(1) பக்கங்களின் எண்ணிக்கை 16

(2) புதுக்கித் திருப்பிய நாள் 9-89

(3) ஆதாரங்குறிப்பவர் சுருக்கொப்பம்

# தமிழ்நாடு ஆவணக் காப்பகம்.

தமிழ்நாடு அரசு

பொதுப்பணித்துறை

அரசாணை எண். 1047. W.
மு. கோப்புத் தாள் எண்.

அச்சகம்
பலவகை

நாள் : 2-4. 1890

மடிக்கவோ கண்டபடி கையாளவோ கூடாது

2nd April 1890, No. 1047 W., Public Works.

1/1047

## GOVERNMENT OF MADRAS.

## PUBLIC WORKS DEPARTMENT.

### Buildings and Roads.
### Civil Works.

Read—the following paper :—

From G. McWATTERS, Esq., M.A., C.S., Chairman, Harbour Trust Board, to the Chief Secretary to Government, Marine Department, dated Madras, 25th March 1890, No. 1220.

I have the honor to submit, herewith, for the information of Government, copy of a letter from the Board's Engineer, together with a statement and plan (in duplicate) showing the progress made upon the Madras Harbour Works during the month of February 1890; also copy of Resolution No. 3, dated 21st March 1890.

### Enclosures.

From A. LEE POGSON, Esq., Engineer, Harbour Trust Board, to the Chairman, Harbour Trust Board, dated Madras, 12th March 1890, No. 1458.

I have the honor to forward, herewith, a plan and statement showing progress made in February 1890, prepared in the form approved by the Trustees.

Extract of Proceedings of the Trustees of the Harbour of Madras, at a meeting held at the offices of the Board on Friday, the 21st day of March 1890.

* * * * *

3. Read letter from the Board's Engineer, No. 1458, dated 12th March 1890, forwarding plan and statement showing progress made on the Madras Harbour Works during the month of February 1890.

Resolved that this statement be submitted to Government.

* * * * *

(True Extract.)

(Signed) C. PINSENT,
Secretary, Harbour Trust Board.

# MADRAS HARBOUR WORKS.

Statement showing progress during February 1890 as shown on accompanying lithographed plan No. 2.

| | Note.—The figures in black denote, for comparison, progress and quantity of work done in February 1889. | Sub-heads of work. | North Pier. | | | | | South Pier. | | | | | Pallavaram quarries outturn. | Concrete blockmaking. | Railway lines at works. | Railway lines at quarries. | Railway lines at sand lines. | Railway lines at Beach improvements. | Protective works. | Total expenditure in. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Rubble base. | Superstructure. | Wavebreaker. | Concrete capping | Base protection. | Rubble base. | Superstructure. | Wavebreaker. | Concrete capping | Base protection. | | | | | | | | |
| Number of Item. | Particulars and quantity of work, &c. | Column. | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R |
| 1 | Rubble stone deposited from boats .. | Tons. | 54 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| 2 | Do. do. from wagons .. | ,, | 12 | .. | .. | .. | .. | 722½<br>20 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 4,243¾ | .. |
| 3 | Total quantity rubble stone received on works | ,, | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 722½ | .. | .. | .. | .. | .. | .. | .. |
| 4 | Do. do. blasted chips do. | ,, | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 2,463¼<br>636 | .. | .. | .. | .. | .. | .. | .. |
| 5 | Do. do. large stone do. | ,, | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 4,243¾ | .. | .. | .. | .. | .. | 4,243¾ | .. |
| 6 | Concrete blocks set by divers .. .. | Number. | .. | 200<br>160 | .. | .. | .. | .. | 230<br>80 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| 7 | Do. deposited in wavebreaker .. | ,, | .. | .. | .. | .. | .. | .. | .. | 19<br>86 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| 8 | Do. made for superstructure .. | ,, | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 24<br>13 | .. | .. | .. | .. | .. | .. |
| 9 | Do. do. wavebreaker .. | ,, | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| 10 | Wrought-iron cramps fixed in position .. | ,, | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| 11 | Total outturn of concrete .. .. .. | C. yard. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 234 | .. | .. | .. | .. | .. | .. |
| 12 | Advance or progress of completed superstructure .. .. .. .. .. | Rng. ft. | .. | 122<br>99⅔ | .. | .. | .. | .. | 146½<br>49⅔ | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| 13 | Rubble base protected with concrete .. | ,, | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| 14 | Metre gauge 40 lb. per yard laid new .. | ,, | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 2,318 | .. |
| 15 | Do. do. do. relaid or renewed .. .. .. .. | ,, | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| 16 | Metre gauge 40 lb. per yard taken up .. | ,, | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| 17 | Broad do. 50 lb. do. laid new .. | ,, | .. | 483<br>185 | .. | .. | .. | .. | 183<br>48 | .. | .. | .. | .. | .. | 1,080 | .. | .. | .. | .. | .. |
| 18 | Do. do. relaid or renewed. | ,, | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| 19 | Broad gauge 50 lb. per yard taken up .. | ,, | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| 20 | Titan gauge 75 lb. do. laid new .. | ,, | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| 21 | Do. do.. relaid or renewed.. | ,, | .. | .. | .. | .. | .. | .. | 1,157 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| 22 | Titan gauge 75 lb. per yard taken up .. | ,, | .. | .. | .. | .. | .. | .. | 1.000 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| 23 | .... | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| 24 | Approximate expenditure under sub-heads of work .. .. .. .. .. | Rs. | 1,004 | 3,223 | .. | .. | .. | 100 | 3,140 | 540 | .. | .. | 7,867 | 5,137 | .. | .. | 10,427 | .. | .. | 31,438 |

| | | Tons. | Cwts. | Qrs. | Lb. |
|---|---|---|---|---|---|
| 6,457 | Casks of cement received on works during February 1890 containing .. | 1,153 | 0 | 2 | 24 |
| 208½ | do. issued for do. do. do. .. | 37 | 12 | 0 | 0 |
| 11,273 | do. balance in store at end of February 1890 do. .. | 2,013 | 15 | 2 | 23 |

Quantity due on indents dated

| | Tons. | Cwts. | Qrs. | Lb. |
|---|---|---|---|---|
| 12th June 1889 .. .. | 467 | 6 | 1 | 20 |
| 20th September 1889 .. | 2,575 | 0 | 0 | 0 |
| Total .. | 3,042 | 6 | 1 | 20 |

Remarks.—Column A, Item Nos. 1 and 2 = 54 tons of stone went to level the base previous to block-setting, and 12 tons (pieces of blocks) to strengthen the north pier surf bank.
B ,, ,, 6 and 12 = the progress though very satisfactory, was nevertheless at a limited rate for want of sufficient locomotive power.
F ,, No. 2 = 20 tons of small chips were deposited by hand to level up the base immediately in front of the advancing superstructure.
G ,, Nos. 6 and 12 = the south pier being well in advance and there being limited steam power on the works, direction was turned to more urgent work.
L ,, ,, 8 and 11 = concrete blocks were only made on the 1st of February, after which date this work had to be stopped for want of sufficient stacking space and until the stock of blocks on hand could be reduced.
Q ,, ,, 2 and 5 = repairs to the revetment at Cassimode were commenced and by the close of the month 4,243¾ tons of stone had been deposited and a length of 2,318 running feet of railway laid for the conveyance of materials, &c., to the site of work.

Madras,
8th March 1890.

(Signed) A. LEE POGSON,
Engineer, Harbour Trust Board.

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2/1047

Transferred to the Public Works Department.

Fort St. George,
27th March 1890.

(Signed) J. GROSE,
Ag. Chief Secretary.

Order—dated 2nd April 1890, No. 1047 W., Public Works,

Recorded.

(True Extract.)

Captain, R.E.,
Under-Secy. to Govt., P.W.D.

To the Chairman, Madras Harbour Trust Board.
" Marine Department.

Exd. A. Aubert.
Spare Copies

BUILDINGS AND ROADS.
CIVIL WORKS.

# Govt. of {1890} Madras.

## PUBLIC WORKS.

*Dated April, 2nd.*

*Recd.* *Encl.*

---

**G.O., 2nd April 1890, No. 1047 W.**

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APRIL.

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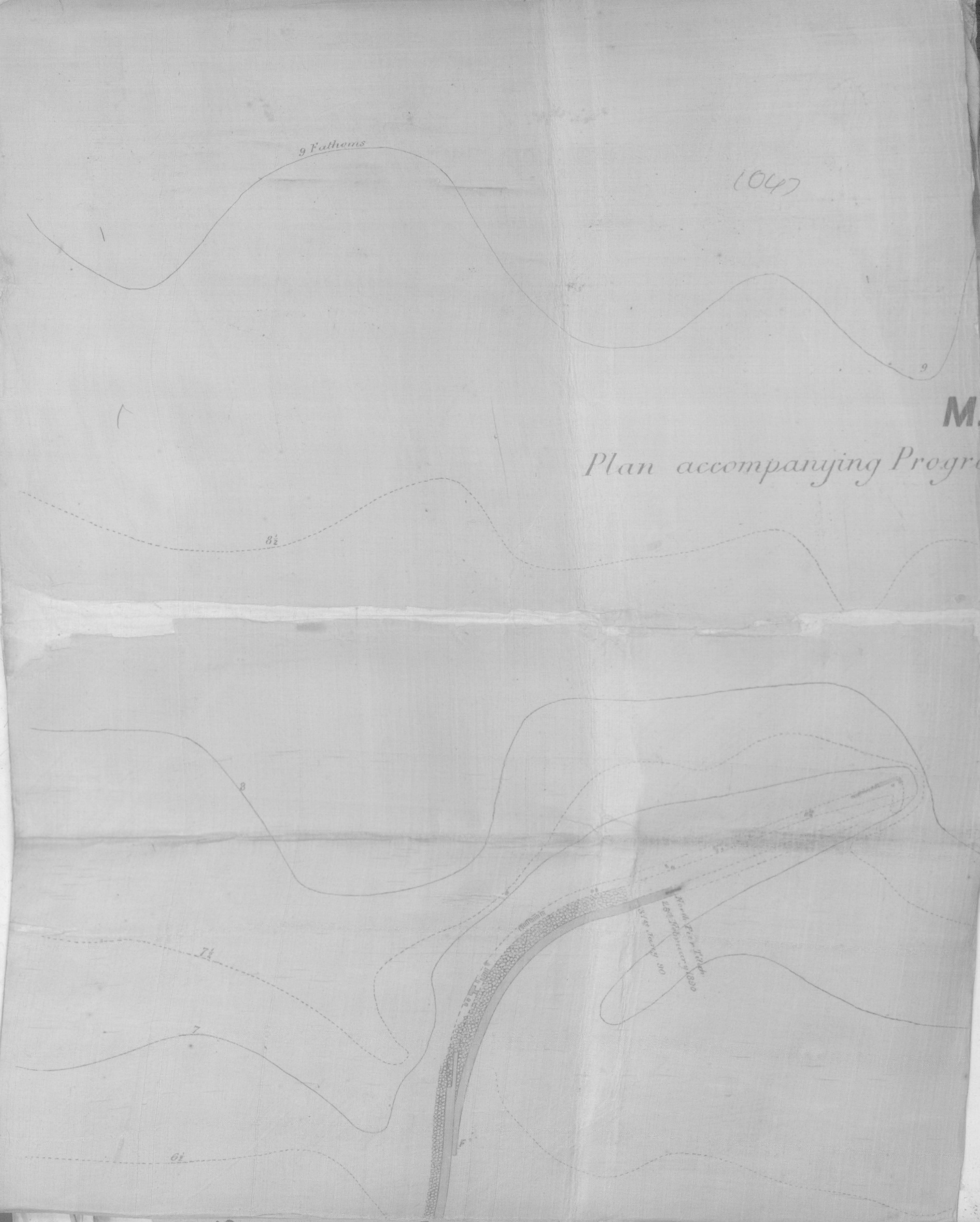
**Madras Harbour Works**

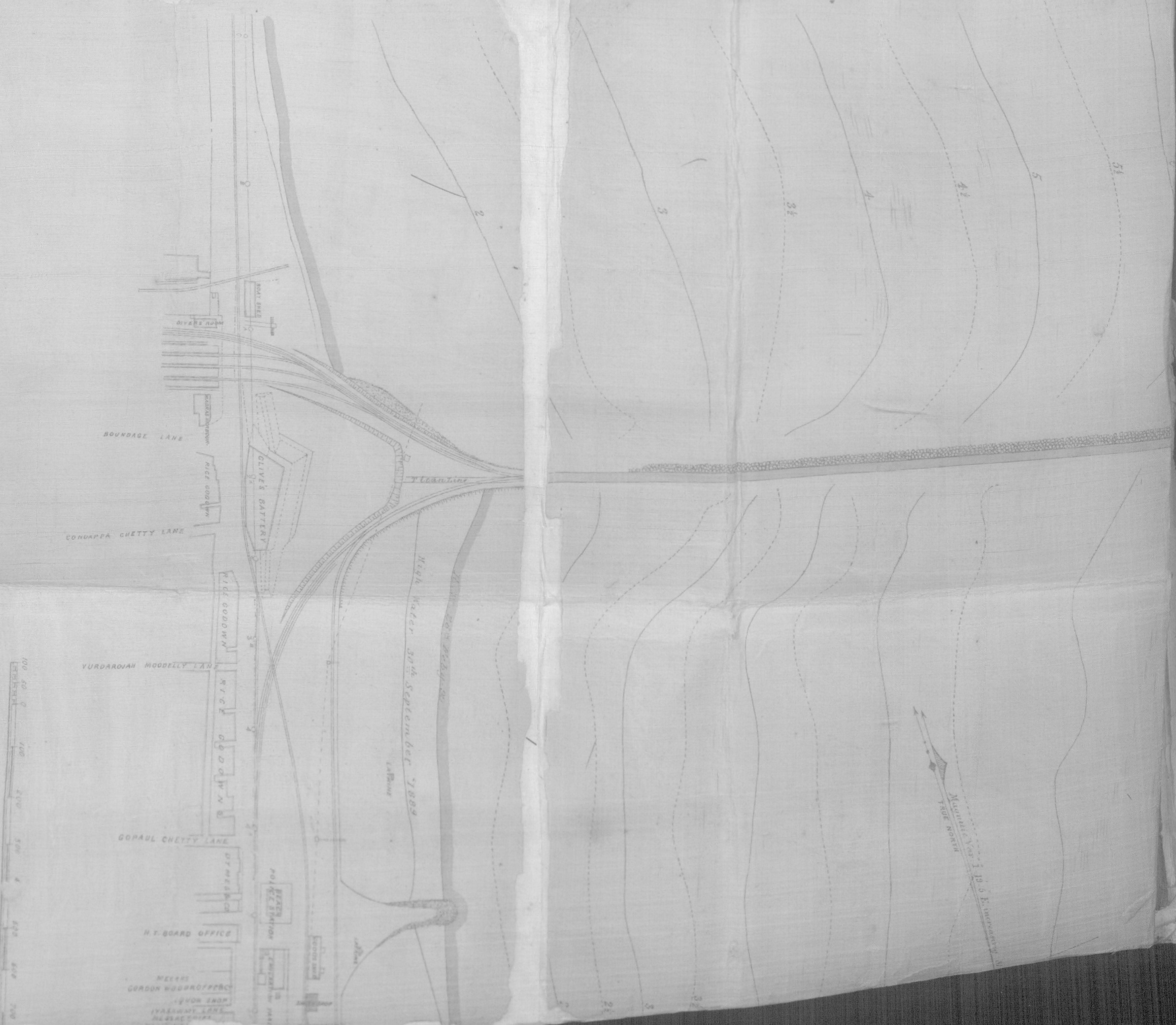
Progress report of the — for February 1890, recorded.

(047)



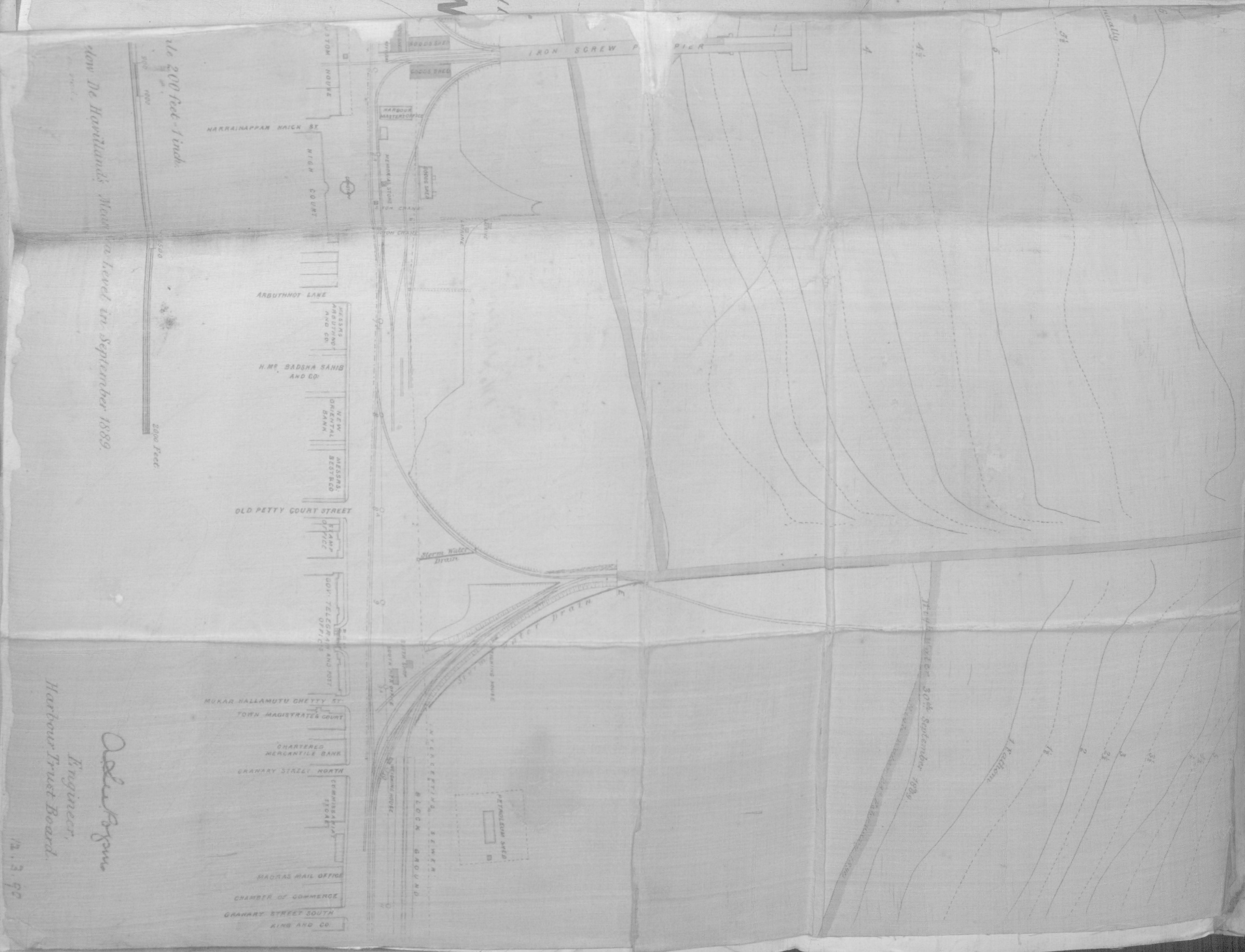
M.

Plan accompanying Progre



LITHOGRAPHED AT THE LAWRENCE ASYLUM PRESS, MADRAS

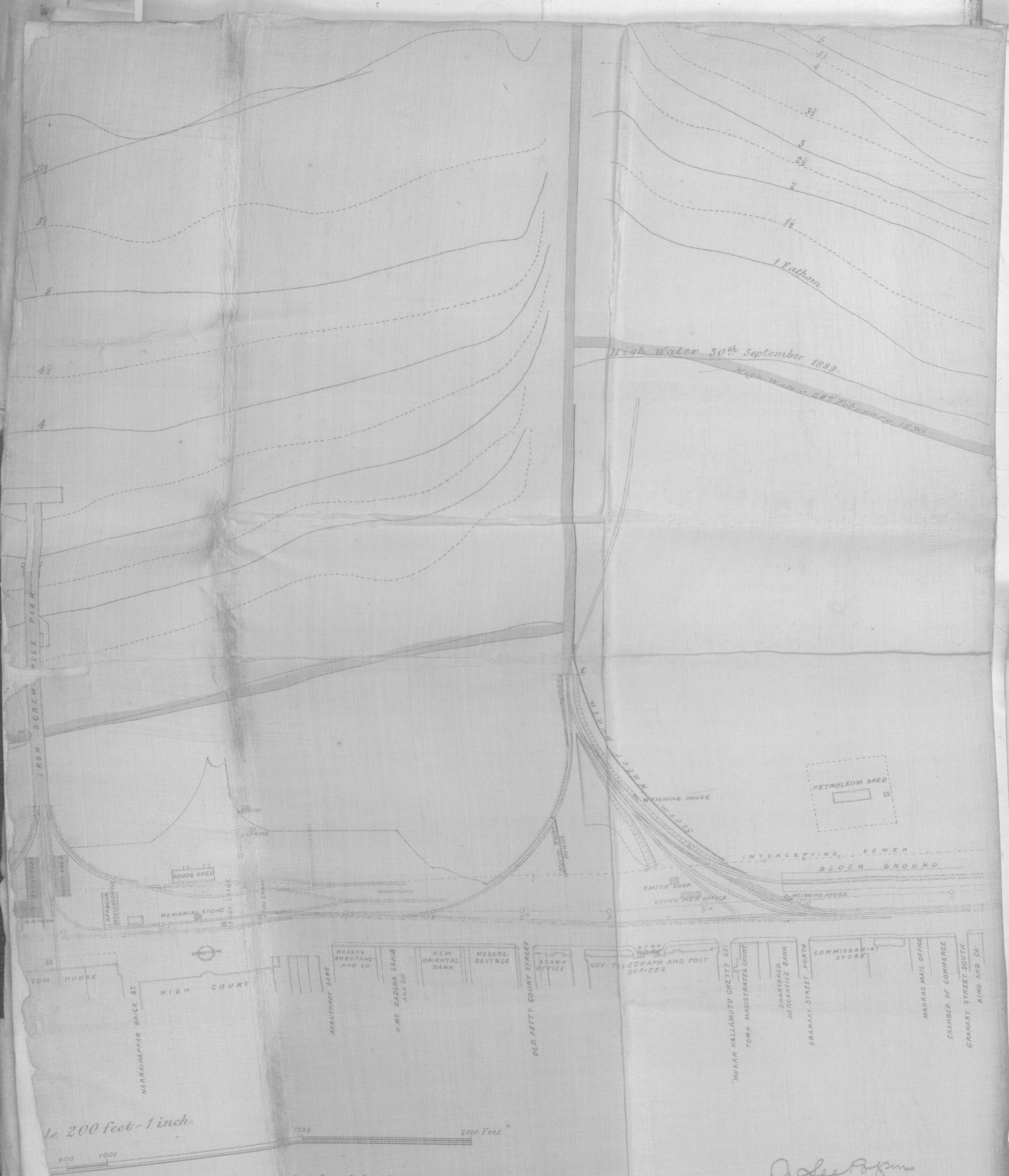
NOTE, The Contour lines shew the dep



A. Lee Byrne

Engineer,
Harbour Trust Board.

12.3.90



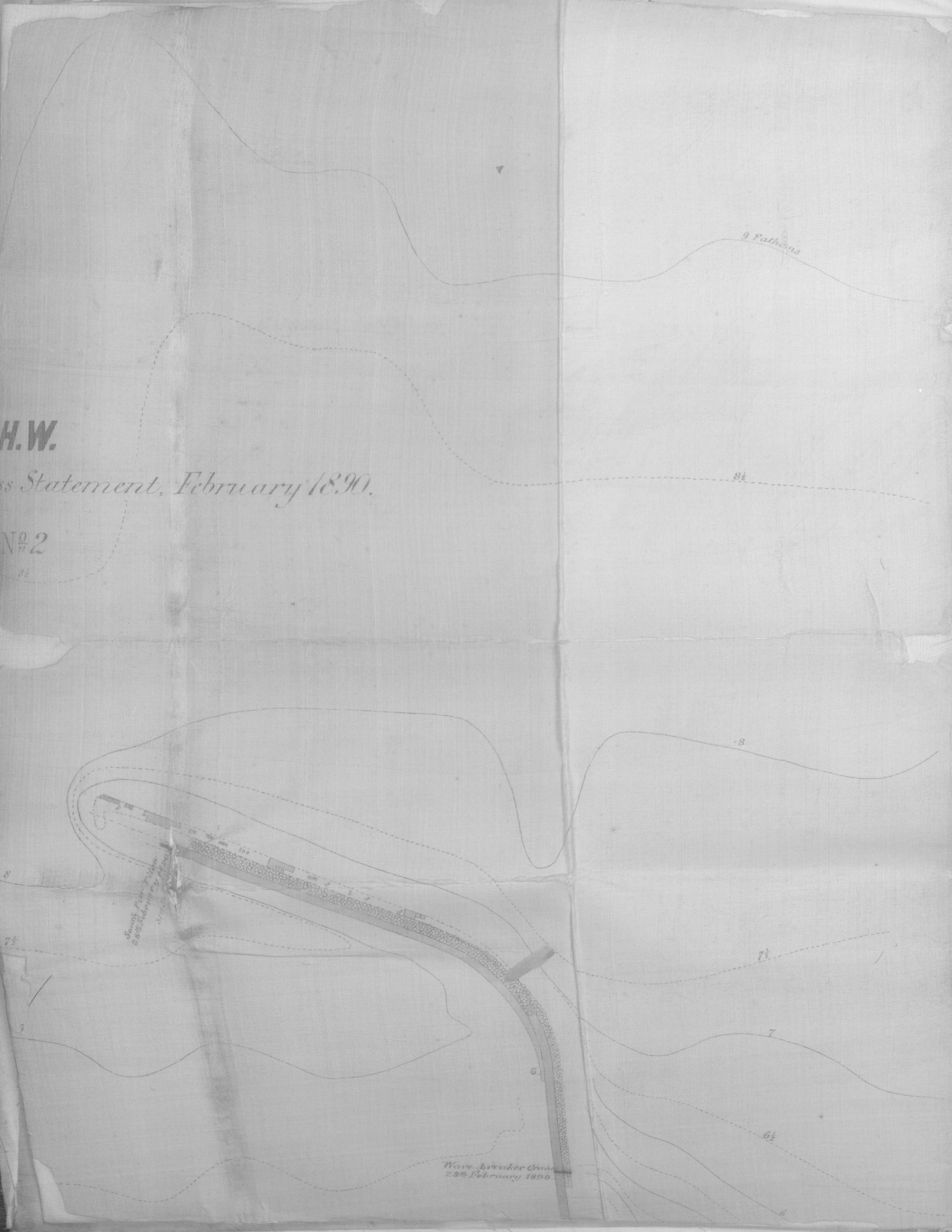
le 200 feet=1 inch.

low De Havilland's Mean Sea Level in September 1889.

A. Lee Pogson

Engineer,
Harbour Trust Board.

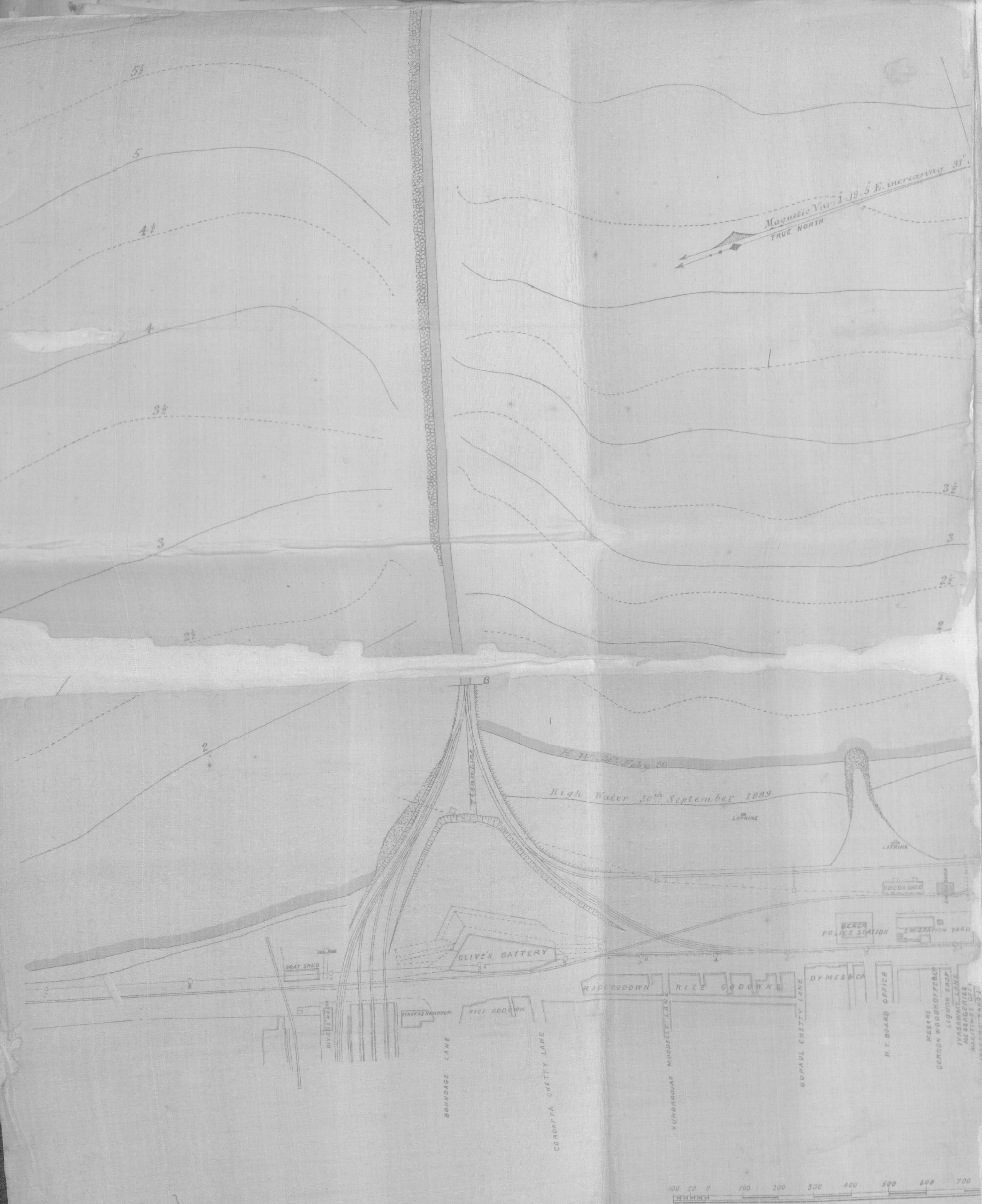
12.3.90



**H.W.**

*ss Statement, February 1890.*

No. 2



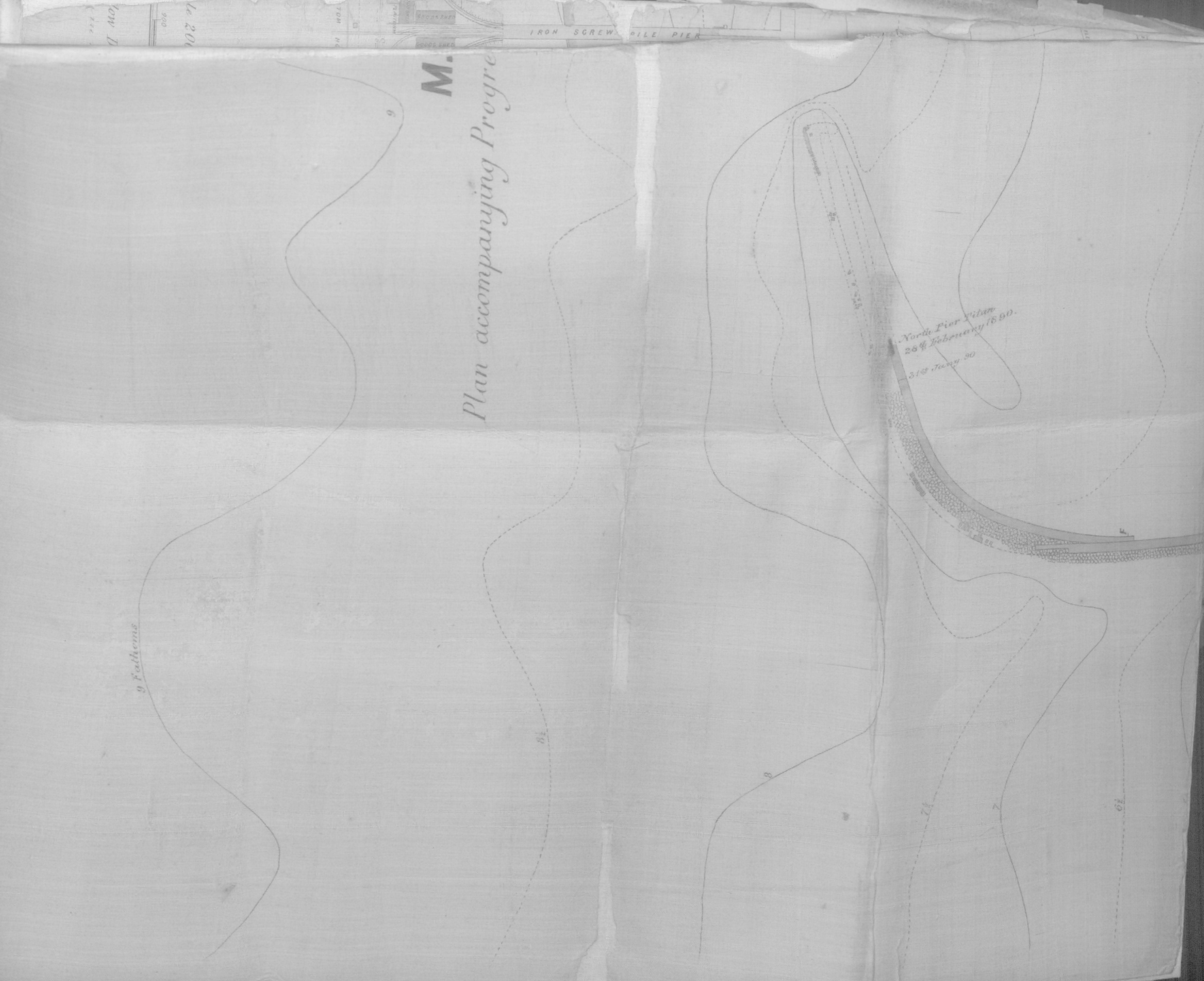
NOTE, The Contour lines shew the dep

Progress during February 1890, at

LITHOGRAPHED AT THE LAWRENCE ASYLUM PRESS, MADRAS

## M.

## Plan accompanying Progre



C. No 281

**Harbour Trust Board**

MADRAS, 25th March 1890

No. 1220 3/10d / P

FROM Geo: McWatters Esquire M. A: C. S.,
CHAIRMAN, HARBOUR TRUST BOARD,
MADRAS,

TO

The Honorable J. Grose M. A: C. S.,
CHIEF SECRETARY TO GOVERNMENT,
*Marine Department.*

Sir,

I have the honor to submit herewith for the information of the Government copy of a letter from the Board's Engineer together with a Statement and plan (in duplicate) showing the progress made upon the Madras Harbour Works during the month of February 1890; also copy of resolution No. 3, dated 21st March 1890.

I have the honor to be
Sir
Your obdt. Servant

G. McWatters
Chairman
Harbour Trust Board

C Sec

1140

No. 145 B Enclosure

4/1042 2760

From
The Engineer
Harbour Trust Board
Madras

To Print

The Chairman
Harbour Trust Board.

Madras 12th March 1890.

Sir,

I have the honor to forward herewith a plan and Statement Showing Progress made in February 1890, prepared in the Form approved by the Trustees.

I have &c
(Sd.) A. Lee Pogson.
Engineer, Harbour Trust Board.

(True copy)

Secretary
Harbour Trust Board

Vo

EXTRACT of Proceedings of the TRUSTEES OF THE HARBOUR OF MADRAS, at a Meeting held at the Offices of the Board on Friday the 21st day of March 1890.

5/1047

× × ×

3. Read letter from the Board's Engineer, No. 1458 dated 12th March 1890, forwarding plan and Statement showing progress made on the Madras Harbour Works during the month of February 1890.

Resolved, that this Statement be submitted to Government.

× × ×

(True Extract,)

Secretary

Harbour Trust Board

Progress Statement No. 2

3 1047

# Madras Harbour Works

Statement showing Progress during February 1890 as shown on accompanying Lithographed Plan No. 2

Note. The figures in red denote for comparison progress and quantity of Work done in February 1889.

|  | Sub-heads of Work |  | North Pier - Rubble Base | " " Superstructure | " " Wavebreaker | " " Concrete Capping | " " Base Protection | South Pier - Rubble Base | " " Superstructure | " " Wavebreaker | " Concrete Capping | " Base Protection | Pallavaram Quarries Outturn | Concrete Blockmaking | Railway Lines at Works | " at Quarries | " Sand Lines | " Beach Improvement | Protective Works | Total Expenditure in |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. of Item | Particulars and Quantity of Work &c. | Column | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R |
| 1 | Rubble Stone deposited from boats | Tons | 54 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2 | Do from Wagons | " | 12 |  |  |  |  | 20 |  |  |  |  |  |  |  |  |  |  |  |  |
| 3 | Total quantity Rubble stone received on Works | " |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 4243¼ |  |
| 4 | " Do Do Blasted chips " " | " |  |  |  |  |  |  |  |  |  |  | 636 |  |  |  |  |  |  |  |
| 5 | " " Large Stone " " | " |  |  |  |  |  |  |  |  |  |  | 4243¼ |  |  |  |  |  |  |  |
| 6 | Concrete Blocks - Set by Divers | Number |  | 160 |  |  |  |  | 80 |  |  |  |  |  |  |  |  |  | 4243¼ |  |
| 7 | " " Deposited in Wavebreaker | " |  |  |  |  |  |  |  | 86 |  |  |  |  |  |  |  |  |  |  |
| 8 | " " Made for Superstructure | " |  |  |  |  |  |  |  |  |  |  |  | 13 |  |  |  |  |  |  |
| 9 | " " " " Wavebreaker | " |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 10 | Wrot Iron cramps fixed in position | " |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 11 | Total outturn of Concrete | Cubic yds |  |  |  |  |  |  |  |  |  |  |  | 234 |  |  |  |  |  |  |
| 12 | Advance or progress of completed Superstructure | Rf feet |  | 99½ |  |  |  |  | 49⅔ |  |  |  |  |  |  |  |  |  |  |  |
| 13 | Rubble Base protected with Concrete | " |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 14 | Metre Gauge 40 lbs per yard laid new | " |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 15 | " " " " " relaid or renewed | " |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 2318 |  |
| 16 | " " " " " taken up | " |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 17 | Broad " 80 lbs " " laid new | " |  | 185 |  |  |  |  | 48 |  |  |  |  |  |  |  |  |  |  |  |
| 18 | " " " " " relaid or renewed | " |  |  |  |  |  |  |  |  |  |  |  | | 1080 |  |  |  |  |  |
| 19 | " " " " " taken up | " |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 20 | Tram " 75 lbs " " laid new | " |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 21 | " " " " " relaid or renewed | " |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 22 | " " " " " taken up | " |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 23 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 24 | Approximate Expenditure under Sub-heads of Work | Rs | 1004 | 3223 | - | - | - | 100 | 3140 | 540 | - | - | 7867 | 5157 | - | - | 10427 | - | - | 31,438 |

| | | | Tons | cwts | qrs | lbs |
|---|---|---|---|---|---|---|
| 6457 | Casks of Cement received on Works during February 1890 | containing | 1153 | " | 2 | 24 |
| 208½ | " " " issued for " " " " | " | 37 | 12 | " | " |
| 11.279 | " " " Balance in Store at end of February 1890. | " | 2013 | 15 | 2 | 23 |

Quantity due on Indents dated

| | Tons | cwts | qrs | lbs |
|---|---|---|---|---|
| 12th June 89 = | 467 | 6 | 1 | 20 |
| 20th Sept 89 = | 2575 | " | " | " |
| Total = | 3042 | 6 | 1 | 20 |

Remarks - Column A Item No. 1 & 2 = 54 tons of Stone went to level the Base previous to Blocksetting, and 12 tons (pieces of Blocks) to strengthen the North Pier Surf Bank.
" " " B " 6 & 12 = The progress though very satisfactory, was nevertheless at a limited rate for want of sufficient Locomotive power.
" " " F " " 2 = 20 tons of small Chips were deposited by hand to level up the Base, immediately in front of the advancing Superstructure.
" " " G " " 6 & 12 = The South Pier being well in advance, and there being limited Steam power on the Works, direction was turned to more urgent work.
" " " L " " 8 & 11 = Concrete Blocks were only made on the 1st of February, after which date this Work had to be stopped for want of sufficient stacking space, and until the Stock of Blocks on hand could be reduced.
" " " Q " " 2 & 5 Repairs to the Revetment at Cassimode were commenced, and by the close of the month 4243¼ tons of Stone had been deposited and a length of 2318 Running feet of Railway, laid for the conveyance of materials &c to the site of work.

Madras 8th March 1890.

Engineer, Harbour Trust Board.

B.W. 5194.

27 March/90 50

Transferred to the Public Works Dept.

[illegible]

Ag Chief Secretary.

Recd 28-3-90

Enc: 5 (+2 plans)

No. 1047 W/ 2nd April 1890

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Recorded.

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Recd 31-3-90

Ch. M. H. T. Bd

Marine Depa

C. No 289

# MARINE DEPARTMENT.

FROM

THE CHAIRMAN,
HARBOUR TRUST BOARD,
MADRAS.

To

THE CHIEF SECRETARY TO GOVERNMENT,
Marine Department.

DATED 25 } March 1890
RECEIVED 26 }

ENCLOSURE 5 (5) including 2 plans

No. 228 26 MAR 90 GOVERNMENT OF MADRAS

SUBJECT.

Submitting for the information of Government Copy of Engineers letter together with Statement and plan (in duplicate) showing progress made on the Madras Harbour during February 1890.

No. 910 W.S./20-3-90.
" 479 W - 14-2-90.

Transferred.

3194.

Govt. of 18 Madras.

PUBLIC WORKS.

Dated

Recd. Encl.

G.O. 2nd april 1890 No. 1047 W. 1.

Madras Harbour Works

Progress report of the — for Feby/90

Recorded

90/3