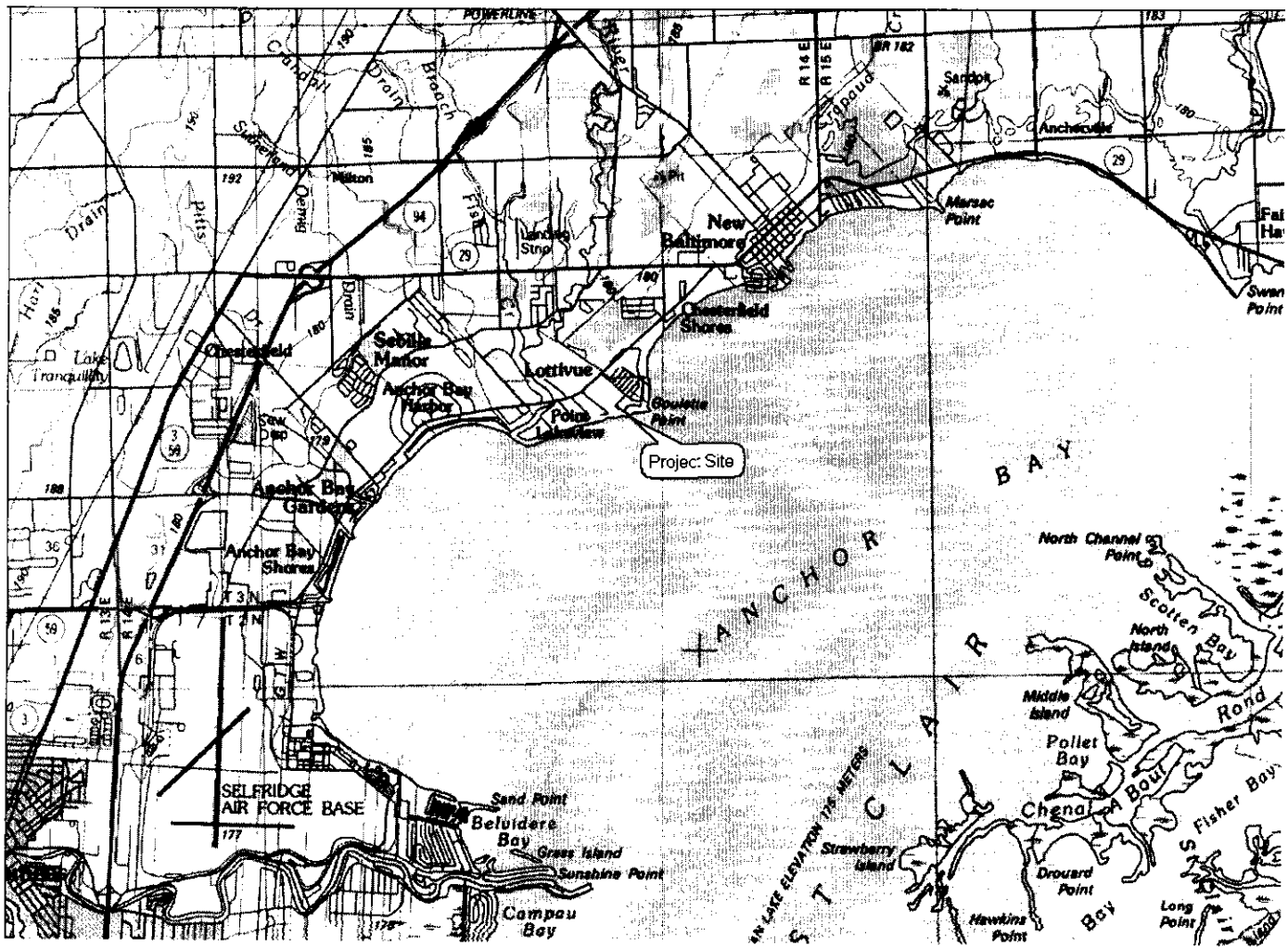
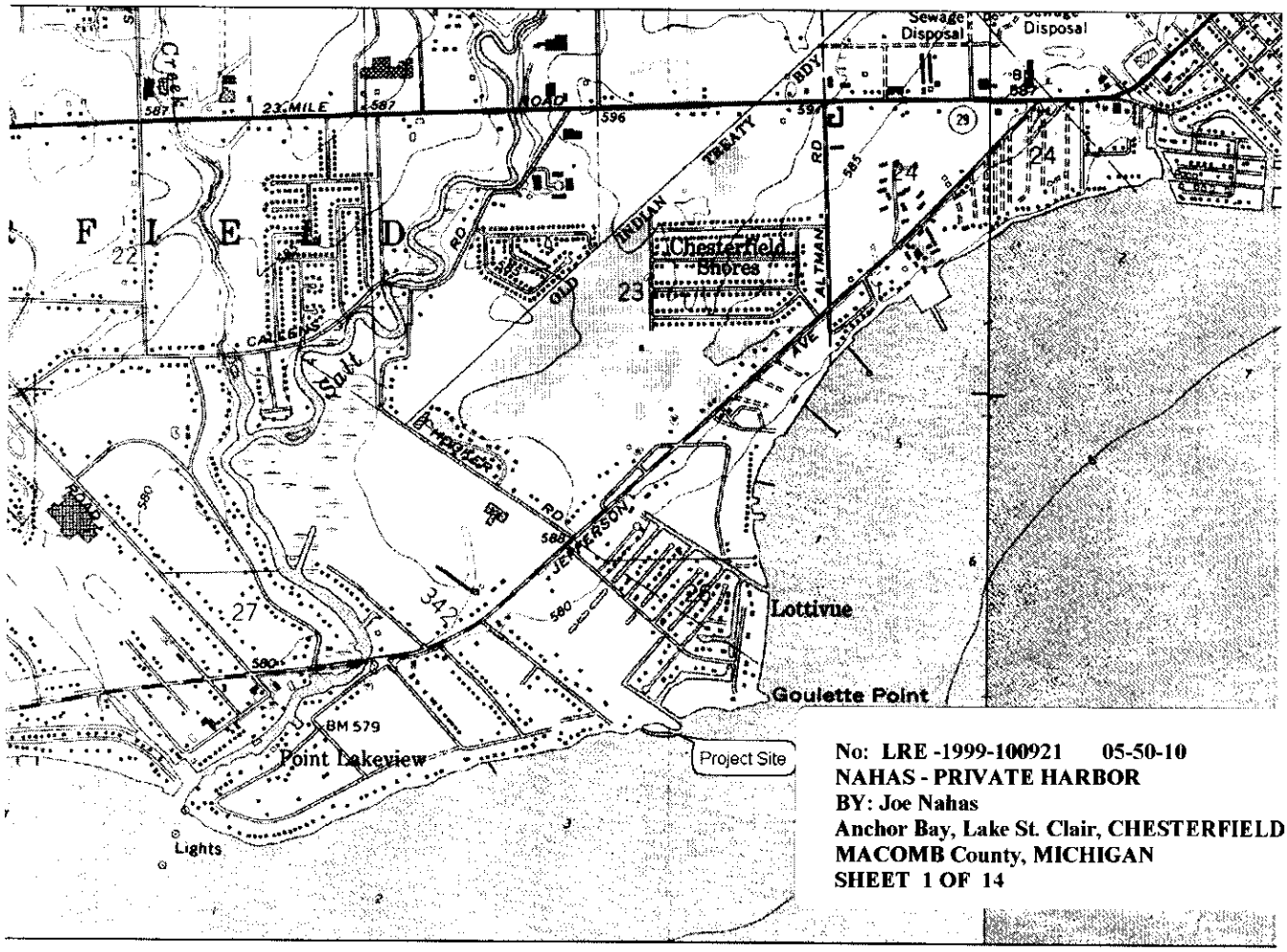
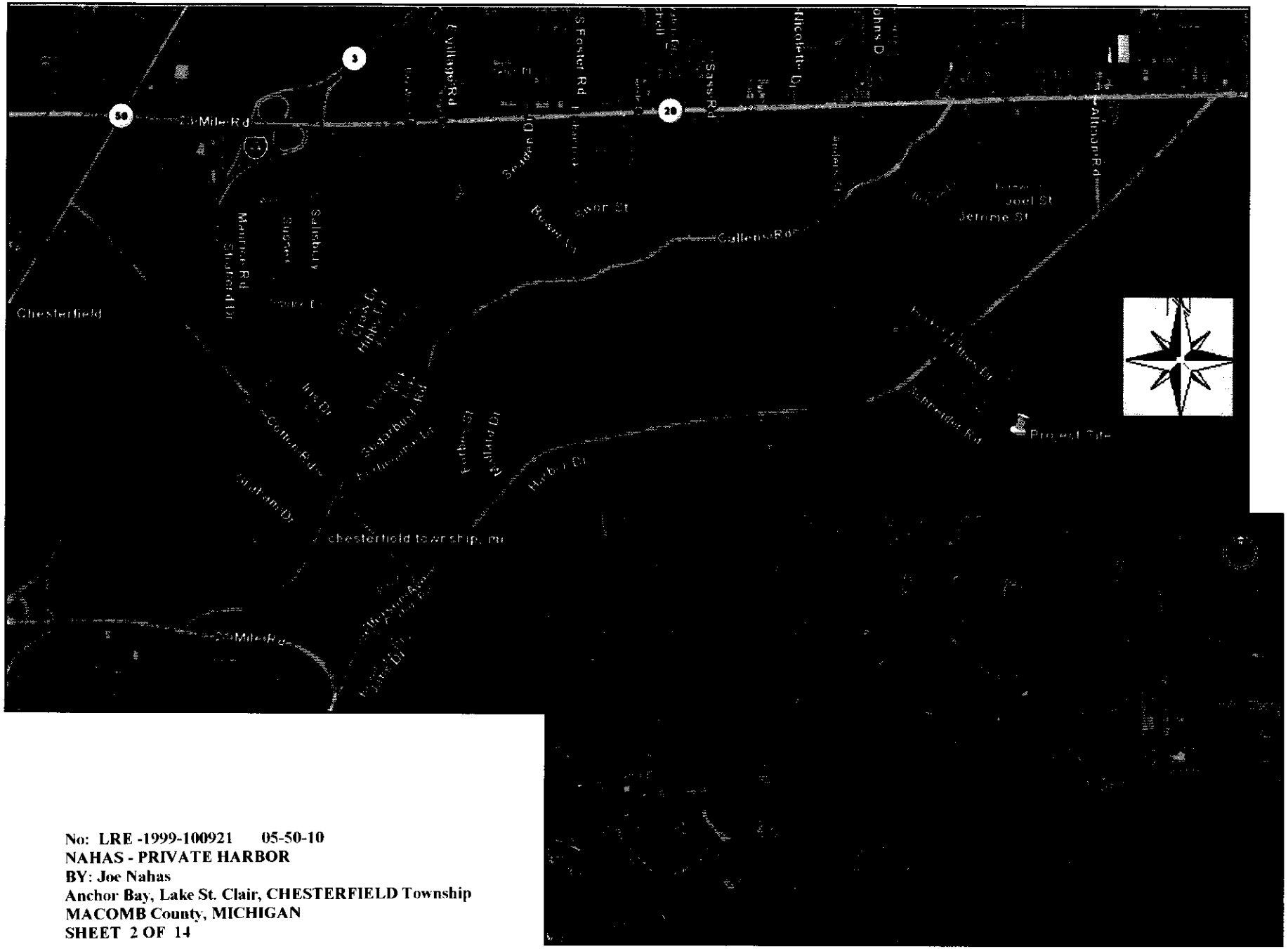


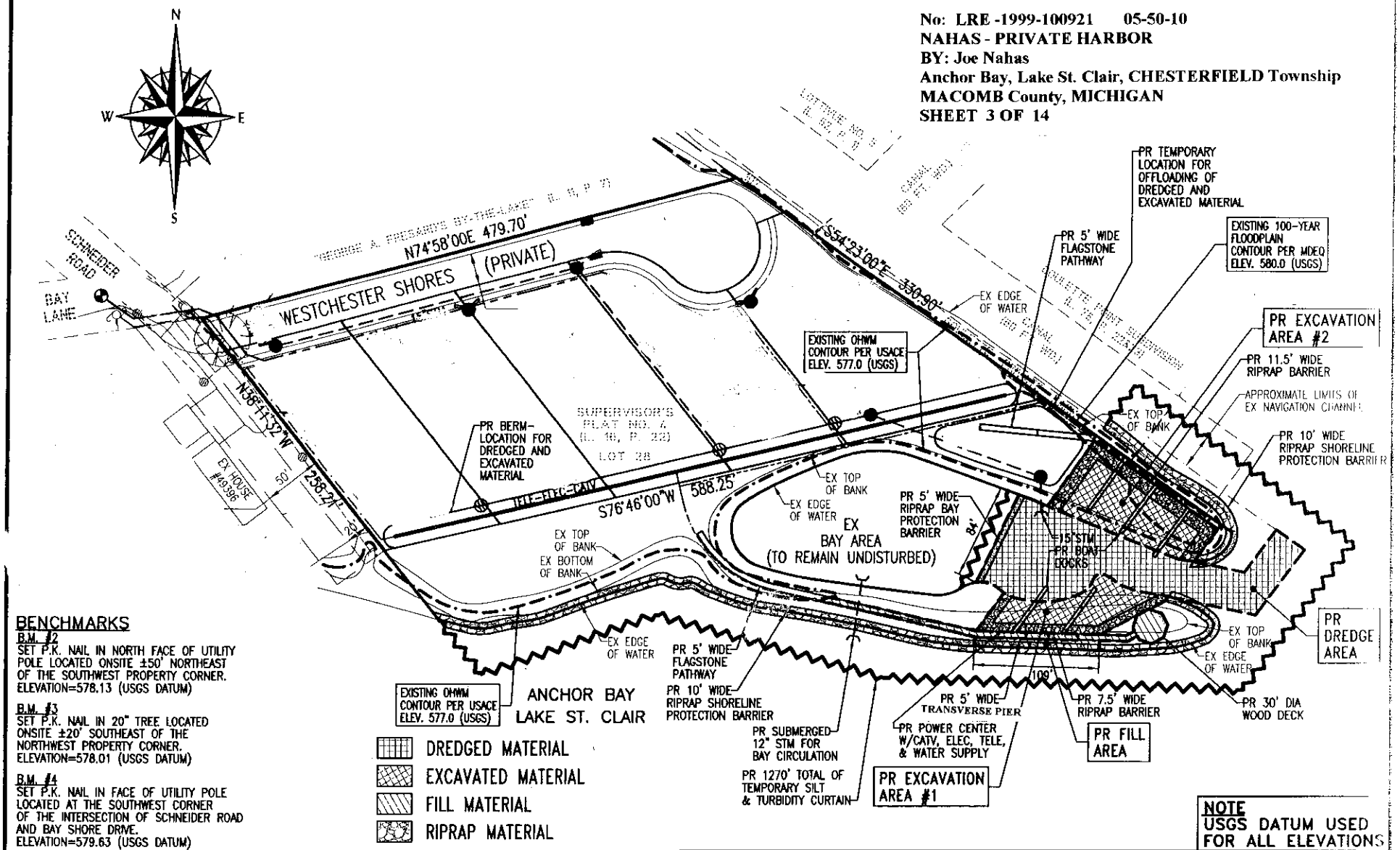


No: LRE -1999-100921 05-50-10
NAHAS - PRIVATE HARBOR
BY: Joe Nahas
Anchor Bay, Lake St. Clair, CHESTERFIELD Township
MACOMB County, MICHIGAN
SHEET 1 OF 14



No: LRE -1999-100921 05-50-10
NAHAS - PRIVATE HARBOR
BY: Joe Nahas
Anchor Bay, Lake St. Clair, CHESTERFIELD Township
MACOMB County, MICHIGAN
SHEET 2 OF 14

No: LRE -1999-100921 05-50-10
NAHAS - PRIVATE HARBOR
BY: Joe Nahas
Anchor Bay, Lake St. Clair, CHESTERFIELD Township
MACOMB County, MICHIGAN
SHEET 3 OF 14



BENCHMARKS

B.M. #2
SET P.K. NAIL IN NORTH FACE OF UTILITY POLE LOCATED ONSITE ±50' NORTHEAST OF THE SOUTHWEST PROPERTY CORNER.
ELEVATION=578.13 (USGS DATUM)

B.M. #3
SET P.K. NAIL IN 20" TREE LOCATED ONSITE ±20' SOUTHEAST OF THE NORTHWEST PROPERTY CORNER.
ELEVATION=578.01 (USGS DATUM)

B.M. #4
SET P.K. NAIL IN FACE OF UTILITY POLE LOCATED AT THE SOUTHWEST CORNER OF THE INTERSECTION OF SCHNEIDER ROAD AND BAY SHORE DRIVE.
ELEVATION=579.63 (USGS DATUM)

NOTE
USGS DATUM USED FOR ALL ELEVATIONS

NOTE

SEE SHEET 2 FOR BAY AREA PLAN
SEE SHEET 3 FOR DOCK DETAILS
SEE SHEET 4 FOR CROSS SECTION A-A'
SEE SHEET 5 FOR CROSS SECTION B-B'
SEE SHEET 6 FOR STORM SEWER OUTLET PROFILE

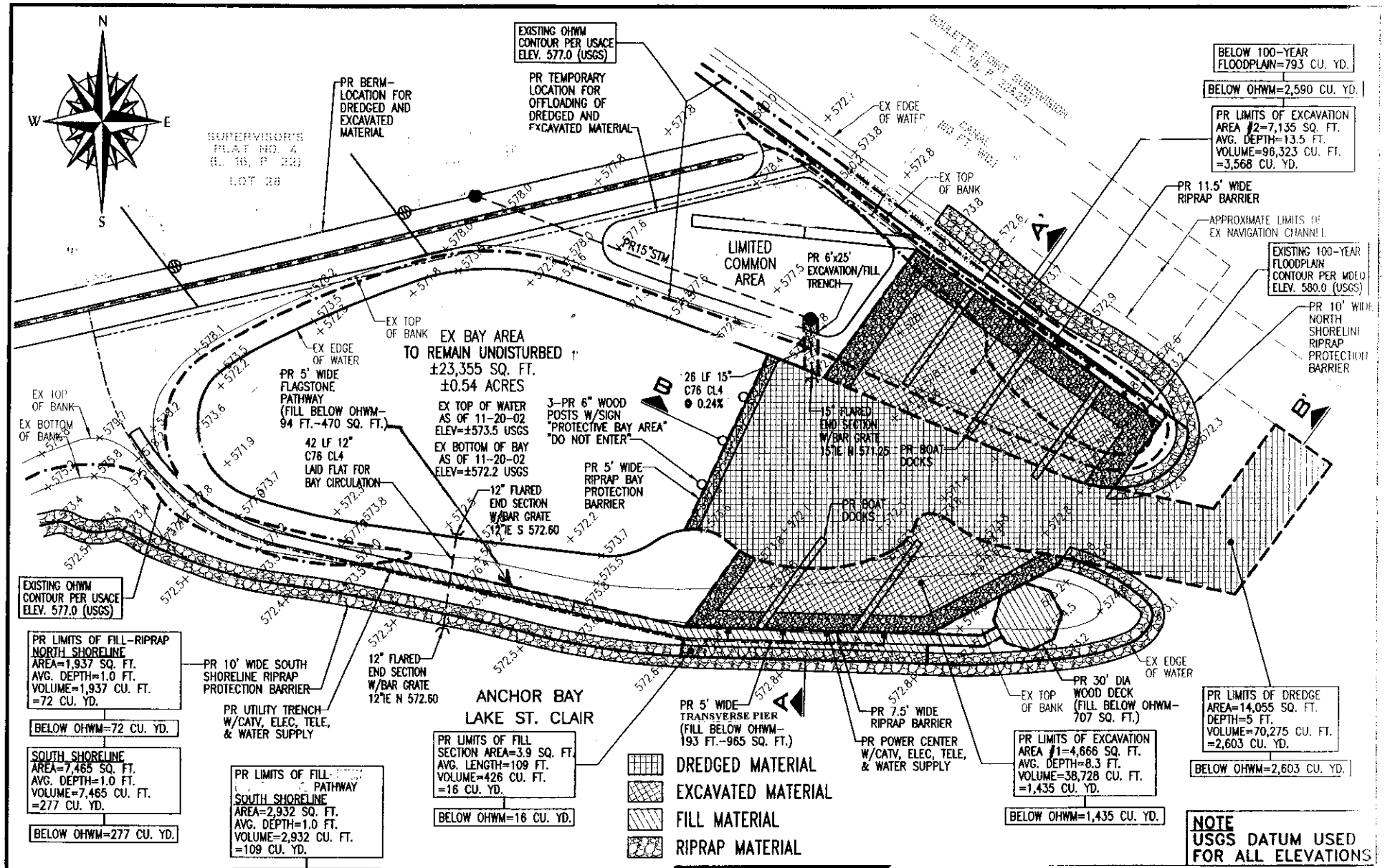
FIGURE 1
OVERALL PLAN
1"=120'

120' 0' 60' 120'

PROJECT CONTROL ENGINEERING, INC.
ENGINEERS, SURVEYORS, CONSULTANTS
2420 PTE TREMBLE ROAD
P.O. BOX 307
ALGONAC, MICHIGAN 48001
PHONE NUMBER (810) 794-1931
FAX NUMBER (810) 794-3331

FLOODPLAIN-GREAT LAKES SUBMERGED LAND

APPLICANT:	CHESTERFIELD WATERFRONT DEVELOPMENT LLC
PROJECT:	MANCHESTER COVE
WATER WAY:	LAKE ST. CLAIR-ANCHOR BAY
CITY/TWP.:	CHESTERFIELD TOWNSHIP
COUNTY:	MACOMB
SHEET NO.:	1
DATE:	4-4-07
REVISIONS:	6-8-07 PER USACE



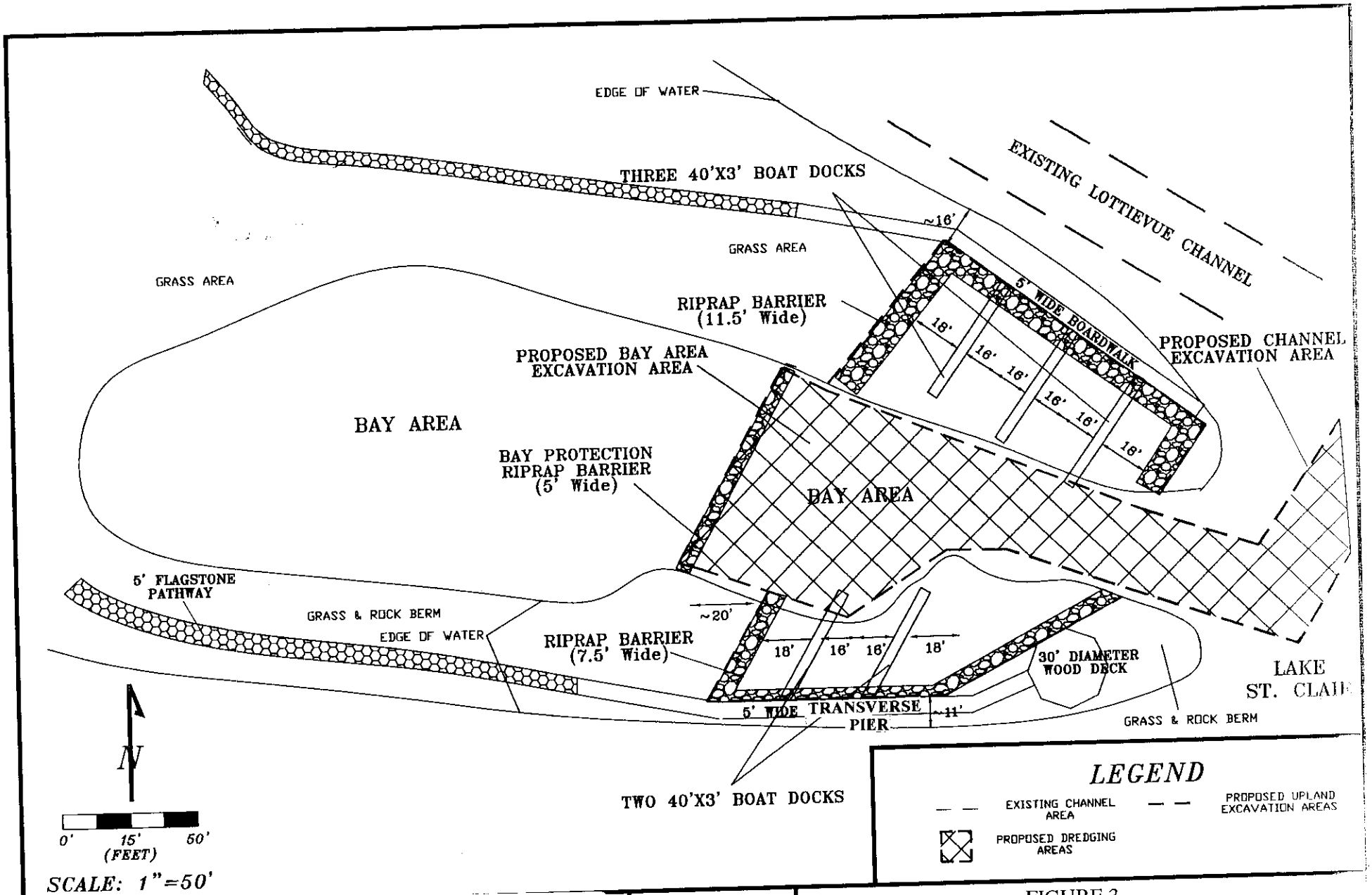
NOTE
SEE SHEET 1 FOR OVERALL PLAN
SEE SHEET 3 FOR DOCK DETAILS
SEE SHEET 4 FOR CROSS SECTION A-A'
SEE SHEET 5 FOR CROSS SECTION B-B'
SEE SHEET 6 FOR STORM SEWER OUTLET PROFILE

FIGURE 2
BAY AREA PLAN
1"=60'

PROJECT CONTROL ENGINEERING, INC.
ENGINEERS, SURVEYORS, CONSUL
2420 PTE TREMBLE ROAD
P.O. BOX 307
ALGONAC, MICHIGAN 48001
PHONE NUMBER (810) 794-1931
FAX NUMBER (810) 794-3331

No: LRE -1999-100921 05-50-10
NAHAS - PRIVATE HARBOR
BY: Joe Nahas
Anchor Bay, Lake St. Clair, CHESTERFIELD Township
MACOMB County, MICHIGAN
SHEET 4 OF 14

REVISIONS: 6-8-07 PER USACE



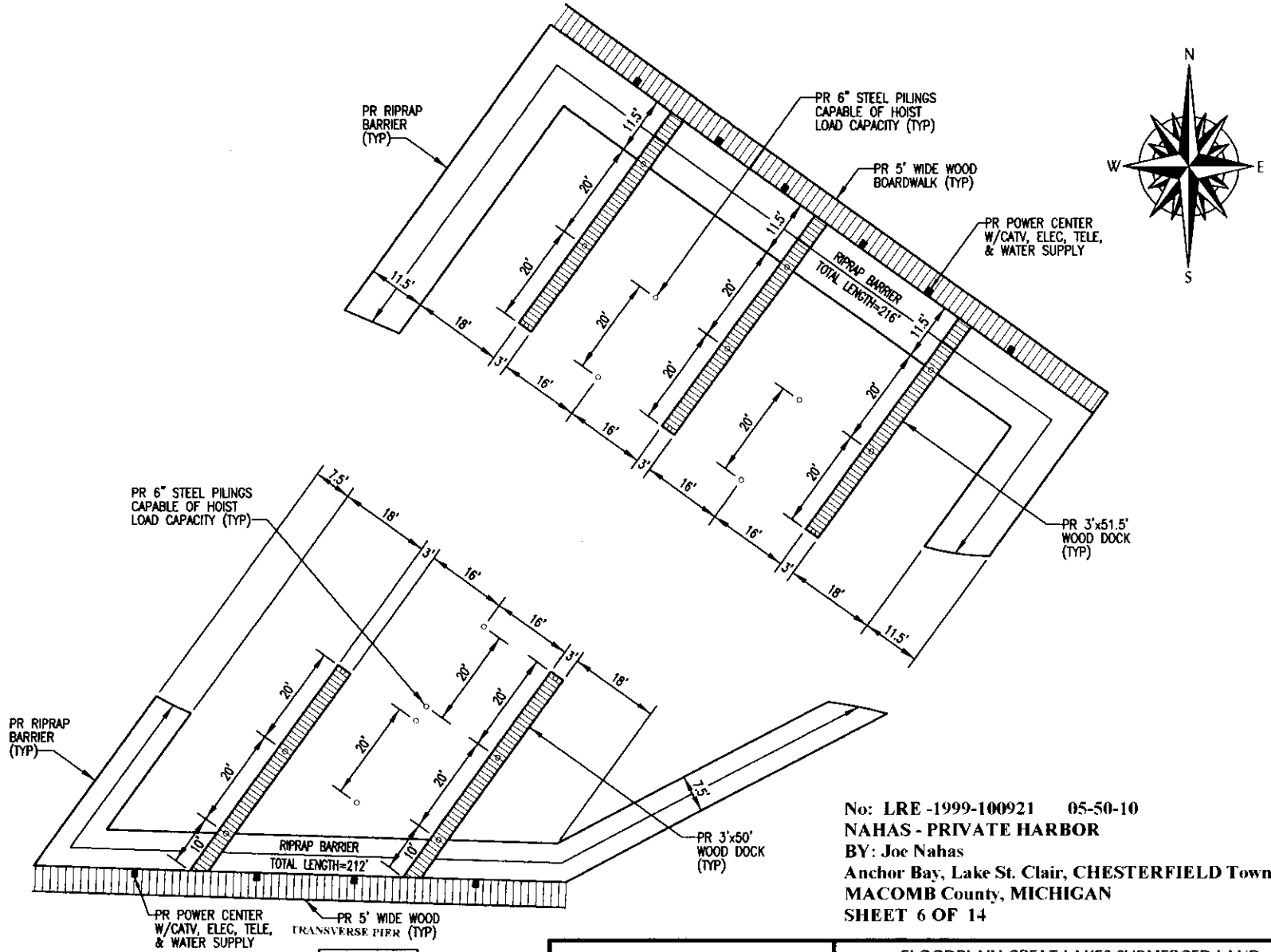
ADVAN
50410 L
PE

No: LRE -1999-100921 05-50-10
NAHAS - PRIVATE HARBOR
BY: Joe Nahas
Anchor Bay, Lake St. Clair, CHESTERFIELD Township
MACOMB County, MICHIGAN
SHEET 5 OF 14

DATE: REV. 06/07/2007	
SCALE: 1"=50'	
DRAWN BY: TKH	
FILENAME: SCHPRODOC06R5.DWG	

FIGURE 3
PROPOSED DOCK LAYOUT MAP

MANCHESTER COVE DEVELOPMENT PROPERTY
VACANT LOT – SCHNEIDER ROAD
CHESTERFIELD TOWNSHIP, MICHIGAN 48047



No: LRE -1999-100921 05-50-10
NAHAS - PRIVATE HARBOR
BY: Joe Nahas
Anchor Bay, Lake St. Clair, CHESTERFIELD Township
MACOMB County, MICHIGAN
SHEET 6 OF 14

NOTE
SEE SHEET 1 FOR OVERALL PLAN
SEE SHEET 2 FOR BAY AREA PLAN
SEE SHEET 4 FOR CROSS SECTION A-A'
SEE SHEET 5 FOR CROSS SECTION B-B'
SEE SHEET 6 FOR STORM SEWER OUTLET PROFILE

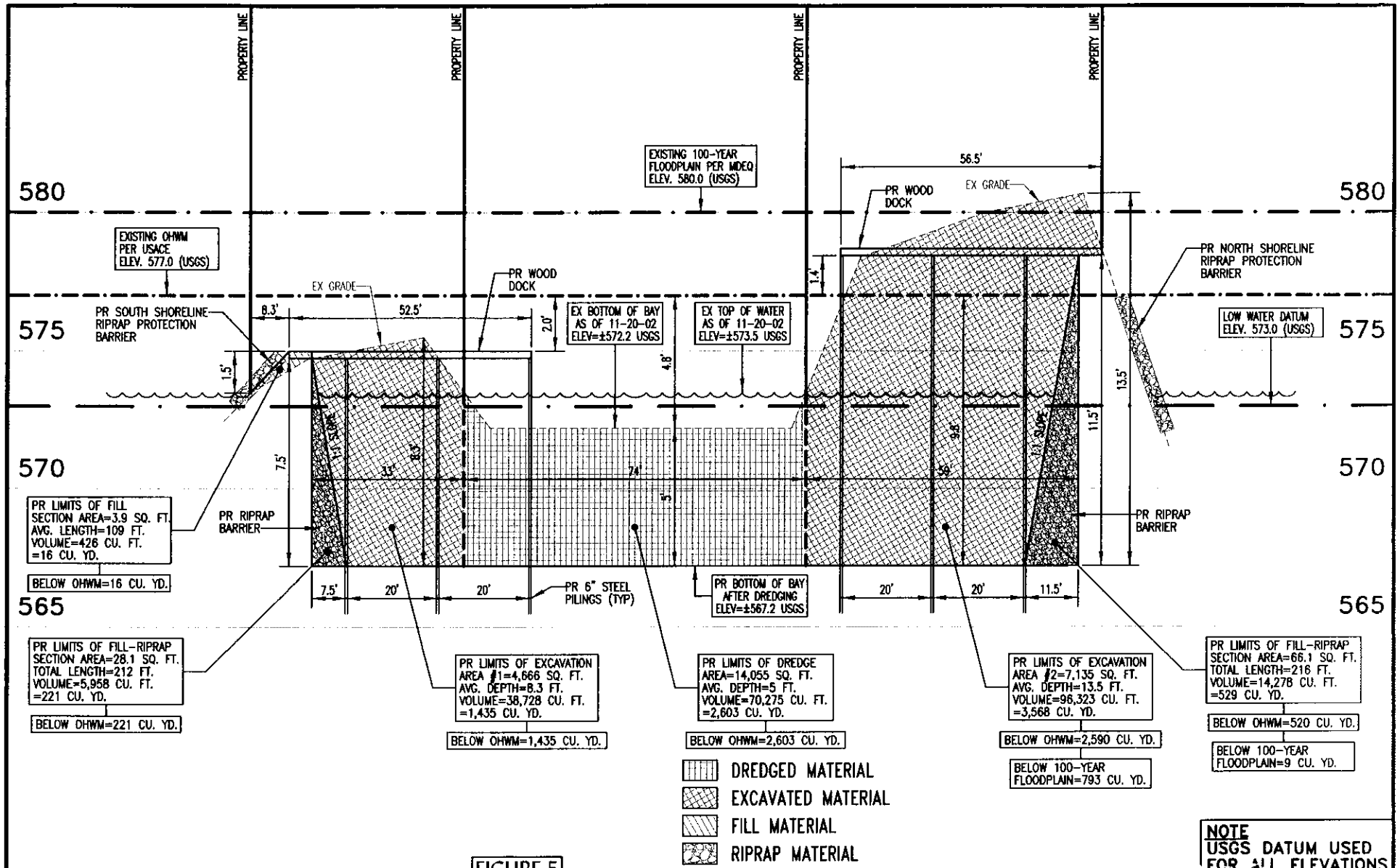
FIGURE 4
DOCK DETAILS
1"=30'

30' 0' 15' 30'

PROJECT CONTROL ENGINEERING, INC.
ENGINEERS, SURVEYORS, CONSULTANTS
2420 PTE TREMBLE ROAD
P.O. BOX 307
ALGONAC, MICHIGAN 48001
PHONE NUMBER (810) 794-1931
FAX NUMBER (810) 794-3331

FLOODPLAIN-GREAT LAKES SUBMERGED LAND

APPLICANT:	CHESTERFIELD WATERFRONT DEVELOPMENT LLC
PROJECT:	MANCHESTER COVE
WATER WAY:	LAKE ST. CLAIR-ANCHOR BAY
CITY/TWP.:	CHESTERFIELD TOWNSHIP
COUNTY:	MACOMB
SHEET NO.:	3
DATE:	4-4-07
REVISIONS:	6-8-07 PER USACE



NOTE
SEE SHEET 1 FOR OVERALL PLAN
SEE SHEET 2 FOR BAY AREA PLAN
SEE SHEET 3 FOR DOCK DETAILS
SEE SHEET 5 FOR CROSS SECTION B-B'
SEE SHEET 6 FOR STORM SEWER OUTLET PROFILE

FIGURE 5
CROSS SECTION A-A'

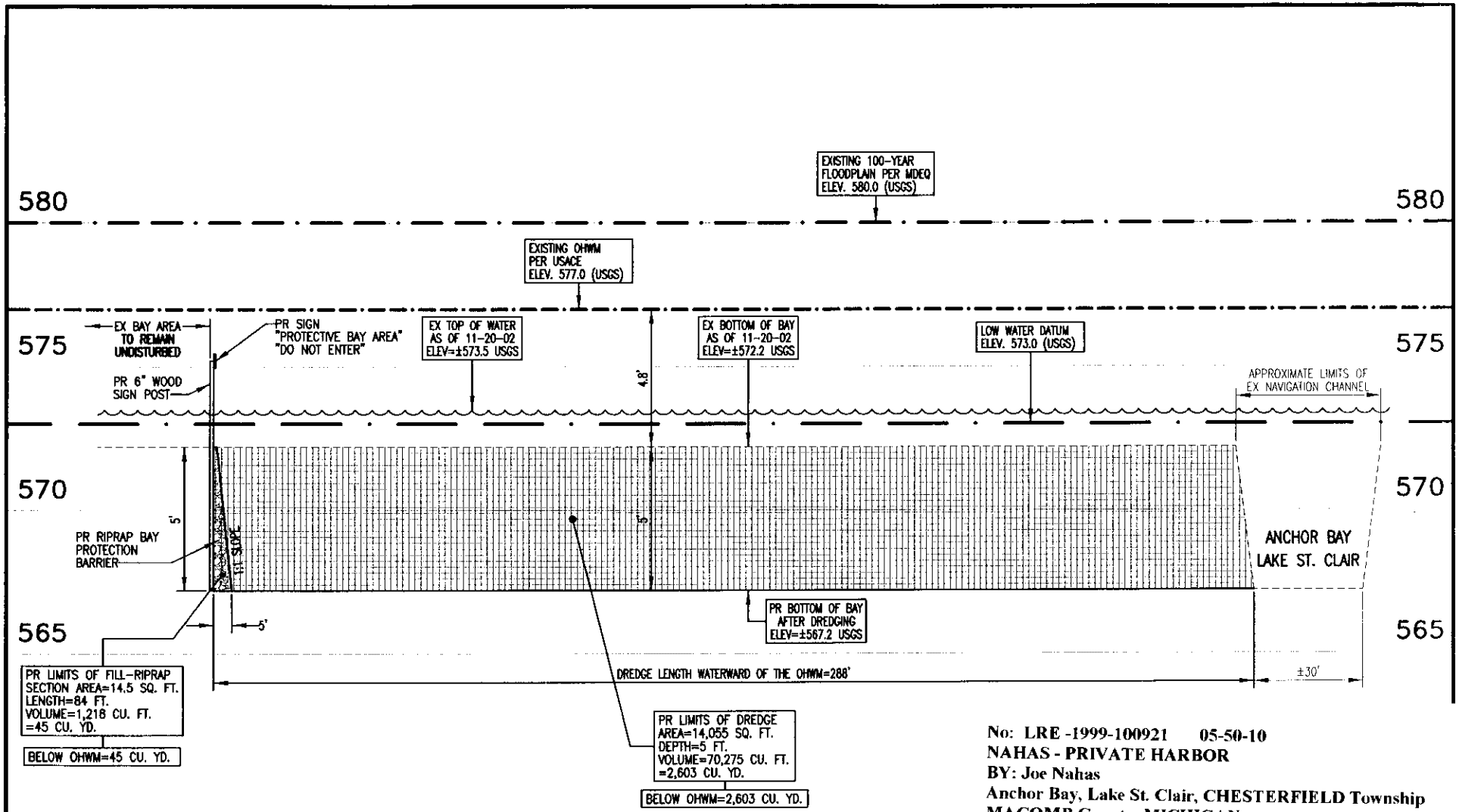
1"=30' HORZ.
1"=5' VERT.

30' 0' 15' 30'

PROJECT CONTROL ENGINEERING, INC.
ENGINEERS, SURVEYORS, CONSULTANTS
2420 PTE TREMBLE ROAD
P.O. BOX 307
ALGONAC, MICHIGAN 48001
PHONE NUMBER (810) 794-1931
FAX NUMBER (810) 794-3331

FLOODPLAIN-GREAT LAKES SUBMERGED LAND

No: LRE -1999-100921 05-50-10
NAHAS - PRIVATE HARBOR
BY: Joe Nahas
Anchor Bay, Lake St. Clair, CHESTERFIELD Township
MACOMB County, MICHIGAN
SHEET 7 OF 14



No: LRE -1999-100921 05-50-10
NAHAS - PRIVATE HARBOR
BY: Joe Nahas
Anchor Bay, Lake St. Clair, CHESTERFIELD Township
MACOMB County, MICHIGAN
SHEET 8 OF 14

DREDGED MATERIAL
RIPRAP MATERIAL

NOTE
USGS DATUM USED FOR ALL ELEVATIONS

NOTE
SEE SHEET 1 FOR OVERALL PLAN
SEE SHEET 2 FOR BAY AREA PLAN
SEE SHEET 3 FOR DOCK DETAILS
SEE SHEET 4 FOR CROSS SECTION A-A'
SEE SHEET 6 FOR STORM SEWER OUTLET PROFILE

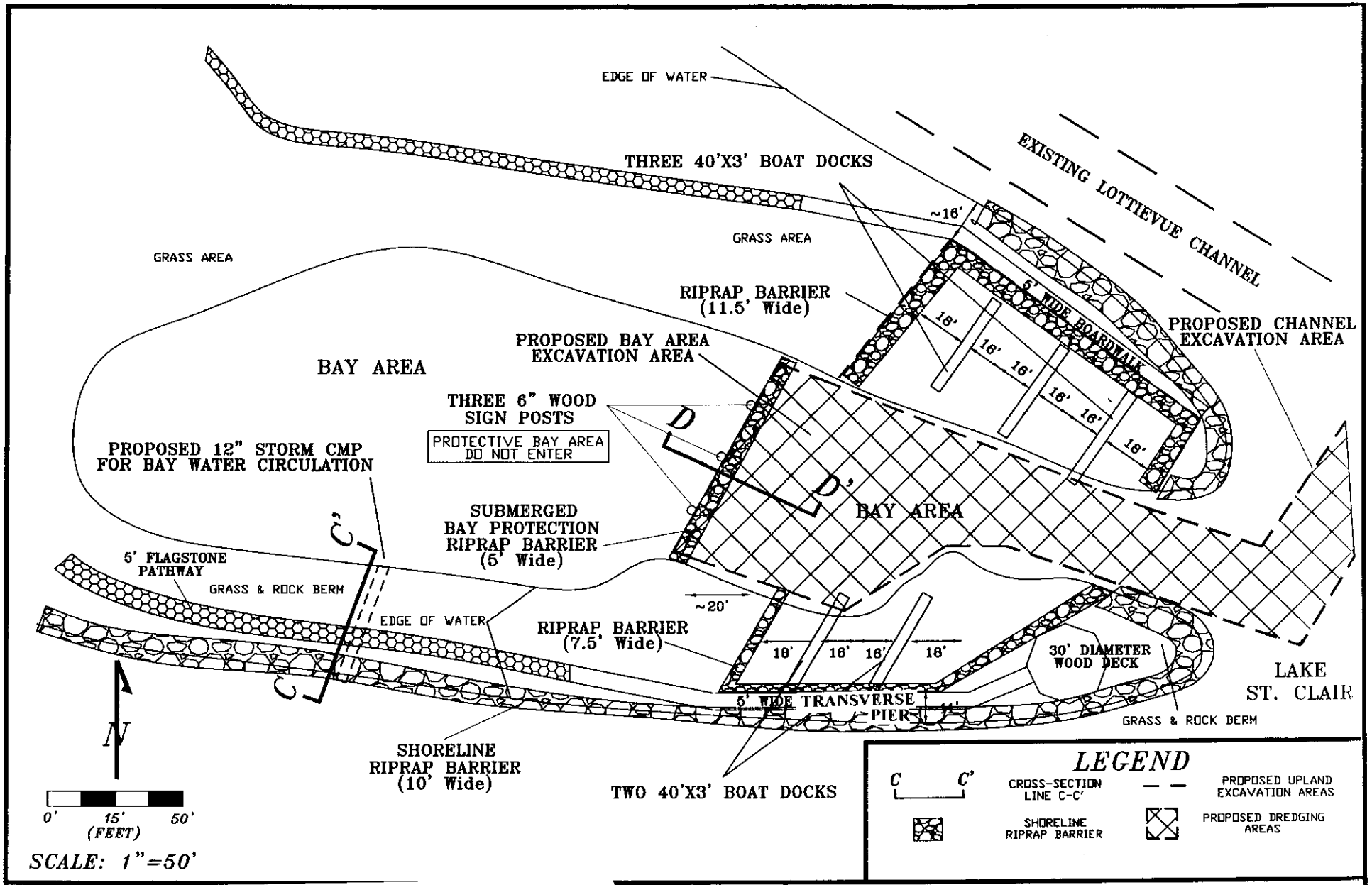
FIGURE 6
CROSS SECTION B-B'
1"=40' HORZ.
1"=5' VERT.

40' 0' 20' 40'

PROJECT CONTROL ENGINEERING, INC.
ENGINEERS, SURVEYORS, CONSULTANTS
2420 PTE TREMBLE ROAD
P.O. BOX 307
ALGONAC, MICHIGAN 48001
PHONE NUMBER (810) 794-1931
FAX NUMBER (810) 794-3331

FLOODPLAIN-GREAT LAKES SUBMERGED LAND

APPLICANT:	CHESTERFIELD WATERFRONT DEVELOPMENT LLC
PROJECT:	MANCHESTER COVE
WATER WAY:	LAKE ST. CLAIR-ANCHOR BAY
CITY/TWP.:	CHESTERFIELD TOWNSHIP
COUNTY:	MACOMB
SHEET NO.:	5
DATE:	4-4-07
REVISIONS:	6-8-07 PER USACE



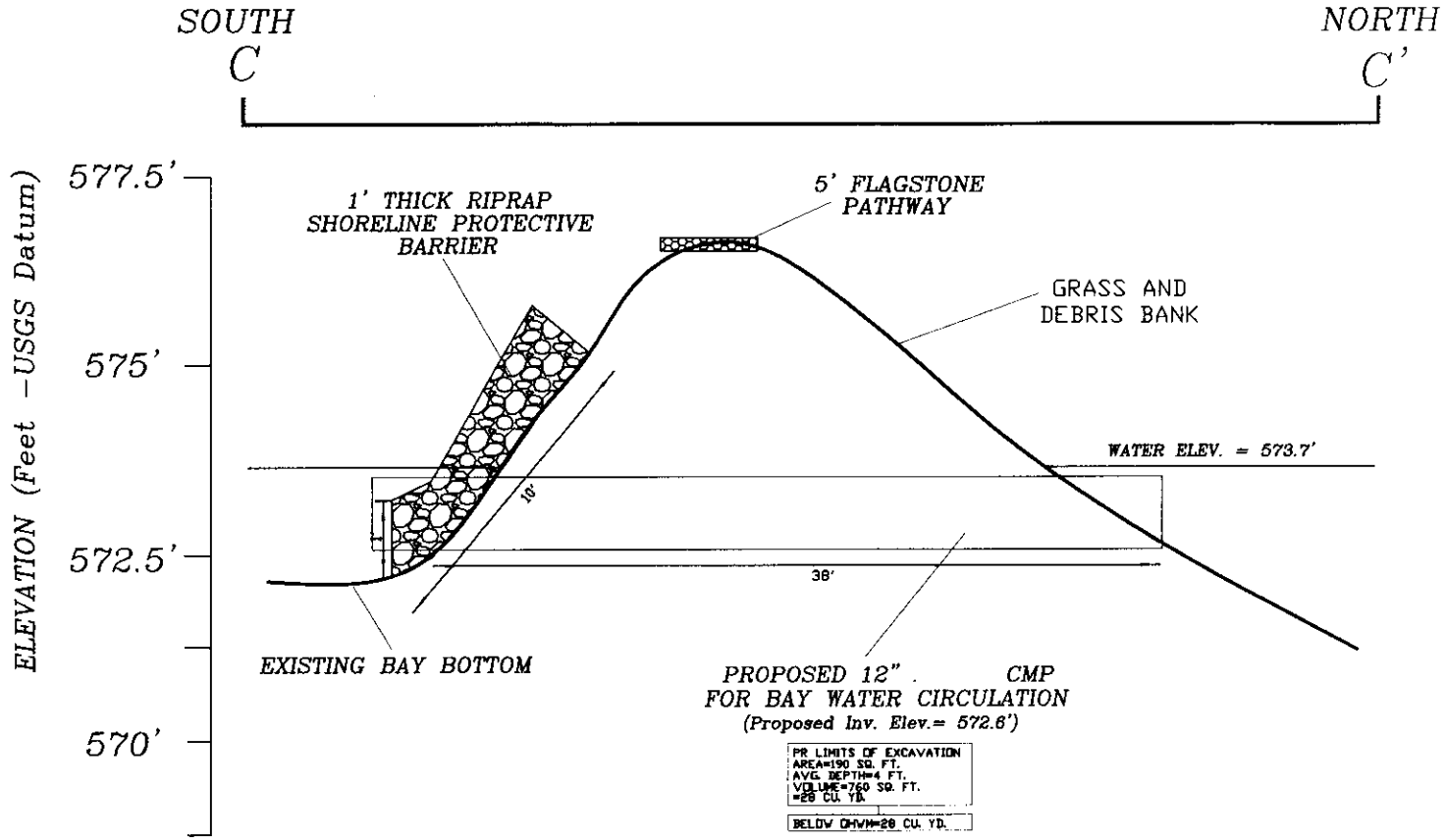
ADVANC
50410 LAC
PHO

No: LRE -1999-100921 05-50-10
NAHAS - PRIVATE HARBOR
BY: Joe Nahas
Anchor Bay, Lake St. Clair, CHESTERFIELD Township
MACOMB County, MICHIGAN
SHEET 9 OF 14

DATE: REV. 06/12/2007	
SCALE: 1"=50'	
DRAWN BY: TKH	
FILENAME: SCHXSECBMAP7R2.DWG	

FIGURE 7
CROSS-SECTION BASELINE MAP

MANCHESTER COVE DEVELOPMENT PROPERTY
VACANT LOT – SCHNEIDER ROAD
CHESTERFIELD TOWNSHIP, MICHIGAN 48047



HORIZ. SCALE: 1" = 10'
VERT. SCALE: 1" = 2.5'
(Vertical Exaggeration = 4X)

LEGEND

RIPRAP BARRIER

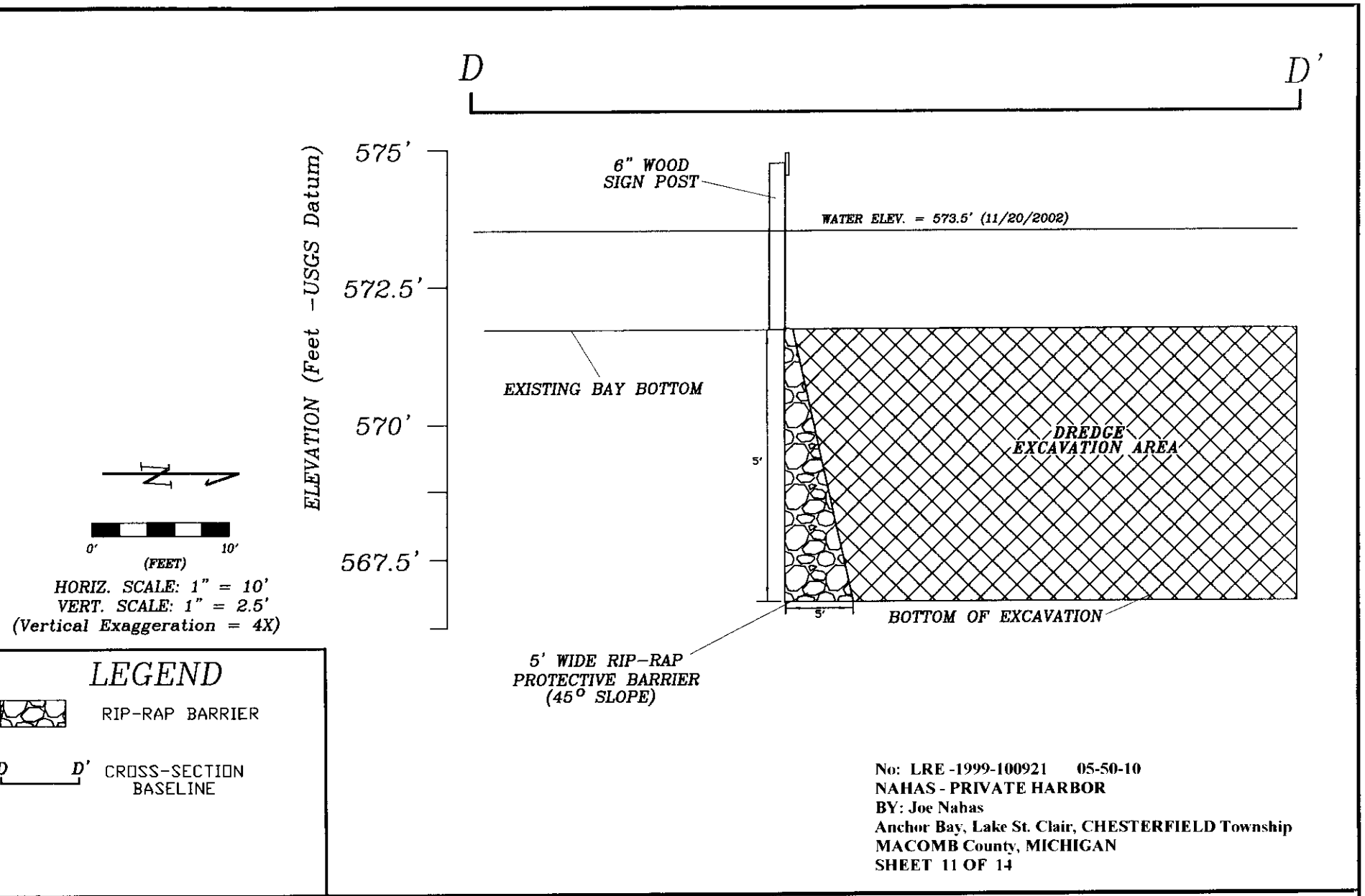
C C' CROSS-SECTION BASELINE

No: LRE -1999-100921 05-50-10
NAHAS - PRIVATE HARBOR
BY: Joe Nahas
Anchor Bay, Lake St. Clair, CHESTERFIELD Township
MACOMB County, MICHIGAN
SHEET 10 OF 14

ADVANCED REMEDIATION TECHNOLOGIES, INC.
50410 LAGAE STREET NEW BALTIMORE, MI 48047
PHONE: 586-725-5189 FAX: 586-725-5189

DATE 06/07/2007
SCALE 1" = 10'
DRAWN BY: L.T./TH.
FILE: SCHXSECCMPBR.DWG

FIGURE 8
CROSS-SECTION C-C' MAP
MANCHESTER COVE DEVELOPMENT PROJECT
VACANT LOT – SCHNEIDER ROAD
CHESTERFIELD TOWNSHIP, MICHIGAN 48047

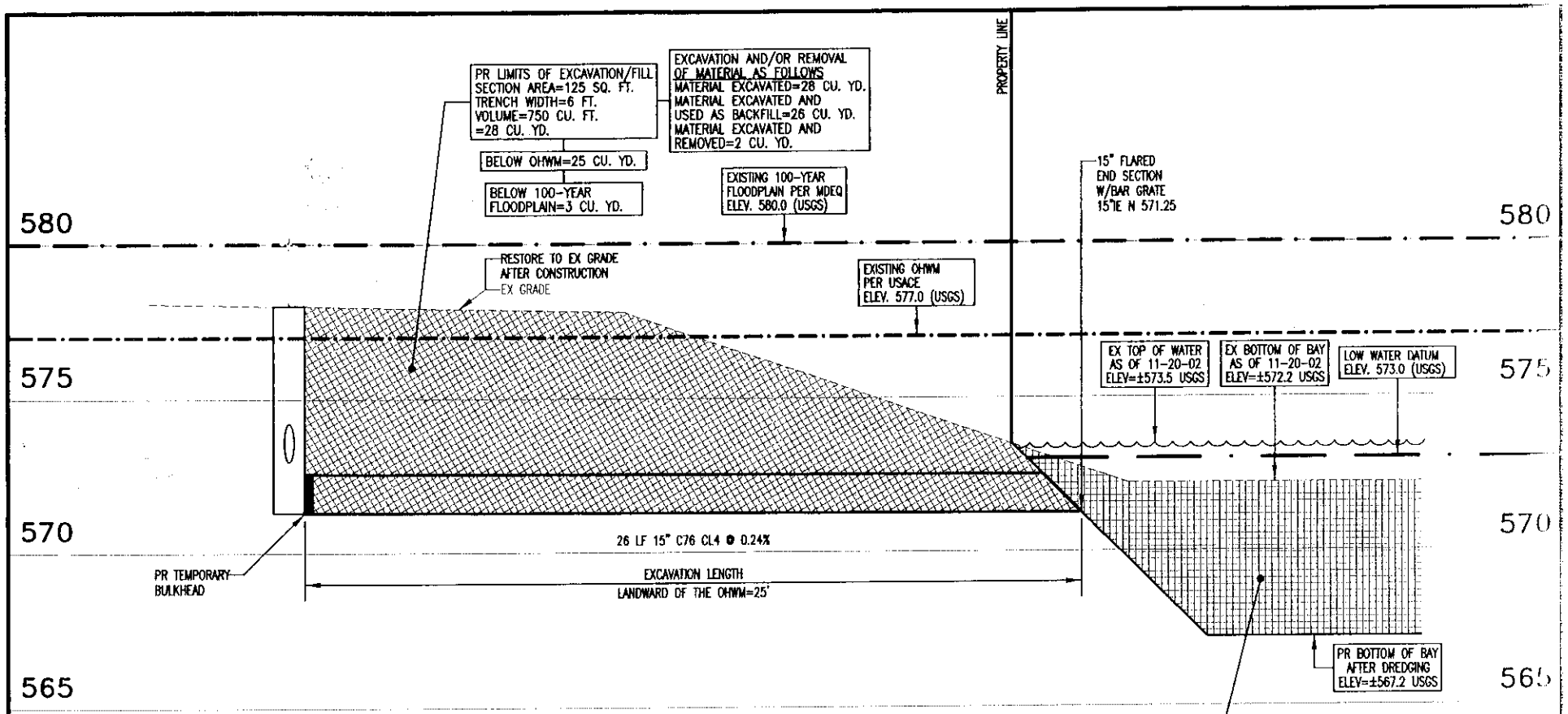


No: LRE -1999-100921 05-50-10
NAHAS - PRIVATE HARBOR
BY: Joe Nahas
Anchor Bay, Lake St. Clair, CHESTERFIELD Township
MACOMB County, MICHIGAN
SHEET 11 OF 14

ADVANCED REMEDIATION TECHNOLOGIES, INC.
50410 LAGAE STREET NEW BALTIMORE, MI 48047
PHONE: 586-725-5189 FAX: 586-725-5189

DATE 05/03/2007
SCALE 1" = 10'
DRAWN BY: L.T./TH.
FILE: SCHXSECDMP9R2.DWG

FIGURE 9
CROSS-SECTIONAL D-D' MAP
MANCHESTER COVE DEVELOPMENT PROJECT
VACANT LOT – SCHNEIDER ROAD
CHESTERFIELD TOWNSHIP, MICHIGAN 48047



No: LRE -1999-100921 05-50-10
NAHAS - PRIVATE HARBOR
BY: Joe Nahas
Anchor Bay, Lake St. Clair, CHESTERFIELD Township
MACOMB County, MICHIGAN
SHEET 12 OF 14

DREDGED MATERIAL
EXCAVATED MATERIAL

NOTE
USGS DATUM USED FOR ALL ELEVATIONS

FIGURE 10
STORM SEWER
OUTLET PROFILE
1"=5' HORZ.
1"=5' VERT.

5' 0' 2.5' 5'

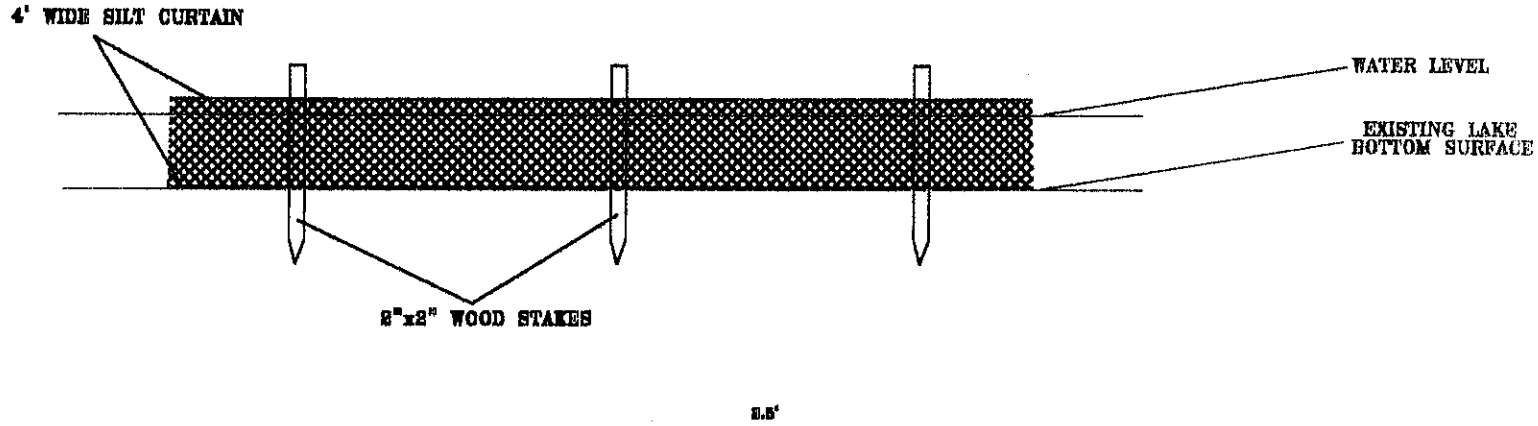
NOTE
SEE SHEET 1 FOR OVERALL PLAN
SEE SHEET 2 FOR BAY AREA PLAN
SEE SHEET 3 FOR DOCK DETAILS
SEE SHEET 4 FOR CROSS SECTION A-A'
SEE SHEET 5 FOR CROSS SECTION B-B'

PROJECT CONTROL
ENGINEERING, INC.
ENGINEERS, SURVEYORS, CONSULTANTS
2420 PTE TREMBLE ROAD
P.O. BOX 307
ALGONAC, MICHIGAN 48001
PHONE NUMBER (810) 794-1931
FAX NUMBER (810) 794-3331

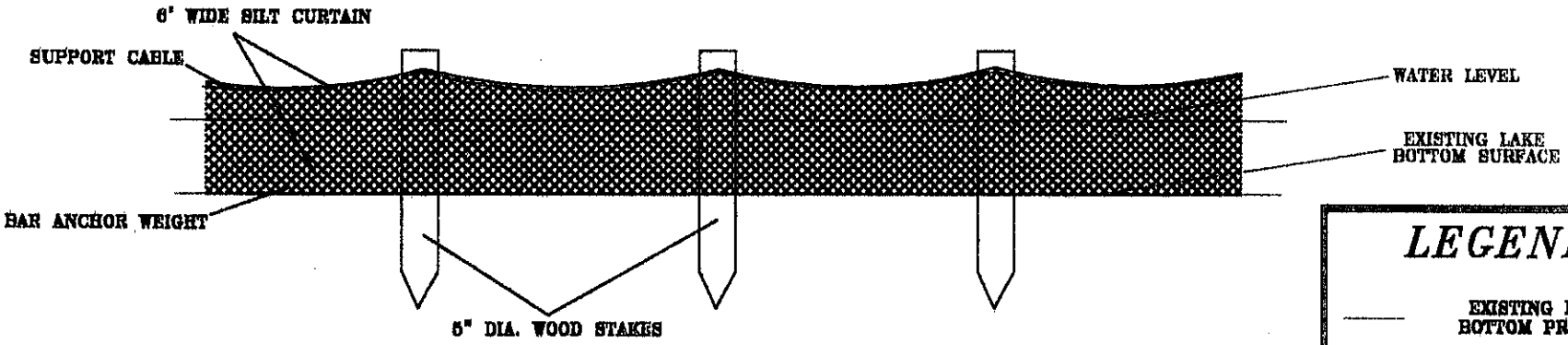
FLOODPLAIN-GREAT LAKES SUBMERGED LAND

APPLICANT:	CHESTERFIELD WATERFRONT DEVELOPMENT LLC
PROJECT:	MANCHESTER COVE
WATER WAY:	LAKE ST. CLAIR-ANCHOR BAY
CITY/TWP.:	CHESTERFIELD TOWNSHIP
COUNTY:	MACOMB
SHEET NO.:	6
DATE:	4-4-07
REVISIONS:	6-8-07 PER USACE

TYPICAL A – STAKED SILT FENCE



TYPICAL B – CABLE–SUPPORTED SILT FENCE



LEGEND

- EXISTING LAKE BOTTOM PROFILE
- EXISTING WATER LEVEL
- SILT FENCE STRUCTURE

NO SCALE

ADVANC
50410 LAG
PHONE:

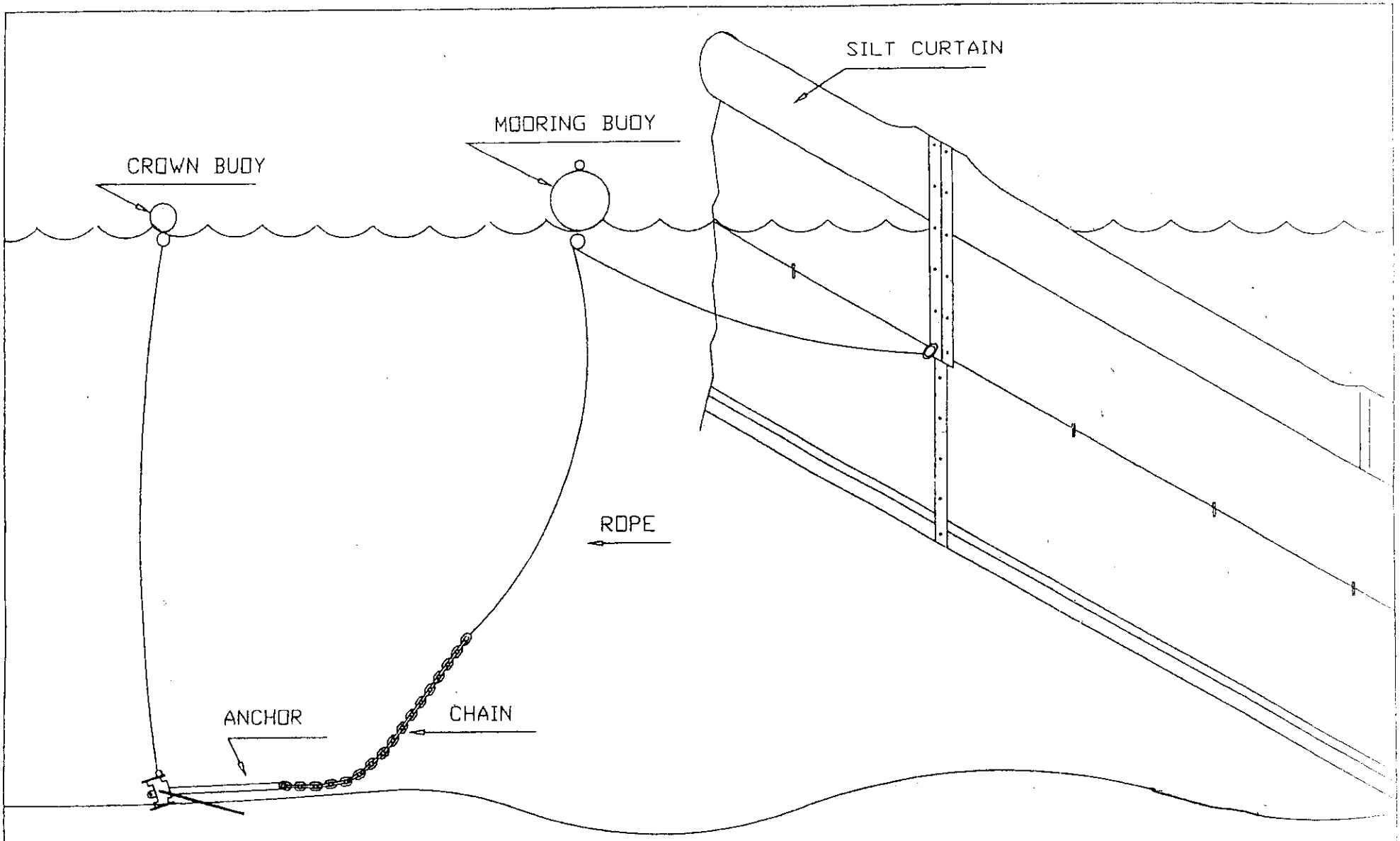
No: LRE -1999-100921 05-50-10
NAHAS - PRIVATE HARBOR
BY: Joe Nahas
Anchor Bay, Lake St. Clair, CHESTERFIELD Township
MACOMB County, MICHIGAN
SHEET 13 OF 14

7

DATE: REV. 4/30/2002
SCALE: NO SCALE
DRAWN BY: T. HOLLANDSWORTH
FILE NAME: LKPSILT6.DWG

FIGURE 8
SILT FENCE DETAIL DIAGRAMS

LAKE POINTE CONDO DEVELOPMENT PROJECT
47646 JEFFERSON AVENUE
CHESTERFIELD TWP., MI 48047



No: LRE -1999-100921 05-50-10
NAHAS - PRIVATE HARBOR
BY: Joe Nahas
Anchor Bay, Lake St. Clair, CHESTERFIELD Township
MACOMB County, MICHIGAN
SHEET 14 OF 14

SILT CURTAIN MOORING