

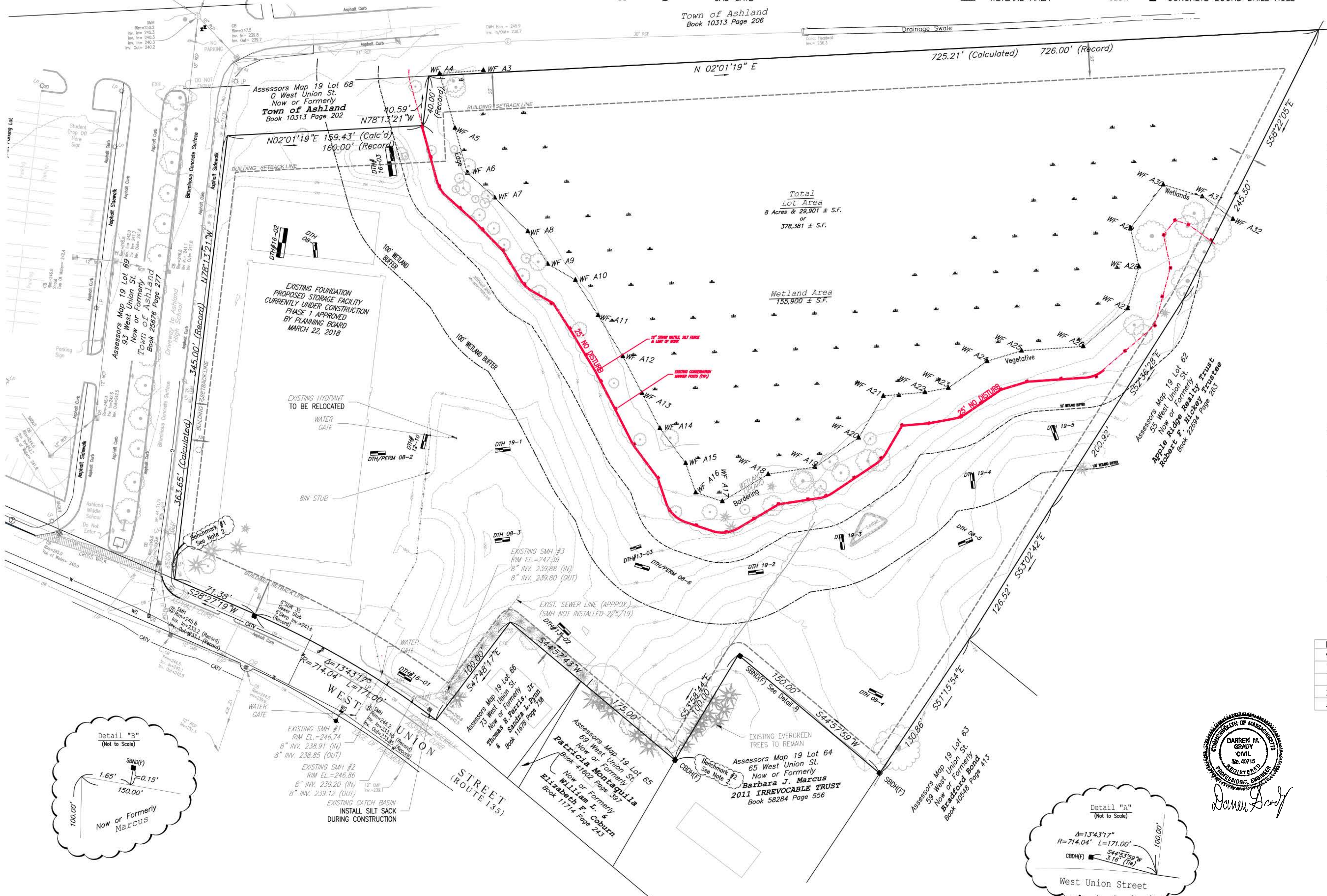
Legend

Symbols and Abbreviations Shown on This Plan

- | | | | | | | | |
|------|--------------------------------|----------|---------------------------------------|--------|--------------|----------|---------------------------|
| 132 | EXISTING CONTOUR | OW | OVERHEAD WIRES | WG | WATER GATE | CMP | CORRUGATED METAL PIPE |
| CATV | UNDERGROUND CABLE & TELEVISION | — | STONE WALL | LP | LIGHT POLE | RCP | REINFORCED CONCRETE PIPE |
| G | UNDERGROUND GAS LINE | UP | UTILITY POLE | Hyd. | SIGN | WF 22 | WETLAND FLAG WITH NUMBER |
| W | UNDERGROUND WATER LINE | CB | CATCH BASIN | + | HYDRANT | (F) | FOUND |
| E | UNDERGROUND ELECTRIC LINE | DMH | DRAIN MANHOLE | +139.7 | SPOT GRADE | CTR. BK. | CENTER BACK |
| D | UNDERGROUND DRAIN LINE | SMH | SEWER MANHOLE | RET. | RETAINING | SBDH | STONE BOUND NO DRILL HOLE |
| S | UNDERGROUND SEWER LINE | DTH/PERM | DEEP TEST HOLE WITH PERMEABILITY TEST | GC | GRANITE CURB | SBDH | STONE BOUND DRILL HOLE |
| | | GG | GAS GATE | W | WETLAND AREA | CBDH | CONCRETE BOUND DRILL HOLE |



Town of Ashland
Book 10313 Page 206



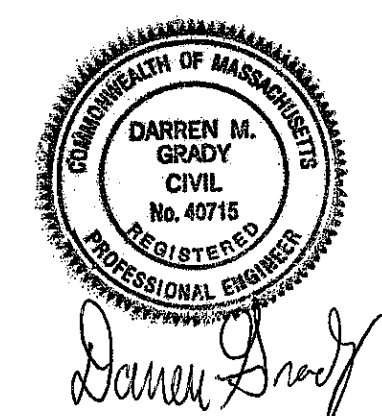
Notes

- 1.) RECORD OWNER IS 81 WEST UNION STREET, LLC SEE DEED BOOK 64487 PAGE 299.
- 2.) ELEVATIONS REFER TO NGVD OF 1929. BENCHMARK #1 : CHISELED SQUARE ON LIGHT POLE BASE. ELEVATION = 247.16. BENCHMARK #2 : TOP OF CBDH(F). ELEVATION = 259.00.
- 3.) SEE ASHLAND ASSESSORS MAP 19, PARCEL 67.
- 4.) PARCEL FALLS WITHIN THE HIGHWAY COMMERCE (HC) ZONING DISTRICT.
- 5.) PARCEL FALLS IN ZONE X AS SHOWN ON FIRM COMMUNITY PANEL 25017C 0513F DATED JULY 7, 2014.
- 6.) THE CERTIFICATIONS SHOWN HEREON ARE INTENDED TO MEETS REGISTRY OF DEEDS REQUIREMENTS AND ARE NOT A CERTIFICATION TO TITLE OR OWNERSHIP OF THE PROPERTY DEPICTED HEREON. OWNERS OF ADJOINING PROPERTIES ARE ACCORDING TO CURRENT ASSESSORS RECORDS.
- 7.) SEE MIDDLESEX SOUTH DISTRICT REGISTRY OF DEEDS FOR RECORD DOCUMENTS.
- 8.) PROPERTY LINE INFORMATION WAS COMPILED FROM VIRGINIA'S GREEN SITE PLAN DATED NOVEMBER 2008 BY SCHOFIELD BROTHERS OF NEW ENGLAND, INC.
- 9.) SITE IS CURRENTLY UNDER CONSTRUCTION. TOPOGRAPHIC FEATURES SHOWN WERE COMPILED FROM A FIELD SURVEY BY SCHOFIELD BROTHERS OF NEW ENGLAND ON OR BETWEEN FEBRUARY 19 & 26, 2008.
- 10.) WETLANDS WERE DELINEATED AND FIELD LOCATED BY SCHOFIELD BROTHERS OF NEW ENGLAND IN FEBRUARY 2008 AND APPROVED BY ASHLAND CONSERVATION COMMISSION ORDER OF RESOURCE AREA DELINEATION DATED JUNE 23, 2008. ORDER OF RESOURCE DELINEATION EXTENDED 6/23/2018 BY EXTENSION ISSUED BY THE ASHLAND CONSERVATION COMMISSION DATED 6/22/2015, SAID BEING EXTENSION RECORDED IN THE MIDDLESEX REGISTRY OF DEEDS IN BOOK 66705, PAGE 156. AN ORDER OF CONDITIONS WAS ISSUED FOR PHASE 1 ON JANUARY 12, 2017, AND AN AMENDMENT WAS ISSUED ON FEBRUARY 26, 2018.
- 11.) THIS TOPOGRAPHIC SURVEY WAS PREPARED TO MEET NATIONAL MAP ACCURACY STANDARDS AT A SCALE OF 1"=40' HORIZONTALLY AND A 1 FOOT CONTOUR INTERVAL VERTICALLY. ANY REPRODUCTIONS OR RESCALING MAY EFFECT THE MAP ACCURACY.
- 12.) LOCATION OF UNDERGROUND UTILITIES SHOWN HEREON ARE BASED ON FIELD LOCATION OF VISIBLE STRUCTURES SUCH AS CATCH BASINS, MANHOLES, WATER GATES, ETC., AND COMPILING INFORMATION FROM PLANS SUPPLIED BY VARIOUS UTILITY COMPANIES AND GOVERNMENT AGENCIES AND MEET ASCE QUALITY LEVEL C PER C1 ASCE #38-02. THE LOCATION SHOWN SHALL BE CONSIDERED APPROXIMATE. BEFORE CONSTRUCTION, THE LOCATION OF UNDERGROUND UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR. IN ACCORDANCE WITH CH. 82, SEC. 40 AS AMENDED, ALL UTILITY COMPANIES AND APPLICABLE AGENCIES MUST BE CONTACTED. CONTACT "DIG-SAFE" AT 1-888-344-7233.
- 13.) LEGAL STATUS OF EASEMENTS, WAYS, AND RESTRICTIONS NOT DETERMINED BY THIS SURVEY.

REVISIONS	DESCRIPTION
9/9/19	PLANNING, CON COM, TEC. REVIEW COMMENTS
12/16/19	PLANNING BOARD COMMENTS - MIXED USE
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PHASE 2 SITE PLAN

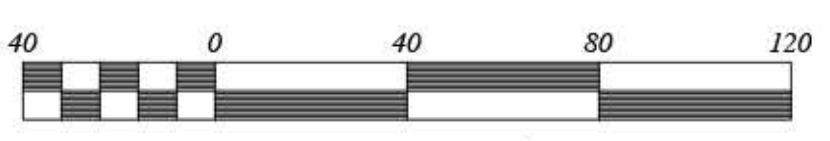
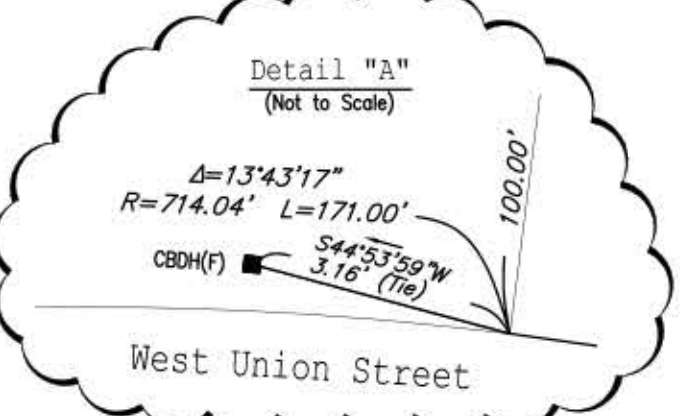
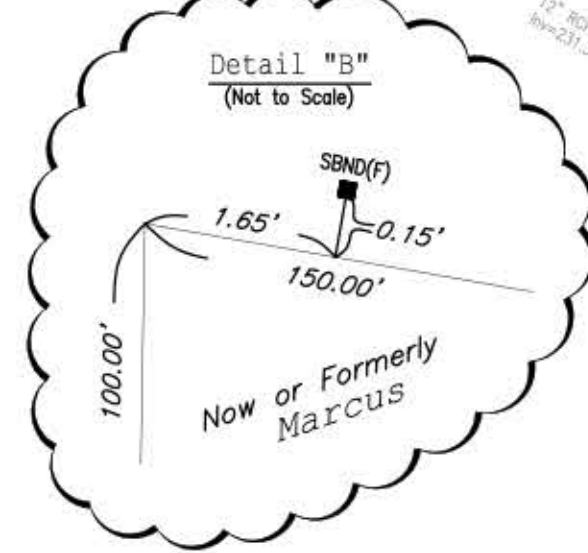
#81 WEST UNION STREET
ASHLAND, MASSACHUSETTS



PREPARED FOR:
81 WEST UNION STREET LLC
C/O WILLIAM J. RODENHISER
70 BARTZAK DRIVE
HOLLISTON, MA 01746

JUNE 13, 2019
SCALE: 1"=40'
JOB No. 18-284

GRADY CONSULTING, L.L.C.
Civil Engineers and Land Surveyors
71 Evergreen Street, Suite 1, Kingston, MA 02364
Phone (781) 585-2300 Fax (781) 585-2378



Scale 1" = 40'

SOIL LOGS

(NOT TO SCALE)

DEEP TEST HOLE#08-8 (September 2008)

Depth	Soil Horizon	Soil Texture	Soil Color
0"-12"	A	Sandy Loam	10YR3/3
12"-27"	Bw	Sandy Loam	10YR5/8
27"-50"	C1	Fine Sandy Loam	5Y5/2
50"-126"	C2	Sand (medium)	10YR5/2
Motting 42"	Weeping 80"	Standing 90"	Refusal None
E.S.H.G.W. = 42"	EL.=238.8±	NGVD Datum	

DEEP TEST HOLE#12-09 (May 2012)

Depth	Soil Horizon	Soil Texture	Soil Color
0"-12"	A	Loam	10YR3/3
6"-168"	C	Loamy Sand	2.5Y5/3
Motting None	Weeping None	Standing None	Refusal None
E.S.H.G.W. > 168"	EL.=237.5±	NGVD Datum	

DEEP TEST HOLE#12-10 (May 2012)

Depth	Soil Horizon	Soil Texture	Soil Color
0"-6"	A	Loam	10YR3/3
6"-42"	B	Sandy Loam	10YR4/6
42"-186"	C	Fine Sandy Loam	2.5Y5/3
Motting None	Weeping None	Standing None	Refusal None
E.S.H.G.W. = > 186"	EL.=235.6±	NGVD Datum	

DEEP TEST HOLE#13-05 (January 2014)

Depth	Soil Horizon	Soil Texture	Soil Color
0"-17"	A	Loam	10YR3/6
17"-38"	B	Sandy Loam	10YR5/6
38"-132"	C	Sand	2.5Y5/3
Motting None	Weeping None	Standing None	Refusal None
E.S.H.G.W. > 132"	EL.=238.4±	NGVD Datum	

DEEP TEST HOLE#13-01 (January 2014)

Depth	Soil Horizon	Soil Texture	Soil Color
0"-8"	A	Loam	10YR2/2
8"-24"	B	Sandy Loam	10YR4/6
24"-54"	C1	Sandy Loam	5Y5/3
54"-102"	C2	Sand (medium)	2.5Y5/4
Motting None	Weeping None	Standing 78"	Refusal None
E.S.H.G.W. = 78"	EL.=237.8±	NGVD Datum	

MONITORING WELL #12-09 READINGS

BOTTOM DEPTH = 13.8' (EL.=237.7± NGVD)

Date	Water Depth	Elevation	Datum
May 2012	>13.8'	<237.7±	NGVD
January 2014	>13.8'	<237.7±	NGVD

MONITORING WELL #13-01 READINGS

BOTTOM DEPTH = 8.5' (EL.=235.8± NGVD)

Date	Water Depth	Elevation	Datum
January 2014	6.5'	237.8±	NGVD

MONITORING WELL #13-03 READINGS

BOTTOM DEPTH = 8.5' (EL.=235.8± NGVD)

Date	Water Depth	Elevation	Datum
January 2014	8.5'	237.2±	NGVD

MONITORING WELL #13-05 READINGS

BOTTOM DEPTH = 11.0' (EL.=238.4± NGVD)

Date	Water Depth	Elevation	Datum
January 2014	>11'	238.4±	NGVD

DEEP TEST HOLE#16-01 (NOVEMBER 2016)

Depth	Soil Horizon	Soil Texture	Soil Color
0"-12"	A	Sandy Loam	10YR3/2
12"-32"	Bw	Sandy Loam	10YR5/6
32"-72"	C1	Sand	2.5Y5/3
72"-120"	C2	Gravelly Loamy Sand	2.5Y5/4
Motting NONE	Weeping NONE	Standing NONE	Refusal NONE
E.S.H.G.W. >10'	EL.=237.2±	NGVD Datum	

DEEP TEST HOLE#16-02 (NOVEMBER 2016)

Depth	Soil Horizon	Soil Texture	Soil Color
0"-12"	A	Sandy Loam	10YR3/3
12"-36"	Bw	Sandy Loam	10YR5/6
36"-84"	C1	Sandy Loam	2.5Y5/4
84"-108"	C2	Loamy Sand	2.5Y5/4
108"-114"	C3	Coarse Loamy Sand	2.5Y5/4
Motting 40"	Weeping NONE	Standing NONE	Refusal None
E.S.H.G.W. 40"	EL.=239.5±	NGVD Datum	

DEEP TEST HOLE#16-03 (NOVEMBER 2016)

Depth	Soil Horizon	Soil Texture	Soil Color
0"-12"	A	Sandy Loam	10YR3/3
12"-36"	Bw	Sandy Loam	10YR5/6
36"-72"	C1	Sandy Loam	2.5Y5/4
72"-96"	C2	Loamy Sand	2.5Y5/4
Motting 40"	Weeping NONE	Standing NONE	Refusal None
E.S.H.G.W. 40"	EL.=240.9±	NGVD Datum	

DEEP TEST HOLE#19-01 (JULY 2019)

Depth	Soil Horizon	Soil Texture	Soil Color
0"-24"		Fill	
24"-120"	C	Loamy Sand	2.5Y5/2
Motting NONE	Weeping NONE	Standing NONE	Refusal None
E.S.H.G.W. >120"	EL.=238.9±	NGVD Datum	

DEEP TEST HOLE#19-02 (JULY 2019)

Depth	Soil Horizon	Soil Texture	Soil Color
0"-12"		Fill	
12"-138"	C	Loamy Sand	2.5Y5/2
Motting NONE	Weeping NONE	Standing NONE	Refusal None
E.S.H.G.W. >138"	EL.=238.4±	NGVD Datum	

DEEP TEST HOLE#19-03 (AUGUST 2019)

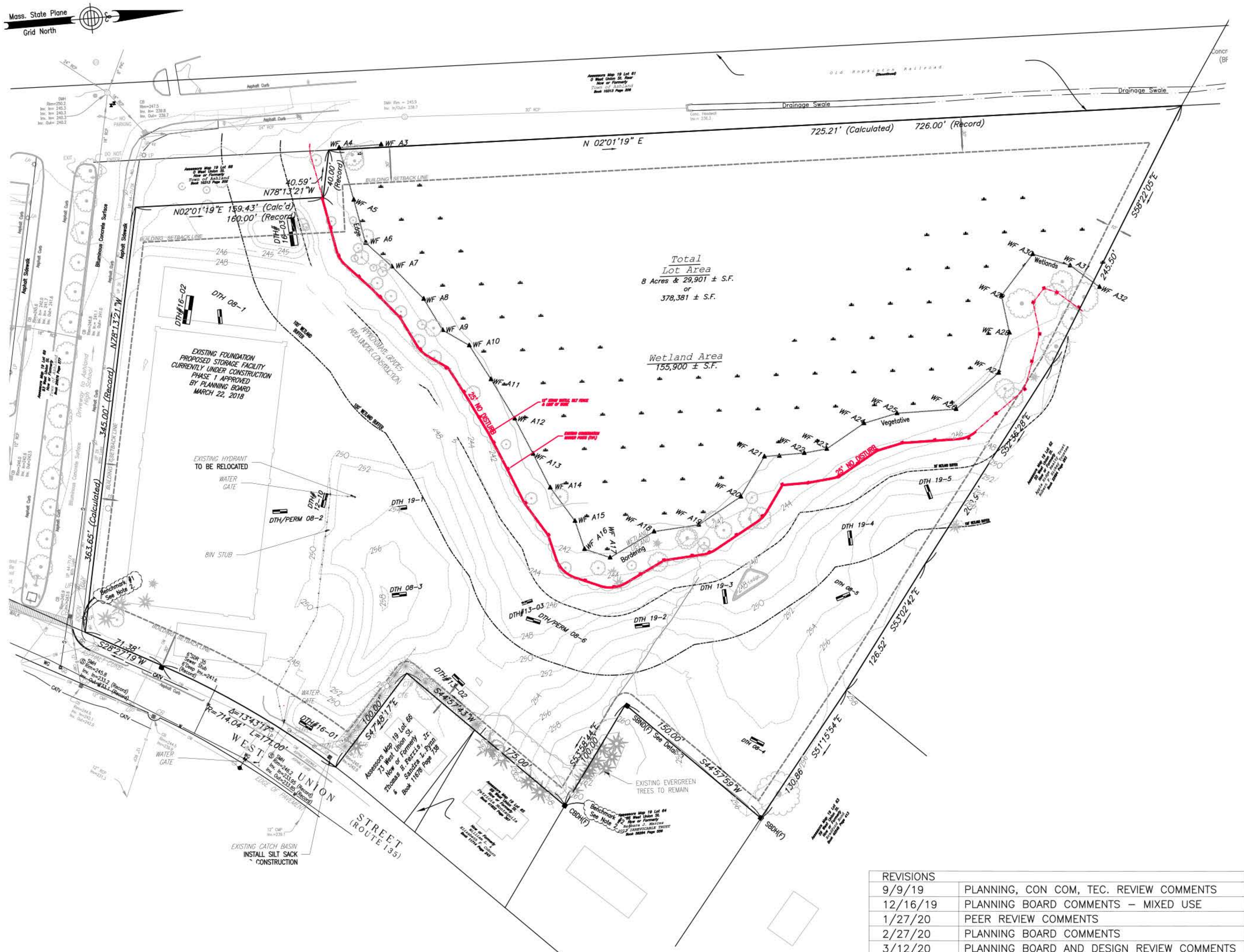
Depth	Soil Horizon	Soil Texture	Soil Color
0"-6"	A	Sandy Loam	10YR3/3
6"-32"	Bw	Sandy Loam	10YR5/6
32"-148"	C	Loamy Sand	2.5Y5/4
Motting NONE	Weeping NONE	Standing NONE	Refusal None
E.S.H.G.W. >148"	EL.=235.8±	NGVD Datum	

DEEP TEST HOLE#19-04 (AUGUST 2019)

Depth	Soil Horizon	Soil Texture	Soil Color
0"-6"	A	Sandy Loam	10YR3/3
6"-36"	Bw	Sandy Loam	10YR5/6
36"-192"	C	Loamy Sand	2.5Y5/4
Motting NONE	Weeping NONE	Standing NONE	Refusal None
E.S.H.G.W. >192"	EL.=236.6±	NGVD Datum	

DEEP TEST HOLE#19-05 (AUGUST 2019)

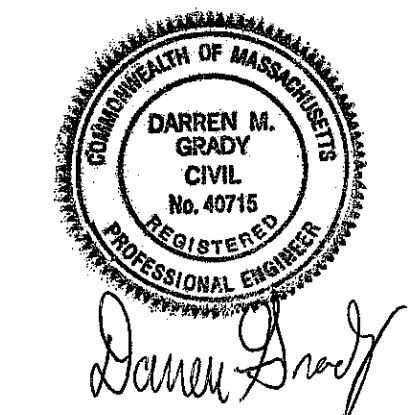
Depth	Soil Horizon	Soil Texture	Soil Color
0"-6"	A	Sandy Loam	10YR3/3
6"-24"	Bw	Sandy Loam	10YR5/6
24"-168"	C	Loamy Sand	2.5Y5/4
Motting NONE	Weeping NONE	Standing NONE	Refusal None
E.S.H.G.W. >168"	EL.=239.6±	NGVD Datum	



REVISIONS

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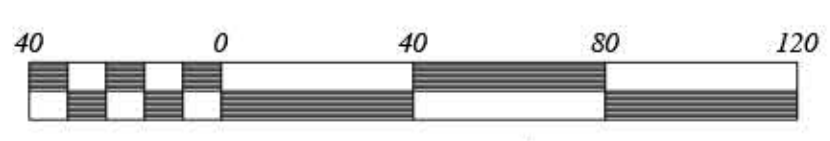
**PHASE 2
SITE PLAN**
#81 WEST UNION STREET
ASHLAND, MASSACHUSETTS



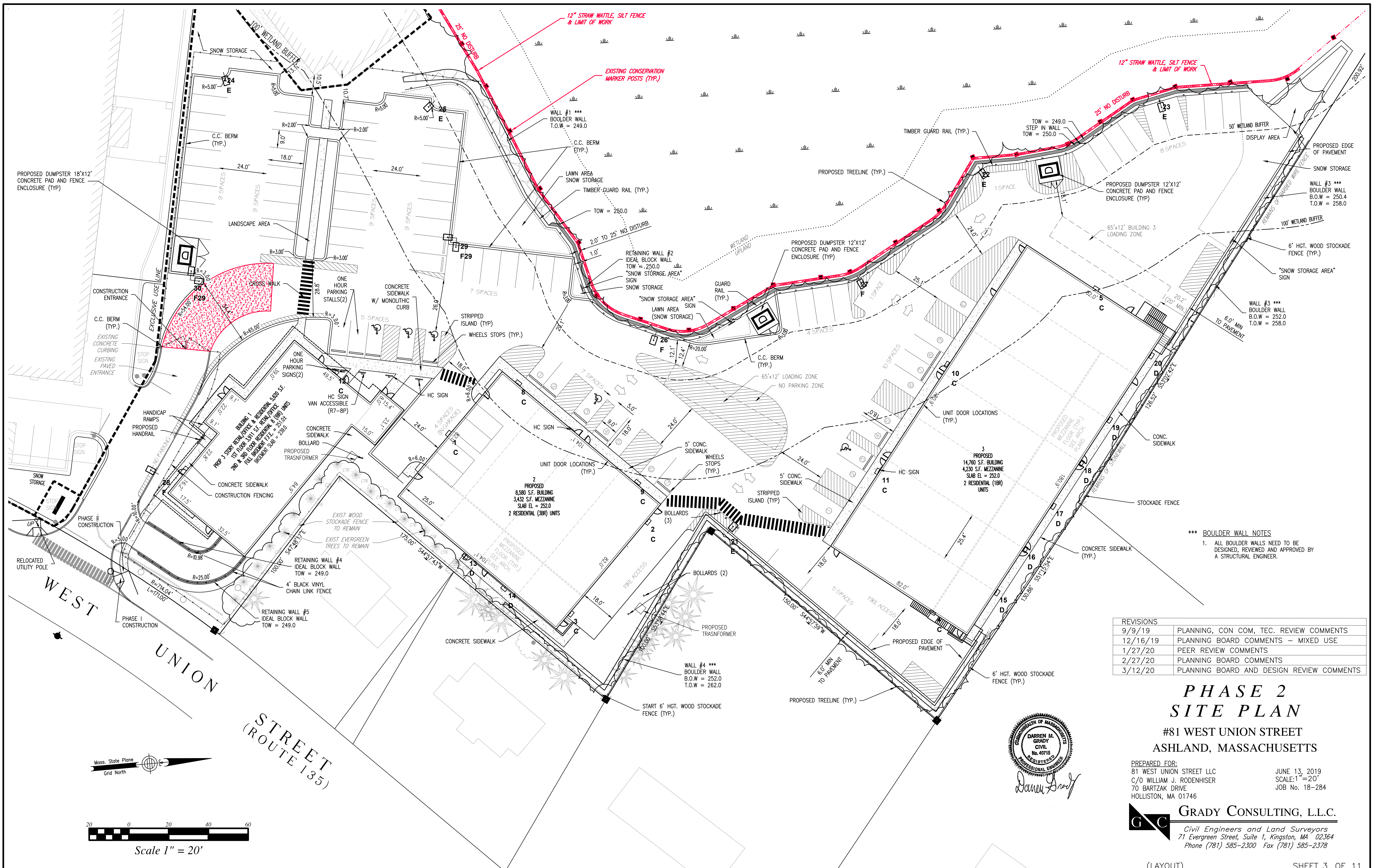
PREPARED FOR:
81 WEST UNION STREET LLC
C/O WILLIAM J. RODENHISER
70 BARTZAK DRIVE
HOLLISTON, MA 01746

JUNE 13, 2019
SCALE: 1"=40'
JOB No. 18-284

GRADY CONSULTING, L.L.C.
Civil Engineers and Land Surveyors
71 Evergreen Street, Suite 1, Kingston, MA 02364
Phone (781) 585-2300 Fax (781) 585-2378



Scale 1" = 40'



***** BOULDER WALL NOTES**
 1. ALL BOULDER WALLS NEED TO BE DESIGNED, REVIEWED AND APPROVED BY A STRUCTURAL ENGINEER.

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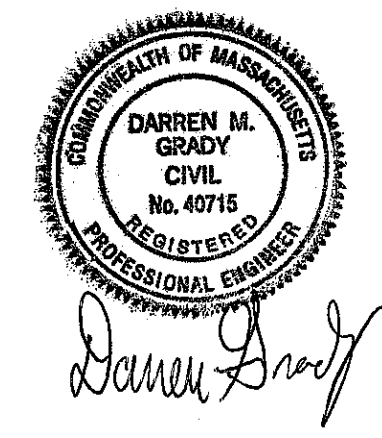
PHASE 2 SITE PLAN

**#81 WEST UNION STREET
ASHLAND, MASSACHUSETTS**

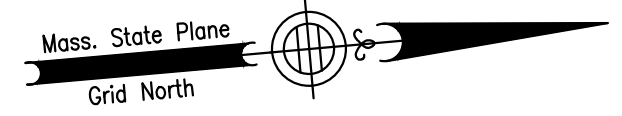
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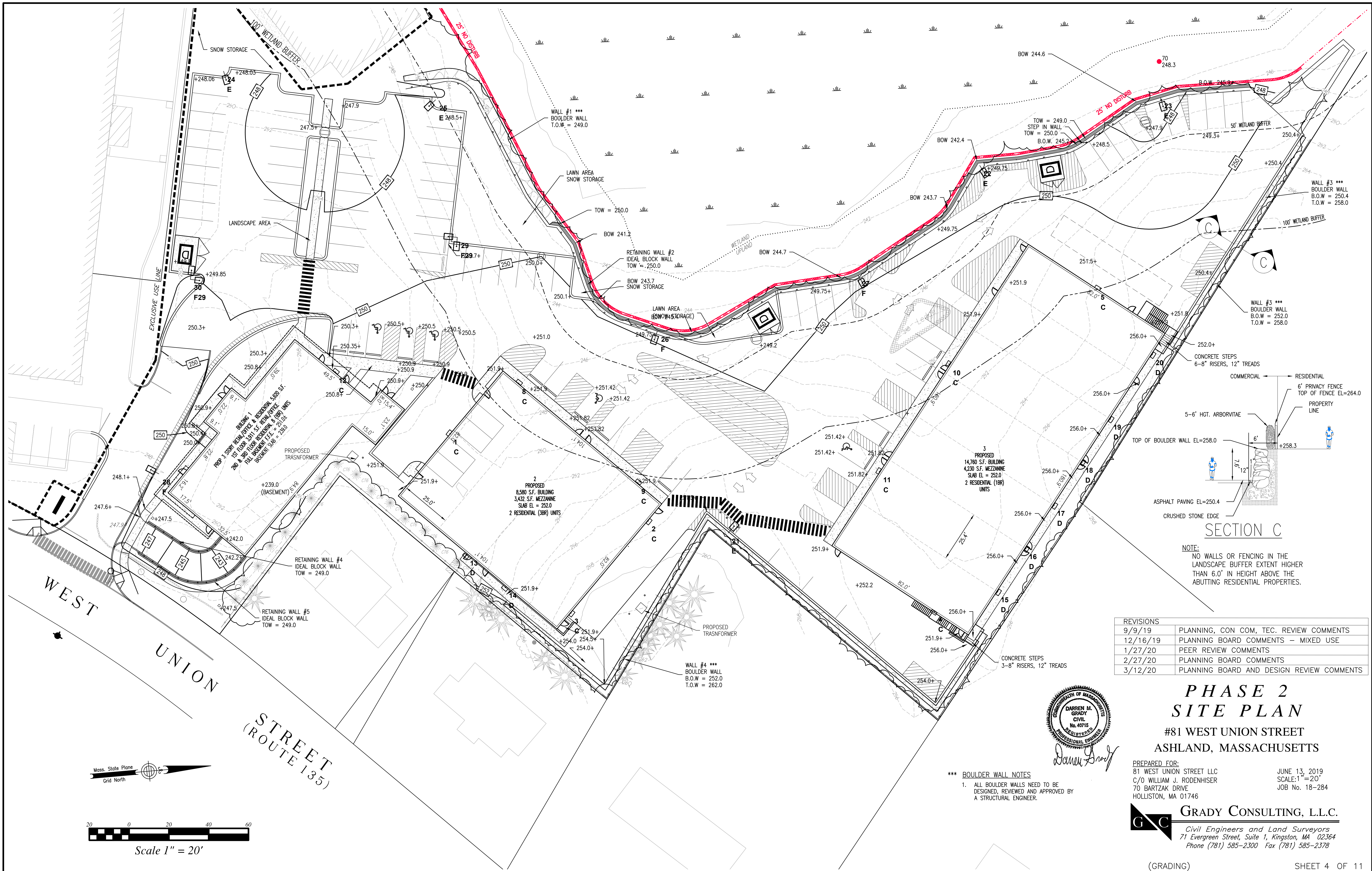
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Darren Grady

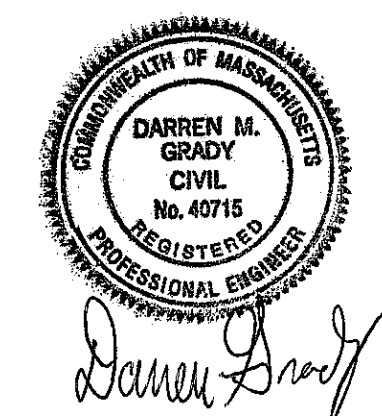


Scale 1" = 20'



SECTION C
 NOTE:
 NO WALLS OR FENCING IN THE
 LANDSCAPE BUFFER EXTENT HIGHER
 THAN 6.0' IN HEIGHT ABOVE THE
 ABUTTING RESIDENTIAL PROPERTIES.

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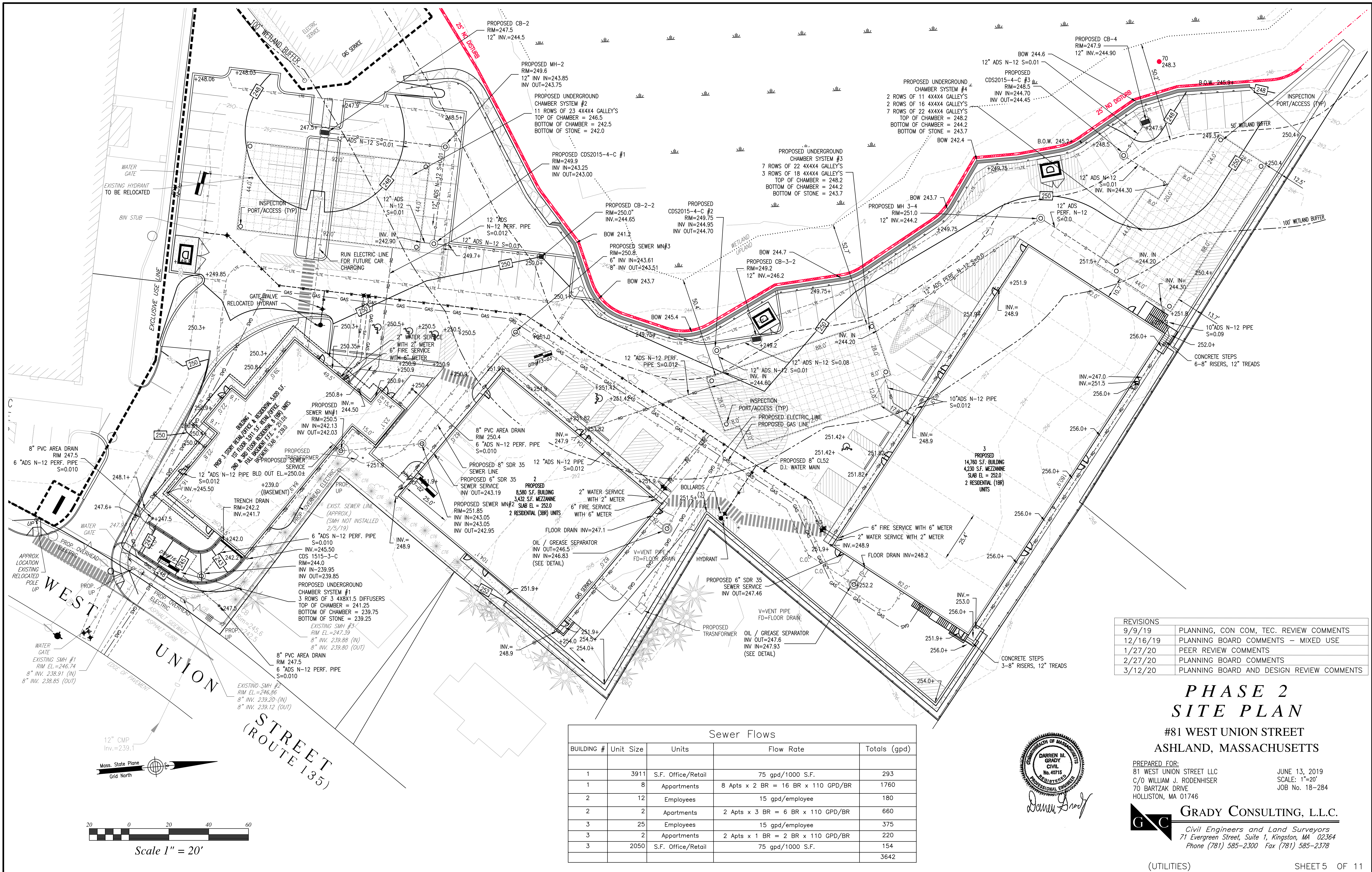
PHASE 2 SITE PLAN

#81 WEST UNION STREET
 ASHLAND, MASSACHUSETTS

PREPARED FOR:
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 C/O WILLIAM J. RODENHISER
 70 BARTZAK DRIVE
 HOLLISTON, MA 01746

JUNE 13, 2019
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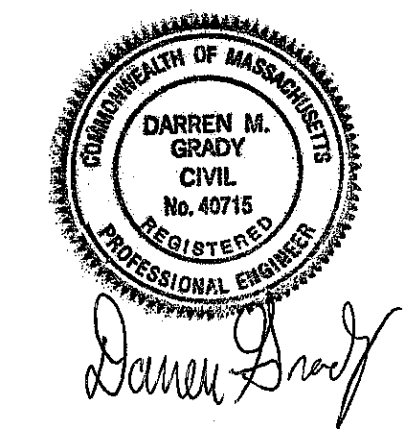
PHASE 2 SITE PLAN

**#81 WEST UNION STREET
ASHLAND, MASSACHUSETTS**

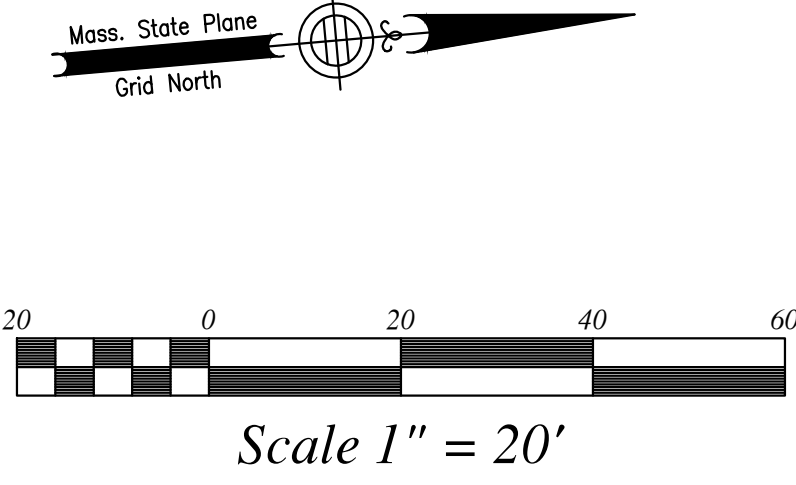
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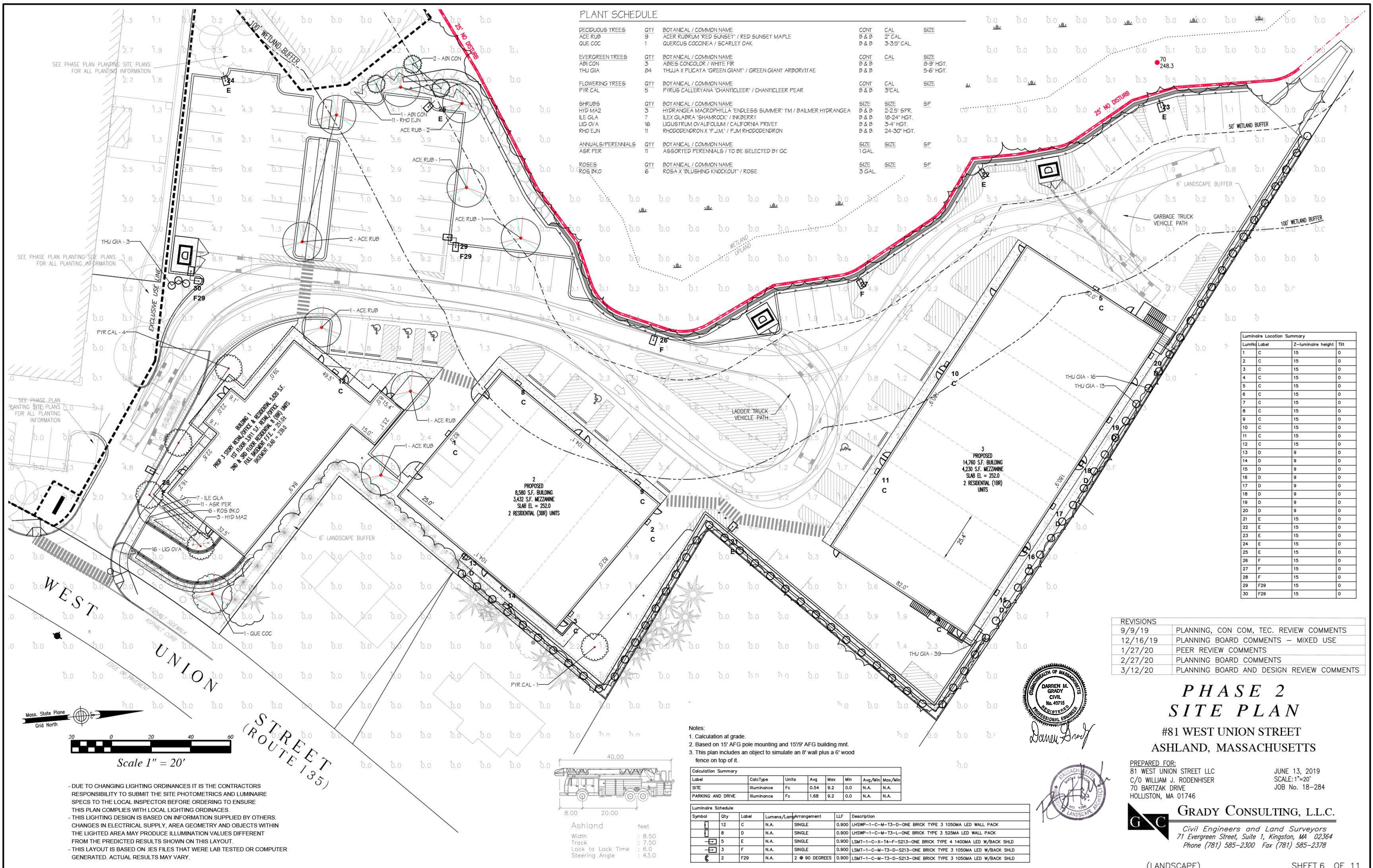
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Sewer Flows				
BUILDING #	Unit Size	Units	Flow Rate	Totals (gpd)
1	3911	S.F. Office/Retail	75 gpd/1000 S.F.	293
1	8	Apartments	8 Apts x 2 BR = 16 BR x 110 GPD/BR	1760
2	12	Employees	15 gpd/employee	180
2	2	Apartments	2 Apts x 3 BR = 6 BR x 110 GPD/BR	660
3	25	Employees	15 gpd/employee	375
3	2	Apartments	2 Apts x 1 BR = 2 BR x 110 GPD/BR	220
3	2050	S.F. Office/Retail	75 gpd/1000 S.F.	154
				3642





PLANT SCHEDULE

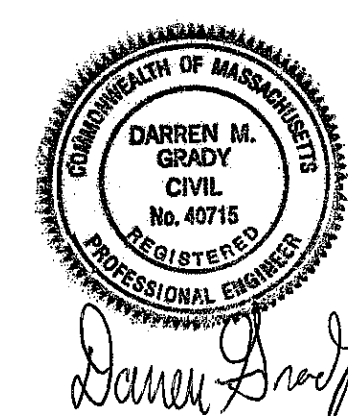
DECIDUOUS TREES	QTY	BOTANICAL / COMMON NAME	CONT	CAL	SIZE
ACE RUB	9	ACER RUBRUM 'RED SUNSET' / RED SUNSET MAPLE	B & B	2' GAL	
QUE COC	1	QUERCUS COCCINEA / SCARLET OAK	B & B	3-3.5' GAL	
EVERGREEN TREES	QTY	BOTANICAL / COMMON NAME	CONT	CAL	SIZE
ABI CON	3	ABIES CONCOLOR / WHITE FIR	B & B	8-9' HGT.	
THU GIA	84	THUJA X PLICATA 'GREEN GIANT' / GREEN GIANT ARBORVITAE	B & B	5-6' HGT.	
FLOWERING TREES	QTY	BOTANICAL / COMMON NAME	CONT	CAL	SIZE
PYR CAL	5	PIRUS CALLERYANA 'CHANTICLEER' / CHANTICLEER PEAR	B & B	3' GAL	
SHRUBS	QTY	BOTANICAL / COMMON NAME	CONT	SIZE	SP
HYD MA2	3	HYDRANGEA MACROPHYLLA 'ENDLESS SUMMER' TM / BAILMER HYDRANGEA	B & B	2-2.5' SPR.	
ILE GLA	7	ILEX GLABRA 'SHAMROCK' / INK BERRY	B & B	18-24" HGT.	
LIG OVA	16	LIGUSTRUM OVALIFOLIUM / CALIFORNIA PRIVET	B & B	3-4' HGT.	
RHO EUN	11	RHODODENDRON X 'PJM.' / PJM RHODODENDRON	B & B	24-30" HGT.	
ANNUALS/PERENNIALS	QTY	BOTANICAL / COMMON NAME	SIZE	SIZE	SP
ASR PER	11	ASSORTED PERENNIALS / TO BE SELECTED BY GC	1 GAL		
ROSES	QTY	BOTANICAL / COMMON NAME	SIZE	SIZE	SP
ROS BKO	6	ROSA X 'BLUSHING KNOCKOUT' / ROSE	3 GAL		

Luminaire Location Summary

LumNo	Label	Z-luminaire height	Tilt
1	C	15	0
2	C	15	0
3	C	15	0
4	C	15	0
5	C	15	0
6	C	15	0
7	C	15	0
8	C	15	0
9	C	15	0
10	C	15	0
11	C	15	0
12	C	15	0
13	D	9	0
14	D	9	0
15	D	9	0
16	D	9	0
17	D	9	0
18	D	9	0
19	D	9	0
20	D	9	0
21	E	15	0
22	E	15	0
23	E	15	0
24	E	15	0
25	E	15	0
26	F	15	0
27	F	15	0
28	F	15	0
29	F29	15	0
30	F29	15	0

REVISIONS

Date	Description
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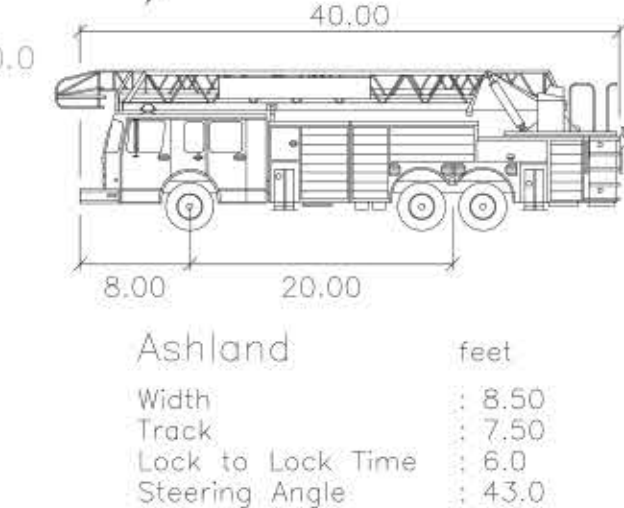
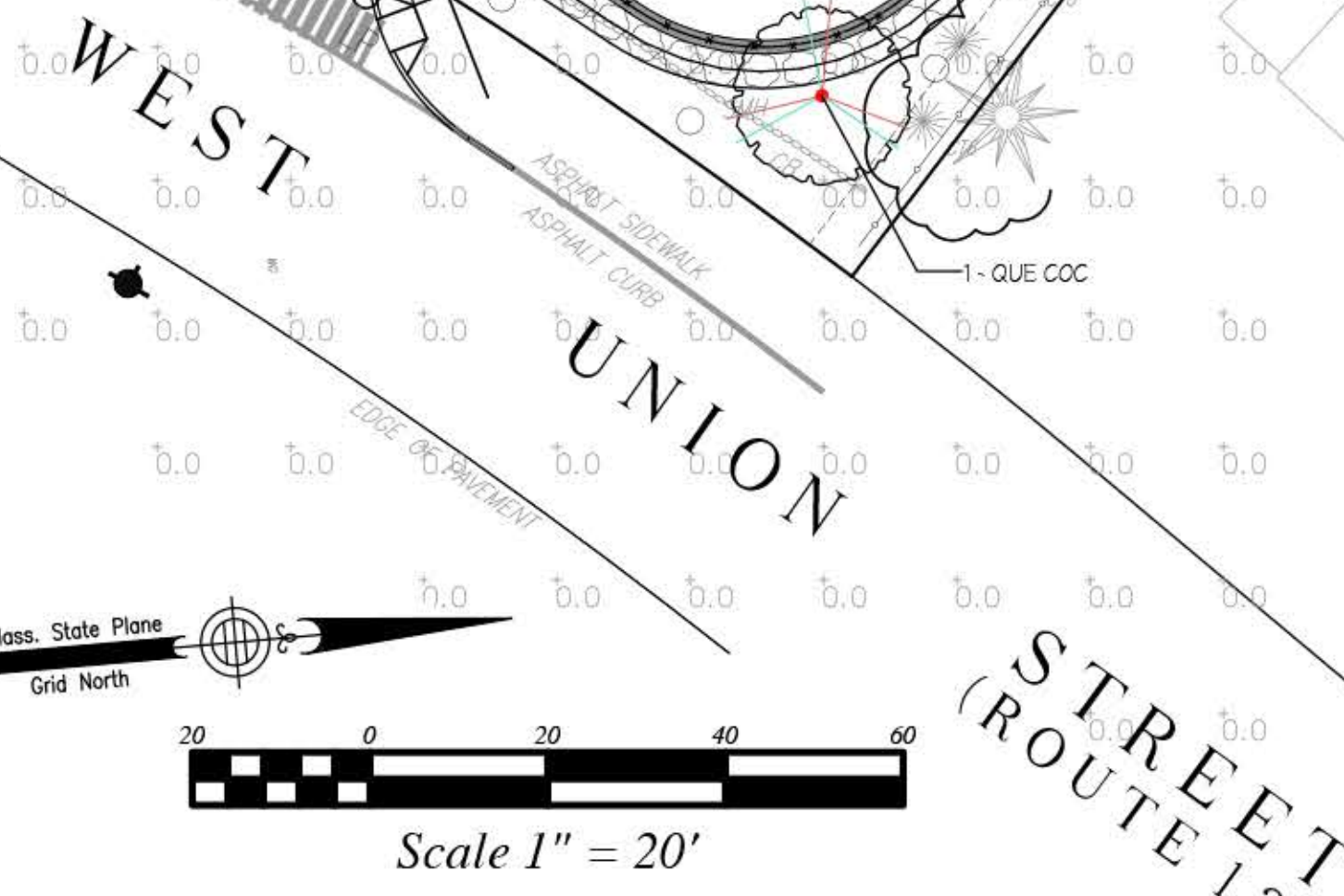
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- Notes:
- Calculation at grade.
 - Based on 15' AFG pole mounting and 15/19' AFG building mnt.
 - This plan includes an object to simulate an 8' wall plus a 6' wood fence on top of it.

Calculation Summary

Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
SITE	Illuminance	Fc	0.54	9.2	0.0	N.A.	N.A.
PARKING AND DRIVE	Illuminance	Fc	1.68	9.2	0.0	N.A.	N.A.

Luminaire Schedule

Symbol	Qty	Label	Lumens/Lamp	Arrangement	LLF	Description
□	12	C	N.A.	SINGLE	0.900	LHWP-1-C-M-T3-D-ONE BRICK TYPE 3 1050MA LED WALL PACK
□	8	D	N.A.	SINGLE	0.900	LHWP-1-C-M-T3-L-ONE BRICK TYPE 3 525MA LED WALL PACK
□	5	E	N.A.	SINGLE	0.900	LSMT-1-C-X-T4-F-S213-ONE BRICK TYPE 4 1400MA LED W/BACK SHLD
□	3	F	N.A.	SINGLE	0.900	LSMT-1-C-M-T3-D-S213-ONE BRICK TYPE 3 1050MA LED W/BACK SHLD
□	2	F29	N.A.	2 @ 90 DEGREES	0.900	LSMT-1-C-M-T3-D-S213-ONE BRICK TYPE 3 1050MA LED W/BACK SHLD

- DUE TO CHANGING LIGHTING ORDINANCES IT IS THE CONTRACTORS RESPONSIBILITY TO SUBMIT THE SITE PHOTOMETRICS AND LUMINAIRE SPECS TO THE LOCAL INSPECTOR BEFORE ORDERING TO ENSURE THIS PLAN COMPLIES WITH LOCAL LIGHTING ORDINANCES.
- THIS LIGHTING DESIGN IS BASED ON INFORMATION SUPPLIED BY OTHERS. CHANGES IN ELECTRICAL SUPPLY, AREA GEOMETRY AND OBJECTS WITHIN THE LIGHTED AREA MAY PRODUCE ILLUMINATION VALUES DIFFERENT FROM THE PREDICTED RESULTS SHOWN ON THIS LAYOUT.
- THIS LAYOUT IS BASED ON .IES FILES THAT WERE LAB TESTED OR COMPUTER GENERATED. ACTUAL RESULTS MAY VARY.

CONSTRUCTION NOTES

GENERAL:

1. THE ACCURACY OF EXISTING UTILITY LOCATIONS, DIMENSIONS AND LINES IS FROM EXISTING INFORMATION OF RECORD AND IS NOT WARRANTED. CONTRACTOR TO VERIFY PRIOR TO INITIATING CONSTRUCTION.
2. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL SECURE ALL NECESSARY STATE, MUNICIPAL AND OTHER UTILITY PERMITS AND VERIFY THE PROPOSED LOCATIONS OF UTILITIES WITH UTILITY COMPANIES.
3. CONTRACTOR SHALL NOTIFY "DIG SAFE" (1-800-322-4844) AT LEAST 4 DAYS PRIOR TO CONSTRUCTION.
4. UNDERGROUND UTILITIES SHALL BE INSTALLED IN ACCORDANCE WITH THE SPECIFICATIONS OF THE APPROPRIATE DEPARTMENT OR COMPANY. THE CONTRACTOR SHALL NOTIFY THE ASHLAND D.P.W. (834-5589) AT LEAST 4 DAYS PRIOR TO CONSTRUCTION OF DRAINAGE & WATER SYSTEMS.
5. SEWAGE DISPOSAL TO CONSIST OF SEWER CONNECTIONS.
6. ALL CONSTRUCTION SHALL CONFORM TO TOWN OF ASHLAND PLANNING BOARD RULES AND REGULATIONS, DPW SPECIFICATIONS, WATER, SEWER, CONSERVATION COMMISSION REGULATIONS AND ALL OTHER APPLICABLE CODES.
7. ALL STUMPS SHALL BE DISPOSED OFF SITE.
8. ALL WORK WITHIN THE TOWN RIGHT OF WAY SHALL REQUIRE A ROAD OPENING PERMIT. EXCAVATIONS SHALL BE BACKFILLED WITH FLOWABLE FILL AND INSPECTED BY THE TOWN PER THE ROAD OPENING PERMIT.
9. THE CONSTRUCTION AT THE SITE SHALL BE SECURED WITH FENCING.

WATER SYSTEM NOTES:

1. ALL MAINS SHALL BE 8" CEMENT LINED DUCTILE IRON PIPE, CLASS 52.
2. ALL WATER SERVICES SHALL BE 2" POLYETHYLENE PIPE.
3. ALL CONSTRUCTION MATERIALS AND METHODS SHALL CONFORM TO TOWN OF ASHLAND WATER DEPARTMENT REQUIREMENTS.
4. PROVIDE THRUST BLOCKS AT ALL WATER MAIN FITTINGS.
5. HYDRANTS SHALL BE THE WATEROUS PACER-WB-67 OR U.S. PIPE METROPOLITAN.

EROSION CONTROL:

1. ALL ROADWAY AREAS, CUT AND FILL AREAS, AND DISTURBED DRAINAGE EASEMENT AREAS ARE TO BE BROUGHT TO FINISHED GRADE WITH A MIN. OF 4" OF LOAM, SEEDED WITH A MIXTURE OF ANNUAL RYEGRASS AND PERENNIAL GRASSES, AND MAINTAINED UNTIL VEGETATION STABILIZES THESE AREAS.
2. MULCH OR OTHER SUITABLE EROSION PROTECTION, SHALL BE UTILIZED ON ALL EXPOSED

CONSTRUCTION SEQUENCE:

CLEAR AND GRUB ROADWAY AND EASEMENT AREAS

CONSTRUCT UNDERGROUND DETENTION BASINS

PRIOR TO ALL OTHER ACTIVITY EXCEPT TREE CLEARING AND ACCESS ROAD (SEED TO BE NRCS PERMANENT SEEDING MIX #6 OR APPROVED EQUAL)

(LIMIT USE OF HEAVY EQUIPMENT ON BASIN BOTTOMS)

BRING CUT AREAS TO SUBGRADE, INSTALL STRUCTURAL FILL BELOW BUILDING SLABS

INSPECT STORMCEPTOR/VORSENTRY UNITS AND UNDERGROUND CHAMBER SYSTEMS AFTER ALL STORMS AND AT LEAST MONTHLY DURING CONSTRUCTION AND REMOVE SEDIMENT

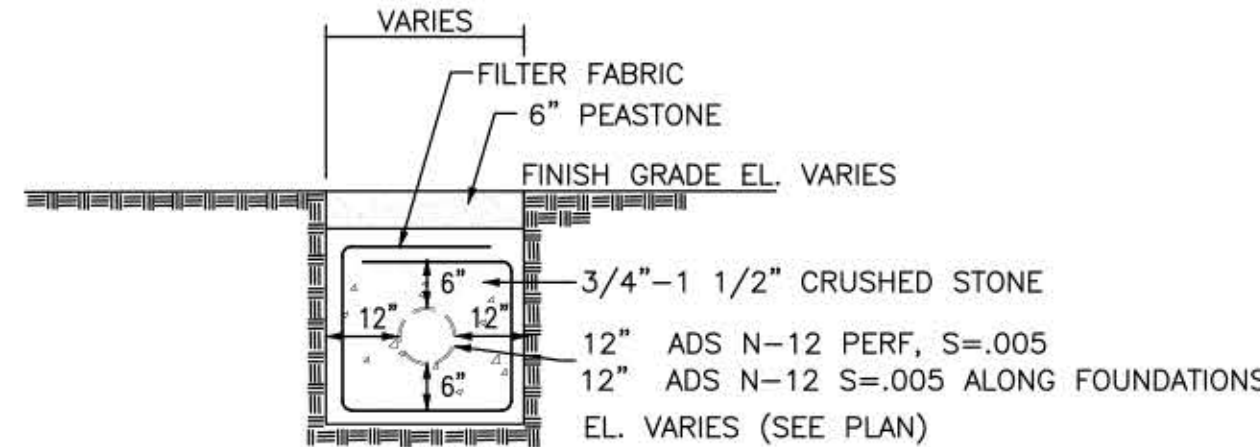
INSTALL UTILITIES (ie, DRAIN, WATER, ELECTRIC, INFILTRATION SYSTEMS etc.)

CATCH BASIN GRATES ARE TO BE SET AT BINDER GRADE

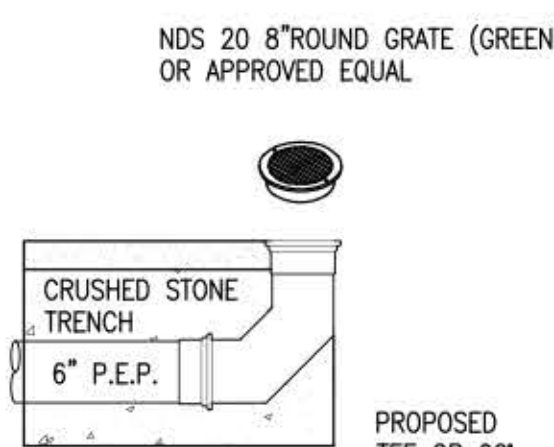
INSTALL EROSION CONTROLS ON EXPOSED SLOPES

PLACE BASE COURSE OF PAVEMENT / LOAM AND SEED GRASS AREAS

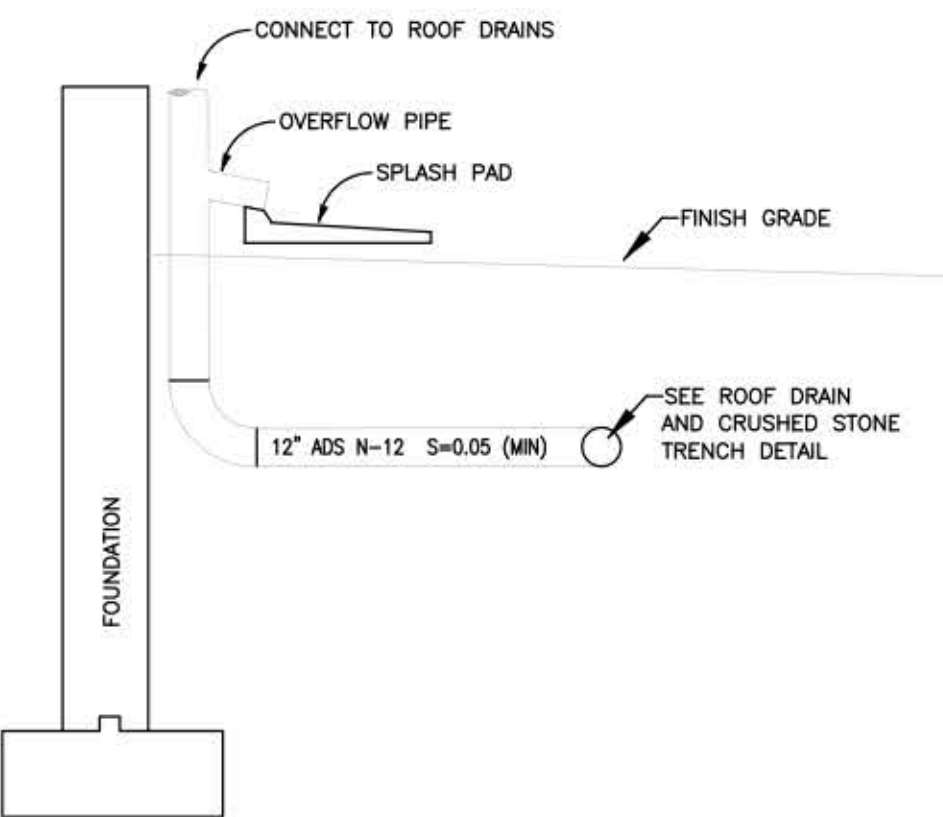
UNCOVER TEMPORARY DRAINAGE SEALS / FINISH PAVING ON ROADWAY



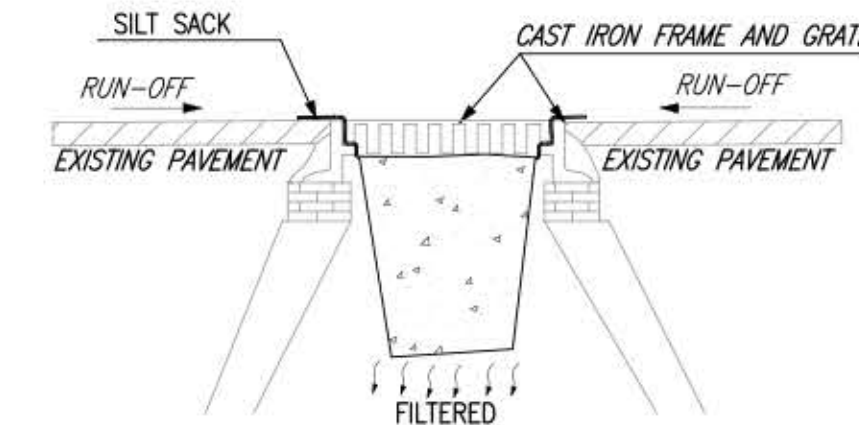
ROOF DRAIN AND CRUSHED STONE TRENCH
(NOT TO SCALE)



YARD DRAIN
NOT TO SCALE



ROOF DRAIN CONNECTION DETAIL
(NOT TO SCALE)



NOTE: SILT SACKS SHALL BE INSPECTED DAILY AND SILT SHALL BE REMOVED WHEN ACCUMULATED TO ALLOW CATCH BASIN TO FUNCTION PROPERLY. REMOVE PERMANENTLY WHEN SITE STABILIZATION HAS OCCURRED.

SILT SACK
(NOT TO SCALE)

CDS 2015-4C / 1515-3C UNIT(S)

RESPONSIBILITY FOR MAINTENANCE: OWNER

NEW INSTALLATIONS

THE CONDITION OF EACH UNIT SHALL BE CHECKED AFTER EVERY RUNOFF EVENT FOR THE FIRST 30 DAYS. THE VISUAL INSPECTION SHALL ASCERTAIN THAT THE UNIT IS FUNCTIONING PROPERLY AND SHALL MEASURE THE AMOUNT OF SEDIMENT THAT HAS ACCUMULATED IN THE SUMP AND FLOATING TRASH AND DEBRIS IN THE SEPARATION CHAMBER. THIS CAN BE DONE WITH A CALIBRATED "DIP STICK" OR STADIA ROD SO THAT THE DEPTH OF DEPOSITION CAN BE TRACKED. SCHEDULES FOR INSPECTIONS AND CLEANOUT SHALL BE BASED ON STORM EVENTS AND POLLUTANT ACCUMULATION.

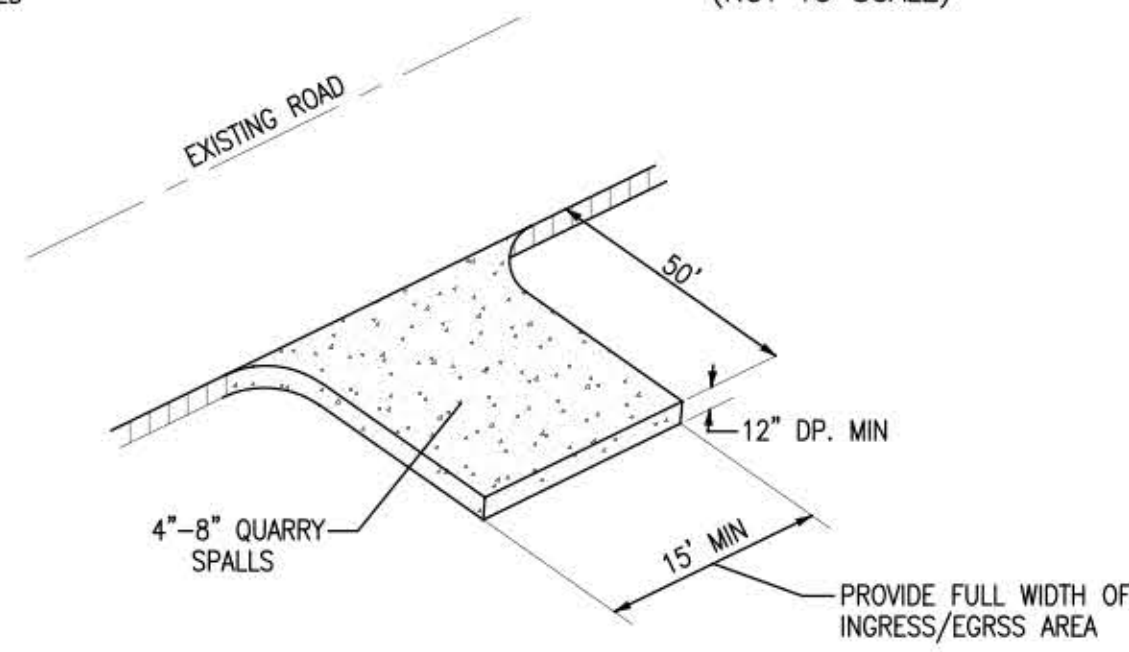
ONGOING OPERATION

DURING THE RAINFALL SEASON, THE UNIT SHALL BE INSPECTED AT LEAST ONCE EVERY 30 DAYS. THE FLOATABLES SHALL BE REMOVED AND THE SUMP CLEANED WHEN THE SUMP IS AT A DEPTH OF 2 FEET. IF FLOATABLES ACCUMULATE MORE RAPIDLY THAN THE SETTLEABLE SOLIDS, THE FLOATABLES SHALL BE REMOVED USING A VACTOR TRUCK OR DIP NET WHEN THE LAYER IS TWO FEET THICK.

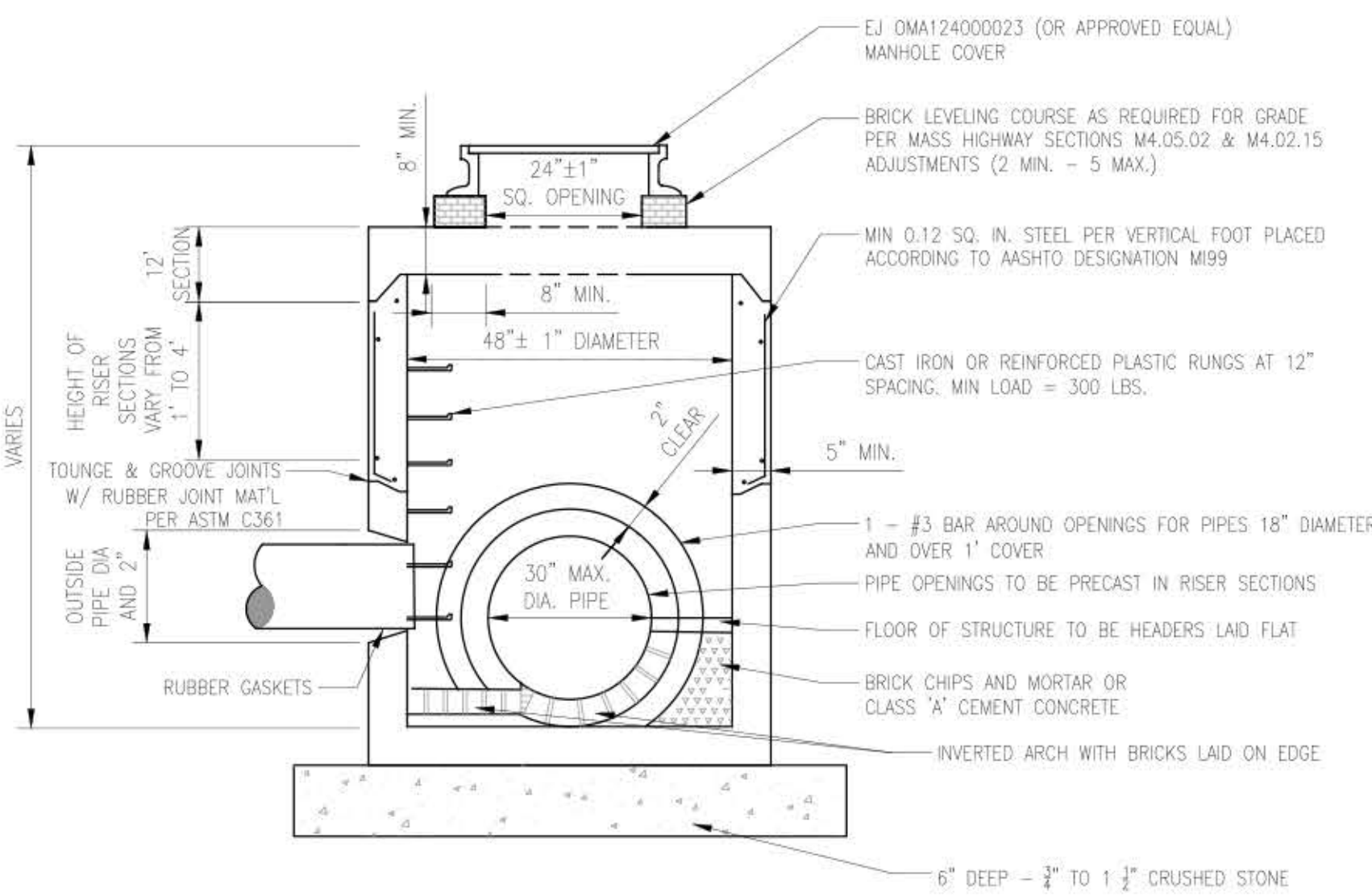
CLEANOUT OF THE UNITS SHALL BE PERFORMED NO LATER THAN MAY 1ST BECAUSE OF THE NATURE OF POLLUTANTS COLLECTED AND THE POTENTIAL FOR ODOR GENERATION FROM THE DECOMPOSITION OF MATERIAL COLLECTED AND RETAINED. THIS END OF SEASON CLEANOUT WILL ASSIST IN PREVENTING THE DISCHARGE OF PORE WATER FOR THE UNITS DURING PERIODS OF LOW RAINFALL. THE UNITS SHALL BE CLEANED AT LEAST TWICE YEARLY.

CLEANOUT AND DISPOSAL

STANDARD VACTORING OPERATIONS SHALL BE EMPLOYED IN THE CLEANOUT OF THE UNITS. DISPOSAL OF MATERIAL FROM THE UNITS SHALL BE IN ACCORDANCE WITH APPLICABLE LOCAL, STATE, AND FEDERAL REGULATIONS. DISPOSAL OF THE DECANT MATERIAL TO A POTW IS RECOMMENDED. FIELD DECANTING TO THE STORM DRAINAGE SYSTEM SHALL NOT BE PERMITTED. SOLIDS CAN BE DISPOSED SIMILAR TO NORMAL PRACTICES FOR MATERIALS COLLECTED FROM CATCH BASIN CLEANING.



CRUSHED STONE CONSTRUCTION ENTRANCE
(NOT TO SCALE)



PRECAST CONCRETE MANHOLE

1/2" = 1'-0"

334913.01-01

CDS2015-4-C DESIGN NOTES

THE STANDARD CDS2015-4-C CONFIGURATION IS SHOWN. ALTERNATE CONFIGURATIONS ARE AVAILABLE AND ARE LISTED BELOW. SOME CONFIGURATIONS MAY BE COMBINED TO SUIT SITE REQUIREMENTS.

FRAME AND COVER
(DIAMETER VARIES)
N.T.S.

GENERAL NOTES

1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. DIMENSIONS MARKED WITH (L) ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
3. FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.conteches.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 H20-10 AND CASTINGS SHALL MEET H20 (AASHTO M 300) 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.

INSTALLATION NOTES

- A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
- B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE (LIFTING CLUTCH PROVIDED).
- C. CONTRACTOR TO ADD JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLE STRUCTURE.
- D. CONTRACTOR TO PROVIDE, INSTALL AND GROUT INLETS AND OUTLET PIPES. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN.
- E. 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
ENGINEERED SOLUTIONS LLC
www.conteches.com
8025 Centre Pointe Dr., Suite 400, West Chester, OH 45399
937-338-1122 937-645-7900 937-645-7903 FAX

CDS2015-4-C
INLINE CDS
STANDARD DETAIL

CDS1515-3-C DESIGN NOTES

THE STANDARD CDS1515-3-C CONFIGURATION IS SHOWN. ALTERNATE CONFIGURATIONS ARE AVAILABLE AND ARE LISTED BELOW. SOME CONFIGURATIONS MAY BE COMBINED TO SUIT SITE REQUIREMENTS.

FRAME AND COVER
(DIAMETER VARIES)
N.T.S.

GENERAL NOTES

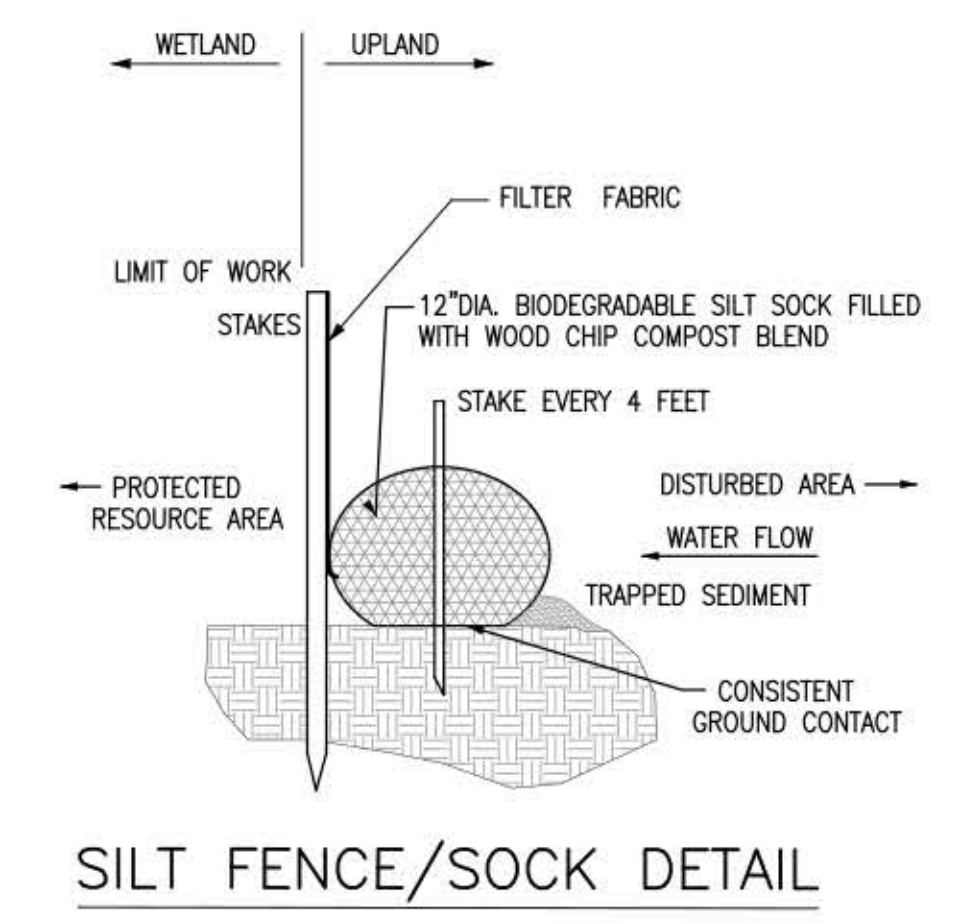
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. FOR SITE SPECIFIC DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.conteches.com
3. CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
4. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
5. CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
6. STRUCTURE SHALL MEET AASHTO H20-10 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 M300 AND BE CAST WITH THE CONTECH LOGO.
7. IF REQUIRED, PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.
8. CDS STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-478 AND AASHTO LOAD FACTOR DESIGN METHOD.

INSTALLATION NOTES

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

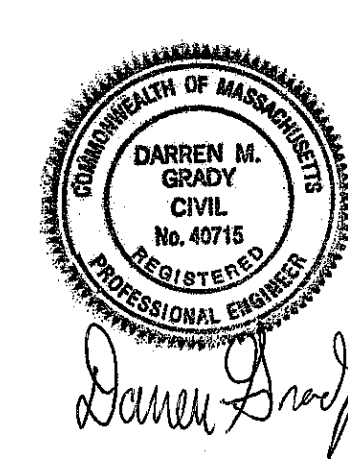
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8025 Centre Pointe Dr., Suite 400, West Chester, OH 45399
937-338-1122 937-645-7900 937-645-7903 FAX

CDS1515-3-C
ONLINE CDS
STANDARD DETAIL



SILT FENCE/SOCK DETAIL
NOT TO SCALE

REVISIONS	PLANNING, CON COM, TEC. REVIEW COMMENTS
9/9/19	PLANNING, CON COM, TEC. REVIEW COMMENTS
12/16/19	PLANNING BOARD COMMENTS - MIXED USE
1/27/20	PEER REVIEW COMMENTS
2/27/20	PLANNING BOARD COMMENTS
3/12/20	PLANNING BOARD AND DESIGN REVIEW COMMENTS



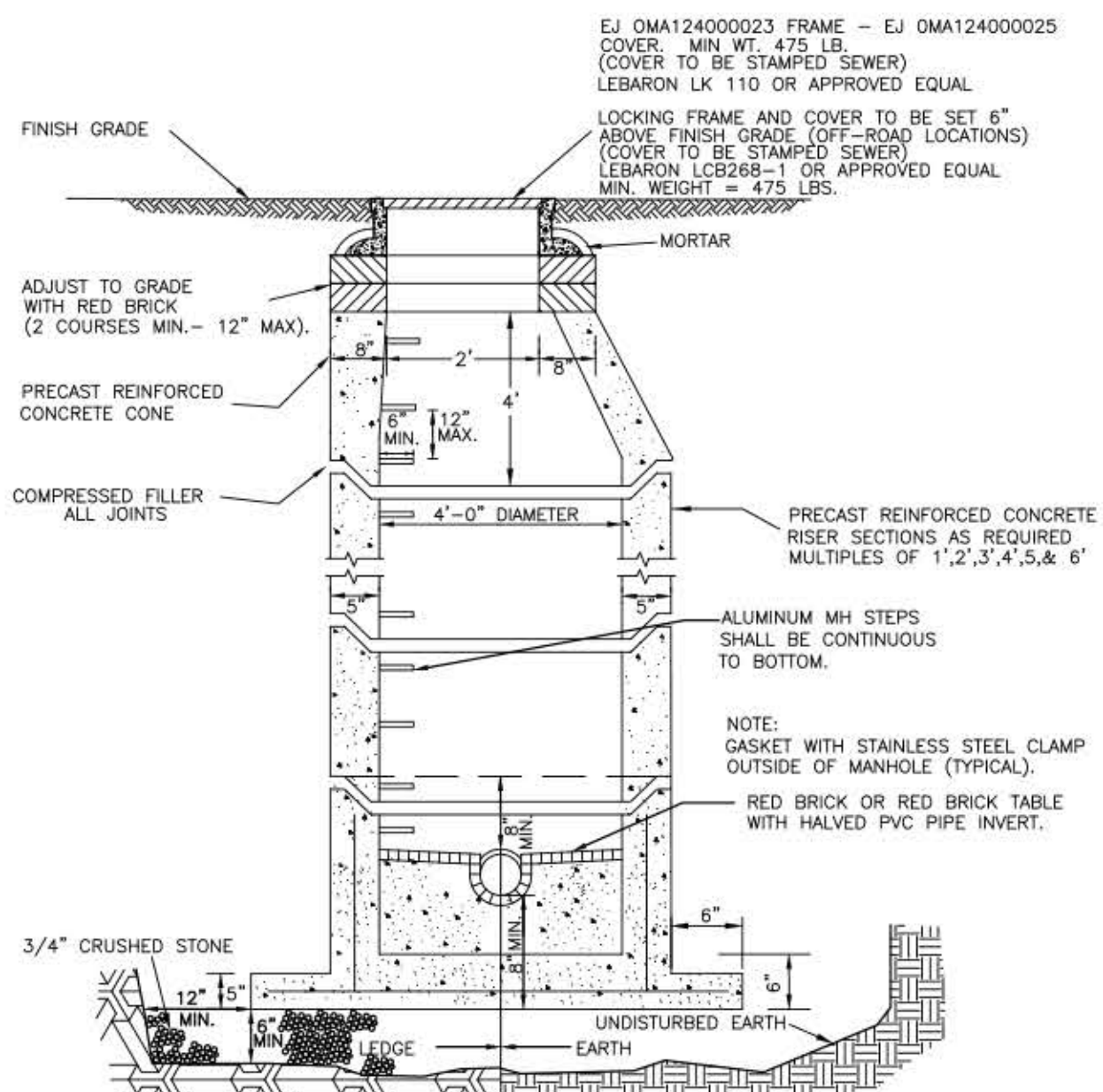
PHASE 2 SITE PLAN

#81 WEST UNION STREET
ASHLAND, MASSACHUSETTS

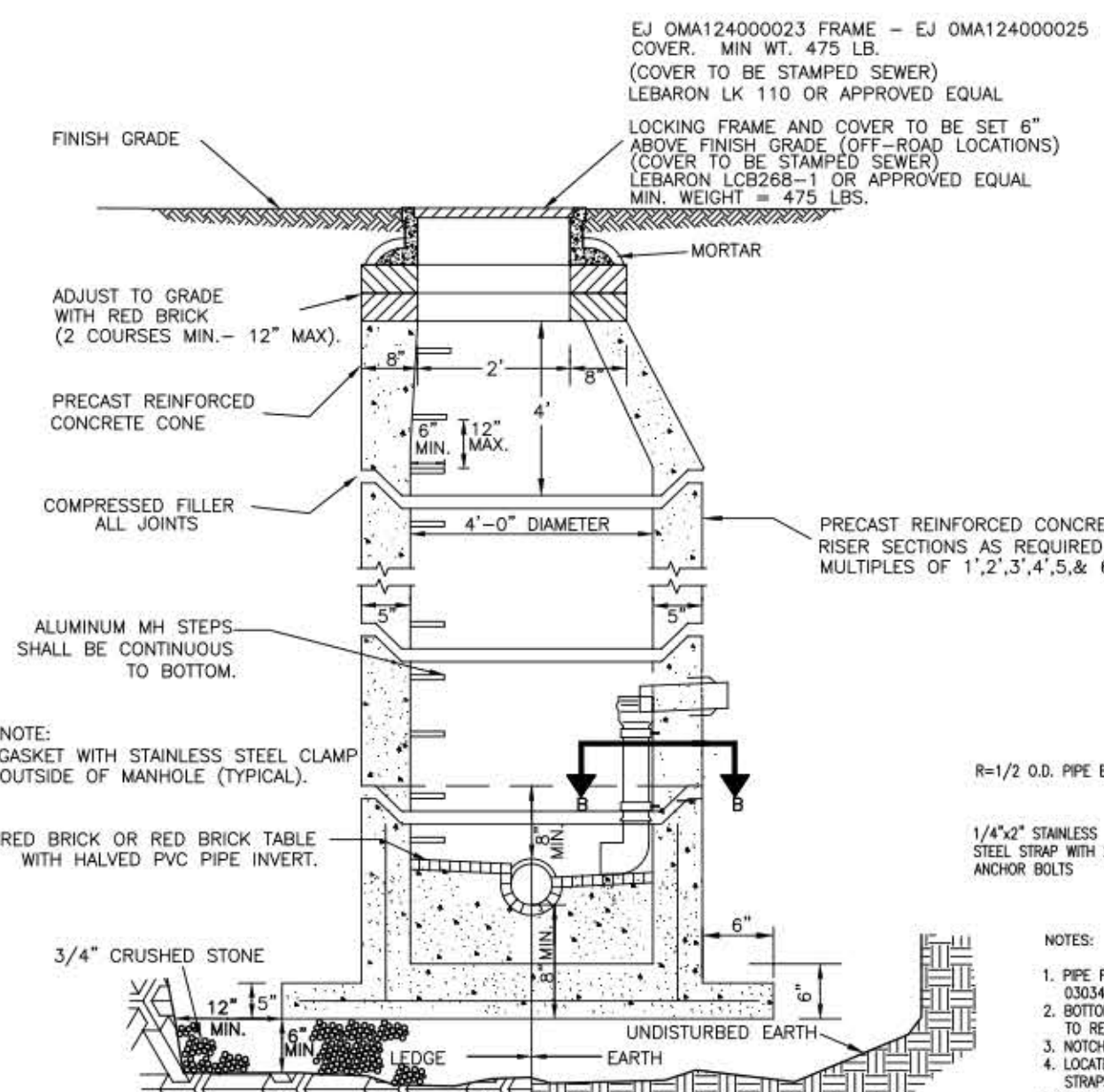
PREPARED FOR:
81 WEST UNION STREET LLC
C/O WILLIAM J. RODENHISER
70 BARTZAK DRIVE
HOLLISTON, MA 01746

JUNE 13, 2019
SCALE: AS SHOWN
JOB No. 18-284

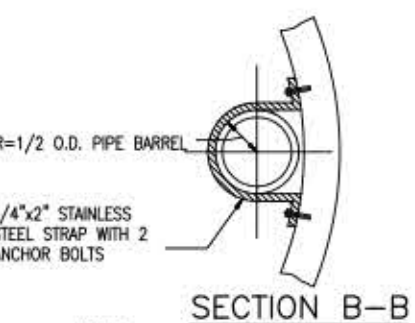
G C
GRADY CONSULTING, L.L.C.
Civil Engineers and Land Surveyors
71 Evergreen Street, Suite 1, Kingston, MA 02364
Phone (781) 585-2300 Fax (781) 585-2378



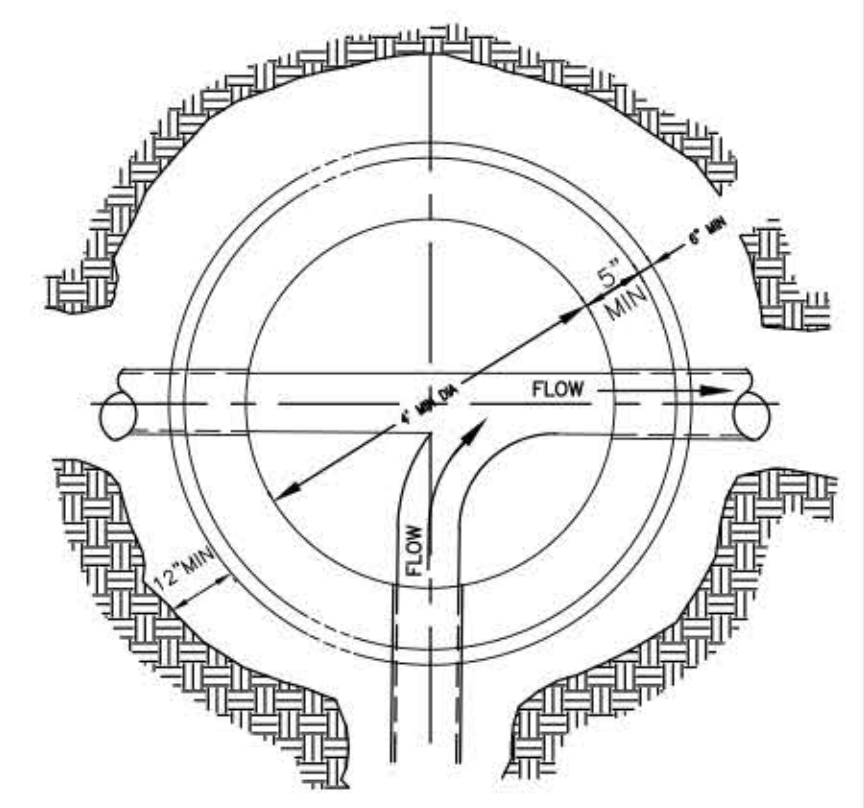
TYPICAL PRECAST CONCRETE SEWER MANHOLE
(NOT TO SCALE)



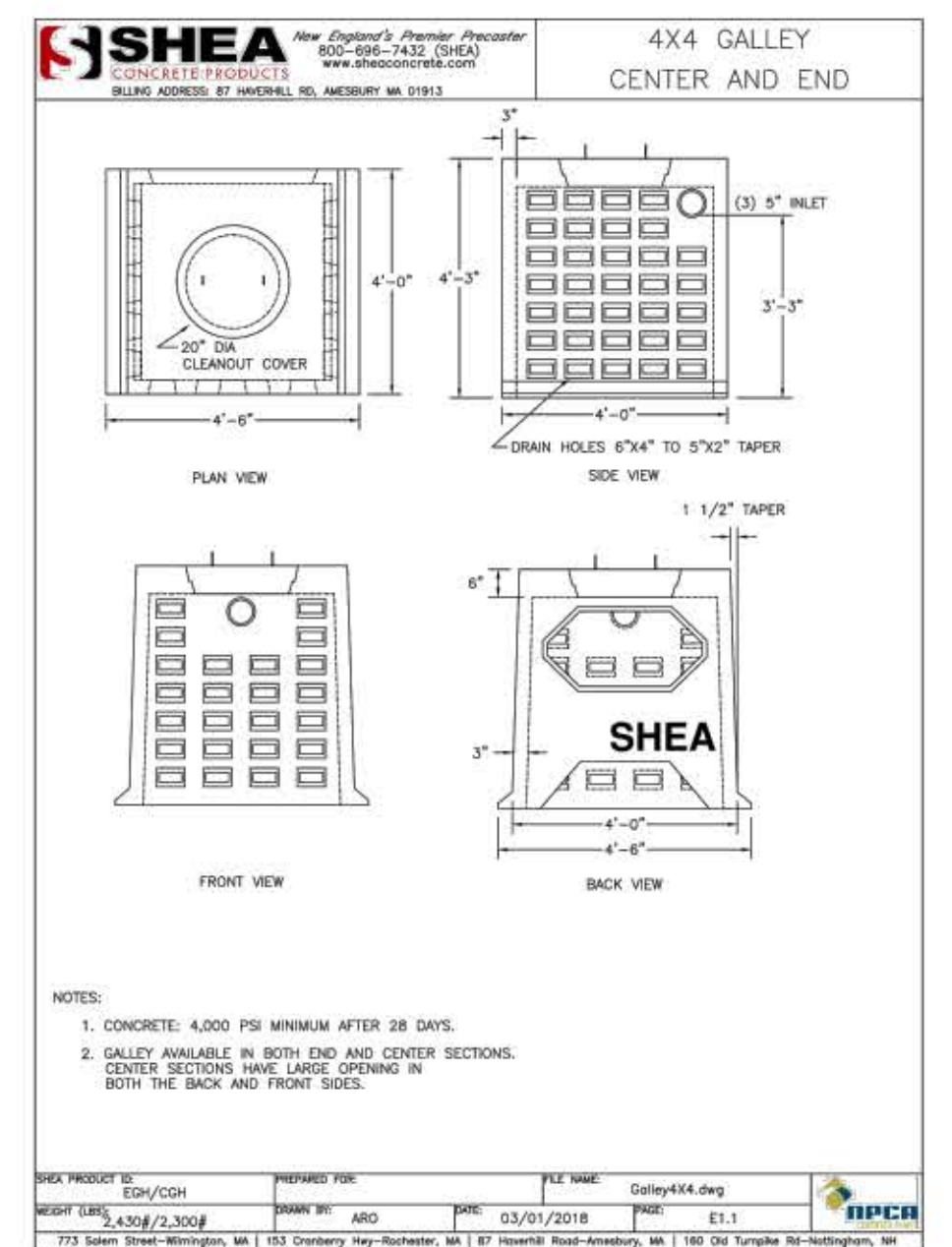
TYPICAL INTERNAL DROP SEWER MANHOLE
(NOT TO SCALE)



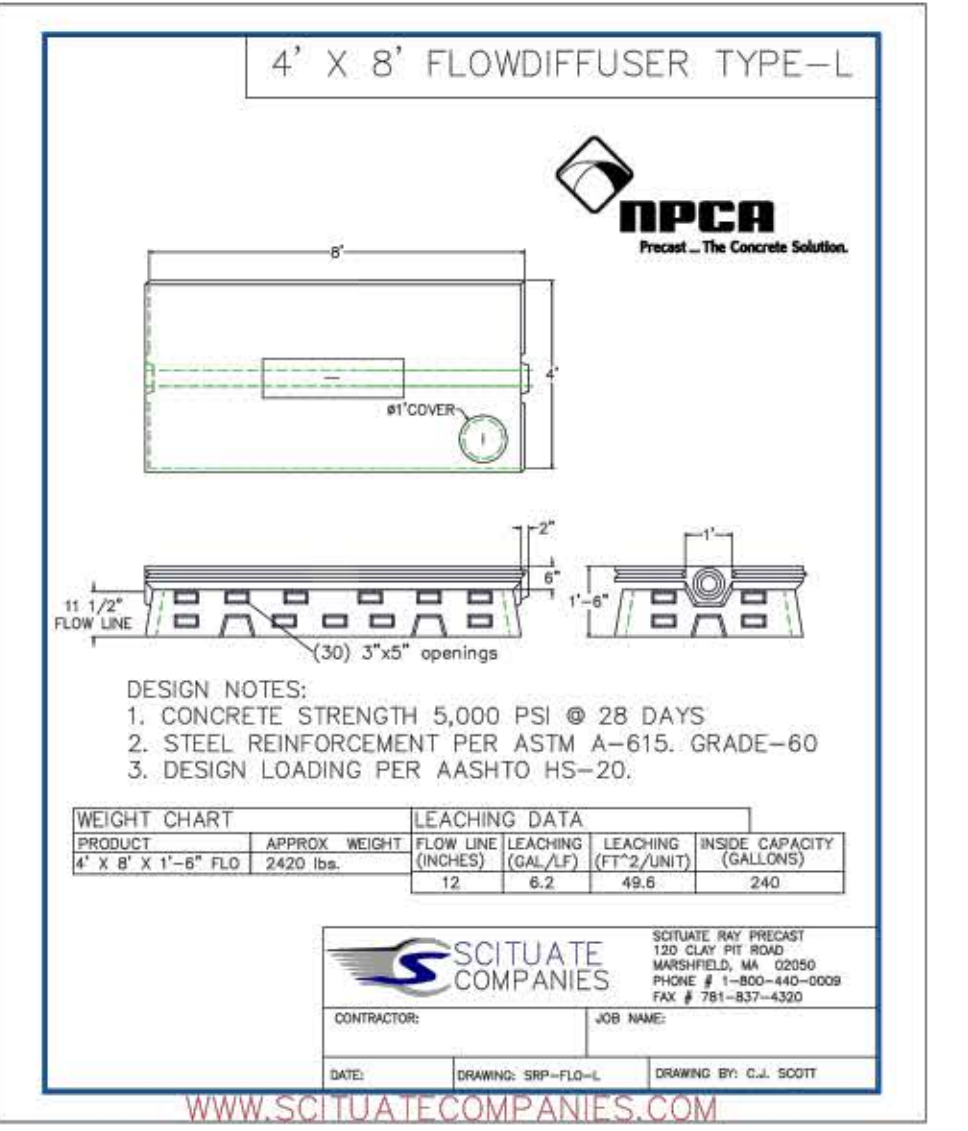
SECTION B-B
NOTES:
1. PIPE FOR INSIDE DROP SHALL BE SDR 35 PVC CONFORMING TO ASTM SPECIFICATION D2063.
2. BOTTOM BEND TO BE 90° SHORT BEND, BELL SPOUT, OF SDR 35 PVC. SPOUT OF BEND TO REST IN MASONRY TROUGH FROM DROP EFFLUENT TO MAIN CHANNEL.
3. WIDTH BELL OF PVC DROP TO ACCEPT (I.P.) SPOUT AS SHOWN.
4. LOCATE STRAPS AT PIPE BELL AND ABOVE BELL OF 90° BEND AS SHOWN. ADD EXTRA STRAPS AS NECESSARY TO MAINTAIN MAXIMUM SPACING OF TEN FEET.
5. STEPS SHALL NOT CONFLICT WITH INSIDE DROP.



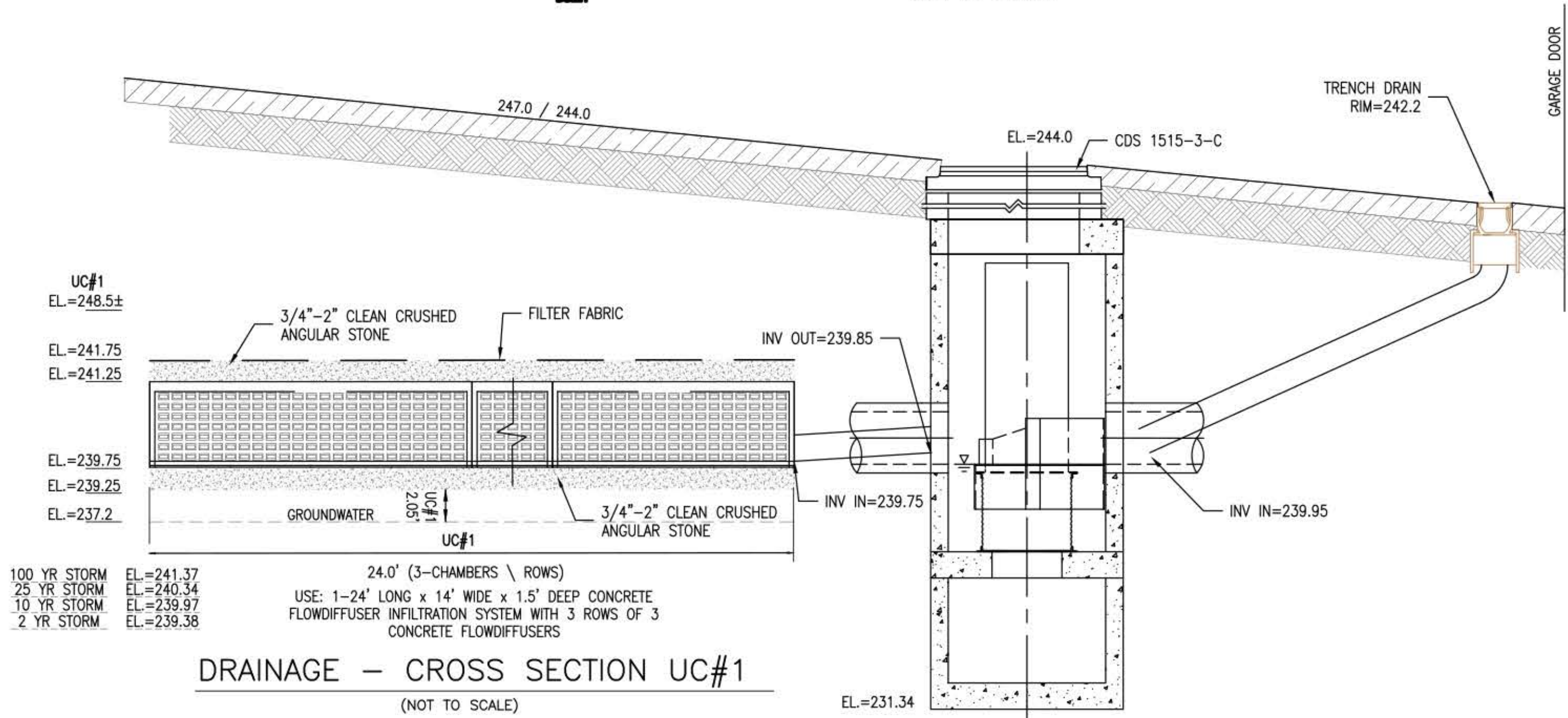
INVERT TABLE PLAN
(NOT TO SCALE)



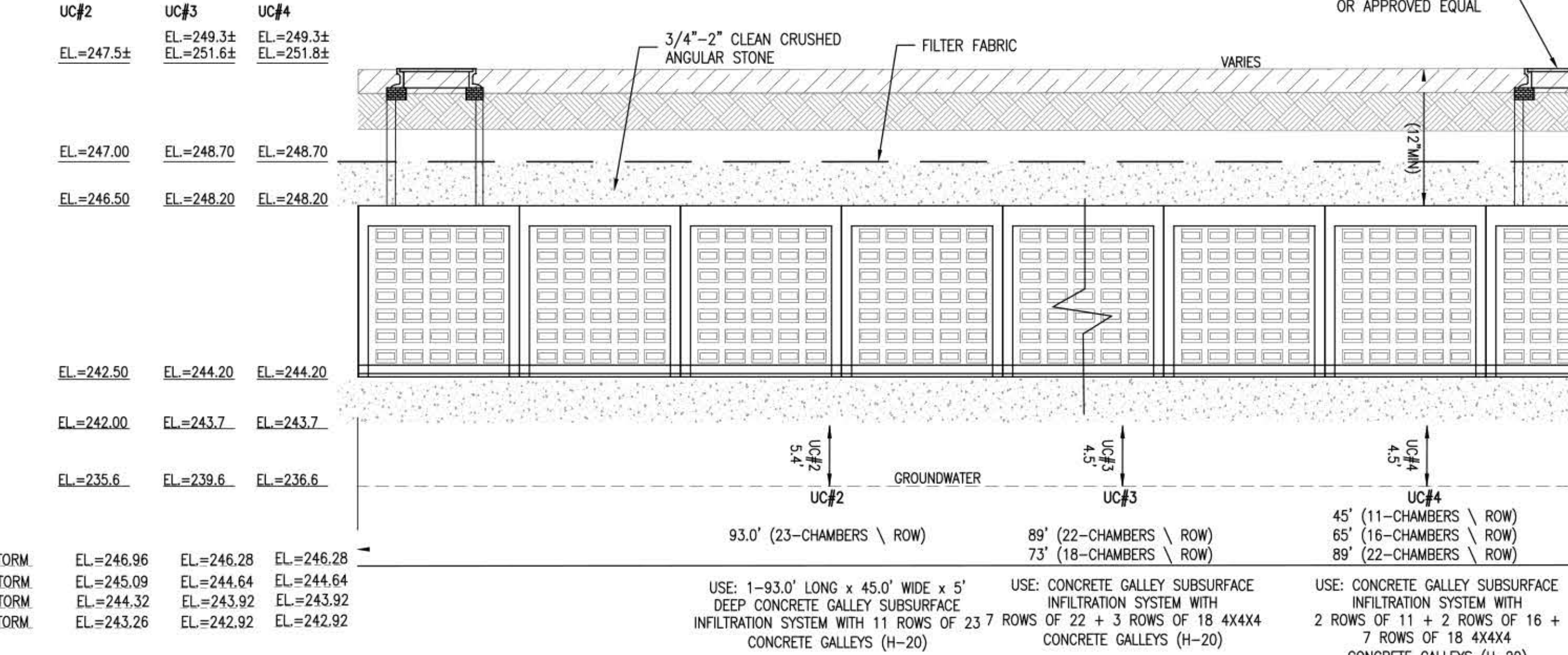
4'x4'x4' PRECAST GALLEY (H-20)
NOT TO SCALE



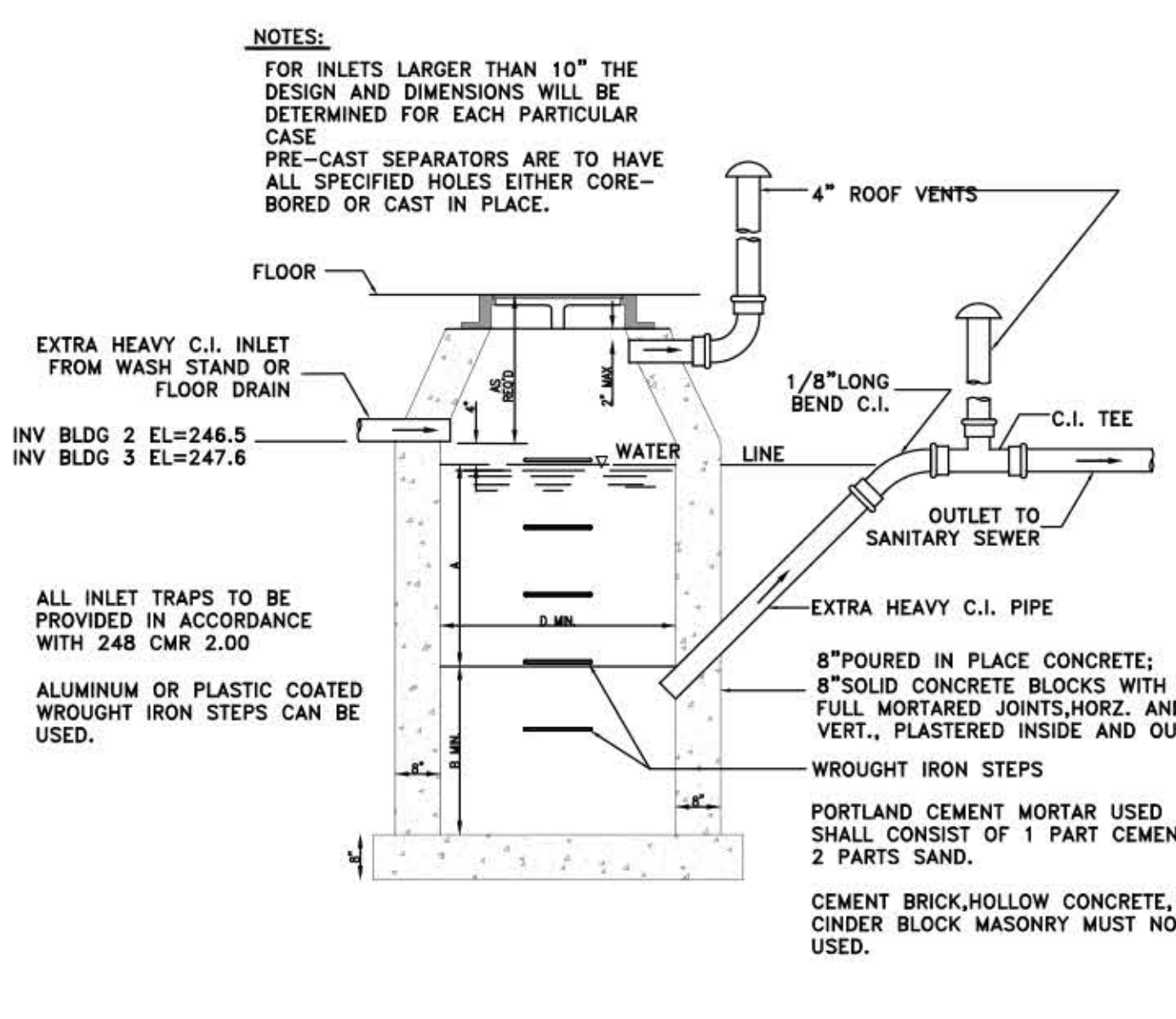
4'x8'x1.5' FLOWDIFFUSER TYPE-L (H20)
NOT TO SCALE



DRAINAGE - CROSS SECTION UC#1
(NOT TO SCALE)



DRAINAGE - CROSS SECTION UC#2, 3 & 4
(NOT TO SCALE)



OIL/GREASE SEPARATOR
(NOT TO SCALE)

INLET	D	A	B	INLET	D	A	B
4"	3'-6"	3'-0"	2'-6"	8"	5'-0"	6'-0"	5'-0"
5"	3'-6"	3'-6"	4'-0"	8"	5'-6"	5'-6"	4'-0"
	4'-0"	3'-6"	3'-0"	8"	6'-0"	6'-0"	3'-6"
	4'-0"	4'-0"	3'-0"	8"	6'-6"	6'-6"	3'-0"
	4'-6"	3'-0"	2'-6"	8"	6'-6"	6'-6"	2'-6"
6"	4'-0"	5'-0"	4'-6"	10"	5'-6"	7'-6"	6'-6"
	4'-0"	4'-0"	4'-0"	10"	6'-0"	6'-0"	4'-6"
	4'-6"	4'-0"	3'-6"	10"	6'-0"	6'-0"	5'-6"
	5'-0"	3'-0"	2'-6"	10"	6'-6"	6'-6"	4'-0"

GENERAL CONSTRUCTION NOTES

BASIN TO BE LOCATED OUTSIDE OF BUILDING WHERE POSSIBLE; COVER TO HAVE A CENTER HOLE.

A TIGHT COVER MUST BE USED IF BASIN IS LOCATED INSIDE OF BUILDING.

OPENING SHALL BE NOT LESS THAN 24" DIA.

THE CATCH BASIN SHALL BE SO LOCATED AND CONSTRUCTED THAT SURFACE WATER SHALL BE EXCLUDED.

INLET PIPE SHALL BE AT LEAST FOUR INCHES ABOVE NORMAL WATER LINE.

WHERE SUBJECT TO FROST OR CRUSHING CONDITIONS, OUTLET SHALL BE AT LEAST THREE FEET BELOW THE SURFACE.

THE NEW CATCH BASIN MUST BE FILLED WITH CLEAN WATER BEFORE USING, AND AFTER BEING EMPTIED FOR PERIODIC CLEANING.

ALL OIL AND GASOLINE MUST BE REMOVED BEFORE CLEANING OUT THE BASIN, AND MUST NOT BE DISCHARGED INTO THE SEWER THROUGH OTHER FITTINGS.

SPECIFICATIONS FOR COVERING SPECIAL CASES OR CONDITIONS, SHALL BE APPROVED BY THE LOCAL AUTHORITIES.

WROUGHT IRON STEPS SHALL BE SPACED ABOUT 18" APART.

BOTH VENTS SHALL BE EXTENDED INDEPENDENTLY 18" ABOVE THE ROOF, OR AS APPROVED BY THE LOCAL AUTHORITIES
(Outlet pipe to be 45 degree angle)

CONTRACTOR SHALL VERIFY SEWER LOCATION AND ELEVATIONS PRIOR TO INSTALLATION

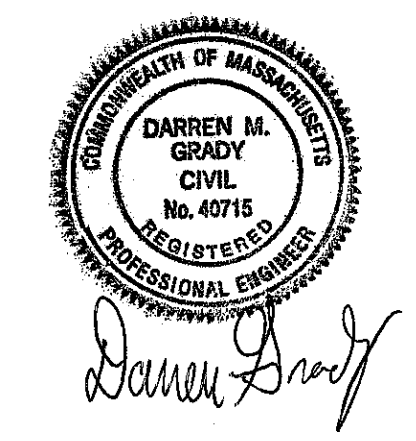
REVISIONS	DATE	DESCRIPTION
9/9/19	PLANNING, CON COM, TEC. REVIEW COMMENTS	
12/16/19	PLANNING BOARD COMMENTS - MIXED USE	
1/27/20	PEER REVIEW COMMENTS	
2/27/20	PLANNING BOARD COMMENTS	
3/12/20	PLANNING BOARD AND DESIGN REVIEW COMMENTS	

PHASE 2 SITE PLAN

#81 WEST UNION STREET
ASHLAND, MASSACHUSETTS

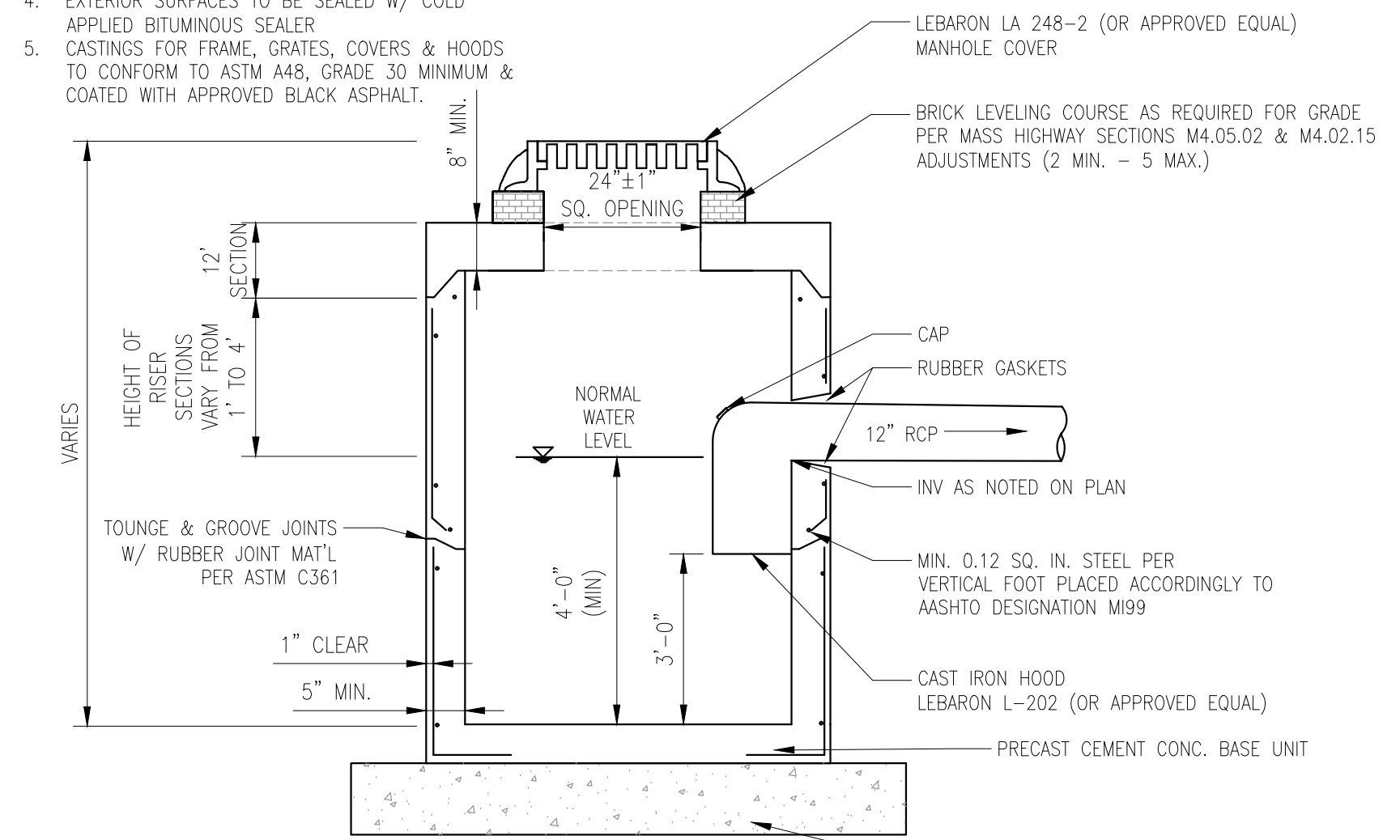
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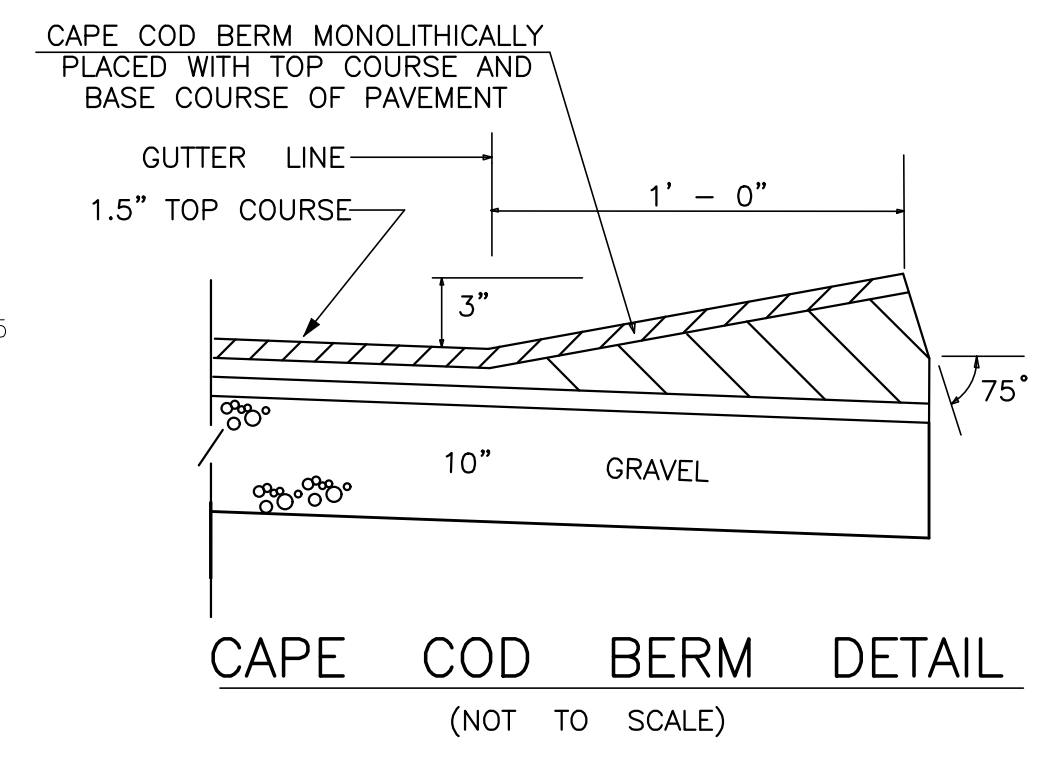


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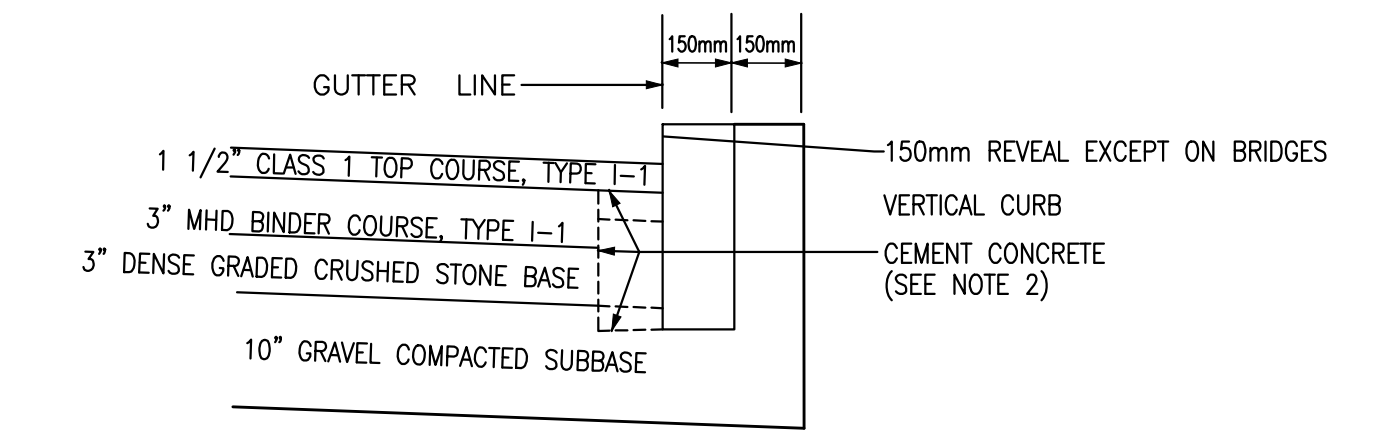
- NOTES:
1. PRECAST CONCRETE UNITS TO CONFORM TO THE MASS HIGHWAY SECTION M.4.01.14
 2. 4000 PSI MINIMUM COMPRESSIVE STRENGTH
 3. PRECAST UNITS TO BE HS-20 LOADING
 4. EXTERIOR SURFACES TO BE SEALED W/ COLD APPLIED BITUMINOUS SEALER
 5. CASTINGS FOR FRAME, GRATES, COVERS & HOODS TO CONFORM TO ASTM A48, GRADE 30 MINIMUM & COATED WITH APPROVED BLACK ASPHALT.



PRECAST GASOLINE TRAP CATCH BASIN
 1/2" = 1'-0" 334913.02-01



CAPE COD BERM DETAIL
 (NOT TO SCALE)

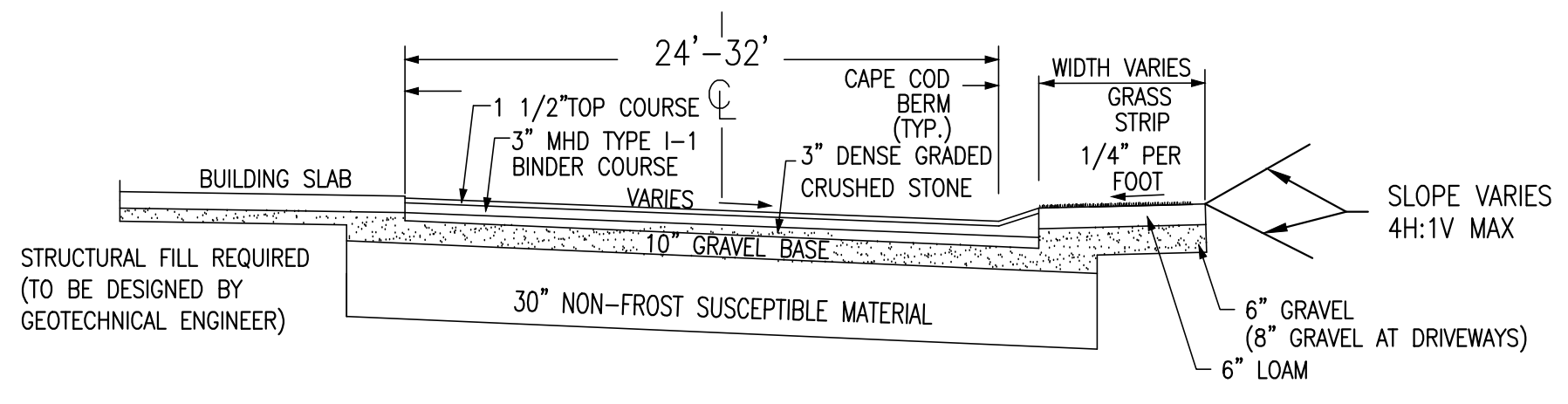


TYPE "VB" VERTICAL GRANITE AND PRECAST CONCRETE CURB
 (NOT TO SCALE)

ALL MATERIALS AND CONSTRUCTION METHODOLOGY SHALL CONFORM TO THE MASSACHUSETTS HIGHWAY DEPARTMENT'S STANDARD SPECIFICATIONS.

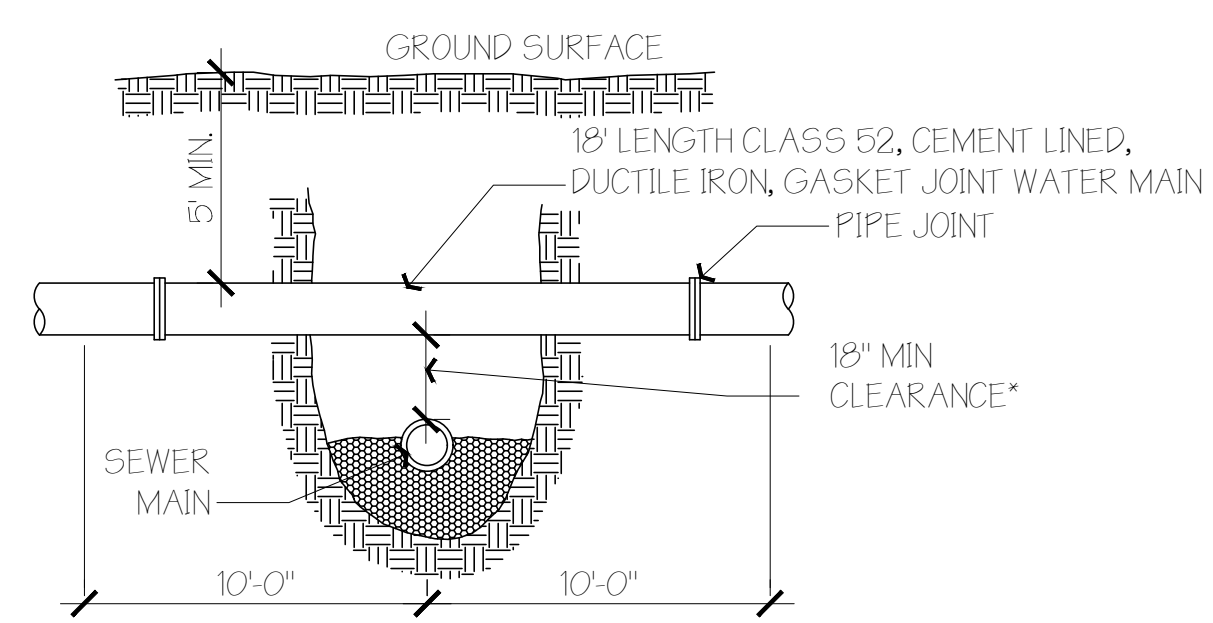
PROCEDURE DESCRIBED HEREIN IS APPLICABLE ONLY IF CURB IS TO BE SET AFTER BASE AND/OR BINDER COURSES ARE IN PLACE OTHERWISE CEMENT CONC. WILL BE ELIMINATED AND GRAVEL BROUGHT UP TO BOTTOM OF BASE COURSE. FOR DESCRIPTION, MATERIALS AND CONSTRUCTION METHOD, SEE STANDARD SPECIFICATIONS

- NOTES:
1. CUT NEAT LINE 150mm FROM CURB LINE AND REMOVE BINDER, BASE AND STONE. REPLACE WITH CEMENT CONCRETE.
 2. ANY DESIGNATED CEMENT CONCRETE THAT IS ACCEPTABLE TO THE DEPT. UNDER SECTION M4 OF THE STANDARD SPECIFICATIONS, ALL TEST REQUIREMENTS ARE WAIVED. BITUMINOUS CONCRETE IS NOT TO BE USED AS A SUBSTITUTE.



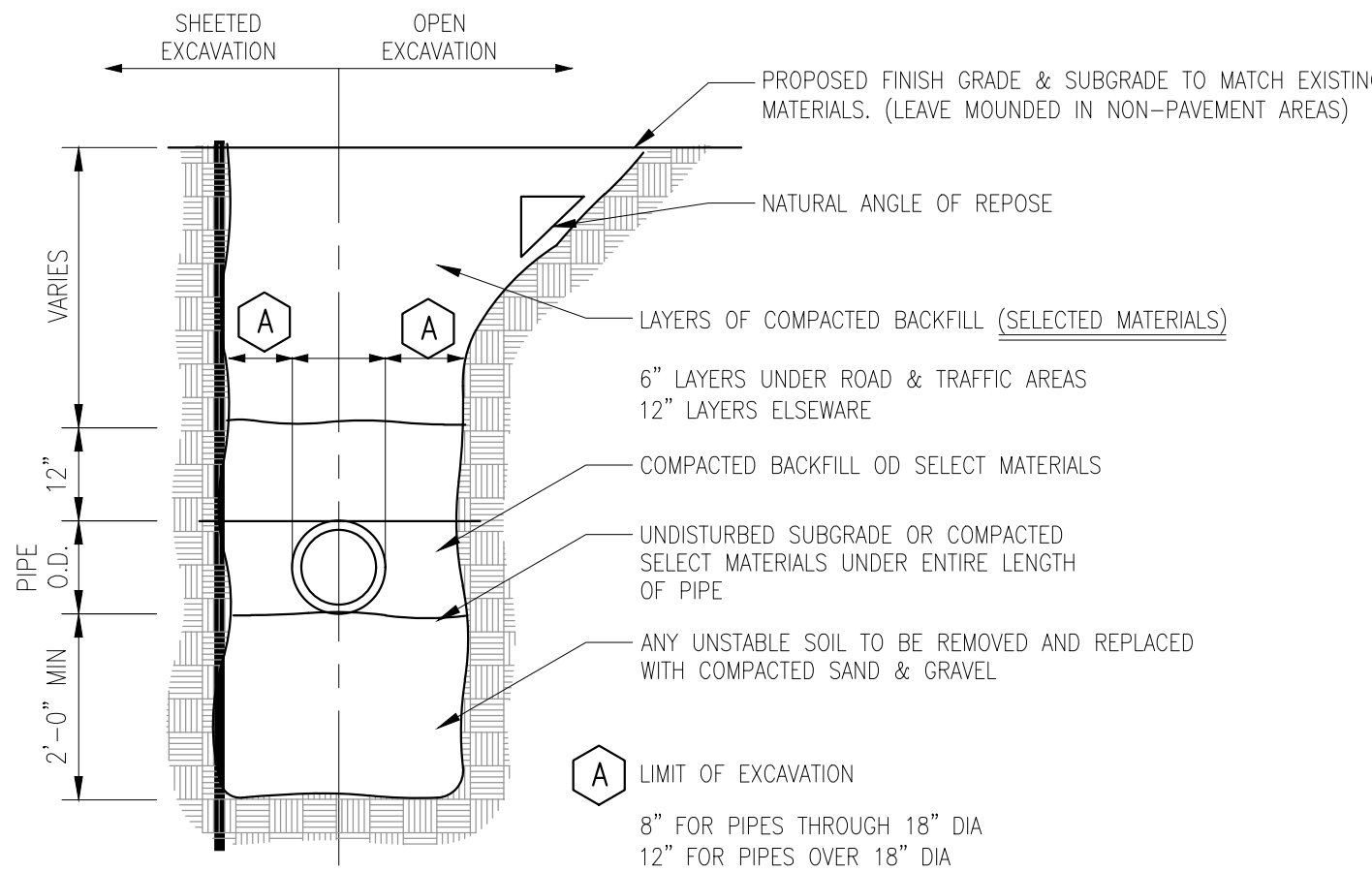
- NOTE:
1. FILL BELOW THE ROADWAY SHALL BE PLACED IN LIFTS HAVING A COMPACTED THICKNESS OF 6-INCHES AND BE COMPACTED TO A MINIMUM OF 95 PERCENT OF ITS MAXIMUM MODIFIED PROCTOR DRY DENSITY.
 2. PAVEMENT SHALL HAVE A DENSITY EQUAL TO OR GREATER THAN 95 PERCENT MAXIMUM DENSITY (NUCLEAR IN PLACE TEST).

DRIVEWAY SECTION
 (NOT TO SCALE)



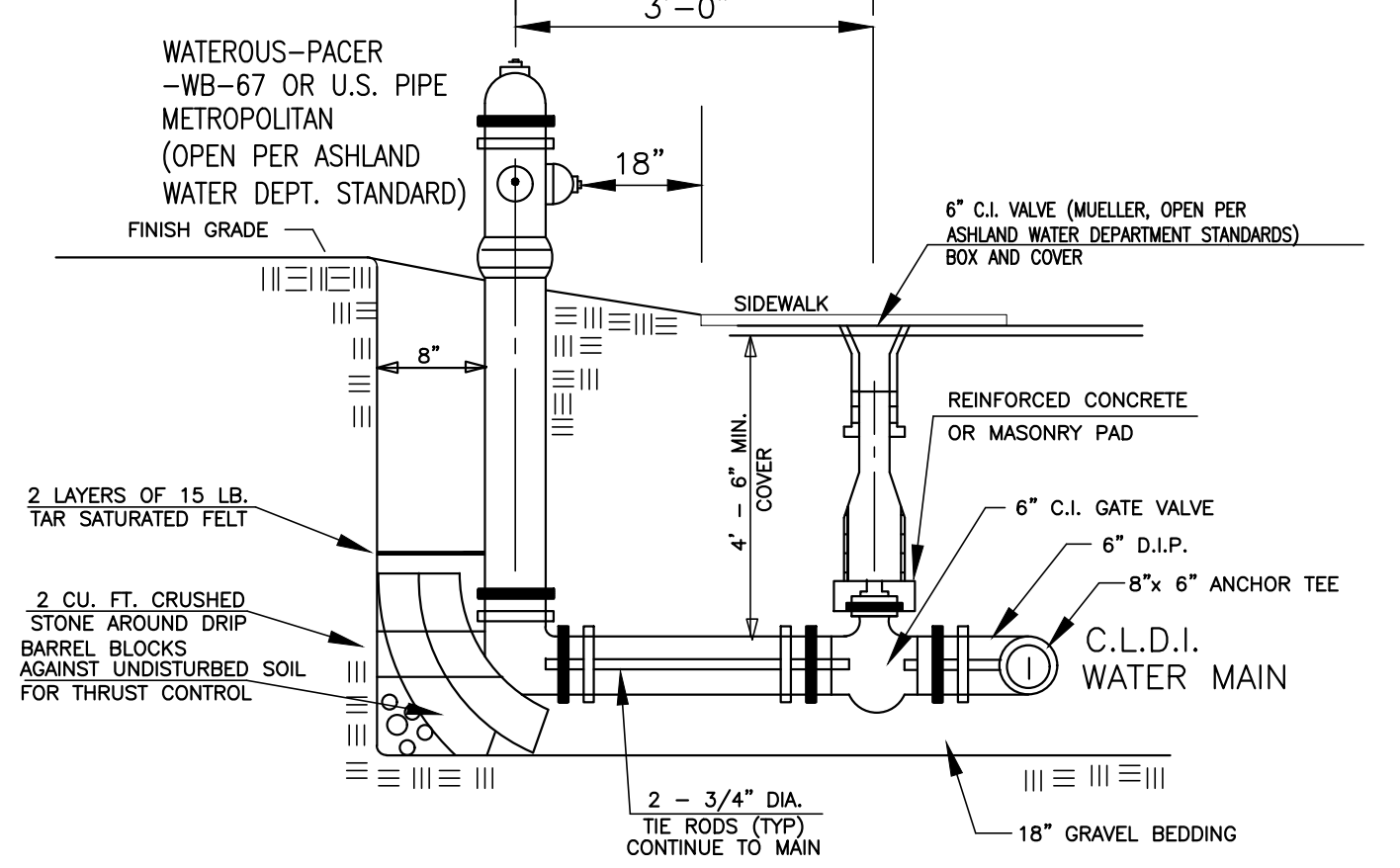
WHEN THE CROSSING AS SHOWN IS LESS THAN 18" VERTICAL CLEARANCE THE SEWER MAIN ORS-1/4" VALVE SERVICE MUST BE ENCASED 10' ON BOTH SIDES OF CROSSING WITH 6" OF 3000 PSI CONCRETE IF THE SEWER MAIN OR SERVICE CROSSES ABOVE THE WATERMAIN OR SERVICE TOTAL ENCASEMENT, BOTH SIDES OF THE CROSSING IS REQUIRED, REGARDLESS OF SEPARATION.

TYPICAL WATER CROSSING DETAIL
 N.T.S. DRAWING 333102.01



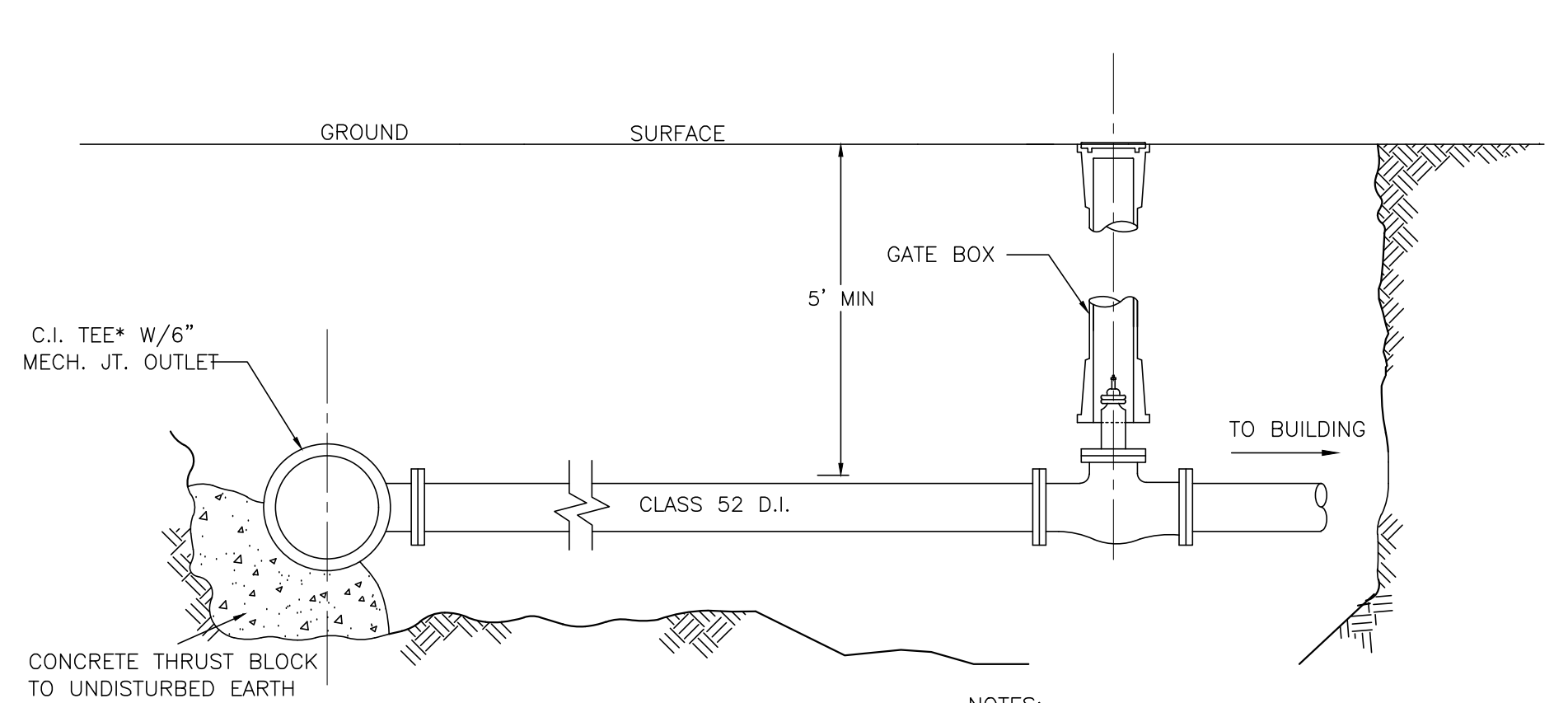
NOTE: WATER MAIN SHALL HAVE A MINIMUM OF 5 FEET OF COVER

TRENCH EXCAVATION DETAIL
 1/2" = 1'-0" 334913.03-01



TYPICAL HYDRANT DETAIL
 (NOT TO SCALE)

REVISIONS	(NOT TO SCALE)
9/9/19	PLANNING, CON COM, TEC. REVIEW COMMENTS
12/16/19	PLANNING BOARD COMMENTS - MIXED USE
1/27/20	PEER REVIEW COMMENTS
2/27/20	PLANNING BOARD COMMENTS
3/12/20	PLANNING BOARD AND DESIGN REVIEW COMMENTS



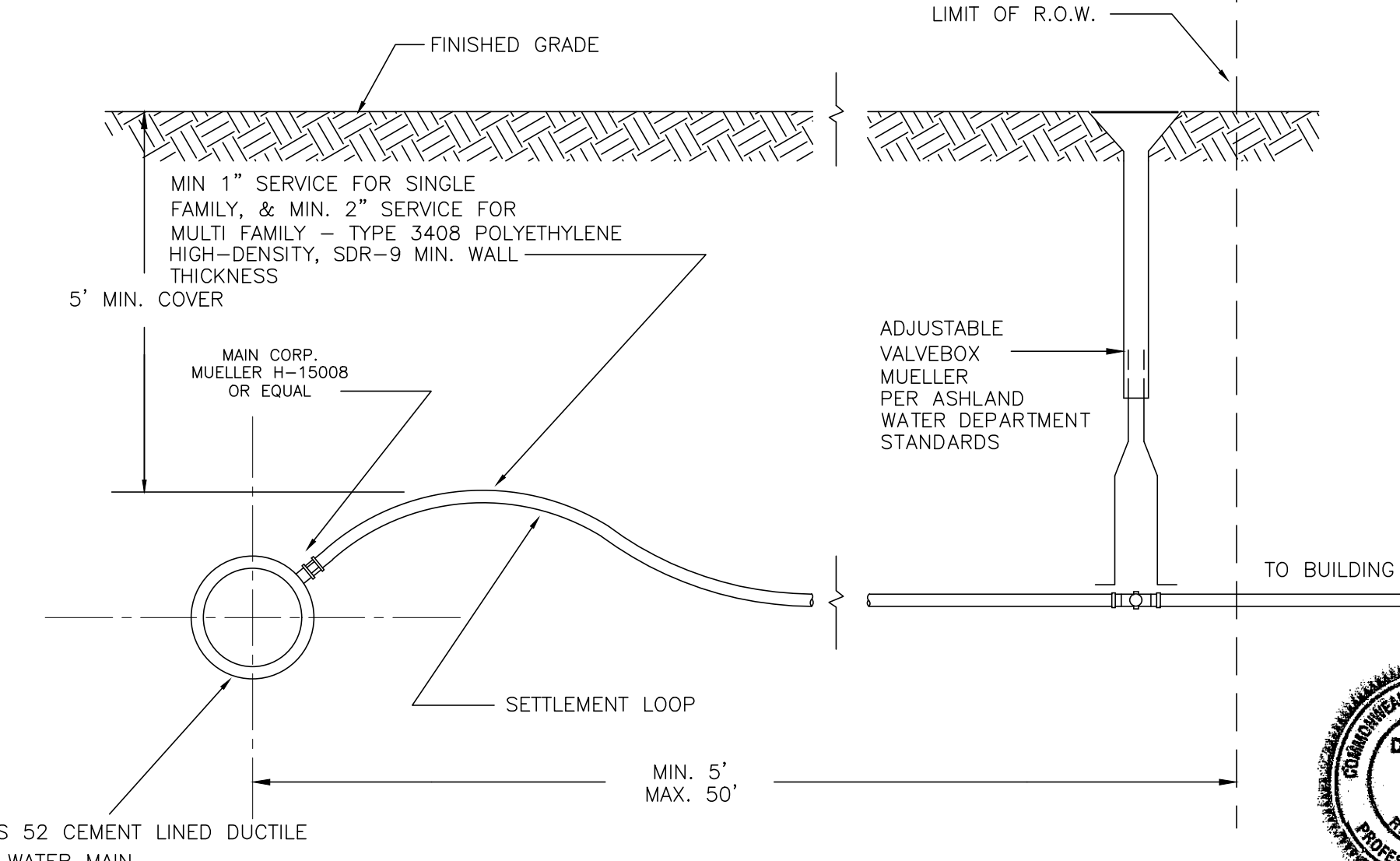
NOTES:

- ALL VALVES AND FITTINGS ARE TO BE MECHANICAL JOINTS
- VALVE BOXES SHALL BE CAST IRON, ADJUSTABLE, SLIP AND MANUFACTURED IN NORTH AMERICA.
- VALVES SHALL BE IN ACCORDANCE WITH ASHLAND WATER DEPARTMENT STANDARDS

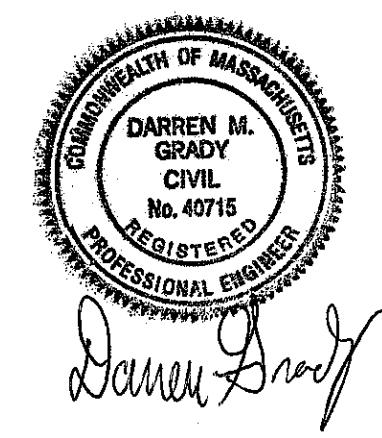
SEE PLAN FOR FIRE SERVICE SIZES

FIRE SERVICE SHALL BE INSTALLED IN ACCORDANCE WITH ASHLAND WATER DEPARTMENT AND FIRE DEPARTMENT STANDARDS

FIRE SERVICE DETAIL
 (CONNECTION TO PROPOSED WATER MAIN)
 (NOT TO SCALE)



TYPICAL PERMANENT SERVICE CONNECTION
 2" OR LESS CONNECTION TO NEW BUILDING
 (NOT TO SCALE)



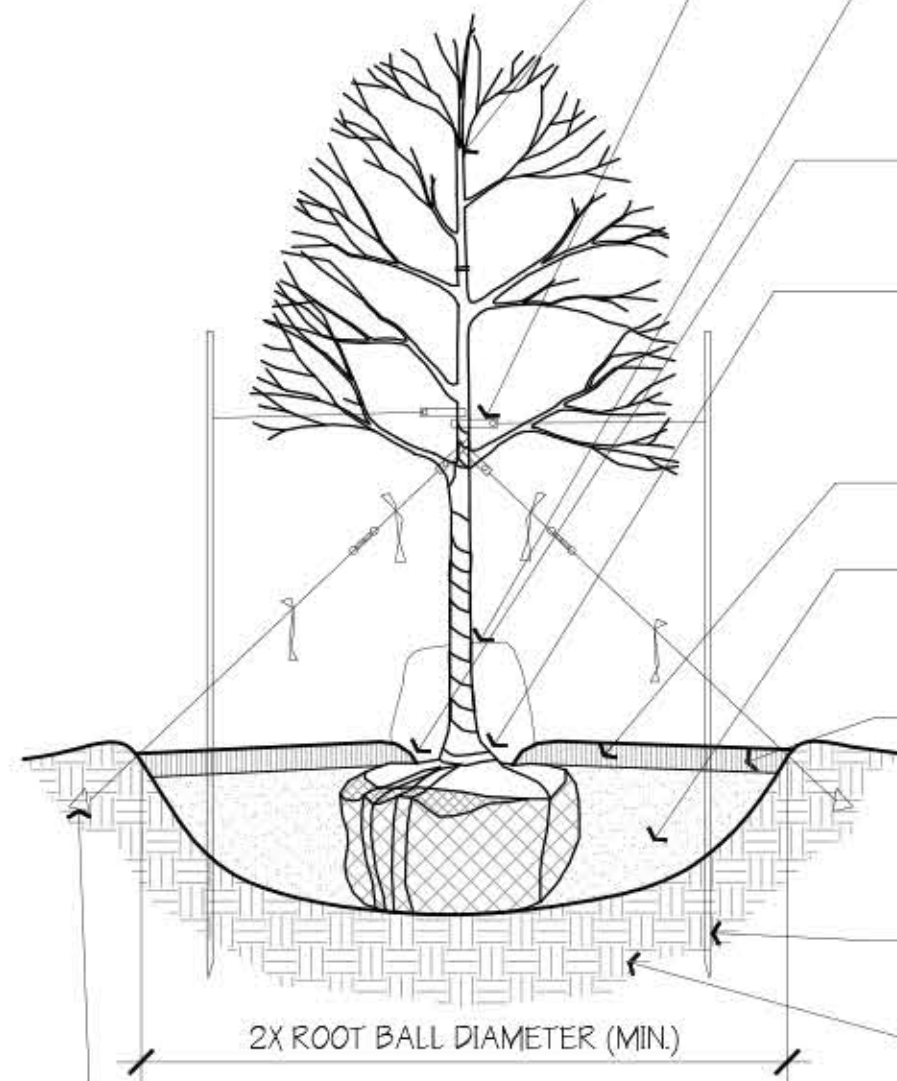
PHASE 2 SITE PLAN
 #81 WEST UNION STREET
 ASHLAND, MASSACHUSETTS

PREPARED FOR:
 81 WEST UNION STREET LLC
 C/O WILLIAM J. RODENHISER
 70 BARTZAK DRIVE
 HOLLISTON, MA 01746

JUNE 13, 2019
 SCALE: AS SHOWN
 JOB No. 18-284

Grady Consulting, L.L.C.
 Civil Engineers and Land Surveyors
 71 Evergreen Street, Suite 1, Kingston, MA 02364
 Phone (781) 585-2300 Fax (781) 585-2378

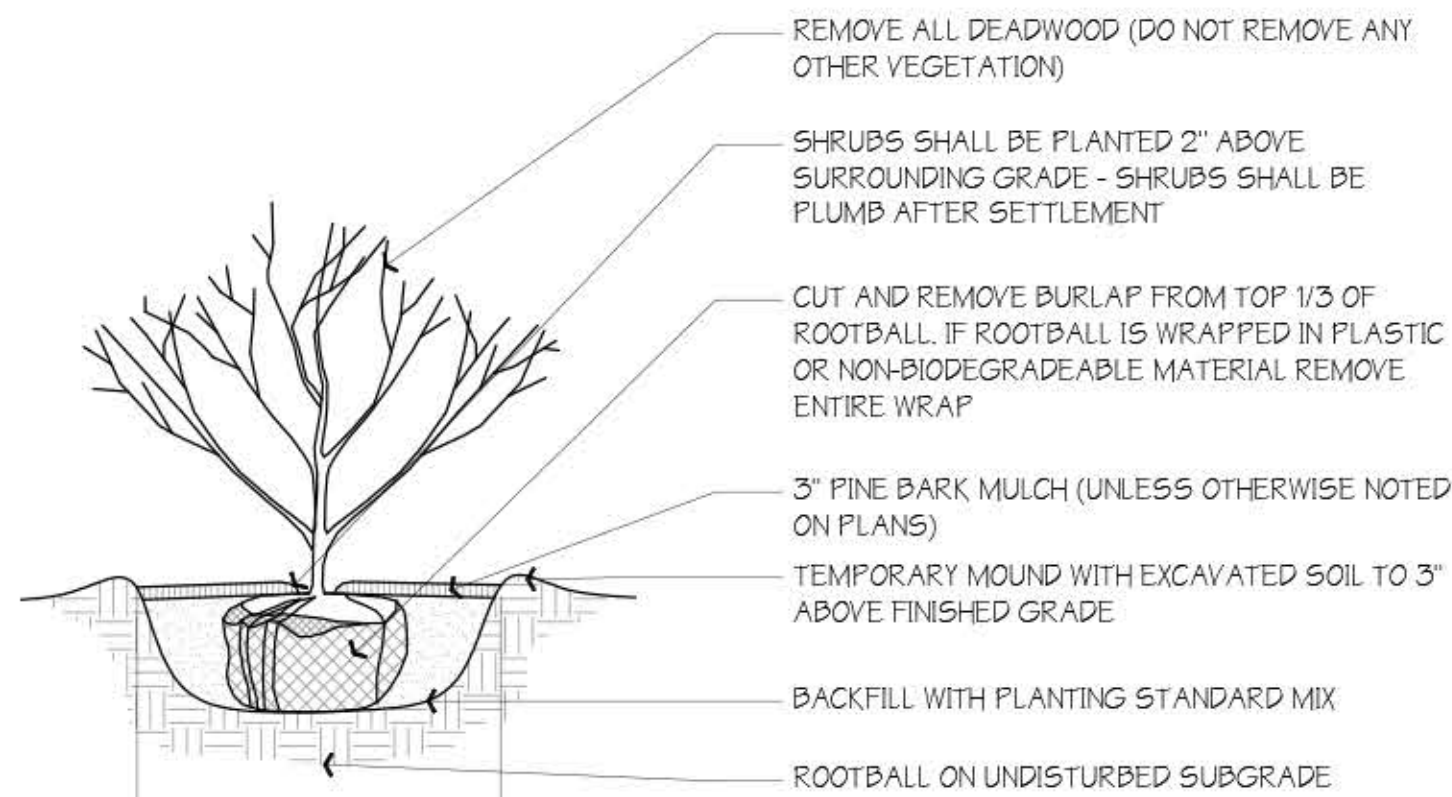
NOTES:
ON TREES BELOW 3" CAL.
USE WOOD STAKES.
ON TREES 3" CAL. OR GREATER
USE GUYING CABLES.
IF GUYING CABLES USE 3 PER TREE



INSTALL TREE PLUMB - L.A. TO APPROVE FACE / ORIENTATION OF TREES ON SITE
NON-GURDELING STRAP SUCH AS CHAIN LOCK OR ARBOR TAPE
INSTALL TREE GATORS ON ALL TREES NOT COVERED BY IRRIGATION AS PER MANUFACTURER'S SPECIFICATIONS. CONTRACTOR TO MAINTAIN DURING PERIOD OF WARRANTY
TREE SHALL BE PLANTED 3" ABOVE SURROUNDING GRADE - TREE SHALL BE PLUMB AFTER SETTLEMENT
IF ROOTBALL IS WRAPPED IN PLASTIC OR NON-BIODEGRADABLE MATERIAL REMOVE ENTIRE WRAP - IF WRAPPED IN BURLAP, CUT OPEN AT LEAST 1/3 OF TOP
3" PINE BARK MULCH (UNLESS OTHERWISE NOTED ON PLANS)
HAND EXCAVATE HOLE TO DIAMETER 2X WIDER THAN ROOT BALL - PRUNE ROOT FLARE - BACKFILL HOLE WITH PLANTING SOIL MIX AS SPECIFIED
EARTH SAUCER TO CONTAIN 3" MULCH - PULL MULCH 3-6" AWAY FROM TRUNK OF TREE (KNOCKDOWN/REMOVE SAUCER AFTER FIRST SEASON)
USE 2"x2" HARDWOOD STAKE (FOR BELOW 3" CAL.)
UNDISTURBED SUBGRADE
USE DUCKBILL TREE ANCHOR FOR 3" CAL. OR GREATER
PLANTING SOIL MIX:
1/3 PEAT - BLEND MANURE
1/3 HIGH ORGANIC LOAM
1/3 EX. SOIL
ALL TREES SHALL BE FLOODED TWICE DURING THE FIRST 24 HOURS AFTER PLANTING

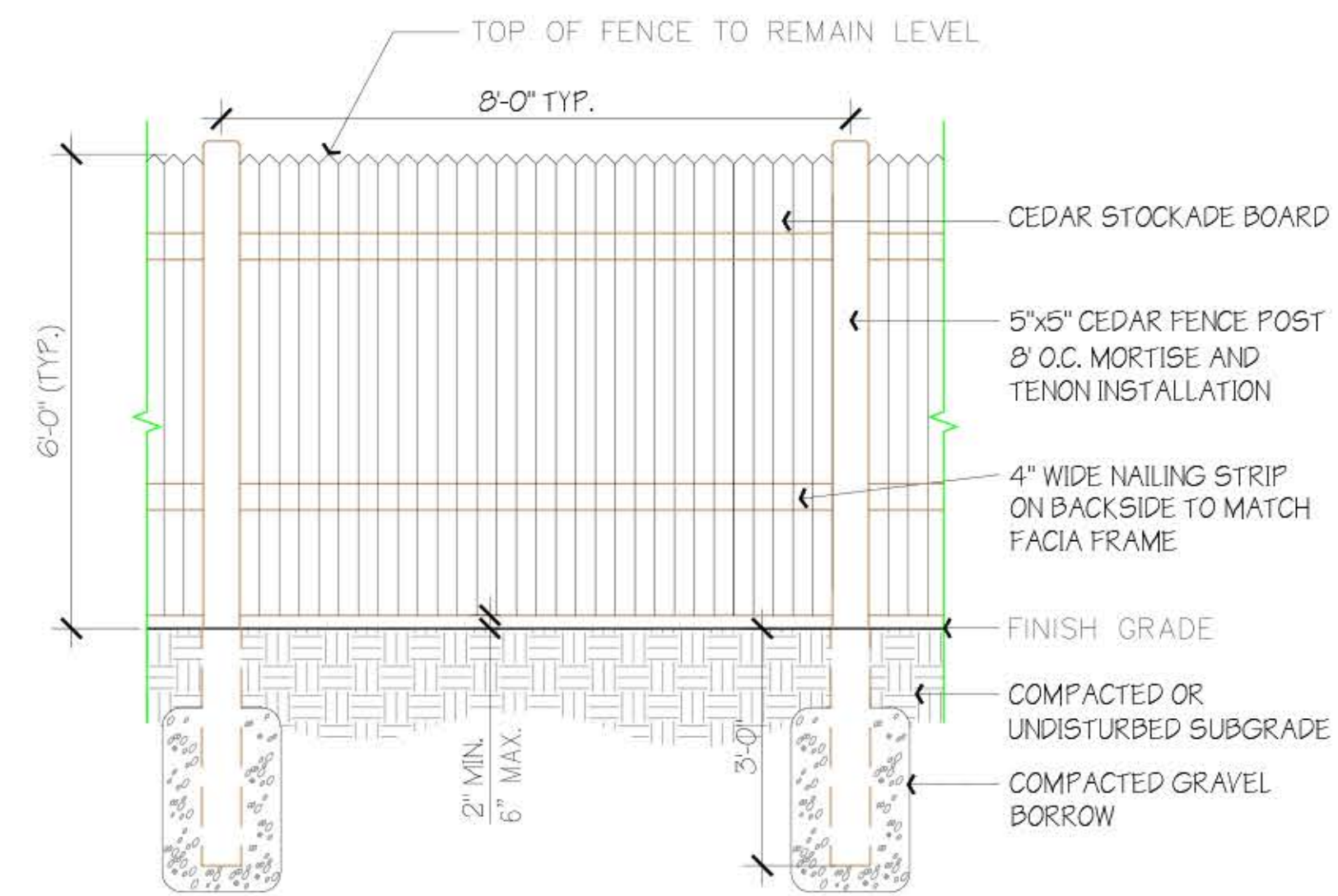
SHADE / FLOWERING TREE DETAIL

1/2" = 1'-0" 329343.01-01



SHRUB DETAIL

1" = 1'-0" 329333.00-02



STOCKADE FENCE

1/2" = 1'-0" 323129.11-01



EVERGREEN TREE DETAIL

1/2" = 1'-0" 329343.04-01

LOCATION	DEPTH	DESCRIPTION
GENERAL PLANTING BEDS	6"	1/3 PEAT - MANURE BLEND 1/3 HIGH ORGANIC LOAM 1/3 EXISTING SOIL
FLOWER BEDS	6"	SCREENED LOAM 1/3 PEAT - MANURE BLEND LIME - PELATIZED OR GROUND (50 LB. PER 100 SF.) GROUND BONE MEAL (50 LB. PER 100 SF.) 10-10-10 INORGANIC FERTILIZER (50 LB. PER 5000 SF.)
LAWNS - SOD & SEED	6"	6" SCREENED LOAM
PITS/TREE WELLS "STANDARD MIX" FOR BACKFILL	12"	SOIL MIX 'A' - 1/3 PEAT - MANURE BLEND 1/3 HIGH ORGANIC LOAM 1/3 EXISTING SOIL
PITS/TREE WELLS "LITE WEIGHT MIX"	12"	SOIL MIX 'B' - 70% LIGHT WEIGHT SHALE 20% SAND 10% COMPOST
PITS/TREE WELLS "STRUCTURAL MIX"	12"	SOIL MIX 'C' - MIX COMPOSITION TO BE SUPPLIED BY LANDSCAPE ARCHITECT.

SCHEDULE OF TOPSOILS & ADDITIVES

1" = 1'-0" 329301.03-01

TECHLIGHT LSMT SERIES High Lumen Output Scimitar LED Area Light

FEATURES & SPECIFICATIONS

LSMT 12.2" x 16.0" x 1.4

ORDERING INFORMATION

Color Temp	Beam Spread	Beam Diameter	Beam Angle	Beam Spread	Beam Diameter	Beam Angle
3000K	12.2"	16.0"	120°	12.2"	16.0"	120°

ACCESSORIES

PHOTOMETRICS

WJM SQUARE STRAIGHT ALUMINUM (SA)

POLE SHAFT

BASE PLATE

HANDHOLE

ANCHOR BOLT

FINISH

SA500725-F-DM1-BC

Finish	Color	Material	Weight
SA	Black	Aluminum	1.2 lbs

TECHLIGHT LHMWP Medium Heat Sink LED Wall Pack

FEATURES & SPECIFICATIONS

LHMWP 15.1" x 8.7"

ORDERING INFORMATION

Color Temp	Beam Spread	Beam Diameter	Beam Angle	Beam Spread	Beam Diameter	Beam Angle
3000K	15.1"	8.7"	120°	15.1"	8.7"	120°

ACCESSORIES

PHOTOMETRICS

TECHLIGHT LSMT High Lumen Output Scimitar LED Area Light

AVAILABLE FIXTURE DIMENSIONS

PHOTOMETRICS

TECHLIGHT LHSWP SERIES Small Heat Sink LED Wall Pack

FEATURES & SPECIFICATIONS

LHSWP 10.5" x 5.5"

ORDERING INFORMATION

Color Temp	Beam Spread	Beam Diameter	Beam Angle	Beam Spread	Beam Diameter	Beam Angle
3000K	10.5"	5.5"	120°	10.5"	5.5"	120°

PHOTOMETRICS

TECHLIGHT LHMWP Medium Heat Sink LED Wall Pack

AVAILABLE FIXTURE DIMENSIONS

PHOTOMETRICS

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