

KENNETH D. SMITH  
ARCHITECT  
& ASSOCIATES, INC.

1000 PULPITA ST., SUITE 102  
SAN CAYTON, CA 94580  
TEL: 650 444 2052  
FAX: 650 442 2659



DATE: 5-20-10  
JOB NO: Project Number  
DRAWN BY: Author  
CHECKED BY: Checker

Revision Schedule

#	Date	Description
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project: New Shell Buildings  
**Hardt & Brier Business Park**  
SAN BERNARDINO, CA

**DD0.2**



### OWNER

OAK PROPERTIES  
1000 PIONEER WAY  
EL CAJON, CA 92020  
TEL (619) 440 7504  
FAX (619) 440 8014  
Email:  
CONTACT: GREGG HAMANN

### LEGAL DESCRIPTION

PARCELS 29 & 30 OF PARCEL MAP NO. 5484  
FILED IN SAN BERNARDINO COUNTY  
APR: 02/11/17 & 03  
ADDRESS: HARDT STREET  
USE: SHELL  
ZONE: TOD CR-3

### SITE INFORMATION

SITE AREA: 24,315 SF 1.25 ACRES  
PROPOSED BUILDING COVERAGE: 18,314 SF 75.3%  
PROPOSED LANDSCAPE AREA: 15,000 SF 61.7%  
PROPOSED PARKING AREA: 22,771 SF 93.6%  
TYPE OF DEVELOPMENT: SHELL

### PARKING TABULATION

- PARKING PROVIDED:
- 37 STANDARD SPACES PROVIDED
  - 1 COMPACT SPACES PROVIDED
  - 1 VAN ACCESSIBLE SPACES PROVIDED
  - 1 ACCESSIBLE SPACES PROVIDED
  - 4 CLEAN AND VEHICLE SPACES PROVIDED (8% OF AUTO SPACES MIN.)
  - 2 FUTURE E.V. CHARGING STATIONS
  - 43 TOTAL AUTOMOBILE SPACES PROVIDED
  - 2 SHORT TERM BICYCLE SPACES w/ PERMANENTLY ANCHORED RACKS (8% OF VISITOR AUTO SPACES MIN.)
  - 1 LONG TERM BICYCLE SPACE IN LOCKABLE, PERMANENTLY ANCHORED LOCKER (8% OF TENANT/EMPLOYEE AUTO SPACES MIN.)

### SITE LEGEND

- EXISTING WATER SERVICE LINE
- EXISTING SEWER SERVICE LATERAL
- EXISTING FIRE (WATER) SERVICE LINE
- EXISTING IRRIGATION (WATER) SERVICE LINE
- EXISTING ELECTRICAL SERVICE LINE
- EXISTING GAS SERVICE LINE
- EXISTING FIRE HYDRANT
- PROPOSED FIRE HYDRANT
- EXISTING POLE MOUNTED LIGHT STANDARD
- PROPOSED POLE MOUNTED LIGHT STANDARD
- POST INDICATOR VALVE
- FIRE DEPARTMENT POINT OF CONNECTION
- REDUCED PRESSURE DETECTION ASSEMBLY (RPDA) w/ DOUBLE CHECK VALVE ASSEMBLY (DCCA) PER JURISDICTION
- NUMBER OF PARKING
- HANDICAP PARKING SYMBOL

### ACCESSIBLE PATH OF TRAVEL

\*\*\*\*\* NEW PATH OF TRAVEL (P.O.T.) AS INDICATED BY A BARRIER FREE ACCESS ROUTE WITHOUT ANY ARBITRARY VERTICAL CHANGES EXCEEDING UP OR DOWN 1/4" PER FOOT AND AT LEAST 48" WIDE. SURFACE IN RLP RESISTANT, STABLE, FIRM, AND SMOOTH. CROSS-SLOPE DOES NOT EXCEED 2% AND SLOPE IN DIRECTION OF TRAVEL IS LESS THAN 1% UNLESS OTHERWISE INDICATED. P.O.T. SHALL BE MAINTAINED FREE OF OVERHANGING CONSTRUCTION TO 5' MINIMUM (11'8" MAX) AND PROTRUDING OBJECTS GREATER THAN 4" PROJECTION FROM A WALL AND ABOVE 27" AND LESS THAN 87" (11'8" MAX).

### PROJECT SCOPE

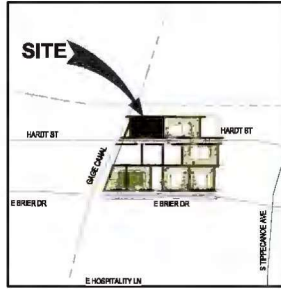
A PRESTANDING SPRINKLERED TILT-UP SHELL BUILDING THAT WILL BE CAPABLE OF ACCOMMODATING A VARIETY OF USES, ON APPROXIMATELY 1.25 ACRES

### SHEET LIST DD

SHEET #	SHEET NAME
DD1.0	SITE PLAN
DD1.1	SITE DETAILS
DD2.1	FLOOR PLAN
DD2.2	ROOF PLAN
DD2.3	ELEVATIONS
DD2.4	ELEVATIONS

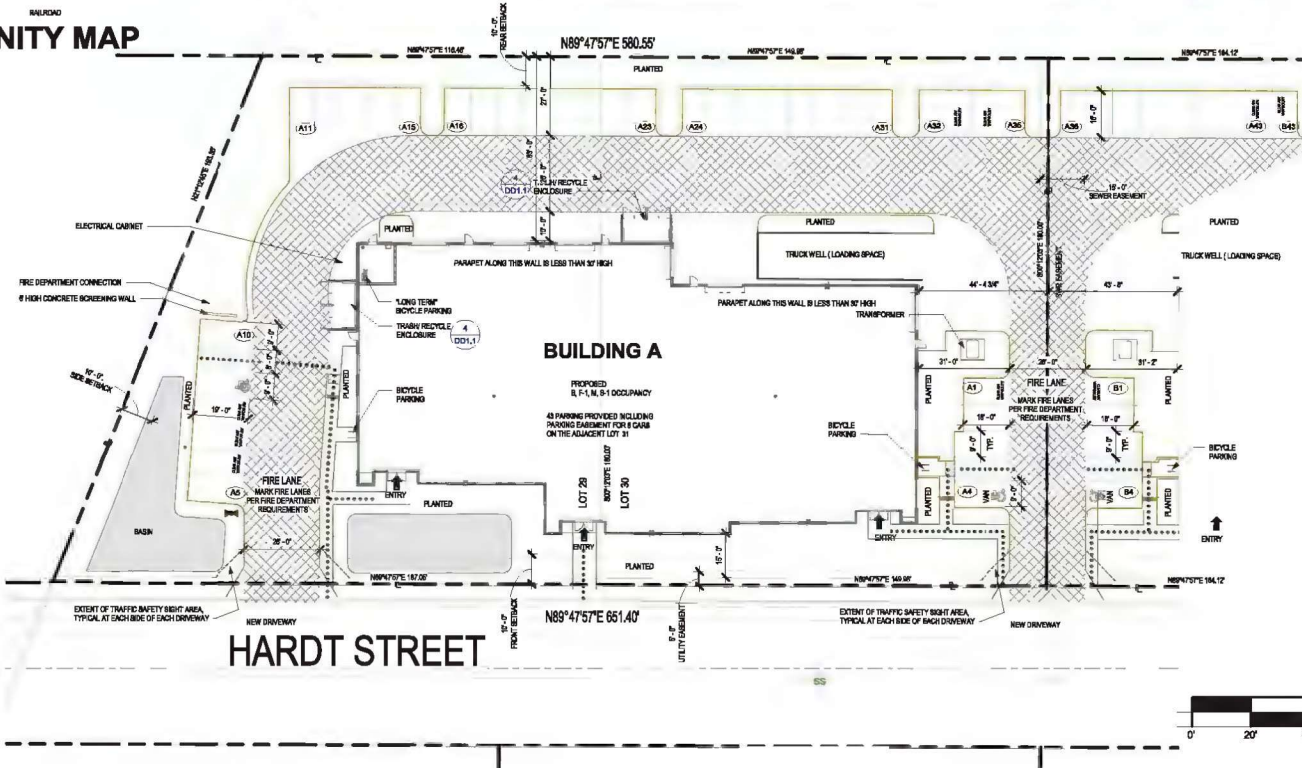


SITE PLAN



### VICINITY MAP

1" = 500'-0"



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500 PERSIMMON ST., SUITE 102  
EL CAJON, CA - 92020  
PH / (619) 444-2082  
Fax / (619) 442-2699



DATE: 5/3/2021  
JOB NO.: 150117  
DRAWN BY: KSM  
CHECKED BY: JCH

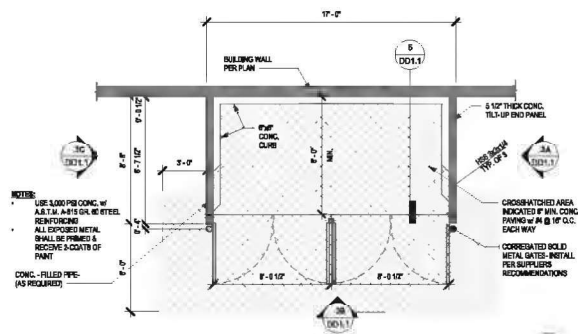
Revision Schedule		
#	Date	Description

project: NEW SHELL BUILDING 'A'  
Hardt & Brier Business Park  
LOTS 29 & 30  
SAN BERNARDINO, CA

DD1.0

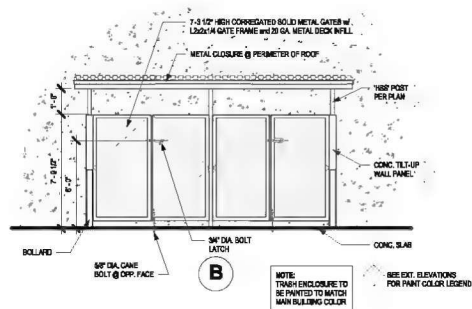
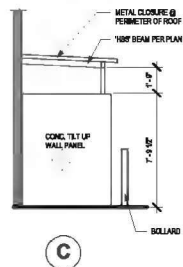


$\frac{1}{4}^\circ = 1'-0''$

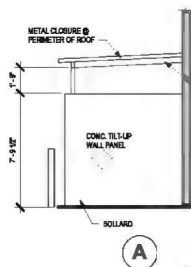


$\frac{4}{DD^{\circ}1}$   
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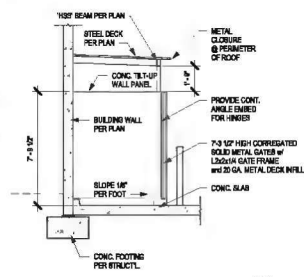
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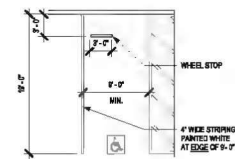
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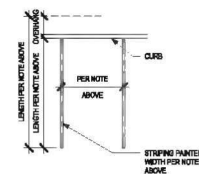
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DD1.1  
1/4" = 1'-0"



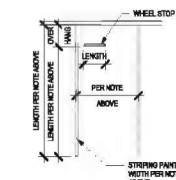
## SECTION



### ACCESSIBLE STALL STRIPING

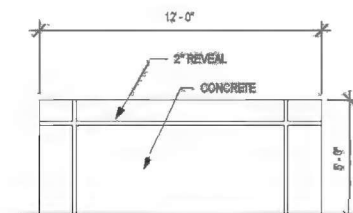


TYPICAL STALL  
w/ OVERHANG



### TYPICAL STALL STRIPING

**PARKING**



### TYPICAL SCREENING WALL

NOT TO SCALE



500 PESLER ST. SUITE 102  
EL CAJON - CA - 92020  
PH / 619 444 2182  
Fax / 619 442 2699



DATE: 5/31/2021  
JOB NO: 15017  
DRAWN BY: Author  
CHECKED BY: Checker

Revision Schedule		
#	Date	Description

project: NEW SHELL BUILDING 'A'  
**Hardt & Brier Business Park**  
**LOTS 29 & 30**  
SAN BERNARDINO, CA

DD1.1



Revision Schedule		
#	Date	Description

DD2.1

DD2.1



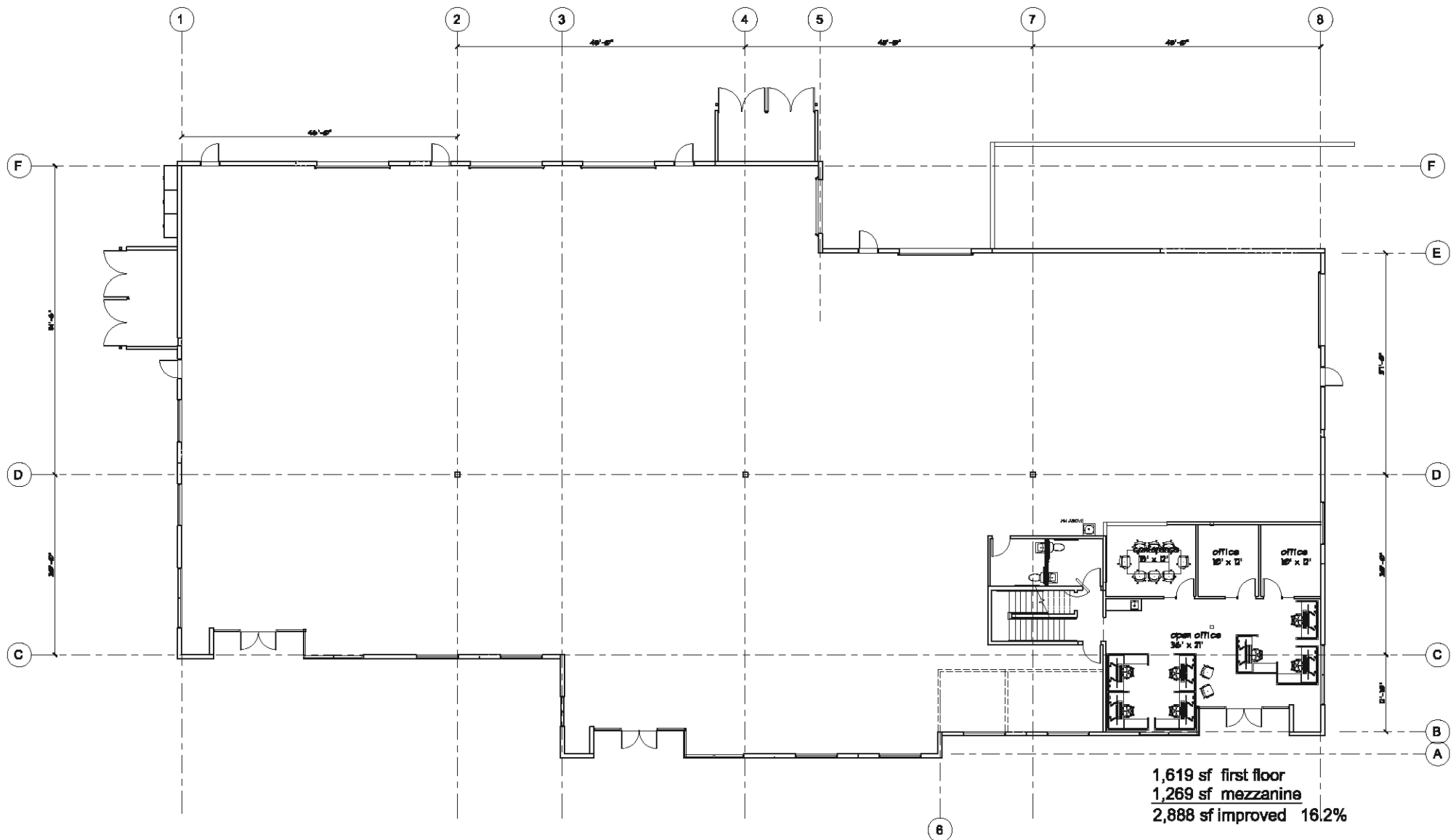
FIRST  
FLOOR  
PLAN

 $1/\beta^* = 1'-0''$ 

SQUARE FOOTAGE	
Name	Area
Area	Not Placed
Not Placed	0.00
BUILDING A	18,514.52
01 FIRST FLOOR	16,514.52







16,514 sf + 1,269 mezz. = 17,833 sf

## FLOOR PLAN A

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



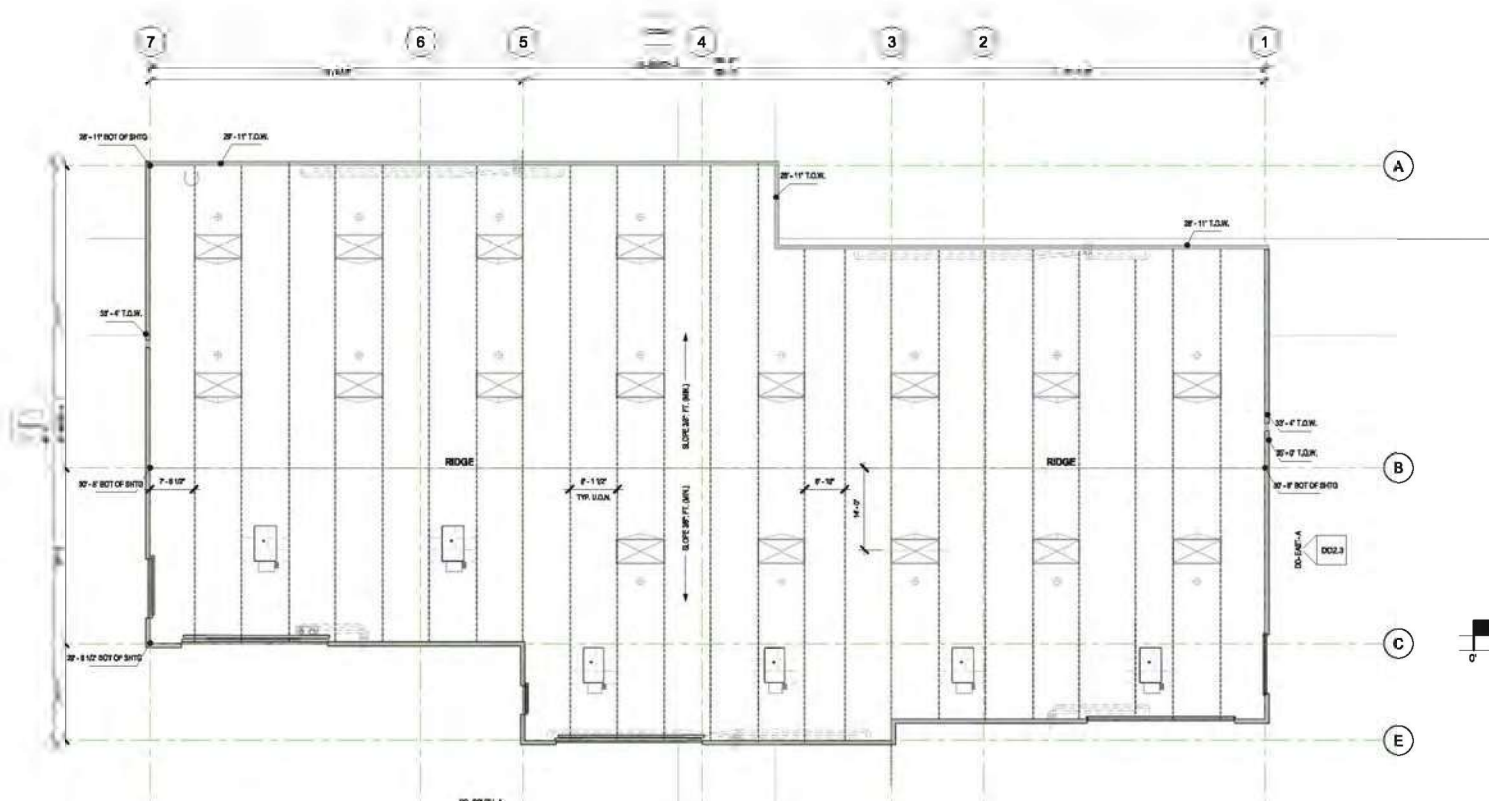
MARCH 18, 2023

# Hardt & Brier Business Park

San Bernardino

California

## Section 1

 $1/3 = 1/5$ 

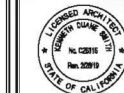
NOTE:  
ROOFTOP EQUIPMENT SHOWN IS CONCEPTUAL.  
ACTUAL PLACEMENT WILL VARY.



## ROOF PLAN

 $1^{\circ} = 10^{-5}$ 

500 PESLER ST. SUITE 102  
EL CAJON - CA - 92020  
PH / 619 444 2182  
Fax / 619 442 2699

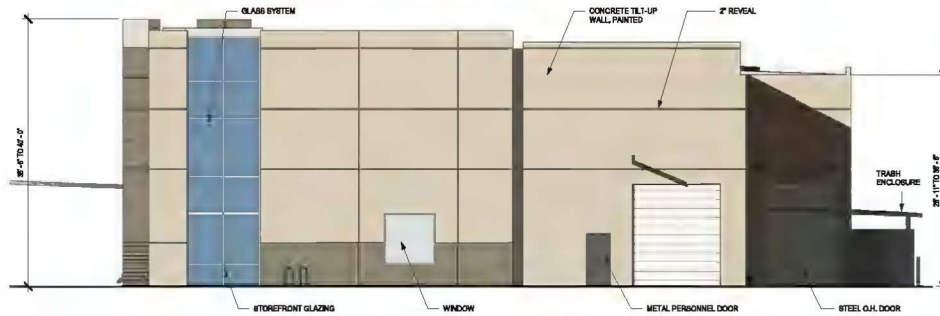


DATE: 5/31/2021  
JOB NO: 18017  
DRAWN BY: Ken  
CHECKED BY: Checker

Revision Schedule		
#	Date	Description

Project: NEW SHELL BUILDING 'A'  
**Hardt & Brier Business Park**  
**LOTS 29 & 30**  
 SAN BERNARDINO, CA

## DD2.2

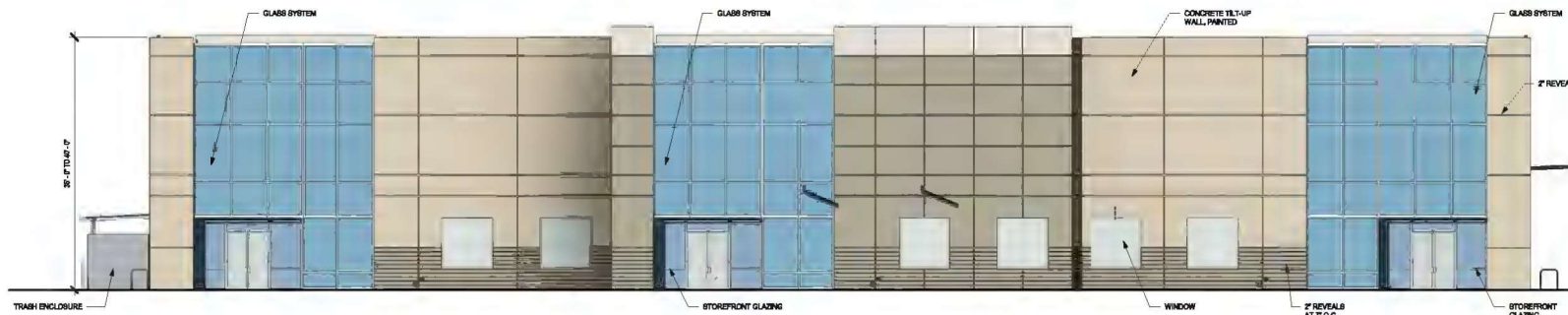


**DD- EAST- A**  
1/8" = 1'-0"

**EXTERIOR PAINT :**

COLORS SHALL BE RIVERWIN WILLIAMS PAINT TO MATCH NUMBERS BELOW.

- A - SW 6203 SPARK WHITE
- B - SW 7667 ZIRCON
- C - BW 7608 SUMMIT GRAY



**DD- SOUTH- A**  
1/8" = 1'-0"

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500 PULASKI ST., SUITE 102  
FALCÓN, CA - 92020  
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FAX / 619 442 2699



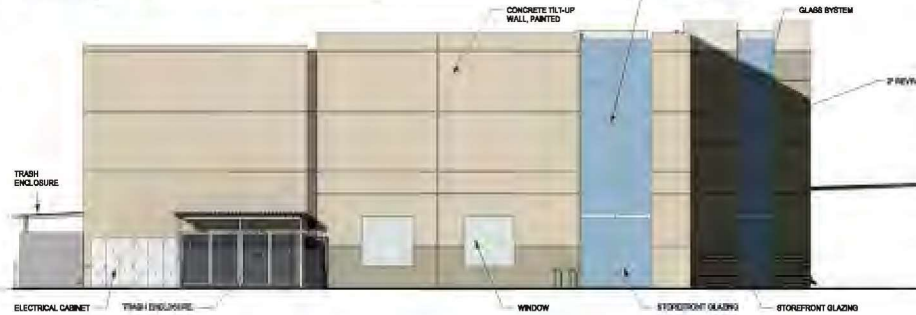
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JOB NO: 15017  
DRAWN BY: Ego  
CHECKED BY: Checker

Revision Schedule

#	Date	Description
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project: NEW SHELL BUILDING 'A'  
**Hardt & Brier Business Park**  
**LOTS 29 & 30**  
SAN BERNARDINO, CA

**DD2.3**



**DD- WEST- A**  
1/8" = 1'-0"

**EXTERIOR PAINT :**

COLORS SHALL BE BERNINI-WILLIAMS PAINT TO MATCH NUMBERS BELOW.

- A BW 5203 SPARE WHITE
- B BW 7867 ZIRCON
- C BW 7868 SUMMIT GRAY



**DD- NORTH- A**  
1/8" = 1'-0"

KENNETH D. SMITH  
ARCHITECT  
& ASSOCIATES, INC.



500 PULPARK ST., SUITE 102  
SAN CARLOS, CA 95070  
PH / 650 444 2083  
FAX / 650 442 2699



DATE: 5/3/2021  
JOB NO: 15017  
DRAWN BY: Archer  
CHECKED BY: Checker

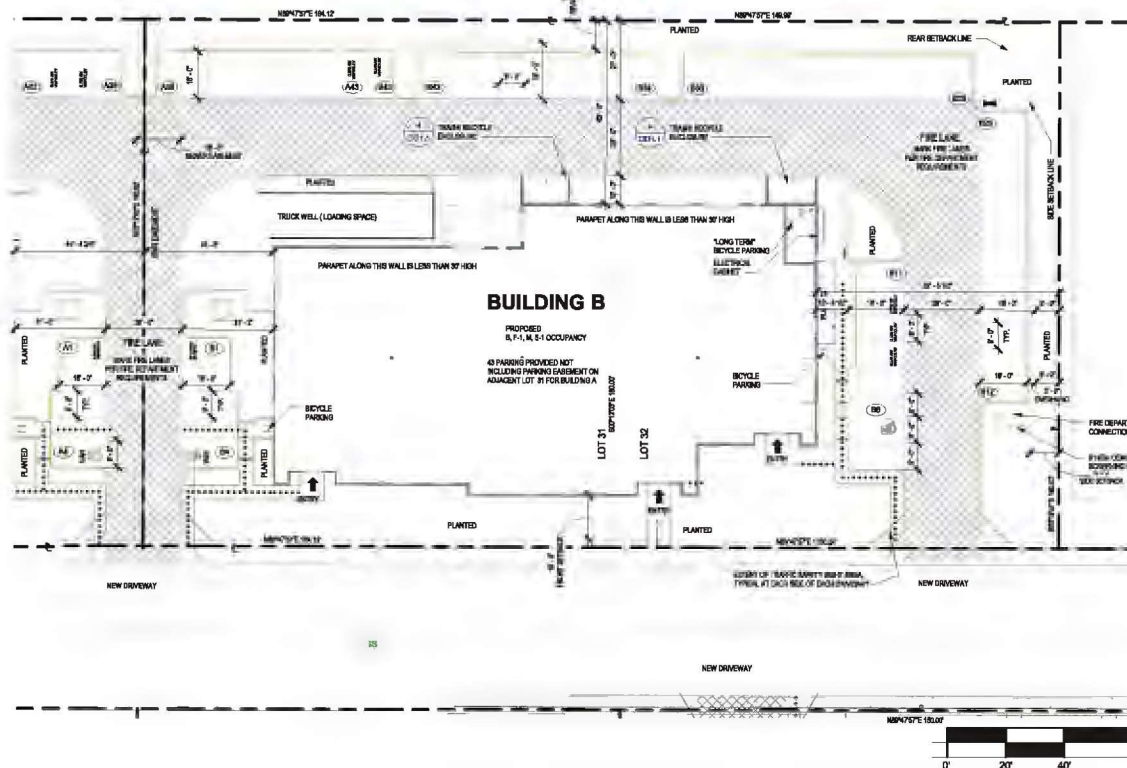
**Revision Schedule**

#	Date	Description
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project: NEW SHELL BUILDING 'A'  
**Hardt & Brier Business Park**  
**LOTS 29 & 30**  
SAN BERNARDINO, CA

**DD2.4**





OAK PROPERTIES  
1000 PIONEER WAY  
EL CAJON, CA. 92020  
Tel:(818) 440 7424  
Fax:(818) 440 6914  
Email:-  
CONTACT:GREGG HAMANN

PARCELS 31 & 32 OF PARCEL MAP NO. 5484  
FILED IN SAN BERNARDINO COUNTY

APR: 0281-311-07 & 08

ADDRESS: HARDT STREET

USE: SHELL

ZONE: TOD CR-3

SITE AREA:	58,504 SF	1.30 ACRES
PROPOSED BUILDING COVERAGE:	18,320 SF	28.22 %
PROPOSED LANDSCAPE AREA:	13,358 SF	23.01 %
PROPOSED PAVING AREA:	29,086 SF	47.87 %
TYPE OF DEVELOPMENT:	SHELL	

**PARKING PROVIDED:**

- 37 STANDARD SPACES PROVIDED
- 0 COMPACT SPACES PROVIDED
- 1 VAN ACCESSIBLE SPACES PROVIDED
- 1 ACCESSIBLE SPACES PROVIDED
- 4 CLEAN AIR VEHICLE SPACES PROVIDED ( 5% OF AUTO SPACES MIN.)
- 2 FUTURE E.V. CHARGING STATIONS

**43 TOTAL AUTOMOBILE SPACES PROVIDED:**

- 2 SHORT TERM BICYCLE SPACES OR PERMANENTLY ANCHORED RACKS (5% OF VISITOR AUTO SPACES MIN.)
- 1 SHORT TERM BICYCLE SPACE IN LOCKABLE, PERMANENTLY ANCHORED LOCKER (5% OF TENANT/EMPLOYEE AUTO SPACES MIN.)

- EXISTING WATER SERVICE LINE
- EXISTING SEWER SERVICE, LATERAL
- EXISTING FIRE (WATER) SERVICE LINE
- EXISTING IRRIGATION (WATER) SERVICE LINE
- EXISTING ELECTRICAL SERVICE LINE
- EXISTING GAS SERVICE LINE
- EXISTING FIRE HYDRANT
- PROPOSED FIRE HYDRANT
- EXISTING POLE/MOUNTED LIGHT STANDARD
- PROPOSED POLE/MOUNTED LIGHT STANDARD
- POINT INDICATOR VALVE
- POINT INDICATOR VALVE
- FIRE DEPARTMENT POINT OF CONNECTION
- FIRE DEPARTMENT POINT OF CONNECTION
- REDUCED PRESSURE DETECTION ASSEMBLY
- PRESSURE-SENSITIVE CHECK VALVE ASSEMBLY (SCV)/P.A. JUNCTION
- NUMBER OF PARKING
- HANDICAP PARKING SYMBOL

\*\*\*\*\* NEW PATH OF TRAVEL (P.O.T.) AS INDICATED IS A BARRIER FREE ACCESS ROUTE WITHOUT ANY ABRUPT VERTICAL CHANGES EXCEEDING 1/2" BENEATH AT 1:2 MAXIMUM SLOPE, EXCEPT THAT LEVEL CHANGES DO NOT EXCEED 1/4" VERTICAL AND IS AT LEAST 48" WIDE. SURFACE IS SLIP RESISTANT, STABLE, FIRM, AND SMOOTH. CROSSLAND DOES NOT EXCEED 2% AND SLOPE IN DIRECTION OF TRAVEL IS LESS THAN 2% UNLESS OTHERWISE INDICATED. P.O.T. SHALL BE MAINTAINED FREE OF OVERHANGING OBSTRUCTIONS TO 8' MINIMUM (118-307.2) AND PROTRUDING OBJECTS GREATER THAN 4" PROJECTION FROM A WALL AND ABOVE 27" AND LESS THAN 8" (118-307.3).

A FREESTANDING SPRINKLERED TILT-UP SHELL BUILDING THAT WILL BE CAPABLE OF ACCOMMODATING A VARIETY OF USES, ON APPROXIMATELY 1.30 ACRES)

SHEET #      SHEET NAME

DD1.0	SITE
DD1.1	SITE DETAILS
DD2.1	FLOOR PLAN
DD2.2	ROOF PLAN
DD2.3	ELEVATIONS
DD2.4	ELEVATIONS



1" = 20'-0"



500 PESDER ST. SUITE 102  
EL CAJON - CA - 92020  
PH / 619 444 2182  
Fax / 619 442 2699



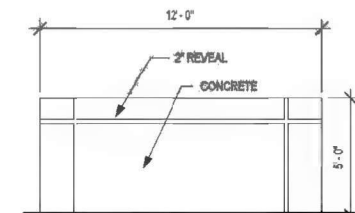
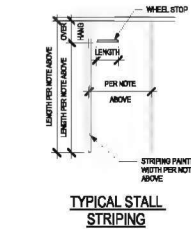
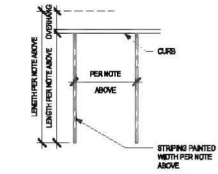
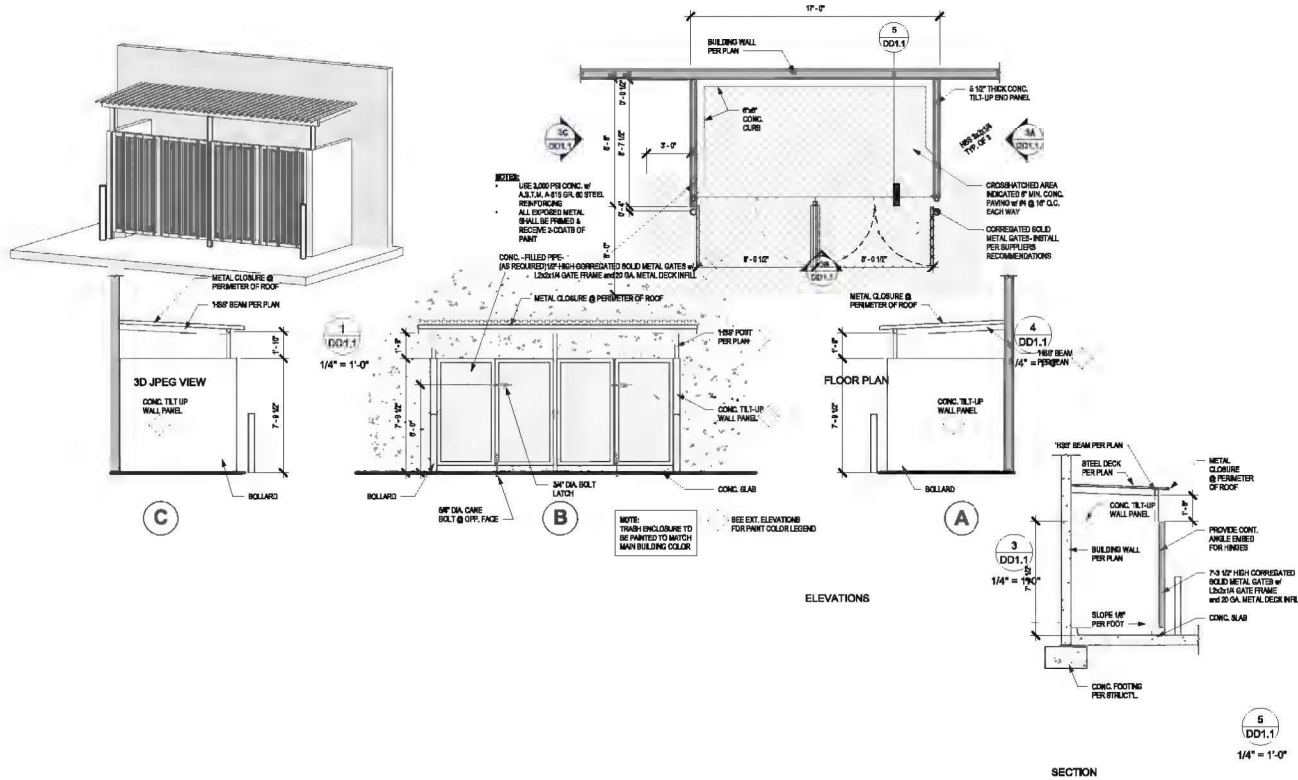
DATE: 5-20-19  
JOB NO: Project Number  
DRAWN BY: Author  
CHECKED BY: Checker

Revision Schedule		
#	Date	Description

Project: NEW SHELL BUILDING 'B'  
**Hardt & Brier Business Park**  
**LOTS 31 & 32**  
 SAN BERNARDINO, CA

## DD1.0

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TYPICAL SCREENING WALL  
NOT TO SCALE

KENNETH D. SMITH  
ARCHITECT  
& ASSOCIATES, INC.



500 PULASKI ST., SUITE 102  
SAN CALIXTO, CA 92070  
PH / 619 444 2183  
FAX / 619 442 2699



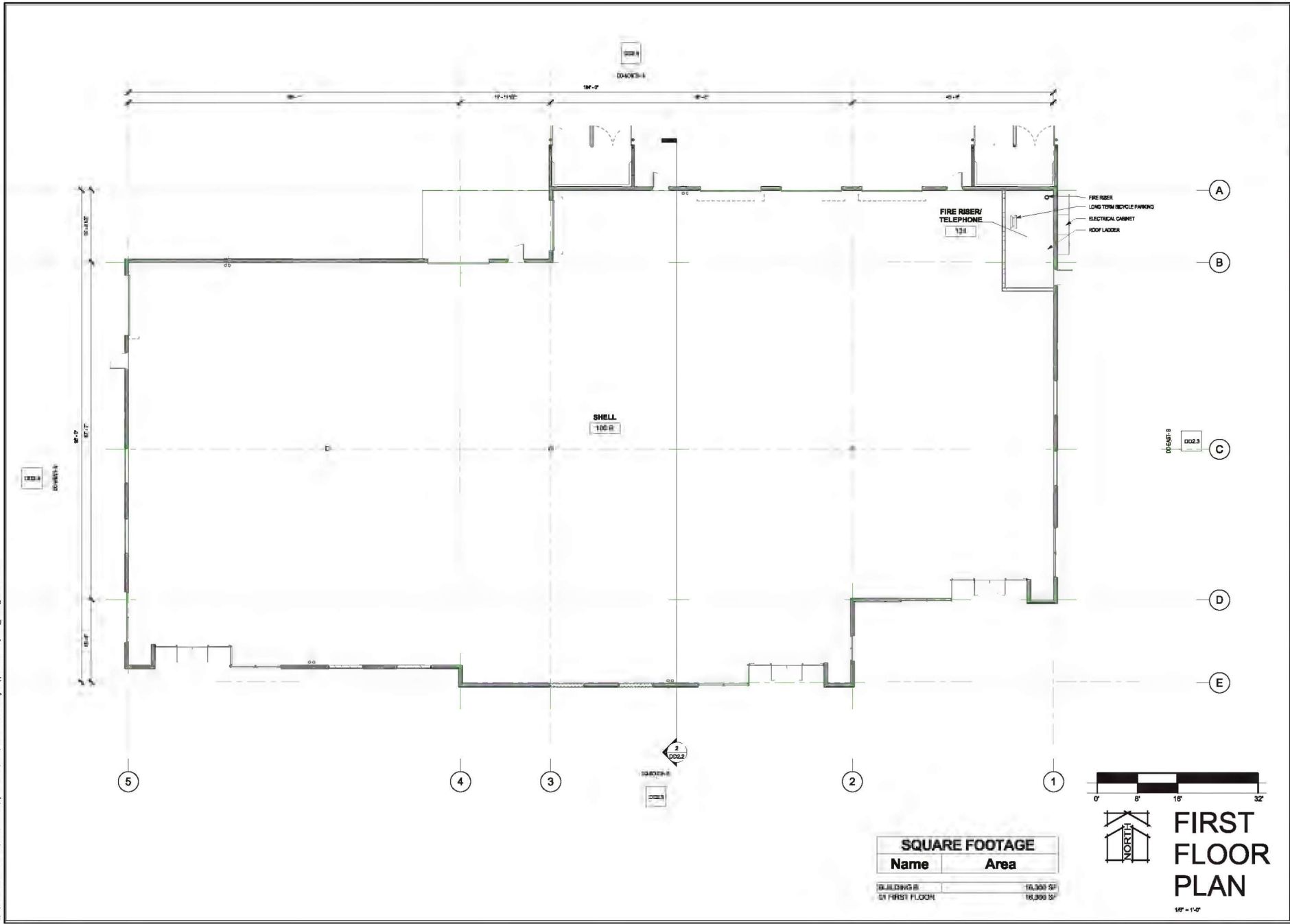
DATE: 5-20-19  
JOB NO.: Project Number  
DRAWN BY: Architect  
CHECKED BY: Checker

Revision Schedule  
# Date Description

project: NEW SHELL BUILDING 'B'  
**Hardt & Brier Business Park**  
**LOTS 31 & 32**  
SAN BERNARDINO, CA

**DD1.1**

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KENNETH D. SMITH  
ARCHITECT  
& ASSOCIATES, INC.



500 PULPIT ST., SUITE 102  
PLACENTIA, CA 92669  
PH / 916 444 2083  
Fax / 916 442 2659



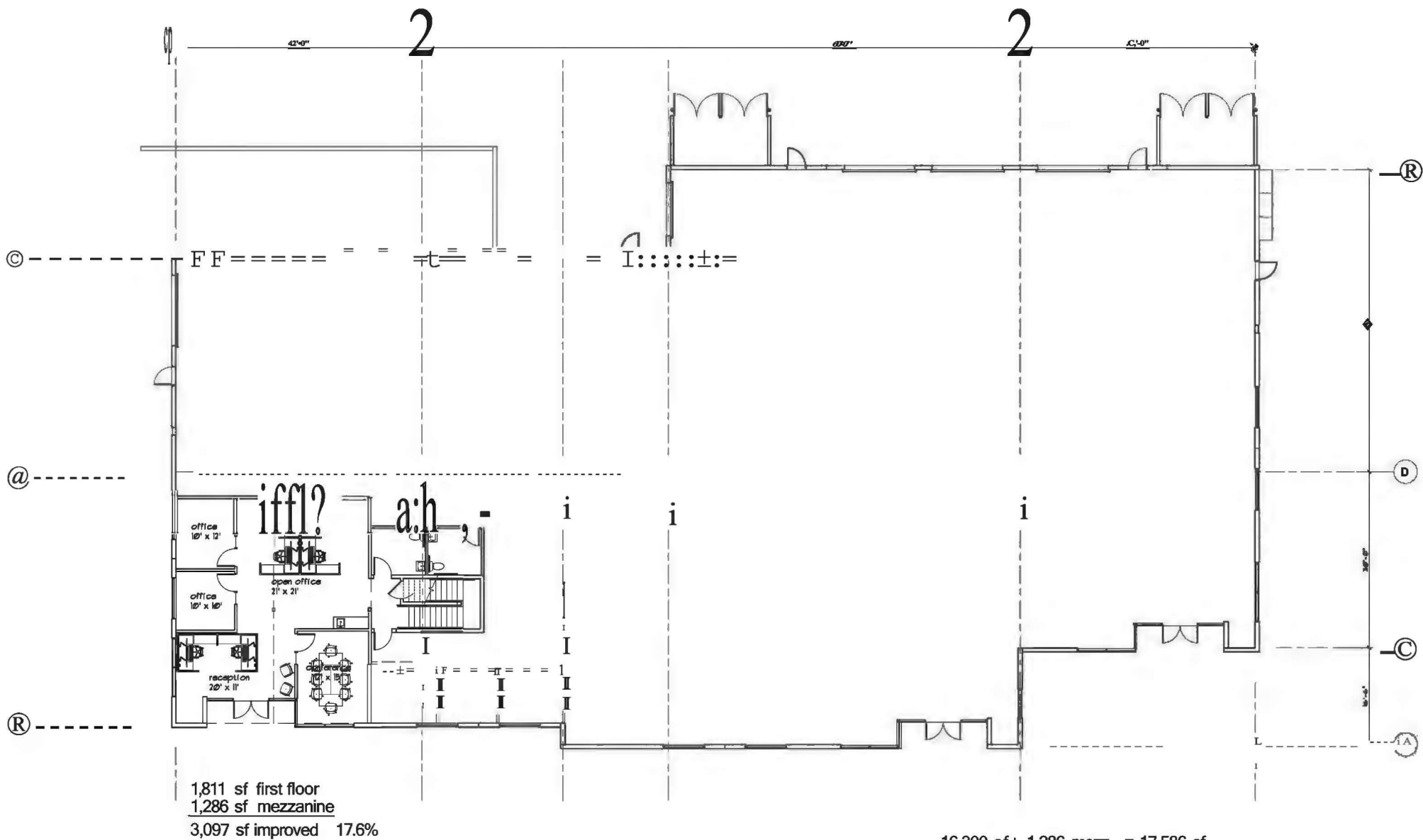
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JOB NO.: Project Number  
DRAWN BY: Architect  
CHECKED BY: Checker

Revision Schedule

#	Date	Description
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project: NEW SHELL BUILDING 'B'  
**Hardt & Brier Business Park**  
**LOTS 31 & 32**  
SAN BERNARDINO, CA

**DD2.1**



16,300 sf+ 1,286 mezz. = 17,586 sf

## FLOOR PLAN B

SCALE: 1/8" = 1'-0"



MAY 18, 1991

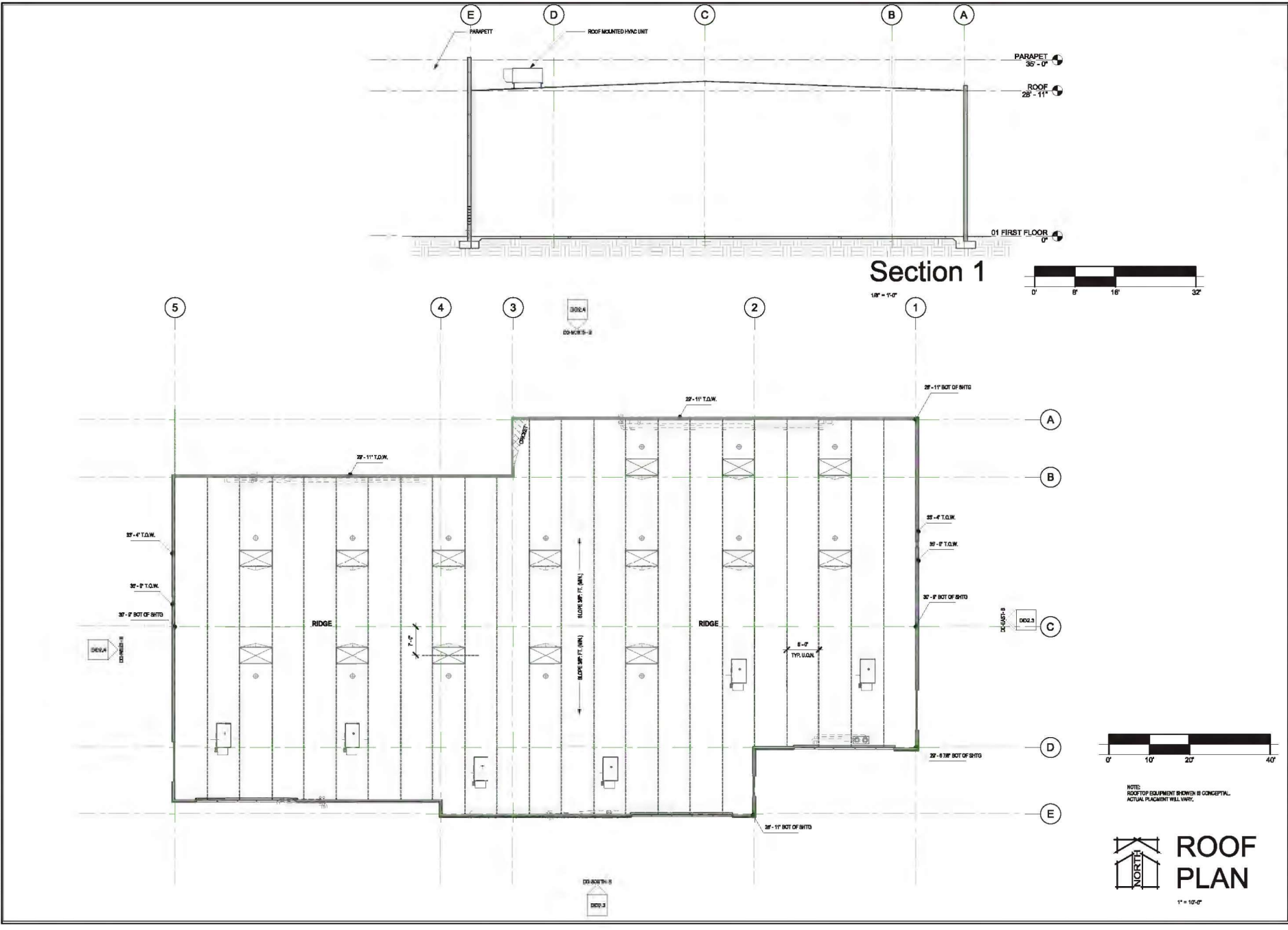
## Hardt & Brier Business Park

San Bernardino

California



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**KENNETH D. SMITH  
ARCHITECT  
& ASSOCIATES, INC.**

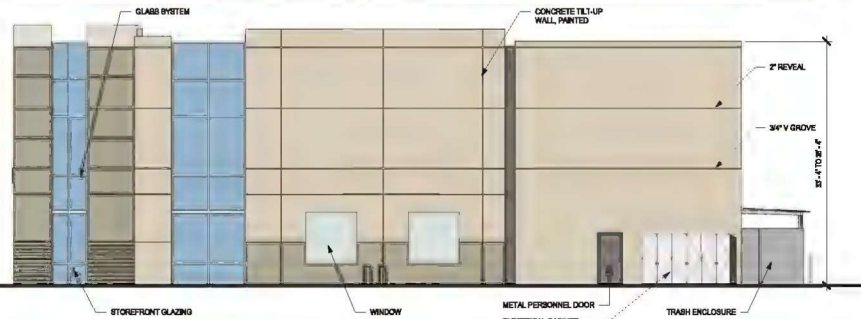
500 PULPIT ST., SUITE 102  
SAN CAJON, CA 92020  
PH / 619 444 2083  
Fax / 619 442 2699

DATE: 5-20-19  
JOB NO.: Project Number  
DRAWN BY: Author  
CHECKED BY: Checker

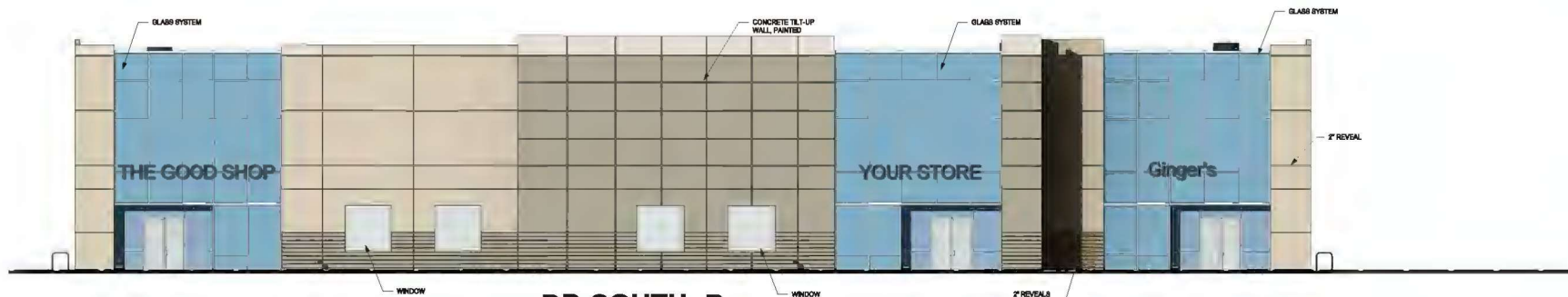
Revision Schedule		
#	Date	Description

project: **NEW SHELL BUILDING 'B'**  
**Hardt & Brier Business Park**  
**LOTS 31 & 32**  
**SAN BERNARDINO, CA**

**DD2.2**



**DD-EAST- B**  
1/8" = 1'-0"



**DD-SOUTH- B**  
1/8" = 1'-0"

**EXTERIOR PAINT :**

COLORS SHALL BE SHERWIN-WILLIAMS PAINT TO MATCH NUMBERS BELOW.

- A - SW 823 SPARE WHITE
- B - SW 787 ZIRCON
- C - SW 769 SUMMIT GRAY

KENNETH D. SMITH  
ARCHITECT  
& ASSOCIATES, INC.



500 HESPERA ST., SUITE 102  
PLACENTIA, CA - 92620  
PH / 650 444 2182  
Fax / 650 442 2699



DATE: 5-20-19  
JOB NO: Project Number  
DRAWN BY: Author  
CHECKED BY: Checker

Revision Schedule  
# Date Description

project: NEW SHELL BUILDING 'B'  
**Hardt & Brier Business Park**  
**LOTS 31 & 32**  
SAN BERNARDINO, CA

**DD2.3**

7/23/2021 1:25:59 PM C:\Users\jason\Documents\DD2.4\DD2.4.dwg Kenneth D. Smith Architect & Associates, Inc.



KENNETH D. SMITH  
ARCHITECT  
& ASSOCIATES, INC.



500 HESLER ST., SUITE 102  
RIVERSIDE, CA 92506  
PH / 951 444 2082  
Fax / 951 442 2659

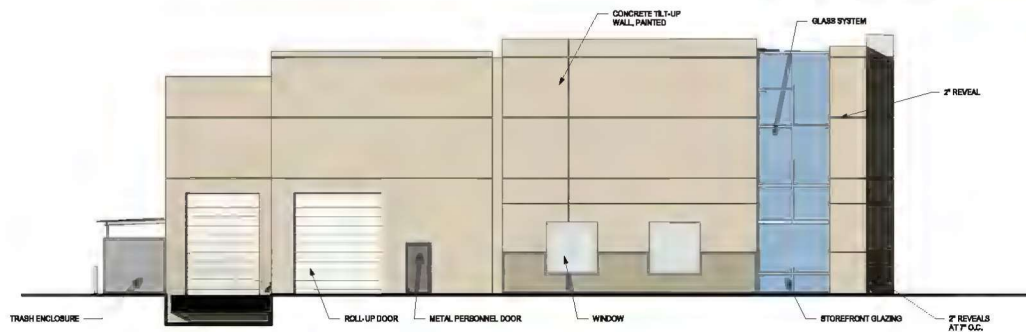


DATE: 5-20-19  
JOB NO.: Project Number  
DRAWN BY: Author  
CHECKED BY: Checker

Revision Schedule  
# Date Description

project: NEW SHELL BUILDING 'B'  
**Hardt & Brier Business Park**  
**LOTS 31 & 32**  
SAN BERNARDINO, CA

**DD2.4**



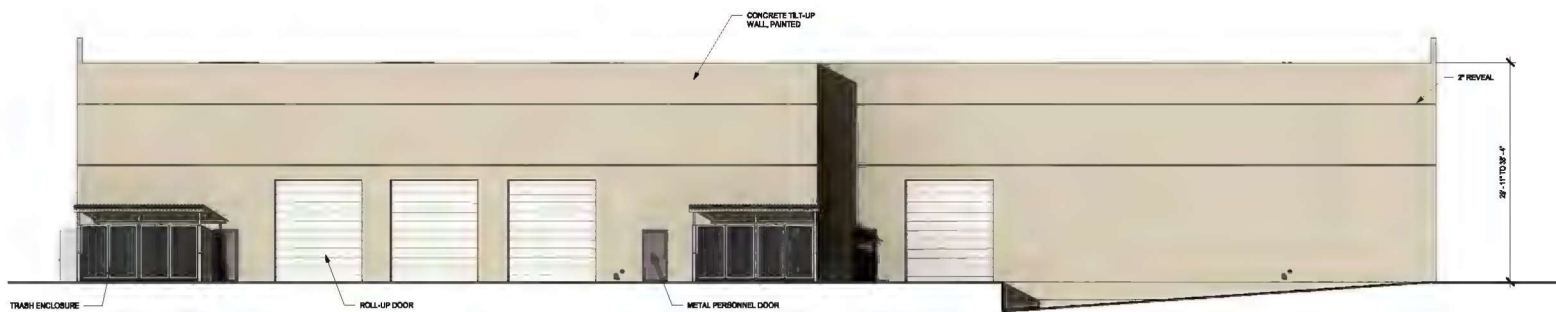
**DD-WEST- B**

1/8" = 1'-0"

**EXTERIOR PAINT:**

COLORS SHALL BE SHERWIN-WILLIAMS PAINT TO MATCH  
NUMBERS BELOW.

- A · SW 6233 SPARE WHITE
- B · SW 7867 ZIRCON
- C · SW 7899 SUMMIT GRAY



**DD-NORTH- B**

1/8" = 1'-0"





**1' = 20'-0"**

## DD1.0

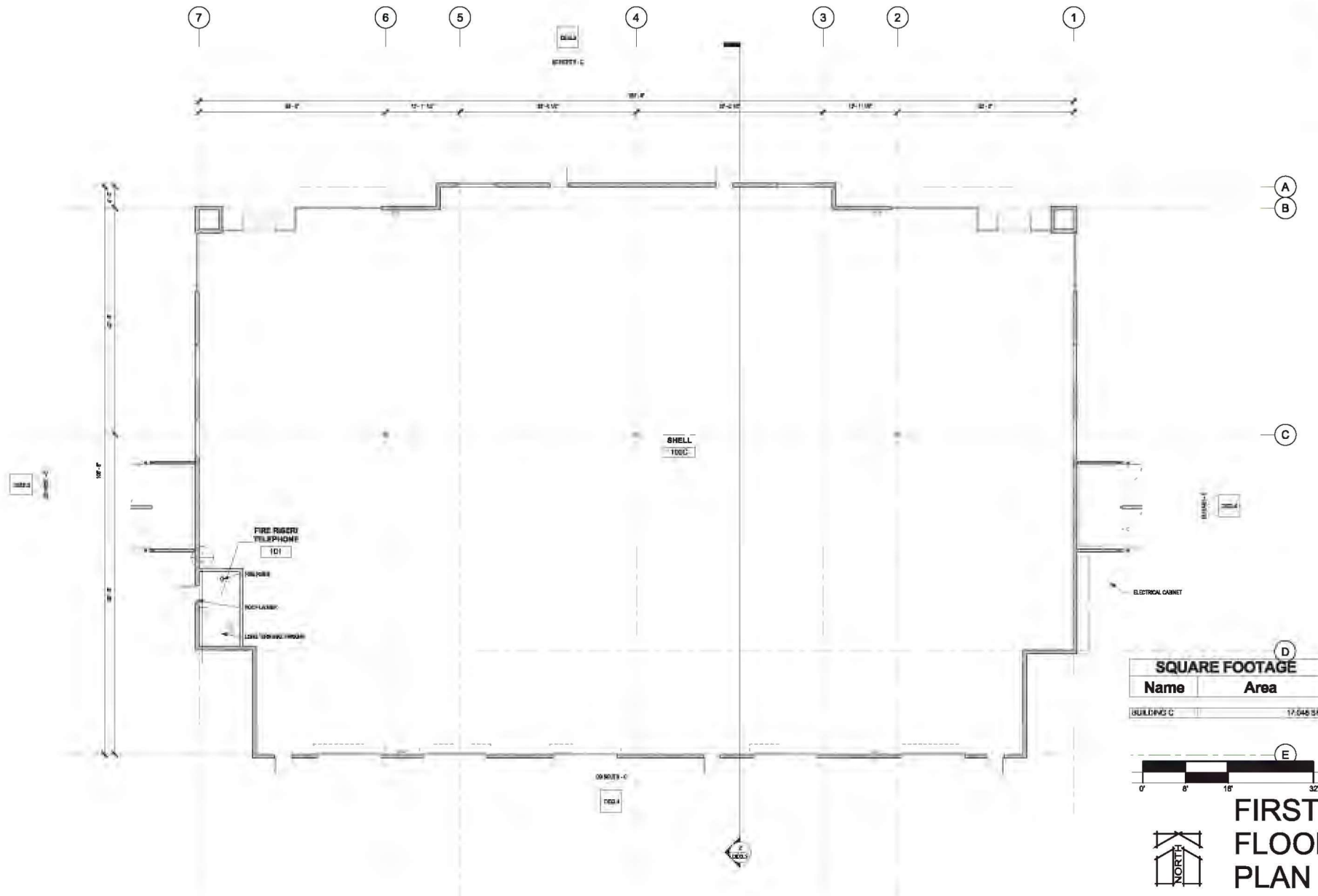


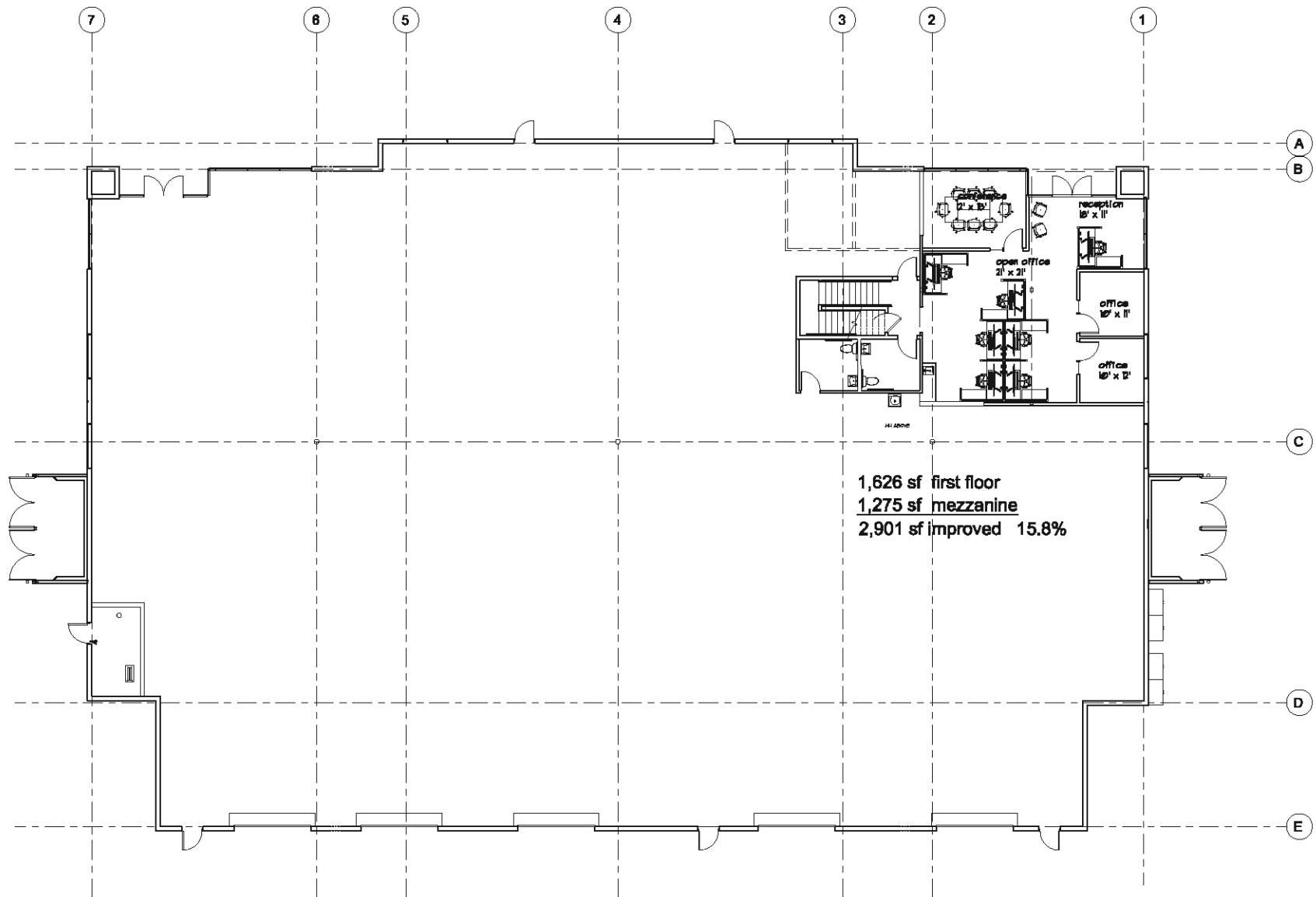




Revision Schedule		
#	Date	Description

DD2.1





17,048 sf + 1,275 mezz. = 18,323 sf

## FLOOR PLAN C

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

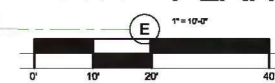
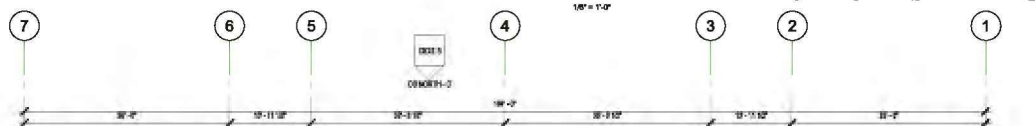


MARCH 16, 2003

# Hardt & Brier Business Park

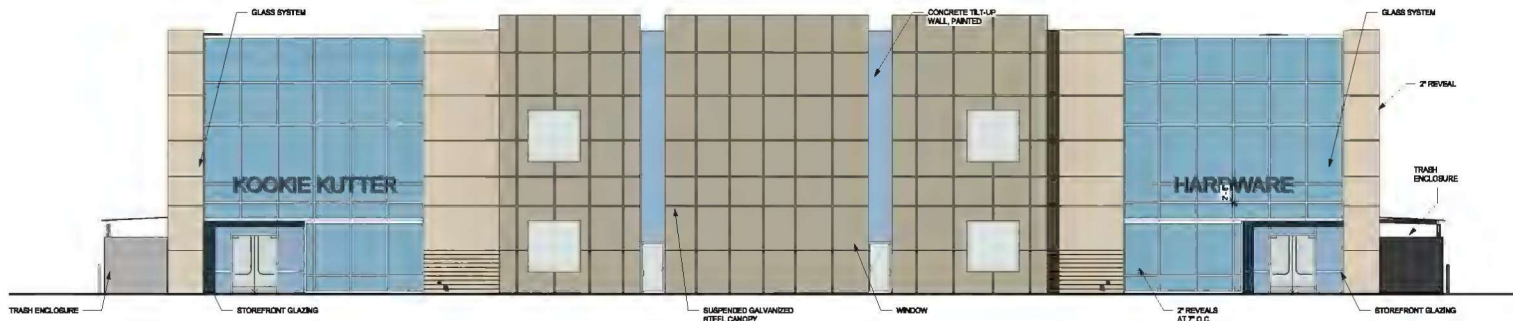
San Bernardino

California



DD2.2





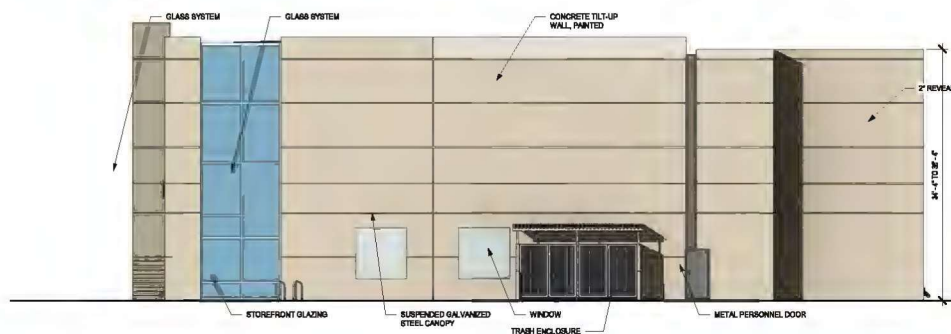
## DD NORTH - C

1/8" = 1'-0"

### EXTERIOR PAINT :

COLORS SHALL BE BERRY-WILLIAMS PAINT TO MATCH NUMBERS BELOW.

- A - SW 6200 SPARK WHITE
- B - SW 7667 ZIRCON
- C - SW 7606 SUMMIT GRAY



## DD WEST - C

1/8" = 1'-0"



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& ASSOCIATES, INC.



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FAX / 951 442 2659



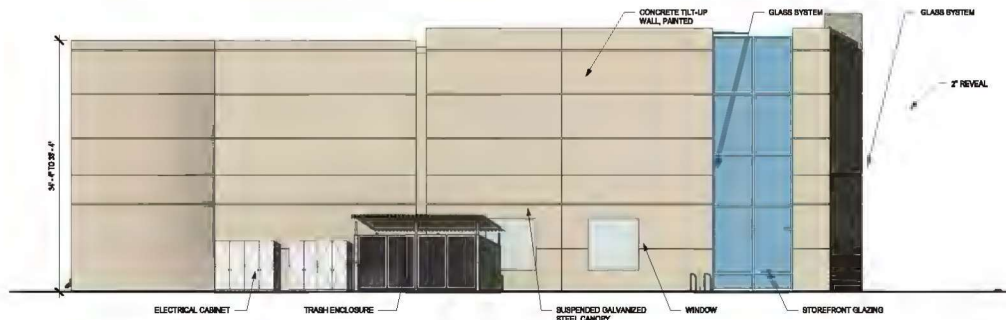
DATE: 5-20-19  
JOB NO.: Project Number  
DRAWN BY: Author  
CHECKED BY: Checker

### Revision Schedule

#	Date	Description

project: NEW SHELL BUILDING 'C'  
**Hardt & Brier Business Park**  
**LOTS 24 & 25**  
SAN BERNARDINO, CA

**DD2.3**



**DD EAST - C**  
1/8" = 1'-0"

**EXTERIOR PAINT :**

COLORS SHALL BE BERRY-WILLIAMS PAINT TO MATCH NUMBERS BELOW.

- A - BW 6000 SPANE WHITE
- B - BW 7067 ZEPHYRUS
- C - BW 7096 SUMMIT GRAY



**DD SOUTH - C**  
1/8" = 1'-0"

KENNETH D. SMITH  
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& ASSOCIATES, INC.



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FAX / 656 442 2659



DATE: 5-20-19  
JOB NO.: Project Number  
DRAWN BY: Author  
CHECKED BY: Checker

Revision Schedule

#	Date	Description
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project: NEW SHELL BUILDING 'C'  
**Hardt & Brier Business Park**  
**LOTS 24 & 25**  
SAN BERNARDINO, CA

**DD2.4**



## LEGAL DESCRIPTION

PARCELS 17 OF PARCEL MAP NO. 5644  
FILED IN SAN BERNARDINO COUNTY

APN: 281-311-18  
ADDRESS: HARDY STREET  
USE: B-SHLL  
ZONE: TOD CR-3

## SITE INFORMATION

SITE AREA: 44,341 SF 1.02 ACRES  
PROPOSED BUILDING COVERAGE: 13,780 SF 31.1 %  
PROPOSED LANDSCAPE AREA: 10,887 SF 24.3 %  
PROPOSED PAVING AREA: 19,785 SF 44.7 %

TYPE OF DEVELOPMENT: SHELL

## PARKING TABULATION

PARKING PROVIDED:

- 38 STANDARD SPACES PROVIDED
- 0 COMPACT SPACES PROVIDED
- 1 VAN ACCESSIBLE SPACES PROVIDED
- 1 ACCESSIBLE SPACES PROVIDED
- 4 CLEAN AIR VEHICLE SPACES PROVIDED (8% OF AUTO SPACES MIN.)
- 2 FUTURE E.V. CHARGING STATIONS
- 42 TOTAL AUTOMOBILE SPACES PROVIDED

- 2 SHORT TERM BICYCLE SPACES w/ PERMANENTLY ANCHORED RACKS (8% OF VISITOR AUTO SPACES MIN.)
- 1 LONG TERM BICYCLE SPACE IN LOCKABLE, PERMANENTLY ANCHORED LOCKER (8% OF TENANT/EMPLOYEE AUTO SPACES MIN.)



## LEGAL DESCRIPTION

PARCELS 18 OF PARCEL MAP NO. 5644  
FILED IN SAN BERNARDINO COUNTY

APN: 281-311-18  
ADDRESS: HARDY STREET  
USE: B-SHLL  
ZONE: TOD CR-3

## SITE INFORMATION

SITE AREA: 44,341 SF 1.02 ACRES  
PROPOSED BUILDING COVERAGE: 13,780 SF 31.1 %  
PROPOSED LANDSCAPE AREA: 10,887 SF 24.3 %  
PROPOSED PAVING AREA: 19,785 SF 44.7 %

TYPE OF DEVELOPMENT: SHELL

## PARKING TABULATION

PARKING PROVIDED:

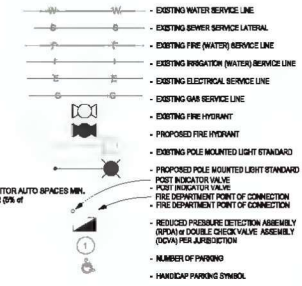
- 38 STANDARD SPACES PROVIDED
- 0 COMPACT SPACES PROVIDED
- 1 VAN ACCESSIBLE SPACES PROVIDED
- 1 ACCESSIBLE SPACES PROVIDED
- 4 CLEAN AIR VEHICLE SPACES PROVIDED (8% OF AUTO SPACES MIN.)
- 2 FUTURE E.V. CHARGING STATIONS
- 42 TOTAL AUTOMOBILE SPACES PROVIDED

- 2 SHORT TERM BICYCLE SPACES w/ PERMANENTLY ANCHORED RACKS (8% OF VISITOR AUTO SPACES MIN.)
- 1 LONG TERM BICYCLE SPACE IN LOCKABLE, PERMANENTLY ANCHORED LOCKER (8% OF TENANT/EMPLOYEE AUTO SPACES MIN.)

## OWNER

OAK PROPERTIES  
1033 PROMENADE WAY  
EL CAJON, CA 92025  
TEL: 619 444 2624  
FAX: 619 444 2624  
Email:  
CONTACT: GREGG HAMANN

## SITE LEGEND



## ACCESSIBLE PATH OF TRAVEL

NEW PATH OF TRAVEL (D.O.T.) AS INDICATED IN A BARRED FREE ACCESS ROUTE WITHOUT ANY OBSTACLE (VERTICAL CURVES EXCEPTING UP BOWLED AT 12 MAXIMUM SLOPE EXCEPT THAT LEVEL CHANGES DO NOT EXCEED 1% VERTICAL AND 1% HORIZONTAL) OF WHEEL SURFACE IS BLUE RESISTANT, STABLE, FIRM AND SMOOTH. CROSS-SLOPE DOES NOT EXCEED 2% AND SLOPE IN DIRECTION OF TRAVEL IS LESS THAN 1% UNLESS OTHERWISE INDICATED. P.A.T. SHALL BE MAINTAINED FREE OF OVERHANGING OBSTRUCTIONS TO 8' MINIMUM (11' MAX 2') AND PROTRUDING OBJECTS GREATER THAN 4" PROJECTION FROM A WALL AND ABOVE 27" AND LESS THAN 67" (19-40" 2').

## PROJECT SCOPE

A PRESTANDARD SPRINKLERED TILT-UP SHELL BUILDING THAT WILL BE CAPABLE OF ACCOMMODATING A VARIETY OF USES, ON APPROXIMATELY 2.0 ACRES



## VICINITY MAP

1" = 500'-0"

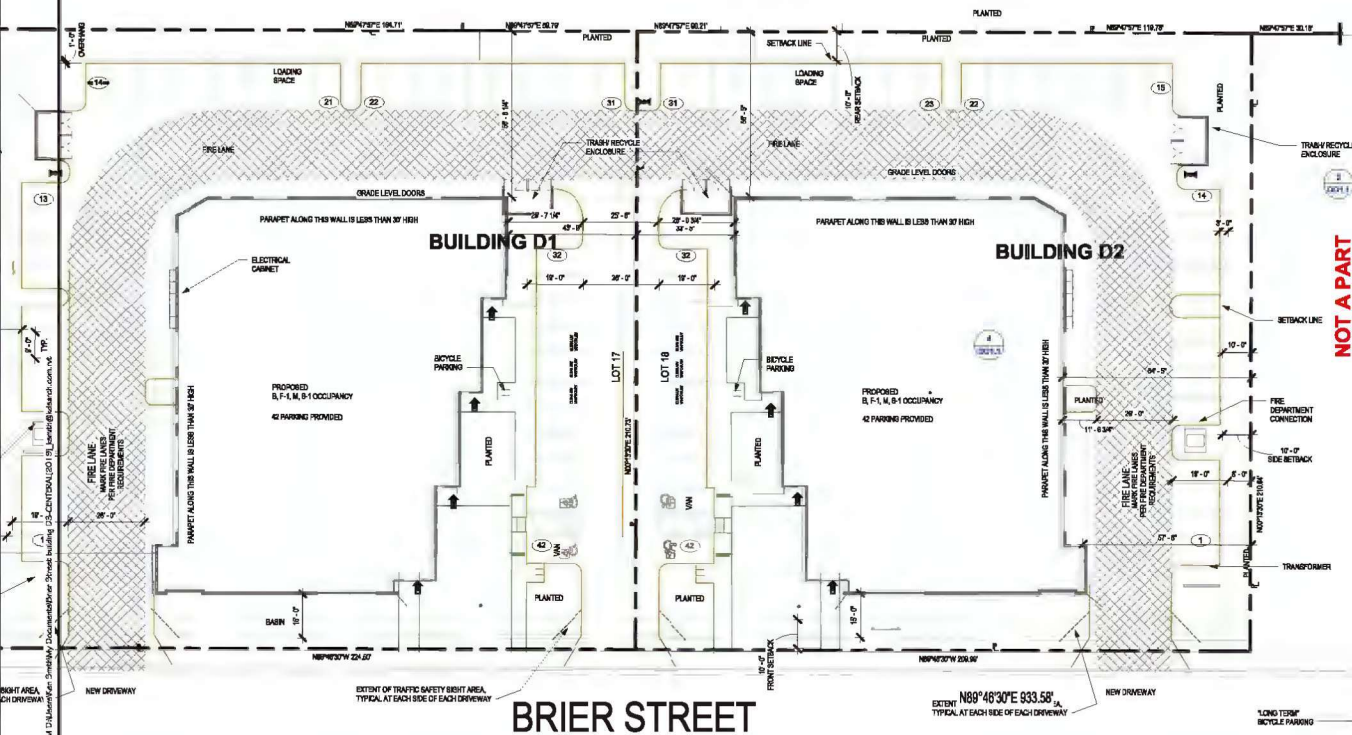
## SHEET LIST DD

SHEET # SHEET NAME

- DD1.0 SITE PLAN
- DD1.1 SITE DETAILS
- DD2.1 FLOOR PLAN
- DD2.2 ROOF PLAN
- DD2.3 ELEVATION



## SITE PLAN



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Fax / 619 442 2659

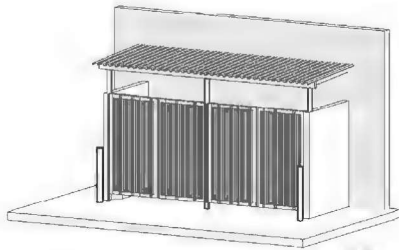


DATE: 5-20-19  
JOB NO: Project Number  
DRAWN BY: Author  
CHECKED BY: Checker

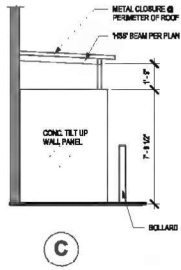
Revision Schedule  
# Date Description

project: NEW SHELL BUILDING 'D'  
Hardt & Brier Business Park  
LOTS 17 & 18  
SAN BERNARDINO, CA

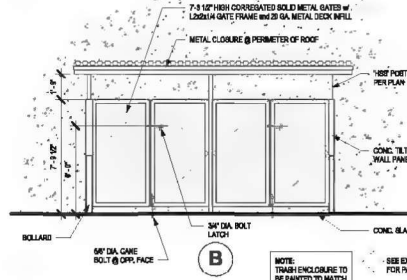
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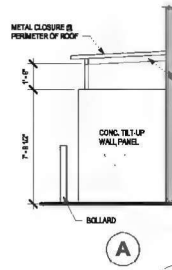
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DD1.1  
1/4" = 1'-0"



C

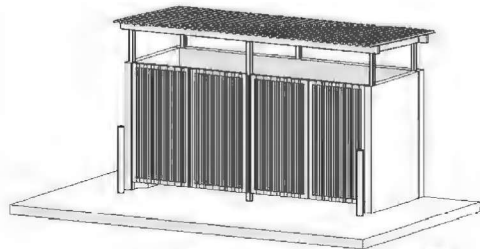


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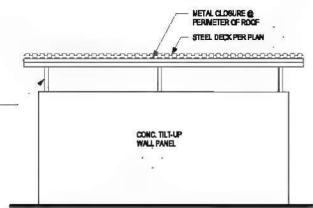


A

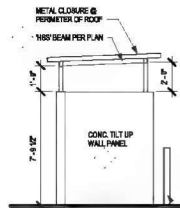
ELEVATIONS  
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1/4" = 1'-0"



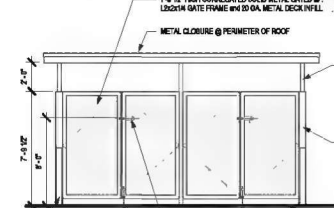
3D JPEG VIEW 2  
DD1.1  
1/4" = 1'-0"



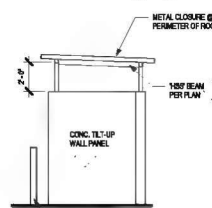
D



C

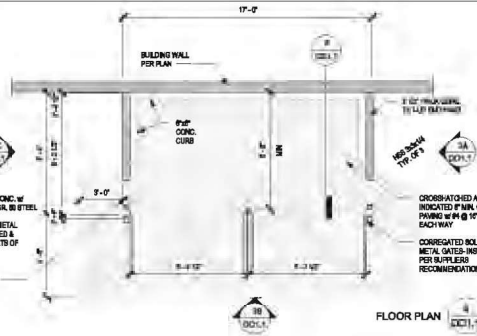


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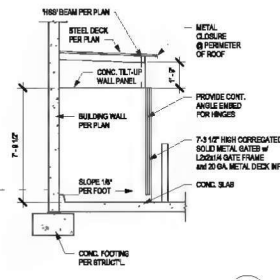


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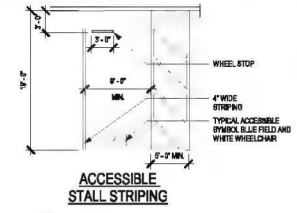
ELEVATIONS  
DD1.1  
1/4" = 1'-0"



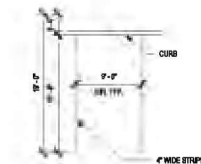
FLOOR PLAN  
DD1.1  
1/4" = 1'-0"



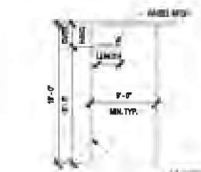
SECTION 5  
DD1.1  
1/4" = 1'-0"



ACCESSIBLE  
STALL STRIPING

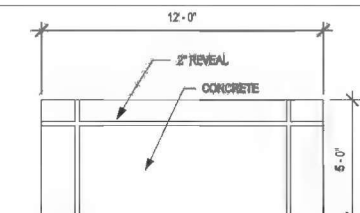


TYPICAL STALL  
w/ OVERHANG



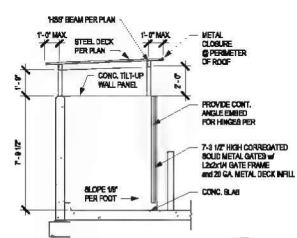
TYPICAL STALL  
STRIPING

PARKING  
DD1.1  
1/8" = 1'-0"



TYPICAL SCREENING WALL

NOT TO SCALE

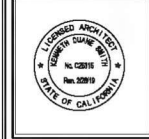


SECTION 8  
DD1.1  
1/4" = 1'-0"

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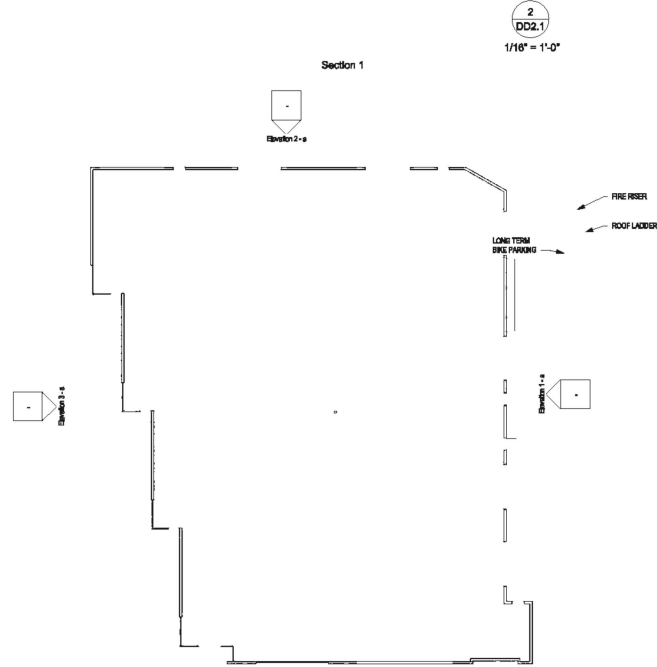
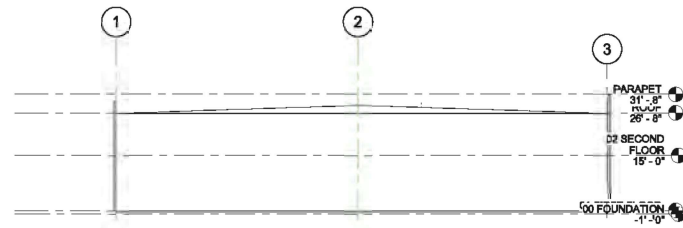
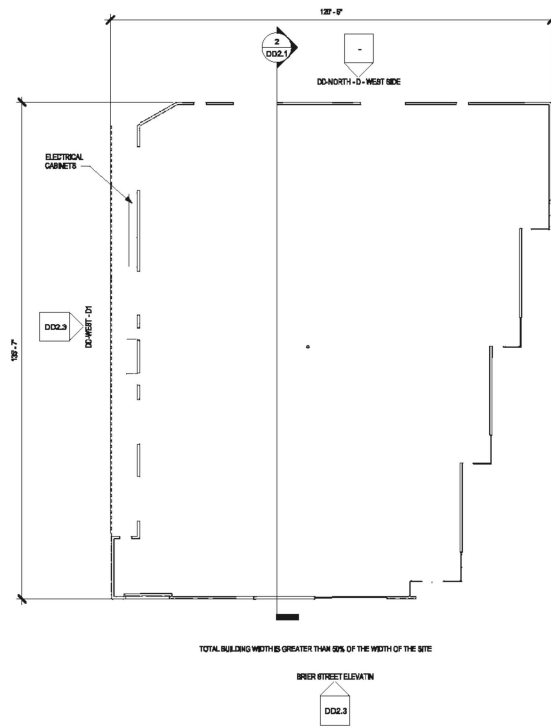


DATE:	5-20-19
JOB NO.:	Project Number
DRAWN BY:	Author
CHECKED BY:	Checker
Revision Schedule	
#	Date Description

project: NEW SHELL BUILDING 'D'  
Hardt & Brier Business Park  
LOTS 47 & 18  
SAN BERNARDINO, CA

DD1.1

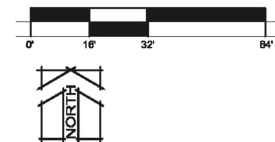




**FIRST FLOOR PLAN**

1/16" = 1'-0"

SQUARE FOOTAGE	
Name	Area
BUILDING D1	13,759 SF
BUILDING D2	13,759 SF



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DATE: 5-20-19  
JOB NO.: Project Number  
DRAWN BY: Author  
CHECKED BY: Checker

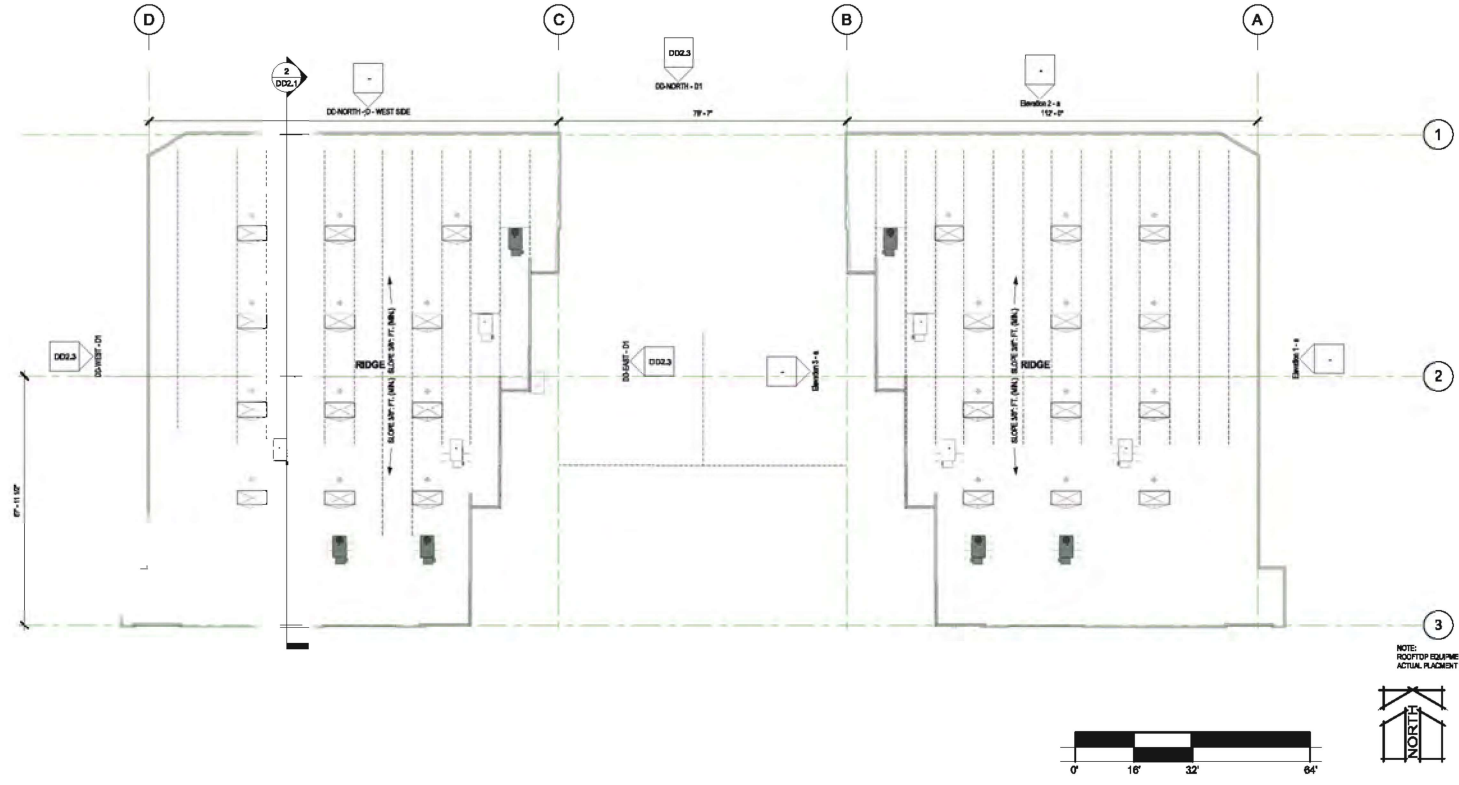
Revision Schedule

#	Date	Description
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#	Date	Description
---	------	-------------

project: NEW SHELL BUILDING 'D'  
**Hardt & Brier Business Park**  
**LOTS 47 & 18**  
SAN BERNARDINO, CA

**DD2.1**



**ROOF PLAN**  
1/8" = 1'-0"

NOTE: ROOFTOP EQUIPMENT SHOWN IS CONCEPTUAL. ACTUAL PLACEMENT WILL VARY.

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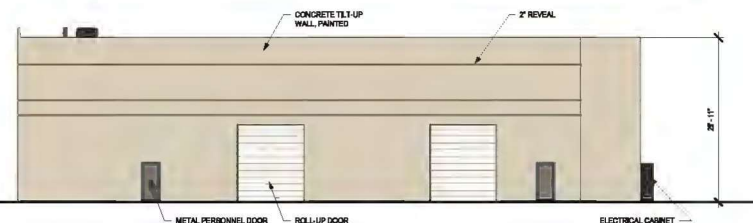
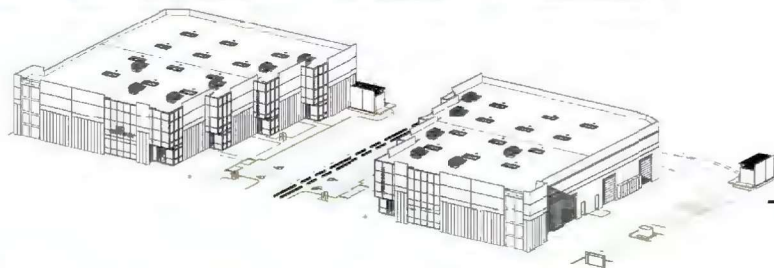


DATE: 5-20-19  
JOB NO.: Project Number  
DRAWN BY: Author  
CHECKED BY: Checker

Revision Schedule  
# Date Description

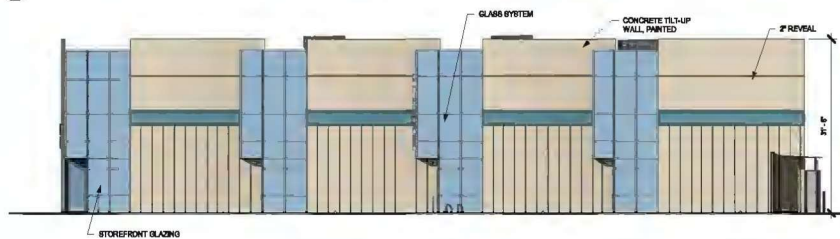
project: NEW SHELL BUILDING 'D'  
**Hardt & Brier Business Park**  
**LOTS 17 & 18**  
SAN BERNARDINO, CA

**DD2.2**



**DD-NORTH - D1**  
3/32" = 1'-0"

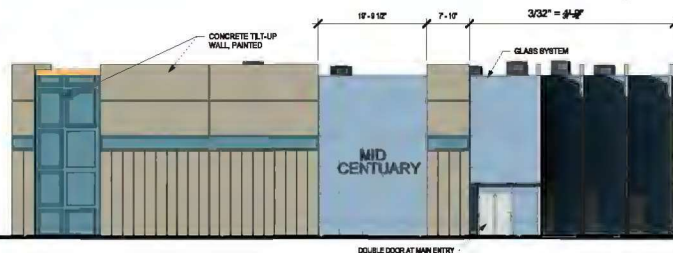
5  
DD2.3



**DD-EAST - D1**



**DD-WEST - D1**  
3/32" = 1'-0"



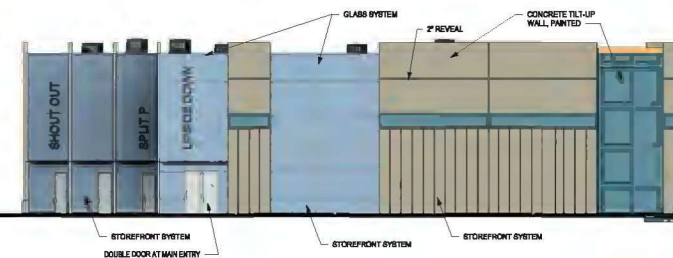
**BRIER STREET ELEVATION**  
3/32" = 1'-0"

**EXTERIOR PAINT :**

COLORS SHALL BE SHERWIN-WILLIAMS PAINT TO MATCH NUMBERS BELOW.

- A SW 9003 SPARE WHITE
- B SW 7067 ZINCON
- C SW 7668 SUMMIT GRAY

D2 ELEVATIONS ARE A FLOP OF D1



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& ASSOCIATES, INC.



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FAX / 949 442 2699



DATE: 5-20-19  
JOB NO.: Project Number  
DRAWN BY: Author  
CHECKED BY: Checker

Revision Schedule  
# Date Description

project: NEW SHELL BUILDING 'D'  
**Hardt & Brier Business Park**  
**LOTS 47 & 18**  
SAN BERNARDINO, CA

**DD2.3**

# LEGAL DESCRIPTION

PARCELS 28 & 30 OF PARCEL MAP NO. 5464  
FILED IN SAN BERNARDINO COUNTY  
APR 0281-011-17 & 08  
ADDRESS: HARDY STREET  
LINES: B-SHILL  
ZONING: T20D C9-3

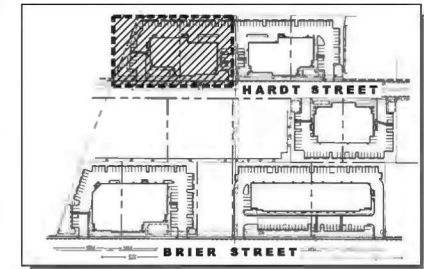
# SITE INFORMATION

SITE AREA: 94,316 SF 1.26 ACRES  
PROPOSED BUILDING COVERAGE: 18,914 SF 25.4 %  
PROPOSED LANDSCAPE AREA: 16,688 SF 22.87 %  
PROPOSED PAVING AREA: 22,771 SF 41.82 %  
TYPE OF DEVELOPMENT: SHILL

# VICINITY MAP



# KEY MAP



(a) Hydrozone Category	(b) PF- Plant Factor	(c) Irrigation Method	(c) IE- Irrigation Efficiency
Very Low Water Use	0.0 - 0.1	Filter Pipe for Pools/Spas	1.00
Low Water Use*	0.2 - 0.3	Drip/Subsurface	0.90
Moderate Water Use	0.4 - 0.6	Bubblers	0.85
High Water Use	0.7 - 1.0	Rotors	0.75
		Rotators	0.70
		Overhead Spray	0.60

\*Artificial turf and temporarily irrigated areas are considered Low Water Use.

$$(d) \text{ ETWU (Annual Gallons Required)} = \text{ETO} \times 0.62 \times \text{ETAF} \times \text{Area}$$

$$(e) \text{ MAWA (Annual Gallons Allowed)} = (\text{ETO}) \times 0.62 \times [\text{ETAF} \times \text{LA}] + [(1 - \text{ETAF}) \times \text{SLA}]$$

ETO - see Appendix A in Water Efficient Land Design Manual. (ETO = 55.1)

0.62 is the conversion factor to gallons per sq. ft. ETAF is Plant Factor/Irrigation Efficiency. Area is the Landscaped Area for each hydrozone.

LA is the total landscape of all hydrozone areas in sq. ft. SLA is the total special landscape area in square feet. ETAF is 0.42 for all areas

# WATER EFFICIENT LANDSCAPE WORKSHEET

Building 'A'

REFERENCE EVAPOTRANSPIRATION (ETO) 55.1

$$\text{ETWU (Annual Gallons Required)} = \text{ETO} \times 0.62 \times \text{ETAF} \times \text{Area}$$

Hydrozone # / Planting (a) Description	Plant Factor (PF) (b)	Irrigation Method (c)	Irrigation Efficiency (IE) (c)	ETAF (F/IE) (c)	Landscape Area In Square Feet (d)	ETAF x Area (d)	Estimated Total Water Use (e) (ETWU)
<b>Regular Landscape Areas</b>							
Trees, Shrubs, GC	0.2	Drip-sub	0.9	0.22	10,391	2,309	78,884
Trees, Shrubs, GC	0.5	Drip-sub	0.9	0.56	2,255	1,253	42,797
Basin	0.2	Rotors	0.75	0.27	2,384	636	21,718
<b>Totals</b>					<b>15,030</b>	<b>4,198</b>	<b>143,399</b>

# Special Landscape Areas

<b>Totals</b>					<b>0</b>	<b>0</b>	<b>0</b>
Estimated Total Water Use in Gallons Per Year (ETWU) Total							<b>143,399</b>
Maximum Annual Water Allowance in Gallons Per Year (MAWA) Total							<b>215,651</b>

$$\text{MAWA (Annual Gallons Allowed)} = (\text{ETO}) \times 0.62 \times [\text{ETAF} \times \text{LA}] + [(1 - \text{ETAF}) \times \text{SLA}]$$

\*\*Average Irrigation Efficiency for overall irrigation system shall meet or exceed 0.75 (total of all efficiency ratings divided by number of hydrozones).

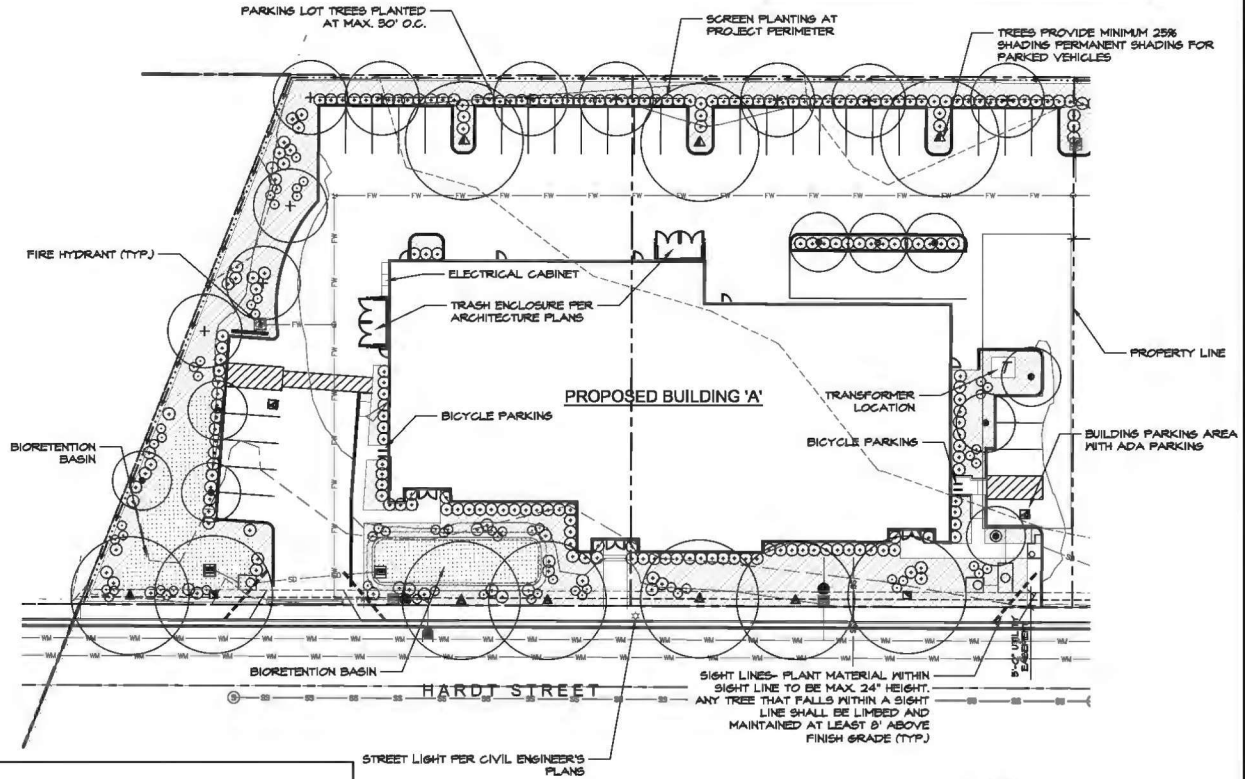
# ETAF CALCULATIONS

Average ETAF for Regular Landscape Areas must be 0.55 or below for residential areas and 0.45 or below for non-residential areas. Provide Totals based on information calculated in Worksheet above.

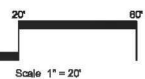
Regular Landscape Areas	Totals	All Landscape Areas	Totals
Total ETAF x Area (B) =	4,198	Total ETAF x Area (B+D) =	4,198
Total Area (A) =	15,030	Total Area (A+C) =	15,030
Average ETAF (B) ÷ (A) =	0.28	Site wide ETAF (B+D) ÷ (A+C) =	0.28

NOTE: PLANT MATERIAL WITHIN SIGHT LINE TO BE MAX. 24" HEIGHT. ANY TREE THAT FALLS WITHIN A SIGHT LINE SHALL BE LIMBED AND MAINTAINED AT LEAST 8' ABOVE FINISH GRADE (TYP.)

PARKING SPACES: 34  
24' BOX TREES PROPOSED: 17  
RATIO: 1 TREE PER 2 SPACES



SEE SHEET 2 FOR PLANTING LEGEND AND NOTES



# Underground Service Alert



Call: TOLL FREE  
1-800  
422-4133

HOWARD ASSOCIATES  
landscape architecture  
1951 Fourth Avenue  
Suite 302  
San Diego CA 92101 619 718 9660

MARK	REVISIONS	BY	APPR.	DATE
REWORK MARK:				

APPROVED	2007
SENIOR CIVIL ENGINEER	
REGISTERED CIVIL ENGINEER NO.	
DRAWN BY:	
CHECKED BY:	
RECOMMENDED BY:	

CITY OF SAN BERNARDINO  
DEVELOPMENT SERVICES-PUBLIC WORKS/ENGINEERING  
Landscape Concept Plan for:  
**BUILDING 'A'**  
San Bernardino Business Park  
HARDY ST TO E BRIER DR

DRAWING NO.  
**XXXX**  
SHEET **1** OF **2** SHEETS



1. FINAL LANDSCAPE PLANS SHALL ACCURATELY SHOW PLACEMENT OF TREES, SHRUBS AND GROUNDCOVER.
2. ALL REQUIRED LANDSCAPE AREAS, INCLUDING THE ROW, SHALL BE MAINTAINED PER CITY OF SAN BERNARDINO REQUIREMENTS.
3. AUTOMATIC IRRIGATION SHALL BE INSTALLED TO PROVIDE COVERAGE FOR ALL PLANTING AREAS SHOWN ON THE PLAN. LOW VOLUME EQUIPMENT SHALL PROVIDE SUFFICIENT WATER FOR PLANT GROWTH WITH MINIMUM WATER LOSS DUE TO WATER RUN-OFF. IRRIGATION SYSTEMS SHALL USE HIGH QUALITY, AUTOMATIC CONTROL VALVES, CONTROLLERS AND OTHER NECESSARY REGULATION EQUIPMENT. ALL COMPONENTS SHALL BE OF NON-CORROSIVE MATERIAL. ALL DRIP SYSTEMS SHALL BE ADEQUATELY FILTERED AND REGULATED PER THE MANUFACTURER'S RECOMMENDED DESIGN PARAMETERS. ALL IRRIGATION IMPROVEMENTS SHALL FOLLOW THE CITY OF SAN BERNARDINO GUIDELINES AND WATER CONSERVATION ORDINANCE.
4. THE SELECTION OF PLANT MATERIAL, BASED ON AESTHETIC AND MAINTENANCE CONSIDERATIONS, ALL PLANTING AREAS SHALL BE PREPARED WITH APPROPRIATE SOIL AMENDMENTS, FERTILIZERS, AND APPROPRIATE SUPPLEMENTS BASED UPON A BOLS REPORT FROM AN AGRICULTURAL UTILITY SOIL SAMPLE TAKEN FROM THE SITE. GROUND COVERS OR BARK MULCH SHALL FILL IN BETWEEN SHRUBS TO SHIELD THE SOIL FROM THE SUN, EVAPOTRANSPIRATION, AND RUN-OFF. ALL THE SHRUB BEDS SHALL BE MULCHED TO A 3" DEPTH TO HELP CONSERVE WATER, LOWER THE SOIL TEMPERATURE AND REDUCE WEED GROWTH. THE SHRUBS SHALL BE ALLOWED TO GROW IN THEIR NATURAL FORMS. ALL LANDSCAPE IMPROVEMENTS SHALL FOLLOW THE CITY OF SAN BERNARDINO GUIDELINES.

5. STREET TREES AND OTHER TREES SHALL BE SPACED AS FOLLOWS:

- 5.1. 0' FROM TRANSFORMERS, CABLE, AND PULL BOXES
- 5.2. 5 FEET FROM MAIL BOXES
- 5.3. 5 FEET FROM FIRE HYDRANTS (ALL SIDES)
- 5.4. 10 FEET FROM CENTERLINE OF ALL UTILITY LINES (WITHOUT EASEMENTS) SEWER, WATER, STORM DRAIN, DOUBLE CHECK DETECTOR VALVES, AIR RELIEF VALVE, AND GAS)
- 5.5. 10 FEET FROM EASEMENT BOUNDARIES (SEWER, WATER, STORM DRAINS, ACCESS OR OTHER UTILITIES)
- 5.6. 10 FEET FROM DRIVEWAYS (UNLESS A LINE OF SIGHT IS DETERMINED BY THE TRAFFIC DIVISION TO BE OTHERWISE)
- 5.7. 18 FEET FROM TRAFFIC AND DIRECTIONAL SIGNS
- 5.8. 10 FEET FROM UTILITY POLES. (DETERMINED BY SPECIFICATIONS)

- 6.9. STREET TREES SHALL BE PLANTED 5' OUTSIDE RIGHT-OF-WAY IF THE RIGHT-OF-WAY DOES NOT ALLOW SPACE, SUBJECT TO ENGINEERS APPROVAL.
- 6.10. VIEW OF SIGHT AT ARTERIALS, COLLECTOR AND LOCAL STREETS SHALL BE REVIEWED AND DETERMINED BY THE TRAFFIC ENGINEER.
- 6.11. MINIMUM FIFTEEN (15) STREETLIGHT AND STOP SIGN OR CLEARANCE DETERMINED BY SPECIFICATIONS.
- 6.12. SCREEN ALL UTILITIES ACCORDING TO SPECIFIC AGENCY REQUIREMENTS.

ROOT BARRIERS SHALL BE INSTALLED ADJACENT TO ALL PAVING SURFACES WHERE A PAVING SURFACE IS LOCATED WITHIN 8 FEET OF A TREE TRUNK. ROOT BARRIERS SHALL EXTEND 10 FEET IN EACH DIRECTION FROM THE CENTERLINE OF THE TRUNK, FOR A TOTAL DISTANCE OF 20 FEET. ROOT BARRIERS SHALL BE MINIMUM OF 24 INCHES IN DEPTH. INSTALLING A ROOT BARRIER AROUND THE TREE'S ROOT RAIL IS UNACCEPTABLE.

THE IRRIGATION SYSTEM WILL BE DESIGNED TO AFFORD OPTIMUM COVERAGE FOR THE SUPPORT OF PLANT GROWTH. THE COVERAGE WILL MEET THE WATER REQUIREMENTS FOR THE SELECTED PLANT MATERIAL AND WITHIN THE GIVEN LIMITATIONS. THE IRRIGATION SYSTEM WILL HAVE THE IRRIGATION TYPE OF EXPOSURE TO THE SUN AND WIND. THE IRRIGATION SYSTEM WILL BE DESIGNED WITH RESPECT TO WATER CONSERVATION. IRRIGATION HEADS SHALL BE CHOSEN FOR MAXIMUM COVERAGE WITH LOW-CALORAGE AND PRECIPITATION QUALITIES. THE IRRIGATION SYSTEM SHALL BE DESIGNED TO BE EASY TO MAINTAIN. THE IRRIGATION SYSTEM SHALL BE DESIGNED FOR THE SYSTEM WILL BE OF AN EXTREMELY DURABLE NATURE, AND WILL HAVE BEEN SELECTED FOR WEAR RESISTANCE AND LONG LIFE. THE OVERALL SYSTEM SHALL BE DESIGNED FOR EASY MAINTENANCE. ALL LANDSCAPE AND IRRIGATION SHALL BE DESIGNED TO MEET THE STANDARDS OF THE CITY OF CHICAGO, THE CITY OF THE LANDSCAPE STANDARDS AND ALL OTHER LANDSCAPE RELATED CITY AND REGIONAL STANDARDS. ALL IRRIGATION SHALL UTILIZE A DESIGNATED SEPARATE IRRIGATION WATER METER, AND SUBSURFACE DRAIN OR ROTON LOW PRECIPITATION RATE IRRIGATION WITH A

ALL GRADES AND DRAINAGE SWALES SHALL BE PER CIVIL ENGINEER'S GRADING AND DEVELOPMENT PLAN.

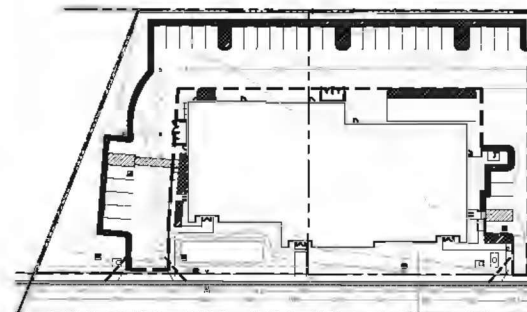
1. NO STRUCTURES HIGHER THAN 30' OR PLANT MATERIAL HIGHER THAN 24" AT MATURITY SHALL BE ALLOWED WITHIN THE CLEAR SIGHT AREA.
2. ALL LANDSCAPED AREAS SHALL BE MAINTAINED BY THE PROJECT OWNER, INCLUDING REGULAR WATERING, PRUNING, FERTILIZING, CLEARING OF DEBRIS AND WEEDS, REMOVAL AND REPLACEMENT OF DEAD PLANTS AND REPAIR AND REPLACEMENT OF IRRIGATION SYSTEM.

A. Landscape Techniques	Points
1. Water conserving plants used in 75 percent or more of the total landscaped area.	20
2. Turf limited as follows:	20
a. All other projects - 30 percent of total landscaped area.	
3. Plants placed or grouped into hydrozones according to their watering needs.	10
4. Polymer incorporated into the soil to improve water holding capacity in turf and ground cover areas.	10
5. A maintenance program consisting of:	10
a. Periodic irrigation system repair.	
b. Seasonal adjustments to the irrigation systems.	
c. Practices which foster long term landscape water conservation.	
6. Where no groundcover is used, utilize wood chips, bark, or other organic mulch, to a depth of three inches on top of exposed soil or landscaped hardsc, such as underneath shrubs.	5
7. Organic soil amendments to improve water holding capacity of soil, where soil conditions merit.	5

1. Low gallons irrigation system, or higher gallons systems with automatic controller capable of repeat cycling, used for more than 75% of the total landscaped area. Turf areas must utilize "spray" coverage, drip systems may not be used for turf.	20
2. Automatic controller for irrigation system.	20
3. Irrigation system designed using hydrozoneing i.e., landscape material plants according to their water needs (i.e., landscape materials which require different watering needs are irrigated by separate control valves).	10
4. Rain sensors used in conjunction with an automatic controller.	10
5. Soil-moisture sensors used in conjunction with an automatic controller	6
6. In-head or in-line check valves are utilized (whenever the cross gradient is greater than three feet in elevation).	5
7. Irrigation schedule which varies by season, and developed through the use of Evapotranspiration data (ET).	5
<b>TOTAL: 75 POINTS</b>	

1. MINIMUM TREE SIZES SHALL BE AS FOLLOWS:  
15% 4" DBH  
15% 3" DBH  
20% 2" DBH  
50% 1" DBH
2. MINIMUM SHRUB SIZES SHALL BE AS FOLLOWS:  
60% 5 GAL.  
20% 1 GAL.
3. GROUNDCOVERS SHALL ACHIEVE 100% COVERAGE WITHIN 1 YEAR.

979-B02: BOTANICAL NAME	COMMON NAME	MIN SIZE	FEET NEEDED LEFT	FUGUUS	ZONE 1
<b>HARDY STREET TREES:</b>					
▲ PLATANUS ACERIFOLIA	LONDON PLANETREE	36" DIA		M	
<b>ORDER STREET TREES:</b>					
■ FRAXINUS SPP.	ASH TREE	36" DIA		M	
<b>ENTRY SPECIMEN TREES:</b>					
■ QUERCUS L.	HOLLY OAK	48" DIA		L	
<b>PARKING AND PERIMETER TREES:</b>					
▲ TROSTIANA CONFERTA	BRINDLEWOOD	24" DIA		L	
▲ GEISERA PARVIFLORA	AUSTRALIAN PELLION			L	
<b>SMALL ACCENT TREES:</b>					
■ LASERDROCHIA NIKOSKEE	GRAPE HYDRATE	24" DIA		L	
■ LASERDROCHIA NIKOSKEE	GRAPE HYDRATE	48" DIA		M	
<b>SHRUBS:</b>					
ARECUTUS COMACTA	COMACT STRANDEROY TREE	5 GAL		L	
BAGHARIS CENTRALIA	CENTRALIA DESERT DRAGON	5 GAL		L	
CALLISTEPHO LITTLE JOHN	LITTLE JOHN BOTTLEBRUSH	5 GAL		L	
CESTRALIA PARVIFLORA	RED YUCCA	5 GAL		L	
LEUCOPHY TERNALIA	HALEIA PRIVET	5 GAL		M	
LEUCOPHYLLA ELLESTONIA	RED PRINCE	5 GAL		M	
PITTOBORA 4 SPP.	KOHU	5 GAL		M	
POGONIA MAGNOMILLUS	YUCCA	5 GAL		L	
SALVIA YUKAND RED	RED AUTUMN SAGE	5 GAL		L	
TEUCHA STARS	YELLOW BELLS	5 GAL		L	
TEUCHIA BLUE GEM	CRISTAL BORDOY	5 GAL		L	



NET AREA OF ALL SURFACE PARKING AREA: 18,100 SQFT  
LANDSCAPING WITHIN PARKING AREA: 2,500 SQFT  
TOTAL: 10%



**Underground Service Alert**



Call: TOLL FREE  
1-800  
422-4133

HOWARD  
ASSOCIATES  
landscape architecture  
1951 Fourth avenue  
Suite 302  
san diego ca 92101 619 718 9660

MARK	REVISIONS	BY	APPR.	DATE	
BIDDER MARK					

APPROVED \_\_\_\_\_ 2007 \_\_\_\_\_

SENIOR CIVIL ENGINEER \_\_\_\_\_  
REGISTERED CIVIL ENGINEER NO. \_\_\_\_\_

DRAWN BY: \_\_\_\_\_

CHECKED BY: \_\_\_\_\_

RECOMMENDED BY: \_\_\_\_\_

**CITY OF SAN BERNARDINO**  
DEVELOPMENT SERVICES—PUBLIC WORKS/ENGINEERING

*Landscape Concept Plan for:*  
**BUILDING 'A'**  
*San Bernardino Business Park*  
**HARDY 'T' TO E BRIER DR**

FOR CITY USE ONLY, P&C, ME.

DRAWING NO. **XXXX**  
SHEET **2** OF **2** SHEETS

Hydrozone Category	PF- Plant Factor	Irrigation Method	IE- Irrigation Efficiency
Very Low Water Use	0.0 - 0.1	Filter Pipe for Pools/Spas	1.00
Low Water Use*	0.2 - 0.3	Drip/Subsurface	0.90
Moderate Water Use	0.4 - 0.6	Bubblers	0.85
High Water Use	0.7 - 1.0	Rotors	0.75
		Rotators	0.70
		Overhead Spray	0.60

(d) ETWU (Annual Gallons Required) =  
 $Eto \times 0.62 \times ETAF \times Area$

Eto - see Appendix A in Water Efficient Land (ETO = 66.1)

Design Manual

0.62 is the conversion factor to gallons per sq. ft.

ETAF is Plant Factor/Irrigation Efficiency.

Area is the Landscaped Area for each hydrozone.

(e) MAWA (Annual Gallons Allowed) =  
 $(Eto)(0.62)[(ETAF \times LA) + ((1 - ETAF) \times SLA)]$

LA is the total landscape of all hydrozone areas in sq. ft.

SLA is the total special landscape area in square feet.

ETAF is 0.42 for all areas

#### WATER EFFICIENT LANDSCAPE WORKSHEET

Building 'B'

REFERENCE EVAPOTRANSPIRATION (Eto) 66.1

ETWU (Annual Gallons Required) =  
 $Eto \times 0.62 \times ETAF \times Area$

Hydrozone # / Planting (a)	Plant Factor (PF) (b)	Irrigation Method (c)	Irrigation Efficiency (IE) (d)	ETAF (PF/IE) (e)	Landscape Area In Square Feet (f)	ETAF x Area (g)	Estimated Total Water Use (h) (ETWU)
Trees, Shrubs, GC	0.2	Drip-sub	0.9	0.22	11,353	2,523	86,187
Trees, Shrubs, GC	0.5	Drip-sub	0.9	0.56	2,003	1,113	38,015
<b>Totals</b>					<b>13,356</b>	<b>3,636</b>	<b>124,202</b>

#### Special Landscape Areas

<b>Totals</b>					<b>0</b>	<b>0</b>	<b>0</b>

Estimated Total Water Use in Gallons Per Year (ETWU) Total 124,202

Maximum Annual Water Allowance in Gallons Per Year (MAWA) Total 191,632

MAWA - ETWU = 67,431

MAWA (Annual Gallons Allowed) =  
 $(Eto)(0.62)[(ETAF \times LA) + ((1 - ETAF) \times SLA)]$

\*Average Irrigation Efficiency for overall irrigation system shall meet or exceed 0.75 (total of all efficiency ratings divided by number of hydrozones).

#### ETAF CALCULATIONS

Average ETAF for Regular Landscape Areas must be 0.55 or below for residential areas and 0.45 or below for non-residential areas. Provide Totals based on information calculated in Worksheet above.

Regular Landscape Areas	Totals	All Landscape Areas	Totals
Total ETAF x Area (B) =	3,636	Total ETAF x Area (B+D) =	3,636
Total Area (A) =	13,356	Total Area (A+C) =	13,356
Average ETAF (B) ÷ (A) =	0.27	Site wide ETAF (B+D) ÷ (A+C) =	0.27

NOTE: PLANT MATERIAL WITHIN SIGHT LINE TO BE MAX. 24" HEIGHT. ANY TREE THAT FALLS WITHIN A SIGHT LINE SHALL BE LIMBED AND MAINTAINED AT LEAST 6' ABOVE FINISH GRADE (TYP.)

#### LEGAL DESCRIPTION

PARCELS 21 & 32 OF PARCEL MAP NO. 5464  
 FILED IN SAN BERNARDINO COUNTY

APR: 026-311-07 & 08

ADDRESS: HARDT STREET

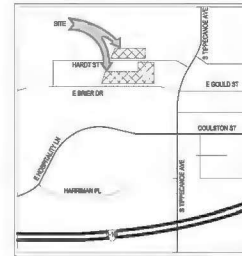
USE: BNSL

ZONE: TOD CR-3

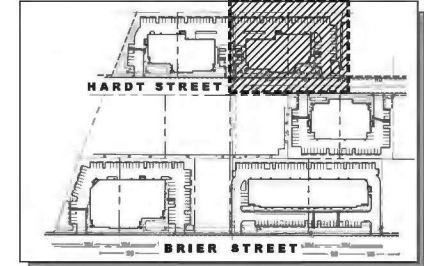
#### SITE INFORMATION

SITE AREA: 60,364 SF 1.38 ACRES  
 PROPOSED BUILDING COVERAGE: 18,301 SF 28.82 %  
 PROPOSED LANDSCAPE AREA: 13,356 SF 22.13 %  
 PROPOSED PAVING AREA: 30,407 SF 50.05 %  
 TYPE OF DEVELOPMENT: RETAIL

#### VICINITY MAP

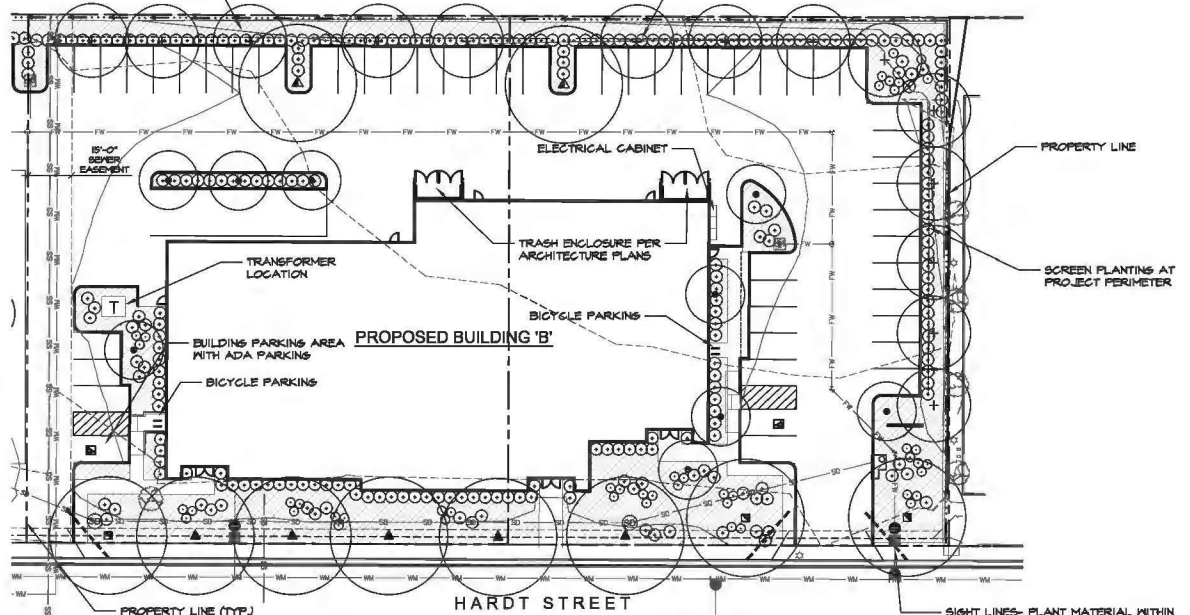


#### KEY MAP



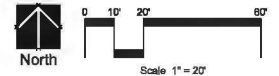
PARKING LOT TREES PLANTED  
 AT MAX. 30' O.C.

TREES PROVIDE MINIMUM 25%  
 SHADING PERMANENT SHADING FOR  
 PARKED VEHICLES



PARKING SPACES: 51  
 24' BOX TREES PROPOSED: 24  
 RATIO: 1 TREE PER 2.1 SPACES

SEE SHEET 2 FOR PLANTING LEGEND AND NOTES



#### Underground Service Alert



Call: TOLL FREE  
 1-800  
 422-4133

HOWARD ASSOCIATES  
 landscape architecture  
 1951 Fourth Avenue  
 Suite 302  
 San Diego CA 92101 619 718 9660

MARK	REVISIONS	BY	APPR.	DATE
BENCH MARK:				

APPROVED	2007
SENIOR CIVIL ENGINEER	
REGISTERED CIVIL ENGINEER NO.	
DRAWN BY:	
CHECKED BY:	
RECOMMENDED BY:	

CITY OF SAN BERNARDINO  
 DEVELOPMENT SERVICES-PUBLIC WORKS/ENGINEERING  
 Landscape Concept Plan for:  
**BUILDING 'B'**  
 San Bernardino Business Park  
 HARDT ST TO E BRIER DR

DRAWING NO.  
 XXXX  
 SHEET 1 OF 2  
 SHEETS

FOR CITY USE ONLY: FILE NO. W.O. NO.

# GENERAL NOTES

1. FINAL LANDSCAPE PLANS SHALL ACCURATELY SHOW PLACEMENT OF TREES, SHRUBS AND GROUNDCOVERS.
2. ALL REQUIRED LANDSCAPE AREAS, INCLUDING THE ROW, SHALL BE MAINTAINED PER CITY OF SAN BERNARDINO REQUIREMENTS.
3. AUTOMATIC IRRIGATION SHALL BE INSTALLED TO PROVIDE COVERAGE FOR ALL PLANTING AREAS SHOWN ON THE PLAN. LOW VOLUME EQUIPMENT SHALL PROVIDE SUFFICIENT WATER FOR PLANT GROWTH WITH MINIMUM WATER LOSS DUE TO WATER RUN-OFF. IRRIGATION SYSTEMS SHALL USE HIGH QUALITY, AUTOMATIC CONTROL VALVES, CONTROLLERS AND OTHER NECESSARY IRRIGATION EQUIPMENT. ALL COMPONENTS SHALL BE OF NON-CORROSIVE MATERIAL. ALL DRIP SYSTEMS SHALL BE ADEQUATELY FILTERED AND REGULATED PER THE MANUFACTURER'S RECOMMENDED DESIGN PARAMETERS. ALL IRRIGATION IMPROVEMENTS SHALL FOLLOW THE CITY OF SAN BERNARDINO GUIDELINES AND WATER CONSERVATION ORDINANCE.
4. THE SELECTION OF PLANT MATERIAL IS BASED ON AESTHETIC AND MAINTENANCE CONSIDERATIONS. ALL PLANTING AREAS SHALL BE PREPARED WITH APPROPRIATE SOIL AMENDMENTS, FERTILIZERS, AND APPROPRIATE SUPPLEMENTS BASED UPON A SOILS REPORT FROM AN AGRICULTURAL SUITABILITY SOIL SAMPLE TAKEN FROM THE SITE. GROUND COVERS OR DARK MULCH SHALL FILL IN BETWEEN SHRUBS TO SHIELD THE SOIL FROM THE SUN, EVAPOTRANSPIRATION, AND RUN-OFF. ALL THE SHRUB BEDS SHALL BE MULCHED TO A 3" DEPTH TO HELP CONSERVE WATER, LOWER THE SOIL TEMPERATURE AND REDUCE WEED GROWTH. THE SHRUBS SHALL BE ALLOWED TO GROW IN THEIR NATURAL FORMS. ALL LANDSCAPE IMPROVEMENTS SHALL FOLLOW THE CITY OF SAN BERNARDINO GUIDELINES.

## TREES:

5. STREET TREES AND OTHER TREES SHALL BE SPACED AS FOLLOWS:
  - a.1. 8' FROM TRANSFORMERS, CABLE, AND PULL BOXES
  - a.2. 5 FEET FROM MAIL BOXES
  - a.3. 8 FEET FROM FIRE HYDRANTS (ALL SIDES)
  - a.4. 10 FEET FROM CENTERLINE OF ALL UTILITY LINES (WITHOUT EASEMENT) (SEWER, WATER, STORM DRAINS, DOUBLE CHECK DETECTOR VALVES, AIR RELIEF VALVES, AND GAS)
  - a.5. 10 FEET FROM EASEMENT BOUNDARIES (SEWER, WATER, STORM DRAINS, ACCESS OR OTHER UTILITIES)
  - a.6. 10 FEET FROM DRIVEWAYS (UNLESS A LINE OF SIGHT IS DETERMINED BY THE TRAFFIC DIVISION TO BE OTHERWISE)
  - a.7. 10 FEET FROM TRAFFIC AND DIRECTIONAL SIGNS
  - a.8. 10 FEET (MINIMUM) FROM STREETLIGHTS, OTHER UTILITY POLES, (DETERMINED BY SPECIFICATIONS)
- 6.2. STREET TREES SHALL BE PLANTED 5' OUTSIDE RIGHT-OF-WAY IF THE RIGHT-OF-WAY DOES NOT ALLOW SPACE, SUBJECT TO CITY ENGINEER'S APPROVAL
- 6.10. LINE OF SIGHT AT ARTERIALS, COLLECTOR AND LOCAL STREETS SHALL BE REVIEWED AND DETERMINED BY THE TRAFFIC ENGINEER.
- 6.11. MINIMUM FIFTEEN (15) STREETLIGHT AND STOP SIGN OR CLEARANCE DETERMINED BY SPECIFICATIONS.
- 6.12. SCREEN ALL UTILITIES ACCORDING TO SPECIFIC AGENCY REQUIREMENTS.

## ROOT BARRIERS

ROOT BARRIERS SHALL BE INSTALLED ADJACENT TO ALL PAVING SURFACES WHERE A PAVING SURFACE IS LOCATED WITHIN 6 FEET OF A TREE TRUNK. ROOT BARRIERS SHALL EXTEND 10 FEET IN EACH DIRECTION FROM THE CENTERLINE OF THE TRUNK, FOR A TOTAL DISTANCE OF 20 FEET. ROOT BARRIERS SHALL BE MINIMUM OF 36 INCHES IN DEPTH. INSTALLING A ROOT BARRIER AROUND THE TREE'S ROOT BALL IS UNACCEPTABLE.

## IRRIGATION NOTES

THE IRRIGATION SYSTEM WILL BE DESIGNED TO AFFORD OPTIMUM COVERAGE FOR THE SUPPORT OF PLANT GROWTH. THE COVERAGE WILL MEET THE WATER REQUIREMENTS FOR THE SELECTED PLANT MATERIAL AND WITHIN THE GIVEN PLANTING AREAS. THE DESIGN WILL TAKE INTO CONSIDERATION THE TYPE OF EXPOSURE. THE SYSTEM WILL HAVE THE IRRIGATION SYSTEM WILL BE DESIGNED WITH RESPECT TO WATER CONSERVATION. IRRIGATION HEADS SHALL BE CHOSEN FOR MAXIMUM COVERAGE WITH LOW-GALLONAGE AND PRECIPITATION QUALITIES. THE IRRIGATION SYSTEM SHALL BE A FULLY AUTOMATIC SYSTEM AND AS MAINTENANCE-FREE AS POSSIBLE. THE MATERIALS FOR THE SYSTEM WILL BE OF AN EXTREMELY DURABLE NATURE, AND WILL HAVE BEEN SELECTED FOR WEAR RESISTANCE AND LONG LIFE. THE OVERALL SYSTEM SHALL BE DESIGNED FOR EASE OF MAINTENANCE. ALL LANDSCAPE AND IRRIGATION SHALL CONFORM TO THE STANDARDS OF THE CITY OF SAN BERNARDINO LANDSCAPE AND THE LANDSCAPE STANDARDS AND ALL OTHER LANDSCAPE RELATED CITY AND REGIONAL STANDARDS. ALL IRRIGATION SHALL UTILIZE A DESIGNATED SEPARATE IRRIGATION WATER METER, AND SUBSURFACE DRIP OR ROTOR LOW PRECIPITATION RATE IRRIGATION WITH A WEATHER-BASED AUTOMATIC IRRIGATION SMART CONTROLLER.

## GRADING AND DRAINAGE

ALL GRADES AND DRAINAGE SWALES SHALL BE PER CIVIL ENGINEER'S GRADING AND DEVELOPMENT PLAN.

## NOTES:

1. NO STRUCTURES HIGHER THAN 30' OR PLANT MATERIAL HIGHER THAN 24" AT MATURITY SHALL BE ALLOWED WITHIN THE CLEAR SIGHT AREA.
2. ALL LANDSCAPED AREAS SHALL BE MAINTAINED BY THE PROJECT OWNER, INCLUDING REGULAR WATERING, PRUNING, FERTILIZING, CLEARING OF DEBRIS AND WEEDS, REMOVAL AND REPLACEMENT OF DEAD PLANTS AND REPAIR AND REPLACEMENT OF IRRIGATION SYSTEM.

# CITY OF SAN BERNARDINO MC 018-28.130(b)

## 1. WATER CONSERVATION CRITERIA

Compliance with the Water Conservation in Landscape Ordinance.

A. Landscape Technique	Points
1. Water conserving plants used in 75 percent or more of the total landscaped area.	20
2. Turf limited as follows: <ol style="list-style-type: none"> <li>a. All other projects - 30 percent of total landscaped area.</li> </ol>	20
3. Plants placed or grouped into hydrozones according to their watering needs.	10
4. Polymers incorporated into the soil to improve water holding capacity in turf and ground cover areas.	10
5. A maintenance program consisting of: <ol style="list-style-type: none"> <li>a. Periodic irrigation system repair.</li> <li>b. Seasonal adjustments to the irrigation system.</li> <li>c. Practices which foster long term landscape water conservation.</li> </ol>	10

6. Where no groundcover is used, utilize wood chips, bark, or other organic mulch, to a depth of three inches on top of exposed soil or landscaped fabric, such as undergrowth shrubs.
7. Organic soil amendments to improve water holding capacity of soil, where soil conditions merit.

TOTAL: 80 POINTS

## B. Irrigation Technique

1. Low gallonage irrigation system, or higher gallonage systems with automatic controller capable of repeat cycling, used for more than 75% of the total landscaped area. Turf areas must utilize "spray" coverage, drip systems may not be used for turf.	20
2. Automatic controller for irrigation system.	20
3. Irrigation system designed using hydrozones to water plants according to their water needs (i.e., landscape materials which require different watering needs are irrigated by separate control valves).	10
4. Rain sensors used in conjunction with an automatic controller.	10
5. Soil-moisture sensors used in conjunction with an automatic controller	6
6. In-head or in-line check valves are utilized (whenever the cross gradient is greater than three feet in elevation).	5
7. Irrigation schedule which varies by season, and developed through the use of Evapotranspiration data (ET).	6

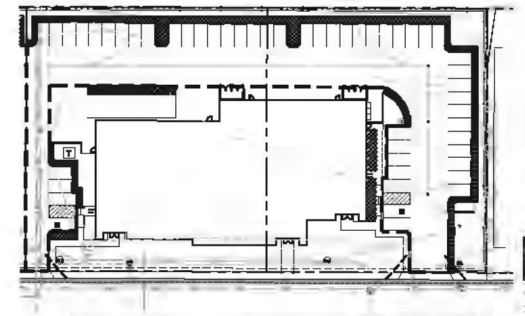
TOTAL: 75 POINTS

## NOTE:

1. MINIMUM TREE SIZES SHALL BE AS FOLLOWS:
  - 18" 48" BOX
  - 18" 36" BOX
  - 20" 24" BOX
  - 60% 15 GAL.
2. MINIMUM SHRUB SIZES SHALL BE AS FOLLOWS:
  - 80% 5 GAL.
  - 20% 1 GAL.
3. GROUNDCOVERS SHALL ACHIEVE 100% COVERAGE WITHIN 1 YEAR.

## Plant Legend

SYMBOL	BOTANICAL NAME	COMMON NAME	MIN. SIZE (SEE NOTE BELOW LEFT)	MUCCUS	2018.1
HARDY STREET TREES:					
▲	PLATANUS ACERIFOLIA	LONDON PLANETREE	36" BOX	H	
DRYER STREET TREES:					
■	FRAXINUS SPP.	ASH TREE	58" BOX	M	
ENTRY SPECIMEN TREES:					
□	QUERCUS LIE.	HOLLY OAK	48" BOX	L	
PARKING AND PERIMETER TREES:					
+	TRISTANIA CONFERTA	BRECKINLEIGH	24" BOX	L	
▲	GEUERA PARVIFLORA	AUSTRALIAN PILLION	24" BOX	L	
SHALL ACCENT TREES:					
■	LABROSTROCHIA NIGROBEE	GRAPE HYDRATE	24" BOX	L	
■	LABROSTROCHIA NIGROBEE	GRAPE HYDRATE	48" BOX	L	
SHRUBS:					
○	ARISTOLIA CONTRACTA	CONTRACT STRAWBERRY TREE	5 GAL	L	
○	BAGHIANA CENTRALIS	CENTRAL DESERT DROOPY	5 GAL	L	
○	GALLIETHORN LITTLE JOHN	LITTLE JOHN BOTTLEBUSH	5 GAL	L	
○	NEORALACE PARVIFLORA	RED YUCCA	5 GAL	L	
○	LEUCOPHYLLA TERNANUM	HAULEAF PRIVET	5 GAL	M	
○	LEUCOPHYLLA TERNANUM	TOULS RANGER	5 GAL	L	
○	RYTHOLOPHIA SPP.	KOHUA	5 GAL	M	
○	RODOCARPUS MACROPHYLLUS	VERY FIRE	5 GAL	M	
○	SALVIA TERNANUM RED	RED AUTUMN SAGE	5 GAL	L	
○	TEUCHA STANS	YELLOW BELLS	5 GAL	L	
○	RESTRINIA BLUE GEN	COASTAL ROSEMARY	5 GAL	L	
GROUNDCOVER:					
■	LANTANA VERA GOLD	VERY GOLD LANTANA	1 GAL. # 36" O.C.	L	
■	PHILADELPHIA CAPILLARIS	PINK HILYGRASS	1 GAL. # 36" O.C.	L	
■	HYPOPHYPHIA GREEN	CREEPSY HYPOPHORUM	1 GAL. # 36" O.C.	L	
■	ROS. HUNTINGTON GARRET	TRAILING ROSEMARY	1 GAL. # 36" O.C.	L	
GRASS:					
■	CAREX OXYLBA	GREY SEDGE	PLUGS # 12" O.C.	L	
■	ELYNIA TRITICOIDES	CREEPSY FELD RYE	PLUGS # 18" O.C.	L	
■	JUNCUS PATERUS	COMMON RUSH	PLUGS # 18" O.C.	L	



## PARKING LOT CALCULATIONS:

NET AREA OF ALL SURFACE PARKING AREA: 21,294 SQFT  
 LANDSCAPING WITHIN PARKING AREA: 3,216 SQFT  
 TOTAL: 19%

## Underground Service Alert



Call: TOLL FREE  
 1-800  
 422-4133

HOWARD ASSOCIATES  
 landscape architecture  
 1951 Avenida  
 Suite 302  
 San Diego CA 92101 619 718 9660

MARK	REVISION	BY	APPR.	DATE

APPROVED	2007
SIGNOR CIVIL ENGINEER	
REGISTERED CIVIL ENGINEER NO.	
DRAWN BY:	
CHECKED BY:	
RECOMMENDED BY:	

CITY OF SAN BERNARDINO  
 DEVELOPMENT SERVICES-PUBLIC WORKS/ENGINEERING  
 Landscape Concept Plan for:  
**BUILDING 'B'**  
 San Bernardino Business Park  
 HARDY ST TO E STREET DR  
 FOR CITY USE ONLY: FILE NO. W.C. 110.

DRAWING NO.  
**XXXX**  
 SHEET **2** OF  
**2** SHEETS



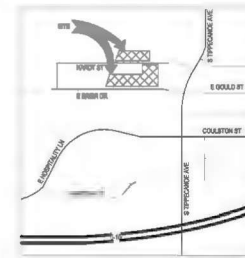
## LEGAL DESCRIPTION

PARCELS 24 & 25 OF PARCEL MAP NO. 5486  
FILED IN SAN BERNARDINO COUNTY  
APR: GSB-911-11 & 12  
ADDRESS: HARDT STREET  
LSE: SHELL  
ZONE: TOD CR-3

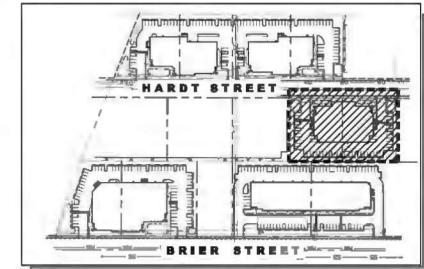
## SITE INFORMATION

SITE AREA: 0.641 ACRES  
PROPOSED BUILDING COVERAGE: 17,041 S.F.  
PROPOSED LANDSCAPE AREA: 13,367 S.F.  
PROPOSED PARKING AREA: 35,000 S.F.  
TYPE OF DEVELOPMENT: SHELL

## VICINITY MAP



## KEY MAP



(a) Hydrozone Category	(b) PF-Plant Factor	(c) Irrigation Method	(d) IE- Irrigation Efficiency
Very Low Water Use	0.0 - 0.1	Filter Pipe for Pools/Spas	1.00
Low Water Use*	0.2 - 0.3	Drip/Subsurface	0.90
Moderate Water Use	0.4 - 0.6	Bubblers	0.85
High Water Use	0.7 - 1.0	Rotors	0.75
		Rotations	0.70
		Overhead Spray	0.60

(d)  $ETWU = \text{Annual Gallons Required} = Eto \times 0.62 \times ETAF \times Area$   
(e)  $MAWA = \text{Annual Gallons Allowed} = (ETO)(0.62)[(ETAF \times LA) + ((1-ETAF) \times SLA)]$   
ETO - see Appendix A in Water Efficient Land Design Manual.  
0.62 is the conversion factor to gallons per sq. ft.  
ETAF is Plant Factor/Irrigation Efficiency.  
Area is the Landscaped Area for each hydrozone.  
LA is the total landscape of all hydrozone areas in sq. ft.  
SLA is the total special landscape area in square feet.  
ETAF is 0.42 for all areas.

## WATER EFFICIENT LANDSCAPE WORKSHEET

Building 'C'

REFERENCE EVAPOTRANSPIRATION (ETO) 55.1

$ETWU = \text{Annual Gallons Required} = Eto \times 0.62 \times ETAF \times Area$

Hydrozone # / Planting Description	Plant Factor (PF)	Irrigation Method	Irrigation Efficiency (IE)	ETAF (PF/IE)	Landscape Area in Square Feet	ETAF x Area	Estimated Total Water Use (d) (ETWU)
<b>Regular Landscape Areas</b>							
Trees, Shrubs, GC	0.2	Drip-sub	0.9	0.22	10,202	2,287	77,449
Trees, Shrubs, GC	0.5	Drip-sub	0.9	0.56	2,005	1,114	38,063
Basin	0.2	Rotors	0.75	0.27	1,160	309	10,587
<b>Totals</b>					<b>13,367</b>	<b>3,690</b>	<b>126,099</b>

<b>Special Landscape Areas</b>							
					0	0	0
<b>Totals</b>					<b>0</b>	<b>0</b>	<b>0</b>

Estimated Total Water Use in Gallons Per Year (ETWU) Total 126,099

Maximum Annual Water Allowance in Gallons Per Year (MAWA) Total 191,790

$MAWA = \text{Annual Gallons Allowed} = (ETO)(0.62)[(ETAF \times LA) + ((1-ETAF) \times SLA)]$   
must be a positive number

\*\*Average Irrigation Efficiency for overall irrigation system shall meet or exceed 0.75 (total of all efficiency ratings divided by number of hydrozones).

## ETAF CALCULATIONS

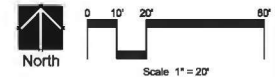
Average ETAF for Regular Landscape Areas must be 0.55 or below for residential areas and 0.45 or below for non-residential areas. Provide Totals based on information calculated in Worksheet above.

<b>Regular Landscape Areas</b>				<b>All Landscape Areas</b>			
Total ETAF x Area (B) =		3,690		Total ETAF x Area (B+D) =		3,690	
Total Area (A) =		13,367		Total Area (A+C) =		13,367	
Average ETAF (B) ÷ (A) =		0.28		Site wide ETAF (B+D) ÷ (A+C) =		0.28	

NOTE: PLANT MATERIAL WITHIN SIGHT LINE TO BE MAX. 24" HEIGHT. ANY TREE THAT FALLS WITHIN A SIGHT LINE SHALL BE LIMBED AND MAINTAINED AT LEAST 8' ABOVE FINISH GRADE (TYP.)

PARKING SPACES: 45  
24' BOX TREES PROPOSED: 22  
RATIO: 1 TREE PER 2 SPACES

SEE SHEET 2 FOR PLANTING LEGEND AND NOTES



## Underground Service Alert



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1-800  
422-4133

HOWARD ASSOCIATES  
landscape architecture  
1951 Fourth Avenue  
Suite 302  
San Diego CA 92101 619 718 9660

MARK	REVISIONS	BY	APPR.	DATE
REWORK MARK:				

APPROVED	2007
SENIOR CIVIL ENGINEER	
REGISTERED CIVIL ENGINEER NO.	
DRAWN BY:	
CHECKED BY:	
RECOMMENDED BY:	

CITY OF SAN BERNARDINO  
DEVELOPMENT SERVICES-PUBLIC WORKS/ENGINEERING  
Landscape Concept Plan for:  
BUILDING 'C'  
San Bernardino Business Park  
HARDT ST TO E BRIER DR

DRAWING NO.  
XXXX  
SHEET 1 OF 2 SHEETS



1. FINAL LANDSCAPE PLANS SHALL ACCURATELY SHOW PLACEMENT OF TREES, SHRUBS AND GROUNDCOVER.
2. ALL REQUIRED LANDSCAPE AREAS, INCLUDING THE ROW, SHALL BE MAINTAINED PER CITY OF SAN BERNARDINO REQUIREMENTS.
3. AUTOMATIC IRRIGATION SHALL BE INSTALLED TO PROVIDE COVERAGE FOR ALL PLANTING AREAS SHOWN ON THE PLAN. LOW VOLUME EQUIPMENT SHALL PROVIDE SUFFICIENT WATER FOR PLANT GROWTH WITH MINIMUM WATER LOSS DUE TO WATER RUN-OFF. IRRIGATION SYSTEMS SHALL USE HIGH QUALITY, AUTOMATIC CONTROL VALVES, CONTROLLERS AND OTHER NECESSARY IRRIGATION EQUIPMENT. ALL COMPONENTS SHALL BE OF NON-CORROSIVE MATERIAL. ALL DRIP SYSTEMS SHALL BE ADEQUATELY FILTERED AND REGULATED PER THE MANUFACTURER'S RECOMMENDED DESIGN PARAMETERS. ALL IRRIGATION IMPROVEMENTS SHALL FOLLOW THE CITY OF SAN BERNARDINO GUIDELINES AND WATER CONSERVATION ORDINANCE.
4. THE SELECTION OF PLANT MATERIAL, BASED ON AESTHETIC AND MAINTENANCE CONSIDERATIONS, ALL PLANTING AREAS SHALL BE PREPARED WITH APPROPRIATE SOIL AMENDMENTS, FERTILIZERS, AND APPROPRIATE SUPPLEMENTS BASED UPON A BOLS REPORT FROM AN AGRICULTURAL VIABILITY SOIL SAMPLE TAKEN FROM THE SITE. GROUND COVERS OR BARK MULCH SHALL FILL IN BETWEEN SHRUBS TO SHIELD THE SOIL FROM THE SUN, EVAPOTRANSPIRATION, AND RUN-OFF. ALL THE SHRUB BEDS SHALL BE MULCHED TO A 3" DEPTH TO HELP CONSERVE WATER, LOWER THE SOIL TEMPERATURE AND REDUCE WEED GROWTH. THE SHRUBS SHALL BE ALLOWED TO GROW IN THEIR NATURAL FORMS. ALL LANDSCAPE IMPROVEMENTS SHALL FOLLOW THE CITY OF SAN BERNARDINO GUIDELINES.

5. STREET TREES AND OTHER TREES SHALL BE SPACED AS FOLLOWS:

- 5.1. 0' FROM TRANSFORMERS, CABLE, AND PULL BOXES
- 5.2. 5 FEET FROM MAIL BOXES
- 5.3. 5 FEET FROM FIRE HYDRANTS (ALL SIDES)
- 5.4. 10 FEET FROM CENTERLINE OF ALL UTILITY LINES (WITHOUT EASEMENTS) SEWER, WATER, STORM DRAIN, DOUBLE CHECK DETECTOR VALVES, AIR RELIEF VALVE, AND GAS)
- 5.5. 10 FEET FROM EASEMENT BOUNDARIES (SEWER, WATER, STORM DRAINS, ACCESS OR OTHER UTILITIES)
- 5.6. 10 FEET FROM DRIVEWAYS (UNLESS A LINE OF SIGHT IS DETERMINED BY THE TRAFFIC DIVISION TO BE OTHERWISE)
- 5.7. 10 FEET FROM TRAFFIC AND DIRECTIONAL SIGNS
- 5.8. 10 FEET FROM UTILITY POLES. (DETERMINED BY SPECIFICATIONS)

- 6.9. STREET TREES SHALL BE PLANTED 5' OUTSIDE RIGHT-OF-WAY IF THE RIGHT-OF-WAY DOES NOT ALLOW SPACE, SUBJECT TO ENGINEERS' APPROVAL.
- 6.10. LINES OF SIGHT AT ARTERIALS, COLLECTOR AND LOCAL STREETS SHALL BE REVIEWED AND DETERMINED BY THE TRAFFIC ENGINEER.
- 6.11. MINIMUM FIFTEEN (15) STREETLIGHT AND STOP SIGN OR CLEARANCE DETERMINED BY SPECIFICATIONS.
- 6.12. SCREEN ALL UTILITIES ACCORDING TO SPECIFIC AGENCY REQUIREMENTS.

ROOT BARRIERS SHALL BE INSTALLED ADJACENT TO ALL PAVING SURFACES WHERE A PAVING SURFACE IS LOCATED WITHIN 8 FEET OF A TREE TRUNK. ROOT BARRIERS SHALL EXTEND 10 FEET IN EACH DIRECTION FROM THE CENTERLINE OF THE TRUNK, FOR A TOTAL DISTANCE OF 20 FEET. ROOT BARRIERS SHALL BE MINIMUM OF 24 INCHES IN DEPTH. INSTALLING A ROOT BARRIER AROUND THE TREE'S ROOT RAIL IS UNACCEPTABLE.

THE IRRIGATION SYSTEM WILL BE DESIGNED TO AFFORD OPTIMUM COVERAGE FOR THE SUPPORT OF PLANT GROWTH. THE COVERAGE WILL MEET THE WATER REQUIREMENTS FOR THE SELECTED PLANT MATERIAL AND WITHIN THE GIVEN

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ALL GRADES AND DRAINAGE SWALES SHALL BE PER CIVIL ENGINEER'S GRADING AND DEVELOPMENT PLAN.

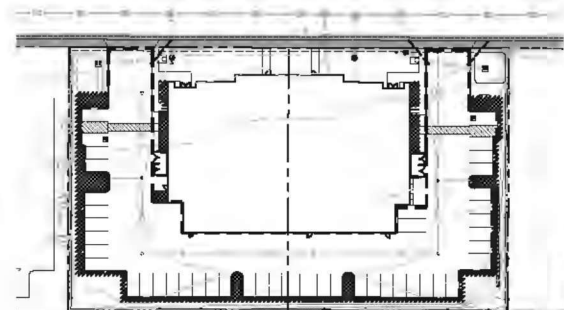
1. NO STRUCTURES HIGHER THAN 30' OR PLANT MATERIAL HIGHER THAN 24" AT MATURITY SHALL BE ALLOWED WITHIN THE CLEAR SIGHT AREA.
2. ALL LANDSCAPED AREAS SHALL BE MAINTAINED BY THE PROJECT OWNER, INCLUDING REGULAR WATERING, PRUNING, FERTILIZING, CLEARING OF DEBRIS AND WEEDS, REMOVAL AND REPLACEMENT OF DEAD PLANTS AND REPAIR AND REPLACEMENT OF IRRIGATION SYSTEM.

A. Landscape Techniques		Points
1.	Water conserving plants used in 75 percent or more of the total landscaped area.	20
2.	Turf limited as follows:	20
a. All other projects - 30 percent of total landscaped area.		
3.	Plants placed or grouped into hydrozones according to their watering needs.	10
4.	Polymers incorporated into the soil to improve water holding capacity in turf and ground cover areas.	10
5.	A maintenance program consisting of:	10
a. Periodic irrigation system repair.		
b. Seasonal adjustments to the irrigation system.		
c. Practices which foster long term landscape water conservation.		

1.	Low gallonage irrigation system, or higher gallonage systems with automatic controller capable of repeat cycling, used for more than 75% of the total landscaped area. Turf areas must utilize "spray" coverage, drip systems may not be used for turf.	20
2.	Automatic controller for irrigation system.	20
3.	Irrigation system designed using hydrozoneing to water plants according to their water needs (i.e., landscape materials which require different watering needs are irrigated by separate control valves).	10
4.	Rain sensors used in conjunction with an automatic controller.	10
5.	Soil-moisture sensors used in conjunction with an automatic controller	6
6.	In-head or in-line check valves are utilized (whenever the cross gradient is greater than three feet in elevation).	5
7.	Irrigation schedule which varies by season, and developed through the use of Evapotranspiration data (ET).	8

1. MINIMUM TREE SIZES SHALL BE AS FOLLOWS:  
 15% 4" BOK  
 15% 3" BOK  
 20% 2" BOK  
 60% 1" GAL
2. MINIMUM SHRUB SIZES SHALL BE AS FOLLOWS:  
 80% 8 GAL  
 20% 1 GAL
3. GROUNDERCOVERS SHALL ACHIEVE 100% COVERAGE WITHIN 1 YEAR

SYMBOL	BOTANICAL NAME	COMMON NAME	PLANT SIZE	PLUGS
			FEET (NOTE PLANT LEFT)	2016-1
	<b>HARDY STREET TREES:</b>			
▲	PLATANUS ACERIFOLIA	LONDON PLATANES	36" DIA	M
	<b>DRYER STREET TREES:</b>			
■	FRAXINUS SPP.	ASH TREE	18" DIA	M
	<b>ENTRY SPECIMEN TREES:</b>			
□	QUERCUS I.E.	HOLLY OAK	48" DIA	L
	<b>PARKING AND PERIMETER TREES:</b>			
+	TRISTANIA CONFERTA	DRINKWATER TREE	24" DIA	L
▲	GELEBA PARVIFLORA	AUSTRALIAN PILLON	24" DIA	L
	<b>SMALL ACCENT TREES:</b>			
■	LASIOSTROCHIA NIGROBICE	GRAPE HYDRATE	24" DIA	L
■	LASIOSTROCHIA NIGROBICE	GRAPE HYDRATE	48" DIA	L
	<b>SHRUBS:</b>			
○	ARGENTUS COMACTA	GOINWET STRAWBERRY TREE	5 GAL	L
○	BACCHARIS CONFERTA	CONFIDENTIAL DESERT DROSER	5 GAL	L
○	CALLISTEMON LITTLE JOHN	LITTLE JOHN BOTTLEDROSER	5 GAL	L
○	MEDERAZALE PARVIFLORA	RED YUCCA	5 GAL	L
○	LEUCOPHYLLUM FRUTICOSUM	MALEAF PRIVET	5 GAL	L
○	PISTONORRHIZ SPP.	ROSEBAY	5 GAL	M
○	ROSEBAY MAGNAPHYLLE	KOHUA	5 GAL	M
○	TELLICHA YUKANDAN RED	YUKI FIVE	5 GAL	L
○	SALICHA STARS	YELLOW BELLS	5 GAL	L
○	HELEBORUS ELLEGENT	GOINWET BOTTLEDROSER	5 GAL	L



NET AREA OF ALL SURFACE PARKING AREA: 22,087 SQFT  
LANDSCAPING WITHIN PARKING AREA: 3,440 SQFT  
TOTAL 18%



HOWARD  
ASSOCIATES  
landscape architecture  
1951 Fourth avenue  
Suite 302  
san diego ca 92101 619 718 9660

APPROVED \_\_\_\_\_ 2007

SENIOR CIVIL ENGINEER  
REGISTERED CIVIL ENGINEER NO.

DRAWN BY:

CHECKED BY:

RECOMMENDED BY:

**CITY OF SAN BERNARDINO**  
DEVELOPMENT SERVICES - PUBLIC WORKS/ENGINEERING

*Landscape Concept Plan for:*  
**BUILDING 'C'**  
*San Bernardino Business Park*  
**HARDY ST TO E BRIDER**

FOR CITY USE ONLY. DATE: 06/01/00

DRAWING NO.  
**XXXX**

SHEET 2 OF  
2 SHEETS

**PARKING SPACES:** 81  
**24' BOX TREES PROPOSED:** 39  
**RATIO:** 1 TREE PER 2.1 SPACES

### LEGAL DESCRIPTION

PARCELS 18 & 19 OF PARCEL MAP NO. 5484  
 FILED IN SAN BERNARDINO COUNTY  
 APR. 28-2015-18 & 19  
 ADDRESS: HARDY STREET  
 URB: 09611  
 ZONE: TOD CR-3

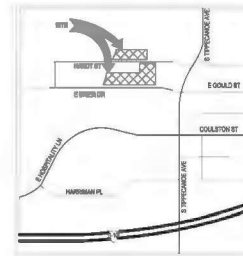
### SITE INFORMATION: D1

SITE AREA: 44,241 SF 1.02 ACRES  
 PROPOSED BUILDING COVERAGE: 13,716 SF 31.1 %  
 PROPOSED LANDSCAPE AREA: 15,867 SF 35.8 %  
 PROPOSED PAVING AREA: 14,658 SF 33.1 %

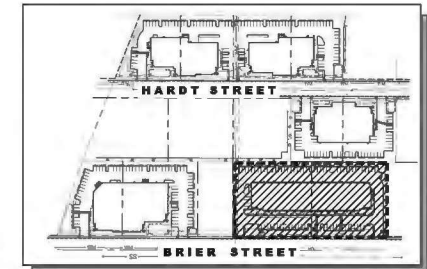
### SITE INFORMATION: D2

SITE AREA: 44,241 SF 1.02 ACRES  
 PROPOSED BUILDING COVERAGE: 13,716 SF 31.1 %  
 PROPOSED LANDSCAPE AREA: 15,867 SF 35.8 %  
 PROPOSED PAVING AREA: 14,658 SF 33.1 %

### VICINITY MAP



### KEY MAP



Hydrozone Category	ET-Plant Factor	Irrigation Method	E-Irrigation Efficiency
Very Low Water Use	0.0-0.1	Fiber Pipe for Pro/Slope	1.00
Low Water Use*	0.2-0.3	Drip/Subsurface	0.90
Moderate Water Use	0.4-0.6	Submains	0.85
High Water Use	0.7-1.0	Rotors	0.75
*Artificial turf and temporarily irrigated areas are considered Low Water Use.		Rotors	0.70
		Overhead Spray	0.60

(d) ETWU (Annual Gallons Required) =  $Eto \times 0.82 \times ETAF \times A$   
 ETO = see Appendix A in Water Efficient Landscaping Manual  
 Design Manual  
 0.82 is the conversion factor to gallons per sq. ft.  
 ETAF is Plant Factor/Irrigation Efficiency.  
 A is the Landscaped Area for each hydrozone.

(e) MAWA (Annual Gallons Allowed) =  $(Eto)(0.82)(ETAF \times LA) + (T-ETAF) \times SLA$   
 LA is the total landscape of all hydrozone areas in sq. ft.  
 SLA is the total special landscape area in square feet.  
 ETAF is 0.42 for all areas.

### WATER EFFICIENT LANDSCAPE WORKSHEET

Building 'D'

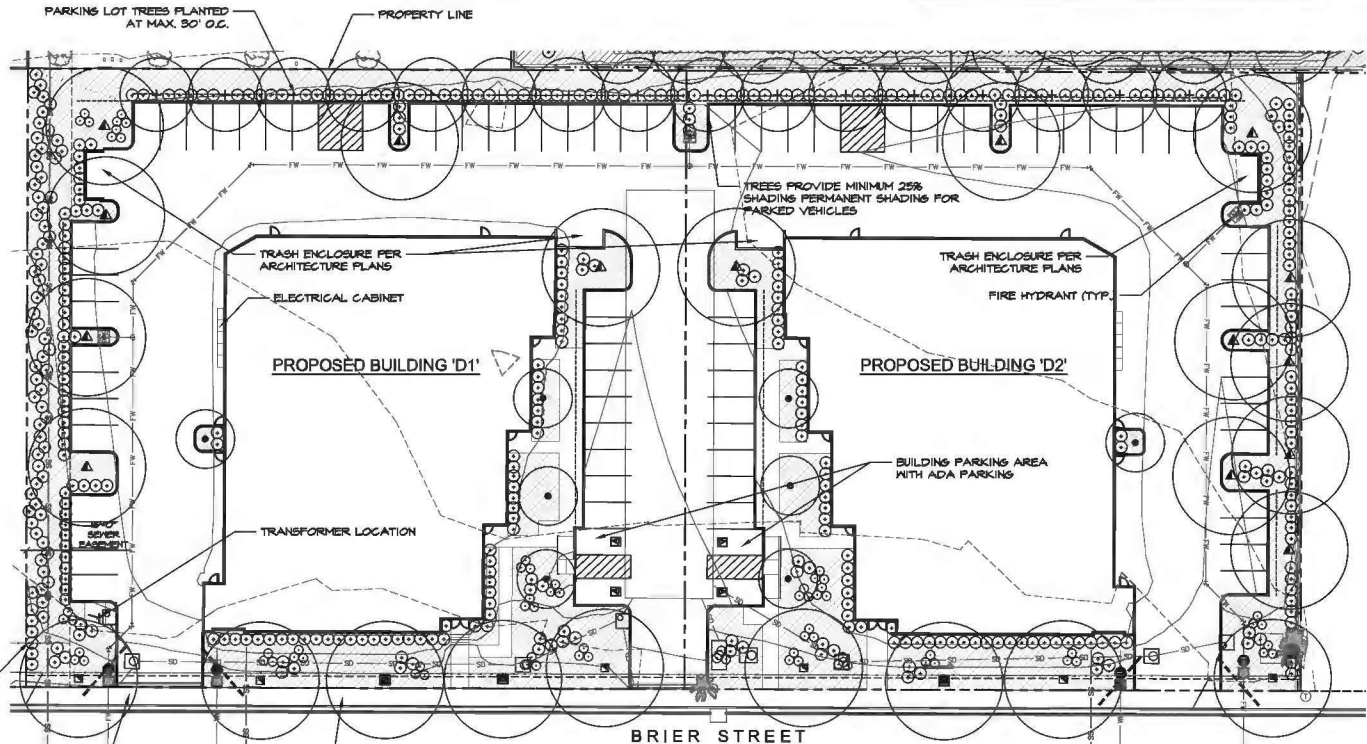
REFERENCE EVAPOTRANSPIRATION (ET <sub>0</sub> ) = 55.1							
ETWU (Annual Gallons Required) = Eto x 0.82 x ETAF x Area							
Hydrozone # / Planting (a) (Description)	Plant Factor (FP) (b)	Irrigation Method (c)	Irrigation Efficiency (d) (E)	ETAF (FP/E) (e)	Landscaped Area in Square Feet (f)	ETAF x Area (g)	Estimated Total Water Use (h) (ETWU)
<b>Regular Landscape Areas</b>							
Trees, Shrubs, GC	0.2	Drip-sub	0.9	0.22	19,155	4,241	138,052
Trees, Shrubs, GC	0.5	Drip-sub	0.9	0.56	3,229	1,793	90,903
<b>Totals</b>					21,394	5,824	199,555
<b>Special Landscape Areas</b>							
						0	0
<b>Totals</b>						0	0
Estimated Total Water Use in Gallons Per Year (ETWU) Total							199,555
Maximum Annual Water Allowance in Gallons Per Year (MAWA) Total							349,982
MAWA - ETWU =							150,427
Result is a positive number							
MAWA (Annual Gallons Allowed) = $(ET_0)(0.82)(ETAF \times LA) = (ET_0 - ETAF) \times SLA$							
Average Irrigation Efficiency for overall irrigation system shall meet or exceed 0.75 (total of all efficiency ratings divided by number of hydrozones).							
<b>ETAF CALCULATIONS</b>							
Average ETAF for Regular Landscape Areas must be 0.55 or below for residential areas and 0.40 or below for non-residential areas. Provide Totals based on information calculated in Worksheet above.							
<b>Regular Landscape Areas</b>				<b>All Landscape Areas</b>		<b>Totals</b>	
Total ETAF x Area (B) =		6,804		Total ETAF x Area (B+D) =		6,804	
Total Area (A) =		21,394		Total Area (A+C) =		21,394	
Average ETAF (B) / (A) =		0.32		Site-wide ETAF (B+D) / (A+C) =		0.32	

NOTE: PLANT MATERIAL WITHIN SIGHT LINE TO BE MAX. 24' HEIGHT. ANY TREE THAT FALLS WITHIN A SIGHT LINE SHALL BE LIMBED AND MAINTAINED AT LEAST 8' ABOVE FINISH GRADE (TYP.)

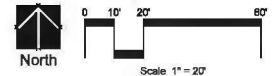
SCREEN PLANTING AT PROJECT PERIMETER

SIGHT LINES- PLANT MATERIAL WITHIN SIGHT LINE TO BE MAX. 24' HEIGHT. ANY TREE THAT FALLS WITHIN A SIGHT LINE SHALL BE LIMBED AND MAINTAINED AT LEAST 8' ABOVE FINISH GRADE (TYP.)

SIDEWALK PER CIVIL ENGINEER'S PLANS



SEE SHEET 2 FOR PLANTING LEGEND AND NOTES



### Underground Service Alert



Call: TOLL FREE  
 1-800  
 422-4133

**HOWARD ASSOCIATES**  
 landscape architecture  
 1951 Fourth Avenue  
 Suite 302  
 San Diego CA 92101 619 718 9660

MARK	REVISIONS	BY	APPR.	DATE
BENCH MARK				

APPROVED	2007
SENIOR CIVIL ENGINEER	
REGISTERED CIVIL ENGINEER NO.	
DRAWN BY:	
CHECKED BY:	
RECOMMENDED BY:	

**CITY OF SAN BERNARDINO**  
 DEVELOPMENT SERVICES-PUBLIC WORKS/ENGINEERING  
 Landscape Concept Plan for:  
**BUILDING 'D'**  
 San Bernardino Business Park  
 HARDY ST TO E BRIER DR

DRAWING NO. XXXX  
 SHEET 1 OF 2 SHEETS

# GENERAL NOTES

1. FINAL LANDSCAPE PLANS SHALL ACCURATELY SHOW PLACEMENT OF TREES, SHRUBS AND GROUNDCOVERS.
2. ALL REQUIRED LANDSCAPE AREAS, INCLUDING THE ROW, SHALL BE MAINTAINED PER CITY OF SAN BERNARDINO REQUIREMENTS.
3. AUTOMATIC IRRIGATION SHALL BE INSTALLED TO PROVIDE COVERAGE FOR ALL PLANTING AREAS SHOWN ON THE PLAN. LOW VOLUME EQUIPMENT SHALL PROVIDE SUFFICIENT WATER FOR PLANT GROWTH WITH MINIMUM WATER LOSS DUE TO WATER RUN-OFF. IRRIGATION SYSTEMS SHALL USE HIGH QUALITY, AUTOMATIC CONTROL VALVES, CONTROLLERS AND OTHER NECESSARY IRRIGATION EQUIPMENT. ALL COMPONENTS SHALL BE OF NON-CORROSIVE MATERIAL. ALL DRIP SYSTEMS SHALL BE ADEQUATELY FILTERED AND REGULATED PER THE MANUFACTURER'S RECOMMENDED DESIGN PARAMETERS. ALL IRRIGATION IMPROVEMENTS SHALL FOLLOW THE CITY OF SAN BERNARDINO GUIDELINES AND WATER CONSERVATION ORDINANCE.
4. THE SELECTION OF PLANT MATERIAL IS BASED ON AESTHETIC AND MAINTENANCE CONSIDERATIONS. ALL PLANTING AREAS SHALL BE PREPARED WITH APPROPRIATE SOIL AMENDMENTS, FERTILIZERS, AND APPROPRIATE SUPPLEMENTS BASED UPON A SOILS REPORT FROM AN AGRICULTURAL SUITABILITY SOIL SAMPLE TAKEN FROM THE SITE. GROUND COVERS OR DARK MULCH SHALL FILL IN BETWEEN SHRUBS TO SHIELD THE SOIL FROM THE SUN, EVAPOTRANSPIRATION, AND RUN-OFF. ALL THE SHRUB BEDS SHALL BE MULCHED TO A 3" DEPTH TO HELP CONSERVE WATER, LOWER THE SOIL TEMPERATURE AND REDUCE WEED GROWTH. THE SHRUBS SHALL BE ALLOWED TO GROW IN THEIR NATURAL FORMS. ALL LANDSCAPE IMPROVEMENTS SHALL FOLLOW THE CITY OF SAN BERNARDINO GUIDELINES.

## TREES:

5. STREET TREES AND OTHER TREES SHALL BE SPACED AS FOLLOWS:  
5.1. 8' FROM TRANSFORMER, CABLE, AND PULL BOXES  
5.2. 5 FEET FROM MAIL BOXES  
5.3. 8 FEET FROM FIRE HYDRANTS (ALL SIDES)  
5.4. 10 FEET FROM CENTERLINE OF ALL UTILITY LINES (WITHOUT EASEMENT) (SEWER, WATER, STORM DRAINS, DOUBLE CHECK DETECTOR VALVES, AIR RELIEF VALVES, AND GAS)  
5.5. 10 FEET FROM EASEMENT BOUNDARIES (SEWER, WATER, STORM DRAINS, ACCESS OR OTHER UTILITIES)  
5.6. 10 FEET FROM DRIVEWAYS (UNLESS A LINE OF SIGHT IS DETERMINED BY THE TRAFFIC DIVISION TO BE OTHERWISE)  
5.7. 10 FEET FROM TRAFFIC AND DIRECTIONAL SIGNS  
5.8. 10 FEET (MINIMUM) FROM STREETLIGHTS, OTHER UTILITY POLES, (DETERMINED BY SPECIFICATIONS)

- 6.2. STREET TREES SHALL BE PLANTED 5' OUTSIDE RIGHT-OF-WAY IF THE RIGHT-OF-WAY DOES NOT ALLOW SPACE, SUBJECT TO CITY ENGINEER'S APPROVAL
- 6.10. LINE OF SIGHT AT ARTERIALS, COLLECTOR AND LOCAL STREETS SHALL BE REVIEWED AND DETERMINED BY THE TRAFFIC ENGINEER.
- 6.11. MINIMUM FIFTEEN (15) STREETLIGHT AND STOP SIGN OR CLEARANCE DETERMINED BY SPECIFICATIONS.
- 6.12. SCREEN ALL UTILITIES ACCORDING TO SPECIFIC AGENCY REQUIREMENTS.

## ROOT BARRIERS

ROOT BARRIERS SHALL BE INSTALLED ADJACENT TO ALL PAVING SURFACES WHERE A PAVING SURFACE IS LOCATED WITHIN 6 FEET OF A TREE TRUNK. ROOT BARRIERS SHALL EXTEND 10 FEET IN EACH DIRECTION FROM THE CENTERLINE OF THE TRUNK, FOR A TOTAL DISTANCE OF 20 FEET. ROOT BARRIERS SHALL BE MINIMUM OF 36 INCHES IN DEPTH. INSTALLING A ROOT BARRIER AROUND THE TREE'S ROOT BALL IS UNACCEPTABLE.

## IRRIGATION NOTES

THE IRRIGATION SYSTEM WILL BE DESIGNED TO AFFORD OPTIMUM COVERAGE FOR THE SUPPORT OF PLANT GROWTH. THE COVERAGE WILL MEET THE WATER REQUIREMENTS FOR THE SELECTED PLANT MATERIAL AND WITHIN THE GIVEN PLANTING AREAS. THE DESIGN WILL TAKE INTO CONSIDERATION THE TYPE OF EXPOSURE. THE SYSTEM WILL HAVE. THE IRRIGATION SYSTEM WILL BE DESIGNED WITH RESPECT TO WATER CONSERVATION. IRRIGATION HEADS SHALL BE CHOSEN FOR MAXIMUM COVERAGE WITH LOW-GALLONAGE AND PRECIPITATION QUALITIES. THE IRRIGATION SYSTEM SHALL BE A FULLY AUTOMATIC SYSTEM AND AS MAINTENANCE-FREE AS POSSIBLE. THE MATERIALS FOR THE SYSTEM WILL BE OF AN EXTREMELY DURABLE NATURE, AND WILL HAVE BEEN SELECTED FOR WEAR RESISTANCE AND LONG LIFE. THE OVERALL SYSTEM SHALL BE DESIGNED FOR EASE OF MAINTENANCE. ALL LANDSCAPE AND IRRIGATION SHALL CONFORM TO THE STANDARDS OF THE CITY/STATE LANDSCAPE REGULATIONS AND THE LANDSCAPE STANDARDS AND ALL OTHER LANDSCAPE RELATED CITY AND REGIONAL STANDARDS. ALL IRRIGATION SHALL UTILIZE A DESIGNATED SEPARATE IRRIGATION WATER METER, AND SUBSURFACE DRIP OR ROTOR LOW PRECIPITATION RATE IRRIGATION WITH A WEATHER-BASED AUTOMATIC IRRIGATION SMART CONTROLLER.

## GRADING AND DRAINAGE

ALL GRADES AND DRAINAGE SWALES SHALL BE PER CIVIL ENGINEER'S GRADING AND DEVELOPMENT PLAN.

## NOTES:

1. NO STRUCTURES HIGHER THAN 30' OR PLANT MATERIAL HIGHER THAN 24" AT MATURITY SHALL BE ALLOWED WITHIN THE CLEAR SIGHT AREA.
2. ALL LANDSCAPED AREAS SHALL BE MAINTAINED BY THE PROJECT OWNER, INCLUDING REGULAR WATERING, PRUNING, FERTILIZING, CLEARING OF DEBRIS AND WEEDS, REMOVAL AND REPLACEMENT OF DEAD PLANTS AND REPAIR AND REPLACEMENT OF IRRIGATION SYSTEM.

## CITY OF SAN BERNARDINO MO 019.26.150(b)

### 1. WATER CONSERVATION CRITERIA

Compliance with the Water Conservation in Landscape Ordinance.

A. Landscape Technique	Points
1. Water conserving plants used in 75 percent or more of the total landscaped area.	20
2. Turf limited as follows:  a. All other projects - 30 percent of total landscaped area.	20
3. Plants placed or grouped into hydrozones according to their watering needs.	10
4. Polymers incorporated into the soil to improve water holding capacity in turf and ground cover areas.	10
5. A maintenance program consisting of:  a. Periodic irrigation system repair. b. Seasonal adjustments to the irrigation system. c. Practices which foster long term landscape water conservation.	10
6. Where no groundcover is used, utilize wood chips, bark, or other organic mulch, to a depth of three inches on top of exposed soil or landscaped fabric, such as underneath shrubs.	5
7. Organic soil amendments to improve water holding capacity of soil, where soil conditions merit.	5

TOTAL: 80 POINTS

### B. Irrigation Technique

1. Low gallonage irrigation system, or higher gallonage systems with automatic controller capable of repeat cycling, used for more than 75% of the total landscaped area. Turf areas must utilize "spray" coverage, drip systems may not be used for turf.	20
2. Automatic controller for irrigation system.	20
3. Irrigation system designed using hydrozones to water plants according to their water needs (i.e., landscape materials which require different watering needs are irrigated by separate control valves).	10
4. Rain sensors used in conjunction with an automatic controller.	10
5. Soil-moisture sensors used in conjunction with an automatic controller.	5
6. In-head or in-line check valves are utilized (whenever the cross gradient is greater than three feet in elevation).	5
7. Irrigation schedule which varies by season, and developed through the use of Evapotranspiration data (ET).	5

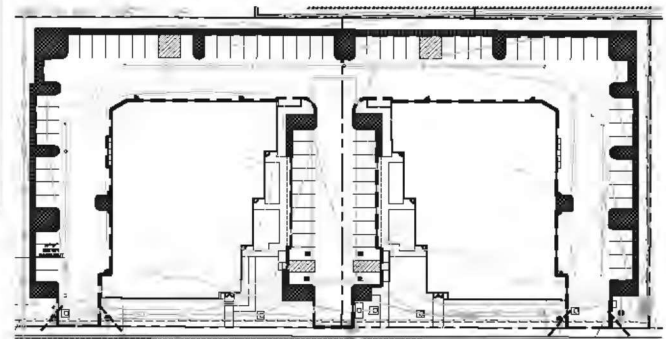
TOTAL: 75 POINTS

## NOTE:

1. MINIMUM TREE SIZES SHALL BE AS FOLLOWS:  
15% 40" BOX  
15% 36" BOX  
20% 34" BOX  
50% 16 GAL.
2. MINIMUM SHRUB SIZES SHALL BE AS FOLLOWS:  
50% 5 GAL.  
20% 1 GAL.
3. GROUNDCOVERS SHALL ACHIEVE 100% COVERAGE WITHIN 1 YEAR.

## Plant Legend

SYMBOL	BOTANICAL NAME	COMMON NAME	MIN SIZE (SEE NOTE BELOW LEFT)	MUCLIS	2016.1
HARDY STREET TREES:					
▲	PLATANUS ACROPOLIA	LONDON PLANETREE	36" BOX	H	
◼	QUERCUS LIE.	ASH TREE	58" BOX	M	
ENTRY SPECIMEN TREES:					
▲	QUERCUS LIE.	HOLLY OAK	48" BOX	L	
PARKING AND PERIMETER TREES:					
+	TRISTANIA CONFERTA	BRISBANE BOX	24" BOX	L	
▲	GEUERA PARVIFLORA	AUSTRALIAN PILLION	24" BOX	L	
SHALL ACCENT TREES:					
▲	LAGERSTROEMIA NISAGOEI	GRAPE HYDRATE	24" BOX	L	
◼	LAGERSTROEMIA NISAGOEI	GRAPE HYDRATE	48" BOX	L	
SHRUBS:					
◼	ARISTOLIA CONTRACTA	CONTRACT STRAWBERRY TREE	5 GAL	L	
◼	BAGHIANA CENTRALIA	CENTRAL DESERT DROOPY	5 GAL	L	
◼	GALLISTHERIA LITTLE JORI	LITTLE JOHN BOTTLEBRUSH	5 GAL	L	
◼	NEORADICE PARVIFLORA	RED YUCCA	5 GAL	L	
◼	LEUCOPHYLLA TERNANAH	HAIRLEAF PRIVET	5 GAL	M	
◼	LEUCOPHYLLA PROSCOPERA	TOULS RANGER	5 GAL	L	
◼	PITTOCOPIUM SPP.	KOHU	5 GAL	M	
◼	PROCARPUS MACROPHYLLUS	YEW PINE	5 GAL	M	
◼	SALVIA TERMINALIS RED	RED AUTUMN SAGE	5 GAL	L	
◼	TEUCHA STANS	YELLOW BELLS	5 GAL	L	
◼	RESTRINIA BLUE GEN	COASTAL ROSEMARY	5 GAL	L	
GROUNDCOVER:					
◼	LAUTANIA VERA GOLD	VERY GOLD LAUTANIA	1 GAL. # 36" O.C.	L	
◼	HALENDERBIA CAPILLARIS	PINK HILYGRASS	1 GAL. # 36" O.C.	L	
◼	HYPOPHORN PUTHA GREEN	CREEPING HYPOPHORN	1 GAL. # 36" O.C.	L	
◼	ROS. HUNTINGTON CARPET	TRAILING ROSEMARY	1 GAL. # 36" O.C.	L	
BAHIS:					
◼	CAMEL DYLUBA	GREY SODAS	PLUGS # 12" O.C.	L	
◼	ELYNIS TRITIGRIS	CREEPING FELD RYE	PLUGS # 18" O.C.	L	
◼	JUNOS PATERA	COMMON RUSH	PLUGS # 18" O.C.	L	



## PARKING LOT CALCULATIONS:

NET AREA OF ALL SURFACE PARKING AREA: 38,497 SQFT  
LANDSCAPING WITHIN PARKING AREA: 6,801 SQFT  
TOTAL: 15%



## Underground Service Alert

Call: TOLL FREE  
1-800  
422-4133



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1951 Avenida  
Suite 302  
San Diego CA 92101 619 718 9660

MARK	REVISIONS	BY	APPR.	DATE

APPROVED: _____ 2007
SENIOR CIVIL ENGINEER
REGISTERED CIVIL ENGINEER NO.
DRAWN BY:
CHECKED BY:
RECOMMENDED BY:

CITY OF SAN BERNARDINO  
DIVISION OF SERVICES - PUBLIC WORKS/ENGINEERING  
Landscape Concept Plan for:  
**BUILDING 'D'**  
San Bernardino Business Park  
HARDY ST TO B STREET DR

DRAWING NO.  
**XXXX**  
SHEET **2** OF  
**2** SHEETS

FOR CITY USE ONLY: FILE NO. W.C. NO.