

VICINITY MAP

**FIRST FLOOR
BUILDING A
16514 SF**

PROPOSED
B, F, I, M, S-1 OCCUPANCY
43 PARKING PROVIDED INCLUDING
PARKING EASEMENT FOR 8 CARS
ON THE ADJACENT LOT 31

**FIRST FLOOR
BUILDING B
16300 SF**

PROPOSED
B, F, I, M, S-1 OCCUPANCY
43 PARKING PROVIDED NOT
INCLUDING PARKING EASEMENT ON
ADJACENT LOT 31 FOR BUILDING A

**FIRST FLOOR
BUILDING C
17048 SF**

PROPOSED
B, F, I, M, S-1 OCCUPANCY
46 PARKING PROVIDED

**BUILDING D1
13759 SF**

PROPOSED
B, F, I, M, S-1 OCCUPANCY

**BUILDING D2
13759 SF**

PROPOSED
B, F, I, M, S-1 OCCUPANCY

**OVERALL SITE
PLAN**

PROJECT SCOPE

5 NEW FREESTANDING TILT-UP SHELL BUILDINGS



KENNETH D. SMITH
ARCHITECT
& ASSOCIATES, INC.



500 FESLER 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 Buildings
Hardt & Brier Business
Park**
SAN BERNARDINO, CA

DDo.2



OWNER

OKA PROPERTIES
1000 PIONEER WAY
EL CAJON, CA 92020
Tel: (619) 440 7424
Fax: (619) 440 8914
Email:
CONTACT: GREGG HAMANN

LEGAL DESCRIPTION

PARCELS 29 & 30 OF PARCEL MAP NO. 5484
FILED IN SAN BERNARDINO COUNTY
APN: 0281-311-17 & 08
ADDRESS: HARDT STREET
USE: SHELL
ZONE: TOD CR-3

SITE INFORMATION

SITE AREA: 54,315 SF 1.25 ACRES
PROPOSED BUILDING COVERAGE: 18,514 SF 38.4 %
PROPOSED LANDSCAPE AREA: 15,839 SF 29.1 %
PROPOSED PAVING AREA: 22,771 SF 41.5 %
TYPE OF DEVELOPMENT: SHELL

PARKING TABULATION

- 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 (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 (5% OF VISITOR AUTO SPACES MIN.)
 - 1 LONG TERM BICYCLE SPACE w/ LOCKABLE, PERMANENTLY ANCHORED LOCKER (5% OF TENANT/EMPLOYEE AUTO SPACES MIN.)

SITE LEGEND

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

ACCESSIBLE PATH OF TRAVEL

NEW PATH OF TRAVEL (P.O.T.) AS INDICATED IS A BARRIER FREE ACCESS ROUTE WITHOUT ANY ABRUPT VERTICAL CHANGES EXCEEDING 1/2" BEVELLED AT 12 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. CROSS-SLOPE DOES NOT EXCEED 2% AND SLOPE IN DIRECTION OF TRAVEL IS LESS THAN 5% 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 87" (118-307.3).

PROJECT SCOPE

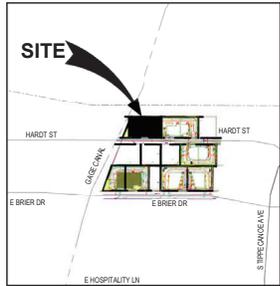
A FREESTANDING SPRINKLERED TILT-UP SHELL BUILDING THAT WILL BE CAPABLE OF ACCOMMODATING A VARIETY OF USES, ON APPROXIMATELY 1.25 ACRES.

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

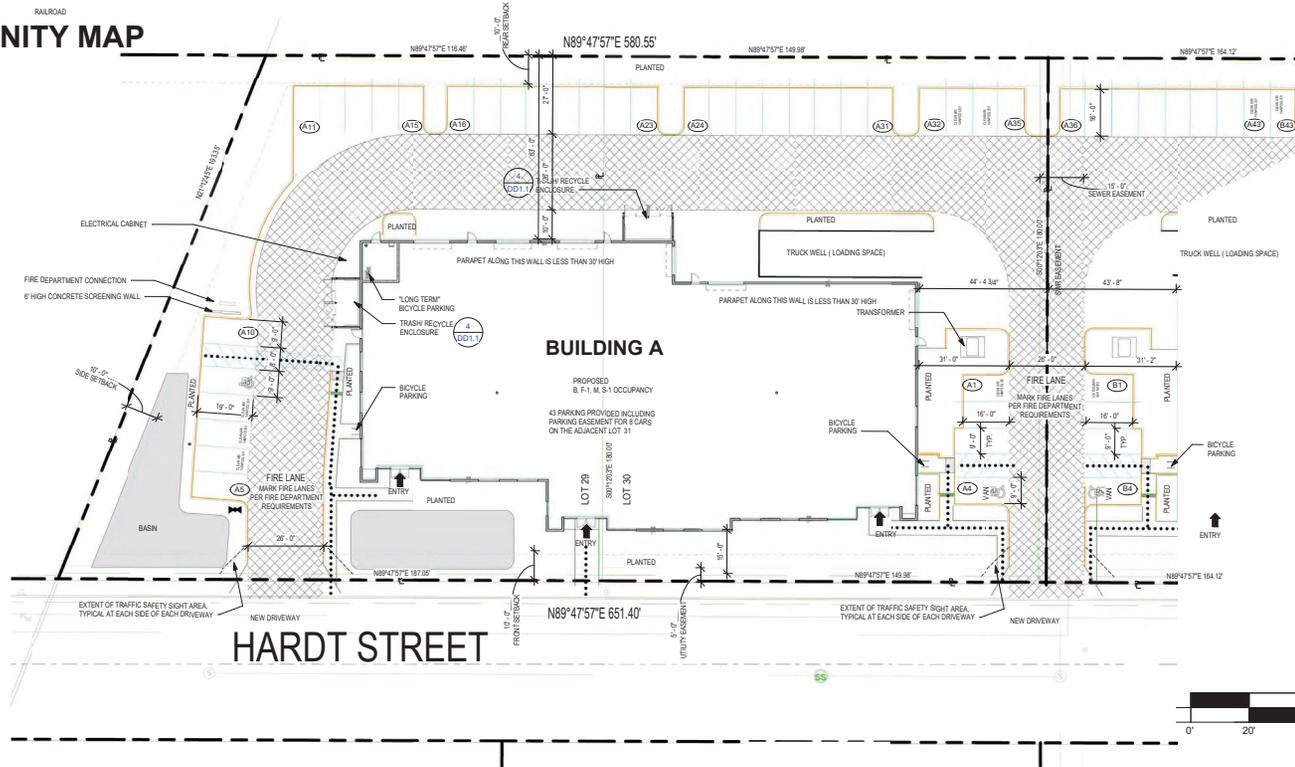


SITE PLAN
1" = 20'-0"



VICINITY MAP

1" = 500'-0"



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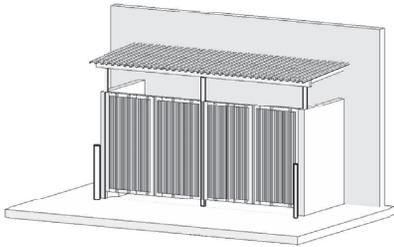


DATE: 9/3/2021
JOB NO: 18017
DRAWN BY: Ken
CHECKED BY: Checker

Revision Schedule		
#	Date	Description

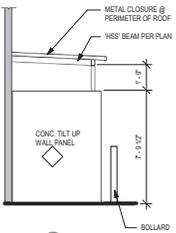
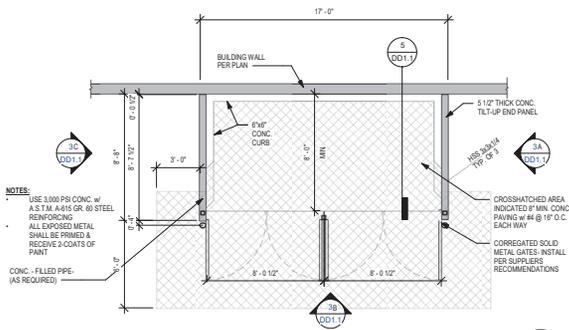
project: **NEW SHELL BUILDING 'A'**
Hardt & Briar Business Park
LOTS 29 & 30
SAN BERNARDINO, CA

DD1.0

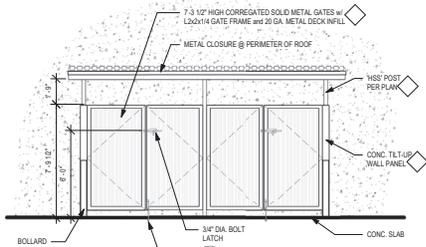


3D JPEG VIEW

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

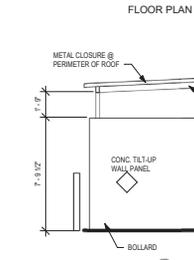


C



B

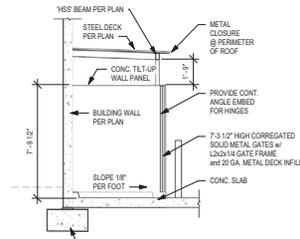
NOTE: TRASH ENCLOSURE TO BE PAINTED TO MATCH MAIN BUILDING COLOR
 SEE EXT. ELEVATIONS FOR PAINT COLOR LEGEND



A

ELEVATIONS

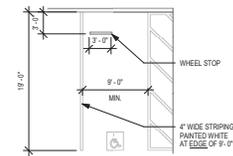
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DD1.1
1/4" = 1'-0"



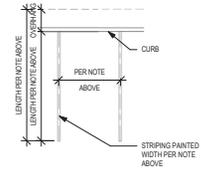
4
DD1.1
1/4" = 1'-0"

SECTION

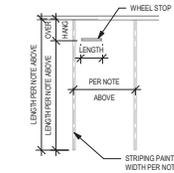
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DD1.1
1/4" = 1'-0"



ACCESSIBLE STALL STRIPING



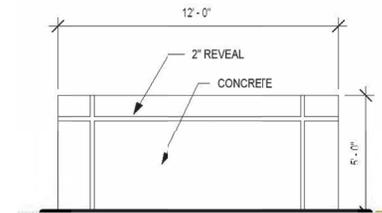
TYPICAL STALL w/ OVERHANG



TYPICAL STALL STRIPING

6
DD1.1
1/8" = 1'-0"

PARKING



TYPICAL SCREENING WALL

NOT TO SCALE

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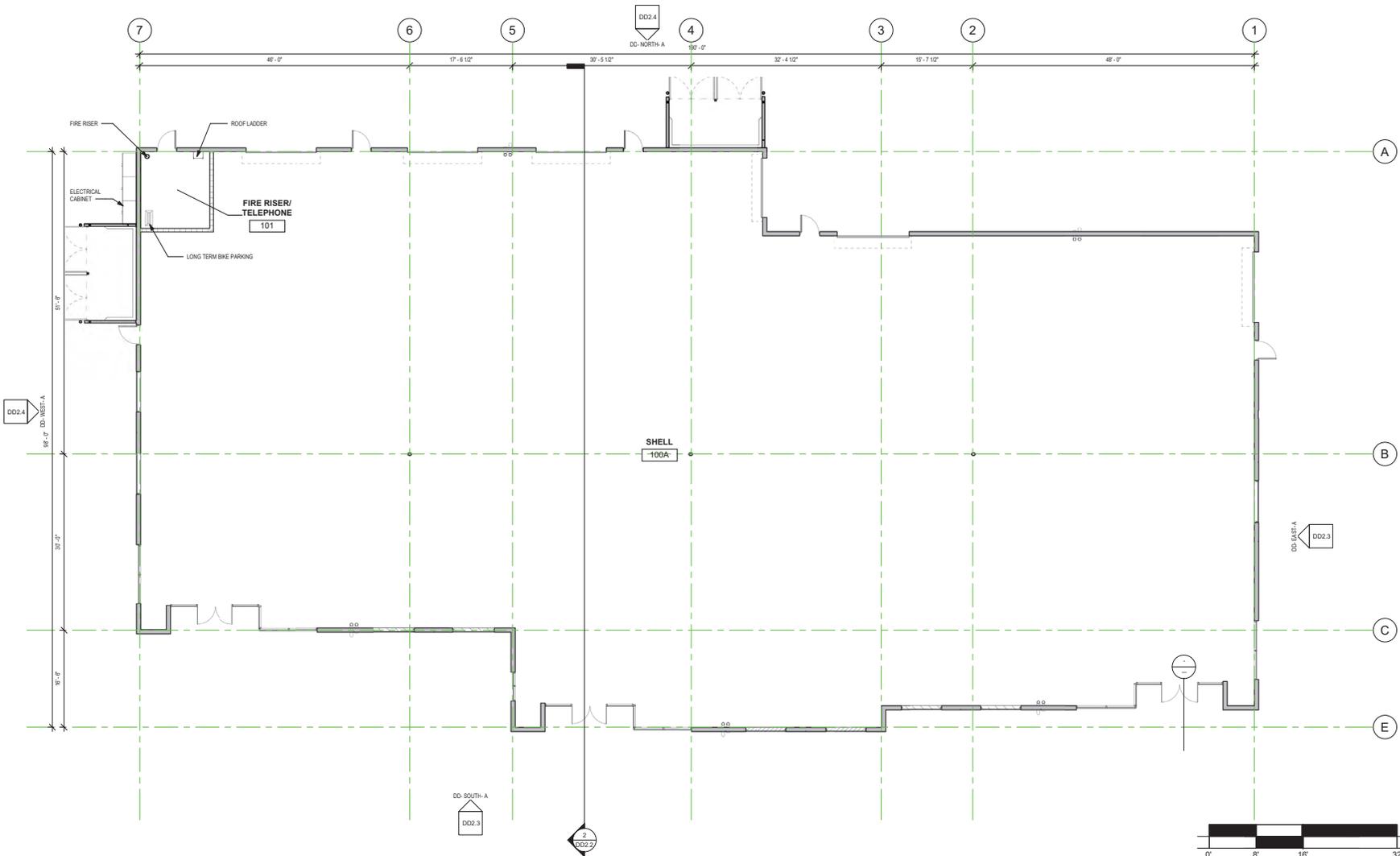
Revision Schedule

#	Date	Description

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

DD1.1

7/2/2021 1:40:23 PM C:\Users\ken.smith\Documents\18017 New Shell Building\Mapac-CAD\DWG\DD2.1.dwg (ken.smith@kdsai.com)



FIRST FLOOR PLAN

1/8" = 1'-0"

SQUARE FOOTAGE	
Name	Area
Area	Not Placed
Not Placed	0 SF
BUILDING A	16,514 SF
01 FIRST FLOOR	16,514 SF

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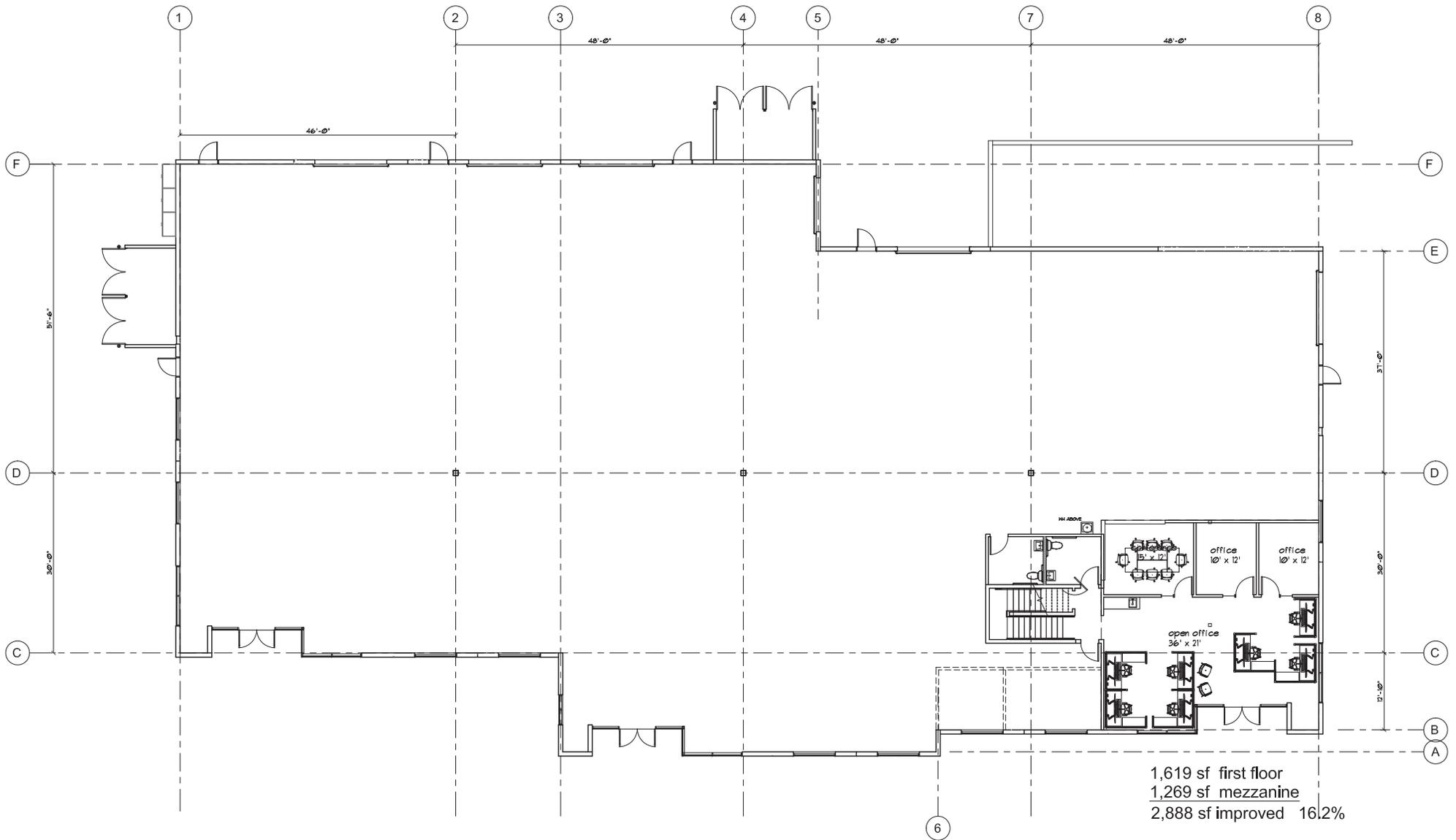


DATE: 9/3/2021
JOB NO: 18017
DRAWN BY: Ken
CHECKED BY: Checker

Revision Schedule		
#	Date	Description

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

DD2.1



1,619 sf first floor
 1,269 sf mezzanine
 2,888 sf improved 16.2%

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

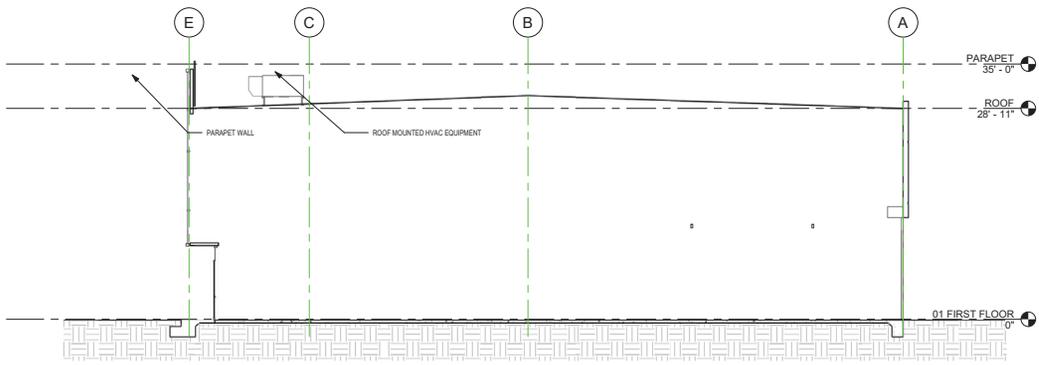
FLOOR PLAN A

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



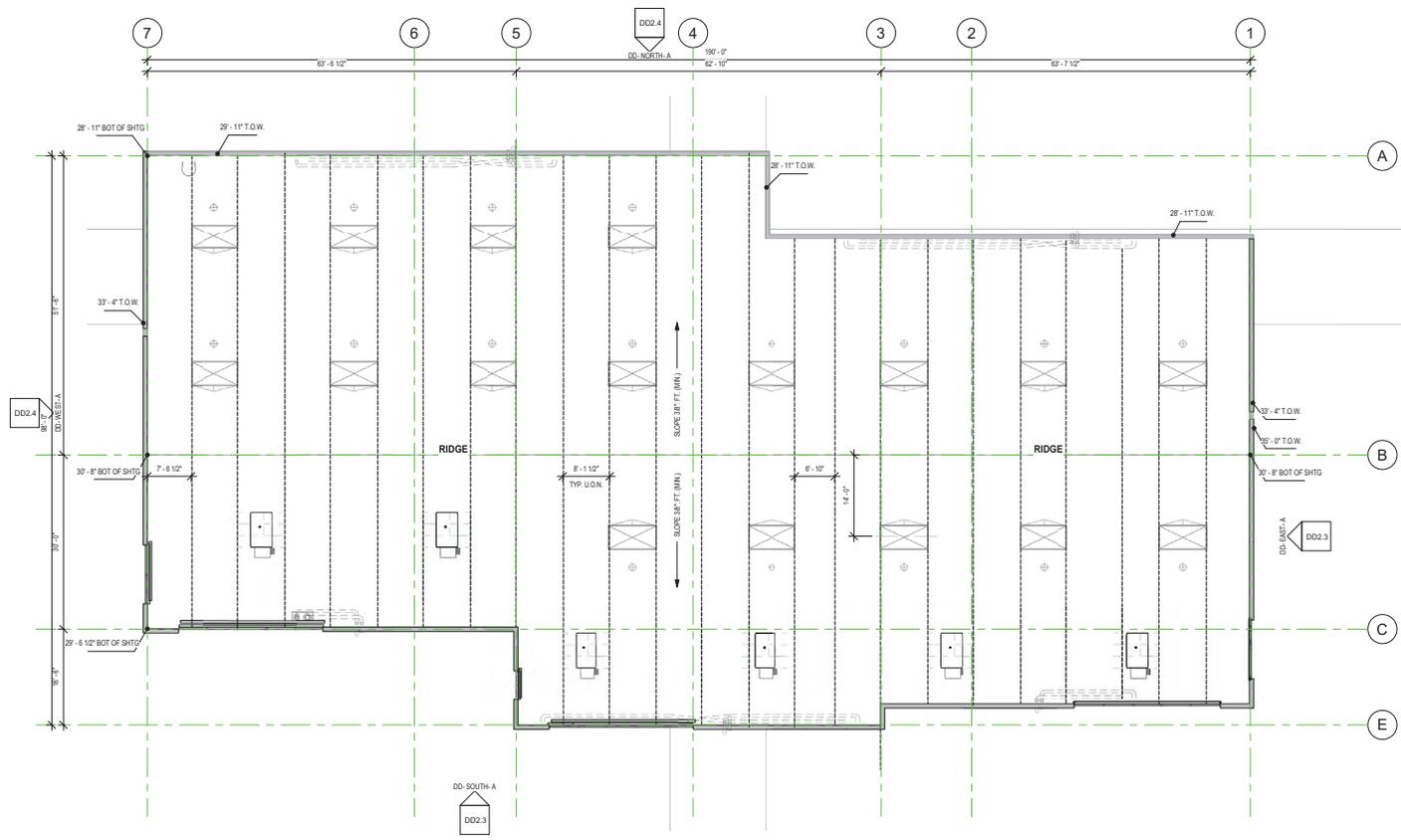
MARCH 18, 2023

Hardt & Brier Business Park
 San Bernardino California



Section 1

1/8" = 1'-0"



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



ROOF PLAN

1" = 10'-0"

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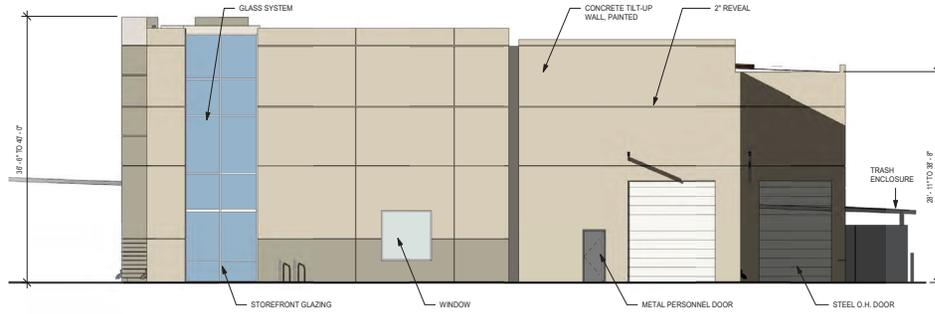
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JOB NO: 18017
DRAWN BY: Ken
CHECKED BY: Checker

Revision Schedule		
#	Date	Description

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

DD2.2

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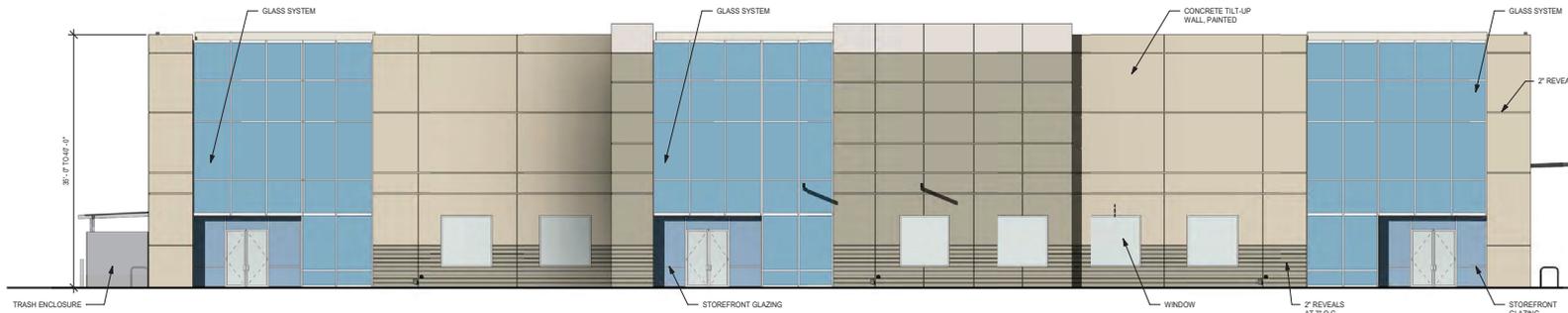


DD- EAST- A
1/8" = 1'-0"

EXTERIOR PAINT :

COLORS SHALL BE SHERWIN-WILLIAMS PAINT TO MATCH NUMBERS BELOW

- A SW 6203 SPARE WHITE
- B SW 7667 ZIRCON
- C SW 7669 SUMMIT GRAY



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

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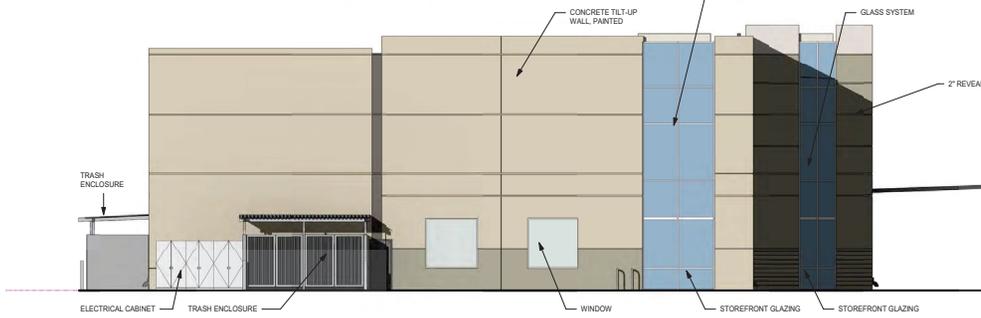
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JOB NO: 18017
DRAWN BY: Kim
CHECKED BY: Checker

Revision Schedule

#	Date	Description

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

DD2.3



DD- WEST- A

1/8" = 1'-0"



DD- NORTH- A

1/8" = 1'-0"

EXTERIOR PAINT :

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

- A SW 6203 SPARE WHITE
- B SW 7667 ZIRCON
- C SW 7669 SUMMIT GRAY

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



500 FESLER ST., SUITE 102
EL CAJON, CA - 92020
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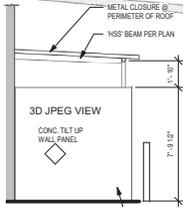
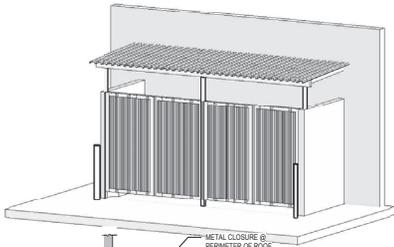
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JOB NO: 18017
DRAWN BY: Author
CHECKED BY: Checker

Revision Schedule

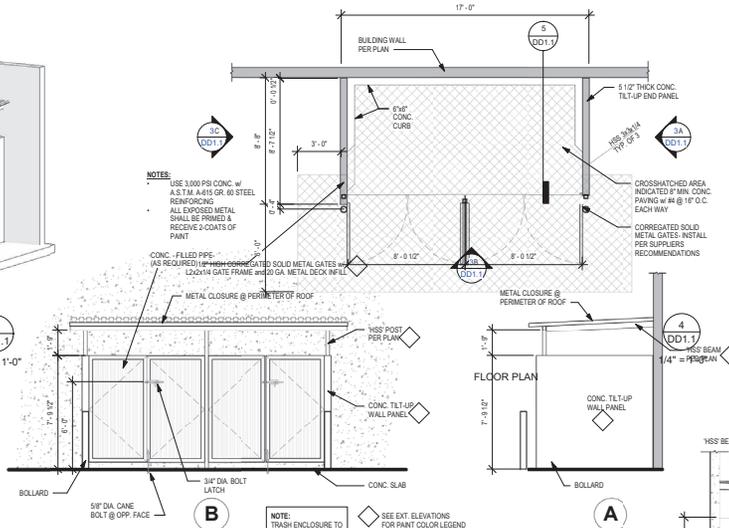
#	Date	Description

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

DD2.4



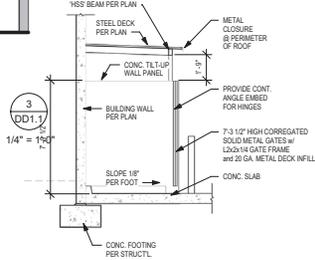
C



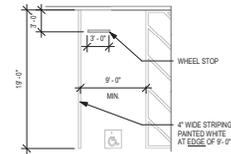
NOTES:
 USE 3,000 PSI CONC. w/ A 5/16" x 1/4" OR 60 STEEL REINFORCING
 ALL EXPOSED METAL SHALL BE PRIMED & RECEIVE 2 COATS OF PAINT

NOTE: TRASH ENCLOSURE TO BE PAINTED TO MATCH MAIN BUILDING COLOR

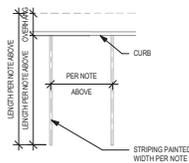
ELEVATIONS



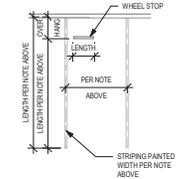
5 DD1.1
1/4" = 1'-0"



ACCESSIBLE STALL STRIPING



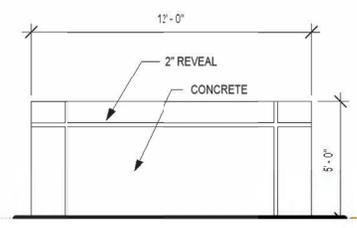
TYPICAL STALL w/ OVERHANG



TYPICAL STALL STRIPING

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

PARKING



TYPICAL SCREENING WALL

NOT TO SCALE

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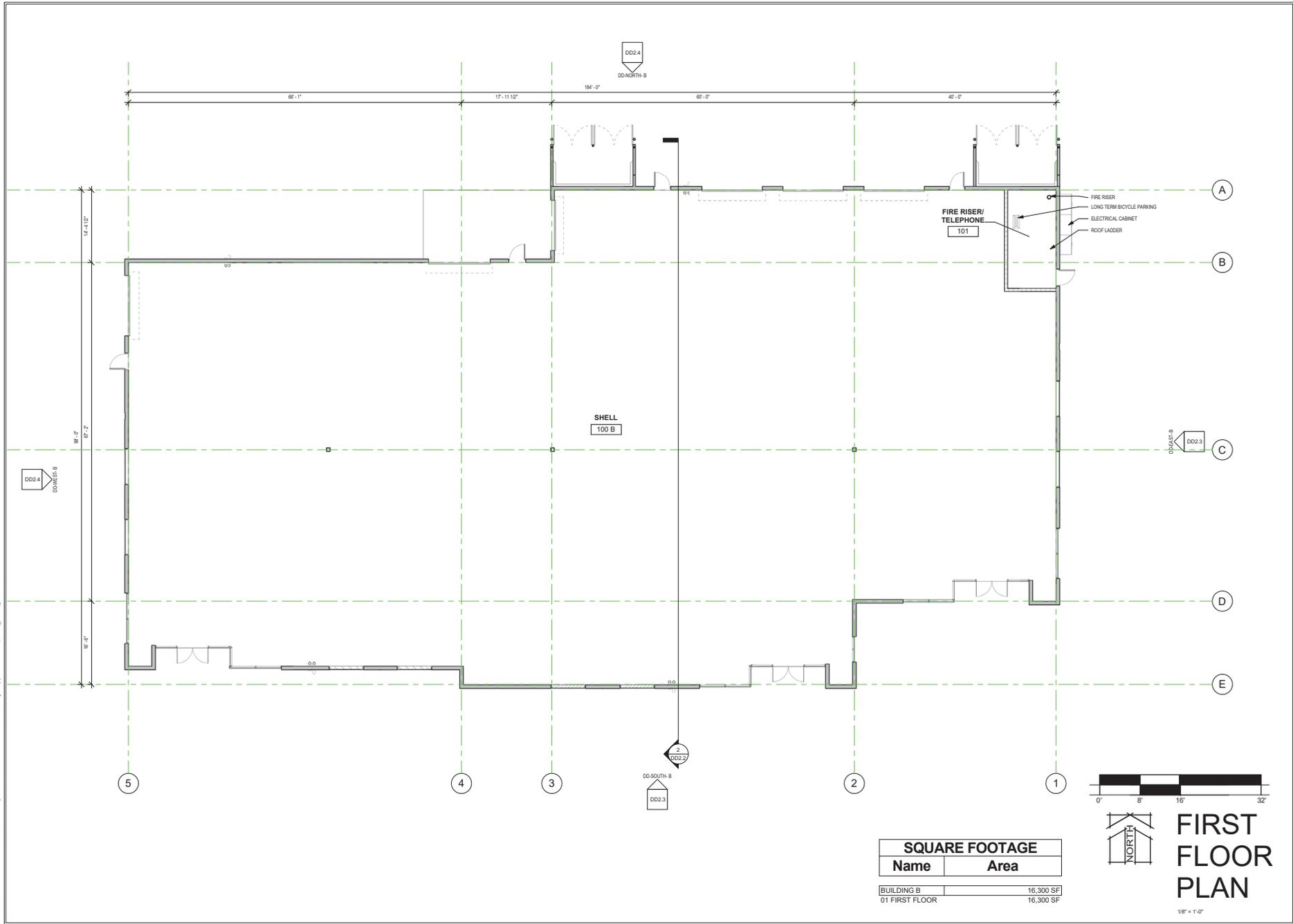
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project: **NEW SHELL BUILDING 'B'**
Hardt & Brier Business Park
LOTS 31 & 32
 SAN BERNARDINO, CA

DD1.1

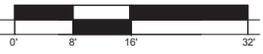
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7/2/2021 1:44:53 PM C:\Users\ken.smith\My Documents\18017 New Shell Building\3D\3D\DD2.1.dwg User: ken.smith



SQUARE FOOTAGE	
Name	Area

BUILDING B	16,300 SF
01 FIRST FLOOR	16,300 SF



FIRST FLOOR PLAN

1/8" = 1'-0"

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



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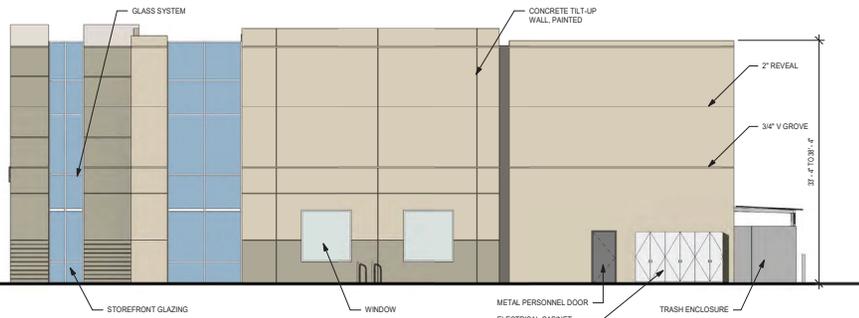


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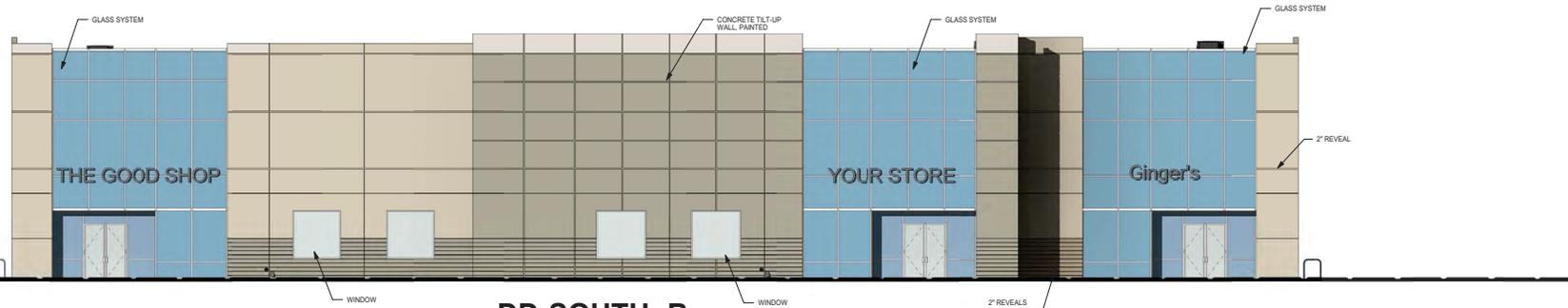
project: NEW SHELL BUILDING 'B'
Hardt & Briar Business Park
LOTS 31 & 32
SAN BERNARDINO, CA

DD2.1



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 6203 SPARE WHITE
- B SW 7667 ZIRCON
- C SW 7669 SUMMIT GRAY

KENNETH D. SMITH
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Revision Schedule

#	Date	Description

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

DD2.3

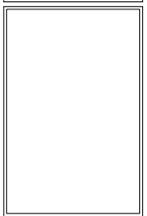
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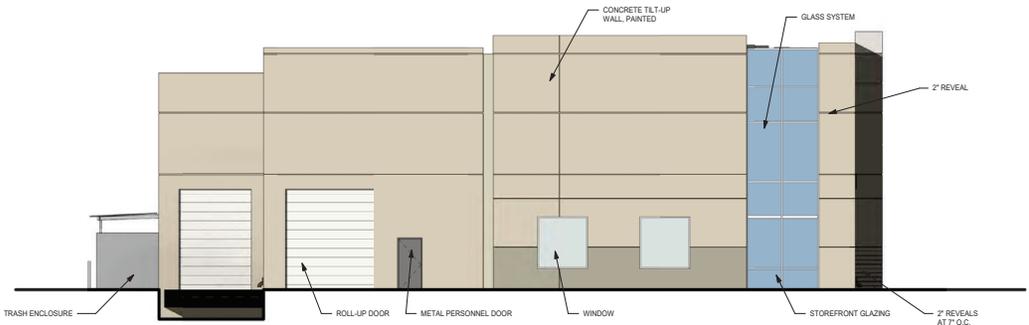


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LOTS 31 & 32
SAN BERNARDINO, CA

DD2.4



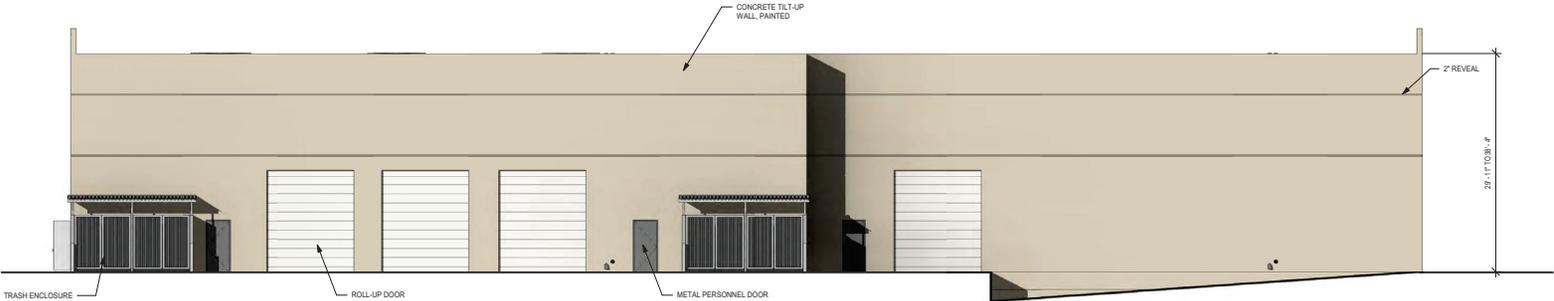
DD-WEST- B

1/8" = 1'-0"

EXTERIOR PAINT :

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

- A SW 6203 SPARE WHITE
- B SW 7667 ZIRCON
- C SW 7669 SUMMIT GRAY

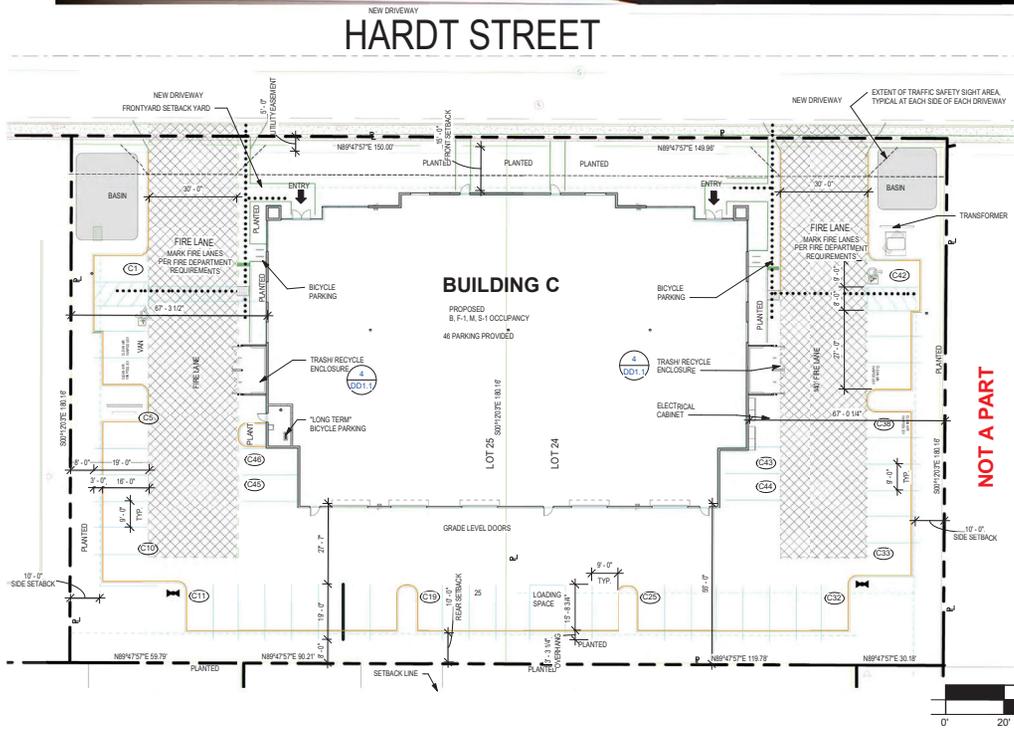


DD-NORTH- B

1/8" = 1'-0"



VICINITY MAP
1" = 500'-0"



OWNER

OAK PROPERTIES
1000 PIONEER WAY
EL CAJON, CA 92020
Tel: (619) 440 7424
Fax: (619) 440 8914
Email:
CONTACT: GREGG HAMANN

LEGAL DESCRIPTION

PARCELS 24 & 25 OF PARCEL MAP NO. 5464
FILED IN SAN BERNARDINO COUNTY
APN: 0281-311-11 & 12
ADDRESS: HARDT STREET
USE: SHELL
ZONE: TOD CR-3

SITE INFORMATION

SITE AREA:	54,041 SF	1.24 ACRES
PROPOSED BUILDING COVERAGE:	17,048 SF	31.55 %
PROPOSED LANDSCAPE AREA:	13,387 SF	24.75 %
PROPOSED PAVING AREA:	23,605 SF	43.72 %

TYPE OF DEVELOPMENT: SHELL

PARKING TABULATION

- PARKING PROVIDED:
- 40 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
- 48 TOTAL AUTOMOBILE SPACES PROVIDED
- 2 SHORT TERM BICYCLE SPACES w/ PERMANENTLY ANCHORED RACKS (5% OF VISITOR AUTO SPACES MIN.)
 - 1 LONG TERM BICYCLE SPACE IN LOCKER w/ PERMANENTLY ANCHORED LOCKER (5% OF TENANT BICYCLE AUTO SPACES MIN.)

SITE LEGEND

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

ACCESSIBLE PATH OF TRAVEL

..... NEW PATH OF TRAVEL (P.O.T.) AS INDICATED IS A BARRIER FREE ACCESS ROUTE WITHOUT ANY ABRUPT VERTICAL CHANGES EXCEEDING 1/2" BEVELLED 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. GROSS SLOPE DOES NOT EXCEED 2% AND SLOPE IN DIRECTION OF TRAVEL IS LESS THAN 5% UNLESS OTHERWISE INDICATED. P.O.T. SHALL BE MAINTAINED FREE OF OVERHANGING OBSTRUCTIONS TO 8" MINIMUM (18-20" Z) AND PROTRUDING OBJECTS GREATER THAN 4" PROJECTION FROM A WALL AND ABOVE 27" AND LESS THAN 67" (18-30-3).

PROJECT SCOPE

A FRESHING SPRINKLERED TELLER SHELL BUILDING THAT WILL BE CAPABLE OF ACCOMMODATING A VARIETY OF USES, ON APPROXIMATELY 1.24 ACRES

SHEET LIST DD

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

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EL CAJON, CA - 92020
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Fax / 619 442 2699

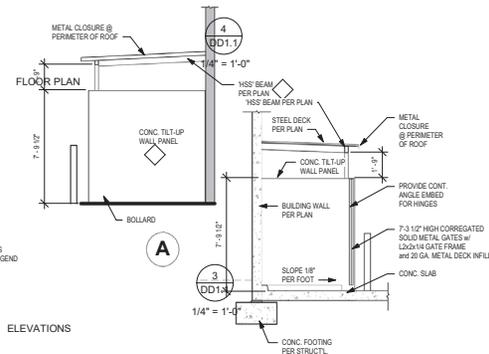
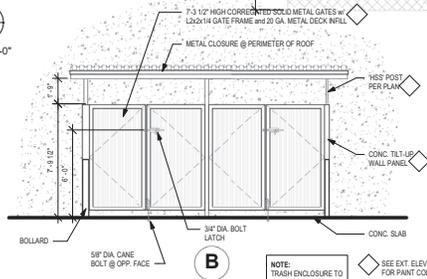
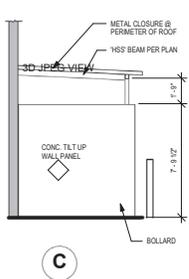
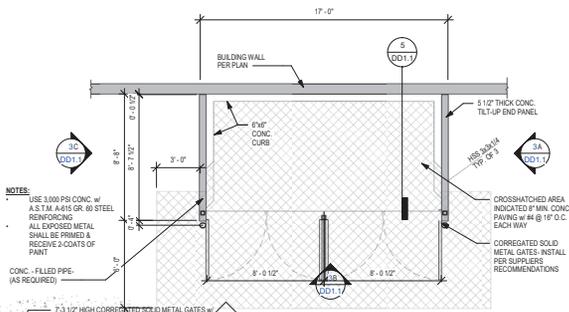
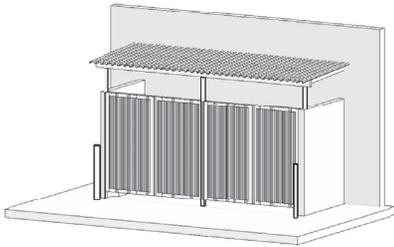


DATE: 5-20-19
JOB NO.:
DRAWN BY: Author
CHECKED BY: Checker

Revision Schedule		
#	Date	Description

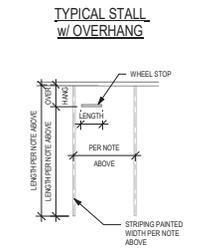
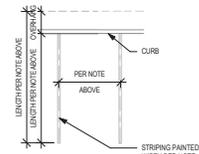
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LOTS 24 & 25
SAN BERNARDINO, CA

DD1.0

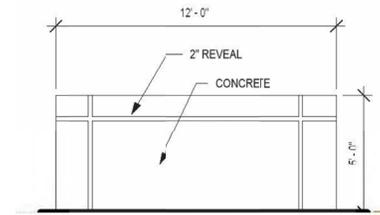


ELEVATIONS

SECTION



PARKING



NOT TO SCALE

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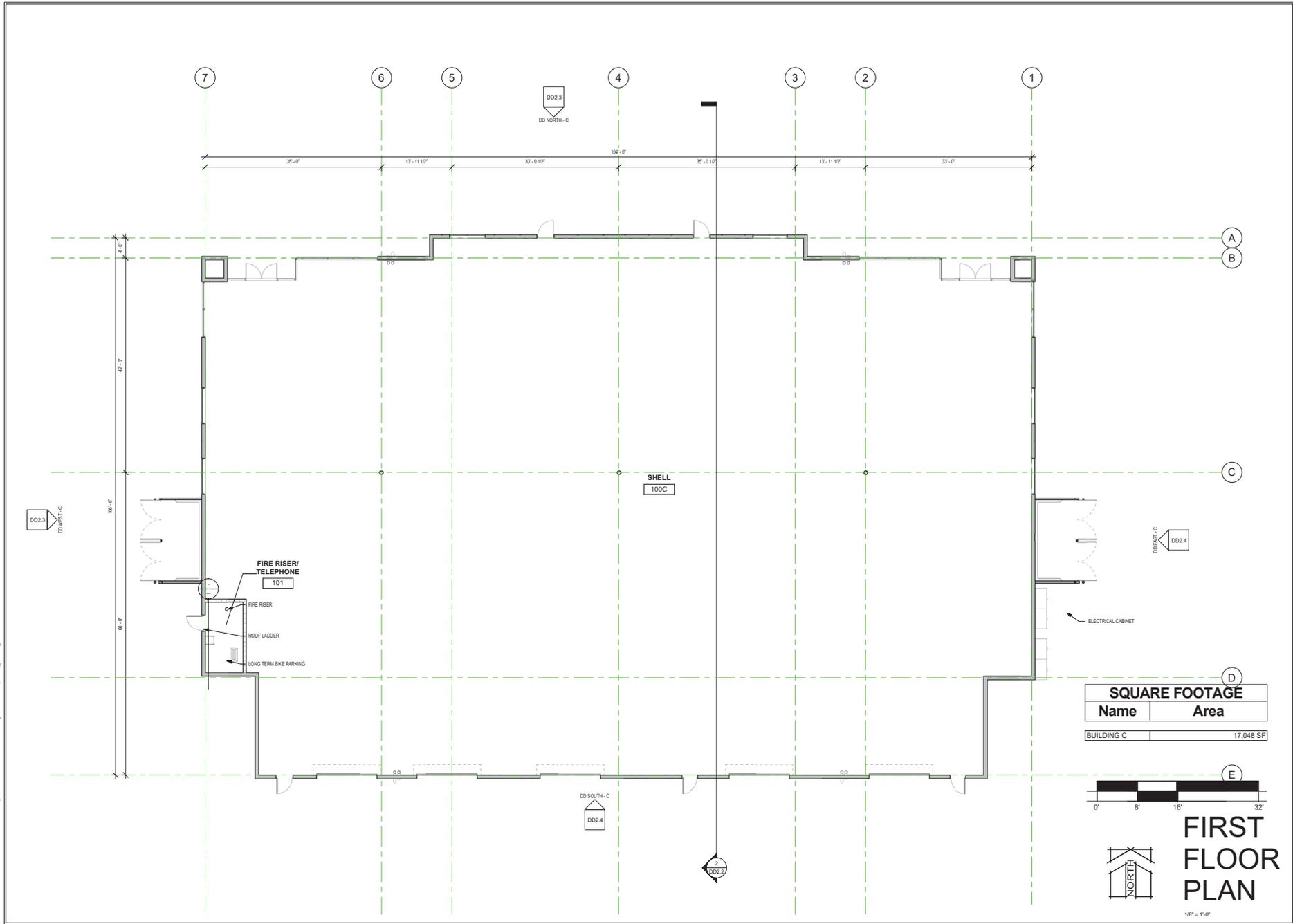
Revision Schedule

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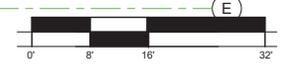
project: NEW SHELL BUILDING 'C'
Hardt & Brier Business Park
LOTS 24 & 25
 SAN BERNARDINO, CA

DD1.1

7/2/2021 1:59:02 PM: D:\Users\ken.smith\My Documents\Brier Shell Building\CD\REV\DD2.1_SHELL.dwg



SQUARE FOOTAGE	
Name	Area
BUILDING C	17,048 SF



FIRST FLOOR PLAN

1/8" = 1'-0"

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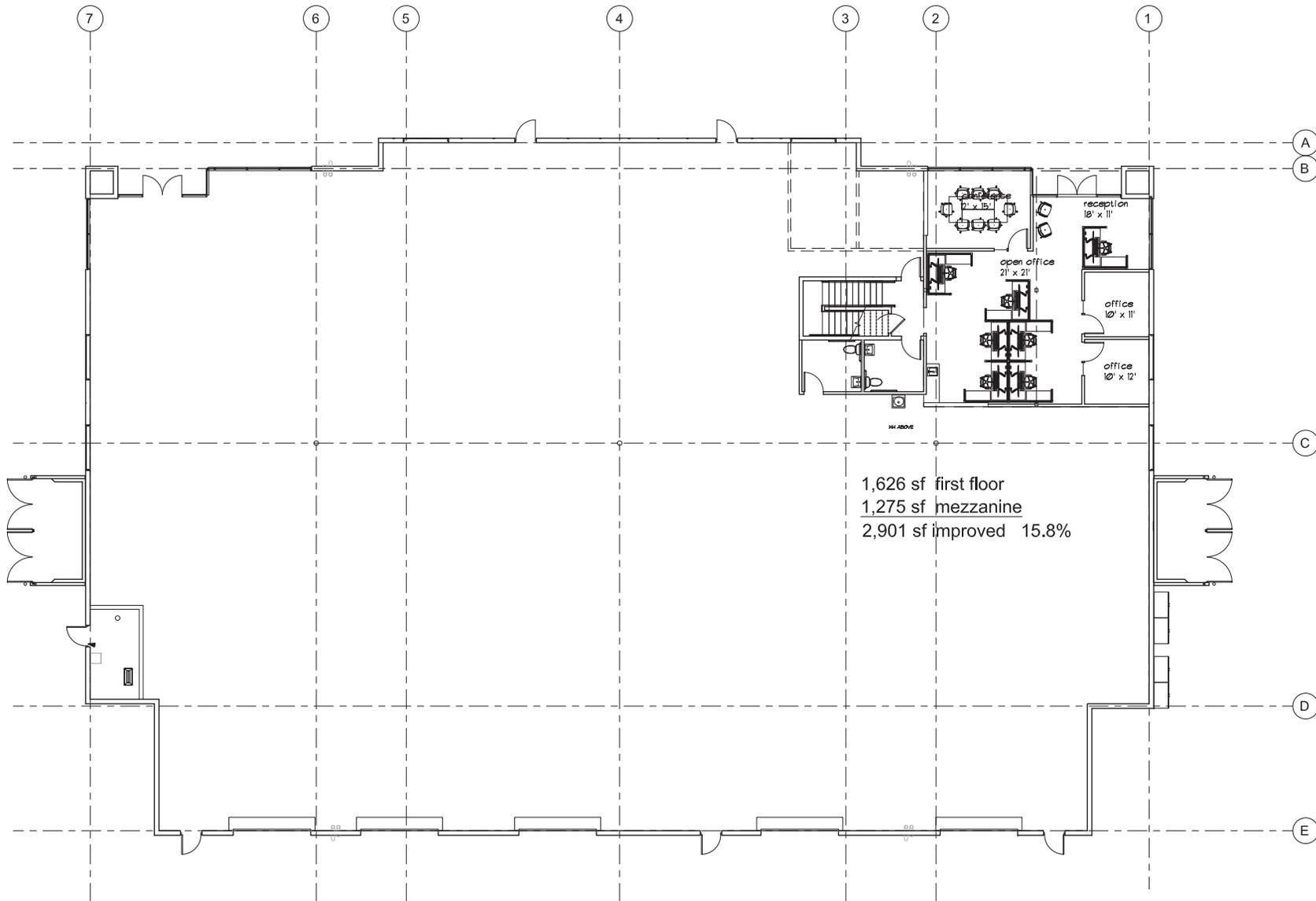


DATE:	5-20-19
JOB NO:	Project Number
DRAWN BY:	Author
CHECKED BY:	Checker

Revision Schedule		
#	Date	Description

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

DD2.1



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

FLOOR PLAN C

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

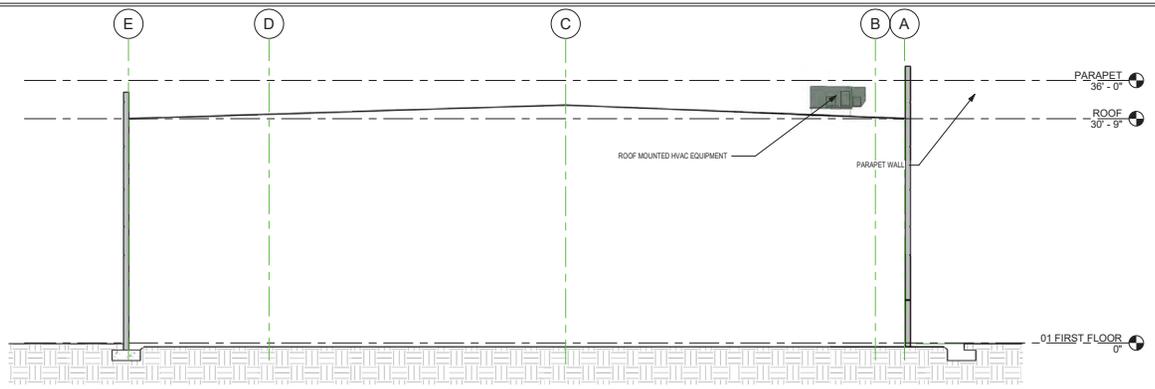


MARCH 18, 2013

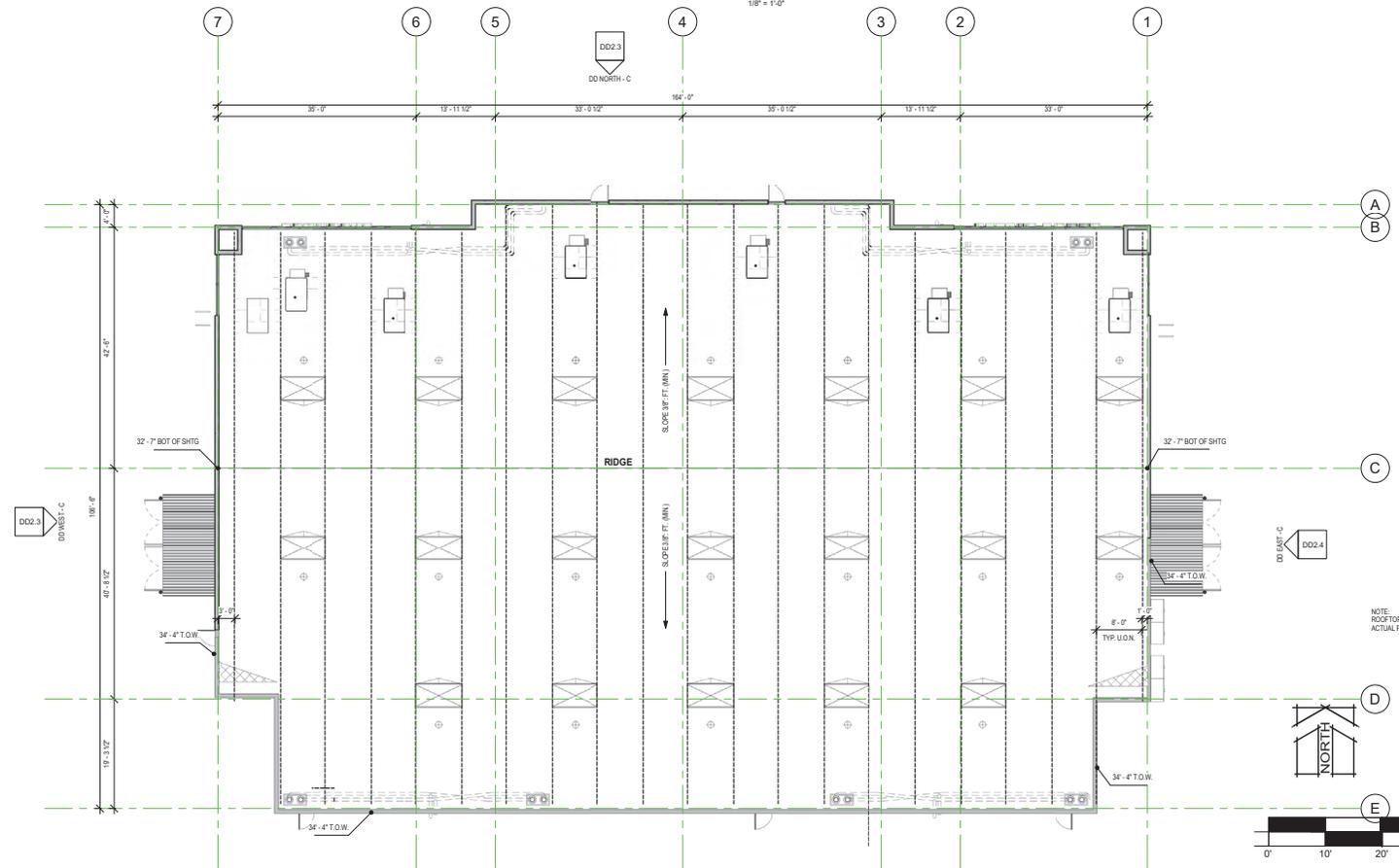
Hardt & Brier Business Park

San Bernardino

California



Section 1



ROOF PLAN

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& ASSOCIATES, INC.



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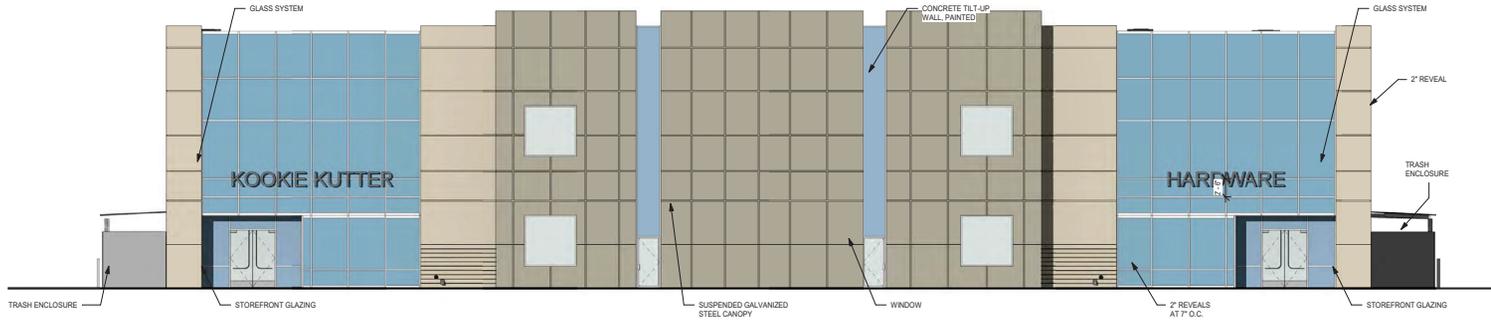
DATE: 5-20-19
JOB NO: Project Number
DRAWN BY: Author
CHECKED BY: Checker

Revision Schedule		
#	Date	Description

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

DD2.2

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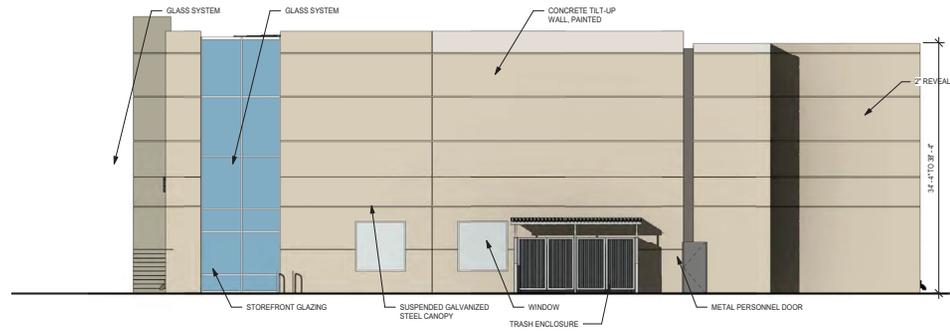
DD NORTH - C

1/8" = 1'-0"

EXTERIOR PAINT :

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

- A SW 6203 SPARE WHITE
- B SW 7667 ZIRCON
- C SW 7669 SUMMIT GRAY



DD WEST - C

1/8" = 1'-0"



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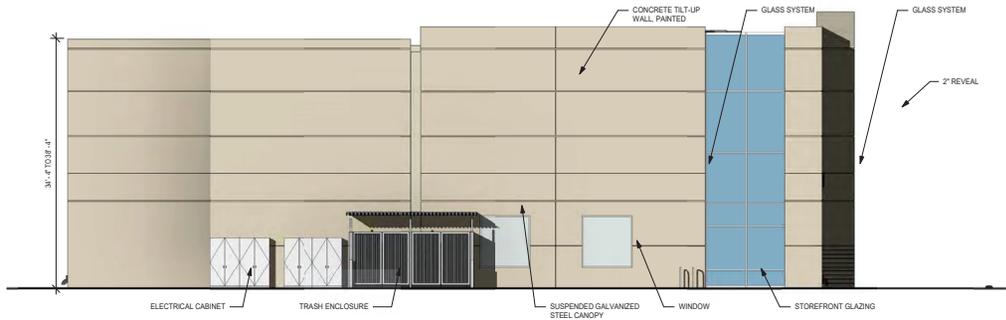


DATE: 5-20-19
JOB NO: Project Number
DRAWN BY: Author
CHECKED BY: Checker

Revision Schedule		
#	Date	Description

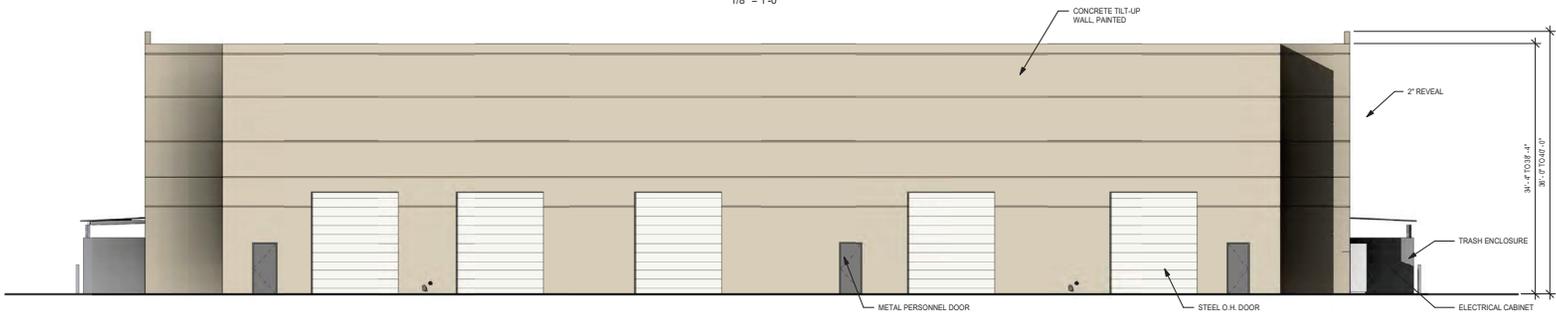
project: NEW SHELL BUILDING 'C'
Hardt & Brier Business Park
LOTS 24 & 25
SAN BERNARDINO, CA

DD2.3



DD EAST - C

1/8" = 1'-0"



DD SOUTH - C

1/8" = 1'-0"

EXTERIOR PAINT :

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

- A SW 6203 SPARE WHITE
- B SW 7667 ZIRCON
- C SW 7669 SUMMIT GRAY

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



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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 'C'**
Hardt & Brier Business Park
LOTS 24 & 25
SAN BERNARDINO, CA

DD2.4

LEGAL DESCRIPTION

PARCELS 17 OF PARCEL MAP NO. 5464
FILED IN SAN BERNARDINO COUNTY

APN: 281-311-19
ADDRESS: HARDT STREET
USE: SHELL
ZONE: TOD CR-3

SITE INFORMATION

SITE AREA: 44,241 SF 1.02 ACRES
PROPOSED BUILDING COVERAGE: 13,759 SF 31.1%
PROPOSED LANDSCAPE AREA: 10,697 SF 24.18%
PROPOSED PAVING AREA: 19,785 SF 44.72%

TYPE OF DEVELOPMENT: SHELL

PARKING TABULATION

- PARKING PROVIDED:
- 36 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 (5% OF VISITOR AUTO SPACES MIN)
 - 1 LONG TERM BICYCLE SPACE IN LOCKABLE, PERMANENTLY ANCHORED LOCKER (5% OF TENANT/EMPLOYEE AUTO SPACES MIN)



LEGAL DESCRIPTION

PARCELS 18 OF PARCEL MAP NO. 5464
FILED IN SAN BERNARDINO COUNTY

APN: 281-311-18
ADDRESS: HARDT STREET
USE: SHELL
ZONE: TOD CR-3

SITE INFORMATION

SITE AREA: 44,241 SF 1.02 ACRES
PROPOSED BUILDING COVERAGE: 13,759 SF 31.1%
PROPOSED LANDSCAPE AREA: 10,697 SF 24.18%
PROPOSED PAVING AREA: 19,785 SF 44.72%

TYPE OF DEVELOPMENT: SHELL

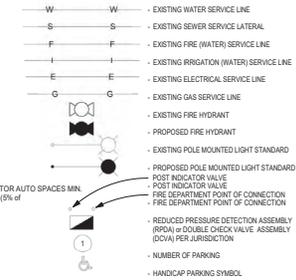
PARKING TABULATION

- PARKING PROVIDED:
- 36 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 (5% OF VISITOR AUTO SPACES MIN)
 - 1 LONG TERM BICYCLE SPACE IN LOCKABLE, PERMANENTLY ANCHORED LOCKER (5% OF TENANT/EMPLOYEE AUTO SPACES MIN)

OWNER

OAK PROPERTIES
1000 PIONEER WAY
EL CAJON, CA, 92020
Tel: (619) 440-7424
Fax: (619) 440-8914
Email: info@oakproperties.com
CONTACT: GREGG HAMANN

SITE LEGEND



ACCESSIBLE PATH OF TRAVEL

..... NEW PATH OF TRAVEL (P.O.T.) AS INDICATED IS A BARRIER-FREE ACCESS ROUTE WITHOUT ANY ABRUPT VERTICAL CHANGES EXCEEDING 1/2" BEYOND AT 12" MAXIMUM SLOPE EXCEPT THAT LEVEL CHANGES DO NOT EXCEED 1/4" VERTICAL AND BE AT LEAST 48" WIDE. SURFACE IS SLIP 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 OBSTRUCTIONS TO 80" MINIMUM (118-307.2) AND PROTRUDING OBJECTS GREATER THAN 4" PROJECTION FROM A WALL AND ABOVE 27" AND LESS THAN 80" (118-307.3).

PROJECT SCOPE

A FRESH-STAIN SPRINKLERED TILT-UP SHELL BUILDING THAT WILL BE CAPABLE OF ACCOMMODATING A VARIETY OF USES, ON APPROXIMATELY 2.10 ACRES



VICINITY MAP

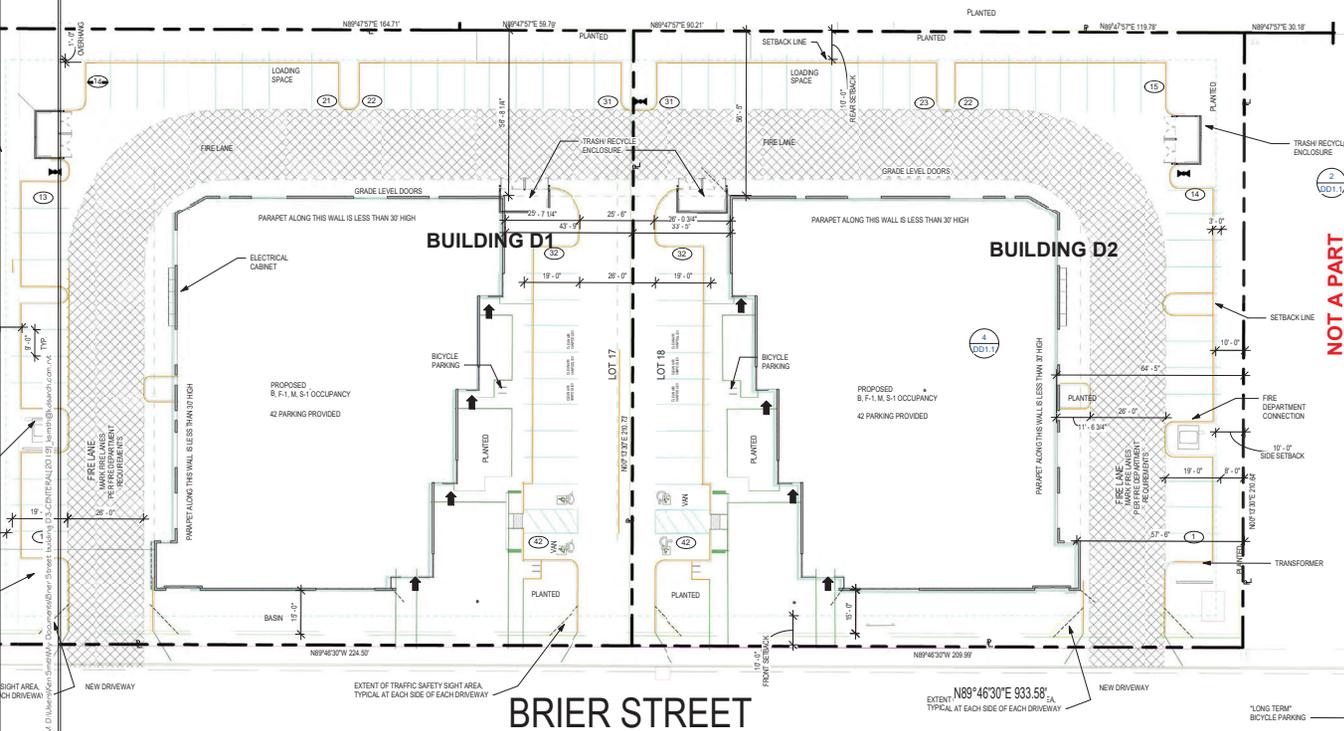
1" = 500'-0"

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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ARCHITECT
& ASSOCIATES, INC.



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

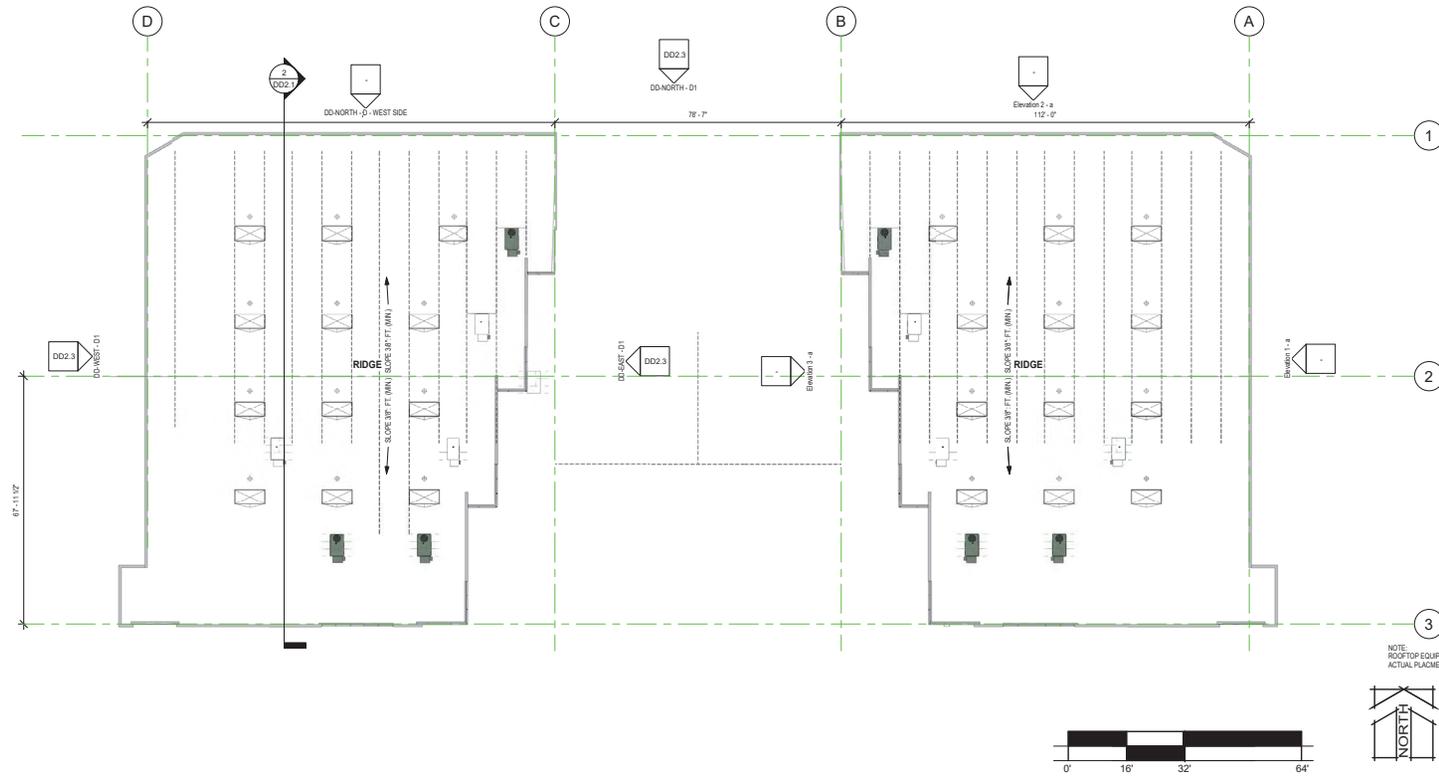
Revision Schedule

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

DD1.0

21/4/2023 11:39:09 AM C:\Users\ken.smith\My Documents\Brier Project\Building DD2-DRYER\ACAD\DD2_Roofplan\Roofplan.rvt



ROOF PLAN

1/16" = 1'-0"

NOTE: ROOF TOP EQUIPMENT SHOWN IS CONCEPTUAL. ACTUAL PLACEMENT WILL VARY.

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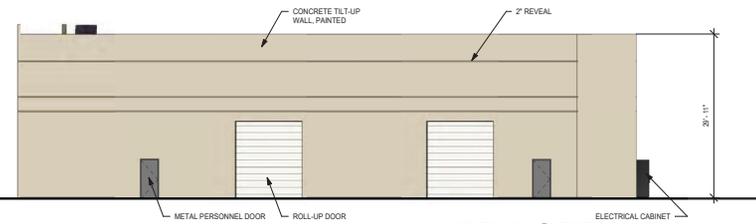
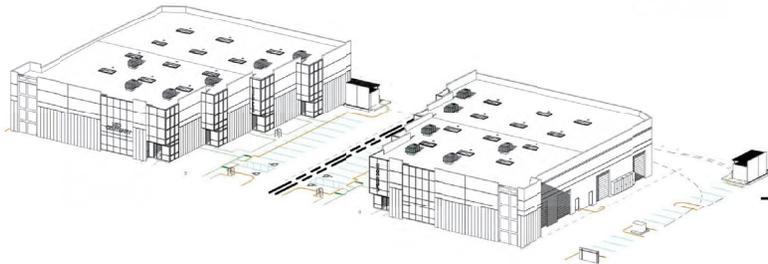


DATE: 5-20-19
 JOB NO: Project Number
 DRAWN BY: Author
 CHECKED BY: Checker

Revision Schedule		
#	Date	Description

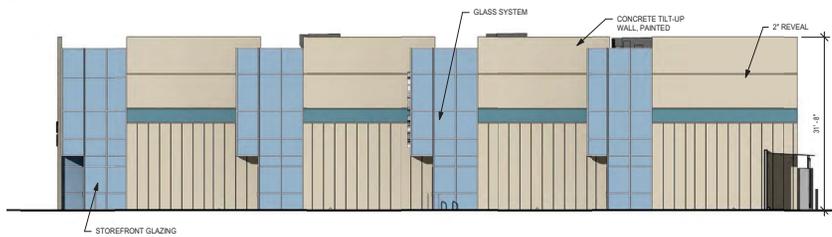
project: **NEW SHELL BUILDING 'D'**
Hardt & Brier Business Park
LOTS 17 & 18
 SAN BERNARDINO, CA

DD2.2

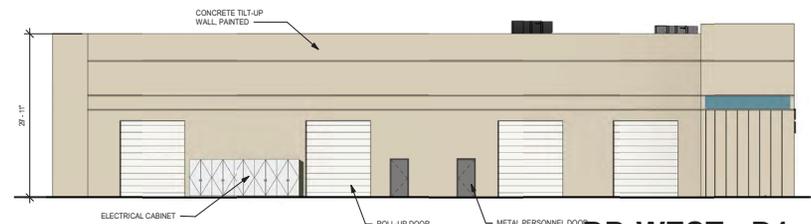


DD-NORTH - D1
3/32" = 1'-0"

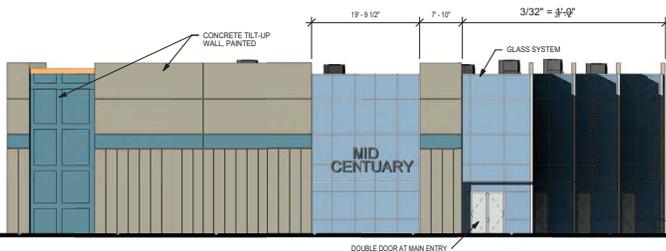
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DD2.3



DD-EAST - D1



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



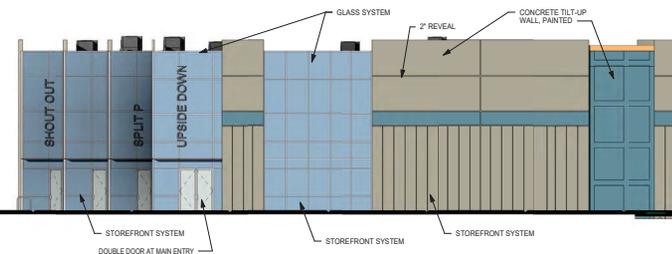
BRIER STREET ELEVATION
3/32" = 1'-0"

EXTERIOR PAINT :

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

- A SW 6203 SPARE WHITE
- B SW 7667 ZIRCON
- C SW 7669 SUMMIT GRAY

D2 ELEVATIONS ARE A FLOP OF D1



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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

DD2.3

LEGAL DESCRIPTION

PARCELS 29 & 30 OF PARCEL MAP NO. 5464
 FILED IN SAN BERNARDINO COUNTY
 APR: 0281-31-17 & 08
 ADDRESS: HARDT STREET
 USE: SHELL
 ZONE: TOD CR-3

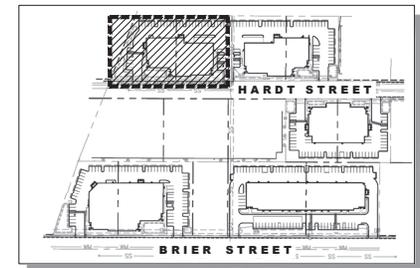
SITE INFORMATION

SITE AREA: 54,315 SF 1.25 ACRES
 PROPOSED BUILDING COVERAGE: 19,914 SF 39.4%
 PROPOSED LANDSCAPE AREA: 19,939 SF 37.67%
 PROPOSED PAVING AREA: 22,771 SF 41.92%
 TYPE OF DEVELOPMENT: SHELL

VICINITY MAP



KEY MAP



(a) Hydrozone Category	PF- Plant Factor	(b) Irrigation Method	(c) IE- Irrigation Efficiency
Very Low Water Use	0.0 - 0.1	Filler 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) $ETWU \text{ (Annual Gallons Required)} = Eto \times 0.62 \times ETAF \times Area$

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

ETo - see Appendix A in Water Efficient Land Design Manual. (ETO = 55.1)
 LA is the total landscape of all hydrozone areas in sq. ft.
 SLA is the total special landscape areas in square feet.
 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.
 ETAF is 0.42 for all areas

WATER EFFICIENT LANDSCAPE WORKSHEET

Building 'A'

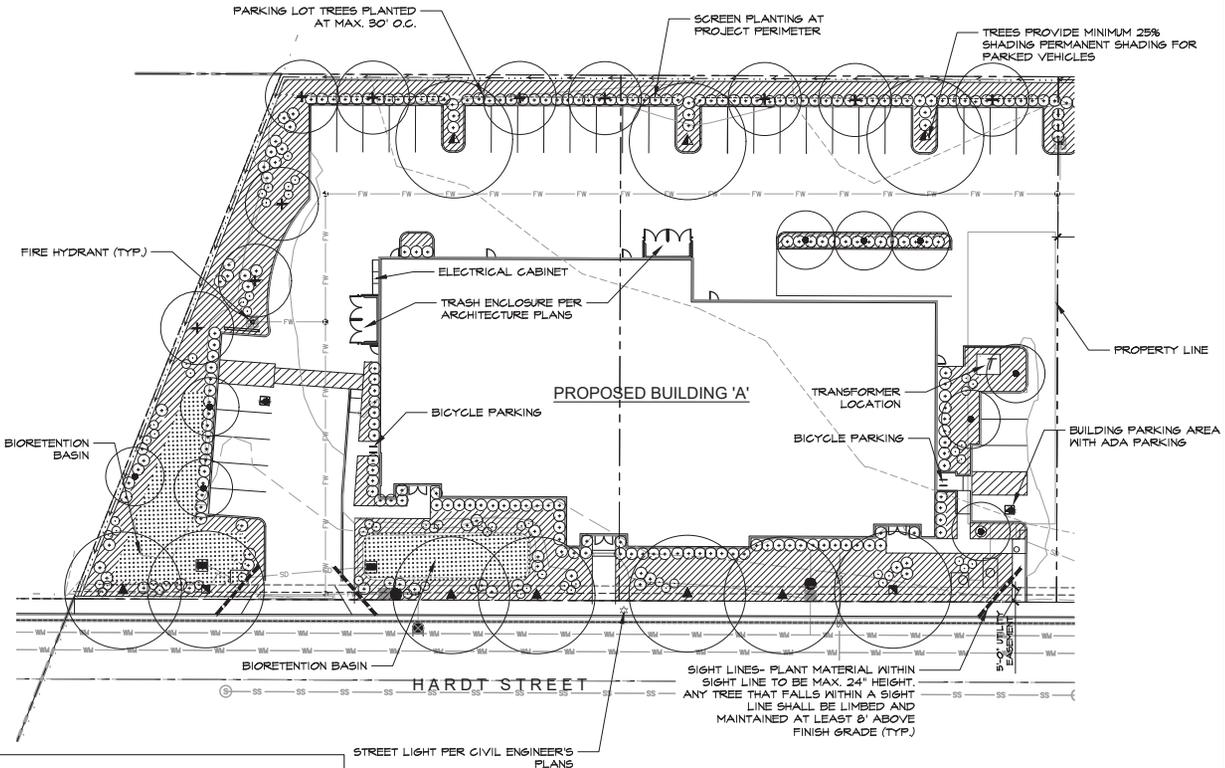
REFERENCE EVAPOTRANSPIRATION (ETo) 55.1

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

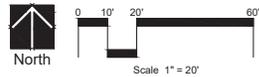
Hydrozone # / Planting Description	Plant Factor (PF)	Irrigation Method (b)	Irrigation Efficiency (IE) (c)	ETAF (PF/IE) (FF/IE)	Landscape Area in Square Feet	ETAF x Area	Estimated Total Water Use (ETWU) (d)
Regular Landscape Areas							
Trees, Shrubs, GC	0.2	Drip-sub	0.9	0.22	10,391	2,309	78,884
Trees, 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
Totals					15,030	4,198	143,399
Special Landscape Areas							
					0	0	0
					0	0	0
Estimated Total Water Use in Gallons Per Year (ETWU) Total							143,399
Maximum Annual Water Allowance in Gallons Per Year (MAWA) Total							215,651
MAWA - ETWU =							72,252
**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

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
 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

- FINAL LANDSCAPE PLANS SHALL ACCURATELY SHOW PLACEMENT OF TREES, SHRUBS AND GROUNDCOVERS.
- ALL REQUIRED LANDSCAPE AREAS, INCLUDING THE ROW, SHALL BE MAINTAINED PER CITY OF SAN BERNARDINO REQUIREMENTS.
- 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.
- 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 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.

TREES:

- STREET TREES AND OTHER TREES SHALL BE SPACED AS FOLLOWS:
 - 8' FROM TRANSFORMERS, CABLE, AND PULL BOXES
 - 5 FEET FROM MAIL BOXES
 - 5 FEET FROM FIRE HYDRANTS (ALL SIDES)
 - 10 FEET FROM CENTERLINE OF ALL UTILITY LINES (WITHOUT EASEMENT)(SEWER, WATER, STORM DRAINS, DOUBLE CHECK DETECTOR VALVES, AIR RELIEF VALVES, AND GAS)
 - 10 FEET FROM EASEMENT BOUNDARIES (SEWER, WATER, STORM DRAINS, ACCESS OR OTHER UTILITIES)
 - 10 FEET FROM DRIVEWAYS (UNLESS A LINE OF SIGHT IS DETERMINED BY THE TRAFFIC DIVISION TO BE OTHERWISE)
 - 10 FEET FROM TRAFFIC AND DIRECTIONAL SIGNS
 - 15 FEET (MINIMUM) FROM STREETLIGHTS, OTHER UTILITY POLES, (DETERMINED BY SPECIFICATIONS)
- STREET TREES SHALL BE PLANTED 3' OUTSIDE RIGHT-OF-WAY IF THE RIGHT-OF-WAY DOES NOT ALLOW SPACE, SUBJECT TO CITY ENGINEERS APPROVAL.
- LINE OF SIGHT AT ARTERIALS, COLLECTOR AND LOCAL STREETS SHALL BE REVIEWED AND DETERMINED BY THE TRAFFIC ENGINEER.
- MINIMUM FIFTEEN (15') STREETLIGHT AND STOP SIGN OR CLEARANCE DETERMINED BY SPECIFICATIONS.
- 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 24 INCHES IN DEPTH. INSTALLING A ROOT BARRIER AROUND THE TREE'S ROOT BALL IS UNACCEPTABLE.

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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 CITYWIDE 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:

- NO STRUCTURES HIGHER THAN 30" OR PLANT MATERIAL HIGHER THAN 24" AT MATURITY SHALL BE ALLOWED WITHIN THE CLEAR SIGHT AREA.
- ALL LANDSCAPED AREAS SHALL BE MAINTAINED BY THE PROJECT OWNER, INCLUDING REGULAR WATERINGS, 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 G19.28.130(5)

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"> 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: <ol style="list-style-type: none"> Periodic irrigation system repair. Seasonal adjustments to the irrigation system. Practices which foster long term landscape water conservation. 	10

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

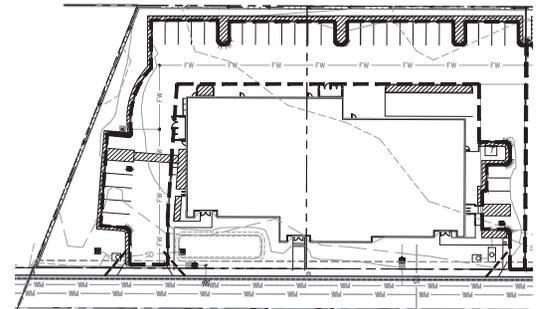
TOTAL: 75 POINTS

NOTE:

- MINIMUM TREE SIZES SHALL BE AS FOLLOWS:
 - 15% 48" BOX
 - 15% 36" BOX
 - 20% 24" BOX
 - 50% 15 GAL.
- MINIMUM SHRUB SIZES SHALL BE AS FOLLOWS:
 - 80% 5 GAL.
 - 20% 1 GAL.
- GROUNDCOVERS SHALL ACHIEVE 100% COVERAGE WITHIN 1 YEAR.

Plant Legend

SYMBOL	BOTANICAL NAME	COMMON NAME	MIN. SIZE (SEE NOTE BELOW LEFT)	MUGCLS	ZONE 4
HARDY STREET TREES:					
▲	PLATANUS ACERIFOLIA	LONDON PLANETREE	36" BOX	M	
■	QUERCUS LEX	ASH TREE	36" BOX	M	
ENTRY SPECIEMEN TREES:					
■	QUERCUS LEX	HOLLY OAK	48" BOX	L	
PARKING AND PERIMETER TREES:					
+	TRISTANIA CONFERTA	BRISBANE BOX	24" BOX	L	
▲	GELEERA PARVIFLORA	AUSTRALIAN WILLOW	24" BOX	L	
SMALL ACCENT TREES:					
●	LASERSTROEMIA MARGOSKEE'	GRAPE MYRTLE	24" BOX	L	
●	LASERSTROEMIA MARGOSKEE'	GRAPE MYRTLE	48" BOX	L	
SHRUBS:					
○	ARBUSUS COMPACTA	COMPACT STRAWBERRY TREE	5 GAL	L	
○	BACCHARIS CENTENIAL	CENTENIAL DESERT BROOM	5 GAL	L	
○	GALLIENSTROM LITTLE JOHN	LITTLE JOHN BOTTLEBRUSH	5 GAL	L	
○	HESPERALOE PARVIFLORA	RED YUCCA	5 GAL	L	
○	LIGUSTRUM TEXANUM	WAXLEAF PRIVET	5 GAL	M	
○	LLEISOCORALLUM FRUTESCENS	TEXAS RANGER	5 GAL	L	
○	PITTOSPORUM SPP.	KOHU	5 GAL	M	
○	PRODOCARPUS MACROPHYLLUS	YEM PINE	5 GAL	M	
○	SALVIA FURKANS RED	RED AUTUMN SAGE	5 GAL	L	
○	TECOMA STANS	YELLOW BELLS	5 GAL	L	
○	WESTRINGIA BLUE GEM	COASTAL ROSEMARY	5 GAL	L	
GROUNDCOVER:					
▨	LANTANA NEH GOLD	NEH GOLD LANTANA	1 GAL. # 56" O.G.	L	
▨	MULLENBERGIA CAPILLARIS	PINK HAILGRASS	1 GAL. # 56" O.G.	L	
▨	MYOPORUM PUTAH CREEK	CREEPING MYOPORUM	1 GAL. # 56" O.G.	L	
▨	ROS. HUNTINGTON CARPET	TRAILING ROSEMARY	1 GAL. # 56" O.G.	L	
BASINS:					
□	CAREX DIVULSA	GREY SEDGE	PL165 # 12" O.G.	L	
□	ELYMUS TRITIGOIDES	CREEPING RILD RYE	PL165 # 18" O.G.	L	
□	JUNCUS PATENS	COMMON RUSH	PL165 # 18" O.G.	L	



PARKING LOT CALCULATIONS:

NET AREA OF ALL SURFACE PARKING AREA: 18,183 SQFT
 LANDSCAPING WITHIN PARKING AREA: 2,890 SQFT
 TOTAL: 16%



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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 'A'
 San Bernardino Business Park
 HARDY ST TO E BRIER DR
 FOR CITY USE ONLY: FILE NO. _____ W.O. NO. _____

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

LEGAL DESCRIPTION

PARCELS 31 & 32 OF PARCEL MAP NO. 5464
FILED IN SAN BERNARDINO COUNTY
APN: 0281-311-07 & 08
ADDRESS: HARDT STREET
USE: SHELL
ZONE: TOD CR-3

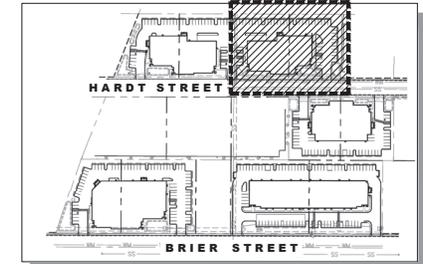
SITE INFORMATION

SITE AREA: 90,364 SF 1.30 ACRES
PROPOSED BUILDING COVERAGE: 16,300 SF 28.82 %
PROPOSED LANDSCAPE AREA: 13,356 SF 23.61 %
PROPOSED PAVING AREA: 20,308 SF 47.57 %
TYPE OF DEVELOPMENT: SHELL

VICINITY MAP



KEY MAP



(a) Hydrozone Category	PF- Plant Factor	(b) 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) $ETWU = (Annual\ Gallons\ Required) = ETo \times 0.62 \times ETAF \times Area$

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

ETo - see Appendix A in Water Efficient Land: (ETO = 55.1)

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

Design Manual: 0.62 is the conversion factor to gallons per sq. ft.

SLA is the total special landscape area in square feet.

ETAF is Plant Factor/Irrigation Efficiency.

ETAF is 0.42 for all areas

Area is the Landscaped Area for each hydrozone.

WATER EFFICIENT LANDSCAPE WORKSHEET

Building 'B'

REFERENCE EVAPOTRANSPIRATION (ETo) 55.1

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

(a) Hydrozone # / Planting Description	(b) Plant Factor (PF)	(c) Irrigation Method	(d) Irrigation Efficiency (IE)	(e) ETAF (PF/IE)	(f) Landscape Area In Square Feet	(g) ETAF x Area	(h) Estimated Total Water Use (ETWU)
Regular Landscape Areas							
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
Totals					13,356	3,636	124,202
Special Landscape Areas							
					0	0	0
Totals					0	0	0
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

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

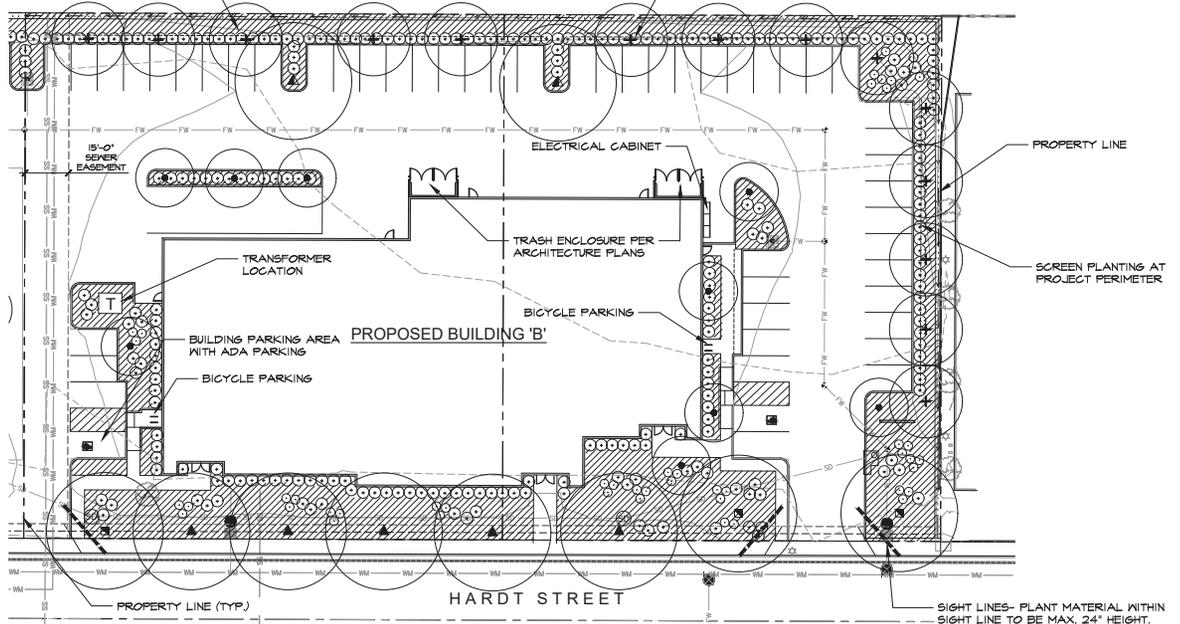
Average ETAF for Regular Landscape Areas must be 0.55 or below for residential areas and 0.45 or below for non-residential areas. Provide Totals based on information calculated in Worksheet above.

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 8' ABOVE FINISH GRADE (TYP.)

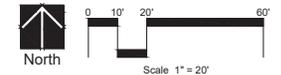
PARKING LOT TREES PLANTED AT MAX. 30' O.C.

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



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landscape architecture
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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

- FINAL LANDSCAPE PLANS SHALL ACCURATELY SHOW PLACEMENT OF TREES, SHRUBS AND GROUNDCOVERS.
- ALL REQUIRED LANDSCAPE AREAS, INCLUDING THE ROW, SHALL BE MAINTAINED PER CITY OF SAN BERNARDINO REQUIREMENTS.
- 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 MANUFACTURERS RECOMMENDED DESIGN PARAMETERS. ALL IRRIGATION IMPROVEMENTS SHALL FOLLOW THE CITY OF SAN BERNARDINO GUIDELINES AND WATER CONSERVATION ORDINANCE.
- 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 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.

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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"> Periodic irrigation system repair. Seasonal adjustments to the irrigation system. Practices which foster long term landscape water conservation. 	10

- 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.
- 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.	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

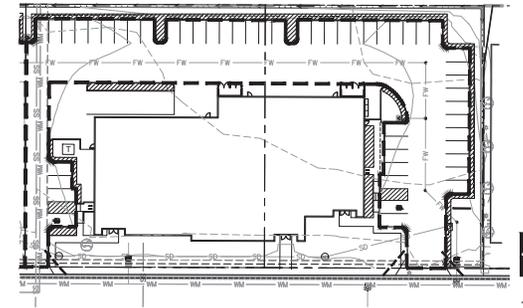
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NOTE:

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 - 20" 24" BOX
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Plant Legend

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■	QUERCUS LEX	HOLLY OAK	48" BOX	L	
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SMALL ACCENT TREES:					
●	LASERSTROEMIA MARGOLAE	GRAPE MYRTLE	24" BOX	L	
●	LASERSTROEMIA MARGOLAE	GRAPE MYRTLE	48" BOX	L	
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○	LIEBIGORHILLIA FRUTESCENS	TEXAS RANGER	5 GAL	L	
○	PITTOSPORUM SPP.	KOHU	5 GAL	M	
○	PODOCARPUS MACROPHYLLUS	YEN PINE	5 GAL	M	
○	SALVIA TURKANG RED	RED AUTUMN SAGE	5 GAL	L	
○	TECOMA STANS	YELLOW BELLS	5 GAL	L	
○	WESTRINGIA BLUE GEM	COASTAL ROSEMARY	5 GAL	L	
GROUNDCOVER:					
▨	LANTANA NEVI GOLD	NEVI GOLD LANTANA	1 GAL. @ 36" O.C.	L	
▨	MULBERRIA CAPILLARIS	PINK HILYGRASS	1 GAL. @ 36" O.C.	L	
▨	MYOPORUM PUTAH CREEK	CREEPING MYOPORUM	1 GAL. @ 36" O.C.	L	
▨	ROS. HUNTINGTON CARPET	TRAILING ROSEMARY	1 GAL. @ 36" O.C.	L	
BASINS:					
□	CAREX DIVULSA	GREY SEDGE	PL165 @ 12" O.C.	L	
□	ELYMUS TRITIGOIDES	CREEPING WILD RYE	PL165 @ 18" O.C.	L	
□	JUNCUS PATENS	COMMON RUSH	PL165 @ 18" O.C.	L	



PARKING LOT CALCULATIONS:
 NET AREA OF ALL SURFACE PARKING AREA: 21,294 SQFT
 LANDSCAPING WITHIN PARKING AREA: 3,215 SQFT
 TOTAL: 15%

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 landscape architecture
 1951 Fourth Avenue
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MARK	REVISIONS	BY	APPR.	DATE

BENCH MARK:

APPROVED _____ 2007

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

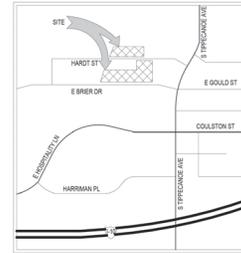
CITY OF SAN BERNARDINO
 DEVELOPMENT SERVICES-PUBLIC WORKS/ENGINEERING
 Landscape Concept Plan for:
BUILDING 'B'
 San Bernardino Business Park
 HARDY ST TO E BRIER DR
 FOR CITY USE ONLY: FILE NO. _____ W.O. NO. _____

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

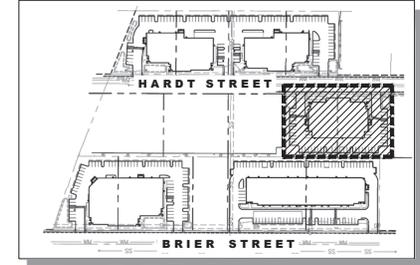
LEGAL DESCRIPTION

PARCELS 24 & 25 OF PARCEL MAP NO. 5484
FILED IN SAN BERNARDINO COUNTY
APN: 0281-311-11 & 12
ADDRESS: HARDT STREET
USE: SHELL
ZONE: TOD CR-3

VICINITY MAP



KEY MAP



SITE INFORMATION

SITE AREA: 54,041 SF 1.24 ACRES
PROPOSED BUILDING COVERAGE: 17,048 SF 31.55 %
PROPOSED LANDSCAPE AREA: 13,367 SF 24.73 %
PROPOSED PAVING AREA: 23,626 SF 43.72 %
TYPE OF DEVELOPMENT: SHELL

(a) Hydrozone Category	PF- Plant Factor	(b) 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
*Artificial turf and temporarily irrigated areas are considered Low Water Use.		Rotators	0.70
		Overhead Spray	0.60

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

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

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 'C'

REFERENCE EVAPOTRANSPIRATION (Eto) 55.1

ETWU (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 (ETWU)
Regular Landscape Areas							
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	38,053
Basin	0.2	Rotors	0.75	0.27	1,160	309	10,567
Totals						3,690	126,069
Special Landscape Areas							
					0	0	0
Totals						0	0

Estimated Total Water Use in Gallons Per Year (ETWU) Total 126,069

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

MAWA - ETWU = 65,721

MAWA (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.

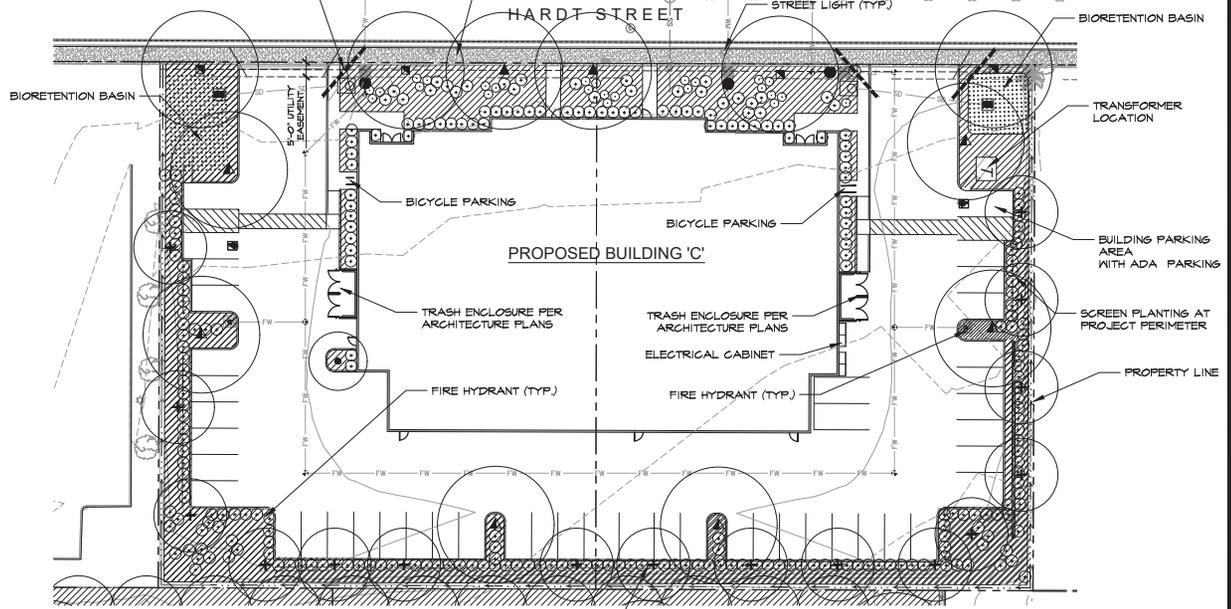
Regular Landscape Areas	Totals	All Landscape Areas	Totals
Total ETAF x Area (B) =	3,690	Total ETAF x Area (B+D) =	3,690
Total Area (A) =	13,367	Total Area (A+C) =	13,367
Average ETAF (B) ÷ (A) =	0.28	Site wide ETAF (B+D) ÷ (A+C) =	0.28

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

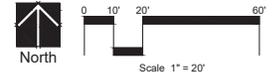
SIGHT LINES- PLANT MATERIAL WITHIN SIGHT LINE TO BE MAX. 24" HEIGHT. ANY TREE THAT FALLS WITHIN A SIGHT LINE SHALL BE LIMBED AND MAINTAINED AT LEAST 8' ABOVE FINISH GRADE (TYP.)

TREES PROVIDE MINIMUM 25% SHADING PERMANENT SHADING FOR PARKED VEHICLES



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

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

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

CITY OF SAN BERNARDINO
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Landscape Concept Plan for:
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San Bernardino Business Park
HARDT ST TO E BRIAR DR

DRAWING NO. **XXXX**
SHEET 1 OF 2 SHEETS
FOR CITY USE ONLY: FILE NO. _____ W.O. NO. _____

GENERAL NOTES

- FINAL LANDSCAPE PLANS SHALL ACCURATELY SHOW PLACEMENT OF TREES, SHRUBS AND GROUNDCOVERS.
- ALL REQUIRED LANDSCAPE AREAS, INCLUDING THE ROW, SHALL BE MAINTAINED PER CITY OF SAN BERNARDINO REQUIREMENTS.
- 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.
- 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 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.

TREES:

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

- NO STRUCTURES HIGHER THAN 30" OR PLANT MATERIAL HIGHER THAN 24" AT MATURITY SHALL BE ALLOWED WITHIN THE CLEAR SIGHT AREA.
- ALL LANDSCAPED AREAS SHALL BE MAINTAINED BY THE PROJECT OWNER, INCLUDING REGULAR WATERINGS, 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 G19.28.130(5)

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"> 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: <ol style="list-style-type: none"> Periodic irrigation system repair. Seasonal adjustments to the irrigation system. Practices which foster long term landscape water conservation. 	10

TOTAL: 80 POINTS

- 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.
- Organic soil amendments to improve water holding capacity of soil, where soil conditions merit.

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

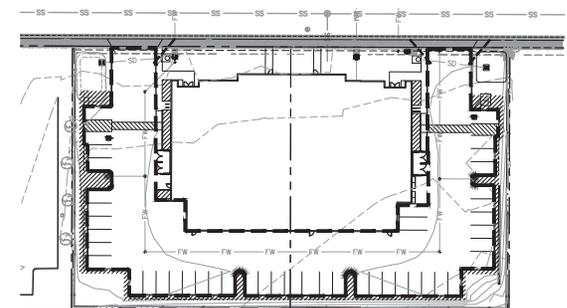
TOTAL: 75 POINTS

NOTE:

- MINIMUM TREE SIZES SHALL BE AS FOLLOWS:
 - 15" 48" BOX
 - 15" 36" BOX
 - 20" 24" BOX
 - 50% 15 GAL.
- MINIMUM SHRUB SIZES SHALL BE AS FOLLOWS:
 - 80% 5 GAL.
 - 20% 1 GAL.
- GROUNDCOVERS SHALL ACHIEVE 100% COVERAGE WITHIN 1 YEAR.

Plant Legend

SYMBOL	BOTANICAL NAME	COMMON NAME	MIN. SIZE (SEE NOTE BELOW LEFT)	MUGGLES	ZONE 4
HARDY STREET TREES:					
▲	PLATANUS ACERIFOLIA	LONDON PLANETREE	36" BOX	M	
BRIER STREET TREES:					
■	FRAXINUS SPP.	ASH TREE	36" BOX	M	
ENTRY SPECIEMEN TREES:					
■	QUERCUS LEX	HOLLY OAK	48" BOX	L	
PARKING AND PERIMETER TREES:					
+	TRISTANIA CONFERTA	BRISBANE BOX	24" BOX	L	
▲	GELEERA PARVIFLORA	AUSTRALIAN WILLOW	24" BOX	L	
SMALL ACCENT TREES:					
●	LASERSTROEMIA MARGOSKEE'	GRAPE MYRTLE	24" BOX	L	
●	LASERSTROEMIA MARGOSKEE'	GRAPE MYRTLE	48" BOX	L	
SHRUBS:					
○	ARBUSUS COMPACTA	COMPACT STRAWBERRY TREE	5 GAL	L	
○	BACCHARIS CENTENIAL	CENTENIAL DESERT BROOM	5 GAL	L	
○	GALLIUM LITTLE JOHN	LITTLE JOHN BOTTLEBRUSH	5 GAL	L	
○	HESPERALOE PARVIFLORA	RED YUCCA	5 GAL	L	
○	LIGUSTRUM TEXANUM	WAXLEAF PRIVET	5 GAL	M	
○	LIEBIGORHILLIA FRUTESCENS	TEXAS RANGER	5 GAL	L	
○	PITTOSPORUM SPP.	KOHU	5 GAL	M	
○	PODOCARPUS MACROPHYLLUS	YEN PINE	5 GAL	M	
○	SAUVIA FURCANS RED	RED AUTUMN SAGE	5 GAL	L	
○	TECOMA STANS	YELLOW BELLS	5 GAL	L	
○	WESTRINGIA BLUE GEM	COSTAL ROSEMARY	5 GAL	L	
GROUNDCOVER:					
▨	LANTANA NEW GOLD	NEW GOLD LANTANA	1 GAL. @ 36" O.C.	L	
▨	MULBERGIA CAPILLARIS	PINK MILLYGRASS	1 GAL. @ 36" O.C.	L	
▨	MYOPORUM PUTAH CREEK	CREEPING MYOPORUM	1 GAL. @ 36" O.C.	L	
▨	ROS. HUNTINGTON CARPET	TRAILING ROSEMARY	1 GAL. @ 36" O.C.	L	
BASINS:					
□	CAREX DIVULSA	GREY SEDGE	PLUGS @ 12" O.C.	L	
□	ELYMUS TRITIGOIDES	CREEPING WILD RYE	PLUGS @ 18" O.C.	L	
□	JUNCUS PATENS	COMMON RUSH	PLUGS @ 18" O.C.	L	



PARKING LOT CALCULATIONS:
 NET AREA OF ALL SURFACE PARKING AREA: 22,097 SQFT
 LANDSCAPING WITHIN PARKING AREA: 3,440 SQFT
 TOTAL 16%



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 TWO WORKING DAYS BEFORE YOU DIG

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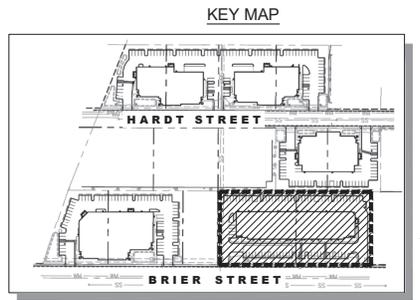
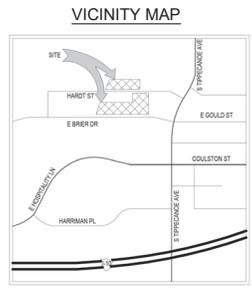
DRAWING NO. **XXXX**
 SHEET 2 OF 2 SHEETS

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

LEGAL DESCRIPTION
 PARCELS 18 & 19 OF PARCEL MAP NO. 5464
 FILED IN SAN BERNARDINO COUNTY
 APR. 28-31-18 & 19
 ADDRESS: HARDT STREET
 USE: SHELL
 ZONE: TOD CR-3

SITE INFORMATION: D1
 SITE AREA: 44,241 SF 1.02 ACRES
 PROPOSED BUILDING COVERAGE: 13,759 SF 31.1 %
 PROPOSED LANDSCAPE AREA: 10,897 SF 24.6 %
 PROPOSED PAVING AREA: 19,785 SF 44.7 %
 TYPE OF DEVELOPMENT: SHELL

SITE INFORMATION: D2
 SITE AREA: 44,241 SF 1.02 ACRES
 PROPOSED BUILDING COVERAGE: 13,759 SF 31.1 %
 PROPOSED LANDSCAPE AREA: 10,897 SF 24.6 %
 PROPOSED PAVING AREA: 19,785 SF 44.7 %
 TYPE OF DEVELOPMENT: SHELL



(B) Hydrozone Category	(F) Plant Factor	(E) Irrigation Method	(C) Irrigation Efficiency
Very Low Water Use	0.0 - 0.1	Filter Pipe for Footcrops	1.00
Low Water Use*	0.2 - 0.3	Drip/Subsurface	0.60
Moderate Water Use	0.4 - 0.6	Bubblers	0.65
High Water Use	0.7 - 1.0	Rollers	0.75
		Nozzles	0.70
Low Water Use		Overhead Spray	0.60

(d) ETWU (Annual Gallons Required) = $E_{to} \times 0.62 \times ETAF \times A$
 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
 A is the Landscape Area for each hydrozone

(e) MAWA (Annual Gallons Allowed) = $(E_{to})(0.62)(ETAF \times LA) + (I \times ETAF) \times SLA$
 LA is the total landscape area of all hydrozone areas in sq. ft.
 SLA is the total special landscape area in square feet
 ETAF = 0.42 for all areas

WATER EFFICIENT LANDSCAPE WORKSHEET Building 'D'

REFERENCE EVAPOTRANSPIRATION (E_{to}) 55.1

ETWU (Annual Gallons Required) = $E_{to} \times 0.62 \times ETAF \times A$

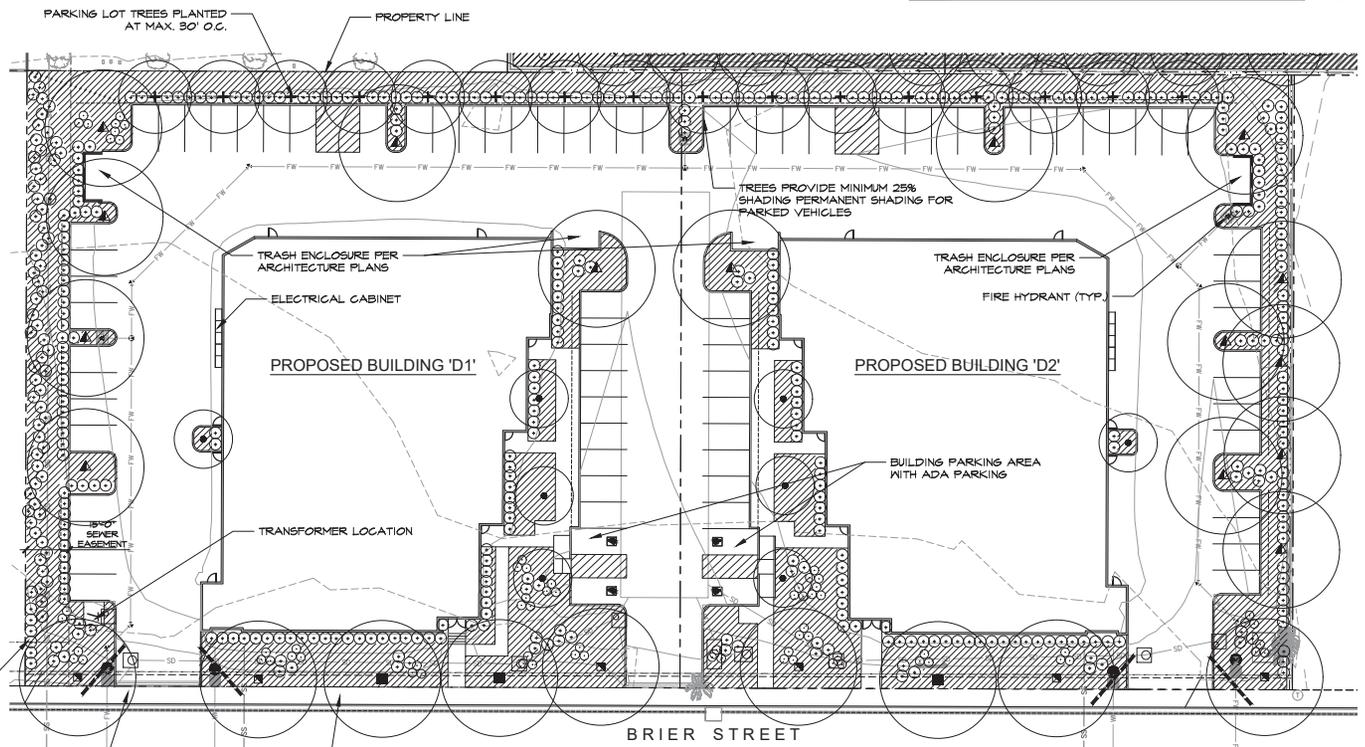
Hydrozone # / Planting Description	Plant Factor (PF)	Irrigation Method	Irrigation Efficiency (IE)	ETAF (PF/IE)	Landscape Area in Square Feet	ETAF x Area	Estimated Total Water Use (ETWU)
Regular Landscape Areas							
Trees, Shrubs, GC	0.2	Drip-sub	0.9	0.22	18,185	4,041	138,054
Trees, Shrubs, GC	0.5	Drip-sub	0.9	0.56	3,209	1,783	60,903
Totals					21,394	5,824	198,957
Special Landscape Areas							
					0	0	0
Totals					0	0	0
Estimated Total Water Use in Gallons Per Year (ETWU) Total							198,954
Maximum Annual Water Allowance in Gallons Per Year (MAWA) Total							306,962
MAWA - ETWU =							108,008
*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) =	5,824	Total ETAF x Area (B)(D) =	5,824	Total Area (A) =	21,394	Total Area (A)(C) =	21,394
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 8' ABOVE FINISH GRADE (TYP)

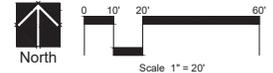
SCREEN PLANTING AT PROJECT PERIMETER

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



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 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
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BUILDING 'D'
 San Bernardino Business Park
 HARDT ST TO E BRIER DR

DRAWING NO. XXXX
 SHEET 1 OF 2 SHEETS
 W.O. NO.

GENERAL NOTES

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- 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 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.

TREES:

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

- NO STRUCTURES HIGHER THAN 30" OR PLANT MATERIAL HIGHER THAN 24" AT MATURITY SHALL BE ALLOWED WITHIN THE CLEAR SIGHT AREA.
- 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 G19.28.130(5)

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"> 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: <ol style="list-style-type: none"> Periodic irrigation system repair. Seasonal adjustments to the irrigation system. Practices which foster long term landscape water conservation. 	10

- 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.
- 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.	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

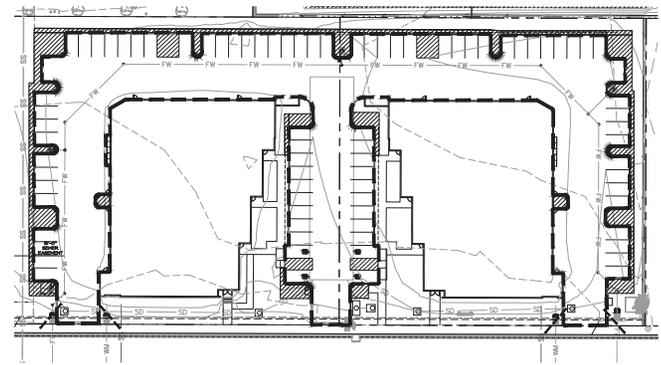
TOTAL: 75 POINTS

NOTE:

- MINIMUM TREE SIZES SHALL BE AS FOLLOWS:
 - 15" 48" BOX
 - 15" 36" BOX
 - 20" 24" BOX
 - 50" 15 GAL.
- MINIMUM SHRUB SIZES SHALL BE AS FOLLOWS:
 - 80% 5 GAL.
 - 20% 1 GAL.
- GROUNDCOVERS SHALL ACHIEVE 100% COVERAGE WITHIN 1 YEAR.

Plant Legend

SYMBOL	BOTANICAL NAME	COMMON NAME	MIN. SIZE (SEE NOTE BELOW LEFT)	MUGLS	ZONE 4
HARDY STREET TREES:					
▲	PLATANUS ACERIFOLIA	LONDON PLANETREE	36" BOX	M	
BRIER STREET TREES:					
■	FRAXINUS SPP.	ASH TREE	36" BOX	M	
ENTRY SPECIEMEN TREES:					
■	QUERCUS LEX	HOLLY OAK	48" BOX	L	
PARKING AND PERIMETER TREES:					
+	TRISTANIA CONFERTA	BRISBANE BOX	24" BOX	L	
▲	GELEERA PARVIFLORA	AUSTRALIAN WILLOW	24" BOX	L	
SMALL ACCENT TREES:					
●	LASERSTROEMIA MARGOSKEE'	GRAPE MYRTLE	24" BOX	L	
●	LASERSTROEMIA MARGOSKEE'	GRAPE MYRTLE	48" BOX	L	
SHRUBS:					
○	ARBUSUS COMPACTA	COMPACT STRAWBERRY TREE	5 GAL	L	
○	BACCHARIS CENTENNIAL	CENTENNIAL DESERT BRODM	5 GAL	L	
○	GALLISTEMUM LITTLE JOHN	LITTLE JOHN BOTTLEBRUSH	5 GAL	L	
○	HESPERALOE PARVIFLORA	RED YUCCA	5 GAL	L	
○	LIGUSTRUM TEXANUM	WAXLEAF PRIVET	5 GAL	M	
○	LLEUCORHILLUM FRUTESCENS	TEXAS RANGER	5 GAL	L	
○	PITTOSPORUM SPP.	KOHU	5 GAL	M	
○	PODOCARPUS MACROPHYLLUS	YEN PINE	5 GAL	M	
○	SALVIA FURKANS RED	RED AUTUMN SAGE	5 GAL	L	
○	TECOMA STANS	YELLOW BELLS	5 GAL	L	
○	WESTRINGIA BLUE GEM	COASTAL ROSEMARY	5 GAL	L	
GROUNDCOVER:					
▨	LANTANA NEH GOLD	NEH GOLD LANTANA	1 GAL. @ 36" O.C.	L	
▨	MULLENBERGIA CAPILLARIS	PINK HAILYGRASS	1 GAL. @ 36" O.C.	L	
▨	MYOPORUM PUTAH CREEK	CREEPING MYOPORUM	1 GAL. @ 36" O.C.	L	
▨	ROS. HUNTINGTON CARPET	TRAILING ROSEMARY	1 GAL. @ 36" O.C.	L	
BASINS:					
□	CAREX DIVULSA	GREY SEDGE	PLUGS @ 12" O.C.	L	
□	ELYMUS TRITIGOIDES	CREEPING WILD RYE	PLUGS @ 18" O.C.	L	
□	JUNCUS PATENS	COMMON RUSH	PLUGS @ 18" O.C.	L	



PARKING LOT CALCULATIONS:
 NET AREA OF ALL SURFACE PARKING AREA: 38,467 SQFT
 LANDSCAPING WITHIN PARKING AREA: 5,801 SQFT
 TOTAL: 15%



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HOWARD ASSOCIATES
 landscape architecture
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 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
 FOR CITY USE ONLY: FILE NO. _____ W.O. NO. _____

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