

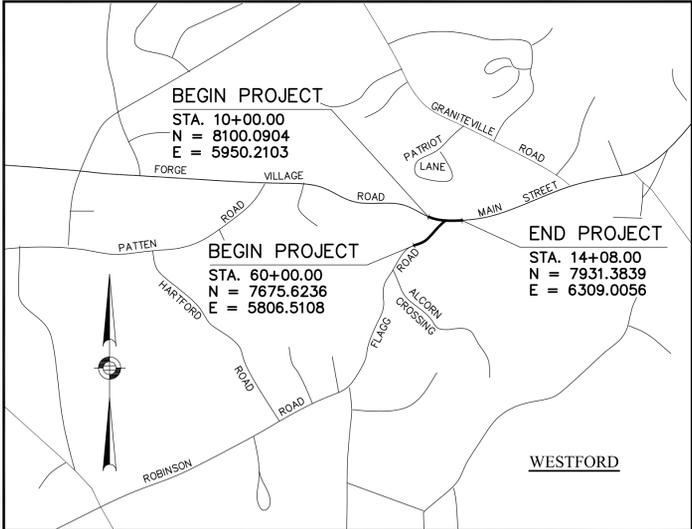
ROADWAY IMPROVEMENT PROJECT TOWN OF WESTFORD



FORGE VILLAGE ROAD, MAIN STREET & FLAGG ROAD WESTFORD, MASSACHUSETTS

INDEX TO PLAN SET

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1000 0 1000 2000
SCALE 1" = 1000'

FORGE VILLAGE/MAIN STREET: LENGTH OF PROJECT = 408.00 FEET = 0.077 MILE
FLAGG ROAD: LENGTH OF PROJECT = 455.38 FEET = 0.086 MILE

DESIGN DESIGNATION

	FORGE VILLAGE RD/MAIN ST.	FLAGG ROAD
FUNCTIONAL CLASS	URBAN MINOR ARTERIALS	LOCAL ROAD
DESIGN SPEED	30 MPH	< 30 MPH
ADT (2001)	3,921*	NOT AVAILABLE

* SOURCE: PATTEN ROAD/FORGE VILLAGE ROAD/ROUTE 225 - WESTFORD TRAFFIC AND CIRCULATION STUDY PREPARED BY THE NORTHERN MIDDLESEX COUNCIL OF GOVERNMENTS (NMCOG).



DATE: FEBRUARY 28, 2013

**TOWN OF
WESTFORD, MASSACHUSETTS
ENGINEERING DEPARTMENT**
28 North Street «» Westford, Massachusetts «» 01886
(978) 692-5520

GENERAL SYMBOLS

EXISTING	PROPOSED	DEFINITION
		APPROXIMATE PROPERTY LINE
		APPROXIMATE SLOPE LIMITS
		CATCH BASIN
		CONSTRUCTION BASELINE
		DRAINAGE MANHOLE
		DRAIN PIPE
		EASEMENT LINE (TYPE NOTED)
		EDGE OF PAVEMENT
		GAS MAIN (SIZE AS NOTED)
		GUARD RAIL (TYPE NOTED)
		GUY WIRE ANCHOR
		HIGHWAY / PROPERTY BOUND (TYPE NOTED)
		STONE WALL
		TREE (SIZE AND TYPE NOTED)
		TREE LINE
		UTILITY POLE
		WATER MAIN (SIZE AS NOTED)
		BOUNDARY POINT
		DRILL HOLE
		SPOT ELEVATIONS

SIGNING SYMBOLS

EXISTING	PROPOSED	DEFINITION
		SIGN AND POST

ENVIRONMENTAL SYMBOLS

SYMBOL	DEFINITION
	BORDERING VEGETATED WETLAND (BVW)
	HAYBALE BARRIER
	ORDINARY HIGH WATER
	SILT FENCE WITH COMPOST FILTER TUBE (STRAW WATTLES)

ABBREVIATIONS

GENERAL			
ADT	AVERAGE DAILY TRAFFIC	N/F	NOW OR FORMERLY
APPROX.	APPROXIMATE	N.T.S.	NOT TO SCALE
BIT.	BITUMINOUS	OHW	ORDINARY HIGH WATER
	BASELINE	P.C.	POINT OF CURVATURE
B.O.	BY OTHERS	P.G.L.	PROFILE GRADE LINE
CEM.	CEMENT	P.I.	POINT OF INTERSECTION
	CENTERLINE		PROPERTY LINE
CONC.	CONCRETE	PROP.	PROPOSED
CONST.	CONSTRUCTION	P.T.	POINT OF TANGENCY
Δ	CENTRAL ANGLE	P.V.I.	POINT OF VERTICAL INTERSECTION
E	EASTING	P.V.C.	POINT OF VERTICAL CURVATURE
EASMNT.	EASEMENT	PVMT.	PAVEMENT
EOG	EDGE OF GRAVEL	P.V.T.	POINT OF VERTICAL TANGENCY
EOP	EDGE OF PAVEMENT	R	RADIUS
EOW	EDGE OF WATER	R.C.	REINFORCED CONCRETE
ELEV. OR EL	ELEVATION	R&D	REMOVE AND DISCARD
EXIST (OR EX.)	EXISTING	REM.	REMOVE
GD	GUARD	RET.	RETAIN
GWA	GUY WIRE ANCHOR	R&R	REMOVE AND RESET
HMA	HOT MIX ASPHALT	R&S	REMOVE AND STACK
IP	IRON PIN	RT.	RIGHT
L	LENGTH	S	SLOPE
LT.	LEFT	STA.	STATION
MAX.	MAXIMUM	T	TANGENT
MHB	MASSACHUSETTS HIGHWAY BOUND	TYP.	TYPICAL
MIN.	MINIMUM	WV	WATER VALVE
N	NORTHING	W WALL	WING WALL

UTILITIES

CB	CATCH BASIN	INV OR I	INVERT ELEVATION
CI	CAST IRON	LP	LIGHT POLE
D	DRAINAGE	LPDL	LIGHT POLE W/DOUBLE LIGHT
DI	DRAINAGE INLET	OH	OVERHEAD WIRE
EHH	ELECTRIC HANDHOLE	RIM OR TOP	RIM ELEVATION
EMH	ELECTRIC MANHOLE	UP	UTILITY POLE

GENERAL NOTES

- THE BEARINGS DEPICTED HEREON ARE BASED ON THE 1896 COUNTY LAYOUT.
- THE VERTICAL DATUM IS ASSUMED.
- OWNERSHIP AND DEED INFORMATION SHOWN HEREON WAS OBTAINED FROM THE TOWN OF WESTFORD ASSESSORS OFFICE AND WAS CURRENT AS OF OCTOBER, 2007.
- THE PROPERTY LINES SHOWN HEREON ARE APPROXIMATE ONLY AND ARE BASED UPON RECORD DEEDS, PLANS, AND ASSESSORS INFORMATION SUPPLIED FOR THIS PROJECT.
- FIELD SURVEY PROVIDED BY CME ASSOCIATES, INC. REFER TO PLAN "ROADWAY IMPROVEMENT PLAN PREPARED FOR TOWN OF WESTFORD FORGE VILLAGE ROAD, MAIN STREET & FLAGG ROAD WESTFORD, MASSACHUSETTS EXISTING CONDITIONS, SCALE: 1"=40', DATE: OCTOBER 22, 2007, LATEST REVISION".
- THE TERM "PROPOSED" (PROP.) MEANS WORK TO BE CONSTRUCTED HEREIN USING NEW MATERIALS OR WHERE APPLICABLE, REUSING EXISTING MATERIALS IDENTIFIED AS "REMOVE AND RESET" (R&R). ALL OTHER MATERIALS SHALL BE "REMOVED AND STACKED" (R&S) OR DISPOSED OF OFF SITE.
- THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT LOCATION OF ANY AND ALL EXISTING UTILITIES WITHIN THE PROJECT AREA PRIOR TO THE START OF CONSTRUCTION. CALL "DIG SAFE" 1-888-344-7233 AND ALL LOCAL UTILITIES 72 HOURS PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITY.
- SHOULD AN EXISTING UTILITY BE FOUND TO BE IN CONFLICT WITH THE PROPOSED WORK, THE LOCATION, SIZE AND TYPE SHALL BE ACCURATELY DETERMINED WITHOUT DELAY, BY THE CONTRACTOR, AND THE INFORMATION FURNISHED TO THE TOWN ENGINEER FOR RESOLUTION OF THE CONFLICT.
- THE CONTRACTOR SHALL COORDINATE ALL ARRANGEMENTS FOR THE ALTERATION AND/OR ADJUSTMENT OF CABLE, ELECTRIC, GAS, WATER, TELEPHONE AND ANY OTHER PRIVATE UTILITIES THROUGH THE VARIOUS UTILITY COMPANIES AND TOWN UTILITY DEPARTMENTS.
- THE CONTRACTOR IS HEREBY NOTIFIED THAT ADDITIONAL WORK WITHIN THE PROJECT LIMITS MAY BE PERFORMED BY OTHERS. RELOCATION OF UTILITY POLES TO BE NON-PARTICIPATING WORK.
- TREES AND SHRUBS WITHIN THE LIMITS OF WORK NOT SCHEDULED FOR REMOVAL AS INDICATED ON THE PLANS SHALL ONLY BE TRIMMED OR REMOVED UPON APPROVAL OF THE TOWN ENGINEER.
- 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 CONTRACTOR SHALL PROVIDE EROSION PROTECTION AND SILTATION BARRIERS TO PROTECT ALL WORK IN WETLANDS AND IN THE WETLAND BUFFER ZONES. BARRIERS ARE TO BE PLACED AS SHOWN ON THE PLANS AND AS REQUIRED OR DIRECTED BY THE TOWN ENGINEER.
- ALL PROPOSED DRAINAGE STRUCTURE RIM ELEVATIONS AND PIPE INVERTS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
- THE CONTRACTOR SHALL CONFORM TO ALL STANDARD REQUIREMENTS RELATED TO THE LATEST MassDOT CONSTRUCTION AND TRAFFIC STANDARDS DETAILS.

TOWN OF WESTFORD, MASSACHUSETTS
ENGINEERING DEPARTMENT
 28 North Street Westford, Massachusetts 01886
 (978) 692-5520



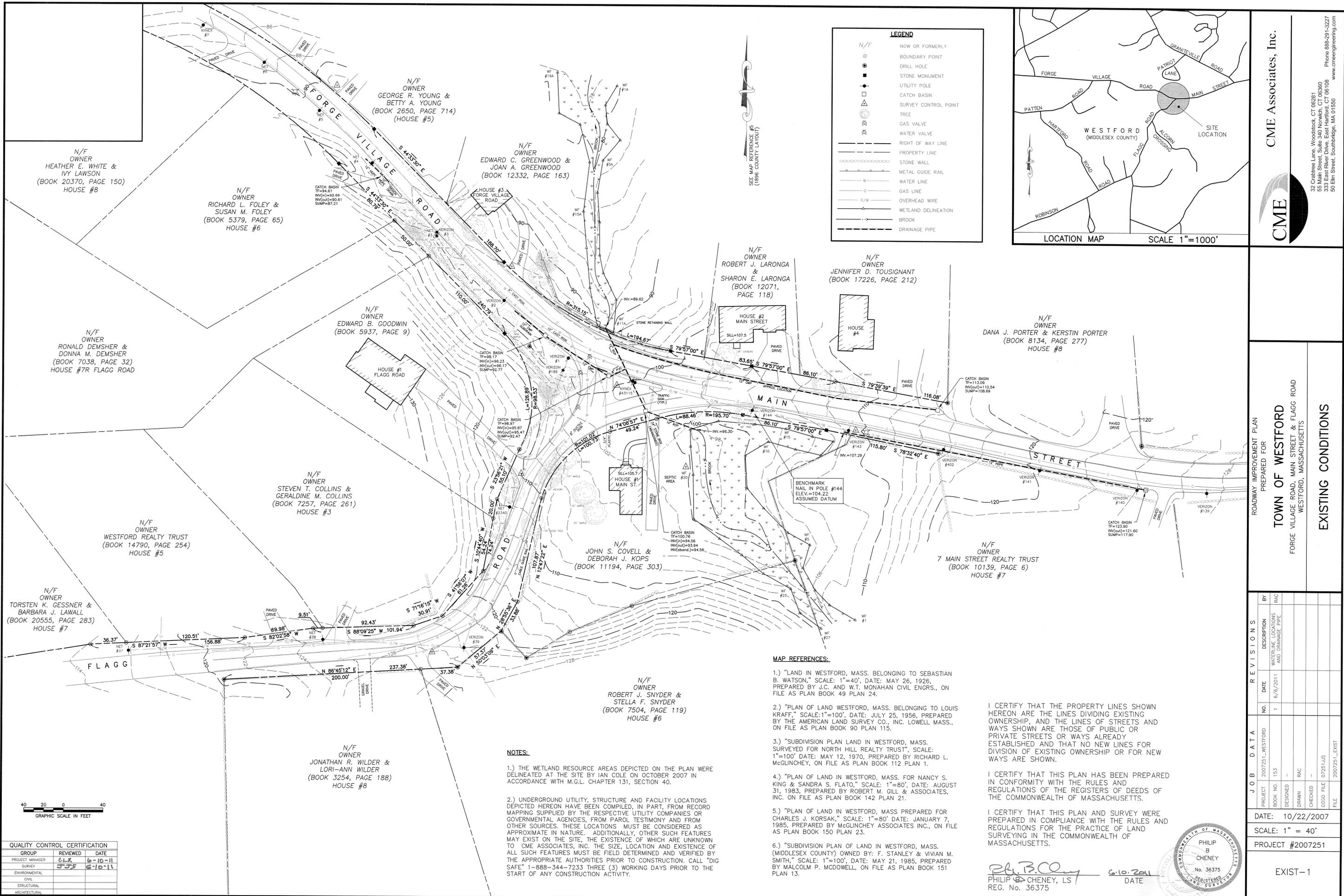
ROADWAY IMPROVEMENT PLAN
 PREPARED FOR

TOWN OF WESTFORD
 FORGE VILLAGE ROAD, MAIN STREET & FLAGG ROAD
 WESTFORD, MASSACHUSETTS

SYMBOLS, ABBREVIATIONS & GENERAL NOTES

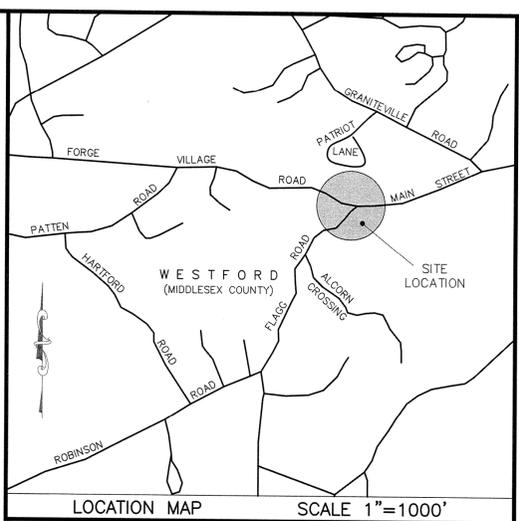
JOB DATA		REVISIONS	
PROJECT	FLAGG ROAD	NO.	DATE
BOOK NO.	JRD		
DESIGNED	JRD		
DRAWN	JRD		
CHECKED	PMS		
COGD FILE			
FILE	FLAGG-GEN-NOTES		

DATE: 02/28/2013
 SCALE: AS SHOWN
 PROJECT #



LEGEND

N/F	NOW OR FORMERLY
○	BOUNDARY POINT
●	DRILL HOLE
■	STONE MONUMENT
○	UTILITY POLE
□	CATCH BASIN
○	SURVEY CONTROL POINT
○	TREE
○	GAS VALVE
○	WATER VALVE
---	RIGHT OF WAY LINE
---	PROPERTY LINE
---	STONE WALL
---	METAL GUIDE RAIL
---	WATER LINE
---	GAS LINE
○/W	OVERHEAD WIRE
---	WETLAND DELINEATION
---	BROOK
---	DRAINAGE PIPE



CME Associates, Inc.

CME

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 33 Elm Street, Suite 240 Norwich, CT 06360
 33 Elm Street, Southbridge, MA 01550
 Phone: 888-291-3227
 Fax: 860-735-0610
 www.cmeengineering.com

N/F OWNER
HEATHER E. WHITE &
IVY LAWSON
(BOOK 20370, PAGE 150)
HOUSE #8

N/F OWNER
RICHARD L. FOLEY &
SUSAN M. FOLEY
(BOOK 5379, PAGE 65)
HOUSE #6

N/F OWNER
GEORGE R. YOUNG &
BETTY A. YOUNG
(BOOK 2650, PAGE 714)
HOUSE #5

N/F OWNER
EDWARD C. GREENWOOD &
JOAN A. GREENWOOD
(BOOK 12332, PAGE 163)

N/F OWNER
ROBERT J. LARONGA &
SHARON E. LARONGA
(BOOK 12071, PAGE 118)

N/F OWNER
JENNIFER D. TOUSIGNANT
(BOOK 17226, PAGE 212)

N/F OWNER
DANA J. PORTER & KERSTIN PORTER
(BOOK 8134, PAGE 277)
HOUSE #8

N/F OWNER
EDWARD B. GOODWIN
(BOOK 5937, PAGE 9)

N/F OWNER
RONALD DEMSHER &
DONNA M. DEMSHER
(BOOK 7038, PAGE 32)
HOUSE #7R FLAGG ROAD

N/F OWNER
STEVEN T. COLLINS &
GERALDINE M. COLLINS
(BOOK 7257, PAGE 261)
HOUSE #3

N/F OWNER
WESTFORD REALTY TRUST
(BOOK 14790, PAGE 254)
HOUSE #5

N/F OWNER
TORSTEN K. GESSNER &
BARBARA J. LAWALL
(BOOK 20555, PAGE 283)
HOUSE #7

N/F OWNER
JOHN S. COVELL &
DEBORAH J. KOPS
(BOOK 11194, PAGE 303)

N/F OWNER
7 MAIN STREET REALTY TRUST
(BOOK 10139, PAGE 6)
HOUSE #7

N/F OWNER
ROBERT J. SNYDER &
STELLA F. SNYDER
(BOOK 7504, PAGE 119)
HOUSE #6

N/F OWNER
JONATHAN R. WILDER &
LORI-ANN WILDER
(BOOK 3254, PAGE 188)
HOUSE #8

- NOTES:**
- 1.) THE WETLAND RESOURCE AREAS DEPICTED ON THE PLAN WERE DELINEATED AT THE SITE BY IAN COLE ON OCTOBER 2007 IN ACCORDANCE WITH M.G.L. CHAPTER 131, SECTION 40.
 - 2.) UNDERGROUND UTILITY, STRUCTURE AND FACILITY LOCATIONS DEPICTED HEREON HAVE BEEN COMPILED, IN PART, FROM RECORD MAPPING SUPPLIED BY THE RESPECTIVE UTILITY COMPANIES OR GOVERNMENTAL AGENCIES, FROM PAROL TESTIMONY AND FROM OTHER SOURCES. THESE LOCATIONS MUST BE CONSIDERED AS APPROXIMATE IN NATURE. ADDITIONALLY, OTHER SUCH FEATURES MAY EXIST ON THE SITE. THE SIZE, LOCATION AND EXISTENCE OF ALL SUCH FEATURES MUST BE FIELD DETERMINED AND VERIFIED BY THE APPROPRIATE AUTHORITIES PRIOR TO CONSTRUCTION. CALL "DIG SAFE" 1-888-344-7233 THREE (3) WORKING DAYS PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITY.

- MAP REFERENCES:**
- 1.) "LAND IN WESTFORD, MASS. BELONGING TO SEBASTIAN B. WATSON," SCALE: 1"=40', DATE: MAY 26, 1926, PREPARED BY J.C. AND W.T. MONAHAN CIVIL ENGRS., ON FILE AS PLAN BOOK 49 PLAN 24.
 - 2.) "PLAN OF LAND WESTFORD, MASS. BELONGING TO LOUIS KRAFF," SCALE: 1"=100', DATE: JULY 25, 1956, PREPARED BY THE AMERICAN LAND SURVEY CO., INC. LOWELL MASS., ON FILE AS PLAN BOOK 90 PLAN 115.
 - 3.) "SUBDIVISION PLAN LAND IN WESTFORD, MASS. SURVEYED FOR NORTH HILL REALTY TRUST", SCALE: 1"=100' DATE: MAY 12, 1970, PREPARED BY RICHARD L. MCGLINCHY, ON FILE AS PLAN BOOK 112 PLAN 1.
 - 4.) "PLAN OF LAND IN WESTFORD, MASS. FOR NANCY S. KING & SANDRA S. FLATO," SCALE: 1"=80' DATE: JANUARY 7, 1983, PREPARED BY ROBERT M. GILL & ASSOCIATES, INC. ON FILE AS PLAN BOOK 142 PLAN 21.
 - 5.) "PLAN OF LAND IN WESTFORD, MASS PREPARED FOR CHARLES J. KORSKAK," SCALE: 1"=80' DATE: JANUARY 7, 1985, PREPARED BY MCGLINCHY ASSOCIATES INC., ON FILE AS PLAN BOOK 150 PLAN 23.
 - 6.) "SUBDIVISION PLAN OF LAND IN WESTFORD, MASS. (MIDDLESEX COUNTY) OWNED BY: F. STANLEY & VIVIAN M. SMITH," SCALE: 1"=100', DATE: MAY 21, 1985, PREPARED BY MALCOLM P. MCDOWELL, ON FILE AS PLAN BOOK 151 PLAN 13.

I CERTIFY THAT THE PROPERTY LINES SHOWN HEREON ARE THE LINES DIVIDING EXISTING OWNERSHIP, AND THE LINES OF STREETS AND WAYS SHOWN ARE THOSE OF PUBLIC OR PRIVATE STREETS OR WAYS ALREADY ESTABLISHED AND THAT NO NEW LINES FOR DIVISION OF EXISTING OWNERSHIP OR FOR NEW WAYS ARE SHOWN.

I CERTIFY THAT THIS PLAN HAS BEEN PREPARED IN CONFORMITY WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS OF THE COMMONWEALTH OF MASSACHUSETTS.

I CERTIFY THAT THIS PLAN AND SURVEY WERE PREPARED IN COMPLIANCE WITH THE RULES AND REGULATIONS FOR THE PRACTICE OF LAND SURVEYING IN THE COMMONWEALTH OF MASSACHUSETTS.



PHILIP B. CHENEY, L.S.
REG. No. 36375
DATE 6-10-2011



QUALITY CONTROL CERTIFICATION

GROUP	REVIEWED	DATE
PROJECT MANAGER	CLR	6-10-11
SURVEY	SSS	6-10-11
ENVIRONMENTAL		
CIVIL		
STRUCTURAL		
ARCHITECTURAL		

ROADWAY IMPROVEMENT PLAN
PREPARED FOR
TOWN OF WESTFORD
FORGE VILLAGE ROAD, MAIN STREET & FLAGG ROAD
WESTFORD, MASSACHUSETTS

EXISTING CONDITIONS

REVISIONS		JOB DATA	
NO.	DATE	DESCRIPTION	BY
1	6/6/2011	WATERLINE LOCATIONS AND DRAINAGE PIPE	RAC

PROJECT	BOOK NO.	DESIGNED	DRAWN	CHECKED	COO FILE	FILE
2007251-WESTFORD	153		RAC		07251JJS	2007251-EXIST

DATE: 10/22/2007
SCALE: 1" = 40'
PROJECT #2007251

EXIST-1



ROADWAY IMPROVEMENT PLAN
PREPARED FOR

REVISIONS

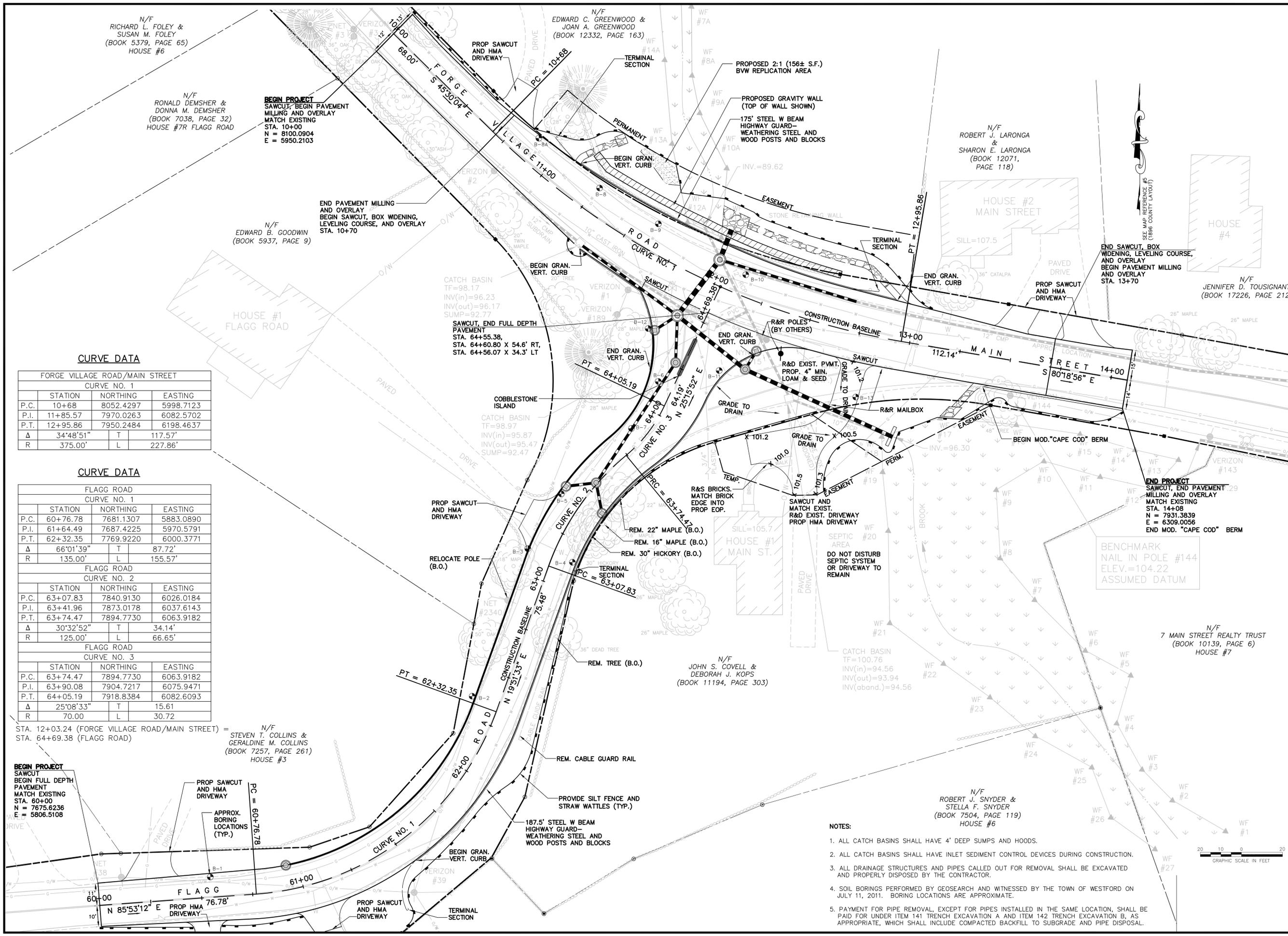
JOB DATA

DATE: 02/28/2013

SCALE: 1" = 20'

PROJECT #

SHEET 5



CURVE DATA

FORGE VILLAGE ROAD/MAIN STREET CURVE NO. 1			
STATION	NORTHING	EASTING	
P.C.	10+68	8052.4297	5998.7123
P.I.	11+85.57	7970.0263	6082.5702
P.T.	12+95.86	7950.2484	6198.4637
Δ	34°48'51"	T	117.57'
R	375.00'	L	227.86'

CURVE DATA

FLAGG ROAD CURVE NO. 1			
STATION	NORTHING	EASTING	
P.C.	60+76.78	7681.1307	5883.0890
P.I.	61+64.49	7687.4225	5970.5791
P.T.	62+32.35	7769.9220	6000.3771
Δ	66°01'39"	T	87.72'
R	135.00'	L	155.57'

FLAGG ROAD CURVE NO. 2			
STATION	NORTHING	EASTING	
P.C.	63+07.83	7840.9130	6026.0184
P.I.	63+41.96	7873.0178	6037.6143
P.T.	63+74.47	7894.7730	6063.9182
Δ	30°32'52"	T	34.14'
R	125.00'	L	66.65'

FLAGG ROAD CURVE NO. 3			
STATION	NORTHING	EASTING	
P.C.	63+74.47	7894.7730	6063.9182
P.I.	63+90.08	7904.7217	6075.9471
P.T.	64+05.19	7918.8384	6082.6093
Δ	25°08'33"	T	15.61'
R	70.00'	L	30.72'

STA. 12+03.24 (FORGE VILLAGE ROAD/MAIN STREET) = N/F STEVEN T. COLLINS & GERALDINE M. COLLINS (BOOK 7257, PAGE 261) HOUSE #3
STA. 64+69.38 (FLAGG ROAD)

BEGIN PROJECT
SAWCUT
BEGIN FULL DEPTH PAVEMENT
MATCH EXISTING
STA. 60+00
N = 7675.6236
E = 5806.5108

PROP SAWCUT AND HMA DRIVEWAY
APPROX. BORING LOCATIONS (TYP.)
PC = 60+76.78

NOTES:

- ALL CATCH BASINS SHALL HAVE 4' DEEP SUMPS AND HOODS.
- ALL CATCH BASINS SHALL HAVE INLET SEDIMENT CONTROL DEVICES DURING CONSTRUCTION.
- ALL DRAINAGE STRUCTURES AND PIPES CALLED OUT FOR REMOVAL SHALL BE EXCAVATED AND PROPERLY DISPOSED BY THE CONTRACTOR.
- SOIL BORINGS PERFORMED BY GEOSARCH AND WITNESSED BY THE TOWN OF WESTFORD ON JULY 11, 2011. BORING LOCATIONS ARE APPROXIMATE.
- PAYMENT FOR PIPE REMOVAL, EXCEPT FOR PIPES INSTALLED IN THE SAME LOCATION, SHALL BE PAID FOR UNDER ITEM 141 TRENCH EXCAVATION A AND ITEM 142 TRENCH EXCAVATION B, AS APPROPRIATE, WHICH SHALL INCLUDE COMPACTED BACKFILL TO SUBGRADE AND PIPE DISPOSAL.



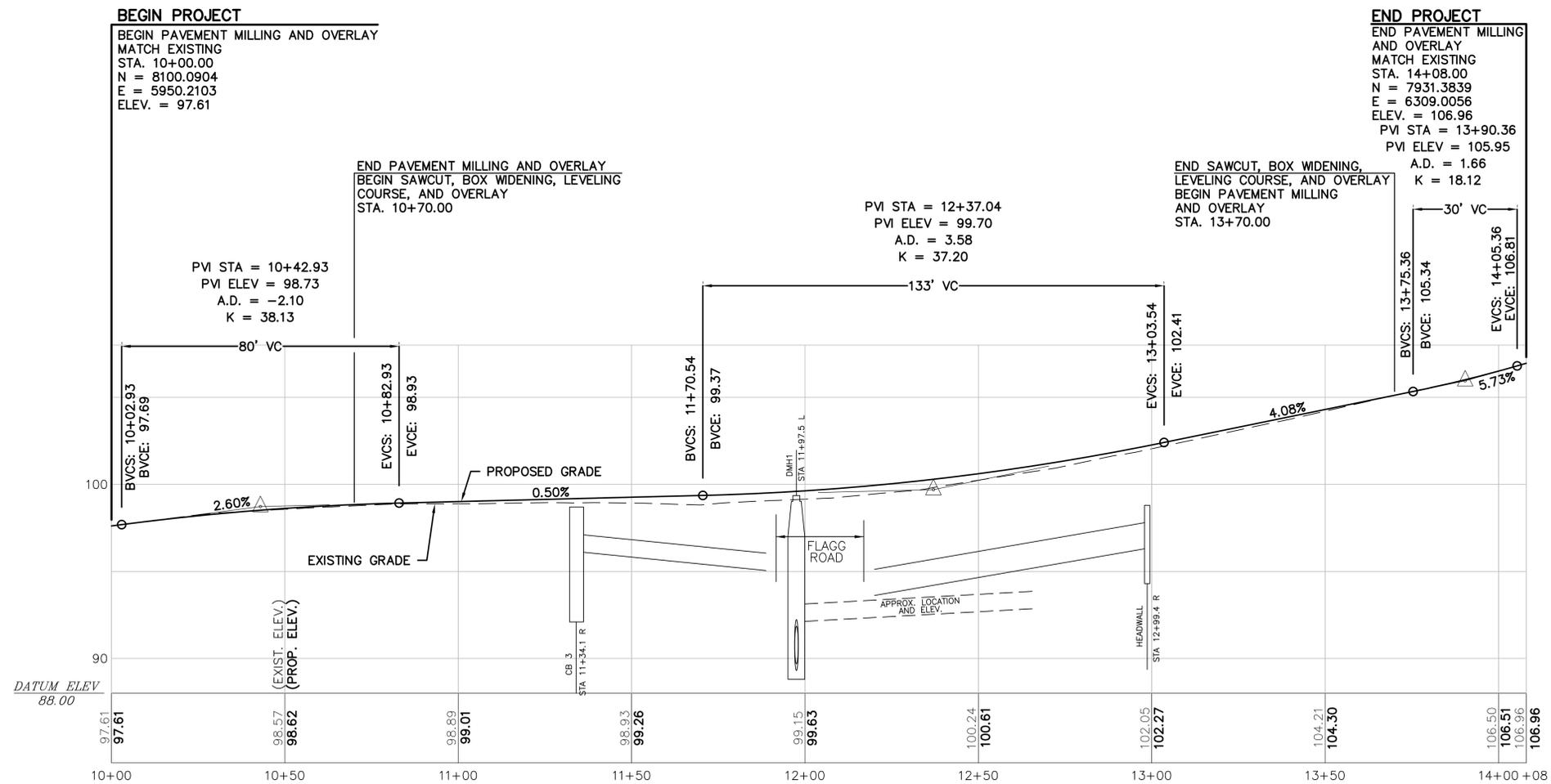


ROADWAY IMPROVEMENT PLAN
 PREPARED FOR

TOWN OF WESTFORD

FORGE VILLAGE ROAD, MAIN STREET & FLAGG ROAD
 WESTFORD, MASSACHUSETTS

PROFILE
 FORGE VILLAGE ROAD/MAIN STREET



FORGE VILLAGE ROAD/MAIN STREET PROFILE



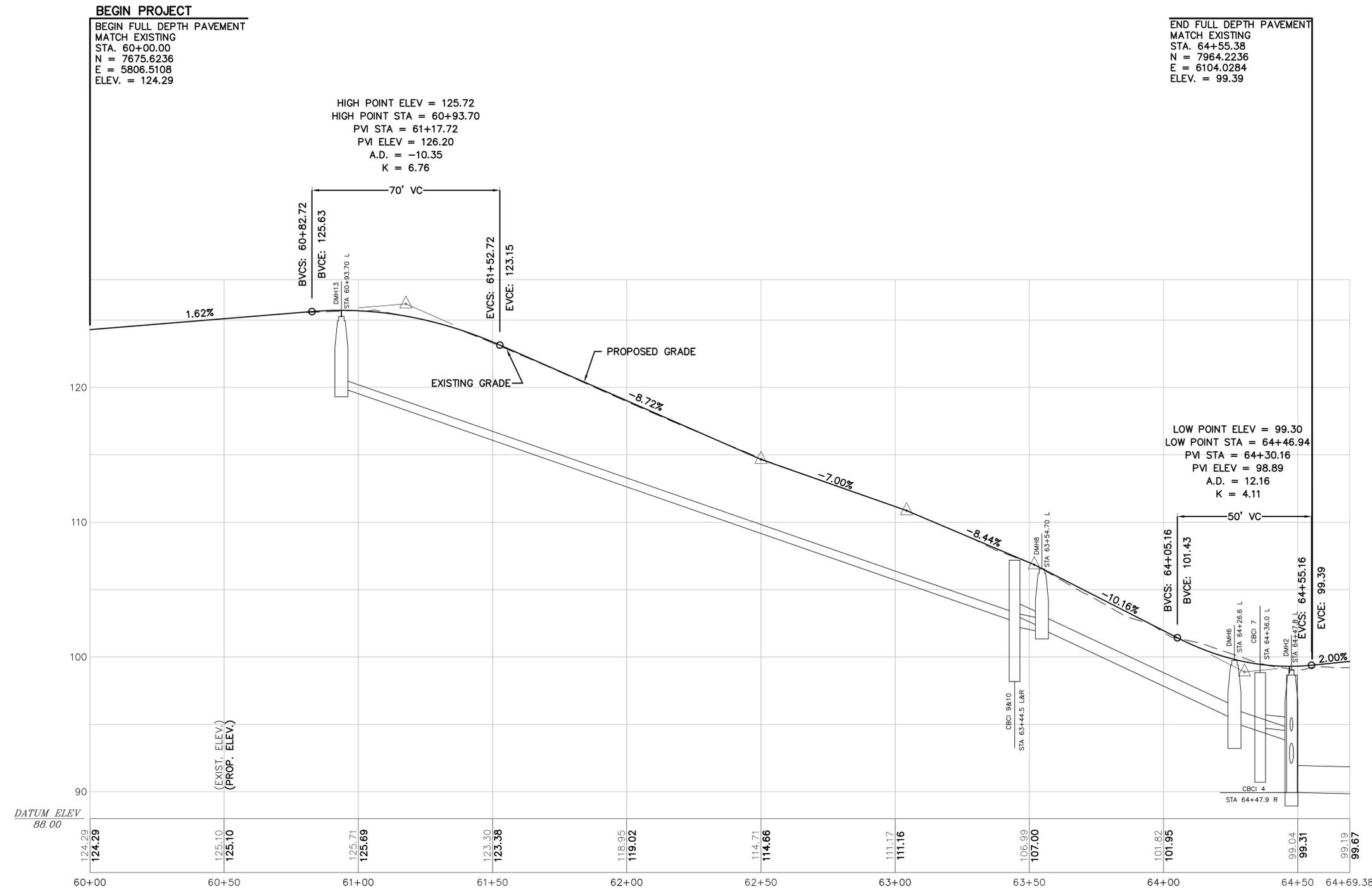
JOB DATA		REVISIONS	
PROJECT	FLAGG ROAD	NO.	DATE
BOOK NO.			
DESIGNED	JRD		
DRAWN	JRD		
CHECKED	PMS		
COOD FILE			
FILE	FLAGG-P&P		

DATE: 02/28/2013

SCALE: AS SHOWN

PROJECT #

SHEET 6



FLAGG ROAD PROFILE
 HOR. SCALE IN FEET
 20 10 0 20
 4 2 0 4
 VER. SCALE IN FEET

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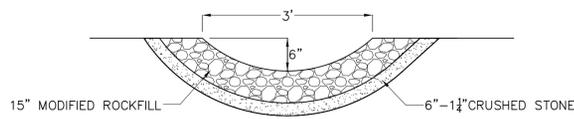
ROADWAY IMPROVEMENT PLAN
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PROFILE
FLAGG ROAD

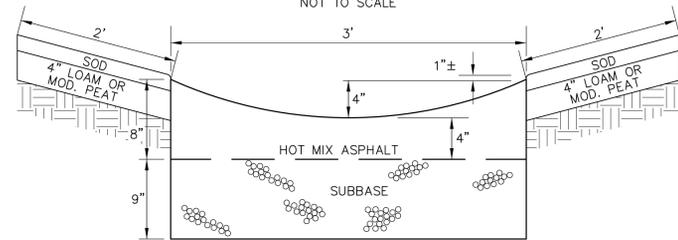
JOB DATA		REVISIONS	
PROJECT	FLAGG ROAD	NO.	DATE
BOOK NO.			
DESIGNED	JRD		
DRAWN	JRD		
CHECKED	PMS		
COOD FILE			
FILE	FLAGG-P&P		

DATE: 02/28/2013
 SCALE: AS SHOWN
 PROJECT #

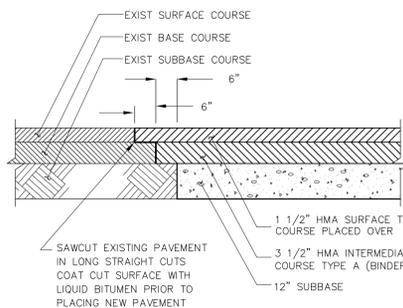
SHEET 7



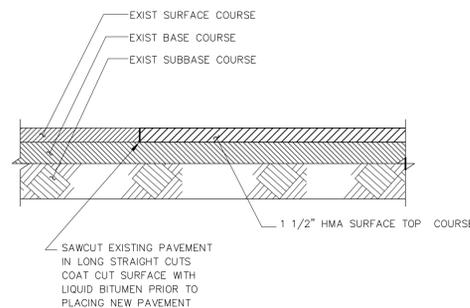
STONE SWALE
NOT TO SCALE



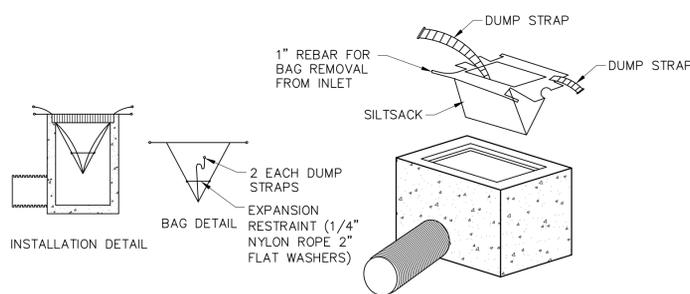
PAVED WATERWAY
NOT TO SCALE



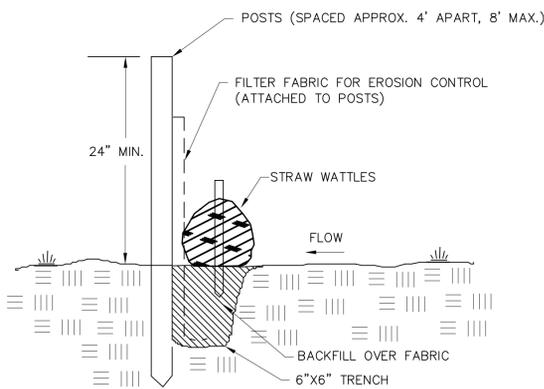
MEET EXISTING PAVEMENT-FULL DEPTH PAVEMENT
NOT TO SCALE



MEET EXISTING PAVEMENT-OVERLAY
NOT TO SCALE

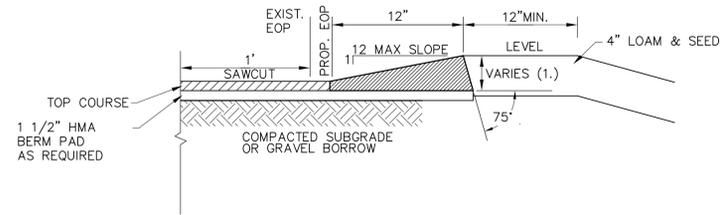


INLET SEDIMENT CONTROL DEVICE
NOT TO SCALE



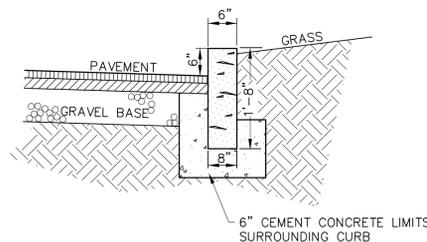
NOTE:
1. IN AREAS OF SIGNIFICANT ROCKS OR ROOTS, TRENCHING OF THE SILT FENCE WILL NOT BE REQUIRED.

SILT FENCE & STRAW WATTLES
NOT TO SCALE

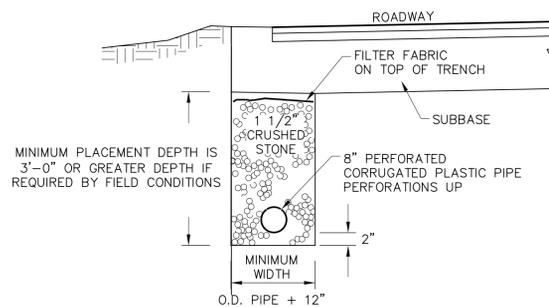


MODIFIED "CAPE COD" BERM
NOT TO SCALE

NOTE:
1. THIS DIMENSION VARIES WITH THE THICKNESS OF THE TOP COURSE AND SLOPE OF BINDER

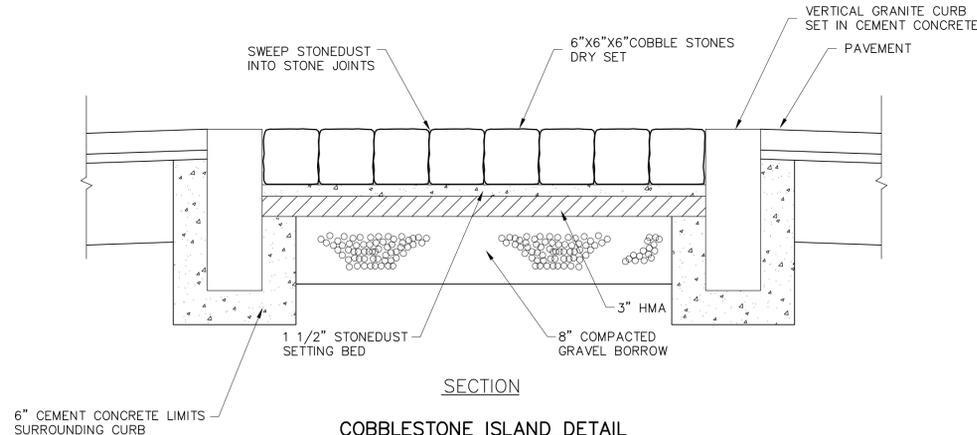


GRANITE VERTICAL CURB
NOT TO SCALE



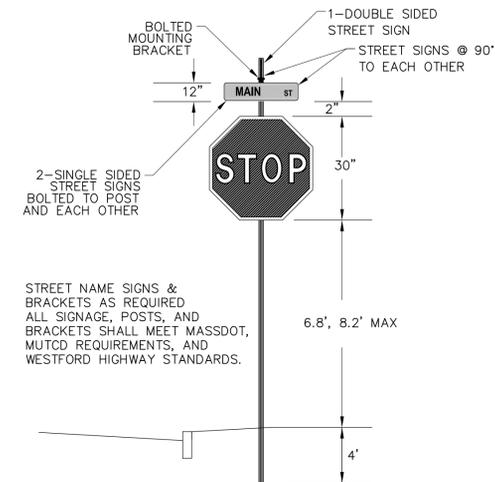
NOTE:
1. SUBBASE (AND SPECIAL BORROW WHERE REQUIRED) SHALL INTERSECT CRUSHED STONE FOR SUBDRAIN
2. DETAIL PER TOWN OF WESTFORD HIGHWAY DEPARTMENT.

SUBDRAIN
NOT TO SCALE



SECTION

COBBLESTONE ISLAND DETAIL
NOT TO SCALE

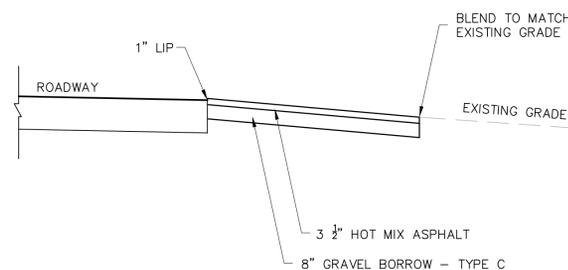


STREET SIGNS DETAIL
NOT TO SCALE

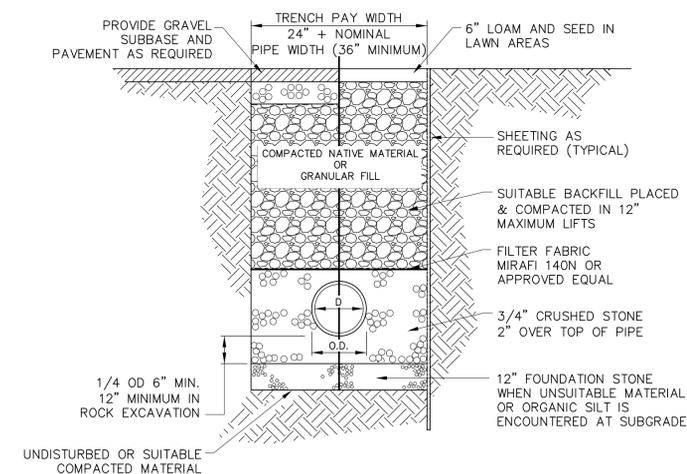
STREET NAME SIGNS & BRACKETS AS REQUIRED ALL SIGNAGE, POSTS, AND BRACKETS SHALL MEET MASSDOT, MUTCD REQUIREMENTS, AND WESTFORD HIGHWAY STANDARDS.

HMA DRIVEWAYS:

SURFACE: 3 1/2" HOT MIX ASPHALT (PLACE IN TWO LIFTS):
1 1/2" HMA SURFACE COURSE-TOP COURSE OVER
2" HMA INTERMEDIATE COURSE-BINDER COURSE OVER.
BASE: 8" GRAVEL BORROW - TYPE C



HOT MIX ASPHALT DRIVEWAY TYPICAL SECTION
NOT TO SCALE



TRENCH SECTION FOR STORM DRAINAGE PIPE
NOT TO SCALE

NOTE: PROVIDE TRACER TAPE ABOVE ALL PIPES



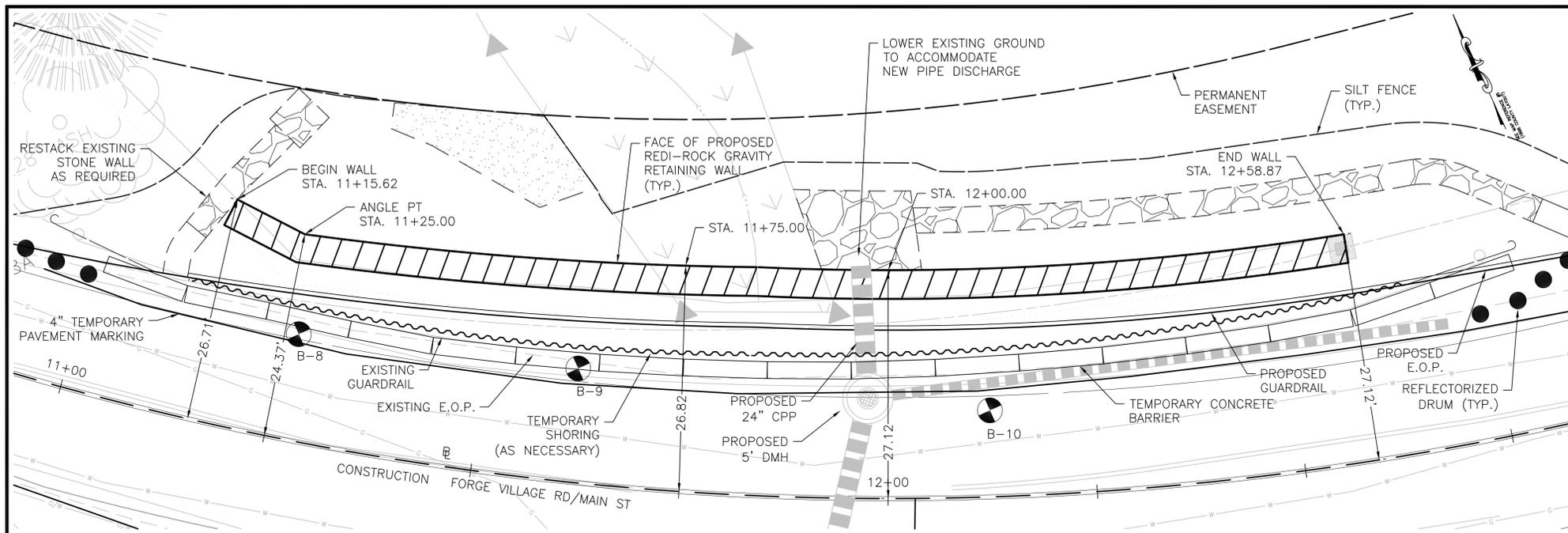
ROADWAY IMPROVEMENT PLAN
PREPARED FOR

TOWN OF WESTFORD
FORGE VILLAGE ROAD, MAIN STREET & FLAGG ROAD
WESTFORD, MASSACHUSETTS

CONSTRUCTION DETAILS

REVISIONS		NO.	DATE	DESCRIPTION
BY				
DATE				

JOB DATA		PROJECT	BOOK NO.	DESIGNED	JRD	DRAWN	CHECKED	PMS	COOD FILE	FILE
PROJECT	FLAGG ROAD									
DATE:	02/28/2013									
SCALE:	AS SHOWN									
PROJECT #										



RETAINING WALL PLAN
SCALE: 1/8" = 1'-0"

GENERAL NOTES:

1. REMOVAL OF THE EXISTING STACKED STONE RETAINING WALL SHALL BE PAID FOR UNDER THE ITEM "CLASS B ROCK EXCAVATION".
2. THE HORIZONTAL PAY LIMITS FOR THE ITEM "BRIDGE EXCAVATION" SHALL BE FROM THE BACK OF THE EXISTING STACKED STONE RETAINING WALL.

PREFABRICATED MODULAR WALL SYSTEM NOTES:

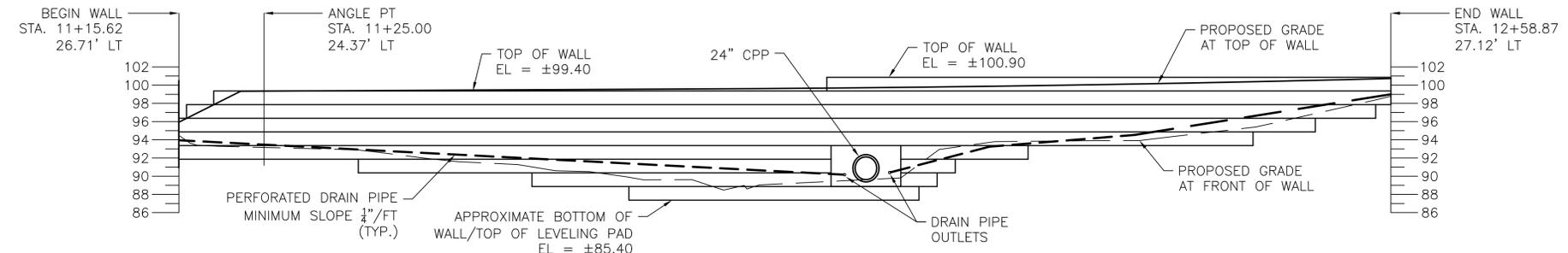
1. WALL LAYOUT AND BLOCK SIZES SHOWN FOR REFERENCE ONLY. CONTRACTOR SHALL BE RESPONSIBLE FOR FINAL DESIGN, LAYOUT AND CONSTRUCTION OF THE WALL. CONTRACTOR SHALL SUBMIT PLANS AND CALCULATIONS SIGNED AND SEALED BY A PROFESSIONAL ENGINEER IN THE STATE OF MASSACHUSETTS PRIOR TO THE START OF CONSTRUCTION.
2. CONTRACTOR SHALL COORDINATE WITH TOWN ON FINAL TEXTURE AND COLOR OF THE BLOCKS.
3. THE ALLOWABLE SOIL BEARING PRESSURE SHALL BE 3 KSF PER AASHTO STANDARD SPECIFICATIONS. CONTRACTOR SHALL VERIFY FOUNDATION SOILS AS BEING COMPETENT PER THE DESIGN STANDARDS AND PARAMETERS. DO NOT OVER EXCAVATE UNLESS REQUIRED TO REMOVE UNSUITABLE SOIL.
4. MINIMUM DEPTH OF WALL BELOW FINISH GRADE SHALL BE 12" UNLESS SHOWN DIFFERENTLY.
5. NATIVE FOUNDATION SOIL SHALL BE COMPACTED TO 95% OF STANDARD PROCTOR OR 90% OF MODIFIED PROCTOR PRIOR TO PLACEMENT OF THE LEVELING PAD.
6. LEVELING PAD SHALL BE CRUSHED STONE AND HAVE A MINIMUM DEPTH OF 12". PAD DIMENSIONS SHALL EXTEND BEYOND THE BLOCKS IN ALL DIRECTIONS TO A DISTANCE AT LEAST EQUAL TO THE DEPTH OF THE PAD OR AS REQUIRED BY THE BLOCK MANUFACTURER.
7. FOLLOW SPECIAL PROVISIONS AND APPLICABLE PROVISIONS OF THE MANUFACTURER'S INSTALLATION INSTRUCTIONS AND WRITTEN SPECIFICATIONS. MANUFACTURER'S REPRESENTATIVE SHALL BE ON SITE DURING INSTALLATION OF THE WALL.

TEMPORARY SHORING NOTES:

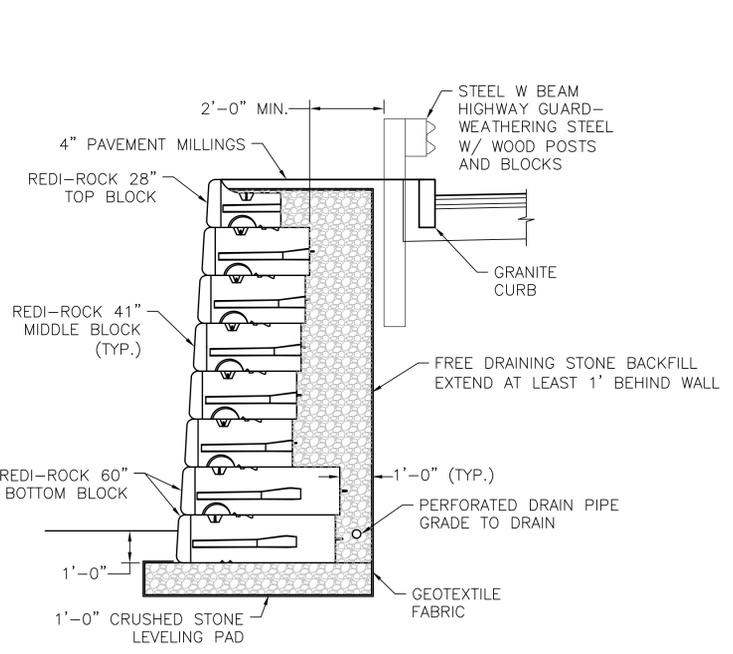
1. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING TWO LANES OF TRAVEL ON FORGE VILLAGE ROAD AND MAIN STREET DURING CONSTRUCTION. A TEMPORARY SHORING SYSTEM MAY BE NECESSARY DURING THE REMOVAL OF THE EXISTING WALL AND CONSTRUCTION OF THE NEW WALL IN ORDER TO SAFELY SUPPORT THE EXISTING ROADWAY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN, PROCUREMENT, INSTALLATION AND REMOVAL OF ANY TEMPORARY SHORING SYSTEM IF REQUIRED. THE COST OF A TEMPORARY SHORING SYSTEM WOULD BE INCLUDED FOR PAYMENT UNDER ITEM 939 - PREFABRICATED MODULAR WALL SYSTEM.

SUBSURFACE NOTES:

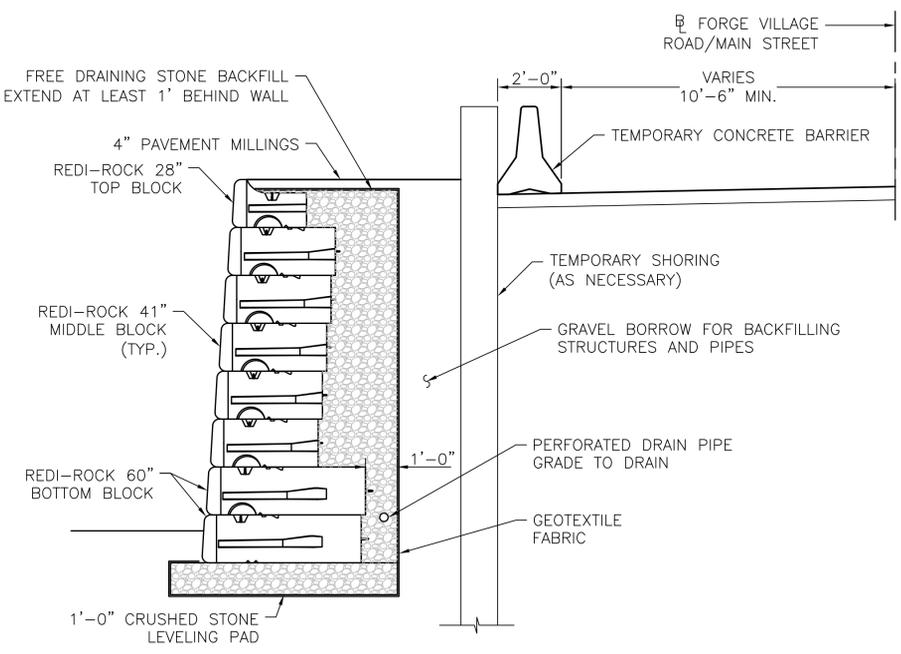
1. THE CONTRACTOR SHALL BE AWARE THAT A LIMITED SUBSURFACE INVESTIGATION HAS BEEN DONE AT THIS SITE. A SUMMARY OF THE INFORMATION IS INCLUDED IN THE PROJECT SPECIFICATIONS. BASED ON SOIL BORINGS TAKEN CLOSE TO THE EXISTING WALL, SHALLOW ROCK OR BOULDERS MAY BE PRESENT WITHIN THE WORK LIMITS.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING METHODS OF SHORING AS REQUIRED BY INCORPORATING TIE BACKS OR OTHER MEANS TO ACCOUNT FOR HIGH ROCK.
3. IF ROCK OR LEDGE EXTENDS INTO THE LIMITS OF THE LEVELING PAD THE ROCK SHALL BE REMOVED A MINIMUM OF 6 INCHES BELOW THE BOTTOM COURSE OF BLOCK.



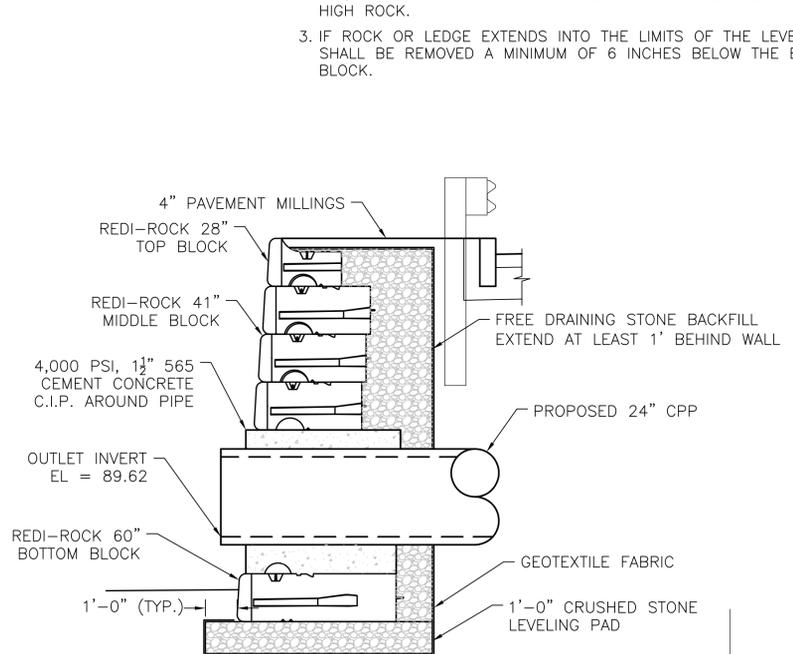
RETAINING WALL ELEVATION (DEVELOPED)
SCALE: 1/8" = 1'-0"



TYPICAL RETAINING WALL SECTION
SCALE: 1/8" = 1'-0"



TYPICAL STAGE CONSTRUCTION SECTION
SCALE: 1/8" = 1'-0"



SECTION AT PIPE PENETRATION
SCALE: 1/8" = 1'-0"

TOWN OF WESTFORD, MASSACHUSETTS
ENGINEERING DEPARTMENT
28 North Street Westford, Massachusetts 01886
(978) 692-5520



ROADWAY IMPROVEMENT PLAN
PREPARED FOR
TOWN OF WESTFORD
FORGE VILLAGE ROAD, MAIN STREET & FLAGG ROAD
WESTFORD, MASSACHUSETTS

RETAINING WALL PLAN

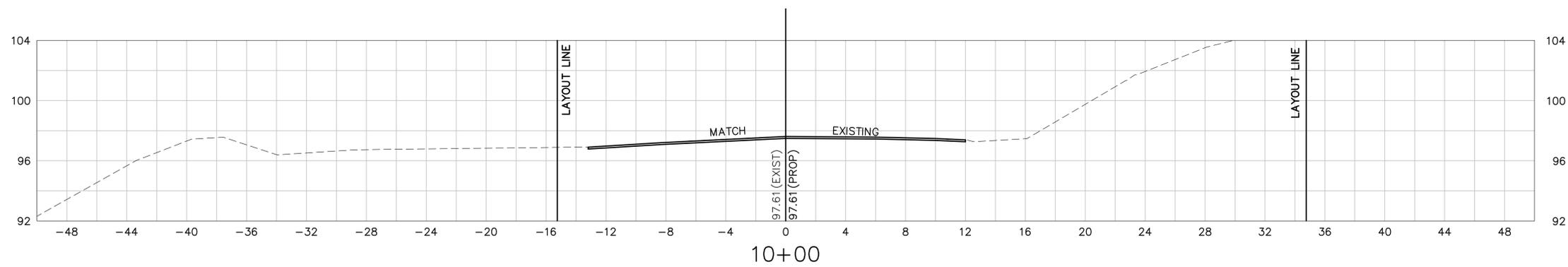
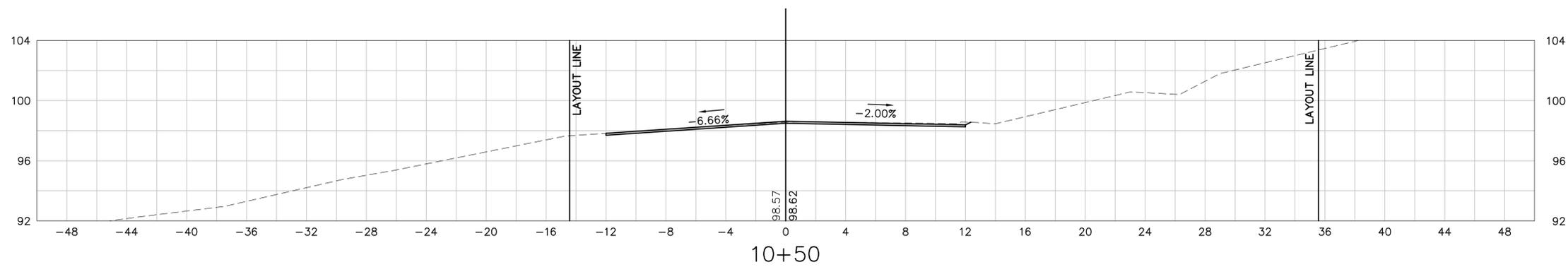
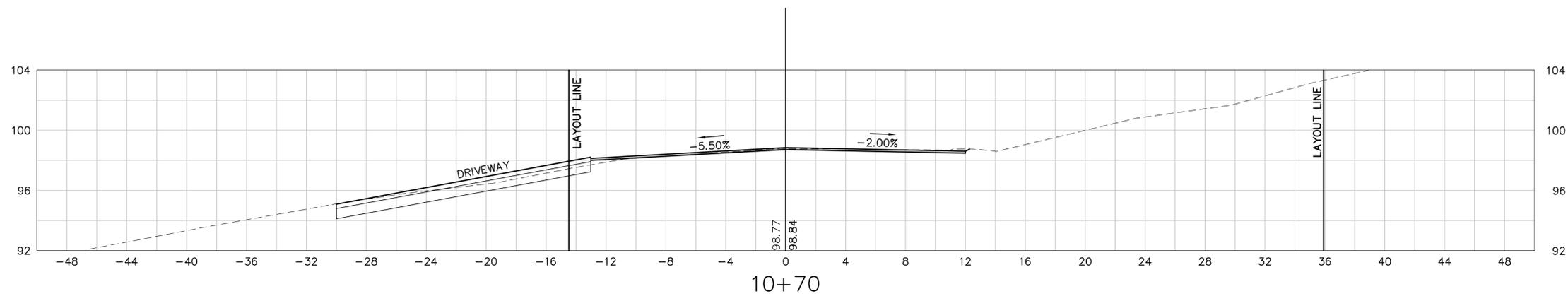
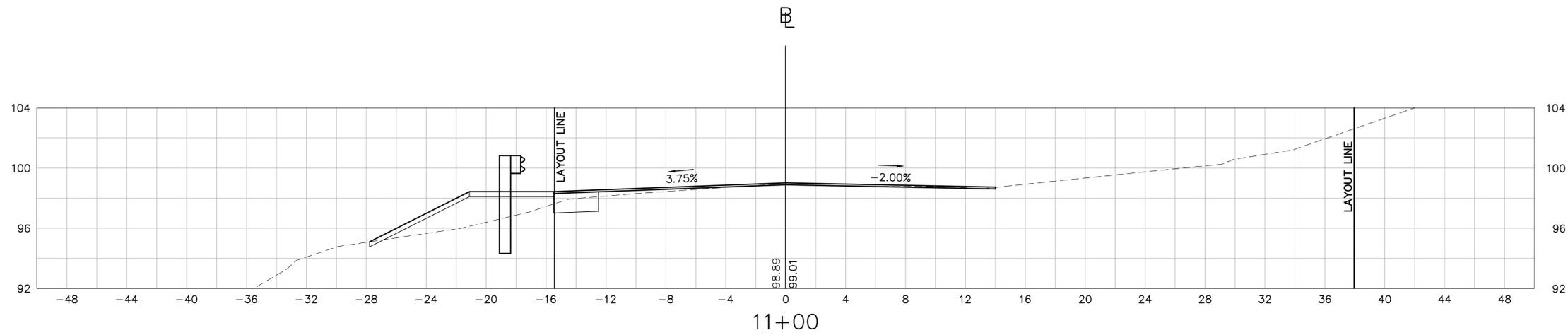
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JOB DATA		PROJECT	BOOK NO.	DESIGNED	DRAWN	CHECKED	PMS	COOD FILE	FILE

DATE: 02/28/2013
SCALE AS NOTED
PROJECT #



ROADWAY IMPROVEMENT PLAN
 PREPARED FOR
TOWN OF WESTFORD
 FORGE VILLAGE ROAD, MAIN STREET & FLAGG ROAD
 WESTFORD, MASSACHUSETTS
CROSS SECTIONS FORGE VILLAGE/MAIN
STA. 10+00 - 11+00



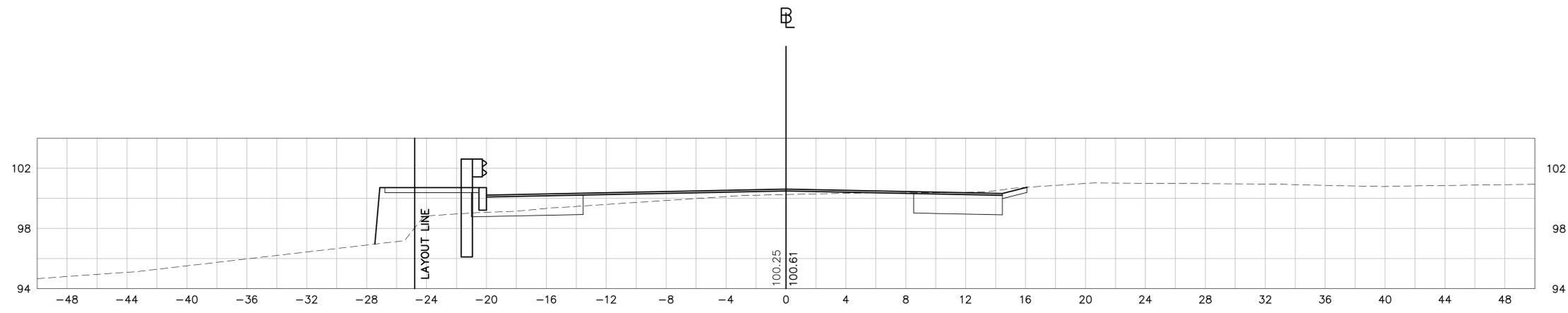
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PROJECT	FLAGG ROAD	NO.	DATE
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DATE: 02/28/2013
 SCALE: AS SHOWN
 PROJECT #

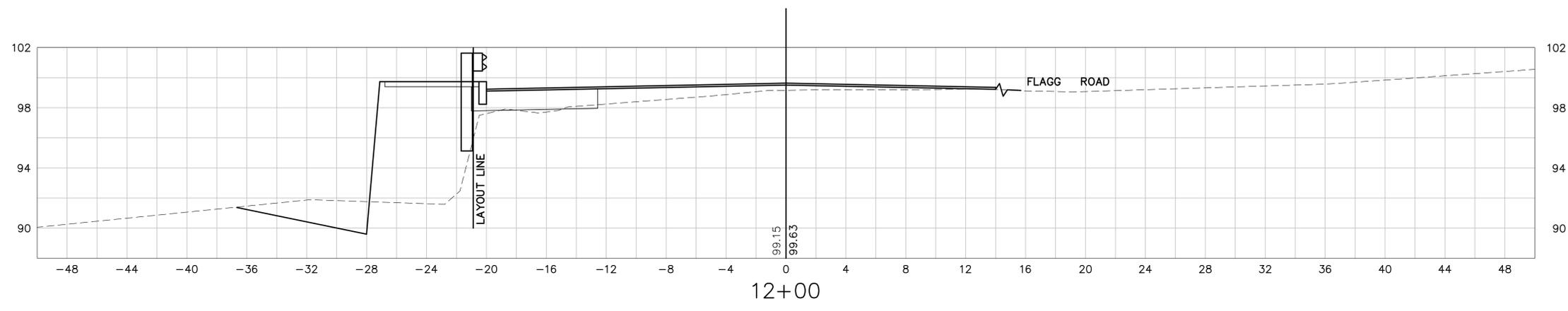
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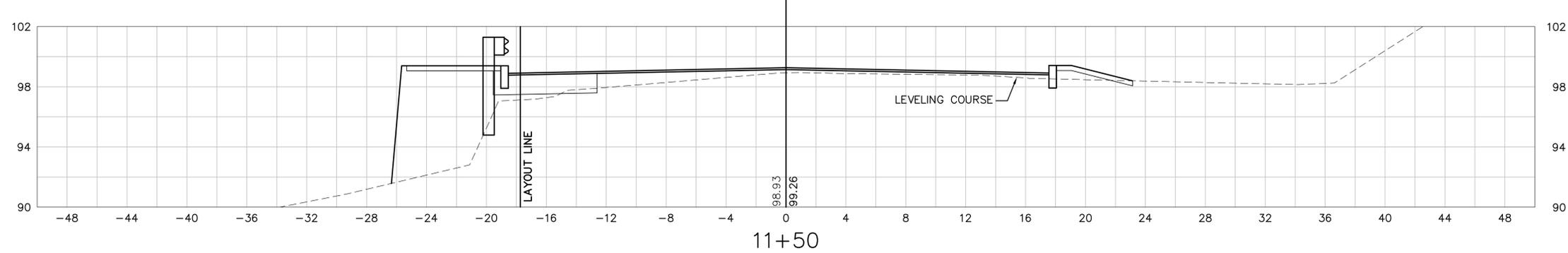
ROADWAY IMPROVEMENT PLAN
 PREPARED FOR
TOWN OF WESTFORD
 FORGE VILLAGE ROAD, MAIN STREET & FLAGG ROAD
 WESTFORD, MASSACHUSETTS
**CROSS SECTIONS FORGE VILLAGE/MAIN
 STA. 11+30 - 12+50**



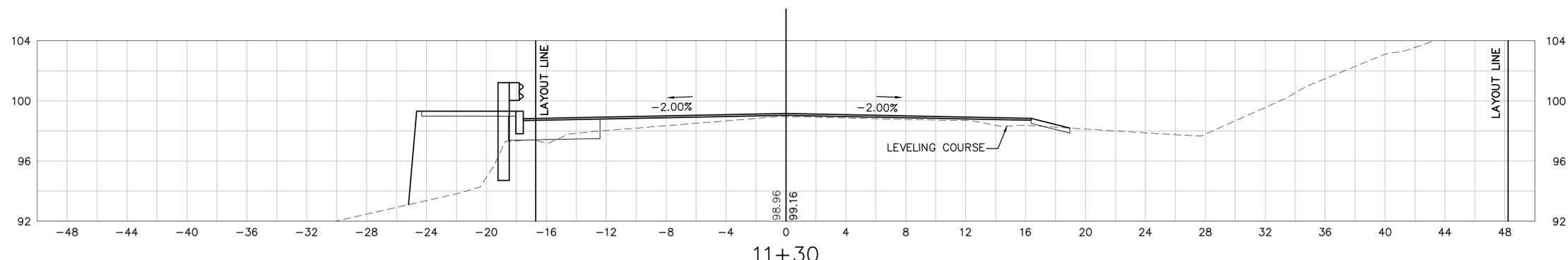
12+50



12+00



11+50



11+30

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PROJECT	FLAGG ROAD	NO.	DATE
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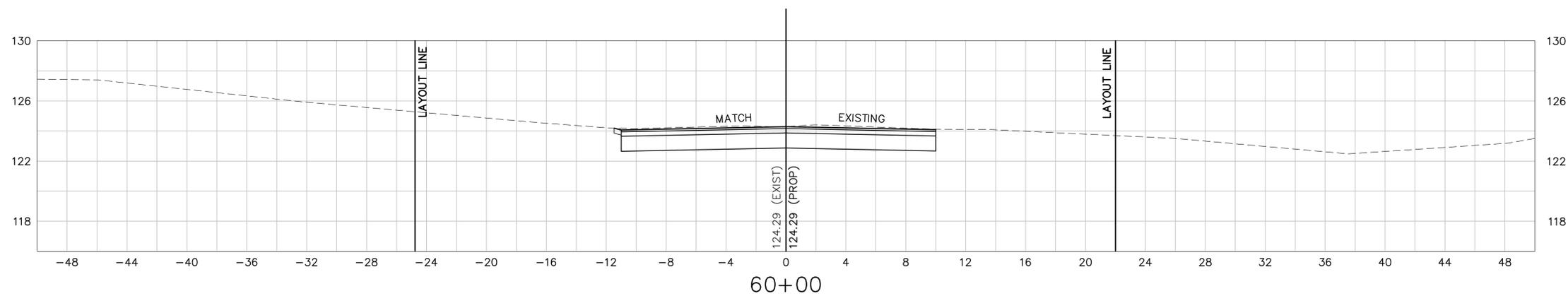
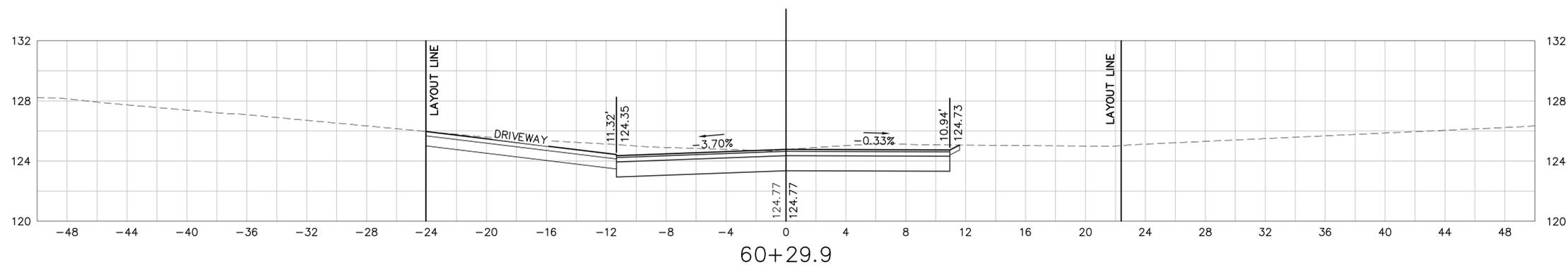
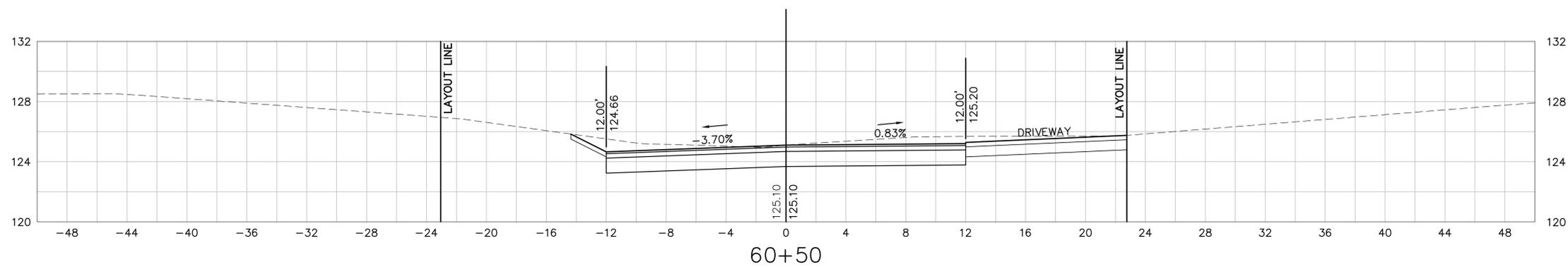
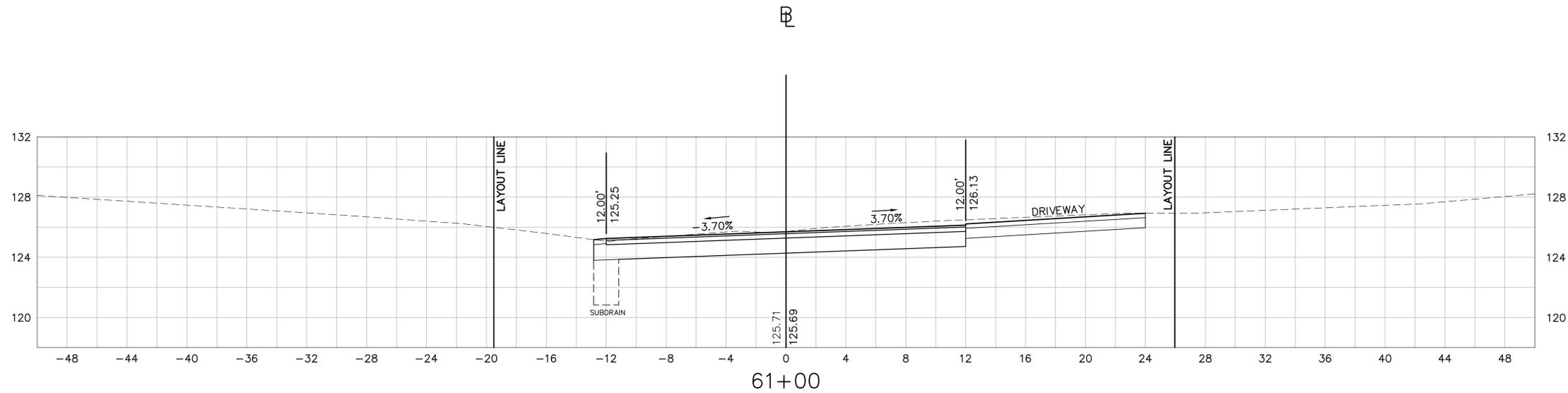
DATE: 02/28/2013

SCALE: AS SHOWN

PROJECT #



ROADWAY IMPROVEMENT PLAN
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TOWN OF WESTFORD
 FORGE VILLAGE ROAD, MAIN STREET & FLAGG ROAD
 WESTFORD, MASSACHUSETTS
CROSS SECTIONS FLAGG ROAD
STA. 60+00 - 61+00



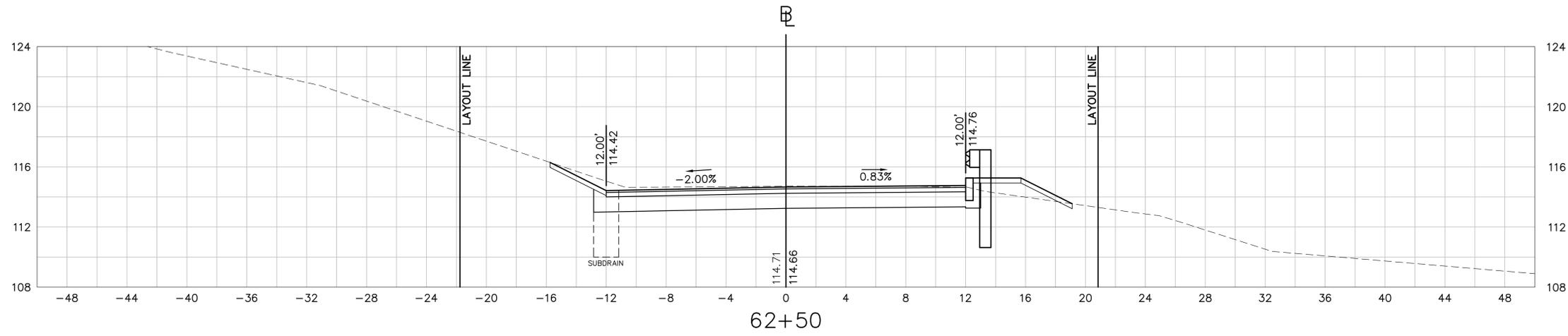
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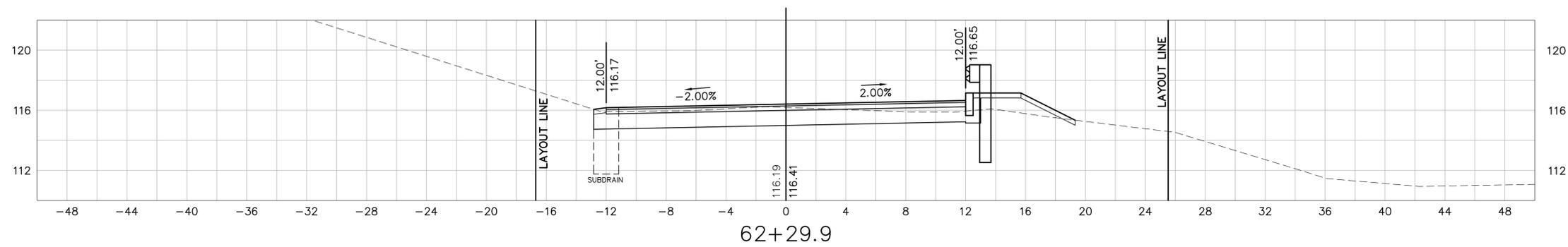
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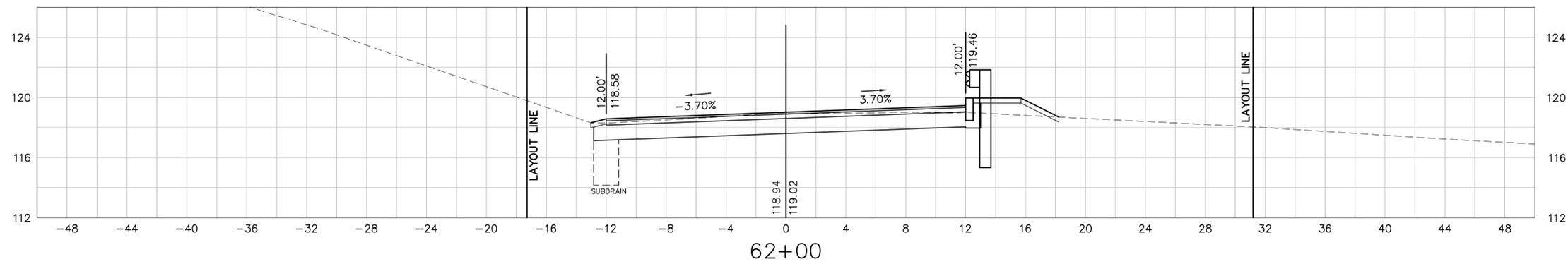
ROADWAY IMPROVEMENT PLAN
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 WESTFORD, MASSACHUSETTS
CROSS SECTIONS FLAGG ROAD
STA. 61+50 - 62+50



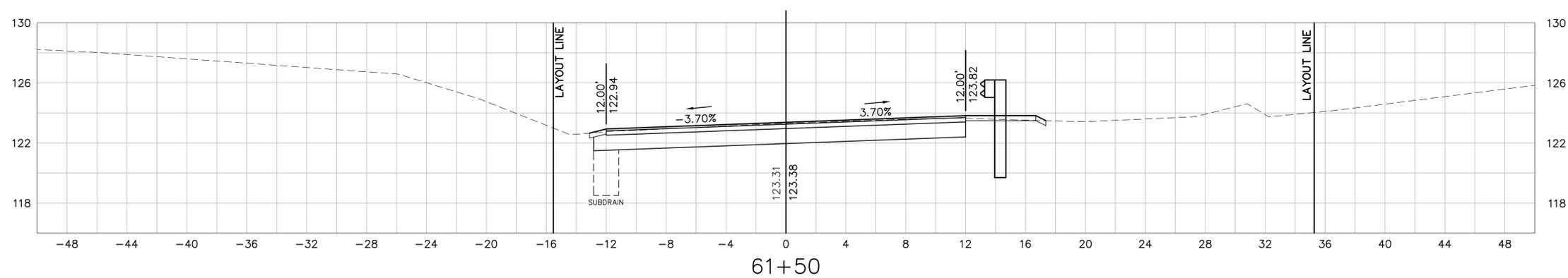
62+50



62+29.9



62+00



61+50

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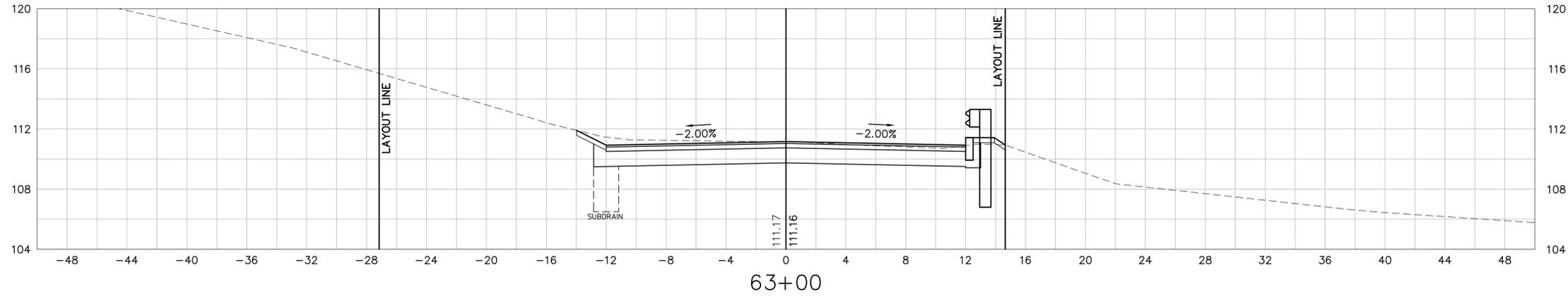
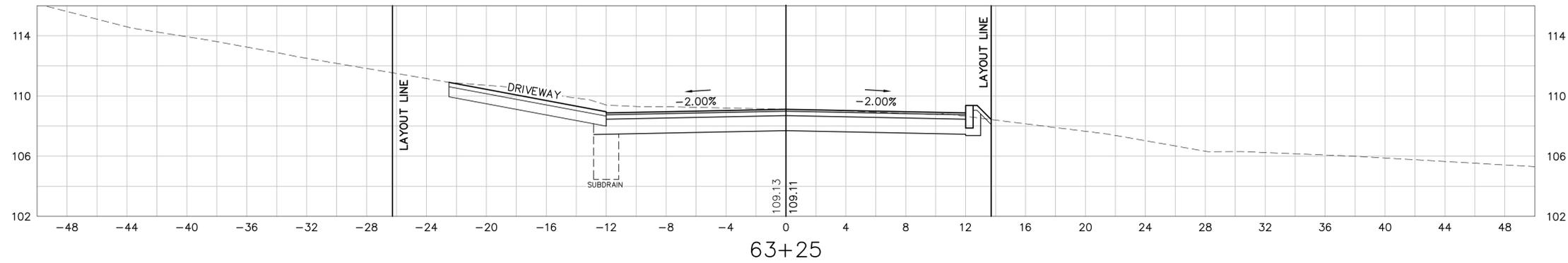
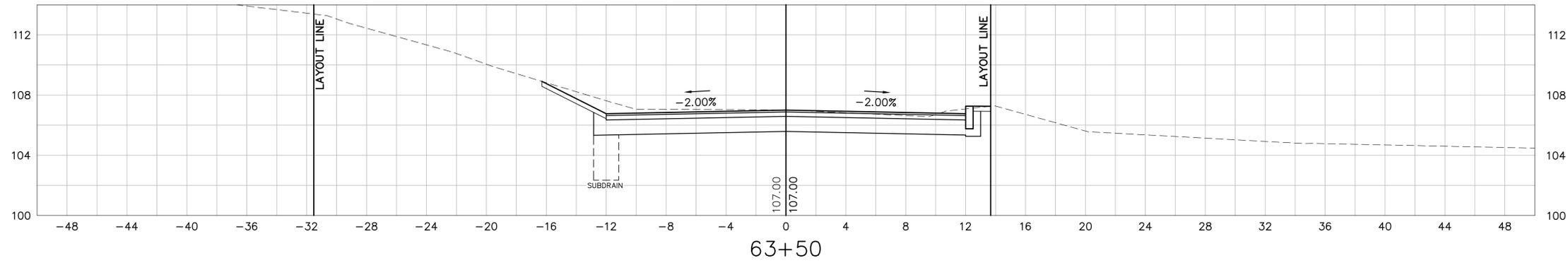
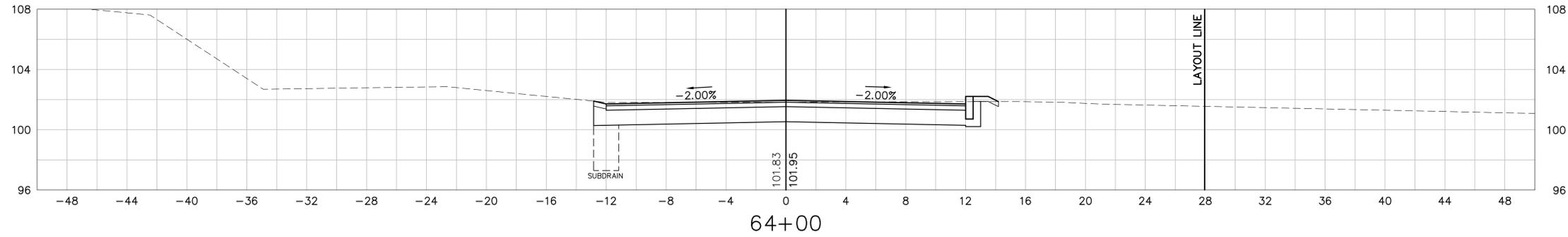
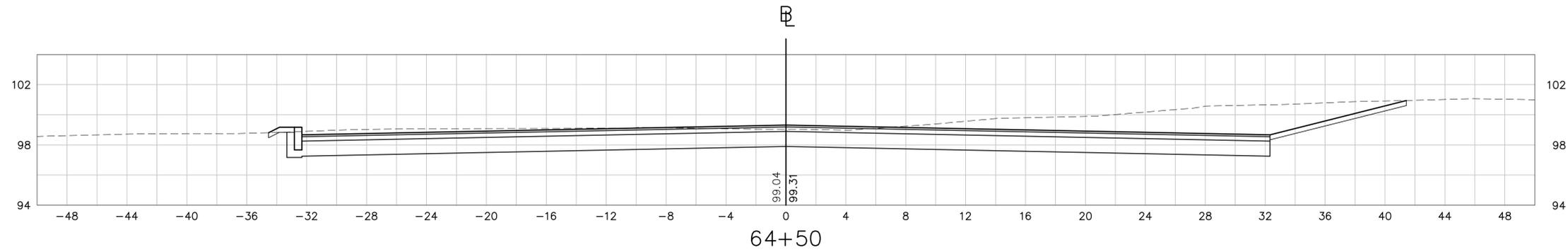
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ROADWAY IMPROVEMENT PLAN
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TOWN OF WESTFORD
 FORGE VILLAGE ROAD, MAIN STREET & FLAGG ROAD
 WESTFORD, MASSACHUSETTS
CROSS SECTIONS FLAGG ROAD
STA. 63+00 - 64+50



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WETLAND REPLICATION SPECIFICATIONS & GENERAL NOTES

REPLICATION SITE SELECTION

THE WETLAND REPLICATION AREA SELECTED IS PROPOSED NEAR THE BORDERING VEGETATED WETLAND. THE PROPOSED WETLAND REPLICATION IS 156 S. F. AND WILL CONSIST OF PLANTING (5) WETLAND SHRUBS. THE REPLICATION AREA SHOULD READILY TAKE BECAUSE IT IS LOCATED ADJACENT TO THE MAIN WETLAND AREA. IN ADDITION IT IS LOCATED ADJACENT TO THE NATURAL WETLAND AND THIS WILL AID IN REVEGETATION BY OPPORTUNISTIC NATIVE SPECIES.

HYDROLOGY

THE HYDROLOGY AT THE REPLICATION SITE IS CRITICAL IN CONTROLLING THE PLANT COMMUNITY THAT DEVELOPS, AND MANY OF THE ECOLOGICAL FUNCTIONS OF THE SITE. THERE WILL BE UNRESTRICTED HYDRAULIC CONNECTIONS BETWEEN THE REPLICATED WETLAND AND WATER SOURCE. THE REPLICATION AREA WILL BE EXCAVATED TO THE GROUNDWATER ELEVATION, AND SHALL BE FED BY THE INTERMITTENT STREAM FLOW. INITIAL EXCAVATION FOR THE REPLICATION AREA SHALL BE CONDUCTED AT THE SAME TIME AS THE WETLAND FILLING. FINISHED GRADES OF THE REPLICATION AREA SHALL BE ADJUSTED IN THE FIELD BY A QUALIFIED WETLAND SCIENTIST TO ASSURE PROPER HYDROLOGIC CONNECTION WITH ADJACENT WETLAND AND PROPER RELATION TO GROUNDWATER ELEVATIONS TO ASSURE THE AREA WILL PERMANENTLY FUNCTION AS WETLAND.

SOILS

AN IMPORTANT FACTOR IN THE SUCCESS OF A REPLICATION AREA IS THE PROPER USE OF SOILS EITHER TRANSLOCATED (I.E. THE RELOCATION AND REUSE OF HYDRIC SOILS FROM THE IMPACTED RESOURCE AREA TO THE PROPOSED REPLICATION AREA) FROM THE IMPACTED WETLAND OR SOIL AMENDMENTS BROUGHT FROM OFF-SITE.

SOIL TRANSLOCATION

SOIL TRANSLOCATION IS THE PREFERRED METHODOLOGY FOR OBTAINING REPLICATION SOILS. SINCE THIS IS NOT POSSIBLE BECAUSE THE SITE CONTAINS INVASIVE PLANT SPECIES COMPOSTED LEAF LITTER WILL BE MIXED WITH SOIL AS AN AMENDMENT. A WETLAND SCIENTIST, PRIOR TO THE USE AND INSTALLATION OF SOIL, PRIOR TO PLACEMENT OF HYDRIC SOILS IN THE REPLICATION AREA, ALL EXCAVATION OF THE REPLICATION AREA TO APPROPRIATE SUBGRADE ELEVATIONS SHOULD BE COMPLETED. SOIL TAKEN FROM AREAS WHERE THE INVASIVE SPECIES ARE PRESENT SHOULD ALWAYS BE AVOIDED. A QUALIFIED SOIL SCIENTIST SHALL INSPECT THE EXCAVATED AREA.

SOIL AMENDMENTS

COMPOSTED LEAF LITTER IS TO BE MIXED WITH TOPSOIL AS AN AMENDMENT. THE OBJECTIVE IS TO OBTAIN APPROXIMATELY 50% ORGANIC MATERIAL/TOPSOIL. AFTER THE SOIL IS MANAGED FOR PROPER CONSISTENCY (E.G. LOOSE TO FRIABLE), THE SOIL CONSISTENCY SHOULD BE TESTED. IF THE PROPER CONSISTENCY HAS NOT BEEN ACHIEVED, FURTHER EFFORTS SHOULD BE UNDERTAKEN TO ACHIEVE PROPER CONSISTENCY. SURVEYING OF SUBGRADES AND FINISHED ELEVATIONS SHOULD BE CONDUCTED FREQUENTLY DURING CONSTRUCTION. TO SUPPLEMENT ORGANIC MATERIAL, IT IS RECOMMENDED THAT COURSE WOODY DEBRIS (E.G. LOGS) BE SCATTERED ON THE REPLICATION AREA IN BETWEEN PLANTINGS TO ADD STRUCTURE AND A LONG-TERM SOURCE OF DECAYING ORGANIC MATERIAL, TO COVER AT LEAST FIVE PERCENT OF THE AREA. SOILS TO BE USED AT THE MITIGATION SITE SHOULD BE USED IMMEDIATELY IF POSSIBLE AND STOCKPILED FOR AS LITTLE TIME AS POSSIBLE. WHILE STOCKPILED, THE SOILS SHOULD BE KEPT WET AND NOT BE ALLOWED TO DRY OUT. CONTAMINATION OF THESE SOILS SHOULD BE PREVENTED. THEY SHOULD BE TRANSPORTED IN VEHICLES THAT HAVE BEEN WASHED SO THAT NO EXOTIC/INVASIVE SEEDS FROM OTHER SITES GET MIXED IN WITH THEM.

PLANTING REQUIREMENTS

A QUALIFIED PROFESSIONAL WITH TRAINING IN WETLAND SCIENCE, SHALL OVERSEE PLANTING PROCEDURES. WETLAND PLANTS FROM THE EXISTING WETLAND SHOULD BE REMOVED IN PLUGS OR CLUMPS AND PROTECTED AGAINST DESICCATION. SHRUBS SHOULD BE ROOT PRUNED PRIOR TO TRANSPORTING. PLANTS SHOULD BE PLANTED WITHIN ONE DAY OF REMOVAL FROM EXISTING WETLAND OR AS SOON AS POSSIBLE AND PROPERLY PROTECTED (E.G. BURLAP), WATERED AND HANDLED. SHRUBS SHOULD BE PLANTED 8-10 FEET ON CENTER IN A RANDOM PATTERN. THE FOLLOWING IS A LIST OF ACCEPTABLE WETLAND PLANTS THAT MAY BE USED:

COMMON NAME	LATIN NAME
ARROW-WOOD	VIBURNUM DENTATUM
AZALEA, SWAMP	RHOODODENDRON VISCOSUM
DOGWOOD, SILKY	CORNUS AMOMUM
DOGWOOD, GRAYSTEM	CORNUS FOEMINA RACEMOSA
WINTERBERRY, COMMON	ILEX VERTICILLATA
HIGH BUSH BLUEBERRY	VACCINIUM CORYMBOSUM

THESE ARE ALL PERENNIAL SPECIES THAT SHOULD ADAPT TO THE CONDITIONS ON SITE AND PROVIDE A GOOD BASIC WETLAND COMMUNITY. THESE SPECIES WERE CHOSEN BECAUSE THEY ARE NATIVE TO THE AREA AND SHALL READILY TAKE. SPECIES SELECTION AND DENSITY IS BASED ON AVAILABILITY. AS MENTIONED ABOVE (5) SMALL WETLAND SHRUB SPECIES SHALL BE PLANTED. IN ADDITION A NEW ENGLAND WETMIX WILL BE APPLIED TO THE WETLAND REPLICATION AREA TO INITIATE GROWTH. THE WETLAND SEED MIX CONTAINS A WIDE VARIETY OF NATIVE SEEDS THAT ARE SUITABLE FOR MOST WETLAND REPLICATION AND RESTORATION SITES THAT ARE NOT PERMANENTLY INUNDATED. ALL SPECIES ARE SUITABLE TO MOIST DISTURBED GROUND AS FOUND IN MOST WET MEADOWS, SCRUB SHRUB, OR FORESTED WETLAND RESTORATION AREAS. THE WETLAND SEED MIX CAN BE PURCHASED FROM NEW ENGLAND WETLAND PLANTS, INC. IN AMHERST, MA (413) 548-8000 WWW.NEWP.COM.

INVASIVE SPECIES

IF THE FOLLOWING INVASIVE SPECIES ARE FOUND GROWING IN REPLICATION AREAS, MEASURES SHOULD BE TAKEN TO ELIMINATE THEM AS SOON AS POSSIBLE BY HAND WEEDING. SOILS FROM EXISTING WETLANDS CONTAINING THESE SPECIES SHOULD NEVER BE USED IN REPLICATION AREAS.

- PURPLE LOOSESTRIPE (LYTHRUM SALICARIA)
- PHRAGMITES (PHRAGMITES AUSTRALIS)
- BUCKTHORN (RHAMNUS FRANGULA ALNUS)
- HONEYSUCKLES (LONICERA SPP.)
- GARLIC MUSTARD (ALLIARIA PETIOLATA)
- JAPANESE KNOTWEED (POLYGONUM CUSPIDATUM OR FALLOPIA JAPONICA)
- JAPANESE STILT GRASS (MICROSTEGIUM VIRGINEURUM)
- REED CANARY GRASS (PHALARIS ARUNDINACEA)
- BITTERSWEET NIGHTSHADE (CELASTRUS ORBICULATUS)
- BLACK SWALLOW-WORT (CYNANCHUM NIGRUM)
- PALE SWALLOW-WORT (CYNANCHUM ROSSICUM)

TRUCKS THAT HAVE PREVIOUSLY BEEN ON OTHER SITES SHOULD BE WASHED PRIOR TO INTRODUCTION TO THE REPLICATION SITE SO THAT MUD/DIRT WITH EXOTIC/INVASIVE SEEDS IS NOT INADVERTENTLY BROUGHT TO THE REPLICATION SITE.

TIMING OF PLANTINGS

ALL PLANTING SHOULD OCCUR AT THE BEGINNING OR END OF THE GROWING SEASON. FALL PLANTINGS SHOULD BE DONE BEFORE THE FIRST FROST. SHRUBS AND TREES, HOWEVER, MAY BE PLANTED UP TO NOVEMBER 15, WEATHER PERMITTING.

EROSION CONTROL

EROSION CONTROLS WILL BE PLACED ALONG THE BOUNDARY OF THE WETLAND REPLICATION AREA. UPON COMPLETION OF THE REPLICATION AREA, INSTALLATION OF SILT FENCING AND STRAW WATTLES BETWEEN THE REPLICATION AREA AND THE ADJACENT UPLAND WILL BE PROVIDED TO PREVENT SILT FROM ENTERING THE REPLICATION AREA. PRIOR TO PERMANENT ESTABLISHMENT OF VEGETATION IN THE REPLICATION AREA, SOILS WILL BE TEMPORARILY STABILIZED TO PREVENT IMPACTS FROM EROSION BY MULCHING AND SEEDING WITH A WETLAND SEED MIXTURE UNTIL RE-ESTABLISHMENT OF WETLAND VEGETATION OCCURS. HYDRO SEEDING IS A VALUABLE EROSION CONTROL MEASURE AND MAY DISCOURAGE COLONIZATION BY INVASIVE SPECIES. ALL EMBANKMENT SLOPES ADJACENT TO WETLAND REPLICATION AREAS SHOULD HAVE SLOPES NO GREATER THAN 2H:1V UNLESS STABILIZED BY STRUCTURAL MEANS. BIOENGINEERING STABILIZATION METHODS ARE RECOMMENDED FOR SLOPE STABILIZATION. ORGANIC SOILS AND WETLAND VEGETATION SHOULD NOT BE PLACED IN THE REPLICATION AREA UNTIL THE WETLAND SCIENTIST HAS VERIFIED THAT THE FINAL EXCAVATED GRADE FOR THE REPLICATION AREA WILL ALLOW THE FINISHED GRADE OF THE REPLICATION SITE TO MEET THE DESIGN SPECIFICATIONS. FOLLOWING EXCAVATION WORK, FINAL GRADING AND LANDSCAPING SHOULD BE COMPLETED AS SOON AS POSSIBLE TO MINIMIZE EROSION. ALL EXPOSED SOIL WILL BE STABILIZED USING SEED-FREE MULCH OR OTHER APPROPRIATE EROSION CONTROL MEASURES IN THE EVENT THAT SEASONAL CONDITIONS RESULT IN A DELAY IN PLANTING. IF THE SITE IS EXCAVATED TO THE SUBGRADE IN THE FALL AND A DELAY IS INEVITABLE, CONSIDERATION SHOULD BE GIVEN TO STABILIZING THE SITE FOR WINTER, AND CONDUCTING FINAL GRADING IN THE SPRING. USE OF HYDRO SEEDING HAS BEEN FOUND TO STABILIZE A SITE QUICKLY AND MAY POSSIBLY HINDER GROWTH OF INVASIVE SPECIES. EROSION CONTROL MEASURES SUCH AS STRAW WATTLES AND SILT FENCES SHALL BE REMOVED AS SOON AS THE SITE IS STABLE TO ALLOW FOR PROPER HYDROLOGIC CONDITIONS.

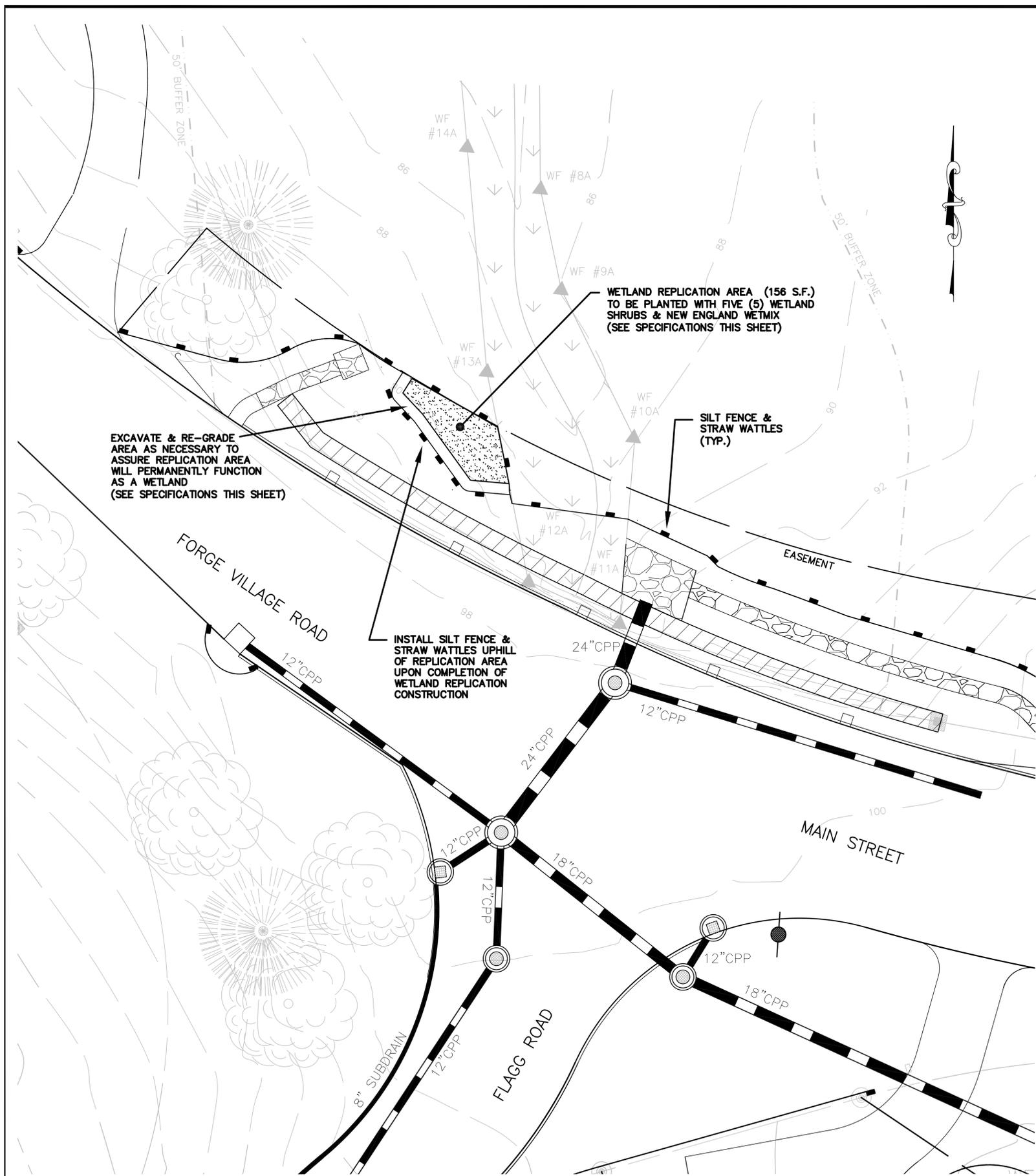
MONITORING REQUIREMENTS

MONITORING IS CRITICAL IN WETLAND REPLICATION EFFORTS DUE TO THE COMPLEX ISSUES THAT CAN ARISE WHEN TRYING TO REPLACE THE SPECIFIC ECOLOGICAL CONDITIONS OF WETLANDS. MONITORING TO ENSURE THAT THE PROJECT IS BUILT ACCORDING TO THE DESIGN SPECIFICATIONS WILL ENSURE THAT THE MOST COMMON CAUSE OF FAILURE IS AVOIDED. A QUALIFIED WETLAND SCIENTIST SHALL BE ON-SITE TO MONITOR THE EXCAVATION, GRADING, AND PLANTING OF THE REPLICATION AREA. THE WETLAND SCIENTIST SHALL BE PRESENT DURING THE MOST IMPORTANT TASKS IN REPLICATION CONSTRUCTION INCLUDING:

1. BEFORE EXCAVATION OR EROSION CONTROL INSTALLATION WORK BEGINS TO INSPECT SITE FLAGGING;
2. DURING EXCAVATION OF THE ALTERED AREA IF VEGETATION IS TO BE TRANSLOCATED TO THE REPLICATION AREA TO ENSURE SURVIVAL OF THE PLANTINGS;
3. BEFORE SOIL TRANSLOCATION OR ADDITION INTO THE REPLICATION AREA TO INSPECT EXCAVATED ELEVATIONS AND LIKELY POST-CONSTRUCTION GROUND WATER ELEVATIONS FOR THE REPLICATION AREA;
4. AFTER EACH STAGE OF GRADING WORK IS COMPLETED TO INSPECT FINISHED ELEVATIONS;
5. DURING PLANTING AND SEEDING AND AFTER THE FIRST MONTH OF THE GROWING SEASON TO INSPECT PROPAGATION TECHNIQUES.

GENERAL NOTES

1. ALL WETLAND REPLICATION WORK SHALL BE PERFORMED UNDER THE DIRECTION OF A QUALIFIED WETLAND SCIENTIST AND IN ACCORDANCE WITH THE ORDER OF CONDITIONS ISSUED BY THE WESTFORD CONSERVATION COMMISSION ON JULY 28, 2011 (MASSDEP FILE # 334-1512) AND THE SPECIFICATIONS AND PROCEDURES OUTLINED ON THIS SHEET.
2. ALL WORK, MATERIALS, ETC. REQUIRED TO CONSTRUCT THE WETLAND REPLICATION AREA SHALL BE INCLUDED IN THE BID PRICE.
3. THE TOWN OF WESTFORD SHALL BE RESPONSIBLE FOR THE LONG TERM MONITORING AND REPORTING REQUIRED FOR THE WETLAND REPLICATION AREA UPON FINAL PROJECT CLOSEOUT. MONITORING REQUIREMENTS CAN BE FOUND IN THE REPORT ENTITLED "WETLAND REPLICATION REPORT FOR FORGE VILLAGE ROAD & MAIN STREET, WESTFORD, MA" PREPARED BY NORSE ENVIRONMENTAL SERVICES, INC. DATED JUNE 2012. THE TOWN SHALL ALSO BE RESPONSIBLE FOR THE PREPARATION OF AN AS-BUILT PLAN AND FOR REQUESTING A CERTIFICATE OF COMPLIANCE WITH THE WESTFORD CONSERVATION COMMISSION.



WETLAND REPLICATION PLAN
SCALE: 1"=10'

TOWN OF WESTFORD, MASSACHUSETTS
ENGINEERING DEPARTMENT
28 North Street • Westford, Massachusetts 01886
(978) 692-5520



ROADWAY IMPROVEMENT PLAN
PREPARED FOR

TOWN OF WESTFORD
FORGE VILLAGE ROAD, MAIN STREET & FLAGG ROAD
WESTFORD, MASSACHUSETTS

BW REPLICATION PLAN

JOB DATA		REVISIONS	
PROJECT	FLAGG ROAD	NO.	DESCRIPTION
BOOK NO.			
DESIGNED	JRD		
DRAWN	JRD		
CHECKED	PMS		
COGO FILE			
FILE	FLAGG ROAD REPLICATION		

DATE: 02/28/2013

SCALE: AS SHOWN

PROJECT #