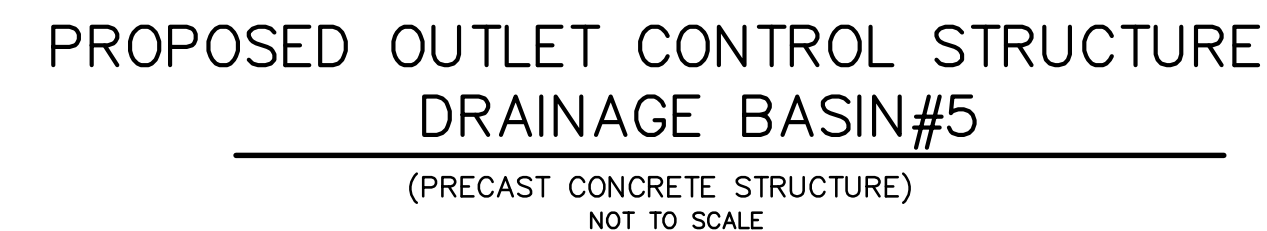


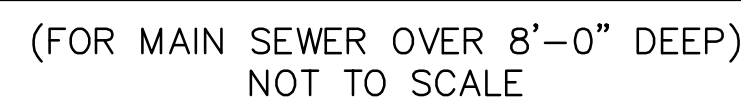


REVISIONS			REVISIONS		
1	04/10/18	APARTMENTS 136 UNITS	10	4/12/19	MULTI UNIT LAYOUT
2	07/06/18	PLAN LAYOUT & DRAINAGE	11	5/15/19	MULTI UNIT LAYOUT
3	07/25/18	WATER SYSTEM COMMENTS			
4	09/18/18	ENGINEERING COMMENTS			
5	11/06/18	ENGINEERING COMMENTS			
6	12/27/18	ENGINEERING COMMENTS			
7	2/13/19	FIRE ACCESS			
8	2/19/19	COMMENTS & LANDSCAPE			
9	3/07/19	COMMENTS & LANDSCAPE			

[illegible]

CONCRETE AND FIELD STONE MASONRY HEADWALL DETAILS

RIP-RAP IMPACT BASIN AT HEADWALLS
NOT TO SCALE

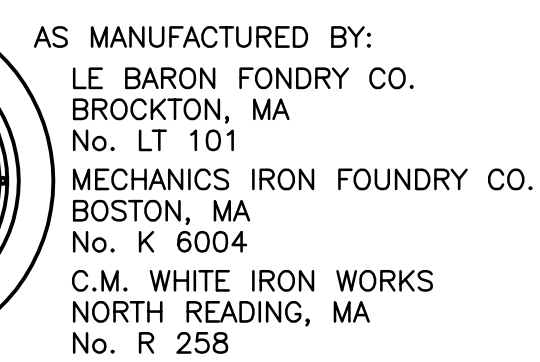


NOTE:

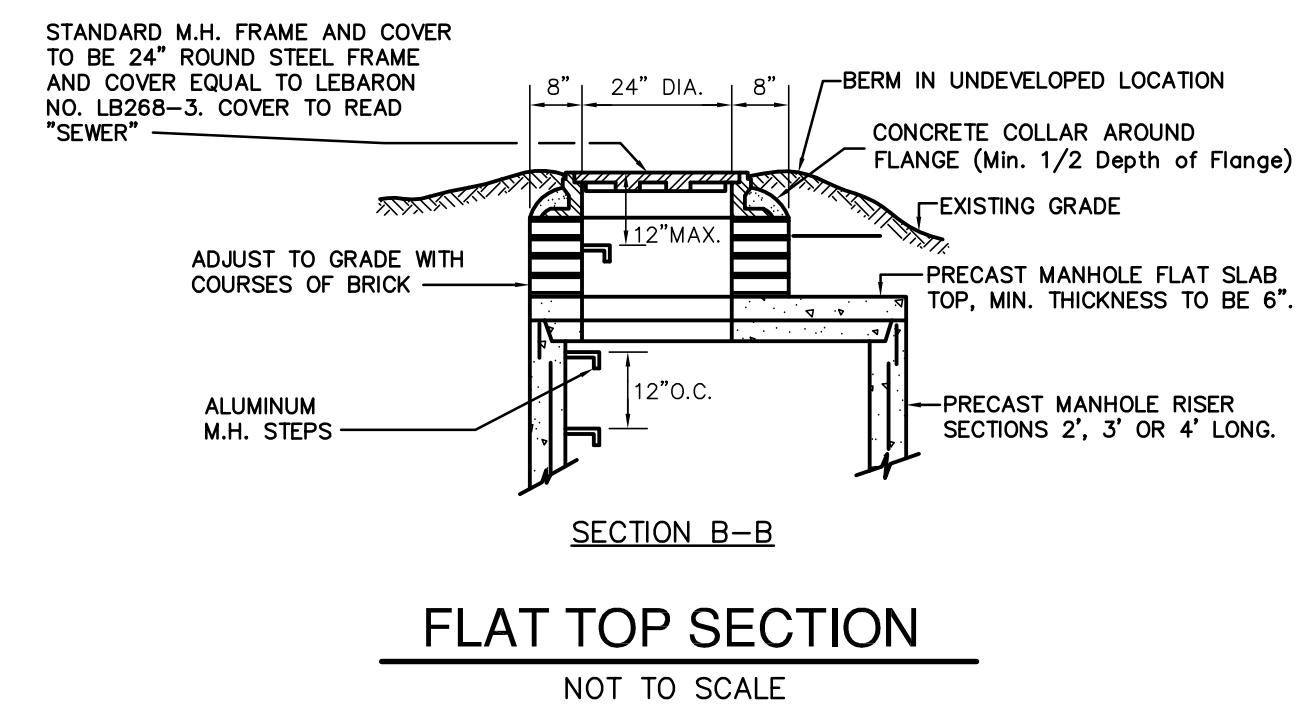
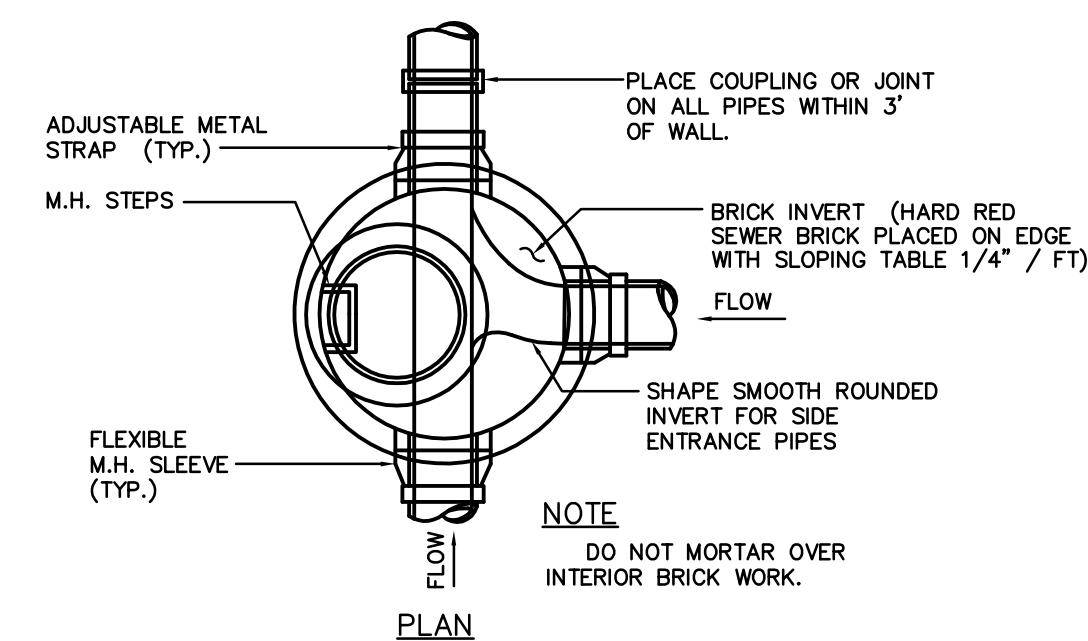
IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION

DIGSAFE IS TO BE NOTIFIED 72 WORKING HOURS IN ADVANCE OF CONSTRUCTION.

DIGSAFE 1-888-DIG-SAFE



NOTE:
FOR WATERTIGHT APPLICATIONS
USE THE FOLLOWING CASTINGS:
LE BARON FOUNDRY CO.
WATERTIGHT M.H. FRAME & COVER
No. LBW268-2
OR
LE BARON FOUNDRY CO.
BOLTED & GASKETED FRAME & COVER
No. LBB268-2
OR APPROVED EQUAL



DIGSAFE 1-888-DIG-SAFE

SITE DEVELOPMENT PLAN
"GOODRIDGE BROOK ESTATES"
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PREPARED FOR:
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94 NORTH MAIN STREET
BOYLSTON MA 01583

 **GLM** Engineering
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DRW.: RST

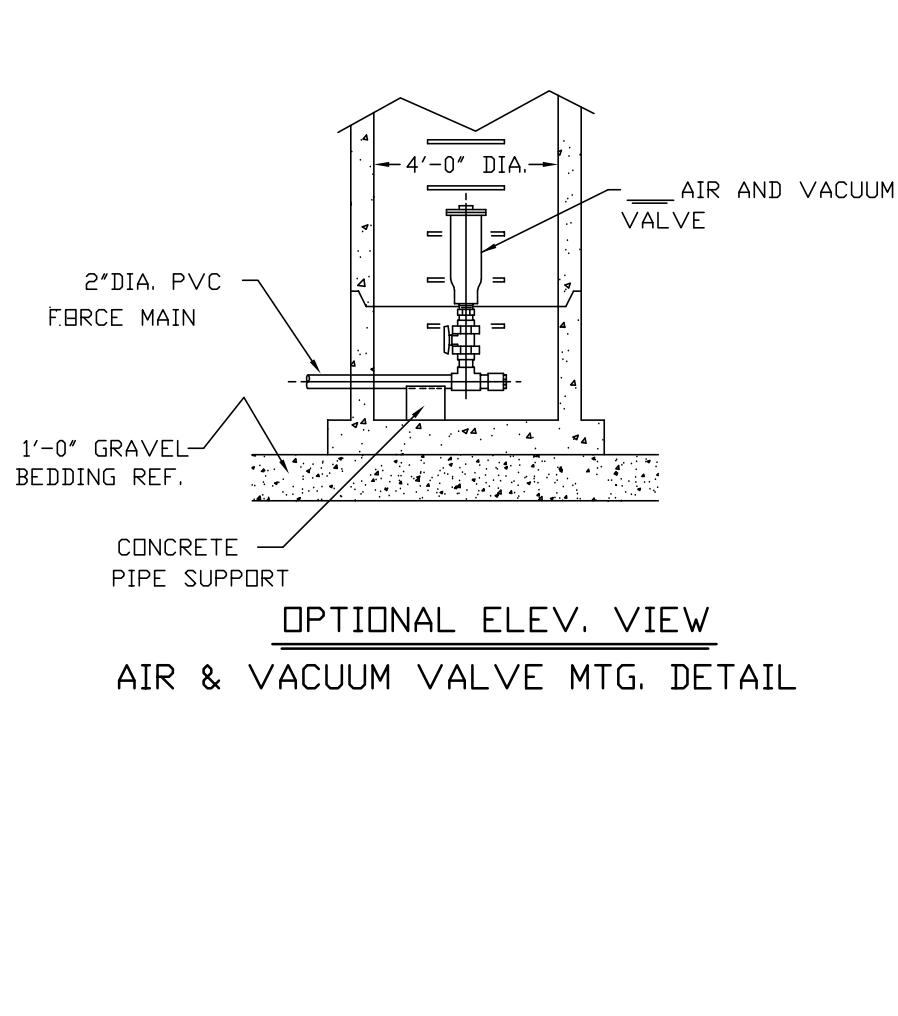
JOB No.	12,274
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DATE: FEBRUARY 8, 2018

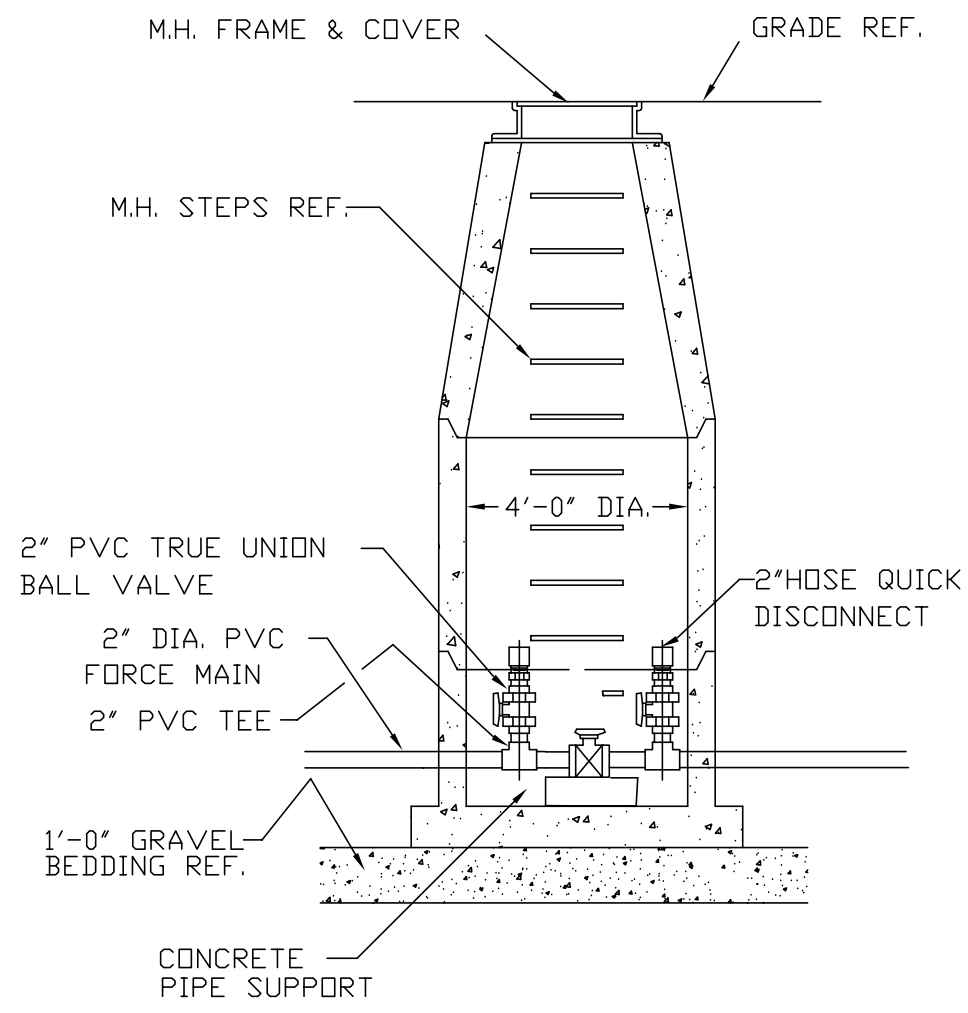
SCALE: nts

SHEET: 24 of 27

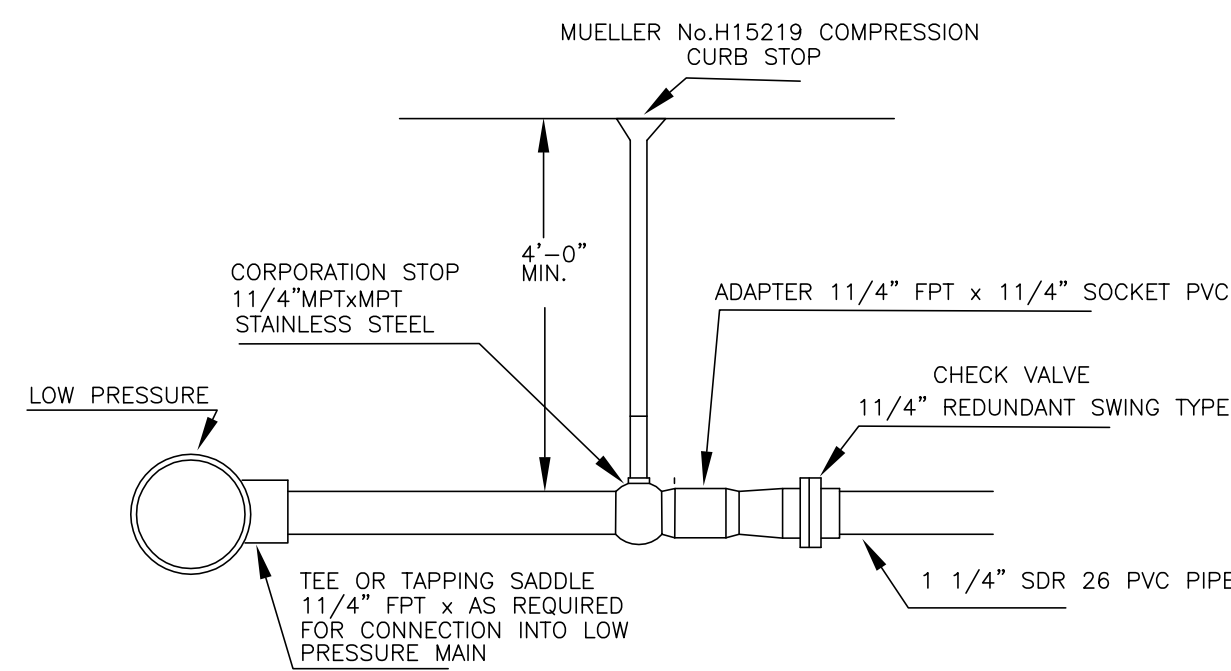
PLAN #: 27,147



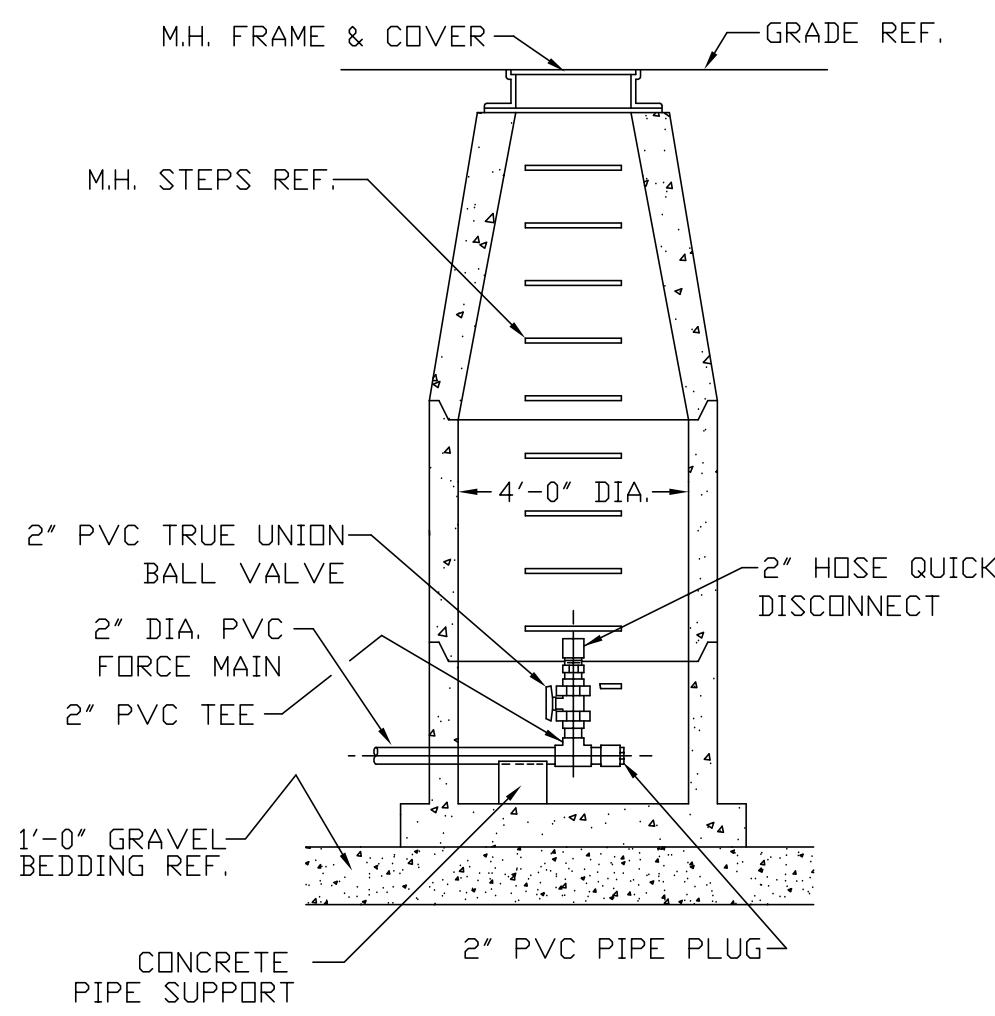
TERMINAL FLUSHING M.H. DETAIL- (SMH#3)
NOT TO SCALE



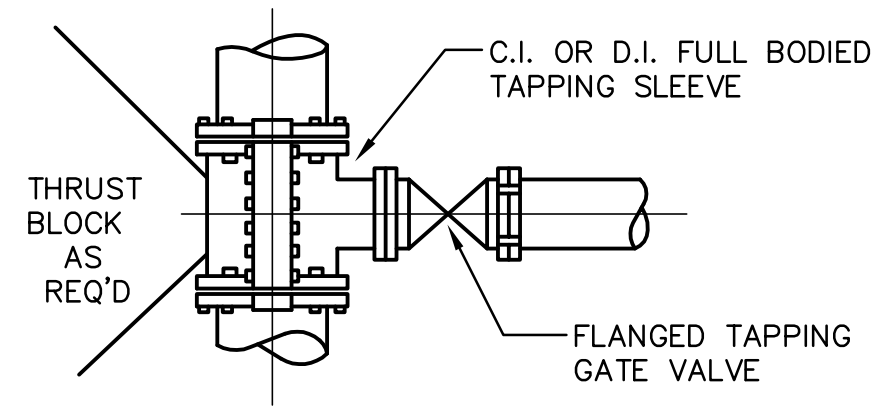
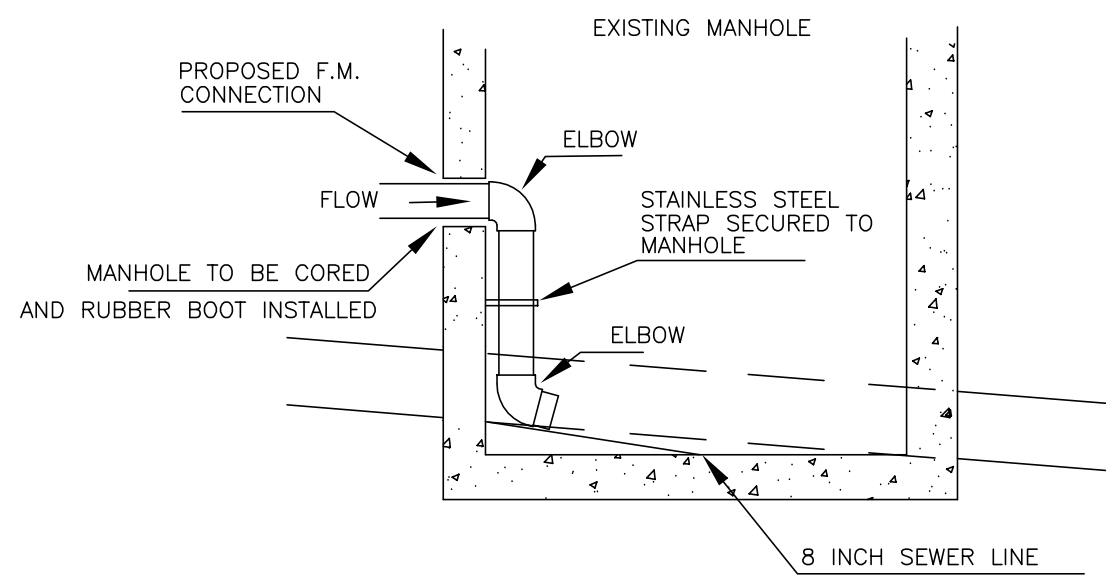
IN-LINE FLUSHING MANHOLE
CONNECTION (SMH#2)
NOT TO SCALE



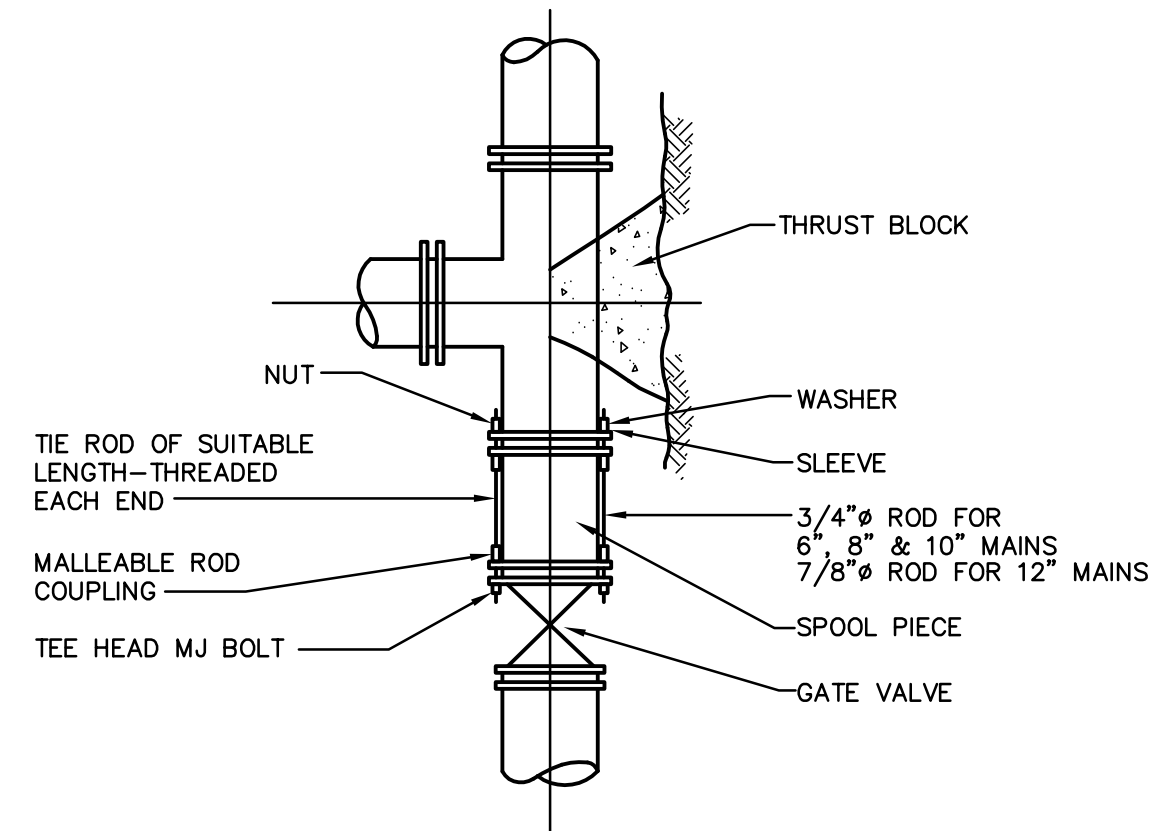
LOW PRESSURE SERVICE CONNECTION
NOT TO SCALE



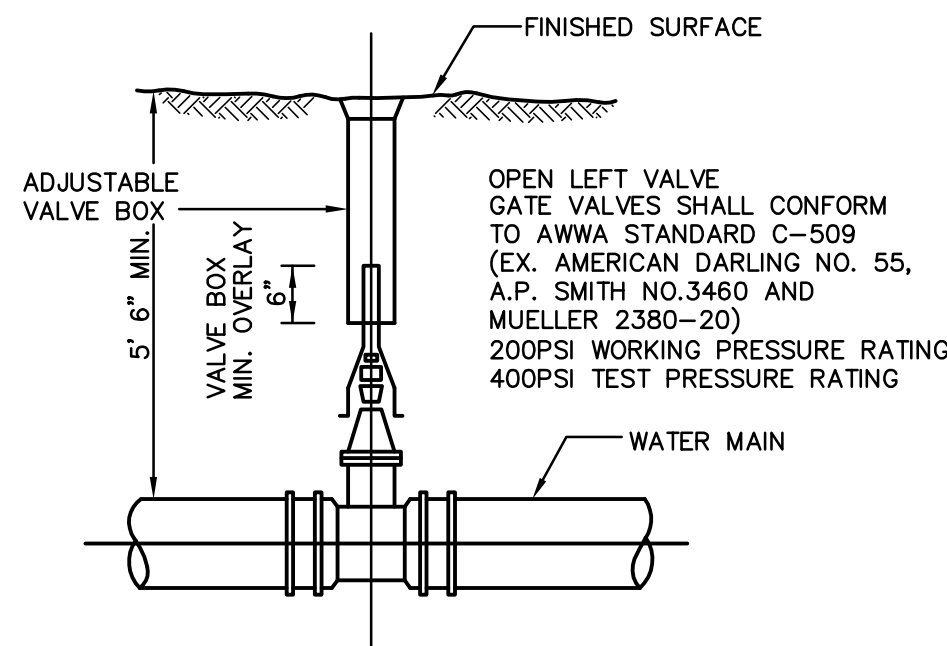
MANHOLE CONNECTION DETAIL
NOT TO SCALE



TAPPING SLEEVE AND
VALVE DETAIL
NOT TO SCALE



TYPICAL TIED MECHANICAL JOINT
VALVE CONNECTION DETAILS
NOT TO SCALE

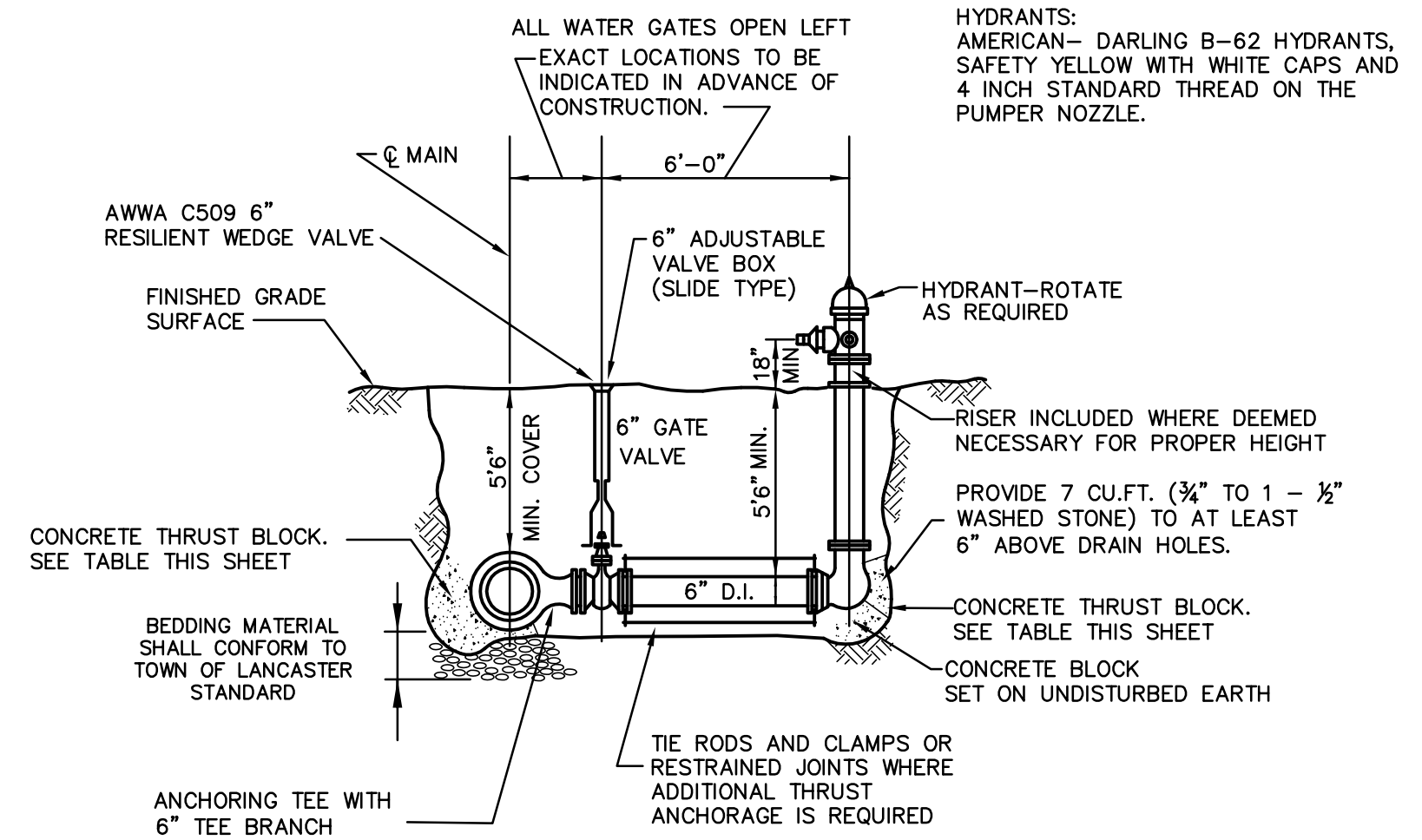


TYPICAL GATE VALVE
NOT TO SCALE

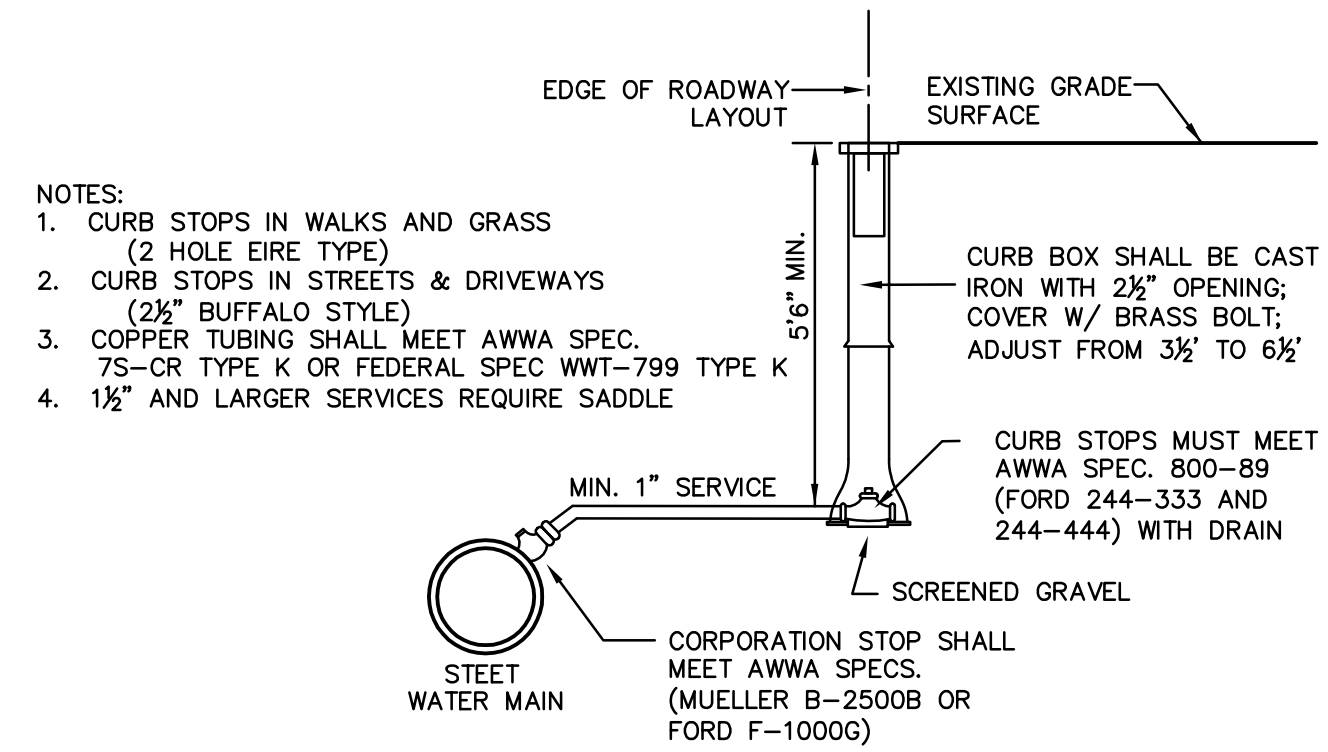
NOTE: CONCRETE FOR THRUST BLOCKS SHALL BE NO LONGER THAN THE RATIO OF 2 1/2 : 5 1/2 AND SHALL HAVE A MINIMUM COMPRESSION STRENGTH OF 2000 PSI (SO THAT FLANGES AND BOLTS ARE ACCESSIBLE.)

BEARING AREAS OF THRUST BLOCKS (BEARING AREA IN SQUARE FT.)				
PIPE SIZE INCHES	1/4 BEND	1/8 BEND	1/16 BEND OR LESS	PLUG TEES
6 AND 8	8	8		8
10 AND 12	22	13	8	16

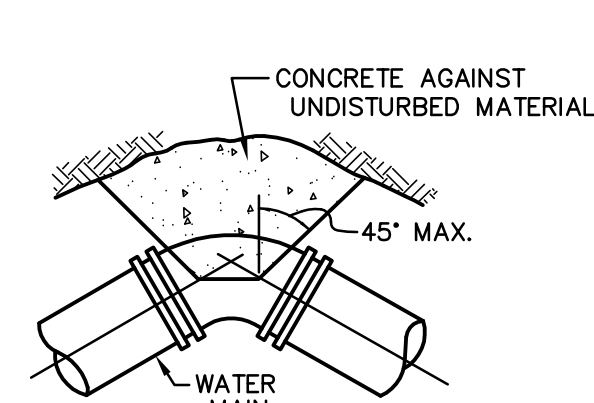
TYPICAL THRUST BLOCK DETAIL
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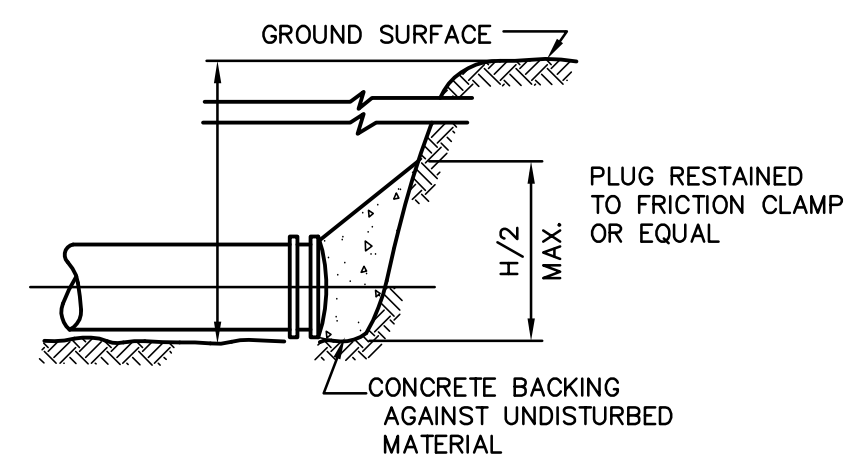
TYPICAL HYDRANT ASSEMBLY DETAIL
NOT TO SCALE



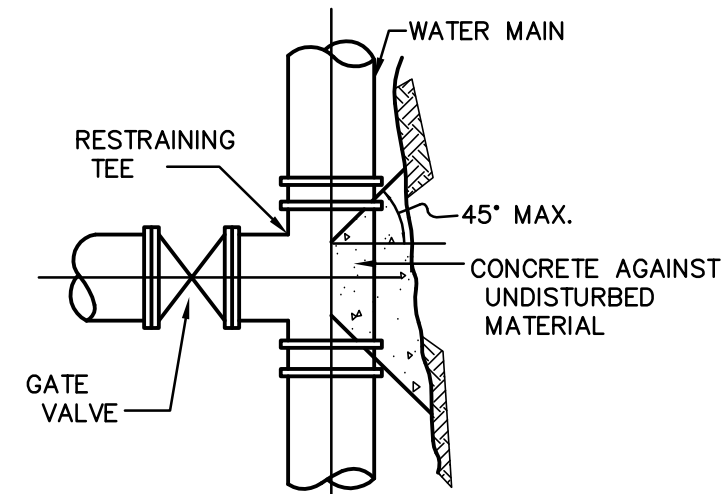
TYPICAL NEW WATER SERVICE CONNECTION DETAIL
NOT TO SCALE



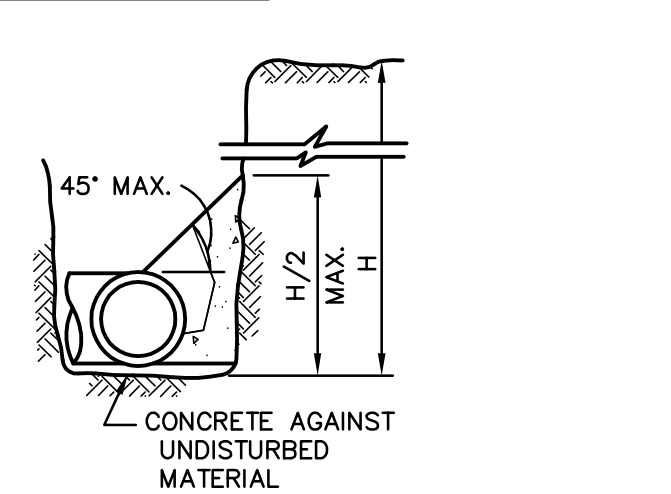
TYPICAL BEND



TYPICAL PLUG



TYPICAL TEE



TYPICAL SECTION

NOTES:
1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE TOWN OF LANCASTER CONSTRUCTION STANDARDS AND SPECIFICATIONS.
2. ALL WATER DETAILS MANUFACTURERS & CONSTRUCTION STANDARDS SHALL CONFORM TO THE TOWN OF LANCASTER STANDARDS,

DETAILS

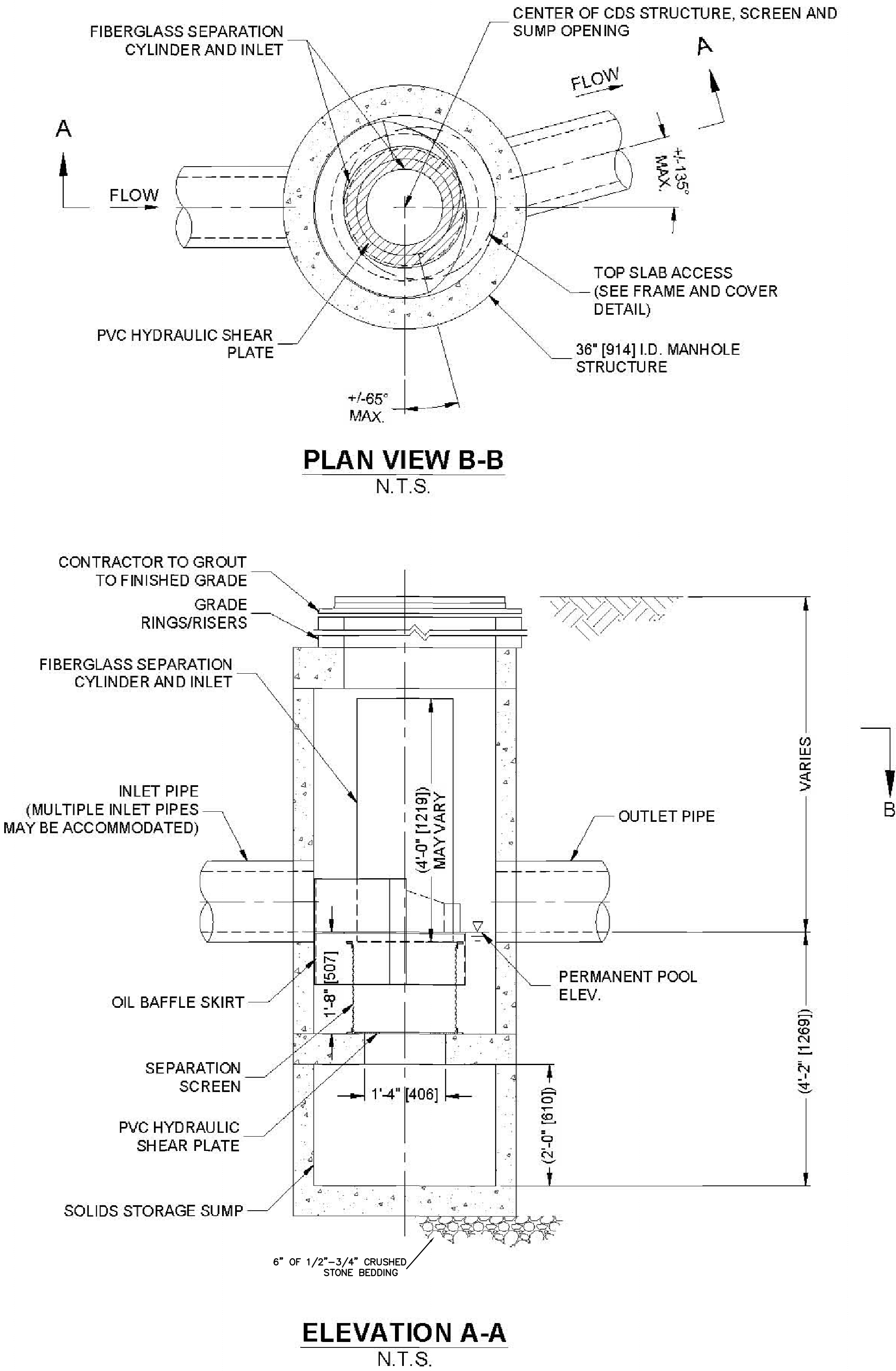
REVISIONS		10	4/12/19	11	5/15/19	MULTI UNIT LAYOUT	
1	04/10/18	APARTMENTS 136 UNITS					
2	07/06/18	PLAN LAYOUT & DRAINAGE					
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LANCASTER, MASSACHUSETTS

PREPARED FOR:
CRESCENT BUILDERS, INC.
94 NORTH MAIN STREET
BOYLSTON MA 01563

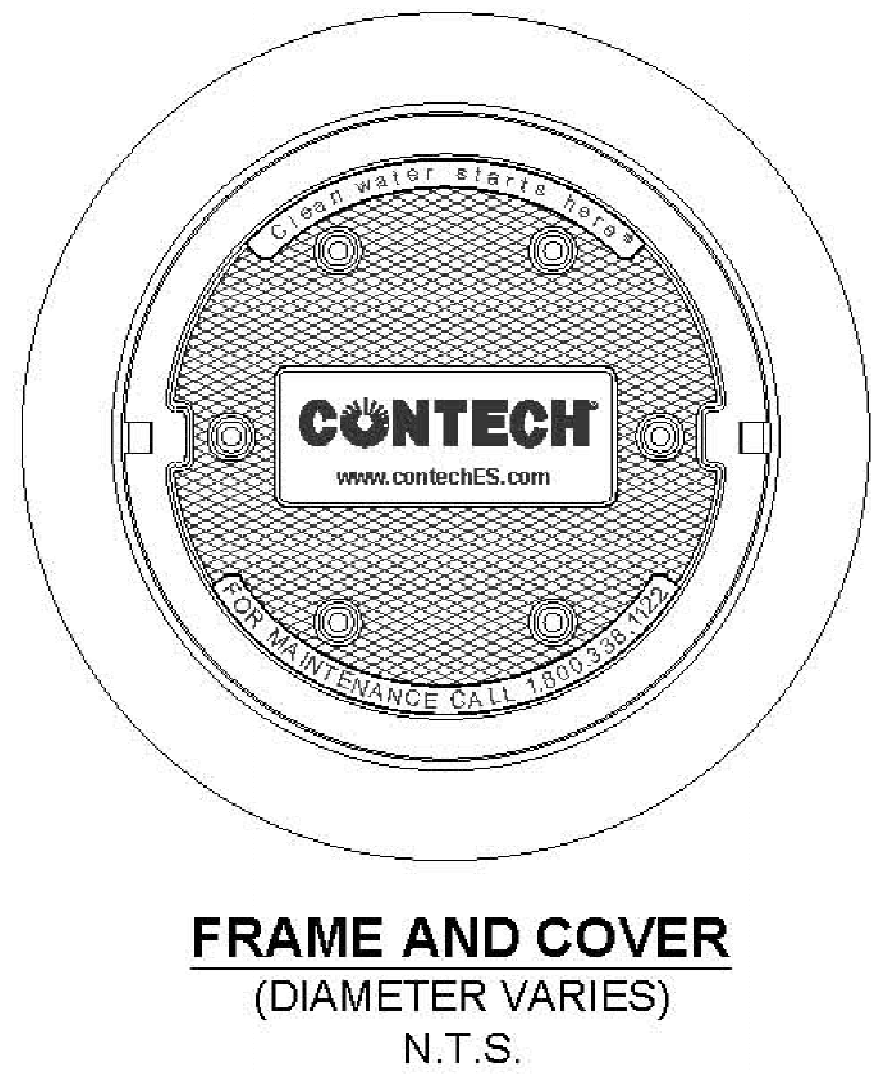
GLM Engineering Consultants, Inc.
19 EXCHANGE STREET
HOLLISTON, MA 01746
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DRW.: RST	
JOB No.	12,274
DATE:	FEBRUARY 8, 2018
SCALE:	nts
SHEET:	25 of 27
PLAN #:	27,147



CDS1515-3-C DESIGN NOTES
CDS1515-3-C RATED TREATMENT CAPACITY IS 1.0 CFS, OR PER LOCAL REGULATIONS.
THE STANDARD CDS1515-3-C CONFIGURATION IS SHOWN.

CDS UNITS TO BE INSTALLED AT:
DRAIN MH#57
DRAIN MH#66
DRAIN MH#77



- GENERAL NOTES**
- CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
 - FOR SITE SPECIFIC DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.ContechES.com
 - CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
 - STRUCTURE SHALL MEET AASHTO HS20 LOAD RATING, ASSUMING EARTH COVER OF 0' - 2', AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO.
 - IF REQUIRED, PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.
 - CDS STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-478 AND AASHTO LOAD FACTOR DESIGN METHOD.

- INSTALLATION NOTES**
- ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
 - CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE.
 - CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLE STRUCTURE.
 - CONTRACTOR TO PROVIDE, INSTALL, AND GROUT INLET AND OUTLET PIPE(S). MATCH PIPE INVERTS WITH ELEVATIONS SHOWN. ALL PIPE CENTERLINES TO MATCH PIPE OPENING CENTERLINES.
 - 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.



CDS1515-3-C
ONLINE CDS
STANDARD DETAIL

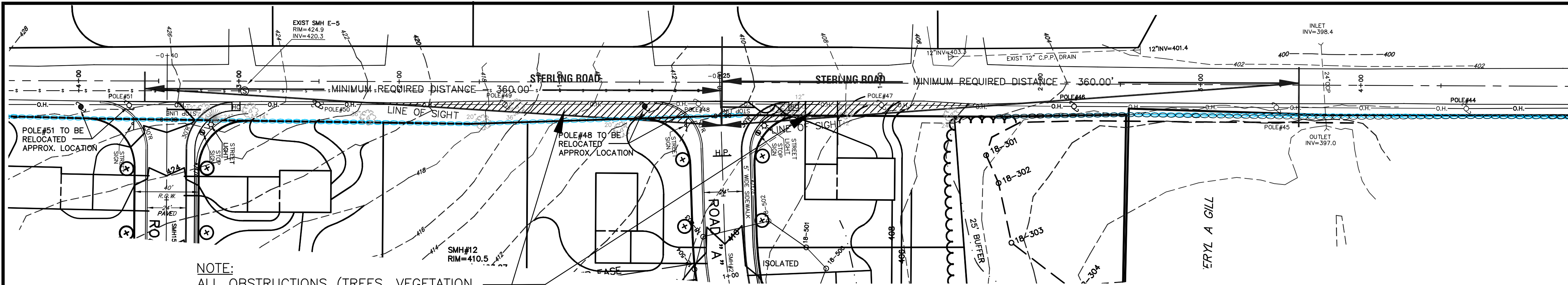
REVISIONS		REVISIONS	
1	04/10/18	APARTMENTS 136 UNITS	10
2	07/06/18	PLAN LAYOUT & DRAINAGE	11
3	07/25/18	WATER SYSTEM COMMENTS	5/15/19
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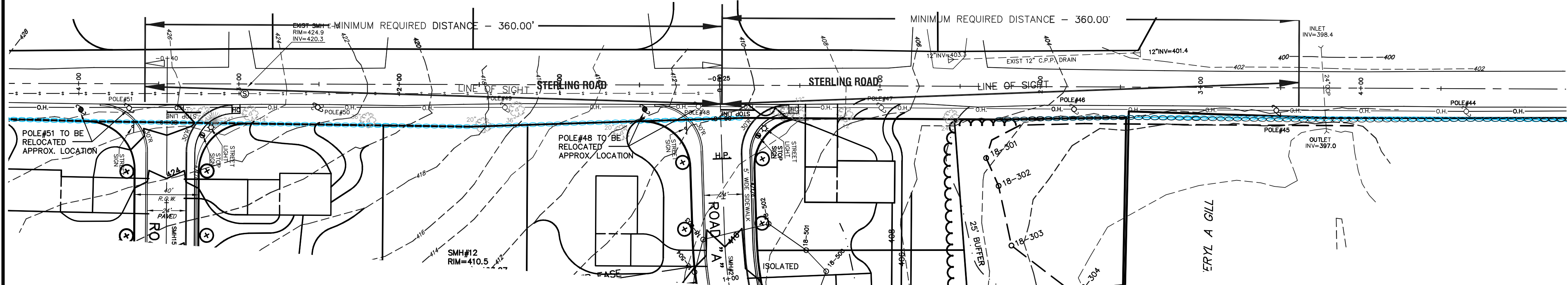
DRW.: RST
JOB No. 12,274
DATE: FEBRUARY 8, 2018
SCALE: nts
SHEET: 26 of 27
PLAN #: 27,147

DATA
STRUCTURE ID
WATER QUALITY
PEAK FLOW RATE
RETURN PERIOD
SCREEN APERTURE
PIPE DATA:
INLET PIPE 1
INLET PIPE 2
OUTLET PIPE
RIM ELEVATION
ANTI-FLOTATION
NOTES/SPECIAL F
* PER ENGINEER

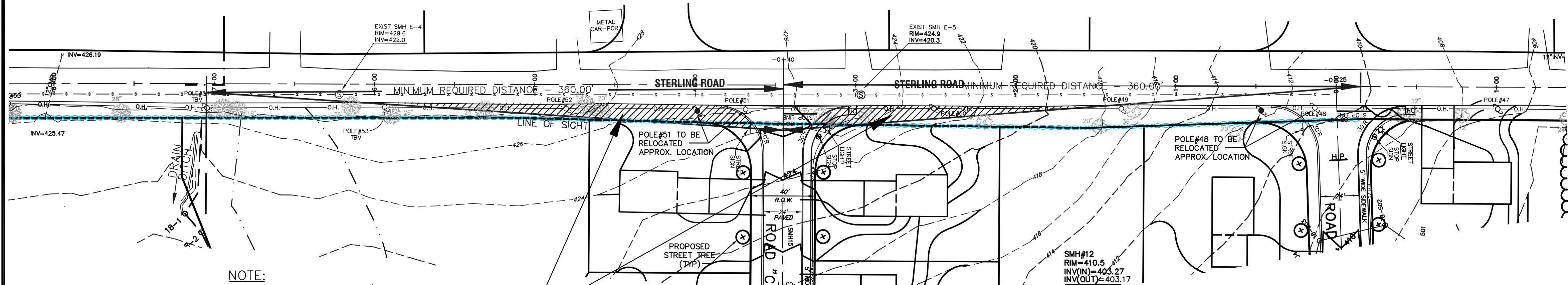


NOTE:
ALL OBSTRUCTIONS (TREES, VEGETATION,
STONEWALLS OR OTHER) THAT EXCEED 2.5
FEET IN HEIGHT WITHIN THE SITE TRIANGLE
SHALL BE REMOVED OR RELOCATED.

Intersection Sight Distance (ISD) - Road A

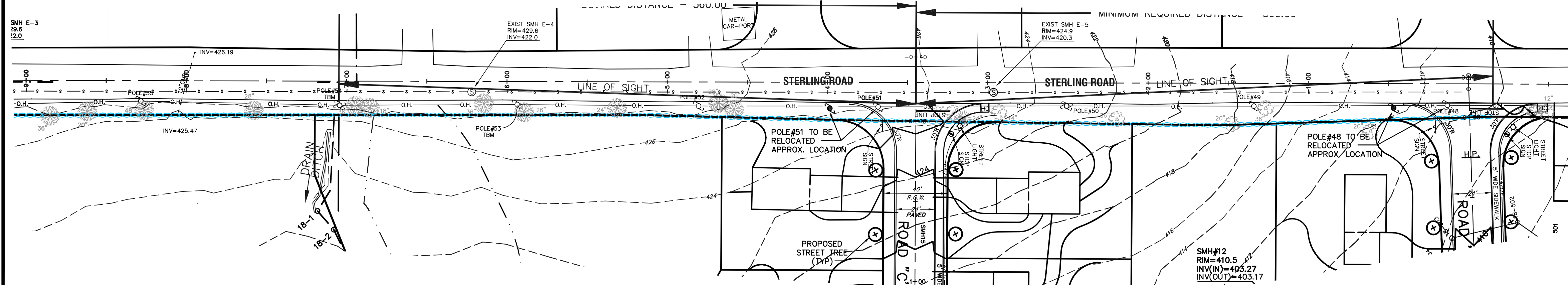


Stopping Sight Distance (SSD) - Road A



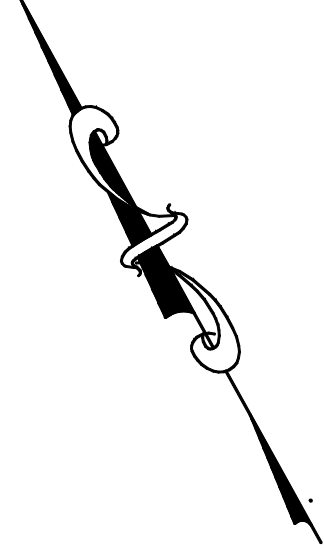
NOTE:
ALL OBSTRUCTIONS (TREES, VEGETATION,
STONEWALLS OR OTHER) THAT EXCEED 2.5
FEET IN HEIGHT WITHIN THE SITE TRIANGLE
SHALL BE REMOVED OR RELOCATED.

Intesection Sight Distance (ISD) - Road C



Stopping Sight Distance (SSD) - Road C

NOTES:
1. Signs, landscaping and other features located
within sight triangle areas shall be designed,
installed and maintained so as not to exceed
2.5-feet in height. Snow windrows located within
sight triangle areas that exceed 3.5-feet in height
or that would otherwise inhibit sight lines shall be
promptly removed.



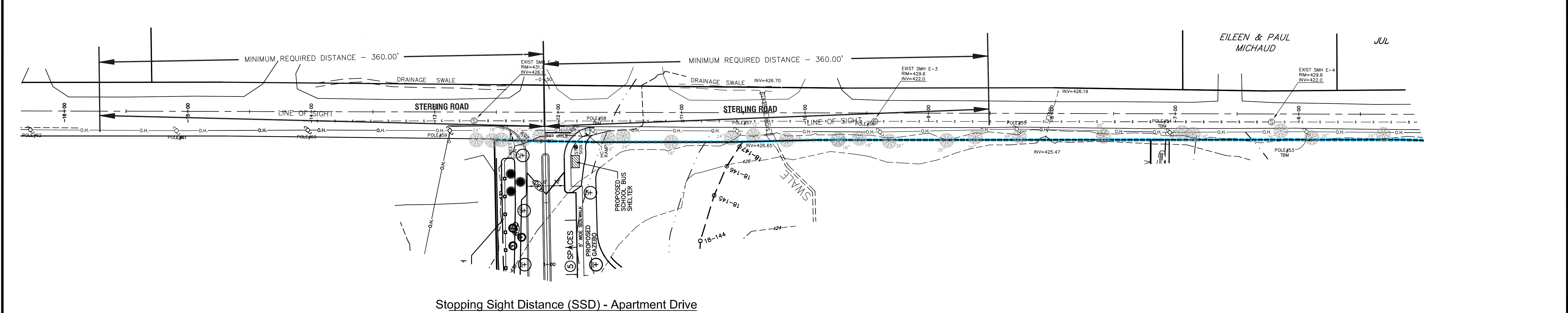
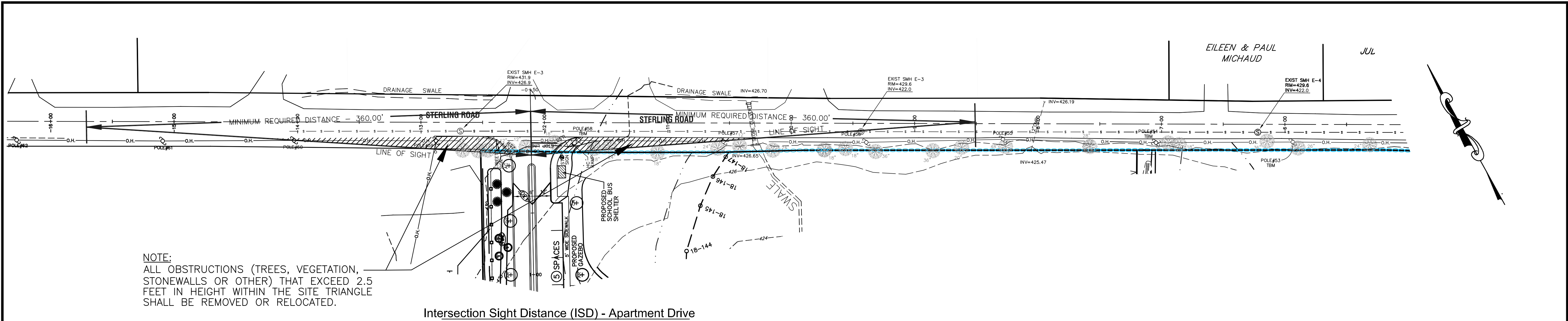
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www.GLMengineering.com

DRW.: RST	
JOB No.	12,274
DATE:	FEBRUARY 8, 2018
SCALE:	1"= 40'
SHEET:	SUP-A1
PLAN #:	27,147

REVISIONS		REVISIONS	
1	04/10/18	APARTMENTS 136 UNITS	10
2	07/06/18	PLAN LAYOUT & DRAINAGE	11
3	07/25/18	WATER SYSTEM COMMENTS	
4	09/18/18	ENGINEERING COMMENTS	
5	11/06/18	ENGINEERING COMMENTS	
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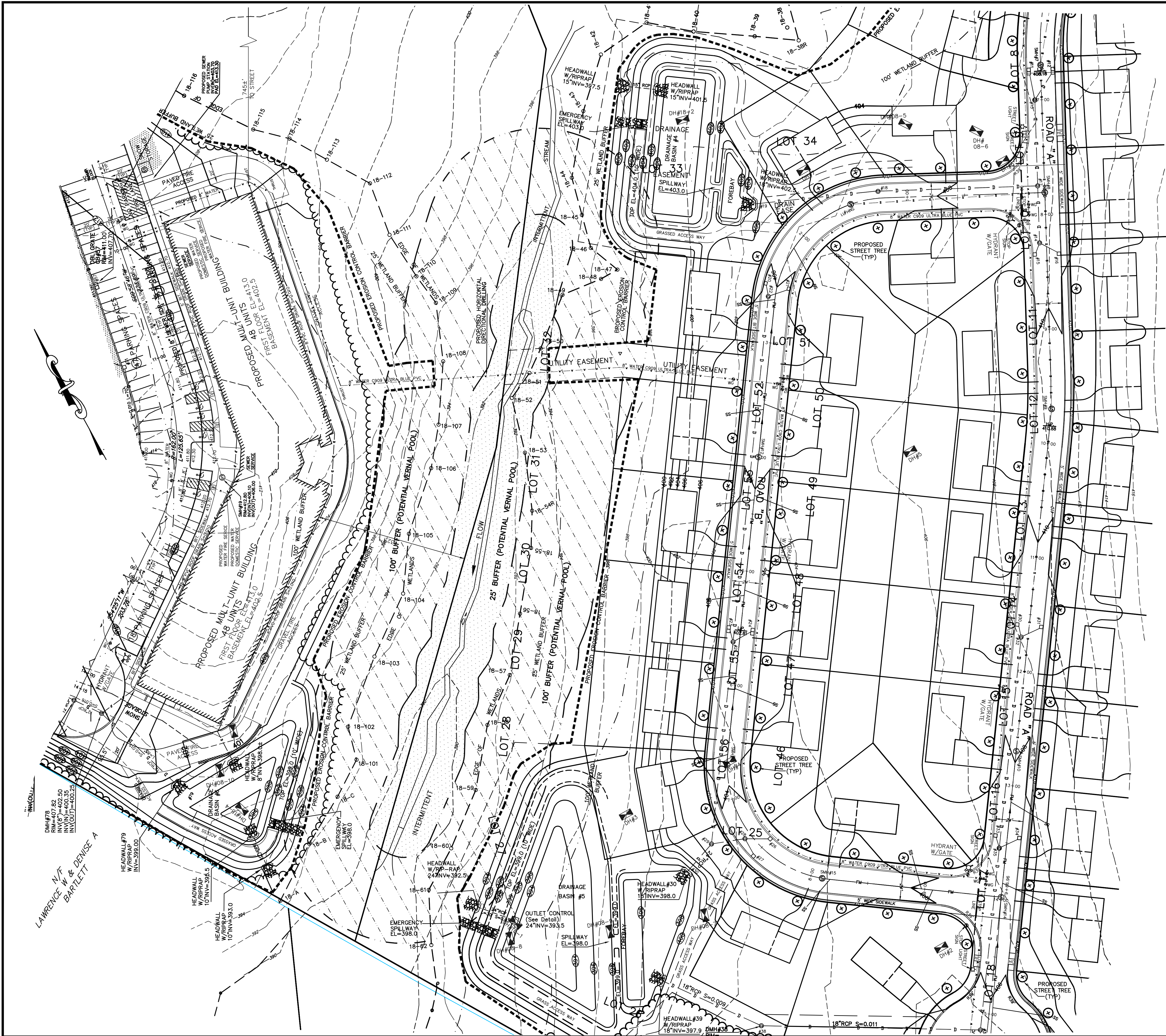
REVISIONS		REVISIONS	
NO.	DATE	DESCRIPTION	BY
1	04/10/18	APARTMENTS 136 UNITS	
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DATE: FEBRUARY 8, 2018
SCALE: 1"= 40'
SHEET: SUP-A2
PLAN #: 27,147



TOTAL PARCEL AREA: 45.4 ACRES

OWNER REFERENCE:
GLADY C KILBOURN
PO BOX 275
SO LANCASTER, MA

DEED REFERENCE:
REGISTRY OF DEEDS
BOOK 2922, PAGE 341

TOWN OF LANCASTER ASSESSOR'S REFERENCE

MAP 41, LOT 34B

PLAN REFERENCE:
WORCESTER COUNTY REGISTRY
1) PLAN BOOK 466, PLAN No. 69
2) PLAN BOOK 422, PLAN No. 76
3) PLAN BOOK 539, PLAN No. 80
4) PLAN BOOK 763, PLAN No. 63

ZONING TABLE
CLASSIFICATION: RESIDENTIAL

SUBDIVISION SCHEDULE:		REQUIRED	PROPOSED
LOT AREA:	2.0 Acres	8,000 s.f. (Min)	
FRONTAGE:	225 Feet	50 Feet (Min)	
SETBACKS:			
FRONT:	74 Feet (Arterial) 60 Feet (Collector) 55 Feet (Minor)	20 Feet (Min)	
SIDE:	20 Feet	10 Feet (Min)	
REAR:	20 Feet	20 Feet (Min)	

LEGEND	
	SEWER LINE (8" PVC TYP.)
	SEWER MANHOLE
	DRAINAGE LINE (12" CONC. TYP.)
	DRAINAGE MANHOLE
	CATCH BASIN
	WATER LINE
	WATERGATE
	HYDRANT
	WATER TEE
	CENTERLINE OF ROAD WAY
	MODIFIED CAPE COD BERM
	DENOTES CONC. BND. W/ D.H.
	100' BUFFER ZONE
	EDGE OF VEGETATED WETLANDS
	WETLAND FLAG NO.
	EROSION CONTROL BARRIER
	WETLANDS
	UTILITY POLE
	PROPOSED SPOT ELEVATION
	EXISTING CONTOUR
	PROPOSED CONTOUR
	STONE WALL
	PROPOSED LIMIT OF CLEARING
	DRILL HOLE
	IRON PIN
	DEEP TEST HOLE

GRAPHIC SCALE



(IN FEET)
1 inch = 40 ft.

POTENTIAL VERNAL POOL BUFFERS

REVISIONS		REVISIONS	REVISIONS
MULTI UNIT LAYOUT		10	4/12/19
MULTI UNIT LAYOUT		11	5/15/19
APARTMENTS 136 UNITS		1	04/10/18
PLAN LAYOUT & DRAINAGE		2	07/06/18
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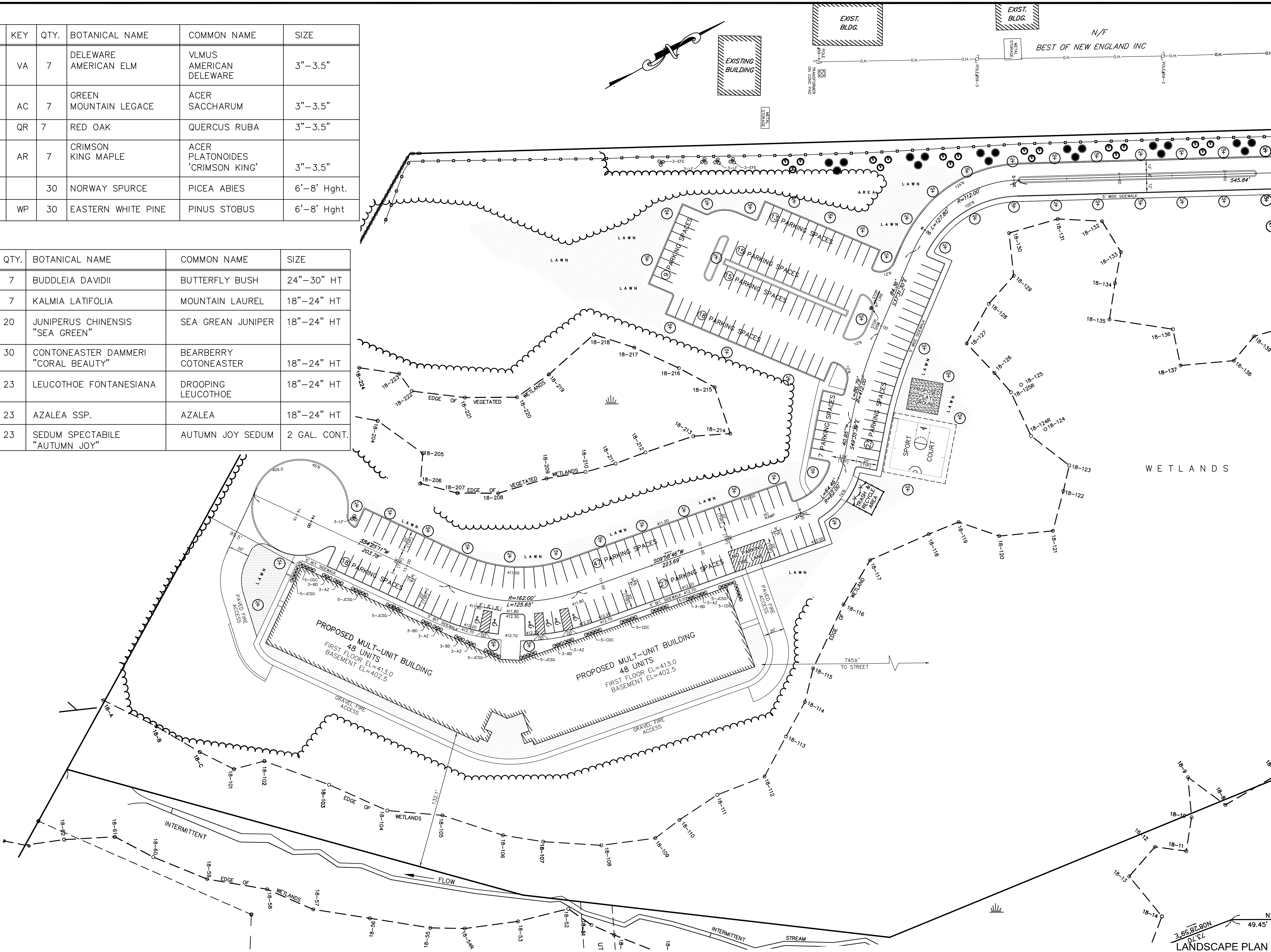
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JOB No. 12,274
DATE: FEBRUARY 8, 2018
SCALE: 1"= 40'
SHEET: SUP - A3
PLAN #: 27,147

KEY	KEY	QTY.	BOTANICAL NAME	COMMON NAME	SIZE
VA	VA	7	DELEWARE AMERICAN ELM	VLMUS AMERICAN DELEWARE	3"—3.5"
AC	AC	7	GREEN MOUNTAIN LEGACE	ACER SACCHARUM	3"—3.5"
QR	QR	7	RED OAK	QUERCUS RUBA	3"—3.5"
AR	AR	7	CRIMSON KING MAPLE	ACER PLATONOIDES 'CRIMSON KING'	3"—3.5"
		30	NORWAY SPURCE	PICEA ABIES	6'—8' Hght.
WP	WP	30	EASTERN WHITE PINE	PINUS STOBUS	6'—8' Hght

KEY	QTY.	BOTANICAL NAME	COMMON NAME	SIZE
BD	7	BUDDLEIA DAVIDII	BUTTERFLY BUSH	24"—30" HT
KL	7	KALMIA LATIFOLIA	MOUNTAIN LAUREL	18"—24" HT
JCSG	20	JUNIPERUS CHINENSIS "SEA GREEN"	SEA GREAN JUNIPER	18"—24" HT
CDC	30	CONTONEASTER DAMMERI "CORAL BEAUTY"	BEARBERRY COTONEASTER	18"—24" HT
LF	23	LEUCOTHOE FONTANESIANA	DROOPING LEUCOTHOE	18"—24" HT
AZ	23	AZALEA SSP.	AZALEA	18"—24" HT
SSA	23	SEDUM SPECTABILE "AUTUMN JOY"	AUTUMN JOY SEDUM	2 GAL. CONT.

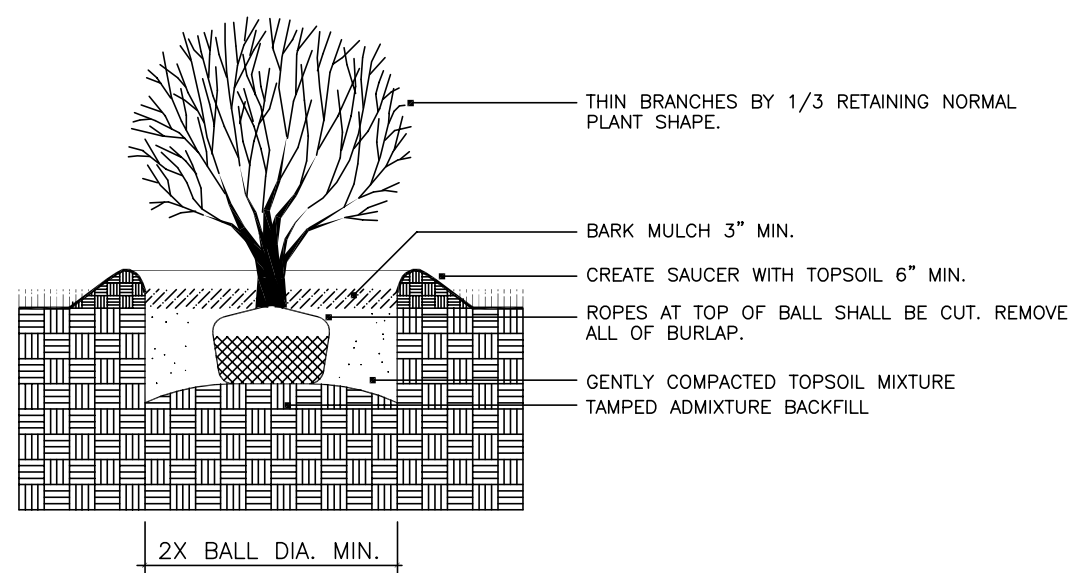


REVISIONS		4/12/19	5/15/19
10	MULTI UNIT LAYOUT		
11	MULTI UNIT LAYOUT		
1	APARTMENTS 136 UNITS		
2	PLAN LAYOUT & DRAINAGE		
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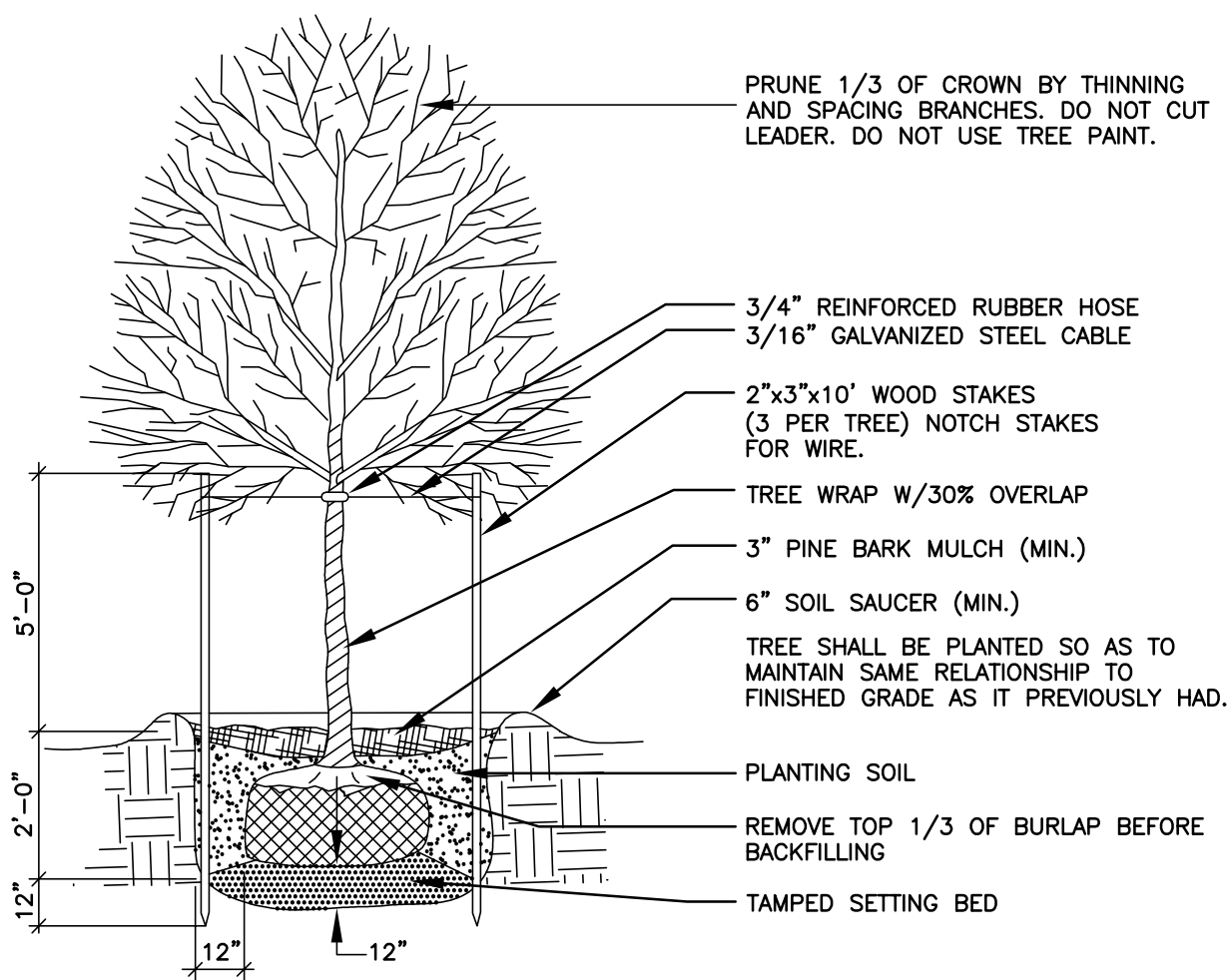
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HOLLISTON, MA 01746
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DRW.: RST
JOB No. 12,274
DATE: FEBRUARY 8, 2018
SCALE: 1"= 40'
SHEET: L1
PLAN #: 27,147



BALL AND BURLAP SHRUB PLANTING

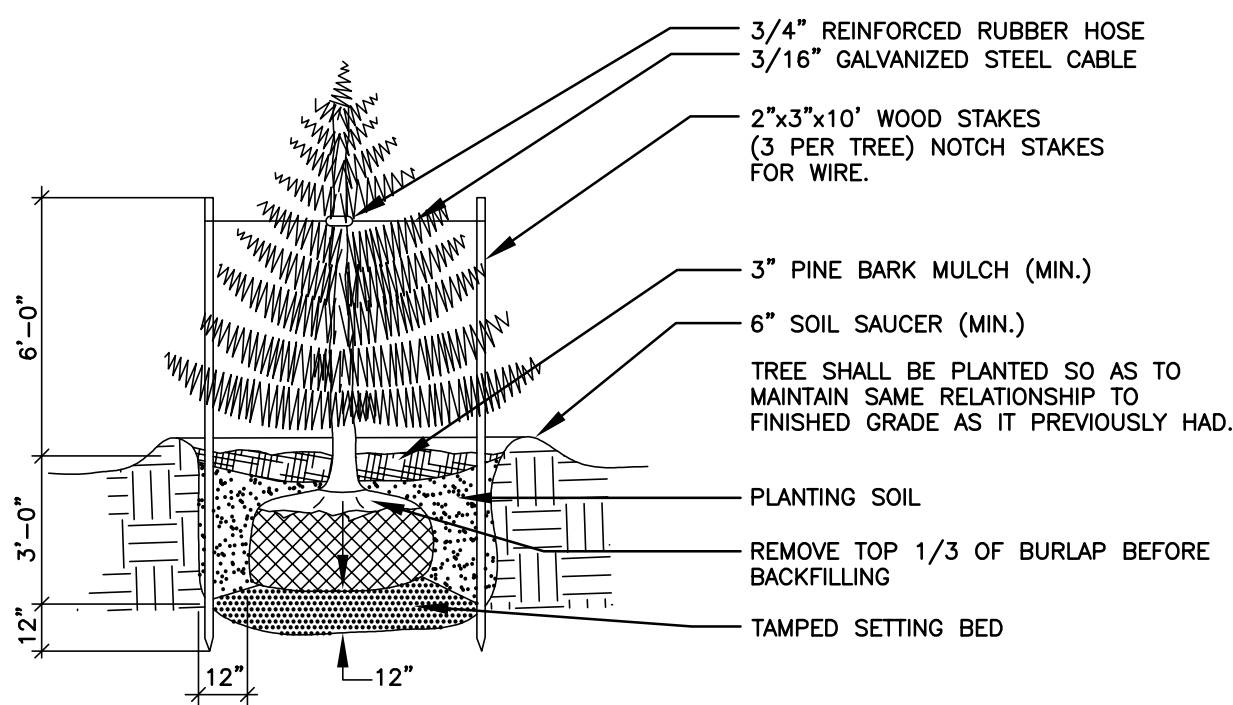
NOT TO SCALE



TYP. DECIDUOUS TREE PLANTING

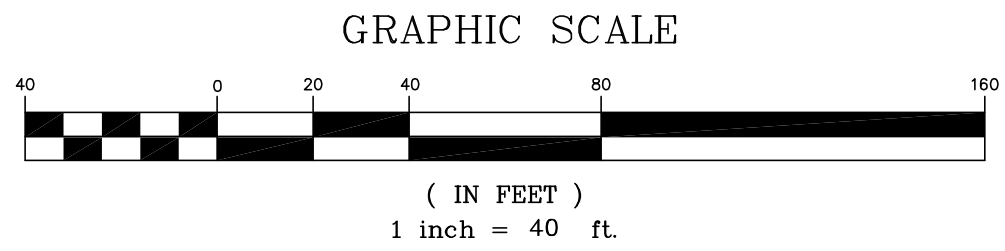
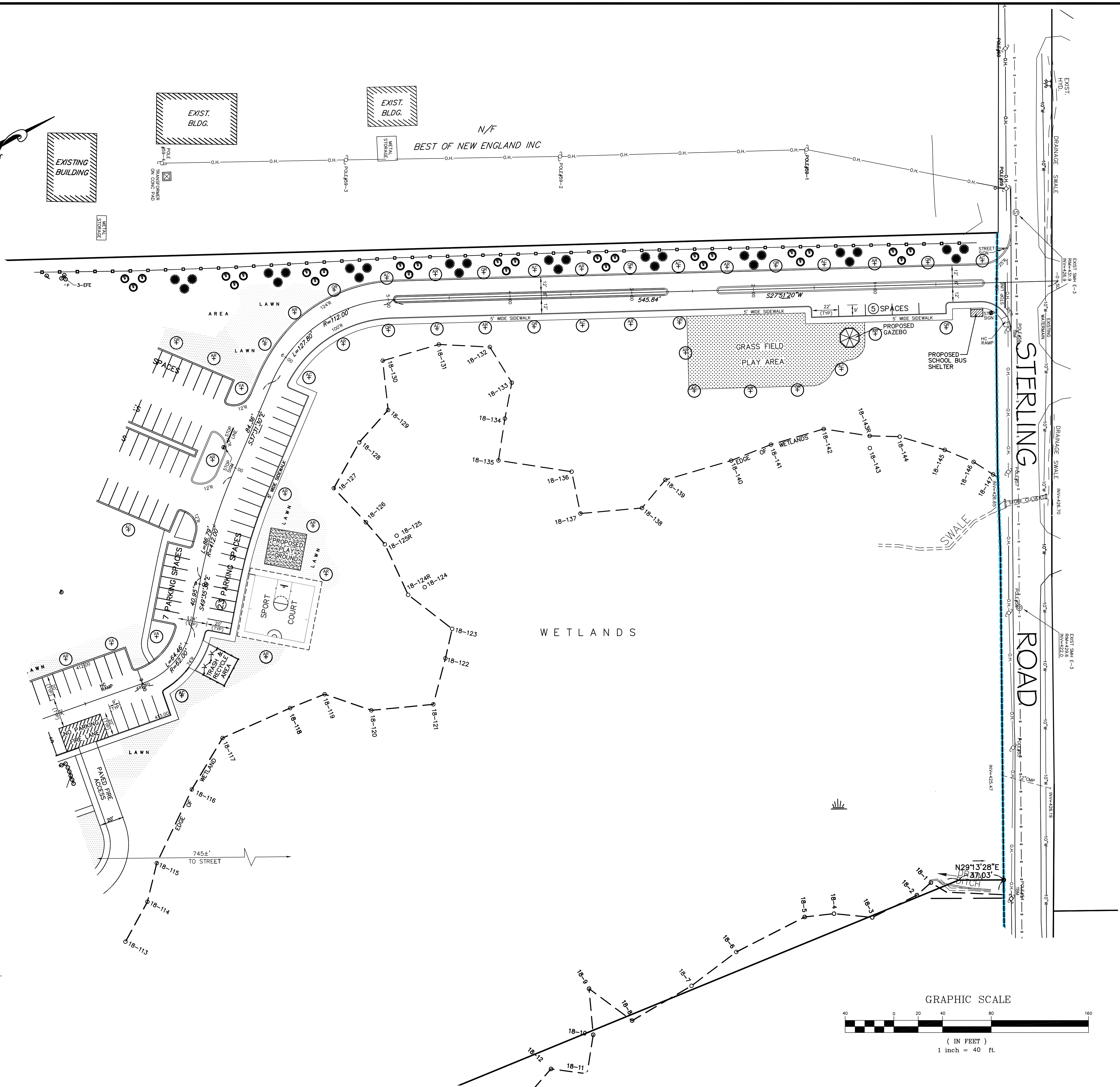
NOT TO SCALE

NOTE:
MINIMUM TREE HEIGHT 12 FEET.



TYP. EVERGREEN TREE PLANTING

NOT TO SCALE



LANDSCAPE PLAN

SITE DEVELOPMENT PLAN
"GOODRIDGE BROOK ESTATES"
Multi Unit & Single Family Subdivision Layout
LANCASTER, MASSACHUSETTS

PREPARED FOR:
CRESCENT BUILDERS, INC.
94 NORTH MAIN STREET
BOYLSTON MA 01563

GLM Engineering Consultants, Inc.
19 EXCHANGE STREET
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DRW.: RST

JOB No. 12,274

DATE: FEBRUARY 8, 2018

SCALE: 1"= 40'

SHEET: L2

PLAN #: 27,147

REVISIONS		10	4/12/19
1	APARTMENTS 136 UNITS	11	5/15/19
2	PLAN LAYOUT & DRAINAGE		
3	WATER SYSTEM COMMENTS		
4	ENGINEERING COMMENTS		
5	ENGINEERING COMMENTS		
6	ENGINEERING COMMENTS		
7	FIRE ACCESS		
8	COMMENTS & LANDSCAPE		
9	COMMENTS & LANDSCAPE		