

Westerly Granite as Infrastructure: Paving Stones to Runways to Sea Walls

Hugh A Barton

January 26, 2025



Infrastructure: Important but not “pretty”

- Paving Stones
- Paving Stone Cutters' Union
- Crushed stone – Sullivan Granite Co
- Sea Walls – 1858 to today

Order No. 2309
Account No. 406-
Easton

6 Oct York P.O. Box Westbury For Eastham Mass

Stone Number	Stone Size	QUANTITY	DATE	CUTTER	Per. of Work	Value of Work	Estimated Labor	Cost Labor	Estimated Total	Cost Total
✓1	4-3	1-2	10 Aug. 20	William Kennedy	117	14.2	337	580		
✓2	7-6	1-2	10 Sept 3	R. J. Lyman	116	7.4	400	713		
✓3	4-3	1-2	10 Aug. 22	James Blaney	132	1.2	337	160		
✓4	5-10	2-0	6 . 30	R. H. Hollands	147	5.10	1100	1100		
✓5	5-10	2-0	6 . 31	James Blaney	132	5.10	1100	1141		
✓6	8-0	1-2	6 . 31	P. B. Belmont	140	14.8	400	661		
✓7	6-4	1-2	6 . 32	William Kennedy	117	3.8	310	555		
✓8	6-2	1-2	6 . 32	Alva Mitchell	107	3.1	300	704		
✓9	7-10	1-2	6 . 30	William Kennedy	117	1.7	400	713		
✓10	7-10	1-2	6 Sept 4	Charles Bonnell	139	4.7	400	604		
✓11	6-2	1-2	6 Aug. 23	James Blaney	132	3.1	300	1541		
✓12	6-2	1-2	6 . 26	Charles Bonnell	119	3.1	300	1591		
✓13	7-10	1-2	6 Sept 6	Charles Bonnell	139	4.7	400	1545		
✓14	2-3	1-0	6 . 3	William Kennedy	117	1.2	75	240		
✓15	2-0	2-0	6 Aug. 19	Charles Bonnell	119	1.0	75	433		
✓16	5-6	1-0	6 . 23	Charles Bonnell	119	2.9	250	663		
✓17	2-0	2-0	6 . 21	William Kennedy	117	1.0	75	413		
✓18	2-3	1-0	6 Sept 3	Charles Bonnell	117	1.2	75	264		
✓19	2-3	1-0	6 . 4	James Blaney	132	1.2	75	366		
✓20	2-0	9	6 . 3	Albert Spargo	108	1.0	75	240		
✓21	2-3	1-0	6 . 4	William Kennedy	117	1.2	75	264		
✓22	2-0	9	6 . 5	James Blaney	132	1.0	75	263		
			Aug. 23	Charles Bonnell	92	4.0	350	706		
			8 . 23	Albert Spargo	108	4.0	350	1537		
			8 . 24	William Kennedy	117	4.0	400	952		
			0 Sept 6	Charles Bonnell	139	6.0	300	701		
			6 . 6	Charles Bonnell	117	1.0	250	423		
					929	3640	15925	24614		
						1721	1721	6912		
						6912	24614	6912		
								025		
								31913		

Eastham, Mass.
Town Hall Steps & Door Sill.



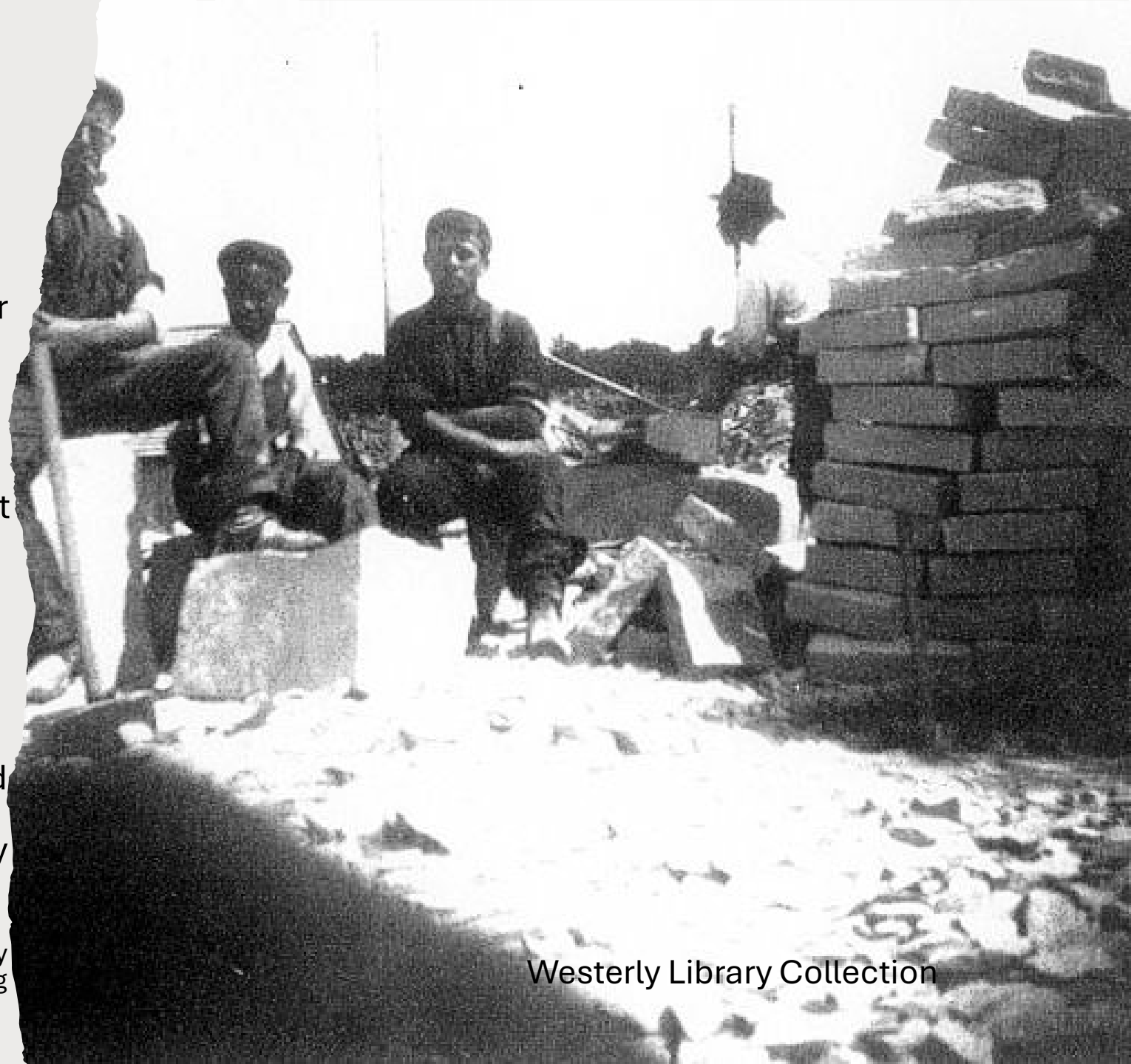
Paving Stones



<https://www.flickr.com/photos/westerlylibrary/albums>

Paving Stones

- Street paving about 1870s to 1910s (horses, street cars)
- Cutters paid by the piece. 1890 \$22.50 per thousand for sevens (largest) and under the most favorable conditions cut 150 blocks per day. (Providence Journal p3 2May1890)
- Cutters went where the work was even out of state (NY, MA, IL, MN)
- “We supplied the city and contractors in Brooklyn with 1,250,000 paving blocks from September, 1892, to January, 1893. We have also placed our products in New York, Yonkers, Philadelphia, Pa., and Newark, N. J. In all, we have produced and delivered more than 2,500,000 granite paving blocks.” Mr. James Grant, secretary of the Paving Cutters’ Union of the United States and Canada 10th Annual Report of the Bureau of Labor Statistics in Documents of the Assembly of the State of New York 1893 v.7; quarriesandbeyond.org



Paving Stones & Cutters



Babcock-Smith House Museum Collection
Westerly Public Library Granite Loan

Worked outdoors in ok weather of spring, summer, fall, winter

Work locations along railroad spurs between quarry holes

Used stone unsuitable for monumental work

Skilled work to quickly assess how stone would split and cut into shape

Built from Stone p 117

PAINFUL ACCIDENT.—George Leiper, a paving block cutter at the Smith Granite Works, met with a painful accident on Thursday. As he was turning over a block which was lying among others to break it, a heavy and ragged stone fell and caught his left hand. The forefinger was completely severed and the others badly crushed. Dr. F. T. Rogers attended the sufferer.

Providence Journal Sept 25, 1885

Paving Stones & Cutters

- Stonington Mirror. June 5, 1879. WESTERLY WHISPERINGS... The paving cutters employed by the Booth Brothers at the Rhode Island Granite Works in this village, twelve in number, have struck for a regular pay day and an advance from \$12.50 to \$14.00 per thousand, and have been discharged. They are nearly all Scotchmen, and most of them have left town, several going to Baltimore. One of the contractors says that they owe none of them over \$25, and that they will be paid in full as soon as the shipped work is paid for agreeably to the terms on which they were employed.
- “Some idea can be formed of the quarrying business, when it is known that one branch of it alone – that of paving stones – has shipped eighteen thousand tons to NY during the past season, to say nothing of the large quantities sent elsewhere.” Jan 10, 1890 Narragansett Weekly (p121 Built from Stone)
- Locomotive crane to deliver stone and remove finished blocks - New England Granite Works circa 1910



Westerly supplied...

WESTERLY.

THE QUARRIES.—The Rhode Island Granite Works are now employing 293 men, besides some 20 or 30 paving cutters. Heavy monumental work continues to be the specialty.

The Smith Granite Company are working in various capacities 205 men, and, owing to an increased demand for work, are about to add a dozen men to their force of cutters, three additional hands going to work on Tuesday.

Providence
Journal
Sept 19,
1878

- Quarterly Report of the Department of Public Works of the City of Providence, R.I.
- 1884 (v5) to 1893 and 1905 to 1910 (v110) - online
- 1884-1889 curb stones etc. New England Granite Works, Smith Granite Co

HIGHWAYS.

January 23d, 1884, proposals for furnishing curbing, cross-walk stone and granite blocks were opened under advertisement dated January 7th, 1884, and on the 24th of said month the proposal of Booth Brothers of New London, Conn., to furnish ten thousand square yards of granite blocks delivered on cars in this city was accepted. A contract was subsequently executed which will amount to \$16,200.00. On the same day the offer of the Rhode Island Granite Works to furnish :

15,000 lineal feet straight curbing;
1,700 lineal feet straight curbing, extra depth;
From 500 to 1,000 lineal feet of circular curbing, 8 foot radius;
From 500 to 1,000 lineal feet of circular curbing, 10 foot radius;
200 curbstone corners, 3 foot radius;

4

CITY DOCUMENT.

[No. 18.

10 curbstone corners, 3 foot radius;
2,500 lineal feet 24 inch cross-walk stone;
From 3,000 to 5,000 lineal feet of 18 inch cross-walk stone; and
From 3,000 to 5,000 lineal feet of 14 inch cross-walk stone was accepted.

A contract was subsequently executed with the New England Granite Works, proprietors of the above quarries, and will amount to \$15,095.00.

1891-2 Accepted Offers (Providence)

- 1891

- May 19 by **John E Collins**, Westerly RI for **500 sq yds granite paving blocks** \$775
- June 22 by **John E Collins**, Westerly RI for 1000 sq yds granite paving blocks \$1550
- June 30 by **Smith Granite Co** of 2500 feet granite **curbing** \$1750
- July 21 by **Kenyon & Co**, Niantic RI for 500 sq yds \$775, **Alexander Marr**, Westerly RI for 1000 sq yds \$1500
- Aug 11 by **Thomas Owens** Westerly RI for 1000 feet **curbing**
- Aug 25 by **John Catto & Co** for **blocks and curbing** and **John E Collins** to cut and deliver blocks and crosswalk stones
- Aug 26 by **Dixon & Co** granite paving blocks
- Dec 15 by **John E Collins** for **10,000 sq yds granite paving blocks** \$15,250

~26,000 blocks per 1000 square yard (sq yd)

- 1892

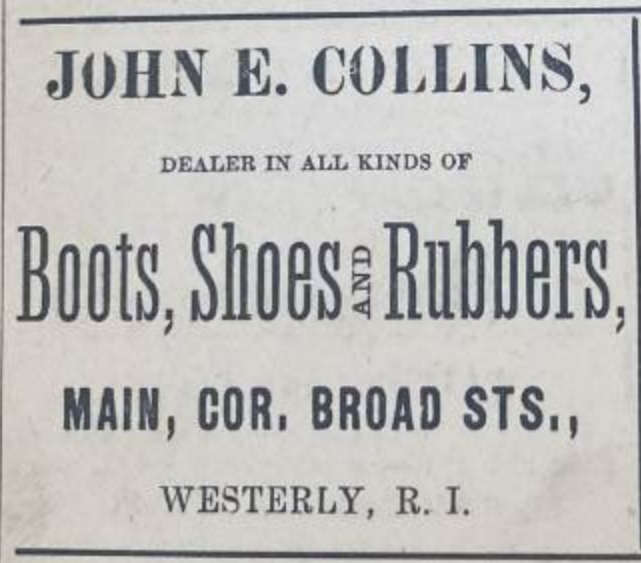
- May 28 by **John E Collins**, Westerly RI to furnish and deliver **75,000 paving blocks**,
- June 20 by **John E Collins** for **100,000 paving blocks**
- Aug 10 by **John E Collins**, Westerly **100,000 paving blocks**
- Nov 16 by **John E Collins** for **10,000 sq yds granite paving blocks** \$15500
- “There are about 12 at Smith’s, eight at Chapman’s, six at Rhode Island Granite Works, two at Murray & Archie’s, six at Dixon’s, 10 at Collins’s, two at William Archie’s and six scattering.” May 2, 1890, Providence Journal
- “The paving cutters are not numerous in Westerly, there being only 50 or 60 employed on the quarries.” May 5, 1892, Providence Journal [about 600-700 stone cutters, 150 quarrymen]

- **Who is John E Collins?**

1854 - 1937

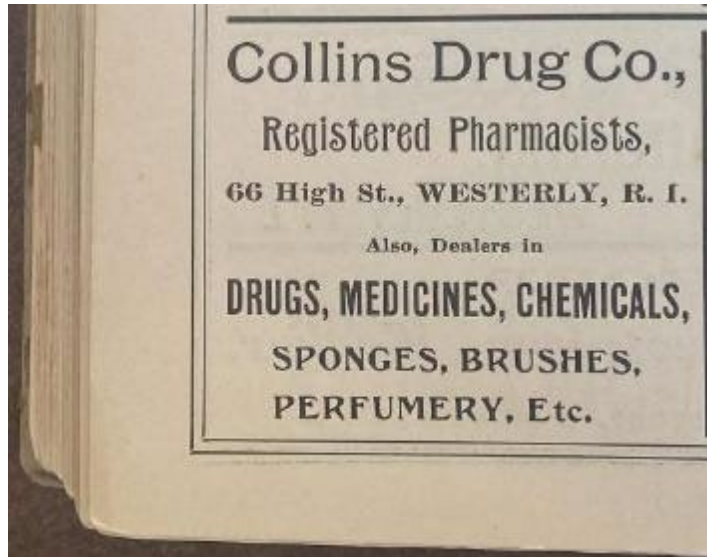
John E. Collins - Businessman

1885
Westerly
Directory



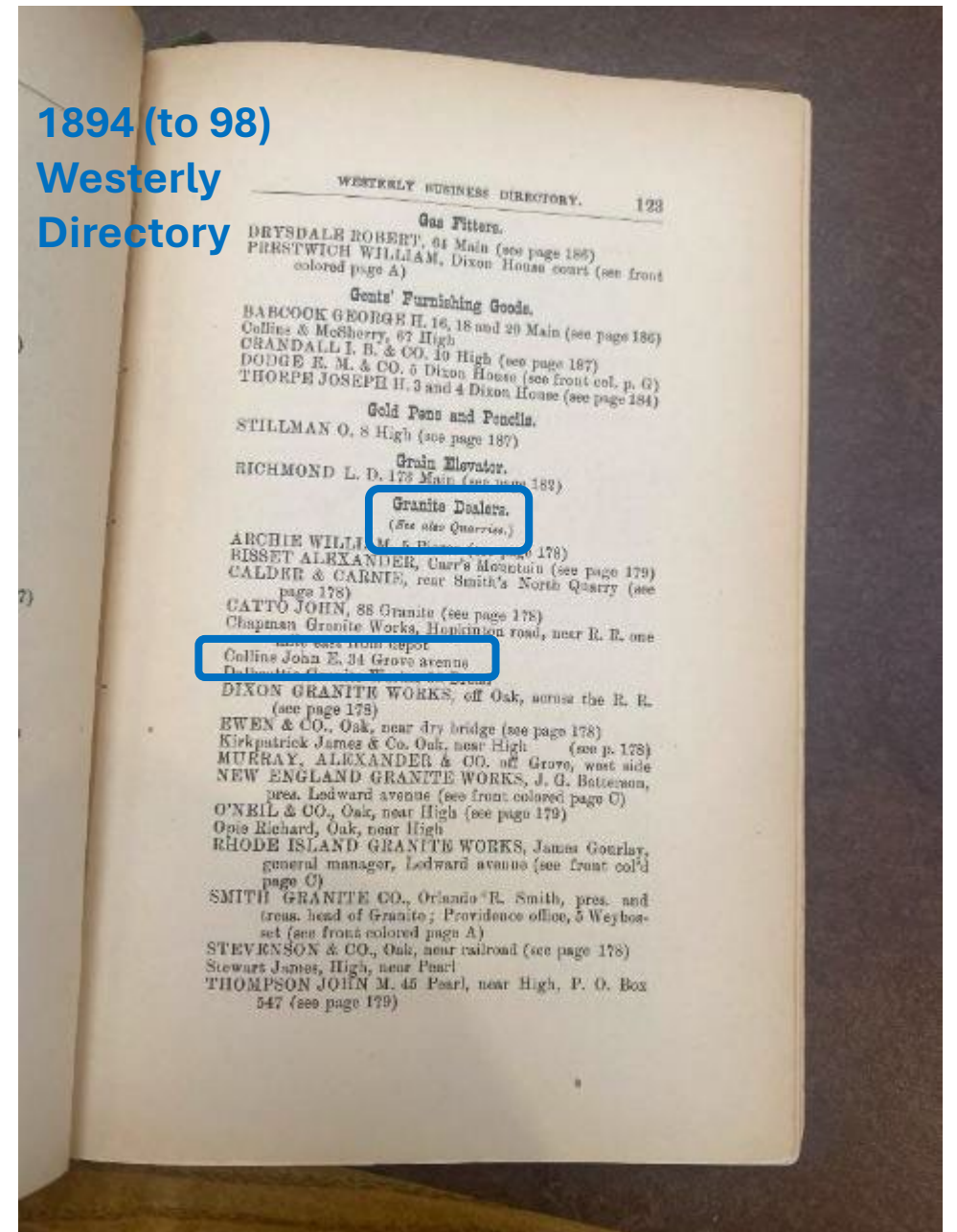
Elected a Trustee at
the 3rd quarterly
conference at
Grace ME Church.
Providence Journal
Nov. 22, 1883

1900
Westerly
Directory



"Mr. John E
Collins has
purchased a
pneumatic
sulky for racing
purposes"
Westerly Sun
Aug 8, 1893

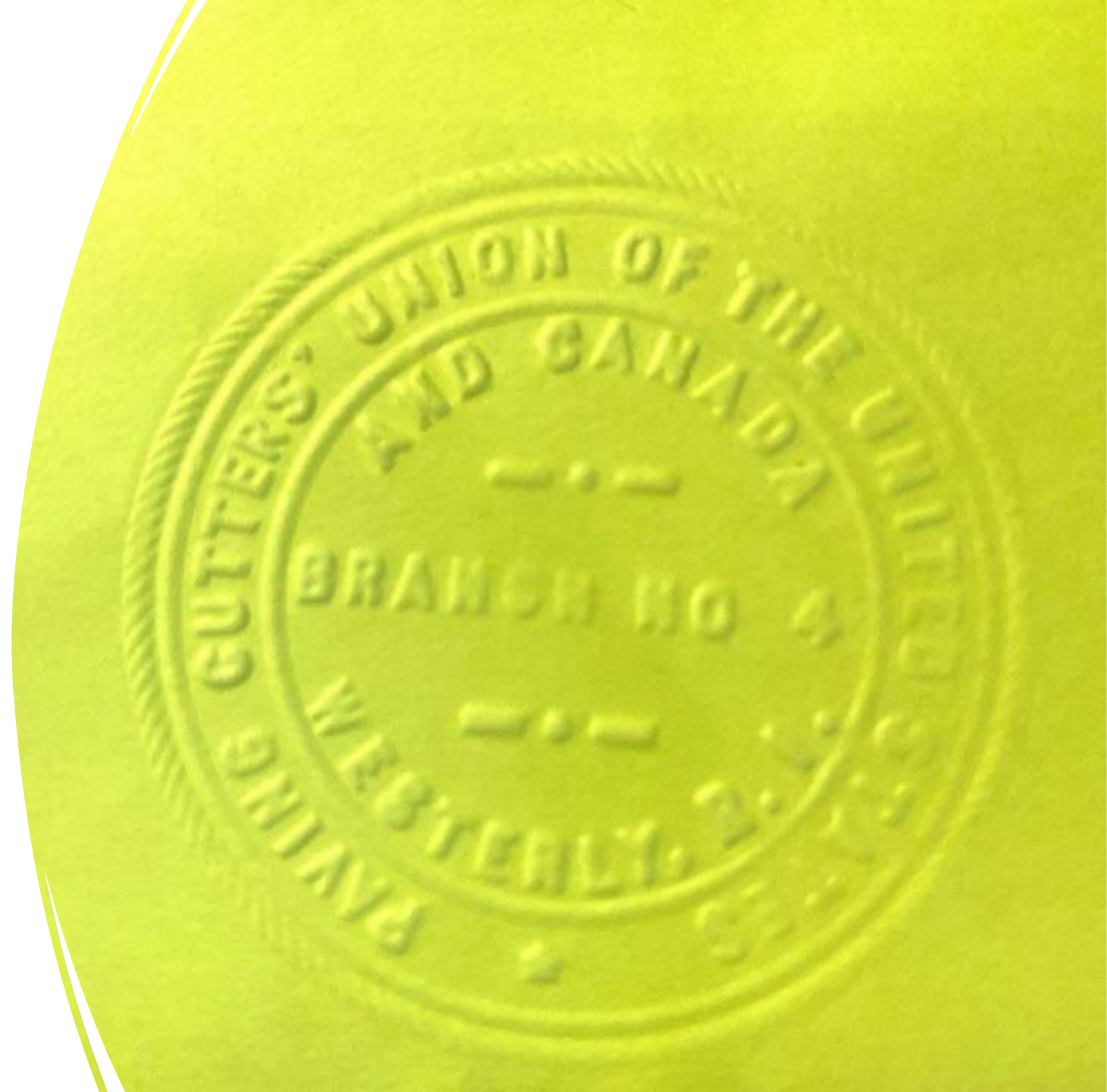
1894 (to 98)
Westerly
Directory



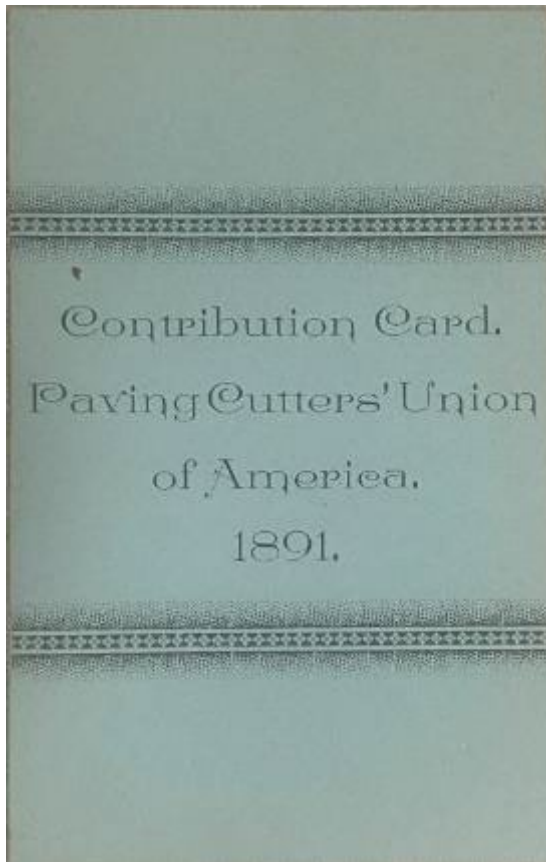
Paving Cutter Work and Life - Westerly Sun

- **April 1894** - 600 tons of granite paving blocks shipped by schooners to NY from Stonington CT
- **Sept 1894** - Labor Day events, sports in afternoon, tug of war team from paving cutters (people named) won over Caledonian team
- **Dec 1894** - New law in NY requires paving blocks be prepared in NY by US citizens. Westerly manufacturer said would impact thousands of carloads and hundreds of schooner loads of blocks currently shipped.
- **Aug-Sept 1895** - Organizing committee for labor day parade includes James Stewart of Paving Cutters' Union, 25 men and float in parade
- **Feb 1896** - So cold the past two days that paving cutters couldn't work
- **Dec 1896** - Changes in wages and paving cutters laid off at Smith Granite
- **July 1897** - Paving cutters abandoned work due to intense heat

Paving Cutters' Union



Paving Stone Cutters' Union



MEMBER, BRANCH NO.						
TOWN OF, STATE OF						
1891.	INITIATION FEE.	MONTHLY DUES.	FINES	LEVIES	PRICE AND BRANCH NUMBER.	SECRETARY'S SIGNATURE.
JAN.						
FEB.						
MARCH						
APRIL						
MAY						
JUNE						
JULY						
AUG.						
SEPT.						
OCT.						
NOV.						
DEC.						

1877 granite cutters' union formed
1879 paving cutters' strike RI
Granite Works

1887 paving cutters' union formed

1890 strike in Westerly

1892 strike and lockout May to Oct
(quarriesandbeyond.org)

1895 Mar-May strike, union meets
manufacturer for new bill of prices,
strike ended, dispute over tool
sharpening for paving cutters

1895 July-Sept Labor Day Parade –
25 men with float

1896 Dec – wages reduced and
men laid off

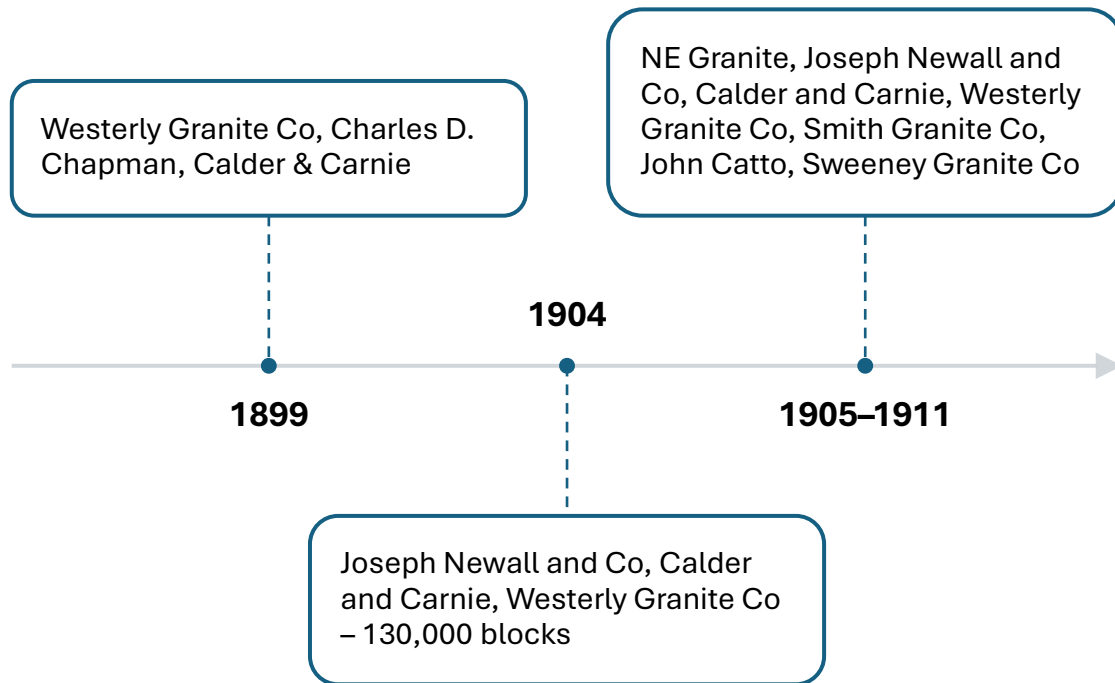
1898 Mar – Union meeting

1899 – next slide

1901 union restarted

1956 union dissolved

Paving Stone Contracts



The department of public works has awarded the contract for furnishing the granite paving blocks that will be needed for the city work this year to three Westerly firms. These are the Westerly Granite Company, Charles D. Chapman and Calder & Carnie.

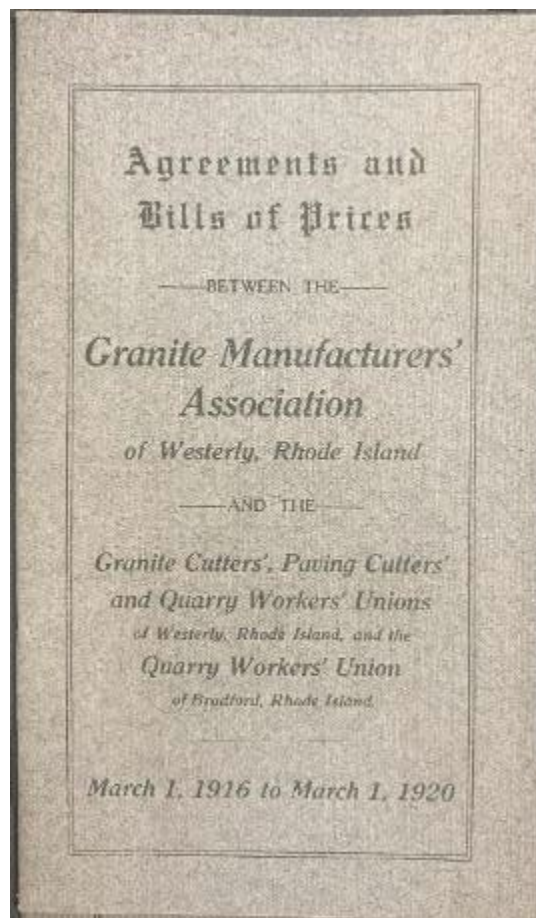
Providence News Saturday April 28, 1899 p1

Paving Cutters Raise Prices.

Certain Westerly firms received contracts Friday for furnishing paving blocks for the city of Providence. Since the award they have been notified by the paving cutters that there would be an increase in the price of cutting the blocks of from \$1 to \$2 a thousand. This increased price is larger than is being paid elsewhere for the same work, and will reduce the profits of the interested firms to a minimum.

Westerly Sun Tuesday May 2, 1899 p1

Paving Cutters Union



Bill of Prices

April 26, 1916.

The following is the Union Bill of Prices to be paid in Westerly, R. I., and vicinity between Branch No. 4, Westerly Paving Cutters' Union and the Granite Manufacturers of Westerly, R. I.

PROVIDENCE ARTICLE 1. ORDINARY

Thirty-three dollars (\$33.00) per M. for cutting blocks three and one-half inches to four and one-half inches wide, seven inches to eight inches deep, eight inches to twelve inches long, ($3\frac{1}{2}$ " to $4\frac{1}{2}$ " x 7" to 8" x 8" to 12"), paving cutter drilling stones. Company drilling stone, twenty-six dollars (\$26.00) per M.

SIXES ARTICLE 2.

Thirty-one dollars and fifty cents (\$31.50) per M. for cutting blocks three and one-half inches to four and one-half inches wide, six inches to seven inches deep, eight to twelve inches long $3\frac{1}{2}$ " to $4\frac{1}{2}$ " x 6" to 7" x 8" to 12") paving cutter drilling stone. Company drilling stone twenty-five dollars (\$25.00) per M.

N.Y. STANDARD ARTICLE 3. ~~Prev. 14 1/2 - 7 to 12~~

Thirty-one dollars and fifty cents (\$31.50) per M. for cutting blocks three and one-half inches to four and one-half inches wide, four and three-quarters inches to five and one-quarter inches deep, eight inches to twelve inches long ($3\frac{1}{2}$ " to $4\frac{1}{2}$ " x $4\frac{3}{4}$ " to $5\frac{1}{4}$ " x 8" to 12"), paving cutter drilling stones. Company drilling stone, twenty-five dollars (\$25.00) per M.

HASSAM ARTICLE 4.

Twenty-eight dollars and fifty cents per M. (\$28.50) for cutting blocks three and one-half inches to four and one-half inches wide, four inches to four and one-half deep, six and one-

half inches to twelve and one-half inches long ($3\frac{1}{2}$ " to $4\frac{1}{2}$ " x 4" to $4\frac{1}{2}$ " x $6\frac{1}{2}$ " to $12\frac{1}{2}$ "), paving cutter drilling stone. Company drilling stone twenty-three dollars (\$23.00) per M.

ARTICLE 5.

Day work from 40 5-8 cents to 50 cents per hour. Pay day to be every week; one week lie time. Red granite \$1.00 extra on all sizes. All blocks to be made to average size. Motions to be kept clear of grout.

ARTICLE 6.

The above Bill of Prices and regulations to take effect March 1st, 1916, and continue in force until March 1st, 1920. Should either party desire a change after March 1st, 1920, three months' notice to be given previous to the expiration of this bill. Statement of change desired to accompany notice.

ARTICLE 7.

It is mutually agreed by parties hereto that should a dispute of any kind arise, it shall be settled by and between the employers and employees on the work where the dispute arises. Pending such settlement, it is agreed that there shall be no strike, lockout or suspension of work. The same failing to agree, the dispute to be left to a committee of three; one to be selected by the manufacturers, one by the employees, and the third to be selected by the two so appointed and he must be a disinterested party. The decision of a majority to be final. Decision to be rendered within ten days.

JOHN BOGAN,
JOHN LESLIE,
JAMES AITKEN,

Committee for Paving Cutters.

WM. S. MARTIN,
D. L. McLAREN,

Committee for Manufacturers.



Crushed stone – Sullivan Granite



Crusher – Sullivan Granite

↓ Old & New Under Construction

Babcock-Smith House Museum collection

↓ Old Crusher



New Crusher Machinery



New Crusher →

How A Westerly Granite Quarry 'Converted' Its Plant To Supply Wartime Necessities

In the earlier days of Watch Hill, as Mr. Dudley Phelps tells us in his "Recollections," summer visitors

and its appetite is a little more than 2 tons a minute. Having once humbled the toughest of Nature's

to the shore did not come through Westerly and even after the introduction of the automobile and the improvement of the roads they had little interest in its life and affairs. In more recent years there has been an increasingly strong bond of community co-operation and many Watch Hill people have given their time and support to activities in Westerly and feel that its prosperity is a matter of deep importance to the continued welfare of Watch Hill.

At the beginning of this season when a group of early arrivals in the summer colony were discussing wartime conditions in Westerly, there was much concern felt over the possible harm that the war might have done to the important granite industry of the town. It was generally known that the big Cottrell printing press plant had been "converted" to producing something of more martial character and other plants were likewise understood to have changed their output to suit the plans of the government. But how could the granite industry be "converted" to anything warlike? What purpose of military armament could the beautiful, finely-grained Westerly granite be made to serve? There was no answer.

But war has a use for nearly everything. Hardly a child's toy but was had to yield to its demands for material of some kind. And the granite quarry had something that wars wanted too. Granite is one of the hardest and the heaviest of stone. Nothing better could be

rock the further function of the crusher is to turn it out into the various sizes that may be needed in the construction work. A conveyor belt 32 inches wide, 440 feet long deposits the crushed stone into a vibrating screen at the top of the belt. The screen removes all dirt and foreign substances and delivers the stone to a fine reduction crusher where it is further diminished into cubes two inches in diameter and smaller. After this operation the stone is conveyed in a bucket elevator to the top of the crushing plant into sizing screens. The different sizes fall into compartments arranged to hold them and are dropped into trucks standing below, which speed off to where the defense work is being carried on.

That is the story of the "conversion" of the granite quarry.

But if you imagined that the normal peacetime demand for granite memorials has been stopped by the war you are wrong. The fact is that Mr. Sullivan's quarry is busier than ever because of the increased demand for Westerly granite—which he proudly and with absolutely soundest reasons, describes as the finest monumental stone in the world. A policy of selling only one grade of unvarying quality has established for Mr. Sullivan's product a prestige with architects and designers that assures a constant demand from all parts of the United States.

stone. Nothing better could be found for the runways of airfields. And airfields had to be built quickly.

peacetime industries, the Sullivan Granite Company at Bradford, just a few miles north of Westerly, did not have to "convert" its equipment

Mr. Frank A. Sullivan, its president, had right in his plant one of the most useful machines that Navy or Army experts could ask for. It was a huge crusher whose like can be found only in a few other places. Mr. Sullivan had installed it some years ago at an expense of over \$100,000 to turn his discarded granite slabs and boulders into crushed stone for roads and driveways.

for crushed stone for their airfields they soon came to Mr. Sullivan. Now his plant is working night and day turning the cast aside stone of over 30 years' accumulation into the most necessary and useful material for runways and roads.

Yes, the Sullivan Granite Co. is doing war work with a vengeance. A giant power shovel scoops up the ponderous granite slabs and loads them into monster trucks which cart them to the maw of the crusher. Dumped into the hopper which is big enough to take stone 1 foot by 3 foot 6 and almost any length the pieces meet the "breaker," which has a sort of rumba movement, powered by high pressure engines, bringing its hideous jaws together and reducing the boulders to small pieces the size of a paving block.

This breaker has a ten-hour day

Crusher – Airfield Runways



Babcock-Smith House Museum collection

Westerly Granite Quarry Converted Back To Peace as Fast as It Got Into the War

Speed in converting industry to war was America's first victory. Now speed is reconverting back to peacetime production and full employment of workers is our big battle. These two jobs put America on the spot. Both of them have been achieved in typical American fashion right here in Westerly by the Sullivan Granite Company, of which Mr. Frank A. Sullivan is president.

A granite quarry did not seem to have much to offer for fighting a war. Few of them in New England did get into it. At a meeting of the New England Council shortly after Pearl Harbor manufacturers compared notes on how they would get their plants changed over for war work. The chairman of the meeting turned sympathetically to Mr. Sullivan and remarked that he supposed the granite industry would have to fold up for the duration.

Mr. Sullivan's reply was brief, but confident as a Yankee's is wont to be: "You fellows look after your own job, and I'll take care of mine." Probably he had in mind that the giant crushing plant he had installed at a cost of \$100,000 would come in for some war use. At all events the Navy Department paid him a visit and found just what they wanted to surface the runways of the big new Charlestown Air Base they were building. The Navy made a contract which kept the Sullivan granite plant busy for three years turning out

could now be tackled. The shift

It was a speedy conversion to war. The beautiful stone for which the quarry is famous the world over was now only a side line. The derricks and their giant scoops went after every piece of waste stone there was in sight and rushed them into the mouth of the crusher which reduces huge boulders of the hardest granite to any size screen the Navy wanted.

Meanwhile the demand for monumental stone began to rise. Quarries that had laid off their men for lack of work or lost them to the draft were unable to supply the market. The Sullivan Granite Company kept the mighty crusher grinding away and in addition found time to open a new vein of choice stone. That vein would be mighty important when it was possible to go back to a peacetime basis.

The contract with the Sullivan Granite Company for stone for the Navy's airfield was concluded at 4 o'clock in the afternoon of the very day on which the Jap surrender was announced at 7 p. m. That was a neat example of good timing. The next morning the Sullivan Granite Company was on a peacetime basis, hiring all the help it could get, taking back the men it formerly employed as they were released from the services. The new vein of granite was now the center of activity. The demands from all over the country for high grade monumental granite which had piled up

boys and girls from Watch Hill come each summer to spend an afternoon looking through the plants and have shown a keen interest at every stage of the trip.

There is much to thrill the intel-

same time provided a closed quarry in which workmen may labor in all weather. This makes an unusually deep and abysmal opening in the earth which makes the visitor gasp.

Sullivan Westerly Granite

The superior quality and beauty of Sullivan Westerly Granite is apparent at a glance. Quarried since 1837, it has long been proved absolutely dependable in every respect. An exceedingly fine-grained granite, very white in color, it is totally free from all mineral substances which cause deterioration.

Only one grade of Sullivan-Westerly Granite, of unvarying fine quality, is sold, which accounts for its selection for memorials, by the cultured and discriminating.

Send for illustrated booklet containing detailed information

SULLIVAN GRANITE COMPANY

WESTERLY, RHODE ISLAND

Crusher



Watch Hill, R.I., Light House Point.



<https://fineartamerica.com/featured/watch-hill-lighthouse-watch-hill-ri-sm-hall.html>

Seawalls or
Sea Walls
Breakwaters
Groins
Jetties

Seawalls

- June 24, 1823 Christopher Ellery - Col & Supt. L-houses (Newport District) to Mr. Winslow Lewis Contractor (National Archives online)
- "I take this occasion to say to you, that, when visiting Watch Hill, lately, to direct repairs of the stone-wall thrown down during the great gale on the 30th March last, and then by twice inspecting the light-house, lamps, and apparatus generally, I observed the clock-work to be out of order..."

District of Port of Newport,
Collector's Office, June 24th 1823.

Sir,

I should, at this time, notify you of the acceptance of your proposal to construct for fitting and lighting the light-house to be built on Watch Hill, as communicated in your letter of the 5th instant, but that the submission to the Acting Commissioner of the Revenue, of certain questions relative to the building, renders it proper to postpone the notification until answer be given by him.

I take this occasion to say to you, that, when visiting Watch Hill, lately, to direct repairs of the stone-wall thrown down during the great gale on the 30th March last, and then by twice inspecting the light-house, lamps, and apparatus generally, I observed the clock-work to be out of order, the table of lamps, regulated clock, and blow, whereas it ought to be, the necessary repairs of is hereby invited, agreeably to your contract of the 1st of May last.

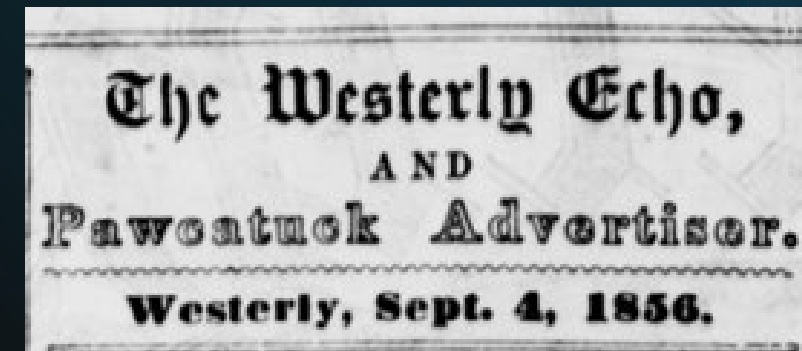
Respectfully,
Yr. Obedt. Servant
Christopher Ellery Col.
Supt. L-houses

I take this occasion to say to you, that, when visiting Watch Hill, lately, to direct repairs of the stone-wall thrown down during the great gale on the 30th March last, and then by twice inspecting the light-house, lamps, and apparatus generally, I observed the clock-work to be out of order,

Seawalls – Watch Hill Lighthouse

Westerly Echo and Pawcatuck Advertiser

- April 19, 1855 “We learn that new Light Houses are to be erected at Watch Hill, Beaver Tail, and at various other points on the Atlantic coast.”
- Jan 17, 1856 “A new Light-House Tower and keeper’s dwelling (in connection therewith) have been erected at Watch Hill Point, Rhode Island”
“The new Tower ...is built of granite and is unpainted”
- Sept 4, 1856 “LIGHT-HOUSES. In the act passed at the last session of Congress make appropriations...For completing the sea wall for the preservation of the lighthouse at Watch Hill, ten thousand dollars.”

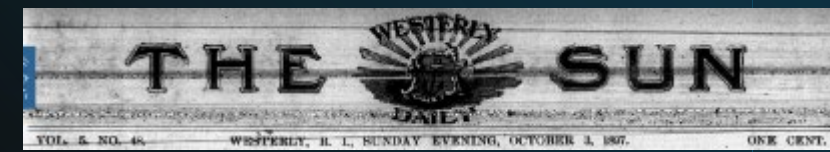


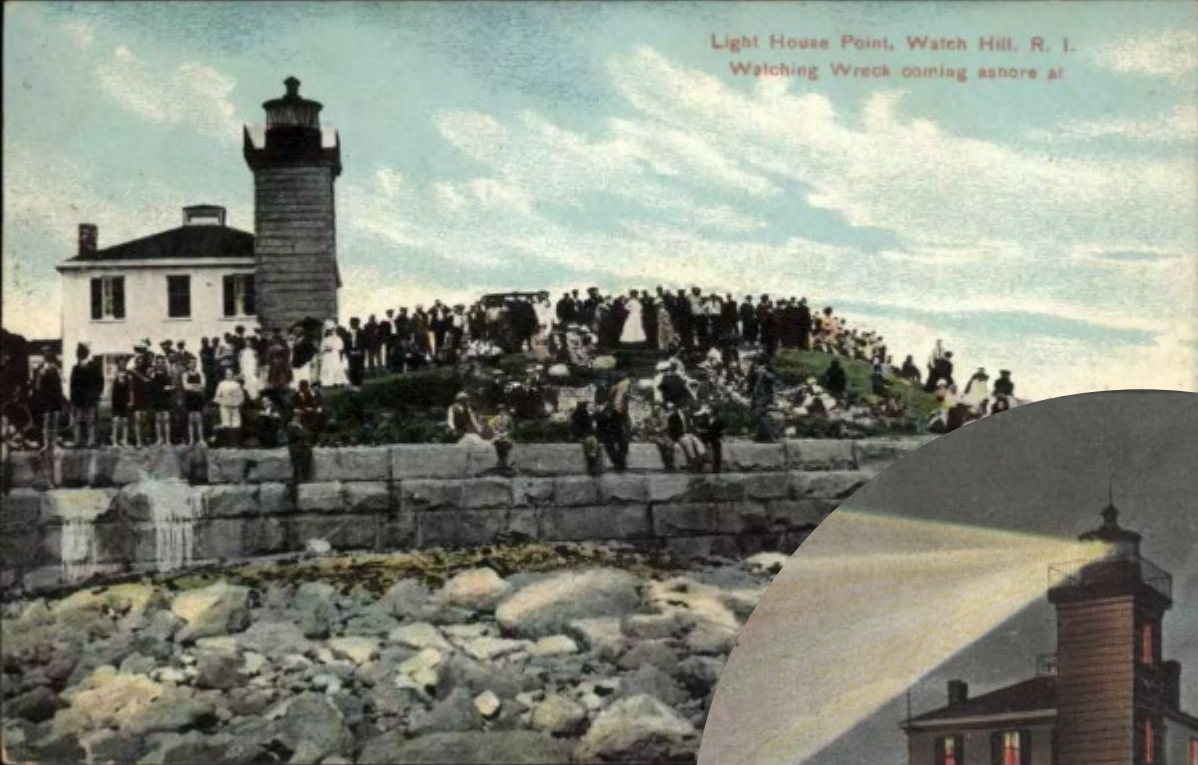
Seawalls – Watch Hill Lighthouse

July 1, 1858 “EXCURSION TO WATCH HILL – As had been previously advertised, the Westerly Brass Band made their first excursion of the season, last Saturday evening, in the steamer Water Lily...At Watch Hill, we repaired to the Watch Hill House, kept by Capt. Nash...

Uncle Samuel is laying out the **snug little sum of forty thousand dollars in building a new wall** around the “point” to protect the lighthouse. **The stone comes from the quarry of O. Smith, in Westerly, and is landed at a wharf built for that purpose.**”

“Westerly in the Fifties” “The massive granite wall which is built around the point was constructed to keep the waves from washing away the bluff, which was continually being encroached upon by the action of the water. The heavy blocks of granite were transported there by Capt. Jason Lee West in his staunch scow Jason.” Oct 3, 1897 Westerly Sun by Albert P Pendleton

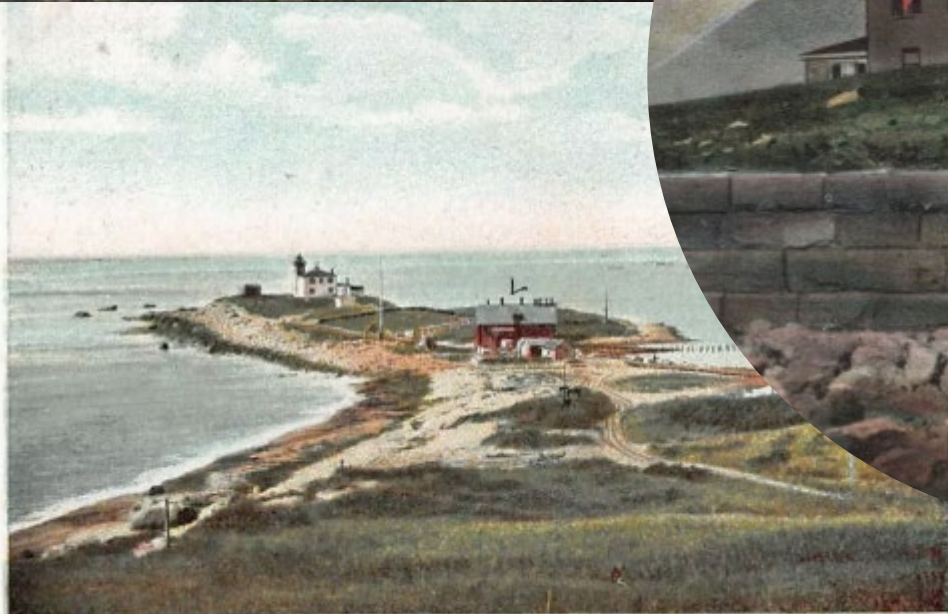




Light House Point, Watch Hill, R. I.
Watching Wreck coming ashore at



LIGHTHOUSE POINT, WATCH HILL, R. I.



Watch Hill, R.I., Light House Point.



Watch Hill, R. I.

O. Stillman, Bookkeeper and Stationer

Breakwater – Rip Rap

- 1934 (Great Depression)
- Columbia Granite Works
- Rip Rap breakwater – human placed rock to protect land or structures from water

Local Firm Ships Two Barges of Waste Stone

Two barges carrying approximately 1,000 tons of waste granite from the Columbia Granite Works here to the breakwater construction job at Faulkner's Island, off New Haven, were shipped from the Pawcatuck river last week.

It is understood the contract calls for about 4,000 tons of stone, and the Columbia Granite Works will send the rest during the next few weeks.

Westerly Sun Aug 19, 1934

Two more barges loaded with scrap granite left the Cross Street dock in the Pawcatuck River yesterday for New Haven, where it will be used in the rip rap breakwater near there. The shipment was made by the Columbia Granite Co.

Westerly Sun Sept. 12, 1934

Breakwater - 1938

- Sept 21, 1938 category 5 hurricane
- Sept 26, 1938 Westerly Sun - Federal Works Project Administration (WPA) to provide clean-up aid. Meeting included Frank A. Sullivan, President of Westerly Chamber of Commerce



Hurricane Edition **THE SUN** **Local and Shore News**
 Vol. 46, No. 89 WESTERLY, R. I., FRIDAY SEPTEMBER 23, 1938 Price Three Cents

Misquamicut Wiped Out; Napatree Point Gone; 50 Dead; Scores Missing

Westerly Paralyzed by Tropical Hurricane; Cottages at Charlestown Beach and Quonechontaug Washed Away; 4 Dead, 4 Missing In Stonington

Misquamicut with 500 cottages, was entirely wiped out, all cottages on Napatree Point. Watch Hill destroyed and more than 50

Every one of the approximately 500 houses on Charlestown Beach was carried away. Between 25 and 100 houses on the

List of Dead and Missing

At the Sullivan Granite Quarry in Bradford the buildings were lowered right and left. Little of the plant remains standing. In part the loss of buildings was covered by insurance. A low estimate of the damage done there was placed at the figure of \$30,000 at least.

At the Smith Granite Quarries the main plant did not suffer much but the other parts of the quarry were badly damaged. Loss there was estimated to be at least \$20,000. The blacksmith shops and engine houses were down. Steam driven machinery at the plant was in operation today and the electrically operated part is still waiting for power. The plant owned its own power lines within the confines of the plant, these have been replaced ~~along the main line~~ from outside.

Commodities 7

Commodities For Sale 7A

AXMINSTER RUG—9x12, almost new, 38 George Street. Phone 4322.
10

FOR SALE—

BREAKWATER STONE, CRUSHED GRANITE, ALL SIZES. WE DELIVER, OR LOAD YOUR TRUCKS. PHONE 2552 FOR PRICES. NIGHTS 2136. SULLIVAN GRANITE COMPANY, WESTERLY, R. I.

11

Rip rap, granite waste used to build sea wall after 1938 hurricane

Westerly Sun Sept 26, 1938 Westerly Sun Oct 5-11, 1938

Breakwater – 1941

Westerly Sun July 24, 1941



Use Westerly Granite For Breakwater

Local Quarries Furnishing 30,000 Tons for Point Judith Project

REPAIR HARBOR

\$159,000 Contract Calls For Cleaning Up Hurricane Damage

Holes are being made in the waste dumps of Westerly quarries. Stone that is not fit for monumental use, discarded years ago, is being dumped in the sea off the Point Judith breakwaters. These

breakwaters were damaged in the hurricane. Angelo Genacelli of Westerly was awarded the contract of furnishing thousands of tons of stone for their repair.

Some 30,000 tons of Westerly granite is being dumped into the point Judith area. Two lighters and a small fleet of boats are working

by the war department. The middle and east arm breakwaters were damaged in the hurricane.

The largest maintenance job of the army engineers, the 3,400 feet of rebuilt seawall, will have a

top level of 20 feet, wide enough for an average highway, and a base anchored in the ocean bottom of about 50 feet.

Apparently there are no trucks idle in Westerly this summer. These trucks carry five and six tons at a load. They are carrying one stone at a time or possible two or three of the smaller ones. If they get in four trips a day, they think they are lucky. Usually three trips are made. It is nearly 30 miles to Point Judith from Westerly. The stones which go to the east breakwater are carried out along the road on the top of breakwater and dumped. Then for half a mile the truck driver is obliged to back out.

Lighters Used

It is not so bad on the Jerusalem side with the harbor refuge. There the stone is landed on the dock and picked up by the contractors and placed aboard lighters and carried out to the breakwater which is not attached to the land anywhere.

These trucks have a way of getting their loads aboard late in the afternoon ready for an early morning start. A string of them will be seen coming away from the quarries, down the Post Road.

One of the drivers today spoke of the dangerous condition that existed at certain highway corners. People come shooting out of John Street or East Avenue, not realizing what might happen to them if they hit one of the trucks. The drivers are all particularly careful to watch their brakes and keep an eye on every approach. There have been no serious accidents. In one case a truck was driven off the road near Matunuck. Its rear wheels sunk into the dirt up to the hub. It was a real problem to know how to get the auto back on to the road again. It is

load.

The stone is coming from several quarries. At the present time it is being taken from the dump at the Smith Granite Company. Much of it has come from the Columbia Granite Quarries at the north end of the town.

breakwaters at Point Judith were being built, the stone was carted to the dock at the foot of School Street by ox or horse power, put on lighters, and the lighters made the long trip down the Pawcatuck River and along the shore to Point Judith. That was years ago, however.

Breakwaters and groins – 1940s

Stone From Idle Quarry Pile Being Used For Breakwaters

Stone from the quarry piles on the Old Hopkinton Road, used only on rare occasions since the abandonment of the holes more than 20 years ago, is now going into breakwater work at Watch Hill, Avondale and Stonington.

Gencarelli's Inc., of Westerly, which has leased the stone and abutments on the property from Edward Smith, has taken more than 150,000 tons out of the quarry dumps which is now doing shore protection work.

At the present time a fleet of large trucks is rumbling in and out of the area loaded with stone for the breakwater work at Groton Long Point. It is also being shipped to other places within a reasonable traveling distance of Westerly. When the Point Judith breakwater needed repairing several years ago, 33,000 tons of quarry scrap from the Gencarelli piles and Sullivan's Quarry in Bradford were used.

Last year tons of the smaller "stuff" was needed at the State Pier in Galilee to protect the bottom of the pier against possible washout. Army engineers put in a call for this material and used 5000 tons at Fort Adams and Fort Getty in Jamestown. Fisher's Island has also found the breakwater stone useful.

When the winter storms washed away part of the large bank in front of Snowden's Holiday House, at Watch Hill Point, Gencarelli's Inc., poured 18,500 tons of this stone onto the bank as a protective breakwater. At the present time the company is providing 6000 tons for the A. S. Wilkinson Co., which is doing a private job in Stonington.

At the beginning of the war, the Electric Boat Company in Groton also used considerable tonnage to protect its waterfront property along the Thames River. This stone is regarded as the best material for breakwater because the tides cannot move it.

The area, according to A. M. Gencarelli, president of Gencarelli's Inc., contains about 750,000 tons of the stone, but the supply, according to the present demand is not inexhaustible.

Westerly Sun
June 1, 1947

Advance Work At Watch Hill

Work on a stone groin at Watch Hill is continuing today as Gencarelli, Inc., is taking advantage of the mild weather to further the completion of the \$4,300 breakwater.

The breakwater work started Friday afternoon, and last night 40 feet of the 250 foot jetty had been

laid. The groin has now reached a depth of six feet of water, and when completed, the end will be in nine feet at mean tide.

Angelo M. Gencarelli, president of the contracting firm, said this morning that the groin will be within 25% of completion this evening, barring any unforeseen accident. He said that the structure will take up between 2500 and 3000 tons of stone, which is being hauled in trucks from the Gencarelli quarry piles on the Old Hopkinton Road.

The groin will be 13 feet wide at the top and 22 at the bottom, and Mr. Gencarelli estimated that it will be completed within five working days, although he has ten days in which to fill the contract.

The breakwater is beginning to show results, even though it is only partially done. Sand is starting to pile up at the base of the groin, and indications are that the movement of sand will be completely stopped, once the structure is finished.

The jetty is located 200 feet west of the Watch Hill Beach Club.

Shore Scene Of Activity

Westerly shore resorts bustled with activity yesterday as property owners took advantage of the mild weather to effect repairs and improvements on their homes, and motorists made their usual Sunday afternoon tours.

At Watch Hill the construction of the stone groin on the bathing beach, and dredging operations in Little Narragansett Bay, attracted considerable attention. Heavy trucks loaded with stone, steamed in and out of the colony, depositing their cargoes on the breakwater.

Sightseers walked the sand of the Watch Hill beach to watch the work on the breakwater.

Westerly Sun
Jan 9-10, 1949

Breakwater Block Island

quarry to truck that will carry it to barge. John Hawk (left), Norwich, and Joe Battencourt, Westerly.



WEIGHING IN. A little more than 38,000 pounds of granite has rolled on scale. Figure is arrived at after scale is adjusted to allow for truck weight.



WEIGHER is Russell Gavitt of Westerly. He holds a certificate from the state for this work. He is required to make out a record of load in triplicate.



AT JERUSALEM, truck empties stone on breakwater. A crane, operated by motor, raises back.



BARGE (left) has been partly loaded by crane. A bed of sand spread on deck protects the planking.

WESTERLY

The Gencare nine dollars

THE foreproof ocean breakwater has yet to be invented. The cost of a breakwater made of granite blocks depends chiefly on how far the proposed barrier is from a reliable source of granite. Gencarelli, Inc., of Westerly, may be the only construction company in the country that builds granite breakwaters without lighters.

These and other facts about the breakwater building business were disclosed recently by Angelo M. Gencarelli, president of the firm. We met Angelo, a lively, friendly man who took an engineering degree from State College in 1932, and his brother, Dominic, near a heap of granite on the property of the Smith Granite Works in Westerly. Dominic graduated from Providence College in 1928.

The brothers hold a contract specifying that for about \$118,000 they shall repair the West Breakwater at Old Harbor, Block Island, by the end of September. The U.S. Army Corps of Engineers awarded the contract. The breakwater protects the inner harbor at Old Harbor—covers a 15-foot anchorage—and the repairs will be of more than casual interest to small-boat owners in the area.

A powerful motor shovel was loading irregular pieces of granite on a trailer truck when the Gencarelli brothers walked up. The granite appears to have tumbled down from a hill above, so there was always plenty for the shovel to shove into. The trailer looked bent and battered, and rocked when a chunk was dropped in.

Angelo pointed to the granite heap. "It's waste from the quarry," he said. "The quarry hole is above on the hill. They haven't worked it for a couple of years. I've got a long time from Smith for all this wait." He waved his hand off vaguely in the direction of a sprawling, irregular line of waste stone.

"There's enough left to last me during my lifetime."

PROVIDENCE SUNDAY JOURNAL

Providence Sunday Journal July 23, 1950

'Balanced Action'




ACTUAL CONSTRUCTION is accomplished by crane, which takes stone from barge and drops it in place, then moves on newly-laid section to repeat process.



DREDGING. Crane, using drag-line bucket, is also deepening harbor, so the barges can sail close for unloading.

Granite to Block Island

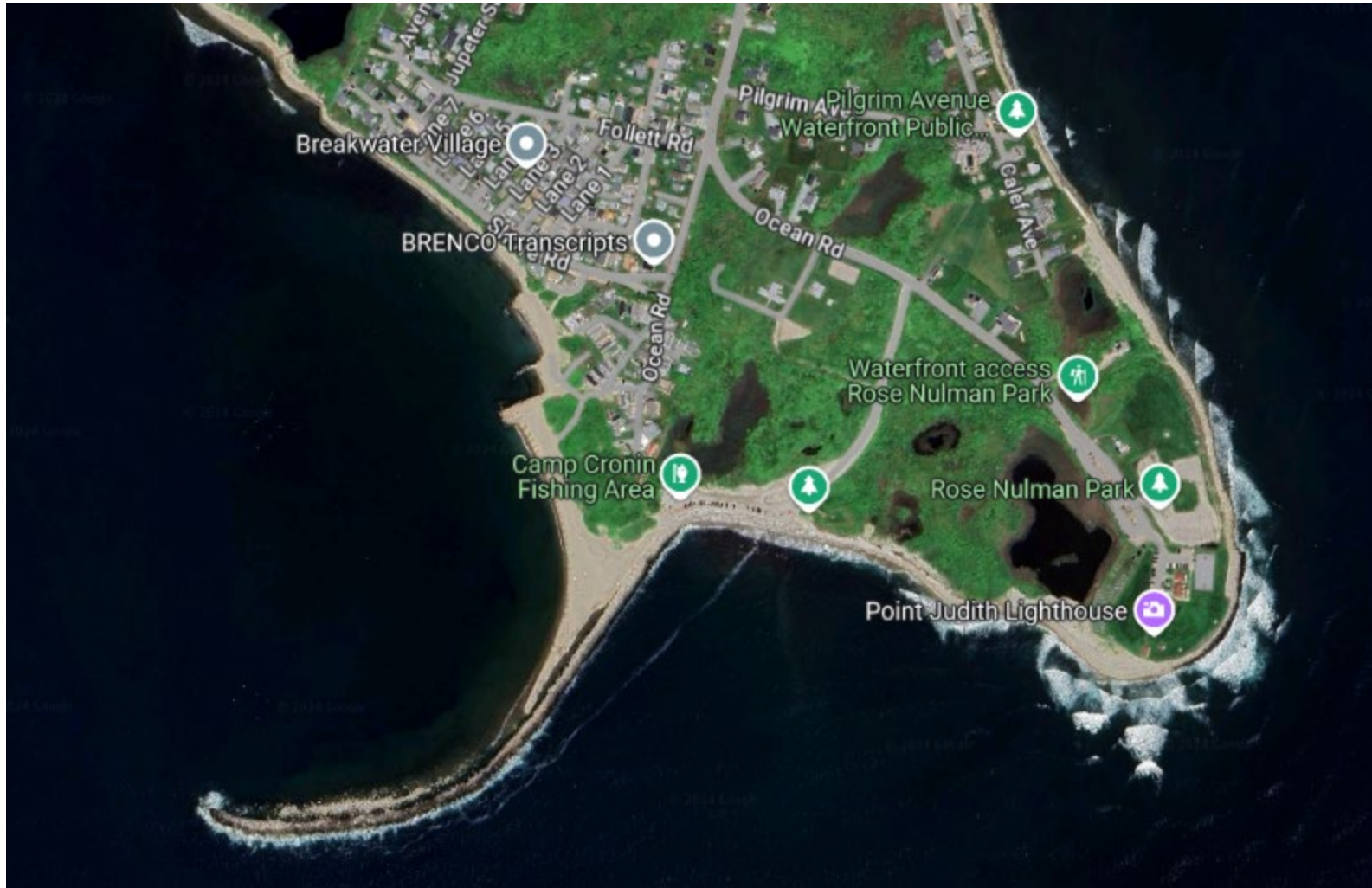
Continued from Preceding Page

loads of various weights—anything between 150 and 450 tons each trip."

While Angelo talked, the *Tell* appeared between the ends of the two breakwaters that protect the Point Judith

Babcock-Smith House Museum collection

Point Judith Breakwater – Gencarelli (1950)



Babcock-Smith House Museum collection

GENCARELLI GETS HARBOR CONTRACT

The contract for the improvements at the Harbor of Refuge, Point Judith, has been let to A. M. Gencarelli & Co. of Westerly and is in the mail this weekend, it was learned from the office of the Army Engineers in Boston yesterday.

The Westerly firm with a bid of \$19,140 was the low bidder of two companies for the work to be done improving the east jetty and west breakwater at the Point Judith harbor. The west breakwater will be filled and faced on its outer side to make it sand proof, while a similar job is called for on the easterly side of the east jetty.

It is understood by the engineers that the work will begin as soon as Gencarelli receives the contract. According to a spokesman for the Army, this should be sometime early next week.

It also was announced yesterday by a member of the rivers and harbors division of the Boston office of the engineers that the J. A. Laporte Co. of Arlington, Va., is the low bidder for dredging work to be done at Salt Pond.

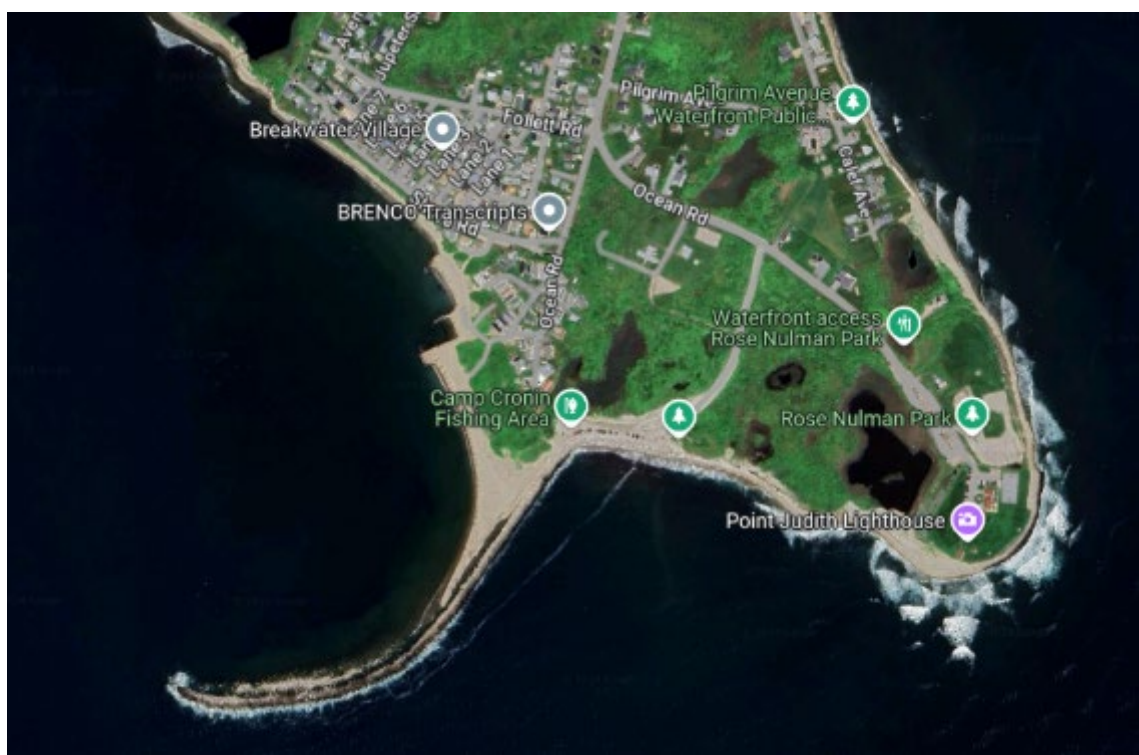
The dredging operation will follow the repairs to the breakwaters, but the contract for that has not yet been let, a spokesman for the rivers and harbors division said.

The question of a disposal area and the exact amount to be dredged are in the process of being settled by representatives of the Army Engineers and the State of Rhode Island.

Providence Journal

1950-04-08 p4

Point Judith Breakwater – Gencarelli (1950)



Point Judith Breakwater – C



Babcock-Smith House Museum collection

Point Judith Breakwater – Gencarelli (1950)



2010s
Rock retaining
wall –
Cherenenzia
Excavation



Acknowledgements

- Bob Peacock – Westerly Historical Society & Watch Hill Lighthouse
- Brenda Linton – granite historian
- Susan Sullivan Brocato – collection archivist
- Westerly Library – Granite Collection long term loan & online resources (Westerly Sun, photos)
- Donations to Museum
 - Dwight Brown – vast granite research archives
 - Carmella DeGroff – Pt Judith breakwater photos
 - Many others!!

THANK YOU