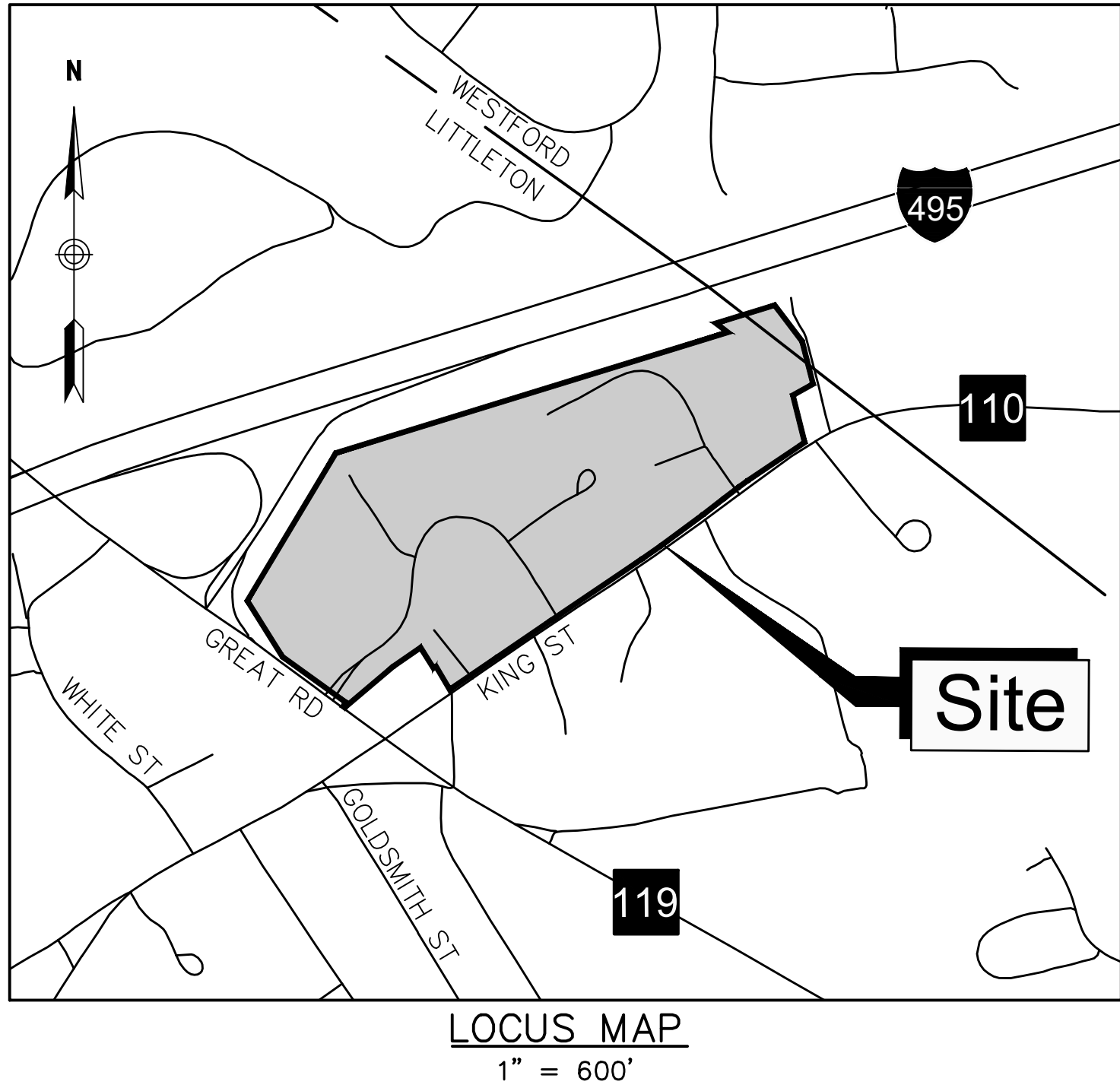


Site Plans

King Street Commons - Definitive Subdivision Plan

550 King Street
Littleton, Massachusetts 01460

Index of Sheets		
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C-1	Title & Index Sheet	August 22, 2023
C-2	Legend & General Notes	August 22, 2023
C-3	Index Sheet	August 22, 2023
C-4 -7	Erosion & Sediment Control Plan A-D	August 22, 2023
C-8-11	Site Plan A-D	August 22, 2023
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C-21	Sewer Pipe tables	August 22, 2023
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C-50	Construction Details	August 22, 2023



Reference Plans Index		
No.	Drawing Title	Latest Issue
1	Definitive Subdivision Plan of Land	August 22, 2023

DRAWING TITLE

Title & Index Sheet

SUBDIVISION NAME & LOCATION

King Street Commons
550 King Street
Littleton, MA 01460

OWNER / APPLICANT / SUBDIVIDER

Lupoli Companies
290 Merrimack Street
Lawrence, MA 01840

DESIGNER / ENGINEER

TEC

The Engineering Corp

TEC, Inc.
282 Merrimack Street, 2nd Floor
Lawrence, Massachusetts 01843
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C-1

SHEET 1 OF 50

REGISTERED PROFESSIONAL ENGINEER

RICHARD J. FRIBERG JR.
CIVIL
No. 47850

GENERAL NOTES

- CONTRACTOR SHALL NOTIFY DIG-SAFE (1-888-344-7233) AND THE LOCAL MUNICIPAL WATER & SEWER DEPT. AT LEAST 72 HOURS BEFORE EXCAVATING.
- CONTRACTOR SHALL BE RESPONSIBLE FOR SITE SECURITY AND JOB SAFETY. CONSTRUCTION ACTIVITIES SHALL BE IN ACCORDANCE WITH OSHA STANDARDS AND LOCAL REQUIREMENTS. A 6-FOOT TEMPORARY CHAINLINK FENCE SHALL BE PROVIDED AROUND ALL CONSTRUCTION ACTIVITIES. CONTRACTOR SHALL LEAVE NO UNSECURED OPEN EXCAVATIONS.
- HANDICAP ACCESSIBLE ROUTES, PARKING SPACES, RAMPS, SIDEWALKS AND WALKWAYS SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE FEDERAL AMERICANS WITH DISABILITIES ACT/ARCHITECTURAL ACCESS BOARD (AAB), AND WITH STATE AND LOCAL LAWS AND REGULATIONS (WHICHEVER ARE MORE STRINGENT).
- WORK WITHIN THE LOCAL RIGHT-OF-WAY SHALL CONFORM TO LOCAL MUNICIPAL STANDARDS. WORK WITHIN STATE RIGHT-OF-WAY SHALL CONFORM TO THE LATEST EDITION OF THE STATE HIGHWAY DEPARTMENT STANDARD SPECIFICATION FOR HIGHWAYS AND BRIDGES.
- UPON AWARD OF CONTRACT, CONTRACTOR SHALL MAKE NECESSARY CONSTRUCTION NOTIFICATIONS AND APPLY FOR AND OBTAIN NECESSARY PERMITS, PAY FEES, AND POST BONDS ASSOCIATED WITH THE WORK INDICATED ON THE DRAWINGS, IN THE SPECIFICATIONS, AND IN THE CONTRACT DOCUMENTS. DO NOT CLOSE OR OBSTRUCT ROADWAYS, SIDEWALK, AND FIRE HYDRANTS, WITHOUT APPROPRIATE PERMITS.
- TRAFFIC SIGNAGE AND PAVEMENT MARKINGS SHALL CONFORM TO THE CURRENT EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
- AREAS OUTSIDE THE LIMITS OF PROPOSED WORK DISTURBED BY THE CONTRACTOR SHALL BE RESTORED TO THEIR ORIGINAL CONDITION AT NO ADDITIONAL COST TO THE OWNER.
- IN THE EVENT THAT SUSPECTED CONTAMINATED SOIL, GROUNDWATER, AND OTHER MEDIA ARE ENCOUNTERED DURING EXCAVATION AND CONSTRUCTION ACTIVITIES BASED ON VISUAL, OLFACTORY, OR OTHER EVIDENCE, THE CONTRACTOR SHALL STOP WORK IN THE VICINITY OF THE SUSPECT MATERIAL TO AVOID FURTHER SPREADING OF THE MATERIAL, AND SHALL NOTIFY THE OWNER IMMEDIATELY SO THAT THE APPROPRIATE TESTING AND SUBSEQUENT ACTION CAN BE TAKEN.
- CONTRACTOR SHALL PREVENT DUST, SEDIMENT, AND DEBRIS FROM EXITING THE SITE AND SHALL BE RESPONSIBLE FOR CLEANUP, REPAIRS AND CORRECTIVE ACTION IF SUCH OCCURS.
- CONTRACTOR SHALL CONTROL STORMWATER RUNOFF DURING CONSTRUCTION TO PREVENT ADVERSE IMPACTS TO OFF SITE AREAS, AND SHALL BE RESPONSIBLE TO REPAIR RESULTING DAMAGES, IF ANY, AT NO COST TO OWNER.
- CONTRACTOR TO FILE A NOTICE OF INTENT FOR COVERAGE UNDER THE CONSTRUCTION GENERAL PERMIT (CGP) AND PREPARE A STORMWATER POLLUTION PREVENTION PLAN (SWPPP) PRIOR TO START OF CONSTRUCTION.
- CONTRACTOR SHALL PREPARE AND MAINTAIN SWPPP IN ACCORDANCE WITH THE US EPA CGP AND NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT REQUIREMENTS.

GRADING & DRAINAGE NOTES:

- THE LOCATIONS, SIZES, AND TYPES OF EXISTING UNDERGROUND UTILITIES ARE SHOWN AS AN APPROXIMATE REPRESENTATION ONLY. THE OWNER OR ITS REPRESENTATIVE(S) HAVE NOT INDEPENDENTLY VERIFIED THIS INFORMATION AS SHOWN ON THE PLANS. THE UTILITY INFORMATION SHOWN DOES NOT GUARANTEE THE ACTUAL EXISTENCE, SERVICEABILITY, OR OTHER DATA CONCERNING THE UTILITIES, NOR DOES IT GUARANTEE AGAINST THE POSSIBILITY THAT ADDITIONAL UTILITIES MAY BE PRESENT THAT ARE NOT SHOWN ON THE PLANS. PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION THE CONTRACTOR SHALL VERIFY AND DETERMINE THE EXACT LOCATION, SIZES, AND ELEVATION OF EXISTING UTILITIES.
- WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, OR EXISTING CONDITIONS DIFFER FROM THOSE SHOWN SUCH THAT THE WORK CANNOT BE COMPLETED AS INTENDED, THE LOCATION, ELEVATION, AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION FURNISHED IN WRITING TO THE OWNER'S REPRESENTATIVE FOR THE RESOLUTION OF THE CONFLICT. FAILURE TO PROVIDE OR PERFORM THE ABOVE PRIOR TO PERFORMING ANY WORK SHALL NOT BE GROUNDS FOR EXTRA PAYMENTS TO THE CONTRACTOR.
- AT ALL LOCATIONS WHERE EXISTING CURBING OR PAVEMENT ABUTS NEW CONSTRUCTION, THE EDGE OF THE EXISTING CURB OR PAVEMENT SHALL BE SAW CUT TO A CLEAN, SMOOTH EDGE. BLEND NEW PAVEMENT, CURBS, AND EARTHWORK SMOOTHLY INTO EXISTING BY MATCHING LINES, GRADES, AND JOINTS.
- THE CONTRACTOR SHALL MAKE ALL ARRANGEMENTS FOR THE ALTERATION AND ADJUSTMENT OF GAS, ELECTRIC, TELEPHONE AND ANY OTHER PRIVATE UTILITIES BY THE UTILITY COMPANIES, AS REQUIRED.
- ALL UTILITY COVERS, GRATES, ETC. SHALL BE ADJUSTED TO BE FLUSH WITH THE PAVEMENT FINISH GRADE UNLESS OTHERWISE NOTED.
- EXISTING TREES AND SHRUBS OUTSIDE THE LIMITS OF GRADING SHALL BE REMOVED ONLY UPON PRIOR APPROVAL OF THE OWNER.
- ALL SANITARY SEWER PIPE SHALL BE SDR-35 PVC UNLESS OTHERWISE NOTED.
- WATER LINE SHALL BE CLASS 52 CEMENT LINED DUCTILE IRON.
- ALL DRAINAGE PIPING SHALL BE HDPE UNLESS OTHERWISE NOTED
- INSULATE SANITARY PIPES WHERE INVERT DEPTH IS LESS THAN FIVE (5) FEET BELOW FINISHED GRADE.
- CONTRACTOR SHALL PROTECT ALL UNDERGROUND DRAINAGE, SEWER AND UTILITY FACILITIES FROM EXCESSIVE VEHICULAR LOADS DURING CONSTRUCTION. ANY DAMAGE TO THESE FACILITIES RESULTING FROM CONSTRUCTION LOADS WILL BE RESTORED TO ORIGINAL CONDITION (AT NO ADDITIONAL COST TO THE OWNER) BY THE CONTRACTOR.
- ALL WATER AND SEWER UTILITY WORK SHALL CONFORM TO LOCAL DPW, WATER DIVISION SPECIFICATIONS, DETAILS, RULES AND REGULATIONS AND HAVE FIVE (5) FEET OF MINIMUM COVER. GAS, ELECTRIC, AND TELEPHONE LOCATIONS AND ROUTING ARE SUBJECT TO REVIEW AND APPROVAL BY THE APPROPRIATE UTILITY COMPANIES.
- THE CONTRACTOR SHALL REMOVE ALL EROSION CONTROL BARRIERS AFTER REVEGETATION OF DISTURBED AREAS AND AFTER APPROVAL BY THE LOCAL APPROVING AUTHORITY.
- EXCAVATION REQUIRED IN THE PROXIMITY OF EXISTING UTILITY LINES SHALL BE DONE BY HAND. CONTRACTOR SHALL REPAIR ANY DAMAGE TO EXISTING UTILITY LINES OR STRUCTURES INCURRED DURING CONSTRUCTION OPERATIONS AT NO COST TO THE OWNER.
- THE CONTRACTOR SHALL SCHEDULE THEIR WORK TO ALLOW THE FINISHED SUBGRADE ELEVATIONS TO DRAIN PROPERLY WITHOUT PUDDLING. SPECIFICALLY, ALLOW WATER TO ESCAPE WHERE PROPOSED CURB MAY RETAIN RUNOFF PRIOR TO APPLICATION OF THE FINISH SUBGRADE AND/OR SURFACE PAVING.
- UNLESS OTHERWISE INDICATED, ABANDONED EXISTING UTILITY LINES SHALL BE CAPPED AND ABANDONED IN PLACE UNLESS THEY CONFLICT WITH PROPOSED IMPROVEMENTS, WHERE THEY SHALL THEN BE REMOVED. CAP REMAINING PORTIONS WHERE PARTIALLY REMOVED.
- MINIMUM MANHOLE DIAMETER IS 4'. CONTRACTOR SHALL VERIFY, THROUGH SHOP DRAWING SUBMITTALS TO THE ENGINEER, ACTUAL SIZES NEEDED TO ACCOMMODATE SPECIFIED PIPES.
- DETAILED UTILITY SURVEY AND PLAN SHALL BE PROVIDED PRIOR TO CONSTRUCTION.

PROPOSED CONSTRUCTION SEQUENCING

- SELECTIVELY REMOVE VEGETATION FOR COMPOST FILTER TUBE INSTALLATION;
- INSTALL COMPOST FILTER TUBE;
- INSTALL CONSTRUCTION FENCING AT LIMITS OF WORK, AND NO-DISTURB/TREE SAVE AREAS, IF ANY;
- STABILIZE CONSTRUCTION ENTRANCES;
- PREPARE CONSTRUCTION TRAILER/STAGING LOCATION;
- CONSTRUCT NEW SEDIMENT BASINS AS NECESSARY;
- STRIP AND STOCKPILE TOPSOIL AND PAVEMENT;
- TEMPORARILY STABILIZE TOPSOIL STOCKPILES (SEED AND SILT FENCE (GRASSED AREA) OR COMPOST FILTER TUBE OR STRAW BALES (PAVEMENT AREA) AROUND TOE OF SLOPE);
- CONDUCT EARTHWORK CUTS AND FILLS TO BRING SITE TO GRADE;
- CONSTRUCT UTILITIES (WATER, SEWER, STORM DRAIN, ETC.);
- CONSTRUCT DRIVEWAY/PARKING/SIDEWALK PAVEMENT AREAS THROUGH BINDER COURSE;
- FINISH GRADE LANDSCAPING AREAS;
- PERMANENTLY STABILIZE LANDSCAPING AREAS WITH SEED/LANDSCAPING;
- CONSTRUCT DRIVEWAY/PARKING AREAS THROUGH TOP COURSE; AND
- REMOVE ALL TEMPORARY SOIL EROSION AND SEDIMENT CONTROL MEASURES UPON PERMANENT SITE STABILIZATION AND APPROVAL BY THE ENGINEER AND TOWN OF LITTLETON.

GENERAL SYMBOLS

EXISTING	PROPOSED	
		CATCH BASIN
		DRAIN MANHOLE
		SEWER MANHOLE
		ELECTRIC MANHOLE
		TELEPHONE MANHOLE
		CABLE MANHOLE
		UNKNOWN MANHOLE
		HANDHOLE
		BOLLARD
		WATER GATE
		FIRE HYDRANT
		GAS GATE
		GAS VALVE
		STREET SIGN
		TRAFFIC SIGNAL
		LIGHT POLE
		UTILITY POLE
		TEST PIT
		EDGE OF PAVEMENT
		GRANITE CURB (TYPE VA 4)
		CONCRETE CURB (MONOLITHIC)
		CHAINLINK FENCE
		DRAINAGE LINE
		SEWER LINE
		WATER LINE
		GAS LINE
		UNDERGROUND ELECTRIC LINE
		CABLE/TELEVISION LINE
		OVERHEAD WIRE
		TREE LINE
		ENTRANCE/EXIT DOOR
		BASELINE
		TOWN LAYOUT
		PROPERTY LINE
		HIGHWAY/PROPERTY BOUND (TYPE NOTED)
		WHEELCHAIR RAMP
		TREE (SIZE AND TYPE NOTED)

PAVEMENT MARKINGS AND SIGNING SYMBOLS

EXISTING	PROPOSED	
		CROSSWALK, 12" WHITE LINE (WIDTH NOTED)
		STOP LINE, 12" WHITE LINE 4' BEHIND CW (TYP.)
		SOLID WHITE LINE-4"
		DOUBLE YELLOW CENTER LINE- 2-4" LINES
		TRAFFIC FLOW SYMBOL

ABBREVIATIONS

GENERAL	UTILITIES
ABAN	AD
ADJ	ADJUST
APPROX	APPROXIMATE
BLDG	BUILDING
BO	BY OTHERS
BM	BENCHMARK
CC	CONCRETE CURB
CEM	CEMENT
CONC	CONCRETE
COORD	COORDINATE
DEMO	DEMOLISH
DIA	DIAMETER
ELEC	ELECTRIC
ELEV	ELEVATION
EXIST	EXISTING
GAL	GALLON
GC	GRANITE CURB
HMA	HOT MIX ASPHALT
LF	LINEAR FEET
MAX	MAXIMUM
MCC	MONOLITHIC CONCRETE CURB
MIN	MINIMUM
MTD	MOUNTED
NTS	NOT TO SCALE
PROP	PROPOSED
PVMT	PAVEMENT
R	RADIUS
REM	REMOVE
RET	RETAIN
SW	SIDEWALK
TYP	TYPICAL
WCR	WHEELCHAIR RAMP
	AD
	CB
	CI
	CLDI
	DCB
	DMH
	GV
	GT
	HDPE
	HYD
	INV
	PVC
	OHW
	SMH
	WQU
	WV
	AREA DRAIN
	CATCH BASIN
	CAST IRON
	CEMENT LINED DUCTILE IRON
	DOUBLE CATCH BASIN
	DRAINAGE MANHOLE
	GAS VALVE
	GREASE TRAP
	HIGH DENSITY POLYETHYLENE PIPE
	HYDRANT
	INVERT ELEVATION
	POLYVINYL CHLORIDE PIPE
	OVER HEAD WIRE
	SEWER MANHOLE
	WATER QUALITY UNIT
	WATER VALVE

DRAWING TITLE

Legend & General Notes

SUBDIVISION NAME & LOCATION

King Street Commons
550 King Street
Littleton, MA 01460

OWNER / APPLICANT / SUBDIVIDER

Lupoli Companies
290 Merrimack Street
Lawrence, MA 01840

DESIGNER / ENGINEER

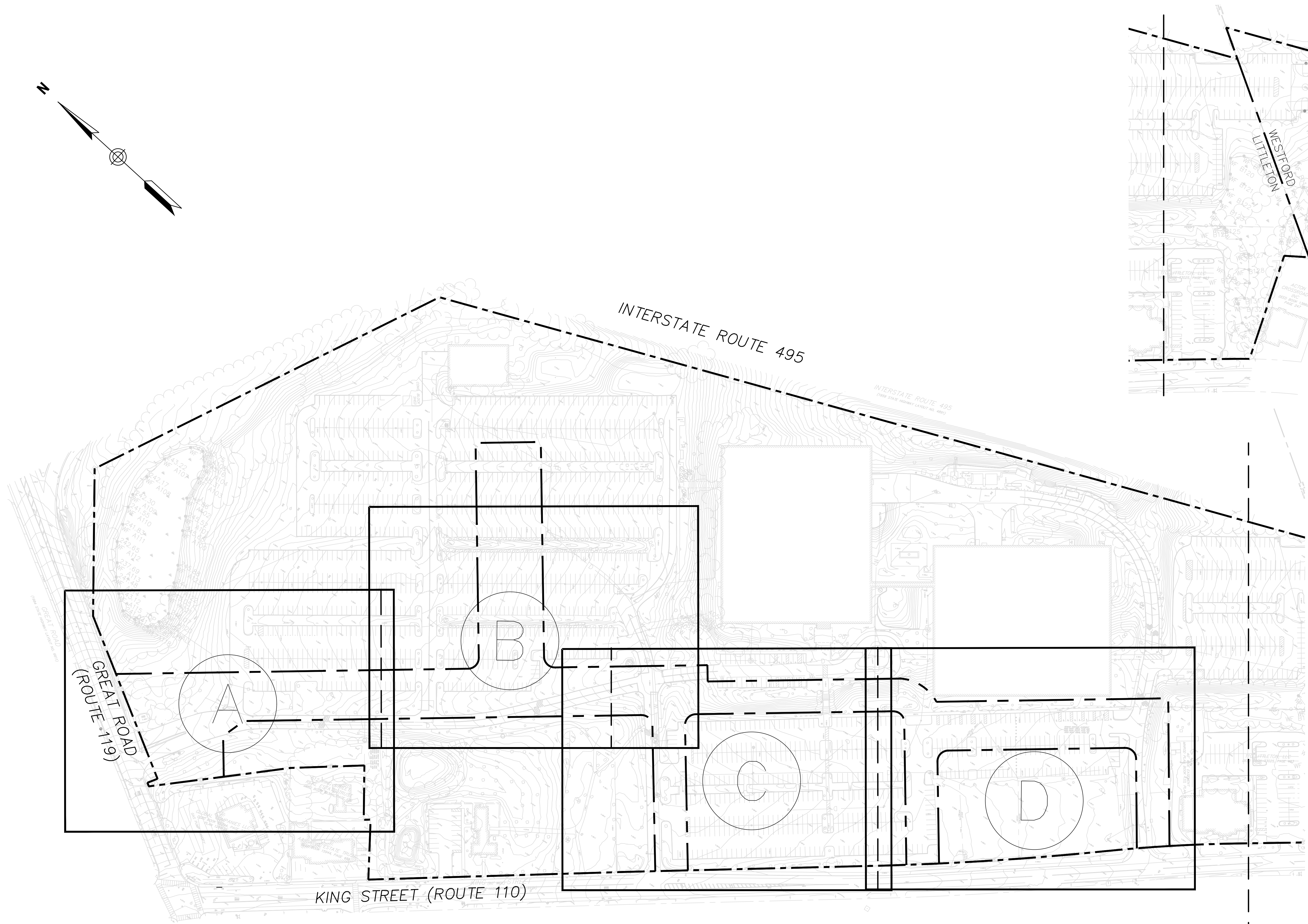
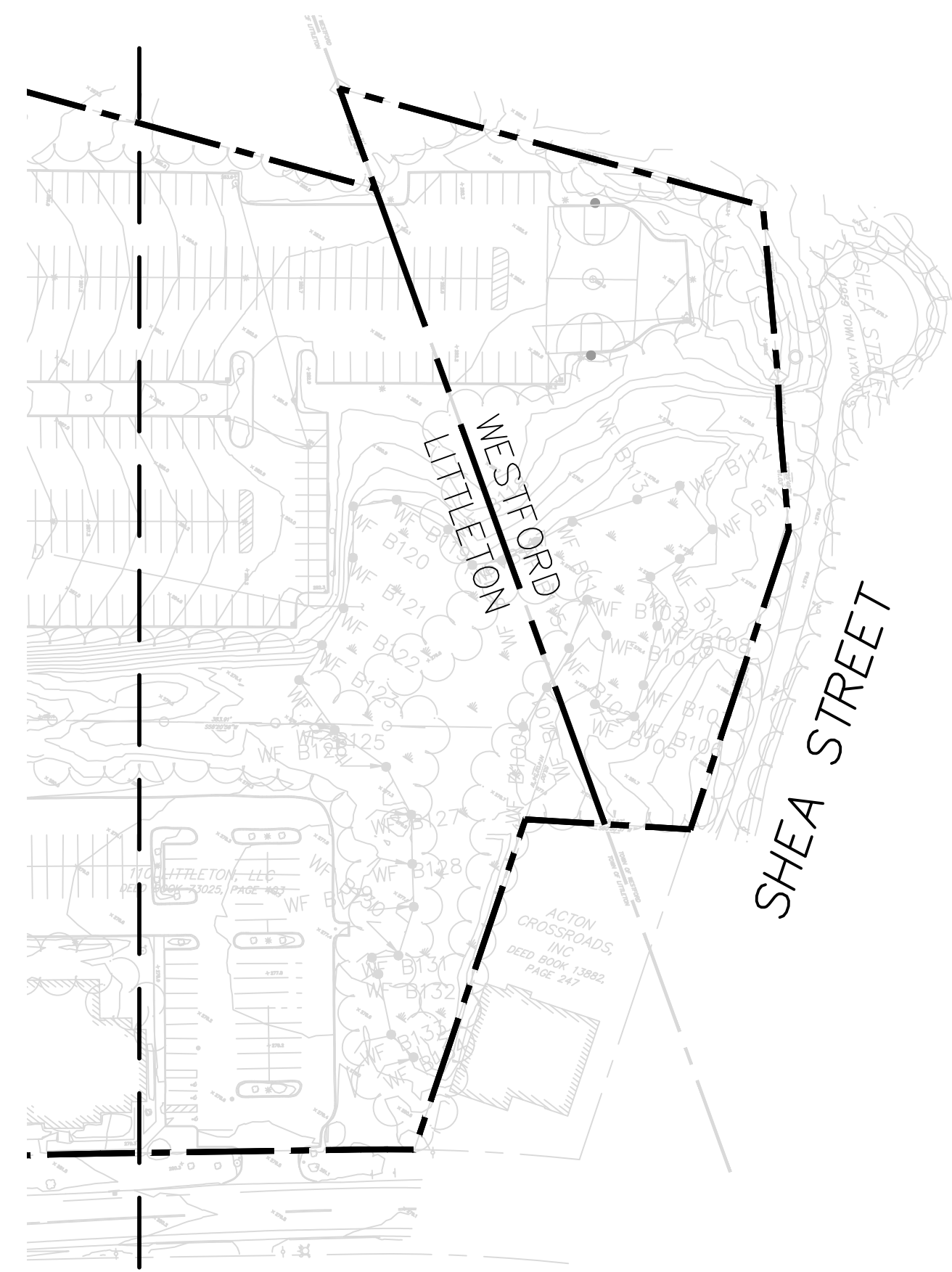
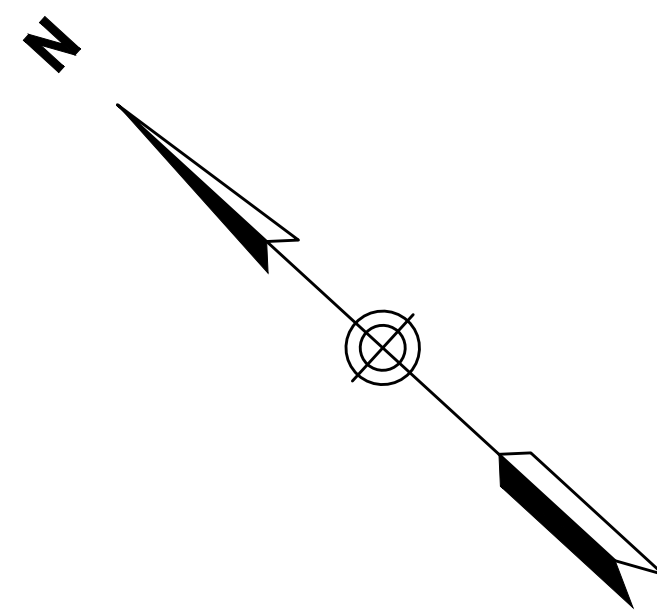


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Index Sheet	
SUBDIVISION NAME & LOCATION	
King Street Commons 550 King Street Littleton, MA 01460	
OWNER / APPLICANT / SUBDIVIDER	
Lupoli Companies 290 Merrimack Street Lawrence, MA 01840	
DESIGNER / ENGINEER	
 TEC, Inc. 282 Merrimack Street, 2nd Floor Lawrence, Massachusetts 01843 978.794.1792 www.TheEngineeringCorp.com Lawrence Hampton Worcester	
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TEC CAD FILE	
T1180_INDEX	
DRAWING NO.	
C-3	
SHEET 3 OF 50	

NOTES:

1.

LAND SHALL BE DEVELOPED IN INCREMENTS OF WORKABLE SIZE WHICH CAN BE COMPLETED DURING A SINGLE CONSTRUCTION SEASON. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE COORDINATED WITH THE SEQUENCE OF GRADING, DEVELOPMENT AND CONSTRUCTION OPERATIONS. CONTROL MEASURES SUCH AS HYDROSEEDING, BERMS, INTERCEPTOR DITCHES, MULCHING, TEMPORARY SODDING, TERRACES, AND SEDIMENT TRAPS SHALL BE PUT INTO EFFECT PRIOR TO THE COMMENCEMENT OF EACH INCREMENT OF THE DEVELOPMENT/CONSTRUCTION PROCESS.
2.

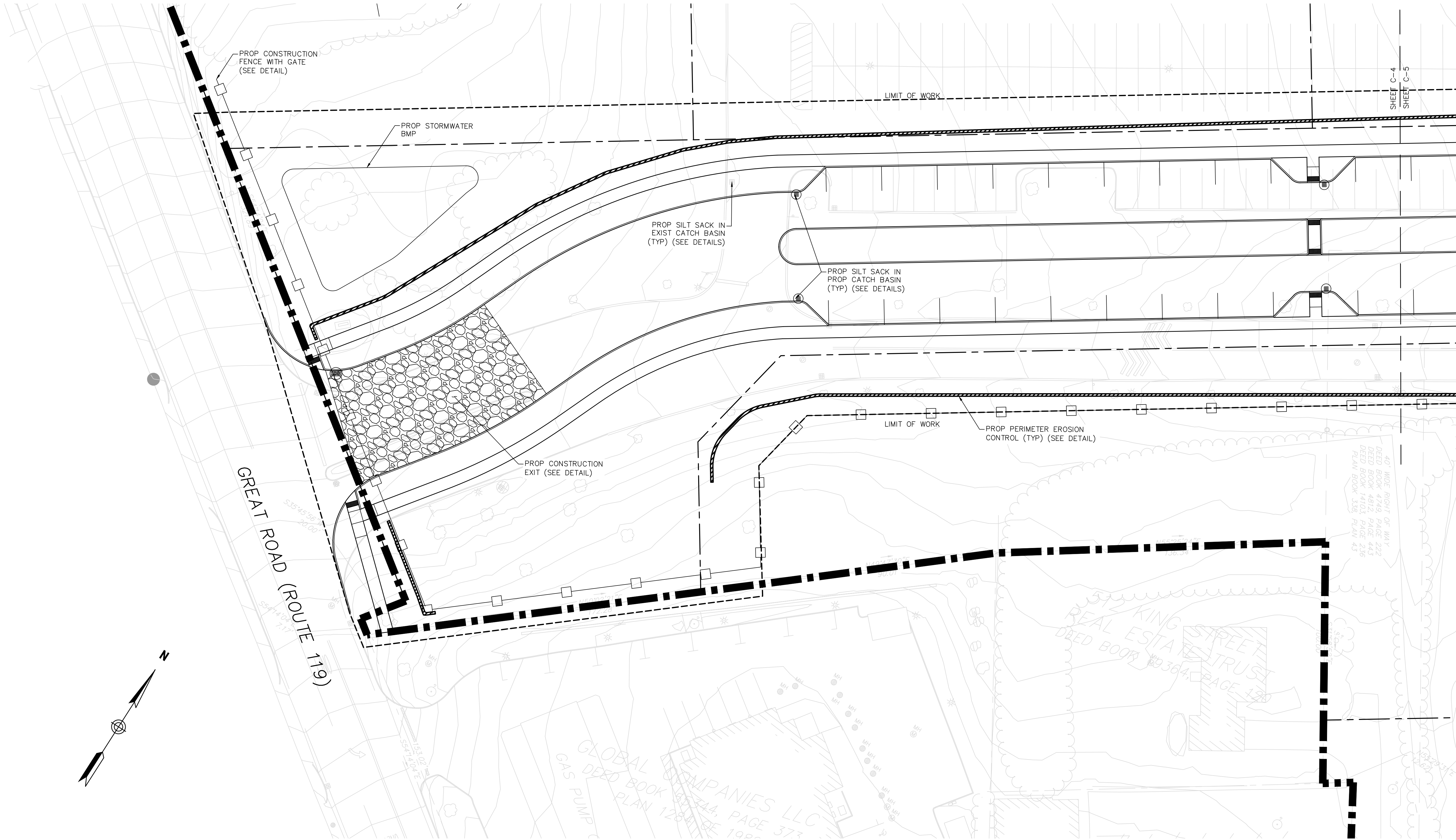
VEGETATIVE COVER AND RUNOFF CHARACTERISTICS SHALL BE MAINTAINED AS CLOSE AS POSSIBLE TO CONDITIONS BEFORE DEVELOPMENT BY REDUCING CUT AND FILL AND OTHER CONSIDERATIONS.
3.

WATER RESOURCES SHALL BE PROTECTED, INCLUDING BUT NOT LIMITED TO FLOODPLAINS, WETLANDS, AQUIFER RECHARGE AREAS, AND TOWN WELL FIELDS.
4.

SEDIMENT BASINS (DEBRIS BASINS, DESILTING BASINS, OR SILT TRAPS) SHALL BE INSTALLED IN CONJUNCTION WITH THE INITIAL GRADING OPERATIONS AND MAINTAINED THROUGH THE DEVELOPMENT PROCESS TO REMOVE SEDIMENT FROM RUNOFF WATERS DRAINING FROM LAND UNDERGOING DEVELOPMENT.
5.

THE APPLICANT IS REQUIRED TO CLEAN UP ANY SAND, DIRT, OR DEBRIS WHICH ERODES FROM THE SUBDIVISION ONTO ANY PUBLIC STREET OR PRIVATE PROPERTY, AND TO REMOVE SILT OR DEBRIS THAT ENTERS ANY EXISTING DRAINAGE SYSTEM INCLUDING CATCH BASIN SUMPS, PIPELINES, MANHOLES AND DITCHES WITHIN 24 HOURS OF BEING NOTED BY THE TOWN.
6.

HAY BALES OR BOARD APPROVED EQUIVALENT MUST BE USED AROUND THE CATCH BASINS ON THE PROPOSED STREETS TO PROTECT THEM FROM THE ERODING SOILS AND PROVIDE A CHECK DAM TO SLOW RUNOFF DURING CONSTRUCTION.



DRAWING TITLE
Erosion & Sedimentation Control Plan A

SUBDIVISION NAME & LOCATION
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Littleton, MA 01460

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Lupoli Companies
290 Merrimack Street
Lawrence, MA 01840

DESIGNER / ENGINEER

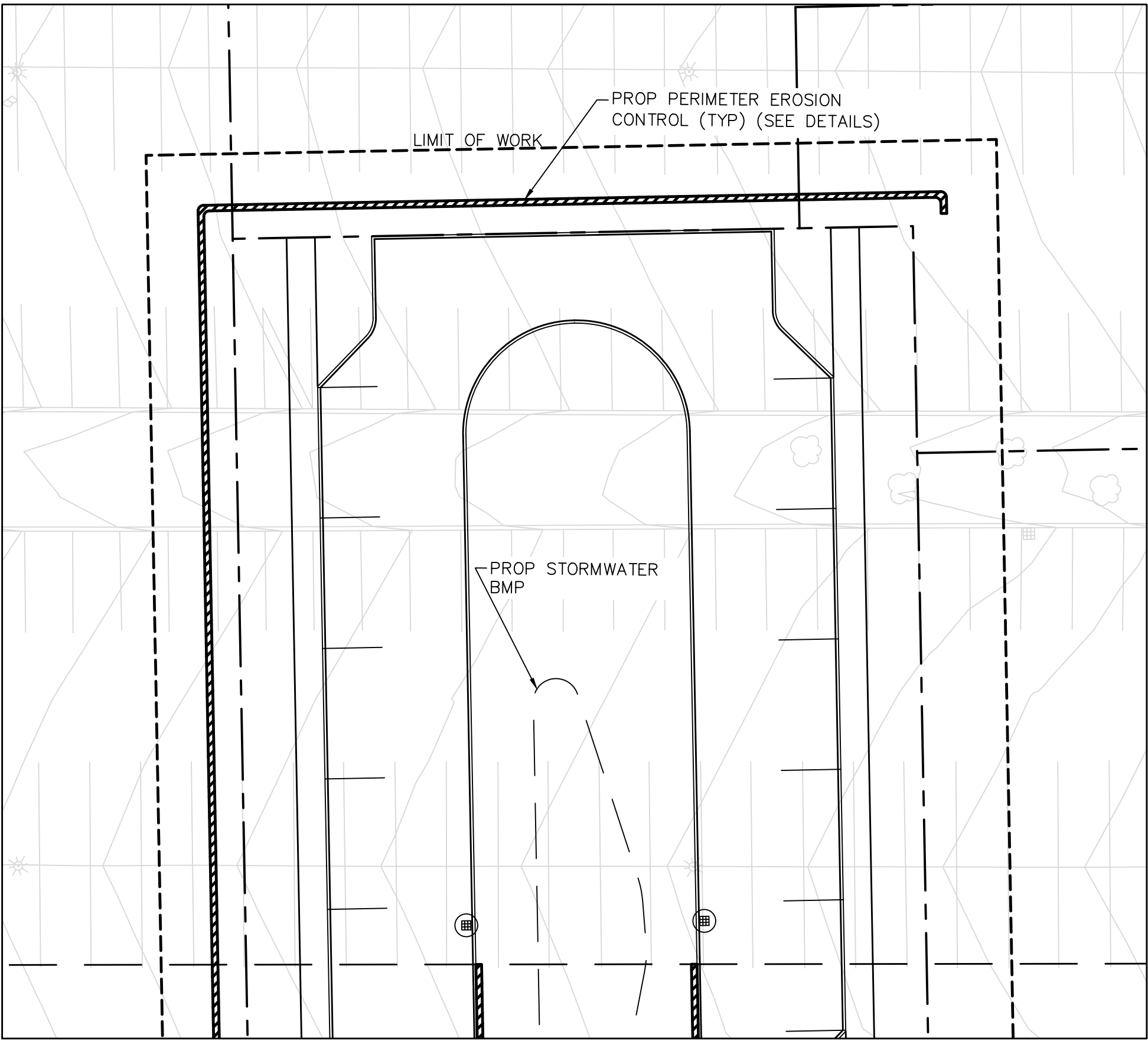
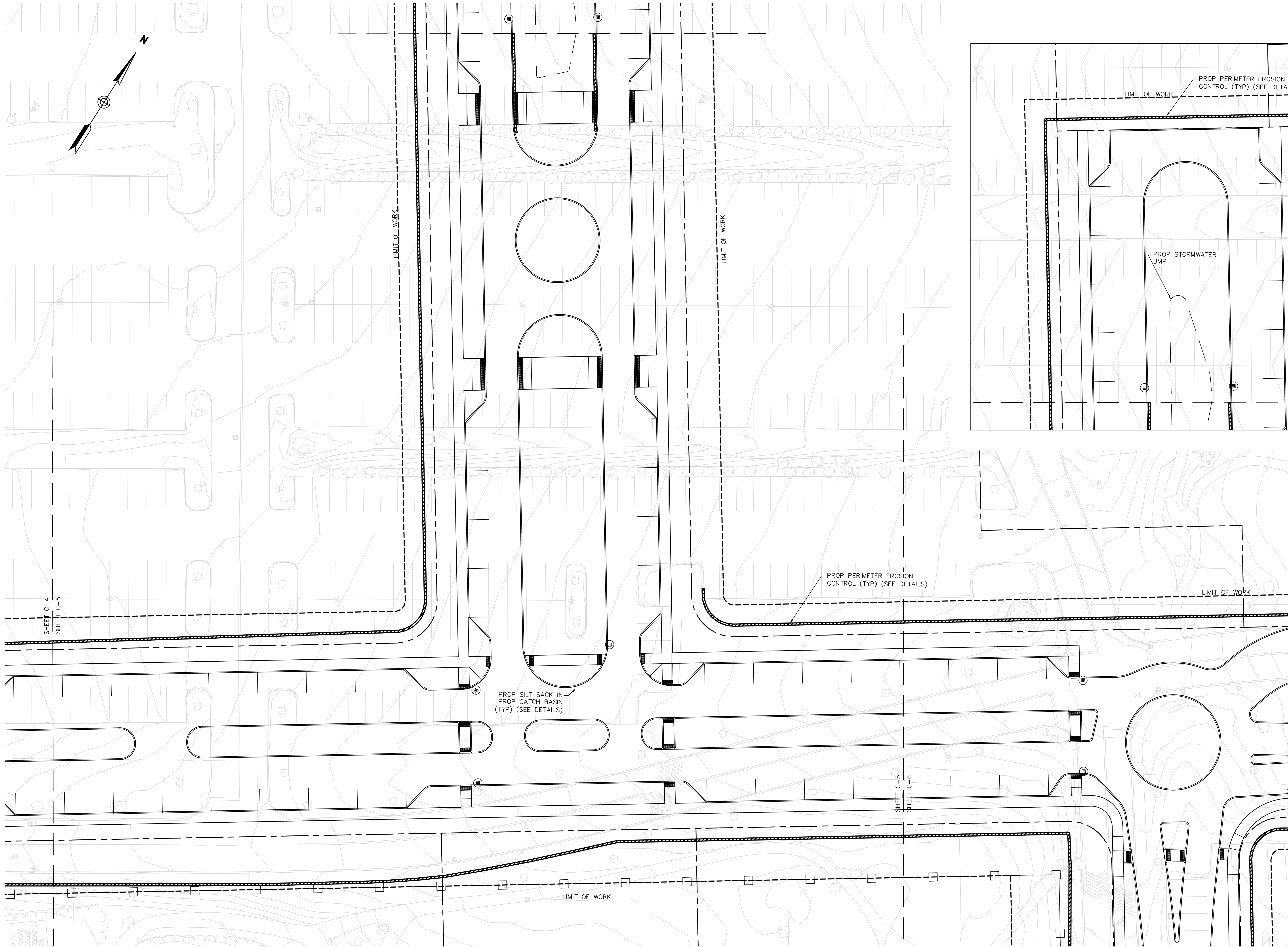
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SEAL: RICHARD J. FRIBERG JR., CIVIL, No. 47850, REGISTERED PROFESSIONAL ENGINEER, COMMONWEALTH OF MASSACHUSETTS



DRAWING TITLE
Erosion & Sedimentation Control Plan B

SUBDIVISION NAME & LOCATION
King Street Commons
550 King Street
Littleton, MA 01460

OWNER / APPLICANT / SUBDIVIDER
Lupoli Companies
290 Merrimack Street
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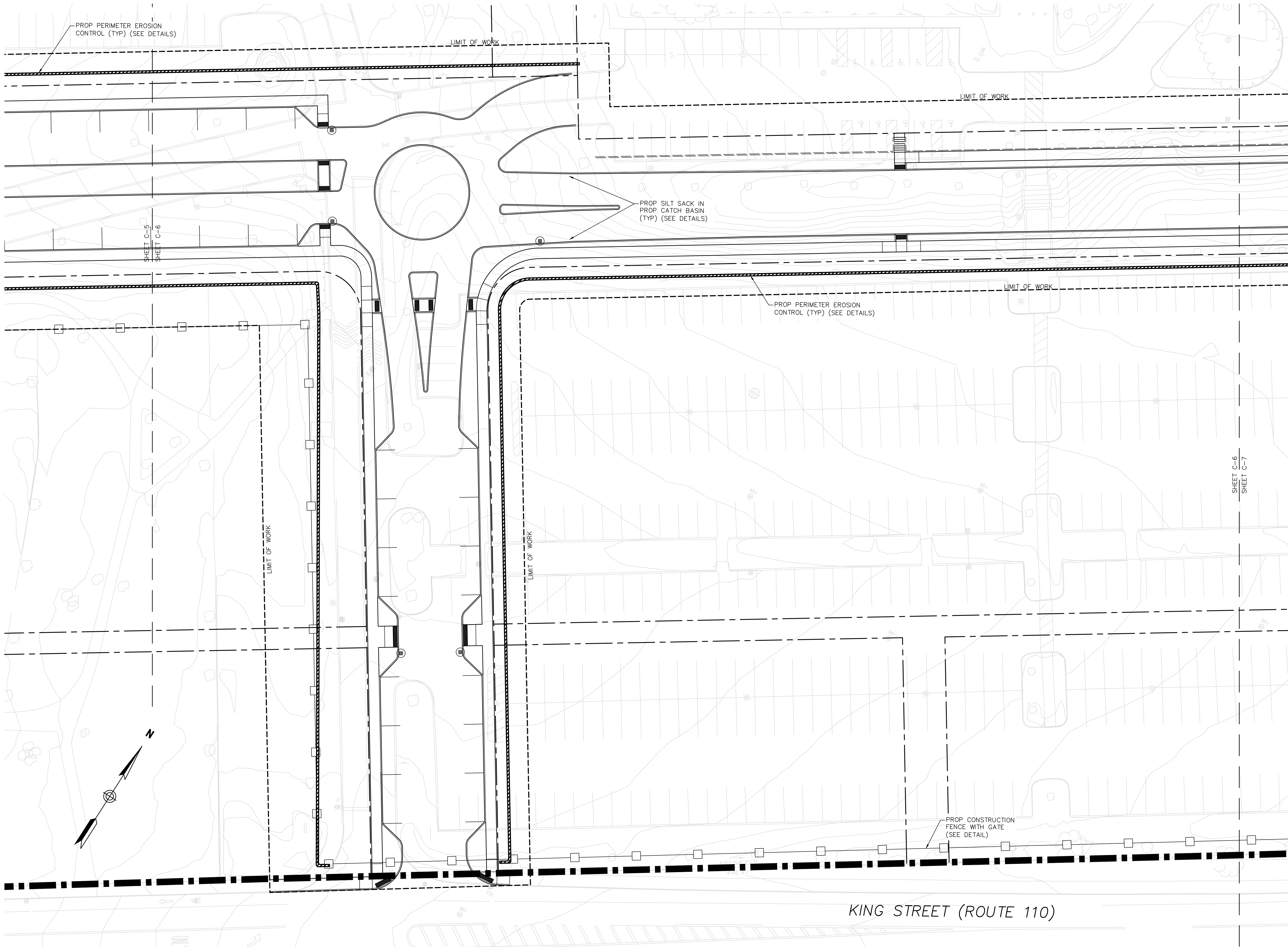
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SHEET 5 OF 50



DRAWING TITLE
**Erosion &
Sedimentation Control
Plan C**

SUBDIVISION NAME & LOCATION
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Commons**
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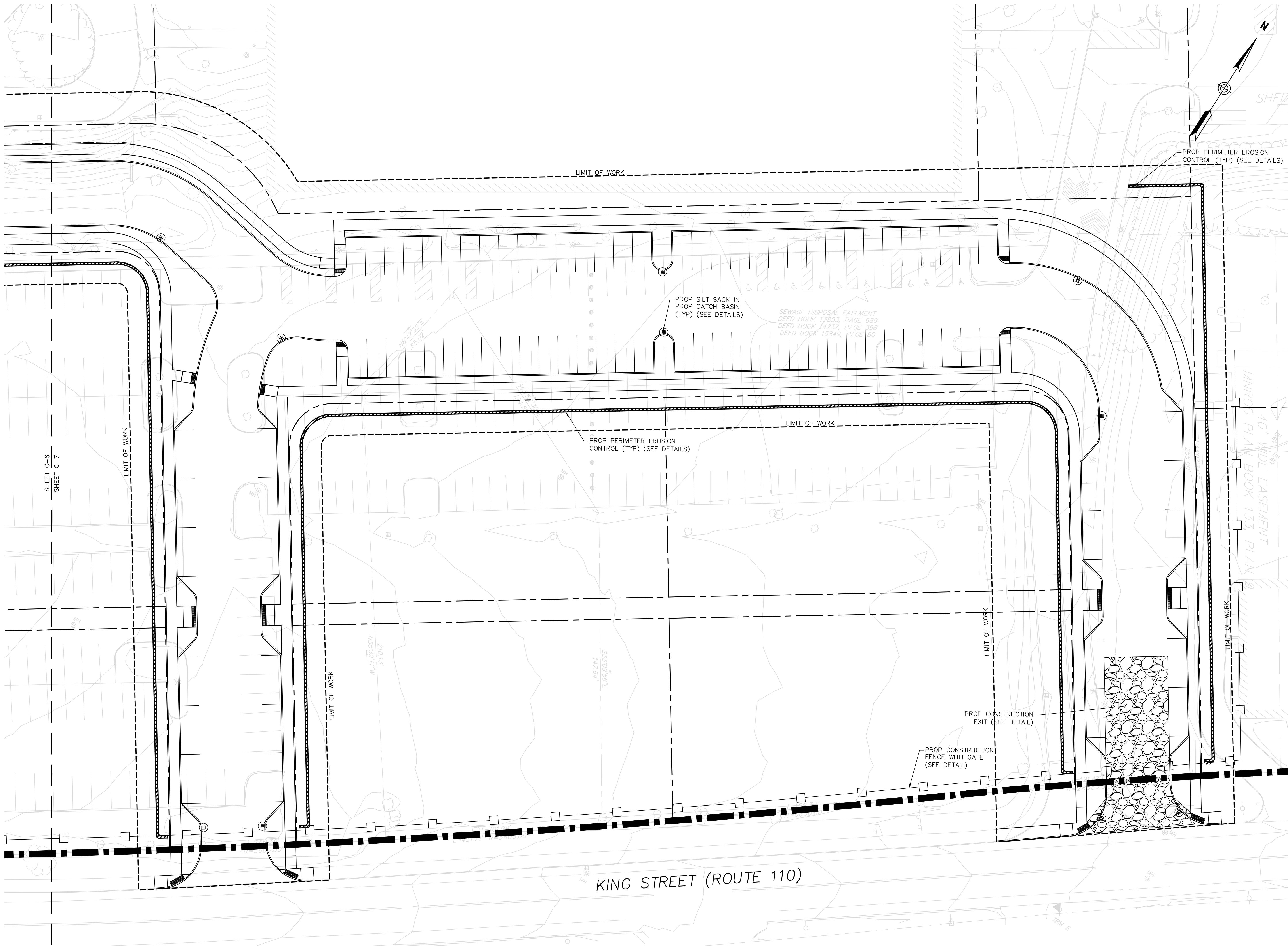
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C-6
SHEET 6 OF 50



DRAWING TITLE
Erosion & Sedimentation Control Plan D

SUBDIVISION NAME & LOCATION
King Street Commons
550 King Street
Littleton, MA 01460

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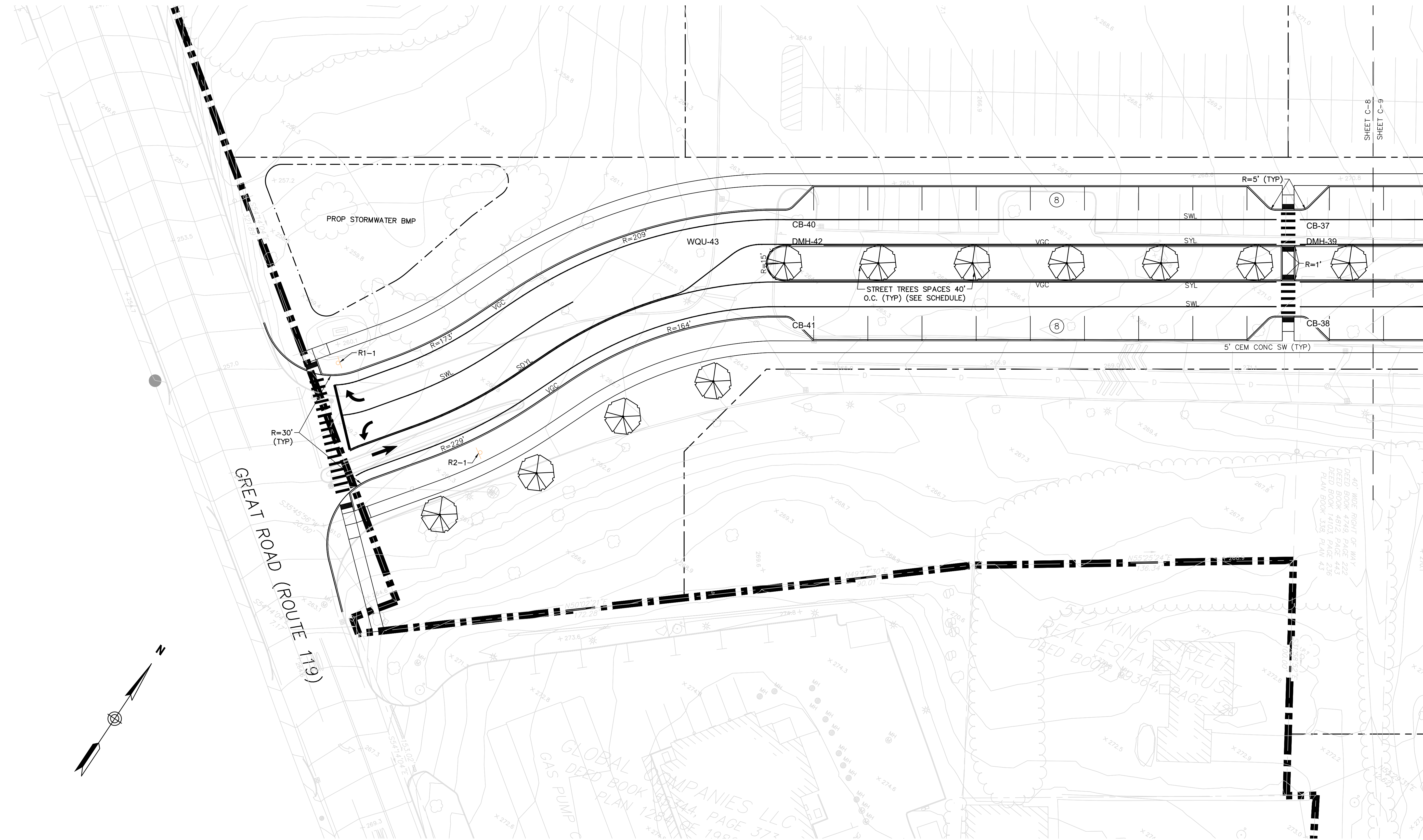


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C-7
SHEET 7 OF 50

PARKING TABLE		
	PARALLEL	HEAD-IN
TOTAL PROPOSED SPACES	97	66
STALL WIDTH	10 FT	9 FT
STALL LENGTH	23 FT	18 FT

NOTES:

1. TOTAL ADA PARKING SPACES TO BE DETERMINED UPON FURTHER SITE DEVELOPMENT.



DRAWING TITLE

Site Plan A

SUBDIVISION NAME & LOCATION

King Street Commons
550 King Street
Littleton, MA 01460

OWNER / APPLICANT / SUBDIVIDER

Lupoli Companies
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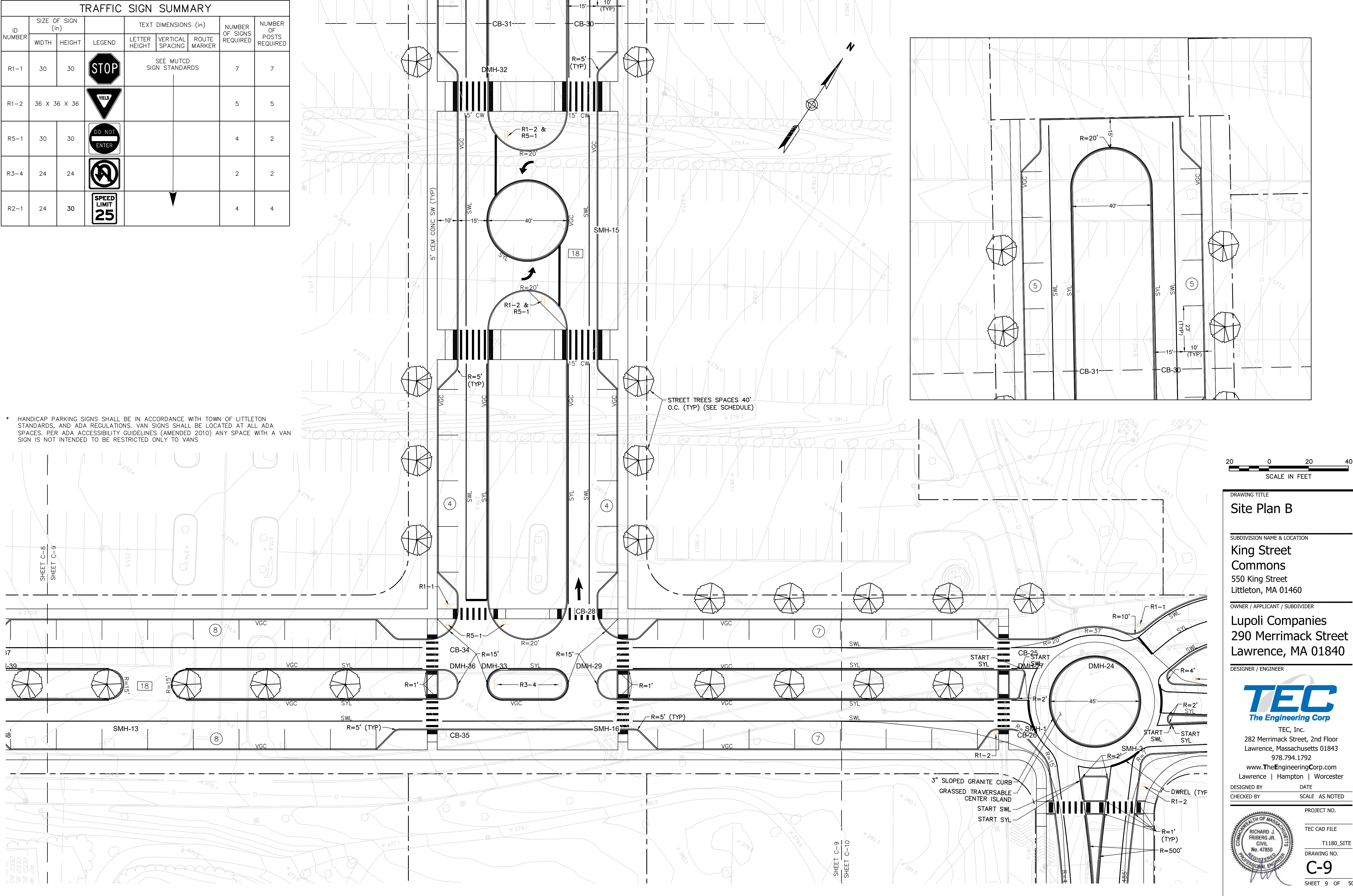
DRAWING NO.

C-8

SHEET 8 OF 50

TRAFFIC SIGN SUMMARY							
ID NUMBER	SIZE OF SIGN (in)		LEGEND	TEXT DIMENSIONS (in)			NUMBER OF SIGNS REQUIRED
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING	ROUTE MARKER	
R1-1	30	30		SEE MUTCD SIGN STANDARDS			7
R1-2	36 X 36 X 36						5
R5-1	30	30					4
R3-4	24	24					2
R2-1	24	30					4

* HANDICAP PARKING SIGNS SHALL BE IN ACCORDANCE WITH TOWN OF LITTLETON STANDARDS, AND ADA REGULATIONS. VAN SIGNS SHALL BE LOCATED AT ALL ADA SPACES. PER ADA ACCESSIBILITY GUIDELINES (AMENDED 2010) ANY SPACE WITH A VAN SIGN IS NOT INTENDED TO BE RESTRICTED ONLY TO VANS



DRAWING TITLE
Site Plan B

SUBDIVISION NAME & LOCATION
King Street Commons
550 King Street
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290 Merrimack Street
Lawrence, MA 01840

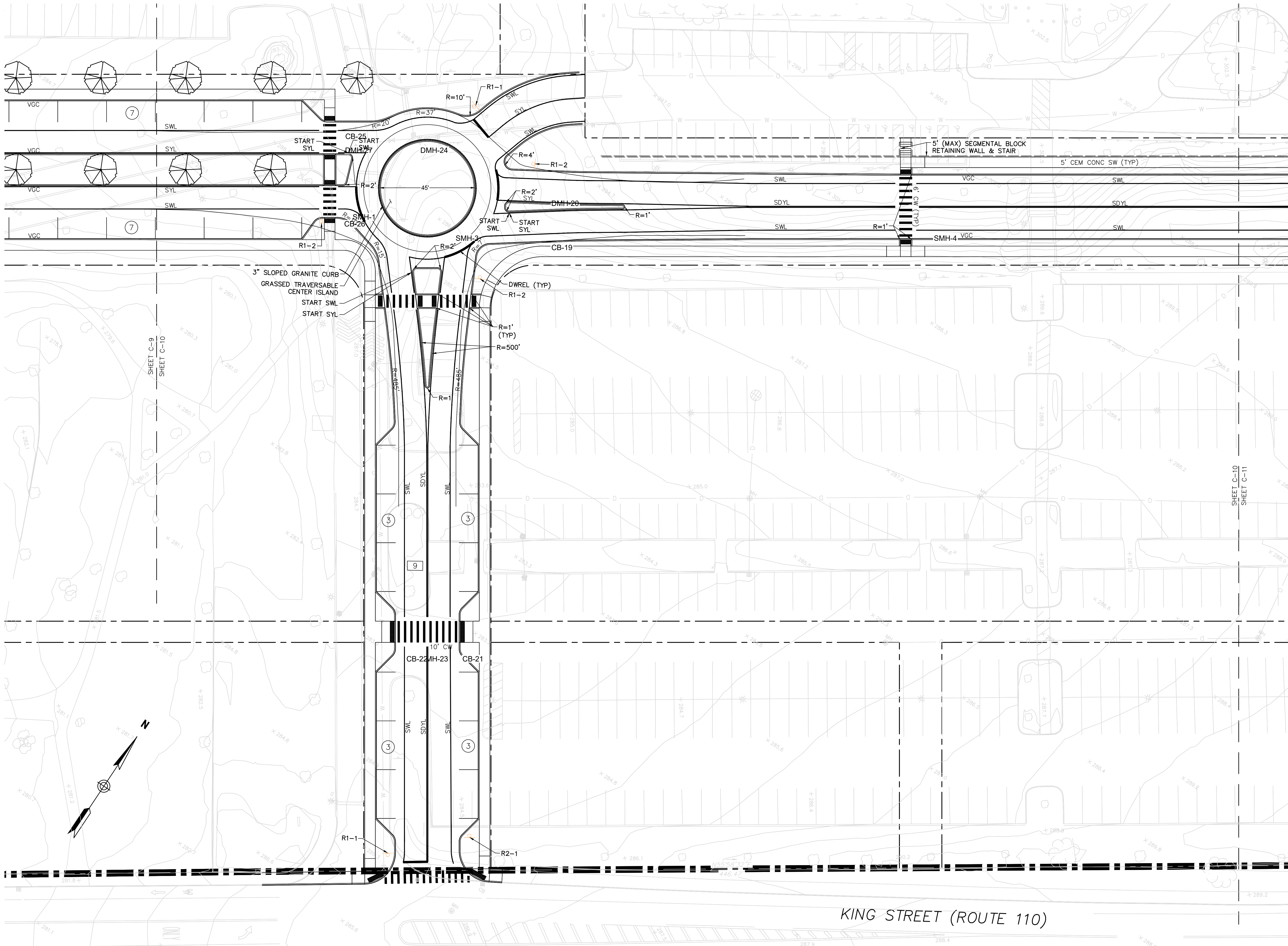
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C-9
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Site Plan C

SUBDIVISION NAME & LOCATION

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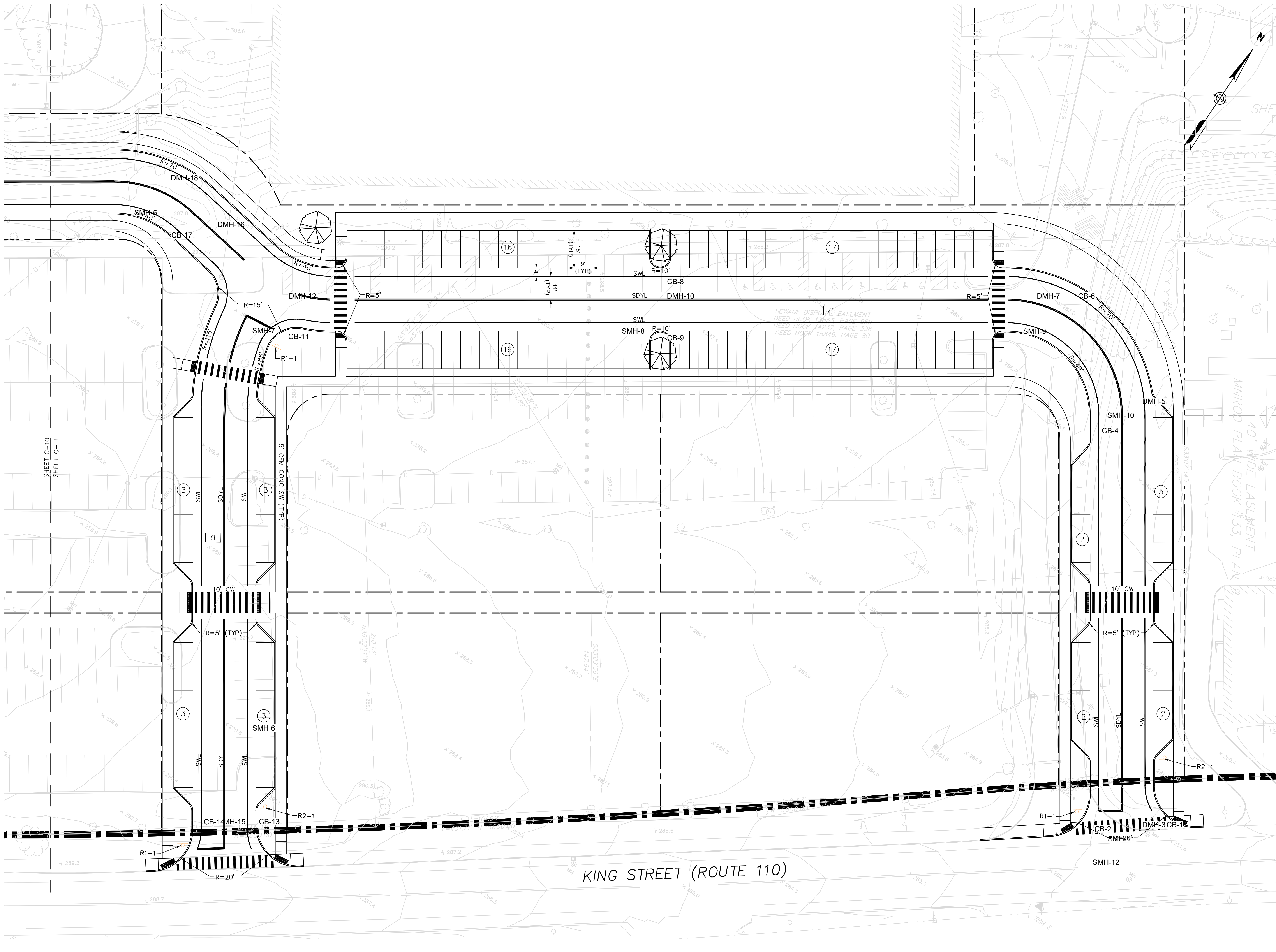


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Site Plan D

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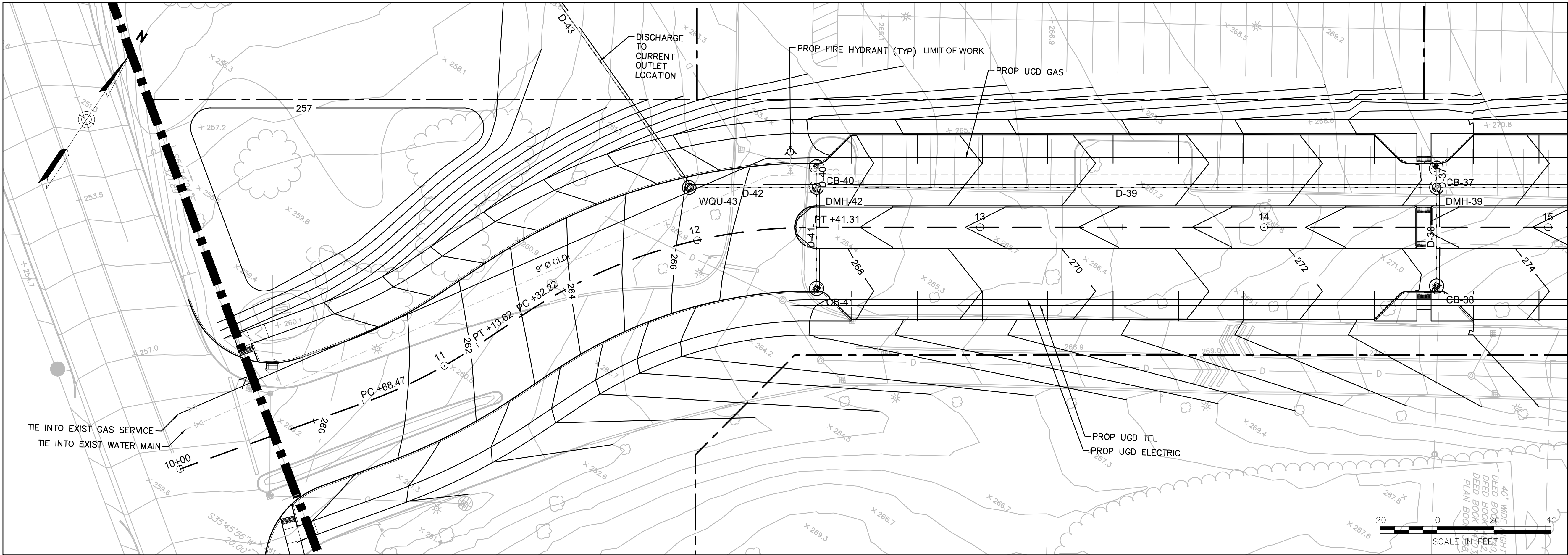
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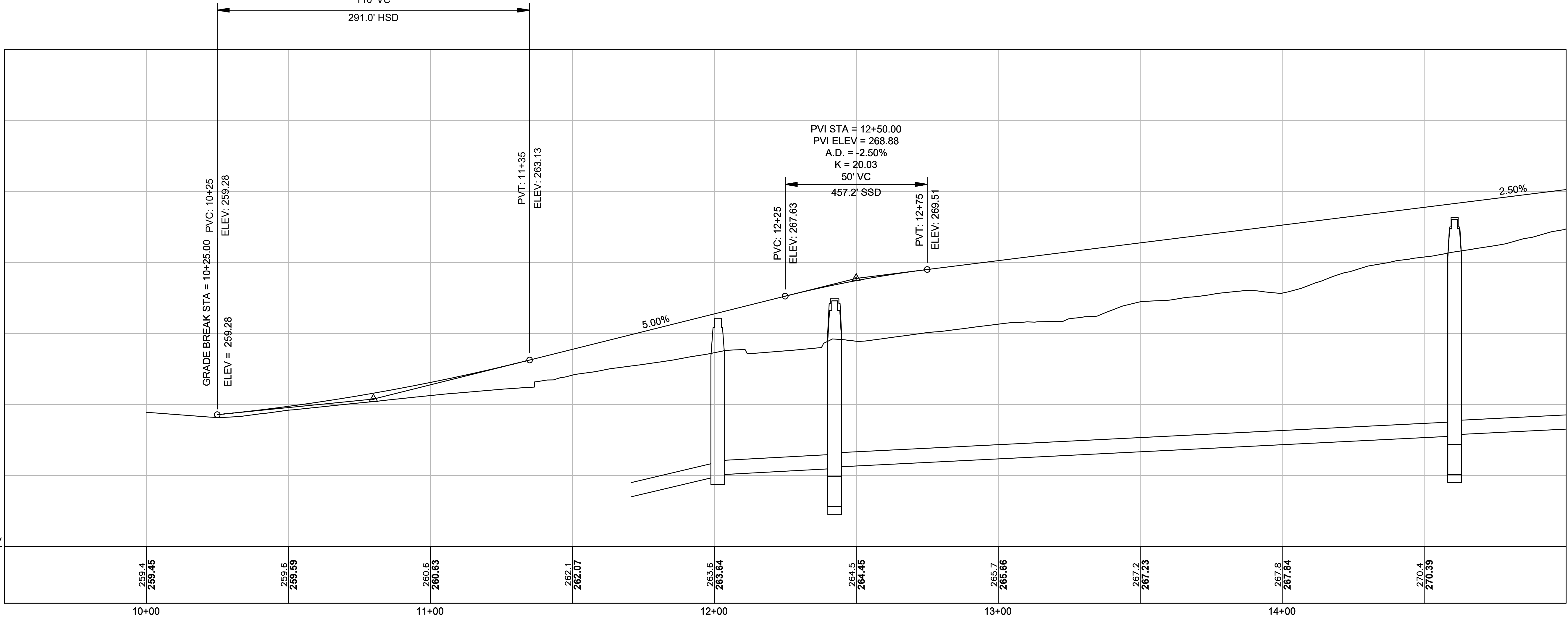
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PROJECT NO.
TEC CAD FILE
T1180_SITE
DRAWING NO.
C-11
SHEET 11 OF 50



PVI STA = 10+80.00
PVI ELEV = 260.38
A.D. = 3.00%
K = 36.67
110' VC



NAVD 88
BASE ELEV
250.00

DRAWING TITLE

Roadway Plan & Profile

SUBDIVISION NAME & LOCATION

King Street
Commons

550 King Street
Littleton, MA 01460

OWNER / APPLICANT / SUBDIVIDER

Lupoli Companies
290 Merrimack Street
Lawrence, MA 01840

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T1180

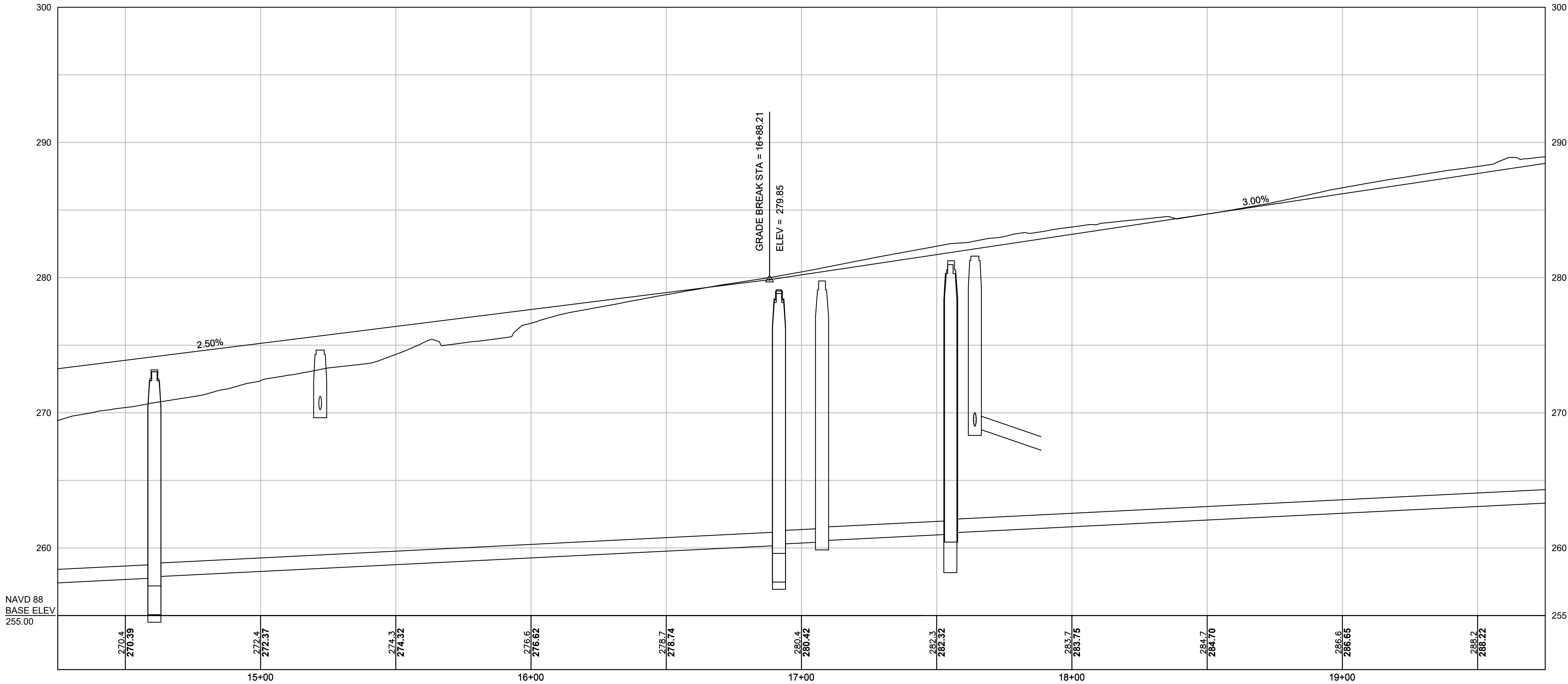
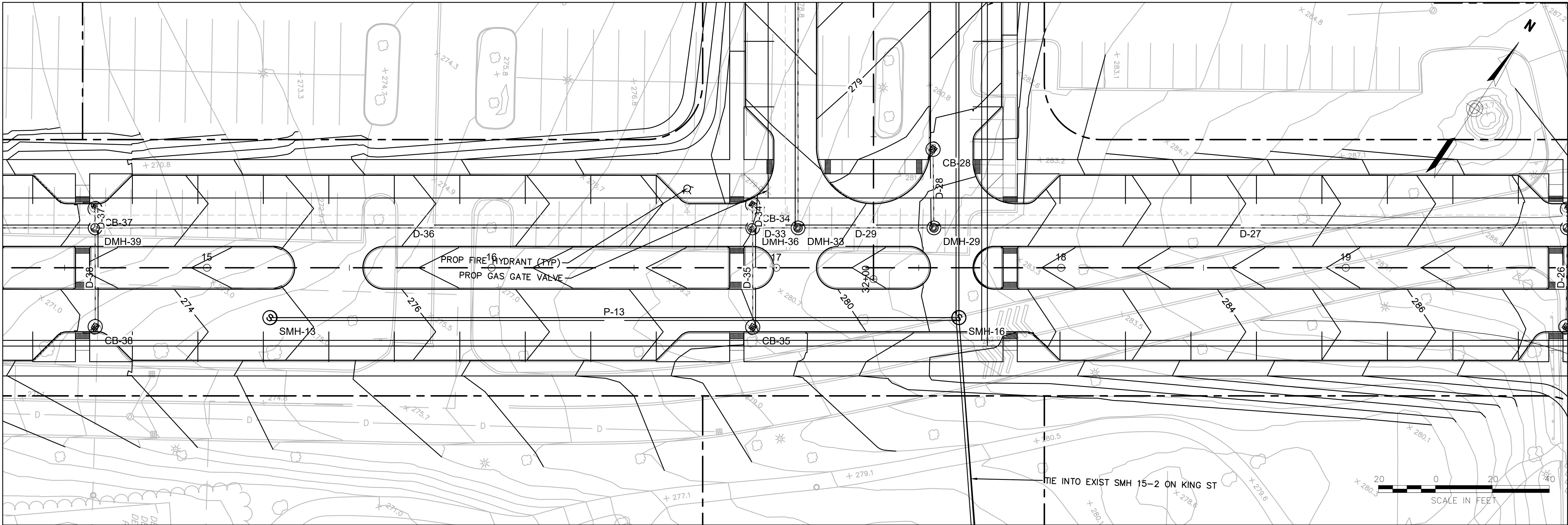
TEC CAD FILE

T1180_PROFILE

DRAWING NO.

C-12

SHEET 12 OF 50



DRAWING TITLE
Roadway Plan & Profile

SUBDIVISION NAME & LOCATION
King Street Commons
550 King Street
Littleton, MA 01460

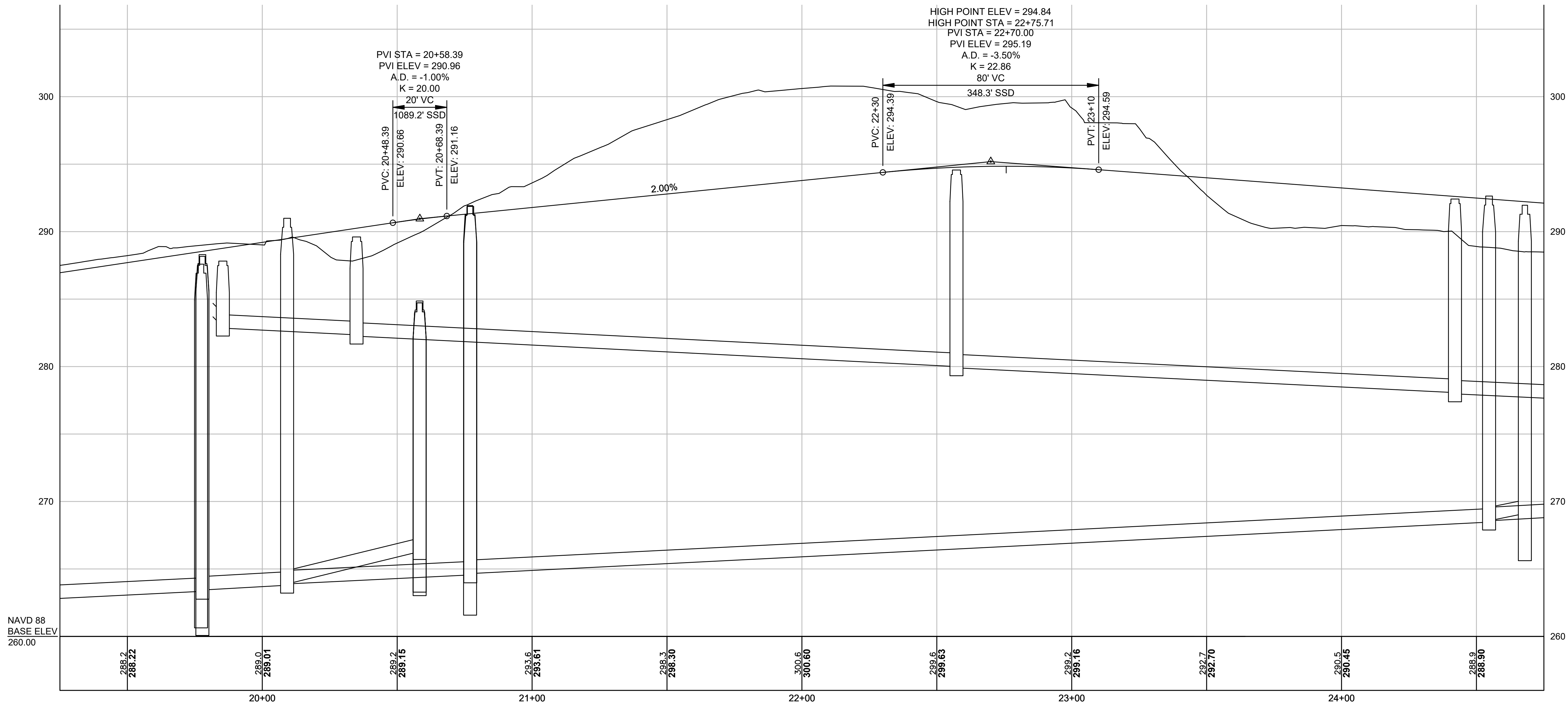
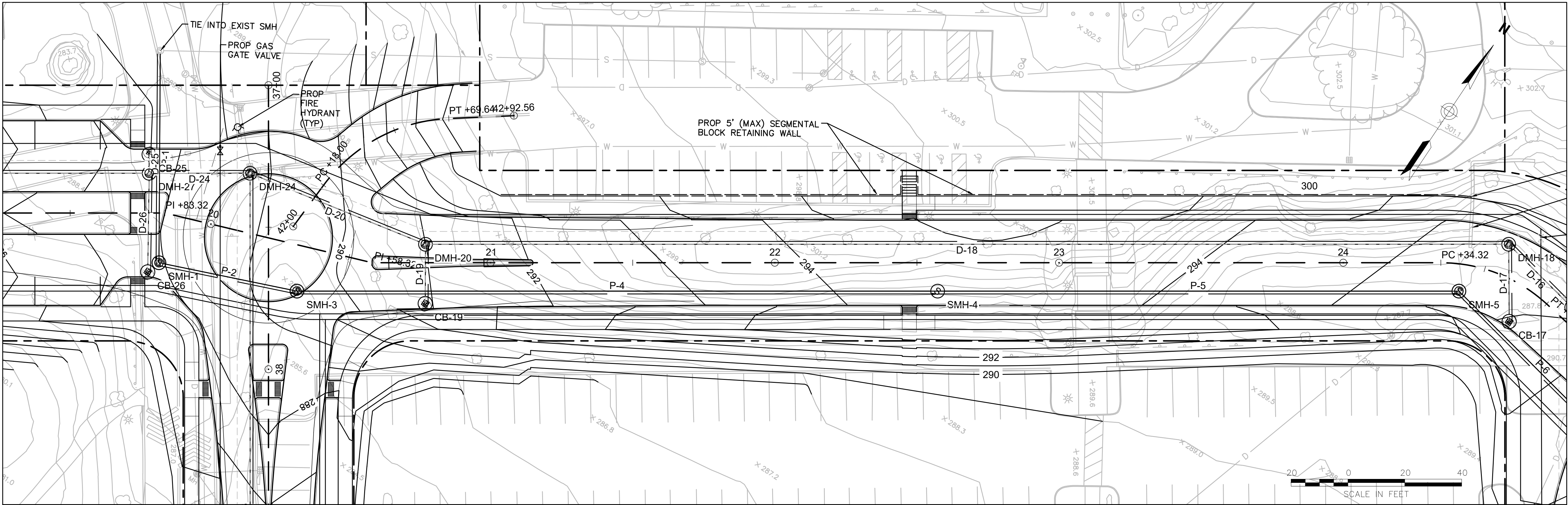
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PROJECT NO. T1180
TEC CAD FILE T1180_PROFILE
DRAWING NO. **C-13**
SHEET 13 OF 50

COMMONWEALTH OF MASSACHUSETTS
RICHARD J. FRIBERG JR.
CIVIL
No. 47850
REGISTERED PROFESSIONAL ENGINEER



DRAWING TITLE
Roadway Plan & Profile

SUBDIVISION NAME & LOCATION
King Street Commons
550 King Street
Littleton, MA 01460

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Lawrence, MA 01840

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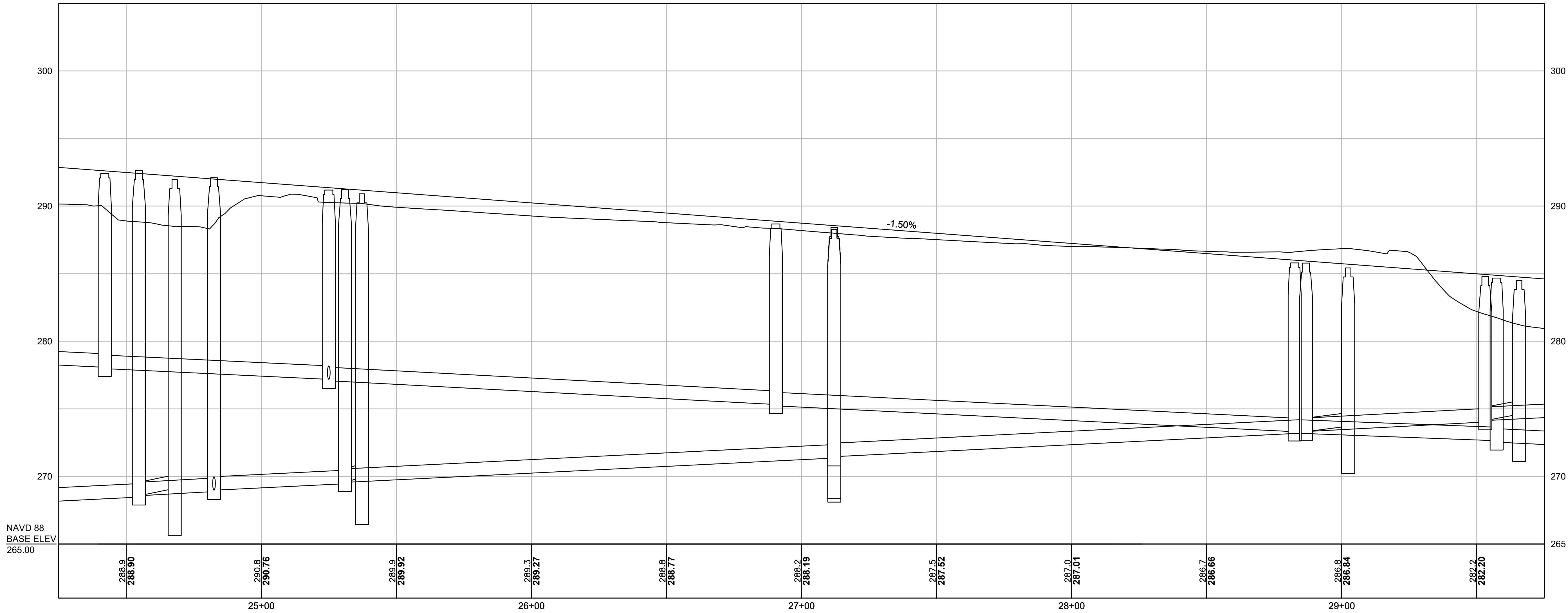
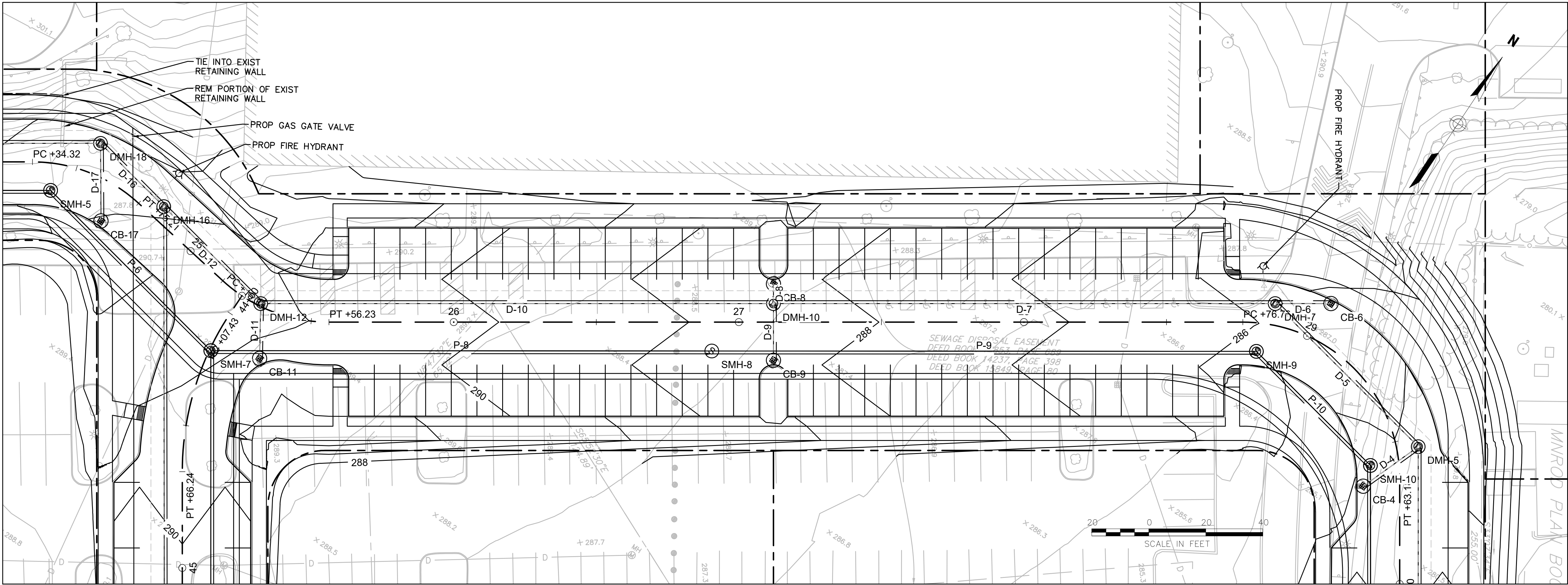


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T1180
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DRAWING NO.
C-14
SHEET 14 OF 50



DRAWING TITLE
Roadway Plan & Profile

SUBDIVISION NAME & LOCATION
King Street Commons
550 King Street
Littleton, MA 01460

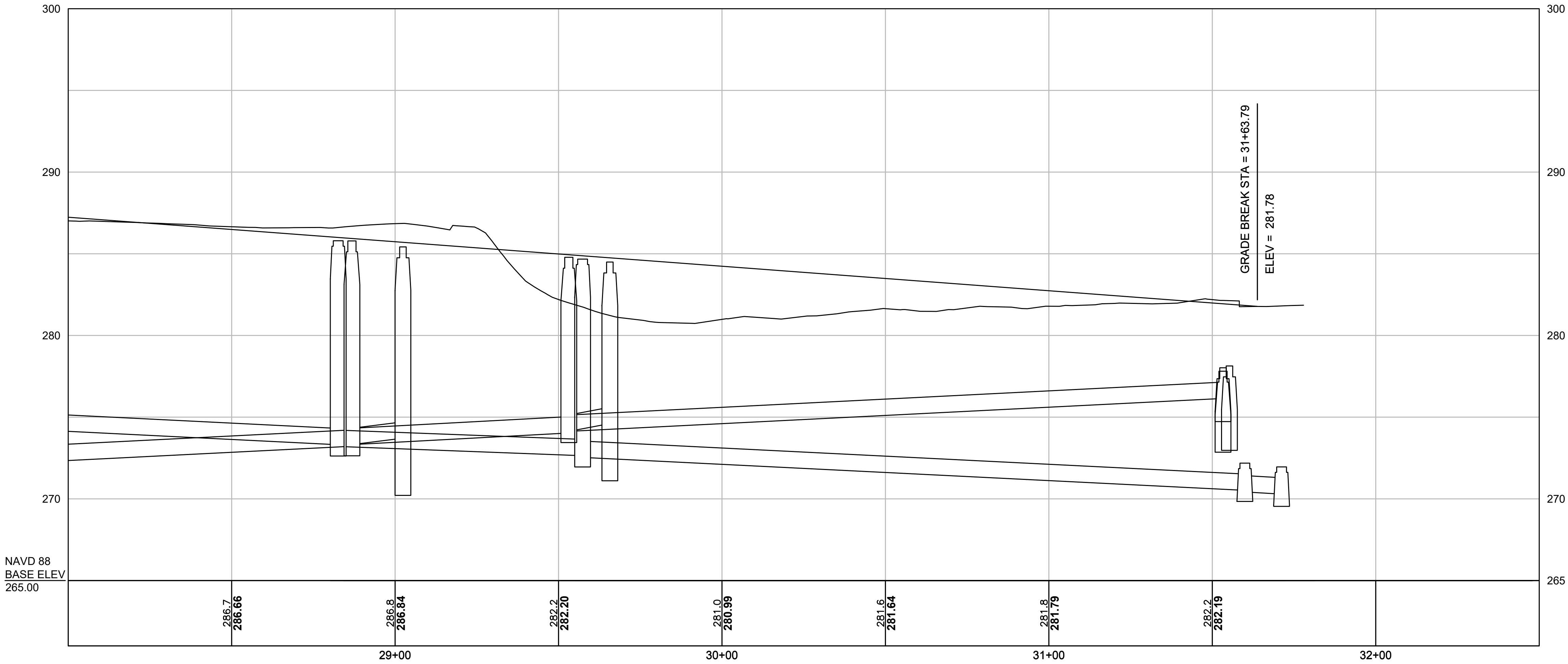
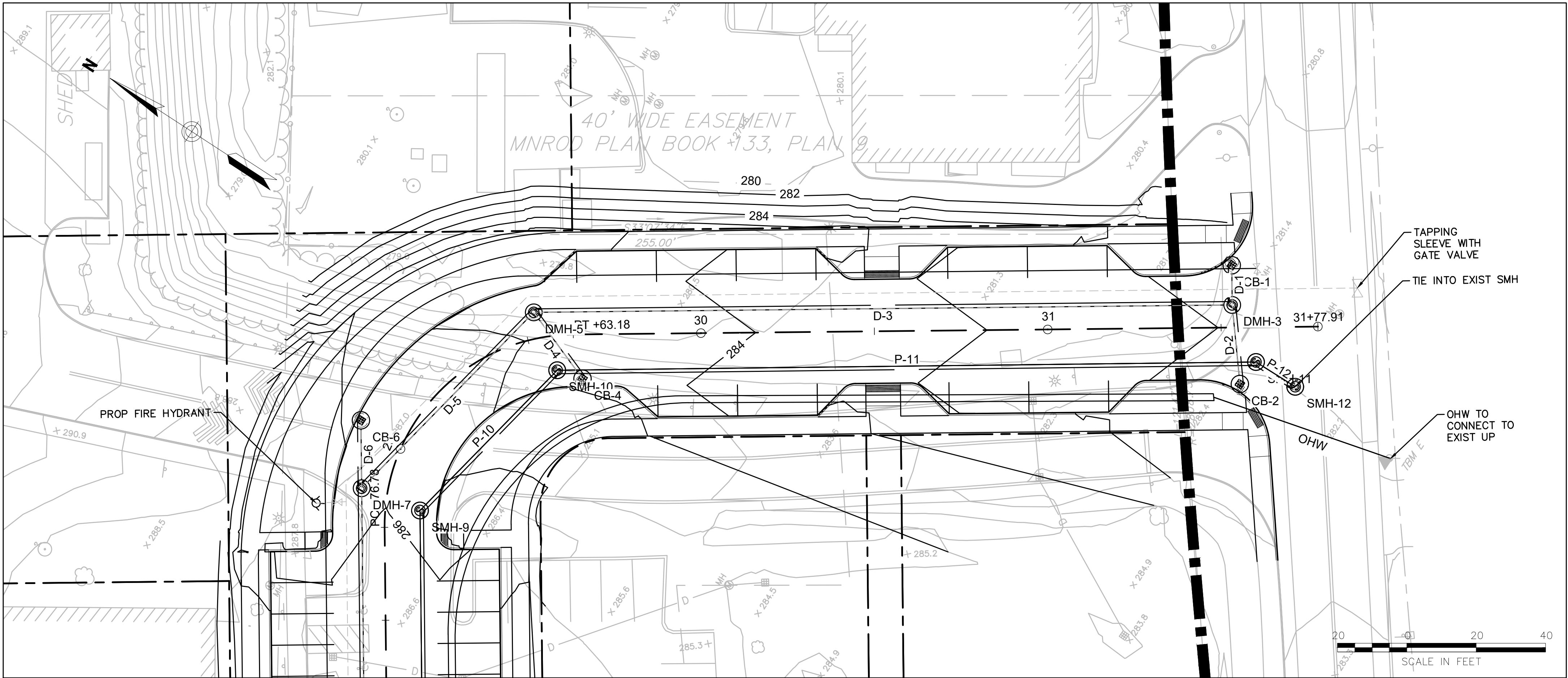
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PROJECT NO.
T1180
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DRAWING NO.
C-15
SHEET 15 OF 50

COMMONWEALTH OF MASSACHUSETTS
RICHARD J. FRIBERG JR.
CIVIL
No. 47850
PROFESSIONAL ENGINEER



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DESIGNER / ENGINEER



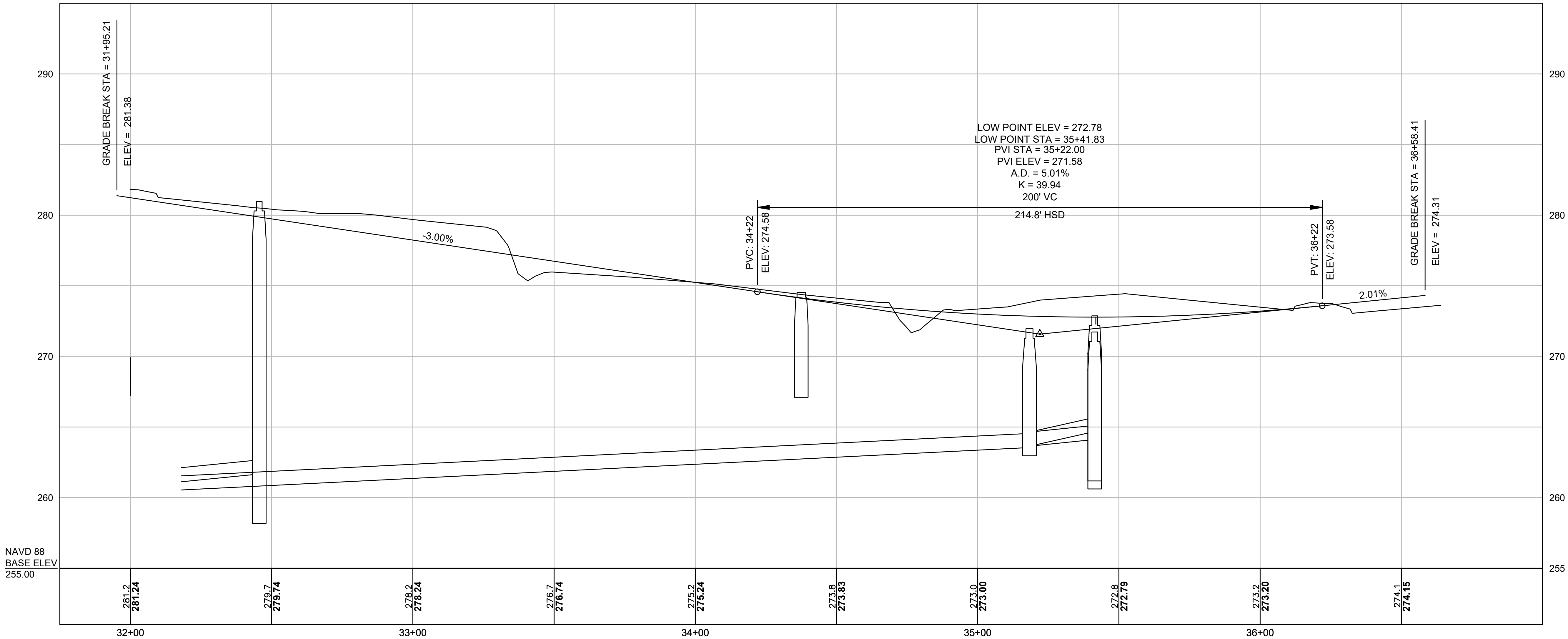
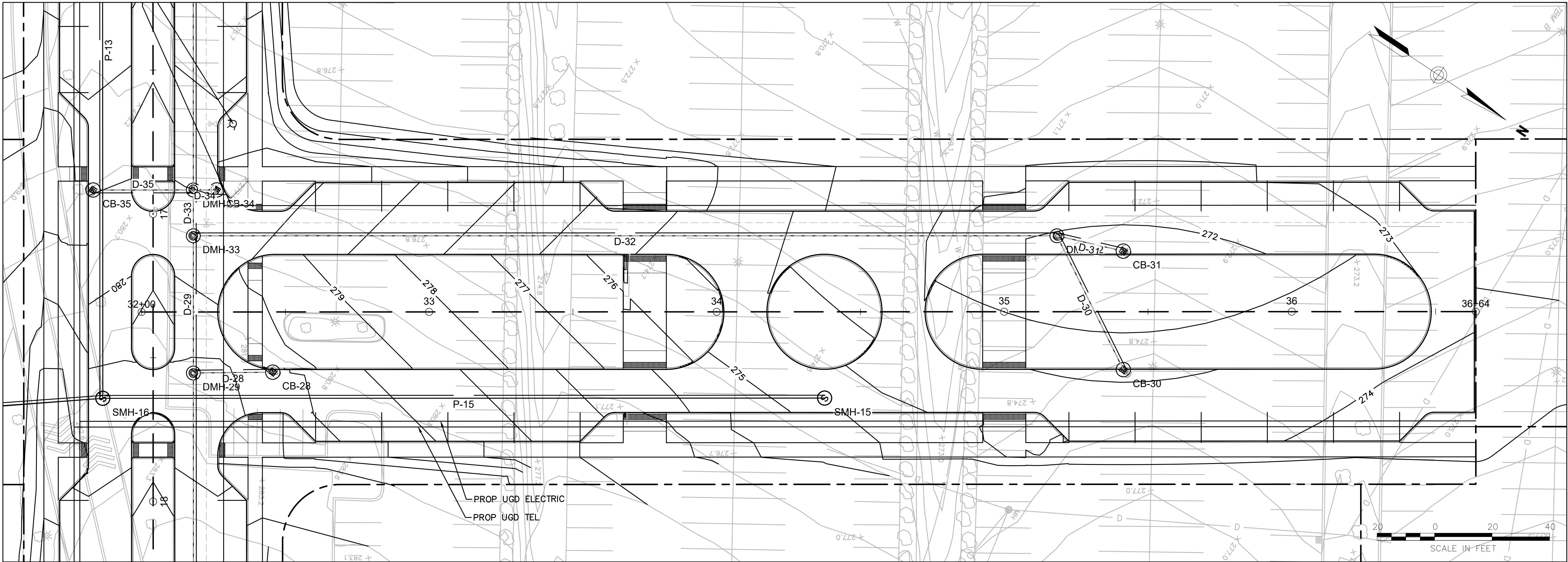
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T1180
TEC CAD FILE
T1180_PROFILE
DRAWING NO.
C-16
SHEET 16 OF 50

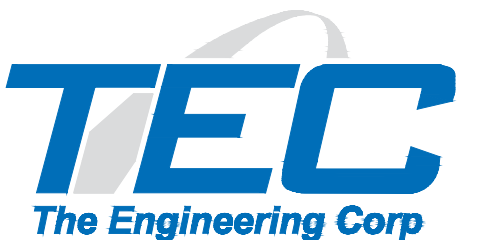


DRAWING TITLE
Roadway Plan & Profile

SUBDIVISION NAME & LOCATION
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Littleton, MA 01460

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Lawrence, MA 01840

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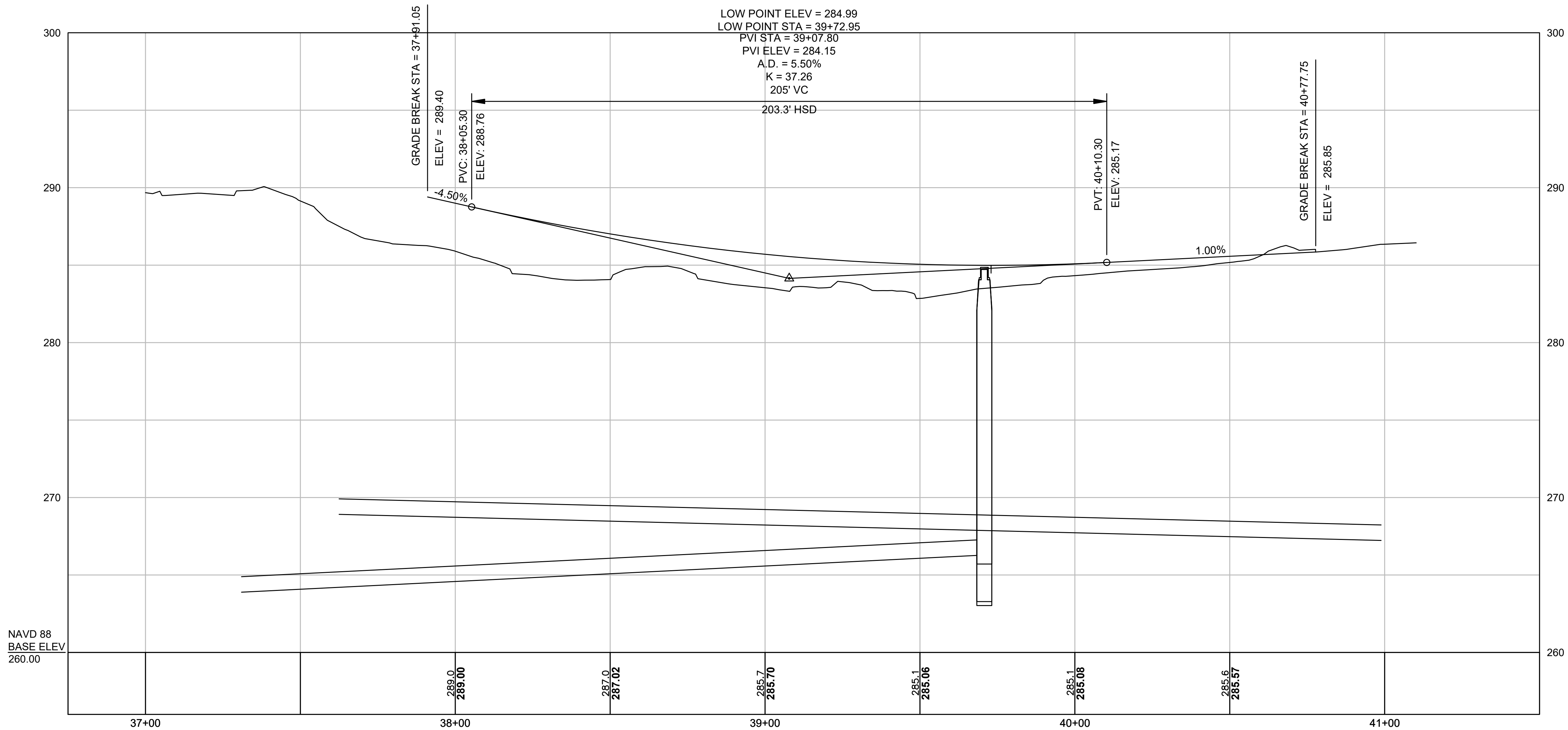
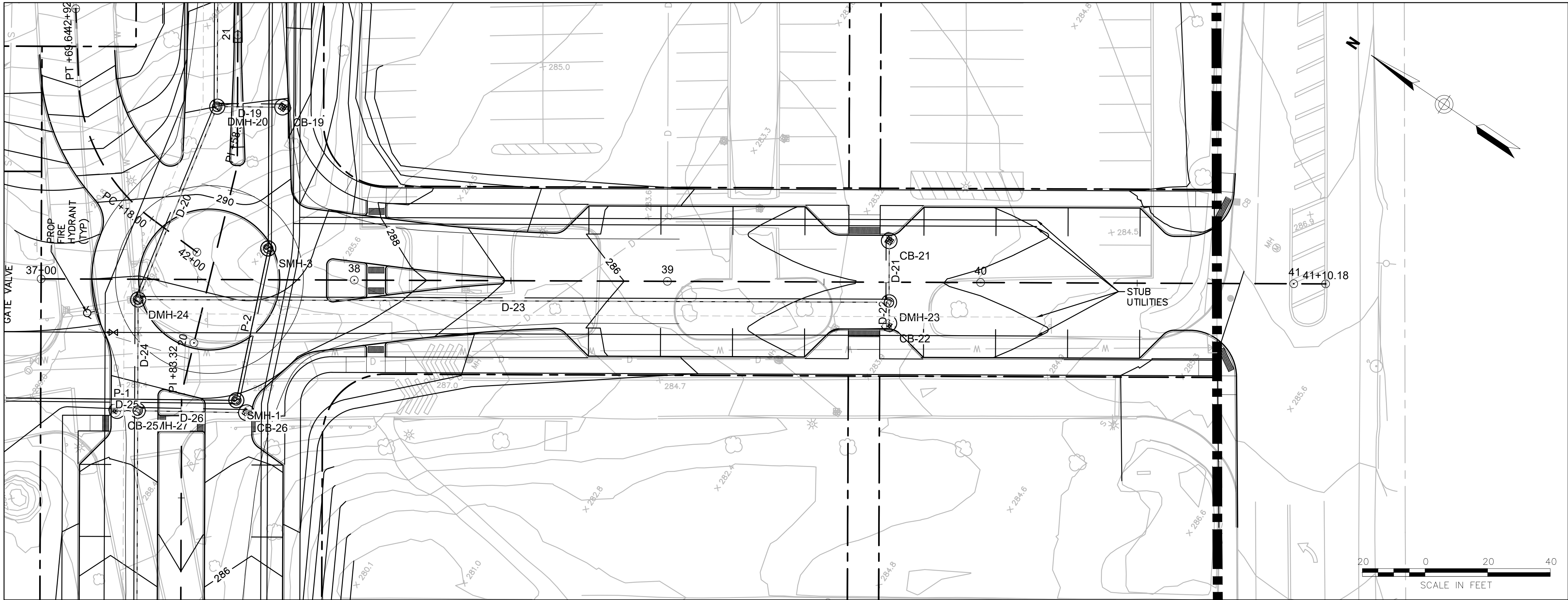
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PROJECT NO.
T1180
TEC CAD FILE
T1180_PROFILE
DRAWING NO.
C-16
SHEET 16 OF 50



DRAWING TITLE
Roadway Plan & Profile

SUBDIVISION NAME & LOCATION
King Street Commons
550 King Street
Littleton, MA 01460

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PROJECT NO.
T1180
TEC CAD FILE
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DRAWING NO.
C-18
SHEET 18 OF 50

DRAINAGE STRUCTURE DATA					
NO.	TYPE	STATION	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT
CB-1	CB	31+53.3 -18.0' LT	278.02		I=276.35' (DMH-3)
CB-2	CB	31+55.2 16.3' RT	278.14		I=276.47' (DMH-3)
CB-4	CB	29+65.7 12.8' RT	284.50		I=274.61' (DMH-5)
CB-6	CB	29+02.4 -13.8' LT	285.42		I=273.71' (DMH-7)
CB-8	CB	27+12.1 -13.4' LT	288.29		I=271.60' (DMH-10)
CB-9	CB	27+12.1 13.4' RT	288.29		I=271.86' (DMH-10)
CB-11	CB	25+37.3 17.0' RT	290.91		I=269.94' (DMH-12)
CB-13	CB	46+57.4 -13.1' LT	287.63		I=272.31' (DMH-15)
CB-14	CB	46+57.5 13.0' RT	287.63		I=272.06' (DMH-15)
CB-17	CB	24+68 13.1' RT	291.96		I=269.11' (DMH-18)
CB-19	CB	20+77 14.4' RT	291.93		I=265.08' (DMH-20)
CB-21	CB	39+70.8 -13.2' LT	284.72		I=266.78' (DMH-23)
CB-22	CB	39+70.8 13.2' RT	284.72		I=266.53' (DMH-23)
CB-25	CB	19+77.8 -20.6' LT	288.16		I=263.57' (DMH-27)
CB-26	CB	19+77.3 20.7' RT	287.59		I=264.13' (DMH-27)
CB-28	CB	17+55 -41.6' LT	280.96		I=261.67' (DMH-29)
CB-30	CB	35+41.4 20.1' RT	272.87		I=264.68' (DMH-32)
CB-31	CB	35+41.4 -21.1' LT	271.73		I=264.11' (DMH-32)
CB-34	CB	16+91.7 -22.1' LT	278.82		I=260.44' (DMH-36)
CB-35	CB	16+91.7 20.9' RT	279.10		I=260.98' (DMH-36)
CB-37	CB	14+60.7 -20.7' LT	273.04		I=258.00' (DMH-39)
CB-38	CB	14+60.8 20.7' RT	273.04		I=258.56' (DMH-39)
CB-40	CB	12+42.4 -21.3' LT	267.30		I=255.74' (DMH-42)
CB-41	CB	12+42.4 21.5' RT	267.29		I=256.30' (DMH-42)
DMH-3	DMH	31+53.3 -6.5' LT	277.81	I=276.24' (CB-1) I=276.24' (CB-2)	I=276.14' (DMH-5)
DMH-5	DMH	29+53.2 -7.5' LT	284.79	I=274.13' (DMH-3) I=274.13' (CB-4)	I=274.03' (DMH-7)
DMH-7	DMH	28+86.8 -7.5' LT	285.79	I=273.32' (DMH-5) I=273.32' (CB-6)	I=273.22' (DMH-10)
DMH-10	DMH	27+12.1 -6.5' LT	288.43	I=271.46' (DMH-7) I=271.46' (CB-8) I=271.46' (CB-9)	I=271.36' (DMH-12)
DMH-12	DMH	25+31 -0.9' LT	291.22	I=269.56' (DMH-10) I=269.56' (CB-11)	I=269.46' (DMH-16)
DMH-15	DMH	46+57.5 6.1' RT	287.77	I=271.92' (CB-13) I=271.92' (CB-14)	I=271.82' (DMH-16)

NO.	TYPE	STATION	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT
DMH-16	DMH	24+82.5 -5.1' LT	292.10	I=268.98' (DMH-12) I=268.98' (DMH-15)	I=268.88' (DMH-18)
DMH-18	DMH	24+54.7 -11.0' LT	292.64	I=268.57' (DMH-16) I=268.57' (CB-17)	I=268.47' (DMH-20)
DMH-20	DMH	20+77.1 -6.5' LT	291.86	I=264.66' (CB-19) I=264.66' (DMH-18)	I=264.56' (DMH-24)
DMH-23	DMH	39+70.8 6.4' RT	284.86	I=266.39' (CB-21) I=266.39' (CB-22)	I=266.29' (DMH-24)
DMH-24	DMH	20+09.2 -20.6' LT	290.99	I=263.89' (DMH-23) I=263.89' (DMH-20)	I=263.79' (DMH-27)
DMH-27	DMH	19+77.8 -14.0' LT	288.30	I=263.44' (CB-26) I=263.44' (DMH-24) I=263.44' (CB-25)	I=263.34' (DMH-29)
DMH-29	DMH	17+55.3 -14.0' LT	281.25	I=261.12' (CB-28) I=261.12' (DMH-27)	I=261.02' (DMH-33)
DMH-32	DMH	35+18.3 -26.4' LT	271.96	I=263.64' (CB-30) I=263.64' (CB-31)	I=263.54' (DMH-33)
DMH-33	DMH	17+07.6 -14.0' LT	279.75	I=260.54' (DMH-29) I=260.54' (DMH-32)	I=260.44' (DMH-36)
DMH-36	DMH	16+91.7 -14.0' LT	279.02	I=260.28' (DMH-33) I=260.28' (CB-34) I=260.28' (CB-35)	I=260.18' (DMH-39)
DMH-39	DMH	14+60.7 -14.0' LT	273.18	I=257.87' (DMH-36) I=257.87' (CB-37) I=257.87' (CB-38)	I=257.77' (DMH-42)
DMH-42	DMH	12+42.4 -14.0' LT	267.44	I=255.59' (DMH-39) I=255.59' (CB-40) I=255.59' (CB-41)	I=255.49' (WQU-43)
WQU-43	DMH	12+01.3 -18.8' LT	266.07	I=255.04' (DMH-42)	I=254.94' ()

DRAINAGE STRUCTURE DATA					
NO.	TYPE	STATION	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT
WQU-44	DMH	10+43 -24.0' LT	259.79		I=255.31' ()

DRAINAGE PIPE DATA				
PIPE	PIPE LOCATION	SIZE & TYPE	LENGTH	SLOPE
D-1	CB-1 TO DMH-3 STA 31+53 TO 31+53	12" RCP	9 LF	0.010
D-2	CB-2 TO DMH-3 STA 31+55 TO 31+53	12" RCP	20 LF	0.010
D-3	DMH-3 TO DMH-5 STA 31+53 TO 29+53	12" RCP	198 LF	0.010
D-4	CB-4 TO DMH-5 STA 29+66 TO 29+53	12" RCP	20 LF	0.020
D-5	DMH-5 TO DMH-7 STA 29+53 TO 28+87	12" RCP	67 LF	0.010
D-6	CB-6 TO DMH-7 STA 29+02 TO 28+87	12" RCP	16 LF	0.020
D-7	DMH-7 TO DMH-10 STA 28+87 TO 27+12	12" RCP	172 LF	0.010
D-8	CB-8 TO DMH-10 STA 27+12 TO 27+12	12" RCP	3 LF	0.020
D-9	CB-9 TO DMH-10 STA 27+12 TO 27+12	12" RCP	16 LF	0.020
D-10	DMH-10 TO DMH-12 STA 27+12 TO 25+31	12" RCP	176 LF	0.010
D-11	CB-11 TO DMH-12 STA 25+37 TO 25+31	12" RCP	15 LF	0.020
D-12	DMH-12 TO DMH-16 STA 25+31 TO 24+82	12" RCP	44 LF	0.010
D-13	CB-13 TO DMH-15 STA 46+57 TO 46+57	12" RCP	15 LF	0.020
D-14	CB-14 TO DMH-15 STA 46+57 TO 46+57	12" RCP	3 LF	0.020
D-15	DMH-15 TO DMH-16 STA 46+57 TO ???	12" RCP	280 LF	0.010
D-16	DMH-16 TO DMH-18 STA 24+82 TO 24+55	12" RCP	27 LF	0.010
D-17	CB-17 TO DMH-18 STA 24+68 TO 24+55	12" RCP	23 LF	0.020
D-18	DMH-18 TO DMH-20 STA 24+55 TO 20+77	12" RCP	377 LF	0.010
D-19	CB-19 TO DMH-20 STA 20+77 TO 20+77	12" RCP	17 LF	0.020
D-20	DMH-20 TO DMH-24 STA 20+77 TO 20+09	12" RCP	63 LF	0.010
D-21	CB-21 TO DMH-23 STA 39+71 TO 39+71	12" RCP	16 LF	0.020
D-22	CB-22 TO DMH-23 STA 39+71 TO 39+71	12" RCP	3 LF	0.020
D-23	DMH-23 TO DMH-24 STA 39+71 TO 37+31	12" RCP	236 LF	0.010
D-24	DMH-24 TO DMH-27 STA 20+09 TO 19+78	12" RCP	31 LF	0.010
D-25	CB-25 TO DMH-27 STA 19+78 TO 19+78	12" RCP	3 LF	0.020
D-26	CB-26 TO DMH-27 STA 19+77 TO 19+78	12" RCP	31 LF	0.020
D-27	DMH-27 TO DMH-29 STA 19+78 TO 17+55	12" RCP	219 LF	0.010
D-28	CB-28 TO DMH-29 STA 17+55 TO 17+55	12" RCP	24 LF	0.020
D-29	DMH-29 TO DMH-33 STA 17+55 TO 17+08	12" RCP	44 LF	0.010
D-30	CB-30 TO DMH-32 STA 35+41 TO 35+18	12" RCP	48 LF	0.020

DRAINAGE PIPE DATA				
PIPE	PIPE LOCATION	SIZE & TYPE	LENGTH	SLOPE
D-31	CB-31 TO DMH-32 STA 35+41 TO 35+18	12" RCP	20 LF	0.020
D-32	DMH-32 TO DMH-33 STA 35+18 TO 32+18	12" RCP	296 LF	0.010
D-33	DMH-33 TO DMH-36 STA 17+08 TO 16+92	12" RCP	12 LF	0.010
D-34	CB-34 TO DMH-36 STA 16+92 TO 16+92	12" RCP	4 LF	0.020
D-35	CB-35 TO DMH-36 STA 16+92 TO 16+92	12" RCP	31 LF	0.020
D-36	DMH-36 TO DMH-39 STA 16+92 TO 14+61	12" RCP	227 LF	0.010
D-37	CB-37 TO DMH-39 STA 14+61 TO 14+61	12" RCP	3 LF	0.020
D-38	CB-38 TO DMH-39 STA 14+61 TO 14+61	12" RCP	31 LF	0.020
D-39	DMH-39 TO DMH-42 STA 14+61 TO 12+42	12" RCP	214 LF	0.010
D-40	CB-40 TO DMH-42 STA 12+42 TO 12+42	12" RCP	3 LF	0.020
D-41	CB-41 TO DMH-42 STA 12+42 TO 12+42	12" RCP	32 LF	0.020
D-42	DMH-42 TO WQU-43 STA 12+42 TO 12+01	12" RCP	41 LF	0.010
D-43	WQU-43 TO STA 12+01 TO 11+71	12" RCP	142 LF	0.010

DRAINAGE PIPE DATA				
PIPE	PIPE LOCATION	SIZE & TYPE	LENGTH	SLOPE
D-45	WQU-44 TO STA 10+43 TO 10+54	12" RCP	29 LF	0.010

DRAWING TITLE

Storm Sewer Tables

OWNER / APPLICANT / SUBDIVIDER

Lupoli Companies
290 Merrimack Street
Lawrence, MA 01840

DESIGNER / ENGINEER

TEC
The Engineering Corp

TEC, Inc.
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DRAWING NO. C-21

SHEET 21 OF 5

SEWER STRUCTURE DATA					
NO.	TYPE	STATION	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT
SMH-1	SMH-48	19+85.4 17.5' RT	287.82	I=282.95' ()	I=282.85' (SMH-3)
SMH-3	SMH-48	20+34.9 15.9' RT	289.61	I=282.35' (SMH-1)	I=282.25' (SMH-4)
SMH-4	SMH-48	22+57.3 10.0' RT	294.57	I=280.00' (SMH-3)	I=279.90' (SMH-5)
SMH-5	SMH-48	24+42 9.5' RT	292.42	I=278.07' (SMH-4)	I=277.97' (SMH-7)
SMH-6	SMH-48	46+13 -10.0' LT	287.99		I=279.07' (SMH-7)
SMH-7	SMH-48	25+25 22.1' RT	291.19	I=277.18' (SMH-5) I=277.18' (SMH-6)	I=277.08' (SMH-8)
SMH-8	SMH-48	26+90.5 10.1' RT	288.68	I=275.32' (SMH-7)	I=275.22' (SMH-9)
SMH-9	SMH-48	28+82.6 10.0' RT	285.80	I=273.31' (SMH-8)	I=273.21' (SMH-10)
SMH-10	SMH-48	29+57.4 10.0' RT	284.68	I=272.64' (SMH-9)	I=272.54' (SMH-11)
SMH-11	SMH-48	31+60 10.0' RT	272.19	I=270.52' (SMH-10)	I=270.42' (SMH-12)
SMH-12	SMH-48	31+71.2 17.3' RT	271.96	I=270.29' (SMH-11)	

SEWER PIPE DATA				
PIPE	PIPE LOCATION	SIZE & TYPE	LENGTH	SLOPE
P-1	TO SMH-1 STA 19+82 TO 19+85	12" RCP	72 LF	0.010
P-2	SMH-1 TO SMH-3 STA 19+85 TO 20+35	12" RCP	46 LF	0.010
P-4	SMH-3 TO SMH-4 STA 20+35 TO 22+57	12" RCP	221 LF	0.010
P-5	SMH-4 TO SMH-5 STA 22+57 TO 24+42	12" RCP	179 LF	0.010
P-6	SMH-5 TO SMH-7 STA 24+42 TO 25+25	12" RCP	75 LF	0.010
P-7	SMH-6 TO SMH-7 STA 46+13 TO 44+22	12" RCP	185 LF	0.010
P-8	SMH-7 TO SMH-8 STA 25+25 TO 26+91	12" RCP	172 LF	0.010
P-9	SMH-8 TO SMH-9 STA 26+91 TO 28+83	12" RCP	187 LF	0.010
P-10	SMH-9 TO SMH-10 STA 28+83 TO 29+57	12" RCP	53 LF	0.010
P-11	SMH-10 TO SMH-11 STA 29+57 TO 31+60	12" RCP	198 LF	0.010
P-12	SMH-11 TO SMH-12 STA 31+60 TO 31+71	12" RCP	10 LF	0.010

SEWER STRUCTURE DATA					
NO.	TYPE	STATION	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT
SMH-13	SMH-48	15+22 17.5' RT	274.64		I=270.22' (SMH-16)
SMH-15	SMH-48	34+37.5 30.0' RT	274.53		
SMH-16	SMH-48	17+64.1 17.5' RT	281.59	I=269.01' (SMH-13) I=269.01' ()	I=268.91' ()

SEWER PIPE DATA				
PIPE	PIPE LOCATION	SIZE & TYPE	LENGTH	SLOPE
P-13	SMH-13 TO SMH-16 STA 15+22 TO 17+64	6" RCP	238 LF	0.005
P-15	TO SMH-16 STA 34+38 TO ???	6" RCP	249 LF	0.005
P-17	SMH-16 TO STA 17+64 TO 17+89	6" RCP	335 LF	0.005

DRAWING TITLE

Sanitary Sewer Tables

SUBDIVISION NAME & LOCATION

King Street Commons
550 King Street
Littleton, MA 01460

OWNER / APPLICANT / SUBDIVIDER

Lupoli Companies
290 Merrimack Street
Lawrence, MA 01840

DESIGNER / ENGINEER

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Lawrence, Massachusetts 01843
978.794.1792
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PROJECT NO.
T1180

TEC CAD FILE

T1180_PROFILE

DRAWING NO.
C-20

SHEET 20 OF 50

COMMONWEALTH OF MASSACHUSETTS

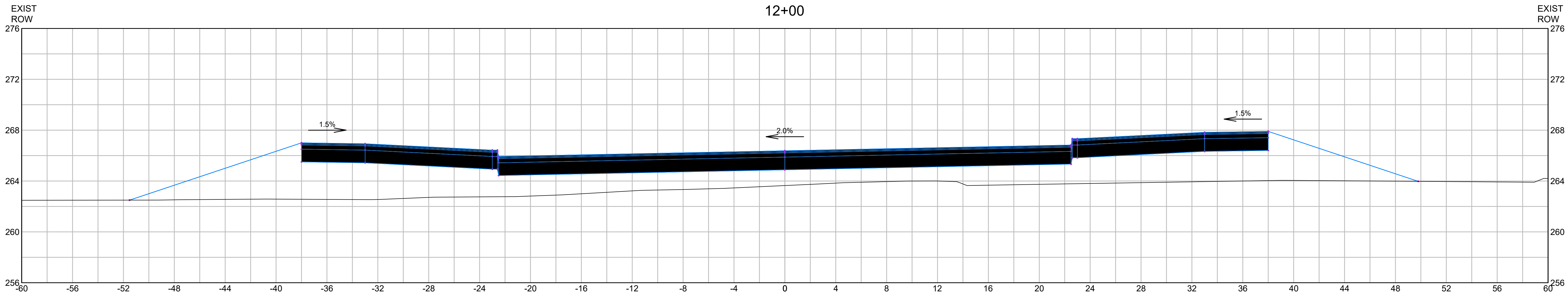
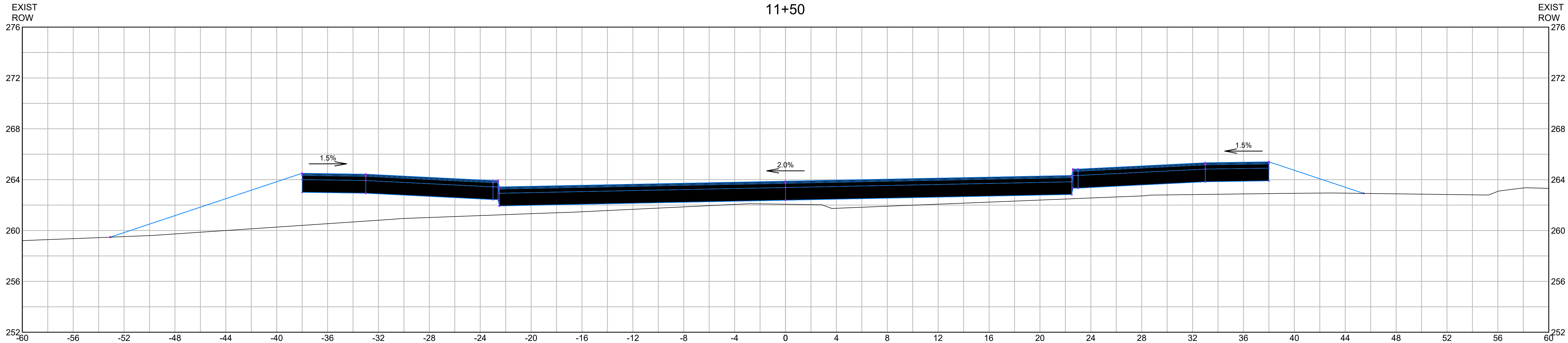
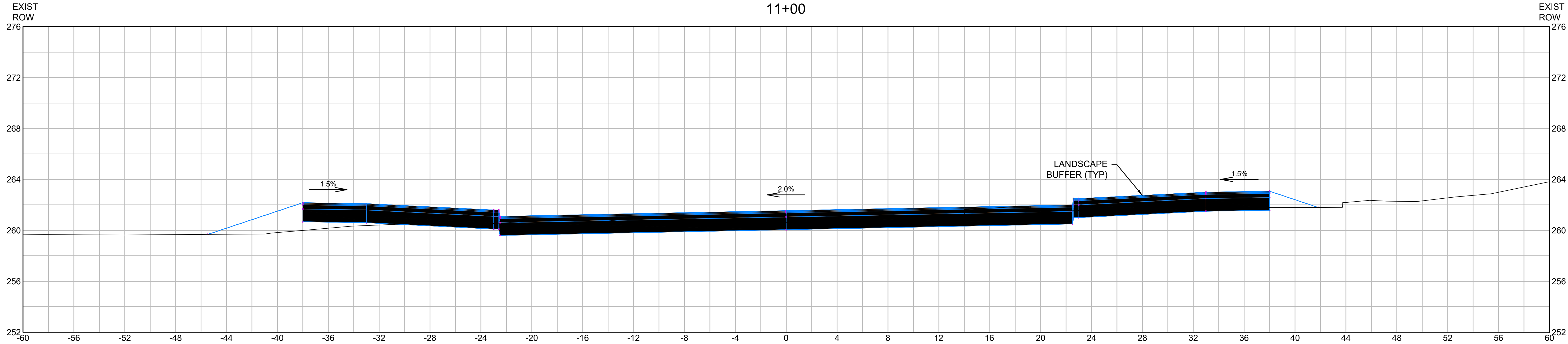
RICHARD J. FRIBERG JR.

CIVIL

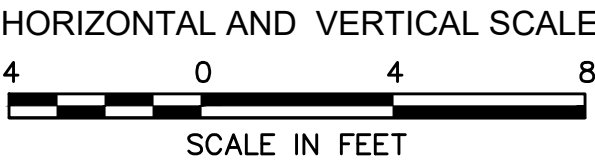
No. 47850

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PROFESSIONAL ENGINEER



- NOTES:
1. ALL LANDSCAPE BUFFERS TO BE A MAX OF 1:10 SLOPE.



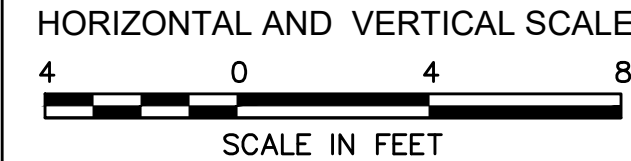
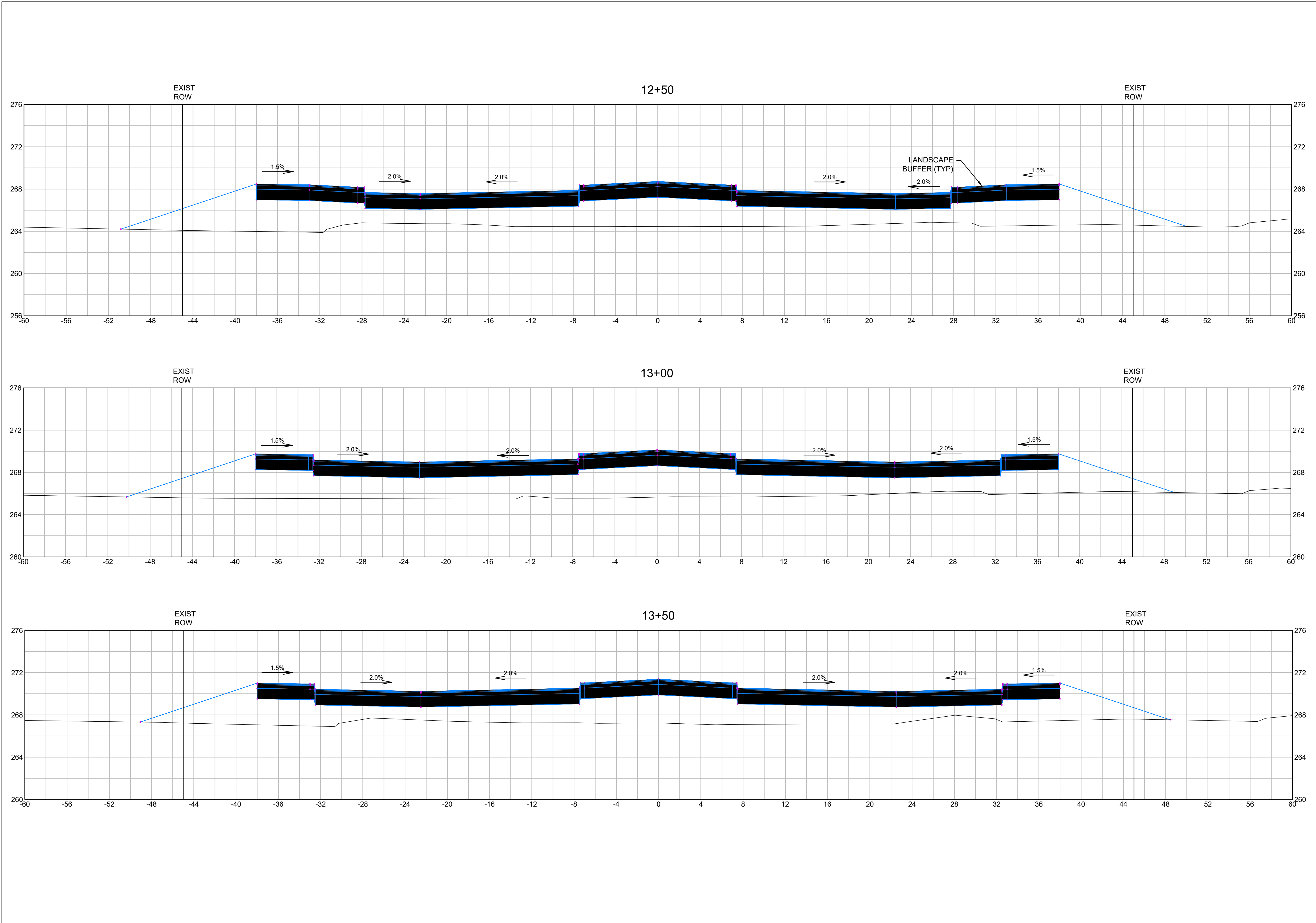
DRAWING TITLE
Roadway Cross Sections
11+00 to 12+00
SUBDIVISION NAME & LOCATION
King Street Commons
550 King Street
Littleton, MA 01460
OWNER / APPLICANT / SUBDIVIDER
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PROJECT NO. T1180
TEC CAD FILE
T1180_ER
DRAWING NO. **C-22**
SHEET 22 OF 50

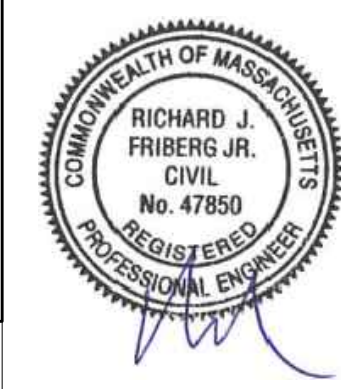
RICHARD J. FRIBERG JR.
CIVIL
No. 47850
PROFESSIONAL ENGINEER

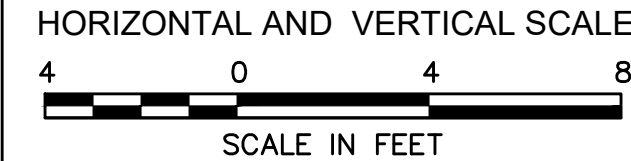
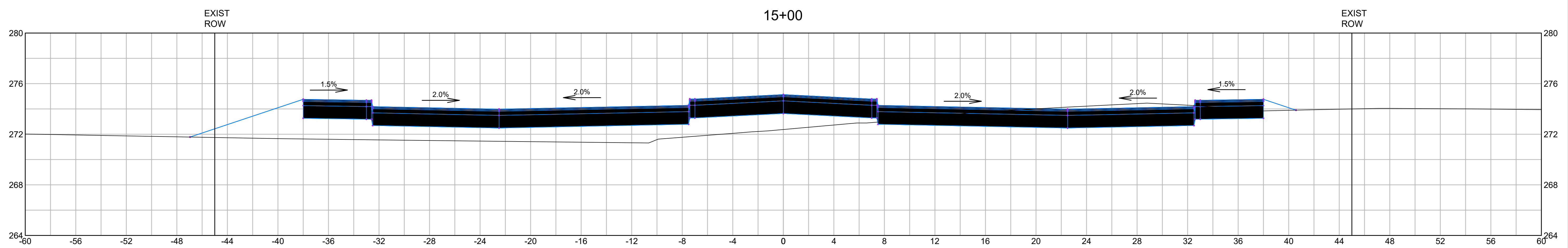
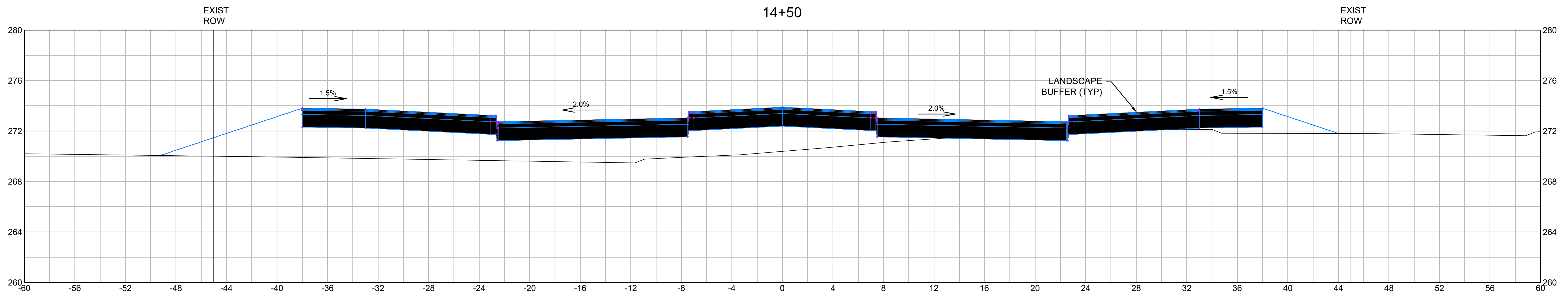
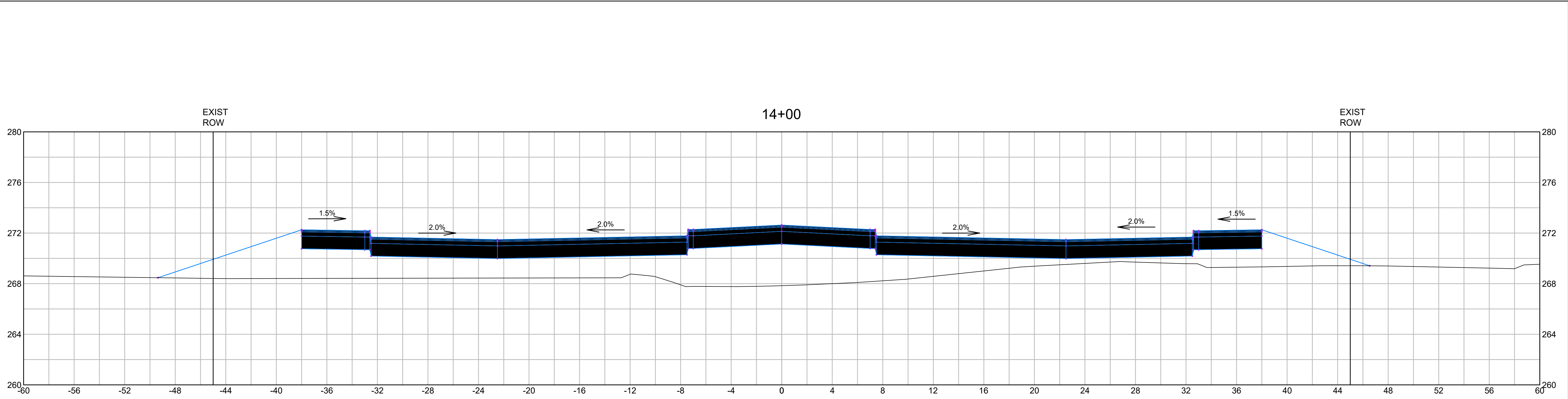


DRAWING TITLE
Roadway Cross Sections
12+50 to 13+50
SUBDIVISION NAME & LOCATION
King Street Commons
550 King Street
Littleton, MA 01460
OWNER / APPLICANT / SUBDIVIDER
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PROJECT NO.
T1180
TEC CAD FILE
T1180_SECTION
DRAWING NO.
C-23
SHEET 23 OF 50





DRAWING TITLE
**Roadway Cross
Sections
14+00 to 15+00**

SUBDIVISION NAME & LOCATION
**King Street
Commons**
550 King Street
Littleton, MA 01460

OWNER / APPLICANT / SUBDIVIDER
Lupoli Companies
290 Merrimack Street
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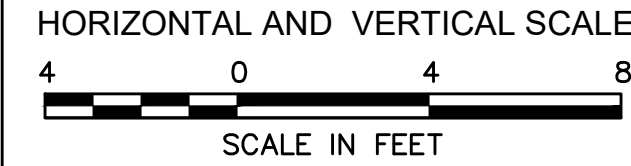
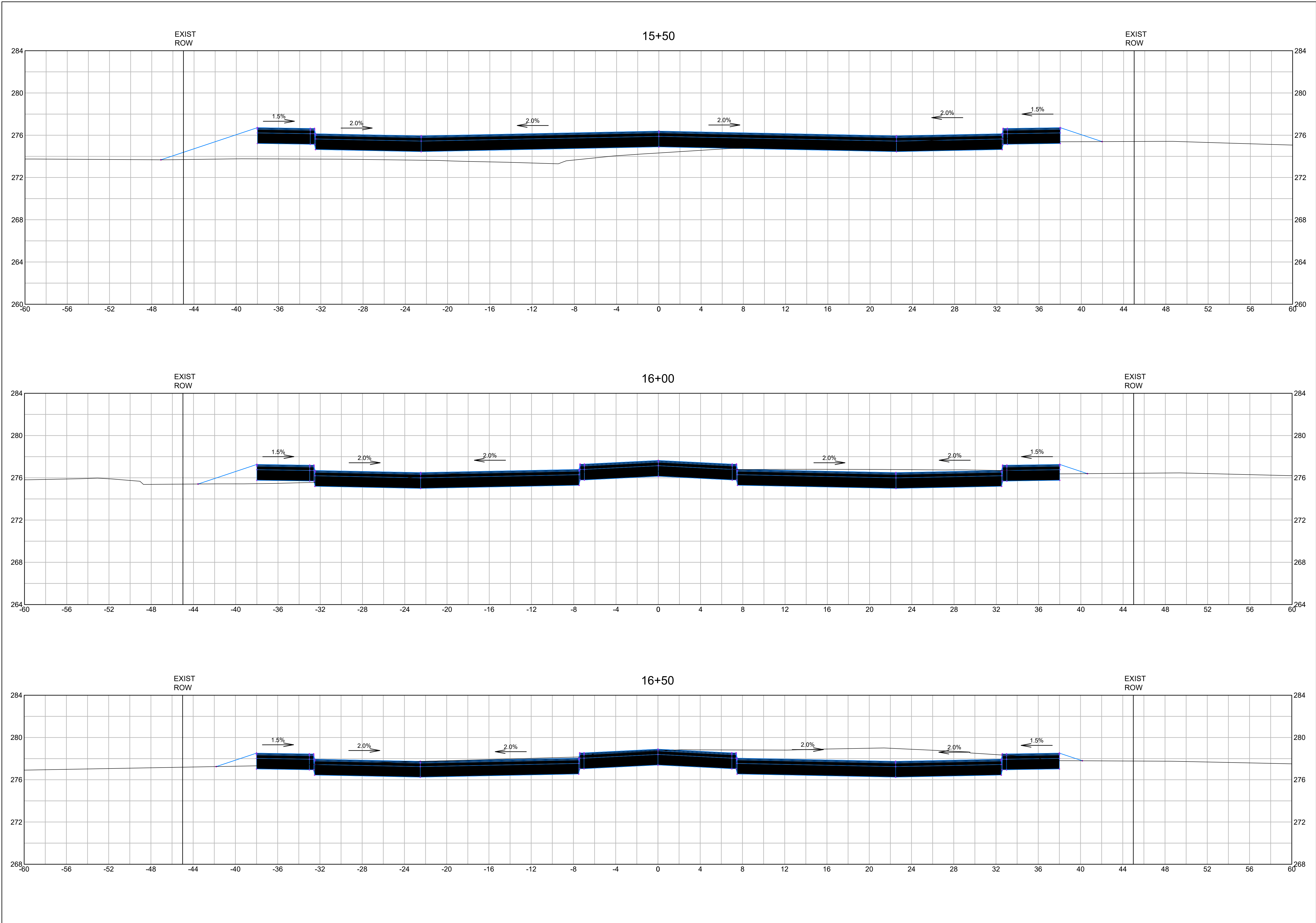
PROJECT NO.
T1180

TEC CAD FILE

T1180_SECTION

DRAWING NO.
C-24

SHEET 24 OF 50



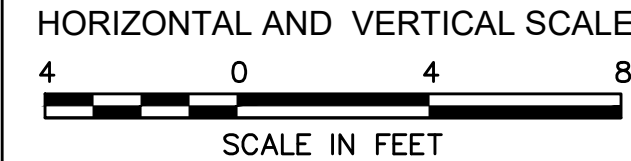
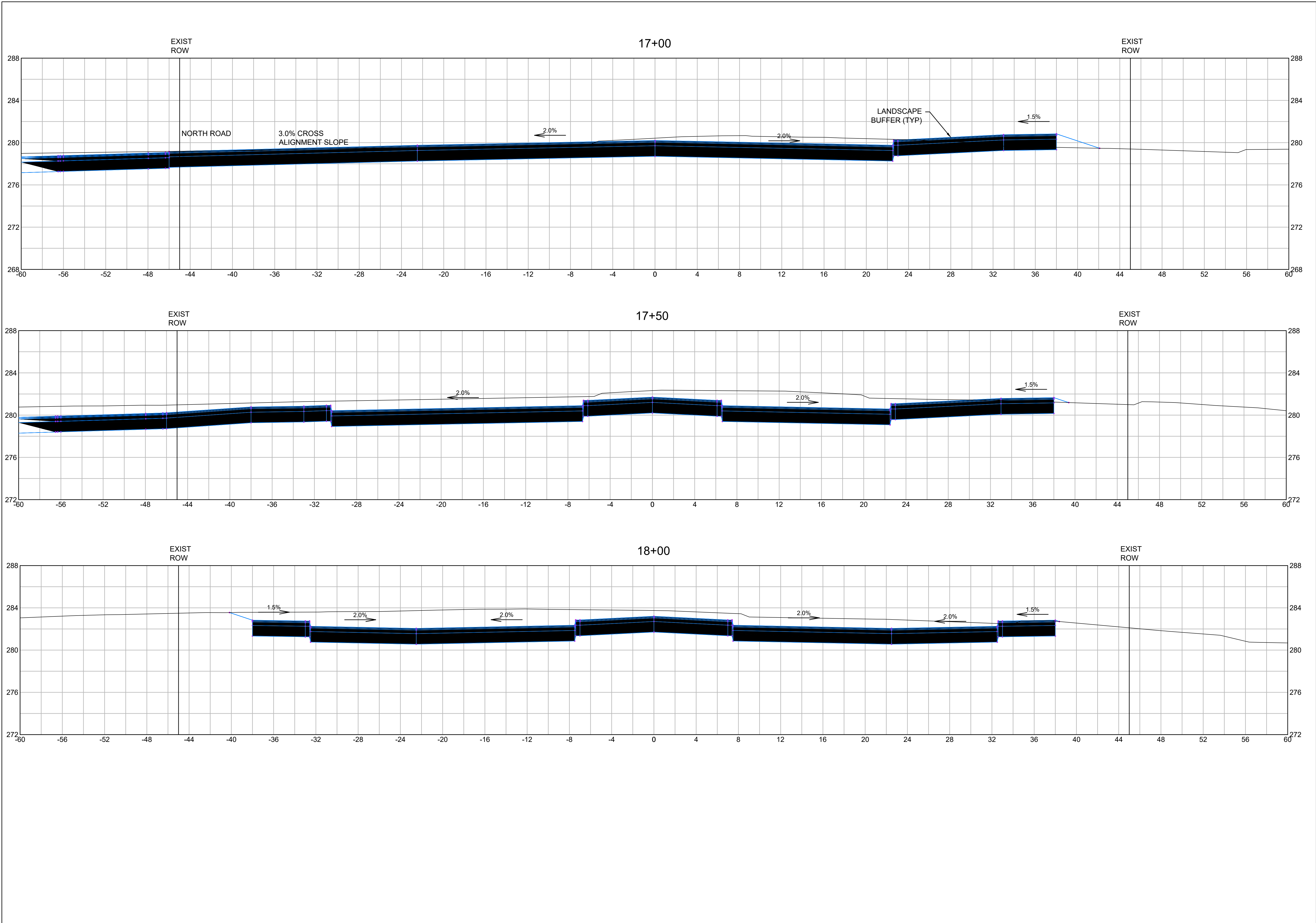
DRAWING TITLE
Roadway Cross Sections
15+50 to 16+50
SUBDIVISION NAME & LOCATION
King Street Commons
550 King Street
Littleton, MA 01460
OWNER / APPLICANT / SUBDIVIDER
Lupoli Companies
290 Merrimack Street
Lawrence, MA 01840
DESIGNER / ENGINEER

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DATE
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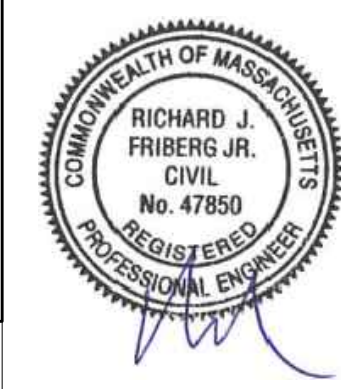
PROJECT NO.
T1180
TEC CAD FILE
T1180_SECTION
DRAWING NO.
C-25
SHEET 25 OF 50

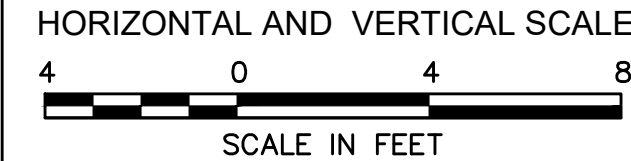
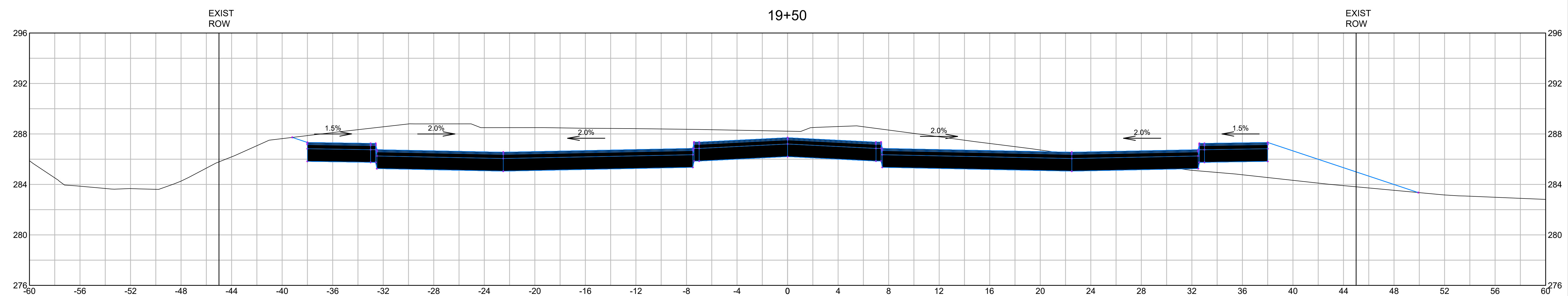
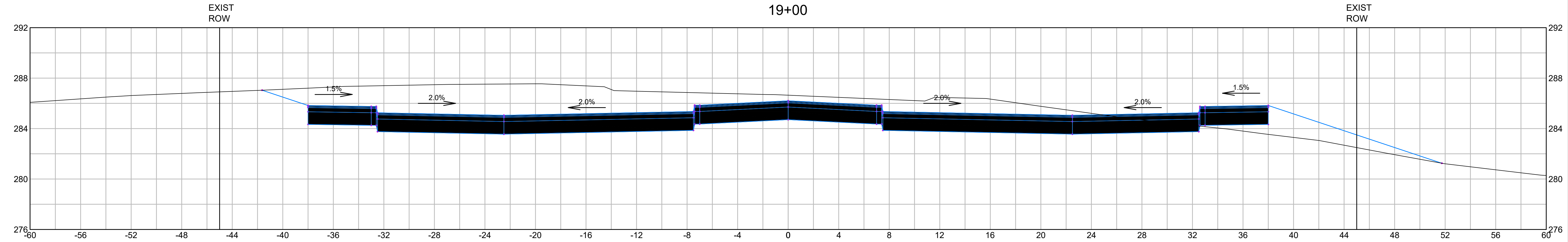
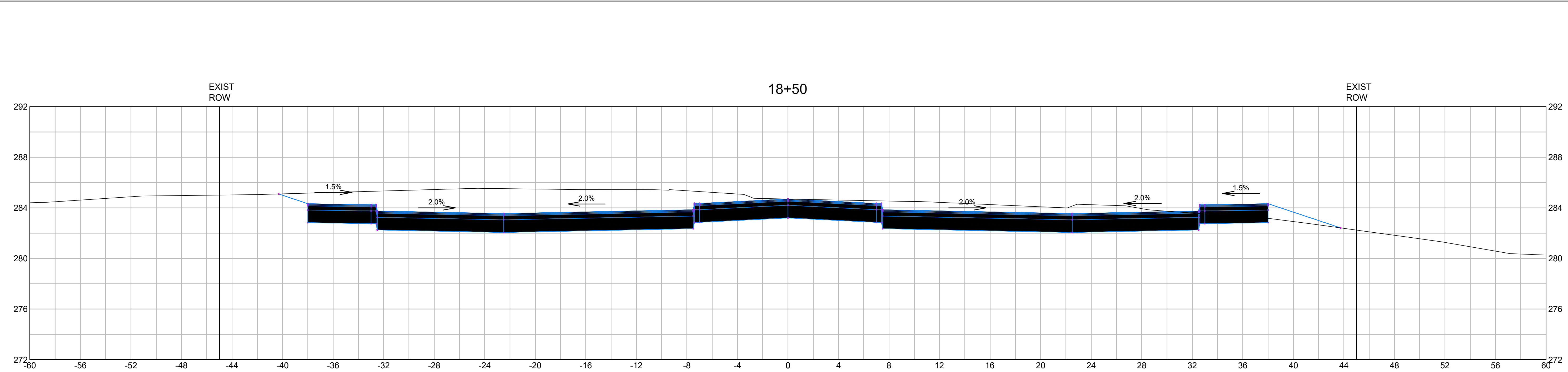


DRAWING TITLE
Roadway Cross Sections
17+00 to 18+00
SUBDIVISION NAME & LOCATION
King Street Commons
550 King Street
Littleton, MA 01460
OWNER / APPLICANT / SUBDIVIDER
Lupoli Companies
290 Merrimack Street
Lawrence, MA 01840
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PROJECT NO.
T1180
TEC CAD FILE
T1180_SECTION
DRAWING NO.
C-26
SHEET 26 OF 50





DRAWING TITLE
Roadway Cross Sections
18+50 to 19+50

SUBDIVISION NAME & LOCATION
King Street Commons
550 King Street
Littleton, MA 01460

OWNER / APPLICANT / SUBDIVIDER
Lupoli Companies
290 Merrimack Street
Lawrence, MA 01840

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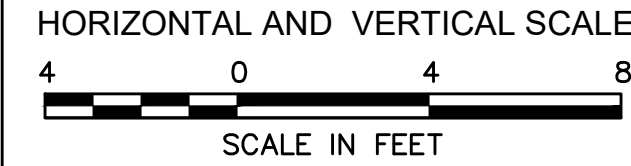
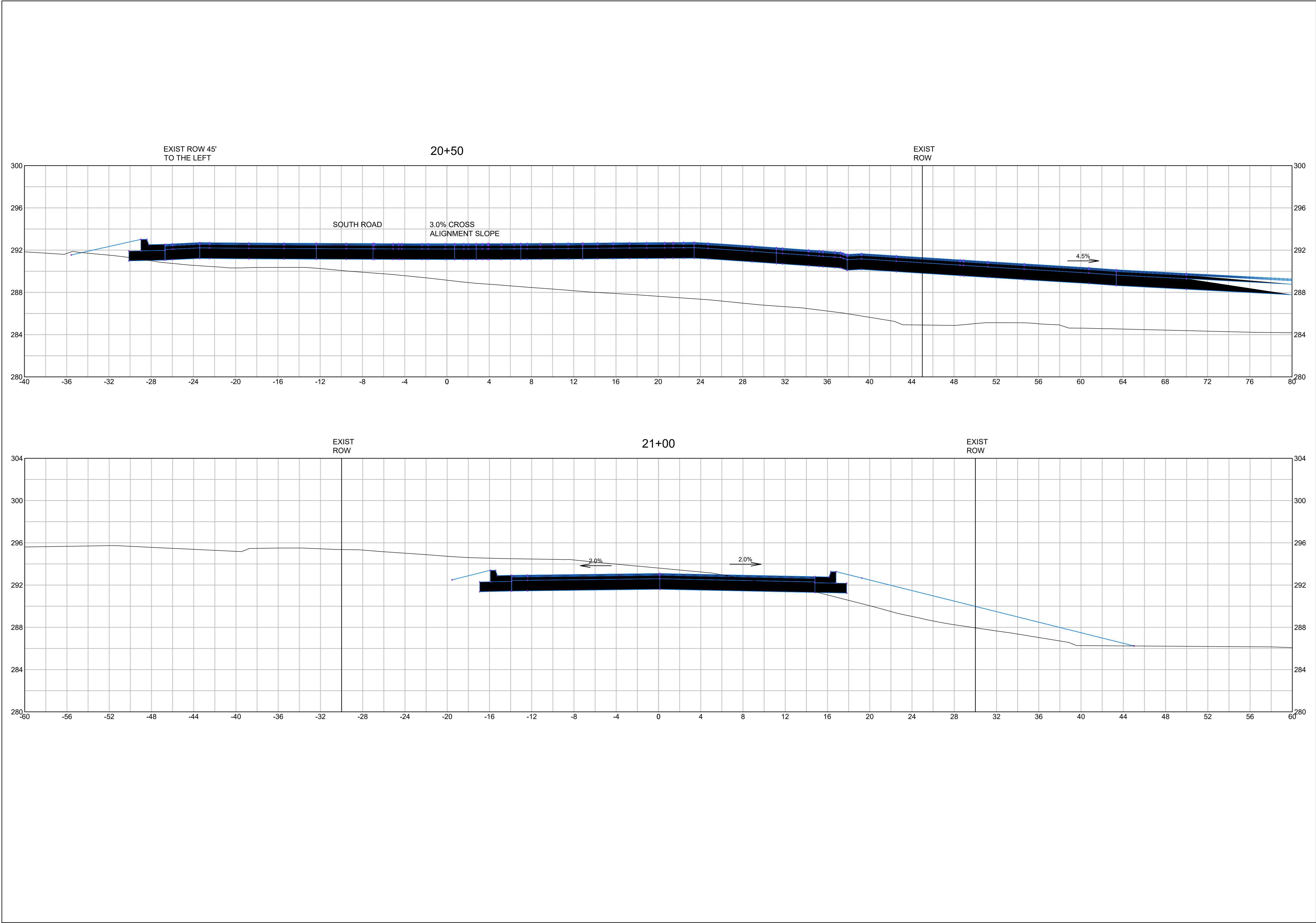
PROJECT NO.
T1180

TEC CAD FILE

T1180_SECTION

DRAWING NO.
C-27

SHEET 27 OF 50



DRAWING TITLE
Roadway Cross Sections
20+50 to 21+00

SUBDIVISION NAME & LOCATION
King Street Commons
550 King Street
Littleton, MA 01460

OWNER / APPLICANT / SUBDIVIDER
Lupoli Companies
290 Merrimack Street
Lawrence, MA 01840

DESIGNER / ENGINEER

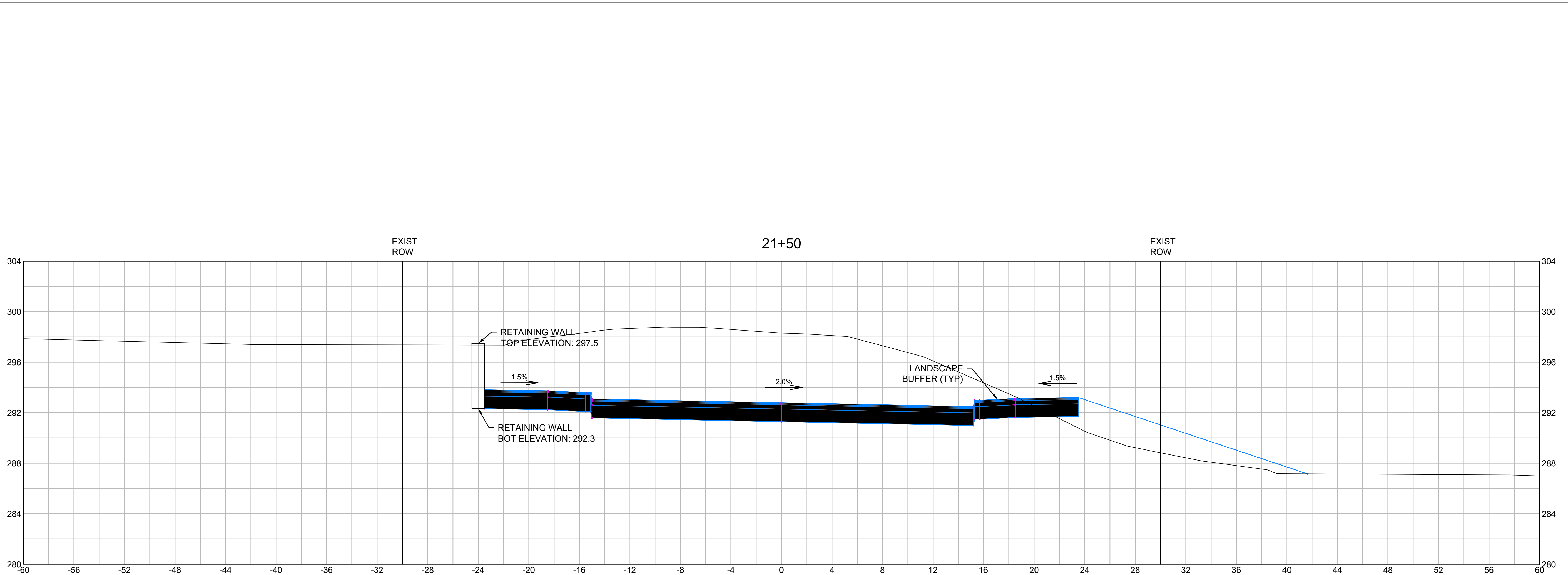
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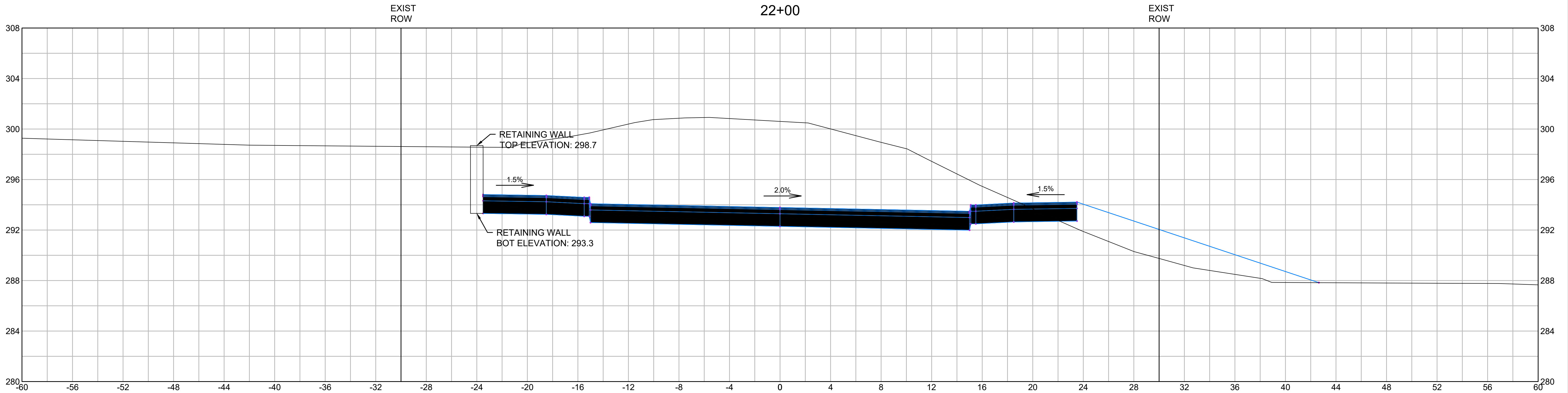
DESIGNED BY _____ DATE _____
CHECKED BY _____ SCALE AS NOTED

PROJECT NO. T1180
TEC CAD FILE
T1180_SECTION
DRAWING NO. **C-28**
SHEET 28 OF 50

RICHARD J. FRIBERG JR.
CIVIL
No. 47850
REGISTERED PROFESSIONAL ENGINEER



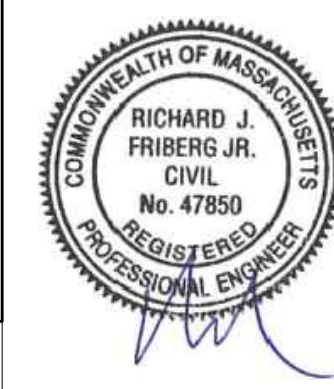
HORIZONTAL AND VERTICAL SCALE
4 0 4 8
SCALE IN FEET

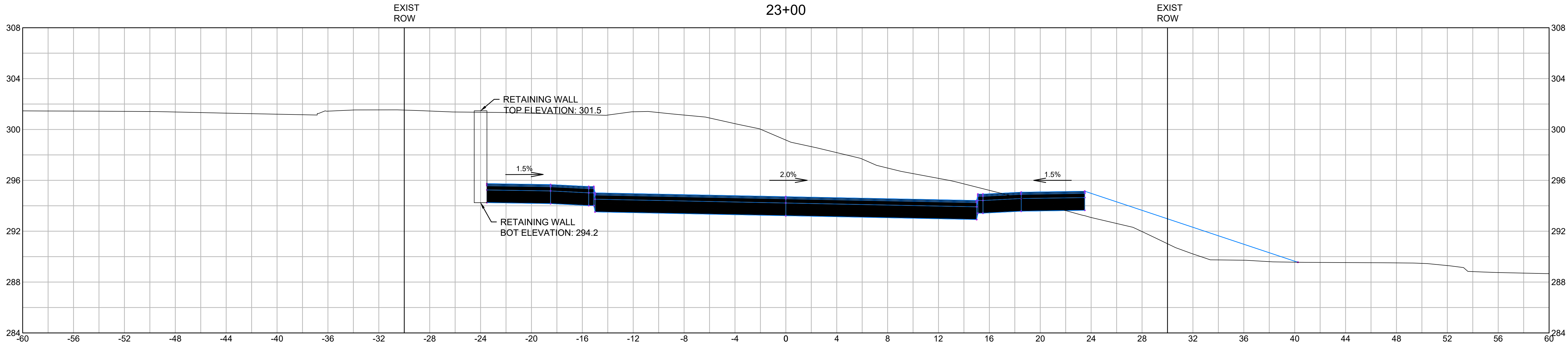
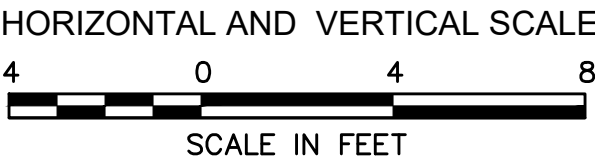
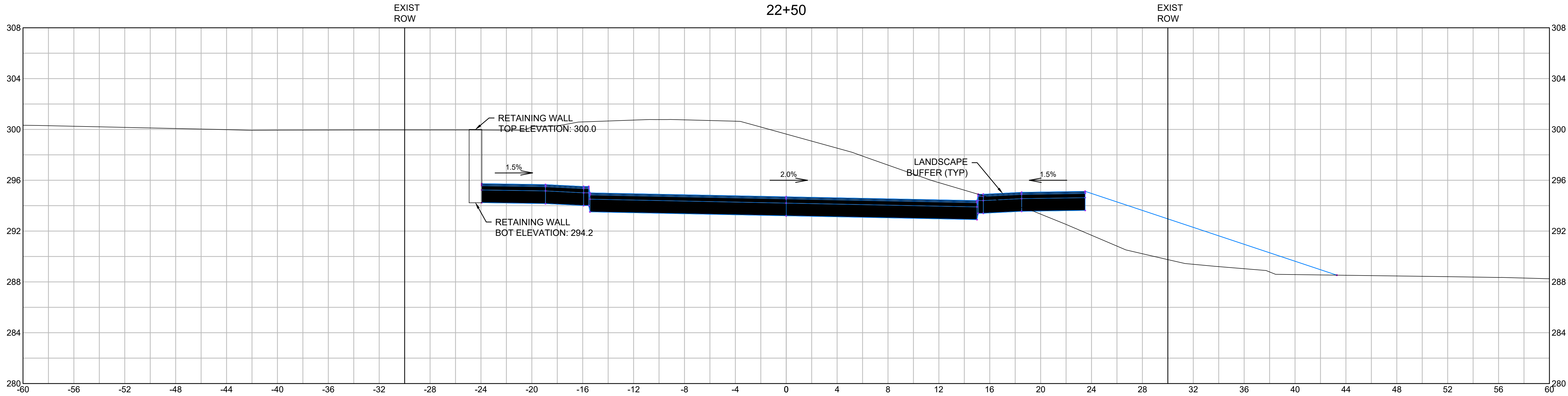


DRAWING TITLE
Roadway Cross Sections
21+50 to 22+00
SUBDIVISION NAME & LOCATION
King Street Commons
550 King Street
Littleton, MA 01460
OWNER / APPLICANT / SUBDIVIDER
Lupoli Companies
290 Merrimack Street
Lawrence, MA 01840
DESIGNER / ENGINEER

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Lawrence, Massachusetts 01843
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CHECKED BY SCALE AS NOTED

PROJECT NO.
T1180
TEC CAD FILE
T1180_SECTION
DRAWING NO.
C-29
SHEET 29 OF 50





DRAWING TITLE
**Roadway Cross
Sections
22+50 to 23+00**

SUBDIVISION NAME & LOCATION
**King Street
Commons**
550 King Street
Littleton, MA 01460

OWNER / APPLICANT / SUBDIVIDER
Lupoli Companies
290 Merrimack Street
Lawrence, MA 01840

DESIGNER / ENGINEER



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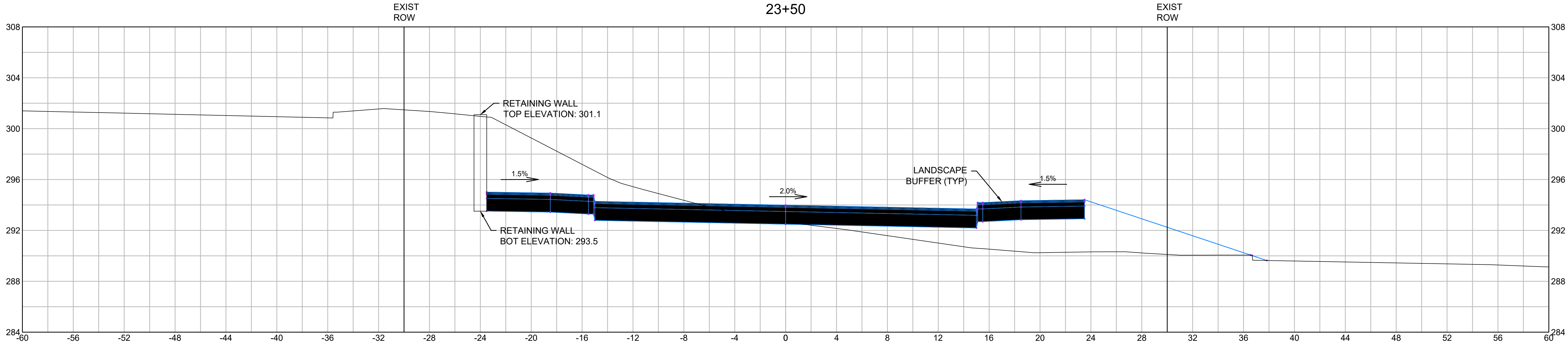
PROJECT NO.
T1180

TEC CAD FILE

T1180_SECTION

DRAWING NO.
C-30

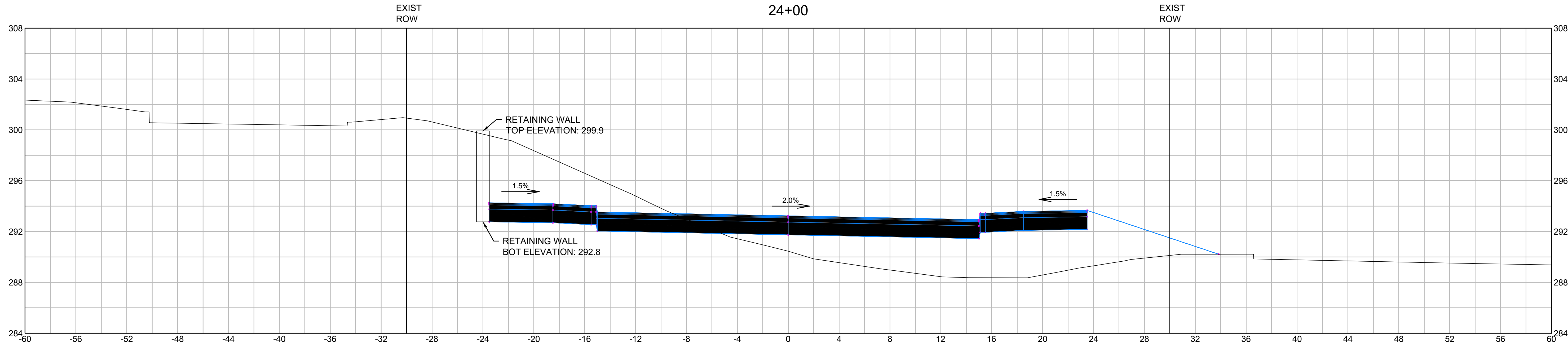
SHEET 30 OF 50



HORIZONTAL AND VERTICAL SCALE

4 0 4 8

SCALE IN FEET



DRAWING TITLE

**Roadway Cross
Sections**
23+50 to 24+00

SUBDIVISION NAME & LOCATION

**King Street
Commons**
550 King Street
Littleton, MA 01460

OWNER / APPLICANT / SUBDIVIDER

Lupoli Companies
290 Merrimack Street
Lawrence, MA 01840

DESIGNER / ENGINEER



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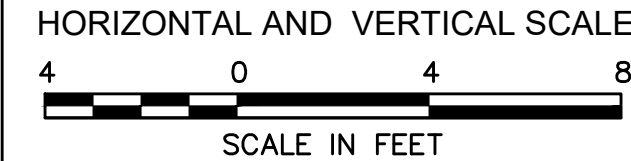
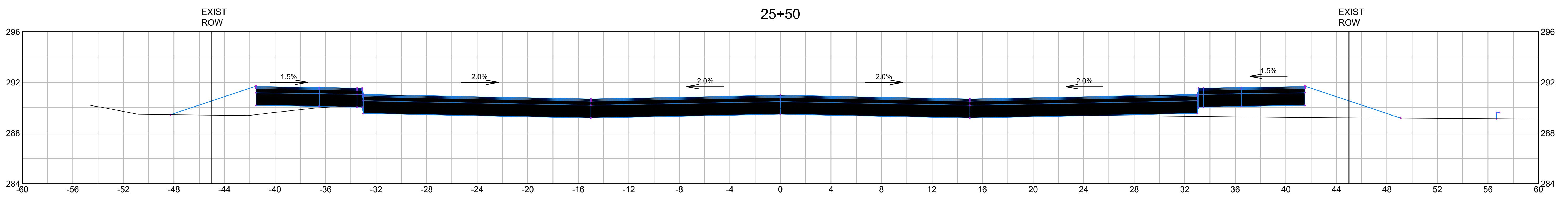
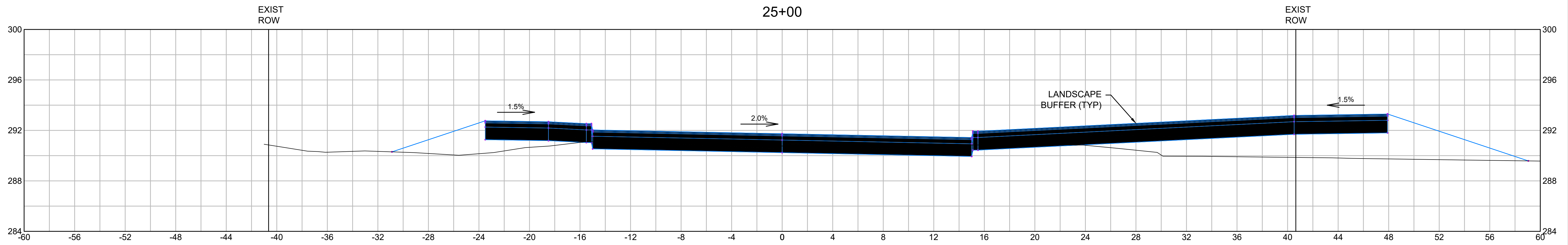
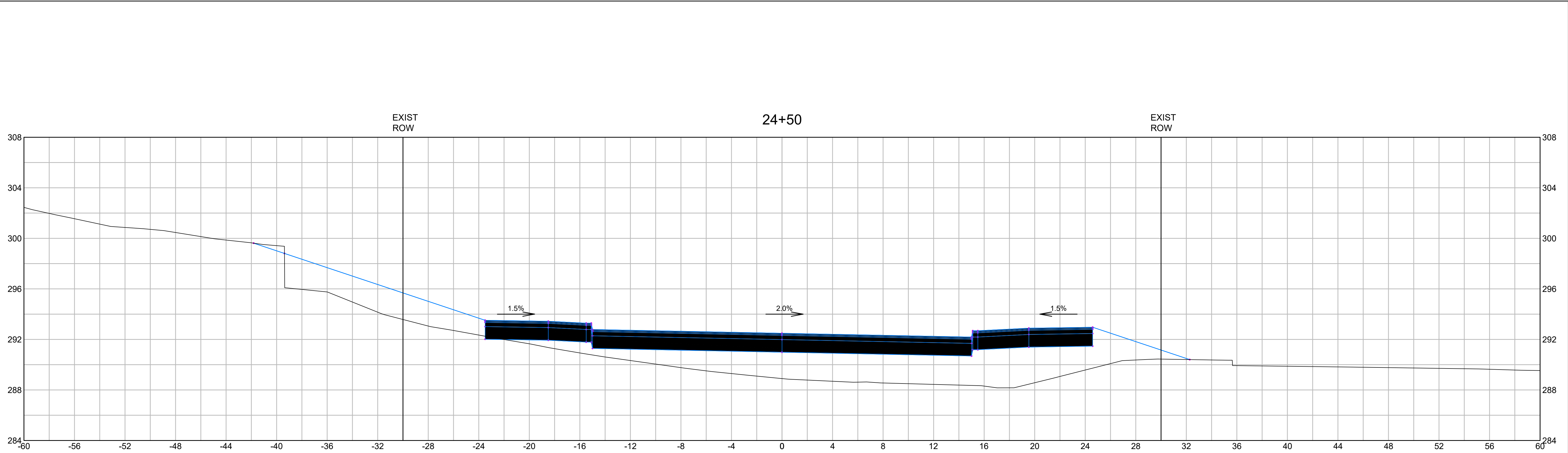
PROJECT NO.
T1180

TEC CAD FILE

T1180_SECTION

DRAWING NO.
C-31

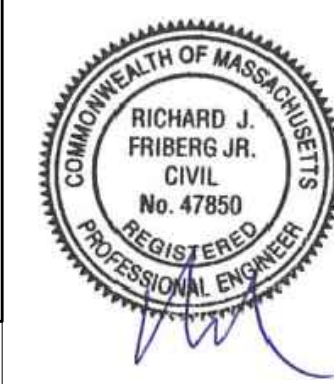
SHEET 31 OF 50

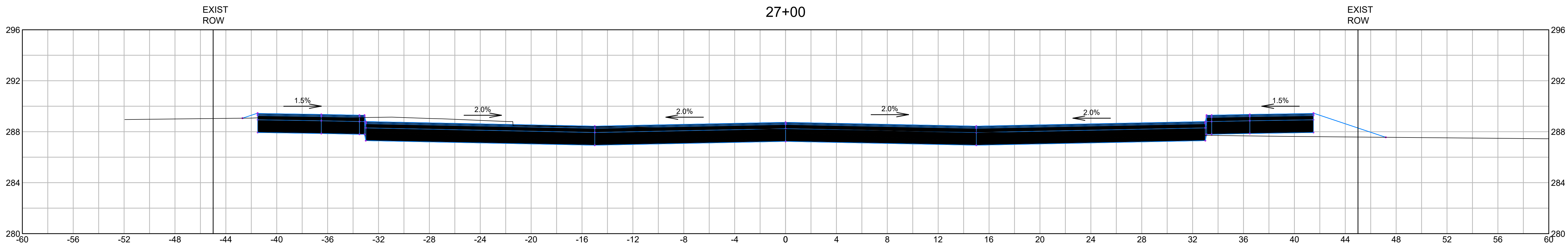
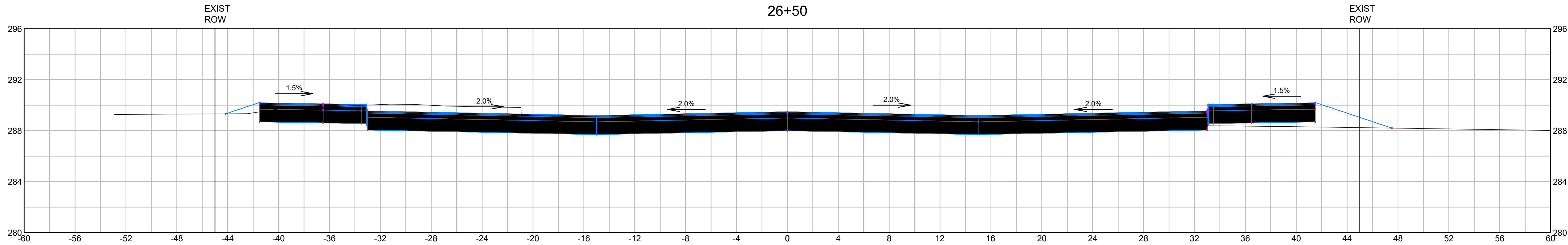
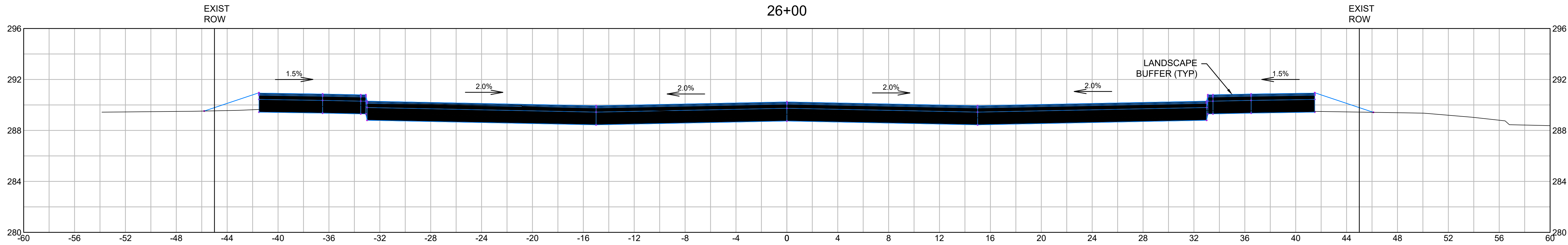


DRAWING TITLE
Roadway Cross Sections
24+50 to 25+50
SUBDIVISION NAME & LOCATION
King Street Commons
550 King Street
Littleton, MA 01460
OWNER / APPLICANT / SUBDIVIDER
Lupoli Companies
290 Merrimack Street
Lawrence, MA 01840
DESIGNER / ENGINEER

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CHECKED BY SCALE AS NOTED

PROJECT NO.
T1180
TEC CAD FILE
T1180_SECTION
DRAWING NO.
C-32
SHEET 32 OF 50



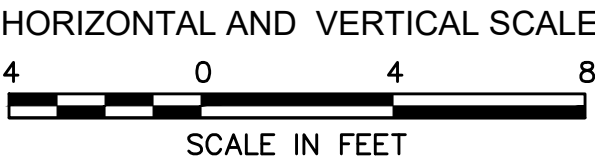
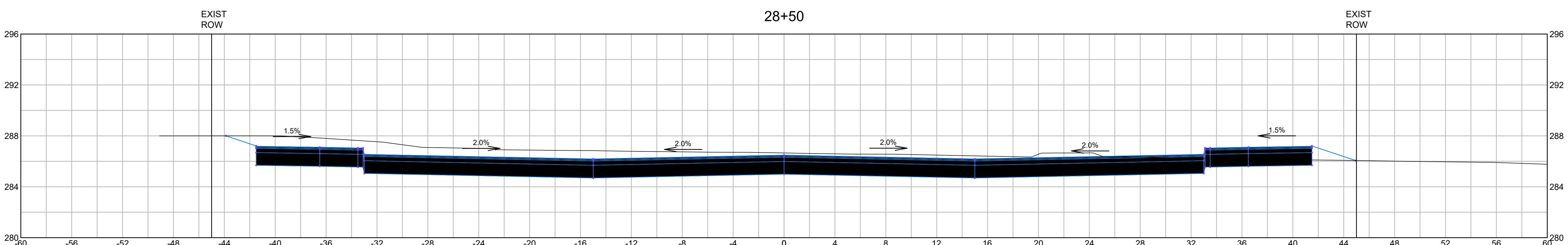
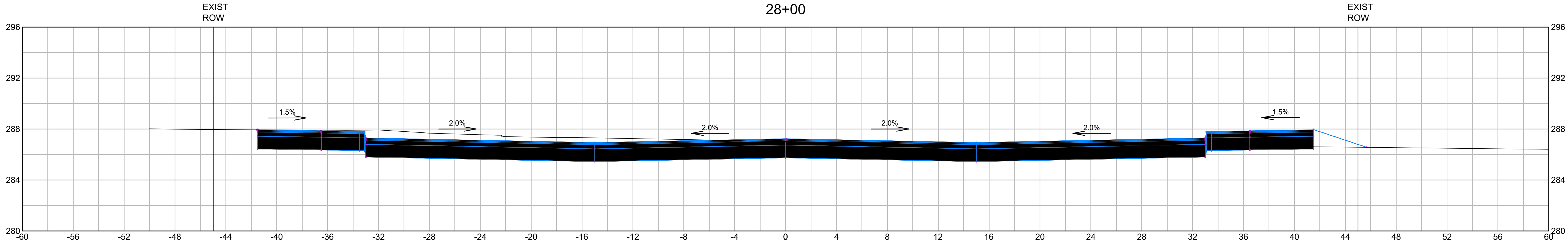
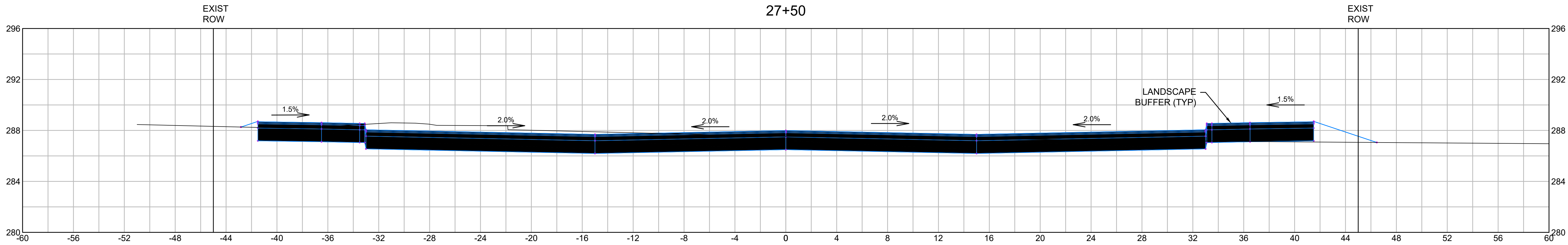


HORIZONTAL AND VERTICAL SCALE
4 0 4 8
SCALE IN FEET

DRAWING TITLE
Roadway Cross Sections
26+00 to 27+00
SUBDIVISION NAME & LOCATION
King Street Commons
550 King Street
Littleton, MA 01460
OWNER / APPLICANT / SUBDIVIDER
Lupoli Companies
290 Merrimack Street
Lawrence, MA 01840
DESIGNER / ENGINEER

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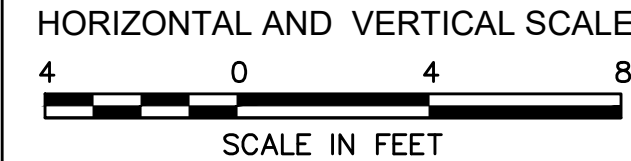
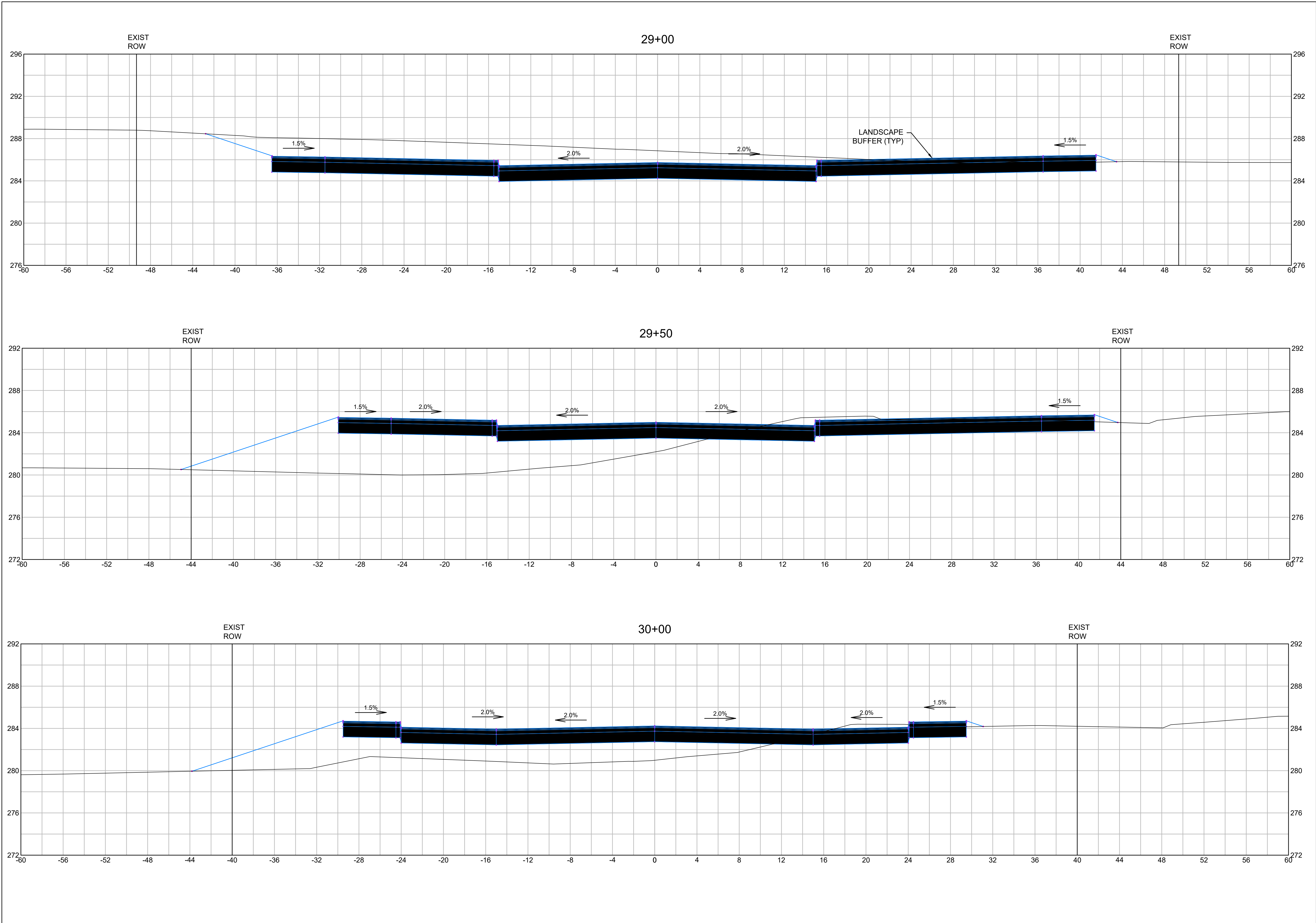
PROJECT NO.
T1180
TEC CAD FILE
T1180_SECTION
DRAWING NO.
C-33
SHEET 33 OF 50



DRAWING TITLE
Roadway Cross Sections
27+50 to 28+50
SUBDIVISION NAME & LOCATION
King Street Commons
550 King Street
Littleton, MA 01460
OWNER / APPLICANT / SUBDIVIDER
Lupoli Companies
290 Merrimack Street
Lawrence, MA 01840
DESIGNER / ENGINEER

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PROJECT NO.
T1180
TEC CAD FILE
T1180_SECTION
DRAWING NO.
C-34
SHEET 34 OF 50



DRAWING TITLE
**Roadway Cross
Sections
29+00 to 30+00**

SUBDIVISION NAME & LOCATION
**King Street
Commons**
550 King Street
Littleton, MA 01460

OWNER / APPLICANT / SUBDIVIDER
Lupoli Companies
290 Merrimack Street
Lawrence, MA 01840

DESIGNER / ENGINEER

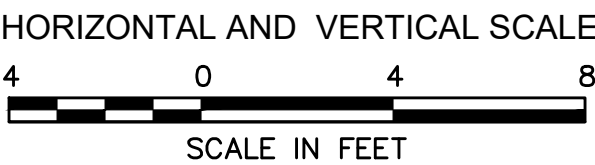
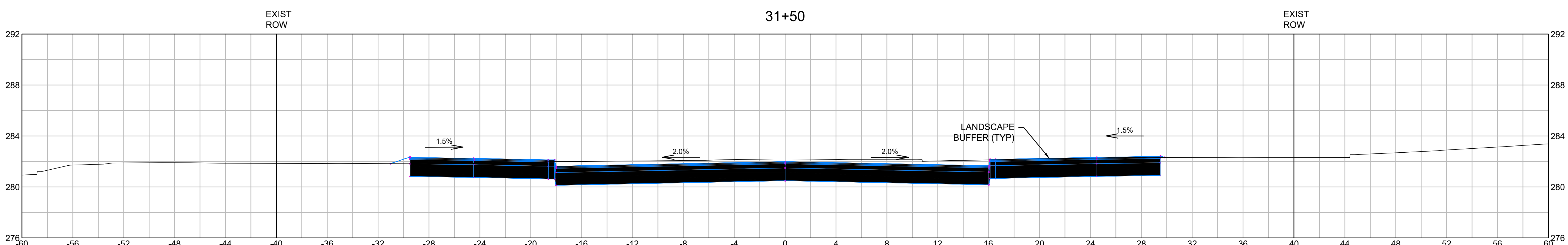
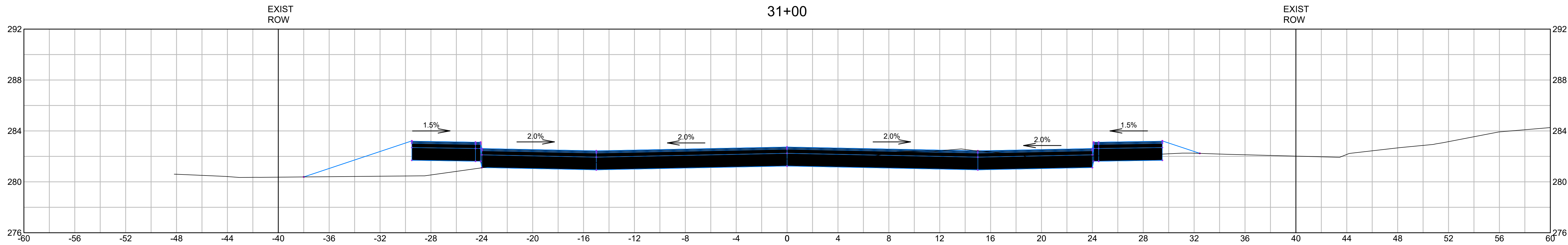
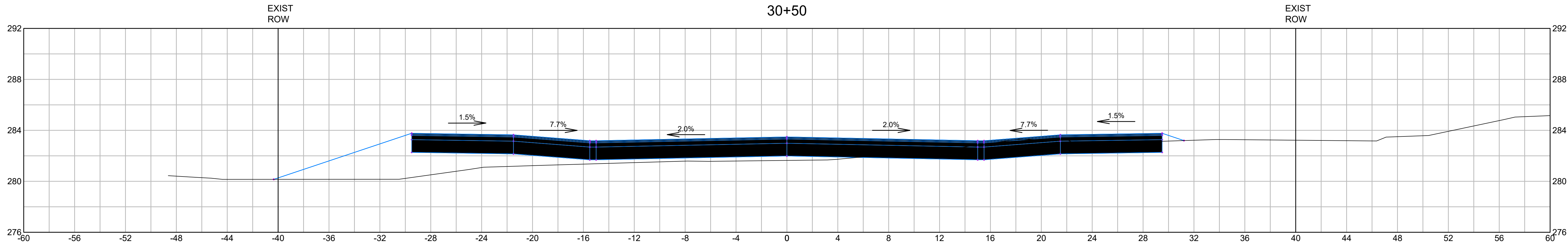
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Lawrence, Massachusetts 01843
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DESIGNED BY _____ DATE _____
CHECKED BY _____ SCALE AS NOTED

PROJECT NO. T1180
TEC CAD FILE
T1180_SECTION
DRAWING NO. **C-35**
SHEET 35 OF 50

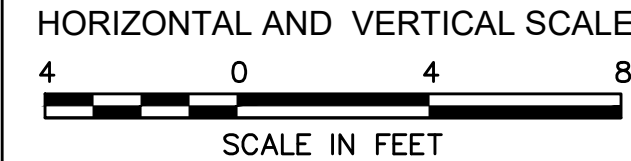
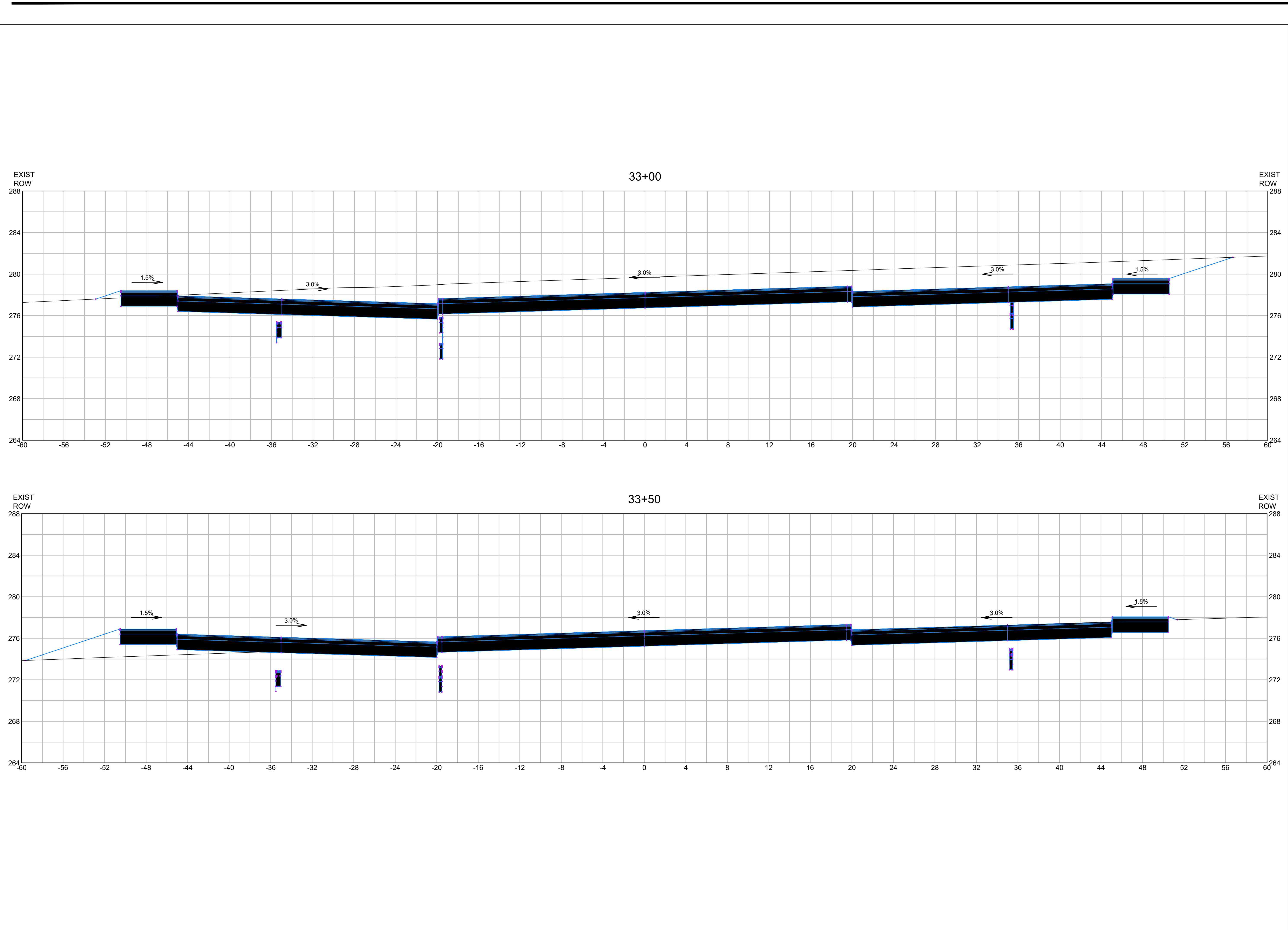
COMMONWEALTH OF MASSACHUSETTS
RICHARD J. FRIEBERG JR.
CIVIL
No. 47850
REGISTERED
PROFESSIONAL ENGINEER



DRAWING TITLE
Roadway Cross Sections
30+50 to 31+50
SUBDIVISION NAME & LOCATION
King Street Commons
550 King Street
Littleton, MA 01460
OWNER / APPLICANT / SUBDIVIDER
Lupoli Companies
290 Merrimack Street
Lawrence, MA 01840
DESIGNER / ENGINEER

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DESIGNED BY _____ DATE _____
CHECKED BY _____ SCALE AS NOTED

PROJECT NO.
T1180
TEC CAD FILE
T1180_SECTION
DRAWING NO.
C-36
SHEET 36 OF 50



DRAWING TITLE
**Roadway Cross
Sections
33+00 to 33+50**

SUBDIVISION NAME & LOCATION
**King Street
Commons**
550 King Street
Littleton, MA 01460

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Lupoli Companies
290 Merrimack Street
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DESIGNER / ENGINEER

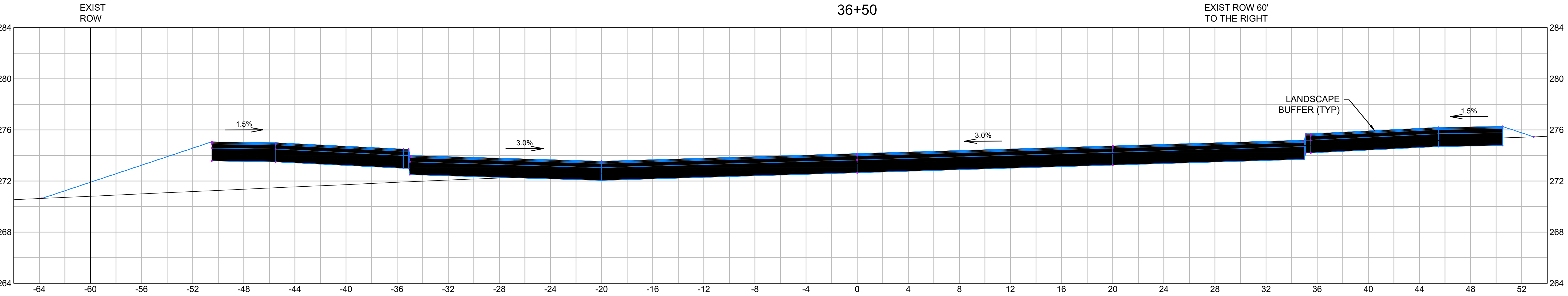
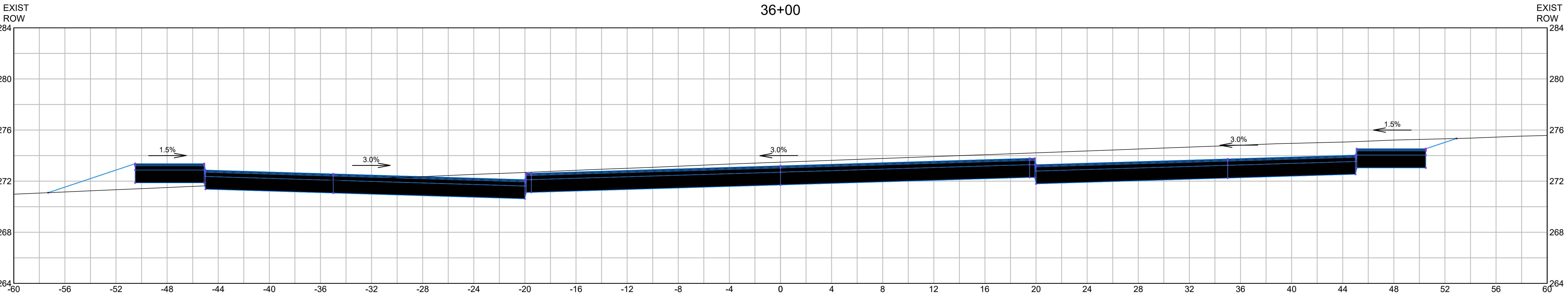
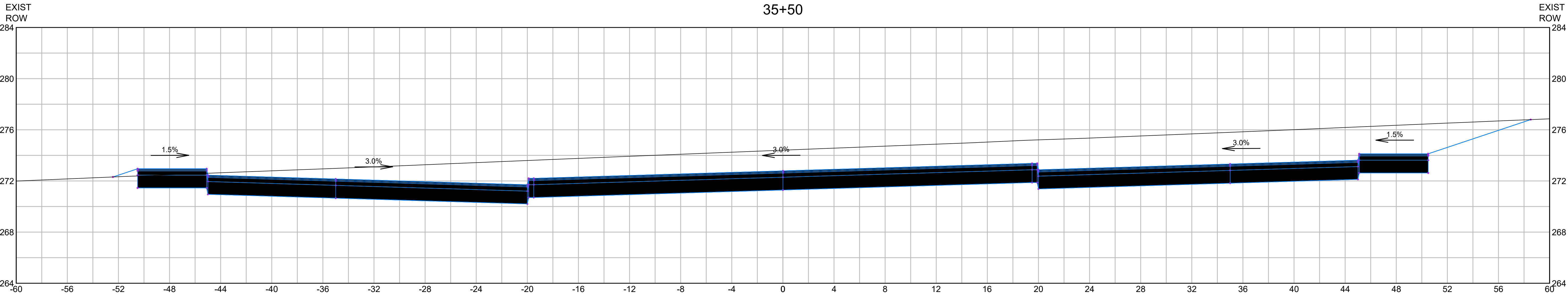
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PROJECT NO. T1180
TEC CAD FILE
T1180_SECTION
DRAWING NO. **C-37**
SHEET 37 OF 50

COMMONWEALTH OF MASSACHUSETTS
REGISTERED PROFESSIONAL ENGINEER
RICHARD J. FRIEBERG JR.
CIVIL
No. 47850



HORIZONTAL AND VERTICAL SCALE

4 0 4 8

SCALE IN FEET

DRAWING TITLE

Roadway Cross Sections

35+50 to 36+50

SUBDIVISION NAME & LOCATION

King Street Commons

550 King Street
Littleton, MA 01460

OWNER / APPLICANT / SUBDIVIDER

Lupoli Companies

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Lawrence, MA 01840

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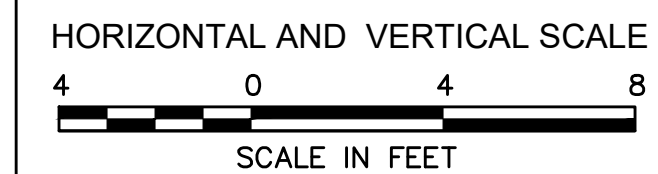
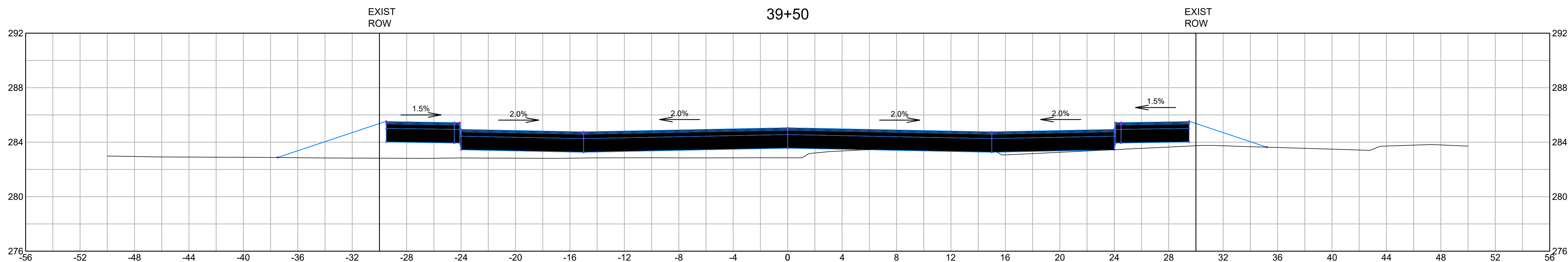
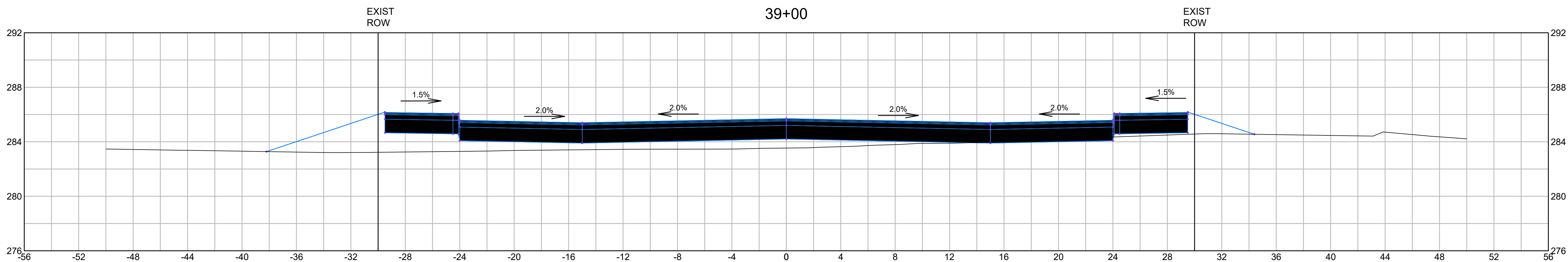
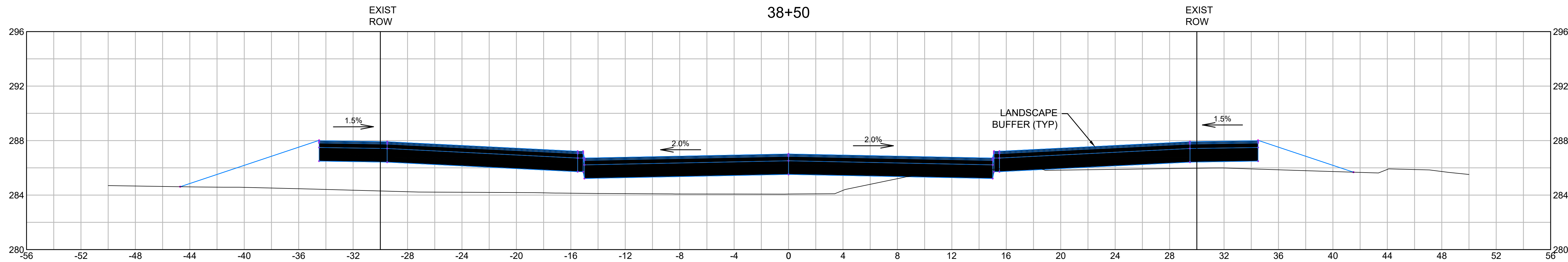
PROJECT NO.
T1180

TEC CAD FILE

T1180_SECTION

DRAWING NO.
C-39

SHEET 39 OF 50



DRAWING TITLE

**Roadway Cross
Sections**
38+50 to 39+50

SUBDIVISION NAME & LOCATION

**King Street
Commons**
550 King Street
Littleton, MA 01460

OWNER / APPLICANT / SUBDIVIDER

Lupoli Companies
290 Merrimack Street
Lawrence, MA 01840

DESIGNER / ENGINEER

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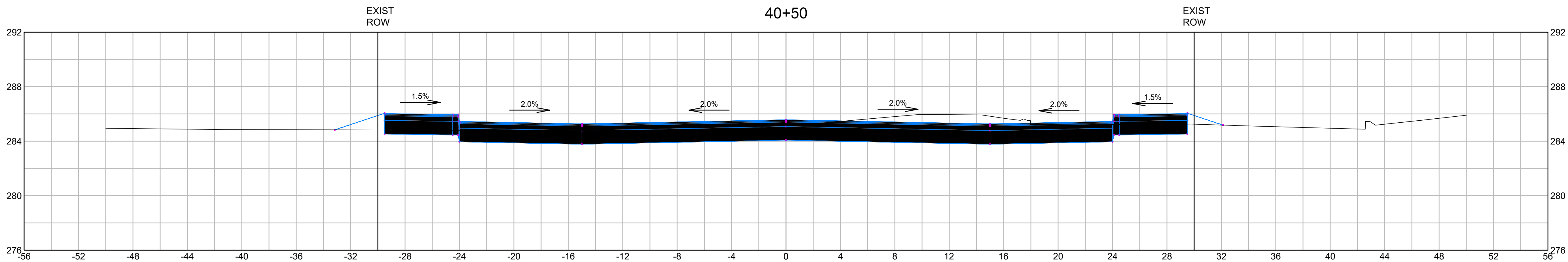
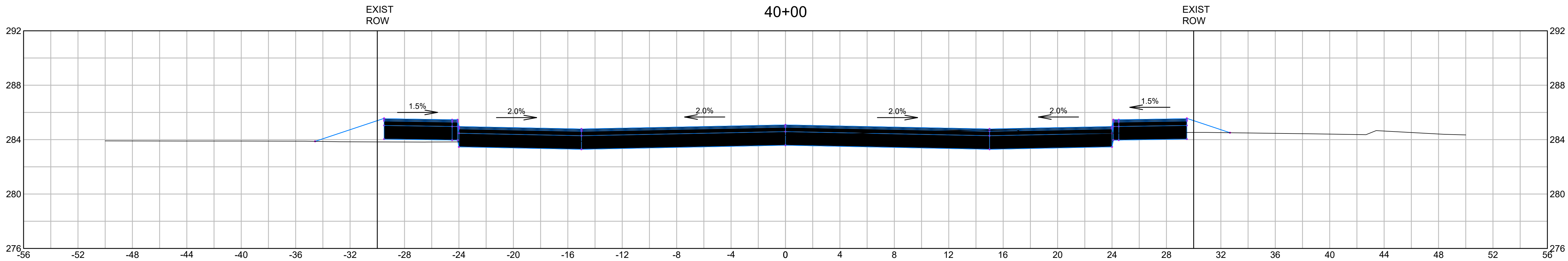
TEC CAD FILE

T1180_SECTION

DRAWING NO.
C-40

SHEET 40 OF 50

RICHARD J. FRIBERG JR.
CIVIL
No. 47850
REGISTERED PROFESSIONAL ENGINEER



HORIZONTAL AND VERTICAL SCALE

4 0 4 8

SCALE IN FEET

DRAWING TITLE
Roadway Cross Sections
40+40 to 40+50

SUBDIVISION NAME & LOCATION
King Street Commons
550 King Street
Littleton, MA 01460

OWNER / APPLICANT / SUBDIVIDER
Lupoli Companies
290 Merrimack Street
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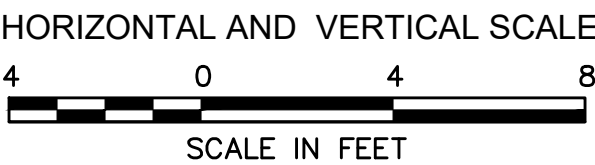
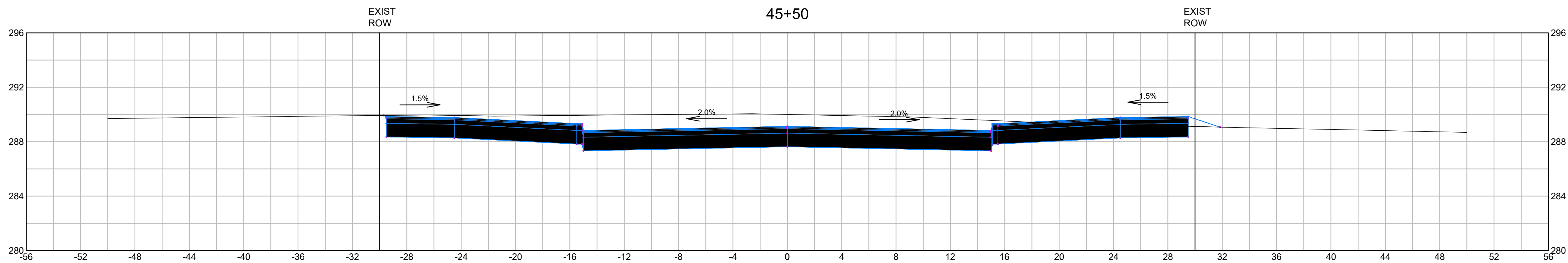
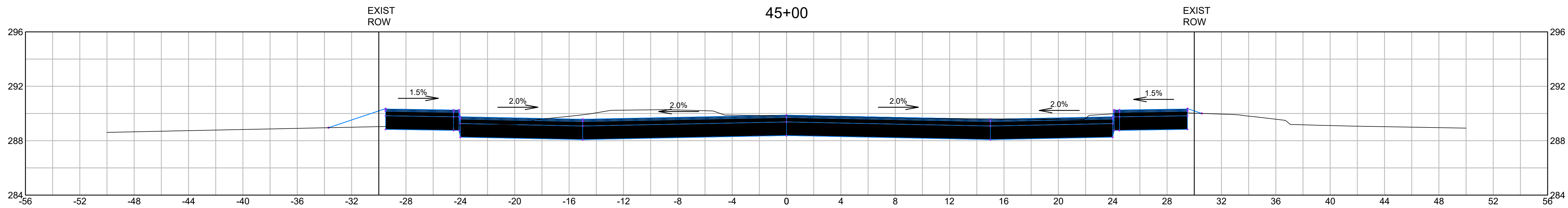
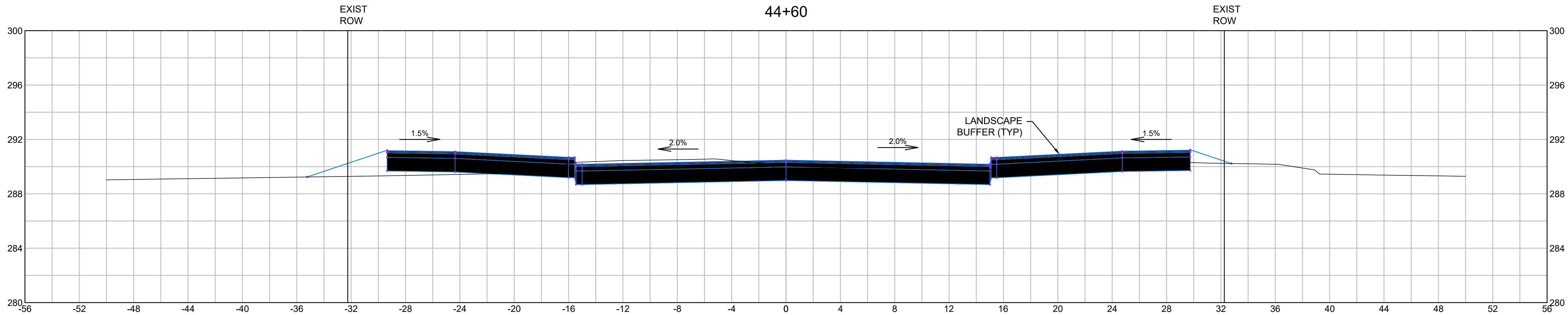
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TEC CAD FILE

T1180_SECTION

DRAWING NO.
C-41

SHEET 41 OF 50



DRAWING TITLE
Roadway Cross Sections
44+60 to 45+50

SUBDIVISION NAME & LOCATION
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550 King Street
Littleton, MA 01460

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Lupoli Companies
290 Merrimack Street
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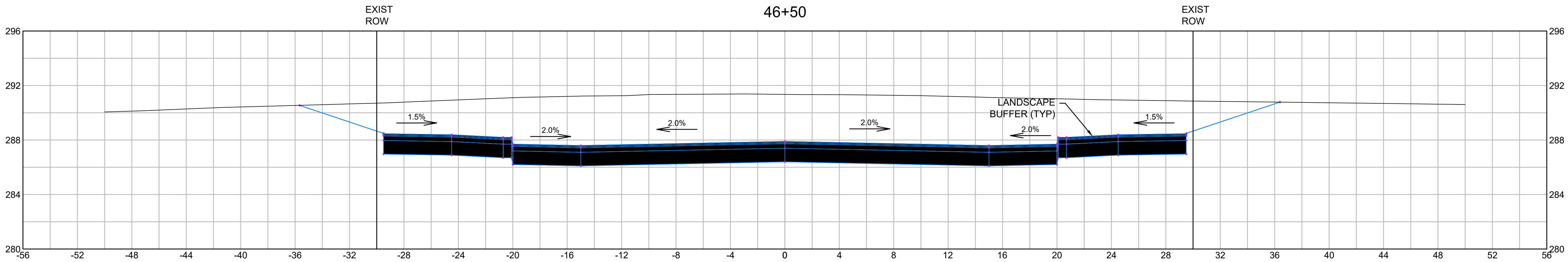
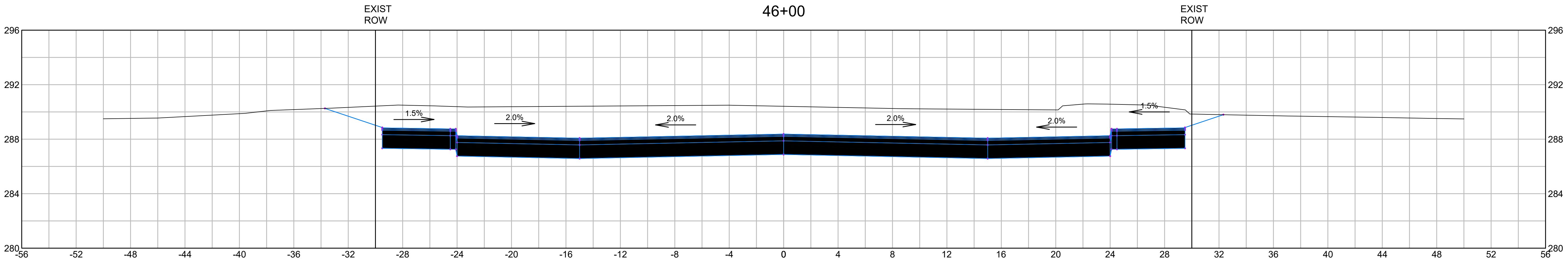
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T1180_SECTION

DRAWING NO.
C-42

SHEET 42 OF 50

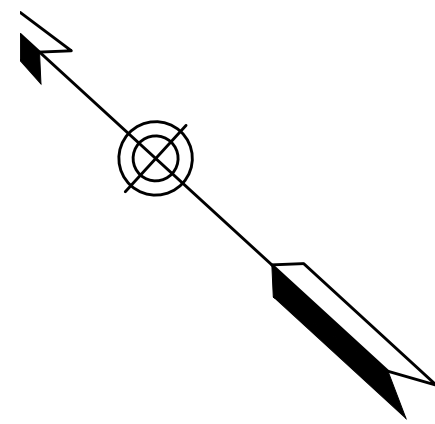


HORIZONTAL AND VERTICAL SCALE
4 0 4 8
SCALE IN FEET

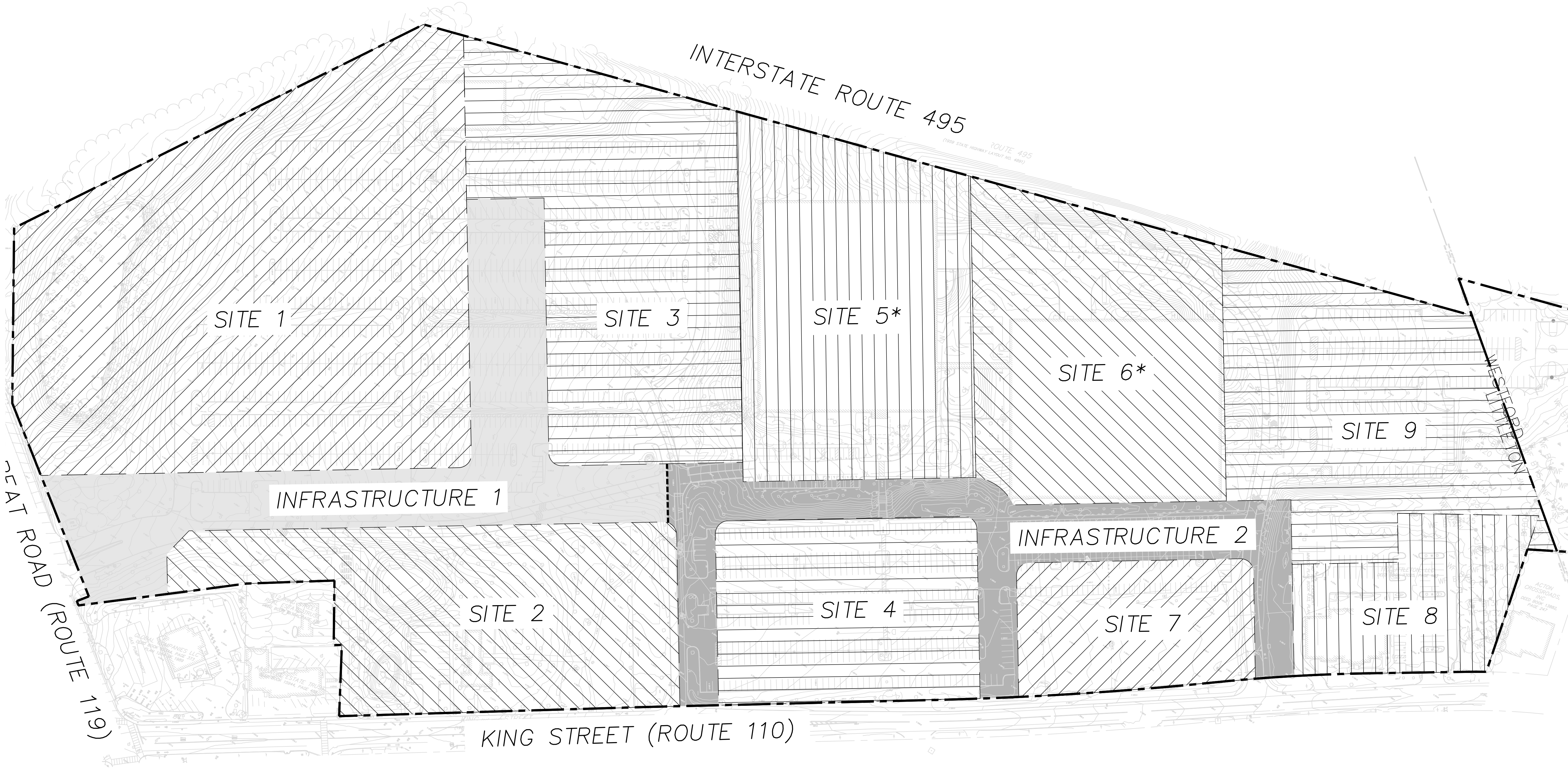
DRAWING TITLE
Roadway Cross Sections
46+00 to 46+50
SUBDIVISION NAME & LOCATION
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T1180
TEC CAD FILE
T1180_SECTION
DRAWING NO.
C-43
SHEET 43 OF 50



- NOTES:
1. *DEVELOPMENT OF SITES 5 & 6, BOTH OF WHICH ARE CURRENTLY OCCUPIED BY OFFICE BUILDINGS, IS DEPENDENT UPON MARKET CONDITIONS.
 2. INFRASTRUCTURE PHASE 1 IS TO TIE THE PROPOSED ROAD INTO THE EXISTING AUMAN STREET.



DRAWING TITLE

Construction Phasing

SUBDIVISION NAME & LOCATION

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550 King Street
Littleton, MA 01460

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Lupoli Companies
290 Merrimack Street
Lawrence, MA 01840

DESIGNER / ENGINEER



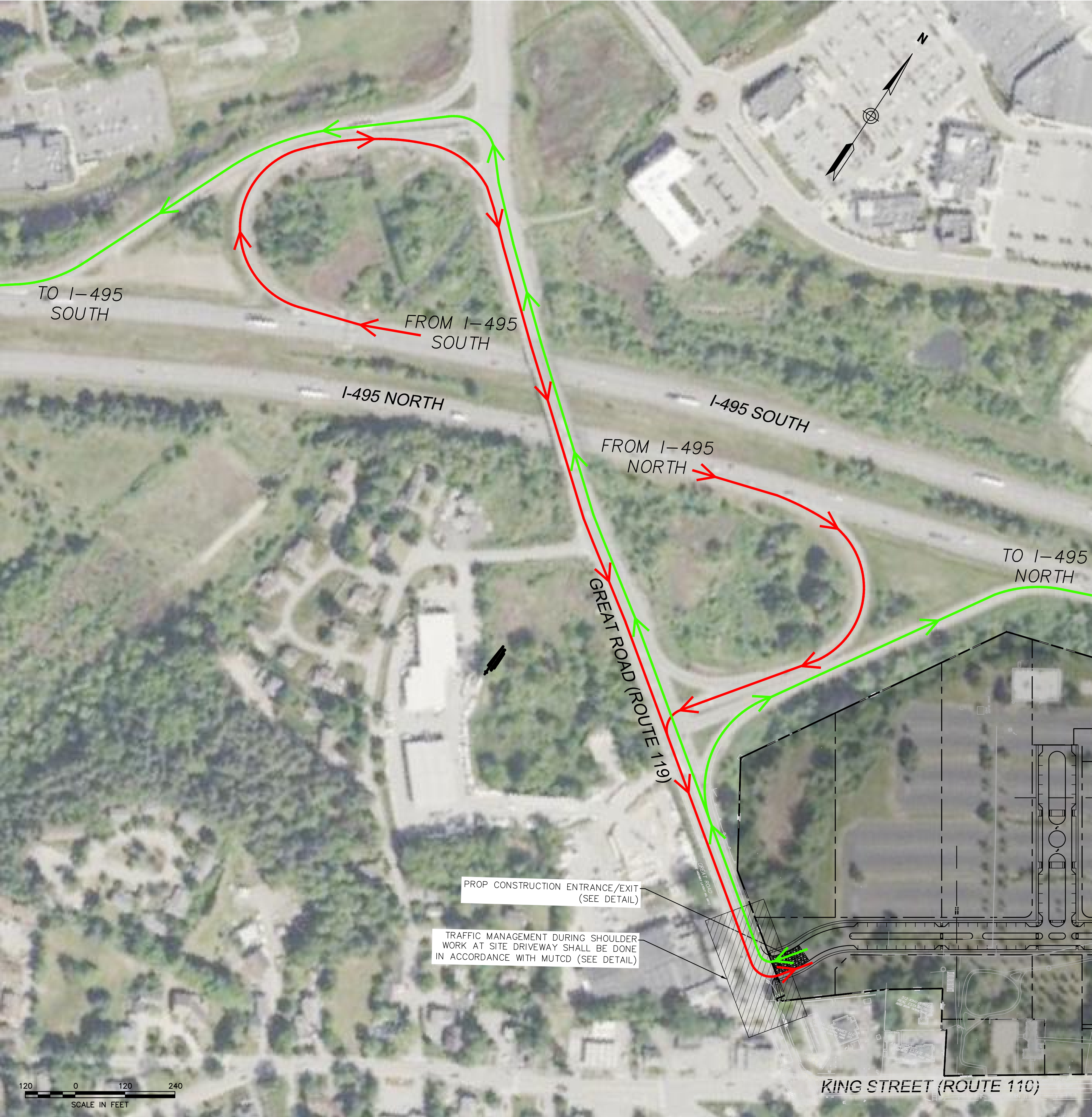
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T1180_PHASING
DRAWING NO.
C-44
SHEET 44 OF 50

100 0 100 200
SCALE IN FEET

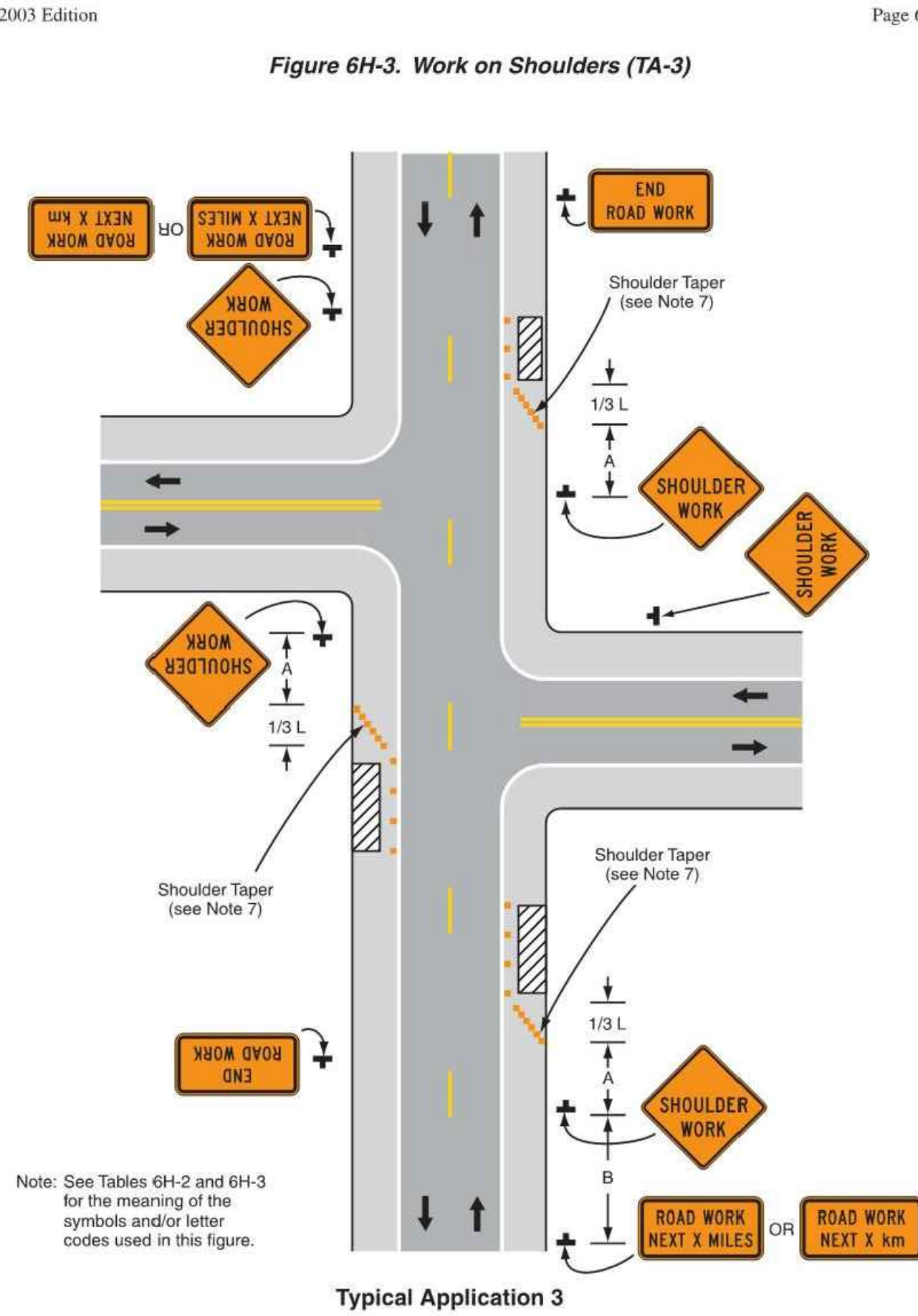


LEGEND

- TO THE SITE
- FROM THE SITE

- NOTES:
- CONSTRUCTION SHALL OCCUR MON-SAT BETWEEN 7:00 AM AND 7:00 PM WITH THE EXCEPTION OF HOLIDAYS. ALL HOURS OF CONSTRUCTION OPERATIONS SHALL BE IN ACCORDANCE WITH ALL STATE AND LOCAL REGULATIONS.
 - APPROPRIATE TRAFFIC MANAGEMENT METHODS ARE TO BE USED ON ALL PUBLIC ROADS TO ENSURE AND PROTECT THE SAFETY OF BOTH THE PUBLIC AND WORKERS DURING CONSTRUCTION OF THE SITE DRIVEWAYS. ALL TRAFFIC MANAGEMENT SHALL BE PERFORMED IN ACCORDANCE WITH MUTCD STANDARDS.
 - IF DETOURS ARE REQUIRED DURING CONSTRUCTION, ALL DETOUR ROUTES AND ASSOCIATED SIGNAGE SHALL BE SHOWN IN ACCORDANCE WITH MUTCD AND ARE SUBJECT TO APPROVAL BY THE FIRE DEPARTMENT AND POLICE DEPARTMENT.
 - TO MINIMIZE IMPACTS TO LOCAL ROADS, SCHOOLS, PARKS, RESIDENTS, AND ABUTTERS ALL TRUCK TRAFFIC SHALL BE ROUTED TO AND FROM THE ABUTTING I-495 FREEWAY AND TO AND FROM THE NEAREST SITE DRIVEWAY ON GREAT ROAD.
 - SITE ENTRANCE/EXIT SHALL BE STABILIZED THROUGHOUT CONSTRUCTION, SEE EROSION AND SEDIMENT CONTROL PLAN FOR DETAILS.

- Page 6H-10
- 2003 Edition
- Notes for Figure 6H-3—Typical Application 3
Work on Shoulders
- Guidance:
- A SHOULDER WORK sign should be placed on the left side of the roadway for a divided or one-way street only if the left shoulder is affected.
- Option:
- The Workers symbol signs may be used instead of SHOULDER WORK signs.
 - The SHOULDER WORK AHEAD sign on an intersecting roadway may be omitted where drivers emerging from that roadway will encounter another advance warning sign prior to this activity area.
 - For short-duration operations of 60 minutes or less, all signs and channelizing devices may be eliminated if a vehicle with activated high-intensity rotating, flashing, oscillating, or strobe lights is used.
 - Vehicle hazard warning signals may be used to supplement high-intensity rotating, flashing, oscillating, or strobe lights.
- Standard:
- Vehicle hazard warning signals shall not be used instead of the vehicle's high-intensity rotating, flashing, oscillating, or strobe lights.
 - When paved shoulders having a width of 2.4 m (8 ft) or more are closed, at least one advance warning sign shall be used. In addition, channelizing devices shall be used to close the shoulder in advance to delineate the beginning of the work space and direct vehicular traffic to remain within the traveled way.



DRAWING TITLE

Construction Management Plan

SUBDIVISION NAME & LOCATION

King Street Commons

550 King Street
Littleton, MA 01460

OWNER / APPLICANT / SUBDIVIDER

Lupoli Companies

290 Merrimack Street
Lawrence, MA 01840

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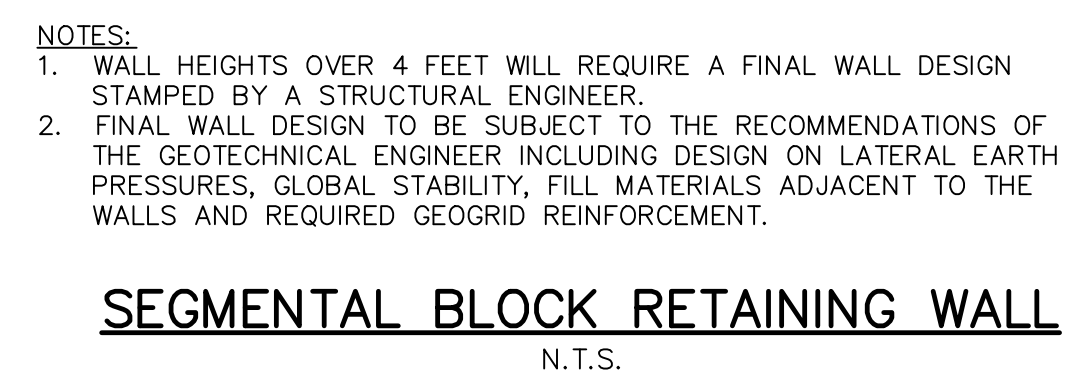
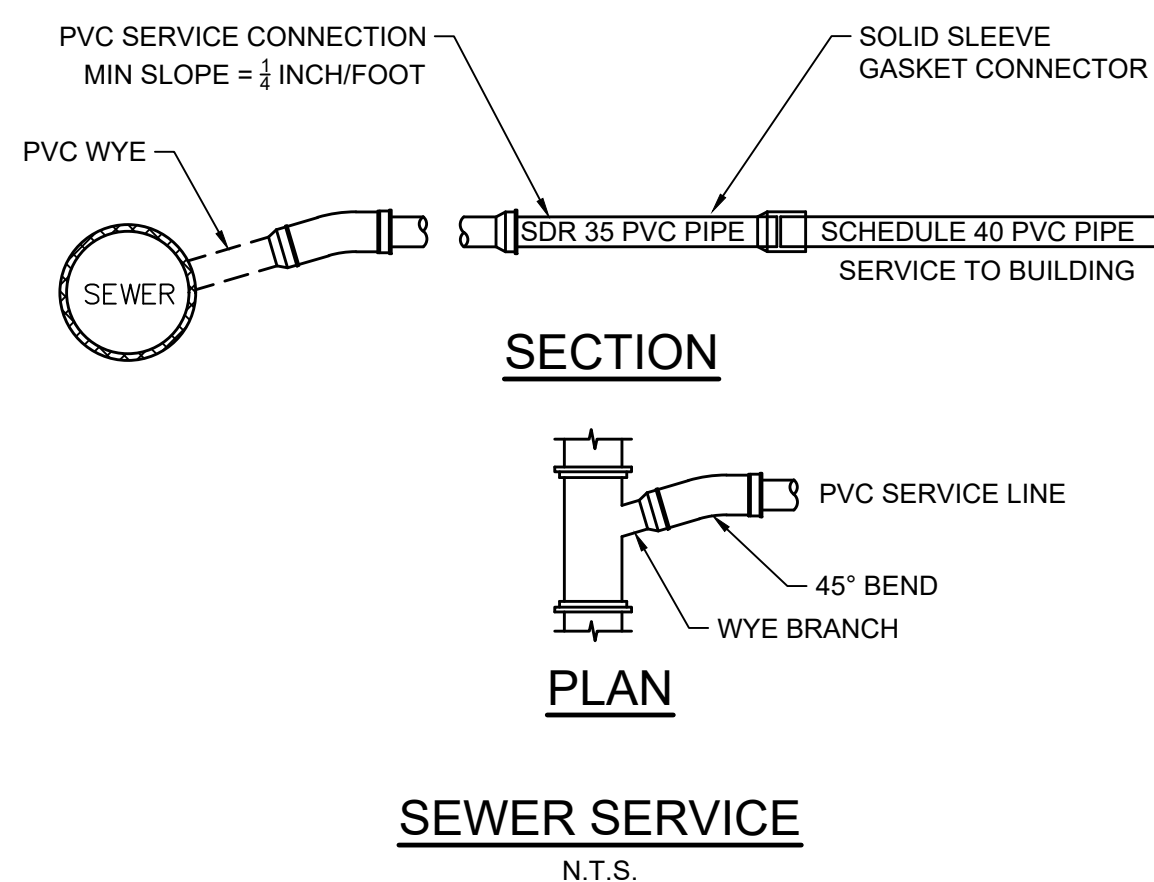
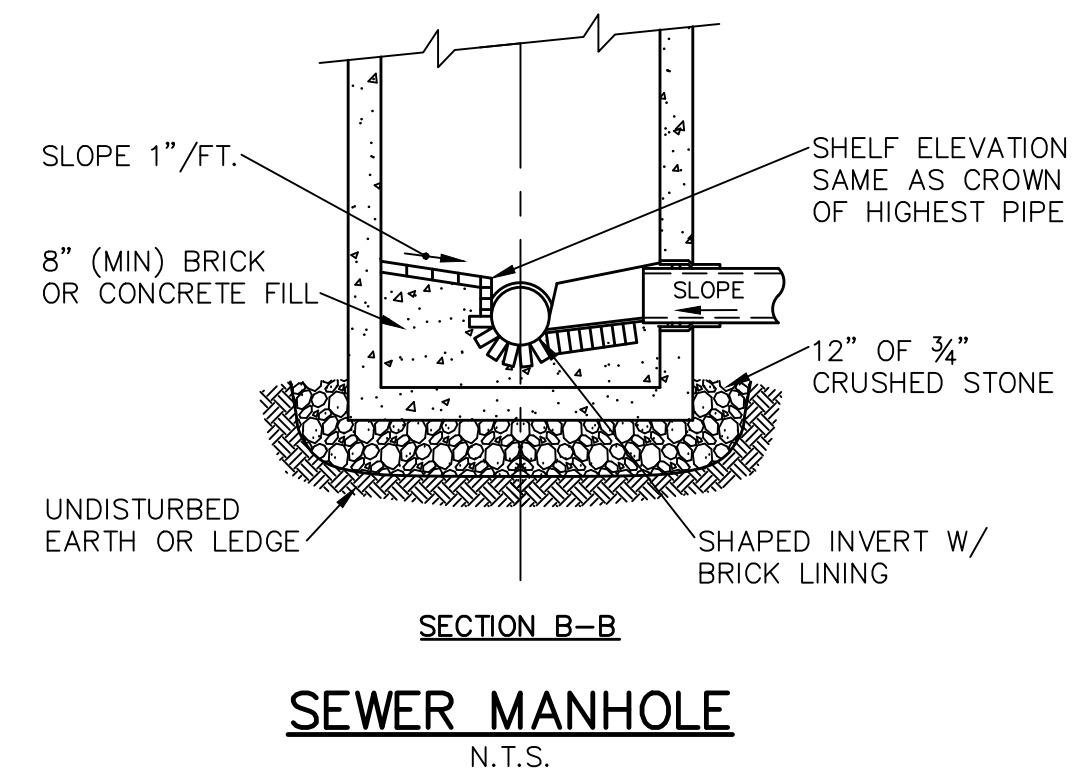
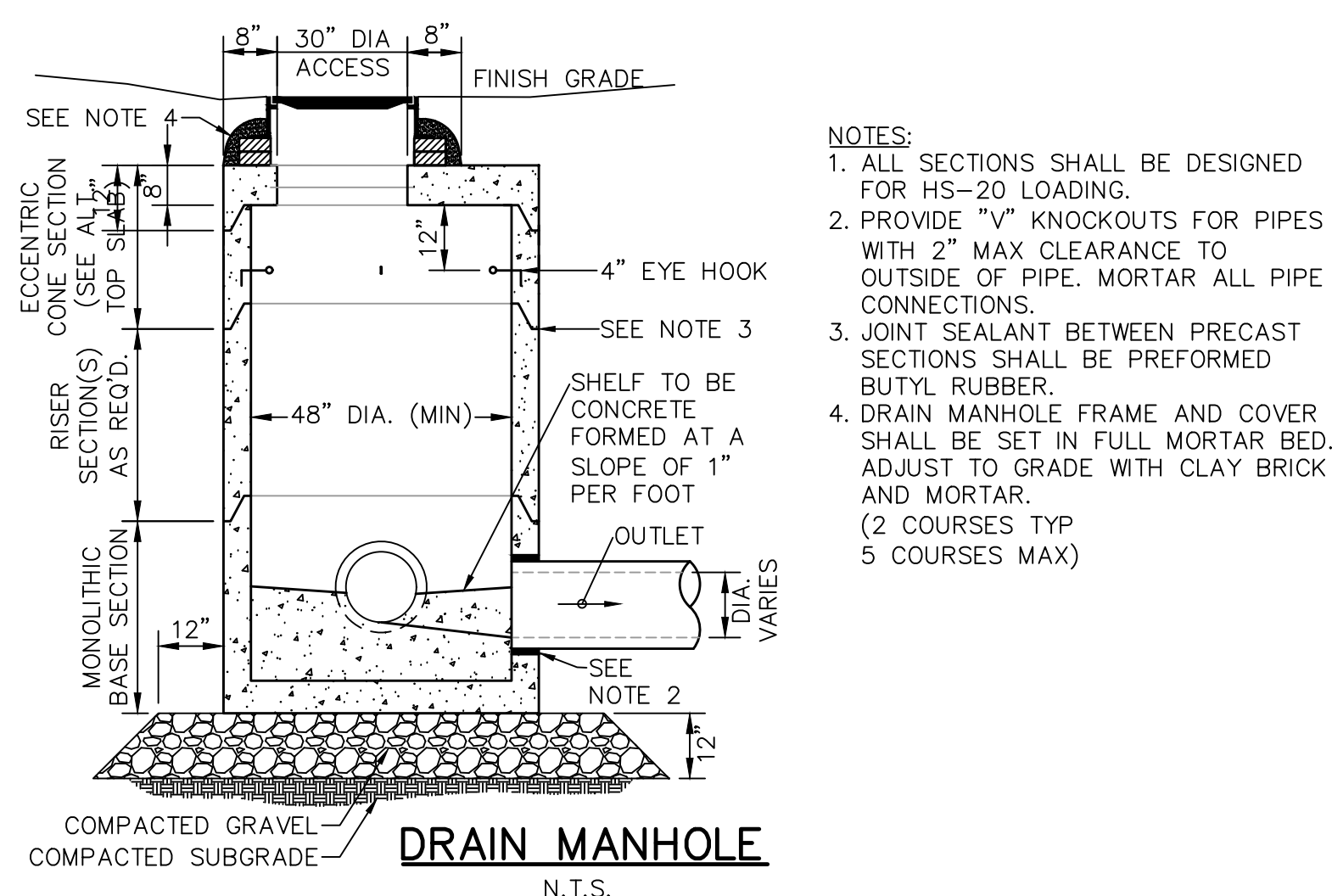
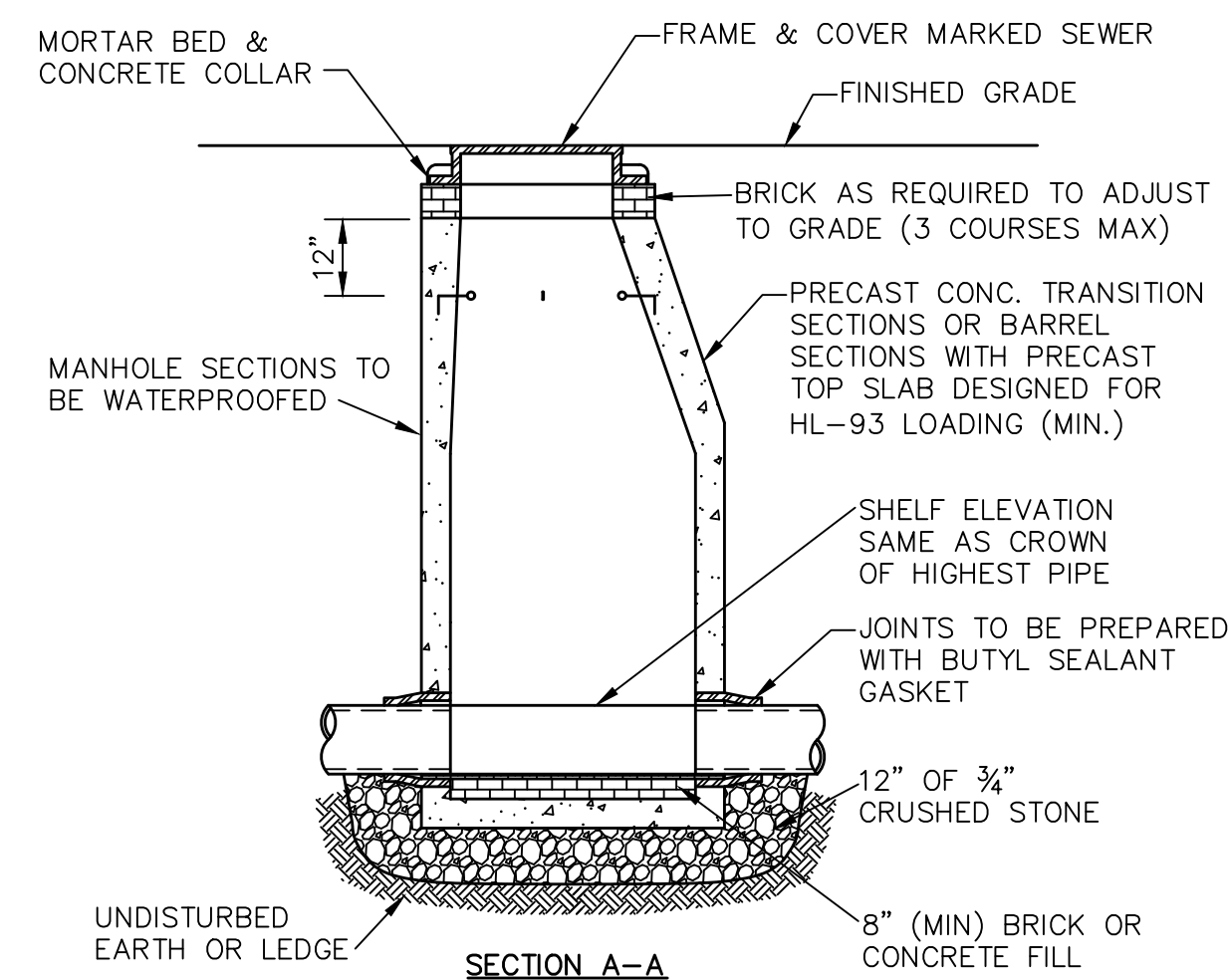
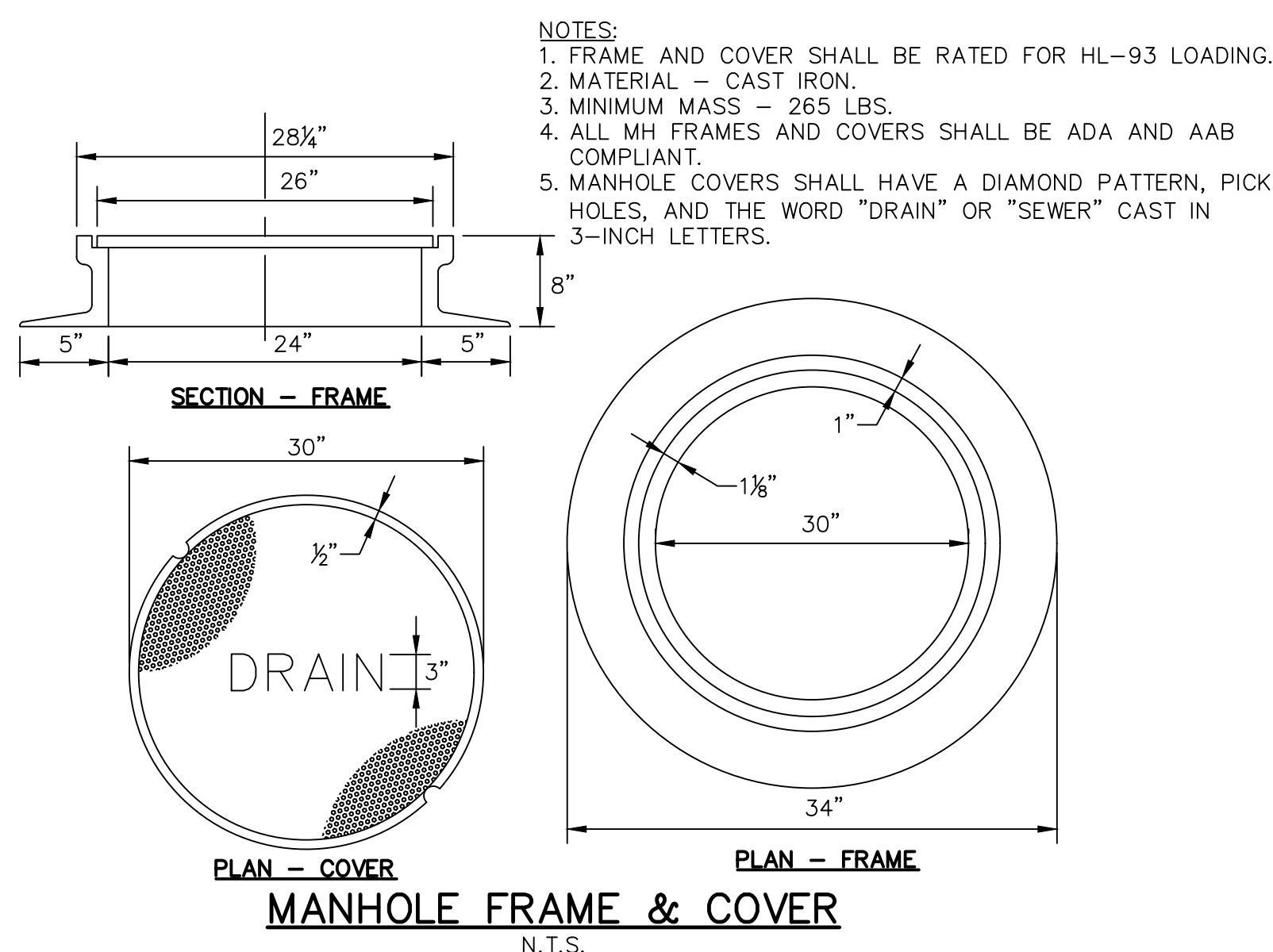
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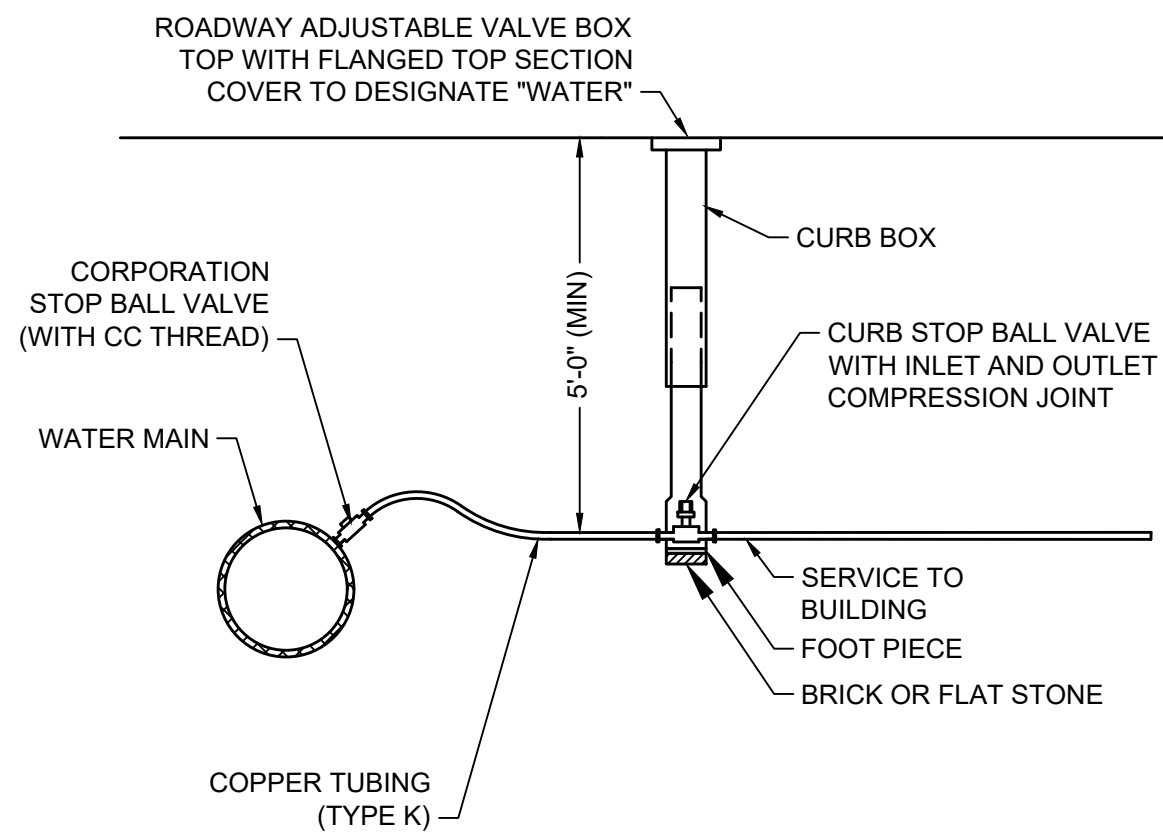
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C-45
SHEET 45 OF 50

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CIVIL
No. 47850
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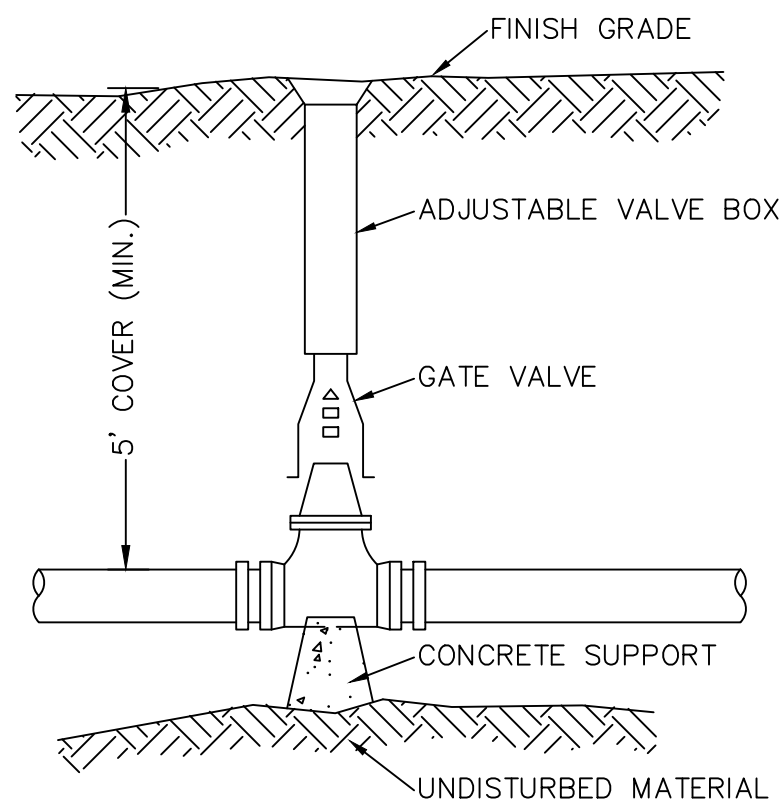
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Construction Details		
SUBDIVISION NAME & LOCATION		
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DRAWING NO. T1180_DET		
C-46		
SHEET 46 OF 50		



- NOTES:
1. ALL WATER LINES 4" OR GREATER SHALL BE DUCTILE IRON WITH AN 8 MIL POLYETHYLENE WRAP. CONTRACTOR MAY FORGO WRAPPING PIPE IF THE DUCTILE IRON PIPE IS ZINC-COATED, TEES AND OTHER CONNECTIONS WILL STILL NEED TO BE WRAPPED.
 2. WATER SERVICE LINES SHALL BE COPPER TUBING (TYPE K) BETWEEN MAIN AND CURB STOP.
 3. SERVICE BETWEEN CURB STOP AND BUILDING MAY BE SDR 9 CTS (BLUE) PLASTIC POLYETHYLENE RATED FOR 250 PSI.

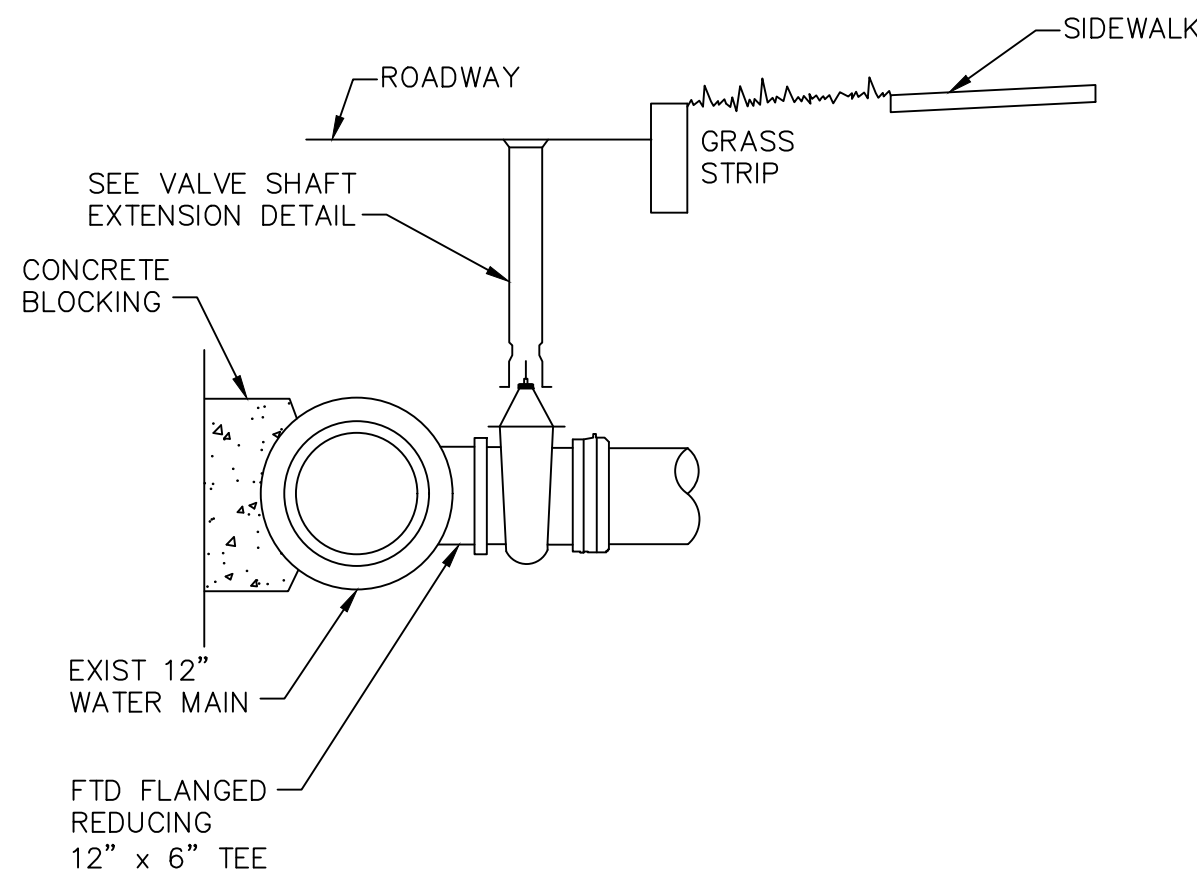
WATER SERVICE CONNECTION

N.T.S.



WATER GATE VALVE

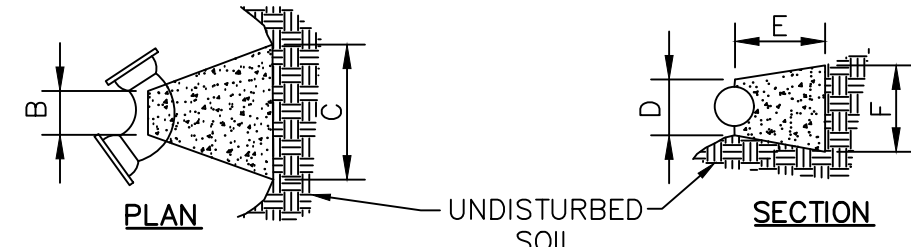
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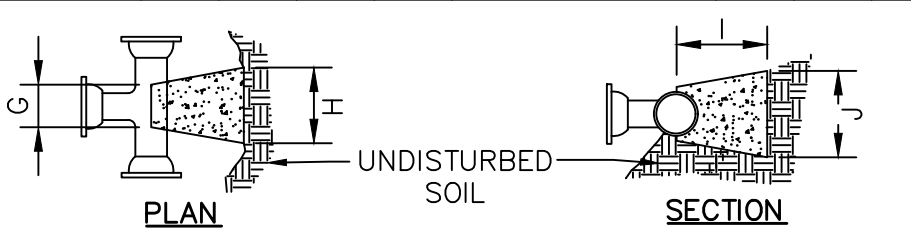
FIRE SERVICE CONNECTION

N.T.S.

BENDS	B	C	D	E	F	BENDS	B	C	D	E	F
6" 11-1/4"	8"	15"	12"	24"	12"	6" 45"	8"	30"	12"	24"	14"
6" 22-1/2"	8"	19"	12"	24"	13"	6" 90"	8"	30"	12"	24"	27"
8" 11-1/4"	8"	20"	12"	24"	12"	8" 45"	8"	30"	12"	24"	24"
8" 22-1/2"	8"	22"	12"	24"	17"	8" 90"	8"	38"	12"	24"	36"
12" 11-1/4"	8"	30"	12"	24"	15"	12" 45"	8"	40"	12"	24"	40"
12" 22-1/2"	8"	35"	12"	24"	25"	12" 90"	8"	60"	12"	24"	52"



TEES	G	H	I	J	TEES	G	H	I	J
6" X 6" X 6"	12"	24"	24"	18"	12" X 12" X 6"	12"	24"	24"	18"
8" X 8" X 6"	12"	24"	24"	18"	12" X 12" X 8"	12"	24"	24"	24"
8" X 8" X 8"	12"	24"	24"	24"	12" X 12" X 12"	12"	36"	24"	36"

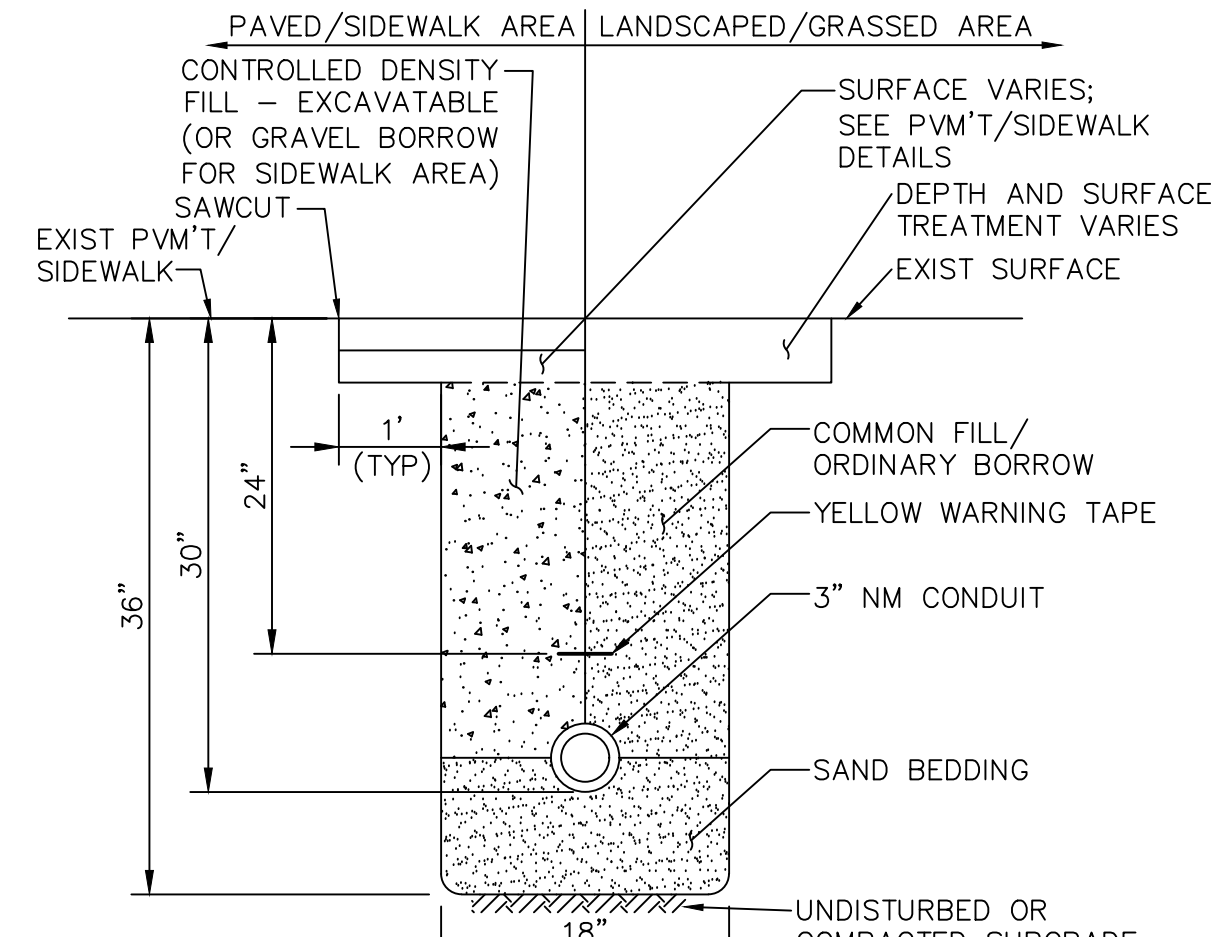


CONCRETE THRUST BLOCK

N.T.S.

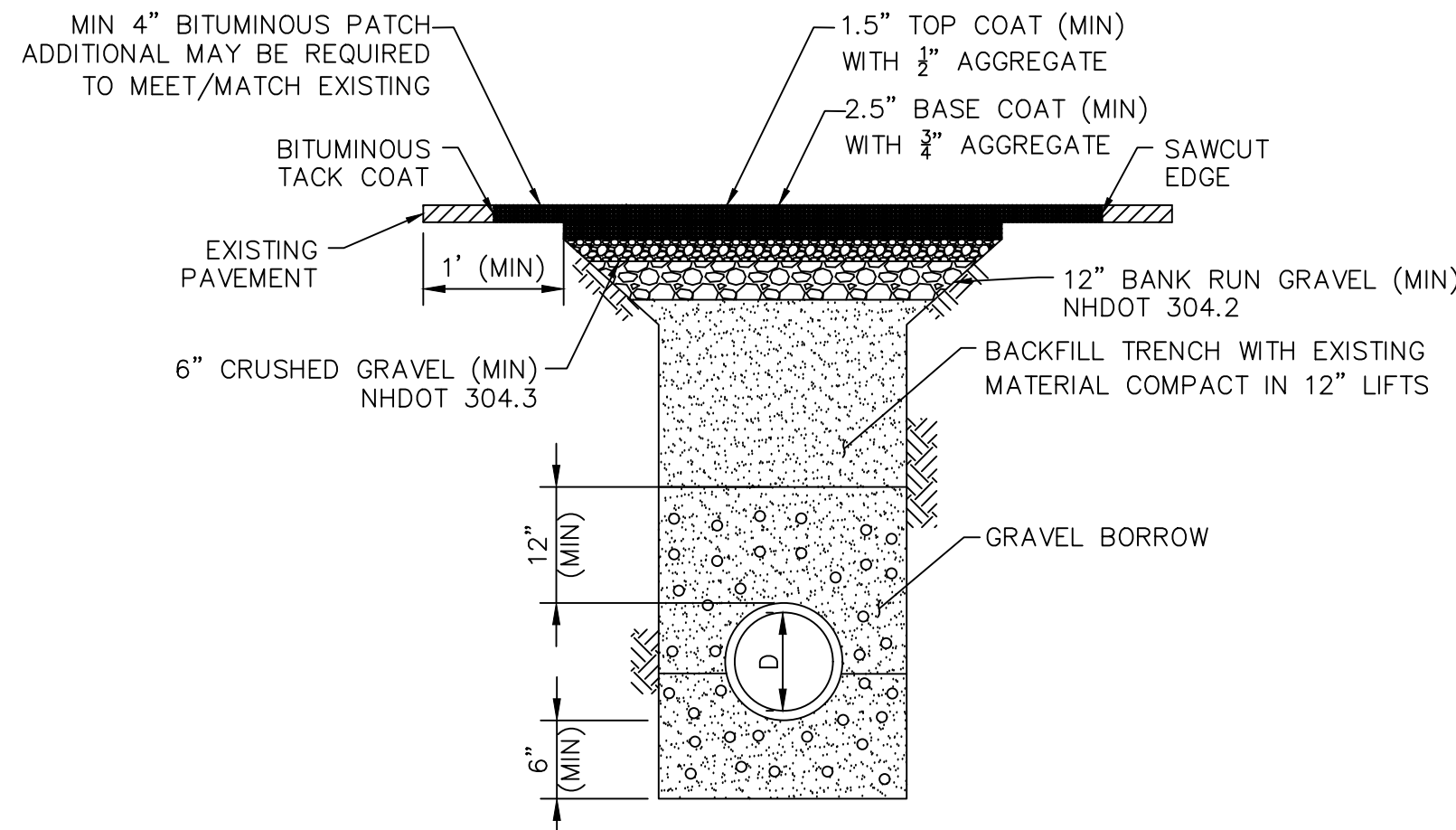
NOTES:

1. PROVIDE BLOCKS FOR TAPPING SLEEVES, DEAD ENDS, GATE VALVES AND VERTICAL BENDS, SAME SIZE AS REQ. FOR TEES. PROVIDE ANCHOR RODS AT VERTICAL BENDS AND GATE VALVES.
2. CONCRETE SHALL NOT BE PLACED AGAINST PIPE BEYOND FITTING.
3. CONCRETE SHALL BE 3000 PSI - TYPE 1



CONDUIT TRENCH DETAIL

N.T.S.

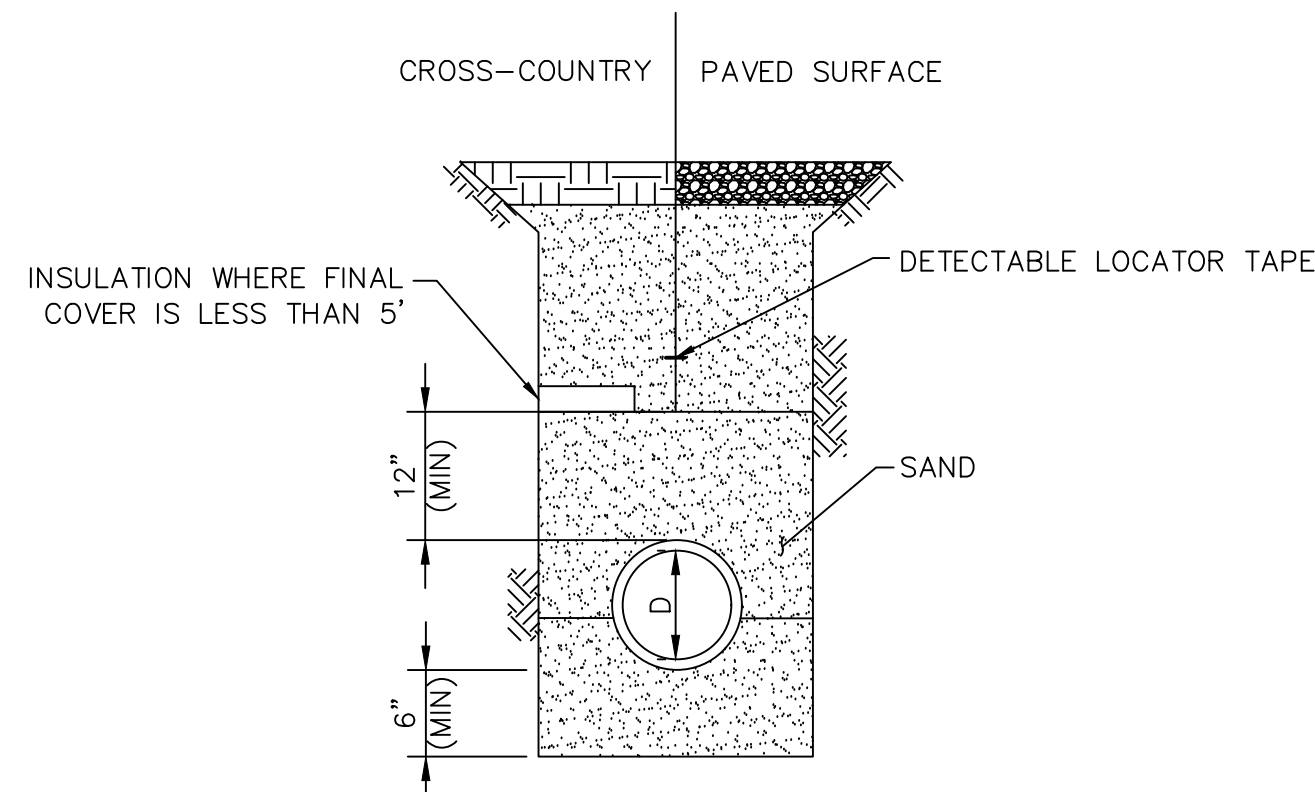


TYPICAL TRENCH DETAIL

N.T.S.

NOTES:

1. TRENCH SHALL BE COMPACTED TO 95% OPTIMUM DENSITY.
2. ALL WORK SHALL COMPLY WITH THE CITY OF DOVER CONSTRUCTION GUIDELINES AND PROCEDURES.
3. WHEN TRENCHING IN CONCRETE ROADWAY MINIMUM BINDER SHALL BE 8".

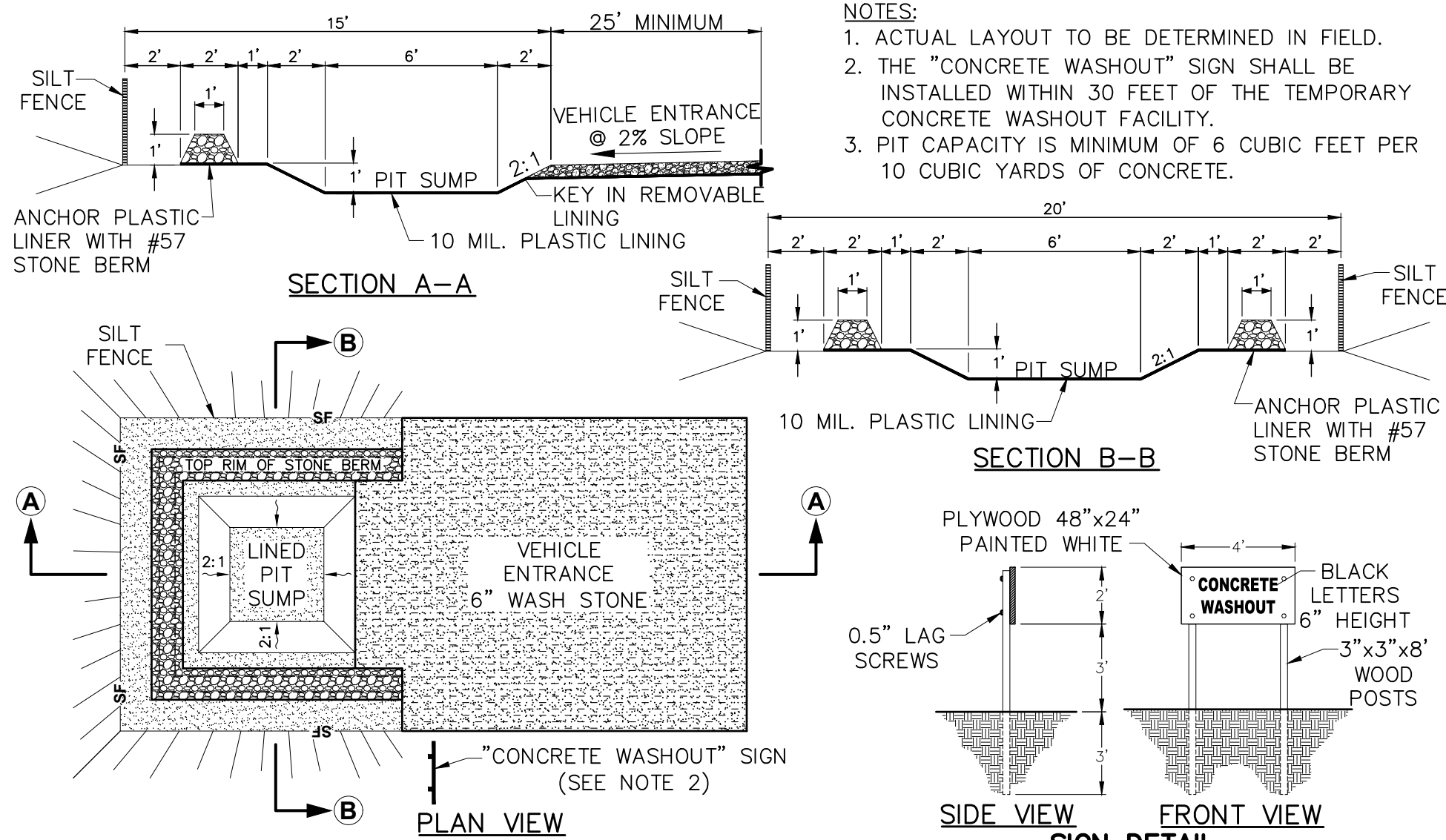


WATERLINE TRENCH

N.T.S.

NOTES:

1. ALL WATER LINES 4" OR GREATER SHALL BE DUCTILE IRON WITH AN 8 MIL POLYETHYLENE WRAP. CONTRACTOR MAY FORGO WRAPPING PIPE IF THE DUCTILE IRON PIPE IS ZINC-COATED, TEES AND OTHER CONNECTIONS WILL STILL NEED TO BE WRAPPED.

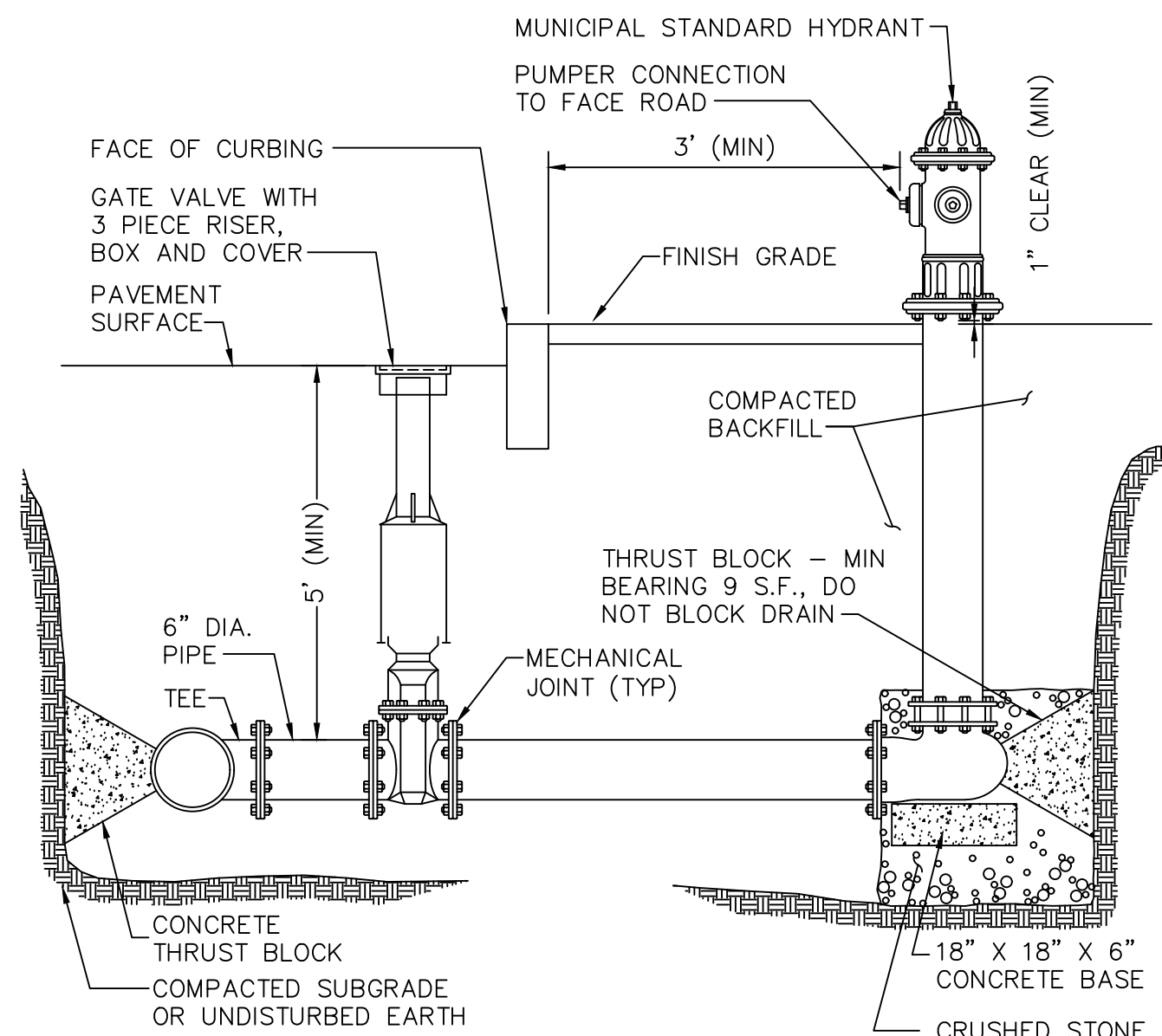


LINED CONCRETE WASHOUT PIT

N.T.S.

NOTES:

1. ACTUAL LAYOUT TO BE DETERMINED IN FIELD.
2. THE "CONCRETE WASHOUT" SIGN SHALL BE INSTALLED WITHIN 30 FEET OF THE TEMPORARY CONCRETE WASHOUT FACILITY.
3. PIT CAPACITY IS MINIMUM OF 6 CUBIC FEET PER 10 CUBIC YARDS OF CONCRETE.



HYDRANT CONNECTION

N.T.S.

DRAWING TITLE

Construction Details

SUBDIVISION NAME & LOCATION

King Street

Commons

550 King Street

Littleton, MA 01460

OWNER / APPLICANT / SUBDIVIDER

Lupoli Companies

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DESIGNER / ENGINEER

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DESIGNED BY

DATE

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SCALE AS NOTED

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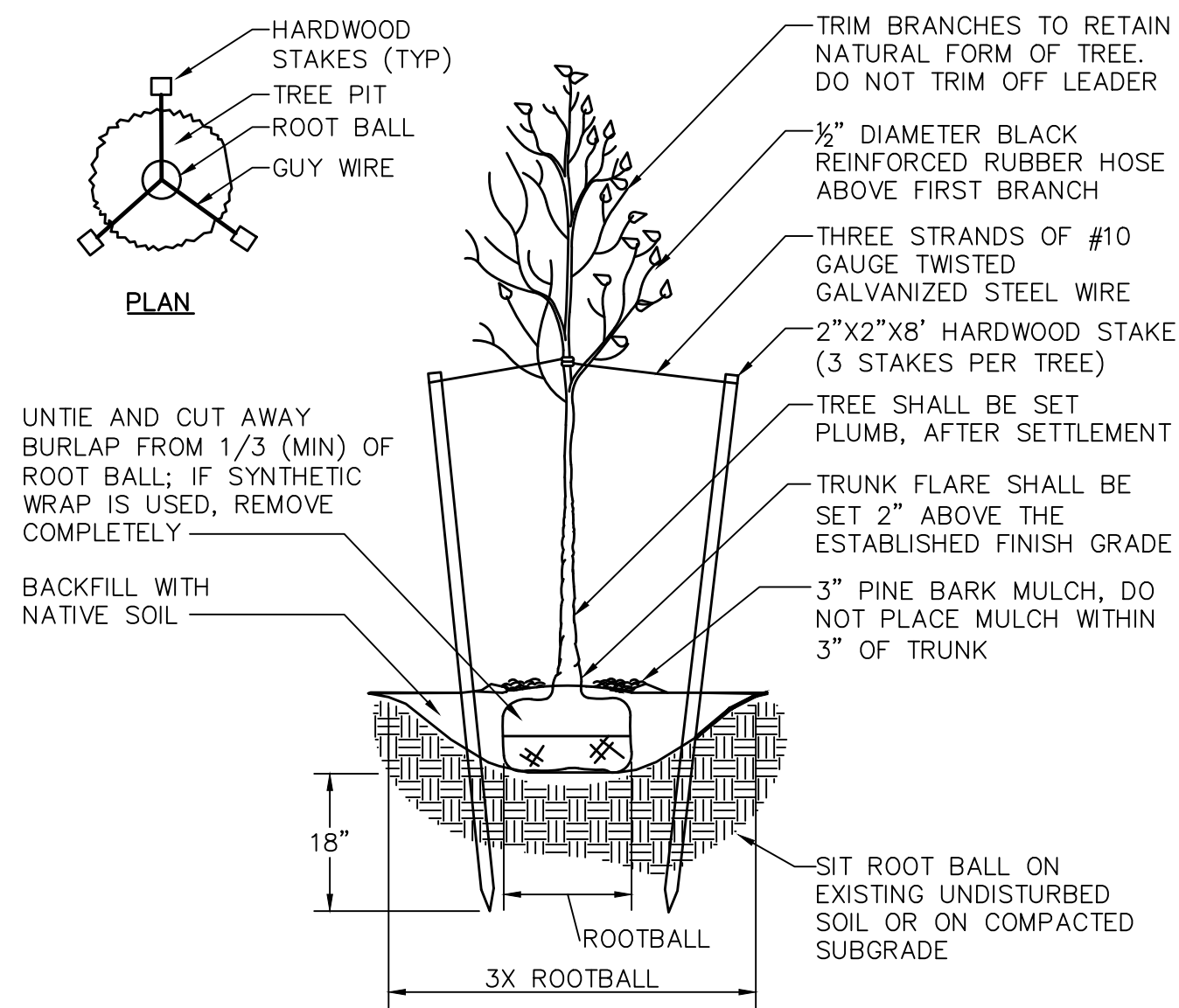
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DRAWING NO.

C-47

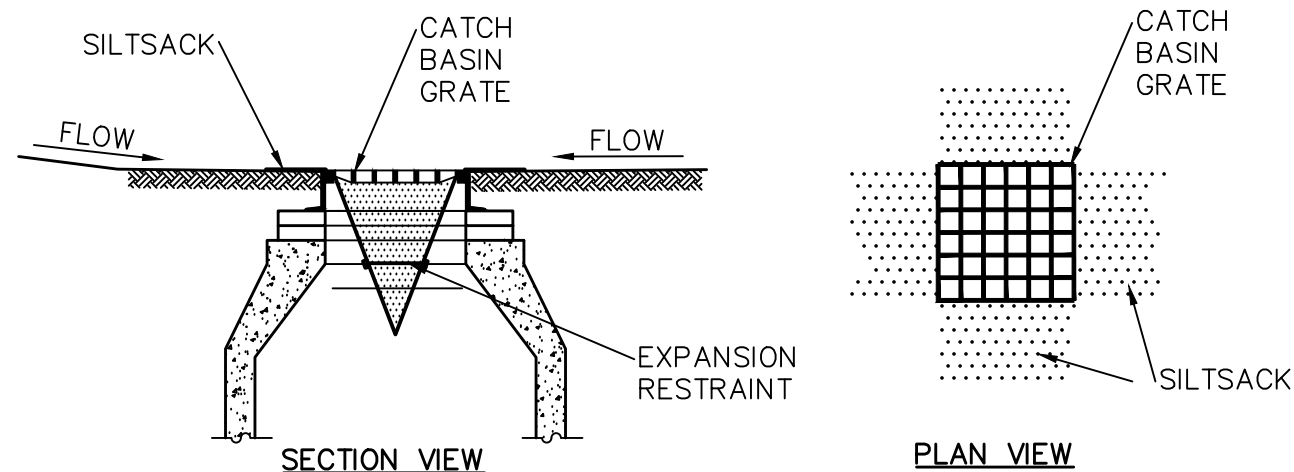
SHEET 47 OF 50

EFFECTIVE: 05/15/20



TREE PLANTING

N.T.S.

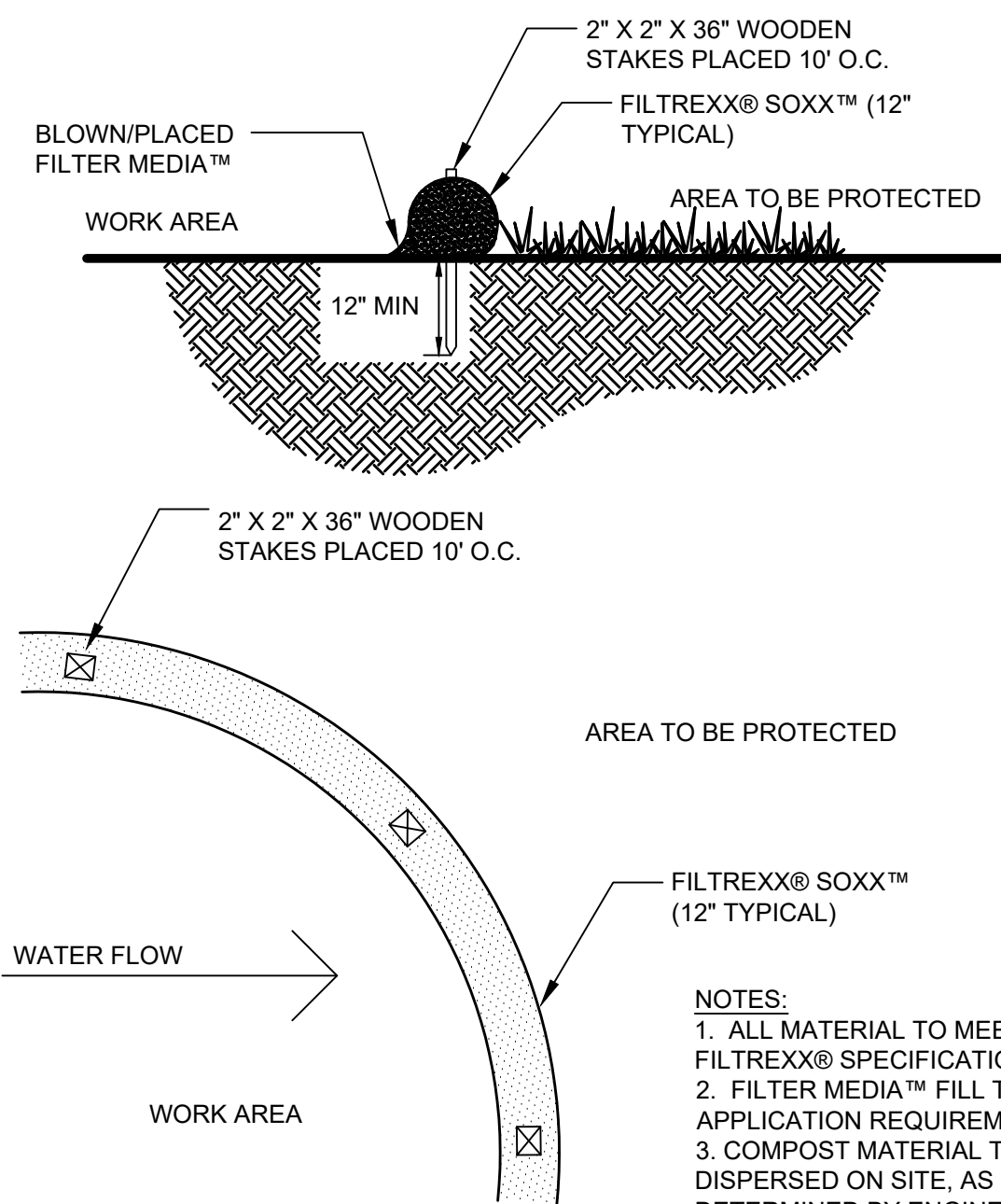


NOTES:

1. INSTALL SILTSACK IN EXISTING CATCH BASINS BEFORE COMMENCING WORK, AND IN NEW CATCH BASINS IMMEDIATELY AFTER INSTALLATION OF STRUCTURE. MAINTAIN UNTIL BINDER COURSE PAVING IS COMPLETE OR A PERMANENT STAND OF GRASS HAS BEEN ESTABLISHED.
2. GRATE TO BE PLACED OVER SILTSACK.
3. SILTSACK SHALL BE INSPECTED PERIODICALLY AND AFTER ALL STORM EVENTS AND CLEANING OR REPLACEMENT SHALL BE PERFORMED PROMPTLY AS NEEDED.

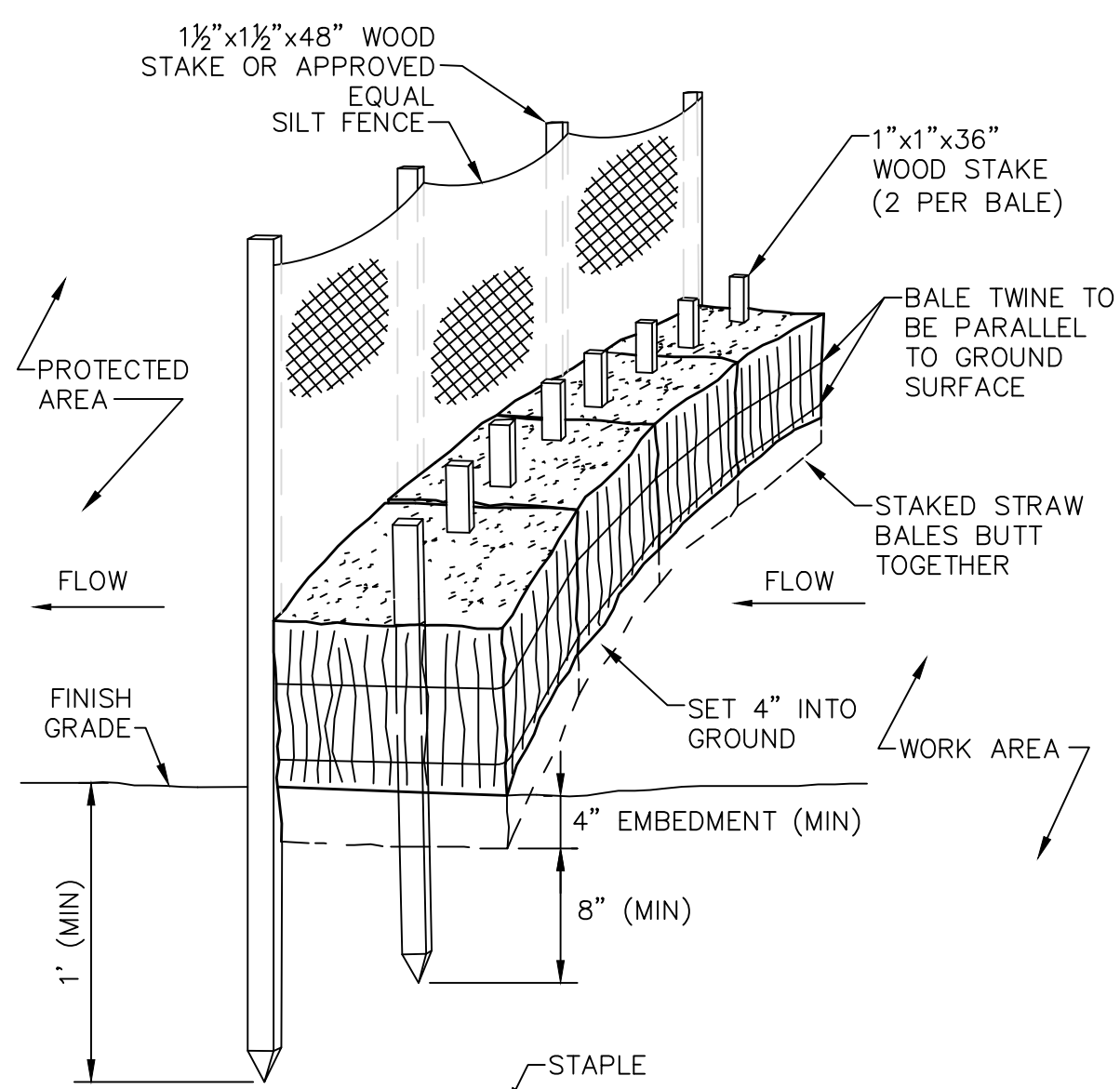
INLET PROTECTION – SILT SACK IN CATCH BASIN

N.T.S.



SILTSOXX PERIMETER EROSION BARRIER DETAIL

N.T.S.



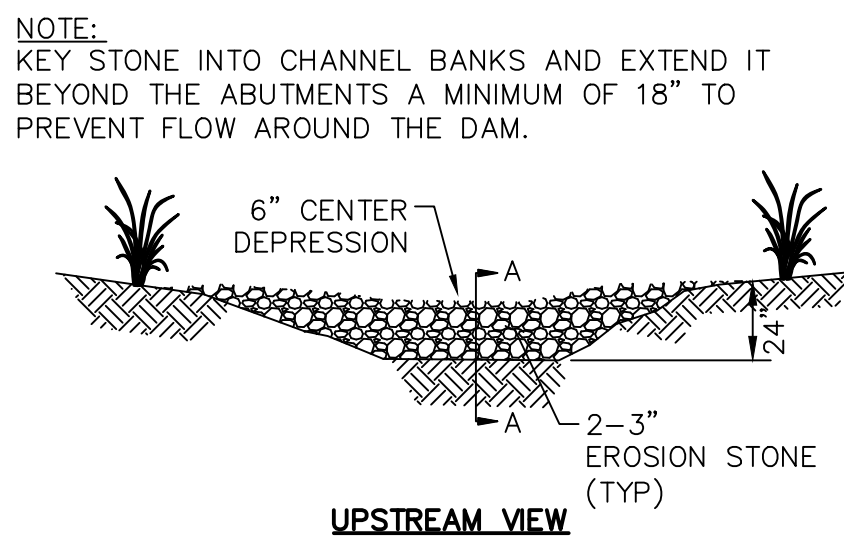
WOOD STAKE JOINT DETAIL

NOTES:

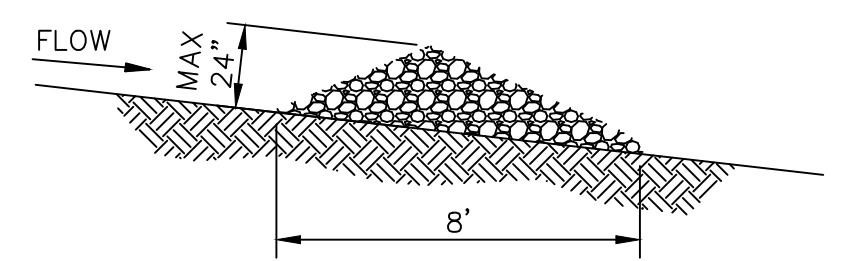
1. FILTER CLOTH SHALL BE FASTENED SECURELY TO POSTS WITH STAPLES. POSTS SHALL BE SPACED 8'-10' ON CENTER.
2. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED.
3. ENTRENCH SILT FENCE BUT NOT HAY BALES.
4. INSPECTIONS SHALL BE FREQUENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED, OR WHEN SEDIMENT ACCUMULATES TO HALF THE HEIGHT OF FENCING.

EROSION CONTROL BARRIER

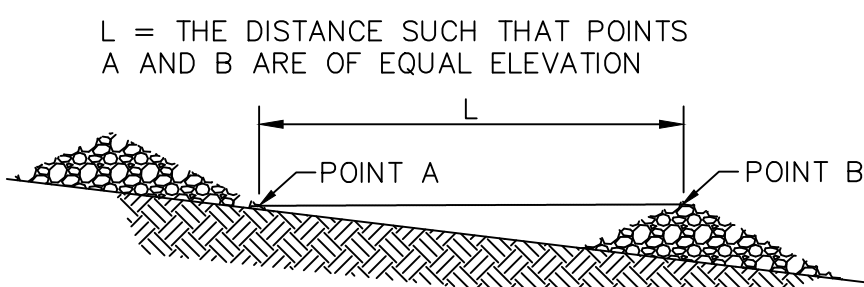
N.T.S.



UPSTREAM VIEW



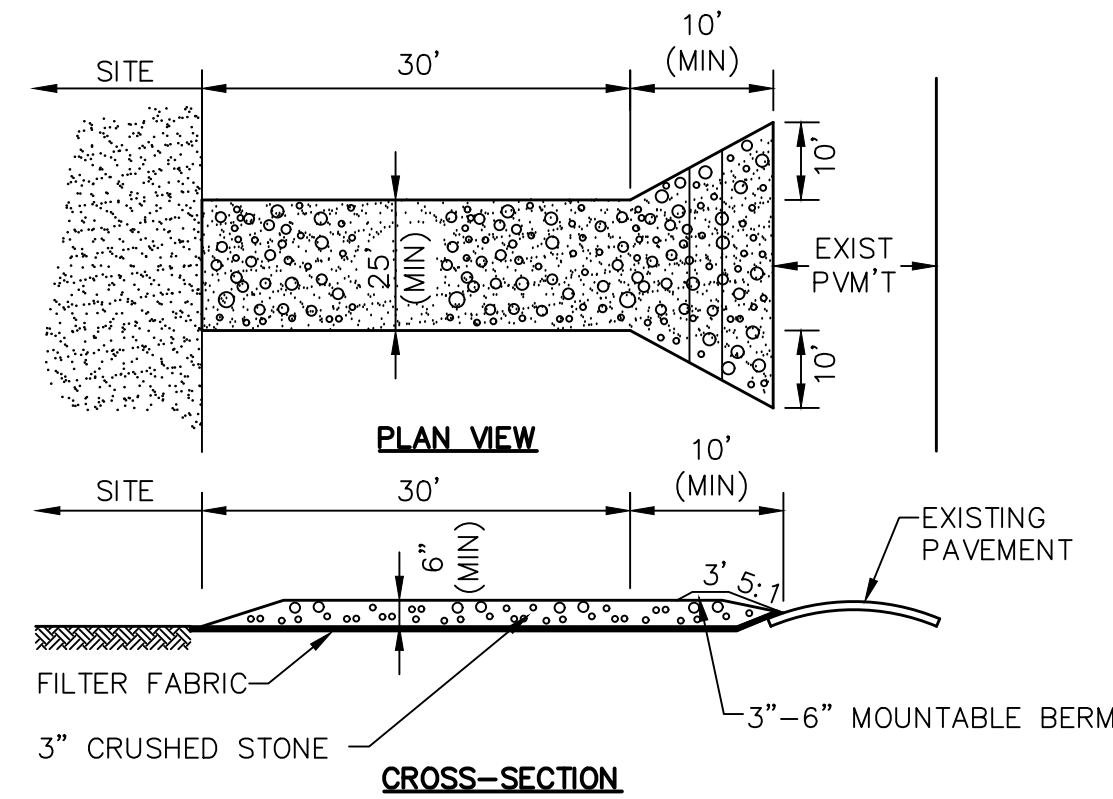
SECTION A-A



CHECK DAM SPACING

STONE CHECK DAM

N.T.S.

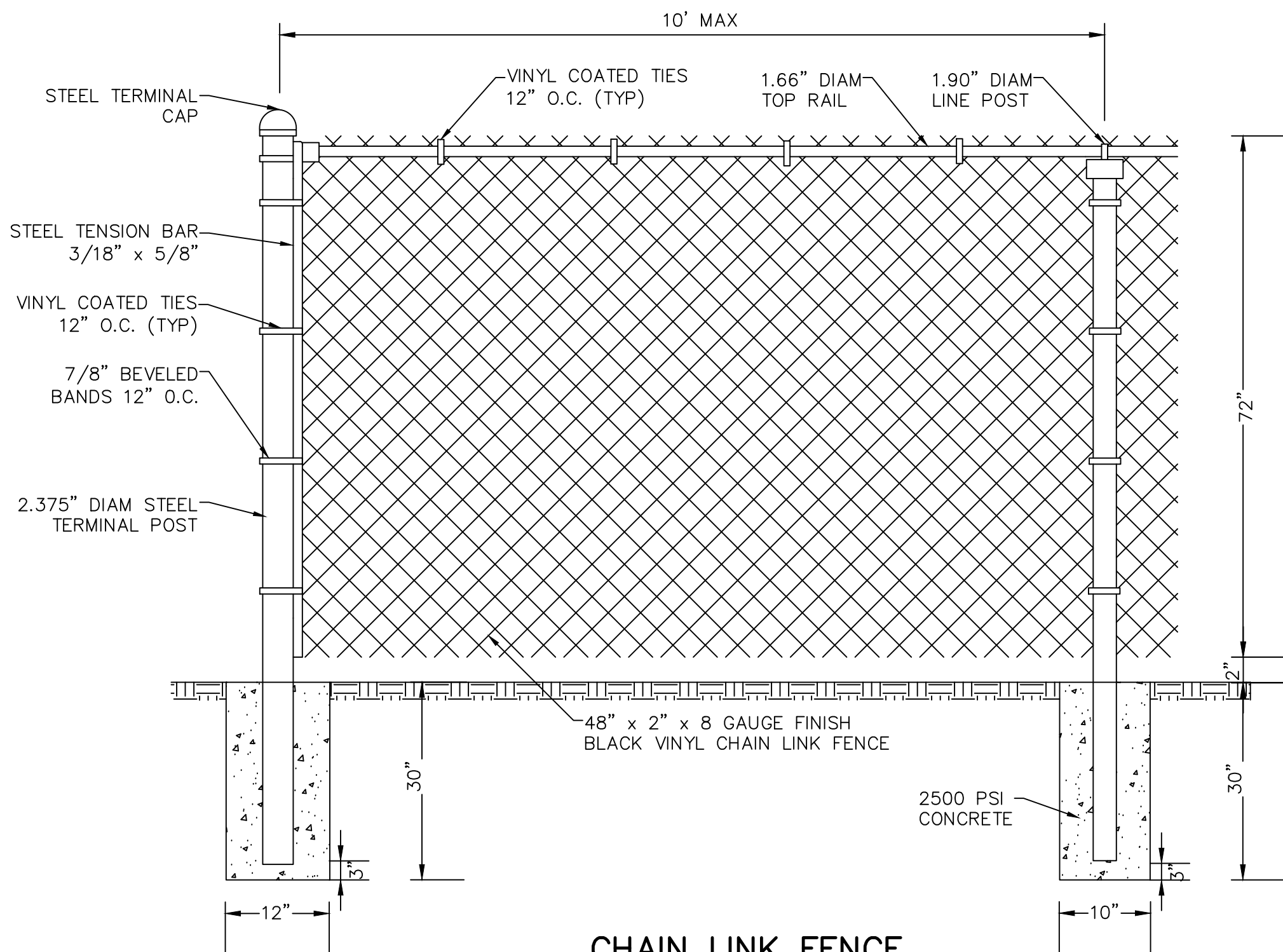


NOTES:

1. ENTRANCE WIDTH SHALL BE A TWENTY-FIVE (25) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
2. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH SHALL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY. BERM SHALL BE PERMITTED. PERIODIC INSPECTION AND MAINTENANCE SHALL BE PROVIDED AS NEEDED.
3. STABILIZED CONSTRUCTION EXIT SHALL BE REMOVED PRIOR TO FINAL FINISH MATERIALS BEING INSTALLED.

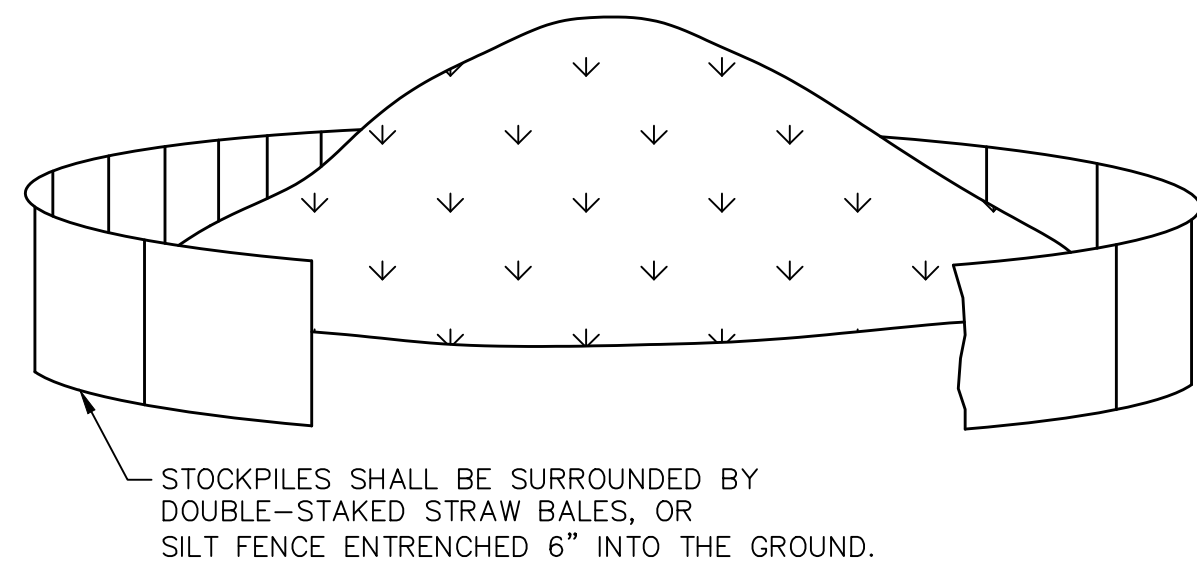
STABILIZED CONSTRUCTION EXIT

N.T.S.



CHAIN LINK FENCE

N.T.S.



SOIL STOCKPILE

N.T.S.

DRAWING TITLE

Construction Details

SUBDIVISION NAME & LOCATION

King Street
Commons
550 King Street
Littleton, MA 01460

OWNER / APPLICANT / SUBDIVIDER

Lupoli Companies
290 Merrimack Street
Lawrence, MA 01840

DESIGNER / ENGINEER

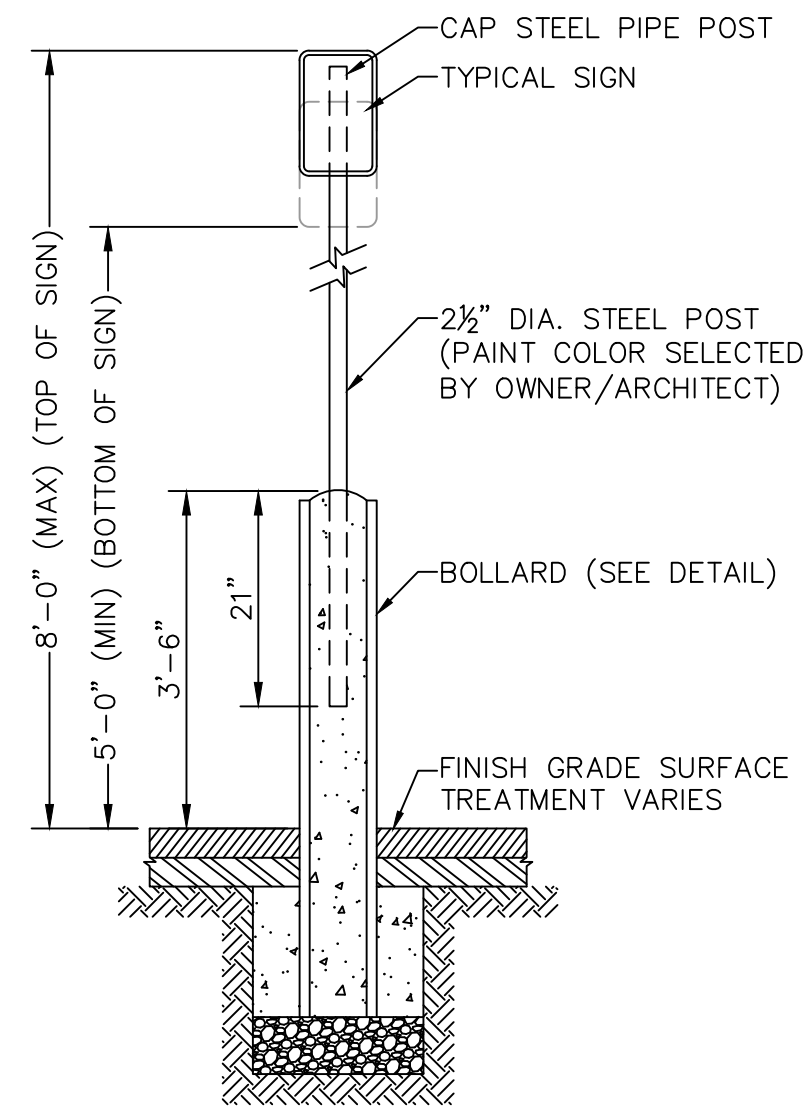


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DESIGNED BY DATE
CHECKED BY SCALE AS NOTED

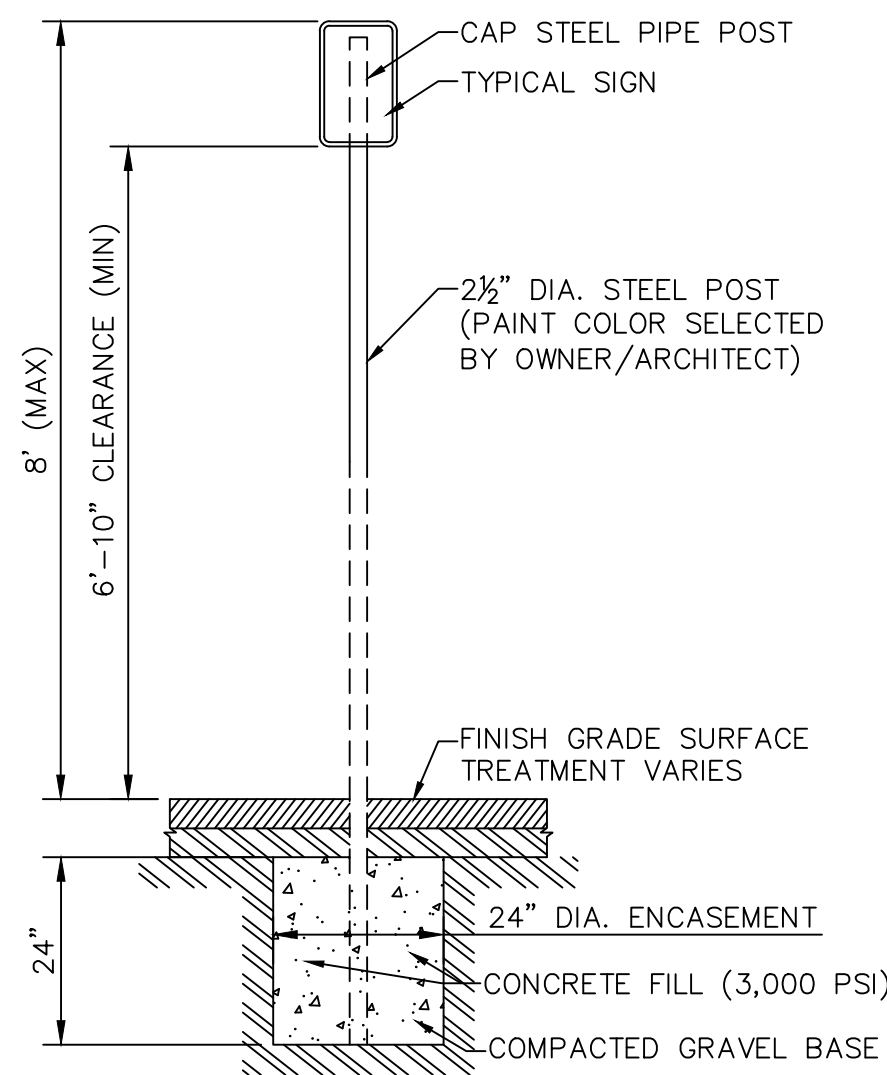


PROJECT NO.
T1180
TEC CAD FILE
T1180_DET
DRAWING NO.
C-48
SHEET 48 OF 50



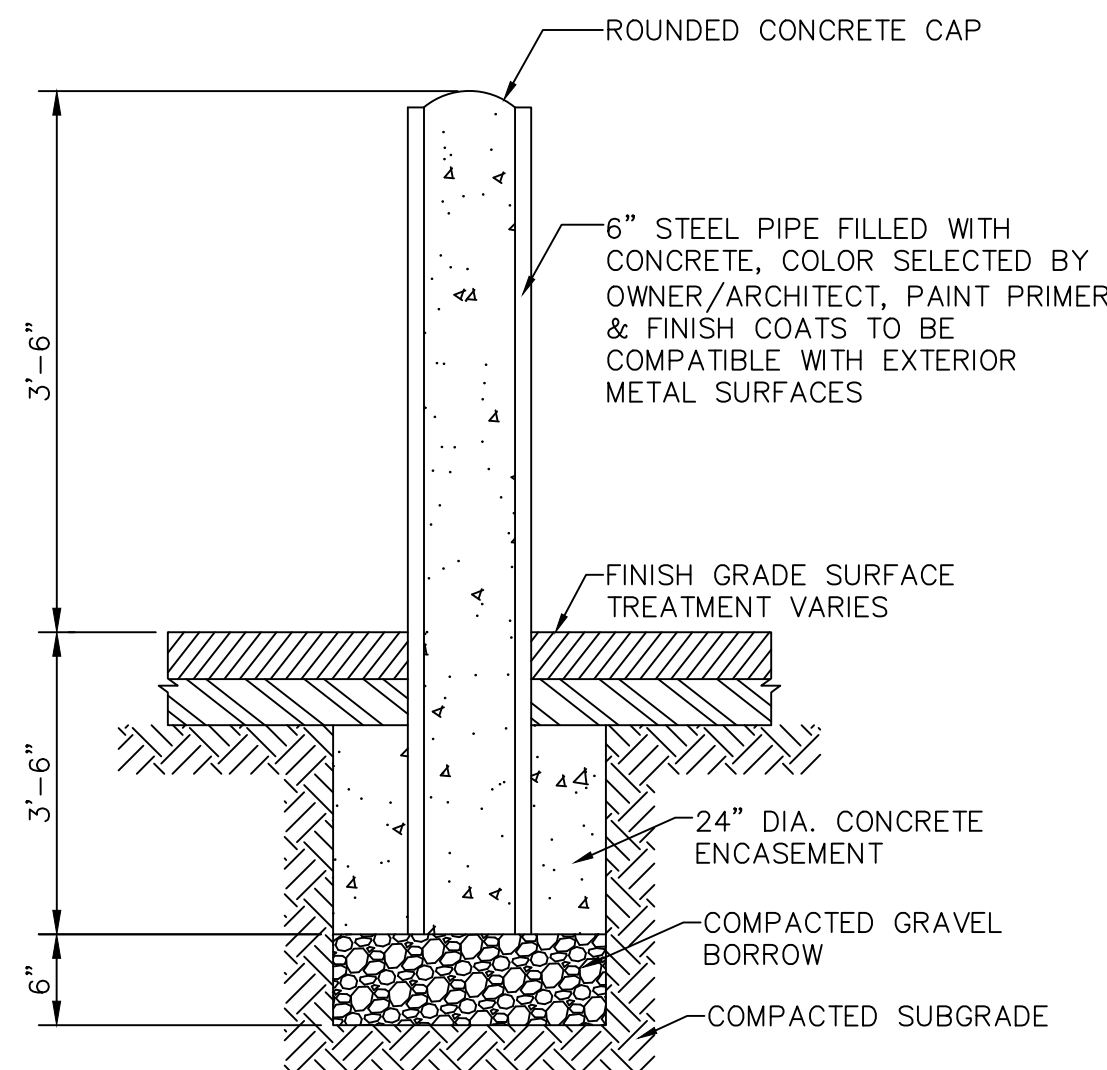
BOLLARD MOUNTED SIGN

N.T.S.



SIGN POST

N.T.S.

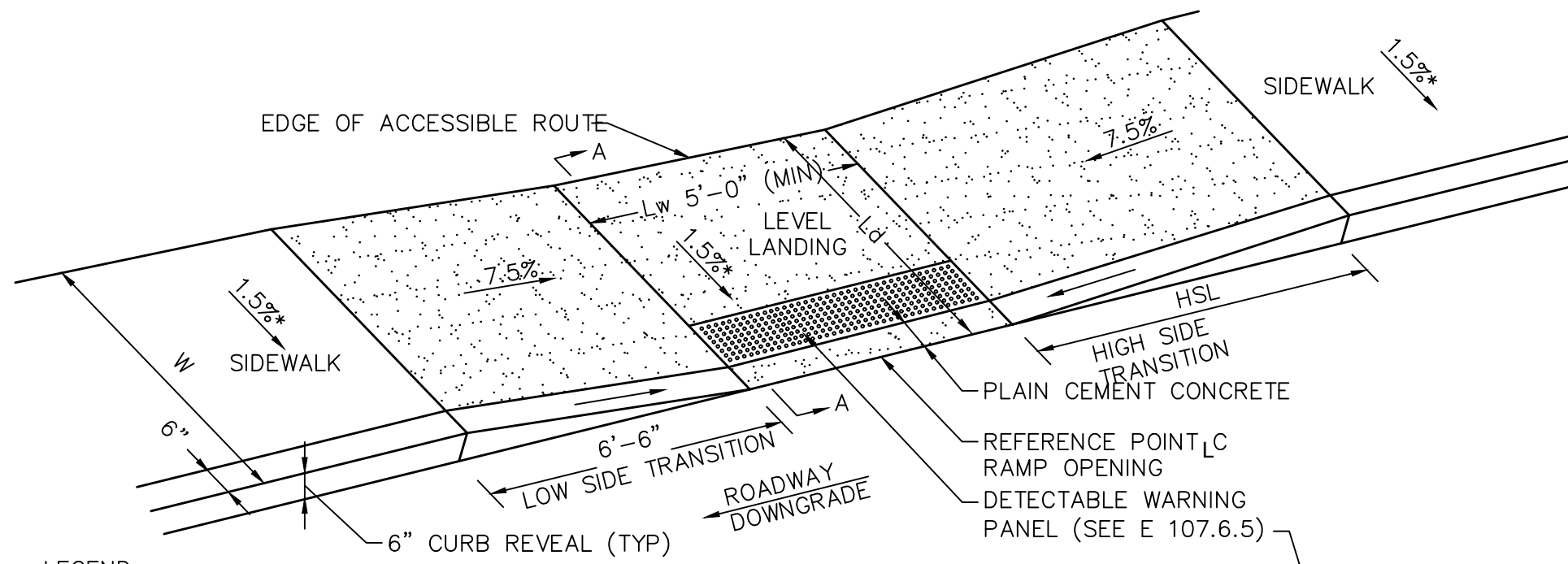


NOTES:

1. BOLLARDS SHALL BE PLACED IN ACCORDANCE WITH THE ADA ACCESSABILITY GUIDELINES. A MINIMUM CLEAR WIDTH OF 36" SHALL BE PROVIDED TO MAINTAIN AN ACCESSIBLE PATH.
2. BOLLARDS SHALL BE INSTALLED TO PROTECT ALL SERVICE CONNECTIONS, METERS, AND REAR BUILDING CORNERS IN PROPOSED AREAS.

BOLLARD

N.T.S.



LEGEND:

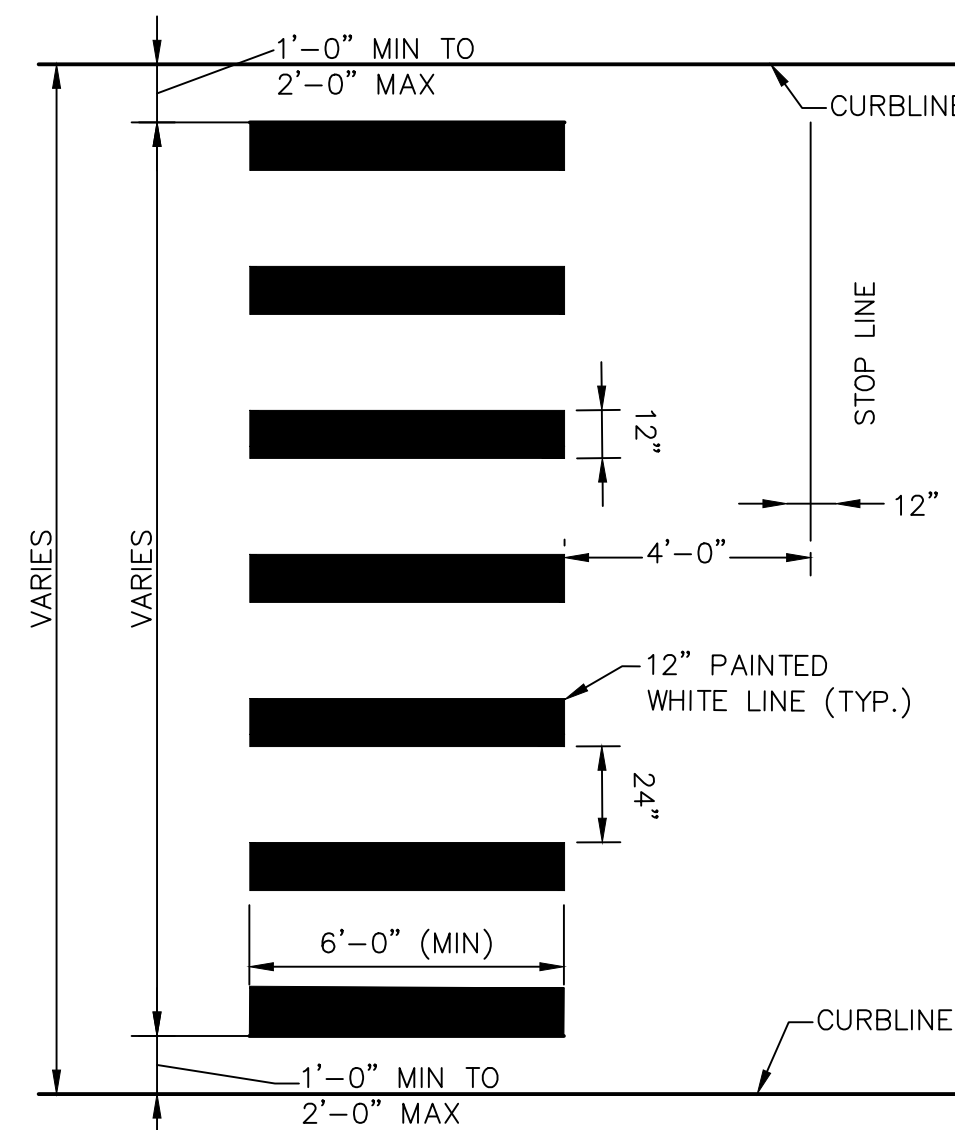
HSL = HIGH SIDE TRANSITION LENGTH (SEE E 107.9.0)
W = SIDEWALK WIDTH
CC = CEMENT CONCRETE
* = TOLERANCE FOR CONSTRUCTION ±0.5%

NOTES:

1. USABLE SIDEWALK WIDTH PER AAB = W-6"
2. USABLE SIDEWALK WIDTH PER AAB IS NOT TO BE LESS THAN 4'-0"
3. ROADWAY GUTTER SLOPE MEASURED IN UPSTATION DIRECTION
4. SEE E 107.6.5 FOR DETECTABLE WARNING PANEL DETAILS
5. SEE E 107.2.1 FOR ALL OTHER DETAILS

WHEEL CHAIR RAMP TYPE A

N.T.S.

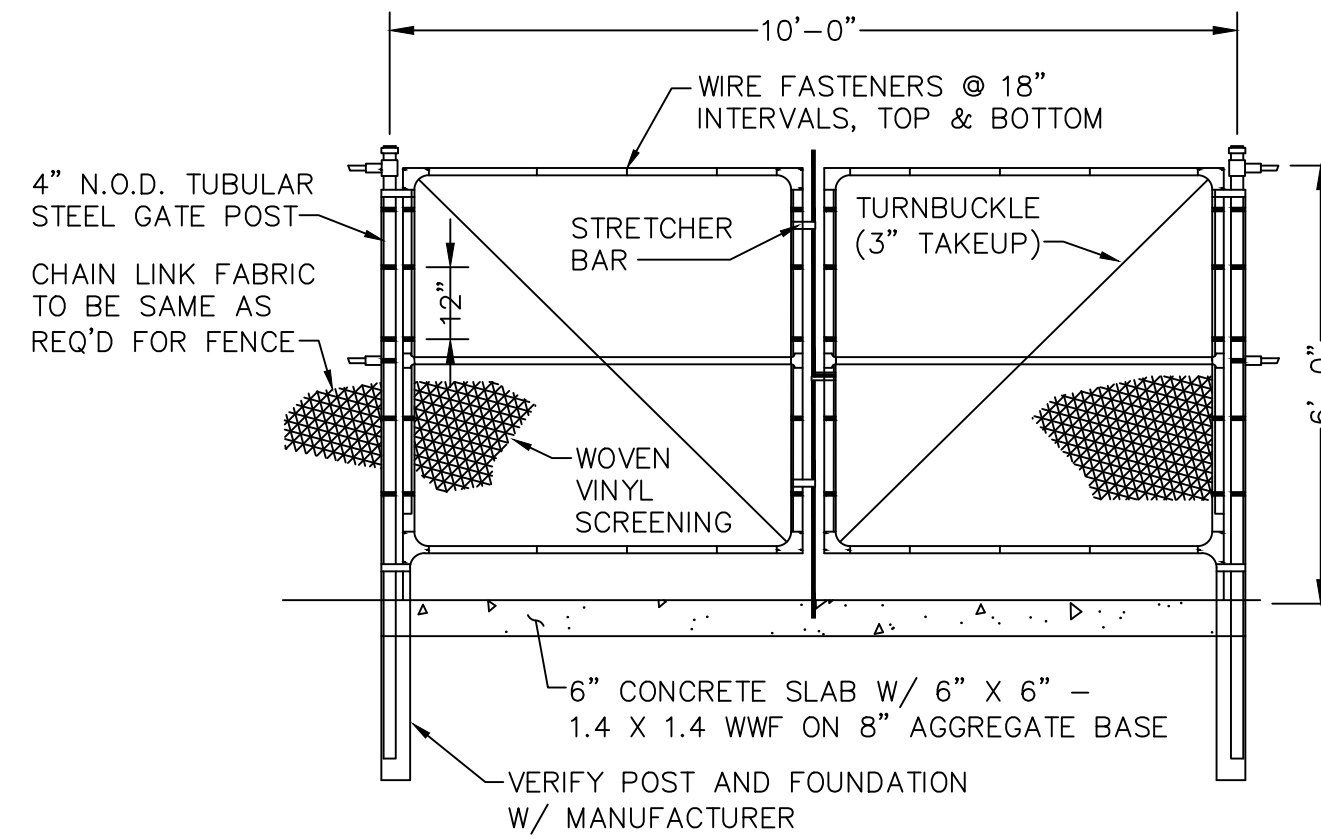


NOTES:

1. ALL 12" PAINTED LINES SHALL BE APPLIED IN ONE APPLICATION, NO COMBINATION OF LINES (TWO - 6" LINES) WILL BE ACCEPTED.
2. LAYOUT OF CROSSWALKS SHALL BE APPROVED THE ENGINEER PRIOR TO APPLICATION OF PAINT.
3. ALL CROSSWALKS INSTALLED SHALL CONFORM TO THE RELEVANT PROVISIONS OF THE MASSACHUSETTS HIGHWAY DEPARTMENT "STANDARD SPECIFICATION FOR HIGHWAY AND BRIDGES" DATED 1988.
4. THE PAVEMENT MARKINGS FOR CROSSWALKS WITHIN THE PUBLIC WAY MAY VARY AND SHALL BE APPROVED BY THE CITY ENGINEER PRIOR TO THE APPLICATION OF PAINT.

CROSSWALK PAVEMENT MARKING

N.T.S.



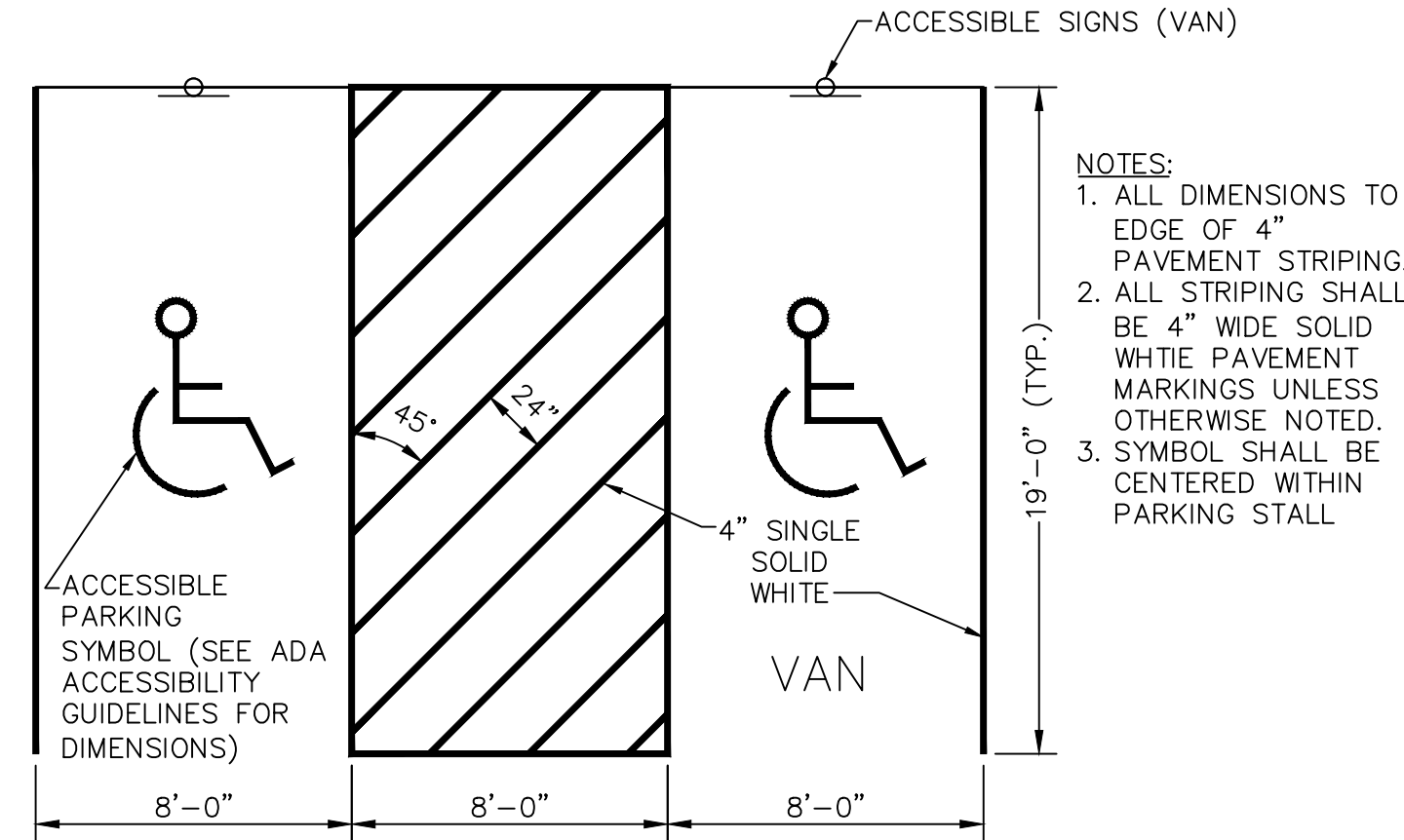
SECTION

NOTE:

1. NOMINAL OUTSIDE DIAMETER (N.O.D.) OF GATE FRAME AND BRACE TUBE TO BE 1.66" UP TO 6" IN WIDTH, AND 1.90" IF OVER 6" IN WIDTH.

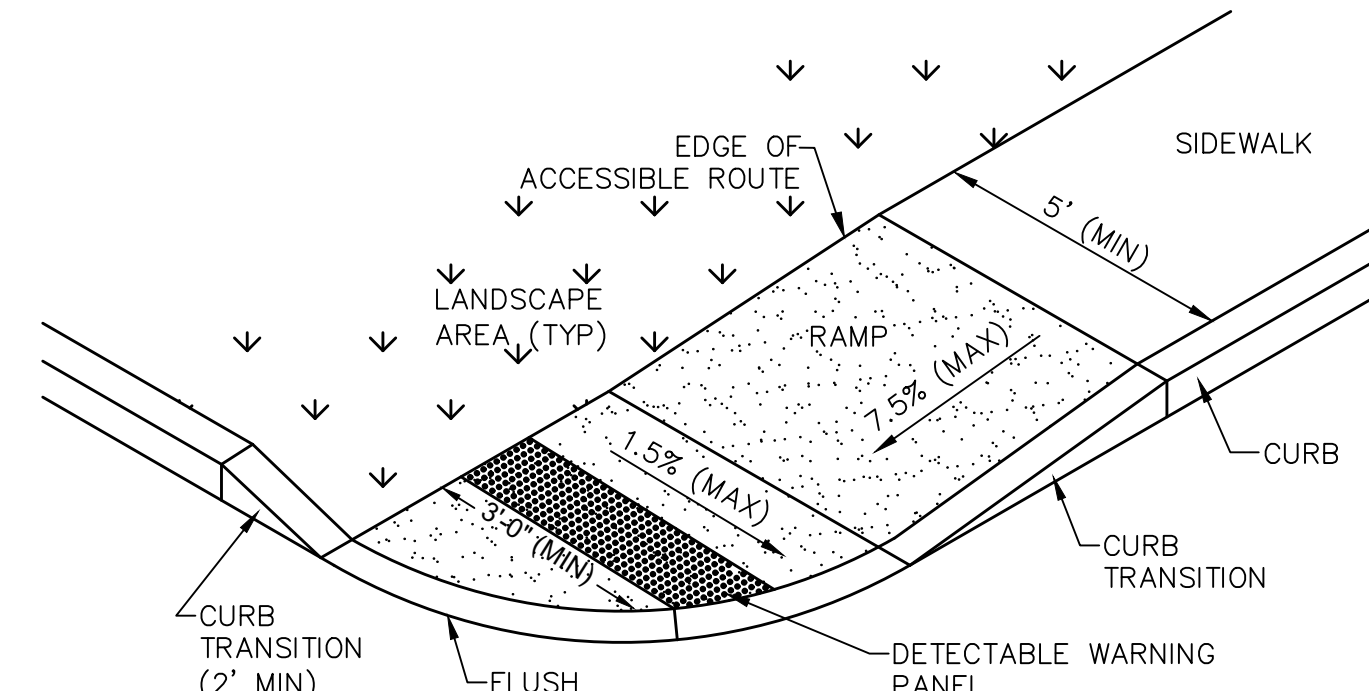
DUMPSTER PAD AND ENCLOSURE

N.T.S.



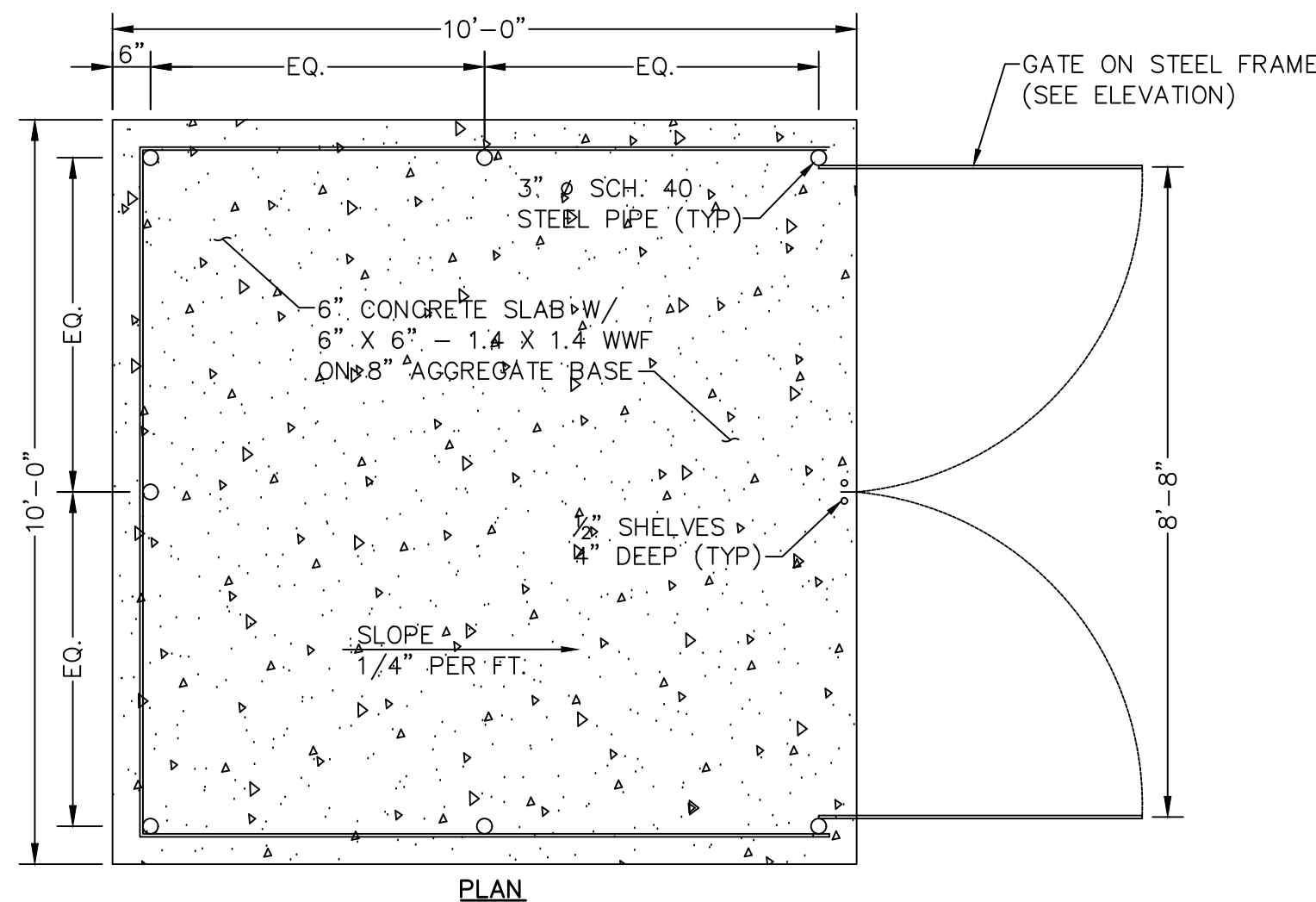
ACCESSIBLE PARKING STALL STRIPING DETAIL

N.T.S.



WHEELCHAIR RAMP TYPE B

N.T.S.



PLAN

DRAWING TITLE

**Construction
Details**

SUBDIVISION NAME & LOCATION

**King Street
Commons**

550 King Street

Littleton, MA 01460

OWNER / APPLICANT / SUBDIVIDER

Lupoli Companies

290 Merrimack Street

Lawrence, MA 01840

DESIGNER / ENGINEER

TEC
The Engineering Corp

TEC, Inc.

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Lawrence, Massachusetts 01843

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DESIGNED BY

DATE

CHECKED BY

SCALE AS NOTED



PROJECT NO.

T1180

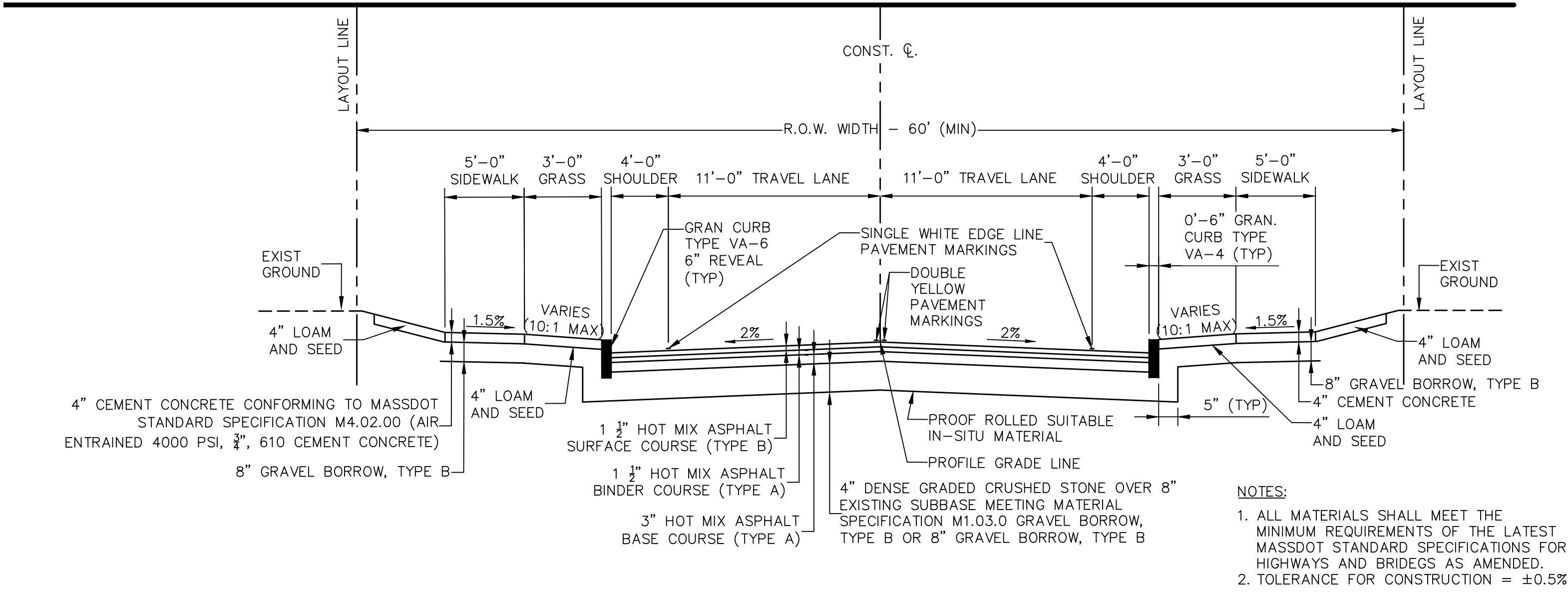
TEC CAD FILE

T1180_DET

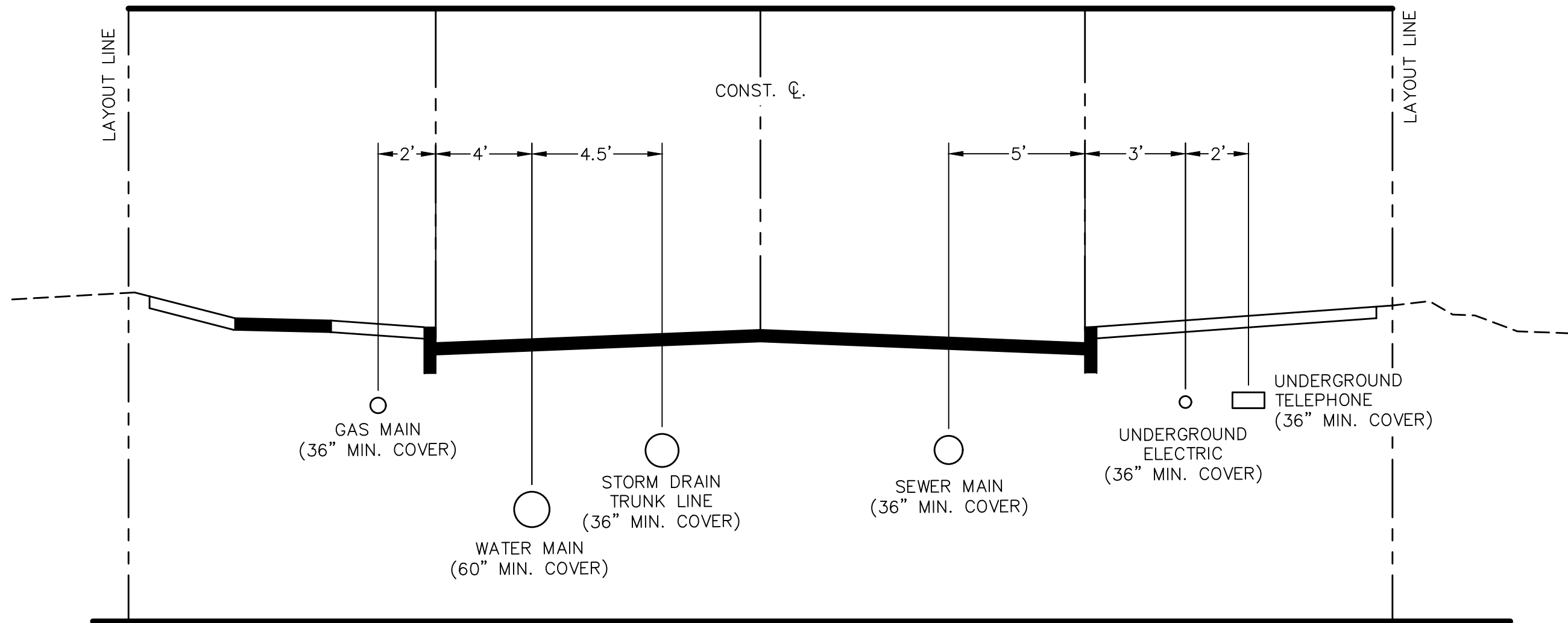
DRAWING NO.

C-49

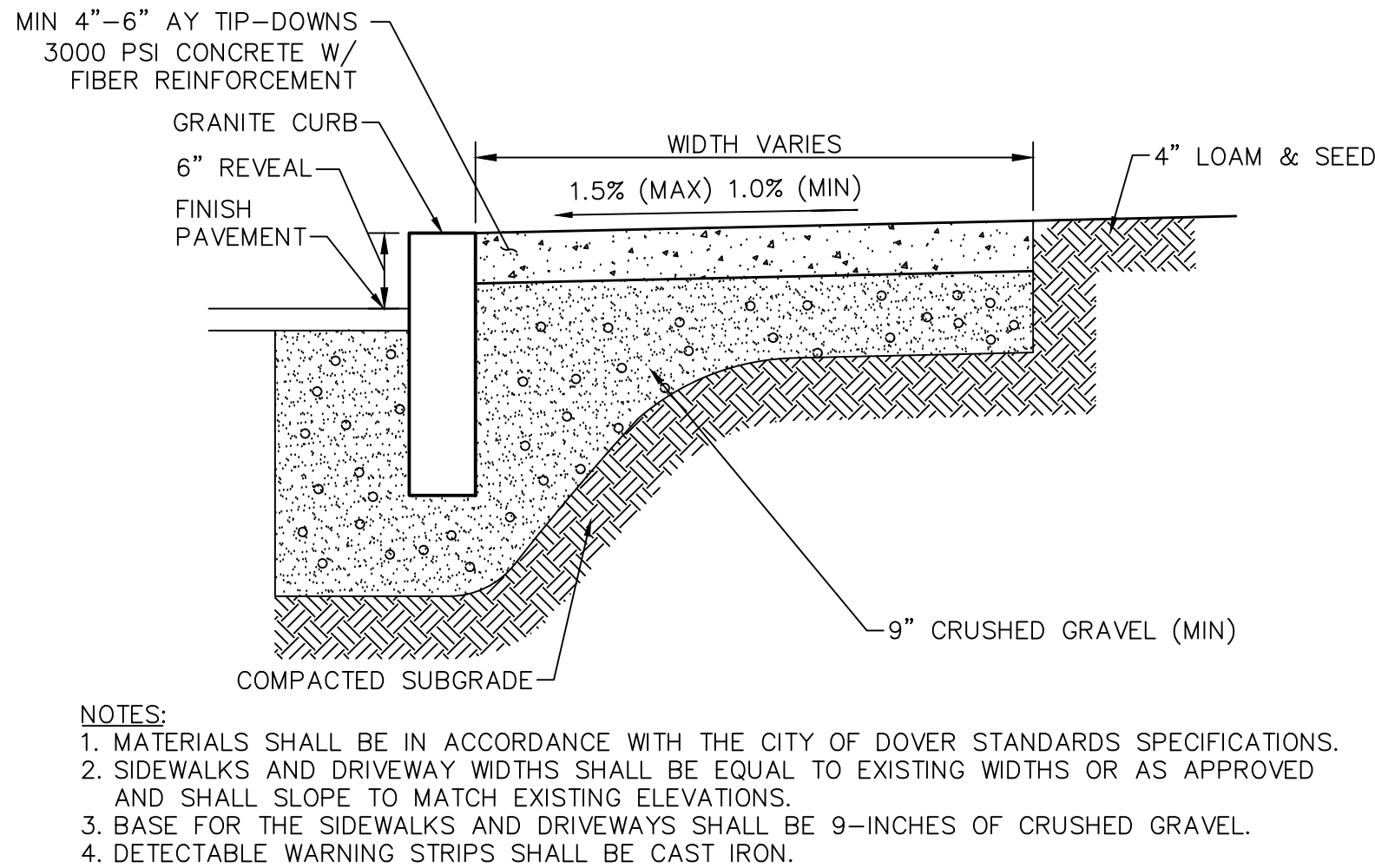
SHEET 49 OF 50



COLLECTOR ROAD TYPICAL SECTION

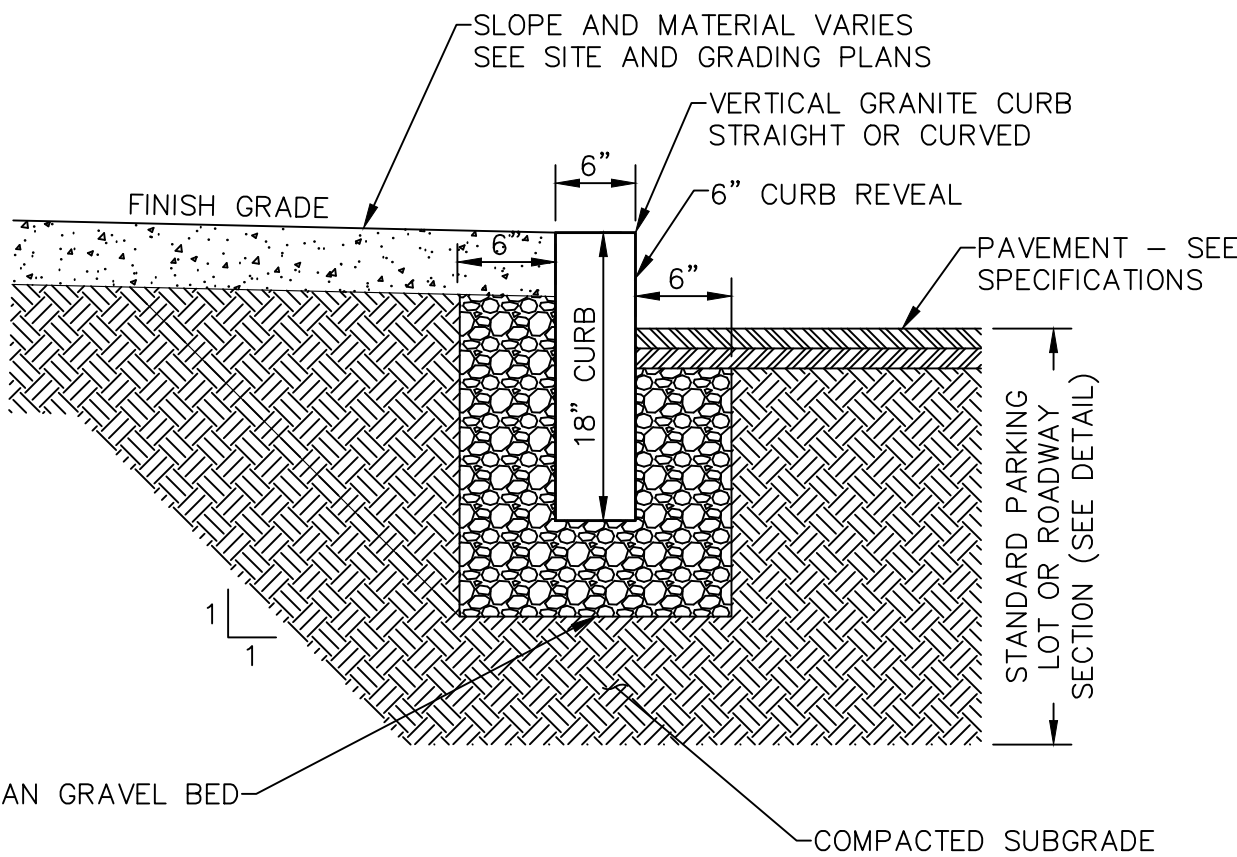


ROADWAY UTILITIES – TYPICAL SECTION



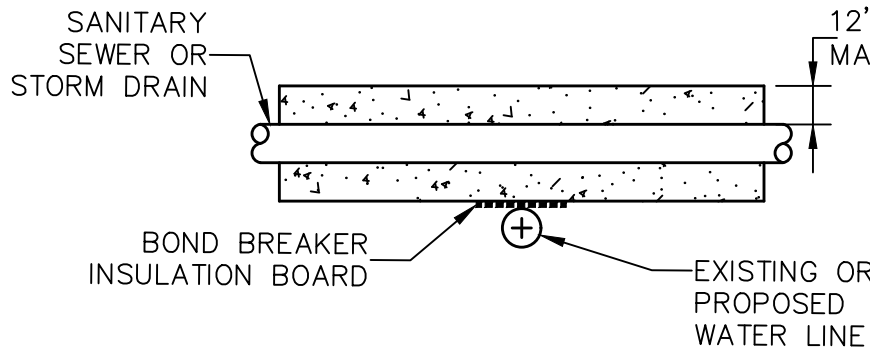
CONCRETE SIDEWALK

RADIUS	MAX LENGTH
<21'	USE CURVED CURB
12'	3'
22'-28'	4'
29'-35'	5'
36'-42'	6'
43'-49'	7'
50'-56'	8'
57'-60'	9'
OVER 60'	10'

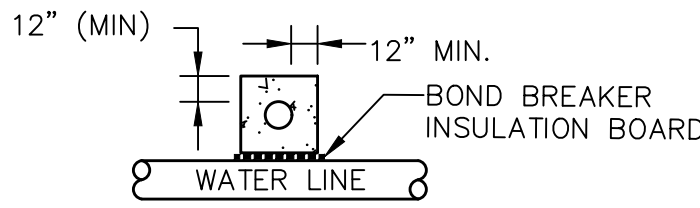


VERTICAL GRANITE CURB

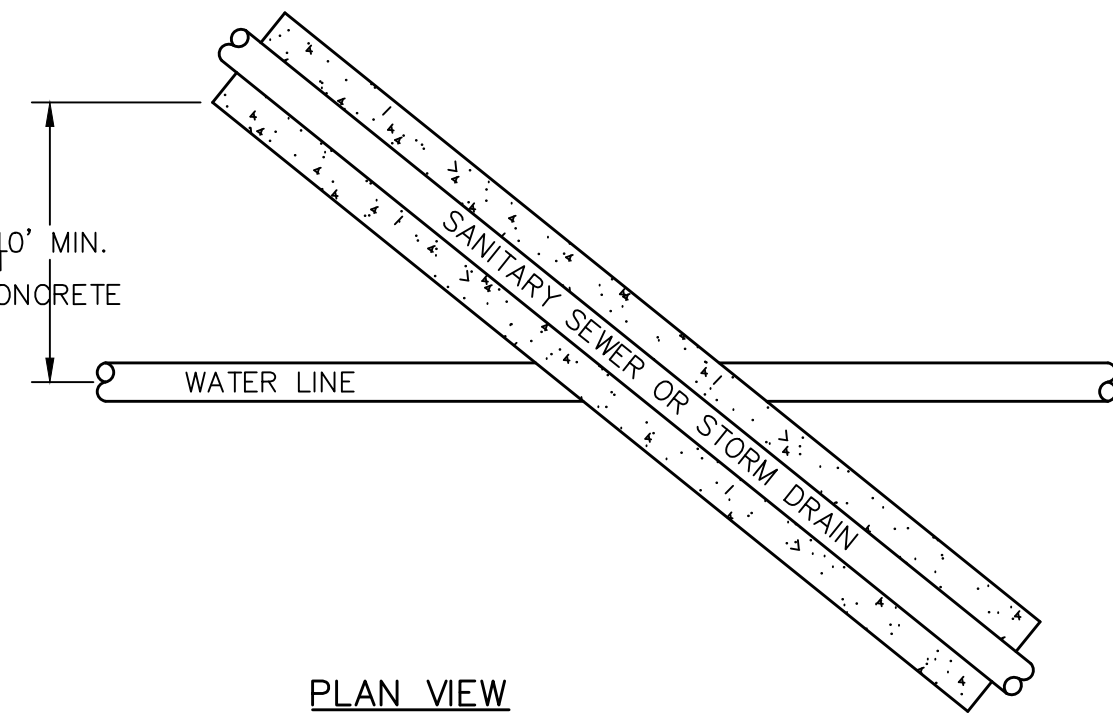
NOTE: REFER TO TOWN OF LITTLETON
SUBDIVISION OF LAND REGULATIONS
ARTICLE IV SECTION 249-85.E FOR
ADDITIONAL REQUIREMENTS.



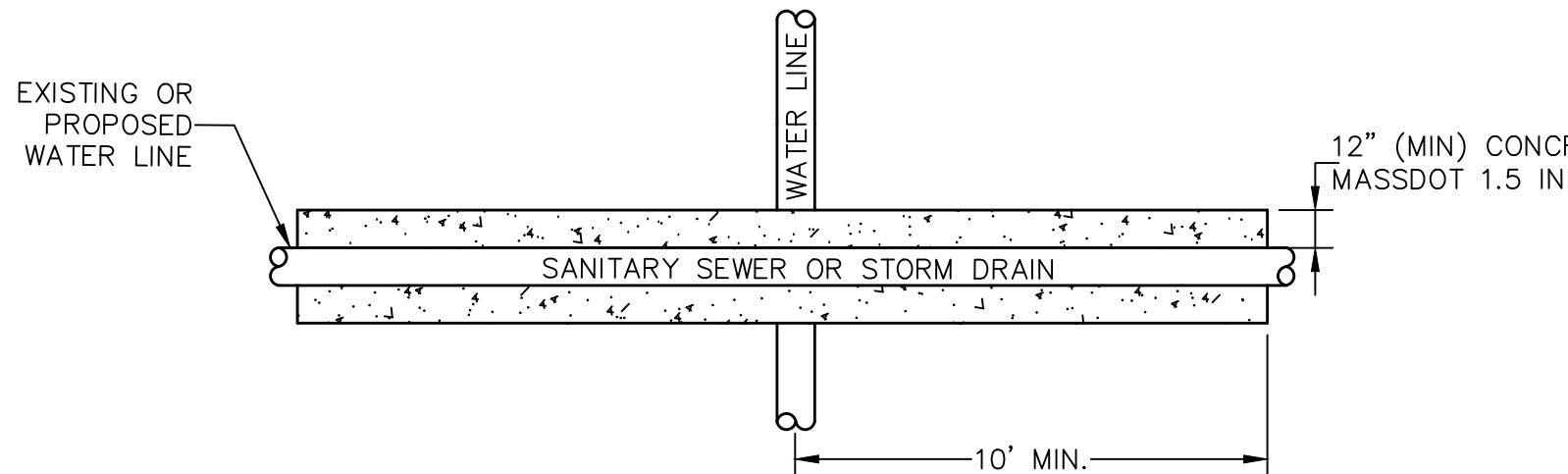
PROFILE



PROFILE



PLAN VIEW



PLAN VIEW

TYPICAL CONCRETE ENCASEMENT OF
SANITARY SEWERS OR STORM DRAINS

N.T.S.

DRAWING TITLE

Construction
Details

SUBDIVISION NAME & LOCATION

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Commons
550 King Street
Littleton, MA 01460

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C-50
SHEET 50 OF 50