

MONROE COUNTY
RESIDENTIAL STORMWATER RETENTION CALCULATION SHEET

PRINT FORM

1. Determine Total Impervious Coverage on site:

a. Determine Impervious Coverage EXISTING prior to new improvement:

Roofs/slabs	A	1,504.00	ft ²	Sidewalks	D		ft ²
Decks / Patios	B		ft ²	Pool/Deck	E	750.00	ft ²
Driveways	C		ft ²	Other	F	242.00	ft ²
Impervious Coverage EXISTING prior to improvement (A + B + C + D + E + F)					1a	2,486.00	

b. Determine NEW Impervious Coverage PROPOSED with improvement:

Roofs/slabs	A	1,116.00	ft ²	Sidewalks	D		ft ²
Decks / Patios	B		ft ²	Pool/Deck	E		ft ²
Driveways	C		ft ²	Other	F		ft ²
Impervious Coverage PROPOSED with improvement (A + B + C + D + E + F)					1b	1,116.00	
Total Impervious Coverage: EXISTING + PROPOSED (1a+1b)					f	3,612.00	

2. Determine Percentage of Impervious Coverage on site:

$3,612.00 \text{ ft}^2 / 13,000.00 \text{ ft}^2 = 27.78\%$ % of Impervious Coverage

3. Determine "Disturbed Area" ((114-3f)/(2.4))

$13,000.00 \text{ ft}^2 - 13,000.00 \text{ ft}^2 = 13,000.00 \text{ ft}^2$ Disturbed Area

4. Determine Required Swale Volume - Complete a, b, or c:

a. For a NEW home with less than 40% impervious coverage, use:

$13,000.00 \text{ ft}^2 \times 0.083 = 1,079 \text{ ft}^3$ Swale Volume

b. For a NEW home with 40% or greater impervious coverage, use:

$13,000.00 \text{ ft}^2 \times 0.208 \times 27.78\% = 750 \text{ ft}^3$ Swale Volume

c. When only new impervious area requires storm water retention (Existing Single Family & Duplexes Only):

1. When the total lot impervious coverage remains below 40% after the additional development:

$1,116.00 \text{ ft}^2 \times 0.083 = 92.63 \text{ ft}^3$ Swale Volume

2. When the new development increases the total lot impervious area to 40% or above:

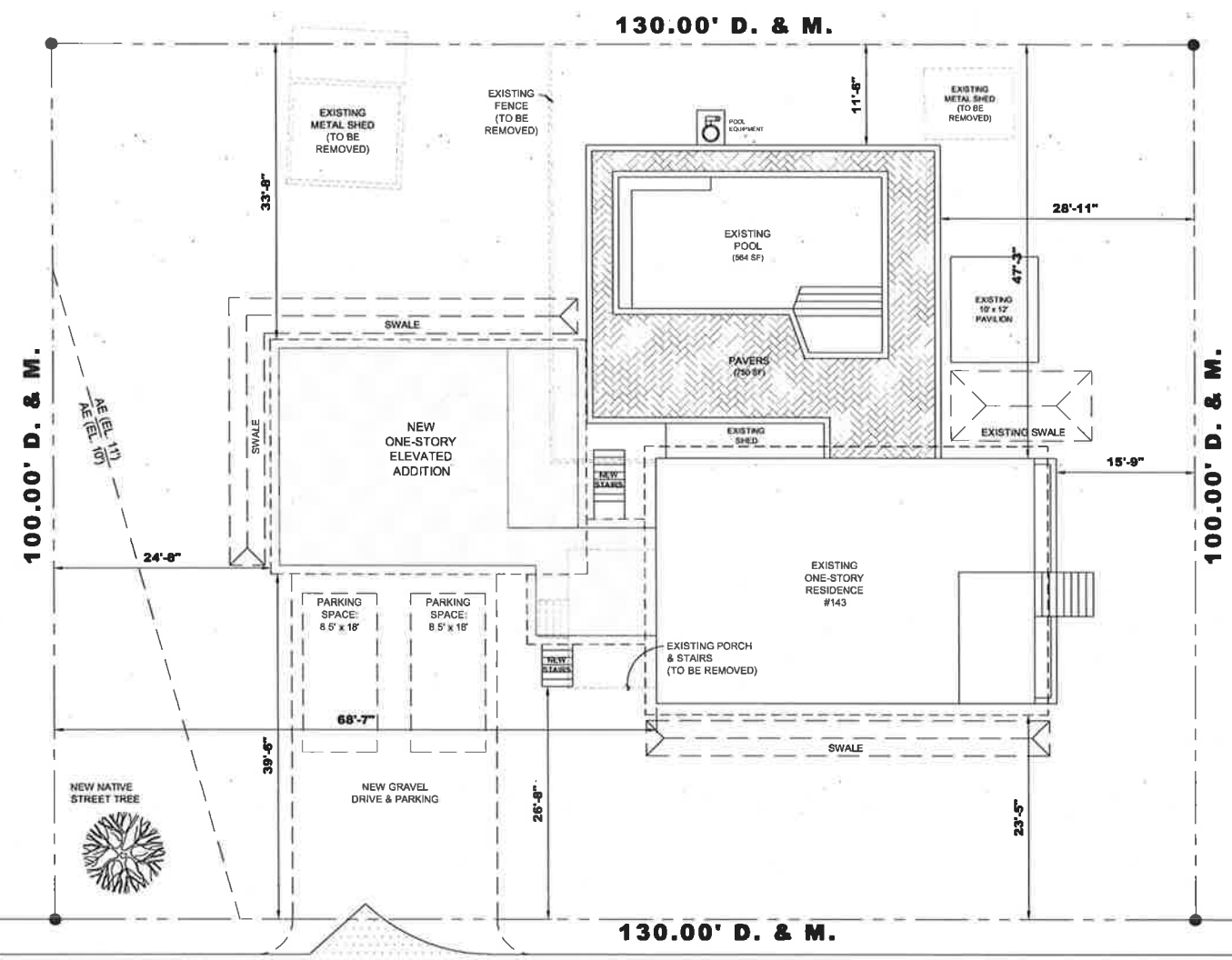
$1,116.00 \text{ ft}^2 \times 0.208 = 232 \text{ ft}^3$ Swale Volume

5. Determine Swale Length (Swale side slopes must be no steeper than 4:1)

$4.00 \text{ ft} \times 92.63 \text{ ft}^2 / 2 = 185.26 \text{ ft}$ Cross Sectional Area

$92.63 \text{ ft}^3 / 1.00 \text{ ft} = 92.63 \text{ ft}$ Swale Length

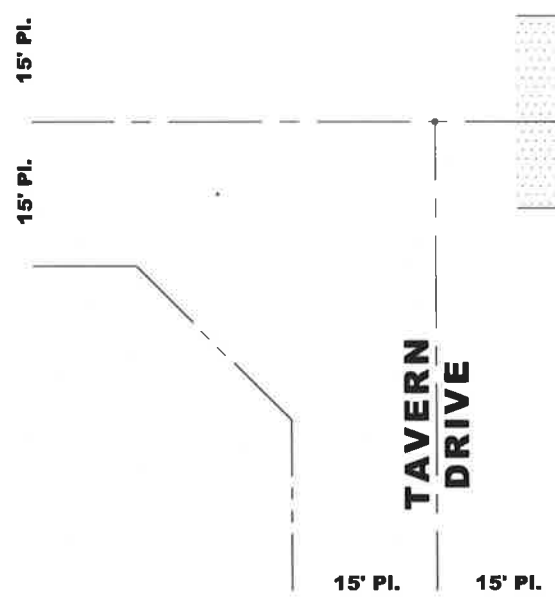
Source: These Formulas are derived from the criteria for Water Quality treatment in paragraphs (f)(2)(b) & a. of Monroe County Code 114-3, Updated 6/2012



SITE CALCULATIONS

Total Area of Property	13,000 Sq. Ft.
Existing with House, Pool, Pav.	2,486 Sq. Ft.
Proposed Total Area of Addition	1,116 Sq. Ft.
Total Proposed Coverage	3,612 Sq. Ft.
Percentage of Impervious Area	28%
Percentage of Pervious / Open Space	72%
Percentage of Open Space Required	50%

SITE PLAN
SCALE: 1"=20'



REVISIONS	BY

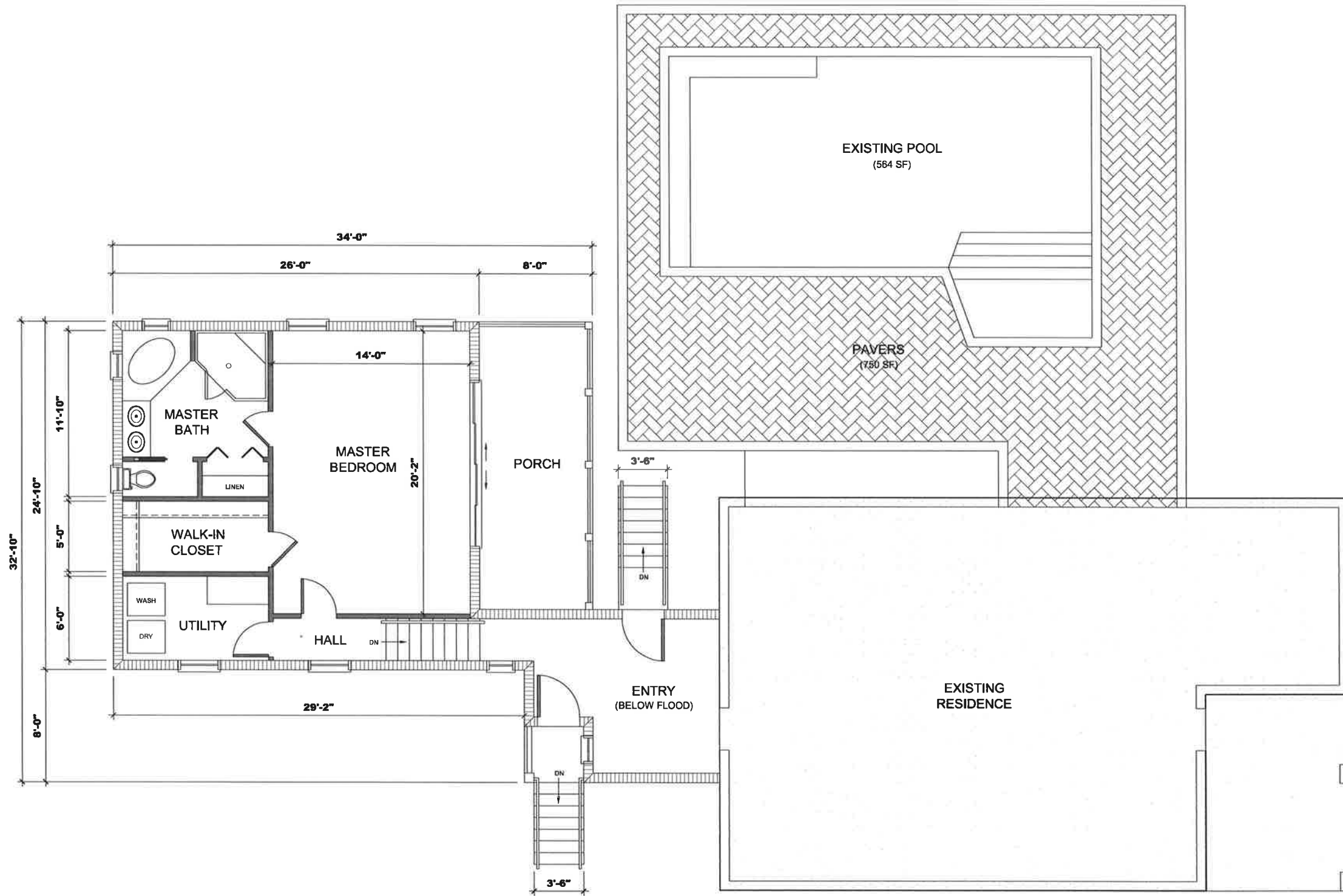
delaas
Consulting & Design

305.852.9851 fax: 305.852.4138

RAVELO RESIDENCE - ADDITION
143 ATLANTIC CIRCLE DRIVE
TAVERNIER, FL

DRAWN	J. COLE
CHECKED	D. DEHAAS
DATE	AUGUST 18, 2022
SCALE	AS NOTED
JOB NO.	
SHEET	C-1
OF	
SHEETS	

ALL IDEAS, DESIGNS, ARRANGEMENTS, & PLANS INDICATED OR REPRESENTED BY THIS DRAWING ARE OWNED BY & THE PROPERTY OF THIS OFFICE. NONE OF THIS INFORMATION SHALL BE USED BY, OR DISCLOSED TO ANY PERSON, FIRM, OR CORPORATION FOR ANY PURPOSE WHATSOEVER WITHOUT THE WRITTEN CONSENT OF DELAAS CONSULTING AND DESIGN. DO NOT SCALE DRAWINGS.



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

Existing Home per Property Record	=	1062.00 Finished Sq. Ft.
Proposed Enclosed Addition above DFE	=	561.66 Finished Sq. Ft.

ATLANTIC CIRCLE DRIVE

OLD SETTLER'S PARK

REVISIONS	BY

deHaas
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TAVERNIER, FL

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CHECKED	D. DEHAAS
DATE	AUGUST 18, 2022
SCALE	1/8" = 1'-0"
JOB NO.	
SHEET	A-1
OF SHEETS	

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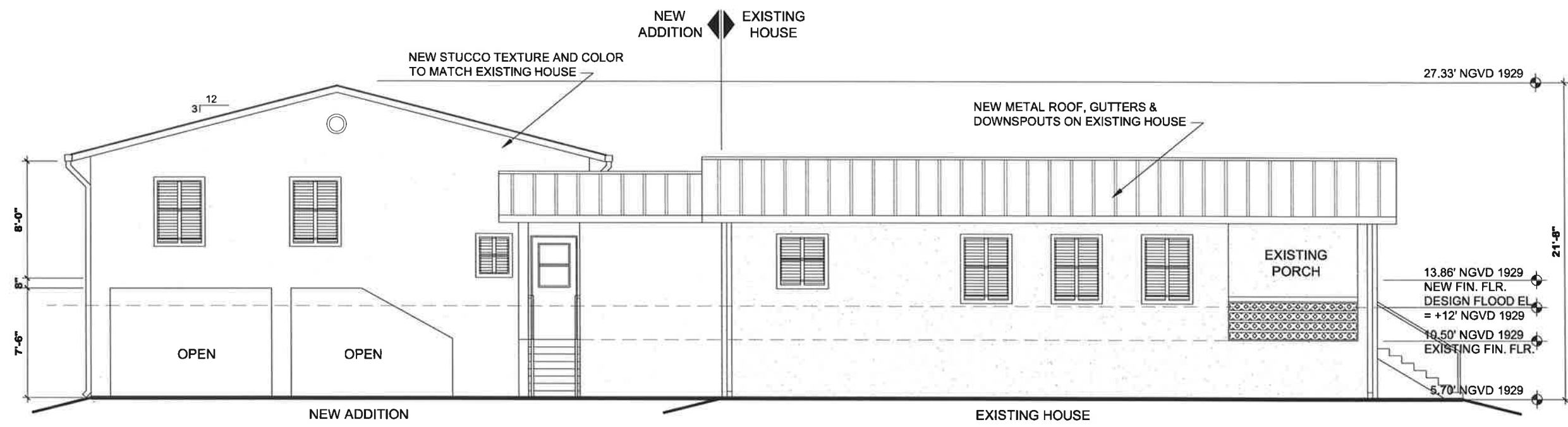
DATE
AUGUST 18, 2022

SCALE
1/8" = 1'-0"

JOB NO.

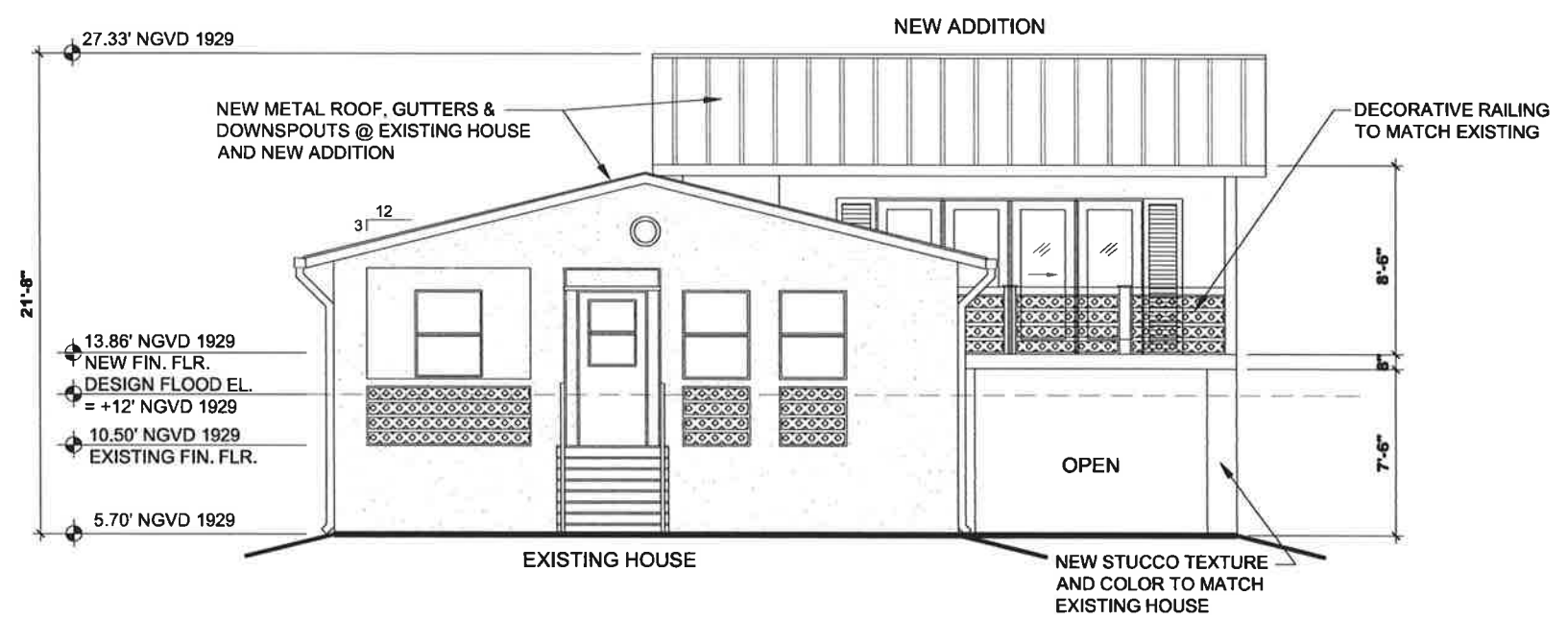
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OF SHEETS



SOUTHWEST ELEVATION (FACING ATLANTIC CIRCLE DRIVE)

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



SOUTHEAST ELEVATION (FACING OLD SETTLER'S PARK)

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

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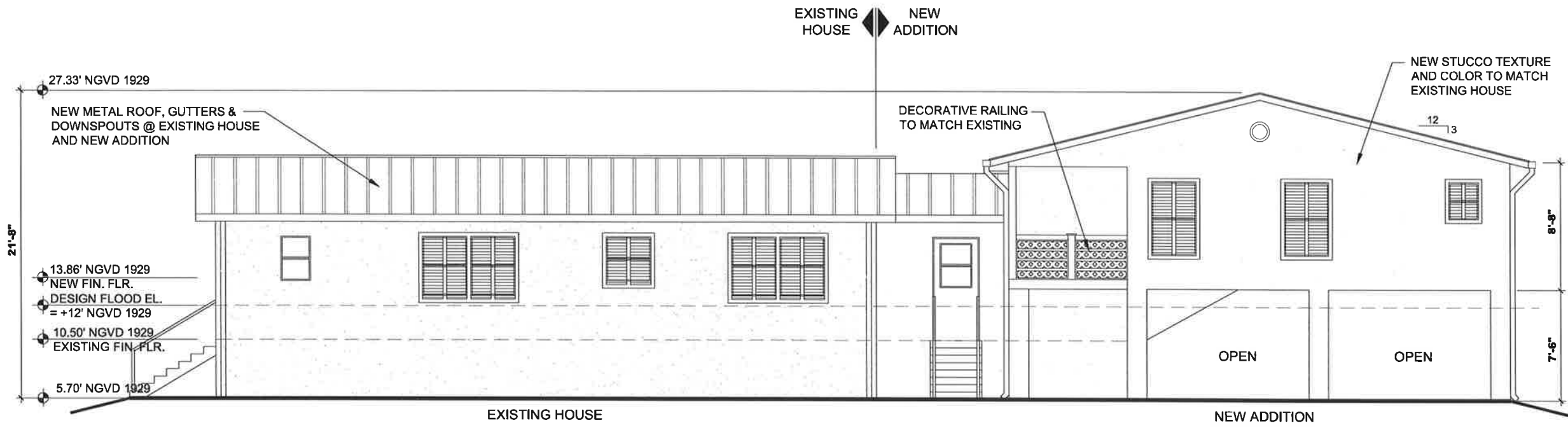
SCALE
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JOB NO.

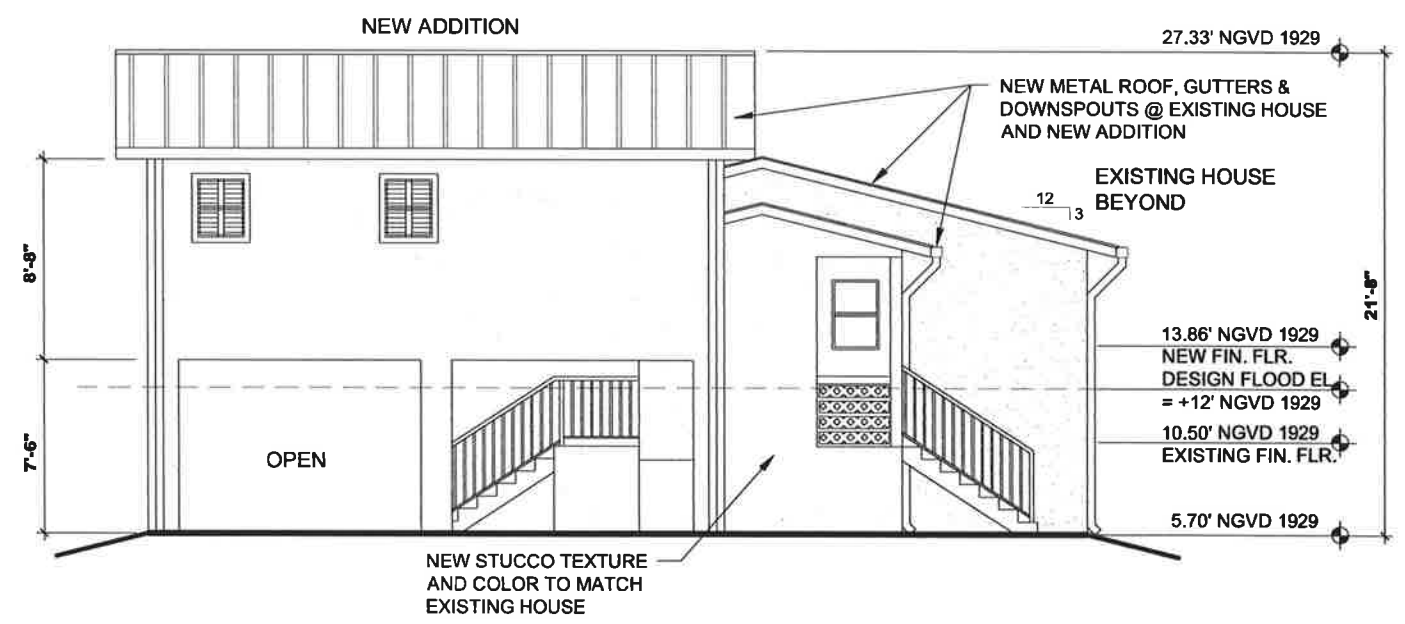
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NORTHEAST ELEVATION (FACING OLD SETTLER'S PARK)
SCALE: 1/8"=1'-0"



NORTHWEST ELEVATION (FACING REAR OF SUPERMARKET)
SCALE: 1/8"=1'-0"