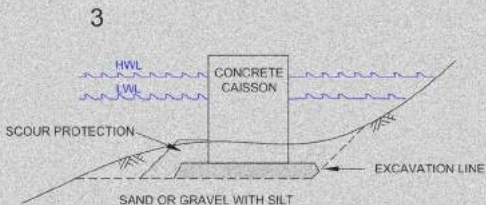
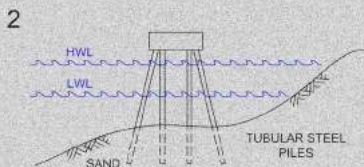
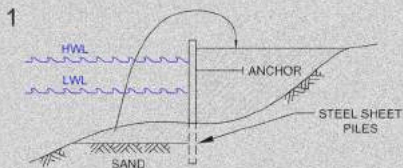


Arctic bulkhead types



95-244-2010

PROJECT No. 1-11-1472

PROJECT
ENGINEERING CHALLENGES
IN THE NORTH
NUNAVUT REGIONAL ADAPTATION
COLLABORATIVE
PORT FACILITIES

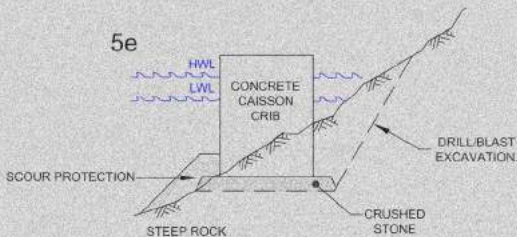
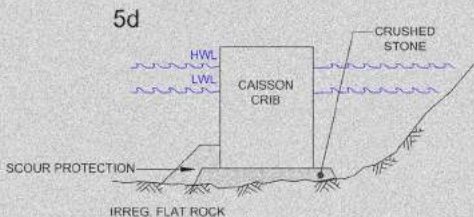
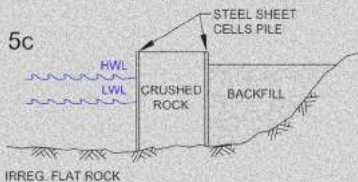
SCALE:	N.T.S.
DRAWN BY:	A.B.
PROJECTED BY:	N.J.
APPROVED BY:	N.J.

JOURNEAUX ASSOC
 804, Bancroft, Pointe-Claire, QC H9H 4L6
 T 514.630.4007 • F 514.630.8917
info@journeauxassoc.com

ISSUANCE No.	FIGURE No.	REV.
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Arctic bulkhead and dock supports

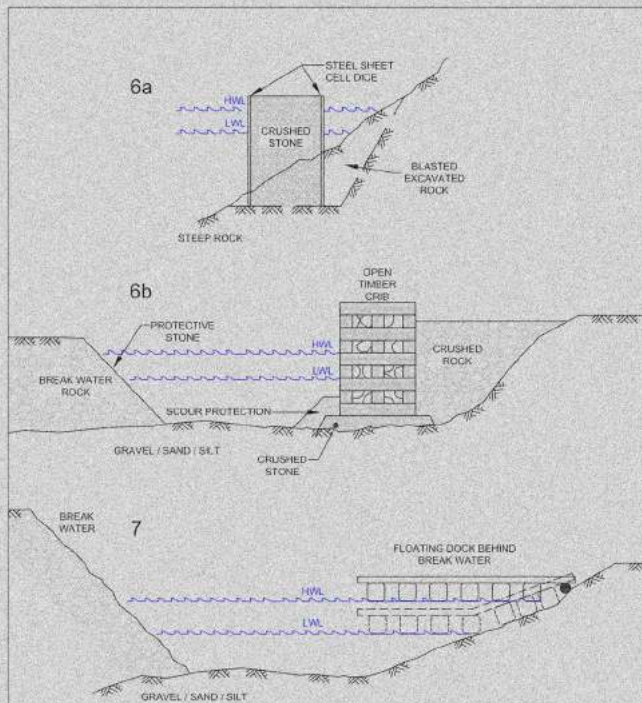
Arctic bulkhead and dock supports



<p>DATE: 11-28-2011</p> <p>PROJECT NO.: E-11-14272</p>	<p>PROJECT: ENGINEERING CHALLENGES IN THE NORTH NUNAVUT REGIONAL ADAPTATION COLLABORATIVE PORT FACILITIES</p> <p>SCALE: N.T.S.</p> <p>DRAWN BY: A.B.</p> <p>PROJECTED BY: N.J.</p> <p>APPROVED BY: N.J.</p>	<p>JOURNEAUX ASSOC. <small>INCORPORATED IN CANADA</small> 804, Bancroft, Pointe-Claire, QC H9H 4L6 T 514.334.4997 • F 514.334.3837 info@journiauxassoc.com</p> <p>DRAWING NO.: 03</p> <p>REV: 1</p>
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N:\012-Projet\012-14272-03.dwg - 14272 - Engineering Challenge - 11-28-2011 11:13:13

Arctic bulkhead and dock supports



DATE:



11-28-2011

PROJECT NO.:



11-1472

PROJECT
ENGINEERING CHALLENGES
IN THE NORTH
NUNAVUT REGIONAL ADAPTATION
COLLABORATIVE
PORT FACILITIES

SCALE:

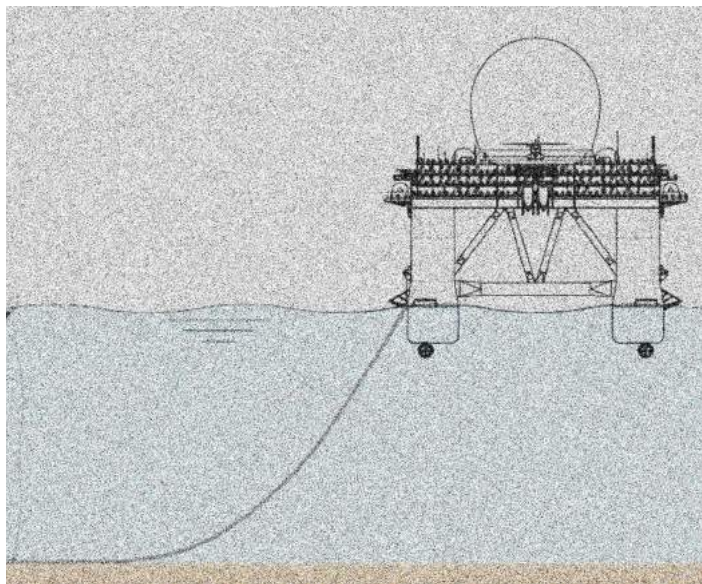
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DRAWN BY: A.B.
PROJECTED BY: N.J.
APPROVED BY: N.J.

JOHNEAUX ASSOC.
INCORPORATED IN CANADA
750-650-4997 • 750-650-4997
info@johnneaux.com

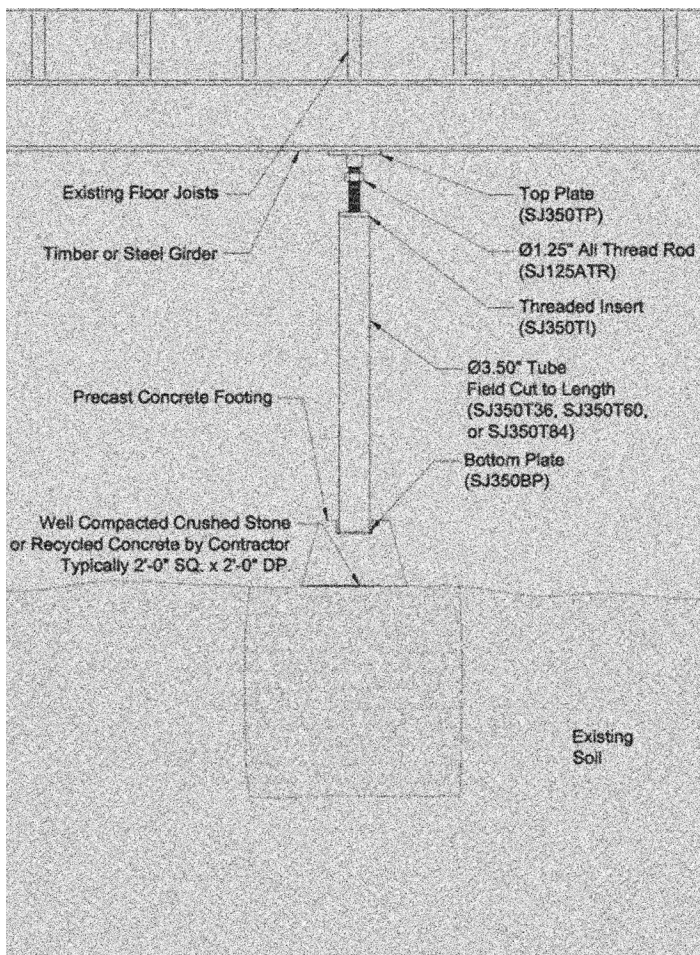
DESIGNED BY: GA
REV: -

NOT TO SCALE - FOR INFORMATION ONLY - NOT TO BE USED FOR CONSTRUCTION - FOR INFORMATION ONLY - NOT TO BE USED FOR CONSTRUCTION

Sea-Based X-Band Radar



Jacking column detail



Space frame assembly

FIG. 19

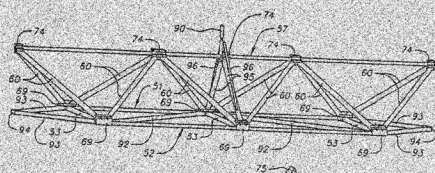
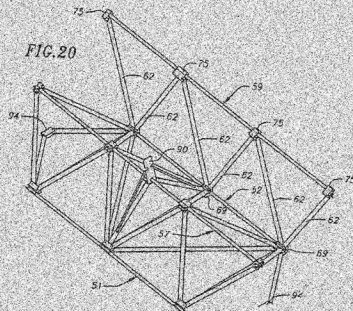
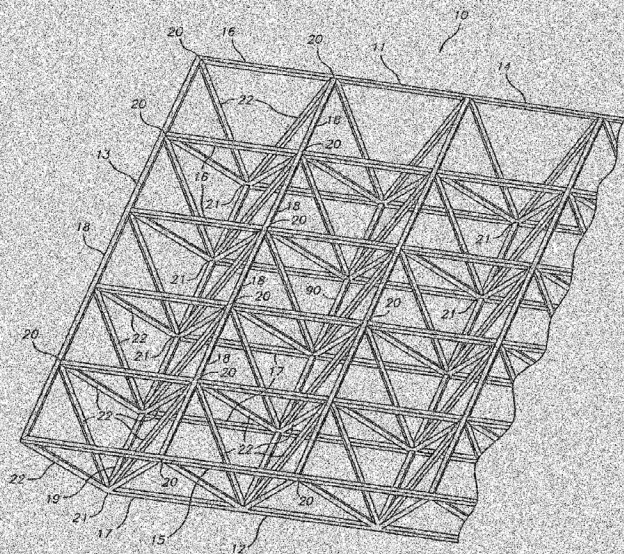


FIG. 20



Space frame assembly

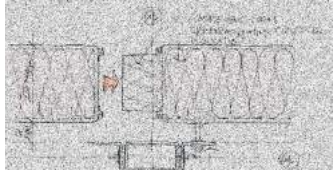
FIG. 1



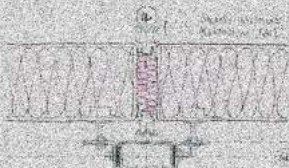
Hugh Broughton Architects, Halley VI, insulation details



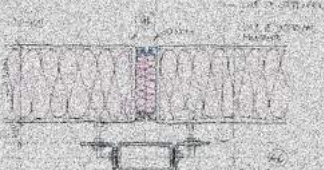
1. PREPARED COMPONENT PANEL UNITS



2. PANELS JOINED SIDE BY SIDE

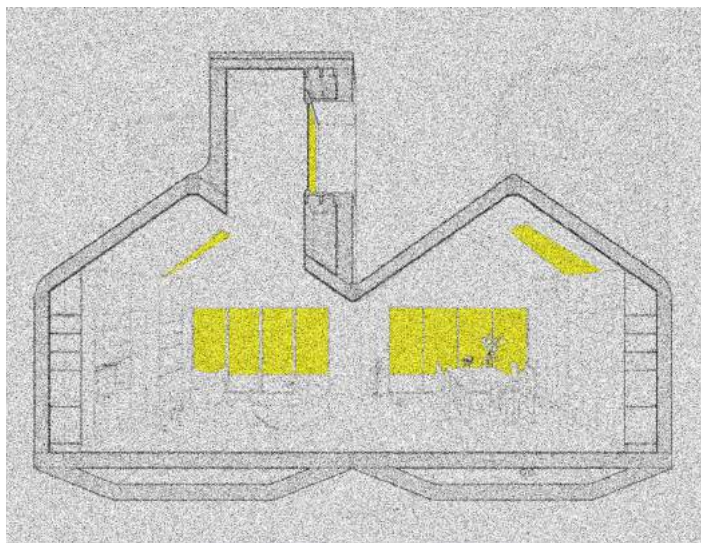


3. JOINTS INSTALLED



4. JOINTS INSTALLED

MOS Architects, Element House



Air Inuit plane landed on frozen ocean



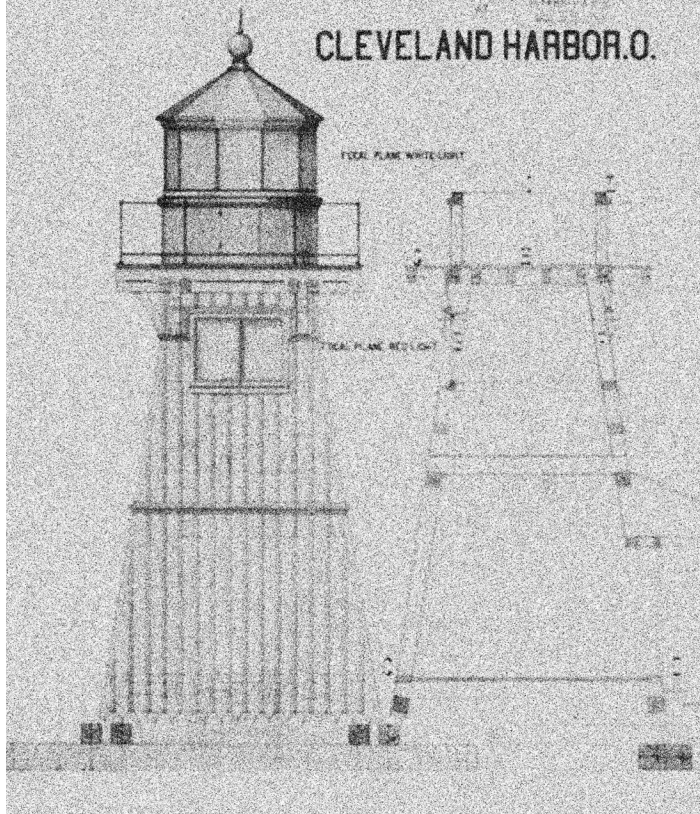
Marblehead Harbor Lighthouse, Massachusetts



Lighthouse design for navigation infrastructure of Cleveland Harbor

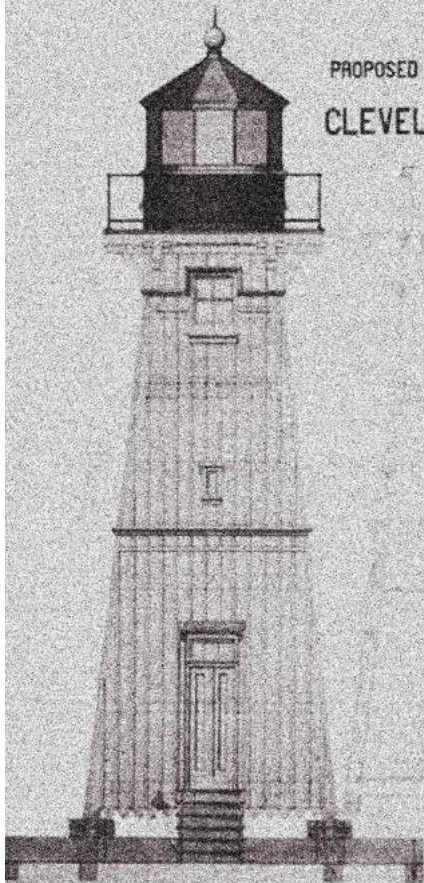
PROPOSED DOUBLE LIGHT FOR EAST PIER

CLEVELAND HARBOR.O.

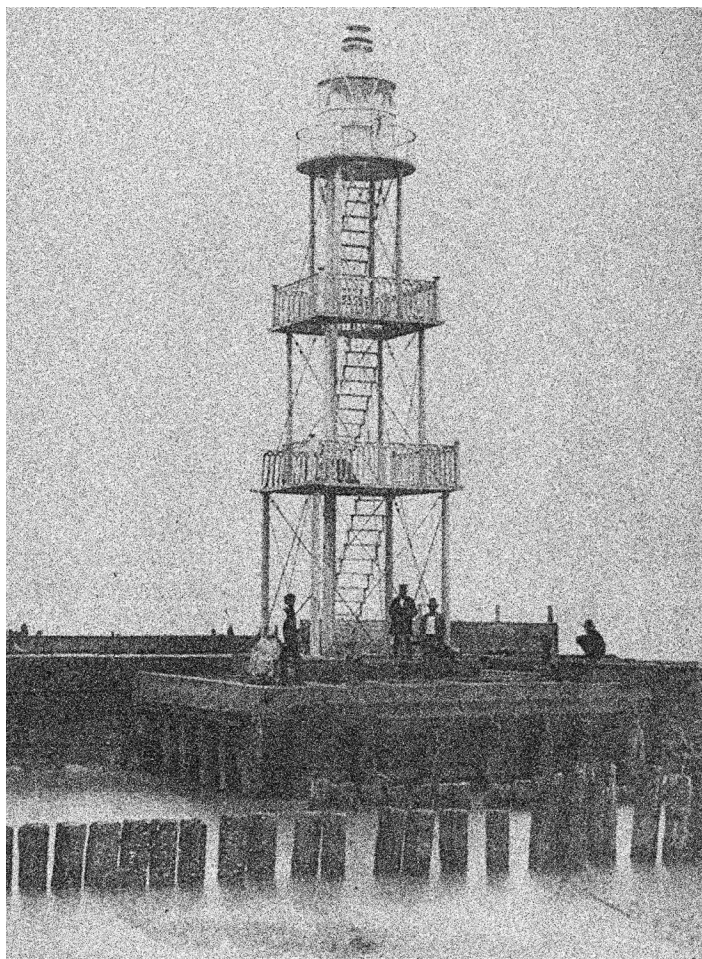


Lighthouse design for navigation infrastructure of Cleveland Harbor

PROPOSED LIGHT FOR WEST PIER
CLEVELAND HARBOR, O.

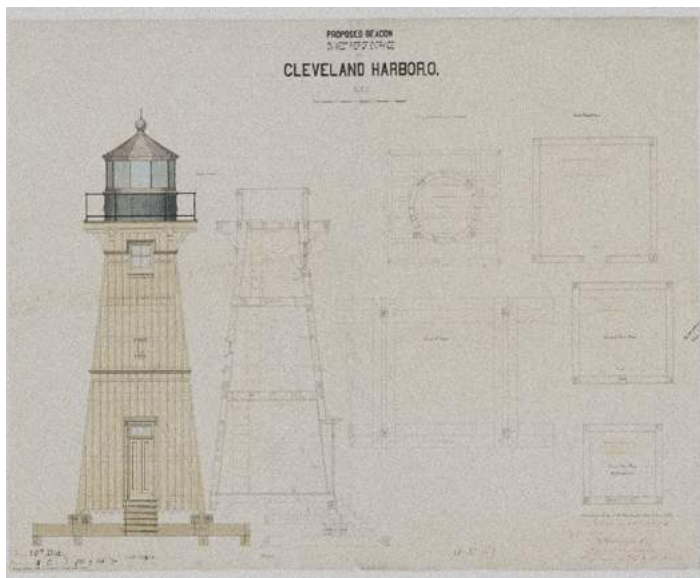


Lighthouse of Cleveland Harbor

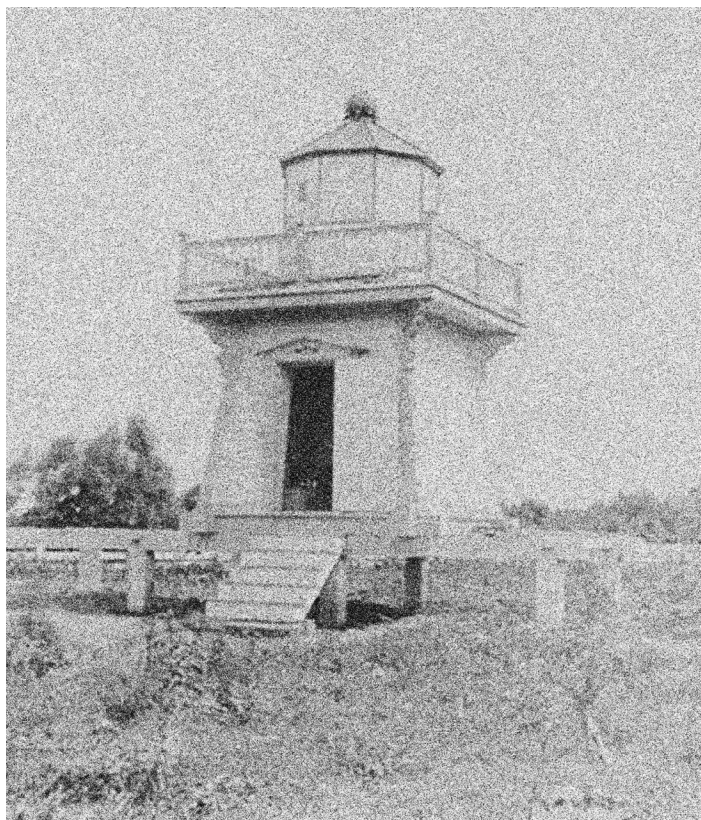


Lighthouse design for navigation infrastructure of Cleveland Harbor

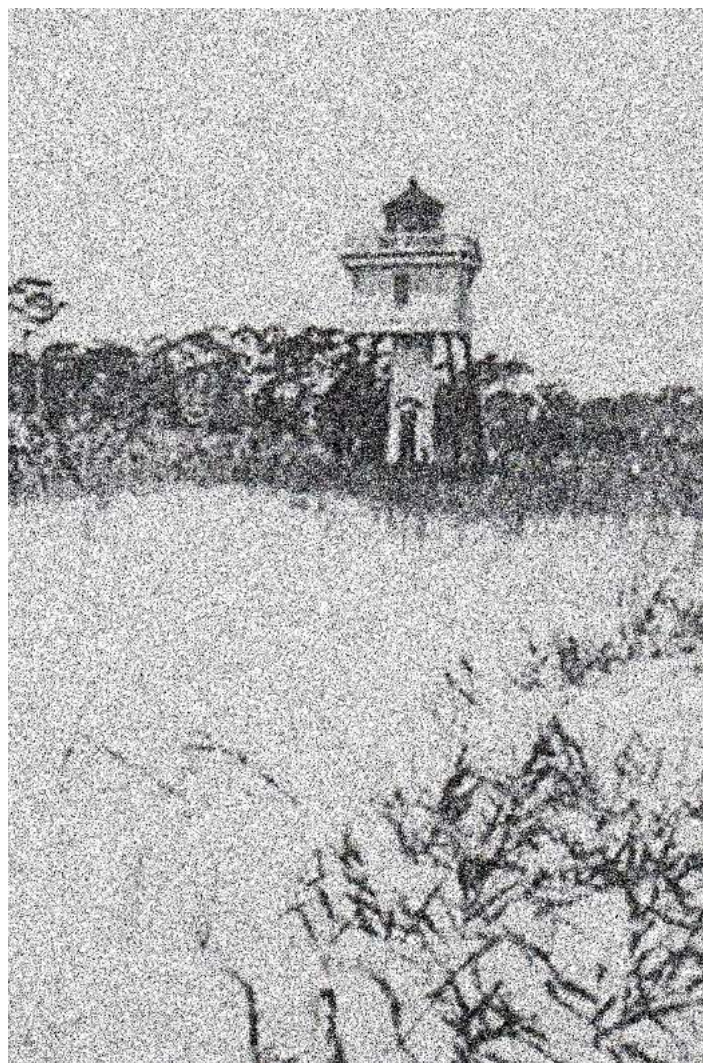
PROPOSED BEACON
SITE OFFICE
CLEVELAND HARBOR.



Mobile beacon in South Carolina. Beacon was elevated above ground so that it could be moved by a team of oxen in response to shifting channel routes



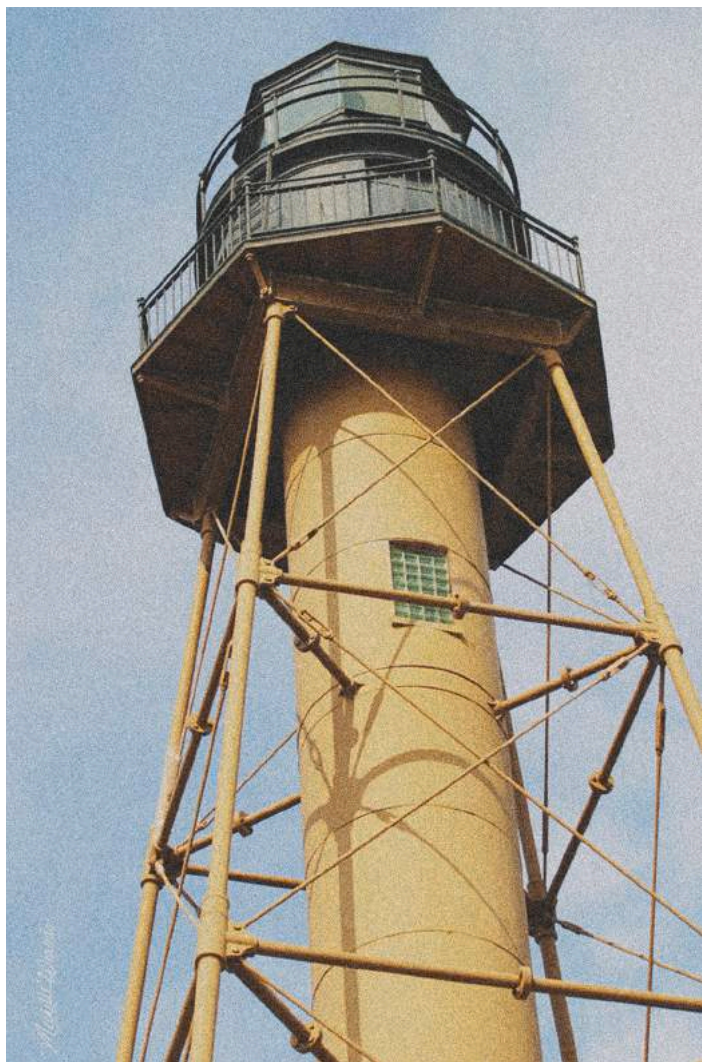
Mobile beacon, South Carolina



**Lighthouse as part of the range light infrastructure near Hilton Head,
South Carolina**



Marblehead Harbor Lighthouse, Massachusetts

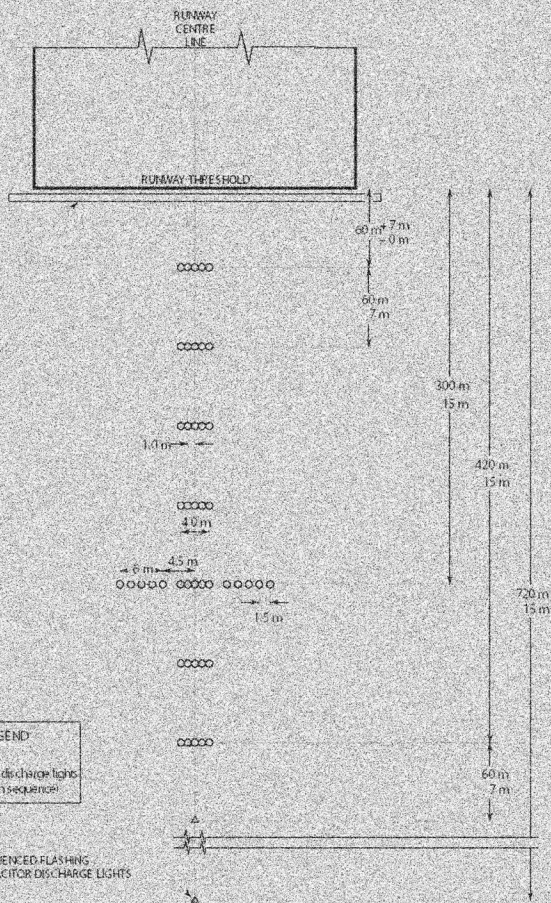


Runway range light array

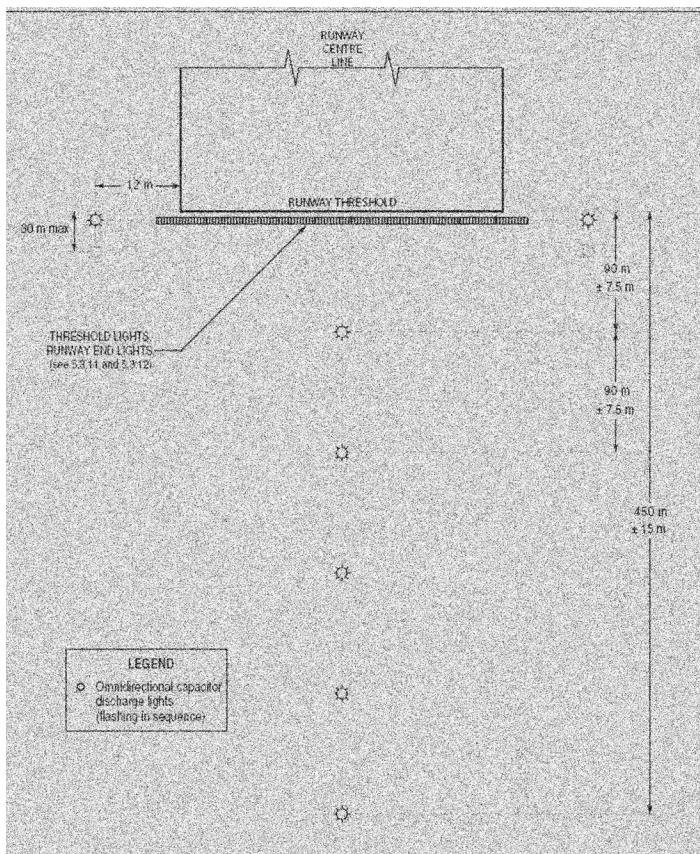


Approach lighting system

THRESHOLD LIGHTS
RUNWAY END LIGHTS
(see 5.3.11 and 5.3.12)



Approach lighting system



Inukshuk, Nunavut. Inukshuk were built by the nomadic Inuit as markers on the land and used for land-based navigation. Inukshuk would often have built-in sleeping nooks for overnight camping and would sometimes mark the burial sites of loved ones.



Inukshuk



Inukshuk art



