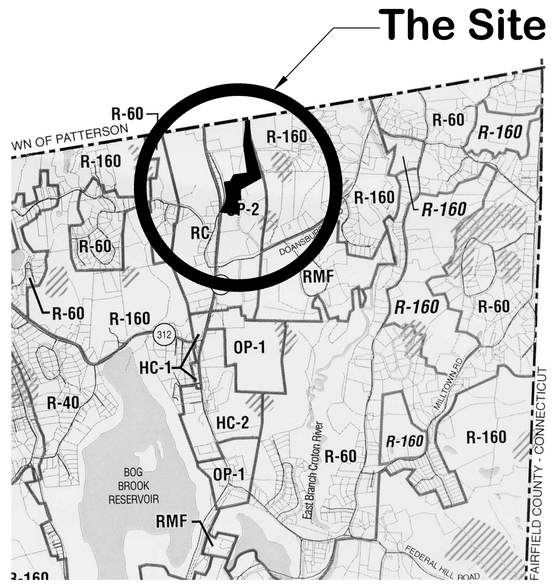
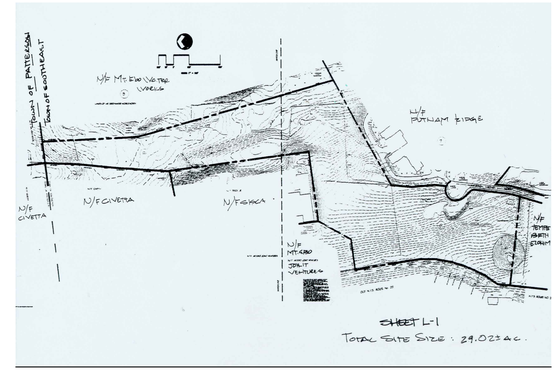
Site Location Plan

SCALE 1"=1500'



Zoning Map

SCALE 1"=2000'



Overall Property Map

SCALE 1"=400'

PROJECT LEGEND

EXISTING		PROPOSED
290 / +290	CONTOUR SPOT ELEVATION	290 / +290.00
	PROPERTY LINE	
	CONTRACT LIMIT LINE	C.L.L.
	SETBACK LINE	
	FLOW ARROWS	
	CATCH BASINS	
	FIRE LANE GATE	
G / E	GAS LINE ELECTRIC LINE	
	LIGHT STANDARD	
	DETAIL KEY TYPICAL	D
	TRANSFORMER	T
	CHAINLINK FENCE	
X X	FENCE	X X
	GUIDERAIL	
	100 YEAR FLOOD LIMIT	
	WETLAND LINE	
	WETLAND BUFFER	
	STREAM EDGE/WATERCOURSE	
	UTILITY POLES	
	TREE LINE	
	EDGE OF PAVEMENT WITH CURB	
	EDGE OF PAVEMENT	
	RETAINING WALLS	
	STONE WALL	
	WELL	
	TREE	
	DUMPSTER	D
	HYDRANT	HY
	PAINTED CROSS WALK	
	TRAFFIC DIRECTION / PAINTED LINE	
	RIP RAP	

ABBREVIATIONS

AC.	ACRES
B&B	BALLED & BURLAPPED
BC	BOTTOM OF CURB
B.W.	BOTTOM OF WALL
CAL.	CALIPER
CB	CATCH BASIN
CMP	CORRUGATED METAL PIPE
DJ/CJ	DUMMY JOINT/CONTROL JOINT
EJ	EXPANSION JOINT
ELEV.	ELEVATION
F.F.	FINISHED FLOOR ELEVATION
H.P.	HIGH POINT
HT.	HEIGHT
INV.	INVERT ELEVATION
K.E.	KNIFE EDGE CURB
L.F.	LOWER FLOOR
LF	LINEAR FEET
L.P.	LOW POINT
MH	MANHOLE
PVC	POLYVINYL CHLORIDE PIPE
R	RADIUS
RCP	REINFORCED CONCRETE PIPE
SF	SQUARE FEET
SPR.	SPREAD
TC	TOP OF CURB
T.F.	TOP OF FRAME
T.W.	TOP OF WALL
TYP	TYPICAL
U.F.	UPPER FLOOR
1ST FL.	1ST FLOOR ELEVATION
2ND FL.	2ND FLOOR ELEVATION

OCCUPANCY NOTES:

1. LONG TERM MAINTENANCE OF THE GROUNDS, SWALES, WQB's AND DB's WILL BE DONE BY THE HOA.

TOWN APPROVALS:

ARB: 08/29/17
ARB SIGN PERMIT: 08/28/2017
SPECIAL PERMIT: 12/05/2017
AMENDED SITE PLAN:

PRIOR TO START OF CONSTRUCTION CALL 1-800-962-7962 BEFORE YOU DIG!

DRAINAGE NOTES:

1. CONTRACTOR SHALL BACKFILL WITH APPROVED SAND OR GRAVEL OVER TOP OF PIPE TO BOTTOM OF REQUIRED BASE OF PAVEMENT WHEN STORM LINES CROSS DRIVES AND PARKING.
2. STONE RIP RAP SHALL CONSIST OF SOUND, TOUGH, DURABLE ROCK, FREE FROM DECOMPOSED STONE OR OTHER DEFECTS IMPAIRING ITS DURABILITY. SIZE OF MATERIAL SHALL CONFORM TO GRADATION FOR INTERMEDIATE RIP RAP AS SPECIFIED BY NEW YORK STATE D.O.T.
3. FLARED END SECTIONS SHALL BE INSTALLED AT ALL OPEN ENDS OF STORM LINES UNLESS OTHERWISE SHOWN.
4. ALL GRATES, COVERS, AND DRAINAGE STRUCTURES SHALL MEET THE STATE OF D.O.T. REQUIREMENTS FOR MATERIAL AND CONSTRUCTION METHODS.

GENERAL NOTES:

1. ALL WORK IN PUBLIC STREETS TO MEET THE STANDARDS OF THE STATE OF NEW YORK AND TOWN OF SOUTHEAST. WHICHEVER SHALL APPLY.
2. CONTRACT LIMIT LINE IS COINCIDENT WITH THE PROPERTY LINE OR OTHERWISE SHOWN ON SITE OR EXTENDED AS REQUIRED TO CONNECT TO UTILITIES OR OTHER IMPROVEMENTS SHOWN OFF SITE.
3. ALL DISTURBED AREAS NOT OTHERWISE IMPROVED SHALL BE COVERED WITH TOPSOIL AND SEEDED TO FINISHED LAWN.
4. THE CONTRACTOR SHALL INSTALL A CONSTRUCTION FENCE ALONG THE ENTIRE CONTRACT LIMIT LINE (C.L.L.) TO DEFINE THE EXTENT OF WORK AND TO PROTECT AREA OUTSIDE C.L.L.
5. SURVEY BY TERRY BERGENDORFF COLLINS DATED SEPTEMBER 9, 2004; SCALE:1"=100'
6. WETLAND BOUNDARY BY ROBERT TORGERSEN.
7. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE INSIDE AND OUTSIDE WORK LIMITS DUE TO CONSTRUCTION ACTIVITIES.
8. CONTRACTOR SHALL BLEND NEW WORK SMOOTHLY WITH EXISTING GRADES AND IMPROVEMENTS AT LIMITS OF WORK.
9. TOPSOIL SHALL BE INSTALLED TO A MINIMUM DEPTH OF 6" AND SEEDED ON ALL DISTURBED AREAS NOT DESIGNATED TO BE SURFACED OTHERWISE.
10. ALL WALKS HAVE 1/4" PER FOOT CROSS PITCH UNLESS OTHERWISE SHOWN.
11. CONTRACTOR TO REMOVE ALL EXISTING DEBRIS FROM THE SITE.

DRAWING LIST

Sheet Number	Sheet Title
• L-1	Cover
• L-1A	Existing Conditions
L-1B	Demolition Plan
• L-2	Overall Site Plan
• L-3	Grading Plan
• L-4	Planting Plan
• L-4.1	Planting List & Details
• L-5	Details
• L-5.1	Details
L-6.1	Erosion & Sediment Control Plan
L-6.2	Erosion & Sediment Control Plan
L-6.2A	Erosion & Sediment Control Plan
L-6.3	Erosion & Sediment Control Plan
L-6.3A	Erosion & Sediment Control Plan
L-6.4	Erosion & Sediment Control Plan
L-6.5	Erosion & Sediment Control Plan
L-7	Erosion Control Details
L-8	Erosion Control Notes
L-8.1	Inspection and Maintenance Notes
• L-9	Layout Plan
• L-10	Materials Plan
XC-1	Existing Conditions Plan
UP-1	Utilities Site Plan
DP-1	Drainage Profiles
DP-2	Drainage Profiles
DP-3	Drainage Profiles
D-1	Drainage Details
D-2	Drainage Details
D-3	Drainage Details
D-4	Drainage Details
WP-1	Water System Profiles
SP-1	Sewer System Profiles
SD-1	Sewer System Details
WD-1	Water System Details
• LGT-1	Lighting Plan - Sheet 1 of 2
LGT-1	Lighting Plan - Sheet 2 of 2

• SUBMITTED FOR ARB 08/08/17

Site Data

MT. EBO LOT 6 (Barrett Hill)
Mount Ebo Road North
Southeast, NY

SITE DATA TABLE
July 2, 2018

Site Data

Tax Map #:	46.-5-2
Site Size:	29.02+ Acres
Site Zone:	MWFH

Zoning Data

Site Zone:	MWFH Floating District (mapped to site September 2016)
Permitted Uses with Special Permit"	Multifamily residences and Single Family residences (attached and detached)
Minimum Lot Size:	25+/- acres required- 29+/- acres existing
Minimum Lot Frontage:	400'
Minimum Lot Width:	400'
Minimum Lot Depth:	400'
Building Setbacks: (OP-2 zone as per MWFH zone)	Front 100' * Side 50' Rear 50'
Parking Setbacks: (OP-2 zone as per MWFH zone)	Front 50' * Side 25' Rear 25'

*As per Note D - reduce to 50'/25' where along a Town Road.

The following are based on the OP-2 requirements as per the MWFH Zone:

Maximum Building Coverage Allowed:	25%
Maximum FAR:	0.25
Minimum Open Space Required:	45%
Maximum Building Height:	3 Stories / 45'

Proposed Development

Proposed Use:	Multi-Family Work Force Housing
Project Lot Size:	29.02+ Acres (At least 25 acres Required for MWFH Special Permit)
Setbacks Proposed:	Same as OP-2 Zone
Number of Units Proposed:	168 Units 64 - 1 bedroom 104 - 2 bedroom 30% of units shall be designated a priority units for eligible households- 30% of 168 = 50 units 10% of the units shall be designated as affordable - 10% of 168 = 17 units
Parking Required:	1.5 spaces per unit plus 20% for visitors 168 Units x 1.5 = 252 Spaces plus 20% (50 spaces) = 302 Spaces Required
Number of Spaces Proposed:	307 Spaces
Building Coverage:	7.5%
Proposed FAR:	0.22
Proposed Open Space:	80%
Proposed Building Height:	3 Stories / 45'
Community Facilities Proposed:	Clubhouse with pool, fitness trail, walking trails, play structure

OWNER / APPLICANT:
BARRETT HILL ASSOCIATES, LLC
C/O COVINGTON MANAGEMENT
322 CLOCK TOWER COMMONS
BREWSTER, NY 10509
(845)279-9565

REVISIONS

NO.	DATE	DESCRIPTION
1.	06/12/17	TOWN COMMENTS
2.	08/08/17	ARB SUBMISSION
3.	02/15/18	DEP SUBMISSION
4.	04/06/18	DEP COMMENTS
5.	05/02/18	DEMOLITION PLAN
6.	06/11/18	MSHPO & ACRE WAIVER
7.	07/23/18	DEP COMMENTS

BIBBO ASSOCIATES, LLP
293 ROUTE 100 SUITE 203
SOMERS, NEW YORK 10589
TEL: 914 277 5905

LADA, P.C.
Land Planners
104 Main Street
Poughkeepsie, NY 12601 (845) 452-1477
Brewster, NY 10509 (845) 279-7424

COVER

MOUNT EBO LOT 6 - BARRETT HILL
MOUNT EBO ROAD NORTH
TOWN OF SOUTHEAST, NY 10509

DESIGNED	T.H.
DRAWN	E.F.
CHECKED	C.W.
APPROVED	T.H.
SCALE	AS SHOWN
DATE	04/28/17
PROJECT NO:	1491
SHEET NO:	L-1

ARB#15

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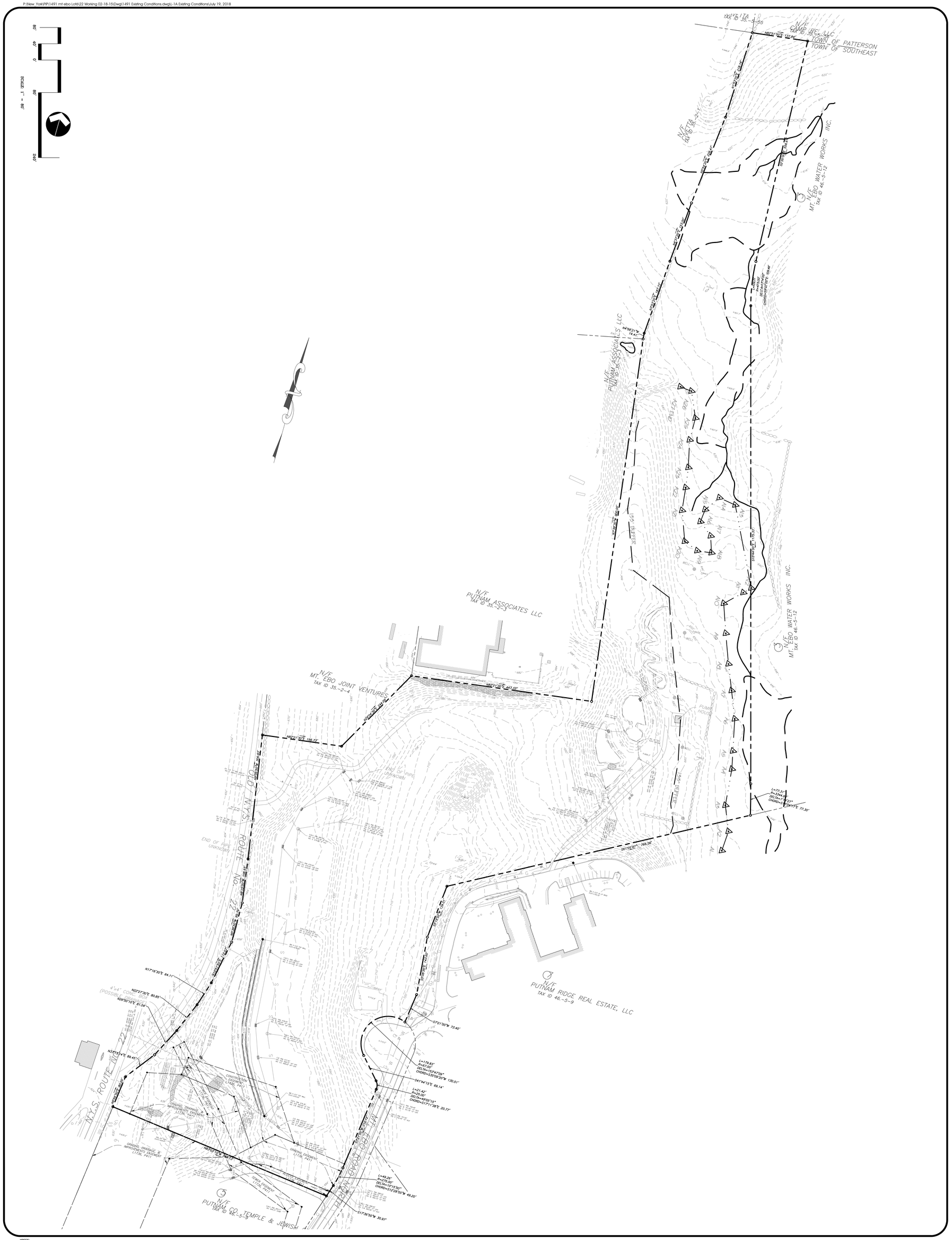


XREF'S:

DESIGNED	T.H.
DRAWN	E.F.
CHECKED	C.W.
APPROVED	T.H.
SCALE	1"=60'
DATE	04/28/17
PROJECT NO.	1491
SHEET NO.	L-1A

EXISTING CONDITIONS

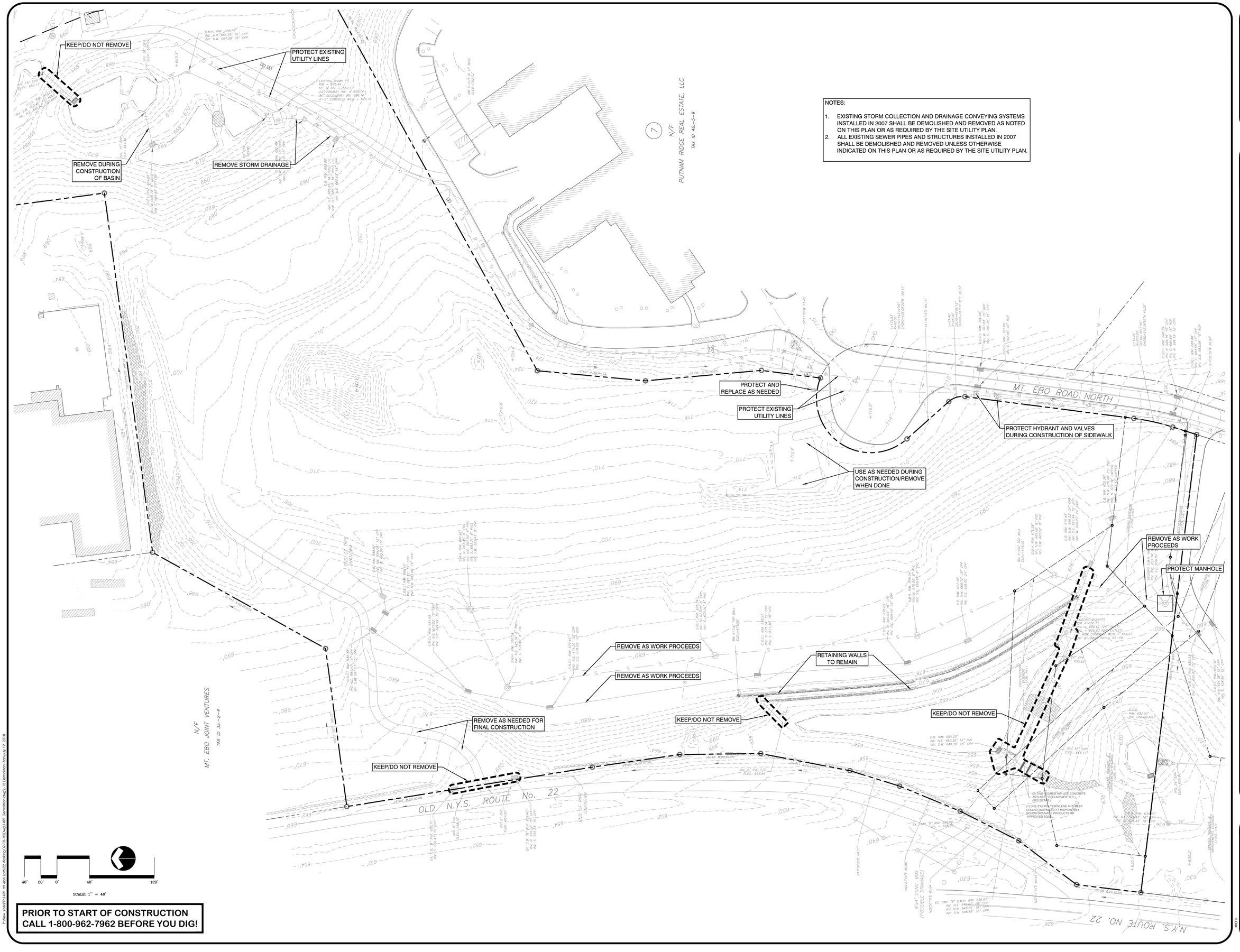
MOUNT EBO LOT 6 - BARRETT HILL
MOUNT EBO ROAD NORTH
TOWN OF SOUTHEAST, NY 10509

LADA, P.C.
Land Planners
104 West Street
Simsbury, CT 06070 (860) 651-4971
Brewster, NY 10509 (845) 278-7424

BIBBO ASSOCIATES, LLP
293 ROUTE 100 SUITE 203
SOMERS, NEW YORK 10589
TEL. 914 277 5805

REVISIONS

NO.	DATE	DESCRIPTION
1.	02/15/18	DEP SUBMISSION



NOTES:

1. EXISTING STORM COLLECTION AND DRAINAGE CONVEYING SYSTEMS INSTALLED IN 2007 SHALL BE DEMOLISHED AND REMOVED AS NOTED ON THIS PLAN OR AS REQUIRED BY THE SITE UTILITY PLAN.
2. ALL EXISTING SEWER PIPES AND STRUCTURES INSTALLED IN 2007 SHALL BE DEMOLISHED AND REMOVED UNLESS OTHERWISE INDICATED ON THIS PLAN OR AS REQUIRED BY THE SITE UTILITY PLAN.

PRIOR TO START OF CONSTRUCTION CALL 1-800-962-7962 BEFORE YOU DIG!

P:\New YORK\PR1491 mt ebo\cad\82 Working 02-18-18\Dwg\1491 Demolition.dwg\L-1B Demolition Plan\July 19, 2018

REVISIONS		
NO.	DATE	DESCRIPTION

BIBBO ASSOCIATES, LLP
283 ROUTE 100 SUITE 203
SOMERS, NEW YORK 10589
TEL: 914 277 5605

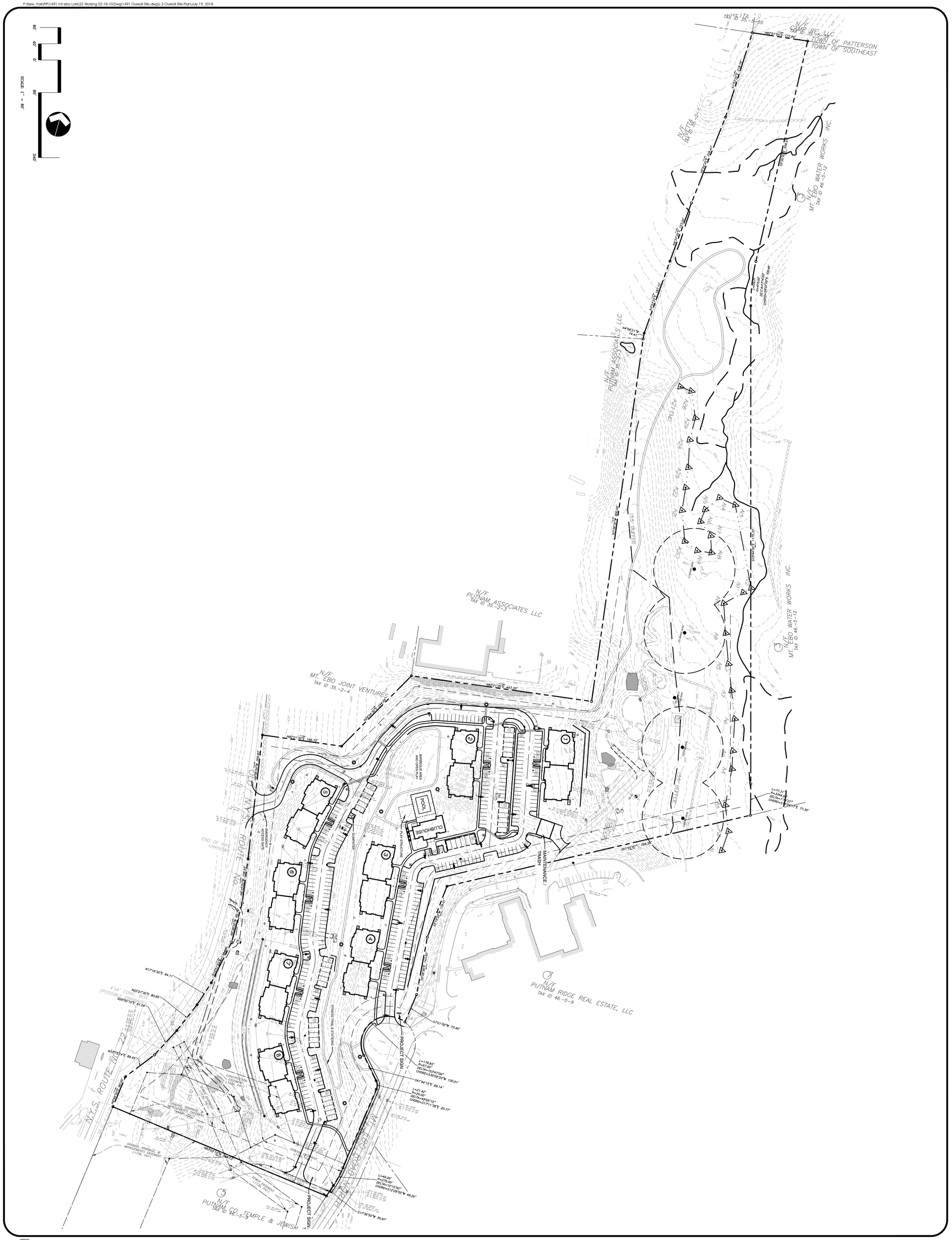
LADA, P.C.
Land Planners
104 Vinoy Street
Ossining, New York 10562 (914) 941-4011
Brewster, NY 10509 (845) 279-7424

Demolition Plan

MOUNT EBO LOT 6 - BARRETT HILL
MOUNT EBO ROAD NORTH
TOWN OF SOUTHEAST, NY 10509

DESIGNED	T.H.
DRAWN	E.F.
CHECKED	C.W.
APPROVED	T.H.
SCALE	1"=40'
DATE	05/25/18
PROJECT NO:	1491
SHEET NO:	L-1B

P:\New York\PIP\1491 mt ebo Lot6\22 Working 02-18-15\Dwg\1491 Overall Site.dwg\L-2 Overall Site Plan\July 19, 2018



XREFS:

L-2

DESIGNED	T.H.
DRAWN	E.F.
CHECKED	C.W.
APPROVED	T.H.
SCALE	1"=60'
DATE	04/28/17
PROJECT NO.	1491
SHEET NO.	

OVERALL SITE PLAN

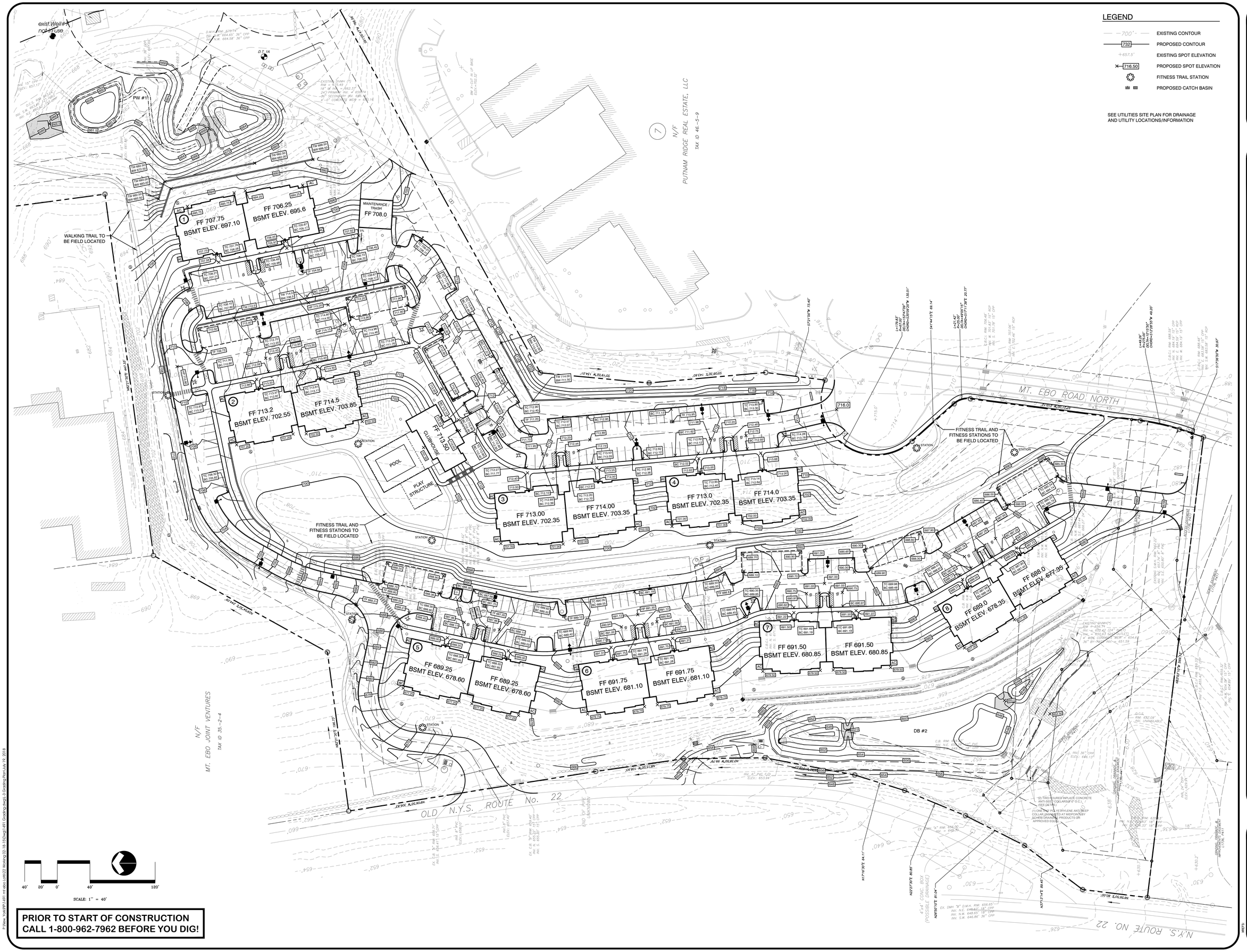
MOUNT EBO LOT 6 - BARRETT HILL
MOUNT EBO ROAD NORTH
TOWN OF SOUTHEAST, NY 10509

LADA, P.C.
Land Planners
104 West Street
Simsbury, CT 06070 (860) 651-4971
Brewster, NY 10509 (845) 278-7424

BIBBO ASSOCIATES, LLP
293 ROUTE 100 SUITE 203
SOMERS, NEW YORK 10589
TEL. 914 277 5805

REVISIONS

NO.	DATE	DESCRIPTION
1.	06/12/17	TOWN COMMENTS
2.	08/08/17	ARB SUBMISSION
3.	08/17/17	REVISIONS
4.	02/15/18	DEP SUBMISSION
5.	07/23/18	DEP COMMENTS



PRIOR TO START OF CONSTRUCTION CALL 1-800-962-7962 BEFORE YOU DIG!

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REVISIONS		
NO.	DATE	DESCRIPTION
1.	06/12/17	TOWN COMMENTS
2.	08/08/17	ARB SUBMISSION
3.	08/17/17	REVISIONS
4.	12/21/17	REVISIONS
5.	02/15/18	DEP SUBMISSION
6.	04/09/18	DEP COMMENTS
7.	07/23/18	DEP COMMENTS

BIBBO ASSOCIATES, LLP
283 ROUTE 100 SUITE 203
SOMERS, NEW YORK 10589
TEL: 914 277 5805

LADA, P.C.
Land Planners
104 Vining Street
Lansdale, Pennsylvania (800) 631-4071
Binghamton, NY 10905 (845) 279-7424

GRADING PLAN

MOUNT EBO LOT 6 - BARRETT HILL
MOUNT EBO ROAD NORTH
TOWN OF SOUTHEAST, NY 10509

DESIGNED	T.H.
DRAWN	E.F.
CHECKED	C.W.
APPROVED	T.H.
SCALE	1"=40'
DATE	04/28/17
PROJECT NO:	1491
SHEET NO:	L-3

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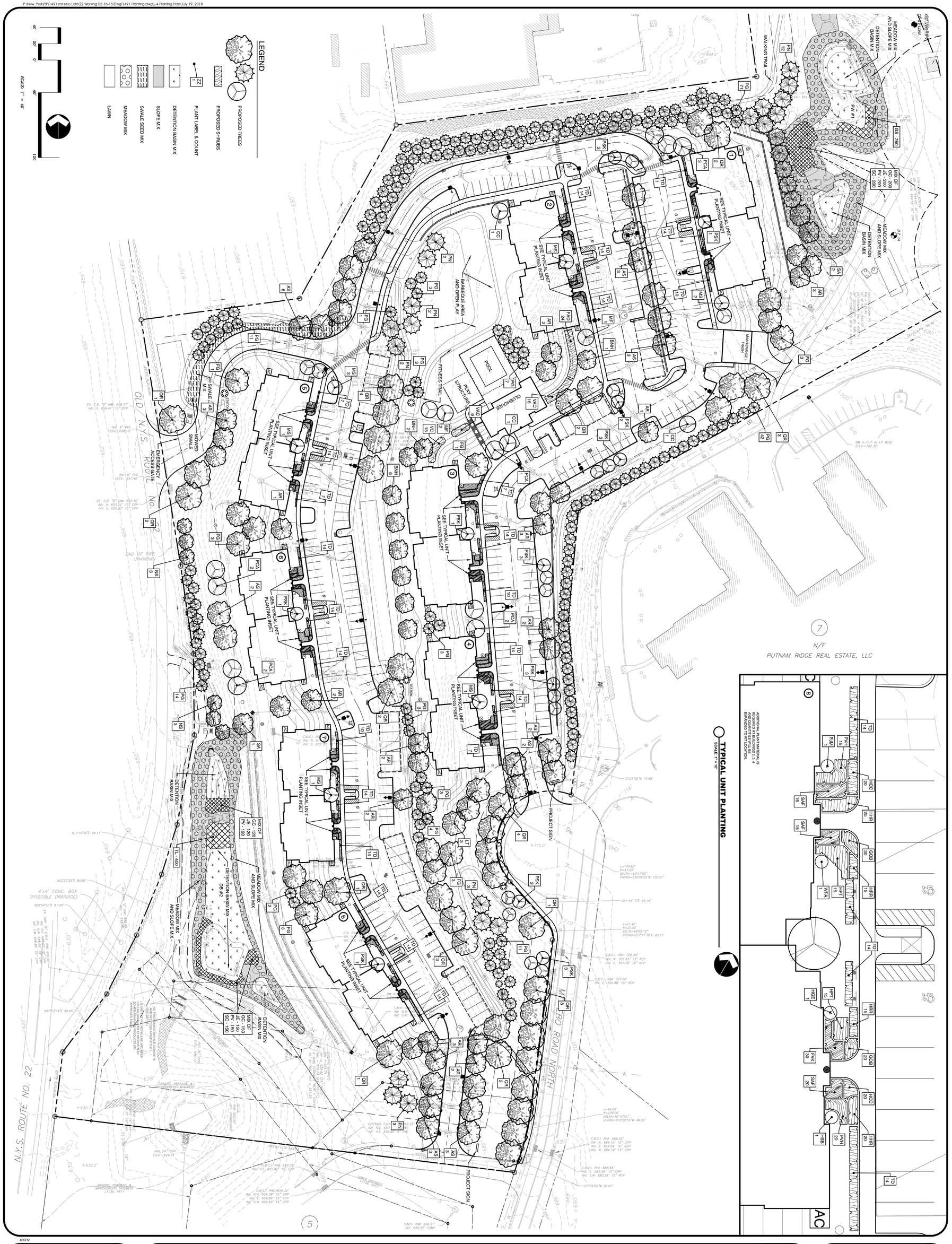

XREFS:

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DRAWN	E.F.
CHECKED	C.W.
APPROVED	T.H.
SCALE	1"=40'
DATE	04/28/17
PROJECT NO.	1491
SHEET NO.	L-4

PLANTING PLAN

MOUNT EBO LOT 6 - BARRETT HILL
MOUNT EBO ROAD NORTH
TOWN OF SOUTHEAST, NY 10509

LADA, P.C.
Land Planners
104 West Street
Simsbury, CT 06070 (860) 651-4971
Brewster, NY 10509 (845) 278-7424

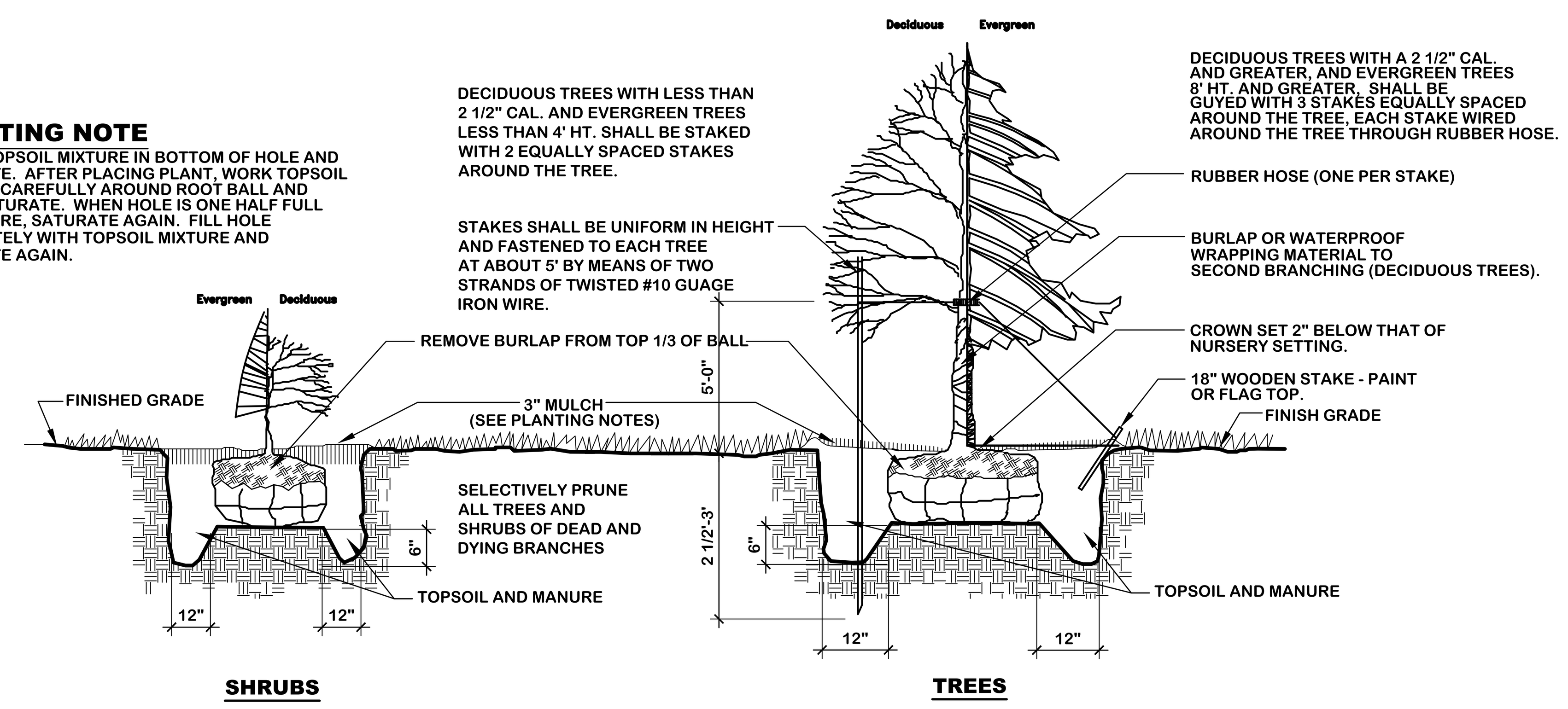
BIBBO ASSOCIATES, LLP
293 ROUTE 100 SUITE 203
SOMERS, NEW YORK 10589
TEL. 914 277 5805

REVISIONS

NO.	DATE	DESCRIPTION
1.	06/12/17	TOWN COMMENTS
2.	08/08/17	ARB SUBMISSION
3.	08/17/17	REVISIONS
4.	02/15/18	DEP SUBMISSION
5.	04/06/18	DEP COMMENTS
6.	07/23/18	DEP COMMENTS

PLANTING NOTE

PLACE TOPSOIL MIXTURE IN BOTTOM OF HOLE AND SATURATE. AFTER PLACING PLANT, WORK TOPSOIL MIXTURE CAREFULLY AROUND ROOT BALL AND THEN SATURATE. WHEN HOLE IS ONE HALF FULL OF MIXTURE, SATURATE AGAIN. FILL HOLE COMPLETELY WITH TOPSOIL MIXTURE AND SATURATE AGAIN.



(31) **PLANTING DETAILS**
N.T.S.

SEEDING OPERATIONS

A. FERTILIZER AND LIMESTONE

CONTRACTOR SHALL CONDUCT APPROPRIATE SOIL TESTS TO DETERMINE AMOUNT OF FERTILIZER AND LIMESTONE REQUIRED TO ENSURE AN ACCEPTABLE LAWN.

PROVIDE RESULTS AND RECOMMENDED FERTILIZER FOR REVIEW AND APPROVAL BY LANDSCAPE ARCHITECT

B. LAWN SEED

SEED MIXTURE FOR:
LATE SUMMER / EARLY FALL / EARLY SPRING PLANTING. SOW AT RATE OF 4 LBS/1000 S.F.

CREEPING RED FESCUE	35 PARTS
CHEWINGS RED FESCUE	20 PARTS
KENTUCKY 31 TALL RESCUE	15 PARTS
ROUGH BLUEGRASS	10 PARTS
BARON BLUEGRASS	20 PARTS

SEED MIXTURE FOR PLANTING MAY 1 TO LATE SUMMER. SOW AT A RATE OF 6 LBS/1000 S.F.

CREEPING RED FESCUE	35 PARTS
CHEWINGS RED FESCUE	20 PARTS
KENTUCKY 31 TALL FESCUE	20 PARTS
DOMESTIC RYEGRASS	25 PARTS

C. WETLAND SEED

APPLY "WETLAND SEED MIXTURE" PREPARED BY NEW ENGLAND WETLAND PLANTS, INC., AMHERST, MA. AT A RATE OF ONE POUND PER 2,500 S.F. (413) 256-1752

D. LAWN SEED (SLOPE MIX)

SOW AT RATE OF 6 LBS/1000 S.F.

CREEPING RED FESCUE	42 PARTS
FIESTA II PERENNIAL RYEGRASS	34 PARTS
RED TOP	8 PARTS
ALSIKE CLOVER	8 PARTS
BIRDSFOOT TREFOIL	8 PARTS

E. SWALE SEED MIX - FOR MOWABLE SWALES ONLY

FOR SWALES OF 10% OR LESS USE THE FOLLOWING AT A RATE OF 5 LBS PER 1,000 SF.

BIRDSFOOT TREFOIL\	20 PARTS
TALL FESCUE	20 PARTS
PERENNIAL RYEGRASS	20 PARTS
ANNUAL RYEGRASS	20 PARTS
COMMON WHITE CLOVER	20 PARTS

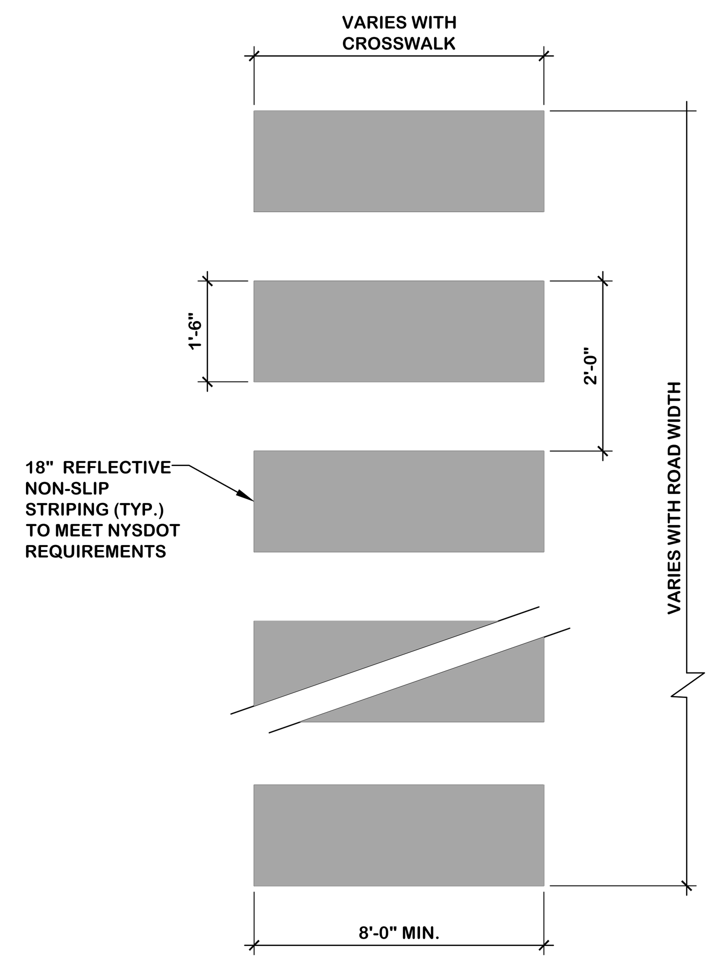
F. DETENTION BASIN

USE "WETLAND SEED MIXTURE" FROM NEW ENGLAND WETLAND PLANTS, INC. [(413) 256-1752] AT A RATE OF ONE POUND PER 2,500 S.F. OR "RETENTION BASIN FLOOR SEED" FROM NEW ENGLAND SEED CO. AT A RATE OF 2 LB./1000 S.F. MIX WITH ANNUAL RYEGRASS AT A RATE OF 1/2 LB./1000 S.F.

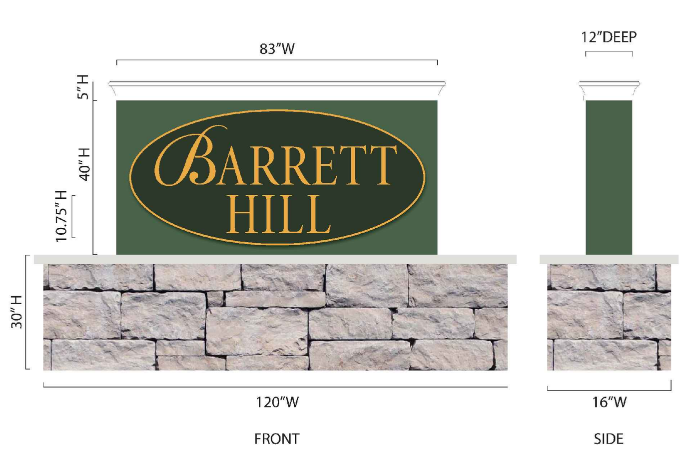
G. MEADOW MIX

USE "NATIVE NORTHEAST WILDFLOWER SEED MIX" AND "NORTHEAST NATIVE GRASS SEED MIX" FROM AMERICAN MEADOWS (877-309-7333) AT A RATE OF 1 LB./1000 S.F. EACH

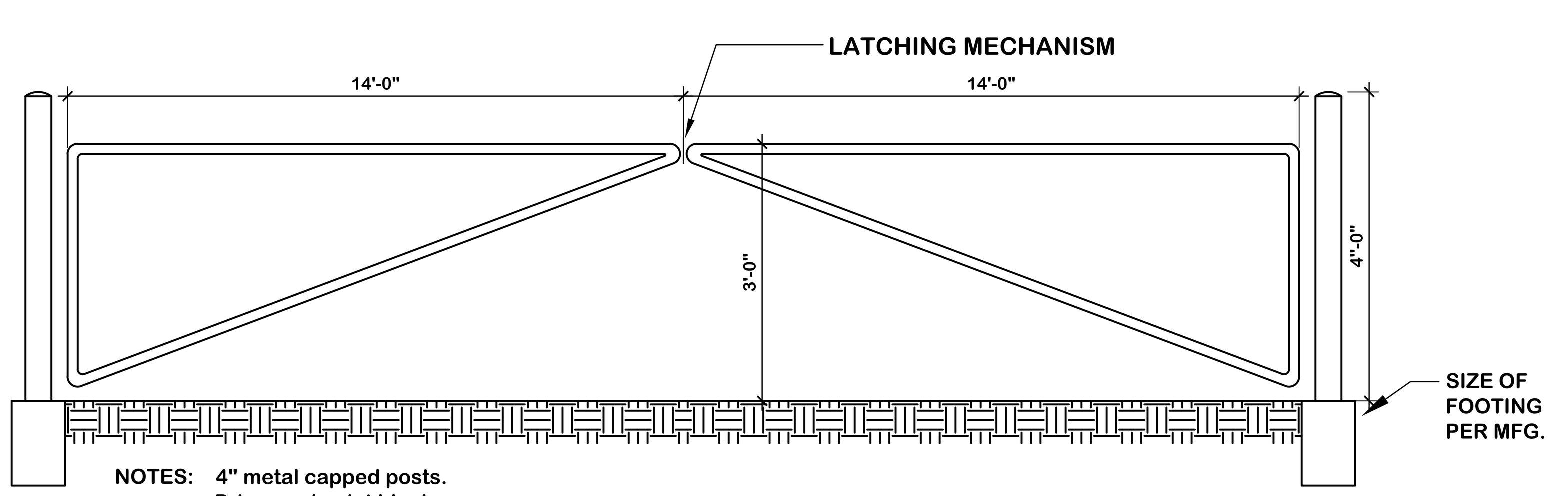
(32) **PLANT & SEEDING NOTES**
N.T.S.



(38) **PAINTED CROSSWALK STRIPING**
N.T.S.



(35) **PROJECT SIGN**
N.T.S.



NOTES: 4" metal capped posts.
Prime and paint black.
Securly attach gate to posts.
Provide 2 additional posts to attach gate to, when open.
Provide latching mechanisim.
Contractor to provide shop drawings.

(39) **EMERGENCY ACCESS GATE**
N.T.S.

P:\New_York\PIP\1491 mt ebo Lot6\22 Working 02-18-15\Dwg\1491 Details.dwg\L-4.1 Planting List & Details\July 19, 2018

Tree List

Sym.	Quan.	Botanical Name	Common Name	Size	Root
AR	26	ACER RUBRUM 'OCTOBER GLORY'	OCTOBER GLORY RED MAPLE	2 1/2in.-3in. Dbh.	B&B
AS	24	ACER SACCHARUM	SUGAR MAPLE	2 1/2in.-3in. Dbh.	B&B
BNH	9	BETULA NIGRA 'HERITAGE'	HERITAGE RIVER BIRCH	3in.-4in. DBH	B&B
CC	3	CERCIS CANADENSIS	EASTERN REDBUD	2in-2 1/2in. DBH	B&B
FG	14	FAGUS GRANDIFOLIA	AMERICAN BEECH	2 1/2in.-3in. Dbh.	B&B
LT	3	LIRIODENDRON TULIPIFERA	TULIPTREE	2 1/2in.-3in. Dbh.	B&B
MF	3	MALUS FLORIBUNDA	JAPANESE FLOWERING CRABAPPLE	2 1/2in.-3in. Dbh.	B&B
MS	9	MALUS SNOWDRIFT	SNOWDRIFT FLOWERING CRABAPPLE	2 1/2in.-3in. Dbh.	B&B
NS	6	NYSSA SYLVATICA	BLACK TUPELO	1 1/2in.-2in. Dbh.	B&B
PCA	10	PYRUS CALLERYANA 'ARISTOCRAT'	ARISTOCRAT CALLERY PEAR	2 1/2in.-3in. Dbh.	B&B
PG	178	PICEA GLAUCA	WHITE SPRUCE	8ft.-10ft. Ht.	B&B
PN	24	PINUS NIGRA	AUSTRIAN PINE	7ft.-8ft. Ht.	B&B
PSK	23	PRUNUS SERRULATA 'KWANZAN'	KWANZAN CHERRY	2 1/2in.-3in. Dbh.	B&B
QR	36	QUERCUS RUBRA	RED OAK	2 1/2in.-3in. Dbh.	B&B
SA	3	SALIX NIGRA	BLACK WILLOW	2in.-2 1/2in. DBH	B&B

Shrub List

Sym.	Quan.	Botanical Name	Common Name	Size	Root
FAD	24	FORSYTHIA 'ARNOLD DWARF'	ARNOLD DWARF FORSYTHIA	24in.-30in. Ht.	CONT.
VAC	25	VACCINIUM CORYMBOSUM	HIGHBUSH BLUEBERRY	24in.-30in. Ht.	CONT.
VC	15	VIBURNUM CARLESII	KOREAN SPICE VIBURNUM	24in.-30in. Ht.	CONT.
TD	289	TAXUS X MEDIA 'DENSIFORMIS'	DENSE SPREADING YEW	30in. - 36in.Ht	CONT.

Plugs

Sym.	Quan.	Botanical Name	Common Name	Size	Root
GC	470	GLYCERIA CANADENSIS	RATTLESNAKE GRASS	PLUG	
GS	250	GLYCERIA STRIATA	FOWL MANNA GRASS	PLUG	
JE	470	JUNCUS EFFUSUS	SOFT RUSH	PLUG	
PV	470	PELTANDRA VIRGINICA	ARROW ARUM	PLUG	
SC	350	SCIRPUS CYPERINUS	WOOL GRASS	PLUG	
TL	400	TYPHA LATIFOLIA	COMMON CATTAIL	PLUG	

TYPICAL UNIT PLANTING

Shrub List

Sym.	Quan.	Botanical Name	Common Name	Size	Root
HGE	1	HYDRANGEA MACROPHYLLA 'GLOWING EMBERS'	GLOWING EMBERS HYDRANGEA	#3 POT	CONT.
HSB	1	HIBISCUS SYRIACUS 'BLUSHING BRIDE'	BLUSHING BRIDE ROSE-OF-SHARON	#5 POT	CONT.
PJM	1	RHODODENDRON 'PJM'	PJM RHODODENDRON	24in.-30in. Ht.	CONT.
WFA*	1	WEIGELA FLORIDA	WEIGELA	#5 POT	CONT.

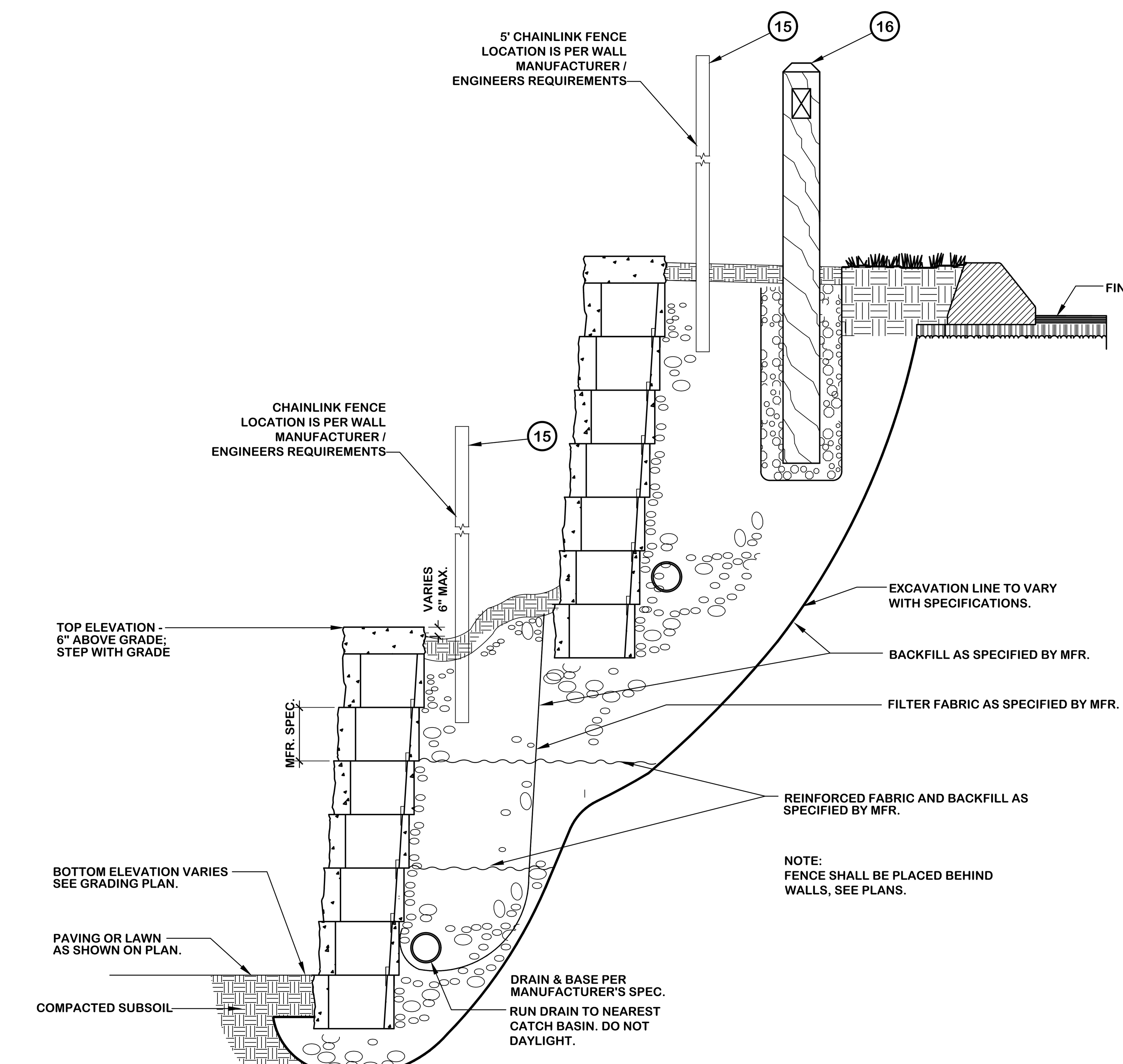
Ground Cover & Perennials

Sym.	Quan.	Botanical Name	Common Name	Size	Root
FVK	30	FILIPENDULA VULGARIS 'KAHOME'	DWARF MEADOWSWEET		CONT.
GOB	50	GAILLARDIA 'GOBLIN'	GOBLIN BLANKET FLOWER	#1 POT	CONT.
HCC	40	HEMEROCALLIS 'CHRISTMAS CANDY'	CRIMSON DAYLILLY	#2 POT	CONT.
HHR	45	HEMEROCALLIS 'HAPPY RETURNS'	YELLOW DAYLILLY	#2 POT	CONT.
HRR	30	HEMEROCALLIS 'ROSY RETURNS'	ROSY RETURNS DAYLILLY	#2 POT	CONT.
HPT	30	HOSTA 'PATRIOT'	PATRIOT HOSTA	#1 POT	CONT.
PVH	35	PANICUM VIRGATUM 'HEAVY METAL'	HEAVY METAL SWITCH GRASS	#3 POT	CONT.
SAF	50	SEDUM 'AUTUMN FIRE'	AUTUMN FIRE SEDUM	#1 POT	CONT.

* NOTE: PROVIDE MIX AMONG CARNAVAL, DARK HORSE, JAVA RED AND RUMBA

PLANT LIST NOTES:

1. ALL SUBSTITUTIONS SHALL BE APPROVED BY PROJECT LANDSCAPE ARCHITECT.
2. ALL PLANTS TO BE NURSERY STOCK
3. ALL SHRUBS AND PERENNIALS TO BE INSTALLED IN PLANT BED WITH 3" PINE BARK MULCH. PROVIDE SHOVEL EDGE ON BED.
4. DO NOT OVER MULCH TREE PLANTING. USE ONLY PINE BARK MULCH.
5. ALL MATERIAL-PLANTS, SOIL, GROWING MEDIUM-MUST BE FREE OF INVASIVE SPECIES-ESP. PURPLE LOOSESTRIFE AND ALL OTHER REGULATED INVASIVE PLANTS.



(40) **INTERLOCKING MODULAR RETAINING WALL**
N.T.S.

NOTE:
CONTRACTOR SHALL PROVIDE SIGNED AND SEALED LAYOUT AND STRUCTURAL DRAWINGS - INCLUDING STRAP SIZE, LAYOUT AND SPACING - FOR ALL WALLS. THESE DRAWINGS MAY BE SUBJECT TO REVIEW BY MUNICIPALITY, D.O.T., OR OTHER AGENCIES.
REVISIONS TO THESE DRAWINGS ARE NOT CONSIDERED TO BE AN EXTRA.

PRIOR TO START OF CONSTRUCTION CALL 1-800-962-7962 BEFORE YOU DIG!

REVISIONS

NO.	DATE	DESCRIPTION
1.	06/12/17	TOWN COMMENTS
2.	02/15/18	DEP SUBMISSION
3.	07/23/18	DEP COMMENTS

BIBBO ASSOCIATES, LLP
293 ROUTE 100 SUITE 203
SOMERS, NEW YORK 10589
TEL. 914 277 5805

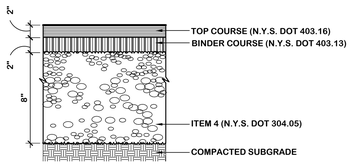
LADA, P.C.
Land Planners
104 West Street
Simsbury, CT 06070 (860) 651-4971
Brewster, NY 10509 (845) 278-7424

PLANTING LIST & DETAILS

MOUNT EBO LOT 6 - BARRETT HILL
MOUNT EBO ROAD NORTH
TOWN OF SOUTHEAST, NY 10509

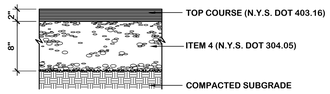
DESIGNED	T.H.
DRAWN	E.F.
CHECKED	C.W.
APPROVED	T.H.
SCALE	AS SHOWN
DATE	04/28/17
PROJECT NO:	1491
SHEET NO:	L-4.1

XREFS:



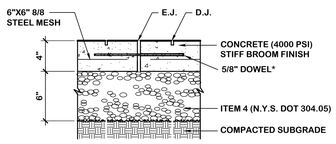
A BITUMINOUS CONCRETE PAVEMENT — DRIVES AND PARKING

N.T.S.



B BITUMINOUS CONCRETE PAVEMENT — WALKS

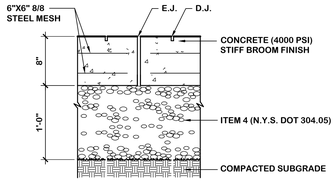
N.T.S.



C CONCRETE PAVEMENT — WALKS

N.T.S.

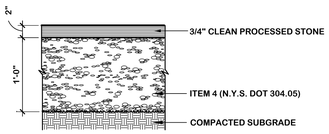
* NOTE: DOWELS FOR CONCRETE WALK SHALL BE 24" LONG, 2' O.C. & 12" FROM EDGE OF WALK. DIP IN 60 - 70 DEGREE PENETRATION ASPHALT OR WRAP WITH HEAVY TAR PAPER ON ONLY ONE END.



D CONCRETE PAVEMENT — DUMPSTER

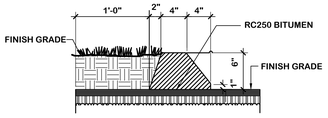
N.T.S.

* NOTE: DOWELS FOR CONCRETE WALK SHALL BE 24" LONG, 2' O.C. & 12" FROM EDGE OF WALK. DIP IN 60 - 70 DEGREE PENETRATION ASPHALT OR WRAP WITH HEAVY TAR PAPER ON ONLY ONE END.



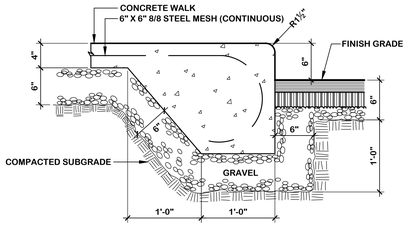
G GRAVEL PAVING — MAINTENANCE DRIVES

N.T.S.



1 BITUMINOUS CONCRETE CURB

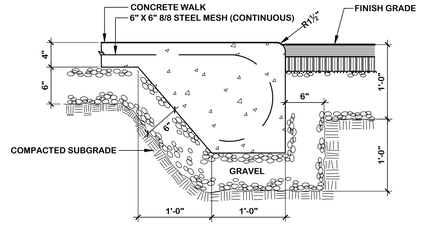
N.T.S.



2 INTEGRAL CONCRETE CURB

N.T.S.

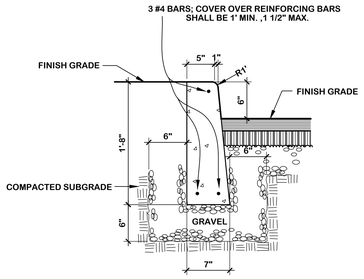
NOTES:
- 1/4" EXPANSION JOINT SHALL BE PLACED AT 10' MAX. INTERVALS AND ALONG CURB FACE (ESP. AT START AND END OF CURVES).
- FILLED WITH PRE MOLDED BITUMINOUS JOINT FILLER.



3 INTEGRAL CONCRETE CURB (FLUSH)

N.T.S.

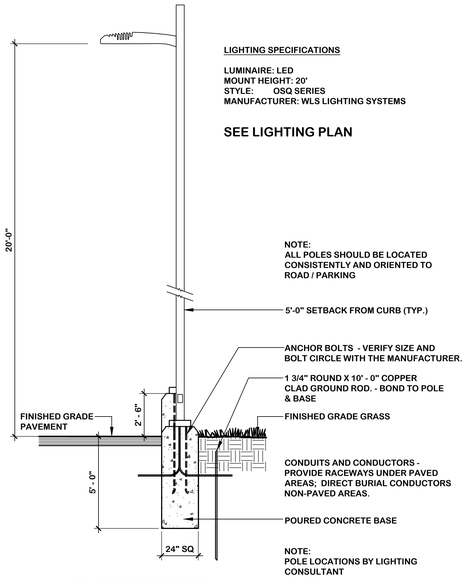
NOTES:
- 1/4" EXPANSION JOINT SHALL BE PLACED AT 10' MAX. INTERVALS AND ALONG CURB FACE (ESP. AT START AND END OF CURVES).
- FILLED WITH PRE MOLDED BITUMINOUS JOINT FILLER.



5 CAST-IN-PLACE CONCRETE CURB

N.T.S.

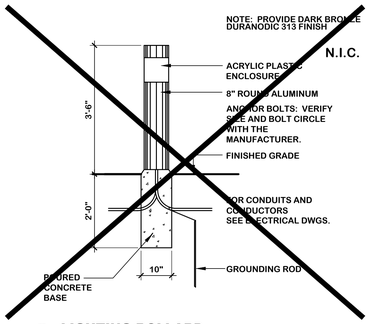
1/4" EXPANSION JOINT SHALL BE PLACED AT 10' MAX. INTERVALS AND FILLED WITH PRE MOLDED BITUMINOUS JOINT FILLER



NOTE: CONCRETE TO BE 4,000 PSI

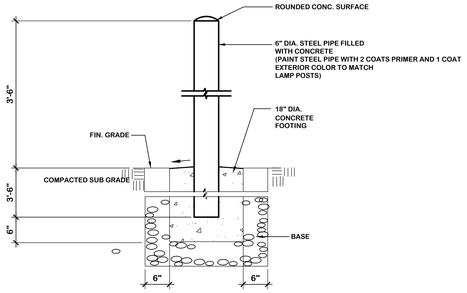
11 DECORATIVE LIGHT

N.T.S.



12 LIGHTING BOLLARD

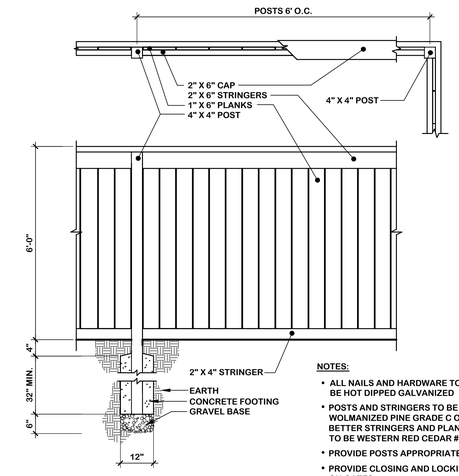
N.T.S.



13 CONCRETE FILLED STEEL BOLLARD

N.T.S.

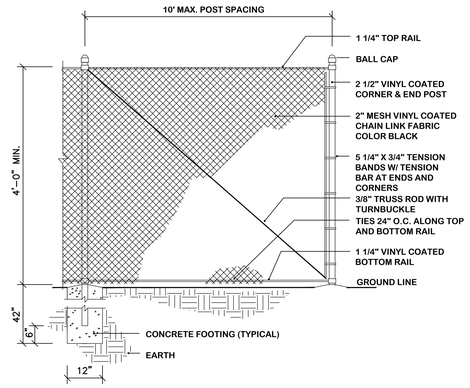
NOTE:
CONTRACTOR TO PROVIDE SHOP DRAWING OR SAMPLE TO PROJECT ENGINEER.



NOTES:
- ALL NAILS AND HARDWARE TO BE HOT DIPPED GALVANIZED
- POSTS AND STRINGERS TO BE WOLMANIZED PINE GRADE C OR BETTER STRINGERS AND PLANKS TO BE WESTERN RED CEDAR #1
- PROVIDE POSTS APPROPRIATE FOR GATES #1
- PROVIDE CLOSING AND LOCKING MECHANISM ON GATES

14 DUMPSTER ENCLOSURE- 6" PLANKS

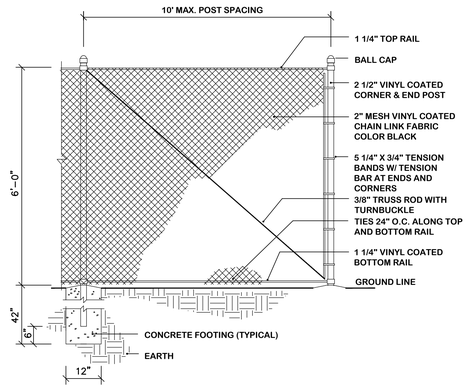
N.T.S.



15 VINYL CLAD CHAIN LINK FENCE

N.T.S.

NOTES:
1. FENCE IMMEDIATELY BEHIND RETAINING WALLS AS SHOWN ON PLANS
2. TOP OF WALL IS GENERALLY 6" TO 1'± HIGHER THAN GRADE BEHIND WALL. THE GRADE DIFFERENCE ADDRESSES POINT 18 ZONING COMMISSION CERTIFICATE OF ACTION.



15A VINYL CLAD CHAIN LINK FENCE

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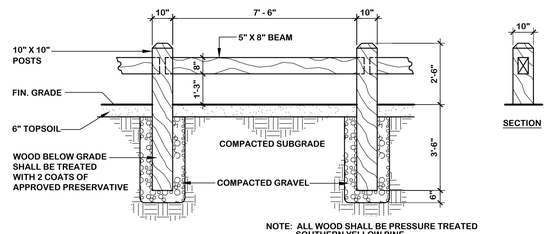
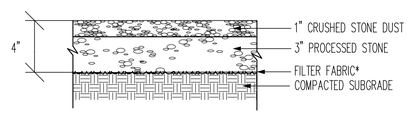


NOTE: ALL WOOD SHALL BE PRESSURE TREATED SOUTHERN YELLOW PINE

ELEVATION

16 WOOD GUIDE RAIL

N.T.S.



*WRAP FILTER FABRIC AROUND GRAVEL TO WITHIN 2" OF SURFACE

18 STONE DUST PATH

N.T.S.

PRIOR TO START OF CONSTRUCTION CALL 1-800-962-7962 BEFORE YOU DIG!

REVISIONS			
NO.	DATE	DESCRIPTION	
1.	08/17/17	REVISIONS	
2.	02/15/18	DEP SUBMISSION	
3.	07/23/18	DEP COMMENTS	

BIBBO ASSOCIATES, LLP
283 ROUTE 100 SUITE 203
SOMERS, NEW YORK 10589
TEL: 914 277 5805

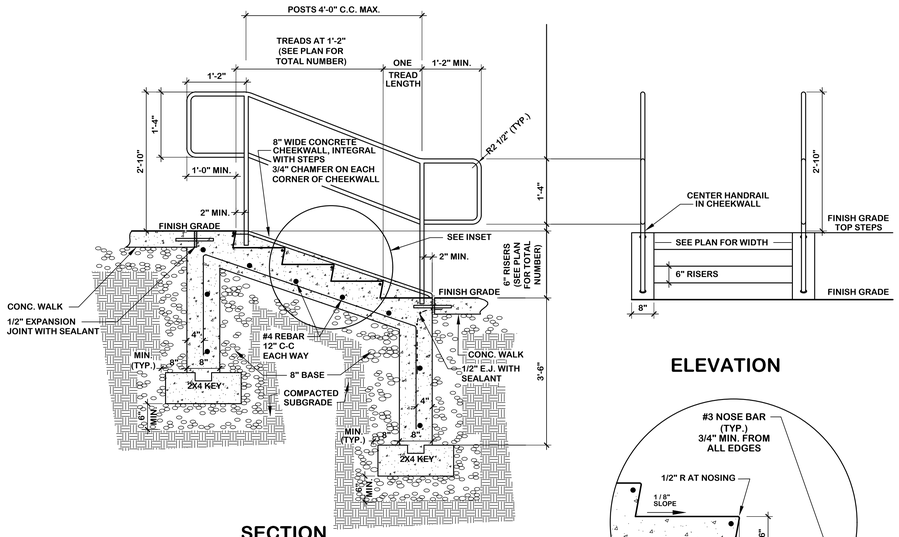
LADA, P.C.
Land Planners
104 Vining Street
Hopewell Junction (845) 221-0001
Brewster, NY 10509 (845) 279-7424

DETAILS

MOUNT EBO LOT 6 - BARRETT HILL
MOUNT EBO ROAD NORTH
TOWN OF SOUTHEAST, NY 10509

DESIGNED	T.H.
DRAWN	E.F.
CHECKED	C.W.
APPROVED	T.H.
SCALE	AS SHOWN
DATE	04/28/17
PROJECT NO:	1491
SHEET NO:	L-5

P:\New York\PR\1491 mt ebo\1491\2 Working\02-18-18\Dwg\1491 Details.dwg\L-5 Details\July 19, 2018



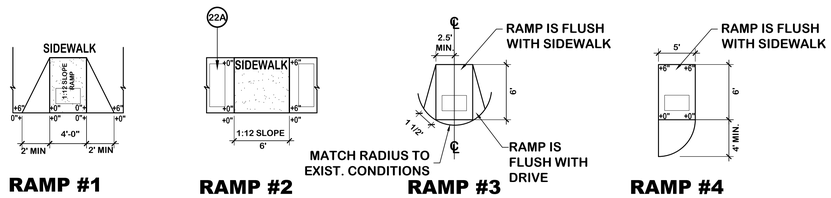
SECTION

ELEVATION

INSET

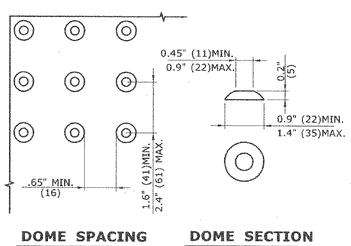
1. ALL TUBING SHALL BE 1 1/2" DIA. STA. STEEL.
2. WELD AND GRIND ALL JOINTS SMOOTH.
3. PRIME AND PAINT ALL EXPOSED STEEL (COLOR PER CLIENT)
4. PROVIDE HANDRAIL IN EACH CHEEKWALL .
5. CHEEKWALL REINFORCEMENT 2-#4 REBAR CONTINUOUS TOP TO BOTTOM.
6. PROVIDE 6" SLEEVE IN CONC. CHEEKWALL TO SECURE RAIL POST WITH POR ROC COMPOUND.
7. LIGHT BROOM FINISH CONCRETE.

19 STAIRS & HANDRAIL
N.T.S.

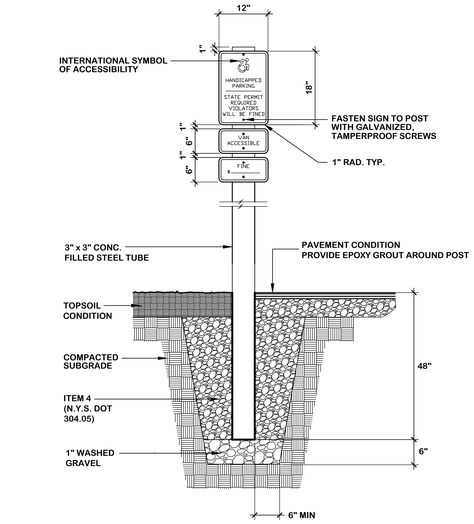


NOTE: RAMP(S) TO BE SURFACED WITH DETECTABLE WARNING TILES AND SHALL HAVE 1:12 SLOPE. THEY SHALL CONFORM TO CURRENT "A.D.A., RULES AND REGULATIONS."

22 HANDICAP RAMPS

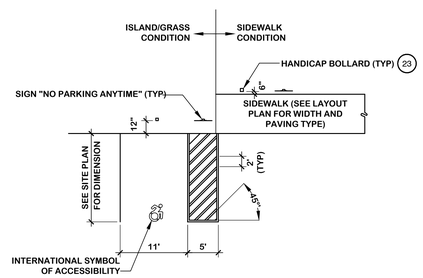


22A STANDARD DOME ON DETECTABLE WARNING TILES



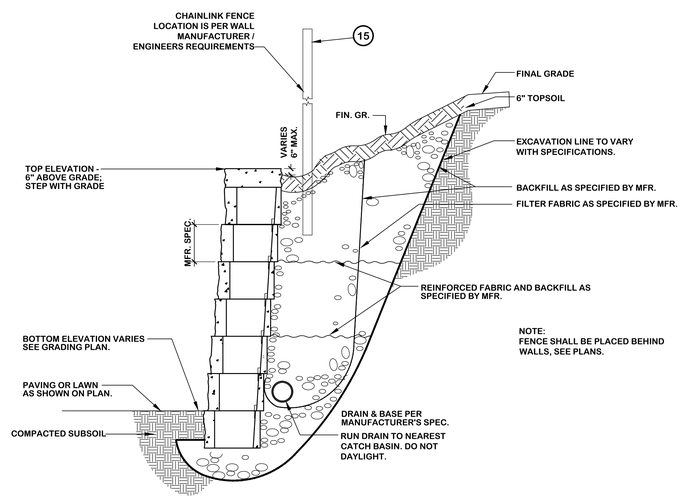
NOTES:
WORDING, HEIGHT & COLOR TO MEET ADA AND NEW YORK STANDARDS.
AMOUNT OF FINE TO BE DETERMINED AT DATE OF INSTALLATION.
"A" DETAIL - HANDICAP SIGN ONLY
"B" DETAIL - ADD VAN ACCESSIBLE SIGN
FINE SIGN TO BE INCLUDED ON ALL POSTS

23 ACCESSIBLE PARKING SIGNAGE & TYPICAL SIGN MOUNTING



NOTES:
LINES TO BE 4" WIDE
COLOR OF LINES TO MEET TOWN, STATE & ADA REQUIREMENTS.
PROVIDE SIGN ON BOLLARD AT CENTER OF EACH ACCESSIBLE SPACE.

24 VAN ACCESSIBLE SPACE ALONE
N.T.S.



25 INTERLOCKING MODULAR RETAINING WALL
WITH CHAIN LINK FENCE

N.T.S.
NOTE:
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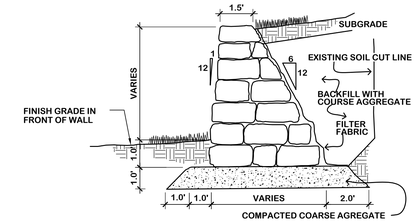
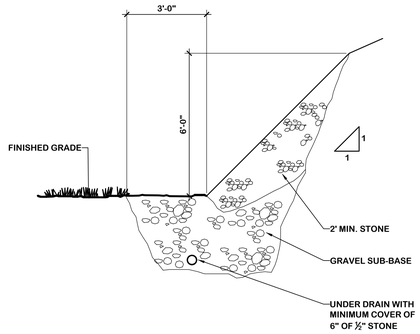
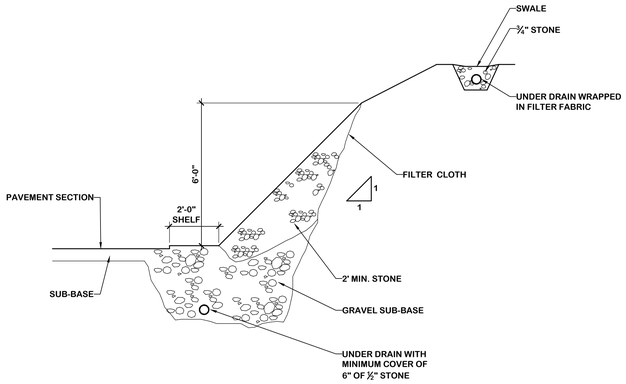


26 DRY LAID STONE RETAINING WALL
N.T.S.

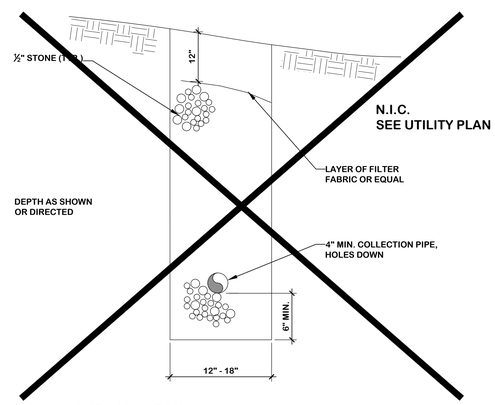


33 STONE WEDGE
N.T.S.



33A STONE WEDGE
WITH TOP OF SLOPE DRAIN

N.T.S.
USE ALONG ALL CUT SLOPES OF 2 ON 1; DETAIL TO BE MODIFIED IN AREAS OF 1 ½ ON 1 & 1 ON 1 AREAS; CURTAIN AT TOP OF SLOPE CONTINUOS THROUGH ALL CONDITIONS.



34A CURTAIN DRAIN
N.T.S.

PRIOR TO START OF CONSTRUCTION CALL 1-800-962-7962 BEFORE YOU DIG!

REVISIONS			
NO.	DATE	REVISIONS	DESCRIPTION
1.	08/17/17	DEP SUBMISSION	
2.	02/15/18		

BIBBO ASSOCIATES, LLP
283 ROUTE 100 SUITE 203
SOMERS, NEW YORK 10589
TEL: 914 277 5805

LADA, P.C.
Land Planners
104 Vining Street
Lansing, New York 14882 (800) 691-4071
Binghamton, NY 13905 (845) 279-7424

DETAILS

MOUNT EBO LOT 6 - BARRETT HILL
MOUNT EBO ROAD NORTH
TOWN OF SOUTHEAST, NY 10509

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DRAWN	E.F.
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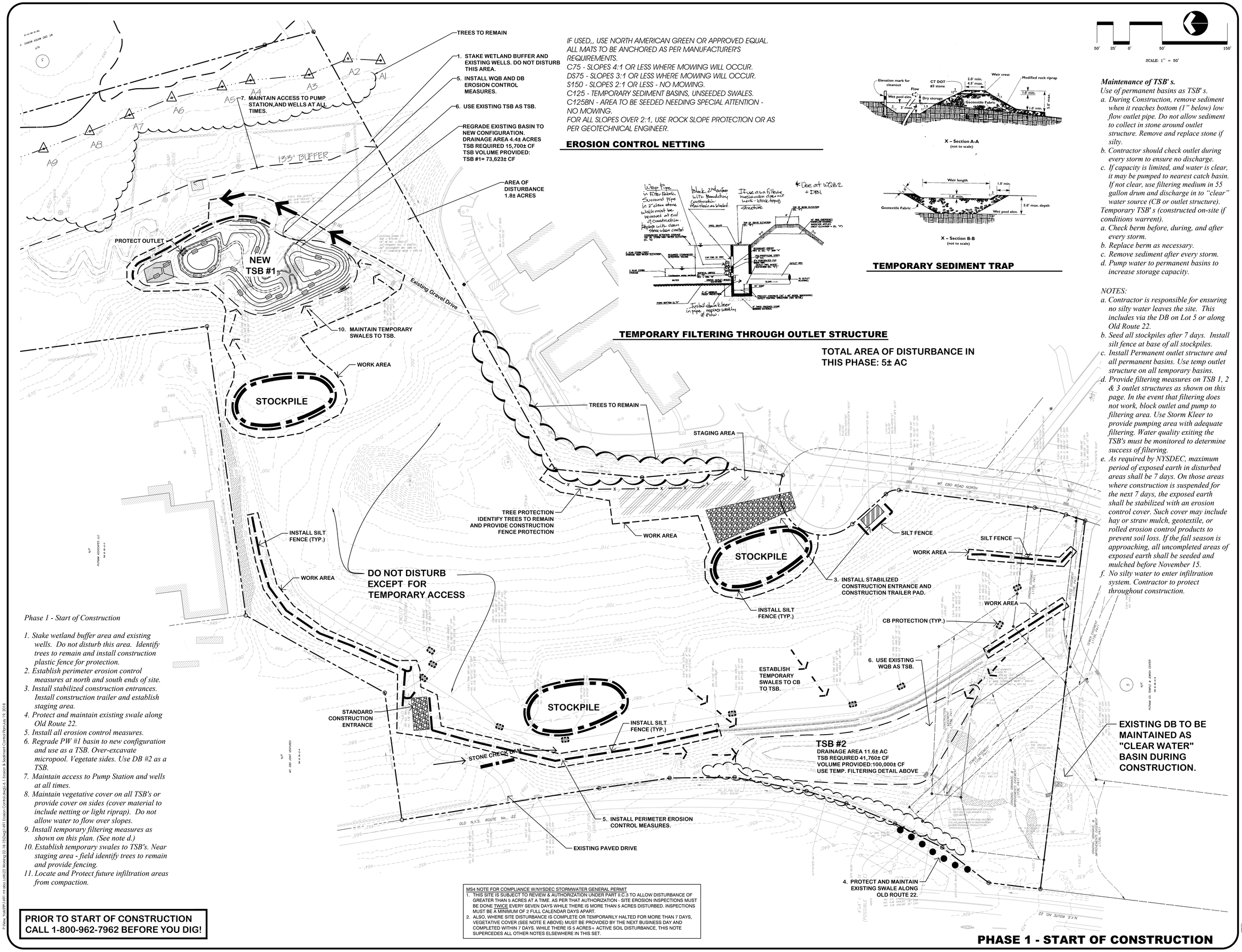
PROJECT NO:	1491
SHEET NO:	L-5.1

P:\New York\PN 1491 mt ebo Lot6\22 Working\10-18-15\dwg\1491 Details.dwg\L-5.1 Details.dwg\L-5.1 Details.dwg\ 18, 2018



IF USED,, USE NORTH AMERICAN GREEN OR APPROVED EQUAL.
ALL MATS TO BE ANCHORED AS PER MANUFACTURER'S REQUIREMENTS.
C75 - SLOPES 4:1 OR LESS WHERE MOWING WILL OCCUR.
DS75 - SLOPES 3:1 OR LESS WHERE MOWING WILL OCCUR.
S150 - SLOPES 2:1 OR LESS - NO MOWING.
C125 - TEMPORARY SEDIMENT BASINS, UNSEEDED SWALES.
C125BN - AREA TO BE SEEDED NEEDING SPECIAL ATTENTION - NO MOWING.
FOR ALL SLOPES OVER 2:1, USE ROCK SLOPE PROTECTION OR AS PER GEOTECHNICAL ENGINEER.

EROSION CONTROL NETTING

TEMPORARY FILTERING THROUGH OUTLET STRUCTURE

TOTAL AREA OF DISTURBANCE IN THIS PHASE: 5± AC

50' 25' 0' 50' 150'

SCALE: 1" = 50'

X – Section A-A
(not to scale)

X – Section B-B
(not to scale)

TEMPORARY SEDIMENT TRAP

Maintenance of TSB' s.
Use of permanent basins as TSB' s.
a. During Construction, remove sediment when it reaches bottom (1" below) low flow outlet pipe. Do not allow sediment to collect in stone around outlet structure. Remove and replace stone if silty.
b. Contractor should check outlet during every storm to ensure no discharge.
c. If capacity is limited, and water is clear, it may be pumped to nearest catch basin. If not clear, use filtering medium in 55 gallon drum and discharge in to "clear" water source (CB or outlet structure).
Temporary TSB' s (constructed on-site if conditions warrent).
a. Check berm before, during, and after every storm.
b. Replace berm as necessary.
c. Remove sediment after every storm.
d. Pump water to permanent basins to increase storage capacity.

NOTES:
a. Contractor is responsible for ensuring no silty water leaves the site. This includes via the DB on Lot 5 or along Old Route 22.
b. Seed all stockpiles after 7 days. Install silt fence at base of all stockpiles.
c. Install Permanent outlet structure and all permanent basins. Use temp outlet structure on all temporary basins.
d. Provide filtering measures on TSB 1, 2 & 3 outlet structures as shown on this page. In the event that filtering does not work, block outlet and pump to filtering area. Use Storm Kleer to provide pumping area with adequate filtering. Water quality exiting the TSB's must be monitored to determine success of filtering.
e. As required by NYSDEC, maximum period of exposed earth in disturbed areas shall be 7 days. On those areas where construction is suspended for the next 7 days, the exposed earth shall be stabilized with an erosion control cover. Such cover may include hay or straw mulch, geotextile, or rolled erosion control products to prevent soil loss. If the fall season is approaching, all uncompleted areas of exposed earth shall be seeded and mulched before November 15.
f. No silty water to enter infiltration system. Contractor to protect throughout construction.

Phase 1 - Start of Construction

1. Stake wetland buffer area and existing wells. Do not disturb this area. Identify trees to remain and install construction plastic fence for protection.
2. Establish perimeter erosion control measures at north and south ends of site.
3. Install stabilized construction entrances. Install construction trailer and establish staging area.
4. Protect and maintain existing swale along Old Route 22.
5. Install all erosion control measures.
6. Regrade PW #1 basin to new configuration and use as a TSB. Over-excavate micropool. Vegetate sides. Use DB #2 as a TSB.
7. Maintain access to Pump Station and wells at all times.
8. Maintain vegetative cover on all TSB's or provide cover on sides (cover material to include netting or light riprap). Do not allow water to flow over slopes.
9. Install temporary filtering measures as shown on this plan. (See note d.)
10. Establish temporary swales to TSB's. Near staging area - field identify trees to remain and provide fencing.
11. Locate and Protect future infiltration areas from compaction.

PRIOR TO START OF CONSTRUCTION CALL 1-800-962-7962 BEFORE YOU DIG!

MS4 NOTE FOR COMPLIANCE W/NYSDEC STORMWATER GENERAL PERMIT
1. THIS SITE IS SUBJECT TO REVIEW & AUTHORIZATION UNDER PART II.C.3 TO ALLOW DISTURBANCE OF GREATER THAN 5 ACRES AT A TIME. AS PER THAT AUTHORIZATION - SITE EROSION INSPECTIONS MUST BE DONE TWICE EVERY SEVEN DAYS WHILE THERE IS MORE THAN 5 ACRES DISTURBED. INSPECTIONS MUST BE A MINIMUM OF 2 FULL CALENDAR DAYS APART.
2. ALSO, WHERE SITE DISTURBANCE IS COMPLETE OR TEMPORARILY HALTED FOR MORE THAN 7 DAYS, VEGETATIVE COVER (SEE NOTE E ABOVE) MUST BE PROVIDED BY THE NEXT BUSINESS DAY AND COMPLETED WITHIN 7 DAYS. WHILE THERE IS 5 ACRES+ ACTIVE SOIL DISTURBANCE, THIS NOTE SUPERCEDES ALL OTHER NOTES ELSEWHERE IN THIS SET.

PHASE 1 - START OF CONSTRUCTION

REVISIONS

NO.	DATE	DESCRIPTION
1.	12/21/17	REVISIONS
2.	02/15/18	DEP SUBMISSION
3.	06/11/18	MS4/5 ACRE WAIVER
4.	07/23/18	DEP COMMENTS

BIBBO ASSOCIATES, LLP
283 ROUTE 100 SUITE 203
SOMERS, NEW YORK 10589
TEL: 914 277 5805

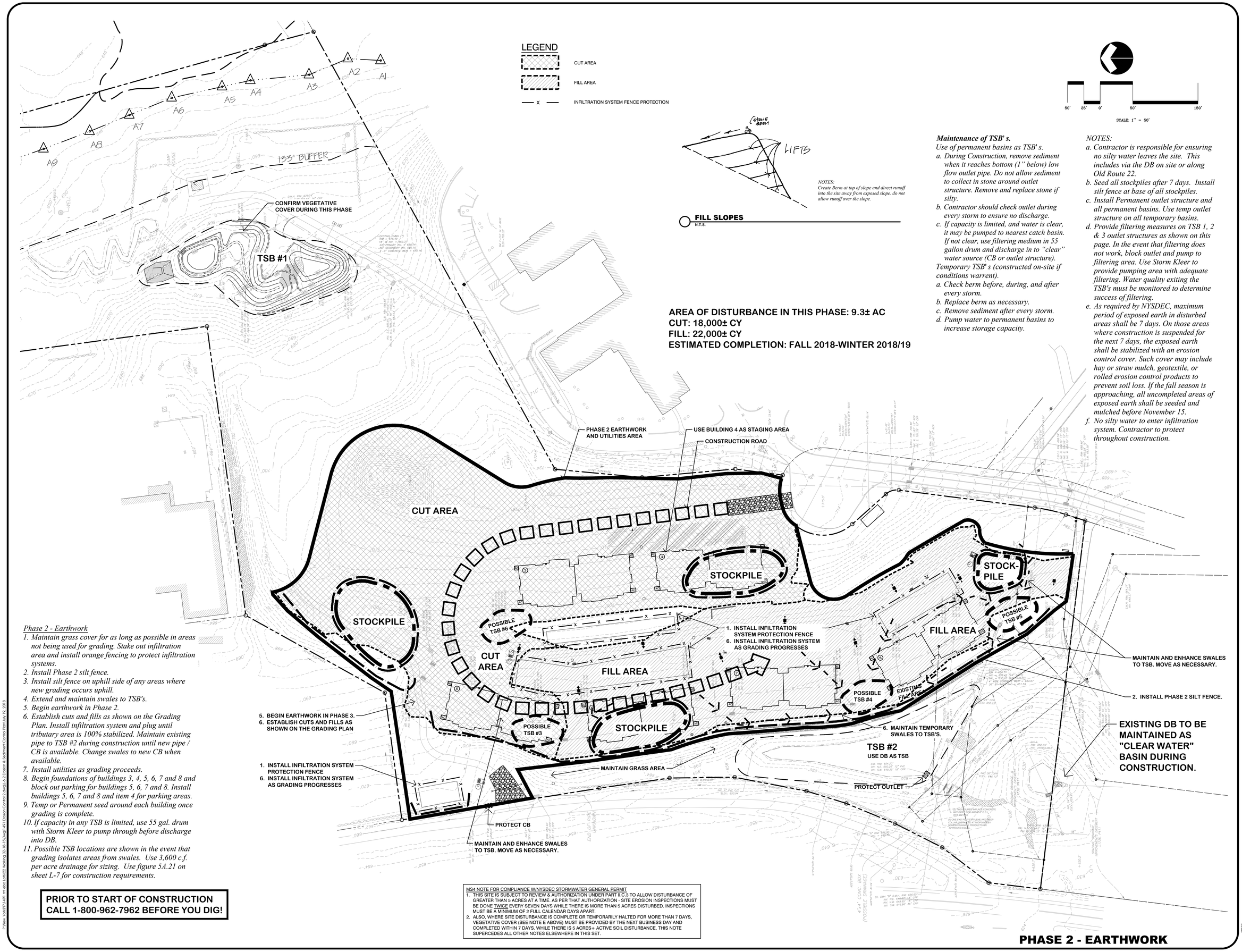
LADA, P.C.
Land Planners
154 Vassar Street
Poughkeepsie, New York 12601 (845) 452-1477
Briarcliff Manor, NY 10510 (845) 279-7424

EROSION & SEDIMENT CONTROL PLAN

MOUNT EBO LOT 6 - BARRETT HILL
MOUNT EBO ROAD NORTH
TOWN OF SOUTHEAST, NY 10509

DESIGNED	T.H.
DRAWN	E.F.
CHECKED	C.W.
APPROVED	T.H.
SCALE	1"=50'
DATE	04/28/17
PROJECT NO:	1491
SHEET NO:	L-6.1

P:\New York\PN\1491 mt ebo Lot6\22 Working\10-18-18\dwg\1491 Erosion Control.dwg\L-6.1 Erosion & Sediment Control Plan\July 19, 2018



AREA OF DISTURBANCE IN THIS PHASE: 9.3± AC
CUT: 18,000± CY
FILL: 22,000± CY
ESTIMATED COMPLETION: FALL 2018-WINTER 2018/19

Maintenance of TSB' s.

Use of permanent basins as TSB' s.

a. During Construction, remove sediment when it reaches bottom (1" below) low flow outlet pipe. Do not allow sediment to collect in stone around outlet structure. Remove and replace stone if silty.
b. Contractor should check outlet during every storm to ensure no discharge.
c. If capacity is limited, and water is clear, it may be pumped to nearest catch basin. If not clear, use filtering medium in 55 gallon drum and discharge in to "clear" water source (CB or outlet structure).

Temporary TSB' s (constructed on-site if conditions warrent).

a. Check berm before, during, and after every storm.
b. Replace berm as necessary.
c. Remove sediment after every storm.
d. Pump water to permanent basins to increase storage capacity.

NOTES:

a. Contractor is responsible for ensuring no silty water leaves the site. This includes via the DB on site or along Old Route 22.
b. Seed all stockpiles after 7 days. Install silt fence at base of all stockpiles.
c. Install Permanent outlet structure and all permanent basins. Use temp outlet structure on all temporary basins.
d. Provide filtering measures on TSB 1, 2 & 3 outlet structures as shown on this page. In the event that filtering does not work, block outlet and pump to filtering area. Use Storm Kleer to provide pumping area with adequate filtering. Water quality exiting the TSB's must be monitored to determine success of filtering.
e. As required by NYSDEC, maximum period of exposed earth in disturbed areas shall be 7 days. On those areas where construction is suspended for the next 7 days, the exposed earth shall be stabilized with an erosion control cover. Such cover may include hay or straw mulch, geotextile, or rolled erosion control products to prevent soil loss. If the fall season is approaching, all uncompleted areas of exposed earth shall be seeded and mulched before November 15.
f. No silty water to enter infiltration system. Contractor to protect throughout construction.

Phase 2 - Earthwork

1. Maintain grass cover for as long as possible in areas not being used for grading. Stake out infiltration area and install orange fencing to protect infiltration systems.
2. Install Phase 2 silt fence.
3. Install silt fence on uphill side of any areas where new grading occurs uphill.
4. Extend and maintain swales to TSB's.
5. Begin earthwork in Phase 2.
6. Establish cuts and fills as shown on the Grading Plan. Install infiltration system and plug until tributary area is 100% stabilized. Maintain existing pipe to TSB #2 during construction until new pipe / CB is available. Change swales to new CB when available.
7. Install utilities as grading proceeds.
8. Begin foundations of buildings 3, 4, 5, 6, 7 and 8 and block out parking for buildings 5, 6, 7 and 8. Install buildings 5, 6, 7 and 8 and item 4 for parking areas.
9. Temp or Permanent seed around each building once grading is complete.
10. If capacity in any TSB is limited, use 55 gal. drum with Storm Kleer to pump through before discharge into DB.
11. Possible TSB locations are shown in the event that grading isolates areas from swales. Use 3,600 c.f. per acre drainage for sizing. Use figure 5A.21 on sheet L-7 for construction requirements.

PRIOR TO START OF CONSTRUCTION CALL 1-800-962-7962 BEFORE YOU DIG!

MS4 NOTE FOR COMPLIANCE W/NYSDEC STORMWATER GENERAL PERMIT

1. THIS SITE IS SUBJECT TO REVIEW & AUTHORIZATION UNDER PART II.C.3 TO ALLOW DISTURBANCE OF GREATER THAN 5 ACRES AT A TIME. AS PER THAT AUTHORIZATION - SITE EROSION INSPECTIONS MUST BE DONE TWICE EVERY SEVEN DAYS WHILE THERE IS MORE THAN 5 ACRES DISTURBED. INSPECTIONS MUST BE A MINIMUM OF 2 FULL CALENDAR DAYS APART.
2. ALSO, WHERE SITE DISTURBANCE IS COMPLETE OR TEMPORARILY HALTED FOR MORE THAN 7 DAYS, VEGETATIVE COVER (SEE NOTE E ABOVE) MUST BE PROVIDED BY THE NEXT BUSINESS DAY AND COMPLETED WITHIN 7 DAYS. WHILE THERE IS 5 ACRES+ ACTIVE SOIL DISTURBANCE, THIS NOTE SUPERCEDES ALL OTHER NOTES ELSEWHERE IN THIS SET.

PHASE 2 - EARTHWORK

P:\Rev Yr\PP\1491 mt ebo Lot6\22 Working\10-18-18\dwg\1491 Erosion Control 2.dwg\L-6.2 Erosion & Sediment Control Pro\July 19, 2018

REVISIONS

NO.	DATE	DESCRIPTION
		REVISIONS
1.	12/21/17	DEP SUBMISSION
2.	02/15/18	DEP COMMENTS
3.	04/06/18	MS4/5 ACRE WAIVER
4.	06/11/18	DEP COMMENTS
5.	07/23/18	

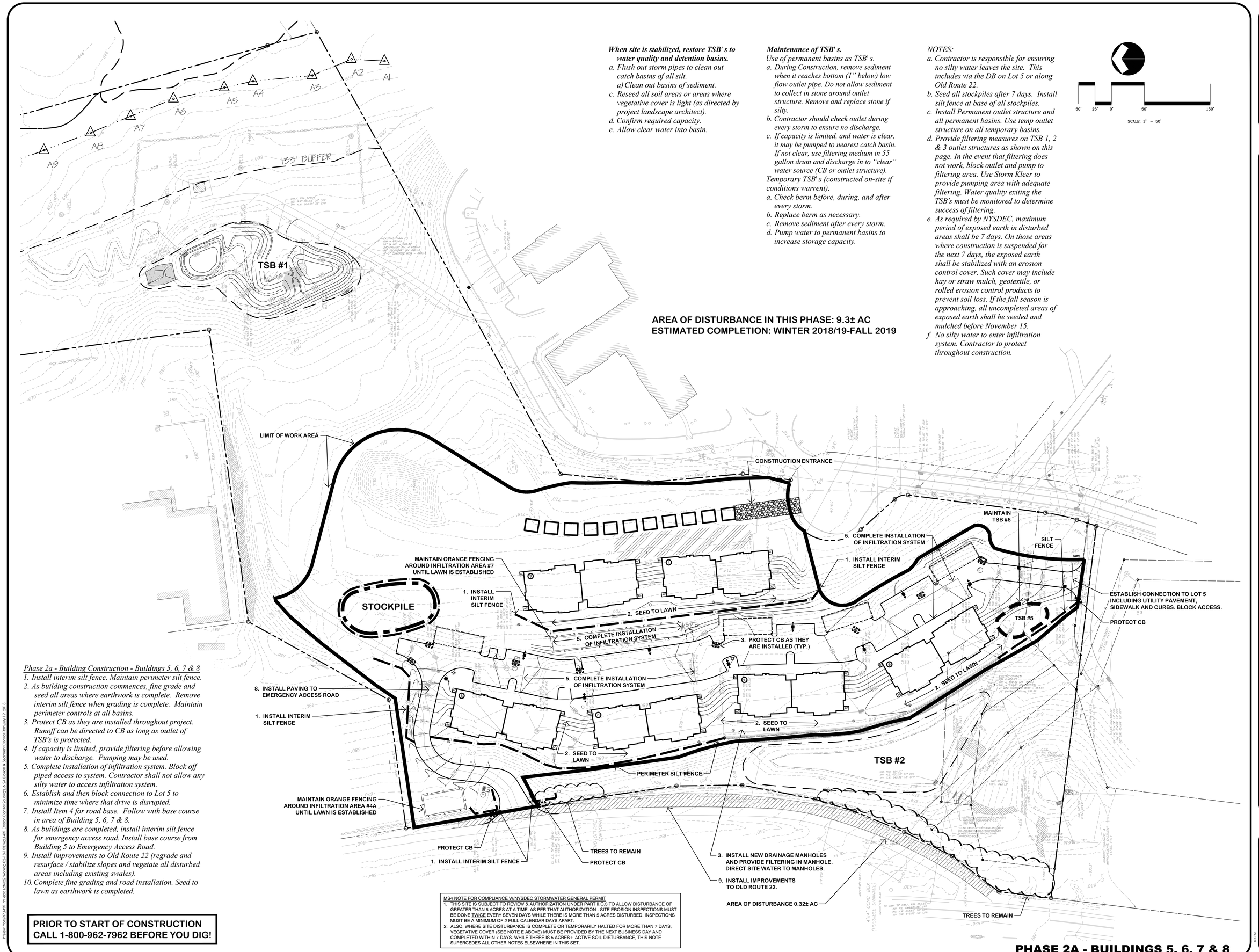
BIBBO ASSOCIATES, LLP
283 ROUTE 100 SUITE 203
SOMERS, NEW YORK 10589
TEL: 914 277 5805

LADA, P.C.
Land Planners
104 Vining Street
Lansing, New York 14882 (800) 691-4071
Binghamton, NY 13905 (845) 279-7424

EROSION & SEDIMENT CONTROL PLAN

MOUNT EBO LOT 6 - BARRETT HILL
MOUNT EBO ROAD NORTH
TOWN OF SOUTHEAST, NY 10509

DESIGNED	T.H.
DRAWN	E.F.
CHECKED	C.W.
APPROVED	T.H.
SCALE	1"=50'
DATE	04/28/17
PROJECT NO:	1491
SHEET NO:	L-6.2



When site is stabilized, restore TSB' s to water quality and detention basins.

a. Flush out storm pipes to clean out catch basins of all silt.
a) Clean out basins of sediment.
c. Reseed all soil areas or areas where vegetative cover is light (as directed by project landscape architect).
d. Confirm required capacity.
e. Allow clear water into basin.

Maintenance of TSB' s.

Use of permanent basins as TSB' s.

a. During Construction, remove sediment when it reaches bottom (1" below) low flow outlet pipe. Do not allow sediment to collect in stone around outlet structure. Remove and replace stone if silty.
b. Contractor should check outlet during every storm to ensure no discharge.
c. If capacity is limited, and water is clear, it may be pumped to nearest catch basin. If not clear, use filtering medium in 55 gallon drum and discharge in to "clear" water source (CB or outlet structure).

Temporary TSB' s (constructed on-site if conditions warrent).

a. Check berm before, during, and after every storm.
b. Replace berm as necessary.
c. Remove sediment after every storm.
d. Pump water to permanent basins to increase storage capacity.

NOTES:

a. Contractor is responsible for ensuring no silty water leaves the site. This includes via the DB on Lot 5 or along Old Route 22.
b. Seed all stockpiles after 7 days. Install silt fence at base of all stockpiles.
c. Install Permanent outlet structure and all permanent basins. Use temp outlet structure on all temporary basins.
d. Provide filtering measures on TSB 1, 2 & 3 outlet structures as shown on this page. In the event that filtering does not work, block outlet and pump to filtering area. Use Storm Kleer to provide pumping area with adequate filtering. Water quality exiting the TSB's must be monitored to determine success of filtering.
e. As required by NYSDEC, maximum period of exposed earth in disturbed areas shall be 7 days. On those areas where construction is suspended for the next 7 days, the exposed earth shall be stabilized with an erosion control cover. Such cover may include hay or straw mulch, geotextile, or rolled erosion control products to prevent soil loss. If the fall season is approaching, all uncompleted areas of exposed earth shall be seeded and mulched before November 15.
f. No silty water to enter infiltration system. Contractor to protect throughout construction.

AREA OF DISTURBANCE IN THIS PHASE: 9.3± AC
ESTIMATED COMPLETION: WINTER 2018/19-FALL 2019

Phase 2a - Building Construction - Buildings 5, 6, 7 & 8

1. Install interim silt fence. Maintain perimeter silt fence.
2. As building construction commences, fine grade and seed all areas where earthwork is complete. Remove interim silt fence when grading is complete. Maintain perimeter controls at all basins.
3. Protect CB as they are installed throughout project. Runoff can be directed to CB as long as outlet of TSB's is protected.
4. If capacity is limited, provide filtering before allowing water to discharge. Pumping may be used.
5. Complete installation of infiltration system. Block off piped access to system. Contractor shall not allow any silty water to access infiltration system.
6. Establish and then block connection to Lot 5 to minimize time where that drive is disrupted.
7. Install Item 4 for road base. Follow with base course in area of Building 5, 6, 7 & 8.
8. As buildings are completed, install interim silt fence for emergency access road. Install base course from Building 5 to Emergency Access Road.
9. Install improvements to Old Route 22 (regrade and resurface / stabilize slopes and vegetate all disturbed areas including existing swales).
10. Complete fine grading and road installation. Seed to lawn as earthwork is completed.

PRIOR TO START OF CONSTRUCTION CALL 1-800-962-7962 BEFORE YOU DIG!

MS4 NOTE FOR COMPLIANCE W/NYSDEC STORMWATER GENERAL PERMIT

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2. ALSO, WHERE SITE DISTURBANCE IS COMPLETE OR TEMPORARILY HALTED FOR MORE THAN 7 DAYS, VEGETATIVE COVER (SEE NOTE E ABOVE) MUST BE PROVIDED BY THE NEXT BUSINESS DAY AND COMPLETED WITHIN 7 DAYS. WHILE THERE IS 5 ACRES+ ACTIVE SOIL DISTURBANCE, THIS NOTE SUPERCEDES ALL OTHER NOTES ELSEWHERE IN THIS SET.

PHASE 2A - BUILDINGS 5, 6, 7 & 8

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REVISIONS

NO.	DATE	DESCRIPTION
1.	02/15/18	DEP SUBMISSION
2.	04/06/18	DEP COMMENTS
3.	06/11/18	MS4/5 ACRE WAIVER
4.	07/23/18	DEP COMMENTS

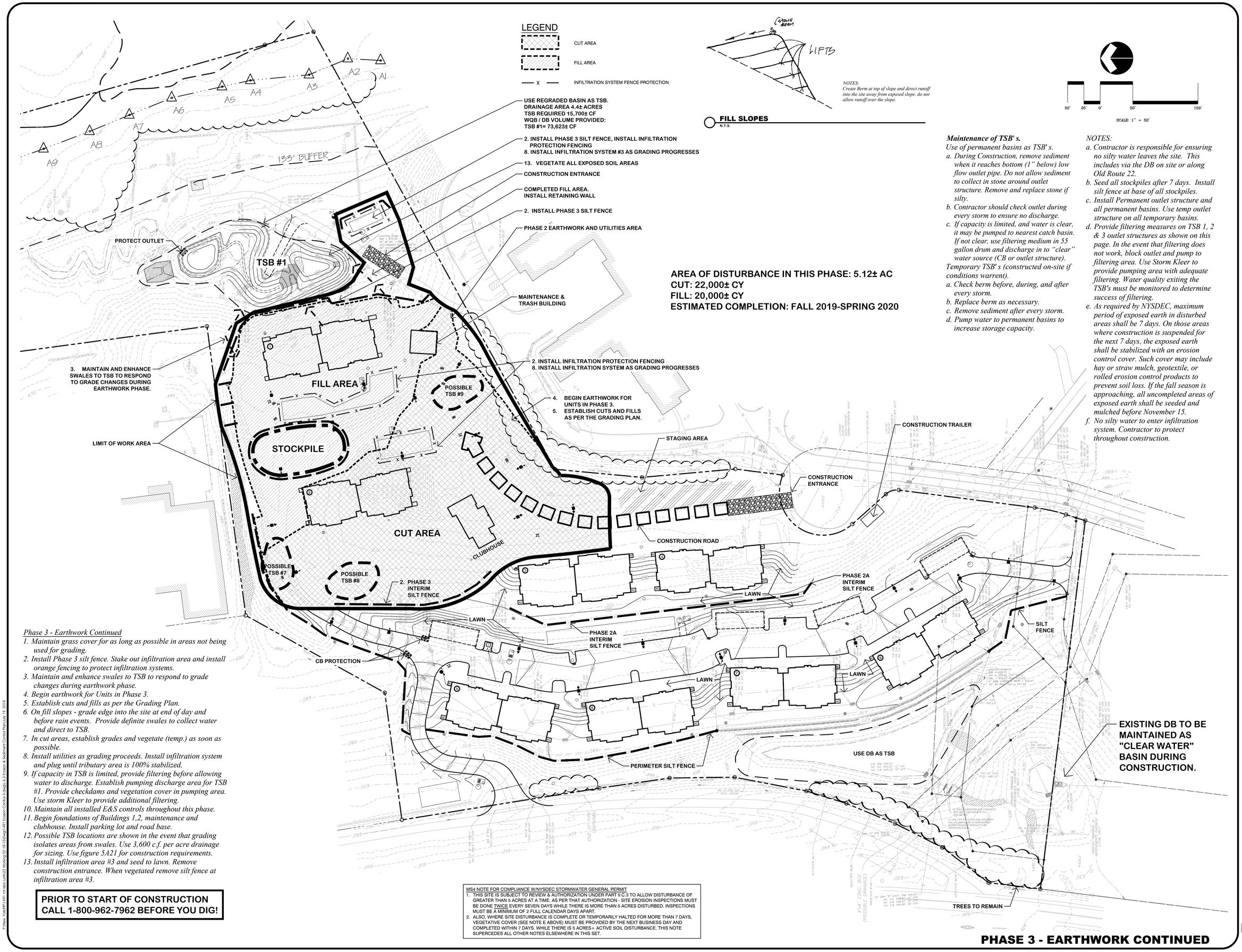
BIBBO ASSOCIATES, LLP
293 ROUTE 100 SUITE 203
SOMERS, NEW YORK 10589
TEL: 914.277.5805

LADA, P.C.
Land Planners
104 Vining Street
Hawthorne, NY 10532 (914) 592-4051
Brewster, NY 10509 (845) 279-7424

EROSION & SEDIMENT CONTROL PLAN

MOUNT EBO LOT 6 - BARRETT HILL
MOUNT EBO ROAD NORTH
TOWN OF SOUTHEAST, NY 10509

DESIGNED	T.H.
DRAWN	E.F.
CHECKED	C.W.
APPROVED	T.H.
SCALE	1"=50'
DATE	12/21/17
PROJECT NO:	1491
SHEET NO:	L-6.2A



NOTES:
Create Berm at top of slope and direct runoff into the site away from exposed slope. do not allow runoff over the slope.

FILL SLOPES
N.T.S.

50' 25' 0' 50' 150'
SCALE: 1" = 50'

AREA OF DISTURBANCE IN THIS PHASE: 5.12± AC
CUT: 22,000± CY
FILL: 20,000± CY
ESTIMATED COMPLETION: FALL 2019-SPRING 2020

Maintenance of TSB' s.
Use of permanent basins as TSB' s.
a. During Construction, remove sediment when it reaches bottom (1" below) low flow outlet pipe. Do not allow sediment to collect in stone around outlet structure. Remove and replace stone if silty.
b. Contractor should check outlet during every storm to ensure no discharge.
c. If capacity is limited, and water is clear, it may be pumped to nearest catch basin. If not clear, use filtering medium in 55 gallon drum and discharge in to "clear" water source (CB or outlet structure).
Temporary TSB' s (constructed on-site if conditions warrent).
a. Check berm before, during, and after every storm.
b. Replace berm as necessary.
c. Remove sediment after every storm.
d. Pump water to permanent basins to increase storage capacity.

NOTES:
a. Contractor is responsible for ensuring no silty water leaves the site. This includes via the DB on site or along Old Route 22.
b. Seed all stockpiles after 7 days. Install silt fence at base of all stockpiles.
c. Install Permanent outlet structure and all permanent basins. Use temp outlet structure on all temporary basins.
d. Provide filtering measures on TSB 1, 2 & 3 outlet structures as shown on this page. In the event that filtering does not work, block outlet and pump to filtering area. Use Storm Kleer to provide pumping area with adequate filtering. Water quality exiting the TSB's must be monitored to determine success of filtering.
e. As required by NYSDEC, maximum period of exposed earth in disturbed areas shall be 7 days. On those areas where construction is suspended for the next 7 days, the exposed earth shall be stabilized with an erosion control cover. Such cover may include hay or straw mulch, geotextile, or rolled erosion control products to prevent soil loss. If the fall season is approaching, all uncompleted areas of exposed earth shall be seeded and mulched before November 15.
f. No silty water to enter infiltration system. Contractor to protect throughout construction.

Phase 3 - Earthwork Continued
1. Maintain grass cover for as long as possible in areas not being used for grading.
2. Install Phase 3 silt fence. Stake out infiltration area and install orange fencing to protect infiltration systems.
3. Maintain and enhance swales to TSB to respond to grade changes during earthwork phase.
4. Begin earthwork for Units in Phase 3.
5. Establish cuts and fills as per the Grading Plan.
6. On fill slopes - grade edge into the site at end of day and before rain events. Provide definite swales to collect water and direct to TSB.
7. In cut areas, establish grades and vegetate (temp.) as soon as possible.
8. Install utilities as grading proceeds. Install infiltration system and plug until tributary area is 100% stabilized.
9. If capacity in TSB is limited, provide filtering before allowing water to discharge. Establish pumping discharge area for TSB #1. Provide checkdams and vegetation cover in pumping area. Use storm Kleer to provide additional filtering.
10. Maintain all installed E&S controls throughout this phase.
11. Begin foundations of Buildings 1,2, maintenance and clubhouse. Install parking lot and road base.
12. Possible TSB locations are shown in the event that grading isolates areas from swales. Use 3,600 c.f. per acre drainage for sizing. Use figure 5A21 for construction requirements.
13. Install infiltration area #3 and seed to lawn. Remove construction entrance. When vegetated remove silt fence at infiltration area #3.

PRIOR TO START OF CONSTRUCTION CALL 1-800-962-7962 BEFORE YOU DIG!

MS4 NOTE FOR COMPLIANCE W/NYSDEC STORMWATER GENERAL PERMIT
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2. ALSO, WHERE SITE DISTURBANCE IS COMPLETE OR TEMPORARILY HALTED FOR MORE THAN 7 DAYS, VEGETATIVE COVER (SEE NOTE E ABOVE) MUST BE PROVIDED BY THE NEXT BUSINESS DAY AND COMPLETED WITHIN 7 DAYS. WHILE THERE IS 5 ACRES+ ACTIVE SOIL DISTURBANCE, THIS NOTE SUPERCEDES ALL OTHER NOTES ELSEWHERE IN THIS SET.

PHASE 3 - EARTHWORK CONTINUED

REVISIONS

NO.	DATE	DESCRIPTION
1.	06/12/17	TOWN COMMENTS
2.	12/21/17	REVISIONS
3.	02/15/18	DEP SUBMISSION
4.	04/06/18	DEP COMMENTS
5.	06/11/18	MS4/75 ACRE WAIVER
6.	07/23/18	DEP COMMENTS

BIBBO ASSOCIATES, LLP
283 ROUTE 100 SUITE 203
SOMERS, NEW YORK 10589
TEL: 914 277 5805

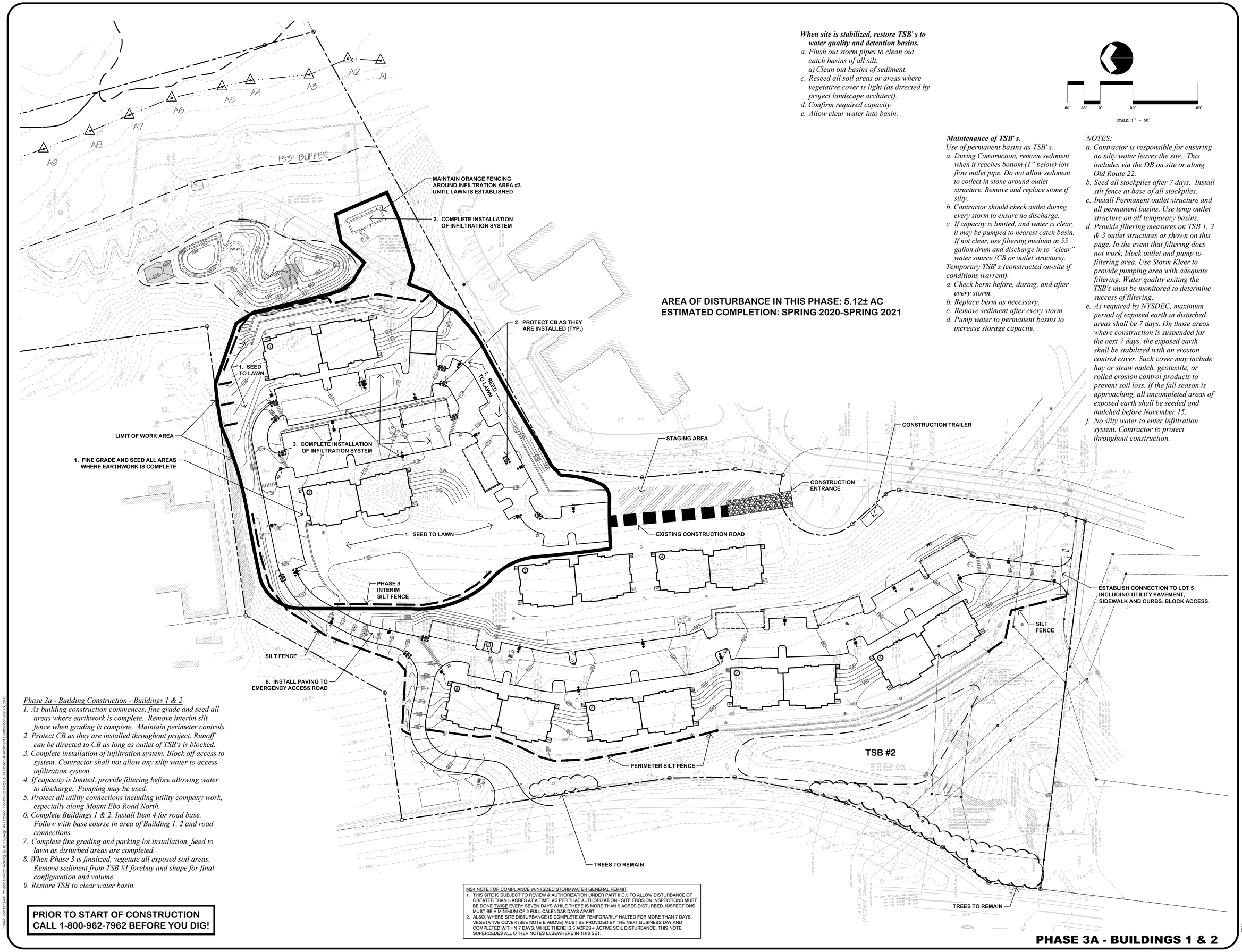
LADA, P.C.
Land Planners
154 Vassar Street
Poughkeepsie, NY 12601 (845) 452-1477
Binghamton, NY 13905 (845) 279-7424

EROSION & SEDIMENT CONTROL PLAN

MOUNT EBO LOT 6 - BARRETT HILL
MOUNT EBO ROAD NORTH
TOWN OF SOUTHEAST, NY 10509

DESIGNED	T.H.
DRAWN	E.F.
CHECKED	C.W.
APPROVED	T.H.
SCALE	1"=50'
DATE	04/28/17
PROJECT NO:	1491
SHEET NO:	L-6.3

P:\Bibbo Yorktown\491 mt ebo\491MS2 Working\02-B-150\dwg\491 Erosion Control 3.dwg\L-6.3 Erosion & Sediment Control Plan\July 19, 2018



AREA OF DISTURBANCE IN THIS PHASE: 5.12± AC
ESTIMATED COMPLETION: SPRING 2020-SPRING 2021

When site is stabilized, restore TSB' s to water quality and detention basins.

a. Flush out storm pipes to clean out catch basins of all silt.
a) Clean out basins of sediment.
c. Reseed all soil areas or areas where vegetative cover is light (as directed by project landscape architect).
d. Confirm required capacity.
e. Allow clear water into basin.

Maintenance of TSB' s.

Use of permanent basins as TSB' s.

a. During Construction, remove sediment when it reaches bottom (1" below) low flow outlet pipe. Do not allow sediment to collect in stone around outlet structure. Remove and replace stone if silty.
b. Contractor should check outlet during every storm to ensure no discharge.
c. If capacity is limited, and water is clear, it may be pumped to nearest catch basin. If not clear, use filtering medium in 55 gallon drum and discharge in to "clear" water source (CB or outlet structure).

Temporary TSB' s (constructed on-site if conditions warrent).

a. Check berm before, during, and after every storm.
b. Replace berm as necessary.
c. Remove sediment after every storm.
d. Pump water to permanent basins to increase storage capacity.

NOTES:

a. Contractor is responsible for ensuring no silty water leaves the site. This includes via the DB on site or along Old Route 22.
b. Seed all stockpiles after 7 days. Install silt fence at base of all stockpiles.
c. Install Permanent outlet structure and all permanent basins. Use temp outlet structure on all temporary basins.
d. Provide filtering measures on TSB 1, 2 & 3 outlet structures as shown on this page. In the event that filtering does not work, block outlet and pump to filtering area. Use Storm Kleer to provide pumping area with adequate filtering. Water quality exiting the TSB's must be monitored to determine success of filtering.
e. As required by NYSDEC, maximum period of exposed earth in disturbed areas shall be 7 days. On those areas where construction is suspended for the next 7 days, the exposed earth shall be stabilized with an erosion control cover. Such cover may include hay or straw mulch, geotextile, or rolled erosion control products to prevent soil loss. If the fall season is approaching, all uncompleted areas of exposed earth shall be seeded and mulched before November 15.
f. No silty water to enter infiltration system. Contractor to protect throughout construction.

Phase 3a - Building Construction - Buildings 1 & 2

1. As building construction commences, fine grade and seed all areas where earthwork is complete. Remove interim silt fence when grading is complete. Maintain perimeter controls.
2. Protect CB as they are installed throughout project. Runoff can be directed to CB as long as outlet of TSB's is blocked.
3. Complete installation of infiltration system. Block off access to system. Contractor shall not allow any silty water to access infiltration system.
4. If capacity is limited, provide filtering before allowing water to discharge. Pumping may be used.
5. Protect all utility connections including utility company work, especially along Mount Ebo Road North.
6. Complete Buildings 1 & 2. Install Item 4 for road base. Follow with base course in area of Building 1, 2 and road connections.
7. Complete fine grading and parking lot installation. Seed to lawn as disturbed areas are completed.
8. When Phase 3 is finalized, vegetate all exposed soil areas. Remove sediment from TSB #1 forebay and shape for final configuration and volume.
9. Restore TSB to clear water basin.

PRIOR TO START OF CONSTRUCTION CALL 1-800-962-7962 BEFORE YOU DIG!

MS4 NOTE FOR COMPLIANCE W/NYSDEC STORMWATER GENERAL PERMIT

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2. ALSO, WHERE SITE DISTURBANCE IS COMPLETE OR TEMPORARILY HALTED FOR MORE THAN 7 DAYS, VEGETATIVE COVER (SEE NOTE E ABOVE) MUST BE PROVIDED BY THE NEXT BUSINESS DAY AND COMPLETED WITHIN 7 DAYS. WHILE THERE IS 5 ACRES+ ACTIVE SOIL DISTURBANCE, THIS NOTE SUPERCEDES ALL OTHER NOTES ELSEWHERE IN THIS SET.

PHASE 3A - BUILDINGS 1 & 2

REVISIONS

NO.	DATE	DESCRIPTION
1.	02/15/18	DEP SUBMISSION
2.	04/06/18	DEP COMMENTS
3.	06/11/18	MS4/5 ACRE WAIVER
4.	07/23/18	DEP COMMENTS

BIBBO ASSOCIATES, LLP
283 ROUTE 100 SUITE 203
SOMERS, NEW YORK 10589
TEL: 914.277.5805

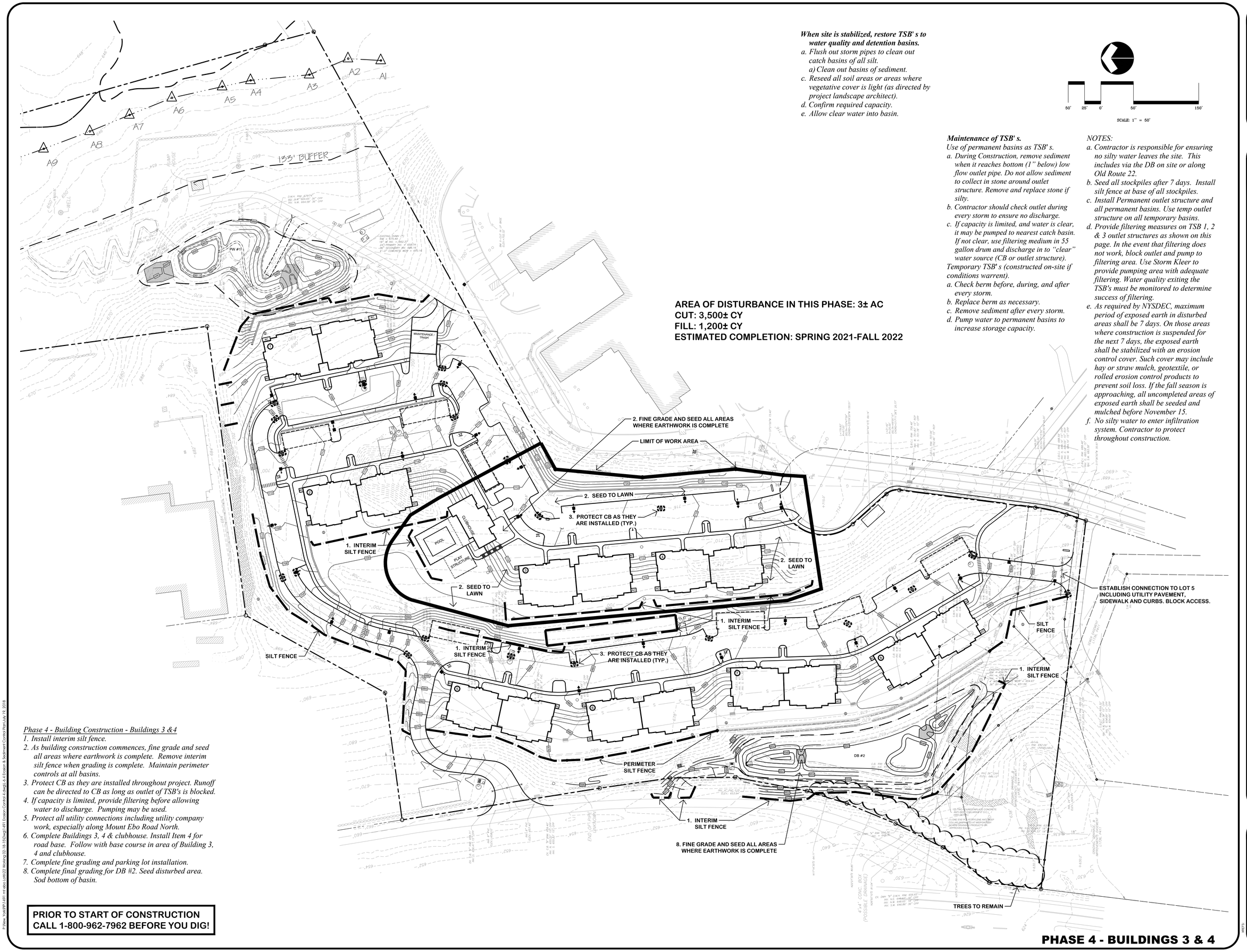
LADA, P.C.
Land Planners
104 Vining Street
Post Office Box 2000 (845) 691-4011
Binghamton, N.Y. 13902 (845) 279-7424

EROSION & SEDIMENT CONTROL PLAN

MOUNT EBO LOT 6 - BARRETT HILL
MOUNT EBO ROAD NORTH
TOWN OF SOUTHEAST, NY 10509

DESIGNED	T.H.
DRAWN	E.F.
CHECKED	C.W.
APPROVED	T.H.
SCALE	1"=50'
DATE	12/21/17
PROJECT NO:	1491
SHEET NO:	L-6.3A

P:\Proj. Yr\#\1491 mt ebo\cd\82\Working 02-18-18\Dwg\1491 Erosion Control 3a.dwg\L-6.3A Erosion & Sediment Control Plan.July 19, 2018



When site is stabilized, restore TSB' s to water quality and detention basins.

a. Flush out storm pipes to clean out catch basins of all silt.
a) Clean out basins of sediment.
c. Reseed all soil areas or areas where vegetative cover is light (as directed by project landscape architect).
d. Confirm required capacity.
e. Allow clear water into basin.

AREA OF DISTURBANCE IN THIS PHASE: 3± AC
CUT: 3,500± CY
FILL: 1,200± CY
ESTIMATED COMPLETION: SPRING 2021-FALL 2022

Maintenance of TSB' s.

Use of permanent basins as TSB' s.

a. During Construction, remove sediment when it reaches bottom (1" below) low flow outlet pipe. Do not allow sediment to collect in stone around outlet structure. Remove and replace stone if silty.
b. Contractor should check outlet during every storm to ensure no discharge.
c. If capacity is limited, and water is clear, it may be pumped to nearest catch basin. If not clear, use filtering medium in 55 gallon drum and discharge in to "clear" water source (CB or outlet structure).

Temporary TSB' s (constructed on-site if conditions warrent).

a. Check berm before, during, and after every storm.
b. Replace berm as necessary.
c. Remove sediment after every storm.
d. Pump water to permanent basins to increase storage capacity.

NOTES:

a. Contractor is responsible for ensuring no silty water leaves the site. This includes via the DB on site or along Old Route 22.
b. Seed all stockpiles after 7 days. Install silt fence at base of all stockpiles.
c. Install Permanent outlet structure and all permanent basins. Use temp outlet structure on all temporary basins.
d. Provide filtering measures on TSB 1, 2 & 3 outlet structures as shown on this page. In the event that filtering does not work, block outlet and pump to filtering area. Use Storm Kleer to provide pumping area with adequate filtering. Water quality exiting the TSB's must be monitored to determine success of filtering.
e. As required by NYSDEC, maximum period of exposed earth in disturbed areas shall be 7 days. On those areas where construction is suspended for the next 7 days, the exposed earth shall be stabilized with an erosion control cover. Such cover may include hay or straw mulch, geotextile, or rolled erosion control products to prevent soil loss. If the fall season is approaching, all uncompleted areas of exposed earth shall be seeded and mulched before November 15.
f. No silty water to enter infiltration system. Contractor to protect throughout construction.

Phase 4 - Building Construction - Buildings 3 &4

1. Install interim silt fence.
2. As building construction commences, fine grade and seed all areas where earthwork is complete. Remove interim silt fence when grading is complete. Maintain perimeter controls at all basins.
3. Protect CB as they are installed throughout project. Runoff can be directed to CB as long as outlet of TSB's is blocked.
4. If capacity is limited, provide filtering before allowing water to discharge. Pumping may be used.
5. Protect all utility connections including utility company work, especially along Mount Ebo Road North.
6. Complete Buildings 3, 4 & clubhouse. Install Item 4 for road base. Follow with base course in area of Building 3, 4 and clubhouse.
7. Complete fine grading and parking lot installation.
8. Complete final grading for DB #2. Seed disturbed area. Sod bottom of basin.

PRIOR TO START OF CONSTRUCTION CALL 1-800-962-7962 BEFORE YOU DIG!

PHASE 4 - BUILDINGS 3 & 4

REVISIONS

NO.	DATE	DESCRIPTION
1.	06/12/17	TOWN COMMENTS
2.	12/21/17	REVISIONS
3.	02/15/18	DEP SUBMISSION
4.	04/06/18	DEP COMMENTS

BIBBO ASSOCIATES, LLP
283 ROUTE 100 SUITE 203
SOMERS, NEW YORK 10589
TEL: 914.277.5805

LADA, P.C.
Land Planners
104 Vining Street
Lansing, New York 14882 (800) 691-4201
Binghamton, NY 13905 (845) 279-7424

EROSION & SEDIMENT CONTROL PLAN

MOUNT EBO LOT 6 - BARRETT HILL
MOUNT EBO ROAD NORTH
TOWN OF SOUTHEAST, NY 10509

DESIGNED	T.H.
DRAWN	E.F.
CHECKED	C.W.
APPROVED	T.H.
SCALE	1"=50'
DATE	04/28/17
PROJECT NO:	1491
SHEET NO:	L-6.4

P:\Dev Yr2017\1491 mt ebo Lot6\22 Working\10-18-15\dwg\1491 Erosion Control 4.dwg\L-6.4 Erosion & Sediment Control Pro\July 19, 2018

SEEDING OPERATIONS

A. FERTILIZER AND LIMESTONE

CONTRACTOR SHALL CONDUCT APPROPRIATE SOIL TESTS TO DETERMINE AMOUNT OF FERTILIZER AND LIMESTONE REQUIRED TO ENSURE AN ACCEPTABLE LAWN.

PROVIDE RESULTS AND RECOMMENDED FERTILIZER FOR REVIEW AND APPROVAL BY LANDSCAPE ARCHITECT

B. LAWN SEED

SEED MIXTURE FOR:
LATE SUMMER / EARLY FALL / EARLY SPRING PLANTING. SOW AT RATE OF 4 LBS/1000 S.F.

CREEPING RED FESCUE	35 PARTS
CHEWINGS RED FESCUE	20 PARTS
KENTUCKY 31 TALL RESCUE	15 PARTS
ROUGH BLUEGRASS	10 PARTS
BARON BLUEGRASS	20 PARTS

SEED MIXTURE FOR PLANTING MAY 1 TO LATE SUMMER. SOW AT A RATE OF 6 LBS/1000 S.F.

CREEPING RED FESCUE	35 PARTS
CHEWINGS RED FESCUE	20 PARTS
KENTUCKY 31 TALL FESCUE	20 PARTS
DOMESTIC RYEGRASS	25 PARTS

C. WETLAND SEED

APPLY "WETLAND SEED MIXTURE" PREPARED BY NEW ENGLAND WETLAND PLANTS, INC., AMHERST, MA. AT A RATE OF ONE POUND PER 2,500 S.F. (413) 256-1752

D. LAWN SEED (SLOPE MIX)

SOW AT RATE OF 6 LBS/1000 S.F.

CREEPING RED FESCUE	42 PARTS
FIESTA II PERENNIAL RYEGRASS	34 PARTS
RED TOP	8 PARTS
ALSIKE CLOVER	8 PARTS
BIRDSFOOT TREFOIL	8 PARTS

E. SWALE SEED MIX - FOR MOWABLE SWALES ONLY

FOR SWALES OF 10% OR LESS USE THE FOLLOWING AT A RATE OF 5 LBS PER 1,000 SF.

BIRDSFOOT TREFOIL\	20 PARTS
TALL FESCUE	20 PARTS
PERENNIAL RYEGRASS	20 PARTS
ANNUAL RYEGRASS	20 PARTS
COMMON WHITE CLOVER	20 PARTS

F. DETENTION BASIN

USE "WETLAND SEED MIXTURE" FROM NEW ENGLAND WETLAND PLANTS, INC. [(413) 256-1752] AT A RATE OF ONE POUND PER 2,500 S.F. OR "RETENTION BASIN FLOOR SEED" FROM NEW ENGLAND SEED CO. AT A RATE OF 2 LB./1000 S.F. MIX WITH ANNUAL RYEGRASS AT A RATE OF 1/2 LB./1000 S.F.

G. MEADOW MIX

USE "NATIVE NORTHEAST WILDFLOWER SEED MIX" AND "NORTHEAST NATIVE GRASS SEED MIX" FROM AMERICAN MEADOWS (877-309-7333) AT A RATE OF 1 LB./1000 S.F. EACH

50' 25' 0' 50' 150'

SCALE: 1" = 50'

SEEDING LEGEND

- DETENTION BASIN MIX
- SLOPE MIX
- SWALE SEED MIX
- MEADOW MIX
- LAWN

Phase 5 – Seeding and Occupancy
1. *Install permanent seeding and planting.*
2. *When upstream area is vegetated, open TSBs as WQB and DBs. Flush out outlet and pipes. Allow only " clear" water to discharge.*
3. *Once site is vegetated, remove perimeter silt fence.*

PRIOR TO START OF CONSTRUCTION CALL 1-800-962-7962 BEFORE YOU DIG!

PHASE 2, 3 & 4 - FINAL VEGETATIVE COVER

P:\New York\PPI\1491 mt ebo\1491C2 Working\02-18-15\dwg\1491 Erosion Control 5.dwg\L-6 Erosion & Sediment Control Plan\July 19, 2018

REVISIONS

NO.	DATE	DESCRIPTION
1.	06/12/17	TOWN COMMENTS
2.	12/21/17	REVISIONS
3.	02/15/18	DEP SUBMISSION
4.	04/06/18	DEP COMMENTS
5.	07/23/18	DEP COMMENTS

BIBBO ASSOCIATES, LLP
283 ROUTE 100 SUITE 203
SOMERS, NEW YORK 10589
TEL: 914 277 5805

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104 Vining Street
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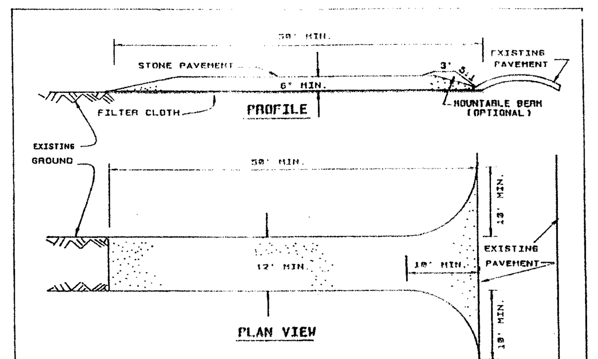
Binghamton, NY 13905 (845) 279-7424

EROSION & SEDIMENT CONTROL PLAN

MOUNT EBO LOT 6 - BARRETT HILL
MOUNT EBO ROAD NORTH
TOWN OF SOUTHEAST, NY 10509

DESIGNED	T.H.
DRAWN	E.F.
CHECKED	C.W.
APPROVED	T.H.
SCALE	1"=50'
DATE	04/28/17
PROJECT NO:	1491
SHEET NO:	L-6.5

Figure 5A.38
Stabilized Construction Entrance Details

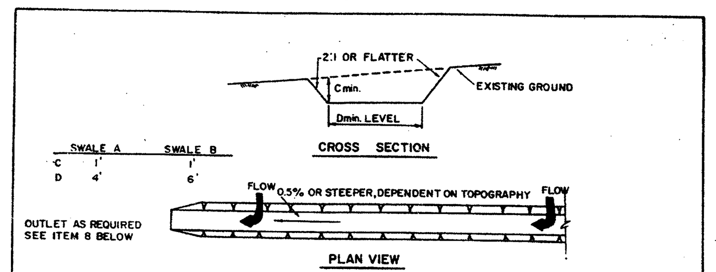


CONSTRUCTION SPECIFICATIONS

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 (6) INCHES.
4. WIDTH - TWELVE (12) 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 CONSTRUCTION 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 AN AREA STABLIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE SYRACUSE, NEW YORK	STABLIZED CONSTRUCTION ENTRANCE	STANDARD SYMBOL

Figure 5A.2
Temporary Swale Details



CONSTRUCTION SPECIFICATIONS

1. ALL TEMPORARY SWALES SHALL HAVE UNINTERRUPTED POSITIVE GRADE TO AN OUTLET.
2. DIVERTED RUNOFF FROM A DISTURBED AREA SHALL BE CONVEYED TO A SEDIMENT TRAPPING DEVICE.
3. DIVERTED RUNOFF FROM AN UNDISTURBED AREA SHALL OUTLET DIRECTLY INTO AN UNDISTURBED STABILIZED AREA AT NON-EROSIVE VELOCITY.
4. ALL TREES, BRUSH, STUMPS, OBSTRUCTIONS, AND OTHER OBJECTIONABLE MATERIAL SHALL BE REMOVED AND DISPOSED OF SO AS NOT TO INTERFERE WITH THE PROPER FUNCTIONING OF THE SWALE.
5. THE SWALE SHALL BE EXCAVATED OR SHAPED TO LINE, GRADE, AND CROSS SECTION AS REQUIRED TO MEET THE CRITERIA SPECIFIED HEREIN AND BE FREE OF BANK PROJECTIONS OR OTHER IRREGULARITIES WHICH WILL IMPEDE NORMAL FLOW.
6. FILLS SHALL BE COMPACTED BY EARTH MOVING EQUIPMENT.
7. ALL EARTH REMOVED AND NOT NEEDED ON CONSTRUCTION SHALL BE PLACED SO THAT IT WILL NOT INTERFERE WITH THE FUNCTIONING OF THE SWALE.
8. STABILIZATION SHALL BE AS PER THE CHART BELOW:

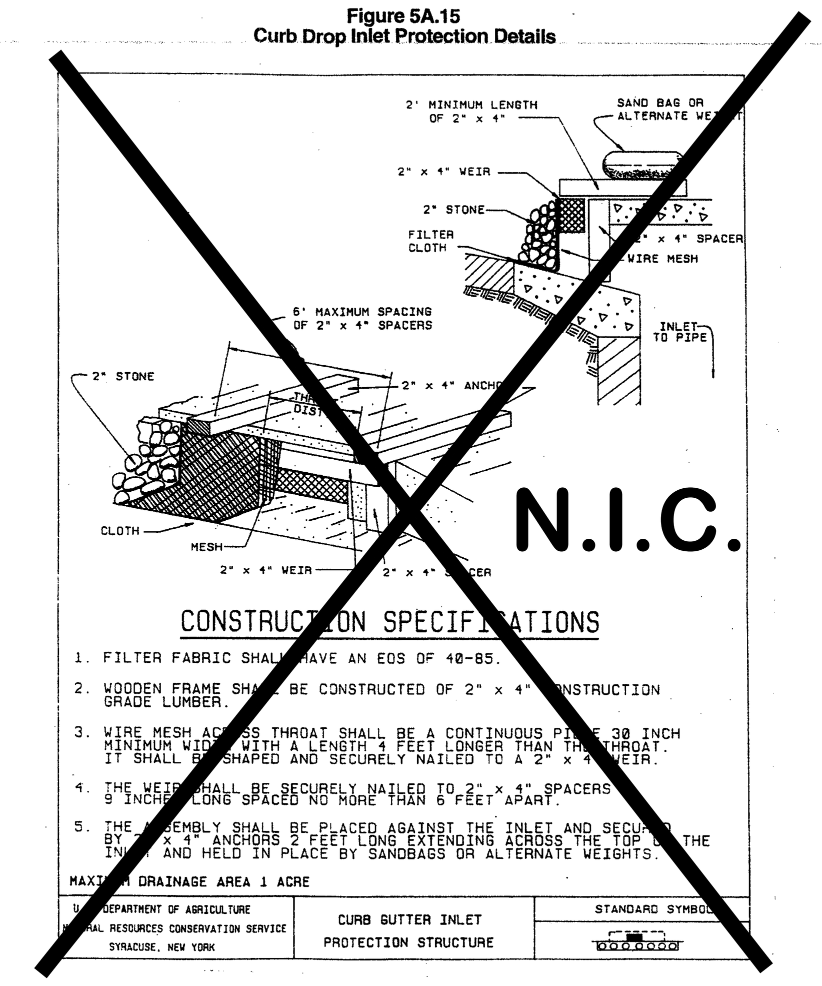
FLOW CHANNEL STABILIZATION

TYPE OF TREATMENT	CHANNEL GRADE	A (5 AC OR LESS)	B (5 AC - 10 AC)
1	0.5-3.0%	SEED AND STRAW MULCH	SEED AND STRAW MULCH
2	3.1-5.0%	SEED AND STRAW MULCH	SEED USING JUTE OR EXCELSIOR
3	5.1-8.0%	SEED WITH JUTE OR EXCELSIOR; SOD	LINED RIP-RAP 4-8" RECYCLED CONCRETE EQUIVALENT
4	8.1-20%	LINED 4-8" RIP-RAP	ENGINEERED DESIGN

9. PERIODIC INSPECTION AND REQUIRED MAINTENANCE MUST BE PROVIDED AFTER EACH RAIN EVENT.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE SYRACUSE, NEW YORK	TEMPORARY SWALE	STANDARD SYMBOL

Figure 5A.15
Curb Drop Inlet Protection Details

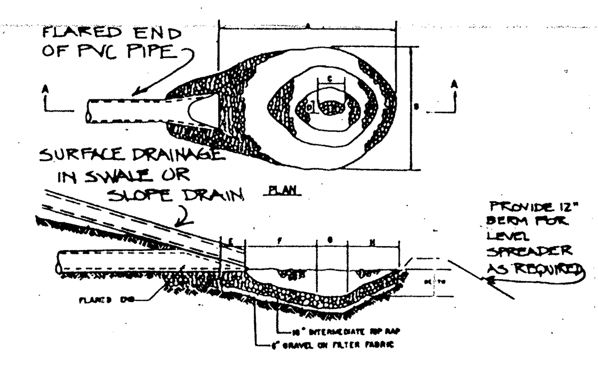


CONSTRUCTION SPECIFICATIONS

1. FILTER FABRIC SHALL HAVE AN EOS OF 40-85.
2. WOODEN FRAME SHALL BE CONSTRUCTED OF 2" x 4" CONSTRUCTION GRADE LUMBER.
3. WIRE MESH ACROSS THROAT SHALL BE A CONTINUOUS PIECE 30 INCH MINIMUM WIDTH WITH A LENGTH 4 FEET LONGER THAN THE THROAT. IT SHALL BE SHAPED AND SECURELY NAILED TO A 2" x 4" WEIR.
4. THE WEIR SHALL BE SECURELY NAILED TO 2" x 4" SPACERS 9 INCHES LONG SPACED NO MORE THAN 6 FEET APART.
5. THE ASSEMBLY SHALL BE PLACED AGAINST THE INLET AND SECURED BY 2" x 4" ANCHORS 2 FEET LONG EXTENDING ACROSS THE TOP OF THE INLET AND HELD IN PLACE BY SANDBAGS OR ALTERNATE WEIGHTS.

MAXIMUM DRAINAGE AREA 1 ACRE

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE SYRACUSE, NEW YORK	CURB GUTTER INLET PROTECTION STRUCTURE	STANDARD SYMBOL



FOR TEMPORARY DIVERSION METHODS
(SWALE OR SLOPE DRAIN - DEPTH = 2')
A = 10' E = 1'
B = 8' F = 4 1/2'
C = 2' G = 1 1/2'
D = 1' H = 3'
FOR EXISTING SUBSURFACE PIPES:

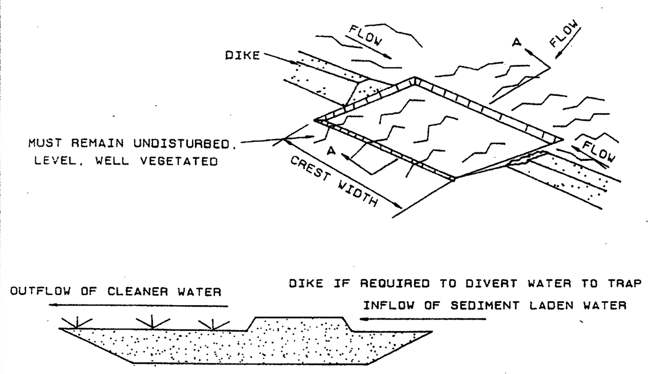
SECTION A-A

PIPE SIZE	A	B	C	D	E	F	G	H	WT RIPRAP TONS	[illegible]
15"	10'	7'	1 1/2'	1'	1'	4 1/2'	1 1/2'	3'	6	1'-0"
18"	12'	8'	2'	1'	1'	5'	2'	4'	8	1'-4"
21"	15'	9'	2 1/2'	1 1/2'	1'	7'	2 1/2'	4 1/2'	12	1'-6"
24"	17'	10'	2 1/2'	1 1/2'	1'	8'	2 1/2'	5 1/2'	15	1'-10"
27" & 30"	20'	13'	3'	2'	2'	9'	3'	6'	22	2'-0"
36"	24'	15'	3 1/2'	2'	2'	9 1/2'	3 1/2'	7'	33	2'-4"

1. REMOVE AFTER CONSTRUCTION OR WHEN AREA IS STABILIZED, WHICHEVER IS FIRST

TEMPORARY STILLING BASIN
NOT TO SCALE

Figure 5A.18
Grass Outlet Sediment Trap: ST- II



USE ONLY to DISCHARGE "CLEAR" WATER.

SECTION A-A

EXCAVATED GRASS OUTLET SEDIMENT TRAP

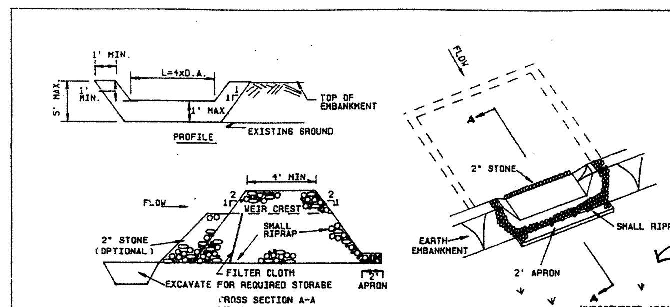
CONSTRUCTION SPECIFICATION FOR ST-II

1. VOLUME OF SEDIMENT STORAGE SHALL BE 1800 CUBIC FEET PER ACRE OF CONTRIBUTORY DRAINAGE AREA.
2. MINIMUM CREST WIDTH SHALL BE 4 x DRAINAGE AREA
3. SEDIMENT SHALL BE REMOVED AND TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO 1/2 THE DESIGN DEPTH OF THE TRAP. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.
4. THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NEEDED.
5. CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND WATER POLLUTION SHALL BE MINIMIZED.
6. THE SEDIMENT TRAP SHALL BE REMOVED AND AREA STABILIZED WHEN THE REMAINING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.
7. ALL CUT SLOPES SHALL BE 1:1 OR FLATTER.

MAXIMUM DRAINAGE AREA: 5 ACRES

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE SYRACUSE, NEW YORK	GRASS OUTLET SEDIMENT TRAP ST-II	STANDARD SYMBOL

Figure 5A.21
Stone Outlet Sediment Trap: ST-V



Discharge to SWALE OR [illegible] OUTLET STRUCTURE. PUMP OUT "CLEAR" WATER. IF MORE STORAGE IS NEEDED, PUMP to LARGE TSB's.

OPTION: A ONE FOOT LAYER OF 2" STONE MAY BE PLACED ON THE UPSTREAM SIDE OF THE RIPRAP IN PLACE OF THE EMBEDDED FILTER CLOTH.

CONSTRUCTION SPECIFICATIONS FOR ST-V

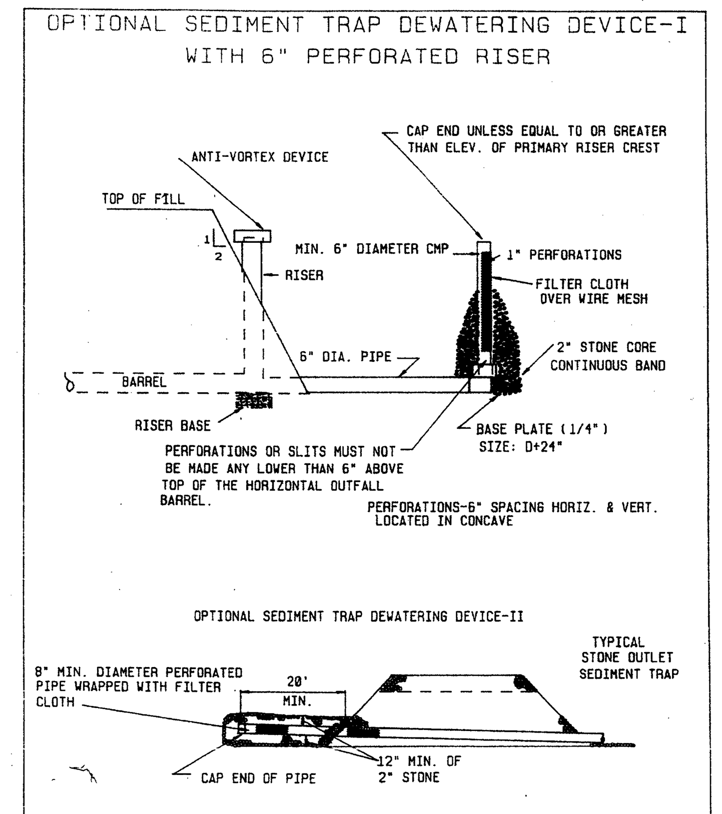
1. AREA UNDER EMBANKMENT SHALL BE CLEARED, GRUBBED AND STRIPPED OF ANY VEGETATION AND ROOT MAT. THE POOL AREA SHALL BE CLEARED.
2. THE FILL MATERIAL FOR THE EMBANKMENT SHALL BE FREE OF ROOTS AND OTHER WOODY VEGETATION AS WELL AS OVER-SIZED STONES, ROCKS, ORGANIC MATERIAL OR OTHER OBJECTIONABLE MATERIAL. THE EMBANKMENT SHALL BE COMPACTED BY TRAVERSING WITH EQUIPMENT WHILE IT IS BEING CONSTRUCTED.
3. ALL CUT AND FILL SLOPES SHALL BE 2:1 OR FLATTER.
4. THE STONE USED IN THE OUTLET SHALL BE SMALL RIPRAP 4"-8" ALONG WITH A 1' THICKNESS OF 2" AGGREGATE PLACED ON THE UP-GRADE SIDE ON THE SMALL RIPRAP OR EMBEDDED FILTER CLOTH IN THE RIPRAP.
5. SEDIMENT SHALL BE REMOVED AND TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO 1/2 THE DESIGN DEPTH OT THE TRAP.
6. THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NEEDED.
7. CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND WATER POLLUTION IS MINIMIZED.
8. THE STRUCTURE SHALL BE REMOVED AND THE AREA STABILIZED WHEN THE DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.

MAXIMUM DRAINAGE AREA 5 ACRES

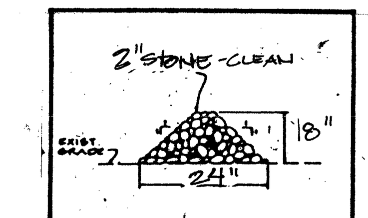
U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE SYRACUSE, NEW YORK	STONE OUTLET SEDIMENT TRAP ST-V	STANDARD SYMBOL

Figure 5A.23
Optional Sediment Trap Dewatering Devices

OPTIONAL SEDIMENT TRAP DEWATERING DEVICE-I
WITH 6" PERFORATED RISER



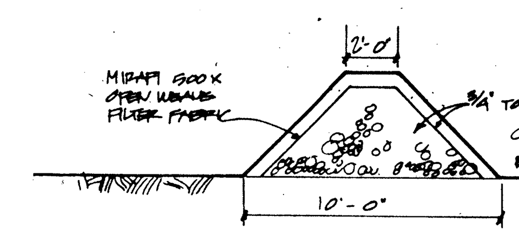
U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE SYRACUSE, NEW YORK	OPTIONAL SEDIMENT TRAP DEWATERING DEVICES	STANDARD SYMBOL



STONE BERM or STONE CHECK DAMS
NOT TO SCALE

Use on top of slopes, At construction entrances, along drives or parallel to slopes to reduce runoff velocity or to filter sediment. If used to filter, replace stone when silt clogs up hill side.

* For channel conditions - see detail sheet L-8.1



GRAVEL FILTER BERM
N.T.S.

Bibbo Associates
CONSULTING ENGINEERS · PLANNERS
Rt. 22 & Hardscrabble Rd., P.O. Box 403
Croton Falls, New York 10519

JOB ____ SHEET NO. ____ OF ____ CALCULATED BY ____ DATE ____ CHECKED BY ____ DATE ____ SCALE ____

SEDIMENT BASIN + DIVERSION SWALE CAPACITY
(LOWER SWALE)

Find: Confirm the capacity of sediment basins (WQB 1+2) and riprap diversion swale are sufficient for the 10 year storm runoff from disturbed area during construction phase.

Disturbed area = 6.5 acres
CN:
B soil, bare soil, 3.25 ac. CN = 86
C soil, bare soil, 3.25 ac. CN = 91
Rainfall = 5" wtd CN = 88
Excess runoff = 3.68"

Vol. of runoff:
6.5 ac. x 43560 x 3.68"/12 = 86,830 cf

Vol. WQB #1 = 59858 @ elev. 581.0
WQB #2 = 48,915 @ elev. 576.0
T = 108,773 cf ∴ OK

Check swale capacity:
CN = 88 Tc = .1 hr. E.R. = 3.68 Q_{csm} = 662
Q_{10yr} = 662 x 6.5/640 x 3.68 = 25 cfs

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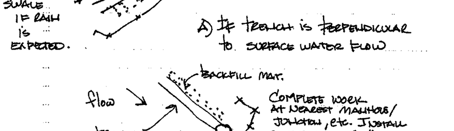
Croton Falls, New York 10519

JOB ____ SHEET NO. ____ OF ____ CALCULATED BY ____ DATE ____ CHECKED BY ____ DATE ____ SCALE ____

If Q = 25 cfs, d = 1 ft.
Provide d = 1.5 ft. min.

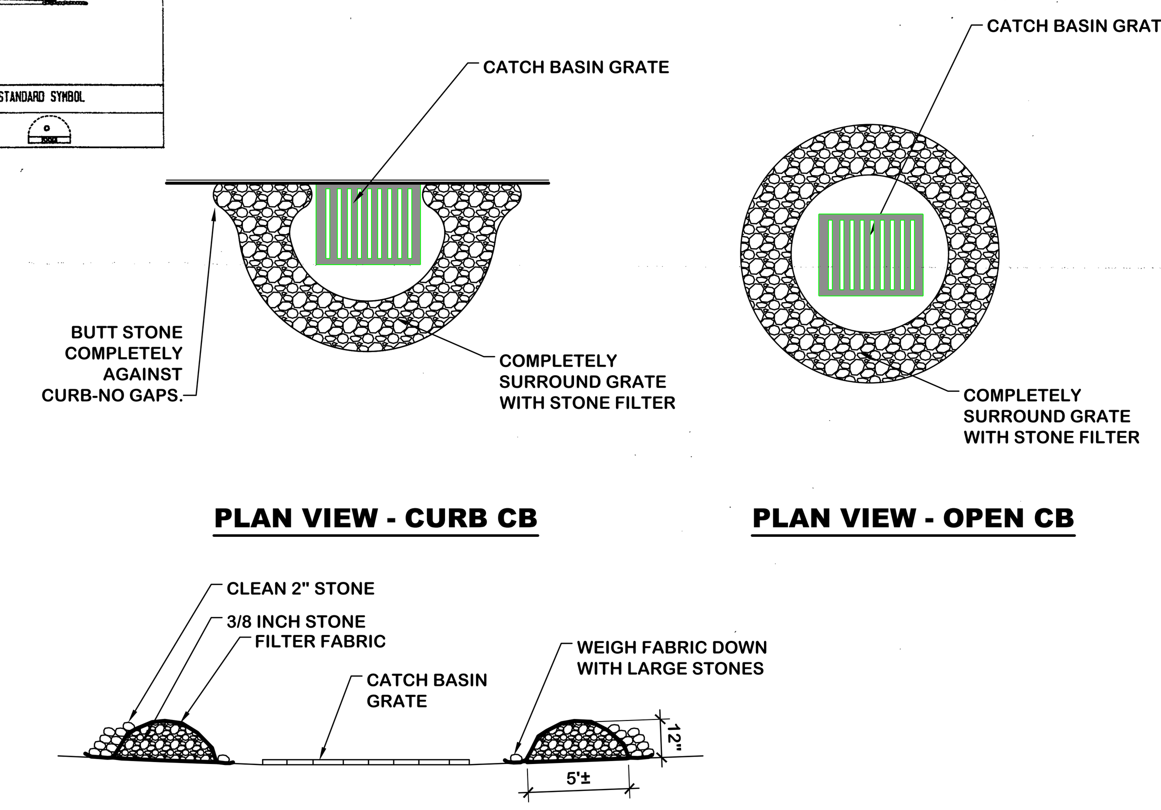
LOWER SWALE
N.T.S.

When an area of the site has been rough or fine graded & then utility construction occurs in the area — special attention must be taken by all utility contractors (includes tel/gas/elec/cable contractors or installers). Erosion control must be established prior to & during all trench or site disturbance work.

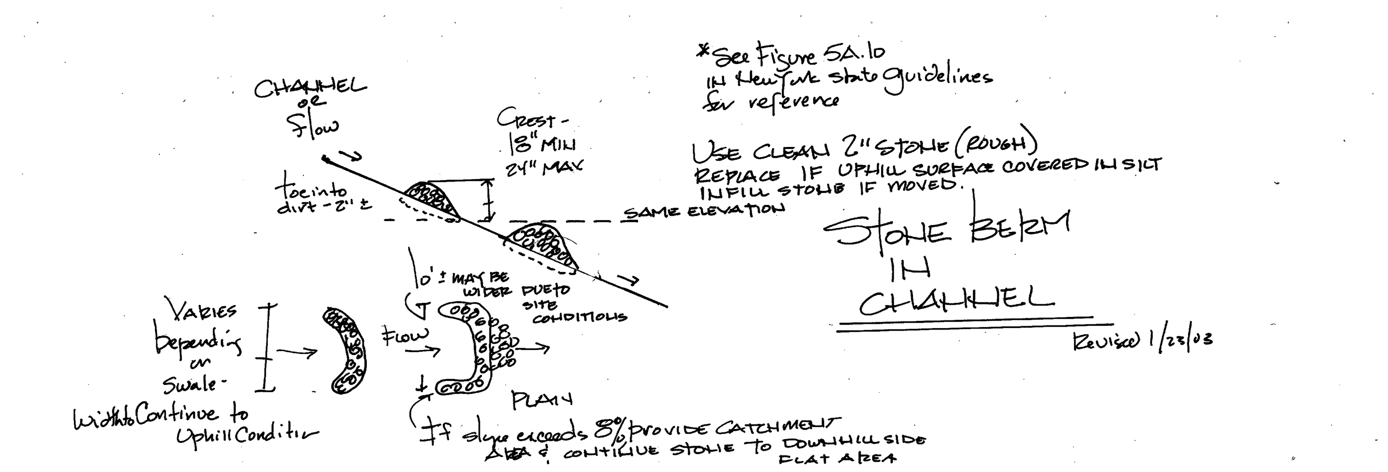


Notes:
· Disturbance must be stabilized, seeded + mulched as soon as possible
· Do not allow silty water to leave site or to access adjacent road or park property.

UTILITY TRENCH EROSION CONTROL
N.T.S.



CATCH BASIN PROTECTION USING STONE FILTER - REQUIRED BY NYCDEP
N.T.S.



*See Figure 5A.10 in New York state guidelines for reference

Use clean 2" stone (rough)
Replace if uphill surface covered in silt
Infill stone if moved.

STONE BERM IN CHANNEL

Revised 1/23/03

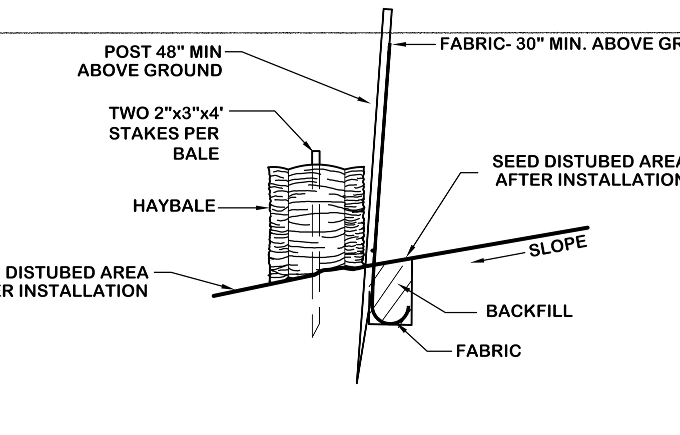
If slope exceeds 8% provide catchment area & continue stone to downhill side flat area

EROSION CONTROL NETTING

If used, use North American Green or Approved Equal. All mats to be anchored as per manufact's requirements.

*C75 - slopes 4:1 or less where mowing will occur
DS75 - slopes 3:1 or less where mowing will occur
S150 - slopes 2:1 or less - no mowing
C125 - temporary sediment basins, unseeded swales
C125BN - Areas to be seeded needing special attention - no mowing

For all slopes over 2:1, use rock slope protection or as per Geotechnical Engineer.



NOTES:
SILT FENCE INSTALLATION:
1. USE 2" X 2" X 7' STAKES OF WOOD OR METAL SPACED 6' TO 10' APART.
2. BURY FABRIC ON UPHILL SIDE 6" DEEP WITH FABRIC CURLED UPSLOPE.
3. SECURE FABRIC TO EACH STAKE. FILTER FABRIC TO BE GEOFAB MATERIAL OR APPROVED EQUAL.
4. ANGLE STAKES TOWARD WATER SOURCE.
5. OVERLAP ENDS OF FABRIC TO PROHIBIT WATER FROM ESCAPING AROUND ENDS.

HAYBALE INSTALLATION:
1. INSTALL HAYBALE DOWNHILL OF SILT FENCE.
2. BUTT ENDS OF HAYBALE TIGHTLY.

SILT FENCE/HAYBALE BARRIER DETAIL
N.T.S.

PRIOR TO START OF CONSTRUCTION
CALL 1-800-962-7962 BEFORE YOU DIG!

Construction Sequence

SHEET L-6.1
Phase 1 - Start of Construction

1. Stake wetland buffer area and existing wells. Do not disturb this area. Identify trees to remain and install construction plastic fence for protection.
2. Establish perimeter erosion control measures at north and south ends of site.
3. Install stabilized construction entrances. Install construction trailer and establish staging area.
4. Protect and maintain existing swale along Old Route 22.
5. Install all erosion control measures.
6. Regrade PW #1 basin to new configuration and use as a TSB. Over-excavate micropool. Vegetate sides. Use DB #2 as a TSB.
7. Maintain access to Pump Station and wells at all times.
8. Maintain vegetative cover on all TSB's or provide cover on sides (cover material to include netting or light riprap). Do not allow water to flow over slopes.
9. Install temporary filtering measures as shown on this plan. (See note d.)
10. Establish temporary swales to TSB's. Near staging area - field identify trees to remain and provide fencing.
11. Locate and Protect future infiltration areas from compaction.

SHEET L-6.2
Phase 2 - Earthwork

1. Maintain grass cover for as long as possible in areas not being used for grading. Stake out infiltration area and install orange fencing to protect infiltration systems.
2. Install Phase 2 silt fence.
3. Install silt fence on uphill side of any areas where new grading occurs uphill.
4. Extend and maintain swales to TSB's.
5. Begin earthwork in Phase 2.
6. Establish cuts and fills as shown on the Grading Plan. Install infiltration system and plug until tributary area is 100% stabilized. Maintain existing pipe to TSB #2 during construction until new pipe / CB is available. Change swales to new CB when available.
7. Install utilities as grading proceeds.
8. Begin foundations of buildings 3, 4, 5, 6, 7 and 8 and block out parking for buildings 5, 6, 7 and 8. Install buildings 5, 6, 7 and 8 and item 4 for parking areas.
9. Temp or Permanent seed around each building once grading is complete.
10. If capacity in any TSB is limited, use 55 gal. drum with Storm Kleer to pump through before discharge into DB.
11. Possible TSB locations are shown in the event that grading isolates areas from swales. Use 3,600 c.f. per acre drainage for sizing. Use figure 5A.21 on sheet L-7 for construction requirements.

SHEET L-6.2A
Phase 2a - Building Construction - Buildings 5, 6, 7 & 8

1. Install interim silt fence. Maintain perimeter silt fence.
2. As building construction commences, fine grade and seed all areas where earthwork is complete. Remove interim silt fence when grading is complete. Maintain perimeter controls at all basins.
3. Protect CB as they are installed throughout project. Runoff can be directed to CB as long as outlet of TSB's is protected.
4. If capacity is limited, provide filtering before allowing water to discharge. Pumping may be used.
5. Complete installation of infiltration system. Block off piped access to system. Contractor shall not allow any silty water to access infiltration system.
6. Establish and then block connection to Lot 5 to minimize time where that drive is disrupted.
7. Install Item 4 for road base. Follow with base course in area of Building 5, 6, 7 & 8.
8. As buildings are completed, install interim silt fence for emergency access road. Install base course from Building 5 to Emergency Access Road.
9. Install improvements to Old Route 22 (regrade and resurface / stabilize slopes and vegetate all disturbed areas including existing swales).
10. Complete fine grading and road installation.

SHEET L-6.3
Phase 3 - Earthwork Continued

1. Maintain grass cover for as long as possible in areas not being used for grading.
2. Install Phase 3 silt fence. Stake out infiltration area and install orange fencing to protect infiltration systems.
3. Maintain and enhance swales to TSB to respond to grade changes during earthwork phase.
4. Begin earthwork for Units in Phase 3.
5. Establish cuts and fills as per the Grading Plan.
6. On fill slopes - grade edge into the site at end of day and before rain events. Provide definite swales to collect water and direct to TSB.
7. In cut areas, establish grades and vegetate (temp.) as soon as possible.
8. Install utilities as grading proceeds. Install infiltration system and plug until tributary area is 100% stabilized.
9. If capacity in TSB is limited, provide filtering before allowing water to discharge. Establish pumping discharge area for TSB #1. Provide checkdams and vegetation cover in pumping area. Use storm Kleer to provide additional filtering.
10. Maintain all installed E&S controls throughout this phase.
11. Begin foundations of Buildings 1,2, maintenance and clubhouse. Install parking lot and road base.
12. Possible TSB locations are shown in the event that grading isolates areas from swales. Use 3,600 c.f. per acre drainage for sizing. Use figure 5A21 for construction requirements.
13. Install infiltration area #3 and seed to lawn. Remove construction entrance. When vegetated remove silt fence at infiltration area #3.

SHEET L-6.3A
Phase 3a - Building Construction - Buildings 1 & 2

1. As building construction commences, fine grade and seed all areas where earthwork is complete. Remove interim silt fence when grading is complete. Maintain perimeter controls.
2. Protect CB as they are installed throughout project. Runoff can be directed to CB as long as outlet of TSB's is blocked.
3. Complete installation of infiltration system. Block off access to system. Contractor shall not allow any silty water to access infiltration system.
4. If capacity is limited, provide filtering before allowing water to discharge. Pumping may be used.
5. Protect all utility connections including utility company work, especially along Mount Ebo Road North.
6. Complete Buildings 1 & 2. Install Item 4 for road base. Follow with base course in area of Building 1, 2 and road connections.
7. Complete fine grading and parking lot installation.
8. Restore TSB to clear water basin.

SHEET L-6.4
Phase 4 - Building Construction - Buildings 3 & 4

1. Install interim silt fence.
2. As building construction commences, fine grade and seed all areas where earthwork is complete. Remove interim silt fence when grading is complete. Maintain perimeter controls at all basins.
3. Protect CB as they are installed throughout project. Runoff can be directed to CB as long as outlet of TSB's is blocked.
4. If capacity is limited, provide filtering before allowing water to discharge. Pumping may be used.
5. Protect all utility connections including utility company work, especially along Mount Ebo Road North.
6. Complete Buildings 3, 4 & clubhouse. Install Item 4 for road base. Follow with base course in area of Building 3, 4 and clubhouse.
7. Complete fine grading and parking lot installation.
8. Complete final grading for DB #2. Seed disturbed area. Sod bottom of basin.

SHEET L-6.5
Phase 5 – Seeding and Occupancy

1. Install permanent seeding and planting.
2. When upstream area is vegetated, open TSBs as WQB and DBs. Flush out outlet and pipes. Allow only " clear" water to discharge.
3. Once site is vegetated, remove perimeter silt fence.

GENERAL NOTES

1. ***When site is stabilized, restore TSB' s to water quality and detention basins.***
   a. Flush out storm pipes to clean out catch basins of all silt.
   b. Clean out basins of sediment.
   c. Reseed all soil areas or areas where vegetative cover is light (as directed by project landscape architect).
   d. Confirm required capacity.
   e. Allow clear water into basin.

2. ***Maintenance of TSB' s.***
   Use of permanent basins as TSB' s.
   a. During Construction, remove sediment when it reaches bottom (1" below) low flow outlet pipe. Do not allow sediment to collect in stone around outlet structure. Remove and replace stone if silty.
   b. Contractor should check outlet during every storm to ensure no discharge.
   c. If capacity is limited, and water is clear, it may be pumped to nearest catch basin. If not clear, use filtering medium in 55 gallon drum and discharge in to "clear" water source (CB or outlet structure).

   Temporary TSB' s (constructed on-site if conditions warrent).
   a. Check berm before, during, and after every storm.
   b. Replace berm as necessary.
   c. Remove sediment after every storm.
   d. Pump water to permanent basins to increase storage capacity.

3. During construction of slopes, install storm drainage as required; other utilities - install and stub at specified points for building construction hook-up and completion. Install all storm drainage. Extend water and sewer to building pad.
4. Throughout construction, direct storm water to basins. When catch basins are installed, they may be used to direct stormwater to TSB' s except those going to Mount Ebo Road North which must be protected.
5. On all fill slopes, direct water away from edge (top of slope) and into site at last lift to provide nightly storage.
6. All erosion control measures to conform to NYSDEC Guidelines for Urban Erosion & Sediment Control or better.
7. In the event that a conflict occurs on these plans, the most conservative and protective must be used.
8. Contractor is responsible for ensuring no silty water leaves the site.

NOTES:

a. Contractor is responsible for ensuring no silty water leaves the site. This includes via the DB on site or along Old Route 22.
b. Seed all stockpiles after 7 days. Install silt fence at base of all stockpiles.
c. Install Permanent outlet structure and all permanent basins. Use temp outlet structure on all temporary basins.
d. Provide filtering measures on TSB 1, 2 & 3 outlet structures as shown on this page. In the event that filtering does not work, block outlet and pump to filtering area. Use Storm Kleer to provide pumping area with adequate filtering. Water quality exiting the TSB's must be monitored to determine success of filtering.
e. As required by NYSDEC, maximum period of exposed earth in disturbed areas shall be 7 days. On those areas where construction is suspended for the next 7 days, the exposed earth shall be stabilized with an erosion control cover. Such cover may include hay or straw mulch, geotextile, or rolled erosion control products to prevent soil loss. If the fall season is approaching, all uncompleted areas of exposed earth shall be seeded and mulched before November 15.
f. No silty water to enter infiltration system. Contractor to protect throughout construction.

NO.	DATE	REVISIONS DESCRIPTION
1.	02/15/18	DEP SUBMISSION
2.	07/23/18	DEP COMMENTS

BIBBO ASSOCIATES, LLP
293 ROUTE 100 SUITE 203
SOMERS, NEW YORK 10589
TEL. 914 277 5805

LADA, P.C.
Land Planners
104 West Street Simsbury, CT 06070 (860) 651-4971
Brewster, NY 10509 (845) 278-7424

EROSION CONTROL DETAILS

MOUNT EBO LOT 6 - BARRETT HILL
MOUNT EBO ROAD NORTH
TOWN OF SOUTHEAST, NY 10509

DESIGNED	T.H.
DRAWN	E.F.
CHECKED	C.W.
APPROVED	T.H.
SCALE	AS SHOWN
DATE	04/28/17
PROJECT NO:	1491
SHEET NO:	L-7

XREFS:

P:\New_York\PIP\1491 mt ebo Lot6\22 Working 02-18-15\Dwg\1491 Erosion Control Notes & Details.dwg\L-7 Erosion Control Details\July 19, 2018

EROSION AND SEDIMENT CONTROLS

GENERAL PRINCIPALS

1. Downslope and perimeter controls should be installed before land clearing activities occur.
2. Land disturbance will be kept to a minimum.
3. Limit disturbance to those areas necessary for construction. Restabilization will be scheduled immediately after disturbance.
4. Stabilize and provide temporary or permanent cover as soon as possible.
5. Earth disturbance should be timed to minimize potential impacts caused by seasonal weather changes.
6. Construction of infiltration measures when used should be delayed to end of construction when upstream drainage areas have been stabilized.
7. Remove temporary perimeter controls only after area has been completely stabilized. Maintain all measures to ensure they are effective.
8. Erosion checks consisting of staked straw/hay bales shall be installed to prevent siltation downgrade of construction. Straw/hay bales shall be placed and staked to the ground per U.S.D.A. Soil Conservation Service details as appropriate (see details Sheet # L-7), at points where impounded water will be permitted to flow.
9. Straw/hay bale and/or filter fabric barriers will be installed at all outlets and along the toe of all critical slopes.
10. Flared end discharge areas will be protected with rip-rap pads. Energy dissipators will be provided as necessary.
11. Catch basins will be protected with straw/hay bales and/or filter fabric barriers throughout the construction period and until all areas are thoroughly stabilized.
12. All erosion and sediment control measures will be constructed in accordance with the standards and specifications of New York State Manual
13. Erosion and sediment control measures will be installed prior to construction whenever possible.
14. All control measures will be maintained in effective condition throughout the construction period.
15. Additional control measures will be installed during the construction period if necessary or required.
16. All erosion and sediment control measures should be cleaned, repaired and/or replaced after every storm and as necessary to ensure effectiveness.
17. Sediment removal from control measures will be disposed of in a manner which is consistent with the intent of the plan.
18. The contractor is assigned the responsibility for implementing the erosion and sediment control plan. This responsibility includes the installation and maintenance of control measures, informing all parties engaged on the construction site of the requirements and objectives of the plan, notifying the planning and zoning office of any transfer of responsibility and for conveying a copy of the erosion and sediment control plan if the title to the land is transferred.
19. Stream reaches on-site and off-site down stream of construction areas should not have substantial visible contrast to color taste, odor, turbidity and sediment deposition from the construction area.

STABILIZATION PRACTICES

Temporary Vegetative Stabilization:

Top soil stock piles and disturbed portions of the site where construction activity temporarily ceases for at least 21 days, will be stabilized with temporary seed and mulch no later than 14 days from the last construction activity in that area. The temporary seed shall be Rye (grain) applied at the rate of 120 pounds per acre. Prior to seeding, 2,000 pounds of ground agriculture limestone and 1,000 pounds of 10-10-10 fertilizer shall be applied to each acre to be stabilized. After seeding, each area shall be mulched with 4,000 pounds per acre of straw. The straw mulch is to be tacked into place by a disk with blades set nearly straight. Areas of the site which are to be paved will be temporarily stabilized by applying stone sub-base until bituminous pavement can be applied.

Permanent Vegetative Stabilization:

Disturbed portions of the site where construction activities permanently ceases shall be stabilized with permanent seed no later than 7 days after the last construction activity. Permanent stabilization shall be performed as follows:

A. Fertilizer and Limestone

Contractor shall conduct appropriate soil tests to determine amount of fertilizer and limestone required to ensure an acceptable lawn. Generally, fertilizer should be at the following rates:

Ground Limestone : 100 lbs./1000 s.f.
Commercial Fertilizer : 20 lbs./1000 s.f.

Unless otherwise indicated by the soil test, fertilizer should consist of:

10% Nitrogen (At least 50% of nitrogen shall be from organic sources)
6% Phosphoric Acid
4% Potash

B. Lawn Seed

Seed mixture for late summer/early fall/early spring planting. Sow at rate of 4 lbs./1000 s.f.

Creeping Red Fescue 35 Parts
Chewings Red Fescue 20 Parts
Kentucky 31 Tall Fescue 15 Parts
Baron Bluegrass 20 Parts
Rough Bluegrass 10 Parts

Seed mixture for planting May 1st to late summer. Sow at rate of 6 lbs./1000 s.f.

Creeping Red Fescue 35 Parts
Chewings Red Fescue 20 Parts
Kentucky 31 Tall Fescue 20 Parts
Domestic Ryegrass 25 Parts

C. Slopes Seed Mix (42 lbs / acre)

Creeping Red fescue 42 Parts
Red Top 8 Parts
Perennial Ryegrass 34 Parts
Clover 8 Parts
Birdsfoot Trefoil 8 Parts
(or approved equal)

D. Swale or Wet Areas Seed Mix (25 lbs / acre)

Reed Canary Grass 80 Parts
Red Top 20 Parts
OR
Switchgrass 44 Parts
Weeping Lovegrass 12 Parts
Little Bluestem* 44 Parts
* Pure live seed

E. For all seed mixtures (B-D above);

Apply seed uniformly by hand cyclone seeder, drill or hydroseeder. Seed bed should be prepared by hand raking to loosen and smooth soil and remove surface stones. After seeding, the seed bed should be firmed with a roller. Apply mulch where applicable. Water as necessary.

Additional Temporary or Permanent Stabilization:

Additional Stabilization measures required on this project are (check all that apply):

____ Tree Protection (See Sheet# ___ for Detail) ____ Geotextiles
____ Sod Stabilization ____ Riprap
____ Vegetative Buffer Strips (___ Temporary or ____ Permanent)
____ Preservation of Existing Vegetation ____
____ Net and Mulch ____

Description of additional stabilization practices and design guidelines:
See L-6 series plans for temporary stabilization

STRUCTURAL PRACTICES

The following temporary structural practices will be required by this project (Check all that apply):

✓ Rip rap swales ✓ Cutoff swales
✓ Haybales ✓ Silt fence
____ Earth dikes ✓ Stone Check Dams
✓ Temporary Sediment Basins (min 3600 c.f. per acre) ✓ Storm inlet/drain protection
____ Pipe Slope Drains _ Rock outlet
✓ Stabilized Construction Entrance ____ Protection
____ Temporary Sediment Basins(<10 ac. disturbed) ____
____ Divert clean upstream/uphill runoff away from construction area

Description of temporary structural practices and design guidelines:
See L-6 series sheets

The following permanent structural practices will be required by this project (check all that apply):

____ Permanent sediment basin ____ Plunge pool
____ Level spreader ____ First flush basin
✓ Detention basin ____ Grass buffer strips
✓ Grass swale ____ Rip rap swale
____ Paved swale ____ Stone checkdams
✓ Water quality improvement basin
✓ Green infrastructure practices

Description of permanent structural practices and design guidelines:
See Utility Plan

Unless specifically approved in writing, all structural practices shall be install on upland soils.

POST CONSTRUCTION STORMWATER MANAGEMENT

See Stormwater Managment Plan and Report prepared by Bibbo Associates

Pre-development Drainage Basin Map prepared by Bibbo Associates

in included in SWPPP

Post-development Drainage Basin Map prepared by______

in included in______

In the **Town**/City/Village of Southeast, Section Zoning Regulations of ______ indicates the following local stormwater management objectives:
Comply with NYCDEP & NYSDEC regulations; MS4 requirements & submit for permit

This project will meet/exceed these objectives by N/A

This project is unable to comply with these objectives due to N/A

The Drainage Report, prepared by Bibbo Associates

includes analysis of the 2/10/25/100 year storms. As well as NYSDEC required calculations.

The following permanent measures will be installed to provide stormwater management for runoff:
✓ Extended Detention Basin (already built)
✓ Curbs _____
✓ Pipes _____
✓ Catch Basins _____
✓ Field Inlets _____
Description:

Stormwater management measures are not recommended for the following reasons:
N/A

The following permanent measures will be installed to control pollutants in stormwater discharges after construction:

✓ Extended Detention basins ____ Retention basins
✓ Vegetated swales ____ Infiltration
____ Vegetated buffer strips ____ Velocity dissipation structures
____ ____
____

Description:

MAINTENANCE / INSPECTION PROCEDURES

EROSION AND SEDIMENT CONTROL INSPECTION AND MAINTENANCE PRACTICES

These are the inspection and maintenance practices that will be used to maintain vegetation, erosion and sediment control measures and other protective measures. Please also refer to the New York State Guidelines for Urban Erosion and Sediment Control or local equivalent:
As per NYSDEC Permit

Where conflicts occur, the most conservative measures apply. Where omissions occur, best management practices apply.

- All control measures will be inspected at least once each week and following any storm event of 0.5 inches or greater.
- All measures will be maintained in good working order. If a repair is necessary, it will be initiated within 24 hours of report.
- Built up sediment will be removed from the silt fence when it has reached one-third the height of the fence.
- Silt fence will be inspected for depth of sediment, tears, to see if the fabric is securely attached to the fence posts, and to see that the fence posts are firmly in the ground.
- The temporary sediment basins will be inspected for depth of sediment, and built up sediment will be removed after each storm.
- Temporary and permanent seeding and planting will be inspected for bare spots, washouts, and healthy growth.
- All stockpiles and material storage areas will be inspected regularly to ensure no transport of material into drainage system.
- A maintenance inspection report will be made after each inspection.
- Owner ______, will select individuals who will be responsible for inspections, maintenance and repair activities, and filling out the inspection and maintenance report.

TIMING OF CONTROLS / MEASURES

As indicated in the sequence of major activities, all TSB's will be constructed prior to clearing or grading of any other portions of the site. Areas where construction activity temporarily ceases for more than 21 days* will be stabilized with a temporary seed and mulch within 14 days of the last disturbance. Once construction activity ceases permanently in an area, that area will be stabilized with permanent seed and mulch. After the entire site is stabilized, and accumulated sediment will be removed from TSB's and existing basins and other areas of site as needed.
***This limit reduces to 7 days when 5+ acres are disturbed.**

IMPLEMENTATION OF CONTROLS AND RECORD KEEPING

1. All controls should be implemented as indicated on this plan.
2. Inspection reports should be prepared and maintained on-site as indicated on this plan.
3. A record should be kept of:
 a. Dates of major grading activities.
 b. Dates when construction activities cease.
 c. Dates when area is stabilized.
4. The Storm Water Pollution Prevention Plan should be updated to indicate any changes in schedule, design specifications or existing conditions. Also in the event that specific measures proposed prove ineffective the plan should be updated to reflect the additional measures proposed.
5. A Notice of Termination shall be filed when the site is finally stabilized and permanent vegetative cover is established.

OTHER CONTROLS

WASTE MATERIALS

All construction waste materials will be collected and stored in securely lidded metal dumpsters rented from the vendor, which is a solid waste management company located in to be chosen by contractor. The dumpster will meet all Putnam Co. & New York State solid waste management regulations. All trash and construction debris from the site will be deposited in the dumpster. The dumpster will be emptied a minimum of once per week, or more often as necessary, and the trash will be hauled off-site to a NYS approved location. No construction waste materials will be buried on-site. All personnel will be instructed regarding the correct procedure for waste disposal. Notices stating these practices will be posted in the office trailer and N/A, the individual who manages the day-to-day site operations, will be responsible for seeing that these procedures are followed.

OFF-SITE VEHICLE TRACKING

A stabilized construction entrance has been provided to help reduce vehicle tracking of sediments. The paved street adjacent to the site entrance will be swept daily to remove any excess mud, dirt or rock tracked from the site. Dump trucks hauling material from the construction site will be covered with a tarpaulin. The tracking pad shall be inspected weekly for evidence of instability or off-site sediment tracking.

NON-STORM WATER DISCHARGES

It is expected that the following non-storm water discharges may occur from the site during the e i construction period:

- Dust control spraying.
- Water from water line flushings.
- Pavement wash waters (where no spills or leaks of toxic or hazardous materials have occurred).
- Uncontaminated groundwater (from dewatering excavation).
- Well pump tests

Other discharges may occur during construction not listed above.
All non-storm water discharges will be directed to a temporary sediment basin prior to discharge.

INVENTORY FOR CONSTRUCTION

The materials or substances listed below are expected to be present on-site during construction:

Concrete	Fertilizer
Detergents	Petroleum Based Products
Paints (enamel and latex)	Cleaning Solvents
Metal Studs	Wood
Concrete	Masonry Block
Tar	Roofing Shingles

MATERIAL MANAGEMENT PRACTICES

The following are the Material Management Practices that will be used to reduce the risk of spills or other accidental exposure of materials and substances to storm water runoff. These practices should be considered the minimum necessary and are subject to local, state, county, and federal recommendations and requirements as well as good construction standards and best management practices.

Good Housekeeping:

The following good housekeeping practices will be followed on-site during the construction project:

- An effort will be made to store only enough product required to do the job.
- All materials stored on-site will be stored in a neat, orderly manner in their appropriate containers and, if possible, under a roof or other enclosure.
- Products will be kept in their original containers with the original manufacturer's label.
- Substances will not be mixed with one another unless recommended by the manufacturer.
- Whenever possible, all of a product will be used up before disposing of the container.
- Manufacturers' recommendations for proper use and disposal will be followed.
- The Site Superintendent will inspect daily to ensure proper use and disposal of materials on-site.
- Storage and dispon in accâosal of all products will be according to applicable local, county, state, and federal regulations. The contractor is responsible for the disposal of all materials.

Hazardous Products:

These practices are used to reduce the risks associated with hazardous materials.
- Products will be kept in original containers unless they are not resealable.
- Original labels and material safety data will be retained; they contain important product information.
- If surplus product must be disposed of, manufacturers' or local and state recommended methods for proper disposal will be followed.

PRODUCT SPECIFIC PRACTICES

The following specific practices will be followed onsite:

Petroleum Products: All onsite vehicles will be monitored for leaks and receive regular preventative maintenance to reduce the chance of any leakage. Petroleum products will be stored in tightly sealed containers which are clearly labeled. Any asphalt substances used onsite will be applied according to the manufacturers' recommendations. Specific areas will be located onsite for parking and storage of vehicles. No parking under trees is allowed.

Fertilizers: Fertilizers used will be applied only in the minimum amounts recommended by the manufacturer. Once applied, fertilizer will be worked into the soil to limit exposure to storm water. Storage will be in a covered shed. The contents of any partially used bags of fertilizer will be transferred to a sealable plastic bin to avoid spills.

Paints: All containers will be tightly sealed and stored when not required for use. Excess paint will not be discharged to the storm sewer system, or onto the ground, but will be properly disposed of according to manufacturers' instructions or State and local regulations.

Concrete Trucks: Concrete trucks will not be allowed to wash out or discharge surplus concrete or drum wash water on the site.

SPILL CONTROL PRACTICES

In addition to the good housekeeping and material management practices discussed in the previous sections of this plan, the following practices will be followed for spill prevention and cleanup:

- Manufacturers' recommended methods for spill cleanup will be clearly posted and site personnel will be made aware of the procedures and the location of the information and cleanup supplies.
- Materials and equipment necessary for spill cleanup will be kept in the material storage area onsite. Equipment and materials will include, but not be limited to brooms, dust pans, mops, rags, gloves, goggles, kitty litter, sand, sawdust, and plastic and metal trash containers specifically for this purpose.
- All spills will be cleaned up immediately after discovery.
- The spill area will be kept well ventilated and personnel will wear appropriate protective clothing to prevent injury from contact with a hazardous substance.
- Spills of toxic or hazardous material will be reported to the appropriate State, county or local government agency, regardless of the size.
- The spill prevention plan will be adjusted to include measures to prevent this type of spill from re-occurring and how to clean up the spill if there is another one. A description of the spill, what caused it, and the cleanup measures will also be included.
- Owner is ______ responsible for the day-to-day site operations, will be the spill prevention and cleanup coordinator. HE will designate at least three other site personnel who will receive spill prevention and cleanup training. These individuals will each become responsible for a particular phase or prevention and cleanup. The names of responsible spill personnel will be posted in the material storage and in the office trailer on-site.

STORMWATER POLLUTION PREVENTION PLAN

This Stormwater Pollution Prevention Plan has been prepared for submission to:

Local authority: Town of Southeast
Other authority: NYCDEP & NYSDEC

and will be available on-site for review by NYSDEC or the agencies listed below.

The Stormwater Pollution Prevention Plan consists of the following:

Erosion Control Plan: L-6 series of Plans
Stromwater Management Report: ✓
Stormwater Management Plans: Sheet L-3 & Utility Plan
Notes and Details: Sheet L-7
This Sheet: L-8
Other:

This Stormwater Pollution Prevention Plan has been prepared in accordance with NYSDEC General Permit GP-93-06 issued for approved project and GP-0-15-002

SITE DESCRIPTION

Project name and location: Mount Ebo Lot 6- Barrett Hill
41 Mount Ebo Road North, Town of Southeast, Putnam County, NY

Owners name and address: Barrett Hill Associates, LLC
C/O Covington Development
322 Clock Tower Commons, Brewster, NY 10509

Topographic survey prepared by: Terry Bergendorff Collins

Contour interval: 2'

On-Site Soils: Woodbridge, Paxton, Charlton

Name of receiving water and location: South- manmade pond off-site on Rt 22/Doansberg Road
North- overland flow to on-site wetland

Project Description:
Construction of 168 1 and 2 bedroom worker housing on 29.02± acres

Total area of site: 29.02± ac

Area of disturbance: 11± ac

Runoff Coefficient: See Drainage Report

Estimated Total Lawn Area: See Drainage Report

Location Map: See Sheet # L-1

Project Estimated Start Date: Summer 2019

Project Estimated Completion Date: Fall 2022

Sequence of major activities: See L-6 series of drawings & L-8 series

Supporting plans: Grading Plan & Utility Plan
See also:

The project does not provide the following (which would normally be provided by GP-0-15-002):

POLLUTION PREVENTION PLAN CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

SIGNED: ______

Title: ______

OWNER/APPLICANT:

DATE: ______

CONTRACTORS CERTIFICATE

I certify under penalty of law that I understand and agree to comply with terms and conditions of the Pollution Prevention Plan for the construction site identified in such plan as a condition of authorization to discharge stormwater. I also understand that the owner/applicant/operator must comply with the terms and conditions of the National Pollutant Discharge Elimination System (NPDES) permit for stormwater discharges from construction activities and that it is unlawful for any person to cause or contribute to a violation of water quality standards.

FOR ADDRESS

SIGNED:______
Title:

DATE:______

SIGNED:______
Title:

DATE:______

When Contractors change or a subcontractor is used, new signatures should be added to this plan. This is the responsiblity of the owner.

MS4 NOTE FOR COMPLIANCE W/NYSDEC STORMWATER GENERAL PERMIT
1. THIS SITE IS SUBJECT TO REVIEW & AUTHORIZATION UNDER PART II.C.3 TO ALLOW DISTURBANCE OF GREATER THAN 5 ACRES AT A TIME. AS PER THAT AUTHORIZATION - SITE EROSION INSPECTIONS MUST BE DONE TWICE EVERY SEVEN DAYS WHILE THERE IS MORE THAN 5 ACRES DISTURBED. INSPECTIONS MUST BE A MINIMUM OF 2 FULL CALENDAR DAYS APART.
2. ALSO, WHERE SITE DISTURBANCE IS COMPLETE OR TEMPORARILY HALTED FOR MORE THAN 7 DAYS, VEGETATIVE COVER (SEE NOTE E ABOVE) MUST BE PROVIDED BY THE NEXT BUSINESS DAY AND COMPLETED WITHIN 7 DAYS. WHILE THERE IS 5 ACRES+ ACTIVE SOIL DISTURBANCE, THIS NOTE SUPERCEDES ALL OTHER NOTES ELSEWHERE IN THIS SET.

PRIOR TO START OF CONSTRUCTION
CALL 1-800-962-7962 BEFORE YOU DIG!

REVIEWS

NO.	DATE	DESCRIPTION
1.	02/15/18	DEP SUBMISSION
2.	06/11/18	MS4/5 ACRE WAIVER

BIBBO ASSOCIATES, LLP
293 ROUTE 100 SUITE 203
SOMERS, NEW YORK 10589
TEL. 914 277 5805

LADA, P.C.
Land Planners
104 West Street
Simsbury, CT 06070 (860) 651-4971
Brewster, NY 10509 (845) 278-7424

EROSION CONTROL NOTES

MOUNT EBO LOT 6 - BARRETT HILL
MOUNT EBO ROAD NORTH
TOWN OF SOUTHEAST, NY 10509

DESIGNED	T.H.
DRAWN	E.F.
CHECKED	C.W.
APPROVED	T.H.
SCALE	NONE
DATE	03/16/17
PROJECT NO:	1491
SHEET NO:	L-8

XREFS:

P:\New_York\PIP\1491 mt ebo Lot6\22 Working 02-18-15\Dwg\1491 Erosion Control Notes & Details.dwg\L-8 Erosion Control Notes\July 19, 2018

Maintenance and Inspection Requirements

A. Construction Phase

Throughout project construction, the responsibility for installation, maintenance and repair of erosion controls and SMP's will rest with the site contractor as the owner's representative. Oversight of the preparedness of erosion controls and SMP's will be conducted by the owner's qualified professional through regular inspections in accordance with NYSDEC SPDES GP-0-15-002 General Permit requirements. On a daily basis, the project superintendent shall check for damaged silt fence, the need to clean mud tracked onto the roadways/driveways, and for turbidity in the outflow from temporary sediment basins. Street sweeping should be conducted as required. Monitor catch basin sumps for sediment accumulation and clean out when one half full.

Construction debris, such as sheet metal and wood scrap, paper and insulation products, styrofoam cups and paper wrappers can become windblown litter over and off the site if neglected. Such litter is easily controlled and prevented when the project superintendent sets the tone for vigilant litter control at the outset of the project. Suitable and ample refuse containers will be provided on the site and emptied when full. Any scattered debris will be picked up and placed in containers on a daily basis. Heavy equipment will be refueled by daily deliveries to the site. Chemicals used during construction shall be housed off-site when not being used; shall be used only as approved by NYS and the manufacturer; and shall be limited in use only as necessary. Spills shall be reported as required by NYSDEC, NYCDEP and the town of Southeast where applicable. Gasoline and oil for small engine equipment will be stored in construction equipment storage sheds. Refueling will take place at least 100 feet from the drainage swales to preclude any possible escape of spilled fuel to stormwater. In the event of any major spill, its capture and the removal of contaminated soil will be conducted under NYSDEC regulations for spill remediation.

As work progresses, the contractor must ensure that the new work area is first protected with perimeter erosion controls. As important as the need to identify areas requiring protection, is the need to determine disturbed areas that can be stabilized with temporary vegetation. Site management responsibilities will include identification of sections in a work phase where active site work will not occur over the next 7 days. If disturbed earth is present, the superintendent will direct the spreading of rye grass seed and mulch for a temporary protective cover.

The Pocket Wetland and micropool extended detention proposed on the project site is to serve as temporary sediment basins during construction. The outlet will initially be modified to restrict and filter outflows. Regular monitoring of any outflow will, however, be a routine requirement. Where the turbidity of the outflow obviously contrasts with any receiving water, outflow from the basin must be cut-off and the basin pumped down if necessary. Pumped discharge will be directed away from receiving watercourses to undisturbed vegetated ground for settlement and filtering. The project superintendent will be required to monitor weather forecasts to direct the pump-out of basins for increased capacity prior to storm events, if necessary.

B. Post Construction

Following completion of construction, stabilization of the site and establishment of plant material, responsibility for maintenance of the infiltration system, pocket wetlands and micropool extended detention will remain with the Owner. These items will require the following maintenance tasks:

Inspection - Following construction, each basin, diversion swale, and SWTA outlet and diversion MH's will require regular inspections on at least a semi-annual basis and following major storm events $\frac{1}{2}$" rainfall or more to check for:

A. Evidence of clogging of basin outlet structures
B. Accumulation of sediment at the inlet and around basin outlet structures
C. Erosion of the basin berm and slopes
D. Accumulation of debris and sediment in the diversion manholes at basin inlet piping and catch basins
E. Swale erosion

Mowing - The crest and slopes of basin berms and the dam and all basin areas maintained as meadow should be mowed at least twice a year to discourage woody growth.

Debris and Litter Control - Removal of debris and litter should be undertaken during the mowing operation. Particular attention should be given to removal of debris and branches around the outlet structures.

Erosion Control - Eroding soil on berms slopes, contributory areas noted during inspections and in diversion swales should be stabilized immediately with topsoil replacement, seeding and mulching. Any riprap dislodged at pipe outlets and in swales should be repositioned.

Wetland Planting - The vegetation planted in the water quality basins shall be checked six months from the date of planting for dead or dying plants and such plants thereupon replaced. Thereafter, the SWTA plantings shall be checked annually for any replanting requirements. Annual inspections shall include observations for the presence of invasive species such as purple loosestrife or phragmites. If present, arrangements shall be made to have the invasive plants pulled up and removed from the basins.

Sediment Removal - Sediment deposition in the basins will need to be removed in order to maintain basin capacity for stormwater treatment and prevent clogging of the outlet structures. The need for sediment removal should be determined during routine inspections and the appropriate equipment and manpower scheduled for the task.

Catch Basin Cleanout - Catch basins are provided with sumps 18" inches below the pipe inverts for sediment trapping purposes. Catch basin sumps should be cleaned annually using a vacuum cleaning service.

OCCUPANCY MAINTENANCE REQUIREMENTS

Inspections of the following items should be performed at a minimum annually and following significant rainstorm events, based on the inspection observations, maintenance requirements should be performed as follows:

Infiltration Systems:
(Refer to manufacturer's maintenance schedule in Appendix 'J' for more specific maintenance requirements)

- Inspect the infiltration systems (x2) to ensure accumulated water is infiltrating into the soil and that debris has not entered the infiltration basins. Any debris should be removed. Once debris is removed, if stormwater is still not infiltrating contact a professional engineer licensed in the State of New York to examine the system.
- Inspection of the outlet of the overflow pipe to ensure it is not plugged or clogged.

Catch Basins, Drain Manholes and Diversion Structures:

- Inspection of structures for accumulated sediment, debris, and trash.
- Deep Sump Drain Manhole with EnviroHood should be inspected once per month for the first year, or until the site has stabilized. Subsequent inspection should be done annually or following a major rainfall., The Drain Manhole shall be cleaned if accumulated debris is equal or greater to the following:
  a. debris in sump - 18" max
  b. floatable debris - 6" max

Hydrodynamic Separators (CDS) - Pretreatment Units:
(Refer to manufacturer's maintenance schedule in Appendix 'I' for more specific maintenance requirements)

- Inspect after heavy rainfall greater than ½" in 24 hours for the first year to determine an appropriate maintenance schedule. Subsequent inspections are reduced to quarterly.
- When the sediment volume reaches within 24"-30" of the water surface, the system should be maintained
- Maintenance is to be performed using a vacuum truck and removing the accumulated sediment pile and debris.

Open Channels & Rock Outlet Protection:

- Inspection of the rock pad to ensure no stones have become dislodged. Any missing stones should be replaced.
- Inspection of Open Channels for accumulated debris.
- The health and condition of vegetation within channel.

Pocket Wetland and Micropool Extended Detention:

- Inspect forebay for sediment accumulation. When sediment exceeds 18 inches, accumulated sediment shall be removed and properly disposed of.
- The emergency spillway and rock outlet protection shall be inspected for dislodged stones; any missing stones shall be replaced.
- The outlet structure shall be inspected for clogging. Any debris should be removed and disposed of properly.
- The rip-rap around the standpipe should be inspected for accumulated sediment. If the stone is discolored it shall be replaced.
- The health and condition of the plantings within the facility. Healthy plants are essential to the practice functioning properly. Any dead or diseased vegetation should be removed immediately and replaced.
- Basin Plantings shall be inspected bi-monthly during the first year and annually thereafter. Deceased plantings shall be replaced as needed.

MAINTENANCE & EROSION CONTROL INSPECTION REQUIREMENTS

SHORT TERM RESPONSIBLE PARTY: BARRETT HILL ASSOCIATES, LLC
LONG TERM RESPONSIBLE PARTY: BARRETT HILL ASSOCIATES, LLC

PRACTICE: EROSION CONTROLS

Maintenance Item	Frequency of Inspection: Short Term				Long Term	
	Following Major Rainfall	Daily	Weekly	Monthly	Yearly	Following Major Rainfall
Silt Fence (not knocked down or bulging)	X	X				
Construction Entrance (silt accumulation)	X	X				
Soil Stockpile	X			X		
Seeding/Mulching	X			X		
Site Stabilization	X		X			
Catch Basin Inlet Protection	X		X			
Use of Construction Staging Areas	X	X				
General Site Appearance	X	X				
Debris/Litter Control	X	X				
Need to Clean Road Surface	X	X				
Stormwater Discharge Quality	X	X			X	X
Vegetated Filter Strip (stabilization and sediment /debris accumulation)	X		X		X	

PRACTICE: OPEN CHANNELS & ROCK OUTLET PROTECTION

Maintenance Item	Frequency of Inspection: Short Term				Long Term		
	Following Major Rainfall	Daily	Weekly	Monthly	Monthly	Yearly	Following Major Rainfall
Debris Cleanout	X					X	X
Vegetation	X		X			X	X
Sediment Deposition	X		X			X	X
Dislodged Stone	X			X	X		X

PRACTICE: CDS PRETREATMENT UNITS

Maintenance Item	Frequency of Inspection: Short Term				Long Term			
	Following Major Rainfall	Daily	Weekly	Monthly	Monthly	Quarterly*	Yearly	Following Major Rainfall
Inflow Pipes & Rims Clear	X			X		X	X	X
Sediment Accumulation in Sumps	X			X		X	X	X
Accumulation of larger trash	X			X		X	X	X
Outlets Unobstructed	X			X		X	X	X

*During first year only.

PRACTICE: POCKET WETLAND AND MICROPOOL EXTENDED DETENTION

Maintenance Item	Frequency of Inspection: Short Term				Long Term			
	Following Major Rainfall	Daily	Weekly	Monthly	Monthly	Bi-monthly*	Yearly	Following Major Rainfall
Embankment & Emergency Spillway	X						X	X
Outlet Control Structure	X		X				X	X
Forebay	X		X		X			X
Wetland Vegetation	X							X
Dewater Between Storms	X						X	X
Basin Plantings	X					X	X	X

*During first year only.

PRACTICE: INFILTRATION SYSTEMS

Maintenance Item	Frequency of Inspection: Short Term				Long Term		
	Following Major Rainfall	Daily	Weekly	Monthly	Monthly	Yearly	Following Major Rainfall
Inflow Pipes Clear	X					X	X
Outlet Structure	X					X	X
Diversion Manhole / Outlets	X		X	X	X	X	X
No Evidence of Downstream Erosion	X						X
Dewaters Between Storms	X						X
Upland Area Clear of Debris	X						X
Forebay Silt Accumulation > 6"	X					X	X

PRACTICE: CATCH BASINS, DRAIN MANHOLES & DIVERSION STRUCTURES

Maintenance Item	Frequency of Inspection: Short Term				Long Term			
	Following Major Rainfall	Daily	Weekly	Monthly	Monthly	Bi-monthly*	Yearly	Following Major Rainfall
Inflow Pipes & Rims Clear	X			X		X	X	X
Sediment Accumulation in Sumps	X			X			X	X
Accumulation of larger trash	X			X	X		X	X
Outlets Unobstructed	X			X		X	C	X

* For catch basins located in grassy areas only.

Erosion Control Inspection

Project: ______
Address: ______ Weather______ Soil Conditions______
Town: ______ State: ______ Zip: ______

Date of Inspection: Inspection by:

☐ **No new activity on-site**

Current Area of Construction:
Where:

Activity Underway:

Next Steps:

Confirm Work required from last Inspection has been completed-
☐ **Item -**______
☐ **Item -**______
☐ **Item -**______

☐ **Photos Attached**

OVERALL SITE CONDITION:

Area Reviewed: --Condition
☐ **Entry tracking pad on-site**
☐ **Perimeter Controls**
☐ **Internal Collection Points**
☐______
☐______
☐ **Filtering Areas**
☐______
☐______
☐ **Areas of Exposed Soils**
☐______
☐______
☐ **Other** ______
☐______
☐______
☐ **Discharge Point #1**
☐ **Water is clear**
☐ **No Recent Discharge**
* ☐ **Water is:**
☐ **Cloudy** ☐**Very Cloudy**
* ☐ **Evidence of Recent Discharge noted:**

Condition Key: (S) Satisfactory (M) Marginal (U) Unsatisfactory

☐ **Discharge Point #2 (if any)**
☐ **Water is clear**
☐ **No Recent Discharge**
* ☐ **Water is:**
☐ **Cloudy** ☐**Very Cloudy**
* ☐ **Evidence of Recent Discharge noted:**

Items to be updated/Added due to Site Conditions or Weather:

1. ______
2. ______
3. ______
4. ______

Changes to the Plans Required?

YES ______ **NO**______
Why? ______
If changes Required – What?
______

Comments:

This report submitted to:
☐ **Town Contact** ☐ **Owner Contact** ☐ **Architect Contact** ☐ **Contractor** ☐ **Other Contact:**

Report Prepared by:

LADA, P.C. Land Planners

Notes or Comments:

As per GP-0-115-002, Part IV.C.1, the site shall be inspected by a qualified inspector at least once every seven calendar days. Should the site have more than 5 acres disturbed (Part II.C.3.a), then inspections will increase to twice every seven days. Digital photos of areas/controls which require corrective measures must be provided as well as photos of area/controls once they have been corrected

As per GP-0-15-002, Part IV.C.5, reports are due within one business day of the inspection and corrective action shall begin within one business day of receipt of this report.

LADA, P.C. Land Planners

PRIOR TO START OF CONSTRUCTION
CALL 1-800-962-7962 BEFORE YOU DIG!

REVISIONS
NO. | DATE | DESCRIPTION

BIBBO ASSOCIATES, LLP
293 ROUTE 100 SUITE 203
SOMERS, NEW YORK 10589
TEL. 914 277 5805

LADA, P.C. Land Planners
104 West Street Simsbury, CT 06070 (860) 651-4971
Brewster, NY 10509 (845) 278-7424

INSPECTION AND MAINTENANCE NOTES

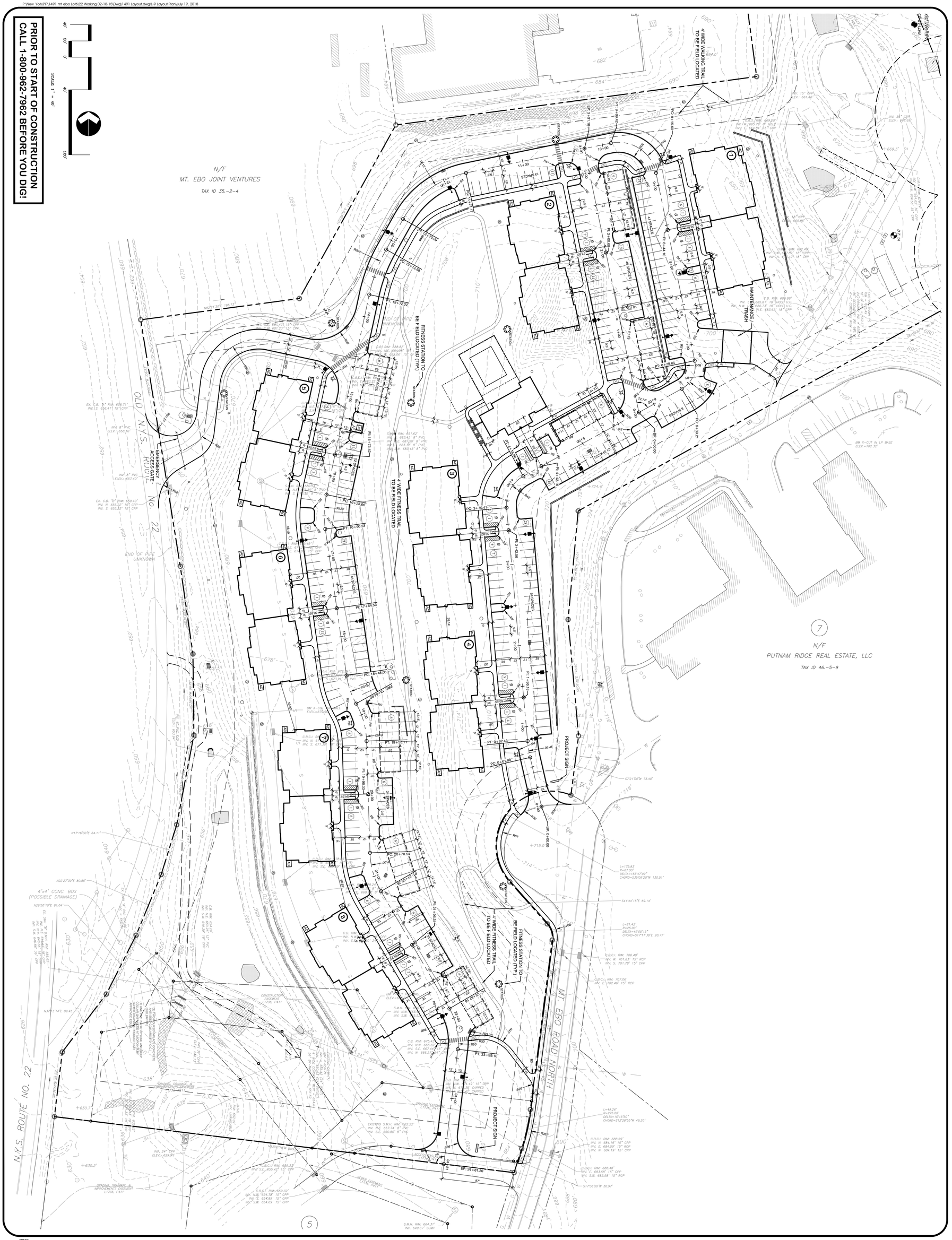
MOUNT EBO LOT 6 - BARRETT HILL
MOUNT EBO ROAD NORTH
TOWN OF SOUTHEAST, NY 10509

DESIGNED T.H.
DRAWN E.F.
CHECKED C.W.
APPROVED T.H.
SCALE NONE
DATE 04/06/18
PROJECT NO: 1491
SHEET NO: L-8.1

XREFS:

P:\New_York\P\P\1491 mt ebo Lot6\22 Working 02-18-15\Dwg\1491 Erosion Control Notes & Details.dwg\L-8.1 Inspection and Maintenance Notes\July 19, 2018

P:\New York\PIP\1491 mt ebo Lot6\22 Working 02-18-15\Dwg\1491 Layout.dwg\L-9 Layout Plan\July 19, 2018



XREFS:

DESIGNED	T.H.
DRAWN	E.F.
CHECKED	C.W.
APPROVED	T.H.
SCALE	1"=40'
DATE	04/25/17
PROJECT NO.	1491
SHEET NO.	L-9

LAYOUT PLAN

MOUNT EBO LOT 6 - BARRETT HILL
MOUNT EBO ROAD NORTH
TOWN OF SOUTHEAST, NY 10509

LADA, P.C.
Land Planners
104 West Street
Simsbury, CT 06070 (860) 651-4971
Brewster, NY 10509 (845) 278-7424

BIBBO ASSOCIATES, LLP
293 ROUTE 100 SUITE 203
SOMERS, NEW YORK 10589
TEL. 914 277 5805

REVISIONS

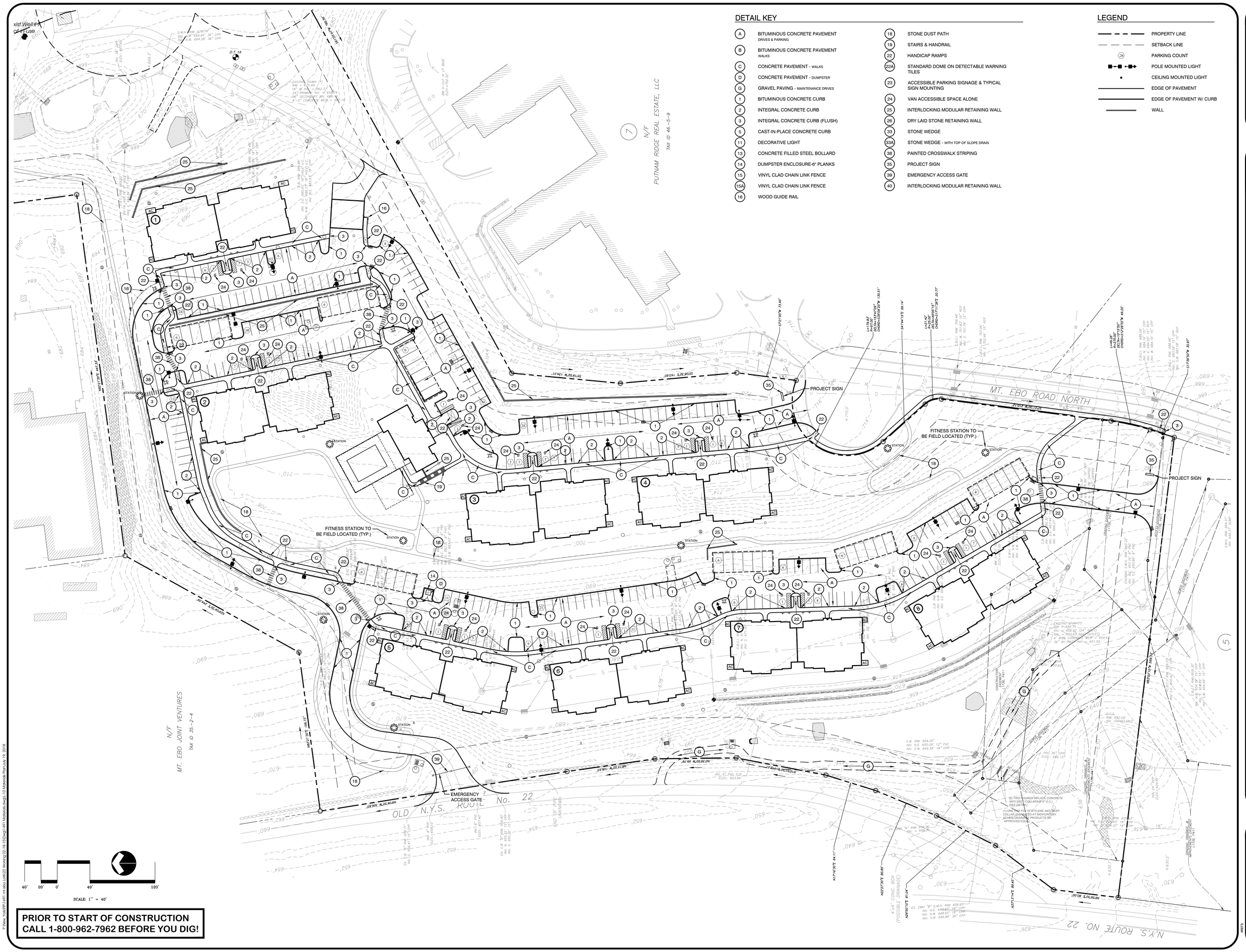
NO.	DATE	DESCRIPTION
1.	06/12/17	TOWN COMMENTS
2.	08/08/17	ARB SUBMISSION
3.	08/17/17	REVISIONS
4.	02/15/18	DEP SUBMISSION
5.	07/23/18	DEP COMMENTS

DETAIL KEY

A	BITUMINOUS CONCRETE PAVEMENT DRIVES & PARKING
B	BITUMINOUS CONCRETE PAVEMENT WALKS
C	CONCRETE PAVEMENT - WALKS
D	CONCRETE PAVEMENT - DUMPSTER
G	GRAVEL PAVING - MAINTENANCE DRIVES
1	BITUMINOUS CONCRETE CURB
2	INTEGRAL CONCRETE CURB
3	INTEGRAL CONCRETE CURB (FLUSH)
5	CAST-IN-PLACE CONCRETE CURB
11	DECORATIVE LIGHT
13	CONCRETE FILLED STEEL BOLLARD
14	DUMPSTER ENCLOSURE-6" PLANKS
15	VINYL CLAD CHAIN LINK FENCE
15A	VINYL CLAD CHAIN LINK FENCE
16	WOOD GUIDE RAIL
18	STONE DUST PATH
19	STAIRS & HANDRAIL
22	HANDICAP RAMPS
22A	STANDARD DOME ON DETECTABLE WARNING TILES
23	ACCESSIBLE PARKING SIGNAGE & TYPICAL SIGN MOUNTING
24	VAN ACCESSIBLE SPACE ALONE
25	INTERLOCKING MODULAR RETAINING WALL
26	DRY LAID STONE RETAINING WALL
33	STONE WEDGE
33A	STONE WEDGE - WITH TOP OF SLOPE DRAIN
38	PAINTED CROSSWALK STRIPING
35	PROJECT SIGN
39	EMERGENCY ACCESS GATE
40	INTERLOCKING MODULAR RETAINING WALL

LEGEND

- PROPERTY LINE
- SETBACK LINE
- (26) PARKING COUNT
- POLE MOUNTED LIGHT
- CEILING MOUNTED LIGHT
- EDGE OF PAVEMENT
- EDGE OF PAVEMENT W/ CURB
- WALL



PRIOR TO START OF CONSTRUCTION CALL 1-800-962-7962 BEFORE YOU DIG!

P:\Dwg\1491\01 mt ebo\1491 Working\10-18-16\Dwg\1491 Materials.dwg\L10 Materials Plan July 19, 2016

REVISIONS		
NO.	DATE	DESCRIPTION
1.	06/12/17	TOWN COMMENTS
2.	08/08/17	ARB SUBMISSION
3.	08/17/17	REVISIONS
4.	02/15/18	DEP SUBMISSION
5.	07/23/18	DEP COMMENTS

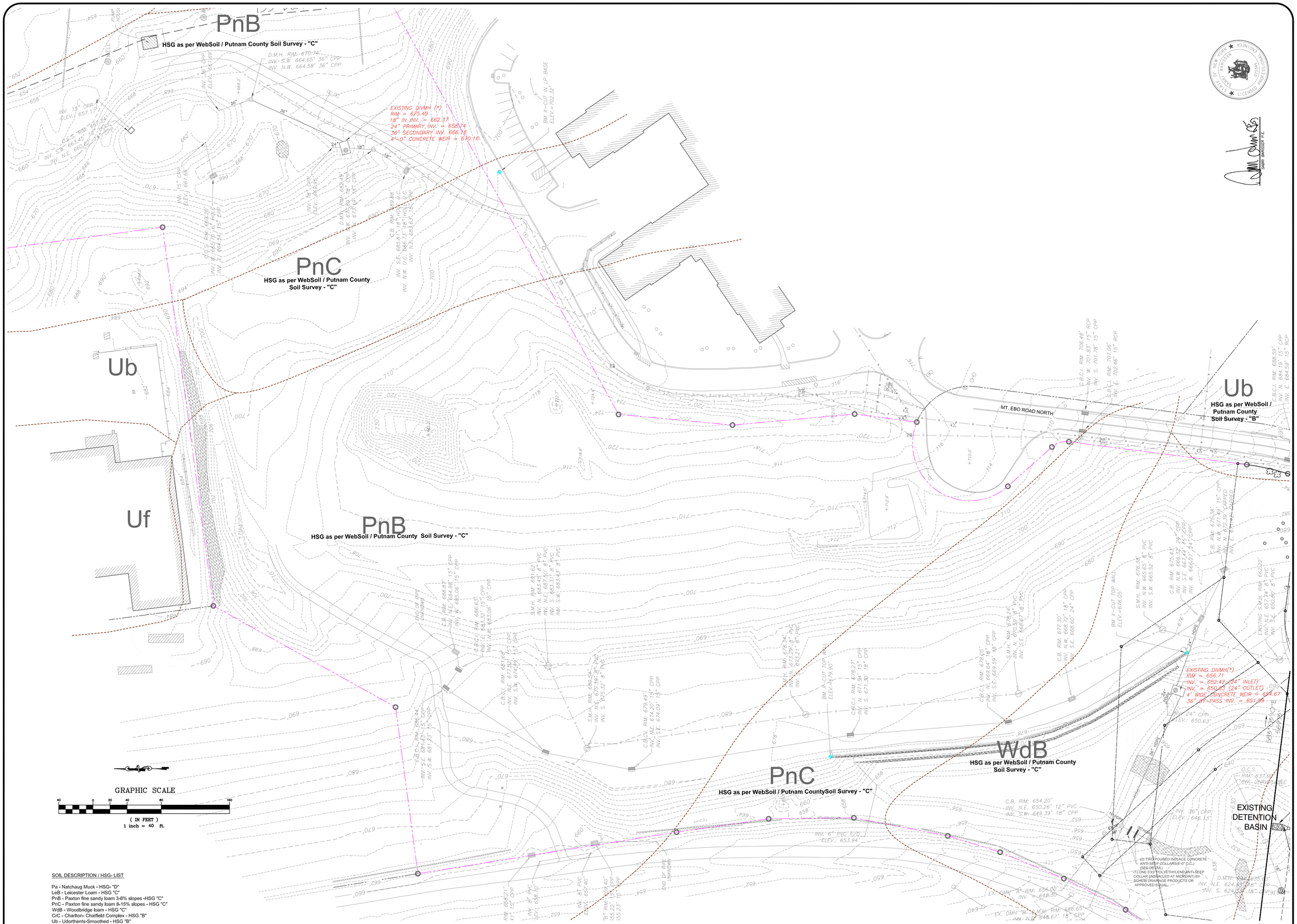
BIBBO ASSOCIATES, LLP
283 ROUTE 100 SUITE 203
SOMERS, NEW YORK 10589
TEL: 914 277 5805

LADA, P.C.
Land Planners
154 Grand Street
White Plains, New York 10601 (914) 681-1201
Brewster, NY 10509 (845) 279-7424

MATERIALS PLAN

MOUNT EBO LOT 6 - BARRETT HILL
MOUNT EBO ROAD NORTH
TOWN OF SOUTHEAST, NY 10509

DESIGNED	T.H.
DRAWN	E.F.
CHECKED	C.W.
APPROVED	T.H.
SCALE	1"=40'
DATE	04/28/17
PROJECT NO:	1491
SHEET NO:	L-10



SOIL DESCRIPTION / HSG- LIST

Pa - Natchaug Muck - HSG- "D"
LeB - Leicester Loam - HSG "C"
PnB - Paxton fine sandy loam 3-8% slopes -HSG "C"
PnC - Paxton fine sandy loam 8-15% slopes - HSG "C"
WdB - Woodbridge loam - HSG "C"
CrC - Charlton- Chatfield Complex - HSG "B"
Ub - Udorthents-Smoothed - HSG "B"

UNAUTHORIZED ALTERATIONS AND ADDITIONS TO THIS DRAWING IS A VIOLATION OF SECTION 7209 (2) OF THE NEW YORK STATE EDUCATION LAW.

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APPLICABLE LAWS

(*) ELEVATIONS FOR THESE STRUCTURES WERE DETERMINED BY FIELD INVESTIGATIONS/MEASUREMENTS BY BIBBO ASSOCIATES. LLP

STATE OF NEW YORK
SABRI BARSSER
LICENSED PROFESSIONAL ENGINEER
090540

SABRI BARSSER P.E.

REVISIONS

NO.	DATE	DESCRIPTION
1.	2-15-18	REVISIONS
2.	4-10-18	REVISIONS

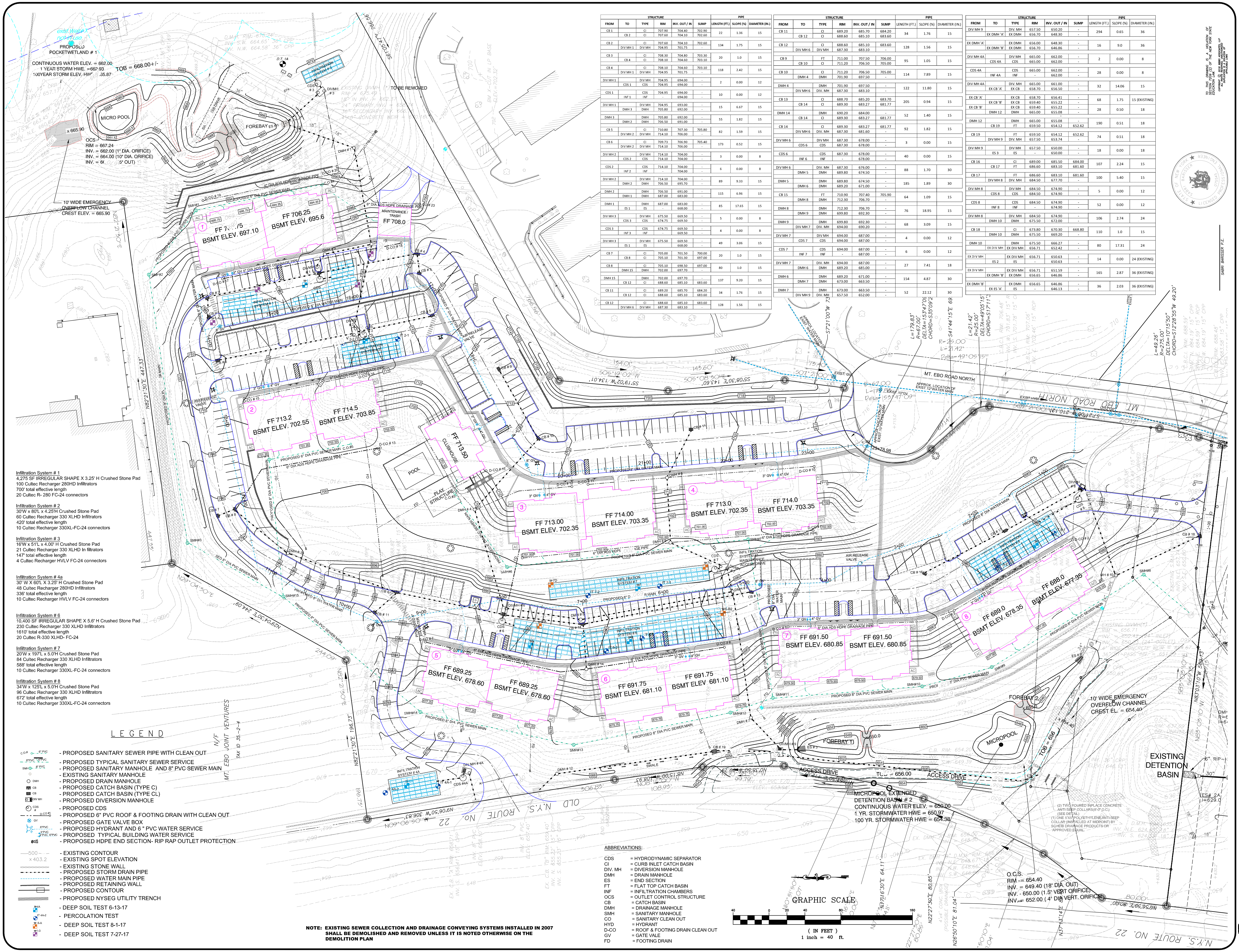
BIBBO ASSOCIATES, LLP
293 ROUTE 100 SUITE 203
SOMERS, NEW YORK 10589
TEL: 914 277 5825

LADA, P.C.
Land Planners
104 Vassar Street
Poughkeepsie, New York 12601 (845) 451-1977
20000 Rt. 17-A Suite 1400 (845) 278-7424
Goshen, New York 10924

EXISTING CONDITIONS PLAN

MOUNT EBO LOT 6 - BARRETT HILL
MOUNT EBO ROAD NORTH
TOWN OF SOUTHEAST, NY 10509

DESIGNED	
DRAWN	DK
CHECKED	JB/SB
APPROVED	JB/SB
SCALE	1" =40'
DATE	
PROJECT NO:	
SHEET NO:	XC-1



STRUCTURE						PIPE		
FROM	TO	TYPE	RIM	INV. OUT / IN	SUMP	LENGTH (FT.)	SLOPE (%)	DIAMETER (IN.)
CB 1		CI	707.90	704.40	702.90	22	1.36	15
	CB 2	CI	707.60	704.10	702.60			
CB 2		CI	707.60	704.10	702.60	134	1.75	15
	DIV MH 1	DIV MH	704.95	701.75	-			
CB 3		CI	708.30	704.80	703.30	20	1.0	15
	CB 4	CI	708.10	704.60	703.10			
CB 4		CI	708.10	704.60	703.10	118	2.42	15
	DIV MH 1	DIV MH	704.95	701.75	-			
DIV MH 1		DIV MH	704.95	694.00	-	2	0.00	12
	CDS 1	CDS	704.95	694.00	-			
CDS 1		CDS	704.95	694.00	-	10	0.00	12
	INF 1	INF	-	694.00	-			
DIV MH 1		DIV MH	704.95	693.00	-	15	6.67	15
	DMH 3	DMH	705.80	692.00	-			
DMH 3		DMH	705.80	692.00	-	55	1.82	15
	DMH 2	DMH	706.50	691.00	-			
CB 5		CI	710.80	707.30	705.80	82	1.59	15
	DIV MH 2	DIV MH	714.10	706.00	-			
CB 6		CI	709.73	706.90	705.40	173	0.52	15
	DIV MH 2	DIV MH	714.10	706.00	-			
DIV MH 2		DIV MH	714.10	704.00	-	3	0.00	8
	CDS 2	CDS	714.10	704.00	-			
CDS 2		CDS	714.10	704.00	-	6	0.00	8
	INF 2	INF	-	704.00	-			
DIV MH 2		DIV MH	714.10	704.00	-	89	9.33	15
	DMH 2	DMH	706.50	695.70	-			
DMH 2		DMH	706.50	691.00	-	115	6.96	15
	DMH 1	DMH	687.00	683.00	-			
DMH 1		DMH	687.00	683.00	-	85	17.65	15
	ES 1	ES	-	668.00	-			
DIV MH 3		DIV MH	675.50	669.50	-	5	0.00	8
	CDS 3	CDS	674.75	669.50	-			
CDS 3		CDS	674.75	669.50	-	4	0.00	8
	INF 3	INF	-	669.50	-			
DIV MH 3		DIV MH	675.50	669.50	-	49	3.06	15
	ES 1	ES	-	668.00	-			
CB 7		CI	705.00	701.50	700.00	20	1.0	15
	CB 8	CI	705.10	701.30	697.00			
CB 8		CI	705.10	698.50	697.00	80	1.0	15
	DMH 15	DMH	702.00	697.70	-			
DMH 15		DMH	702.00	697.70	-	137	9.20	15
	CB 12	CI	688.60	685.10	683.60			
CB 11		CI	689.20	685.70	684.20	34	1.76	15
	CB 12	CI	688.60	685.10	683.60			
CB 12		CI	688.60	685.10	683.60	128	1.56	15
	DIV MH 6	DIV MH	687.30	683.10	-			

STRUCTURE						PIPE		
FROM	TO	TYPE	RIM	INV. OUT / IN	SUMP	LENGTH (FT.)	SLOPE (%)	DIAMETER (IN.)
CB 11		CI	689.20	685.70	684.20	34	1.76	15
	CB 12	CI	688.60	685.10	683.60			
CB 12		CI	688.60	685.10	683.60	128	1.56	15
	DIV MH 6	DIV MH	687.30	683.10	-			
CB 9		FT	711.00	707.50	706.00	95	1.05	15
	CB 10	CI	711.20	706.50	705.00			
CB 10		CI	711.20	706.50	705.00	114	7.89	15
	DMH 4	DMH	701.90	697.50	-			
DMH 4		DMH	701.90	697.50	-	122	11.80	15
	DIV MH 6	DIV. MH	687.30	683.10	-			
CB 13		CI	688.70	685.20	683.70	205	0.94	15
	CB 14	CI	689.30	683.27	681.77			
DMH 14		DMH	690.20	684.00	-	52	1.40	15
	CB 14	CI	689.30	683.27	681.77			
CB 14		CI	689.30	683.27	681.77	92	1.82	15
	DIV MH 6	DIV. MH	687.30	681.60	-			
DIV MH 6		DIV MH	687.30	678.00	-	3	0.00	15
	CDS 6	CDS	687.30	678.00	-			
CDS 6		CDS	687.30	678.00	-	40	0.00	15
	INF 6	INF	-	678.00	-			
DIV MH 6		DIV. MH	687.30	676.00	-	88	1.70	30
	DMH 5	DMH	689.80	674.50	-			
DMH 5		DMH	689.80	674.50	-	185	1.89	30
	DMH 6	DMH	689.20	671.00	-			
CB 15		FT	710.90	707.40	705.90	64	1.09	15
	DMH 8	DMH	712.30	706.70	-			
DMH 8		DMH	712.30	706.70	-	76	18.95	15
	DMH 9	DMH	699.80	692.30	-			
DMH 9		DMH	699.80	692.30	-	68	3.09	15
	DIV MH 7	DIV. MH	694.00	690.20	-			
DIV MH 7		DIV MH	694.00	687.00	-	4	0.00	12
	CDS 7	CDS	694.00	687.00	-			
CDS 7		CDS	694.00	687.00	-	6	0.00	12
	INF 7	INF	-	687.00	-			
DIV MH 7		DIV. MH	694.00	687.00	-	27	7.41	18
	DMH 6	DMH	689.20	685.00	-			
DMH 6		DMH	689.20	671.00	-	154	4.87	30
	DMH 7	DMH	673.00	663.50	-			
DMH 7		DMH	673.00	663.50	-	52	22.12	30
	DIV MH 9	DIV. MH	657.50	652.00	-			

STRUCTURE						PIPE		
FROM	TO	TYPE	RIM	INV. OUT / IN	SUMP	LENGTH (FT.)	SLOPE (%)	DIAMETER (IN.)
DIV MH 9		DIV. MH	657.50	650.20	-	294	0.65	36
	EX DMH 'A'	EX DMH	656.70	648.30	-			
EX DMH 'A'		EX DMH	656.00	648.30	-	16	9.0	36
	EX DMH 'B'	EX DMH	656.70	646.86	-			
DIV MH 4A		DIV MH	665.00	662.00	-	2	0.00	8
	CDS 4A	CDS	665.00	662.00	-			
CDS 4A		CDS	665.00	662.00	-	28	0.00	8
	INF 4A	INF	-	662.00	-			
DIV MH 4A		DIV. MH	665.00	661.00	-	32	14.06	15
	EX CB 'A'	EX CB	658.70	656.50	-			
EX CB 'A'		EX CB	658.70	656.41	-	68	1.75	15 (EXISTING)
	EX CB 'B'	EX CB	659.40	655.22	-			
EX CB 'B'		EX CB	659.40	655.22	-	28	0.50	18
	DMH 12	DMH	665.00	655.08	-			
				-				
DMH 12		DMH	665.00	655.08	-	190	0.51	18
	CB 19	FT	659.50	654.12	652.62			
CB 19		FT	659.50	654.12	652.62	74	0.51	18
	DIV MH 9	DIV. MH	657.50	653.74	-			
DIV MH 9		DIV MH	657.50	650.00	-	18	0.00	18
	ES 3	ES	-	650.00	-			
CB 16		CI	689.00	685.50	684.00	107	2.24	15
	CB 17	FT	686.60	683.10	681.60			
CB 17		FT	686.60	683.10	681.60	100	5.40	15
	DIV MH 8	DIV. MH	684.50	677.70	-			
DIV MH 8		DIV MH	684.50	674.90	-	5	0.00	12
	CDS 8	CDS	684.50	674.90	-			
CDS 8		CDS	684.50	674.90	-	52	0.00	12
	INF 8	INF	-	674.90	-			
DIV MH 8		DIV. MH	684.50	674.90	-	106	2.74	24
	DMH 10	DMH	675.50	672.00	-			
CB 18		CI	673.80	670.30	668.80	110	1.0	15
	DMH 10	DMH	675.50	669.20	-			
DMH 10		DMH	675.50	666.27	-	80	17.31	24
	EX DIV MH	EX DIV MH	656.71	652.42	-			
EX DIV MH		EX DIV MH	656.71	650.63	-	14	0.00	24 (EXISTING)
	ES 2	ES	-	650.63	-			
EX DIV MH		EX DIV MH	656.71	651.59	-	165	2.87	36 (EXISTING)
	EX DMH 'B'	EX DMH	656.65	646.86	-			
EX DMH 'B'		EX DMH	656.65	646.86	-	36	2.03	36 (EXISTING)
	EX ES 'A'	ES	-	646.13	-			

Infiltration System # 1
4,275 SF IRREGULAR SHAPE X 3.25' H Crushed Stone Pad
100 Cultec Recharger 280HD Infiltrators
700' total effective length
20 Cultec R- 280 FC-24 connectors

Infiltration System # 2
30'W x 80'L x 4.25'H Crushed Stone Pad
60 Cultec Recharger 330 XLHD Infiltrators
420' total effective length
10 Cultec Recharger 330XL-FC-24 connectors

Infiltration System # 3
16'W x 51'L x 4.00' H Crushed Stone Pad
21 Cultec Recharger 330 XLHD In filtrators
147' total effective length
4 Cultec Recharger HVLV FC-24 connectors

Infiltration System # 4a
30' W X 60'L X 3.25' H Crushed Stone Pad
48 Cultec Recharger 280HD Infiltrators
336' total effective length
10 Cultec Recharger HVLV FC-24 connectors

Infiltration System # 6
10,400 SF IRREGULAR SHAPE X 5.6' H Crushed Stone Pad
230 Cultec Recharger 330 XLHD Infiltrators
1610' total effective length
20 Cultec R-330 XLHD- FC-24

Infiltration System # 7
20'W x 197'L x 5.0'H Crushed Stone Pad
84 Cultec Recharger 330 XLHD Infiltrators
588' total effective length
10 Cultec Recharger 330XL-FC-24 connectors

Infiltration System # 8
34'W x 125'L x 5.0'H Crushed Stone Pad
96 Cultec Recharger 330 XLHD Infiltrators
672' total effective length
10 Cultec Recharger 330XL-FC-24 connectors

LEGEND

- PROPOSED SANITARY SEWER PIPE WITH CLEAN OUT
- PROPOSED TYPICAL SANITARY SEWER SERVICE
- PROPOSED SANITARY MANHOLE AND 8" PVC SEWER MAIN
- EXISTING SANITARY MANHOLE
- PROPOSED DRAIN MANHOLE
- PROPOSED CATCH BASIN (TYPE C)
- PROPOSED CATCH BASIN (TYPE CL)
- PROPOSED DIVERSION MANHOLE
- PROPOSED CDS
- PROPOSED 6" PVC ROOF & FOOTING DRAIN WITH CLEAN OUT
- PROPOSED GATE VALVE BOX
- PROPOSED HYDRANT AND 6 " PVC WATER SERVICE
- PROPOSED TYPICAL BUILDING WATER SERVICE
- PROPOSED HDPE END SECTION- RIP RAP OUTLET PROTECTION
- EXISTING CONTOUR
- EXISTING SPOT ELEVATION
- EXISTING STONE WALL
- PROPOSED STORM DRAIN PIPE
- PROPOSED WATER MAIN PIPE
- PROPOSED RETAINING WALL
- PROPOSED CONTOUR
- PROPOSED NYSEG UTILITY TRENCH
- DEEP SOIL TEST 6-13-17
- PERCOLATION TEST
- DEEP SOIL TEST 8-1-17
- DEEP SOIL TEST 7-27-17

NOTE: EXISTING SEWER COLLECTION AND DRAINAGE CONVEYING SYSTEMS INSTALLED IN 2007 SHALL BE DEMOLISHED AND REMOVED UNLESS IT IS NOTED OTHERWISE ON THE DEMOLITION PLAN

ABBREVIATIONS:

CDS	= HYDRODYNAMIC SEPARATOR
CI	= CURB INLET CATCH BASIN
DIV. MH	= DIVERSION MANHOLE
DMH	= DRAIN MANHOLE
ES	= END SECTION
FT	= FLAT TOP CATCH BASIN
INF	= INFILTRATION CHAMBERS
OCS	= OUTLET CONTROL STRUCTURE
CB	= CATCH BASIN
DMH	= DRAINAGE MANHOLE
SMH	= SANITARY MANHOLE
CO	= SANITARY CLEAN OUT
HYD	= HYDRANT
D-CO	= ROOF & FOOTING DRAIN CLEAN OUT
GV	= GATE VALE
FD	= FOOTING DRAIN

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STATE OF NEW YORK SABRI BARISSER 075545 LICENSED PROFESSIONAL ENGINEER

SABRI BARISSER P.E.

REVISIONS

NO.	DATE	DESCRIPTION
1.	6-12-17	
2.	2-15-18	REVISIONS
3.	3-20-18	PCDH COMMENTS
4.	4-10-18	REVISIONS

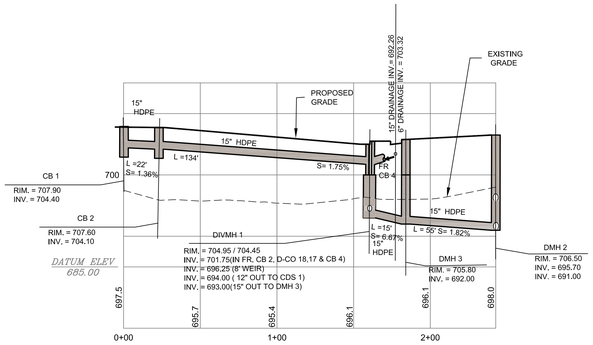
BIBBO ASSOCIATES, LLP
293 ROUTE 100 SUITE 203
SOMERS, NEW YORK 10589
TEL. 914 277 5805

LADA, P.C.
Land Planners
104 West Street
Simsbury, CT 06070 (860) 651-4971
2050 Route 22 (Suite 106)
Brewster, NY 10509 (845) 278-7424

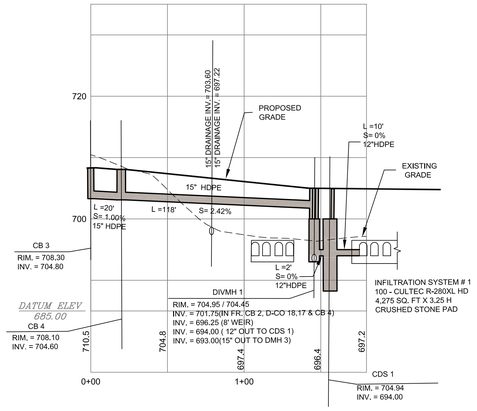
UTILITIES SITE PLAN

MOUNT EBO LOT 6 - BARRETT HILL
MOUNT EBO ROAD NORTH
TOWN OF SOUTHEAST, NY 10509

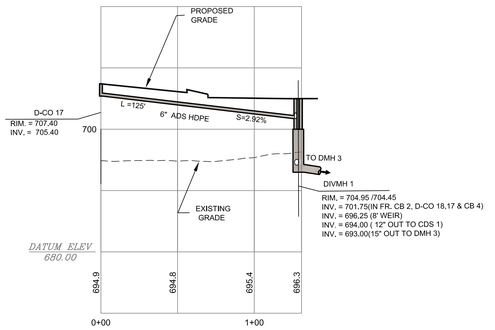
DESIGNED	
DRAWN	DK
CHECKED	SB/JB
APPROVED	SB/JB
SCALE	1" 40'
DATE	4-27-17
PROJECT NO:	
SHEET NO:	UP-1



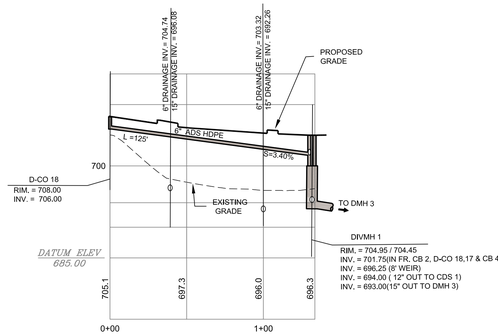
DRAINAGE PROFILE CB 1 TO DMH 2
SCALE: 1" = 40' HORIZONTAL
1" = 10' VERTICAL



DRAINAGE PROFILE CB 3 TO SYSTEM 1
SCALE: 1" = 40' HORIZONTAL
1" = 10' VERTICAL



DRAINAGE PROFILE D-CO17 TO DIVMH 1
SCALE: 1" = 40' HORIZONTAL
1" = 10' VERTICAL



DRAINAGE PROFILE D-CO18 TO DIVMH 1
SCALE: 1" = 40' HORIZONTAL
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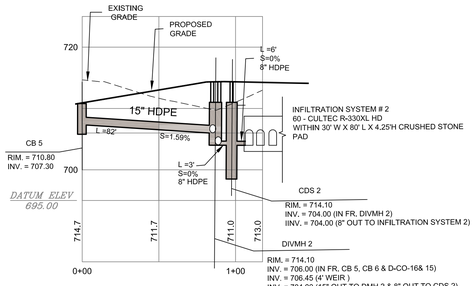
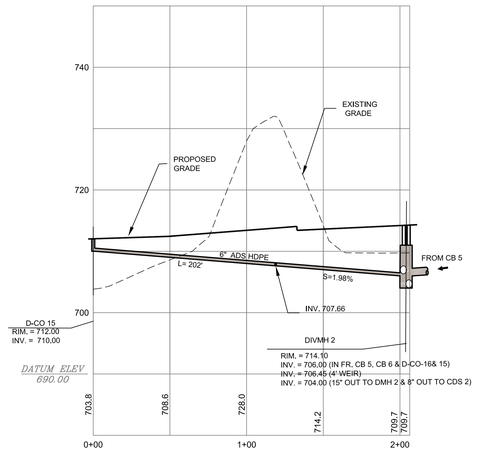
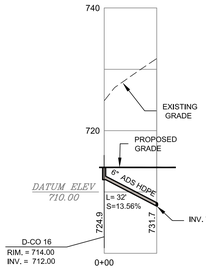


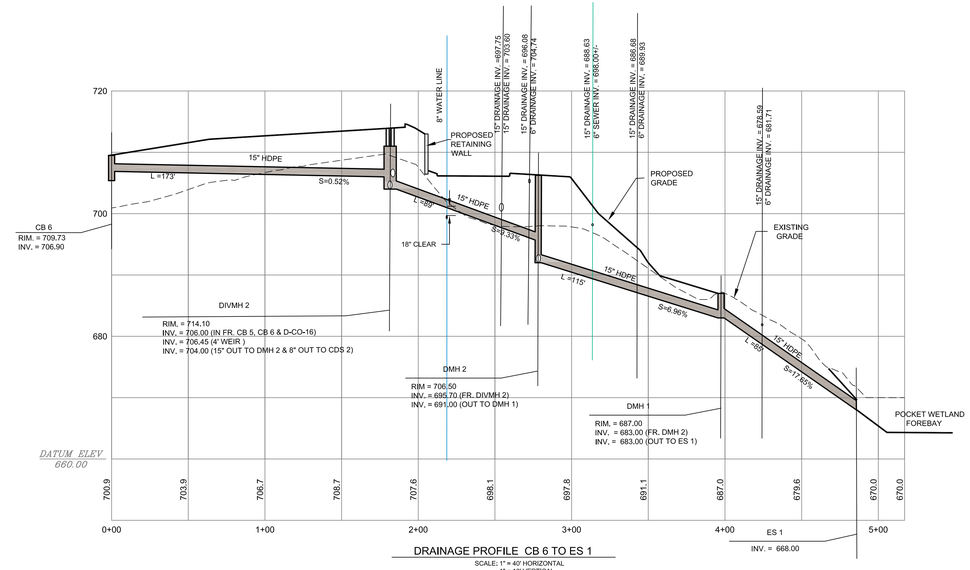
DRAINAGE PROFILE CB 5 TO SYSTEM 2
SCALE: 1" = 40' HORIZONTAL
1" = 10' VERTICAL



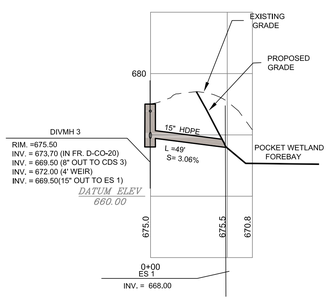
DRAINAGE PROFILE D-CO15 TO DIVMH 2
SCALE: 1" = 40' HORIZONTAL
1" = 10' VERTICAL



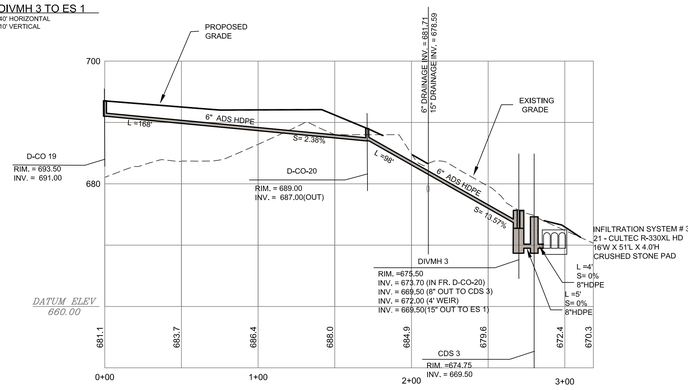
DRAINAGE PROFILE D-CO16 TO PIPE CONNECTION
SCALE: 1" = 40' HORIZONTAL
1" = 10' VERTICAL



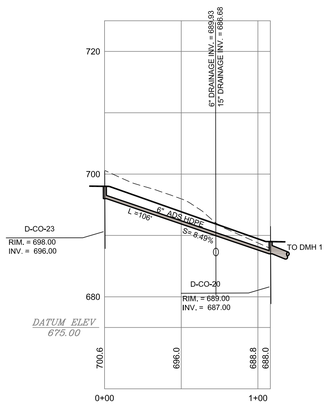
DRAINAGE PROFILE CB 6 TO ES 1
SCALE: 1" = 40' HORIZONTAL
1" = 10' VERTICAL



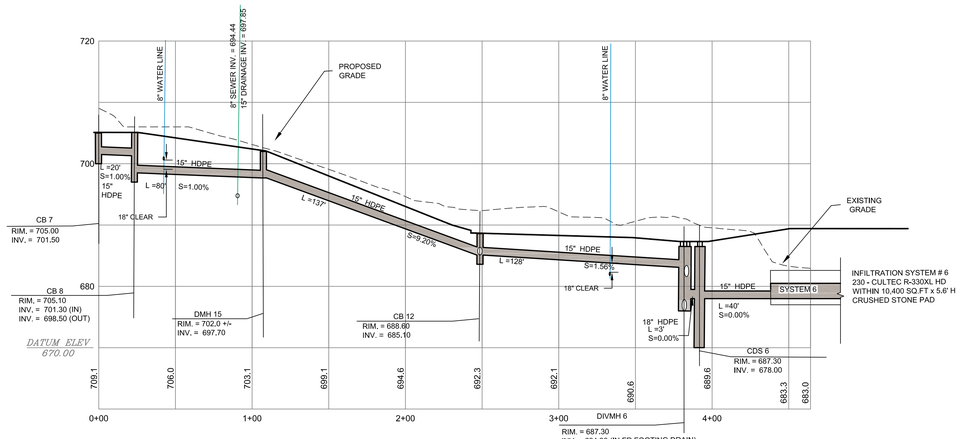
DRAINAGE PROFILE DIVMH 3 TO ES 1
SCALE: 1" = 40' HORIZONTAL
1" = 10' VERTICAL



DRAINAGE PROFILE D-CO 19 TO INFILTRATION 8
SCALE: 1" = 40' HORIZONTAL
1" = 10' VERTICAL



DRAINAGE PROFILE D-CO 23 TO D- CO 20
SCALE: 1" = 40' HORIZONTAL
1" = 10' VERTICAL



DRAINAGE PROFILE CB 7 TO SYSTEM 6
SCALE: 1" = 40' HORIZONTAL
1" = 10' VERTICAL

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SAMIR BARUDDIN P.E.

STATE OF NEW YORK
SAMIR BARUDDIN
083877
REGISTERED PROFESSIONAL ENGINEER

REVISIONS

NO.	DATE	DESCRIPTION
1.	2-15-18	REVISIONS
2.	4-10-18	REVISIONS

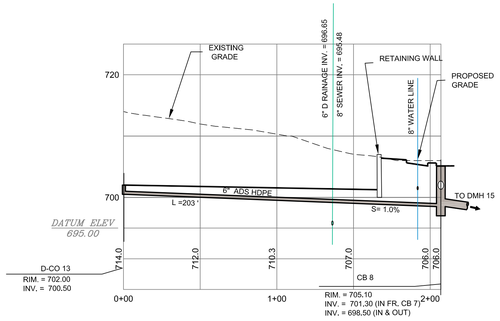
BIBBO ASSOCIATES, LLP
CONSULTING ENGINEERS
SOMERS, NEW YORK 10589
TEL. 914 277 5805

LADA, P.C.
Land Planners
Tax Mapping Specialists
The Knowe Street
Poughkeepsie, NY 12601 (845) 452-1477
20000 Hudson St (South Bldg)
Brewerton, NY 13029 (315) 676-4364

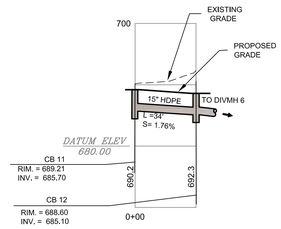
DRAINAGE PROFILES

MOUNT EBO LOT 6 - BARRETT HILL
MOUNT EBO ROAD NORTH
TOWN OF SOUTHEAST, NY 10509

DESIGNED	
DRAWN	DK
CHECKED	SB./JB.
APPROVED	SB./JB.
SCALE	
DATE	4-27-17
PROJECT NO:	
SHEET NO:	DP-1



DRAINAGE PROFILE D-CO 13 TO CB 8
SCALE: 1" = 40' HORIZONTAL
1" = 10' VERTICAL



DRAINAGE PROFILE CB 11 TO CB 12
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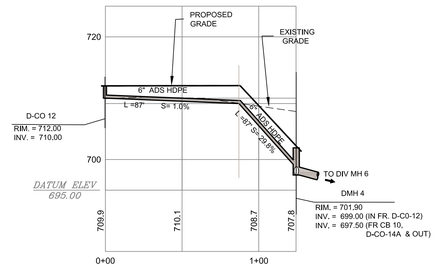
1" = 10' VERTICAL



DRAINAGE PROFILE D-CO 12 TO DMH 4
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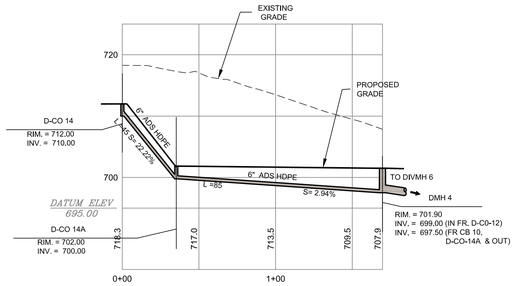
1" = 10' VERTICAL



DRAINAGE PROFILE D-CO 14 TO DMH 4
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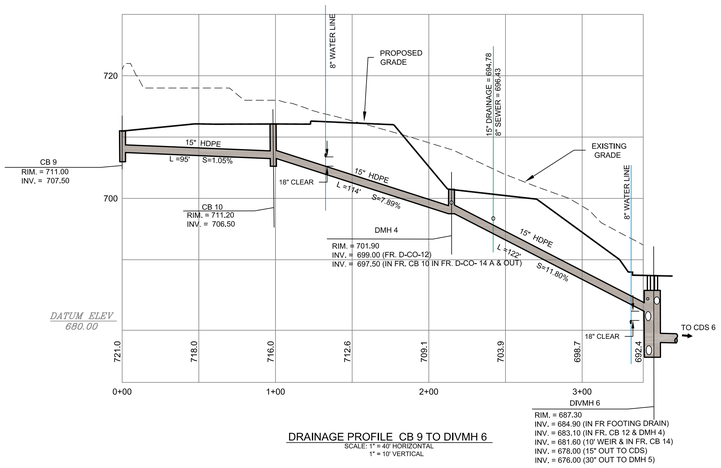
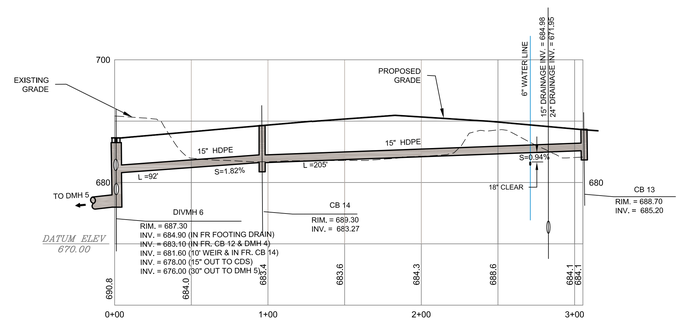
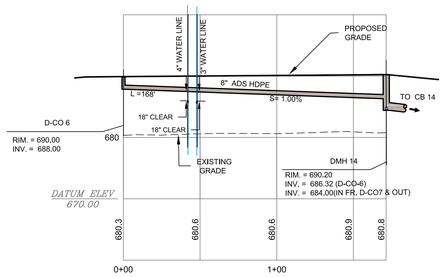
1" = 10' VERTICAL



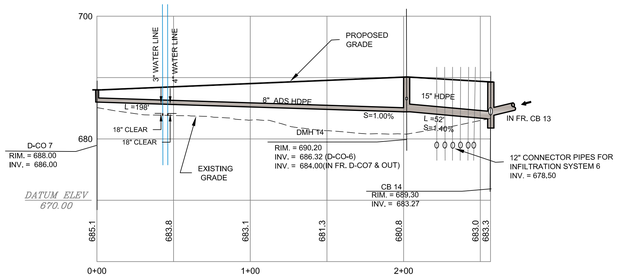
DRAINAGE PROFILE CB 9 TO DIVMH 6
SCALE: 1" = 40' HORIZONTAL
1" = 10' VERTICAL



DRAINAGE PROFILE CB 13 TO SYSTEM 6
SCALE: 1" = 40' HORIZONTAL
1" = 10' VERTICAL



DRAINAGE PROFILE D-CO 6 TO DMH 14
SCALE: 1" = 40' HORIZONTAL
1" = 10' VERTICAL



DRAINAGE PROFILE D-CO 7 TO CB 14
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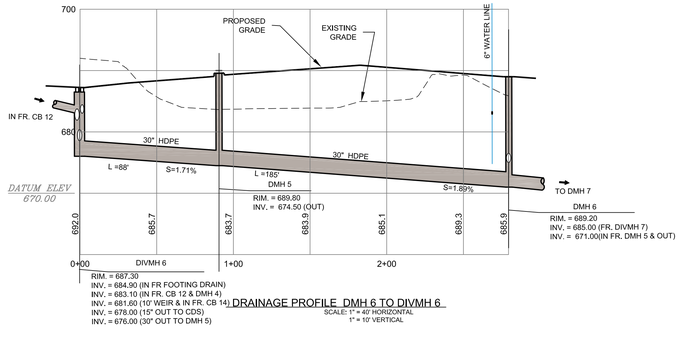
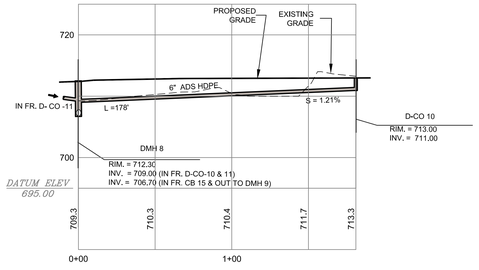
1" = 10' VERTICAL



DRAINAGE PROFILE DMH 6 TO DIVMH 6
SCALE: 1" = 40' HORIZONTAL
1" = 10' VERTICAL



DRAINAGE PROFILE D-CO 10 TO DMH 8
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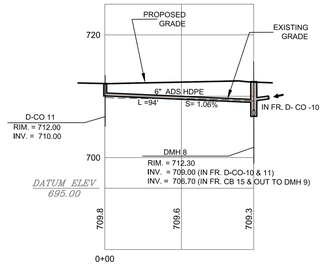
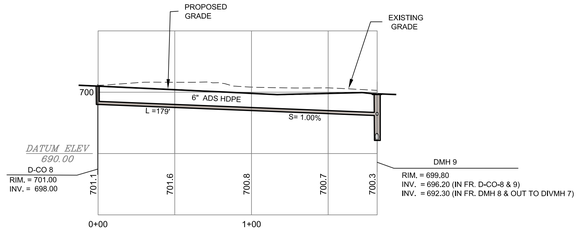
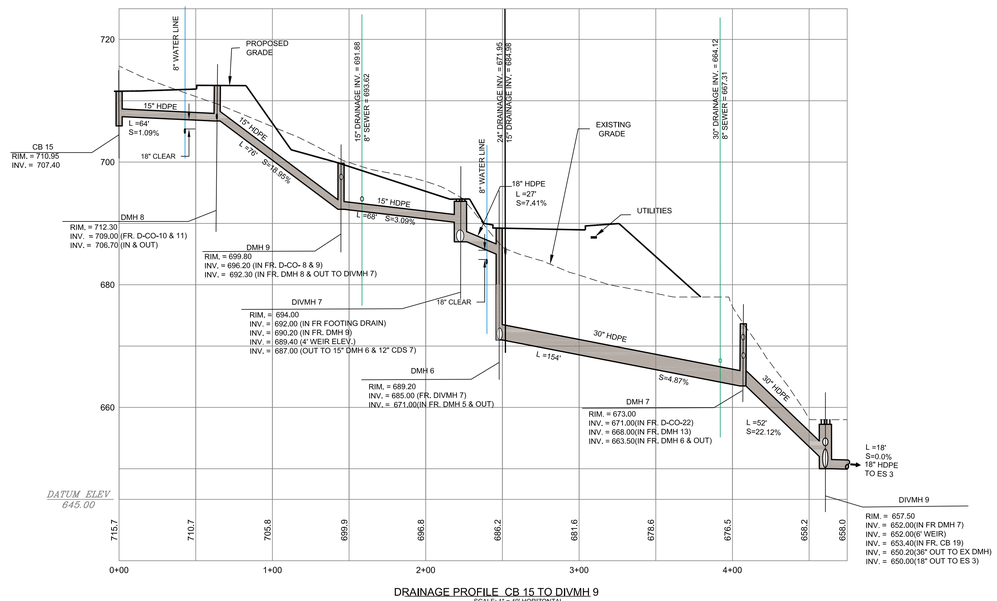
1" = 10' VERTICAL



DRAINAGE PROFILE D-CO 11 TO DMH 8
SCALE: 1" = 40' HORIZONTAL
1" = 10' VERTICAL



DRAINAGE PROFILE D-CO 8 TO DMH 9
SCALE: 1" = 40' HORIZONTAL
1" = 10' VERTICAL



DRAINAGE PROFILE CB 15 TO DIVMH 9
SCALE: 1" = 40' HORIZONTAL
1" = 10' VERTICAL

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SABR BARSSSR P.E.

STATE OF NEW YORK SABR BARSSSR LICENSED PROFESSIONAL ENGINEER

REVISIONS

NO.	DATE	DESCRIPTION
1.	2-15-18	REVISIONS
2.	4-10-18	REVISIONS

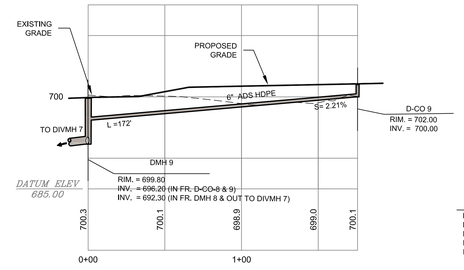
BIBBO ASSOCIATES, LLP
PROFESSIONAL ENGINEERS
SOMERS, NEW YORK 10589
TEL: 914 277 5805

LADA, P.C.
Land Planners
156 Valley Street
Dobbs Ferry, New York 10522 (914) 693-1401
20000 Rockville Pike Suite 100 (301) 881-4071
Bethesda, MD 20852
Brewster, NY 10509 (845) 279-1424

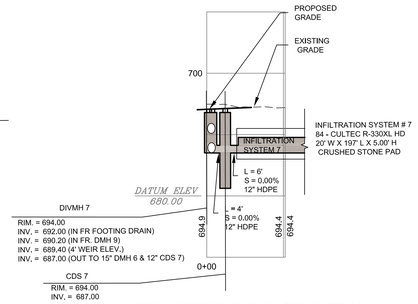
DRAINAGE PROFILES

MOUNT EBO LOT 6 - BARRETT HILL
MOUNT EBO ROAD NORTH
TOWN OF SOUTHEAST, NY 10509

DESIGNED	
DRAWN	DK
CHECKED	SB/JB.
APPROVED	SB/JB.
SCALE	
DATE	4-27-17
PROJECT NO:	
SHEET NO:	DP-2



DRAINAGE PROFILE DMH 9 TO D-CO 9
SCALE: 1" = 40' HORIZONTAL
1" = 10' VERTICAL



DRAINAGE PROFILE DIVMH 7 TO SYSTEM 7
SCALE: 1" = 40' HORIZONTAL
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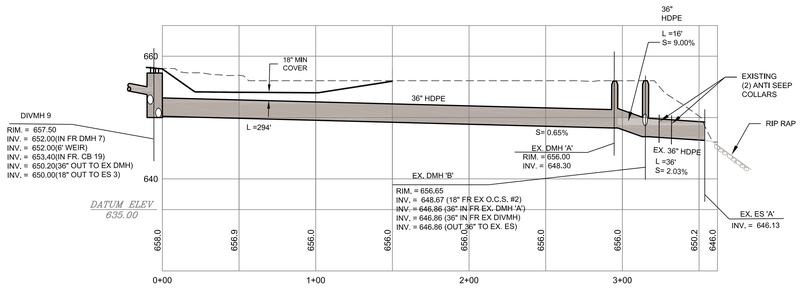

DRAINAGE PROFILE DIVMH 9 TO EX ES 'A'
SCALE: 1" = 40' HORIZONTAL
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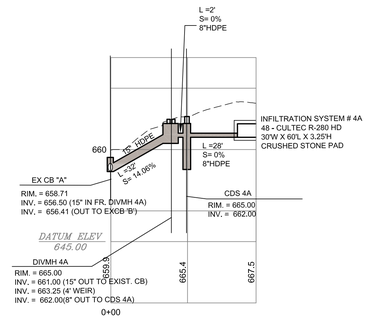

DRAINAGE PROFILE EX CB TO SYSTEM 4A
SCALE: 1" = 40' HORIZONTAL
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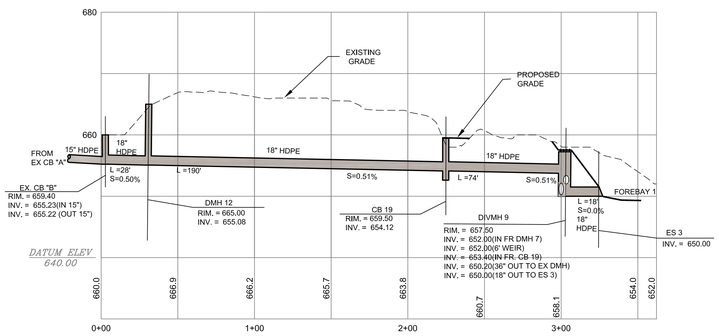

DRAINAGE PROFILE EX. CB TO ES 3
SCALE: 1" = 40' HORIZONTAL
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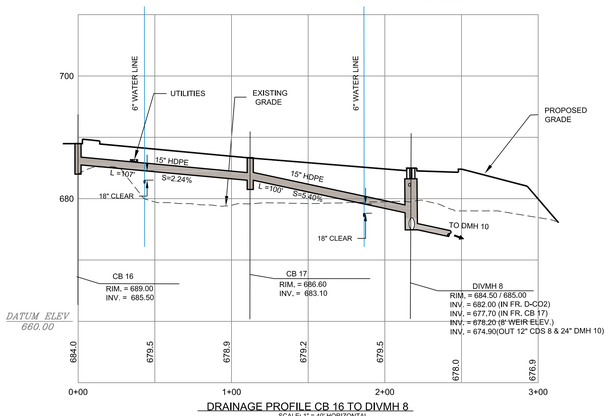
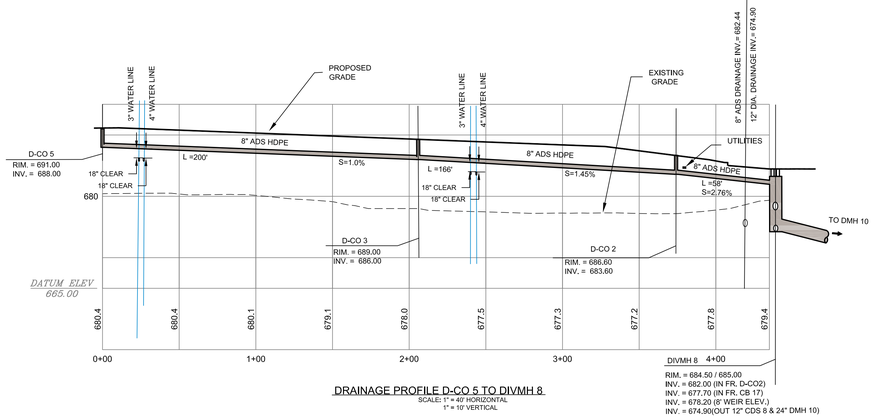
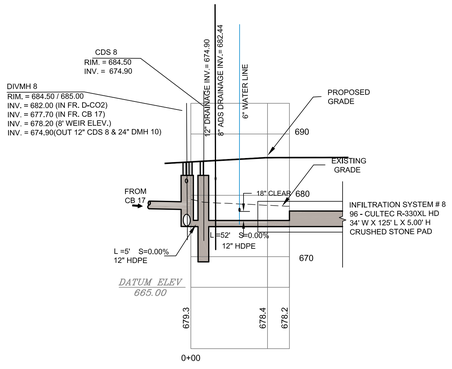


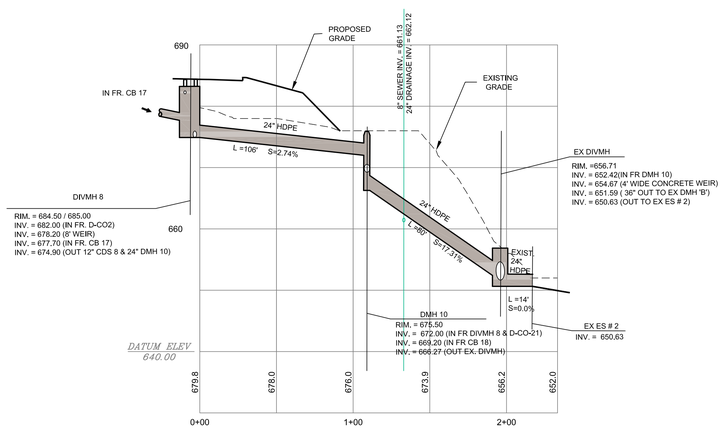
DRAINAGE PROFILE CB 16 TO DIVMH 8
SCALE: 1" = 40' HORIZONTAL
1" = 10' VERTICAL



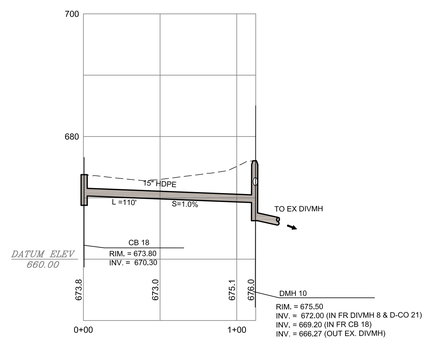
DRAINAGE PROFILE D-CO 5 TO DIVMH 8
SCALE: 1" = 40' HORIZONTAL
1" = 10' VERTICAL



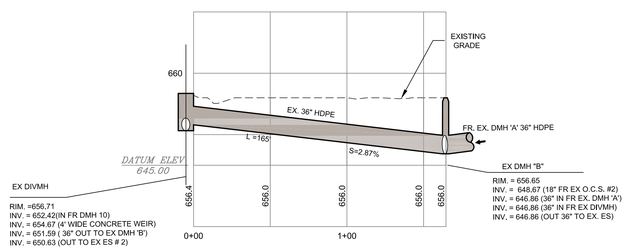
DRAINAGE PROFILE DIVMH 8 TO SYSTEM 8
SCALE: 1" = 40' HORIZONTAL
1" = 10' VERTICAL



DRAINAGE PROFILE DIVMH 8 TO EX ES # 2
SCALE: 1" = 40' HORIZONTAL
1" = 10' VERTICAL



DRAINAGE PROFILE CB 18 TO DMH 10
SCALE: 1" = 40' HORIZONTAL
1" = 10' VERTICAL



DRAINAGE PROFILE EX. DIVMH TO EX. DMH 'B'
SCALE: 1" = 40' HORIZONTAL
1" = 10' VERTICAL

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SABR BARSSOP P.E.

STATE OF NEW YORK
SABR BARSSOP
LICENSED PROFESSIONAL ENGINEER

REVISIONS

NO.	DATE	DESCRIPTION
1.	2-15-18	REVISIONS
2.	4-10-18	REVISIONS

BIBBO ASSOCIATES, LLP
CONSULTING ENGINEERS
SOMERS, NEW YORK 10589
TEL. 914 277 5805

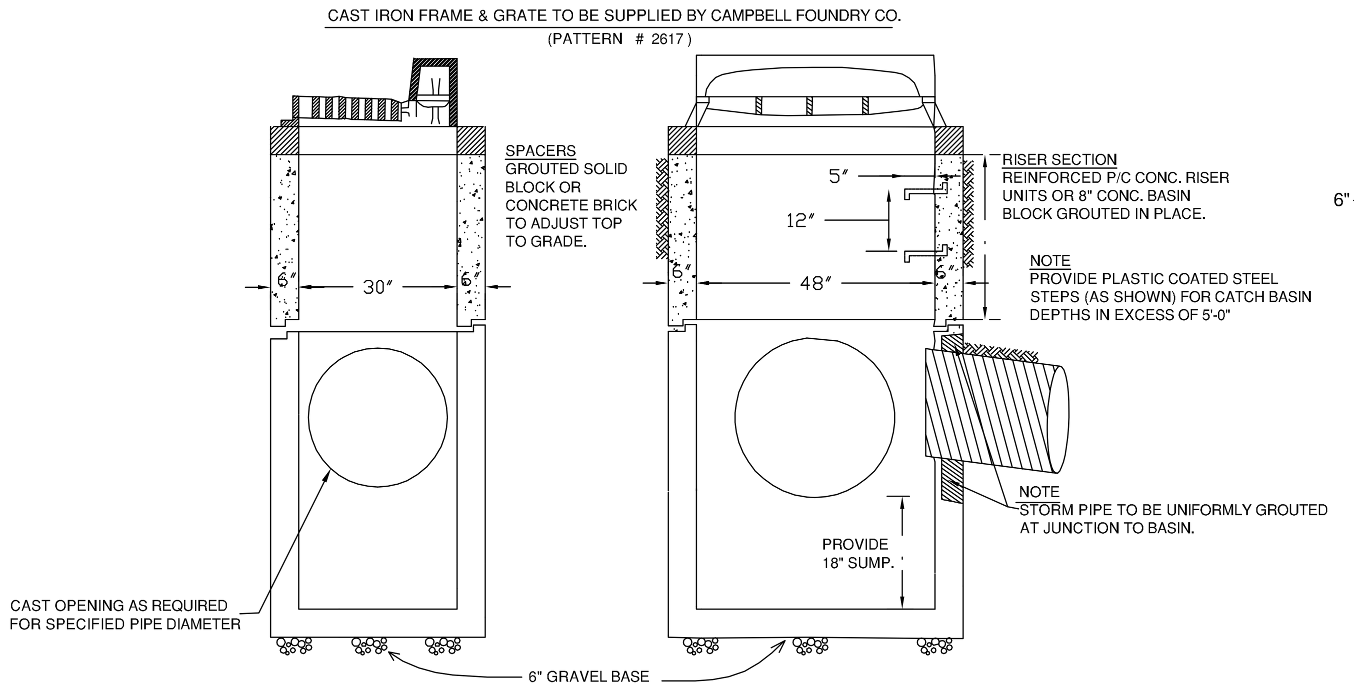
LADA, P.C.
Land Planners
The Knapp Bldg.
2000 Hurley Ave. (Rte. 199)
Kingston, NY 12401
(845) 331-4271
Brewster, NY 10509 (845) 279-1424

DRAINAGE PROFILES

MOUNT EBO LOT 6 - BARRETT HILL
MOUNT EBO ROAD NORTH
TOWN OF SOUTHEAST, NY 10509

DESIGNED	
DRAWN	DK
CHECKED	SB/JB.
APPROVED	SB/JB.
SCALE	
DATE	4-27-17
PROJECT NO:	
SHEET NO:	DP-3

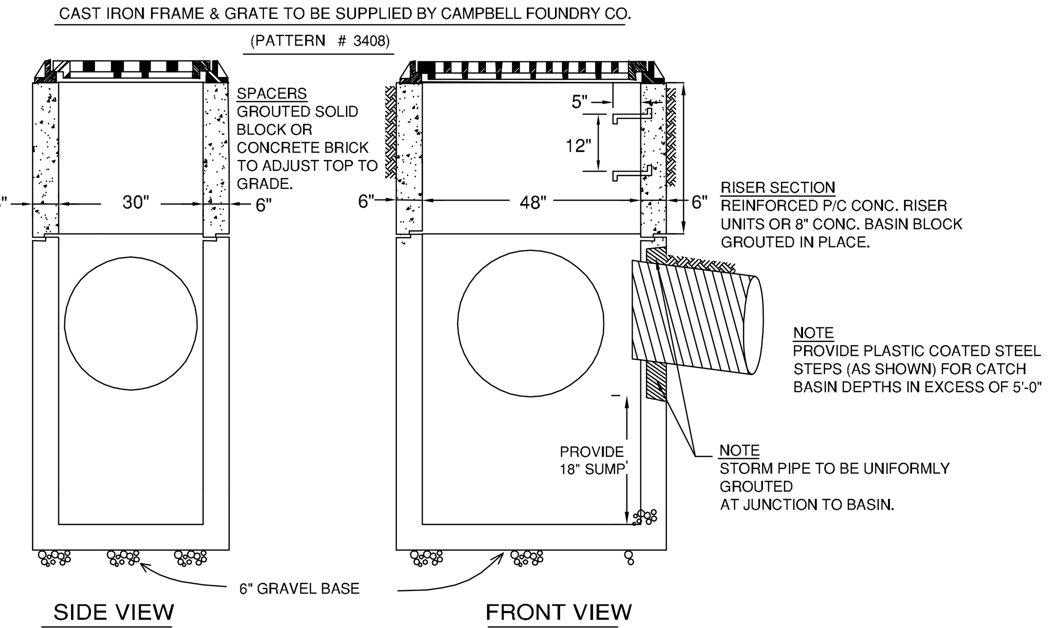
DRAINAGE DETAILS



TYPICAL CATCH BASIN (TYPE C)

N.T.S.

(HS-20-44 LOADING DESIGN REQUIRED)



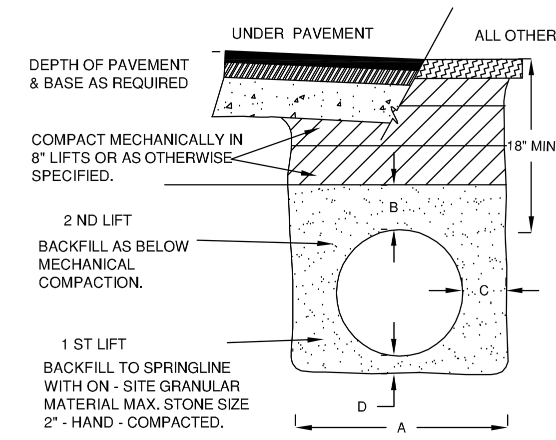
TYPICAL CATCH BASIN (TYPE CL)

N.T.S.

(HS-20-44 LOADING DESIGN REQUIRED)

BACKFILL MATERIAL TO BE FREE OF FROST & STONES OVER 8" SIZE COMPACTED AS REQUIRED.

PIPE DIA.	A	B	C	D
15"	34"	12"	8"	6"
18"	40"	12"	9.5"	6"
24"	48"	12"	10"	6"
30"	66"	12"	15.5"	6"



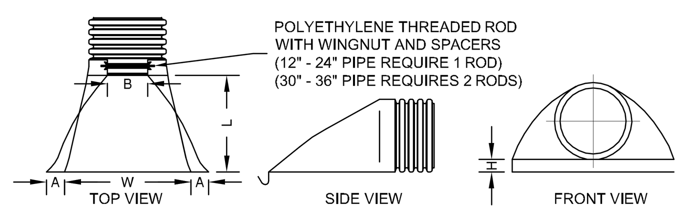
DRAINAGE PIPE INSTALLATION

N.T.S.

SABRI BARISSER P.E.

Drainage System Notes:

1. All drainage pipes shall be high density polyethylene pipe HDPE (smooth bore) by ADS N-12 or approved equal, unless otherwise specified on the plans.
2. All building footing drains shall be a minimum of 4" diameter perforated PVC, discharge locations as per the Utility Plans.
3. All retaining wall footing drain pipes shall be a minimum of 4" diameter perforated PVC, discharge points as per the Utility Plans.
4. All building floor drain pipes from the basement catch basin collection system shall be 12" diameter HDPE
5. Catch basins, manholes and all castings shall be in accordance with Town of Southeast requirements, standards and specifications and as shown on the plans.
6. Curtain drains shall be 4" diameter perforated HDPE pipe or approved equal.
7. Catch basins with 3 or more pipe connections shall be oversized dimensions.
8. 5' or 6' diameter precast drain manhole bases may be used when required due to size or number of pipes at the. manhole. Eccentric precast reducers shall be placed above the 5' or 6' base and the wall thickness increased 1" for each 1' of inside diameter increase.
9. Non-shrink grout may be utilized in lieu of flexible sleeves for storm drainage manholes.
10. Lifting holes in precast sections to be filled with mortar.
11. For shallow manholes, substitute precast slab top for eccentric cone. Slab shall be capable of supporting an HS-20-44 load.
12. All drainage structures located within roadways shall conform with AASHTO HS-20-44 loading design criteria.
13. All work shall conform to all applicable codes whether Federal, State, County or Local and the strictest shall apply.
14. Roof drainage collection piping for roof drain leaders shall be provided for all building connections. This piping shall be a minimum of 6" diameter PVC pipe with clean-outs, unless otherwise specified with 1.0 % minimum slope.
15. Contractor shall supply the Engineer with shop drawings of all construction materials to obtain approval prior to any construction.

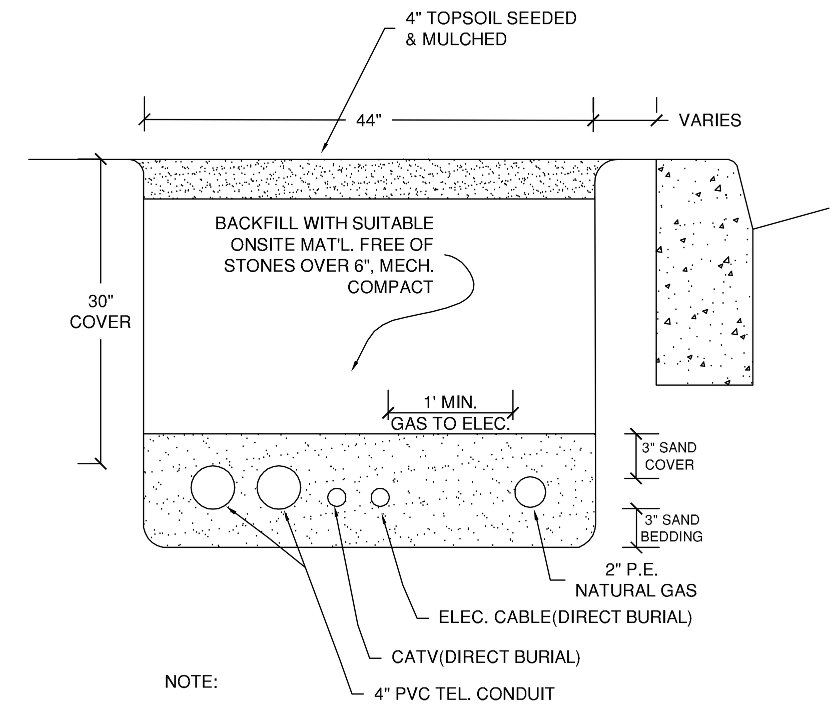


ADS PRODUCT DIMENSIONS						
PART #	PIPE Ø	A	B (MAX)	H	L	W
1210NP	12"	6.5"	10"	6.5"	25"	29"
1510NP	15"	6.5"	10"	6.5"	25"	29"
1810NP	18"	7.5"	15"	6.5"	32"	35"
2410NP	24"	7.5"	18"	6.5"	36"	45"
3015NP	30"	7.5"	12"	8.6"	36"	63"
3615NP	36"	7.5"	25"	8.6"	58"	63"

ADS - FLARED END SECTION

N.T.S.

(OR APPROVED EQUAL)

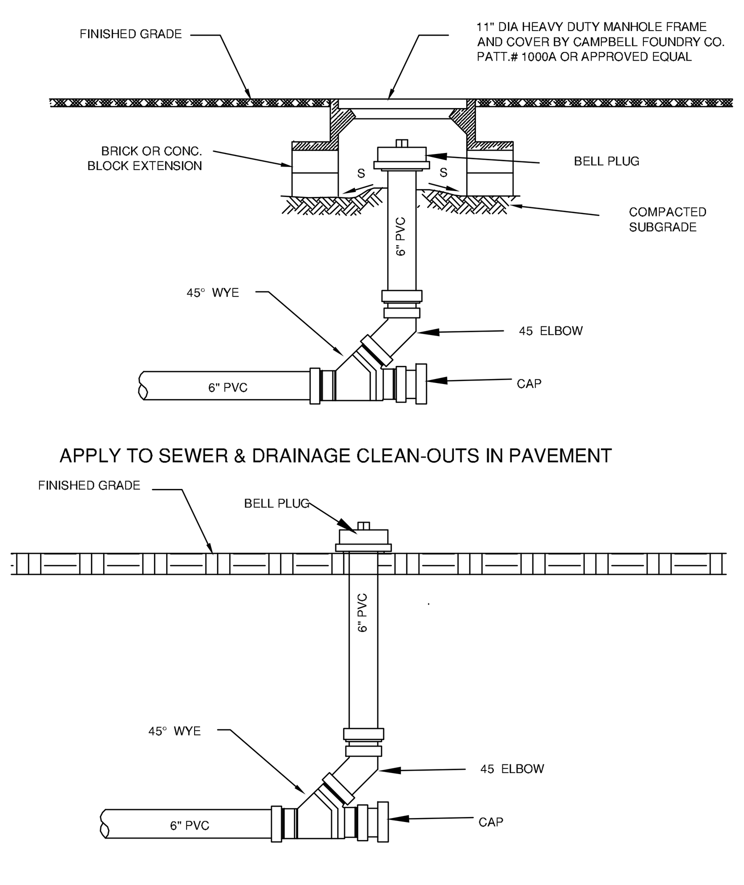


NOTE:

TRENCH TO BE EXCAVATED AND SAND BEDDING INSTALLED BY CONTRACTOR. GAS, ELEC. AND CATV LINES TO BE INSTALLED BY UTILITY COMPANY. VERIZON TO SUPPLY 4" CONDUIT FOR INSTALLATION BY CONTRACTOR. UPON COMPLETION OF INSTALLATION, TRENCH TO BE BACKFILLED BY CONTRACTOR IN ACCORDANCE WITH DETAILS SHOWN.

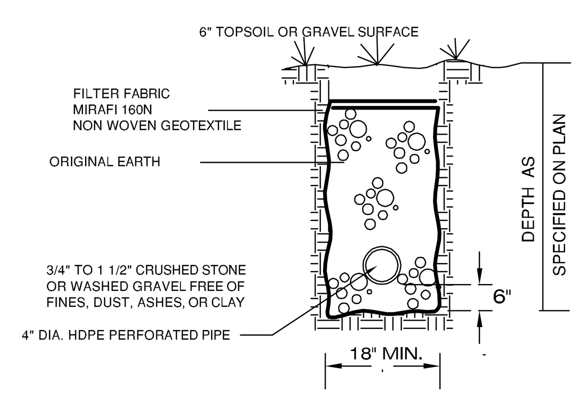
NAT. GAS/ELEC/TEL. UTILITIES TRENCH

N.T.S.



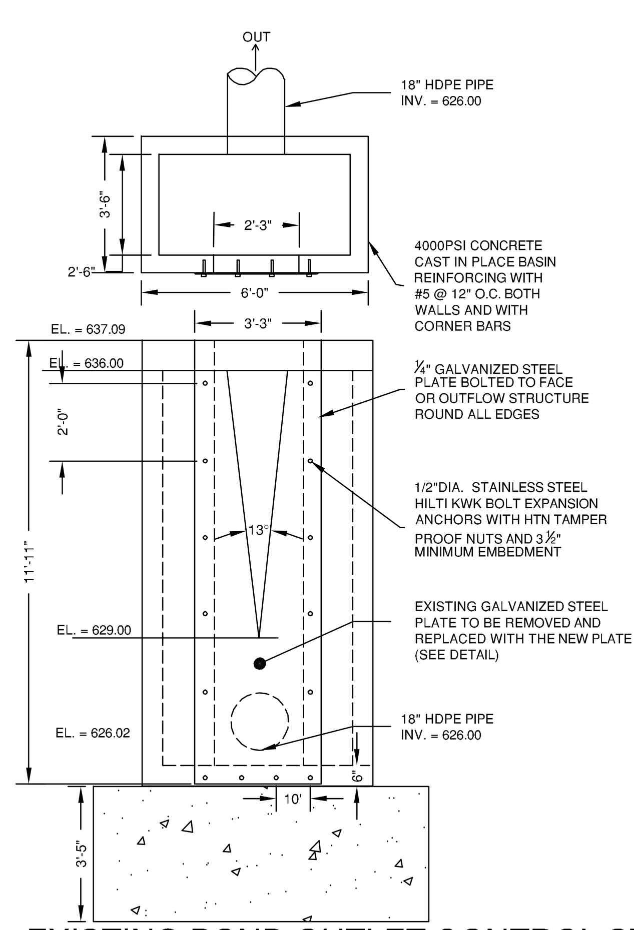
TYPICAL CLEANOUT DETAIL

(N.T.S.)



CURTAIN DRAIN DETAIL

N.T.S.



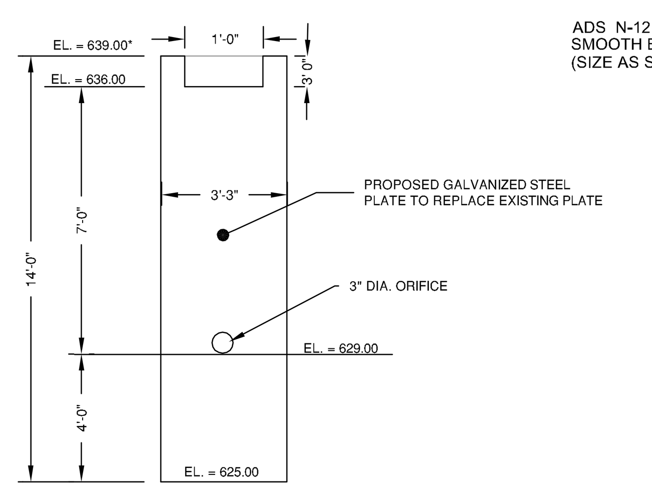


PLATE DETAIL

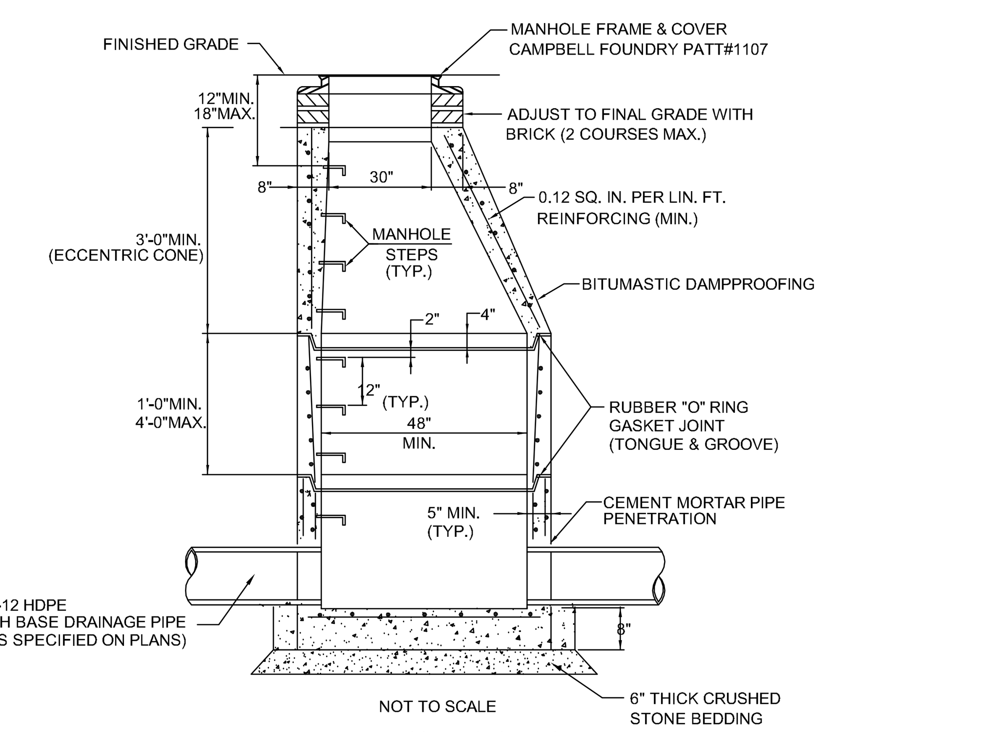
N.T.S.

* EXISTING O.C.S. WILL BE RAISED TO HAVE A RIM ELEVATION OF 639.00

EXISTING POND OUTLET CONTROL STRUCTURE MODIFICATIONS

NOTE: THIS DETAIL REFERS TO BETH ELOHIM SITE ONLY

N.T.S.



GENERAL NOTES: HS-20-44 LOADING DESIGN REQUIRED

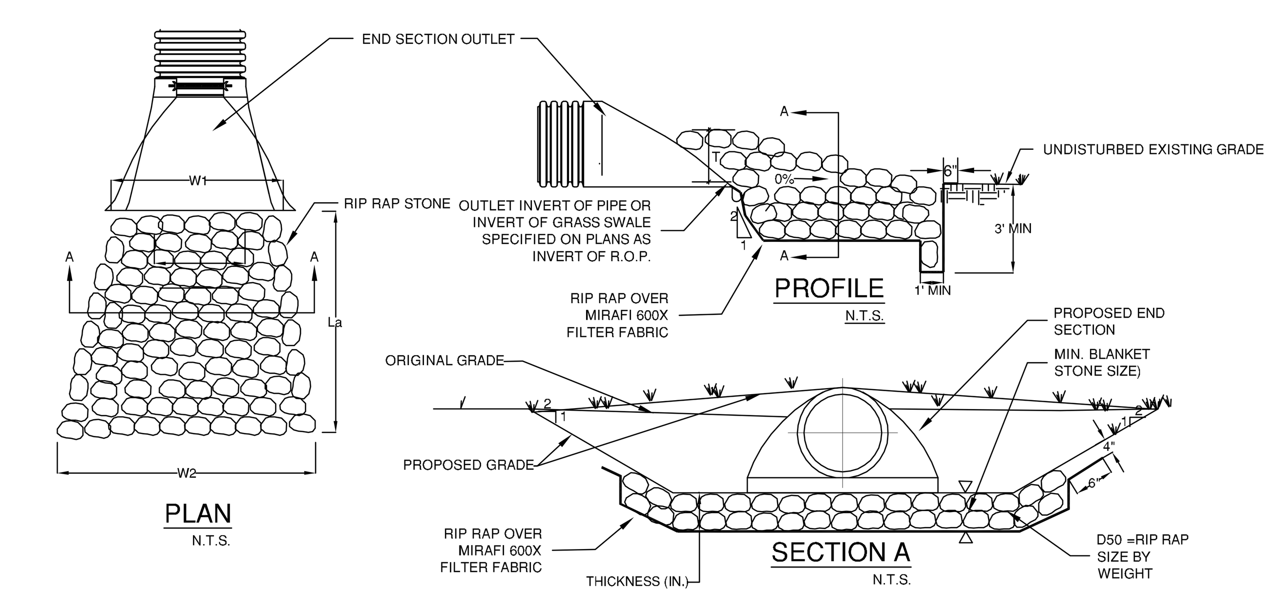
1. DRAINAGE PIPES MARKED WITH "HDPE" SHALL BE HIGH DENSITY POLYETHYLENE SMOOTH BORE AS MANUFACTURED BY ADS N-12 OR APPROVED EQUAL
2. CATCH BASINS, MANHOLES AND ALL CASTINGS SHALL BE IN ACCORDANCE WITH TOWN OF SOUTHEAST REQUIREMENTS, STANDARDS AND SPECIFICATIONS AND AS SHOWN ON PLANS.
3. UNDERDRAINS SHALL BE 4" DIA. PERFORATED CORRUGATED HDPE PIPE OR EQUAL.
4. CATCH BASIN OR DRAIN MANHOLE WITH 3 OR MORE PIPE CONNECTIONS SHALL BE OVERSIZED DIMENSIONS.

NOTES:

1. 5' OR 6' DIA. PRECAST BASES MAY BE USED WHEN REQUIRED DUE TO SIZE OR NUMBER OF PIPES AT THE MANHOLE. ECCENTRIC PRECAST REDUCERS SHALL BE PLACED ABOVE THE 5' OR 6' BASE AND THE WALL THICKNESS INCREASED 1" FOR EACH 1' OF INSIDE DIAMETER INCREASE.
2. NON-SHRINK GROUT MAY BE UTILIZED IN LIEU OF FLEXIBLE SLEEVES FOR STORM DRAINAGE MANHOLES.
3. LIFTING HOLES IN PRECAST SECTIONS TO BE FILLED WITH MORTAR.
4. FOR SHALLOW MANHOLES, SUBSTITUTE PRECAST SLAB TOP FOR ECCENTRIC CONE. SLAB SHALL BE CAPABLE OF SUPPORTING AN HS-20-44 LOAD.

PRECAST CONCRETE DRAINAGE MANHOLE

N.T.S.



	DESCRIPITION	PIPE DIAMETER	INV.	Q 100 (C.F.S.)	La (FT)	W1 (FT.)	W2 (FT)	THICKNESS (IN.)
R.O.P. 1	AT INLET TO POCKET WETLAND	15"	668.00	13.0	14	3.75	15.25	20
R.O.P. 2	AT INLET TO MICRO POOL EXTENDED DETENTION BASIN FROM EXISTING DIV. MH	24"	650.63	11.7	12	6	14	14
R.O.P. 3	AT INLET TO MICRO POOL EXTENDED DETENTION BASIN FROM DIV. MH #9	18"	650.00	7.4	8	4.5	9.5	14

ROCK OUTLET PROTECTION (R.O.P.)

N.T.S

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REVISIONS

NO.	DATE	DESCRIPTION
1.	2-15-18	REVISIONS
2.	4-10-18	REVISIONS

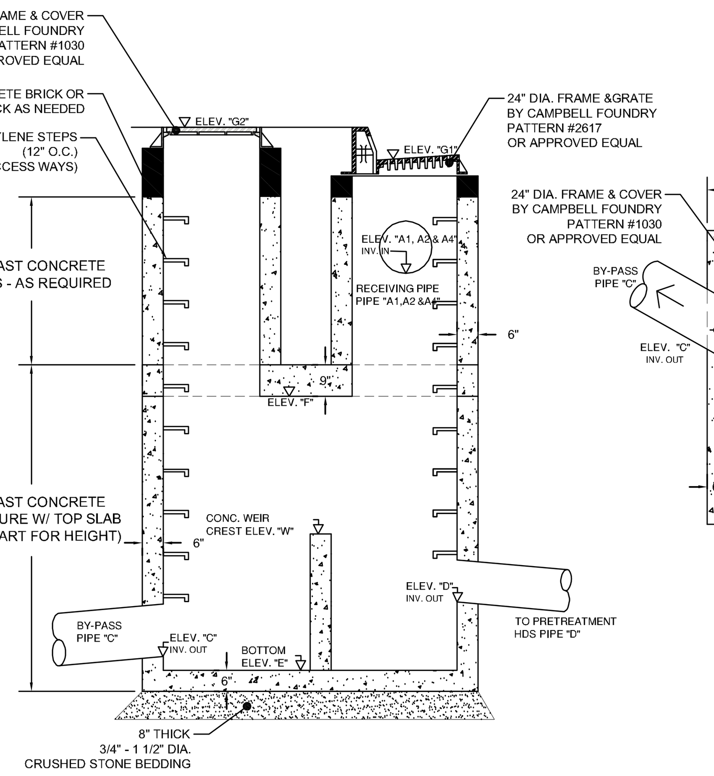
BIBBO ASSOCIATES, LLP
293 ROUTE 100 SUITE 203
SOMERS, NEW YORK 10589
TEL. 914 277 5805

LADA, P.C.
Land Planners
104 West Street
Simsbury, CT 06070 (860) 651-4971
2050 Route 22 (Suite 106)
Brewster, NY 10509 (845) 278-7424

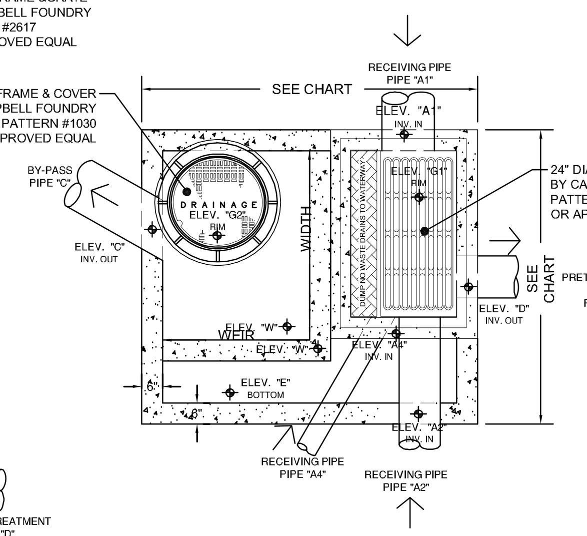
DRAINAGE DETAILS

MOUNT EBO LOT 6 - BARRETT HILL
MOUNT EBO ROAD NORTH
TOWN OF SOUTHEAST, NY 10509

DESIGNED	
DRAWN	DK
CHECKED	SB/JB
APPROVED	
SCALE	1" 40'
DATE	4-27-17
PROJECT NO:	
SHEET NO:	D-1

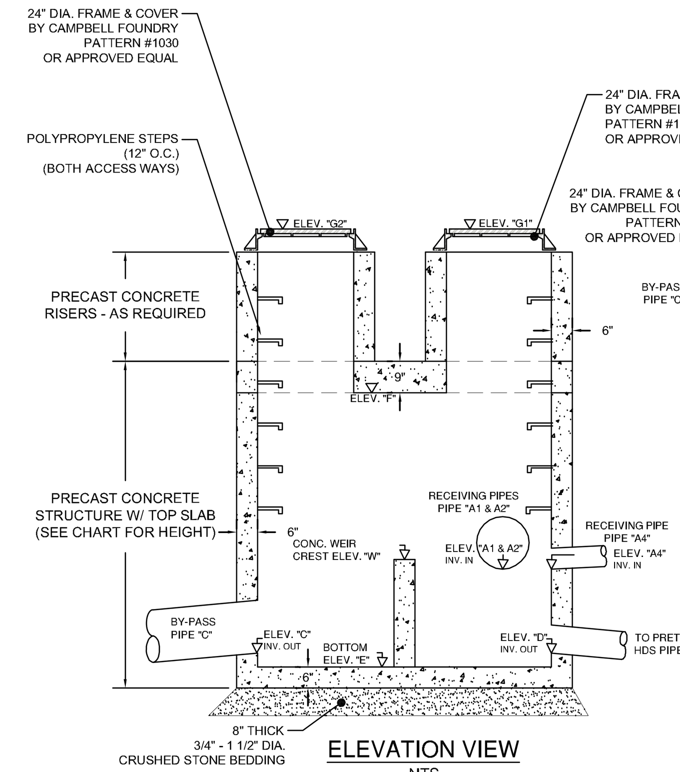


ELEVATION VIEW
NTS

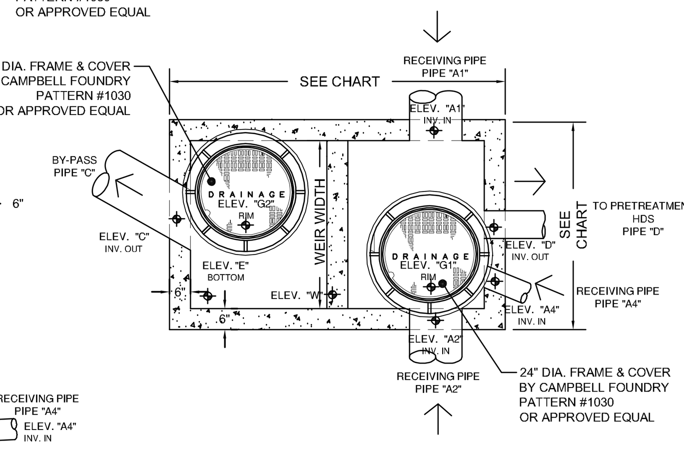


PLAN VIEW
NTS

DIVERSION MANHOLE #1
(N.T.S.)

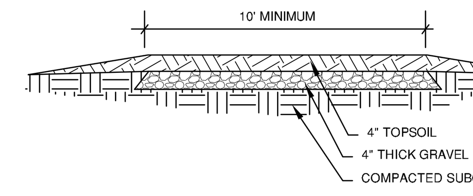


ELEVATION VIEW
NTS

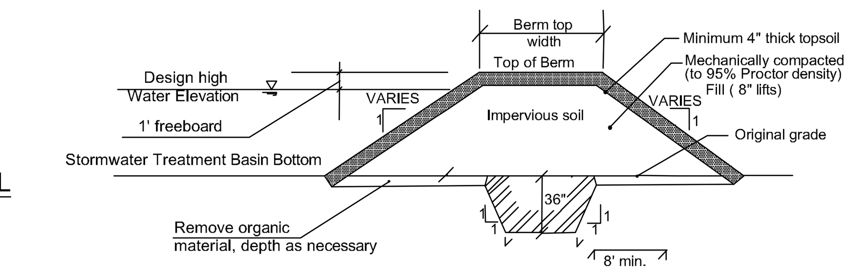


PLAN VIEW
NTS

DIVERSION MANHOLE #2
(N.T.S.)



STORMWATER TREATMENT BASIN ACCESS DRIVEWAY DETAIL
(N.T.S.)



SWTA EMBANKMENT CONSTRUCTION SPECIFICATIONS-

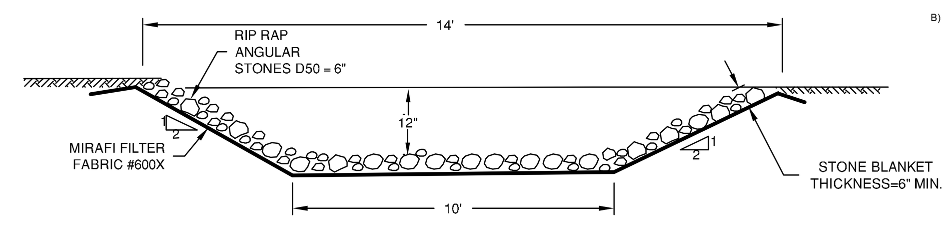
1. SWTA EMBANKMENT MATERIAL SHALL CONSIST OF SELECT GLACIAL TILL COMPRISED OF A MIX OF SILT, SAND, CLAY AND GRAVEL FROM ONSITE EXCAVATION. THE PERCENTAGE OF FINES PASSING THE 20 SIEVE SHALL BE AT LEAST 20% BY WEIGHT BORROW MATERIAL SHALL BE TESTED FOR OPTIMUM MOISTURE CONTENT AND PROCTOR MAXIMUM DRY DENSITY. MATERIAL WITH MOISTURE CONTENT IN EXCESS OF OPTIMUM SHALL BE DRIED TO THE REQUIRED OPTIMUM CONTENT BY SPREADING, HARROWING, BLADING OR OTHER APPROVED MEANS PRIOR TO PLACEMENT IN THE BERM. NO STONES GREATER IN SIZE THAN 6 INCHES IN MAXIMUM DIMENSIONS AND NO ORGANIC MATERIAL SHALL BE ALLOWED IN THE EMBANKMENT.
2. THE GROUND SURFACE UNDER THE EMBANKMENT SHALL BE STRIPPED OF ALL VEGETATION, ROOTS, TOPSOIL AND SUBSOIL TO A FIRM SUBSTRATUM. AFTER STRIPING TO SUBGRADE THE EARTH SHALL BE MOISTENED, IF DRY, AND COMPACTED BEFORE PLACEMENT OF THE FIRST LAYER OF EMBANKMENT MATERIAL.
3. THE EMBANKMENT SHALL BE CONSTRUCTED IN EVEN EIGHT(8) INCH LIFTS AND MECHANICALLY COMPACTED TO A MINIMUM DRY DENSITY OF 95% OF MAXIMUM DENSITY AS DETERMINED BY THE STANDARD COMPACTION TEST.
4. COMPACTION EQUIPMENT

A) EMBANKMENT LIFTS-LIFTS SHALL BE COMPACTED WITH A SMOOTH STEEL WHEEL VIBRATORY ROLLER HAVING A NOMINAL GROSS WEIGHT OF NOT LESS THAN 10 TONS AND EXERT A MINIMUM FORCE OF NOT LESS THAN 300 POUNDS PER INCH OF WIDTH ON THE COMPRESSION ROLL FACES.

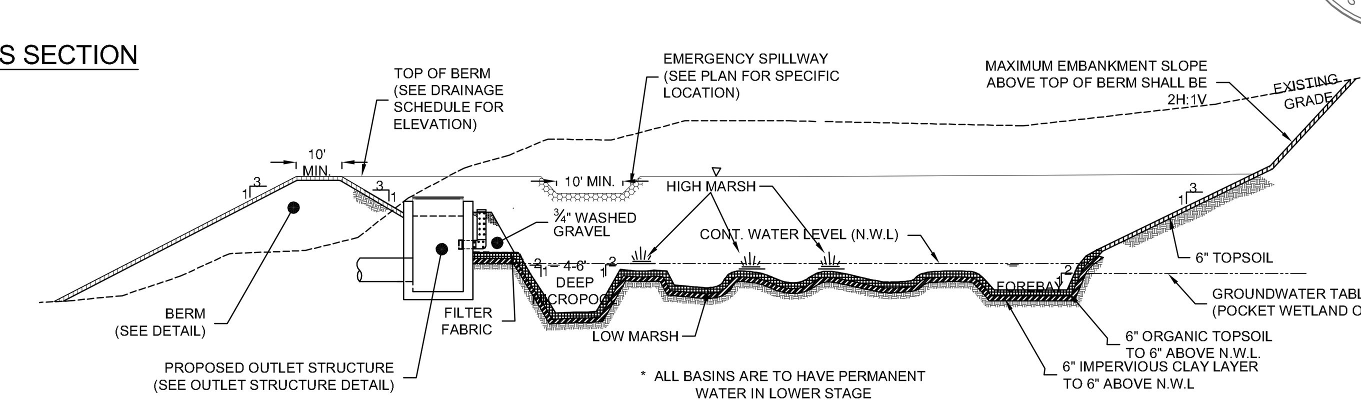
B) SPECIALLY COMPACTED EARTHFILL- WHERE COMPACTION BY MEANS OF THE SPECIFIED ROLLER IS IMPRACTICAL AT SUCH LOCATIONS AS STEEP AND IRREGULAR ABUTMENTS, ROUGH AND IRREGULAR FOUNDATIONS, ADJACENT TO OUTLET WORKS, COMPACTION EQUIPMENT SHALL INCLUDE IMPACT RAMMERS, SMALL DRUM VIBRATORS, OR OTHER APPROVED MECHANICAL TAMPERS. THE MATERIAL, MOISTURE AND DENSITY SHALL BE AS SPECIFIED ABOVE EXCEPT THAT ROCK SIZE SHALL BE LIMITED TO 2 INCHES. LIFT THICKNESS SHALL BE REDUCED IF NECESSARY TO ACHIEVE THE REQUIRED COMPACTION WITH THE EQUIPMENT USED.

STORMWATER BASIN BERM DETAIL
(N.T.S.)

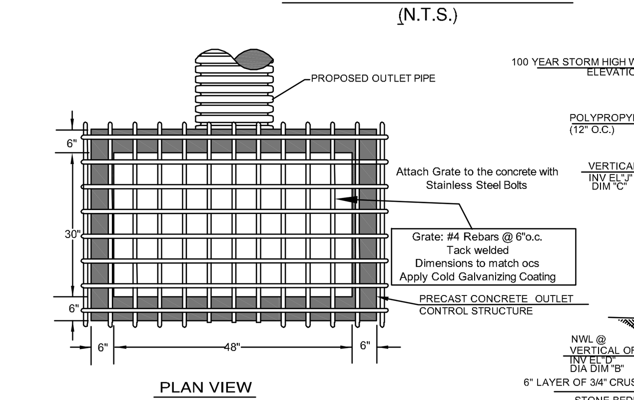
SABRI BARISSER P.E.



SWTA EMERGENCY SPILLWAY CROSS SECTION
(N.T.S.)



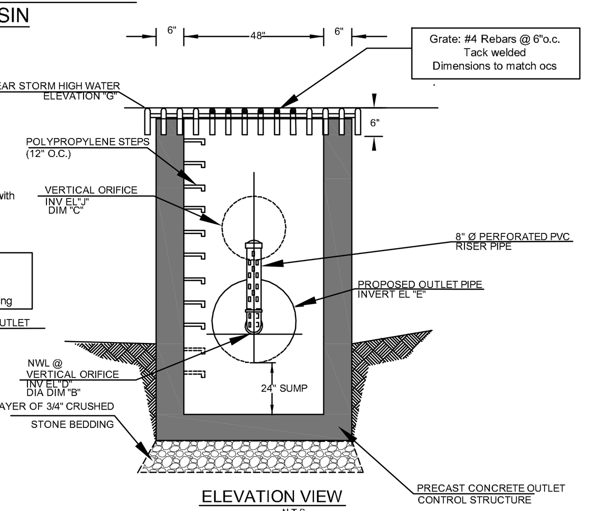
SECTION: TYPICAL POCKET WETLAND / MICROPOOL EXTENDED DETENTION BASIN
(N.T.S.)



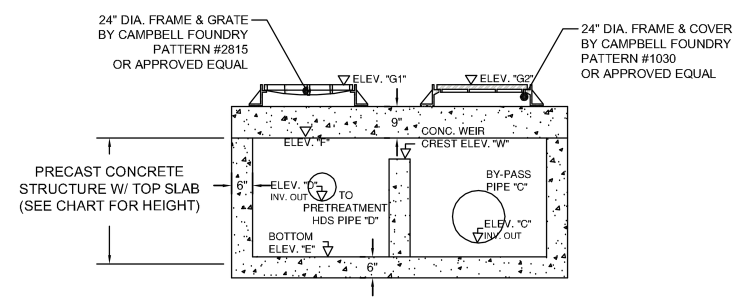
PLAN VIEW

OUTLET CONTROL STRUCTURE AND GRATE DETAIL
N.T.S.

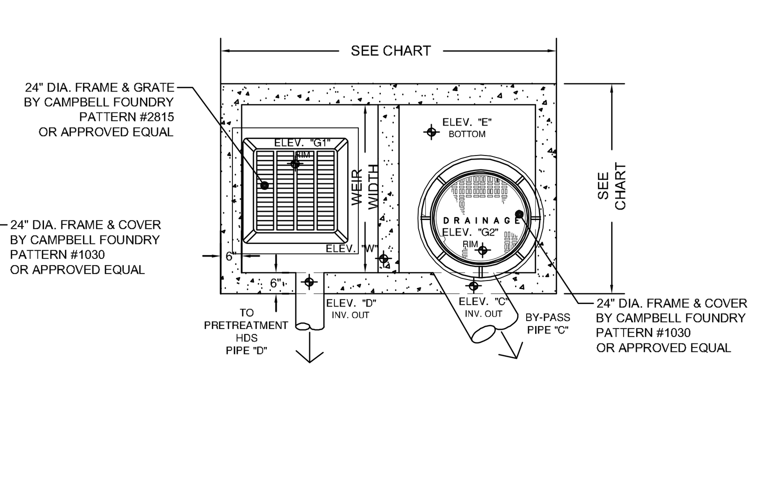
A-A SECTION
N.T.S.



ELEVATION VIEW
N.T.S.

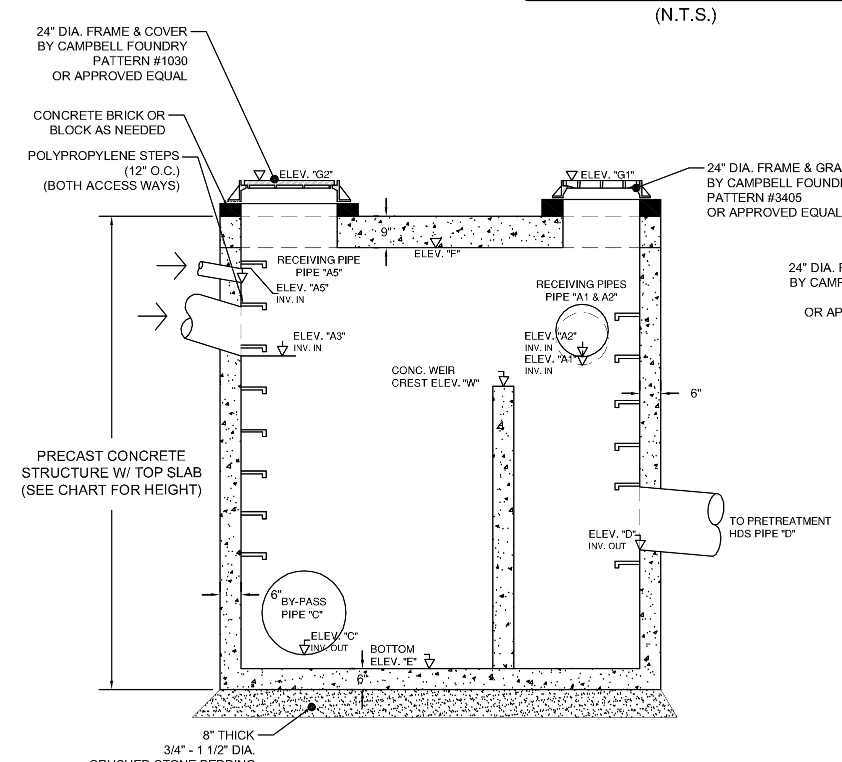


ELEVATION VIEW
NTS

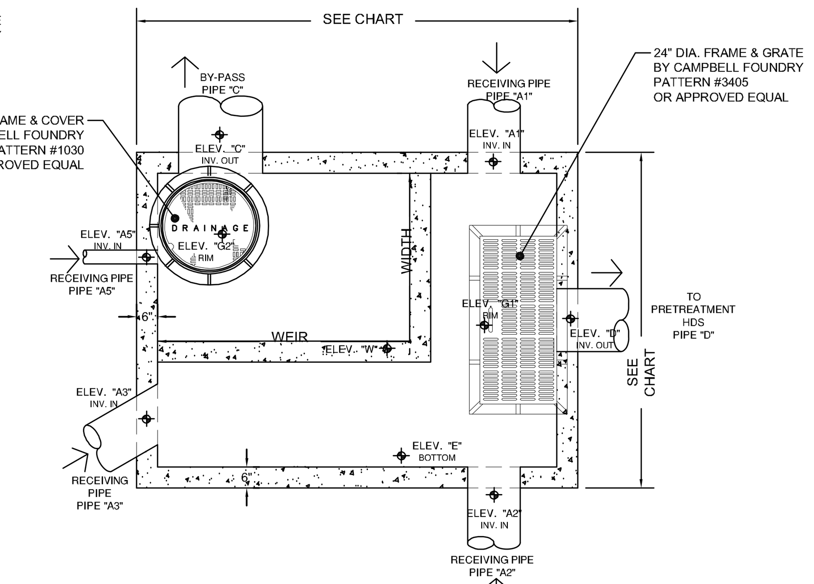


PLAN VIEW
NTS

DIVERSION MANHOLE #4A
(N.T.S.)

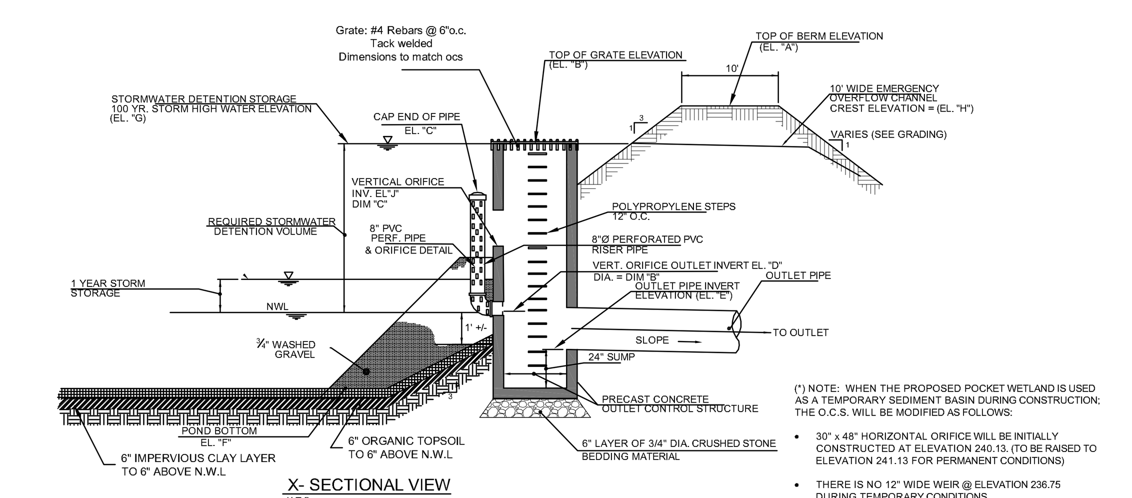


ELEVATION VIEW
NTS



PLAN VIEW
NTS

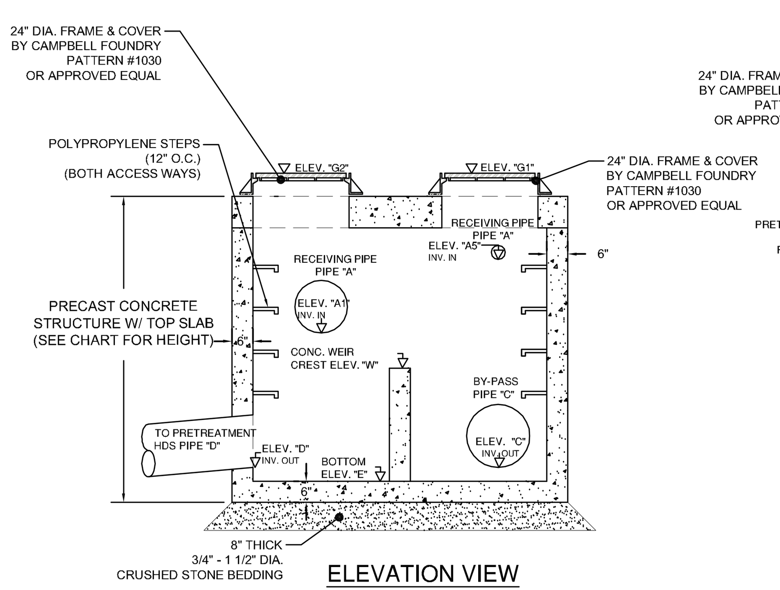
DIVERSION MANHOLE #6
(N.T.S.)



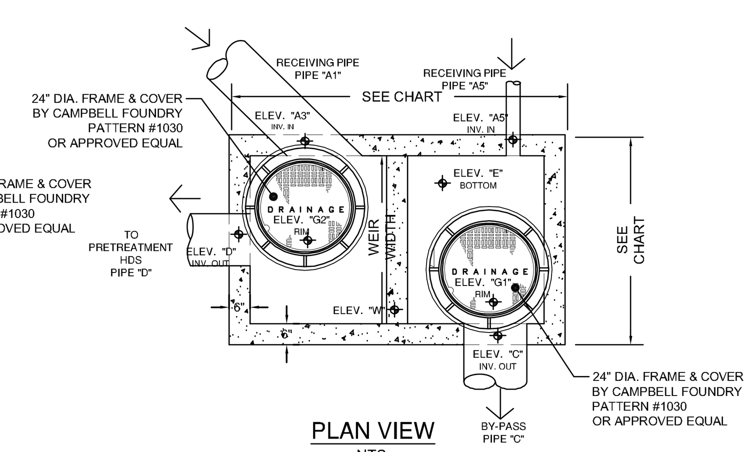
X- SECTIONAL VIEW
N.T.S.

(*) NOTE: WHEN THE PROPOSED POCKET WETLAND IS USED AS A TEMPORARY SEDIMENT BASIN DURING CONSTRUCTION, THE O.C.S. WILL BE MODIFIED AS FOLLOWS:

- 30" x 48" HORIZONTAL ORIFICE WILL BE INITIALLY CONSTRUCTED AT ELEVATION 240.13. (TO BE RAISED TO ELEVATION 241.13 FOR PERMANENT CONDITIONS)
- THERE IS NO 12" WIDE WEIR @ ELEVATION 236.75 DURING TEMPORARY CONDITIONS

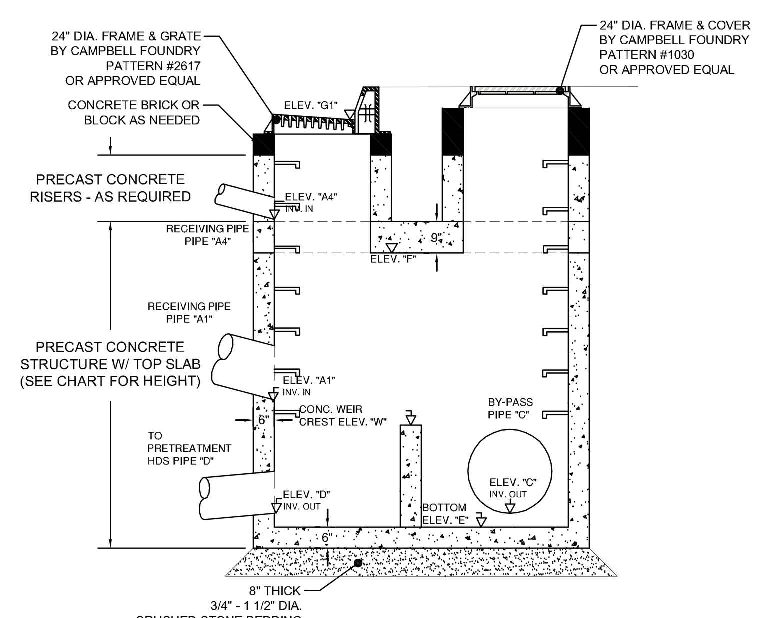


ELEVATION VIEW
NTS

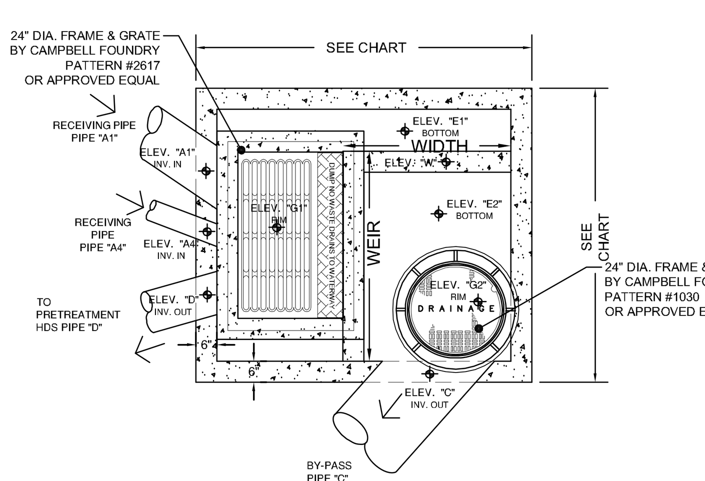


PLAN VIEW
NTS

DIVERSION MANHOLE #7
(N.T.S.)



ELEVATION VIEW
NTS



PLAN VIEW
NTS

DIVERSION MANHOLE #8
(N.T.S.)

STORMWATER TREATMENT BASIN	FUNCTION	ELEVATIONS										DIMENSIONS		OUTLET PIPE		
		EL. "A" T.O.B.	EL. "B" GRATE *	EL. "C" CAP	EL. "D" ORIFICE *	EL. "E" CULVERT	EL. "F" BOTTOM	EL. "G" 100-YR	EL. "H" EMG. SPWY.	EL. "I" WQV	EL. "J"	DIM. "B" ORIFICE (Ø INCH)	DIM. "C" WEIR (Ø INCH)	DIA./MATERIAL (INCH)	SLOPE (FT./ FT)	LENGTH (LF)
POCKET WETLAND	DETENTION AND STORMWATER QUALITY	668.00	667.24	663.50	662.00	660.62	658.00	665.87	665.90	662.93	664.00	1	10	15	0.069	50
MICROPOOL EXTENDED DETENTION BASIN	DETENTION AND STORMWATER QUALITY	656.00	654.40	652.00	650.00	649.40	646.00	654.37	654.40	650.97	652.00	1.5	4	18	0.0365	20

OUTLET CONTROL CONFIGURATION
(N.T.S.)

STRUCTURE	PRECAST OUTSIDE DIMENSIONS (L X W X H)	PRECAST CONCRETE RISERS REQUIRED	MANHOLE COVER PATTERN #'S "G1"	MANHOLE COVER PATTERN #'S "G2"	FINISHED GRADE ELEV. "G1" RIM	FINISHED GRADE ELEV. "G2" RIM	ELEV. "F" BOTTOM OF TOP SLAB	BOTTOM SLAB ELEVATION ELEV. "E"	INCOMING PIPES – PIPE "A" FROM FROM CONVEYING SYSTEM: DIA./MAT.	ELEV. "A1" INV. IN	ELEV. "A2" INV. IN	ELEV. "A3" INV. IN	ELEV. "A4" ROOF DRAIN INV. IN	ELEV. "A5" FOOTING DRAIN INV. IN	OUTGOING PIPES – PIPE "C" BY PASS: DIA./MAT	ELEV "C" INV. OUT	PIPE "D" TO HDS: DIA./MAT	ELEV "D"	WEIR: ELEV. "W" CONC. WEIR CREST ELEV.	WEIR BREADTH	WEIR WIDTH
DIV MH #1	8' X 7' X 6'	YES	#2617	#1030	704.95	704.45	697.35	692.60	15" H.D.P.E	701.75	-	-	-	-	15" H.D.P.E	693.00	12" H.D.P.E	694.00	696.25	0'-6"	8'-0"
									15" H.D.P.E	-	701.75	-	-	-							
									6" PVC	-	-	-	701.75	-							
DIV MH #2	8' X 5' X 5.5'	YES	#1030	#1030	714.10	714.10	707.85	703.60	15" H.D.P.E	706.00	-	-	-	-	15" H.D.P.E	704.00	8" H.D.P.E	704.00	706.45	0'-6"	4'-0"
									15" H.D.P.E	-	706.00	-	-	-							
									6" PVC	-	-	-	706.00	-							
DIV MH #3	8' X 5' X 5'	YES	#1030	#1030	675.50	675.50	672.75	669.00	6" ADS H.D.P.E	673.70	-	-	-	-	15" H.D.P.E	669.50	8" H.D.P.E	669.50	672.00	0'-6"	4'-0"
DIV MH #4A	8' X 5' X 4.5'	NO	#2815	#1030	665.00	665.00	663.75	660.50	NO INCOMING PIPES						15" H.D.P.E	661.00	8" H.D.P.E	662.00	663.25	0'-6"	4'-0"
DIV MH #6	10'-6" X 8' X 10.5'	NO	#3405	#1030	687.30	687.30	684.75	675.50	15" H.D.P.E	681.60	-	-	-	-	30" H.D.P.E	676.00	15" H.D.P.E	678.00	681.60	0'-6"	10'-0"
									15" H.D.P.E	-	683.10	-	-	-							
									15" H.D.P.E	-	-	683.10	-	-							
									4" PVC	-	-	-	-	684.90							
DIV MH #7	8' X 5' X 6.5'	NO	#1030	#1030	694.00	694.00	691.75	686.50	15" H.D.P.E	690.20	-	-	-	-	18" H.D.P.E	687.00	12" H.D.P.E	687.00	689.40	0'-6"	4'-0"
									4" PVC	-	-	-	-	692.00							
DIV MH #8	8' X 7' X 6.5'	YES	#2617	#1030	684.50	685.00	679.75	674.50	15" H.D.P.E	677.70	-	-	-	-	24" H.D.P.E	674.90	12" H.D.P.E	674.90	678.20	0'-6"	8'-0"
									6" PVC	-	-	-	682.00	-							
DIV MH #9	8' X 7' X 6'	YES	#2815	#1030	657.50	657.50	654.25	649.50	18" H.D.P.E	653.40	-	-	-	-	36" H.D.P.E	650.20	18" H.D.P.E	650.00	652.00	0'-6"	6'-0"
									24" H.D.P.E.	-	652.00	-	-	-							

DIVERSION MANHOLE CHART

NOTES:
1. HS-20-44 LOADING DESIGN REQUIRED BY THE PRECAST MANUFACTURER
2. SHOP DWGS. OF EACH STRUCTURE TO BE PROVIDED FOR THE ENGINEER'S REVIEW AND APPROVAL PRIOR TO PRODUCTION.
3. WEIR WALL TO BE CAST INTEGRALLY WITH STRUCTURE FLOOR AND WALLS.

TO THIS DRAWING IS A VIOLATION OF SECTION 7209 (2) OF THE NEW YORK STATE EDUCATION LAW.

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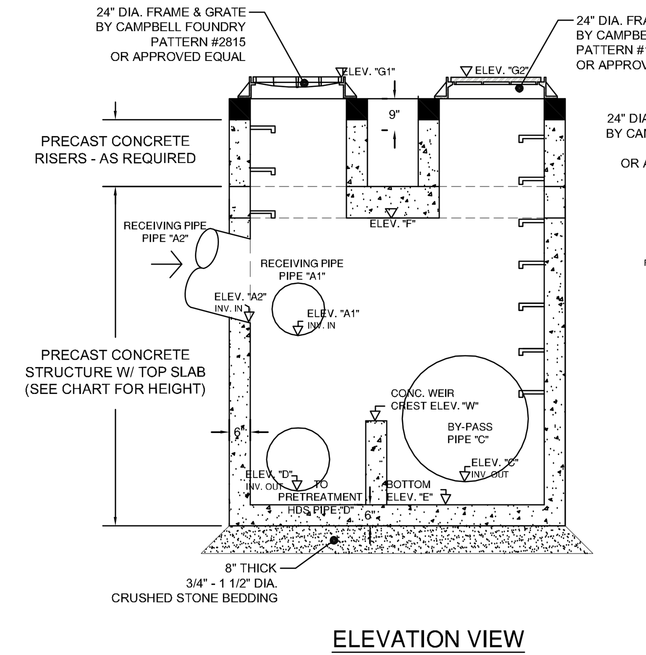
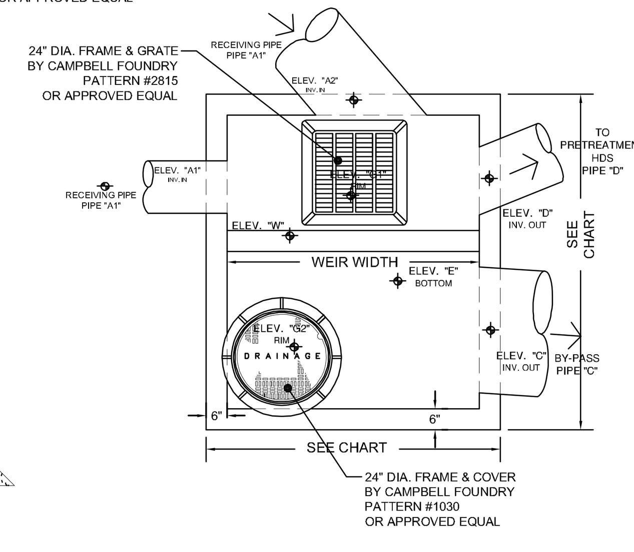
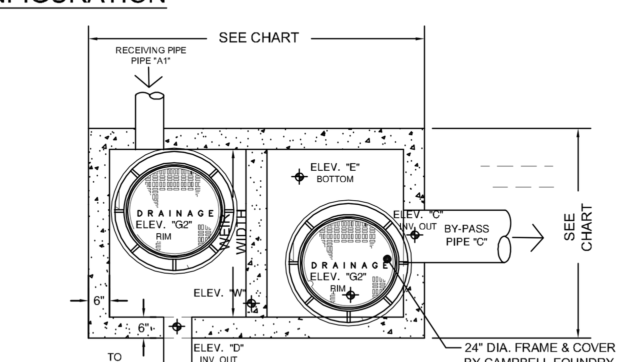


ELEVATION VIEW
NTS

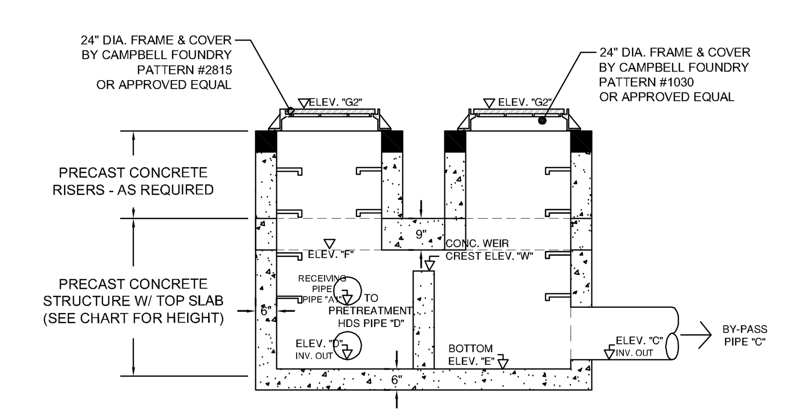


PLAN VIEW
NTS

DIVERSION MANHOLE #9
(N.T.S.)



PLAN VIEW
NTS



ELEVATION VIEW
NTS

DIVERSION MANHOLE #3
(N.T.S.)

REVISIONS

NO.	DATE	DESCRIPTION
1.	2-15-18	REVISIONS
2.	4-10-18	REVISIONS

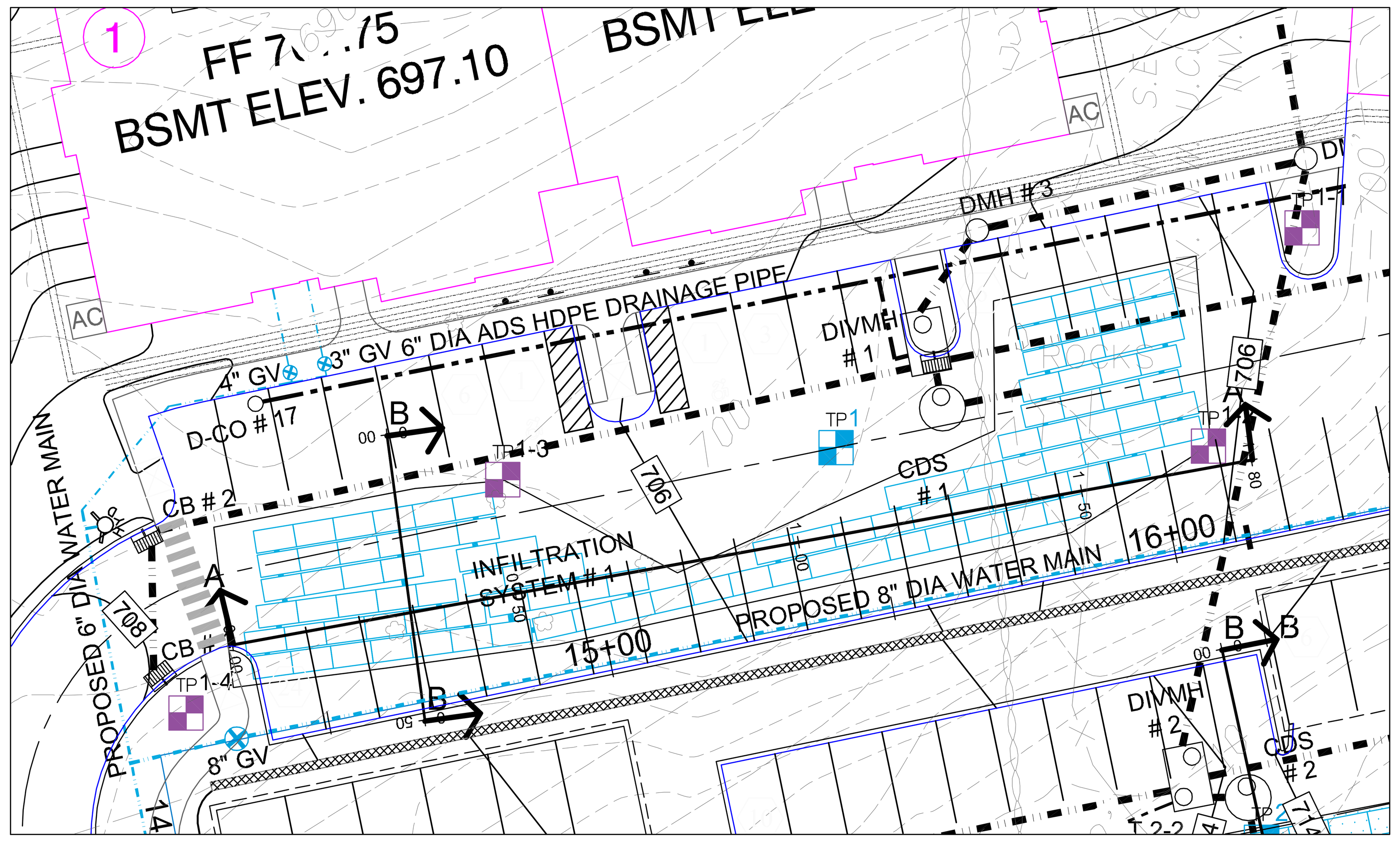
BIBBO ASSOCIATES, LLP
293 ROUTE 100 SUITE 203
SOMERS, NEW YORK 10589
TEL. 914 277 5805

LADA, P.C.
Land Planners
104 West Street
Simsbury, CT 06070 (860) 651-4971
2050 Route 22 (Suite 106)
Brewster, NY 10509 (845) 278-7424

DRAINAGE DETAILS

MOUNT EBO LOT 6 - BARRETT HILL
MOUNT EBO ROAD NORTH
TOWN OF SOUTHEAST, NY 10509

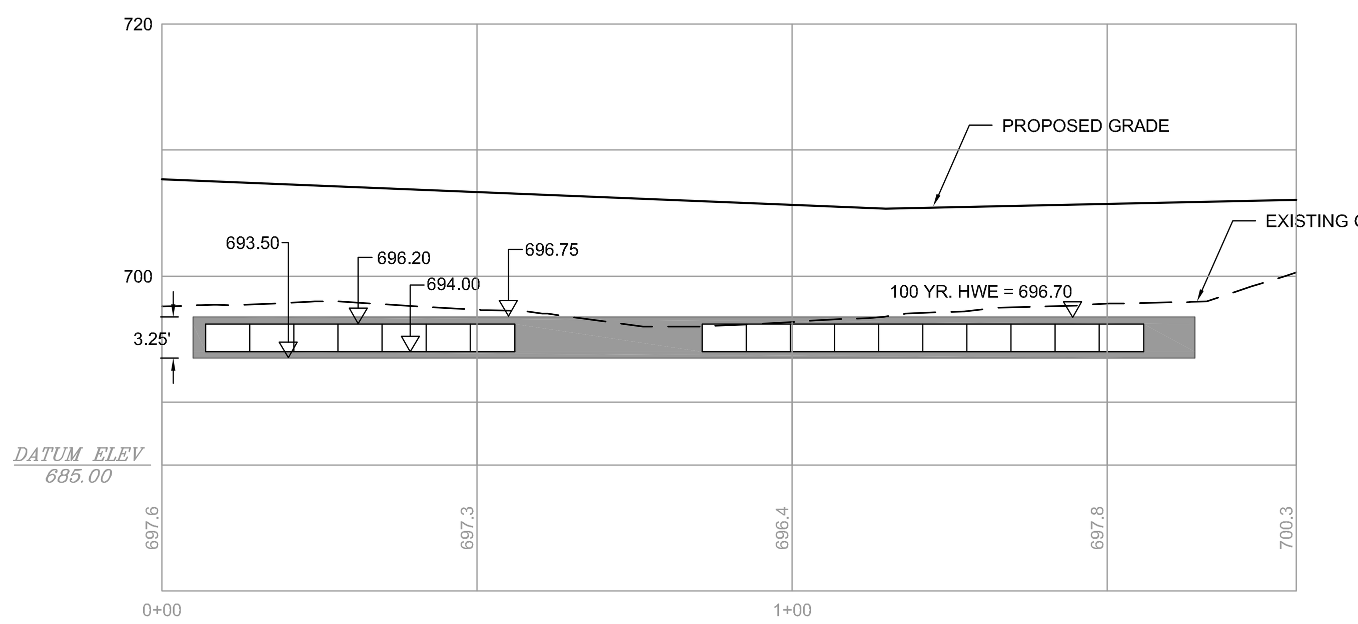
DESIGNED	
DRAWN	RH
CHECKED	SB/JB
APPROVED	
SCALE	1" 40'
DATE	4-27-17
PROJECT NO:	
SHEET NO:	D-2



INFILTRATION SYSTEM #1

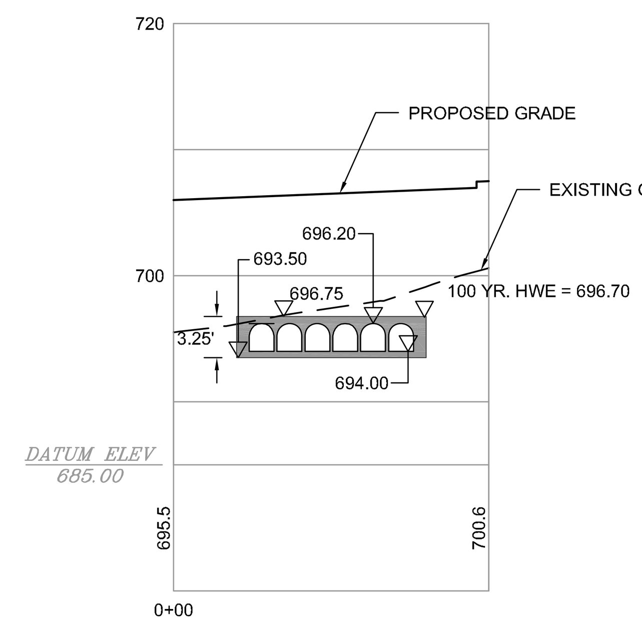
SCALE: 1" = 20'

100 - CULTEC 280HD
4,275 SQ. FT. X 3.25' HIGH
CRUSHED STONE PAD



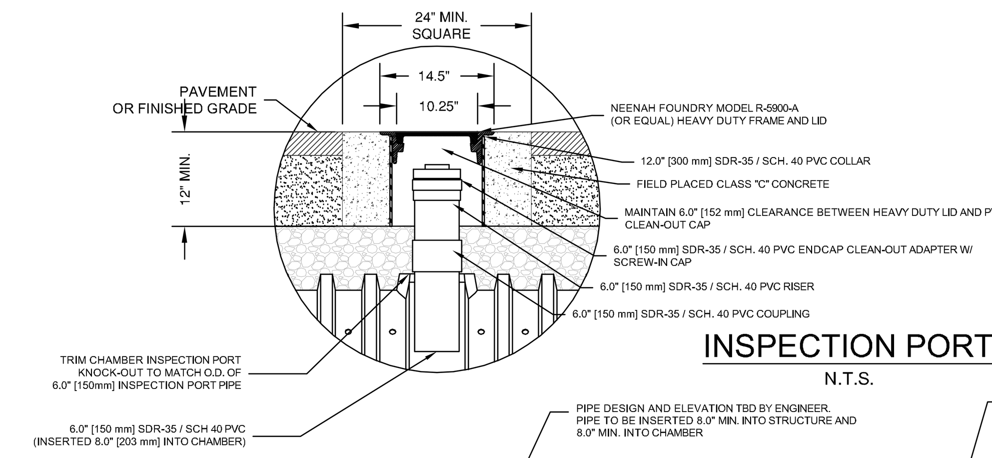
INFILTRATION SYSTEM #1 - CROSS SECTION A-A

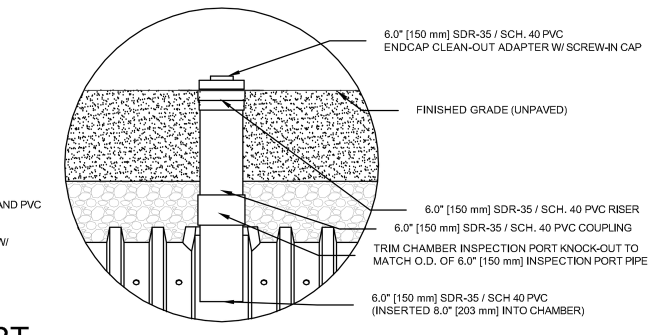
SCALE: HORIZONTAL: 1"=20'
VERTICAL: 1"=10'



INFILTRATION SYSTEM #1 - CROSS SECTION B-B

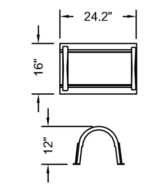
SCALE: HORIZONTAL: 1"=20'
VERTICAL: 1"=10'





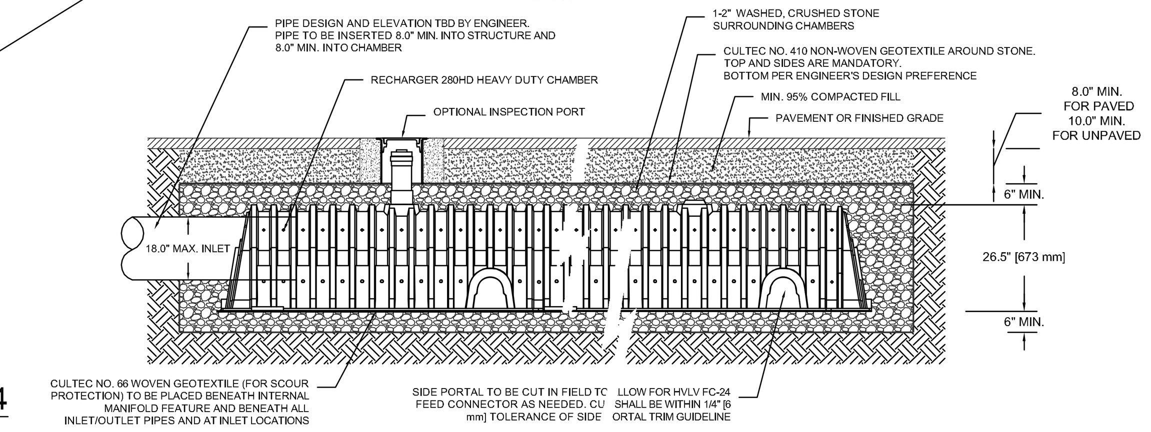
INSPECTION PORT

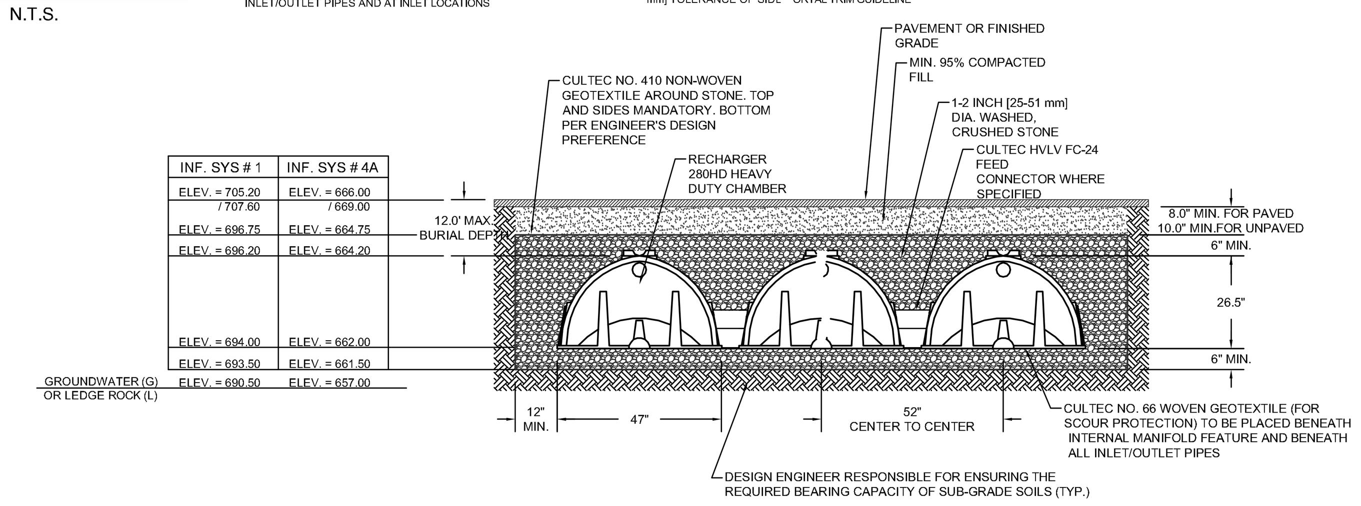
N.T.S.



CULTEC HVLV FC-24

N.T.S.





INF. SYS # 1	INF. SYS # 4A
ELEV. = 705.20 / 707.60	ELEV. = 666.00 / 669.00
ELEV. = 696.75	ELEV. = 664.75
ELEV. = 696.20	ELEV. = 664.20
ELEV. = 694.00	ELEV. = 662.00
ELEV. = 693.50	ELEV. = 661.50
ELEV. = 690.50	ELEV. = 657.00

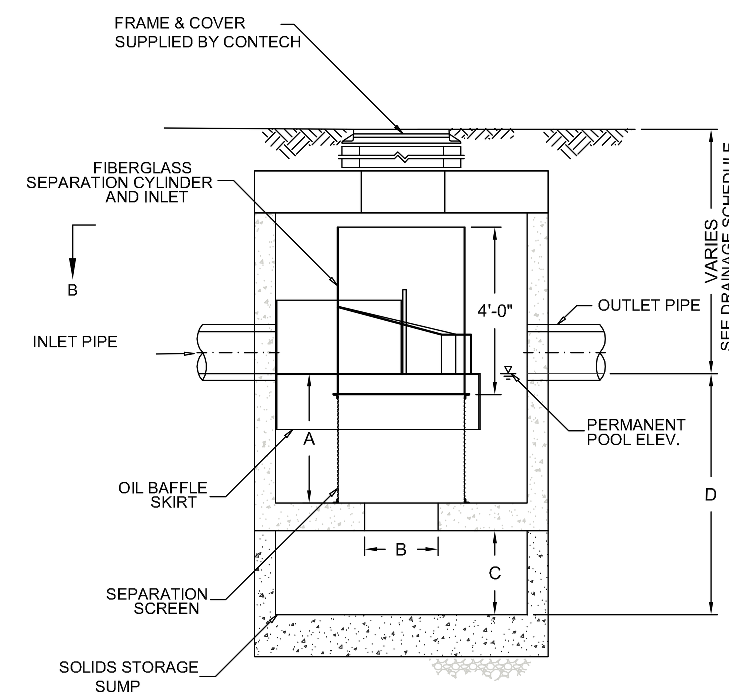
CULTEC RECHARGER 280HD

(N.T.S.)

GENERAL NOTES

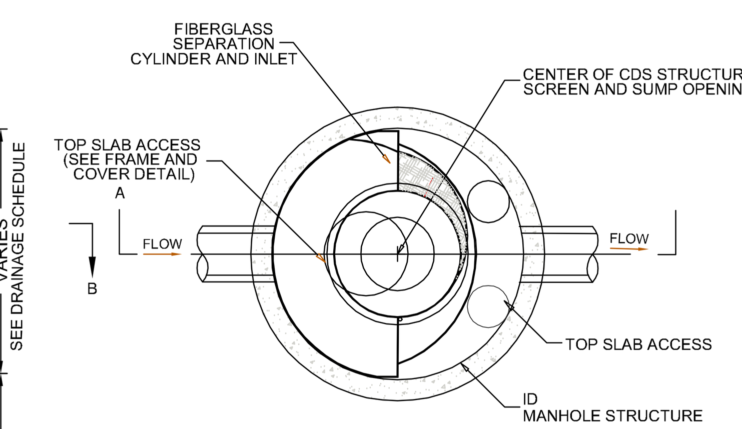
RECHARGER 280HD BY CULTEC, INC. OF BROOKFIELD, CT.
STORAGE PROVIDED = 9.21 CF/FT PER DESIGN UNIT.
REFER TO CULTEC, INC.'S CURRENT RECOMMENDED INSTALLATION GUIDELINES.
MAXIMUM ALLOWED COVER OVER TOP OF UNIT SHALL BE 12'
THE CHAMBER WILL BE DESIGNED TO WITHSTAND TRAFFIC LOADS WHEN INSTALLED ACCORDING TO CULTEC'S RECOMMENDED INSTALLATION INSTRUCTIONS.

ALL RECHARGER 280HD HEAVY DUTY UNITS ARE MARKED WITH A COLOR STRIPE FORMED INTO THE PART ALONG THE LENGTH OF THE CHAMBER.
ALL RECHARGER 280HD CHAMBERS MUST BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS.



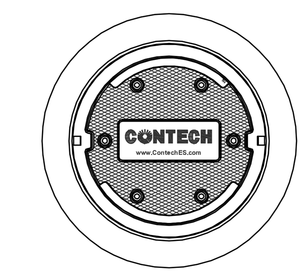
ELEVATION A-A

N.T.S.



PLAN VIEW B-B

N.T.S.



FRAME AND COVER

(DIAMETER VARIES)
N.T.S.

STRUCTURE NUMBER	MODEL	MANHOLE DIAMETER (I.D.)	A	B	C	D
CDS 1	3025	6'	3'-1"	1'-9"	2'-0"	5'-9"
CDS 2	3020	6'	2'-7"	1'-9"	2'-0"	5'-5"
CDS 3	2020	6'	2'-7"	1'-9"	2'-0"	5'-3"
CDS 4A	2020	5'	2'-7"	1'-9"	2'-0"	5'-3"
CDS 6	4045	8'	5'-0"	2'-4"	3'-0"	8'-8"
CDS 7	3025	6'	3'-1"	1'-9"	2'-0"	5'-9"
CDS 8	3025	6'	3'-1"	1'-9"	2'-0"	5'-9"

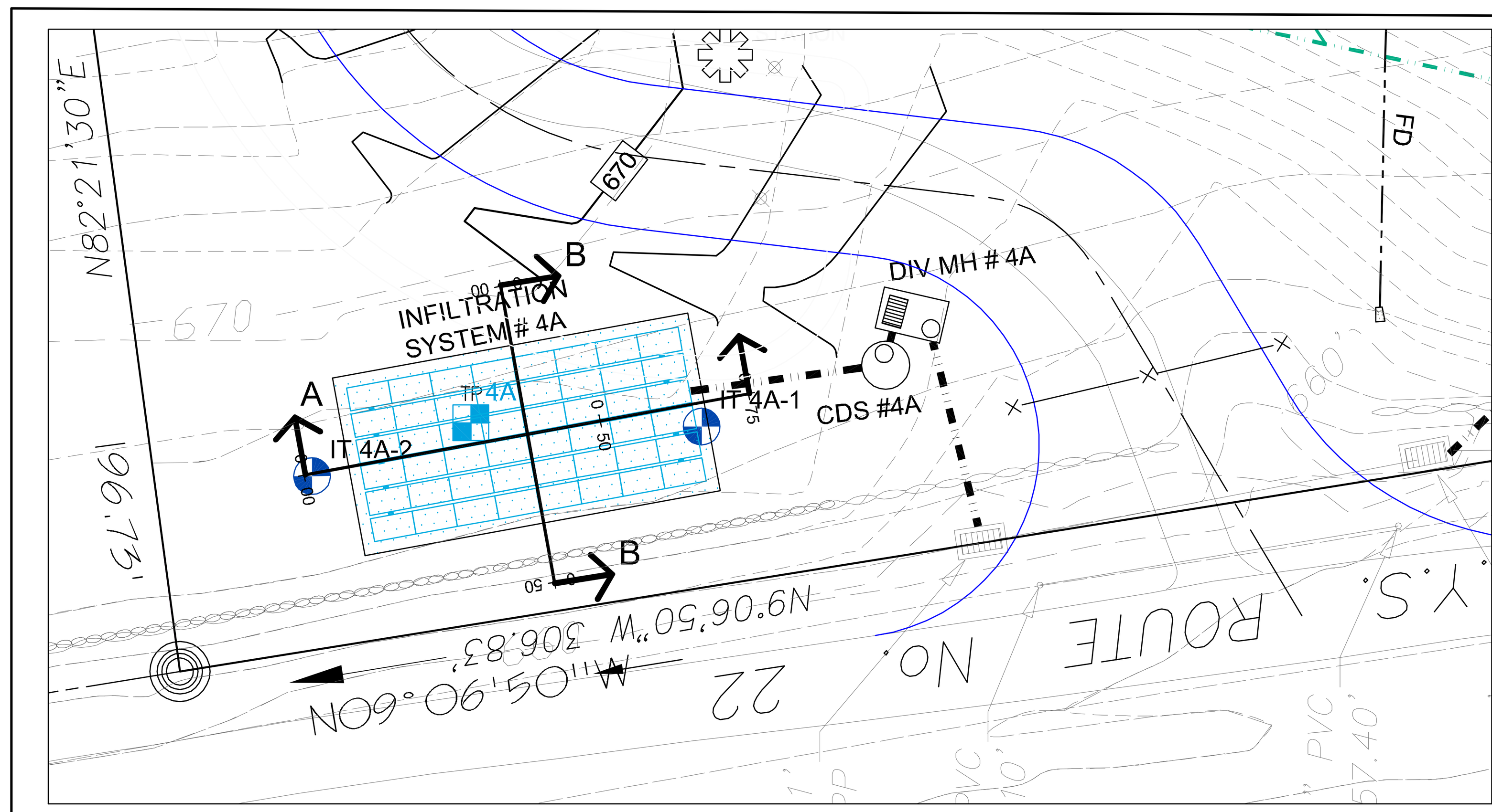
GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. DIMENSIONS MARKED WITH ( ) ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
3. FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH CONSTRUCTION PRODUCTS REPRESENTATIVE. www.contech-cpi.com
4. CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
5. STRUCTURE SHALL MEET AASHTO HS20 AND CASTINGS SHALL MEET HS20 (AASHTO M 306) LOAD RATING, ASSUMING GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION.
6. PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.

NOTES:
1. HS-20-44 LOADING DESIGN REQUIRED BY THE PRECAST MANUFACTURER
2. SHOP DWGS. OF EACH STRUCTURE TO BE PROVIDED FOR THE ENGINEER'S REVIEW AND APPROVAL PRIOR TO PRODUCTION.
3. WEIR WALL TO BE CAST INTEGRALLY WITH STRUCTURE FLOOR AND WALLS.

INSTALLATION NOTES
1. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
2. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE (LIFTING CLUTCHES PROVIDED).
3. CONTRACTOR TO ADD JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS, AND ASSEMBLE STRUCTURE.
4. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN.
5. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

CONTECH WATER QUALITY STRUCTURE

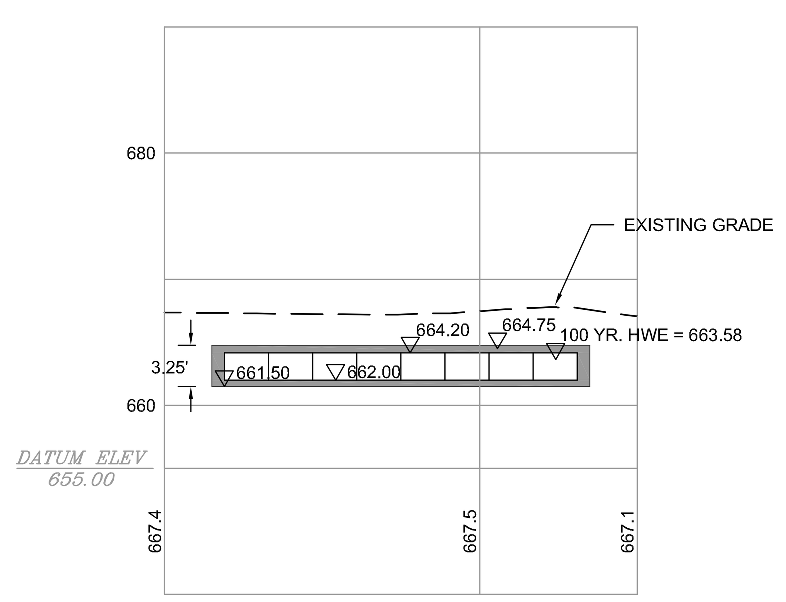
N.T.S.
(OR APPROVED EQUAL)



INFILTRATION SYSTEM #4A

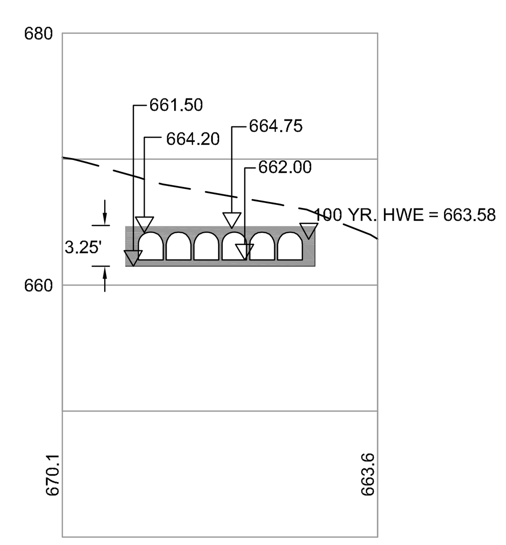
SCALE: 1" = 20'

48 - CULTEC 280HD, 30' X 60' X 3.25' HIGH
CRUSHED STONE PAD



INFILTRATION SYSTEM #4A - CROSS SECTION A-A

SCALE: HORIZONTAL: 1"=20'
VERTICAL: 1"=10'



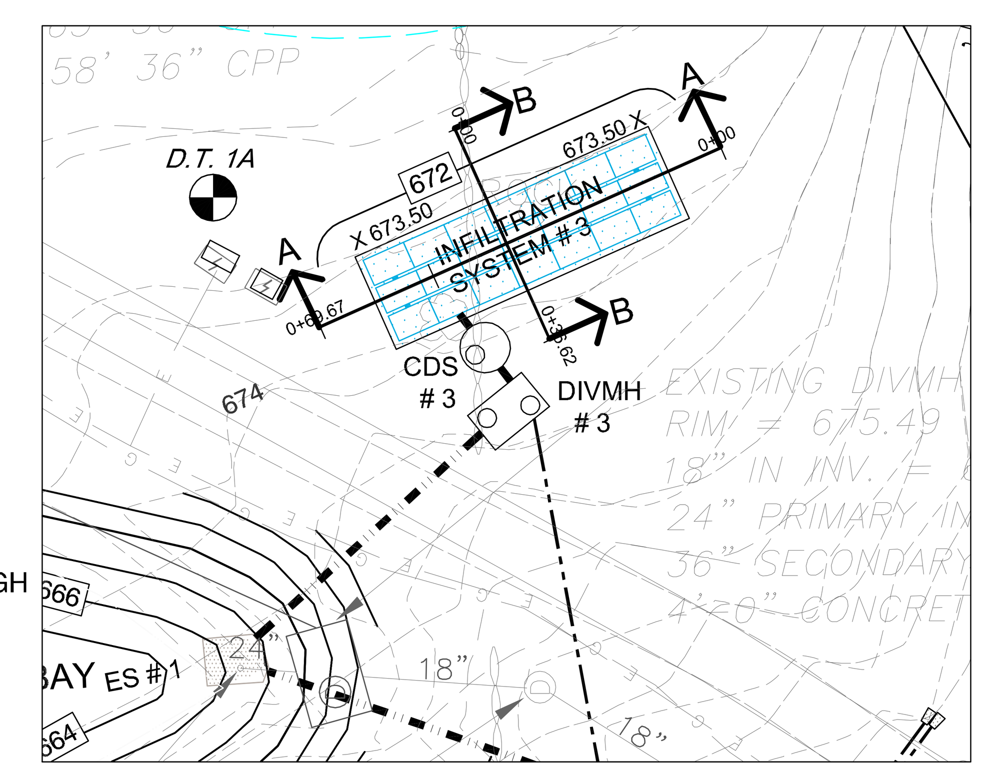
INFILTRATION SYSTEM #4A - CROSS SECTION B-B

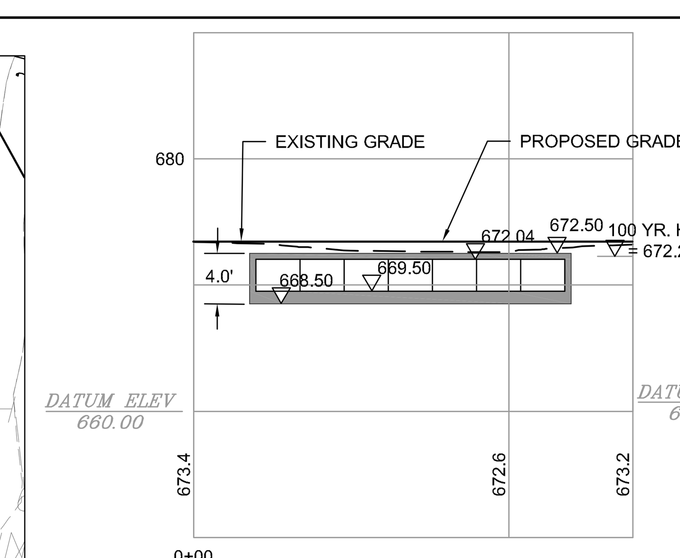
SCALE: HORIZONTAL: 1"=20'
VERTICAL: 1"=10'

INFILTRATION SYSTEM #3

SCALE: 1" = 20'

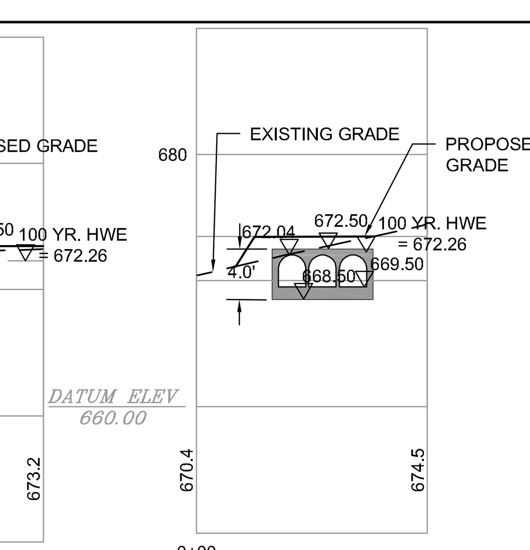
21 - CULTEC 330 XLHD,
16.00' X 51.00' X 4.00' HIGH
CRUSHED STONE PAD
(SEE SHEET D-4 FOR
INFILTRATION DETAIL)





INFILTRATION SYSTEM #3 - CROSS SECTION A-A

SCALE: HORIZONTAL: 1"=20'
VERTICAL: 1"=10'



INFILTRATION SYSTEM #3 - CROSS SECTION B-B

SCALE: HORIZONTAL: 1"=20'
VERTICAL: 1"=10'

SABRI BARISSER P.E.

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REVISIONS

NO.	DATE	DESCRIPTION
1.	2-15-18	REVISIONS
2.	4-10-18	REVISIONS

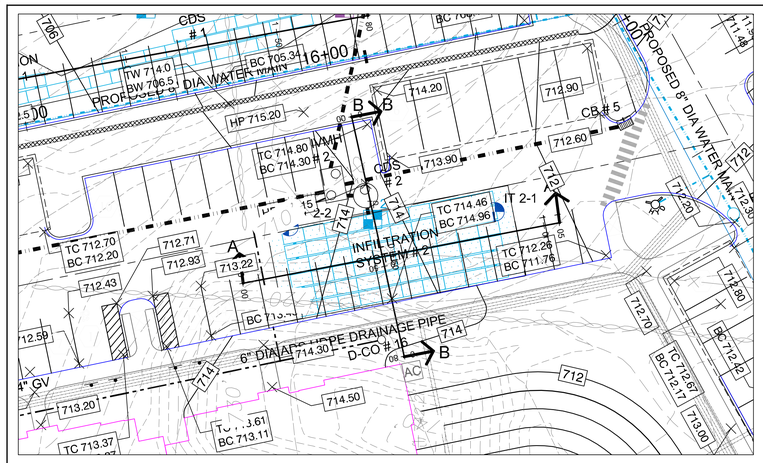
BIBBO ASSOCIATES, LLP
293 ROUTE 100 SUITE 203
SOMERS, NEW YORK 10589
TEL. 914 277 5805

LADA, P.C. Land Planners
104 West Street Simsbury, CT 06070 (860) 651-4971
2050 Route 22 (Suite 106) Brewster, NY 10509 (845) 278-7424

DRAINAGE DETAILS

MOUNT EBO LOT 6 - BARRETT HILL
MOUNT EBO ROAD NORTH
TOWN OF SOUTHEAST, NY 10509

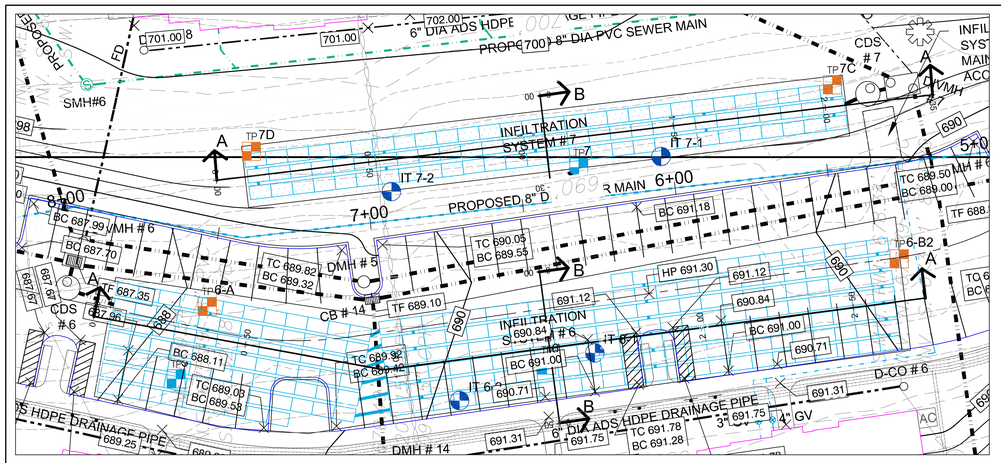
DESIGNED	
DRAWN	DK
CHECKED	SB/JB
APPROVED	
SCALE	1" 40'
DATE	4-27-17
PROJECT NO:	
SHEET NO:	D-3



INFILTRATION SYSTEM #2

SCALE: 1" = 20'

60 - CULTEC 330XLHD,
30' X 80' X 4.25' HIGH
CRUSHED STONE PAD

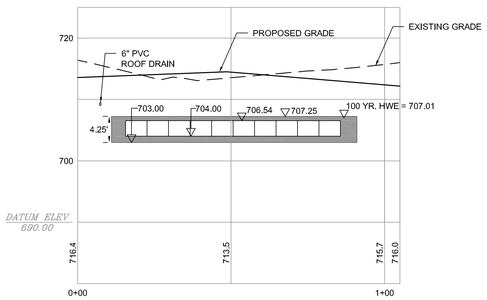


INFILTRATION SYSTEMS 6 & 7

SCALE: 1" = 20'

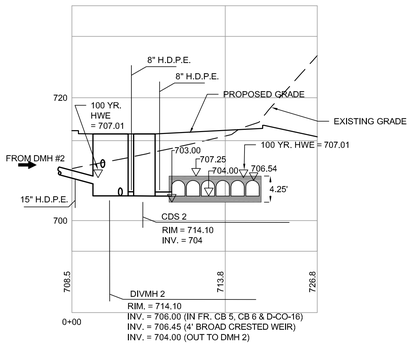
INFILTRATION SYSTEM #6
230 - CULTEC 330XLHD
10,400 SQ. FT. X 5.6' HIGH
CRUSHED STONE PAD

INFILTRATION SYSTEM #7
84 - CULTEC 330XLHD
20' X 197' X 5.0' HIGH
CRUSHED STONE PAD



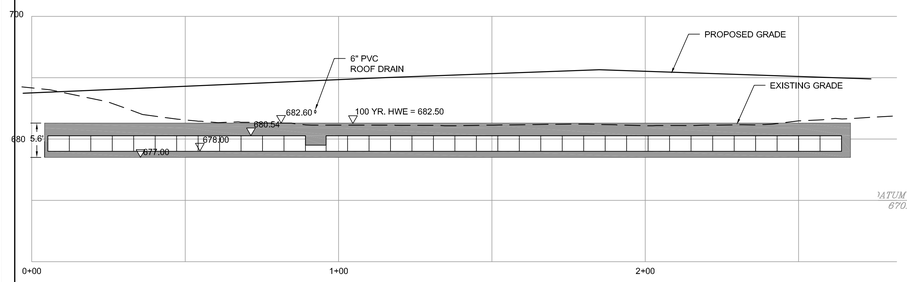
INFILTRATION SYSTEM #2 - CROSS SECTION A-A

SCALE: HORIZONTAL: 1"=20'
VERTICAL: 1"=10'



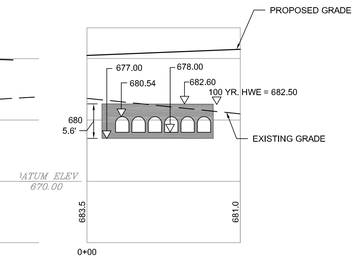
INFILTRATION SYSTEM #2 - CROSS SECTION B-B

SCALE: HORIZONTAL: 1"=20'
VERTICAL: 1"=10'



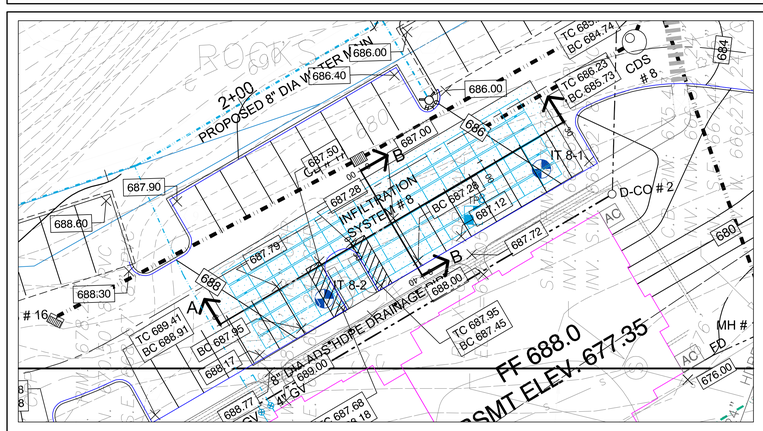
INFILTRATION SYSTEM #6 - CROSS SECTION A-A

SCALE: HORIZONTAL: 1"=20'
VERTICAL: 1"=10'



INFILTRATION SYSTEM #6 - CROSS SECTION B-B

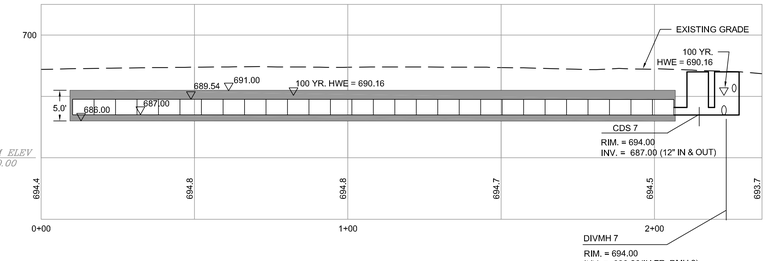
SCALE: HORIZONTAL: 1"=20'
VERTICAL: 1"=10'



INFILTRATION SYSTEM #8

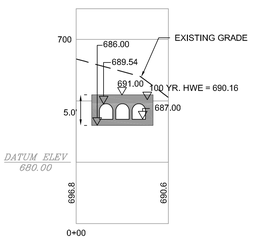
SCALE: 1" = 20'

96 - CULTEC 330XLHD,
34' X125' X 5' HIGH
CRUSHED STONE PAD



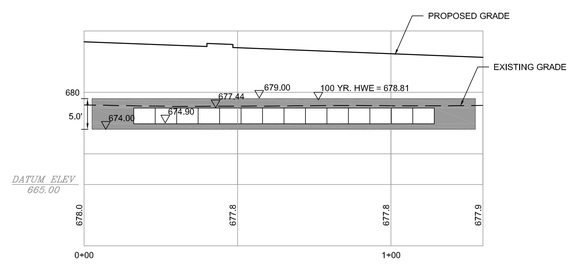
INFILTRATION SYSTEM #7 - CROSS SECTION A-A

SCALE: HORIZONTAL: 1"=20'
VERTICAL: 1"=10'



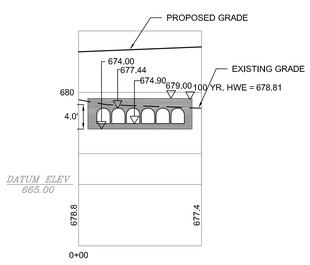
INFILTRATION SYSTEM #7 - CROSS SECTION B-B

SCALE: HORIZONTAL: 1"=20'
VERTICAL: 1"=10'



INFILTRATION SYSTEM #8 - CROSS SECTION A-A

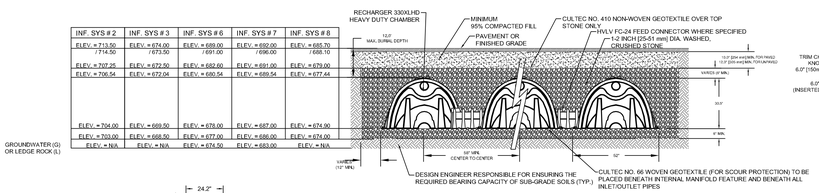
SCALE: HORIZONTAL: 1"=20'
VERTICAL: 1"=10'



INFILTRATION SYSTEM #8 - CROSS SECTION B-B

SCALE: HORIZONTAL: 1"=20'
VERTICAL: 1"=10'

NOTES:
1. HS-20-44 LOADING DESIGN REQUIRED BY THE PRECAST MANUFACTURER
2. SHOP DWGS. OF EACH STRUCTURE TO BE PROVIDED FOR THE ENGINEER'S REVIEW AND APPROVAL PRIOR TO PRODUCTION.
3. WEIR WALL TO BE CAST INTEGRALLY WITH STRUCTURE FLOOR AND WALLS.



INF. SYS # 2	INF. SYS # 3	INF. SYS # 6	INF. SYS # 7	INF. SYS # 8
ELEV. = 713.50 / 714.50	ELEV. = 674.00 / 673.50	ELEV. = 689.00 / 691.00	ELEV. = 692.00 / 696.00	ELEV. = 685.70 / 688.10
ELEV. = 707.25	ELEV. = 672.50	ELEV. = 682.60	ELEV. = 691.00	ELEV. = 679.00
ELEV. = 706.54	ELEV. = 672.04	ELEV. = 680.54	ELEV. = 689.54	ELEV. = 677.44
ELEV. = 704.00	ELEV. = 669.50	ELEV. = 678.00	ELEV. = 687.00	ELEV. = 674.90
ELEV. = 703.00	ELEV. = 668.50	ELEV. = 677.00	ELEV. = 686.00	ELEV. = 674.00
ELEV. = N/A	ELEV. = N/A	ELEV. = 674.50	ELEV. = 683.00	ELEV. = N/A

CULTEC HVLV FC-24

N.T.S.

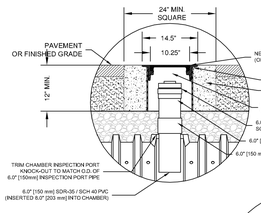
GENERAL NOTES

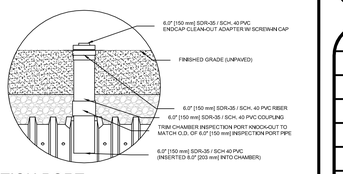
RECHARGER 330XL HD BY CULTEC, INC. OF BROOKFIELD, CT.
REFER TO CULTEC, INC.'S CURRENT RECOMMENDED INSTALLATION GUIDELINES.
THE CHAMBER WILL BE DESIGNED TO WITHSTAND TRAFFIC LOADS WHEN INSTALLED ACCORDING TO CULTEC'S RECOMMENDED INSTALLATION INSTRUCTIONS

ALL RECHARGER 330XL HD HEAVY DUTY UNITS ARE MARKED WITH A COLOR STRIPE FORMED INTO THE PART ALONG THE LENGTH OF THE CHAMBER.
ALL RECHARGER 330XL HD CHAMBERS MUST BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS

INFILTRATION SYSTEM #2
CULTEC RECHARGER 330 XLHD

(N.T.S.)





INSPECTION PORT

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SABRI BARSSOR P.E.

REVISIONS

NO.	DATE	DESCRIPTION
1.	2-15-18	REVISIONS
2.	4-10-18	REVISIONS

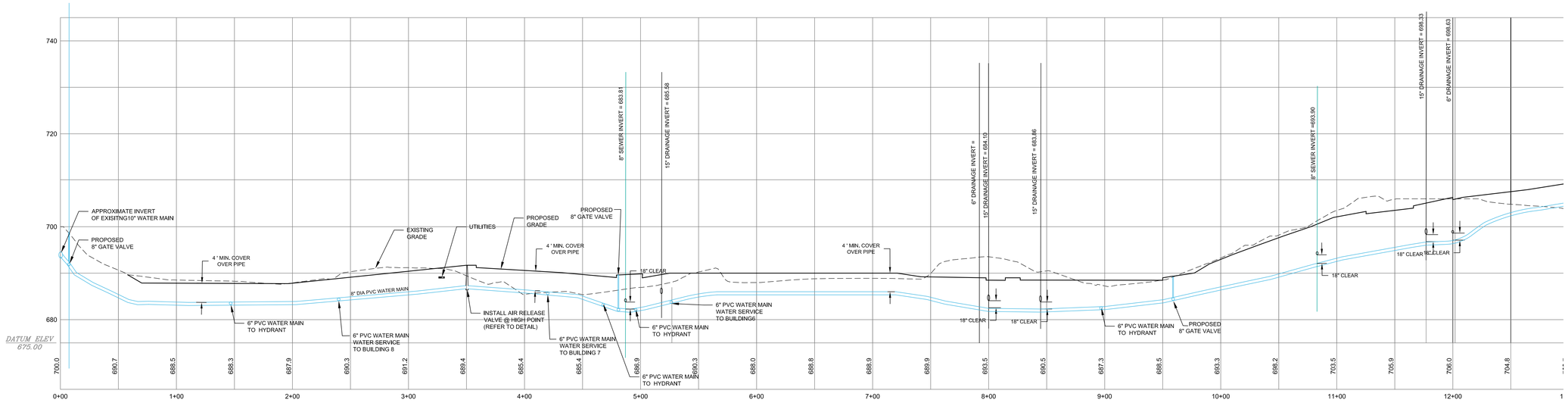
BIBBO ASSOCIATES, LLP
253 ROUTE 110 SUITE 202
FARMINGDALE, NEW YORK 11735
TEL 914 277 5905

LADA, P.C.
Land Planners
144 Market Street
Scotch Plains, NJ 07076 (908) 654-4871
Jersey City, NJ 07306 (201) 659-0801
Brooklyn, NY 11206 (646) 276-7424

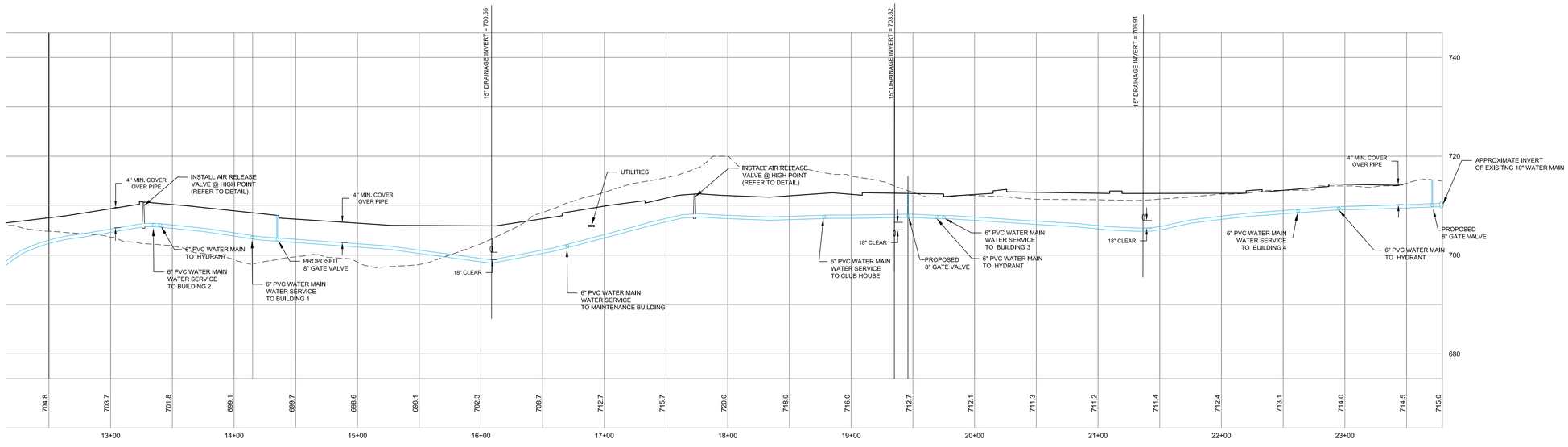
DRAINAGE DETAILS

MOUNT EBO LOT 6 - BARRETT HILL
MOUNT EBO ROAD NORTH
TOWN OF SOUTHEAST, NY 10509

DESIGNED	
DRAWN	DK
CHECKED	SB /JB
APPROVED	
SCALE	1" 40'
DATE	4-27-17
PROJECT NO:	
SHEET NO:	D-4



WATER MAIN PROFILE
SCALE: 1" = 40 ' HORIZONTAL
1" = 10 ' VERTICAL



WATER MAIN PROFILE
SCALE: 1" = 40 ' HORIZONTAL
1" = 10 ' VERTICAL

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SABR BARSSOP P.E.

STATE OF NEW YORK
SABR BARSSOP
LICENSED PROFESSIONAL ENGINEER

REVISIONS

NO.	DATE	DESCRIPTION
1.	2-15-18	REVISIONS
2.	4-10-18	REVISIONS

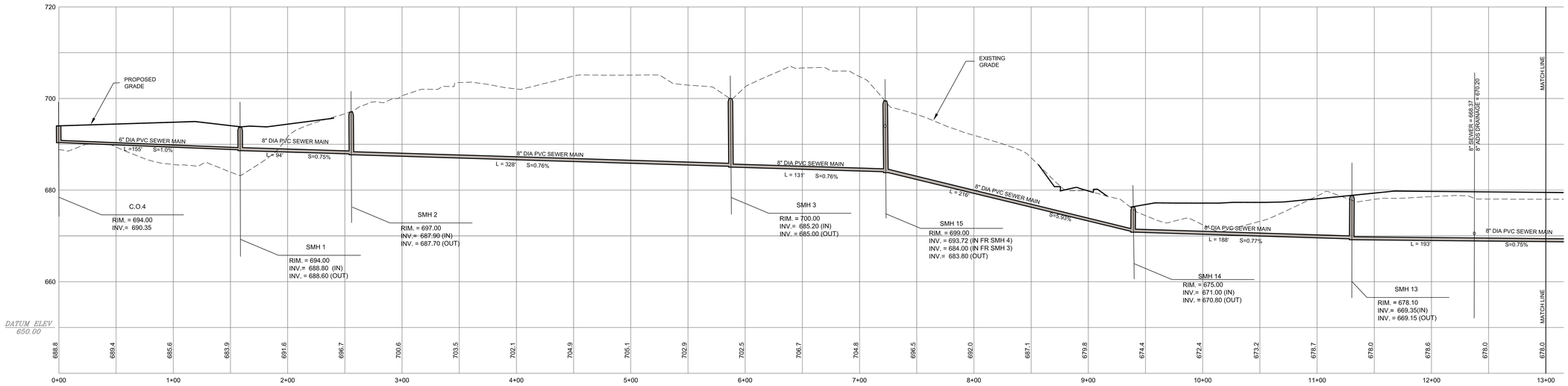
BIBBO ASSOCIATES, LLP
2700 EAST MAIN STREET, SUITE D
SOMERS, NEW YORK 10589
TEL. 914 277 5805

LADA, P.C.
Land Planners
The Forest Group
Site Development (845) 691-4071
2908 Route 22 (Suite 108) (845) 279-4071
Brewster, NY 10509 (845) 279-1424

WATER SYSTEM PROFILE

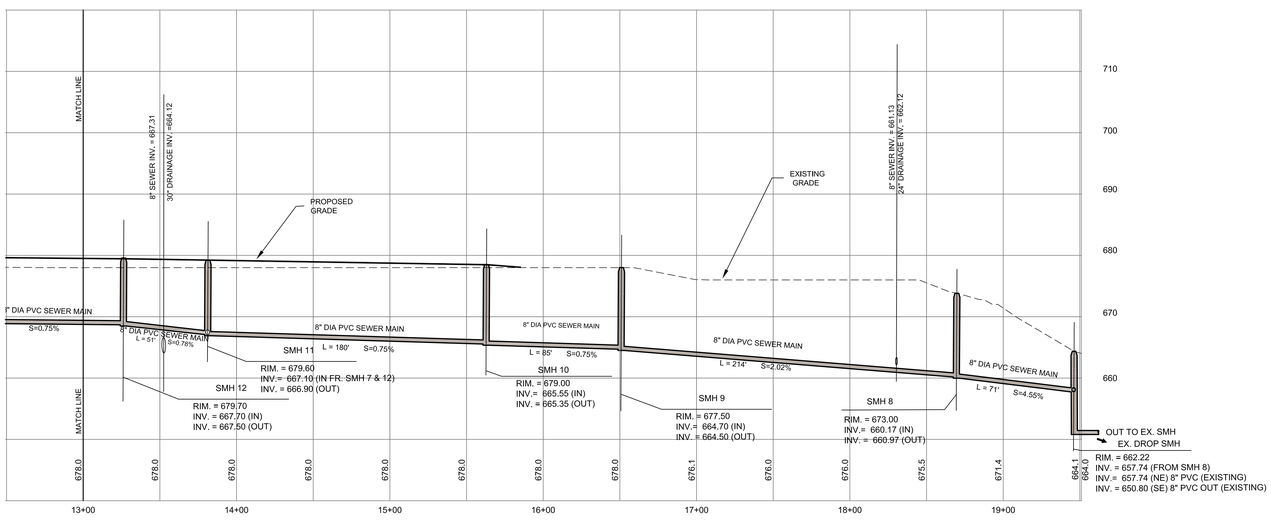
MOUNT EBO LOT 6 - BARRETT HILL
MOUNT EBO ROAD NORTH
TOWN OF SOUTHEAST, NY 10509

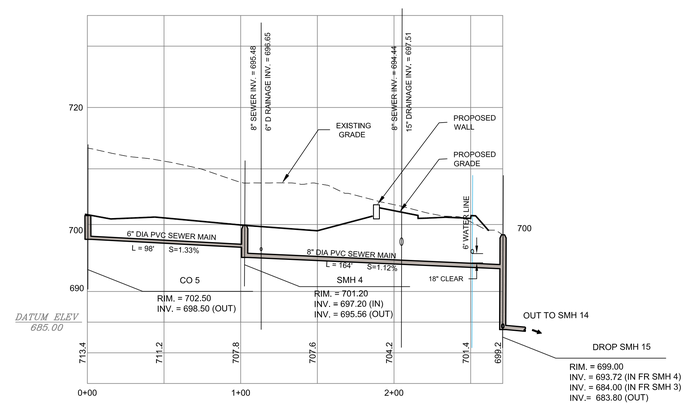
DESIGNED	
DRAWN	DK
CHECKED	SB/JB.
APPROVED	SB/JB.
SCALE	
DATE	4-27-17
PROJECT NO:	
SHEET NO:	WP-1



PROFILE CO 4 TO EX. SMH

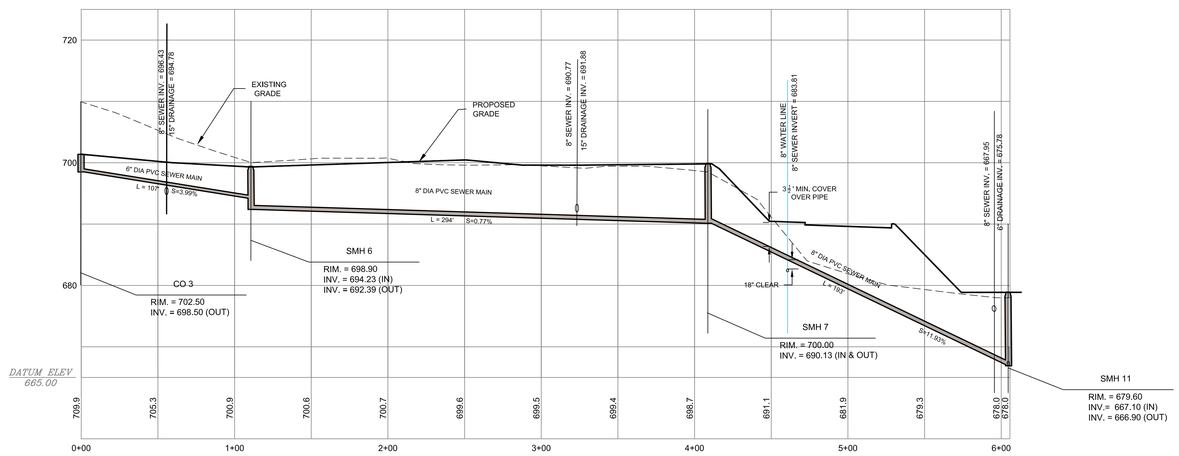
SCALE: 1" = 40' HORIZONTAL
1" = 10' VERTICAL





PROFILE CO 5 TO SMH 15

SCALE: 1" = 40' HORIZONTAL
1" = 10' VERTICAL



PROFILE CO 3 TO SMH 11

SCALE: 1" = 40' HORIZONTAL
1" = 10' VERTICAL

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SABIR BARSOOM P.E.

STATE OF NEW YORK SABIR BARSOOM LICENSED PROFESSIONAL ENGINEER 075445

REVISIONS

NO.	DATE	DESCRIPTION
1.	2-15-18	REVISIONS
2.	4-10-18	REVISIONS

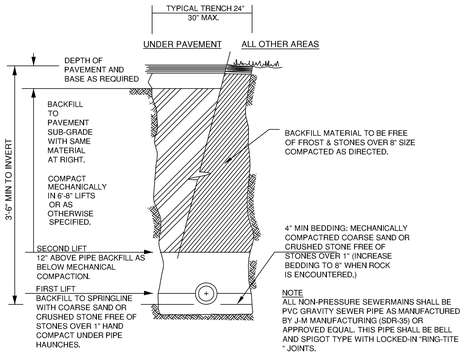
BIBBO ASSOCIATES, LLP
CONSULTING ENGINEERS
SOMERS, NEW YORK 10589
TEL. 914 277 5805

LADA, P.C.
Land Planners
The Vineyard Group
Site Planning • Landscape Architecture • Land Development
20 Soundview Drive, Suite 1, Somers, NY 10589 (914) 277-4011
2000 Hurley Ave. Suite 200, Hurley, NY 12491 (845) 338-0040
Brewster, NY 10509 (845) 279-1424

SEWER SYSTEM PROFILES

MOUNT EBO LOT 6 - BARRETT HILL
MOUNT EBO ROAD NORTH
TOWN OF SOUTHEAST, NY 10509

DESIGNED	
DRAWN	DK
CHECKED	SB/JB.
APPROVED	SB/JB.
SCALE	
DATE	4-27-17
PROJECT NO:	
SHEET NO:	SP-1



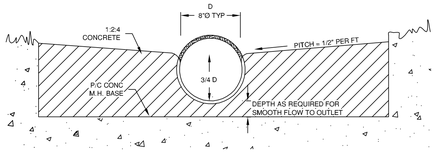
NOTE
ALL NON-PRESSURE SEWERMAINS SHALL BE PVC GRAVITY SEWER PIPE AS MANUFACTURED BY J-M MANUFACTURING (SDR-35) OR APPROVED EQUAL. THIS PIPE SHALL BE BELL AND SPIGOT TYPE WITH LOCKED-IN "RING-TITE " JOINTS.

TYPICAL SEWER MAIN INSTALLATION

N.T.S.

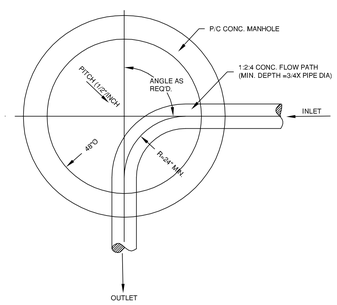
NOTES :

UTILITY TRENCH COMPACTION SPECIFICATION BACKFILL LIFT THICKNESS SHALL BE AS SPECIFIED ON THE APPROPRIATE PLAN DETAIL.
UNDER AREAS OF PAVEMENT, THE MATERIAL SHALL BE MECHANICALLY COMPACTED TO A MINIMUM DRY DENSITY OF 95%. OF MAXIMUM DENSITY AS DETERMINED BY THE STANDARD COMPACTION TEST. IN LAWN AREAS,90% OF MAXIMUM DENSITY SHALL BE ACHIEVED. THE IN-PLACE DENSITY SHALL BE DETERMINED BY THE SAND-CONE METHOD IN ACCORDANCE WITH ASTM D1556.

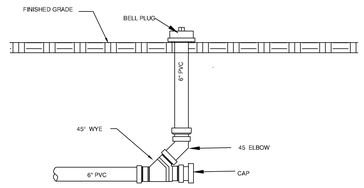


SECTION A-A: FLOW PATH IN MANHOLE

N.T.S.



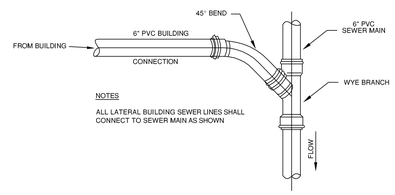
PLAN VIEW : FLOW PATH



APPLY TO SEWER & DRAINAGE CLEAN-OUTS NOT IN PAVEMENT

TYPICAL CLEANOUT DETAIL

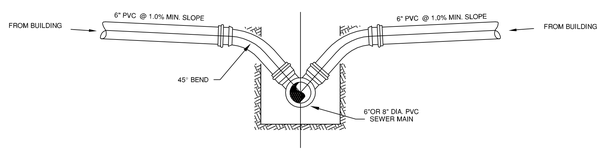
(N.T.S.)



NOTES

ALL LATERAL BUILDING SEWER LINES SHALL CONNECT TO SEWER MAIN AS SHOWN

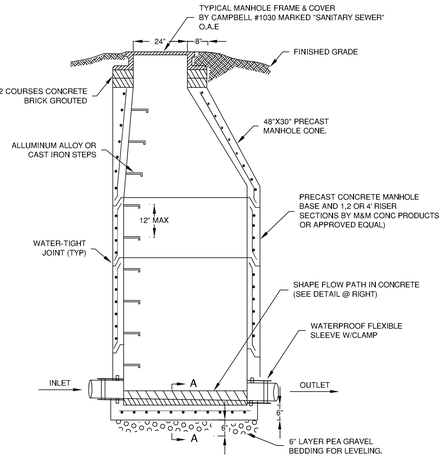
PLAN



ELEVATION

TYPICAL SEWER SERVICE CONNECTION

N.T.S.

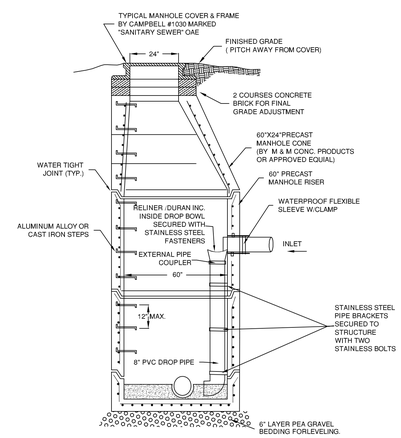


NOTES

1. ALL MANHOLES, MANHOLE COVERS AND CASTING IN ROAD & DRAINAGE AREAS SHALL BE CAPABLE OF SUPPORTING A.A.S.H.T.O. HS- 20-44 LOADING
2. ALL SMH JOINTS SHALL BE PARGED AND WATERPROOFED.

TYPICAL PRECAST SEWER MANHOLE

N.T.S.



TYPICAL PRECAST DROP SEWER MANHOLE

N.T.S.

SEWER SYSTEM NOTES

1. ALL SANITARY SEWER PIPES SHALL BE 8 INCH AND 6 INCH RING-TYPE PVC GRAVITY SEWER PIPE, J-M MANUFACTURING OR APPROVED EQUAL. THE PIPE AND FITTING SHALL BE THE REQUIREMENTS OF ASTM SPECIFICATION D3034 FOR SDR 35.
2. ALL WORK SHALL BE IN ACCORDANCE WITH THE TOWN OF SOUTHEAST STANDARDS AND SPECIFICATIONS, AND PUTNAM COUNTY HEALTH DEPARTMENT REQUIREMENTS.
3. MINIMUM COVER FOR SANITARY SEWER LINES SHALL BE 3'-6". THE COVER MAY BE REDUCED WITH THE APPROVAL OF THE TOWN ENGINEER UPON JUSTIFICATION.
4. LEAKAGE ALLOWANCE SHALL BE A MAXIMUM OF 100 GALLONS PER 24 HOURS INCH DIAMETER OF PIPE PER MILE OF PIPE FOR GRAVITY SEWERS.
5. SEWER MANHOLE INFILTRATION AND EXFILTRATION TESTS SHALL BE CONDUCTED IN ACCORDANCE WITH THE STANDARDS AND REQUIREMENTS OF THE PUTNAM COUNTY DEPARTMENT OF HEALTH AND THE TOWN OF SOUTHEAST USING VACUUM TESTING.
6. SANITARY MANHOLES SHALL BE PRE-CAST CONCRETE IN ACCORDANCE WITH THE CONSTRUCTION DETAILS AND COMPLY WITH ASTM C478.
7. ALL INDIVIDUAL BUILDING CONNECTIONS SHALL 6" DIAMETER PVC SDR-35 ON A MINIMUM 1.0% GRADE. CLEANOUT SHALL BE USED AT CHANGES IN GRADE ALIGNMENT.
8. ALL TESTS SHALL BE PERFORMED BY A LICENSED PROFESSIONAL ENGINEER. ALL CONSTRUCTION SHALL BE CERTIFIED AND APPROVED BY A N.Y.S.P.E. RETAINED BY CONTRACTOR.
9. COPIES OF ALL TEST RESULTS SHALL BE SUBMITTED TO THE TOWN ENGINEER/ WATER DEPARTMENT SUPERINTENDENT AND PUTNAM COUNTY HEALTH DEPARTMENT.
10. MINIMUM SLOPE FOR PROPOSED 8" GRAVITY SEWER SHALL BE 0.75%. MINIMUM SLOPE FOR PROPOSED 6" GRAVITY SEWER SHALL BE 1.0%.
11. CONTRACTOR SHALL SUPPLY ENGINEER WITH SHOP DRAWINGS OF ALL MATERIALS OBTAIN APPROVAL PRIOR TO ANY CONSTRUCTION.
12. DEFLECTION TEST
    A. DEFECTION TEST SHALL BE PERFORMED ON ALL FLEXIBLE PIPE. THE TEST SHALL BE CONDUCTED AFTER THE FINAL BACKFILL HAS BEEN IN PLACE AT LEAST 30 DAYS TO PERMIT STABILIZATION OF THE SOIL-PIPE--SYSTEM.
    B. NO PIPE SHALL EXCEED A DEFECTION OF 5 PERCENT, IF DEFECTION EXCEEDS 5 PERCENT, THE PIPE SHALL BE EXCAVATED, REPLACEMENT OR CORRECTION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH REQUIREMENTS IN THE APPROVED SPECIFICATIONS.
    C. THE RIGID BALL OR MANDREL USED FOR THE DEFLECTION TEST SHALL HAVE A DIAMETER NOT LESS THAN 95 PERCENT OF THE BASE INSIDE DIAMETER OR AVERAGE INSIDE DIAMETER OF THE PIPE DEPENDING ON WHICH IS SPECIFIED IN THE ASTM SPECIFICATION, INCLUDING THE APPENDIX, TO WHICH THE PIPE IS MANUFACTURED. THE TEST SHALL BE PERFORMED WITHOUT MECHANICAL PULLING DEVICES.

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SAMIR BARSSER P.E.

STATE OF NEW YORK · SAMIR BARSSER · 075 · LICENSED PROFESSIONAL ENGINEER

REVISIONS

NO.	DATE	DESCRIPTION
1.	2–13–18	REVISIONS
2.	4–10–18	REVISIONS

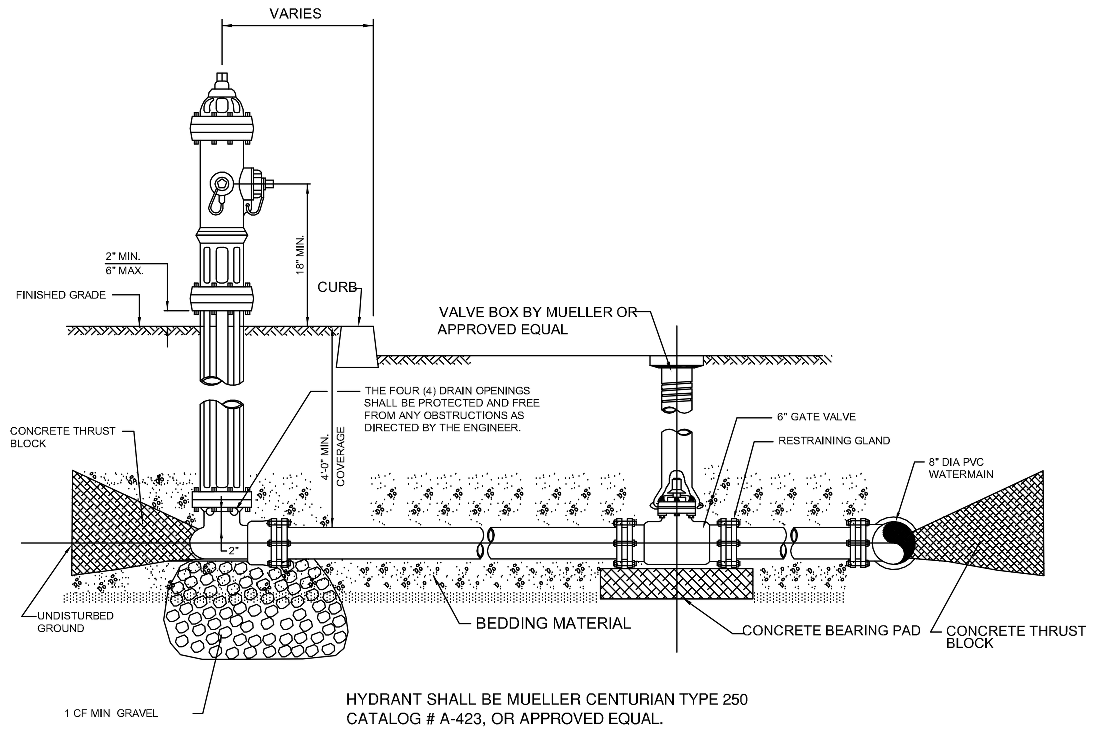
BIBBO ASSOCIATES, LLP
253 ROUTE 100 SUITE 203
SOMERS, NEW YORK 10589
TEL. 914 277 5805

LADA, P.C.
Land Planners
104 Krisen Street
Beacon, New York 12508 (845) 831-4671
20000 Rte.22 Dover, NJ 07801 (973) 366-1000
Brewster, NY 10509 (845) 279-7424

SEWER SYSTEM DETAILS

MOUNT EBO LOT 6 - BARRETT HILL
MOUNT EBO ROAD NORTH
TOWN OF SOUTHEAST, NY 10509

DESIGNED	
DRAWN	DK
CHECKED	SB/JB.
APPROVED	SB/JB.
SCALE	
DATE	4–27–17
PROJECT NO:	
SHEET NO:	SD-1

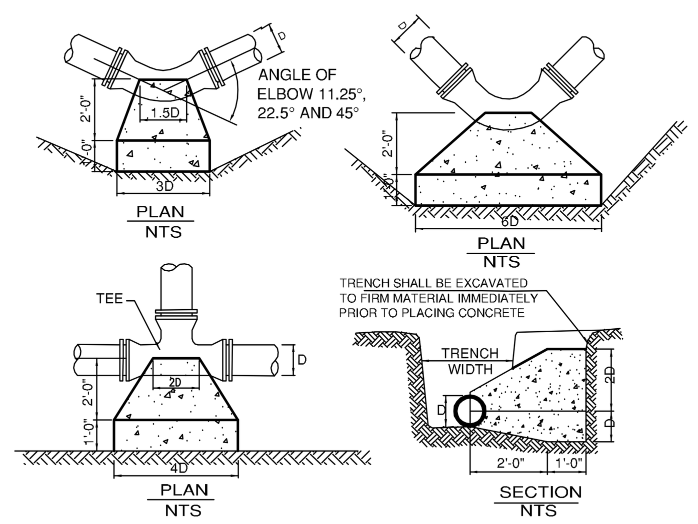


HYDRANT SHALL BE MUELLER CENTURIAN TYPE 250
CATALOG # A-423, OR APPROVED EQUAL.

HYDRANT DETAIL

N.T.S.

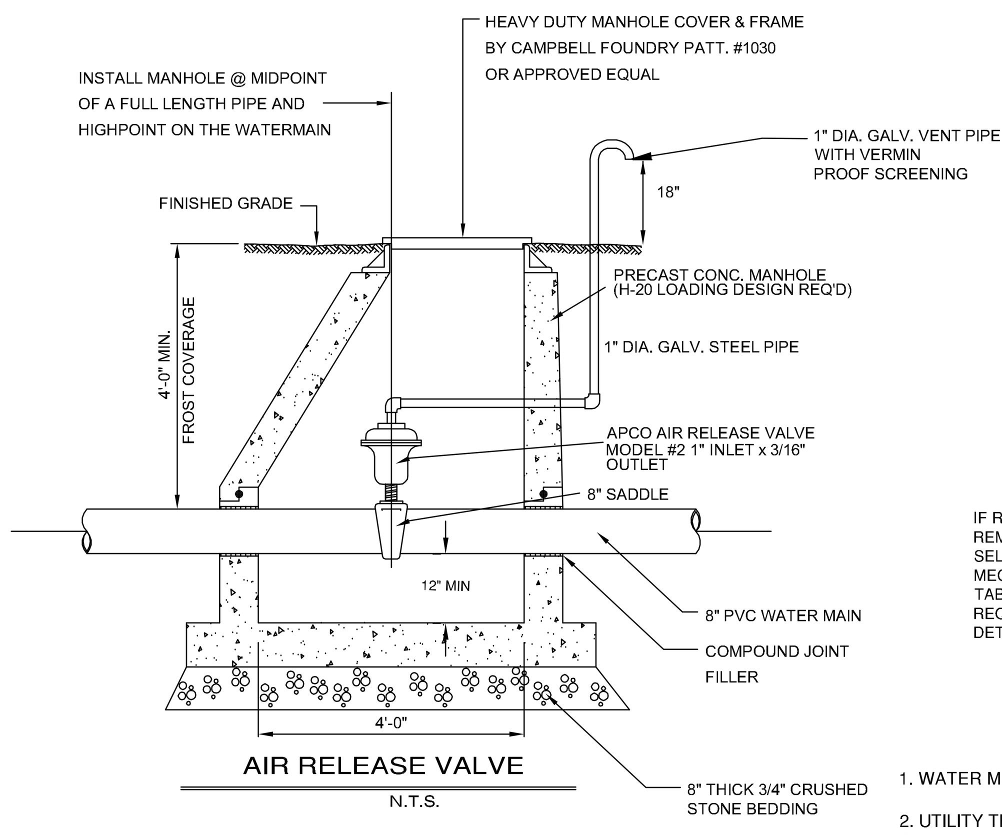
NOTE:
HYDRANT DRAINS OR WEEPS SHALL BE PLUGGED IF GROUNDWATER IS WITHIN 7 FEET OF FINISHED GRADE. WHEN THE DRAINS ARE PLUGGED, THE BARRELS MUST BE PUMPED DRY AFTER USE DURING FREEZING WEATHER. WHERE HYDRANT DRAINS ARE NOT PLUGGED, A GRAVEL POCKET OR DRY WELL SHALL BE PROVIDED IF THE NATURAL SOILS WILL NOT PROVIDE ADEQUATE DRAINAGE. HYDRANT DRAINS SHALL NOT BE CONNECTED TO OR LOCATED WITHIN 10 FEET OF SANITARY SEWERS OR STORM DRAINS.



ABOVE THRUST BLOCK DESIGN IS BASED ON 150psi. MAX. TEST PRESSURE.
ALL DIMENSIONS SHOWN ARE MINIMUM. CONCRETE THRUST BLOCKS SHALL BE PROVIDED AT ALL TEES, HYDRANTS, DEAD ENDS, AND ALL BENDS ON THE WATER DISTRIBUTION MAIN. ALL CONCRETE SHALL BE 1:2:4 MIX 3000 PSI AT 28 DAYS. WHERE UNSTABLE SOIL CONDITIONS ARE ENCOUNTERED THE ENGINEER SHALL BE NOTIFIED PRIOR TO THE THRUST BLOCK INSTALLATION. THE EXCAVATION OF THRUST BLOCK LOCATIONS SHALL RECEIVE SPECIAL ATTENTION TO PROVIDE GOOD BEARING AGAINST UNDISTURBED SOIL WITHIN AS SHORT DISTANCE AS POSSIBLE FROM THE PIPE/FITTING. THRUST BLOCK DESIGN BASED ON 3000 LBS./SF. SOIL BEARING CAPACITY, CONTRACTOR SHALL VERIFY THE EXISTING SOIL CONDITIONS. IF UNUSUAL HIGH OPERATING/OR TESTING ARE EXPECTED, THE DESIGN ENGINEER SHOULD BE NOTIFY PRIOR TO THRUST BLOCK INSTALLATION. THE CONTRACTOR SHALL MAKE NO DEVIATION FROM DESIGN DRAWINGS AND SPECIFIED COMPONENTS WITHOUT PRIOR APPROVAL OF THE ENGINEER. USE SAME DIMENSIONS AS TEE FOR THE DEAD ENDS.

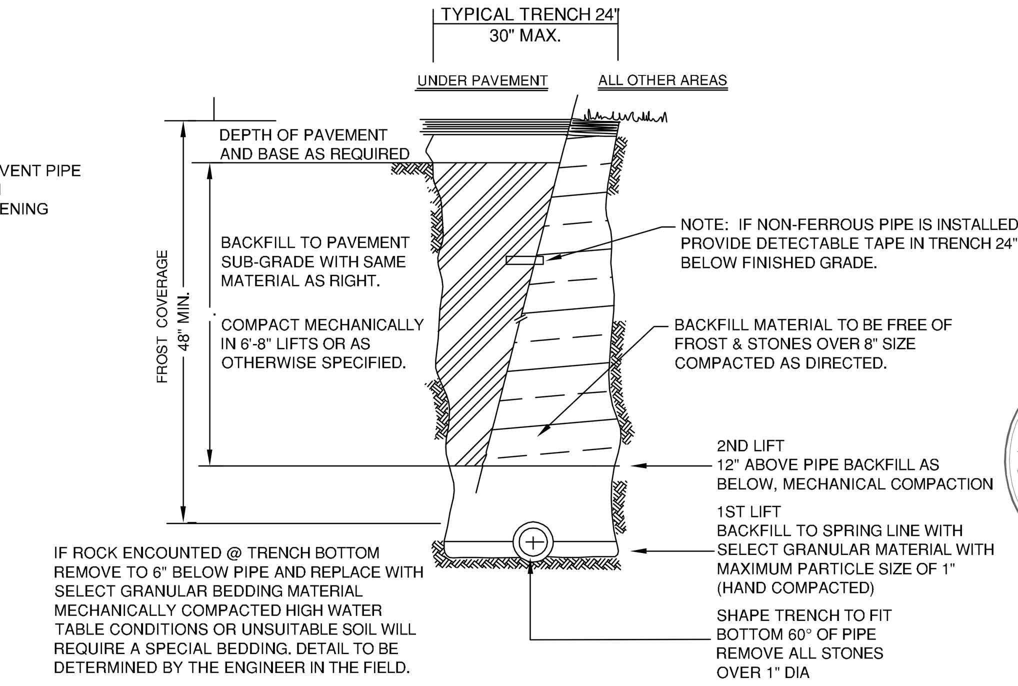
CONCRETE THRUST BLOCK

N.T.S.



AIR RELEASE VALVE

N.T.S.



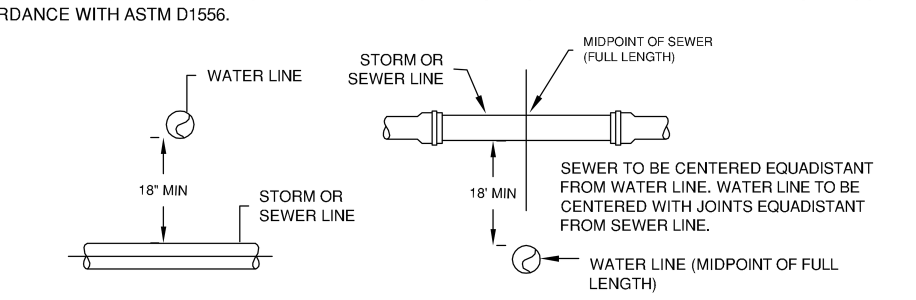
SABRI BARISSER P.E.

TYPICAL WATER MAIN TRENCH

N.T.S.

1. WATER MAIN SHALL BE PVC, DR-18, CLASS 150 WITH RINGTITE JOINTS MEETINGTHE REQUIREMENTS OF AWWA C900

2. UTILITY TRENCH COMPACTING SPECIFICATION BACKFILL LIFT THICKNESSES SHALL BE AS SPECIFIED ON THE APPROVED PLAN DETAIL. UNDER AREAS OF PAVEMENT, THE MATERIAL SHALL BE MECHANICALLY COMPACTED TO MIN. DRY DENCITY OF 95% OF MAX. DENSITY SHALL BE ACHIVED. THE IN PLACE DENSITY SHALL BE DETERMINED BY THE SAND CONE METHOD IN ACCORDANCE WITH ASTM D1556.



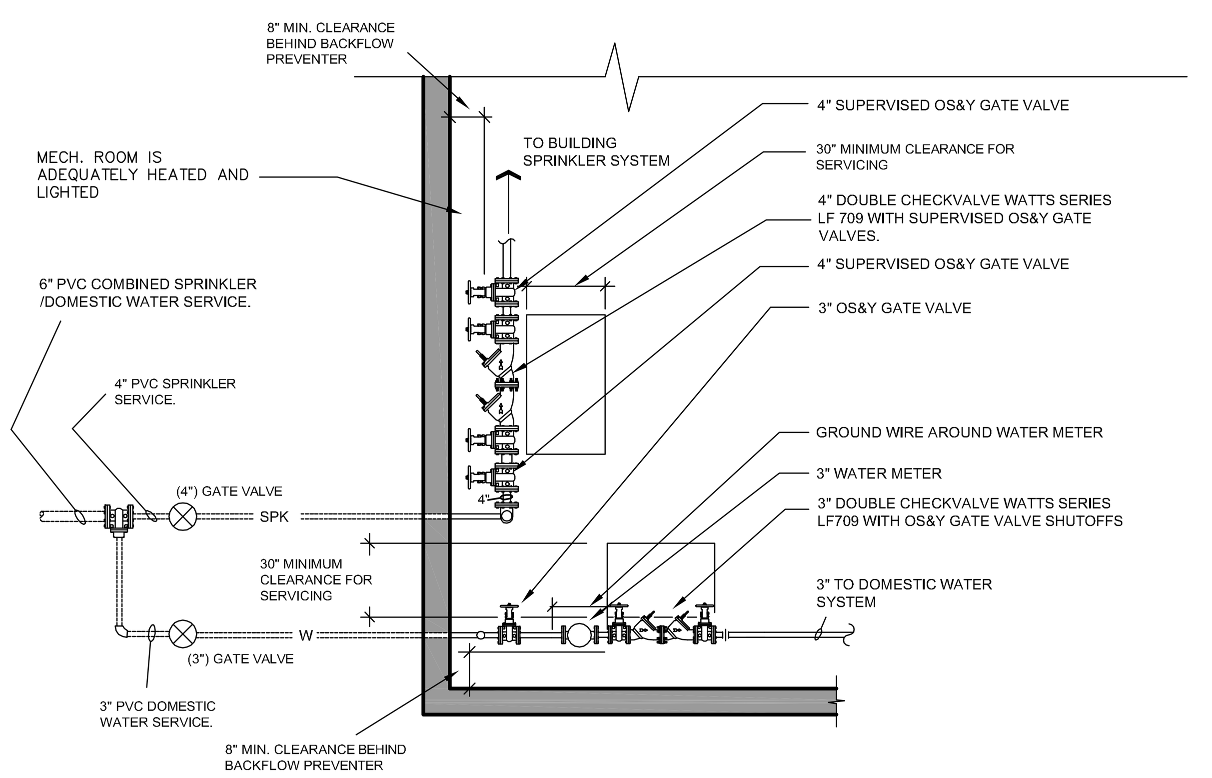
WATER LINE CROSSING
OVER STORM OR SEWER LINE

WATER LINE CROSSING
UNDER STORM OR SEWER LINE

DETAILS- WATER LINE NEAR STORM OR SEWER LINE

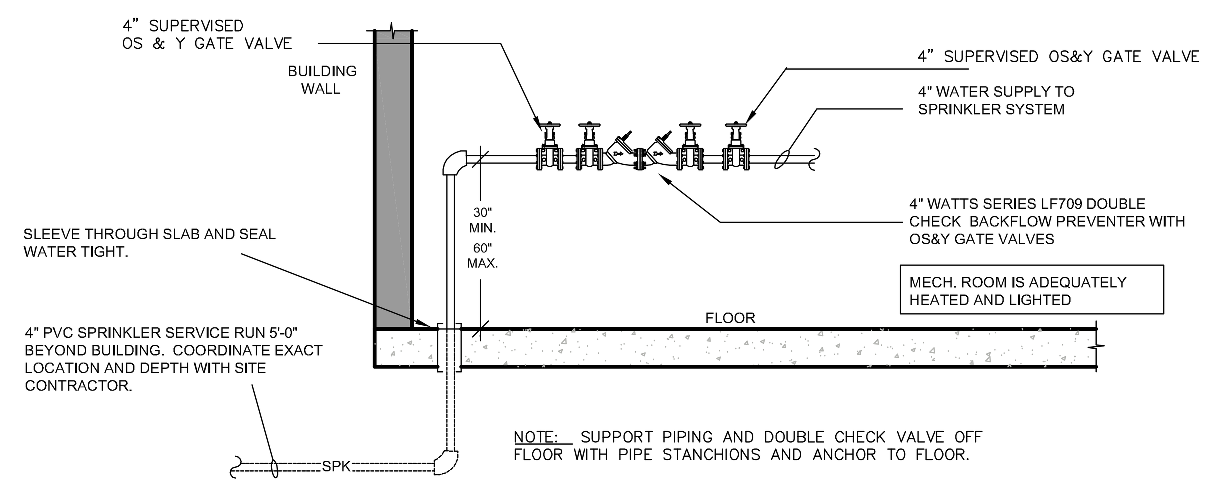
NTS

NOTE:
WHERE 18" CLEARANCE CANNOT BE ACHIEVED THE PROJECT ENGINEER SHALL BE NOTIFIED FOR SPECIAL INSTRUCTION.



TYPICAL BACKFLOW PREVENTION-PLAN VIEW

SCALE: 1"=1'-0"



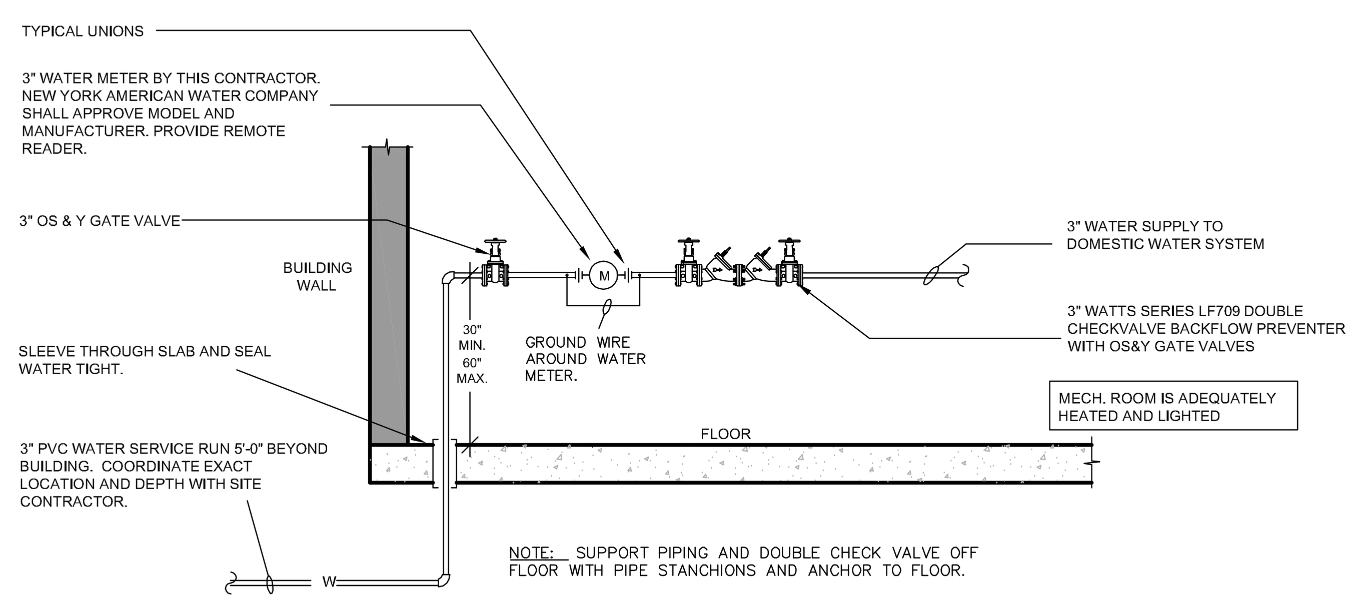
TYPICAL SPRINKLER BACKFLOW PREVENTION- ELEVATION VIEW

SCALE: 1"=1'-0"

1. FRONT OF DOUBLE CHECK VALVE ASSEMBLY (2'-6") MINIMUM
2. BACK OF DOUBLE CHECK VALVE ASSEMBLY (8") MINIMUM
3. ABOVE DOUBLE CHECK VALVE ASSEMBLY (12") MINIMUM
4. BACKFLOW PREVENTER MINIMUM (2'-6") ABOVE FINISHED FLOOR
5. BACKFLOW PREVENTER MAXIMUM (5'-0") ABOVE FINISHED FLOOR

PLUMBING NOTES:

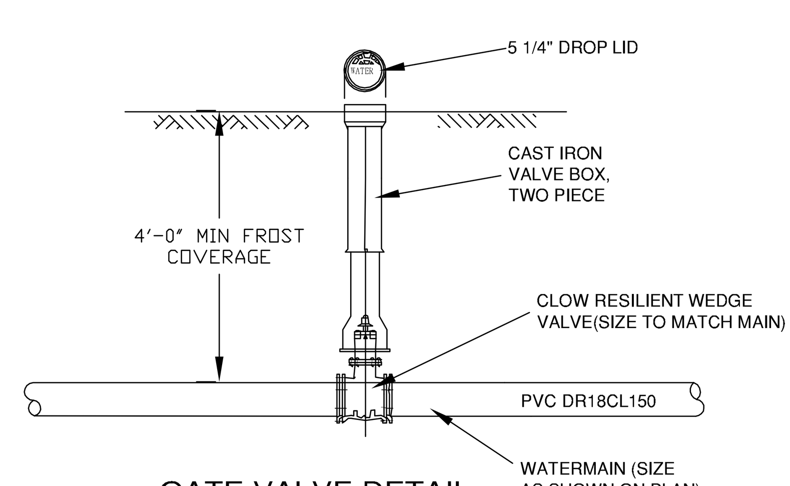
1. CONTRACTOR SHALL PROVIDE ALL PIPING, VALVES, HANGERS, FITTINGS AND MISCELLANEOUS COMPONENTS NOT NECESSARILY DETAILED ON THESE DRAWINGS TO RENDER THE PLUMBING SYSTEM COMPLETE, OPERABLE AND IN ACCORDANCE WITH NEW YORK AMERICAN WATER COMPANY. APPLICABLE CODES, N.Y.S. DEPARTMENT OF HEALTH, PUTNAM COUNTY DEPARTMENT OF HEALTH AND GENERALLY ACCEPTED INDUSTRY STANDARDS.
2. SUPPORT NEW SERVICES OFF FLOOR AND ADJACENT WALL WITH PIPE STANCHIONS ANCHORED TO FLOOR/WALL.
3. WHERE THE DISTANCE BETWEEN THE WATER SERVICE ENTRY POINT AND WATER METER OR WATER METER AND THE BACKFLOW DEVICE IS GREATER THAN 10 FEET, ALL EXPOSED PIPING SHOULD BE STENCILED "FEED LINE TO WATER METER/BACKFLOW PREVENTER – DO NOT TAP" AT 5 FOOT INTERVALS.



TYPICAL DOMESTIC BACKFLOW PREVENTION-ELEVATION VIEW

SCALE: 1"=1'-0"

1. FRONT OF DOUBLE CHECK VALVE ASSEMBLY (2'-6") MINIMUM
2. BACK OF DOUBLE CHECK VALVE ASSEMBLY (8") MINIMUM
3. ABOVE DOUBLE CHECK VALVE ASSEMBLY (12") MINIMUM
4. BACKFLOW PREVENTER MINIMUM (2'-6") ABOVE FINISHED FLOOR
5. BACKFLOW PREVENTER MAXIMUM (5'-0") ABOVE FINISHED FLOOR



GATE VALVE DETAIL

NTS

WATER MAIN PRESSURE TESTING

ALL WATER MAIN SHALL BE PRESSURE TESTED IN ACCORDANCE WITH AWWA C600 LATEST REVISION. THE PUTNAM COUNTY HEALTH DEPARTMENT SHALL BE NOTIFIED 48 HOURS, IN WRITING, IN ADVANCE OF PRESSURE TESTING.

AFTER THE MAINS HAVE BEEN PLACED AND PARTIALLY BACKFILLED THE MAIN SHALL BE SUBJECTED TO A PRESSURE TEST OF AT LEAST (2) HOURS.

THE LINE SHALL BE SLOWLY FILLED WITH WATER AND THE SPECIFIED TEST PRESSURE SUPPLIED BY A PUMP CONNECTED TO THE SYSTEM IN A MANNER SATISFACTORY TO THE ENGINEER. THE TEST PRESSURE SHALL NOT BE LESS THAN 1.5 TIMES THE OPERATING PRESSURE AT THE POINT OF TESTING OR NOT LESS THAN 1.25 TIMES THE OPERATING PRESSURE AT THE HIGHEST POINT ALONG THE TEST SECTION. THE ALLOWABLE PRESSURE VARIATIONS ARE ± 5.0 PSI FOR THE DURATION OF THE TEST.

BEFORE APPLYING TEST PRESSURE, ALL AIR SHALL BE EXPELLED FROM THE PIPE BY MEANS OF CORPORATION COCKS OR AIR RELEASE VALVES AT ALL HIGH POINTS. AFTER ALL AIR HAS BEEN RELEASED, THE COCKS SHALL BE CLOSED AND THE TEST PRESSURE APPLIED.

A LEAKAGE TEST SHALL BE CONDUCTED, ALONG WITH THE PRESSURE TEST. THE DURATION OF THE LEAKAGE TEST SHALL BE TWO (2) HOURS. THE FORMULA FOR ALLOWABLE LEAKAGE IS:

L = SD P / 148,000
L = ALLOWABLE LEAKAGE IN GPH
S = LENGTH OF PIPE TESTED, IN FEET
D = NOMINAL DIAMETER OF PIPE, IN INCHES
P = AVERAGE GAUGE PRESSURE IN PSI

WATER MAIN DISINFECTION/SAMPLING AND ANALYSIS

DISINFECTION OF THE NEW MAIN AND APPURTENANCES SHALL BE IN ACCORDANCE WITH AWWA STANDARD C651, LATEST REVISION, EXCEPT SECTION 5.1 WHICH IS NOT APPROVABLE. BEFORE BEING CHLORINATED, THE NEW MAIN SHALL BE FILLED TO ELIMATE AIR POCKETS AND FLUSHED TO REMOVE PARTICULATES. THE NEW MAIN SHALL BE FILLED WITH WATER FROM THE EXISTING DISTRIBUTION SYSTEM OR OTHER SOURCE OF SUPPLY SO CONTROLLED AS TO FLOW SLOWLY INTO THE NEW MAIN DURING THE APPLICATION OF CHLORINE. THE RATE OF CHLORINE MIXTURE FLOW SHALL BE IN SUCH PROPORTION OF RATE OF WATER ENTERING THE PIPE THAT THE CHLORINE DOSE APPLIED SHALL PRODUCE AT LEAST 25 MG/L RESIDUAL INITIALLY AND A 10 MG/L READING AFTER 24 HOURS.

FOLLOWING THIS PROCEDURE, THE NEW MAIN SHALL BE THOROUGHLY FLUSHED AND FILLED WITH WATER FROM THE APPROVED WATER SOURCE. SAMPLES SHALL BE COLLECTED FROM THE MAIN AND TESTED BY AN APPROVED LABORATORY FOR BACTERIA AND COLIFORM ORGANISMS. SAMPLING AND ANALYSIS SHALL BE REPEATED 24 HOURS FROM THE FIRST SAMPLING. THE RESULTS SHALL BE SUBMITTED TO, AND APPROVED BY THE WESTCHESTER COUNTY HEALTH DEPARTMENT DEPARTMENT BEFORE PLACING ANY SECTION OF THE NEW MAIN INTO USE.

WATER DISTRIBUTION SYSTEM NOTES

1. ALL WATER MAINS TO BE PVC (DR-18), CLASS 150 PIPE BY J-M MANUFACTURING OR APPROVED EQUAL. ALL PIPE FITTINGS TO BE DUCTILE IRON, SIZES AS SPECIFIED ON THE UTILITY PLANS.

2. ALL MAINS SHALL HAVE A MINIMUM COVER OF 48 INCHES.

3. ALL WORK SHALL BE INACCORDANCE WITH THE STANDARD SPECIFICATIONS OF THE MT EBO WATER WORKS & PUTNAM COUNTY HEALTH DEPARTMENT REQUIREMENTS.

4. THE HYDRANTS SHALL BE TO TOWN OF SOUTHEAST STANDARDS AND MANUFACTURED BY THE MUELLER CO. (CENTURIAN TYPE 250, MODEL A-423). THE HYDRANTS SHALL CONFORM TO THE APPLICABLE SECTIONS OF THE AWWA SPECIFICATIONS FOR FIRE HYDRANTS FOR ORDINARY WATER WORKS SERVICE, C502-53 AND AS FOLLOWS:5-3/4 INCH HYDRANT MAIN VALVE OPENING
6 INCH FLANGE INLET
TWO 2-1/2 INCH HOSE NOZZLES
ONE 4 INCH STEAMER NOZZLE
OPERATING NUT, TURN COUNTERCLOCKWISE TO OPEN
5'-0" TRENCH DEPTH (GROUND SURFACE TO CENTERLINE OF BRANCH)

5. HYDRANT DRAINS OR WEEPS SHALL BE PLUGGED IF GROUNDWATER IS WITHIN 7 FEET OF FINISHED GRADE. WHEN THE DRAINS ARE PLUGGED, THE BARRELS MUST BE PUMPED DRY AFTER USE DURING FREEZING WEATHER. WHERE HYDRANT DRAINS ARE NOT PLUGGED, A GRAVEL POCKET OR DRY WELL SHALL BE PROVIDED IF THE NATURAL SOILS WILL NOT PROVIDE ADEQUATE DRAINAGE. HYDRANT DRAINS SHALL NOT BE CONNECTED TO OR LOCATED WITHIN 10 FEET OF SANITARY SEWERS OR STORM DRAINS.

6. GATE VALVES SHALL BE CLOW RESILIENT WEDGE DESIGNED FOR 250 PSI WORKING PRESSURE OR APPROVED EQUAL (LEFT OPENING).

7. VALVE BOXES SHALL BE OF THE ADJUSTABLE TELESCOPE TYPE WITH A 5-1/4 INCH SHAFT, SUITABLE FOR A THE TRENCH 5'-0" DEEP AND DESIGNED FOR HEAVY TRAFFIC. THEY SHALL BE MANUFACTURED BY THE MUELLER COMPANY. THE COVERS SHALL BE MARKED "WATER".

8. THE POTABLE WATER LINE SHALL BE PROVIDED WITH A WATER METER WITHIN THE BUILDING FOR READING BY THE MT. EBO WATER WORKS CORP.

9. TESTING AND DISINFECTING OF WATER MAINS SHALL CONFORM TO THE AWWA STANDARD C651-LATEST EDITION EXCEPT SECTION 4-4.2 FOR DISINFECTING WATER MAINS. ACCEPTABLE RESULTS OF BACTERIOLOGICAL ANALYSIS OF SAMPLES OF WATER COLLECTED FROM THE NEW DISTRIBUTION MAINS AFTER DISINFECTION AND BEFORE THE USE OF THE MAINS, SHALL BE SUBMITTED TO THE PUTNAM COUNTY DEPARTMENT OF HEALTH. A PRESSURE AND LEAKAGE TEST SHALL BE MADE IN ACCORDANCE WITH SECTION 13 "HYDROSTATIC TEST" C600 OF THE AWWA SPECIFICATION.

10. ALL TEES, DEAD ENDS, BENDS, GATE VALVES AND HYDRANT ASSEMBLIES SHALL BE PROVIDED WITH CONCRETE THRUST BLOCKS.

11. ALL TESTS SHALL BE WITNESSED BY A PROFESSIONAL ENGINEER LICENSED IN NEW YORK STATE. CONSTRUCTION SHALL BE CERTIFIED AND APPROVED BY A N.Y.S.P.E. RETAINED BY THE OWNER.

12. COPIES OF ALL TEST RESULTS SHALL BE SUBMITTED TO THE PUTNAM COUNTY HEALTH DEPARTMENT AND TOWN OF SOUTHEAST WATER DEPARTMENT.

13. A 10' HORIZONTAL SEPARATION SHALL BE MAINTAINED FROM THE WATER LINE TO ALL SEWER/DRAINAGE LINES. ALL CROSSINGS SHALL BE MADE AS NEARLY PERPENDICULAR AS POSSIBLE WITH A MINIMUM OF 18" VERTICAL SEPARATION.

14. THE CONTRACTOR SHALL VERIFY THE LOCATION OF EXISTING WATER MAINS AND THE UTILITY LINES PRIOR TO STARTING EXCAVATION, AND SHALL BE RESPONSIBLE FOR CODE 53 NOTIFICATION OF ALL UTILITY COMPANIES.

15. PUTNAM COUNTY DEPARTMENT OF HEALTH (PCHD) SHALL BE NOTIFIED 48 HOURS IN ADVANCE PRIOR TO ANY PRESSURE/LEAKAGE TESTING.

16. NO WATER SERVICE LINES SHALL BE TAPPED BETWEEN A FIRE HYDRANT AND SHUT OFF VALVE FOR THE HYDRANT.

17. BACKFLOW PREVENTERS SHALL BE INSTALLED WHERE REQUIRED.

18. ALL DOCUMENTS AND FIRE WATER SERVICES TO THE BUILDINGS SHALL BE 3" AND 4" PVC (DR-18) WITH APPROPRIATE GATE VALVES AS SHOWN ON UTILITY PLANS. ALL WATER SERVICE LINES FEEDING THE BUILDINGS FROM 8" WATER MAIN TO THE BUILDINGS WILL BE 6" DIAMETER.

TO THIS DRAWING IS A VIOLATION OF SECTION 7209 (2) OF THE NEW YORK STATE EDUCATION LAW.

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REVISIONS

NO.	DATE	DESCRIPTION
1.	2-15-18	REVISIONS
2.	4-10-18	REVISIONS

BIBBO ASSOCIATES, LLP
293 ROUTE 100 SUITE 203
SOMERS, NEW YORK 10589
TEL. 914 277 5805

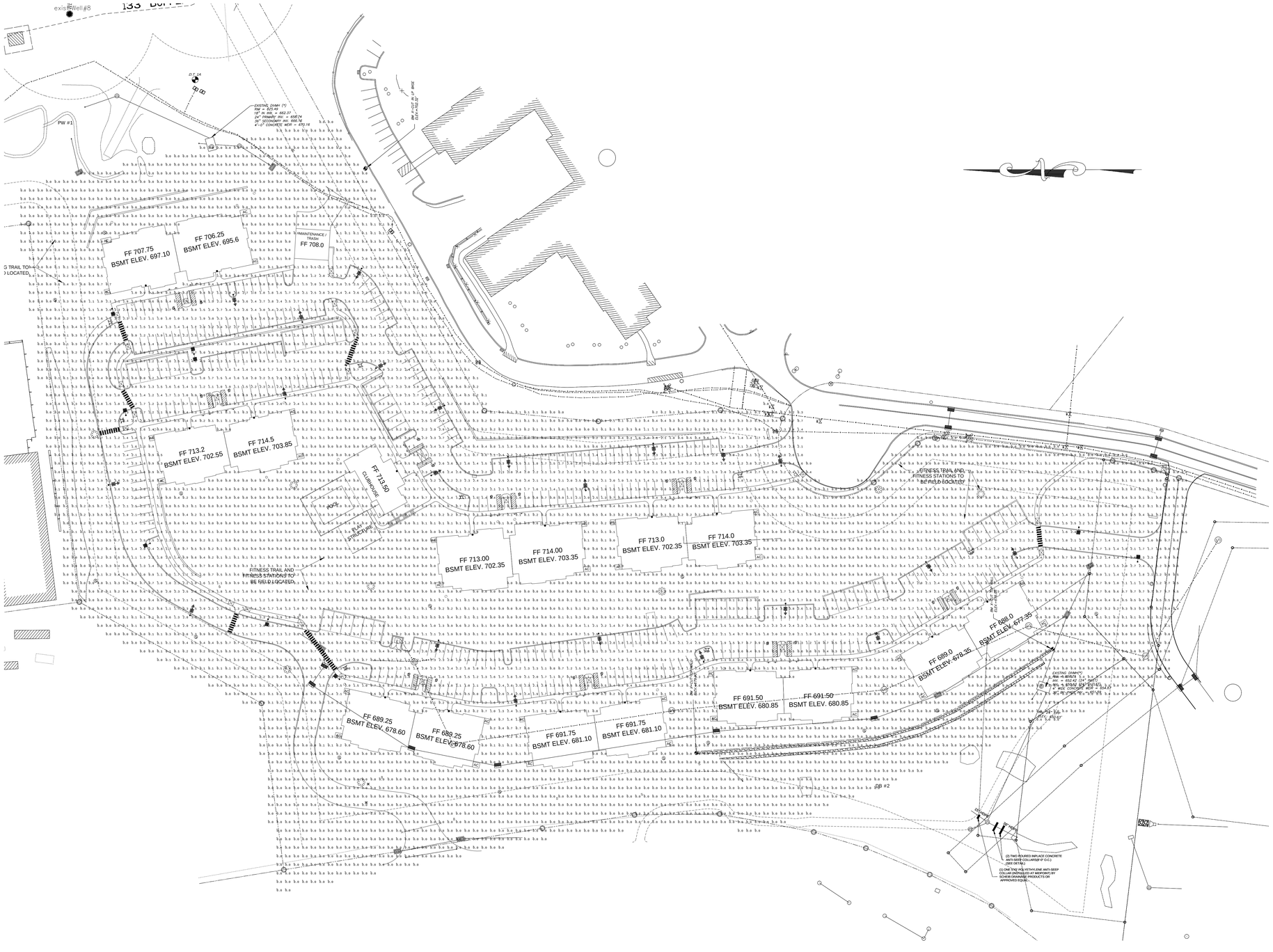
LADA, P.C.
Land Planners
104 West Street
Simsbury, CT 06070 (860) 651-4971
2050 Route 22 (Suite 106)
Brewster, NY 10509 (845) 278-7424

WATER SYSTEM DETAILS

MOUNT EBO LOT 6 - BARRETT HILL
MOUNT EBO ROAD NORTH
TOWN OF SOUTHEAST, NY 10509

DESIGNED	
DRAWN	DK
CHECKED	SB/JB
APPROVED	
SCALE	
DATE	4-27-17
PROJECT NO:	
SHEET NO:	WD-1

REVISIONS		
Rev #	Date	BY:
1	4/28/17	J.P.
2	6/22/18	J.P.



Calculation Summary								
Label	Units	Avg	Max	Min	Avg/Min	Max/Min	PtSpcLr	PtSpcTb
PARKING AND DRIVE	Fc	1.61	4.2	0.1	16.10	42.00	10	10

Luminaire Schedule								
WLS15721 MOUNT EBO LOT 6 SOUTHEAST, NY PM: STEVE PLEASE EMAIL US FOR PRICING AT STEVE@WLSLIGHTING.COM								
Symbol	Qty	Label	Arrangement	LLF	Manufacturer	Luminaire	Description	Lum. Watts
	1	A	D180°	0.950	WLS LIGHTING	CLXM Series	WLS-CLXM-LED-12L-SIL-5W-40-70CRI 20' MOUNTING HEIGHT	93.1
	7	B	SINGLE	0.950	WLS LIGHTING	CLXM Series	WLS-CLXM-LED-12L-SIL-5W-40-70CRI 20' MOUNTING HEIGHT	93.1
	22	C	SINGLE	0.950	WLS LIGHTING	CLXM Series	WLS-CLXM-LED-12L-SIL-FT-40-70CRI 20' MOUNTING HEIGHT	93.1
	17	D	SINGLE	0.950	WLS LIGHTING	HTCA Series	HTCA11L15W800LD12040KBN 10' MOUNTING HEIGHT	15

Based on the information provided, all dimensions and luminaire locations shown represent recommended positions. The engineer and/or architect must determine applicability of the layout to existing or future field conditions.

This lighting pattern represents illumination levels calculated from laboratory data taken under controlled conditions utilizing current industry standard lamp ratings in accordance with Illuminating Engineering Society approved methods. Actual performance of any manufacturer's luminaire may vary due to variation in electrical voltage, tolerance in lamps and other variable field conditions.

LGT-1
LIGHTING
PLAN

1919 WINDSOR PLACE
FORT WORTH, TX 76110
www.wlslighting.com

WLS LIGHTING SYSTEMS
Consider the Impact!

800-633-8711

SHEET 1 OF 2

BY: J.P.

PM:STEVE

scale: 1"=50'

DATE -4/27/17

WLS-15721A

MOUNT EBO LOT 6
SOUTHEAST, NY

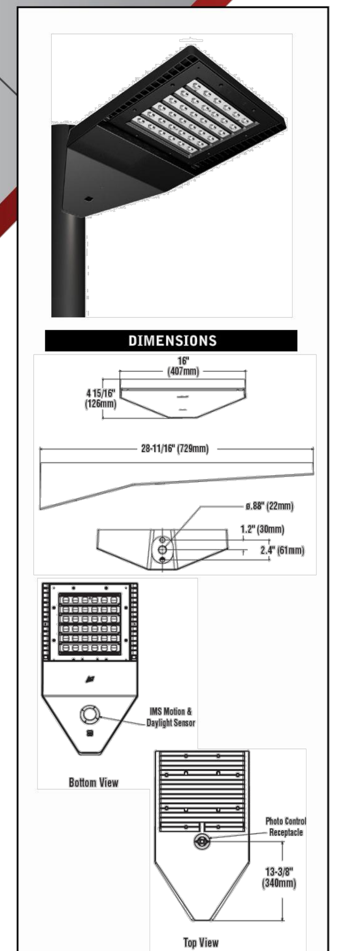
REVISIONS

Rev #	Date	BY:
1	4/28/17	J.P.
2	6/22/18	J.P.

WLS LIGHTING SYSTEMS

CLXM SERIES LED AREA

Type:



Made in the U.S.A. of the U.S. and imported parts. Meets Buy American requirments for ARRA.

SPECIFICATIONS

Optical System
- State-of-the-Art one piece silicone optic sheet delivers industry leading optical control with an integrated gasket to provide IP66 rated sealed optical chamber in 1 component.
- Proprietary silicone refractor optics provide exceptional coverage and uniformity in IES Types 2, 3, 5W, FT and FTA.
- Silicone optical material does not yellow or crack with age and provides a maximum light transmittance of 93%.
- Zero uplight.
- Available in 5000K, 4000K, 3000K, 2700K and Amber (+/- 275K) color temperatures.
- Minimum CRI of 70. Optional 80 CRI available, consult factory for lead time.
- Integral Louver (IL) option available for improved back-light control without sacrificing street side performance.

Electrical
- High-performance driver features over-voltage, under-voltage, short-circuit and over temperature protection.
- 0-10V dimming (10% - 100%) standard.
- Standard Universal Voltage (120-277 Vac) Input 50/60 Hz or optional High Voltage (347-480 Vac).
- L80 Calculated Life: >100k Hours
- Total harmonic distortion: <20%
- Operating temperature: -40°C to +50°C (-40°F to +122°F)
- Power factor: >.90
- Input power stays constant over life.
- Field replaceable surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).
- High-efficacy LEDs mounted to metal-core circuit board to maximize heat dissipation
- Terminal block provided accepts up to 10ga wire.
- Components are fully encased in potting material for moisture resistance. Driver complies with FCC standards. Driver and key electronic components can easily be accessed.

Construction
- Rugged die-cast aluminum housing contains factory prewired driver and optical unit. Cast aluminum wiring access door located underneath.
- Designed to mount to square poles without need for pole adaptors.
- Luminaire is proudly made in the U.S.of U.S. and imported parts.
- IP66 rated luminaire protects integral components from harsh environments.
- 3G rated for ANSI C136.31 high vibration applications
- Fixtures are finished with WLS's DuraGrip® polyester powder coat finishing process. The DuraGrip finish withstands extreme weather changes without cracking or peeling. Other standard WLS finishes available.
- Shipping weight: 30 lbs in carton.

Controls
- Optional integral passive infrared motion and daylight sensor activates switching of luminaire light levels
- 7-pin ANSI C136.41-2013 photocontrol receptacle option available for twist lock photocontrols or wireless control modules.

Installation
- A single fastener secures the hinged door, underneath the housing and provides quick & easy access to the electrical compartment for installing/servicing.
- Included terminal block provides quick and easy on-site wiring.
- Utilizes WLS's traditional 3" drill pattern for easy fastening of WLS products.

Warranty
- WLS LED Fixtures carry a 5-year warranty.

Listings
- Listed to UL 1598 and UL 8750.
- RoHS Compliant.
- American Recovery and Reinvestment Act Funding Compliant.
- Suitable For wet Locations.
- IP66 rated Luminaire. IP66 rated optical chamber.
- 3G rated for ANSI C136.31 high vibration applications

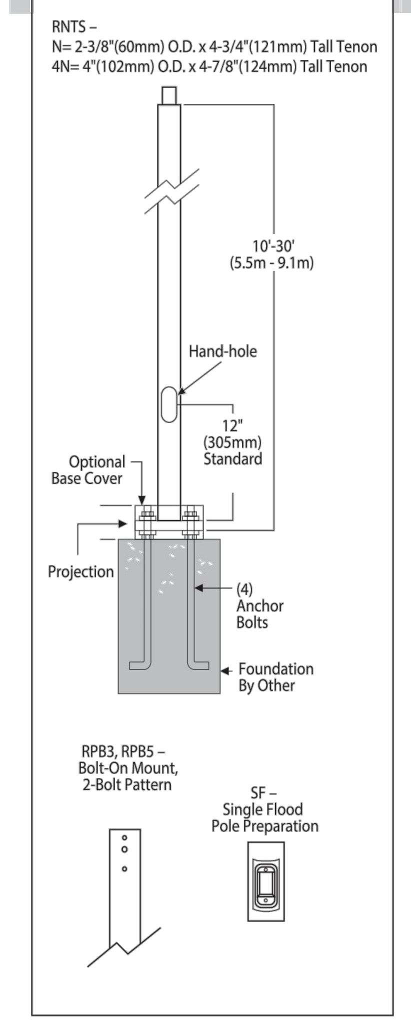
Project Name:
Date:
Location:
Notes:

WLS LIGHTING SYSTEMS
1919 Windsor Place
Fort Worth, TX 76110
800.622.8711
www.wlslighting.com

01 REV. 06/18
Specifications subject to change without notice.

WLS LIGHTING SYSTEMS

RNTS ROUND NON-TAPERED STEEL SERIES



SPECIFICATIONS

POLE SHAFT - Pole shaft is electro-welded ASTM-A500 Grade C steel tubing with a minimum yield strength of 46,000 psi. On Tenon Mount steel poles, tenon is high-strength pipe. Tenon N option is 2-3/8" O.D. x 4-34" tall. Tenon 4N option is 4" O.D. x 4-7/8" tall/ Steel round poles are 4" and 5" in diameter.

HAND HOLE - Standard hand-hole location is 12" above pole base. Poles 18' and above have a 3" x 6" reinforced hand-hole. Shorter poles have a 2" x 4" non-reinforced hand-hole.

BASE - Pole base is ASTM-A36 hot-rolled steel plate with a minimum yield strength of 36,000 psi. Two-piece square base cover is optional.

ANCHOR BOLTS - Poles are furnished with anchor bolts featuring zinc-plated double nuts and washers. Galvanized anchor bolts are optional. Anchor bolts conform to ASTM F 1554-07a Grade 55 with a minimum yield strength of 55,000 psi.

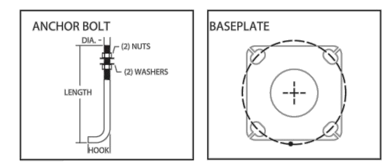
GROUND LUG - Ground lug is standard.

DUPLEX RECEPTACLE - Weatherproof duplex receptacle is optional.

GROUND FAULT CIRCUIT INTERRUPTER - Self-testing ground fault circuit interrupter is optional.

FINISH - Each pole is finished with WLS DuraGrip® polyester powder coat finishing process to give the pole an exceptionally attractive appearance. The process electrostatically applies and thermally fuses a polyester powder to the pole. This unique protection process provides an extremely smooth and uniform finish which withstands extreme weather changes without cracking or peeling. DuraGrip® finish features a five-year limited warranty. Standard finish colors available for poles are bronze, black, platinum plus, buff, white, satin verde green, metallic silver, and graphite. Optional DuraGrip® Plus features added protection with a 3.0 to 5.0 mil thickness of polyester-powder coat finish plus an inner coating. This specially designed inner coating is a thermal plastic hydrocarbon resin applied to the inside of the pole to seal and protect against atmospheric and corrosive matter. DuraGrip® Plus finish features a seven-year limited warranty.

DETERMINING THE LUMINAIRE/POLE COMBINATION FOR YOUR APPLICATION
- Select luminaire from Luminaire Ordering Information.
- Select bracket configuration.
- Refer to luminaire EPA chart to determine EPA value.
- Select height of pole.
- Select MPH to match the wind speed in the application area. (Windspeed Map located in Appendix)
- Confirm the pole EPA that is equal to or exceeds the luminaire/bracket EPA as was previously determined.



Approved By: Project Name:
Location: Date:
P.O. Box 100519 ▪ Fort Worth, TX 76185 ▪ 800.633.8711 ▪ Fax: 817.735.4824 ▪ www.wlslighting.com
WLS LIGHTING SYSTEMS Consider the Impact!
Specifications subject to change without notice. 01 Rev. 1/16

WLS LIGHTING SYSTEMS Consider the Impact!

HTCA Series
LED MushroomClose-To-Ceiling

SPECIFICATIONS
- 120V INPUT VOLTAGE, 50/60Hz
- ESTIMATED 50,000 HRS L 70*
- 5 YEAR WARRANTY
- 120V DIMMABLE
- CEILING MOUNT ONLY
- P.C. DIFFUSER & WHITE POWDERCOATED ALUMINUM BASE
- UL LISTED FOR DAMP LOCATIONS

ORDERING INFORMATION

ITEM NO.	DESCRIPTION
HTCA 11L15W 800LD12040K BN	11" Brushed Nickel/Frosted Glass 15W, 800L, 4000K, Dimmable 120V, 50000 Hrs

Change 40K to 30K or 50K

DIMENSIONS
All dimensions are inches. Specifications subject to change without notice.

Approved By: Project Name:
Location: Date:
1919 Windsor Place ▪ Fort Worth, TX 76110 ▪ 800.633.8711 ▪ Fax: 817.735.4824 ▪ www.wlslighting.com
WLS LIGHTING SYSTEMS Consider the Impact!

CLXM SERIES LED AREA

ORDERING INFORMATION SELECT APPROPRIATE CHOICE FROM EACH COLUMN TO FORMULATE ORDER CODE.
Refer to example below.

SERIES	LIGHT SOURCE	LUMENS PACKAGE	LIGHT OUTPUT	DISTIBUTION	ORIENTATION[8]	VOLTAGE	DRIVER	COLOR TEMPERATURE
CLXM	LED	**9L** 9,000 lms **12L** 12,000 lms **18L** 18,000 lms **24L** 24,000 lms **30L** 30,000 lms **36L** 36,000 lms **42L** 42,000 lms	**SIL** Silicone	**2** Type 2 **3** Type 3 **5W** Type 5 Wide **FT** Type Forward Throw **FTA** Forward Throw Automotive	**(blank)** - standard **L** Optics rotated left 90 **R** Optics rotated right 90	**UNV** Universal Voltage (120-277v) **HV** High Voltage (347-480v)	**DIM** 0-10v Dimming (0-10%)	**27** 2,700 CCT **30** 3,000 CCT **40** 4,000 CCT **50** 5,000 CCT **AMB**[1] Amber
ORDER:								
WLS-CLXM	LED		SIL				DIM	

COLOR RENDERING	CONTROLS	FINISH	OPTIONS
70 70 CRI **80**[9] 80 CRI	**EXT** 0-10v Dimming 5 **IMS**[2,3] Integral Motion & Daylight Sensor	**BRZ** Bronze **BLK** Black **GPT** Graphite **MSV** Metallic Silver **WHT** White **PLP** Platinum Plus **SVG** Satin Verde Green **CC**[7] Custom Color	**(Blank)** None Button Type Photocells[4] **PCI120** 120V **PCI208** 208V **PCI240** 240V **PCI277** 277V **PCI347** 347V **PCR7P**[5] 7 Pin Photoelectric Control Receptacle **IL** Integral Louver HSS

Example: WLS-CLXM-LED-9L-SIL-5W-L-UNV-DIM-50-80-EXT-BRZ-IL

FOOTNOTES:
1. Consult Factory for availability & Lead Time.
2. Not available with EXT and Button Type Photocells.
3. IMS is a Dual Sensor (Daylight & Motion) which is field adjustable, via a hand held Remote
4. Not available with EXT, IMS, Wireless Controls Systems and PCR7P.
5. Not available with Button Type Photocells, IMS. Photocell must be ordered separately. 7 pin standard.
6. Contact your sales professional for details
7. 90L & 90R option not available on "Type 5W" distribution.
8. Consult Factory for availability & Lead Time.

LUMINAIRE EPA CHART - CLXM		
	Single	0.6
	D180°	1.1
	D90°	0.9
	T90°	1.9
	TN120°	1.9
	Q90°	2.1

ELECTRICAL DATA

Lumens	Watts	120V	208V	240V	277V	347V	480V
9L	68.2	0.6A	0.3A	0.3A	0.2A	0.2A	0.1A
12L	93.1	0.8A	0.4A	0.4A	0.3A	0.3A	0.2A
18L	148.5	1.2A	0.7A	0.6A	0.5A	0.4A	0.3A
24L	188.8	1.6A	0.9A	0.8A	0.7A	0.5A	0.4A
30L	248.6	2.1A	1.2A	1.0A	0.9A	0.7A	0.5A
36L	317.8	2.6A	1.5A	1.3A	1.1A	0.9A	0.7A
42L	393.4	3.3A	1.9A	1.6A	1.4A	1.1A	0.8A

WLS LIGHTING SYSTEMS
1919 Windsor Place
Fort Worth, TX 76110
800.622.8711
www.wlslighting.com

Project Name:
Date:
Location:
Notes:

01 REV. 6/18
Specifications subject to change without notice.

RNTS ROUND NON-TAPERED STEEL SERIES

ORDERING INFORMATION SELECT APPROPRIATE CHOICE FROM EACH COLUMN TO FORMULATE ORDER CODE. Refer to example below.

POLE SERIES	MATERIAL	HEIGHT[4]	MOUNTING CONFIGURATION	POLE FINISH	OPTIONS	ACCESSORIES
Bolt-On Mount[1] **RNTS-4RPB3 -** 3" Reduced Drilling Pattern **RNTS-5RPB3 -** 3" Reduced Drilling Pattern **RNTS-4RPB5 -** 5" Reduced Drilling Pattern **RNTS-5RPB5 -** 5" Reduced Drilling Pattern **Tenon Mount** **RNTS-4RPN** **RNTS-5RPN** **Slipfit** **RNTS-4RPSF** **Universal Bracket** **RNTS-4RPI** **RNTS-5RPI**	**S11G -** 11Ga. Steel **S10G -** 10 Ga. Steel[3] **S07G -** 07 Ga. Steel	10' 12' 14' 16' 18' 20' 22' 24' 26' 28' 30'	**S -** Single / Parallel **D180° -** Double **D90° -** Double **DN90° -** Double **T90° -** Triple **TN120° -** Triple **Q90° -** Quad **N -** Tenon Mount **4N -** Tenon Mount (Available with 5RPN only. For4" poles use 4PRSF)[2]	**BRZ -** Bronze **BLK -** Black **PLT -** Platinum Plus **WHT -** White **SVG -** Satin Verde Green **GPT -** Graphite **MSV -** Metallic Silver	**GA -** Galvanized Anchor Bolts **SF -** Single Flood[5] **DF -** Double Flood[5] **DGP -** DuraGrip® Plus **LAB -** Less Anchor Bolts **OSXX -** Pole preparation for PMOS Occupancy Sensor[6] **NO -** No Options	**4BC -** 4" Square Base Cover **5BC -** 5" Square Base Cover **ER2 -** Weatherproof Duplex Receptacle (Poles below 18') **ER2H -** Weatherproof Duplex Receptacle for Reinforced Hand-hole (Poles 18' and above) **GFI -** Ground Fault Circuit Interrupter (Poles below 18') **GFIH -** Ground Fault Circuit Interrupter (Poles 18' and above) **MHD -** Mounting Hole Weatherproof Decal **BB -** Banner Bracket **PMOS -** Occupancy Sensor[7] **NA -** No Accessories
WLS-RNTS-5RPB5 (EXAMPLE ORDER)	**S07G**	**24**	**S**	**PLP**	**NO**	**NA**

ORDER:
WLS-RNTS- ____ ____ ____ ____ ____ ____

FOOTNOTES:
1- Standard flat black pole cap provided. Domed pole cap will ship with SA4 and SA5 CNL, HE, HEL, LX and LXL fixtures. SA LS Series, BK SPT BO, BK MPT BO and UCL brackets
2- For CNL, HE, HEL LX and LXL D180 or other mounting configuration styles using BK SPT BO and BK MPT BO accessories, see chart on Bolt-on Mount 4RPB3 / 5RPB3 drilling pattern section on pole selection chart.
3- 4' poles are available in S10G only. 5' poles available in S11G and S07G only.
4- Pole heights will have +/- 1/2" tolerance.
5- See Flood Lighting Bracket section for choice of FBO brackets.
6- Order PMOS separately. Change XX to indicate height and side of pole location for pole preparation.
7- OSXX option required. Not for use with Metal Halide fixtures.

BOLT CIRCLE

	4" (102mm) Round 10-1/8" (257mm) sq. 11" (279mm) Dia. Bolt Circle	5" (127mm) Round 10-1/8" (257mm) sq. 11" (279mm) Dia. Bolt Circle	5" (127mm) Round 10-1/8" (257mm) sq. 11" (279mm) Dia. Bolt Circle
	L	L	M
Bolt Circle	Slotted 11" (279mm)	Slotted 11" (279mm)	Slotted 11" (279mm)
Anchor Bolt Size	3/4" x 30" (19mm x 762mm)	3/4" x 30" (19mm x 762mm)	1" x 36" (25mm x 914mm)
Anchor Bolt Projection	3-1/4" (83mm)	3-1/4" (83mm)	4" (102mm)
Base Plate Opening for Wireway Entry	3-5/8" (92mm)	4-3/4" (121mm)	4-5/8" (117mm)
Base Plate Dimensions	10-1/8" sq. x 3/4" thk. (257mm x 19mm)	10-1/8" sq. x 3/4" thk. (257mm x 19mm)	10-1/8" sq. x 1" thk. (257mm x 25mm)

Note: Base plate illustrations may change without notice. Do not use for setting anchor bolts. Consult factory for the base plate templates.

EPA INFORMATION

All WLS Lightings' poles are guaranteed to meet the EPA requirements listed. WLS Lighting is not responsible if a pole order has a lower EPA rating than the indicated wind-loading zone where the pole will be located.
CAUTION: This guarantee does not apply if the pole/bracket/fixture combination is used to support any other items such as flags, pennants, or signs, which would add stress to the pole. WLS Lighting cannot accept responsibility for harm or damage caused in these situations.

NOTE: Pole calculations include a 1.3 gust factor over steady wind velocity. Example: poles designed to withstand 80 MPH steady wind will withstand gusts to 104 MPH. EPAs are for locations 100 miles away from hurricane ocean lines. Consult WLS for other areas. Note: Hurricane ocean lines are the Atlantic and Gulf of Mexico coastal areas. For applications in Florida or Canada, consult factory.

Approved By: Project Name:
Location: Date:
P.O. Box 100519 ▪ Fort Worth, TX 76185 ▪ 800.633.8711 ▪ Fax: 817.735.4824 ▪ www.wlslighting.com
WLS LIGHTING SYSTEMS Consider the Impact!
01 Rev. 1/16

Based on the information provided, all dimensions and luminaire locations shown represent recommended positions. The engineer and/or architect must determine applicability of the layout to existing or future field conditions.

This lighting pattern represents illumination levels calculated from laboratory data taken under controlled conditions utilizing current industry standard lamp ratings in accordance with Illuminating Engineering Society approved methods. Actual performance of any manufacturer's luminaire may vary due to variation in electrical voltage, tolerance in lamps and other variable field conditions.

LGT-1
LIGHTING
PLAN

1919 WINDSOR PLACE
FORT WORTH, TX 76110
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WLS LIGHTING SYSTEMS
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800-633-8711

SHEET 2 OF 2
BY: J.P.
PM:STEVE

MOUNT EBO LOT 6
SOUTHEAST, NY

scale: 1"=50'
DATE -4/27/17
WLS-157221A