

SITE PLAN FOR AFFORDABLE MULTIFAMILY HOUSING 48 MASON STREET, WORCESTER, MA.

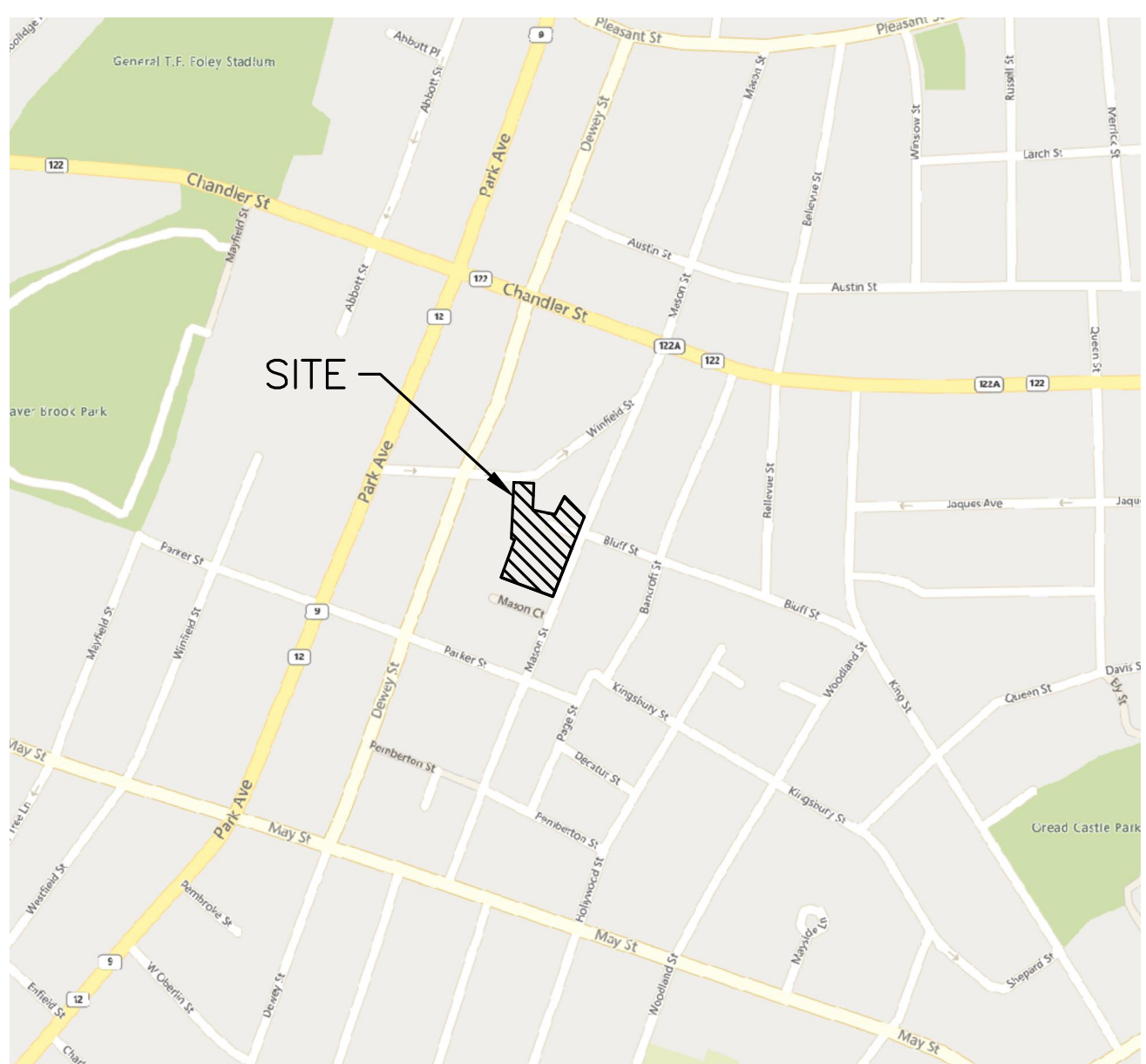
HOWARD STEIN HUDSON
370 Main Street
Worcester, MA 01608
www.hshassoc.com

PREPARED FOR:
KENSINGTON MANAGEMENT LLC
330 HIGHLAND STREET
WORCESTER, MA 01602

**AFFORDABLE
MULTIFAMILY HOUSING
48 MASON STREET
WORCESTER, MA, 01610
WORCESTER COUNTY**

GENERAL NOTES:

1. EXISTING PROPERTY LINE AND UTILITY INFORMATION SHOWN IS BASED ON AN EXISTING SURVEY CONDUCTED BY WSP USA, INC REVISED THROUGH 03-06-23.
2. THE ACCURACY AND COMPLETENESS OF THE UNDERGROUND UTILITIES AS SHOWN ON THE PLANS ARE NOT GUARANTEED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT LOCATION, SIZE, TYPE, ETC. OF ALL UNDERGROUND UTILITIES THAT MAY BE AFFECTED BY THE WORK. AT LEAST 72 HOURS BEFORE EXCAVATION, THE CONTRACTOR SHALL BE REQUIRED TO CONTACT DIGSAFE AT 1-888-344-7233.
3. THE CONTRACTOR SHALL FIELD VERIFY CONDITIONS AND DIMENSIONS PRIOR TO CONSTRUCTION AND REPORT ANY DISCREPANCIES TO THE ENGINEER.
4. WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, THE LOCATION, ELEVATION, AND SIZE OF THE UTILITY SHALL BE APPROPRIATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR AND THE INFORMATION FURNISHED TO THE ENGINEER FOR RESOLUTION.
5. ALL UTILITY COMPANIES, PUBLIC AND PRIVATE, MUST BE NOTIFIED, INCLUDING THOSE IN CONTROL OF UTILITIES NOT SHOWN ON THIS PLAN, PRIOR TO EXCAVATING, BLASTING, INSTALLING, BACKFILLING, GRADING, PAVEMENT RESTORATION OR REPAVING.
6. THE CONTRACTOR SHALL MAINTAIN ALL EXISTING UTILITIES EXCEPT THOSE NOTED TO BE ABANDONED, REMOVED AND DISPOSED.
7. THE CONTRACTOR SHALL DISPOSE OF ALL WASTE MATERIAL IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL REQUIREMENTS AT HIS/HER OWN EXPENSE, OUTSIDE OF THE PROJECT LIMITS.



LOCUS MAP
1" = 500'

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EXISTING CONDITION PLAN (EC)

PROJECT TEAM

APPLICANT
KENSINGTON MANAGEMENT, LLC
330 HIGHLAND STREET
WORCESTER, MA 01602

ARCHITECT
LAGRASSE YANOWITZ & FEYL ARCHITECTS
1 ELM SQUARE
ANDOVER, MA 01810

LANDSCAPE ARCHITECT
JAMES K. EMMANUEL ASSOCIATES
22 CARLTON ROAD
MARBLEHEAD, MA 01945

SURVEYOR
WSP USA, INC.
10 AL PAUL LANE, SUITE 103
MERRIMACK, NH 03054

CIVIL ENGINEER
HOWARD STEIN HUDSON
114 TURNPIKE ROAD, SUITE 2C
CHELMSFORD, MA 01824

LIGHTING CONSULTANT
EXPOSURE 2 LIGHTING
6 SCOTT ROAD
HAMPTON, NH 03842

OWNER

KENSINGTON MANAGEMENT LLC AS TRUSTEE OF FORTY-EIGHT MASON STREET WORCESTER REALTY TRUST
C/O KENSINGTON MANAGEMENT LLC
330 HIGHLAND STREET
WORCESTER, MA 01602

ASSESSORS INFORMATION

ASSESSORS MAP 06 BLOCK 020 LOT 12+13

REFERENCES

1. EXISTING CONDITIONS ENTITLED "EXISTING CONDITIONS PLAN" DATED MARCH 6, 2023 BY WSP USA, INC.

ZONING REQUIREMENTS

BG-3.0 - BUSINESS GENERAL - MULTIFAMILY ALLOWED BY RIGHT
CCOD-E OVERLAY
DIMENSIONAL REQUIREMENTS

	BG-3 REQ.	CCOD REQ.	PROPOSED
MINIMUM LOT AREA	5,000 SF	N/A	49,126 SF
MINIMUM LOT FRONTAGE	40 FT/DU(200 MAX.)	40 FT	256.74 FT
MINIMUM FRONT YARD	N/A	5 FT MIN/15 FT MAX	5.7 FT
MINIMUM SIDE YARD	N/A	N/A	33.6 FT
MINIMUM REAR YARD	10 FT	N/A	82.3 FT
MAXIMUM STORIES	N/A	3+	7 STORIES
MAXIMUM BUILDING HEIGHT	100 FT	50 FT*	70 FT
MAXIMUM FLOOR AREA RATIO	3:1	2:1*	1.54:1
RECREATION SPACE (OUTDOOR+INDOOR)	10%	N/A	11.1% (5,480 SF)
IMPERVIOUS AREA	N/A	N/A	37,985 SF (77.3%)

*EXCEPT WHERE GREATER ALLOWED BY UNDERLYING ZONING

PARKING REQUIREMENTS

PROPOSED 94 RESIDENTIAL UNITS
BG-3 MULTIFAMILY = 2 SPACES PER UNIT = 188 SPACES
CCOD MULTIFAMILY = 1 SPACE PER UNIT = 94 SPACES

GUEST PARKING = 1 SPACE PER 10 UNITS = 10 SPACES PER CCOD DESIGN GUIDELINES

BICYCLE PARKING = 13 OUTDOOR + 17 INDOOR BICYCLE SPACES
(3 SPACES PLUS 3% IN EXCESS OF 50 SPACES) PER CCOD
PROPOSED REDUCTION: 3 + (16 x .03) = 4 SPACE REDUCTION

PARKING REQUIRED = 94 SPACES - 4 SPACES + 10 GUEST SPACES = 100 PARKING

COMPACT SPACES = UP TO 25% OF REQUIRED PARKING
PROPOSED COMPACT SPACES = 18 SPACES (18/66 PROPOSED = 27.3%) (RELIEF REQUIRED FROM ZBA, ARTICLE II, SECTION 7.A.2)

PARKING PROPOSED: 66 = 56 RESIDENTIAL SPACES + 10 GUEST SPACES (RELIEF REQUIRED FROM ZBA, ARTICLE II, SECTION 6.A.3)

REQUIRED LOADING SPACES = 2
PROVIDED LOADING SPACES = 1 (RELIEF REQUIRED FROM ZBA, ARTICLE IV, SECTION 7.A.2)

REQUIRED HANDICAP PARKING = 4
PROVIDED HANDICAP PARKING = 4

EV READY PARKING = 20% x 66 SPACES = 14 SPACES
PROPOSED EV READY = 14 SPACES

REVISIONS:

NO	BY	DATE	DESCRIPTION
1	KL	5/15/23	BOARD COMMENTS
2	MB	9/8/23	REV. EV PARKING



SITE
PLAN

COVER
SHEET

DATE:	APRIL 11, 2023
PROJECT NUMBER:	22041
DESIGNED BY:	KL
DRAWN BY:	KL
CHECKED BY:	KE

C.1

9/8/2023 1:20:41 CURRENT SHEETS 22041 Site Plan_R1.dwg
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EROSION CONTROL PLAN NOTES:

1. REMOVAL OF EXISTING STRUCTURES SHALL INCLUDE ALL FOUNDATIONS, FOOTINGS, AND UTILITY CONNECTIONS, UNLESS OTHERWISE NOTED.
2. ALL CONSTRUCTION TRAFFIC TO ENTER/EXIT THE SITE VIA THE STABILIZED CONSTRUCTION ENTRANCE.
3. IT IS THE RESPONSIBILITY OF THE CHOSEN CONTRACTOR TO ENSURE ALL STORMWATER INLETS DOWNSTREAM OF CONSTRUCTION ARE FITTED WITH TEMPORARY INLET PROTECTION. ALL SEDIMENTATION CONTROL DEVICES INSTALLED WITHIN THE CITY'S RIGHT OF WAY SHALL BE MAINTAINED, INSPECTED, CLEANED AND REPLACED AS NECESSARY TO PREVENT FLOODING DURING RAIN EVENTS.
4. UPON COMPLETION OF WORK, AND APPROVAL IS GRANTED BY THE TOWN OF WORCESTER DPW, ANY SEDIMENTATION CONTROLLED DEVICES SHALL BE REMOVED AS SOON AS POSSIBLE.
5. ALL PROPOSED CATCH BASINS AND STORMWATER STRUCTURES SHALL BE FITTED WITH INLET PROTECTIONS DURING CONSTRUCTION AS TO MINIMIZE EROSION AND SEDIMENTATION WITHIN THE PROPOSED STORMWATER MANAGEMENT SYSTEM.
6. ALL EXISTING SITE FEATURES NOT PROPOSED TO BE REMOVED SHALL BE PROTECTED DURING CONSTRUCTION TO THE MAXIMUM EXTENT FEASIBLE. ANY DAMAGE SHALL BE REPAIRED TO THE PRE-CONSTRUCTION CONDITION.
7. EROSION AND SEDIMENT CONTROL MEASURES MUST BE INSTALLED PRIOR TO THE START OF CONSTRUCTION AND MAINTAINED AND UPGRADED AS NECESSARY DURING CONSTRUCTION BY THE CONTRACTOR. IT IS THE CONTRACTOR'S RESPONSIBILITY TO INSPECT AND INSTALL ADDITIONAL CONTROL MEASURES AS NEEDED DURING CONSTRUCTION.
8. STABILIZATION OF ALL RE-GRADED AND SOIL STOCKPILE AREAS MUST BE MAINTAINED DURING ALL PHASES OF CONSTRUCTION.
9. SEDIMENT REMOVED FROM EROSION AND SEDIMENT CONTROL DEVICES MUST BE PROPERLY REMOVED AND DISPOSED. ALL DAMAGED CONTROLS MUST BE REMOVED, REPLACED, AND DISPOSED OF IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL REQUIREMENTS.
10. THE CONTRACTOR IS RESPONSIBLE FOR IMPLEMENTING THE EROSION AND SEDIMENT CONTROL PLAN. THIS INCLUDES THE INSTALLATION AND MAINTENANCE OF CONTROL MEASURES, INFORMING ALL PARTIES ENGAGED ON THE CONSTRUCTION SITE OF THE REQUIREMENTS AND OBJECTIVES OF THE PLAN, AND NOTIFYING THE PROPER CITY AGENCY OF ANY TRANSFER OF THIS RESPONSIBILITY.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTROLLING WIND EROSION AND DUST THROUGHOUT THE LIFE OF THEIR CONTRACT. DUST CONTROL MAY INCLUDE, BUT IS NOT LIMITED TO, SPRINKLING OF WATER ON EXPOSED SOILS AND STREET SWEEPING WITHIN ADJACENT ROADWAYS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FILE FOR NECESSARY PERMITS TO PERFORM ANY OFF-SITE CONTROL MEASURES.
12. IF FINAL GRADING IS TO BE DELAYED FOR MORE THAN 21 DAYS AFTER LAND DISTURBANCE ACTIVITIES CEASE, TEMPORARY VEGETATION OR MULCH SHALL BE USED TO STABILIZE SOILS WITHIN 14 DAYS OF THE LAST DISTURBANCE.
13. IF A DISTURBED AREA WILL BE EXPOSED FOR GREATER THAN ONE YEAR, PERMANENT GRASSES OR OTHER APPROVED COVER MUST BE INSTALLED.
14. THE CONTRACTOR MUST KEEP ON-SITE AT ALL TIMES ADDITIONAL SILT SOCK AND SILT FENCE FOR INSTALLATION AT THE DIRECTION OF THE ENGINEER, OR THE CITY, TO MITIGATE ANY EMERGENCY CONDITION.
15. THE EROSION AND SEDIMENT CONTROLS AS SHOWN MAY NOT BE PRACTICAL DURING ALL STAGES OF CONSTRUCTION. EARTHWORK ACTIVITY ON-SITE MUST BE DONE IN A MANNER SUCH THAT RUNOFF IS DIRECTED TO A SEDIMENT CONTROL DEVICE OR INFILTRATED TO THE GROUND.
16. DEMOLITION AND CONSTRUCTION DEBRIS MUST BE PROPERLY CONTAINED AND DISPOSED OF.
17. DISPOSAL OF ALL DEMOLISHED MATERIALS IS THE RESPONSIBILITY OF THE CONTRACTOR AND MUST BE HAULED OFF-SITE IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL REQUIREMENTS.
18. ALL EXISTING UTILITIES TO BE CUT AND CAPPED AT THE PROPERTY LINE OR DISCONNECTED PER LOCAL REGULATIONS UNLESS OTHERWISE NOTED.
19. ANY LOCATION OF INGRESS AND EGRESS FROM THE SITE SHALL BE FITTED WITH A STABILIZED CONSTRUCTION ENTRANCE.

LEGEND

□	STONE BOUND WITH DRILL HOLE	⊕	UTILITY POLE WITH TRANSFORMER		
□	STONE BOUND LEAD PLUG	⊕*	UTILITY POLE WITH LIGHT AND TRANSFORMER		
⊙	IRON ROD FOUND	BMK	BENCHMARK		
●	AREA DRAIN	BOMO	BOLT OVER MAIN OUTLET	---	ABUTTERS LOT LINE
■	CATCH BASIN	BIT	BITUMINOUS PAVEMENT	---	PROPERTY LINE
⊕	DRAIN MANHOLE	EOP	EDGE OF PAVEMENT	---	EASEMENT
⊕	NO LABEL MANHOLE	EOW	EDGE OF WATER	-o-o-o-o-o-o-o-	CHAIN LINK FENCE
⊕	SEWER MANHOLE	CONC	CONCRETE PAVEMENT	-o-o-o-o-o-o-o-	METAL/WIRE FENCE
⊕	ELECTRIC HANDHOLE	BB	BITUMINOUS BERM	- - - - -	WOOD GUARDRAIL
⊕	UNKNOWN HANDHOLE	GC	GRANITE CURB	~~~~~	TREE LINE
⊕	GAS VALVE	RWC	CONCRETE RETAINING WALL	---676---	INTERMEDIATE CONTOURS
⊕	TELEPHONE MANHOLE	RW	STONE	---675---	INDEX CONTOURS
⊕	WATER GATE	RW BLOCKS	BLOCK RETAINING WALL	---	WETLAND LINE
⊕	FIRE HYDRANT	RWW	WOOD RETAINING WALL	---	OVERHEAD WIRES
o	GUY WIRE	GRW	WOOD GUARD RAIL	---	SEWER LINE
⊕	UTILITY POLE	HTP	HANDICAP TRACTION PAD	---	DRAIN LINE
⊕	UTILITY POLE WITH LIGHT	LSA	LANDSCAPED AREA	---	WATER LINE
⊕	VENT	FFE	FINISHED FLOOR ELEVATION	---	GAS LINE
⊕	PEDESTRIAL SIGNAL	SILL	DOOR SILL ELEVATION	---	TELEPHONE LINE
⊕	DECIDUOUS TREE	SWL	SOLID WHITE LINE	---	UNDERGROUND ELECTRIC
---	SIGN (SINGLE POSTED)	DYL	DOUBLE YELLOW LINE	CLF	CHAIN LINK FENCE
o	POST	RCP	REINFORCED CONCRETE PIPE	IRON	WROUGHT IRON FENCE
⊕	MONITORING WELL	PVC	POLYVINYL CHLORIDE PIPE	POLY	POLYVINYL CHLORIDE RAILING
⊕	BOLLARD	CIP	CAST IRON PIPE	NPV	NO PIPES VISIBLE

SITE NOTES:

1. THE INTENT OF THIS PLAN IS TO INSTALL MULTIFAMILY HOUSING WITH TWO-WAY DIRECTIONAL ACCESS PARKING AND UTILITY IMPROVEMENTS.
2. ALL CONSTRUCTION SHALL CONFORM TO ALL APPLICABLE CITY AND STATE STANDARDS AND REGULATIONS.
3. PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER, ARCHITECT, AND/OR OWNER, IN ORDER TO OBTAIN AND/OR PAY ALL THE NECESSARY LOCAL PERMITS, FEES, AND BONDS.
4. ALL PROPOSED SIGNAGE SHALL CONFORM WITH THE CITY ZONING REGULATIONS, UNLESS A VARIANCE IS OTHERWISE REQUESTED.
5. ALL SIGNAGE AND PAVE MARKINGS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.) AND MASSDOT STANDARDS AND SPECIFICATIONS, UNLESS OTHERWISE NOTED.
6. ALL UNIT DIMENSIONS SHALL BE VERIFIED WITH THE ARCHITECTURAL AND STRUCTURAL PLANS PROVIDED BY THE OWNER. ANY DISCREPANCIES SHOULD BE BROUGHT TO THE ATTENTION OF THE ENGINEER AND OWNER PRIOR TO THE START OF CONSTRUCTION. BUILDING DIMENSIONS AND AREAS TO BE TO THE OUTSIDE OF FOUNDATION, UNLESS OTHERWISE NOTED.
7. SNOW TO BE STORED AT EDGE OF PAVEMENT, AS SHOWN ON PLANS. ALL EXCESS SNOW SHALL BE TRUCKED OFF SITE TO AN APPROVED SNOW DUMPING LOCATION.
8. ALL CONSTRUCTION ACTIVITIES SHALL CONFORM TO LABOR OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) RULES AND REGULATIONS.

GRADING AND DRAINAGE NOTES:

1. UNDERGROUND FACILITIES, UTILITIES AND STRUCTURES HAVE BEEN PLOTTED FROM FIELD OBSERVATION AND THEIR LOCATION MUST BE CONSIDERED APPROXIMATE ONLY. NEITHER HOWARD STEIN HUDSON, NOR ANY OTHER EMPLOYEES TAKE RESPONSIBILITY FOR THE LOCATION OF ANY UNDERGROUND STRUCTURES AND/OR UTILITIES NOT SHOWN THAT MAY EXIST. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE ALL UNDERGROUND STRUCTURES AND/OR UTILITIES LOCATED PRIOR TO EXCAVATION WORK BY CALLING 888-DIG-SAFE
2. ALL BENCHMARKS AND TOPOGRAPHY SHOULD BE FIELD VERIFIED BY THE CONTRACTOR.
3. SITE GRADING SHALL NOT PROCEED UNTIL EROSION CONTROL MEASURES HAVE BEEN INSTALLED. REFER TO THE CONSTRUCTION SEQUENCE ON DETAIL SHEET 1.
4. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR IS REQUIRED TO HAVE THE PROJECT LAND SURVEYOR STAKE OR FLAG CLEARING LIMITS. A MINIMUM OF 48 HOURS NOTICE IS REQUIRED.
5. PROPOSED RIM ELEVATIONS OF DRAINAGE STRUCTURES ARE APPROXIMATE. FINAL ELEVATIONS ARE TO BE SET FLUSH WITH FINISH GRADES UNLESS OTHERWISE NOTED.
6. ALL DRAINAGE AND SANITARY STRUCTURES INTERIOR DIAMETERS (4' MIN) SHALL BE DETERMINED BY THE MANUFACTURER BASED ON THE PIPE CONFIGURATIONS SHOWN ON THESE PLANS.
7. ALL DRAINAGE STRUCTURES SHALL BE PRECAST, UNLESS OTHERWISE SPECIFIED. SEE DETAIL SHEETS FOR DRAINAGE DETAILS.
8. IN AREAS WHERE CONSTRUCTION IS PROPOSED ADJACENT TO ABUTTING PROPERTIES, THE CONTRACTOR SHALL INSTALL ORANGE CONSTRUCTION FENCING ALONG PROPERTY LINES IN ALL AREAS WHERE SILT SOCK IS NOT REQUIRED.
9. ALL EXPOSED AREAS SHALL BE SEEDED AS SPECIFIED WITHIN 3 DAYS OF FINAL GRADING.
10. SHOULD CONSTRUCTION STOP FOR LONGER THAN 14 DAYS, THE SITE SHALL BE SEEDED AS SPECIFIED.
11. THIS PLAN SHALL NOT BE CONSIDERED ALL INCLUSIVE, AS THE GENERAL CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT SEDIMENT FROM LEAVING THE SITE.
12. CONSTRUCTION VEHICLES SHALL UTILIZE THE STABILIZED CONSTRUCTION ENTRANCE TO THE EXTENT POSSIBLE THROUGHOUT CONSTRUCTION. IF THE INSTALLATION OF STORM DRAINAGE SYSTEM SHOULD BE INTERRUPTED BY WEATHER OR NIGHTFALL, THE PIPE ENDS SHALL BE COVERED WITH FILTER FABRIC.
13. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED, IF DEEMED NECESSARY THROUGH ON-SITE INSPECTION BY ENGINEER AND/OR REGULATORY OFFICIALS.
14. ALL STORMWATER BMP'S SHALL BE INSPECTED BY DESIGN ENGINEER AFTER INSTALLATION TO CONFIRM ALL BMP'S ARE INSTALLED IN COMPLIANCE WITH PLANS.



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WORCESTER COUNTY

REVISIONS:

NO	BY	DATE	DESCRIPTION
1	KL	5/15/23	BOARD COMMENTS
2	MB	9/8/23	REV. EV PARKING



SITE PLAN

**DEMO AND
EROSION
CONTROL PLAN**

DATE:	APRIL 11, 2023
PROJECT NUMBER:	22041
DESIGNED BY:	KL
DRAWN BY:	KL
CHECKED BY:	KE

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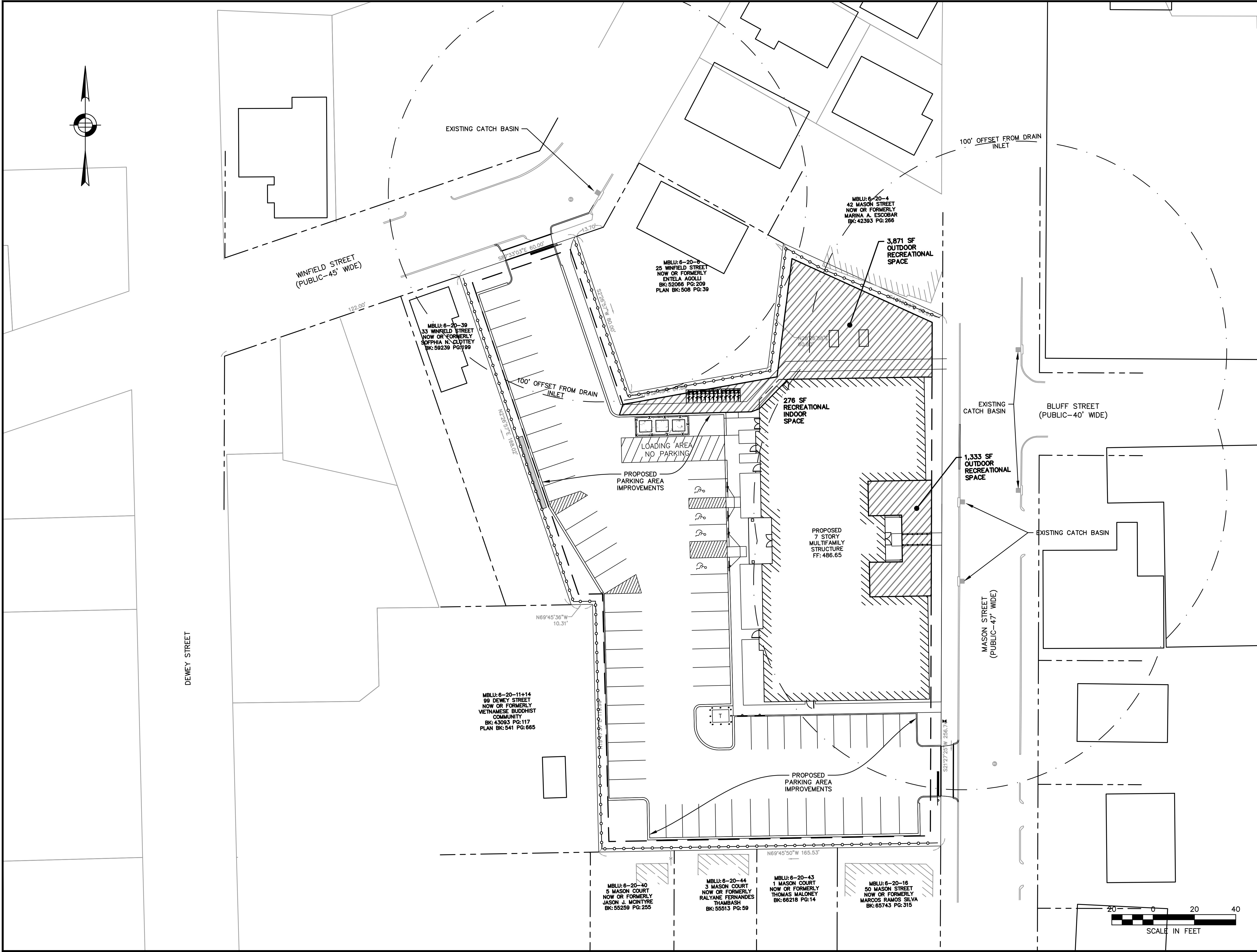


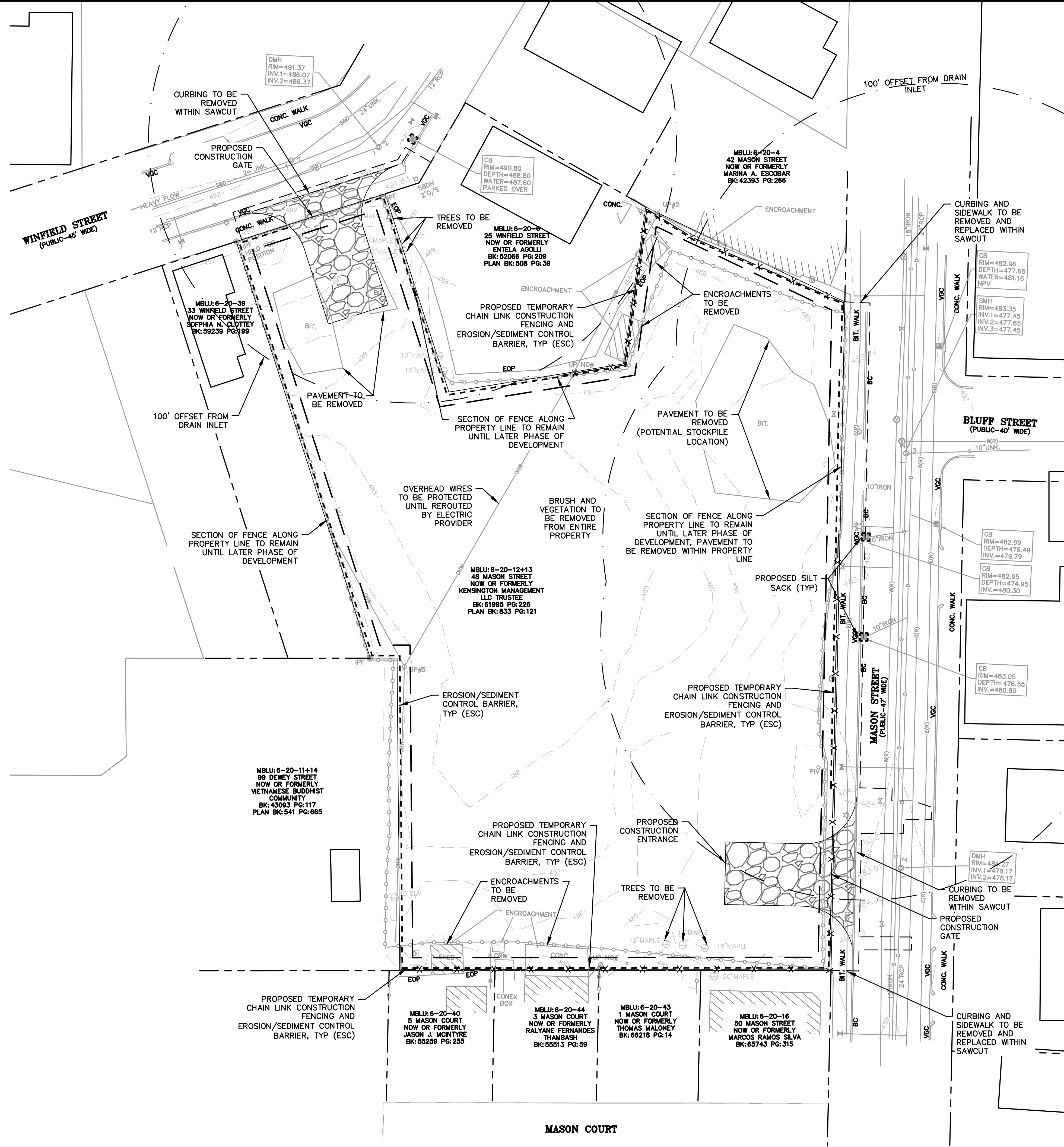
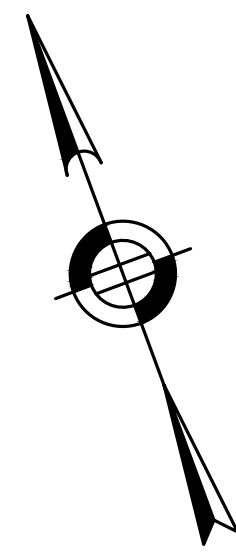
SITE PLAN

LOCUS PLAN

DATE: APRIL 11, 2023
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 CHECKED BY: KE

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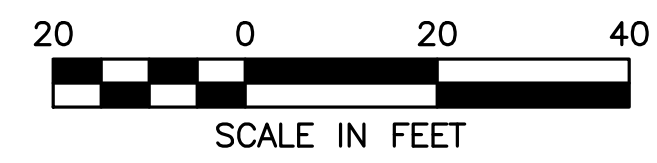
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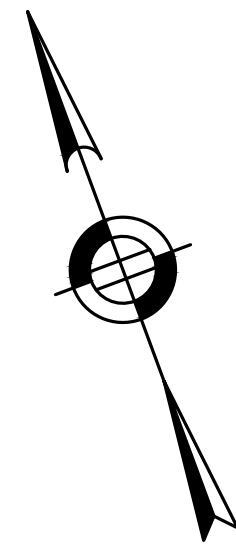
SITE
 PLAN

**DEMO AND
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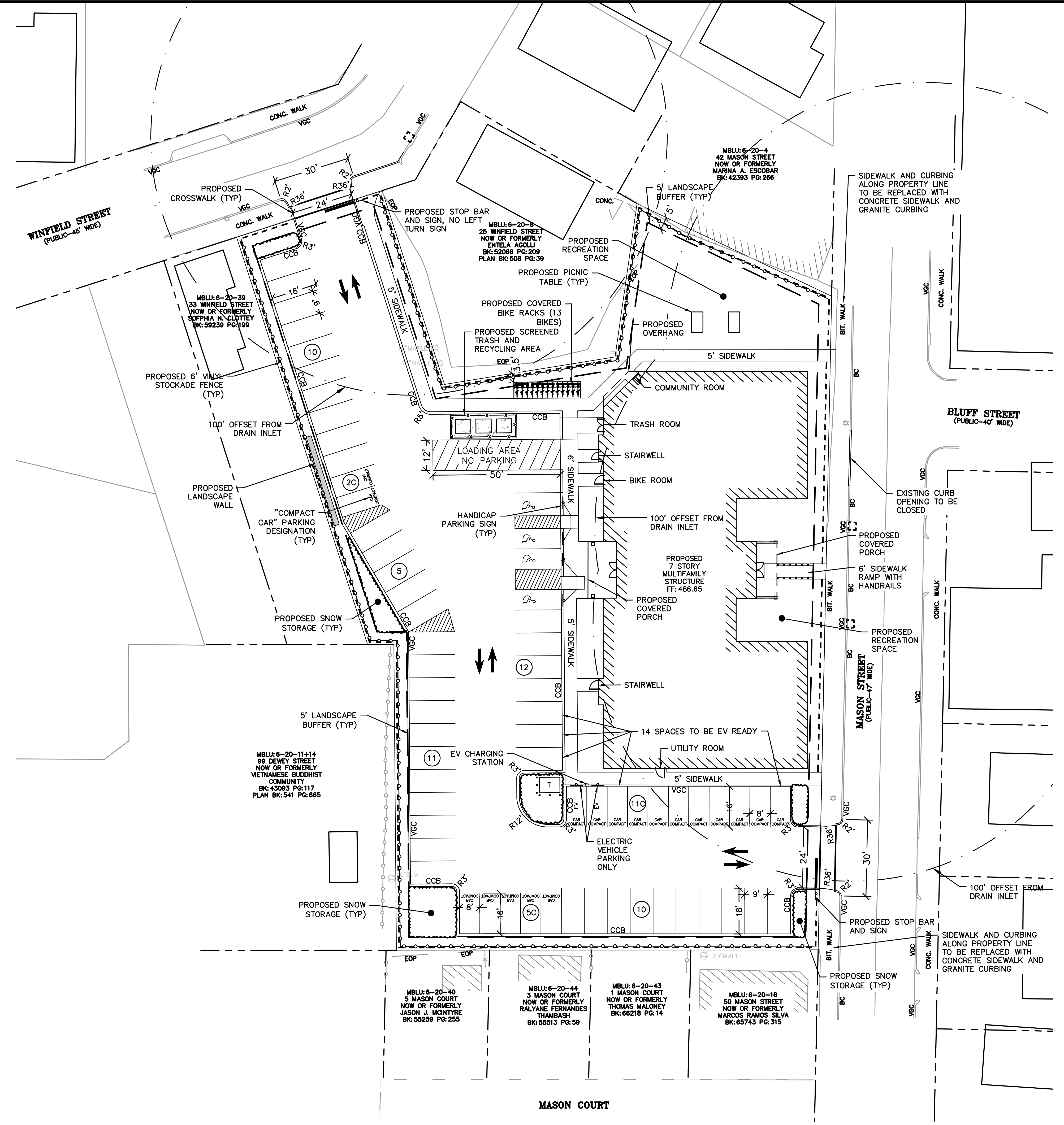
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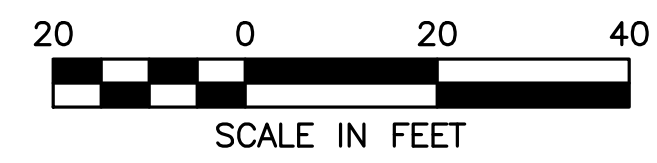
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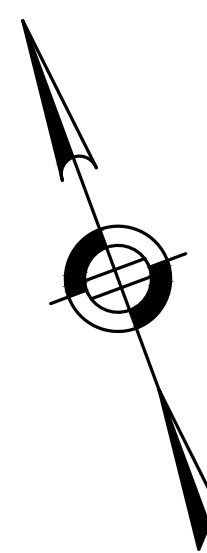
**LAYOUT AND
 MATERIAL PLAN**

DATE:	APRIL 11, 2023
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DRAWN BY:	KL
CHECKED BY:	KE



NOTES:
 (C) LABELS THE NUMBER OF
 COMACT PARKING SPACES





SOIL EVALUATION TEST PITS
 OCTOBER 13, 2022
 PERFORMED BY KASEY FERREIRA, EIT, S.E. #14165

TP-1 (EL. 484.3±)	0"-36"	-	FILL
	36-80"	-	LOAMY SAND
	80-84"	C1	SANDY LOAM
	84-102"	C2	SANDY LOAM
	102-128"	C3	SANDY LOAM
MOTTLING @ 56"			
WEEPING @ 80"			
ESHGW = 479.6			
TP-2 (EL. 486.9±)	0"-120"	-	FILL
	120-132"	C	SANDY LOAM
MOTTLING @ 115"			
WEEPING @ 130"			
ESHGW = 477.3			
TP-3 (EL. 488.0±)	0"-160"	-	FILL
	160-168"	C	SANDY LOAM
MOTTLING @ 140"			
WEEPING @ 160"			
ESHGW = 476.3			
TP-4 (EL. 488.6±)	0"-120"	-	FILL
	120-144"	C	SANDY LOAM
MOTTLING @ 135"			
ESHGW = 477.3			

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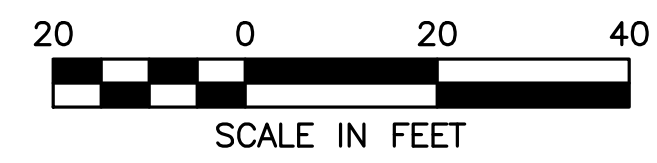
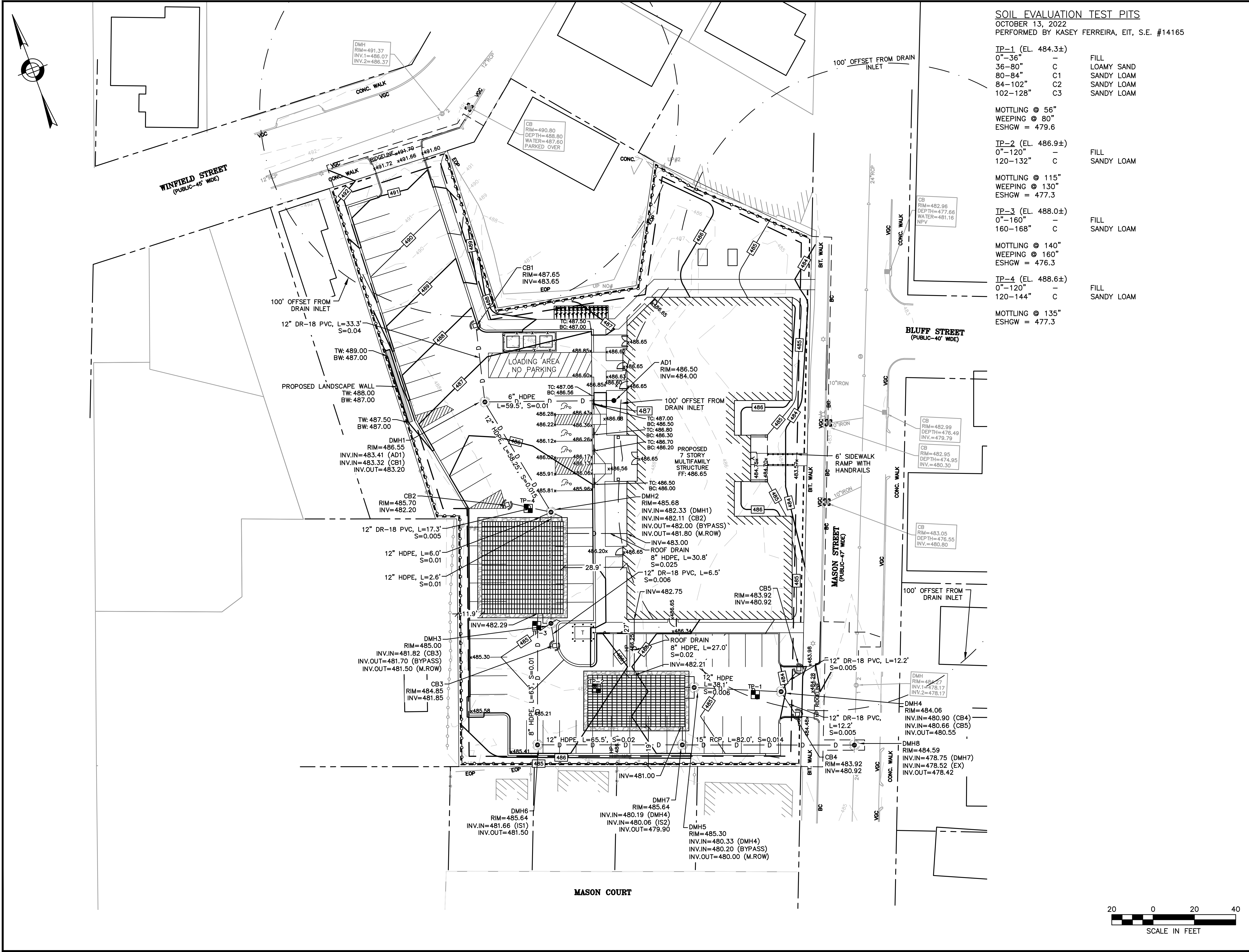
**GRADING AND
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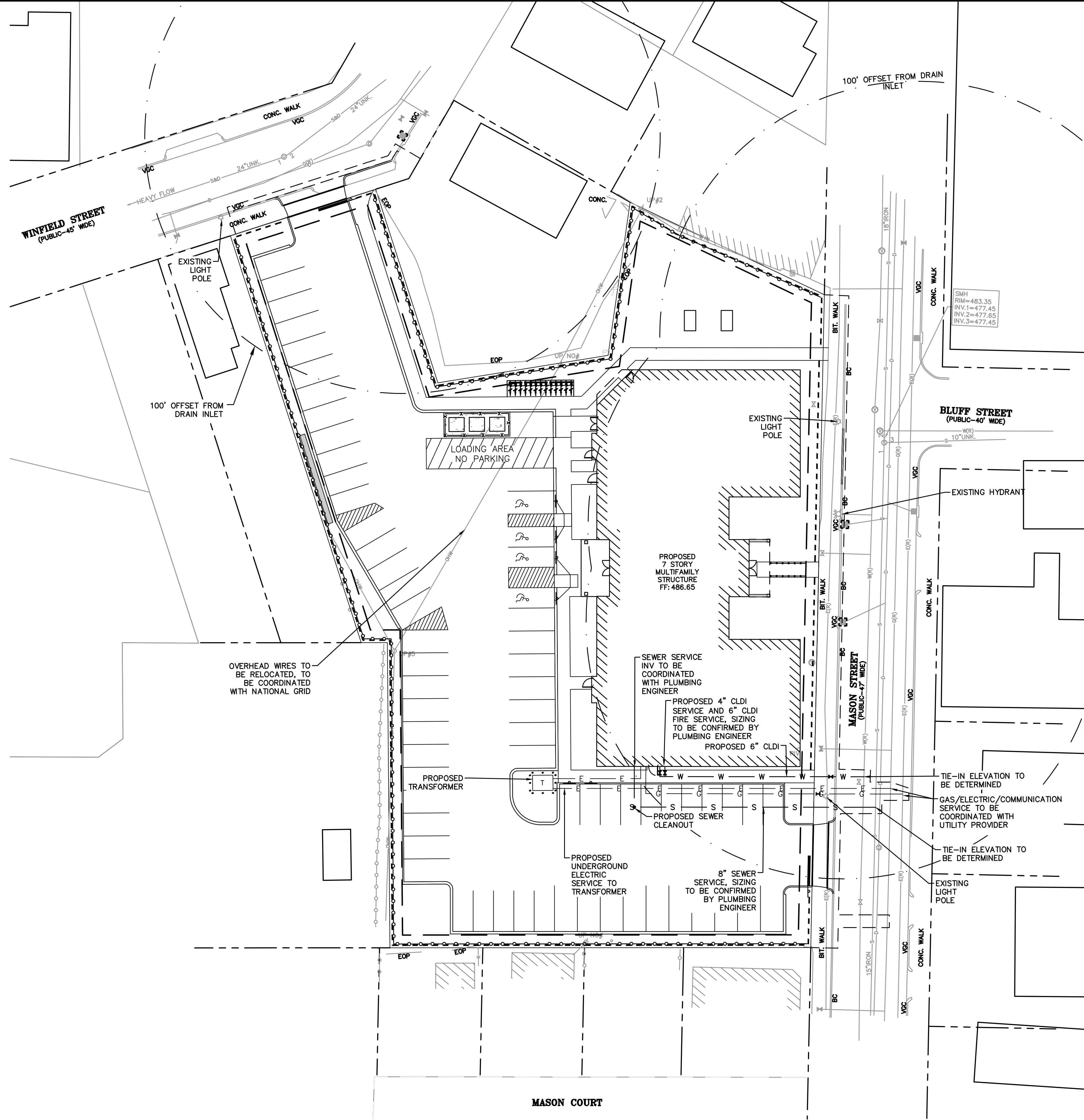
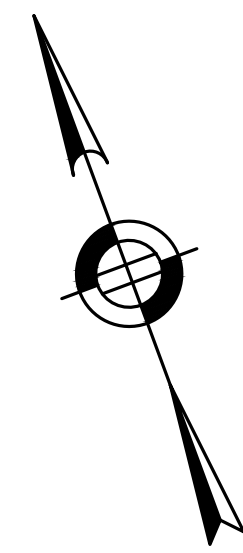
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C.6

SHEET 6 OF 18

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UTILITY REQUIREMENTS

PROPOSED 94 UNITS
 1 BEDROOM - 41 UNITS
 2 BEDROOM - 41 UNITS
 3 BEDROOM - 12 UNITS
 TOTAL BEDROOMS = 159 BEDROOMS
 ESTIMATED DAILY WATER/SEWER FLOW =
 159 BEDROOMS x 110 GPD = 17,490 GPD

HOWARD STEIN HUDSON
 370 Main Street
 Worcester, MA 01608
 www.hshassoc.com

PREPARED FOR:
 KENSINGTON MANAGEMENT LLC
 330 HIGHLAND STREET
 WORCESTER, MA 01602

**AFFORDABLE
 MULTIFAMILY HOUSING**
 48 MASON STREET
 WORCESTER, MA, 01610
 WORCESTER COUNTY

REVISIONS:

NO	BY	DATE	DESCRIPTION
1	KL	5/15/23	BOARD COMMENTS
2	MB	9/8/23	REV. EV PARKING



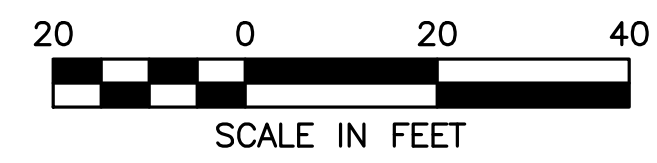
SITE PLAN

UTILITY PLAN

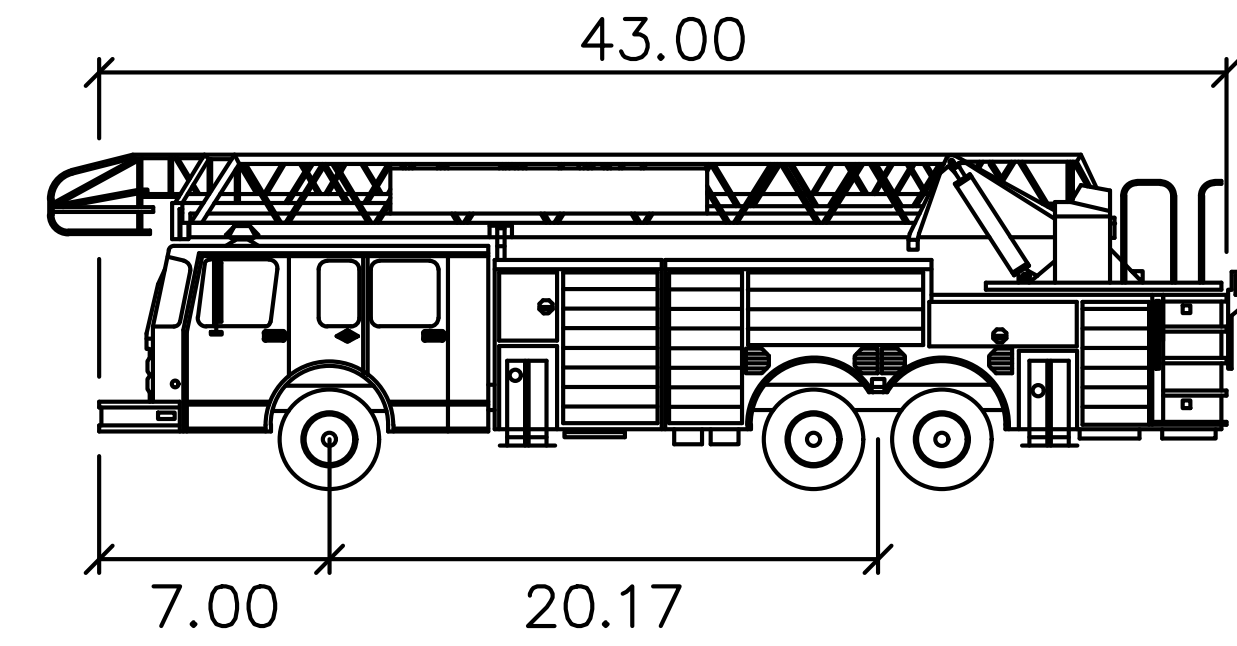
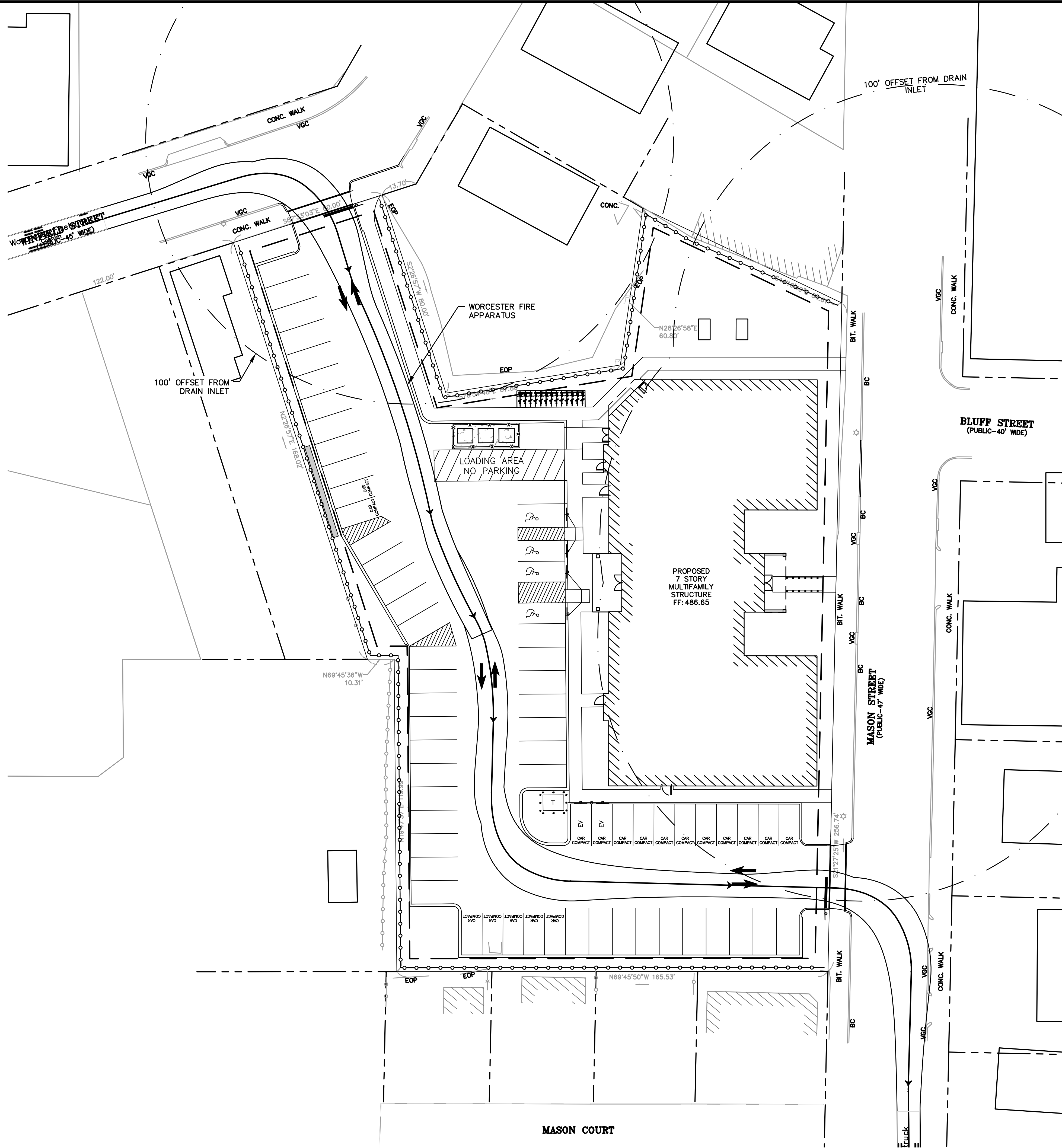
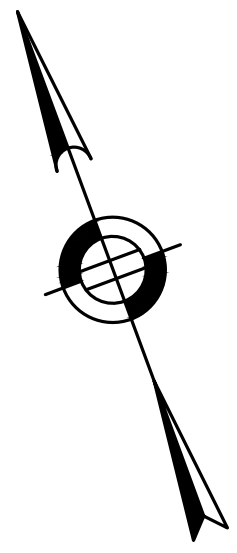
DATE:	APRIL 11, 2023
PROJECT NUMBER:	22041
DESIGNED BY:	KL
DRAWN BY:	KL
CHECKED BY:	KE

C.7

SHEET 7 OF 18



9/8/2023 L:\22041\CURRENT\OUTSHEETS\22041_Site Plan_R1.dwg
 Plot Saved by: MSAKER
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Worcester Firetruck

	feet
Width	: 8.50
Track	: 8.50
Lock to Lock Time	: 6.0
Steering Angle	: 33.3

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REVISIONS:

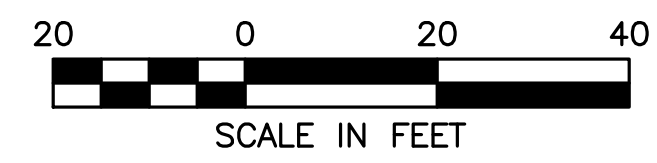
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2	MB	9/8/23	REV. EV PARKING



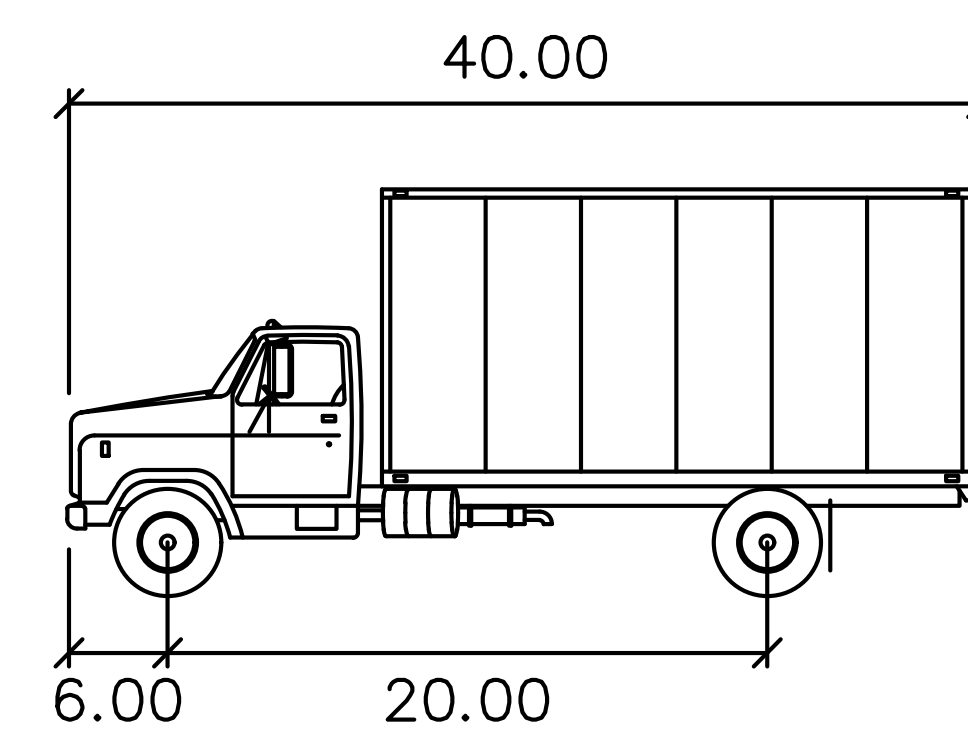
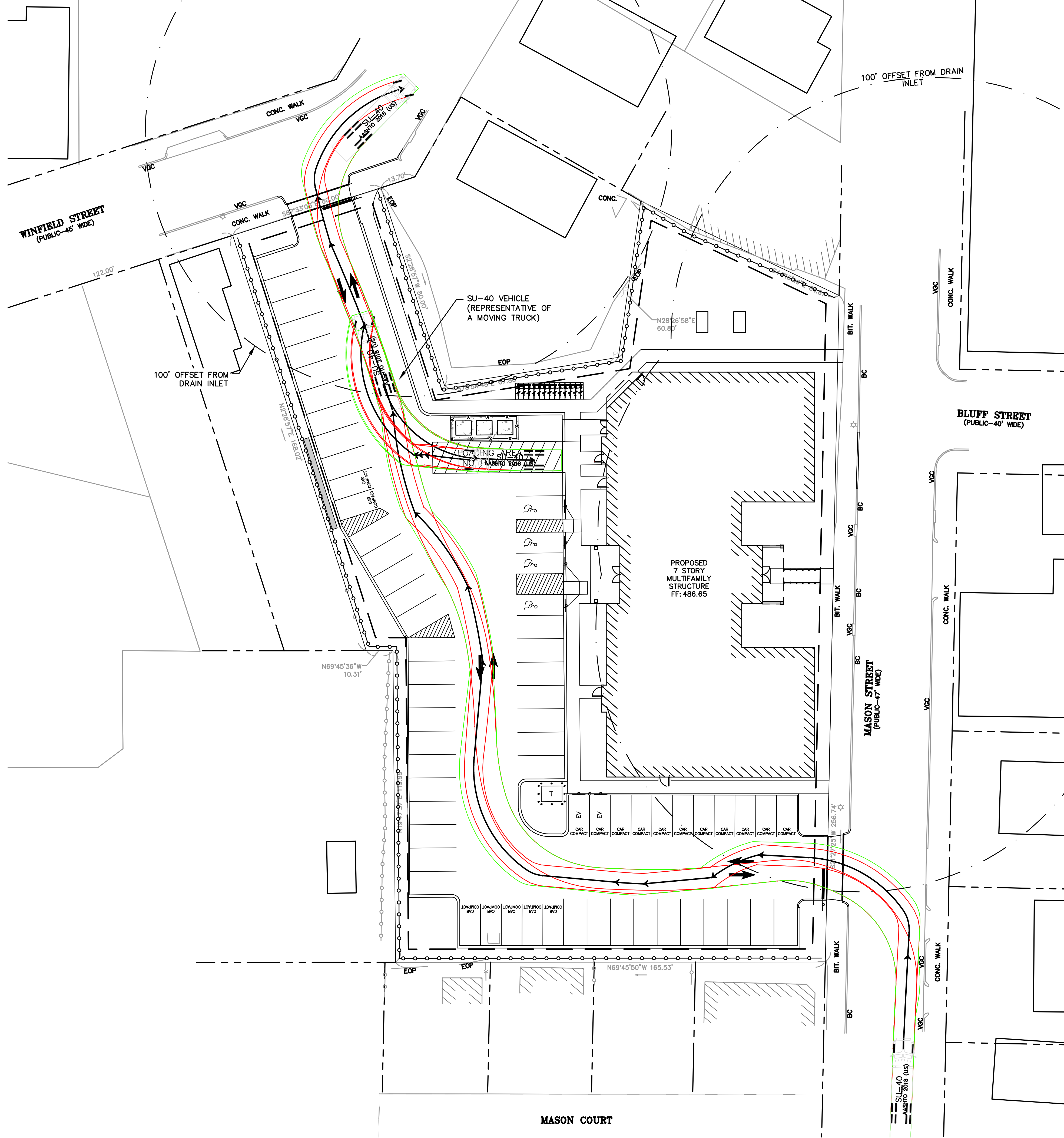
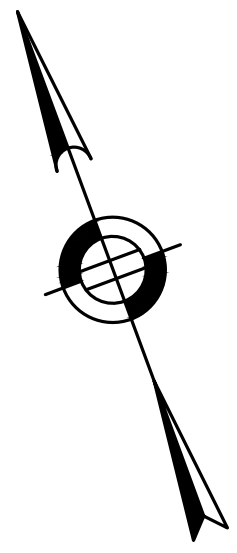
SITE PLAN

**FIRE TRUCK
 TURNING PLAN**

DATE:	APRIL 11, 2023
PROJECT NUMBER:	22041
DESIGNED BY:	KL
DRAWN BY:	KL
CHECKED BY:	KE



9/8/2023 L:\22041\CURRENT\OUTSHEETS\22041_Site Plan_R1.dwg
 Plot Saved by: MBANKER
 Printed by: Matthew Baker



SU40

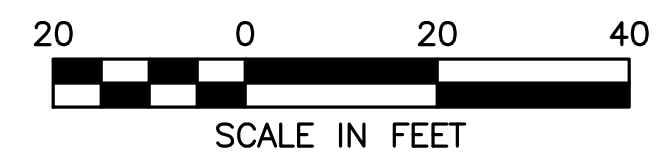
feet

Width : 8.50

Track : 8.50

Lock to Lock Time : 6.0

Steering Angle : 30.0



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 WORCESTER COUNTY

REVISIONS:

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1	KL	5/15/23	BOARD COMMENTS
2	MB	9/8/23	REV. EV PARKING



SITE
 PLAN

**MOVING TRUCK
 TURNING PLAN**

DATE: APRIL 11, 2023

PROJECT NUMBER: 22041

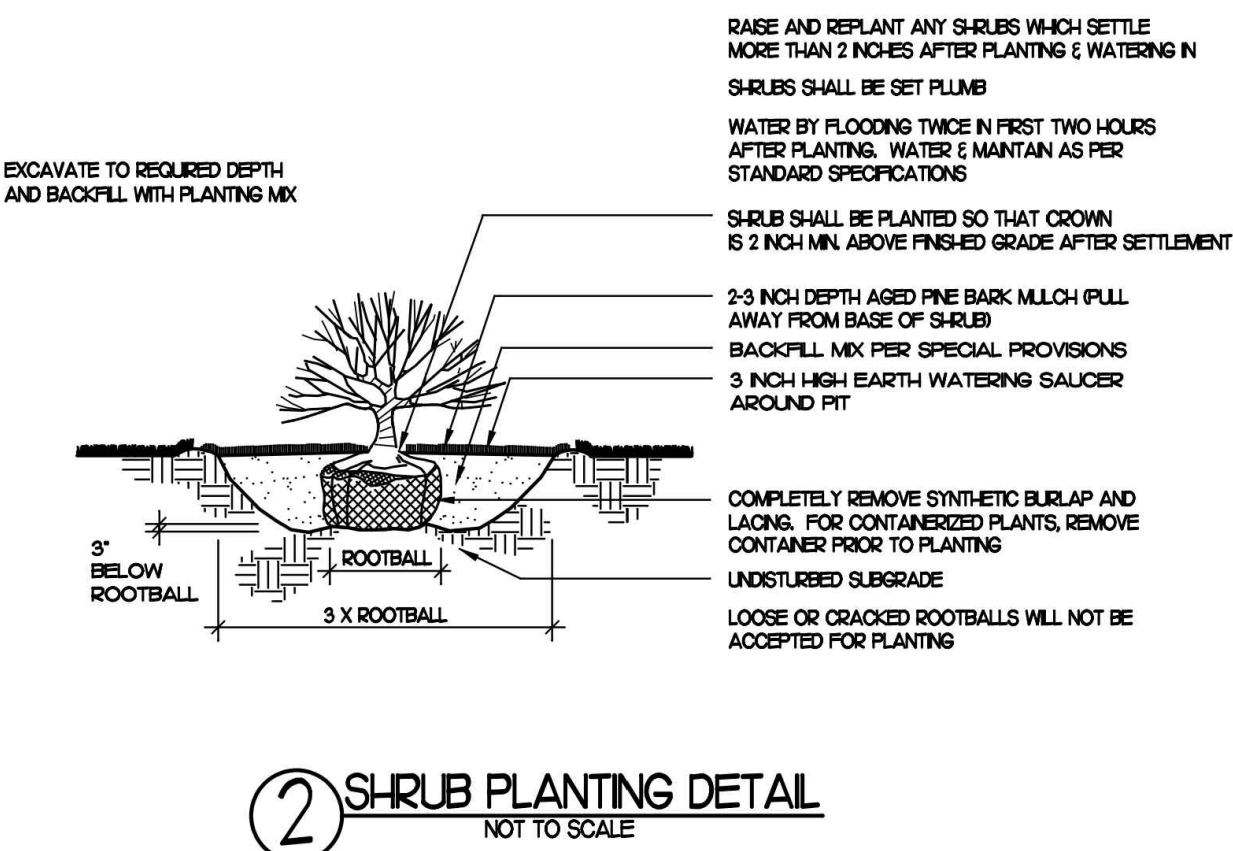
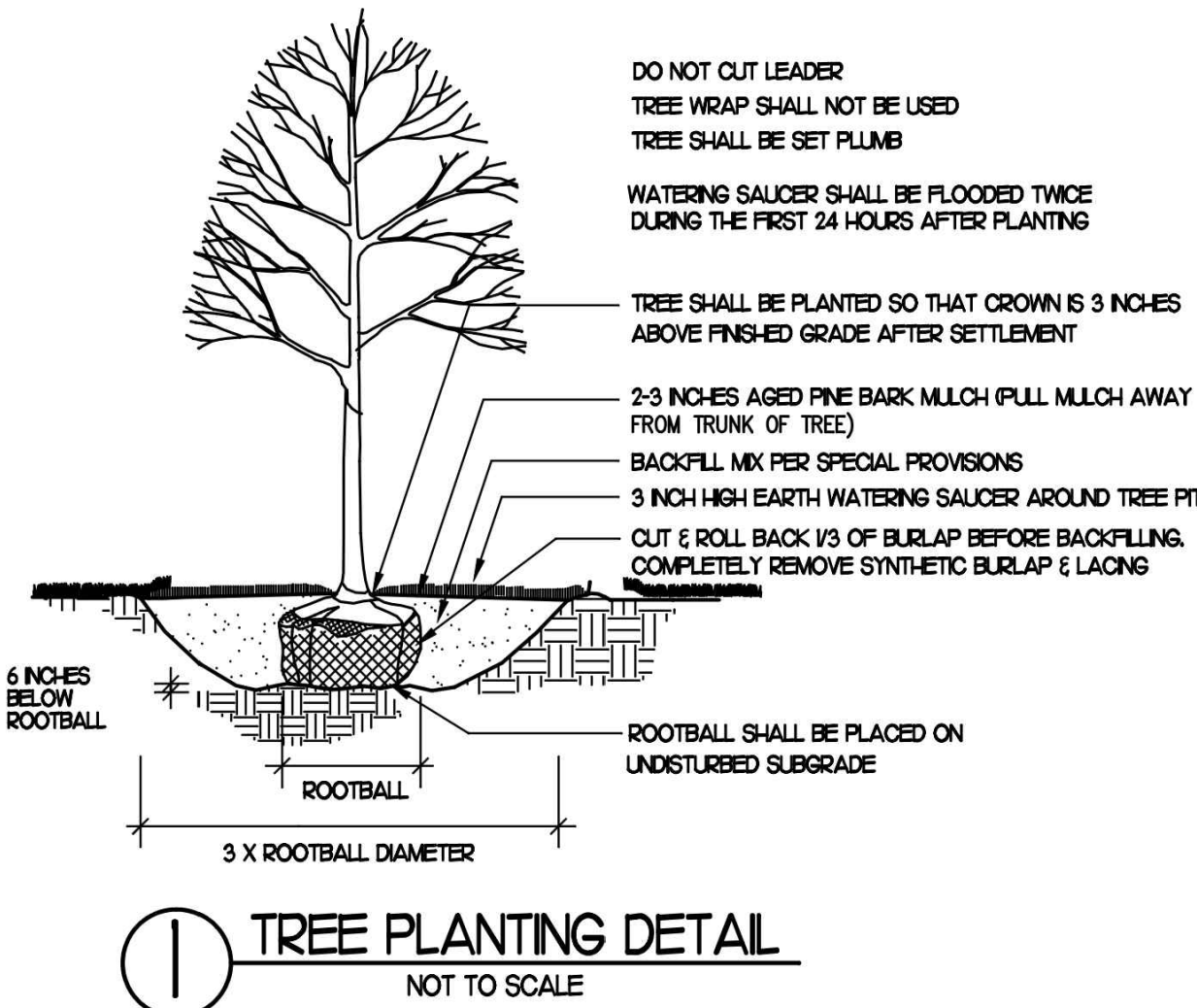
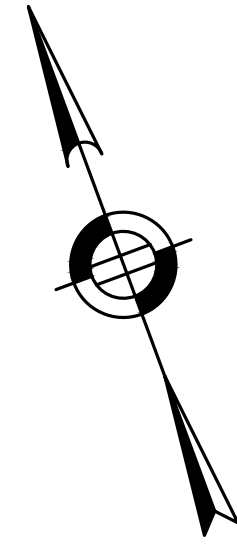
DESIGNED BY: KL

DRAWN BY: KL

CHECKED BY: KE

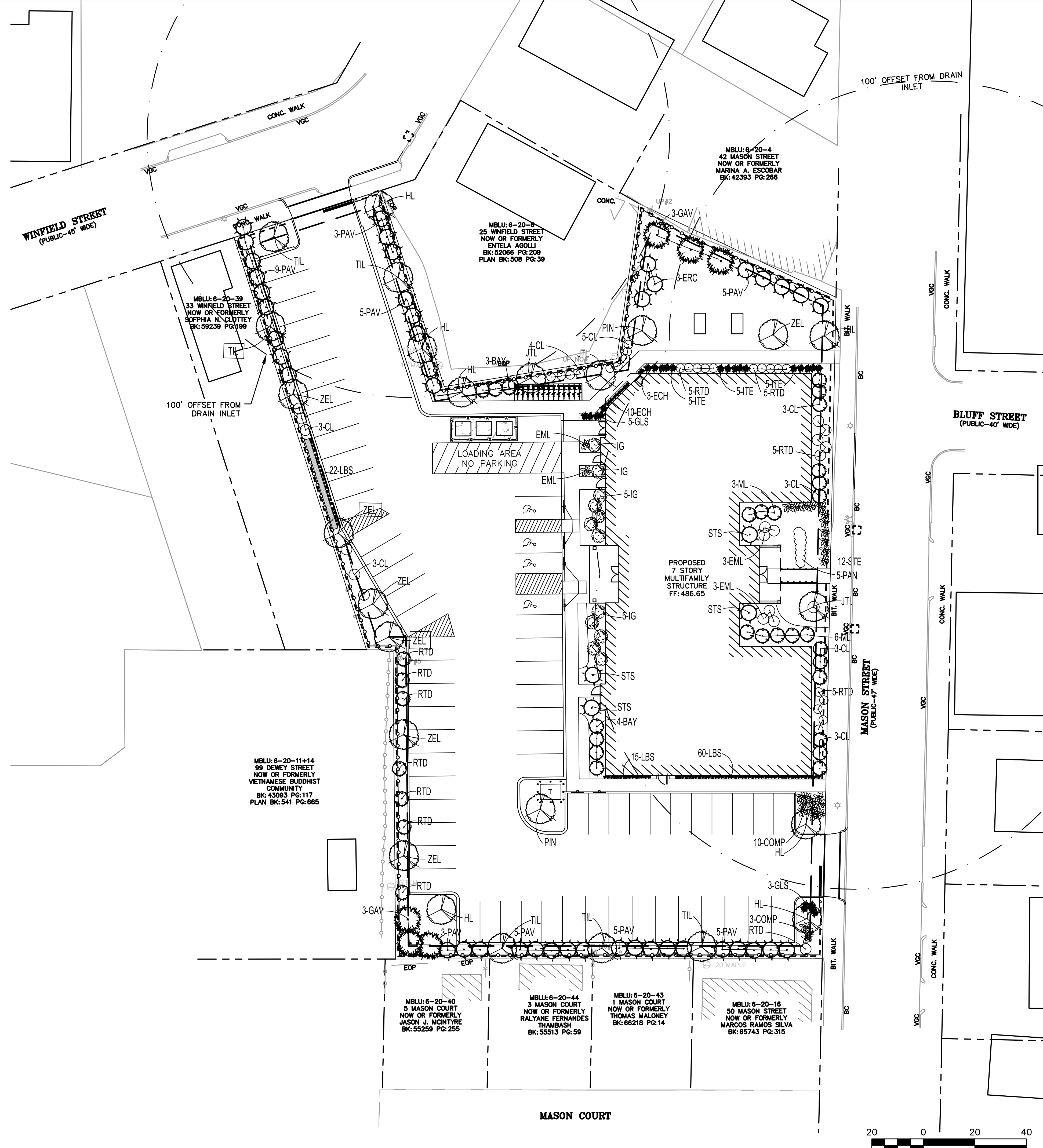
9/8/2023 L:\2041\CURRENT\OUTSHEETS\22041_Site Plan_R1.dwg
 Plot Saved by: MBANKER
 Printed by: Matthew Baker

22 Carlton Rd.
Marblehead, MA 01945
tel. (781) 622-7487
james@jamesemmanuel.com
www.jamesemmanuel.com



Plant Schedule

Qty	Key	Botanical Name	Common Name	Size
TREES:				
7	HL	Gleditsia triacanthos 'Skyline'	Honeylocust	2.5-3' cal
3	JTL	Syringa reticulata	Japanese Tree Lilac	2.5-3' cal
2	PIN	Quercus palustris	Pin Oak	2.5-3' cal
5	TIL	Tilia americana 'Redmond'	Redmond American Linden	2.5-3' cal
5	ZEL	Zelkova serrata 'Green Vase'	Green Vase Zelkova	2.5-3' cal
EVERGREENS:				
3	ERC	Juniperus virginiana	Eastern Red Cedar	6-7'
6	GAV	Thuja x plicata 'Green Giant'	Green Giant Arborvitae	7-8'
40	PAV	Thuja occidentalis 'Pyramidalis'	Pyramidal Arborvitae	6-7'
SHRUBS:				
7	BAY	Myrica pensylvanicum	Northern Bayberry	#3pot
27	CL	Clethra alnifolia	Sweet Pepper	#3pot
13	COMP	Comptonia peregrina	Sweetfern	#3pot
8	EML	Kalmia angustifolia	Sheep Laurel	#3pot
8	GLS	Rhus aromatica 'Gro-Low'	Gro-Low Sumac	#3pot
12	IG	Ilex glabra 'Shamrock'	Shamrock Inkberry	#3pot
15	ITE	Itea virginica 'Little Henry'	Little Henry Virginia Sweetspire	#3pot
9	ML	Kalmia latifolia 'Hoffmans Pink'	Hoffman's Pink Mtn. Laurel	2-2.5'
28	RTD	Cornus alba 'Elegantissima'	Variegated Red Twig Dogwood	#3pot
12	STE	Stephanandra incisa	Cutleaf Stephanandra	#3pot
3	STS	Ilex crenata 'Steeds'	Steeds Japanese Holly	3-3.5'
GRASSES/PERENNIALS:				
13	ECH	Echinacea	Purple Coneflower	#1pot
97	LBS	Schizachyrium scoparium	Little Bluestem	#1pot
5	PAN	Panicum virgatum	Switchgrass	#1pot



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SITE PLAN

LANDSCAPE PLAN

DATE: APRIL 11, 2023
PROJECT NUMBER: 22041
DESIGNED BY: KL
DRAWN BY: KL
CHECKED BY: KE

C.9

9/8/2023 L:\2024\CURRENT\OUTSHEETS\22041 Site Plan_R1.rvt
Last Saved by: RBAKER
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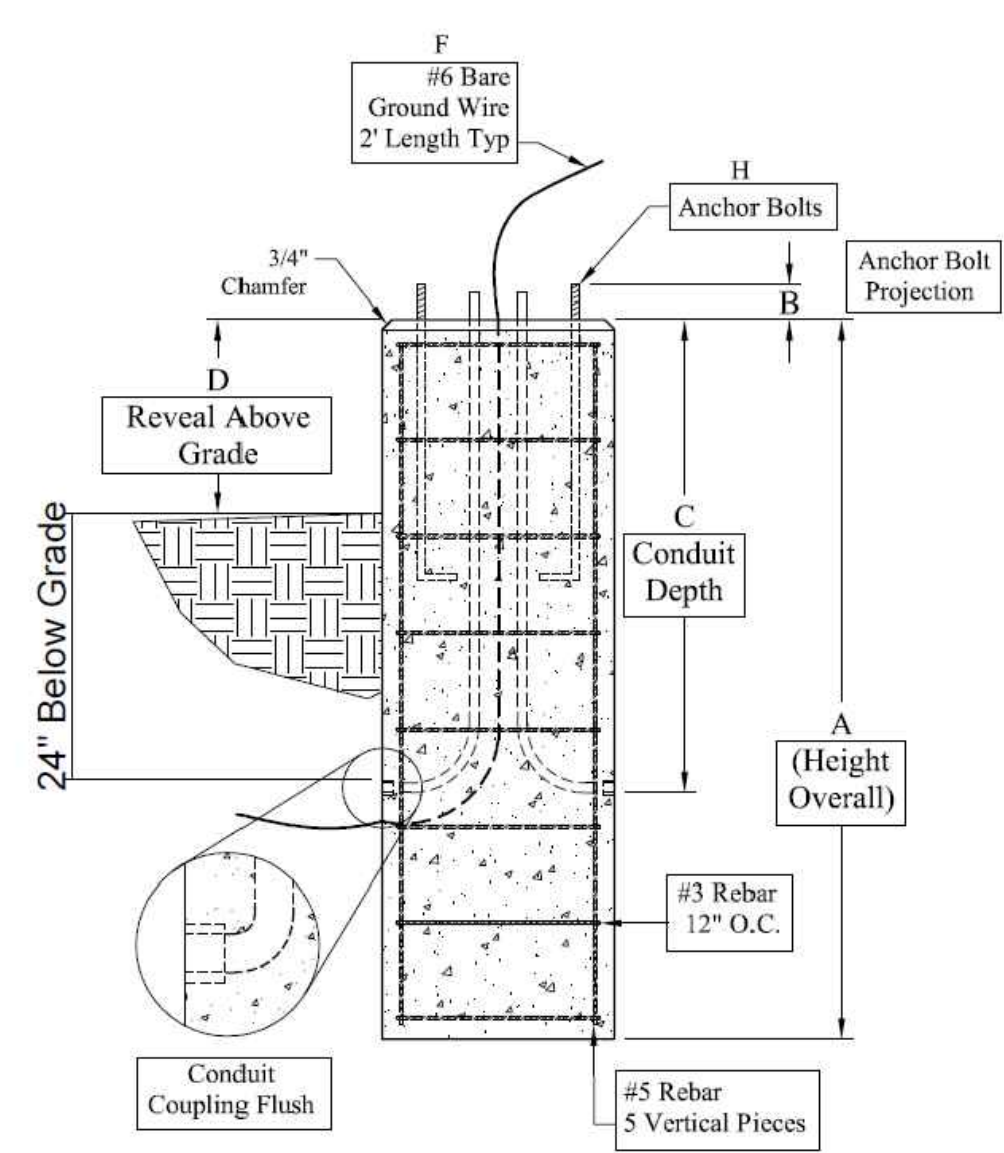
SITE PLAN

LIGHTING PLAN

DATE:	APRIL 11, 2023
PROJECT NUMBER:	22041
DESIGNED BY:	KL
DRAWN BY:	KL
CHECKED BY:	KE
C.10	

- Dimensions:
- A.) Total Base Height 6'-6"
 - B.) Bolt Projection 3-1/2"
 - C.) Depth of Conduit 24" Below Grade
 - D.) Reveal Above Grade 2'-6"
 - E.) Bolt Circle Diameter 9"
 - F.) Ground Wire - NONE
 - G.) Conduit (PVC) 1.25"
 - H.) Anchor Bolts - Dia & Length 3/4" x 30"

- General Notes:
1. Concrete: $f_c = 5,000$ PSI @ 28 Days Min
 2. Reinforcing Steel: ASTM A615 Grade 60 Rebar

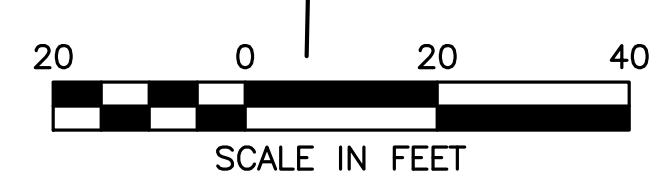
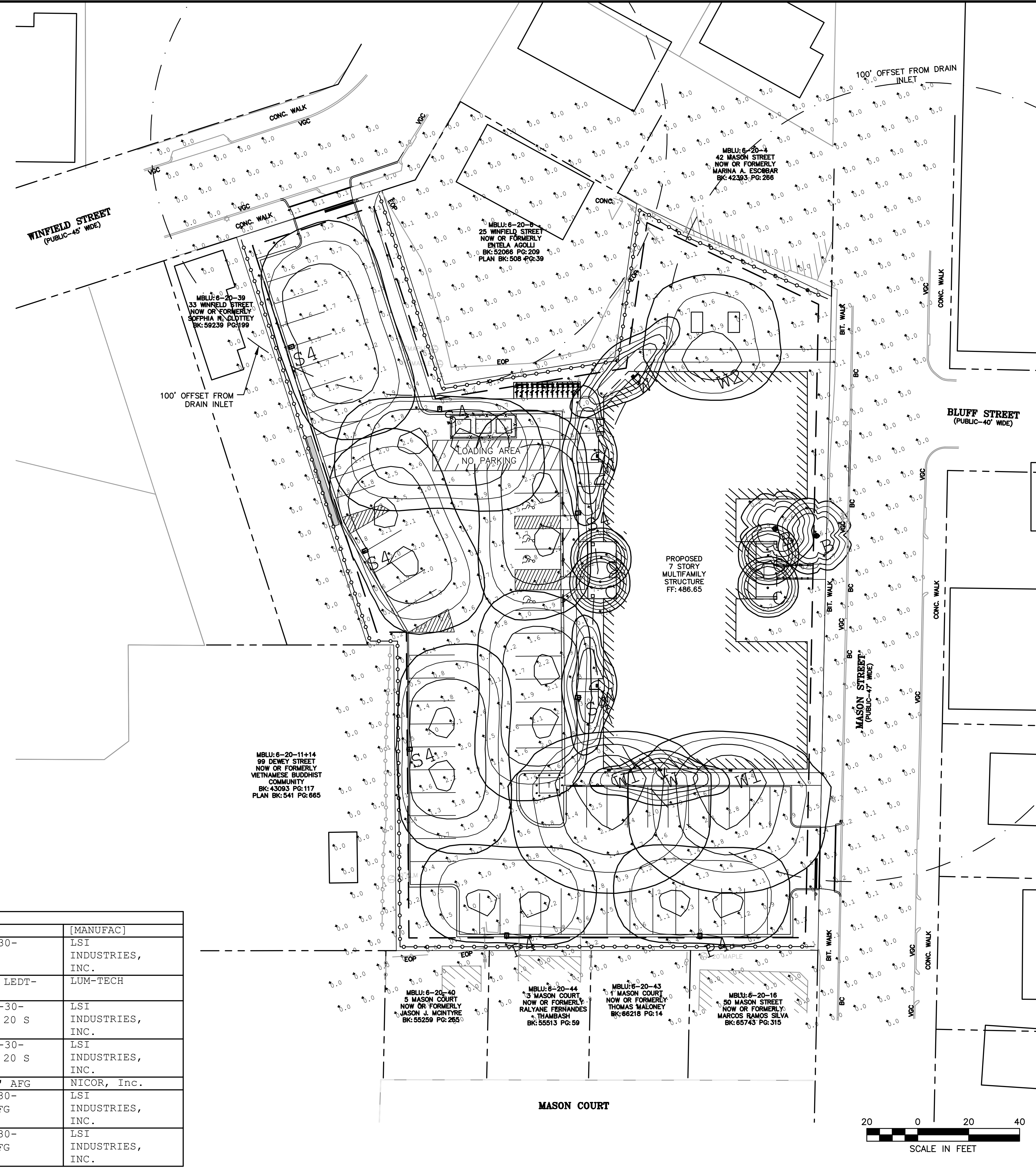


**LIGHT POLE
 BASE DETAIL**
 NOT TO SCALE
 OR APPROVED EQUAL



Symbol	Qty	Label	Arrangement	Description	[MANUFAC]
⊙	2	B	Single	MRB-LED-25L-ACR-A-UNV-DIM-30-CXX	LSI INDUSTRIES, INC.
⊙	4	C	Single	LEDH-CFK6-G2-14-8-35-UTD / LEDT-R641-WH-WH	LUM-TECH
⊞	2	P4	Single	MRS-LED-03L-SIL-FT-UNV-DIM-30-70CRI-IL-CXX / 4SQ B3 S11G 20 S GA BC (20' AFG)	LSI INDUSTRIES, INC.
⊞	6	S4	Single	MRS-LED-06L-SIL-FT-UNV-DIM-30-70CRI-IL-CXX / 4SQ B3 S11G 20 S GA BC (20' AFG)	LSI INDUSTRIES, INC.
⊞	4	W	Single	EOF1M3KXXPSC / WALL MTD 9' AFG	NICOR, Inc.
⊞	2	W1	Single	XWS-LED-5L-SIL-FT-UNV-DIM-30-70CRI-CXX / WALL MTD 20' AFG	LSI INDUSTRIES, INC.
⊞	1	W2	Single	XWS-LED-2L-SIL-FT-UNV-DIM-30-70CRI-CXX / WALL MTD 15' AFG	LSI INDUSTRIES, INC.

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 Printed by: Matthew Baker

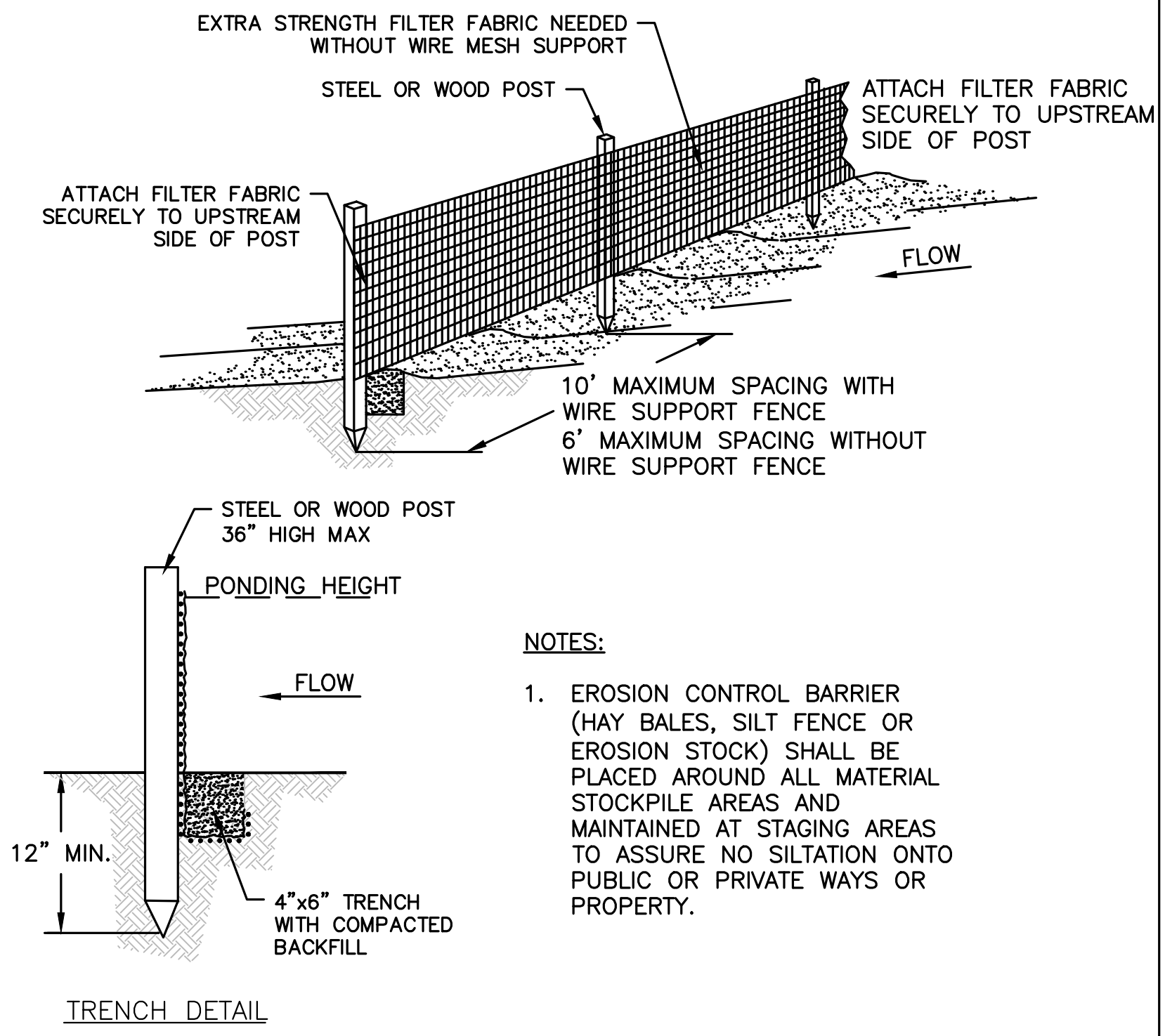


EROSION AND SEDIMENT CONTROL NOTES

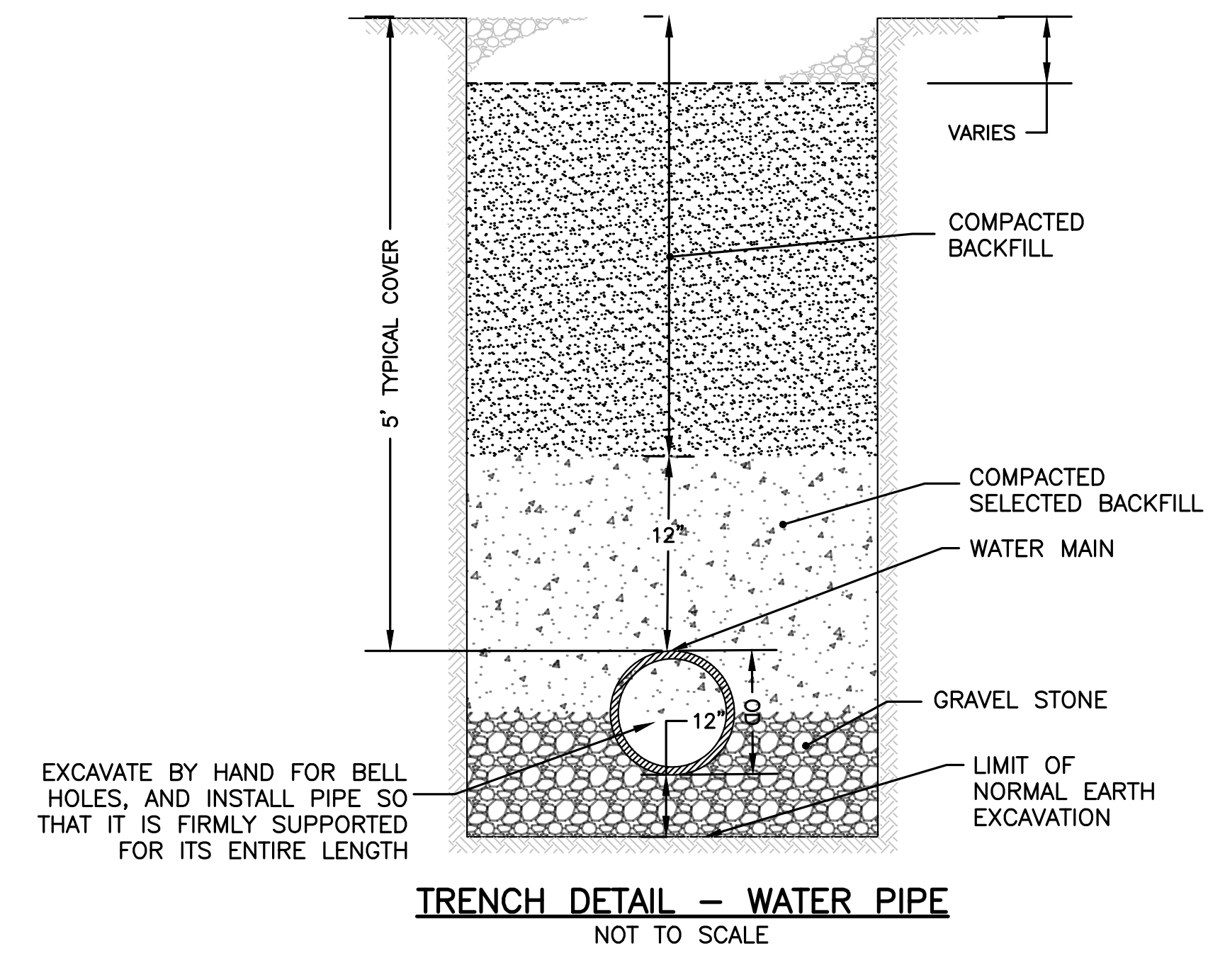
1. EROSION AND SEDIMENT CONTROL MEASURES MUST BE INSTALLED PRIOR TO THE START OF CONSTRUCTION AND MAINTAINED AND UPGRADED AS NECESSARY DURING CONSTRUCTION BY THE CONTRACTOR. IT IS THE CONTRACTOR'S RESPONSIBILITY TO INSPECT AND INSTALL ADDITIONAL CONTROL MEASURES AS NEEDED DURING CONSTRUCTION.
2. ALL CATCH BASINS RECEIVING DRAINAGE FROM THE PROJECT SITE MUST BE PROVIDED WITH A CATCH BASIN FILTER.
3. STABILIZATION OF ALL RE-GRADED AND SOIL STOCKPILE AREAS MUST BE MAINTAINED DURING ALL PHASES OF CONSTRUCTION.
4. SEDIMENT REMOVED FROM EROSION AND SEDIMENT CONTROL DEVICES MUST BE PROPERLY REMOVED AND DISPOSED. ALL DAMAGED CONTROLS MUST BE REMOVED AND REPLACED.
5. THE CONTRACTOR IS RESPONSIBLE FOR IMPLEMENTING THE EROSION AND SEDIMENT CONTROL PLAN. THIS INCLUDES THE INSTALLATION AND MAINTENANCE OF CONTROL MEASURES, INFORMING ALL PARTIES ENGAGED ON THE CONSTRUCTION SITE OF THE REQUIREMENTS AND OBJECTIVES OF THE PLAN, AND NOTIFYING THE PROPER CITY AGENCY OF ANY TRANSFER OF THIS RESPONSIBILITY.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTROLLING WIND EROSION AND DUST THROUGHOUT THE LIFE OF HIS CONTRACT. DUST CONTROL MAY INCLUDE, BUT IS NOT LIMITED TO, SPRINKLING OF WATER ON EXPOSED SOILS AND STREET SWEEPING ADJACENT ROADWAYS.
7. IF FINAL GRADING IS TO BE DELAYED FOR MORE THAN 21 DAYS AFTER LAND DISTURBANCE ACTIVITIES CEASE, TEMPORARY VEGETATION OR MULCH SHALL BE USED TO STABILIZED SOILS WITHIN 14 DAYS OF THE LAST DISTURBANCE.
8. IF A DISTURBED AREA WILL BE EXPOSED FOR GREATER THAN ONE YEAR, PERMANENT GRASSES OR OTHER APPROVED COVER MUST BE INSTALLED.
9. THE CONTRACTOR MUST KEEP ON-SITE AT ALL TIMES ADDITIONAL SILT FENCE AND HAY BALES FOR THE INSTALLATION AT THE DIRECTION OF THE ENGINEER OR THE CITY TO MITIGATE ANY EMERGENCY CONDITION.
10. THE CONSTRUCTION FENCING AND EROSION AND SEDIMENT CONTROLS AS SHOWN MAY NOT BE PRACTICAL DURING ALL STAGES OF CONSTRUCTION. EARTHWORK ACTIVITY ON-SITE MUST BE DONE IN A MANNER SUCH THAT RUNOFF IS DIRECTED TO A SEDIMENT CONTROL DEVICE OR INFILTRATED TO THE GROUND.
11. DEMOLITION AND CONSTRUCTION DEBRIS MUST BE PROPERLY CONTAINED AND DISPOSED OF.
12. DISPOSAL OF ALL DEMOLISHED MATERIALS IS THE RESPONSIBILITY OF THE CONTRACTOR AND MUST BE HAULED OFF-SITE IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL REQUIREMENTS.

GENERAL CONSTRUCTION SEQUENCE

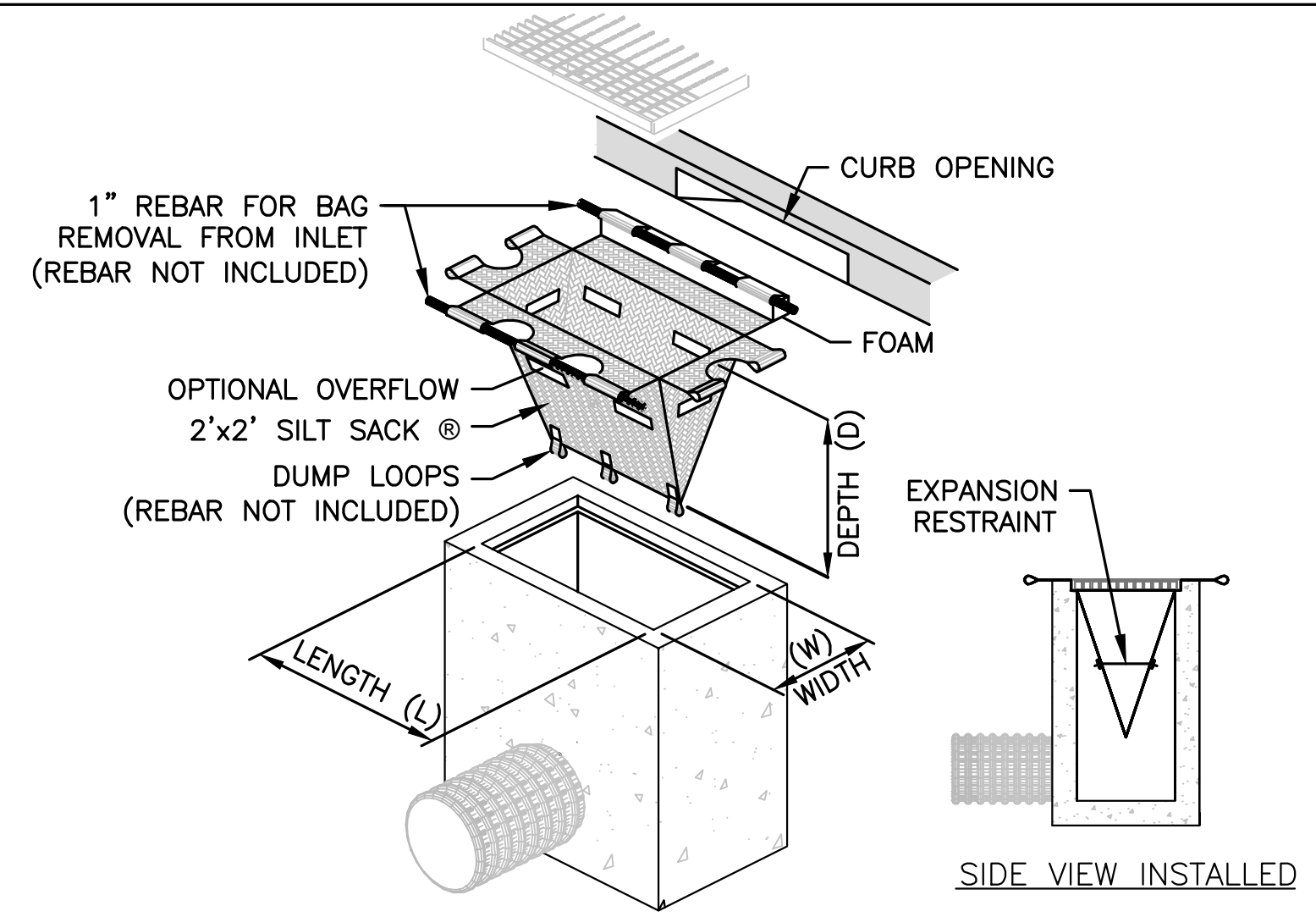
1. INSTALL EROSION AND SEDIMENT CONTROLS PRIOR TO STARTING ANY EARTHWORKS ACTIVITY.
2. INSTALL CONSTRUCTION ENTRANCE.
3. BEGIN CLEARING AND GRUBBING.
4. CONSTRUCT STORMWATER MANAGEMENT SYSTEM.
5. INSTALL SITE FURNISHINGS.
6. INSTALL PAVEMENT AND CURBS.
7. INSTALL LANDSCAPING.
8. EROSION AND SEDIMENT CONTROLS SHALL BE MAINTAINED UNTIL PERMANENT COVER IS ESTABLISHED.



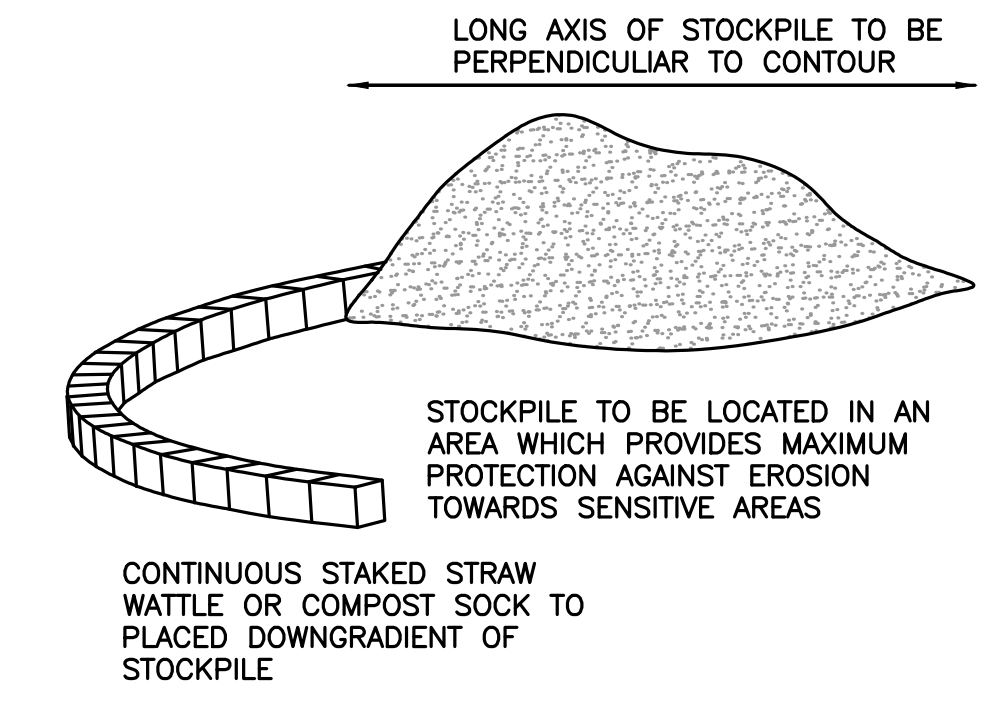
SILT FENCE DETAIL
NOT TO SCALE



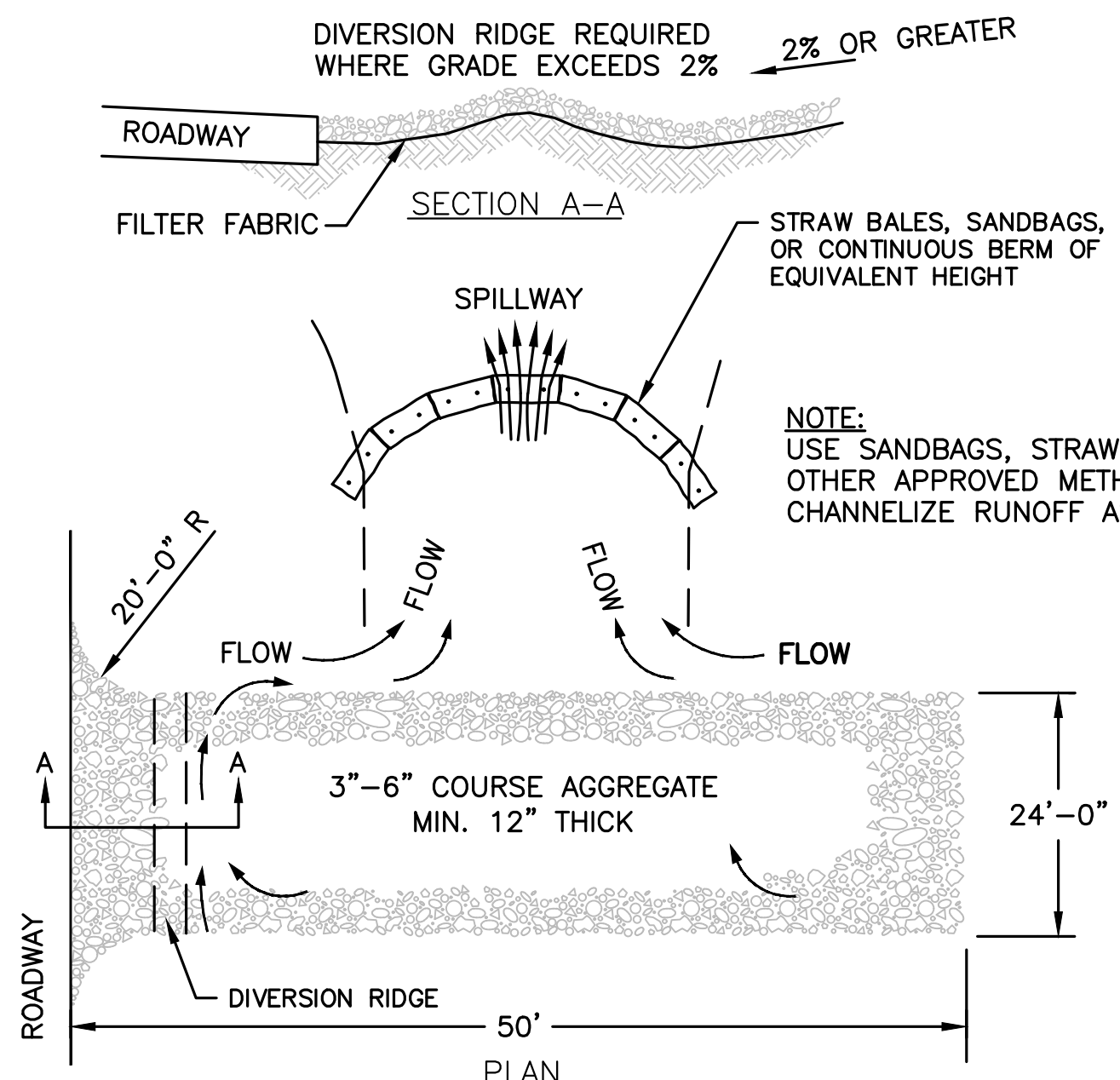
TRENCH DETAIL - WATER PIPE
NOT TO SCALE



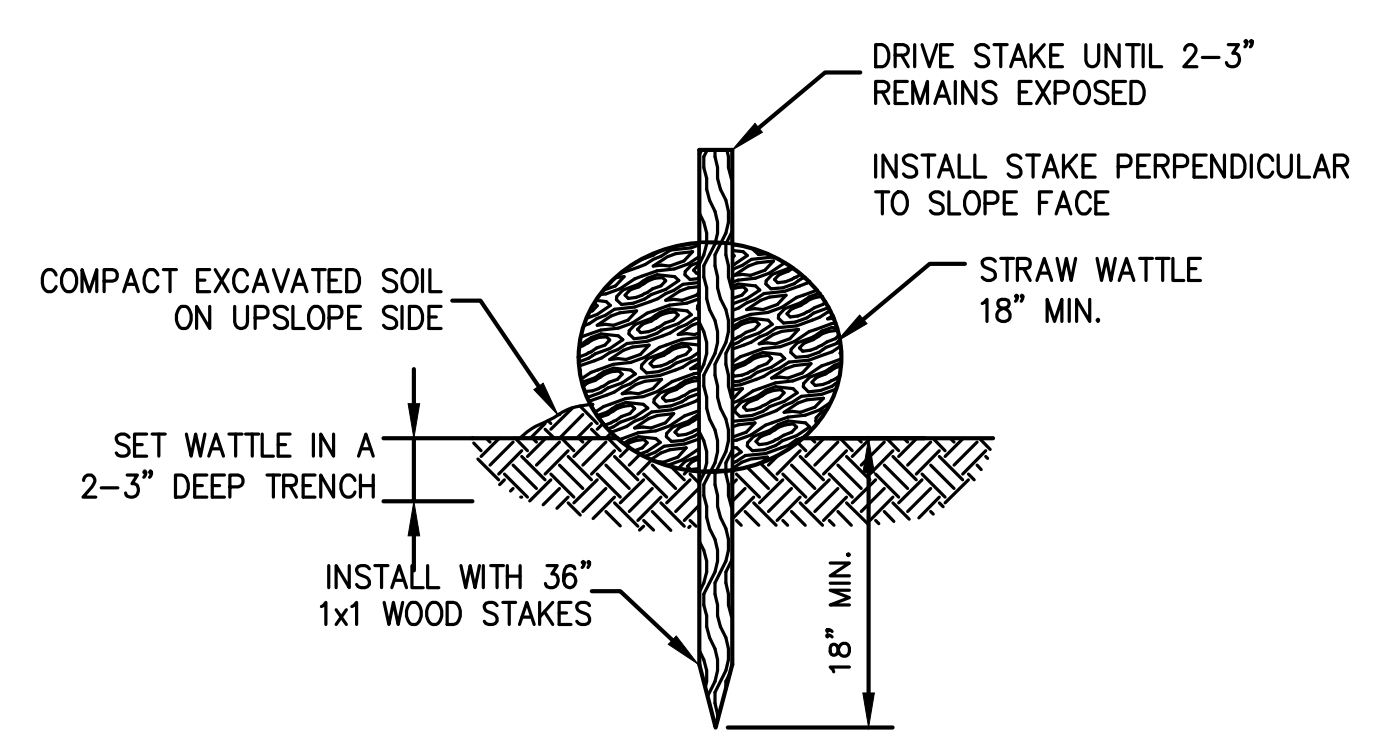
TEMPORARY INLET PROTECTION
NOT TO SCALE



TEMPORARY STOCKPILE
NOT TO SCALE



STABILIZED CONSTRUCTION ENTRANCE
NOT TO SCALE



STRAW WATTLE DETAIL
NOT TO SCALE

Panel Fencing

Ease of Use
Chain link Panel Fencing is an excellent perimeter security solution when a post-driven fence installation is not a viable option. Easy to transport and secure into place, above-ground panel fencing provides a sturdy and reliable barrier for many job site applications.

Features & Benefits

- Easy to Install, Maintain & Remove
- Eliminates Digging and Setting Posts
- Installs on a Variety of Surfaces
- Repositions Easily for Extended Use
- Alternative to In-Ground Posts

Specifications

- Width: 12' Height: 4', 6', 8'
- 36" Base Stands for Added Stability
- Galvanized Steel Construction
- Corrosion-Resistant Zinc Coating
- ASTM A392-06 Standards Compliant

Uses

- Commercial Construction
- Housing Developments
- Remodels & Tenant Improvements
- Public Works Projects
- Post-Disaster Reconstruction

NATIONAL CONSTRUCTION MATERIALS
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CONSTRUCTION PERIMETER FENCE DETAIL
NOT TO SCALE

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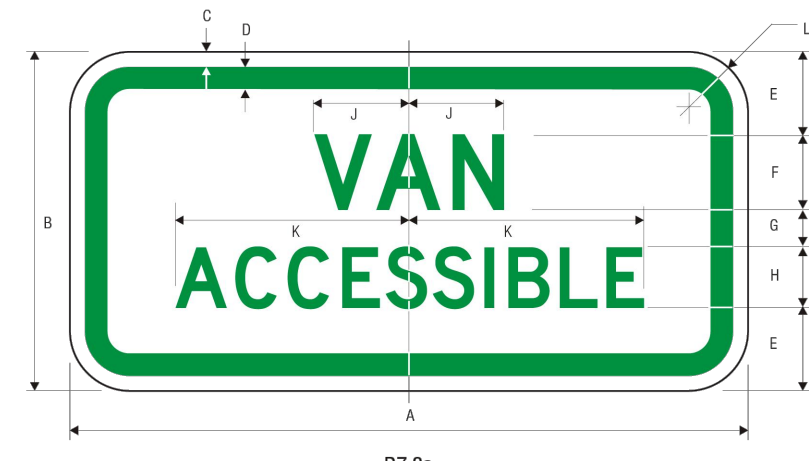


SITE PLAN

DETAIL SHEET 1 OF 7

DATE:	APRIL 11, 2023
PROJECT NUMBER:	22041
DESIGNED BY:	KL
DRAWN BY:	KL
CHECKED BY:	KE

9/8/2023 L:\2024\CURRENT\TSHETS\22041 Site Plan_R1.rvt
Plot Saved by: RBAKER
Printed by: Matthew Baker



	A	B	C	D	E	F	G	H	J	K	L
12	6	375	408	15	15.0	5	1.0	1.871	3.859	1.5	
18	9	375	408	2.25	2.0	1	15.0	2.461	5.781	1.5	

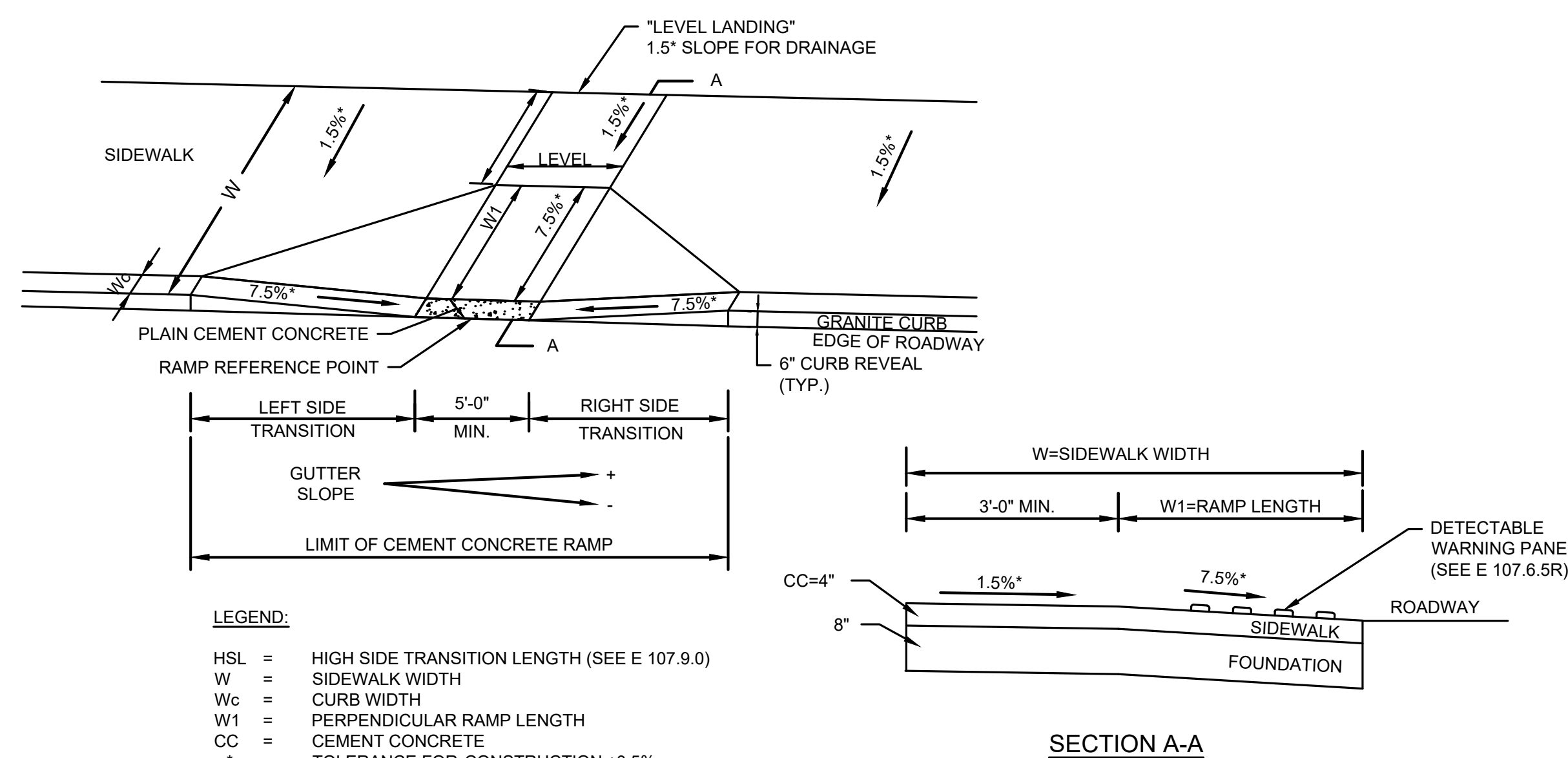
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 DIRECTIONAL APPLICATION: WHITE (RETROREFLECTIVE) BACKGROUND - BLUE (RETROREFLECTIVE)

1-93

ACCESSIBLE PARKING SIGNAGE
NOT TO SCALE



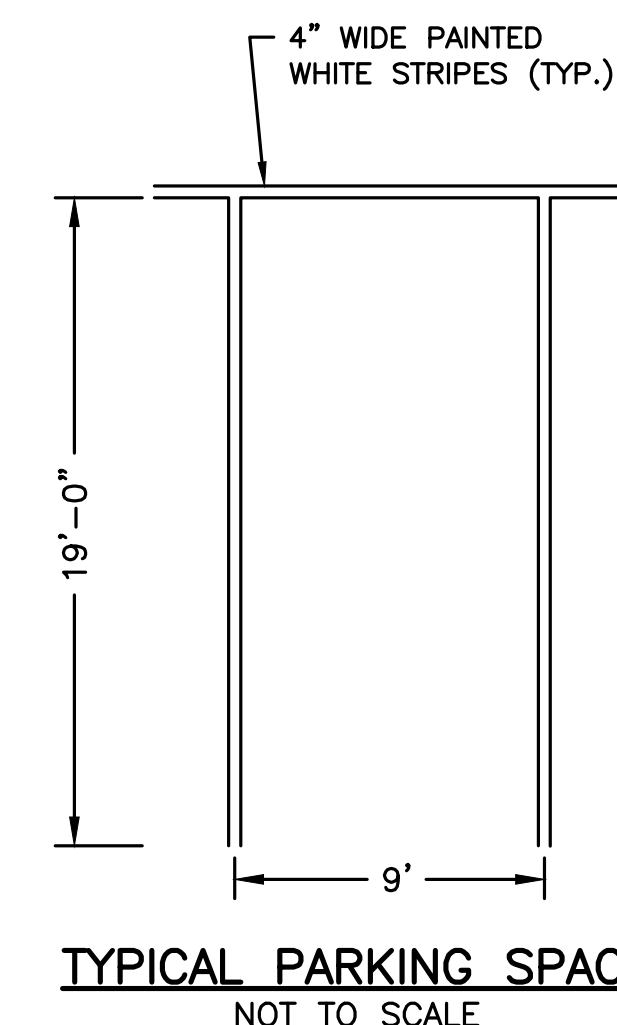
LEGEND - GREEN (RETROREFL.), WHITE SYMBOL ON BLUE (RETROREFL.) BACKGROUND - WHITE (RETROREFL.)



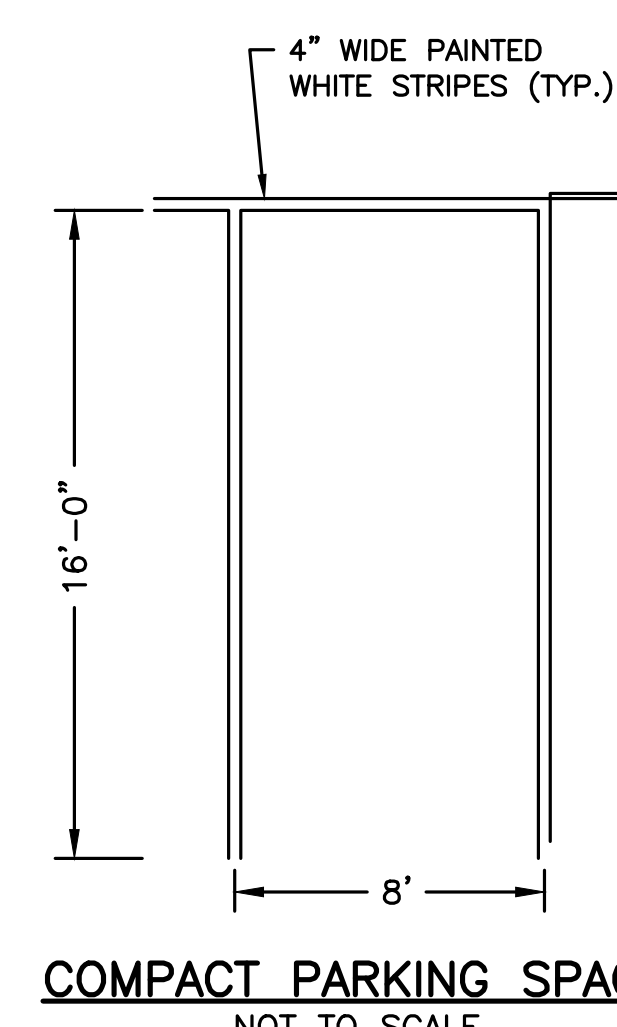
LEGEND:
 HSL = HIGH SIDE TRANSITION LENGTH (SEE E 107.9.0)
 W = SIDEWALK WIDTH
 Wc = CURB WIDTH
 W1 = PERPENDICULAR RAMP LENGTH
 CC = CEMENT CONCRETE
 * = TOLERANCE FOR CONSTRUCTION ±0.5%

USEABLE SIDEWALK WIDTH PER AAB = W-WC
 RAMP LENGTH = W1 - W - 4'-0" MIN

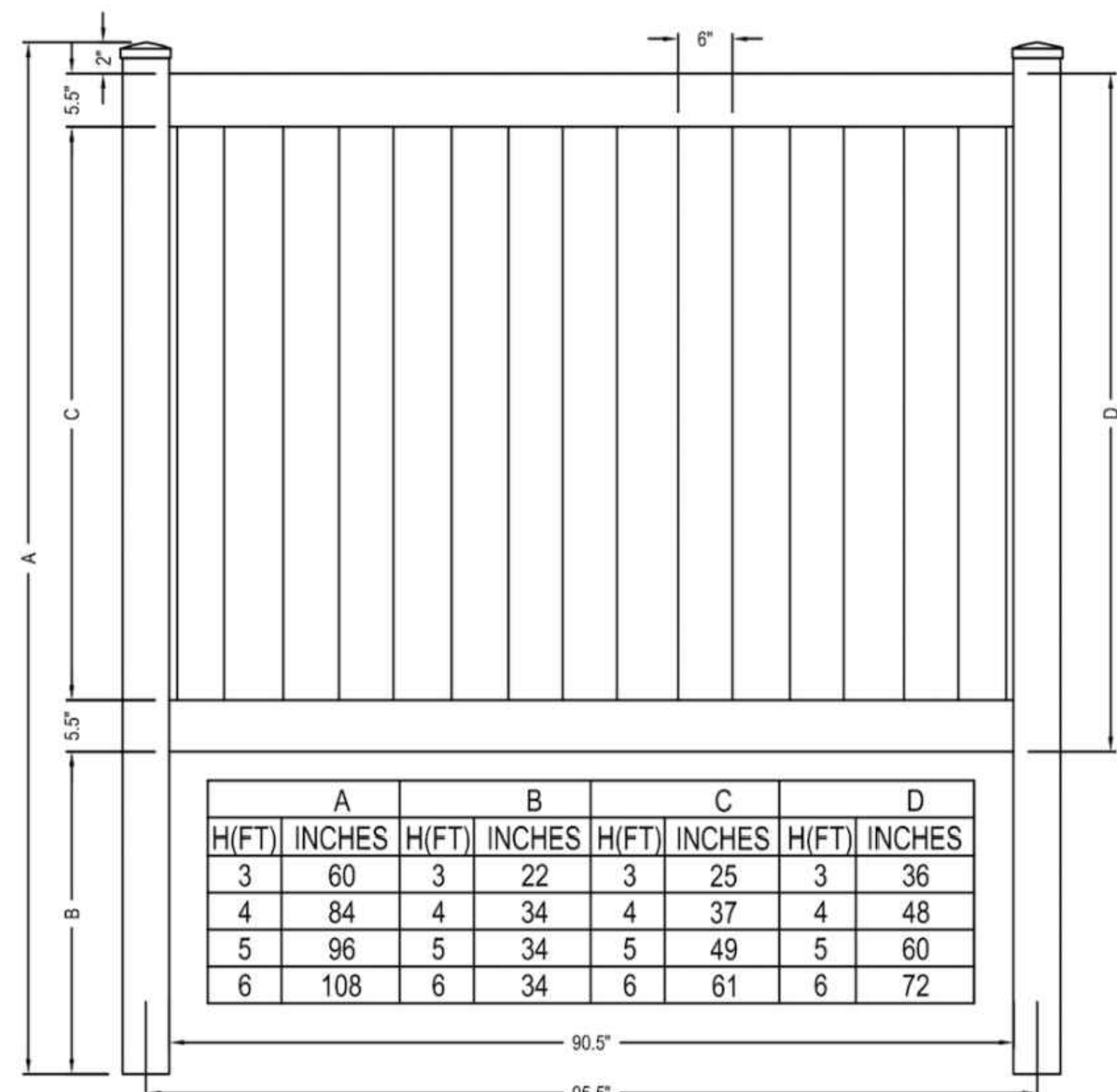
WHEELCHAIR RAMPS
NOT TO SCALE



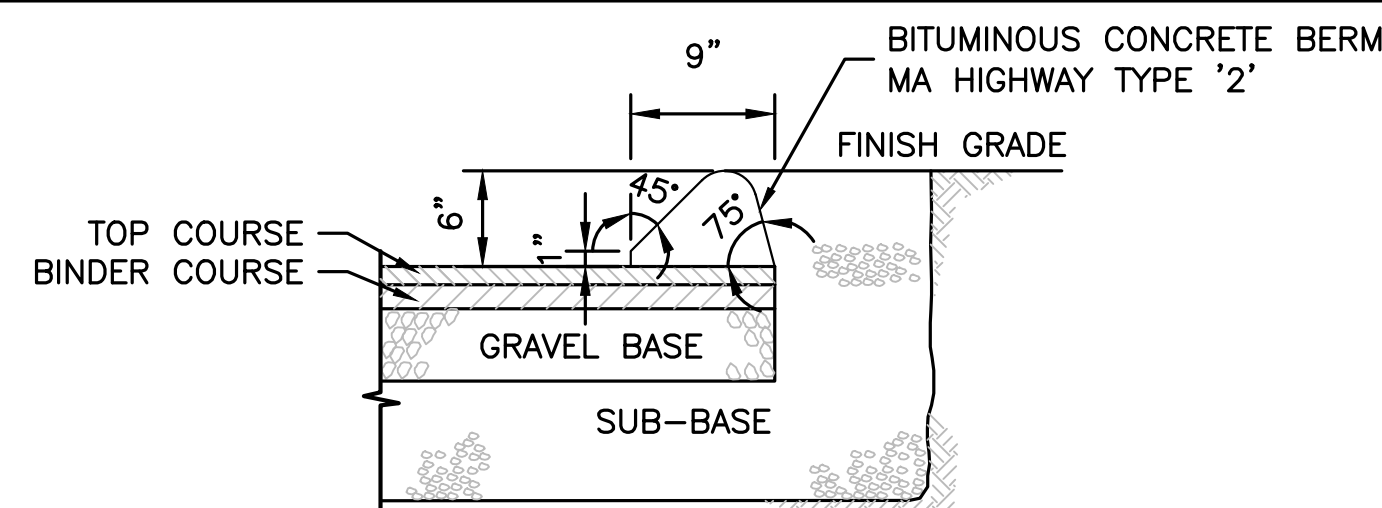
TYPICAL PARKING SPACE
NOT TO SCALE



COMPACT PARKING SPACE
NOT TO SCALE

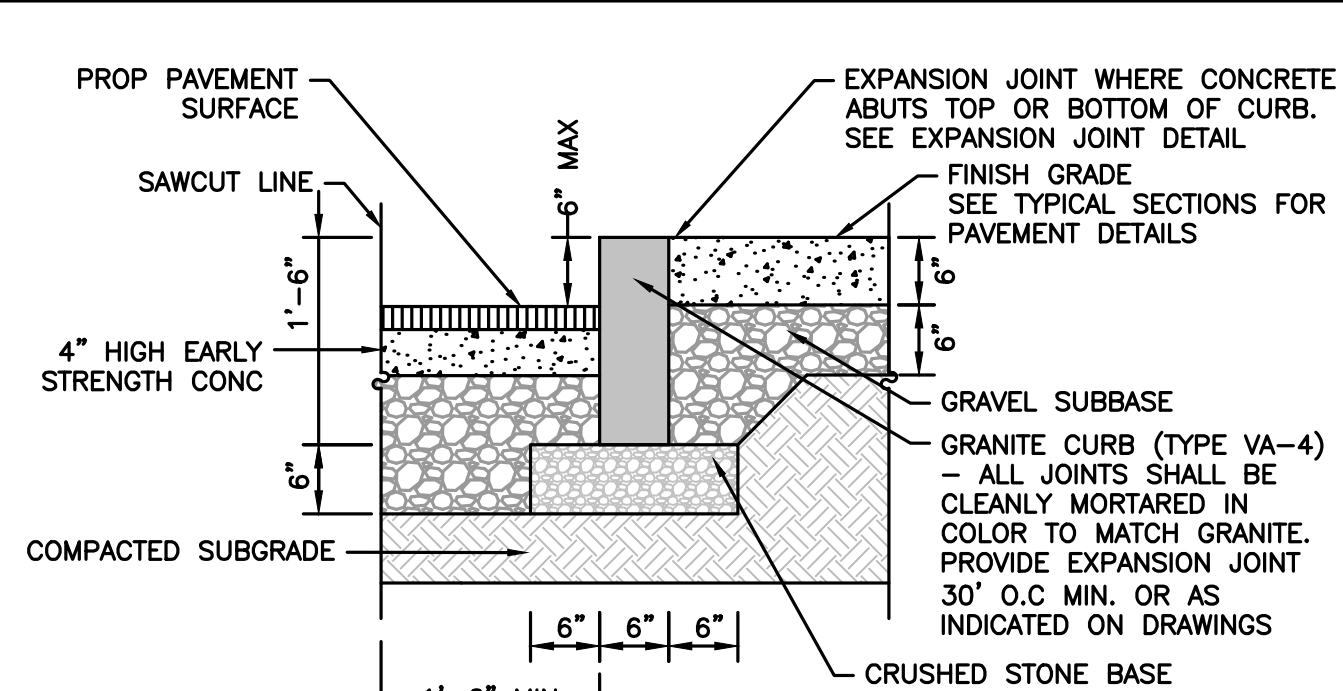


STOCKADE FENCE DETAIL
NOT TO SCALE



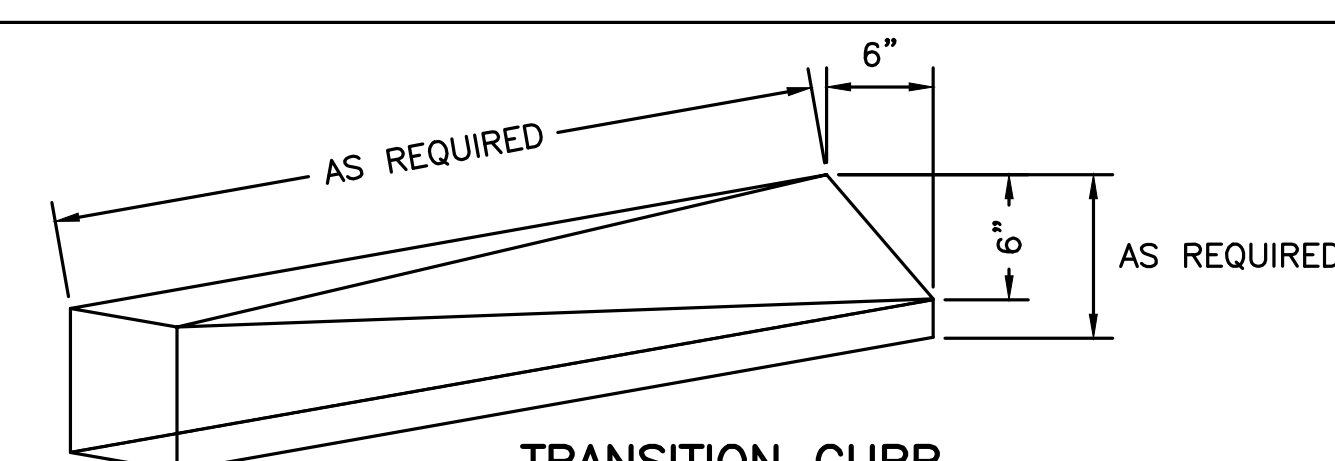
CAPE COD BERM/CURB
NOT TO SCALE

NOTE:
 DETAIL DEVELOPED FROM MA HIGHWAY CONSTRUCTION STANDARDS DRAWING NUMBER 106.2.0 "BITUMINOUS CONCRETE BERM - TYPE '2'"

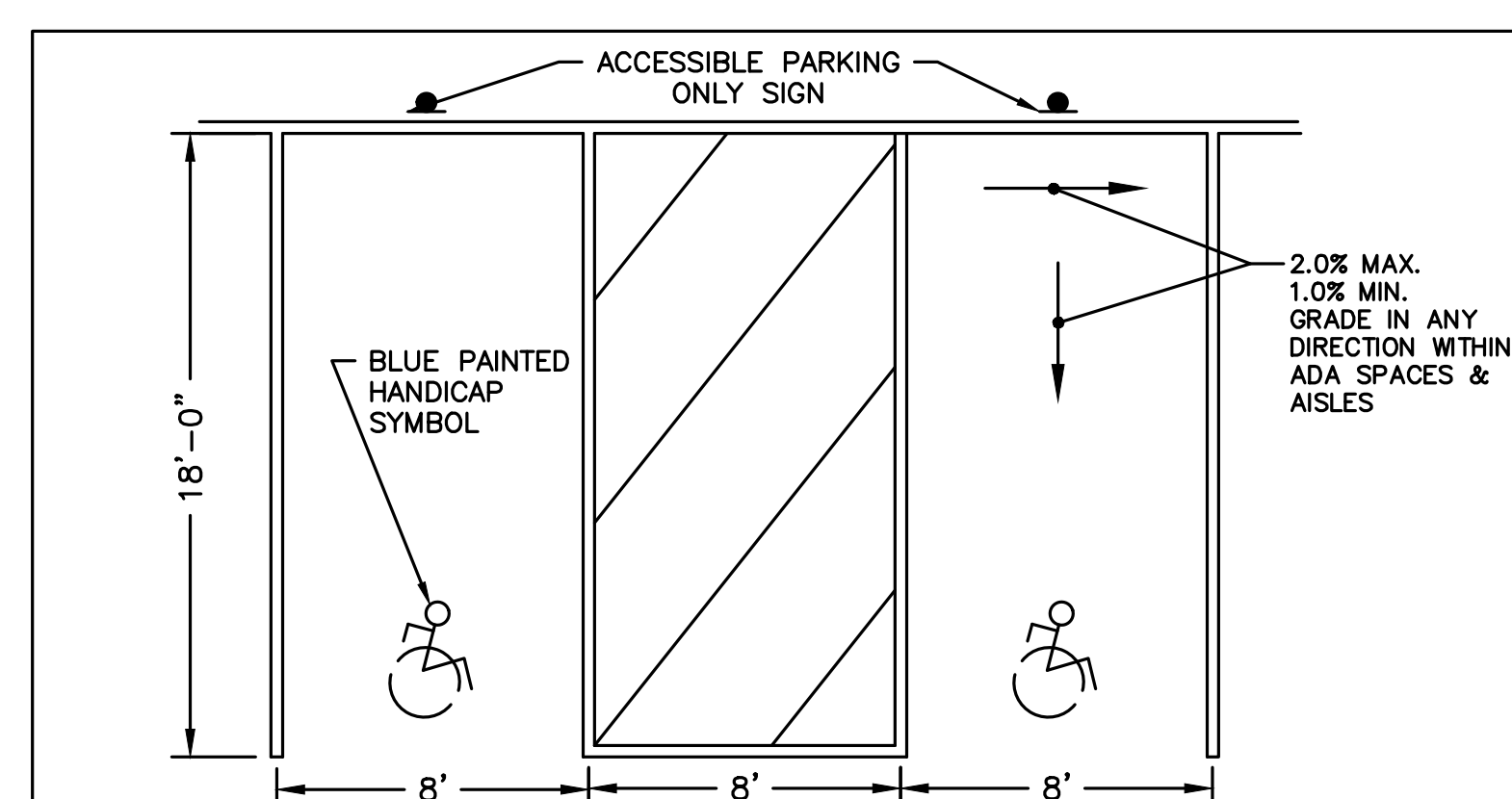


VERTICAL GRANITE CURB
NOT TO SCALE

NOTE: USE 2" BIT. CONC. TOP COURSE ABOVE HIGH EARLY STRENGTH CONCRETE FOR RESETTING CURBS

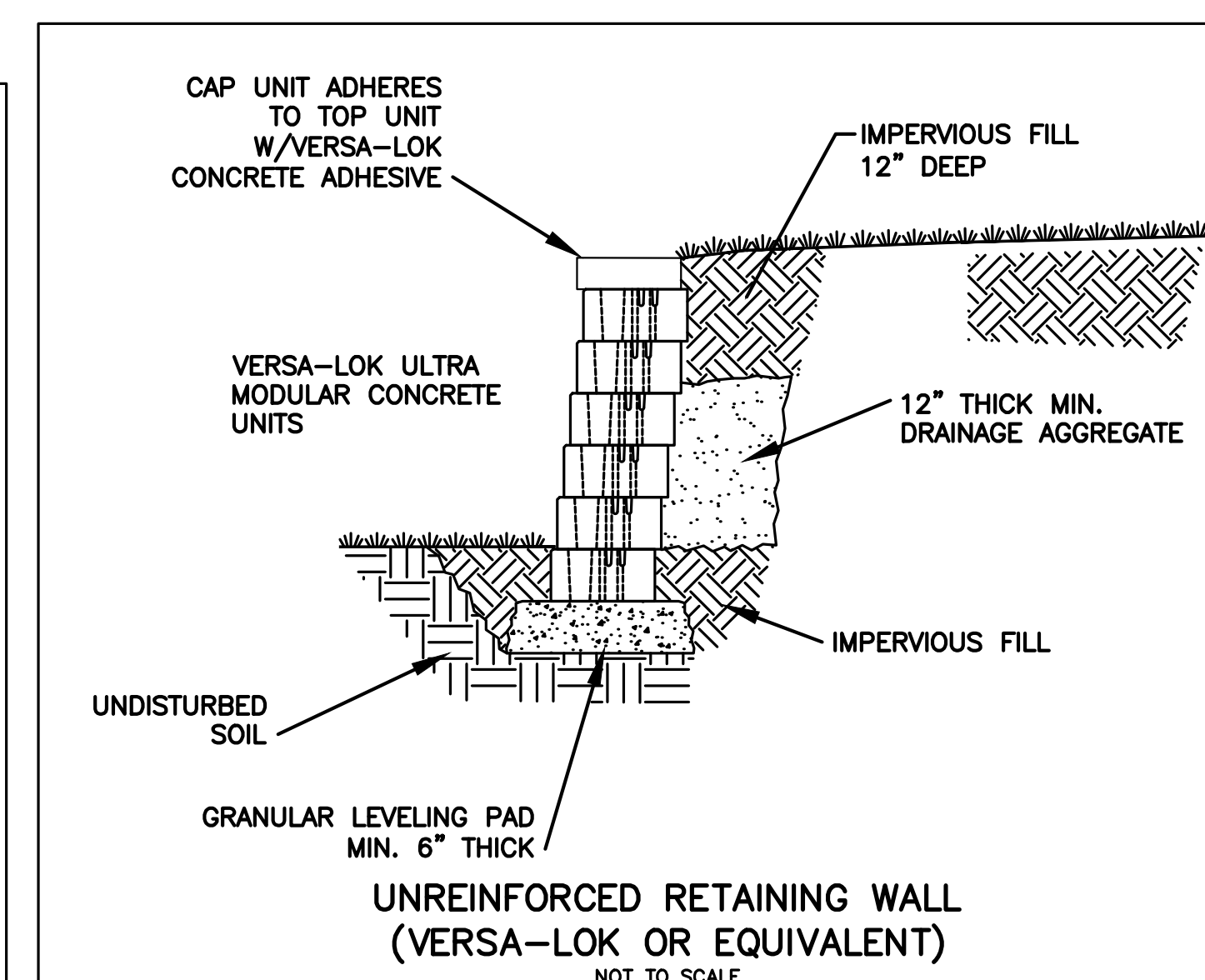


TRANSITION CURB
NOT TO SCALE

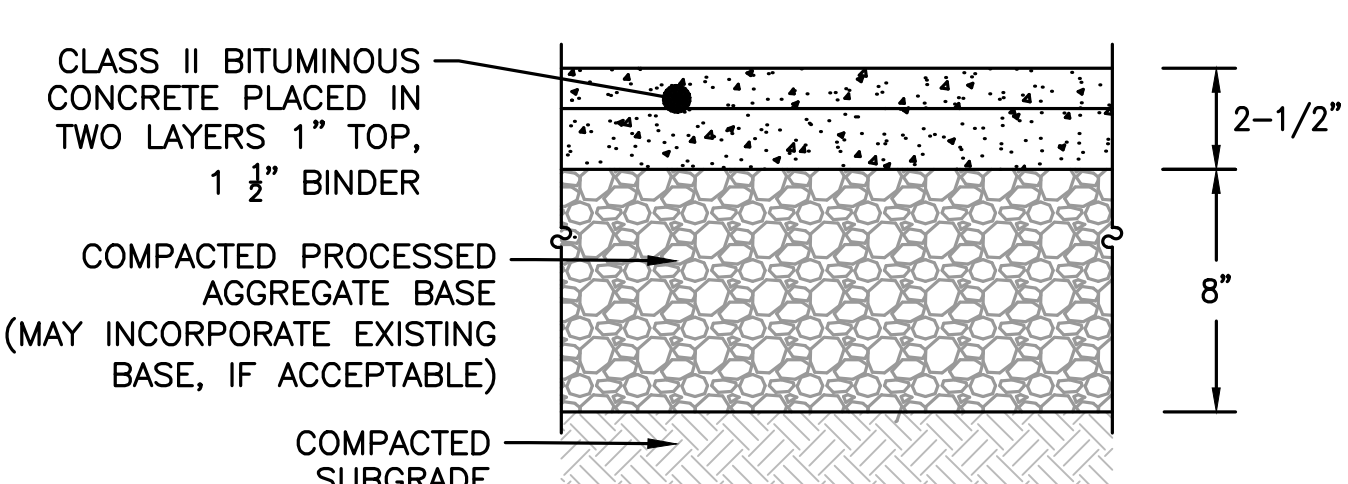


TYPICAL HANDICAP PARKING SPACE
NOT TO SCALE

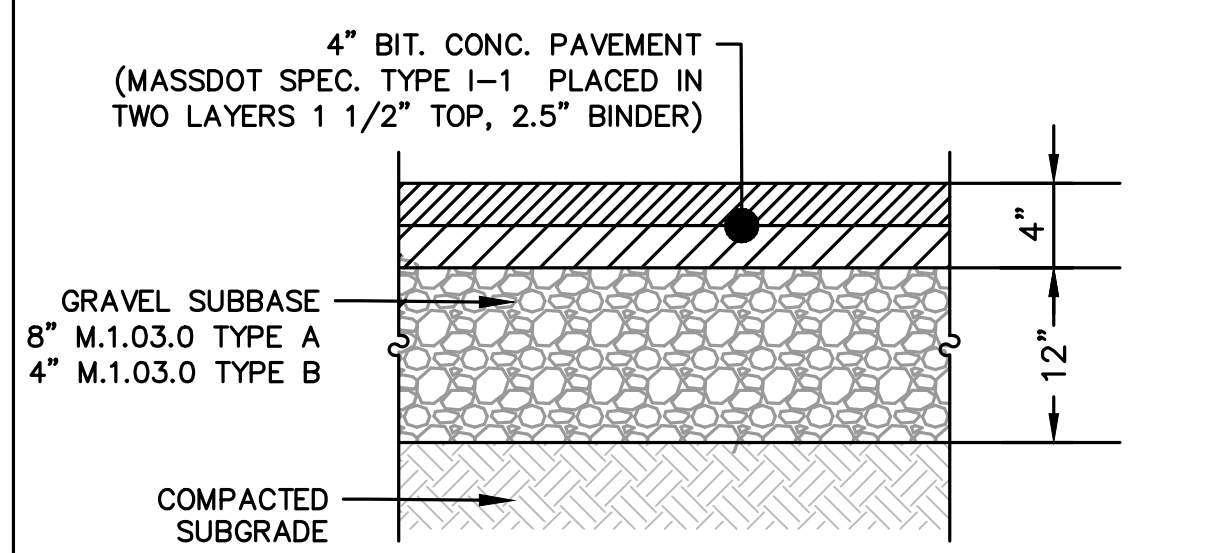
NOTE:
 * GRADING WITHIN THE HANDICAP PARKING SPACE SHALL NOT EXCEED 2.0% IN ANY DIRECTION.



UNREINFORCED RETAINING WALL (VERSA-LOK OR EQUIVALENT)
NOT TO SCALE



BIT CONC SIDEWALK SECTION DETAIL
NOT TO SCALE



SIDEWALK AND PARKING LOT CONCRETE SECTION DETAIL
NOT TO SCALE

PREPARED FOR:
 KENSINGTON MANAGEMENT LLC
 330 HIGHLAND STREET
 WORCESTER, MA 01602

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 48 MASON STREET
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 WORCESTER COUNTY

REVISIONS:

NO	BY	DATE	DESCRIPTION
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2	MB	9/8/23	REV. EV PARKING

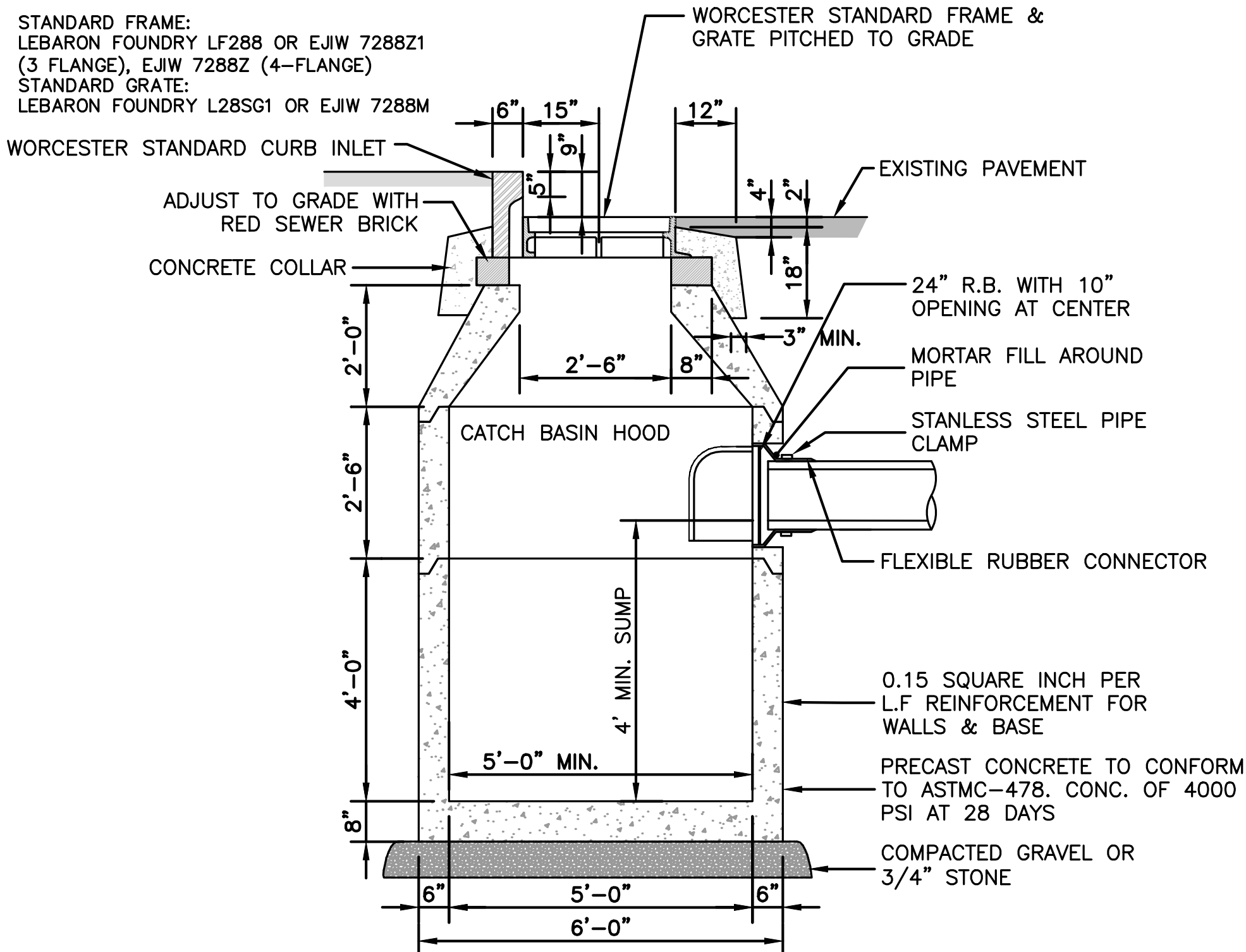


SITE PLAN

DETAIL SHEET
 2 OF 7

DATE: APRIL 11, 2023
 PROJECT NUMBER: 22041
 DESIGNED BY: KL
 DRAWN BY: KL
 CHECKED BY: KE

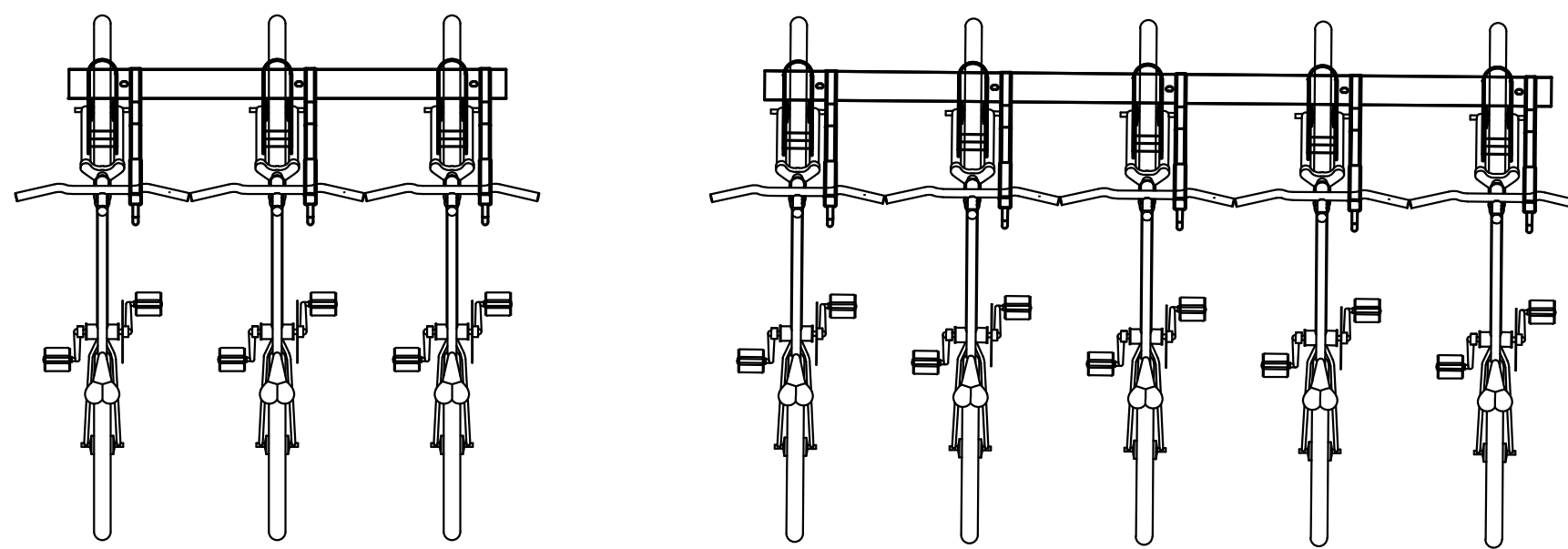
C.12



NOTES:
1. ADEQUATE FOR H-20 MINIMUM LOADING.

WORCESTER CATCH BASIN
NOT TO SCALE

GROUND CONTROL
FORMERLY PARK A BIKE SYSTEMS



PROPOSED WHEEL-WELL SECURED BIKE RACK
NOT TO SCALE

Spacing Requirements:

Height Clearance
84" or 7'-00" Recommended
72" or 6'-00" Minimum

Side Wall Offset to Center of Rack
28" or 1'-04" Recommended
24" or 1'-00" Minimum

Rack to Rack On Center
24" Fixed

Loading Zone/Aisle Way
60" or 5'-00" Recommended
48" or 4'-00" Minimum

Disclaimer: Above requirements are based on Ground Control Systems standards, ADA requirements and City Ordinances may vary by location.

HOWARD STEIN HUDSON
370 Main Street
Worcester, MA 01608
www.hshassoc.com

PREPARED FOR:
KENSINGTON MANAGEMENT LLC
330 HIGHLAND STREET
WORCESTER, MA 01602

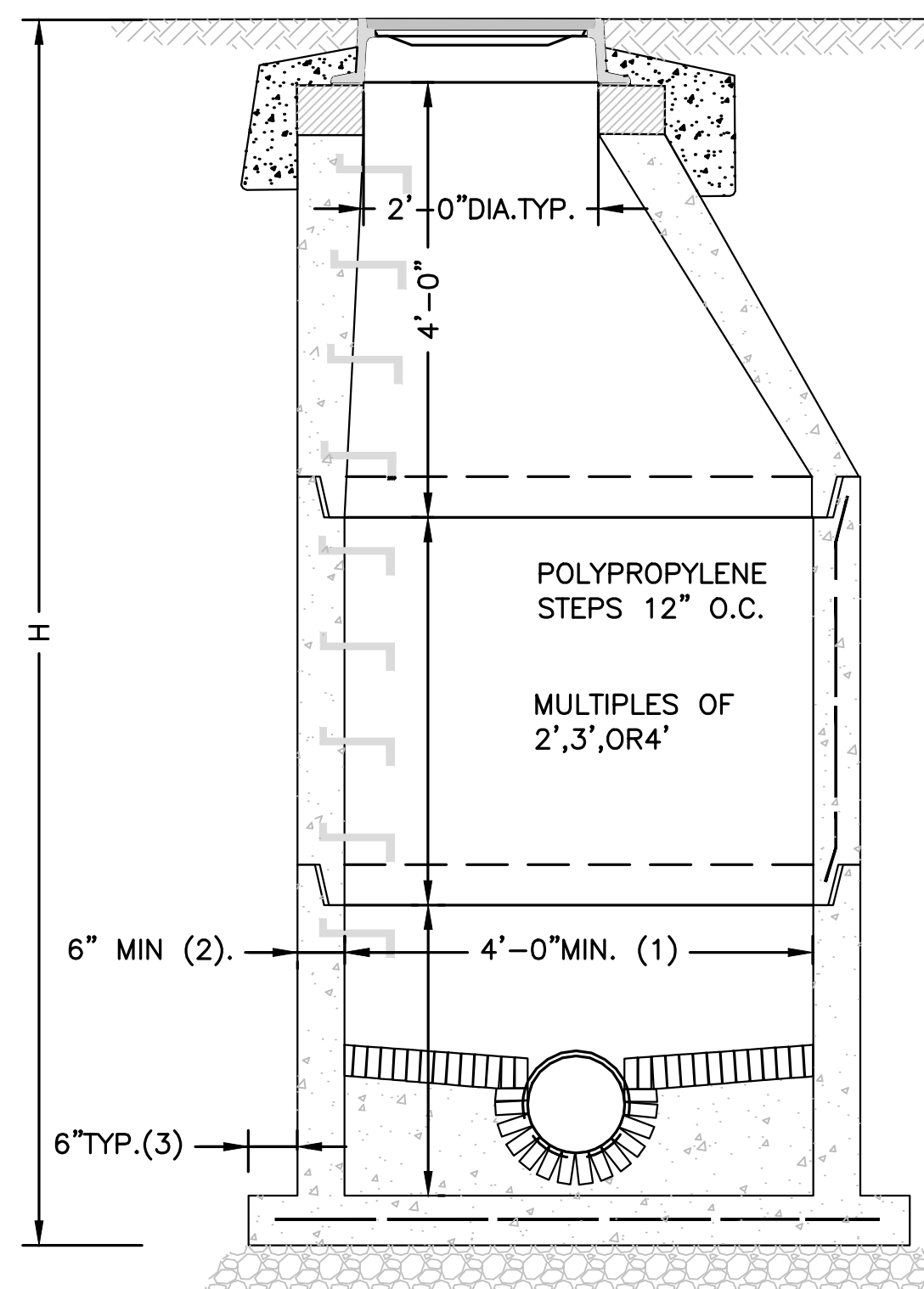
**AFFORDABLE
MULTIFAMILY HOUSING**
48 MASON STREET
WORCESTER, MA, 01610
WORCESTER COUNTY

REVISIONS:

NO	BY	DATE	DESCRIPTION
1	KL	5/15/23	BOARD COMMENTS
2	MB	9/8/23	REV. EV PARKING



MANHOLE FRAME AND COVER TO BE
(NEENAH FONDRY MODEL NO. R-1556 OR
APPROVED EQUAL - 26")



CONCRETE COLLAR
FINISHED
GRADE

GRADE RING

PRECAST CONCRETE SECTIONS
TO CONFORM TO ASTM-478,
CONCRETE OF 4,000 PSI AT 28
DAYS. USE TOP SLAB WHERE
REQUIRED

MASTIC GASKET, TYPICAL ALL
MANHOLE JOINTS FILL LIFTING
HOLES WITH CONCRETE

TYPICAL REINFORCEMENT,
WELDED
WIRE FABRIC 6x6x4Wx4W

PRECAST REINFORCED CONCRETE
MANHOLE BARRELS

SHELVE TO BE BRICKS LAID FLAT
AT A SLOPE OF 1" PER FOOT (4)

CONCRETE FILL

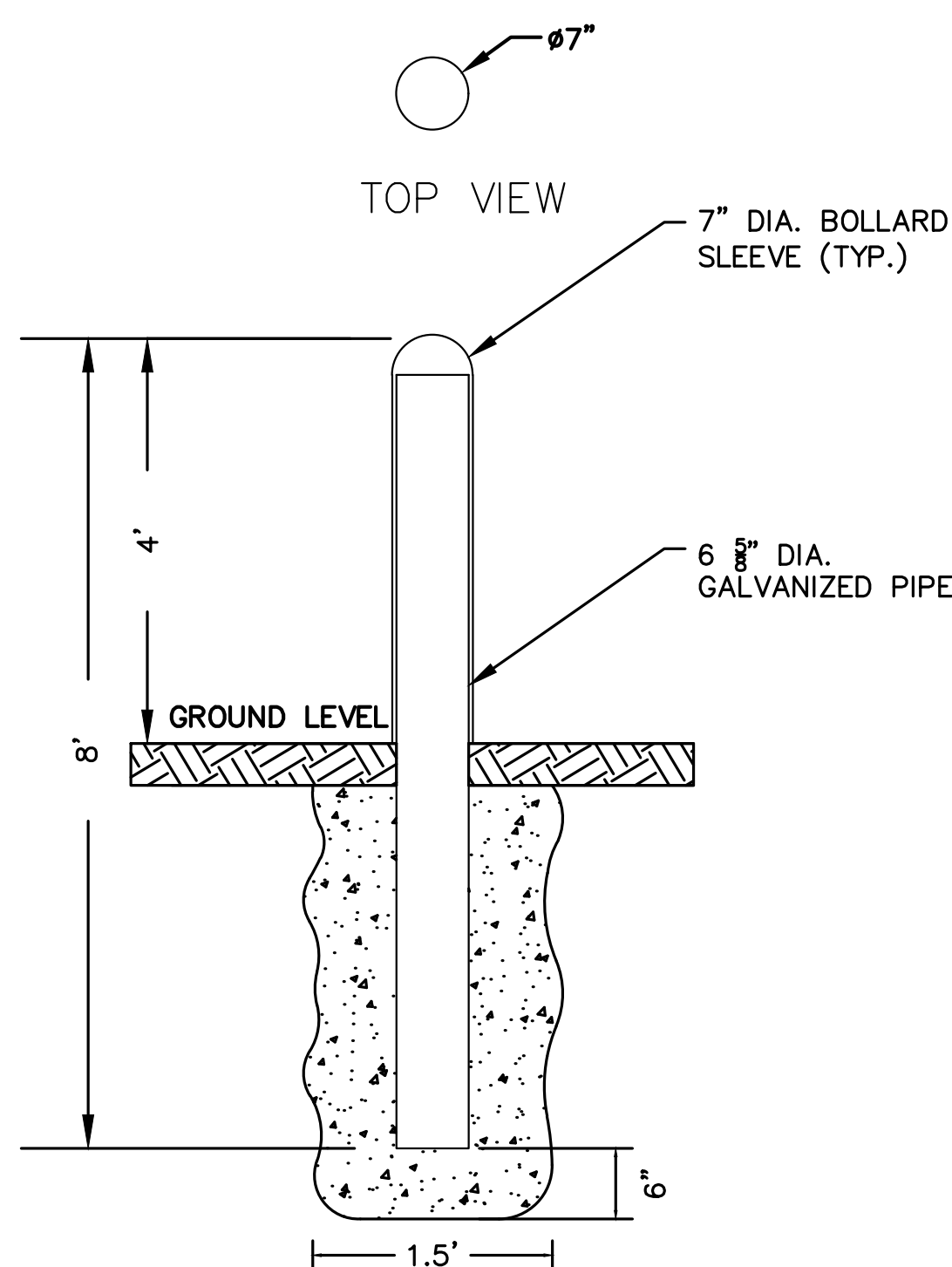
INVERT TO BE INVERTED ARCH
WITH BRICKS LAID AS STRECHERS
AND ON EDGE

6" CRUSHED STONE BEDDING

H= 10' OR LESS -#4 AT 18 EW MIDDEPTH
H= 10' TO 20' -#4 AT 12 EW MIDDEPTH
H= 20' TO 30' -#5 AT 12 EW MIDDEPTH
IN ADDITION TO WELDED WIRE FABRIC

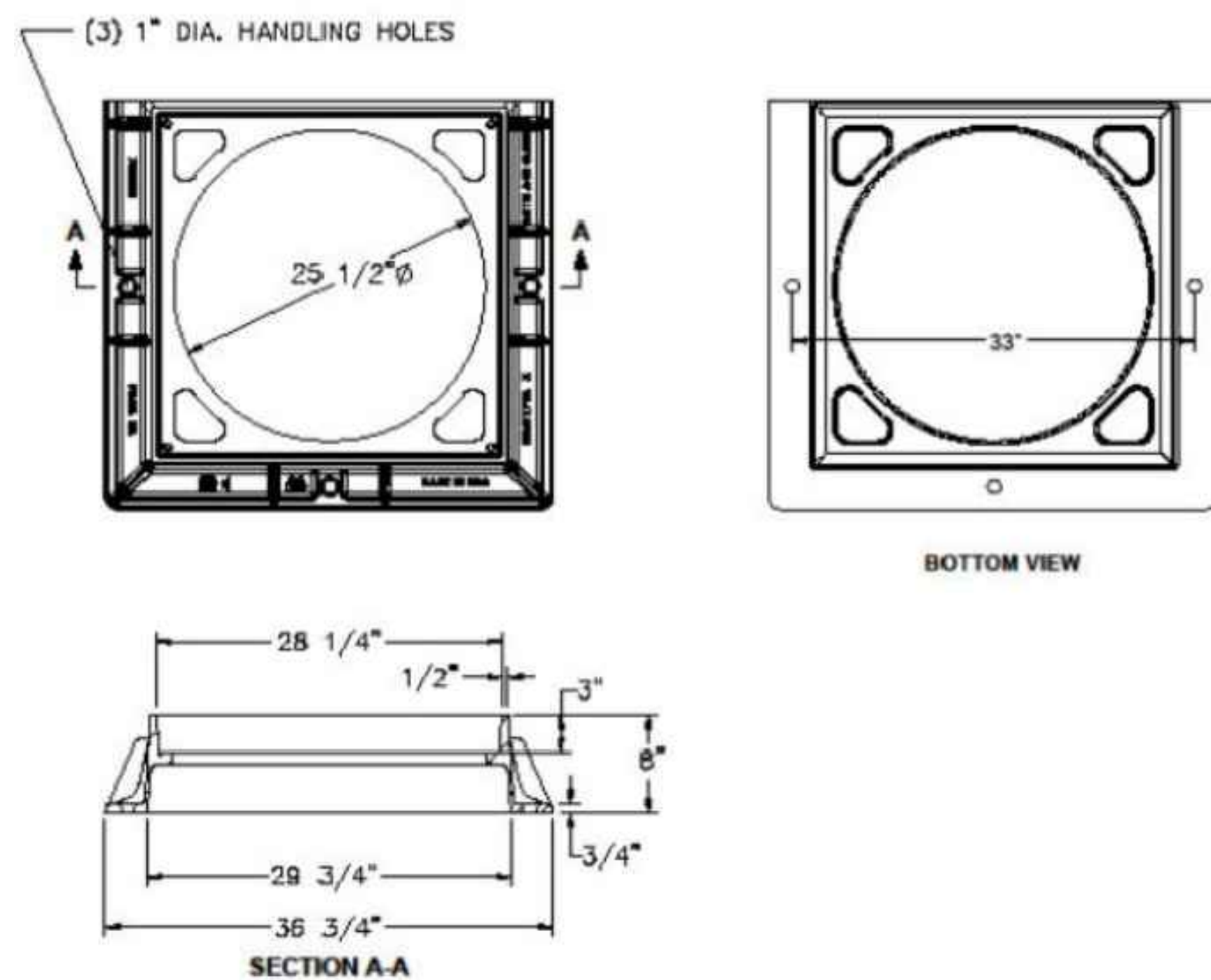
- NOTES:
- 5'-0" DIAMETER FOR ALL MANHOLE DEPTHS GREATER THAN 20 FEET OR WHEN ORDERED BY THE ENGINEER.
 - 6 INCH MIN. WALL THICKNESS AND 7 INCH MIN. BASE THICKNESS WITH 5'-0" DIAMETER MANHOLES.
 - 6 INCH LIP OPTIONAL UNLESS OTHERWISE NOTED. CONCRETE INVERT AND SHELVE MAY BE SUBSTITUTED IN STORM DRAIN MANHOLES AS DIRECTED BY THE ENGINEER.

PRECAST CONCRETE MANHOLE
NOT TO SCALE

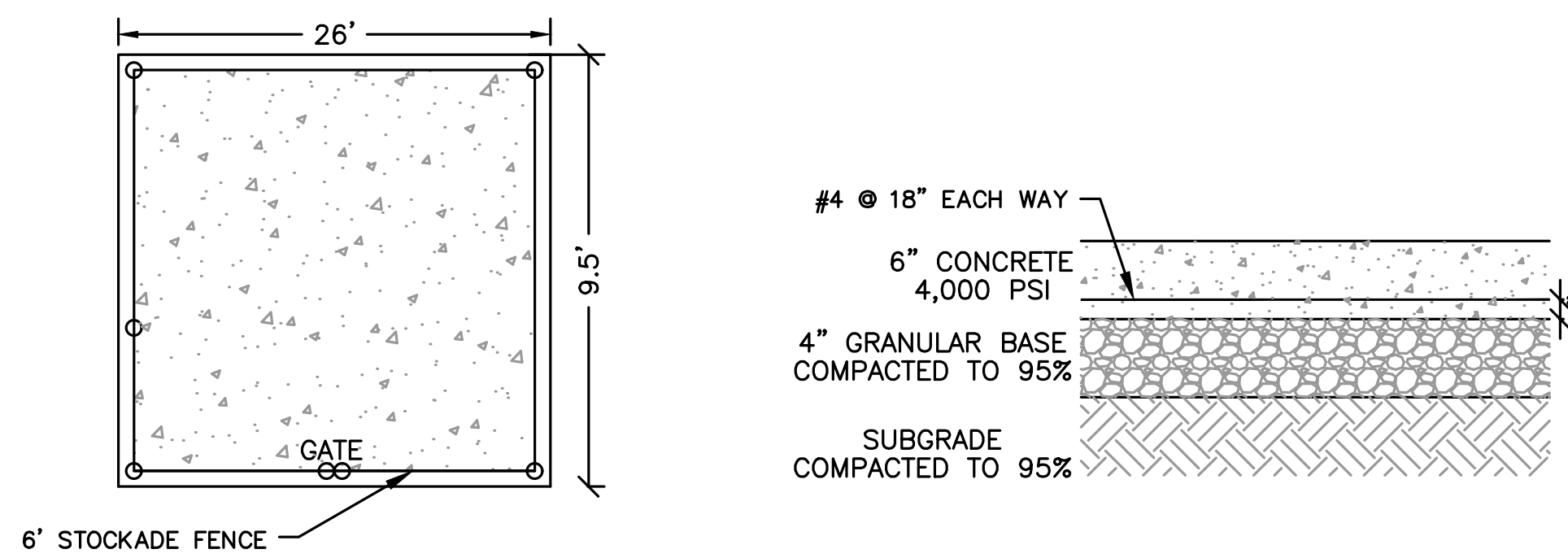


- NOTES:
- BOLLARD PIPE TO BE FILLED WITH MINIMUM 3,000 PSI CONCRETE.
 - BOLLARD SLEEVE COLOR SELECTION BY OWNER.

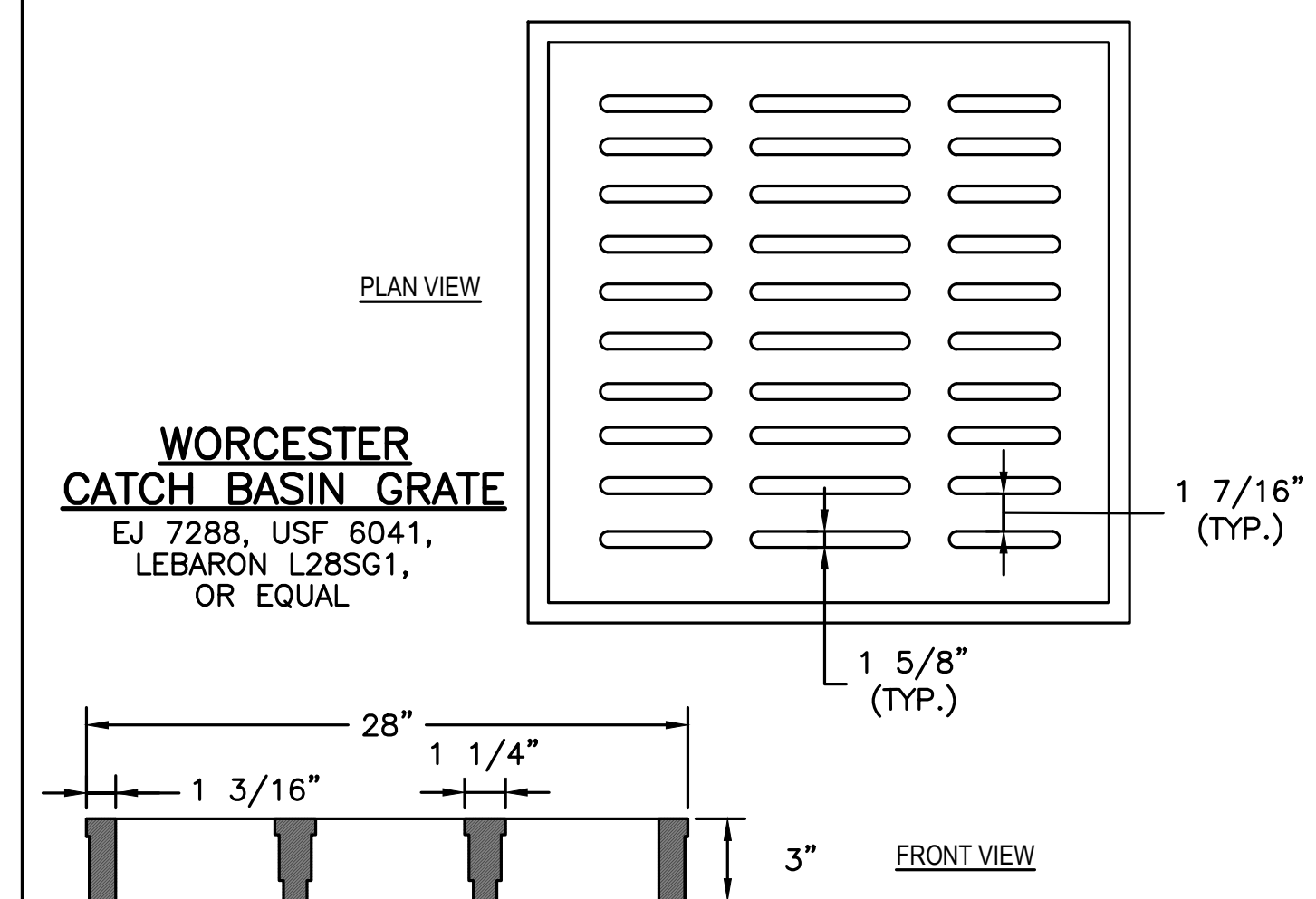
BOLLARD DETAIL
NOT TO SCALE



WORCESTER CATCH BASIN FRAME
EJ 7288Z3 (3 FLANGE), EJ 7288Z3 (4 FLANGE),
USF 4041-3, LEBARON LF288, OR EQUAL



DUMPSTER PAD
NOT TO SCALE



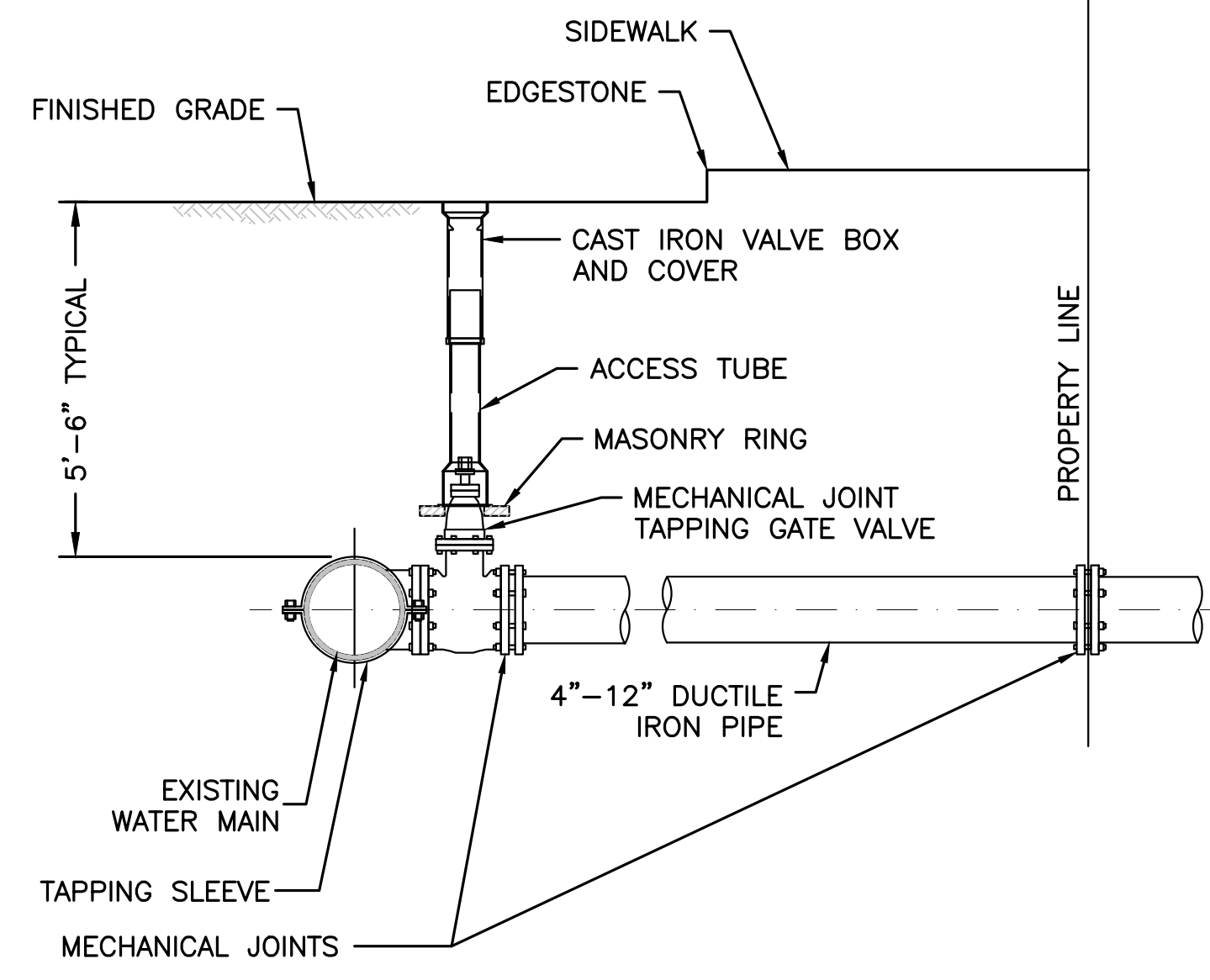
WORCESTER CATCH BASIN GRATE
EJ 7288, USF 6041,
LEBARON L28SG1,
OR EQUAL

SITE PLAN

DETAIL SHEET
3 OF 7

DATE: APRIL 11, 2023
PROJECT NUMBER: 22041
DESIGNED BY: KL
DRAWN BY: KL
CHECKED BY: KE

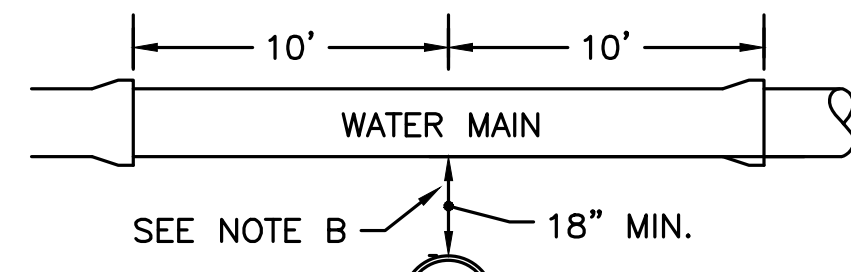
C.13



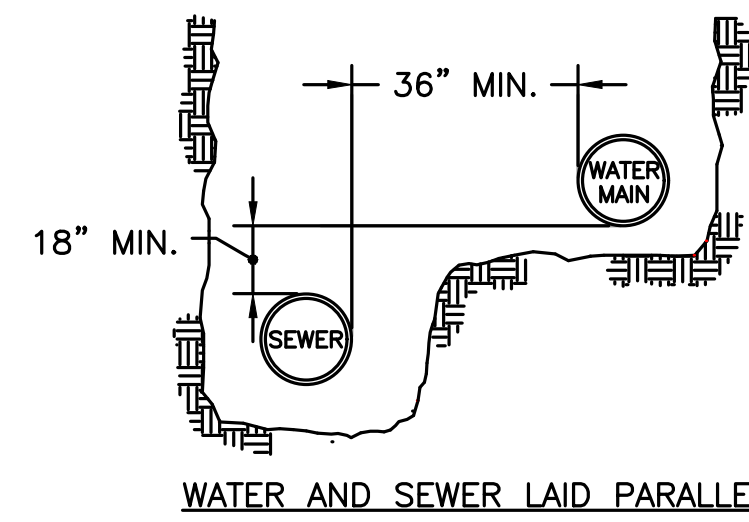
NOTES:

1. CONCRETE THRUST BLOCK TO BE USED ONLY WHERE IT WILL BEAR ON UNDISTURBED EARTH.
2. USE RESTRAINED JOINT FITTINGS OR TIE RODS WHERE CONCRETE THRUST BLOCK IS UNACCEPTABLE.
3. SIZE OF BLOCK OR MEGALUG TO BE DESIGNED FOR SPECIFIC CONDITIONS.

TAPPING SLEEVE & VALVE
NOT TO SCALE



WATER AND SEWER CROSSING



WATER AND SEWER LAID PARALLEL

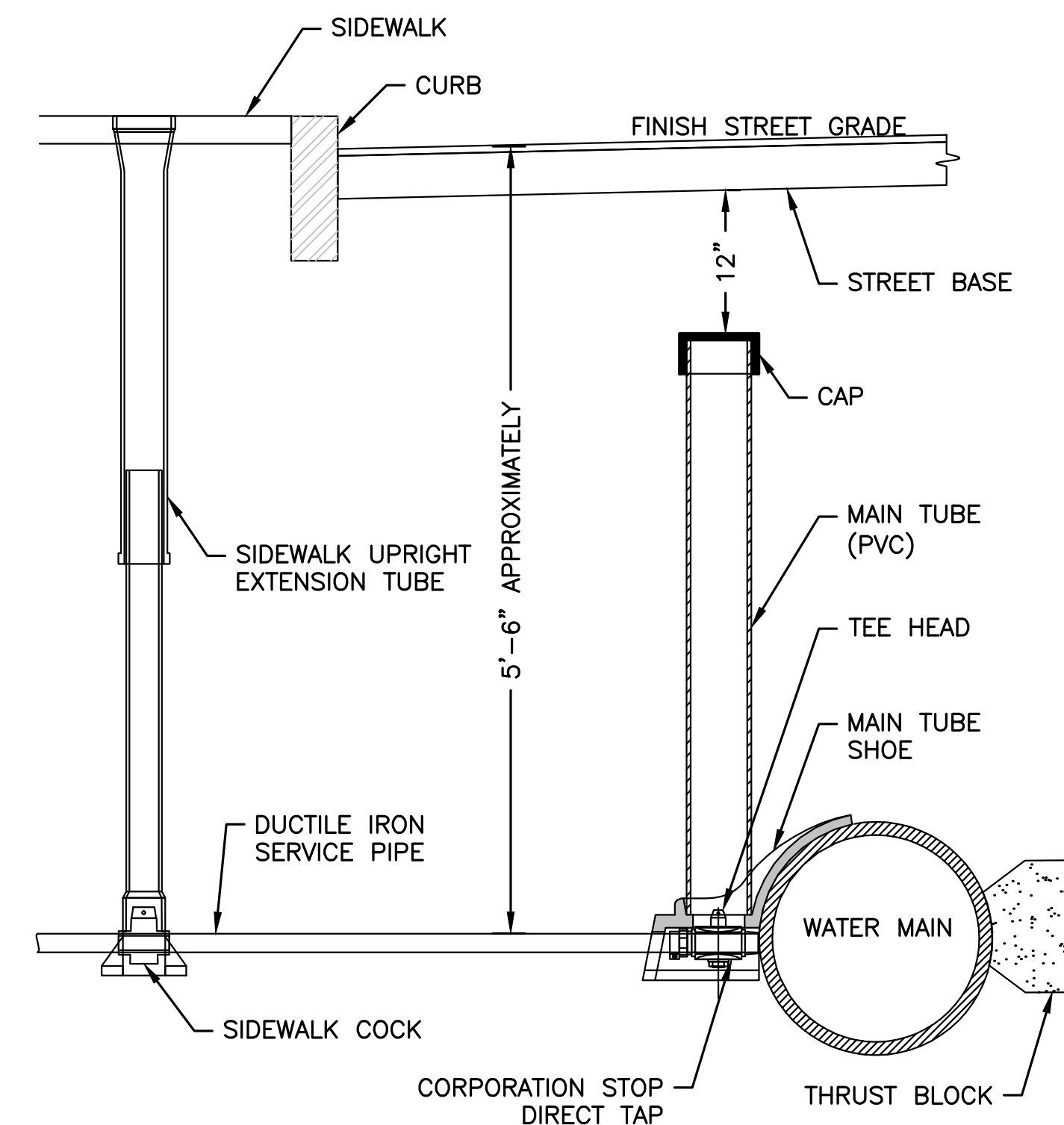
SEWER/WATER SEPARATION & CROSSING DETAIL

NOT TO SCALE

NOTES:

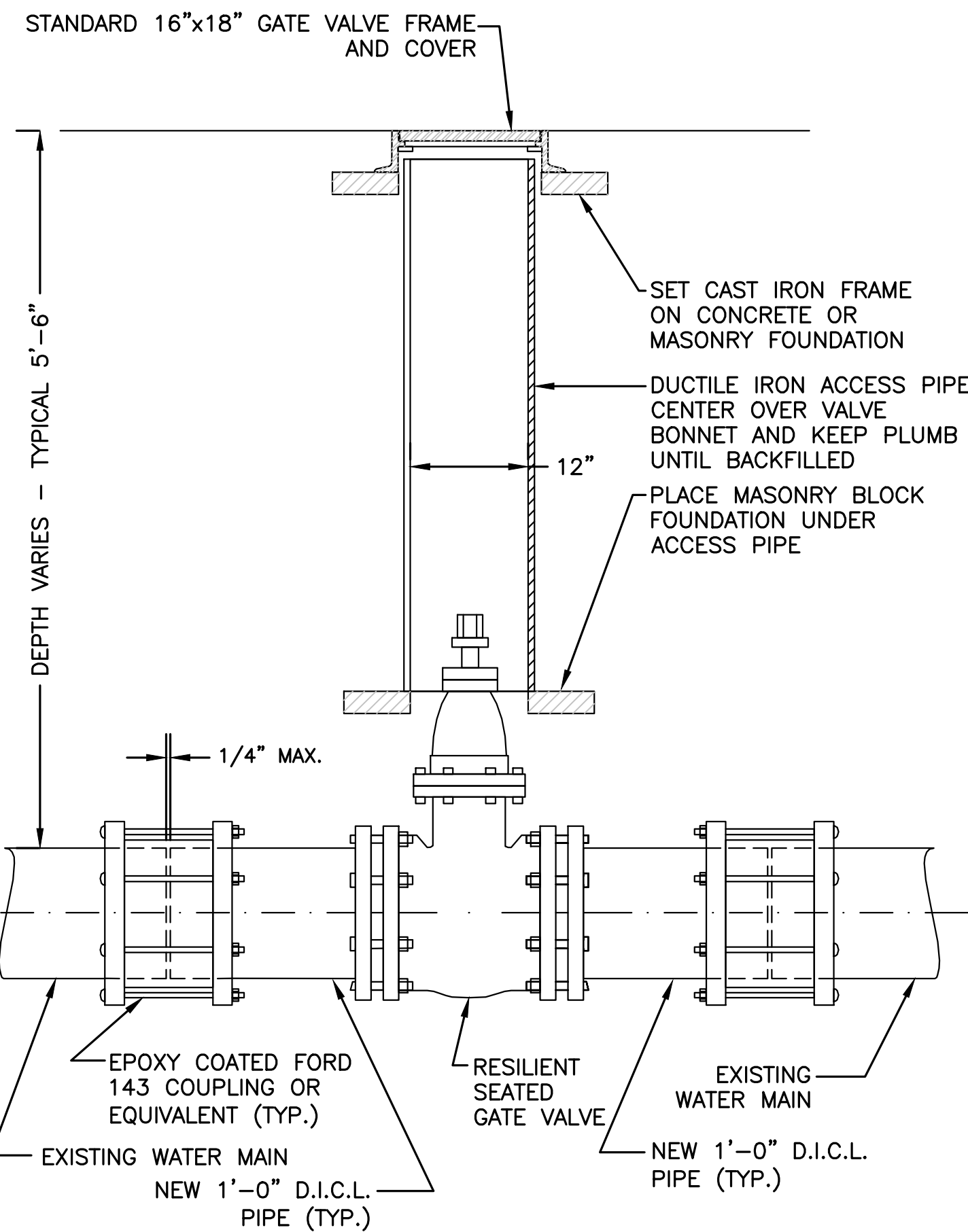
THE SEPARATION OF WATER MAINS AND SEWERS SHALL COMPLY WITH THE FOLLOWING GENERAL REQUIREMENTS.

- A. PARALLEL INSTALLATION:
- NORMAL CONDITIONS: THE INSIDE EDGE OF A WATER MAIN SHALL BE LAID AT LEAST 10 FEET HORIZONTALLY FROM THE INSIDE EDGE OF ANY SANITARY SEWER, STORM SEWER OR SEWER MANHOLE.
 - WHEN LOCAL CONDITIONS PREVENT A HORIZONTAL SEPARATION OF 10 FEET, ONE OF TWO METHODS MAY BE EMPLOYED. IN BOTH CASES THE INVERT OF THE WATER LINE MUST BE AT LEAST 18" ABOVE THE CROWN OF THE SEWER LINE.
1. LAY WATER AND SEWER IN SEPARATE TRENCHES
2. LAY THE WATER AND SEWER IN THE SAME TRENCH WITH THE WATER MAIN AT ONE SIDE ON A BENCH OF UNDISTURBED EARTH WITH A MINIMUM HORIZONTAL SEPARATION FROM INSIDE PIPE TO INSIDE PIPE OF 36"
- B. CROSSINGS:
- WHEN SEWERS MUST CROSS UNDER WATER MAINS, THE SEWER LAID SUCH THAT THE INVERT OF THE WATER LINE IS AT LEAST 18 INCHES ABOVE THE CROWN OF THE SEWER LINE.
 - WHEN THE SEWER ELEVATION CANNOT BE VARIED TO MEET THE REQUIREMENT, THE WATER LINE MUST BE RELOCATED OR RECONSTRUCTED WITH MECHANICAL JOINT CEMENT LINED DUCTILE IRON PIPE FOR A DISTANCE OF 10 FT ON EACH SIDE OF THE SEWER.
 - WHEN IT IS IMPOSSIBLE TO OBTAIN EITHER OR BOTH OF THE ABOVE REQUIREMENTS, BOTH THE WATER AND SEWER LINES SHALL BE CONSTRUCTED OF MECHANICAL JOINT CEMENT LINED DUCTILE IRON PIPE OR OTHER EQUIVALENT MATERIAL. BOTH PIPES SHALL BE PRESSURE TESTED BY AN APPROVED METHOD TO ASSURE WATER TIGHTNESS OR BOTH PIPES SHALL BE ENCASED IN CONCRETE.



TYPICAL WATER CONNECTION
6" SERVICE PIPE
NOT TO SCALE

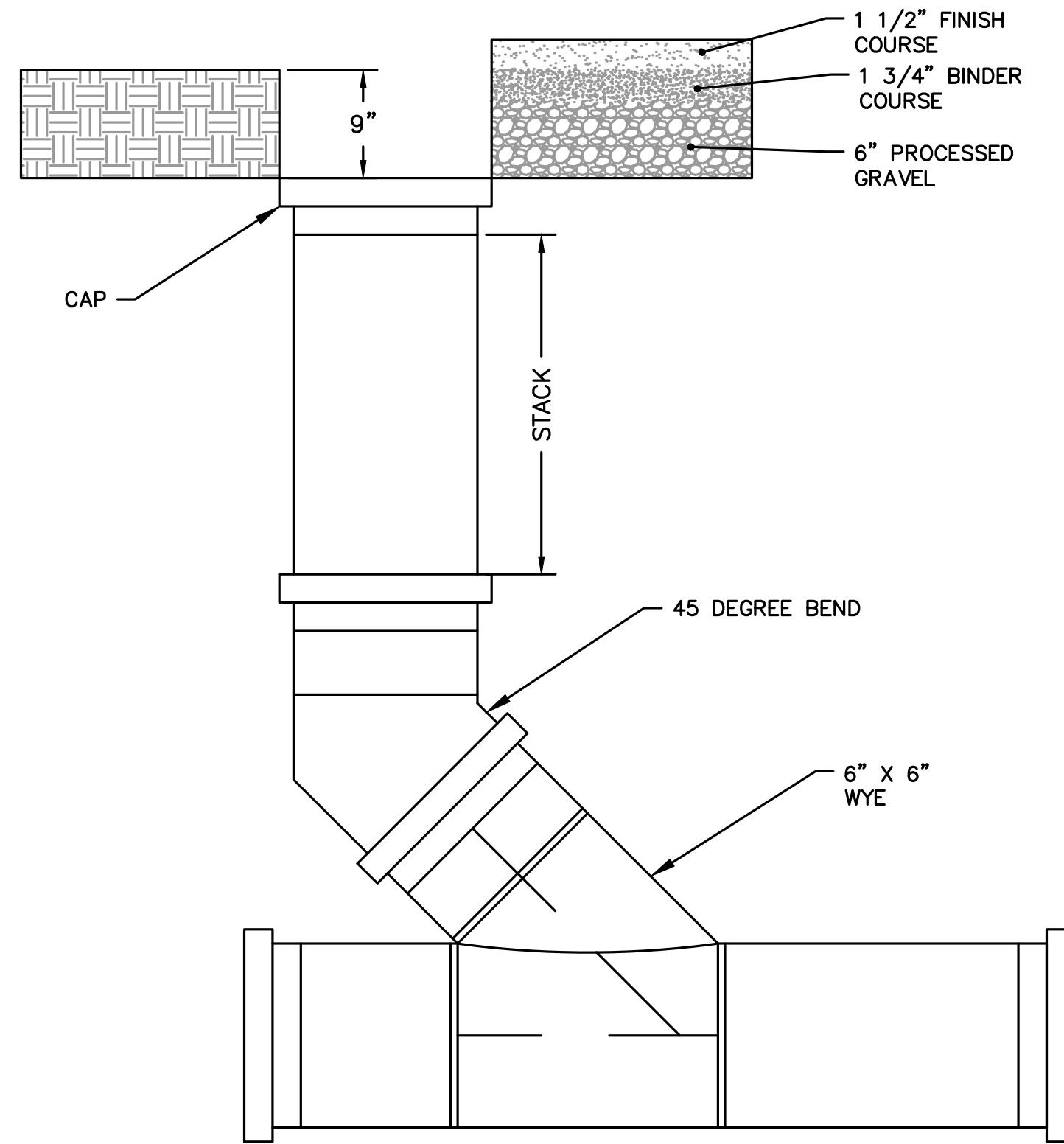
NOTE: IF A SIDEWALK IS NOT PRESENT, PROVIDE A BUFFALO STYLE BOX AT A SIMILAR DISTANCE OFF THE BACK OF THE CURB (6'-7')



NOTE:

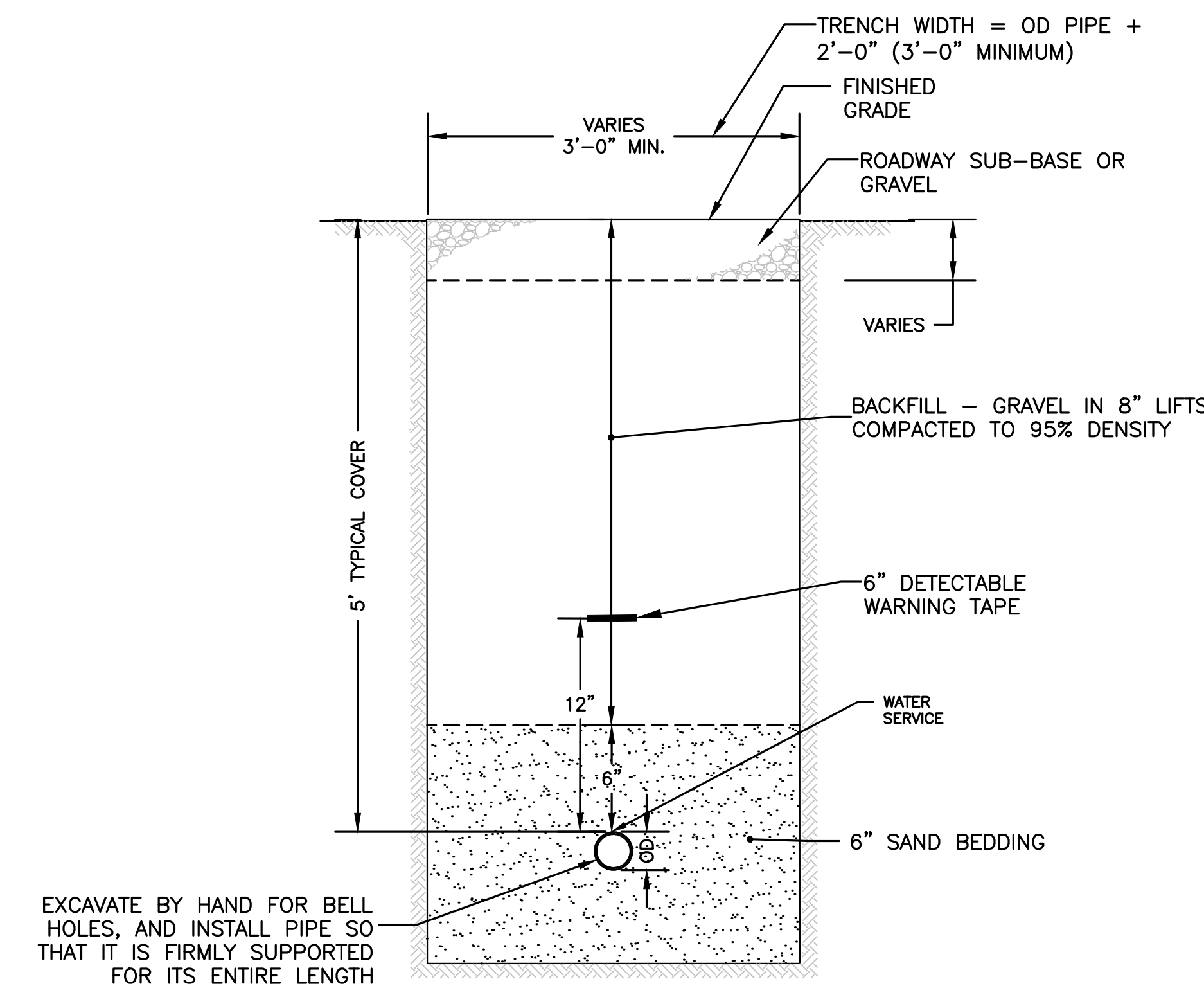
1. ALL EXCAVATION AND BACKFILLING AND PAVING SHALL BE IN ACCORDANCE WITH THE CITY OF BOSTON REQUIREMENTS.

TYPICAL GATE VALVE INSTALLATION
NOT TO SCALE



TYPICAL CLEANOUT

NOT TO SCALE



TRENCH DETAIL - WATER SERVICE

NOT TO SCALE

EXCAVATE BY HAND FOR BELL HOLES, AND INSTALL PIPE SO THAT IT IS FIRMLY SUPPORTED FOR ITS ENTIRE LENGTH

REVISIONS:

NO	BY	DATE	DESCRIPTION
1	KL	5/15/23	BOARD COMMENTS
2	MB	9/8/23	REV. EV PARKING



SITE PLAN

DETAIL SHEET
4 OF 7

DATE: APRIL 11, 2023

PROJECT NUMBER: 22041

DESIGNED BY: KL

DRAWN BY: KL

CHECKED BY: KE

C.14

SHEET 15 OF 18



HOWARD STEIN HUDSON
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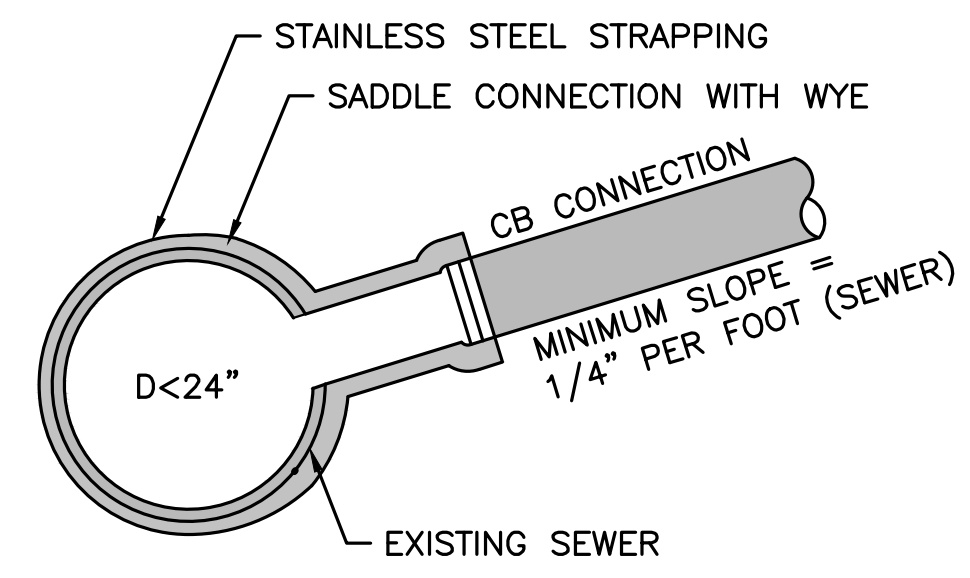
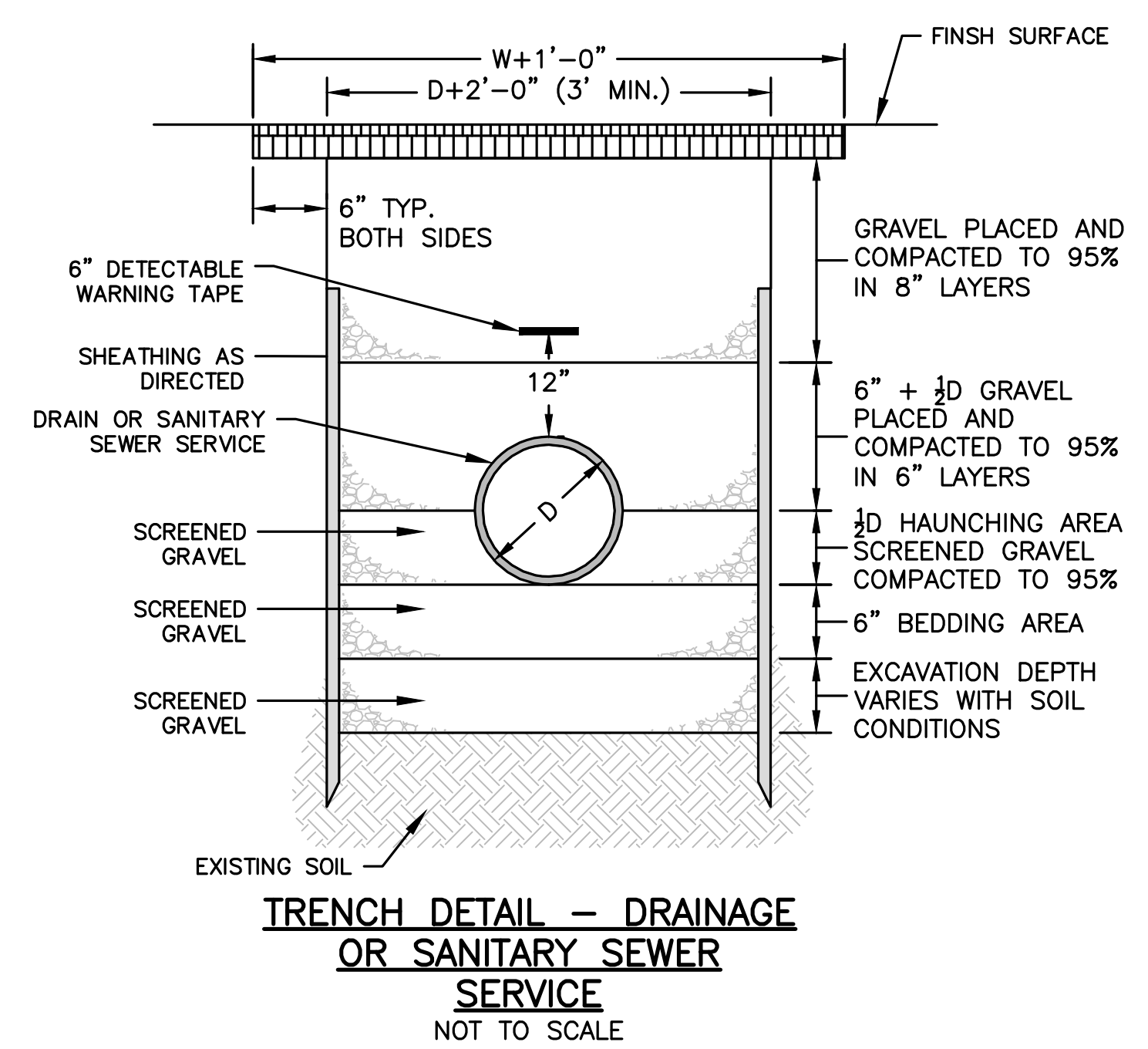


SITE PLAN

DETAIL SHEET
 5 OF 7

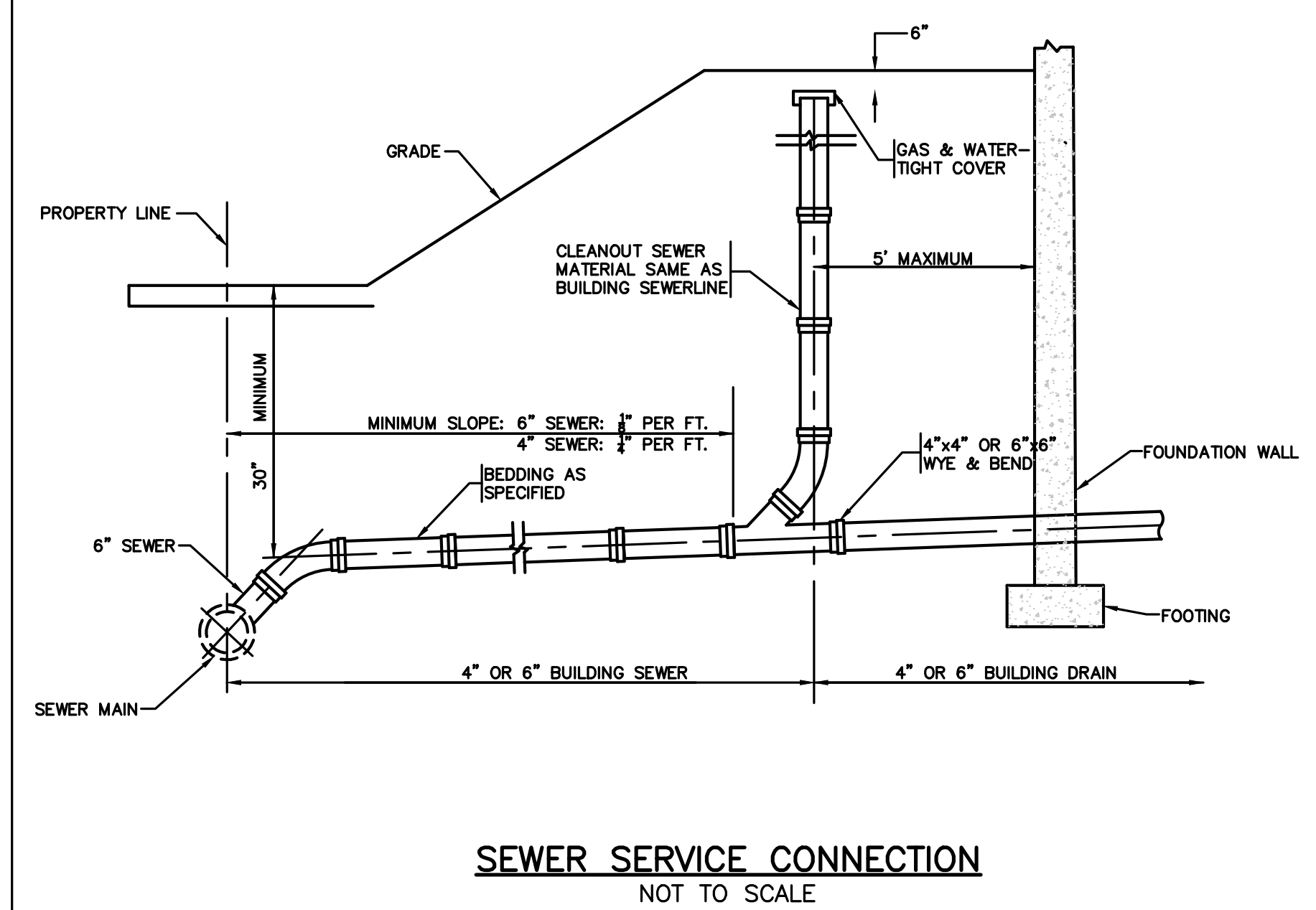
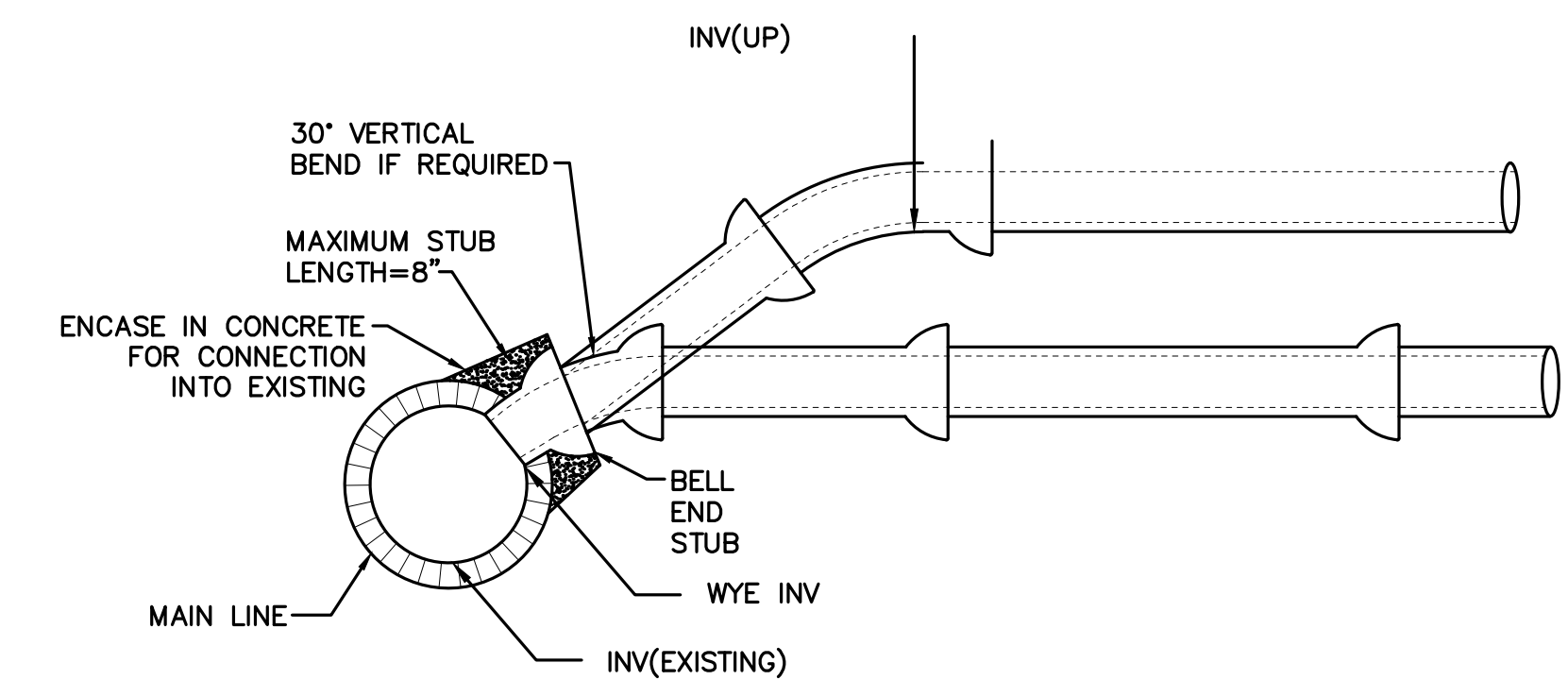
DATE:	APRIL 11, 2023
PROJECT NUMBER:	22041
DESIGNED BY:	KL
DRAWN BY:	KL
CHECKED BY:	KE

C.15



- NOTES:
1. FULL PVC OR IRON SADDLE MAY BE USED TO CONNECT TO EXISTING PVC, CLAY, CONCRETE, OR IRON PIPE.
 2. SADDLES MUST HAVE RUBBER GASKETS AND SHALL BE TIGHTENED WITH STRAPS. SADDLES WILL NOT BE CEMENTED ONTO THE PIPE.
 3. FULL WYE CONNECTION FITTINGS MAY BE USED.
 4. PIPE SHALL BE CUT TO CONFORM TO THE OPENING IN THE SADDLE.
 5. CONNECTIONS DIRECTLY INTO THE EXISTING PIPE WITHOUT A SADDLE OR A FULL WYE FITTING ARE NOT ALLOWED.

TYPICAL SADDLE CONNECTION TO SEWER
 NOT TO SCALE

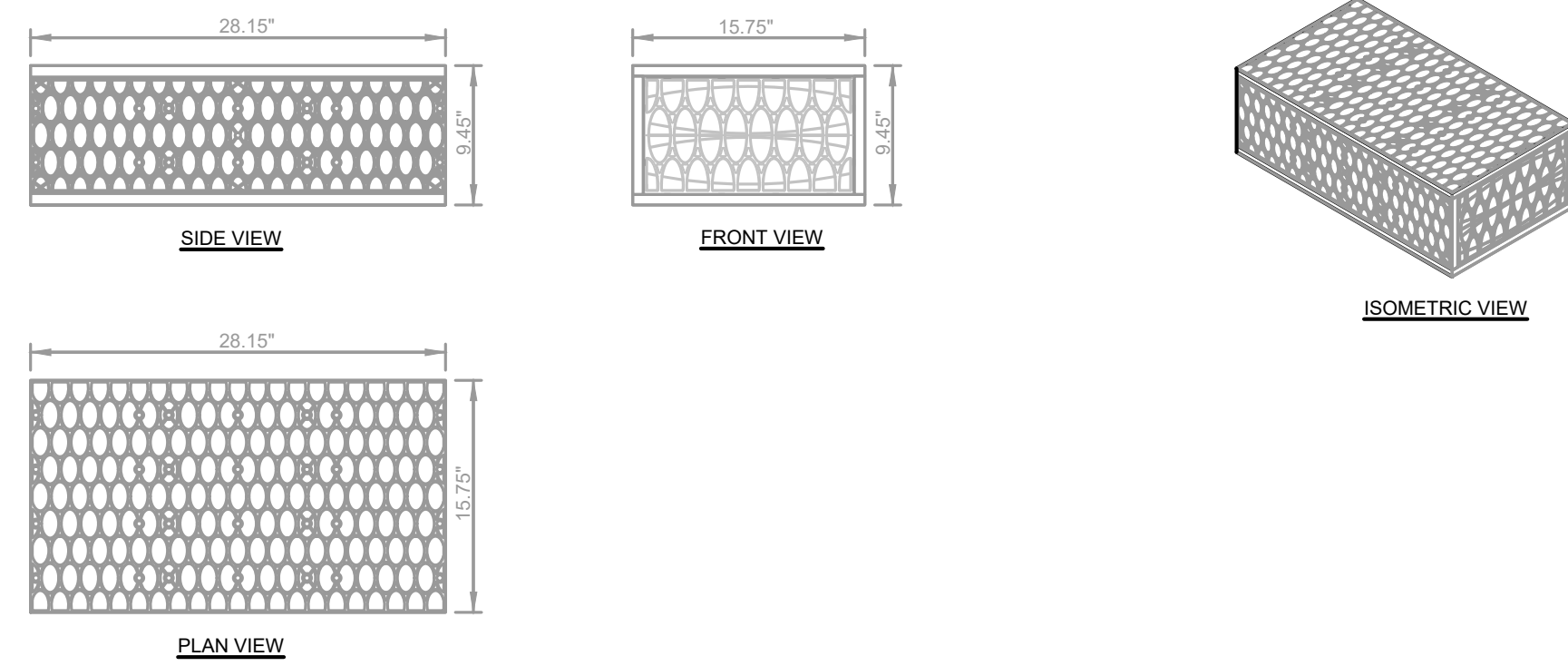


FERGUSON WATERWORKS
 R-TANK^{HD} TRIPLE MODULE

MODULE DATA

GEOMETRY: LENGTH = 28.15 IN. (715 MM)	LOAD RATING: 33.4 PSI. (MODULE ONLY)
WIDTH = 15.75 IN. (400 MM)	HS20/HS25 - SEE SPEC FOR COVER REQUIREMENTS
HEIGHT = 50.39 IN. (1280 MM)	MATERIAL: 100% RECYCLED POLYPROPYLENE
TANK VOLUME = 12.93 CF	SMALL PLATES REQUIRED: 5/SEGMENT, 15/MODULE
VOID INTERNAL VOLUME: 95%	
VOID SURFACE AREA: 90%	

NOT TO SCALE 05/16/2022



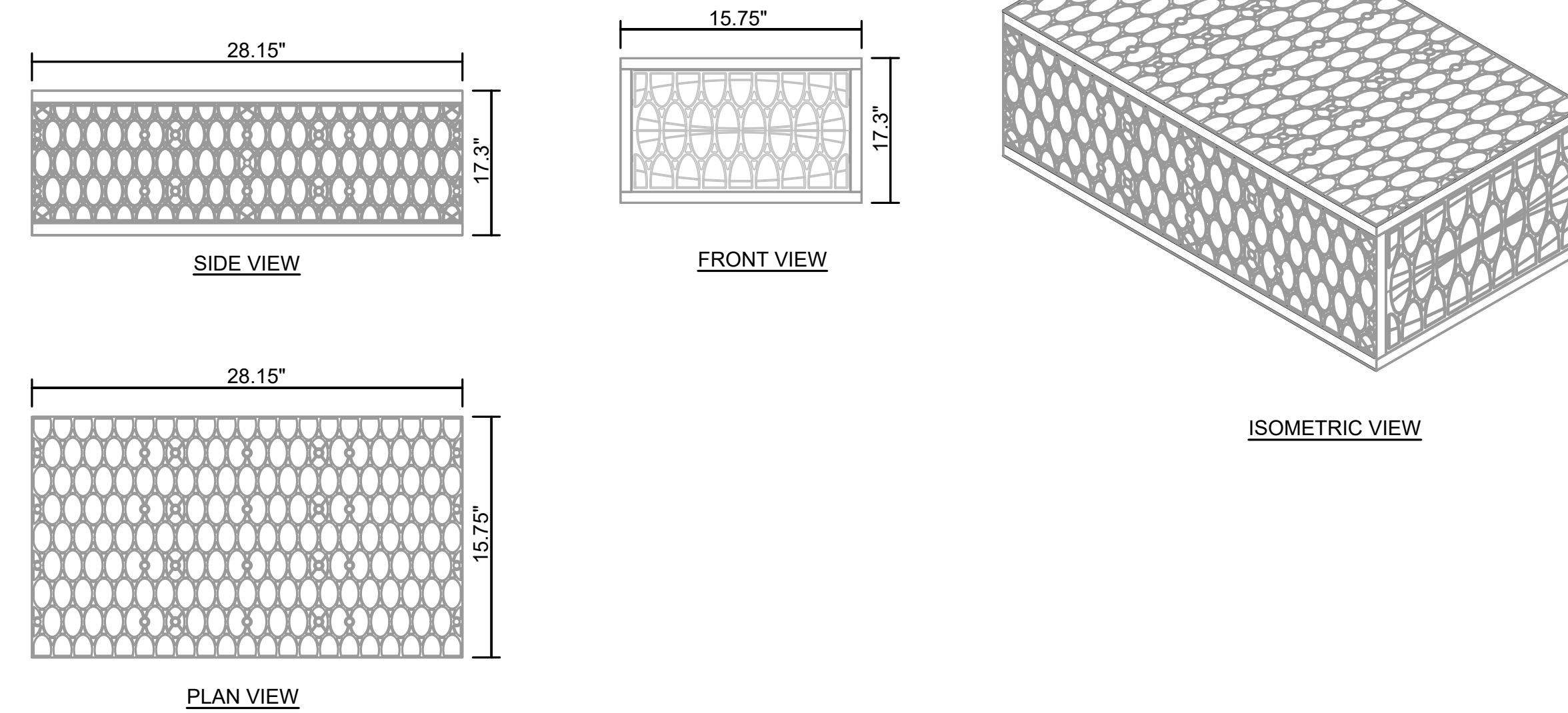
MODULE DATA

GEOMETRY: LENGTH = 28.15 IN. (715 MM) WIDTH = 15.75 IN. (400 MM) HEIGHT = 9.45 IN. (240 MM) STORAGE VOLUME = 2.30 CF (65 L) VOID INTERNAL VOLUME: 95% VOID SURFACE AREA: 90%	LOAD RATING: 50 PSI (MODULE ONLY) HS25, (WITH ACF COVER SYSTEM)	MATERIAL: 85% RECYCLED POLYPROPYLENE
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SMALL PLATES PER SEGMENT/TOTAL: 5/5



R-TANK^{HD} - MINI MODULE



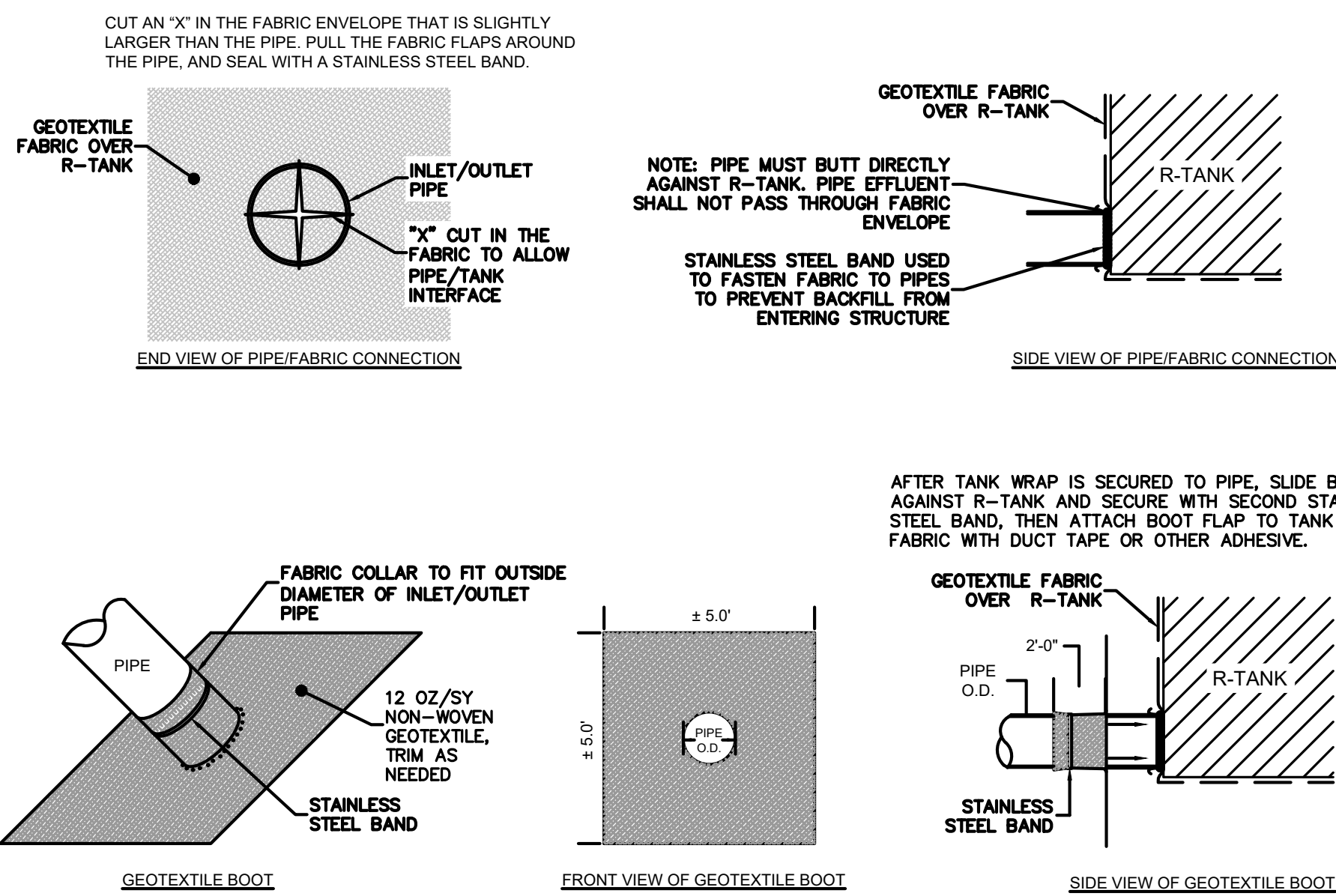
MODULE DATA

GEOMETRY: LENGTH = 28.15 IN. WIDTH = 15.75 IN. HEIGHT = 17.3 IN. STORAGE VOLUME = 4.2 CF VOID INTERNAL VOLUME: 95% VOID SURFACE AREA: 90%	LOAD RATING: 50 PSI (MODULE ONLY) HS25, (WITH ACF COVER SYSTEM)	MATERIAL: 85% RECYCLED POLYPROPYLENE
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SMALL PLATES PER SEGMENT/TOTAL: 5/5



R-TANK^{HD} - SINGLE MODULE

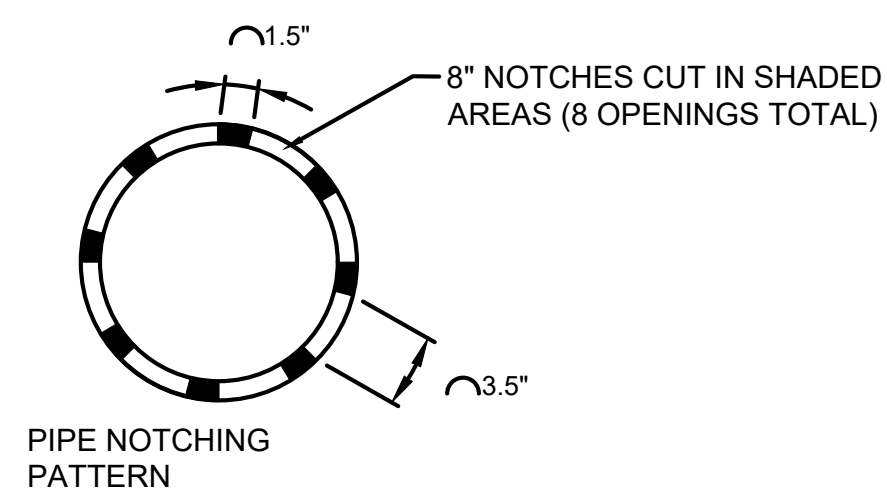
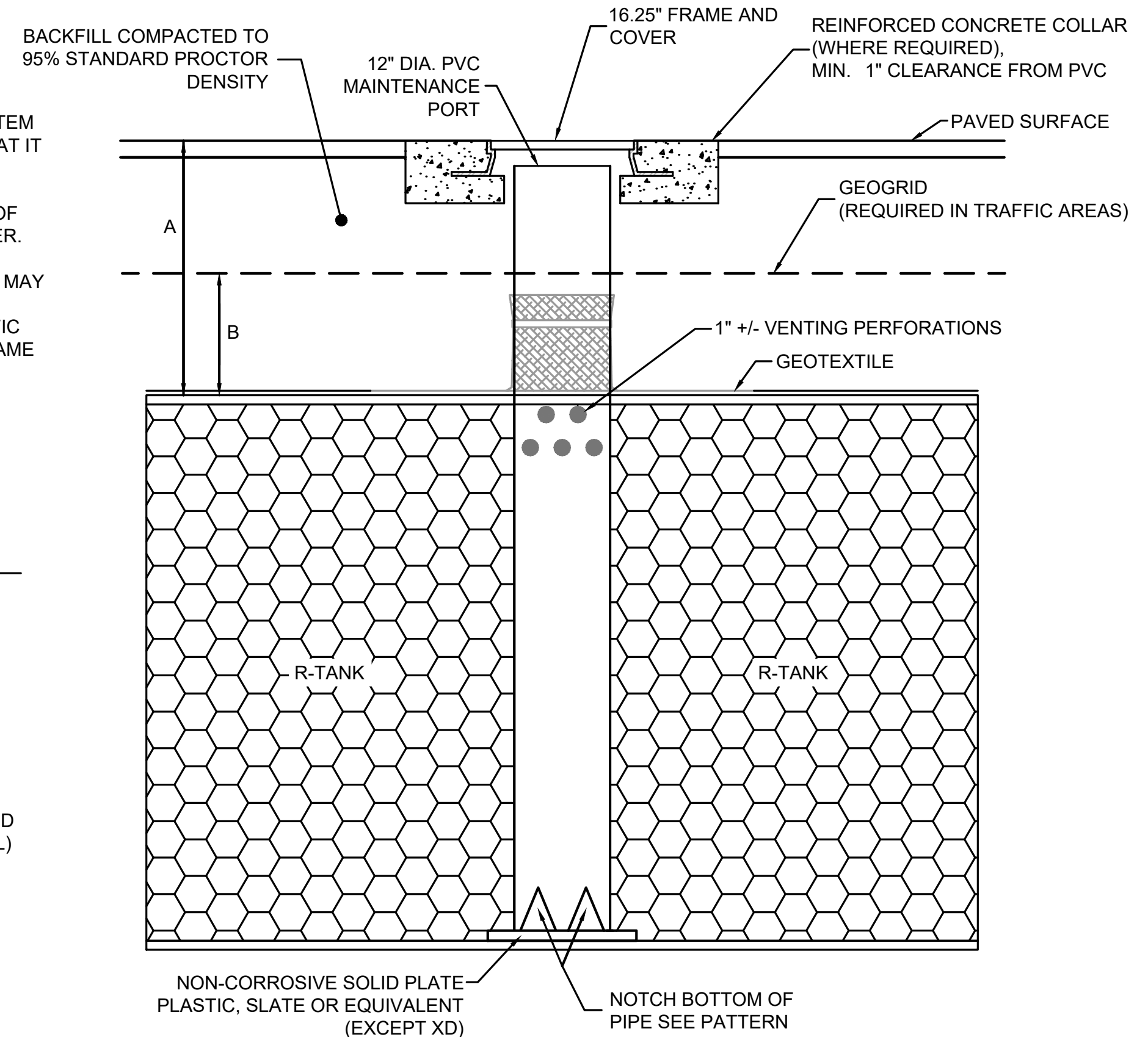


R-TANK TYPICAL INLET/OUTLET W/ GEOTEXTILE BOOT

- NOTES**
- THIS PORT IS USED TO PUMP WATER INTO THE SYSTEM AND RE-SUSPEND ACCUMULATED SEDIMENT SO THAT IT MAY BE PUMPED OUT.
 - MINIMUM REQUIRED MAINTENANCE INCLUDES A QUARTERLY INSPECTION DURING THE FIRST YEAR OF OPERATION AND A YEARLY INSPECTION THEREAFTER. FLUSH AS NEEDED.
 - ONLY R-TANK^{HD}, R-TANK^{SD}, R-TANK^{JD}, AND R-TANK^{XD} MAY BE USED IN TRAFFIC APPLICATIONS.
 - IF MAINTENANCE PORT IS LOCATED IN A NON-TRAFFIC AREA, A PLASTIC CAP CAN BE USED IN LEU OF A FRAME AND COVER AND COVER WITH CONCRETE COLLAR.

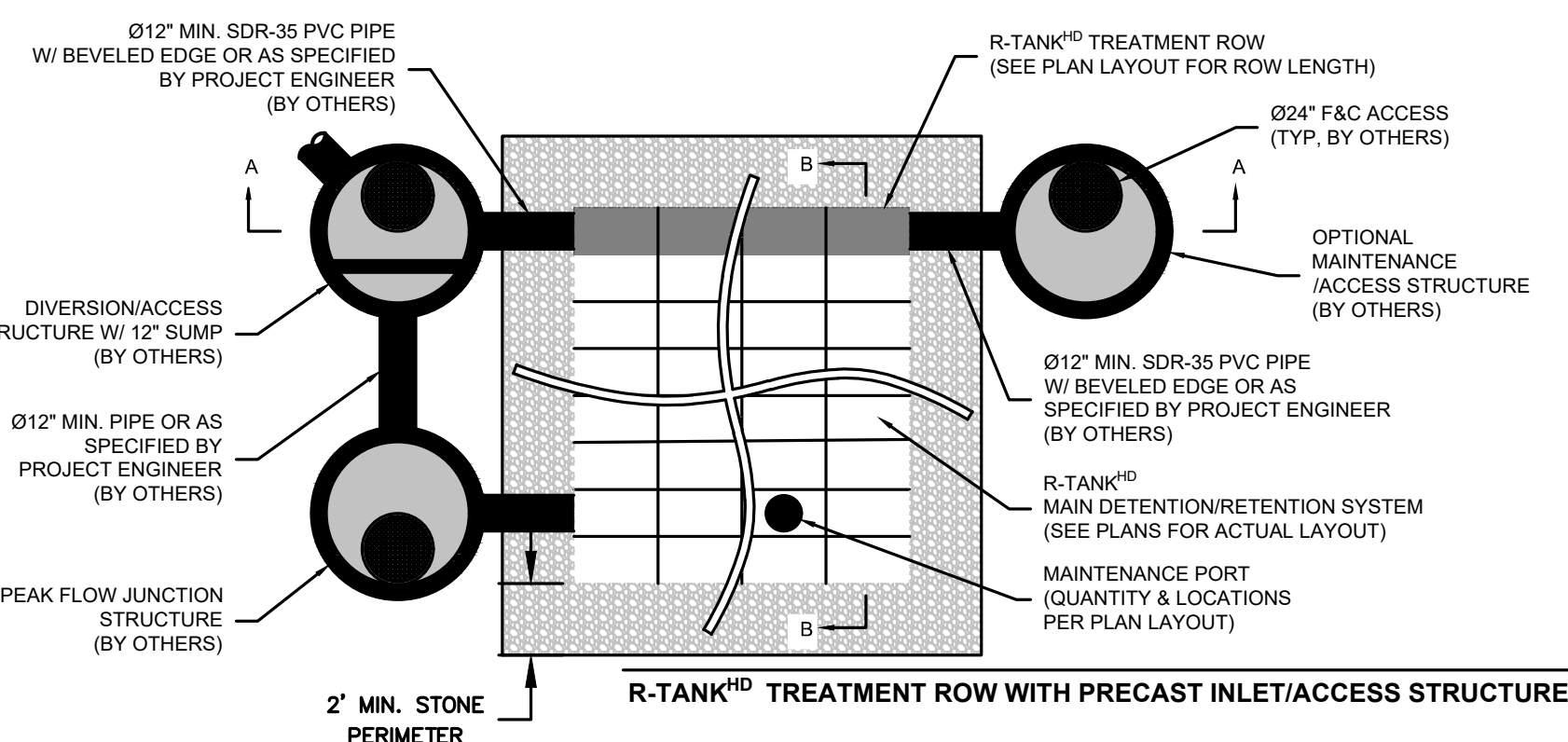
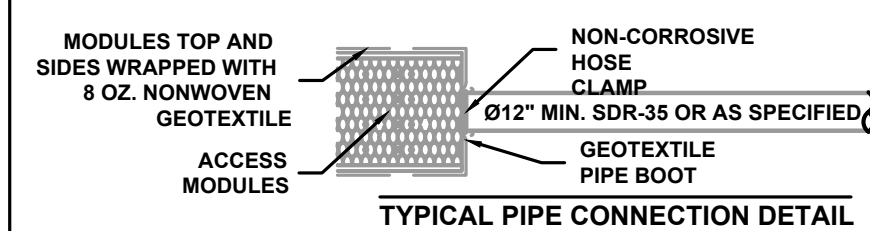
DEPTH SUMMARY

TYPE	A	B
R-TANK ^{LD}	12" MIN - 36" MAX	AS SHOWN ON PLANS
R-TANK ^{HD}	20" MIN - 6.99' MAX	12"
R-TANK ^{SD}	18" MIN - 9.99' MAX	12"
R-TANK ^{JD}	12" MIN - 5.00' MAX	12"
R-TANK ^{XD}	6" MIN - 16.67' MAX	N/A



R-TANK MAINTENANCE PORT

NOTE: IF PIPE CONNECTING TO TREATMENT ROW IS LARGER THAN Ø12" SDR-35, IT SHALL BE ABUTTED FLUSH TO END PLATE AND SEALED WITH A GEOTEXTILE BOOT.



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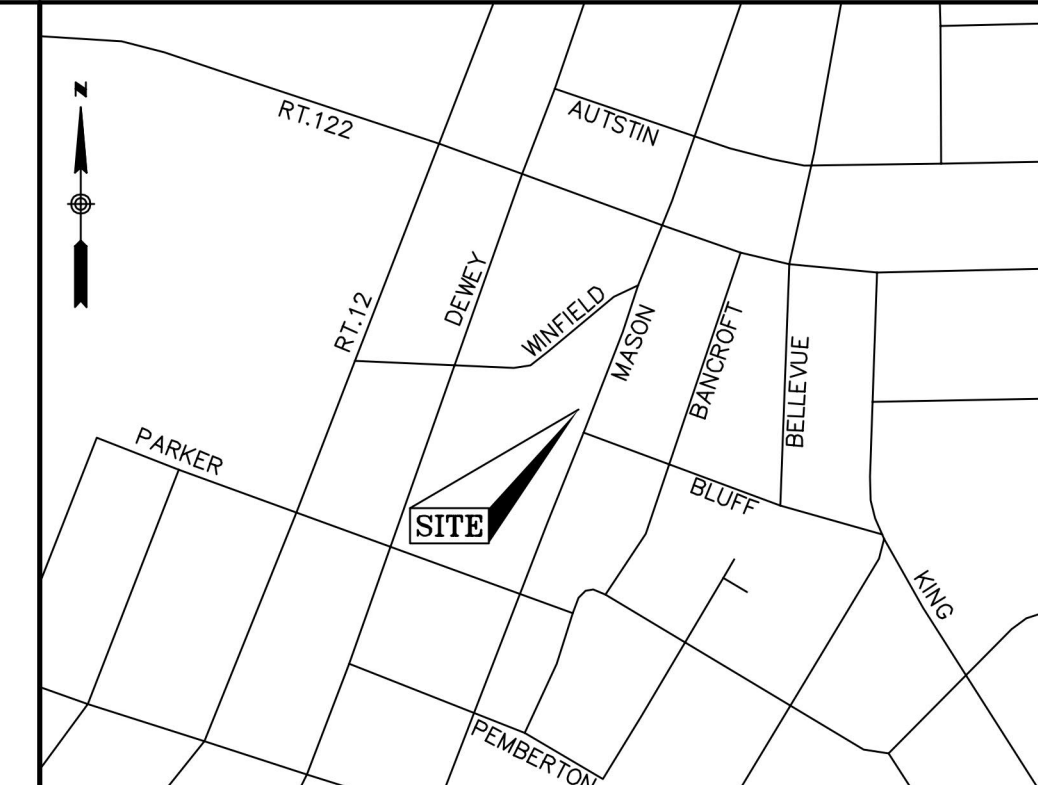
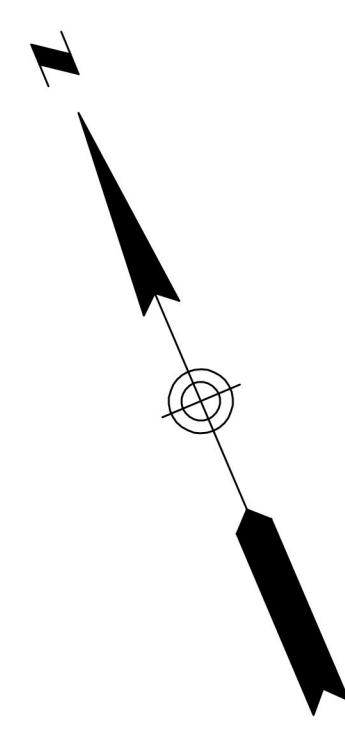
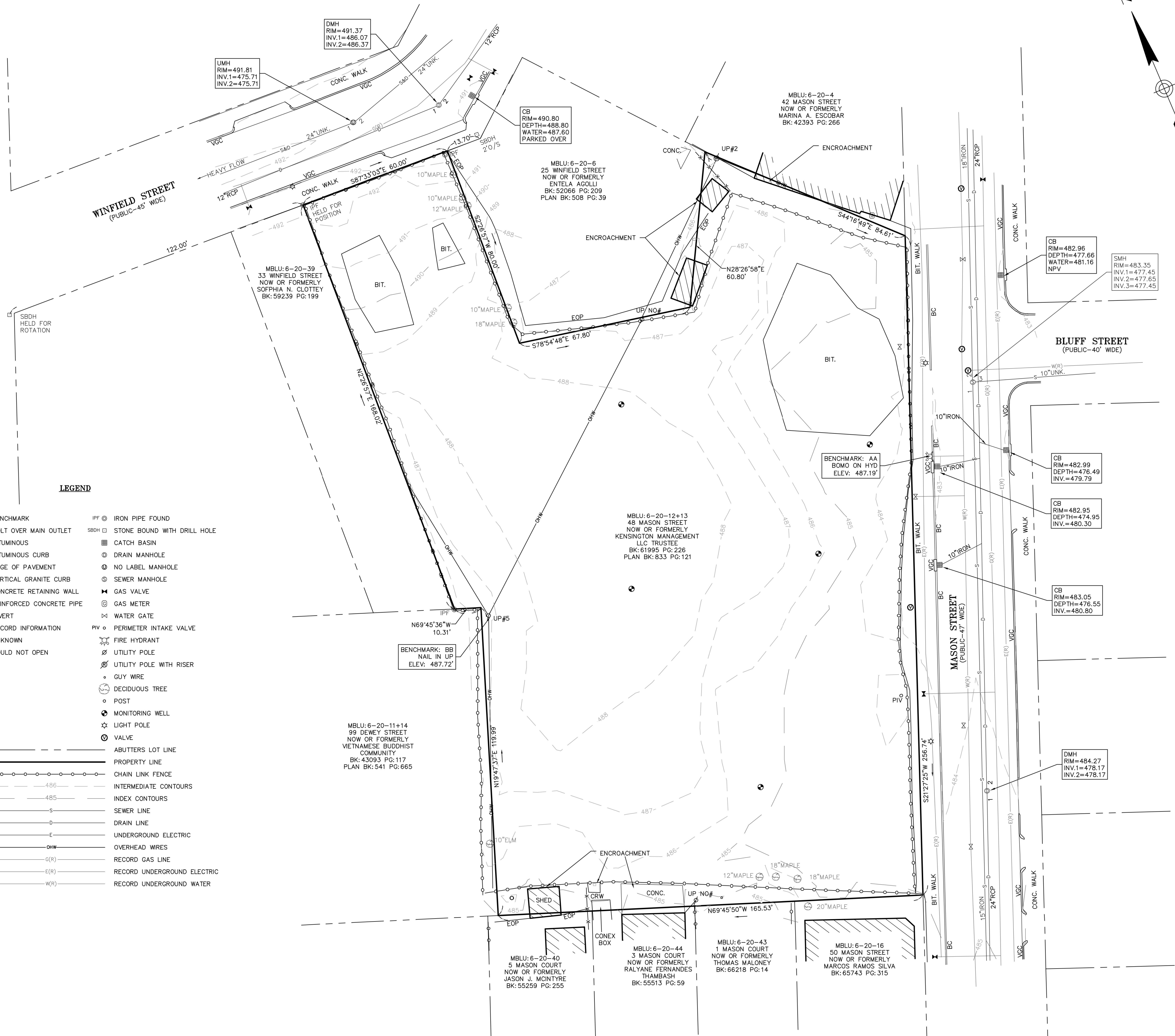
SITE PLAN

DETAIL SHEET
6 OF 7

DATE:	APRIL 11, 2023
PROJECT NUMBER:	22041
DESIGNED BY:	KL
DRAWN BY:	KL
CHECKED BY:	KE

C.16

SHEET 17 OF 18

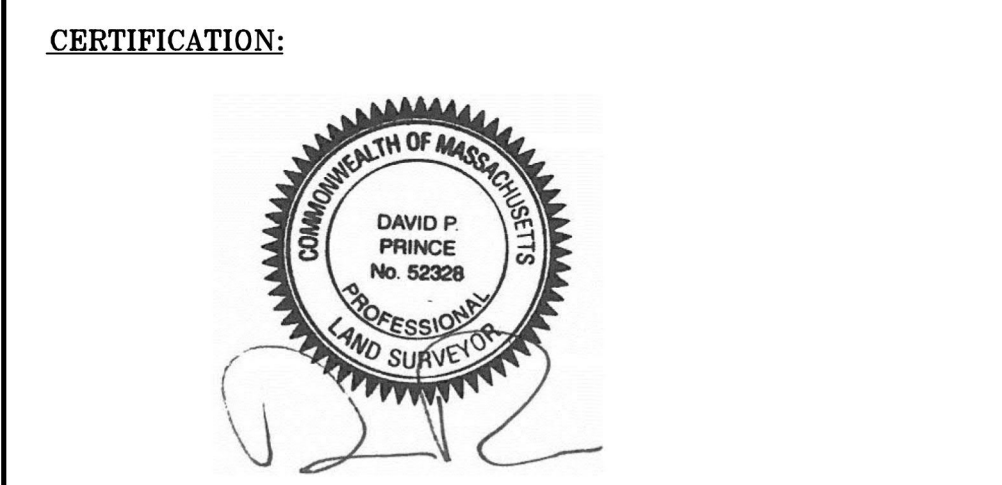


LOCUS MAP (N.T.S.)

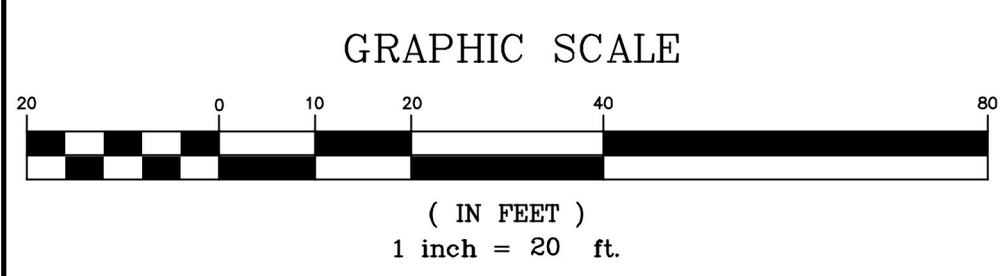
- NOTES**
- THIS PLAN WAS PREPARED FROM AN ACTUAL ON THE GROUND FIELD SURVEY CONDUCTED BY WSP IN JANUARY AND MARCH OF 2023.
 - THE HORIZONTAL DATUM SHOWN HEREON IS REFERENCED TO THE NORTH AMERICAN DATUM OF 1983, MASSACHUSETTS STATE PLANE MAINLAND COORDINATE SYSTEM AND WAS ESTABLISHED UTILIZING RTK GPS SURVEY TECHNIQUES.
 - THE VERTICAL DATUM SHOWN HEREON IS REFERENCED TO NAVD88 AND WAS ESTABLISHED ON SITE UTILIZING RTK GPS SURVEY TECHNIQUES.
 - THE SURVEYED PROPERTY IS SUBJECT BUT NOT LIMITED TO THE INFORMATION SHOWN HEREON. ALL INFORMATION THAT MAY AFFECT THE QUALITY OF THE TITLE TO BOTH THE SUBJECT AND ADJOINING PARCELS SHOULD BE VERIFIED BY AN ACCURATE AND CURRENT TITLE REPORT. THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A CURRENT TITLE REPORT.
 - THE UNDERGROUND UTILITY INFORMATION SHOWN HEREON LABELED WITH AN (R) ARE FROM RECORD DOCUMENTS. ADDITIONAL FIELD INVESTIGATION WILL BE REQUIRED BY OTHERS TO DETERMINE THE ACTUAL PIPE SIZE(S) AND TYPE(S).
 - VARIOUS ENCROACHMENTS WERE OBSERVED AT THE TIME OF THE SURVEY ALONG THE NORTHERLY AND SOUTHERLY BOUNDARY LINES WHICH INCLUDE BUILDINGS, SHEDS AND RETAINING WALLS AS SHOWN HEREON.

UTILITY STATEMENTS

THE LOCATION OF THE UTILITIES AS SHOWN HEREON HAVE BEEN COMPILED FROM VISIBLE STRUCTURES AND INFORMATION OBTAINED FROM VARIOUS SOURCES. THE ACTUAL LOCATION OF ALL UTILITIES AND UNDERGROUND STRUCTURES SHALL BE CONSIDERED APPROXIMATE AND SHALL BE VERIFIED BY THE OWNER PRIOR TO ANY CONSTRUCTION. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICES OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED.



DAVID P. PRINCE, P.L.S. DATE: MARCH 6, 2023
 REG. NO. 52328
 WSP USA, Inc.



REVISION	DATE	DESCRIPTION
---/---/---	---	---

EXISTING CONDITIONS PLAN
 48 MASON STREET
 WORCESTER, MASSACHUSETTS
 PREPARED FOR
 HOWARD STEIN HUDSON



Drawn By MS	Date MARCH 6, 2023	Job No. 30902423.002
Surveyed By JL	Scale 1"=20'	Sheet No. 1 OF 1
Checked By DPP	Book No. M-19	

- LEGEND**
- BMK BENCHMARK
 - BOMO BOLT OVER MAIN OUTLET
 - BIT. BITUMINOUS
 - BC BITUMINOUS CURB
 - EOP EDGE OF PAVEMENT
 - VGC VERTICAL GRANITE CURB
 - CRW CONCRETE RETAINING WALL
 - RCP REINFORCED CONCRETE PIPE
 - INV. INVERT
 - (R) RECORD INFORMATION
 - UNK. UNKNOWN
 - CNO COULD NOT OPEN
 - IPF IRON PIPE FOUND
 - SBMH STONE BOUND WITH DRILL HOLE
 - CATCH BASIN
 - DRAIN MANHOLE
 - NO LABEL MANHOLE
 - SEWER MANHOLE
 - GAS VALVE
 - GAS METER
 - WATER GATE
 - PERIMETER INTAKE VALVE
 - FIRE HYDRANT
 - UTILITY POLE
 - UTILITY POLE WITH RISER
 - GUY WIRE
 - DECIDUOUS TREE
 - POST
 - MONITORING WELL
 - LIGHT POLE
 - VALVE
 - ABUTTERS LOT LINE
 - PROPERTY LINE
 - CHAIN LINK FENCE
 - INTERMEDIATE CONTOURS
 - INDEX CONTOURS
 - SEWER LINE
 - DRAIN LINE
 - UNDERGROUND ELECTRIC
 - OVERHEAD WIRES
 - RECORD GAS LINE
 - RECORD UNDERGROUND ELECTRIC
 - RECORD UNDERGROUND WATER