BLOCK ISLAND UTILITY DISTRICT

Since March 8th, all contractor trucks have been idle, left behind as the crews quickly returned home before travel restrictions went into place. This abruptly putt an end to our spring 2020 tree trimming and pole replacement activities. Due to state and local emergency orders, they have stranded on the island. For the past two months, all of our partners have been laid off and are just now getting back to work. The trucks will be retrieved in the upcoming weeks.

BOARD OF COMMISSIONERS MEETING

May 16, 2020

Block Island Utility District
Regular Meeting of Board of Commissioners
May 16, 2020 @ 11:00 AM

Meeting Held Remotely by Zoom due to Corona-19 Town of New Shoreham Emergency Order

1. Public Input
2. Commissioner's Report
3. Approve Minutes of April 25, 2020 Regular Meeting
4. Receive and Act on Treasurers Report
    a. Review Financials - YTD Ending 3/31/2020
5. Receive and Act on Presidents Report
    a. BIUD Response to COVID-19 Pandemic
    b. Review Financial Impacts of COVID-19 Pandemic
        i. Sales projections
        ii. Collections
        iii. Contingency Planning
6. Receive a Presentation on the Voltage Conversion Project
    a. Workplan
    b. Schedule
    c. Cost Estimate
7. Receive and Act on Employee Housing Project

Posted: May 12, 2020

Join Zoom Meeting
https://us02web.zoom.us/j/2505454073

Meeting ID: 250 545 4073
One tap mobile
1-312-626-6799

AGENDA ITEM 1

PUBLIC INPUT

(THIS PAGE INCLUDED FOR NOTES)

AGENDA ITEM 2

COMMISSIONERS REPORT

AGENDA ITEM 3

APPROVE BOD MEETING MINUTES

April 25, 2020 Regular Meeting

Block Island Utility District
April 25, 2020
11:00 AM

HELD REMOTELY VIA ZOOM DUE TO COVID-19 AND TOWN OF NEW SHOREHAM EMERGENCY ORDER

Minutes

Participating BOD Members Present via ZOOM: Barbara MacMullan, Bill Penn, Everett Shorey and Mary Jane Balser.
Elliot Taubmann joined at joined at 11:10 AM.

Also Present: Jeff Wright, Kyle Conners and John Healy of Marcum, LLC and a representative from the BI Times.

Barbara MacMullan called the meeting to order at 11:03 AM.

1. Commissioner's Report

- Barbara MacMullan welcomed everyone to the meeting.

2. Receive and Act on President's Report

- President Jeffery Wright presented the President's Report (on record) and answered questions from those on the call.
- A lengthy discussion was had pertaining to the SBA PPP loans and whether BIUD should apply.
    - Jeff reported that at a recent NRECA Board Meeting there was a lengthy debate on whether non-profit coops and utility districts should be applying as they had other mechanisms to recover losses through rates.
    - Jeff reported that NRECA was actively lobbying the US Treasury Department to include non-profits in the SBA loan requirements and that this effort was supplemented with letters from Senators Whitehouse and Reed.
    - Jeff also reported that at this time, BIUD was not experiencing a significant decline in collections or sales and that layoff were not being considered at the time.
    - Jeff recommended to the BOD that due to BIUD not being significantly negatively impacted by the pandemic that he would not be pursuing any SBA loans and that if at any time the need became imminent then he would ask for a BOD meeting to discuss.

3. Approve Minutes of the April 4, 2020 regular meeting.

Barbara MacMullan moved to accept the April 4, 2020 minutes with an amendment that authorized President Jeffery Wright to approve the DPUC-BIUD Rate Case Settlement Agreement. The motion was seconded by Everett Shorey. There was no discussion. The motion passed unanimously.

4. Review and Act on the Audit report

- President Jeffery Wright introduced the audit team and thanked all involved for a great job and applauded the fact that the audit schedule was met despite the challenges that the pandemic forced upon everyone.

- Kyle Conners of Marcum, LLC presented the final draft audit report (on record) with the help of John Healy.
- Barbara MacMullan highlighted some non-substantive items, such as spelling and grammar corrections, that she requested to have changed and offered to send them to Kyle after the meeting.
- The footnote regarding the pandemic was updated to include the most recent PUC order preventing customer shutoffs for nonpayment.
- A discussion was had regarding the cash collateral requirements and the footnote was slightly modified to reflect that.

5. Report on Employee Housing

- Bill Penn presented the current status of the work that the architect had done to date.
- Mary Jane Balser presented the process for which she would obtain drawings for the building RFP process.
- A discussion was had regarding the schedule that would meet the needs of the HDC and bidding requirements that would enable a 2020 construction schedule.

Barbara MacMullan moved to adjourn the meeting at 12:23, seconded by Bill Penn. The motion passed unanimously.

APPROVED: _____
POSTED _____

AGENDA ITEM 4

RECEIVE AND ACT ON TREASURES REPORT

FINANCIALS YTD MARCH 31, 2020

Block Island Utility District
Balance Sheet
March 31, 2020

ASSETS

	March 31, 2020		March 31, 2019	
Property and Equipment				
Land	$ 867,685.78		$ 822,024.06	
Buildings	550,224.70		464,663.03	
Machinery & Equipment	1,593,257.83		1,965,679.19	
Distribution System	2,514,676.63		2,001,189.04	
Office System, Furniture & Fixture	288,964.68		273,068.10	
Transportation Equipment	19,945.60		12,289.57	
Construction Work in Progress-Distribution	435,959.70		3,461.04	
Total Property and Equipment		6,270,714.92		5,542,374.03
Total Accumulated Depreciation		<266,440.62>		<3,126.00>
Net Utilities Plant		6,004,274.30		5,539,248.03
Current Assets				
Cash - Main Checking	315,807.26		22,935.86	
Cash - Sweep Acct	3,035.89		68,358.83	
Accounts Receivable Elect	262,023.89		283,502.72	
Allowance For Bad Debt	(19,587.93)		(19,587.93)	
Accounts Receivable-Other	983.50		7,350.39	
AR-Cash due from BIPCo	16,090.16		18,548.50	
AR-Blackrock Acct due from BIPCo	0.00		159,630.50	
Plant Material & Operation	234,093.07		163,865.73	
Fuel Inventory	45,439.02		48,832.04	
Prepaid Expenses	18,547.68		10,795.49	
Total Current Assets		876,432.54		764,232.13
Deferred Assets				
Def. Regulatory Asset-retiremt	202,750.88		206,297.35	
Def. Regulatory Asset-Eng.Res	0.00		0.00	
Def. Regulatory Asset-RateCase	106,838.77		0.00	
Def.Regulatory Asset-Interconnection	135,826.12		184,172.76	
Total Deferred Assets		445,415.77		390,470.11
Total Assets		$ 7,326,122.61		$ 6,693,950.27

Block Island Utility District
Balance Sheet
March 31, 2020

LIABILITIES AND CAPITAL

	March 31, 2020		March 31, 2019	
Current Liabilities				
Accounts Payable Trade	$ 132,390.62		$ 31,940.30	
AP-NISC Admin Software	0.00		18,012.00	
A/P - Customer Deposits	75,147.92		65,891.67	
Accrued Purchase Power Expenses	315,763.36		166,235.00	
Accrued Other Expenses	27,045.39		31,840.05	
DSI Surcharge Payable	11,744.80		(56,429.18)	
Accrued Payroll and Withholdings	34,575.75		9,666.88	
Total Current Liabilities		596,667.84		267,156.72
Deferred Credits				
Deferred Revenue	(7,125.92)		69,283.73	
SCR & Engine Maint Reserve	0.00		380,714.63	
Total Deferred Credits		<7,125.92>		449,998.36
Long-Term Liabilities				
Line of Credit	350,000.00		90,943.22	
Retirement Obligations	202,750.88		206,297.35	
CFC Acquision LOAN	5,748,387.21		5,800,000.00	
Total Long-Term Liabilities		6,301,138.09		6,097,240.57
Total Liabilities		6,890,680.01		6,814,395.65
Capital				
Retained Earnings	815,649.00		(24,050.53)	
Net Income	(380,206.40)		(96,394.85)	
Total Capital		435,442.60		<120,445.38>
Total Liabilities & Capital		$ 7,326,122.61		$ 6,693,950.27

Block Island Utility District
Income Statement
For the Three Months Ending March 31, 2020

	Current Month Actual	Year to Date Actual
Revenues		
Revenue from Rates		
Residential Sales	**$ 21,329.03**	**$ 62,485.60**
Commercial Sales	**6,364.46**	**19,448.99**
Demand Electric	**37,436.97**	**109,298.84**
Public Authority	**7,006.17**	**20,494.30**
Street Lighting	**584.03**	**1,752.09**
Customer Charge	**26,412.44**	**79,219.47**
Demand - All Rates	**6,183.14**	**27,801.17**
System Charge	**-**	**-**
Other Revenue from Operations	**-**	
Biller Penalty (Interest on Delinquent Accts)	**1,181.24**	**3,714.76**
Rent - Antennas	**18,891.68**	**56,675.04**
Rent - Tower	**800.00**	**2,400.00**
Rent - Property	**2,400.00**	**7,200.00**
Misc. Income (Misc., Interest & Connections)	**6,231.03**	**(1,911.03)**
Total Revenues	**134,820.19**	**388,579.23**
Expenses		
Total Generation-Operating Expense	**18,886.56**	**56,417.27**
Total Generation-Maintenance Expense	**4,012.35**	**48,278.52**
Total Distribution-Operating Expense	**9,332.62**	**40,075.72**
Total Distribution-Maintenance Expense	**48,638.07**	**117,083.87**
Toatl Customer Accounts/Customer Service	**6,100.52**	**23,646.80**
Total Administrative/General Expenses	**101,503.50**	**343,355.20**
Total Depreciation Expenses	**22,203.00**	**66,609.00**
Total Interest Exp on Line & Long- term debt	**49,226.01**	**49,226.01**
Total Miscellaneous Expense	**262.62**	**882.53**
Total Taxes	**6,155.23**	**23,210.71**
Total Expenses	266,320.48	768,785.63
Net Profit Before Fuel Rev./Exp.	(131,500.29)	(380,206.40)
Fuel Expenses/(Revenue)		
Fuel/Standard Offer/Transmission income	**(117,144.84)**	**(343,741.27)**
Purchase Power Expenses	**157,279.97**	**475,994.59**
Net SO/TC due to ratepayers	**(40,135.13)**	**(132,253.32)**
Net Fuel Expense/(Revenue)	**-**	**-**
Net Income	**$ (131,500.29)**	**$ (380,206.40)**
Reserves Expenditures		
Remove Depreciation Adj (A)	(22,203.00)	(66,609.00)
Debt Service Principal (includes CAT)	25,923.92	25,923.92
Inventory Purchased	-	25,517.00
Capital Exp - Work In Progress	115,845.00	435,959.70
Capital Exp - Distrib Work	-	-
Capital Exp - Other Assets	-	-
Total Reserve for Exp.	119,565.92	420,791.62
Net Income Cash Budgetary Basis	$ (251,066.21)	$ (800,998.02)

Block Island Utility District
Supplemental Information Statement
For the Three Months Ending May 31 2020

	March 2020	March 2019	YTD March 2020	YTD March 2019
Rate Revenues				
Residential Sales	$ 21,329.03	$ 21,276.00	$ 62,485.60	$ 66,612.00
Commercial Sales	6,364.46	7,234.00	19,448.99	31,651.00
Demand Electric	37,436.97	37,099.00	109,298.84	109,767.00
Public Authority	7,006.17	7,319.00	20,494.30	21,439.00
Street Lighting	584.03	583.00	1,752.09	1,749.00
Customer Charge	26,412.44	26,054.00	79,219.47	78,192.00
Demand - All Rates	6,183.14	10,411.00	27,801.17	31,079.00
System Charge	-	-	-	-
Total Revenues	**105,316.24**	**109,976.00**	**320,500.46**	**340,489.00**
			-5.87%	
Rate Revenues -KWH Useage				
Residential Sales	234,385	233,799	686,655	732,015
Commercial Sales	52,813	60,034	161,959	262,667
Demand Electric	343,460	340,357	1,002,742	1,007,037
Public Authority	69,967	72,739	213,122	214,276
Total Revenues	**700,625**	**706,929**	**2,064,478**	**2,215,995**
			-6.84%	
Rate Revenues -Customer Counts				
Residential Sales	1,266	1,292	3,791	3,884
Commercial Sales	281	293	855	883
Demand Electric	365	322	1,090	961
Public Authority	33	31	99	91
Total Revenues	**1,945**	**1,938**	**5,835**	**5,819**

	March 2020	March 2019	YTD March 2020	YTD March 2019
Payroll				
Capital Exp - Work In Progress				
Capitalized Labor	$ 16,047.60	$ 19,992.66	$ 50,787.33	$ 39,671.66
Generation-Maintenance Expense				
Inside Maintenance	-	-	-	-
Maint of Station Equimpent	12,414.72	14,393.40	43,207.08	40,522.28
Distribution-Operating Expense				
Overhead lines	233.70	648.84	6,123.96	12,612.17
Distribution-Maintenance Expense				
Overhead Lines	9,507.32	2,292.36	23,017.29	18,250.00
tree triming		-	2,115.43	-
Customer Accounts/Customer Service				
Records & Collections	5,173.00	5,001.13	19,376.00	17,042.78
Administrative/General Expenses				
Vacation Pay	2,005.18	6,243.96	13,915.50	7,935.80
Holidays worked	-	-	8,357.76	3,825.28
Holidays not worked	-	-	-	-
Sick Leave	399.63	757.20	3,800.62	2,540.32
Personal time	363.84	217.44	2,011.71	961.56
CEO Salary	12,122.60	13,600.96	39,398.45	33,892.40
Total	$ 58,267.59	$ 63,147.95	$ 212,111.13	$ 177,254.25

AGENDA ITEM 5

RECEIVE AND ACT ON PRESIDENTS REPORT

PRESIDENT'S UPDATE
May 16, 2020

BIUD's Response to COVID-19 Pandemic

Our goals are unchanged since the beginning of the pandemic. They are still focused on maintaining the health and safety of our employees, keeping the lights on and maintaining adequate cashflows to meet our obligations. In response to the pandemic we have taken the following steps to date:

March 12th — Closed the BIUD Office to all in-person transactions.

March 17th — Met with all employees (outside while observing safe distancing) to discuss possible actions and responses. The team collaboratively came up with these guidelines:

1. Office hours limited to M-W-F 10:00 – 1:00 to process payments, answer calls and to conduct other critical essential activities.
2. Field work limited to critical open jobs while observing safe distancing.
3. All employees to drive dedicated and assigned vehicles only – no sharing.
4. The plant staff will conduct plant inspections and checks 2X daily – alone.
5. Everyone to wear gloves while working and remove them and keep in trucks – not to touch anything with bare hands at work.
6. Other than the daily tasks to ensure we can keep the lights on and process payments/bills, everyone is to shelter in place and follow the guidance of the TNS TC Emergency Order.
7. Shut down all outside contractors. All their trucks and equipment are still on property.

March 30th — Completed the last critical open job and now are only responding to critical call outs.

April 17th — Held an all-employee meeting to discuss recent changes to the TC order allowing contractors back to work. The decision was made to accommodate electrician's requests for disconnect/reconnect work but to hold course in terms of work schedule to see how the changes might impact our goal to avoid unnecessary contact with contractors. Our plans right now are to continue int his way until May 8th.

May 1st — Submitted collections and sales information to the PUC as requested. We are required to submit this same data each month on the 15th. We are also providing staffing data to the DPUC weekly.

May 8th — Resume daily, but limited office hours to members M-F 10:00 -2:00. Resume field work on critical work required to open for summer.

May 15th Submitting our "Plans for Resuming Collections" for consideration prior to the PUC's next open meeting to discuss an extension of the order prohibiting shutoffs for non-payment.

May 18th All RI employers required to have a COVID19 workplace safety plan and training complete.

Cashflows and deliveries/sales are being monitored daily.

Collections

Payment activities have only started to drop off in the past two weeks.

Month to Date Activity May 1-14			
	Collected	MTD Trend	
2019	$ 96,944	6.2%	
2020	$ 90,944		

Month to Date Activity YTD - Ending May 14th			
	Payments	2020 Trend	
2019	$ 1,028,776	2.9%	
2020	$ 1,059,740		

The PUC issued its first order prohibiting shutoffs for non-payment on March 16th. They have extended it twice. It currently runs through May 30th. They are reviewing it again on May 28th.

Our total account arrears balance has grown from approximately $27,000 to $65,651.

90 of 1,962 accounts have past due balances of greater than $100 but less than $1,000.

18 of 1,962 accounts have a balance greater than $1,000.

9 commercial accounts account for a total of $16,276 in overdue payments.

Deliveries

National Grid deliveries are tracked daily, providing us with a good measure of how sales will end up when we calculate billing at the end of the month. National Grid deliveries are showing signs of a recent sustained downward trend since May 1st.

Total Deliveries May 1 - May 14 (kWh)			
2019	403,700	16.5%	↓
2020	337,252		

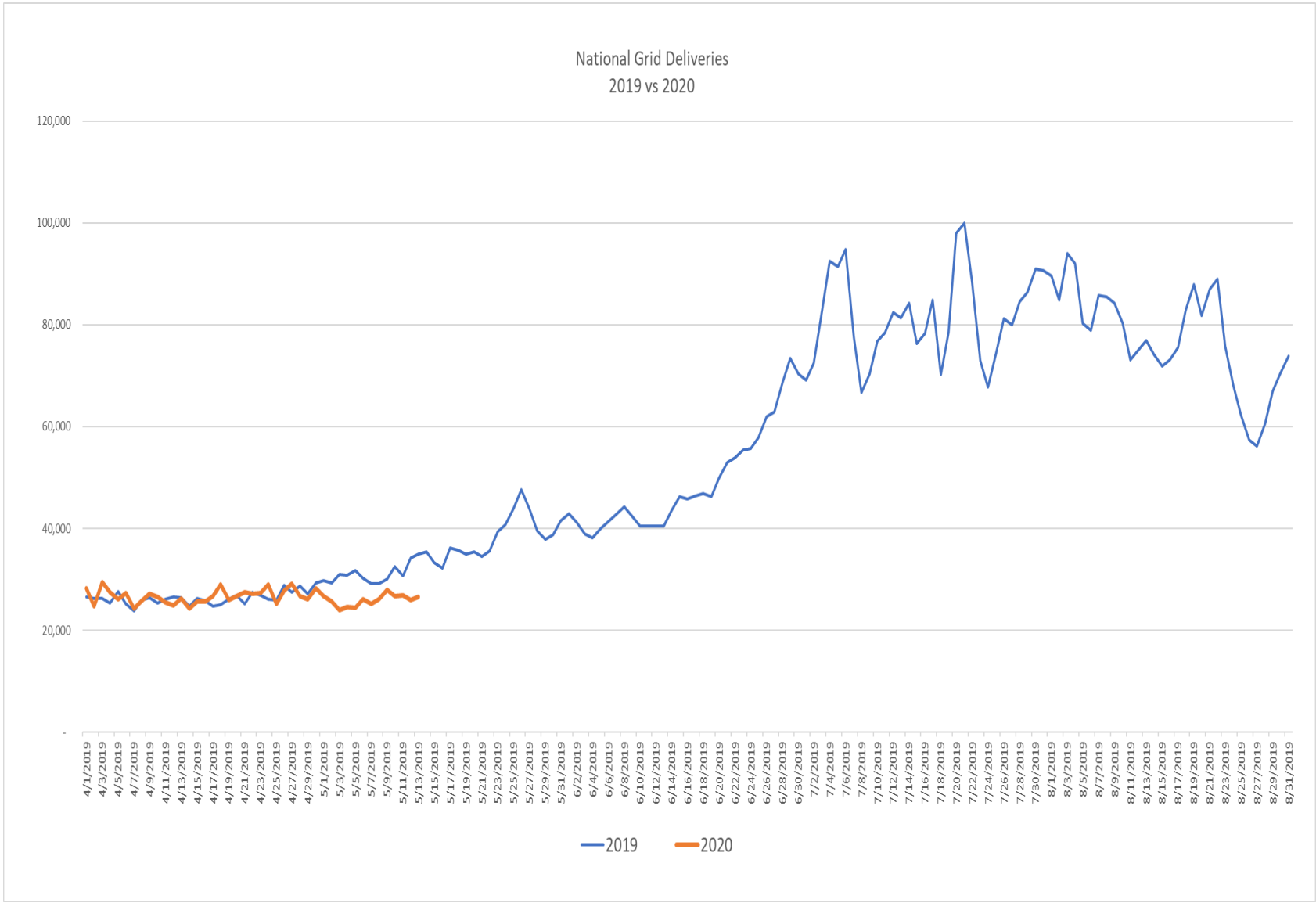
The following data shows the decline in deliveries April 1st to May 14th.

Total Deliveries April 1 - May 14 (kWh)			
2019	1,194,787	4.6%	↓
2020	1,139,478		

Year to date deliveries were down in the months of January, February and March due to warmer weather/heating degree days but the recent trends will begin pulling this trend down faster as the season progresses if sales don't improve.

Total Deliveries YTD (kWh)			
2019	3,702,216	2.1%	↓
2020	3,622,726		

The seasonal load profile from April 1st on the following page shows the downward trend since May 1st.


National Grid Deliveries
2019 vs 2020
120,000
100,000
80,000
60,000
40,000
20,000
-
4/1/2019
4/3/2019
4/5/2019
4/7/2019
4/9/2019
4/11/2019
4/13/2019
4/15/2019
4/17/2019
4/19/2019
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8/17/2019
8/19/2019
8/21/2019
8/23/2019
8/25/2019
8/27/2019
8/29/2019
8/31/2019
2019
2020

Contingency Planning

Revenue shortfalls will affect all budgets, and each has different mitigation measures. The following matrix lists each budget by cost type and includes mitigation measures.

Budget Type		Total Budget
Operations, Maintenance, Capital Funds		$ 3,291,335
	Operating and Maintenance	$ 2,828,894
	Capital	$ 400,000
	Voltage Conversion Fund	$ 62,441
	Efficiency Plan	$ 60,000
Power Supply and Transmission		$ 2,093,620

Mitigating revenue shortfalls from the Plant & Distribution Rate and Efficiency Plan Charges can be accomplished by reductions in spending associated with the Operations, Maintenance and Pay-Go Capital Funds will include most of the following:

1. Freeze all discretionary spending.
2. Defer the remaining $30,000 remaining of the tree trimming budget.
3. Defer all remaining capital spending requiring external resources.
4. Prioritize internal labor focus on capital project not requiring additional purchases.
5. Defer all inventory purchases for future capital projects.
6. Adjust the Efficiency Plan Budget according to Actual Revenues Collected
7. Eliminate all discretionary overtime.
8. Defer salary increases from the normal adjustment date of June 1, 2020.
9. Postpone the Environmental Mitigation Project
10. Others…

Mitigation of revenue shortfalls associated with the Power Supply and Transmission Budget. The Standard Offer and Transmission Rates are more difficult to mitigate due to fixed charges such as ISO-NE capacity charges and the DAF payments made to National Grid. The breakdown of fixed vs variable costs that will self-correct with a reduction in load are shown below:

Standard Offer			
Energy	$ 491,162	44%	Variable
Capacity and Other Fixed Charges	$ 624,984	56%	Fixed
	$ 1,116,146		

Transmission			
ISO/NYPA/N Grid Transmission	$ 389,136	40%	Variable
DAF, BITS, Equipment Sur-Charges	$ 588,338	60%	Fixed
	$ 977,474		

The only real way to mitigate the Standard Offer and Transmission revenue shortfalls are to adjust the rates. We have had discussions with the PUC and DPUC about the threshold for seeking a rate adjustment for these two rates and at this point we believe that when we project at least a 5% reduction in the projected annual sales of 12,985,398 kWh as filed in our So/Transmission Reconciliation we will ask the BIUD BOD to support requesting a rate adjustment.

Dave Bebyn and I have run some sensitivity models based on certain levels of reduced sales through the summer. The results are shown below:

May	95%	90%	85%	80%
Jun	95%	90%	85%	50%
Jul	95%	90%	85%	70%
Aug	95%	90%	85%	90%

Covid General Rates Short Fall	$ (75,427)	$ (150,860)	$ (226,293)	$ (349,609)
SO/Transmission Covid Shortfall	$ (40,087)	$ (80,173)	$ (120,260)	$ (202,098)
	$ (115,514)	$ (231,033)	$ (346,553)	$ (551,707)

As the summer progresses we will refine these models,

AGENDA ITEM 6

VOLTAGE CONVERSION PRESENTATION

VOLTAGE CONVERSION PRESENTATION
May 16, 2020

The voltage conversion project is necessary to increase the capacity of the BIUD distribution system to relieve capacity constraints that currently exist during peak load periods. A voltage and configuration change from 2,400 V Delta to 4,160 Grounded Wye would in effect double the capacity of the distribution system. When voltage is doubled and the load remains the same, the ampacity for that load is reduced by a factor of two.

Although the project has been contemplated for at least ten years, the previous owners did not have the necessary funding. They also did not have the detailed load data to quantify the capacity constraints and justify the expense. In the spring of 2019, BIUD installed a new SCADA system that allows us to track real time load data by individual circuit. During the summer of 2019, BIUD identified two distribution circuits that were at, or over, the capacity limits of the circuit conductors. The chart shown below, which was presented at the 2019 BIUD Annual Meeting held on August 23, 2019 as part of a voltage conversion presentation, details the circuit constraints that exist under peak load.

Circuit	Normal Overhead Conductor Rating (Amps)	2019 Peak	% of Full Capacity
Substation	2000	1256	63%
Airport 1A	225	135	60%
West Side 2A	225	138	61%
New Harbor 3A	170	164	96%
High Street 4A	355	237	67%
Old Harbor 5A	355	414	117%
Corn Neck 6A	225	168	75%

The Old Harbor 5A circuit load consistently overloads the 2/0 copper overhead conductor and the 4/0 underground riser cables at the substation. The normal and emergency ratings for these two limiting factors are shown in the charts below:

Cicrcuit 5A Underground Exit Feeder Cables			
	90 C Rating	105 C Rating	2019 Summer Peak
4/0 Copper - 15 kV Insulated/Jacketed Cable in One Conduit (Substation Exit Riser - 200')	250 AMPS	310 AMPS	414 AMPS

Cicrcuit 5A 2/0 Copper Overhead Circuit Conductors			
	75 C Normal Rating	100 C Emergency Rating	2019 Summer Peak
4/0 Copper - Hard Drawn Overhead Conductor in Open Air	355 AMPS	440 AMPS	414 AMPS

Attachment JMW-1 is an engineering briefing dated 10/21/19 which was written by Workplace Safety Solutions Incorporated ("WSSI"). The consulting firm from Williston, VT is helping to study the need, feasibility, construction sequence and construction estimate for the voltage conversion. The report details the 2019 load impacts on the distribution system and documents the circuit capacities and overloads that were experienced by BIUD during the 2019 summertime peak. It also details the voltage conversion considerations that are being considered in our planning.

Attachment JMW-2 is a draft construction schedule and estimate that we are currently working on. The entire project will be done in multiple phases as shown below and in JMW-2, some of which have been started and/or completed:

Phase One: Substation and New Harbor 3A Conversion

Phase Two: Old Harbor 5A Conversion

Phase Three: High Street 4A Conversion

Phase Four: Corn Neck 6A Conversion

Phase Five: West Side 2A Circuit

Phase Six: Airport 1A Circuit

The conversion of the substation is dependent on the installation of multiple step-transformers placed on the distribution lines outside the substation that act as a conversion from Grounded Wye back to Delta that will allow for the phased conversion approach. At this same time, a neutral conductor will be installed from the substation to the step-transformers on each circuit.

Once the step-transformers and required neutral conductor are installed, the substation will be converted during a 6-8 hour island-wide outage. The step-transformers will be commissioned on all circuits except for the New Harbor 3A circuit which will also be fully converted on the day of the substation outage. After the conversion, the substation, the New Harbor 3A circuit and all other circuits will be converted down-stream to the step-transformers on the 1A, 2A, 4A, 5A and 6A circuits. This will conclude Phase One and immediately double the capacity of the substation, all underground exit-feeders, the 3A circuit and all other circuits up to the step-transformers.

The location of the step-transformers and the neutral conductor installation is shown in Attachment JMW-3.

After Phase One is complete, each subsequent phase will be completed by installing additional down-stream step-transformers and converting manageable sections of the circuits. The step-transformers will be leap-frogged until the circuit is complete. A neutral conductor will need to be installed on three phase circuits prior to the circuit being converted. Side taps with two conductors will not need a neutral installed. As those side taps are converted, the transformers will be rewired, and one conductor will be grounded to become the neutral conductor.

The voltage conversion will provide other benefits in addition to providing additional distribution system capacity.

- System losses will be reduced because of the higher voltage and the resulting lower circuit ampacity. We have not studied the cost benefit from reducing system losses but any reduction will reduce BIUD's energy purchases, capacity obligations and transmission expenses.

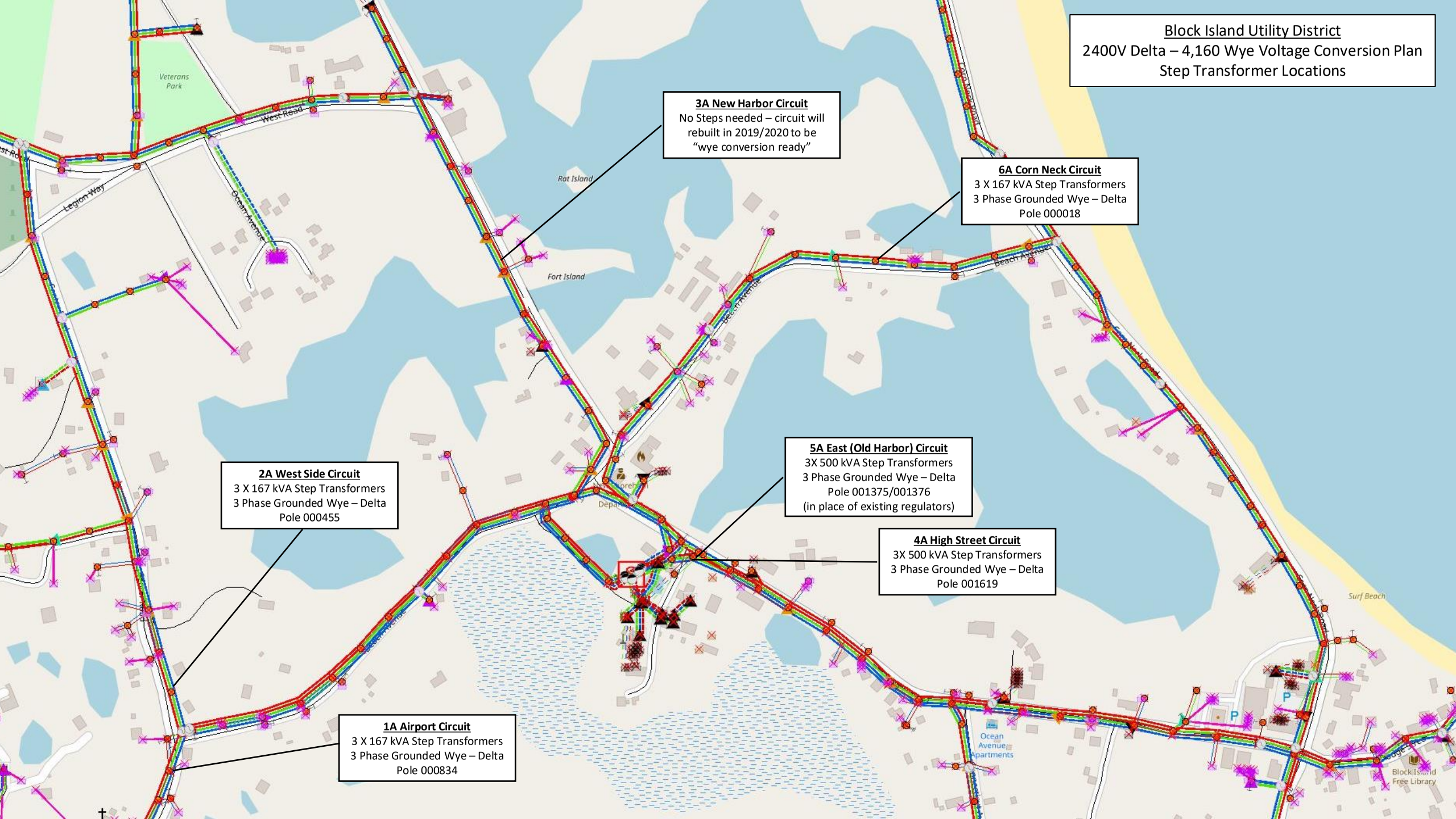
- Power quality will improve. The Delta system utilizes two primary phase conductors to serve each single-phase transformer. A typical single-phase transformer outage results from loss of one phase, resulting in a "brown-out" condition from half voltage in the home. A Grounded Wye system utilizes one energized phase conductor and one grounded neutral conductor. Most all single-phase outages on a Grounded Wye system result from the loss of the energized phase which results in a complete loss of power and eliminates the possibility of a "brown-out" condition. This improvement in power quality will benefit the BIUD members by extending the life of their electrical appliances.

- The New Harbor 3A conversion will provide adequate capacity to service Champlain's Marina. The marina currently generates its own power during June, July and August using generators that are rated approximately 800 kW. BIUD is not able to serve that load from its existing distribution system. Once the substation and New Harbor 3A circuit are converted, the load can easily be served. The only construction beyond the voltage conversion needed is to extend the 3A circuit approximately ten poles and install a 1,000 kVA transformer at the marina. This cost will be mostly borne by the marina's owner.

The complete voltage conversion will be done over a five to seven-year period. A complete cost estimate to convert the entire island is not yet complete. Based on the engineering grade cost estimate, we anticipate the cost to complete Phase One of the conversion to be $900,000 which includes a 20% contingency. Construction should begin as soon as the fall of 2020, pending BOD approvals and financing.

The following drawings show the location of the circuit step-transformers.


Block Island Utility District
2400V Delta – 4,160 Wye Voltage Conversion Plan
Neutral Conductor Plan
2/0 Copper Hard Drawn – 7 Strand
Run at least to the Step Transformer Locations on Each Circuit
000005
CLIF PAYNE
N/F
000387
THE BARRINGTON INN
FIRE #
000388
DAVID CHIEFFO
N/F
000386
Block Island
Volunteer
Fire and
Rescue
Station
TOWN OF NEW SHOREHAM
N/F
TOWN OF NEW SHOREHAM
N/F
New Shoreham
Police
Department
000004
000011
000439
000384
000385
000436
000003
Ocean Avenue
ROBERT ROACH
FIRE #586
000435
000438
000002
000434
000383
Ocean Avenue
000433
001375
001376
001619
001620
OLLIE INC
FIRE #101
001378
001380
001855
MIKE LEROY
FIRE #101
HARBOR POND HOME LLC
FIRE #455
BLOCK ISLAND POWER COMPANY
N/F
001381


Block Island Utility District
2400V Delta – 4,160 Wye Voltage Conversion Plan
Step Transformer Locations
3A New Harbor Circuit
No Steps needed – circuit will rebuilt in 2019/2020 to be "wye conversion ready"
6A Corn Neck Circuit
3 X 167 kVA Step Transformers
3 Phase Grounded Wye – Delta
Pole 000018
5A East (Old Harbor) Circuit
3X 500 kVA Step Transformers
3 Phase Grounded Wye – Delta
Pole 001375/001376
(in place of existing regulators)
2A West Side Circuit
3 X 167 kVA Step Transformers
3 Phase Grounded Wye – Delta
Pole 000455
4A High Street Circuit
3X 500 kVA Step Transformers
3 Phase Grounded Wye – Delta
Pole 001619
1A Airport Circuit
3 X 167 kVA Step Transformers
3 Phase Grounded Wye – Delta
Pole 000834
Veterans Park
West Road
Legion Way
Ocean Avenue
Rat Island
Fort Island
Beach Avenue
Surf Beach
Ocean Avenue Apartments
Block Island Free Library

The following report is from our consulting engineer WSSI, who is assisting with the design and cost estimate.

BLOCK ISLAND POWER SYSTEM UPGRADE

OVERVIEW- CONVERSION FROM 2.4 KV DELTA TO 2.4/4.16 KV WYE

The main advantage of this conversion will be the reduction of the phase current on each line which will allow additional load to be added or reduce/eliminate existing overloads, improve voltage regulation and reduce I^2R losses (power paid for by BIP but not recovered through rates.) There will be no need to replace existing transformers but they will need to be reconnected at the time of conversion to a new neutral wire that is either currently there or needs to be installed. Existing capacitors and regulators should be able to be reused by reconnecting them into a wye configuration. Since it's unlikely the entire system can be converted at the same time due to the magnitude of the work involved, a set of step transformers that take the new wye at the substation back to a 2.4 KV delta will be required on each circuit not part of the initial conversion. Each circuit could then be converted one at a time or even doing each circuit in phases by moving the steps to allow conversion in phases that match reasonable work resources. It should be noted that the neutral will need to be grounded a minimum of 4 times per mile per NESC requirements and all equipment will need to be connected to ground. The source from National Grid will now have a neutral brought into the substation that will need to be tied to ground through the substation ground grid (assumes that there is an existing ground grid). The introduction of the ground will now allow a phase that gets grounded to have fault current flow so the system will need to be analyzed to make sure that there are reclosers or fuses installed in strategic locations (i.e. all single phase side taps) to limit the size of the outage or reliability could suffer. The use of fast shots on reclosers may be desirable to allow a temporary fault to clear to reduce the number of outages that require a truck to roll. Tree trimming will need to be kept up or reliability could suffer as the new system will only need contact on one phase of the wye instead of two phases of the old delta.

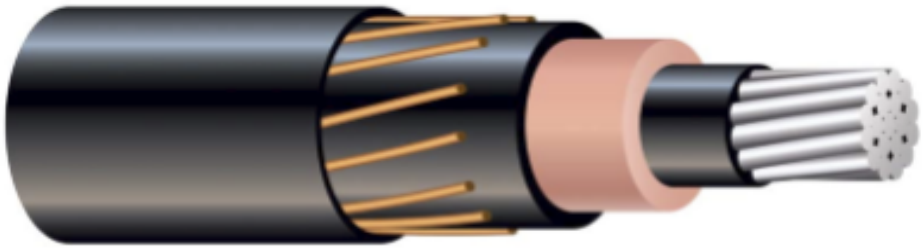
Attached is some information to get some the thought process going and we can discuss in more detail when we get together on the 24th.

AMPACITIES- UG CABLE

Underground cable typically has a normal rating based on its design temperature (older cable had lower temperature ratings such as 70° C while newer cables have a typical rating of 90° C which does allow higher ratings. Attached are some cut sheets of what may be used if new cable is needed and also some ampacity tables (The ampacities are based on a 100% LF, 20° C earth ambient temperature and an earth RHO of 90 and a 30" burial depth). Two things to note on the tables are that if multiple circuits are installed in the same duct bank then the ratings are reduced since each act as a heat source to each other so I've shown what the ratings are for a circuit that is by itself and then what the ratings are if there a three circuits close together in the same duct bank. Based on our first visit it seems that the cables are generally by themselves so it seems like the one circuit ratings could be used. There is also an emergency rating using 105' C which does allow the cable to carry a higher load for periods of time but the extra heat does degrade the cable and shorten it's life. Some utilities don't allow any overloading for this reason but others use a general rule of thumb in the industry which is not to exceed 100 hours per year and no more than 500 hours in the life of the cable. If any of the cables need to be changed out for capacity reasons a set of 3-1/c 500 MCM Cu 15 kV cables should fit in the existing conduits and not exceed percent fill or create a jam possibility when pulling.

15kV Primary UD EPR Cable

Aluminum or Copper Conductor. EPR Insulation.
Bare Copper Concentric Neutrals.
Low Density Polyethylene Jacket.



APPLICATIONS

Predominantly used for primary underground distribution in conduit systems; suitable for use in wet or dry locations, direct burial, underground duct, and where exposed to sunlight. To be used at 15,000 volts or less and at conductor temperatures not to exceed 105°C for normal operation.

SPECIFICATIONS

Southwire 15kV Primary UD EPR Cable meets or exceeds the following ASTM specifications:

- B3 Soft Annealed Copper Wire
- B8 Concentric-Lay-Stranded Copper Conductors, Hard, Medium-Hard or Soft
- B230 Aluminum, 1350-H19 Wire for Electrical Purposes
- B231 Aluminum 1350 Conductors, Concentric-Lay-Stranded
- B609 Aluminum 1350 Round Wire, Annealed and Intermediate Tempers, for Electrical Purposes

Southwire 15kV Primary UD EPR Cable is manufactured to the latest edition of the following specifications, and in the order as listed:

- ANSI/ICEA S-94-649
- AEIC CS-8
- UL 1072, When Specified
- RUS 1728F-U1

CONSTRUCTION

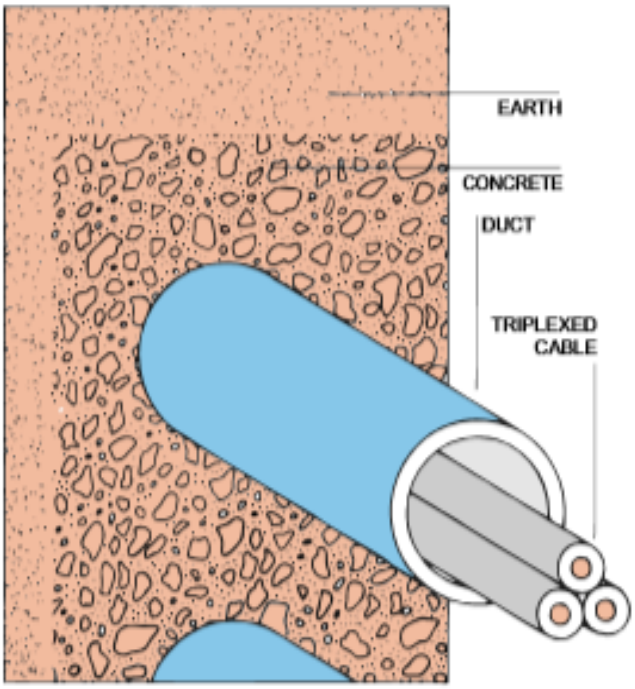
The cable is composed of a solid or moisture blocked reverse lay, compressed stranded soft drawn copper, or a solid or moisture blocked reverse lay or unilay compressed stranded 1350-H16/26 aluminum phase conductor, covered by a semi-conducting cross-linked polyethylene strand shield, an ethylene propylene rubber primary insulation, and a semi-conducting cross-linked polyethylene insulation shield. Conductors are available with either 100% or 133% insulation levels. A concentric neutral of bare copper wires and a sunlight resistant, -40°C rated, insulating linear low density polyethylene jacket are applied over the insulation shield. The cable is identified by surface print on the jacket and with the lightning bolt symbol for supply cables indented in the jacket. Red extruded stripes available upon request. A semi-conducting polyethylene jacket is also available upon request.

Southwire

MADE IN THE USA

Okonite Cables
Section 6

Ampacity Tablets



Three single or triplexed cable underground ducts

Closed shield operation. Shields bonded and grounded at multiple points. One triplexed cable or three single conductor cables in a duct. All cables equally loaded and in outside ducts only.

Earth ambient temperature 20°C
Earth thermal resistivity RHO 90
100% load factor
Depth of burial - 30" to top of duct bank with ducts on 7 1/2" centers.

One circuit — three single or triplexed conductors per duct

Table 6-10

Three single or triplexed conductors
Copper — underground ducts

Three single or triplexed conductors
Aluminum — underground ducts

Conductor Size AWG-kcmil	Non-Shielded	Shielded				Non-Shielded	Shielded			
	600-2000 Volts Ampacity	2001-5000 Volts Ampacity		5001-35000 Volts Ampacity		600-2000 Volts Ampacity	2001-5000 Volts Ampacity		5001-35000 Volts Ampacity	
	90° C (194°F)	90° C (194°F)	105°C (221°F)	90° C (194°F)	105°C (221°F)	90° C (194°F)	90° C (194°F)	105°C (221°F)	90° C (194°F)	105°C (221°F)
8	64	64	69	—	—	50	50	54	—	—
6	85	85	92	90	97	66	66	71	70	75
4	111	110	120	115	125	86	86	93	91	98
2	146	145	155	155	165	114	115	125	120	130
1	168	170	180	175	185	131	130	140	135	145
1/0	193	195	210	200	215	150	150	160	155	165
2/0	220	220	235	230	245	172	170	185	175	190
3/0	252	250	270	260	275	196	195	210	200	215
4/0	290	290	310	295	315	226	225	245	230	245
250	319	320	345	325	345	250	250	270	250	270
350	387	385	415	390	415	304	305	325	305	330
500	471	470	505	465	500	372	370	400	370	400
750	585	585	630	565	610	468	470	505	455	490
1000	670	670	720	640	690	546	545	590	525	565

Okonite Cables

Section 6

Ampacity Tablets

Three circuits — three single or triplexed conductors per duct

Table 6-11

Three single or triplexed conductors
Copper — underground ducts

Three single or triplexed conductors
Aluminum — underground ducts

Conductor Size AWG-kcmil	Non-Shielded	Shielded				Non-Shielded	Shielded			
	600-2000 Volts Ampacity	2001-5000 Volts Ampacity		5001-35000 Volts Ampacity		600-2000 Volts Ampacity	2001-5000 Volts Ampacity		5001-35000 Volts Ampacity	
	90° C (194°F)	90° C (194°F)	105°C (221°F)	90° C (194°F)	105°C (221°F)	90° C (194°F)	90° C (194°F)	105°C (221°F)	90° C (194°F)	105°C (221°F)
8	56	56	60	—	—	44	44	47	—	—
6	73	73	79	77	83	57	57	61	60	65
4	95	95	100	99	105	74	74	80	77	83
2	123	125	130	130	135	96	96	105	100	105
1	141	140	150	145	155	110	110	120	110	120
1/0	161	160	175	165	175	126	125	135	125	140
2/0	183	185	195	185	200	143	145	155	145	155
3/0	208	210	225	210	225	162	160	175	165	175
4/0	237	235	255	240	255	185	185	200	185	200
250	260	260	280	260	280	203	205	220	200	220
350	313	315	335	310	330	245	245	265	245	260
500	376	375	405	370	395	297	295	320	290	315
750	461	460	495	440	475	369	370	395	355	385
1000	523	525	565	495	535	426	425	460	405	440

Six circuits — three single or triplexed conductors per duct

Table 6-12

Three single or triplexed conductors
Copper — underground ducts

Three single or triplexed conductors
Aluminum — underground ducts

Conductor Size AWG-kcmil	Non-Shielded	Shielded				Non-Shielded	Shielded			
	600-2000 Volts Ampacity	2001-5000 Volts Ampacity		5001-35000 Volts Ampacity		600-2000 Volts Ampacity	2001-5000 Volts Ampacity		5001-35000 Volts Ampacity	
	90° C (194°F)	90° C (194°F)	105°C (221°F)	90° C (194°F)	105°C (221°F)	90° C (194°F)	90° C (194°F)	105°C (221°F)	90° C (194°F)	105°C (221°F)
8	48	48	52	—	—	38	38	41	—	—
6	62	62	67	64	68	48	48	52	50	54
4	80	80	86	82	88	62	62	67	64	69
2	103	105	110	105	115	80	80	86	80	88
1	117	115	125	120	125	91	91	98	90	99
1/0	133	135	145	135	145	104	105	110	105	110
2/0	150	150	160	150	165	117	115	125	115	125
3/0	170	170	185	170	185	133	135	145	130	145
4/0	193	195	210	190	205	151	150	165	150	160
250	211	210	225	210	225	165	165	180	165	175
350	252	250	270	245	265	197	195	210	195	210
500	301	300	325	290	310	238	240	255	230	250
750	365	365	395	350	375	292	290	315	280	305
1000	412	410	445	390	415	336	335	360	320	345

BLOCK ISLAND POWER SYSTEM UPGRADE

AMPACITIES- BARE OH COPPER

Bare copper wire has a normal rating of 75^{o} C which produces the ampacities shown in the Southwire cut sheet based on the parameters shown at the bottom of the sheet. Generally hard drawn copper is used for OH primary distribution as it has the most strength. Some additional charts are attached that also show an overload ampacity that some utilities allow (up to 100° C) but the danger of allowing the wire to go to the higher temperatures may start to anneal the copper which drops the rated strength significantly as shown in the first cut sheet. The sag of the conductor also has to be considered as these higher temperatures will create additional sag which may contact lower wires on the pole or trees.

Southwire
One Southwire Drive
Carrollton, Ga. 30119 USA

Thu Mar 21 11:12:22 EDT 2013

Bare Copper

Size (AWG)	Stranding	Stranding Class	Weight (lbs/1000 ft)	Diameter (mils)		Hard Drawn		Medium-Hard Drawn		Soft-Drawn (Annealed)		Allowable Ampacity+
				Individual Wires	Complete Conductor	Rated Strength (lbs)	DC Resistance (ohms/1000 ft) @20°C	Rated Strength (lbs)	DC Resistance (ohms/1000 ft) @20°C	Rated Strength (lbs)	DC Resistance (ohms/1000 ft) @20°C	
STRANDED												
8	7	B	51	49	146	777	.6663	610	.6629	499	.6408	95
6	7	B	81	61	184	1228	.4191	959	.4169	794	.4030	130
4	7	A, B	128.9	77	232	1938	.2636	1505	.2622	1320	.2534	170
3	7	A, B	162.5	87	260	2433	.2090	1885	.2079	1670	.2010	200
2	7	A, B	204.9	97	292	3050	.1660	2360	.1650	2110	.1578	230
1	7	A	258.4	109	328	3801	.1316	2955	.1309	2552	.1252	265
1/0	7	A, AA	326.1	123	368	4752	.1042	3705	.1037	3221	.1002	310
2/0	7	A, AA	410.9	138	414	5926	.08267	4640	.08224	4062	.07949	355
2/0	19	B	410.9	84	418	6690	.08267	4765	.08224	4024	.07949	355
3/0	7	A, AA	518.1	155	464	7366	.06556	5812	.06522	5118	.06304	410
4/0	7	A, AA	653.3	174	522	9154	.05199	7278	.05172	6459	.04999	480
4/0	19	B	653.3	106	528	9617	.05199	7479	.05172	6453	.04999	480
250	19	A	771.9	115	574	11360	.04400	8836	.04378	7627	.04231	530
250	37	B	771.9	82	575	11600	.04400	8952	.04378	7940	.04231	530
300	19	A	926.2	126	628	13510	.03667	10530	.03648	9160	.03526	590
350	19	A	1080.6	136	679	15590	.03143	12200	.03127	10680	.03022	650
500	37	A, B	1543.8	116	814	22510	.02200	17550	.02189	15240	.02116	810
600	37	A, AA	1852.5	127	891	27020	.01834	21060	.01825	18300	.01763	910
750	61	A, B	2315.6	111	998	34090	.01467	26510	.01459	22890	.01410	1040
1000	61	A, B	3087.5	128	1152	45030	.01100	35100	.01094	30500	.01058	1240

+Ampacity based on 75°C conductor temperature; 25°C ambient temperature; 2 ft./sec. wind in sun.

BLOCK ISLAND POWER SYSTEM UPGRADE

BARE COPPER				
	Summer Ampacity		Winter Ampacity	
Size	Normal	Emergency	Normal	Emergency
#6 3 Str	130	160	165	185
#6 Solid	125	150	155	175
#4 3 Str	175	215	220	250
#4 Solid	165	205	210	240
#3 7 Str	200	245	250	285
#2 7 Str	230	280	290	330
#2 3 Str	235	290	300	340
#2 Solid	225	275	285	320
#1 7 Str	265	330	335	385
#1 3 Str	275	340	350	395
#1/0 7 Str	310	380	390	445
2/0 7 Str	355	440	455	520
3/0 7 Str	410	510	525	600
4/0 19 Str	480	595	615	700
250	535	665	685	785
300	595	745	770	880
350	660	825	850	970
400	715	895	925	1060
500	820	1030	1065	1220
700	1005	1270	1315	1510
1000	1240	1570	1625	1870

PARAMETERS USED TO CALCULATE AMPACITIES				
	Summer Ampacity		Winter Ampacity	
	Normal	Emergency	Normal	Emergency
Ambient Temp. (°C)	26.7	26.7	4.4	4.4
Bare Wire Conductor Temp (°C)	75	100	75	100
Covered Wire Conductor Temp (°C)	75	85	75	85
Spacer Cable Conductor Temp (°C)	75	100	75	100
Tree Wire Conductor Temp (°C)	75	90	75	90
Wind Speed (Ft/Sec)	2	2	2	2

BLOCK ISLAND POWER SYSTEM UPGRADE

CONVERSION ISSUES FOR DISCUSSION

- **ROTATION**

  Rotation needs to be determined before the conversion on the substation and on all 6 feeders. The substation rotation needs to be confirmed immediately after the conversion and then as each circuit is picked up with proposed steps the rotation needs to be confirmed to make sure the step connections were all done correctly.

- **PHASING**

  All circuit open points need to have their phasing checked after the conversion to make sure that the step connections were all done correctly.

- **STEP TRANSFORMERS**

  Since conversion of the entire system at one time to a wye system would require significant resources, a set of steps could be installed on each circuit to allow it to remain a 2.4 kV delta circuit until a later date when each circuit could be converted one at a time. There are several ways to connect these steps on the source side (grounded wye, floating wye and delta) with each method having its pros and cons. The eventual decision may be based on input from a Protection & Controls (P&C) Engineer as to the best way to clear a fault downline.

- **Protection & Controls (P&C)**

  The entire substation, diesel interconnection and circuits need to be evaluated by an experienced P&C engineer to make sure everything coordinates including with the National Grid protection back at the source substation. Typically, a wye system has ground trip relays that help provide better fault clearing than just phase over current protection so they will probably recommend that as a minimum.

- **Diesel Generators**

  The diesel generators will need to be reconnected into a wye configuration and phased into the new system and may require additional protection systems.

- **NEUTRAL**

  National Grid will bring a neutral from their substation into the BIPCO substation where it will need to be tied into the substation ground grid (assumes there is an existing ground grid). The substation fence should be tied into the ground grid and it's a common practice to have a buried ground wire outside the fence approximately 3 feet to provide an equipotential zone in case someone is outside and touching the fence during a fault event. As each circuit is converted a neutral will need to be run from the substation for all three phase portions of the circuit. If two circuits share the same pole line they can share the same neutral until they split and then a separate neutral is required for each circuit. During the initial visit it appears that there may

already be extra wires that can be used for a neutral but they were generally not in the typical lower position on the pole so a way to consistently identify which conductor is the neutral needs to be determined so line crews always know which wire is the neutral. For all existing single phase taps there is no need for any additional wires but one of two wires will have to be the designated neutral and identified as such. It could either be moved down on the pole or left on the cross arm with some sort of identification. As each circuit is converted from a delta to a wye, each transformer needs to have the H2 tap moved to the neutral. If there is a cutout/LA on this tap it needs to be removed.

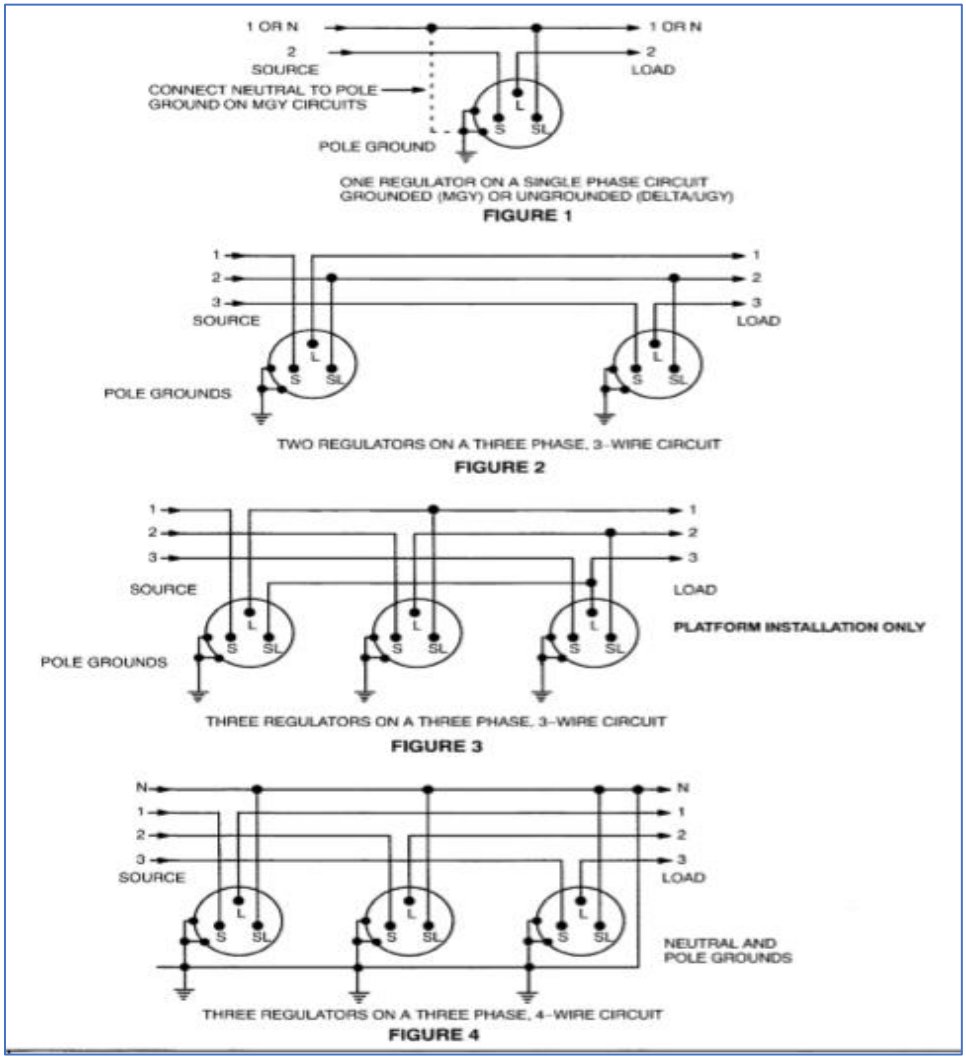
- **CIRCUIT GROUNDING**

  All equipment, racks, cable grounds, riser poles, controls, etc, will need to have an 8′ driven ground at that pole location (controls and LB switch locations should have a second ground rod driven at that location 8' from the first ground rod or a ground mat installed for worker safety). Also, the NESC requires a minimum of 4 pole grounds per mile to tie the neutral to ground so if there is not enough equipment in a given mile then additional grounds need to be driven to satisfy the NESC. All guy wires also need to get tied into the neutral.

- **REGULATORS**

  Regulators that are currently connected in a delta connection (figure 3 below) will need to be reconnected into a wye (figure 4 below).

BLOCK ISLAND POWER SYSTEM UPGRADE



ONE REGULATOR ON A SINGLE PHASE CIRCUIT
GROUNDED (MGY) OR UNGROUNDED (DELTA/UGY)

FIGURE 1

TWO REGULATORS ON A THREE PHASE, 3-WIRE CIRCUIT

FIGURE 2

THREE REGULATORS ON A THREE PHASE, 3-WIRE CIRCUIT

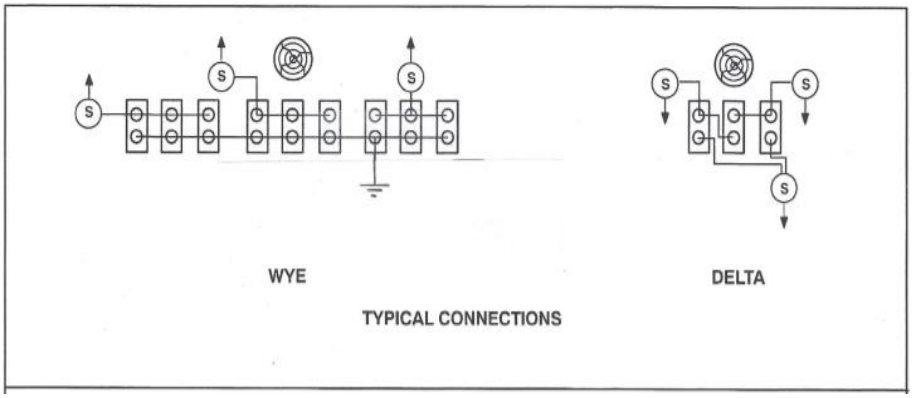
FIGURE 3

THREE REGULATORS ON A THREE PHASE, 4-WIRE CIRCUIT

FIGURE 4

- **CAPACITOR BANKS**

  If there are any capacitor banks on the system, they will also need to be reconnected from a delta to a wye connection.

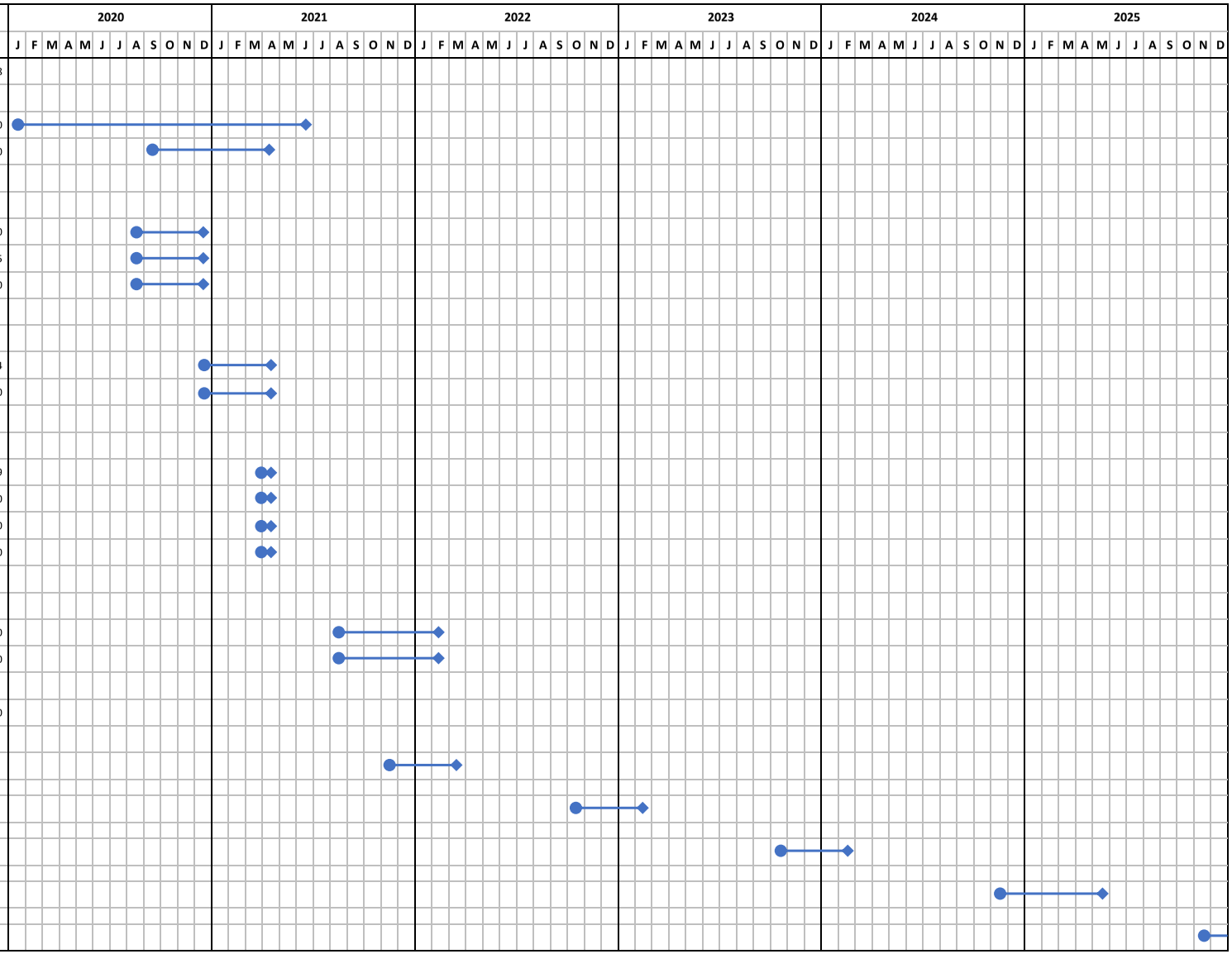


TYPICAL CONNECTIONS

A proposed schedule and cost estimate is included on the following page.

Block Island Utility District
Voltage Conversion Schedule and Cost Summary

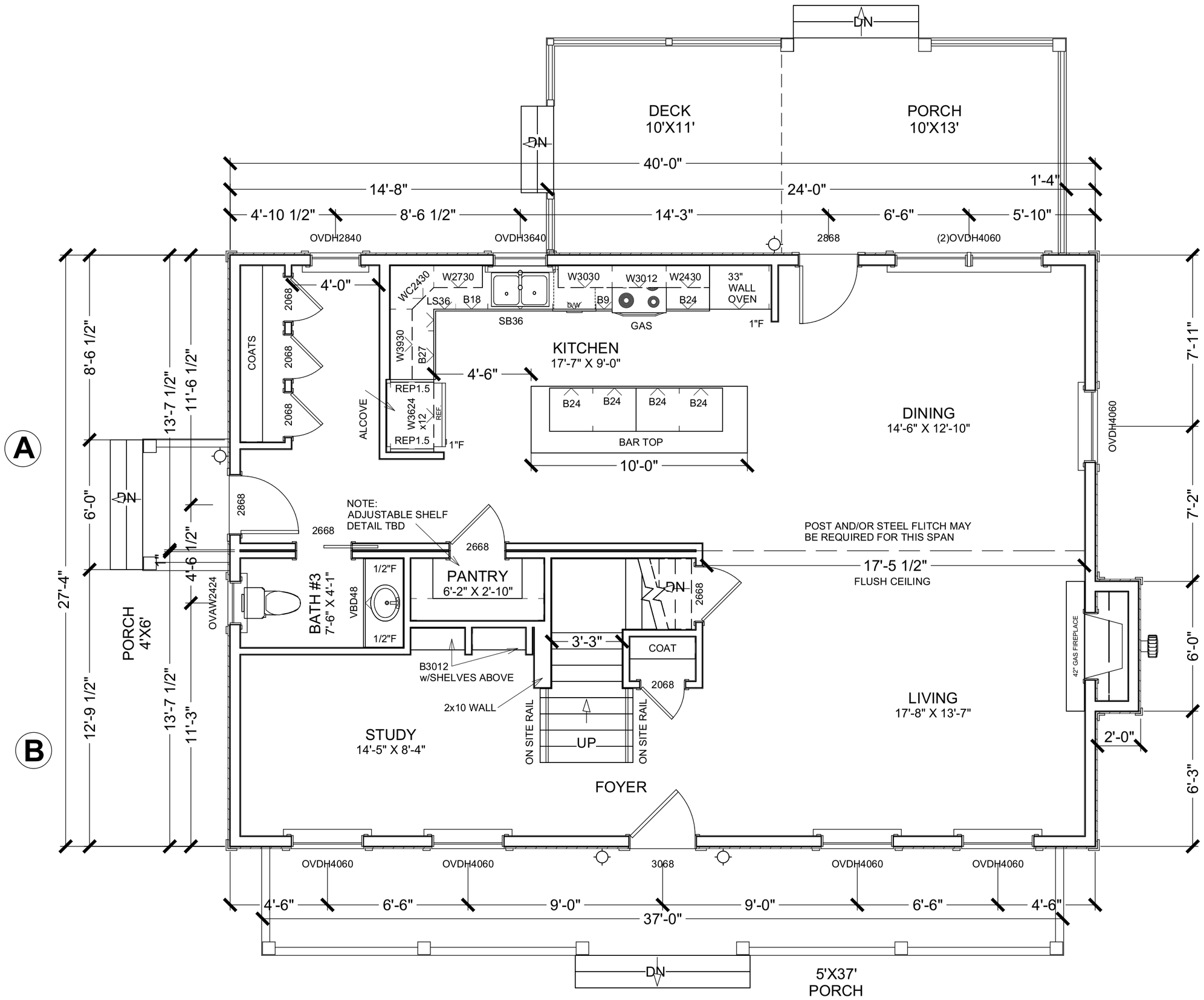
Phase/Task	Cost
PHASE ONE - SUBSTATION and NEW HARBOR CONVERSION	$ 765,838
ENGINEERING	
WSSI Project Management Engineering	$ 25,000
Control Point Technologies	$ 28,500
PROCUREMENT	
Distribution Line Reclosers (5)	$ 135,000
Step Transformers (5 Circuits X 3 Each)	$ 77,325
Poles and Hardware	$ 8,350
Pre-Conversion Construction	
Contract Line Worker	$ 102,824
Internal Line Work	$ 20,000
Conversion Constructionand Commissioing	
Contract Line Worker	$ 52,259
Internal Line Work	$ 9,080
BIUD Substation - Contract Techs	$ 25,000
National Grid Substation Techs	$ 22,500
Generation Plant Coversion from 2,400V to 4,160V	
Minton Cat Technicians	$ 75,000
Prime Automation Technicians	$ 120,000
Indirects/Lodging/Freight/Ferry	$ 65,000
PHASE TWO - OLD HARBOR 5A CIRCUIT CONVERSION	
PHASE THREE - HIGH STREET 4A CIRCUIT CONVERSION	
PHASE TWO - CORN NECK 6A CIRCUIT CONVERSION	
PHASE TWO - WEST SIDE 2A CIRCUIT CONVERSION	
PHASE TWO - AIRPORT 1A CIRCUIT CONVERSION	



Attachment JMW-2

AGENDA ITEM 7

EMPLOYEE HOUSING



GENERAL NOTES:
8'-0" CEILING HEIGHT
WINDOWS HEADER HEIGHT @ 6'-10 1/2" UNLESS NOTED OTHERWISE
OCEAN VIEW IMPACT GLASS SERIES DBL HUNG WINDOWS
ALTERNATE PLAN:
WITH 37' FRONT PORCH

NO.	DESCRIPTION	BY	DATE
01		SDD	04/28/20
02		SDD	05/04/20
03		SDD	05/06/20

Connecticut Valley Homes

DRAWING # 200405

DRAWN BY: SDD

27'-4" x 40'

BLOCK ISLAND UTILITY
CORNER OF OCEAN RD & BEACH RD
BLOCK ISLAND , RI

CUSTOMER :

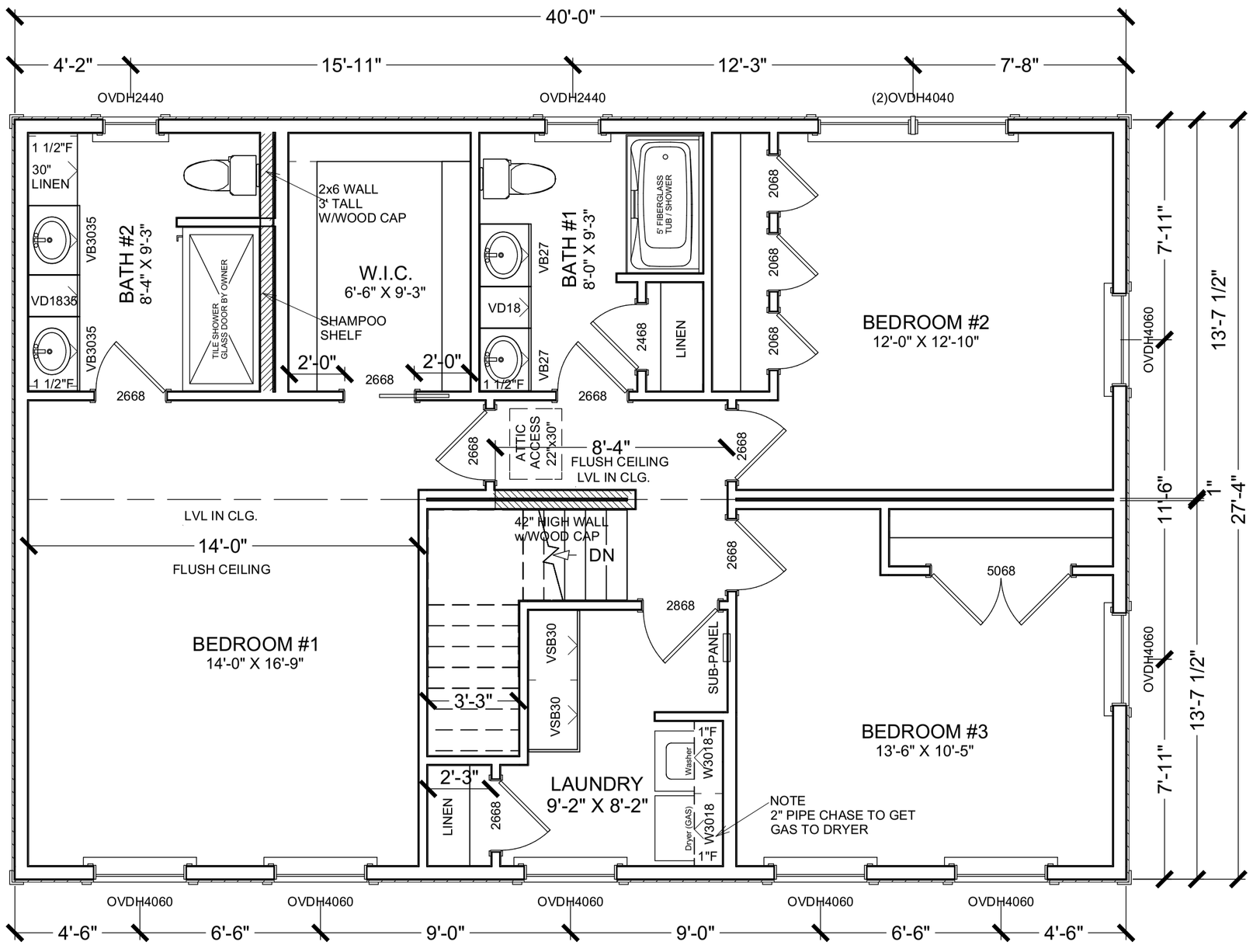
DATE:
04/27/20

MODEL:
TWO STORY

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

DRAWING:
1ST FLOOR PLAN

SHEET:
1



GENERAL NOTES:
8'-0" CEILING HEIGHT
WINDOWS HEADER HEIGHT @ 6'-10 1/2" UNLESS NOTED OTHERWISE
OCEAN VIEW IMPACT GLASS SERIES DBL HUNG WINDOWS

NO.	DESCRIPTION	BY	DATE
01		SDD	04/28/20
02		SDD	05/04/20
03		SDD	05/06/20

Connecticut Valley Homes

DRAWING # 200405

DRAWN BY: SDD

27'-4" x 40'

BLOCK ISLAND UTILITY
CORNER OF OCEAN RD & BEACH RD
BLOCK ISLAND , RI

CUSTOMER :

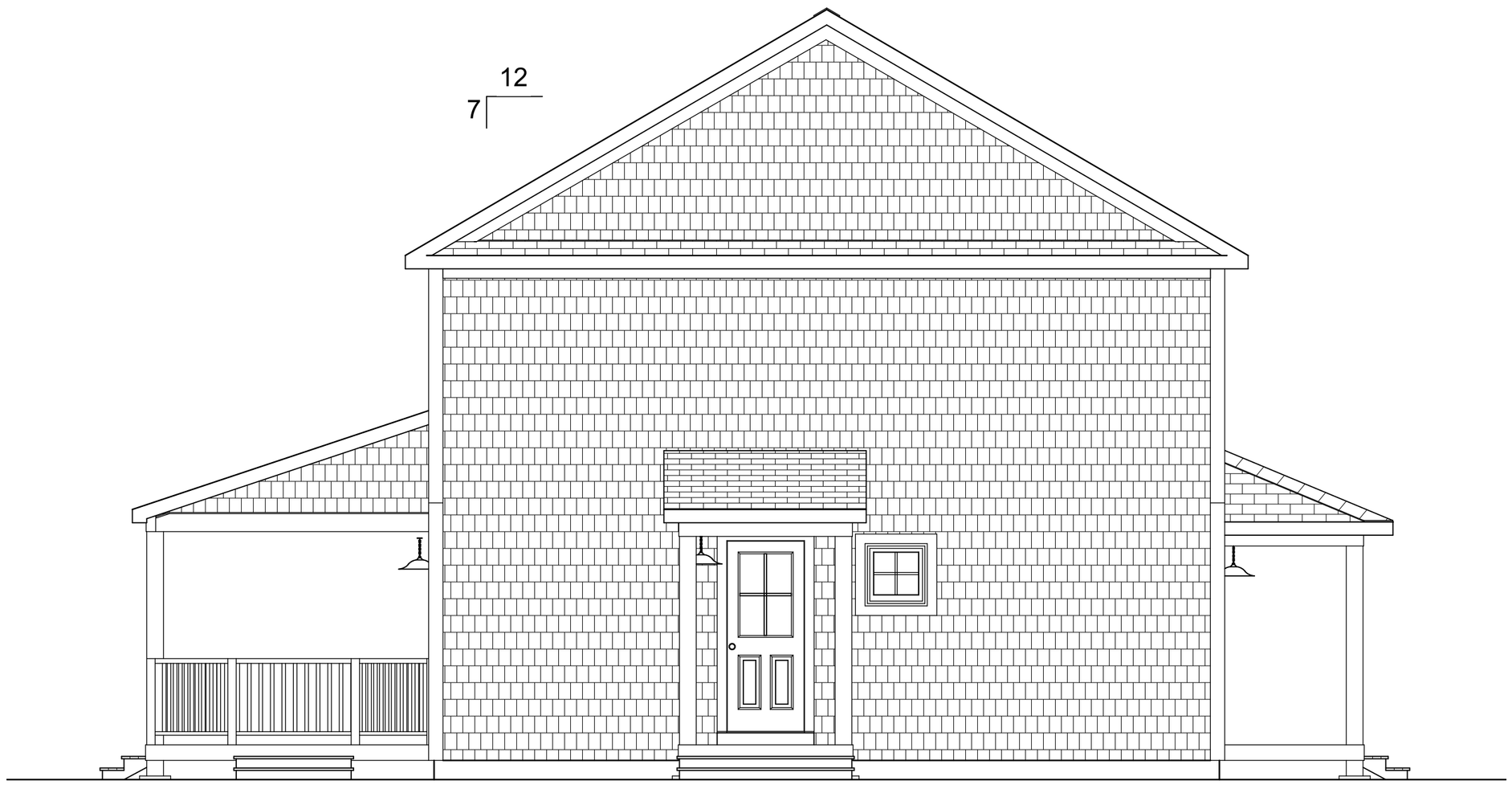
DATE: 04/27/20

MODEL: TWO STORY

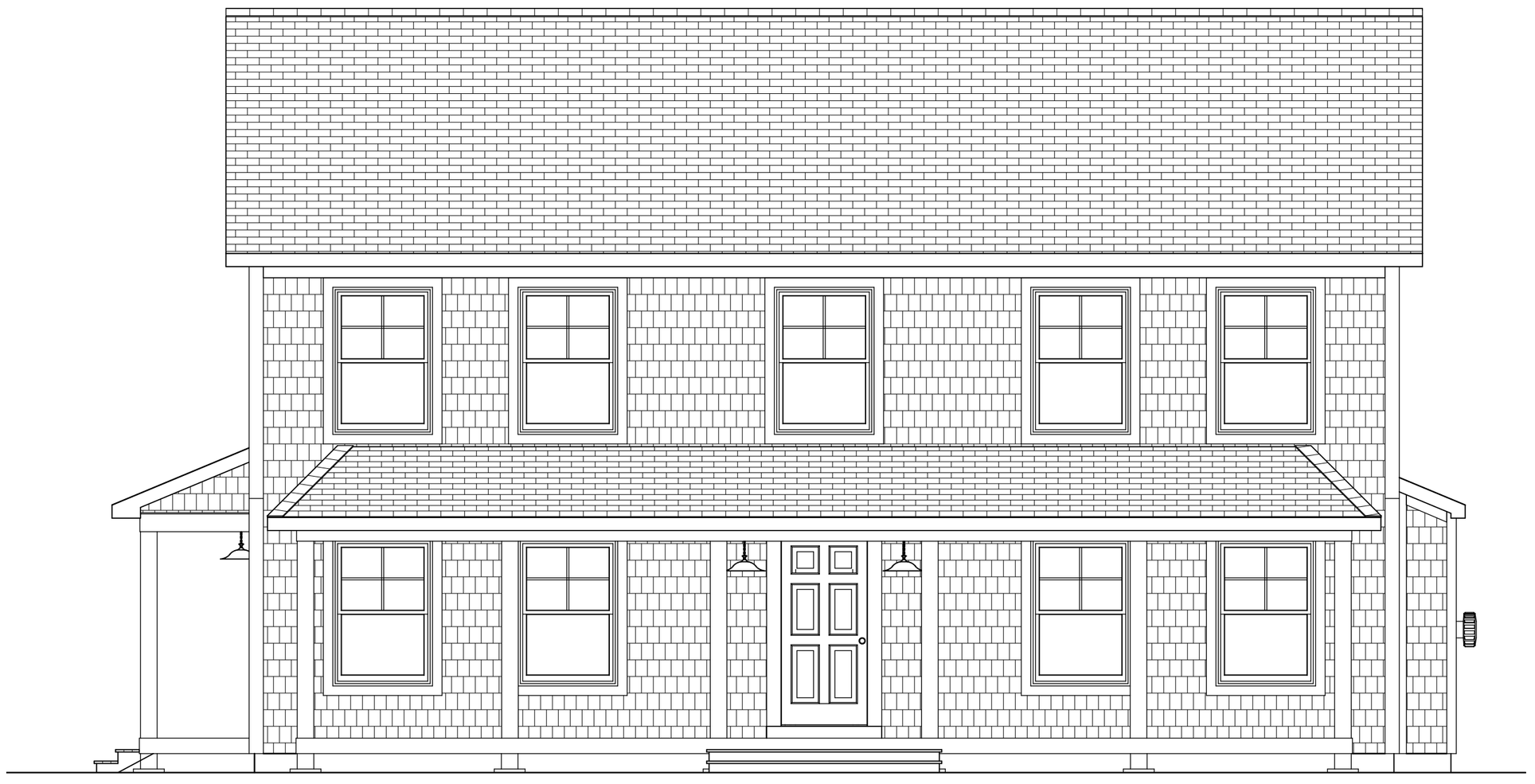
SCALE: 1/4"=1'-0"

DRAWING: **2ND FLOOR PLAN**

SHEET: **2**



LEFT ELEVATION



FRONT ELEVATION: ALTERNATE FRONT PORCH

NO.	DESCRIPTION	BY	DATE
01		SDD	04/28/20
02		SDD	05/04/20
03		SDD	05/06/20

Connecticut Valley Homes

DRAWING # 200405

DRAWN BY: SDD

27'-4" x 40'

BLOCK ISLAND UTILITY
CORNER OF OCEAN RD & BEACH RD
BLOCK ISLAND , RI

CUSTOMER :

DATE:
04/27/20

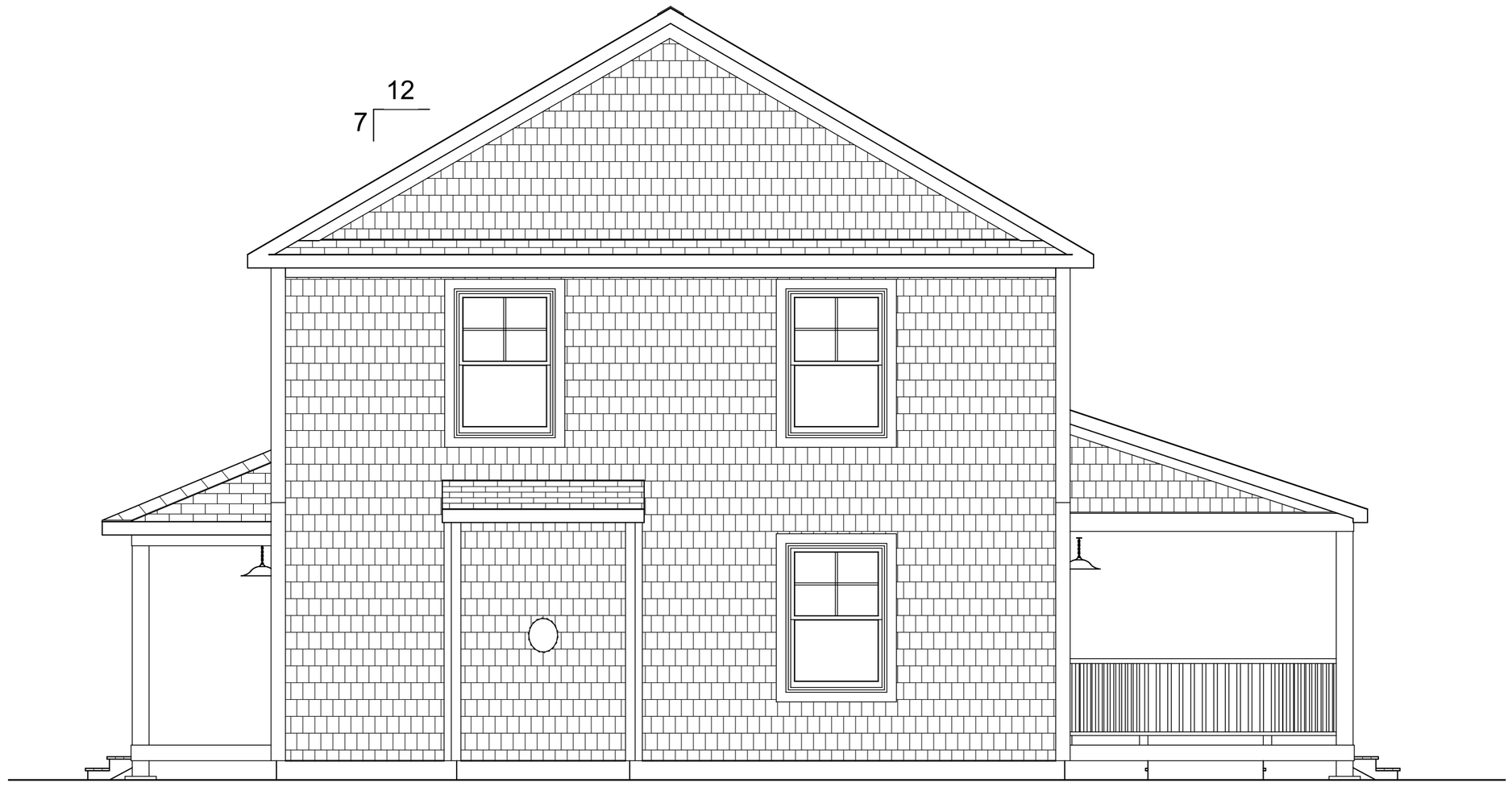
MODEL:
TWO STORY

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

DRAWING:
FRONT/LEFT ELEVATIONS

SHEET:
3

REAR ELEVATION



RIGHT ELEVATION

NO.	DESCRIPTION	BY	DATE
01		SDD	04/28/20
02		SDD	05/04/20
03		SDD	05/06/20

Connecticut Valley Homes

DRAWING # 200405

DRAWN BY: SDD

27'-4" x 40'

BLOCK ISLAND UTILITY
CORNER OF OCEAN RD & BEACH RD
BLOCK ISLAND , RI

CUSTOMER :

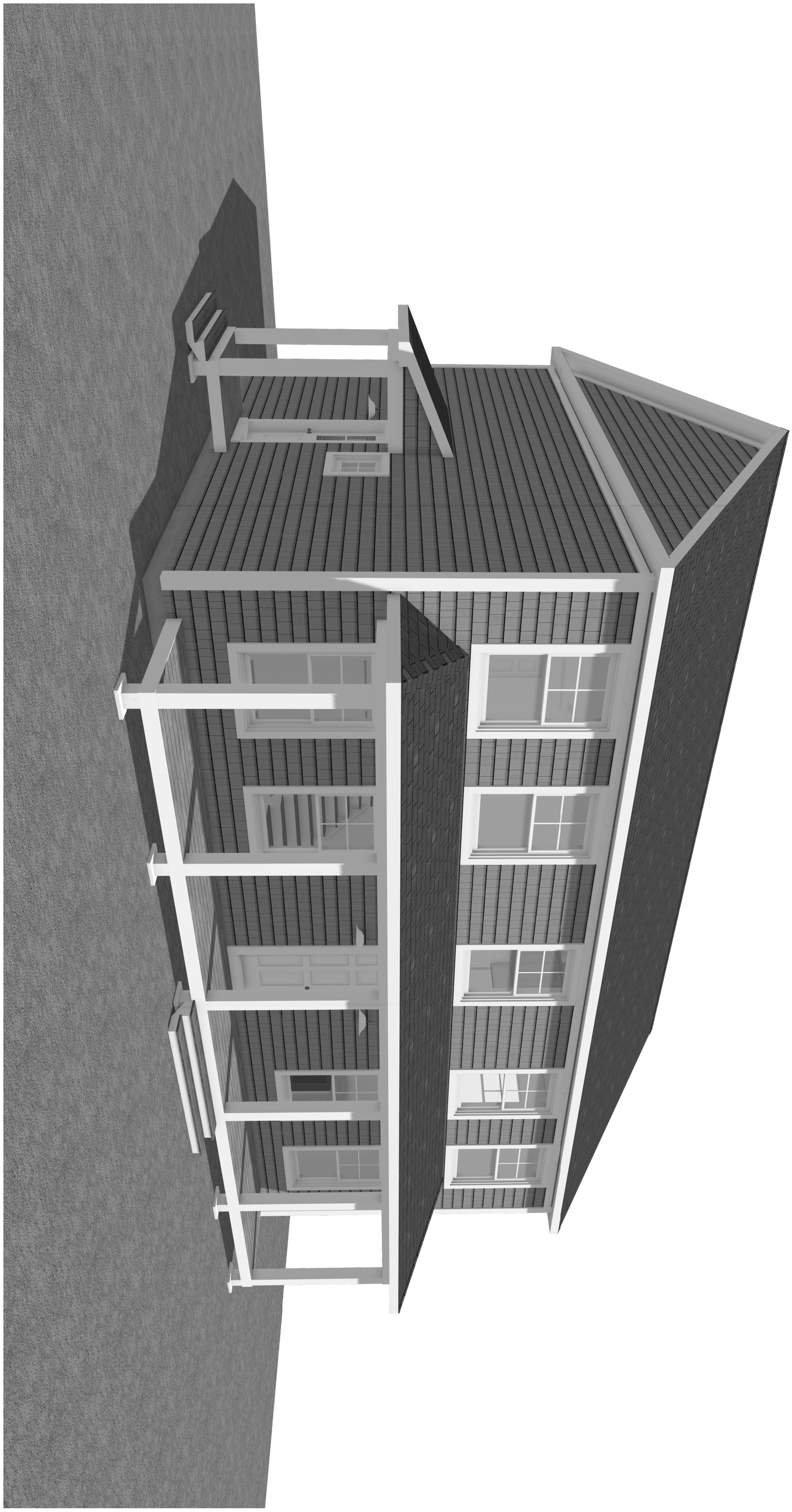
DATE:
04/27/20

MODEL:
TWO STORY

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

DRAWING:
REAR/RIGHT ELEVATIONS

SHEET:
4



SHEET:	5
DRAWING:	3D RENDERING
SCALE:	1/4"=1'-0"
MODEL:	TWO STORY
DATE:	04/27/20

27'-4" x 40'

CUSTOMER:

BLOCK ISLAND UTILITY

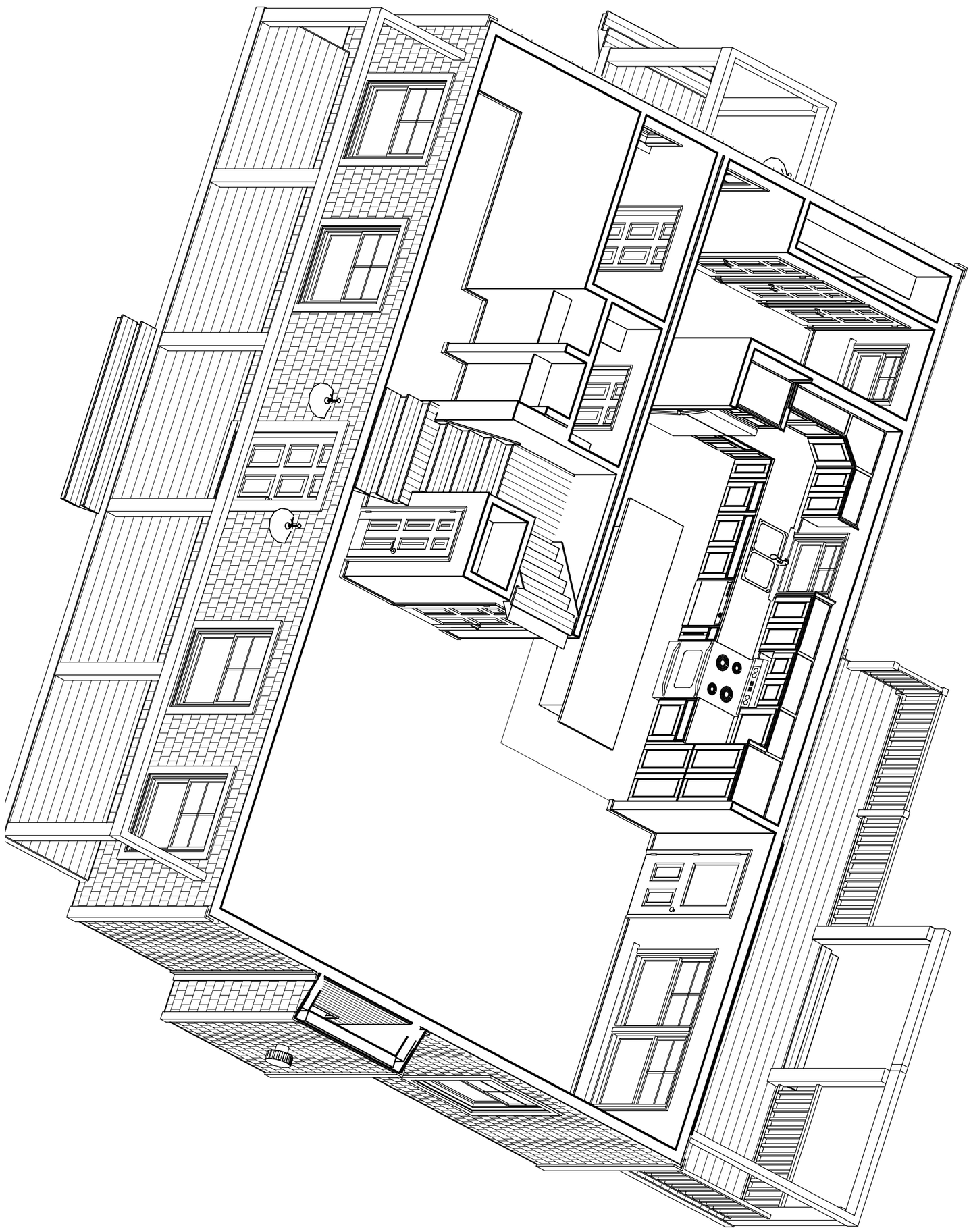
CORNER OF OCEAN RD & BEACH RD
BLOCK ISLAND , RI

DRAWING # 200405

DRAWN BY: SDD

Connecticut Valley Homes

NO.	DESCRIPTION	BY	DATE
01		SDD	04/28/20
02		SDD	05/04/20
03		SDD	05/06/20



SHEET:	6
DRAWING:	3D INTERIOR
SCALE:	1/4"=1'-0"
MODEL:	TWO STORY
DATE:	04/27/20

27'-4" x 40'

CUSTOMER:

BLOCK ISLAND UTILITY

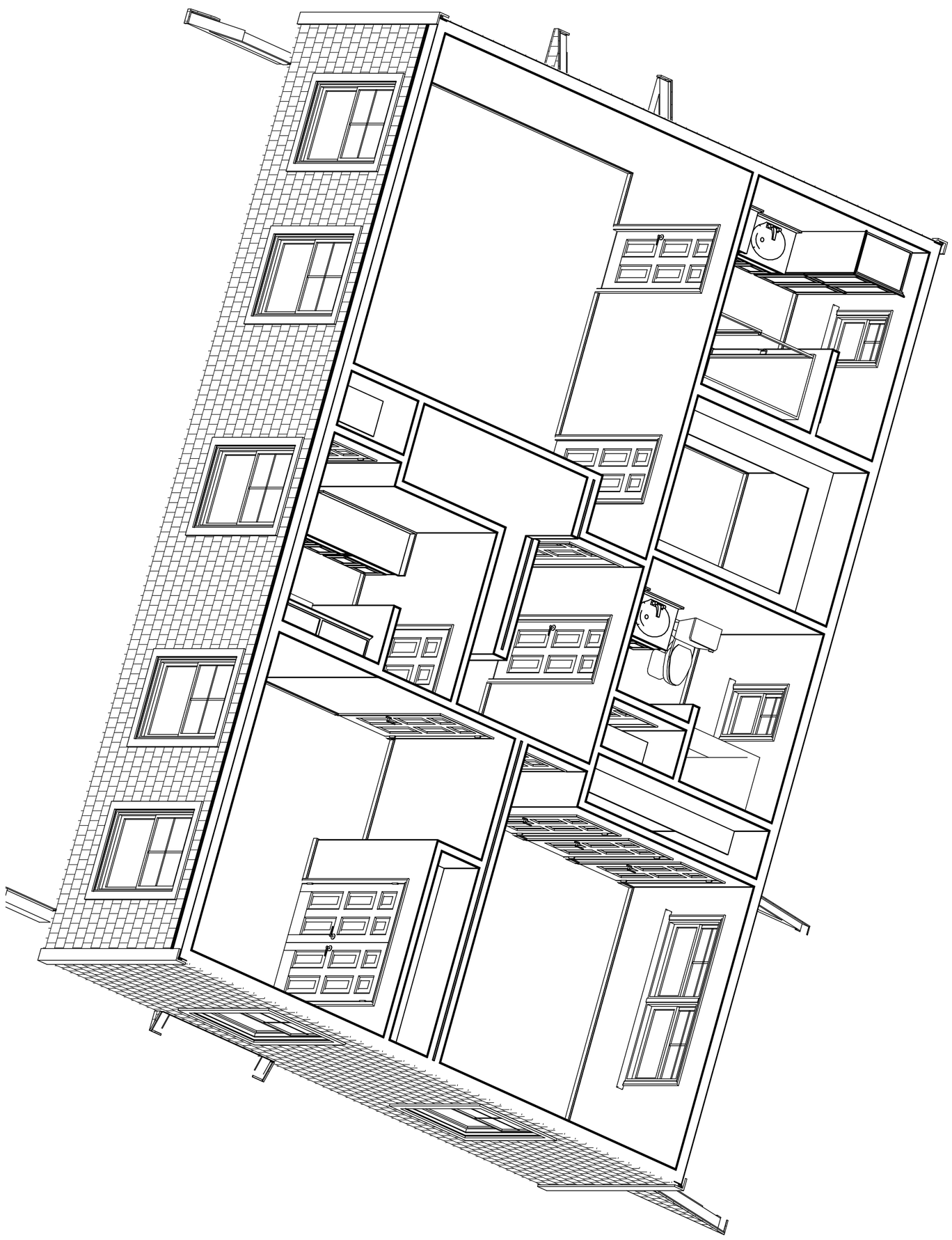
CORNER OF OCEAN RD & BEACH RD
BLOCK ISLAND , RI

DRAWING # 200405

DRAWN BY: SDD

Connecticut Valley Homes

NO.	DESCRIPTION	BY	DATE
01		SDD	04/28/20
02		SDD	05/04/20
03		SDD	05/06/20



SHEET:	7
DRAWING:	3D INTERIOR
SCALE:	1/4"=1'-0"
MODEL:	TWO STORY
DATE:	04/27/20

27'-4" x 40'

CUSTOMER :

BLOCK ISLAND UTILITY

CORNER OF OCEAN RD & BEACH RD
BLOCK ISLAND , RI

DRAWING # 200405

DRAWN BY: SDD

Connecticut Valley Homes

NO.	DESCRIPTION	BY	DATE
01		SDD	04/28/20
02		SDD	05/04/20
03		SDD	05/06/20