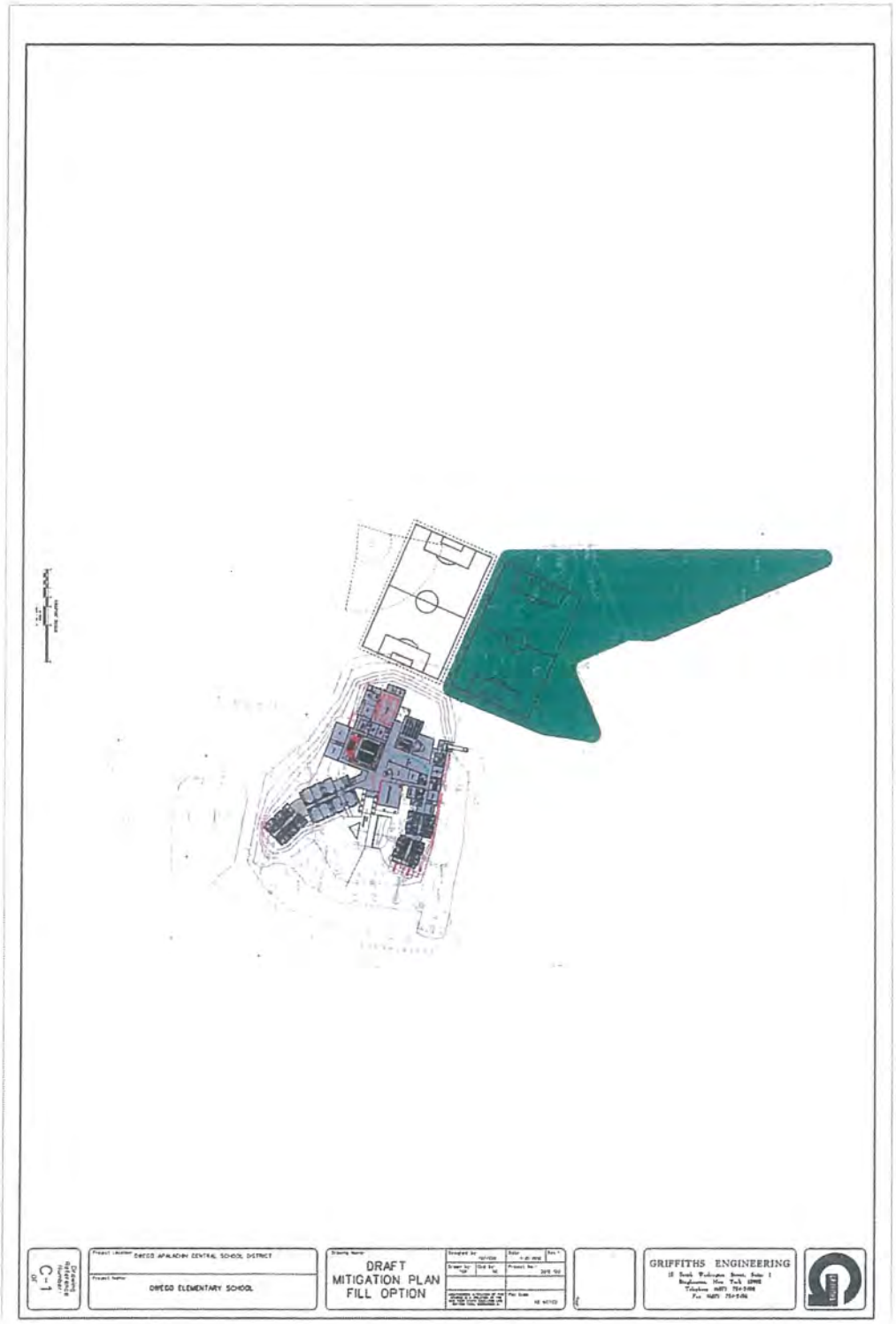
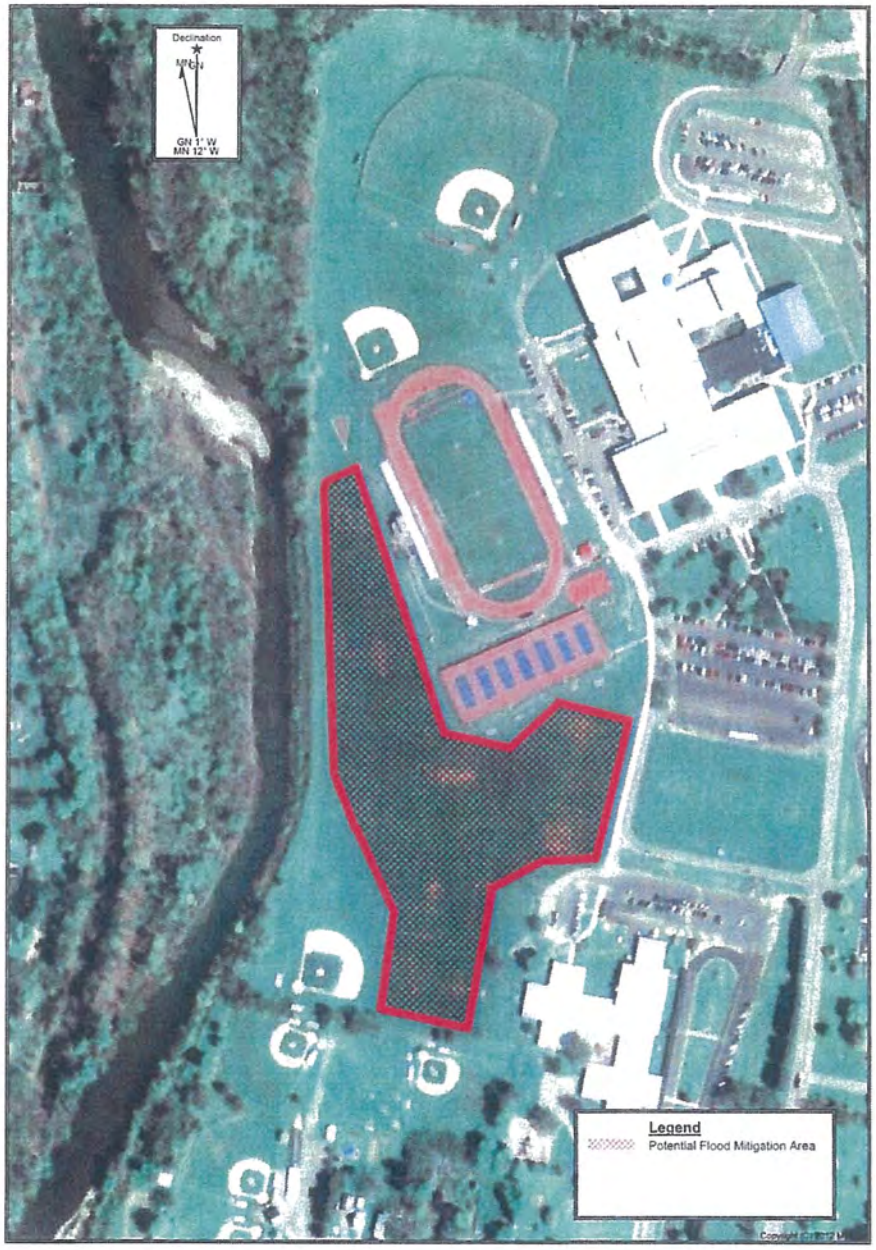
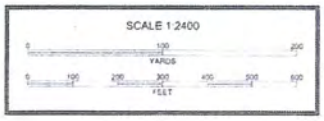

C-1
OWEGO APALACHIN CENTRAL SCHOOL DISTRICT
OWEGO ELEMENTARY SCHOOL
DRAFT
MITIGATION PLAN
FILL OPTION
GRIFFITHS ENGINEERING





Owego Elementary School
Potenial Flood Mitigation Areas
Scale 1" =200'

#1
FILL
Brown Ln
FILL / STILLS

HIGHLAND ASSOCIATES
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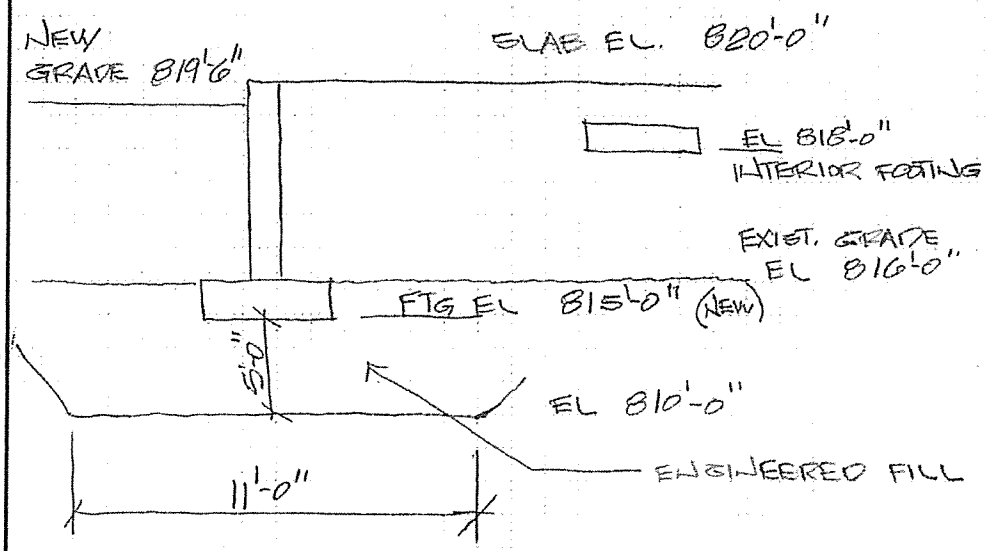
JOB OWEGO SCHOOL DISTRICT
OWEGO, NY
NEW ELEMENTARY SCHOOL
PROJECT NO: 2012-321.03P
SHEET NO. 1 OF
CALCULATED BY E.D.M. DATE
CHECKED BY DATE

FOUNDATION OPTION 1: ENTIRE BUILDING ON ENGINEERED FILL.



FILL SECTION

NOTES:
1. REMOVE 2' OF EXISTING TOP SOIL.
2. EXCAVATE ENTIRE PERIMETER OF NEW SCHOOL TO A DEPTH 6'-0" BELOW EXISTING GRADE. RESULTING TRENCH SHALL BE A MINIMUM OF 11'-0" WIDE
3. PROOF ROLL TRENCH BASE TO ACHIEVE A COMPACTION LEVEL OF 95% ASTM D1557.
4. PLACE ENGINEERED FILL IN 6" LIFTS AND COMPACT TO AT LEAST 95% OF THE MAXIMUM MODIFIED DENSITY OF ASTM D1557.
5. WHEN ENGINEERED FILL IN TRENCHES IS AT EL 814'-0", PROOF ROLL ENTIRE SITE AS NOTED IN # 3 ABOVE.

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JOB OWEGO SCHOOL DISTRICT
OWEGO, NY
NEW ELEMENTARY SCHOOL
PROJECT NO: 2012-321.03P
SHEET NO. 2 OF
CALCULATED BY E.D.M. DATE
CHECKED BY DATE

FOUNDATION OPTION 1: ENTIRE BUILDING ON ENGINEERED FILL (CONT'D)

NOTES:

6. PLACE ENGINEERED FILL FROM EL 814'-0" TO SUB-GRADE ELEVATION IN 6" LIFTS AND COMPACTED TO AT LEAST 95% OF THE MAXIMUM MODIFIED DENSITY OF ASTM D 1557.
7. EXCAVATE FOR FOOTINGS AS REQUIRED.
8. THE MOISTURE CONTENT OF ALL LOAD BEARING/ENGINEERED FILL SHOULD BE MAINTAINED WITHIN ± 2% OF THE OPTIMUM VALUES AS DETERMINED IN ASTM D1557.

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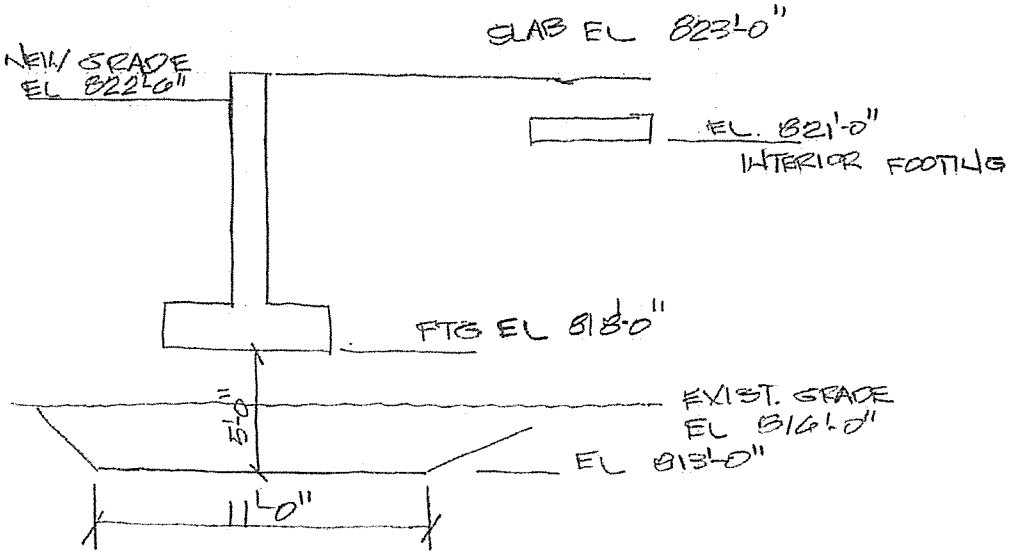
JOB OWEGO SCHOOL DISTRICT
OWEGO, NY
NEW ELEMENTARY SCHOOL
PROJECT NO: 2012-321.03P
SHEET NO. 3 OF
CALCULATED BY E.D.M. DATE
CHECKED BY DATE

FOUNDATION OPTION 2: APPROXIMATELY ONE HALF OF BUILDING ON ENGINEERED FILL AND REMAINING HALF ON "STILTS" SUPPORTED ON AGGREGATE PIERS, STONE COLUMNS



FILL SECTION

NOTES:
1. REMOVE 2' OF EXISTING TOP SOIL
2. EXCAVATE ENTIRE PERIMETER OF BUILDING TO A DEPTH 3'-0" BELOW EXISTING GRADE. RESULTING TRENCH SHALL BE A MINIMUM OF 11'-0" WIDE.
3. PROOF ROLL TRENCH BASE TO ACHIEVE A COMPACTION LEVEL OF 95% ASTM D1557.
4. PLACE ENGINEERED FILL IN 6" LIFTS AND COMPACT TO AT LEAST 95% OF THE MAXIMUM MODIFIED DENSITY OF ASTM D1557.

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JOB OWEGO SCHOOL DISTRICT
OWEGO, NY
NEW ELEMENTARY SCHOOL
PROJECT NO: 2012-321.03P
SHEET NO. 4 OF
CALCULATED BY E.D.M. DATE
CHECKED BY DATE

FOUNDATION OPTION 2: APPROXIMATELY ONE HALF OF BUILDING ON ENGINEERED FILL AND REMAING HALF ON "STILTS" SUPPORTED ON AGGREGATE PIERS, STONE COLUMNS (CONT'D)

5. WHEN ENGINEERED FILL IN TRENCHES IS AT EL 814'-0", PROOF ROLL ENTIRE SITE AS NOTED IN #3 ABOVE.
6. PLACE ENGINEERED FILL FROM EL. 814'-0" TO SUBGRADE ELEVATION IN 6" LIFTS AND COMPACTED TO AT LEAST 95% OF THE MAXIMUM MODIFIED DENSITY OF ASTM D1557.
7. EXCAVATE FOR FOOTINGS AS REQUIRED.
8. THE MOISTURE CONTENT OF ALL LOAD BEARING/ENGINEERED FILL SHOULD BE MAINTAINED WITHIN ± 2% OF THE OPTIMUM VALUES AS DETERMINED IN ASTM D 1557.

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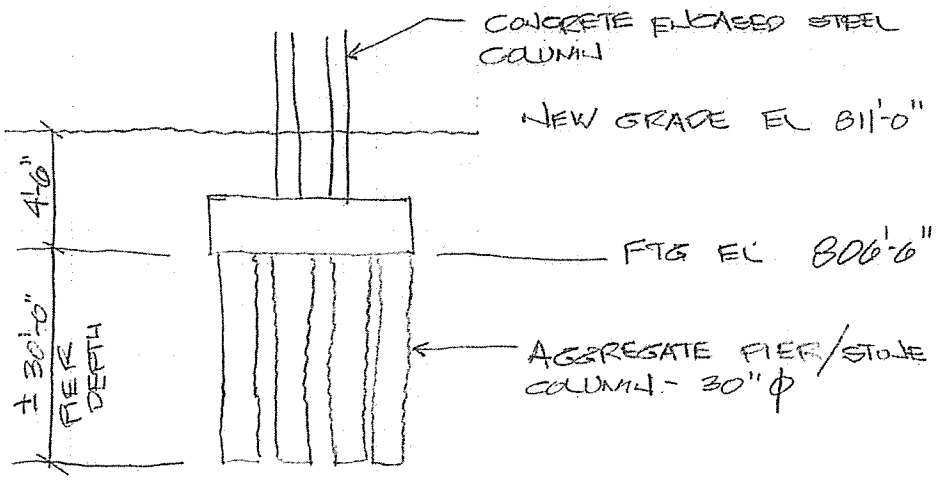
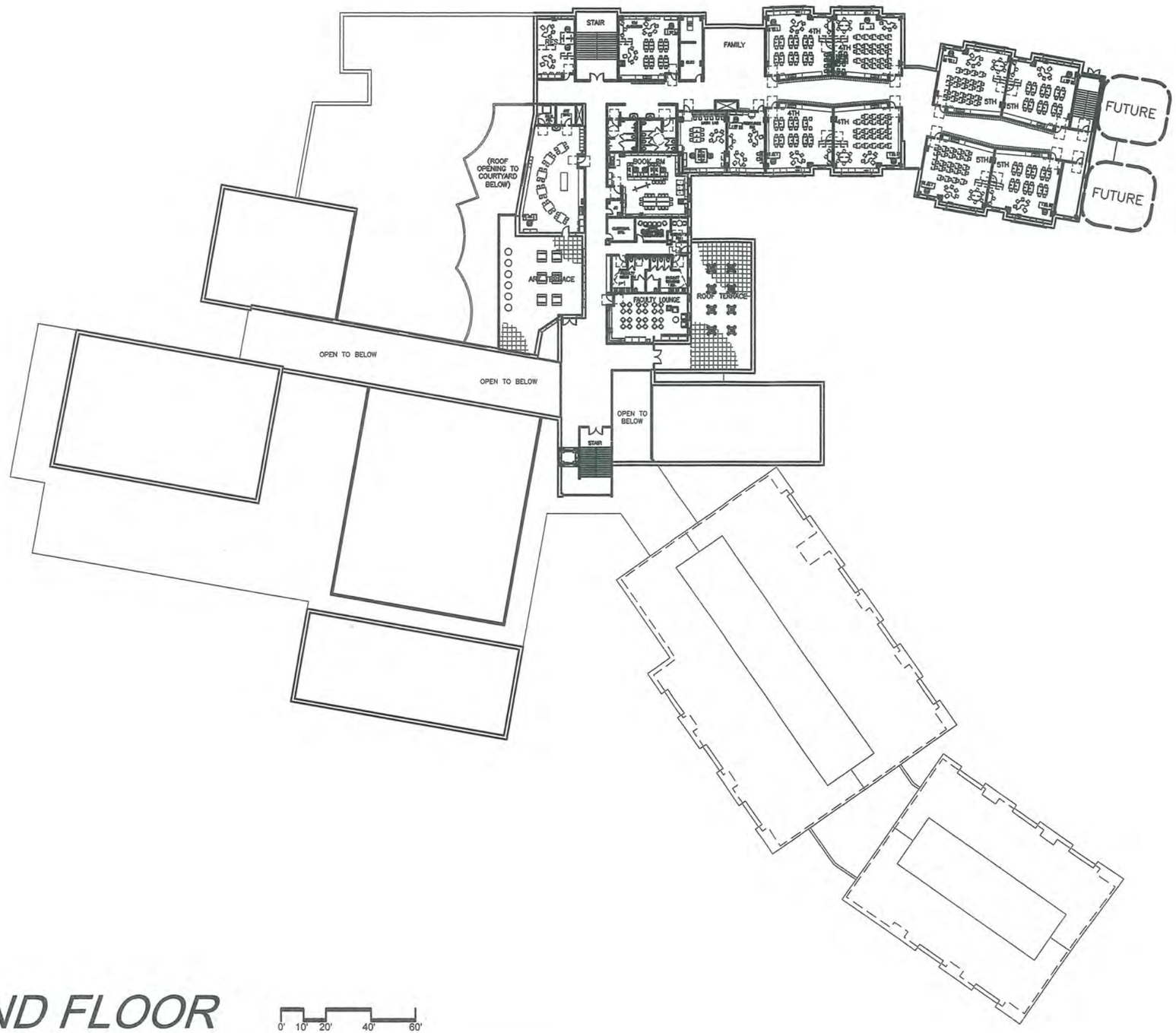
JOB OWEGO SCHOOL DISTRICT
OWEGO, NY
NEW ELEMENTARY SCHOOL
PROJECT NO: 2012-321.03P
SHEET NO. 5. OF
CALCULATED BY E.D.M. DATE
CHECKED BY DATE

FOUNDATION OPTION 2: APPROXIMATELY ONE HALF OF BUILDING ON ENGINEERED FILL AND REMAINING HALF ON "STILTS" SUPPORTED ON AGGREGATE PIERS, STONE COLUMNS



AGGREGATE PIER / STONE COLUMN

NOTES:
1. REPLACEMENT RATIO OF 0.35 HAS BEEN INITIALLY DETERMINED TO BE NECESSARY. THE NUMBER OF COLUMNS REQUIRED IS BASED UPON THE AREA OF FOOTING TIMES THE REPLACEMENT RATIO.
2.



SECOND FLOOR

0' 10' 20' 40' 60'

December 13, 2012

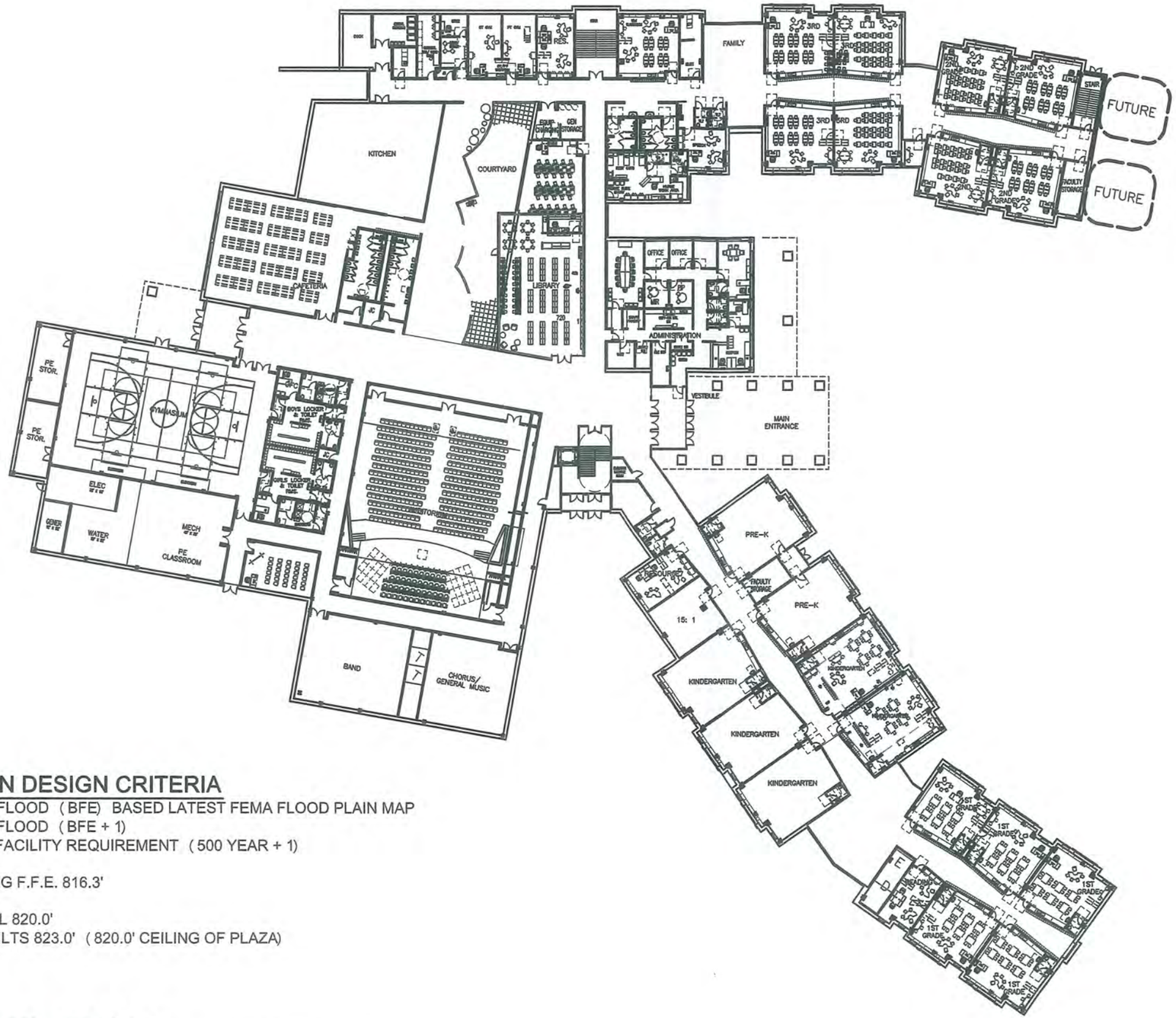
OWEGO ELEMENTARY PROPOSED STILT OPTION

Owego Apalachin Central School District

HIGHLAND ASSOCIATES

OWEGO ELEMENTARY PROPOSED FILL OPTION

Owego Apalachin Central School District



FLOOD PLAIN DESIGN CRITERIA

817.5' - 100 YEAR FLOOD (BFE) BASED LATEST FEMA FLOOD PLAIN MAP
818.5' - 500 YEAR FLOOD (BFE + 1)
819.5' - CRITICAL FACILITY REQUIREMENT (500 YEAR + 1)

EXISTING BUILDING F.F.E. 816.3'

NEW F.F.E. ON FILL 820.0'
NEW F.F.E. ON STILTS 823.0' (820.0' CEILING OF PLAZA)

FIRST FLOOR

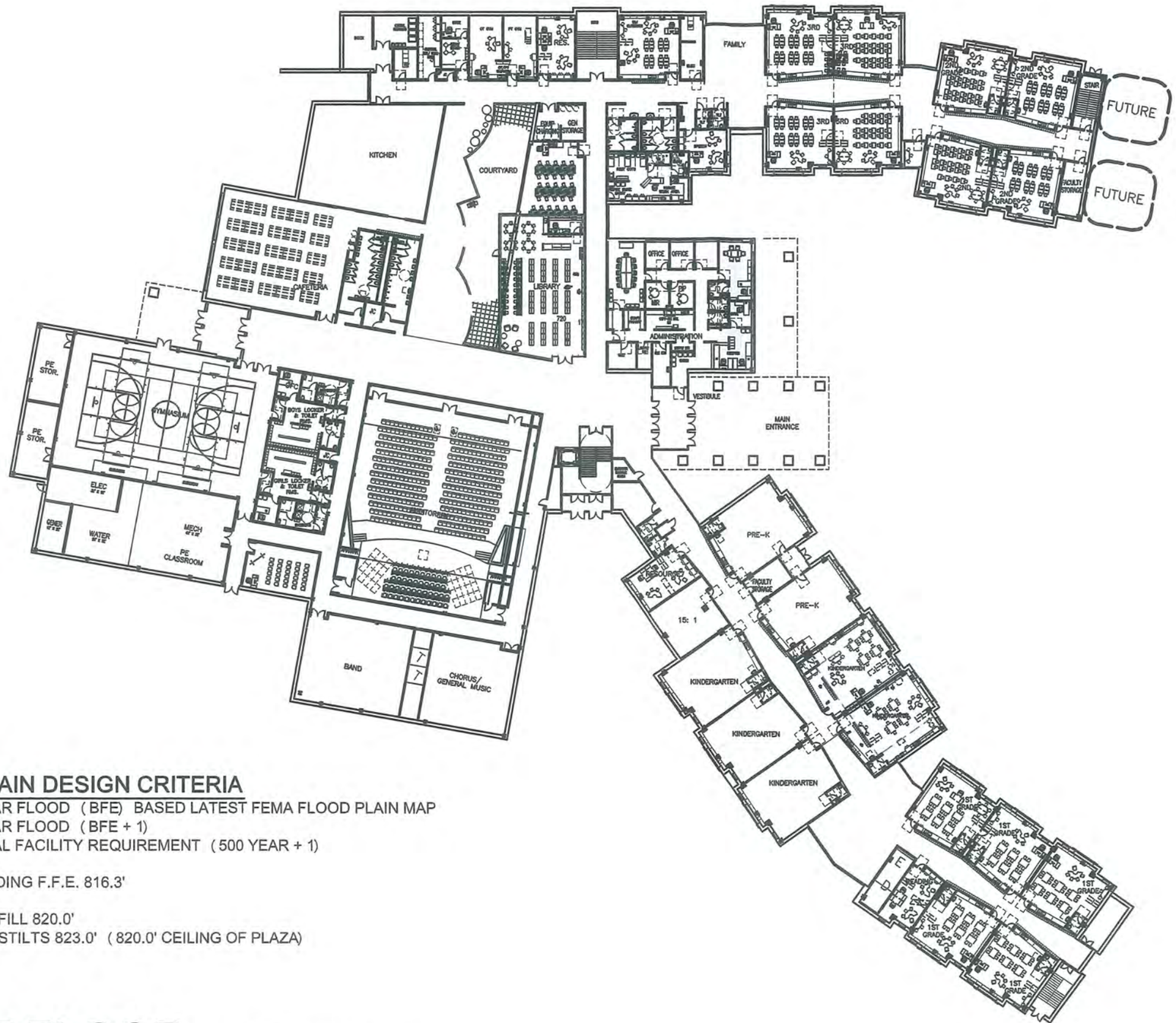
0' 10' 20' 40' 60'

December 13, 2012

HIGHLAND ASSOCIATES

OWEGO ELEMENTARY PROPOSED STILT OPTION

Owego Apalachin Central School District



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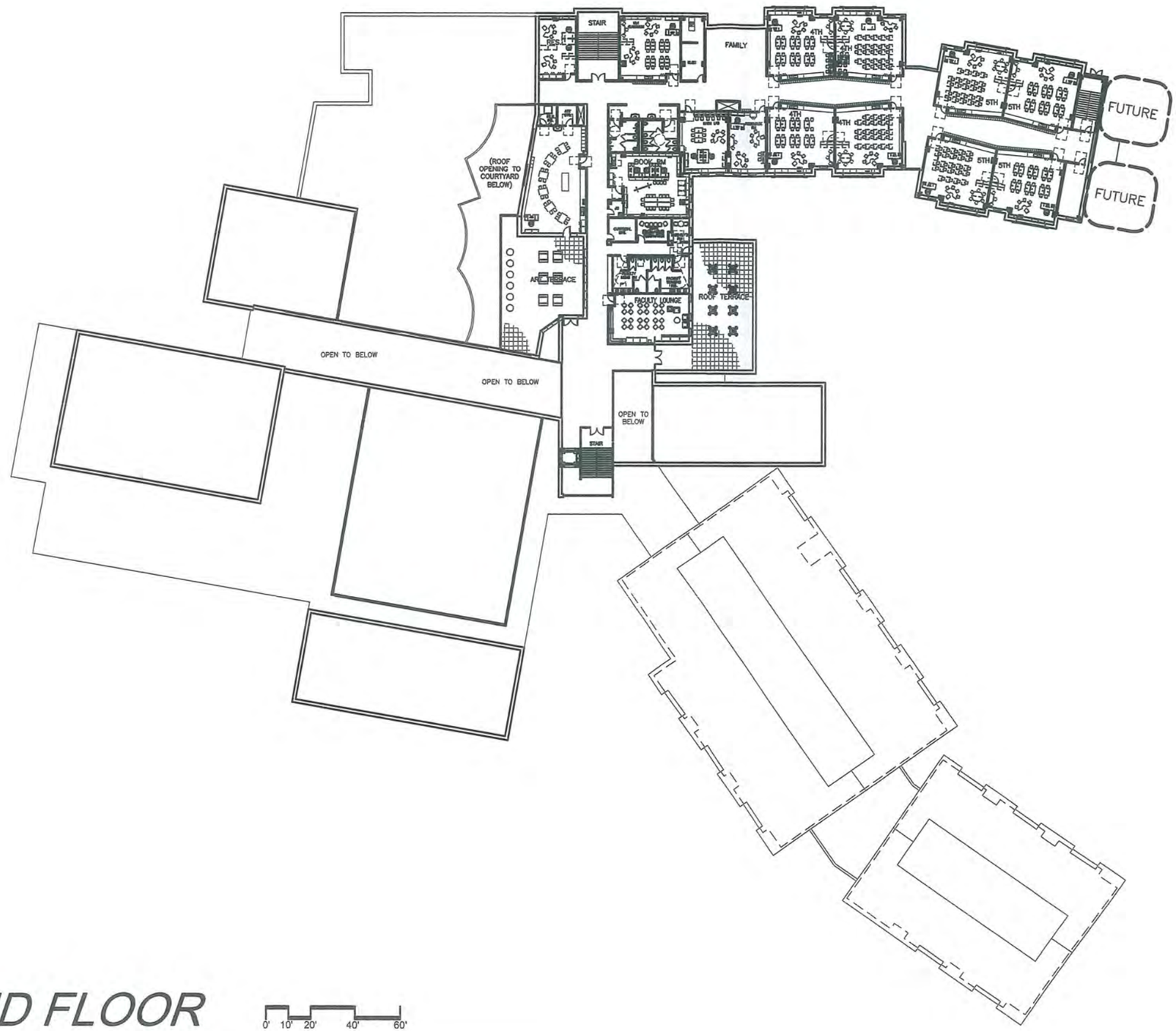

SECOND FLOOR

0' 10' 20' 40' 60'

December 13, 2012

OWEGO ELEMENTARY PROPOSED FILL OPTION

Owego Apalachin Central School District

HIGHLAND ASSOCIATES

OWEGO ELEMENTARY PROPOSED FILL OPTION

Owego Apalachin Central School District

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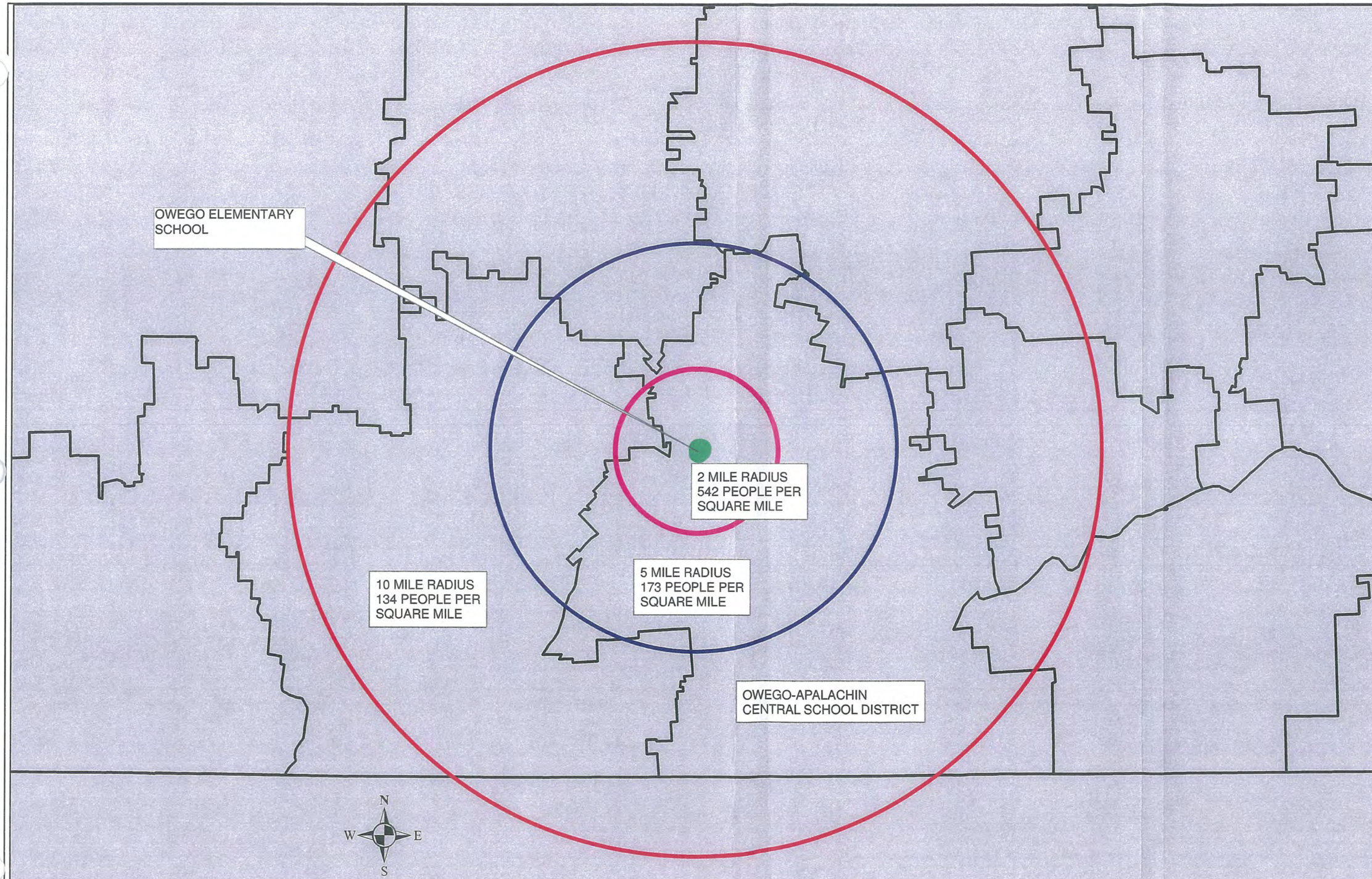
RENDERING

December 13, 2012



BACKGROUND PHOTO: NAIP 2011

Legend

UNIFIED SCHOOL DISTRICTS

0 0.5 1 2 3 4 5 Miles

Woidt Engineering

POPULATION DENISTY SURROUNDING PROPOSED OWEGO ELEMENTARY SCHOOL

OWEGO ELEMENTARY SCHOOL

OWEGO, TIOGA COUNTY, NY

DATE:	12/2012
DESIGNED BY:	
DRAWN BY:	GDF
CHECKED BY:	-
PROJECT NO:	EO43_2012
FIGURE NUMBER	1

HIGHLAND ASSOCIATES

SITE PLAN

DECEMBER 13, 2012

OWEGO ELEMENTARY PROPOSED FILL OPTION

Owego Apalachin Central School District

HIGHLAND ASSOCIATES

SITE MITIGATION PLAN

DECEMBER 13, 2012

OWEGO ELEMENTARY PROPOSED FILL OPTION

Owego Apalachin Central School District

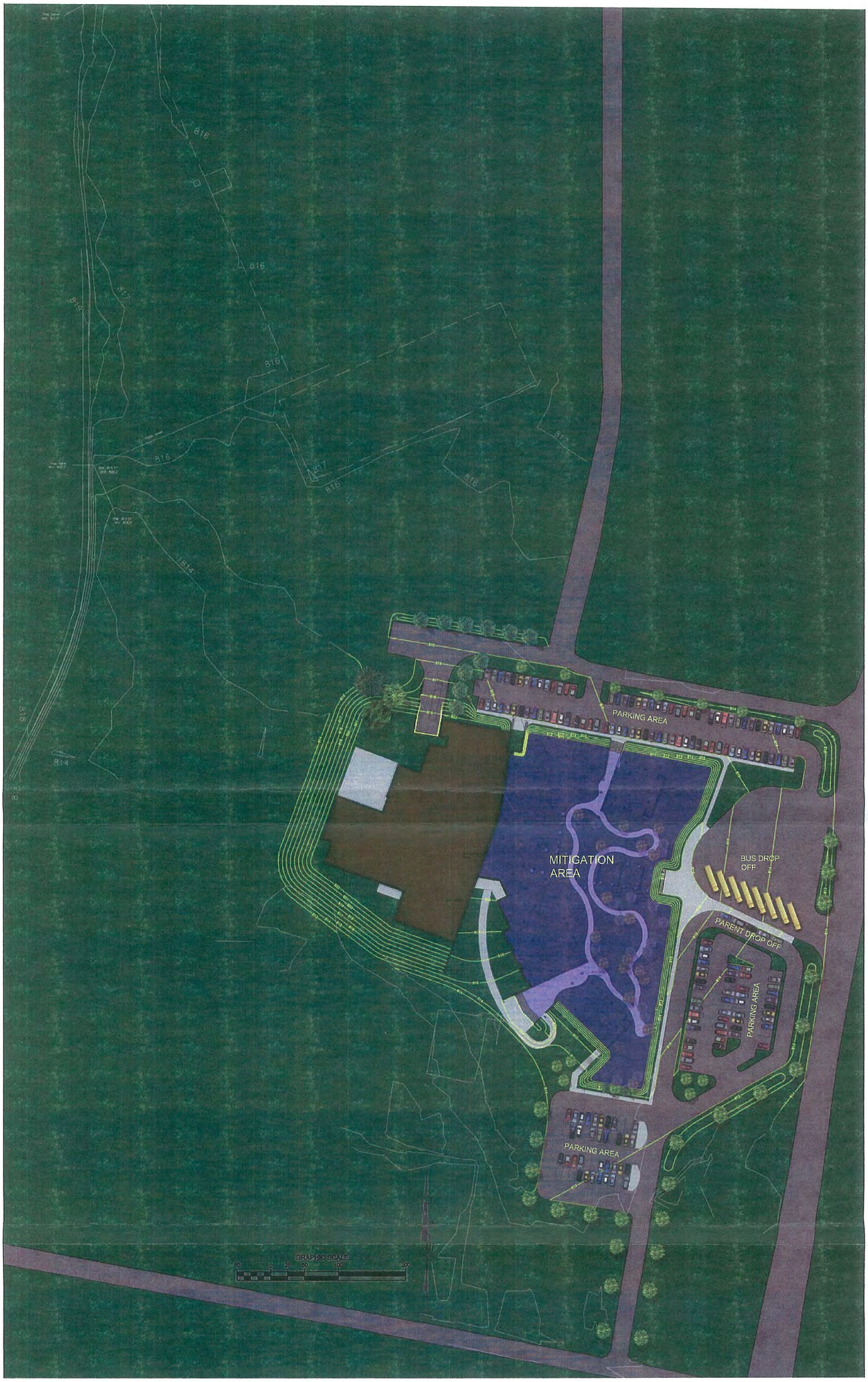
HIGHLAND ASSOCIATES

SITE PLAN

DECEMBER 13, 2012

OWEGO ELEMENTARY PROPOSED STILT OPTION

Owego Apalachin Central School District



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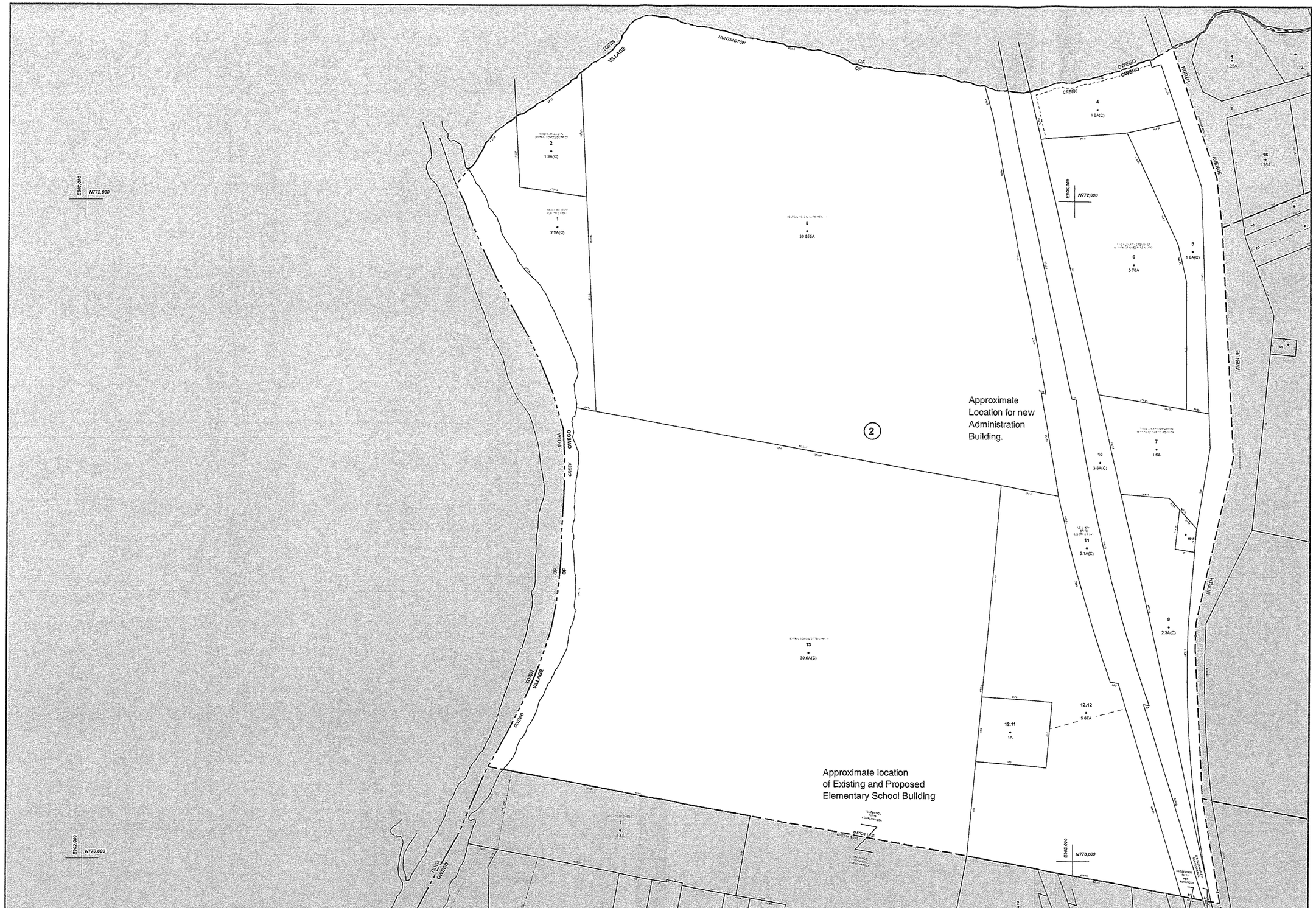
SITE MITIGATION PLAN

DECEMBER 13, 2012

OWEGO ELEMENTARY PROPOSED STILT OPTION

Owego Apalachin Central School District



PREPARED BY
MRB GROUP
PREPARED FOR
TIOGA COUNTY LEGISLATURE

NOTES

THIS MAP WAS PREPARED FOR TAX PURPOSES ONLY AND IS NOT TO BE REPRODUCED OR USED FOR SURVEYING OR CONVEYANCING.

MAP CONVERTED TO AUTOCAD DIGITAL FORMAT BY VIEILER MAPPING INC. JULY 13, 1995
MAP REPROJECTED TO N.A.D. '83 SEPTEMBER 9, 1999

REVISION TABLE

DATE	MADE BY	CHANGES OR ADDITIONS
10/16/1995	VMG	
4/17/1996	MAP	
10/10/1996	SVR	
10/31/1996	MAP	
5/14/1999	SVC	

SPECIAL DISTRICTS

SCHOOL	OWEGO-APALACHIN SCHOOL DISTRICT	SEWER
		AGRICULTURE
FIRE	OWEGO VILLAGE FIRE DISTRICT	
WATER		

LEGEND

COUNTY LINE
TOWN LINE
CORPORATION LINE
BLOCK LINE
RIGHT OF WAY LINE
STREAM
RAILROAD
PROPERTY LINE
ORIGINAL LOT LINE
SCHOOL DISTRICT LINE
WATER DISTRICT LINE
FIRE DISTRICT LINE
SEWER DISTRICT LINE
DENOTES COMMON OWNER
ORIGINAL BLOCK NUMBER
TAX MAP BLOCK NUMBER
CALCULATED ACREAGE
DEED ACREAGE
SCALED DIMENSION
DEED DIMENSION
DEED LOT NUMBER
TAX MAP PARCEL NUMBER
COORDINATE LOCATION
N.A.D. '83 TIC

		117.12
		117.16
	117.19	117.20

SHEET INDEX

NORTH

MAP DATE 5/3/96

TAX MAP
VILLAGE OF OWEGO
TIOGA COUNTY, NEW YORK

GRAPHIC SCALE 1" = 100'

117.15