INDEX OF ATTACHMENTS
Mohegan Aquaculture LLC 200002677

1. Location and Coordinates
    a. Sullivan Niantic Bay
    b. Lease 528 Pine Island Bay
    c. Lease 525 Ram Island Reef
    d. Ragsdale Ram Island Shoal
    e. Lease 589 Stonington
    f. Davis Pawcatuck River

2. Specialized Aquaculture Gear
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    b. Longline Design Fig. 3.2.1-2
    c. Longline Deployment Fig. 3.2.1-3
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    h. Stonington Borough Location
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    m. Helix Anchor Mooring Fig. 3.7.2.1-1
    n. Upweller Mooring Plan Fig. 3.8.3-1
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    r. Bottom Cage Schematic
    s. Summary of Certification

3. Equipment Report/Additional Information
    a. Mohegan Aquaculture LLC Equipment Evaluation Report (December 14, 2001)
    b. November 1, 2002 letter from Robinson & Cole LLC to Army Corps of Engineers
    c. December 3, 2001 letter from Mohegan Aquaculture LLC to Army Corps of Engineers
    d. December 14, 2001 letter from Robinson & Cole LLC to Army Corps of Engineers
    e. April 29, 2002 letter from Robinson & Cole LLP to Army Corps of Engineers
    f. August 16, 2002 letter from Robinson & Cole LLP to Army Corps of Engineers

4. Macrobenthic Community Structure of the Mohegan Tribe Aquaculture Sites (November 2001)

5. Bottom Classification Survey of Aquaculture Lease Sites in Long Island Sound (November 2001)

6. Mohegan Aquaculture LLC Essential Fish Habitat Assessment (May 21, 2002)

7. Connecticut Historical Commission coordination
    a. July 6, 2001 letter
    b. February 26, 2002 letter

INDEX OF ATTACHMENTS
Mohegan Aquaculture LLC 200002677

8. US Coast Guard coordination (July 30, 2002)

9. Connecticut Department of Environmental Protection Coastal Zone Management Consistency Determination (February 19, 2002)

10. Public Notice (March 20, 2001)

11. Letters in response to Public Notice
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12. National Marine Fisheries Service coordination
    a. July 6, 2001 letter
    b. August 9, 2002 letter

13. Environmental Protection Agency coordination
    a. May 18, 2001 letter
    b. August 16, 2002 letter
    c. August 19, 2002 memo/record of conference call

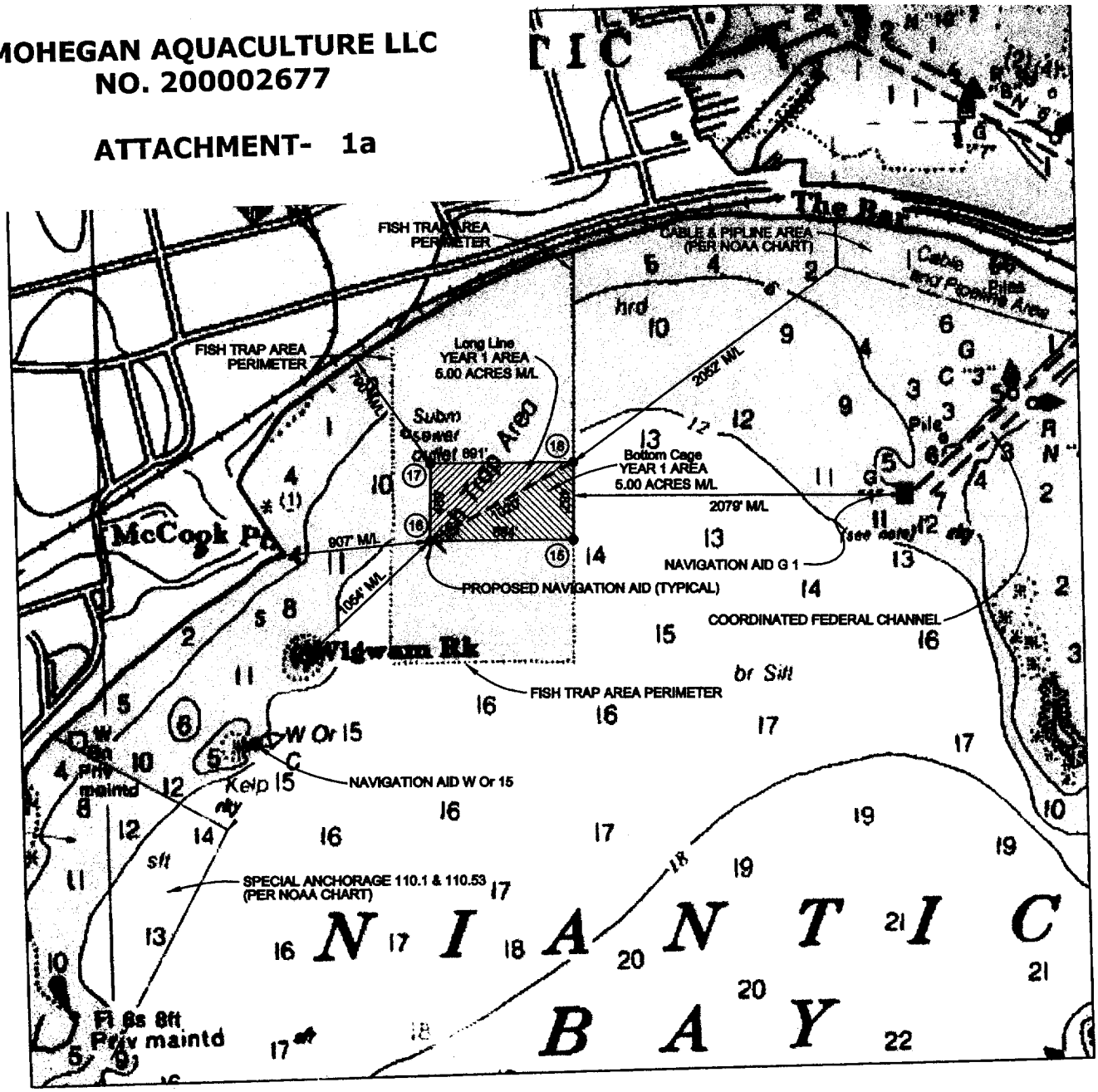
14. Notice of Public Hearing

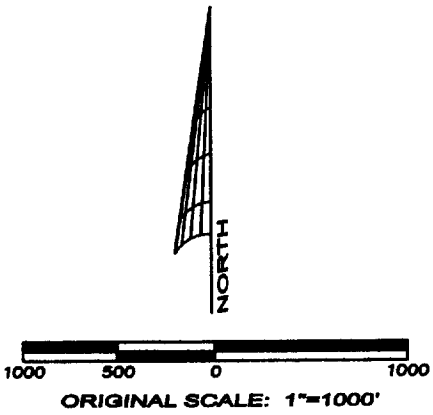
15. Public Hearing Transcripts

16. Tribal Waiver of Sovereign Immunity

MOHEGAN AQUACULTURE LLC
NO. 200002677

ATTACHMENT- 1a





NOTE: The distances to existing navigational aids, structures and land forms are per NOAA charts. These dimensions do not reflect a field surveyed location of these features.

Cable, Pipe, Special Anchorages and Federal Channel locations are per NOAA charts.

GEOGRAPHIC COORDINATES (NAD83)

15	41°19' 08.37"	72°11' 21.52"	Bottom Cage SE
16	41°19' 08.37"	72°11' 33.24"	Bottom Cage SW
17	41°19' 13.18"	72°11' 33.17"	Long Line NW
18	41°19' 13.18"	72°11' 21.49"	Long Line NE

LEGEND

● PROPOSED NAVIGATION AID

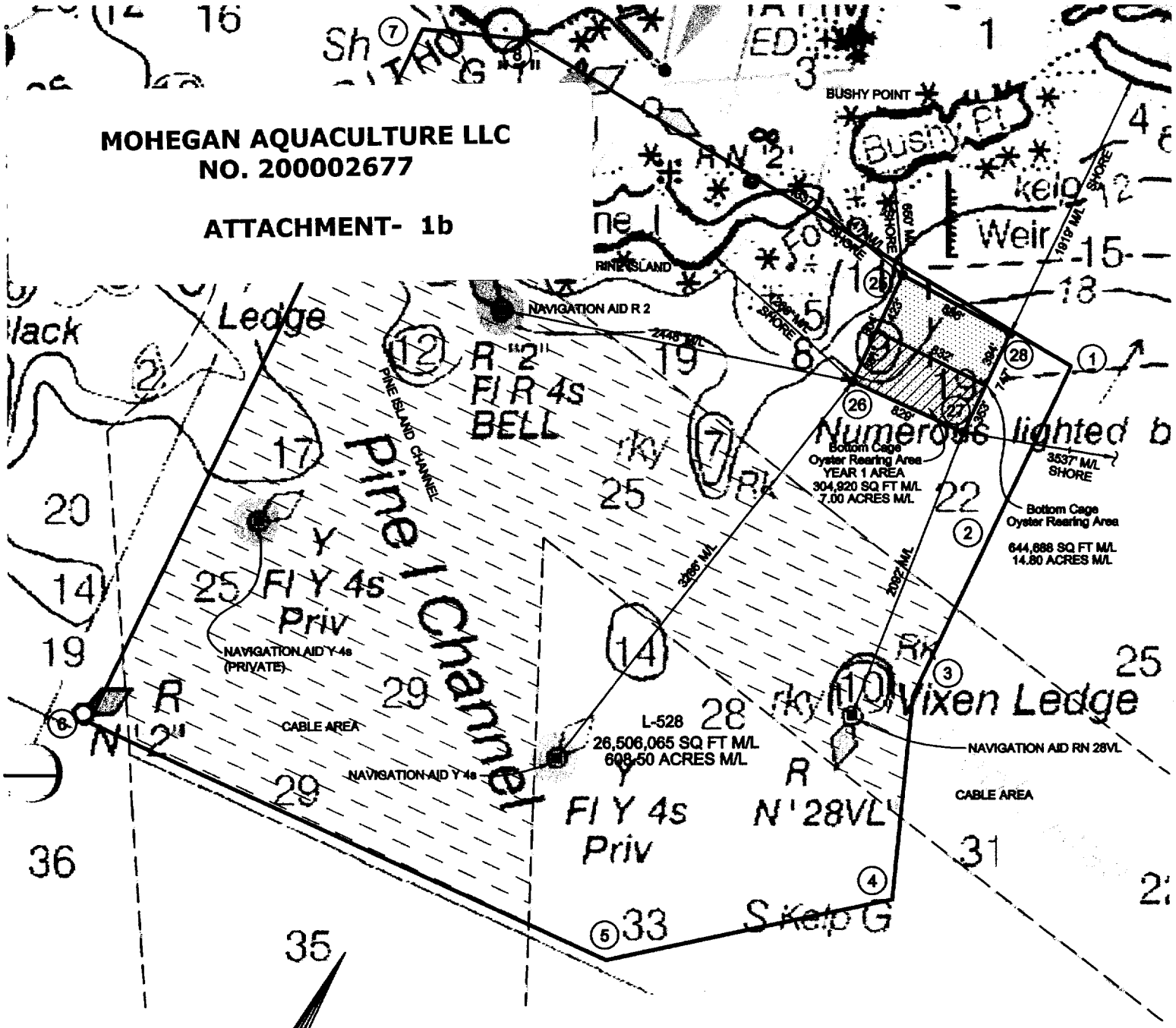
M/L MORE OR LESS

BOTTOM CAGE / LONG LINE AREAS
NIANTIC FISH TRAP AREA LEASE
prepared for
THE MOHEGAN TRIBE
5/17/02

RESOURCE MANAGEMENT & MAPPING

MOHEGAN AQUACULTURE LLC
NO. 200002677

ATTACHMENT- 1b



1000 500 0 1000

ORIGINAL SCALE: 1"=1000'

LEGEND

● PROPOSED NAVIGATION AID
M/L MORE OR LESS

GEOGRAPHIC COORDINATES (NAD83)

1	41°18' 50.49"	72°02' 50.32"	L-528
2	41°18' 37.73"	72°02' 50.39"	L-528
3	41°18' 25.66"	72°02' 50.46"	L-528
4	41°18' 12.50"	72°02' 44.32"	L-528
5	41°18' 00.58"	72°03' 05.32"	L-528
6	41°18' 00.57"	72°03' 56.43"	L-528
7	41°18' 52.54"	72°03' 55.70"	L-528
8	41°18' 54.89"	72°03' 46.85"	L-528
25	41°18' 51.28"	72°03' 07.44"	Bottom Cage
26	41°18' 43.34"	72°03' 07.38"	Bottom Cage
27	41°18' 43.38"	72°02' 56.52"	Bottom Cage
28	41°18' 50.76"	72°02' 56.51"	Bottom Cage

NOTE: The distances to existing navigational aids, structures and land forms are per NOAA charts. These dimensions do not reflect a field surveyed location of these features.

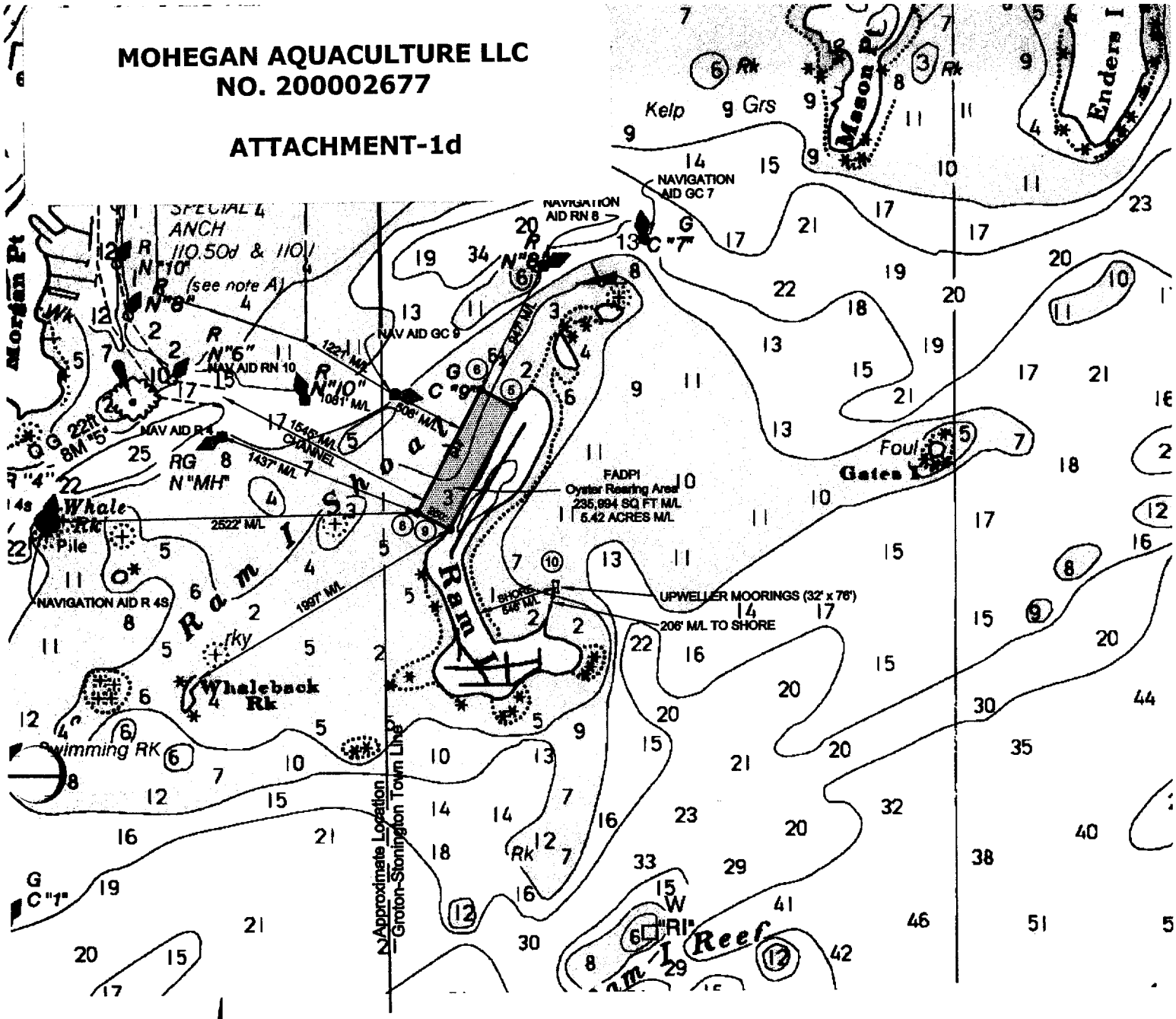
Cable, Pipe, Special Anchorages and Federal Channel locations are per NOAA charts.

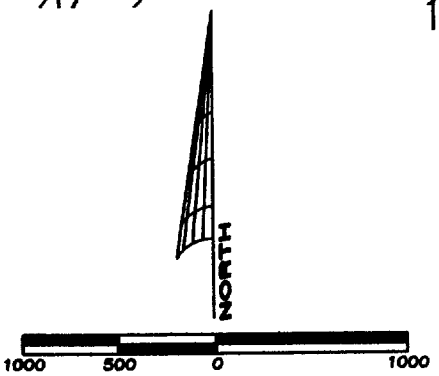
BOTTOM CAGE, LONG LINE AREA
STATE SHELLFISH LEASE L-528
prepared for
THE MOHEGAN TRIBE
5/17/02

RESOURCE MANAGEMENT & MAPPING

MOHEGAN AQUACULTURE LLC
NO. 200002677

ATTACHMENT-1d





ORIGINAL SCALE: 1"=1000'

GEOGRAPHIC COORDINATES (NAD83)

5	41°18' 58.36"	71°58' 37.11"	FADPI NE
6	41°18' 59.54"	71°58' 39.99"	FADPI NW
8	41°18' 5132	71°58' 45.82"	FADPI SW
9	41°18' 50.13"	71°58' 42.95"	FADPI SE
10	41°18' 46.05"	71°58' 33.56"	UPWELLER

LEGEND

- • PROPOSED NAVIGATION AID
- M/L MORE OR LESS

NOTE: The distances to existing navigational aids, structures and land forms are per NOAA charts. These dimensions do not reflect a field surveyed location of these features.

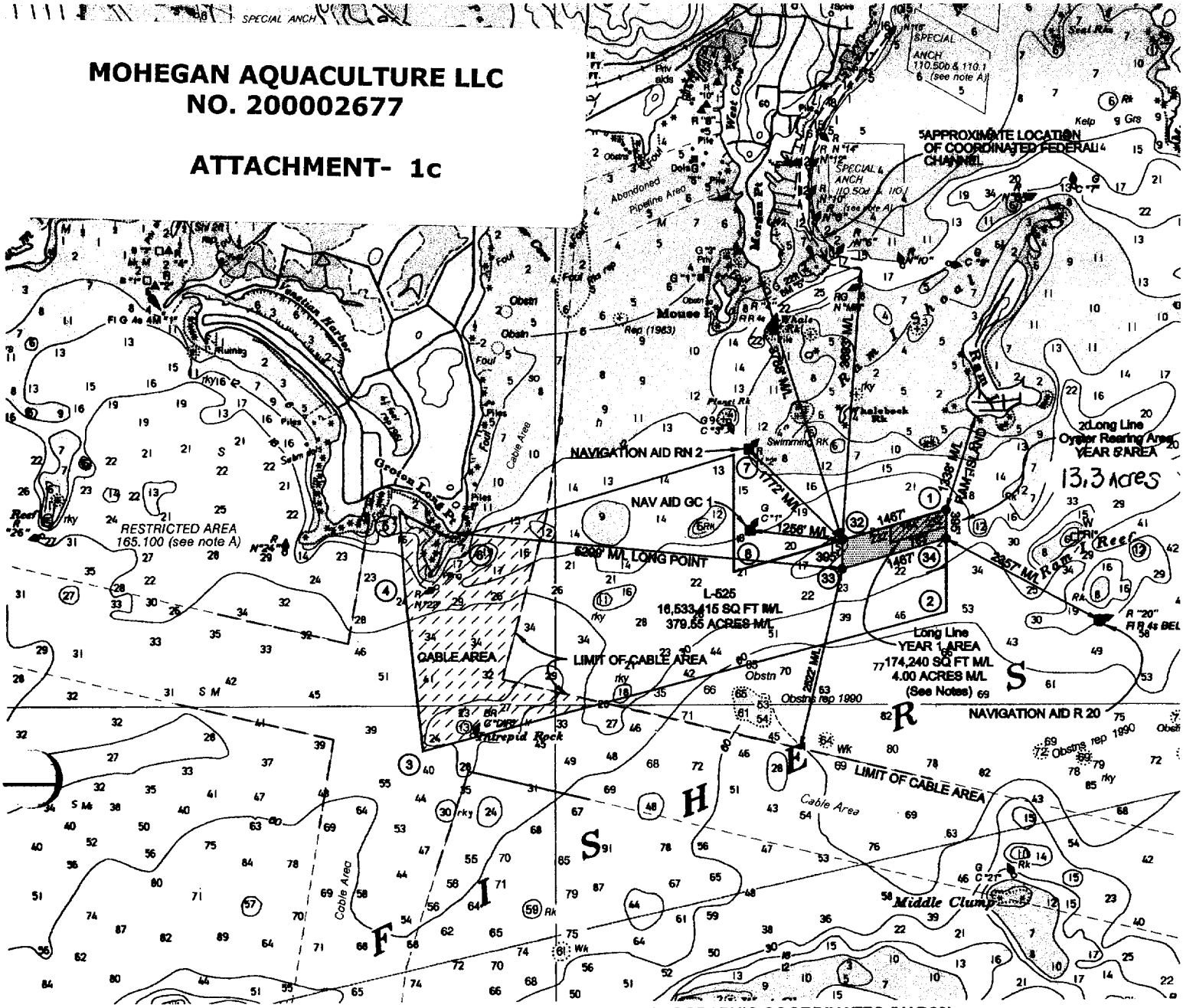
Cable, Pipe, Special Anchorages and Federal Channel locations are per NOAA charts.

FADPI AREA AND UPWELLER
IN THE VICINITY OF RAM ISLAND
prepared for
THE MOHEGAN TRIBE
4/19/02

RESOURCE MANAGEMENT & MAPPING

MOHEGAN AQUACULTURE LLC
NO. 200002677

ATTACHMENT- 1c



NORTH

2000 1000 0 2000

ORIGINAL SCALE: 1"=2000'

NOTES: The distances to existing navigational aids, structures and land forms are per NOAA charts. These dimensions do not reflect a field surveyed location of these features.

Cable, Pipe, Special Anchorages and Federal Channel locations are per NOAA charts.

Proposed long line gear will be located a minimum of 11' below Mean Low Water (MLW).

GEOGRAPHIC COORDINATES (NAD83)

1	41°18'26.28"	71°58'48.36"	Lease 525
2	41°18'12.48"	71°58'48.54"	Lease 525
3	41°17'54.48"	72°00'21.72"	Lease 525
4	41°18'15.96"	72°00'24.60"	Lease 525
5	41°18'26.82"	72°00'25.38"	Lease 525
6	41°18'23.16"	72°00'16.38"	Lease 525
7	41°18'33.96"	71°59'25.98"	Lease 525
8	41°18'18.18"	71°59'26.16"	Lease 525
32	41°18'22.32"	71°59'06.86"	Long Line NW
33	41°18' 18.41"	71°59' 06.89"	Long Line SW
34	41°18' 22.41"	71°58' 48.41"	Long Line SE

LEGEND

● PROPOSED NAVIGATION AID

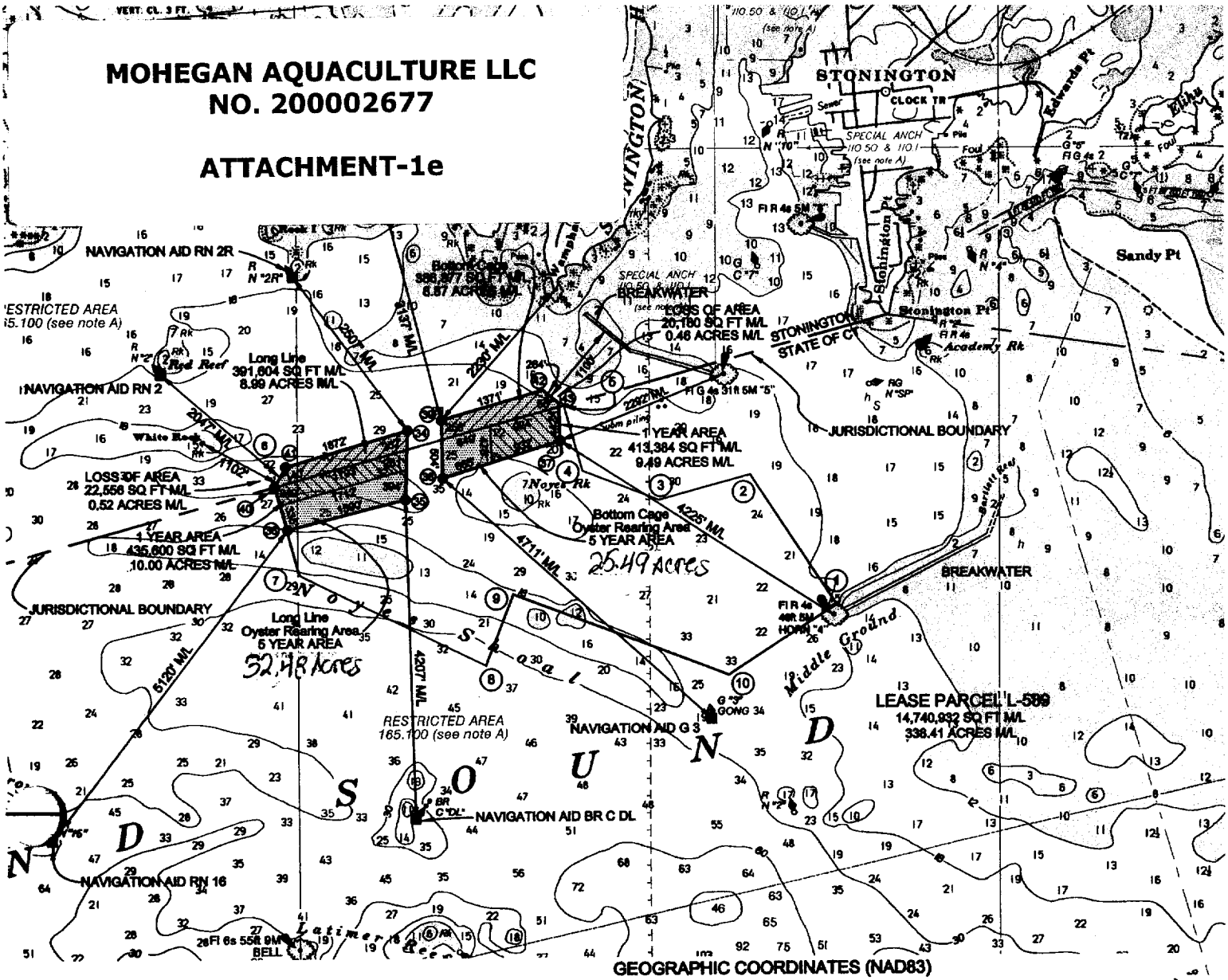
M/L MORE OR LESS

LONG LINE AREA
STATE SHELLFISH LEASE 525

prepared for
THE MOHEGAN TRIBE
5/17/02
RESOURCE MANAGEMENT & MAPPING

MOHEGAN AQUACULTURE LLC
NO. 200002677

ATTACHMENT-1e



GEOGRAPHIC COORDINATES (NAD83)			
1	41°19' 02.22"	71°54' 26.33"	L-589
2	41°19' 19.02"	71°54' 41.16"	L-589
3	41°19' 15.72"	71°54' 56.76"	L-589
4	41°19' 19.50"	71°55' 09.78"	L-589
5	41°19' 27.90"	71°55' 12.96"	L-589
6	41°19' 17.34"	71°56' 02.22"	L-589
7	41°19' 05.94"	71°55' 57.96"	L-589
8	41°18' 54.18"	71°55' 26.10"	L-589
9	41°19' 03.48"	71°55' 21.48"	L-589
10	41°18' 53.04"	71°54' 44.70"	L-589
34	41°19' 22.40"	71°55' 38.62"	Long Line
35	41°19' 13.45"	71°55' 39.13"	Long Line
36	41°19' 09.77"	71°55' 59.39"	Long Line
37	41°19' 20.76"	71°55' 12.69"	Bottom Cage
38	41°19' 16.14"	71°55' 32.70"	Bottom Cage
39	41°19' 23.65"	71°55' 32.79"	Bottom Cage
40	41°19' 15.32"	71°56' 01.46"	Long Line
41	41°19' 17.91"	71°55' 59.54"	Long Line
42	41°19' 27.35"	71°55' 15.50"	Bottom Cage
43	41°19' 25.66"	71°55' 12.87"	Bottom Cage

NORTH

2000 1000 0 2000

ORIGINAL SCALE: 1"=2000'

LEGEND

● PROPOSED NAVIGATION AID

M/L MORE OR LESS

NOTE: The distances to existing navigational aids, structures and land forms are per NOAA charts. These dimensions do not reflect a field surveyed location of these features.

Cable, Pipe, Special Anchorages and Federal Channel locations are per NOAA charts.

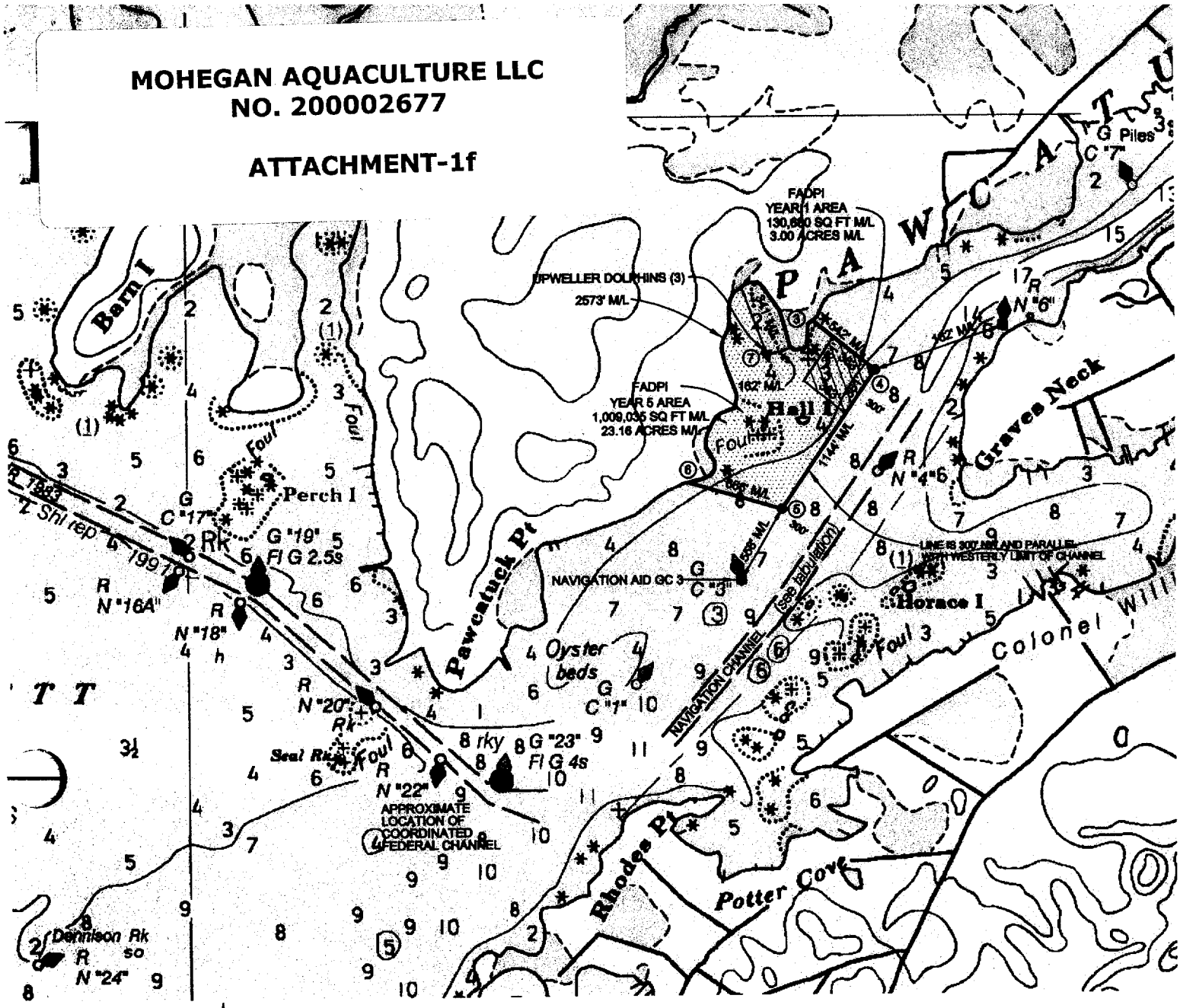
LONG LINE / BOTTOM CAGE AREAS
STATE SHELLFISH LEASE 589

prepared for
THE MOHEGAN TRIBE
4/25/02

RESOURCE MANAGEMENT & MAPPING

MOHEGAN AQUACULTURE LLC
NO. 200002677

ATTACHMENT-1f



NORTH

1000 500 0 1000

ORIGINAL SCALE: 1"=1000'

LEGEND

- • PROPOSED NAVIGATION AID
- M/L MORE OR LESS

NOTE: The distances to existing navigational aids, structures and land forms are per NOAA charts. These dimensions do not reflect a field surveyed location of these features.

Cable, Pipe, Special Anchorages and Federal Channel locations are per NOAA charts.

GEOGRAPHIC COORDINATES (NAD83)

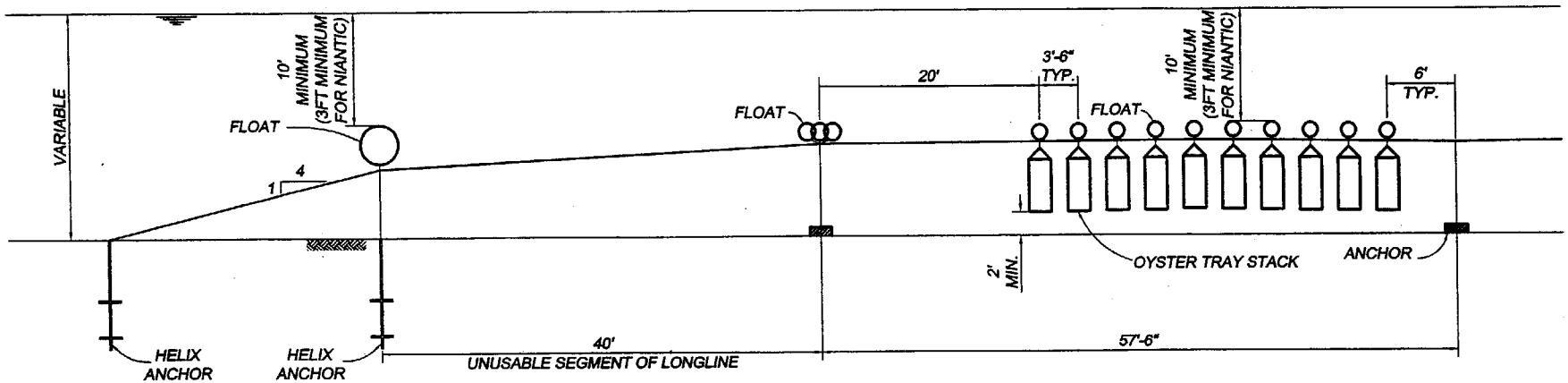
3	41°19' 47.18"	71°51' 04.00"	FADPI
4	41°19' 43.81"	71°50' 58.48"	FADPI
5	41°19' 34.50"	71°51' 06.97"	FADPI
6	41°19' 36.37"	71°51' 15.34"	FADPI
7	41°19' 44.91"	71°51' 08.08"	UPWELLER

FADPI AREA & UPWELLER
PAWCATUCK RIVER & DAVIS INLET
prepared for
THE MOHEGAN TRIBE
5/17/02

RESOURCE MANAGEMENT & MAPPING

MOHEGAN AQUACULTURE LLC
NO. 200002677

ATTACHMENT- 2a



MOHEGAN AQUACULTURE LLC
AQUACULTURE PROJECT

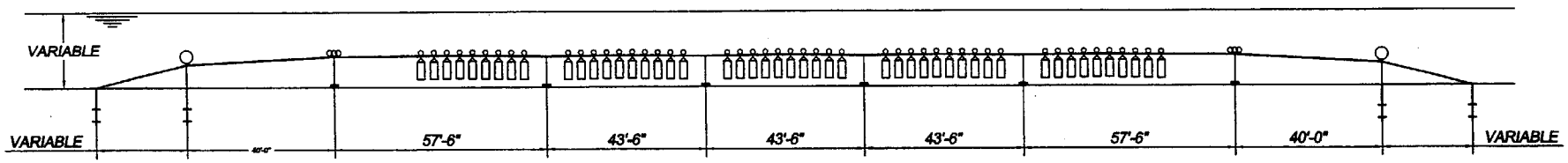
LONGLINE DESIGN PARAMETERS

DATE: 12-12-01

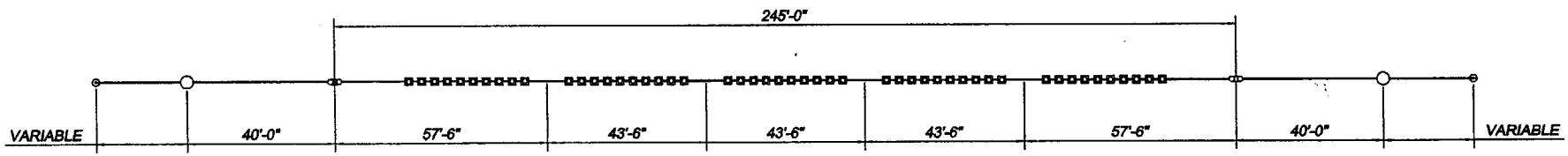
FIG. 3.2.1-1

MOHEGAN AQUACULTURE LLC
NO. 200002677

ATTACHMENT- 2b



ELEVATION



PLAN

MOHEGAN AQUACULTURE LLC
AQUACULTURE PROJECT

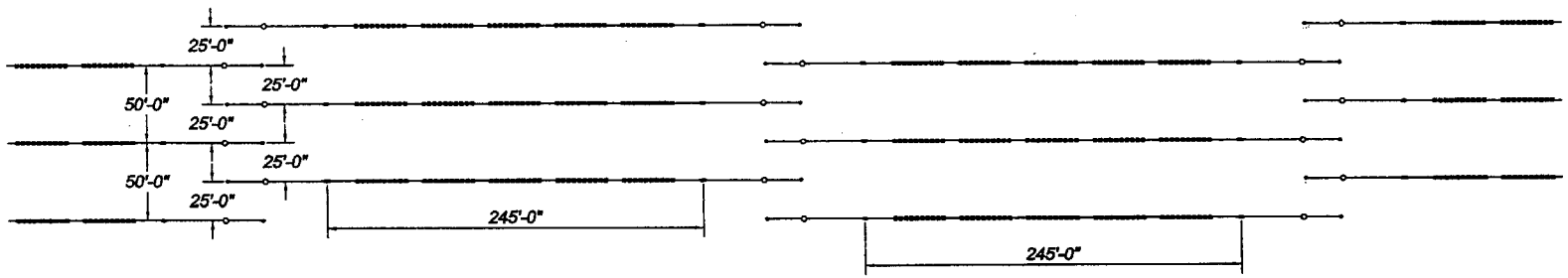
LONGLINE DESIGN PARAMETERS

DATE: 12-12-01

FIG. 3.2.1-2

MOHEGAN AQUACULTURE LLC
NO. 200002677

ATTACHMENT- 2C



MOHEGAN AQUACULTURE LLC
AQUACULTURE PROJECT

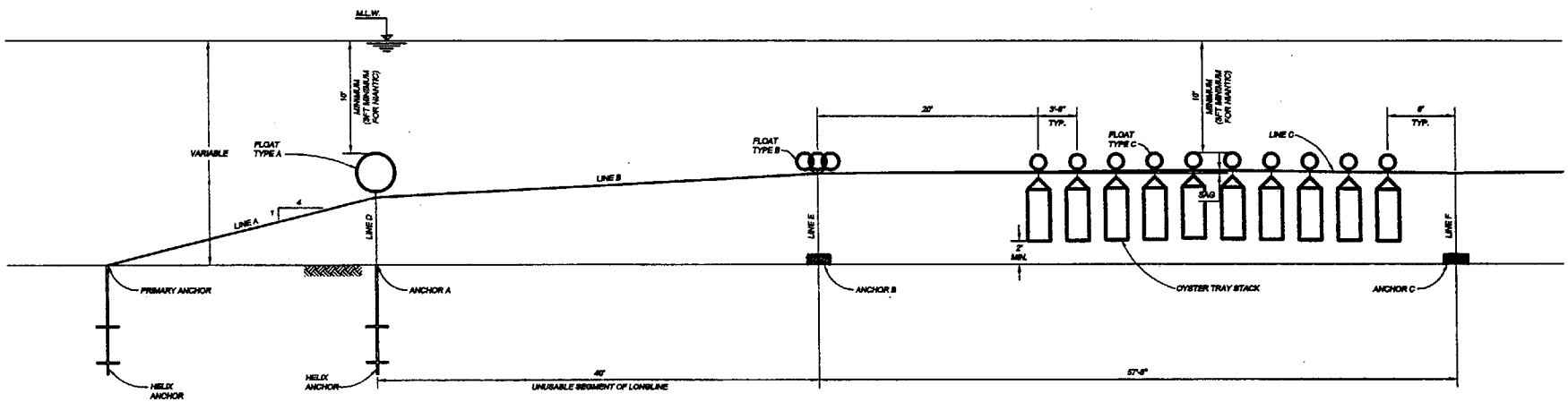
LONGLINE DEPLOYMENT

DATE: 12-12-01

FIG. 3.2.1-3

MOHEGAN AQUACULTURE LLC
NO. 200002677

ATTACHMENT- 2d



SCALE: 1"=10'

MOHEGAN AQUACULTURE LLC
AQUACULTURE PROJECT

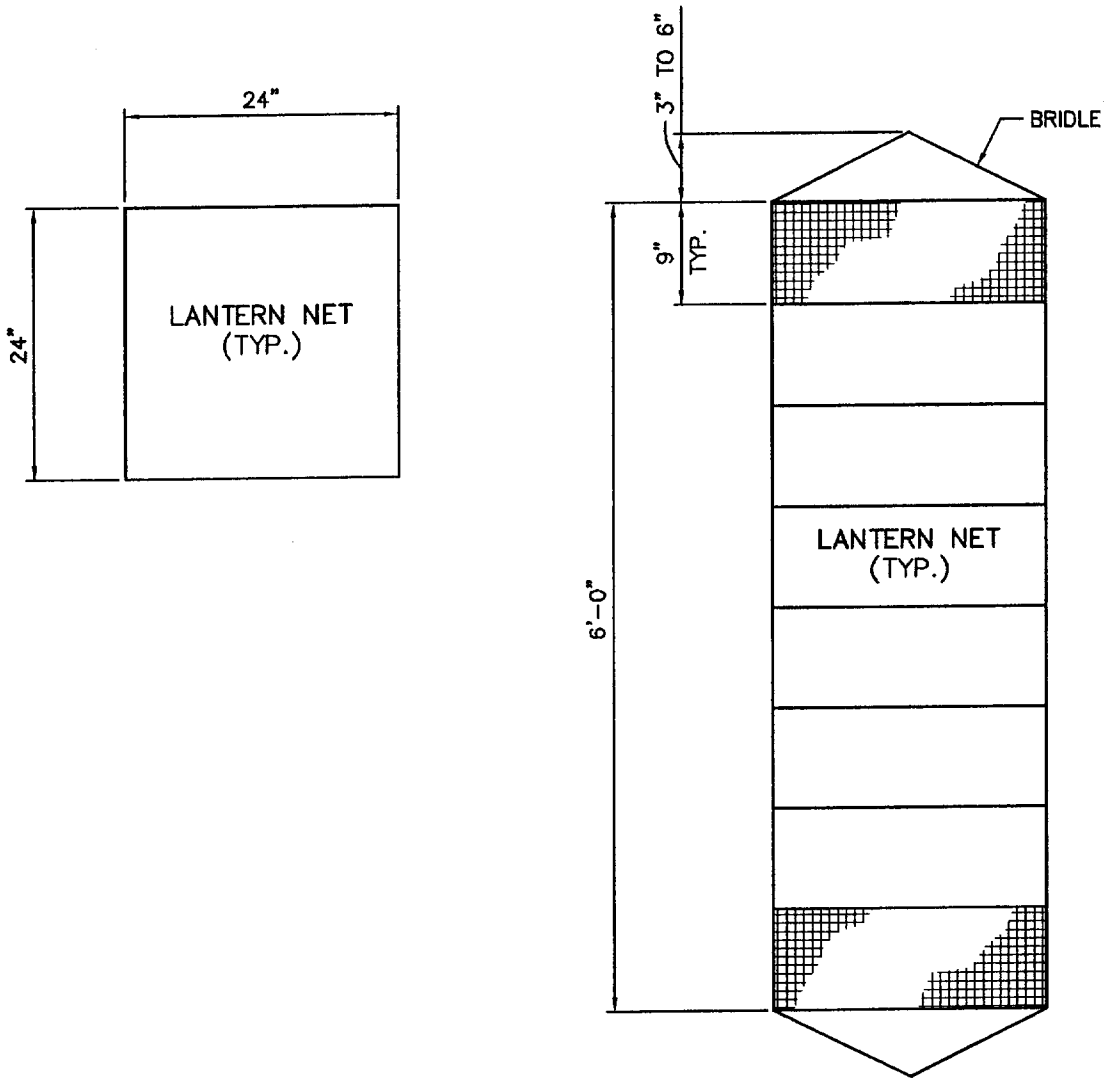
LONGLINE DESIGN PARAMETERS

DATE: 12-12-01

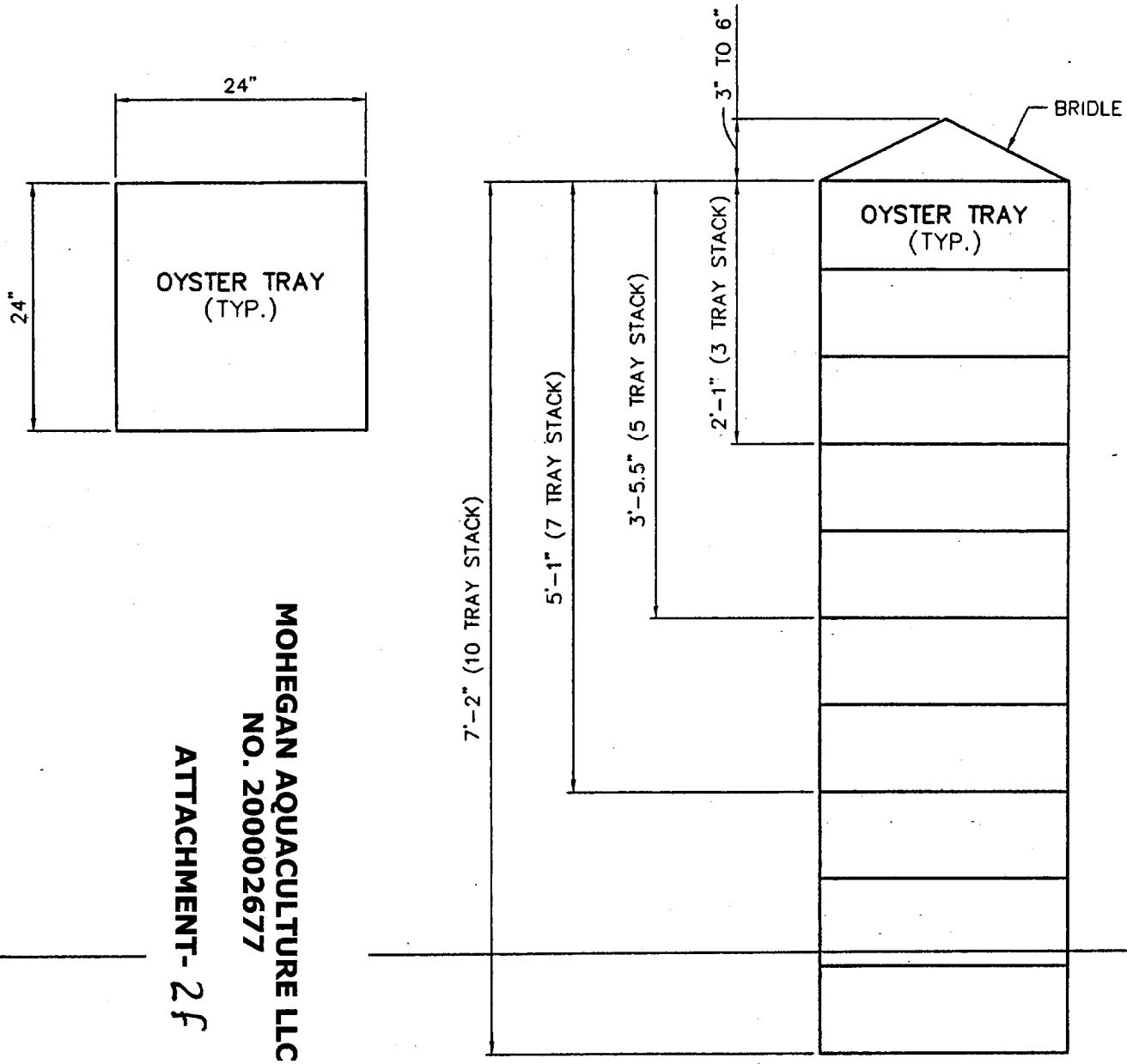
FIG. 3.3.3.1-1

MOHEGAN AQUACULTURE LLC
NO. 200002677

ATTACHMENT- 2e



OCEAN AND COASTAL CONSULTANTS, INC.	DESIGNED BY: J.M. DRAWN BY: R.B. CHECKED BY: 201053\TASK6\5 (16)	MOHEGAN AQUACULTURE LLC TYPICAL LONGLINE LANTERN NET	SCALE 3/4"=1'-0" DATE 4-29-02	REVISION 0 SKETCH NO. 201053-6-05



MOHEGAN AQUACULTURE LLC
NO. 200002677

ATTACHMENT- 2f

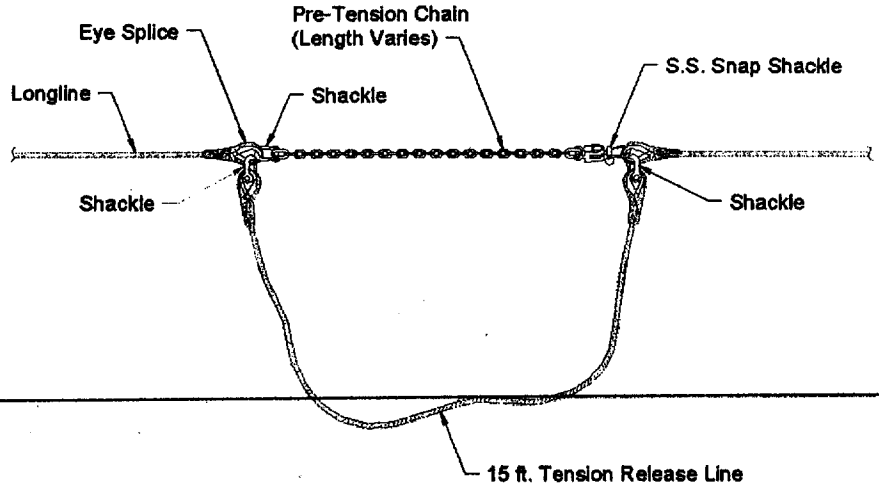
OCEAN AND COASTAL CONSULTANTS, INC.	DESIGNED BY: J.M. DRAWN BY: C.M. CHECKED BY: 201053\TASK6\4 (16)	MOHEGAN AQUACULTURE LLC TYPICAL LONGLINE OYSTER TRAY STACK	SCALE 3/4"=1'-0" DATE 4-25-02 REVISION 0 SKETCH NO. 201053-6-04

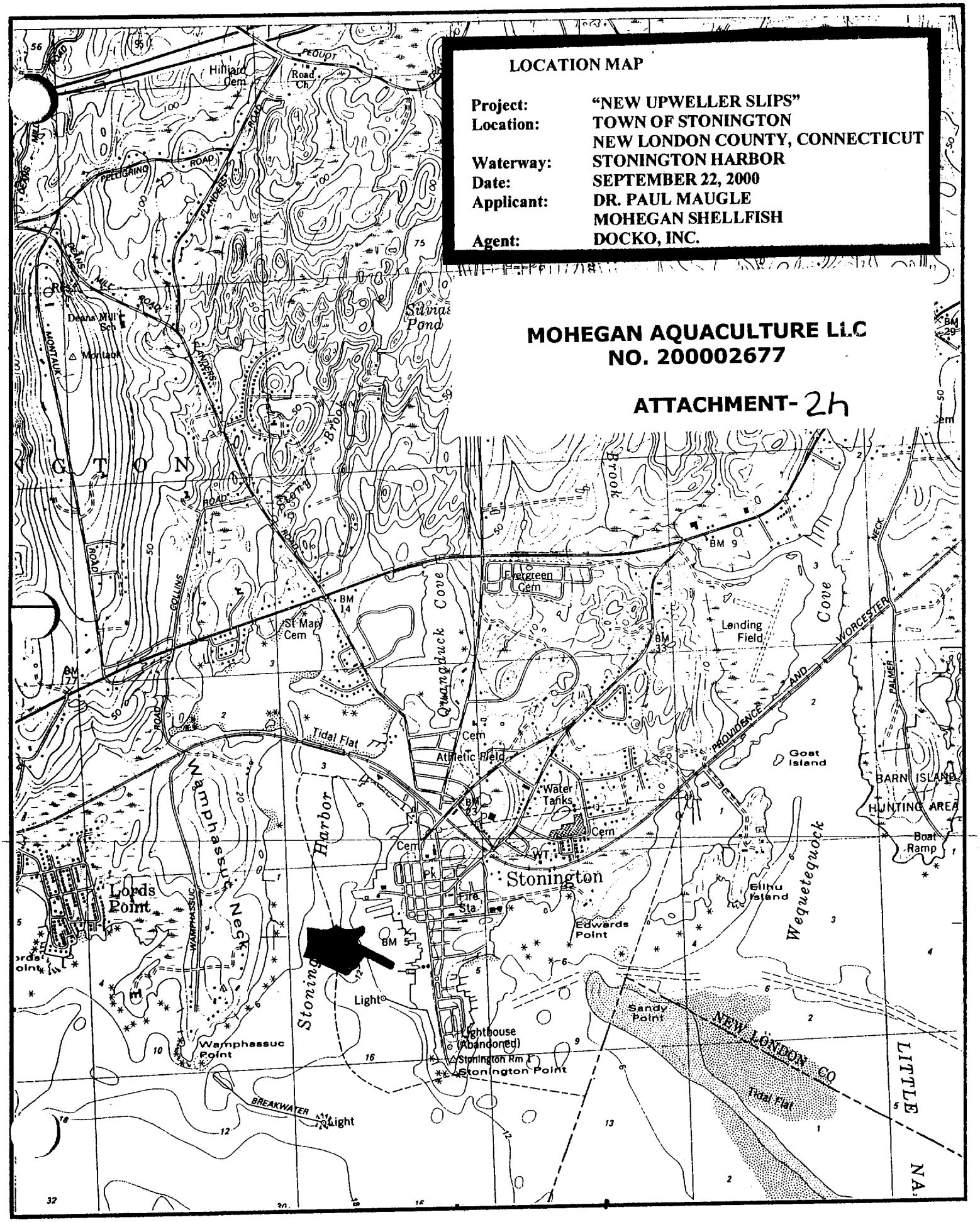
MOHEGAN AQUACULTURE LLC
NO. 200002677

ATTACHMENT- 29

Figure 3.3.3.1-2

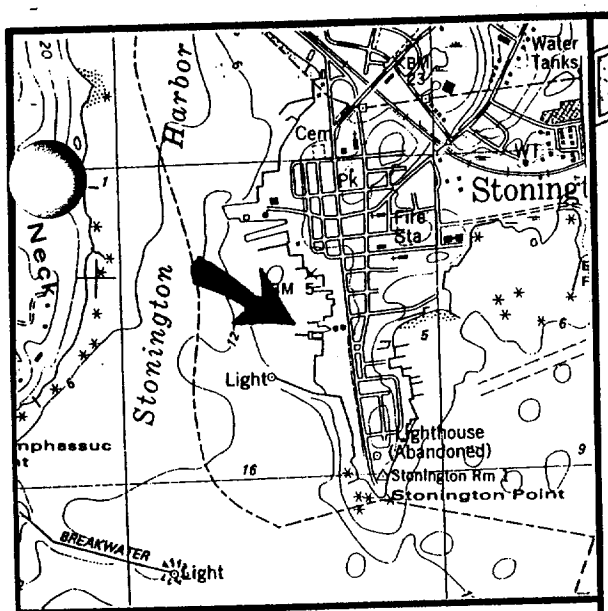
Tension Control Link



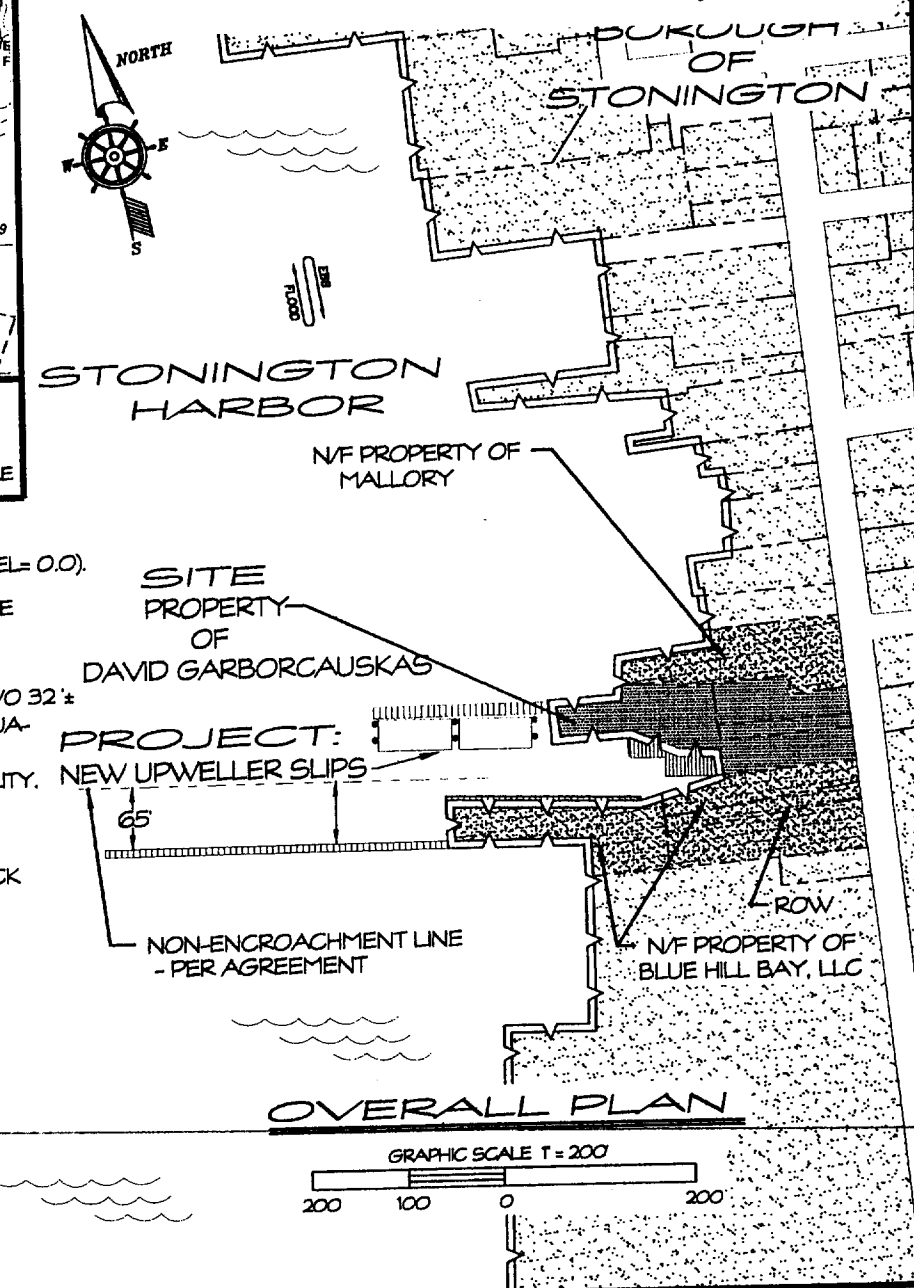

LOCATION MAP
Project: "NEW UPWELLER SLIPS"
Location: TOWN OF STONINGTON
NEW LONDON COUNTY, CONNECTICUT
Waterway: STONINGTON HARBOR
Date: SEPTEMBER 22, 2000
Applicant: DR. PAUL MAUGLE
MOHEGAN SHELLFISH
Agent: DOCKO, INC.
MOHEGAN AQUACULTURE LLC
NO. 200002677
ATTACHMENT- 2h
Hilliard Cem
Road Ch
PEQUOT
PELLIGRINO ROAD
FLANDERS ROAD
DEANS MILL ROAD
Deans Mill Sch
Montauk
MONTAUK
Silvias Pond
Stony Brook
Brook
Evergreen Cem
Quanaduck Cove
Cove
Landing Field
St Mary Cem
BM 14
BM 9
BM 33
BM 77
BM 23
BM 5
Tidal Flat
Athletic Field
Cem
Water Tanks
WT
Pk
Fire Sta
Stonington
Goat Island
BARN ISLAND
HUNTING AREA
Boat Ramp
Wequetequock
Elihu Island
Edwards Point
Wamphassuc Neck
Wamphassuc Point
Lords Point
Stonington Harbor
Light
Lighthouse (Abandoned)
Stonington Rm 1
Stonington Point
Sandy Point
NEW LONDON CO
Tidal Flat
LITTLE NA.
BREAKWATER
Light
PROVIDENCE AND WORCESTER
PALMER NECK
COLLINS ROAD
WAMPHASSUC

MOHEGAN AQUACULTURE LLC
NO. 200002677

ATTACHMENT- 21



LOCATION MAP
REF. USGS 7.5' WATCH HILL QUADRANGLE
2000 0 2000



OVERALL PLAN
GRAPHIC SCALE 1" = 200'
200 100 0 200

NOTES:

1. ELEVATION DATUM IS MEAN LOW WATER (MLW EL= 0.0).
2. TIDE DATA IS TAKEN FROM THE 2000 NOAA TIDE TABLES.
3. PROJECT DESCRIPTION:
   INSTALL SIX 10 PILE FENDERS FOR BERTHING, TWO 32'± WIDE X 76'±LF UPWELLERS FOR SHELLFISH AQUA-ULTURE AND INSTALL BATTERED BRACE PILES THE EXISTING FIXED PIER FOR TIE-OFF STABILITY. ALL WATERWARD OF THE HIGH TIDE LINE.
4. PROJECT PURPOSE:
   THE UPWELLERS WILL BERTH AT A PRIVATE DOCK FOR COMMERCIAL FISHERIES.
5. THESE APPLICATION DRAWINGS REPRESENT A COMPILATION SURVEY FOR PERMIT PURPOSES. THEY ARE NOT CONSTRUCTION CONTRACT DOCUMENTS.
6. ADJOINING PROPERTY OWNERS:
   NORTH: CLIFFORD & PAULINE MALLORY
   76 WATER STREET
   STONINGTON, CT 06378

   SOUTH: BLUE HILL BAY, LLC
   70 WATER STREET
   STONINGTON, CT 06378

STATE OF CONNECTICUT
DOCKO, INC.
NO. 0441
PRIVATE PRACTICE OF ENGINEERING

PROJECT: NEW UPWELLER SLIPS

LOCATION: STONINGTON BOROUGH, STONINGTON
NEW LONDON COUNTY, CONNECTICUT
WATERWAY: STONINGTON HARBOR
DATE: SEPTEMBER 22, 2000
APPLICANT: DR. PAUL MAUGLE

AGENT: SHEET 1 OF 5

DOCKO, INC.
Keith B. Neilson, PE
Mystic, CT 06355
860 572 8939 FAX 860 572 7569

DOCKO INCORPORATED

DWG 00-09-1149.1Bsa
dwg l-p/maugle/maugle-1b

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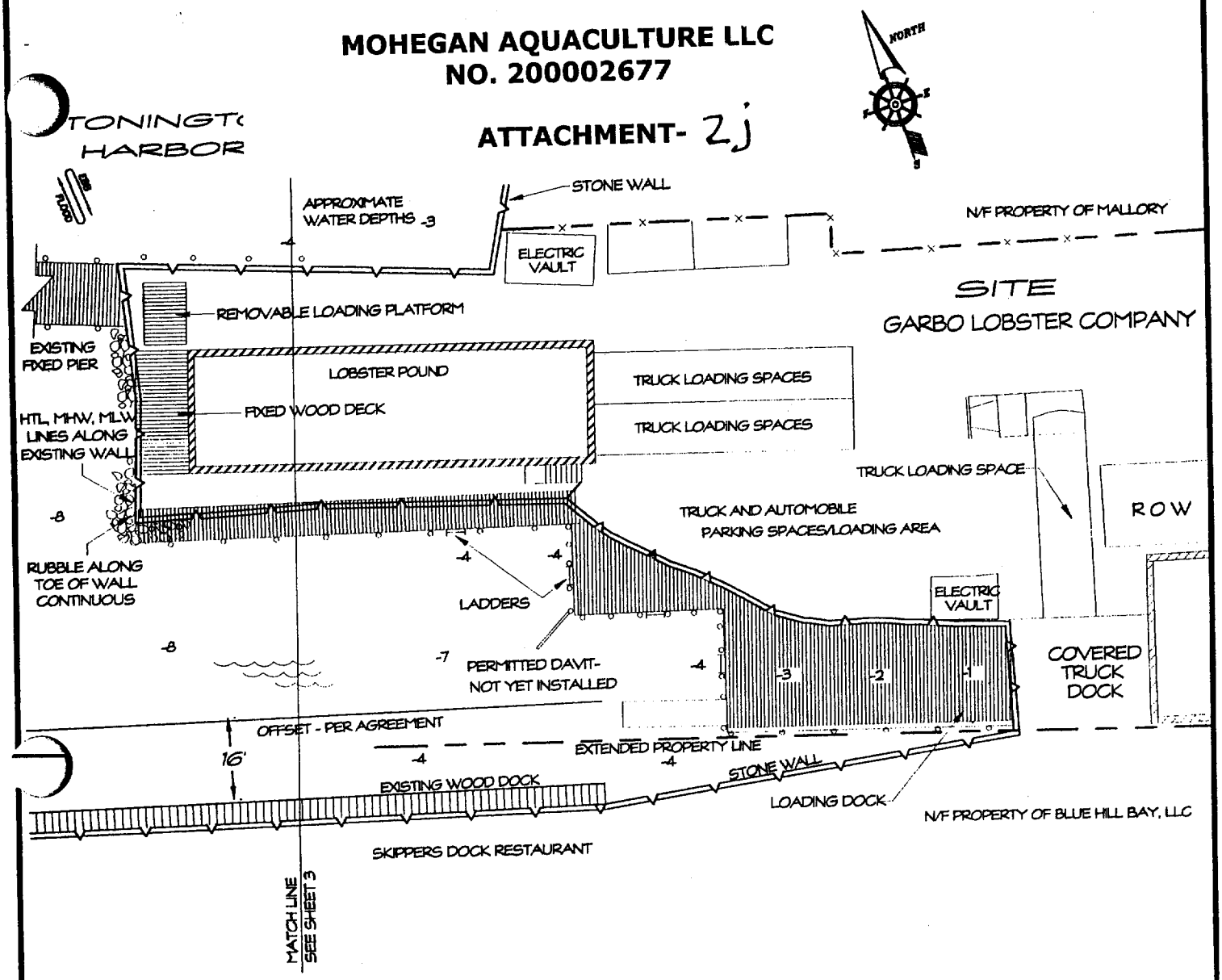
MOHEGAN AQUACULTURE LLC
NO. 200002677

ATTACHMENT- 2j



EXISTING PLAN VIEW

GRAPHIC SCALE 1" = 30'

30 15 0 30

STATE OF CONNECTICUT
DOCKO, INC.
NO. 41
STATE PRACTICE OF ENGINEERING

PROJECT: NEW UPWELLER SLIPS

LOCATION: STONINGTON BOROUGH, STONINGTON
NEW LONDON COUNTY, CONNECTICUT

WATERWAY: STONINGTON HARBOR

DATE: SEPTEMBER 22, 2000

APPLICANT: DR. PAUL MAUGLE

AGENT: SHEET 2 OF 5

DOCKO, INC.
Keith B. Nellson, PE
Mystic, CT 06355
860 572 8939 FAX 860 572 7569

DOCKO INCORPORATED

DWG 00-09-1149.2sa
dwg l-p/maugle/mag-2

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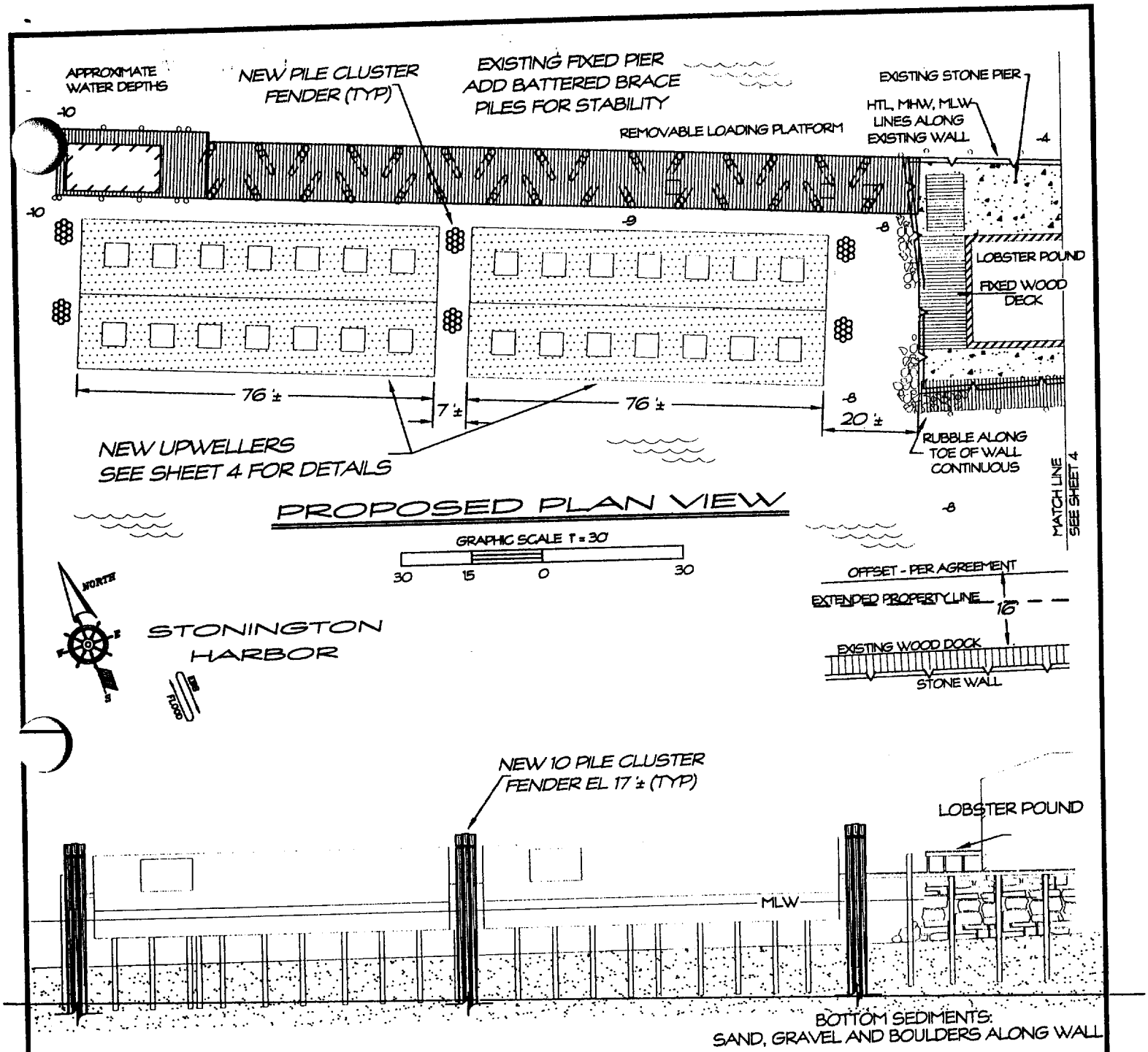


MOHEGAN AQUACULTURE LLC
NO. 200002677

ATTACHMENT- 2K

APPLICANT: DR. PAUL MAUGLE

AGENT: SHEET 3 OF 5

DOCKO, INC.
Keith B. Nellson, PE
Mystic, CT 06355
860 572 8939 FAX 860 572 7569

INCORPORATED

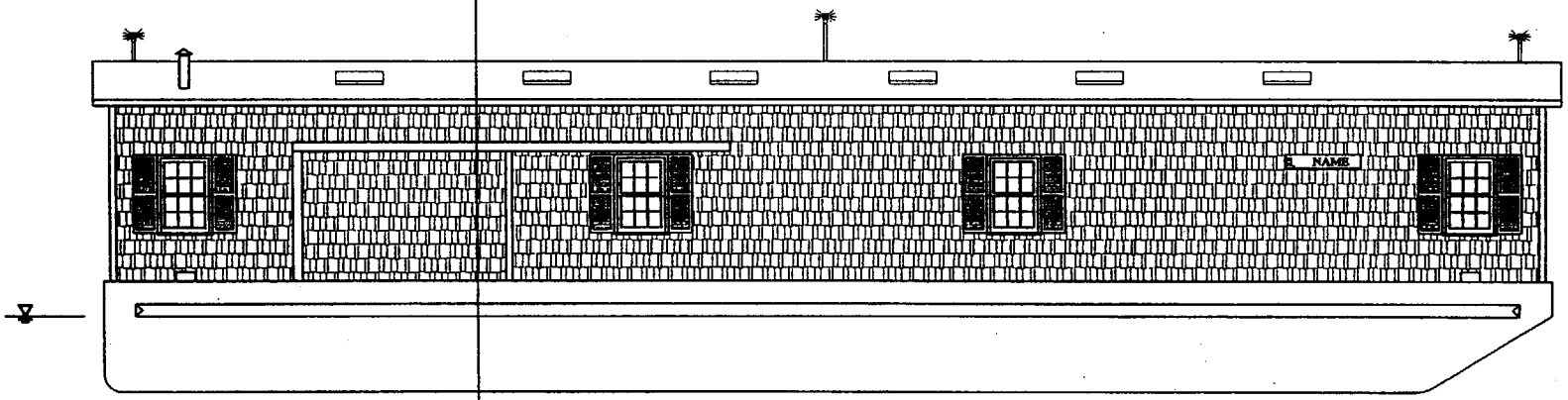
DWG 00-09-1149.2Bea
dwg I-p/maugle/mag-2b

STATE OF CONNECTICUT
DOCKO, INC.
NO. 0441
STATE PRACTICE OF ENGINEERING

Docko, 11/3/2000 12:38 PMmaugle-3B.dwg

MOHEGAN AQUACULTURE LLC
NO. 200002677

ATTACHMENT- 2L



SCALE: 1"=10'-0"

MOHEGAN AQUACULTURE
PROJECT

UPWELLER ELEVATION

DATE: 12-11-01

FIG. 3.2.3-1

201053\TASK4\FIG\323-1 (120)

MOHEGAN AQUACULTURE LLC
NO. 200002677

ATTACHMENT- 2 m

TEST SITE	ANCHOR ROPE LENGTH (FT.)	No. OF TEST SET-UPS
SITE 525 (SOUTH OF RAM ISL.)	62	2
SITE 589 STONINGTON	76	2
NIANTIC	49	2
SITE 528 PINE ISLAND	71	2

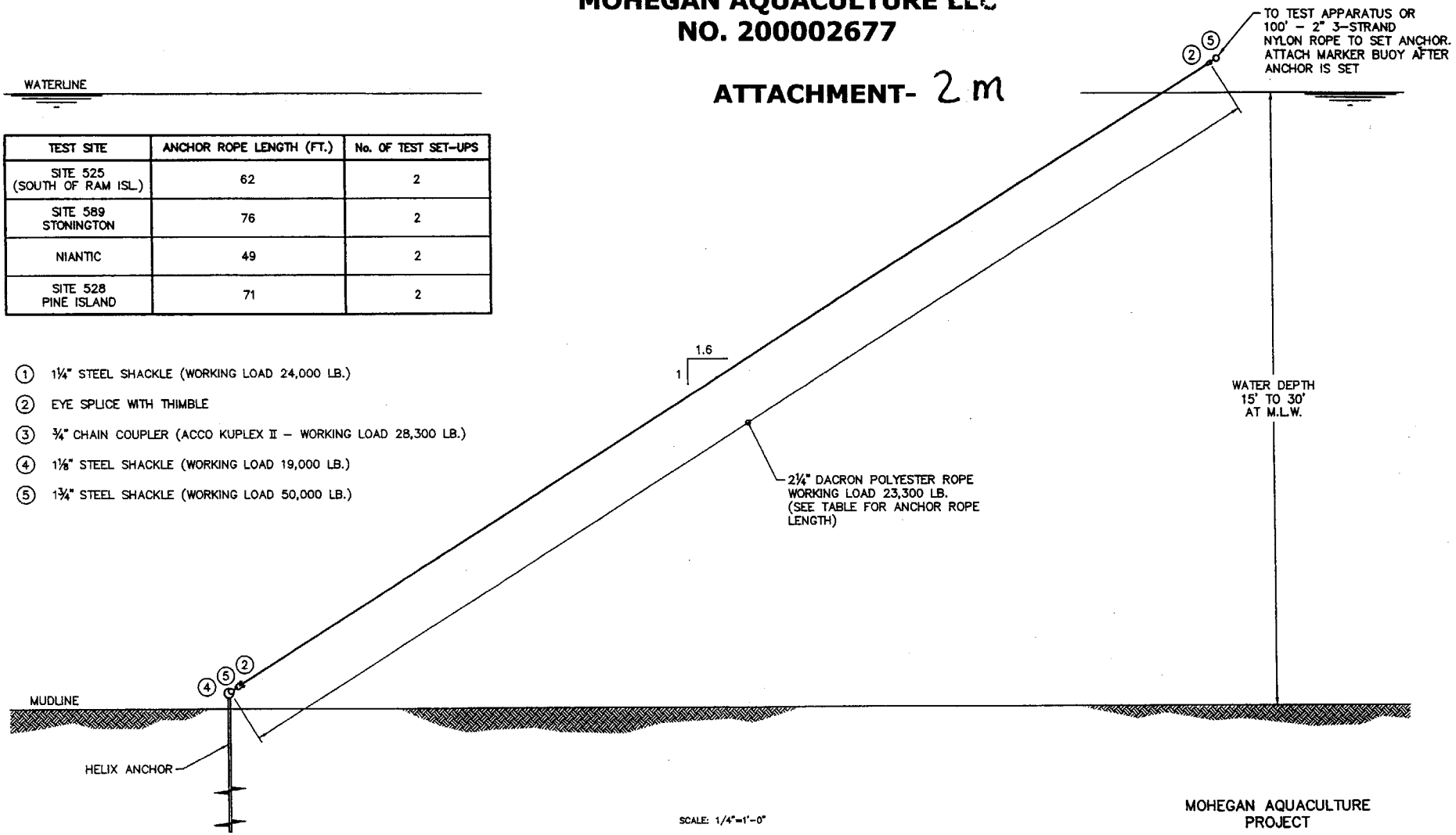
(1) 1¼" STEEL SHACKLE (WORKING LOAD 24,000 LB.)

(2) EYE SPLICE WITH THIMBLE

(3) ¾" CHAIN COUPLER (ACCO KUPLEX II – WORKING LOAD 28,300 LB.)

(4) 1⅛" STEEL SHACKLE (WORKING LOAD 19,000 LB.)

(5) 1¾" STEEL SHACKLE (WORKING LOAD 50,000 LB.)



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

MOHEGAN AQUACULTURE PROJECT

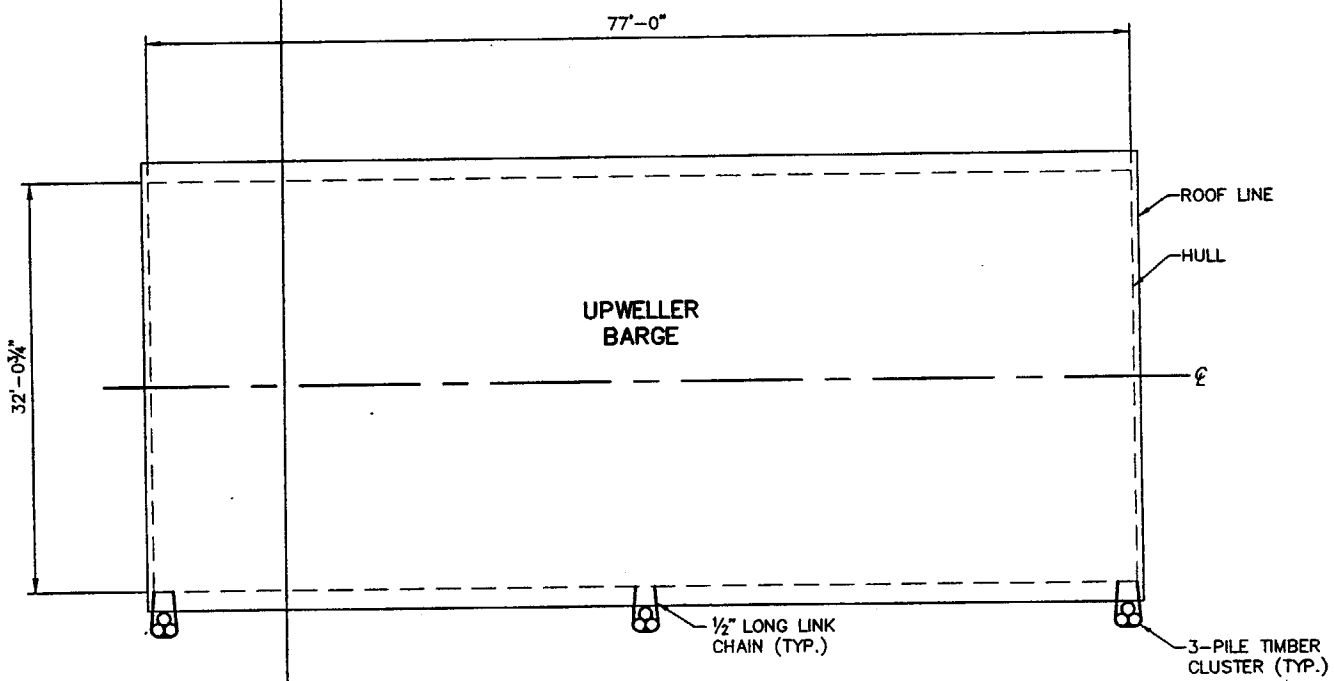
HELIX ANCHOR TESTING MOORING SCHEMATIC

DATE: 12-11-01

FIG. 3.7.2.1-1

MOHEGAN AQUACULTURE LLC
NO. 200002677

ATTACHMENT- 2n



SCALE: 1"=15'-0"

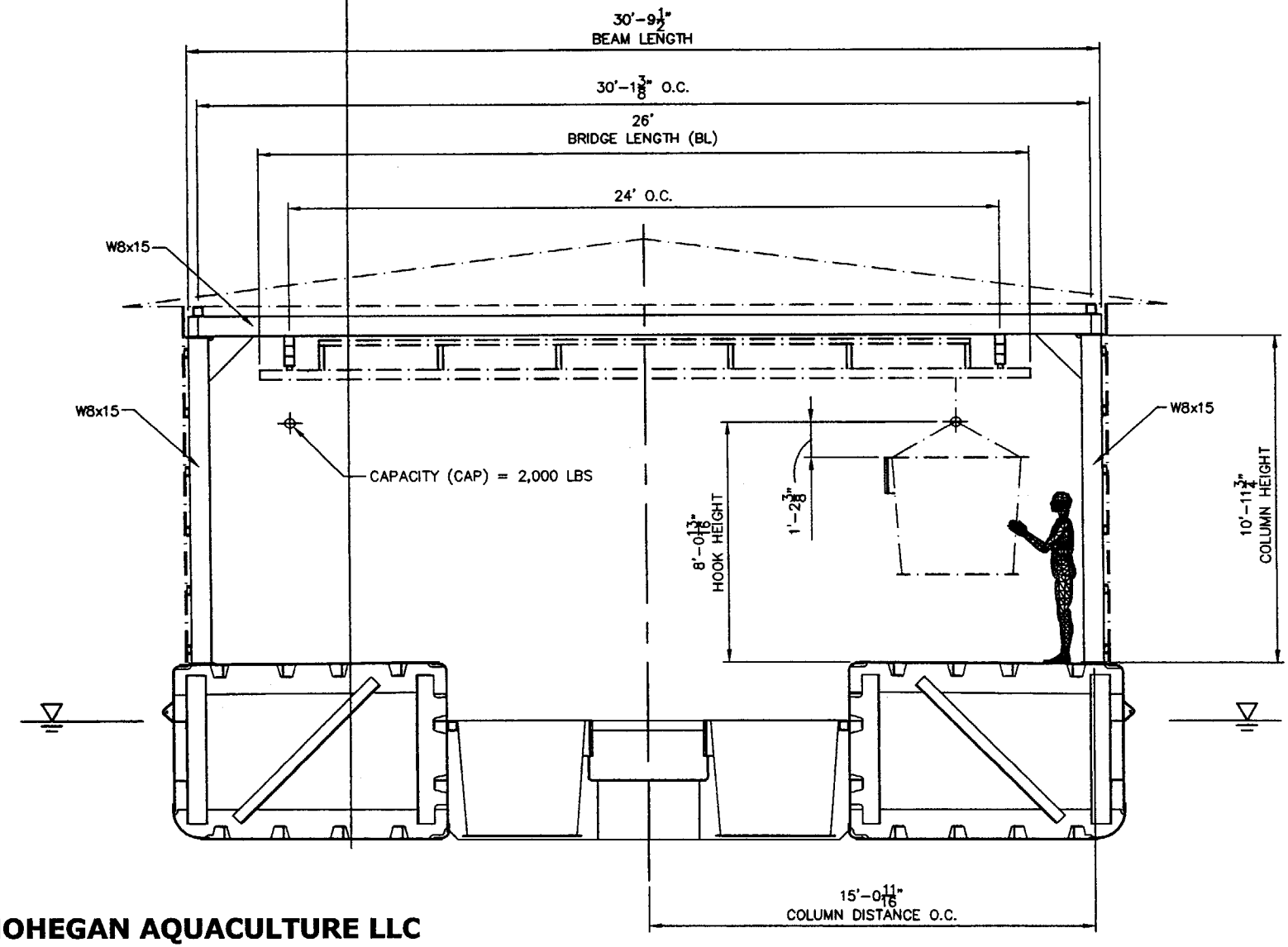
MOHEGAN AQUACULTURE
PROJECT

UPWELLER MOORING PLAN

DATE: 12-14-01

FIG. 3.8.3-1

201053\TASK4\FIG\383-1 (180)



MOHEGAN AQUACULTURE LLC
NO. 200002677

ATTACHMENT- 20

SCALE: 3/16"=1'-0"

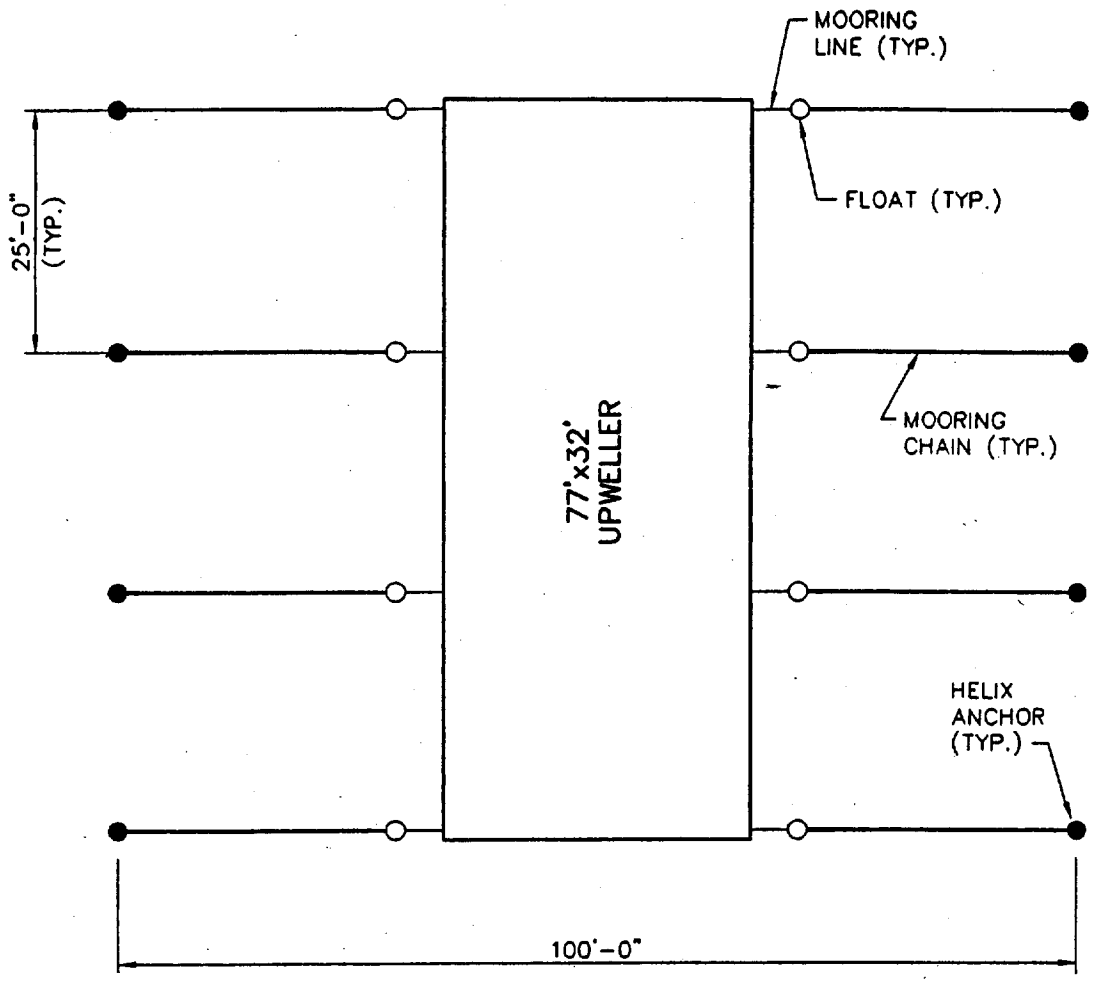
MOHEGAN AQUACULTURE
PROJECT

UPWELLER SECTION

DATE: 12-11-01

FIG. 3.2.3-2

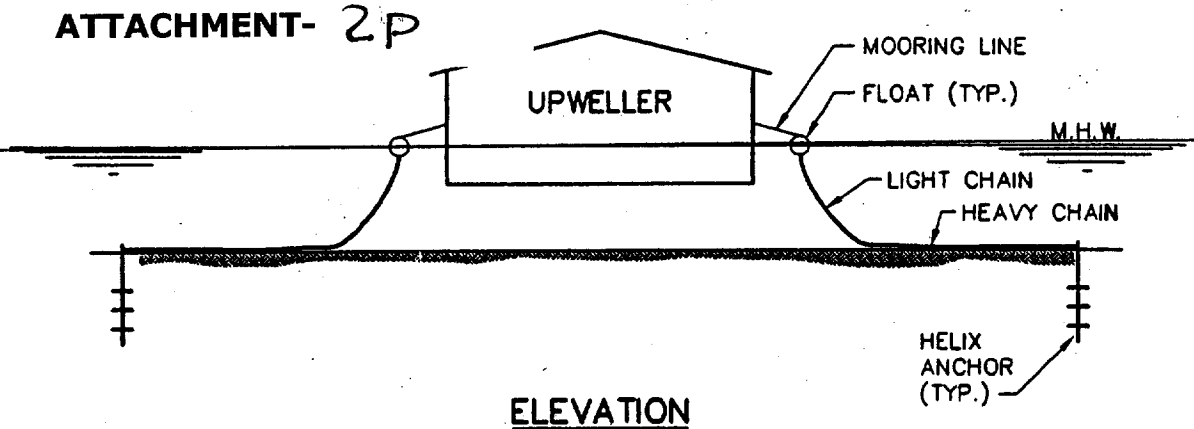
20153\TASK4\F10\323-2 (84)



PLAN

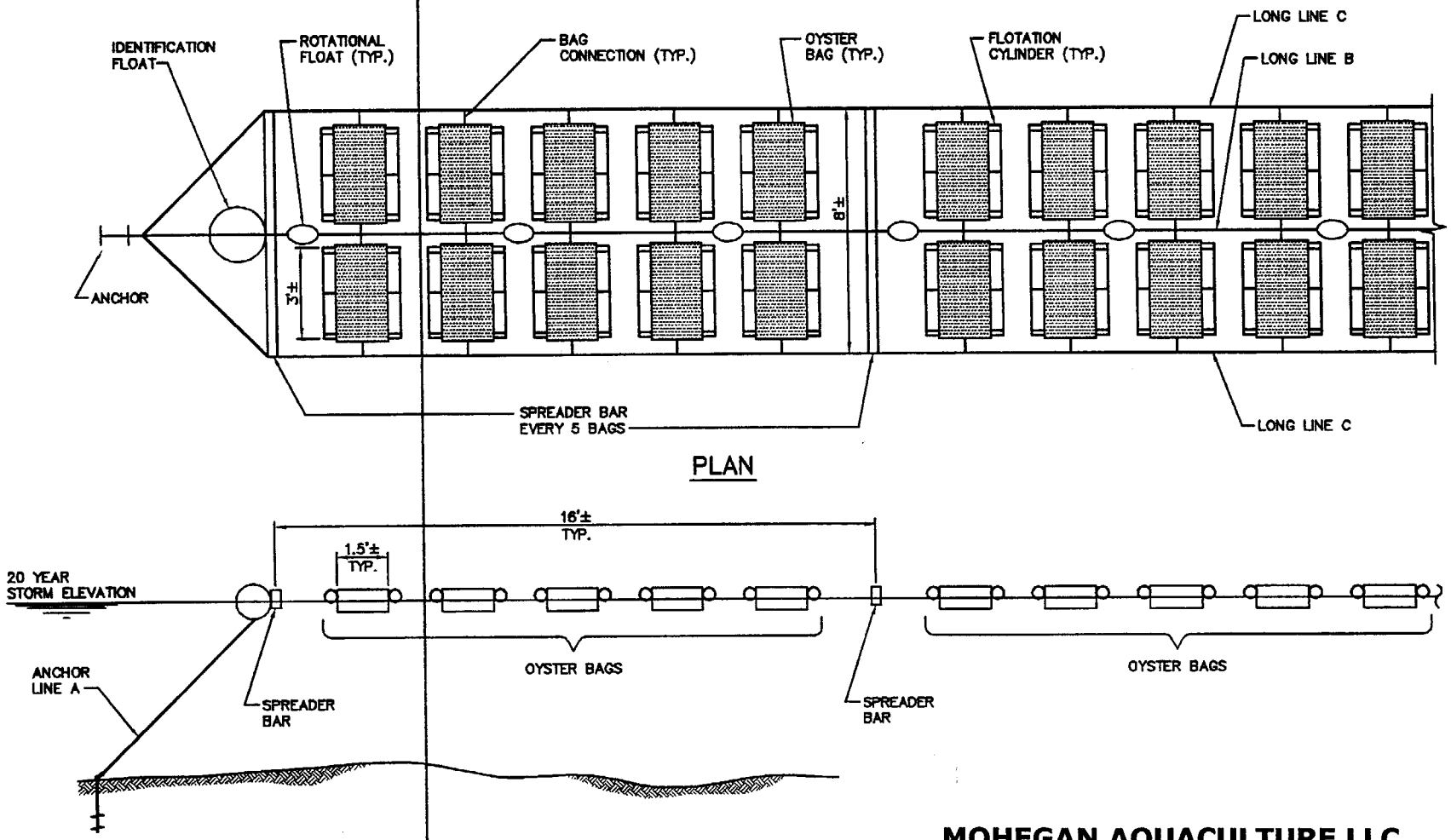
MOHEGAN AQUACULTURE LLC
NO. 200002677

ATTACHMENT- 2P



ELEVATION

OCEAN AND COASTAL CONSULTANTS, INC.	DESIGNED BY: J. M. DRAWN BY: C. M. CHECKED BY: 201053\TASK6\2 (20)	MOHEGAN AQUACULTURE LLC UPWELLER MOORING RAM ISLAND	SCALE 1"=20'-0" DATE 4-18-02 REVISION 0 SKETCH NO. 201053-6-02



100 BAG CONFIGURATION TYPICAL DIMENSIONS
164± FEET LONG 8± FEET WIDE 1.5± FEET DEEP

MOHEGAN AQUACULTURE LLC
NO. 200002677

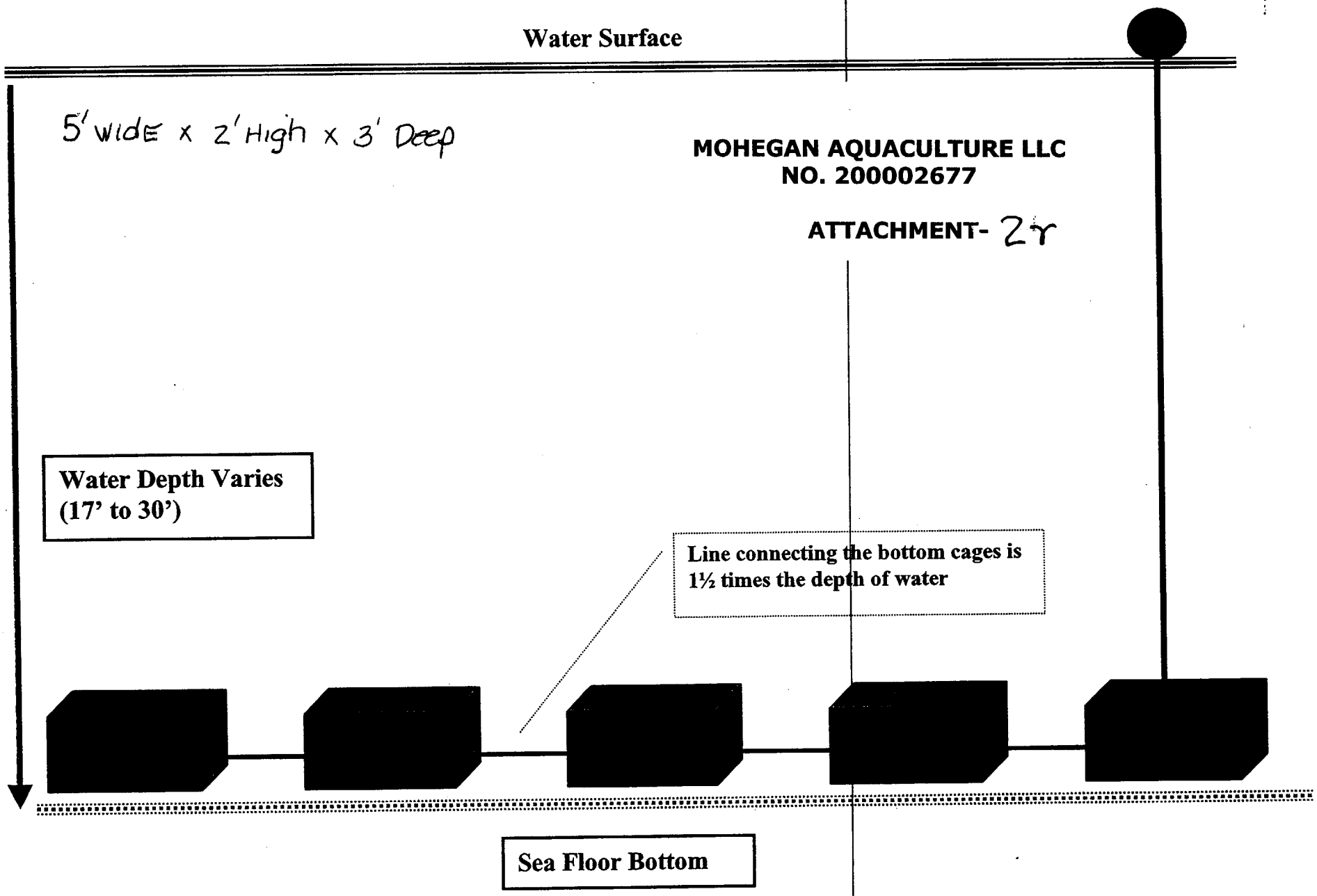
ATTACHMENT- 2Q

ADPI AQUACULTURE SYSTEM SCHEMATIC

DATE: 12-13-01 REV: 4-29-02 FIG. 3.2.2-1

2010057\TASK4\FIG\322-1 (1)

Schematic Diagram of Bottom Shell Fish Cage Arrangement



4.0 SUMMARY AND CERTIFICATION

Mohegan Aquaculture LLC aquaculture project proposes the use of modern techniques for the growing and harvesting of shellfish in Long Island Sound. These techniques have been in use in other areas of the United States, Canada and overseas markets for many years.

Ocean and Coastal Consultants, Inc. has reviewed the operational requirements, environmental conditions and materials used for the various systems. From the design conditions developed, material selections for the key components were determined. Contained within this report are recommendations for the construction materials and assembly methods for the aquaculture systems:

- Longline
- ADPI
- Bottom Cages
- Upweller

Ocean and Coastal Consultants, Inc. has based the recommended designs upon sound engineering judgment, historical factors of safety used within the industry, published material specifications and field testing. It is our opinion that the systems being proposed will meet or exceed the requirements of the intended use and will provide a high level of public safety.

CERTIFIED BY:

STATE OF CONNECTICUT
STANLEY M. WHITE
#12042
LICENSED
PROFESSIONAL ENGINEER

12/14/01

Stanley M. White, P.E.
CT 12042

Date