



To: MacArthur Park Place LLC
100 Independence Drive
Suite 11
Hyannis, MA 02601

Date: July 17, 2025

Memorandum

Project #: 16737.00

From: Randall Hart, Principal

Re: Proposed Commercial Redevelopment
Assessment – Major Modification

Introduction

On behalf of the Proponent, Vanasse Hangen Brustlin, Inc. (VHB) has prepared a preliminary assessment of the proposed redevelopment at 340 MacArthur Blvd in Bourne, Massachusetts. The site was formerly occupied by Adventure Isle, an indoor and outdoor Amusement Park, located on an approximately 7.9-acre site. In 2003, the Cape Cod Commission issued DRI approval allowing for the construction on an approximately 24,000 square foot building to relocate and expand the amusement park use, and to reconfigure the outdoor amusement uses. As part of the 2003 DRI decision, substantial payments were made as mitigation for the trips generated to and from the site. The amusement park has been closed since approximately 2007, and since then, the site was generally used for storage. The current redevelopment proposal includes reusing the existing structure (approximately 24,000 sf) for a small countertop tenant, which will provide a small retail area (approximately 4,600 sf), and the remaining area would be used for manufacturing countertops. In addition, there is an area in the rear of the site (approximately 102,500 sf), formerly occupied by the amusement park outdoor uses, which is intended to be used as bulk storage. This would include a combination of storage racks for granite/marble slabs and also space for container storage. It is anticipated that approximately 50 container units would be stored on site. This preliminary memorandum, submitted in connection with the Proponent's request for a Major Modification of the 2003 DRI Decision for the proposed redevelopment, is focused on the change in potential traffic generation, comparing the proposed redevelopment with the approved and mitigated traffic generation associated with the former Amusement Park use.

Trip Generation

The rate at which any development generates traffic is dependent upon several factors such as size, location, and the types of uses proposed. The current redevelopment proposal includes reusing the existing structure (approximately 24,000 sf) for a small countertop tenant, which will provide a small retail area (approximately 4,600 sf), and the remaining area would be used for manufacturing countertops. In addition, there is an area in the rear of the site (approximately 102,500 sf), formerly used for outdoor amusement uses, which is intended to be used as bulk storage. This would include a combination of storage racks for granite/marble slabs and also space for container storage. It is anticipated that approximately 50 container units would be stored on site.

Trip generation estimates for the redevelopment project were projected using trip generation rates published by the Institute of Transportation Engineers (ITE) *Trip Generation, 11th Edition*.¹ The number of vehicle-trips generated by the retail/manufacturing/bulk storage were estimated based on ITE Land Use Code (LUC) 822 Strip Retail, (LUC) 140 Manufacturing, and (LUC) 150 Warehouse. While there is no ITE land use code that is an exact fit for the proposed use,

¹ Trip Generation, 11th Edition, Institute of Transportation Engineers, Washington D.C., 2021.

the land use codes used for this assessment should provide a reasonable, and likely conservative, estimate of potential future traffic. The estimated trip generation for the redevelopment is demonstrated in Table 1.

Table 1 Trip Generation Summary

	Retail Development Vehicle Trips ^a	Manufacturing Development Vehicle Trips ^b	Warehouse Development Vehicle Trips ^c	Total
Weekday Morning Peak Hour				
Enter	18	29	26	73
<u>Exit</u>	<u>18</u>	<u>11</u>	<u>14</u>	<u>43</u>
Total	36	40	40	116
Weekday Evening Peak Hour				
Enter	34	14	9	57
<u>Exit</u>	<u>29</u>	<u>20</u>	<u>27</u>	<u>76</u>
Total	63	34	36	133
Saturday Midday Peak Hour				
Enter	16	2	3	21
<u>Exit</u>	<u>15</u>	<u>2</u>	<u>2</u>	<u>19</u>
Total	31	4	5	40

- a Trip Generation estimate based ITE LUC 822 (strip retail) for increase from 4,600 sf.
b Trip Generation estimate based ITE LUC 140 (manufacturing) for 19,700 sf.
c Trip Generation estimate based ITE LUC 150 (warehouse) for increase from 72,704 sf.

As shown in Table 1, the redevelopment is expected to generate approximately 116trips (73 entering/43 exiting) during the weekday morning peak hour, 133 trips (57 entering/ 76 exiting) during the evening peak hour, and 40 trips (21entering/ 19 exiting) during the Saturday midday peak hour. This should be considered a conservative estimate of redevelopment traffic generation as strip retail and warehousing were used to estimate traffic generation for the countertop and likely overstates potential future traffic.

VHB has reviewed the Traffic Impact Assessment for Proposed Adventure Isle Renovations, prepared by Vanasse & Associated, Inc dated October 2002. The TIA was prepared to assess the traffic impacts of a renovation that included consolidation of activities on site to include the addition of a roller rink and ancillary uses such as snack bar, video game room and function rooms (for birthday parties, etc). As demonstrated in Figure 7 (Site Generated Traffic), the site was estimated to generate approximately 207 trips during the weekday evening peak hour, and approximately 237 trips during the Saturday midday peak hour. The TIA did not look at the weekday morning peak hour. And, as part of the 2003 DRI decision, financial mitigation has been paid to off-set this traffic generation at this site. As demonstrated in Table 1 above, the proposed redevelopment will result in less traffic during the peak hours than what was previously approved at the site, with 74 fewer vehicle trips during the weekday evening peak hour and 197 fewer trips during the weekday evening peak hour period.

Site Access

MacArthur Blvd is a separated 4-lane roadway in the vicinity of the site with northbound and southbound lanes separated by a heavily landscaped median. The site is currently accessed by a right-in-right-out driveway to southbound lanes of MacArthur Blvd via a deceleration/acceleration lane. There is currently a separate deceleration/acceleration lane that departs the MacArthur Blvd three hundred feet to the north of the site driveway and reconnects to MacArthur Blvd approximately 1,000 feet to the south. The deceleration/acceleration lane provides access to the site, Clay Pond Road and several businesses in this area. Under the proposed redevelopment plan access will remain unchanged. The deceleration/acceleration lane will also enable safe ingress/egress for larger vehicles accessing the property, including trucks.



Attachments

- › Trip Generation Worksheets
- › TIA for 340 MacArthur Blvd
- › Redevelopment Site Plan

ITE TRIP GENERATION WORKSHEET

(11th Edition, Updated 2021)

LANDUSE: Manufacturing
LANDUSE CODE: 140
LOCATION: General Urban / Suburban
JOB NAME:
JOB NUMBER:

Independent Variable --- 1,000 Sq. Feet Gross Floor Area

FLOOR AREA (KSF): 19.7

WEEKDAY

RATES:

	# Studies	R^2	Total Trip Ends			Independent Variable Range			Directional Distribution	
			Average	Low	High	Average	Low	High	Enter	Exit
DAILY	53	0.68	4.75	0.83	49.50	208	1	2,022	50%	50%
AM PEAK OF GENERATOR	62	0.79	0.80	0.17	11.93	178	1	2,022	73%	27%
PM PEAK OF GENERATOR	62	0.76	0.80	0.15	11.37	180	1	2,022	42%	58%
AM PEAK (ADJACENT ST)	48	0.62	0.68	0.01	11.93	138	1	1,065	76%	24%
PM PEAK (ADJACENT ST)	55	0.64	0.74	0.07	11.37	142	1	1,100	31%	69%

TRIPS:

	BY AVERAGE			BY REGRESSION		
	Total	Enter	Exit	Total	Enter	Exit
DAILY	94	47	47	276	138	138
AM PEAK OF GENERATOR	16	12	4	40	29	11
PM PEAK OF GENERATOR	16	7	9	34	14	20
AM PEAK (ADJACENT ST)	13	10	3	22	16	5
PM PEAK (ADJACENT ST)	15	5	10	0	0	0

SATURDAY

RATES:

	# Studies	R^2	Total Trip Ends			Independent Variable Range			Directional Distribution	
			Average	Low	High	Average	Low	High	Enter	Exit
DAILY	5	--	1.49	0.70	6.42	385	106	611	50%	50%
PEAK OF GENERATOR	5	--	0.18	0.08	0.94	385	106	611	52%	48%

Distribution Not Available

TRIPS:

	BY AVERAGE			BY REGRESSION		
	Total	Enter	Exit	Total	Enter	Exit
DAILY	29	15	15	--	--	--
PEAK OF GENERATOR	4	2	2	--	--	--

SUNDAY

RATES:

	# Studies	R^2	Total Trip Ends			Independent Variable Range			Directional Distribution	
			Average	Low	High	Average	Low	High	Enter	Exit
DAILY	5	--	0.99	0.52	5.09	385	106	611	50%	50%
PEAK OF GENERATOR	5	--	0.15	0.07	0.75	385	106	611	50%	50%

Distribution Not Available

TRIPS:

	BY AVERAGE			BY REGRESSION		
	Total	Enter	Exit	Total	Enter	Exit
DAILY	20	10	10	--	--	--
PEAK OF GENERATOR	3	1	1	--	--	--

ITE TRIP GENERATION WORKSHEET
(11th Edition, Updated 2021)

LANDUSE: Strip Retail Plaza (<40k)
LANDUSE CODE: 822
SETTING/LOCATION: General Urban/Suburban
JOB NAME:
JOB NUMBER:

Independent Variable ---

FLOOR AREA (KSF): 4.700

WEEKDAY

RATES:	# Studies	R^2	Total Trip Ends			Independent Variable Range			Directional Distribution	
			Average	Low	High	Average	Low	High	Enter	Exit
DAILY	4	0.96	54.45	47.86	65.07	19	9	35	50%	50%
AM PEAK OF GENERATOR	6	--	7.60	2.40	21.30	16	8	24	50%	50%
PM PEAK OF GENERATOR	5	--	13.24	6.27	24.11	16	8	24	54%	46%
AM PEAK (ADJACENT ST)	5	0.57	2.36	1.60	3.73	18	9	35	60%	40%
PM PEAK (ADJACENT ST)	25	0.56	6.59	2.81	15.20	21	3	39	50%	50%

TRIPS:

	BY AVERAGE			BY REGRESSION		
	Total	Enter	Exit	Total	Enter	Exit
DAILY	256	128	128	430	215	215
AM PEAK OF GENERATOR	36	18	18	--	--	--
PM PEAK OF GENERATOR	62	34	29	--	--	--
AM PEAK (ADJACENT ST)	11	7	4	17	10	7
PM PEAK (ADJACENT ST)	32	16	16	46	23	23

SATURDAY

RATES:	# Studies	R^2	Total Trip Ends			Independent Variable Range			Directional Distribution	
			Average	Low	High	Average	Low	High	Enter	Exit
DAILY	--	--	--	--	--	--	--	--	--	--
PEAK OF GENERATOR	12	--	6.57	1.88	14.23	27	8	39	51%	49%

TRIPS:

	BY AVERAGE			BY REGRESSION		
	Total	Enter	Exit	Total	Enter	Exit
DAILY	--	--	--	--	--	--
PEAK OF GENERATOR	31	16	15	--	--	--

SUNDAY

RATES:	# Studies	R^2	Total Trip Ends			Independent Variable Range			Directional Distribution	
			Average	Low	High	Average	Low	High	Enter	Exit
DAILY	--	--	--	--	--	--	--	--	--	--
PEAK OF GENERATOR	--	--	--	--	--	--	--	--	--	--

TRIPS:

	BY AVERAGE			BY REGRESSION		
	Total	Enter	Exit	Total	Enter	Exit
DAILY	--	--	--	--	--	--
PEAK OF GENERATOR	--	--	--	--	--	--

ITE TRIP GENERATION WORKSHEET

(11th Edition, Updated 2021)

LANDUSE: Warehousing
 LANDUSE CODE: 150
 LOCATION: General Urban / Suburban
 JOB NAME:
 JOB NUMBER:

Independent Variable --- 1,000 Sq. Feet Gross Floor Area

FLOOR AREA (KSF): 102.5

WEEKDAY

RATES:		# Studies	R^2	Total Trip Ends			Independent Variable Range			Directional Distribution	
				Average	Low	High	Average	Low	High	Enter	Exit
	DAILY	31	0.92	1.71	0.15	16.93	292	4	3,300	50%	50%
	AM PEAK OF GENERATOR	25	0.85	0.21	0.02	2.08	284	4	3,300	66%	34%
	PM PEAK OF GENERATOR	27	0.90	0.23	0.02	1.80	284	4	3,300	24%	76%
	AM PEAK (ADJACENT ST)	36	0.69	0.17	0.02	1.93	448	4	3,300	77%	23%
	PM PEAK (ADJACENT ST)	49	0.65	0.18	0.01	1.80	400	4	3,300	28%	72%

TRIPS:

	BY AVERAGE			BY REGRESSION		
	Total	Enter	Exit	Total	Enter	Exit
DAILY	175	88	88	200	100	100
AM PEAK OF GENERATOR	22	14	7	40	26	14
PM PEAK OF GENERATOR	24	6	18	36	9	27
AM PEAK (ADJACENT ST)	17	13	4	36	28	8
PM PEAK (ADJACENT ST)	18	5	13	39	11	28

SATURDAY

RATES:		# Studies	R^2	Total Trip Ends			Independent Variable Range			Directional Distribution	
				Average	Low	High	Average	Low	High	Enter	Exit
	DAILY	3	--	0.15	0.01	1.58	226	56	420	50%	50%
	PEAK OF GENERATOR	2	--	0.05	0.01	0.22	129	56	201	64%	36%

TRIPS:

	BY AVERAGE			BY REGRESSION		
	Total	Enter	Exit	Total	Enter	Exit
DAILY	15	8	8	N/A	N/A	N/A
PEAK OF GENERATOR	5	3	2	N/A	N/A	N/A

SUNDAY

RATES:		# Studies	R^2	Total Trip Ends			Independent Variable Range			Directional Distribution	
				Average	Low	High	Average	Low	High	Enter	Exit
	DAILY	3	--	0.06	0.03	0.32	226	56	420	50%	50%
	PEAK OF GENERATOR	2	--	0.04	0.02	0.11	129	56	201	52%	48%

TRIPS:

	BY AVERAGE			BY REGRESSION		
	Total	Enter	Exit	Total	Enter	Exit
DAILY	6	3	3	N/A	N/A	N/A
PEAK OF GENERATOR	4	2	2	N/A	N/A	N/A

TRAFFIC IMPACT AND ACCESS STUDY

PROPOSED ADVENTURE ISLE RENOVATION BOURNE, MASSACHUSETTS

Prepared for:

Adventure Isle
Bourne, Massachusetts

October 2002

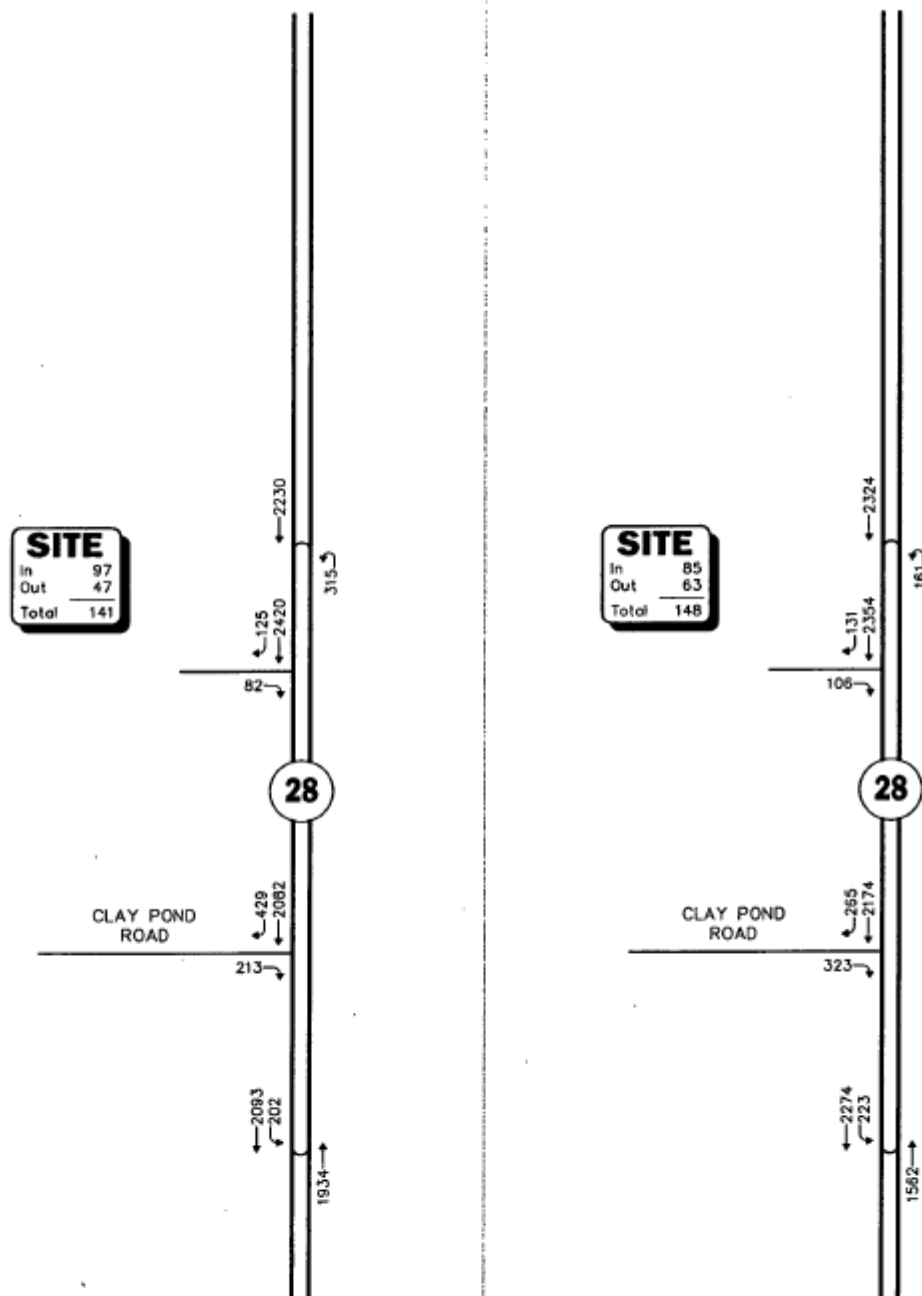
Prepared by:

VANASSE & ASSOCIATES, INC.
10 New England Business Center Drive
Suite 314
Andover, MA 01810

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WEEKDAY EVENING PEAK HOUR

SATURDAY MIDDAY PEAK HOUR



Note: Imbalances exist due to curb cuts and side streets that are not shown.

Not To Scale

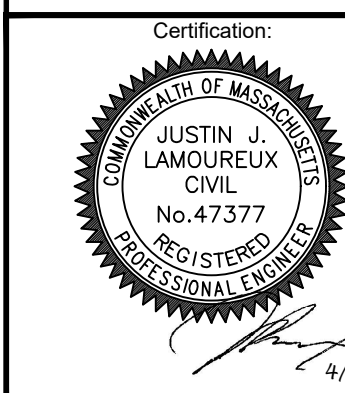
Figure 7

Revisions				
REV.	DATE	BY	CHECK	DESCRIPTION
Δ				
Δ				
Δ				
Δ				
Δ				

PROJECT:
#340 MACARTHUR BOULEVARD
BOURNE, MA 02532

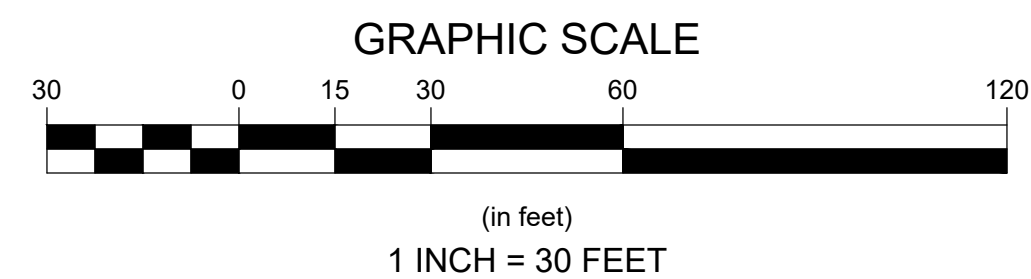
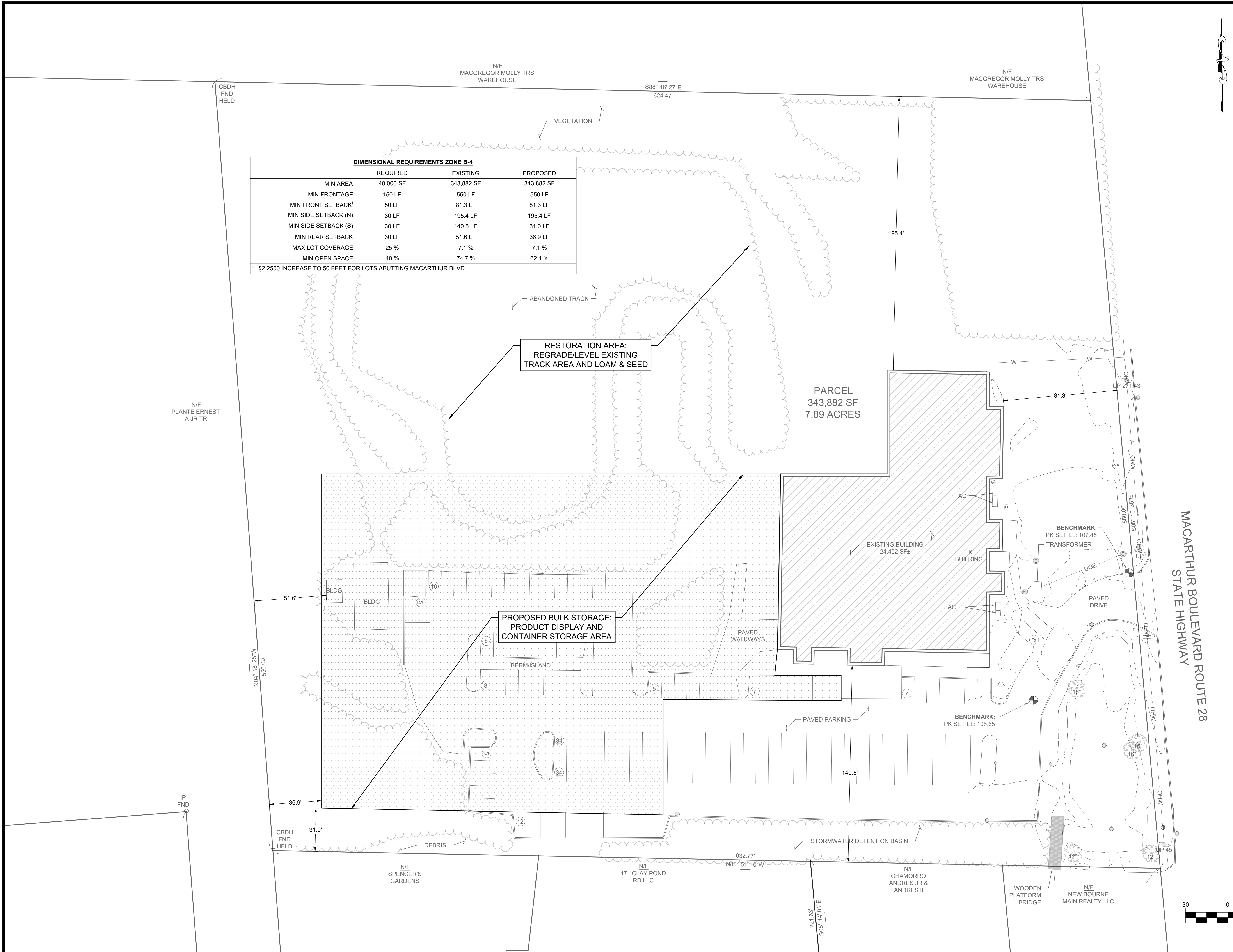
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PROPOSED PROPERTY USE PLAN

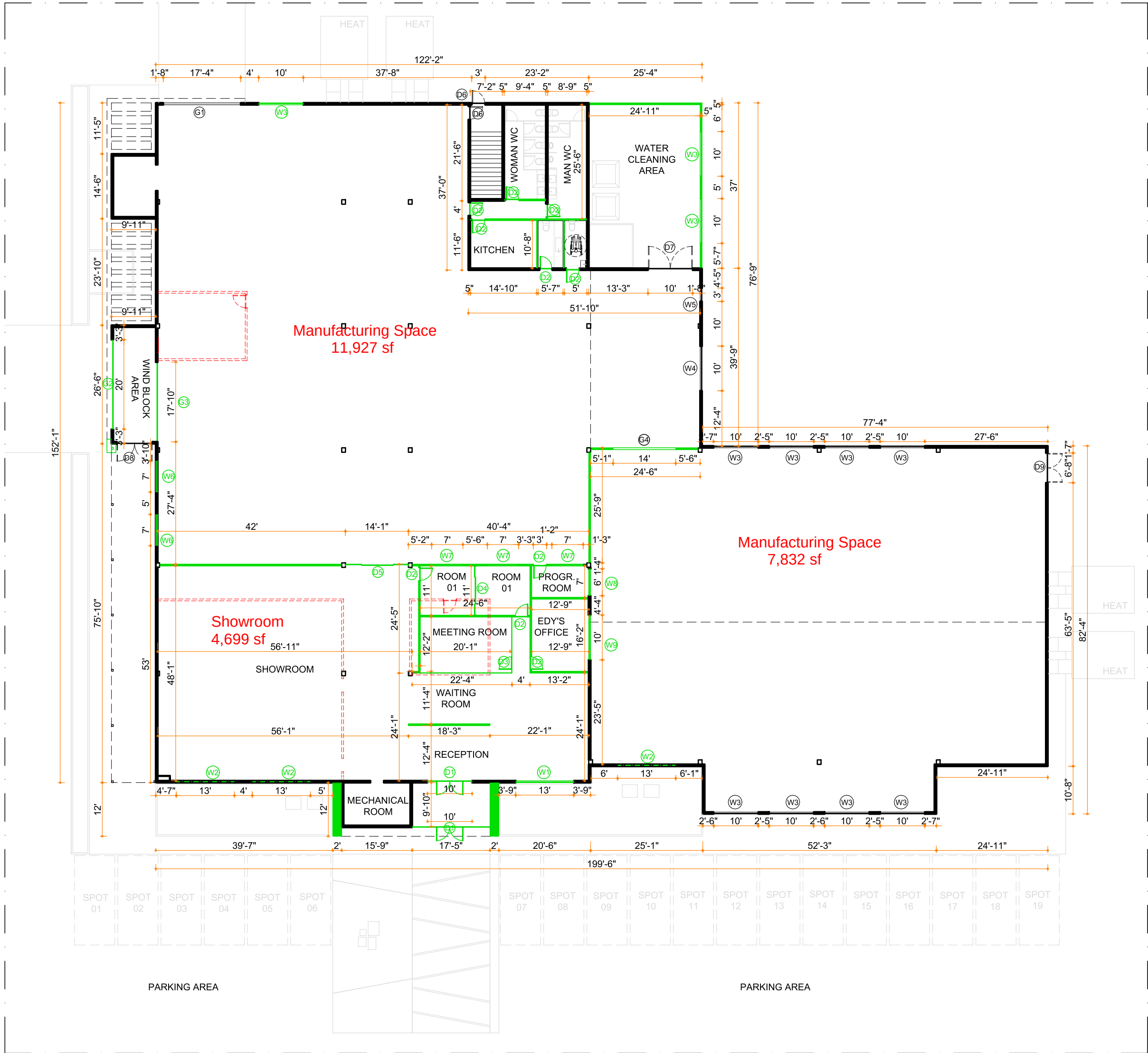
PREPARED FOR:
MACARTHUR PARK PLACE LLC
270 COMMUNICATION WAY, UNIT 7-B
HYANNIS, MA 03+02



Project Number:	Sheet :
24188	2 of 2
Sheet Number:	
C - 1	
Date:	
APRIL 4, 2025	

- REFERENCE MAPS:
1. PLAN BOOK / PAGE: 169 / 43, 198 / 35, 257 / 59, 263 / 49, 317 / 7, 433 / 60, 441 / 1, 450 / 3
- GENERAL NOTES:
1. COPYRIGHT, STRONG TREE ENGINEERING 2025, ALL RIGHTS RESERVED
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3. THE CERTIFICATIONS HEREON ARE NOT TRANSFERABLE.
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6. PARCEL IS NOT WITHIN A FEMA FLOOD ZONE.
7. ELEVATIONS DEPICTED HEREON ARE BASED ON NAVD88 DATUM.





LAYOUT PLAN - CONSTRUCTION AND DEMOLISH
GLOBAL DESIGN GROUP - SHOWROOM CAPE
SCALE 1/8"=1'0"

LEGEND	
	NEW
	EXISTENT
	DEMOLISH

DOORS SCHEDULE					
LEGEND	STATUS	WIDTH	HEIGHT	UNITS	DESCRIPTION
D1	NEW	10' ft.	12' ft.	2	Opening door in glass and black metal structure. Two opening parts and two fixed parts. Handle to be defined. See details of frames.
D2	NEW	3' ft.	8' ft.	10	Light beige mdf opening door. Handle to be defined. See details of frames.
D3	NEW	3' ft.	8' ft.	1	Opening door in glass and metal structure in light beige color. Handle to be defined. See details of frames.
D4	NEW	11' ft.	8' ft.	1	Sliding door in glass and metal structure in light beige color. Handle to be defined. See details of frames.
D5	NEW	14' ft.	12' ft.	1	Sliding door in glass and metal structure in black color. Handle to be defined. See details of frames.
D6	EXISTENT				
D7	EXISTENT				
D8	EXISTENT				
D9	EXISTENT				

WINDOWS SCHEDULE						
LEGEND	STATUS	WIDTH	HEIGHT	WINDOW SILL	UNITS	DESCRIPTION
W1	NEW	13' ft.	8'6" ft.	3' ft.	1	Window with fixed glass and structure in black color to be defined, following the pattern of the facade. See details of frames.
W2	NEW	13' ft.	3'6" ft.	8' ft.	3	Window with fixed glass and structure in black color to be defined, following the pattern of the facade. See details of frames.
W3	NEW	10' ft.	5' ft.	2' ft.	3	Gliding window with glass and structure in black color to be defined, following the pattern of the facade. Handle to be defined. See details of frames.
W4	EXISTENT					
W5	EXISTENT					
W6	NEW	7' ft.	5' ft.	2' ft.	2	Gliding window with glass and structure in black color to be defined, following the pattern of the facade. Handle to be defined. See details of frames.
W7	NEW	7' ft.	5' ft.	3' ft.	3	Gliding window with glass and structure in black color to be defined, following the pattern of the building. Handle to be defined. See details of frames.
W8	NEW	6' ft.	5' ft.	3' ft.	1	Gliding window with glass and structure in black color to be defined, following the pattern of the building. Handle to be defined. See details of frames.
W9	NEW	10' ft.	5' ft.	3' ft.	1	Gliding window with glass and structure in black color to be defined, following the pattern of the building. Handle to be defined. See details of frames.

GATES SCHEDULE					
LEGEND	STATUS	WIDTH	HEIGHT	UNITS	DESCRIPTION
G1	EXISTENT				
G2	NEW	20' ft.	15' ft.	1	Gate in black metallic material to be defined. See details of frames.
G3	NEW	17'10" ft.	15' ft.	1	Gate in black metallic material to be defined. See details of frames.
G4	NEW	14' ft.	15' ft.	1	Gate in black metallic material to be defined. See details of frames.

ANA MENDES arqui tetura

www.anamendes.com.br

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Avenida Raja Gabaglia, 2.000 - Torre 1, Sala 201 - BH/MG

DOCUMENT ISSUED TO:

- ☒ CUSTOMER APPROVAL
- ☐ LEGAL APPROVAL
- ☐ COMPLEMENTARY PROJ.
- ☐ BUDGETS
- ☐ EXECUTION

NOTE: PROJECT FOR BUDGET ONLY. IMPORTANT: DO NOT EXECUTE.

CLIENT: GLOBAL GROUP - SHOWROOM

CONTENT: IMPLANTATION PLAN

FILE: SHOWROOM GLOBAL GROUP DESIGN_ARCHITECTURE PROJECT_REVISIONS

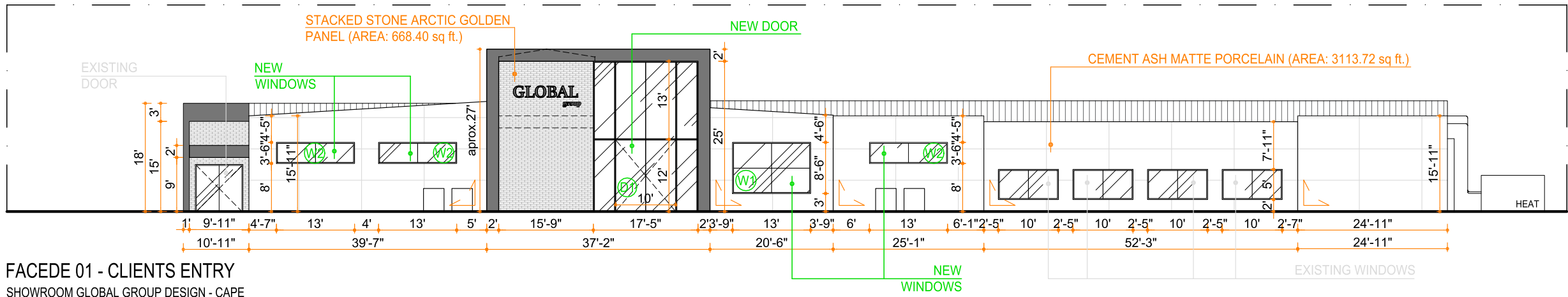
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REVISION 02

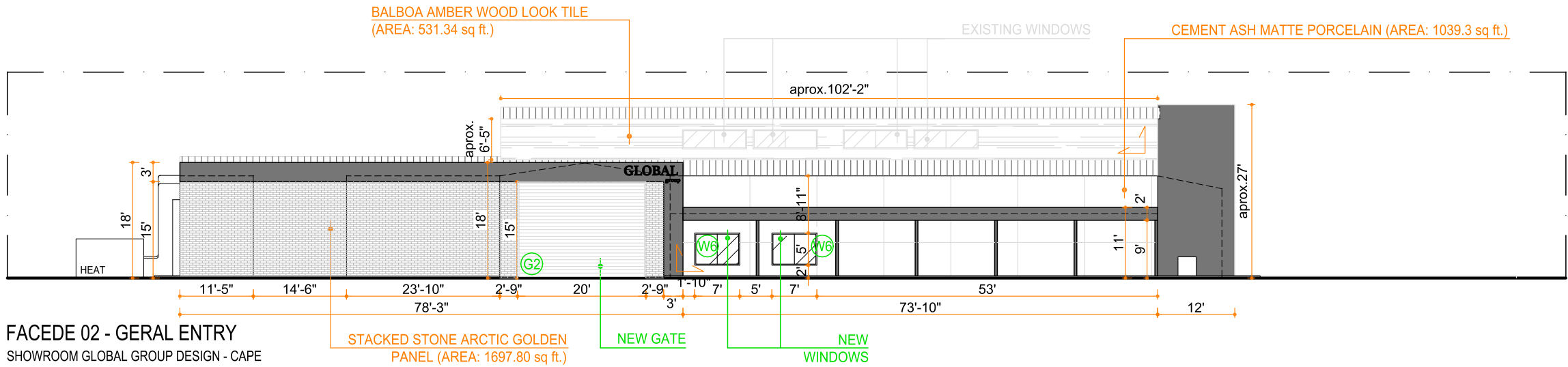
COLLABORATOR DEBORA GUIMARAES

DATE 11/29/2023

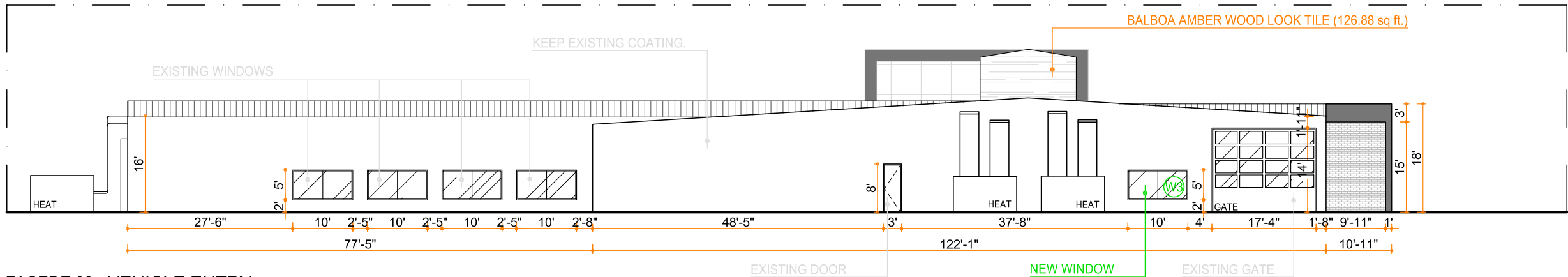
PAGE 01/02



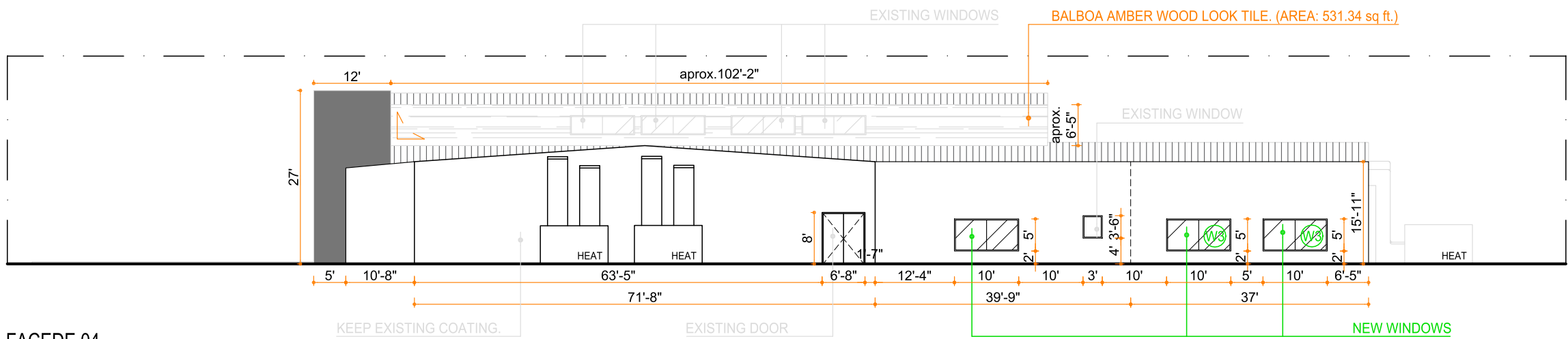
FACEDE 01 - CLIENTS ENTRY
SHOWROOM GLOBAL GROUP DESIGN - CAPE
SCALE 1/8" = 1' 0"



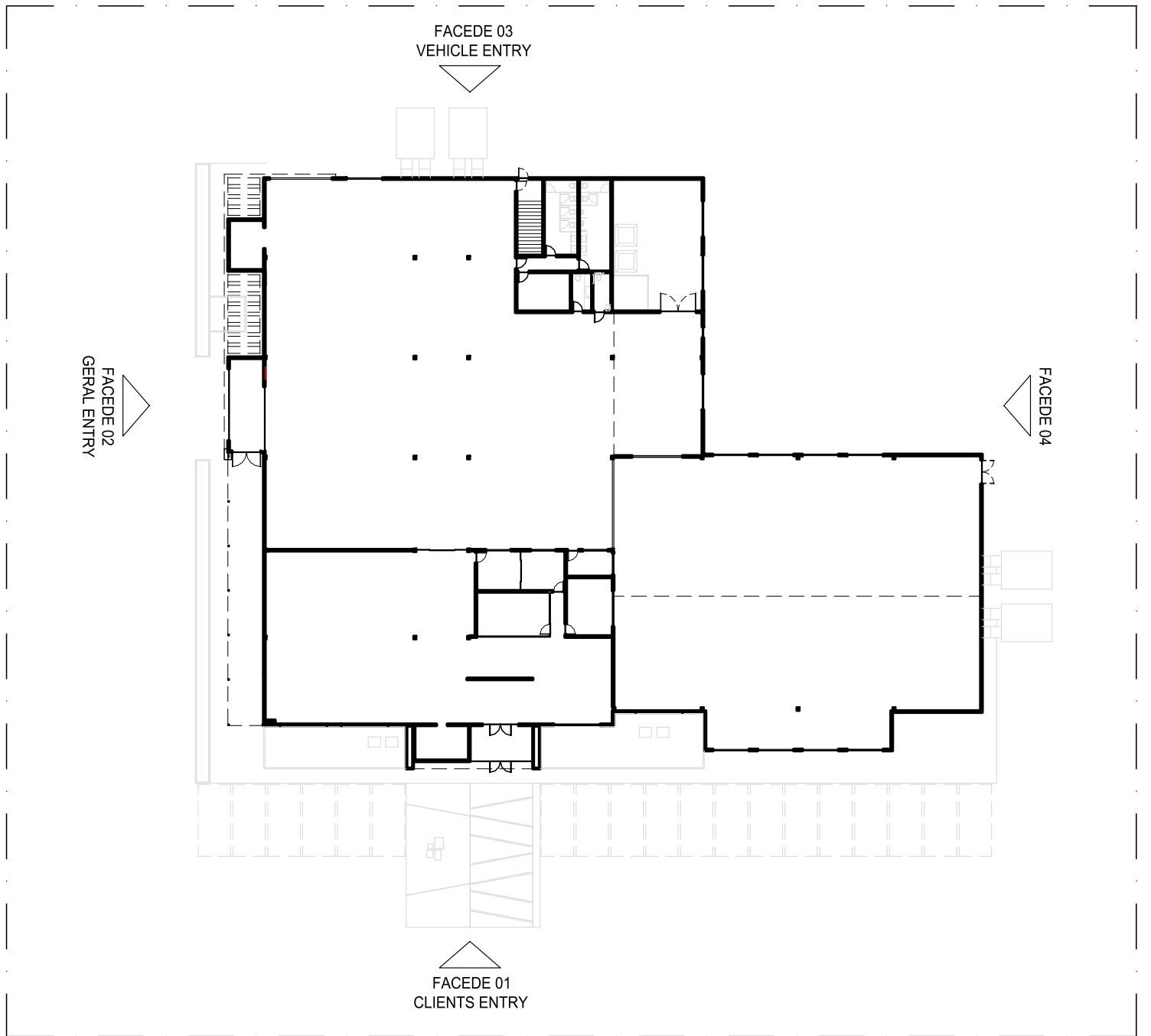
FACEDE 02 - GERAL ENTRY
SHOWROOM GLOBAL GROUP DESIGN - CAPE
SCALE 1/8" = 1' 0"



FACEDE 03 - VEHICLE ENTRY
SHOWROOM GLOBAL GROUP DESIGN - CAPE
SCALE 1/8" = 1' 0"



FACEDE 04
SHOWROOM GLOBAL GROUP DESIGN - CAPE
SCALE 1/8" = 1' 0"



FACEDES MAP
SHOWROOM GLOBAL GROUP DESIGN - CAPE
SCALE 1/16" = 1' 0"

TEXTURES

LEGEND	DESCRIPTION	SLAB SIZE	FINISH	TOTAL AREA	IMAGE
	METALLIC STRUCTURES IN BLACK PAINTING OR BLACK GRANITE TO BE DEFINED.	-	-	-	
	WALL TILE - STACKED STONE ARCTIC GOLDEN PANEL OR SIMILAR TO BE DEFINED.	6" x 24"	GROSS	2488.4 sq. ft. without the 10% extra	
	WALL TILE IN GREY COLOR - CEMENT ASH MATTE PORCELAIN SLABS TO BE DEFINED.	63" x 126"	MATTE	4.208,57 sq. ft. without the 10% extra	
	WALL TILE - BALBOA AMBER WOOD LOOK TILE OR SIMILAR TO BE DEFINED.	6" x 24"	MATTE	1189.5 sq ft. without the 10% extra	



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- ☐ BUDGETS
- ☐ EXECUTION

NOTE: PROJECT FOR BUDGET ONLY. IMPORTANT: DO NOT EXECUTE.

CLIENT: GLOBAL GROUP - SHOWROOM
CONTENT: FACEDES

REVISION 02

COLLABORATOR DEBORA GUIMARAES

DATE 11/29/2023

PAGE 02/02

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