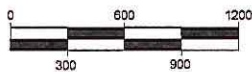


Drawings List:

- 1) Cover Sheet
- 2) Existing Conditions
- 3) Proposed Improvements
- 4) Stream #3 Existing Plan and Profile
- 5) Stream #3 Existing Cross Sections
- 6) Stream #3 Proposed Plan and Profile
- 7) Stream #3 Proposed Cross Sections
- 8) Stream #4 Existing Plan and Profile
- 9) Stream #4 Existing Cross Sections
- 10) Stream #4 Proposed Plan and Profile
- 11) Stream #4 Proposed Cross Sections
- 12) Sculpin Creek Existing Plan and Profile
- 13) Sculpin Creek Existing Cross Sections
- 14) Sculpin Creek Proposed Plan and Profile
- 15) Sculpin Creek Proposed Cross Sections
- 16) Details



SCALE: 1" = 300'

SITKALIDIK STRAIT

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POA-1986-95-M1
Sitkalidik Strait
December 3, 2012
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SHEARWATER SYSTEMS LLC
AN OLD HARBOR COMPANY

215 B Main Street, Milford, Ohio 45150
PH: (513) 248-9999, FAX: (513) 248-9111

CITY of OLD HARBOR AIRPORT
RUNWAY EXTENSION PROJECT
STREAM REALIGNMENTS
COVER SHEET

DATE: 01/07/13...
PROJECT #: 09A2-004
SHEET
1 OF 16



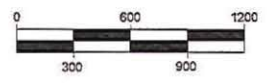
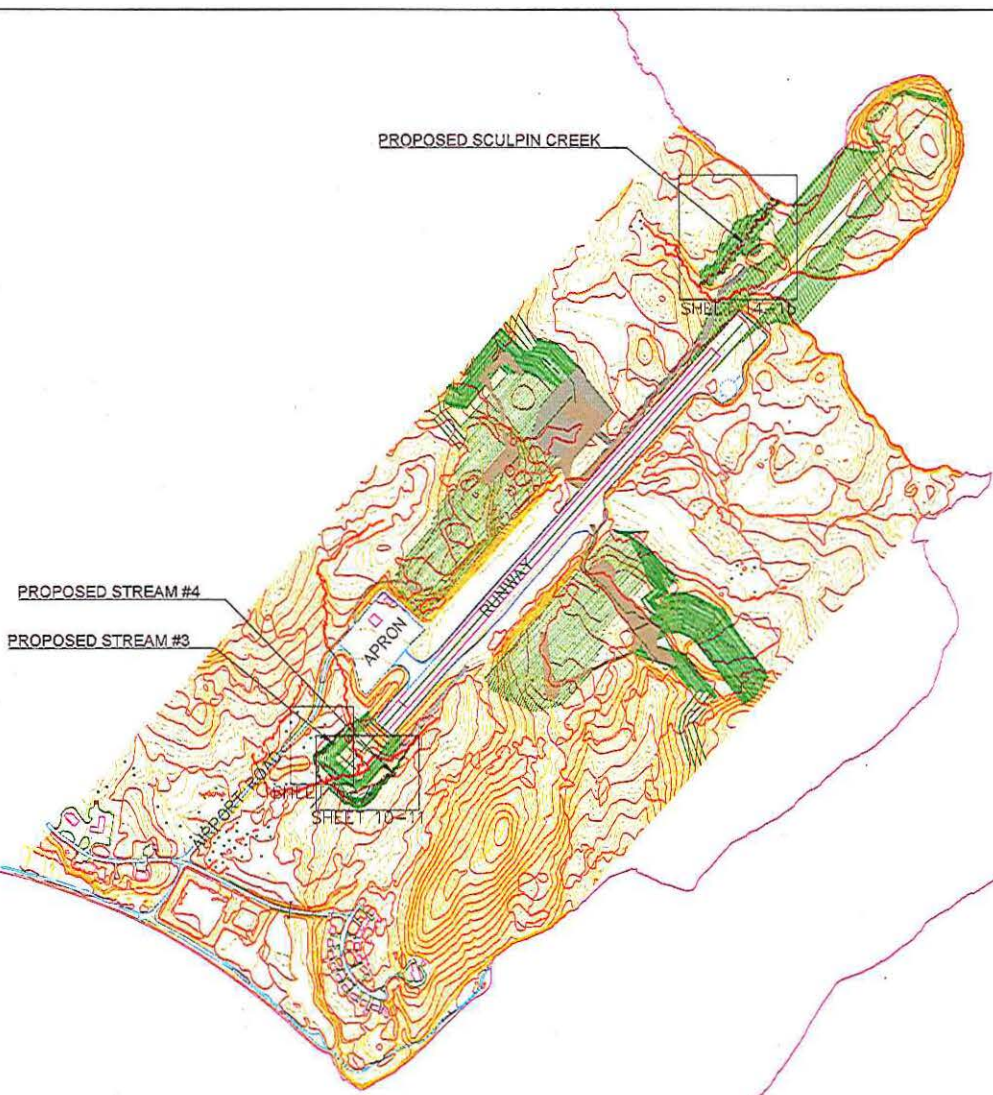
City of Old Harbor
 POA-1986-95-M1
 Sitkalidak Strait
 December 3, 2012
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DATE	REVISION


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CITY of OLD HARBOR AIRPORT
 RUNWAY EXTENSION PROJECT
 STREAM REALIGNMENTS
 EXISTING CONDITIONS

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SCALE: 1"=300'

City of Old Harbor
POA-1986-95-M1
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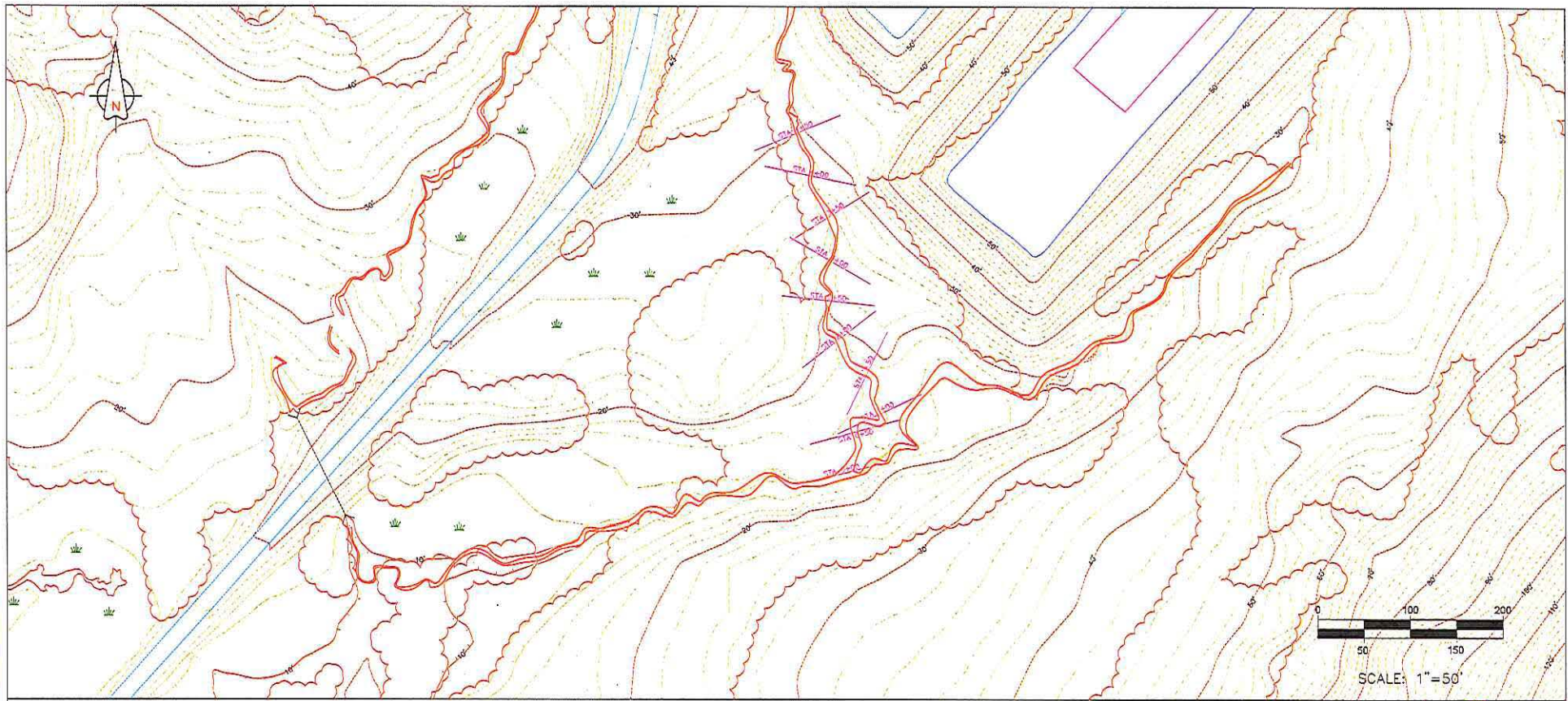
 **SHEARWATER
SYSTEMS** LLC

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PH: (513) 248-9999, FAX: (513) 248-9111

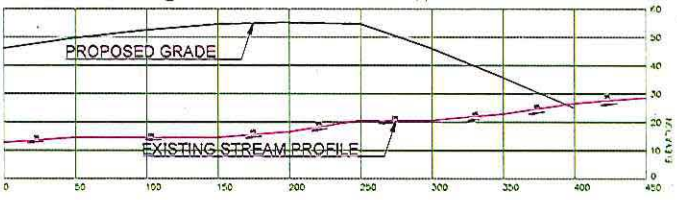
CITY of OLD HARBOR AIRPORT
RUNWAY EXTENSION PROJECT

STREAM REALIGNMENTS
PROPOSED IMPROVEMENTS

DATE: 01/07/13
PROJECT: OHA2-004
SHEET
3 OF 16



Existing Stream #3 Profile



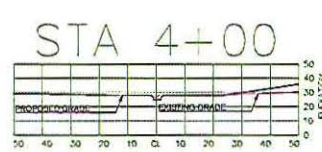
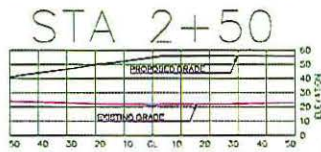
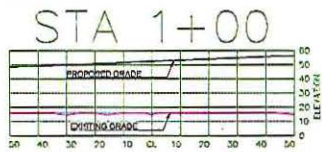
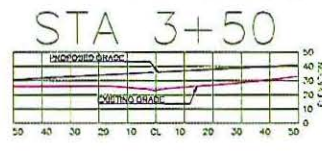
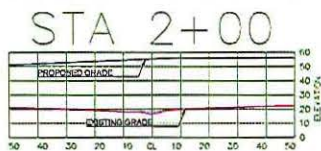
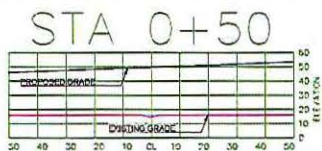
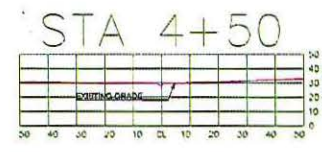
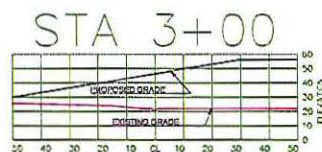
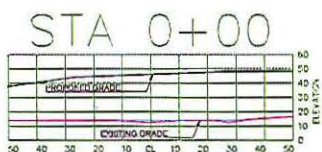
City of Old Harbor
 POA-1986-95-M1
 Sitkalidak Strait
 December 3, 2012
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DATE	REVISION

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CITY of OLD HARBOR AIRPORT
 RUNWAY EXTENSION PROJECT
 EXISTING STREAM #3
 PLAN & PROFILE

EXISTING STREAM #3



City of Old Harbor
 POA-1986-95-M1
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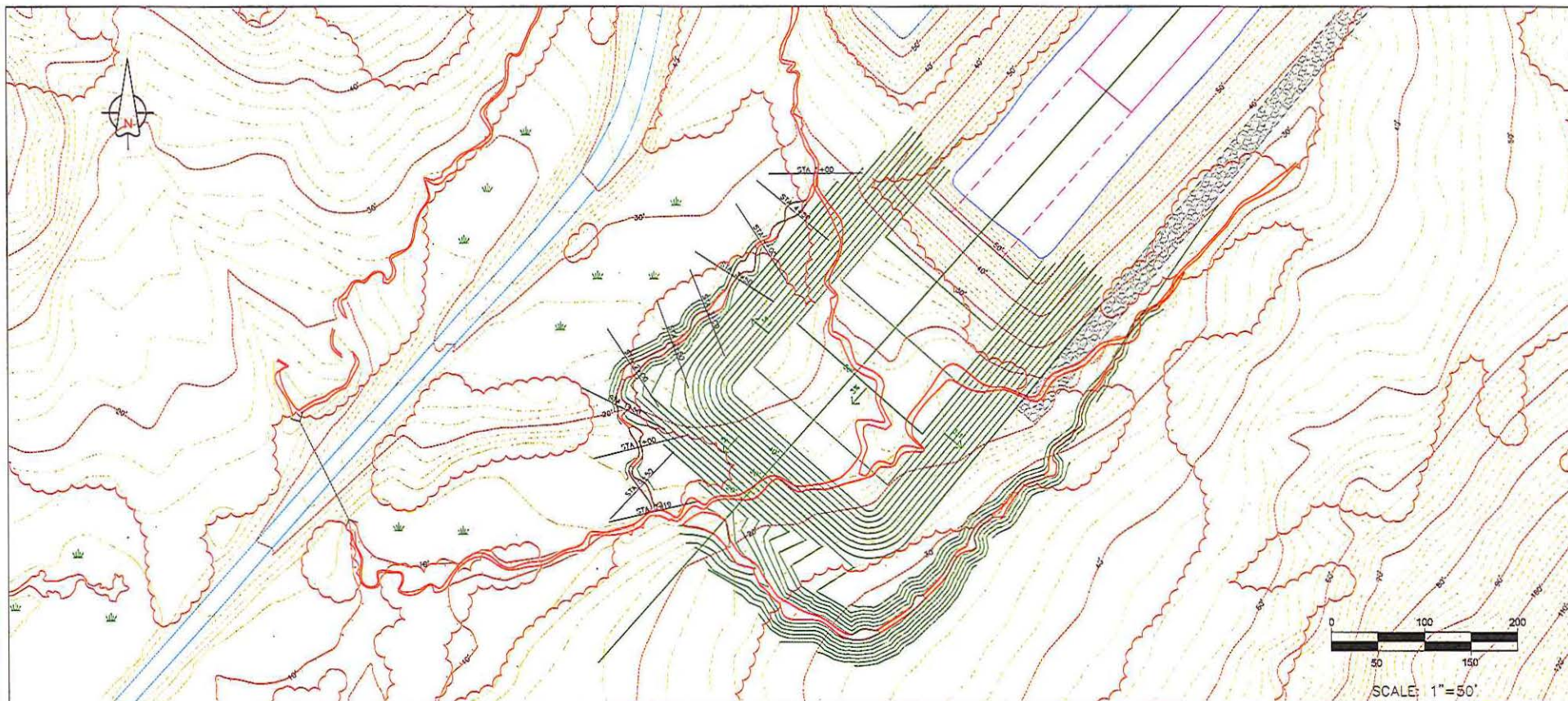
215 B Main Street, Milford, Ohio 45150
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CITY of OLD HARBOR AIRPORT
 RUNWAY EXTENSION PROJECT

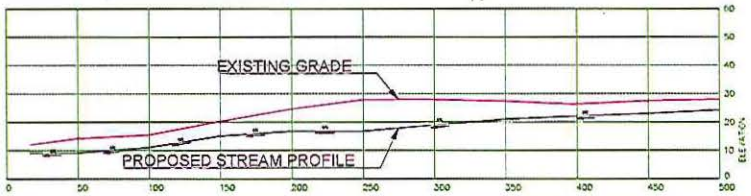
EXISTING STREAM #3
 CROSS SECTIONS

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Proposed Stream #3 Profile



City of Old Harbor
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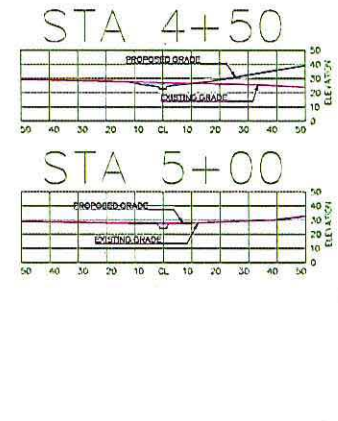
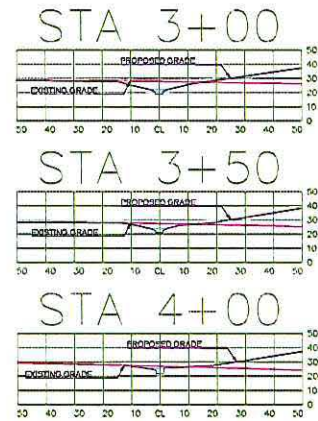
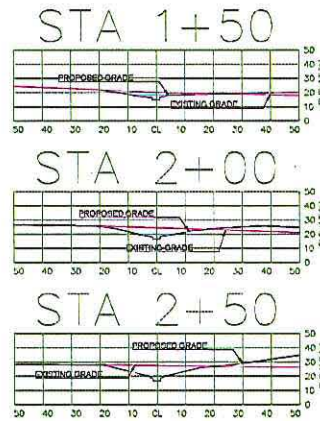
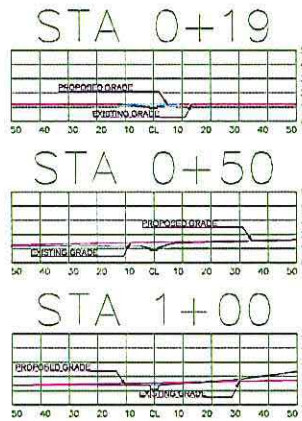
DATE	REVISION

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CITY of OLD HARBOR AIRPORT
 RUNWAY EXTENSION PROJECT
 PROPOSED STREAM #3
 PLAN & PROFILE

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PROPOSED STREAM #3



City of Old Harbor
 POA-1986-95-M1
 Sitkalidak Strait
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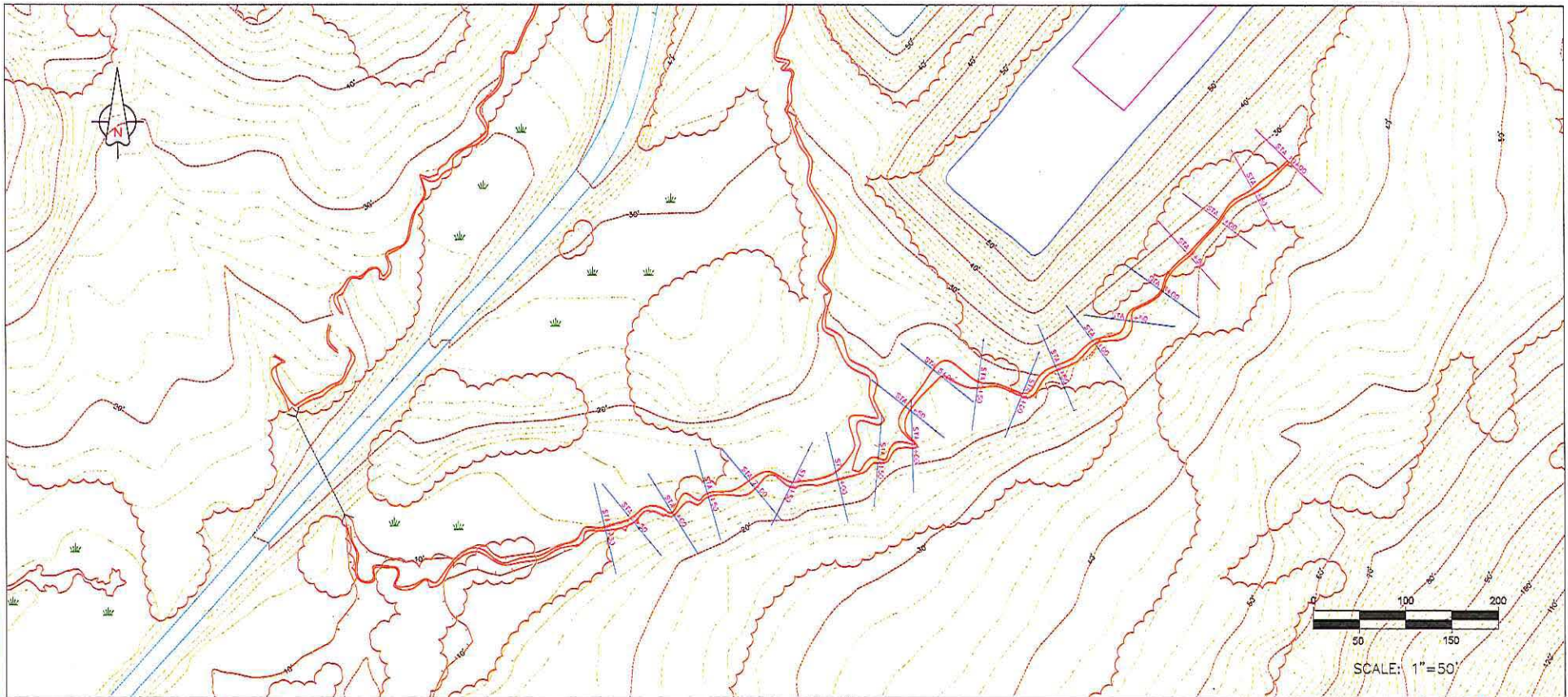
215 B Main Street, Milford, Ohio 45150
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CITY of OLD HARBOR AIRPORT
 RUNWAY EXTENSION PROJECT

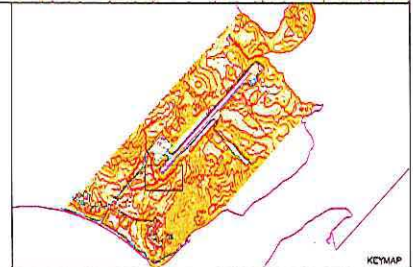
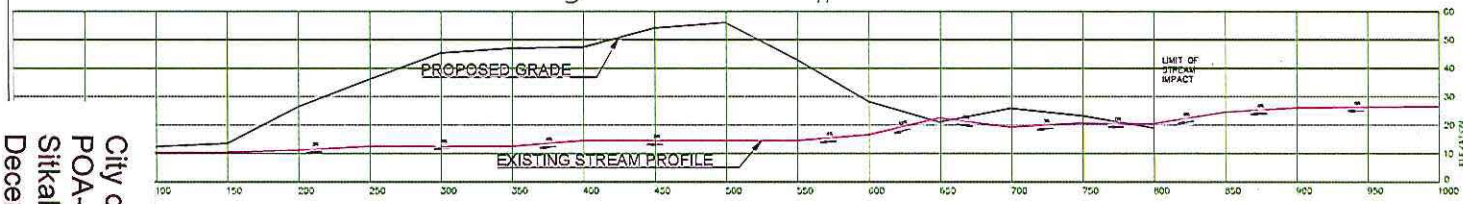
PROPOSED STREAM #3
 CROSS SECTIONS

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Existing Stream #4 Profile



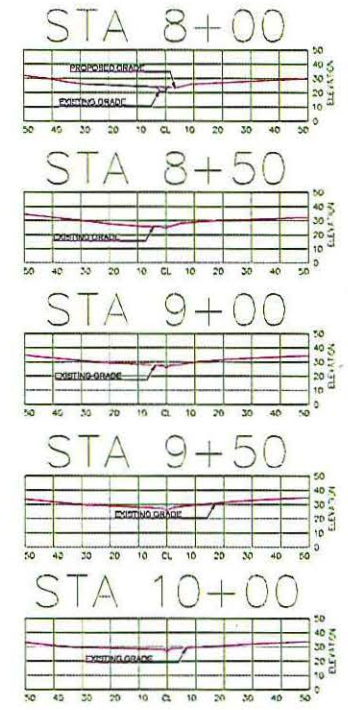
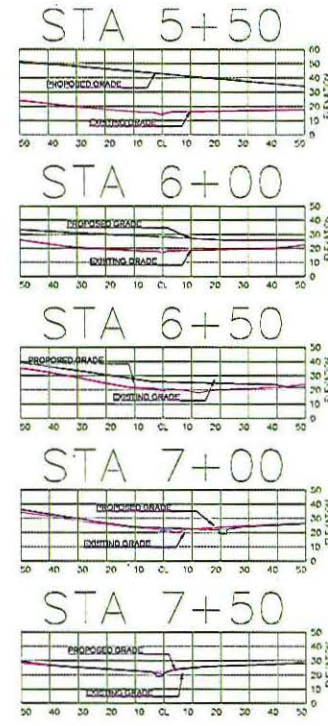
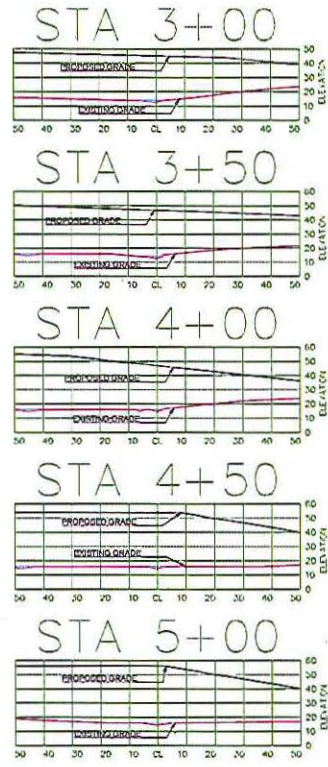
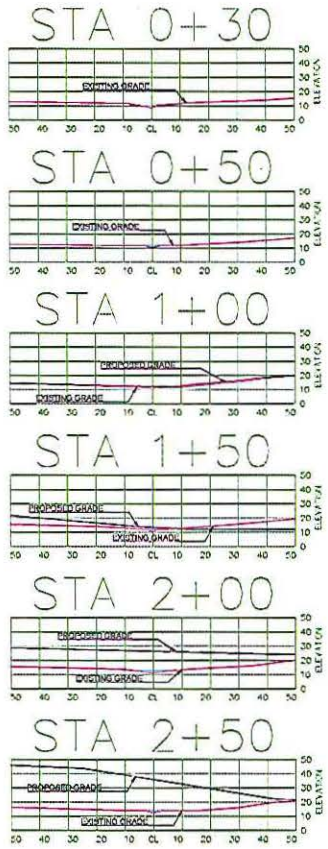
City of Old Harbor
 POA-1986-95-M1
 Sitkalidak Strait
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DATE	REVISION

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CITY of OLD HARBOR AIRPORT
 RUNWAY EXTENSION PROJECT
 EXISTING STREAM #4
 PLAN AND PROFILE

EXISTING STREAM #4



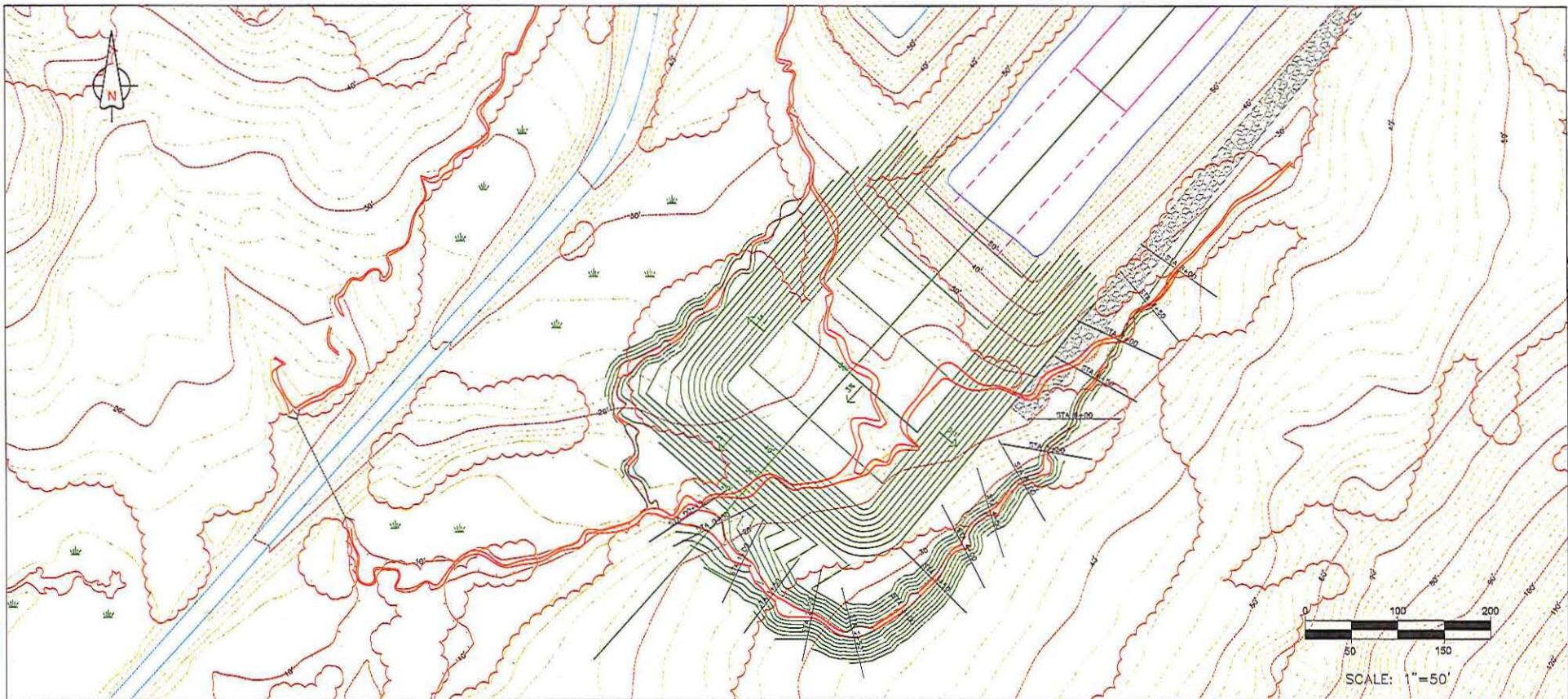
City of Old Harbor
POA-1986-95-M1
Sitkalidak Strait
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DATE	REVISION

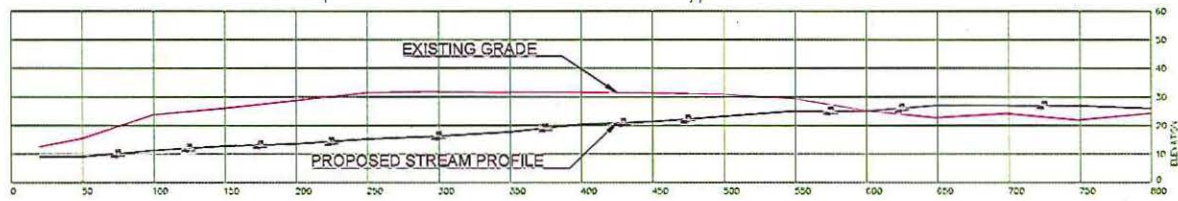
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CITY of OLD HARBOR AIRPORT
 RUNWAY EXTENSION PROJECT
 EXISTING STREAM #4
 CROSS SECTIONS

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Proposed Stream #4 Profile



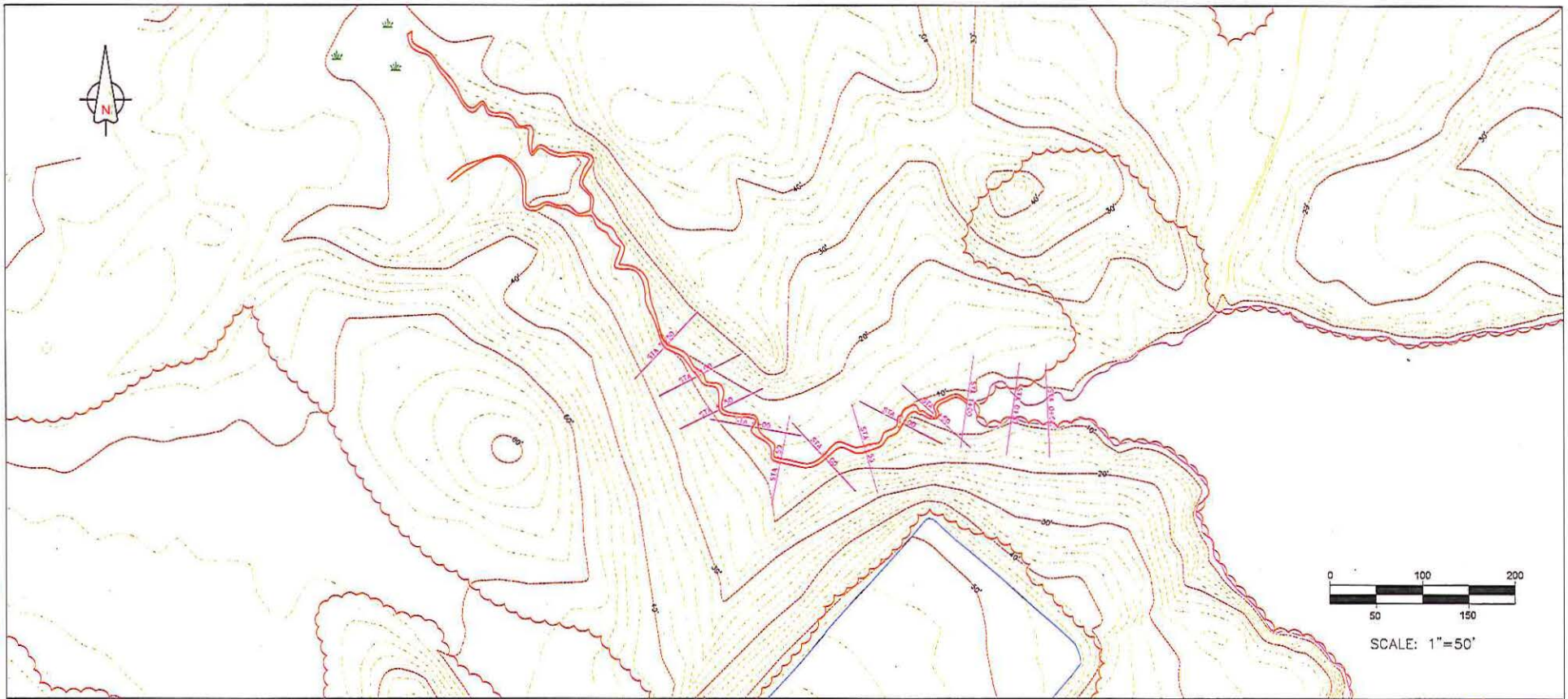
City of Old Harbor
 POA-1986-95-M1
 Sitkalidak Strait
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DATE	REVISION

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CITY of OLD HARBOR AIRPORT
 RUNWAY EXTENSION PROJECT
 PROPOSED STREAM #4
 PLAN AND PROFILE

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Existing Sculpin Creek Profile



City of Old Harbor
 POA-1986-95-M1
 Sitkalidak Strait
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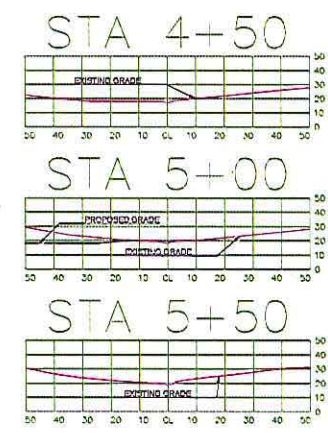
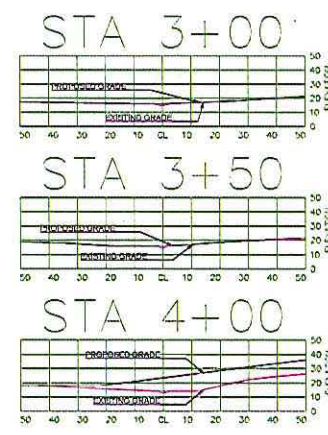
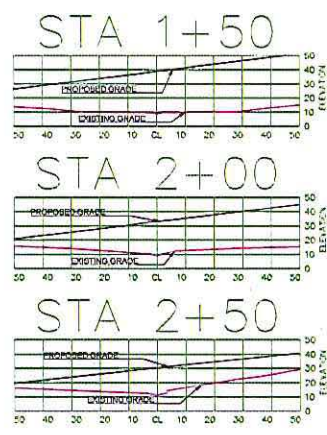
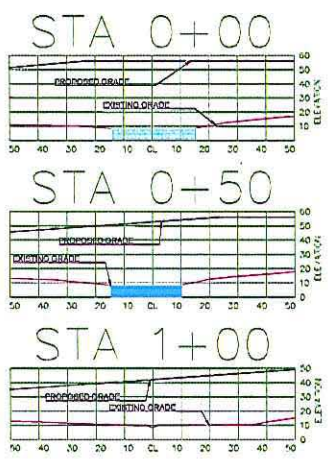


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CITY of OLD HARBOR AIRPORT
 RUNWAY EXTENSION PROJECT
 EXISTING SCULPIN CREEK
 PLAN AND PROFILE

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EXISTING SCULPIN CREEK



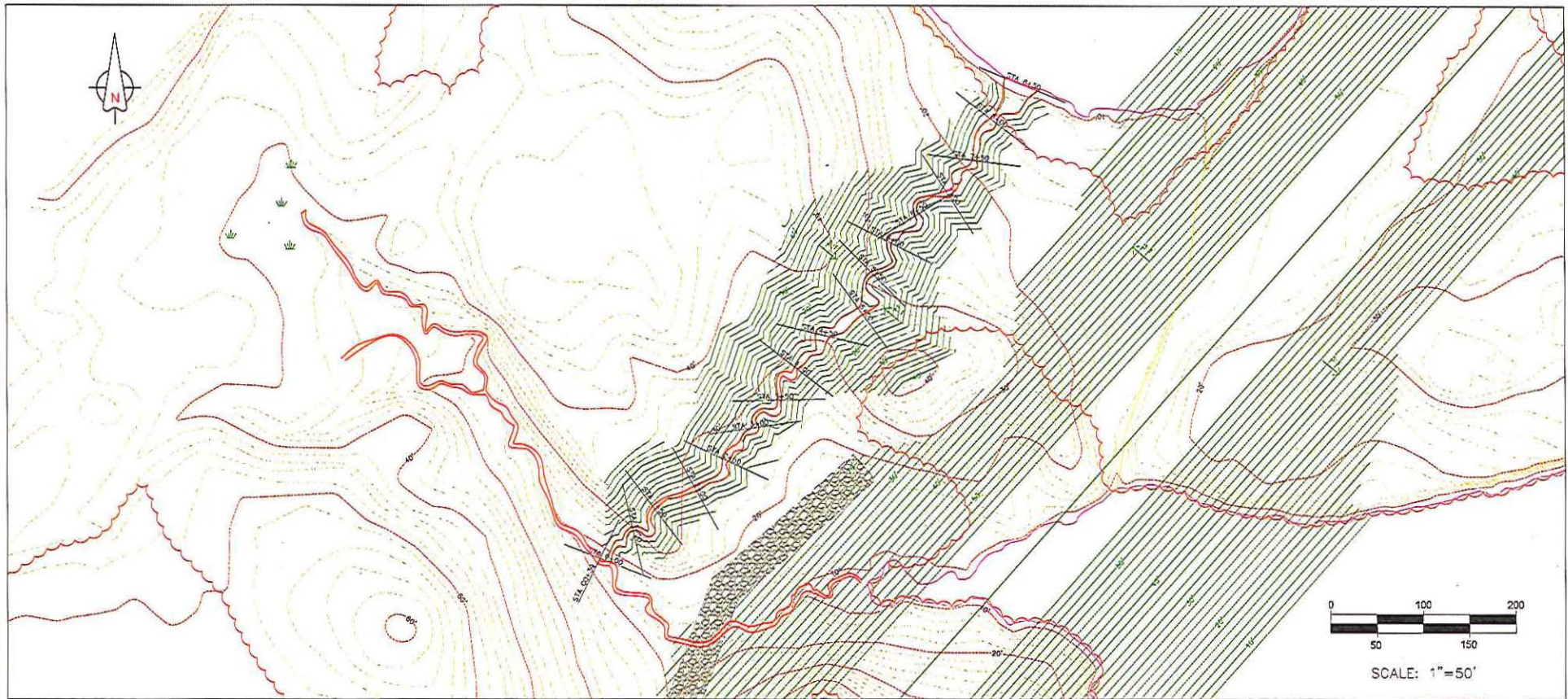
City of Old Harbor
 POA-1986-95-M1
 Sitkalidak Strait
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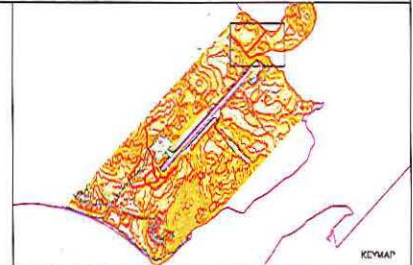
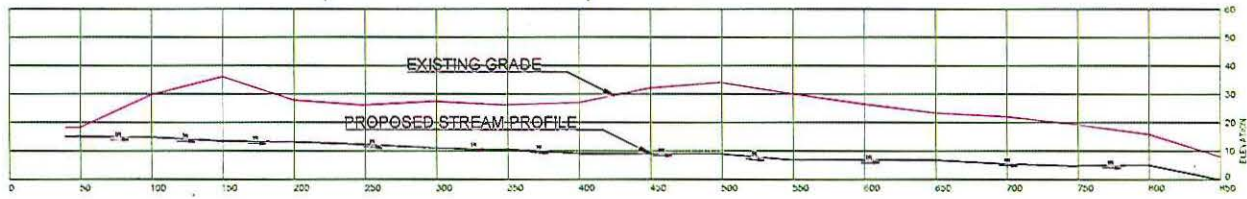
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CITY of OLD HARBOR AIRPORT
 RUNWAY EXTENSION PROJECT
 EXISTING SCULPIN CREEK
 CROSS SECTIONS

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 PROJECT # 09A2-009
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Proposed Sculpin Creek Profile



City of Old Harbor
 POA-1986-95-M1
 Sitkalidak Strait
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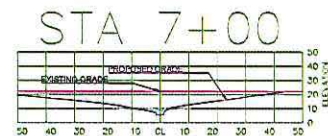
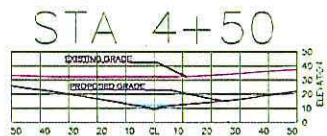
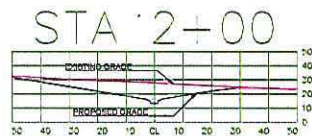
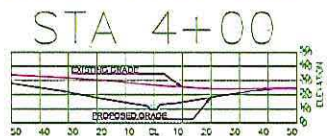
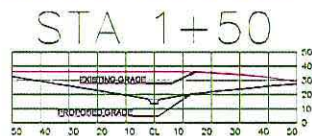
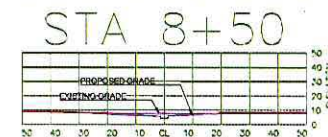
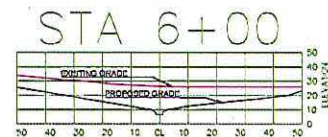
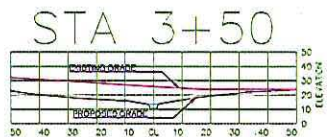
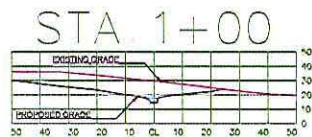
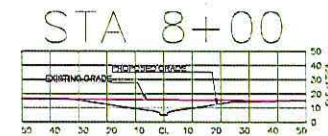
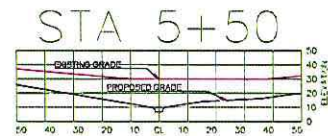
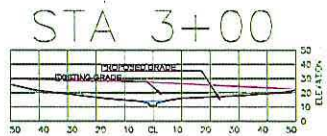
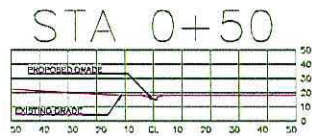
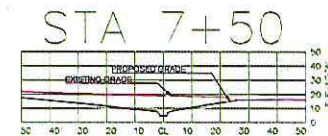
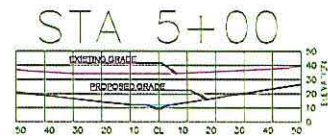
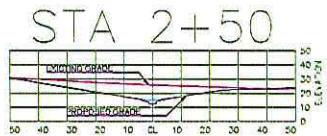
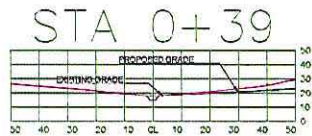
**SHEARWATER
 SYSTEMS LLC**
 AN OLD HARBOR COMPANY

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CITY OF OLD HARBOR AIRPORT
 RUNWAY EXTENSION PROJECT
 PROPOSED SCULPIN CREEK
 PLAN AND PROFILE

DATE: 01/27/13
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PROPOSED SCULPIN CREEK



City of Old Harbor
 POA-1986-95-M1
 Sitkalidak Strait
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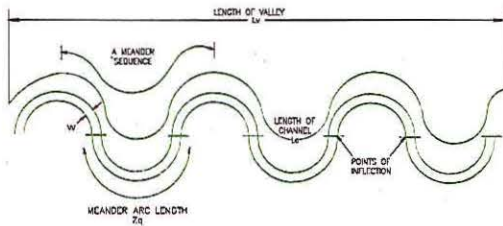


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CITY of OLD HARBOR AIRPORT
 RUNWAY EXTENSION PROJECT
 PROPOSED SCULPIN CREEK
 CROSS SECTIONS

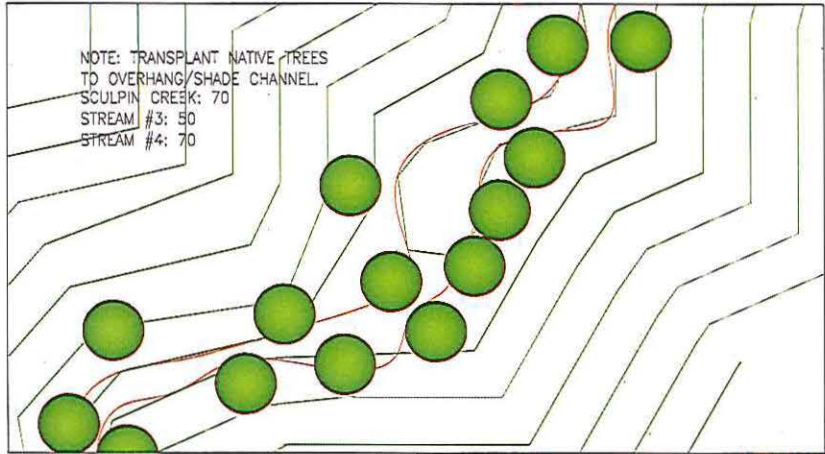
DATE: 01/07/13
 PROJECT #: 09AC-004
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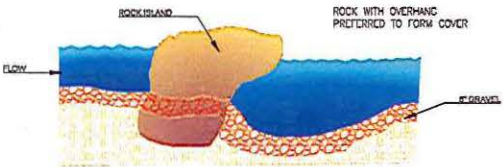


MEANDERING CHANNEL PATTERN DETAIL
NO SCALE

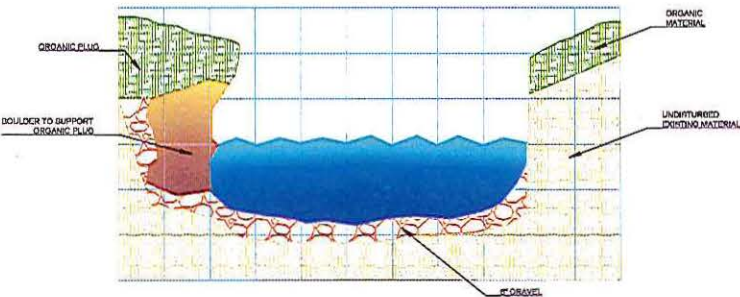
- Notes:
1. The stream pattern for the relocated stream channel should match or be as close to the pattern that would likely occur naturally. When uncertainties exist, the more stable meandering patterns should be selected.
 2. Actual stream observations and data should be used to assist the contractor in the relocation plan shows on the plans and return the relocated stream channel to a near natural pattern.
 3. Rocks not greater than 1/2 of the width of the channel shall be placed over 300 S.F. of channel. Rocks shall be placed where the current is anticipated to be the swiftest, normally in the center half of the channel in straight reaches and on the outside half of bends.
 4. Place 6 to 10, 150+ pound rocks in piles approximately every 50 to create a series of pools.
 5. To the extent possible, harvest organic plugs from the areas to be disturbed by future construction and place along stream banks. Use boulders along edge to support and allow for an "overhang" of organic material to simulate natural stream conditions.
 6. Gravel, washed of fines, shall be placed along channel bottom at an average depth of six inches.



ENLARGED PLAN VIEW
NO SCALE



RELOCATED STREAM CHANNEL/ROCK PLACEMENT DETAIL
NO SCALE



STREAM CROSS-SECTION
NO SCALE

BY	DATE	REVISION

SHEARWATER SYSTEMS LLC
AN OLD HARBOR COMPANY
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CITY of OLD HARBOR AIRPORT
RUNWAY EXTENSION PROJECT
DETAILS

City of Old Harbor
POA-1986-95-M1
Sitkaikaidak Strait
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