSS SECTIONS

Drawn By	EJB / JAW
Date	3/11/16
Scale	1" = 20'
File Name	Elevations1
Planning File Numbers	
Sheet Number	6

GENERAL PHOTOMETRIC SCHEDULE

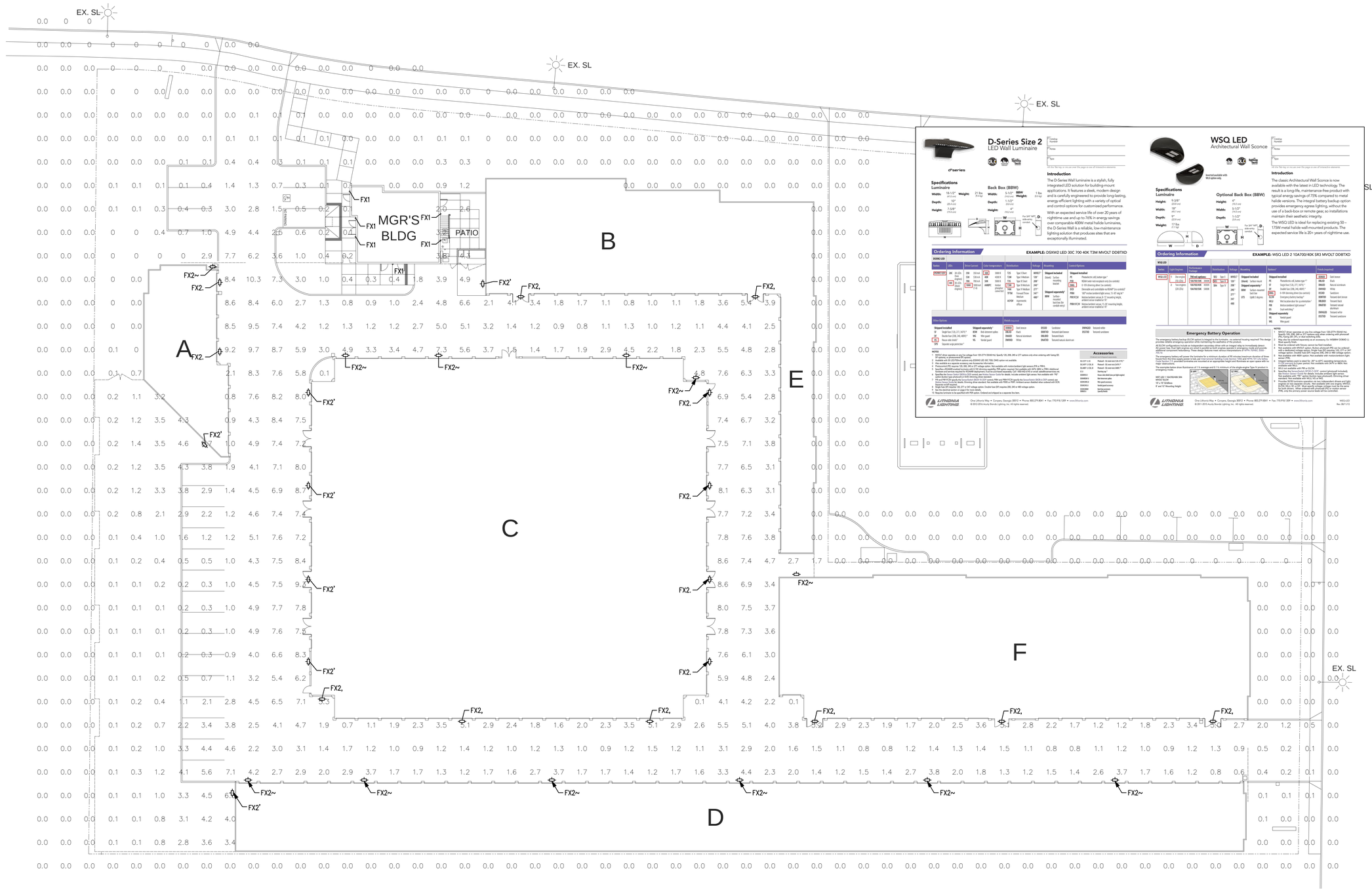
AVERAGE FOOTCANDLES	1.45
MAXIMUM FOOTCANDLES	10.3

LUMINAIRE SCHEDULE

CALLOUT	LAMP	DESCRIPTION	MODEL	INPUT WATTS	VOLTS	QUANTITY
FX1	(1) 24W LED	ENTRY DOOR WALL LIGHTS @ 9FT AFF FULL CUT-OFF	LITHONIA/WSQ-LED-700-DMG-DDBXD-ELCW	24	120V 1P 2W	6
FX2	(1) 109W LED	LED Wall Mount @ 15FT AFF W/HOUSE-SIDE SHIELD	Lithonia Lighting, DSXW2 LED 30C 1000 30K T3M DMG HS DDBXD	109	120V 1P 2W	33

CALL-OUT NOTES:

1. CURRENT LIGHT FIXTURE CONFIGURATION PROVIDES ILLUMINATION LEVEL OF ~1 FC AVERAGE. CONTRACTOR TO VERIFY THAT PROPER SHIELDING AND CUT-OFF IS IN PLACE TO PREVENT LIGHT SPILL ONTO NEIGHBORING PROPERTY AND LIGHT GLARE. (TYP)



Revisions	Date

REGISTERED PROFESSIONAL ENGINEER
RAMIN RAFATI
E 18400
Exp.06-30-2016
Civil
ELECTRICAL
STATE OF CALIFORNIA

PROENGINEERING
MEP CONSULTANTS
CONSULTING MECHANICAL, ELECTRICAL, & PLUMBING ENGINEERS
1120 SYCAMORE AVE, 2A
VISTA, CA. 92081
(949)-487-0440 (w)
(858)-240-4336 (w2)
(866)-936-5447 (F)
WWW.PROENGINEERINGCONSULTING.COM
INFO@PROENGINEERINGCONSULTING.COM

OAKLEY SELF STORAGE
LAUREL RD. @ EMPIRE AVE.,
OAKLEY, CA.

EXT LIGHTING PLAN

Drawn By	EJB / JAW
Date	3/3/16
Scale	1/20"=1'-0"
File Name	MEP-PAPER
Planning File Numbers	
Sheet Number	E1

LANDSCAPE PLAN

SHRUBS

SIZE	BOTANICAL NAME	COMMON NAME
5 GAL.	ESCALLONIA 'TERRI'	DWARF ESCALLONIA
5 GAL.	OLEA 'LITTLE OLLIE'	DWARF OLIVE
5 GAL.	ARCTOSTAPHYLOS 'HOWARD MCMINN'	MANZANITA
5 GAL.	NERIUM OLEANDER 'PETITE RED'	DWARF RED OLEANDER
5 GAL.	XYLOSMA CONGESTUM 'COMPACTA'	COMPACT XYLOSMA
1 GAL.	SALVIA GREGGI 'RED'	RED AUTUMN SAGE
1 GAL.	VERBENA RIGIDA	BLUE RIGIDA VERBENA
1 GAL.	LANTANA 'YELLOW'	LANTANA
1 GAL.	EPILOBIUM 'CALISTOGA'	CALIFORNIA FUCHSIA
1 GAL.	MUHLENBERGIA CAPILLARIS	PINK MUHLY GRASS

GROUND COVERS

SIZE	BOTANICAL NAME	COMMON NAME
1 GAL.	CERATOSTIGMA PLUMBAGINOIDES	DWARF PLUMBAGO
1 GAL.	BACCHARIS PILULARIS 'TWIN PEAKS'	COYOTE BRUSH
1 GAL.	ROSMARINUS 'PROSTRATUS'	ROSEMARY

BIOSWALES

SOD	FESTUCA VARIETIES	"NO MOW" TALL FESCUE GRASS
1 GAL.	FESTUCA MAIERI	ATLAS FECUE

VINES

5 GAL.	VITUS SPECIES	GRAPE VINES

TREES

SYMBOL	SIZE	QUANTITY	BOTANICAL NAME / COMMON NAME	HEIGHT	SPREAD
	24" BOX	7	OLEA 'SWAN HILL' FRUITLESS OLIVE	15 '	15 '
	15 GAL.	3	QUERCUS ILEX HOLLY OAK	30 '	30 '
	15 GAL.	8	PISTACHIA CHINENSIS CHINESE PISTACHE	30 '	30 '

PARKING LOT SHADING

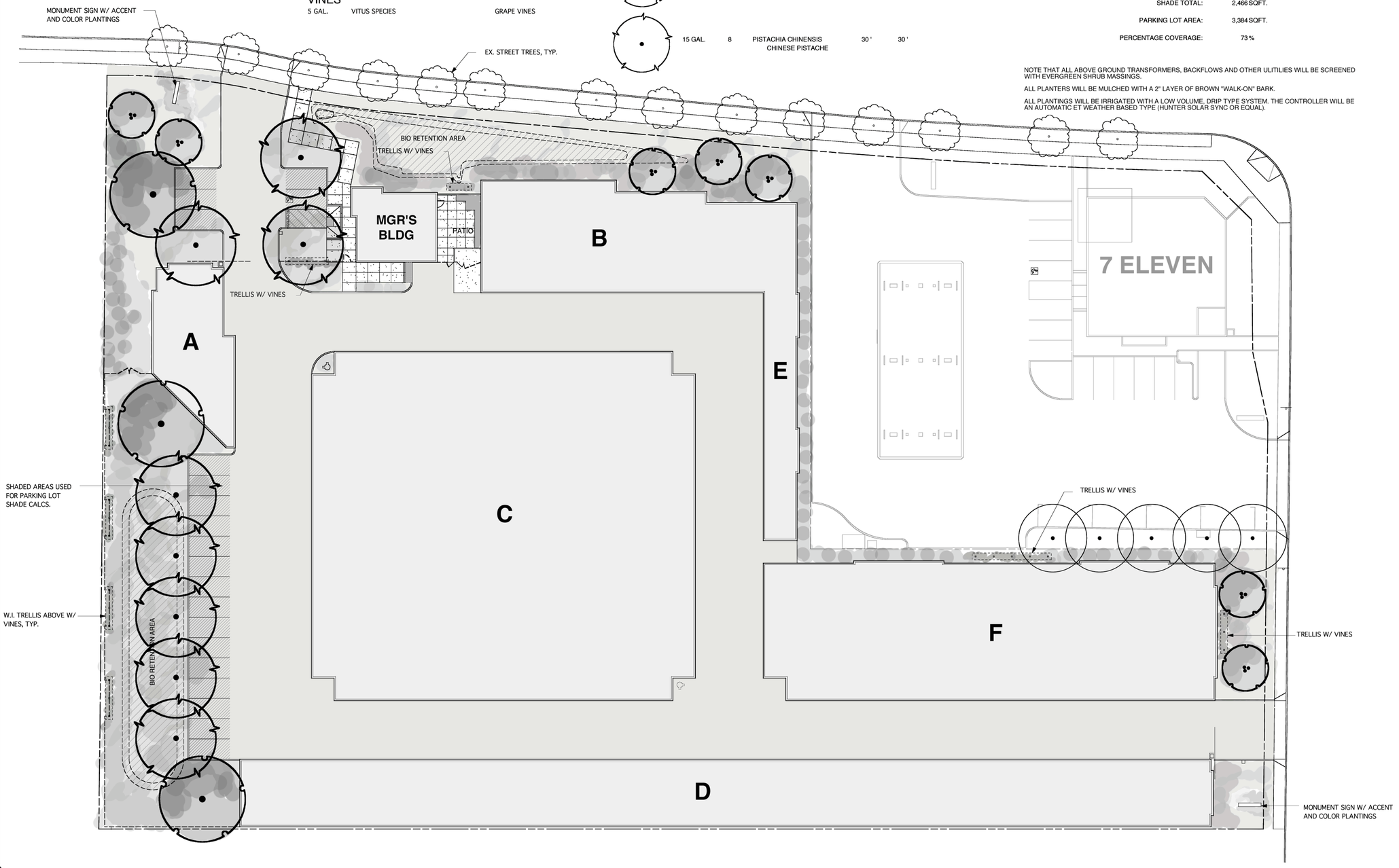
(10 YEAR)

TREE	DIA.	AREA SQFT.	FULL COVERAGE NUMBER	(100 %)	HALF COVERAGE NUMBER	(50 %)
PISTACHE	25'0"	491	0	0	8	1962
QUERCUS	30'0"	706	0	0	1	353
			SUBTOTAL:	100 SQFT.		2366 SQFT.
			SHADE TOTAL:	2,466 SQFT.		
			PARKING LOT AREA:	3,384 SQFT.		
			PERCENTAGE COVERAGE:	73 %		

NOTE THAT ALL ABOVE GROUND TRANSFORMERS, BACKFLOWS AND OTHER ULITILIES WILL BE SCREENED WITH EVERGREEN SHRUB MASSINGS.

ALL PLANTERS WILL BE MULCHED WITH A 2" LAYER OF BROWN "WALK-ON" BARK.

ALL PLANTINGS WILL BE IRRIGATED WITH A LOW VOLUME, DRIP TYPE SYSTEM. THE CONTROLLER WILL BE AN AUTOMATIC ET WEATHER BASED TYPE (HUNTER SOLAR SYNC OR EQUAL).



Revisions	Date

JAMES FERGUSON CLABAUGH
LANDSCAPE ARCHITECT
406 MAIN ST.
VACAVILLE, CA. 95688
PHONE/ FAX: 707-449-3916
LIC. NO. 2594

LICENSED LANDSCAPE ARCHITECT
JAMES FERGUSON CLABAUGH
SIGNATURE
5/20/16
RENEWAL DATE
3/3/16
DATE
STATE OF CALIFORNIA

OAKLEY SELF STORAGE
LAUREL RD. @ EMPIRE AVE.,
OAKLEY, CA.

LANDSCAPE PLAN

Drawn By	JC
Date	3/3/16
Scale	1" = 20'
File Name	PlansFor/Landscape/Ldg/rngPlans3-4-16
Planning File Numbers	
Sheet Number	L1

LANDSCAPE PLAN

SHRUBS

SIZE	BOTANICAL NAME	COMMON NAME
5 GAL.	ESCALLONIA 'TERRI'	DWARF ESCALLONIA
5 GAL.	OLEA 'LITTLE OLLIE'	DWARF OLIVE
5 GAL.	ARCTOSTAPHYLOS 'HOWARD MCMINN'	MANZANITA
5 GAL.	NERIUM OLEANDER 'PETITE RED'	DWARF RED OLEANDER
5 GAL.	XYLOSMA CONGESTUM 'COMPACTA'	COMPACT XYLOSMA
1 GAL.	SALVIA GREGGI 'RED'	RED AUTUMN SAGE
1 GAL.	VERBENA RIGIDA	BLUE RIGIDA VERBENA
1 GAL.	LANTANA 'YELLOW'	LANTANA
1 GAL.	EPILOBIUM 'CALISTOGA'	CALIFORNIA FUCHSIA
1 GAL.	MUHLENBERGIA CAPILLARIS	PINK MUHLY GRASS

GROUND COVERS

SIZE	BOTANICAL NAME	COMMON NAME
1 GAL.	CERATOSTIGMA PLUMBAGINOIDES	DWARF PLUMBAGO
1 GAL.	BACCHARIS PILULARIS 'TWIN PEAKS'	COYOTE BRUSH
1 GAL.	ROSMARINUS 'PROSTRATUS'	ROSEMARY

BIOSWALES

SOD	FESTUCA VARIETIES	"NO MOW" TALL FESCUE GRASS
1 GAL.	FESTUCA MAIERI	ATLAS FECUE

VINES

5 GAL.	VITUS SPECIES	GRAPE VINES

TREES

SYMBOL	SIZE	QUANTITY	BOTANICAL NAME / COMMON NAME	HEIGHT	SPREAD
	24" BOX	7	OLEA 'SWAN HILL' FRUITLESS OLIVE	15 '	15 '
	15 GAL.	3	QUERCUS ILEX HOLLY OAK	30 '	30 '
	15 GAL.	8	PISTACHIA CHINENSIS CHINESE PISTACHE	30 '	30 '

PARKING LOT SHADING

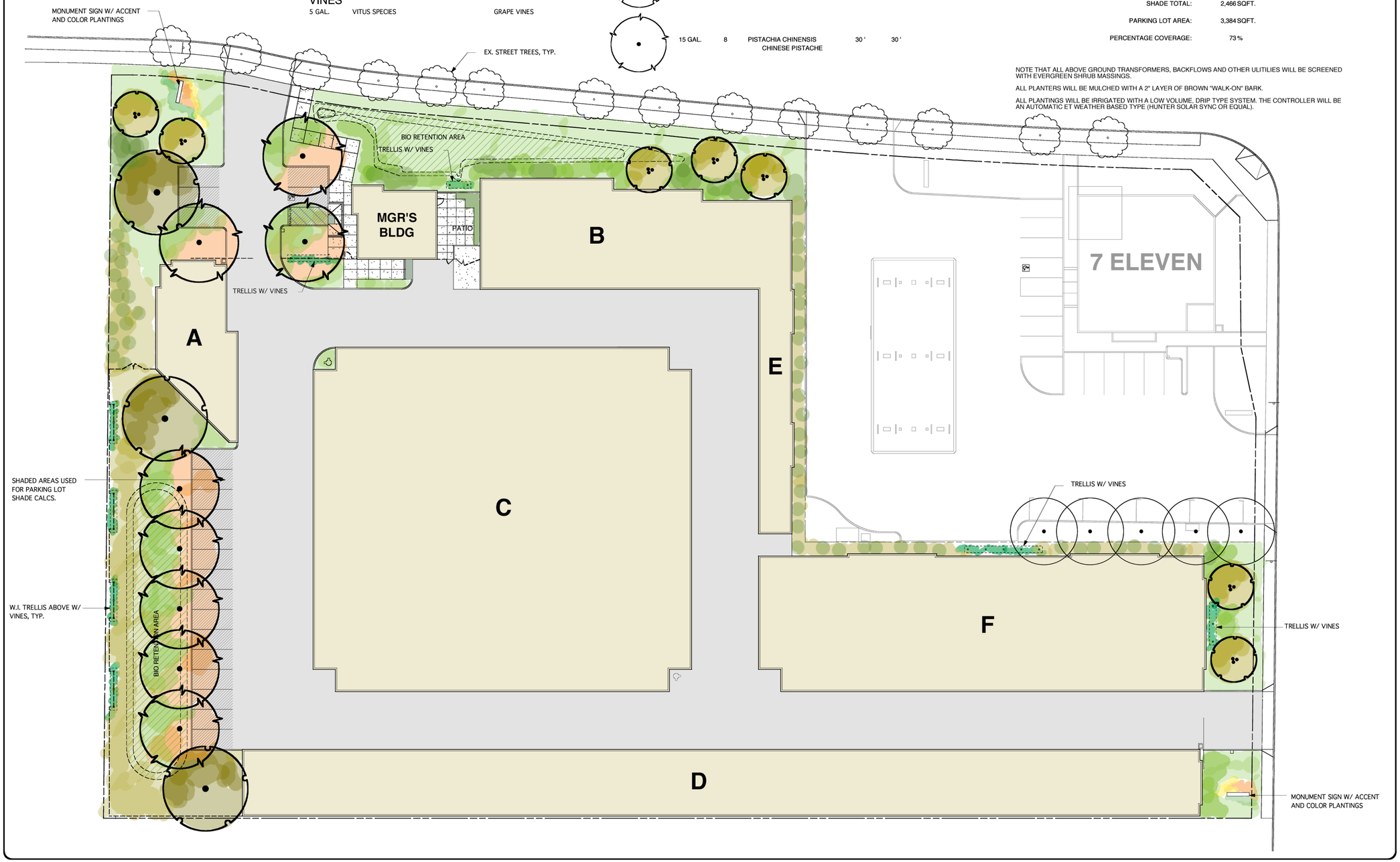
(10 YEAR)

TREE	DIA.	AREA FULL COVERAGE SQFT.	NUMBER	(100 %)	HALF COVERAGE NUMBER	(50 %)
PISTACHE	25'0"	491	0	0	8	1962
QUERCUS	30'0"	706	0	0	1	353
			SUBTOTAL:	100 SQFT.		2366 SQFT.
			SHADE TOTAL:	2,466 SQFT.		
			PARKING LOT AREA:	3,384 SQFT.		
			PERCENTAGE COVERAGE:	73 %		

NOTE THAT ALL ABOVE GROUND TRANSFORMERS, BACKFLOWS AND OTHER ULITILIES WILL BE SCREENED WITH EVERGREEN SHRUB MASSINGS.

ALL PLANTERS WILL BE MULCHED WITH A 2" LAYER OF BROWN "WALK-ON" BARK.

ALL PLANTINGS WILL BE IRRIGATED WITH A LOW VOLUME, DRIP TYPE SYSTEM. THE CONTROLLER WILL BE AN AUTOMATIC ET WEATHER BASED TYPE (HUNTER SOLAR SYNC OR EQUAL).



Revisions	Date

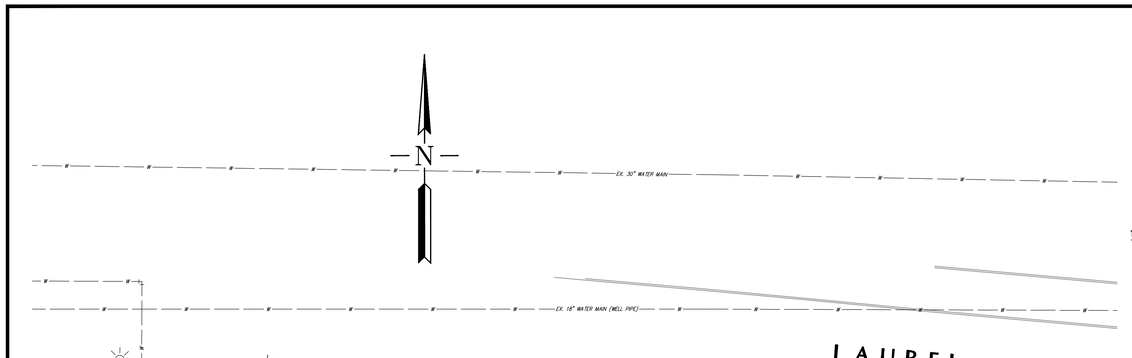
JAMES FERGUSON CLABAUGH
LANDSCAPE ARCHITECT
406 MAIN ST.
VACAVILLE, CA. 95688
PHONE/ FAX: 707-449-3916
LIC. NO. 2594

LICENSED LANDSCAPE ARCHITECT
JAMES FERGUSON CLABAUGH
SIGNATURE
5/20/15
RENEWAL DATE
3/31/16
DATE
STATE OF CALIFORNIA

OAKLEY SELF STORAGE
LAUREL RD. @ EMPIRE AVE.,
OAKLEY, CA.

LANDSCAPE PLAN

Drawn By	JC
Date	3/3/16
Scale	1" = 20'
File Name	PlansForLandscapeAndLightingPlans3-4-16
Planning File Numbers	
Sheet Number	L1



BIO-RETENTION AREA SECTION

NO SCALE
BIO FILTRATION 1.DWG

LEGEND:

	PROPOSED	EXISTING
BOUNDARY LINE		
PARCEL LINE		
EASEMENT LINE		
WATER LINE	W	W
FIRE SERVICE	FS	
DOMESTIC WATER SERVICE	DW	
SANITARY SEWER LINE	SS	SS
STORM DRAIN PIPE	SD	SD
DRAINAGE INLET	■	■
MANHOLE	●	○
WATER VALVE	⋈	⋈
FIRE HYDRANT		
BACKFLOW PREVENTION DEVICE		
TRAFFIC SIGN		
STREET LIGHT		
TRAFFIC SIGNAL		
UTILITY BOX AS NOTED		
VERTICAL CURB		
CURB AND GUTTER		
CONTOUR	95.00	94
GRADE BREAK		
FLOW LINE SWALE		
VALLEY GUTTER		
GRADING DAYLITE		
SPOT ELEVATION		× 92.50
FLOW LINE ELEVATION	FL 92.50	× 92.50 FL
FINISH GRADE ELEVATION	FG 92.50	× 92.50 FG
TOP OF CURB ELEVATION	TC 92.50	× 92.50 TC
FINISH FLOOR ELEVATION	FF 92.50	
CONCRETE SURFACE		
NEW ASPHALT PAVING		
DRAINAGE TREATMENT AREA		

FLOOD DESIGNATION:

1. ZONE X – OUTSIDE THE SPECIAL FLOOD HAZARD AREA.

GRADING QUANTITIES:

1. CUT = 2,000 FILL= 6,000 TOTAL = 8,000

GENERAL NOTES:

1. EXISTING UNDERGROUND UTILITIES ARE BASE ON AVAILABLE SURVEYS AND PREVIOUS CONSTRUCTION PLANS.
2. SURFACE TOPOGRAPHY AND BOUNDARY IS BASED ON A "TOPOGRAPHIC SURVEY" PREPARED BY BKF OF WALNUT CREEK, CALIFORNIA, DRAWING DATE 5-7-15.
3. TOTAL PARCEL AREA: 4.33± ACRES.

CONSTRUCTION NOTES:

1. NEW TAP WATER CONNECTIONS TO MAIN AS SHOWN.
2. NEW FIRE SERVICE BACKFLOW PREVENTER AND FIRE DEPARTMENT CONNECTION.
3. INSTALL NEW DOMESTIC AND LANDSCAPE IRRIGATION SERVICE WITH METER AND REDUCED PRESSURE BACKFLOW PREVENTER. SIZE TO BE DETERMINED.
4. CONSTRUCT BIO RETENTION AREA PER SECTION SHOWN.
5. PROPOSED STORM DRAIN CONNECTION AT EXISTING CURB INLET.
6. PROVIDE DEPRESSED CURB OPENING FOR DRAIN THROUGH.
7. PROPOSED SANITARY SEWER LIFT STATION. SEWER GRAVITY FLOW TO AND OUT OF LIFT STATION.
8. SANITARY SEWER LATERAL CONNECTION TO PUBLIC MAIN AT EXISTING MANHOLE.
9. CONSTRUCT COMMERCIAL DRIVEWAY RAMP PER CITY STANDARDS.
10. A.D.A. COMPLIANT ACCESSIBLE SIDEWALK PATHWAY INTO SITE. HANDRAILS REQUIRED.
11. MATCH EXISTING GRADE AT CONCRETE EDGE.

0 20 40 60
GRAPHIC SCALE

S:\A16004\DWG\PRELIM\A16004 PGRD 2.DWG

ROBERT A. KARN & ASSOCIATES, INC.
707 BECK AVENUE 94533
FAIRFIELD, CALIFORNIA
Phone: (707) 435-9888 Fax: (707) 435-9888
e-mail: rakwa@karnengineers.com
CIVIL ENGINEERS

PRELIMINARY GRADING AND UTILITY PLAN
OAKLEY SELF STORAGE
LAUREL ROAD AND EMPIRE AVENUE
CITY OF OAKLEY, CONTRA COSTA COUNTY, CALIFORNIA

FOR: CUBIX CONSTRUCTION COMPANY

SHEET REVISIONS	DATE	MK	BY	CK

SCALE 1"=20'
DATE 5-27-16
DRAWN A.B.L.
CHECKED R.A.K.
PROJ. MGR. T.M.P.

SHEET NO.
C1
OF 1 SHEETS
JOB NO.
A16004

STORMWATER CONTROL PLAN

For

OAKLEY SELF STORAGE

Laurel Road & Empire Avenue
Oakley, CA

March 9, 2016

Prepared For:

Sutter & Pierce EPIC, LLC
190 Hartz Ave, Suite 200
Danville, CA 94526

Prepared By:

Robert A. Karn & Associates, Inc.
707 Beck Avenue
Fairfield, CA 94533
(707) 435-9999

Project #A16004

TABLE OF CONTENTS

Tables

Figures

Attachments

Stormwater Control Plan

Appendix

HMP Compliance [if applicable]

I. PROJECT DATA

Table 1. Project Data

Project Name/Number	Oakley Self Storage
Application Submittal Date	
Project Location	Laurel Road & Empire Avenue
Name of Developer	Sutter & Pierce EPC, LLC
Project Phase No.	NA
Project Type and Description	Self-storage facility
Project Watershed	San Joaquin River
Total Project Site Area (acres)	2.85 Acres
Total Area of Land Disturbed (acres)	2.85 Acres
Total New Impervious Surface Area (sq. ft.)	99,833 SF
Total Replaced Impervious Surface Area	0 SF
Total Pre-Project Impervious Surface Area	0 SF
Total Post-Project Impervious Surface Area	99,833 SF
50% Rule[*]	Does Not Apply
Applicable Special Project Categories	None
Percent LID and non LID treatment	100% LID treatment.
HMP Compliance [†]	Exempt – Tidal – Drains to San Juaquin River

[*50% rule applies if:
Total Replaced Impervious Surface Area > 0.5 x Pre-Project Impervious Surface Area]

[†HMP applies if:
(Total New Impervious Surface Area + Total Replaced Impervious Surface Area) ≥ 1 acre]

II. SETTING

II.A. Project Location and Description

The project area is located on Laurel Road in the City of Oakley, in northeast Contra Costa County, California. The 2.85 acre project site is situated along the southern side of Laurel Road at the intersection of Laurel Road and Empire Avenue. The Project entails construction of a commercial

self-storage facility consisting of six free-standing buildings (Buildings A, B, C, D, E & F), an office, entry and exit driveway and supporting infrastructure.

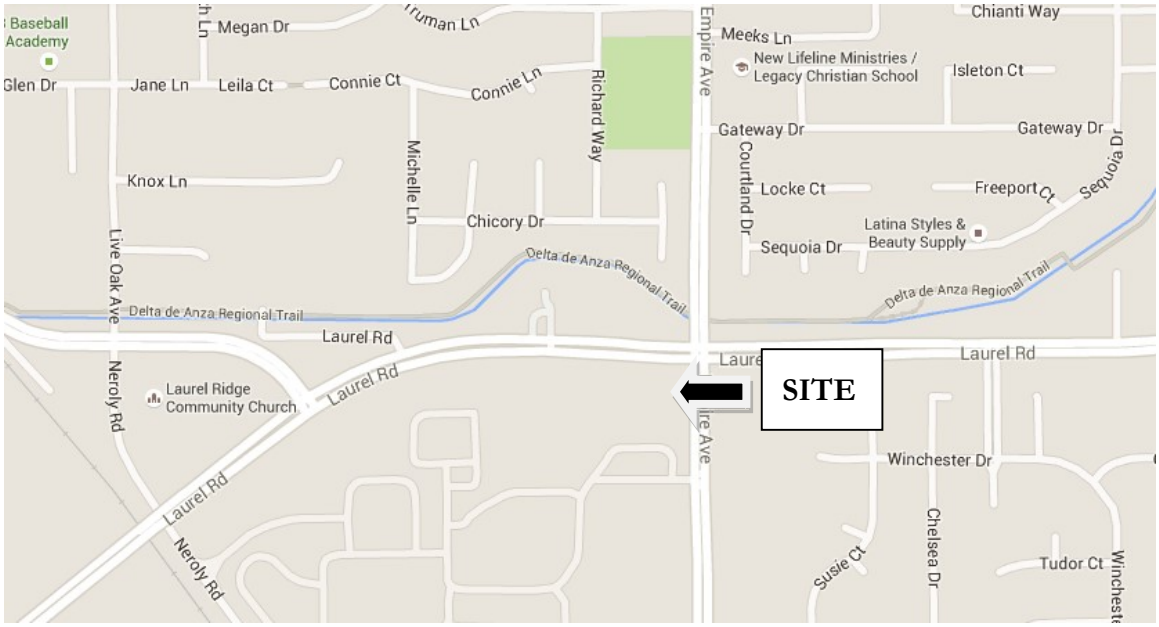


Figure 1: Vicinity Map

II.B. Existing Site Features and Conditions

The site is undeveloped, covered in natural grasses and weeds, with landscape and trees located on the north side of the property along Laurel Road traveling east to west.

There are no existing structures on site. (See Figure 2). The site contains frontage improvements along Laurel Road from the Empire Avenue intersection to the western edge of the property. Frontage improvements include curb, gutter and sidewalk, street lighting and landscaping. The site topography indicates a medium gradient slope ranging from 96 feet to 86 feet, with slopes from 1%-6% southeast to northwest. Storm runoff currently dissipates into the historically highly permeable soil.

There is an existing 48" raw water line running north to south along the western property line. The pipe is contained within a 20' wide water line easement. There are no bio-retention areas proposed within the easement.

There are several small trees located along the project frontage and will remain as part of the construction.. Existing ground cover will be stripped in accordance with the geotechnical investigation.

Figure 2: Existing Conditions Map

II.C. Opportunities and Constraints for Stormwater Control

Treatment of runoff from the site is to be provided. The requirement to manage increases in runoff during peak flows and durations (hydrograph modification management) applies based on methods described in the Contra Costa County C.3 Guidebook. Threshold for including flow control in treatment device design is when total impervious area being created or replaced is over 1 acre. Total impervious area being created or replaced is 99,833 square feet (2.29 acres). Impervious surface proposed resulting in more than one acre (43,560 square feet) requires compliance with hydrograph modification management (flow control) requirements. Since new and replaced impervious areas exceed one acre, hydrograph modification would be required. However, the site is located in an area within the City of Oakley with historically high soil permeability. The site also falls within an area considered to be tidal. The storm run-off will be conveyed via hardened pipe directly to the delta (San Joaquin River). The proposed project will connect to an existing storm drain lateral located on Laurel Road. Storm water will be treated on site via bio-retention areas located along the northern side of the manager's office and along the western property line. The bio-retention areas (BR-1 & BR-2) have been sized in accordance with the Contra Costa C.3 sizing tool and detailed in this report.

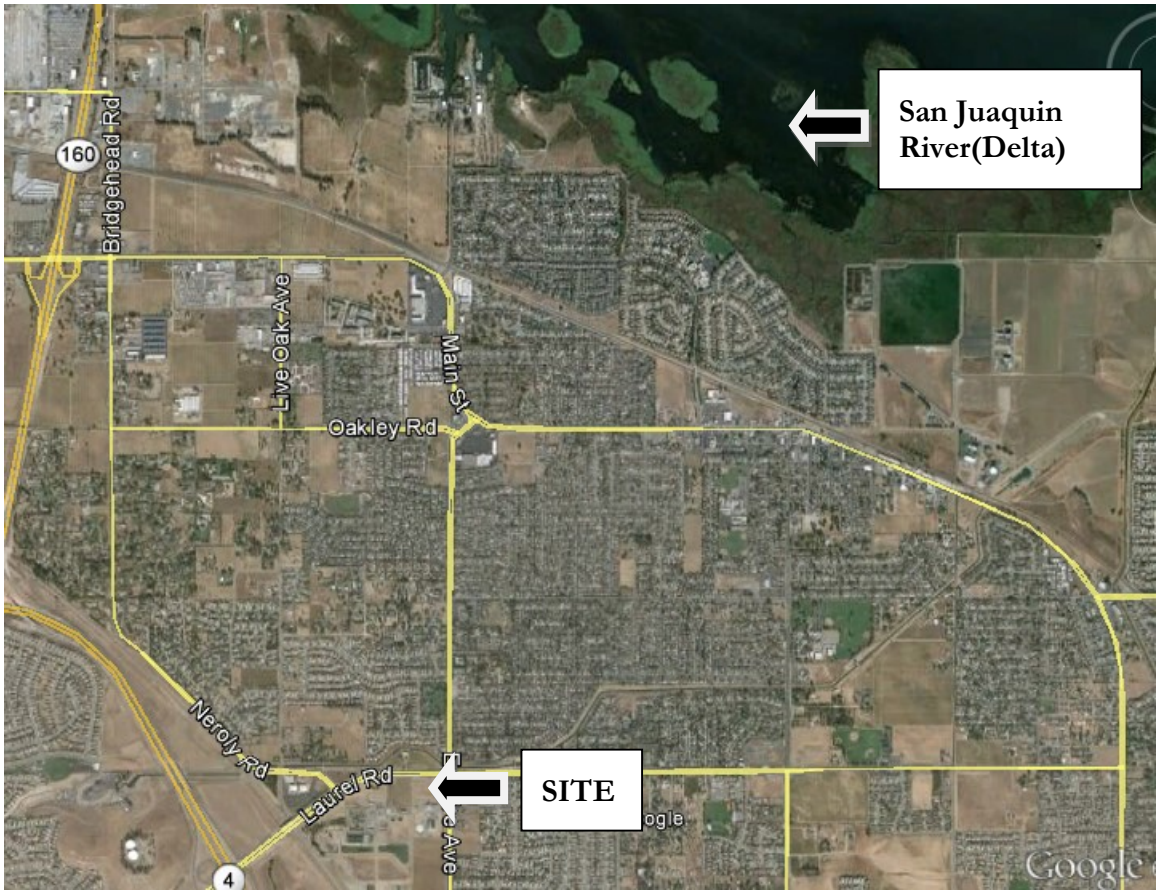


Figure 3: Watershed Map

III. Low Impact Development Design Strategies

III.A. Optimization of Site Layout

III.A.1. Limitation of development envelope

Development is designed to impact the minimum area possible. Landscaping areas have been proposed to limit the project's impact, and paved parking areas and drive aisles have been designed to be efficient and limit the development envelope as much as possible.

III.A.2 Preservation of natural drainage features

No existing natural drainage features will be disturbed or removed with the construction of the project. Proposed drainage features will contain elements of vegetation for both function and aesthetics.

III.A.3. Setbacks from creeks, wetlands, and riparian habitats

No creeks, wetlands and riparian habitats are present on the project site.

III.A.4. Minimization of imperviousness

Impervious area will be minimized as much as possible with the use of landscaping. Paved parking areas have been minimized as much as allowable within code, and natural bioretention areas are used for treatment.

III.A.5 Use of drainage as a design element

Drainage will be routed into bioretention areas located to the north of Buildings A and B, treating runoff before finally discharging off the site.

III.B Use of Permeable Pavements

No permeable pavement is proposed for the project.

III.C. Dispersal of Runoff to Pervious Areas

All of the site's impervious development area is directed into a pervious bioretention area for treatment(See Figure 4). Runoff from the site is collected and conveyed into two bioretention areas located along the northern side of the manager's office and along the western property line. Landscape areas are considered self treating due to the historically high soil permeability. Once the storm water is treated, it is conveyed to the City of Oakley storm drain infrastructure and ultimately to the San Joaquin River. See Figure 3.

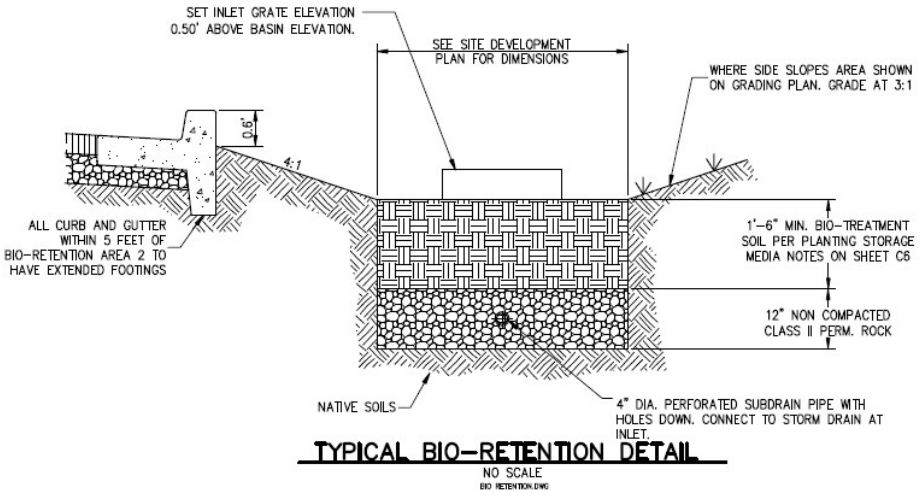


Figure 4: Bio-Retention Detail

III.D. Feasibility Assessment of Harvesting and Use for Treatment and Flow-Control

III.D.1. Permeability of Site Soils

High infiltration. Sand, Sandy Loam or Loamy Sand

III.D.2. Potential Opportunities for Harvesting and Use

Rainwater harvesting is not applicable.

III.D.3. Harvesting and Use Feasibility Calculations

Table 2. Harvesting and Use Feasibility

N/A

III.E. Integrated Management Practices

IV. DOCUMENTATION OF DRAINAGE DESIGN

IV.A. Descriptions of each Drainage Management Area

IV.A.1. Table of Drainage Management Areas

DMA Name	*Surface Type*	*Area (square feet)*
Pave-1	*Concrete/Asphalt*	*17,286*
Pave-2	*Concrete/Asphalt*	*19,901*
Roof-1	*Building Roof*	*18,624*
Roof-2	*Building Roof*	*44,022*
Land-1	*Landscaping*	*7,442*
Land-2	*Landscaping*	*10,740*
Land-3	*Landscaping*	*2,170*

IV.A.2. Drainage Management Area Descriptions

Pave-1, totaling 17,286 square feet, drains a portion of the paved parking area area into IMP-1 BR-1, a bioretention area.

Pave-2, totaling 19,901 square feet, drains a portion of the paved parking area into IMP-2 BR-2, a bioretention area.

Roof-1, totaling 18,624 square feet, drains the roof area into IMP-1 BR-1, a bioretention area.

Roof-2, totaling 44,022 square feet, drains the roof area into IMP-2 BR-2, a bioretention area.

Land-1, totaling 7,442 square feet, drains a portion of the landscape area into IMP-1 BR-1, a bioretention area.

Land-2, totaling 10,740 square feet, drains a portion of the landscape area into IMP-2 BR-2, a bioretention area.

Land-3, totaling 2,170 square feet, drains a portion of the landscape area into IMP-2 BR-2, a bioretention area.

IV.B. Tabulation and Sizing Calculations

IV.B.1. Information Summary for IMP Design

Total Project Area (Square Feet)	124,374 S.F. (2.85 Ac.)
Mean Annual Precipitation	13.3 in/yr
IMPs Designed For:	Treatment only

IV.B.2. Self-Treating Areas

Table 3. None

IV.B.3. Untreated Areas

Table 4. None

IV.B.4. Areas Draining to Self-Retaining Areas

Table 5. None

IV.B.5. Areas Draining to IMPs

Table 6.

Project Name: Oakley Self Storage
Project Type: Treatment Only
APN: 053-071-050
Drainage Area: 124,384
Mean Annual Precipitation: 13.3

IV. Areas Draining to IMPs

IMP Name: IMP1
IMP Type: Bioretention Facility
Soil Group: IMP1

DMA Name	Area (sq ft)	Post Project Surface Type	DMA Runoff Factor	DMA Area x Runoff Factor
ROOF-1	18,624	Conventional Roof	1.00	18,624
LAND-1	7,442	Landscape	0.10	744
PAVE-1	17,286	Concrete or Asphalt	1.00	17,286
			Total	36,654
			Area	0.040

IMP Sizing			
IMP Sizing Factor	Rain Adjustment Factor	Minimum Area or Volume	Proposed Area or Volume
	1.000	1,466	1,609

IMP Name: IMP2
IMP Type: Bioretention Facility
Soil Group: IMP2

DMA Name	Area (sq ft)	Post Project Surface Type	DMA Runoff Factor	DMA Area x Runoff Factor
PAVE-2	19,901	Porous Asphalt	0.10	1,990
ROOF-2	44,022	Conventional Roof	1.00	44,022
LAND-2	10,740	Landscape	0.10	1,074
LAND-3	2,170	Landscape	0.10	217
			Total	47,303
			Area	0.040

IMP Sizing			
IMP Sizing Factor	Rain Adjustment Factor	Minimum Area or Volume	Proposed Area or Volume
	1.000	1,892	2,580

IV.B.6. Areas Draining to Non-LID Treatment

Table 7. None

V. SOURCE CONTROL MEASURES

V.A. Site activities and potential sources of pollutants

The following activities planned for the Oakley Self Storage project have the potential to allow pollutants to enter runoff:

Potential dumping of wash water or other liquids into storm drain inlets.

Landscape maintenance.

Trash refuse areas

Vehicle washing/Parking

All areas where these activities occur will drain to a stormwater treatment bioretention area. To further reduce the potential to enter runoff, permanent and operational source control BMPs will be implemented as described in Table 8 below.

V.B. Source Control Table

Table 8. Source and Source Control BMPs

Potential Source of Runoff Pollutants	Permanent Source Control BMPs	Operational Source Control BMPs
On-site storm drain inlets	Mark inlets that could be easily accessed with a "No Dumping-Drains to Creek" or similar message.	• Maintain and periodically repaint or replace inlet markings. • Distribute stormwater pollution prevention information to Owner.
Landscape/outdoor pesticide use	• Any native trees, shrubs, and ground cover on the site will be preserved to the maximum extent possible. • Landscaping will be designed to minimize required irrigation and runoff, to promote surface infiltration, and to minimize the use of fertilizers and pesticides that can contribute to storm water pollution. • Plantings for bioretention areas will be selected to be appropriate to anticipated soil and moisture conditions. • Where possible, pest resistant plants will be selected, especially for locations adjacent to hardscape. • Plants will be selected appropriate to site soils, slopes, climates, sun, wind, rain, land use, air movement, ecological consistency, and plant interactions.	• Owner will receive integrated pest management information. • All site landscaping is to be maintained with minimal or no use of pesticides.
Vehicle washing	• Driveways and parking areas drain to bioretention areas.	Distribute stormwater pollution prevention information to Owner.

Potential Source of Runoff Pollutants	Permanent Source Control BMPs	Operational Source Control BMPs
Trash Refuse Area	• Provide adequate number of receptacles. Inspect receptacles regularly; repair or replace leaky receptacles. Prohibit/prevent dumping of liquid or hazardous wastes. Post "no hazardous materials" signs. Inspect and pick up litter daily and clean up spills immediately. Keep spill control materials available on-site. See fact Sheet SC-34, "Waste Handling and Disposal" in the CASQA Stormwater Quality Handbooks. Trash enclosure will be covered.	Distribute stormwater pollution prevention information to Owner. Post "Do Not Dump Hazardous Materials Here" signs near receptacles.

V.C. Features, Materials, and Methods of Construction of Source Control BMPs

VI. STORMWATER FACILITY MAINTENANCE

VI.A. Ownership and Responsibility for Maintenance in Perpetuity

All storm water treatment facilities in this plan will be owned and maintained in perpetuity by the private owner of the subject property. The applicant accepts responsibility for operation and maintenance of the facilities until such time as this responsibility is formally transferred to a subsequent owner.

The applicant will execute, prior to completion of project construction, a Stormwater Facilities Operation and Management Agreement. Such an agreement will "run with the land" and be enforceable on subsequent property owners. The applicant will provide the City access to stormwater treatment devices for inspection.

VII. CONSTRUCTION PLAN C.3 CHECKLIST

Table 9.

The below documents will be provided as part of the construction documents.

Stormwater Control Plan Reference	BMP Description	Plan Sheet Number
Exhibit, and Section 3.1.	Bioretention Areas sized as specified and designed to capture and route drainage from areas delineated on Exhibit.	SW1
Table 8	On-site drain inlets (if any) to be marked with "no dumping" message.	Civil Imp

Table 8.	Plant selection to minimize irrigation, minimize use of fertilizers and pesticides, and for pest assistance.	L1
Table 8.	Trash refuse areas to be protected to prevent pollutant runoff	SWPPP

VIII. CERTIFICATIONS

The selection, sizing, and preliminary design of stormwater treatment and other control measures in this plan meet the requirements of Regional Water Quality Control Board Order R2-2015-0049.

_____ _____

Robert A. Karn P.E. 33173 Date

CONTRA COSTA
CLEAN WATER
PROGRAM

IMP Sizing Calculator

Version: 1.3.1.0
Please visit www.cccleanwater.org
for software updates and more

Project Name: Oakley Self Storage
Project Type: Treatment Only
APN: 053-071-050
Drainage Area: 124,384
Mean Annual Precipitation: 13.3

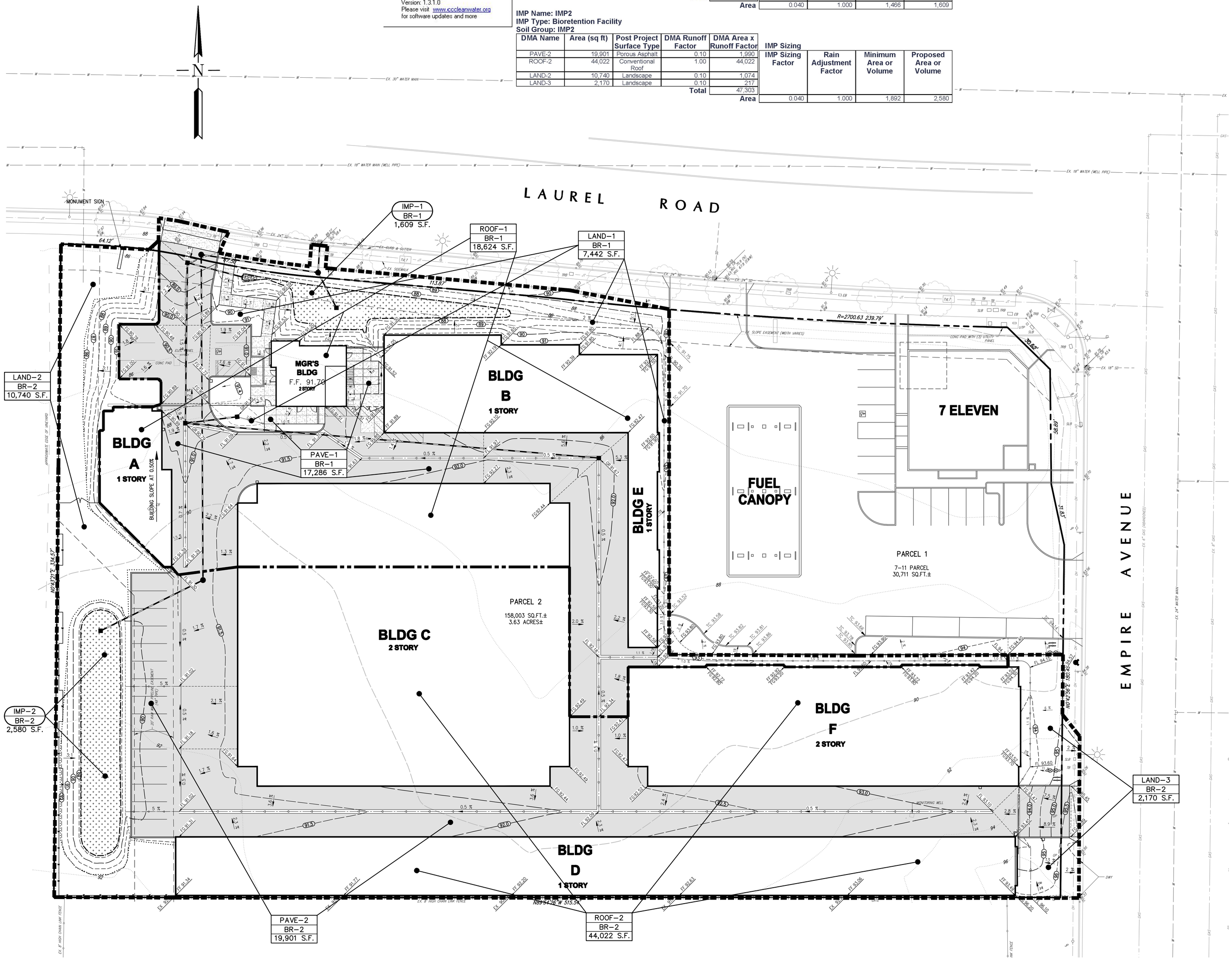
IV. Areas Draining to IMPs

IMP Name: IMP1
IMP Type: Bioretention Facility
Soil Group: IMP1

DMA Name	Area (sq ft)	Post Project Surface Type	DMA Runoff Factor	DMA Area x Runoff Factor	IMP Sizing			
					IMP Sizing Factor	Rain Adjustment Factor	Minimum Area or Volume	Proposed Area or Volume
ROOF-1	18,624	Conventional Roof	1.00	18,624				
LAND-1	7,442	Landscape	0.10	744				
PAVE-1	17,286	Concrete or Asphalt	1.00	17,286				
			Total	36,654				
				Area	0.040	1.000	1,466	1,609

IMP Name: IMP2
IMP Type: Bioretention Facility
Soil Group: IMP2

DMA Name	Area (sq ft)	Post Project Surface Type	DMA Runoff Factor	DMA Area x Runoff Factor	IMP Sizing			
					IMP Sizing Factor	Rain Adjustment Factor	Minimum Area or Volume	Proposed Area or Volume
PAVE-2	19,901	Porous Asphalt	0.10	1,990				
ROOF-2	44,022	Conventional Roof	1.00	44,022				
LAND-2	10,740	Landscape	0.10	1,074				
LAND-3	2,170	Landscape	0.10	217				
			Total	47,303				
				Area	0.040	1.000	1,892	2,580



STORMWATER MAP LEGEND:

PROPOSED

- LIMIT OF NEW IMPROVEMENTS
- DRAINAGE AREA BOUNDARY
- TREATMENT AREA
- DRAINAGE MANAGEMENT AREA (DMA) ID → ROOF-1 / BR-1 / sq.ft.
- TREATMENT DEVICE ID: BIO SWALE & BIO RETENTION (BR), SELF RETAINING (ST)
- INTEGRATED MANAGEMENT PRACTICE (IMP) → IMP-1 / BR-1 / sq.ft.
- BIO SWALE & BIO RETENTION (BR)

0 20 40 60
GRAPHIC SCALE

S:\A16004\DWG\PRELIM\A16004 PGRD 2.DWG

ROBERT A. KARN & ASSOCIATES, INC.
707 BECK AVENUE
FAIRFIELD, CALIFORNIA 94533
Phone: (707) 435-9999 Fax: (707) 435-9988
e-mail: rakarnengineers.com

CIVIL ENGINEERS

STORMWATER PLAN
OAKLEY SELF STORAGE
LAUREL ROAD AND EMPIRE AVENUE
CITY OF OAKLEY, CONTRA COSTA COUNTY, CALIFORNIA

FOR: SUTTER & PIERCE EPC, LLC

SCALE	DATE	DESIGN	CHECKED	PROJ. MGR.
1"=20'	3-9-16	A.B.L.	R.A.K.	T.M.P.

DATE	MK	SHEET REVISIONS	BY	CK

SHEET NO.
SW1
OF SHEETS

JOB NO.
A16004