McGOEY, HAUSER and EDSALL
CONSULTING ENGINEERS D.P.C.

MARK J. EDSALL, P.E., P.P. (NY, NJ & PA)
MICHAEL W. WEEKS, P.E. (NY, NJ & PA)
MICHAEL J. LAMOREAUX, P.E. (NY, NJ, PA, VT & VA)
MATTHEW J. SICKLER, P.E. (NY & PA)
PATRICK J. HINES
LYLE R. SHUTE, P.E. (NY, NJ, PA)

Main Office
33 Airport Center Drive
Suite 202
New Windsor, New York 12553

(845) 567-3100
fax: (845) 567-3232
e-mail: mheny@mhepc.com

Principal Emeritus:
RICHARD D. McGOEY, P.E. (NY & PA)
WILLIAM J. HAUSER, P.E. (NY, NJ & PA)

TOWN OF NEWBURGH
PLANNING BOARD
TECHNICAL REVIEW COMMENTS

PROJECT:	**LAKESIDE SENIOR HOUSING**
PROJECT NO.:	**2016-19**
PROJECT LOCATION:	**SECTION 86, BLOCK 1, LOT 39.22 & 39.23**
REVIEW DATE:	**14 JULY 2017**
MEETING DATE:	**20 JULY 2017**
PROJECT REPRESENTATIVE:	**MEDENBACH AND EGGERS**

1. The Applicants representative have submitted aeronautical studies from the FAA regarding no hazard determinations for each of the proposed structures.
2. The Applicants representative have submitted a Water and Sewer Engineering report. Water flow portion of the report identifies that further calculations will be provided at Building permit.
3. The Planning Board has previously issued a Negative Declaration. NYS Department of Environmental Conservation provided a notice of complete application which was published in the first full week of July.
4. Status of the Senior Housing use approval from the Town Board should be addressed.
5. A Stormwater Pollution Prevention Plan has been prepared and is being reviewed by this office.
6. Previous comments supplied to the Applicants representative have been addressed on the most recent submissions.
7. A Public Hearing for the project is required.
8. The Applicants have submitted the Architectural Review form for the Boards use.

Respectfully submitted,

McGoey, Hauser and Edsall
Consulting Engineers, D.P.C.

_____

Patrick J. Hines
Principal

PJH/kbw

Medenbach & Eggers

Civil Engineering and Land Surveying P.C.
4305 US Highway 209
Stone Ridge, New York
12484-5620

Barry Medenbach, P.E.
N.Y. Lic. No. 60142
N.J. Lic. No. 27646

Phone (845) 687-0047
Fax (845) 687-4783
www.mecels.com

William R. Eggers L.S.
N.Y. Lic. No. 49785

July 5, 2017

McGoey, Hauser & Edsall
Patrick Hines
33 Airport Center Drive, Suite 202
New Windsor, NY 12553

Re: Lakeside Seniors, Town of Newburgh.

Dear Patrick,

Please find enclosed a complete set of plans for the above project and the following comments in response to your April 14, 2017 memo.

1. City of Newburgh Flow Acceptance letter was issued on March 27, 2017 and previously submitted.
2. Outlet control structure has been added to the plans
3. New York State Department of Environmental Conservation (NYSDEC) permit notice will be published July 7, 2017 – affidavit pending.
4. Architectural plans are attached.
5. Generator location has been revised.
6. Engineering Report for sanitary pump station has been completed and attached for your review.
7. Storm Water Pollution Prevention Plan (SWPPP) has been completed and attached.

Please contact our office with any questions on the above.

Yours truly,

Barry Medenbach, P.E.

Cc: John Ewasutyn, Planning Board Chairman
Jay Feinberg

Attached: Site Plan
Architectural Plans
Engineering Report
Storm Water Pollution Prevention Plan
FAA – No Obstruction Letter

Medenbach & Eggers

Civil Engineering and Land Surveying P.C.
4305 US Highway 209
Stone Ridge, New York
12484-5620

Barry Medenbach, P.E.
N.Y.Lic.No.60142
N.J.Lic.No.27646

Phone (845) 687-0047
Fax (845) 687-4783
www.mecels.com

William R. Eggers L.S.
N.Y.Lic.No.49785

July 5, 2017

Town of Newburgh Planning Board
John Ewasutyn, Chairman
308 Gardnertown Road
Newburgh, NY 12550

Re: Lakeside Seniors

Dear Mr. Ewasutyn,

As you may be aware, the Town Board approved our project for Senior Housing at the June 26, 2017 meeting and we submit the following for the July 20, 2017 Planning Board Meeting.

1. Four full size sets of site plans and Architectural Plans.
2. Twelve 11x17 sets of site plans and Architectural Plans.
3. One disc copy of Storm Water Pollution Prevention Plan.
4. Fifteen Engineering Reports
5. Fifteen FAA Letter - No Obstruction for buildings #1,2 & 3.
6. Fifteen Architectural Forms

One copy of each of the items listed above is being mailed directly to Patrick Hines, Michael Donnelly and Ken Wersted.

Yours truly,

Barry Medenbach, P.E.

ARCHITECTURAL REVIEW FORM

TOWN OF NEWBURGH PLANNING BOARD

DATE: _____

NAME OF PROJECT: LAKESIDE SENIOR HOUSING

The applicant is to submit in writing the following items prior to signing of the site plans.

EXTERIOR FINISH (skin of the building):

Type (steel, wood, block, split block, etc.)

'HARDI-PANEL' LAP SIDING & TRIM

COLOR OF THE EXTERIOR OF BUILDING:

STD. HARDI COLORS: TRIM: 'NAVAJO BEIGE'

SIDING: 'MONTEREY TAUPE' A
'AUTUMN TAN' B
'HEATHERED MOSS' C

ACCENT TRIM:

Location: SOFFITS, FASCIAS, CASING, CORNER BDS.

Color: 'NAVAJO BEIGE' - (STD. COLOR)

Type (material): HARDI - BOARDS

PARAPET (all roof top mechanicals are to be screened on all four sides):

N/A

ROOF:

Type (gabled, flat, etc.): HIP and GABLED

Material (shingles, metal, tar & sand, etc.): ASPHALT SHINGLES

Color: CERTAINTEED: TEXTURED / 40 YR / 'BIRCHWOOD'

WINDOWS/SHUTTERS:

Color (also trim if different): SANDTONE

Type: ANDERSEN 200 SERIES

DOORS:

Color: SANDTONE

Type (if different than standard door entrée): ANDERSEN

SIGN:

Color: Wood Frame to Match Siding, 11 Mantgomery Taupe 4

Material: Wood + Stone

Square footage of signage of site: 3 SF one Side

Please print name and title (owner, agent, builder, superintendent of job, etc.)

Barry Mehaffey PE

Signature

WATER AND SEWER
ENGINEERING REPORT
FOR
LAKESIDE SENIOR

A Proposed 102 Senior Housing Rental Facility
Situate:
Lakeside Road
Town of Newburgh, Orange County, New York
Tax Map Number: 86-1-39.22 and 86-1-39.23

Prepared By:
Medenbach & Eggers
Civil Engineering and Land Surveying P.C.
4305 US Highway 209
Stone Ridge, NY 12484

March 28, 2017
Revised June 30, 2017

TABLE OF CONTENTS

APPENDIX

I. General Description:

The project sponsors propose to construct a 102-unit Senior Housing Development within three 3-story buildings and developed in accordance with the Town of Newburgh Zoning Code, Section 185-48 "Senior Citizen Housing," age restricted to 55 years or older. The 19.23 acre site is situated off Lakeside Road, behind the Four Points Sheraton Hotel ("Hotel") and is approximately 1,000 ft northeast of Route 17K and ½ mile west of Exit 6 on US Interstate 84. Access is via a 50 ft Right of Way ("ROW") that is shared with the Hotel and runs in a northerly direction between the Hotel and a pond found on southeasterly portion of the Hotel parcel. The building site abuts the Ice Time skating rink parking lot where an emergency access agreement exists. The site contains a total of 9.25 acres of wetlands and wetlands buffers, leaving a net 9.98 acres of upland area available for development. The wetlands will be preserved with a conservation restriction and no disturbance to the wetlands will be required for construction of the proposed facility. A minor disturbance will be required to the 100 ft. adjacent area to the NYSDEC wetland for construction of an emergency access road.

Site improvements will consist of an extension of the access road along the water, sewer and electric utilities extending from Lakeside Road over an existing ROW. On-site construction will include new parking lots, site lighting, storm water management, as well as landscaping and outside passive reaction areas.

The site is within the Town of Newburgh Cross Roads Sewer District and Town water district. The sewer will connect to the existing 4" force main situated on Lakeside Road. A new force main will be installed along the ROW from Lakeside Road approximately 1400 LF to the on-site proposed pump station. The connection to the force main on Lakeside Road is approximately 800 ft from the force main in 17K. The water will extend from the existing 12" main in Lakeside Rd. with a 8" water main along the ROW that connects to the three buildings and 3 fire hydrants.

II. Design Flow:

The project consists of 102 senior apartment units in three buildings. The buildings will contain 72 two bedroom and 30 one bedroom apartments for a total of 174 bedrooms. Using the New York State Department of Environmental Conservation (NYSDEC) design standards of 110 gallons per day per bedroom will produce 19,140 gallons per day. This assumes a population of 348, two per bedroom. However, the project is age restricted and it is anticipated one bedroom in the two bedroom units will be used as a guest room, office space or craft room and the population will be substantially less than 348 and more likely 204. This assures guests using the 2nd bedroom would equal the apartment with single residence. Therefore, we estimate

the average population of 204 and the average daily flow would be 11,220 gallons per day (7.8 gallons per minute). Peak flow assumed at 10 times average daily flow = 78 gpm.

III. Sewer:

The three buildings will be served with a 6" or 8" PVC gravity collection piping connected to a proposed duplex grinder pumping station centrally located on the site. The pump station will deliver the sewage with 800 LF of 3" force main to the existing 4" force main in Lakeside Rd.

Design Data:

ADF = 11,220 gallon
Peak flow = 80 gallon/min

Pumps selected are 2" Goulds 2GA(7.5 HP), these can deliver up to 180 gallons/min with 178' TDH. The pump system will be equipped with a automatic backup generator.
Friction loss with forcemains (FM) to Rt 17k are as follows:
1400 ft 3" FM through site to Lakeside Road at 80 gpm =22 ft.
1400 ft existing 4" FM in Lakeside to 17k at 80 gpm = 6 ft
Total elevation life from Pump Station to 17k = 30 ft
Operation pressure in 17 k = 30 psi = 69 ft.
Total Dynamic Head = 127 ft (55 psi)

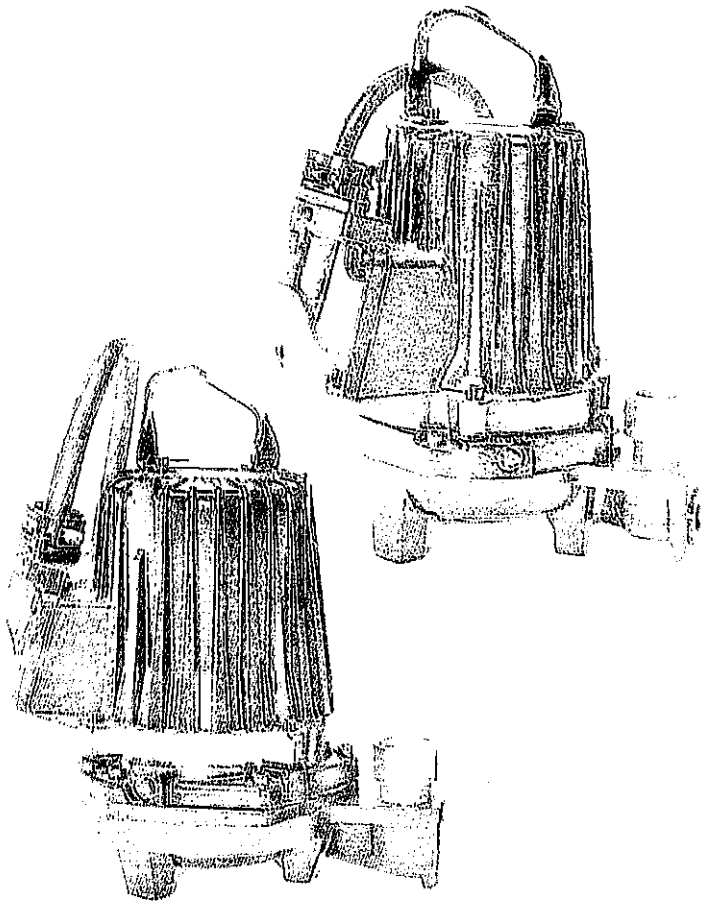
Minimum Velocity in 3" FM = 3.5 Fps
Minimum Velocity in 4" FM = 2 Fps
See Pump Curve in Appendix A

IV. Fire Flow:

The proposed three buildings with 102 senior housing units will be Type V construction and regiment a fire flow sprinkler system. The fire flow regiment based on NFPA 1142 is 1000 Gallon per minute (see appendix B for calculation). The proposed 8" water main extending to the site will be capable of this flow. A detail analysis will be performed with the building design and building permit application process. Current flow data for the existing 12" main in Lakeside will be obtained during this process.

Appendix - A

Sewer Prep Specifications



TECHNICAL BROCHURE
B1GA2GA R8

FEATURES

Design: Capable of grinding municipal, commercial and industrial sewage.

Cutter System: Designed to reduce sewage to a fine slurry.

Impeller: Cast iron, semi-open, non-overloading multi-vane design with pump-out vanes for mechanical seal protection.

Casing: Cast iron, volute type for high efficiency. Adaptable for slide rail system.

Paint: Two coat paint system for superior surface protection.

Float Leakage Sensor (FLS): a small internal float switch is used to detect the presence of water in the stator chamber. Standard on all models.

Leakage Sensor Detector Circuit: The FLS, when activated, will cause the patented 24 volt MiniCAS monitoring relay to signal an alarm and, if desired, stop the pump. The MiniCAS 24 volt relay can be ordered separately for installation in a control panel by a UL or CSA certified panel shop or as a built-in option in our control panel.

1GA(X) & 2GA(X)

1½" AND 2" DISCHARGE SUBMERSIBLE GRINDER PUMPS

GOULDS

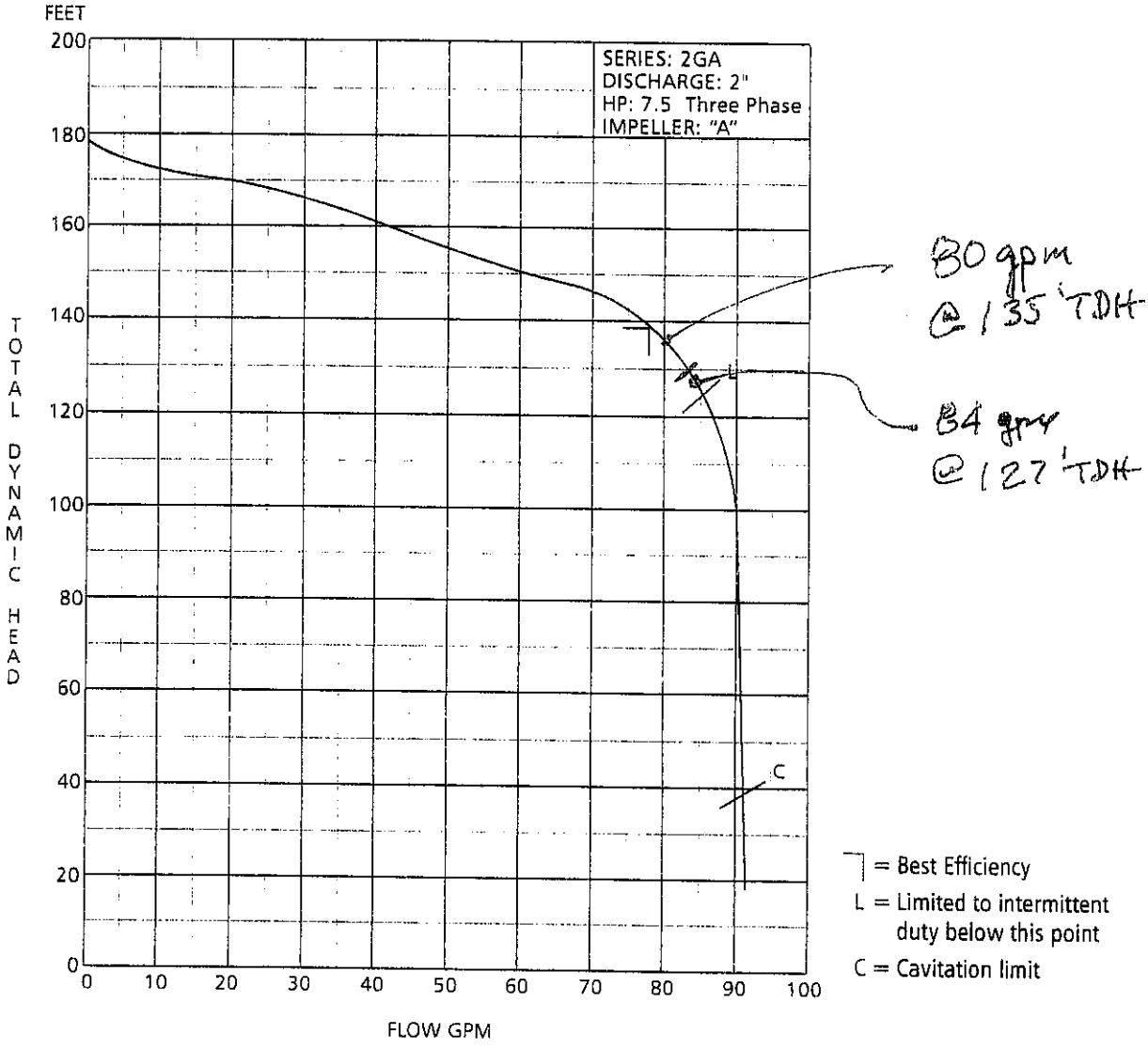
a xylem brand

ITT

Wastewater

Goulds Pumps

2GA 7.5HP Three Phase "A" Curve



GOULDS PUMPS

Goulds Pumps is a brand of ITT Residential and Commercial Water.

www.goulds.com

Engineered for life

ITT

Wastewater

Goulds Pumps

1GA & 2GA MOTOR AND APPLICATION DATA

MOTOR DATA

MODEL	HP	PHASE	VOLTS	RPM	MAX AMPS	SERVICE FACTOR	START AMPS	LOCKED ROTOR AMPS	KVA CODE	FULL LOAD MOTOR EFF.
1GA71G1HD	2	1	230	3450	12.0	1.5	62.0	52.0	D	77.1
1GA71G1LD					13.0					
1GA81H1GD	3				21.5	1.8	140.0	100.0	E	80.0
2GA81H1KD					20.8					
2GA31J1FD	5			3430	30.0	1.88	205.0	170.0	D	79.5
2GA31J1JD					34.2					
1GA71H2CD	3	3	200	3450	12.0	1.33	76.0	62.0	F	81.5
1GA71H3CD			230		10.0		66.0	54.0		
1GA71H4CD			460		5.0		33.0	27.0		
1GA71H5CD			575		4.0		26.0	22.0		
1GA81J2BD	5		200		17.0	1.2	115.0	79.0		79.5
1GA81J3BD			230		15.0		110.0	75.0		
1GA81J4BD			460		7.6		60.0	41.0		
1GA81J5BD			575		6.0		44.0	30.0		
2GA81J2ED			200		17.0		115.0	79.0		
2GA81J3ED			230		15.0		110.0	75.0		
2GA81J4ED			460		7.6		60.0	41.0		
2GA81J5ED			575		6.0		44.0	30.0		
2GA31K2AD	7.5		200	3475	30.0	1.47	281.0	189.0	G	84.5
2GA31K3AD			230		26.0		244.0	164.0		
2GA31K4AD			460		13.0		122.0	82.0		
2GA31K5AD			575		10.0		94.0	66.0		
2GA31K2DD			200		30.0		281.0	189.0		
2GA31K3DD			230		26.0		244.0	164.0		
2GA31K4DD			460		13.0		122.0	82.0		
2GA31K5DD			575		10.0		94.0	66.0		

GOULDS PUMPS

Goulds Pumps is a brand of ITT
Residential and Commercial Water.

www.goulds.com

Engineered for life

Appendix - B

Fire Safety Calculation for Water Storage and Water Flow

The following method has been provided by the National Fire Prevention Association (NFPA) to determining water storage and water flow needs in case of extreme event such as fire.
The following data has been determined by NFPA 1142 "Standard on Water Supplies for Suburban and Rural Fire Fighting."

Water Storage

1. Over approximate area of buildings = 77' * 216' = 16632 ft^2
2. Height of building section 'H' of NFPA 1142 states 1/2 of roof peak from eave= 8ft * 3 (floors) + (1/2) 10ft(roof peak) =29 ft
3. Total volume (cubic feet) = 16632 ft^2 *(29 ft) =VS_{tot}= 482328 ft^3
4. Occupancy hazard rating as seen in chapter 5 (for an apartment, nursing, or convalescent home)=OHC= 7
5. Construction classification Number as seen in chapter 6 (for wood structures) = C.C. = 1.5

By utilizing NFPA's formula in chapter 4 :

$$WS_{min} = \frac{VS_{tot}}{OHC}(CC) \qquad [4.2.1]$$

where:

WS_{min} = minimum water supply in gal (For results in L, multiply by 3.785.)

VS_{tot} = total volume of structure in ft^3 (If volume is measured in m^3, multiply by 35.3.)

OHC = occupancy hazard classification number

CC = construction classification number

So,

$$WS_{min} = \left(\frac{482328\ cf}{7}\right) * 1.5 = 103356\ gal$$

Therefore, a storage of 103,356 gallon would be needed in case of an event of fire and by NFPA chapter 4 table 4.6.1 Water Delivery Rate would need to be 1000 gal/min.

Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
10101 Hillwood Parkway
Fort Worth, TX 76177

Aeronautical Study No.
2017-AEA-5396-OE

Issued Date: 06/14/2017

Barry Medenbach PE
Lakeside
4305 US Hwy 209
Stone Ridge, NY 12484

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Building Lakeside Senior Build #1
Location:	Newburgh, NY
Latitude:	41-31-31.50N NAD 83
Longitude:	74-06-37.10W
Heights:	508 feet site elevation (SE) 42 feet above ground level (AGL) 550 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

_____ At least 10 days prior to start of construction (7460-2, Part 1)
__X__ Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/ lighting are accomplished on a voluntary basis, we recommend it be installed in accordance with FAA Advisory circular 70/7460-1 L Change 1.

The structure considered under this study lies in proximity to an airport and occupants may be subjected to noise from aircraft operating to and from the airport.

This determination expires on 12/14/2018 unless:

(a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
(b) extended, revised, or terminated by the issuing office.
(c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within

6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is based, in part, on the foregoing description which includes specific coordinates , heights, frequency(ies) and power . Any changes in coordinates , heights, and frequencies or use of greater power will void this determination. Any future construction or alteration , including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

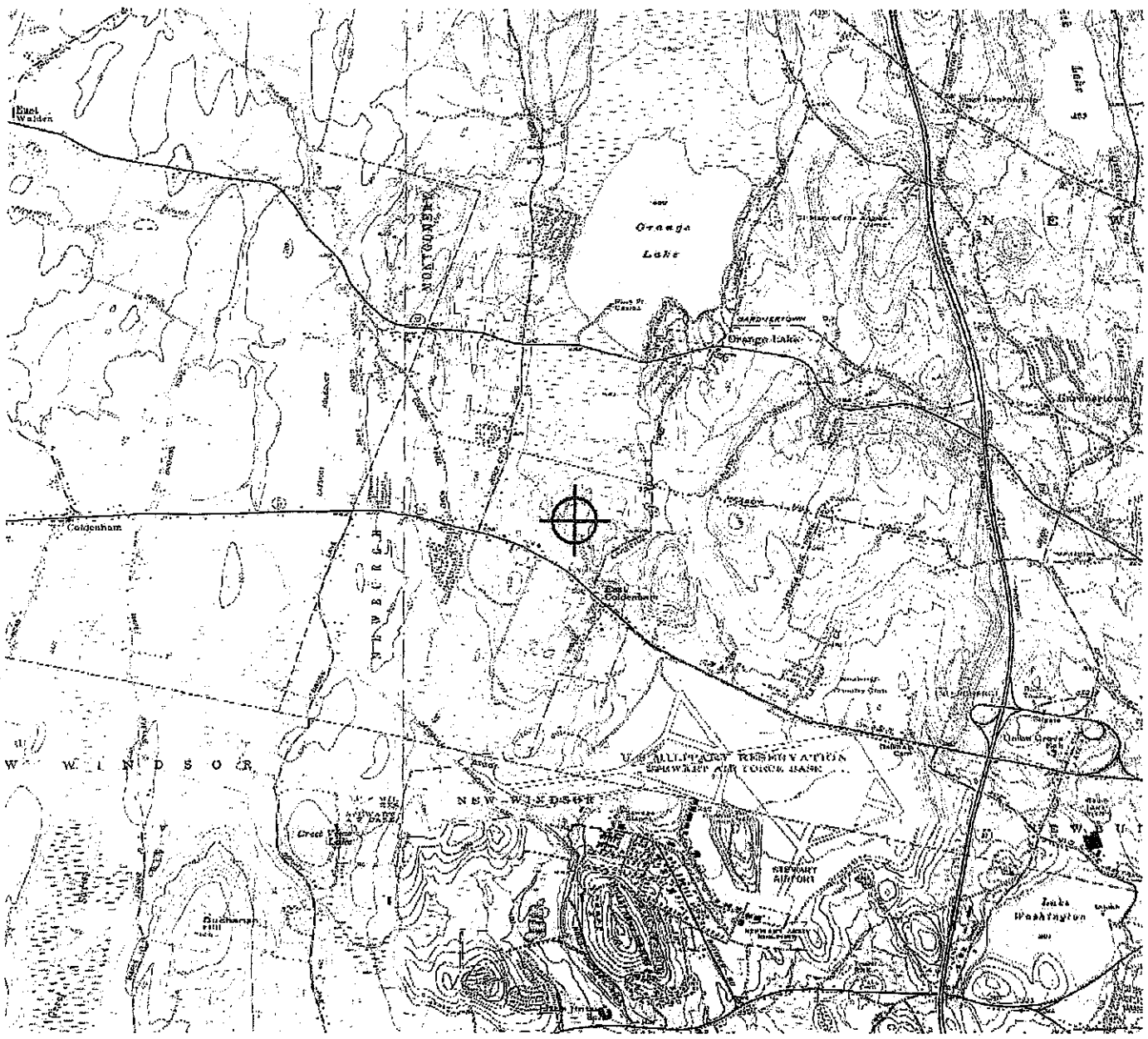
If we can be of further assistance, please contact our office at (404) 305-6531, or darin.clipper@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2017-AEA-5397-OE.

Signature Control No: 332347918-335177254 (DNE)
Darin Clipper
Specialist

Attachment(s)
Case Description
Map(s)

Proposed 3 - 3 story apartments building for senior housing

TOPO Map for ASN 2017-AEA-5396-OE



Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
10101 Hillwood Parkway
Fort Worth, TX 76177

Aeronautical Study No.
2017-AEA-5397-OE

Issued Date: 06/14/2017

Barry Medenbach PE
Lakeside
4305 US Hwy 209
Stone Ridge, NY 12484

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Building Lakeside Senior Build #2
Location:	Newburgh, NY
Latitude:	41-31-34.50N NAD 83
Longitude:	74-06-35.50W
Heights:	510 feet site elevation (SE)
	42 feet above ground level (AGL)
	552 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

_____ At least 10 days prior to start of construction (7460-2, Part 1)
__X__ Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/ lighting are accomplished on a voluntary basis, we recommend it be installed in accordance with FAA Advisory circular 70/7460-1 L Change 1.

The structure considered under this study lies in proximity to an airport and occupants may be subjected to noise from aircraft operating to and from the airport.

This determination expires on 12/14/2018 unless:

(a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
(b) extended, revised, or terminated by the issuing office.
(c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within

Proposed 3 - 3 story apartments building for senior housing

Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
10101 Hillwood Parkway
Fort Worth, TX 76177

Aeronautical Study No.
2017-AEA-5398-OE

Issued Date: 06/14/2017

Barry Medenbach PE
Lakeside
4305 US Hwy 209
Stone Ridge, NY 12484

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Building Lakeside Senior Build #3
Location:	Newburgh, NY
Latitude:	41-31-37.60N NAD 83
Longitude:	74-06-33.70W
Heights:	505 feet site elevation (SE)
	42 feet above ground level (AGL)
	547 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

_____ At least 10 days prior to start of construction (7460-2, Part 1)
__X__ Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/ lighting are accomplished on a voluntary basis, we recommend it be installed in accordance with FAA Advisory circular 70/7460-1 L Change 1.

The structure considered under this study lies in proximity to an airport and occupants may be subjected to noise from aircraft operating to and from the airport.

This determination expires on 12/14/2018 unless:

(a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
(b) extended, revised, or terminated by the issuing office.
(c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within

6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is based, in part, on the foregoing description which includes specific coordinates , heights, frequency(ies) and power . Any changes in coordinates , heights, and frequencies or use of greater power will void this determination. Any future construction or alteration , including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (404) 305-6531, or darin.clipper@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2017-AEA-5398-OE.

Signature Control No: 332347919-335177256 (DNE)
Darin Clipper
Specialist

Attachment(s)
Case Description
Map(s)

Proposed 3 - 3 story apartments building for senior housing

TOPO Map for ASN 2017-AEA-5397-OE

TABLE OF CONTENTS

Proposed New Multi-Family Residence
for:
LAKESIDE SENIOR HOUSING
Lakeside Road
Town of Newburg, New York 12550

GROSS SQUARE FOOTAGE / BUILDING:

BUILDING #1, 2,& 3/FL.	13,515 sq.ft.
BUILDING #1, &2/BLDG.	40,545 sq.ft.
BUILDING #3 / BLDG.	27,030 sq.ft.

DWELLING UNIT CALC. per BUILDING:

BUILDING #1 & #2	24 @ 2BR
	12 @ 1BR
TOTAL UNITS/BLDG.	36 UNITS
BUILDING #3	30 @ 2BR
	6 @ 1BR
TOTAL UNITS/BLDG.	36 UNITS

Proposal for Renovation
LAKESIDE SENIOR HOUSING
LAKESIDE ROAD
TOWN of NEWBURG, NEW YORK 12550

JAMES LYMAN REYNOLDS
ARCHITECT
4303 US Route 209
Stone Ridge, NY 12484
Ph (845) 687-9181

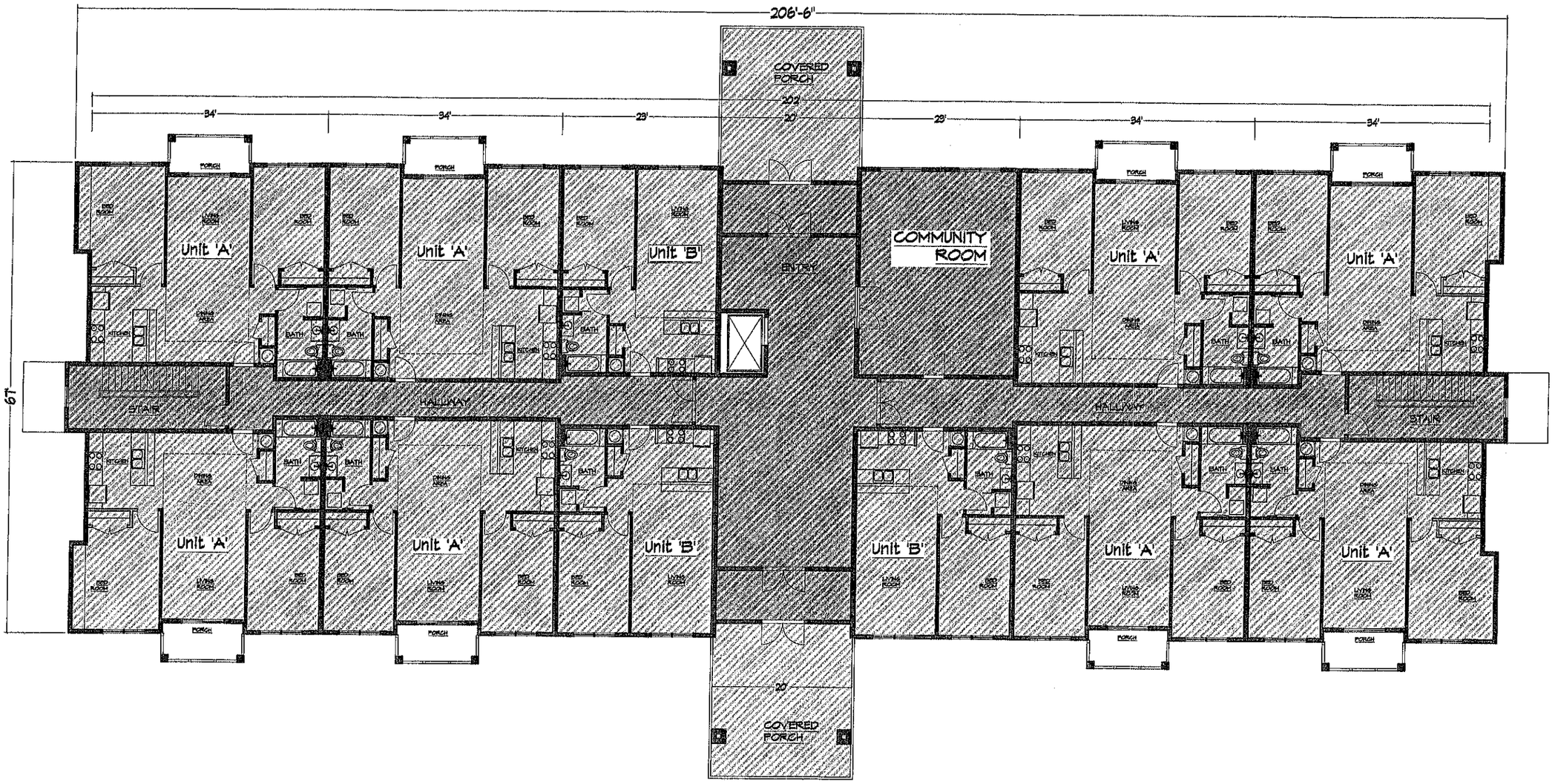
ISSUE:

Design Development SET
6-20-16

ADDENDA:

COVER SHEET

SCALE: 1/64"=1'-0"
DRAWN BY: JLR
DATE:
SHEET #: T100
DRAWING NAME: A100.05 Rowlzky-West.dwg



1 BUILDING # 1 & 2 – FIRST FLOOR PLAN

SCALE 1/16"=1'-0"

DWELLING UNIT CALC. per FLOOR:

BUILDING #1 & #2	8 @ 2BR
	3 @ 1BR
TOTAL UNITS/FLOOR	11 UNITS

Proposed Multi-Family Residence for:

LAKESIDE SENIOR HOUSING

LAKESIDE ROAD

TOWN of NEWBURGH, NEW YORK 12550

JAMES LYMAN REYNOLDS
ARCHITECT
4303 US Route 209
Stone Ridge, NY 12484
Ph (845) 687-9161

ISSUE:

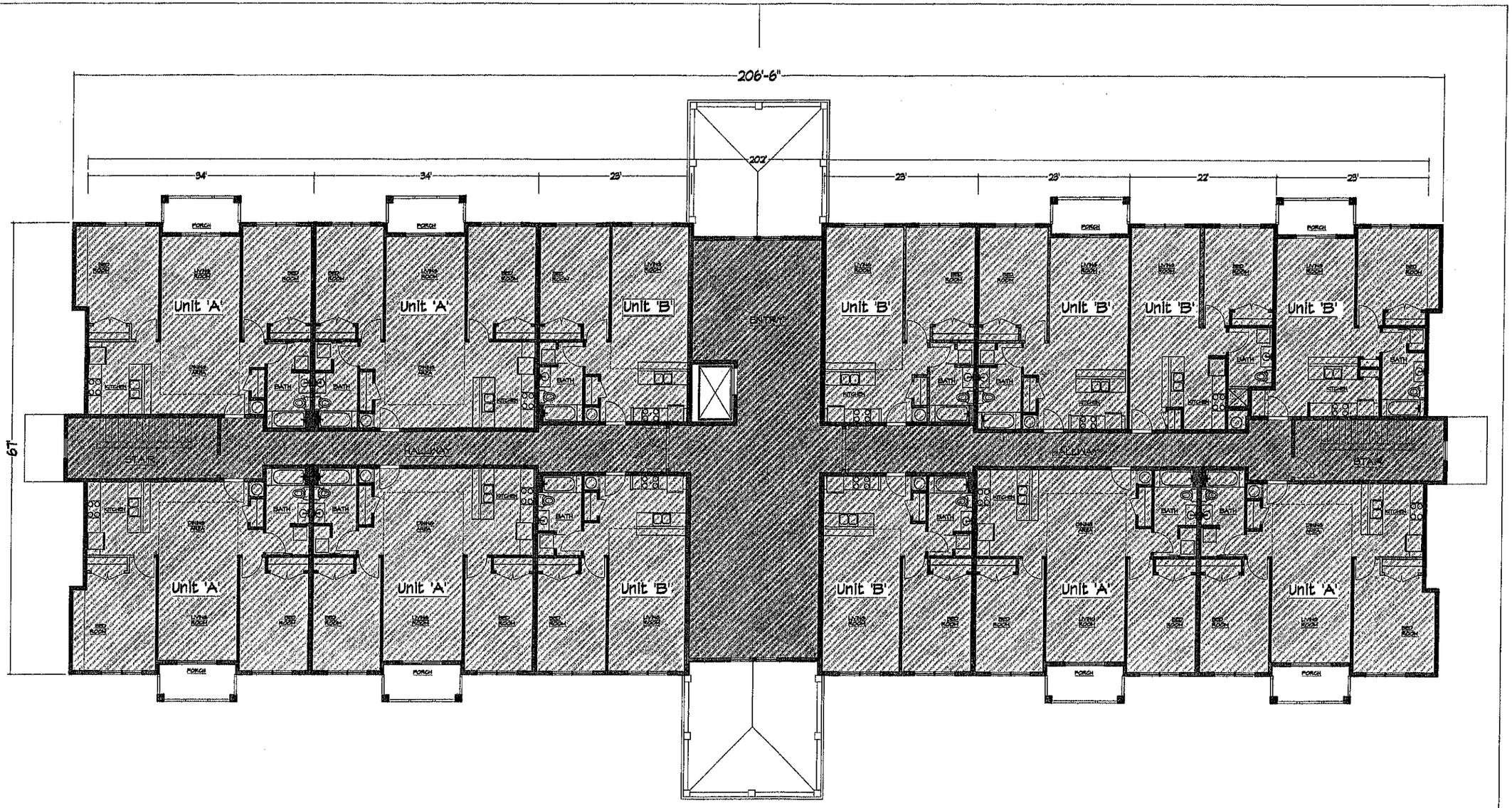
DESIGN DEVELOPMENT SET
10-10-16
REV. 6-30-2017

ADDENDA:

FIRST FLOOR PLAN

SCALE: 1/64"=1'-0"
DRAWN BY: JLR
DATE:
SHEET # A100
DRAWING NAME: A100.80 LAKESIDE.dwg

Y:\Barry's Project\A100.80_ building plans.dwg, 6/29/2017 5:48:58 PM



1 BUILDING # 1 & 2 – SECOND FLOOR PLAN

SCALE 1/16"=1'-0"

DWELLING UNIT CALC. per FLOOR:

BUILDING #1 & #2	6 @ 2BR
	7 @ 1BR
TOTAL UNITS/FLOOR	13 UNITS

Proposed Multi-Family Residence for:

LAKESIDE SENIOR HOUSING

LAKESIDE ROAD

TOWN of NEWBURGH, NEW YORK 12550

JAMES LYMAN REYNOLDS
ARCHITECT
4303 US Route 209
Stone Ridge, NY 12484
Ph (845) 687-9181

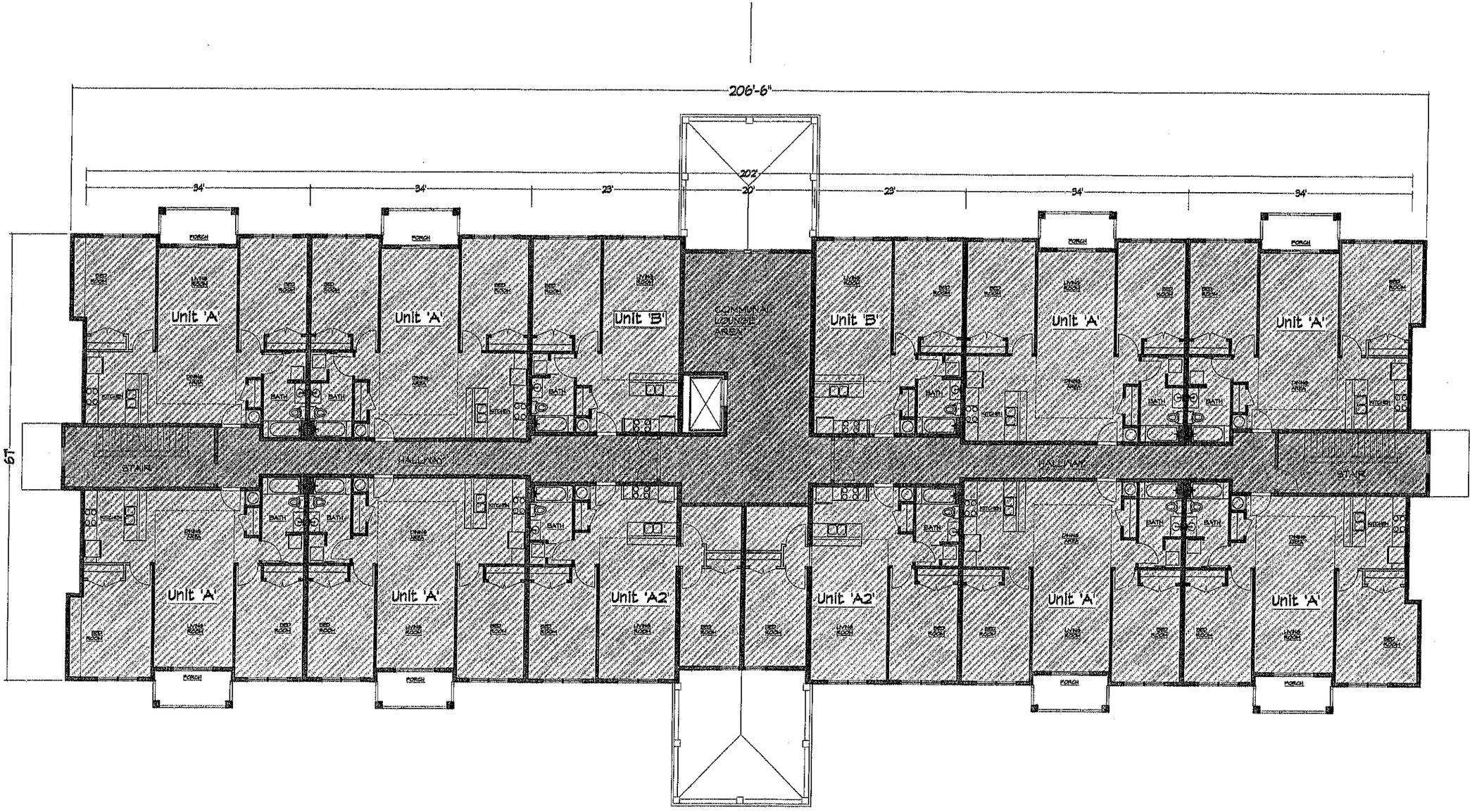
ISSUE:

DESIGN DEVELOPMENT SET
6-20-16
REV. 6-30-2017

ADDENDA:

SECOND FLOOR PLAN

SCALE: 1/64"=1'-0"
DRAWN BY: JLR
DATE:
SHEET # A101
DRAWING NAME: A100.08 Rovitky-West.dwg



1 BUILDING #s 1&2 – THIRD FLOOR PLAN

SCALE 1/16"=1'-0"

DWELLING UNIT CALC. per FLOOR:

BUILDING #1 & #2	10 @ 2BR
	2 @ 1BR
TOTAL UNITS/FLOOR	12 UNITS

Proposed Multi-Family Residence for:

LAKESIDE SENIOR HOUSING

LAKESIDE ROAD

TOWN of NEWBURGH, NEW YORK 12550

JAMES LYMAN REYNOLDS
ARCHITECT
4303 US Route 209
Stone Ridge, NY 12484
Ph (845) 687-9181

ISSUE:

DESIGN DEVELOPMENT SET

6-20-16

REV. 6-30-2017

ADDENDA:

THIRD FLOOR PLAN

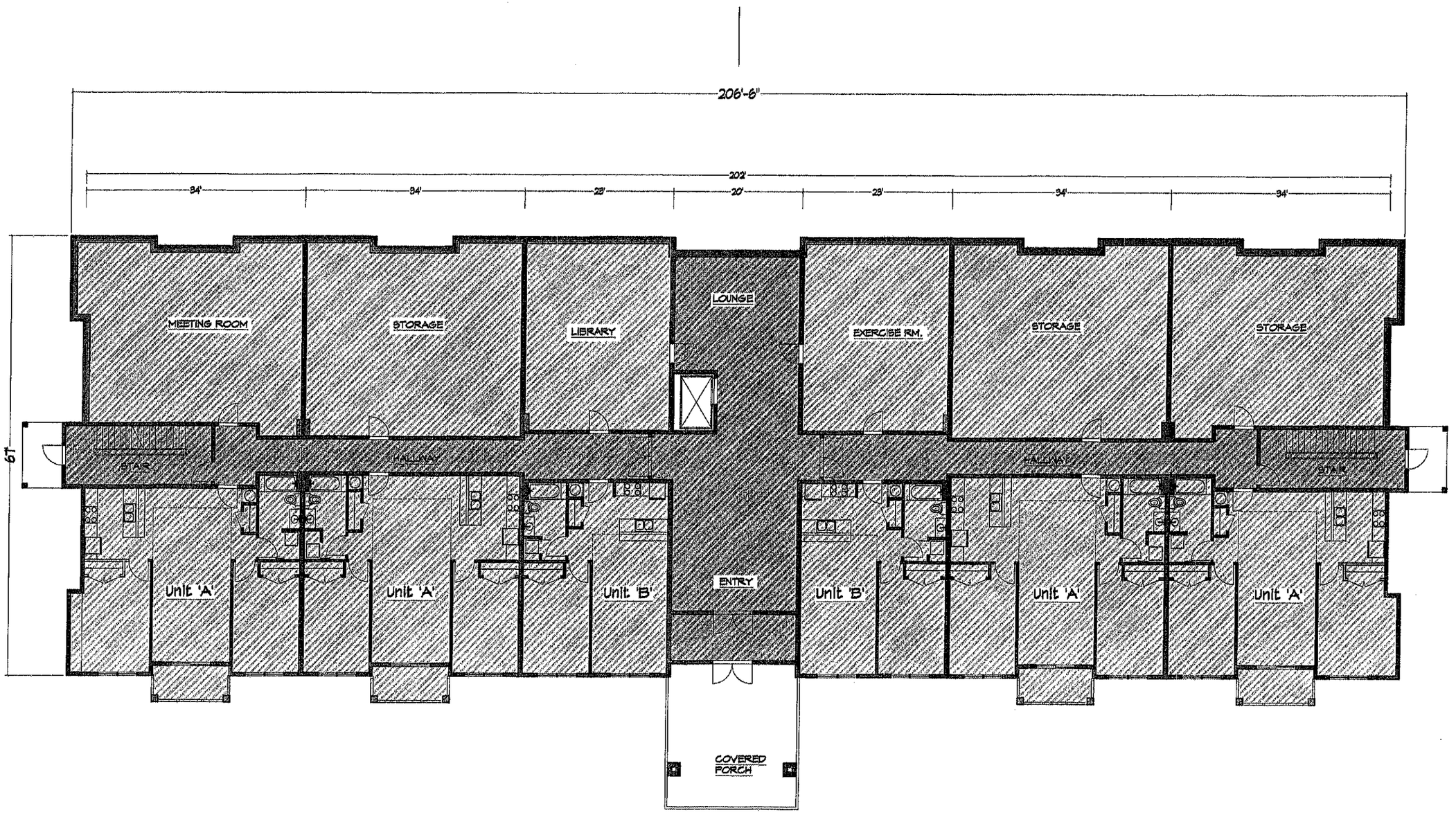
SCALE: 1/64"=1'-0"

DRAWN BY: JLR

DATE:

SHEET # A102

DRAWING NAME: A100.SD LAKESDE.dwg



1 BUILDING #3 – FIRST FLOOR PLAN

SCALE 1/16"=1'-0"

DWELLING UNIT CALC. per FLOOR:

BUILDING #3	4 @ 2BR
	2 @ 1BR
TOTAL UNITS/FLOOR	6 UNITS

Proposed Multi-Family Residence for:

LAKESIDE SENIOR HOUSING

LAKESIDE ROAD

TOWN of NEWBURGH, NEW YORK 12550

JAMES LYMAN REYNOLDS
ARCHITECT
4908 US Route 209
Stone Ridge, NY 12484
Ph (845) 687-9161

ISSUE:

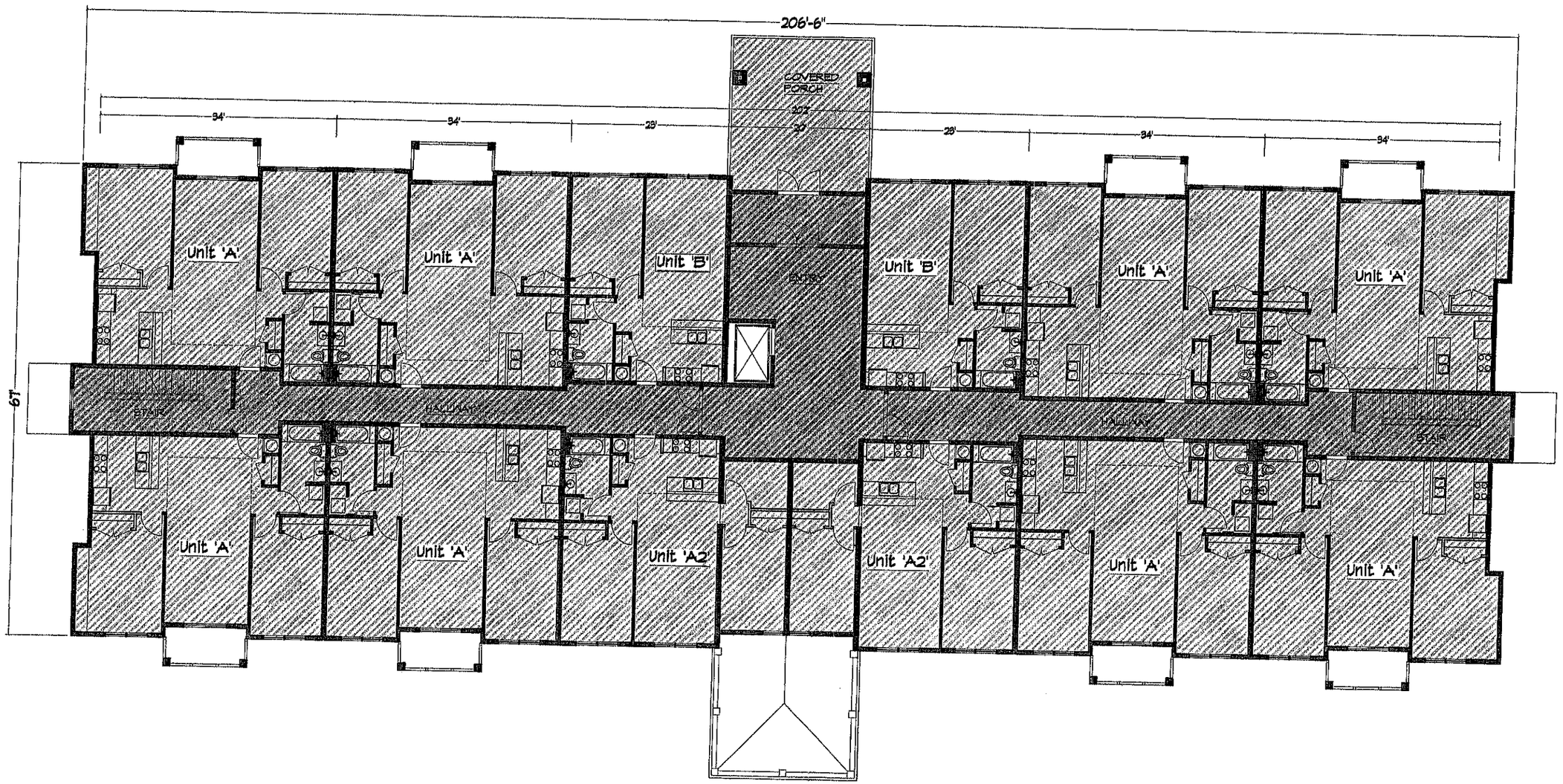
DESIGN DEVELOPMENT SET
6-20-16
REV. 6-30-2017

ADDENDA:

FIRST FLOOR PLAN

SCALE: 1/64"=1'-0"
DRAWN BY: JLR
DATE:
SHEET # A103
DRAWING NAME: A100.06 Rowlthy-West.dwg

Y:\Barry's Project\A100.80_building plans.dwg, 6/29/2017 5:53:19 PM



1 BUILDING #3 – SECOND FLOOR PLAN

SCALE 1/16"=1'-0"

DWELLING UNIT CALC. per FLOOR:

BUILDING #1 & #2	10 @ 2BR
	2 @ 1BR
TOTAL UNITS/FLOOR	12 UNITS

Proposed Multi-Family Residence for:

LAKESIDE SENIOR HOUSING

LAKESIDE ROAD

TOWN of NEWBURGH, NEW YORK 12550

JAMES LYMAN REYNOLDS
ARCHITECT
4303 US Route 209
Stone Ridge, NY 12484
Ph (845) 687-9161

ISSUE:

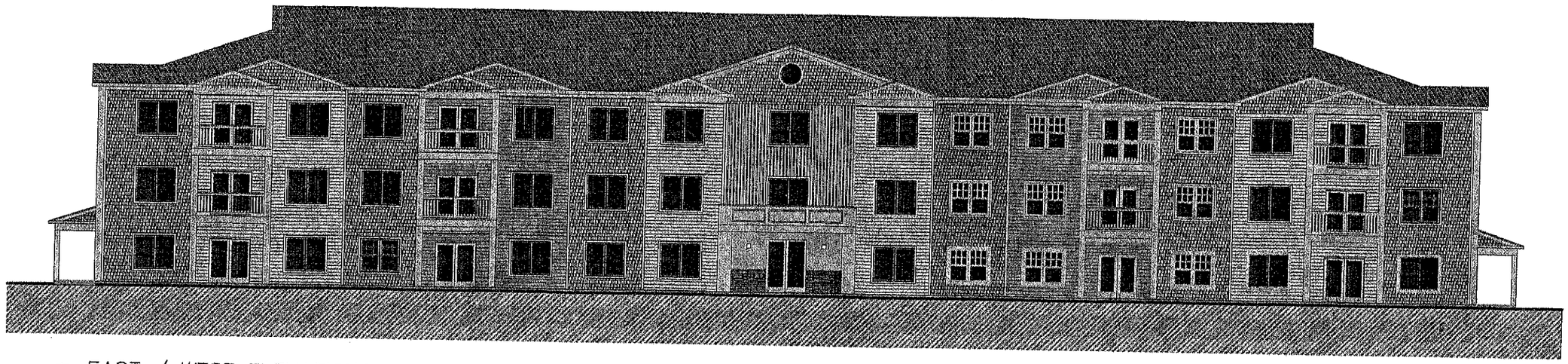
DESIGN DEVELOPMENT SET
6-20-16
REV. 6-30-2017

ADDENDA:

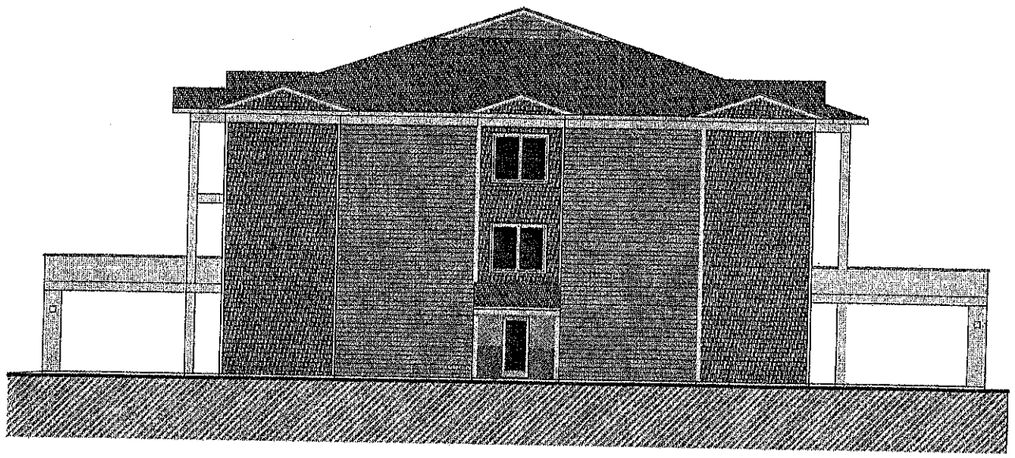
SECOND FLOOR PLAN

SCALE: 1/64"=1'-0"
DRAWN BY: JLR
DATE:
SHEET # A104
DRAWING NAME: A100.80 LAKESIDE.dwg

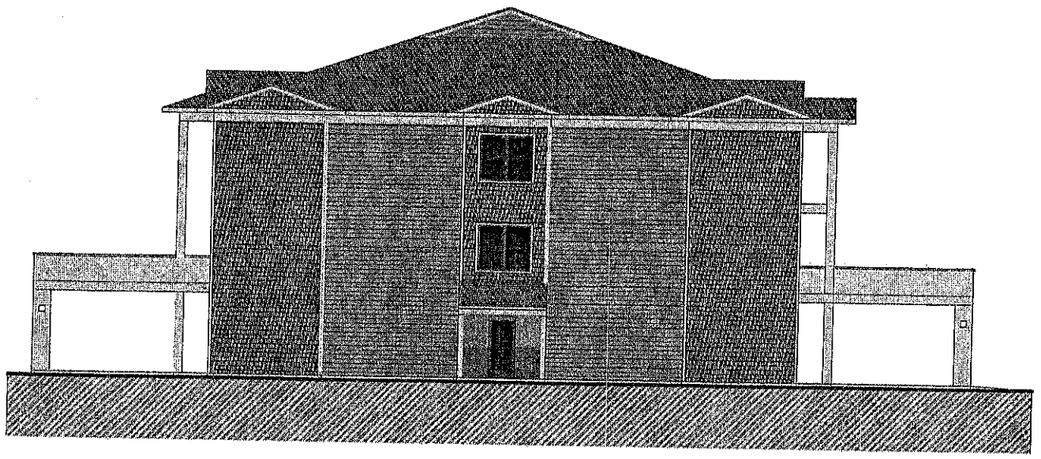
Y:\Barry's Project\A100.80_building plans.dwg, 6/29/2017 5:54:31 PM



1 EAST / WEST ELEVATIONS – BLDG. #1 & #2 and EAST ELEVATION BLDG. #3
1/16"=1'-0"



2 NORTH ELEVATION – BLDG. #1 & #2
1/16"=1'-0"



3 SOUTH ELEVATION – BLDG. #1 & #2
1/16"=1'-0"

Proposed Multi-Family Residence for:

LAKESIDE SENIOR HOUSING

LAKESIDE ROAD

TOWN of NEWBURGH, NEW YORK 12550

JAMES LYMAN REYNOLDS
ARCHITECT
4903 US Route 209
Stone Ridge, NY 12484
Ph (845) 687-9161

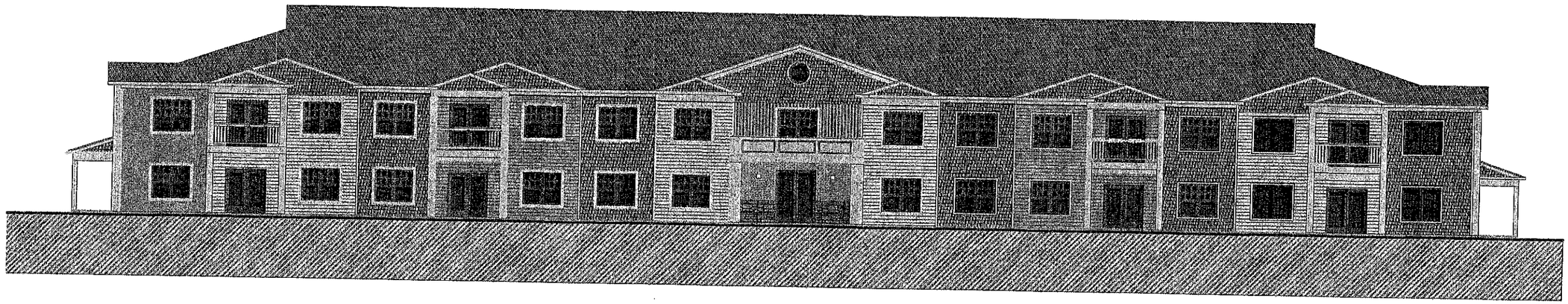
ISSUE:

PERMIT/CONTRACT SET
6-7-13
REV. 6-30-2017

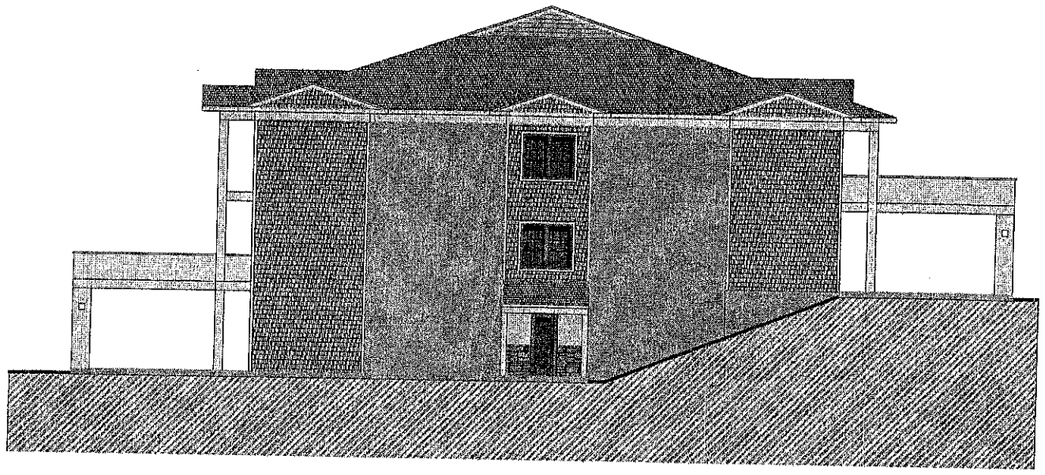
ADDENDA:

ELEVATION

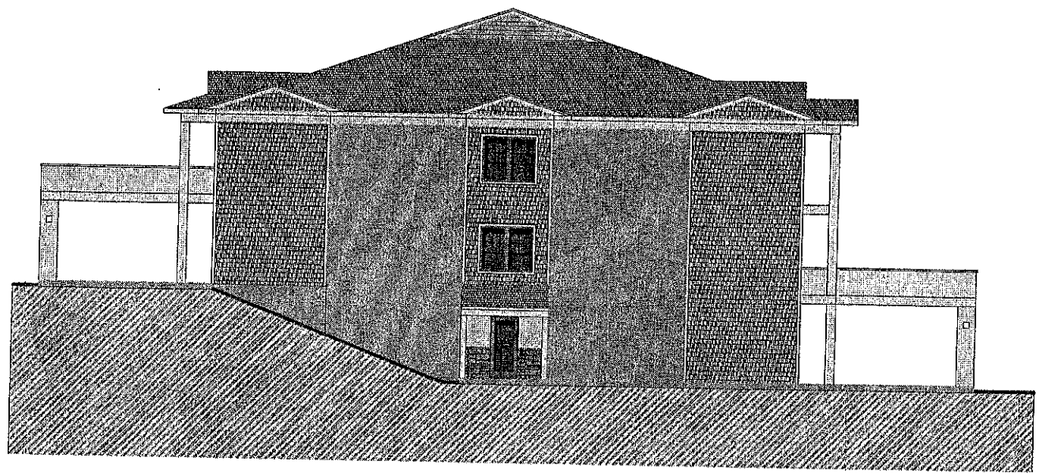
SCALE: 1/64"=1'-0"
DRAWN BY: JLR
DATE:
SHEET # A200
DRAWING NAME: A100.06 Rowitzky-West.dwg



1 WEST ELEVATION – BLDG. #3
1/16"=1'-0"



2 NORTH ELEVATION – BLDG. #3
1/16"=1'-0"



3 SOUTH ELEVATION – BLDG. #3
1/16"=1'-0"

Proposed Multi-Family Residence for:

LAKESIDE SENIOR HOUSING

LAKESIDE ROAD
TOWN of NEWBURGH, NEW YORK 12550

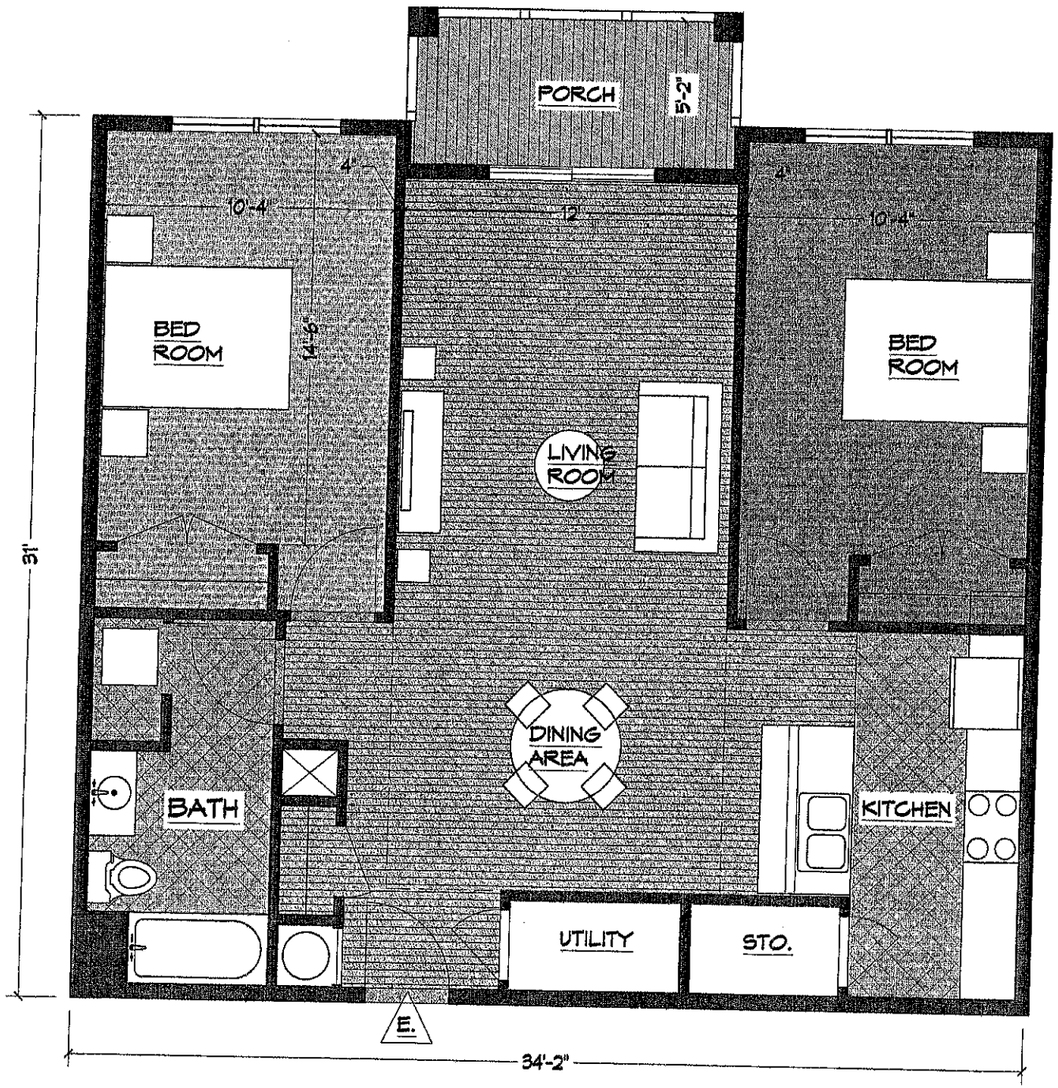
JAMES LYMAN REYNOLDS
ARCHITECT
4303 US Route 209
Stone Ridge, NY 12484
Ph (845) 687-9161

ISSUE:
PERMIT/CONTRACT SET
6-7-13
REV. 6-30-2017

ADDENDA:

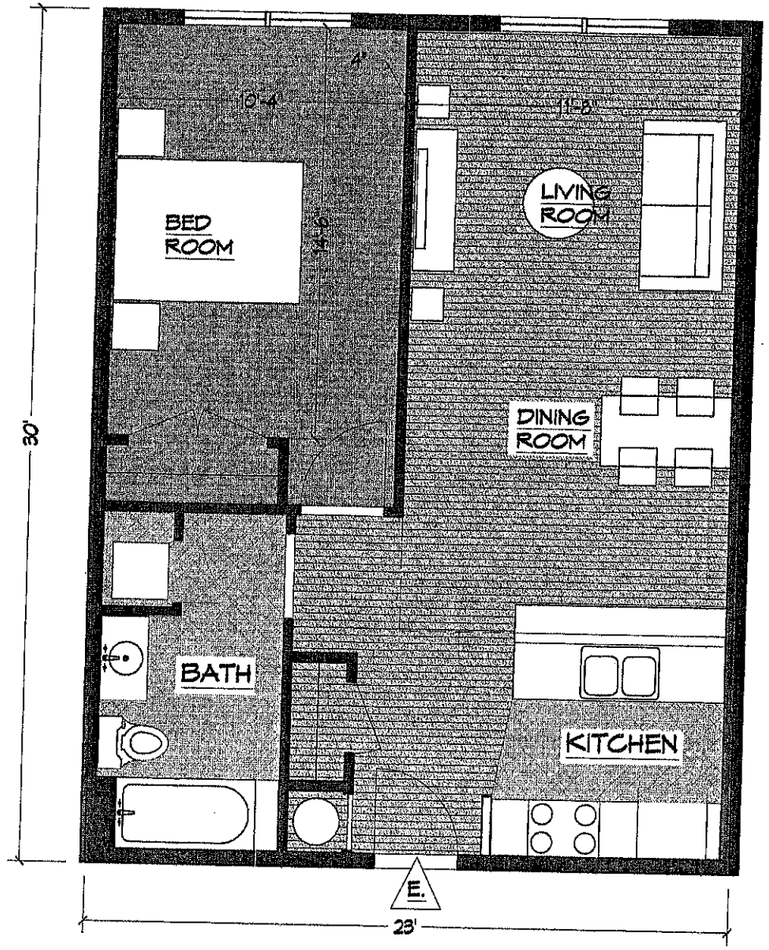
ELEVATION

SCALE: 1/64"=1'-0"
DRAWN BY: JLR
DATE:
SHEET # A201
DRAWING NAME: A100.80 LAKESIDE.dwg



1 FLOOR PLAN –UNIT 'A' @ 900 s.f.

SCALE 3/16"=1'-0"



1 FLOOR PLAN – UNIT 'B' @ 690 s.f.

SCALE 3/16"=1'-0"

Proposed Multi-Family Residence for:

LAKESIDE SENIOR HOUSING

LAKESIDE ROAD

TOWN of NEWBURGH, NEW YORK 12550

JAMES LYMAN REYNOLDS
ARCHITECT
4303 US Route 209
Stone Ridge, NY 12484
Ph (845) 687-9181

ISSUE:

DESIGN DEVELOPMENT SET

6-20-16

REV. 6-30-2017

ADDENDA:

UNIT PLANS

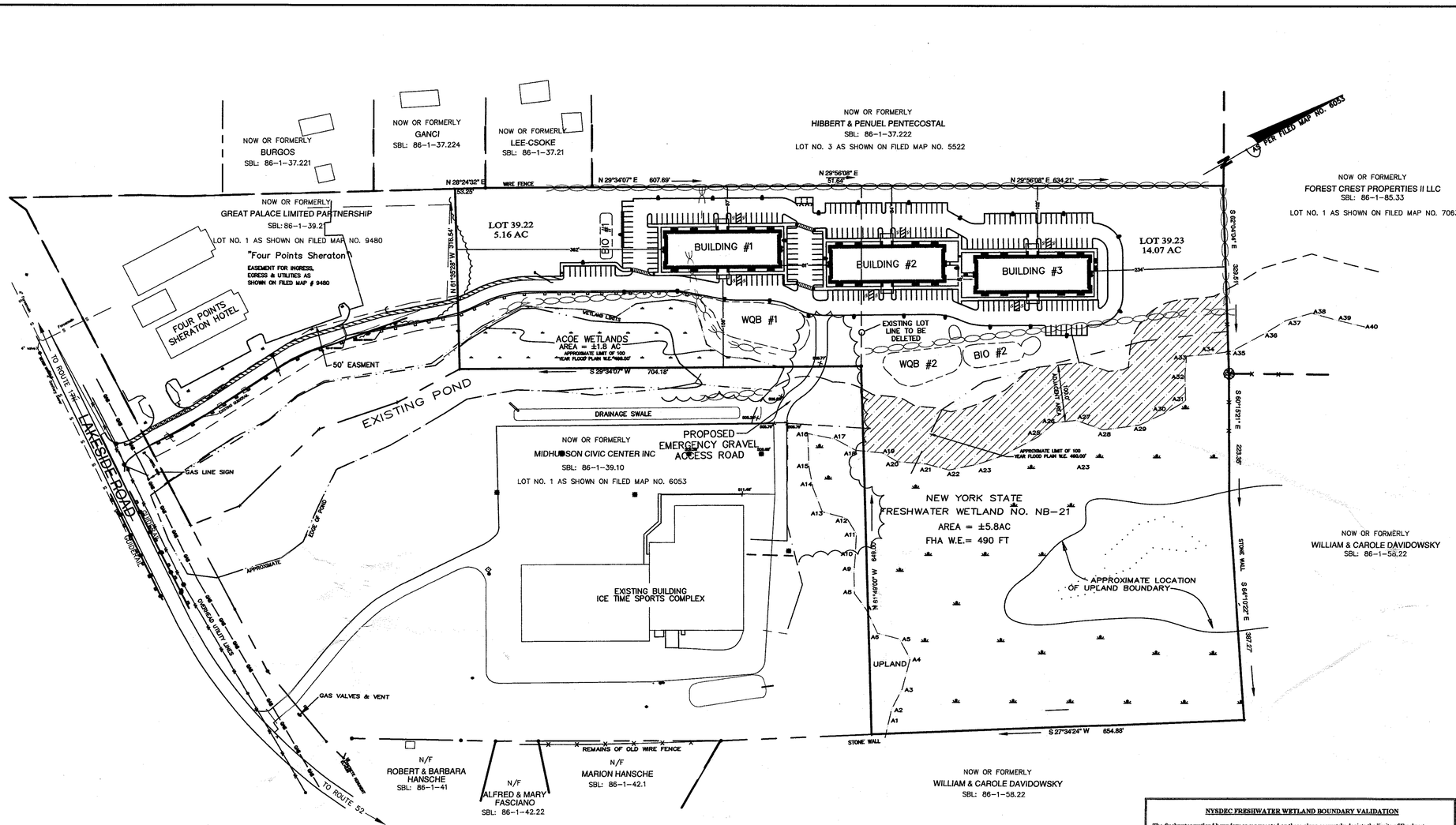
SCALE: 3/16"=1'-0"

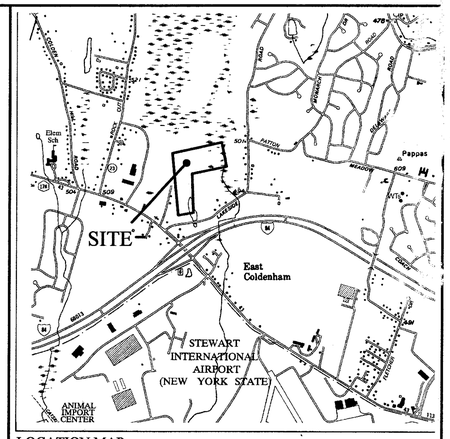
DRAWN BY: JLR

DATE:

SHEET # A300

DRAWING NAME: A100.06 Rovitzky-West.dwg





LOCATION MAP
SCALE: 1' = 2,000'

ZONING REQUIREMENTS FOR TOWN OF NEWBURGH ZONE 1B DISTRICT SENIOR CITIZEN HOUSING (30) 1-Bdrm & (72) 2-Bdrm Units Total		
	REQUIRED	PROVIDED
Total Lot Area	5 AC	19.23 AC
NYS Wetlands		5.80 AC
ACOE Wetlands		1.80 AC
100 Ft. Buffer		1.65 AC
Net Upland Area Available for Development		9.98 AC
Senior Citizen housing permitted as per §185-48: (30) 1 Bdrm Units @12 units per AC = 2.5 AC req. (72) 2 Bdrm Units @10 units per AC = 7.2 AC req. Total acreage required for 102 units = 9.7 AC		
Parking Requirement: 2 spaces per unit: 102 units proposed = 204 spaces required		
Proposed Parking = 210 Spaces provided		

OWNER / DEVELOPER

LAKESIDE RESIDENTIAL NEWBURGH LLC
C/O JAY FEINBERG
PO Box 191
Kerhonkson NY 12446

SBL	LOT AREA
86-1-39.22	± 5.16 AC
86-1-39.23	± 14.07 AC
	TOTAL AREA = ± 19.23 AC

MAP REVISION DATES

DATE	REVISION	BY
03-13-2017	REVISED LINE STYLE FOR EXISTING ACOE WETLANDS	CC
04-05-2017	ADDED 6' PAINTED FOOTPATH	SL
06-15-2017	ADDED NOTE FOR NO TREE CUTTING	CC
07-06-2017	REVISED PLANS PER TOWN ENGINEER'S COMMENTS	CC

NOTES:

- NO TREE CUTTING SHALL OCCUR BETWEEN MARCH 31ST AND OCTOBER 1ST.

MAP REFERENCES:

- "Survey Map Showing Lands of Ice Time, Inc." March 28, 1996, prepared by Medenbach & Eggers Land Surveying & Civil Engineering, PC.
- "Wetland Delineation Map for 21 Lakeside Properties", April 29, 2016, prepared by Medenbach & Eggers land Surveying & Civil Engineering, PC.

NYSDEC FRESHWATER WETLAND BOUNDARY VALIDATION

The freshwater wetland boundary as represented on these plans accurately depicts the limits of Freshwater Wetland NB-21 as delineated by DOUG GAUGLER on 5-18-2007.

DEC Staff: BRIAN DRUMM 5/19/2016 Surveyor/Engineer: WILLIAM EGGERS, L.S.

Date Valid: 5/19/2016 Expiration Date: 5/19/2021 SEAL

Wetland boundary delineations as validated by the New York State Department of Environmental Conservation remain valid for five (5) years unless existing exempt activities, area hydrology, or land use practices change (e.g., agricultural to residential). After five (5) years the boundary must be revalidated by DEC staff. Revalidation may include a new delineation and survey of the wetland boundary.
Any proposed construction, grading, filling, excavating, clearing or other regulated activity in the freshwater wetland or within 100 feet of the wetland boundary as depicted on this plan requires a permit from the NYS Department of Environmental Conservation under Article 24 of the Environmental Conservation Law (Freshwater Wetlands Act) prior to commencement of work.

PLAN LEGEND

- PROJECT PARCEL BOUNDARY
- ADJACENT PARCEL BOUNDARY
- PROPOSED STRUCTURE
- EXISTING STRUCTURE
- ELV EXISTING 1 FOOT CONTOUR
- ELV EXISTING 5 FOOT CONTOUR
- ELV PROPOSED 1 FOOT CONTOUR
- ELV PROPOSED 5 FOOT CONTOUR
- PROPOSED CURBING
- EXISTING CURBING
- PROPOSED RELOCATED LIGHT FIXTURE
- EXISTING FENCE
- PROPOSED GUIDE RAIL
- EXISTING GUIDE RAIL
- PROPOSED RETAINING WALL
- PROPOSED STORM DRAIN
- PROPOSED CATCH BASIN
- SPOT ELV PROPOSED SPOT ELEVATION
- SW PROPOSED STORMWATER MANHOLE
- EXISTING STORM DRAIN
- EXISTING CATCH BASIN
- S PROPOSED SANITARY SEWER
- SS PROPOSED SANITARY MANHOLE
- S EXISTING SANITARY SEWER
- SS EXISTING SANITARY MANHOLE
- X" W PROPOSED WATER MAIN (X=DIA.)
- X" W EXISTING WATER MAIN (X=DIA.)
- PROPOSED WATER VALVE
- EXISTING WATER VALVE
- EXISTING HYDRANT
- OHUL PROPOSED OVERHEAD UTLITY
- PROPOSED UTLITY POLE
- OHUL EXISTING OVERHEAD UTLITY
- EXISTING UTILITY POLE
- GAS PROPOSED GAS LINE
- GAS EXISTING GAS LINE
- UGE PROPOSED UNDERGROUND ELECTRIC
- UGCTV PROPOSED UNDERGROUND CATV
- UGT PROPOSED UNDERGROUND TELEPHONE
- LOD LIMIT OF DISTURBANCE

SHEET INDEX

INDEX SHEET
FOR
LAKESIDE SENIOR HOUSING

SITUATE - LAKESIDE ROAD
TOWN OF NEWBURGH
ORANGE COUNTY, NEW YORK
FEBRUARY 8, 2017

100 0 100 200 300

Scale: 1" = 100'

MEDENBACH & EGGERS
CIVIL ENGINEERING & LAND SURVEYING, P.C.
STONE RIDGE, NEW YORK (845) 687-0047

STATE OF NEW YORK
BARRY J. MEDENBACH
LICENSED PROFESSIONAL ENGINEER

BARRY J. MEDENBACH, P.E.
NEW YORK LIC. NO. 60142

WIRE FENCE

LOT 39.22
5.16 AC

LOT 39.23
14.07 AC

BIORETENTION #1

10' X 30'
DUMPSTER
ENCLOSURE

BUILDING #1 (36 UNITS)
(24-2 BDR, 12-1 BDR)
FF= 507.50'

BUILDING #2 (36 UNITS)
(24-2 BDR, 12-1 BDR)
FF= 510.00'

BUILDING #3 (30 UNITS)
(24-2 BDR, 6-1 BDR)
67 Parking Stalls
FF= 504.50'
SF= 514.50'

PROPOSED WALKING TRAIL

PROPOSED GAZEBO

WETLAND LIMITS

ACOE WETLANDS
AREA = ±1.8 AC
APPROXIMATE LIMIT OF 100
YEAR FLOOD PLAIN W.E. 499.50'

WATER QUALITY
BASIN #1

WATER QUALITY
BASIN #2

BIORETENTION #2

PICNIC
AREA

PROPOSED
EMERGENCY GRAVEL
ACCESS ROAD

MOVE EXISTING
STONE WALL TO
NEW LOCATION

ADJACENT AREA
100.0'

APPROXIMATE LIMIT OF 100
YEAR FLOOD PLAIN W.E. 490.00'

DRAINAGE SWALE

EXISTING BUILDING
ICE TIME SPORTS COMPLEX

12" CPP

4"PVC
OUTLET

NEW YORK STATE
FRESHWATER WETLAND NO. NB-21
AREA = ±5.8AC
FHA W.E.= 490 FT

AS PER FILED MAP NO. 6035

MAP REVISION DATES		
DATE	REVISION	BY
03-13-2017	ADDED SPOT ELEVATIONS	CC
07-06-2017	ADDED MONUMENT SIGN	CC

SITE PLAN
FOR SENIOR HOUSING AT 21 LAKESIDE PROPERTIES INC.

SITUATE - LAKESIDE ROAD
TOWN OF NEWBURGH
ORANGE COUNTY, NEW YORK

FEBRUARY 8, 2016

40 20 0 40 80 120
Scale: 1" = 40'

MEDENBACH & EGGERS
CIVIL ENGINEERING & LAND SURVEYING, P.C.
STONE RIDGE, NEW YORK (845) 687-0047

BARRY MEDENBACH, P.E.
NEW YORK LIC. NO. 60142

Dig Safely. New York
Call Before You Dig
Wait The Required Time
Confirm Utility Response
Respect The Marks
Dig With Care
CALL 811
www.digsafelyny.com

WIRE FENCE

LOT 39.22
5.16 AC

LOT 39.23
14.07 AC

GRAVEL PARKING AREA

EXISTING POND

EDGE OF POND

ACOE WETLANDS
AREA = ±1.8 AC
APPROXIMATE LIMIT OF 100 YEAR FLOOD PLAIN W.E.=499.50'

WETLAND LINES

EXISTING LOT LINE TO BE DELETED

AS PER FILED MAP NO. 6063

ADJACENT AREA 100.0'

APPROXIMATE LIMIT OF 100 YEAR FLOOD PLAIN W.E. 490.00'

NEW YORK STATE
FRESHWATER WETLAND NO. NB-21
AREA = ±5.8AC
FHA W.E.= 490 FT

APPROXIMATE LOCATION OF UPLAND BOUNDARY

UPLAND

ICE TIME SPORTS COMPLEX

12" CPP

4"PVC OUTLET

DETENTION BASIN

12"CPP

GAS VALVES & VENT

STONE WALL

STONE WALL

MAP REVISION DATES		
DATE	REVISION	BY

EXISTING CONDITIONS
FOR SENIOR HOUSING AT 21 LAKESIDE PROPERTIES INC.

SITUATE - LAKESIDE ROAD
TOWN OF NEWBURGH
ORANGE COUNTY, NEW YORK

FEBRUARY 8, 2016

50 0 50 100 150

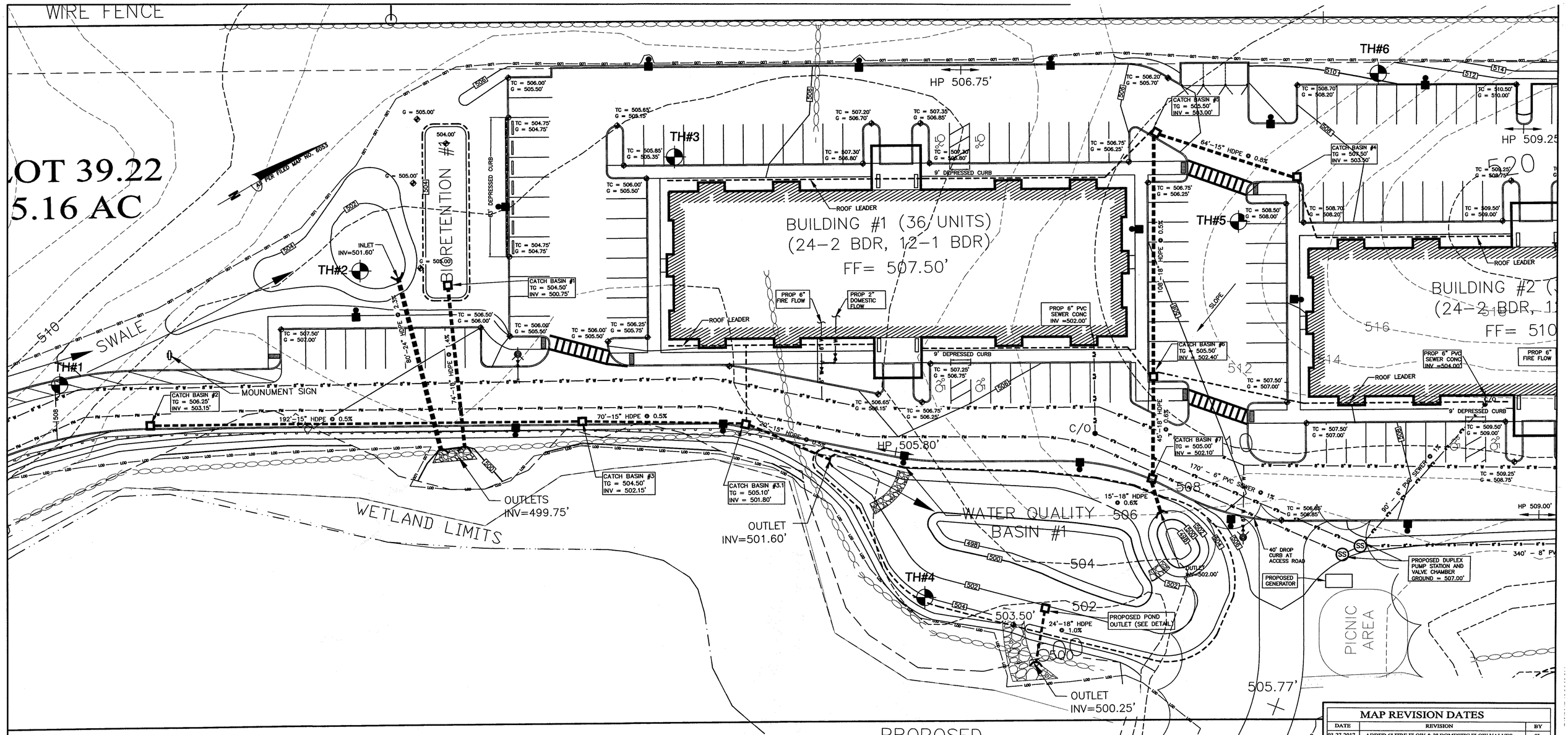
Scale: 1" = 50'

MEDENBACH & EGGERS
CIVIL ENGINEERING & LAND SURVEYING, P.C.
STONE RIDGE, NEW YORK (845) 687-0047

BARRY MEDENBACH, P.E.
NEW YORK LIC. NO. 60142

EC
SHEET 3 OF 17

Dig Safely. New York
Call Before You Dig
Wait The Required Time
Confirm Utility Response
Respect The Marks
Dig With Care
CALL 811
www.digsafelyny.com



Test Hole Data

21 Lakeside Senior Housing

15-Sep-16	
TH#1:	
0-6"	Topsoil
6"-48"	Gravelly silt loam with broken & weathered shale
48"	Shale-no water or mottling
TH#2	
0-6"	Topsoil
6"-72"	Gravelly silt loam-no water, rock or mottling
TH#3	
0-6"	Topsoil
6"-72"	Gravelly silt loam-no water, rock or mottling
TH#4	
0-6"	Topsoil
6"-60"	Gravelly silt loam with broken shale
TH#5	
0-6"	Topsoil
6"-18"	Gravelly silt loam
18"-36"	Fractured shale
36"	Shale, no water or mottling
TH#6	
0-6"	Topsoil
6"-60"	Gravelly silt loam
60"	Broken shale, no water

STORMWATER NOTES:

1. Stormwater Management Facilities shall be regularly maintained to ensure they function at design capacity and to prevent health hazards associated with debris and stagnant water. the privately owned portion of the system must be privately maintained.
2. Responsibility for the operation and maintenance of the stormwater facilities, including periodic removal and disposal of accumulated particulate material and debris, but not limited to the following: visual inspection of all system components at least twice a year; vacuuming of all storm sewer inlets once every six months (frequency may be adjusted to once a year if first year maintenance records indicate that sediment and debris accumulation is insignificant); reverse flushing and vacuuming if the system inspection indicate significant accumulation of sediment in the pipes; and periodic removal and disposal of other material and debris, shall remain with the owner or owners of the property, with permanent arrangements that shall pass to any successive owner, unless assumed by a governmental agency.
3. In the event that the facility becomes a danger to public safety or public health, or it is in need of maintenance, the owner shall effect such maintenance and repair of the facility in a manner that is approved by the Town Engineer or his designee, if the owner fails to perform such maintenance and repair, the Municipality may immediately proceed to do so and shall bill the cost to the owner.

ABBREVIATIONS

TC	TOP OF CURB
G	GROUND OR PAVEMENT
FF	FINISH FLOOR
INV	INVERT
TG	TOP OF GRADE
HP	HIGH POINT OF PAVEMENT

DEPRESSED CURB RAMP

Dig Safely. New York
- Call Before You Dig
- Wait The Required Time
- Confirm Utility Response
- Respect The Marks
- Dig With Care

CALL 811
www.digsafelyny.com

MAP REVISION DATES

DATE	REVISION	BY
03-27-2017	ADDED 6" FIRE FLOW & 2" DOMESTIC FLOW VALVES	SL
04-04-2017	LABELED DEPRESSED CURBS	SL
07-06-2017	MOVED PROPOSED GENERATOR	CC

GRADING & UTILITY PLAN 1

FOR SENIOR HOUSING AT 21 LAKESIDE PROPERTIES INC.

SITUATE - LAKESIDE ROAD
TOWN OF NEWBURGH
ORANGE COUNTY, NEW YORK

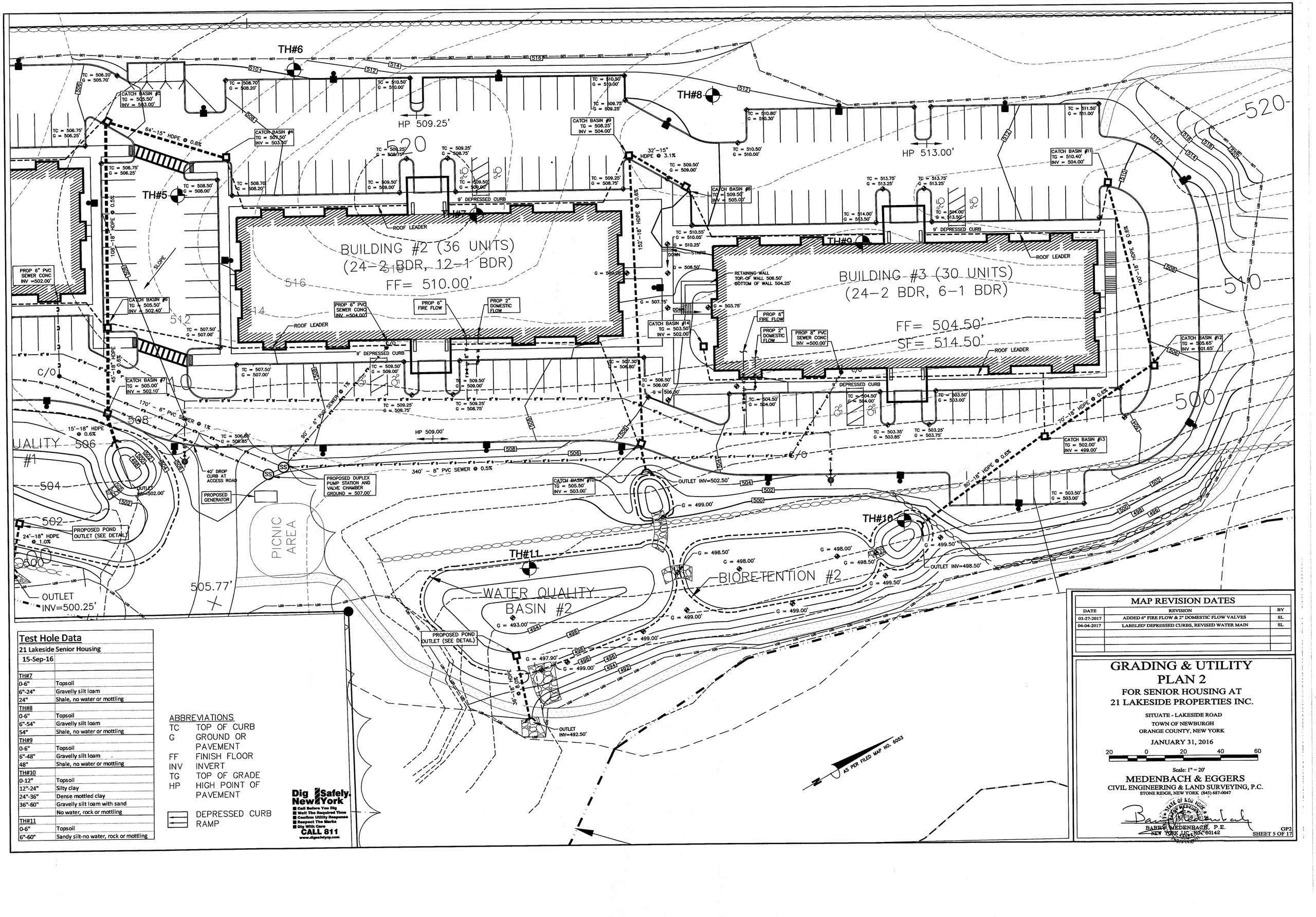
JANUARY 31, 2016

20 0 20 40 60

Scale: 1" = 20'

MEDENBACH & EGGERS
CIVIL ENGINEERING & LAND SURVEYING, P.C.
STONE RIDGE, NEW YORK (845) 687-0047

BARRY MEDENBACH, P.E.
NEW YORK LIC. NO. 60142



Test Hole Data	
21 Lakeside Senior Housing	
15-Sep-16	
TH#7	
0-6"	Topsoil
6"-24"	Gravelly silt loam
24"	Shale, no water or mottling
TH#8	
0-6"	Topsoil
6"-54"	Gravelly silt loam
54"	Shale, no water or mottling
TH#9	
0-6"	Topsoil
6"-48"	Gravelly silt loam
48"	Shale, no water or mottling
TH#10	
0-12"	Topsoil
12"-24"	Silty clay
24"-36"	Dense mottled clay
36"-60"	Gravelly silt loam with sand
	No water, rock or mottling
TH#11	
0-6"	Topsoil
6"-60"	Sandy silt-no water, rock or mottling

ABBREVIATIONS

TC	TOP OF CURB
G	GROUND OR PAVEMENT
FF	FINISH FLOOR
INV	INVERT
TG	TOP OF GRADE
HP	HIGH POINT OF PAVEMENT

DEPRESSED CURB RAMP

Dig Safely. New York
- Call Before You Dig
- Wait The Required Time
- Confirm Utility Response
- Respect The Marks
- Dig With Care

CALL 811
www.digsafelyny.com

MAP REVISION DATES		
DATE	REVISION	BY
03-27-2017	ADDED 6" FIRE FLOW & 2" DOMESTIC FLOW VALVES	SL
04-04-2017	LABELED' DEPRESSED CURBS, REVISED WATER MAIN	SL

GRADING & UTILITY PLAN 2

FOR SENIOR HOUSING AT
21 LAKESIDE PROPERTIES INC.

SITUATE - LAKESIDE ROAD
TOWN OF NEWBURGH
ORANGE COUNTY, NEW YORK

JANUARY 31, 2016

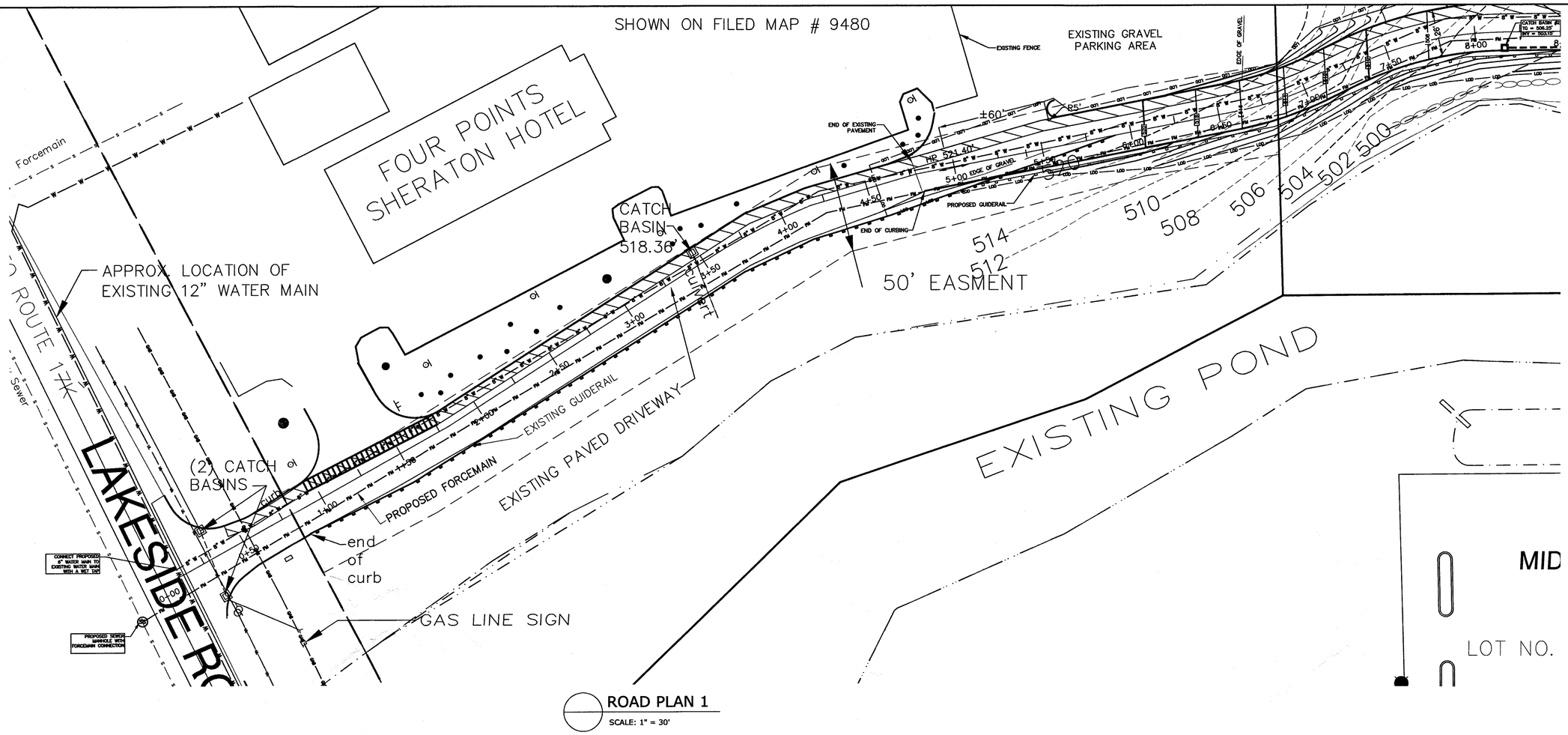
20 0 20 40 60

Scale: 1" = 20'

MEDENBACH & EGGERS
CIVIL ENGINEERING & LAND SURVEYING, P.C.
STONE RIDGE, NEW YORK (845) 687-0047

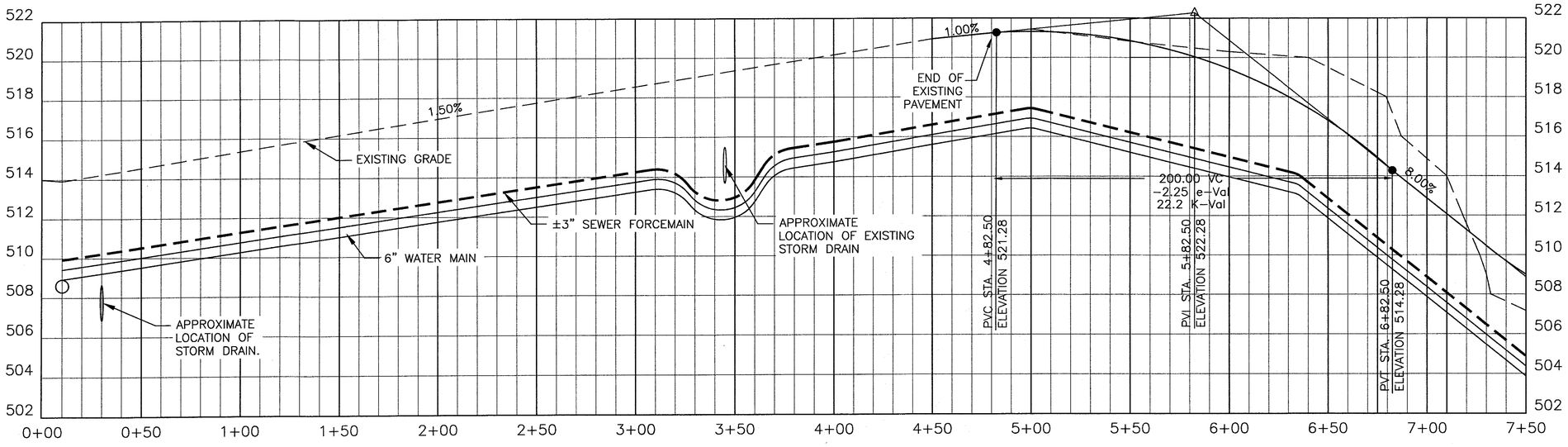
BARRY MEDENBACH, P.E.
NEW YORK LIC. NO. 60142

GP2
SHEET 5 OF 17



ROAD PLAN 1

SCALE: 1" = 30'



ROAD PROFILE 1

SCALE: 1" = 30' HORIZONTAL 1" = 3' VERTICAL

MAP REVISION DATES		
DATE	REVISION	BY

ROAD PROFILE AND PLAN 1

FOR SENIOR HOUSING AT 21 LAKESIDE PROPERTIES INC.

SITUATE - LAKESIDE ROAD
TOWN OF NEWBURGH
ORANGE COUNTY, NEW YORK

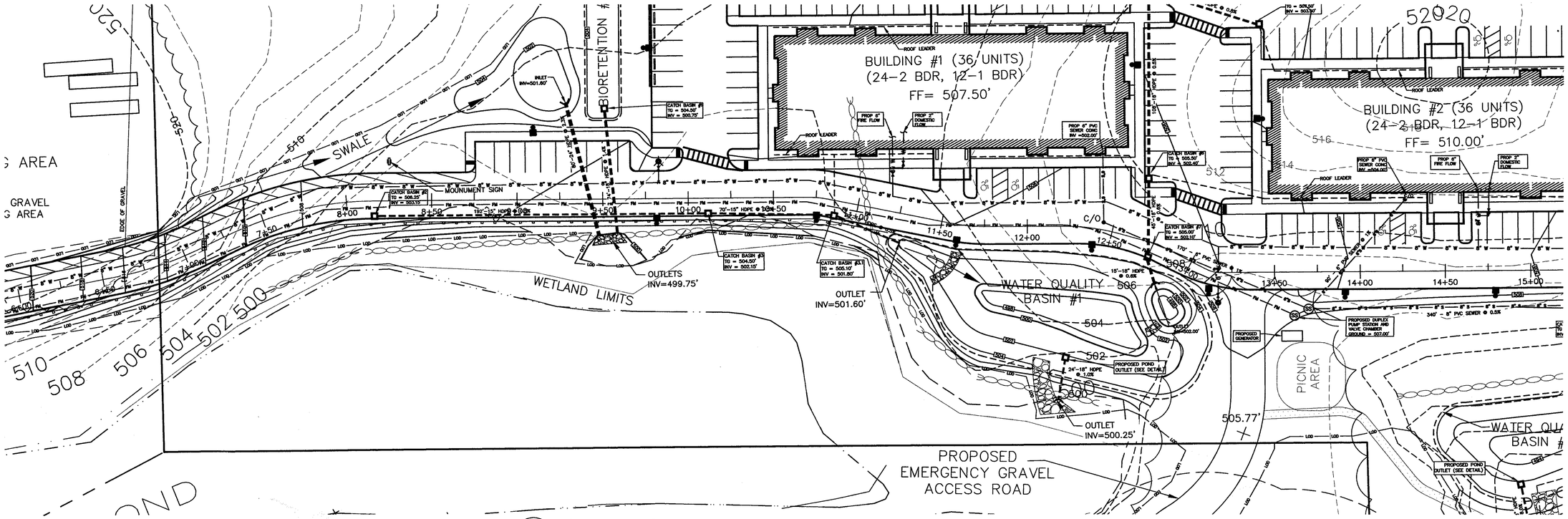
FEBRUARY 8, 2016

30 0 30 60 90

Scale: 1" = 30'

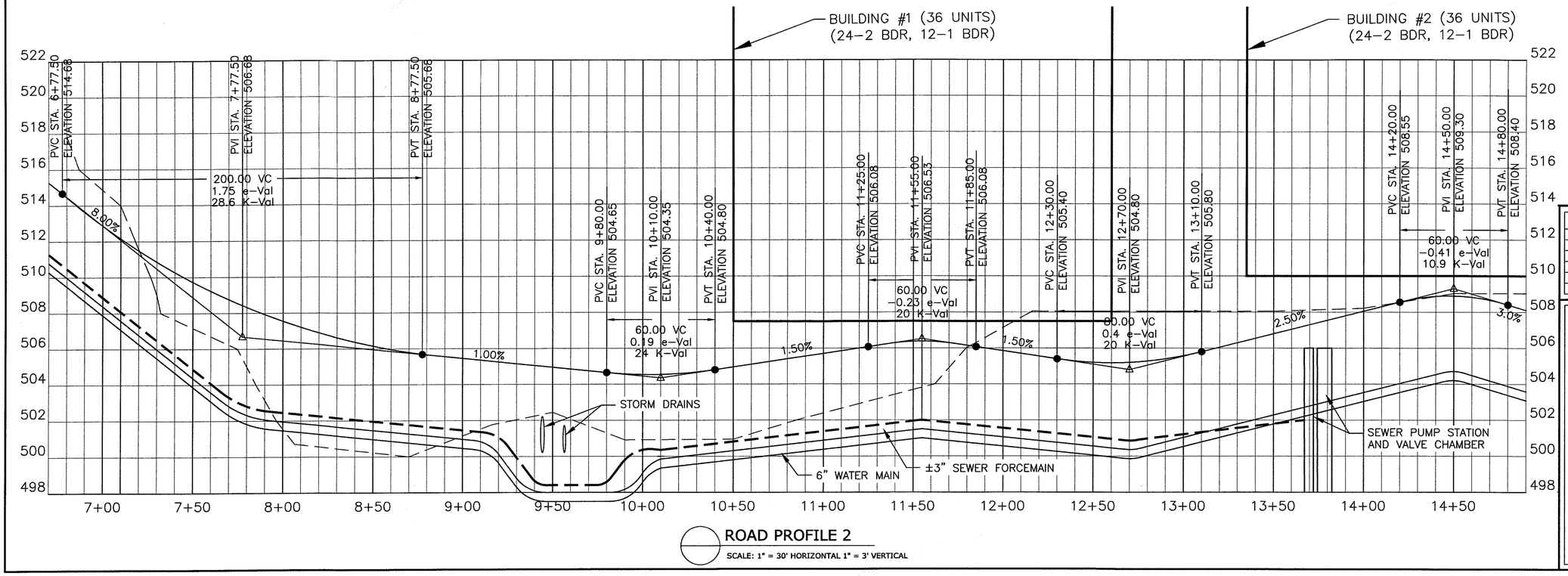
MEDENBACH & EGGERS
CIVIL ENGINEERING & LAND SURVEYING, P.C.
STONE RIDGE, NEW YORK (845) 687-0047

BARRY MEDENBACH, P.E.
NEW YORK LIC. NO. 60142



ROAD PLAN 2

SCALE: 1" = 30'



ROAD PROFILE 2

SCALE: 1" = 30' HORIZONTAL 1" = 3' VERTICAL

MAP REVISION DATES		
DATE	REVISION	BY

ROAD PROFILE AND PLAN 2

FOR SENIOR HOUSING AT
21 LAKESIDE PROPERTIES INC.

SITUATE - LAKESIDE ROAD
TOWN OF NEWBURGH
ORANGE COUNTY, NEW YORK

FEBRUARY 8, 2016

30 0 30 60 90

Scale: 1" = 30'

MEDENBACH & EGGERS
CIVIL ENGINEERING & LAND SURVEYING, P.C.
STONE RIDGE, NEW YORK (845) 687-0047

STATE OF NEW YORK
BARRY MEDENBACH
LICENSED PROFESSIONAL ENGINEER

BARRY MEDENBACH, P.E.
NEW YORK LIC. NO. 60142

SHRUB & PERENNIAL SCHEDULE

SYMBOL	SPECIES	COMMON NAME	QUANTITY	SIZE UPON PLANTING	HEIGHT
	Hamamelis Virginiana	American Witchhazel	4	3 Gal. Cont.	36" TO 48"
	Ilex	China Girl Holly Bush	36	3 Gal. Cont.	24" TO 36"
	Spirea	Limemound Spirea	22	3 Gal. Cont.	12" TO 18"
	Spirea	Little Princess Spirea	60	3 Gal. Cont.	12" TO 18"
	Viburrium dentatum	Arrowwood	11	3 Gal. Cont.	24" TO 36"
	Buxus Microphylla	Winter Gem Boxwood	41	3 Gal. Cont.	12" TO 18"
	Syringa Patula	Miss Kim Lilac	30	5 Gal. Cont.	2' TO 3'
	Rosa 'Knockout'	Knockout Rose	7	3 Gal. Cont.	2' TO 3'
	Cornus stolonifera	Red Osier Dogwood	17	3 Gal. Cont.	±18"
	Aster novae-angliae	New England Aster	9	1 Gal. Cont.	±18"
	Iris versicolor	Blue Flag Iris	42	1 Gal. Cont.	±18"
	Hemerocallis	Stella Doro Daylily	29	1 Gal. Cont.	12" TO 18"
	Lobelia siphatica	Great Blue Lobelia	34	1 Gal. Cont.	±2'
	Rudbeckia lacinata	Cutleaf Coneflower	14	1 Gal. Cont.	±18"
	Mondarda fistulosa	Wild Bergamot	43	1 Gal. Cont.	2' TO 3'
	Scirpus cyprinus	Woolgrass	35	1 Gal. Cont.	±3'
	Spartina Pectinata	Cordgrass	23	3 Gal. Cont.	3' TO 4'
	Panicum virgatum	Switchgrass	9	3 Gal. Cont.	3' TO 4'
	Calamagrostis Canadensis	Blue Joint	8	1 Gal. Cont.	±3'

TREE SCHEDULE

SYMBOL	SPECIES	COMMON NAME	QUANTITY	SIZE UPON PLANTING	
	Acer rebrum	Red Maple	6	2.5"-3" Caliper	±14'
	Betula nigra	River Birch	4	2.5"-3" Caliper	±12'
	Cornus amomum	Silky Dogwood	5	3 Gal. Cont.	±6'
	Quercus bicolor	Swamp White Oak	2	2.5"-3" Caliper	±14'
	Gleditsia triacanthos	Thornless Honey Locust	15	2.5"-3" Caliper	±14'
	Tilia Americana "Redmond"	Redmond Linden	3	2.5"-3" Caliper	±14'
	Pyrus calleryana 'Holmford'	New Bradford Pear	9	2.5"-3" Caliper	±12'
	Malus floribunda	Flowering Crabapple	1	2.5"-3" Caliper	±8'
	Picea abies	Norway Spruce	8	2-1/2" - 3" Caliper	±8'

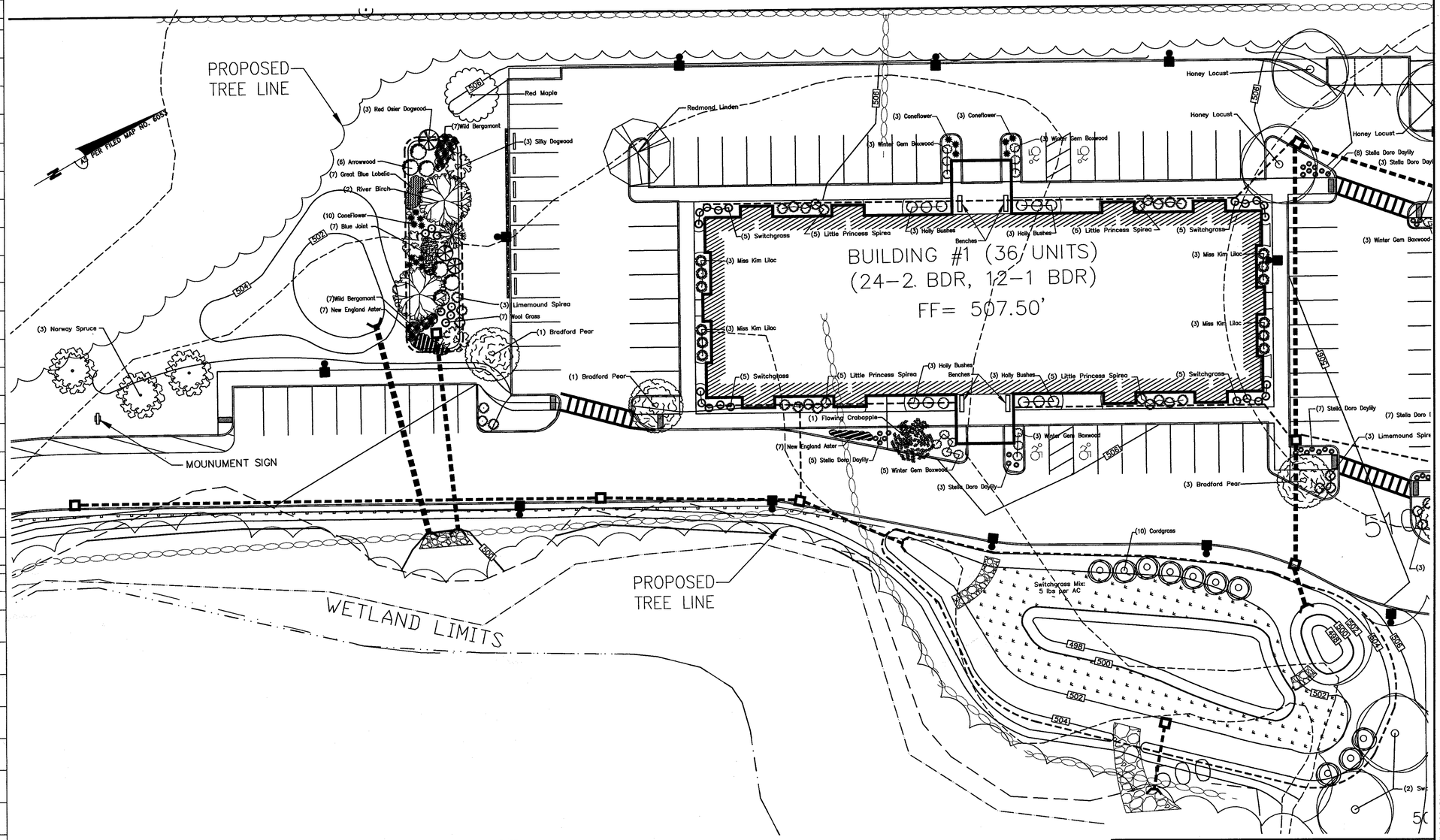
SEEDING MIX FOR SITE LAWNS

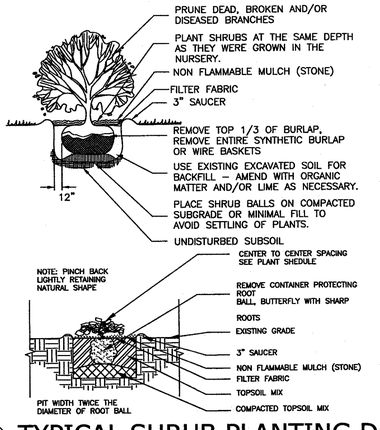
APPLICATION	SPECIES	% PURE LIVE SEED	APPLICATION RATE	FERTILIZER	LIMING RATE	SEEDING DATE
TEMPORARY	ANNUAL RYE	88.2%	10 LBS./1000 S.Y.	5-5-5 AT 207 LBS./ 1000 S.Y.	413 LBS./ 1000 S.Y.	3/15 TO 10/15
PERMANENT	PERENNIAL RYE KENTUCKY BLUE GRASS MIX* CREEPING RED FESCUE	88.2% 78.4% 83.3%	4 LBS./1000 S.Y. 6 LBS./1000 S.Y. 11 LBS./1000 S.Y.	SEE NOTE 1 BELOW	800 LBS./ 1000 S.Y.	3/15 TO 6/1 AND 9/1 TO 10/15
PERMANENT	TALL FESCUE (VAR. KENTUCKY 31) BIRDSFOOT TREFOIL MIX REDTOP	83.5% **78.4% 73.6%	7.5 LBS./1000 S.Y. 2.0 LBS./1000 S.Y. 1.0 LBS./1000 S.Y.	SEE NOTE 1 BELOW	800 LBS./ 1000 S.Y.	4/1 TO 6/15 AND 9/1 9/15

1. FERTILIZER SHALL BE APPLIED IN ACCORDANCE WITH A SOIL TEST. IN THE ABSENCE OF A SOIL TEST, FERTILIZER SHALL BE APPLIED AS FOLLOWS:
   A. 10-20-20 ANALYSIS COMMERCIAL FERTILIZER AT 140 LBS./1000 S.Y.
   38-0-0 UREA FORM FERTILIZER AT 50 LBS./1000 S.Y.
   B. 32-0-0 TO 38-0-0 SULFUR COATED UREA FERTILIZER AT 59-50 LBS./1000 S.Y.
   C. 31-0-0 IBDU FERTILIZER AT 61 LBS./1000 S.Y.
2. ALL SEEDED AREAS SHALL BE MULCHED WITH HAY OR STRAW APPLIED AT A RATE OF 6000 LBS./AC.
3. ALL AREAS RECEIVING SEEDING SHALL HAVE A MINIMUM OF 6" OF ORGANIC TOPSOIL.
   (1240 LBS./1000 S.Y.), MULCH TO BE ANCHORED WITH WOOD CELLULOSE FIBER AT 750 LBS./AC. OR EQUAL.
   * BLUEGRASS MIX: A COMBINATION OF CERTIFIED VARIETIES EACH AT 25% OR LESS OF MIX.
   ** MINIMUM 20% HARDSEED AND 60% NORMAL SPROUTS.

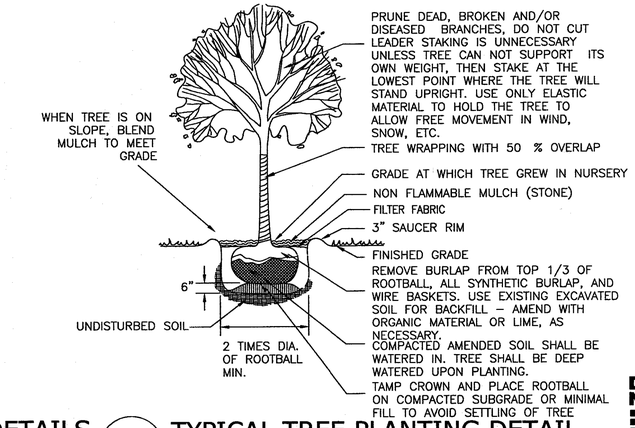
LANDSCAPING NOTES:

1. The contractor shall furnish and plant all plants in quantities as shown on this plan. No substitutes will be permitted unless approved by the owner. All plants shall be nursery grown.
2. Plants shall be in accordance with the current "American Association for Nursery Stock" as published by the American Association of Nurserymen.
3. Plant stock shall be grown within the hardiness zone 5 established by the plant hardiness zone map, miscellaneous publications no.814, agricultural research service, United States Department of Agriculture, latest revision.
4. All plants must be moved with the root systems as solid units with the balls of earth firmly wrapped with burlap. No plants shall be accepted when the ball of earth surrounding its roots has been badly cracked or broken before planting. All plants shall be freshly dug. All plants that cannot be planted at once must be heeled-in by setting in the ground, and covering the balls with soil and then watering during transport. All plant materials shall be wrapped with wind proof covering.
5. Plant material shall bear the same relationship to finished grade as to the original planting grade prior to digging.
6. All disturbed areas not to be paved or otherwise treated shall receive four (4) inch loam and seed.
7. See planting details and specifications for additional requirements.
8. Tree stakes and wrap shall remain in place for no less than 6 months and no more than 1 year.
9. Planting shall be completed from April 1st through November 1st.
10. Maintenance shall consist of keeping the plants in a healthy growing condition and shall include weeding, cultivating, remulching, tightening and repairing of guys, removal of dead material, resetting plants to proper grades or upright position and maintaining the planting saucer.
11. All vegetation shown on this plan shall be maintained in a healthy and vigorous growing condition throughout the duration of the proposed use. All vegetation not so maintained shall be replaced with new same size and type vegetation at the beginning of the next planting year.
12. Replacements shall conform in all respects to the specifications for new plants and shall be planted in the same manner.





6 TYPICAL SHRUB PLANTING DETAILS
NOT TO SCALE



5 TYPICAL TREE PLANTING DETAIL
NOT TO SCALE

Dig Safely New York
- Call Before You Dig
- Wait The Required Time
- Confirm Utility Response
- Respect The Marks
- Dig With Care

CALL 811
www.digsafelyny.com

MAP REVISION DATES

DATE	REVISION	BY
4-6-2017	REVISED PLANT COUNT AND ADDED PLANTING HEIGHTS	CC

LANDSCAPING PLAN 1
FOR SENIOR HOUSING AT 21 LAKESIDE PROPERTIES INC.

SITUATE - LAKESIDE ROAD
TOWN OF NEWBURGH
ORANGE COUNTY, NEW YORK

FEBRUARY 8, 2016

20 0 20 40 60

Scale: 1" = 20'

MEDENBACH & EGGERS
CIVIL ENGINEERING & LAND SURVEYING, P.C.
STONE RIDGE, NEW YORK (845) 687-0047

BARRY MEDENBACH, P.E.
NEW YORK LIC. NO. 60142

LS1
SHEET 8 OF 17

BUILDING #2 (36 UNITS)
(24–2 BDR, 12–1 BDR)
FF= 510.00'

BUILDING #3 (30 UNITS)
(24–2 BDR, 6–1 BDR)
FF= 504.50'
SF= 514.50'

AS PER FILED MAP NO. 6053

PROPOSED GAZEBO

PROPOSED TREE LINE

SAVE EXISTING TREES

PICNIC AREA

505.77'

ADJACENT AREA

100.0'

Switchgrass Mix:
5 lbs per AC

(12) Cordgrass

Honey Locust
(8) Stella Doro Daylily
(3) Stella Doro Daylily
(3) Limemound Spirea
(7) New England Aster
(2) Norway Spruce
(5) Limemound Spirea
(3) Coneflower
(3) Winter Gem Boxwood
(2) Honey Locust
(5) Switchgrass
(5) Little Princess Spirea
(3) Holly Bushes
Benches
(3) Miss Kim Lilac
(3) Bradford Pear
(1) Bradford Pear
Red Maple
(2) Swamp White Oak
(2) Redmond Linden
(7) Knockout Roses
(3) Honey Locust
(7) Great Blue Lobelia
(14) Blue Flag Iris
(2) River Birch
(15) Coneflower
(2) Red Maple
(6) Red Osier Dogwood
(7) Wild Bergamont
(7) Blue Joint
(11) Wool Grass
(3) Witchhazel
(6) Silky Dogwood
(6) Arrowwood

MAP REVISION DATES		
DATE	REVISION	BY
4-6-2017	REVISED SEVERAL TREES SPECIES	CC

LANDSCAPING PLAN 2
FOR SENIOR HOUSING AT 21 LAKESIDE PROPERTIES INC.

SITUATE - LAKESIDE ROAD
TOWN OF NEWBURGH
ORANGE COUNTY, NEW YORK

FEBRUARY 8, 2016

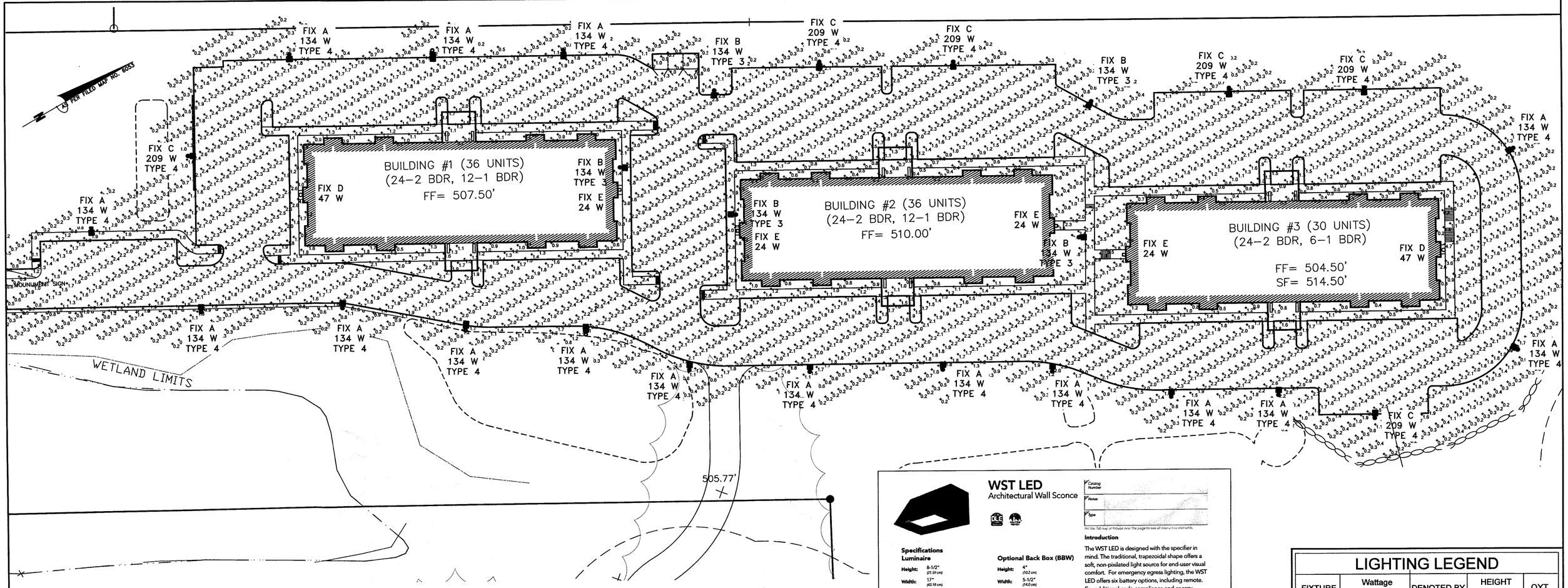
20 0 20 40 60

Scale: 1" = 20'

MEDENBACH & EGGERS
CIVIL ENGINEERING & LAND SURVEYING, P.C.
STONE RIDGE, NEW YORK (845) 687-0047

BARRY MEDENBACH, P.E.
NEW YORK LIC. NO. 60142

LS2



CSX1 LED
LED Area Luminaire

CONTOUR

Specifications

EPA:	0.7 ft² (.0874m²)
Length:	23-1/2" (597cm)
Width:	18-1/2" (46.5cm)
Height:	5-7/8" (149cm)
Weight (max):	37 lbs (16.8kg)

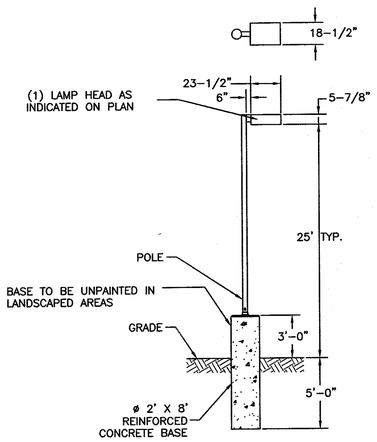
Catalog Number
Notes
Type
Hit the Tab key or mouse over the page to see all interactive elements.

Introduction

The Contour® Series luminaires offer traditional square dayforms with softened edges for a versatile look that complements many applications.

The CSX1 combines the latest in LED technology with the familiar aesthetic of the Contour® Series for stylish, high-performance illumination that lasts. It is ideal for replacing traditional metal halide in area lighting applications with typical energy savings of 65% and expected service life of over 100,000 hours.

Ordering Information EXAMPLE: CSX1 LED 60C 1000 40K T3M MVOLT SPA DDBXD



1 POLE MOUNTED LIGHT DETAIL (FIXTURE A, B, AND C)

LITHONIA CSX1 SERIES LED LAMPS:
MODEL'S:
134 WATT LED LAMP LITHONIA MODEL#: CSX1 LED 60C 700 50K T3M HS (HOUSE SHEILD) OR EQUAL
134 WATT LED LAMP LITHONIA MODEL#: CSX1 LED 60C 700 50K T4M HS (HOUSE SHEILD) OR EQUAL
209 WATT LED LAMP LITHONIA MODEL#: CSX1 LED 60C 1000 50K T4M HS (HOUSE SHEILD) OR EQUAL

WST LED
Architectural Wall Sconce

Catalog Number
Notes
Type
Hit the Tab key or mouse over the page to see all interactive elements.

Specifications
Luminaire

Height:	8-1/2" (21.59 cm)
Width:	17" (43.18 cm)
Depth:	10-3/16" (25.9 cm)
Weight:	20 lbs (9.1 kg)

Optional Back Box (BBW)

Height:	4" (10.2 cm)
Width:	5-1/2" (14.0 cm)
Depth:	1-1/2" (3.8 cm)

Introduction

The WST LED is designed with the specifier in mind. The traditional, trapezoidal shape offers a soft, non-pixilated light source for end-user visual comfort. For emergency egress lighting, the WST LED offers six battery options, including remote. For additional code compliance and energy savings, there is also a Bi-level motion sensor option. With so many standard and optional features, three lumen packages, and high LPW, the WST LED is your "go to" luminaire for most any application.

Ordering Information EXAMPLE: WST LED P1 40K VF MVOLT DDBTXD

2 WALL MOUNTED LIGHT DETAIL (FIXTURE D)

LITHONIA TWH WALL MOUNTED LIGHT WITH FULL SHIELD (FS) OPTION:
MODEL: 47 WATT LED LITHONIA MODEL#: WST LED 2 10A700/50K SR4 MVOLT OR EQUAL

WSR LED
Architectural Wall Sconce

Catalog Number
Notes
Type
Hit the Tab key or mouse over the page to see all interactive elements.

Inverted available with WLSI option only.

Specifications
Luminaire

Height:	7-1/4" (18.4 cm)
Width:	18" (45.7 cm)
Depth:	9" (22.9 cm)
Weight:	17 lbs (7.7 kg)

Optional Back Box (BBW)

Height:	4" (10.2 cm)
Width:	5-1/2" (14.0 cm)
Depth:	1-1/2" (3.8 cm)

Introduction

The classic Architectural Wall Sconce is now available with the latest in LED technology. The result is a long-life, maintenance-free product with typical energy savings of 75% compared to metal halide versions. The integral battery backup option provides emergency egress lighting, without the use of a back-box or remote gear, so installations maintain their aesthetic integrity.

The WSR LED is ideal for replacing existing 50–175W metal halide wall-mounted products. The expected service life is 20+ years of nighttime use.

Ordering Information EXAMPLE: WSR LED 2 10A700/40K SR3 MVOLT DDBTXD

3 WALL MOUNTED LIGHT DETAIL (FIXTURE E)

LITHONIA TWH WALL MOUNTED LIGHT WITH FULL SHIELD (FS) OPTION:
MODEL: 24 WATT LED LITHONIA MODEL#: WSR LED 1 10A700/50K SR3 MVOLT OR EQUAL

LIGHTING LEGEND

FIXTURE	Wattage (TYPE)	DENOTED BY	HEIGHT PLACEMENT	QYT.
A	134W (LED)	▬●	25'	16
B	134W (LED)	▬●	25'	5
C	209 W (LED)	▬●	25'	6
D	47W (LED)	●	12'	2
E	24W (LED)	▬	10'	24

MAP REVISION DATES

DATE	REVISION	BY

LIGHTING PLAN
FOR SENIOR HOUSING AT 21 LAKESIDE PROPERTIES INC.

SITUATE - LAKESIDE ROAD
TOWN OF NEWBURGH
ORANGE COUNTY, NEW YORK

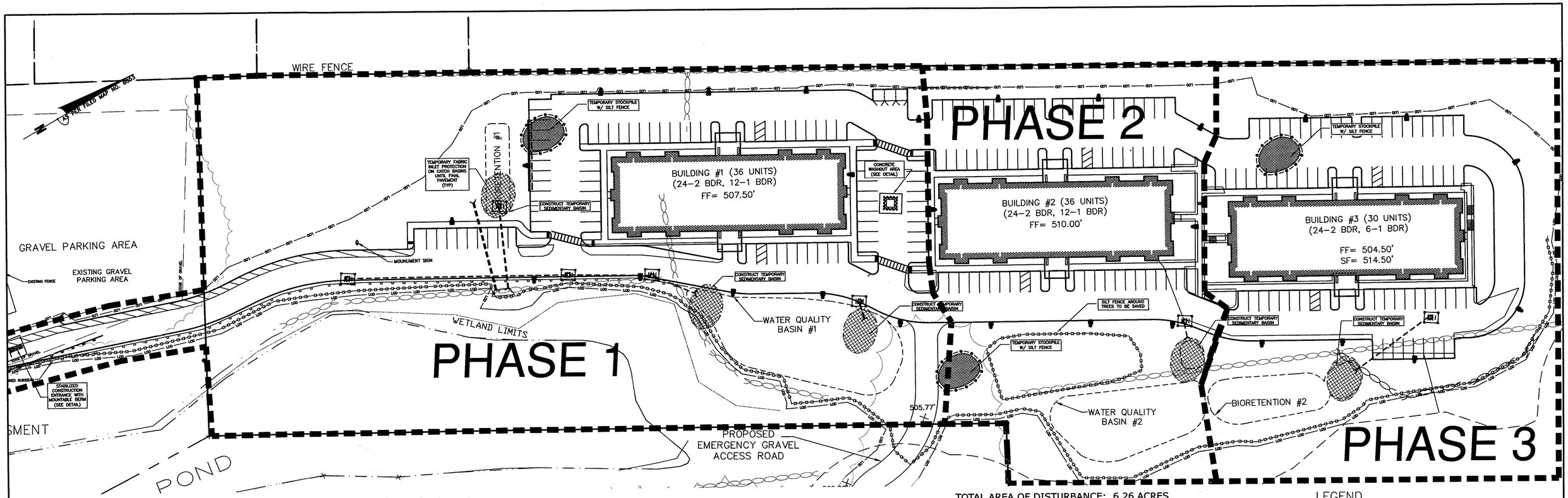
FEBRUARY 8, 2016

30 0 30 60 90

Scale: 1" = 30'

MEDENBACH & EGGERS
CIVIL ENGINEERING & LAND SURVEYING, P.C.
STONE RIDGE, NEW YORK (845) 687-0047

BARRY MEDENBACH, P.E.
NEW YORK LIC. NO. 60142



SOIL EROSION AND SEDIMENT CONTROL PLAN

SCALE: 1" = 40'

TOTAL AREA OF DISTURBANCE: 6.26 ACRES

Sequence of Construction Activity:

The following sequence of soil erosion and sediment control measures shall be followed during the duration of the project. In addition the guidelines in the SWPPP shall be implemented where applicable.

1. **Schedule a pre-construction meeting:** a pre-construction meeting shall be held to review plans and inspect site with town officials including Town Engineer, Contractors, and Project Managers at least one week prior to the start of construction, equipment staging and site disturbance.
2. **Establish Limits of Clearing and Sensitive Areas to be Protected:** Prior to any construction and/or demolition activities commence a pre-construction meeting shall be held to review plans and inspect site.
3. **Construct Stabilized Access to Site:** Install the stabilized construction entrance as indicated to provide access for construction traffic to the site.
4. **Establish Perimeter Controls and Sediment Barriers:** Silt fences will be installed along the perimeter of the site disturbance as shown and around any stockpiles. Silt fences will be installed as per the detail on this sheet. Locations of installation are indicated on this sheet. Temporary diversion swales may also be installed to divert runoff from undisturbed areas around the proposed areas of disturbance
5. **Land Clearing, Demolition and Rough Grading:** Begin demolition and clearing activities. The ground surface shall be cleared of all trees, stumps, brush, weeds, roots, matted leaves, pavement and concrete structures, debris, and any other unsuitable material, except as otherwise directed by the engineer. Material accumulated by clearing as described above shall be disposed of by the contractor in a manner satisfactory to the engineer. After clearing and demolition all topsoil shall be stripped and stockpiled for use in final grading as indicated on plans. The temporary sedimentary basin and swale at the rear of the site shall be roughed in to divert runoff during construction activities. Once topsoil has been stripped rough grade site and install permanent drainage structures and conveyance system. As drainage structures are installed and site is brought to final grade install inlet sediment traps. Bio-retention zone and dry swales shall not be constructed until all contributing drainage areas are stabilized (i.e. parking and driveways paved and permanent vegetation established) Establish temporary vegetation on any areas which will not be disturbed for a period 14 days or more. Parking and driveway areas may be stabilized with road base material.
6. **Building Construction:** During the building construction maintain erosion controls as necessary.
7. **Landscaping and Final Stabilization:** Place topsoil and install landscaping as indicated on planting plans. Construc stormwater wetland and bio-retention zone in conjunction with final stabilization.
8. **Final Inspection and Removal of Temporary BMPS:** Perform final inspection of site to ensure all disturbed areas are stabilized. If all disturbed areas are stabilized temporary erosion control measures shall be removed.

Site Inspection Frequency:

The owner or operator shall have a qualified inspector conduct site inspections in conformance with the following requirements:

1. When soil disturbances are on going inspections shall be conducted by a qualified professional at least ever seven (7) calendar days.
2. When soil disturbance activities have been temporarily suspended (winter shutdown etc.) and temporary stabilization measures have been applied to all disturbed areas, the qualified inspector shall conduct a site inspection at least once every thirty (30) calendar days. The owner or operator must notify the NYS DEC Regional Office in writing prior to reducing the inspection frequency.
3. For sites where the soil disturbance activities have been shut down with partial project completion, the qualified inspector can stop conducting inspections if all areas disturbed as of the project shutdown date have achieved final stabilization and all post-construction stormwater management practices required for the completion of the project portion are in place and constructed in accordance with the SWPPP. The owner or operator shall notify the NYS DEC Regional Office in writing prior to the shutdown. If soil disturbance is not resumed within 2 years from the shutdown date the owner operator shall have the qualified inspector perform a final inspection to certify all disturbed areas have achieved final stabilization, and all temporary, structural erosion and sediment control measures have been removed; and all post-construction stormwater management practices have been constructed in conformance with the SWPPP by signing the "Final Stabilization" and "Post-Construction Stormwater Management Practice" certification statements on the Notice of Termination. The completed Notice of Termination shall be submitted to NYS DEC.

NOTE: SEE SITE DETAILS, SHEET #10 FOR CONCRETE WASHOUT DETAIL.

LEGEND

- TOPSOIL STOCKPILE W/SILT FENCE
- STABILIZED CONSTRUCTION ENTRANCE
- TEMPORARY CHECK DAM
- SILT FENCE
- LOD — LIMIT OF DISTURBANCE
- INLET SEDIMENT TRAP
- AREA TO BE USED FOR SEDIMENTARY EROSIOIN CONTROL UNTIL CONTRIBUTING AREAS ARE STABILIZED

MAP REVISION DATES		
DATE	REVISION	BY

PHASING AND SOIL EROSION AND SEDIMENT CONTROL

FOR SENIOR HOUSING AT
21 LAKESIDE PROPERTIES INC.

SITUATE - LAKESIDE ROAD
TOWN OF NEWBURGH
ORANGE COUNTY, NEW YORK

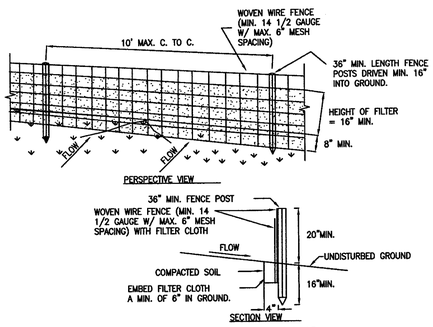
FEBRUARY 8, 2016

30 0 30 60 90

Scale: 1" = 30'

MEDENBACH & EGGERS
CIVIL ENGINEERING & LAND SURVEYING, P.C.
STONE RIDGE, NEW YORK (845) 687-0047

BARRY MEDENBACH, P.E.
NEW YORK LIC. NO. 60142

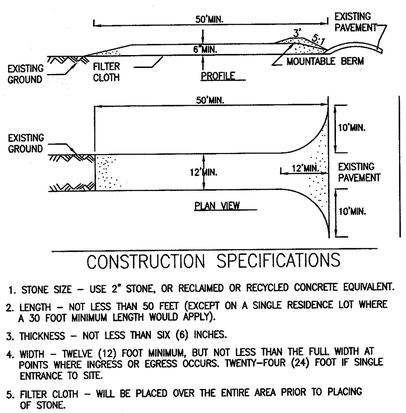


CONSTRUCTION SPECIFICATIONS

1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES. POSTS SHALL BE STEEL EITHER "T" OR "U" TYPE OR HARDWOOD.
2. FILTER CLOTH TO BE TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION. FENCE SHALL BE WOVEN WIRE, 12 1/2 GAUGE, 6" MAXIMUM MESH OPENING.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVER-LAPPED BY SIX INCHES AND FOLDED. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAFI 100X, STABLINKA T140N, OR APPROVED EQUIVALENT.
4. PREFABRICATED UNITS SHALL BE GEOFAB, ENVIROFENCE, OR APPROVED EQUIVALENT.
5. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

1 SILT FENCE TYPICAL DETAIL

NOT TO SCALE

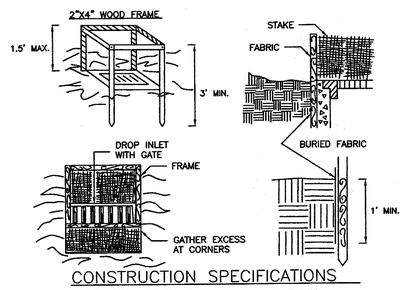


CONSTRUCTION SPECIFICATIONS

1. STONE SIZE – USE 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH – NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY).
3. THICKNESS – NOT LESS THAN SIX (6) INCHES.
4. WIDTH – TWELVE (12) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. TWENTY-FOUR (24) FOOT IF SINGLE ENTRANCE TO SITE.
5. FILTER CLOTH – WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
6. SURFACE WATER – ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CON-STRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE – THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY, ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACTED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
8. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON A AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

2 STABILIZED CONSTRUCTION ENTRANCE DETAIL

NOT TO SCALE

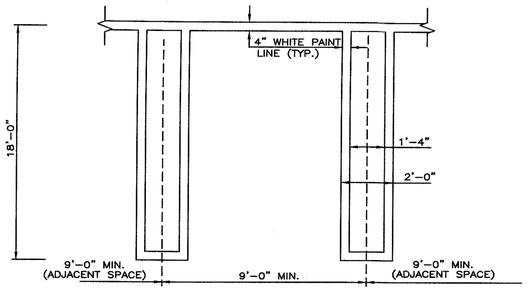


CONSTRUCTION SPECIFICATIONS

1. FILTER FABRIC SHALL HAVE AN EOS OF 40-85. BURLAP MAY BE USED FOR SHORT TERM APPLICATIONS.
2. CUT FABRIC FROM A CONTINUOUS ROLL TO ELIMINATE JOINTS. IF JOINTS ARE NEEDED THEY WILL BE OVERLAPPED TO THE NEXT STAKE.
3. STAKE MATERIALS WILL BE STANDARD 2" x 4" WOOD OR EQUIVALENT. METAL WITH A MINIMUM LENGTH OF 3 FEET.
4. SPACE STAKES EVENLY AROUND INLET 3 FEET APART AND DRIVE A MINIMUM 18 INCHES DEEP. SPANS GREATER THAN 3 FEET MAY BE BRIDGED WITH THE USE OF WIRE MESH BEHIND THE FILTER FABRIC FOR SUPPORT.
5. FABRIC SHALL BE EMBEDDED 1 FOOT MINIMUM BELOW GROUND AND BACKFILLED. IT SHALL BE SECURELY FASTENED TO THE STAKES AND FRAME.
6. A 2" x 4" WOOD FRAME SHALL BE COMPLETED AROUND THE CREST OF THE FABRIC FOR OVER FLOW STABILITY. MAXIMUM DRAINAGE AREA 1 ACRE

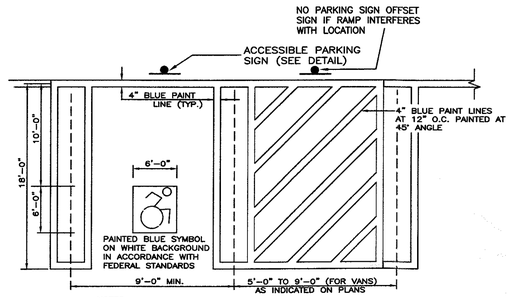
3 INLET SILT FENCE SEDIMENT TRAP DETAIL

NOT TO SCALE



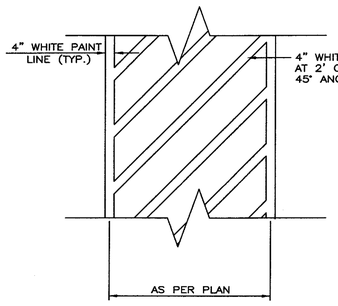
NOTES:
1. SEE SITE PLAN FOR SPACE LOCATION.
2. APPLY TWO COATS OF PAINT ON ALL SURFACES.

1 TYPICAL PARKING SPACE DETAIL
NOT TO SCALE



NOTES:
1. SEE SITE PLAN FOR ACCESSIBLE SPACE LOCATION AND DIMENSIONS.
2. APPLY TWO COATS OF PAINT ON ALL SURFACES.

2 HANDICAP PARKING SPACE DETAIL
NOT TO SCALE

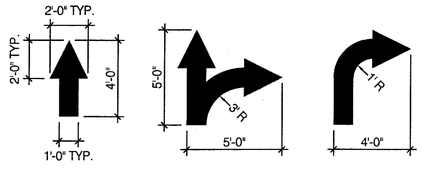


PAVEMENT MARKING NOTES:

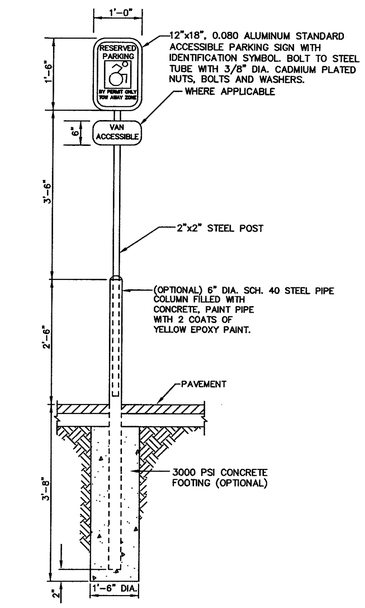
1. STRIP PAVEMENT AS SHOWN ON THE PLANS AND/OR IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL REQUIREMENTS.
2. ALL STRIPING UNLESS OTHERWISE NOTED IN DETAILS OR ON PLANS SHALL BE A MINIMUM OF 4" WIDE.
3. PAVEMENT MARKING COLORS:
   - 3.1. DRIVE LANE DIVIDERS – WHITE
   - 3.2. STOP BARS AND LETTERING – WHITE
   - 3.3. PARKING DIVIDERS – WHITE
   - 3.4. CROSS WALKS – WHITE
   - 3.5. HANDICAP PARKING LINES – BLUE

NOTES:
1. SEE SITE PLAN FOR LOCATION AND DIMENSIONS.
2. APPLY TWO COATS OF PAINT ON ALL SURFACES.

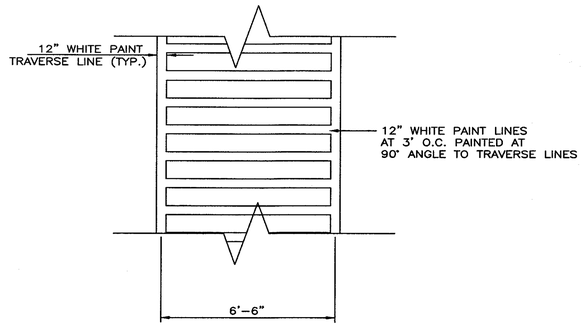
3 HATCH PAINTING DETAIL
NOT TO SCALE



4 TYPICAL PAVEMENT MARKINGS
NOT TO SCALE

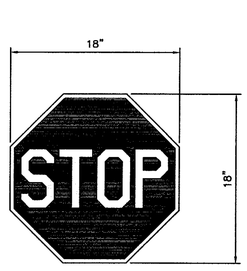


5 TYPICAL ACCESSIBLE PARKING SIGN
NOT TO SCALE



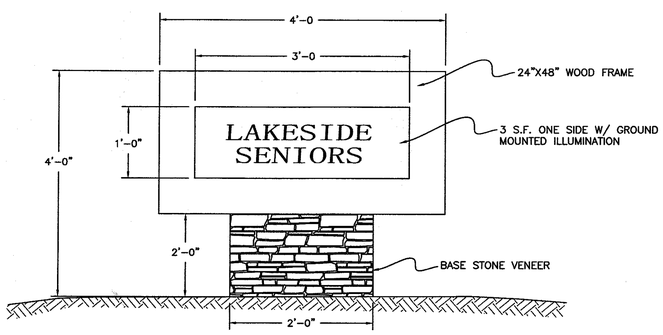
NOTES:
1. SEE SITE PLAN FOR CROSSWALK LOCATION AND DIMENSIONS.
2. APPLY TWO COATS OF PAINT ON ALL SURFACES.

6 TYPICAL CROSSWALK PAINTING DETAIL
NOT TO SCALE



7 R1-1A: STOP SIGN DETAIL
NOT TO SCALE

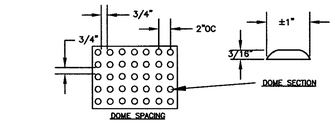
8 R3-8: NO PARKING SIGN DETAIL
NOT TO SCALE



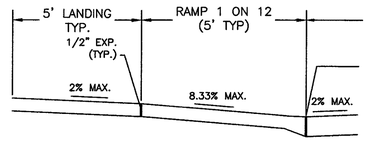
13 MONUMENT SIGN ELEVATION
NOT TO SCALE

Curb Ramp Notes:

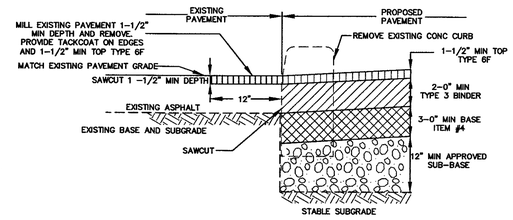
1. A curb ramp is defined as the entire concrete surface which includes the ramp & flared sides. The minimum 5' wide center portion, including the detectable surface, shall have a sloped plane of 8.33% (1:12) maximum, and cross slope, not to exceed 2%. The "flared side" of the ramp shall lie on a slope of 10% (1:10) maximum measured along the curb. The curb ramp shall have a surface tolerance of 1/4" per 10 foot straight edge maximum.
2. The ramp center line and path of travel should be parallel to the sidewalk whenever possible. The full width of the ramp shall lie within the crosswalk area. It is desirable that the location of the ramp be as close as possible to the center of the crosswalk.
3. Existing utility boxes and covers shall be adjusted flush with the curb ramp surface and shall not straddle any change in plane or material. Existing utility box frames and covers shall have matching surface finish on the entire frame and cover. New utility boxes shall not be placed within the detectable border.
4. The surface of the curb ramp and detectable surface material shall be stable, firm and slip resistant. Detectable warning fields shall visually contrast with adjoining surfaces either light on dark or dark on light. The concrete curb ramp surface shall be broom finished transverse to the axis of the ramp and shall be slightly rougher than the finish of the adjacent sidewalk surface.
5. A level landing 5'-0" deep, with a 2% maximum slope in each direction shall be provided at the upper end of each curb ramp to allow safe egress from the ramp surfaces. The width of the level landing shall be at least as wide as the width of the ramp.
6. Seal all joints on sidewalk and ramps. Maximum width of expansion joint is 1/2"



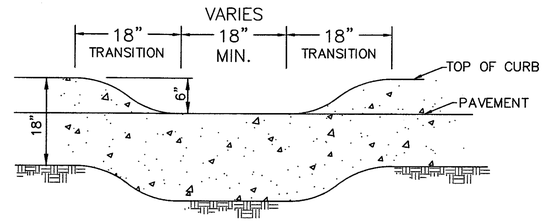
DETECTABLE WARNING FIELD DETAIL



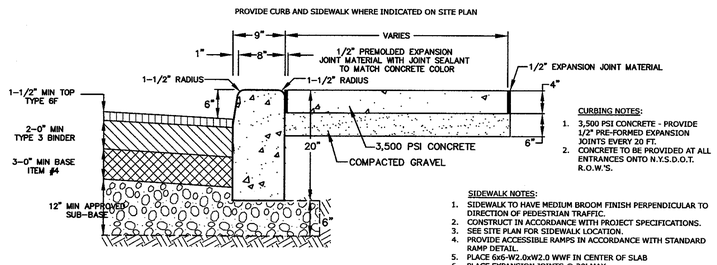
SECTION A-A



9 TYPICAL PAVEMENT CONNECTION DETAIL
NOT TO SCALE



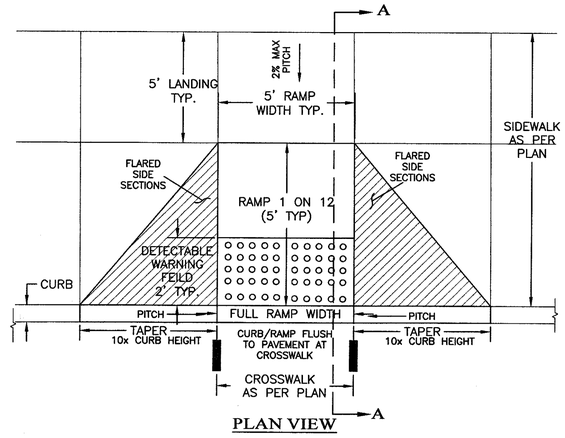
10 TYPICAL DEPRESSED CURB DETAIL
NOT TO SCALE
SEE SITE PLAN FOR FULL DETAIL



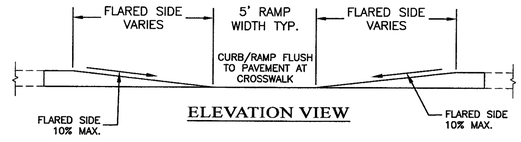
CURBING NOTES:
1. 3,500 PSI CONCRETE - PROVIDE 1/2" PRE-FORMED EXPANSION JOINTS EVERY 20 FT.
2. CONCRETE TO BE PROVIDED AT ALL ENTRANCES ONTO N.Y.S.D.O.T. R.O.W.'S.

SIDEWALK NOTES:
1. SIDEWALK TO HAVE MEDIUM BROOM FINISH PERPENDICULAR TO DIRECTION OF PEDESTRIAN TRAFFIC.
2. CONSTRUCT IN ACCORDANCE WITH PROJECT SPECIFICATIONS.
3. SEE SITE PLAN FOR SIDEWALK LOCATION.
4. PROVIDE ACCESSIBLE RAMPS IN ACCORDANCE WITH STANDARD RAMP DETAIL.
5. PLACE 6x6-W2.0xW2.0 WWF IN CENTER OF SLAB
6. PLACE EXPANSION JOINTS @ 20' MAX.
7. PLACE CONTROL JOINTS AT 4' TO 10' MAX.
8. ALL OTHER SITE SIDEWALKS SHALL BE CONSTRUCTED USING THE MATERIALS AND DEPTHS INDICATED ABOVE.

11 SITE PAVEMENT & CONCRETE CURB DETAIL
NOT TO SCALE



PLAN VIEW



ELEVATION VIEW

12 DEPRESSED RAMP/DETECTABLE WARNING DETAIL
NOT TO SCALE

MAP REVISION DATES		
DATE	REVISION	BY
03-27-2017	ADDED 'SEE SITE PLAN FOR FULL DETAIL' UNDER DETAIL 10	SL
04-04-2017	DETAIL 10 CHANGED FROM 18" TO VARIES 18" MIN.	SL
07-06-2017	ADDED MONUMENT SIGN DETAIL	CC

SITE DETAILS
FOR SENIOR HOUSING AT
21 LAKESIDE PROPERTIES INC.

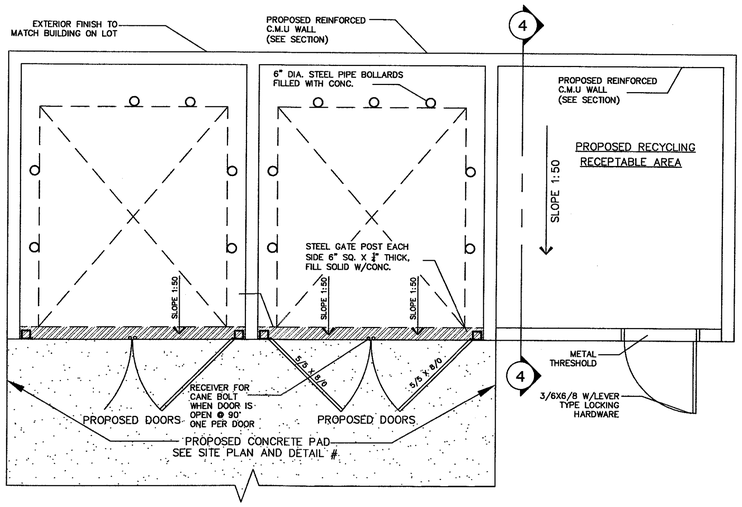
SITUATE - LAKESIDE ROAD
TOWN OF NEWBURGH
ORANGE COUNTY, NEW YORK

FEBRUARY 8, 2016

MEDENBACH & EGGERS
CIVIL ENGINEERING & LAND SURVEYING, P.C.
STONE RIDGE, NEW YORK (845) 687-0047

BARRY MEDENBACH, P.E.
NEW YORK LIC. NO. 60142

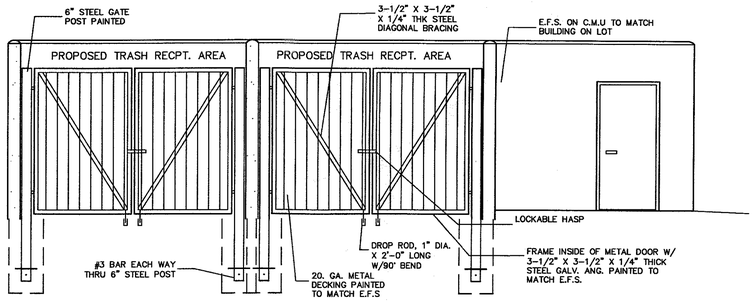
D1
SHEET 12 OF 17



VERIFY DRAINAGE REQUIREMENTS WITH HEALTH INSPECTOR

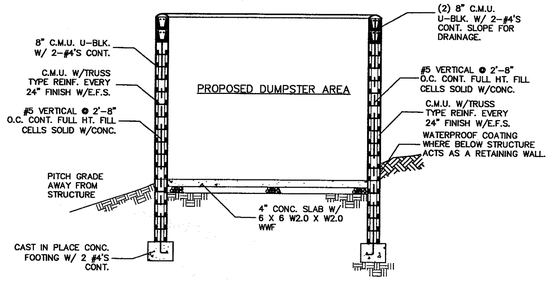
1 DUMPSTER RECEPTACLE SCREEN PLAN

SCALE: NOT TO SCALE



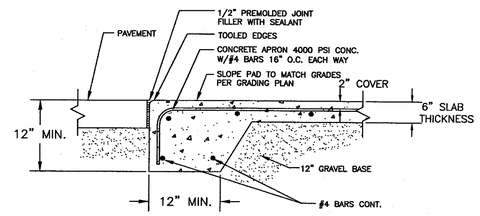
2 DUMPSTER RECEPTACLE SCREEN ELEVATION

SCALE: NOT TO SCALE



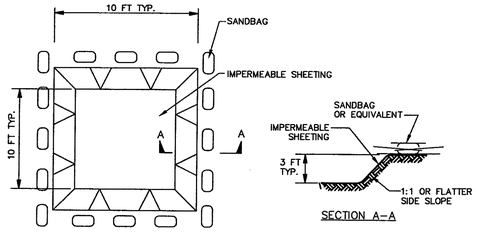
3 DUMPSTER RECEPTACLE SCREEN SECTION

SCALE: NOT TO SCALE



4 DUMPSTER CONCRETE PAD DETAIL

NOT TO SCALE



PLAN

EXCAVATED WASHOUT STRUCTURE

CONSTRUCTION SPECIFICATIONS

1. DESIGNATED TEMPORARY, BELOW GROUND CONCRETE WASHOUT FACILITIES WILL BE CONSTRUCTED AS SHOWN ABOVE. WASHOUTS WILL BE CENTRALLY LOCATED AT THE DISCRETION OF THE INDIVIDUALS WHO MANAGE DAY TO DAY CONSTRUCTION ACTIVITIES. WASHOUTS SHALL HAVE A MINIMUM LENGTH AND WIDTH OF 10 FEET BUT MUST HAVE SUFFICIENT VOLUME TO CONTAIN ALL LIQUID CONRETE WASTES GERNERTATED FROM WAHOUT OPERTIONS. THE WASHOUT AREAS WILL BE LINED WITH PLASTIC SHEETING AT LEAST 10 MILS THICK AND FREE OF ANY HOLES OR TEARS. SIGNS WILL BE POISTED MARKING THE LOCATION OF THE WAHOUT AREAS.
2. TEMPORARY CONCRETE WASHOUT FACILITIES WILL BE LOCATED A MINIMUM OF (50 FEET) FROM DRAIN INLETS.
3. KEEP THE WASHOUT AREAS WILL BE INSPECTED DAILY TO ENSURE THAT ALL CONRETE WASHING IS BEING DISCHARDE INTO THE WASHOUT AREA, NO LEAKS OR TEARS ARE PRESENT, AND TO IDENTIFY WHEN CONCRETE WASTES NEED TO BE REMOVED. THE WAHOUT AREAS WILL BE CLEANED OUT ONCE THE AREA IS FILLED TO 75 PERCENT OF THE HOLDING CAPACITY. ONCE THE AREA'S HOLDING CAPACITY HAS BEEN REACHED THE CONRETE WASTES WILL BE ALLOWED TO HARDEN , THE CONRETE WILL BE BROKEN UP, REMOVED, AND DISPOSED IN ACCORDANCE WITH LOCAL REGULATIONS. THE PLASTIC SHEET WILL BE REPLACED IF TEARS OCCCUR DURING REMOVAL OF CONCRETE WASTES FROM THE WASHOUT AREA.

5 CONCRETE WASHOUT DETAIL

NOT TO SCALE

MAP REVISION DATES		
DATE	REVISION	BY

SITE DETAILS

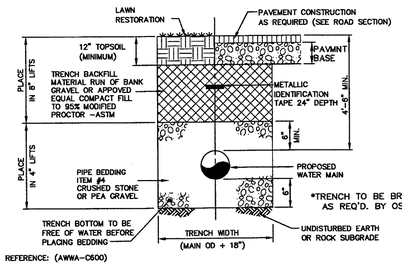
FOR SENIOR HOUSING AT
21 LAKESIDE PROPERTIES INC.

SITUATE - LAKESIDE ROAD
TOWN OF NEWBURGH
ORANGE COUNTY, NEW YORK

FEBRUARY 8, 2016

MEDENBACH & EGGERS
CIVIL ENGINEERING & LAND SURVEYING, P.C.
STONE RIDGE, NEW YORK (845) 687-0047

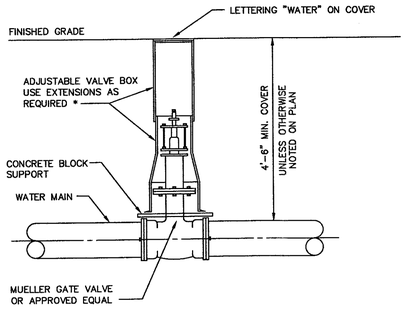
BARRY MEDENBACH, P.E.
NEW YORK LIC. NO. 60142



REFERENCE: (AWWA-C600)

1 TYPICAL WATER MAIN TRENCH DETAIL

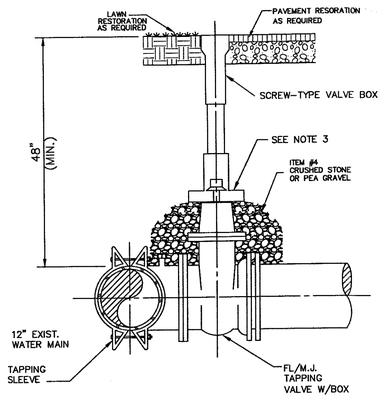
NOT TO SCALE



* NOTE:
1. IF EXTENSIONS ARE NECESSARY CONTRACTOR SHALL SET "PLUMB" AND ALIGN PROPERLY FOR ACCESS TO OPERATING NUT.
2. VALVES-METAL SEATED (AWWA-C500) VALVES-RESILIANT SEAT (AWWA-C509)

2 TYPICAL GATE VALVE DETAIL

NOT TO SCALE
SEE TOWN NOTE 5

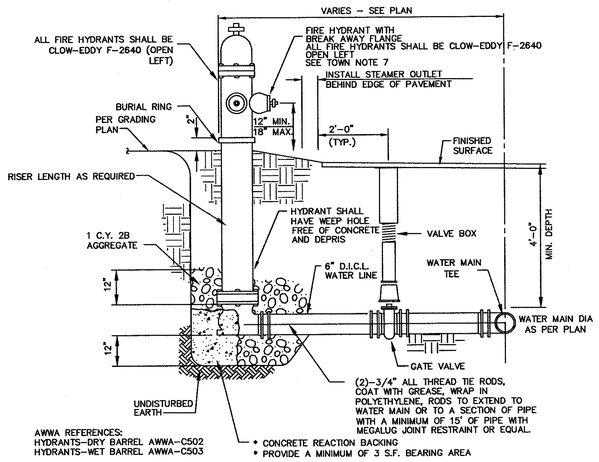


NOTES:

1. RESILIENT WEDGE GATE VALVE SHALL BE EPOXY COATED.
2. TAPPING SLEEVES SHALL BE CAST IRON.
3. SELF-CENTERING ALIGNMENT RING EQUIVALENT TO AMERICAN FLOW CONTROL.
4. MEGA LUGS REQUIRED FOR ALL FITTINGS

3 TYPICAL WET TAP DETAIL

NOT TO SCALE
SEE TOWN NOTE 6

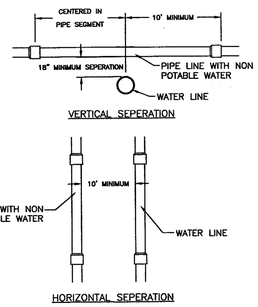


AWWA REFERENCES:
HYDRANTS-DRY BARREL AWWA-C502
HYDRANTS-WET BARREL AWWA-C503

NOTE: IF HIGH GROUND WATER IS ENCOUNTERED, THE HYDRANT DRAIN HOLE SHOULD BE PLUGGED AND THE HYDRANT MARKED OR LABELED TO INDICATE THAT THE BARREL MUST BE PUMPED OUT AFTER USE TO PREVENT DAMAGE FROM FREEZING

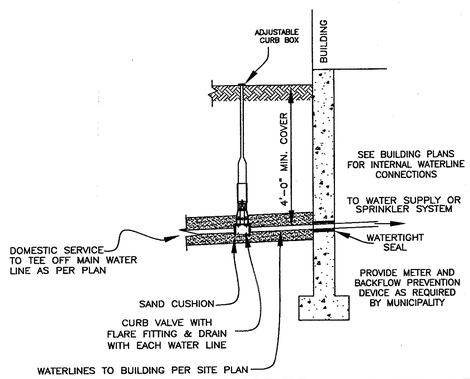
4 TYPICAL FIRE HYDRANT DETAIL

NOT TO SCALE



5 WATERLINE SEPERATION

NOT TO SCALE



6 TYPICAL WATER LINE CONNECTION

NOT TO SCALE

Water Main Notes and Specifications

General Provisions:

1. All water lines shall be Class 52 ductile (AWWA C151) iron pipe unless otherwise noted or approved by engineer. All ductile fittings are to meet AWWA Standards C110.
2. The most recent revision of the AWWA standards are to be used.

Ductile Iron Pipe	C151
Valves - Metal Seated	C500
Hydrants - Wet Barrel	C502
Hydrants - Dry Barrel	C503
Valves-Resiliant Seat	C509
Pipe Laying	C600
Hydrostatic Testing	C600
Disinfection	C651
Service Lines, Corp. & Curb Stops	C800
Ductile Iron Fittings	C110

3. Water lines shall be equiped with Megalug - series 1100 for pipe restraining, or as required by Town Water Dept.
4. All water lines shall be installed a minimum of 4.5 (four and half) feet below grade. The water line maybe flexed within pipe specifications or laid deeper in areas where crossings with the sanitary line occur, to achieve the required 18 inch vertical separation distance. (See sewer specifications for further information)
5. Water line is to be pressure tested and leakage tested in accordance with Great Lakes Upper Mississippi River Board of State and Provincial Public Health and Environmental Managers' Recommended Standards for Water Works, Section 8.7.6 2012, (AWWA C-600-05).
6. Water line is to be disinfected in accordance with Great Lakes Upper Mississippi River Board of State and Provincial Public Health and Environmental Managers' Recommended Standards for Water Works, Section 8.7.6 2012 (AWWA C-651).
7. All water lines shall be in compliance with the "No Lead" law for waterworks.
8. Whenever pipe laying is not actively in progress, the open ends of the pipe must be closed by a temporary watertight plug or cap to prevent soil, water or other foreign matter from entering the pipe.
9. Deflection of pipes at a joint must not exceed 80% of the manufactures recommended maximum.
10. Sufficent notice must be given to the head of the municipal water department, the privated owner or a designated representative of any testing so that they can witness if desired.
11. The head of the municipal water department or the private owner or their designated representative must review and accept the testing, hydrostatic and bacteriological, as adequate.
12. Bacteriological testing must include two consecutive sets of acceptable samples taken at least 24 hours apart
    - 12.1. One from each 1200' of new watermain
    - 12.2. Once from each branch of the watermain
    - 12.3. One from each end of the watermain.
13. The tablet method of chlorinating the watermain, as described in AWWA, C651 is not acceptable method.
14. Refer to sections 8.7-8.13 of the "Recommended Standards for Water Works" for the installation, seperation and protection of watermains.

Original 12-06-96 Revised 04-24-02 Revised 01-2015
TOWN OF NEWBURGH
WATER SYSTEM NOTES FOR SITE PLANS

1. "Construction of potable water utilities and connection to the Town of Newburgh water system requires a permit from the Town of Newburgh Water Department. All work and materials shall conform to the requirements of the NYSDOH and the Town of Newburgh."

2. All water service lines four (4) inches and larger in diameter shall be cement lined class 52 ductile iron pipe conforming to ANSI\AWWA C151\A21.51 for Ductile Iron Pipe, latest revision. Joints shall be either push-on or mechanical joint as required.

3. Thrust restraint of the pipe shall be through the use of joint restraint. Thrust blocks are not acceptable. Joint restraint shall be through the use of mechanical joint pipe with retainer glands. All fittings and valves shall also be installed with retainer glands for joint restraint. Retainer glands shall be EBBA Iron Megalug Series 1100 or approved equal. The use of a manufactured restrained joint pipe is acceptable with prior approval of the Water Department.

4. All fittings shall be cast iron or ductile iron, mechanical joint, class 250 and conform to ANSI\AWWA C110\A21.10 for Ductile and Gray Iron Fittings or ANSI\AWWA C153\A21.53 for Ductile Iron Compact Fittings, latest revision.

5. All valves 4 to 12 inches shall be Resilient Wedge Gate Valves conforming to ANSI\AWWA C509 such as Mueller Model A-2360-23 or approved equal. All gate valves shall open left (counterclockwise).

6. Tapping sleeve shall be mechanical joint such as Mueller H-615 or equal. Tapping valves 4 to 12 inches shall be Resilient Wedge Gate Valves conforming to ANSI\AWWA C509 such as Mueller Model T-2360-19 or approved equal. All tapping sleeves and valves shall be tested to 150 psi minimum; testing of the tapping sleeve and valve must be witnessed and accepted by the Town of Newburgh Water Department prior to cutting into the pipe.
Original 12-06-96 Revised 04-24-02 Revised 01-2015

7. All hydrants shall be Clow-Eddy F-2640 conforming to AWWA Standard C-502, latest revision. All hydrants shall include a 5 ¼ inch main valve opening, two 2 ½ inch diameter NPT hose nozzles, one 4 inch NPT steamer nozzle, a 6 inch diameter inlet connection and a 1 ½ inch pentagon operating nut. All hydrants shall open left (counter-clockwise). Hydrants on mains to be dedicated to the Town shall be Equipment Yellow. Hydrants located on private property shall be Red.

8. All water service lines two (2) inches in diameter and smaller shall be type K copper tubing. Corporation stops shall be Mueller H-15020N for ¾ and 1 inch, Mueller H-15000N or B-25000N for 1 ½ and 2 inch sizes. Curb valves shall be Mueller H-1502-2N for ¾ and 1 inch and Mueller B-25204N for 1 ½ and 2 inch sizes. Curb boxes shall be Mueller H-10314N for ¾ and 1 inch and Mueller H-10310N for 1 ½ and 2 inch sizes.

9. All pipe installation shall be subject to inspection by the Town of Newburgh Water Department. The contractor shall be responsible for coordinating all inspections as required with the Town of Newburgh Water Department.

10. The water main shall be tested, disinfected and flushed in accordance with the Town of Newburgh requirements. All testing, disinfection and flushing shall be coordinated with the Town of Newburgh Water Department. Prior to putting the water main in service satisfactory sanitary results from a certified lab must be submitted to the Town of Newburgh Water Department. The test samples must be collected by a representative of the testing laboratory and witnessed by the Water Department.

11. The final layout of the proposed water and/or sewer connection, including all materials, size and location of service and all appurtenances, is subject to the review and approval of the Town of Newburgh Water and/or Sewer Department. No permits shall be issued for a water and/or sewer connection until a final layout is approved by the respective Department.

Water Main Notes and Specifications Continued

Pressure Test Procedure:

1. After trench has been backfilled. hydrostatic acceptance tests, consisting of a pressure test and a leakage test shall be performed on all sections of water mains installed. leakage test shall be conducted concurrently with pressure test. Test section shall be limited to about 2000 ft (max.) unless otherwise approved by the engineer.
2. After all tests and inspections have been performed evidence of compliance shall be forwarded to owner/engineer prior to acceptance.
3. All water for tests shall be furnished and disposed of by the contractor at the contractor's expense. Source and/or quality of water which the contractor proposes to use in testing lines shall be acceptable to the engineer
4. For the pressure test, system shall be pressurized and maintained at a minimum of 150 psi, or 1.5 times the working pressure, whichever is greater, based on the elevation of the lowest point in the section being tested and corrected to the elevation of the gauge. Provisions shall be made to relieve air trapped at high points in the system through adjacent hydrants or through taps and corporation stops installed for this purpose by the contractor. After said pressure has been maintained successfully, with further pumping as required, for a period of at least two hours. The section under test shall be considered to have passed the pressure test.
5. Leakage test shall be performed concurrently using a minimum test pressure of 150 psi, or 1.5 times the working pressure. whichever is greater. Based on the elevation of the lowest point in the section under test and corrected to elevation of the gauge. leakage test duration shall be a minimum of 2 hours after leakage rate has stabilized.
6. Maximum allowable leakage shall be as shown in the following table: allowable leakage per 1000 ft of pipeline per hour (gph)

Avg Test Pressure	Nominal Pipe Dia. Inches		
PSI (BAR)	2"	4"	6"
450 (31)	0.32	0.64	0.95
400 (28)	0.30	0.60	0.90
350 (24)	0.28	0.56	0.84
300 (21)	0.26	0.52	0.78
275 (19)	0.25	0.50	0.75
250 (17)	0.24	0.47	0.71
225 (16)	0.23	0.45	0.68
200 (14)	0.21	0.43	0.64
175 (12)	0.20	0.40	0.59
150 (10)	0.19	0.37	0.55
125 (9)	0.17	0.34	0.50
100 (7)	0.15	0.30	0.45

Disinfection Procedure:

1. Water from an approved source of supply shall be made to flow at a constant rate in to the newly laid water main.
2. Water entering the new main shall receive a dose of chlorine fed at a constant rate such that the water will not have less than 25 mg/l free chlorine.
3. Measure chlorine concentration at regular intervals. Chlorine application shall not cease until the entire main is filled with heavily chlorinated water. The chlorinated water shall be retained for a minimum of 24 hours. The treated water in all portions of the main at the end of the 24 hour period shall have a residual of not less than 10 mg/l free chlorine.
4. After all tests and inspections have been performed evidence of compliance shall be forwarded to owner/engineer prior to acceptance.

Sevice Pipe Conections:

1. Corporation stops for three-forths-inch and one-inch service lines shall be Mueller H-15008 conductive compression or equal. Corporation stops for one-and-one-half-inch and two-inch service lines shall be Mueller H-15013 conductive compression or equal. Corporation stops shall be in accordance with AWWA C800, latest revision .
2. Curb stops for three-forths-inch through two inch shall be mueller H-15219 conductive compression, with drain or equal. Curb stops shall be provided with an extension service box to grade. Curb stops shall be accordance with AWWA C800, latest Revision.
3. Underground service lines for sizes three-forths-inch through two-inch shall be Type K copper, supplied in conformance with ASTM 888, in accordance with AWWA C800, latest revision.
4. Service Connections or water main extension connections of three inch or larger shall be made by means of approved tapping sleeve and tapping valve. Mechanical joint tapping sleeves shall be provided with duck-tipped end gaskets. Outlet flange be class 125, ANSI B16.1.

MAP REVISION DATES		
DATE	REVISION	BY
03-27-2017	ADDED TOWN OF NEWBURGH WATER NOTE; REMOVED TEE THRUST BLOCK, HORIZONTAL AND UPWARD BEN, AND DOWNWARD BEND DETAILS; ADDED 'SEE TOWN NOTES' ON DETAIL 2 & 3; CORRECTED FIRE HIDRANT TYPE PER TOWN NOTES ON DETAIL 7	SL
04-04-2017	CORRECTED P.3 OF GENERAL PROV. TO MATCH TOWN REQUIREMENTS	SL

WATER DETAILS

FOR SENIOR HOUSING AT 21 LAKESIDE PROPERTIES INC.

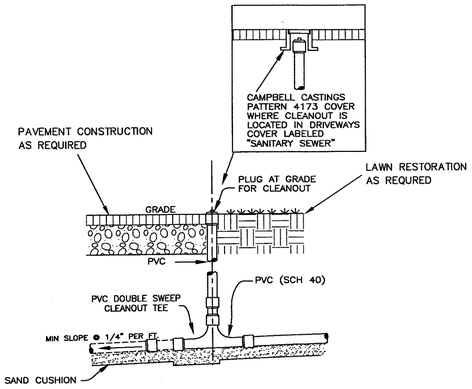
SITUATE - LAKESIDE ROAD
TOWN OF NEWBURGH
ORANGE COUNTY, NEW YORK

FEBRUARY 8, 2016

MEDENBACH & EGGERS
CIVIL ENGINEERING & LAND SURVEYING, P.C.
STONE RIDGE, NEW YORK (845) 687-0047

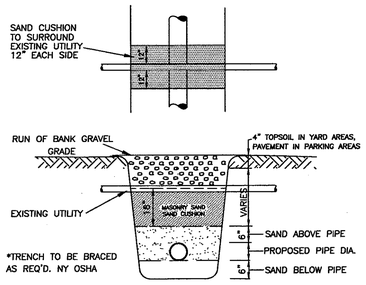
BARRY MEDENBACH, P.E.
NEW YORK LIC. NO. 60142

D3
SHEET 14 OF 17



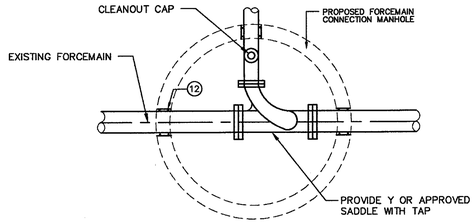
1 SEWER LATERAL CLEANOUT DETAIL

NOT TO SCALE



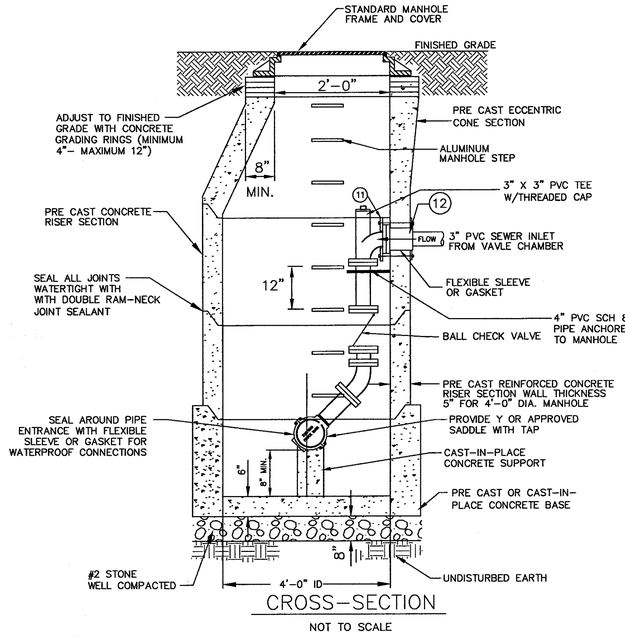
3 TYPICAL UTILITY LINE CROSSING DETAIL

NOT TO SCALE



PLAN VIEW

NOT TO SCALE

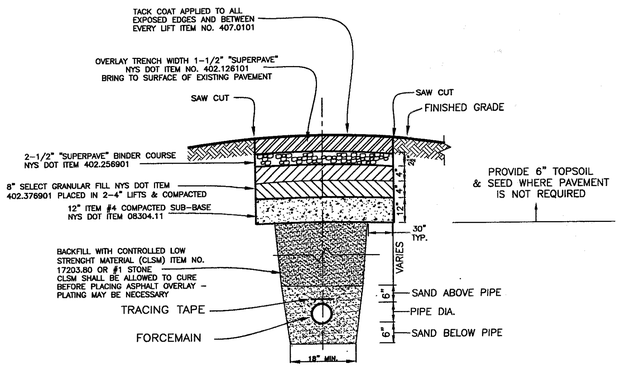


CROSS-SECTION

NOT TO SCALE

5 SEWER MANHOLE W/ FORCE MAIN CONNECTION DETAIL

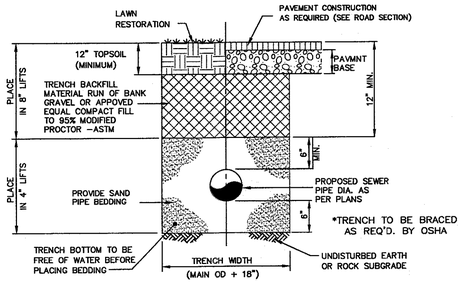
NOT TO SCALE



*TRENCH TO BE BRACED AS REQ'D. BY OSHA

2 TYPICAL FORCEMAIN TRENCH DETAIL

NOT TO SCALE



4 TYPICAL SEWER TRENCH DETAIL

NOT TO SCALE

Sanitary Sewer Notes and Specifications

General Provisions:

1. Gravity sewer pipes shall be PVC SDR 35 with ring-tight joints in compliance with ASTM D-3212.
2. Sewer mains in relation to water mains: where possible, sewers shall be laid at least 10 (ten) feet horizontally from any existing or proposed water main. Vertical separation shall be maintained to provide 18 (eighteen) inches between top of sewer invert of the water main at utility crossings. When not possible to obtain the proper vertical separation, SDR-26 PVC pipe shall be used 10 (ten) feet on each side of the water main being crossed.
3. No roof, foundation or storm drains may discharge into the sewage disposal system.
4. All concrete tanks, manholes and chambers etc. shall be pre cast concrete to the specifications and dimensions shown hereon. Frames and covers shall b e gray iron or ductile iron. Gray iron shall conform with ASTM A 48, Class 30B and ductile iron shall conform with ASTM A 536 and be of a grade appropriate to its intended use to the dimensions and specifications as shown hereon. Any structures subject to vehicle loads shall be able to withstand an H20 loading. Shop drawings shall be submitted to the design engineer for approval prior to construction.

Gravity Sewer System Testing:

1. Contractor shall inspect and test the sewer installations as required by the authority having jurisdiction when work is ready for testing. After all tests have been performed, evidence of compliance shall be forwarded to owner/engineer and the authority having jurisdiction prior to acceptance.
2. The contractor shall test and inspect for alignment and infiltration and exfiltration of all sanitary sewers, Infiltration or exfiltration of the sanitary sewer system shall not exceed 0.60 gal/inch of internal pipe diameter per 100' of pipeline per hour with a maximum hydrostatic head at the centerline of the pipe of 25 ft, or as required by the authority having jurisdiction.
3. Infiltration leakage tests shall be run on each single manhole-to-manhole section, or reach, independently of all other manhole-to-manhole sections. A pipeline section under test shall include all pipe and fittings between the two manholes plus the upstream manhole.
4. Each manhole-to-manhole section shall be rejected or accepted based only on results of its own independent section test and not on results of any one test run simultaneously over more than one consecutive manhole-to-manhole section. The only exception allowed: accepting several consecutive manhole-to-manhole sections based on one combined infiltration test indicating zero infiltration.
5. Infiltration tests shall be made by installing a flow measuring device in the downstream manhole of section being tested. Test duration shall be 24 hrs, or for shorter period, provided a steady state flow condition has been achieved in the test period, and results projected to a 24 hr period.
6. Exfiltration tests shall be run on each single manhole-to-manhole section, or reach, independently of all other manhole-to-manhole sections. A pipeline section under test shall include all pipe and fittings between the two man-holes plus the upstream manhole.
7. Exfiltration tests shall be made by measuring the drop in water elevation in the upstream manhole 24 hrs after initial water level is recorded. Initial water level in upstream manhole shall be 2 feet higher than either the top of pipe or groundwater elevation at the downstream manhole. Any manhole-to-manhole section undergoing an exfiltration test must have the next adjacent sections, both upstream and downstream, dry and not under test.
8. Low pressure air testing may be allowed in lieu of exfiltration tests only. When so allowed, test shall be performed under direction of engineer according to ASTM F1417. An air test shall not be run until section of line to be tested has been cleaned of all foreign material by flushing and has been visually inspected.
9. Sewers shall be laid with straight alignment between manholes. Straight alignment shall be checked either using a laser beam or lamping. Testing shall comply with requirements of the authority having jurisdiction.
10. Manholes, which cannot be properly air tested, should be visually inspected and leakage-tested using internal or external hydrostatic pressure. Leakage testing shall comply with requirements of the authority having jurisdiction.
11. In areas where conventional testing is impractical (i.e. areas designated by Engineer where existing services are tied into new line immediately and any blockage could result in health problems) no lines shall be backfilled until each pipe section and connection is inspected and approved.
12. If the allowable rate of infiltration, exfiltration, or air leakage is exceeded, the contractor shall locate points of excessive leakage and shall promptly correct,repair, and bring system up to the standard. Costs of all such repairs and corrective measures, including costs of repeated tests, shall be born by contractor, the sewer line section (including manholes and building services) under test shall not be accepted until these test criteria are met.

MAP REVISION DATES		
DATE	REVISION	BY

SEWER DETAILS

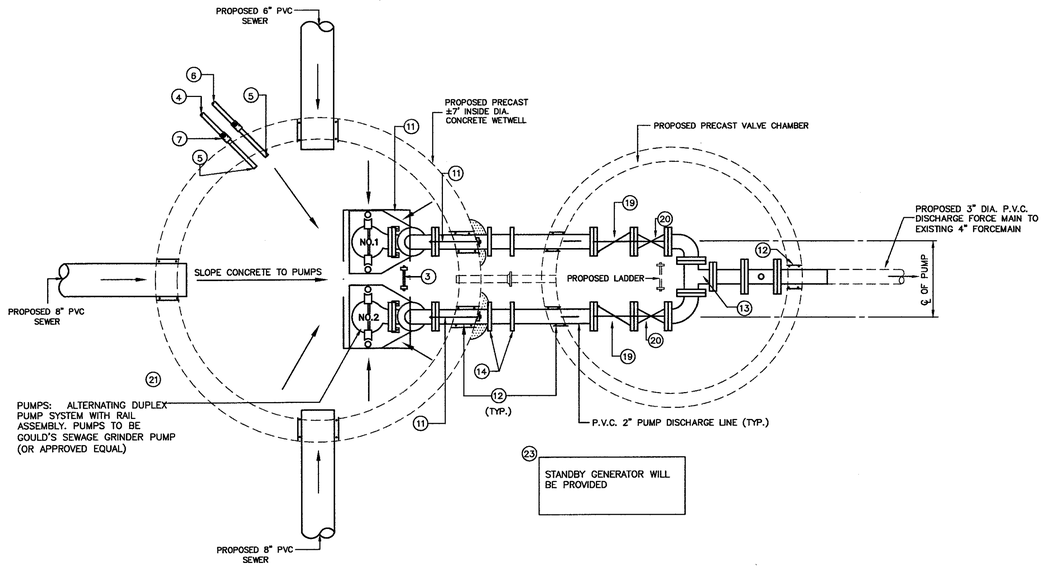
FOR SENIOR HOUSING AT 21 LAKESIDE PROPERTIES INC.

SITUATE - LAKESIDE ROAD
TOWN OF NEWBURGH
ORANGE COUNTY, NEW YORK

FEBRUARY 8, 2016

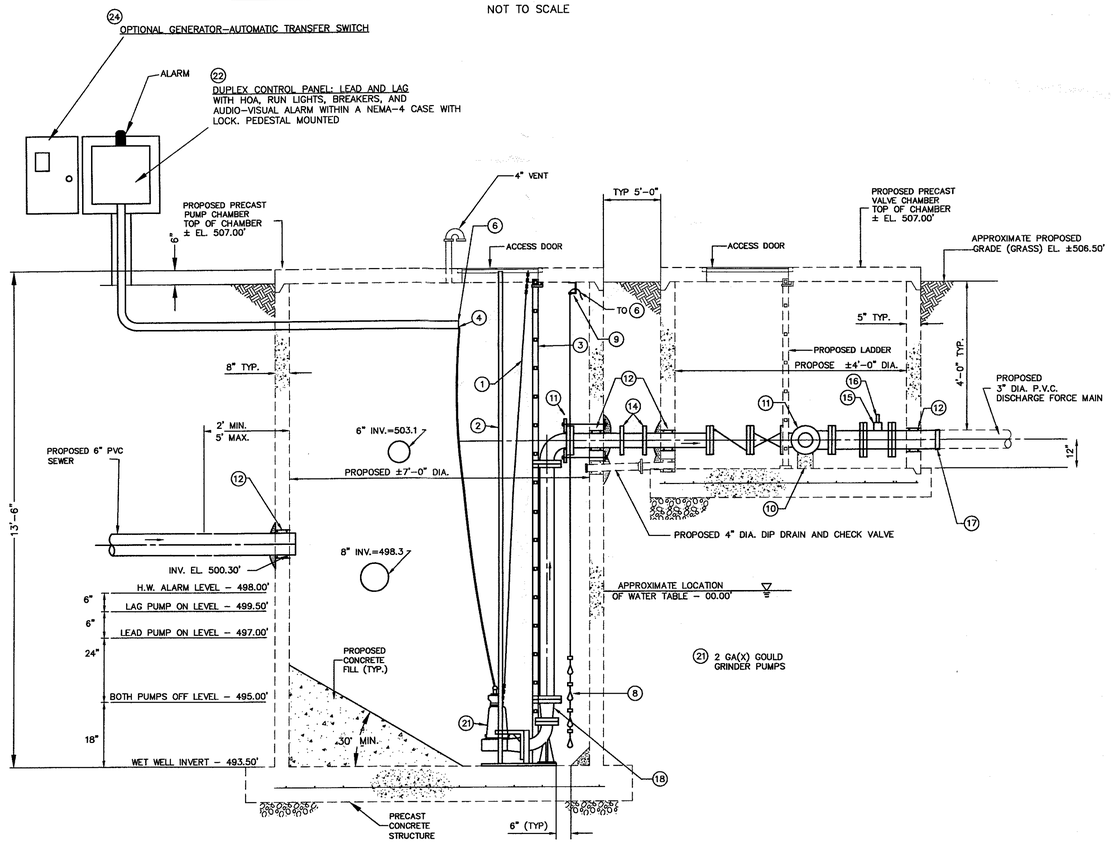
MEDENBACH & EGGERS
CIVIL ENGINEERING & LAND SURVEYING, P.C.
STONE RIDGE, NEW YORK (845) 687-0047

BARRY MEDENBACH, P.E.
NEW YORK LIC. NO. 60142



PLAN OF PUMPING STATION AND VALVE CHAMBER UPGRADE

NOT TO SCALE



CROSS–SECTION OF PUMPING STATION AND VALVE CHAMBER

NOT TO SCALE

1 PROPOSED DUPLEX PUMP STATION

NOT TO SCALE

PROPOSED KEY

1. STAINLESS STEEL LIFTING CHAIN
2. STAINLESS STEEL PUMP GUIDE RAILS
3. ALUMINUM LADDER WITH RUNGS AT 12" O.C. WITH RETRACTABLE 1" O.D. ALUMINUM EXTENSION TUBES FOR HANDRAIL (LOCATE TO SUIT CONDITIONS)
4. PUMP ELECTRICAL SERVICE, (UNDERGROUND CONDUIT) TO REMOTE MOUNTED CONTROL PANEL.
5. SEAL WITH NON–SHRINK GROUT SEE GENERAL NOTE #3.
6. FLOAT ELECTRICAL SERVICE (RIGID CONDUIT) TO REMOTE MOUNTED CONTROL PANEL.
7. EXPLOSION–PROOF SEAL (TYP. 2)
8. SEALED MERCURY SWITCH AND WATERPROOF CABLE ASSEMBLY (FLOAT SWITCHES)
9. STAINLESS STEEL BRACKET WITH ADJUSTABLE CABLE CONNECTORS (ACCESSIBLE THROUGH ACCESS HATCH)
10. CONCRETE PIPE SUPPORT (WHERE REQUIRED)
11. RESTRAINED CONNECTION: STAINLESS STEEL 1/2" TIE ROD PLATES, 2–3/4"ø TIE RODS, BOLTS, WASHERS, AND 3/8"x4" SQUARE BACKING PLATE WITH GROUT COVER
12. COMPRESSION GASKET OR LINK–SEAL WITH GROUT COVER
13. SCH 80 TEE
14. COMPRESSION COUPLING
15. PVC TEE WITH THREADED REDUCER BUSHING
16. PRESSURE GAUGE ASSEMBLY WITH DIAPHRAGM SEAL AND ISOLATION VALVE
17. SCH 80 PVC TO SDR 26 PVC TRANSITION COUPLNG
18. CONCENTRIC REDUCER (IF REQUIRED)
19. BALL CHECK VALVE
20. TRUE UNION BALL VALVE
21. ALTERNATING DUPLEX "GOULDS" GRINDER PUMPS 2GA (7.5 HP)
22. DUPLEX CONTROL PANEL
23. OPTIONAL STANDBY GENERATOR
24. OPTIONAL AUTOMATIC GENERATOR TRANSFER SWITCH

GENERAL NOTES

1. NO ELECTRICAL SPLICES, JUNCTION BOXES, OR CONNECTIONS OF ANY KIND SHALL BE IN THE PUMP CHAMBER.
2. PUMP CONTROLS SHALL BE WIRED INTRINSICALLY SAFE.
3. JUNCTION BOXES SHALL BE ACCESSIBLE WITHOUT NEED FOR ENTERING WETWELL. CONTRACTOR HAS THE OPTION OF PROVIDING PUMPING STATION WITH NEMA 4X JUNCTION BOX AND APPROPRIATE GAS SEAL–OFF FITTINGS CAST INTO TOP SLAB.
4. PUMP CONTROL PANEL TO BE PEDESTAL MOUNTED. ALL CONDUIT AND CONDUCTORS FOR BOTH POWER AND CONTROL TO BE SIZED BY BUILDING DESIGNER. CONTRACTOR TO PROVIDE LOCAL DISCONNECTS FOR THE PUMPS.
5. THE PUMP STATION SHALL HAVE AN ALARM SYSTEM WITH TELEMETRY THAT REPORTS TO THE HOTEL OFFICE WHICH WILL BE MANNED 24 HOURS A DAY AT THE HOTEL.

DESIGN DATA

AVERAGE DAILY FLOW =
11,220 =G.P.D.

PEAK FLOW = 10 X ADF = 80 gpm
TOTAL DYNAMIC HEAD = 127
PUMP CYCLE VOLUME = 576 gallons @ (7.2 Minutes)
PUMP CYLCLE PER DAY = 19

UTILITY CONSTRUCTION AND TESTING SPECIFICATIONS:

General Provisions:

1. All construction activities shall be in compliance with municipal, county state and federal regulations.
2. The protection of adjacent properties or areas on site that are not to be disturbed during construction, shall be the responsibility of the contractor.

Excavation:

1. Excavation shall be carried to the lines, grades and slopes shown on the approved plans.
2. Where unstable or unsuitable material is encountered at the prescribed bottom grade of the trenches it shall be removed.

Bedding:

1. Selected bedding shall be provided for the construction of pipe foundations at those locations where the foundations or excavated material, or any portion thereof deemed to be unsuitable for supporting the pipe or structure, or for back filling the cover portion of the trenches to a level one foot above the pipe, or where excavated material consist of a predominance of large stone, boulders or rock which is not suitable for placing in the trench. Certified sieve analysis shall be submitted from the supplier for the engineer's review prior to use.

Back Filling:

1. all back fill material shall be placed in layers not exceeding twelve (12) inches in depth, (loose measure), and shall be thoroughly tamped and compacted to a minimum density of 95% standard AASHTO-T99 (ASTM-D698, as amended) compacting test. Compacting equipment shall be of a suitable type for the various back filling operations.

Obstructions:

1. Where underground or overhead obstructions are encountered in the work, the contractor shall assume all costs for direct or indirect injury to them. Any valve box, valve pit, water service, water main, catch basin, manhole etc. whether or not shown on the drawings shall be protected from damage. The contractor shall have all utilities identified and located prior to any construction.

Sanitary Sewers:

1. Gravity sewer pipes shall be 8", 6" or 4" PVC SDR 35 with ring-tight joints in compliance with ASTM D-3212.
2. Manholes shall be pre cast concrete. Manhole is to be infiltration/exfiltration tested in accordance with NYSDEC design standards for Wastewater Treatment Works 1988

Procedure:
Fill manhole with water. Let sit for 24 hours. Maximum allowable rate of infiltration/exfiltration not to exceed 100 gallons per inch diameter per mile per day.

3. 10 - foot horizontal and 2 - foot vertical distance shall be maintained between all water and sewer lines.
4. No roof or foundation drains may discharge into the sewage disposal system
5. Sewer main is to tested in accordance with ASTM F 1417-92 (standard test method for installation acceptance of plastic gravity sewer lines using low-pressure air)

Procedure:

5.1 Clean section of sewer line to be tested by flushing or other means prior to conducting the low pressure air test. this cleaning serves to eliminate debris and produce the most consistant results.
5.2 Isolate the section of sewer line to be tested by inflatable stoppers or other suitable test plugs.
5.3 Plug or cap the ends of all branches, laterals, tees, wyes, and stubs to be included in the test to prevent air leakage. All plugs and caps shall be securely braced to prevent blowout. One of the plugs or caps should have an inlet tap, or other provision for connecting a hose to a portable air control source.
5.4 Connect the air hose to the inlet tap and portable air control source. The air equipment shall consist of necessary valves and pressure gages to control an oil-free air source and the rate at which air flows into the test section to enable monitoring of the air pressure within the test section.
5.5 Add air slowly to the test section until the pressure inside the pipe reaches 4.0 psig.
5.6 After the pressure of 4.0 psig is obtained, regulate the air supply so that the pressure is maintained between 3.5 and 4.0 psig for at least 2 min. Depending on air/ground temperature conditions. the air temperature should stabilize in equilibrium with the temperature of the pipe walls. the pressure will normally drop slighlty until equilibrium is obtained; however, a minimum of 3.5 psig is required.
5.7 Determine the rate of air loss by either the constant pressure method or the time-pressure drop method (see ASTM F 1417-92 sections 8.2.1 and 8.2.2 for procedures)
5.8 Upon completion of the test, open the bleeder valve and allow all air to escape. Plugs shall not be removed until all air pressure in the test section has been reduced to atmospheric pressure.
6. Sewer shall be tested with mandrel 95% of pipe diameter for deflection and lamp tested.
7. Forcemains shall be tested using ASTM F 2164

Forcemain Test Procedure:

1. Flush and purge all air from the piping to be tested.
2. Close off by valves or other method the piping to be tested.
3. Slowly, add water with a positive displacement pump to raise the system pressure to the maximum determined by the authority having jurisdiction. (The maximum pressure is 1.5 times the design working pressure less the elevation hydrostatic head. Typical design (maximum operating) pressures: for SDR-9 is 200 psi, for SDR-11 is 160 psi, and SDR-13.5 is 128 psi; and is to be reduced for higher temperatures.
4. Allow the test section of piping and test liquid to equalize in temperature.
5. Add make up water as necessary for four (4) hours to maintain test pressure.
6. Reduce pressure by ten (10 psi), by letting water out and then closing the system.
7. Monitor for one (1) hour, do not increase pressure or add water.
8. Pass/Fail Criteria: if no leakage is visually observed and the pressure remains steady (within 5% of the pressure at item # 6) then a passing test is indicated.

TOWN SEWER SYSTEM NOTES

1. Construction of sanitary sewer facilities and connection to the Town of Newburgh sanitary sewer system requires a permit from the Town of Newburgn Sewer Department. All construction shall conform to the requirements of the NYSDEC and the Town of Newburgh.
2. All sewer pipe installation shall be subject to inspection by the Town of Newburgh Sewer Department. The Contractor shall be responsible for coordinating all inspections as required with the Town of Newburgh Sewer Department.
3. All gravity sanitary sewer service lines shall be 4 inches in diameter or larger and shall be SDR-35 PVC pipe conforming to ASTM D-3034-89. Joints shall be push-on with elastomeric ring gasket conforming ASTM D-3212. Fittings shall be as manufactured by the pipe supplier or equal and shall have a bell and spigot configuration compatible with the pipe.
4. The sewer main shall be tested in accordance with Town of Newburgh requirements. All testing shall be coordinated with the Town of Newburgh Sewer Department.
5. The final layout of the proposed water and/or sewer connection, including all materials, size and location of service and all appurtenances, is subject to the review and approval of the Town of Newburgh Water and/or Sewer Department. No permits shall be issued for a water and/or sewer connection until a final layout is approved by the respective Department.

MAP REVISION DATES		
DATE DATE	REVISION	BY
03-27-2017	ADDED TOWN OF NEWBURGH SEWER NOTES, CORRECTED PIPE TYPE PER NEWBURGH TOWN NOTE	SL
04-04-2017	ADDED DATA TO PUMP STATION AND VALVE CHAMBER DETAILS	SL

SEWER DETAILS CONTINUED

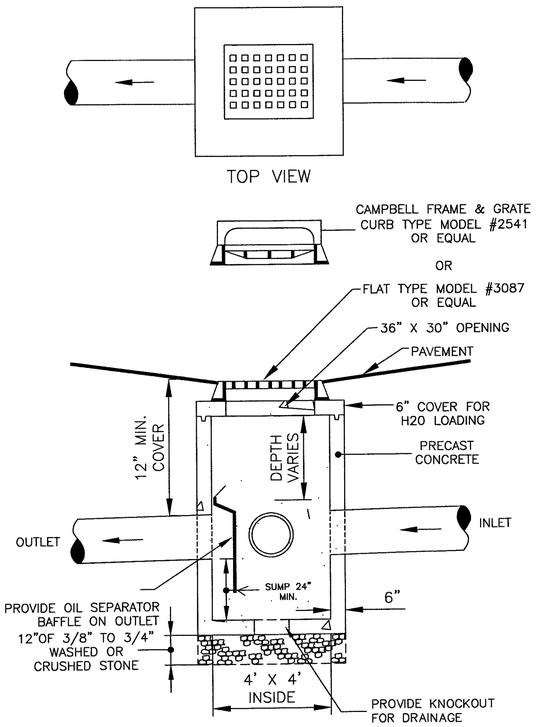
FOR SENIOR HOUSING AT
21 LAKESIDE PROPERTIES INC.

SITUATE - LAKESIDE ROAD
TOWN OF NEWBURGH
ORANGE COUNTY, NEW YORK

FEBRUARY 8, 2016

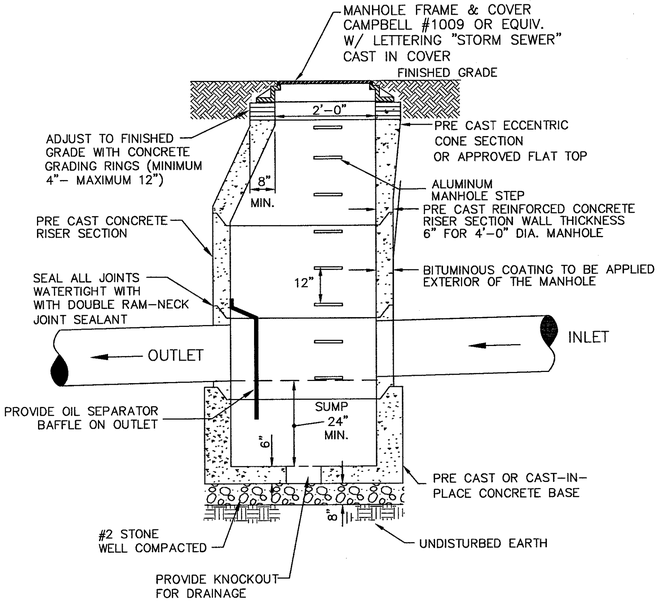
MEDENBACH & EGGERS
CIVIL ENGINEERING & LAND SURVEYING, P.C.
STONE RIDGE, NEW YORK (845) 687-0047

BARRY MEDENBACH, P.E.
NEW YORK LIC. NO. 80142



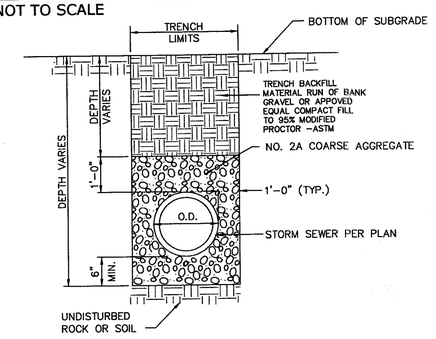
1 TYPICAL CATCH BASIN DETAIL

NOT TO SCALE



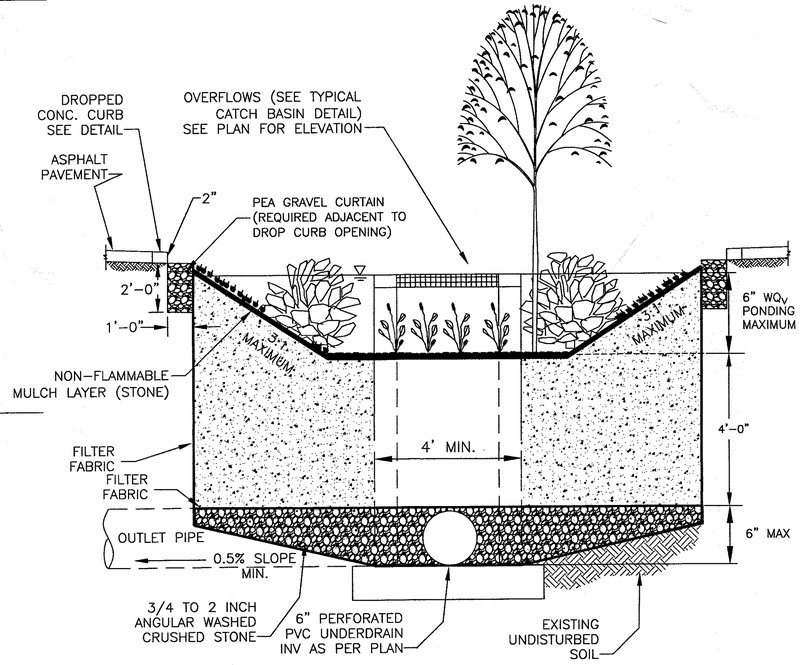
3 TYPICAL STORMWATER MANHOLE (4' DIA.)

NOT TO SCALE



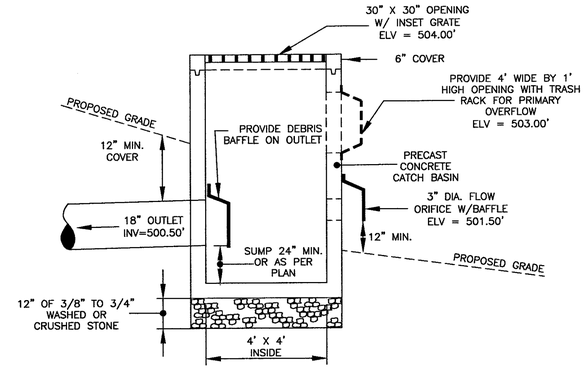
2 TYPICAL DRAINAGE TRENCH DETAIL

NOT TO SCALE



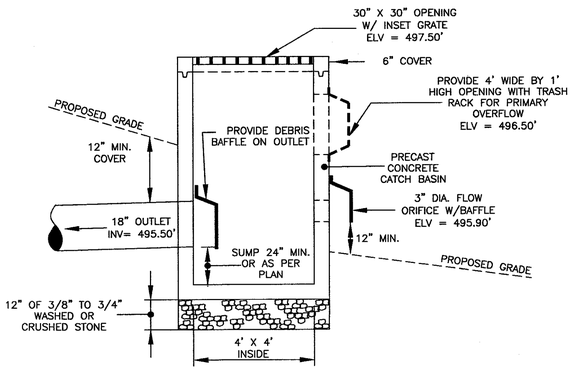
4 TYPICAL BIORETENTION ISLAND CROSS-SECTION

NOT TO SCALE



5 WATER QUALITY BASIN #1 OUTLET STRUCTURE

SCALE: N.T.S.



6 WATER QUALITY BASIN #2 OUTLET STRUCTURE

SCALE: N.T.S.

Site Management Notes:

1. All waste generated from the hotel will be placed in a dumpster located in an enclosure at the southeast corner of the site. In addition, separate containers will be provided for recycling cardboard, paper, plastics, glass and metal. Pickup for the waste and recyclables will be twice a week. A 9'-4" high concrete wall with a stone veneer matching the hotel exterior will be provided to screen the receptacles. The enclosure will also feature a 10 foot by 10 foot storage room, adjacent to the trash and recycling storage, to store exterior maintenance equipment. Access to the dumpster and recycling receptacles will be provided through a solid steel gate and a solid steel door will provide access to the storage room. A 30 foot long by 10 foot wide concrete pad will be provided in front of the gate to provide a durable loading area during pickups. As part of the daily maintenance the trash/recycling enclosure will be cleaned and washed every day. In addition to cleaning the enclosure the parking lot and grounds will be inspected and cleaned of any trash on a daily basis.
2. All landscaping will be irrigated and daily maintenance of the grounds such as cutting of lawns, garden maintenance etc. will be performed weekly during the growing season.
3. During the winter months maintenance will consist of snow and ice removal as required. The parking areas will be swept every spring to remove any sand accumulated during the winter months also the stormwater system will be inspected.
4. Only natural herbicides and pesticides will be used if necessary in the management of the sites landscaping.

BIORETENTION SOIL CHARACTERISTICS

Table H.2 Planting Soil Characteristics

Parameter	Value
PH range	5.2 to 7.00
Organic matter	1.5 to 4.0%
Magnesium	35 lbs. per acre, minimum
Phosphorus (P_2O_5)	75 lbs. per acre, minimum
Potassium (K_2O)	85 lbs. per acre, minimum
Soluble salts	• •500 ppm
Clay	10 to 25%
Silt	30 to 55%
Sand	35 to 60%

General Utility Notes and Specifications:

General Provisions:

1. All construction activities shall be in compliance with municipal, county state and federal regulations.
2. The protection of adjacent properties or areas on site that are not to be disturbed during construction, shall be the responsibility of the contractor.
3. Any conditions encountered in the field differing from those shown hereon, shall be reported to the design engineer before construction is to proceed.
4. Exploratory excavations shall be performed as needed at all utility connection locations by the contractor to verify existing conditions prior to work. Before connecting to existing utilities, verify existing utility inverts and notify the engineer if any deviation from the plan is required.
5. Where underground or overhead obstructions are encountered in the work, the contractor shall assume all costs for direct or indirect injury to them. Any valve box, valve pit, water service, water main, catch basin, manhole etc. whether or not shown on the drawings shall be protected from damage.
6. The contractor shall maintain service for all existing utilities until no longer necessary.
7. All trenching and shoring shall adhere to OSHA guidelines.
8. Contractor shall comply with all the requirements of the SPDES General Permit for Stormwater Discharges from Construction Activity - GP-0-10-001. A current copy of the Stormwater Pollution Prevention Plan (SWPPP) shall be keep on site at all times. Contractor is responsible for conducting weekly inspections (must be qualified by NYSDEC) or retaining a qualified inspector such as the design engineer to perform such inspections.

Excavation and Earthwork:

1. Prior to site disturbance the contractor shall install required erosion & sediment control measures.
2. Strip all topsoil prior to commencing earthwork operations. Topsoil may be stored and reused in lawn and planting areas only.
3. Excavation shall be carried to the lines, grades and slopes shown on the approved plans. All final earthwork shall be smoothly and evenly blended into existing conditions.
4. Remove all vegetation, trees, stumps, grasses, organic soils, debris and deleterious materials from excavated soils to be reused as fill onsite.
5. Where unstable or unsuitable material is encountered at the prescribed bottom grade of the trenches it shall be removed.
6. Contractor shall be responsible for dewatering utility trenches and excavations and for the maintenance of surface drainage during the course of the work.
7. After final grading the contractor shall reapply stockpiled top soil on all lawn and planting areas. Topsoil shall be evenly spread a minimum of 4 (four) inches over all planting areas seeded and mulched in lawn areas or planted as per landscaping plan in planting beds. The contractor shall restore lawns, driveways and other disturbed areas to at least as good a condition as before being disturbed.

Utility Bedding and Backfill:

1. Selected bedding (as specified on the utility typical trench sections heron) shall be provided for the construction of pipe foundations at those locations where the foundations or excavated material, or any portion thereof deemed to be unsuitable for supporting the pipe or structure, or for back filling the cover portion of the trenches to a level one foot above the pipe, or where excavated material consist of a predominance of large stone, boulders or rock which is not suitable for placing in the trench. Certified sieve analysis shall be submitted from the supplier for the engineer's review prior to use.
2. All suitable back fill material shall be placed in layers not exceeding twelve (12) inches in depth, (loose measure), and shall be thoroughly tamped and compacted to a minimum density of 95% standard AASHTO-T99 (ASTM-D698, as amended) compacting test. Compacting equipment shall be of a suitable type for the various back filling operations.

Drainage:

1. All storm sewer pipe shall be smooth interior HDPE pipe unless noted otherwise.
2. HDPE end sections shall be provided on all drainage pipe inlets or outlets not connected to catch basins or other drainage structures. All outlets shall also be stabilized with rip-rap as per plans.
3. All concrete chambers shall be pre cast concrete to the specifications and dimensions shown hereon. Frames and grates shall b e gray iron or ductile iron. Gray iron shall conform with ASTM A 48, Class 30b and ductile iron shall conform with ASTM A 536 and be of a grade appropriate to its intended use to the dimensions and specifications as shown hereon. Any structures subject to vehicle loads shall be able to withstand an H20 loading. Shop drawings shall be submitted to the design engineer for approval prior to construction.
4. The gutters and ditches shall be kept open at all times for surface drainage. No damming or ponding of water, in gutters or other waterways will be permitted except where the engineer shall consider it necessary.
5. The transport of soils to the drainage system shall be avoided during and after construction.
6. All exposed soils shall be stabilized with vegetation, stone or as directed by the engineer.
7. Methods used to control soil erosion and sediment control shall be in accordance with the approved soil erosion and sediment control plan or as directed by the engineer. Contractor shall comply with all the requirements of the SPDES General Permit for Stormwater Discharges from Construction Activity - GP-0-10-001. A current copy of the Stormwater Pollution Prevention Plan (SWPPP) shall be keep on site at all times. Contractor is responsible for conducting weekly inspections (must be qualified by NYSDEC) or retaining a qualified inspector such as the design engineer to perform such inspections.

MAP REVISION DATES

DATE	REVISION	BY
03-27-2017	ADDED BIO SOIL CHARACTERISTICS CHART	SL
05-31-2017	ADDED WATER QUALITY BASIN OUTLET STRUCTURE DETAILS	CC

DRAINAGE DETAILS

FOR SENIOR HOUSING AT 21 LAKESIDE PROPERTIES INC.

SITUATE - LAKESIDE ROAD
TOWN OF NEWBURGH
ORANGE COUNTY, NEW YORK

FEBRUARY 8, 2016

MEDENBACH & EGGERS
CIVIL ENGINEERING & LAND SURVEYING, P.C.
STONE RIDGE, NEW YORK (845) 687-0047

BARRY MEDENBACH, P.E.
NEW YORK LIC. NO.: 60142