

MASSACHUSETTS DEPARTMENT OF TRANSPORTATION HIGHWAY DIVISION

DEDHAM
ELM STREET AND RUSTCRAFT ROAD

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ-003S(160)X	1	71
PROJECT FILE NO.		607901	

TITLE SHEET & INDEX

PLAN AND PROFILE OF ELM STREET AND RUSTCRAFT ROAD ROADWAY AND SIDEWALK IMPROVEMENTS

IN THE TOWN OF

DEDHAM

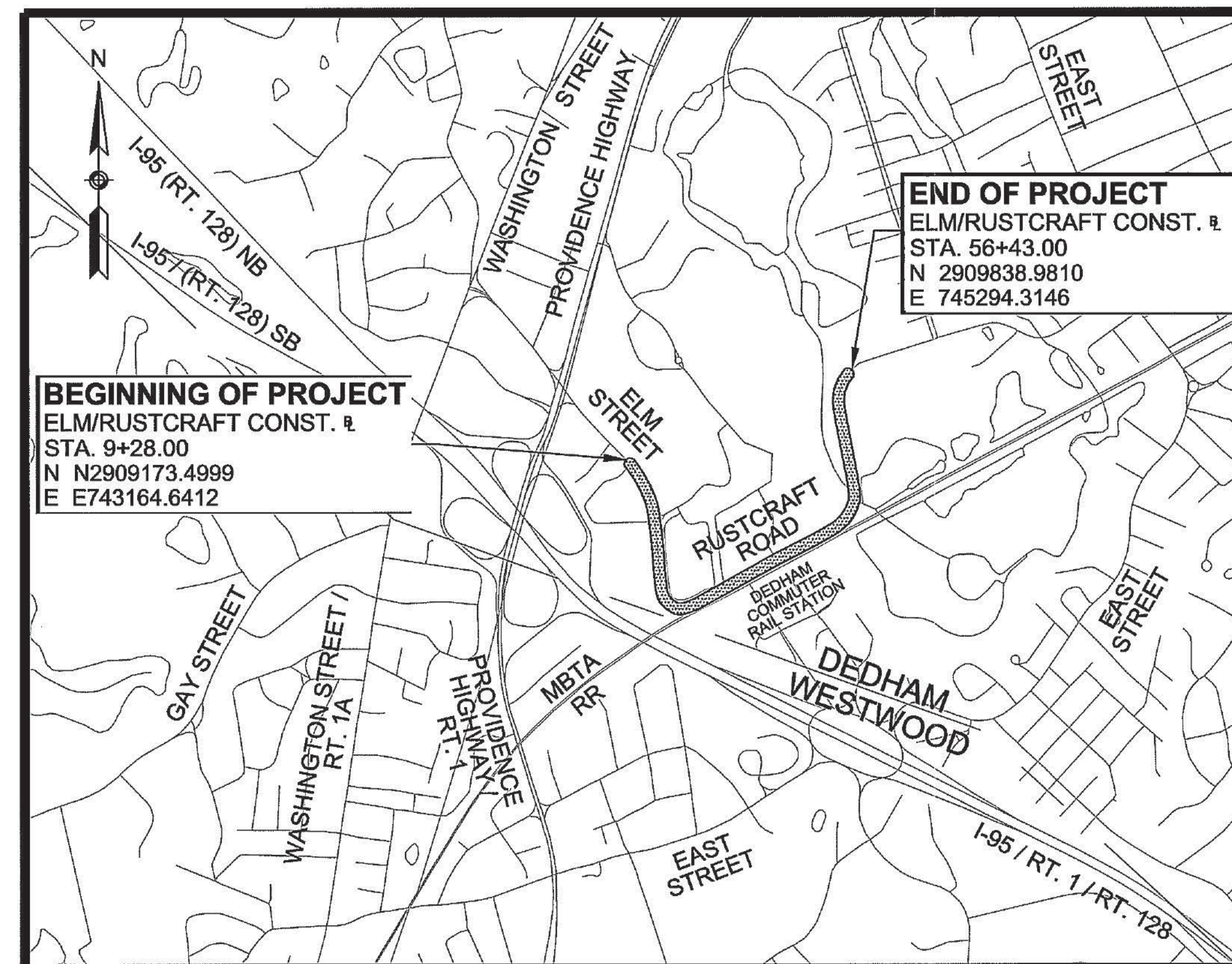
NORFOLK COUNTY

FEDERAL AID PROJECT NO. CMQ-003S(160)X

THESE PLANS ARE SUPPLEMENTED BY THE OCTOBER 2017 CONSTRUCTION STANDARD DETAILS, THE 2015 OVERHEAD SIGNAL STRUCTURE AND FOUNDATION STANDARD DRAWINGS, MASSDOT TRAFFIC MANAGEMENT PLANS AND DETAIL DRAWINGS, THE 1990 STANDARD DRAWINGS FOR SIGNS AND SUPPORTS, THE 1968 STANDARD DRAWINGS FOR TRAFFIC SIGNALS AND HIGHWAY LIGHTING, AND THE LATEST EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK.

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PROJECT LOCATION



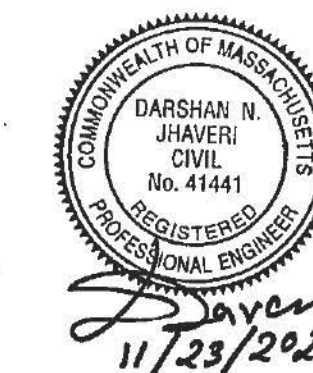
LENGTH OF PROJECT = 4543.00 FEET = 0.860 MILES

END OF PROJECT
ELM/RUSTCRAFT CONST. R.
STA. 56+43.00
N 2909838.9810
E 745294.3146

BEGINNING OF PROJECT
ELM/RUSTCRAFT CONST. R.
STA. 9+28.00
N 22909173.4999
E 743164.6412

DESIGN DESIGNATION	ELM STREET	RUSTCRAFT ROAD
DESIGN SPEED	30 MPH*	30 MPH
ADT (2014)	14,700	6,900
ADT (2024)	15,450	7,250
K	8.8%	7.6%
D	52% (NB)	55% (WB)
T (PEAK HOUR)	5.9%	8.2%
T (AVERAGE DAY)	4.3%	5.3%
DHV	1,360	551
DDHV	707	303
FUNCTIONAL CLASSIFICATION	URBAN MINOR ARTERIAL	URBAN MINOR ARTERIAL

*STA 19+00 TO 31+00
20 MPH PER SPEED REGULATION



DATE	DESCRIPTION	REV #

PREPARED BY:



APPROVED

John G. Buchanan 12/18/20
for CHIEF ENGINEER DATE

GENERAL SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
		JERSEY BARRIER
		CATCH BASIN
		CATCH BASIN CURB INLET
		FLAG POLE
		GAS PUMP
		MAIL BOX
		POST SQUARE
		POST CIRCULAR
		WELL
		ELECTRIC HANDHOLE
		FENCE GATE POST
		GAS GATE
		BORING HOLE
		MONITORING WELL
		TEST PIT
		HYDRANT
		LIGHT POLE
		COUNTY BOUND
		GPS POINT
		CABLE MANHOLE
		DRAINAGE MANHOLE
		ELECTRIC MANHOLE
		GAS MANHOLE
		MISC MANHOLE
		SEWER MANHOLE
		TELEPHONE MANHOLE
		WATER MANHOLE
		MASSACHUSETTS HIGHWAY BOUND
		MONUMENT
		STONE BOUND
		TOWN OR CITY BOUND
		TRAVERSE OR TRIANGULATION STATION
		TROLLEY POLE OR GUY POLE
		TRANSMISSION POLE
		UTILITY POLE W/ FIREBOX
		UTILITY POLE WITH DOUBLE LIGHT
		UTILITY POLE W / 1 LIGHT
		UTILITY POLE
		GUY
		BUSH
		TREE
		STUMP
		SWAMP / MARSH
		WATER GATE
		OVERHEAD CABLE/WIRE
		CURBING
		CONTOURS (ON-THE-GROUND SURVEY DATA)
		CONTOURS (PHOTOGRAMMETRIC DATA)
		UNDERGROUND DRAIN PIPE (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND ELECTRIC DUCT (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND GAS MAIN (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND SEWER MAIN (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND TELEPHONE DUCT (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND WATER MAIN (DOUBLE LINE 24 INCH AND OVER)
		BALANCED STONE WALL
		RETAINING WALL (TYPE AS NOTED)
		GUARD RAIL - STEEL POSTS
		GUARD RAIL - WOOD POSTS
		CHAIN LINK OR METAL FENCE
		WOOD FENCE
		HAY BALES/SILT FENCE
		TREE LINE or LIMIT OF CLEARING AND GRUBBING
		SAWCUT LINE
		TOP OR BOTTOM OF SLOPE
		LIMIT OF EDGE OF PAVEMENT OR COLD PLANE AND OVERLAY
		BANK OF RIVER OR STREAM
		BORDER OF WETLAND
		100 FT WETLAND BUFFER
		200 FT RIVERFRONT BUFFER
		STATE HIGHWAY LAYOUT
		TOWN OR CITY LAYOUT
		COUNTY LAYOUT
		RAILROAD SIDELINE
		TOWN OR CITY BOUNDARY LINE
		PROPERTY LINE OR APPROXIMATE PROPERTY LINE
		EASEMENT
		HIGHWAY/PROPERTY BOUND (TYPE AS NOTED)
		TEST PIT
		BORING/PAVEMENT CORE
		EROSION CONTROL BARRIER/COMPOST FILTER TUBES
		SIGN AND POST
		SIGN AND POST (2 POSTS)
		CONSTRUCTION BASELINE
		SURVEY LINE
		WHEELCHAIR RAMP
		TREE (SIZE AND TYPE AS NOTED)

PAVEMENT MARKINGS AND SIGNING SYMBOLS

PROPOSED

CW	CROSSWALK, 2 - 12" WHITE LINES (8' CLEAR SPACE WIDTH)
SL	STOP LINE - 12" WHITE LINE 4' BEHIND CW (TYP)
SWL	SOLID WHITE LINE - 6" (OR AS NOTED ON PLANS)
BWL	BROKEN WHITE LINE - 6" (10' LINE & 30' GAP)
DWLEx	DOTTED WHITE LANE EXTENSION LINE - 6" (2' LINE & 6' GAP)
DYLEx	DOTTED YELLOW LANE EXTENSION LINE - 6" (2' LINE & 6' GAP)
DBYL	DOUBLE YELLOW LINE - 2 - 6" LINES
SYL	SOLID YELLOW LINE - 6" (OR AS NOTED ON PLANS)

STOP LEGEND "STOP" - WHITE

ACCESSIBILITY SYMBOL - WHITE

PAVEMENT ARROW - WHITE

ONLY LEGEND "ONLY" - WHITE

TRAFFIC SIGNAL SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
		CONTROL CABINET GROUND MOUNTED WITH FOUNDATION
		CONTROL CABINET POLE MOUNTED
		CONTROLLER PHASE
		MAST ARM, SHAFT & BASE (ARM LENGTH AS NOTED)
		VEHICULAR SIGNAL HEAD (ALPHA-NUMERIC DESIGNATION AS NOTED)
		VEHICULAR SIGNAL HEAD, OPTICALLY PROGRAMMED
		VEHICULAR SIGNAL HEAD (REMOVED & RESET)
		FLASHING BEACON
		PEDESTRIAN SIGNAL HEAD
		PEDESTRIAN SIGNAL HEAD, OPTICALLY PROGRAMMED
		PULL BOX 12"x12" OR HANDHOLE
		LOOP DETECTOR
		PEDESTRIAN PUSH BUTTON, SIGN (DIRECTIONAL ARROW AS SHOWN) AND SADDLE
		PRE-EMPTION DETECTOR
		PRE-EMPTION CONFIRMATION STROBE
		SIGNAL CONDUIT (SINGLE RUN)
		SIGNAL CONDUIT (DOUBLE RUN)
		SIGNAL POST & BASE
		MAGNETIC DETECTOR
		SCHOOL ZONE SPEED LIMIT SIGN
		MICROWAVE OR ULTRASONIC DETECTOR
		VIDEO DETECTION CAMERA
		VIDEO DETECTION ZONE

TRAFFIC SIGNAL SYSTEMS

R	STEADY CIRCULAR RED
Y	STEADY CIRCULAR AMBER
G	STEADY CIRCULAR GREEN
FR	FLASHING CIRCULAR RED
FY	FLASHING CIRCULAR AMBER
←FY	FLASHING YELLOW LEFT ARROW
R→	STEADY RED RIGHT ARROW
Y→	STEADY AMBER RIGHT ARROW
G→	STEADY GREEN RIGHT ARROW
←R	STEADY RED LEFT ARROW
←Y	STEADY AMBER LEFT ARROW
←G	STEADY GREEN LEFT ARROW
W	STEADY WALK (PERSON WALKING) - LUNAR WHITE
DW	STEADY DON'T WALK (HAND) - PORTLAND ORANGE
FDW	FLASHING DON'T WALK (FLASHING HAND) - PORTLAND ORANGE

ABBREVIATIONS

GENERAL	
AADT	ANNUAL AVERAGE DAILY TRAFFIC
ABAN	ABANDON
ADJ	ADJUST
APPROX.	APPROXIMATE
A.C.	ASPHALT CONCRETE
ACCM PIPE	ASPHALT COATED CORRUGATED METAL PIPE
ALT	ALTERATION
BIT.	BITUMINOUS
BC	BOTTOM OF CURB
BD.	BOUND
BL (or \bar{L})	BASELINE
BLDG	BUILDING
BM	BENCHMARK
BO	BY OTHERS
BOS	BOTTOM OF SLOPE
BOW	BOTTOM OF WALL
BR.	BRIDGE
BSW	BACK OF SIDEWALK
CB	CATCH BASIN
CBCI	CATCH BASIN WITH CURB INLET
CC	CEMENT CONCRETE
CCM	CEMENT CONCRETE MASONRY
CEM	CEMENT
CI	CURB INLET
CIP	CAST IRON PIPE
CIT	CHANGE IN TYPE
CLF	CHAIN LINK FENCE
CL	CENTERLINE
CMP	CORRUGATED METAL PIPE
CPP	CORRUGATED PLASTIC PIPE
CSP	CORRUGATED STEEL PIPE
CO.	COUNTY
CONC	CONCRETE
COND	CONDUIT
CONT	CONTINUOUS
CONST	CONSTRUCTION
CR GR	CROWN GRADE
DHV	DESIGN HOURLY VOLUME
DI	DROP INLET
DIA	DIAMETER
DIP	DUCTILE IRON PIPE
DW	STEADY DON'T WALK - PORTLAND ORANGE
DWY	DRIVEWAY
ELEV (or EL.)	ELEVATION
EMB	EMBANKMENT
EOP	EDGE OF PAVEMENT
EXIST (or EX)	EXISTING
EXC	EXCAVATION
F&C	FRAME AND COVER
F&G	FRAME AND GRATE
FDN.	FOUNDATION
FLDSTN	FIELDSTONE
FM	FORCE MAIN
GAR	GARAGE
GD	GROUND
GG	GAS GATE
GI	GUTTER INLET
GIP	GALVANIZED IRON PIPE
GRAN	GRANITE
GRAV	GRAVEL
GRD	GUARD
HDW	HEADWALL
HMA	HOT MIX ASPHALT
HOR	HORIZONTAL
HYD	HYDRANT
INV	INVERT
IP	IRON PIPE
JCT	JUNCTION
L	LENGTH OF CURVE
LB	LEACH BASIN
LID	LOW IMPACT DEVELOPMENT
LP	LIGHT POLE or LOW POINT
LT	LEFT
MAX	MAXIMUM
MB	MAILBOX
MH	MANHOLE
MHB	MASSACHUSETTS HIGHWAY BOUND
MIN	MINIMUM
NIC	NOT IN CONTRACT
NO.	NUMBER
O.C.	ON CENTER
PC	POINT OF CURVATURE
PCC	POINT OF COMPOUND CURVATURE
P.G.L.	PROFILE GRADE LINE
PI	POINT OF INTERSECTION
POC	POINT ON CURVE
POT	POINT ON TANGENT
PRC	POINT OF REVERSE CURVATURE

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MA	CMQ-003S(160)X	2	71
PROJECT FILE NO. 607901			

LEGEND & ABBREVIATIONS

ABBREVIATIONS (cont.)

GENERAL	
PROJ	PROJECT
PROP	PROPOSED
PSB	PLANTABLE SOIL BORROW
PT	POINT OF TANGENCY
PVC	POINT OF VERTICAL CURVATURE or POLY-VINYL-CHLORIDE-PIPE
PVI	POINT OF VERTICAL INTERSECTION
PVT	POINT OF VERTICAL TANGENCY
PVMT	PAVEMENT
PWW	PAVED WATER WAY
R	RADIUS OF CURVATURE
R&D	REMOVE AND DISPOSE
RCP	REINFORCED CONCRETE PIPE
RD	ROAD
RDWY	ROADWAY
REM	REMOVE
RET	RETAIN
RET WALL	RETAINING WALL
ROW	RIGHT OF WAY
RR	RAILROAD
R&R	REMOVE AND RESET
R&S	REMOVE AND STACK
RT	RIGHT
SB	STONE BOUND
SD	SUBDRAIN
SHLD	SHOULDER
SHT	SHEET
SMH	SEWER MANHOLE
ST	STREET
STA	STATION
SSD	STOPPING SIGHT DISTANCE
SHLO	STATE HIGHWAY LAYOUT LINE
SW	SIDEWALK
T	TANGENT DISTANCE OF CURVE/TRUCK %
TAN	TANGENT
TEMP	TEMPORARY
TC	TOP OF CURB
TOS	TOP OF SLOPE
TOW	TOP OF WALL
TS	TRAFFIC SIGNAL
TSV&B	TAPPING SLEEVE, VALVE AND BOX
TYP	TYPICAL
UP	UTILITY POLE
UPL	UTILITY POLE w/ LIGHT
VAR	VARIES
VERT	VERTICAL
VC	VERTICAL CURVE
VCP	VITRIFIED CLAY PIPE
VGC	VERTICAL GRANITE CURB
WCR	WHEEL CHAIR RAMP
WG	WATER GATE
WIP	WROUGHT IRON PIPE
WM	WATER METER/WATER MAIN
WQU	WATER QUALITY UNIT
X-SECT	CROSS SECTION

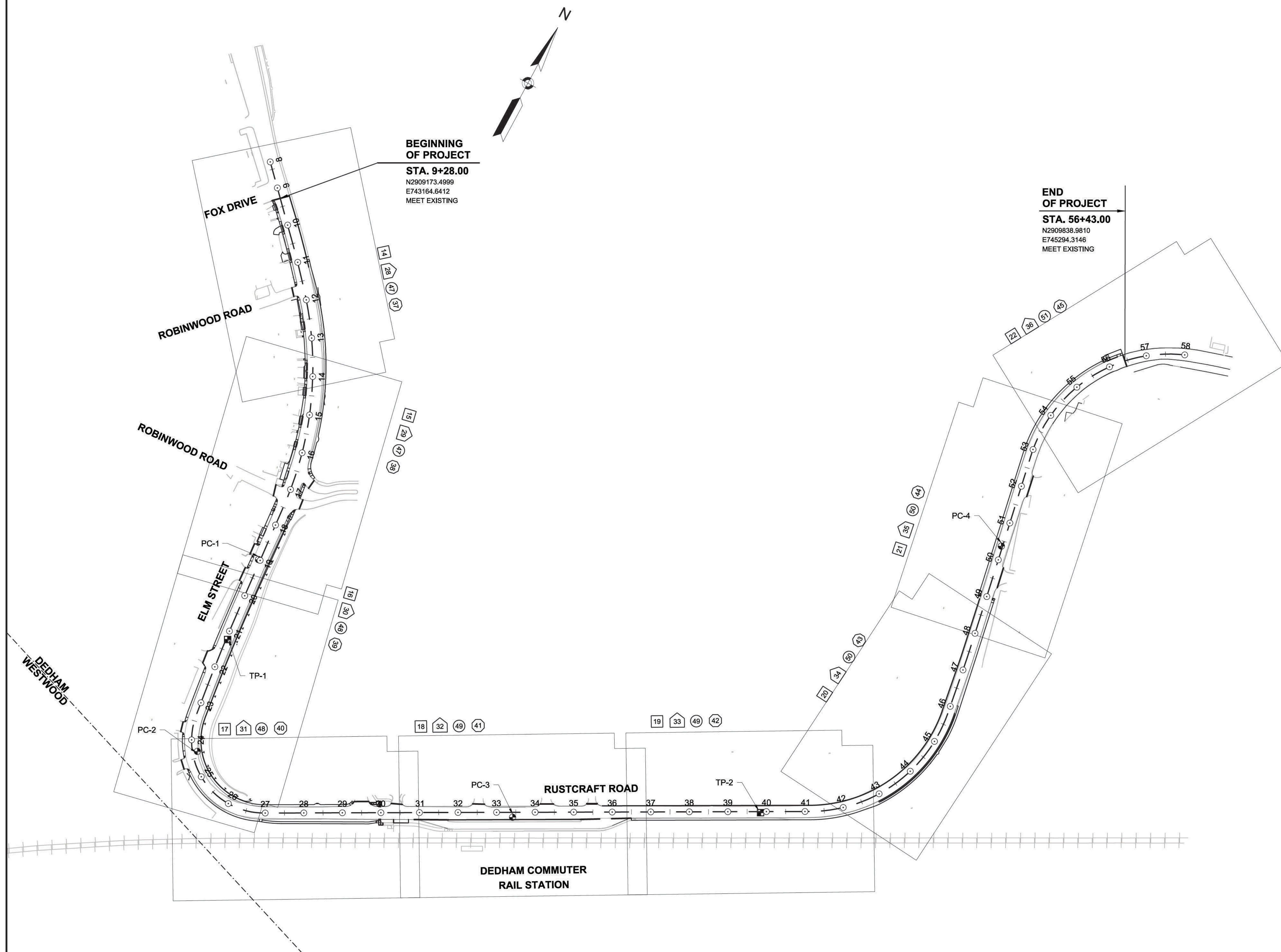
HATCH LEGEND

	WETLAND SEED MIX
	ROADSIDE RIVERBANK SEED MIX
	BOX WIDENING >4'
	BOX WIDENING <4'

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KEY PLAN &
BORING LOCATIONS



BEGINNING OF PROJECT
STA. 9+28.00
N2909173.4999
E743164.6412
MEET EXISTING

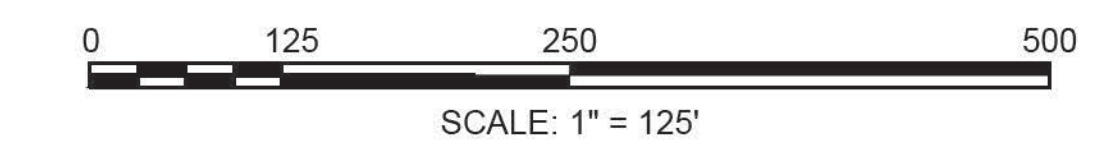
END OF PROJECT
STA. 56+43.00
N2909838.9810
E745294.3146
MEET EXISTING

SHEET NUMBER LEGEND

- XX CONSTRUCTION PLAN
- XX CURB TIE & GRADING PLAN
- XX SIGN & PAVEMENT MARKING PLAN
- XX DRAINAGE & UTILITY PLAN

LEGEND

- PC-# PAVEMENT CORE
- TP-# TEST PIT



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TYPICAL SECTIONS

PAVEMENT NOTES

FULL DEPTH PAVEMENT BOX WIDENING

SURFACE COURSE: 2" SUPERPAVE SURFACE COURSE 12.5 (SSC-12.5) OVER
 INTERMEDIATE COURSE: 2" SUPERPAVE INTERMEDIATE COURSE 12.5 (SIC-12.5) OVER
 COURSE:
 BASE COURSE: 4" SUPERPAVE BASE COURSE 37.5 (SBC-37.5) OVER
 SUB-BASE: 4" DENSE GRADED CRUSHED STONE OVER 8" GRAVEL BORROW, TYPE b

FULL DEPTH PAVEMENT BOX WIDENING 54' WIDE

SURFACE COURSE: 2" SUPERPAVE SURFACE COURSE 12.5 (SSC-12.5) OVER
 INTERMEDIATE COURSE: 2" SUPERPAVE INTERMEDIATE COURSE 12.5 (SIC-12.5) OVER
 COURSE:
 BASE COURSE: 6" HES CEMENT CONCRETE BASE COURSE OVER
 SUB-BASE: 8" GRAVEL BORROW, TYPE b

PAVEMENT MILLING AND OVERLAY

SURFACE COURSE: 2" SUPERPAVE SURFACE COURSE 12.5 (SSC-12.5) OVER
 PAVEMENT MILLING: 2" PAVEMENT MILLING

PAVEMENT OVERLAY (STA 35+34± TO 56+43±)

SURFACE COURSE: 2" SUPERPAVE SURFACE COURSE 12.5 (SSC-12.5) OVER
 EXISTING BINDER COURSE (BY OTHERS)

CEMENT CONCRETE SIDEWALKS AND WHEELCHAIR RAMPS

SURFACE: 4" CEMENT CONCRETE WALK SURFACE
 4000 PSI, 3/4", 610 OVER
 FOUNDATION: 8" GRAVEL BORROW, TYPE b

CEMENT CONCRETE DRIVEWAYS

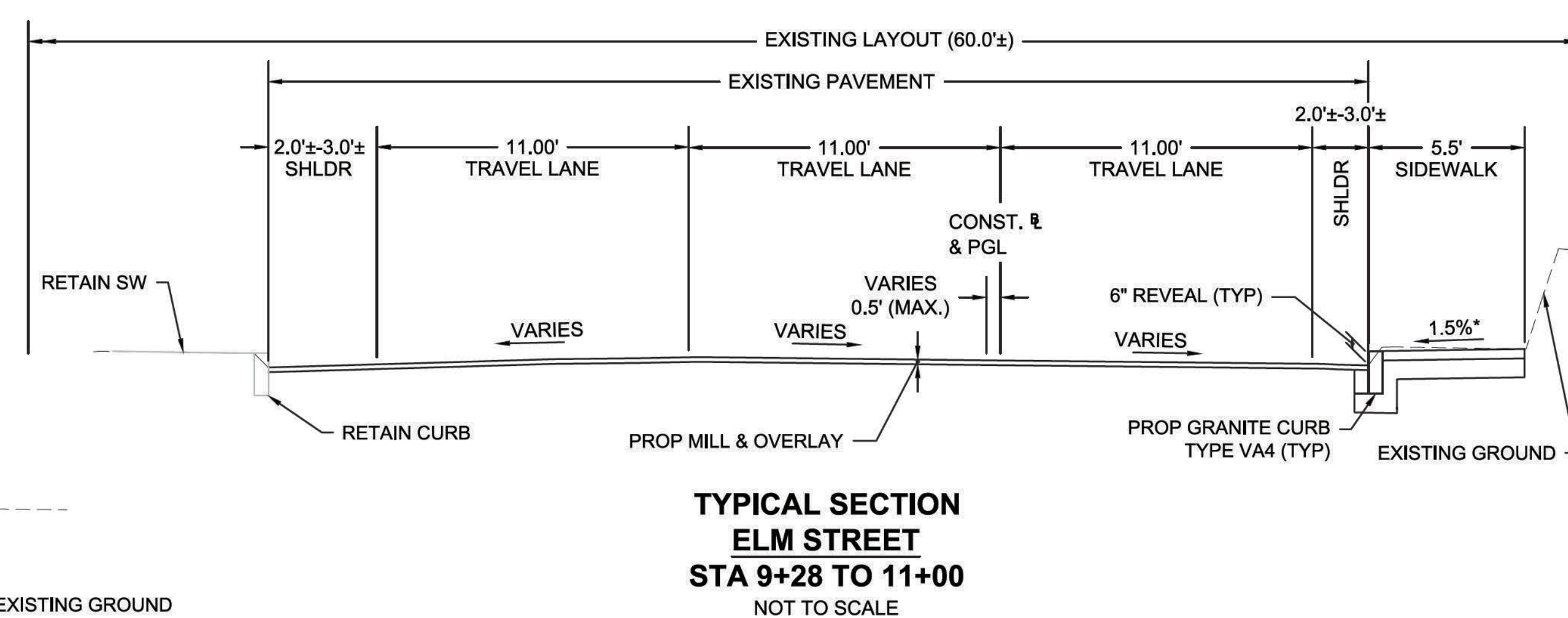
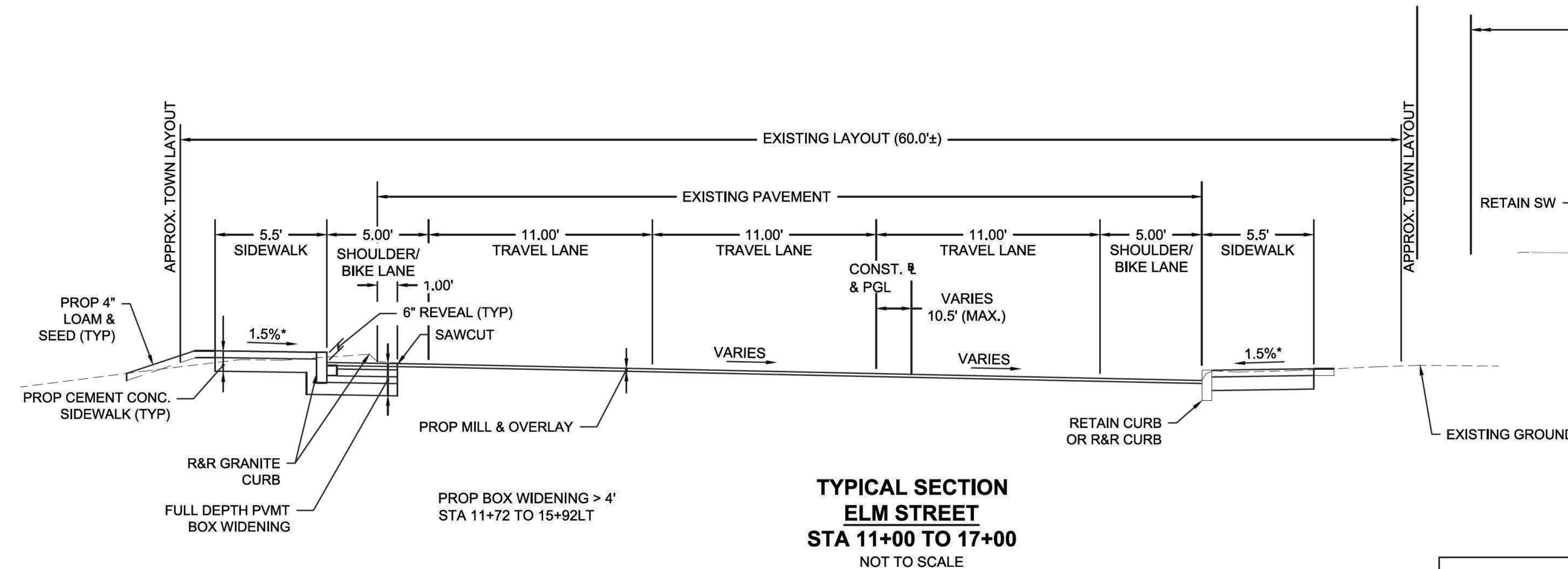
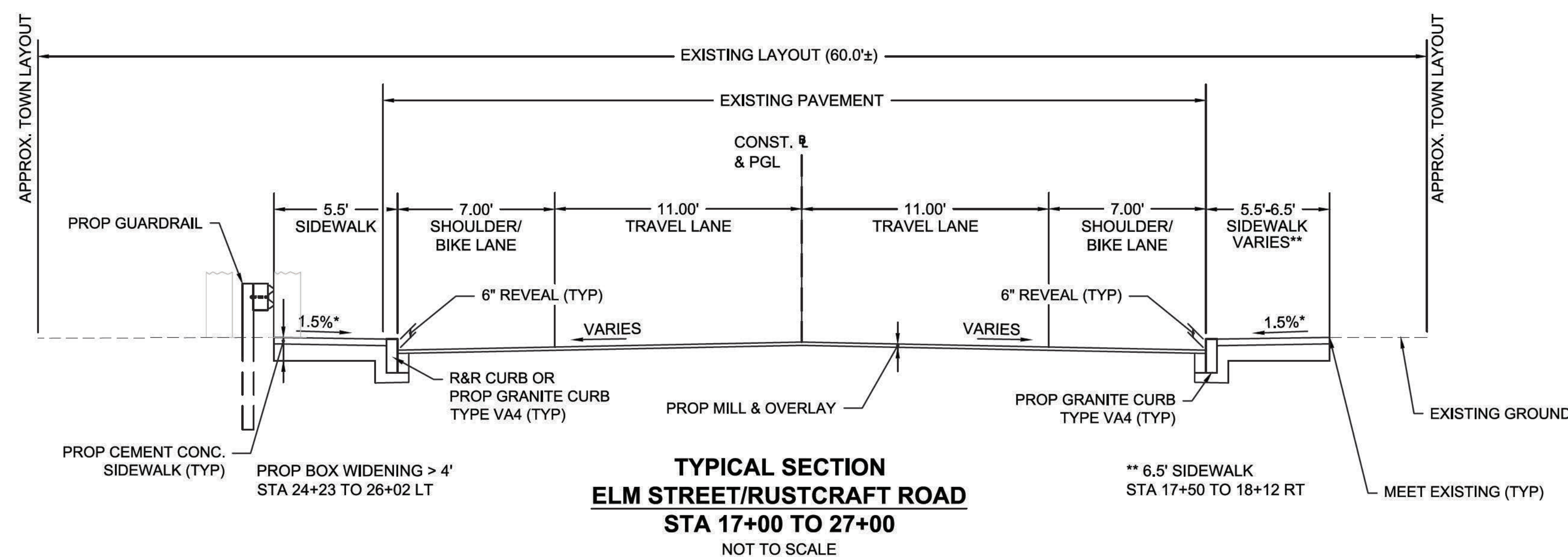
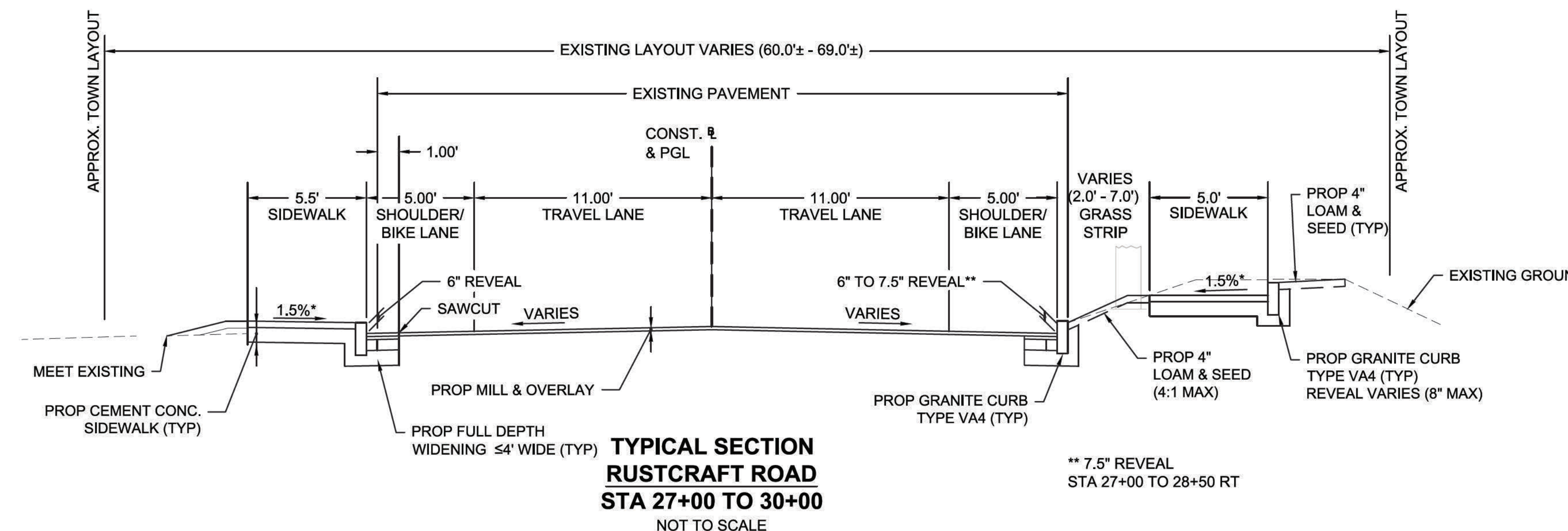
SURFACE COURSE: 6" CEMENT CONCRETE WALK SURFACE
 4000 PSI, 3/4", 610 OVER
 BASE COURSE: 8" GRAVEL BORROW, TYPE b

HMA DRIVEWAYS

SURFACE: 1-1/2" SUPERPAVE SURFACE COURSE 9.5 (SSC-9.5) OVER
 2-1/2" SUPERPAVE INTERMEDIATE COURSE 12.5 (SIC-12.5) OVER
 FOUNDATION: 8" GRAVEL BORROW, TYPE b

PROJECT TACK COAT NOTES

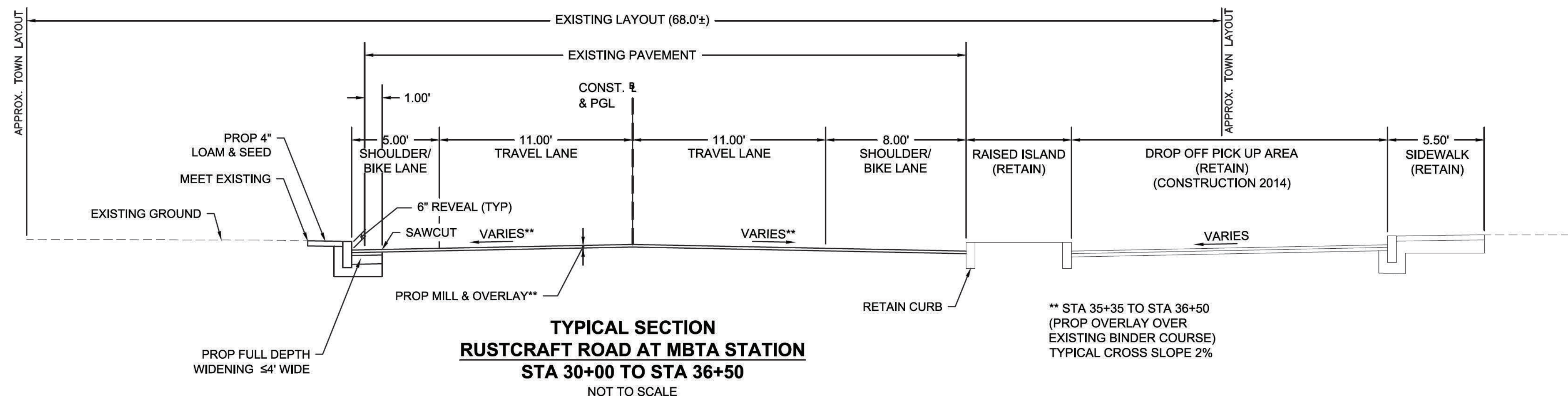
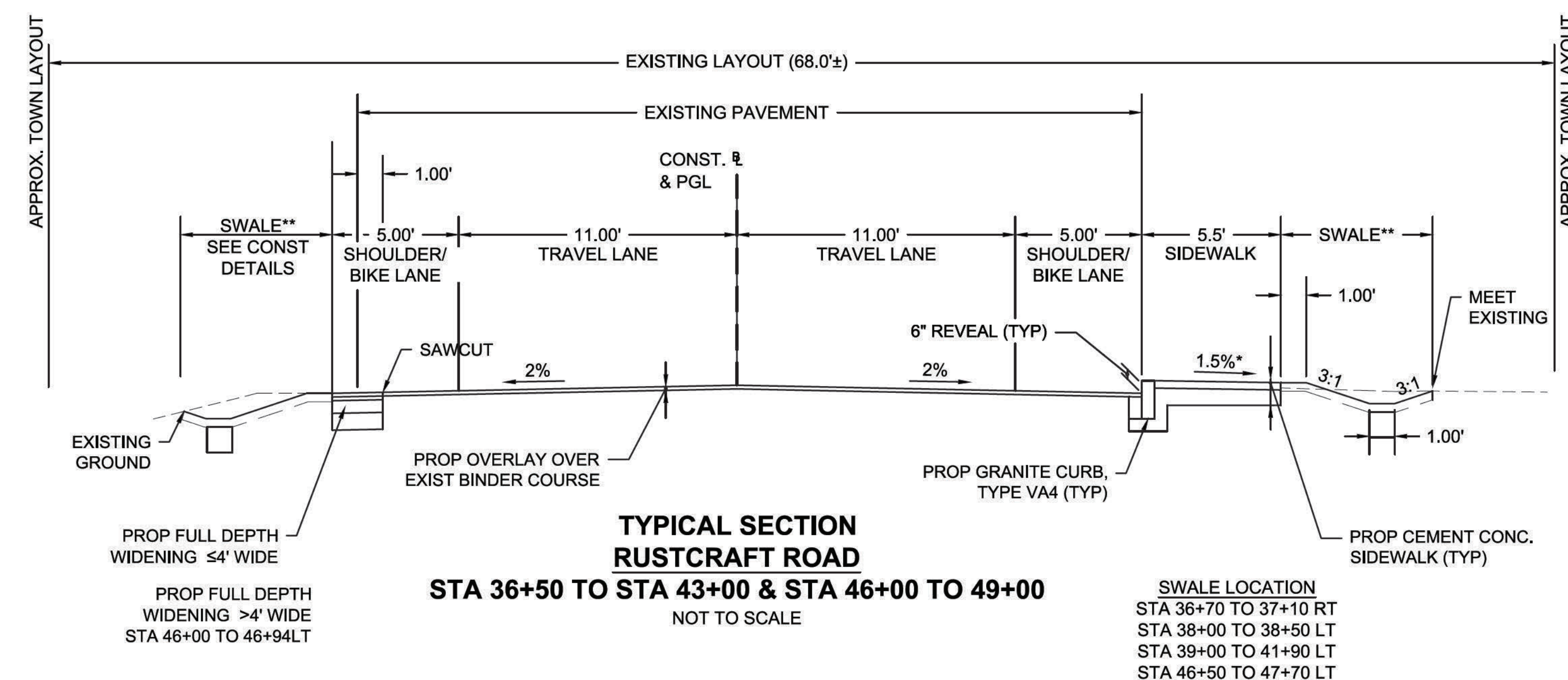
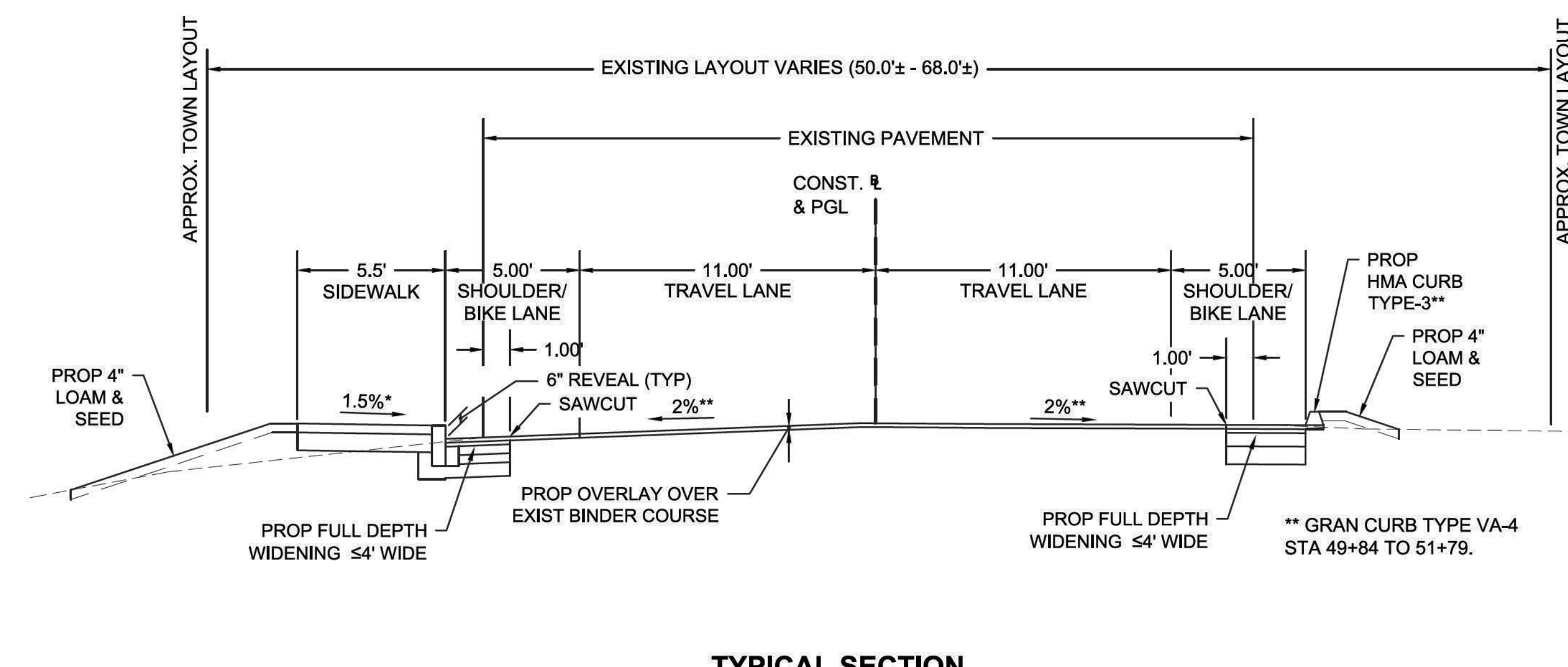
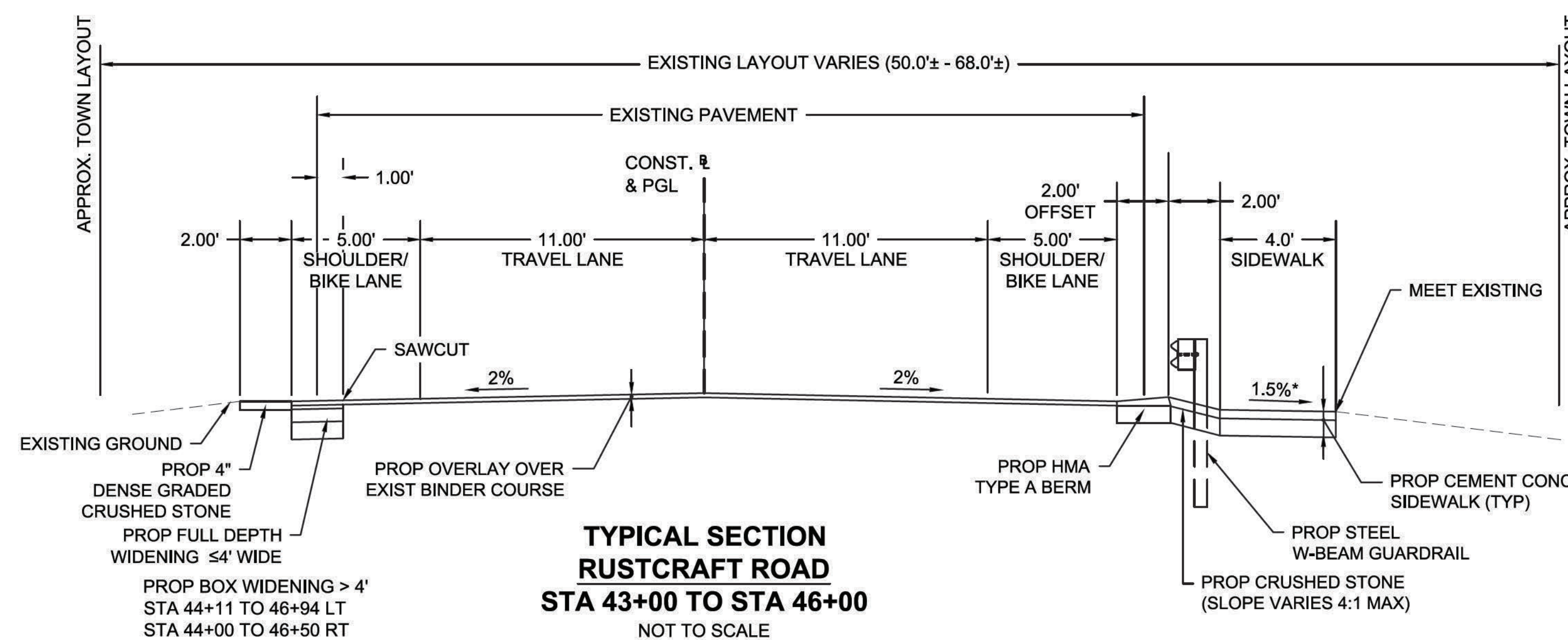
TACK COAT: ASPHALT EMULSION FOR TACK COAT, GRADE RS-1
 SHALL BE PLACED AT A RATE OF:
 0.07 TO 0.09 GALLONS PER SQUARE YARD OVER MILLED SURFACES
 GALLONS PER SQUARE YARD OVER CEMENT CONCRETE BASE
 COURSE SHALL EQUAL APPLICATION OF ADJACENT SURFACE
 0.06 TO 0.08 GALLONS PER SQUARE YARD OVER SMOOTH TIGHT
 PAVEMENTS PRIOR TO PAVING AN OVERLAY



* SIDEWALK CROSS-SLOPE SHALL BE 1.5% WITH A CONSTRUCTION TOLERANCE OF 0.5% ±

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TYPICAL SECTIONS



PAVEMENT NOTES
SEE SHEET 4

* SIDEWALK CROSS-SLOPE SHALL BE 1.5% WITH A CONSTRUCTION TOLERANCE OF 0.5%±

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GENERAL NOTES

GENERAL NOTES

- THE LOCATION OF SUBSURFACE UTILITIES SHOWN IS APPROXIMATE AND NOT GUARANTEED TO BE COMPLETE OR ACCURATE. THE CONTRACTOR SHALL VERIFY THE LOCATIONS AND ELEVATIONS OF EXISTING UTILITY LINES AND STRUCTURES PRIOR TO COMMENCEMENT OF WORK. THE CONTRACTOR MUST NOTIFY DIG SAFE 72 HOURS PRIOR TO ANY EXCAVATION, DEMOLITION OR EXPLOSIVE WORK IN PUBLIC OR PRIVATE WAYS OR UTILITY COMPANY RIGHT-OF-WAY OR EASEMENT.
- DRAINAGE ELEVATIONS ARE PROVIDED FOR DESIGN PURPOSES ONLY. THE CONTRACTOR SHALL VERIFY BY TEST PIT, THE LOCATIONS OF EXISTING UTILITIES WHICH MAY CONFLICT WITH THE PROPOSED DRAINAGE DESIGN. ANY FIELD ADJUSTMENTS REQUIRED WILL BE MADE AS APPROVED OR DIRECTED BY THE ENGINEER. ONLY AFTER THE CONTRACTOR VERIFIES ELEVATIONS FOR THE CONSTRUCTABILITY OF THE DRAINAGE SYSTEM SHALL ANY STRUCTURES BE ORDERED. ANY FIELD ADJUSTMENTS TO LINE & GRADE UP TO A DEPTH OF 5' SHALL BE INCLUDED IN THE COST OF THE PIPE. PIPE EXCAVATION GREATER THAN 5' WILL BE PAID UNDER CLASS B TRENCH EXCAVATION.
- WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, THE LOCATION, ELEVATION AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION FURNISHED TO THE ENGINEER FOR THE RESOLUTION OF THE CONFLICT.
- THE CONTRACTOR SHALL MAINTAIN ACCESS TO ABUTTING PROPERTIES AT ALL TIMES AND NOTIFY ALL ABUTTERS IN ADVANCE OF ANY INTERRUPTIONS TO ACCESS.
- THE CONTRACTOR SHALL MAINTAIN ADA-COMPLIANT PEDESTRIAN ACCESS AT ALL TIMES, SPECIFICALLY INCLUDING PEDESTRIAN GUIDANCE SYSTEMS AT WORK ZONES. ACCESS SHALL BE MAINTAINED ALONG ALL SIDEWALKS AND CROSSWALKS, TO ALL ABUTTERS, AND TO ALL MBTA TRAIN STATIONS. ANY PEDESTRIAN DETOURS SHALL INCLUDE A FULL ADA-COMPLIANT PEDESTRIAN DETOUR ROUTE WITH PROPER BARRICADES, RAILINGS, RAMPS, AND SIGNAGE.
- THE CONTRACTOR SHALL ALTER THE MASONRY OF THE TOP SECTION OF ALL EXISTING DRAINAGE AND SANITARY STRUCTURES AS NECESSARY FOR THE CHANGES IN GRADE, AND RESET ALL WATER AND DRAINAGE FRAMES, GRATES AND BOXES TO THE PROPOSED FINISH SURFACE GRADE. REQUIRED NEW MASONRY SHALL BE CLAY BRICK CONFORMING TO M4.05.2.
- THE CONTRACTOR SHALL MAKE ALL ARRANGEMENTS FOR THE ALTERATION AND ADJUSTMENT OF GAS, ELECTRIC, TELEPHONE, CABLE TV, FIRE ALARM AND ANY OTHER PRIVATE UTILITIES BY THE UTILITY COMPANIES. ALL UTILITY CASTING SHALL BE ADJUSTED TO FINISH GRADE BY THEIR RESPECTIVE OWNERS.
- AREAS OUTSIDE THE LIMITS OF PROPOSED WORK DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE.
- THE TERM "PROPOSED" (PROP.) MEANS WORK TO BE CONSTRUCTED USING NEW MATERIALS OR, WHERE APPLICABLE, RE-USING EXISTING MATERIALS IDENTIFIED AS "REMOVE AND RESET" (R&R).
- DRAINAGE STRUCTURES SHALL BE RETAINED UNLESS NOTED OTHERWISE.
- CATCH BASIN AND MANHOLE FRAMES AND GRATES/COVERS SHALL CLEARLY ALIGN WITH THE OPENINGS IN THE PRECAST STRUCTURES AND THE GRADE OF THE ROADWAY.
- ALL EXISTING DRAINAGE LINES TO BE REPLACED SHALL BE ABANDONED IN PLACE AND FILLED WITH CONTROLLED DENSITY FILL. IF THEY CONFLICT WITH THE PROPOSED DRAINAGE LINES THEY SHALL BE REMOVED AS REQUIRED BY THE ENGINEER.
- WHERE DRAINAGE PIPES OR STRUCTURES ARE ABANDONED IN PLACE THE CONTRACTOR SHALL MAKE SURE THAT ALL CONNECTING PIPES, DOWN SPOUT FROM BUILDING, INLETS AND OUTLETS ARE PLUGGED. ALL LIVE CONNECTIONS SHALL BE CONNECTED TO THE NEW SYSTEM.
- ALL CURB TIE DIMENSIONS ARE TO THE FACE OF THE CURB (GUTTER LINE) OR EDGE OF TRAVEL WAY.
- CONSTRUCTION BASELINE TIES ARE SHOWN ON CURB TIE & GRADING PLANS.
- PROPOSED SIDEWALKS AND WHEELCHAIR RAMPS SHALL BE CONSTRUCTED TO THE NEAREST SCORE LINE OR EXPANSION JOINT IN THE EXISTING ADJACENT WALK SURFACE AS DIRECTED BY THE ENGINEER.
- IN ALL LOCATIONS WHERE PROPOSED SIDEWALK TRANSITIONS DOWN TO MEET EXISTING GRADE, EXISTING SIDEWALK OR PAVED AREA, SLOPE SHALL NOT EXCEED 1:12.
- THE LOCATION OF THE PROPOSED DRIVEWAY OPENINGS ARE SHOWN ON TIE AND GRADING PLANS. EXACT LOCATIONS MAY BE ADJUSTED IF NECESSARY OR AS REQUIRED BY THE ENGINEERS IN THE FIELD.
- CONTRACTOR SHALL VERIFY LOCATION OF ALL OBJECTS (SIGNS, TREES, GRATE, POLES ETC.) TO BE SET WITHIN SIDEWALK PRIOR TO FINAL PLACEMENT TO PROVIDE A MINIMUM CLEAR PATH OF 36" EXCLUDING THE CURB. CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY LOCATION WHICH CANNOT MEET THE CLEARANCE REQUIREMENTS.
- SIGNS, POLES AND OTHER FEATURES LOCATED IN PROPOSED CEMENT CONCRETE SIDEWALK SHALL BE BOXED AND PROVIDED FLEXIBLE JOINT FILLER.
- CONTRACTOR SHALL VERIFY EXISTING GRADES. IF ANY ADJUSTMENT IS REQUIRED DUE TO DIFFERENT EXISTING GRADES FOUND IN THE FIELD, THE CONTRACTOR SHALL NOTIFY AND SEEK THE APPROVAL OF THE ENGINEER PRIOR TO PERFORMING THE WORK.
- IN AREAS OF NEW SIDEWALK, NEW EDGE OF PAVEMENT OR CURB WITHOUT SIDEWALK OR ANY WORK ADJACENT TO EXISTING GRASS AREAS, EVEN WHEN NO SLOPE-MATCHING OR GRADING IS NECESSARY AND THE EXISTING GRADE IS MET, LOAM BORROW AND SEED SHALL BE PROVIDED AS NECESSARY TO REPAIR AND COMPLETE ANY DAMAGE TO THE GRADE CAUSED BY THE CONSTRUCTION PROCESS.
- IN FILL AREAS, TOP SOIL SHALL BE REMOVED FOR A DEPTH OF 12" (MIN.) OR AS DIRECTED BY THE ENGINEER. SUBGRADE AREAS WILL BE COMPACTED PRIOR TO THE PLACEMENT OF FILL MATERIAL.

- ALL NEW GRANITE CURB SHALL BE MASSDOT TYPE VA-4, UNLESS OTHERWISE NOTED ON THE PLANS.
- ALL EXISTING GRANITE CURB SHALL BE REMOVED AND DISCARDED BY THE CONTRACTOR UNLESS DIRECTED BY THE ENGINEER.
- ALL PROPOSED PAVEMENT MARKINGS ON ROADWAYS SHALL BE REFLECTORIZED WHITE AND YELLOW THERMOPLASTIC.
- SAFETY CONTROLS FOR CONSTRUCTION OPERATIONS SHALL BE IN ACCORDANCE WITH MASSDOT REQUIREMENTS AND THE LATEST VERSION OF THE MUTCD.
- TREES TO BE RETAINED WHICH RESTRICT SIGHT DISTANCE OR RESTRICT HORIZONTAL OR VERTICAL CLEARANCES SHALL BE TRIMMED AS REQUIRED BY THE ENGINEER.
- NO TREE SHALL BE REMOVED PRIOR TO APPROVAL OF THE TOWN OF DEDHAM.
- WHEN WORKING NEXT TO EXISTING WALLS, BERMS, AND OTHER STRUCTURES, CONTRACTOR SHALL EXERCISE EXTREME CAUTION NOT TO DISTURB THE EXISTING STRUCTURES. ANY DAMAGE TO THE EXISTING STRUCTURES SHALL BE REPAIRED BY THE CONTRACTOR AT HIS OWN EXPENSE.
- SURVEY INFORMATION IS FROM PLAN PREPARED BY ALPHA SURVEYING AND ENGINEERING INC., DATED JULY 7-9, 2014.
- THE BEARINGS AND DISTANCES AND THE COORDINATES SHOWN ARE IN U.S. SURVEY FEET IN THE MASSACHUSETTS STATE PLANE COORDINATE SYSTEM REFERENCED TO THE NORTH AMERICAN DATUM OF 1983 (NAD83)(2011 EPOCH 2010.00). THE COORDINATES FOR CONTROL POINTS 1, 2, 8, AND 9 WERE PROVIDED BY MASSDOT BASED ON THEIR STATIC GPS OBSERVATIONS MADE ON JULY 30, 2014 USING TOPCON GPS EQUIPMENT AND SOFTWARE. ADDITIONAL SURVEY CONTROL WAS ESTABLISHED BY ALPHA SURVEYING AND ENGINEERING, INC. DURING JULY 7-9, 2014 UTILIZING CONVENTIONAL TOTAL STATION SURVEY EQUIPMENT AND PROCEDURES, AND ADJUSTED TO THE MASSDOT CONTROL COORDINATES BY THE METHOD OF LEAST SQUARES ADJUSTMENT.
- ELEVATIONS, IN U.S. SURVEY FEET, ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988(NAVD88) (GEOID 12A). ELEVATIONS WERE PROVIDED BY MASSDOT AND ESTABLISHED BY A LEVEL RUN PERFORMED ON JULY 30, 2014 UTILIZING BENCHMARK 801-K WITH A PUBLISHED ELEVATION OF 96.142 FT.
- ALL PAVEMENT MARKINGS AND/OR SIGN NOTES ARE SHOWN ON THE SIGNS AND PAVEMENT MARKING PLANS (SHEET 46).
- THE MASSACHUSETTS WATER RESOURCE AUTHORITY (MWRA) HAS INSTALLED A 36" DI CL WATER MAIN FROM THE DEDHAM COMMUTER RAIL STATION GOING NORTH EASTERLY THROUGH THE LIMIT OF WORK ON THIS PROJECT AT FAIRBANKS PARK. AS A PART OF THE WATER MAIN PROJECT MWRA WILL PAVE UP TO BINDER COURSE. THE CONTRACTOR UNDER THIS PROJECT SHALL PAVE OVER THE BINDER COURSE WITH THE PROPOSED SURFACE COURSE SHOWN IN THE PAVEMENT NOTES ON SHEET 4.
- THE CONTRACTOR SHALL COORDINATE WITH MBTA REVENUE/PARKING OPERATIONS & COMMUTER RAIL PRIOR TO AND DURING CONSTRUCTION.

WHEELCHAIR RAMP NOTES

- ALL WHEELCHAIR RAMPS SHALL CONFORM TO THE REQUIREMENTS OF THE ARCHITECTURAL ACCESS BOARD (A.A.B.) AND THE AMERICANS WITH DISABILITIES ACT (A.D.A.). AND THE LATEST MASSDOT STANDARDS.
- THE LOCATION OF PROPOSED WHEELCHAIR RAMPS ARE SHOWN ON CONSTRUCTION PLANS AND THE WHEELCHAIR RAMP DETAILS. EXACT LOCATIONS MAY BE ADJUSTED, IF NECESSARY, BY THE ENGINEER IN THE FIELD.
- ALL PROPOSED WHEELCHAIR RAMPS SHALL HAVE DETECTABLE WARNING PANELS INSTALLED IN ACCORDANCE WITH MASSDOT CONSTRUCTION STANDARD DRAWINGS. THE COLOR OF THE PANEL SHALL BE BRICK RED AND APPROVED BY THE ENGINEER.
- IN INSTANCES WHERE AN EXISTING MANHOLE, HANDHOLE OR OTHER "SURFACE" TYPE STRUCTURE THAT CANNOT BE REMOVED OR RESET, IS WITHIN THE ACTUAL WHEELCHAIR RAMP PATH, THE STRUCTURE SHALL BE CAREFULLY ADJUSTED SUCH THAT THE TOPMOST SURFACES OF THE STRUCTURE COVER SHALL BE FLUSH WITH THE RAMP SURFACE AND SHALL MATCH THE SLOPE OF THE NEW WHEELCHAIR RAMP AS DIRECTED BY THE ENGINEER.
- THE TRANSITION SLOPE OF ANY CURB RAMP, EXCEPT MAXIMUM LENGTH HIGH SIDE TRANSITIONS, SHALL NOT EXCEED 7.5%, +/-0.5% FOR TOLERANCE OF CONSTRUCTION. PER AAB 521 CMR, FINISHED SLOPE MAY NOT EXCEED 8.33%. PROPOSED WHEELCHAIR RAMP SLOPES, ESPECIALLY HIGH SIDE TRANSITIONS, SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO POURING OF CONCRETE AND ADJUSTED, IF NECESSARY, AT THE DIRECTION OF THE ENGINEER.

PAVEMENT CORES DATA

CORE 1	THICKNESS
TOP	0.75"
BINDER	1.5"
BINDER	1.75"
BINDER	1"
LARGE AGGREGATE BASE	2.5"
TOTAL	7.5"

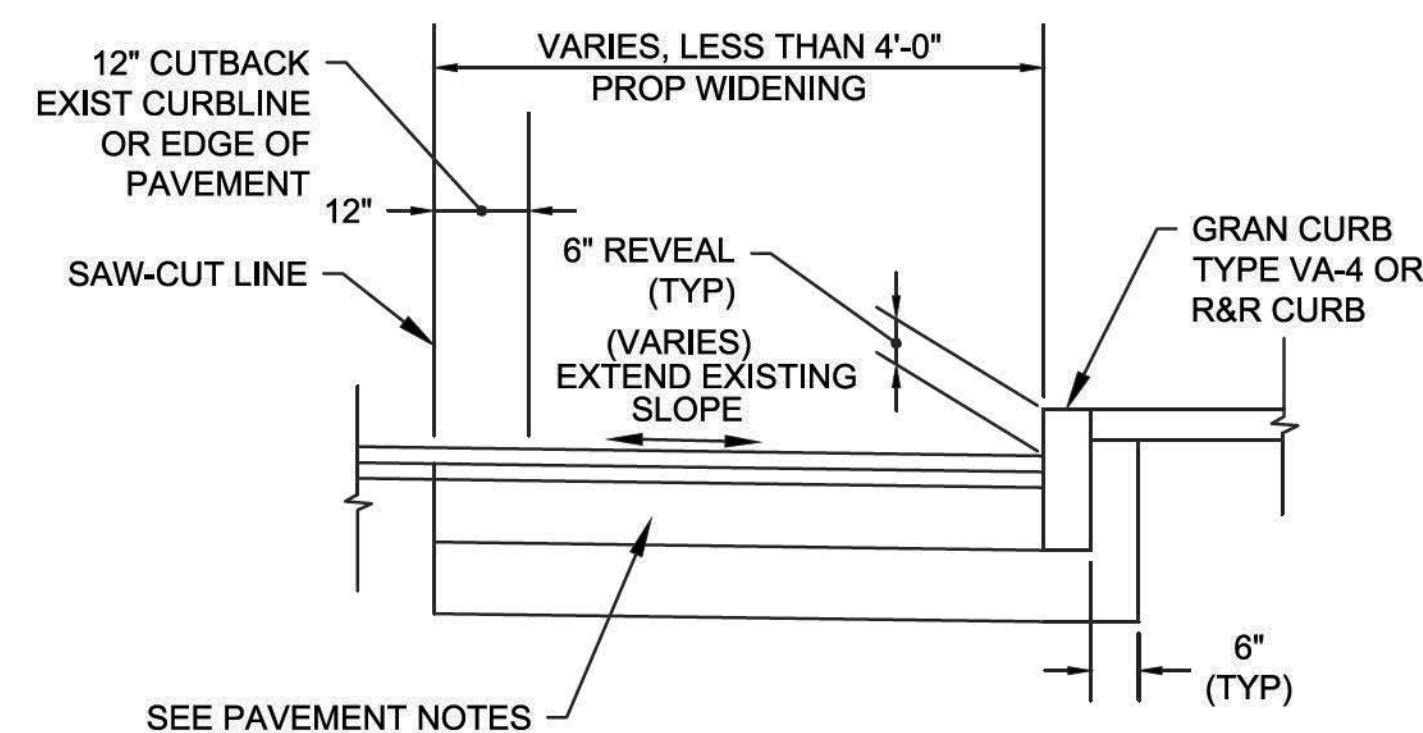
CORE 2	THICKNESS
TOP	0.25"
BINDER	1.375"
BINDER	1"
BASE	1.375"
TOTAL	4.0"

CORE 3	THICKNESS
TOP	1.5"
BINDER	1.785"
BINDER	2.75"
BINDER	2.75"
LEVELING	1.5"
TOTAL	10.25"

CORE 4	THICKNESS
TOP	1.625"
TOP	1.125"
BINDER	1.5"
BINDER	2.125"
TOP	1.5"
BASE	2.75"
TOTAL	7.75"

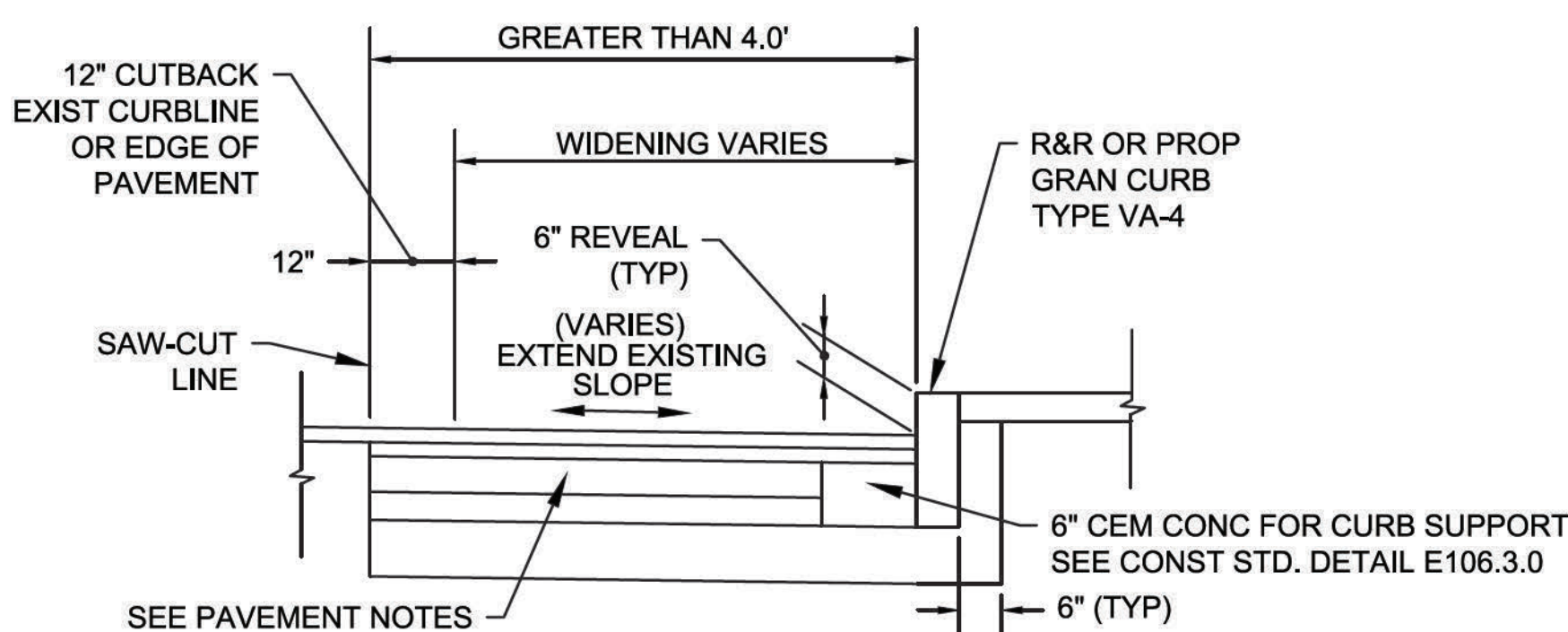
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ-003S(160)X	7	71
PROJECT FILE NO.		607901	

CONSTRUCTION DETAILS



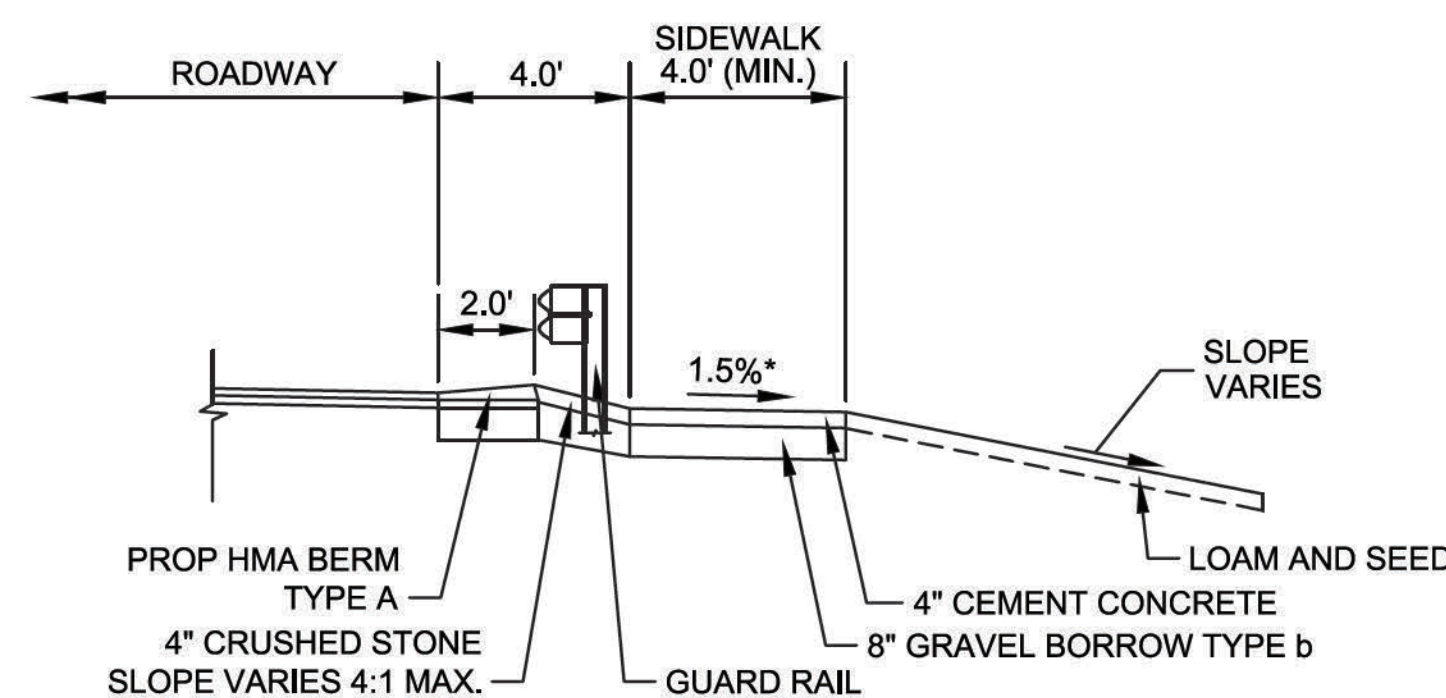
NOTE:
SEE PAVEMENT NOTES SHEET 4

DETAIL FOR BOX WIDENING 4.0' OR LESS
NOT TO SCALE

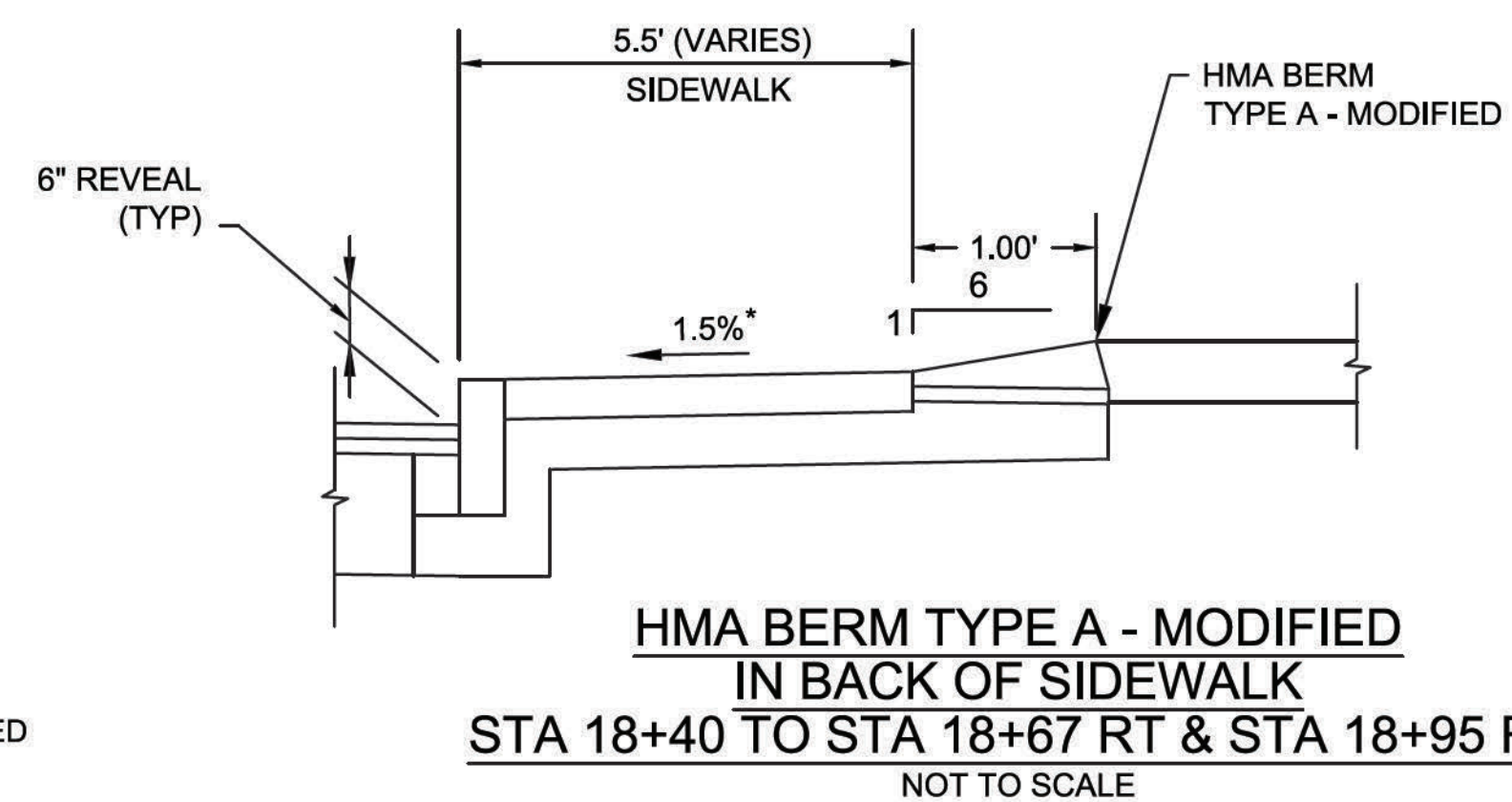


NOTE:
SEE PAVEMENT NOTES SHEET 4

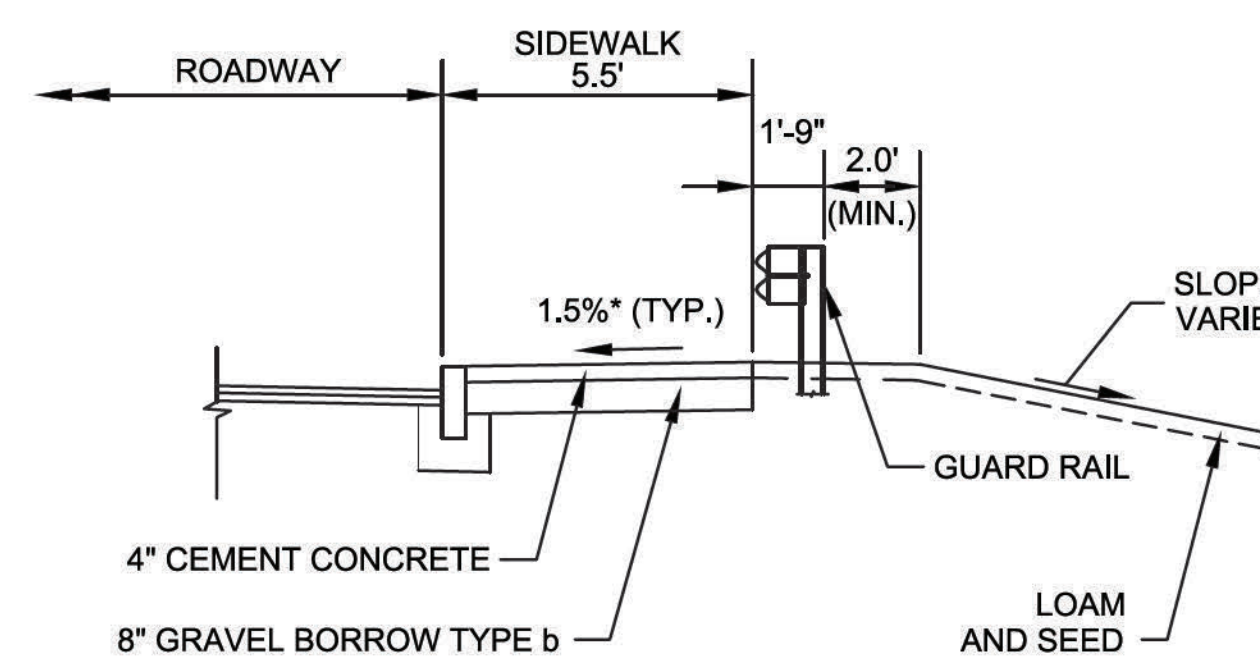
DETAIL FOR BOX WIDENING GREATER THAN 4.0'
NOT TO SCALE



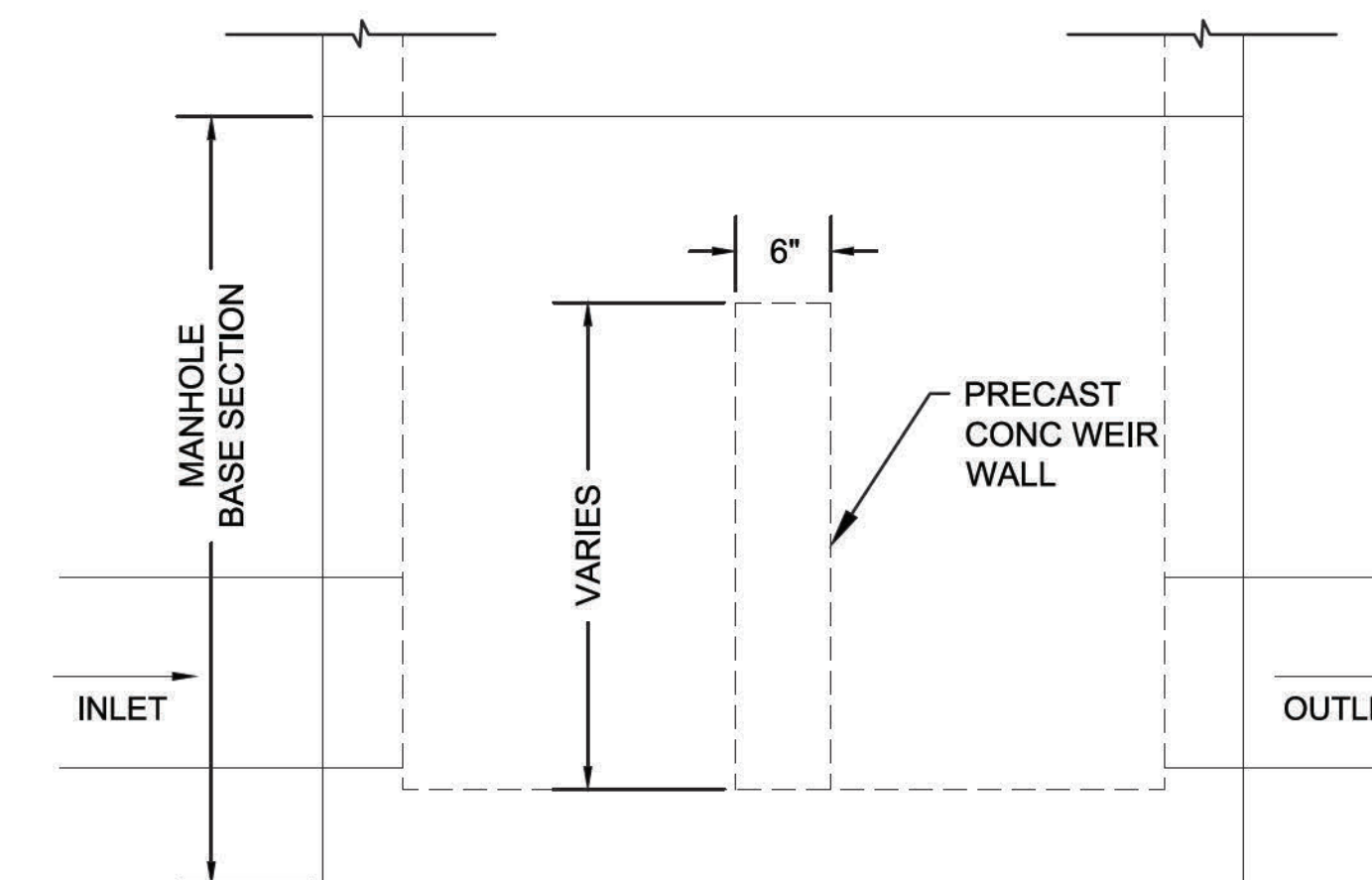
GUARDRAIL AT FRONT OF SIDEWALK
NOT TO SCALE



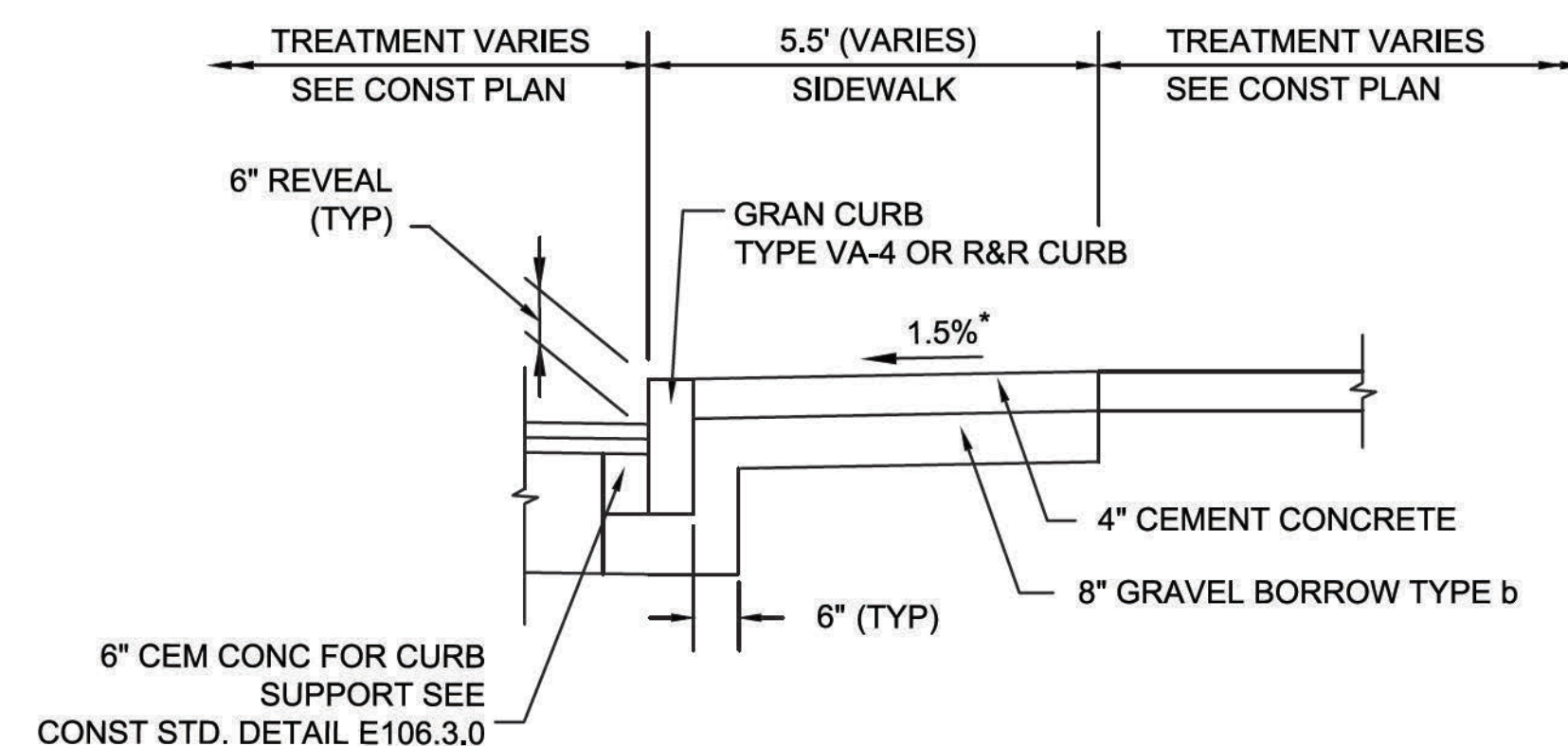
**HMA BERM TYPE A - MODIFIED
IN BACK OF SIDEWALK
STA 18+40 TO STA 18+67 RT & STA 18+95 RT**
NOT TO SCALE



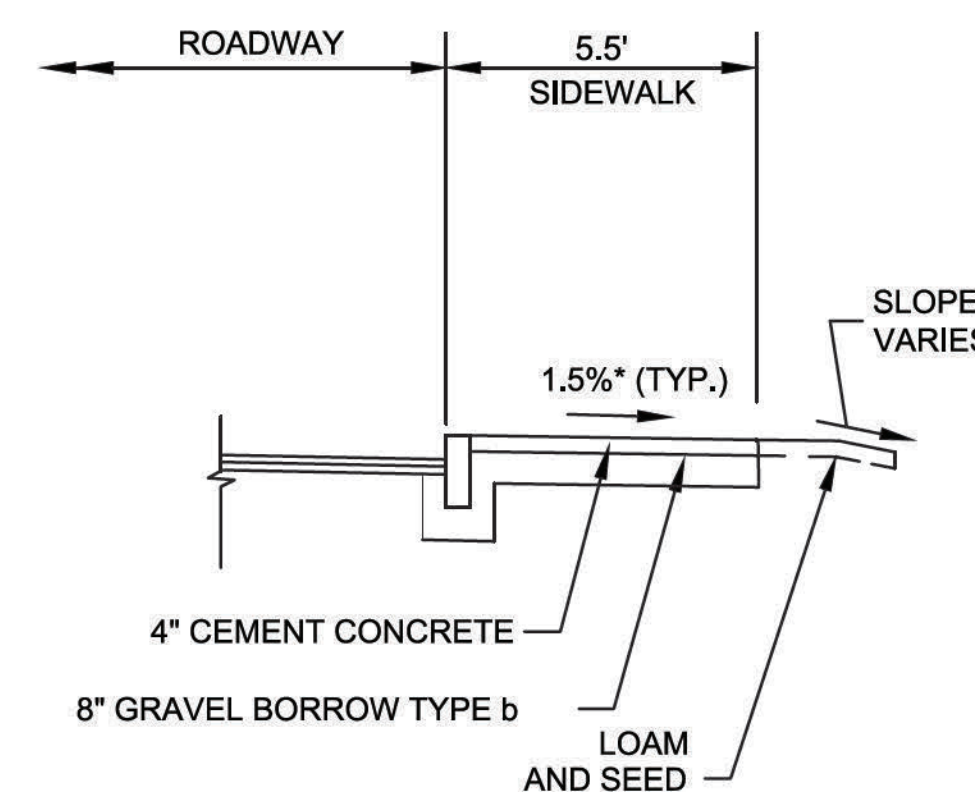
GUARDRAIL AT BACK OF SIDEWALK
NOT TO SCALE



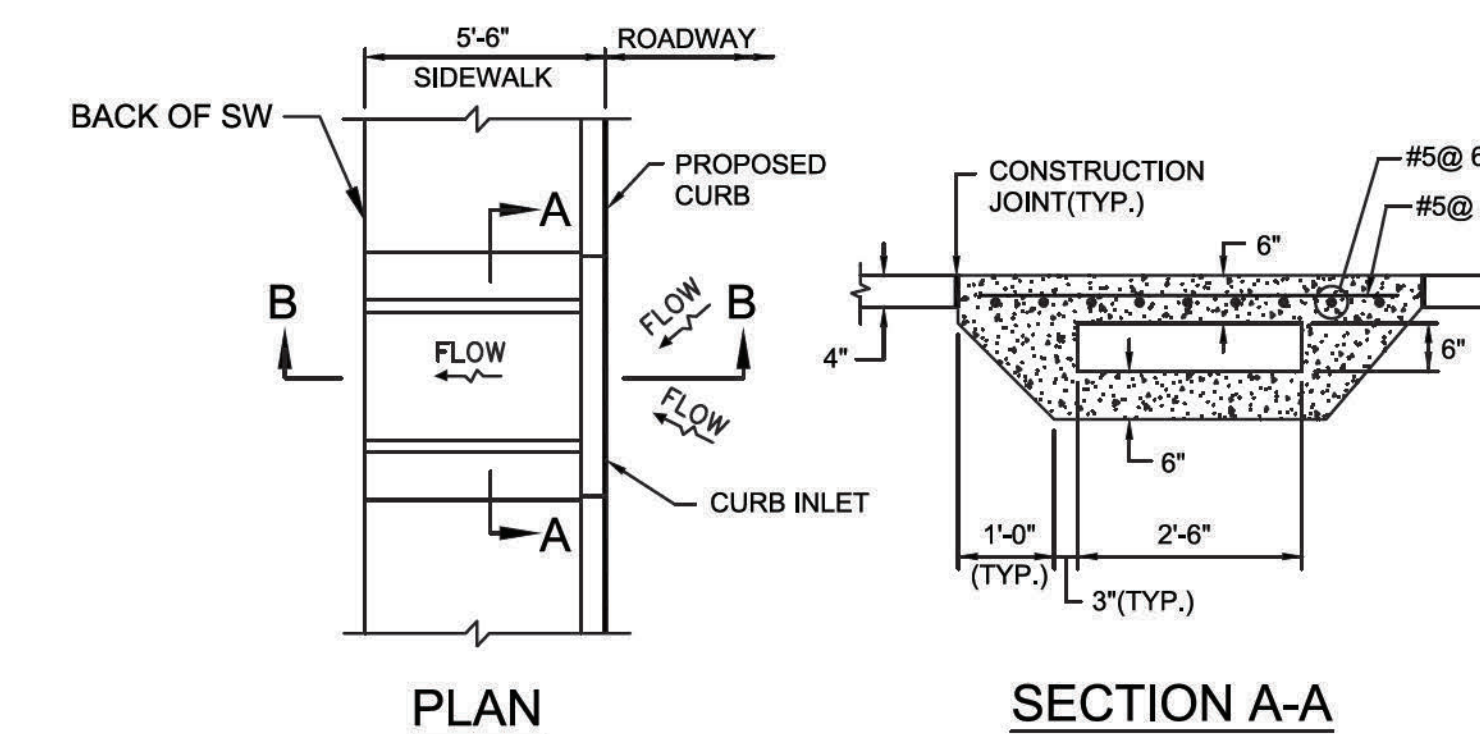
PRECAST WEIR WALL DETAIL
NOT TO SCALE



DETAIL FOR SIDEWALK WITH GRANITE CURB
NOT TO SCALE

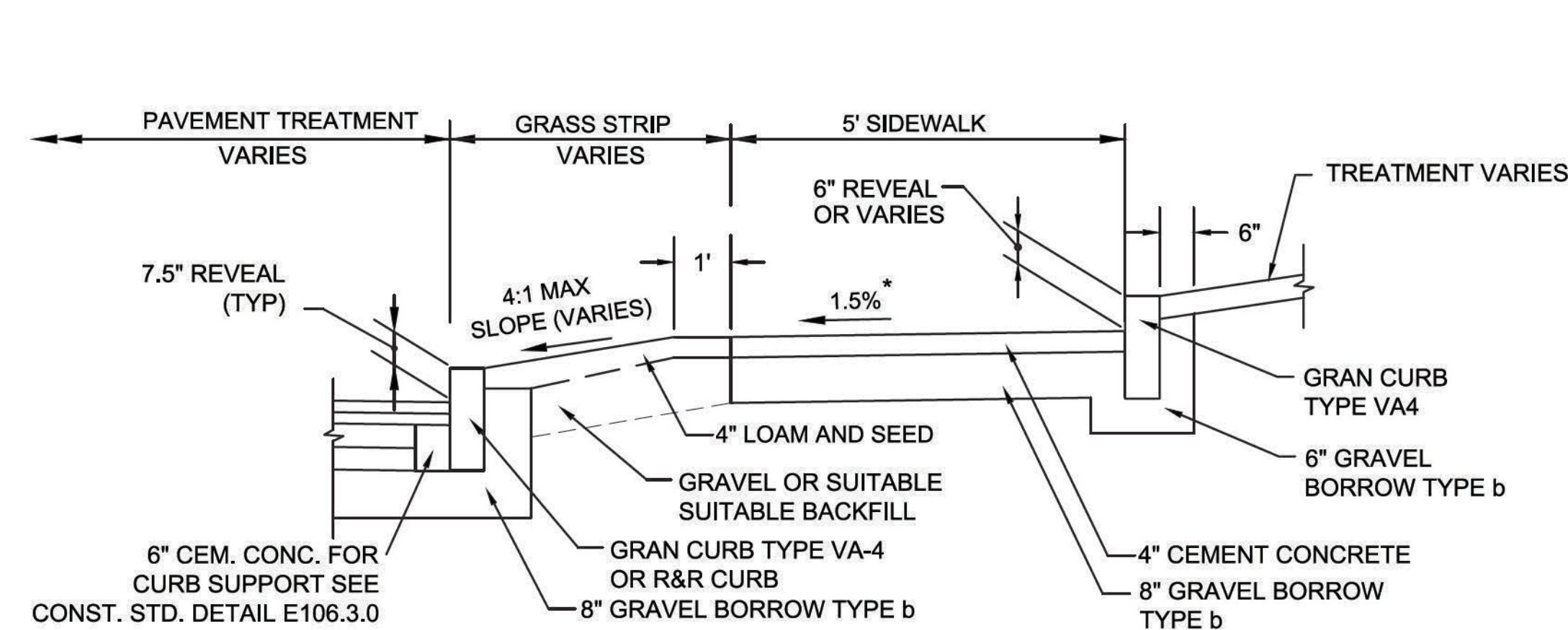


**LOW IMPACT DEVELOPMENT
(LID) SIDEWALK**
NOT TO SCALE

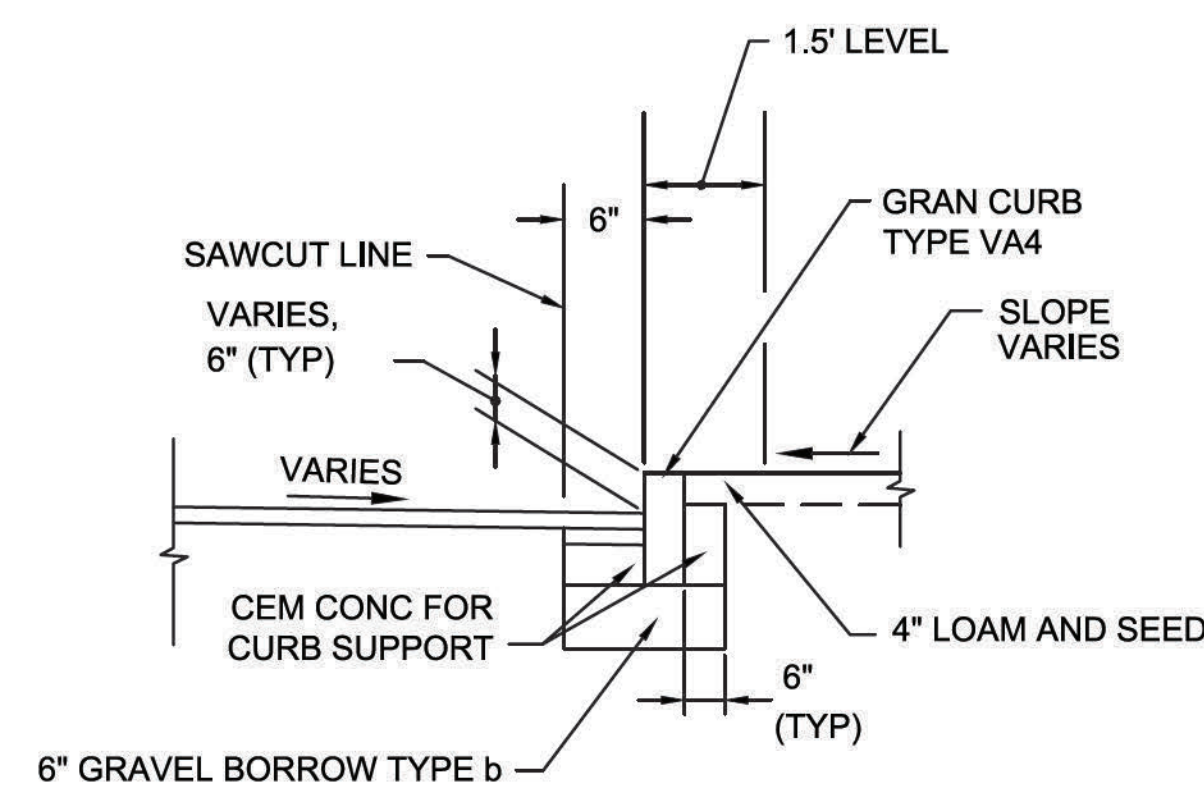


PLAN

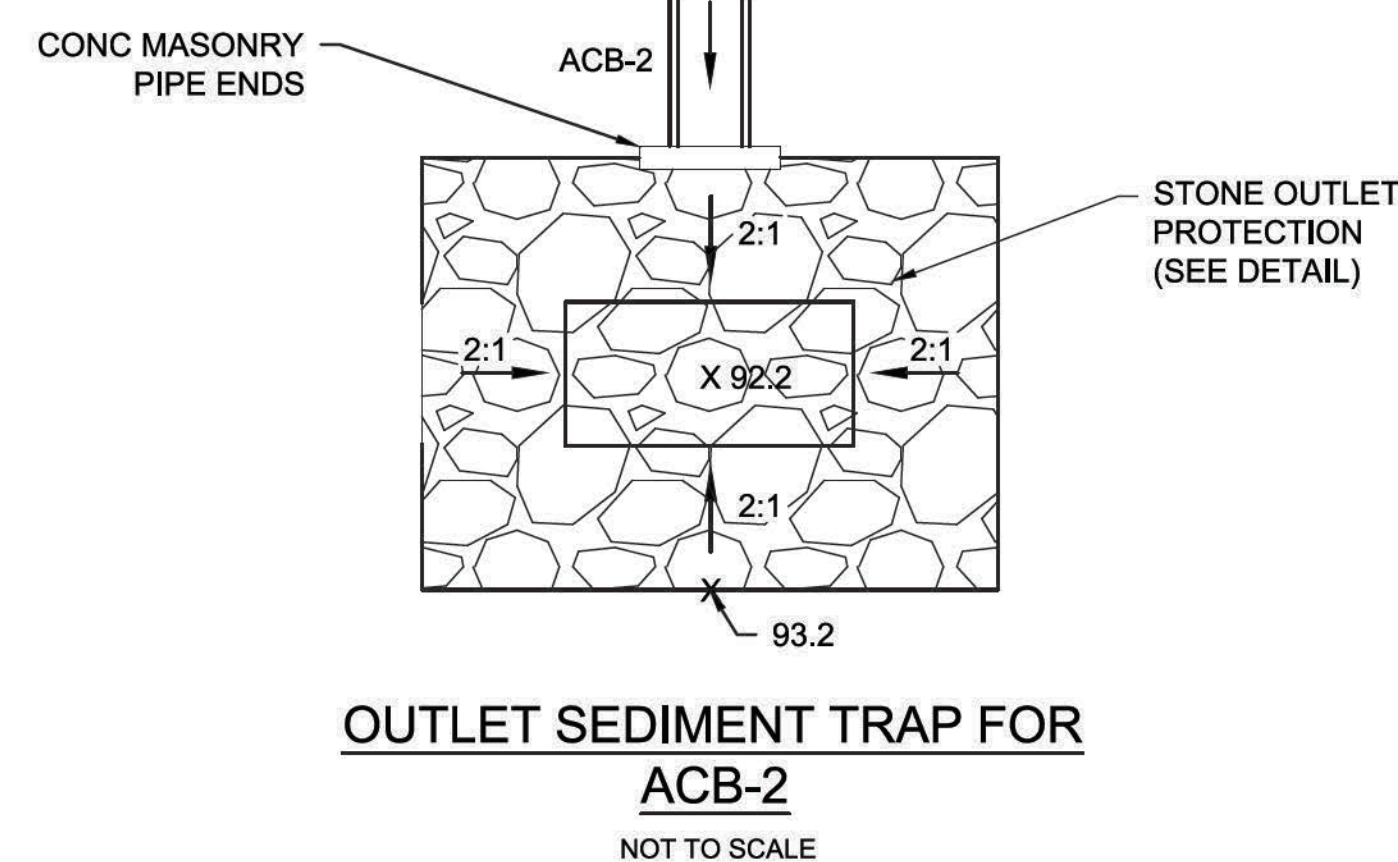
SECTION A-A



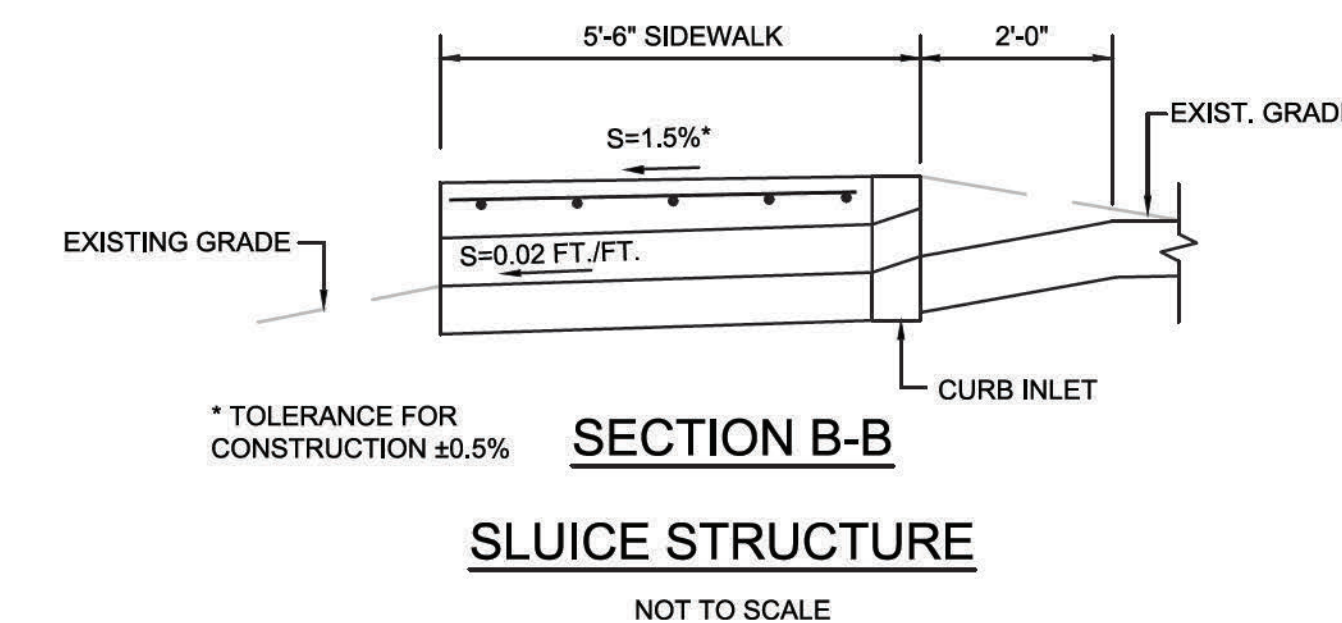
**DETAIL FOR SIDEWALK WITH GRASS STRIP &
GRANITE CURB AT BACK OF WALK**
NOT TO SCALE



**DETAIL FOR GRANITE CURB WITHOUT
SIDEWALK IN MILLING AREA**
NOT TO SCALE



**OUTLET SEDIMENT TRAP FOR
ACB-2**
NOT TO SCALE



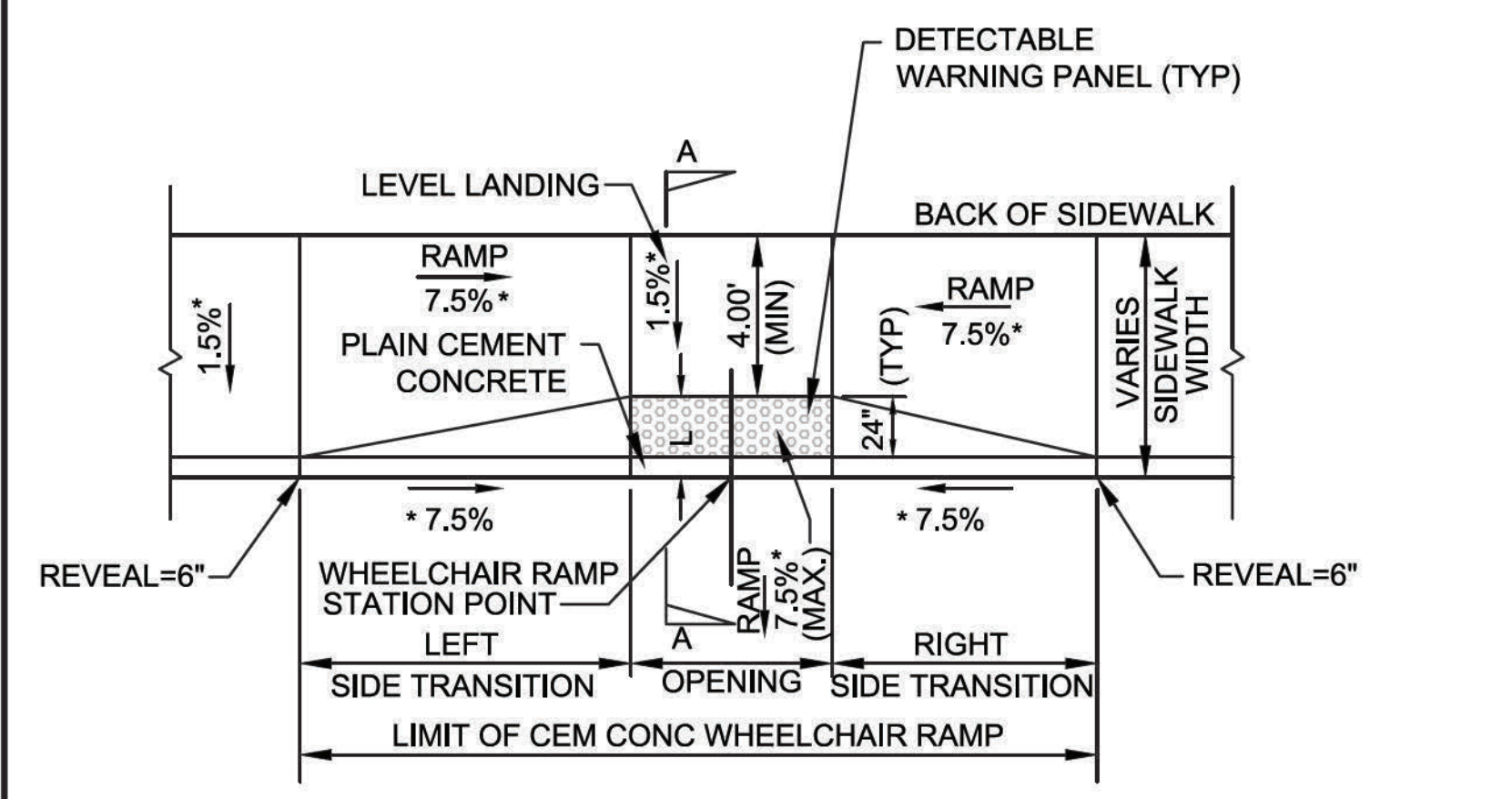
* TOLERANCE FOR
CONSTRUCTION ±0.5%

SECTION B-B

SLUICE STRUCTURE

NOT TO SCALE

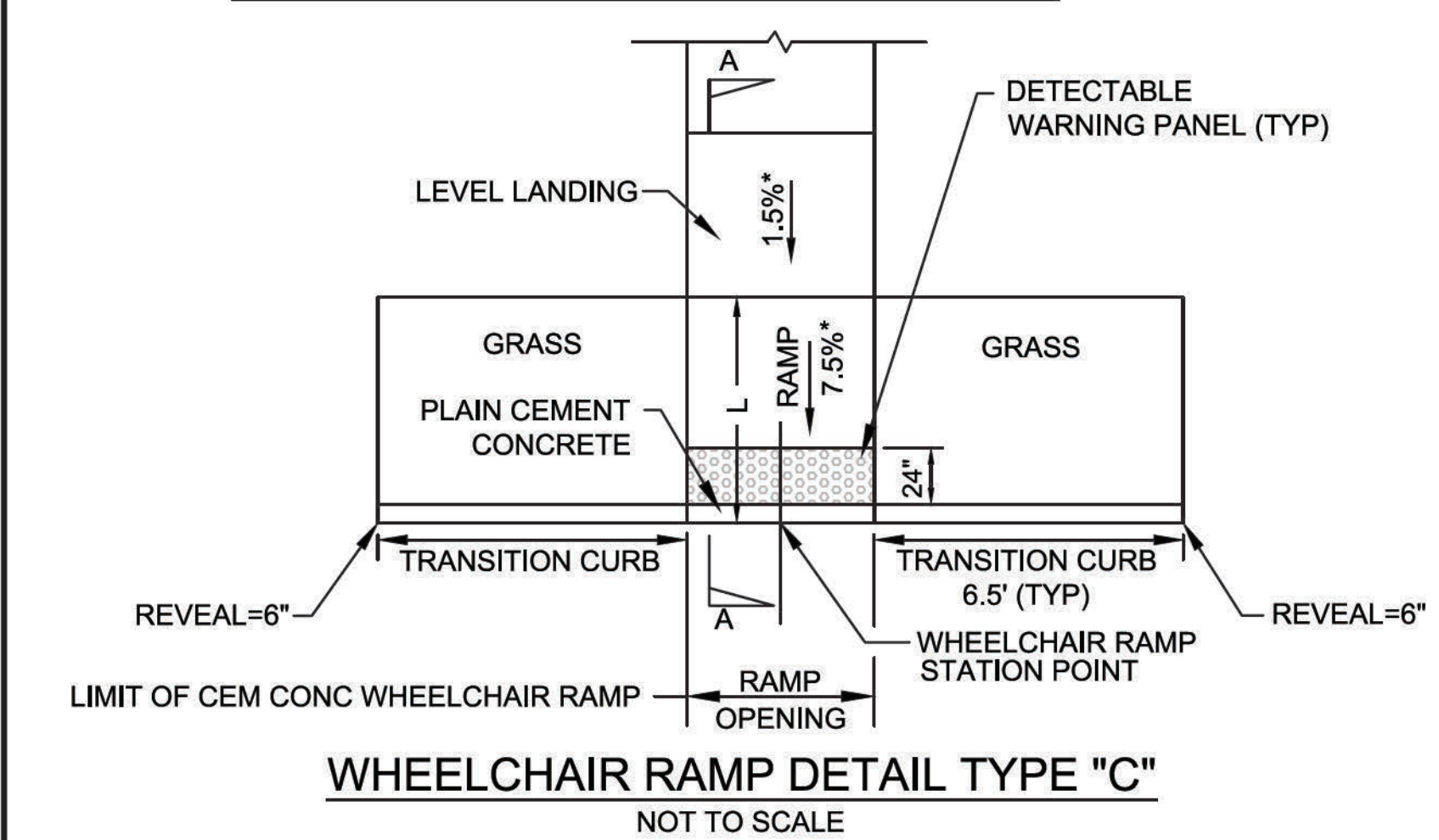
* TOLERANCE FOR CONSTRUCTION ±0.5%



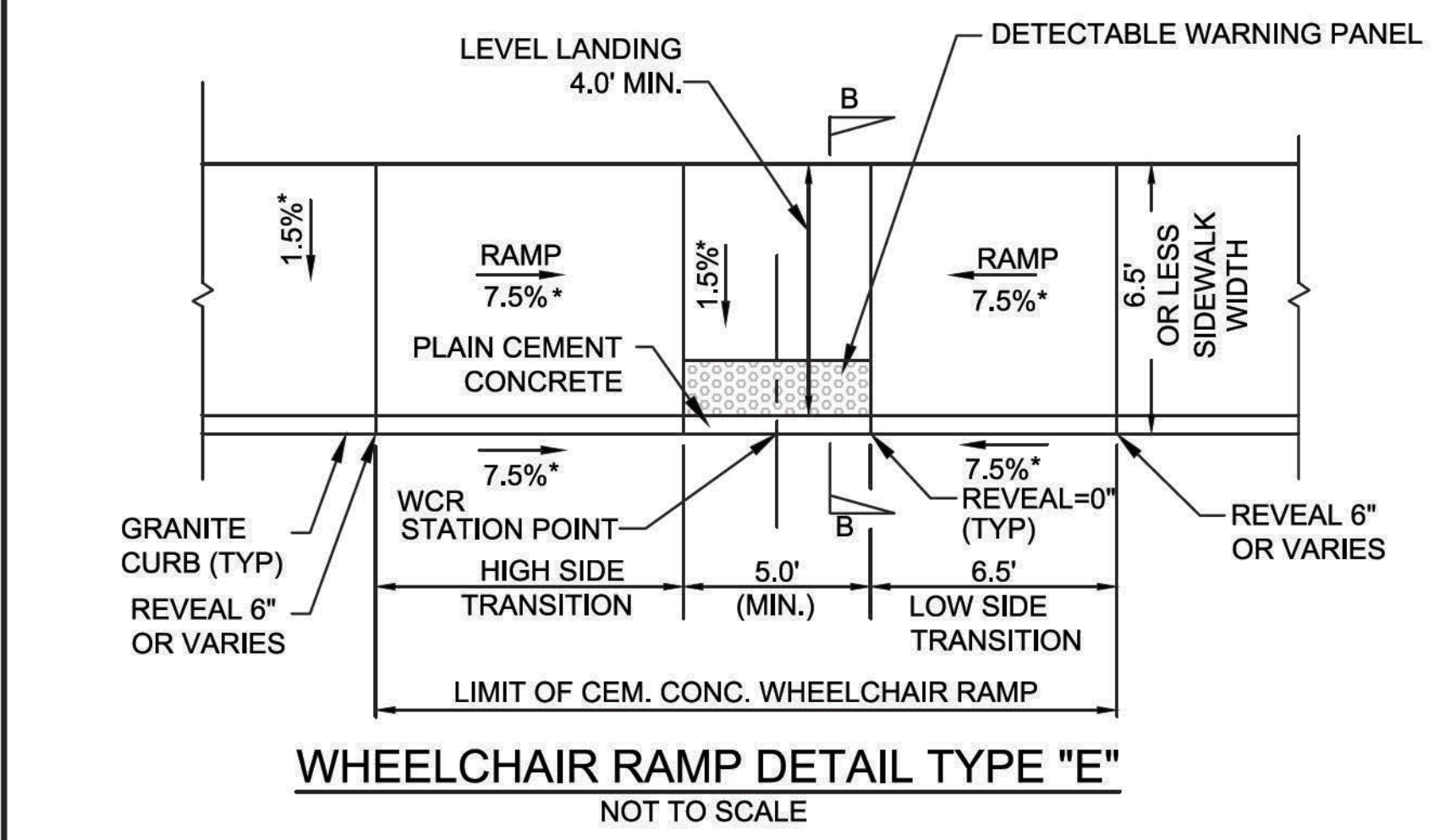
WCR NO.	LOCATION	RAMP REFERENCE POINT		GUTTER PROFILE SLOPE (%)	LENGTH OF PRIMARY RAMP L	WIDTH OF RAMP OPENING	DEPTH OF LEVEL LANDING (MIN 4.0')	TRANSITION LENGTH		SIDEWALK WIDTH (W)
		STATION	OFFSET					LEFT	RIGHT	
10	ELM ST	17+65.8	18.0RT	-2.0%	2.5'	5.0'	4.1'	11.0'	4" REVEAL 6.5'	6.5'

WCR NO.	LOCATION	RAMP REFERENCE POINT		GUTTER PROFILE SLOPE (%)	WIDTH OF RAMP OPENING	TRANSITION LENGTH		SIDEWALK WIDTH (W)
		STATION	OFFSET			LEFT	RIGHT	
1	ELM ST	11+58.0	17.8RT	4.5	4.0'		6.5'	5.5'
2	ELM ST	11+87.3	19.8RT	3.8	3.0'	8.2'		5.5'
3	ELM ST	16+99.6	22.0RT	-0.7	4.0'		3" REVEAL 9.3'	5.5'
4	ELM ST	17+38.5	22.5RT	-1.1	4.0'	9.5' 4"R		6.5'
11	ELM ST	18+65.9	21.0RT	-4.6	5.0'		3" REVEAL 6.5'	5.5'
12	ELM ST	18+97.3	21.5RT	-5.4	5.0'	12' 3"R		5.5'
13	ELM ST	19+31.1	21.5RT	-3.1	4.0'		6.5' 3"R	5.5'
14	ELM ST	19+71.0	21.5RT	-3.5	4.0'	14'		5.5'
15	ELM ST	21+58.9	21.5RT	-4.6	4.0'		6.5'	5.5'
16	ELM ST	22+10.8	22.0RT	-0.9	3.0'	7.7'		5.5'
17	ELM ST	23+57.4	22.3RT	2.7	3.0'		11'	5.5'
18	ELM ST	23+85.0	22.5RT	3.0	3.0'	6.5'		5.4'
19	ELM ST	24+40.8	22.7RT	4.7	3.0'		15'	5.5'
20	ELM ST	24+70.0	22.7RT	9.2	3.0'		6.5'	5.4'

WCR NO.	LOCATION	RAMP REFERENCE POINT		GUTTER PROFILE SLOPE (%)	LENGTH OF PRIMARY RAMP L	WIDTH OF RAMP OPENING	DEPTH OF LEVEL LANDING (MIN 4.0')	TRANSITION LENGTH		SIDEWALK WIDTH (W)
		STATION	OFFSET					LEFT	RIGHT	
22	RUSTCRAFT RD	29+71.9	24.0LT	-2.0	2.0-6.7'	5.0'	5.0'		6.5'	5.0'
23	RUSTCRAFT RD	29+97.2	16.0LT	0.6	5.5'	5.0'	5.0'	6.5'	6.5'	5.0'
24	RUSTCRAFT RD	29+97.0	17.3RT	2.0	3.8'	5.0'	5.0'	6.5'	6.5'	5.0'

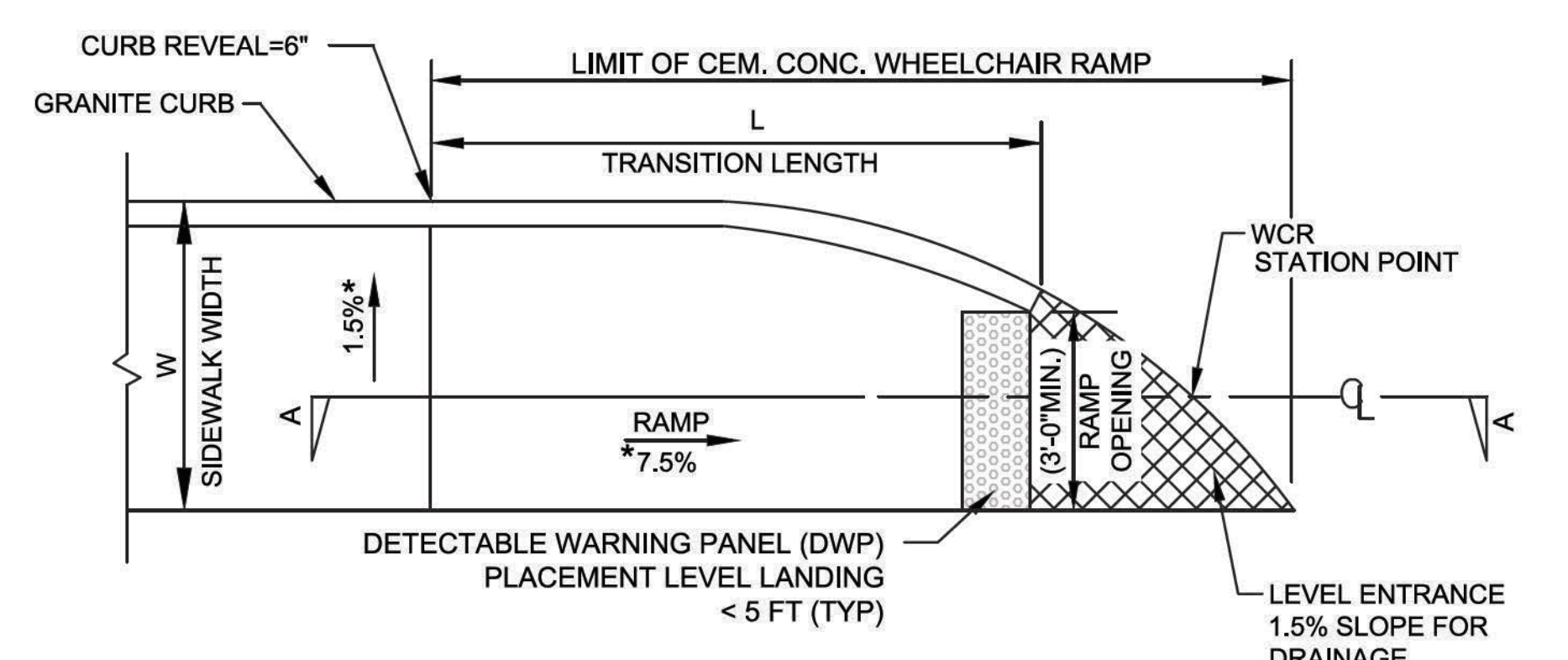
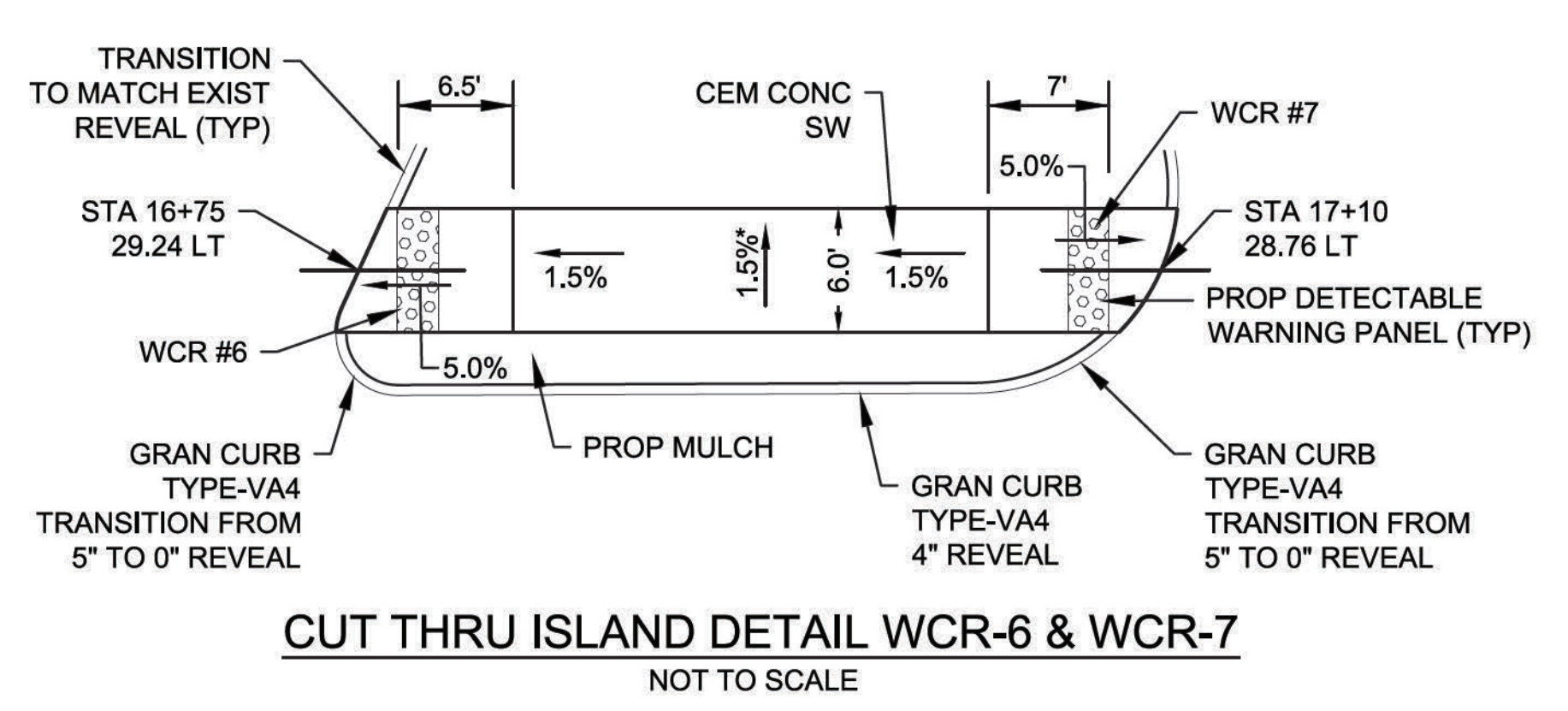
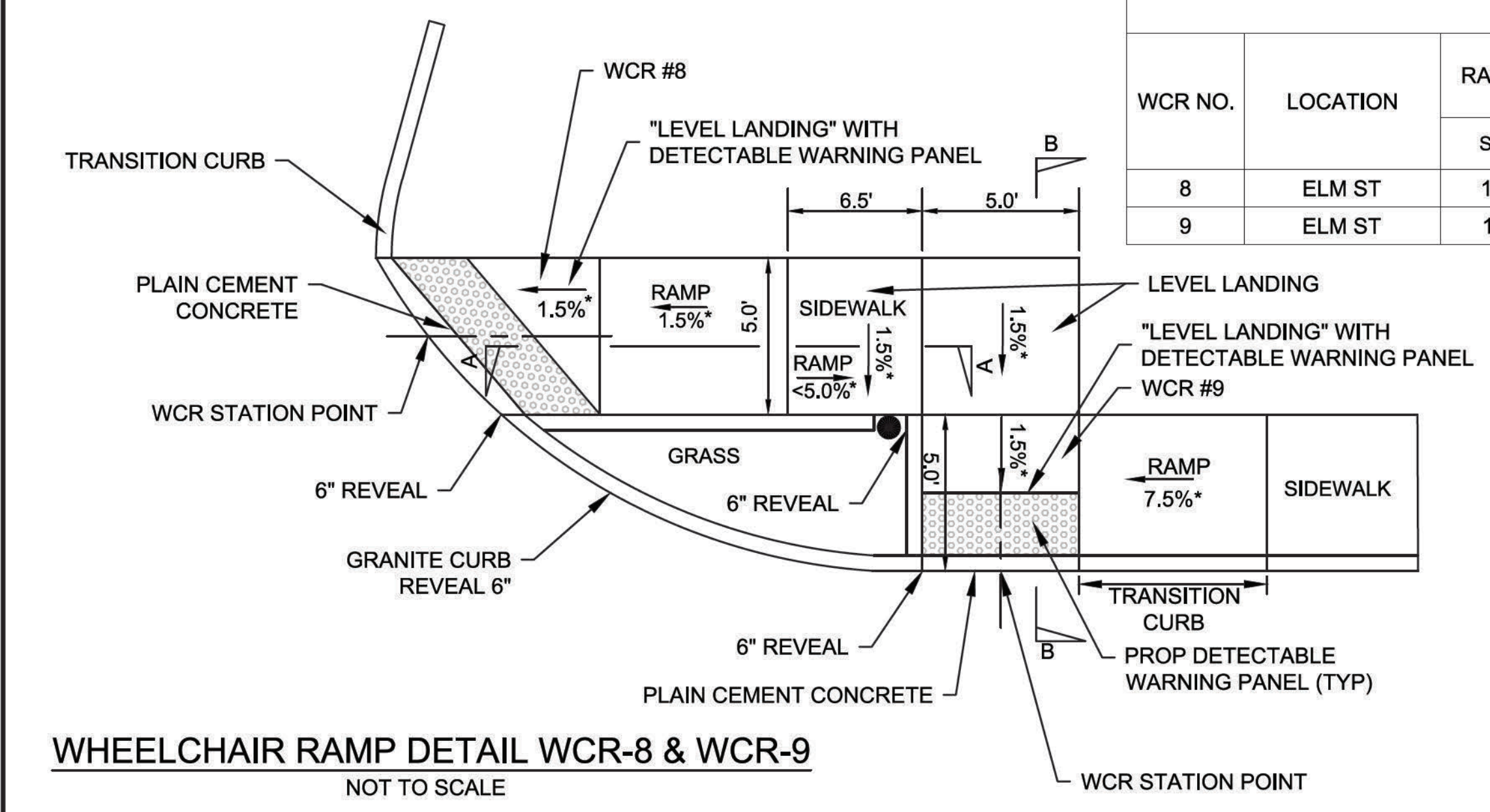


WCR NO.	LOCATION	RAMP REFERENCE POINT		GUTTER PROFILE SLOPE (%)	WIDTH OF RAMP OPENING	DEPTH OF LEVEL LANDING (MIN 4.0')	TRANSITION LENGTH		SIDEWALK WIDTH (W)
		STATION	OFFSET				LEFT	RIGHT	
21	RUSTCRAFT RD	29+28.2	24.9LT	1.5	5.0'	5.5'	6.5'		5.5'
25	RUSTCRAFT RD	48+98.3	16.0LT	0.6	5.0'	5.5'		7.7'	5.5'
26	RUSTCRAFT RD	48+98.6	16.0RT	-0.5	5.0'	5.5'	6.5'		5.5'

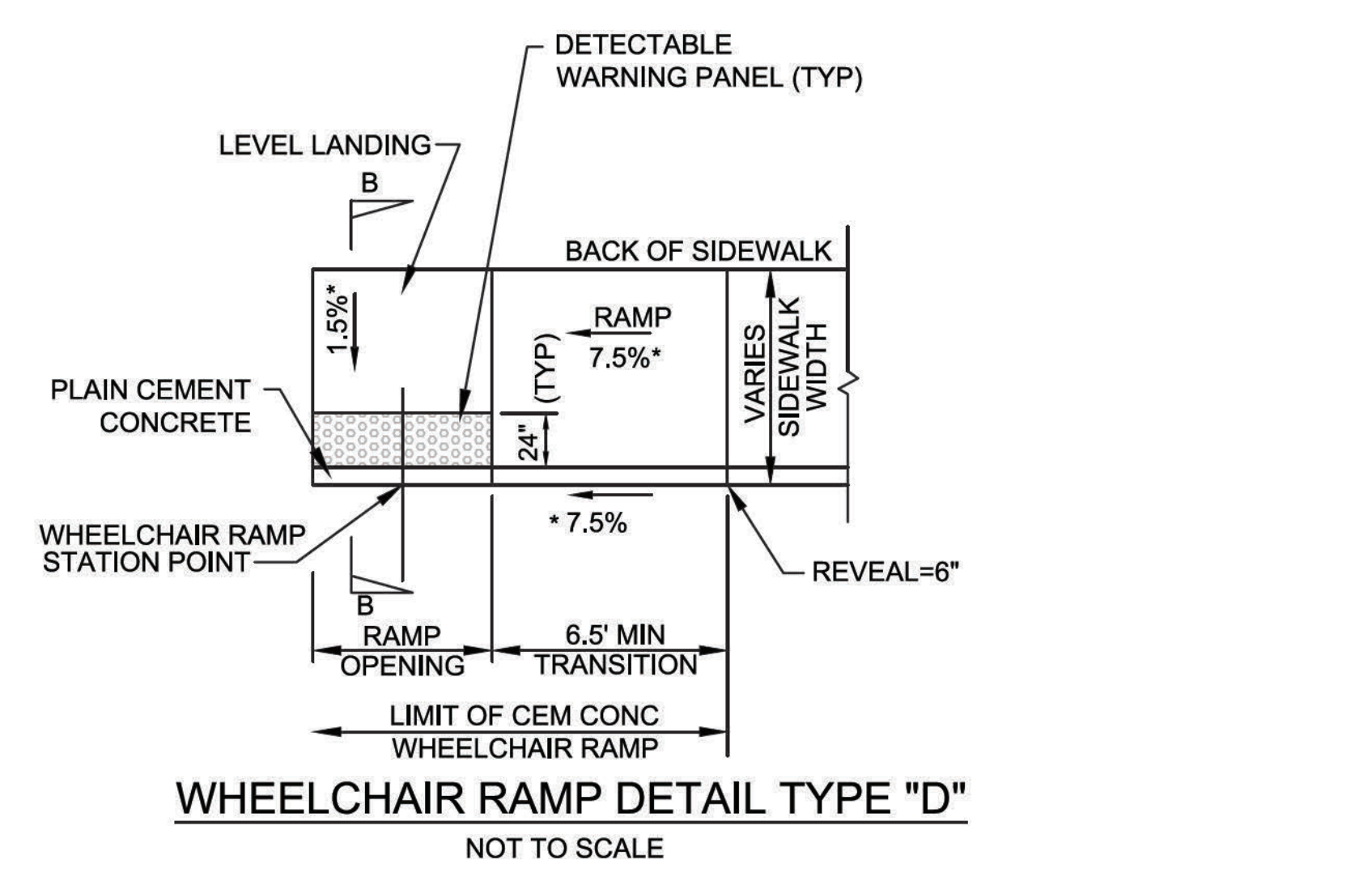


WCR NO.	LOCATION	RAMP REFERENCE POINT		GUTTER PROFILE SLOPE (%)	WIDTH OF RAMP OPENING	DEPTH OF LEVEL LANDING (MIN 4.0')	TRANSITION LENGTH		SIDEWALK WIDTH (W)
		STATION	OFFSET				LEFT	RIGHT	
5	ELM ST	16+45.8	31.1lt	-1.6%	5.0'	5.5'	9.0'	6.5'	7.2'-7.8'

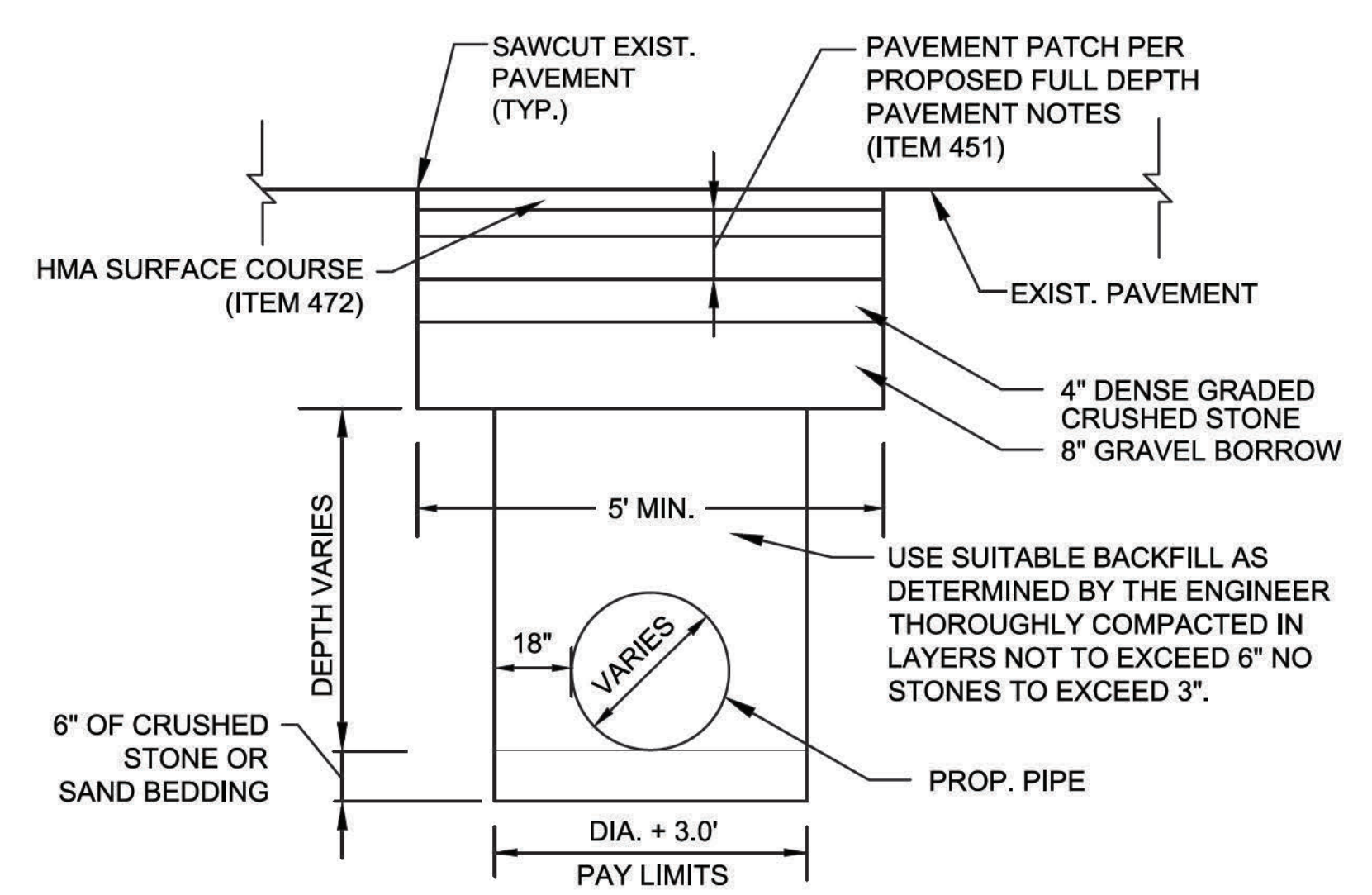
WCR NO.	LOCATION	RAMP REFERENCE POINT		GUTTER PROFILE SLOPE (%)	LENGTH OF PRIMARY RAMP L	WIDTH OF RAMP OPENING	DEPTH OF LEVEL LANDING (MIN 4.0')	TRANSITION LENGTH		SIDEWALK WIDTH (W)
		STATION	OFFSET					LEFT	RIGHT	
8	ELM ST	17+45.8	29.1LT	2.3	6.5'	5.0'		4.2'		5.0'
9	ELM ST	17+67.1	21.0LT	1.3		5.0'			7.67'	5.5'



WHEELCHAIR RAMP TYPE "B" NOT TO SCALE



WHEELCHAIR RAMP DETAIL TYPE "D" NOT TO SCALE



DETAIL FOR PIPE TRENCH IN MILLING AREAS NOT TO SCALE

* TOLERANCE FOR CONSTRUCTION ±0.5%

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ-003S(180)X	9	71
PROJECT FILE NO.		607901	

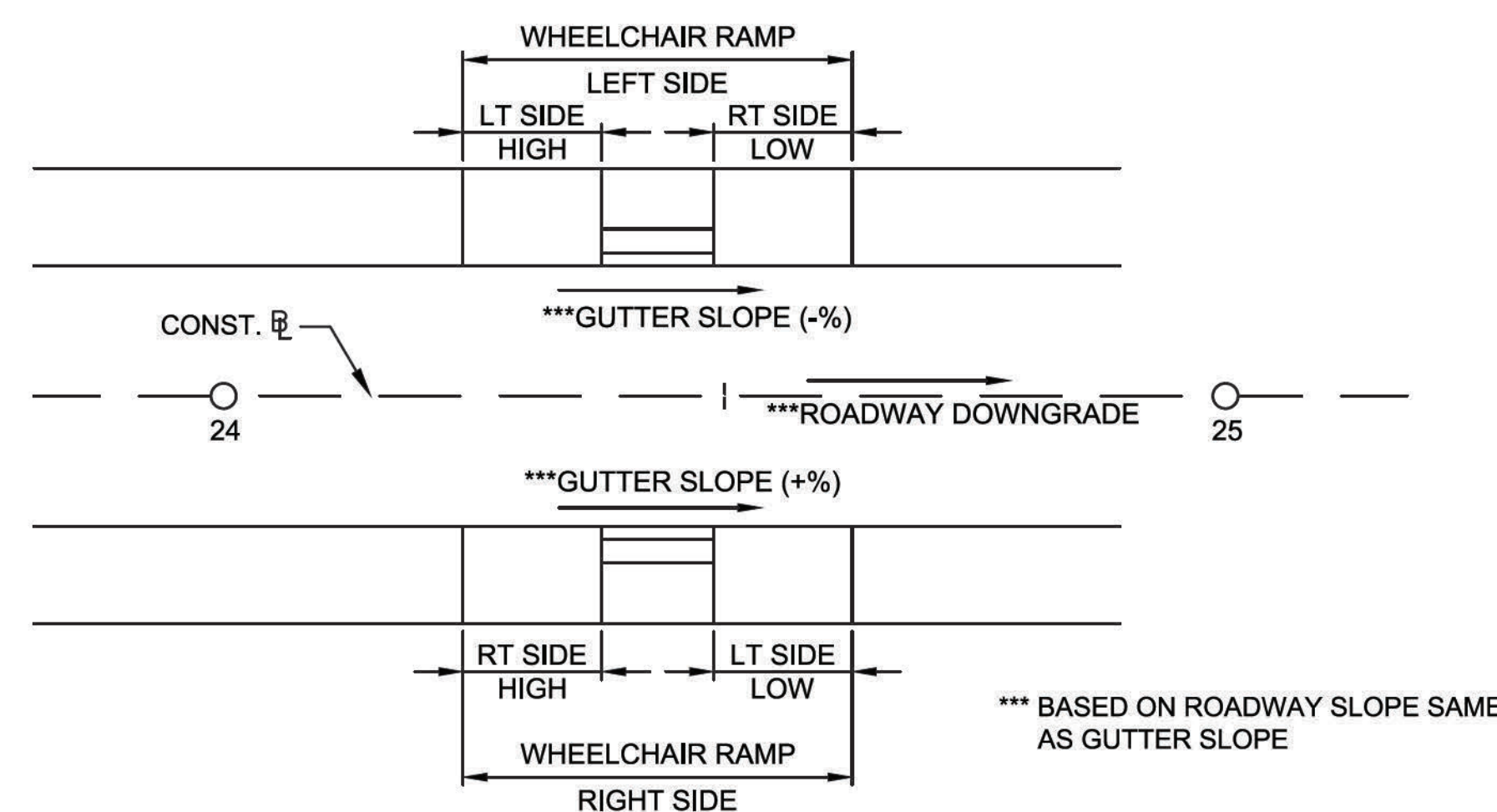
CONSTRUCTION DETAILS

PROFILE GRADE	HIGH SIDE TRANSITION LENGTH FOR 7.5% DESIGN SLOPE (FEET)
0	6'-6"
>0-1	7'-8"
>1-2	9'-0"
>2-3	11'-0"
>3-4	14'-0"
>4	15'-0" MAX.

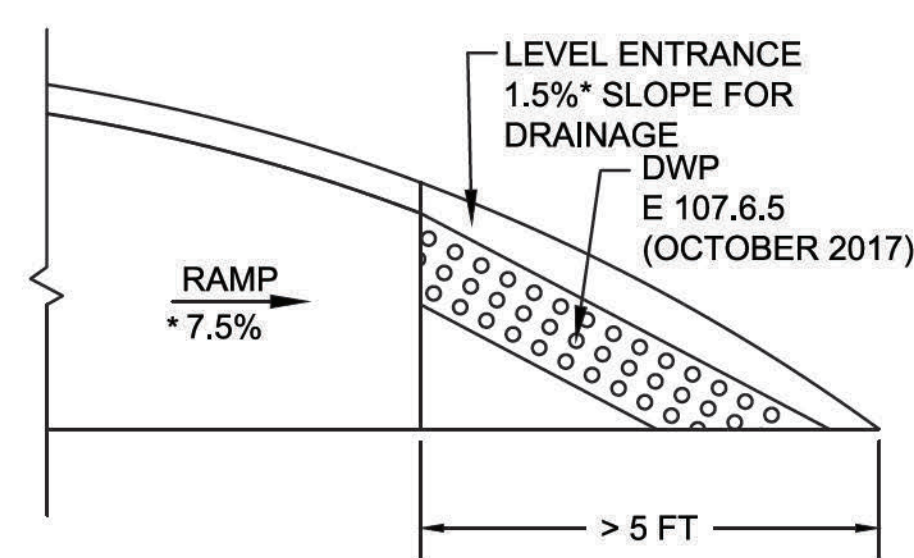
**WHEELCHAIR RAMP
HIGH SIDE TRANSITION LENGTHS**

FIGURES ARE BASED ON A DESIGN SLOPE OF 7.5% AND A REVEAL OF 6".

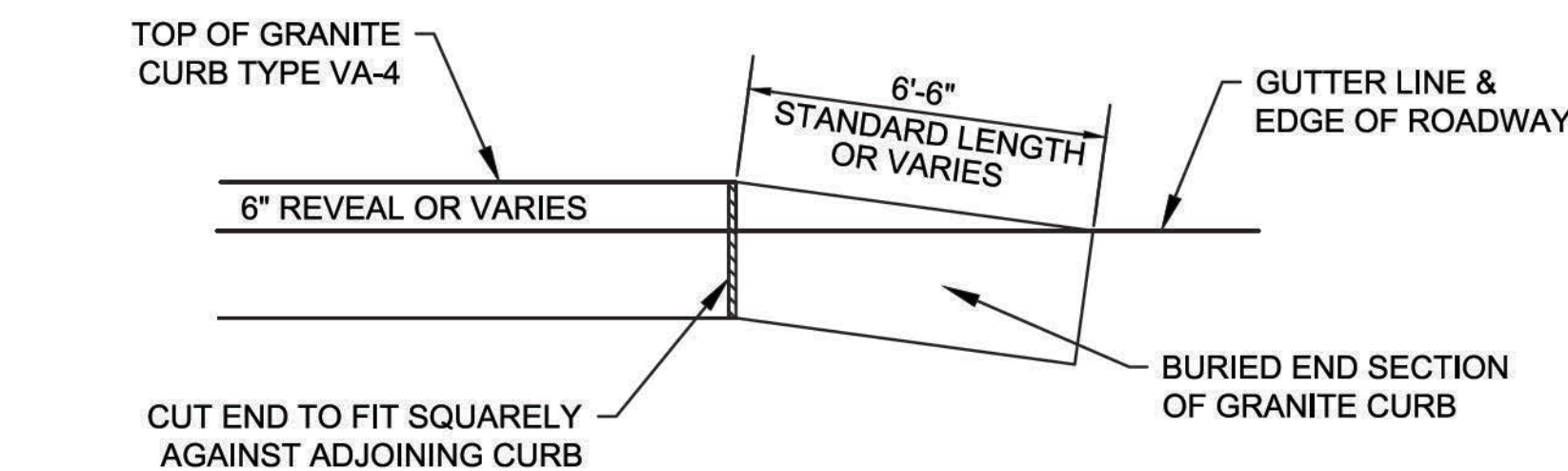
* TOLERANCE FOR CONSTRUCTION ±0.5%



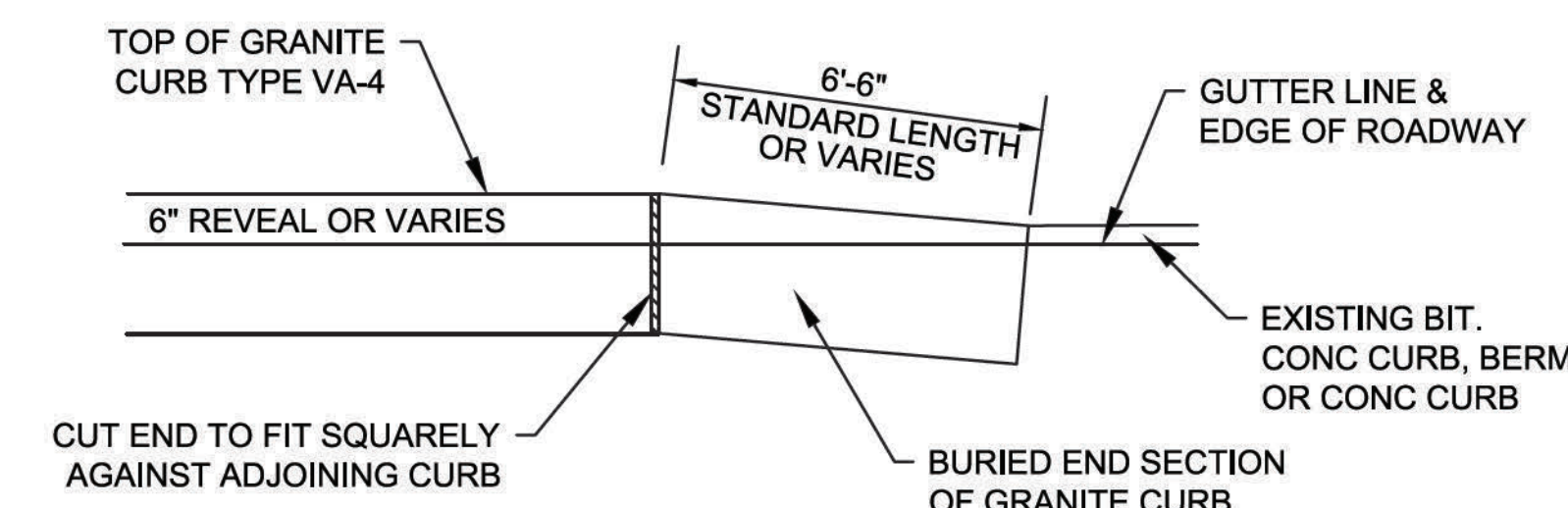
GUTTER SLOPE DIAGRAM
NOT TO SCALE



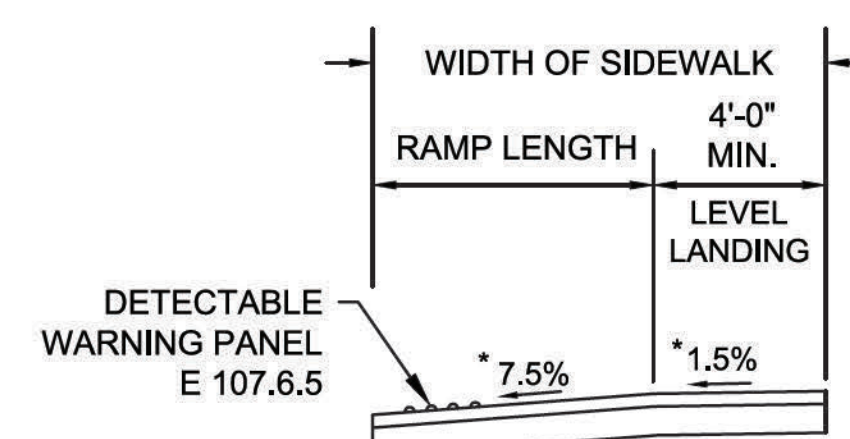
**DETECTABLE WARNING PANEL AT
LEVEL LANDING >5'**
NOT TO SCALE



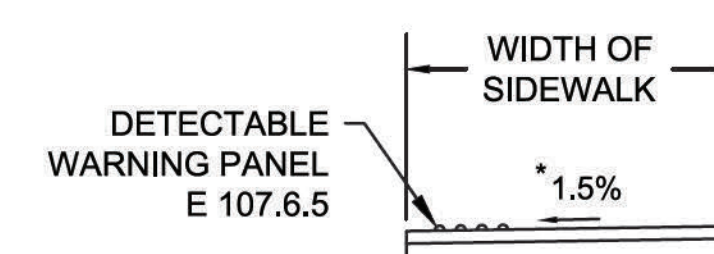
**DETAIL FOR TRANSITION CURB - PROP CURB TO
EXISTING EDGE OF TRAVEL WAY / EDGE OF PAVEMENT**
NOT TO SCALE



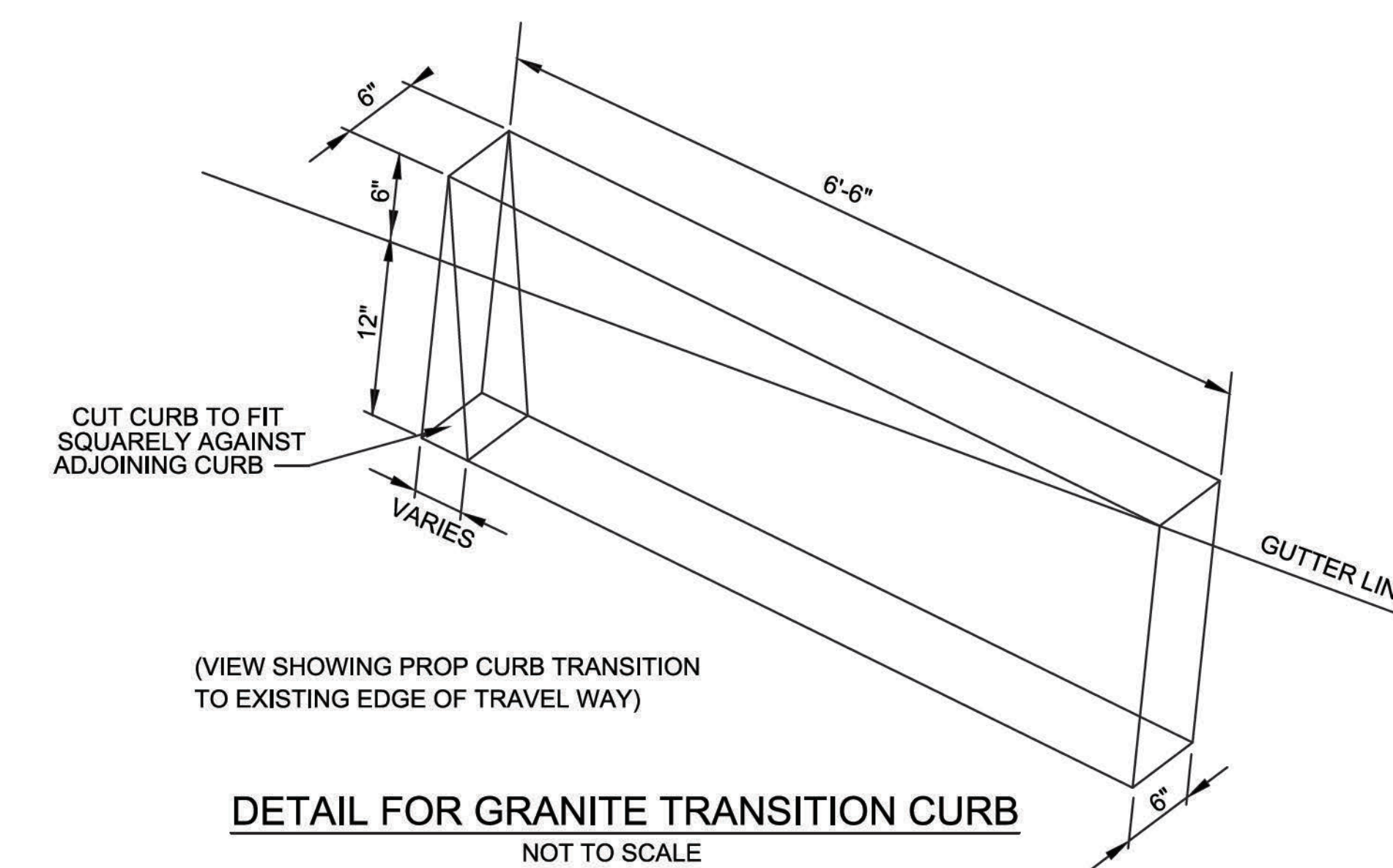
**DETAIL FOR TRANSITION CURB
TRANSITION CURB - PROP CURB TO EXISTING CURB**
NOT TO SCALE



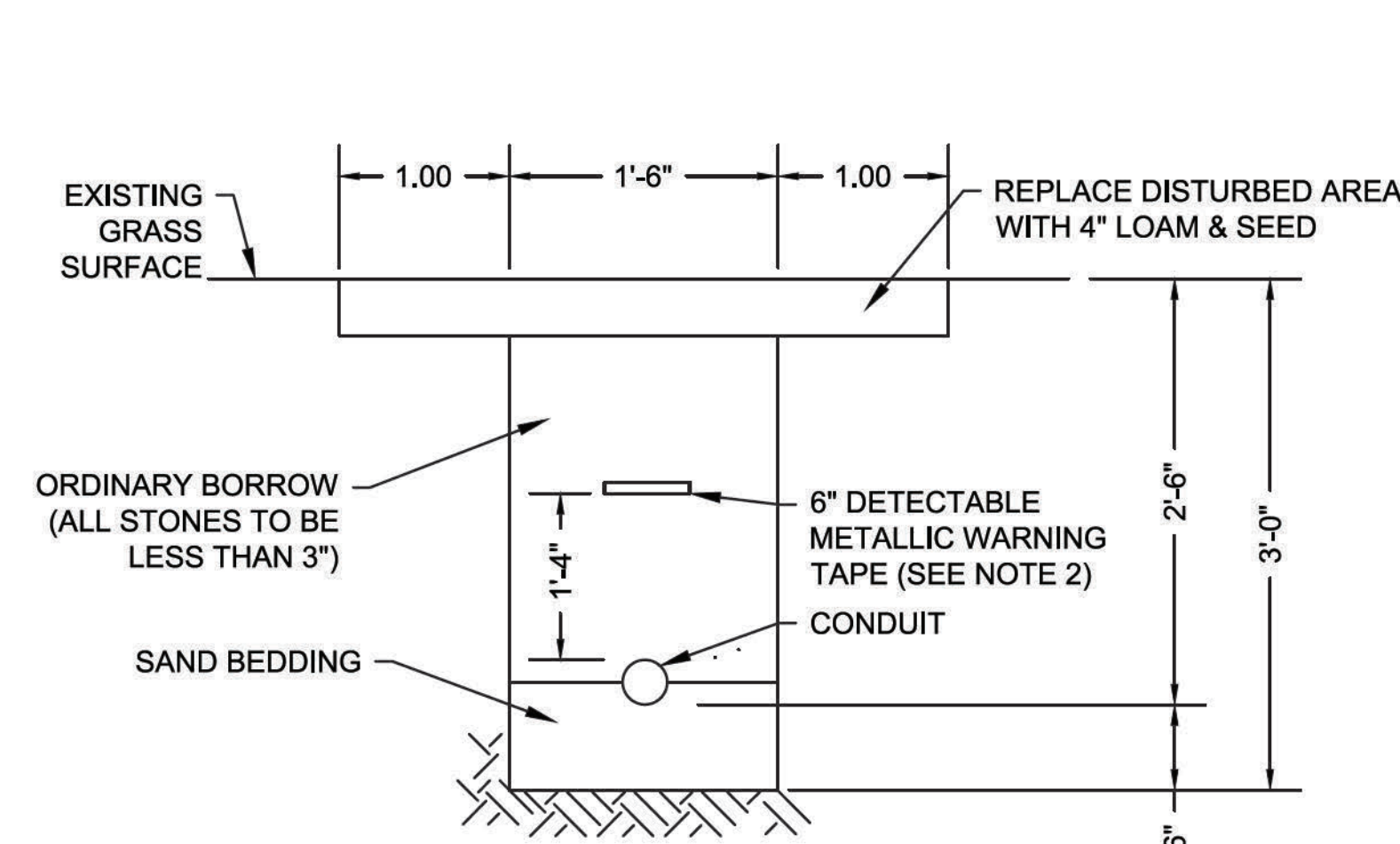
SECTION A-A
NOT TO SCALE



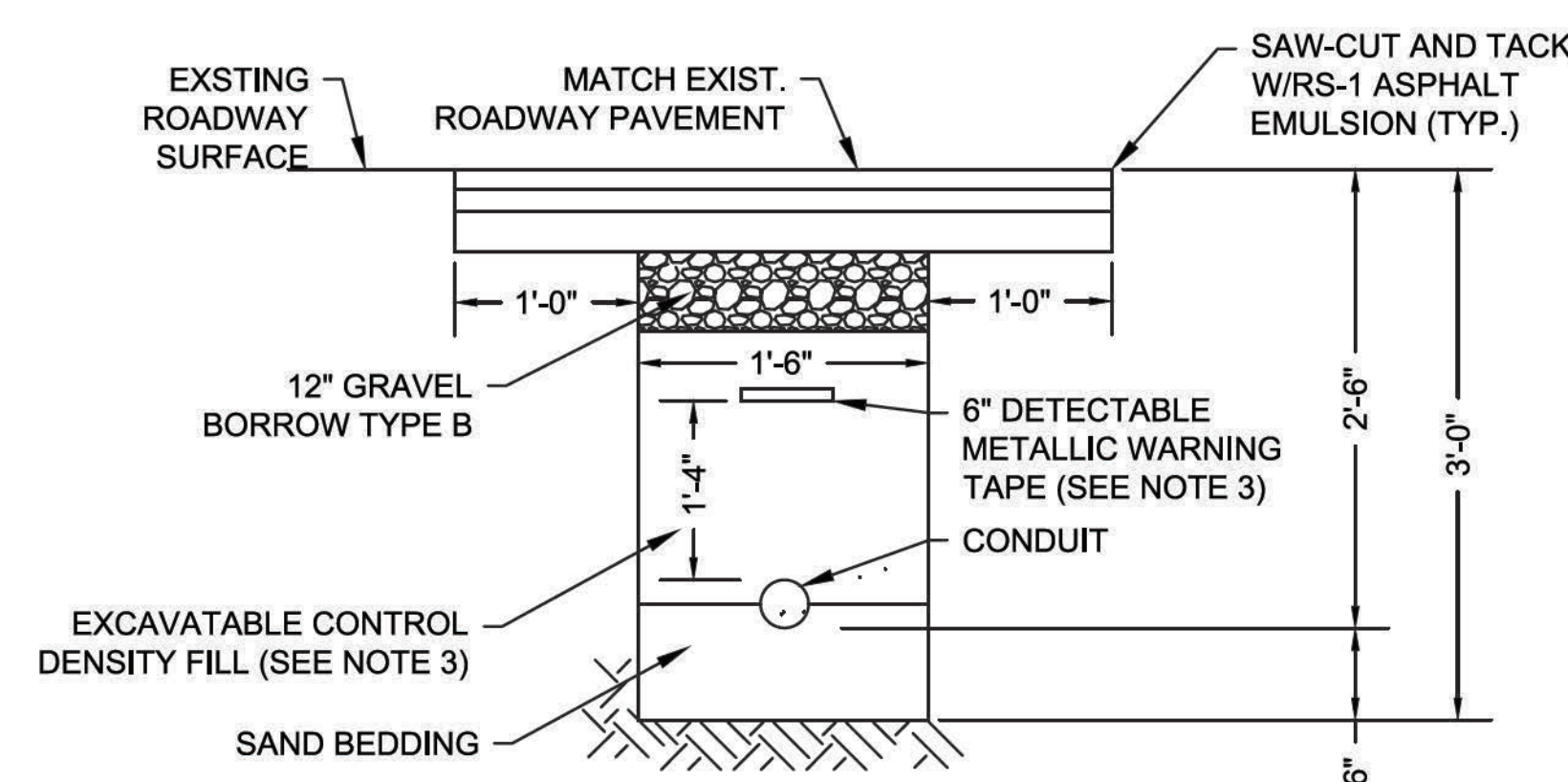
SECTION B-B
NOT TO SCALE



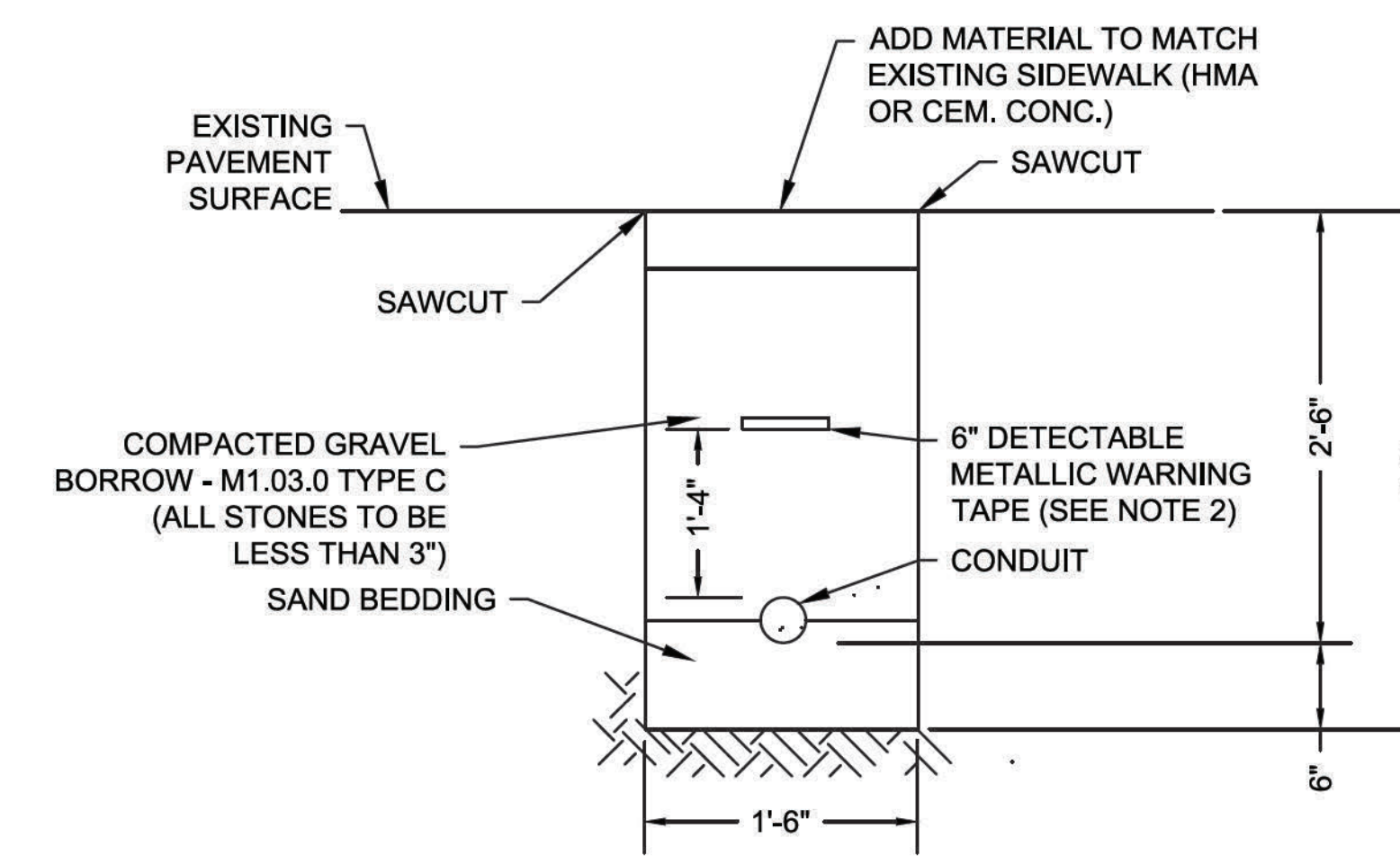
DETAIL FOR GRANITE TRANSITION CURB
NOT TO SCALE



**CONDUIT UNDER
GRASS AREAS**
NOT TO SCALE



**CONDUIT CROSSING
ROADWAY**
NOT TO SCALE



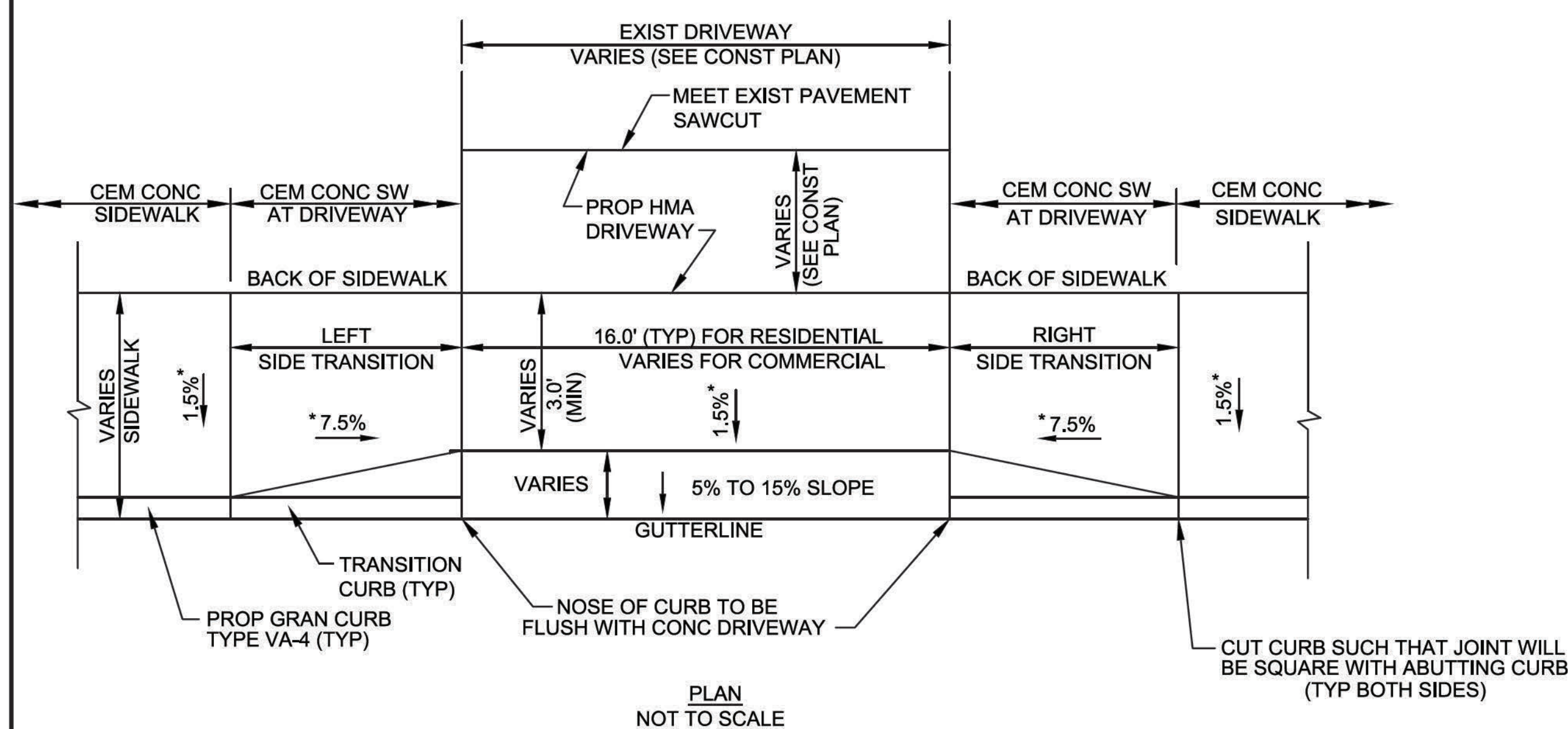
**CONDUIT UNDER
SIDEWALK AREAS**
NOT TO SCALE

NOTES:

- SCHEDULE 80 ELECTRICAL CONDUIT TYPE NM-PLASTIC (UL), WITH PULL ROPE UNLESS OTHERWISE APPROVED BY THE ENGINEER.
- WARNING TAPE SHALL BE PER CURRENT APWA STANDARDS.
- CONTROL DENSITY FILL SHALL MEET THE REQUIREMENTS OF SUBSECTION M4.08.0
- CONDUIT DETAILS SHOWN HERE CAN BE USED FOR MULTIPLE CONDUIT TRENCH WITH APPROVED SPACING.

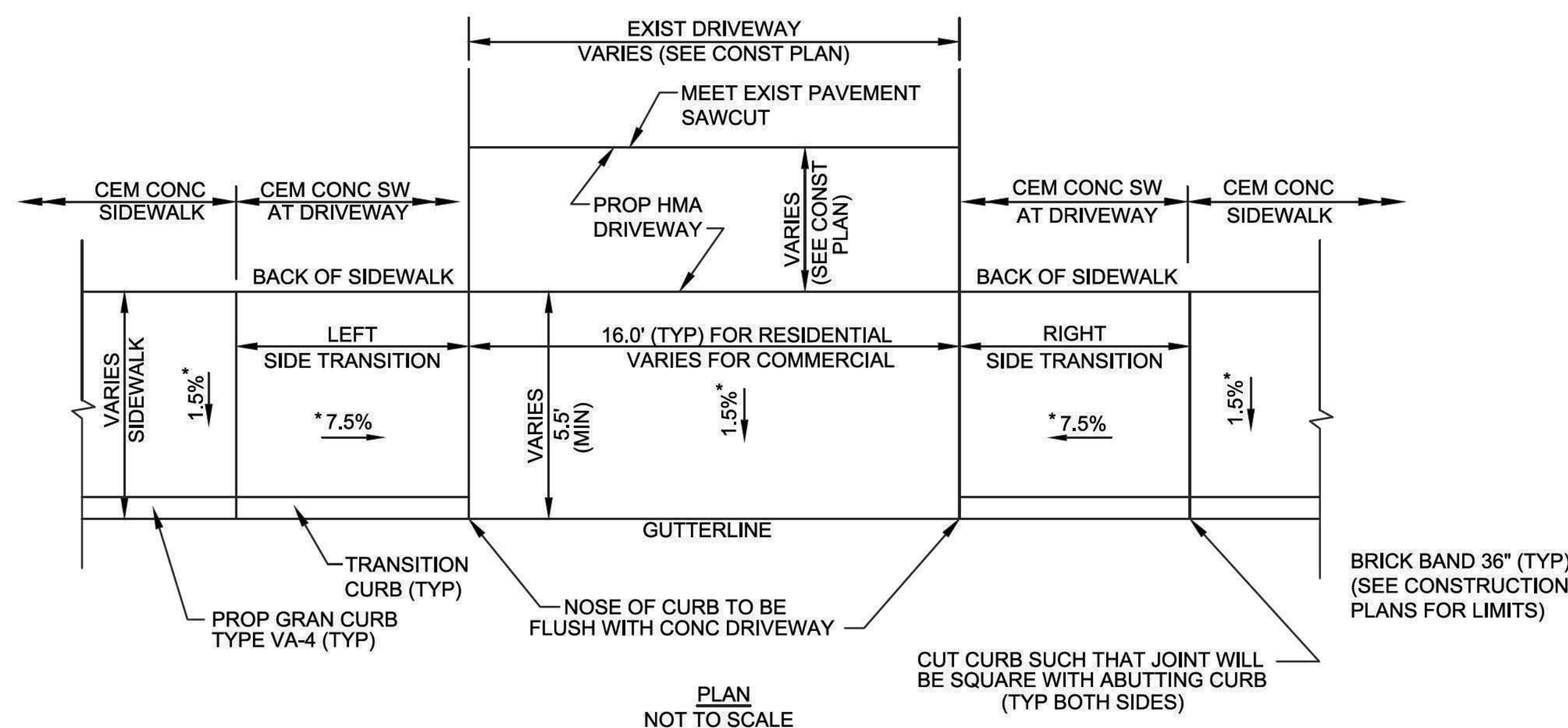
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ-003S(160)X	10	71
PROJECT FILE NO. 607901			

CONSTRUCTION DETAILS



DETAIL FOR TYPICAL DRIVEWAY WITH SIDEWALK - TYPE A

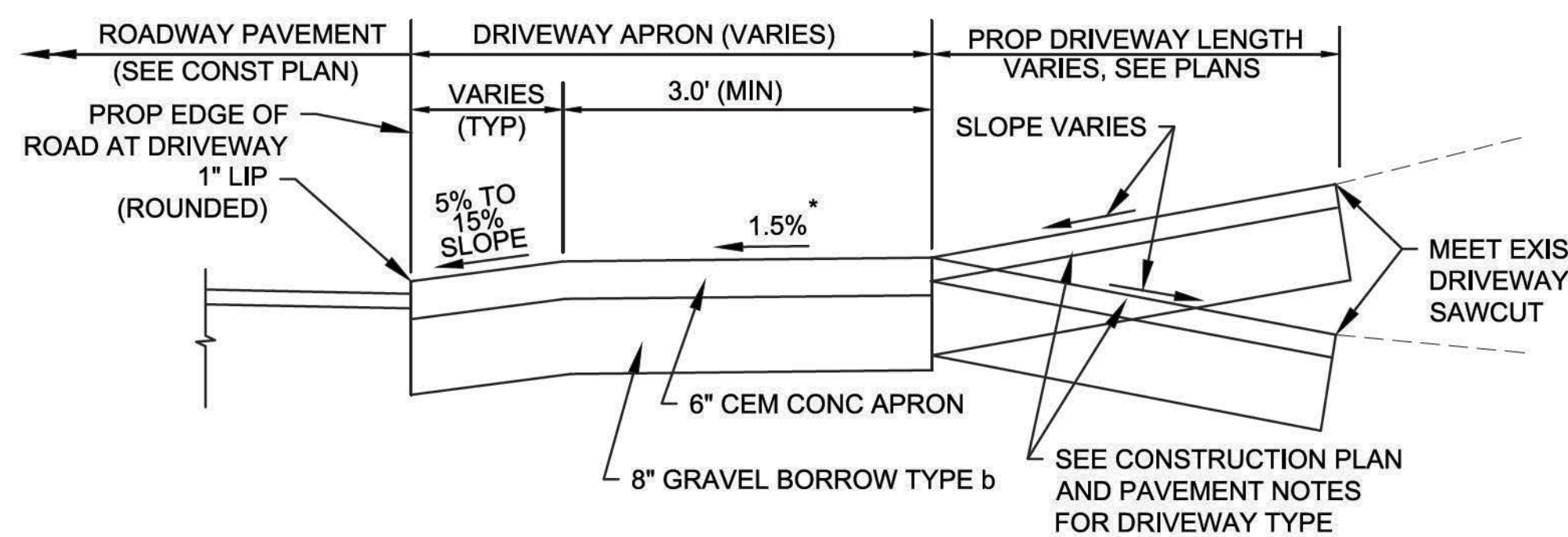
DRIVEWAY TYPE "A" DATA								
DWY NO.	RAMP REFERENCE POINT		ROADWAY GUTTER SLOPE (%)	OPENING WIDTH AT GUTTER	DEPTH OF GUTTER TO BACK OF SIDEWALK	PATH OF TRAVEL WIDTH ACROSS DWY	TRANSITION LENGTH	
	STATION	OFFSET					LEFT	RIGHT
1	12+65.1	14.6RT	1.5	19.5	9.6'	3.0-5.0	6.5	9.0
2	13+85.9	14.4RT	0.5	17.0LT 18.6RT	6.7'	3.0	6.5	7.7
3	14+39.9	14.9RT	0.5	14.9	5.5'	3.0	6.5	7.7
4	15+17.2	16.3RT	-0.2	22.0	6.0'	3.5	7.7	6.5
5	15+82.3	18.1RT	-0.8	13.0	5.5'	3.5	7.7	6.5
9	9+46.7	14.6RT	2.0	15.0	5.5'	3.0	6.5	3" REVEAL 5.5
10	10+05.0	12.9RT	2.5	16.0	5.5'	3.0	6.5	11.0
11	10+80.2	13.7RT	2.1	19.0	5.5'	3.0	6.5	11.0



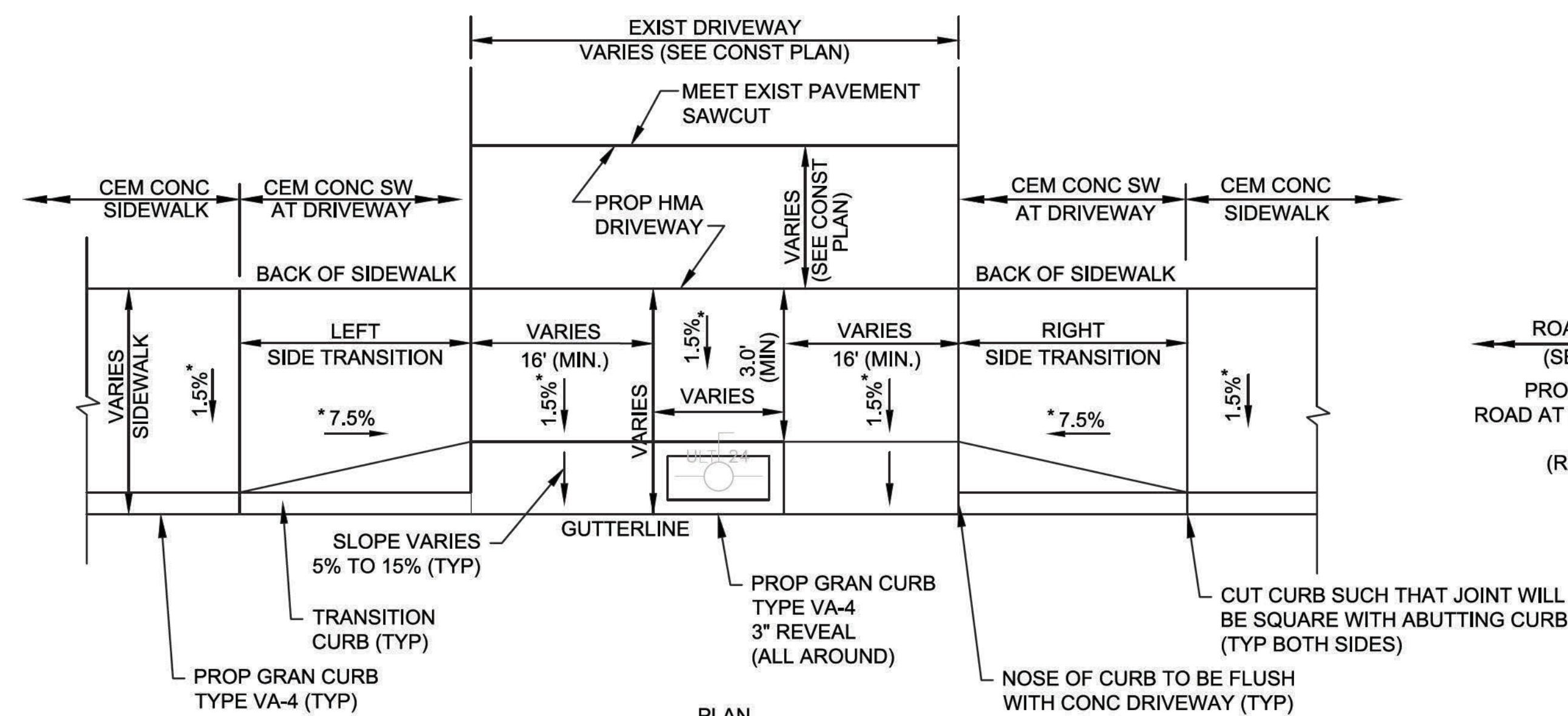
DETAIL FOR DEPRESSED DRIVEWAY WITH SIDEWALK - TYPE B

DRIVEWAY TYPE "B" DATA								
DWY NO.	RAMP REFERENCE POINT		ROADWAY GUTTER SLOPE (%)	OPENING WIDTH AT GUTTER	DEPTH OF GUTTER TO BACK OF SIDEWALK	PATH OF TRAVEL WIDTH ACROSS DWY	TRANSITION LENGTH	
	STATION	OFFSET					LEFT	RIGHT
6	16+66.6	19.7RT	0.5	20.0	5.5'	5.5	3" REVEAL 3.25	7.7
7	18+26.6	18.0RT	-3.1	16.0	6.5'	6.5	3" REVEAL 7.0	6.5
8	56+13.9	16.LT	1.0	30.0	5.5'	5.5	6.5	9.0
12	9+31.8**	15.8 LT**	2.6	EXISTING	NA	SW ENDS	3" REVEAL 3.25	-

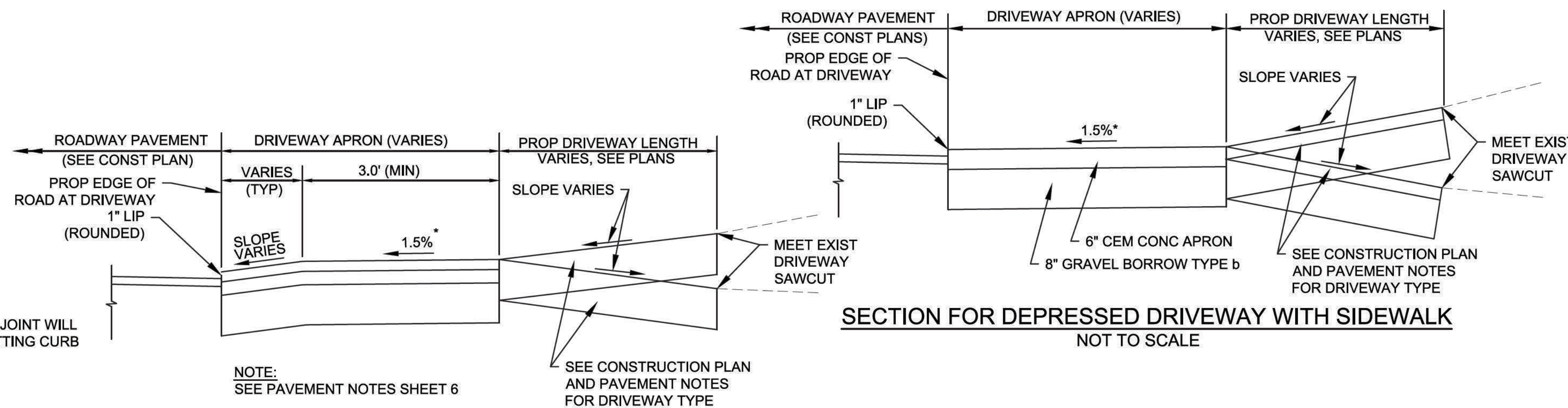
** STATION TAKEN AT BEGINNING OF CURB RAMP



SECTION FOR TYPICAL CEM. CONC. DRIVEWAY WITH SIDEWALK
NOT TO SCALE



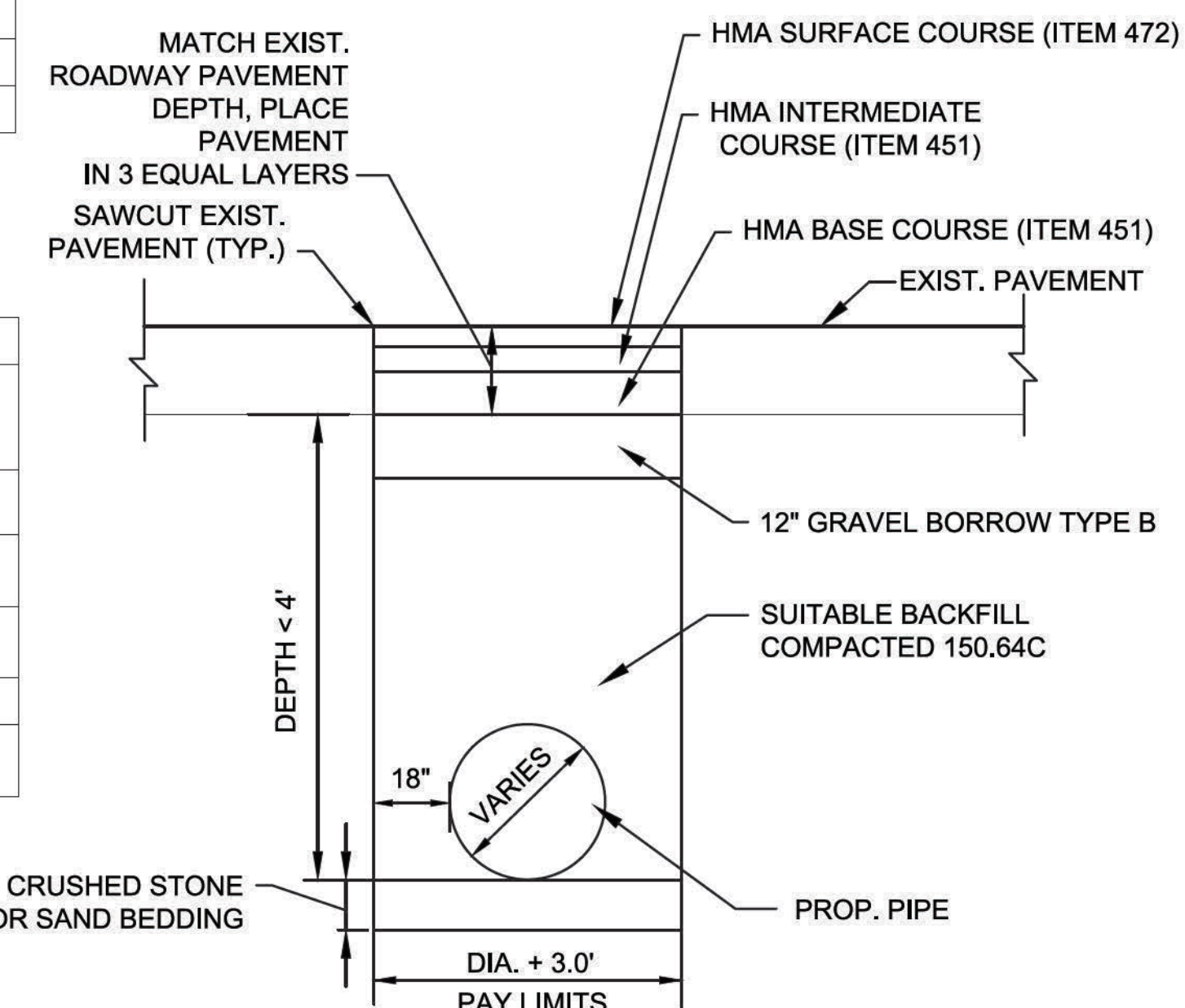
DETAIL FOR DRIVEWAY AT STA 13+86± RT - TYPE C



SECTION FOR DEPRESSED DRIVEWAY WITH SIDEWALK
NOT TO SCALE

SECTION FOR TYPICAL HMA DRIVEWAY WITH SIDEWALK
NOT TO SCALE

* TOLERANCE FOR CONSTRUCTION ±0.5%



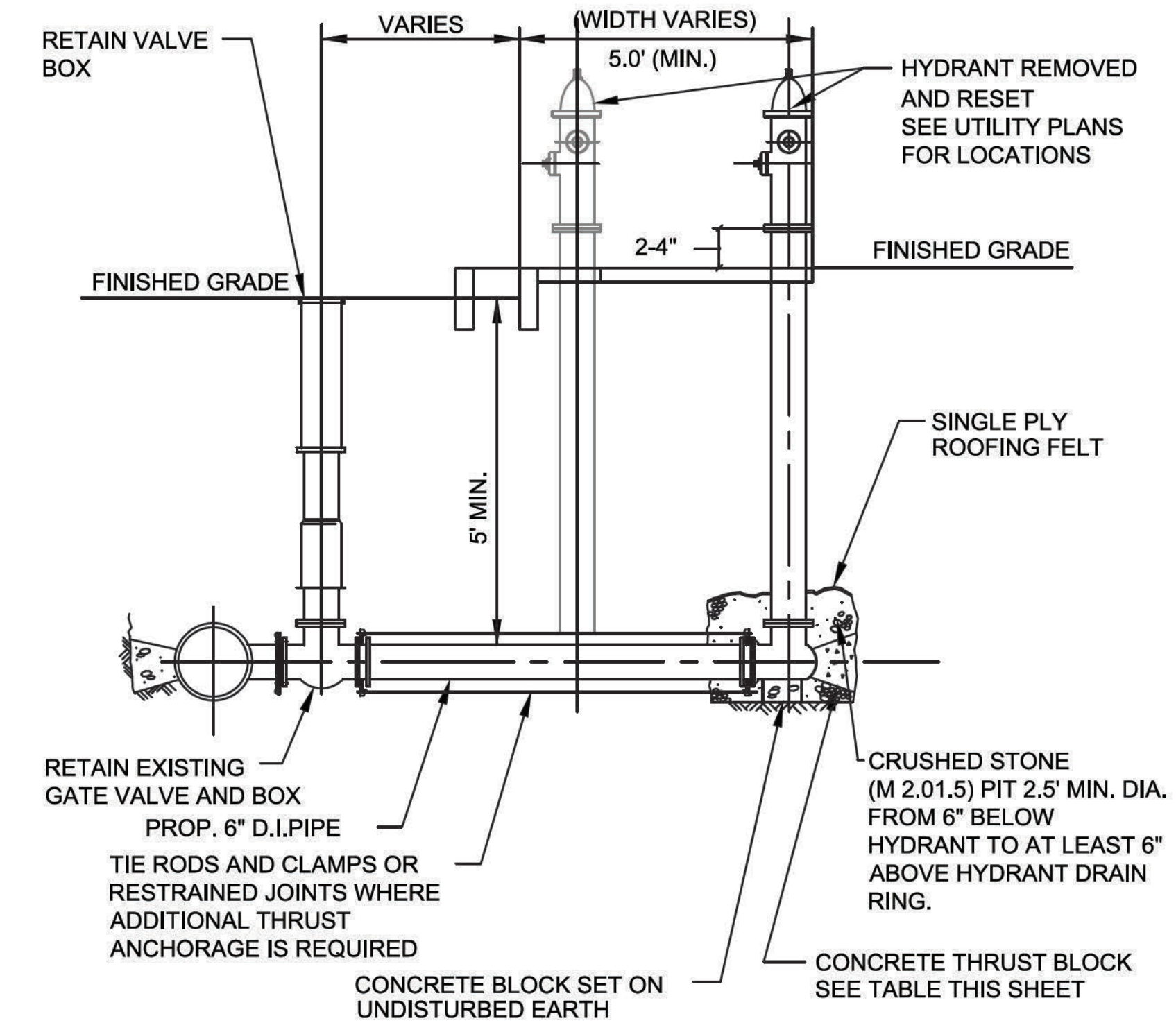
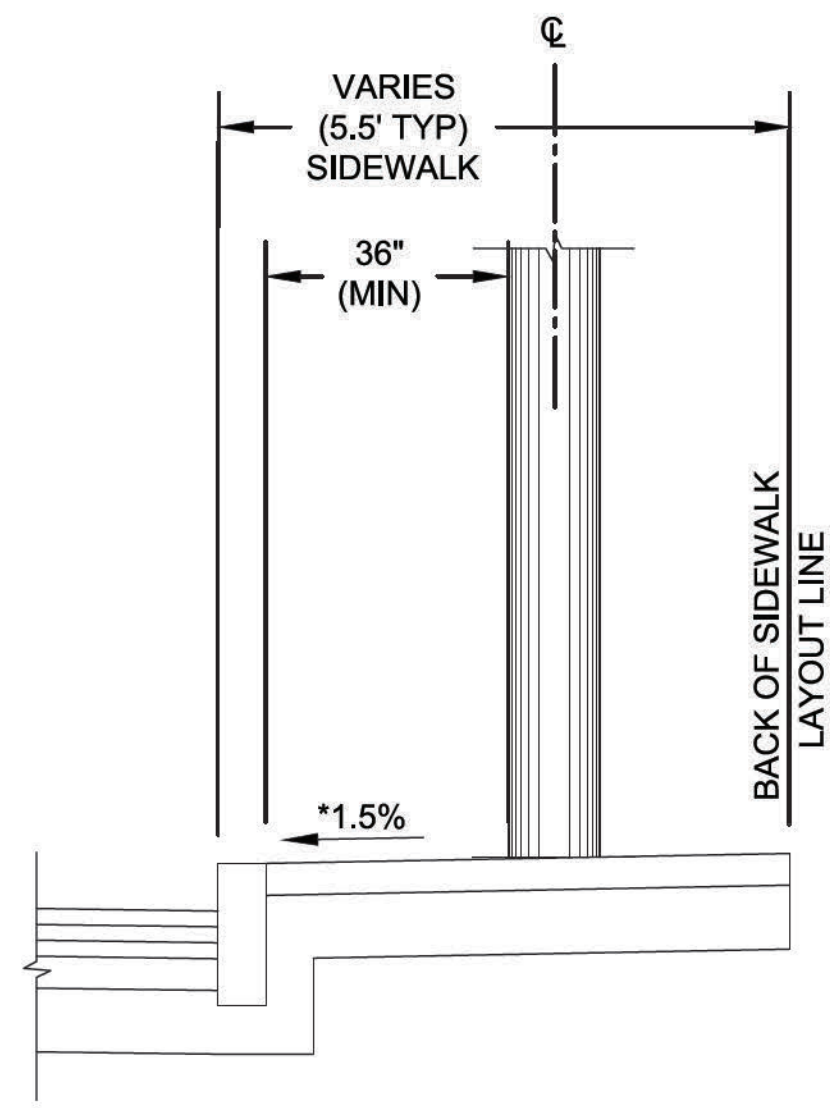
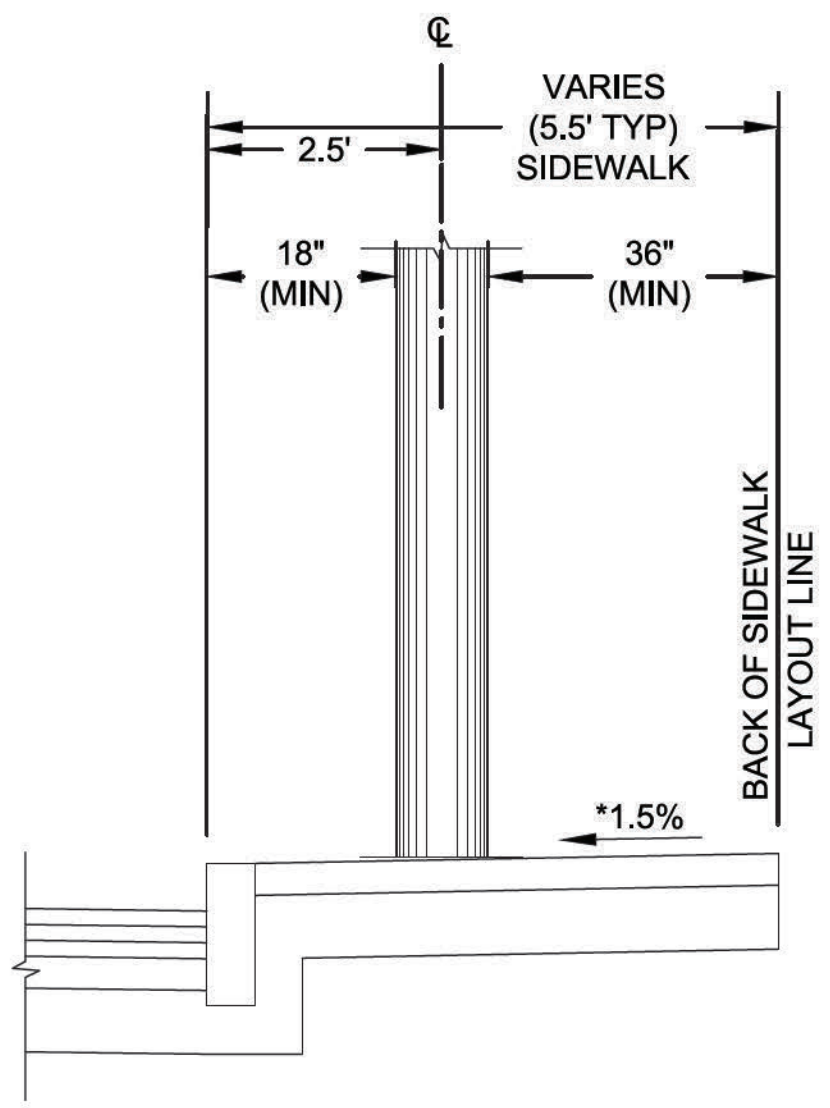
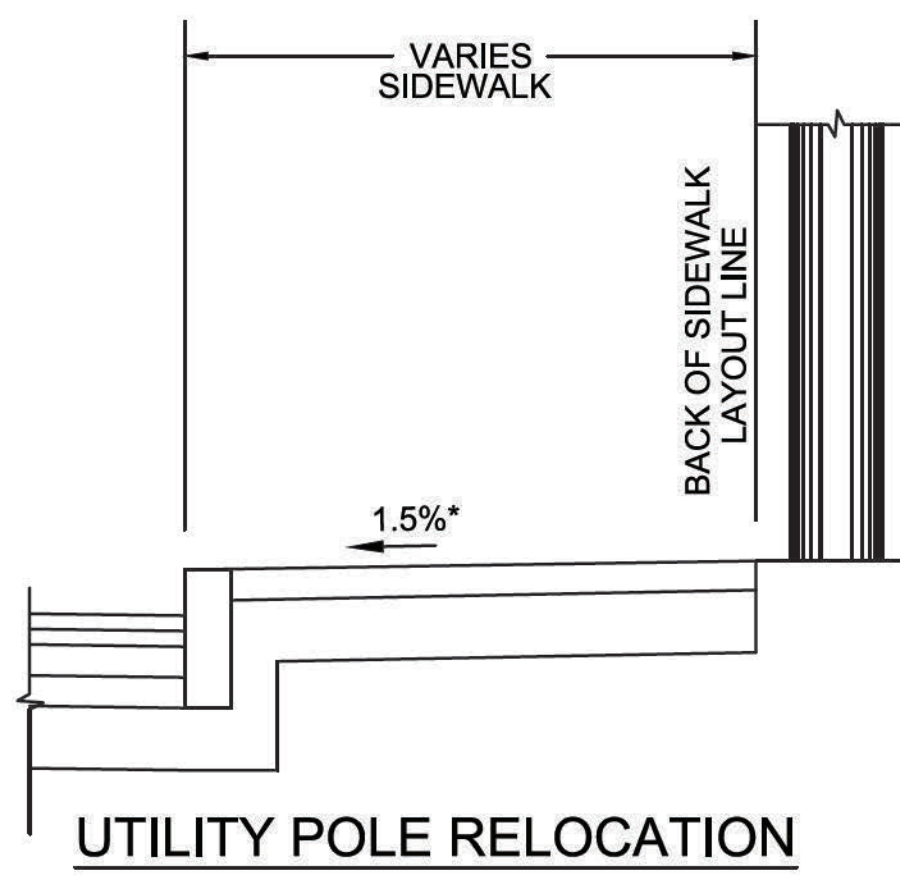
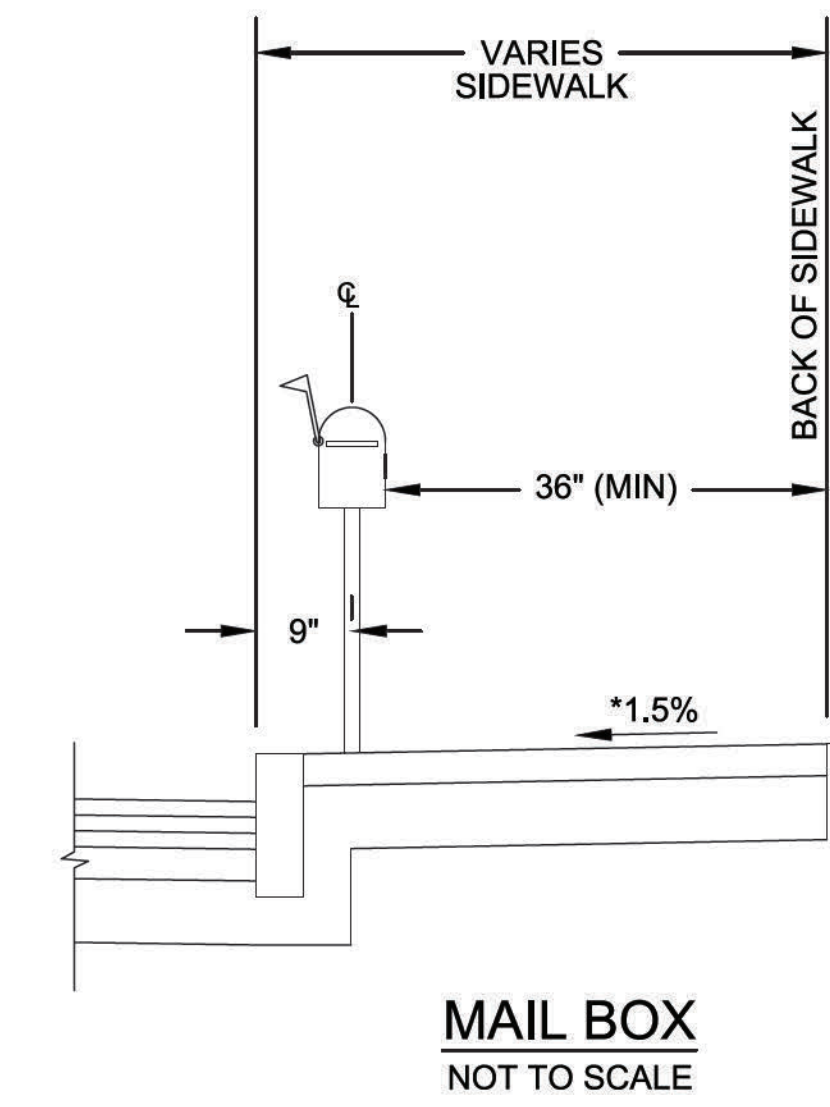
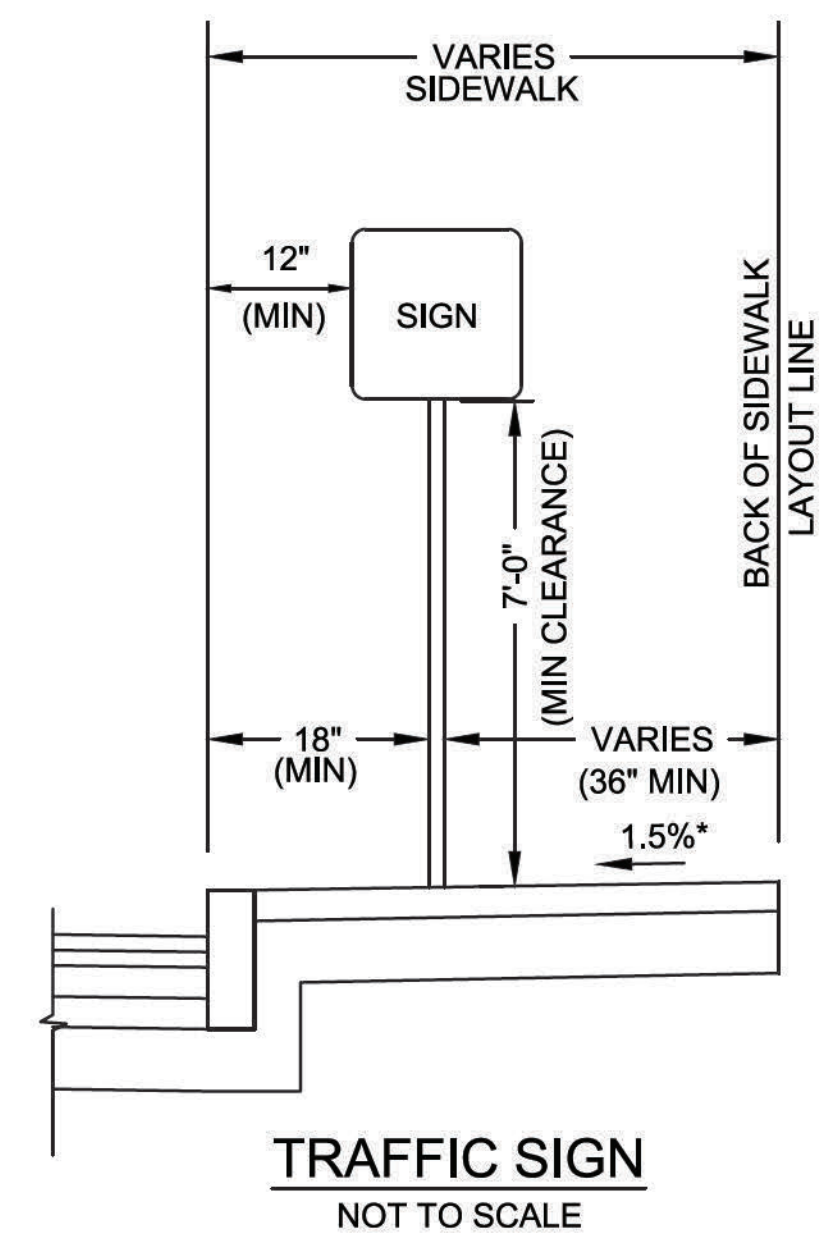
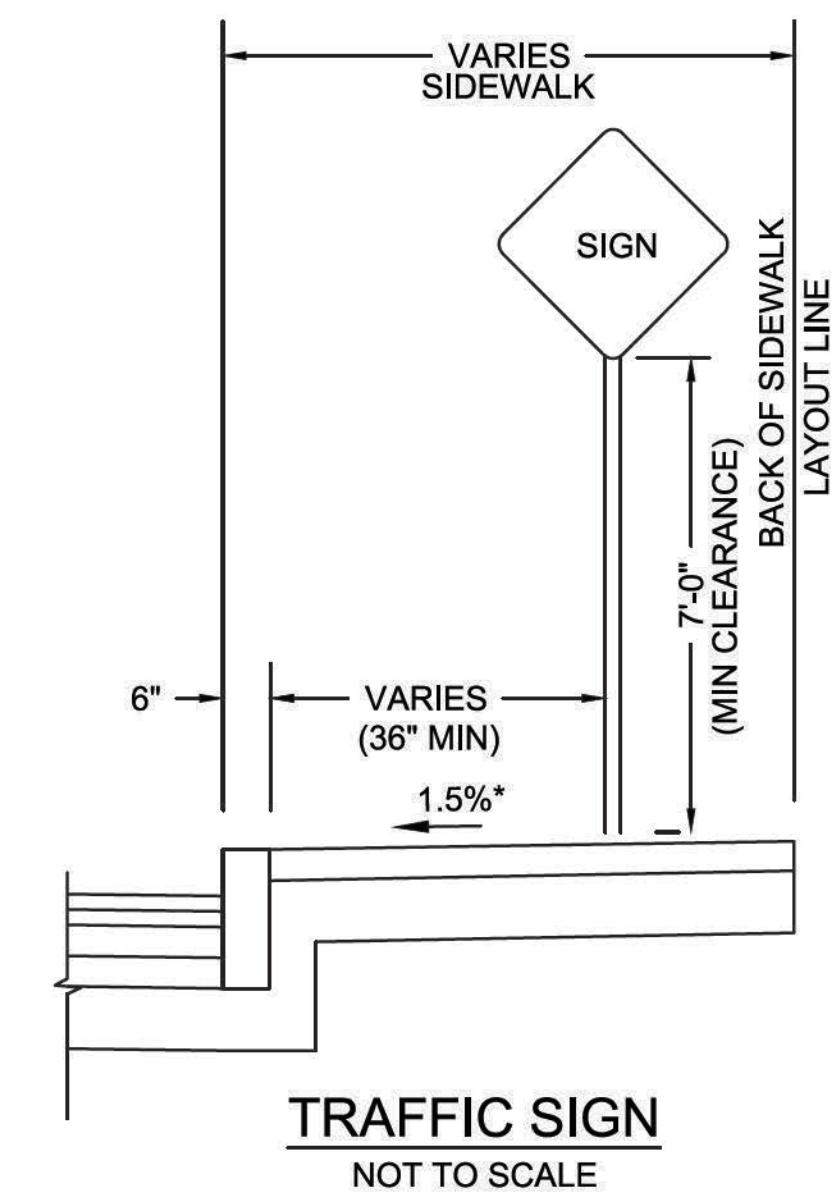
DETAIL FOR TEMPORARY DRAINAGE PIPE TRENCH IN FULL DEPTH AREAS
NOT TO SCALE

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ-003S(160)X	11	71
PROJECT FILE NO. 607901			

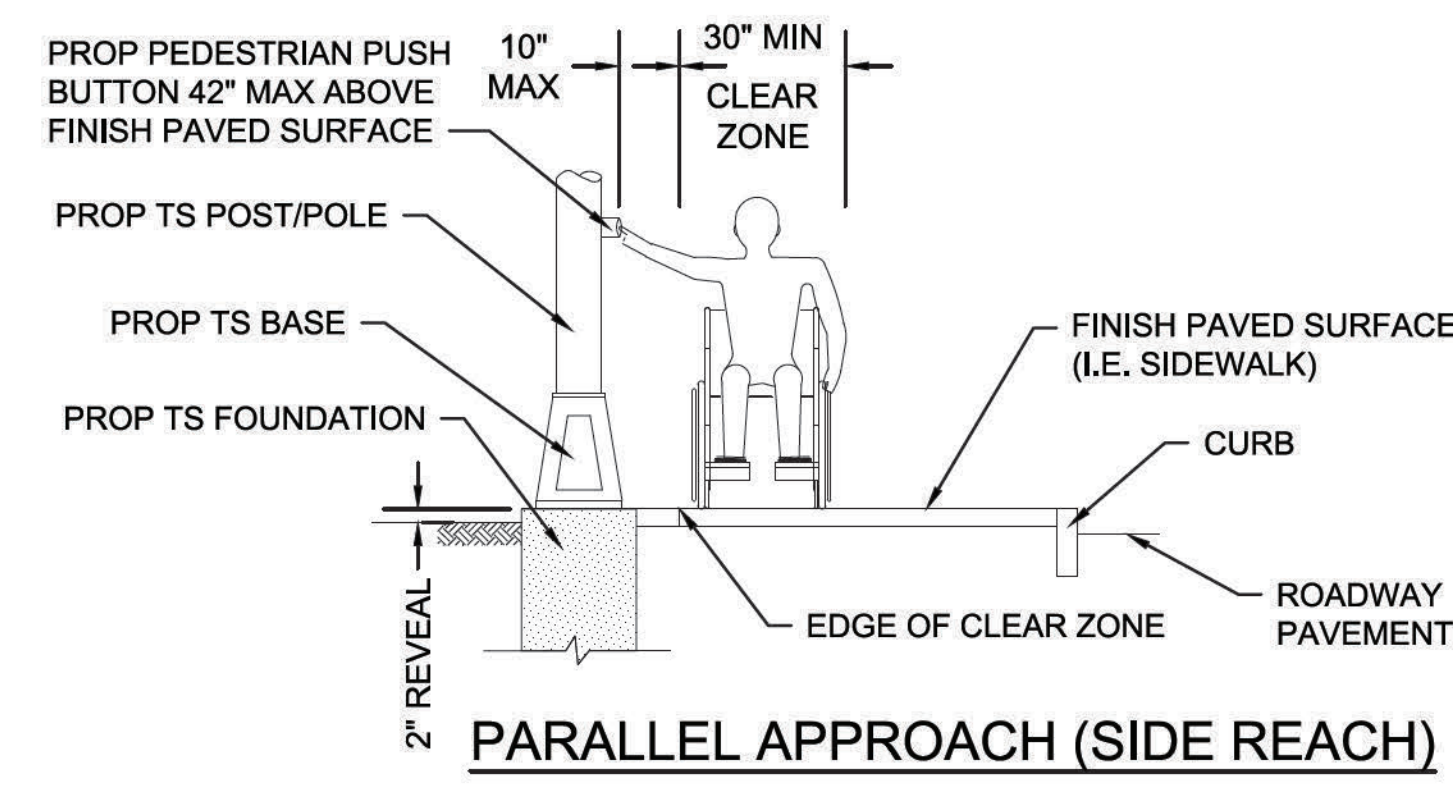
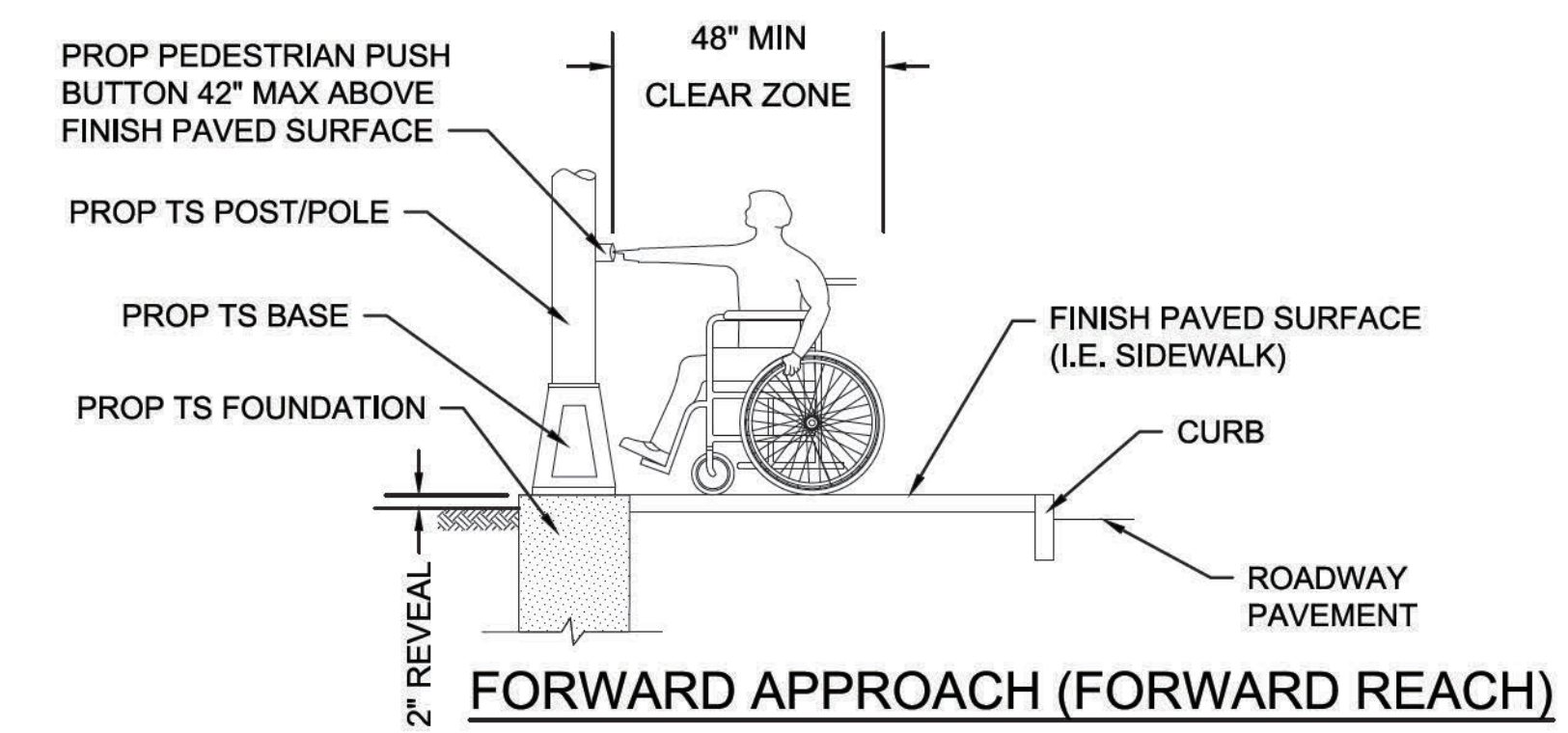
CONSTRUCTION DETAILS

- NOTES:
1. MINIMUM CLEAR PATH ON ALL SIDEWALKS SHALL BE 36 INCHES, EXCLUDING THE CURB.
 2. CONTRACTOR SHALL VERIFY LOCATION OF ALL OBJECTS (SIGNS, POLES ETC.) TO BE SET WITHIN SIDEWALK PRIOR TO FINAL PLACEMENT TO PROVIDE A MINIMUM CLEAR PATH OF 36 INCHES NOT INCLUDING CURB. CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY LOCATION WHICH CANNOT MEET THE CLEARANCE REQUIREMENTS.

* TOLERANCE FOR CONSTRUCTION ±0.5%

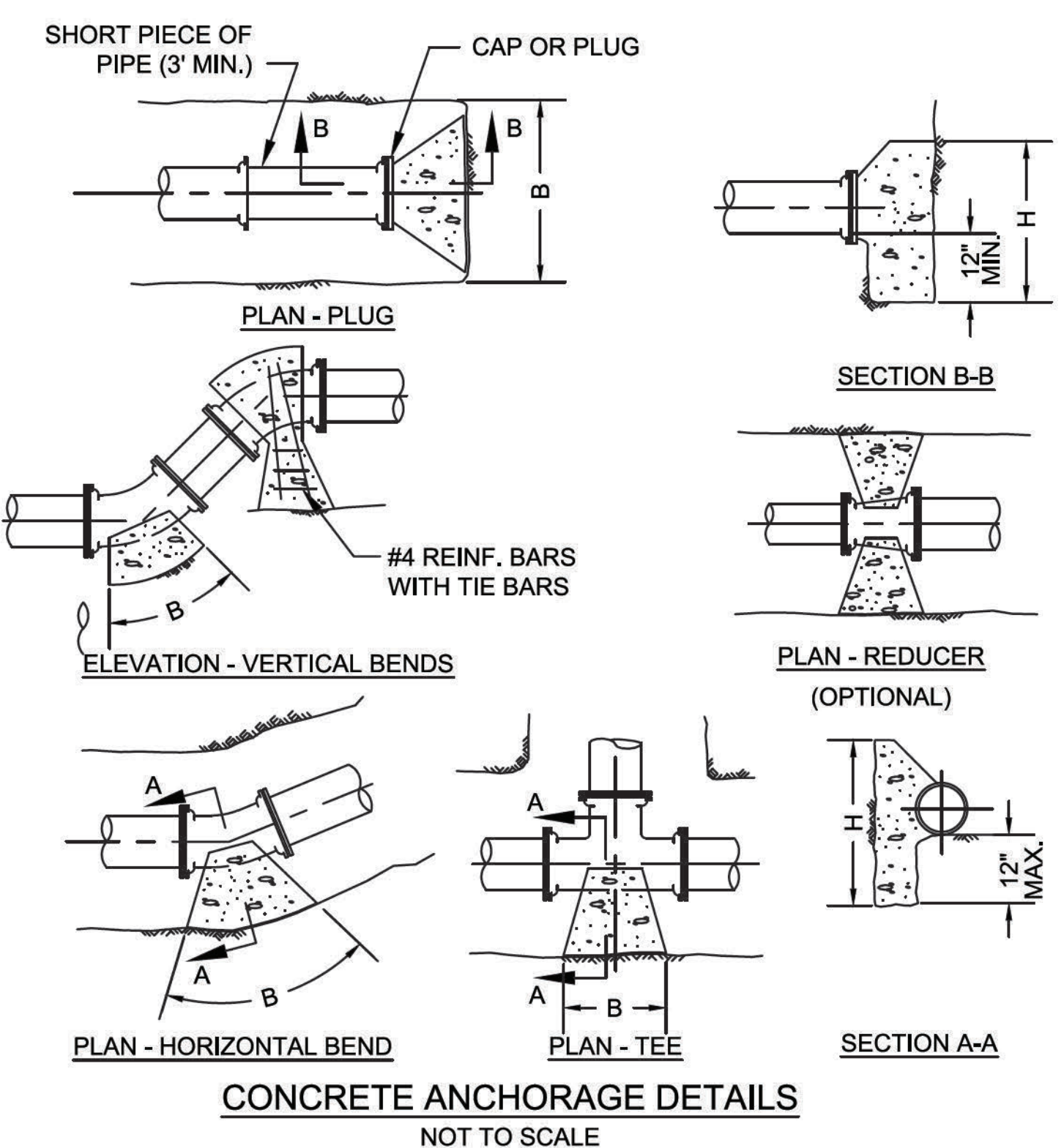


SIDEWALK MINIMUM CLEARANCE DETAILS NOT TO SCALE



PEDESTRIAN PUSH BUTTON CLEAR ZONE NOT TO SCALE

NOTE:
A CLEAR GROUND SPACE SHALL CONSIST OF A STABLE AND FIRM AREA, COMPLYING WITH 521 CMR 6.5 (FORWARD REACH) OR 521 CMR 6.6 (SIDE REACH) AND SHALL BE PROVIDED AT EACH OF THE PEDESTRIAN PUSH BUTTONS.
a) WHERE A FORWARD APPROACH IS PROVIDED, PEDESTRIAN PUSH BUTTONS SHALL ABUT AND BE CENTERED ON THE CLEAR GROUND SPACE.
b) WHERE A PARALLEL APPROACH IS PROVIDED, PEDESTRIAN PUSH BUTTONS SHALL BE WITHIN TEN INCHES (10") HORIZONTALLY OF AND CENTERED ON THE CLEAR GROUND SPACE.

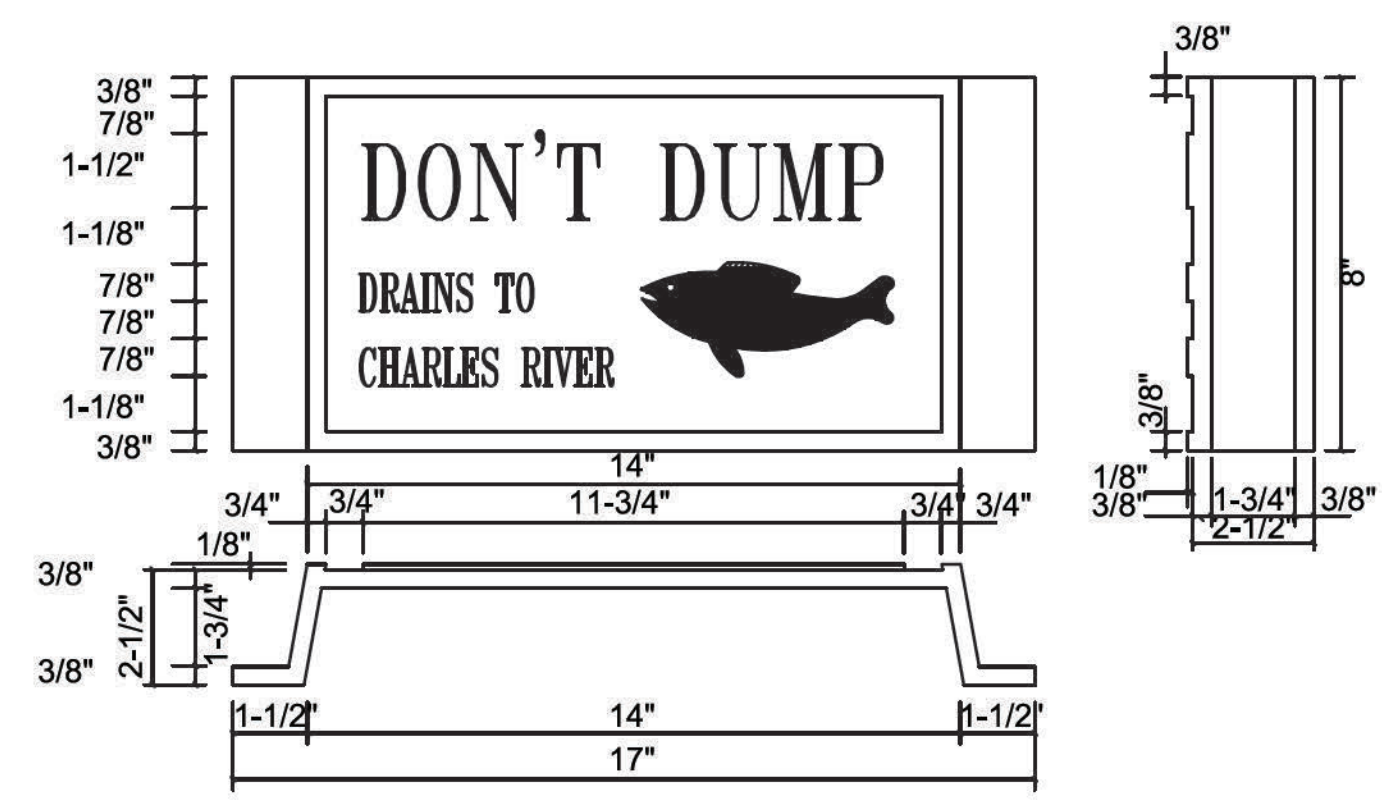


CONCRETE ANCHORAGE THRUST BLOCK REQUIREMENTS	
FITTING	MIN. BEARING AREA (H X B)
6" - 1/8 BEND	32" x 32"
8" - 1/8 BEND	24" x 24"
8" x 6" TEE	20" x 20"
12" - 1/8 BEND	32" x 32"
12" x 12" TEE	24" x 24"
12" x 6" TEE	24" x 24"
12" x 8" TEE	32" x 32"
16" x 12" TEE	24" x 24"
HYDRANT	24" x 24"
8" PLUG	32" x 32"
150 mm PLUG	24" x 24"
8" x 6" REDUCER	24" x 24"
8" - 1/16 BEND	20" x 20"
12" x 8" REDUCER	24" x 24"

NOTE:
ALL CONCRETE TO BE PLACED AGAINST UNDISTURBED EARTH

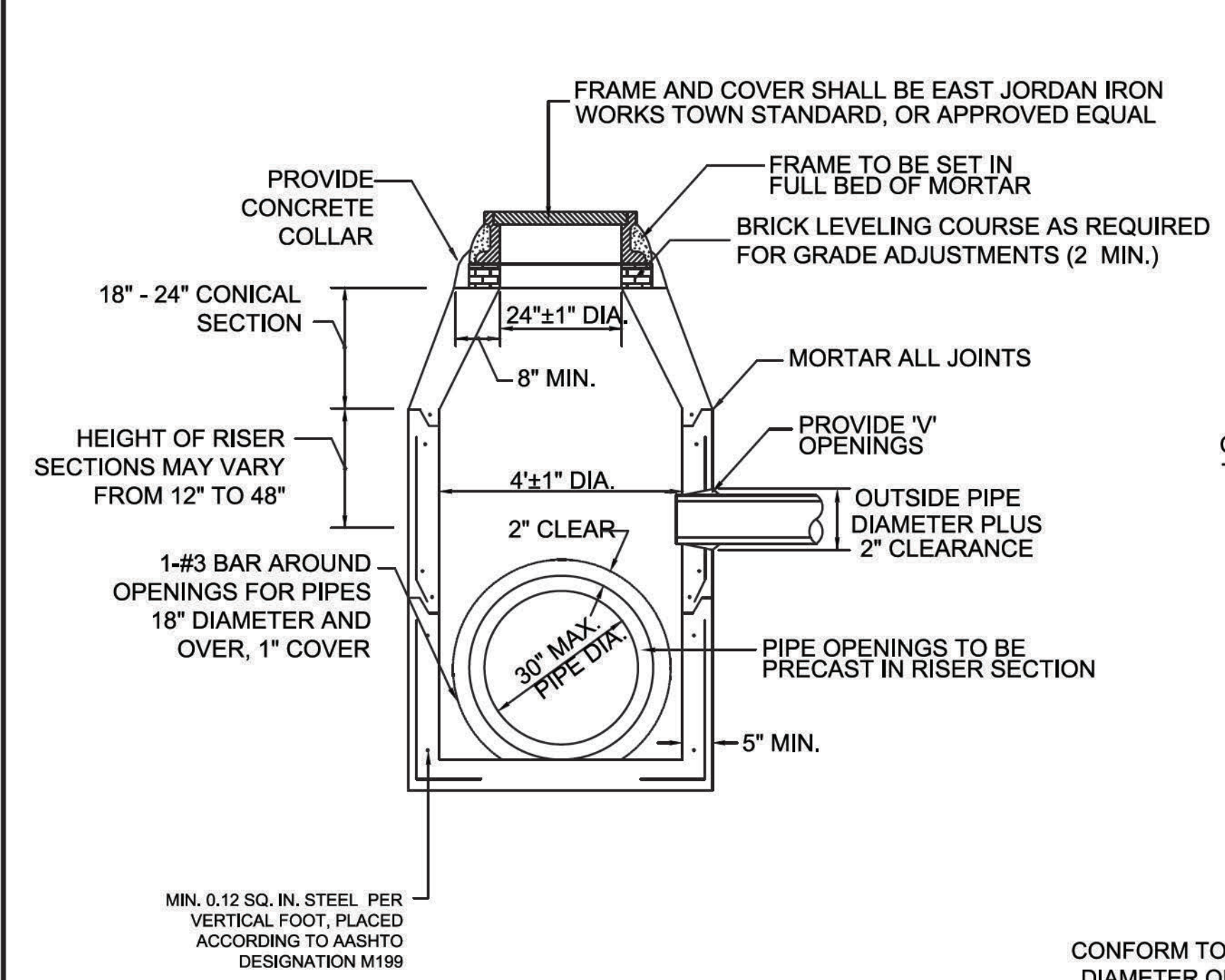
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ-003S(160)X	12	71
PROJECT FILE NO. 607901		607901	

CONSTRUCTION DETAILS

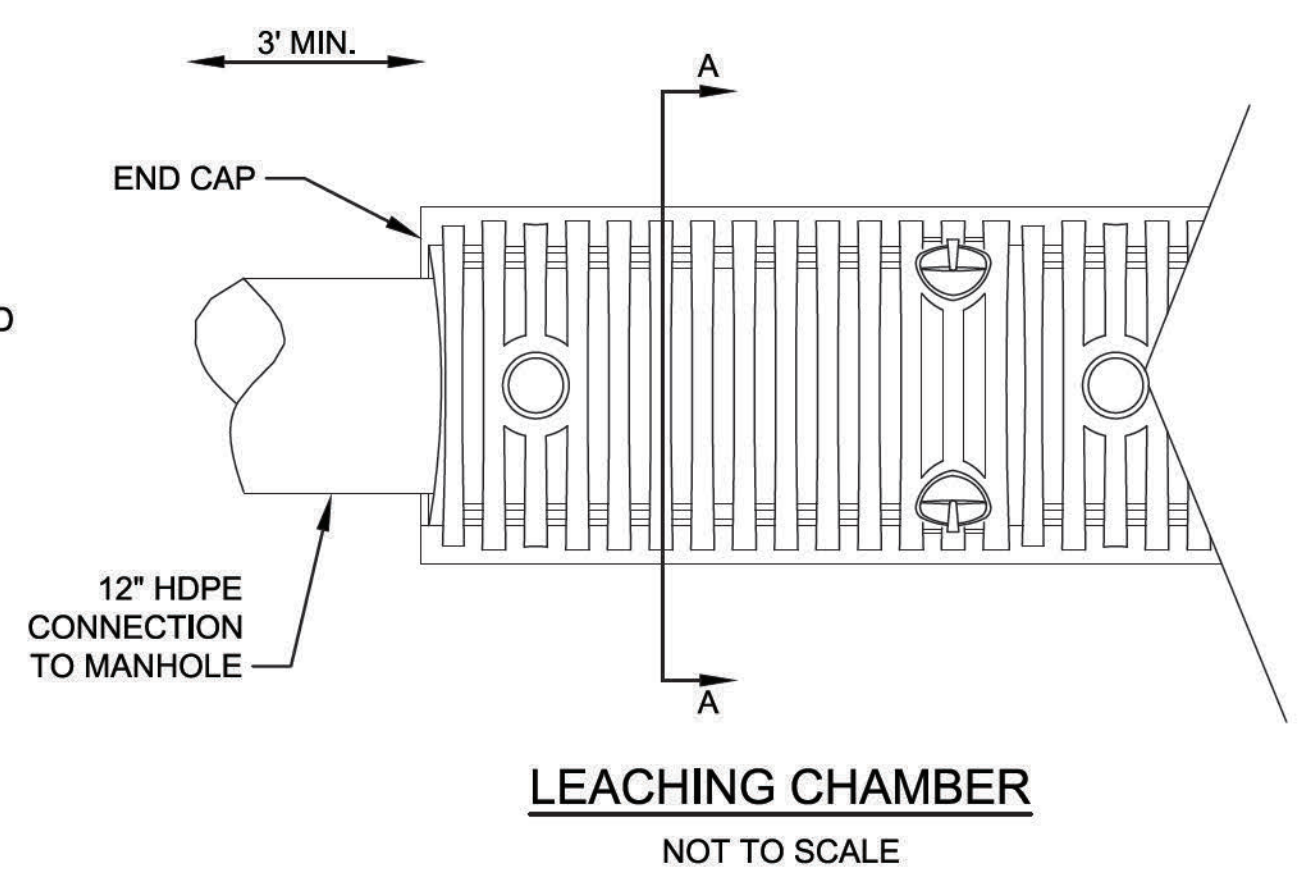


ENVIRONMENTAL CATCH BASIN PLACARD
NOT TO SCALE

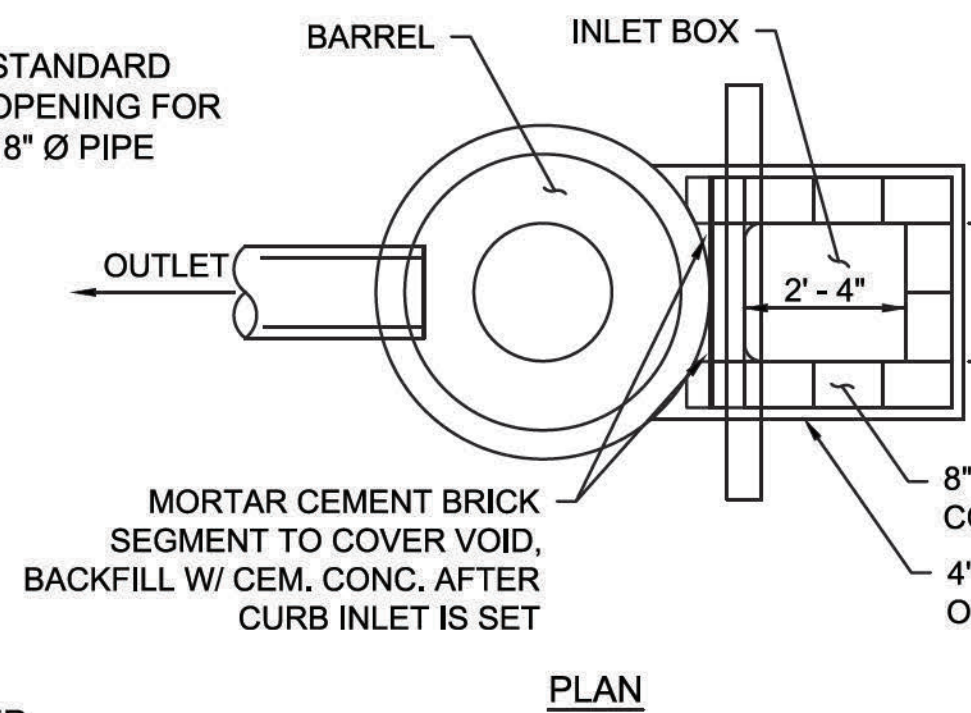
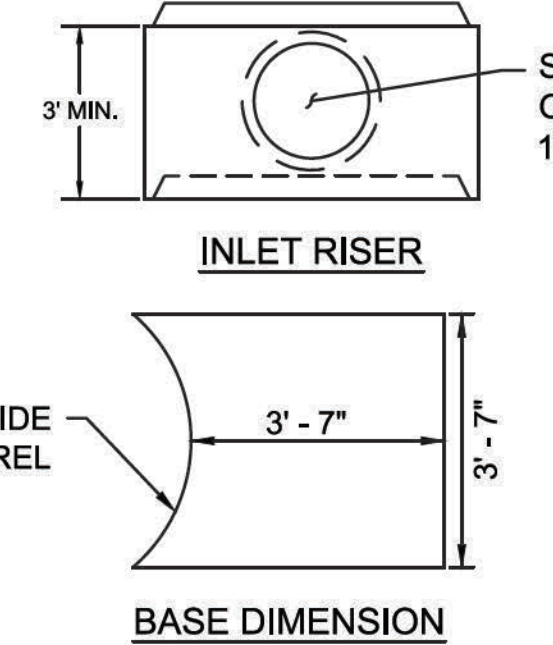
- NOTES:
1. LETTERING SYMBOLS AND BORDER ALL CUT AT 1/8" HEIGHT.
 2. THE SIZE OF THE FISH SHALL BE TO THE SCALE SHOWN ON THE DRAWING.
 3. MINIMUM WEIGHT 18 LBS. PER CASTING.
 4. CASTING TO BE MADE OF CAST IRON.



PRECAST DRAINAGE MANHOLE
NOT TO SCALE

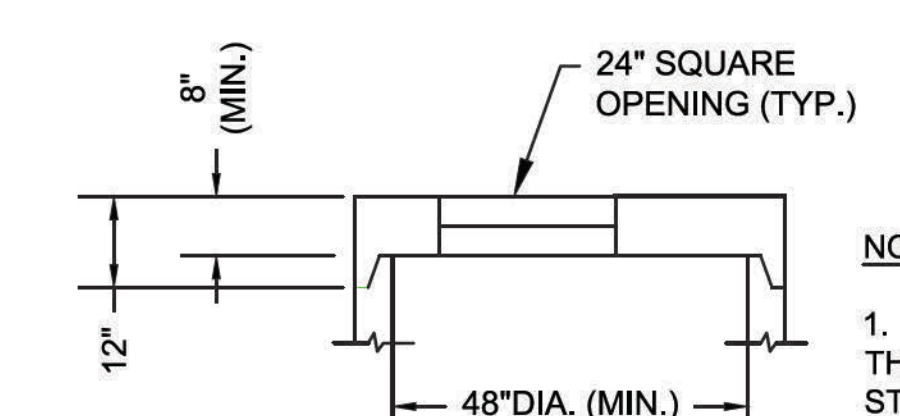


LEACHING CHAMBER
NOT TO SCALE



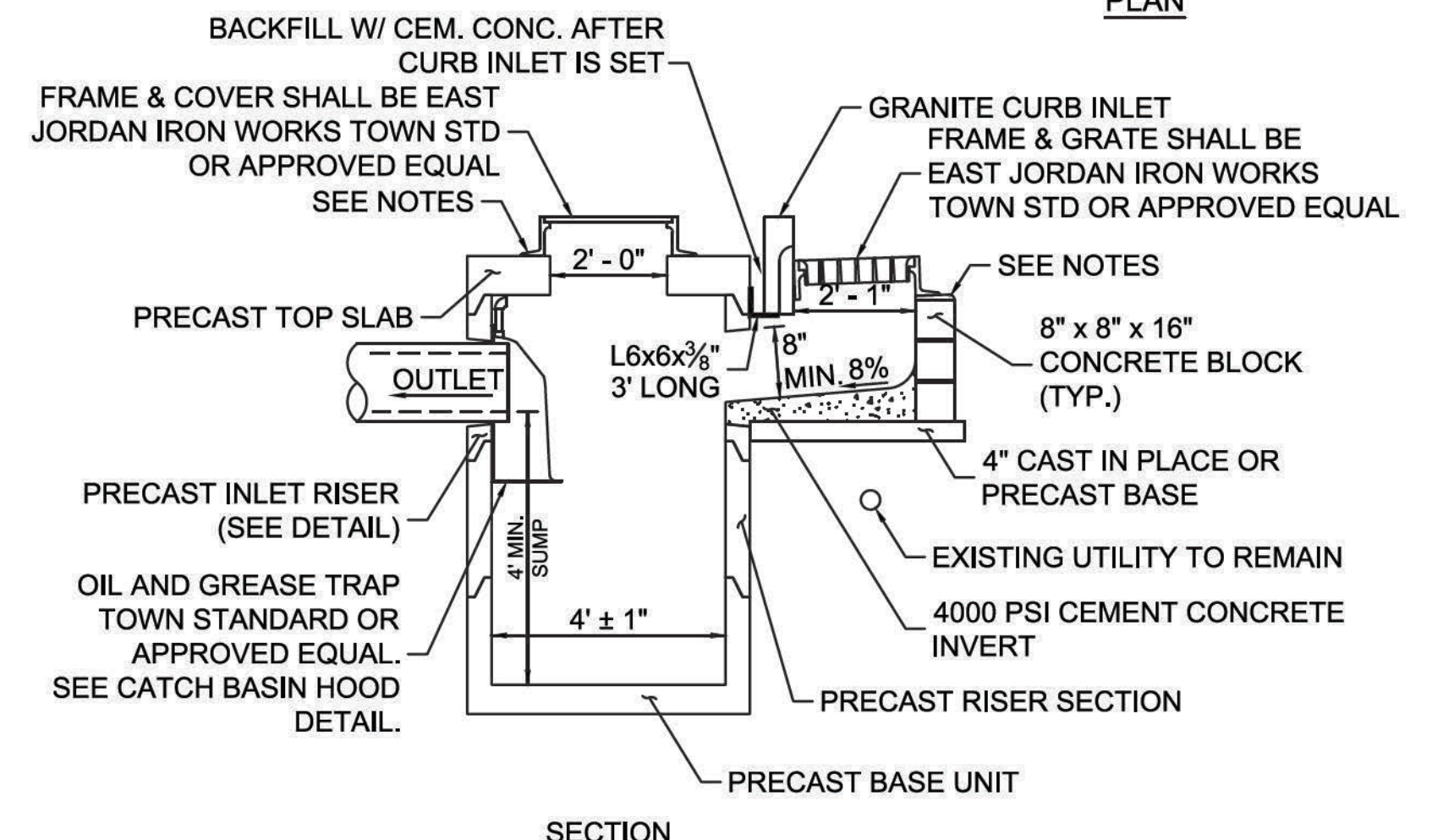
LEACHING CHAMBER SECTION A-A

ALTERNATE MANHOLE ECCENTRIC CONE SECTION



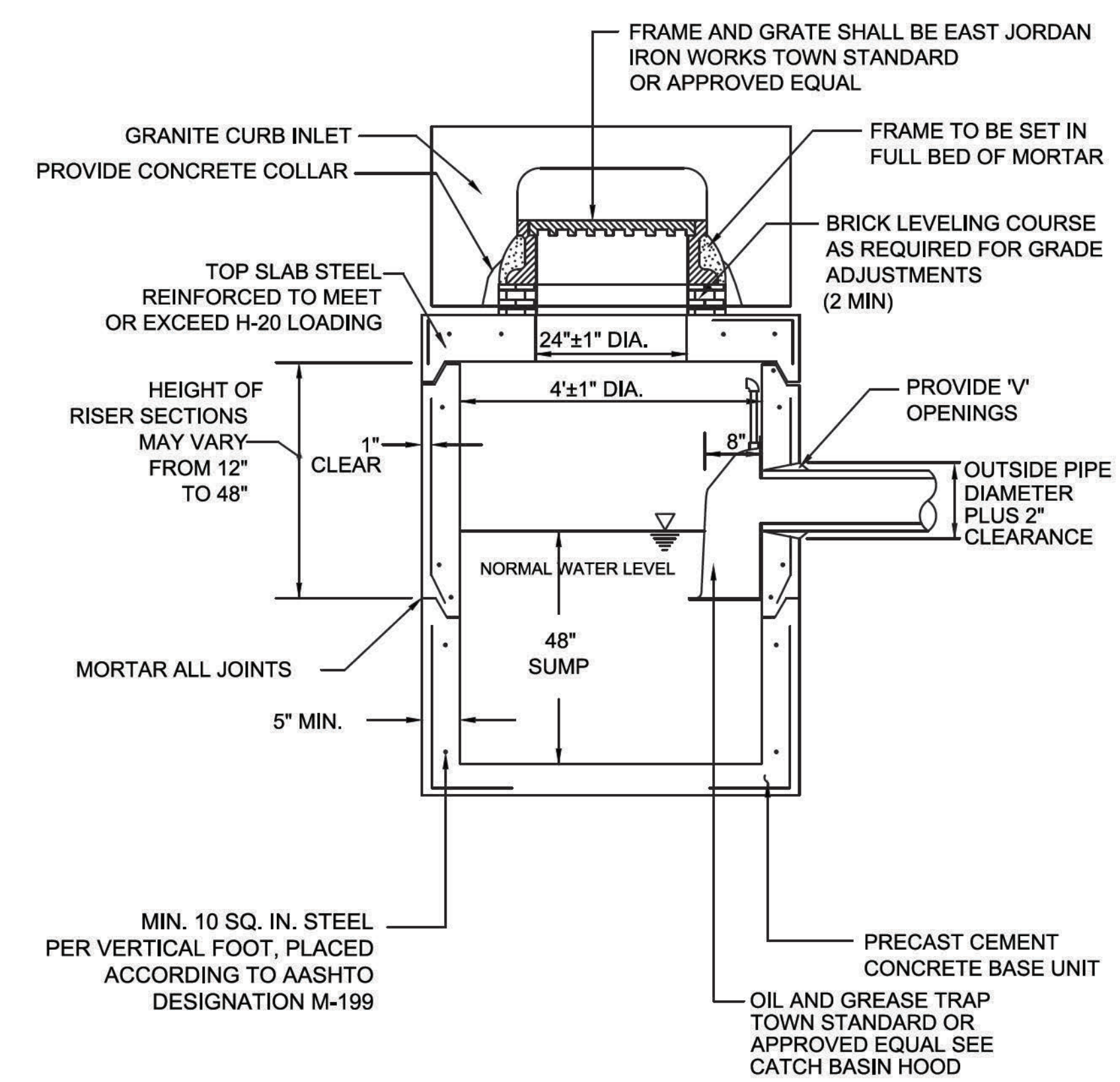
ALTERNATE MANHOLE TOP SLAB

- NOTES:
1. BASED ON ACTUAL FIELD CONDITIONS; THE CONTRACTOR SHALL DETERMINE WHICH STYLE OF TOP SECTION SHOULD BE USED.

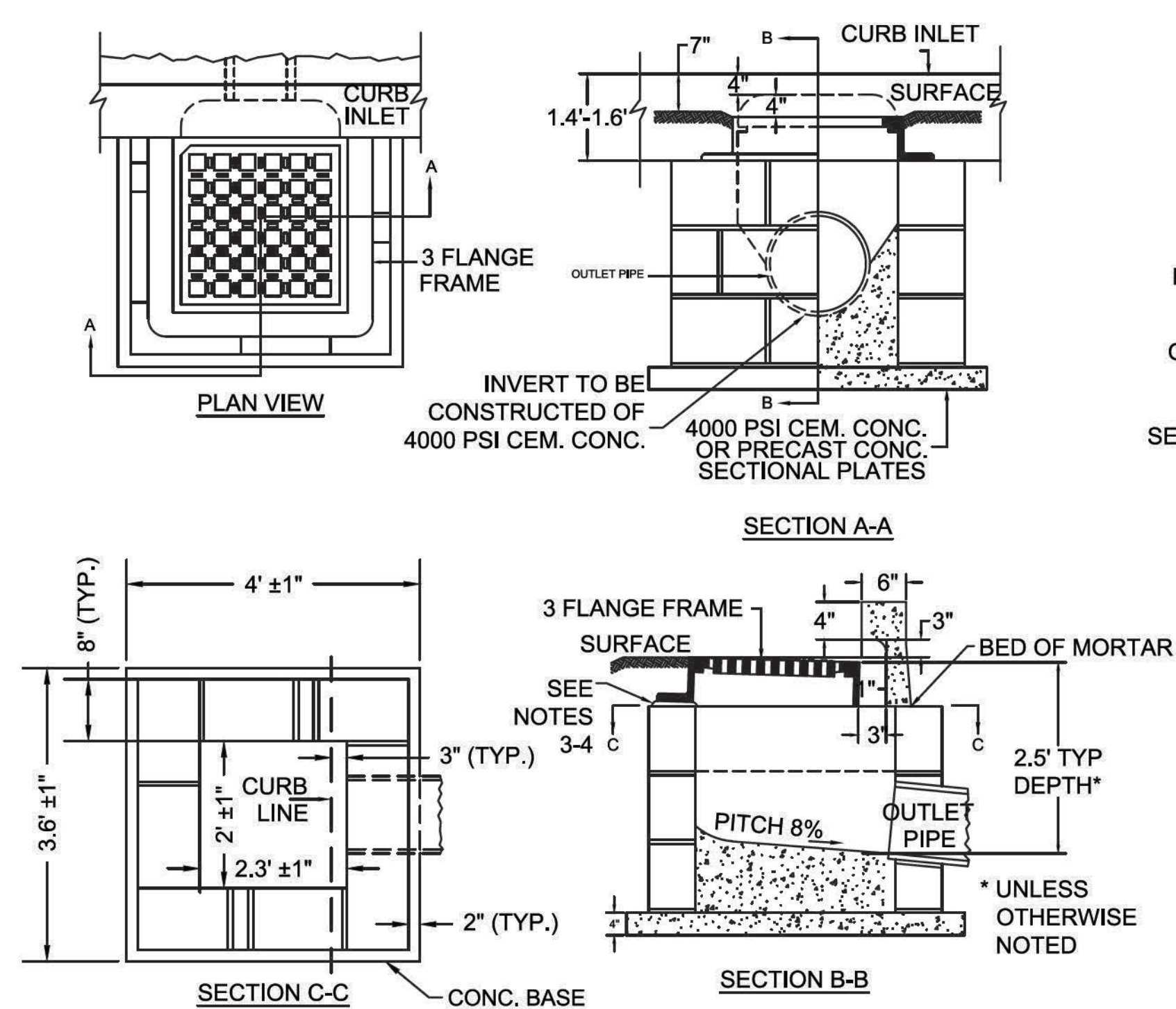


ALTERNATIVE TYPE CB
NOT TO SCALE

- NOTES:
1. THE 6x6x3/8 INCH ANGLE SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO M111.
 2. BRICKS MAY BE USED TO ADJUST THE GRADE OF THE FRAMES.
 3. THE CURB INLET SHALL BE SET IN A FULL BED OF MORTAR ON THE STEEL ANGLE. THE MINIMUM WIDTH OF BEARING OF THE CURB INLET ON THE STEEL ANGLE SHALL BE 3 INCHES.
 4. THE OUTLET IS NOT NECESSARILY LOCATED WITHIN THE INLET RISER AND IS NOT NECESSARILY LOCATED OPPOSITE FROM THE INLET. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR DETERMINING THE RELATIVE LOCATIONS OF THE INLET AND OUTLET PRIOR TO ORDERING.
 5. THE OUTLET PIPE SHALL NOT PROJECT MORE THAN 4 INCHES FROM THE FACE OF THE INTERIOR WALL ALONG THE CENTERLINE OF THE PIPE.
 6. CONCRETE BLOCKS IN THE INLET BOX SHALL BE SET IN A FULL BED OF MORTAR. ALL HORIZONTAL AND VERTICAL JOINTS SHALL BE FLUSHED FULL OF MORTAR.
 7. A MINIMUM CLEARANCE BETWEEN THE TOP OF THE 18-INCH OPENING IN THE INLET RISER AND THE INVERT OF THE INLET BOX IS 8 INCHES. THE NUMBER OF ROWS OF CONCRETE BLOCKS IN THE INLET BOX MAY BE MODIFIED DEPENDING ON THE ELEVATION OF THE UTILITY TO BE MAINTAINED.

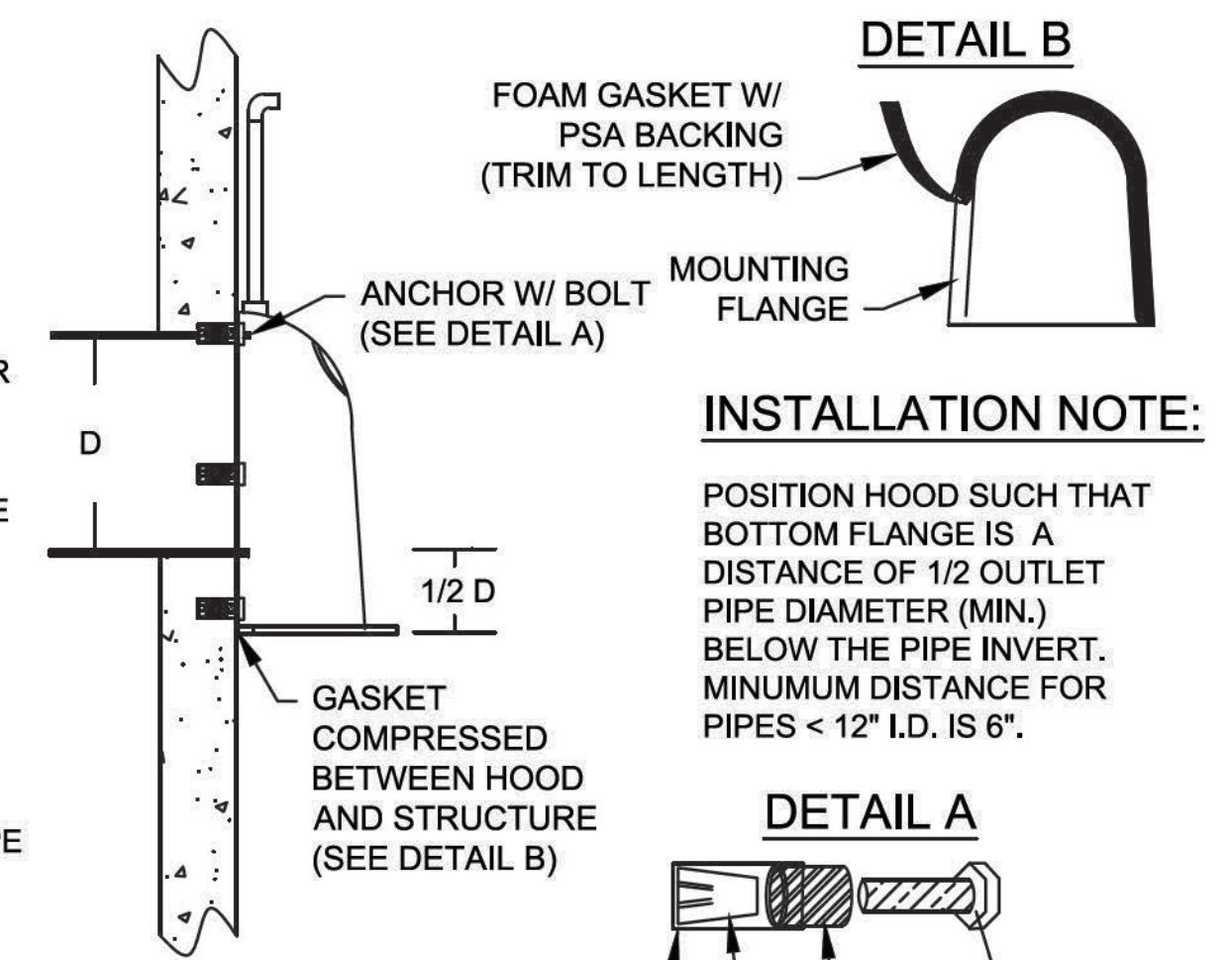


PRECAST CONCRETE CATCH BASIN
NOT TO SCALE



CONCRETE BLOCK GI
NOT TO SCALE

- NOTES:
1. WHERE CURB INLET IS NOT USED THE INSIDE HORIZONTAL DIMENSIONS OF GUTTER INLET TO BE 2 FEET±1" X 2 FEET±1" IN WHICH CASE AND UNLESS OTHERWISE DIRECTED, A STANDARD 4-FLANGE FRAME IS TO BE USED.
 2. FRAME AND GRATE SHALL BE EAST JORDAN IRON WORKS CATALOG TOWN STANDARD (3 FLANGE) OR APPROVED EQUAL.
 3. ADJUST TO GRADE WITH A MINIMUM OF TWO COURSES OF BRICK MASONRY.
 4. PROVIDE A CONCRETE COLLAR ON ALL EXTERIOR SURFACES OF MANHOLE GRADE ADJUSTMENT COURSES.



INSTALLATION NOTE:

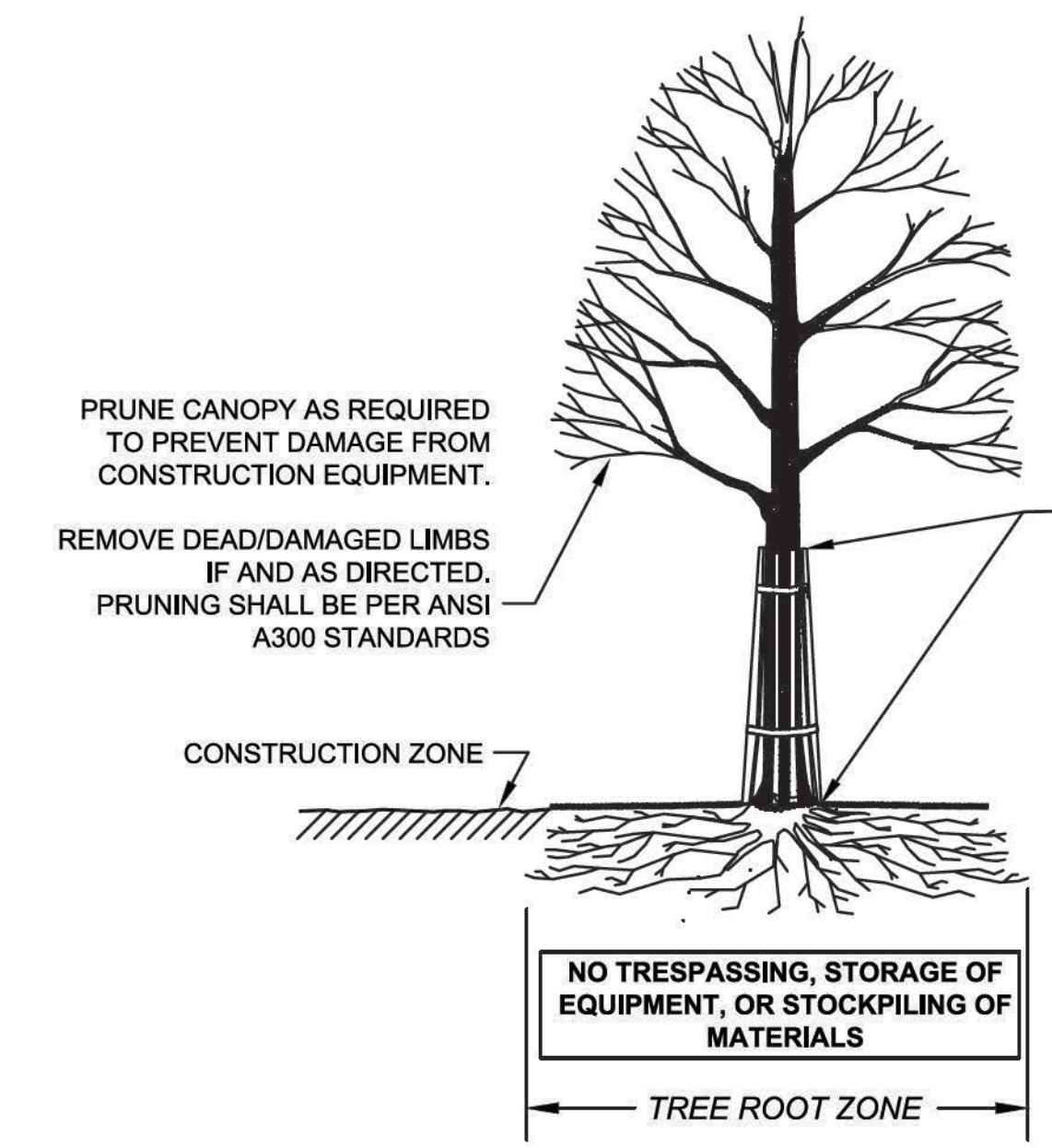
POSITION HOOD SUCH THAT BOTTOM FLANGE IS A DISTANCE OF 1/2 OUTLET PIPE DIAMETER (MIN.) BELOW THE PIPE INVERT. MINIMUM DISTANCE FOR PIPES < 12" I.D. IS 6".

CATCH BASIN HOOD DETAIL
NOT TO SCALE

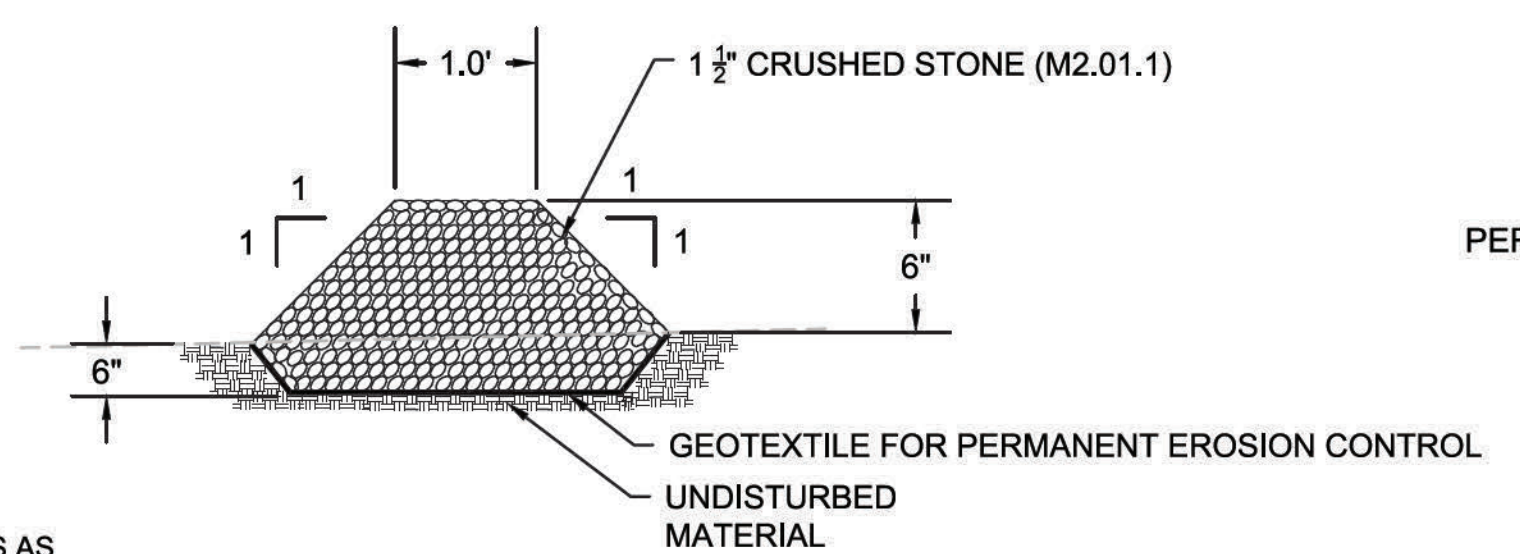
DEDHAM
ELM STREET AND RUSTCRAFT ROAD

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ-003S(160)X	13	71
PROJECT FILE NO. 607901			

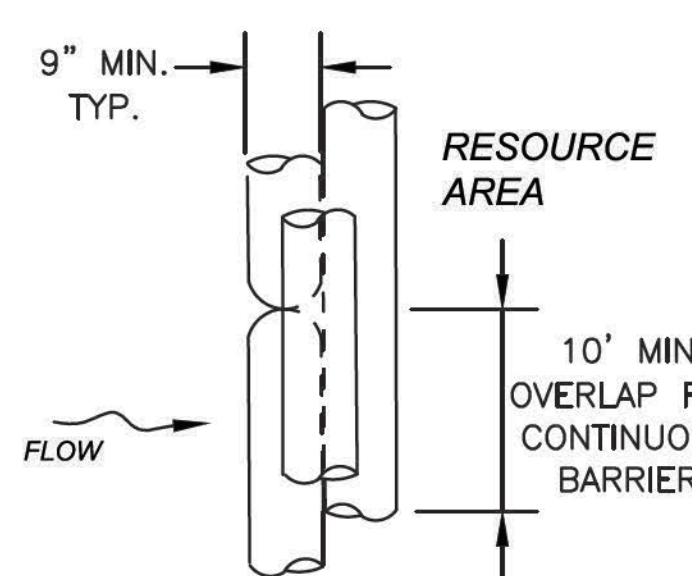
CONSTRUCTION DETAILS



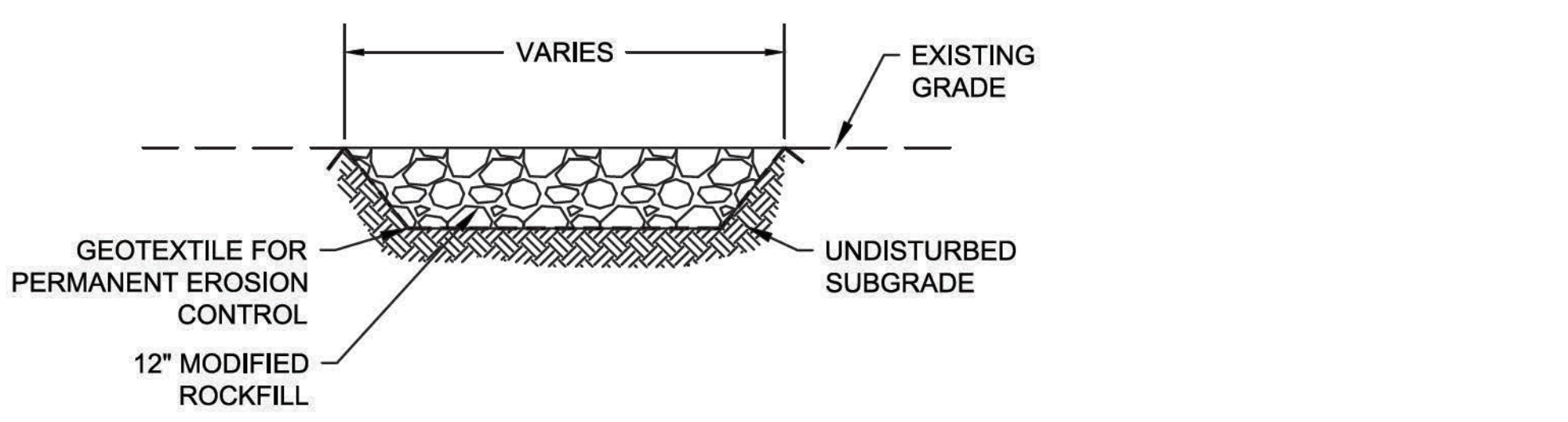
SECTION - TRUNK ARMORING & PRUNING



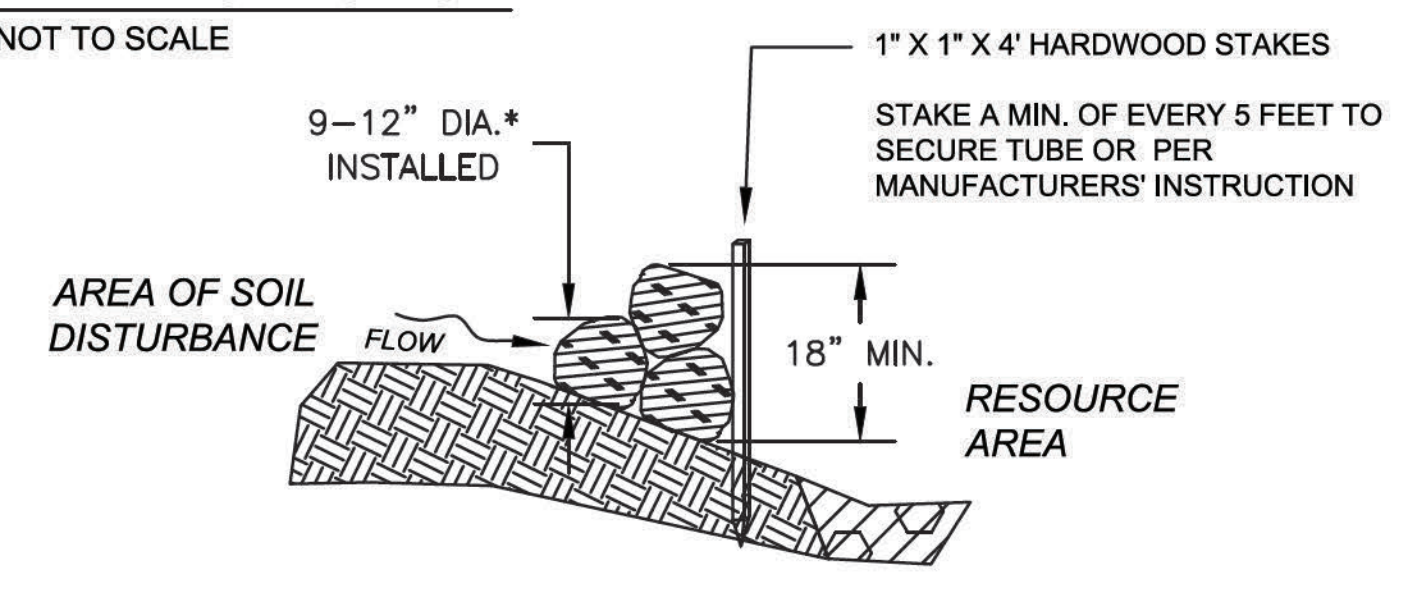
STONE CHECK DAM
NOT TO SCALE



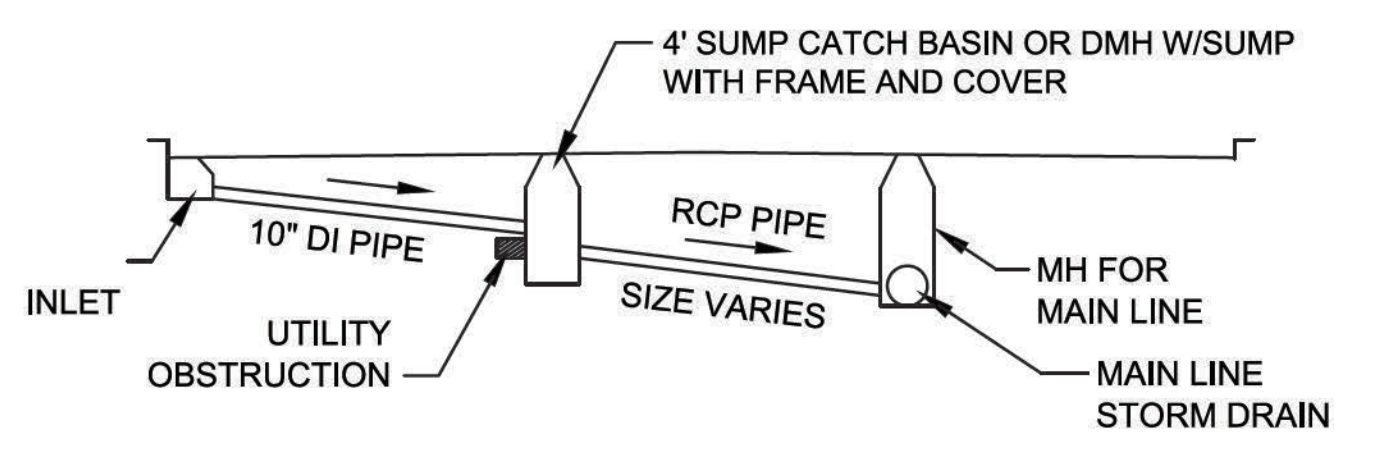
PLAN VIEW



STONE OUTLET PROTECTION
NOT TO SCALE



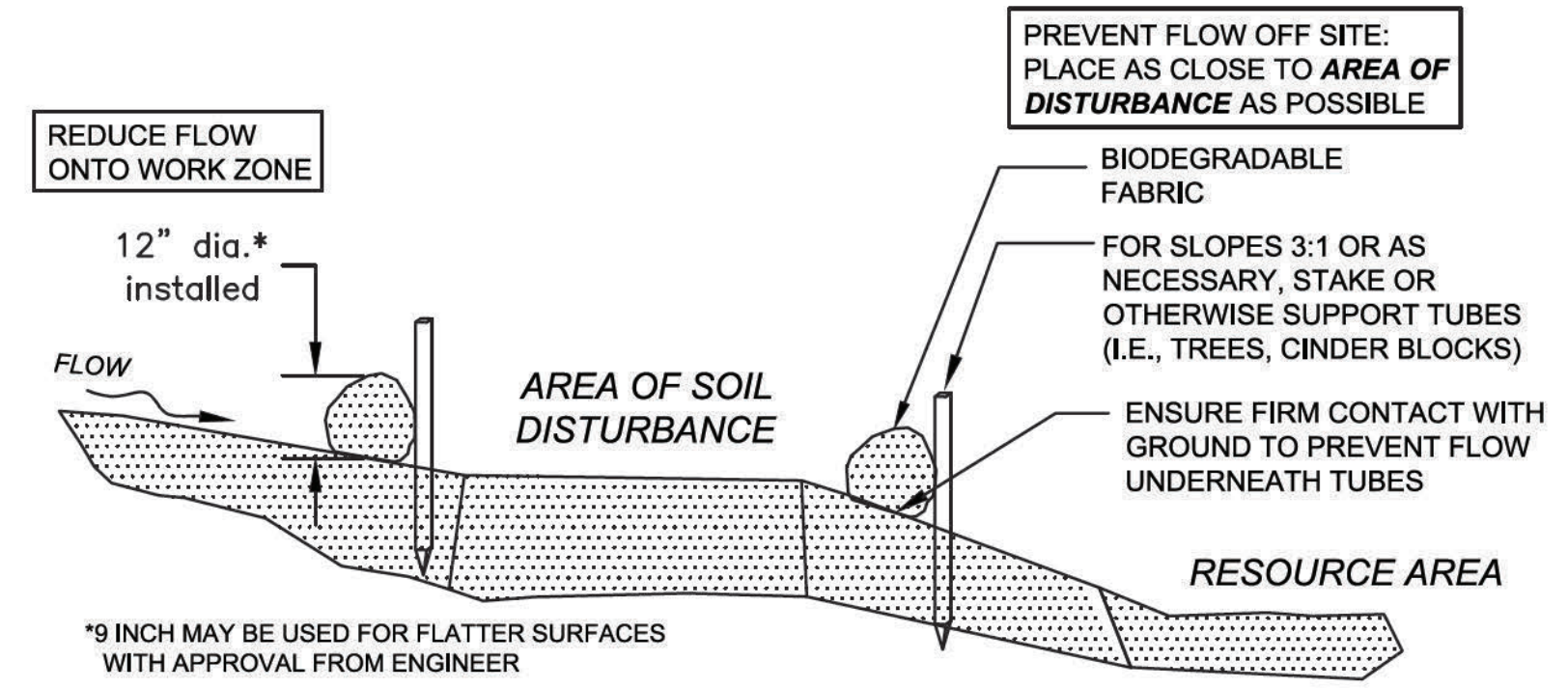
SECTION



CONTINGENCY DETAIL FOR STORM DRAIN LATERAL LINES
(USE ONLY IF OBSTRUCTION IS ENCOUNTERED)
NOT TO SCALE

COMPOST FILTER TUBE BERM (SLOPES 2:1 OR STEEPER)
NOT TO SCALE

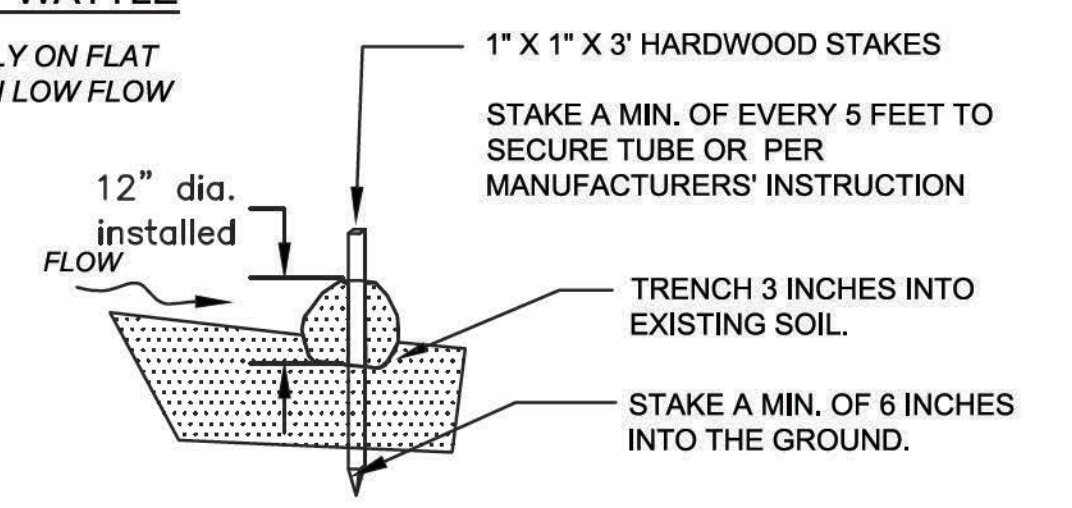
COMPOST FILTER TUBE



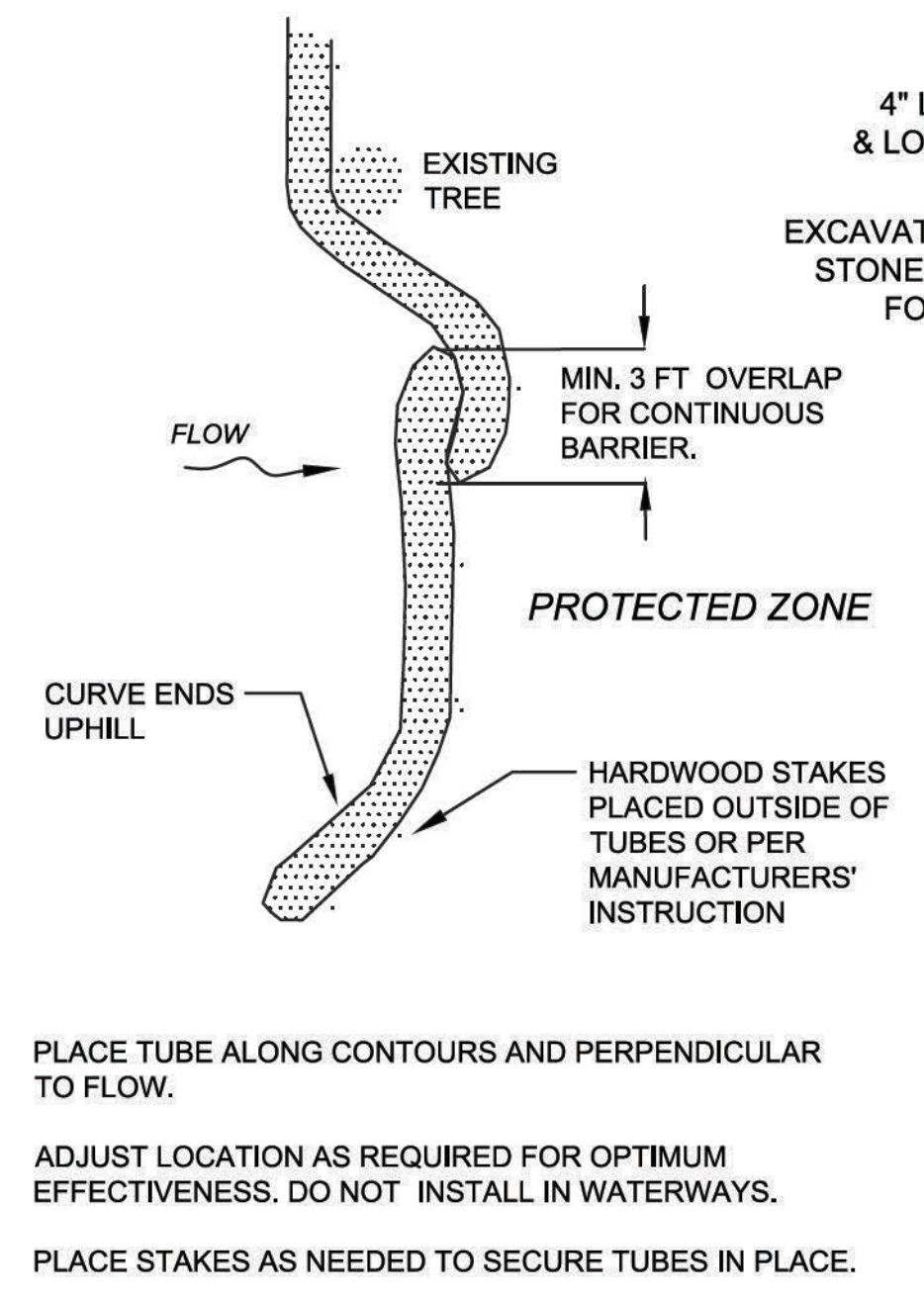
SECTION

12 INCH STRAW WATTLE

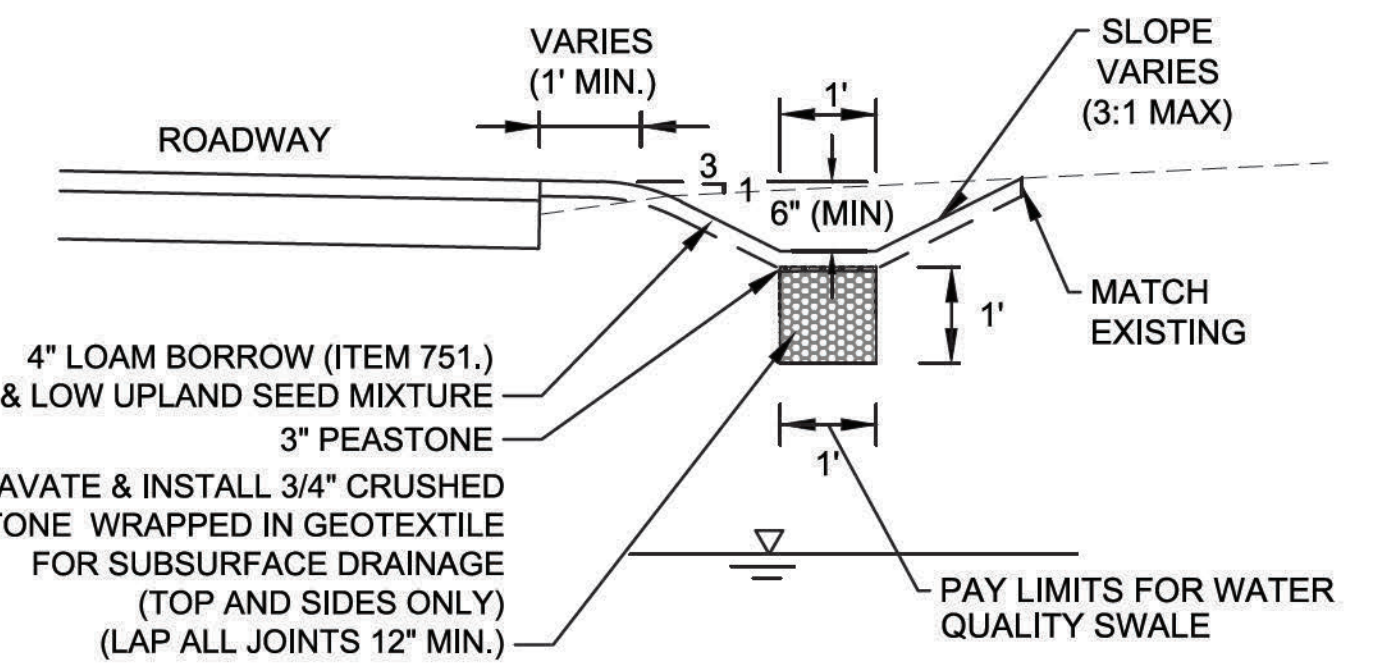
TO BE USED ONLY ON FLAT SURFACES WITH LOW FLOW



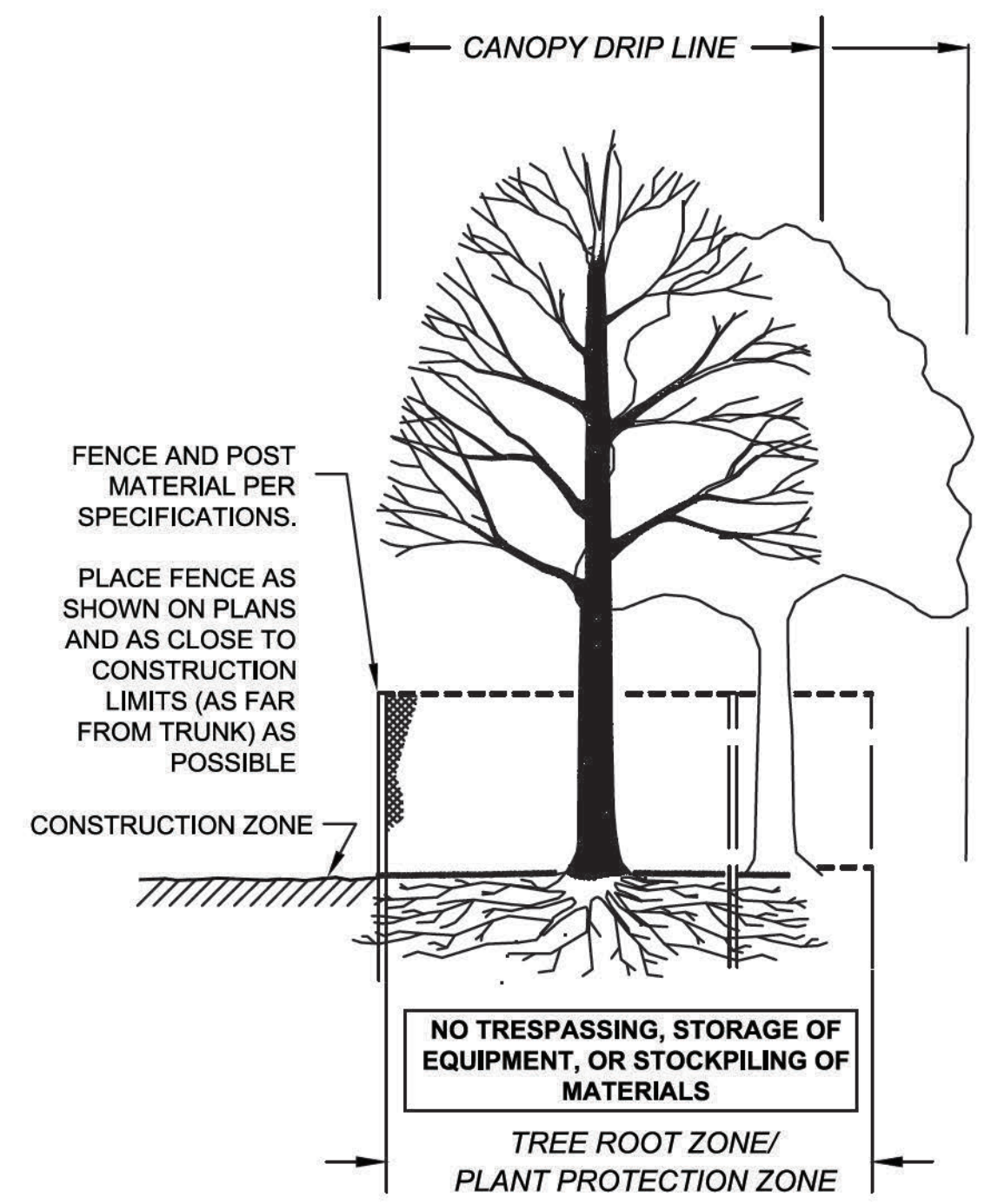
SECTION



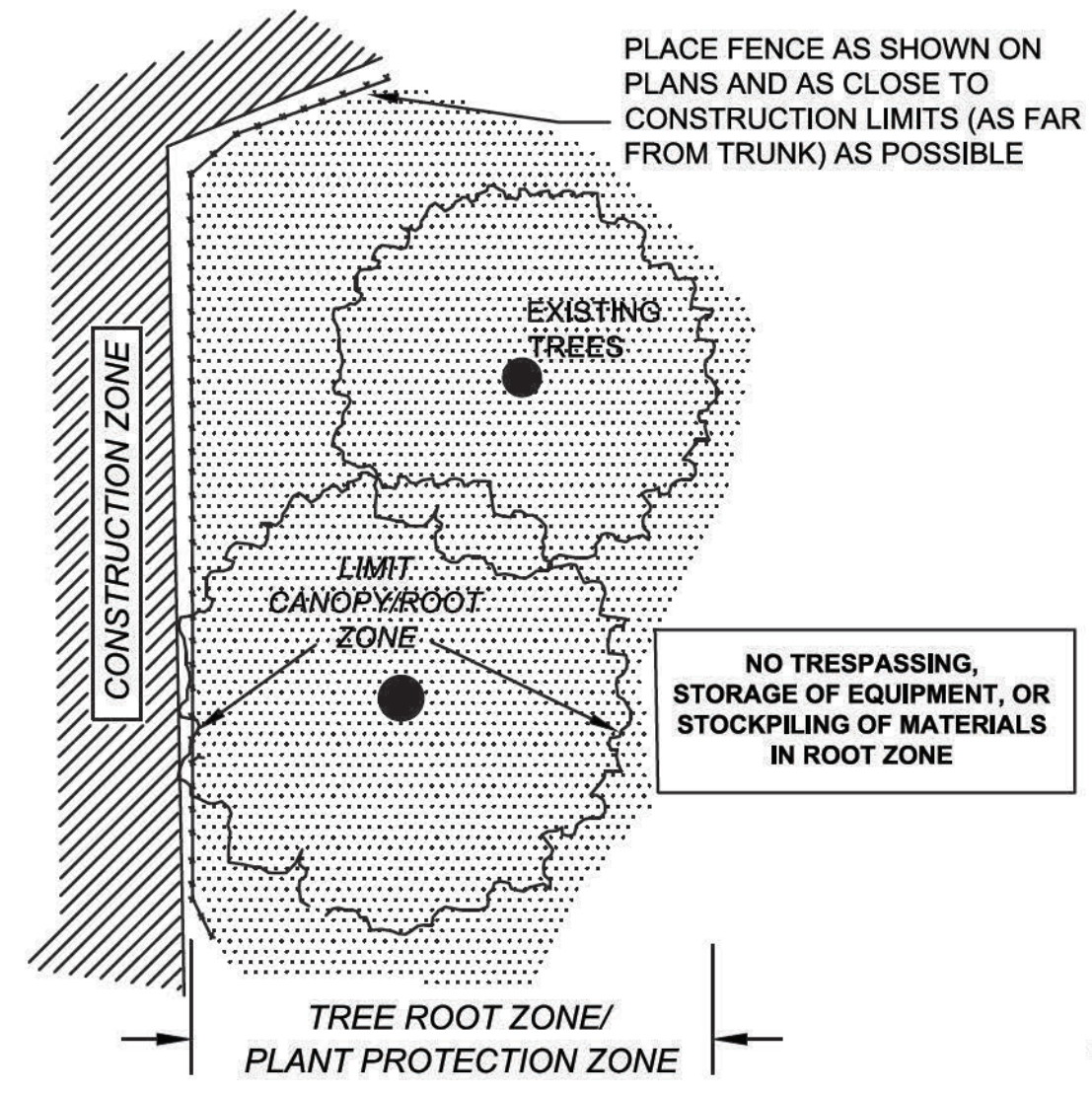
PLAN VIEW



WATER QUALITY (GRASS) SWALE
NOT TO SCALE



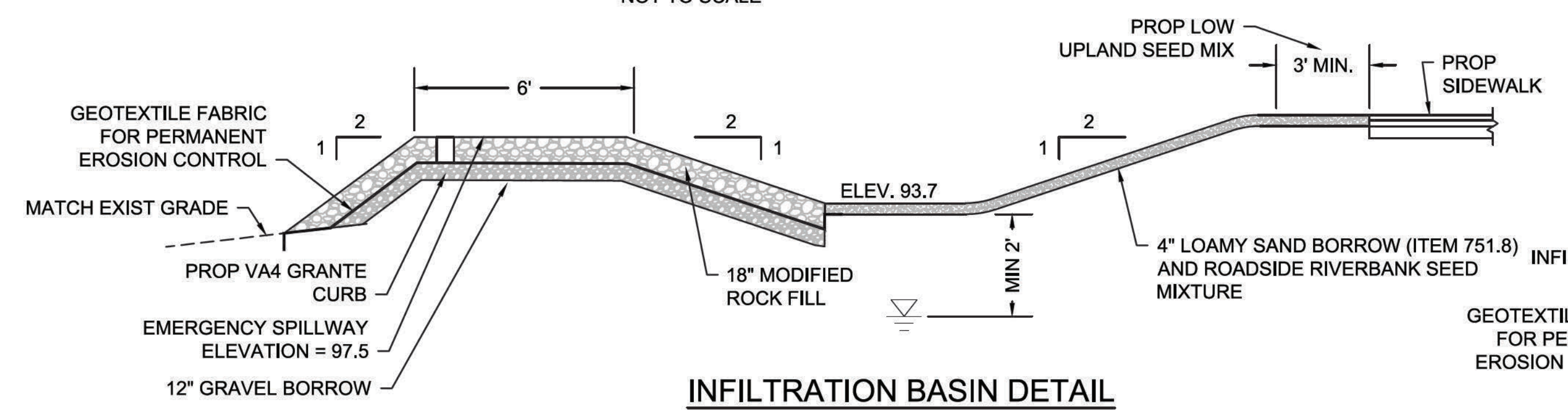
SECTION - FENCE PROTECTION OF ROOT ZONE



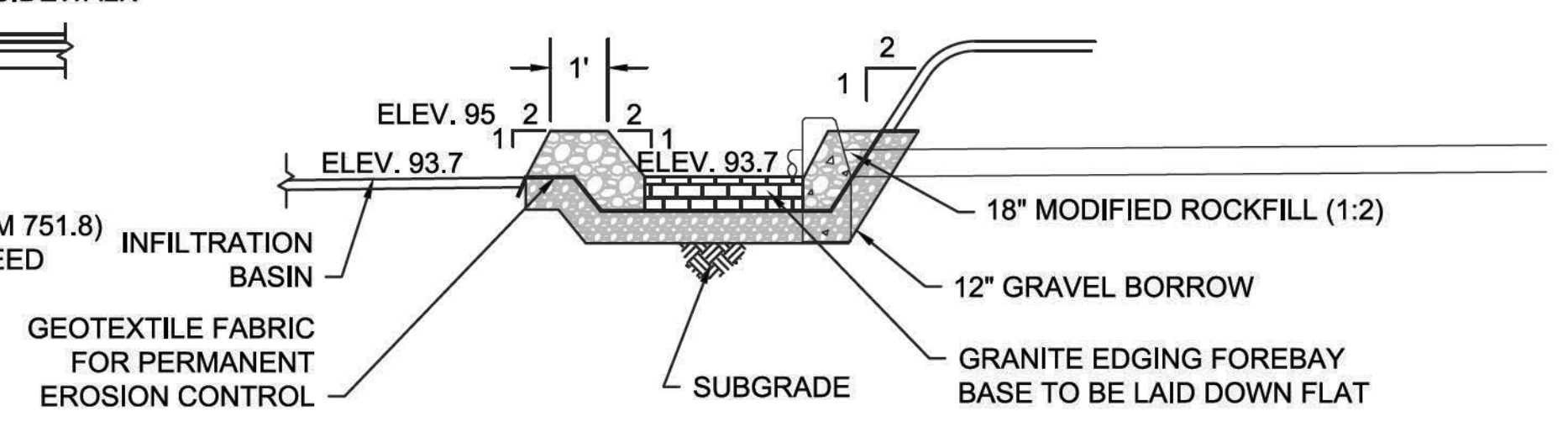
PLAN VIEW - FENCE PROTECTION OF ROOT ZONE

TREE PROTECTION - EXISTING TREE(S)
NOT TO SCALE

SEDIMENTATION BARRIER/COMPOST FILTER TUBES & STRAW WATTLES
NOT TO SCALE



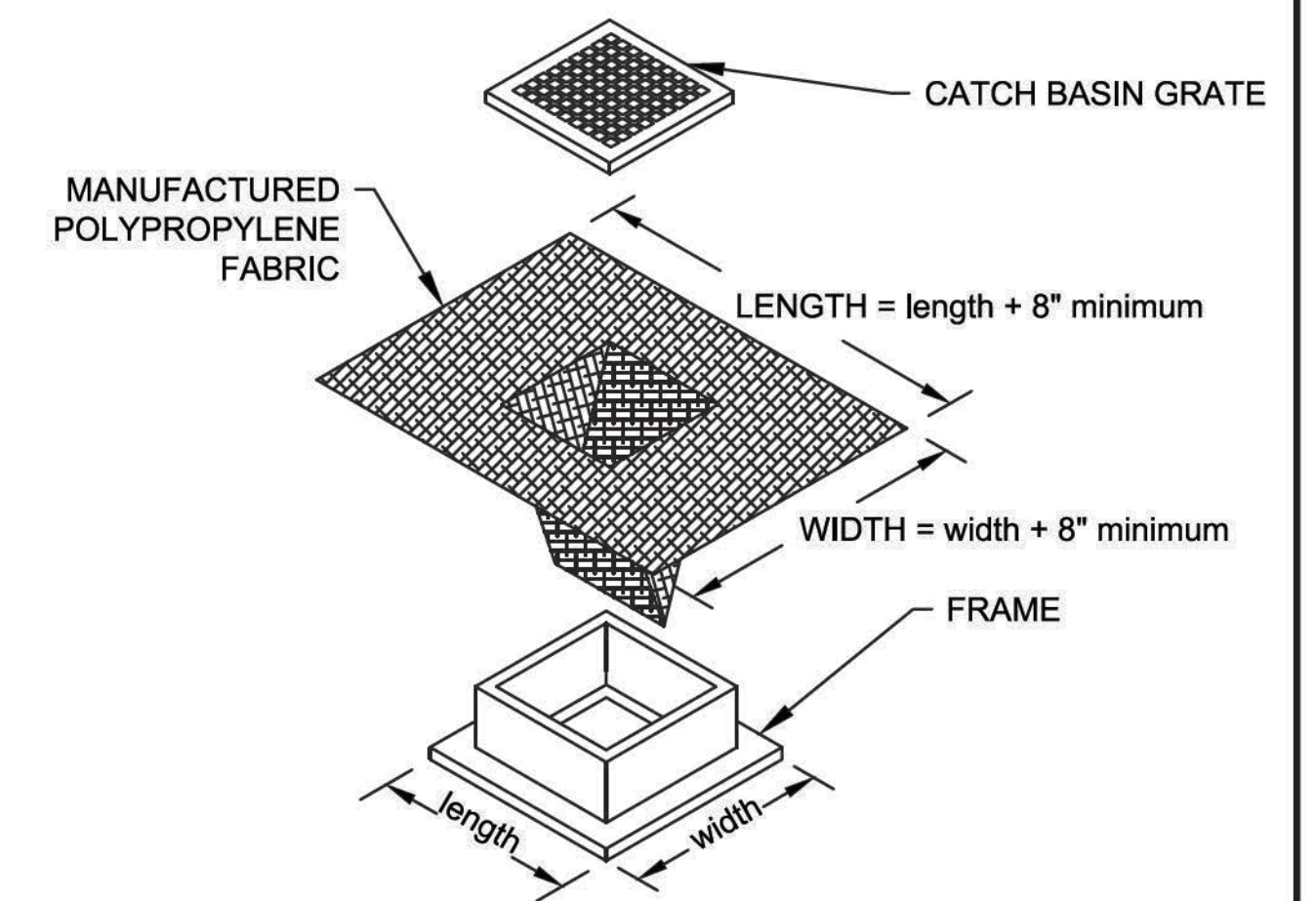
INFILTRATION BASIN DETAIL
NOT TO SCALE



SEDIMENT FOREBAY
NOT TO SCALE

- NOTES
1. LENGTH AND WIDTH OF POLYPROPYLENE FABRIC MUST EXCEED EXISTING CATCH BASIN FRAME DIMENSIONS BY A MINIMUM OF 8".
 2. REMOVE CATCH BASIN GRATE AND INSTALL POLYPROPYLENE FABRIC OVER CATCH BASIN FRAME. REPLACE CATCH BASIN GRATE TO SECURE POLYPROPYLENE FABRIC IN PLACE.
 3. PROVIDE EROSION CONTROL PROTECTION AT ALL EXISTING AND PROPOSED CATCH BASINS WITHIN THE PROJECT LIMITS.

CATCH BASIN EROSION CONTROL PROTECTION (TYP)
NOT TO SCALE



HIGHWAY GUARD DETAILS
NONE

TRAFFIC SIGNAL CONDUIT
NONE

WATER SUPPLY ALTERATIONS
NONE

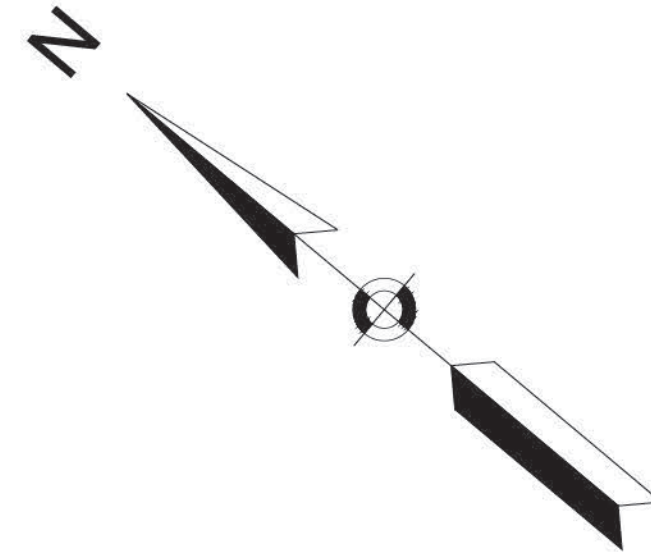
CURB TIE & GRADING DETAILS
SEE SHEET 28

DRAINAGE DETAILS
SEE SHEET 37

DEDHAM
ELM STREET AND RUSTCRAFT ROAD

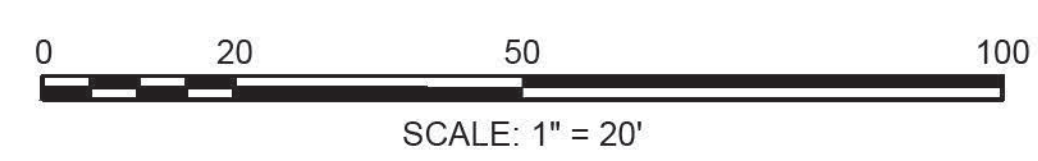
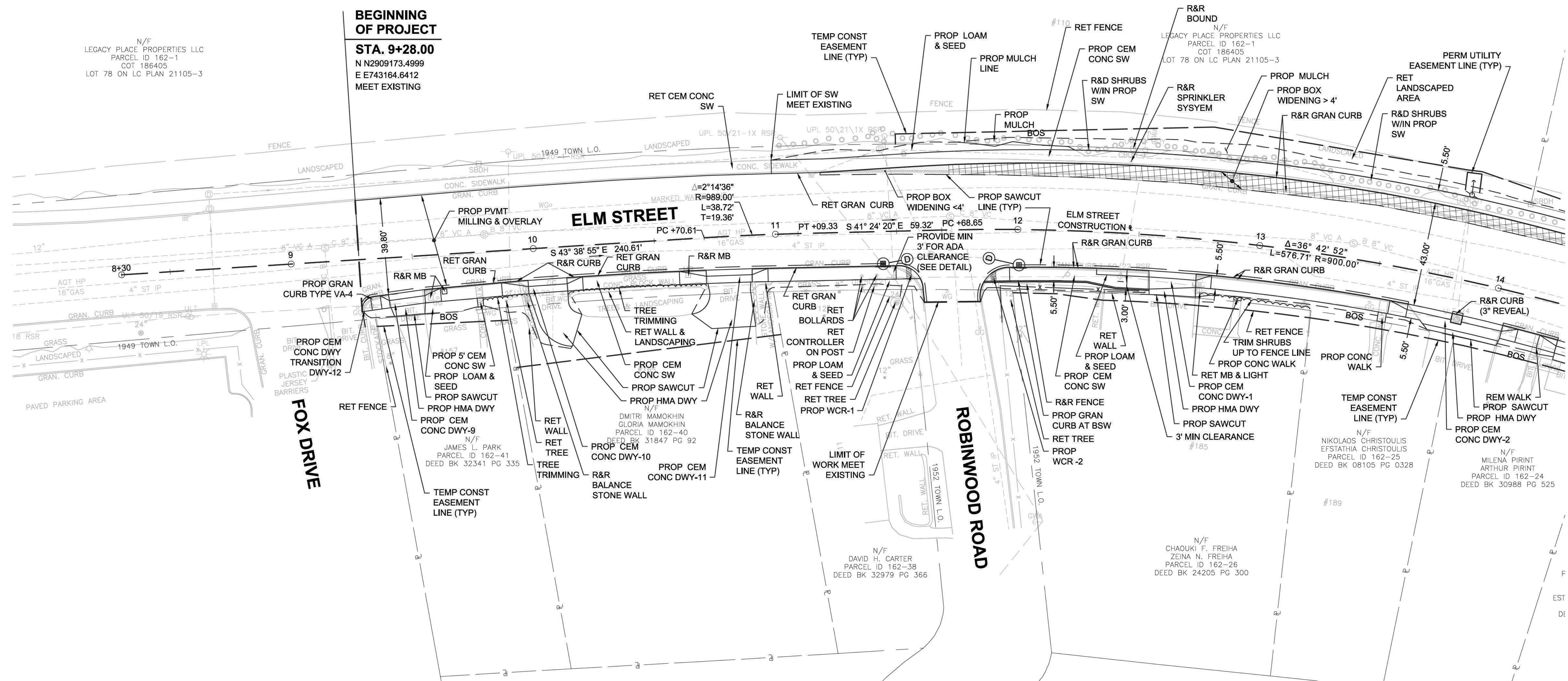
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ-003S(160)X	14	71
PROJECT FILE NO.		607901	

CONSTRUCTION PLANS



N/F
LEGACY PLACE PROPERTIES LLC
PARCEL ID 162-1
COT 186405
LOT 78 ON LC PLAN 21105-3

BEGINNING OF PROJECT
STA. 9+28.00
N N2909173.4999
E E743164.6412
MEET EXISTING



NOTE: DISPOSITION OF EXISTING ROADWAY SIGNS CAN BE FOUND ON SHEETS 47-51 (SIGN & PAVEMENT MARKING PLANS)

FOR PROFILE SEE SHEET 23

607901_HU(48)6(CONST).DWG Picked on 30-Nov-2020 5:32 PM

HIGHWAY GUARD DETAILS
 TRAILING ANCHORAGE STA 17+72 TO 17+81 LT
 GUARDRAIL, TL-2 (SINGLE FACED) STA 17+81 TO 26+35 LT
 GUARDRAIL TANGENT END TREATMENT, TL-2 STA 26+35 TO 26+60 LT

TRAFFIC SIGNAL CONDUIT
 NONE

WATER SUPPLY ALTERATIONS
 NONE

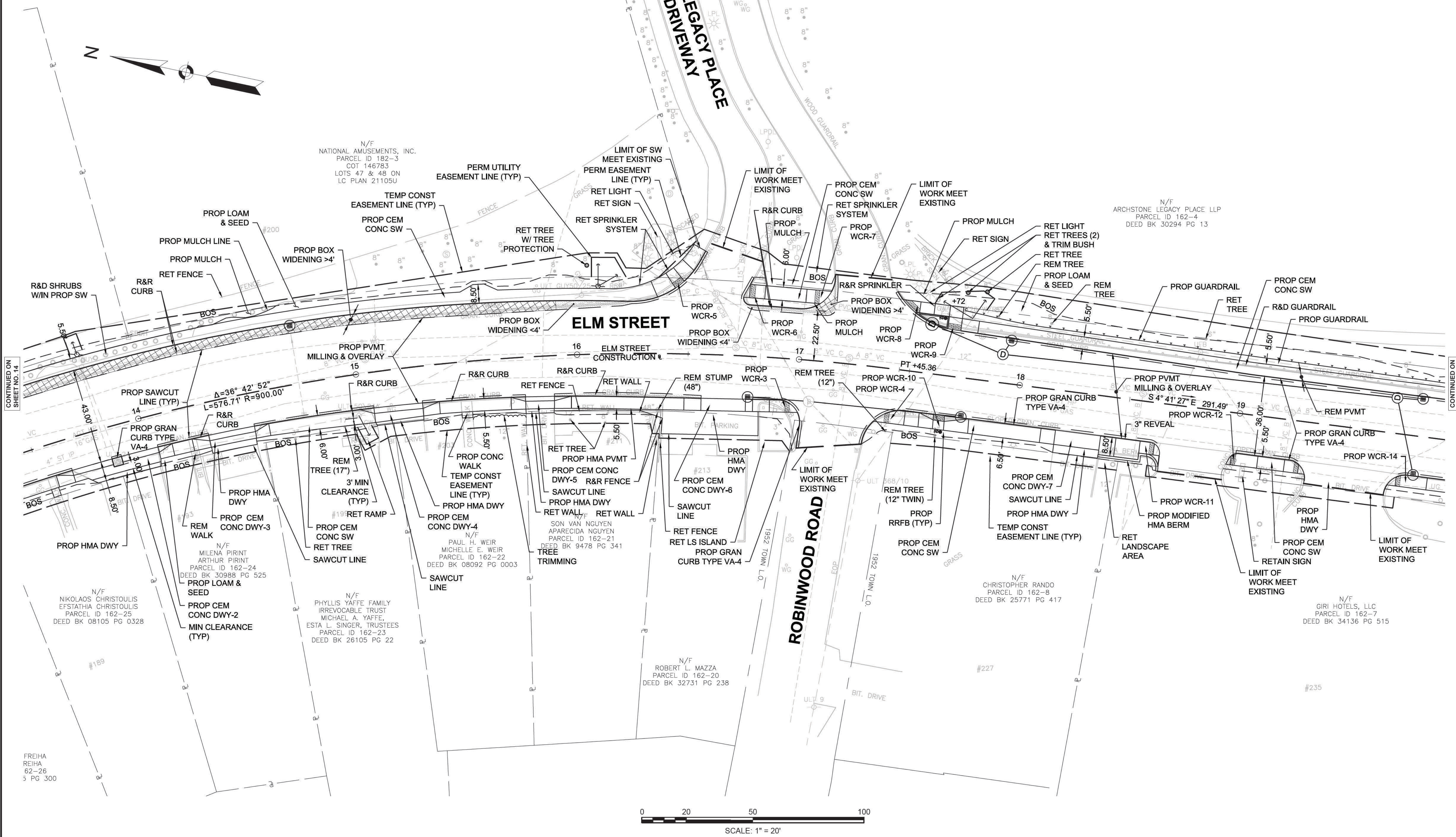
CURB TIE & GRADING DETAILS
 SEE SHEET 29

DRAINAGE DETAILS
 SEE SHEET 38

DEDHAM
 ELM STREET AND RUSTCRAFT ROAD

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ-003S(160)X	15	71
PROJECT FILE NO. 607901			

CONSTRUCTION PLANS



CONTINUED ON SHEET NO. 14

CONTINUED ON SHEET NO. 16

FREIHA
 REIHA
 62-26
 5 PG 300

FOR PROFILE SEE SHEET 23

607901_HU(48)16 CONST.DWG Picked on 30-Nov-2020 5:35 PM

HIGHWAY GUARD DETAILS
 TRAILING ANCHORAGE STA 17+72 TO 17+81 LT
 GUARDRAIL, TL-2 (SINGLE FACED) STA 17+81 TO 26+35 LT
 GUARDRAIL TANGENT END TREATMENT, TL-2 STA 26+35 TO 26+60 LT

TRAFFIC SIGNAL CONDUIT
 NONE

WATER SUPPLY ALTERATIONS
 NONE

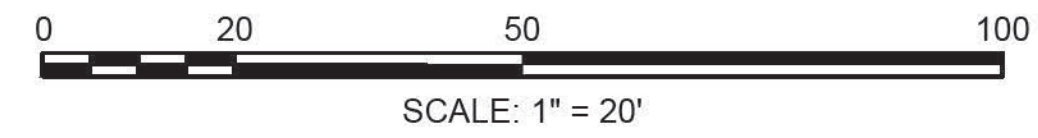
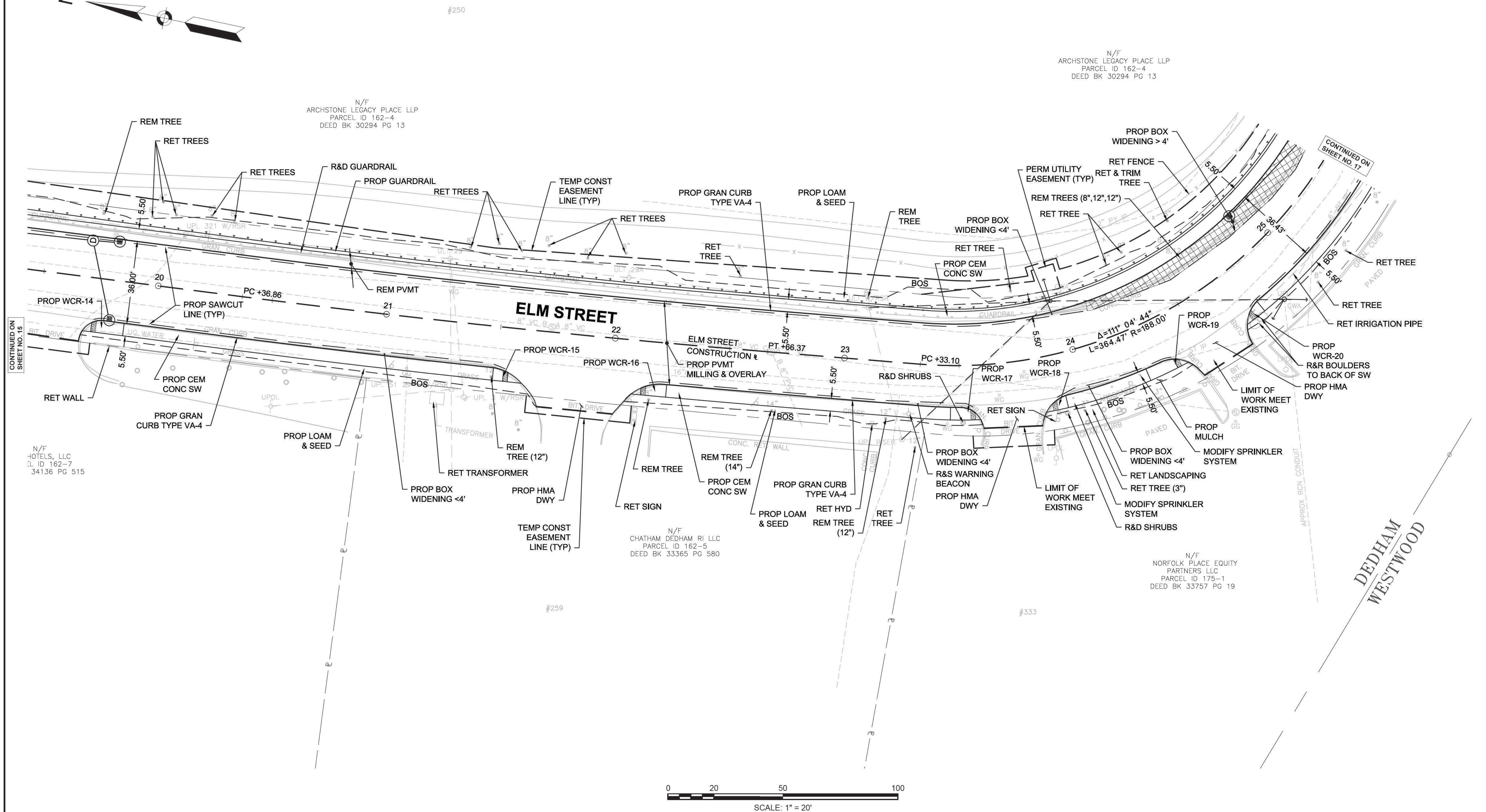
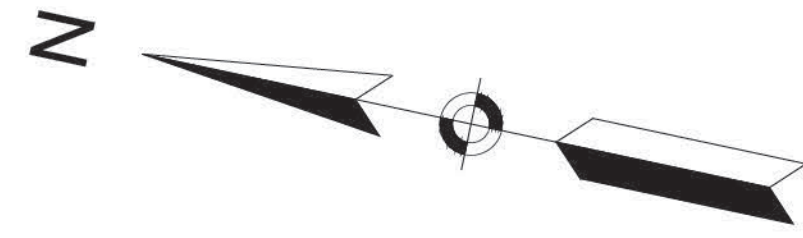
CURB TIE & GRADING DETAILS
 SEE SHEET 30

DRAINAGE DETAILS
 SEE SHEET 39

DEDHAM
 ELM STREET AND RUSTCRAFT ROAD

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ-003S(160)X	16	71
PROJECT FILE NO. 607901			

CONSTRUCTION PLANS



FOR PROFILE SEE SHEETS 23-24

607901_HU(48)16_CONST.DWG Picked on: 30-Nov-2020 5:37 PM

HIGHWAY GUARD DETAILS
 TRAILING ANCHORAGE STA 17+72 TO 17+81 LT
 GUARDRAIL, TL-2 (SINGLE FACED) STA 17+81 TO 26+35 LT
 GUARDRAIL TANGENT END TREATMENT, TL-2 STA 26+35 TO 26+60 LT

TRAFFIC SIGNAL CONDUIT
 NONE

WATER SUPPLY ALTERATIONS
 NONE

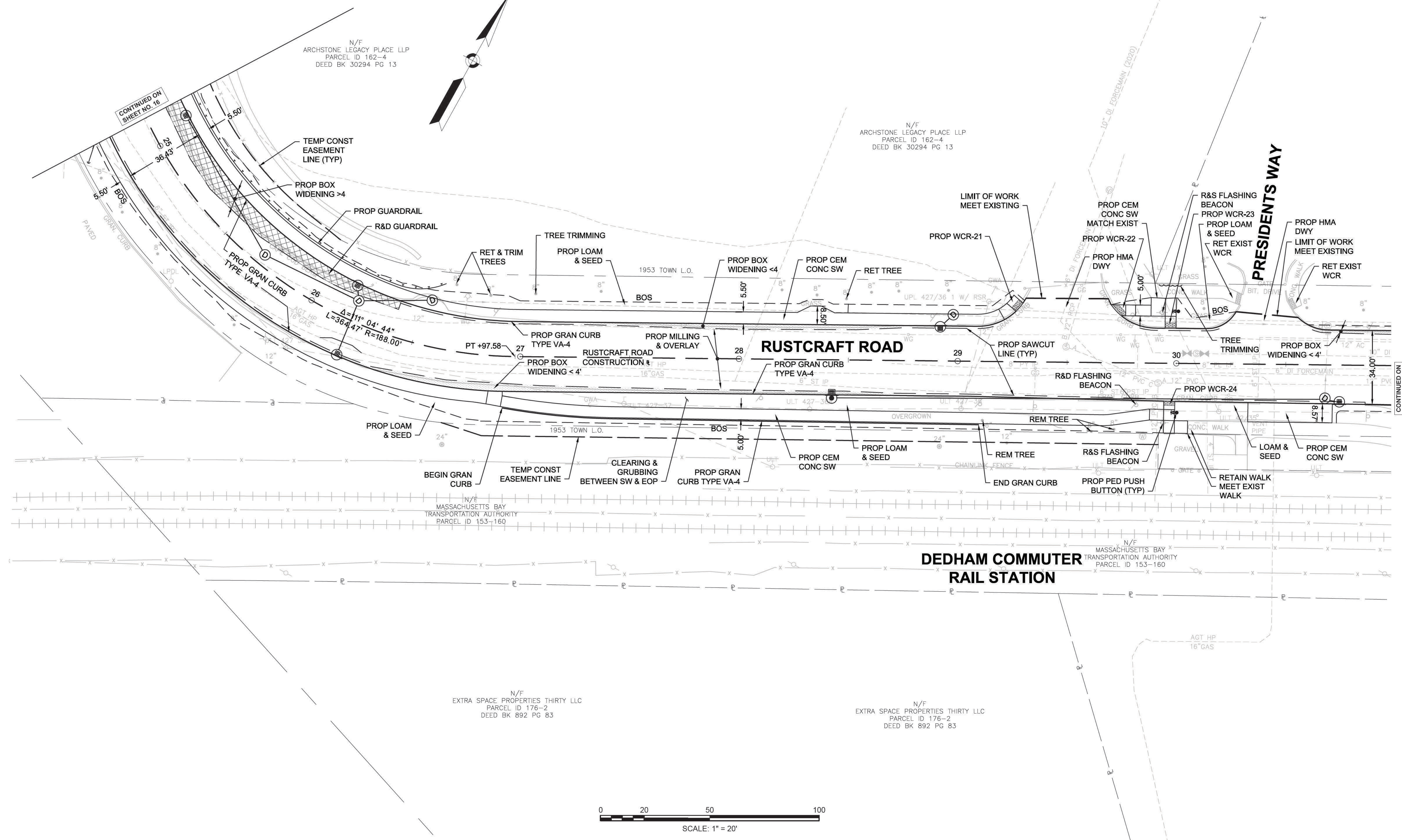
CURB TIE & GRADING DETAILS
 SEE SHEET 31

DRAINAGE DETAILS
 SEE SHEET 40

DEDHAM
 ELM STREET AND RUSTCRAFT ROAD

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ-003S(160)X	17	71
PROJECT FILE NO.		607901	

CONSTRUCTION PLANS



CONTINUED ON
 SHEET NO. 16

CONTINUED ON
 SHEET NO. 18

FOR PROFILE SEE SHEET 24

607901_HU(48)16_CONSTR.DWG Picked on 30-Nov-2020 5:40 PM

HIGHWAY GUARD DETAILS
NONE

TRAFFIC SIGNAL CONDUIT
NONE

WATER SUPPLY ALTERATIONS
NONE

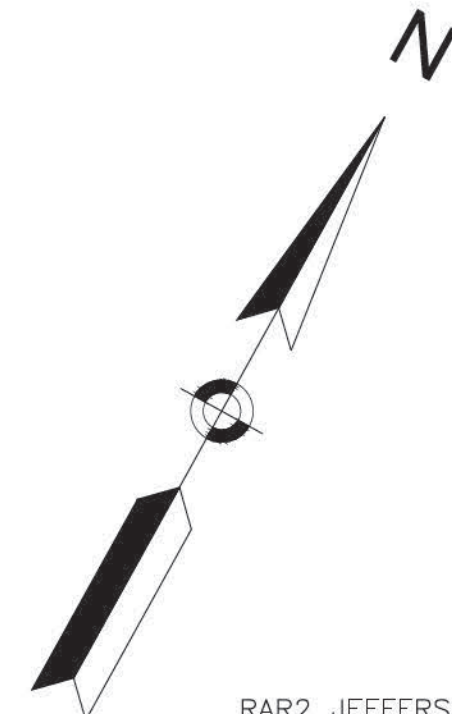
CURB TIE & GRADING DETAILS
SEE SHEET 32

DRAINAGE DETAILS
SEE SHEET 41

DEDHAM
ELM STREET AND RUSTCRAFT ROAD

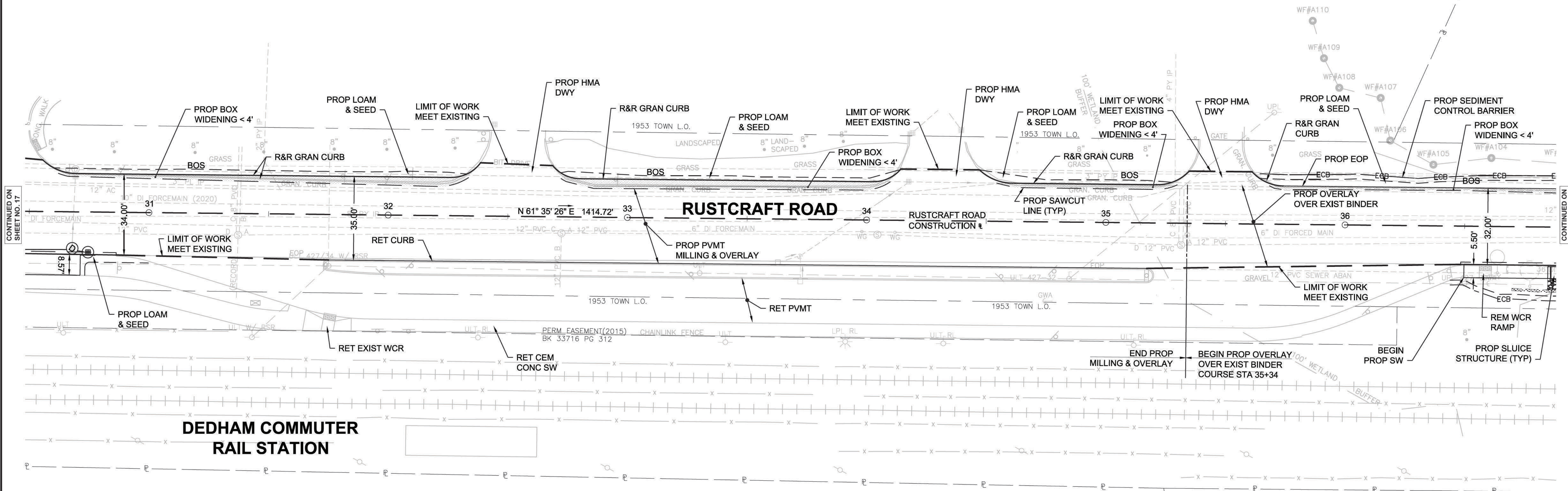
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ-003S(160)X	18	71
PROJECT FILE NO.		607901	

CONSTRUCTION PLANS



N/F
RAR2 JEFFERSON AT DEDHAM STATION MN INC
PARCEL ID 163-2
DEED BK 870 PG 75

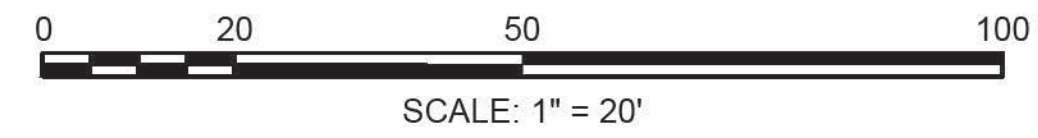
N/F
RAR2 JEFFERSON AT DEDHAM STATION MN INC
PARCEL ID 163-2
DEED BK 870 PG 75



CONTINUED ON SHEET NO. 17

CONTINUED ON SHEET NO. 19

N/F
MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
PARCEL ID 176-5



FOR PROFILE SEE SHEET 24-25

607901_HU(48)16 CONST.DWG Picked on 30-Nov-2020 5:43 PM

HIGHWAY GUARD DETAILS
NONE

TRAFFIC SIGNAL CONDUIT
NONE

WATER SUPPLY ALTERATIONS
NONE

CURB TIE & GRADING DETAILS
SEE SHEET 33

DRAINAGE DETAILS
SEE SHEET 42

DEDHAM
ELM STREET AND RUSTCRAFT ROAD

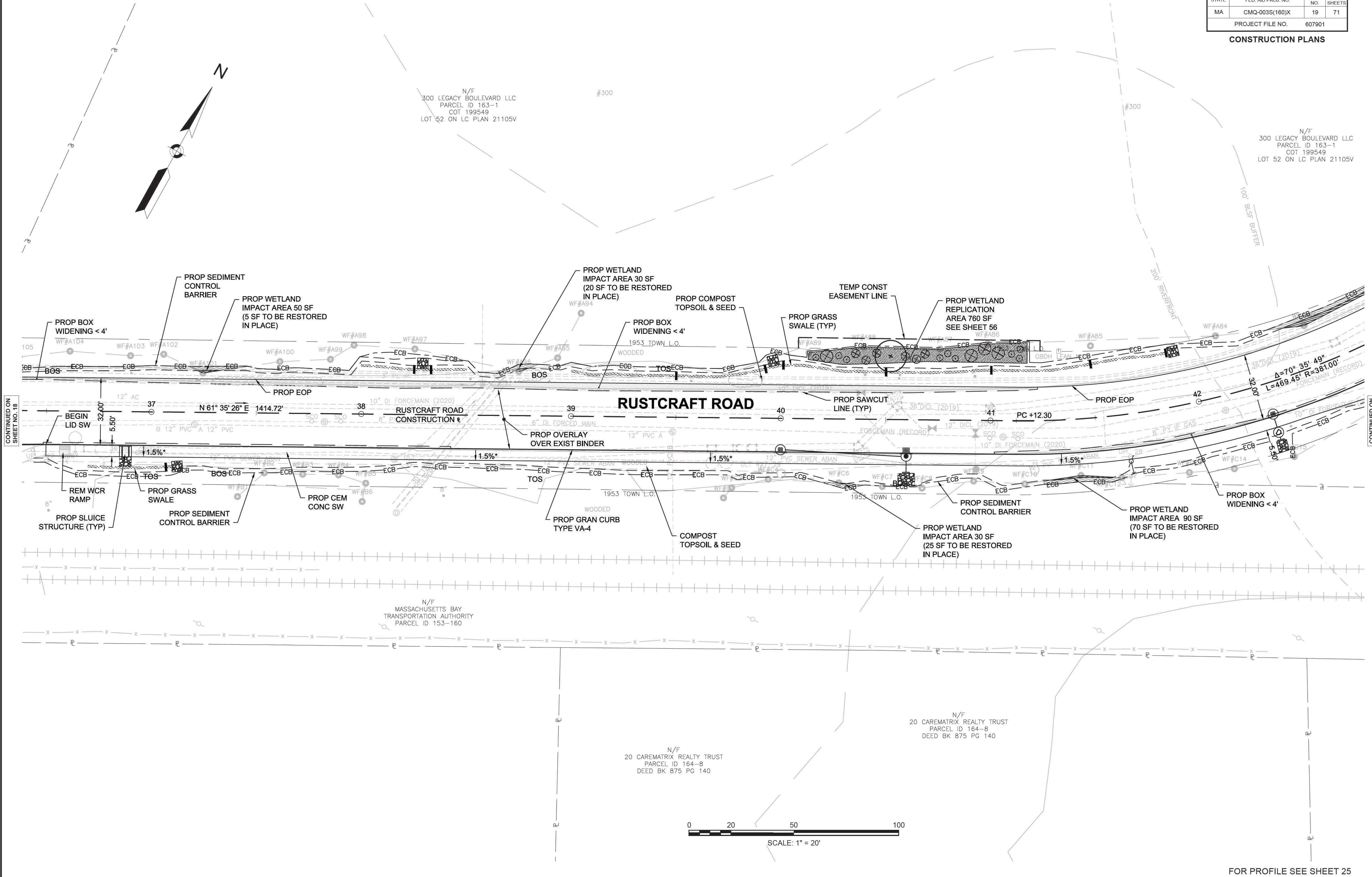
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ-003S(160)X	19	71

PROJECT FILE NO. 607901

CONSTRUCTION PLANS

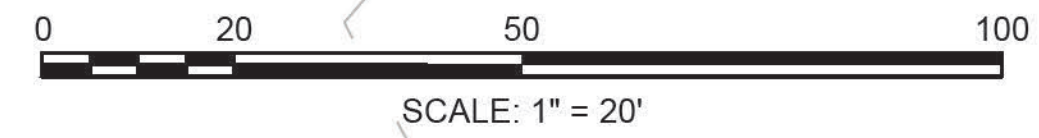
N/F
300 LEGACY BOULEVARD LLC
PARCEL ID 163-1
COT 199549
LOT 52 ON LC PLAN 21105V

N/F
300 LEGACY BOULEVARD LLC
PARCEL ID 163-1
COT 199549
LOT 52 ON LC PLAN 21105V



CONTINUED ON SHEET NO. 18

CONTINUED ON SHEET NO. 20



FOR PROFILE SEE SHEET 25

HIGHWAY GUARD DETAILS
 GUARDRAIL TANGENT END TREATMENT, TL-2 STA 43+00 TO 43+50 RT
 GUARDRAIL, TL-2 (SINGLE FACED) STA 43+50 TO 45+29 RT
 GUARDRAIL TANGENT END TREATMENT, TL-2 STA 45+29 TO 45+77 RT

TRAFFIC SIGNAL CONDUIT
 NONE

WATER SUPPLY ALTERATIONS
 NONE

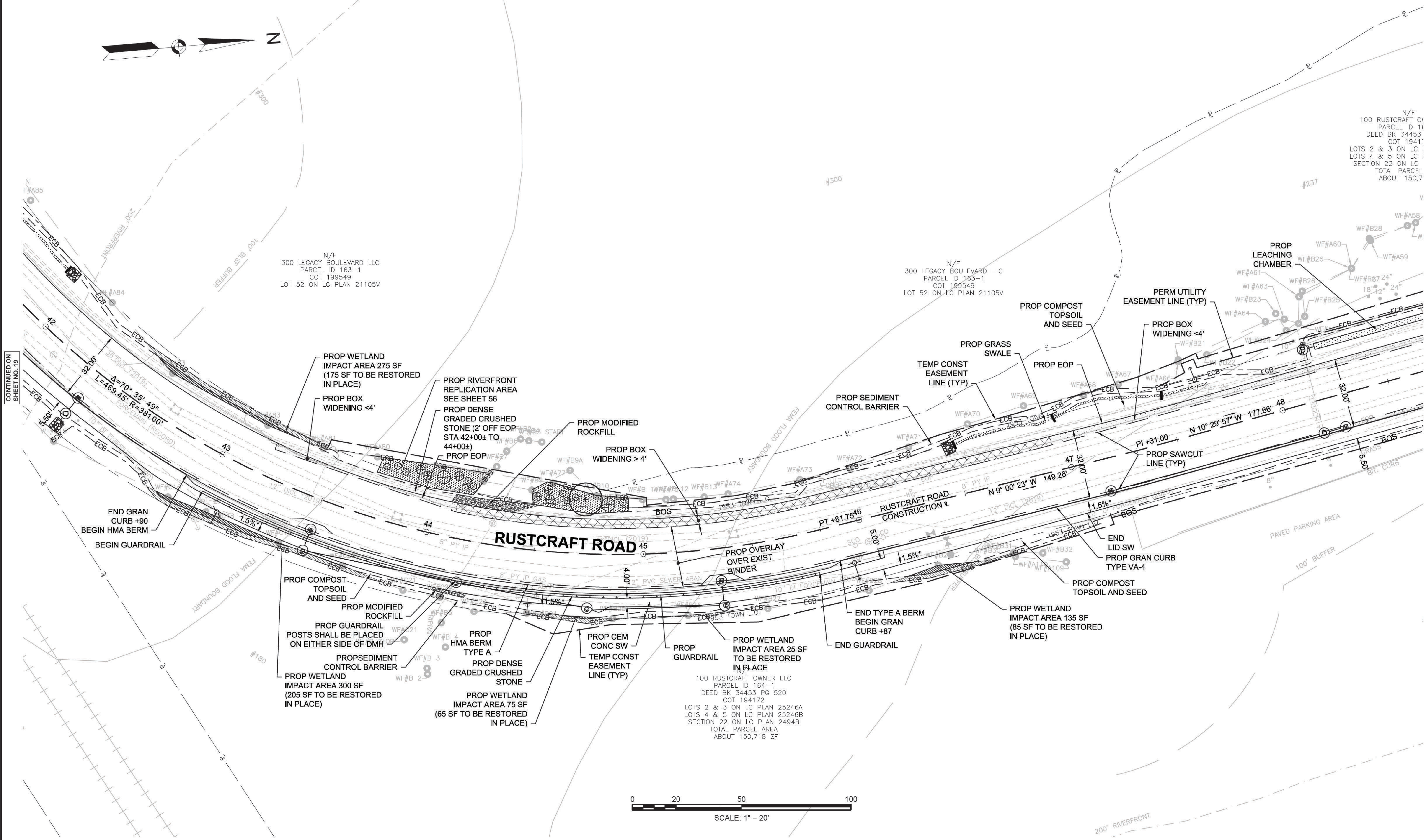
CURB TIE & GRADING DETAILS
 SEE SHEET 34

DRAINAGE DETAILS
 SEE SHEET 43

DEDHAM
 ELM STREET AND RUSTCRAFT ROAD

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ-003S(160)X	20	71
PROJECT FILE NO. 607901			

CONSTRUCTION PLANS



CONTINUED ON SHEET NO. 19

CONTINUED ON SHEET NO. 21

Printed on: 30-Nov-2020 5:49 PM

607901_HU(48)16_CONST1.DWG

N/F
 100 RUSTCRAFT OWNER LLC
 PARCEL ID 164-1
 DEED BK 34453 PG 520
 COT 194172
 LOTS 2 & 3 ON LC PLAN 25246A
 LOTS 4 & 5 ON LC PLAN 25246B
 SECTION 22 ON LC PLAN 2494B
 TOTAL PARCEL AREA ABOUT 150,718 SF

N/F
 300 LEGACY BOULEVARD LLC
 PARCEL ID 163-1
 COT 199549
 LOT 52 ON LC PLAN 21105V

N/F
 300 LEGACY BOULEVARD LLC
 PARCEL ID 163-1
 COT 199549
 LOT 52 ON LC PLAN 21105V

100 RUSTCRAFT OWNER LLC
 PARCEL ID 164-1
 DEED BK 34453 PG 520
 COT 194172
 LOTS 2 & 3 ON LC PLAN 25246A
 LOTS 4 & 5 ON LC PLAN 25246B
 SECTION 22 ON LC PLAN 2494B
 TOTAL PARCEL AREA ABOUT 150,718 SF

FOR PROFILE SEE SHEET 25-26

HIGHWAY GUARD DETAILS

TRAILING ANCHORAGE STA 52+92 LT
GUARDRAIL-CURVED, TL-2 (SINGLE FACED) STA 52+92 TO 52+97.5 LT
GUARDRAIL, TL-2 (SINGLE FACED) STA 52+97.5 TO 53+56.5 LT
GUARDRAIL-CURVED, TL-2 (SINGLE FACED) STA 53+56.5 TO 53+62.0 LT
TRAILING ANCHORAGE SECTION STA 53+62.0 LT

TRAFFIC SIGNAL CONDUIT

SEE SHEET 50

WATER SUPPLY ALTERATIONS

NONE

CURB TIE & GRADING DETAILS

SEE SHEET 35

DRAINAGE DETAILS

SEE SHEET 44

DEDHAM
ELM STREET AND RUSTCRAFT ROAD

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ-003S(160)X	21	71
PROJECT FILE NO.		607901	

CONSTRUCTION PLANS

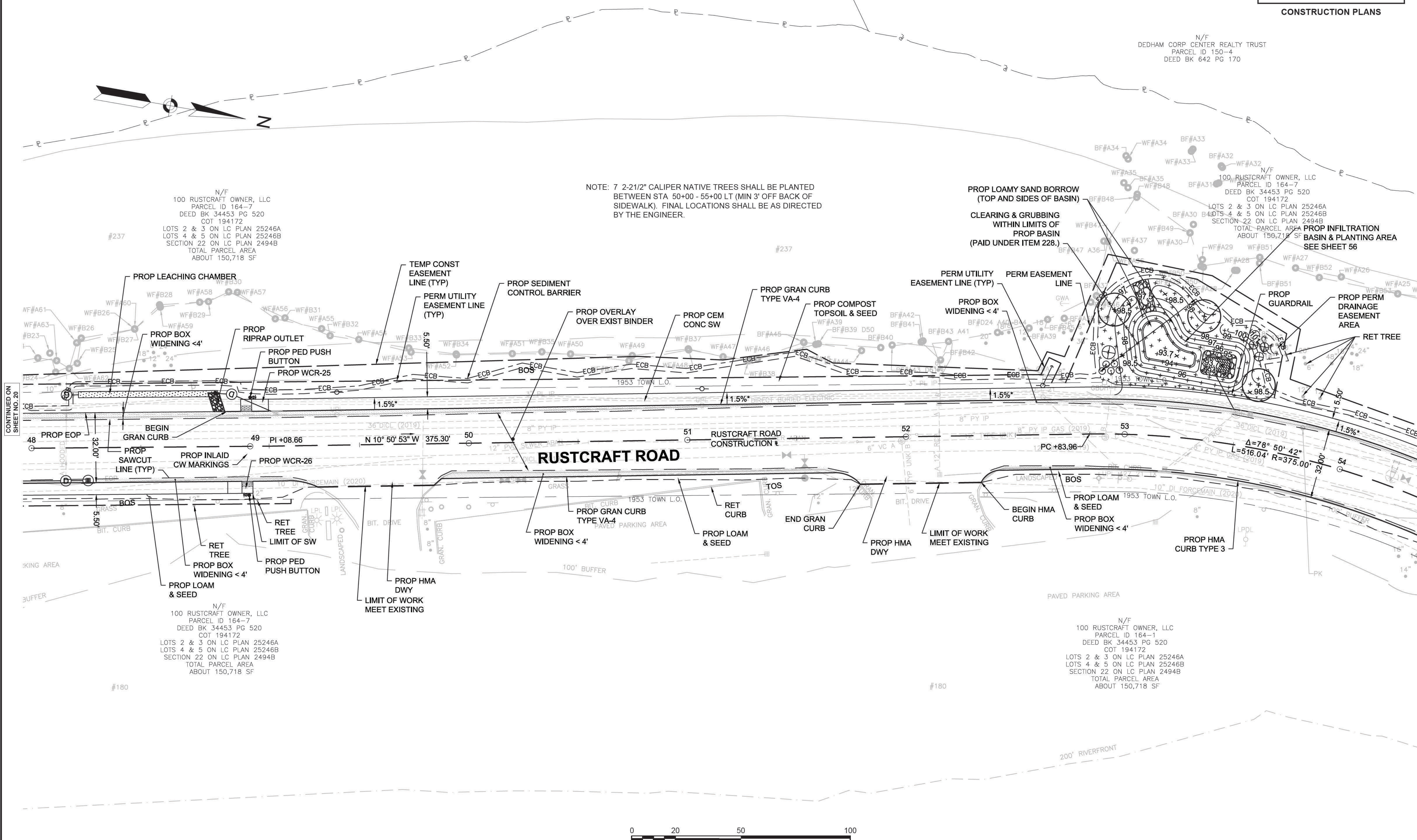
N/F
DEDHAM CORP CENTER REALTY TRUST
PARCEL ID 150-4
DEED BK 642 PG 170

N/F
100 RUSTCRAFT OWNER, LLC
PARCEL ID 164-7
DEED BK 34453 PG 520
COT 194172
LOTS 2 & 3 ON LC PLAN 25246A
LOTS 4 & 5 ON LC PLAN 25246B
SECTION 22 ON LC PLAN 2494B
TOTAL PARCEL AREA
ABOUT 150,718 SF

NOTE: 7 2-2 1/2" CALIPER NATIVE TREES SHALL BE PLANTED BETWEEN STA 50+00 - 55+00 LT (MIN 3' OFF BACK OF SIDEWALK). FINAL LOCATIONS SHALL BE AS DIRECTED BY THE ENGINEER.

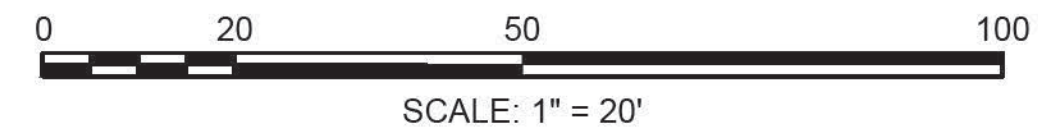
PROP LOAMY SAND BORROW
(TOP AND SIDES OF BASIN)
CLEARING & GRUBBING
WITHIN LIMITS OF
PROP BASIN
(PAID UNDER ITEM 228.)

PROP INFILTRATION
BASIN & PLANTING AREA
SEE SHEET 56



CONTINUED ON SHEET NO. 20

CONTINUED ON SHEET NO. 22



FOR PROFILE SEE SHEET 26

607901_HU(48)16_CONSTR.DWG Pinned on 30-Nov-2020 5:52 PM

HIGHWAY GUARD DETAILS

NONE

TRAFFIC SIGNAL CONDUIT

NONE

WATER SUPPLY ALTERATIONS

NONE

CURB TIE & GRADING DETAILS

SEE SHEET 36

DRAINAGE DETAILS

SEE SHEET 45

DEDHAM
ELM STREET AND RUSTCRAFT ROAD

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ-003S(160)X	22	71
PROJECT FILE NO. 607901			

CONSTRUCTION PLANS

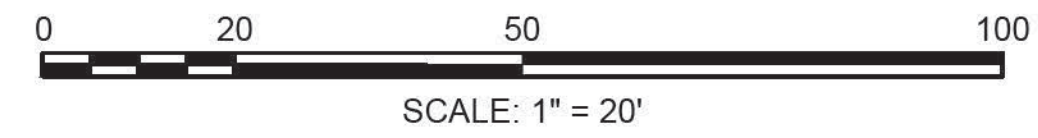
N/F
TOWN OF DEDHAM
PARCEL ID 151-53
DEED BK 3596 PG 130

CONTINUED ON
SHEET NO. 21

N/F
100 RUSTCRAFT OWNER, LLC
PARCEL ID 164-1
DEED BK 34453 PG 520
COT 194172
LOTS 2 & 3 ON LC PLAN 25246A
LOTS 4 & 5 ON LC PLAN 25246B
SECTION 22 ON LC PLAN 2494B
TOTAL PARCEL AREA
ABOUT 150,718 SF

**END
OF PROJECT**
STA. 56+43.00
N2909838.9810
E745294.3146
MEET EXISTING

N/F
100 RUSTCRAFT OWNER, LLC
PARCEL ID 164-1
DEED BK 34453 PG 520
COT 194172
LOTS 2 & 3 ON LC PLAN 25246A
LOTS 4 & 5 ON LC PLAN 25246B
SECTION 22 ON LC PLAN 2494B
TOTAL PARCEL AREA
ABOUT 150,718 SF



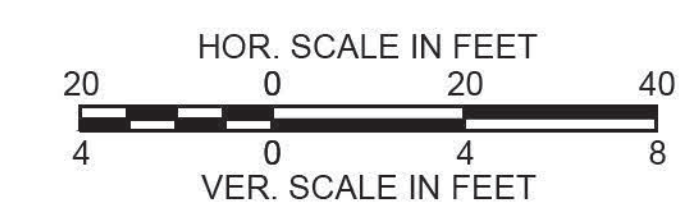
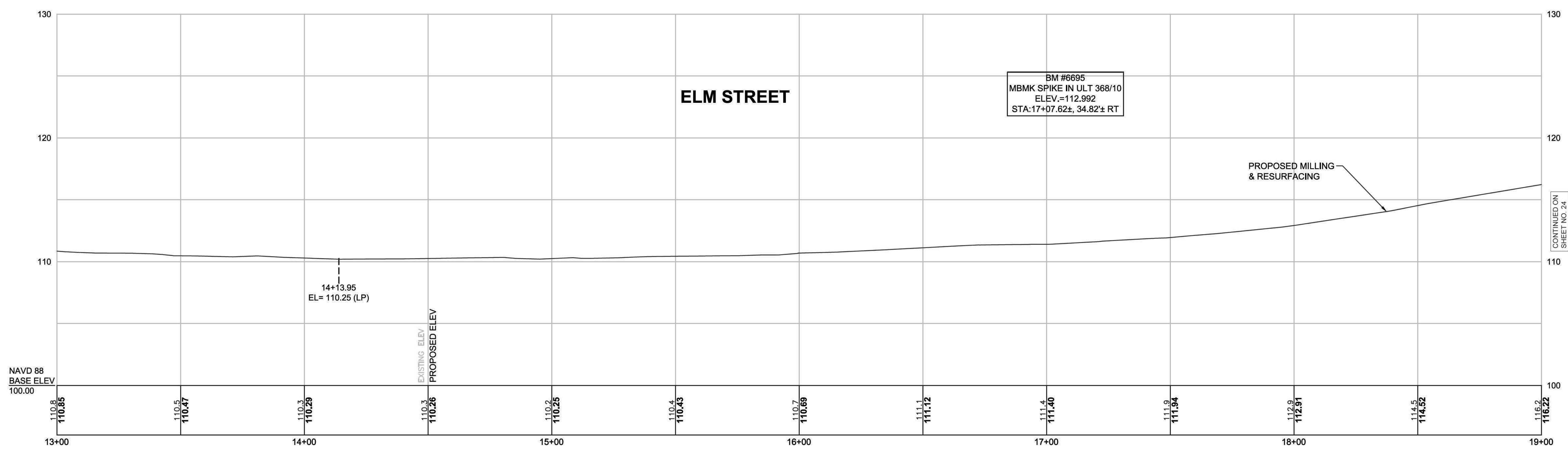
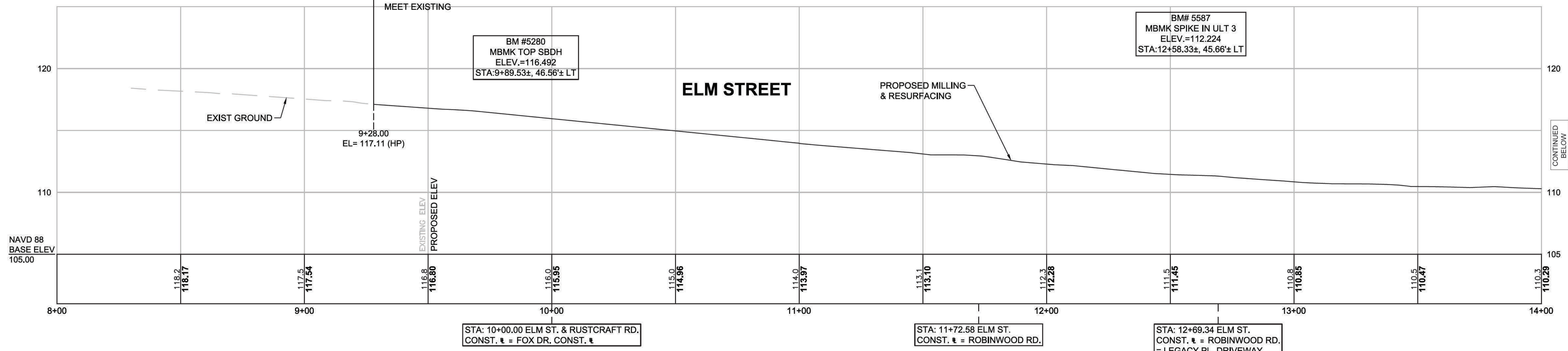
FOR PROFILE SEE SHEET 26

607901_HU(48)16 CONST.DWG
Plotted on 30-Nov-2020 5:55 PM

DEDHAM
ELM STREET AND RUSTCRAFT ROAD

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ-003S(160)X	23	71
PROJECT FILE NO.		607901	

PROFILE



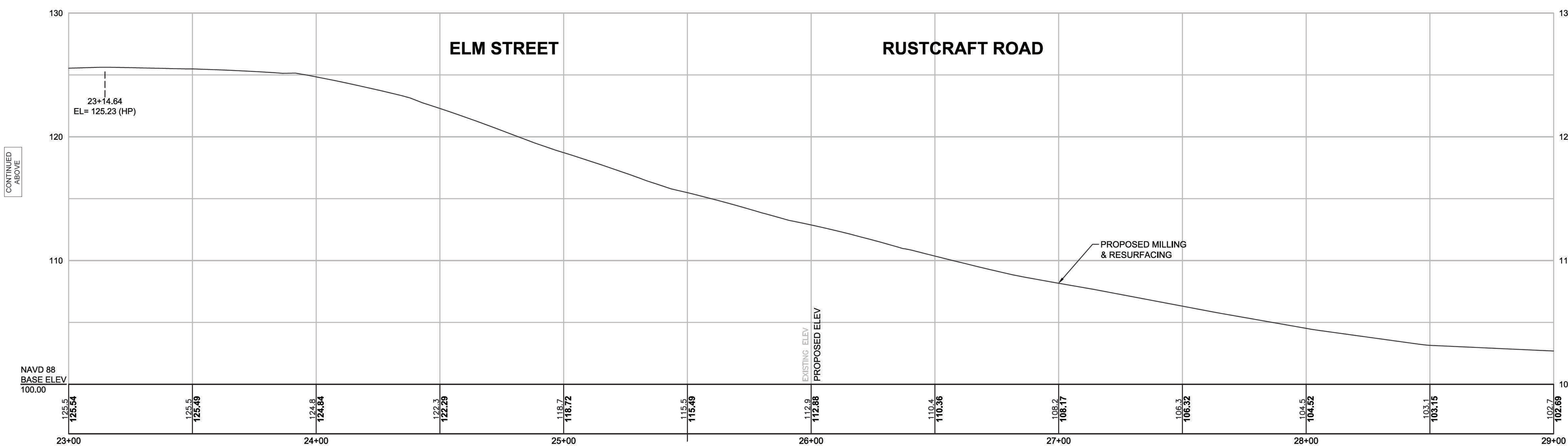
FOR CONSTRUCTION PLANS:
SEE SHEET NOS. 14-16

DEDHAM
ELM STREET AND RUSTCRAFT ROAD

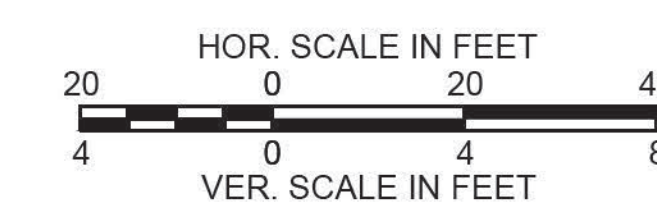
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ-003S(160)X	24	71
PROJECT FILE NO. 607901			

PROFILE

BM #8869
MBMK SPIKE IN UPL 29A
ELEV.=125.993
STA:22+03.66±, -26.50±



STA: 20+50.00 ELM ST. = RUSTCRAFT RD. CONST. ¶



FOR CONSTRUCTION PLANS:
SEE SHEET NOS. 16-18

CONTINUED ON
SHEET NO. 23

CONTINUED
BELOW

CONTINUED
ABOVE

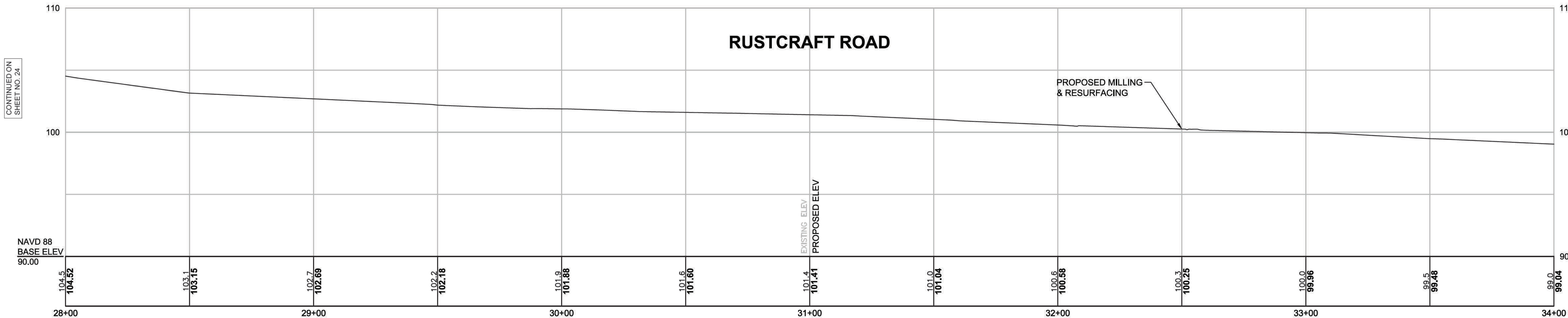
CONTINUED
ON
SHEET NO. 25

DEDHAM
ELM STREET AND RUSTCRAFT ROAD

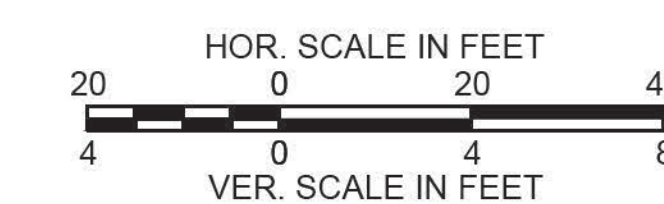
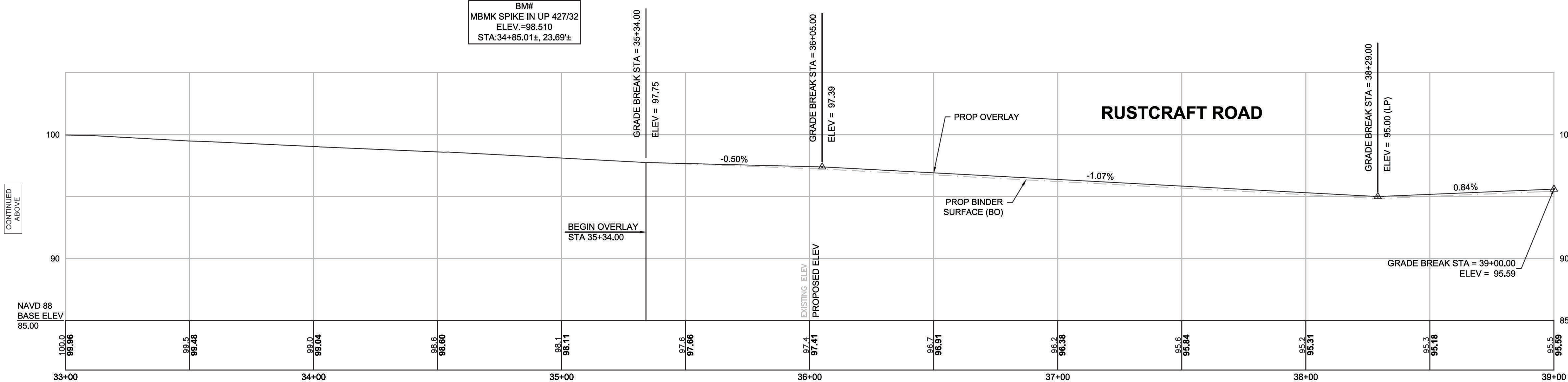
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ-003S(160)X	25	71
PROJECT FILE NO.		607901	

PROFILE

BM#
MBMK SPIKE IN UP 1X
ELEV.=102.470
STA:30+00.29±, -62.61'±



BM#
MBMK SPIKE IN UP 427/32
ELEV.=98.510
STA:34+85.01±, 23.69'±



FOR CONSTRUCTION PLANS:
SEE SHEET NOS. 18-20

CONTINUED ON
SHEET NO. 24

CONTINUED
BELOW

CONTINUED
ABOVE

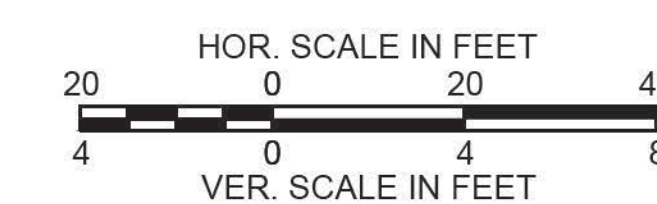
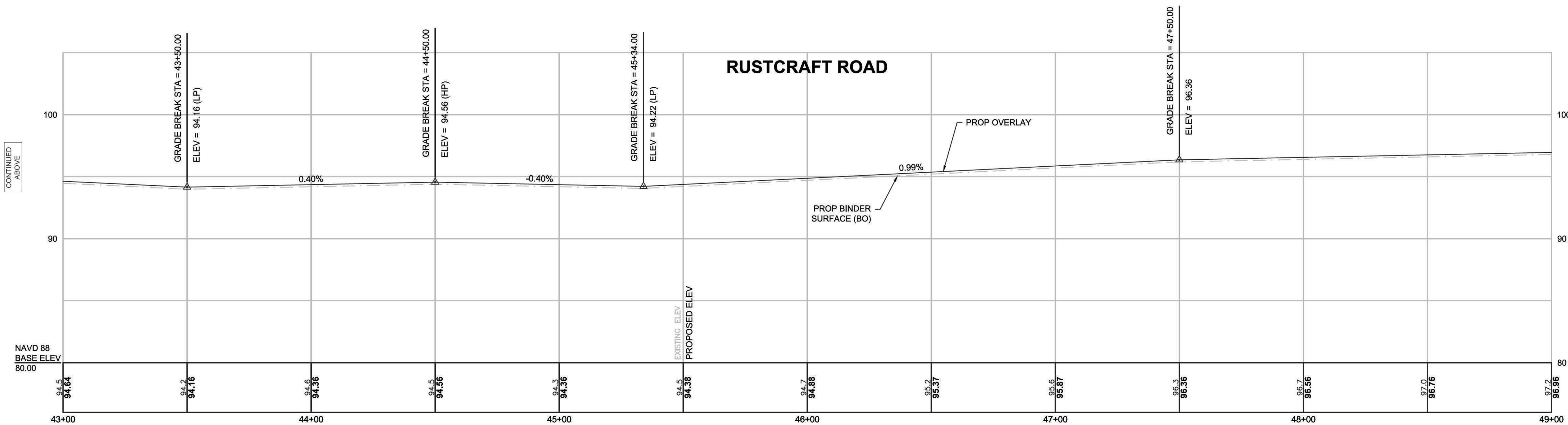
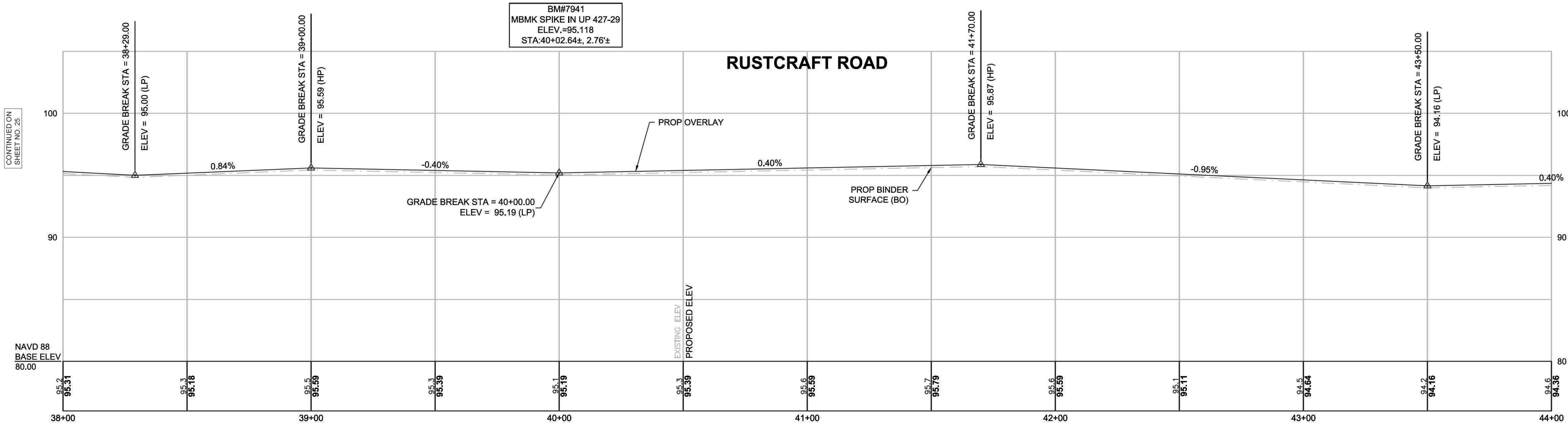
CONTINUED ON
SHEET NO. 26

DEDHAM
ELM STREET AND RUSTCRAFT ROAD

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ-003S(160)X	26	71
PROJECT FILE NO.		607901	

PROFILE

BM#7941
MBMK SPIKE IN UP 427-29
ELEV.=95.118
STA:40+02.64±, 2.76'±



FOR CONSTRUCTION PLANS:
SEE SHEET NOS. 20-22

CONTINUED ON
SHEET NO. 25

CONTINUED
BELOW

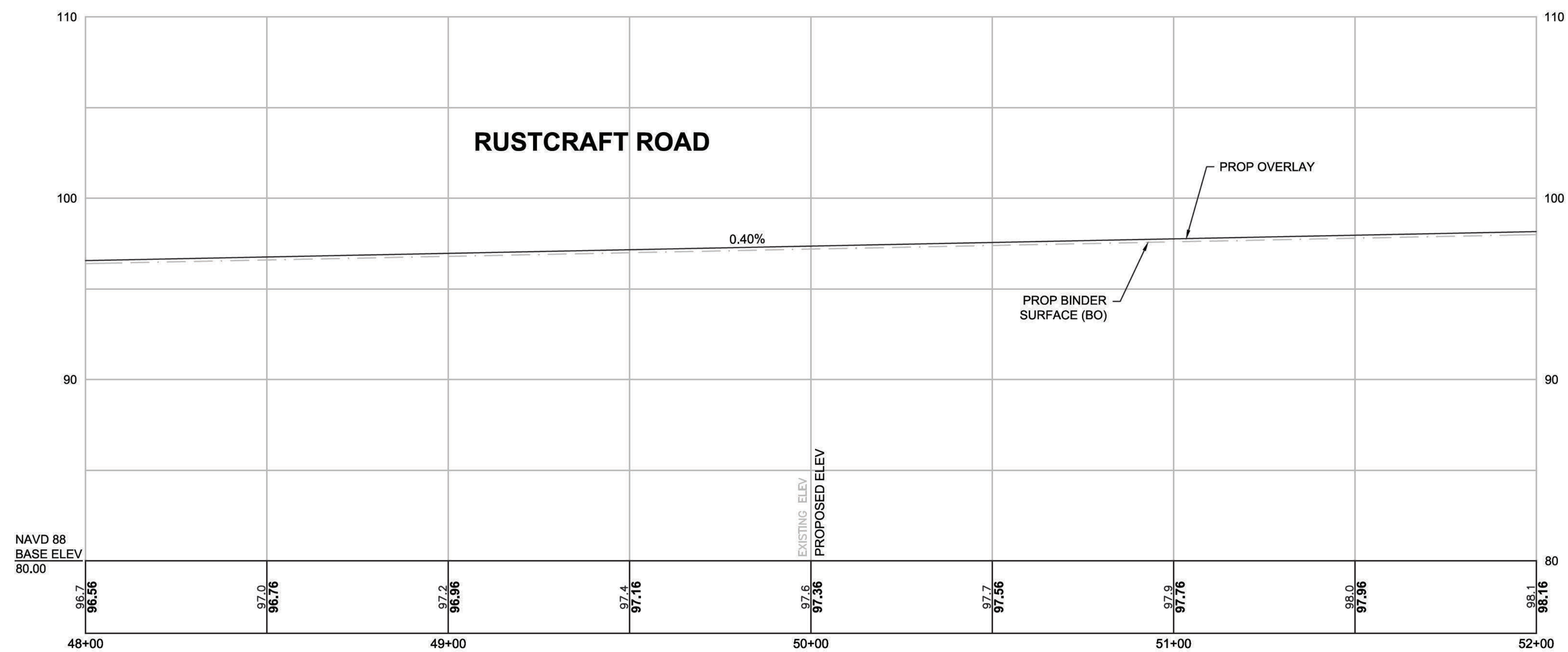
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ABOVE

CONTINUED ON
SHEET NO. 27

DEDHAM
ELM STREET AND RUSTCRAFT ROAD

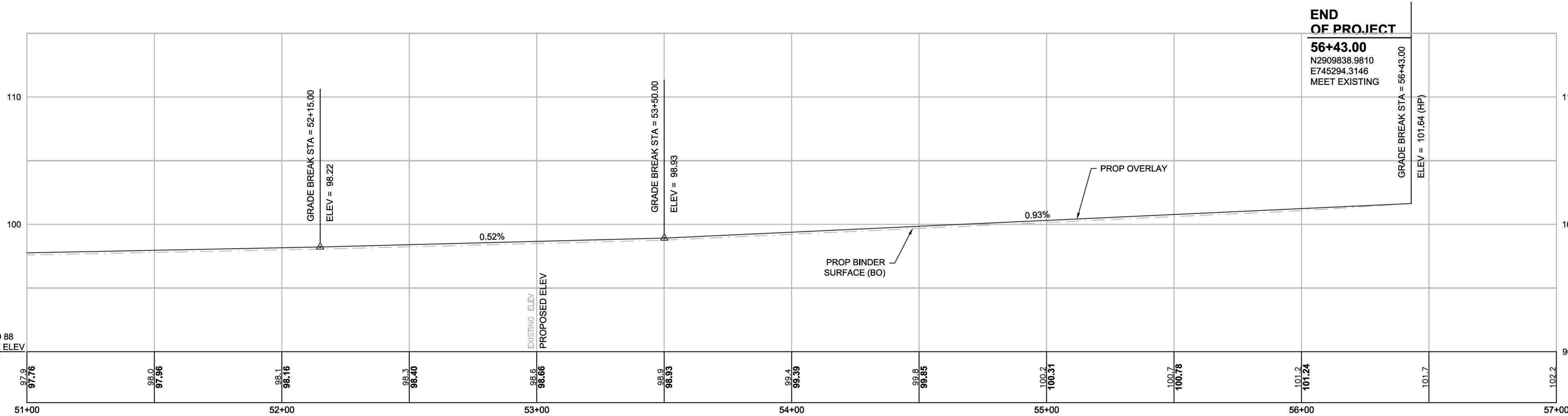
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ-003S(160)X	27	71
PROJECT FILE NO.		607901	

PROFILE

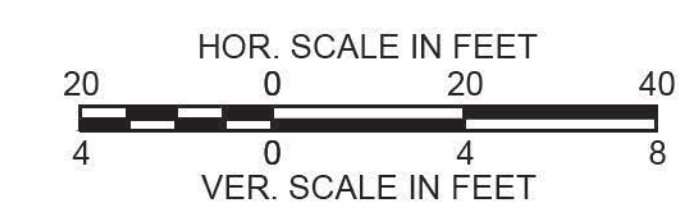


CONTINUED ON
SHEET NO. 26

CONTINUED
BELOW



CONTINUED
ABOVE



**END
OF PROJECT**

56+43.00
N2909838.9810
E745294.3146
MEET EXISTING

GRADE BREAK STA = 56+43.00
ELEV = 101.64 (HP)

FOR CONSTRUCTION PLANS:
SEE SHEET NOS. 21-22

ELM STREET & RUSTCRAFT ROAD CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L1	8+30.00	2909244.411	743096.998		S43°38'55"E 240.61'	10+70.61	2909070.307	743263.078
C46	10+70.61	2909070.307	743263.078	R=989.00' Δ=2°14'36" L=38.72' T=19.36"		11+09.33	2909041.773	743289.250
L2	11+09.33	2909041.773	743289.250		S41°24'20"E 59.32'	11+68.65	2908997.280	743328.482
C47	11+68.65	2908997.280	743328.482	R=900.00' Δ=36°42'52" L=576.71' T=298.64"		17+45.36	2908475.638	743550.424
L3	17+45.36	2908475.638	743550.424		S4°41'27"E 291.49'	20+36.86	2908185.122	743574.262
C48	20+36.86	2908185.122	743574.262	R=4982.00' Δ=2°38'22" L=229.51' T=114.78"		22+66.37	2907956.892	743598.293
L4	22+66.37	2907956.892	743598.293		S7°19'49"E 66.73'	23+33.10	2907890.705	743606.808
C49	23+33.10	2907890.705	743606.808	R=188.00' Δ=111°04'44" L=364.47' T=273.95"		26+97.58	2907749.333	743882.716

ELM STREET & RUSTCRAFT ROAD CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L5	26+97.58	2907749.333	743882.716		N61°35'26"E 1414.72'	41+12.30	2908422.414	745127.066
L11	26+97.58	2907749.333	743882.716		N61°35'26"E 1414.72'	41+12.30	2908422.414	745127.066
C50	41+12.30	2908422.414	745127.066	R=381.00' Δ=70°35'49" L=469.45' T=269.75"		45+81.75	2908817.174	745322.100
L6	45+81.75	2908817.174	745322.100		N9°00'23"W 149.26'	47+31.00	2908964.589	745298.735
L7	47+31.00	2908964.589	745298.735		N10°29'57"W 177.66'	49+08.66	2909139.271	745266.362
L8	49+08.66	2909139.271	745266.362		N10°50'53"W 375.30'	52+83.96	2909507.865	745195.728
C51	52+83.96	2909507.865	745195.728	R=375.00' Δ=78°50'42" L=516.04' T=308.27"		58+00.00	2909926.128	745423.529

DEDHAM
ELM STREET AND RUSTCRAFT ROAD

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ-003S(160)X	28	71
PROJECT FILE NO.		607901	

CURB TIE & GRADING PLANS

CURVE TABLE

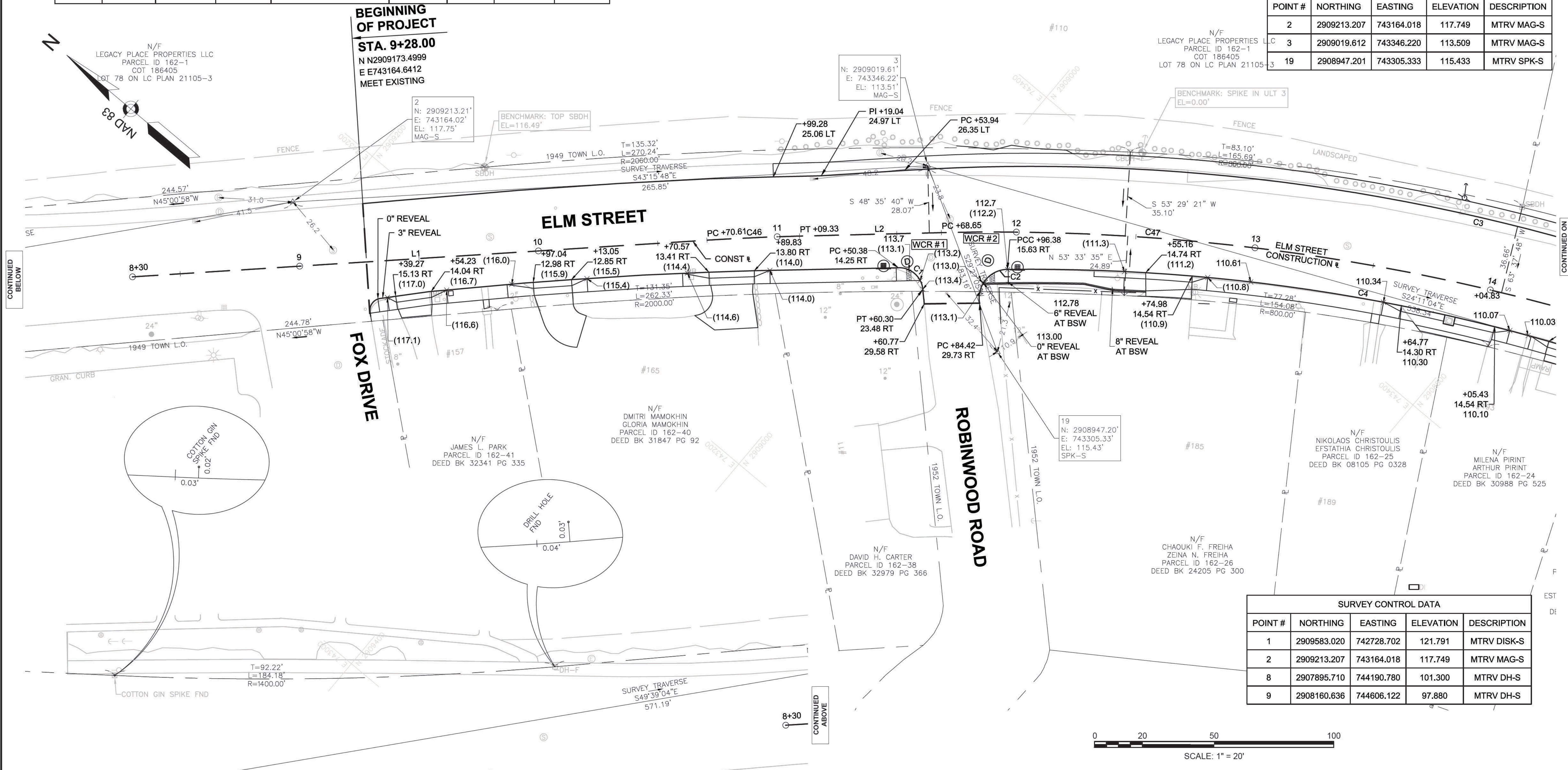
CURVE #	RADIUS	DELTA	LENGTH	TANGENT
C1	10.00	85°18'36"	14.89	9.21
C2	12.00	99°20'10"	20.80	14.13
C3	833.00	33°17'07"	483.92	249.00
C4	790.00	29°55'57"	412.71	211.18

SURVEY TRAVERSE DATA

POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
2	2909213.207	743164.018	117.749	MTRV MAG-S
3	2909019.612	743346.220	113.509	MTRV MAG-S
19	2908947.201	743305.333	115.433	MTRV SPK-S

SURVEY CONTROL DATA

POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
1	2909583.020	742728.702	121.791	MTRV DISK-S
2	2909213.207	743164.018	117.749	MTRV MAG-S
8	2907895.710	744190.780	101.300	MTRV DH-S
9	2908160.636	744606.122	97.880	MTRV DH-S



607901_HD(16 TIE).DWG Picked on 30-Nov-2020 6:06 PM

CONTINUED BELOW

CONTINUED ON SHEET NO. 29

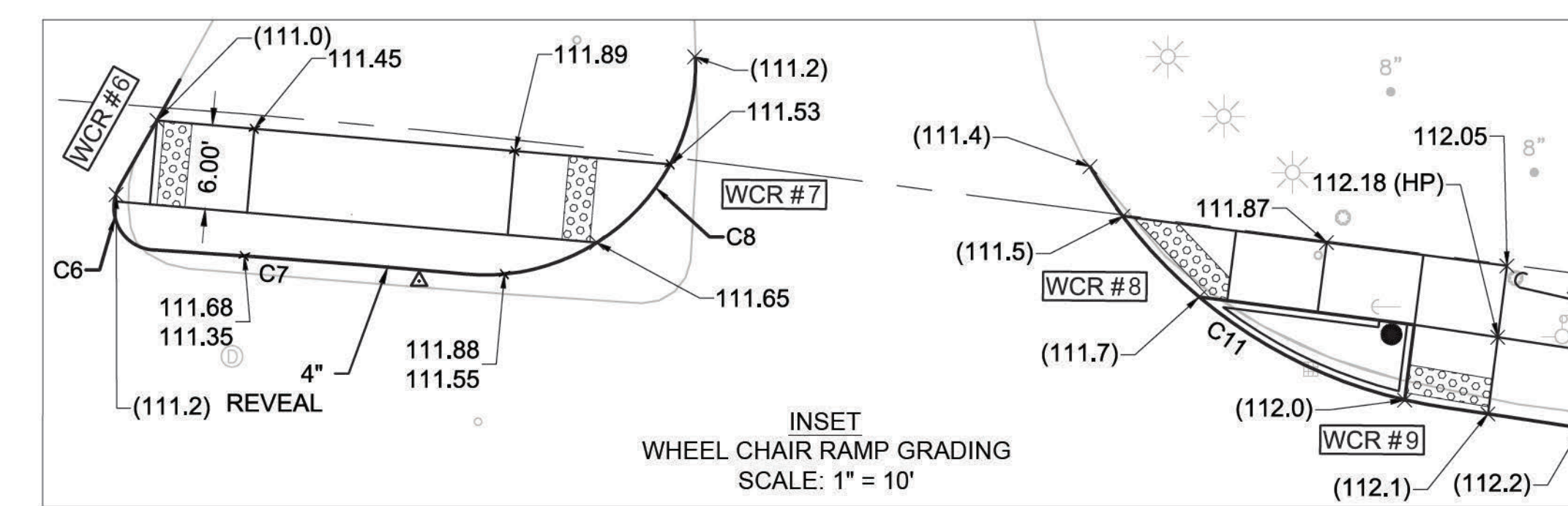
DEDHAM
ELM STREET AND RUSTCRAFT ROAD

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ-003S(160)X	29	71

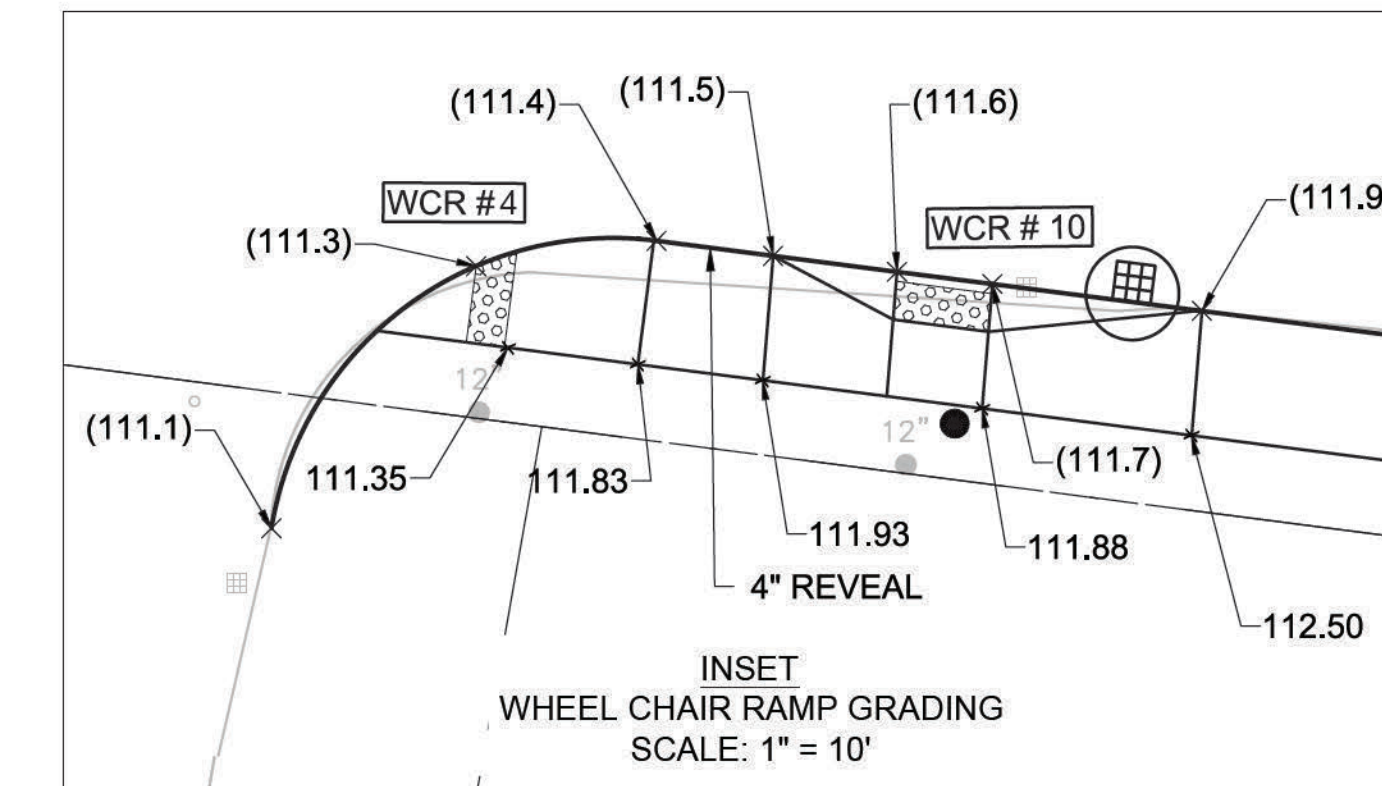
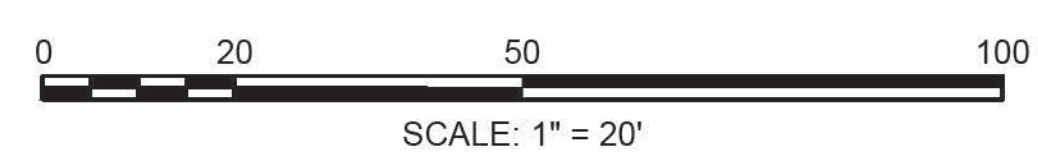
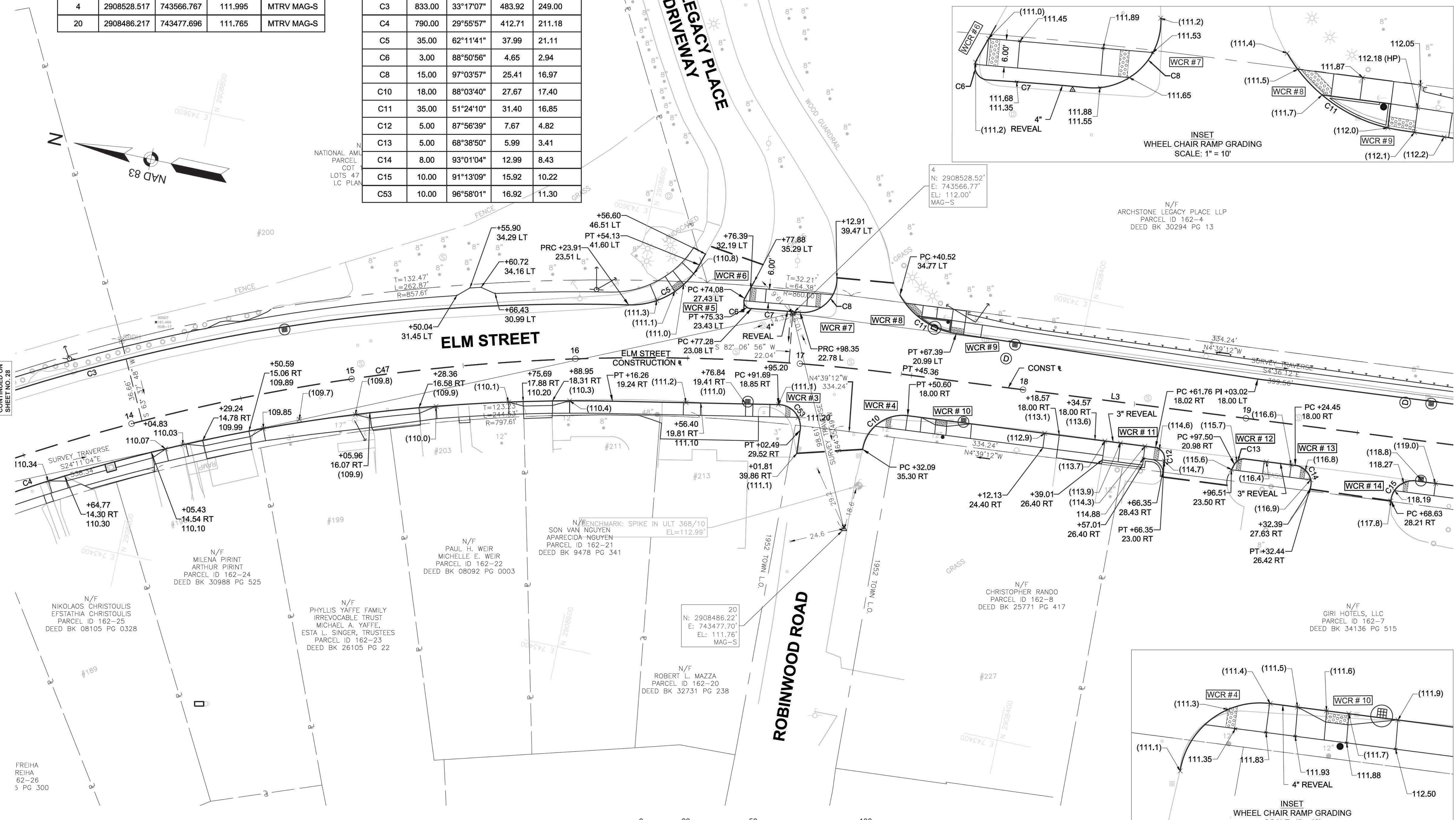
CURB TIE & GRADING PLANS

SURVEY TRAVERSE DATA				
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
4	2908528.517	743566.767	111.995	MTRV MAG-S
20	2908486.217	743477.696	111.765	MTRV MAG-S

CURVE TABLE				
CURVE #	RADIUS	DELTA	LENGTH	TANGENT
C3	833.00	33°17'07"	483.92	249.00
C4	790.00	29°55'57"	412.71	211.18
C5	35.00	62°11'41"	37.99	21.11
C6	3.00	88°50'56"	4.65	2.94
C8	15.00	97°03'57"	25.41	16.97
C10	18.00	88°03'40"	27.67	17.40
C11	35.00	51°24'10"	31.40	16.85
C12	5.00	87°56'39"	7.67	4.82
C13	5.00	68°38'50"	5.99	3.41
C14	8.00	93°01'04"	12.99	8.43
C15	10.00	91°13'09"	15.92	10.22
C53	10.00	96°58'01"	16.92	11.30



INSET
WHEEL CHAIR RAMP GRADING
SCALE: 1" = 10'



INSET
WHEEL CHAIR RAMP GRADING
SCALE: 1" = 10'

CONTINUED ON
SHEET NO. 28

CONTINUED ON
SHEET NO. 30

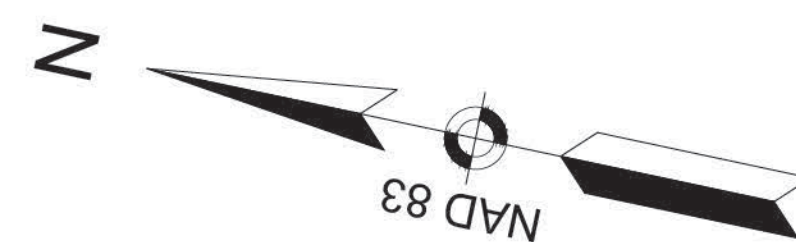
DEDHAM
ELM STREET AND RUSTCRAFT ROAD

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ-003S(160)X	30	71
PROJECT FILE NO.		607901	

CURB TIE & GRADING
PLANS

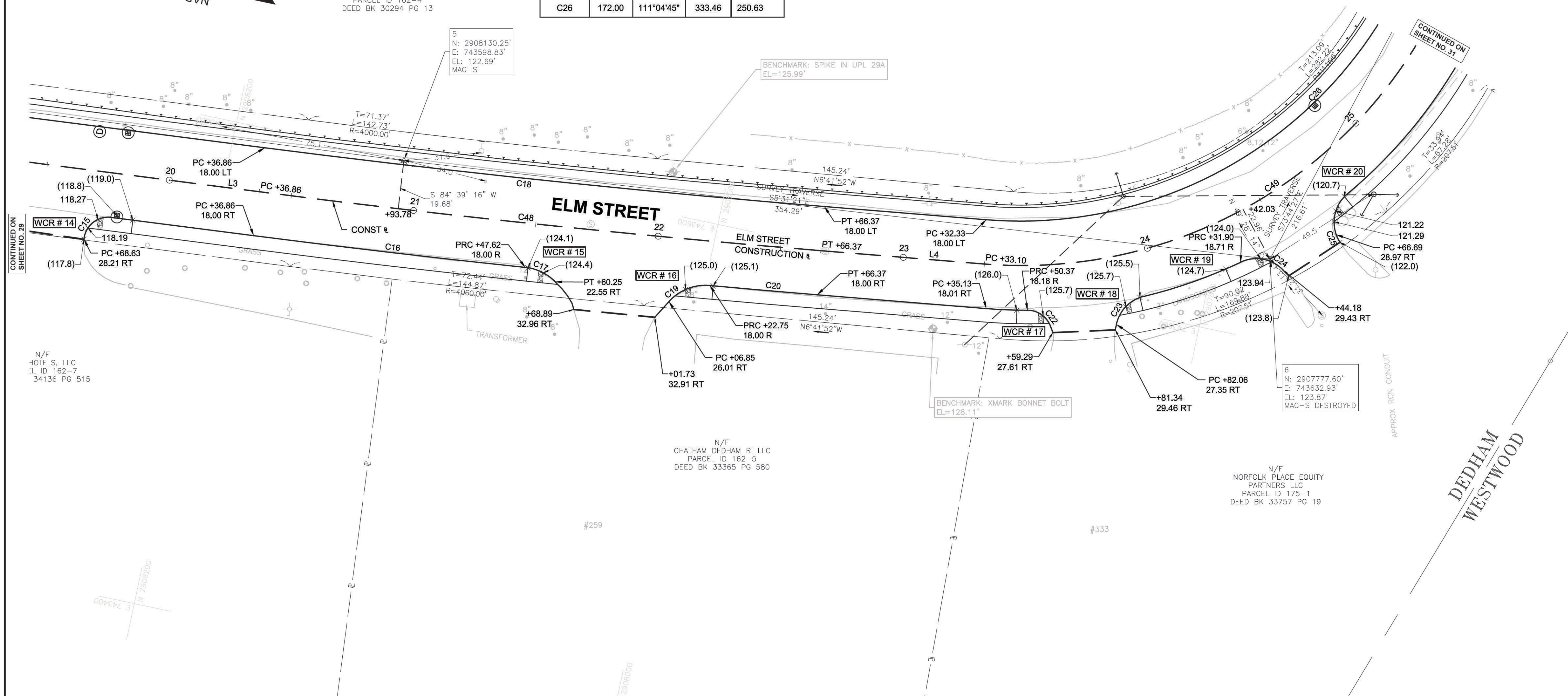
SURVEY TRAVERSE DATA				
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
5	2908130.246	743598.834	122.688	MTRV MAG-S
6	2907777.605	743632.930	123.865	MTRV MAG-S DESTROYED
7	2907716.959	743840.873	109.998	MTRV MAG-S

CURVE TABLE				
CURVE #	RADIUS	DELTA	LENGTH	TANGENT
C15	10.00	91°13'09"	15.92	10.22
C16	5000.00	1°16'26"	111.16	55.58
C17	20.00	39°22'05"	13.74	7.15
C18	4964.00	2°38'22"	228.68	114.36
C19	20.00	53°04'09"	18.52	9.99
C20	5000.00	0°30'06"	43.77	21.89
C22	10.00	62°03'08"	10.83	6.01
C23	15.00	64°06'20"	16.78	9.39
C24	15.00	71°25'26"	18.70	10.78
C25	15.00	82°58'09"	21.72	13.26
C26	172.00	111°04'45"	333.46	250.63



N/F
ARCHSTONE LEGACY PLACE LLP
PARCEL ID 162-4
DEED BK 30294 PG 13

N/F
ARCHSTONE LEGACY PLACE LLP
PARCEL ID 162-4
DEED BK 30294 PG 13



CONTINUED ON
SHEET NO. 29

CONTINUED ON
SHEET NO. 31

N/F
HOTELS, LLC
PARCEL ID 162-7
DEED BK 34136 PG 515

N/F
CHATHAM DEDHAM RI LLC
PARCEL ID 162-5
DEED BK 33365 PG 580

N/F
NORFOLK PLACE EQUITY
PARTNERS LLC
PARCEL ID 175-1
DEED BK 33757 PG 19

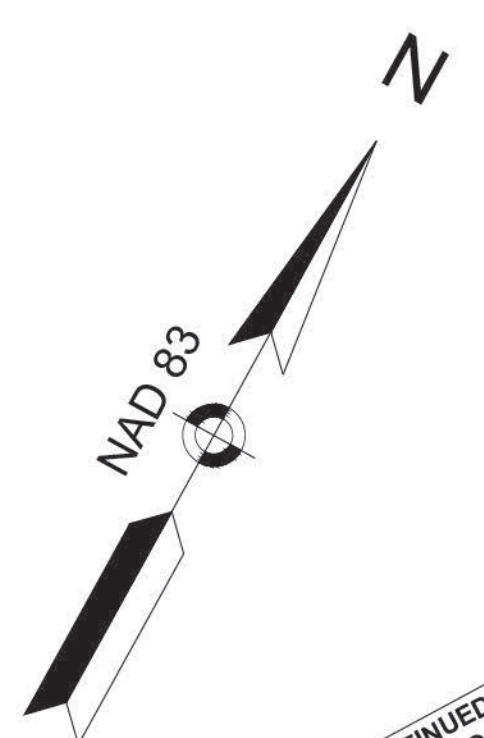


DEDHAM
ELM STREET AND RUSTCRAFT ROAD

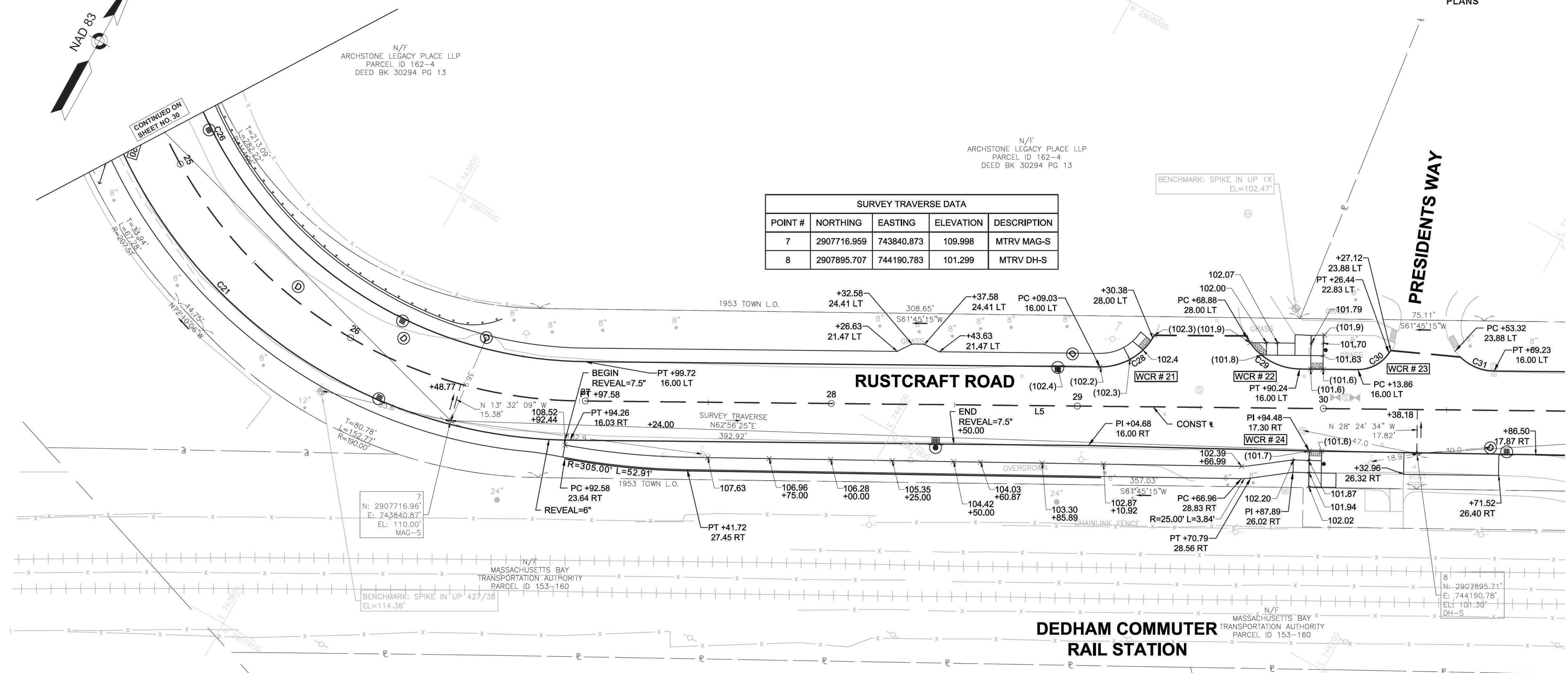
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ-003S(160)X	31	71

CURB TIE & GRADING PLANS

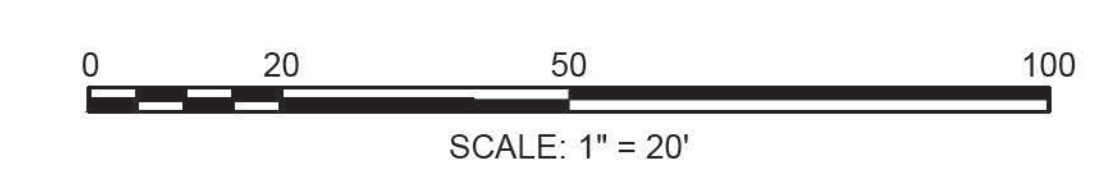
PROJECT FILE NO. 607901



POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
7	2907716.959	743840.873	109.998	MTRV MAG-S
8	2907895.707	744190.783	101.299	MTRV DH-S



CURVE #	RADIUS	DELTA	LENGTH	TANGENT
C21	203.00	111°04'43"	393.55	295.80
C26	172.00	111°04'45"	333.46	250.63
C28	25.00	58°40'05"	25.60	14.05
C29	25.00	58°40'04"	25.60	14.05
C30	15.00	56°59'06"	14.92	8.14
C31	20.00	52°41'37"	18.39	9.90



FOR PROFILE SEE SHEET 24

607901_HD(16 TIE).DWG Picked on 30-Nov-2020 6:10 PM

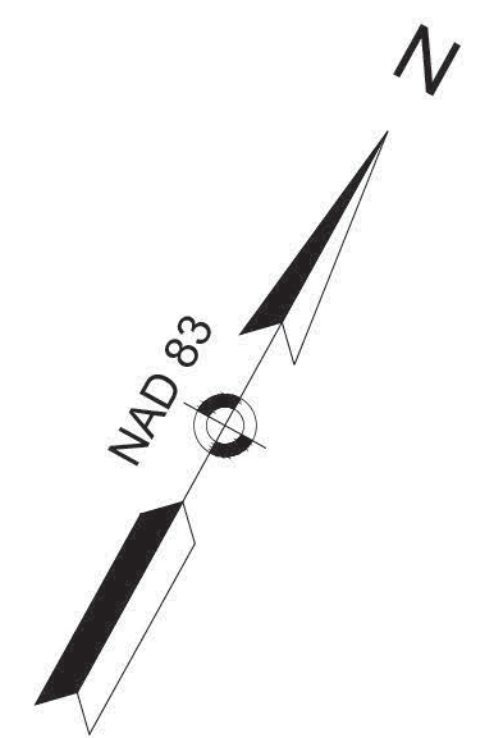
DEDHAM
ELM STREET AND RUSTCRAFT ROAD

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ-003S(160)X	32	71

CURB TIE & GRADING
PLANS

SURVEY TRAVERSE DATA				
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
9	2908160.636	744606.122	97.880	MTRV DH-S

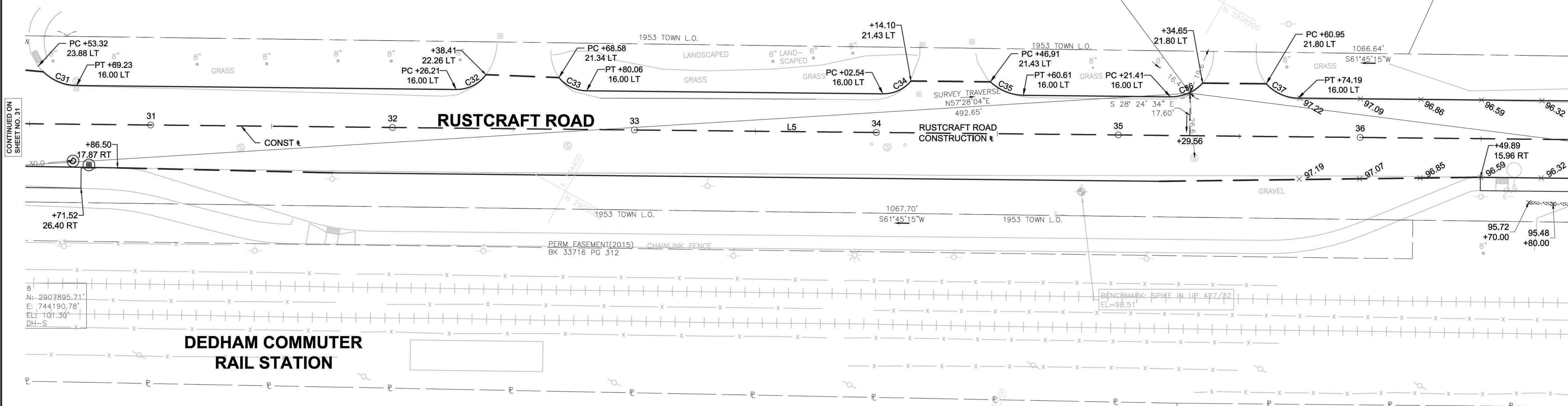
CURVE TABLE				
CURVE #	RADIUS	DELTA	LENGTH	TANGENT
C31	20.00	52°41'37"	18.39	9.90
C32	15.00	54°22'10"	14.23	7.70
C33	15.00	49°55'52"	13.07	6.98
C34	15.00	50°21'33"	13.18	7.05
C35	20.00	43°14'25"	15.09	7.93
C36	18.00	47°19'44"	14.87	7.89
C37	18.00	47°19'45"	14.87	7.89



N/F
RAR2 JEFFERSON AT DEDHAM STATION MN INC
PARCEL ID 163-2
DEED BK 870 PG 75

N/F
RAR2 JEFFERSON AT DEDHAM STATION MN INC
PARCEL ID 163-2
DEED BK 870 PG 75

9
N: 2908160.64'
E: 744606.12'
EL: 97.88'
DH-S



CONTINUED ON
SHEET NO. 31

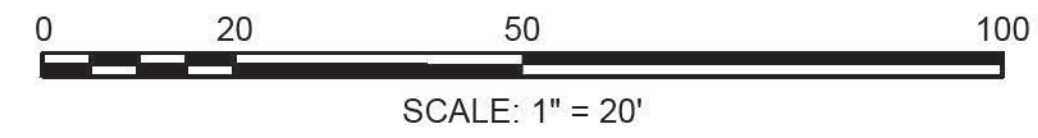
CONTINUED ON
SHEET NO. 33

B
N: 2907895.71'
E: 744190.78'
EL: 101.30'
DH-S

BENCHMARK: SPIKE IN UP 427/82
EL=98.51

DEDHAM COMMUTER
RAIL STATION

N/F
MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
PARCEL ID 176-5



DEDHAM
ELM STREET AND RUSTCRAFT ROAD

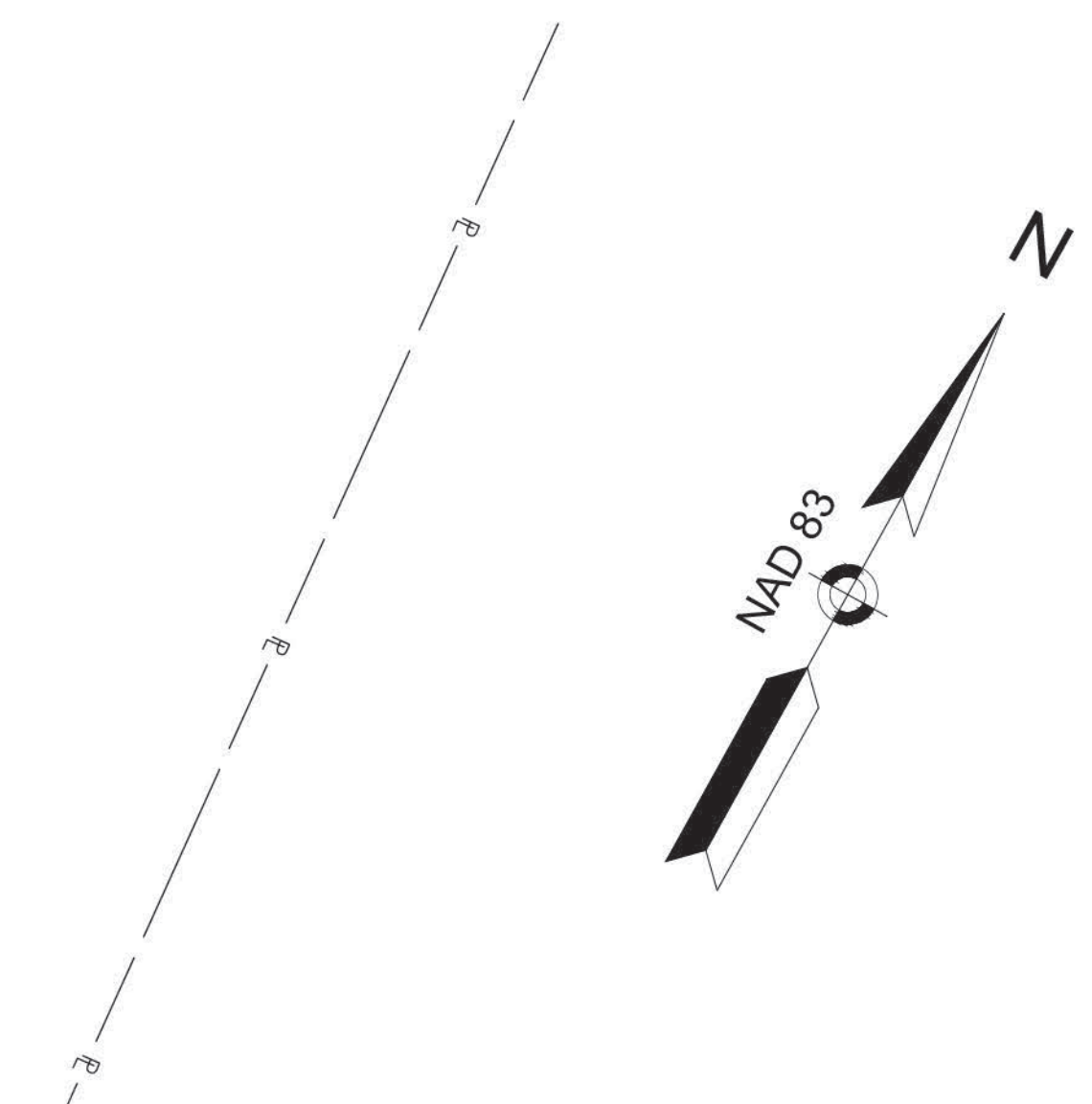
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ-003S(160)X	33	71

CURB TIE & GRADING
PLANS

PROJECT FILE NO. 607901

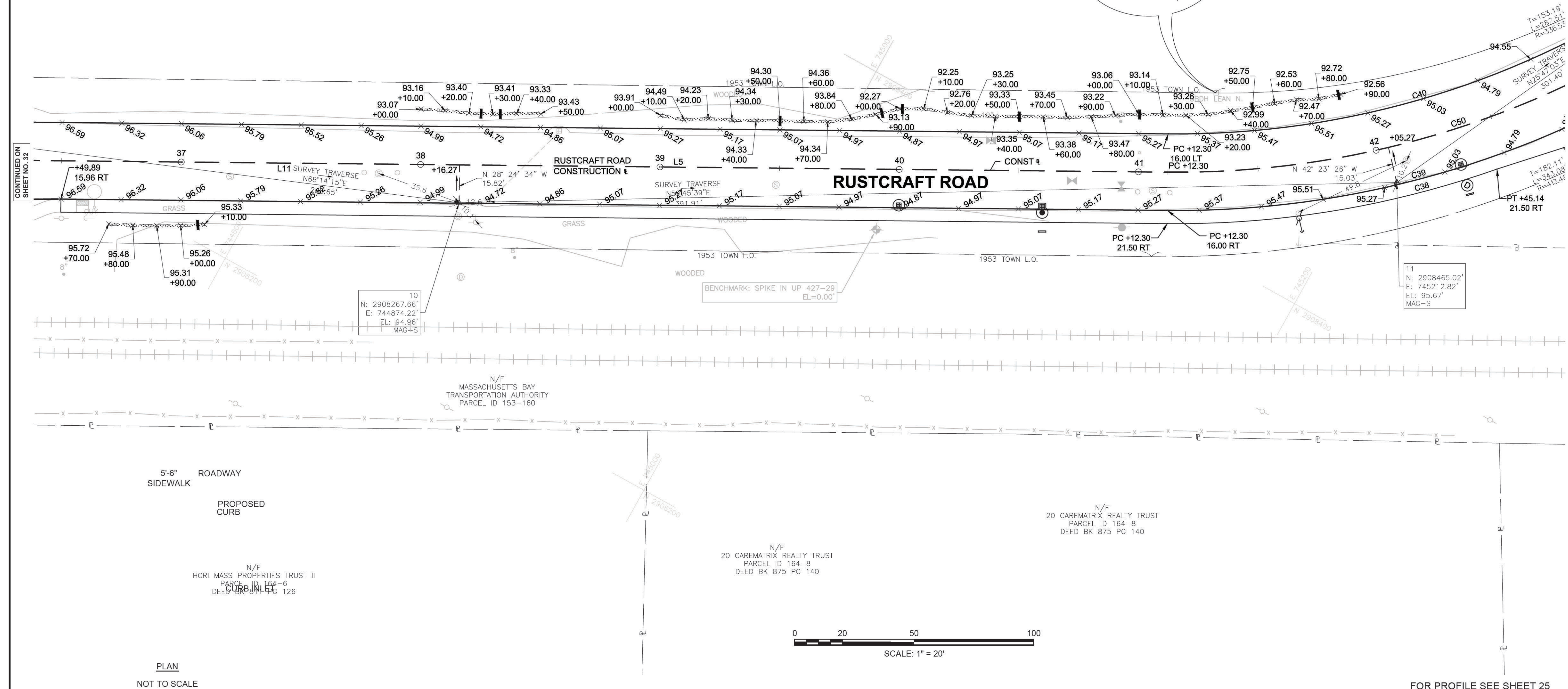
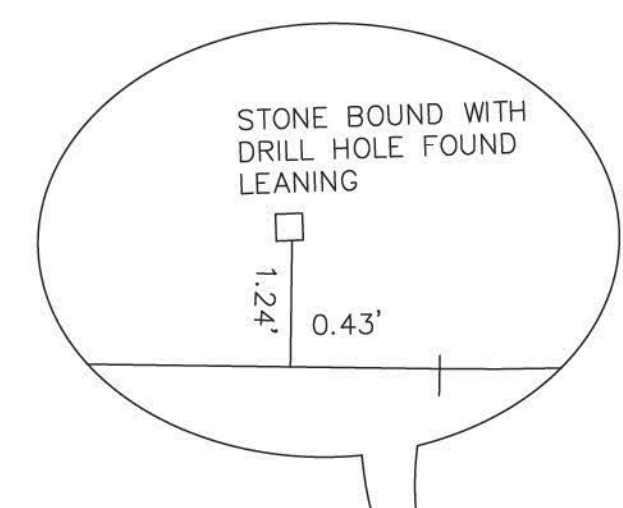
SURVEY TRAVERSE DATA				
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
10	2908267.661	744874.223	94.956	MTRV MAG-S
11	2908465.024	745212.817	95.667	MTRV MAG-S

CURVE TABLE				
CURVE #	RADIUS	DELTA	LENGTH	TANGENT
C38	402.50	19°58'35"	140.33	70.89
C39	397.00	70°35'44"	489.15	281.07
C40	365.00	70°35'44"	449.73	258.41



N/F
300 LEGACY BOULEVARD LLC
PARCEL ID 163-1
COT 199549
LOT 52 ON LC PLAN 21105V

N/F
300 LEGACY BOULEVARD LLC
PARCEL ID 163-1
COT 199549
LOT 52 ON LC PLAN 21105V



CONTINUED ON
SHEET NO. 32

CONTINUED ON
SHEET NO. 34

PLAN
NOT TO SCALE

FOR PROFILE SEE SHEET 25

DEDHAM
ELM STREET AND RUSTCRAFT ROAD

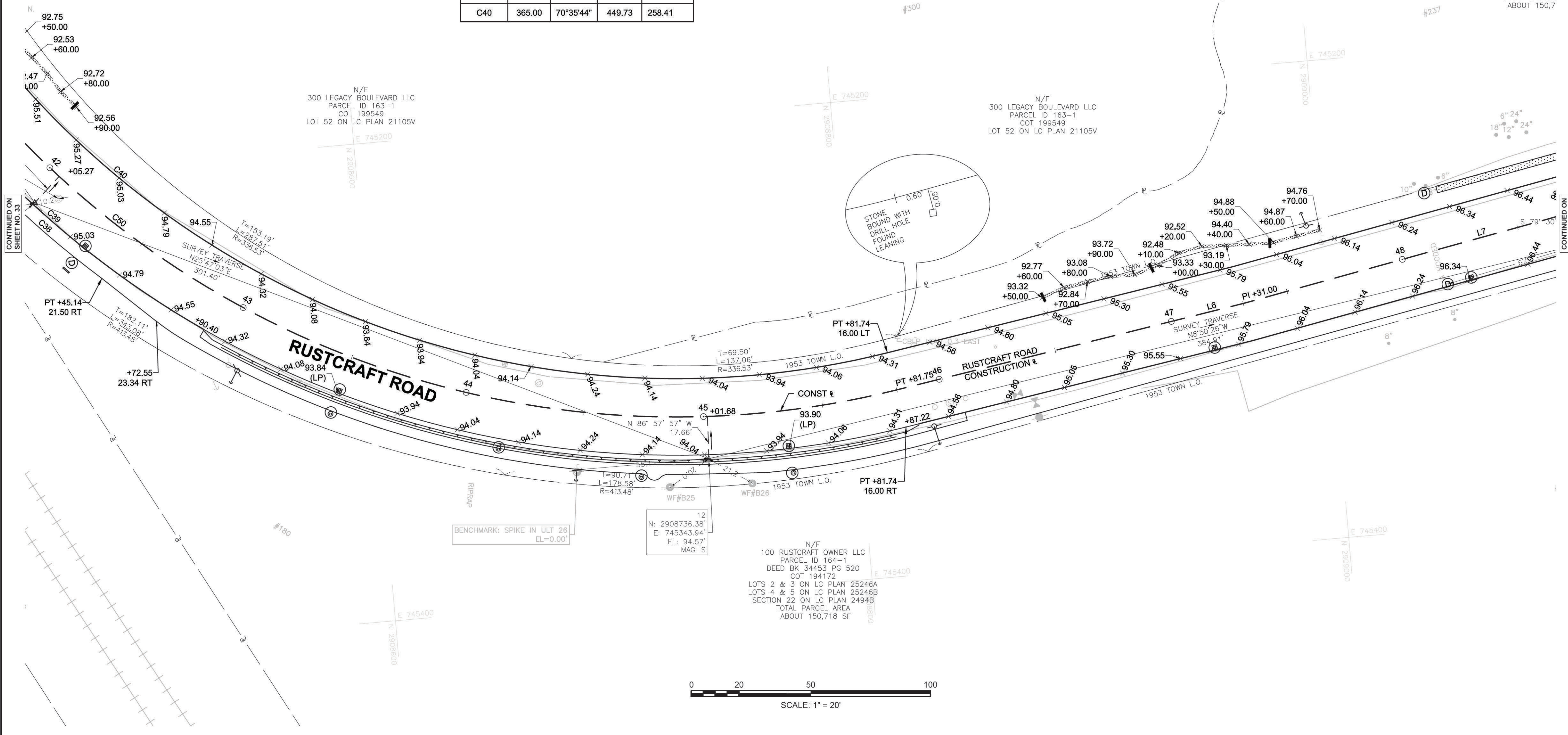
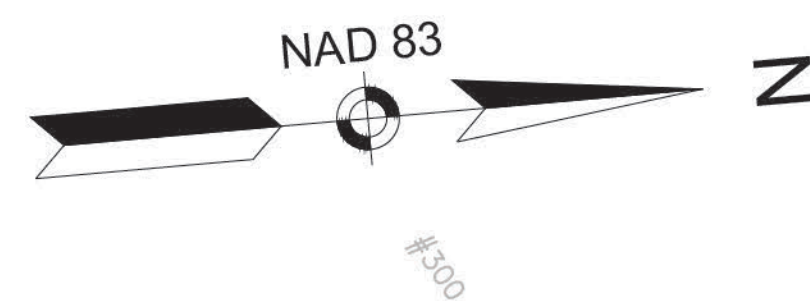
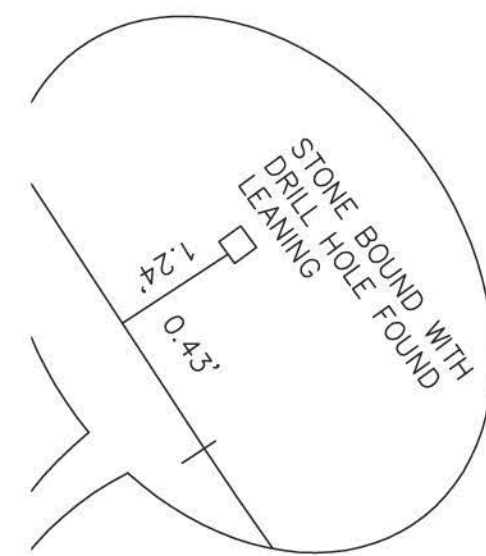
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ-003S(160)X	34	71

CURB TIE & GRADING PLANS

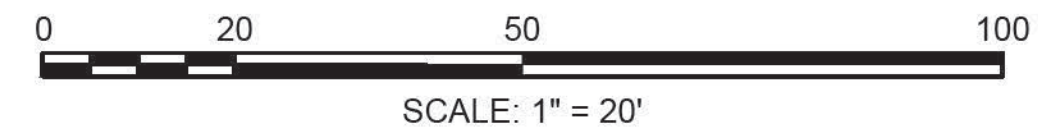
PROJECT FILE NO. 607901

SURVEY TRAVERSE DATA				
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
11	2908465.024	745212.817	95.667	MTRV MAG-S
12	2908736.383	745343.939	94.566	MTRV MAG-S

CURVE TABLE				
CURVE #	RADIUS	DELTA	LENGTH	TANGENT
C38	402.50	19°58'35"	140.33	70.89
C39	397.00	70°35'44"	489.15	281.07
C40	365.00	70°35'44"	449.73	258.41



N/F
100 RUSTCRAFT OWNER
PARCEL ID 164-1
DEED BK 34453 PG 520
COT 194172
LOTS 2 & 3 ON LC PLAN 25246A
LOTS 4 & 5 ON LC PLAN 25246B
SECTION 22 ON LC PLAN 24948
TOTAL PARCEL AREA
ABOUT 150,718 SF



CONTINUED ON SHEET NO. 33

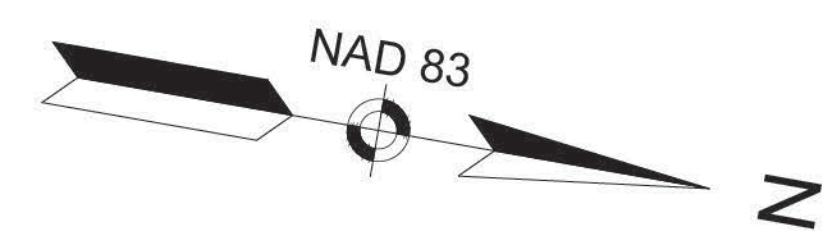
CONTINUED ON SHEET NO. 35

DEDHAM
ELM STREET AND RUSTCRAFT ROAD

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ-003S(160)X	35	71

CURB TIE & GRADING
PLANS

PROJECT FILE NO. 607901

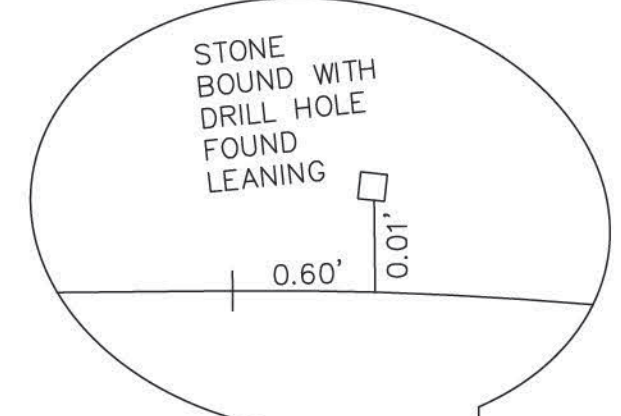


CURVE TABLE				
CURVE #	RADIUS	DELTA	LENGTH	TANGENT
C41	30.00	25°57'50"	13.59	6.92
C42	15.00	50°20'42"	13.18	7.05
C43	10.00	62°47'27"	10.96	6.10
C44	359.00	49°59'43"	313.26	167.39
C45	391.00	53°32'29"	365.38	197.26

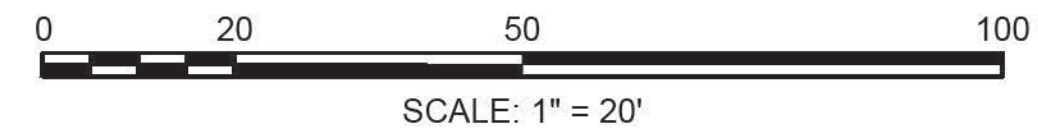
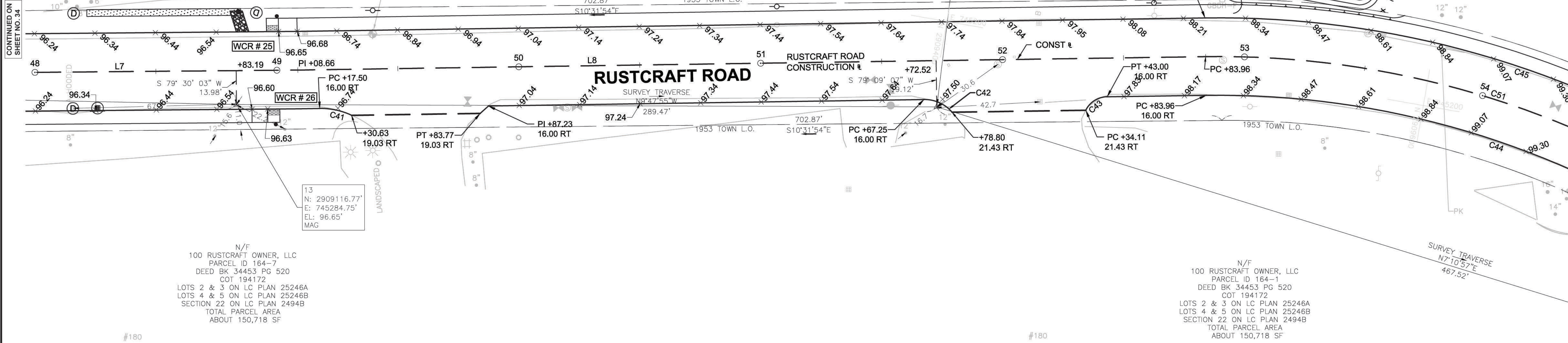
SURVEY TRAVERSE DATA				
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
13	2909116.769	745284.747	96.650	MTRV MAG
17	2909402.018	745235.483	97.876	SP-S

N/F
100 RUSTCRAFT OWNER, LLC
PARCEL ID 164-7
DEED BK 34453 PG 520
COT 194172
LOTS 2 & 3 ON LC PLAN 25246A
LOTS 4 & 5 ON LC PLAN 25246B
SECTION 22 ON LC PLAN 2494B
TOTAL PARCEL AREA
ABOUT 150,718 SF

N/F
100 RUSTCRAFT OWNER, LLC
PARCEL ID 164-7
DEED BK 34453 PG 520
COT 194172
LOTS 2 & 3 ON LC PLAN 25246A
LOTS 4 & 5 ON LC PLAN 25246B
SECTION 22 ON LC PLAN 2494B
TOTAL PARCEL AREA
ABOUT 150,718 SF



SEE GRADING FOR
BASIN ON SHEET 44



FOR PROFILE SEE SHEET 26

607901_HD(816 TIE).DWG Picked on 30-Nov-2020 6:14 PM

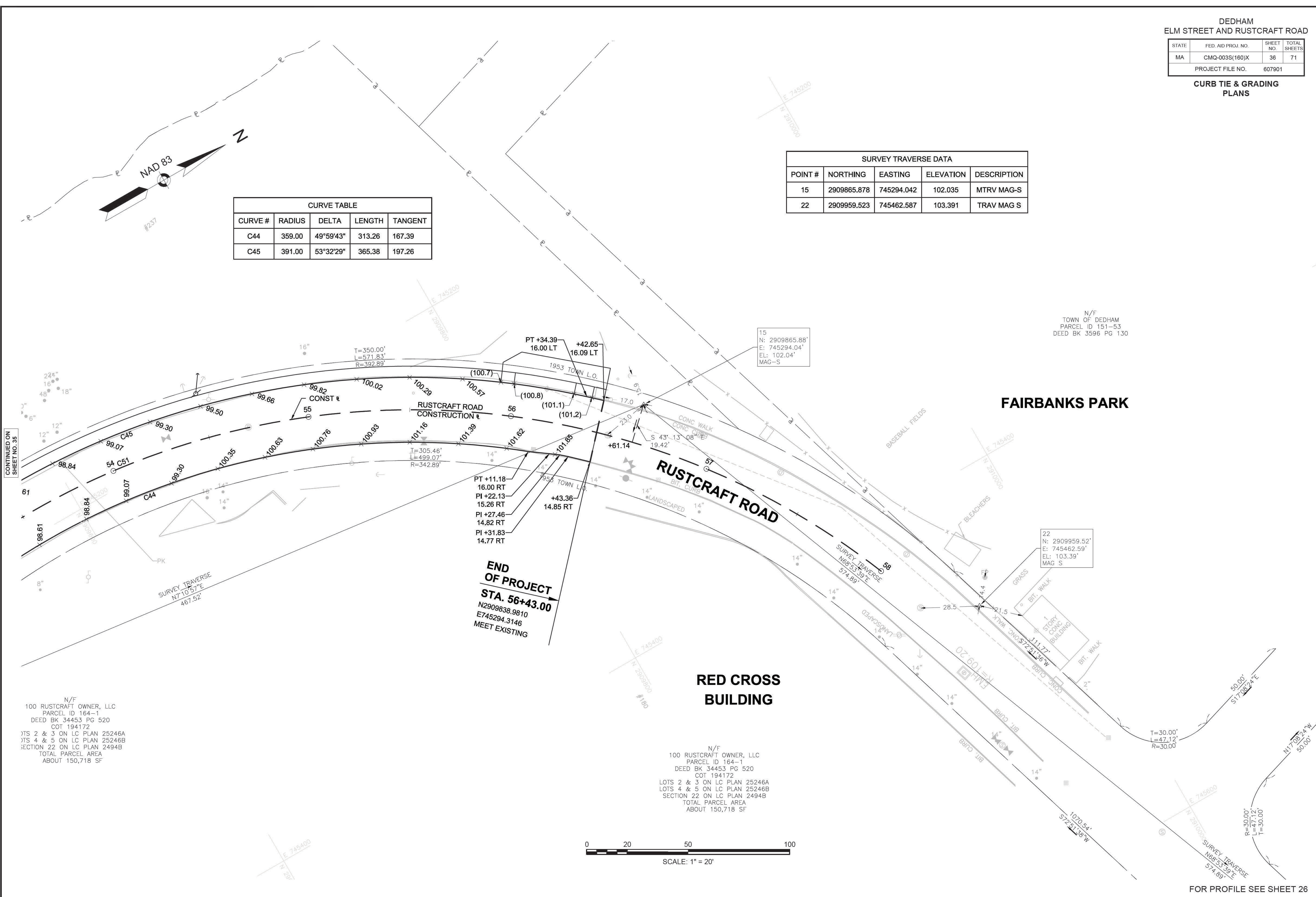
DEDHAM
ELM STREET AND RUSTCRAFT ROAD

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ-003S(160)X	36	71
PROJECT FILE NO.		607901	

CURB TIE & GRADING PLANS

SURVEY TRAVERSE DATA				
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
15	2909865.878	745294.042	102.035	MTRV MAG-S
22	2909959.523	745462.587	103.391	TRAV MAG S

CURVE TABLE				
CURVE #	RADIUS	DELTA	LENGTH	TANGENT
C44	359.00	49°59'43"	313.26	167.39
C45	391.00	53°32'29"	365.38	197.26



N/F
TOWN OF DEDHAM
PARCEL ID 151-53
DEED BK 3596 PG 130

CONTINUED ON
SHEET NO. 35

N/F
100 RUSTCRAFT OWNER, LLC
PARCEL ID 164-1
DEED BK 34453 PG 520
COT 194172
LOTS 2 & 3 ON LC PLAN 25246A
LOTS 4 & 5 ON LC PLAN 25246B
SECTION 22 ON LC PLAN 2494B
TOTAL PARCEL AREA
ABOUT 150,718 SF

N/F
100 RUSTCRAFT OWNER, LLC
PARCEL ID 164-1
DEED BK 34453 PG 520
COT 194172
LOTS 2 & 3 ON LC PLAN 25246A
LOTS 4 & 5 ON LC PLAN 25246B
SECTION 22 ON LC PLAN 2494B
TOTAL PARCEL AREA
ABOUT 150,718 SF

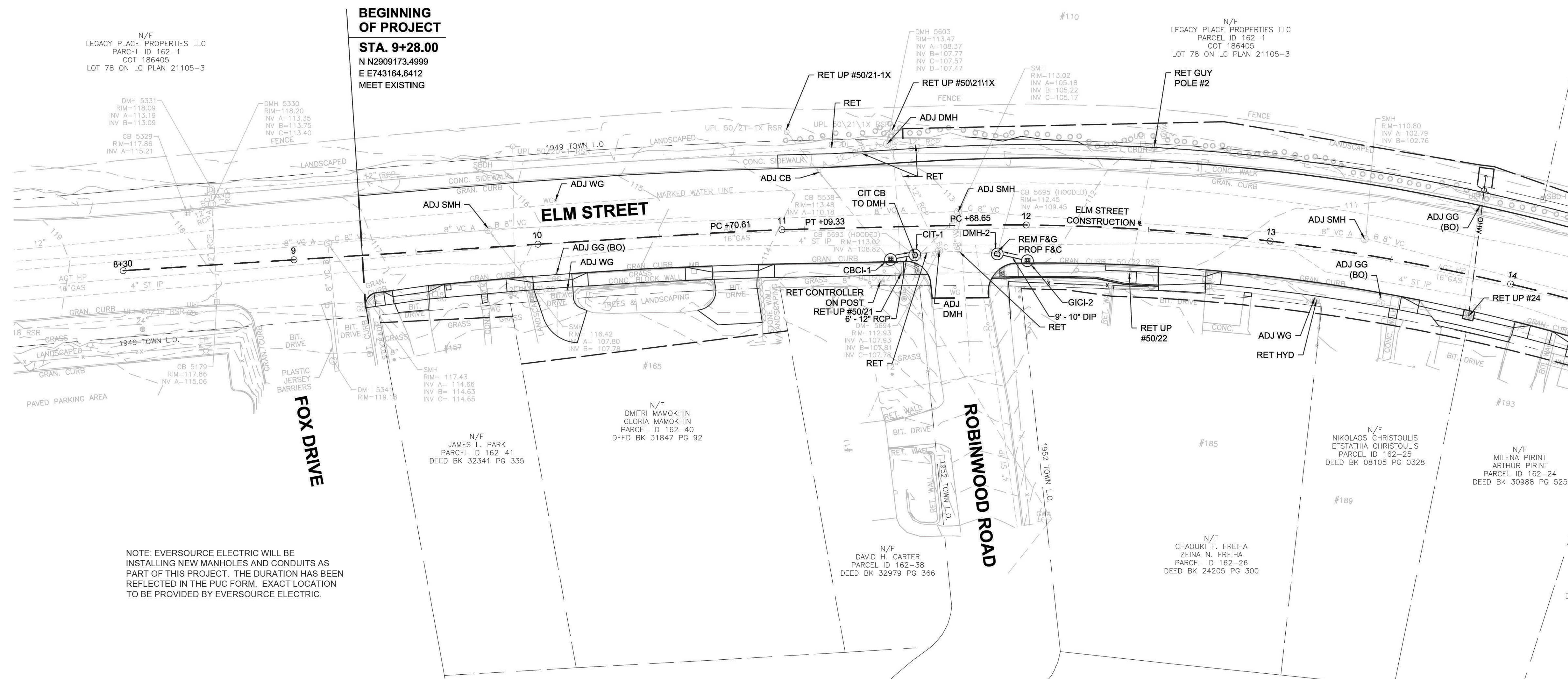
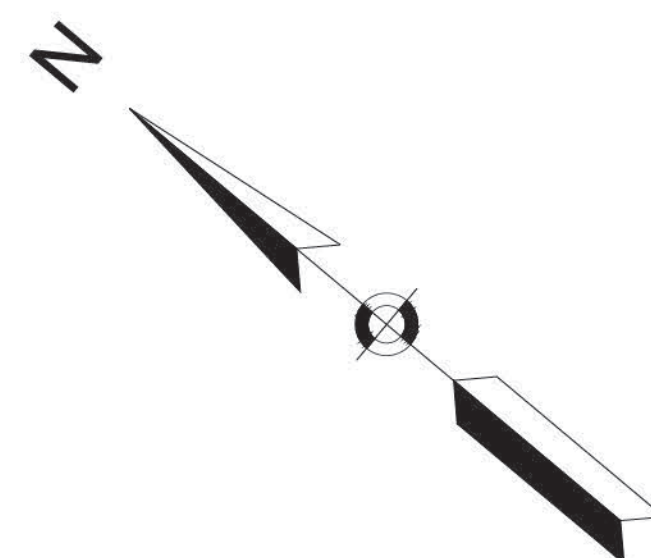
0 20 50 100
SCALE: 1" = 20'

FOR PROFILE SEE SHEET 26

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ-003S(160)X	37	71

DRAINAGE & UTILITY PLANS

DRAINAGE STRUCTURE TABLE						
NAME	STATION	OFFSET	RIM	INV. ELEV. IN	INV. ELEV. OUT	NOTES
CBCI-1	11+44	13.3 R	113.14		I=109.00' (CIT-1)	
CIT-1	11+54	11.7 R	112.83	I=108.90' (CBCI-1)	I=108.82 (EXIST)	CHANGE IN TYPE
DMH-2	11+88	11.9 R	112.55	I=109.50' (GICI-2)	I=109.45 (EXIST)	REM F&G PROP F&C
GICI-2	12+01	14.6 R	112.12		I=109.62' (DMH-2)	



BEGINNING OF PROJECT
STA. 9+28.00
N N2909173.4999
E E743164.6412
MEET EXISTING

N/F
LEGACY PLACE PROPERTIES LLC
PARCEL ID 162-1
COT 186405
LOT 78 ON LC PLAN 21105-3

DMH 5331
RIM=118.09
INV A=113.19
INV B=113.09
CB 5329
RIM=117.86
INV A=115.21

DMH 5330
RIM=118.20
INV A=113.35
INV B=113.75
INV C=113.40
FENCE

DMH 5603
RIM=113.47
INV A=108.37
INV B=107.77
INV C=107.57
INV D=107.47

SMH
RIM=113.02
INV A=105.18
INV B=105.22
INV C=105.17

N/F
LEGACY PLACE PROPERTIES LLC
PARCEL ID 162-1
COT 186405
LOT 78 ON LC PLAN 21105-3

SMH
RIM=110.80
INV A=102.79
INV B=102.76

8+30

9

10

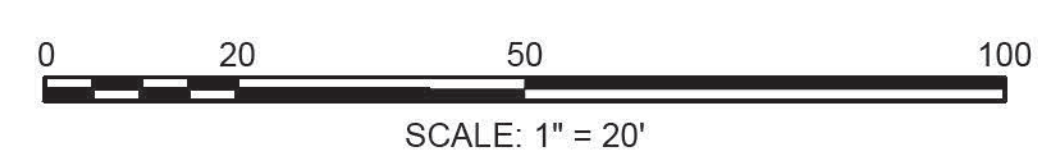
11

12

13

14

NOTE: EVERSOURCE ELECTRIC WILL BE INSTALLING NEW MANHOLES AND CONDUITS AS PART OF THIS PROJECT. THE DURATION HAS BEEN REFLECTED IN THE PUC FORM. EXACT LOCATION TO BE PROVIDED BY EVERSOURCE ELECTRIC.

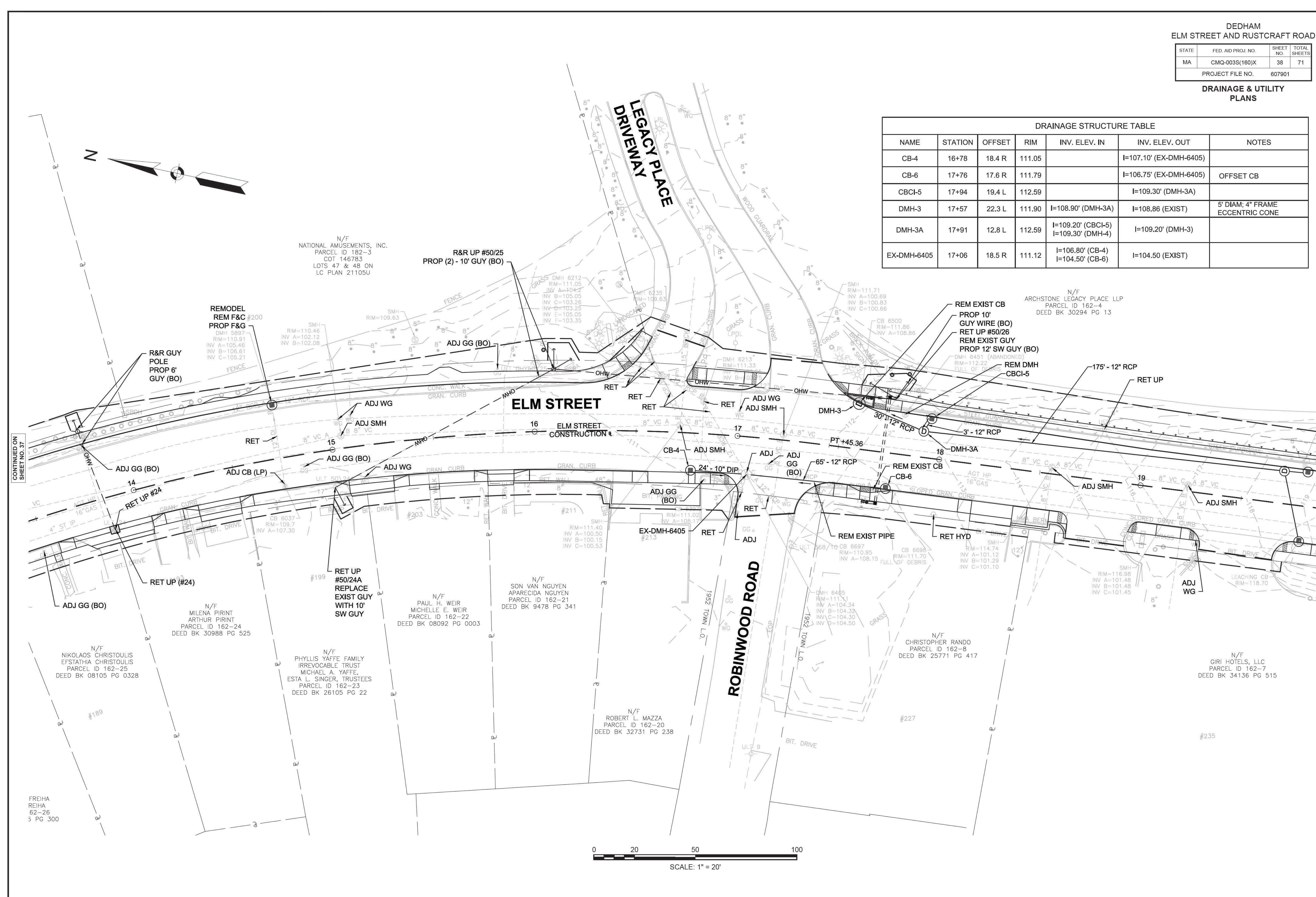


CONTINUED ON SHEET NO. 38

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ-003S(160)X	38	71

DRAINAGE & UTILITY PLANS

DRAINAGE STRUCTURE TABLE						
NAME	STATION	OFFSET	RIM	INV. ELEV. IN	INV. ELEV. OUT	NOTES
CB-4	16+78	18.4 R	111.05		I=107.10' (EX-DMH-6405)	
CB-6	17+76	17.6 R	111.79		I=106.75' (EX-DMH-6405)	OFFSET CB
CBCI-5	17+94	19.4 L	112.59		I=109.30' (DMH-3A)	
DMH-3	17+57	22.3 L	111.90	I=108.90' (DMH-3A)	I=108.86 (EXIST)	5' DIAM. 4" FRAME ECCENTRIC CONE
DMH-3A	17+91	12.8 L	112.59	I=109.20' (CBCI-5) I=109.30' (DMH-4)	I=109.20' (DMH-3)	
EX-DMH-6405	17+06	18.5 R	111.12	I=106.80' (CB-4) I=104.50' (CB-6)	I=104.50 (EXIST)	



CONTINUED ON
SHEET NO. 37

CONTINUED ON
SHEET NO. 39

0 20 50 100
SCALE: 1" = 20'

FREIHA
REIHA
62-26
5 PG 300

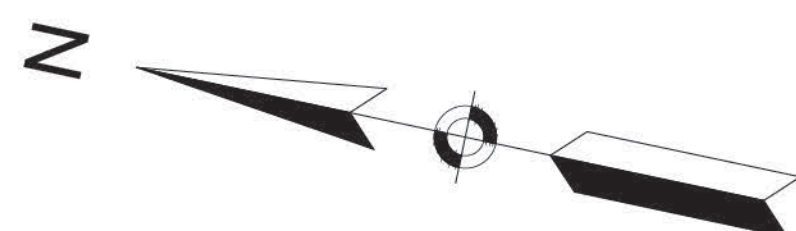
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Plotted on 1-Dec-2020 8:05 AM

DEDHAM
ELM STREET AND RUSTCRAFT ROAD

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ-003S(160)X	39	71
PROJECT FILE NO.		607901	

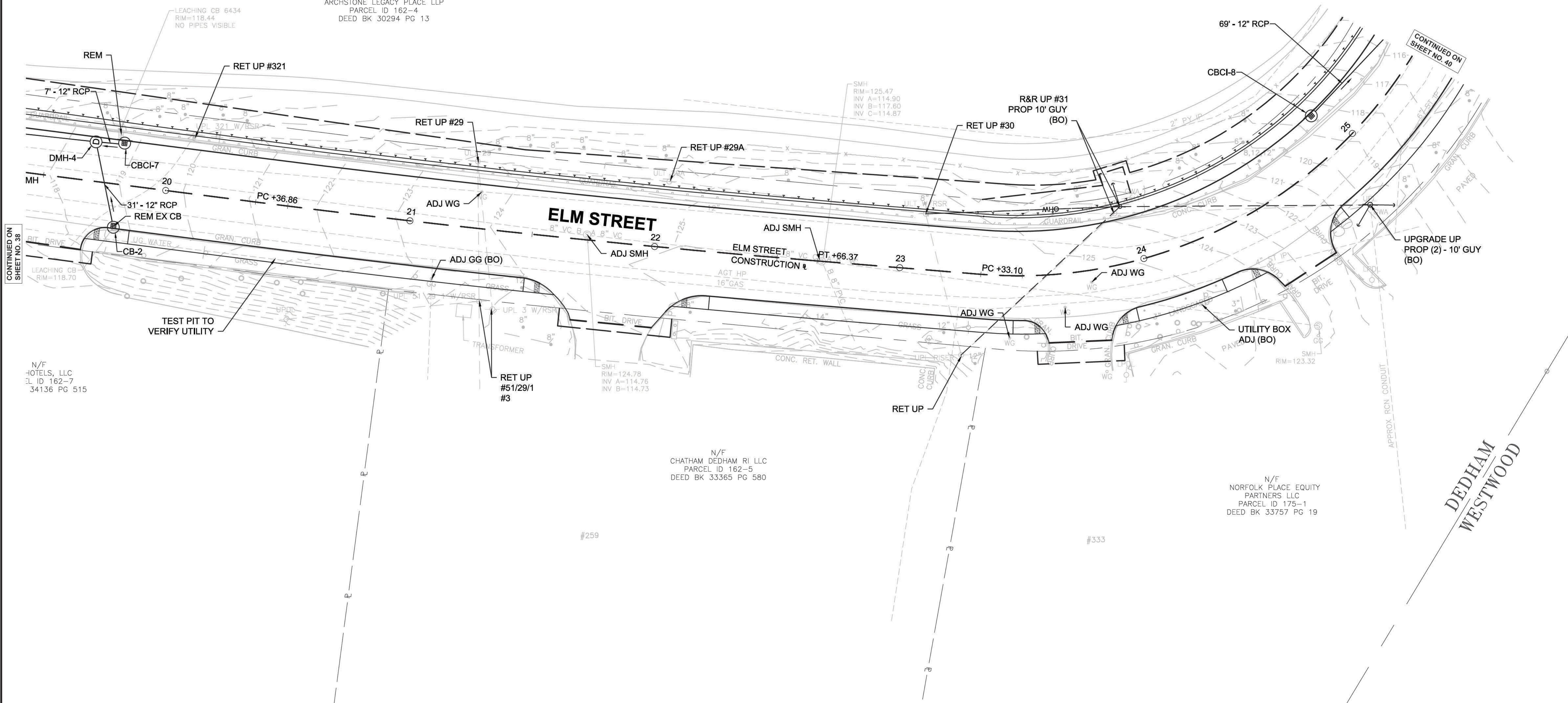
DRAINAGE & UTILITY
PLANS

DRAINAGE STRUCTURE TABLE						
NAME	STATION	OFFSET	RIM	INV. ELEV. IN	INV. ELEV. OUT	NOTES
CB-2	19+81	17.6 R	118.76		I=111.10' (DMH-4)	OFFSET CB
CBCI-7	19+81	17.0 L	118.70		I=115.00' (DMH-4)	
CBCI-8	24+93	16.9 L	118.37		I=113.50' (DMH-6)	
DMH-4	19+69	16.0 L	118.38	I=114.90' (CBCI-7) I=110.90' (CB-2)	I=110.80' (DMH-3A)	



N/F
ARCHSTONE LEGACY PLACE LLP
PARCEL ID 162-4
DEED BK 30294 PG 13

N/F
ARCHSTONE LEGACY PLACE LLP
PARCEL ID 162-4
DEED BK 30294 PG 13



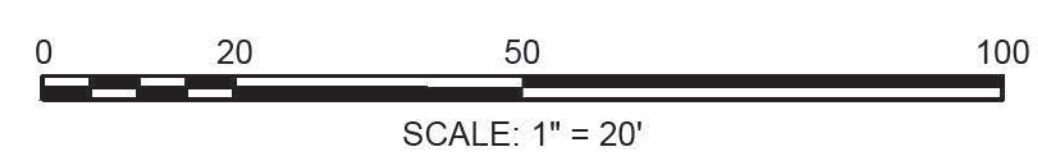
CONTINUED ON
SHEET NO. 38

CONTINUED ON
SHEET NO. 40

N/F
HOTELS, LLC
PARCEL ID 162-7
34136 PG 515

N/F
CHATHAM DEDHAM RI LLC
PARCEL ID 162-5
DEED BK 33365 PG 580

N/F
NORFOLK PLACE EQUITY
PARTNERS LLC
PARCEL ID 175-1
DEED BK 33757 PG 19

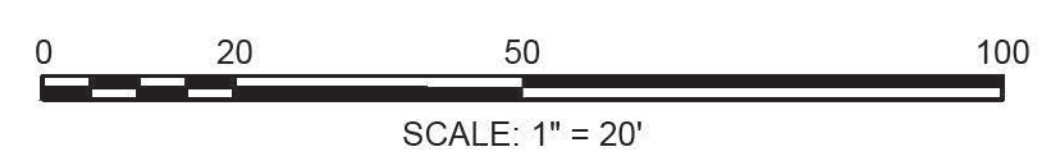
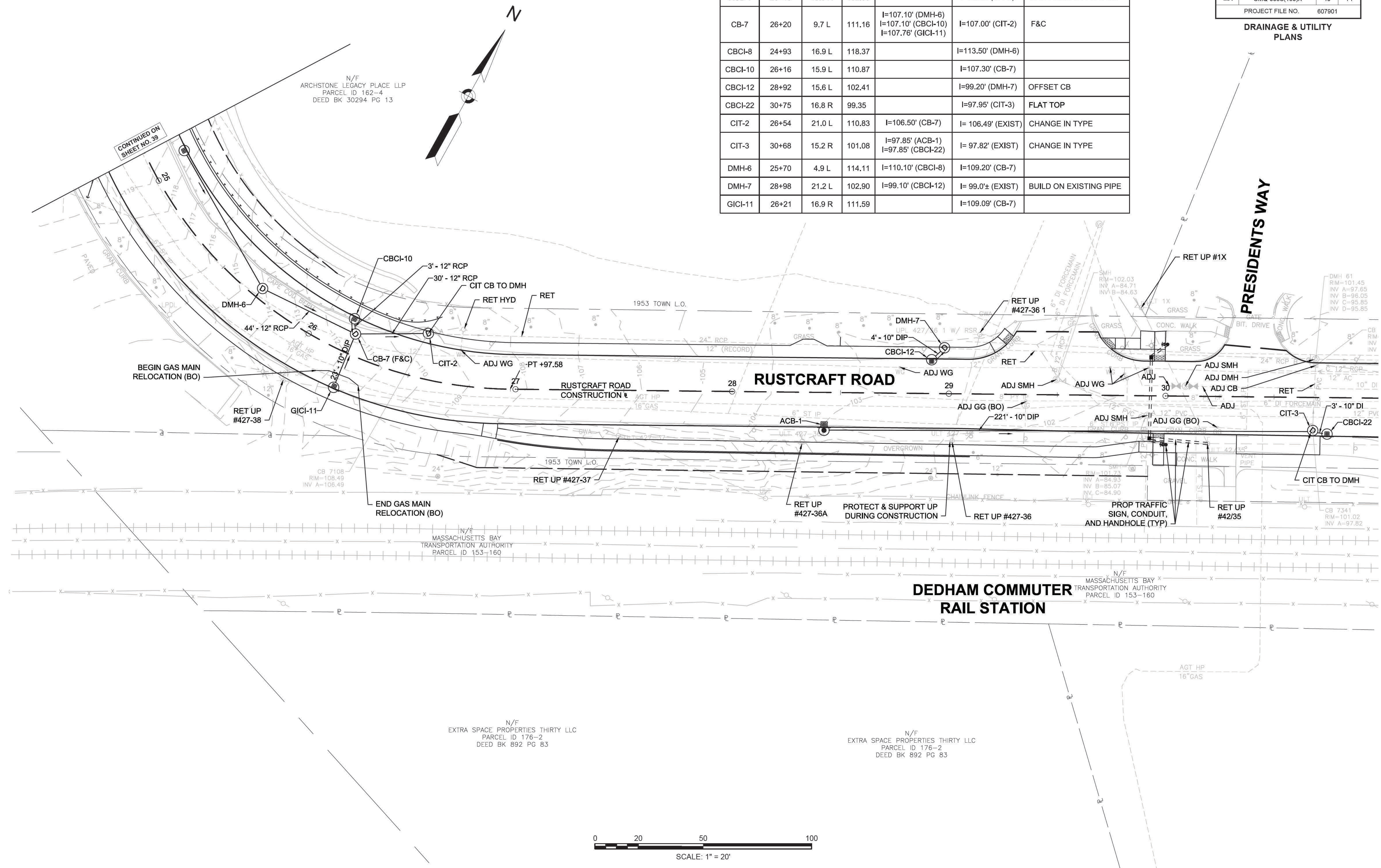


FOR PROFILE SEE SHEETS 23-24

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ-003S(160)X	40	71
PROJECT FILE NO. 607901			

DRAINAGE & UTILITY PLANS

DRAINAGE STRUCTURE TABLE						
NAME	STATION	OFFSET	RIM	INV. ELEV. IN	INV. ELEV. OUT	NOTES
ACB-1	28+43	15.0 R	102.99		I=99.80' (CIT-3)	ALTERNATIVE TYPE CB
CB-7	26+20	9.7 L	111.16	I=107.10' (DMH-6) I=107.10' (CBCI-10) I=107.76' (GICI-11)	I=107.00' (CIT-2)	F&C
CBCI-8	24+93	16.9 L	118.37		I=113.50' (DMH-6)	
CBCI-10	26+16	15.9 L	110.87		I=107.30' (CB-7)	
CBCI-12	28+92	15.6 L	102.41		I=99.20' (DMH-7)	OFFSET CB
CBCI-22	30+75	16.8 R	99.35		I=97.95' (CIT-3)	FLAT TOP
CIT-2	26+54	21.0 L	110.83	I=106.50' (CB-7)	I= 106.49' (EXIST)	CHANGE IN TYPE
CIT-3	30+68	15.2 R	101.08	I=97.85' (ACB-1) I=97.85' (CBCI-22)	I= 97.82' (EXIST)	CHANGE IN TYPE
DMH-6	25+70	4.9 L	114.11	I=110.10' (CBCI-8)	I=109.20' (CB-7)	
DMH-7	28+98	21.2 L	102.90	I=99.10' (CBCI-12)	I= 99.0± (EXIST)	BUILD ON EXISTING PIPE
GICI-11	26+21	16.9 R	111.59		I=109.09' (CB-7)	



FOR PROFILE SEE SHEET 24

CONTINUED ON
SHEET NO. 39

CONTINUED ON
SHEET NO. 41

N/F
ARCHSTONE LEGACY PLACE LLP
PARCEL ID 162-4
DEED BK 30294 PG 13

N/F
EXTRA SPACE PROPERTIES THIRTY LLC
PARCEL ID 176-2
DEED BK 892 PG 83

N/F
EXTRA SPACE PROPERTIES THIRTY LLC
PARCEL ID 176-2
DEED BK 892 PG 83

BEGIN GAS MAIN
RELOCATION (BO)

END GAS MAIN
RELOCATION (BO)

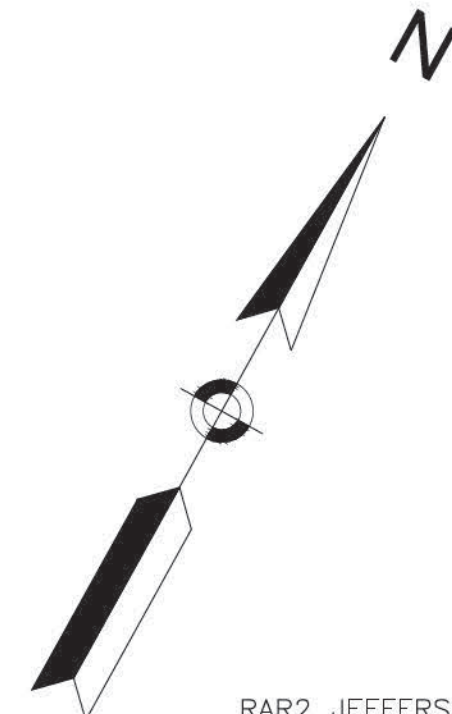
N/F
MASSACHUSETTS BAY
TRANSPORTATION AUTHORITY
PARCEL ID 153-160

N/F
MASSACHUSETTS BAY
TRANSPORTATION AUTHORITY
PARCEL ID 153-160

DEDHAM
ELM STREET AND RUSTCRAFT ROAD

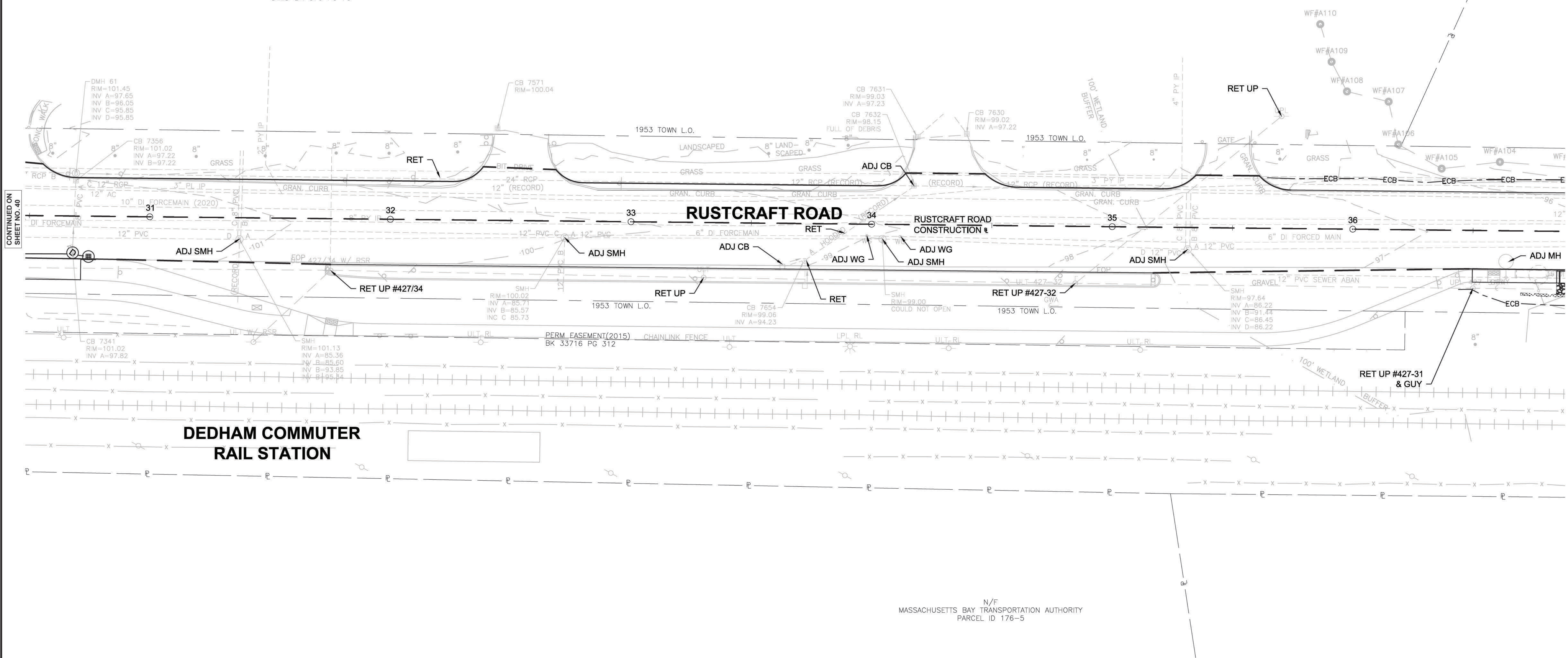
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ-003S(160)X	41	71

DRAINAGE & UTILITY
PLANS



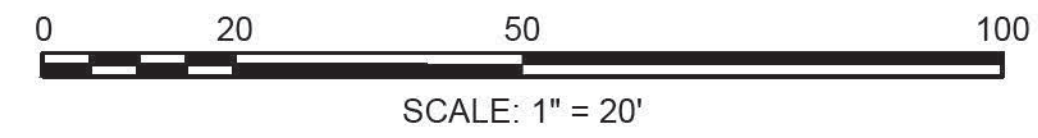
N/F
RAR2 JEFFERSON AT DEDHAM STATION MN INC
PARCEL ID 163-2
DEED BK 870 PG 75

N/F
RAR2 JEFFERSON AT DEDHAM STATION MN INC
PARCEL ID 163-2
DEED BK 870 PG 75



CONTINUED ON
SHEET NO. 40

CONTINUED ON
SHEET NO. 42



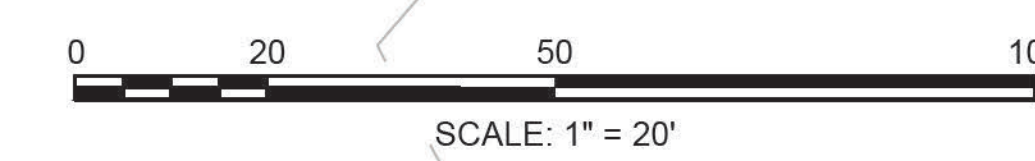
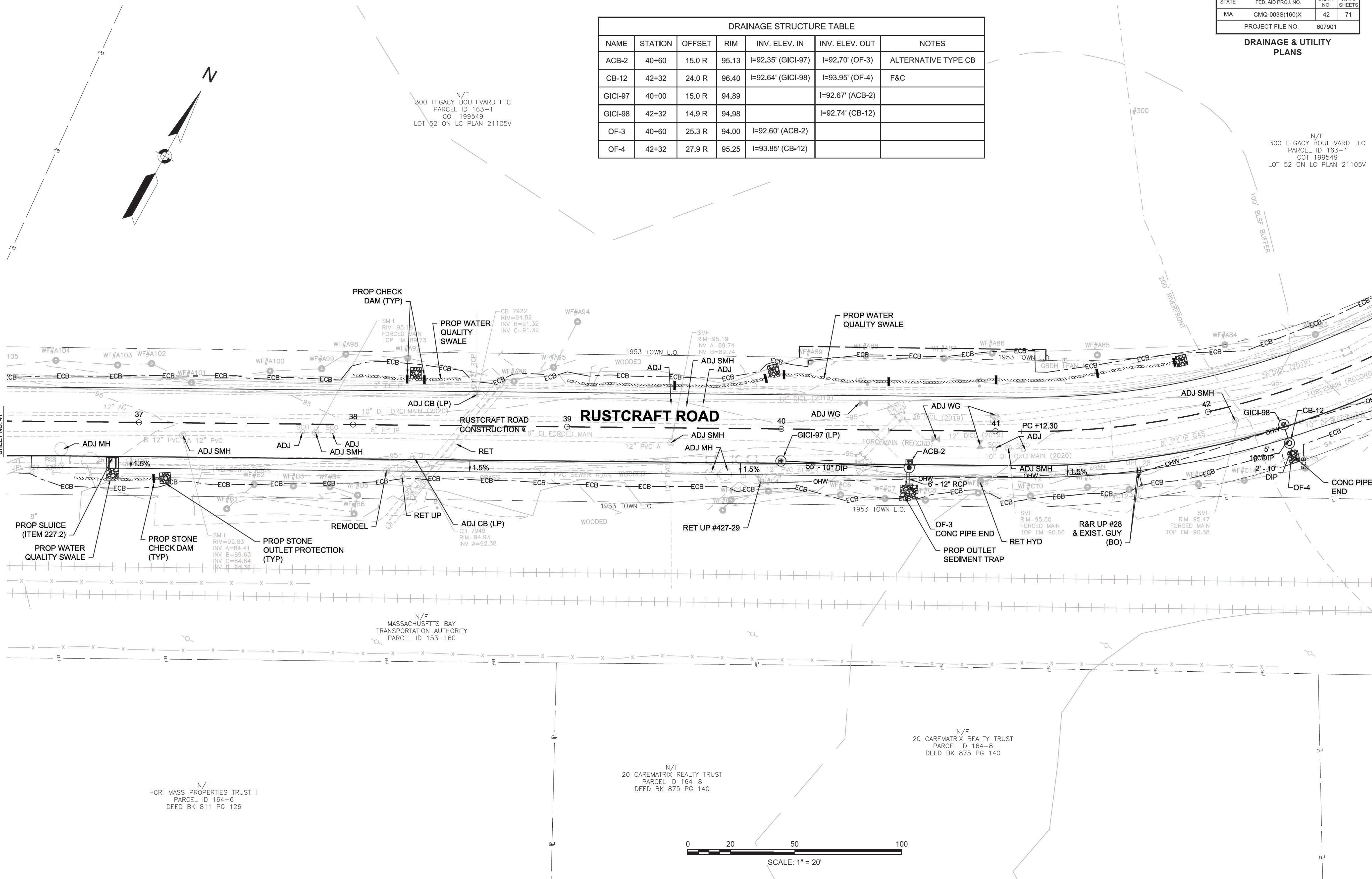
FOR PROFILE SEE SHEET 24-25

DEDHAM
ELM STREET AND RUSTCRAFT ROAD

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ-003S(160)X	42	71
PROJECT FILE NO.		607901	

DRAINAGE & UTILITY PLANS

DRAINAGE STRUCTURE TABLE						
NAME	STATION	OFFSET	RIM	INV. ELEV. IN	INV. ELEV. OUT	NOTES
ACB-2	40+60	15.0 R	95.13	I=92.35' (GICI-97)	I=92.70' (OF-3)	ALTERNATIVE TYPE CB
CB-12	42+32	24.0 R	96.40	I=92.64' (GICI-98)	I=93.95' (OF-4)	F&C
GICI-97	40+00	15.0 R	94.89		I=92.67' (ACB-2)	
GICI-98	42+32	14.9 R	94.98		I=92.74' (CB-12)	
OF-3	40+60	25.3 R	94.00	I=92.60' (ACB-2)		
OF-4	42+32	27.9 R	95.25	I=93.85' (CB-12)		



FOR PROFILE SEE SHEET 25

607901_HD4816 GRAD UTILITY.DWG Picked on 1-Dec-2020 8:12 AM

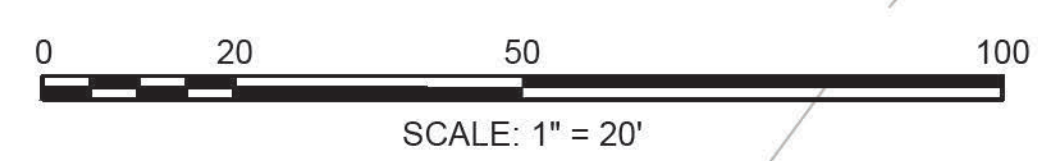
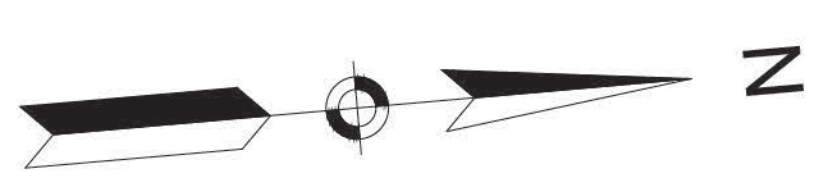
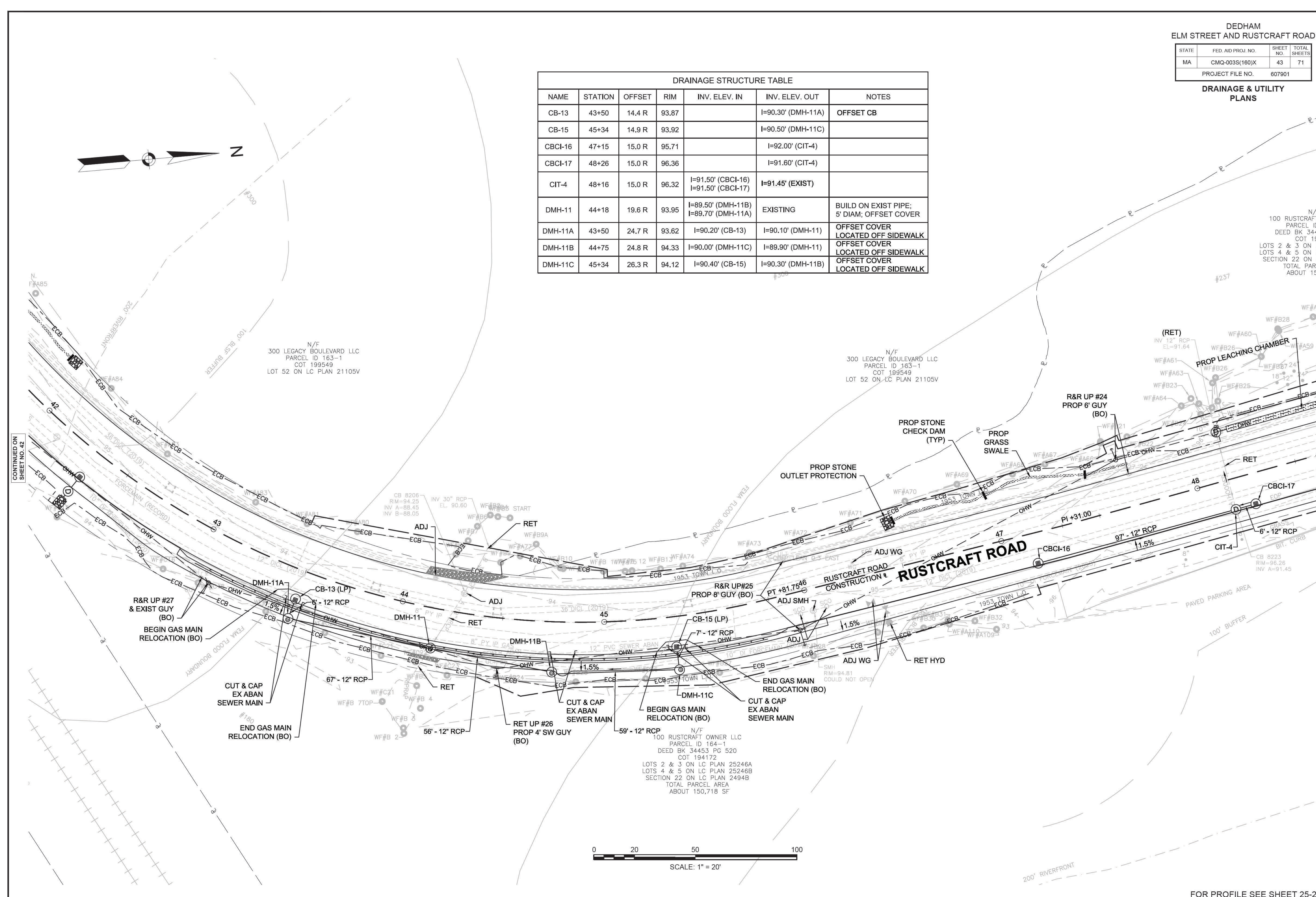
DEDHAM
ELM STREET AND RUSTCRAFT ROAD

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ-003S(160)X	43	71

DRAINAGE & UTILITY PLANS

DRAINAGE STRUCTURE TABLE						
NAME	STATION	OFFSET	RIM	INV. ELEV. IN	INV. ELEV. OUT	NOTES
CB-13	43+50	14.4 R	93.87		I=90.30' (DMH-11A)	OFFSET CB
CB-15	45+34	14.9 R	93.92		I=90.50' (DMH-11C)	
CBCI-16	47+15	15.0 R	95.71		I=92.00' (CIT-4)	
CBCI-17	48+26	15.0 R	96.36		I=91.60' (CIT-4)	
CIT-4	48+16	15.0 R	96.32	I=91.50' (CBCI-16) I=91.50' (CBCI-17)	I=91.45' (EXIST)	
DMH-11	44+18	19.6 R	93.95	I=89.50' (DMH-11B) I=89.70' (DMH-11A)	EXISTING	BUILD ON EXIST PIPE; 5' DIAM; OFFSET COVER
DMH-11A	43+50	24.7 R	93.62	I=90.20' (CB-13)	I=90.10' (DMH-11)	OFFSET COVER LOCATED OFF SIDEWALK
DMH-11B	44+75	24.8 R	94.33	I=90.00' (DMH-11C)	I=89.90' (DMH-11)	OFFSET COVER LOCATED OFF SIDEWALK
DMH-11C	45+34	26.3 R	94.12	I=90.40' (CB-15)	I=90.30' (DMH-11B)	OFFSET COVER LOCATED OFF SIDEWALK

N/F
100 RUSTCRAFT OWNER
PARCEL ID 164-1
DEED BK 34453
COT 194172
LOTS 2 & 3 ON LC PLAN
LOTS 4 & 5 ON LC PLAN
SECTION 22 ON LC PLAN
TOTAL PARCEL AREA
ABOUT 150,718 SF



FOR PROFILE SEE SHEET 25-26

CONTINUED ON
SHEET NO. 42

CONTINUED ON
SHEET NO. 44

607901_HD4816 GRAD UTILITY.DWG Picked on 1-Dec-2020 8:14 AM

DEDHAM
ELM STREET AND RUSTCRAFT ROAD

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ-003S(160)X	44	71

DRAINAGE & UTILITY
PLANS

N/F
DEDHAM CORP CENTER REALTY TRUST
PARCEL ID 150-4
DEED BK 642 PG 170

N/F
100 RUSTCRAFT OWNER, LLC
PARCEL ID 164-7
DEED BK 34453 PG 520
COT 194172
LOTS 2 & 3 ON LC PLAN 25246A
LOTS 4 & 5 ON LC PLAN 25246B
SECTION 22 ON LC PLAN 2494B
TOTAL PARCEL AREA
ABOUT 150,718 SF

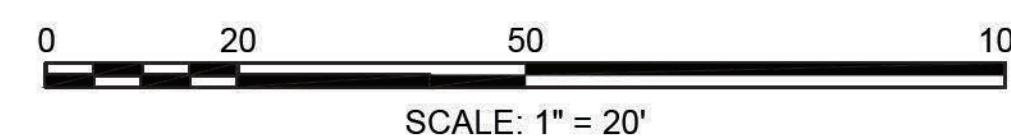
N/F
100 RUSTCRAFT OWNER, LLC
PARCEL ID 164-7
DEED BK 34453 PG 520
COT 194172
LOTS 2 & 3 ON LC PLAN 25246A
LOTS 4 & 5 ON LC PLAN 25246B
SECTION 22 ON LC PLAN 2494B
TOTAL PARCEL AREA
ABOUT 150,718 SF

N/F
100 RUSTCRAFT OWNER, LLC
PARCEL ID 164-7
DEED BK 34453 PG 520
COT 194172
LOTS 2 & 3 ON LC PLAN 25246A
LOTS 4 & 5 ON LC PLAN 25246B

N/F
100 RUSTCRAFT OWNER, LLC
PARCEL ID 164-1
DEED BK 34453 PG 520
COT 194172
LOTS 2 & 3 ON LC PLAN 25246A
LOTS 4 & 5 ON LC PLAN 25246B
SECTION 22 ON LC PLAN 2494B
TOTAL PARCEL AREA
ABOUT 150,718 SF

DRAINAGE STRUCTURE TABLE

NAME	STATION	OFFSET	RIM	INV. ELEV. IN	INV. ELEV. OUT	NOTES
DMH-14	48+92	23.9 L	97.03	I=92.70' (EX-CBCI-18)	I=92.70' (RECHARGE)	CONNECT TO 12" RCP STUB
DMH-17	48+16	24.2 L	98.50	I=92.60' (RECHARGE)	I=91.5± (EXIST)	BUILD ON EXIST PIPE, PRECAST WEIR WALL EL = 94.40
EX-CBCI-18	49+12	15.0 L	96.71		I=92.80' (DMH-14)	
EX-DMH-16	53+49	14.5 L	98.63		I=93.80' (OF-1)	NEW F&G
OF-1	53+36	32.6 L	95.10	I=93.70' (EX-DMH-16)		
RECHARGE	48+84	24.4 L	93.70	I=92.60' (DMH-14)	I=92.60' (DMH-17)	



FOR PROFILE SEE SHEET 26

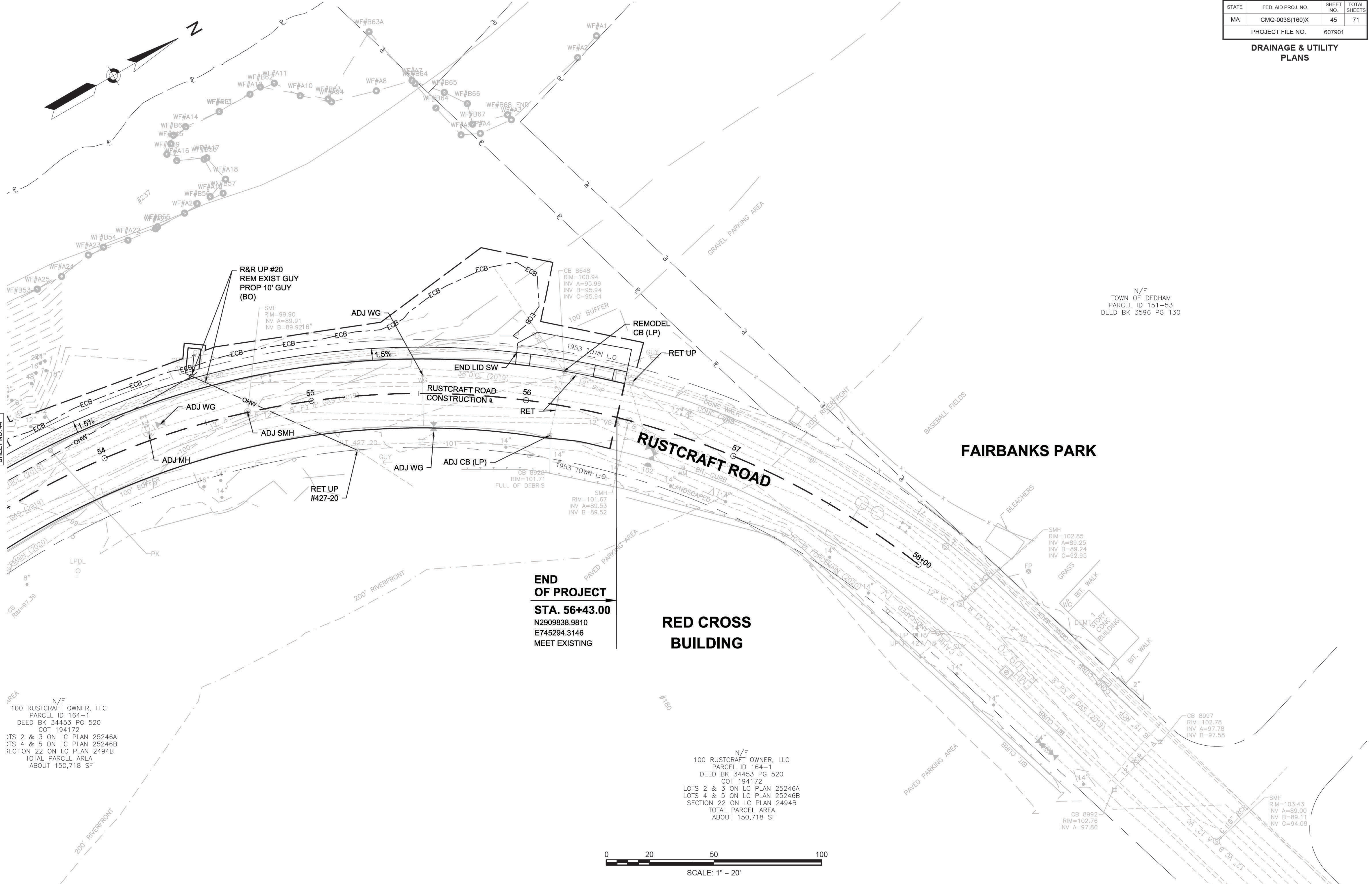
DEDHAM
ELM STREET AND RUSTCRAFT ROAD

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ-003S(160)X	45	71
PROJECT FILE NO. 607901			

DRAINAGE & UTILITY PLANS

N/F
TOWN OF DEDHAM
PARCEL ID 151-53
DEED BK 3596 PG 130

CONTINUED ON
SHEET NO. 44



END OF PROJECT
STA. 56+43.00
N2909838.9810
E745294.3146
MEET EXISTING

N/F
100 RUSTCRAFT OWNER, LLC
PARCEL ID 164-1
DEED BK 34453 PG 520
COT 194172
LOTS 2 & 3 ON LC PLAN 25246A
LOTS 4 & 5 ON LC PLAN 25246B
SECTION 22 ON LC PLAN 2494B
TOTAL PARCEL AREA
ABOUT 150,718 SF

N/F
100 RUSTCRAFT OWNER, LLC
PARCEL ID 164-1
DEED BK 34453 PG 520
COT 194172
LOTS 2 & 3 ON LC PLAN 25246A
LOTS 4 & 5 ON LC PLAN 25246B
SECTION 22 ON LC PLAN 2494B
TOTAL PARCEL AREA
ABOUT 150,718 SF

0 20 50 100
SCALE: 1" = 20'

FOR PROFILE SEE SHEET 26

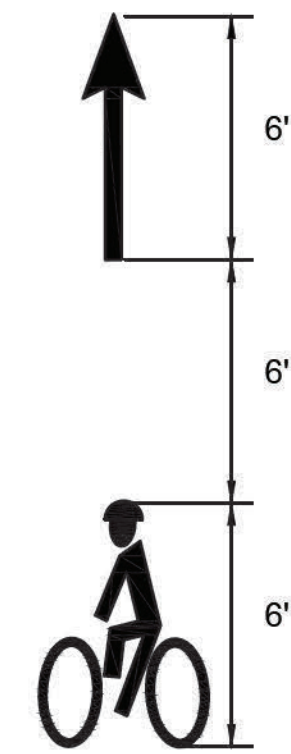
SIGN & PAVEMENT MARKING NOTES

1. ALL EXISTING SIGNS AND SIGN POSTS WITHIN THE PROJECT LIMITS SHALL BE R&D UNLESS OTHERWISE NOTED ON PLANS.
2. ALL PROPOSED PAVEMENT MARKINGS SHALL BE THERMOPLASTIC. ALL EXISTING PAVEMENT MARKINGS THAT CONFLICT WITH THE PROPOSED PAVEMENT MARKINGS SHALL BE REMOVED BY AN APPROVED METHOD.
3. ALL PROPOSED SIGN POSTS SHALL BE P-5 TYPE (TELESCOPIC POST) UNLESS OTHERWISE NOTED.
4. ALL SIGNS SHOULD BE 90° TO THE CURB AND FACING THE FLOW OF TRAFFIC UNLESS OTHERWISE NOTED. ALL R7 SIGN SHALL BE MOUNTED AT AN ANGLE OF 45° TO THE CURB AND FACING THE FLOW OF TRAFFIC. ALL W1-8 SIGNS SHALL BE MOUNTED AT AN ANGLE TO FACE THE FLOW OF ONCOMING TRAFFIC.
5. STREET SIGNS SHALL BE MOUNTED PARALLEL WITH THE STREET.
6. ALL R&R SIGNS SHALL BE MOUNTED ON NEW POSTS.
7. SIGNS TO BE MOUNTED NEAR THE CURB LINE SHALL BE SET BACK 2' FROM THE EDGE OF THE SIGN PANEL TO THE CURB LINE. NO SIGN SHALL OVERHANG THE CURB LINE.
8. UNLESS OTHERWISE NOTED ON THE PLANS, ALL POST-MOUNTED SIGNS SHALL PROVIDE A 7' MINIMUM CLEARANCE BETWEEN THE BOTTOM OF THE SIGN AND FINISHED GRADE. ALL W1-8 AND OM1-1 SIGNS SHALL BE MOUNTED 4' ABOVE FINISHED GRADE.

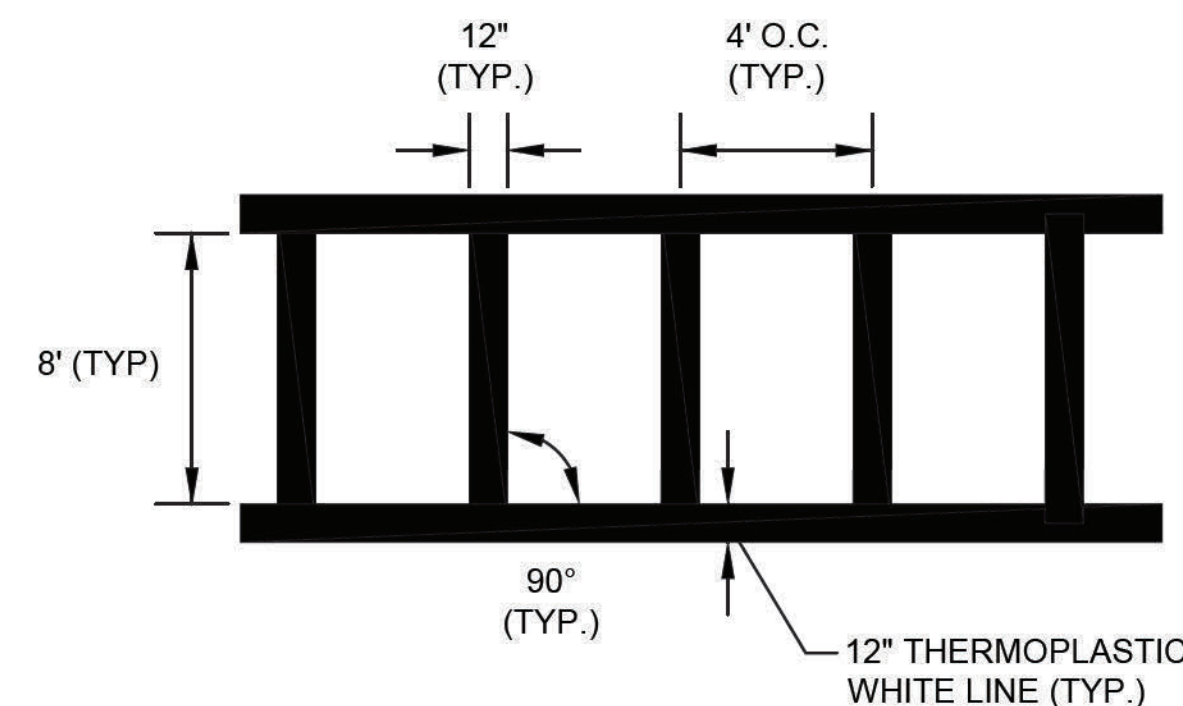
DEDHAM
ELM STREET AND RUSTCRAFT ROAD

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ-003S(180)X	46	71

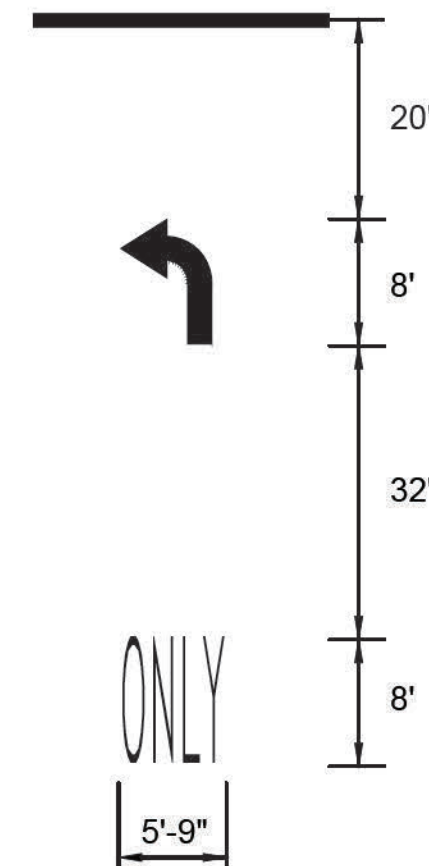
PROJECT FILE NO. 607901
SIGN & PAVEMENT MARKING PLAN



BICYCLE LANE MARKING DETAIL
NOT TO SCALE

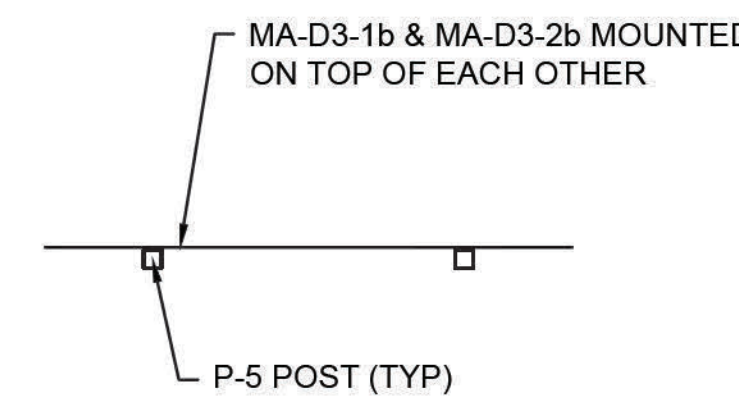


CROSSWALK STRIPING DETAIL
NOT TO SCALE

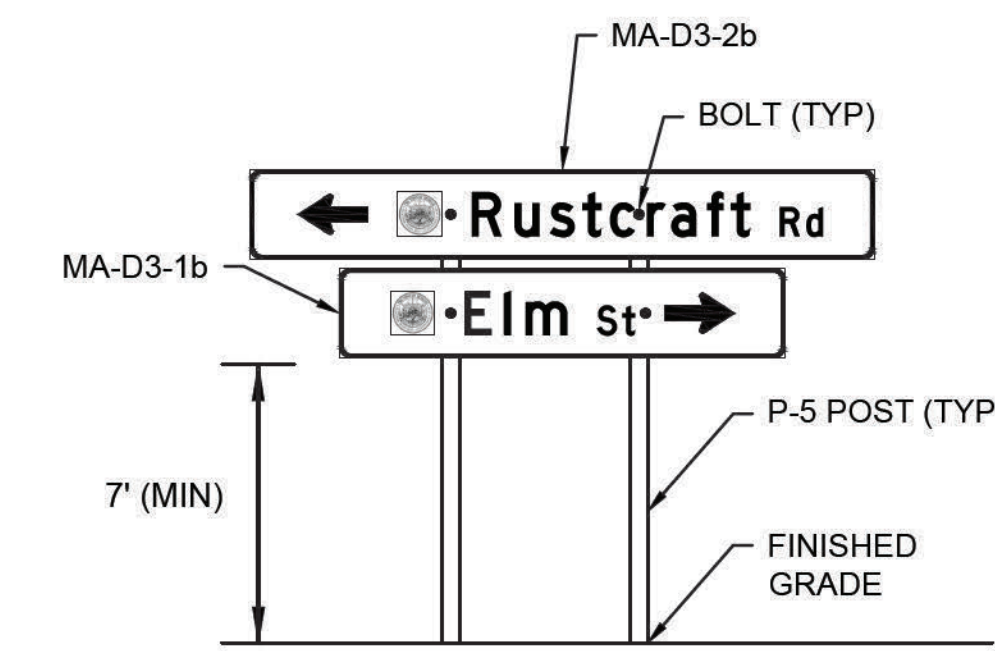


ARROW & "ONLY" DETAIL
NOT TO SCALE

NOTE:
1. LEGEND SPACINGS ARE TYPICAL AND SHOULD BE FIELD-ADJUSTED AS DIRECTED BY THE ENGINEER.

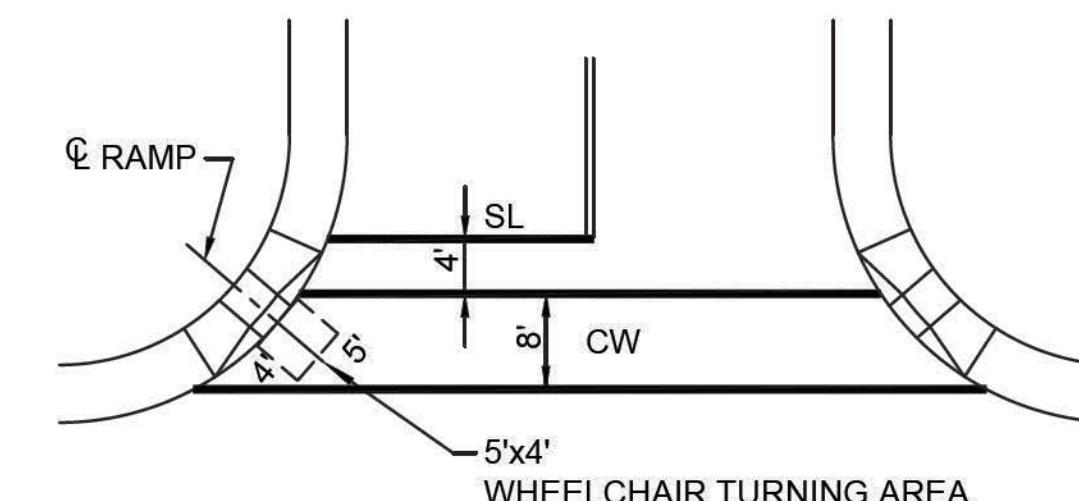


PLAN

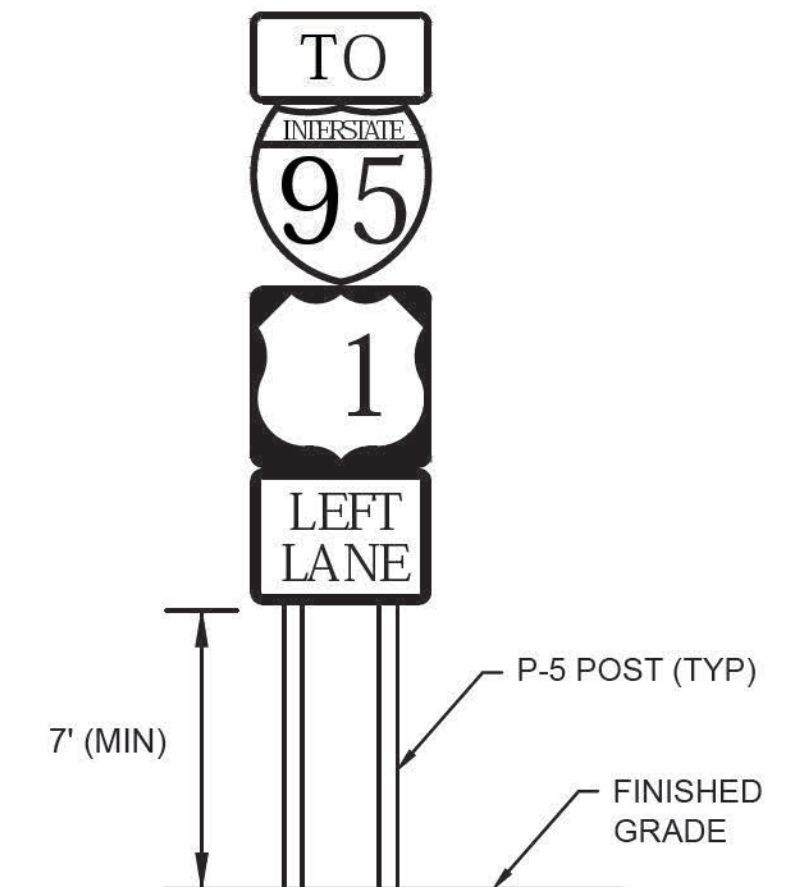


ELEVATION
(LOOKING SOUTHBOUND)

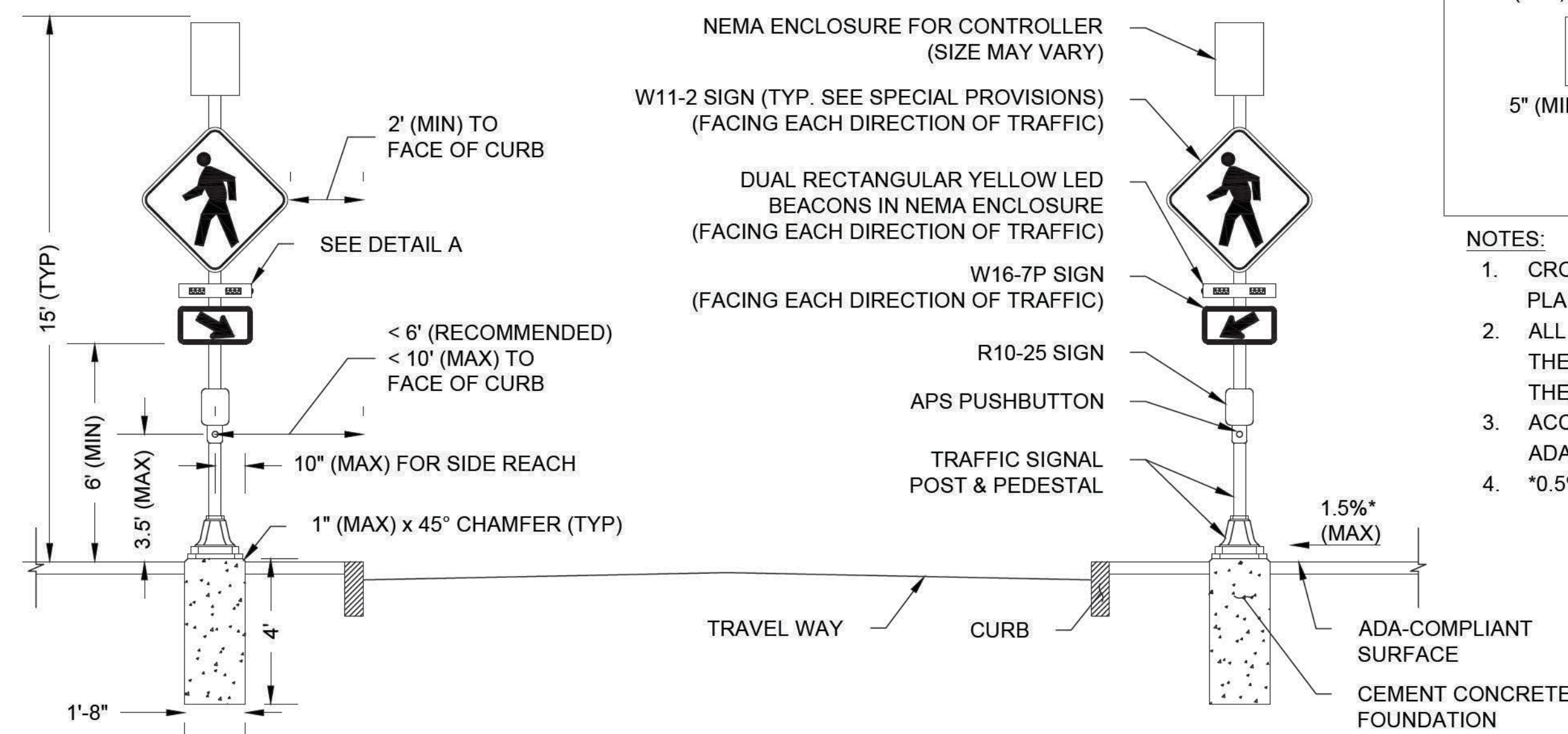
STREET NAME SIGN ASSEMBLY
(STA. 26+20 RT)
NOT TO SCALE



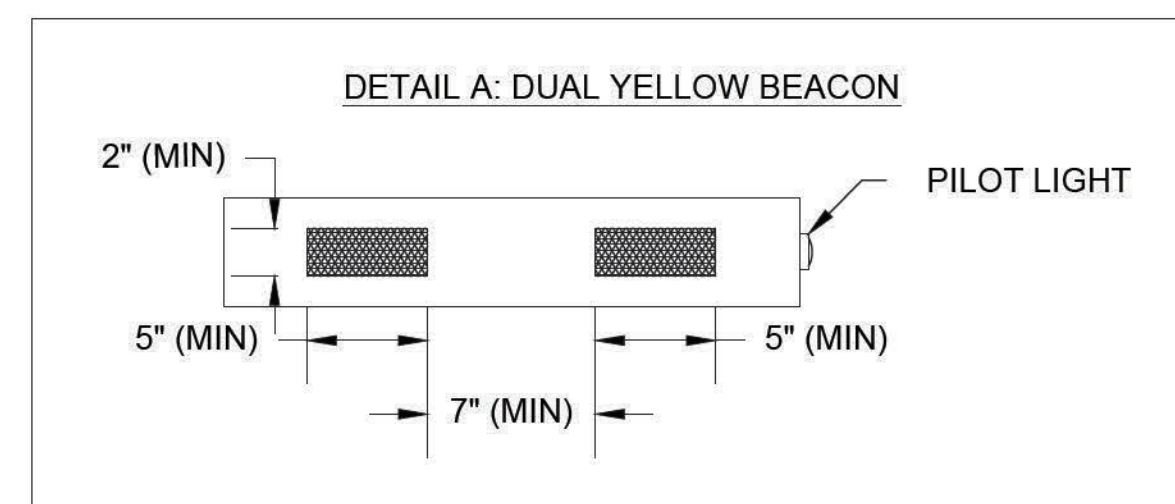
CROSSWALK LOCATION DETAIL
NOT TO SCALE



GUIDE SIGN ASSEMBLY
(STA. 9+50 LT, STA. 11+50 LT & STA. 13+50 LT)
NOT TO SCALE

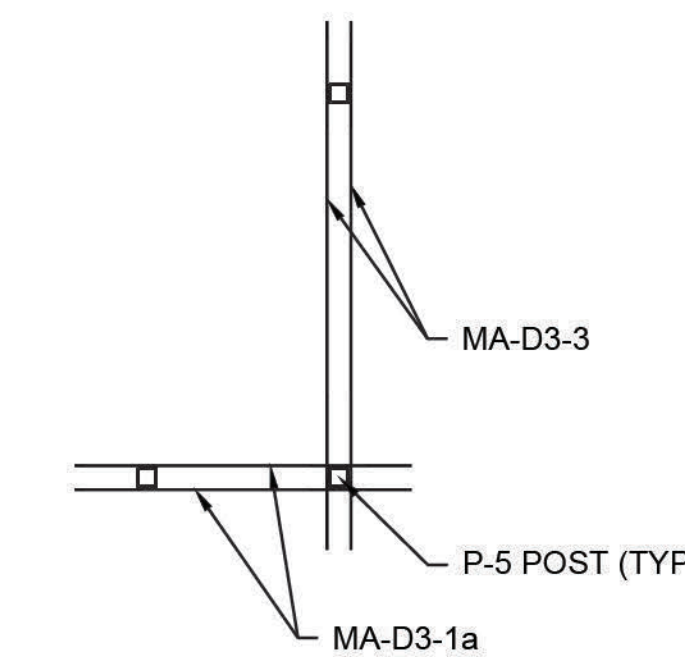


RECTANGULAR RAPID FLASHING BEACON DETAIL
NOT TO SCALE

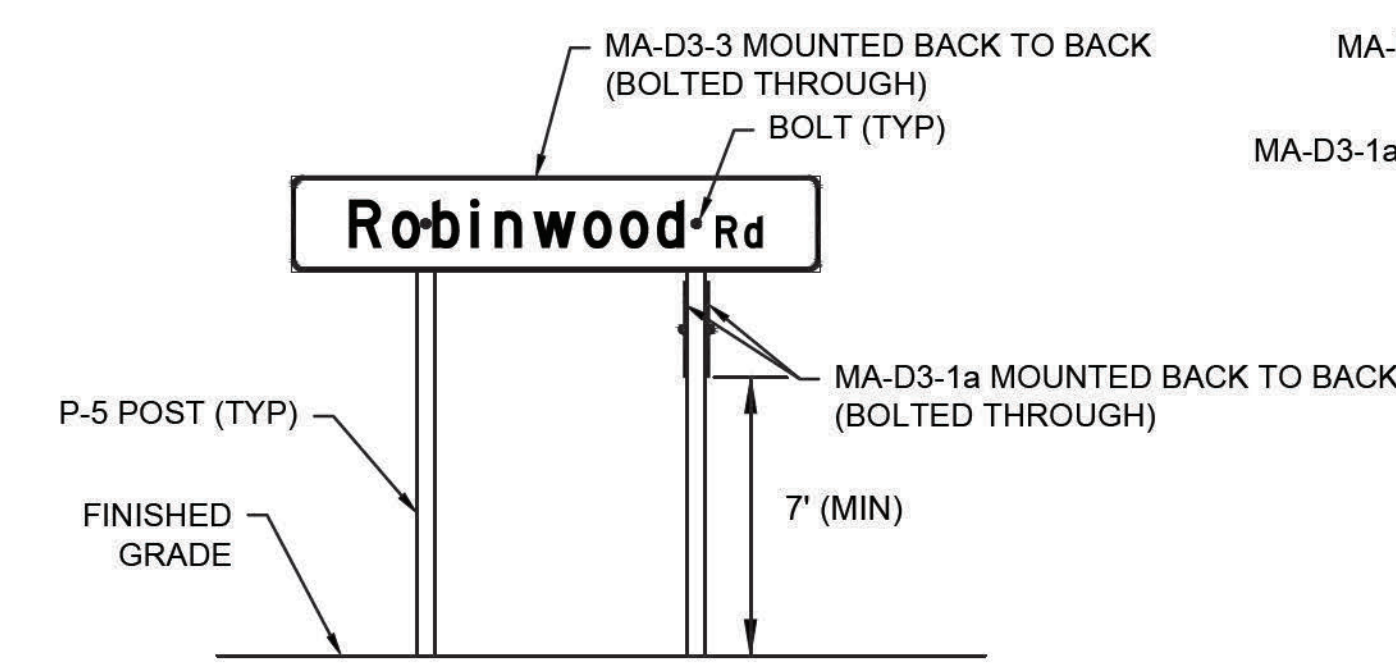


- NOTES:
1. CROSSWALK AND ADA-COMPLIANT RAMP NOT SHOWN. SEE PLANS FOR LOCATIONS.
 2. ALL CONDUIT AND PULL BOXES REQUIRED IS NOT SHOWN IN THESE DETAILS AND SHALL BE PAID FOR SEPARATELY UNDER THEIR RESPECTIVE PAY ITEMS.
 3. ACCESS TO ALL PEDESTRIAN ACTUATED CONTROLS SHALL BE ADA/AAB COMPLIANT.
 4. *0.5% CONSTRUCTION TOLERANCE FOR CROSS-SLOPE.

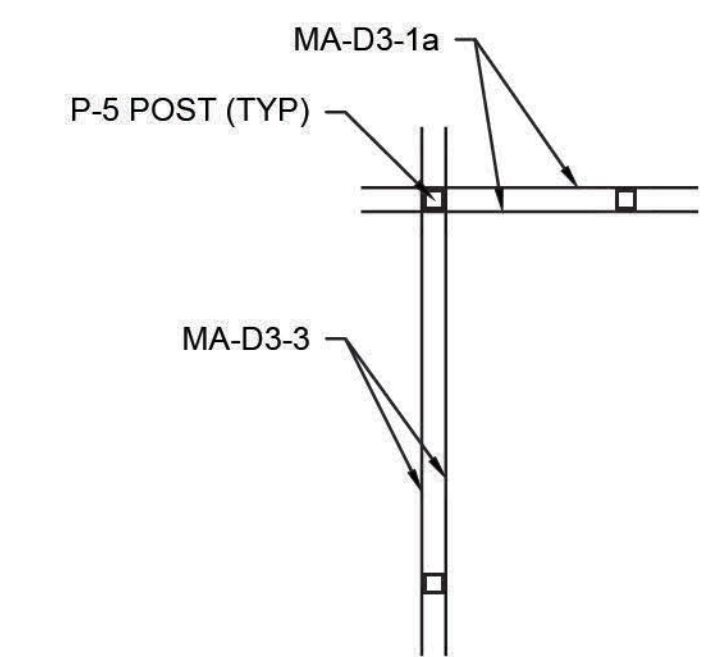
RRFB TIMING AND OPERATIONS TABLE	
LOCATION	FLASHING CYCLE TIME
LOCATION 1 (STA 17+70± ELM ST)	12 SECONDS
LOCATION 2 (STA 29+97± RUSTCRAFT RD)	10 SECONDS
LOCATION 3 (STA 48+99± RUSTCRAFT RD)	10 SECONDS



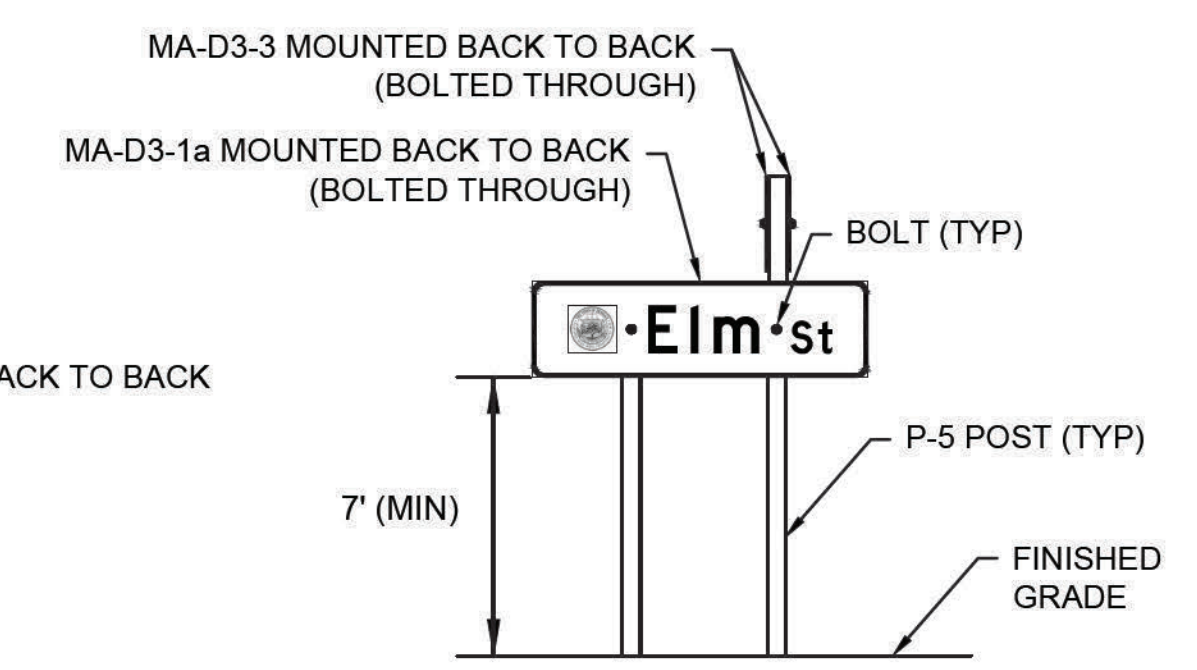
PLAN (STA. 11+93 RT)



ELEVATION
(LOOKING SOUTHBOUND)



PLAN (STA. 17+00 RT)



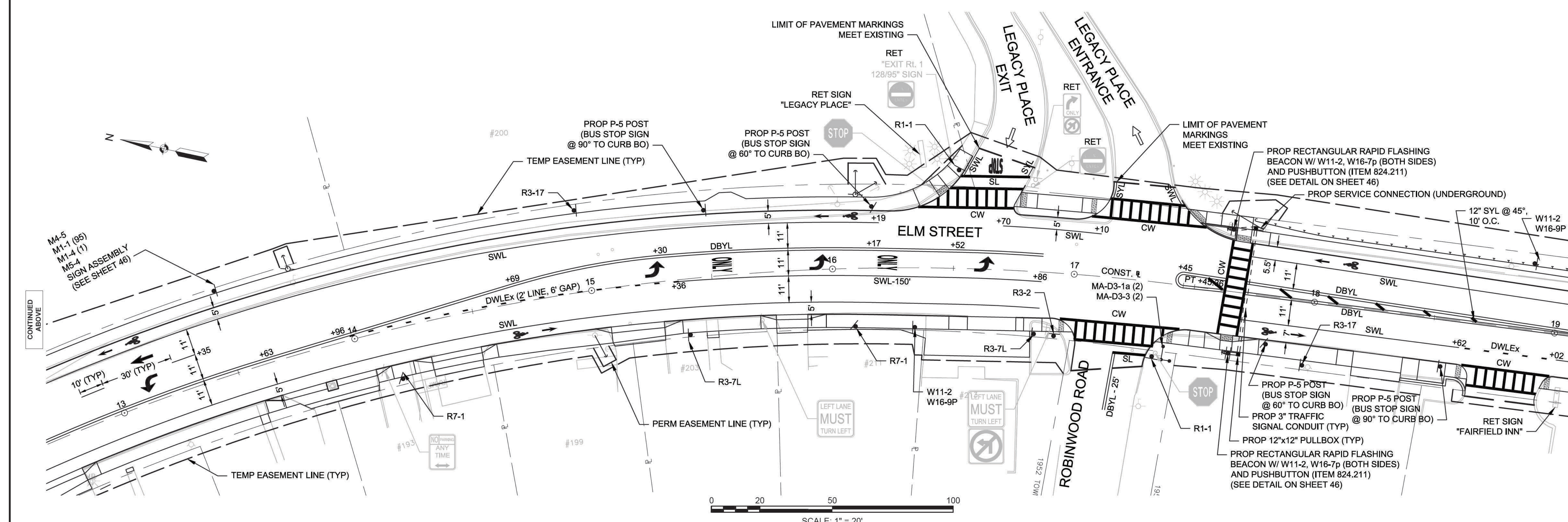
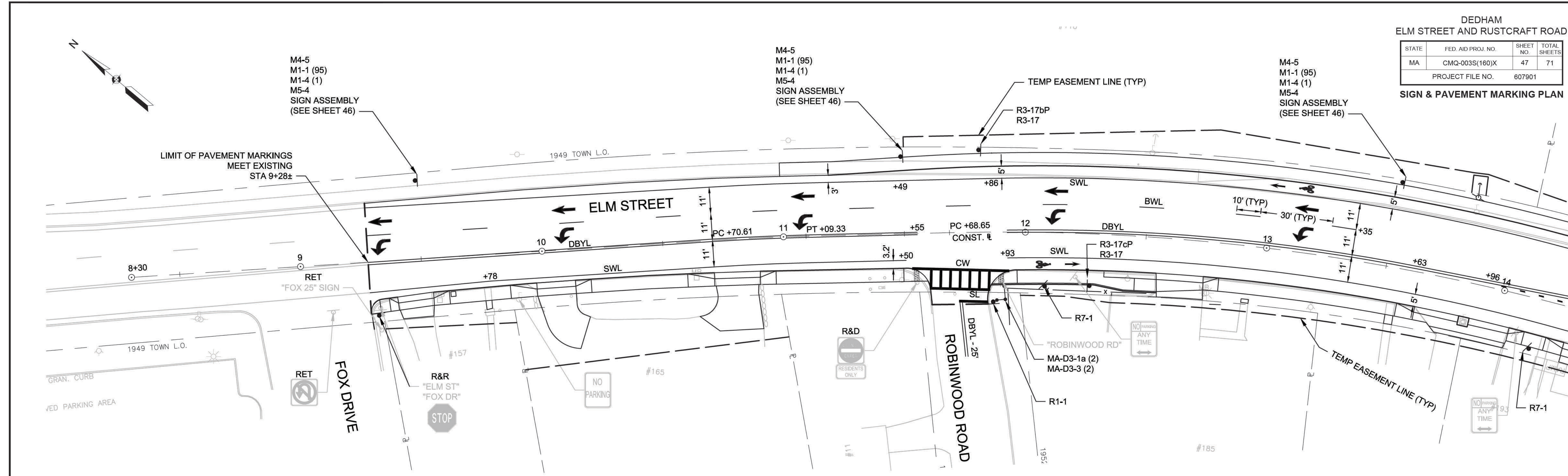
ELEVATION
(LOOKING WESTBOUND)

STREET NAME SIGN ASSEMBLY
(STA. 11+93 RT & STA. 17+00 RT)
NOT TO SCALE

DEDHAM
ELM STREET AND RUSTCRAFT ROAD

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ-003S(160)X	47	71
PROJECT FILE NO. 607901			

SIGN & PAVEMENT MARKING PLAN



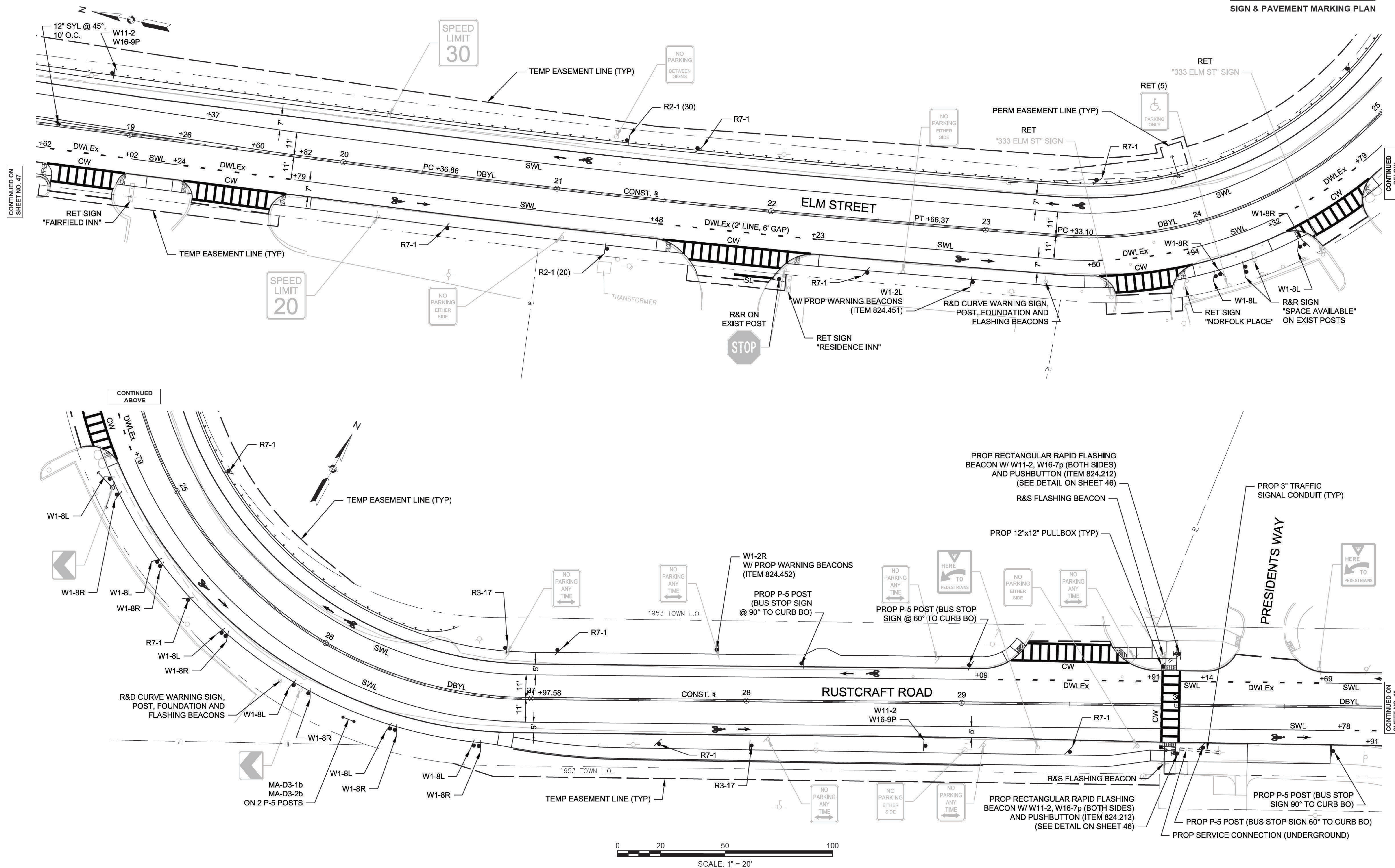
CONTINUED BELOW

CONTINUED ON SHEET NO. 48

DEDHAM
ELM STREET AND RUSTCRAFT ROAD

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ-003S(160)X	48	71
PROJECT FILE NO.		607901	

SIGN & PAVEMENT MARKING PLAN

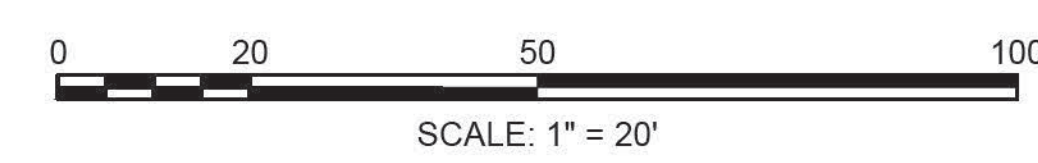


CONTINUED ON SHEET NO. 47

CONTINUED BELOW

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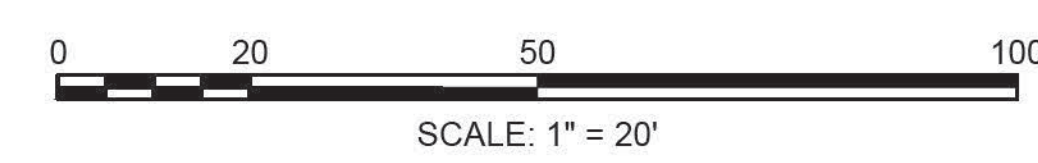
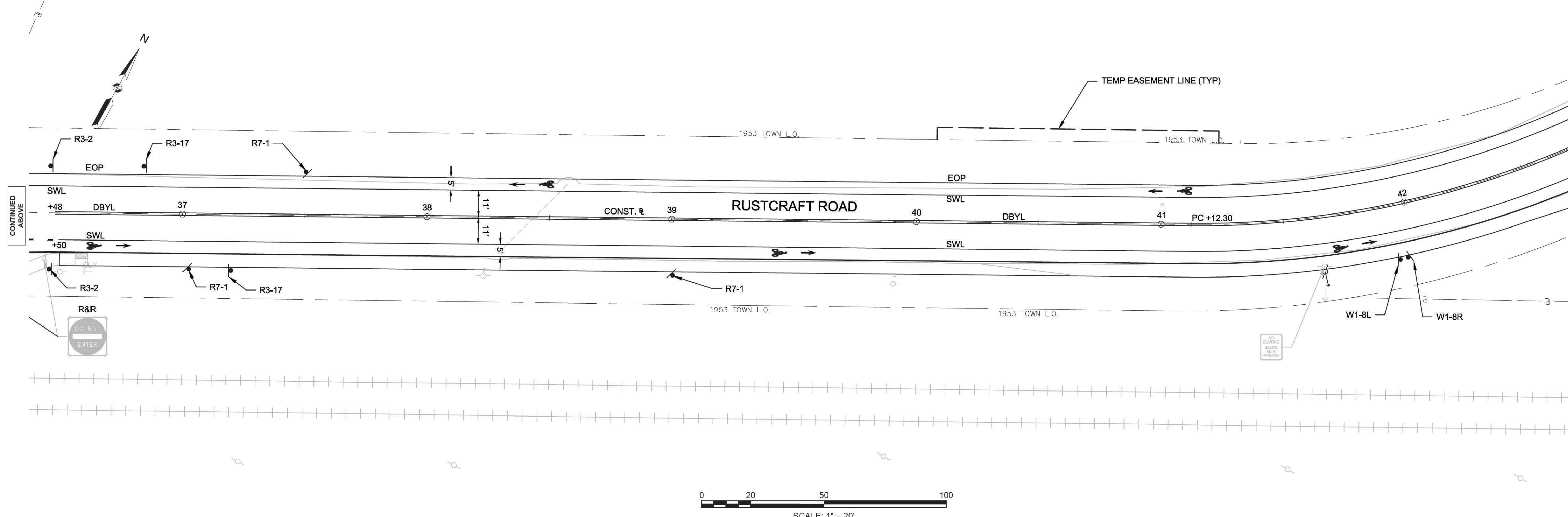
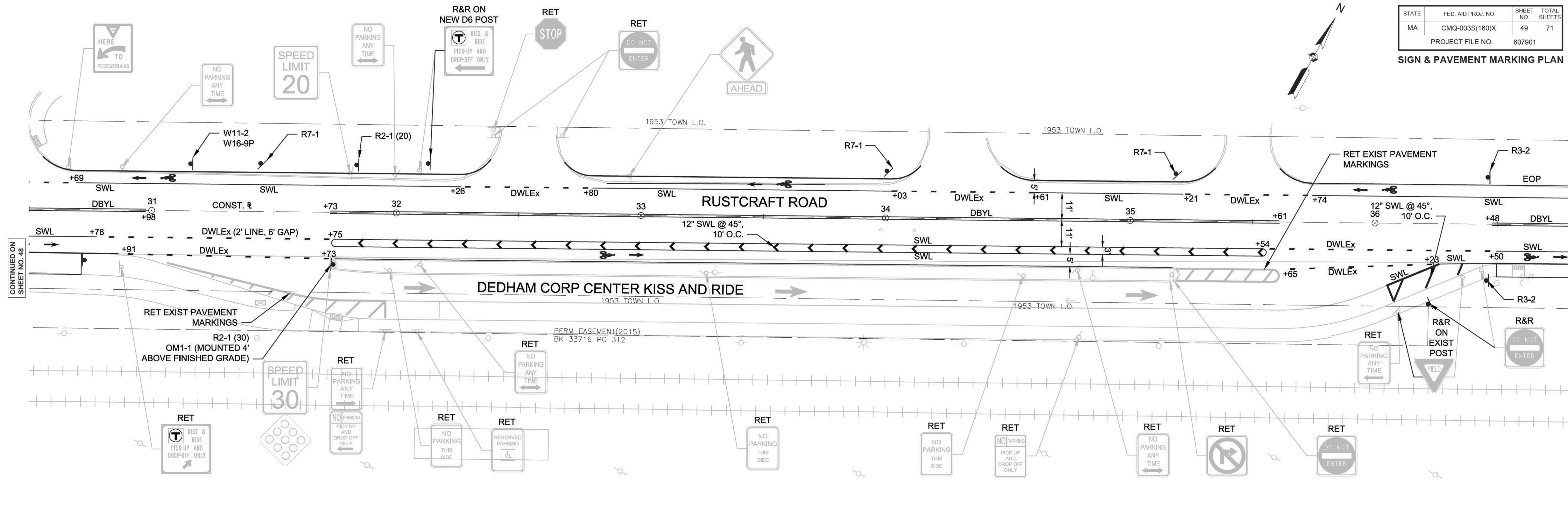
CONTINUED ON SHEET NO. 49



DEDHAM
ELM STREET AND RUSTCRAFT ROAD

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ-003S(160)X	49	71
PROJECT FILE NO.		607901	

SIGN & PAVEMENT MARKING PLAN



CONTINUED ON SHEET NO. 48

CONTINUED BELOW

CONTINUED ABOVE

CONTINUED ON SHEET NO. 50

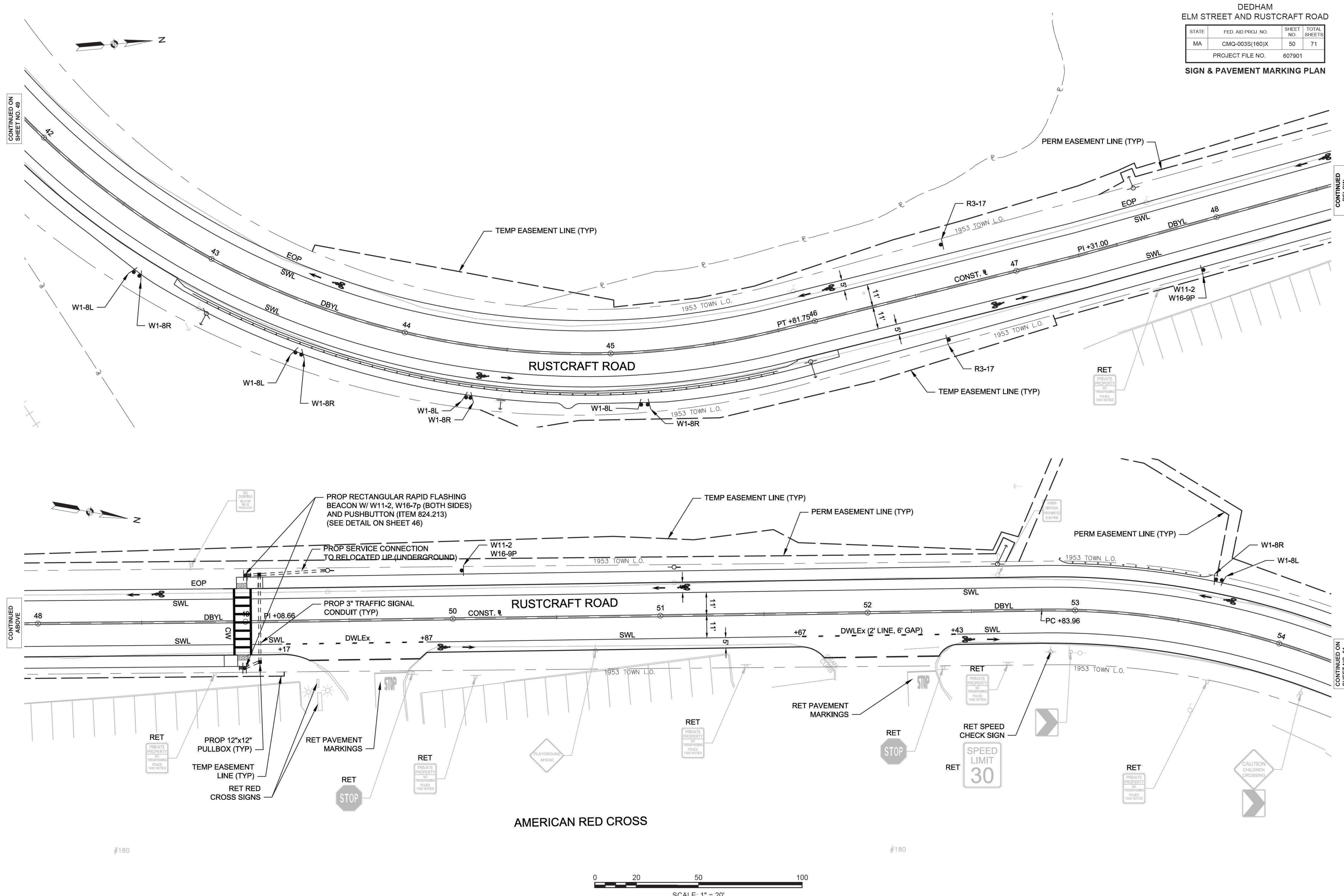
DEDHAM
ELM STREET AND RUSTCRAFT ROAD

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ-003S(160)X	50	71
PROJECT FILE NO.		607901	

SIGN & PAVEMENT MARKING PLAN

CONTINUED ON SHEET NO. 49

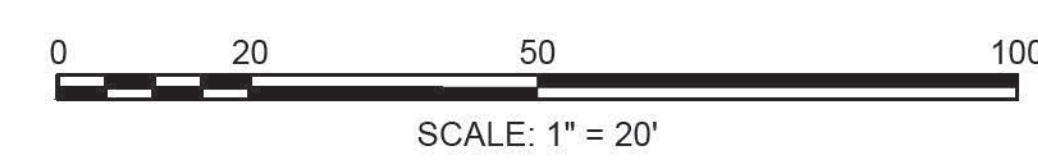
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CONTINUED ON SHEET NO. 51

AMERICAN RED CROSS



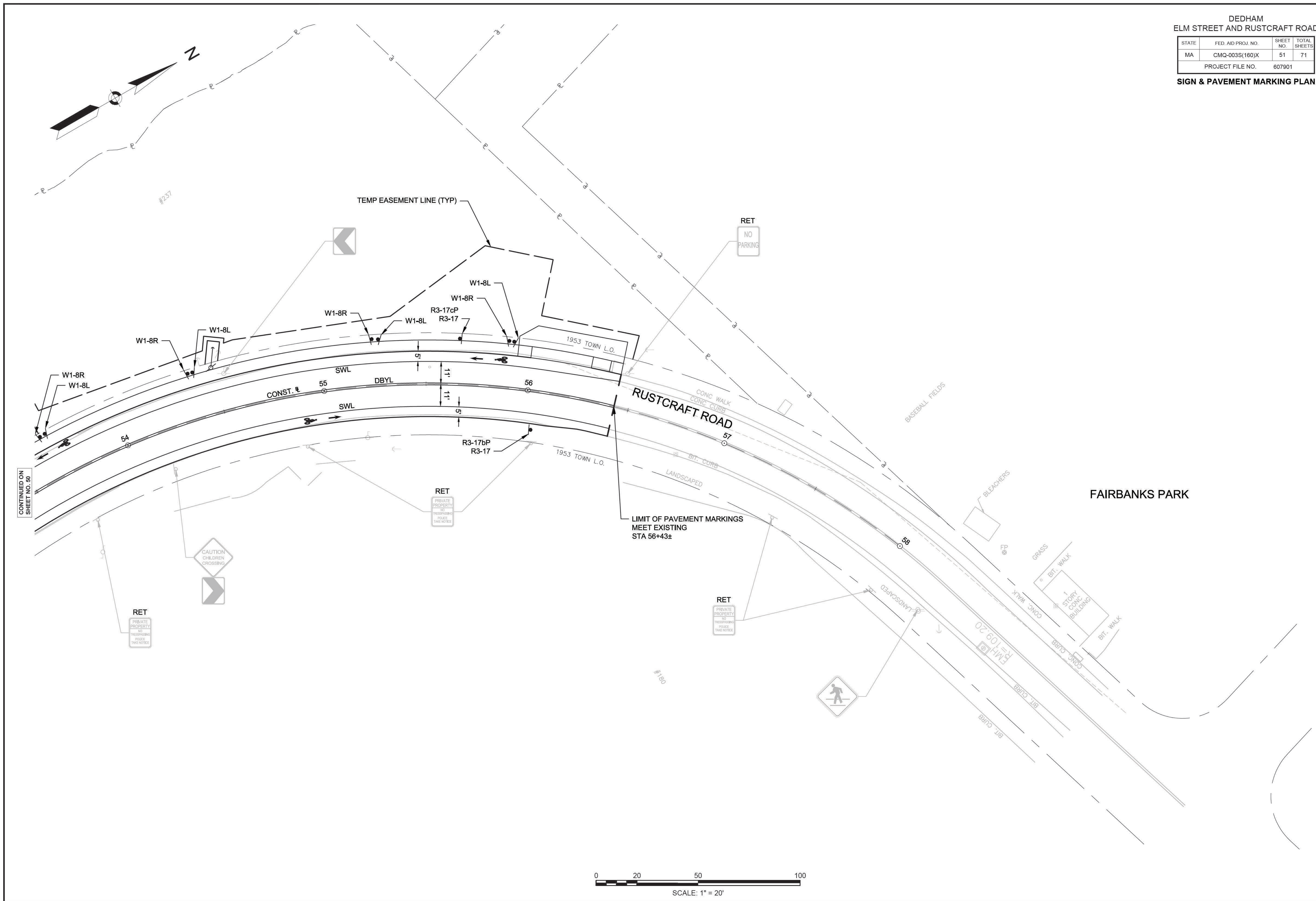
#180

#180

DEDHAM
ELM STREET AND RUSTCRAFT ROAD

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ-003S(160)X	51	71
PROJECT FILE NO. 607901			

SIGN & PAVEMENT MARKING PLAN

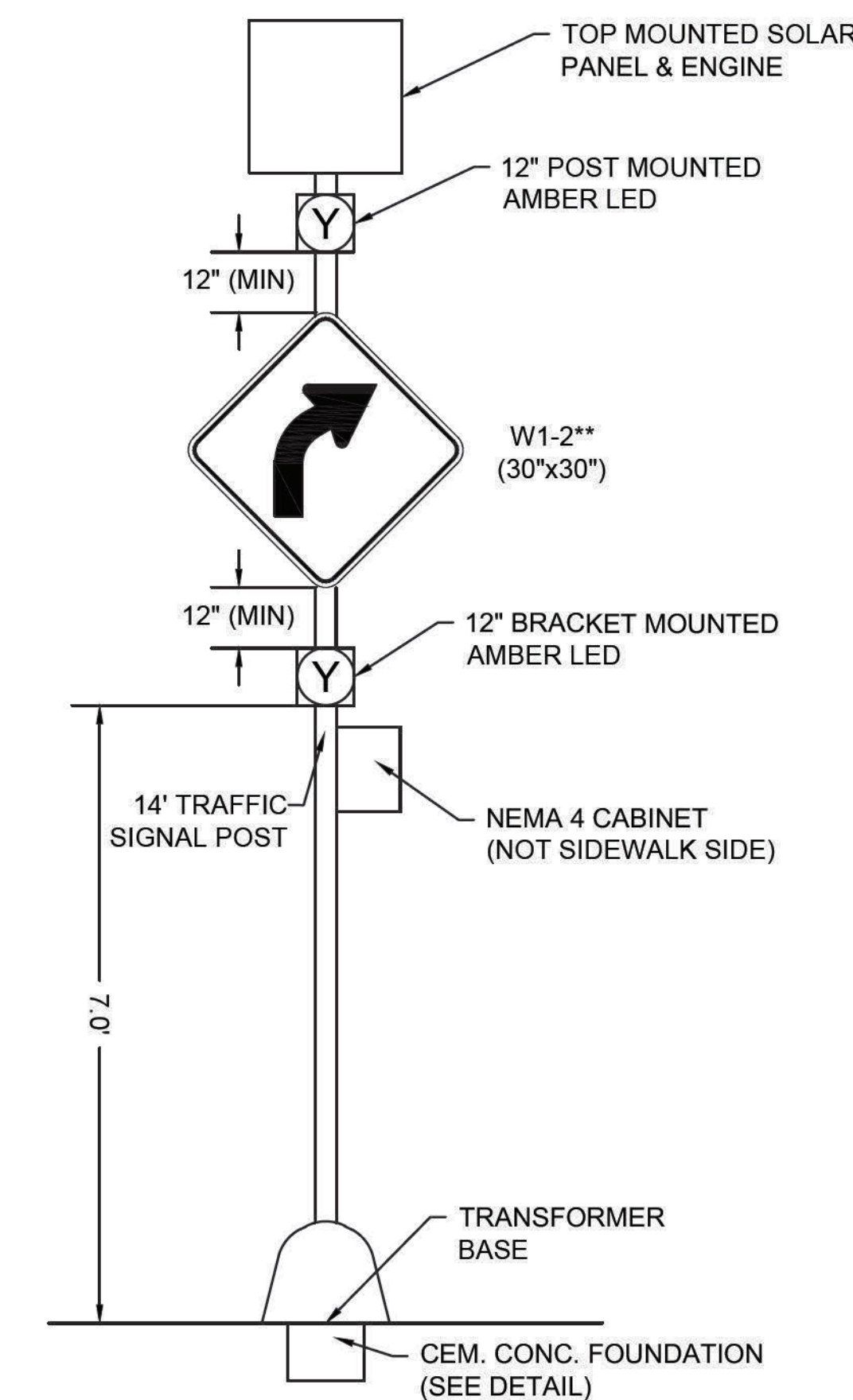


CONTINUED ON
SHEET NO. 50

IDENTIFICATION NUMBER	SIZE OF SIGN		TEXT	DIMENSIONS (in)			NUMBER OF SIGNS REQUIRED	COLOR			POST SIZE AND NUMBER REQUIRED	UNIT AREA IN SQUARE FEET	AREA IN SQUARE FEET
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING	ARROW		BACK-GROUND	LEGEND	BORDER			
OM1-1	24 in	24 in		SEE 2009 MUTCD STANDARDS			1	YELLOW	YELLOW	YELLOW	MOUNT W/ R2-1(30)	4.0	4.0
R1-1	30 in	30 in					3	RED	WHITE	WHITE	P-5 3	6.25	18.75
R2-1(20)	24 in	30 in					2	WHITE	BLACK	BLACK	P-5 2	5.0	10.0
R2-1(30)	24 in	30 in					2	WHITE	BLACK	BLACK	P-5 2	5.0	10.0
R3-17	24 in	18 in					12	WHITE	BLACK	BLACK	P-5 12	3.0	36.0
R3-17bP	24 in	8 in					2	WHITE	BLACK	BLACK	MOUNT W/ R3-17	1.33	2.66
R3-17cP	24 in	8 in					2	WHITE	BLACK	BLACK	MOUNT W/ R3-17	1.33	2.66
R3-7L	30 in	30 in					2	WHITE	BLACK	BLACK	P-5 2	6.25	12.5
R3-2	24 in	24 in					2	WHITE	RED/BLACK	BLACK	P-5 2	4.0	8.0
R7-1	12 in	18 in					18	WHITE	RED	RED	P-5 18	1.5	27
R10-25	9 in	12 in		6	WHITE	BLACK	BLACK	MOUNT ON RRFB	-	-			
W1-2L	30 in	30 in		1	YELLOW	BLACK	BLACK	MOUNT ON WARNING BEACON	-	-			
W1-2R	30 in	30 in		1	YELLOW	BLACK	BLACK	MOUNT ON WARNING BEACON	-	-			
W1-8L	18 in	24 in		18	YELLOW	BLACK	BLACK	P-5 18	3.0	54.0			
W1-8R	18 in	24 in		18	YELLOW	BLACK	BLACK	P-5 18	3.0	54.0			
W11-2	30 in	30 in		18	FYG	BLACK	BLACK	MOUNT 12 ON RRFB 6 ON P-5	6.25	37.5			
W16-7pL	24 in	12 in		6	FYG	BLACK	BLACK	MOUNT ON RRFB	-	-			
W16-7pR	24 in	12 in		6	FYG	BLACK	BLACK	MOUNT ON RRFB	-	-			
W16-9p	24 in	12 in		6	FYG	BLACK	BLACK	MOUNT W/ W11-2	2.0	12.0			
M1-1 (95)	24 in	24 in		3	BLUE/RED	WHITE	WHITE	MOUNT W/ M4-5	4.0	12.0			
M1-4	24 in	24 in		3	WHITE	BLACK	BLACK	MOUNT W/ M4-5	4.0	12.0			
M4-5	24 in	12 in		3	BLUE	WHITE	WHITE	P-5 (2) 3	2.0	6.0			
M5-4	24 in	18 in		3	WHITE	BLACK	BLACK	MOUNT W/ M4-5	3.0	9.0			

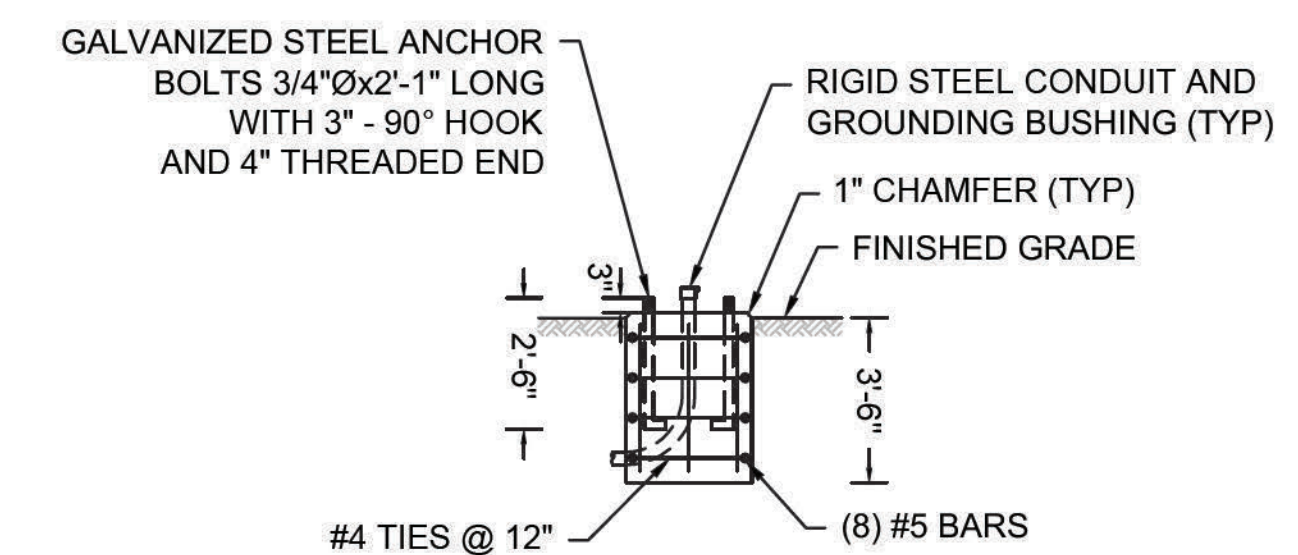
IDENTIFICATION NUMBER	SIZE OF SIGN		TEXT	DIMENSIONS (in)			NUMBER OF SIGNS REQUIRED	COLOR			POST SIZE AND NUMBER REQUIRED	UNIT AREA IN SQUARE FEET	AREA IN SQUARE FEET
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING	ARROW		BACK-GROUND	LEGEND	BORDER			
MA-D3-1a	42 in	12 in		6/4D	3 3	6" SEAL	4	GREEN	WHITE	WHITE	2 - P-5 (2) 2 - P-5	3.5	14.0
MA-D3-1b	60 in	12 in				ARROW 9X6@0° 6" SEAL	1				P-5 (2) 1	5.0	5.0
MA-D3-2b	78 in	12 in				ARROW 9X6@180° 6" SEAL	1				MOUNT W/ D3-1b	6.5	6.5
MA-D3-3	66 in	12 in					4				MOUNT 2 W/ R1-1 2 W/ D3-1a	5.5	22.0

- NOTES:
- HIGH INTENSITY ENCAPSULATED LENS REFLECTIVE SHEETING CONFORMING TO SECTION M9:30.0, TYPE III OR IV, OF THE MASSDOT STANDARD SPECIFICATIONS SHALL BE USED FOR ALL SIGNS.
 - ALL P5 POSTS SHALL BE TELESCOPIC, RECTANGULAR TYPE POSTS, CONFORMING TO THE DIMENSIONS AND REQUIREMENTS OF THE MASSDOT "STANDARD DRAWINGS FOR SIGNS AND SUPPORTS" (LATEST EDITION).
 - SEE THE 2009 "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AND "STANDARD HIGHWAY SIGNS" FOR THE LATEST SPECIFICATIONS ON TEXT DIMENSIONS AND COLOR. (ALSO SEE SECTION M9:30.0 TYPE III MASSDOT STANDARD SPECIFICATION, THE "MASSACHUSETTS MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES," AND "GUIDE SIGN POLICY FOR SECONDARY STATE HIGHWAYS" (LATEST EDITIONS) BY THE MASSACHUSETTS DEPARTMENT OF TRANSPORTATION).
 - STREET NAME SIGNS (D3) SHALL COMPLY WITH MUTCD AND MASSDOT STANDARDS.
 - ALL SIGNS SHOULD BE 90° TO THE CURB AND FACING THE FLOW OF TRAFFIC UNLESS OTHERWISE NOTED. ALL R7 SIGNS SHALL BE MOUNTED AT AN ANGLE OF 45° TO THE CURB AND FACING THE FLOW OF TRAFFIC. ALL W1-8 SIGNS SHALL BE MOUNTED AT AN ANGLE TO FACE THE FLOW OF ONCOMING TRAFFIC.
 - STREET NAME (D3) SHALL BE PAINTED ONE SIDE AND SHALL USE TWO SIGNS MOUNTED BACK TO BACK WITH BOLT-THROUGH METHOD. SEE SPECIAL PROVISIONS.
 - ALL SIGNS SHALL BE PAINTED ONE SIDE.
 - FYG: FLUORESCENT YELLOW GREEN.
 - ALL W1-8 AND OM1-1 SIGNS SHALL BE MOUNTED 4' ABOVE FINISHED GRADE.



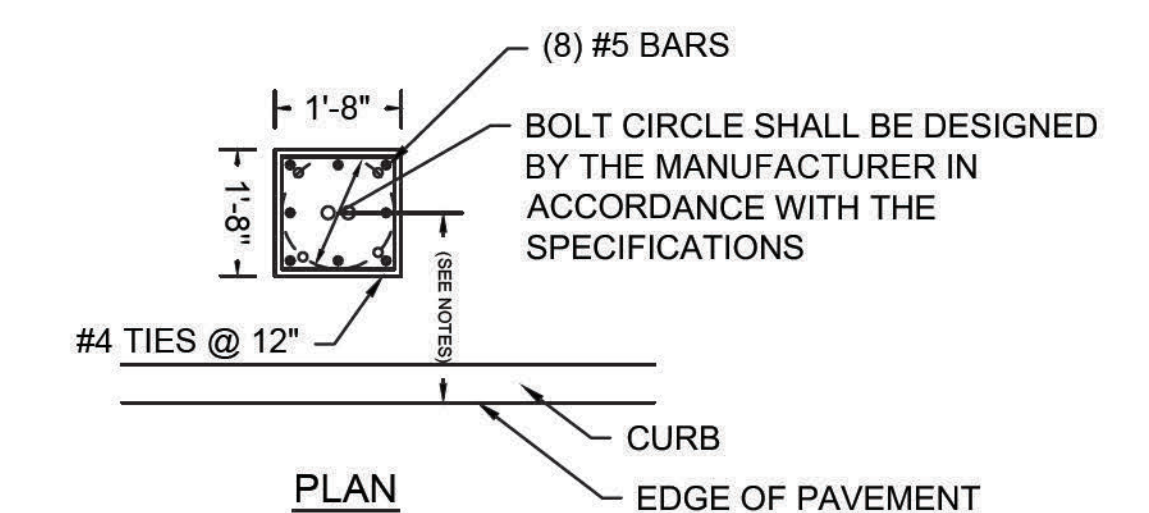
** W1-2L FOR SIGN AT STA. 27+98 LT
W1-2R FOR SIGN AT STA. 22+95 RT

CURVE WARNING SIGN WITH FLASHING BEACON DETAIL
NOT TO SCALE



NOTE: DISTANCE FROM CENTERLINE OF FOUNDATION TO FACE OF CURB TO BE 3'-0" (MIN.).

ELEVATION



FLASHING BEACON FOUNDATION DETAILS
NOT TO SCALE

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ-003S(160)X	53	71
PROJECT FILE NO.		607901	

TEMPORARY TRAFFIC CONTROL PLAN

NOTES:

- ALL TEMPORARY TRAFFIC CONTROL WORK SHALL CONFORM TO THE 2009 EDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD) AND ALL REVISIONS.
- ALL SIGN LEGENDS, BORDERS AND MOUNTING SHALL BE IN ACCORDANCE WITH THE MUTCD, EXCEPT THAT BACKGROUND COLOR SHALL BE FLUORESCENT ORANGE, IN ACCORDANCE WITH MASSDOT SPECIFICATIONS.
- TEMPORARY CONSTRUCTION SIGNING AND ALL OTHER TRAFFIC CONTROL DEVICES SHALL BE IN PLACE PRIOR TO THE START OF ANY WORK.
- TEMPORARY CONSTRUCTION SIGNING, BARRICADES AND ALL OTHER NECESSARY WORK ZONE TRAFFIC CONTROL DEVICES SHALL BE REMOVED FROM THE HIGHWAY OR COVERED WHEN THEY ARE NOT REQUIRED FOR CONTROL OF TRAFFIC.
- SIGNS AND SIGN SUPPORTS LOCATED ON OR NEAR THE TRAVELED WAY, AND REFLECTORIZED PLASTIC DRUMS WITH LIGHTING DEVICES MOUNTED ON THEM, MUST PASS THE CRITERIA SET FORTH IN NCHRP REPORT 350, "RECOMMENDED PROCEDURES FOR THE SAFETY PERFORMANCE EVALUATION OF HIGHWAY FEATURES" AND/OR "MANUAL FOR ASSESSING SAFETY HARDWARE" (MASH).
- CONTRACTORS SHALL NOTIFY EACH ABUTTER AT LEAST 24 HOURS IN ADVANCE OF THE START OF ANY WORK THAT WILL REQUIRE THE TEMPORARY CLOSURE OF ACCESS, SUCH AS CONDUIT INSTALLATION, EXISTING PAVEMENT EXCAVATION, TEMPORARY DRIVEWAY PAVEMENT PLACEMENT AND SIMILAR OPERATIONS.
- THE FIRST TEN PLASTIC DRUMS OF A TAPER SHALL BE MOUNTED WITH TYPE A SEQUENTIAL FLASHING LIGHTS.
- DISTANCES ARE A GUIDE AND MAY BE ADJUSTED IN THE FIELD BY THE ENGINEER.
- MAXIMUM SPACING OF TRAFFIC DEVICES IN A TAPER (DRUMS OR CONES) IS EQUAL IN FEET TO THE SPEED LIMIT IN MPH.
- MINIMUM LANE WIDTH IS TO BE 11 FEET UNLESS OTHERWISE SHOWN. MINIMUM LANE WIDTH TO BE MEASURED FROM THE EDGE OF DRUMS OR MEDIAN BARRIER.
- ALL SIGNS SHALL BE MOUNTED ON THEIR OWN STANDARD SIGN SUPPORTS.
- TEMPORARY CONSTRUCTION SIGNING AND ALL OTHER NECESSARY WORK ZONE TRAFFIC CONTROL NOT COVERED IN THE PLAN SHALL REFER TO MASSDOT "STANDARD DETAILS AND DRAWINGS FOR THE DEVELOPMENT OF TRAFFIC MANAGEMENT PLANS".
- CROSSWALKS REMOVED OR OBSCURED DURING CONSTRUCTION SHALL BE RESTORED AT THE END OF EACH SHIFT.

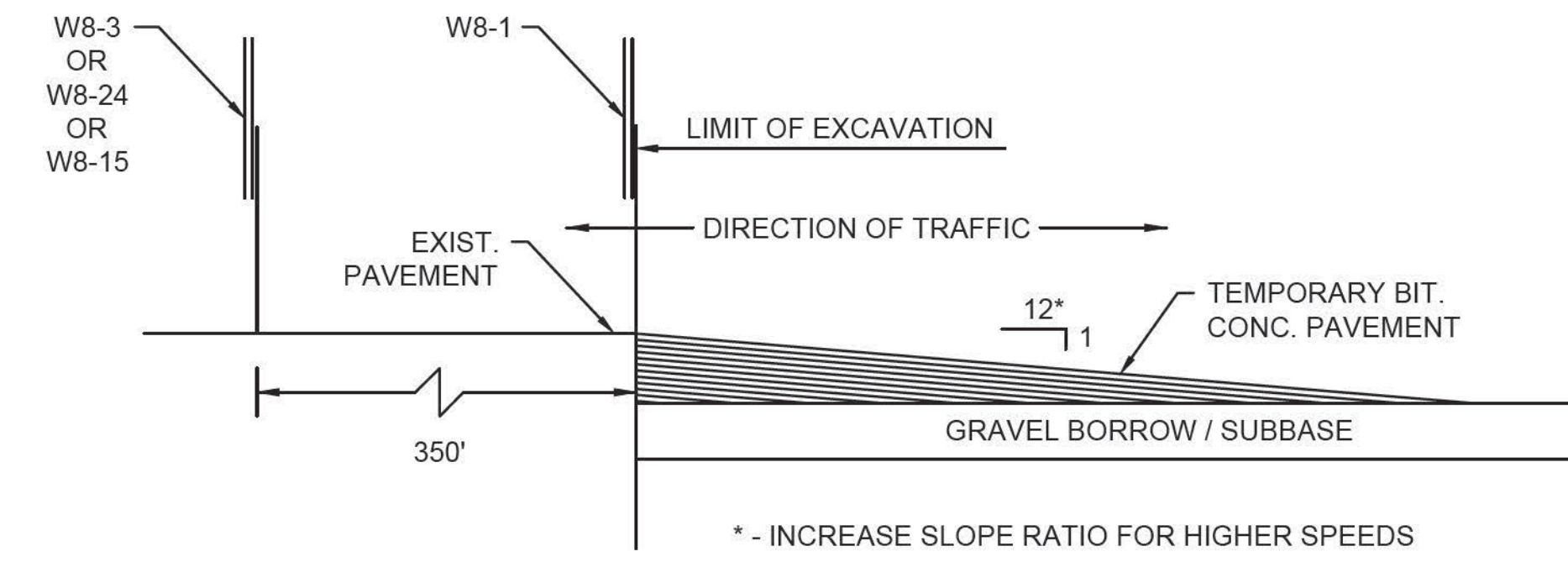
LEGEND:

- REFLECTORIZED PLASTIC DRUM
- ▩ TYPE III BARRICADE
- ▨ FLASHING ARROW PANNEL
- ▧ FLASHING ARROW PANNEL
- ▩ WORK ZONE
- ➔ DIRECTION OF TRAFFIC
- ⊘ IMPACT ATTENUATOR
- ▭ MEDIAN BARRIER
- ▩ MEDIAN BARRIER WITH WARNING LIGHTS
- ▭ WORK VEHICLE
- ▩ TRUCK MOUNTED ATTENUATOR
- ⬅️ TRAFFIC OR PEDESTRIAN SIGNAL
- SIGN
- P POLICE DETAIL
- F FLAGGER

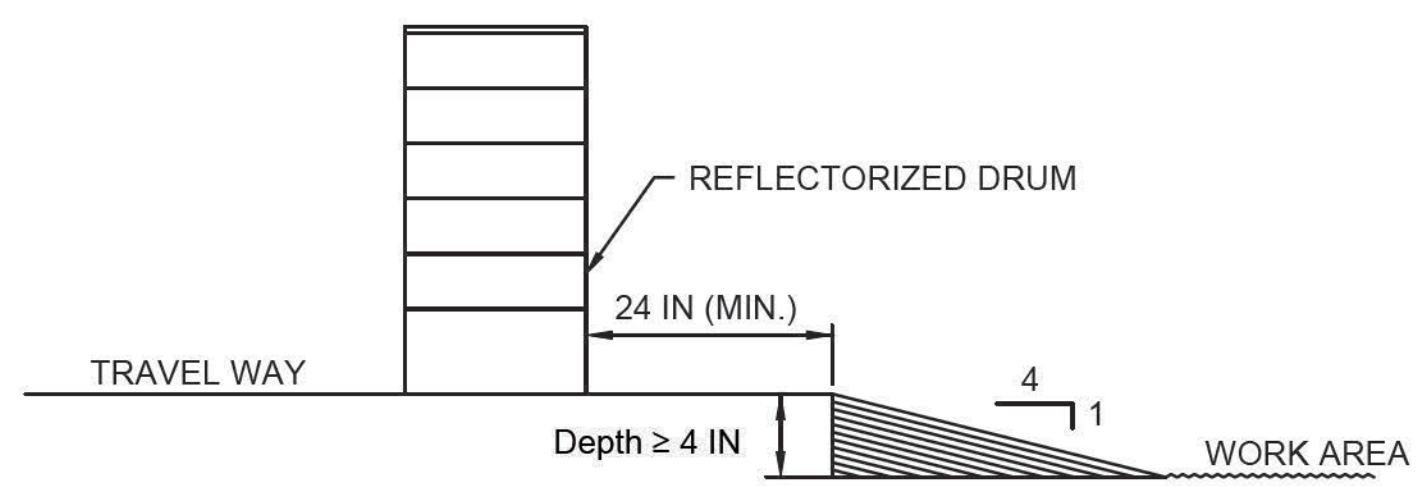
TAPER LENGTH

SPEED LIMIT	FORMULA
40 MPH or Less	$L = WS^2/60$
45 MPH or Greater	$L = W \times S$

L = TAPER LENGTH IN FEET
W = WIDTH OF OFFSET IN FEET
S = POSTED SPEED IN MPH



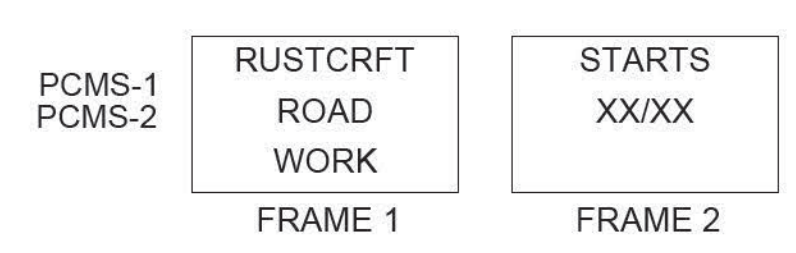
LONGITUDINAL DROP-OFF DETAIL
NOT TO SCALE



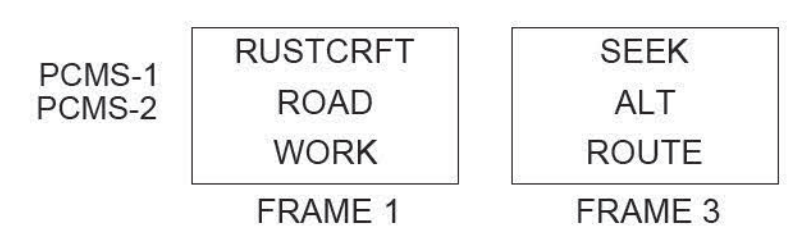
LATERAL DROP-OFF DETAIL
NOT TO SCALE

GENERAL CONSTRUCTION STAGES

- UTILITY WORK**
 - CONSTRUCT ALL PROPOSED UTILITIES AND ADJUST, ABANDON, REMOVE, OR REMOVE AND RESET, ALL EXISTING UTILITIES, AS SHOWN ON THE PLANS.
 - CONSTRUCT UNDERGROUNDING OF SERVICES CONDUITS AND DUCT BOXES.
- WIDENING**
SET CURBING AND PERFORM BOX WIDENING.
- FULL DEPTH CONSTRUCTION/BOX WIDENING**
 - EXCAVATE ROADWAY FOR WIDENING; PLACE THE GRAVEL SUBBASE, WHILE MAINTAINING TRAFFIC IN EACH DIRECTION ON THE EXISTING ROADWAY.
 - PLACE CRUSHED STONE AND HOT MIX ASPHALT BASE COURSE OR H.E.S. CONCRETE ON ENTIRE WIDENING ROADWAY.
- TRAFFIC CONTROL**
INSTALL ALL TRAFFIC SIGNAL EQUIPMENT.
- SIDEWALKS**
CONSTRUCT SIDEWALKS
- TOP COURSE AND BINDER COURSE**
PLACE BINDER COURSE (WHERE REQUIRED) FOLLOWED BY TOP COURSE FOR THE ENTIRE LENGTH OF THE PROJECT.
- PAVEMENT MARKINGS**
INSTALL PAVEMENT MARKINGS.

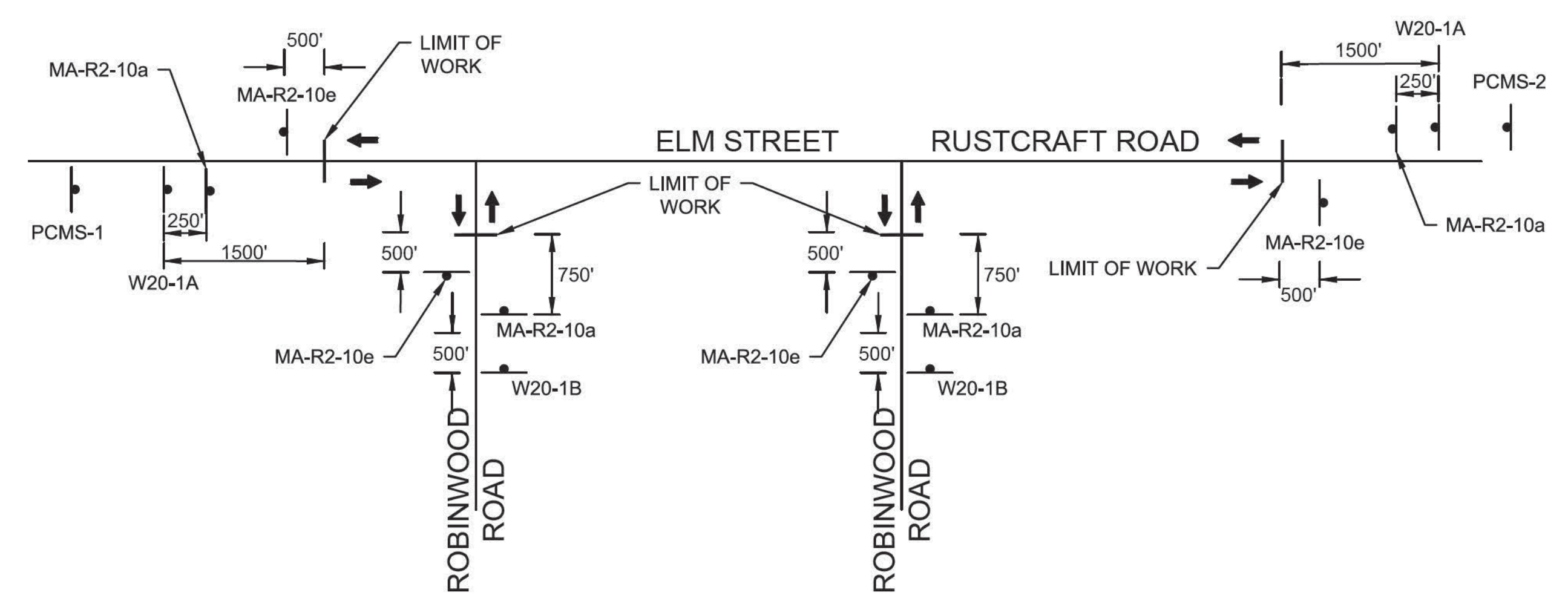


NOTE: MESSAGE TO BE DISPLAYED TWO WEEKS PRIOR TO RUSTCRAFT ROAD WORK.



NOTE: MESSAGE TO BE DISPLAYED FOR THE FIRST TWO WEEKS OF RUSTCRAFT ROAD WORK.

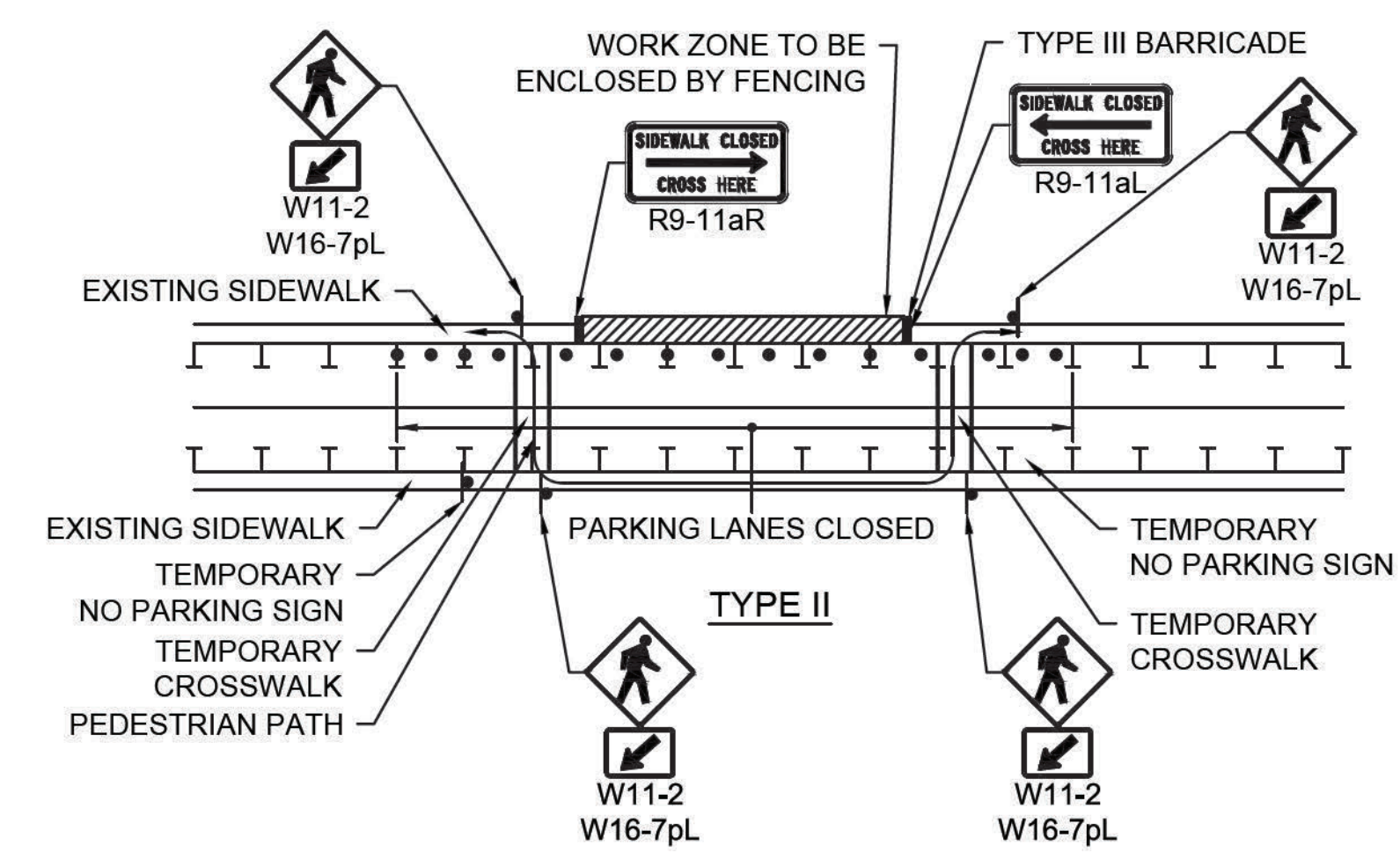
PCMS MESSAGES



TYPICAL INTERSECTION PROJECT LIMIT SIGNING
NOT TO SCALE

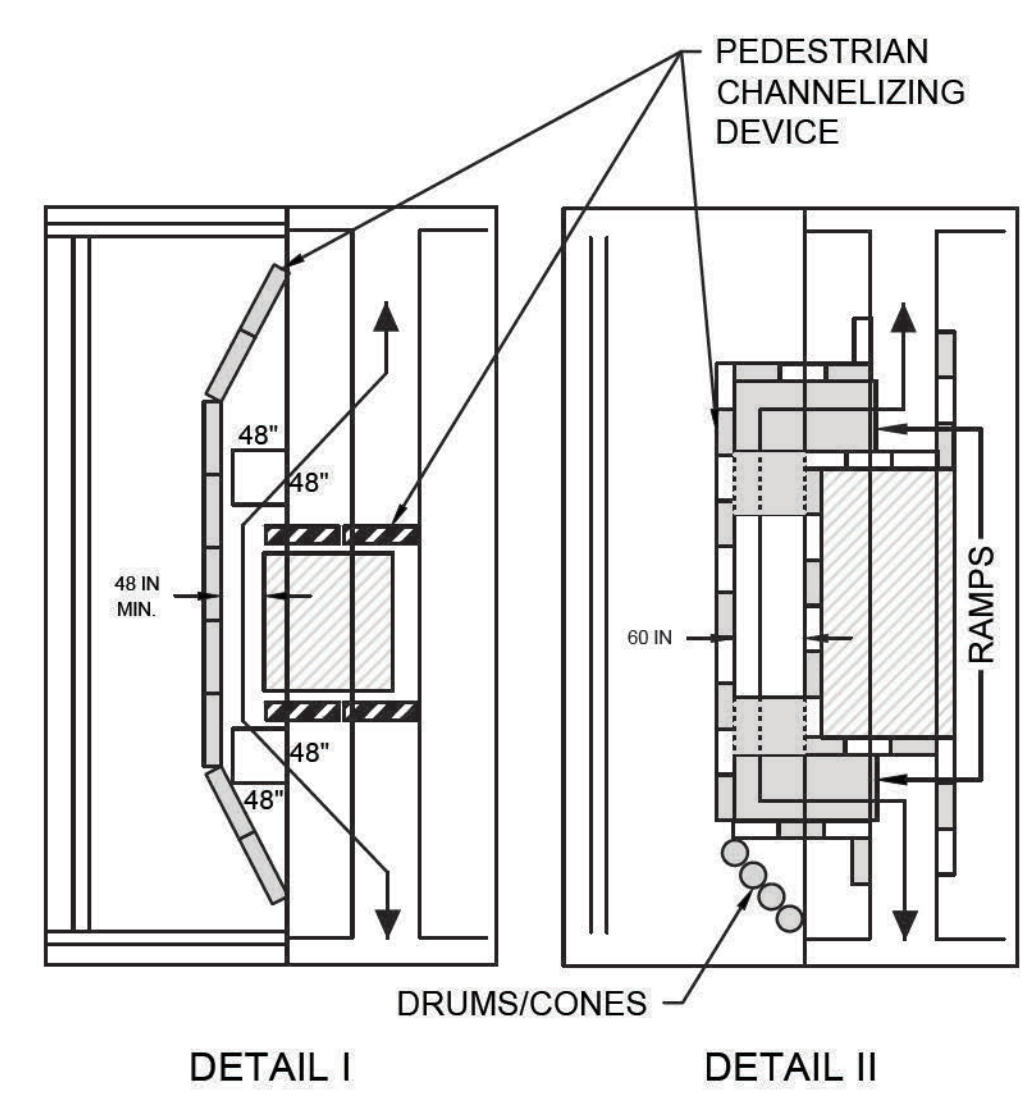
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ-003S(180)X	54	71
PROJECT FILE NO. 607901			

TEMPORARY TRAFFIC CONTROL PLAN



- NOTES:**
- ADDITIONAL ADVANCE WARNING MAY BE NECESSARY.
 - CONTROLS ONLY FOR PEDESTRIAN TRAFFIC ARE SHOWN. VEHICULAR TRAFFIC SHOULD BE HANDLED AS SHOWN ELSEWHERE.
 - STREET LIGHTING SHOULD BE CONSIDERED WHEN LOCATING CONTROL DEVICES.
 - IF THE WORK ZONE DOES NOT PERMIT PEDESTRIANS TO TRAVEL ADJACENT TO IT, TEMPORARY CROSSWALKS WITH APPROPRIATE SIGNS SHOULD BE INSTALLED TO CROSS PEDESTRIANS TO THE OPPOSITE SIDE OF THE STREET AS SHOWN IN PEDESTRIAN BYPASS, AND AS DIRECTED BY THE ENGINEER. TEMPORARY CURB RAMP RAMP WILL BE REQUIRED AT ALL TEMPORARY CROSSWALK LOCATIONS.
 - BYPASS IS TO BE USED IN CONJUNCTION WITH THE PROPOSED LANE CLOSURE DETAILS AND DURING CONSTRUCTION STAGING, AS DIRECTED BY THE ENGINEER.
 - THE TEMPORARY SIDEWALK SHOULD BE A MINIMUM OF 4 FEET WIDE. IF THIS WALKWAY EXCEEDS 200 FEET THEN A 5 FOOT X 5 FOOT PASSING ZONE. (FOR SHORT TERM SETUPS < 10 HOURS, THIS CONDITION MAY BE WAIVED. A NOTE WOULD NEED TO BE INCLUDED IN THE TTC PLAN THAT STATES HOW THE CONTRACTOR SHOULD ADDRESS THIS ISSUE.)

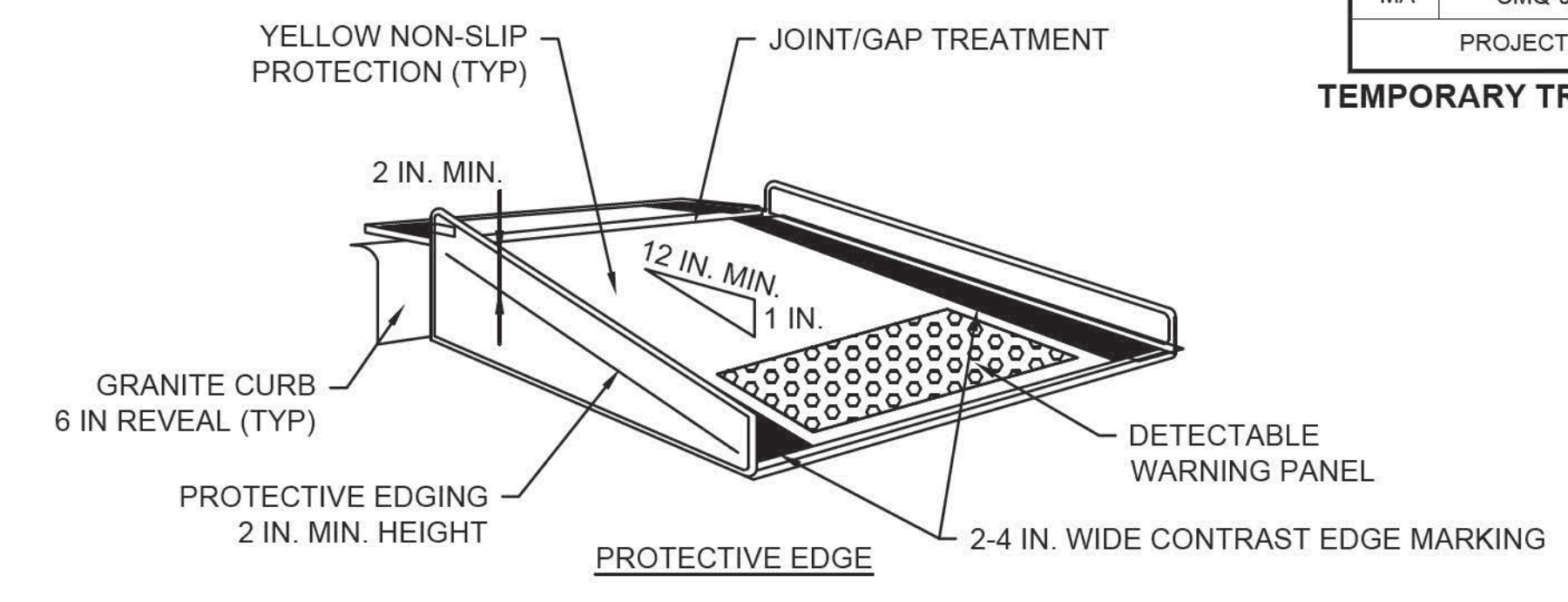
PEDESTRIAN BYPASS DETAILS
NOT TO SCALE



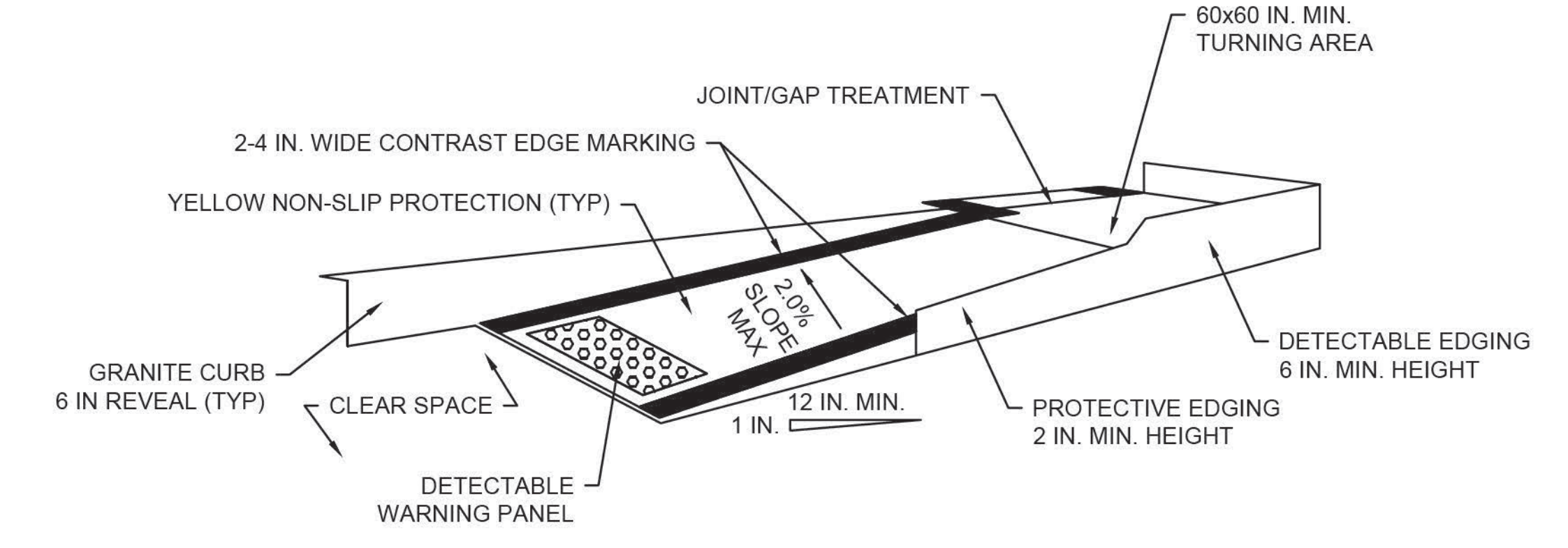
- NOTES:**
- DETAIL I IS CONSIDERED AN EXAMPLE OF A SHORT TERM CLOSURE AND PEDESTRIAN ASSISTANCE (PERSONEL) TO NAVIGATE AROUND THE CLOSURE/WORK AREA COULD BE CONSIDERED AS AN OPTION IN PLACE OF PROVIDING ADA/AAB DEVICES. DETAIL II IS CONSIDERED AN EXAMPLE OF A LONG TERM CLOSURE THAT WOULD REQUIRE ADDITIONAL ADA/AAB COMPLIANT DEVICES. IF A SIDEWALK CLOSURE OR RESTRICTION LASTS FOR MORE THAN ONE (1) WORK SHIFT THEN ADA/AAB COMPLIANCE SHALL BE FOLLOWED.
 - WHEN EXISTING PEDESTRIAN FACILITIES ARE DISRUPTED, CLOSED, OR RELOCATED IN A TTC ZONE, TEMPORARY FACILITIES SHALL BE PROVIDED AND THEY SHALL BE DETECTABLE AND INCLUDE ACCESSIBILITY FEATURES CONSISTENT WITH THE FEATURES PRESENT IN THE EXISTING PEDESTRIAN FACILITY.
 - A PEDESTRIAN CHANNELIZING DEVICE THAT IS DETECTABLE BY A PERSON WITH A VISUAL DISABILITY TRAVELING WITH THE AID OF A LONG CANE SHALL BE PLACED ACROSS THE FULL WIDTH OF THE CLOSED SIDEWALK.
 - WHEN USED, TEMPORARY RAMPS SHALL COMPLY WITH AMERICANS WITH DISABILITIES ACT (SEE FIGURES).
 - THE ALTERNATE PATHWAY SHOULD HAVE A SMOOTH CONTINUOUS HARD SURFACE FOR THE ENTIRE LENGTH OF THE TEMPORARY PEDESTRIAN FACILITY.
 - THE TEMPORARY SIDEWALK SHOULD BE A MINIMUM OF 4 FEET WIDE. IF THE SIDEWALK EXCEEDS 200 FEET THEN A 5 FOOT BE 5 FOOT PASSING ZONE SHALL BE PROVIDED.
 - THE PROTECTIVE REQUIREMENTS OF A TTC WORK ZONE MAY HAVE AN IMPACT IN DETERMINING THE NEED FOR TEMPORARY TRAFFIC BARRIERS AND THEIR USE IN PROVIDING PEDESTRIAN DELINEATION SHOULD BE BASED ON ENGINEERING JUDGMENT.
 - CONTROLS ONLY FOR PEDESTRIAN TRAFFIC ARE SHOWN; VEHICULAR TRAFFIC SHOULD BE HANDLED AS SHOWN ELSEWHERE. THESE DETAILS ARE USED IN CONJUNCTION WITH THE PROPOSED LANE CLOSURE DETAILS AND DURING CONSTRUCTION STAGING, AS DETERMINED BY THE ENGINEER.
 - AUDIBLE INFORMATION DEVICES SHOULD BE CONSIDERED WHERE MIDBLOCK CLOSINGS AND CHANGED CROSSWALK AREAS CAUSE INADEQUATE COMMUNICATION TO BE PROVIDED TO PEDESTRIANS WHO HAVE VISUAL DISABILITIES.
 - EXISTING AUDIBLE DEVICES NO LONGER APPLICABLE DUE TO CONSTRUCTION SHALL BE DISABLED.

AUDIBLE DEVICES:

- FOR LONG TERM SIDEWALK CLOSURES (AT A MINIMUM OVERNIGHT) A FORM OF SPEECH MESSAGING FOR PEDESTRIANS WITH VISUAL DISABILITIES SHALL BE PROVIDED. AUDIBLE INFORMATION DEVICES SUCH AS DETECTABLE BARRIERS OR BARRICADES AND OTHER PASSIVE PEDESTRIAN ACTIVATION (MOTION ACTIVATED) DEVICES SHOULD BE CONSIDERED FOR THESE CASES. THESE AUDIBLE DEVICES CAN BE MOUNTABLE OR STAND ALONE.

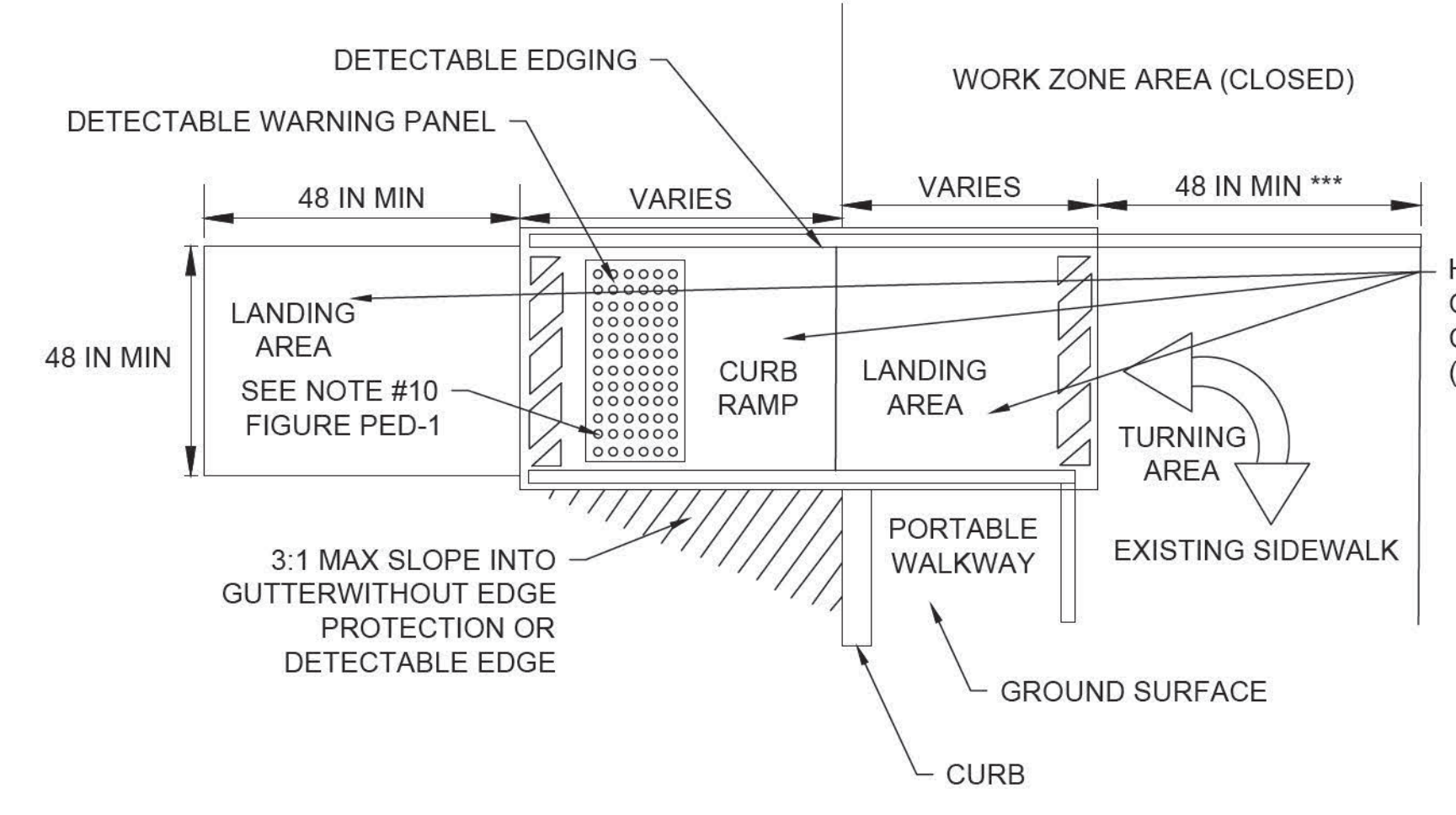


TEMPORARY CURB RAMP-PERPENDICULAR TO CURB
NOT TO SCALE



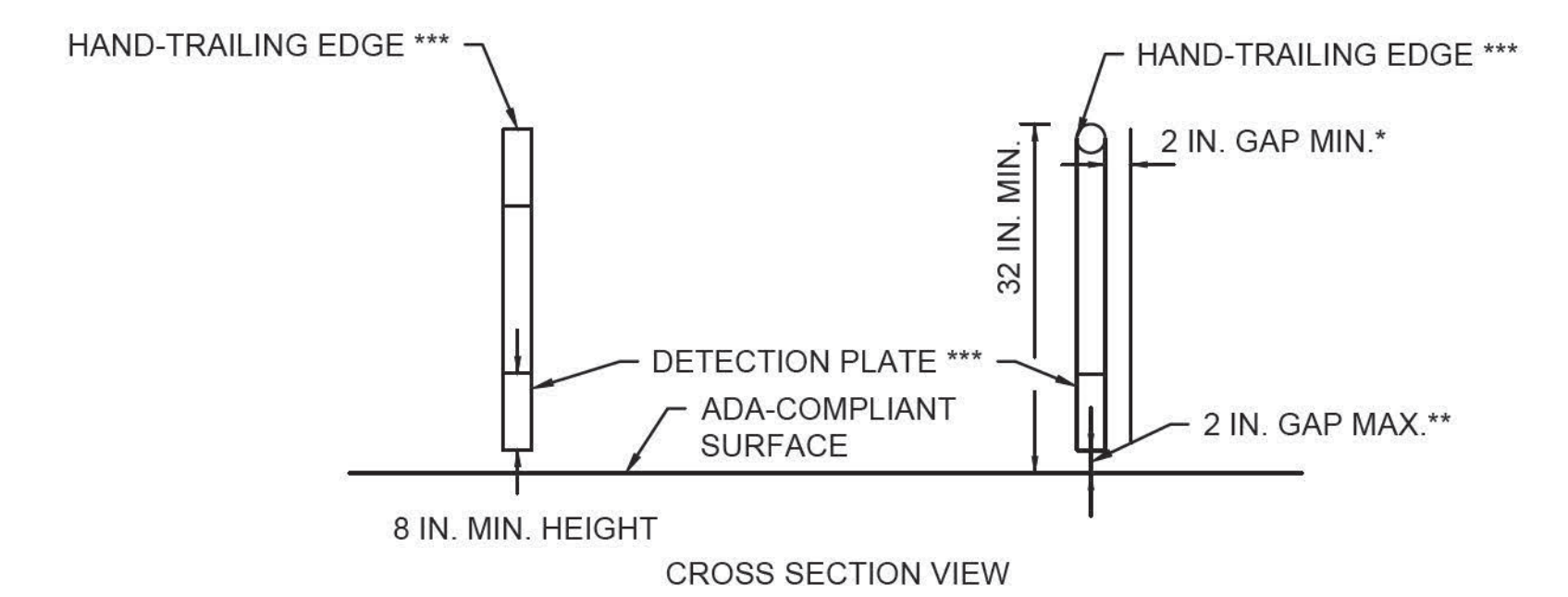
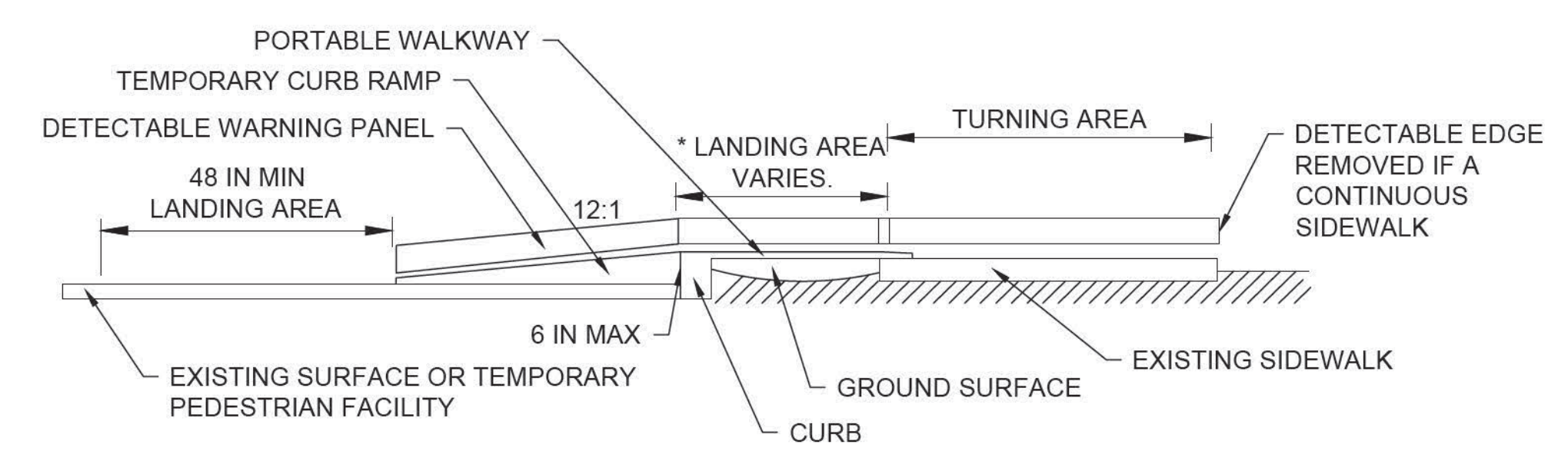
TEMPORARY CURB RAMP-PARALLEL TO CURB
NOT TO SCALE

- NOTES:**
- CURB RAMP SHALL BE 60 IN. MINIMUM WIDTH WITH A FIRM, STABLE AND NON-SLIP SURFACE.
 - PROTECTIVE EDGING WITH A 2 IN. MINIMUM HEIGHT SHALL BE INSTALLED WHEN THE CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6 IN. OR GREATER OR HAS A SIDE APRON SLOP STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN THE CURB RAMP OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3 IN. OR MORE.
 - DETECTABLE EDGING WITH 6 IN. MINIMUM HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).
 - THE CURB RAMP WALKWAY AND LANDING AREA SURFACE SHALL BE OF A SOLID CONTINUOUS CONTRASTING COLOR ABUTTING UP TO THE EXISTING SIDEWALK.
 - CURB RAMP AND LANDINGS SHOULD HAVE A 1:50 (2%) MAX CROSS-SLOPE.
 - CLEAR SPACE OF 48x48 IN. MINIMUM SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.
 - WATER FLOW IN THE GUTTER SYSTEM SHALL HAVE MINIMAL RESTRICTION.
 - LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN 0.5 IN. WIDTH.
 - CHANGES BETWEEN SURFACE HEIGHTS SHOULD NOT EXCEED 0.5 IN. LATERAL EDGES SHOULD BE VERTICAL UP TO 0.25 IN. HIGH, AND BEVELED AT 1:2 BETWEEN 0.25 IN. AND 0.5 IN. HEIGHT.
 - IF A TEMPORARY PEDESTRIAN RAMP LEADS TO A CROSSWALK, THEN A DETECTABLE WARNING PAD MUST BE ADHERED TO THE BASE OF THE RAMP. IF IT LEADS TO A PROTECTED PEDESTRIAN BYPASS THAT DOES NOT CONFLICT WITH VEHICULAR TRAFFIC, THEN A PAD SHALL NOT BE INSTALLED ON THE RAMP.



TEMPORARY CURB RAMP
NOT TO SCALE

- * LANDING AREA USED TO OVERLAP NON-ADA COMPLIANT SURFACES.
- ** DETECTABLE EDGE REMOVED IF A CONTINUOUS SIDEWALK.
- *** 60 IN. IF AN OBSTRUCTION IS AT BACK OF SIDEWALK

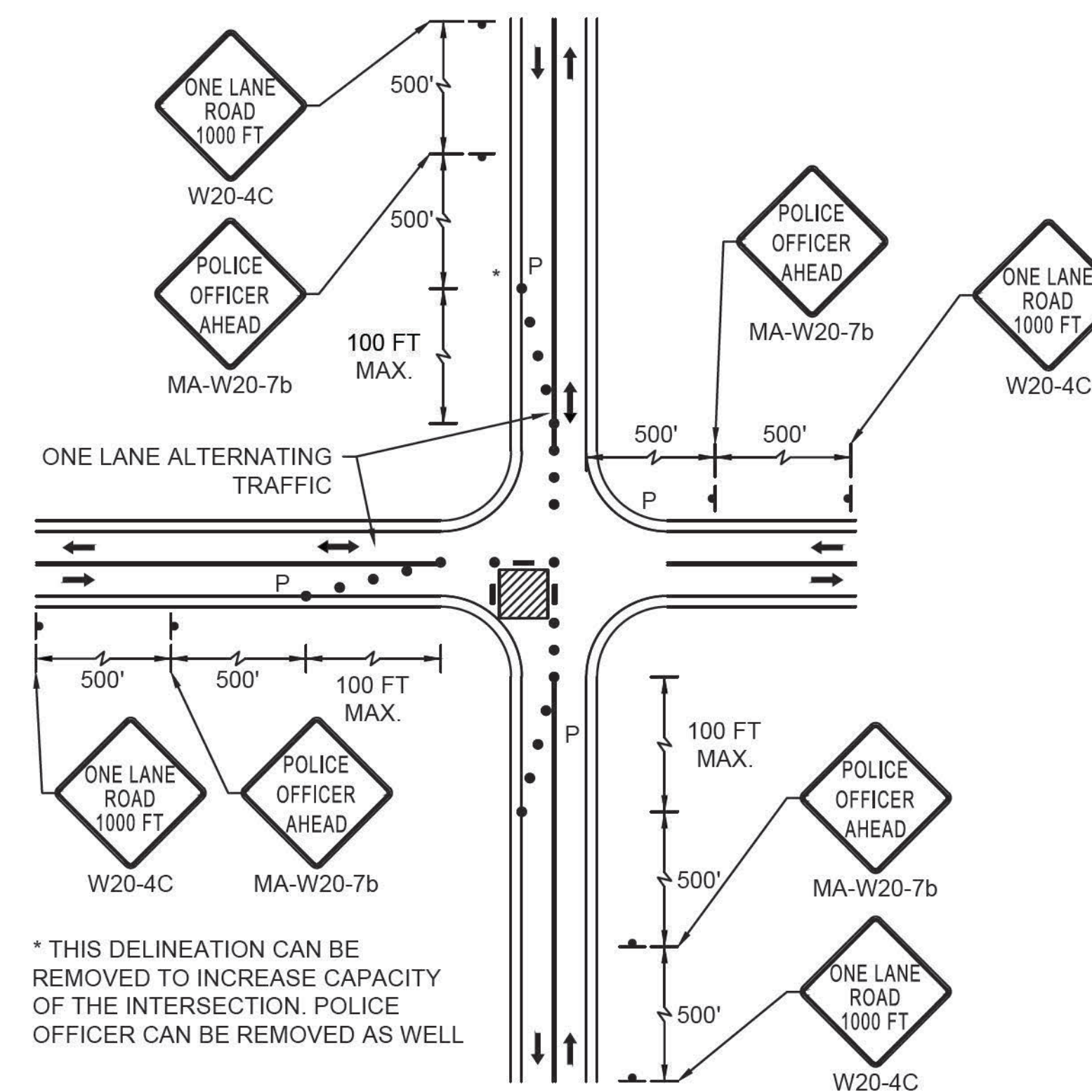
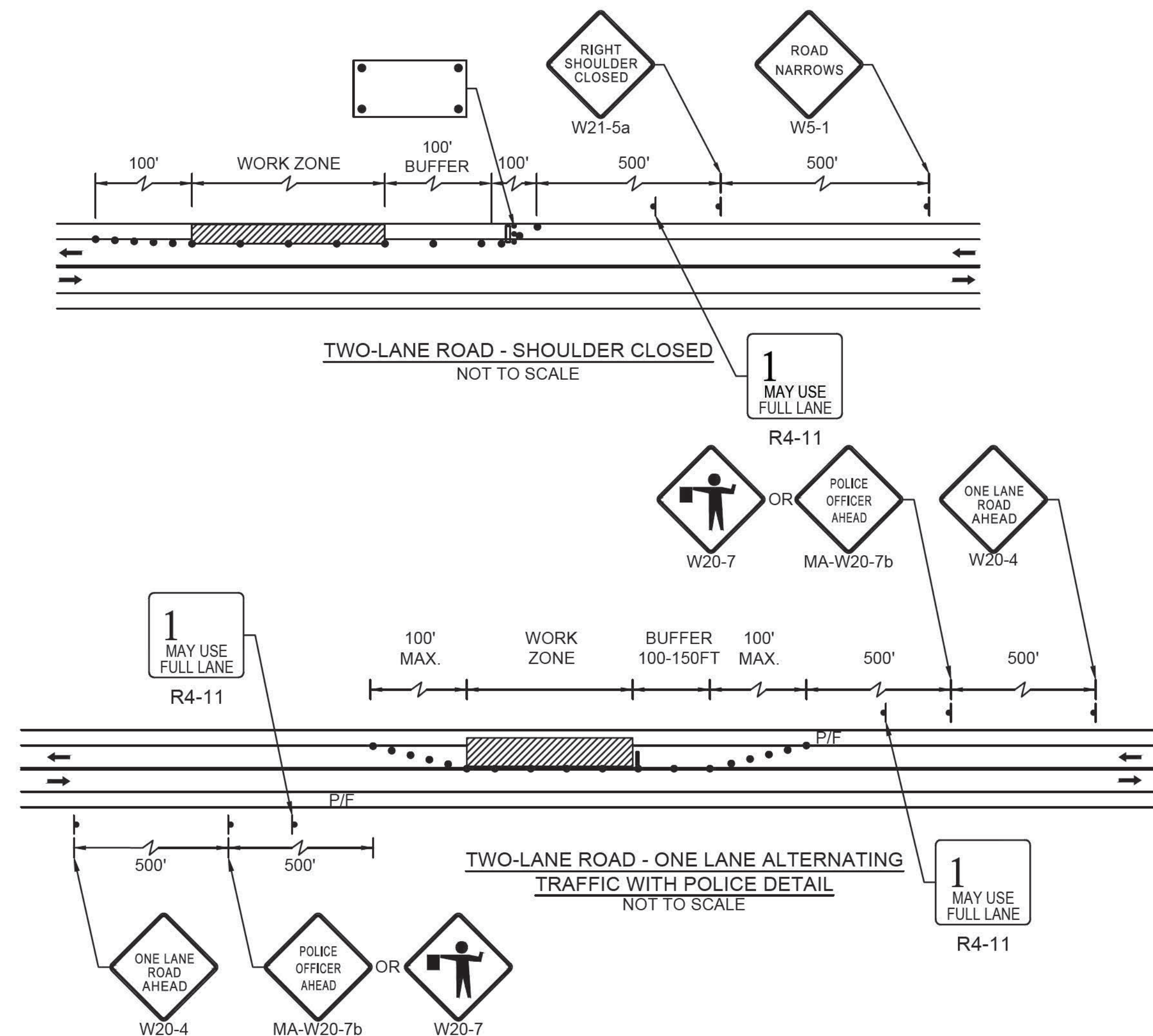


PEDESTRIAN CHANNELIZING DEVICE
NOT TO SCALE

- NOTES:**
- * THERE SHALL BE A 2 INCH GAP BETWEEN THE HAND-TRAILING EDGE AND ITS SUPPORT.
 - ** A MAXIMUM 2 INCH GAP BETWEEN THE BOTTOM OF THE BOTTOM RAIL AND THE SURFACE MAY BE USED TO PROVIDE DRAINAGE.
 - *** THE HAND-TRAILING EDGE AND DETECTION PLATE SHALL BE CONTINUOUS THROUGHOUT THE LENGTH OF THE PATH SUCH THAT A PEDESTRIAN USER WITH A LONG CANE CAN FOLLOW IT.

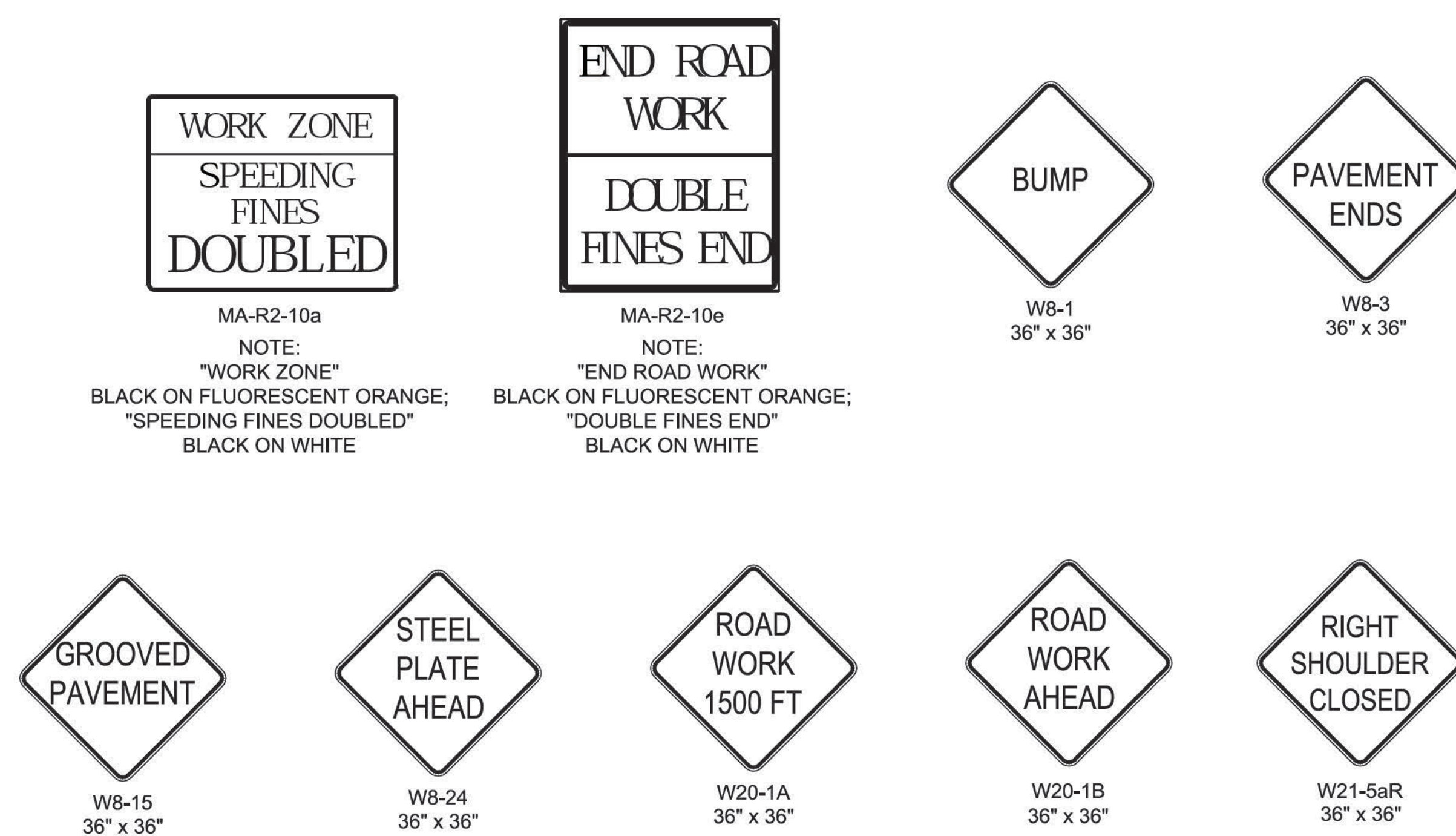
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ-003S(160)X	55	71
PROJECT FILE NO. 607901			

TEMPORARY TRAFFIC CONTROL PLAN



* THIS DELINEATION CAN BE REMOVED TO INCREASE CAPACITY OF THE INTERSECTION. POLICE OFFICER CAN BE REMOVED AS WELL

INTERSECTION WITH LANE CLOSURE
NOT TO SCALE



CONSTRUCTION SIGNS
NOT TO SCALE

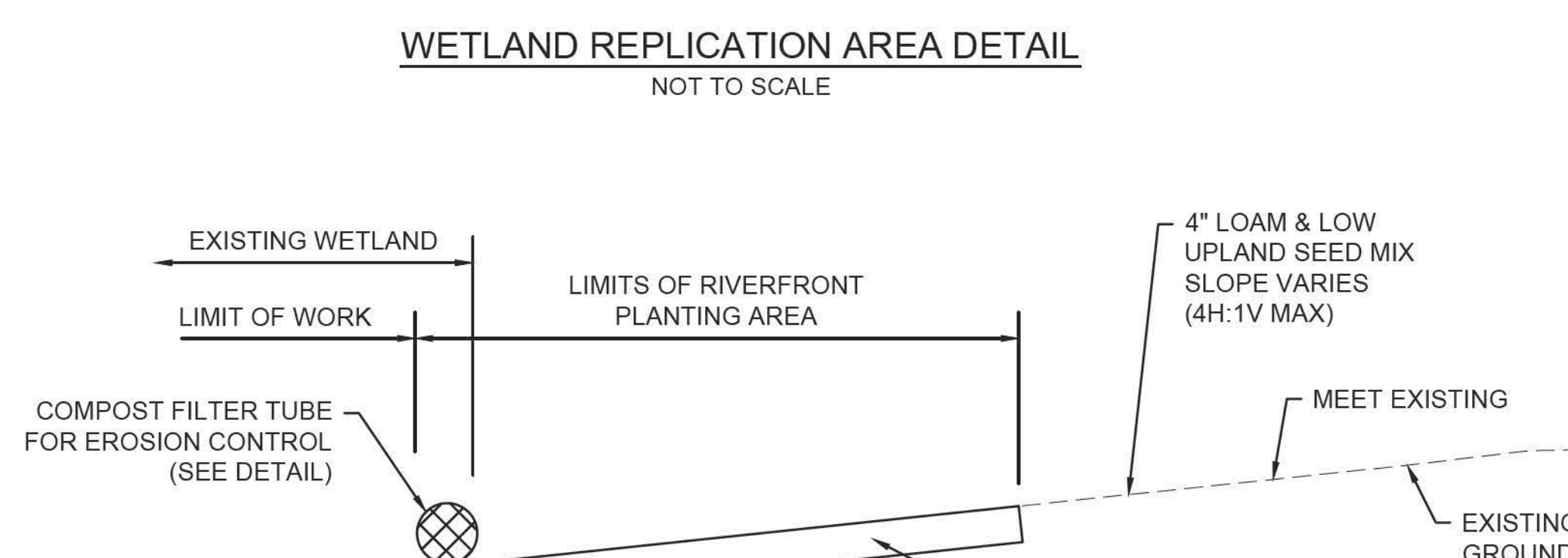
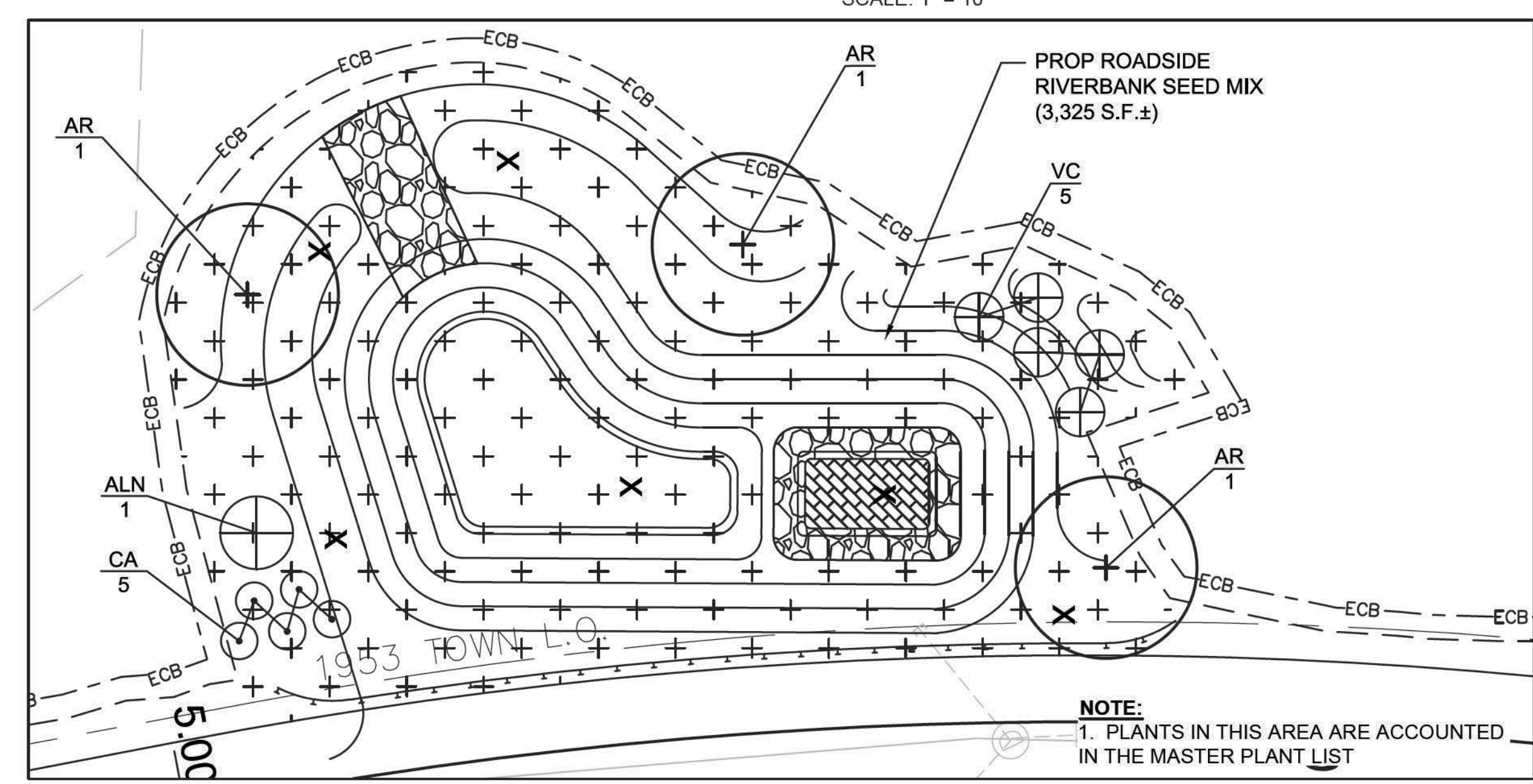
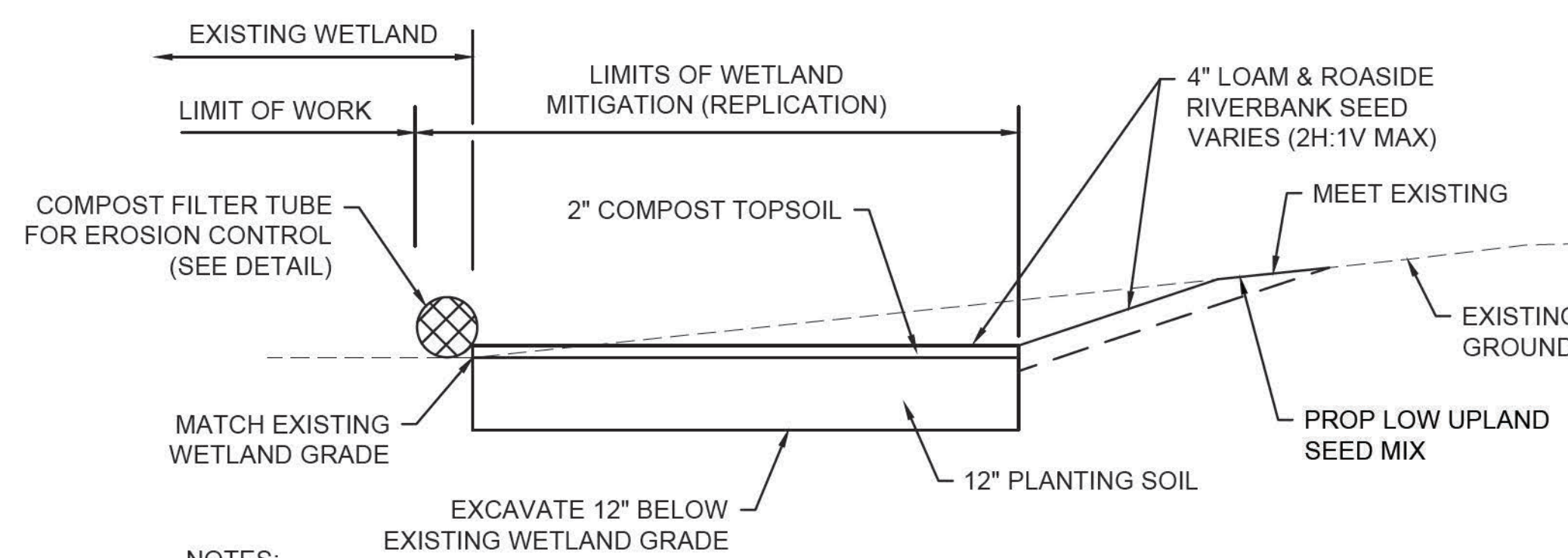
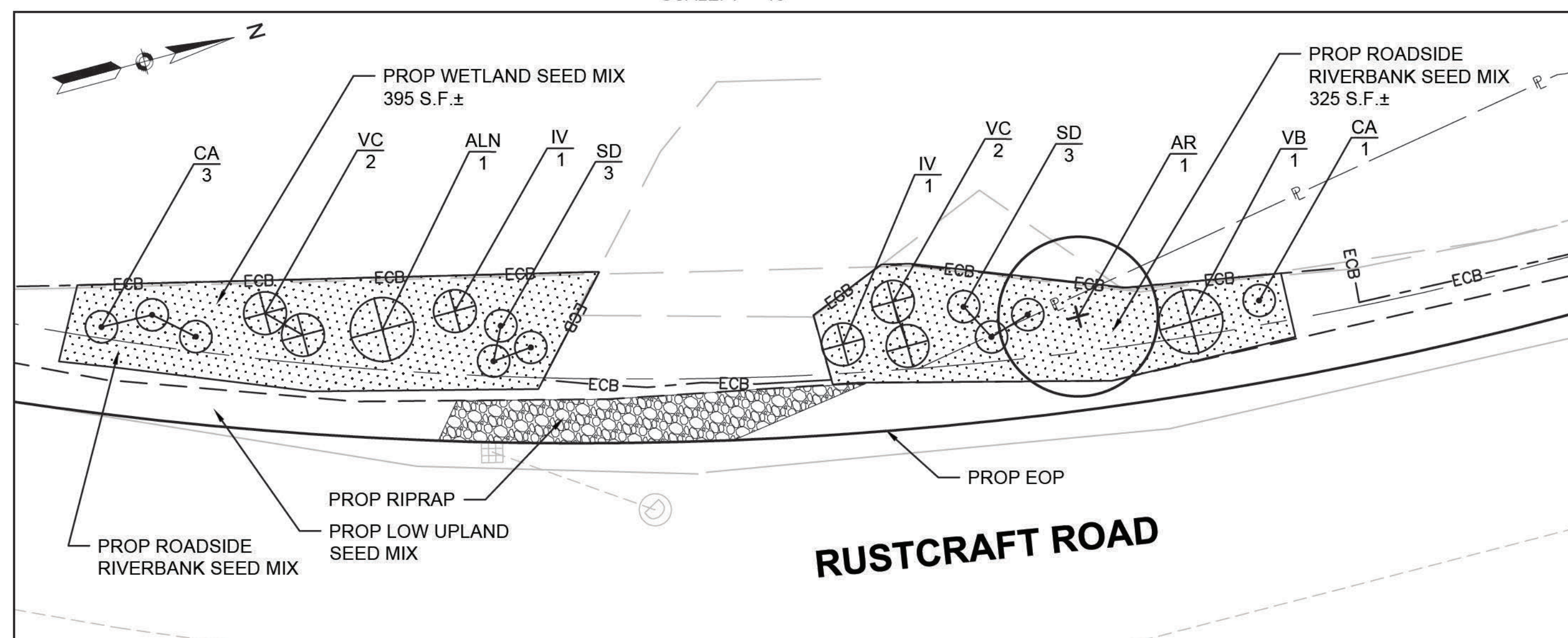
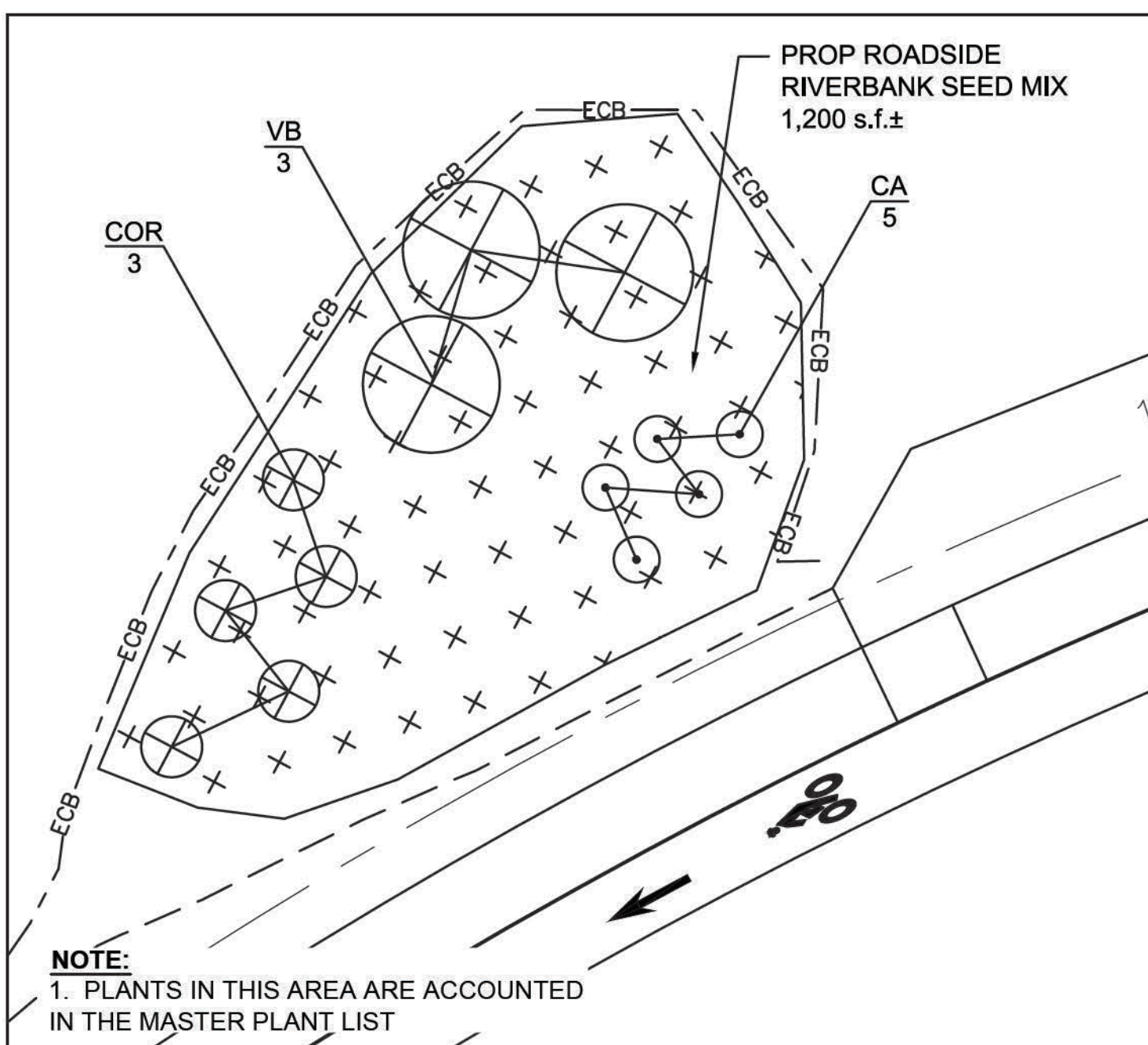
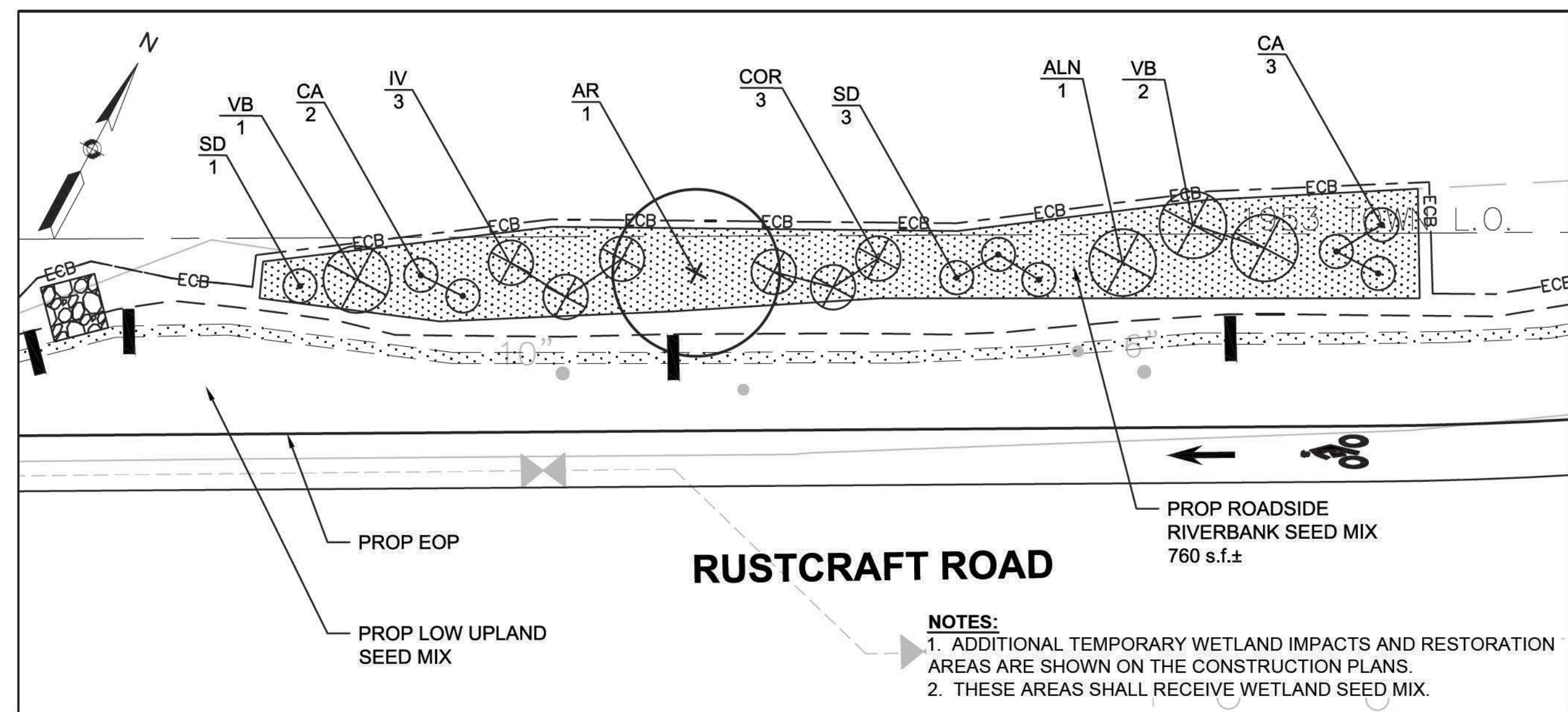
SAFETY SIGNING FOR CONSTRUCTION OPERATIONS

LEGEND	TYPE	SIZE	COLOR			UNIT AREA	NO. SIGNS	TOTAL AREA
			BACKGROUND	LEGEND	BORDER			
WORK ZONE SPEEDING FINES...	MA-R2-10a	48" x 36"	ORANGE/WHITE**	BLACK	BLACK	12 SF	4	48 SF
END ROAD WORK	MA-R2-10e	36" x 48"	ORANGE/WHITE**	BLACK	BLACK	12 SF	4	48 SF
BIKE MAY USE FULL LANE	R4-11	30" x 30"	WHITE	BLACK	BLACK	6.3 SF	4	25 SF
SIDEWALK CLOSED CROSS HERE	R9-11a	24" x 12"	WHITE	BLACK	BLACK	2 SF	2	4 SF
ROAD NARROWS	W5-1	36" x 36"	ORANGE**	BLACK	BLACK	9 SF	2	18 SF
BUMP	W8-1	36" x 36"	ORANGE**	BLACK	BLACK	9 SF	4	36 SF
PAVEMENT ENDS	W8-3	36" x 36"	ORANGE**	BLACK	BLACK	9 SF	4	36 SF
GROOVED PAVEMENT	W8-15	36" x 36"	ORANGE**	BLACK	BLACK	9 SF	4	36 SF
STEEL PLATE AHEAD	W8-24	36" x 36"	ORANGE**	BLACK	BLACK	9 SF	4	36 SF
PEDESTRIAN	W11-2	30" x 30"	FYG***	BLACK	BLACK	6.3 SF	4	25 SF
DOWNWARD LEFT DIAGONAL ARROW	W16-7pL	24" x 12"	FYG***	BLACK	BLACK	2 SF	4	8 SF
ROAD WORK 1500 FT	W20-1A	36" x 36"	ORANGE**	BLACK	BLACK	9 SF	2	18 SF
ROAD WORK AHEAD	W20-1B	36" x 36"	ORANGE**	BLACK	BLACK	9 SF	2	18 SF
ONE LANE ROAD AHEAD	W20-4	36" x 36"	ORANGE**	BLACK	BLACK	9 SF	4	36 SF
ONE LANE ROAD 1000 FT	W20-4C	36" x 36"	ORANGE**	BLACK	BLACK	9 SF	4	36 SF
FLAGGER	W20-7	36" x 36"	ORANGE**	BLACK	BLACK	9 SF	4	36 SF
POLICE OFFICER AHEAD	MA-W20-7b	36" x 36"	ORANGE**	BLACK	BLACK	9 SF	4	36 SF
RIGHT SHOULDER CLOSED	W21-5aR	36" x 36"	ORANGE**	BLACK	BLACK	9 SF	2	18 SF
							TOTAL AREA OF SIGNS:	518 SF

* NO. OF SIGNS ARE ESTIMATED FOR BIDDING PURPOSES ONLY

** ALL CONSTRUCTION SIGNAGE SHALL HAVE FLUORESCENT ORANGE BACKGROUND

*** FLUORESCENT YELLOW GREEN



HATCH LEGEND

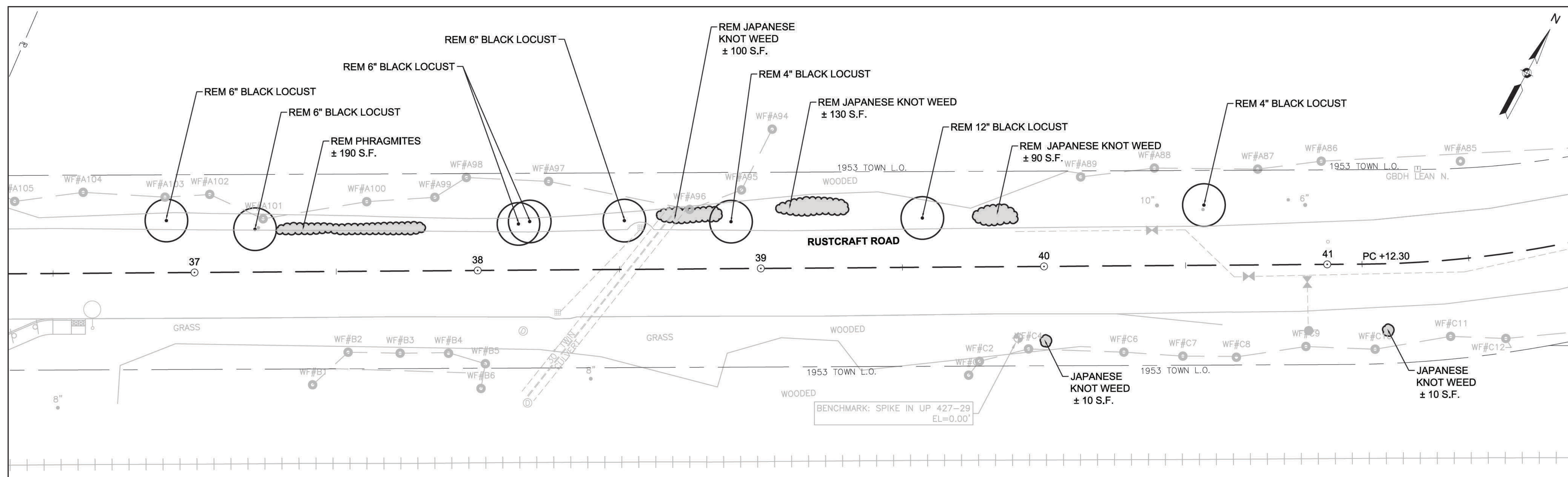
- LOW UPLAND SEED MIX
- ROADSIDE RIVERBANK SEED MIX

MASTER PLANT LIST

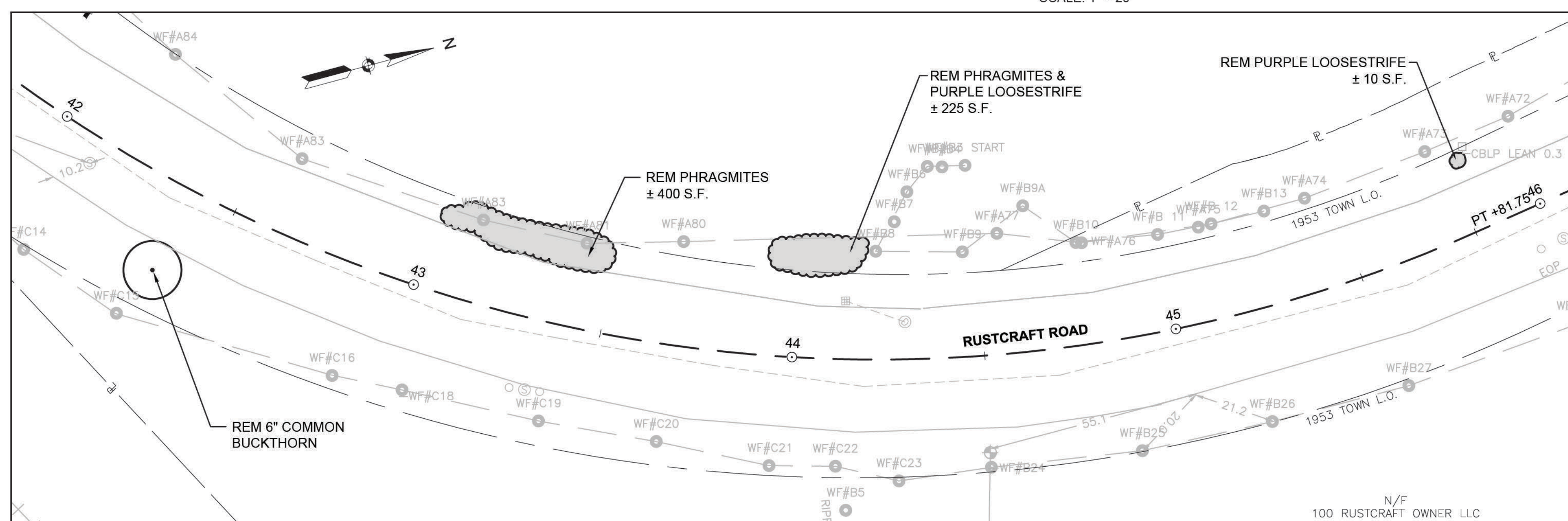
KEY	QU.	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	NOTES
TREES						
AR	5	ACER RUBRUM	MAPLE - RED	1.5-2" CAL.	CONT.	
SHRUBS						
ALN	3	ALNUS RUGOSA	ALDER - SPECKLED	2 GAL.	CONT.	
CA	19	CLETHRA ALNIFOLIA	SUMMERSWEET SHRUB	24 - 30"	CONT.	3-5' O.C.
COR	6	CORNUS AMOMUM	DOGWOOD - SILKY	2-3'	CONT.	5-7' O.C.
IV	5	ILEX VERTICILLATA	WINTERBERRY - FEMALE	24 - 30"	CONT.	5-7' O.C.
SD	10	SALIX DISCOLOR	WILLOW - PUSSY	2-3'	CONT.	3-5' O.C.
VC	9	VACCINIUM CORYMBOSUM	BLUEBERRY - HIGHBUSH	2-3'	CONT.	5-7' O.C.
VB	7	VIBURNUM DENTATUM	VIBURNUM - ARROWWOOD	18-24"	CONT.	5' O.C.

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ-003S(160)X	57	71
PROJECT FILE NO. 607901			

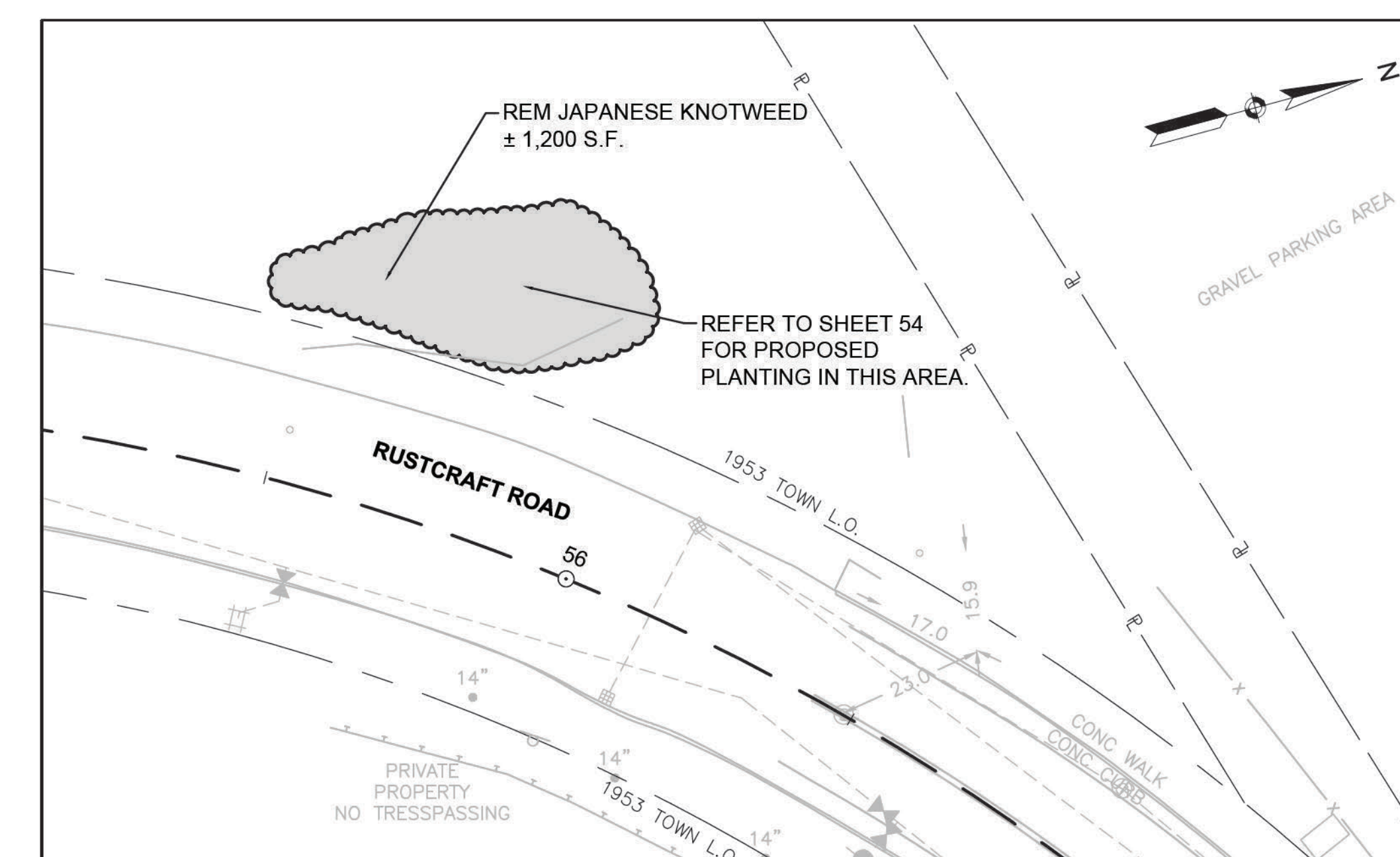
INVASIVE PLANT LOCATION PLAN



EXISTING INVASIVE PLANT LOCATIONS
STA 36+75 - 41+50 (LT/RT)
SCALE: 1" = 20'



EXISTING INVASIVE PLANT LOCATIONS
STA 42+25 - 46+00 (LT/RT)
SCALE: 1" = 20'

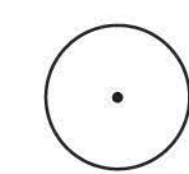



EXISTING INVASIVE PLANT LOCATIONS
STA 55+50 - 56+00 (LT)
SCALE: 1" = 20'

INVASIVE SPECIES NOTES:

1. THE MAPPING OF EXISTING INVASIVE SPECIES AS SHOWN ON THE PLANS WAS PREPARED BY BETA GROUP IN THE SUMMER OF 2016 AND IS PROVIDED TO THE CONTRACTOR FOR INFORMATION ONLY.
2. THE CONTRACTOR SHALL, AS DESCRIBED UNDER ITEM 102.3,
 - A. DOCUMENT THE EXTENT OF EXISTING INVASIVE PLANTS WITHIN THE PROJECT AREA AND AS SHOWN ON THE PLANS.
 - B. PROPOSE AN INVASIVE PLANT MANAGEMENT STRATEGY FOR THEIR CONTROL AND
 - C. IMPLEMENT THE STRATEGY AS APPROVED BY MASSDOT LANDSCAPE SECTION.
3. TREATMENT AND REMOVAL OF EXISTING INVASIVE PLANT MATERIAL SHALL BE DONE IMMEDIATELY BY THE CONTRACTOR AFTER LIMIT OF WORK LINES HAVE BEEN ESTABLISHED.
4. EXISTING INVASIVE PLANT MATERIAL INCLUDES BUT IS NOT LIMITED TO THE FOLLOWING SPECIES.
Common Buckthorn (*Rhamnus Cathartica*), Black Locust (*Robinia pseudoacacia*), Purple Loosestrife (*Lythrum salicaria*), Japanese Knotweed (*Polygonum cuspidatum*), Common Reed (*Pragmites australis*)
5. AREAS WHERE INVASIVE SPECIES HAVE BEEN REMOVED AND TREATED SHALL RECEIVE A LAYER OF COMPOST TOPSOIL AND THEN SEEDED WITH RESTORATION MIX.

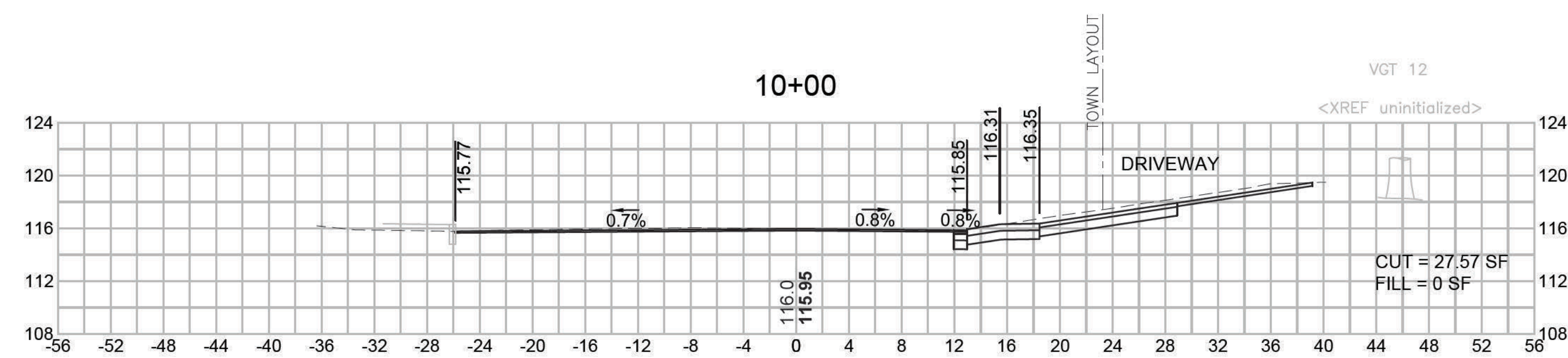
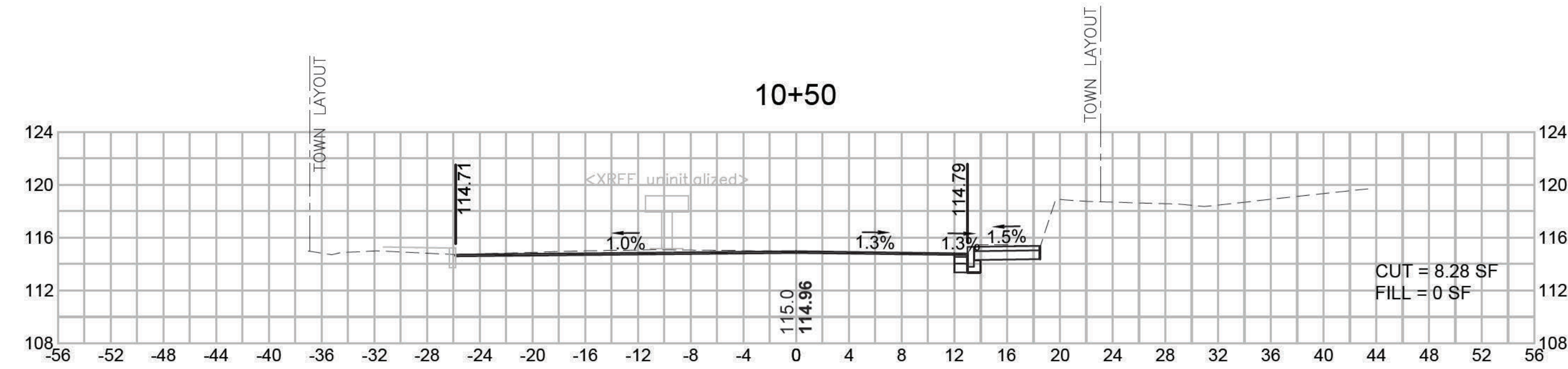
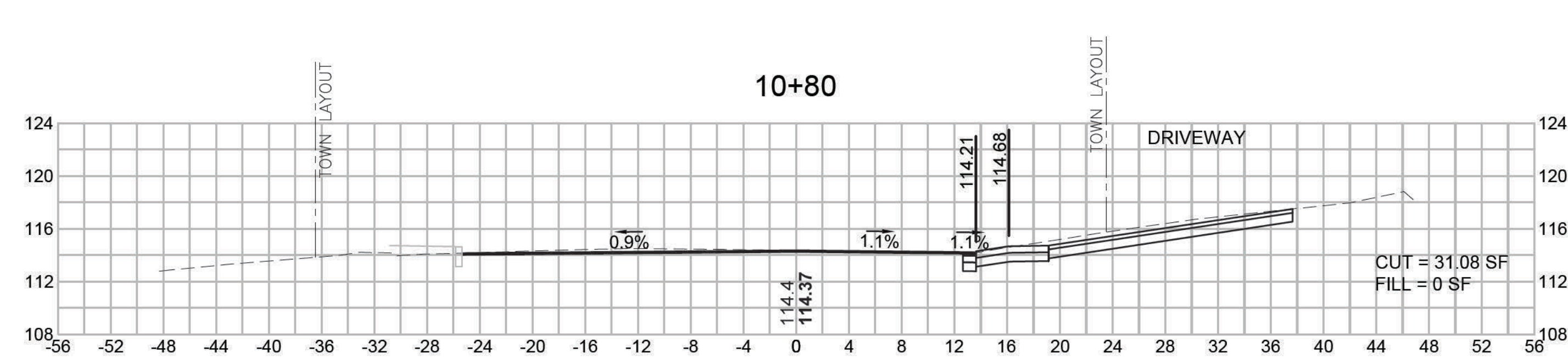
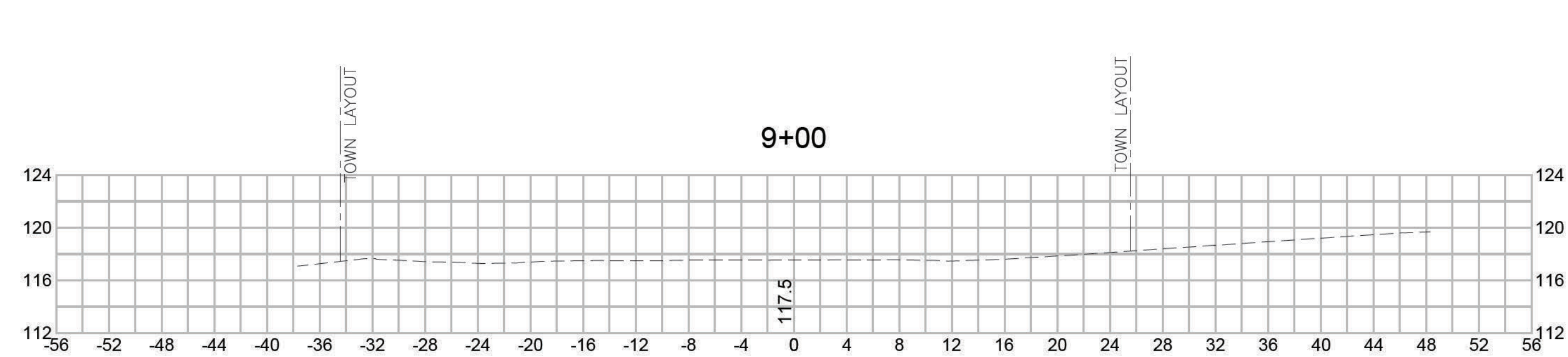
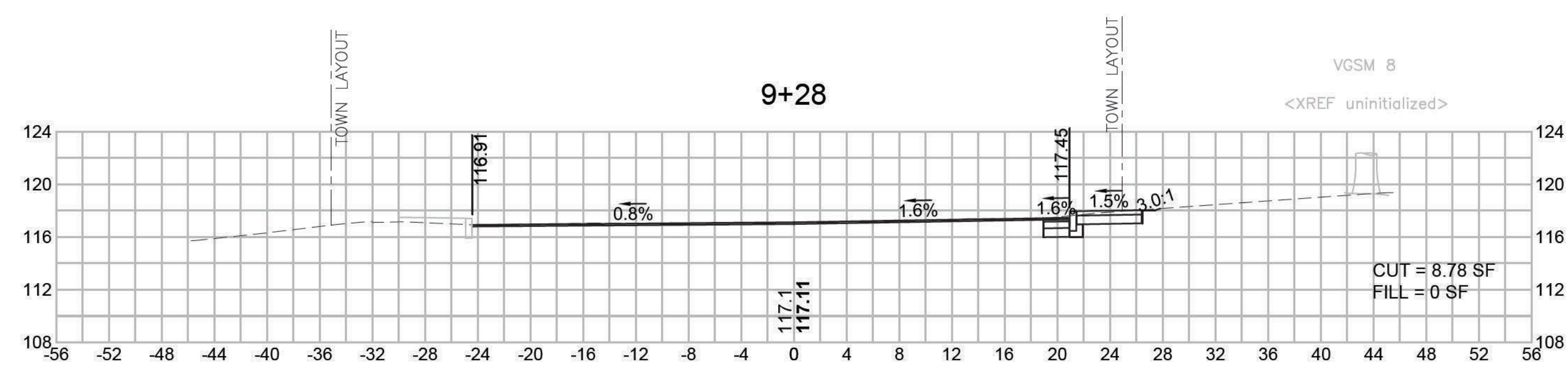
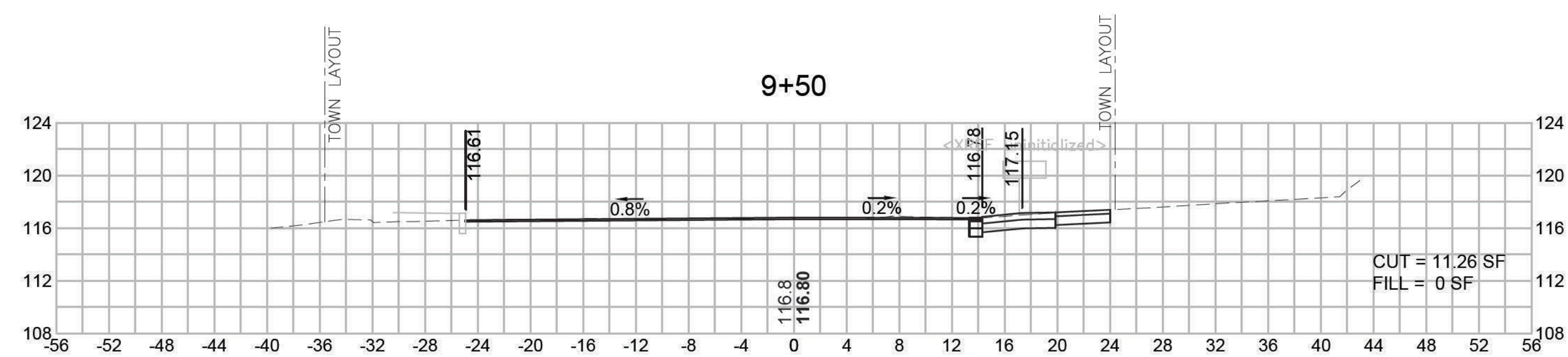
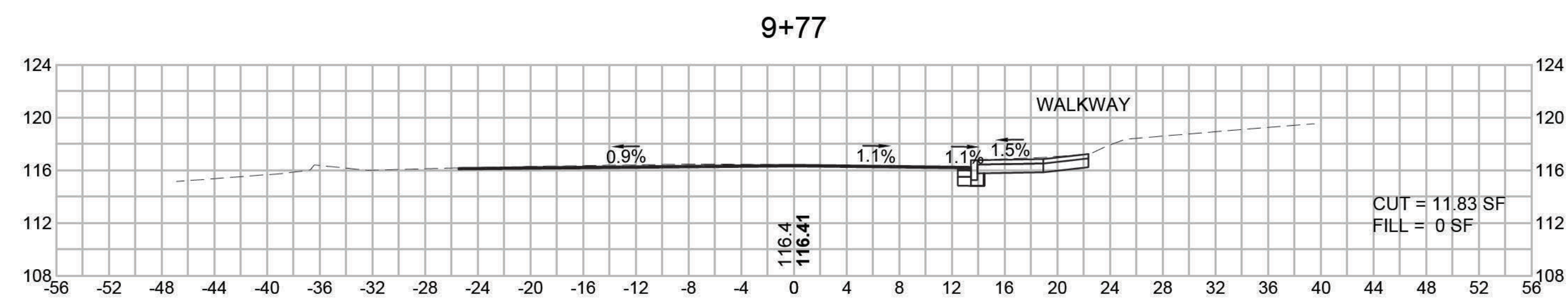
LEGEND

-  INVASIVE TREE TO BE REMOVED
-  INVASIVE PERENNIAL TO BE REMOVED

DEDHAM
ELM STREET AND RUSTCRAFT ROAD

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ-003S(160)X	58	71
PROJECT FILE NO. 607901			

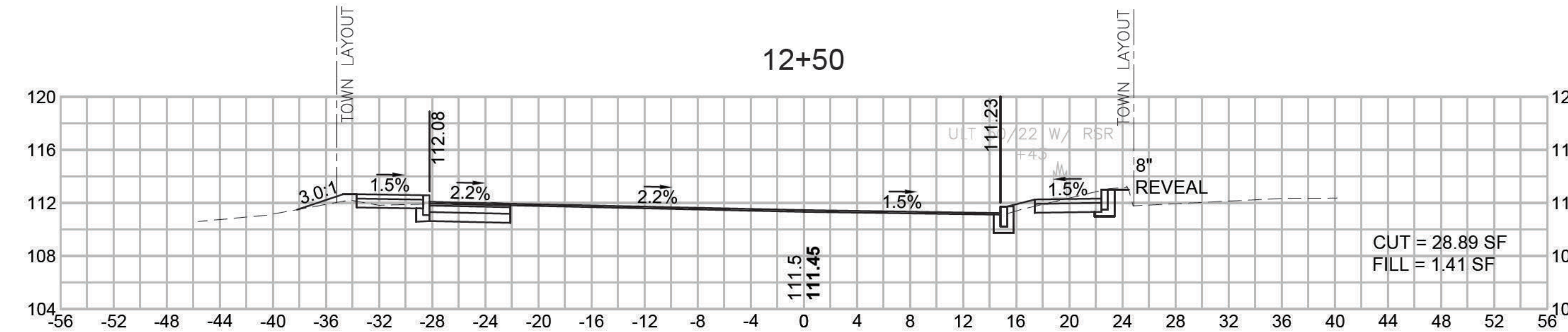
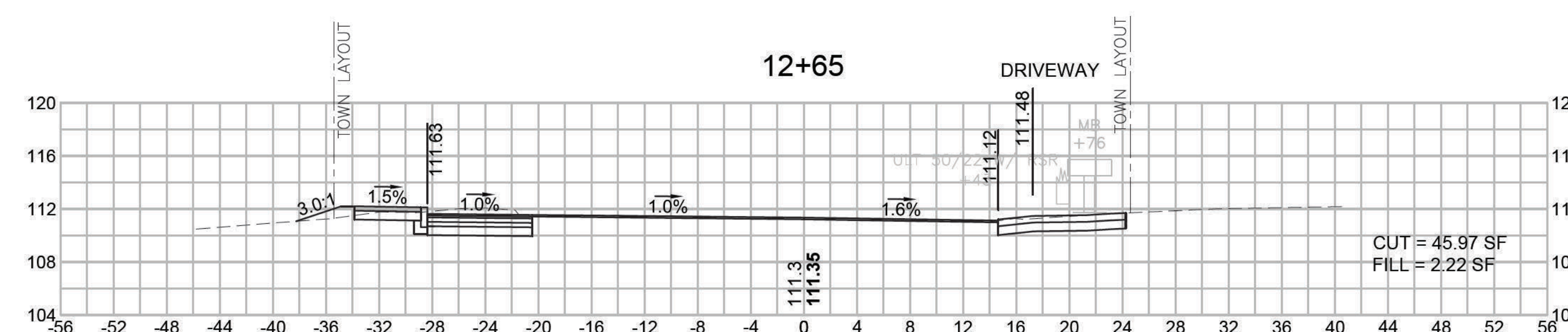
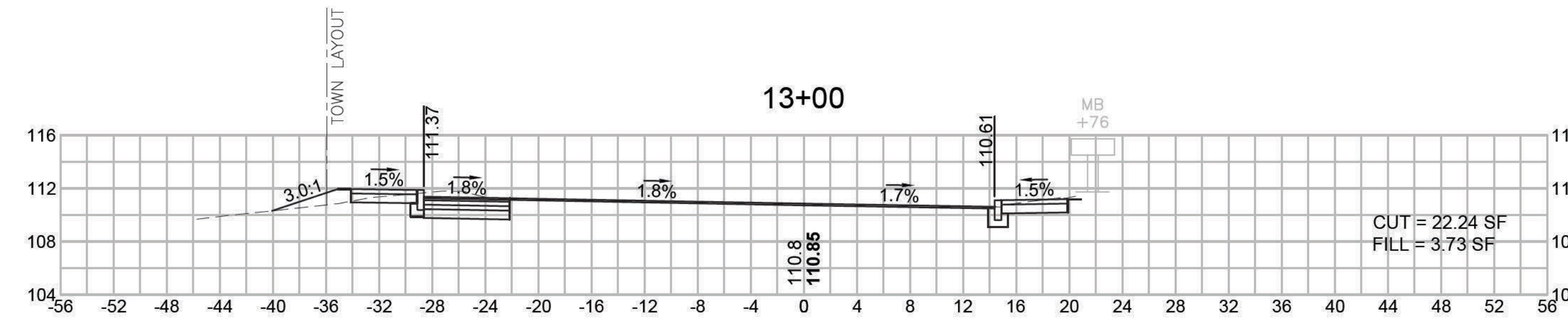
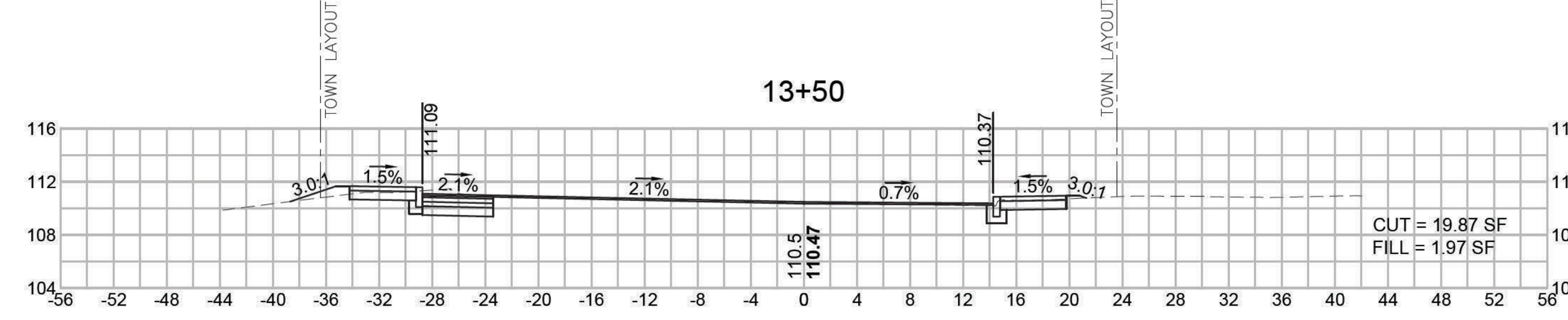
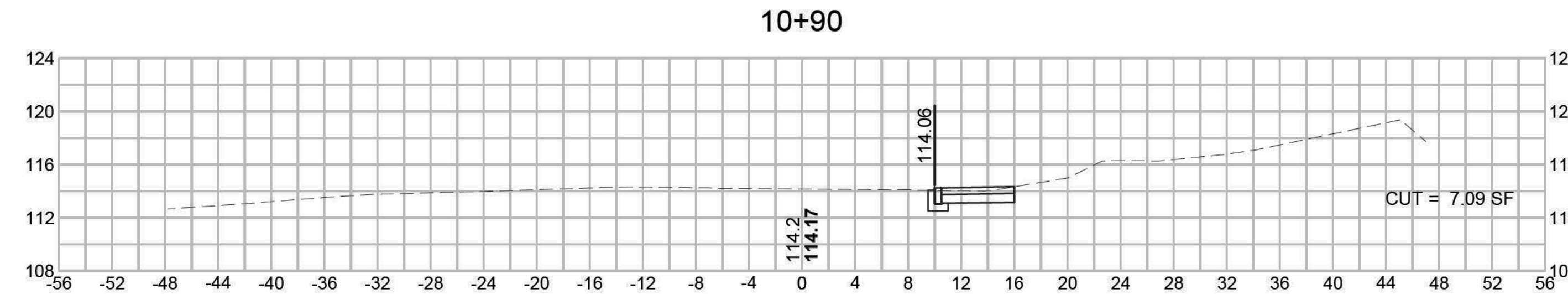
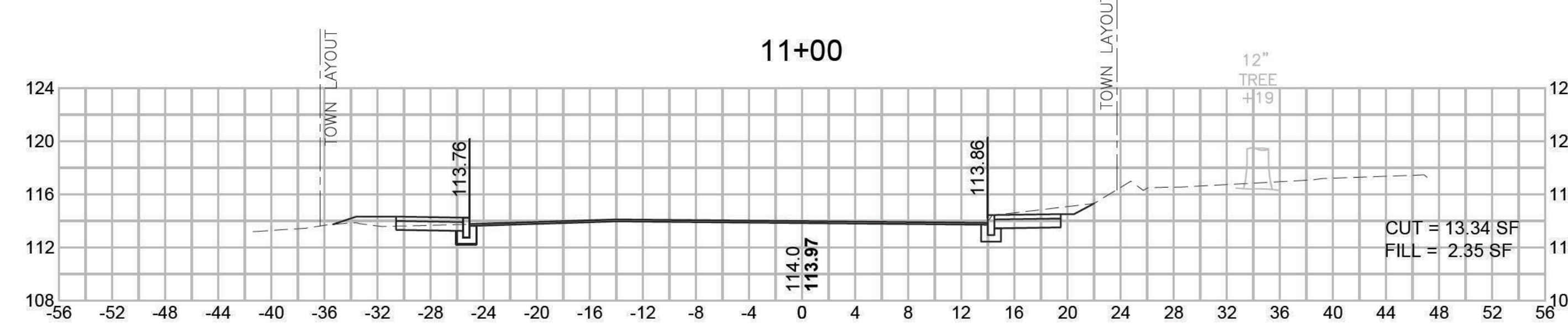
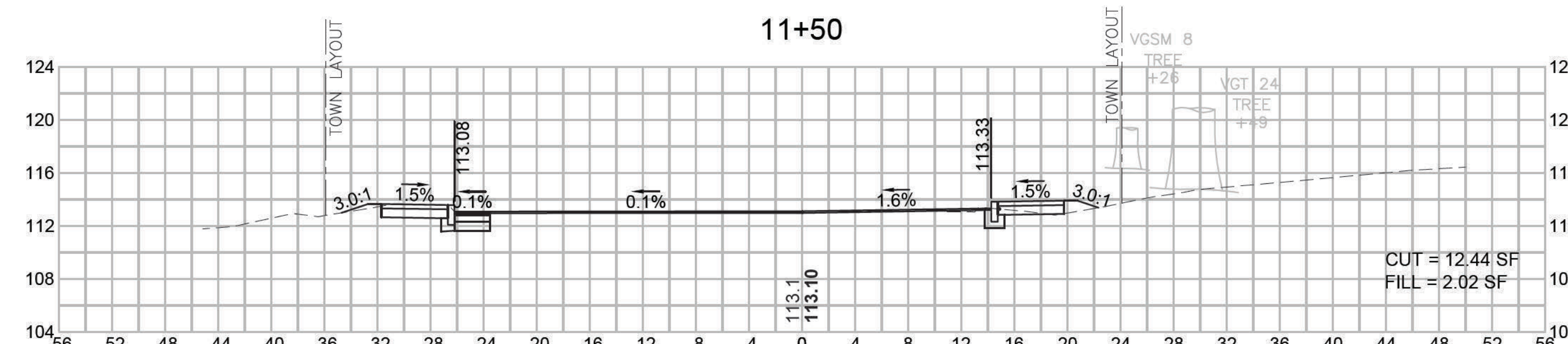
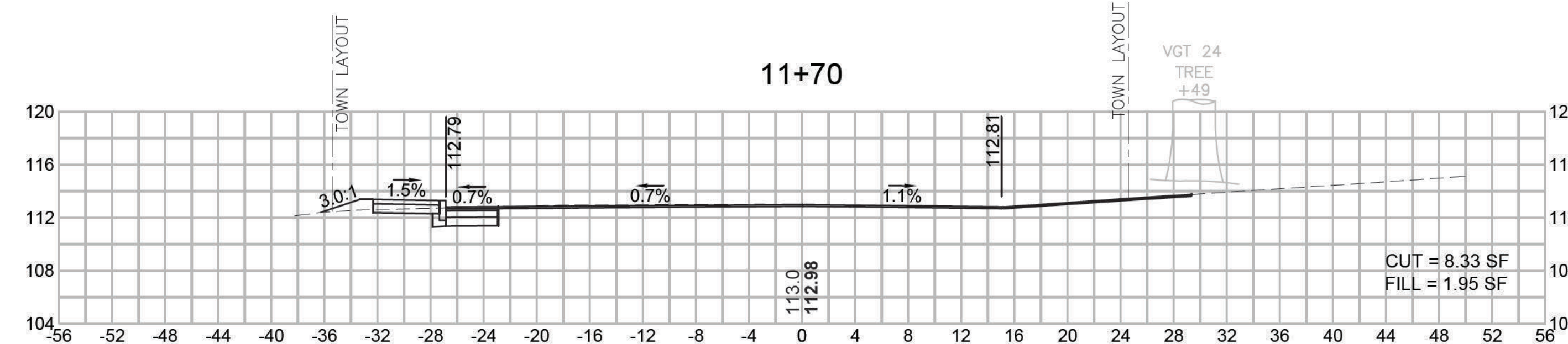
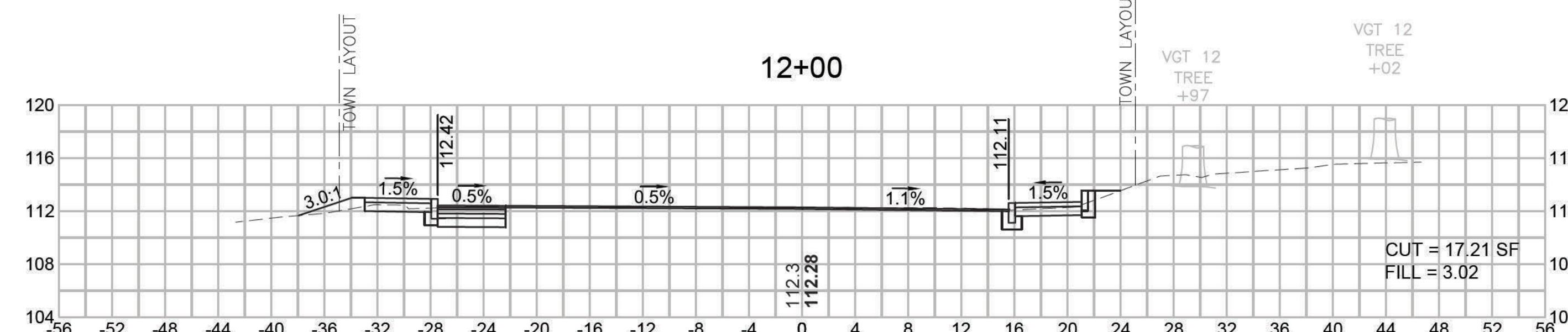
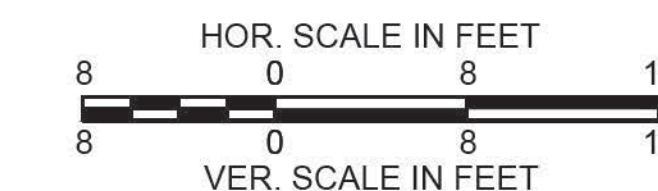
CROSS SECTIONS



DEDHAM
ELM STREET AND RUSTCRAFT ROAD

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ-003S(160)X	59	71
PROJECT FILE NO.		607901	

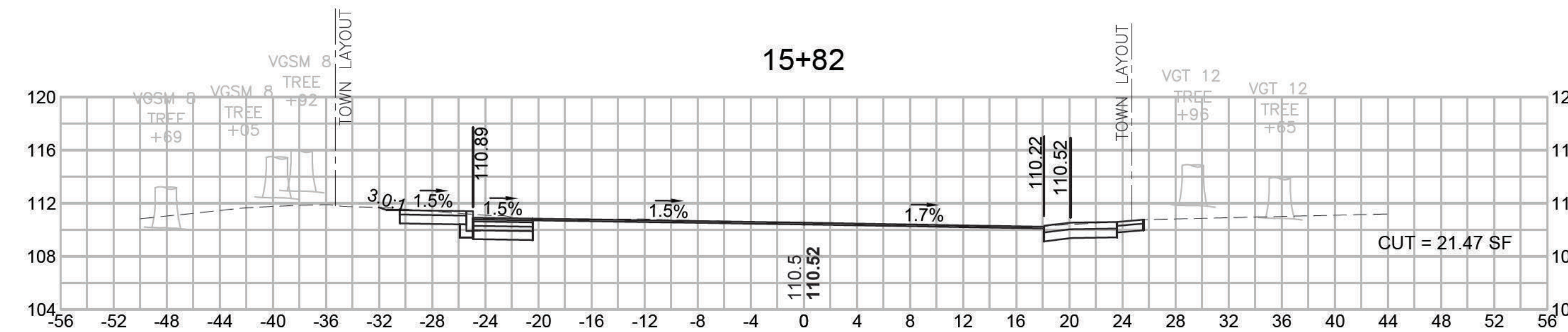
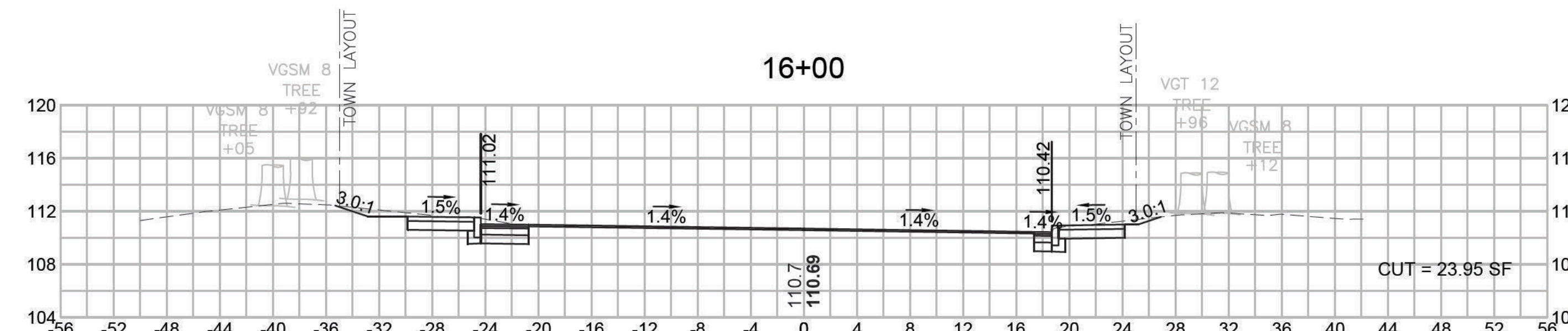
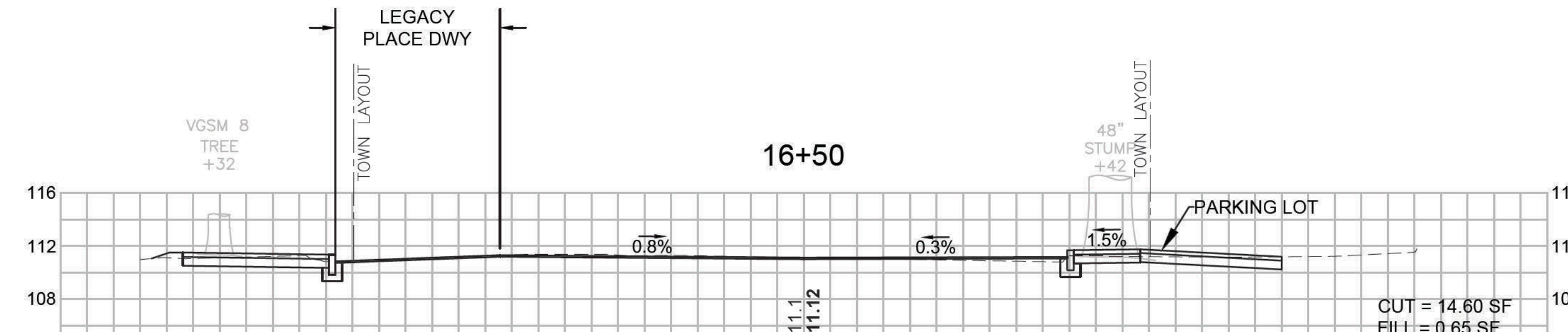
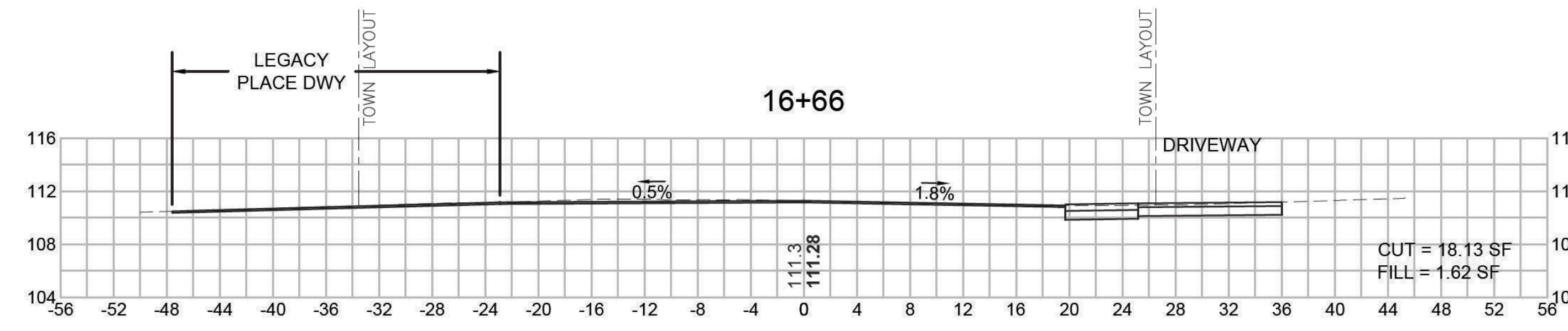
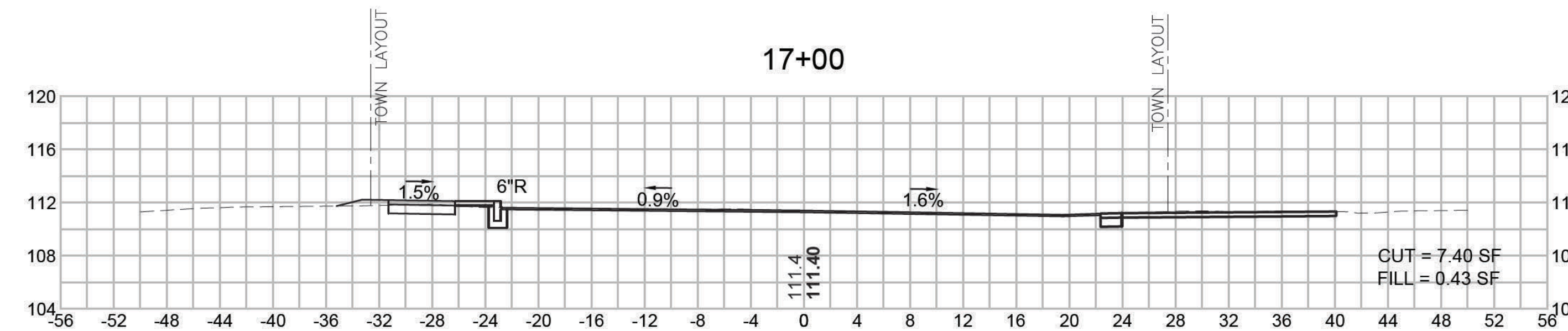
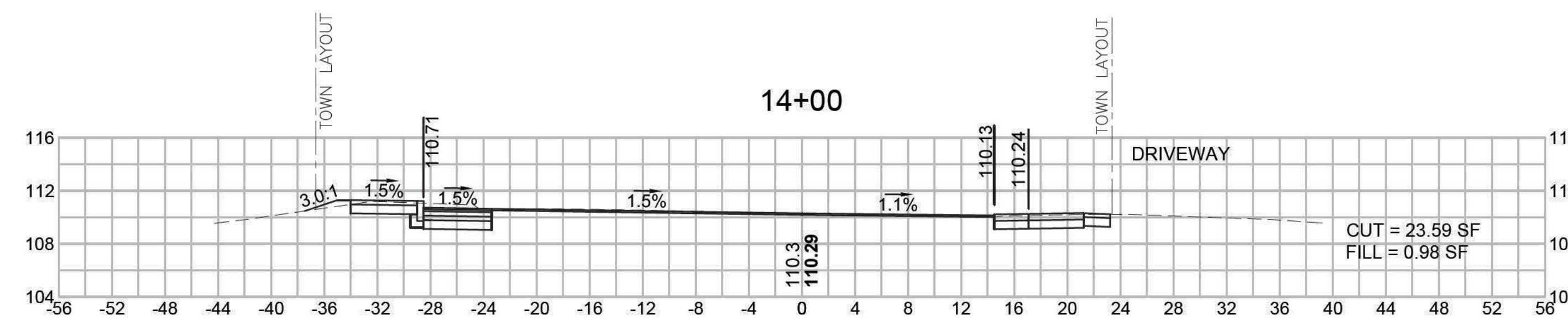
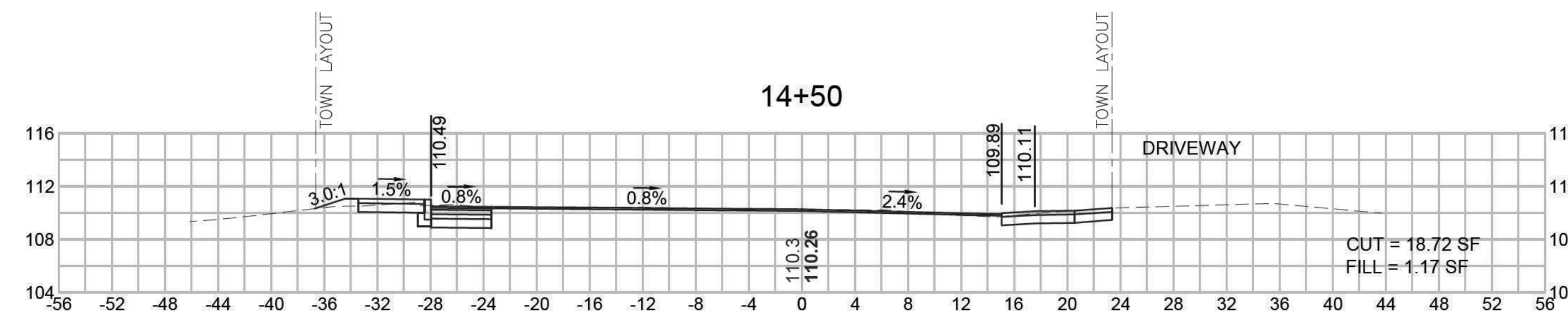
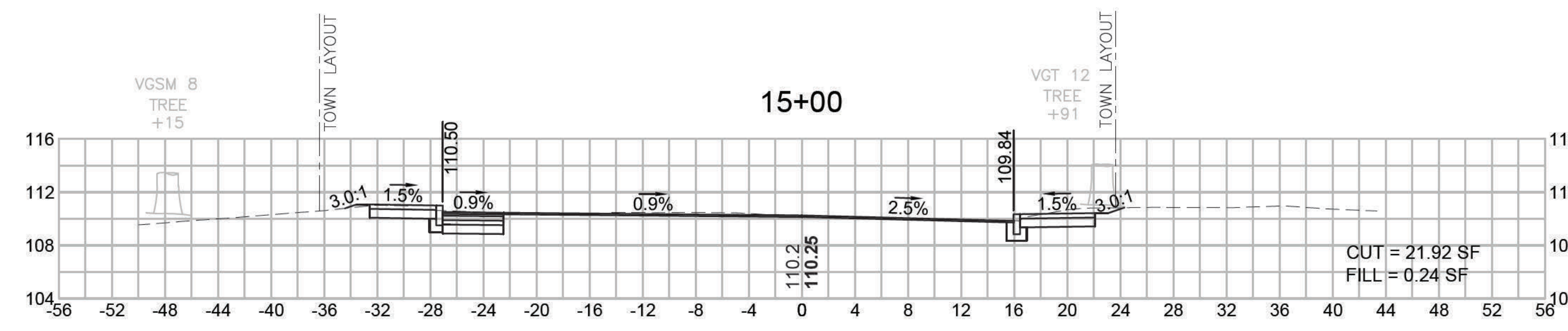
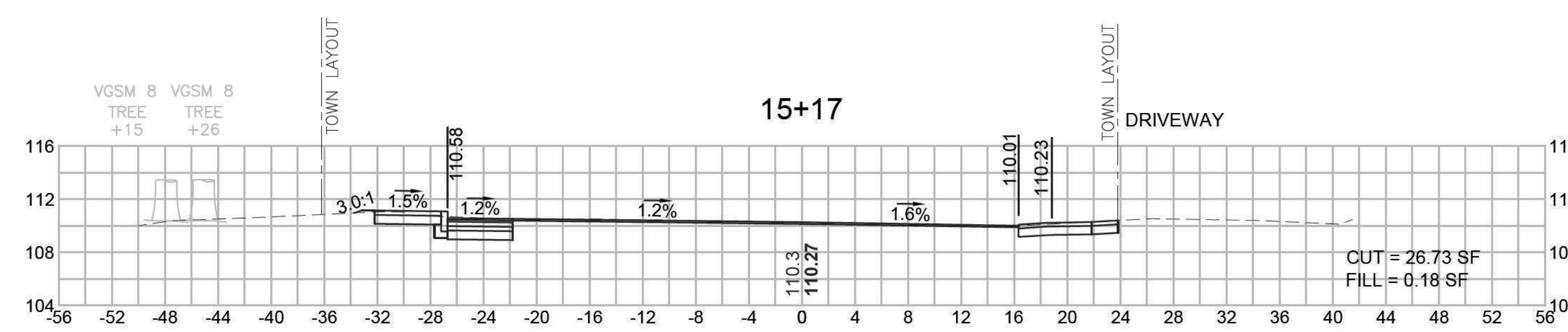
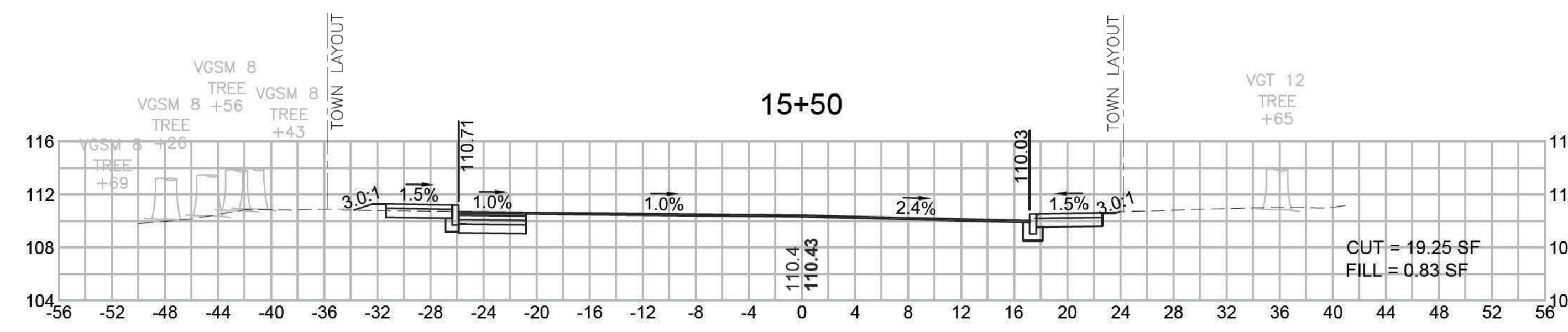
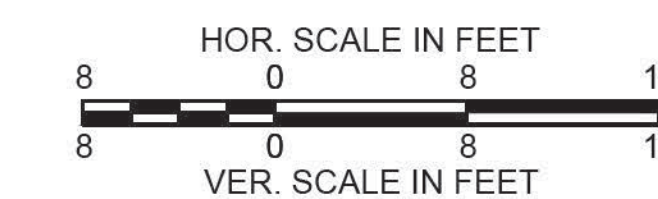
CROSS SECTIONS



DEDHAM
ELM STREET AND RUSTCRAFT ROAD

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ-003S(160)X	60	71
PROJECT FILE NO. 607901			

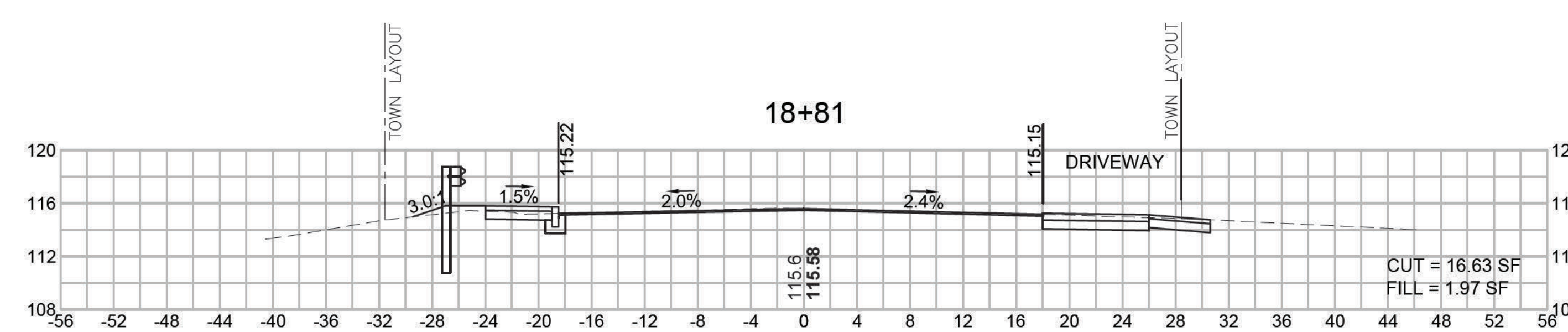
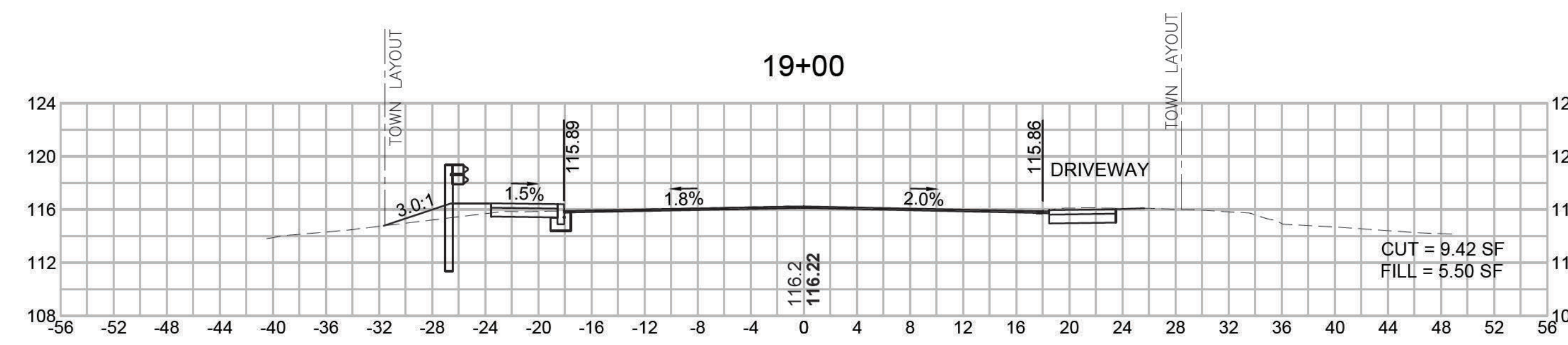
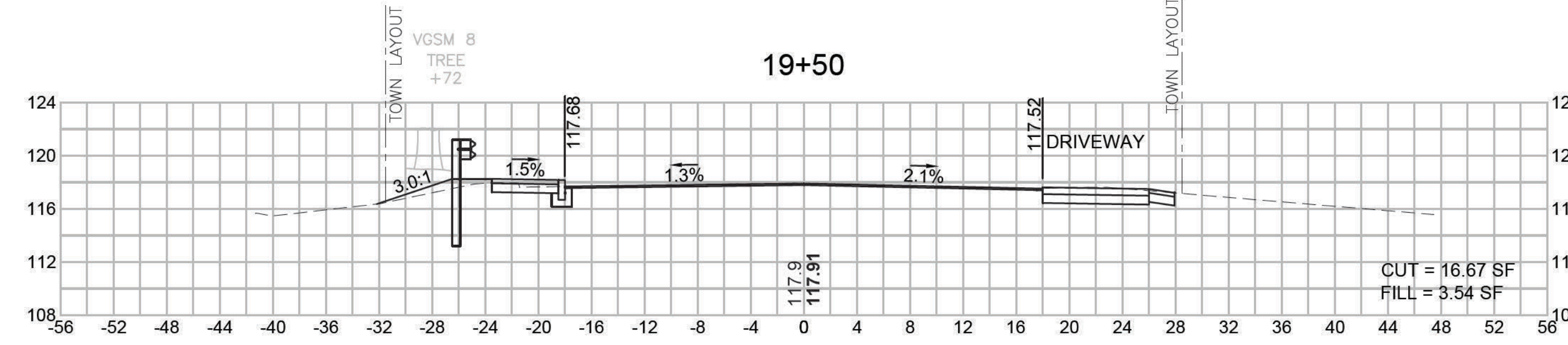
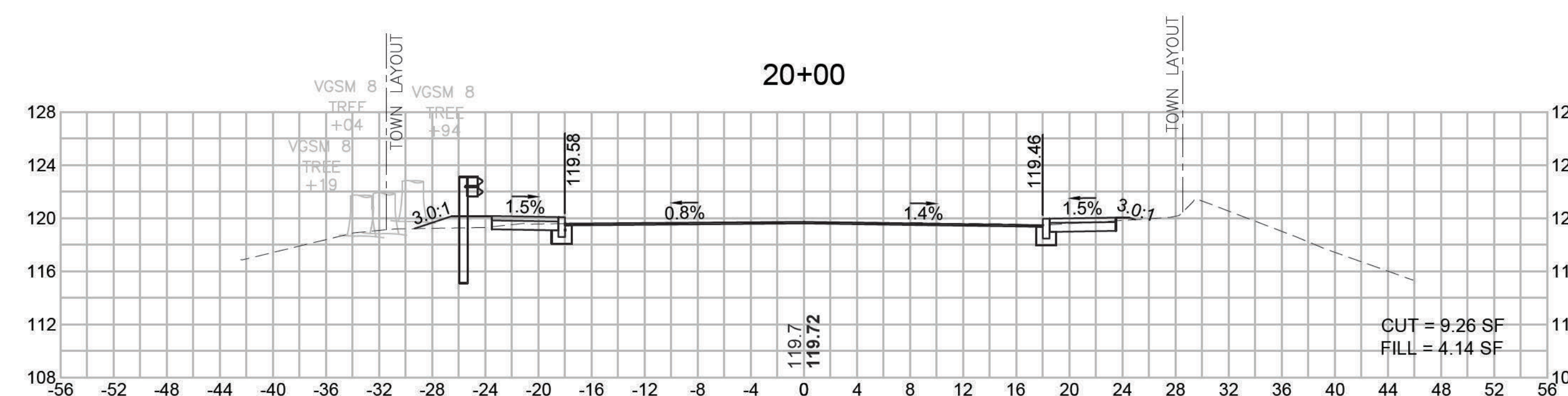
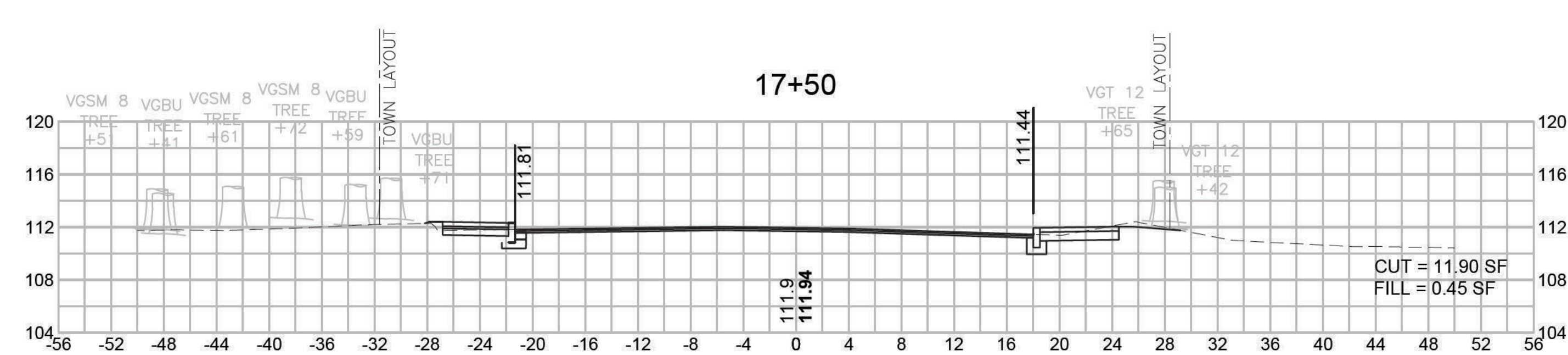
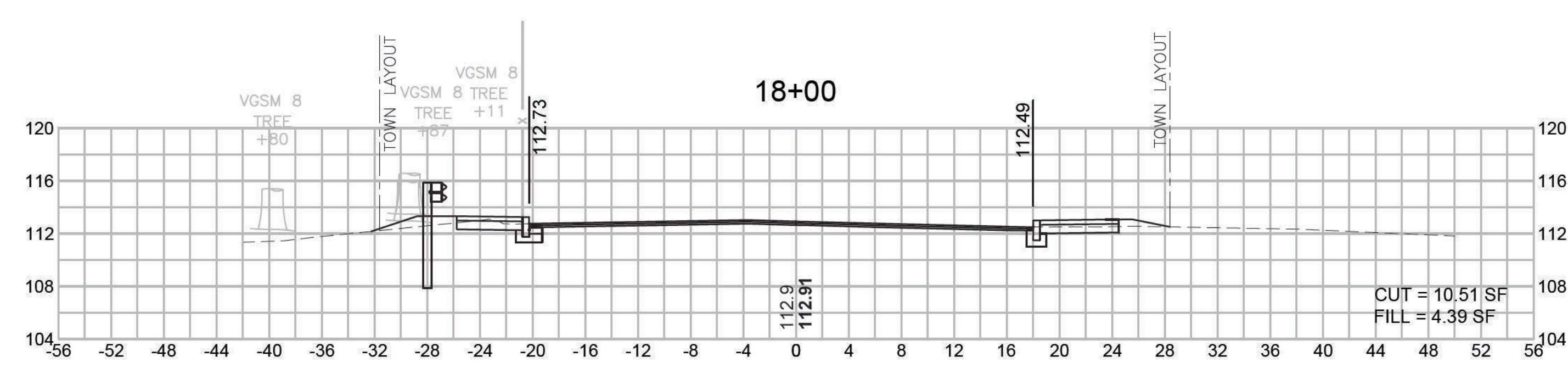
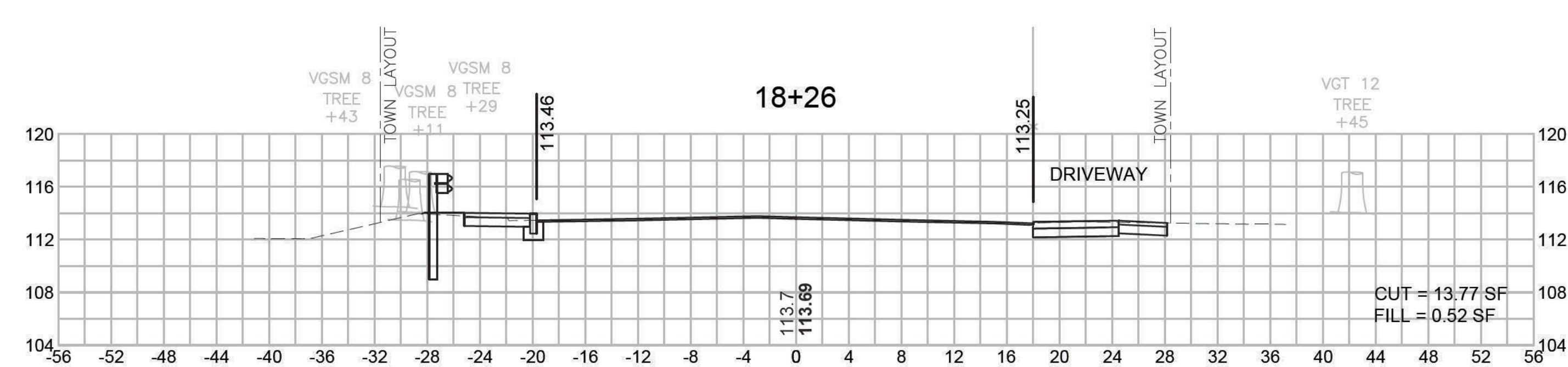
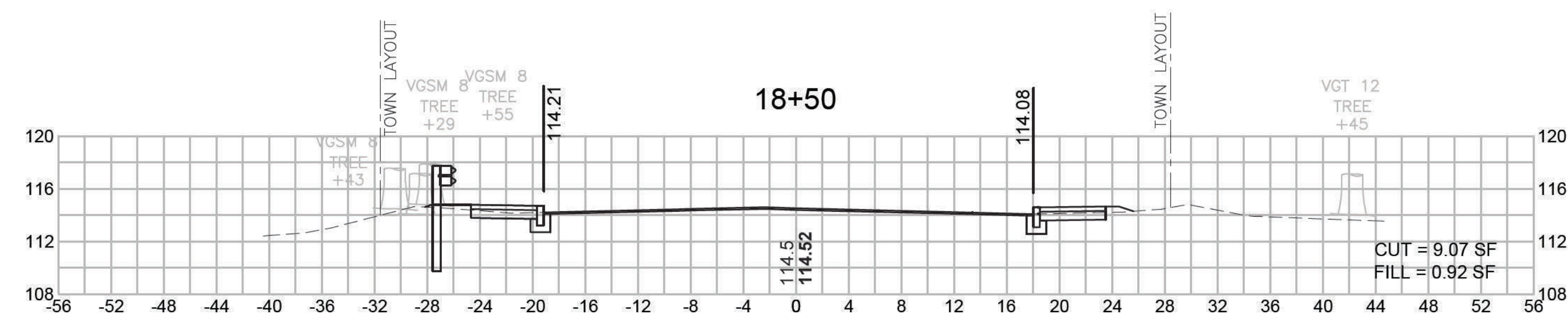
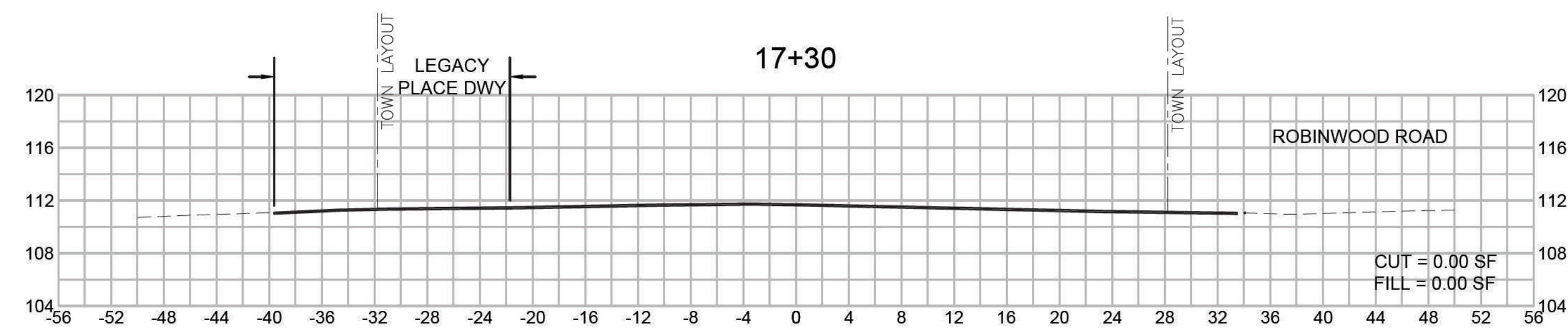
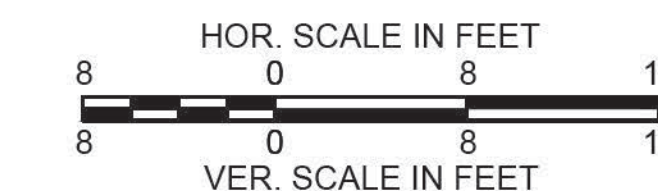
CROSS SECTIONS



DEDHAM
ELM STREET AND RUSTCRAFT ROAD

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ-003S(160)X	61	71
PROJECT FILE NO.		607901	

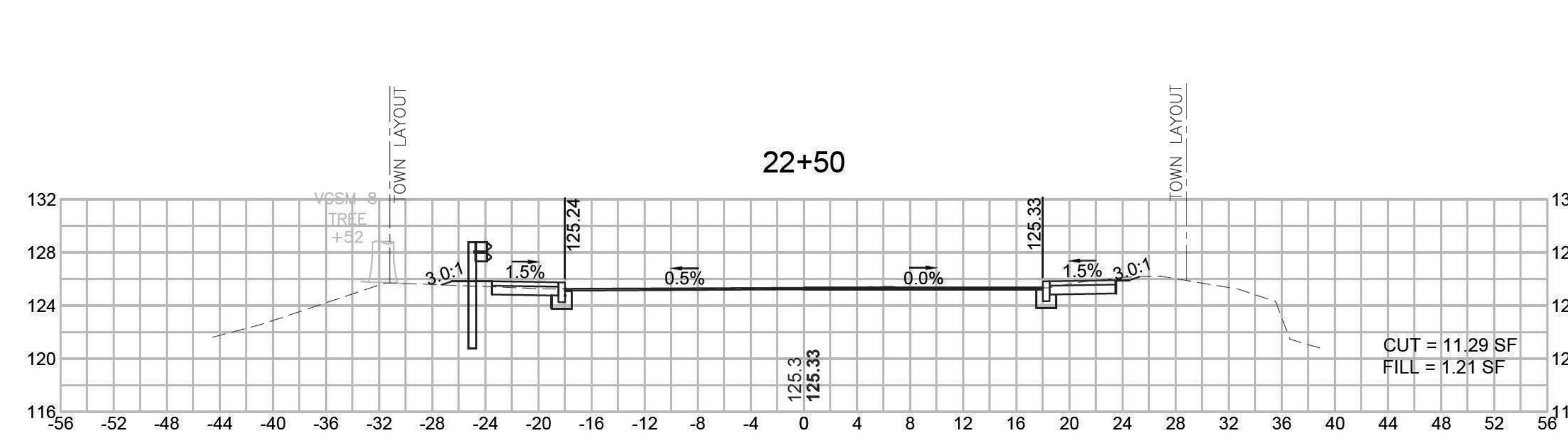
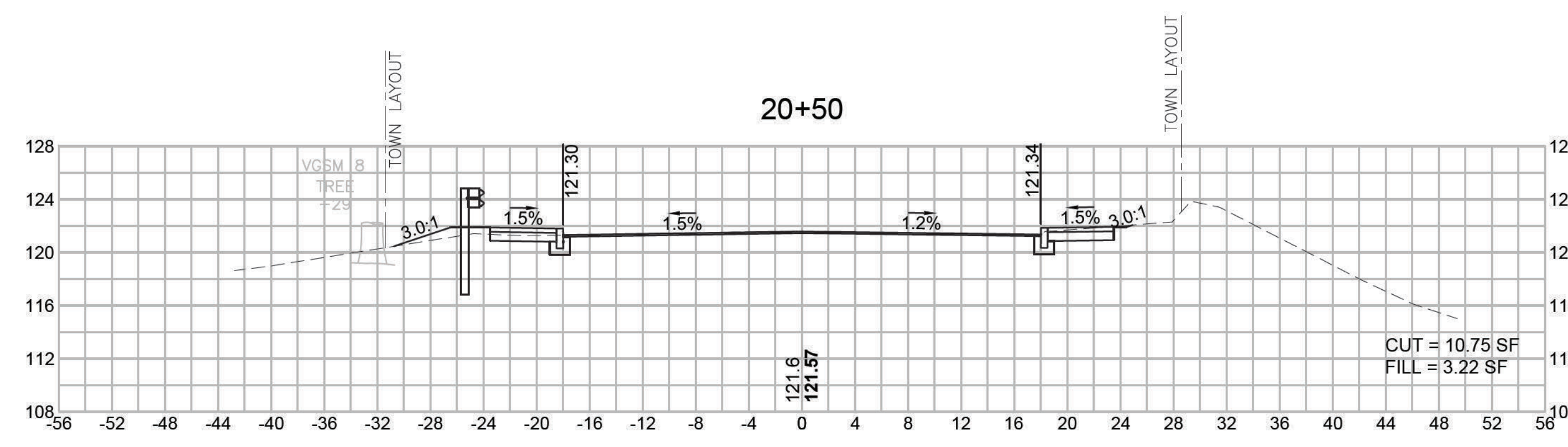
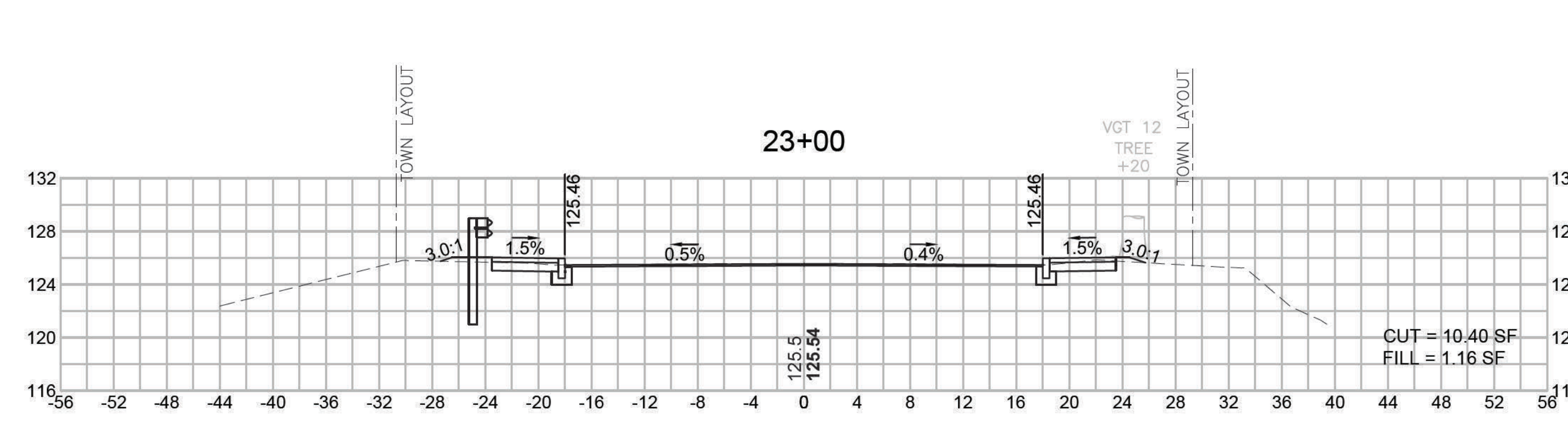
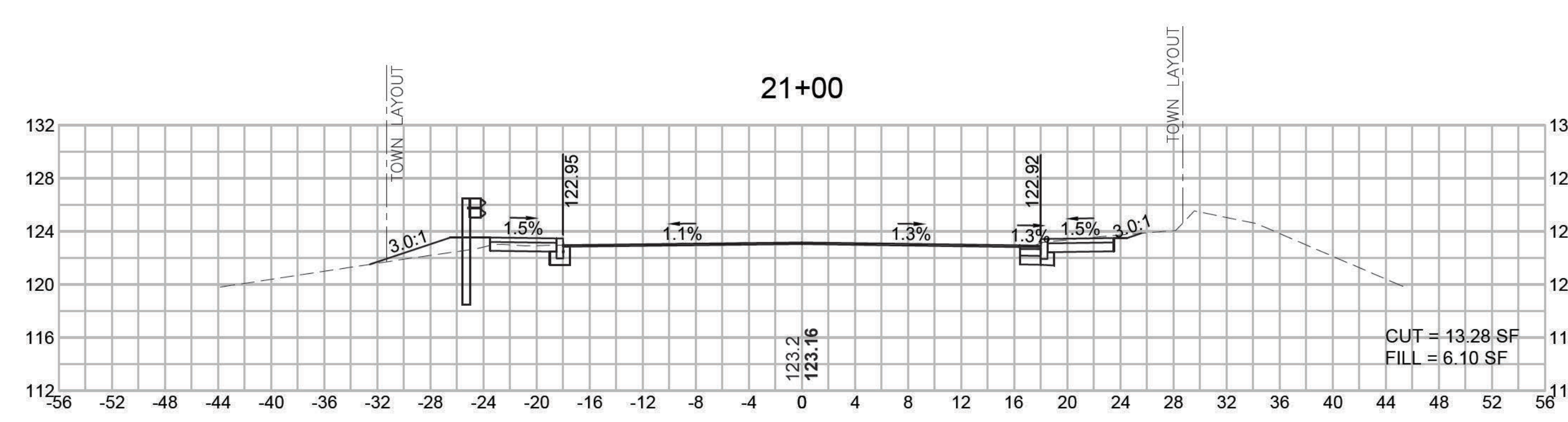
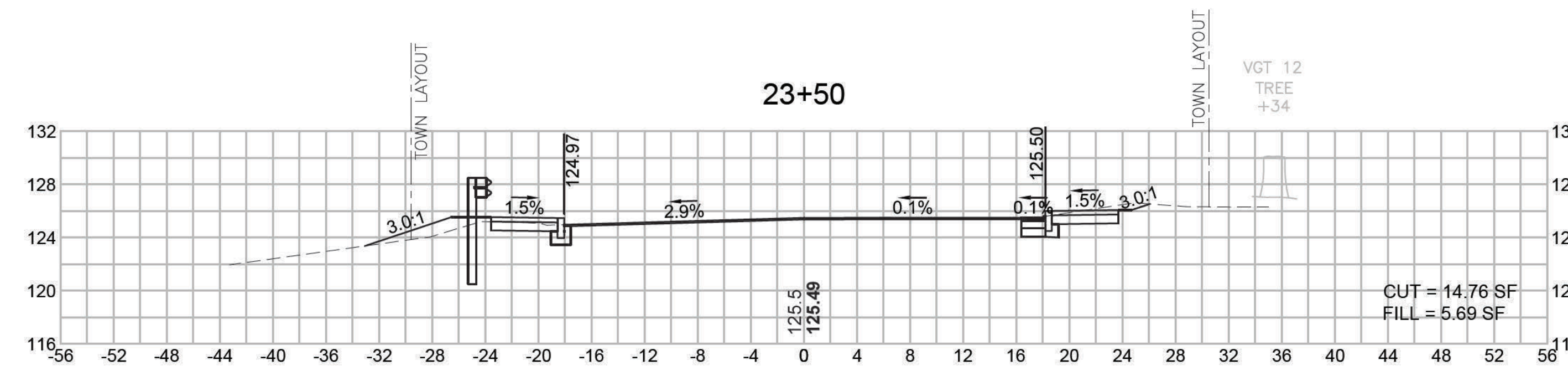
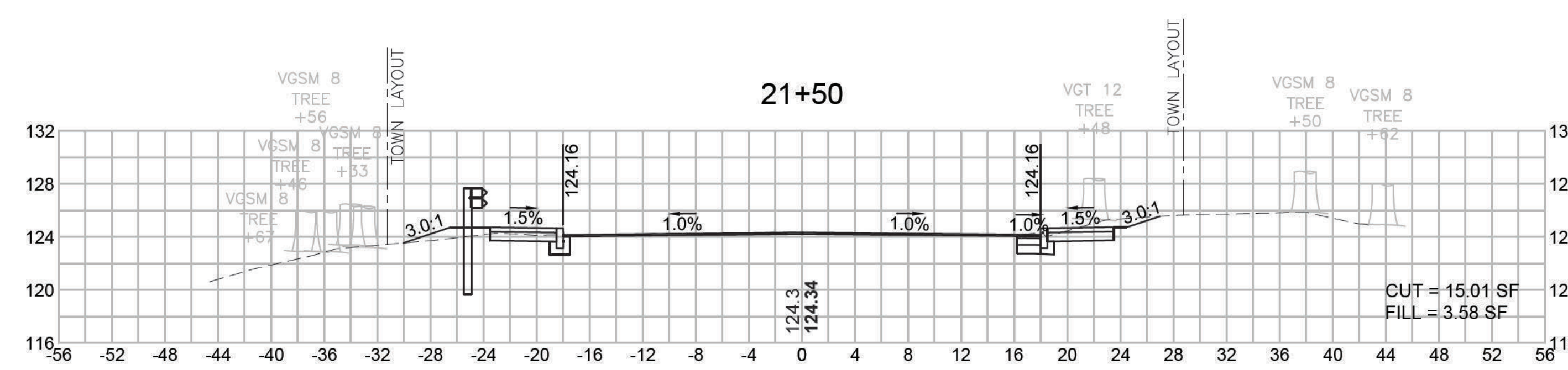
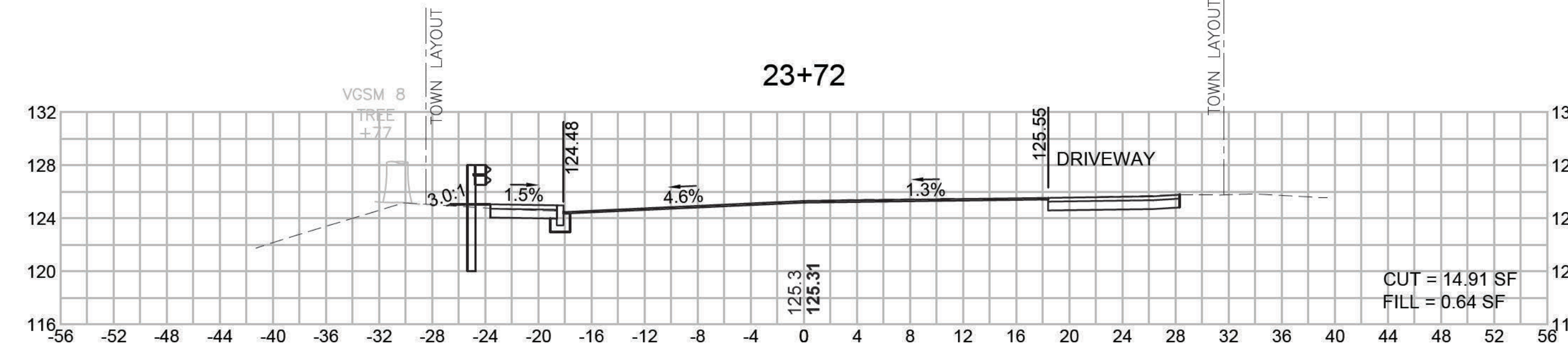
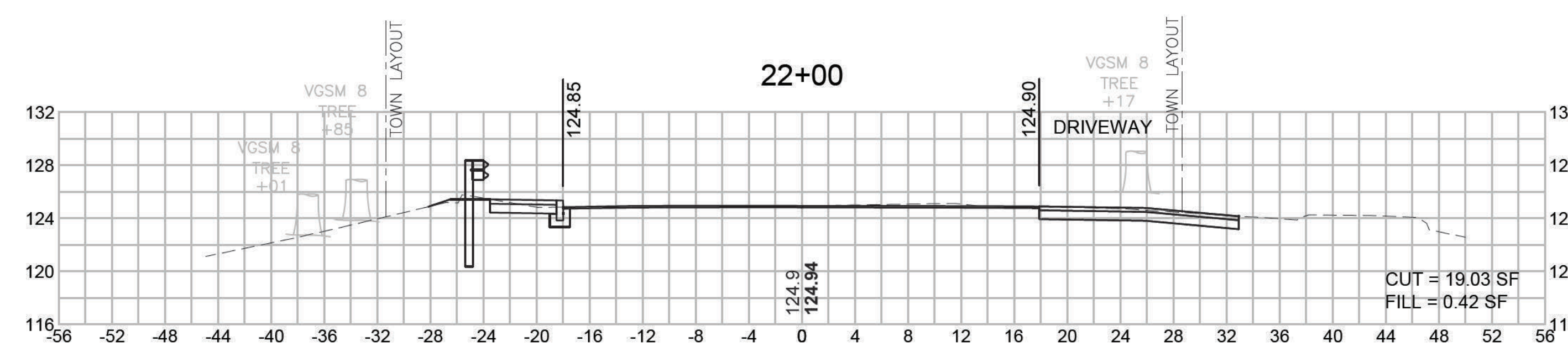
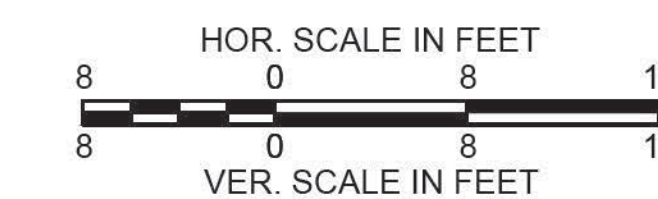
CROSS SECTIONS



DEDHAM
ELM STREET AND RUSTCRAFT ROAD

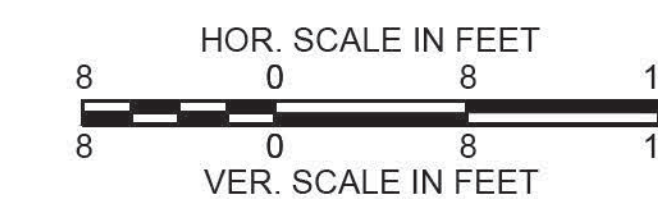
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ-003S(160)X	62	71
PROJECT FILE NO. 607901			

CROSS SECTIONS

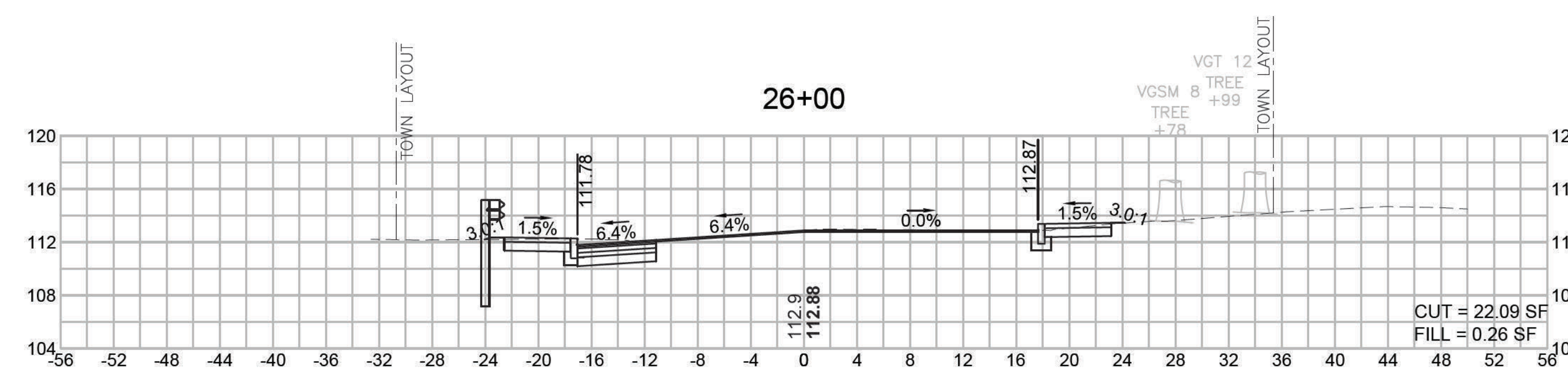
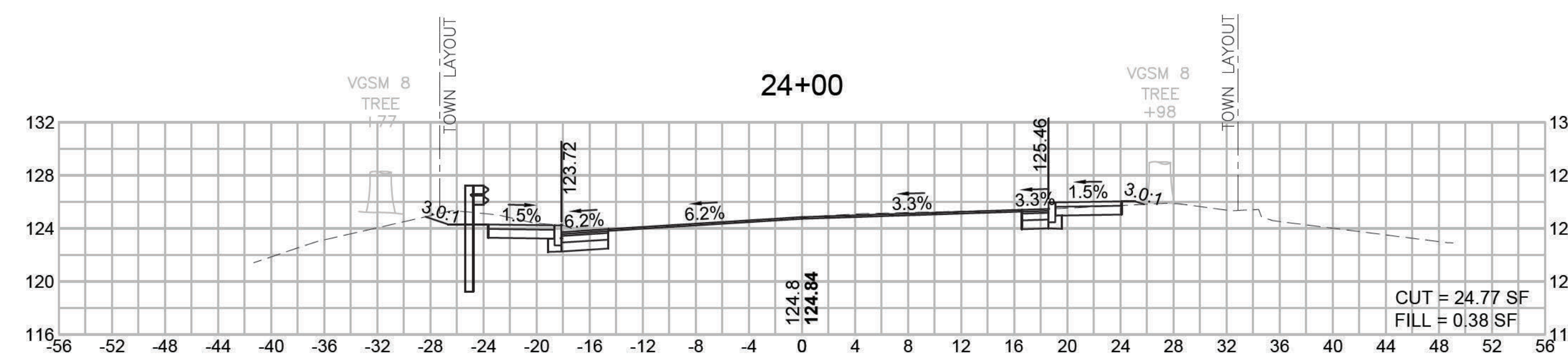
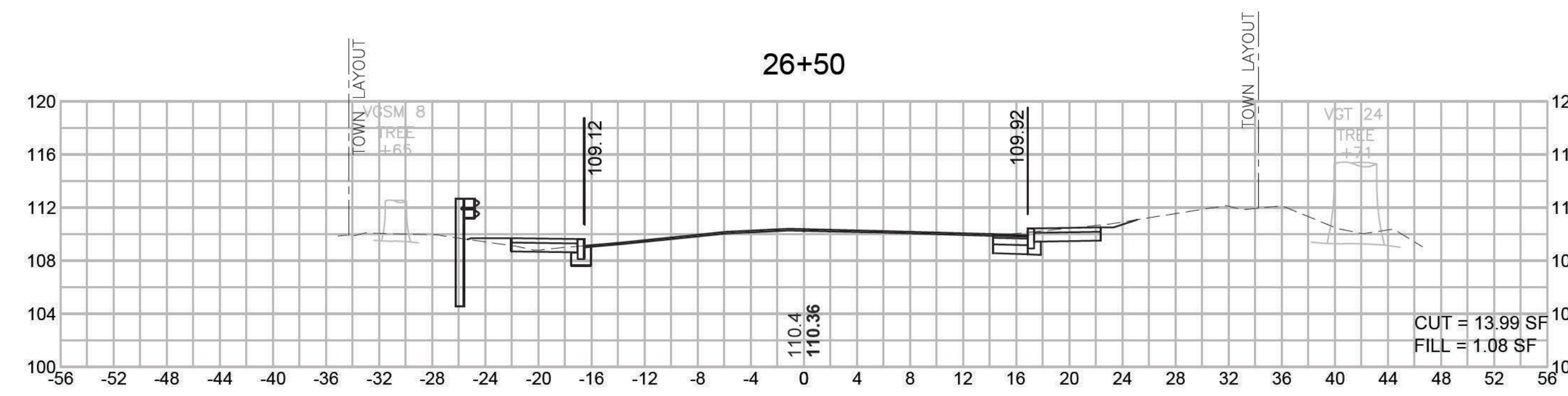
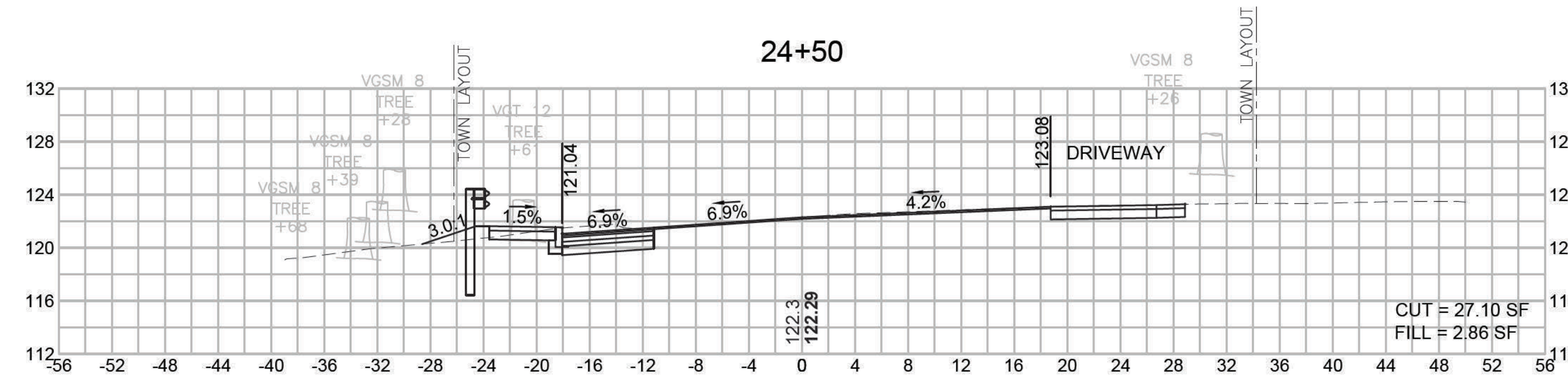
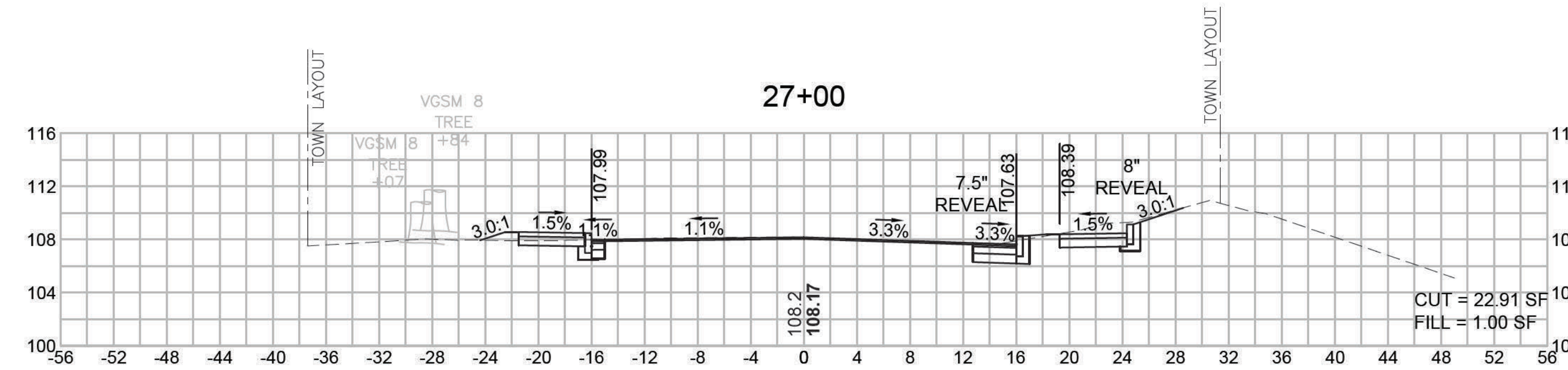
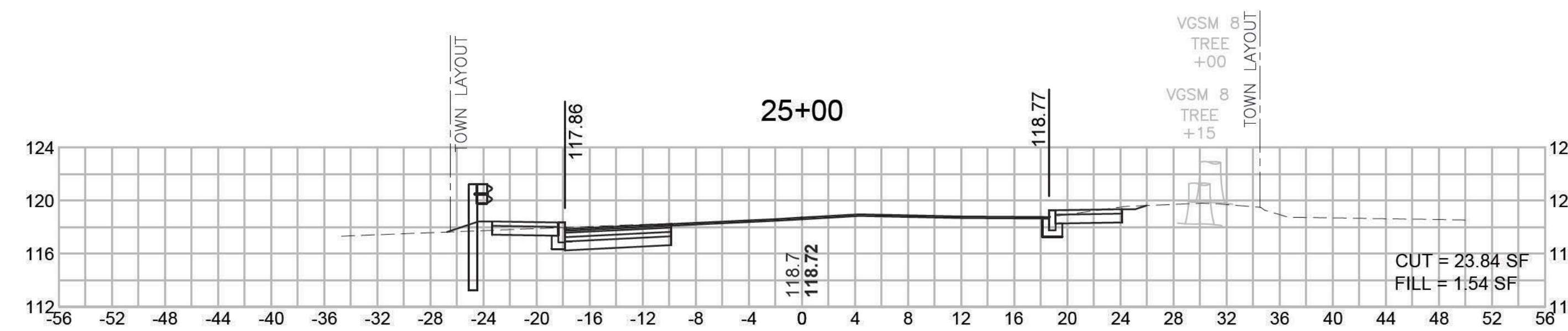
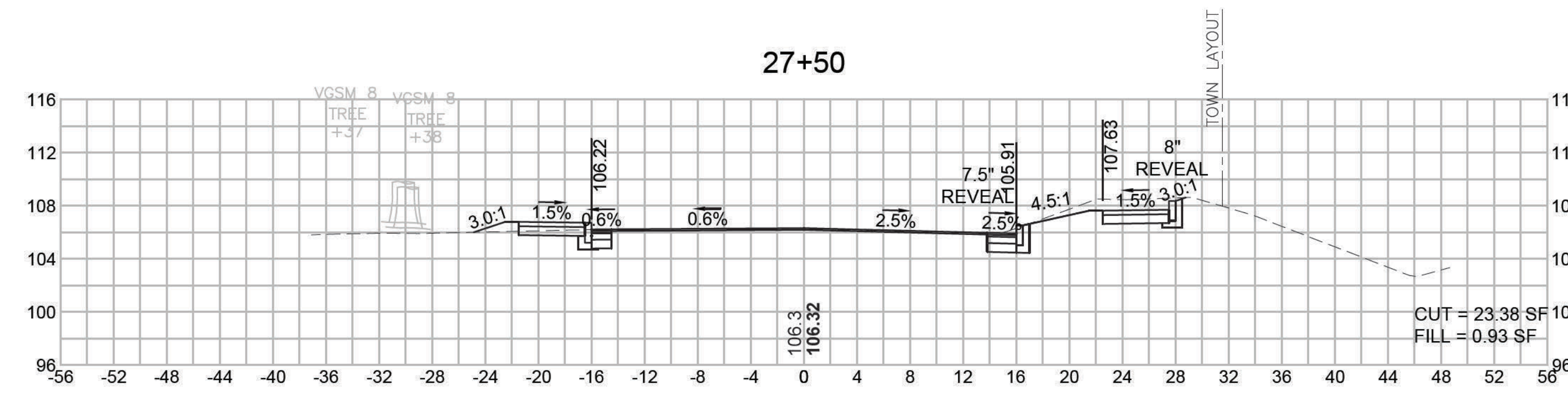
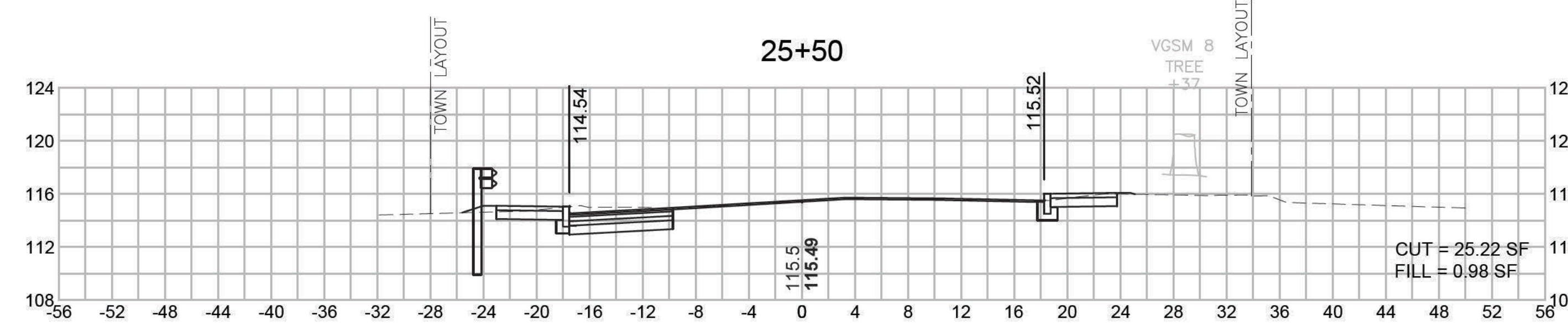


DEDHAM
ELM STREET AND RUSTCRAFT ROAD

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ-003S(160)X	63	71
PROJECT FILE NO.		607901	



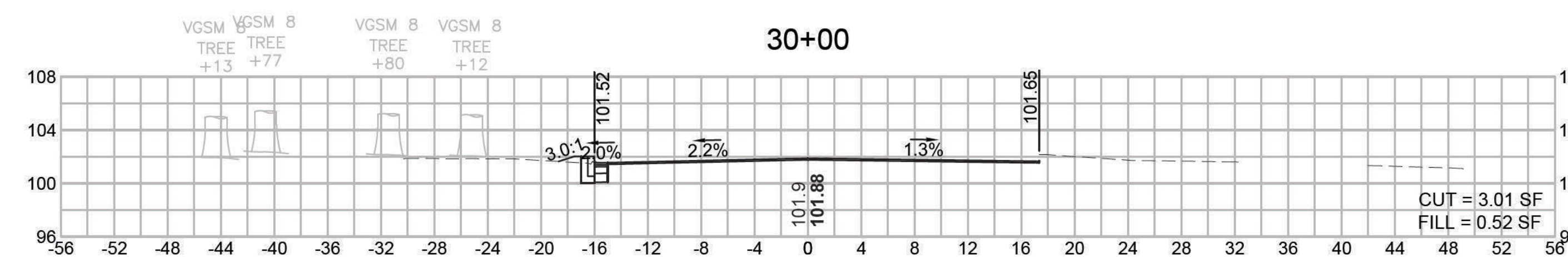
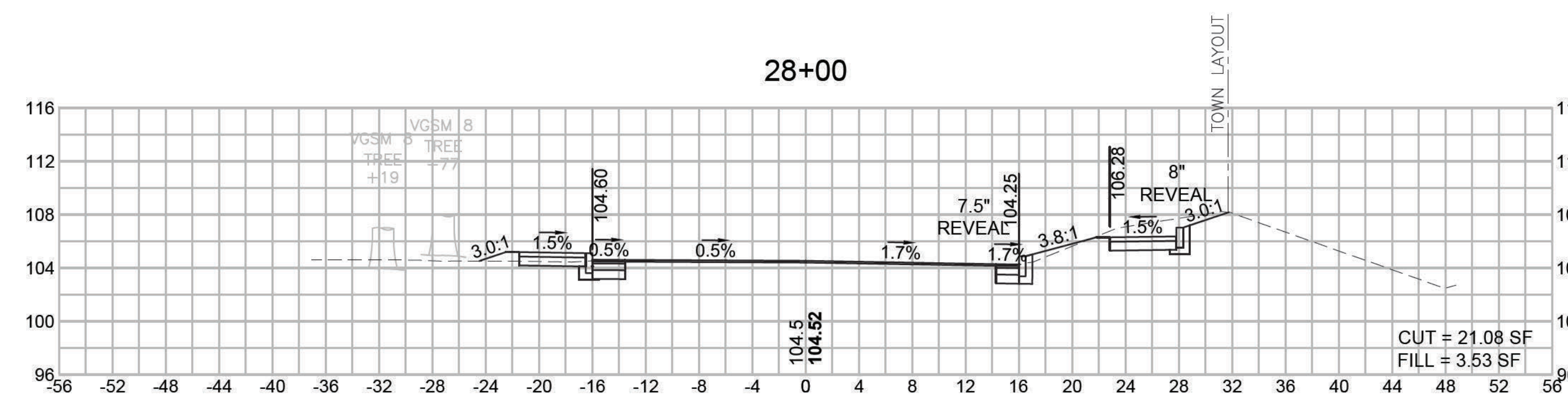
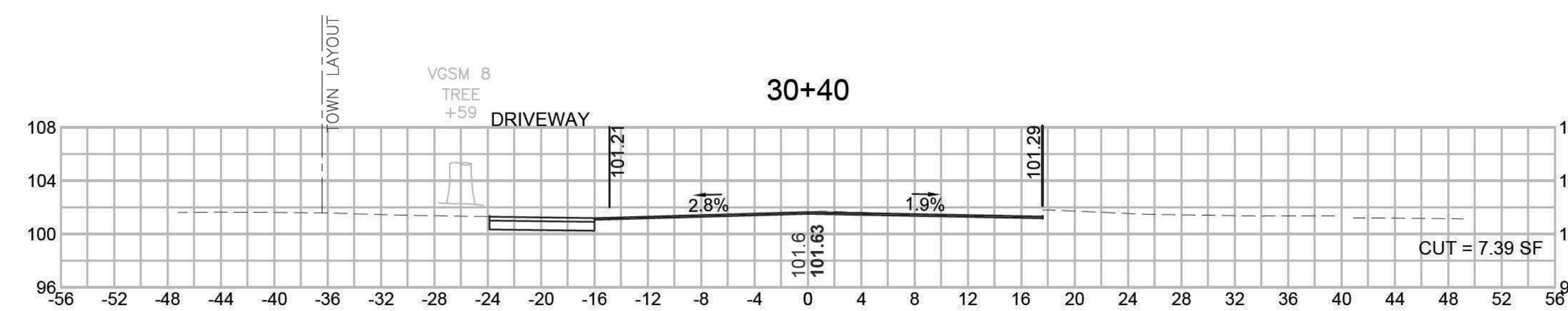
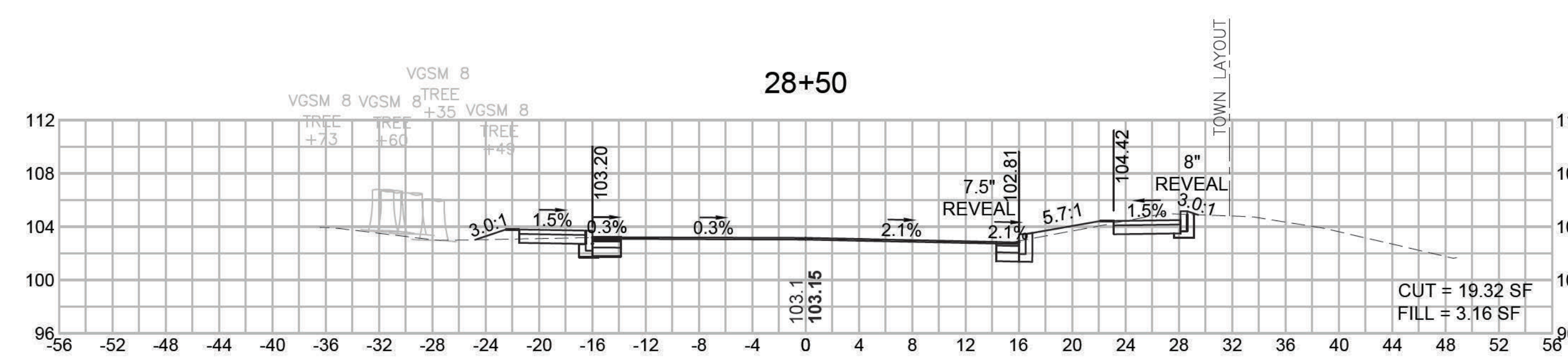
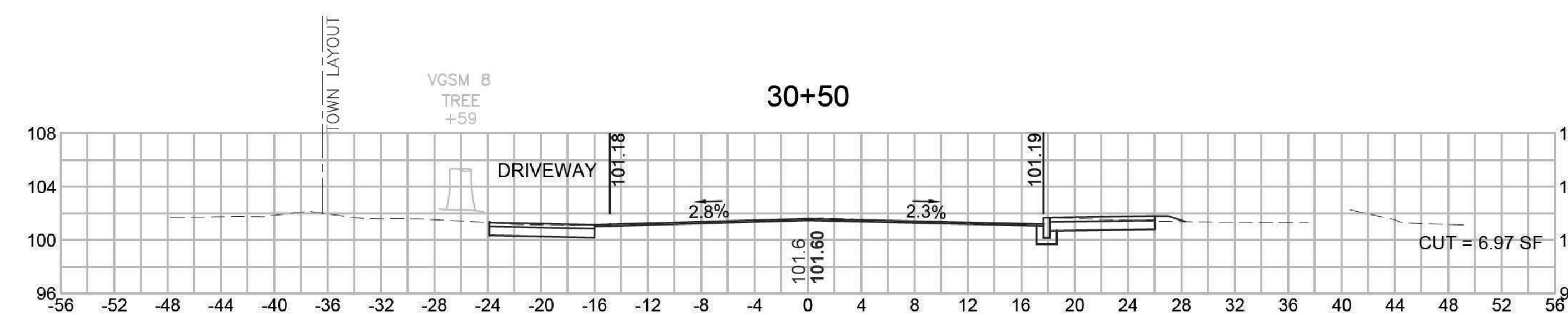
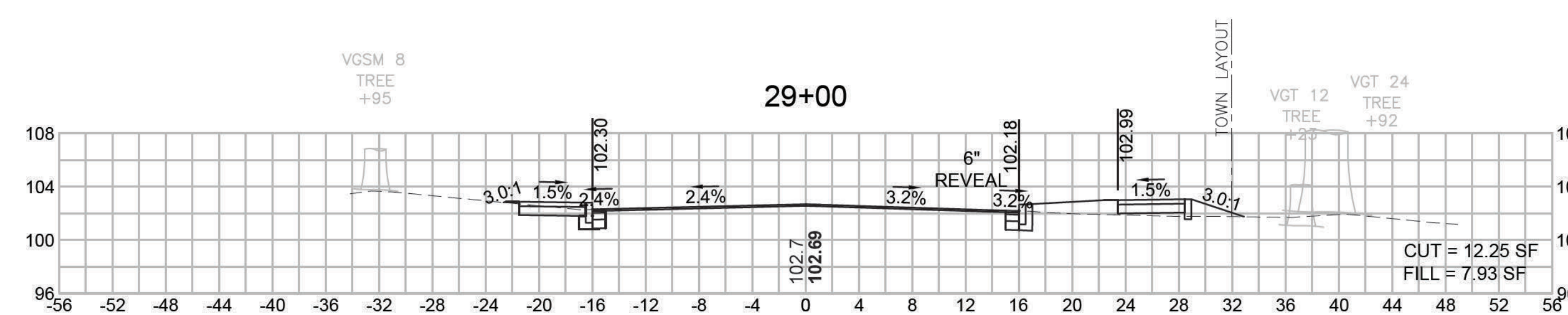
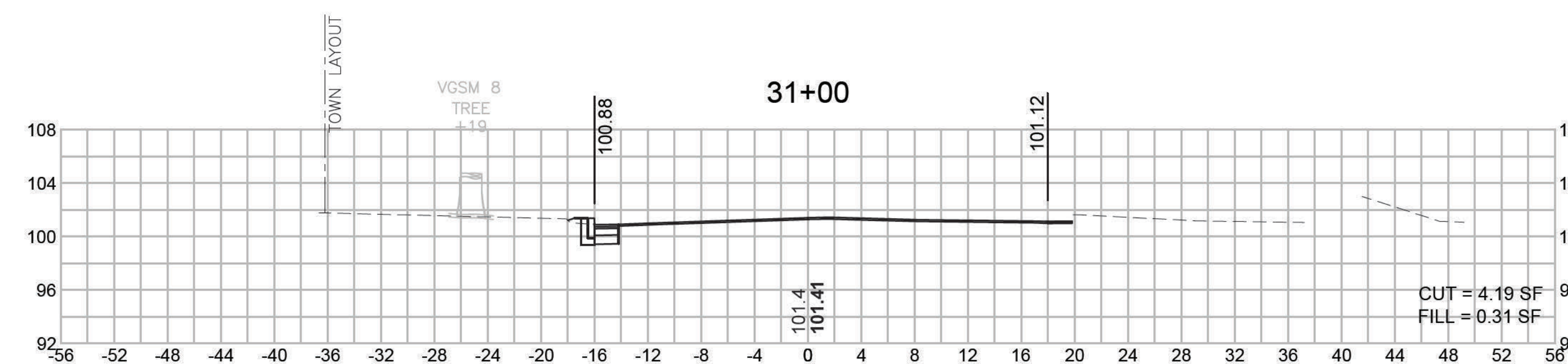
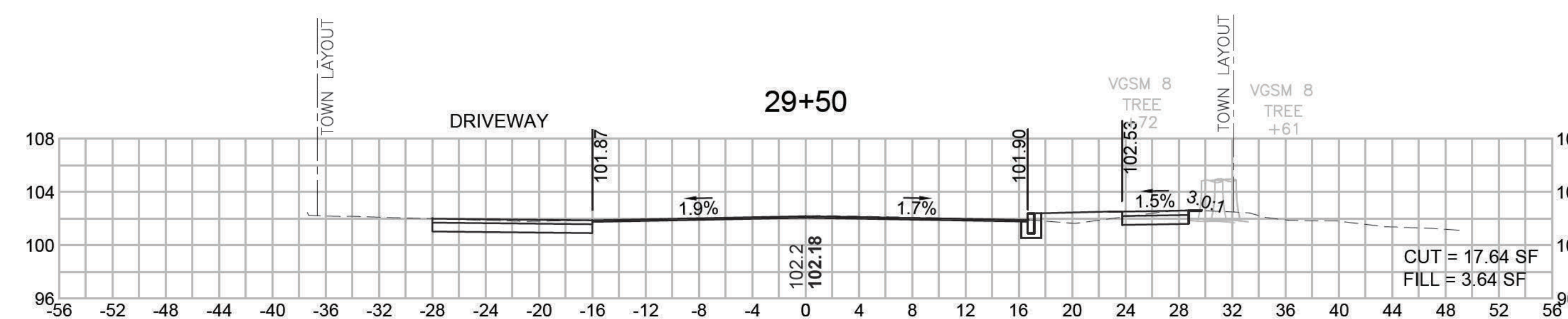
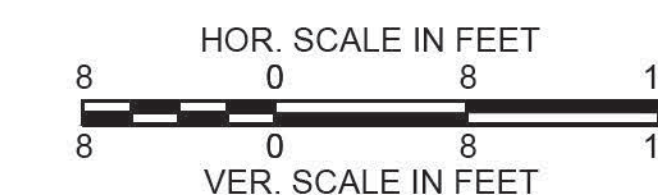
CROSS SECTIONS



DEDHAM
ELM STREET AND RUSTCRAFT ROAD

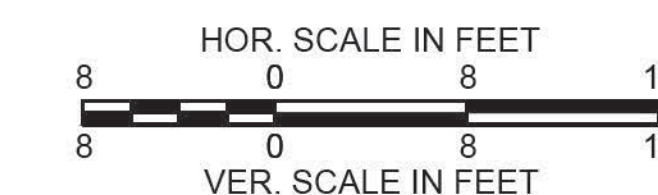
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ-003S(160)X	64	71
PROJECT FILE NO. 607901			

CROSS SECTIONS

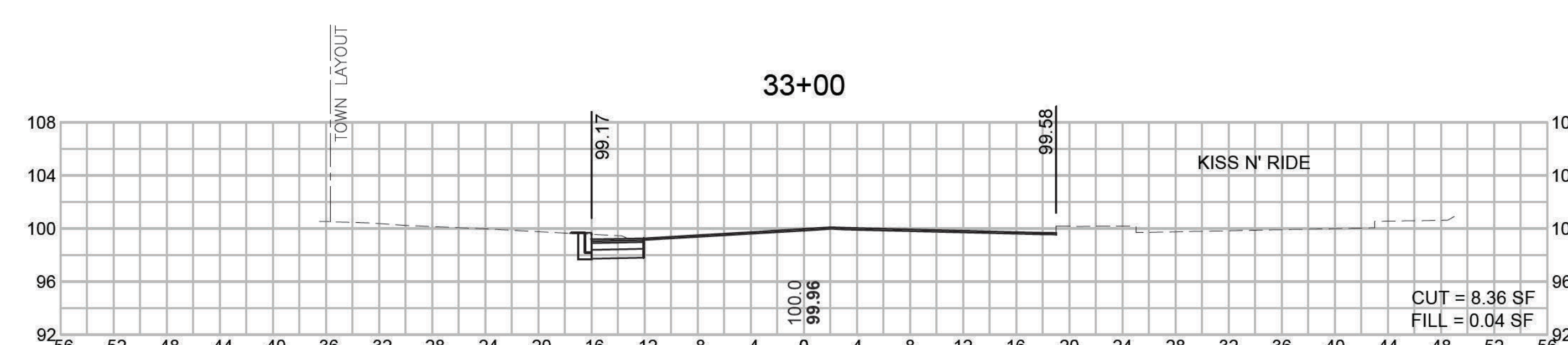
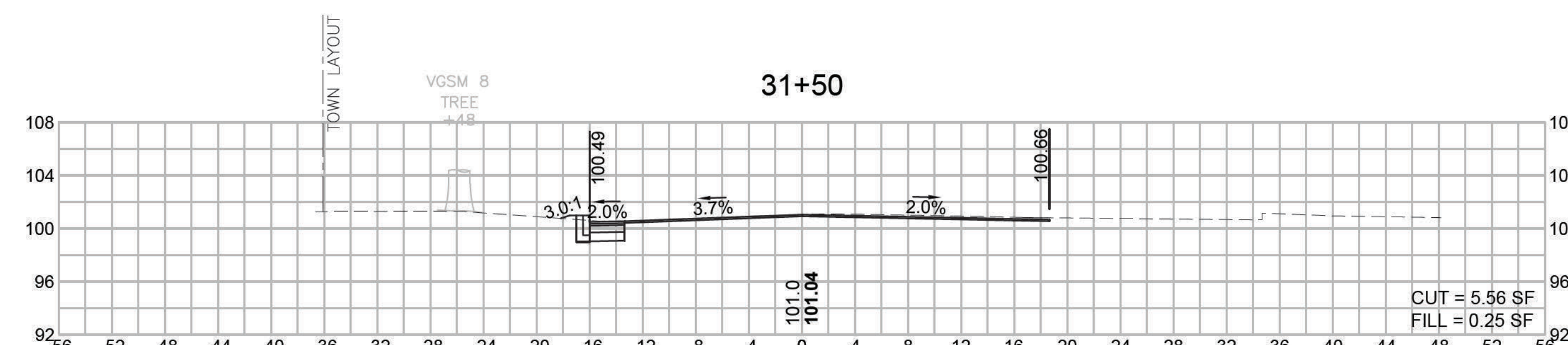
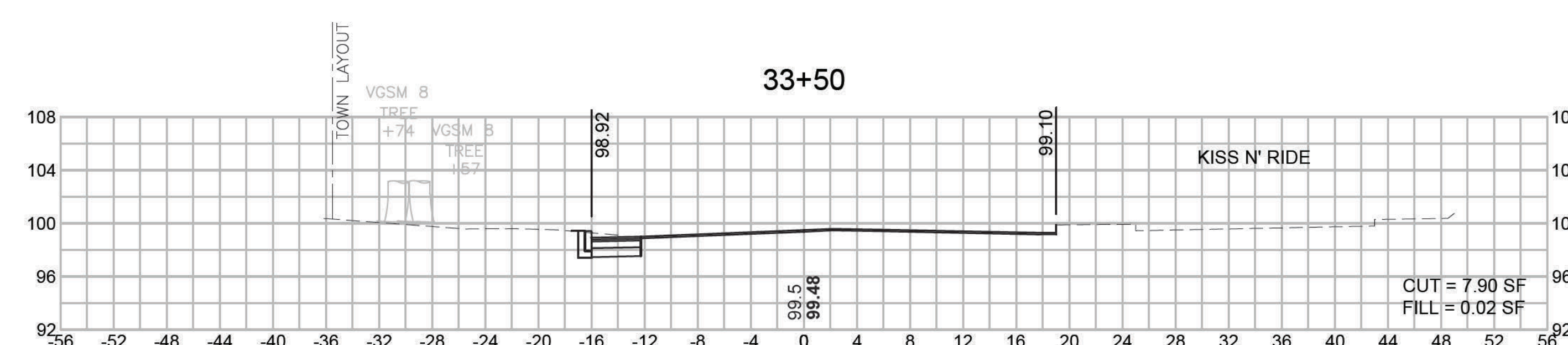
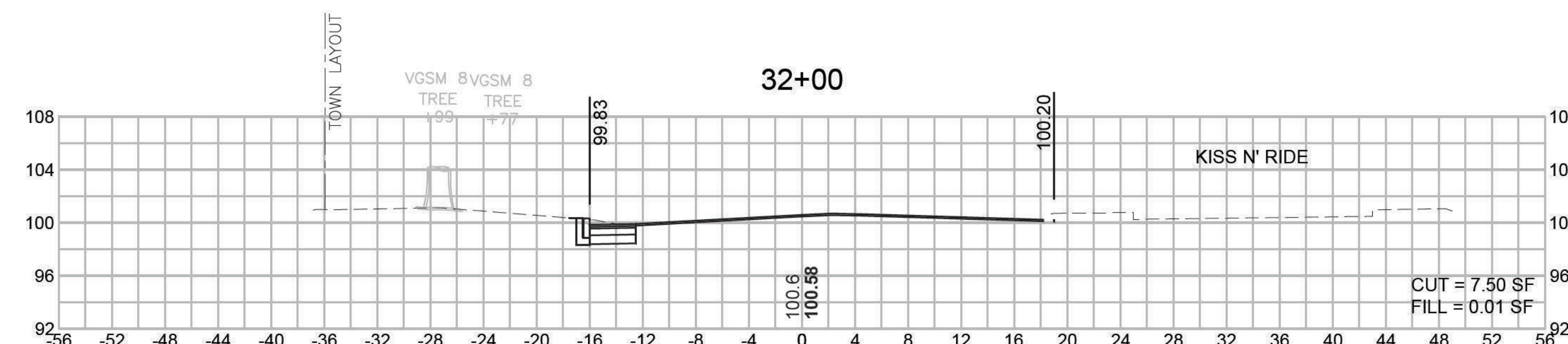
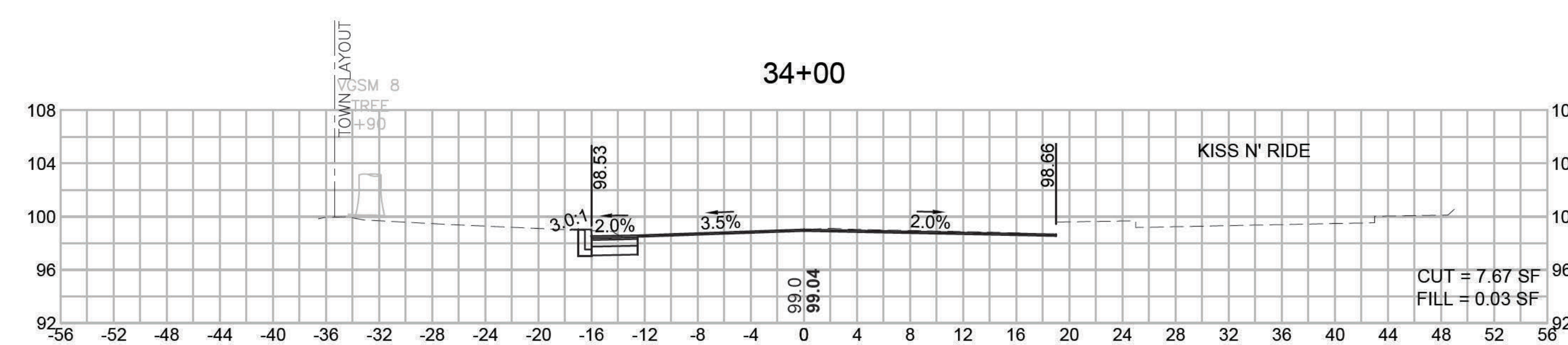
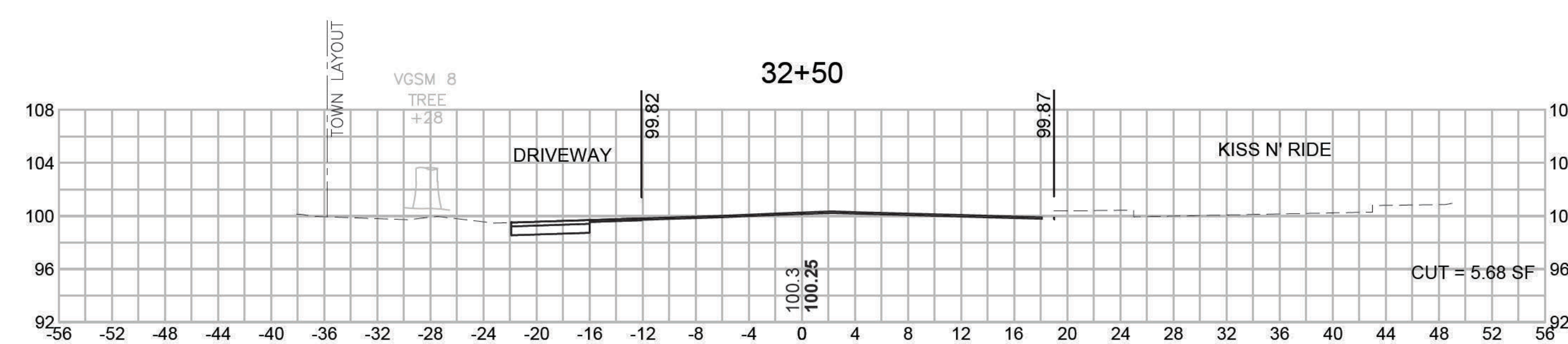
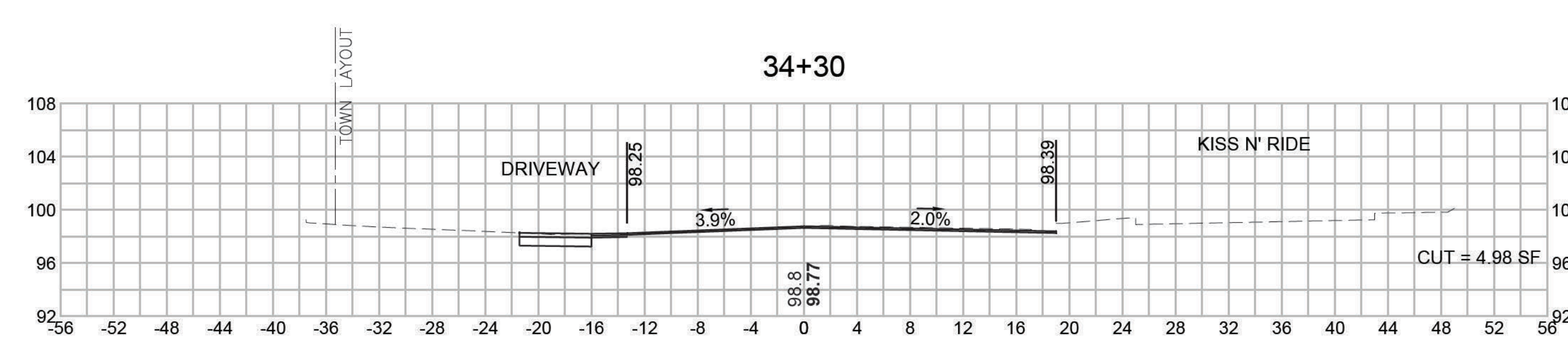
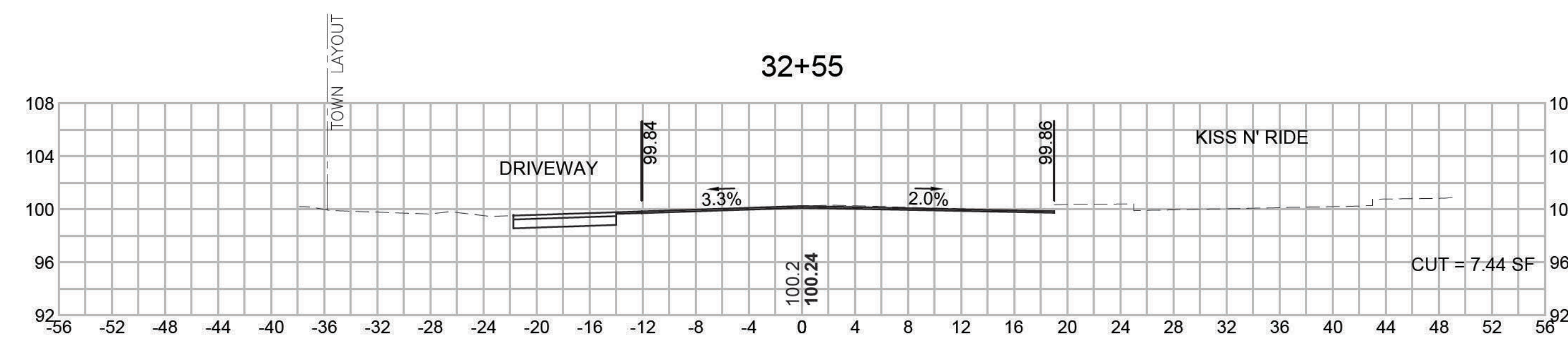


DEDHAM
ELM STREET AND RUSTCRAFT ROAD

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ-003S(160)X	65	71
PROJECT FILE NO.		607901	



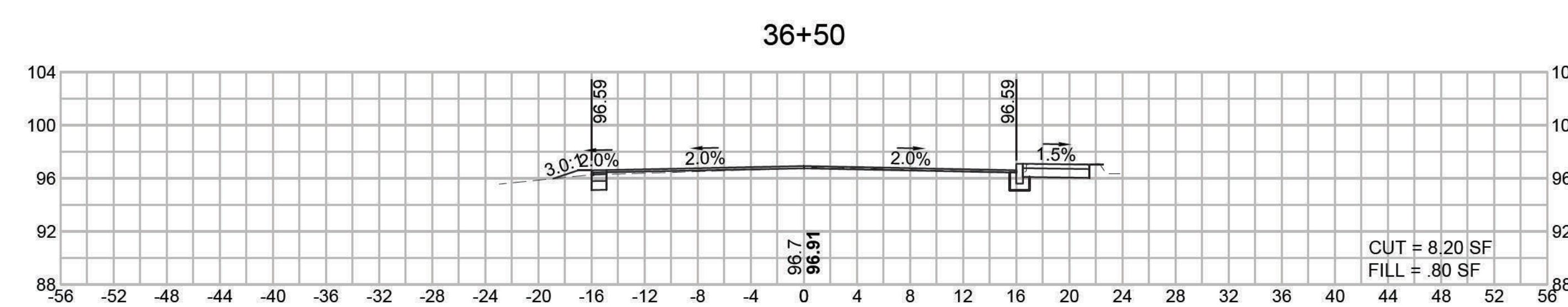
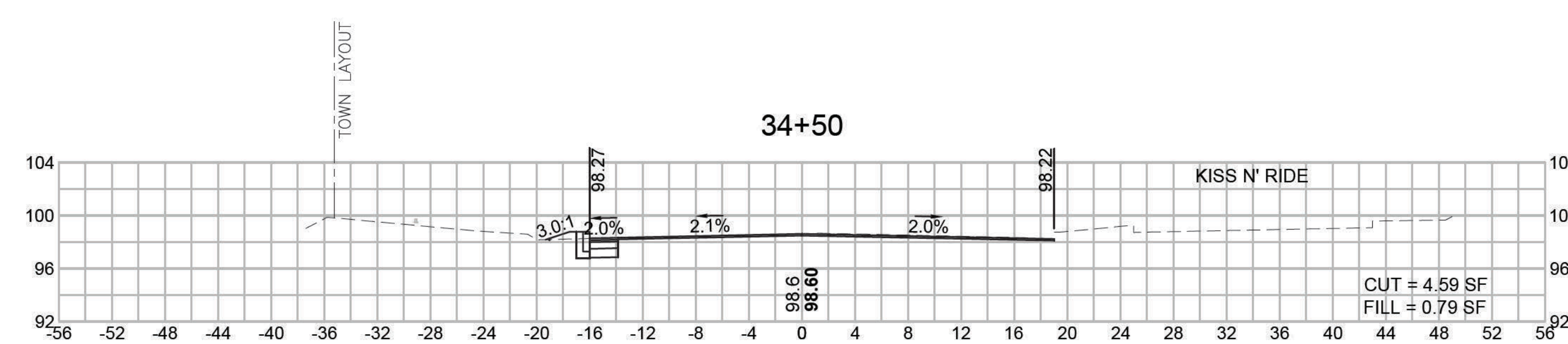
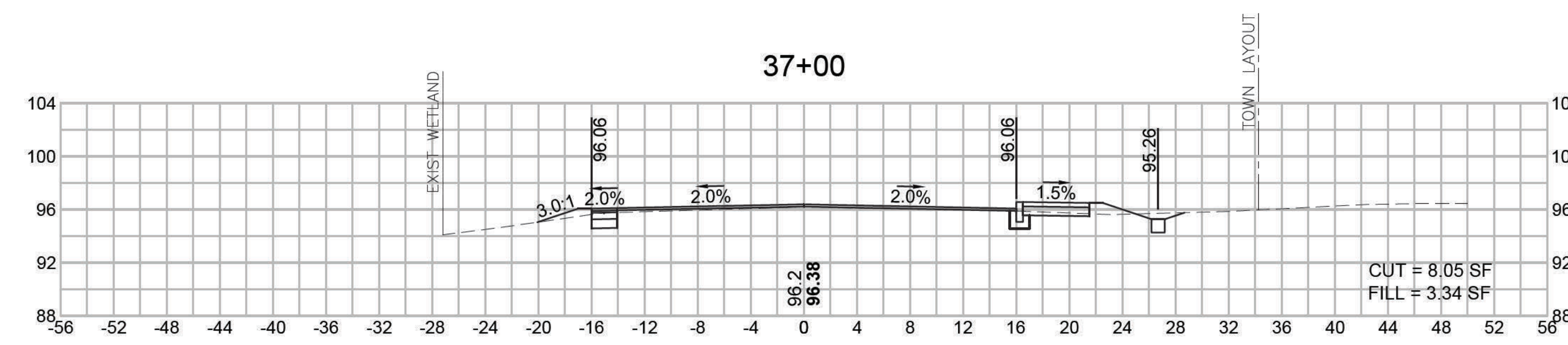
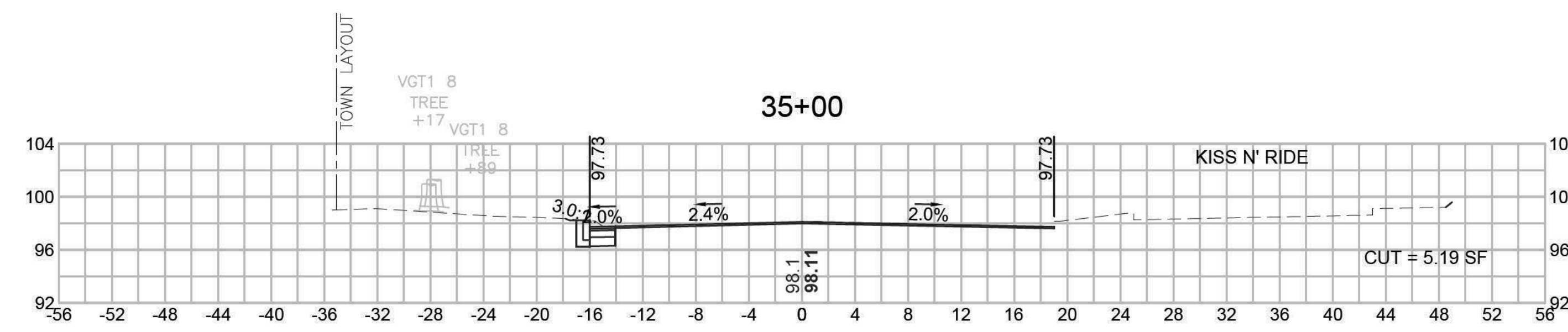
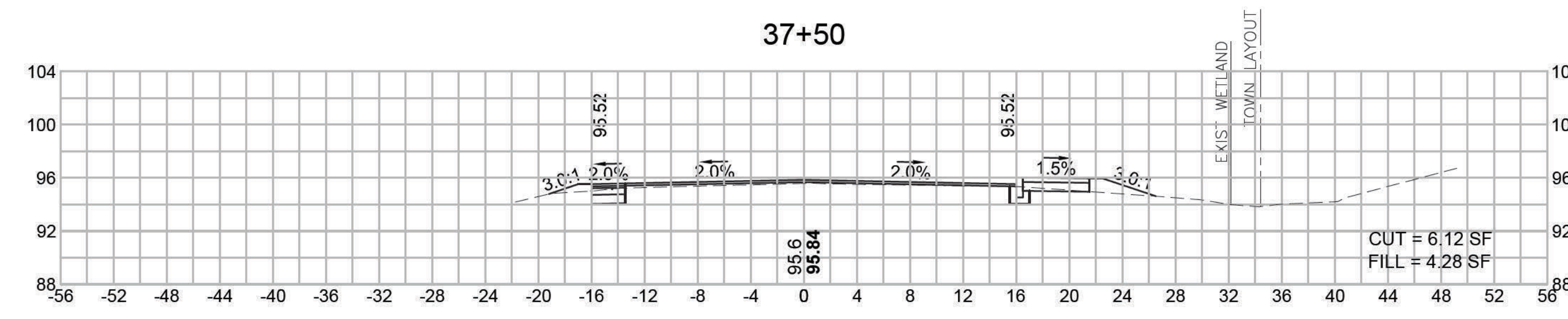
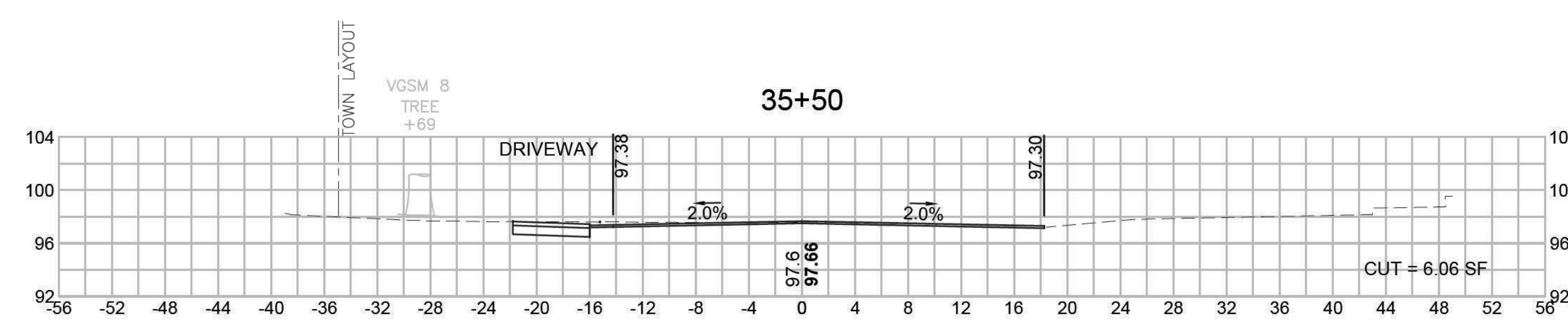
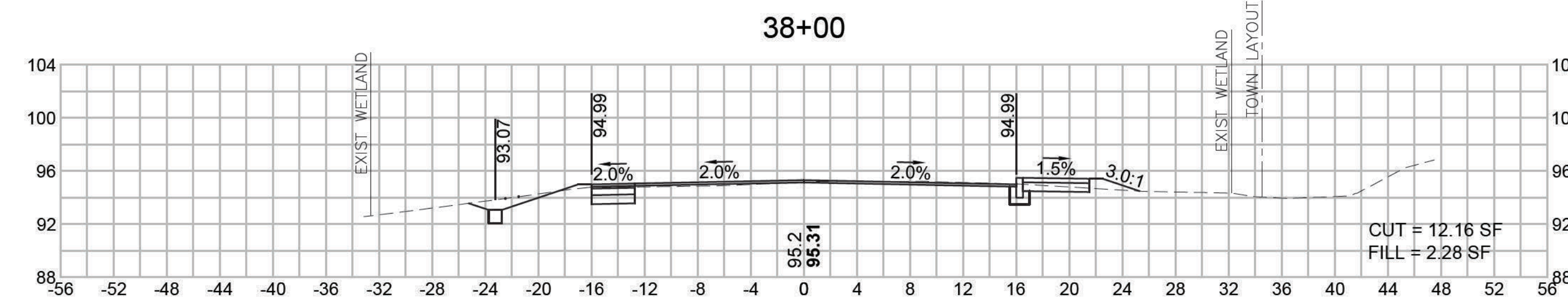
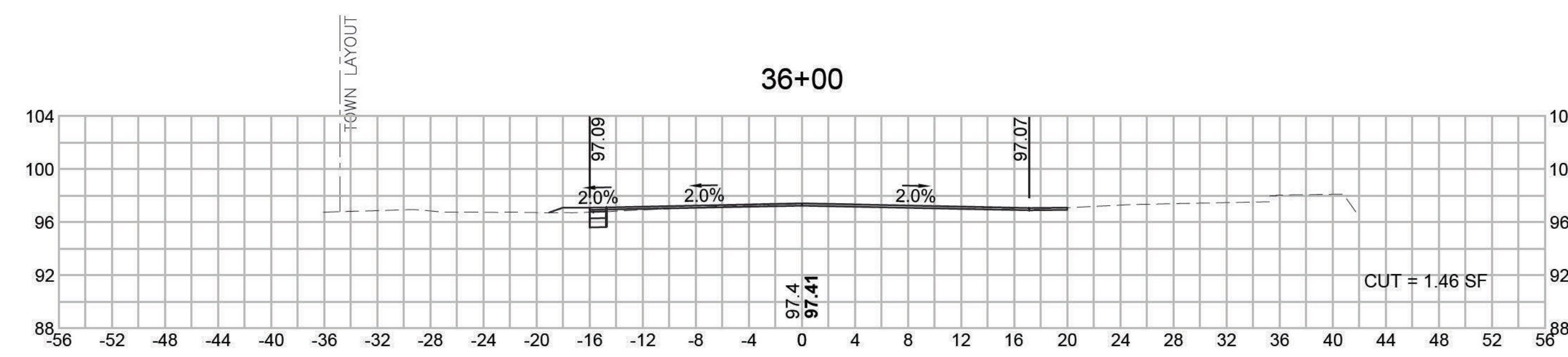
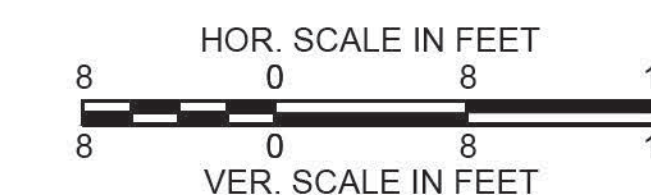
CROSS SECTIONS



DEDHAM
ELM STREET AND RUSTCRAFT ROAD

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ-003S(160)X	66	71

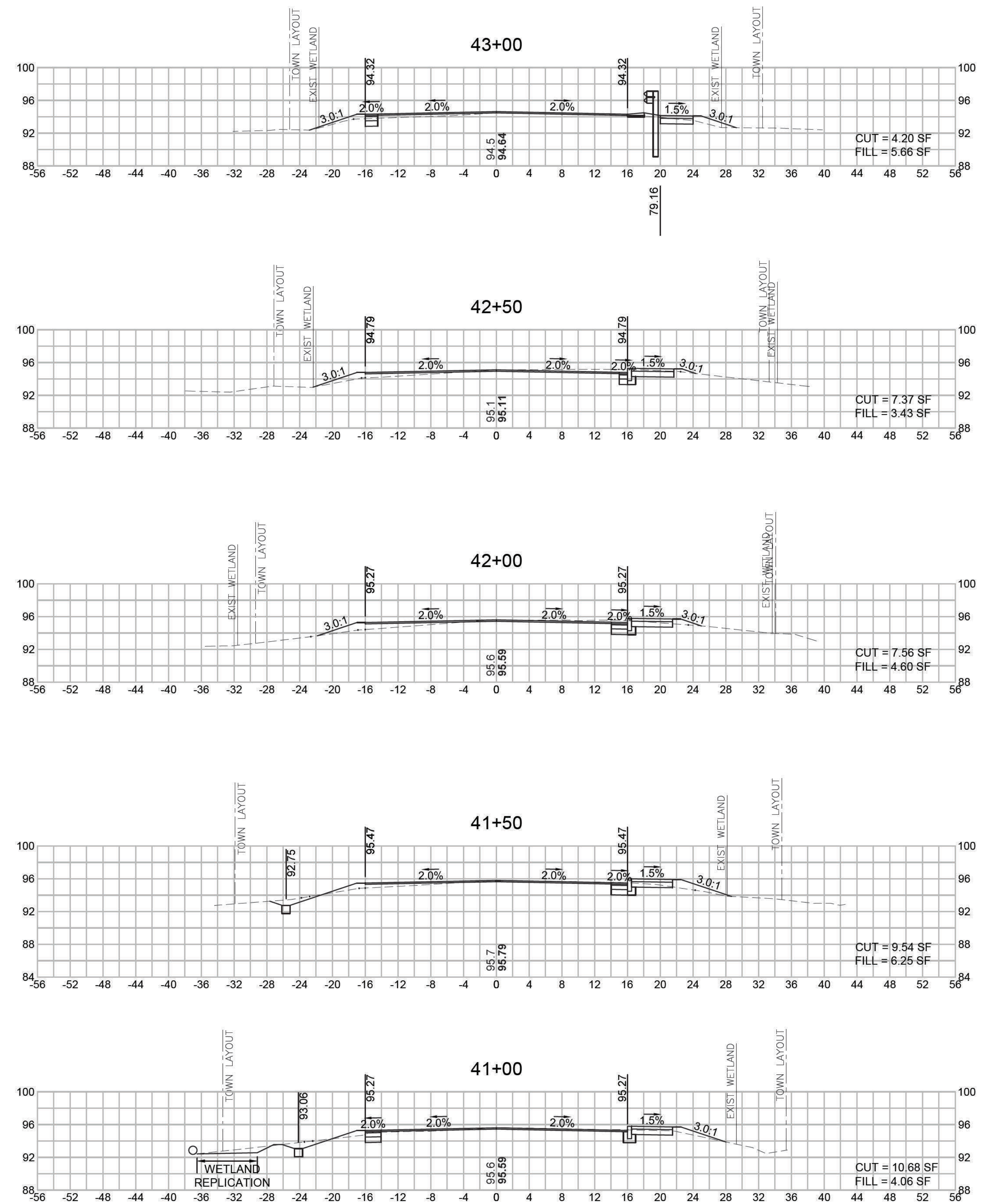
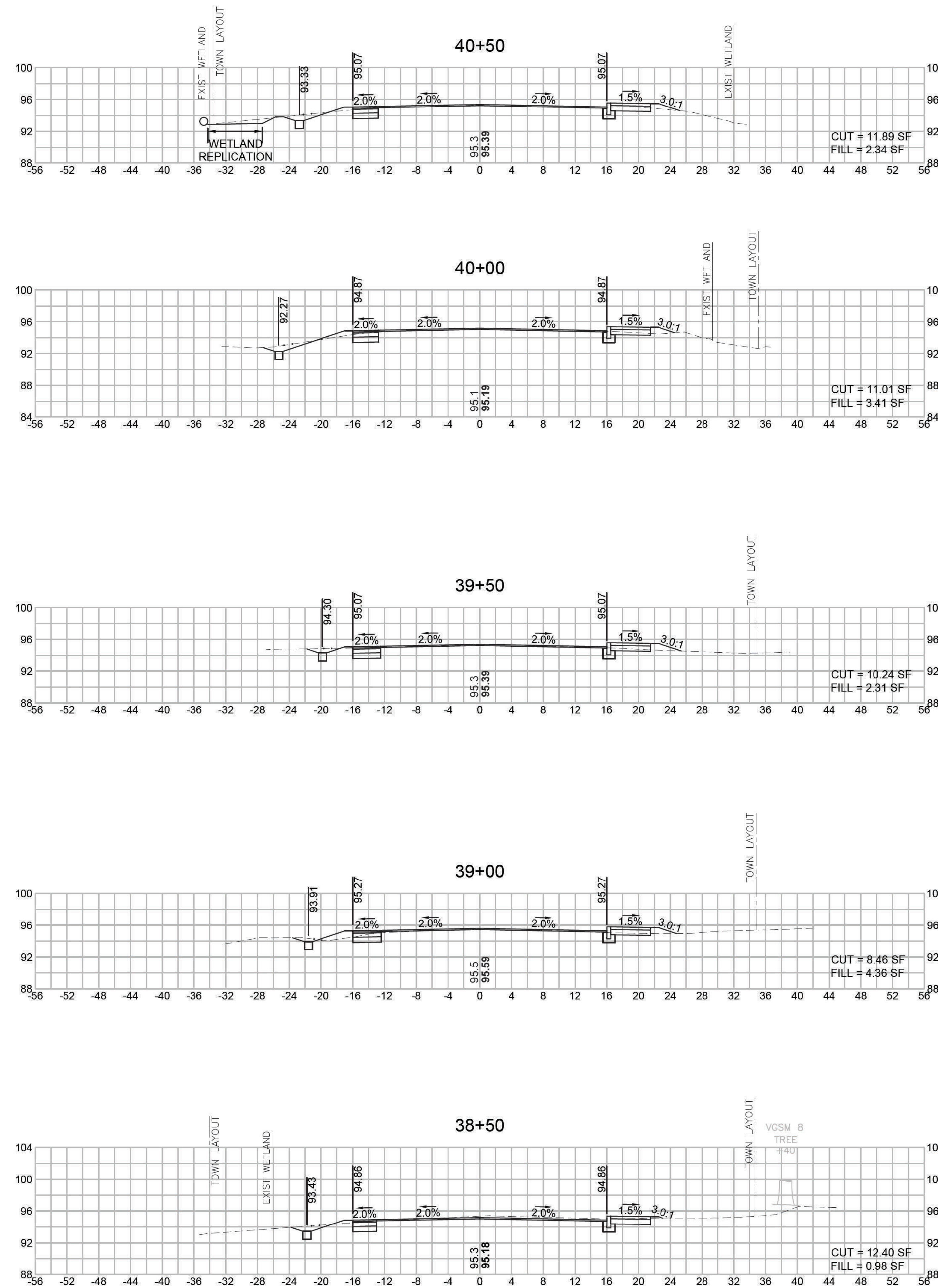
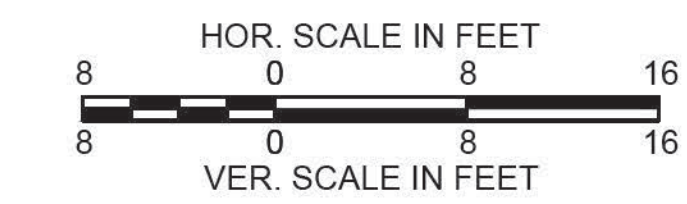
CROSS SECTIONS



DEDHAM
ELM STREET AND RUSTCRAFT ROAD

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ-003S(160)X	67	71
PROJECT FILE NO. 607901			

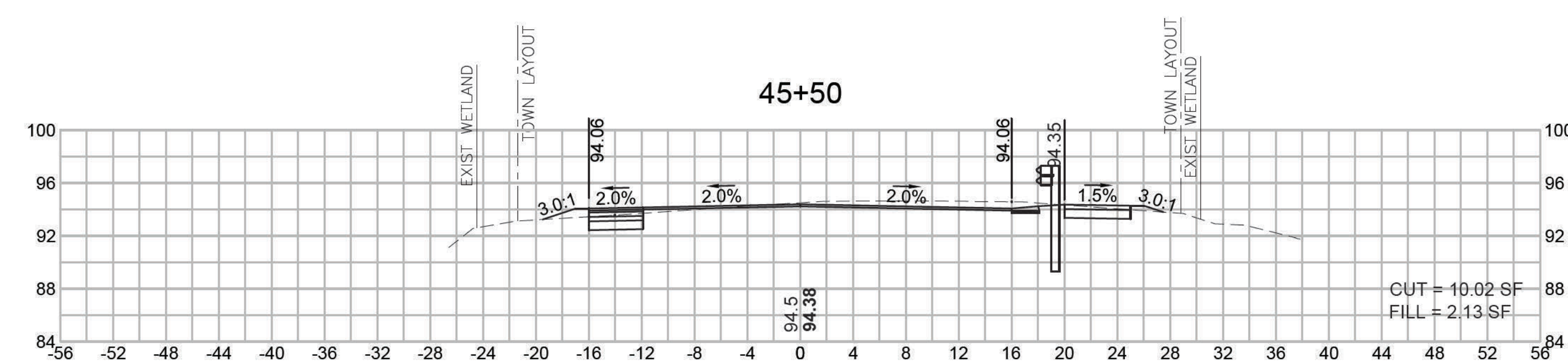
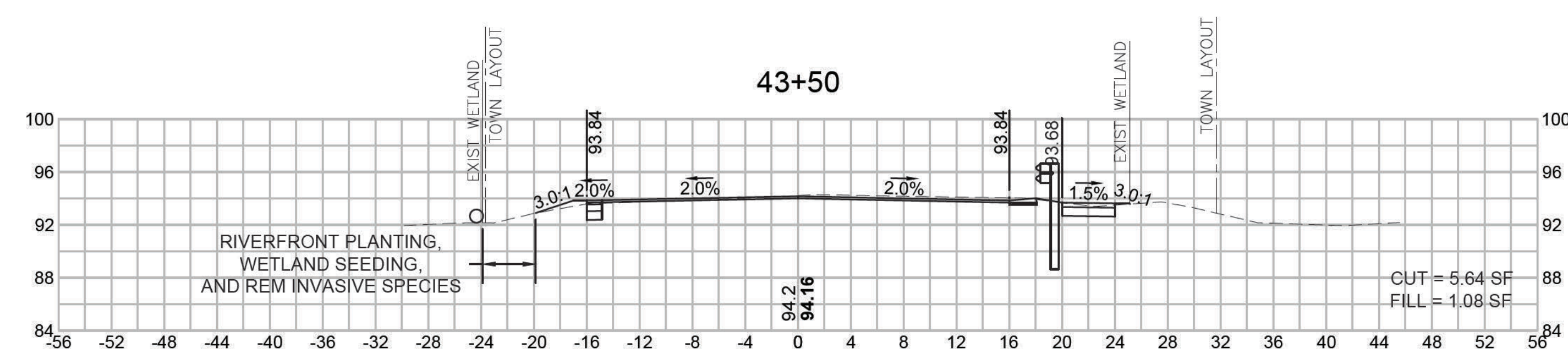
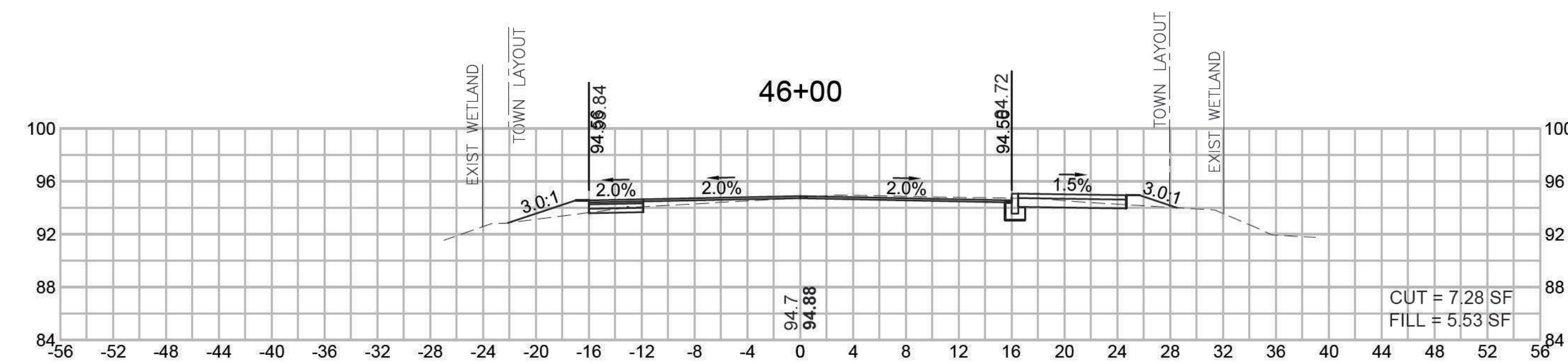
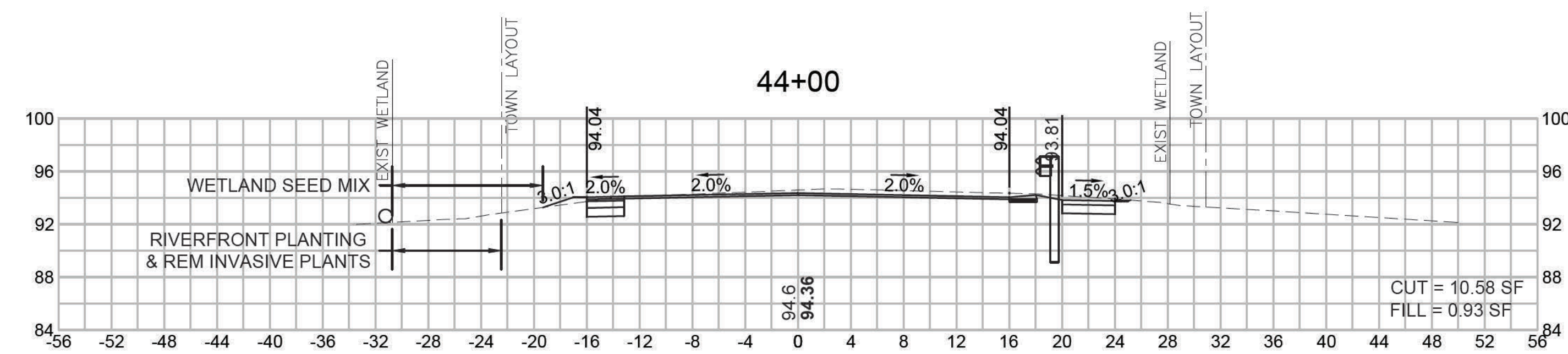
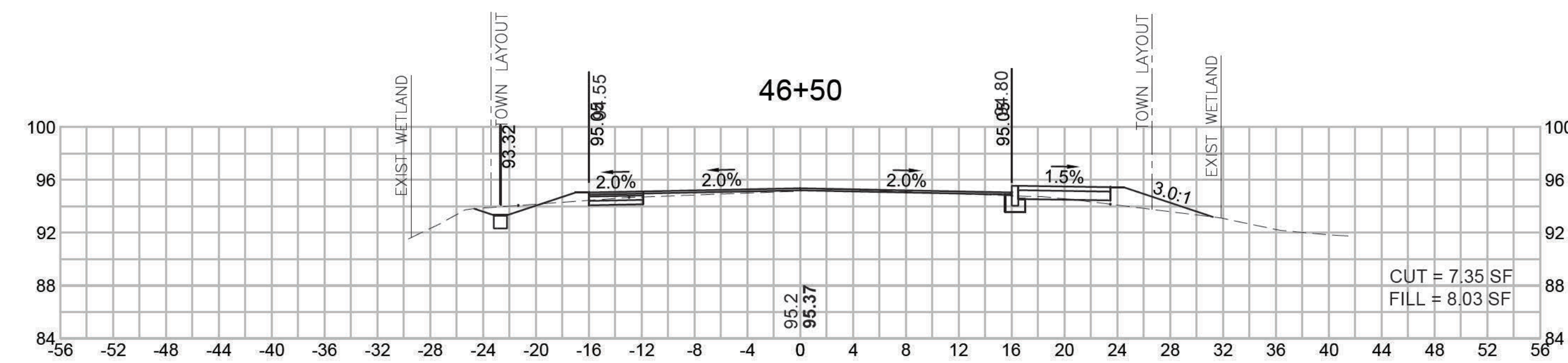
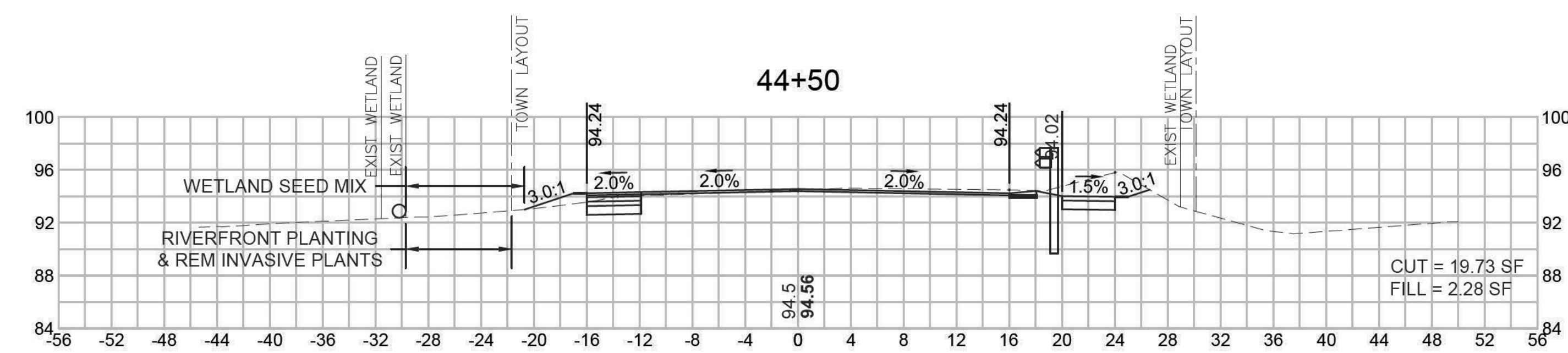
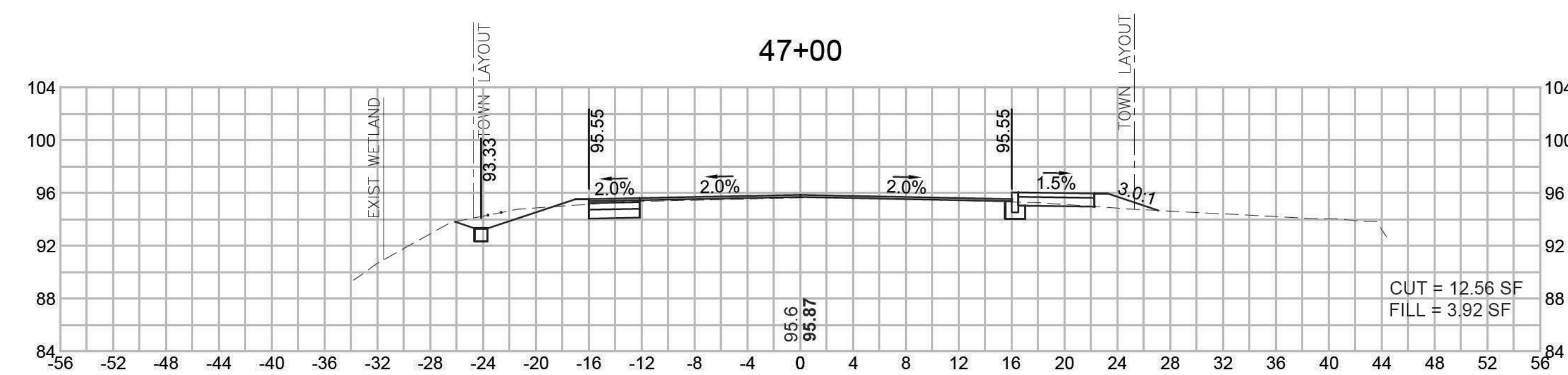
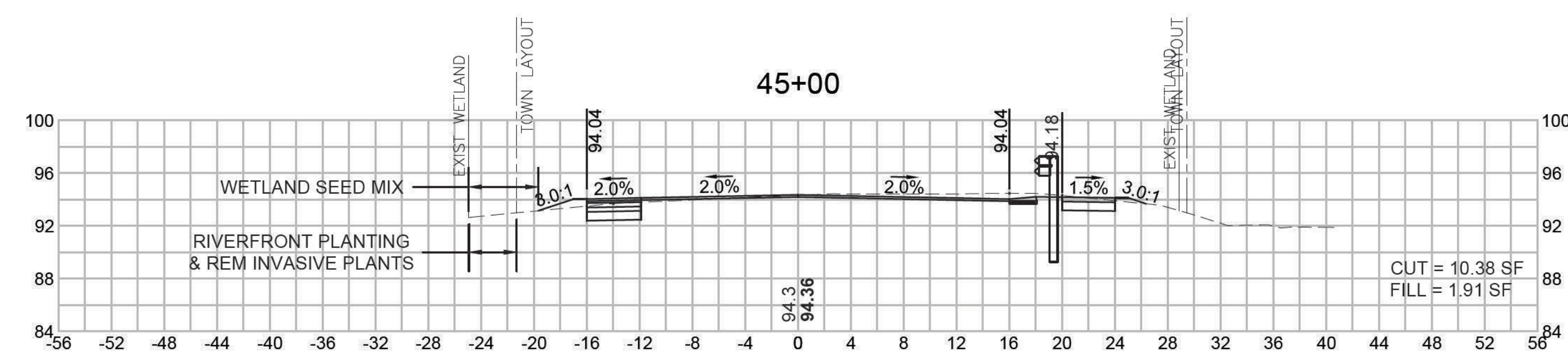
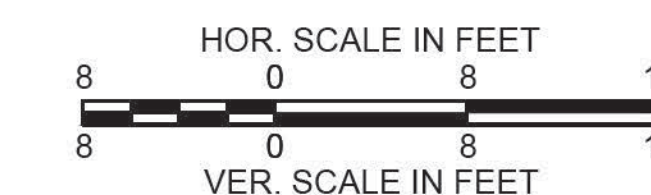
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STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ-003S(160)X	68	71
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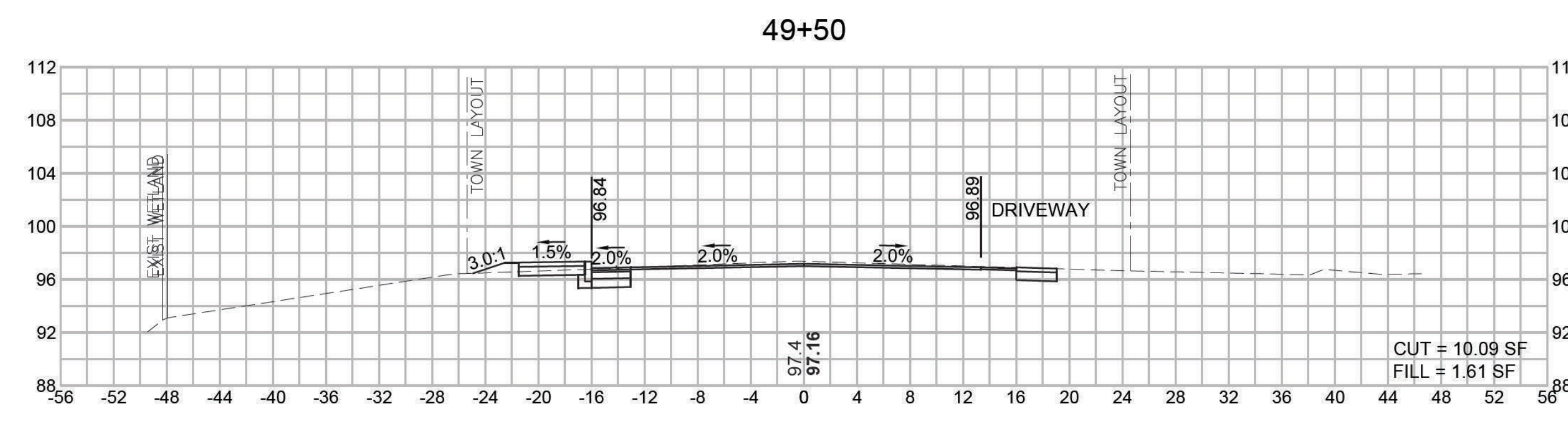
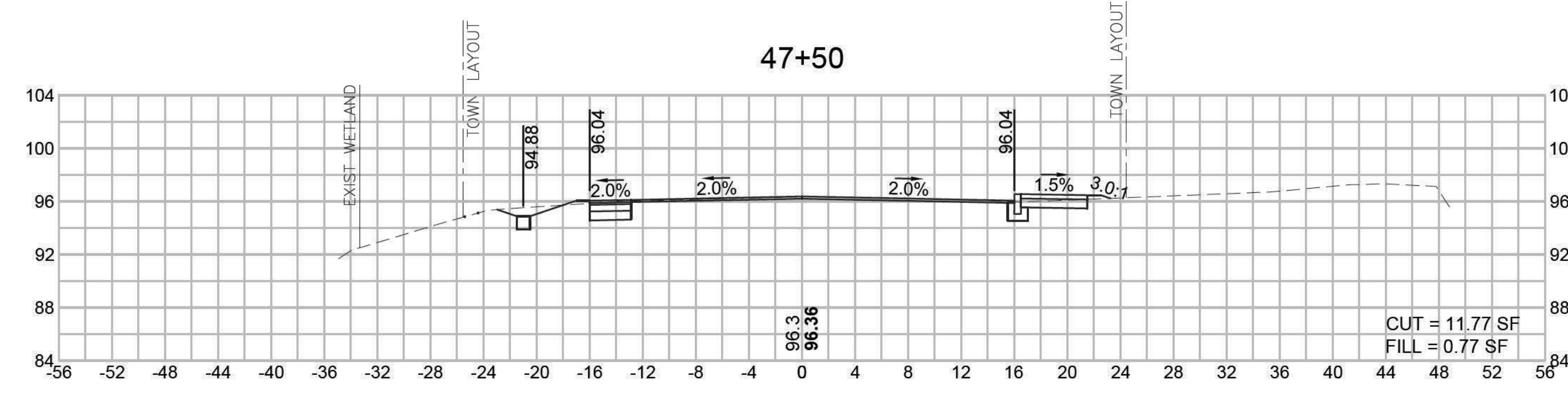
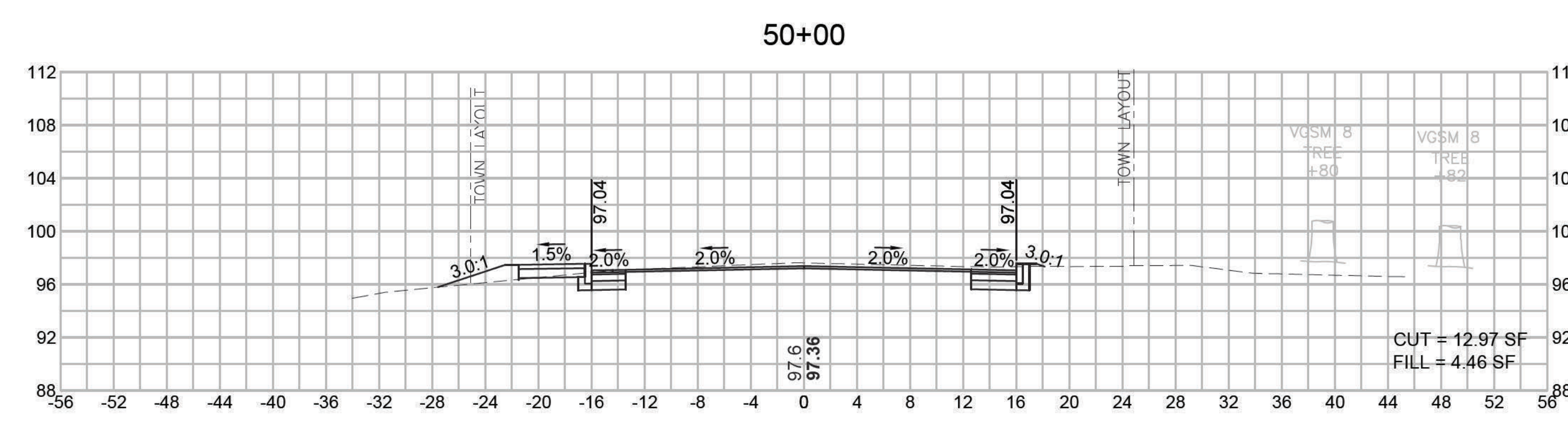
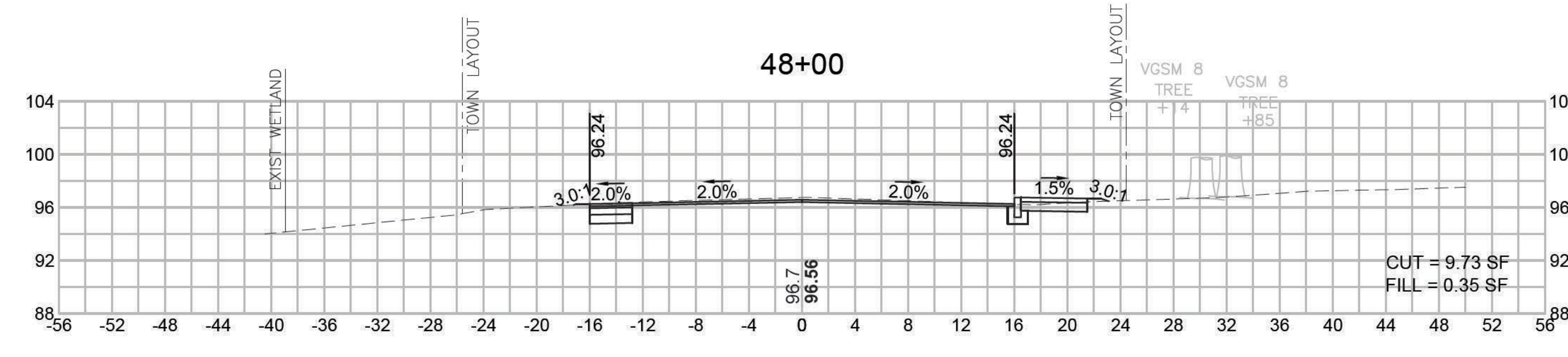
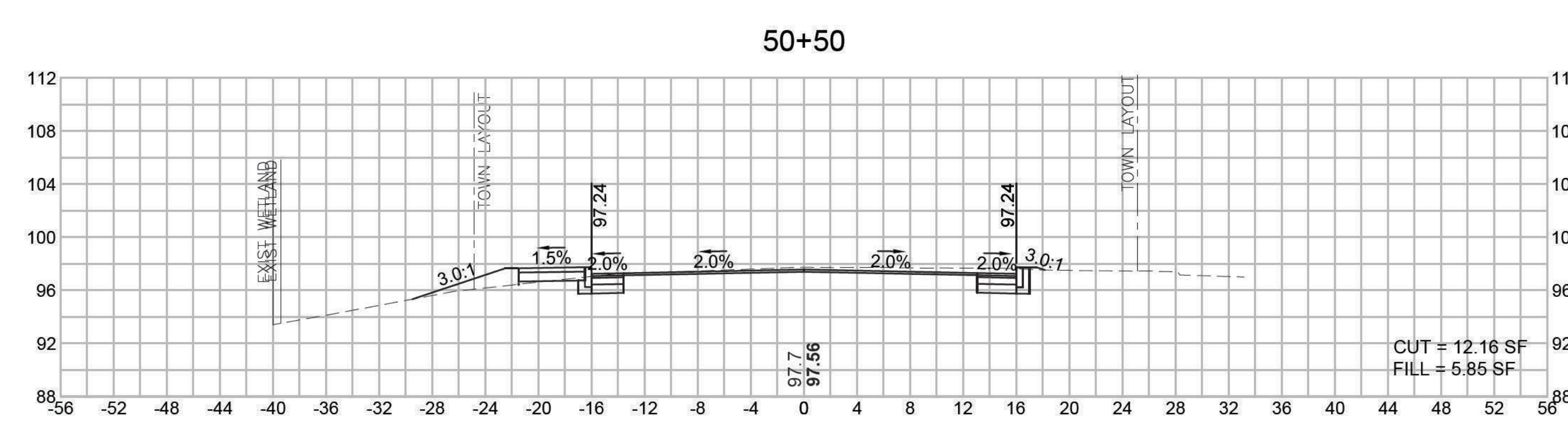
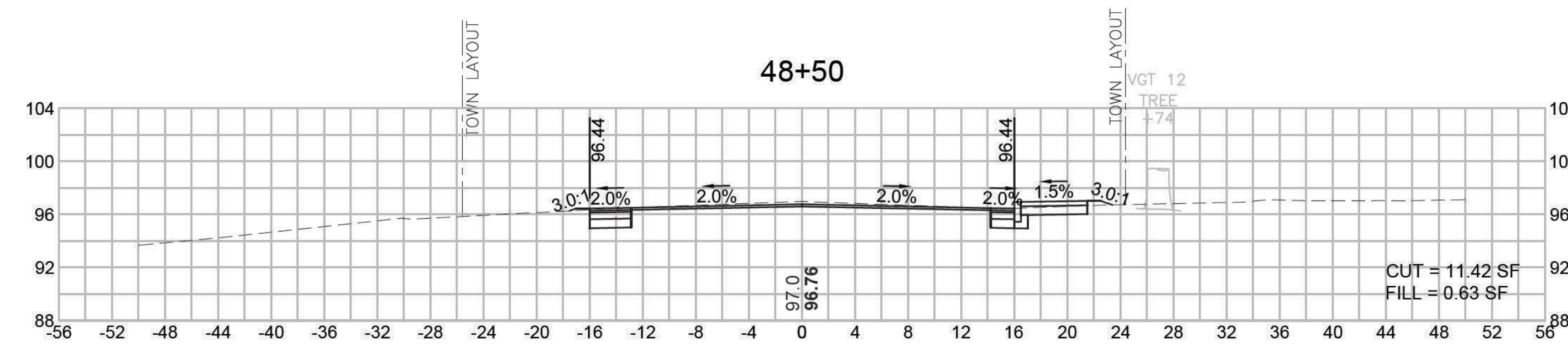
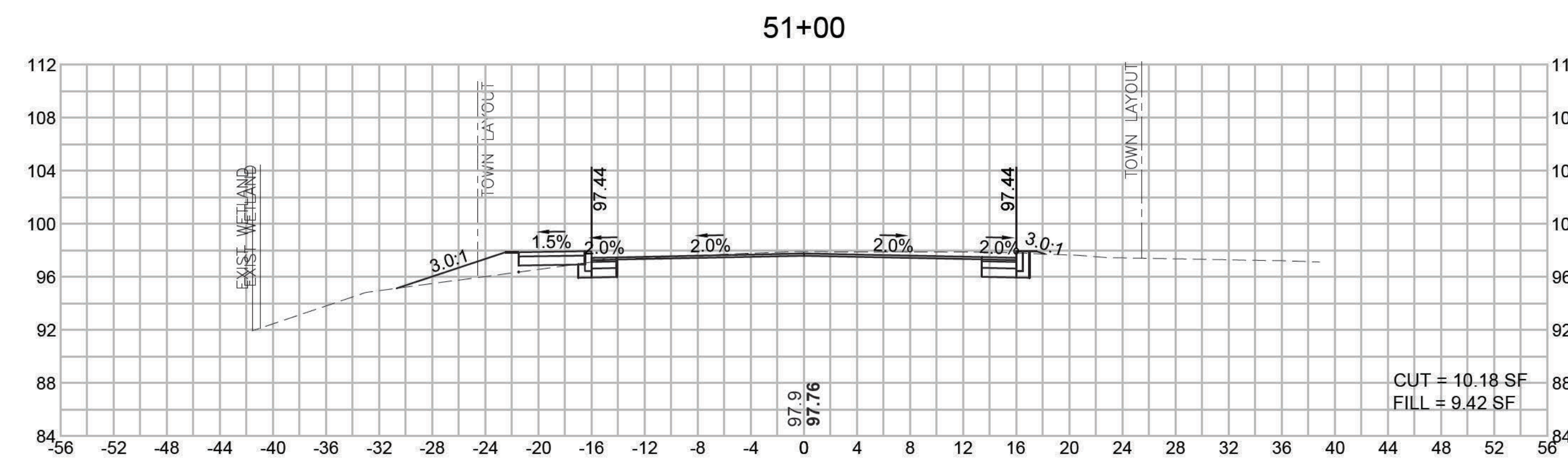
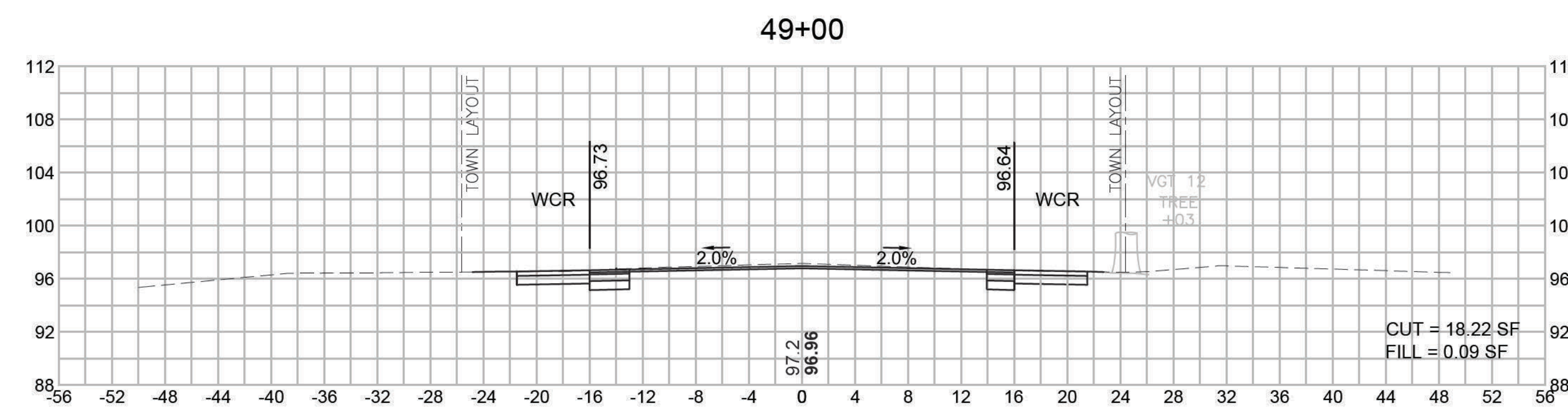
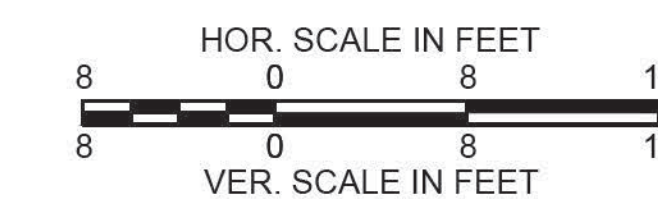
CROSS SECTIONS



DEDHAM
ELM STREET AND RUSTCRAFT ROAD

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ-003S(160)X	69	71

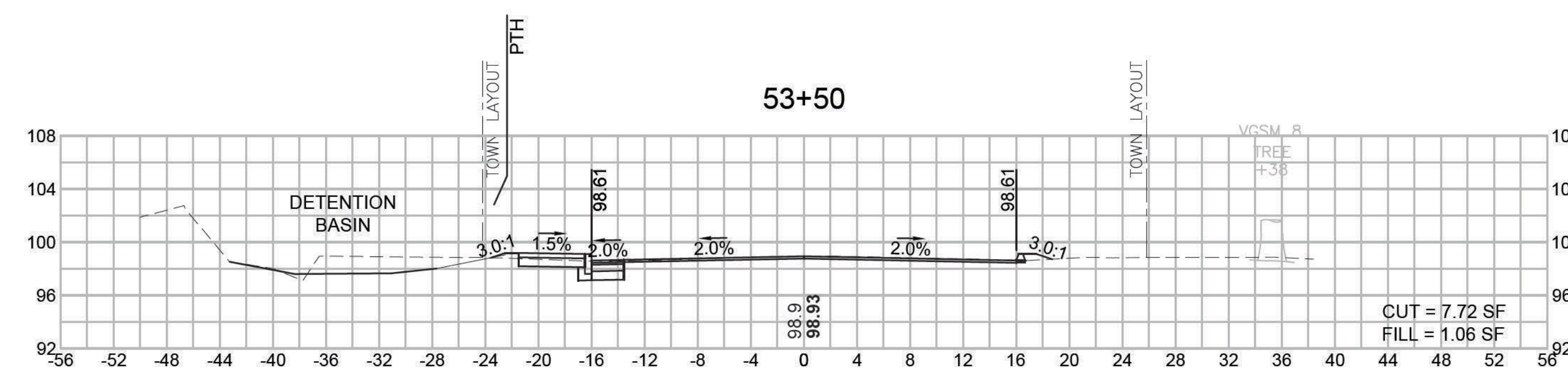
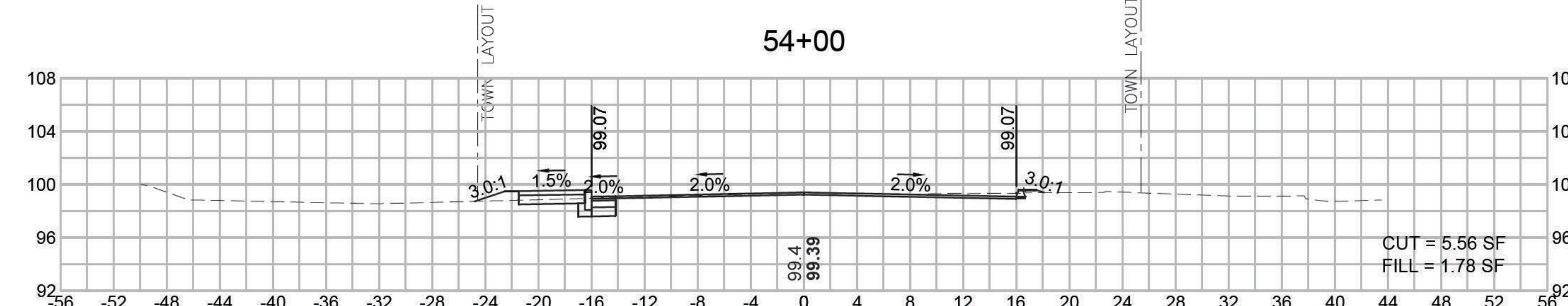
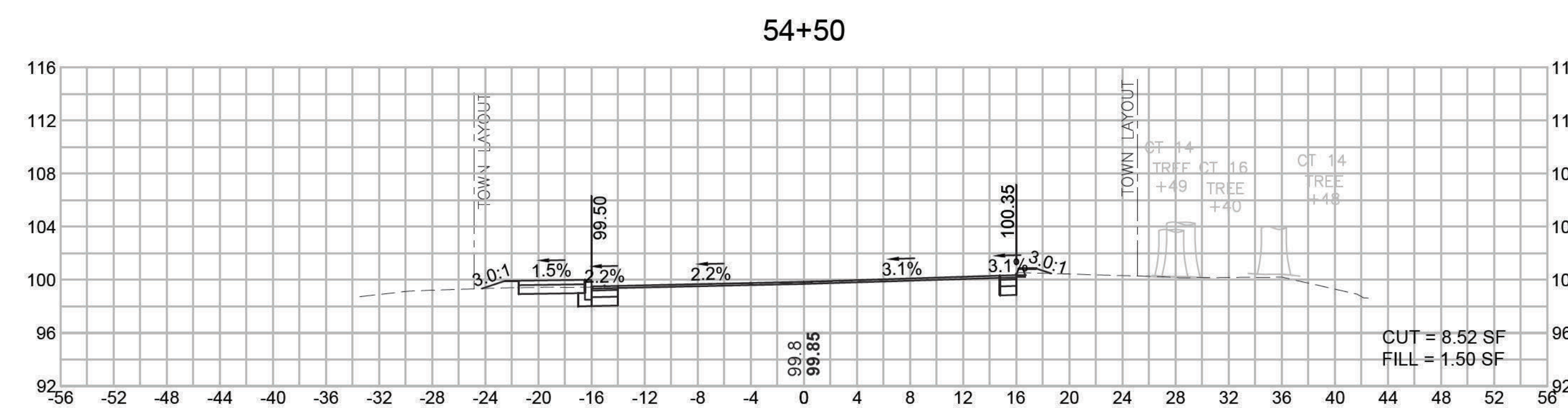
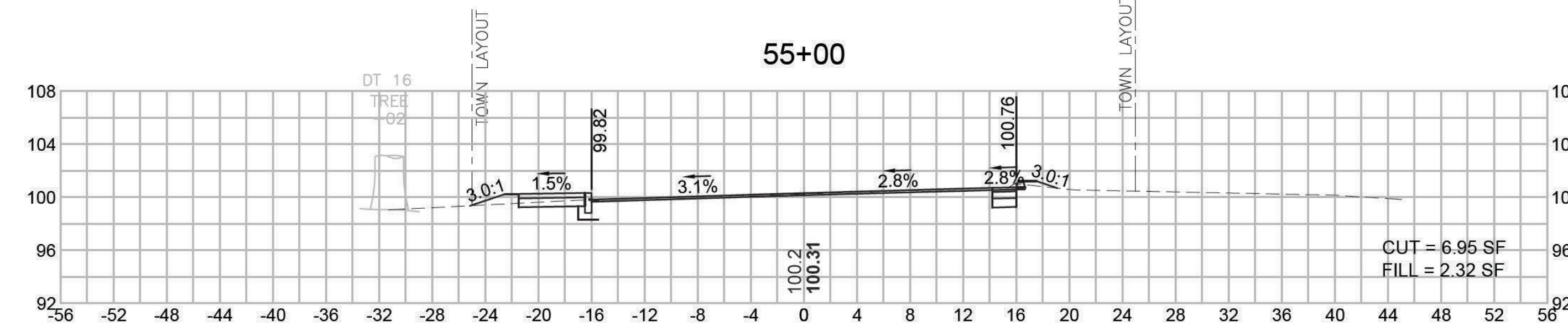
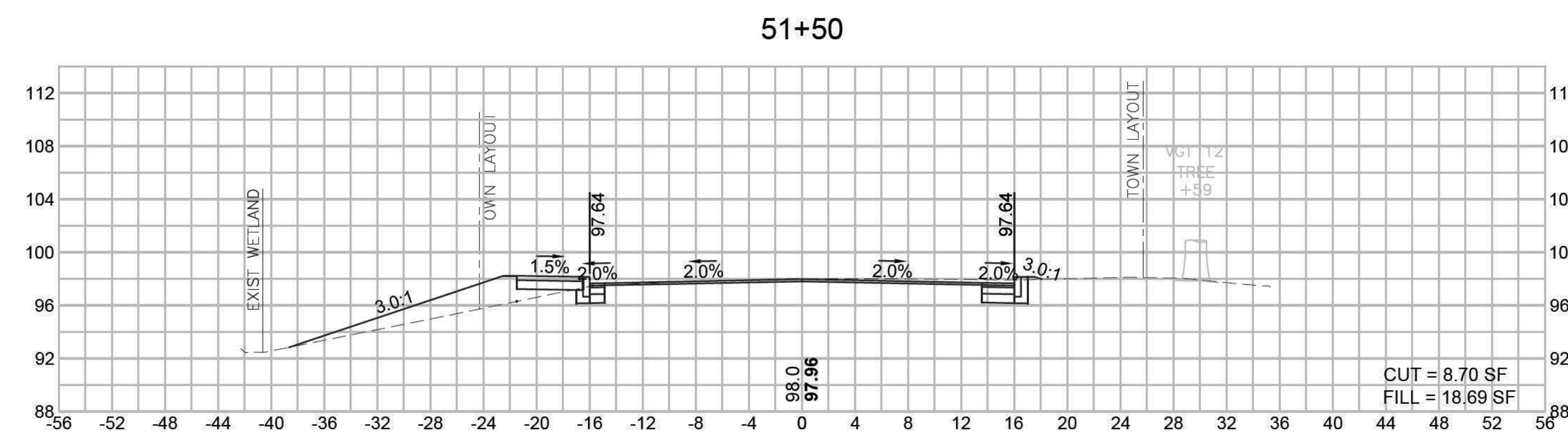
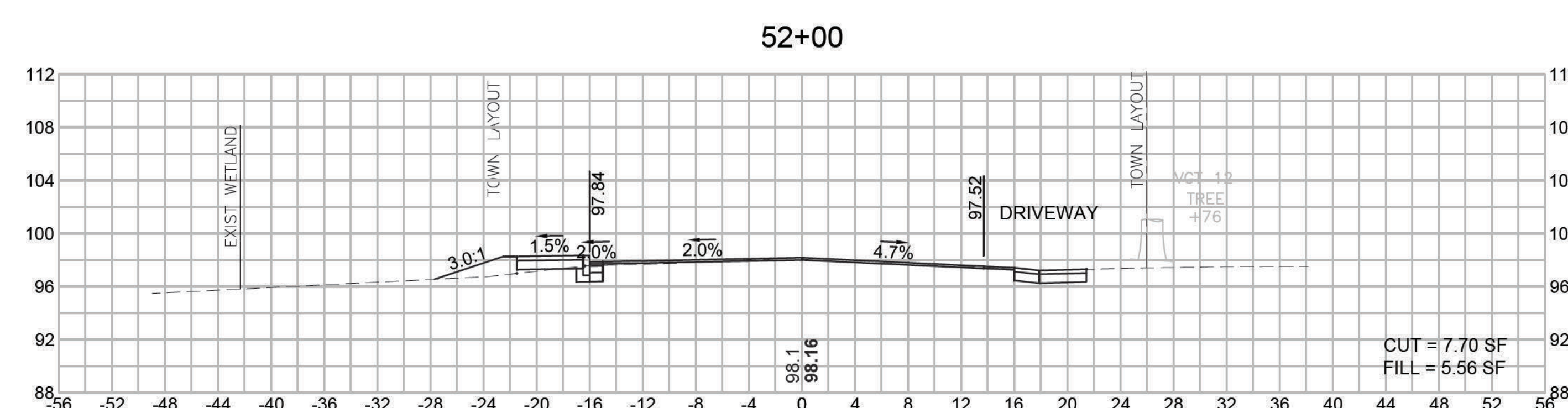
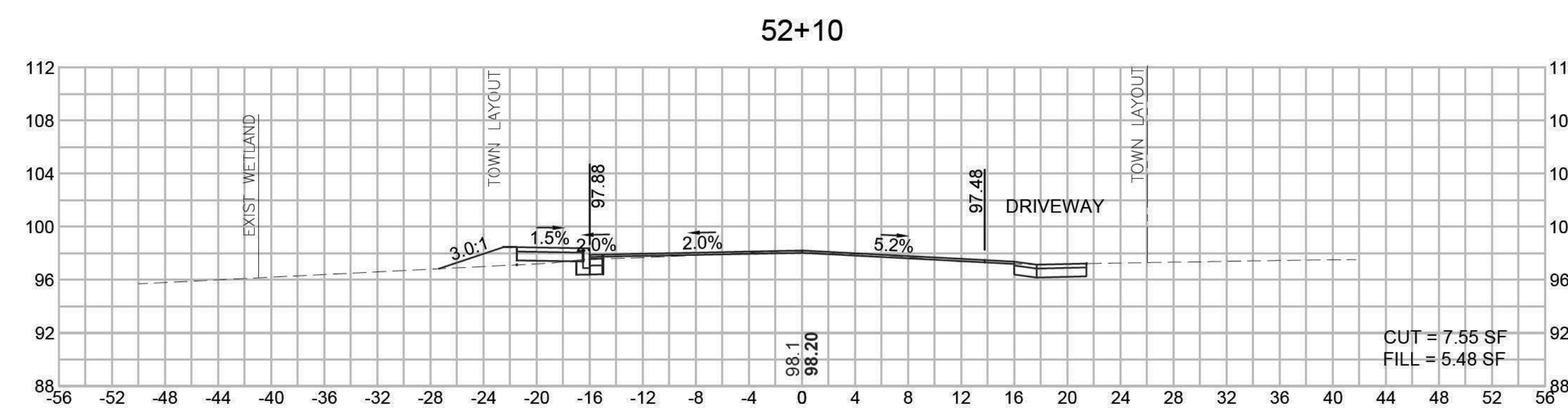
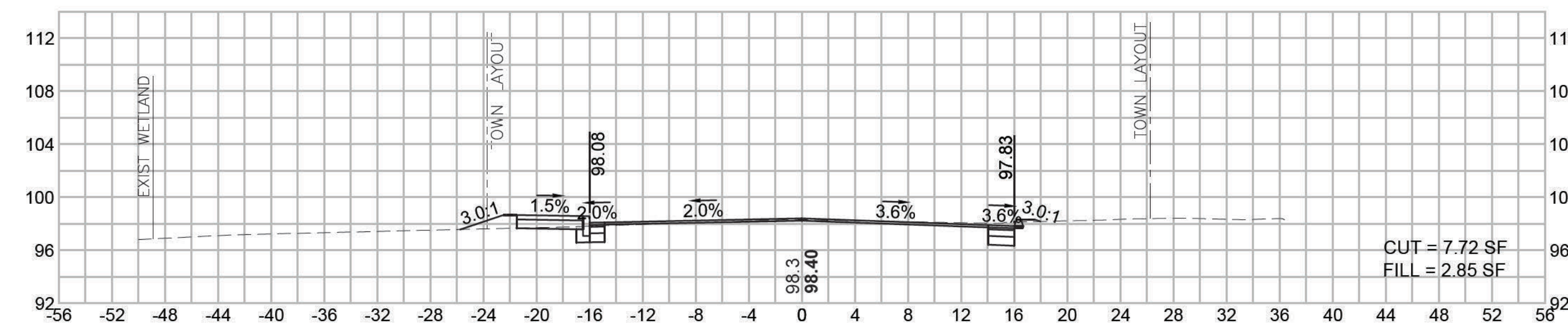
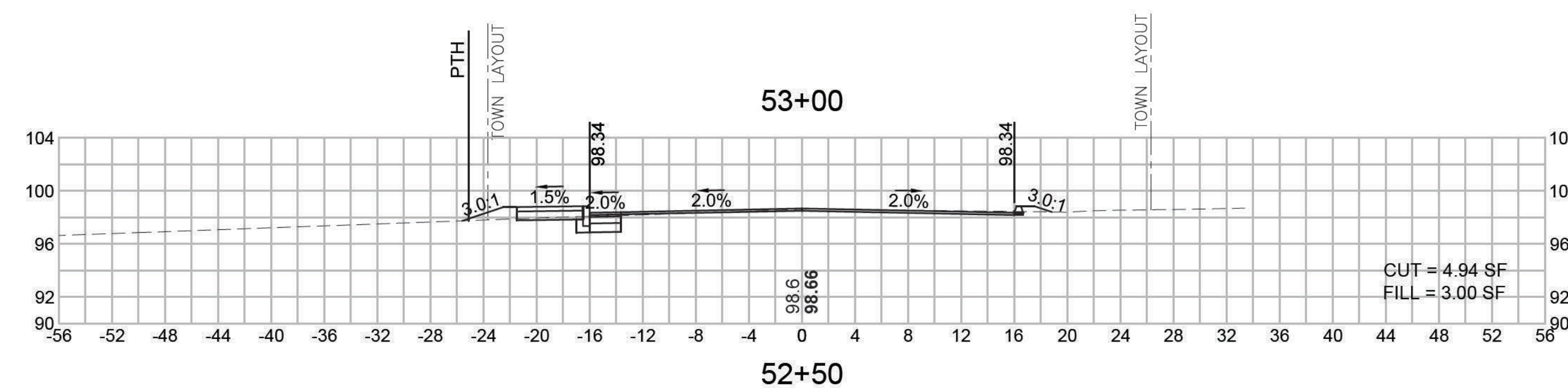
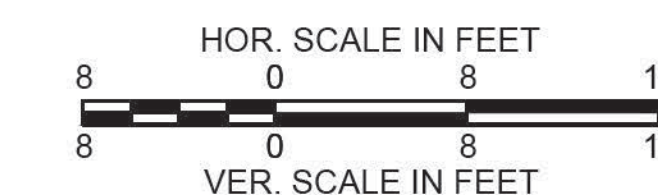
CROSS SECTIONS



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STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
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DEDHAM
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STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	CMQ-003S(160)X	71	71
PROJECT FILE NO.		607901	

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