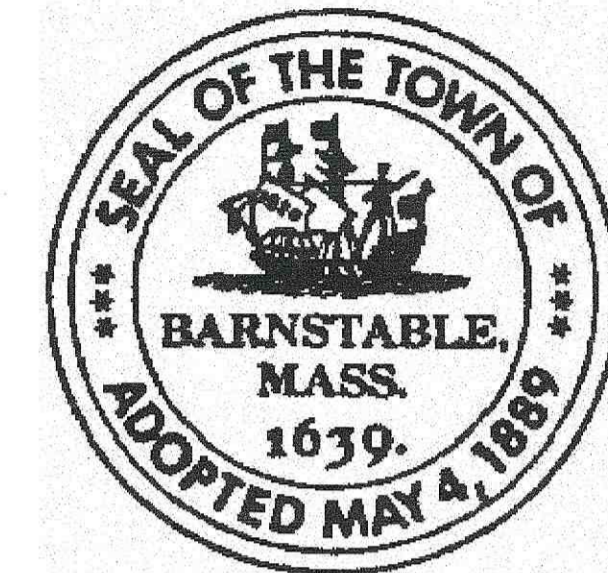


TRANSPORTATION IMPROVEMENTS ALONG MAIN STREET (ROUTE 6A) AND MILLWAY BARNSTABLE, MA

OCTOBER 2018



PREPARED FOR:

DEPARTMENT OF PUBLIC WORKS
TOWN OF BARNSTABLE
382 FALMOUTH ROAD
HYANNIS, MA 02601

PREPARED BY:

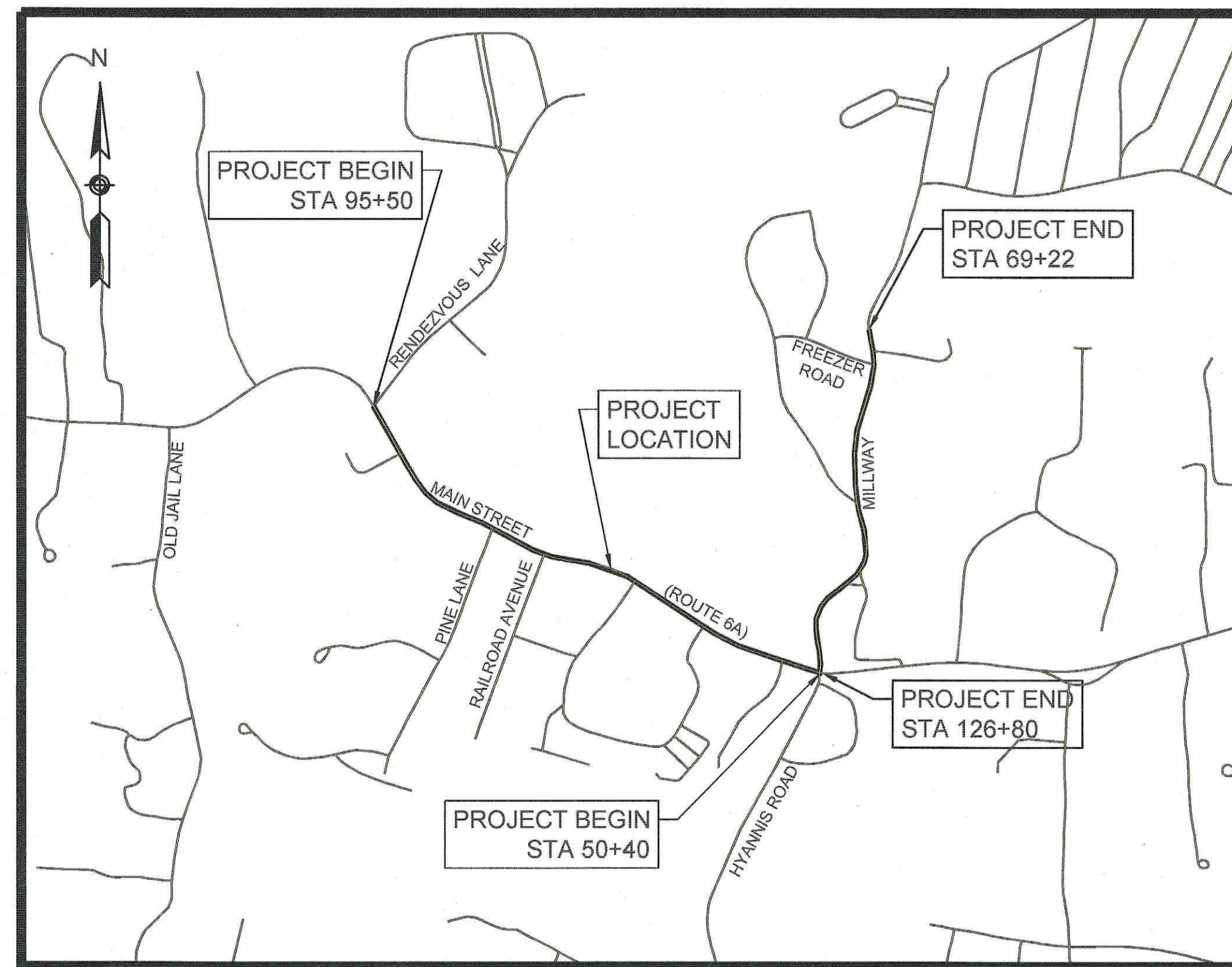
ENVIRONMENTAL PARTNERS GROUP, INC.
1900 CROWN COLONY DRIVE, SUITE 402
QUINCY, MA 02169
P: 617-657-0200
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Environmental Partners
A partnership for engineering solutions. **GROUP**

with
Offshoots, Inc.
547 RUTHERFORD AVENUE
CHARLESTOWN, MA 02129



SHEET NO.	DESCRIPTION
01	TITLE SHEET & INDEX
02	LEGEND & ABBREVIATIONS
03	KEY PLAN
04	GENERAL NOTES
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86-90	LANDSCAPE DETAILS
91-99	ELECTRICAL / LIGHTING PLANS
100-101	CULVERT PLANS
102-106	CRITICAL CROSS SECTIONS

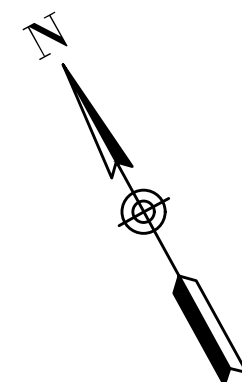


LOCUS

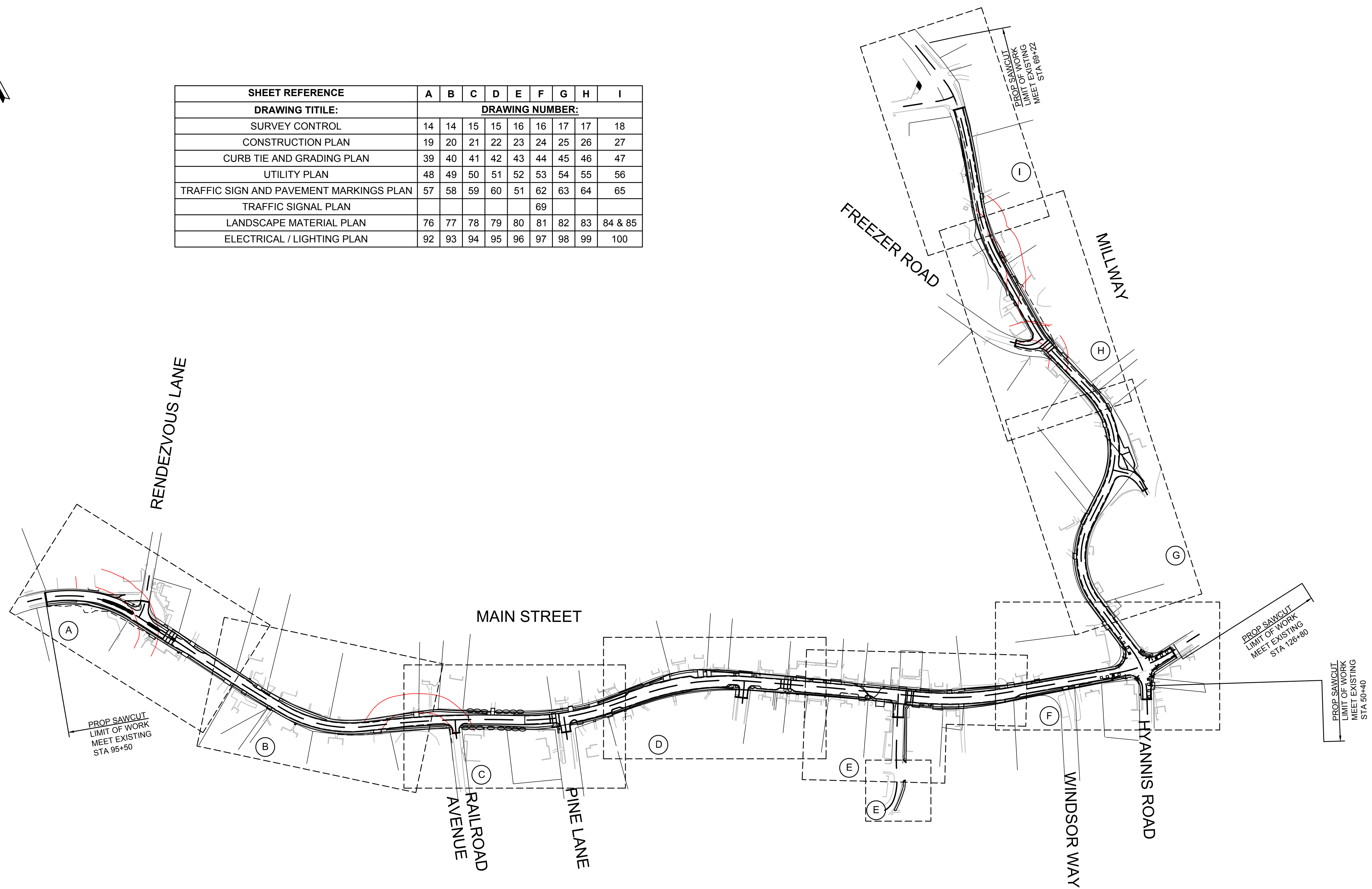
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FINAL SUBMISSION

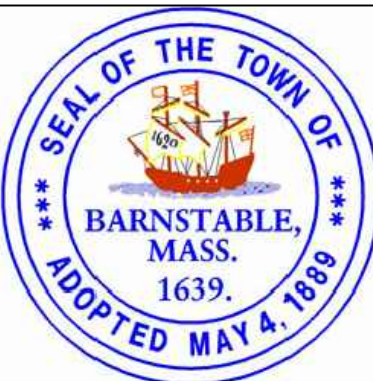




SHEET REFERENCE	A	B	C	D	E	F	G	H	I
DRAWING TITLE:	DRAWING NUMBER:								
SURVEY CONTROL	14	14	15	15	16	16	17	17	18
CONSTRUCTION PLAN	19	20	21	22	23	24	25	26	27
CURB TIE AND GRADING PLAN	39	40	41	42	43	44	45	46	47
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LANDSCAPE MATERIAL PLAN	76	77	78	79	80	81	82	83	84 & 85
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Drawing file: I:\Barnstable\2711271-1607-00 Barnstable - Improvement along Main Street (Route 6A)\ACAD\Sheet\03 - Key Plan.dwg Plot Date: Oct 22, 2018 - 4:37pm



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MARK	DATE	DESCRIPTION	Scale	AS NOTED
			Date	OCTOBER 2018
			Job No.	271-1607
03	10/19/18	REVISED FINAL SUBMISSION	Designed by	JRC
02	08/22/18	FINAL SUBMISSION	Drawn by	KMB
01	08/01/18	DRAFT PRELIMINARY DESIGN SUBMISSION	Checked by	BLH
			Approved by	JDF

THIS LINE IS ONE INCH LONG WHEN PLOTTED AT FULL SCALE ON A 22" X 34" DRAWING

TRANSPORTATION IMPROVEMENTS
 ALONG MAIN STREET (ROUTE 6A) AND MILLWAY
 BARNSTABLE, MASSACHUSETTS

KEY PLAN

NOT FOR CONSTRUCTION

Sheet No.

03

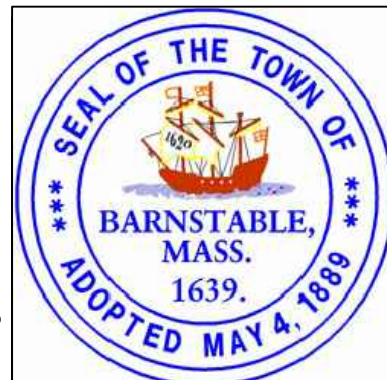
GENERAL NOTES:

1. CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE FOLLOWING: THE MASSACHUSETTS HIGHWAY DEPARTMENT STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES DATED 1988, AS AMENDED, THE SUPPLEMENTAL SPECIFICATIONS DATED JULY 1, 2015, THE 2017 CONSTRUCTION STANDARD DETAILS, THE 1996 CONSTRUCTION AND TRAFFIC STANDARD DETAILS (AS RELATES TO TRAFFIC STANDARD DETAILS ONLY), THE LATEST MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS WITH LATEST REVISIONS AND MASSACHUSETTS AMENDMENTS, 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.
2. THE TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED ON AN ON-THE-GROUND SURVEY PERFORMED BY ALLEN AND MAJOR ASSOCIATES, INC. BETWEEN NOVEMBER 2016 AND DECEMBER 2016.
3. BOUNDARY AND RIGHT-OF-WAY LINES SHOWN HEREON ARE APPROXIMATE AND ARE BASED ON A COMPILATION OF RECORD INFORMATION, OBSERVABLE EVIDENCE AND PHYSICAL OCCUPATION. A BOUNDARY SURVEY OF INDIVIDUAL PARCELS WAS NOT PERFORMED.
4. SUBSURFACE UTILITY INFORMATION SHOWN HEREON IS APPROXIMATE AND IS BASED ON A COMPILATION OF RECORD INFORMATION AND OBSERVABLE EVIDENCE. A SUBSURFACE INVESTIGATION WAS NOT PERFORMED.
5. THE BEARINGS AND DISTANCES AND THE COORDINATES THEY ARE BASED ON SHOWN ON THIS PLAN ARE IN U.S. SURVEY FEET IN THE MA. STATE PLANE COORDINATE SYSTEM REFERENCED TO THE NORTH AMERICAN DATUM OF 1983 (NAD83), CORS ADJUSTMENT (NA2011/GEOID 12A) AS DETERMINED BY GPS OBSERVATIONS PERFORMED IN NOVEMBER OF 2016 UTILIZING MAINE TECHNICAL SOURCE RTK GPS NETWORK.
6. THE VERTICAL DATUM FOR THIS PROJECT IS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88), CORS ADJUSTMENT (NA2011/GEOID 12A) AS DETERMINED BY REDUNDANT GPS OBSERVATIONS PERFORMED IN NOVEMBER OF 2016 UTILIZING THE MAINE TECHNICAL SOURCE RTK GPS NETWORK.
7. RIGHT-OF-WAY LINES SHOWN HEREON ARE BASED ON A COMPILATION OF RECORD PLANS AND DEEDS OBTAINED FROM THE PUBLIC RECORDS.
8. THE CONTRACTOR SHALL NOT STORE ANY APPARATUS, MATERIALS, SUPPLIES, OR EQUIPMENT ON DRAINAGE STRUCTURES, PRIVATE PROPERTY OR WITHIN 100 FEET OF WETLANDS, UNLESS DIRECTED TO DO SO BY THE CONTRACT DOCUMENTS.
9. IT IS THE INTENT OF THE DESIGN TO PROVIDE A MINIMUM CONSTRUCTED SIDEWALK WIDTH FOR A PATH OF TRAVEL PAST ALL OBSTRUCTIONS OF 3'-0" CLEARANCE FOR HANDICAP ACCESSIBILITY (IN ACCORDANCE WITH THE LATEST A.D.A. AND MASSDOT REQUIREMENTS). THE CONTRACTOR SHALL VERIFY THAT ALL POTENTIAL OBSTRUCTIONS HAVE BEEN ADDRESSED IN THE PLANS INCLUDING BUT NOT LIMITED TO FOUNDATIONS, SIGNS, MAILBOXES, UTILITY POLES, AND HYDRANTS SO THEY ARE LOCATED TO PROVIDE THIS MINIMUM PATH OF TRAVEL CLEARANCE AND A MINIMUM 18" TYPICAL CLEARANCE TO THE FACE OF CURB OR 12" MIN. CLEARANCE WHERE 18" IS NOT FEASIBLE OR PRACTICAL. NO UTILITY POLES OR OBSTRUCTIONS ARE PERMITTED WITHIN WHEELCHAIR RAMPS.
10. 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 DISCARDED" (R&D) OR DISPOSED OF OFF SITE WITH THE EXCEPTION OF MATERIALS LABELED AS "REMOVED AND STACKED" (R&S) WHICH SHALL BE TRANSPORTED AND AND STACKED AT A LOCATION DESIGNATED BY THE TOWN AND OR ENGINEER.
11. THE CONTRACTOR SHALL PROVIDE FOR THE SAFE AND ORDERLY PASSAGE OF VEHICULAR AND PEDESTRIAN TRAFFIC IN AREAS UNDER CONSTRUCTION.
12. 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 AND OR ENGINEER FOR RESOLUTION OF THE CONFLICT.
13. THE CONTRACTOR SHALL COORDINATE ALL ARRANGEMENTS FOR THE ALTERATION AND OR ADJUSTMENT OF ELECTRIC, TELEPHONE, GAS AND ANY OTHER PRIVATE UTILITY.
14. SHOP DRAWINGS OF ALL CASTINGS, PRECAST CONCRETE STRUCTURES, PIPE AND MANUFACTURED COMPONENTS SHALL BE SUBMITTED FOR APPROVAL BEFORE ORDERING.
15. ALL PROPOSED PAVEMENT MARKINGS SHALL MEET EXISTING MARKINGS AT THE LIMITS OF WORK.
16. DETECTABLE WARNING PANELS SHALL BE INSTALLED ON ALL WHEELCHAIR RAMPS AND SHALL COMPLY WITH CONSTRUCTION STANDARD E 107.6.5. PAYMENT FOR DETECTABLE WARNING PANELS SHALL BE CONSIDERED INCIDENTAL TO THE CONSTRUCTION OF THE WHEELCHAIR RAMPS OR SIDEWALKS IN WHICH THEY ARE BEING INSTALLED. THE COLOR OF DETECTABLE WARNING PANELS SHALL BE AT THE DIRECTION OF THE TOWN.
17. SEE SIGNS AND PAVEMENT MARKING PLANS FOR PROPOSED SIGNS AND DISPOSITION OF THE EXISTING SIGNS WITHIN THE PROJECT LIMITS OR AS DIRECTED BY THE TOWN.
18. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING OR REMODELING ALL DRAINAGE, WATER, OR SEWER STRUCTURES TO THE FINISHED ELEVATION, WITHIN THE LIMITS OF THE PROJECT, UNLESS OTHERWISE NOTED.
19. THE CONTRACTOR SHALL PERFORM TEST PITS AT LOCATIONS WHERE DIRECTED BY THE TOWN AND OR ENGINEER.

GENERAL NOTES CONTINUED:

20. LOCATIONS OF SUBSURFACE UTILITIES SHOWN HEREON ARE APPROXIMATE AND ADDITIONAL UTILITIES MAY EXIST THAT ARE NOT SHOWN ON THIS PLAN. LOCATIONS ARE COMPILED FROM UTILITY PLANS OF RECORD, RIM AND INVERT INFORMATION HAS BEEN COMPILED AND FIELD VERIFIED WHERE POSSIBLE. THIS INFORMATION IS NOT TO BE USED FOR CONSTRUCTION. PRIOR TO ANY CONSTRUCTION, CONTRACTOR SHALL CONTACT DIG-SAFE AT (1-800-344-7233) AND COORDINATE WITH UTILITIES LISTED IN THE PROJECT BOOK TO FIELD VERIFY LOCATION OF ALL UTILITIES. SPECIAL ATTENTION IS MADE TO THE UTILITIES WITHIN THESE PROJECT LIMITS.
21. DO NOT SCALE DRAWINGS UNLESS OTHERWISE NOTED. WRITTEN DIMENSIONS SHALL PREVAIL. REPORT ANY DISCREPANCIES TO THE ENGINEER IMMEDIATELY.
22. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE REGULATIONS OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA).
23. THE CONTRACTOR SHALL RESTORE ALL PUBLIC AND PRIVATE PROPERTY TO ITS PRE-CONSTRUCTION CONDITION AT NO ADDITIONAL COST TO THE TOWN.
24. ALL EXISTING UTILITIES LINES ENCOUNTERED DURING CONSTRUCTION ARE TO REMAIN IN SERVICE. THE CONTRACTOR, AT NO ADDITIONAL COST TO THE TOWN, SHALL REPAIR ANY EXISTING SEWERS, GAS LINE, WATER MAINS, STORM DRAIN LINES, OR CULVERTS DAMAGED DURING CONSTRUCTION.
25. IN THOSE INSTANCES WHERE POWER OR TELEPHONE POLE SUPPORT IS REQUIRED, THE CONTRACTOR SHALL PROVIDE A MINIMUM 48-HOUR NOTIFICATION TO THE RESPECTIVE UTILITY COMPANY. NO ADDITIONAL PAYMENT WILL BE PROVIDED FOR TEMPORARY BRACING OF UTILITIES.
26. ALL STRUCTURES AND PIPELINES LOCATED ADJACENT TO THE TRENCH EXCAVATION SHALL BE PROTECTED AND FIRMLY SUPPORTED BY THE CONTRACTOR UNTIL THE TRENCH IS BACKFILLED. INJURY TO ANY SUCH STRUCTURE CAUSED BY, OR RESULTING FROM, THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. ALL UTILITIES REQUIRING REPAIR, RELOCATION OR ADJUSTMENT AS A RESULT OF THE PROJECT SHALL BE COORDINATED THROUGH THE RESPECTIVE UTILITY AND THE TOWN.
27. THE CONTRACTOR IS TO TAKE SPECIAL CARE NOT TO DAMAGE TREES, BUSHES, PLANTS, FLOWERS, STONEWALLS, FENCES, ETC. WITHIN THE CONSTRUCTION AREA UNLESS THEY ARE NOTED TO BE REMOVED. CONTRACTOR SHALL REPLACE AT NO COST TO OWNER, ALL DAMAGED ITEMS.
28. CONTRACTOR SHALL REMOVE AND REPLACE, OR REPAIR, ALL CURBS, SIDEWALKS, PAVEMENT AND OTHER ITEMS DAMAGED BY HIS CONSTRUCTION ACTIVITIES TO AT LEAST THEIR ORIGINAL CONDITION, AND TO THE SATISFACTION OF THE TOWN AND ENGINEER.
29. ANY TRAFFIC SIGNAL EQUIPMENT (LIGHTS, CONDUITS, LOOP DETECTORS) DISTURBED SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AS DIRECTED BY THE TOWN AT THE CONTRACTOR'S EXPENSE.
30. THE CONTRACTOR SHALL INSTALL AND MAINTAIN TRAFFIC CONTROL DEVICES AS NECESSARY AND IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
31. THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE A TELEPHONE NUMBER WHERE THE CONTRACTOR CAN BE REACHED 24 HOURS A DAY, 7 DAYS A WEEK.
32. THE LOCATION AND LIMITS OF ALL ON-SITE WORK AND STORAGE AREAS SHALL BE REVIEWED/COORDINATED WITH, AND ACCEPTABLE TO THE TOWN. THE CONTRACTOR SHALL LIMIT ACTIVITIES TO THESE AREAS.
33. THE CONTRACTOR SHALL BE REQUIRED TO TEMPORARILY PAVE ALL DISTURBED TRAVEL WAYS, SIDEWALKS & DRIVEWAYS NOT UNDER CONSTRUCTION OR IF LEFT DURING NON WORKING HOURS AND AS REQUIRED BY THE TOWN. SEE CONSTRUCTION DETAIL ON SHEET 7.

Drawing file: I:\Barnstable\271271-1-1607-00 Barnstable - Improvement along Main Street (Route 6A)\CAD\Sheet04 - General Notes.dwg Pldt Date: Oct 17 2018 3:59pm



MARK	DATE	DESCRIPTION	Scale	NTS
			Date	OCTOBER 2018
			Job No.	271-1607
03	10/19/18	REVISED FINAL SUBMISSION	Designed by	JRC
02	08/22/18	FINAL SUBMISSION	Drawn by	KMB
01	08/01/18	DRAFT PRELIMINARY DESIGN SUBMISSION	Checked by	BLH
			Approved by	JDF

THIS LINE IS ONE INCH LONG WHEN PLOTTED AT FULL SCALE ON A 22" X 34" DRAWING

**TRANSPORTATION IMPROVEMENTS
ALONG MAIN STREET (ROUTE 6A) AND MILLWAY
BARNSTABLE, MASSACHUSETTS**

GENERAL NOTES

NOT FOR CONSTRUCTION

Sheet No.

04

PAVEMENT NOTES

PROPOSED PAVEMENT MILLING & OVERLAY

SURFACE: 2" HOT MIX ASPHALT PAVEMENT TOP COURSE OVER ASPHALT EMULSION FOR TACK COAT (RS-1H) @ 0.07 GAL/SY OVER

*LEVELING: VARIABLE DEPTH AS DIRECTED OVER

MILLING: VARIABLE DEPTH PAVEMENT MILLING

PROPOSED FULL DEPTH PAVEMENT RECONSTRUCTION OR BOX WIDENING GREATER THAN 3FT

SURFACE: 2" HOT MIX ASPHALT PAVEMENT TOP COURSE OVER ASPHALT EMULSION FOR TACK COAT (RS-1H) @ 0.05 GAL/SY OVER

INTERMEDIATE: 2" HOT MIX ASPHALT PAVEMENT BINDER COURSE OVER ASPHALT EMULSION FOR TACK COAT (RS-1H) @ 0.05 GAL/SY OVER

BASE: 3 1/2" HOT MIX ASPHALT BASE COURSE OVER

SUBBASE: 4" DENSE GRADE CRUSHED STONE OVER 8" GRAVEL BORROW

PROPOSED FULL DEPTH BOX WIDENING LESS THAN 3FT

SURFACE: 2" HOT MIX ASPHALT PAVEMENT TOP COURSE OVER ASPHALT EMULSION FOR TACK COAT (RS-1H) @ 0.05 GAL/SY OVER

INTERMEDIATE: 2" HOT MIX ASPHALT PAVEMENT BINDER COURSE OVER ASPHALT EMULSION FOR TACK COAT (RS-1H) @ 0.05 GAL/SY OVER

BASE: 6" HIGH EARLY STRENGTH CEMENT CONCRETE BASE COURSE OVER

SUBBASE: 8" GRAVEL BORROW

PROPOSED HOT MIX ASPHALT DRIVEWAY

SURFACE: 1 1/2" HOT MIX ASPHALT TOP COURSE OVER ASPHALT EMULSION FOR TACK COAT (RS-1H) @ 0.05 GAL/SY OVER 2" HOT MIX ASPHALT BINDER COURSE OVER ASPHALT EMULSION FOR TACK COAT (RS-1H) @ 0.05 GAL/SY OVER

SUBBASE: 8" GRAVEL BORROW

PROPOSED HOT MIX ASPHALT SIDEWALK

SURFACE: 2 1/2" HOT MIX ASPHALT PLACED IN TWO LAYERS, 1 1/4" TOP COURSE OVER 1 1/4" BINDER COURSE

SUBBASE: 8" GRAVEL BORROW

PROPOSED HOT MIX ASPHALT SIDEWALK AT DRIVEWAYS

SURFACE: 3 1/2" HOT MIX ASPHALT PLACED IN TWO LAYERS, 1 1/4" TOP COURSE OVER 2" BINDER COURSE

SUBBASE: 8" GRAVEL BORROW

PROPOSED CEMENT CONCRETE WHEEL CHAIR RAMP

SURFACE: 4" CEMENT CONCRETE OVER

SUBBASE: 8" GRAVEL BORROW

PROPOSED LOAM & SEED

SURFACE: 4" LOAM BORROW

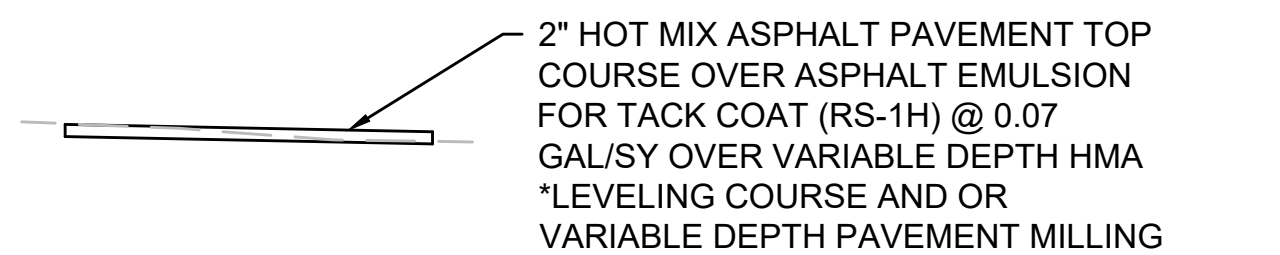
SUBBASE: VARIABLE DEPTH SUITABLE EXCAVATED MATERIAL OR ORDINARY BORROW (AS DIRECTED)

PROPOSED BRICK SIDEWALK

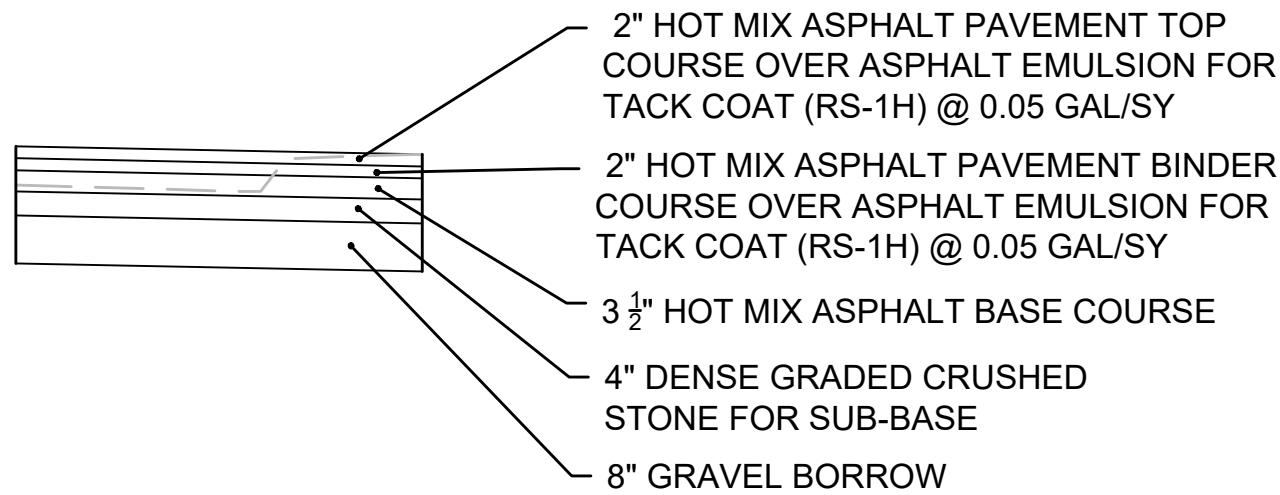
SURFACE: EXISTING BRICK RESET, INTEGRATED WITH NEW CLAY BRICK PAVER AS DIRECTED, JOINT FILLED WITH POLYMERIC SAND

SUBBASE: 2% NEOPRENE MODIFIED ASPHALT ADHESIVE OVER 3/4" BITUMEN SETTING BED (93% SAND, 7% ASPHALT). OVER 4" MIN. COMPACTED BITUMINOUS CONCRETE, OVER TACK ADHESIVE BASE. 8" 95% COMPACTED AGGREGATE (3/4" TOP SIZE)

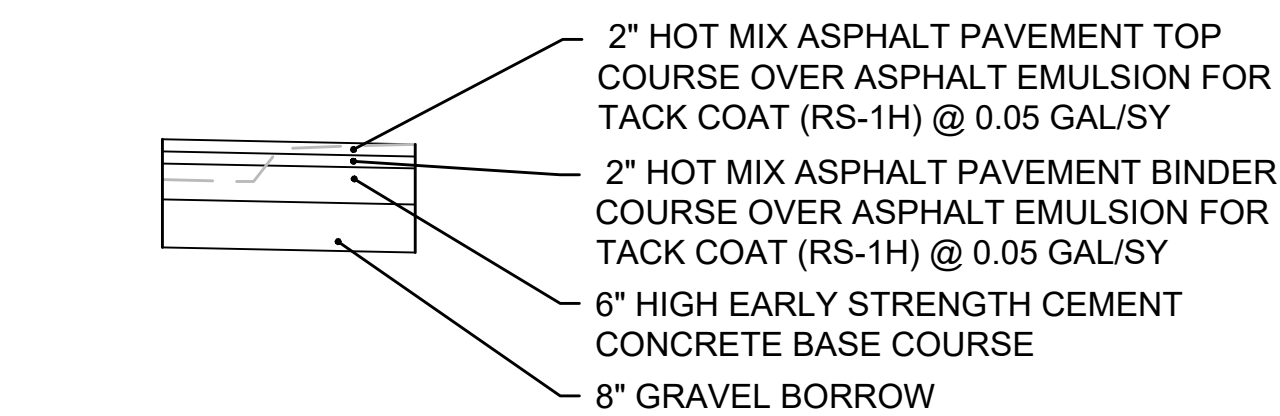
PAVEMENT DETAILS



PROPOSED PAVEMENT MILLING & OVERLAY



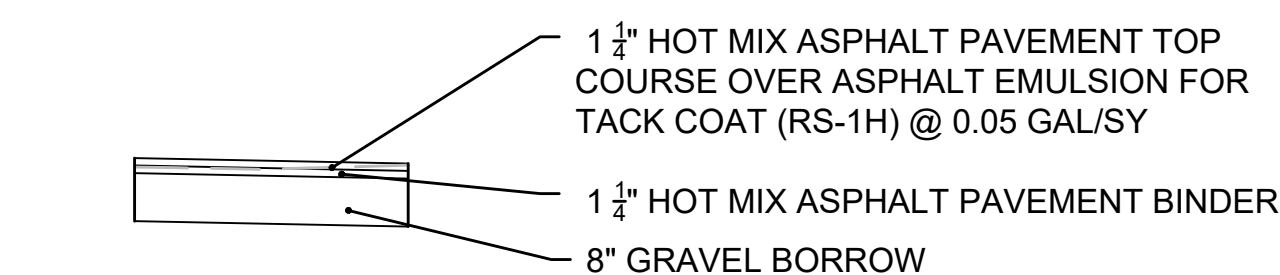
PROPOSED FULL DEPTH PAVEMENT RECONSTRUCTION OR BOX WIDENING GREATER THAN 3FT



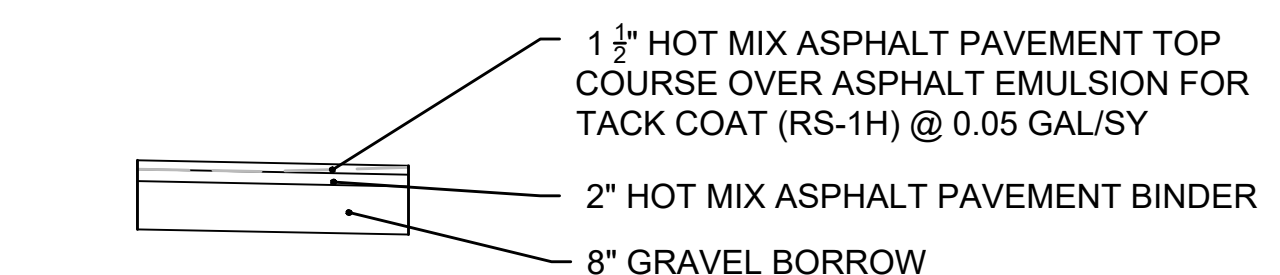
PROPOSED FULL DEPTH BOX WIDENING LESS THAN 3FT



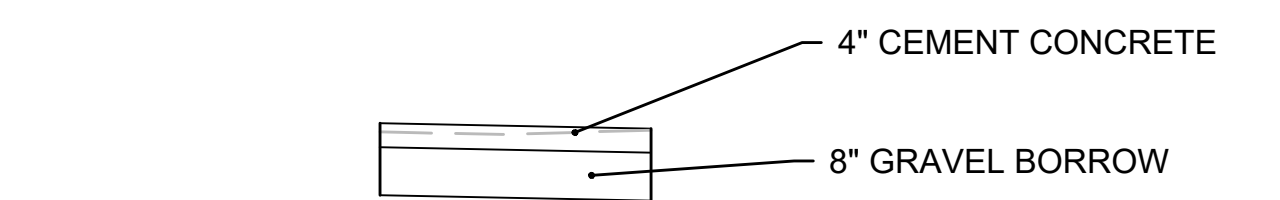
PROPOSED HOT MIX ASPHALT DRIVEWAY



PROPOSED HOT MIX ASPHALT SIDEWALK



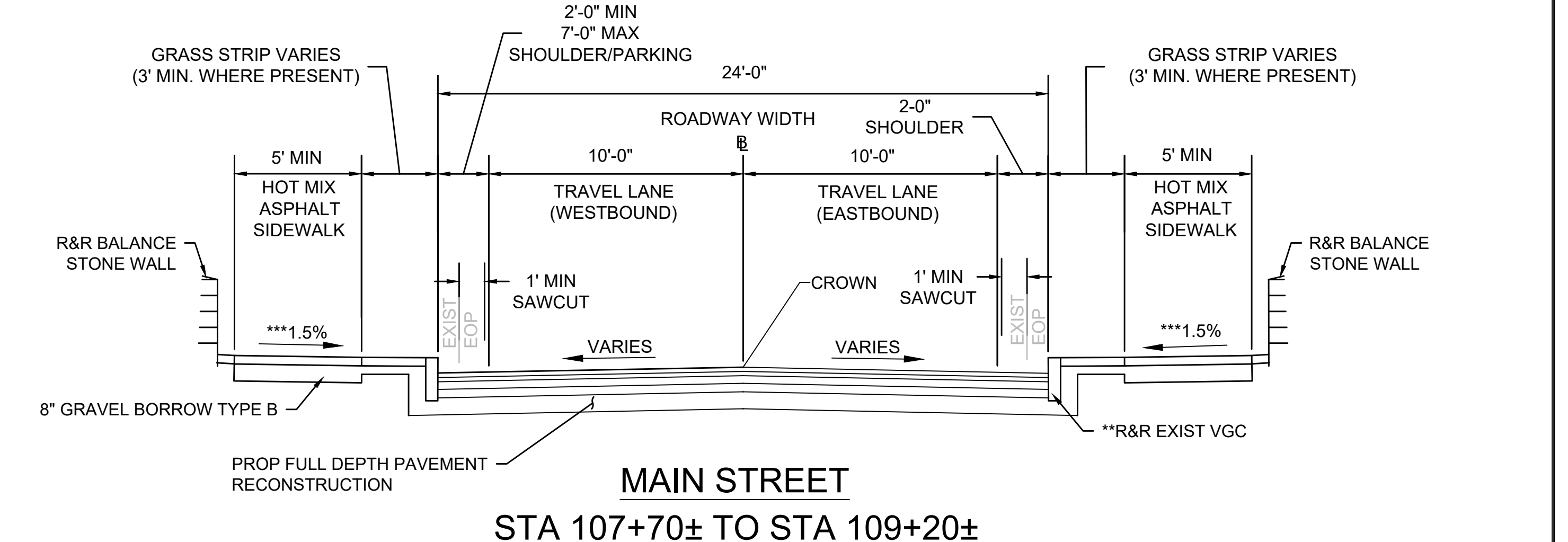
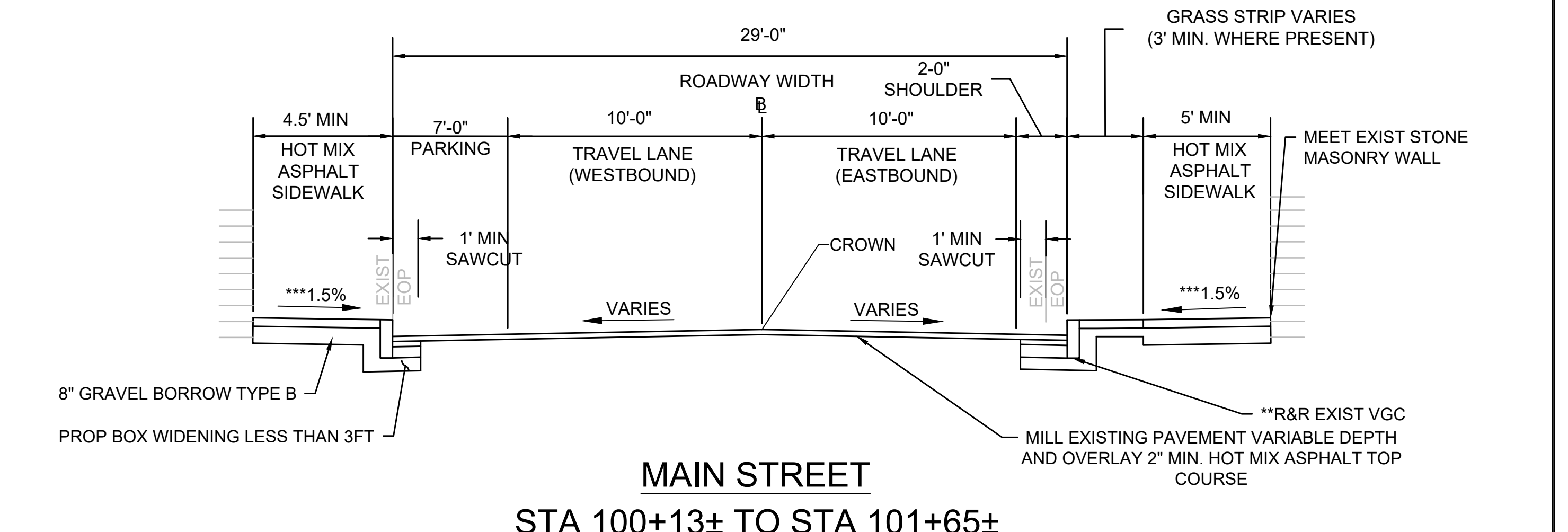
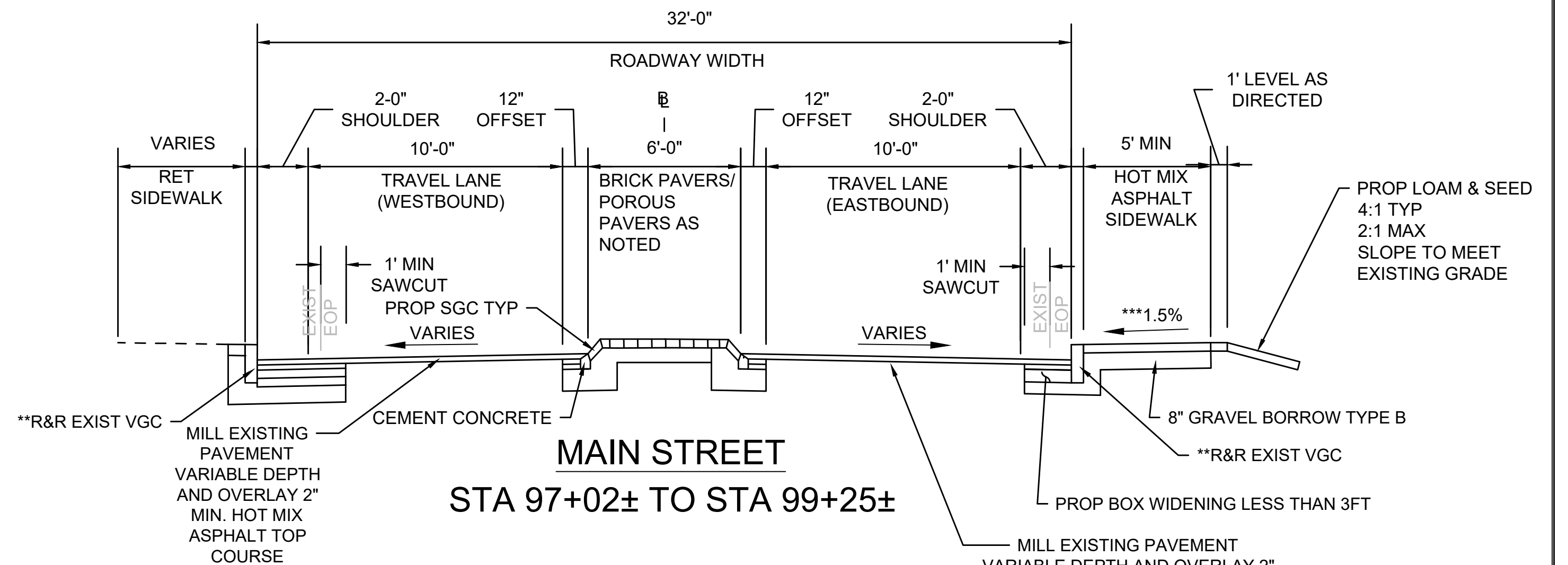
PROPOSED HOT MIX ASPHALT SIDEWALK AT DRIVEWAYS



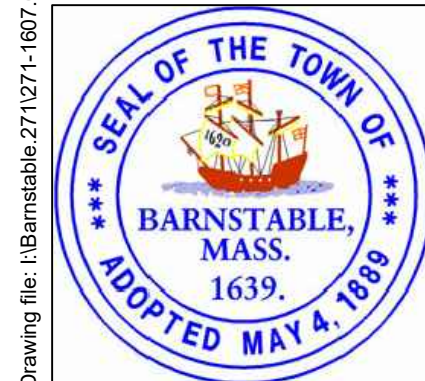
PROPOSED CEMENT CONCRETE WHEELCHAIR RAMP

NOTES:

- * LEVELING COURSE TO BE PAID FOR UNDER ITEM 460. HOT MIX ASPHALT AT THE DIRECTION OF THE TOWN AND OR ENGINEER
- ** PROPOSED NEW GRANITE CURB TYPE VA-4 AS DIRECTED BY THE TOWN AND/OR ENGINEER
- *** 0.5%± CONSTRUCTION TOLERANCE



Drawing file: I:\Barnstable\271271-1607-00 Barnstable - Improvement along Main Street (Route 6A)\ACAD\Sheet\04 - Typical.dwg Plot Date: Nov 05 2018 6:24pm



MARK	DATE	DESCRIPTION	Scale	NTS
			Date	OCTOBER 2018
			Job No.	271-1607
03	10/19/18	REVISED FINAL SUBMISSION	Designed by	JRC
02	08/22/18	FINAL SUBMISSION	Drawn by	KMB
01	08/01/18	DRAFT PRELIMINARY DESIGN SUBMISSION	Checked by	JRC
			Approved by	JDF

Scale: NTS
Date: OCTOBER 2018
Job No.: 271-1607
Designed by: JRC
Drawn by: KMB
Checked by: JRC
Approved by: JDF

THIS LINE IS ONE INCH LONG WHEN PLOTTED AT FULL SCALE ON A 22" X 34" DRAWING

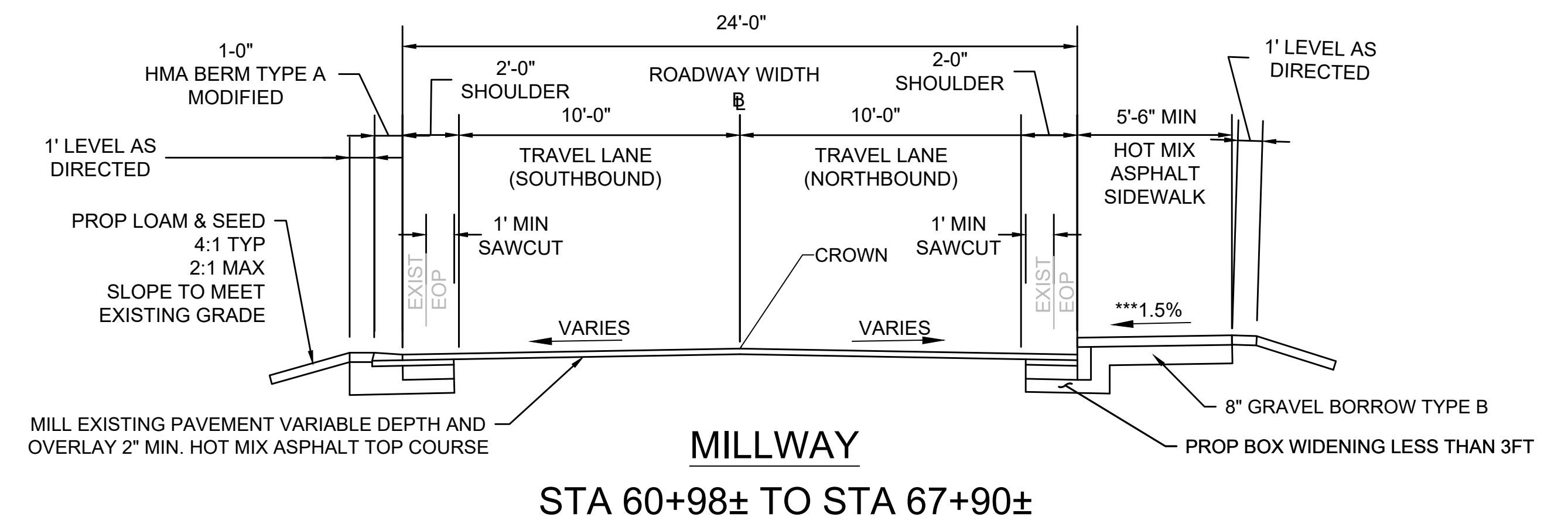
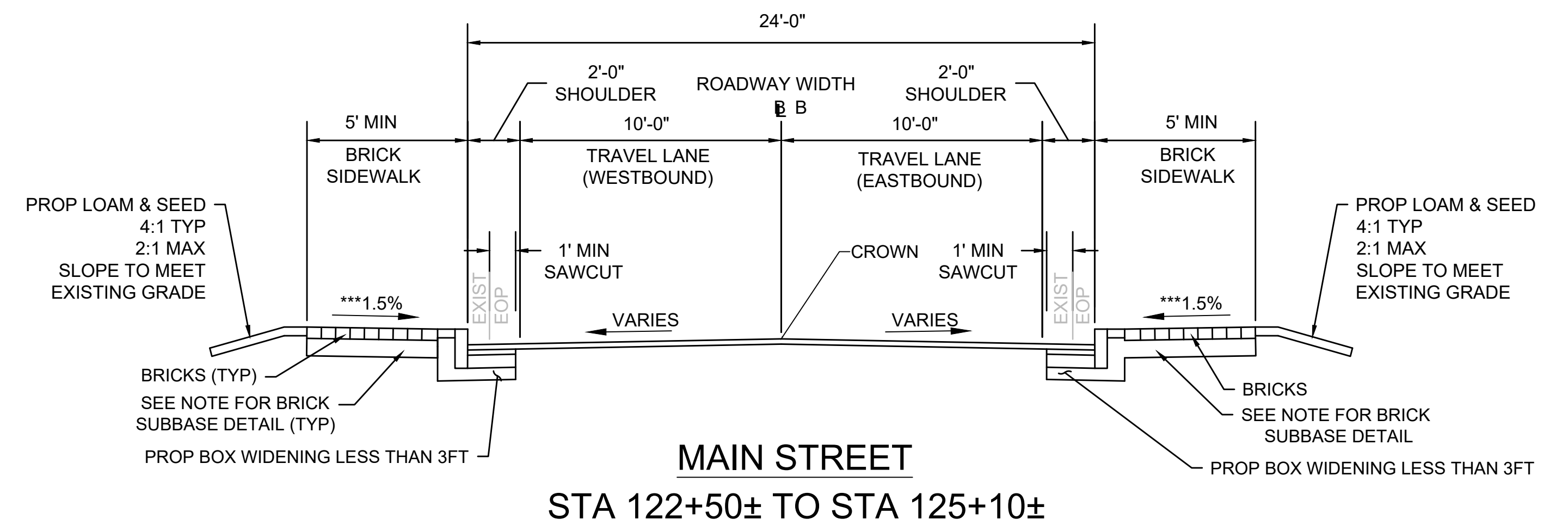
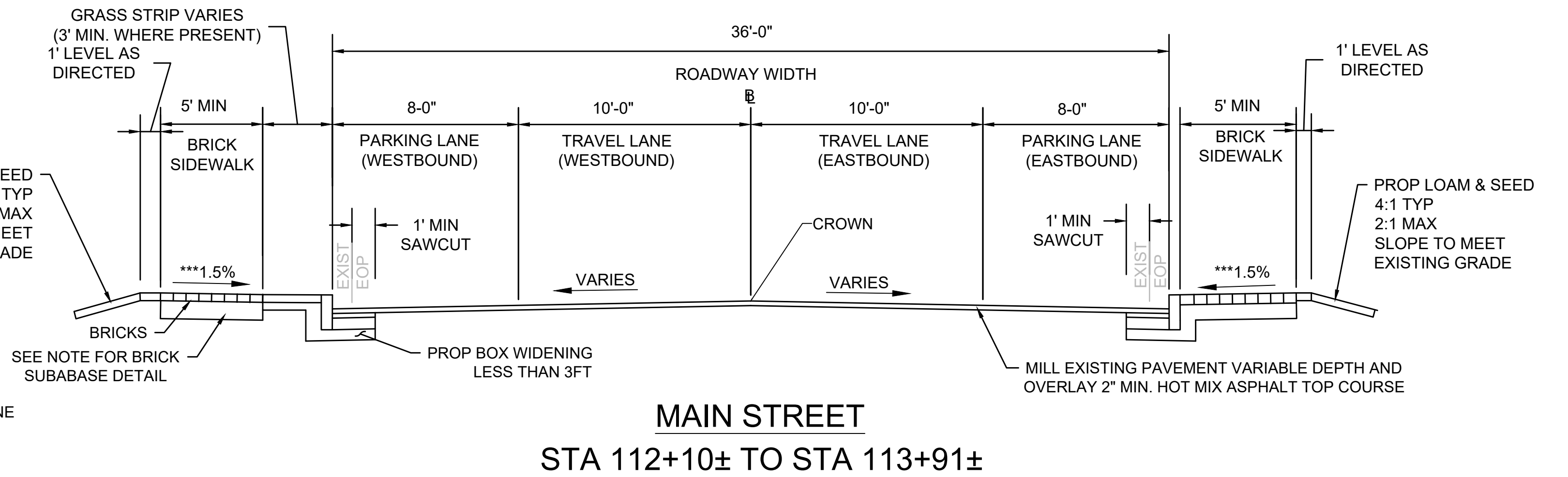
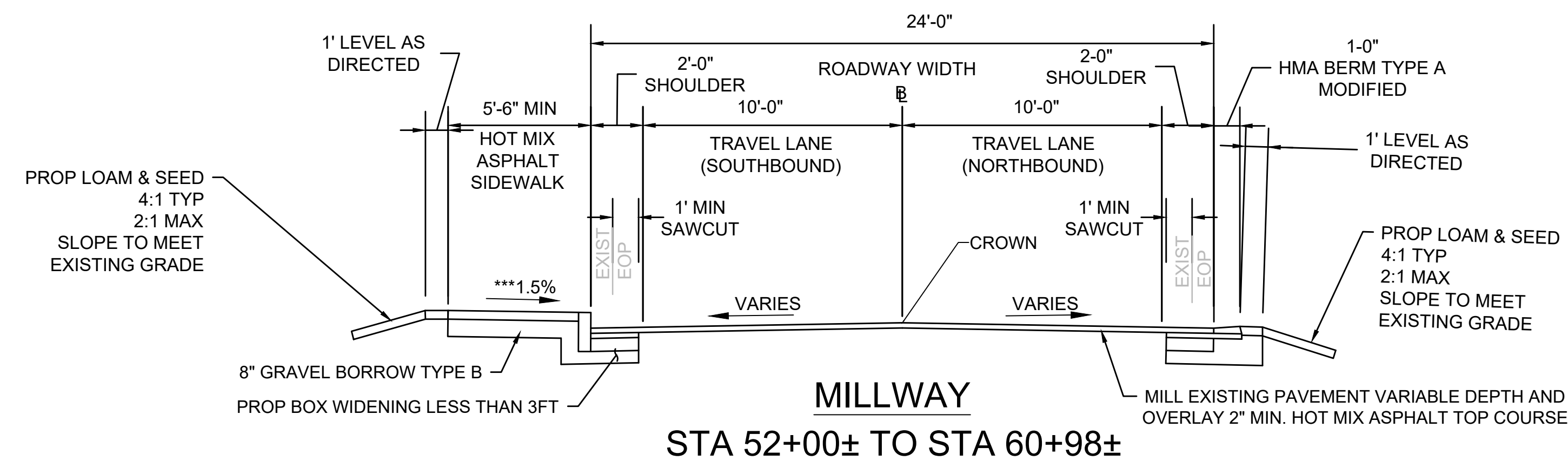
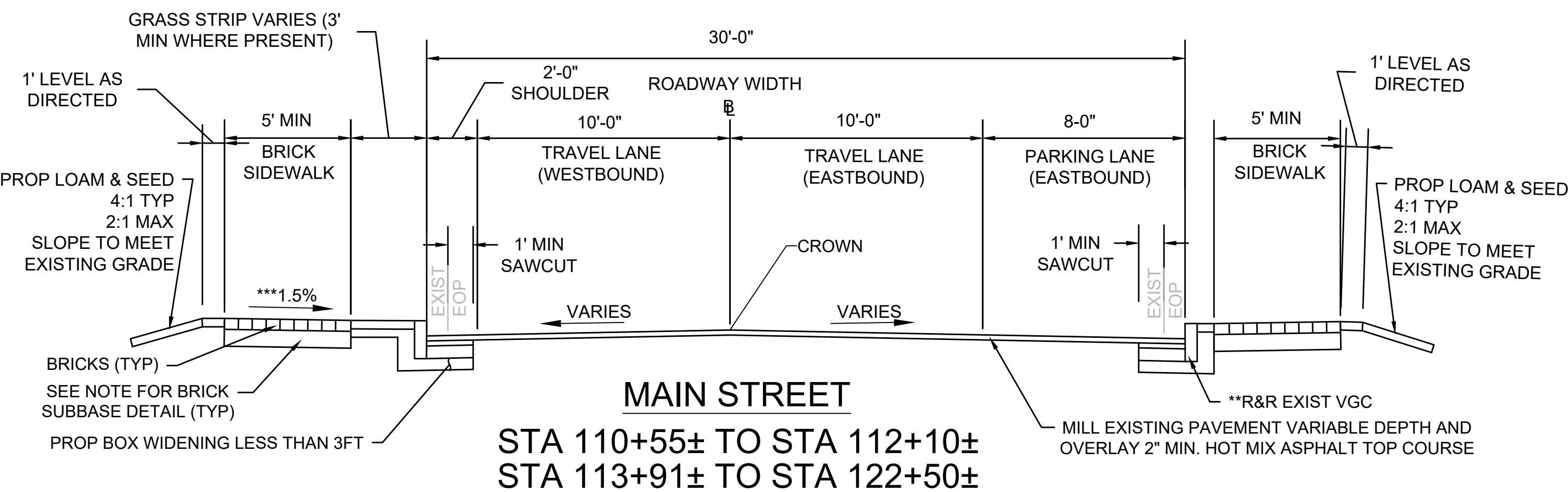
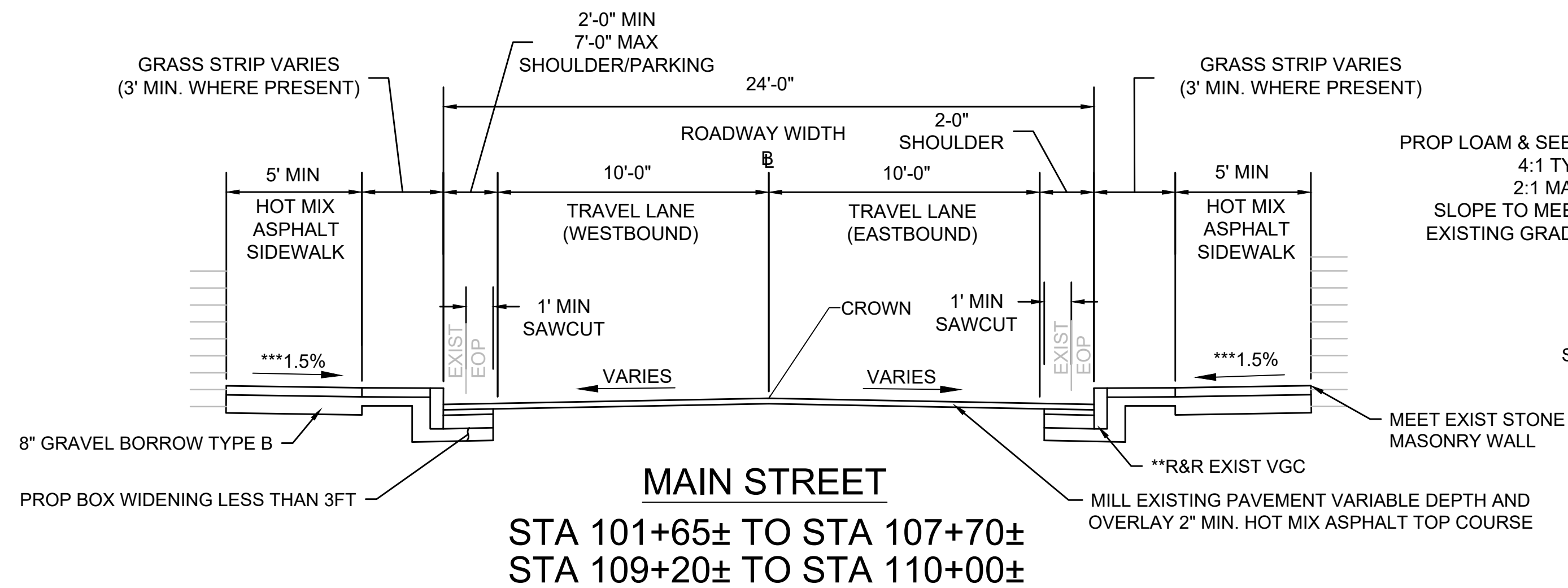
TRANSPORTATION IMPROVEMENTS ALONG MAIN STREET (ROUTE 6A) AND MILLWAY BARNSTABLE, MASSACHUSETTS

TYPICAL SECTIONS - 01

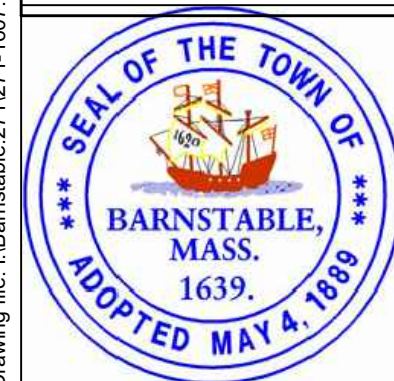
NOT FOR CONSTRUCTION
Sheet No. 05

NOTES:

- FOR PROPOSED LOAM & SEED AREAS REFER TO LOAM & SEED DETAIL ON SHEET 07.
- FOR REMOVED AND RESET BRICK AND NEW BRICK SIDEWALK AND BRICK WHEELCHAIR RAMPS REFER TO BRICK PAVERS DETAILS ON SHEET 86
- ALL SAWCUTS INCLUDING THOSE IN DRIVEWAYS SHALL BE SEALED WITH A LIQUID ASPHALT SEALER PAID FOR UNDER ITEM 453. HMA JOINT SEALANT.
- DURING EXCAVATION, MATERIALS DEEMED BY THE TOWN AND OR ENGINEER TO BE SUITABLE WILL BE RETAINED OR USED AS ORDINARY BORROW FOR FILL AREA. ANY UNSUITABLE SOILS DETERMINED BY THE CITY AND OR ENGINEER SHALL BE REMOVED AND REPLACED WITH SUITABLE SUBBASE AS IDENTIFIED ABOVE.
- GRAVEL BORROW SHALL ONLY BE USED WHEN NO SUITABLE EXCAVATED MATERIAL CAN BE UTILIZED AS APPROVED BY THE TOWN AND/OR ENGINEER.



Drawing file: I:\Barnstable\271271-1607-00 Barnstable - Improvement along Main Street (Route 6A)\ACAD\Sheet\04 - Typical.dwg Plot Date: Nov 05 2018 09:52pm



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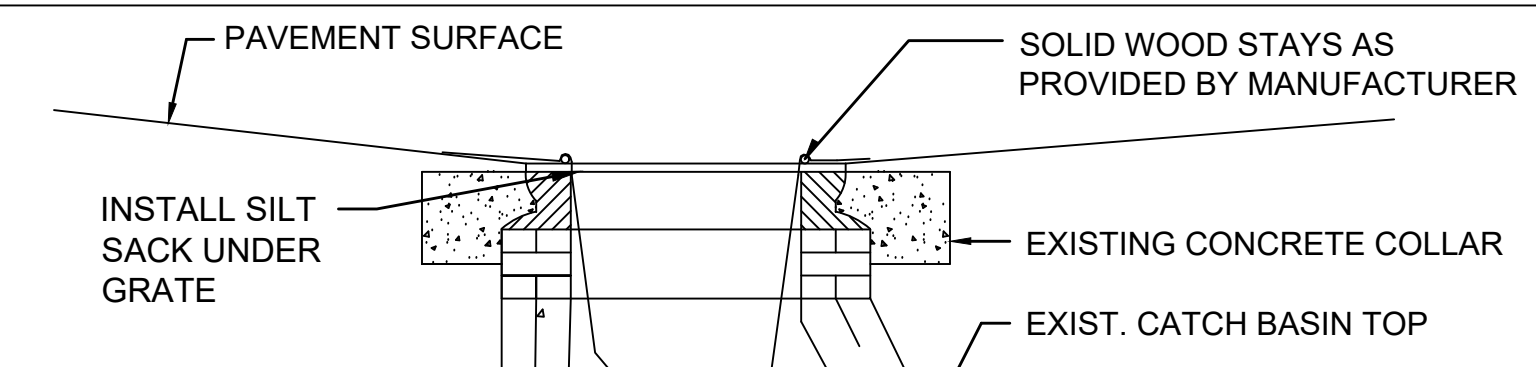
THIS LINE IS ONE INCH LONG WHEN PLOTTED AT FULL SCALE ON A 22" X 34" DRAWING

TRANSPORTATION IMPROVEMENTS ALONG MAIN STREET (ROUTE 6A) AND MILLWAY BARNSTABLE, MASSACHUSETTS

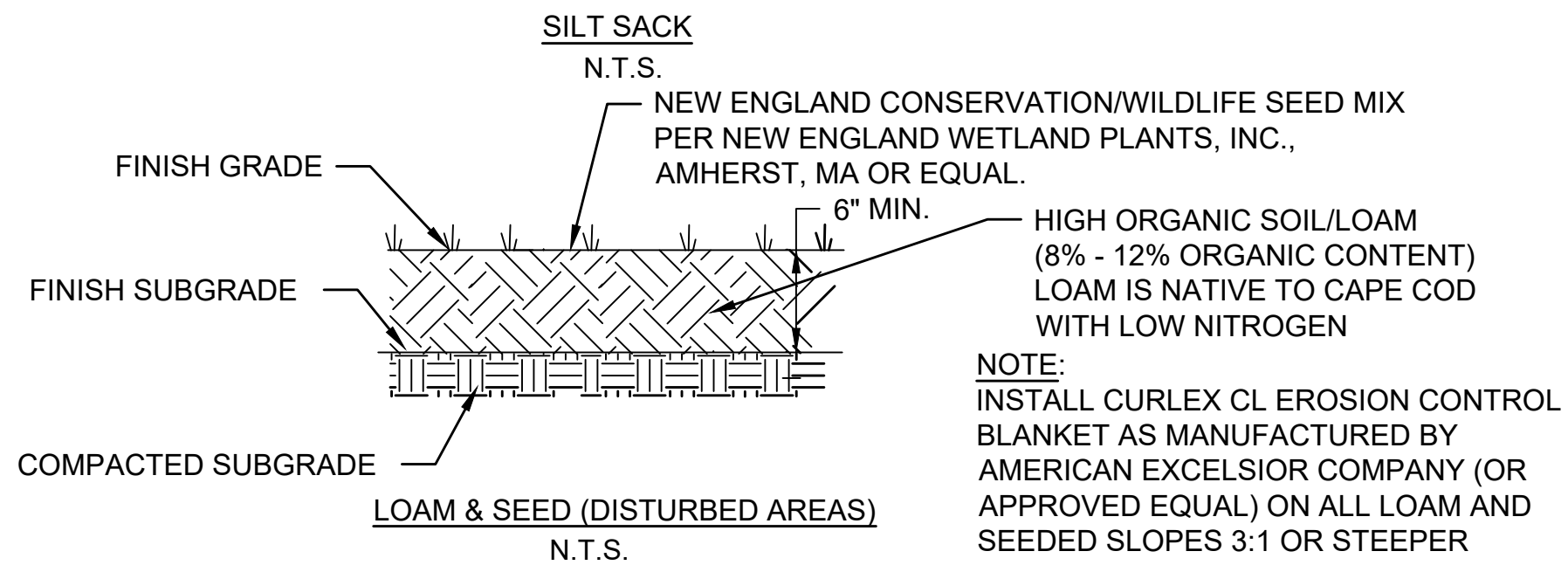
TYPICAL SECTIONS - 02

NOT FOR CONSTRUCTION

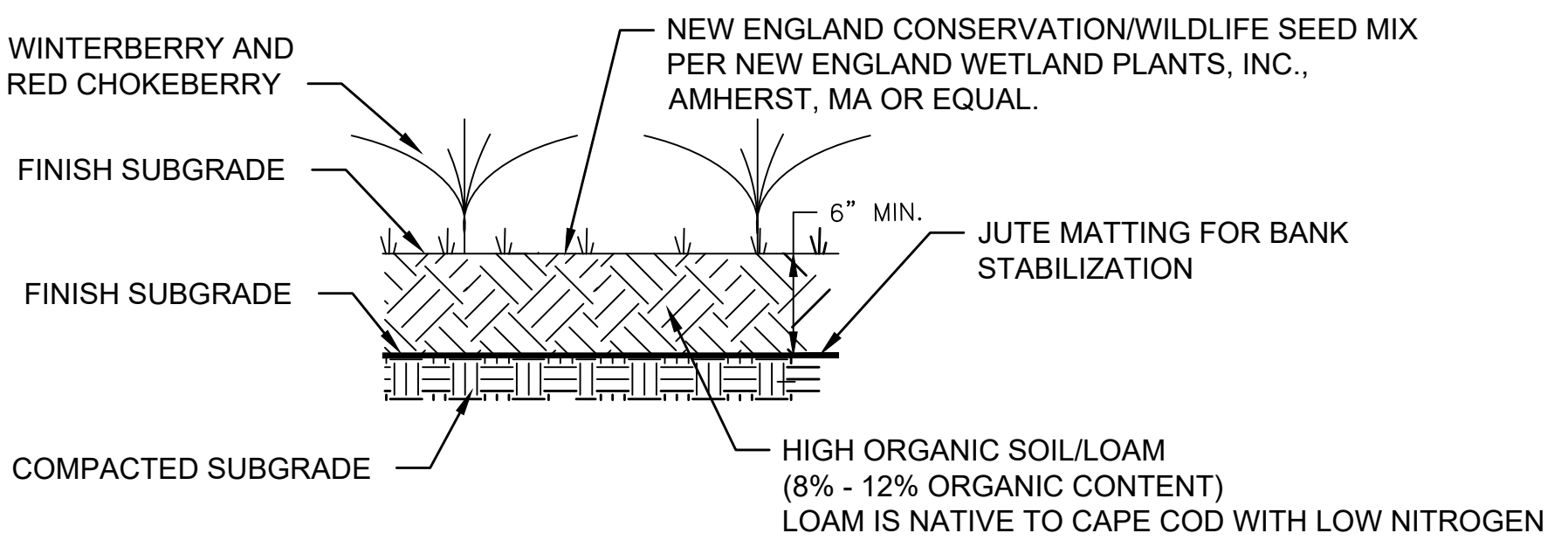
Sheet No. 06



NOTES:
 1. REMOVE ACCUMULATED SEDIMENTS AS REQUIRED TO MAINTAIN DRAINAGE.
 2. INSPECT FABRIC EVERY WEEK DURING CONSTRUCTION.

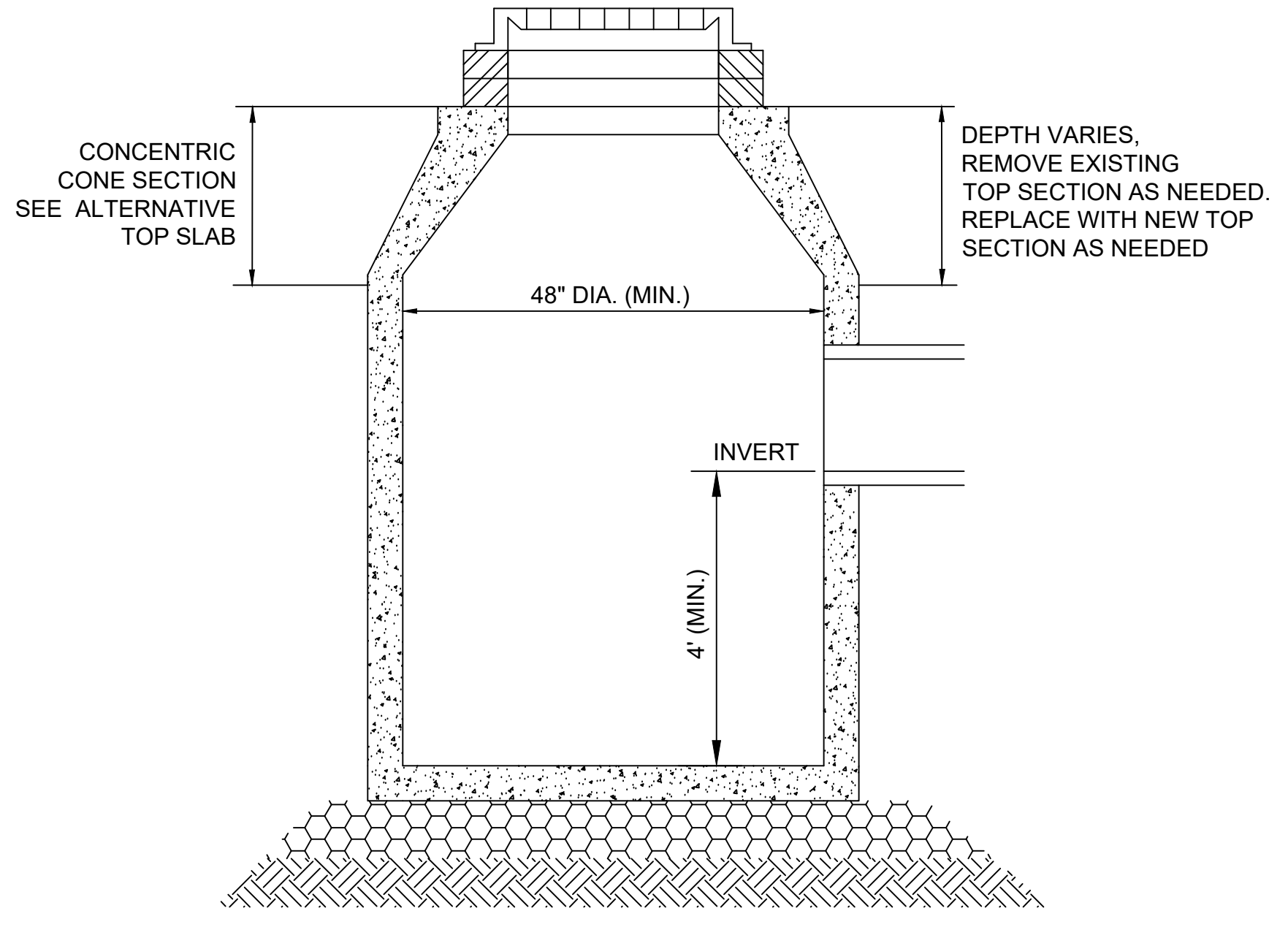


NOTE:
 INSTALL CURLEX CL EROSION CONTROL BLANKET AS MANUFACTURED BY AMERICAN EXCELSIOR COMPANY (OR APPROVED EQUAL) ON ALL LOAM AND SEEDED SLOPES 3:1 OR STEEPER

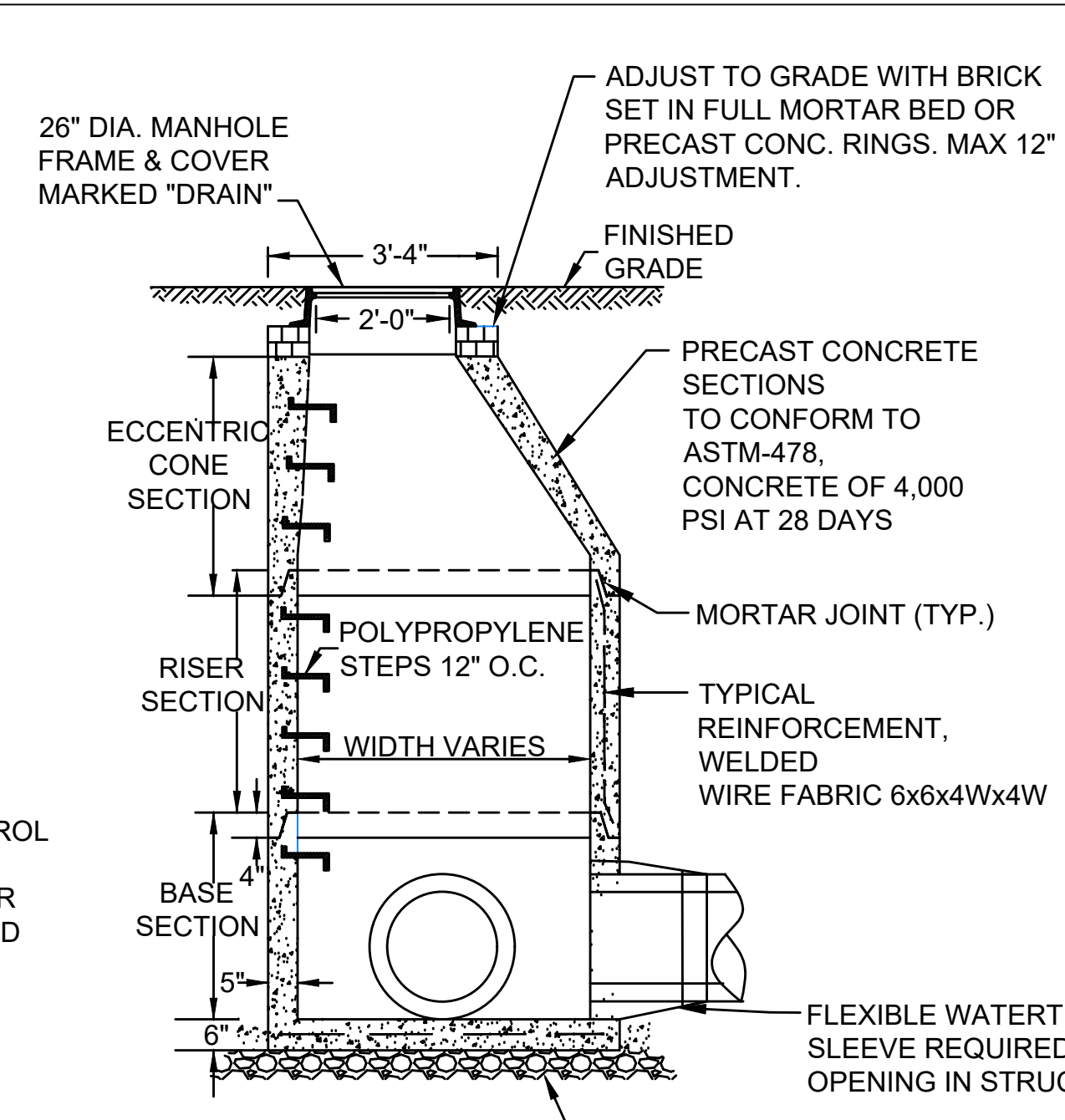


NOTES:
 1. ALL SHRUBS SHALL BE PLANTED 6-FOOT ON CENTER IN CLUSTERS CONTAINING THE FOLLOWING: RED CHOKEBERRY, WINTERBERRY.
 2. THE REPLICATION AREA SHALL BE EXCAVATED TO THE ELEVATION OF THE EXISTING WETLAND.
 3. 4 SHRUBS SHALL BE PLANTED PER EVERY 100 SQUARE FEET OF WETLAND REPLICATION.

WETLAND REPLICATION DETAIL
 N.T.S.

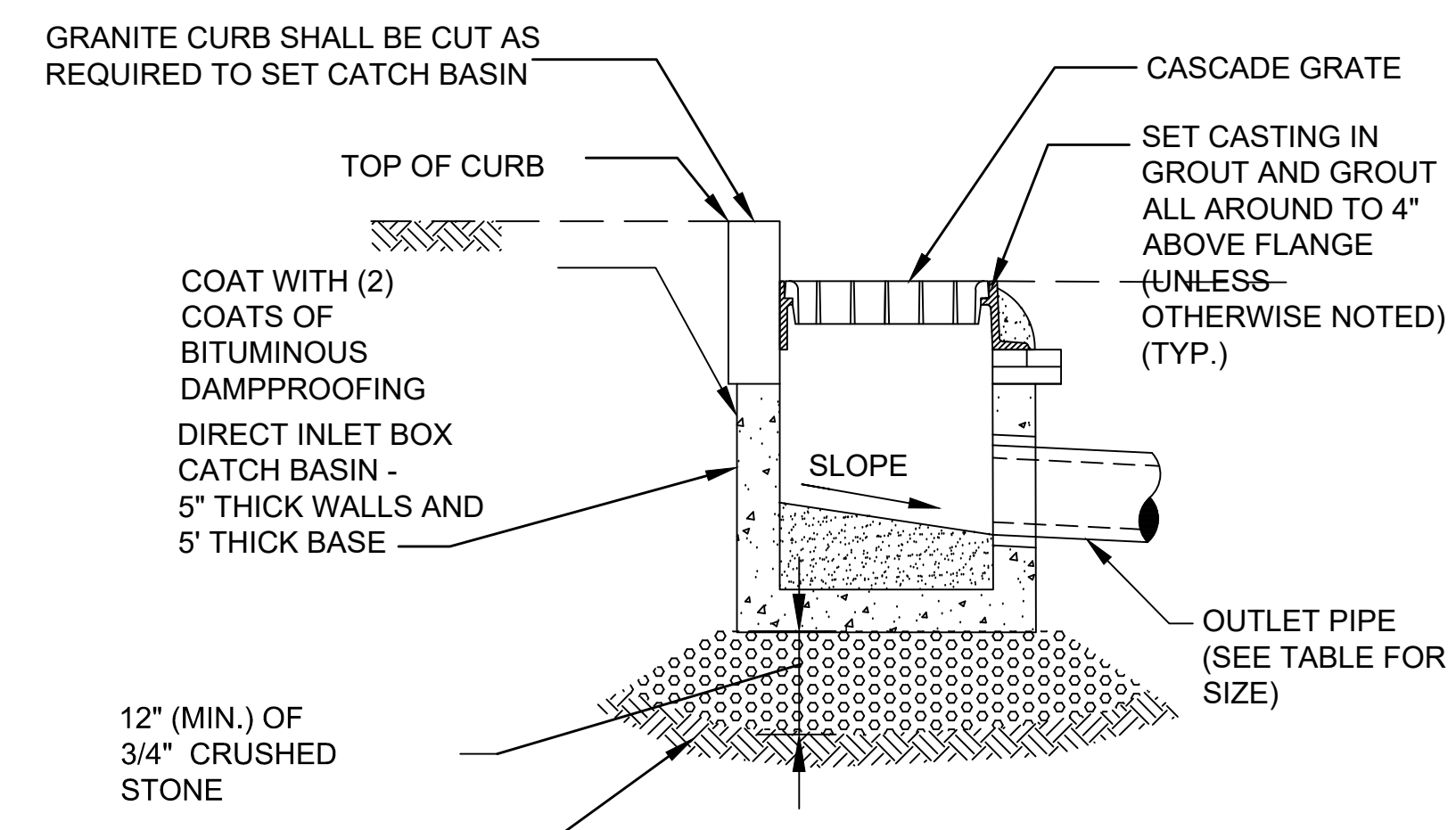


CATCH BASIN DETAIL
 N.T.S.

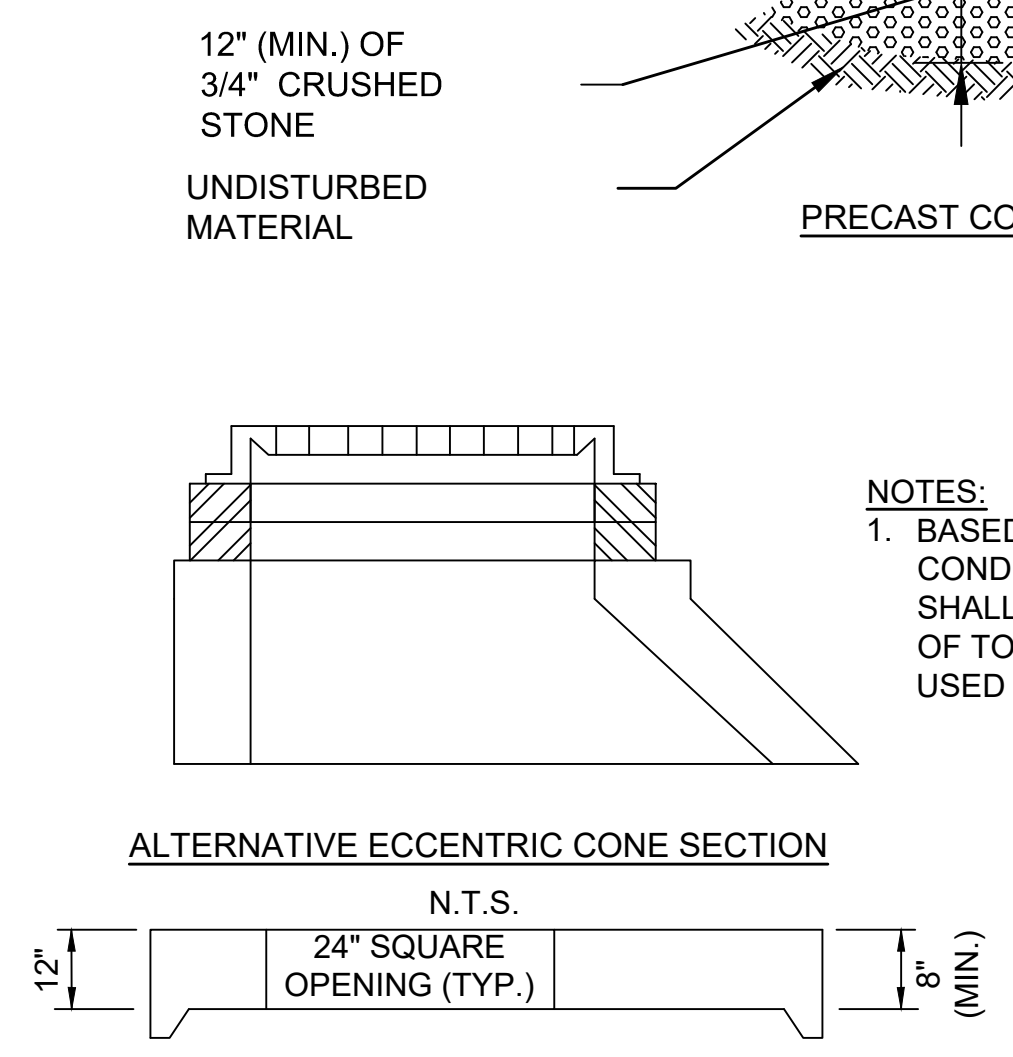


PRECAST CONCRETE DRAIN MANHOLE
 N.T.S.

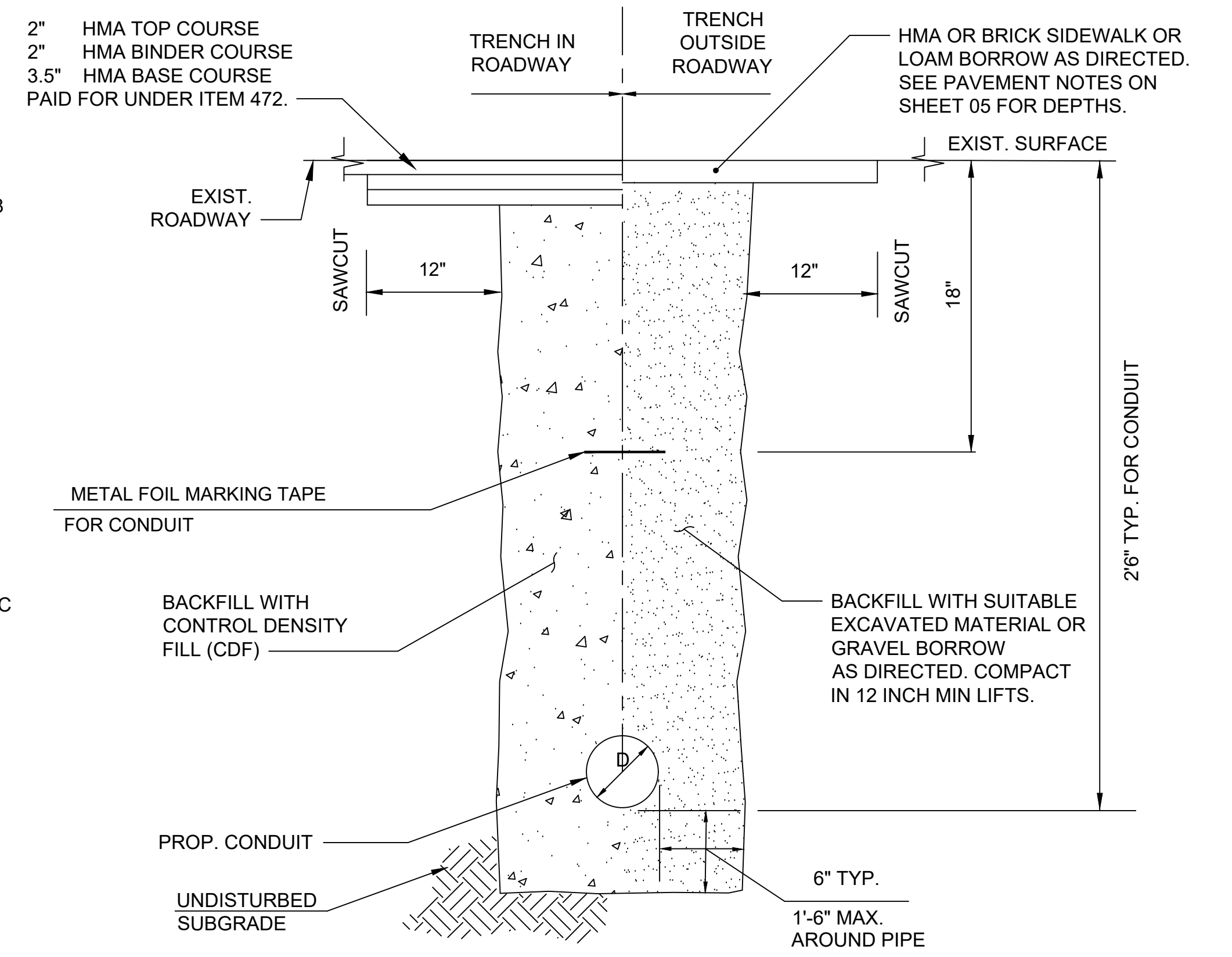
NOTES:
 1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
 2. REINFORCED STEEL TO CONFORM TO LATEST ASTM A185 SPEC.
 3. H-20 LOADING PER AASHTO HS-20-44; ASTM C478 SPEC. FOR "PRECAST REINFORCED CONCRETE MANHOLE SECTIONS".
 4. STEEL REINFORCED COPOLYMER POLYPROPYLENE PLASTIC STEP TO CONFORM TO LATEST ASTM C478 SPEC.
 5. PAVING LIMIT FOR MANHOLES 0-12' IN DEPTH SHALL BE 3' BEYOND THE ID OF THE MANHOLE.
 6. PAVING LIMIT FOR MANHOLES GREATER THAN 12' AND UP TO 18' IN DEPTH SHALL BE 4' BEYOND THE ID OF THE MANHOLE.
 7. FILL ALL LIFTING HOLES WITH HYDRAULIC CEMENT (NON-SHRINK) MORTAR.



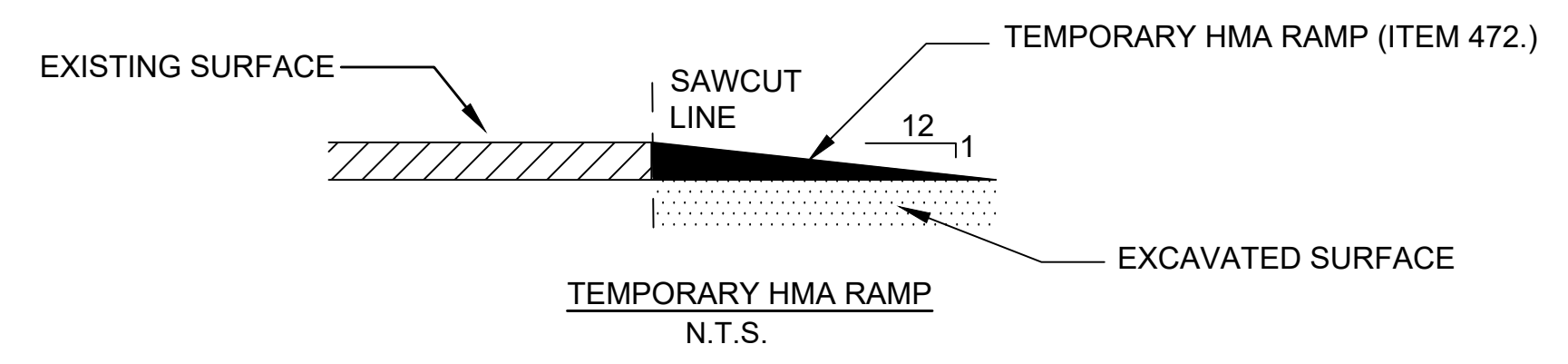
PRECAST CONCRETE GUTTER INLET
 N.T.S.



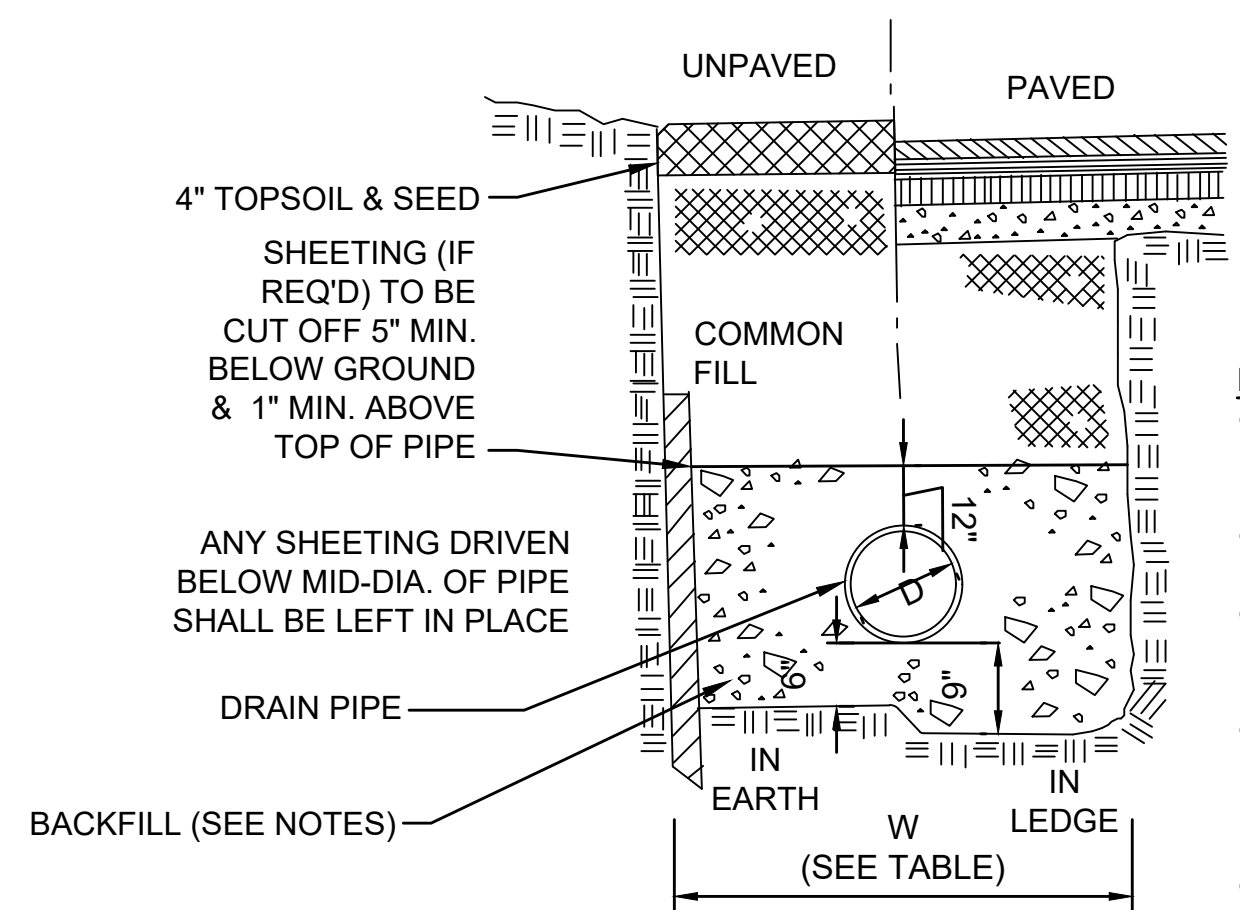
ALTERNATIVE TOP SLAB
 N.T.S.



CONDUIT TRENCH PATCH DETAIL
 N.T.S.



TEMPORARY HMA RAMP
 N.T.S.

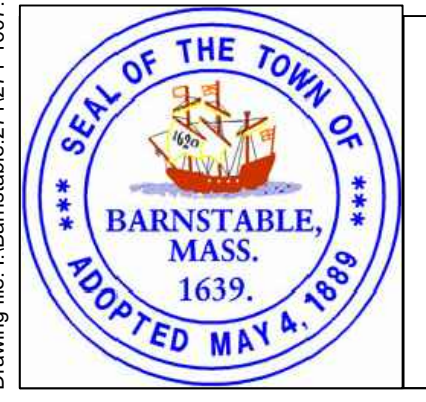


PERMANENT TRENCH PATCH
 N.T.S.

D DIAMETER OF PIPE	TRENCH WIDTH	
	W UNSHEETED	W SHEETED
TO 12"	3'	4'
14" TO 24"	4'	5'
30" TO 36"	5'	6'

NOTES:
 • ALL TRENCH CONSTRUCTION TO CONFORM TO APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS.
 • COMPACT FILL AND TAMP PIPE TO 93% MAX. DENSITY UNLESS OTHERWISE SPECIFIED.
 • COMMON FILL MATERIAL TO CONSIST OF GRANULAR MATERIAL CONTAINING NO STONES LARGER THAN 6" IN GREATEST DIMENSION.
 • BACKFILL WITH SELECT MATERIAL CONTAINING NO STONES LARGER THAN 3" IN GREATEST DIMENSION TO 12" OVER PIPE FOR SEWER AND DRAIN PIPES.
 • PROVIDE SCREENED GRAVEL BEDDING TO MID PIPE DIAMETER WHERE GROUNDWATER IS ENCOUNTERED AS DIRECTED BY THE ENGINEER.
 • REMOVE UNSUITABLE MATERIAL BELOW GRADE IF ENCOUNTERED, TO SUITABLE DEPTHS AS DIRECTED BY ENGINEER AND REPLACE WITH CLEAN GRANULAR FILL.
 • PAYMENT FOR HMA TRENCH PATCHING SHALL BE PAID FOR UNDER ITEM 472. HMA FOR MISCELLANEOUS WORK.

Drawing file: I:\Barnstable - Improvement along Main Street (Route 6A)\ACAD\Sheet05 - Construction Details\UPDATED.dwg Plot Date: Oct 22, 2018 7:29pm



MARK	DATE	DESCRIPTION	DESIGNED BY	CHECKED BY	APPROVED BY
03	10/19/18	REVISED FINAL SUBMISSION	JRC	JRC	JDF
02	08/22/18	FINAL SUBMISSION	AMT	AMT	JDF
01	08/01/18	DRAFT PRELIMINARY DESIGN SUBMISSION	JRC	JRC	JDF

Scale	NTS
Date	OCTOBER 2018
Job No.	271-1607
Designed by	JRC
Drawn by	AMT
Checked by	JRC
Approved by	JDF

THIS LINE IS ONE INCH LONG WHEN PLOTTED AT FULL SCALE ON A 22" X 34" DRAWING

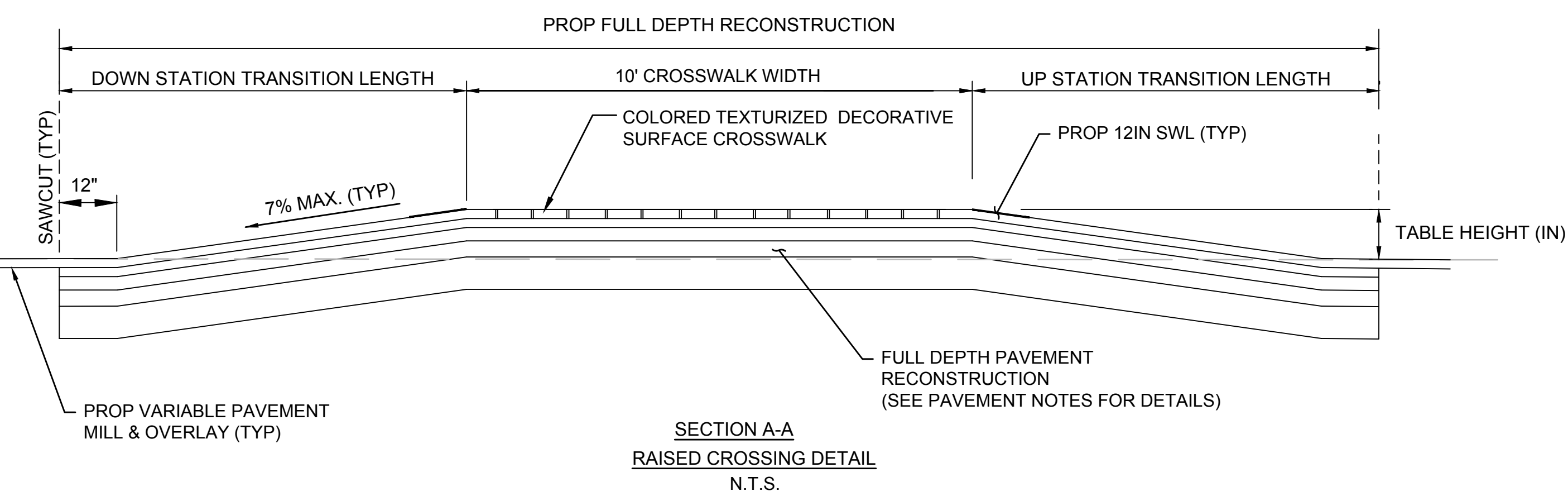
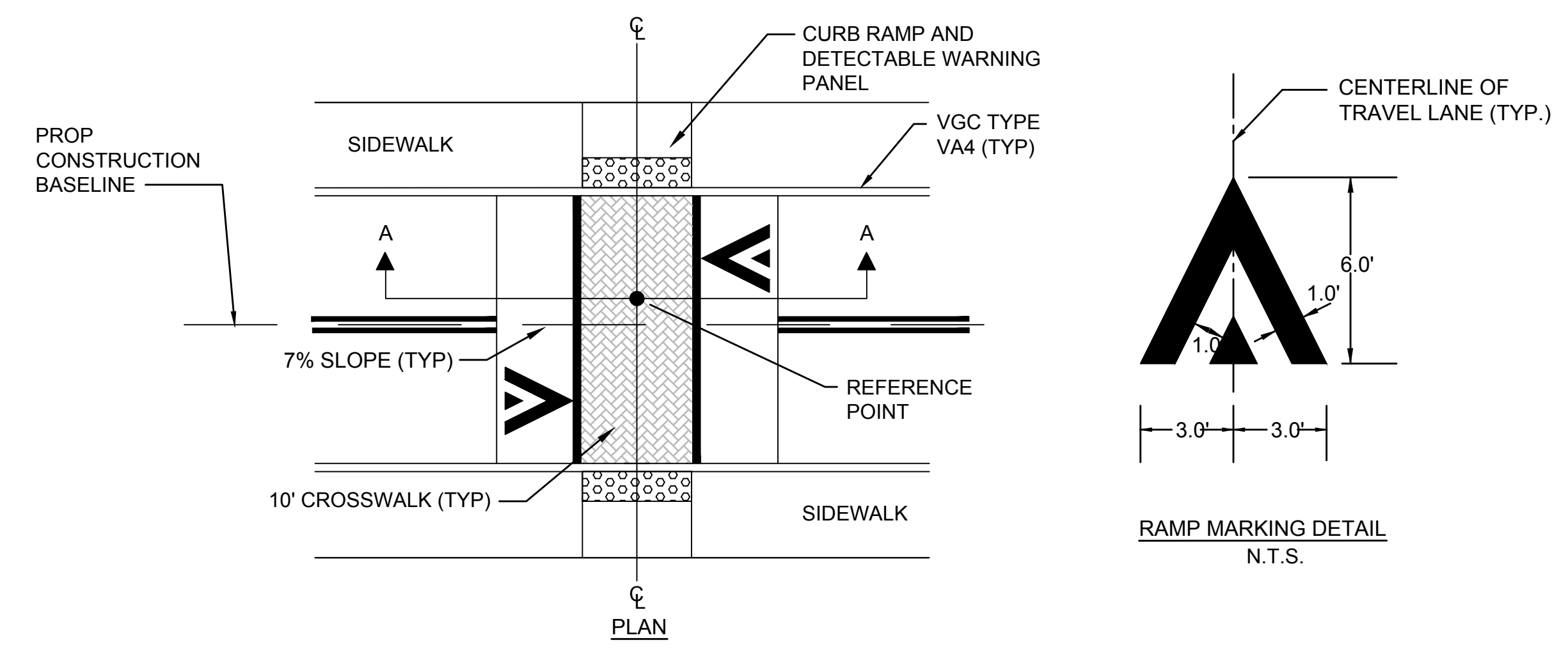
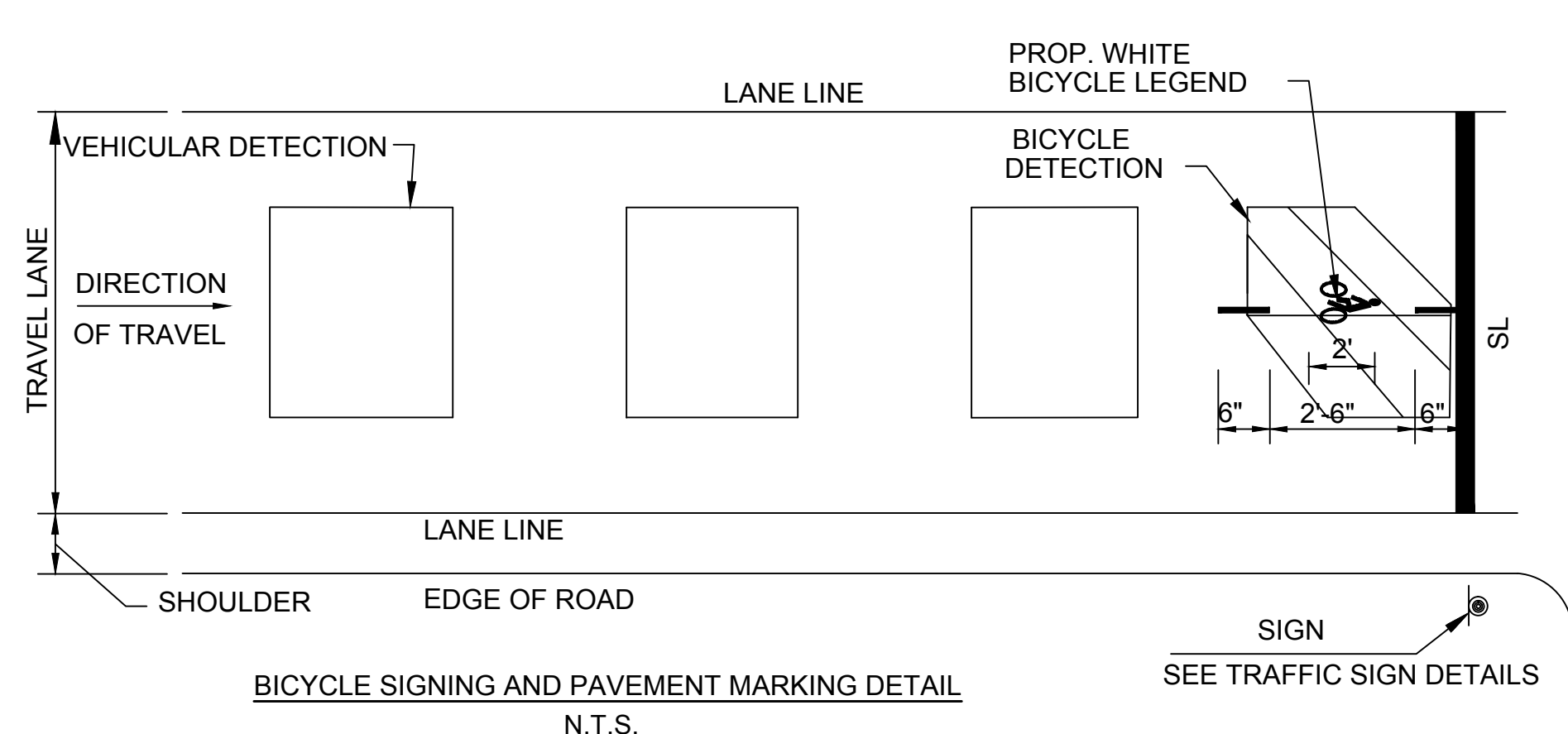
TRANSPORTATION IMPROVEMENTS
 ALONG MAIN STREET (ROUTE 6A) AND MILLWAY
 BARNSTABLE, MASSACHUSETTS

CONSTRUCTION DETAILS - 01

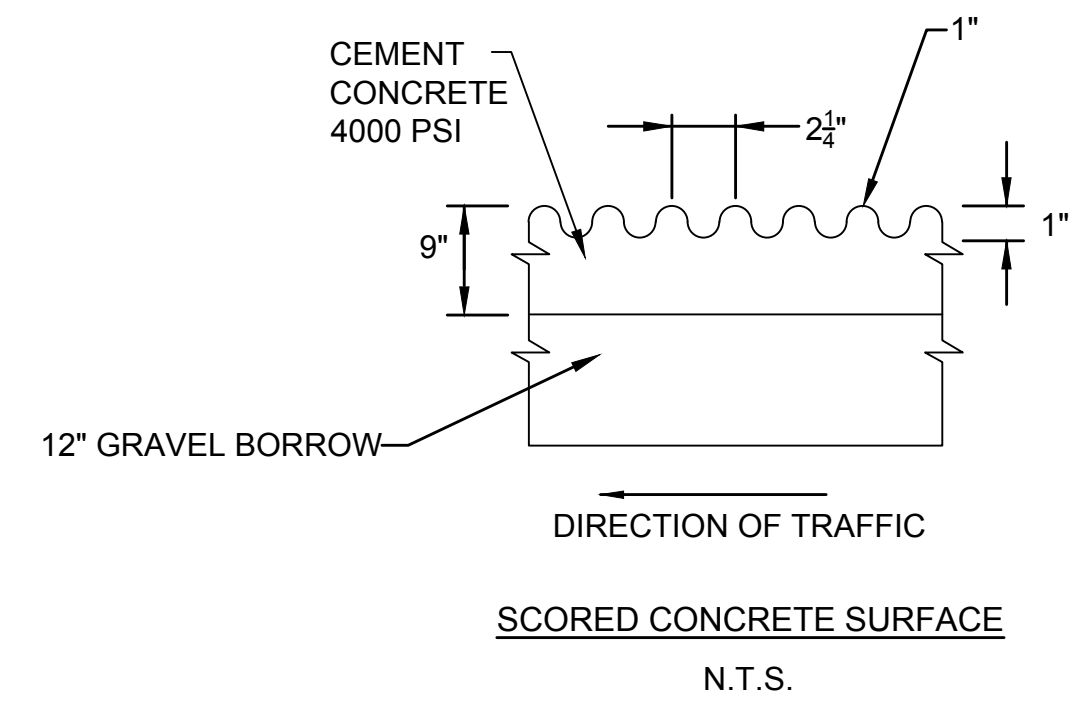
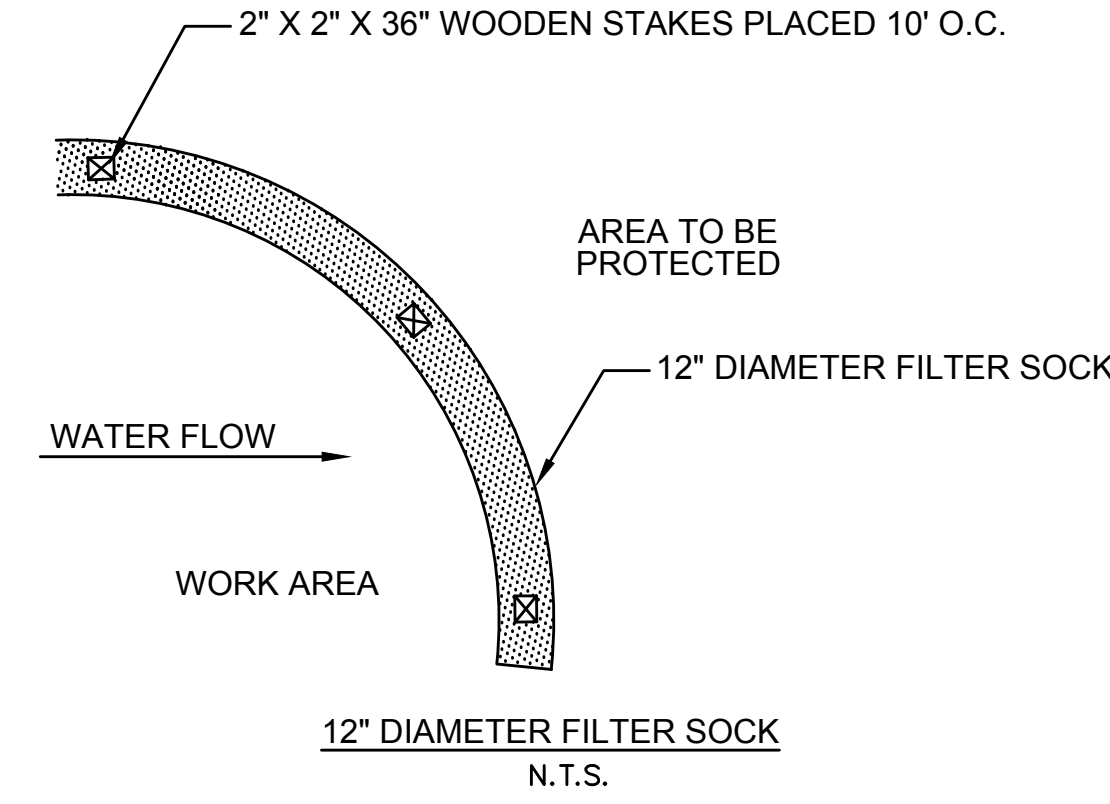
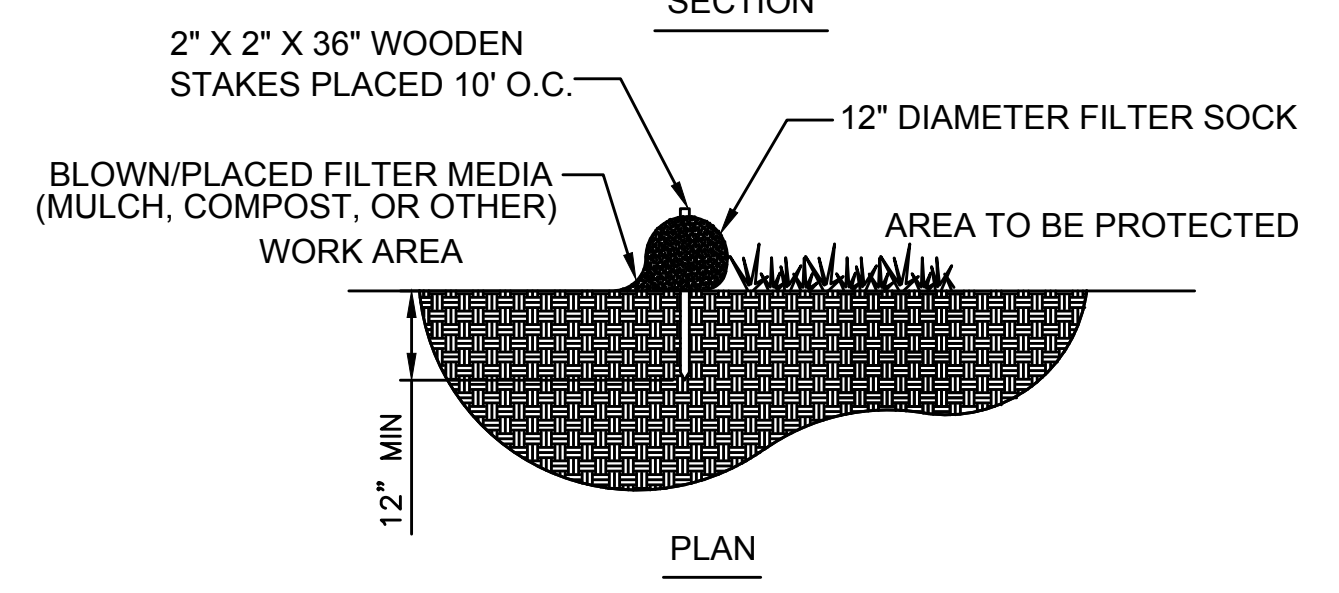
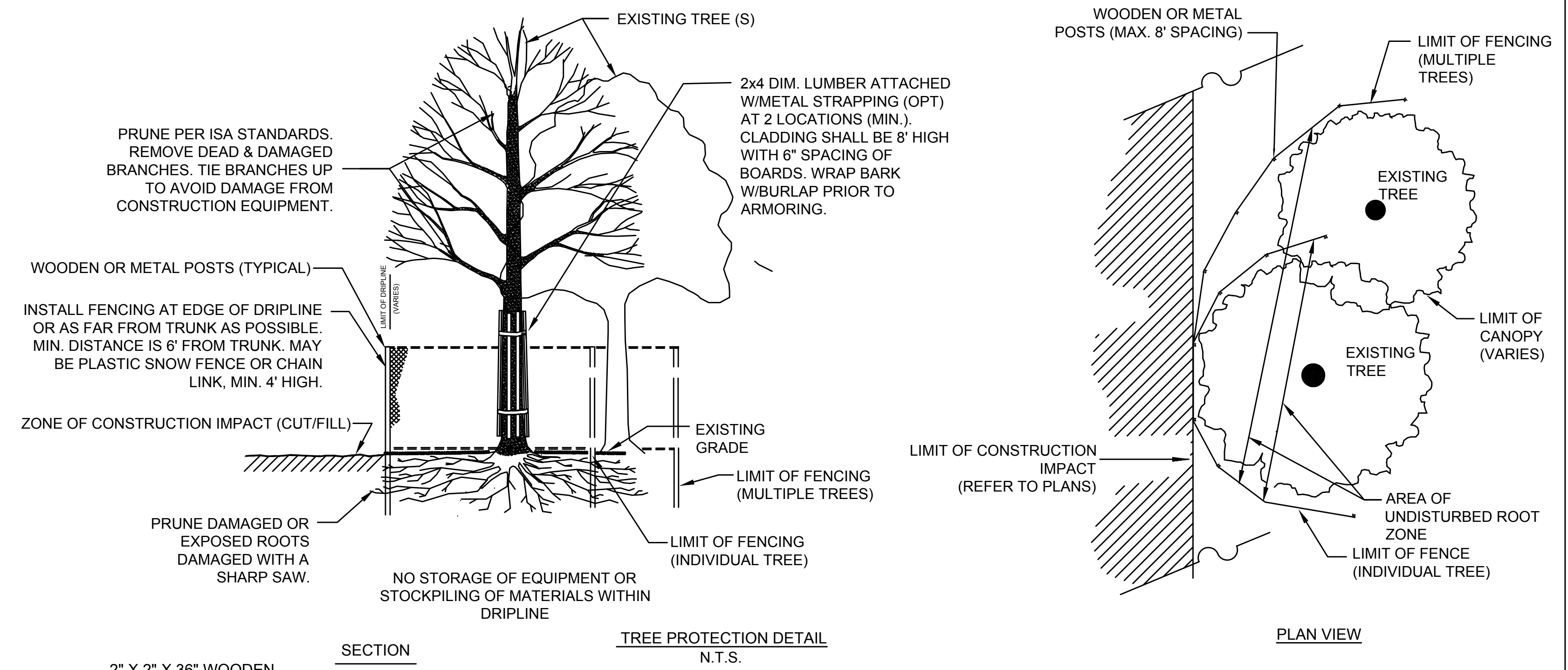
NOT FOR CONSTRUCTION

Sheet No.

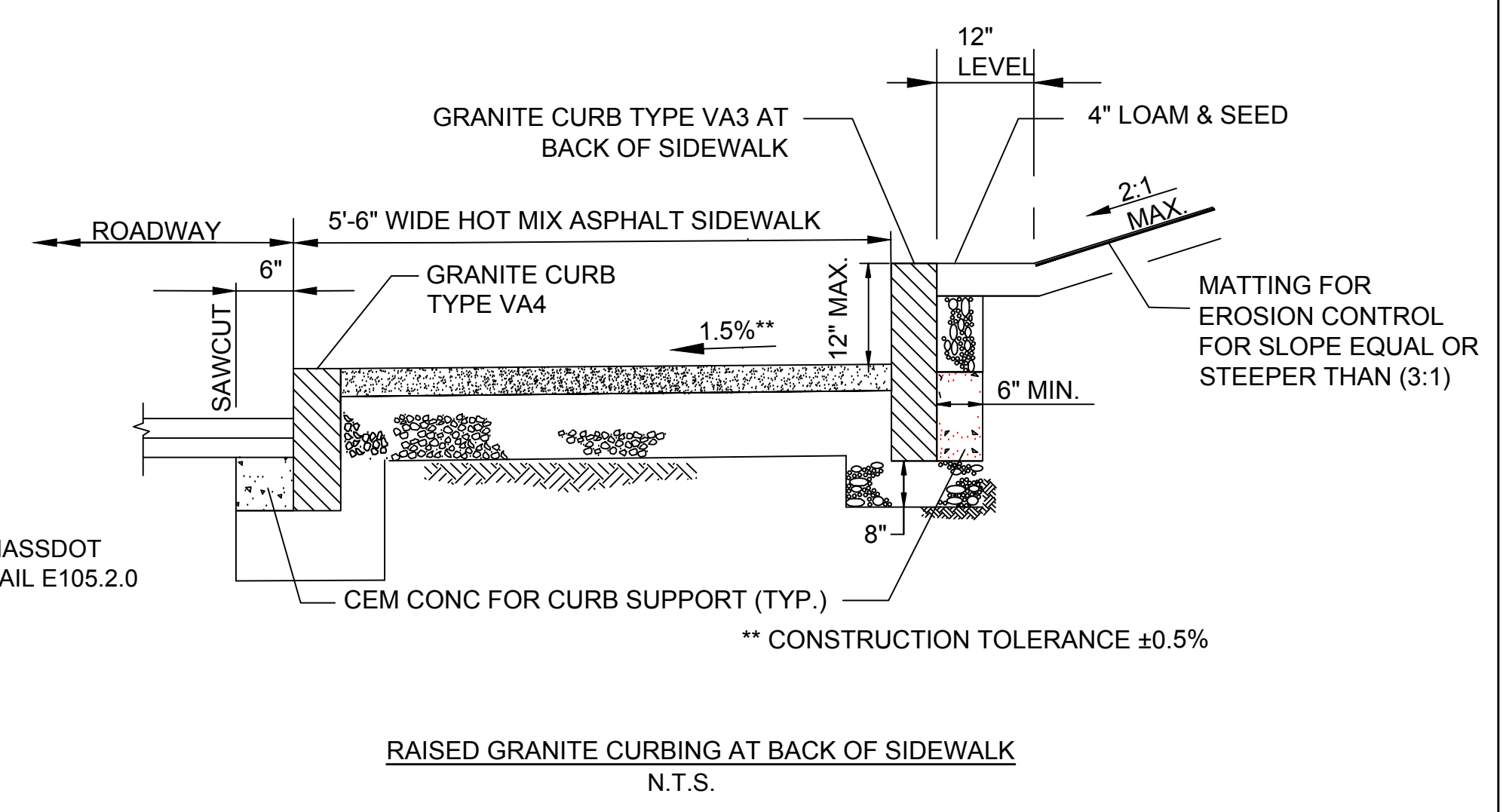
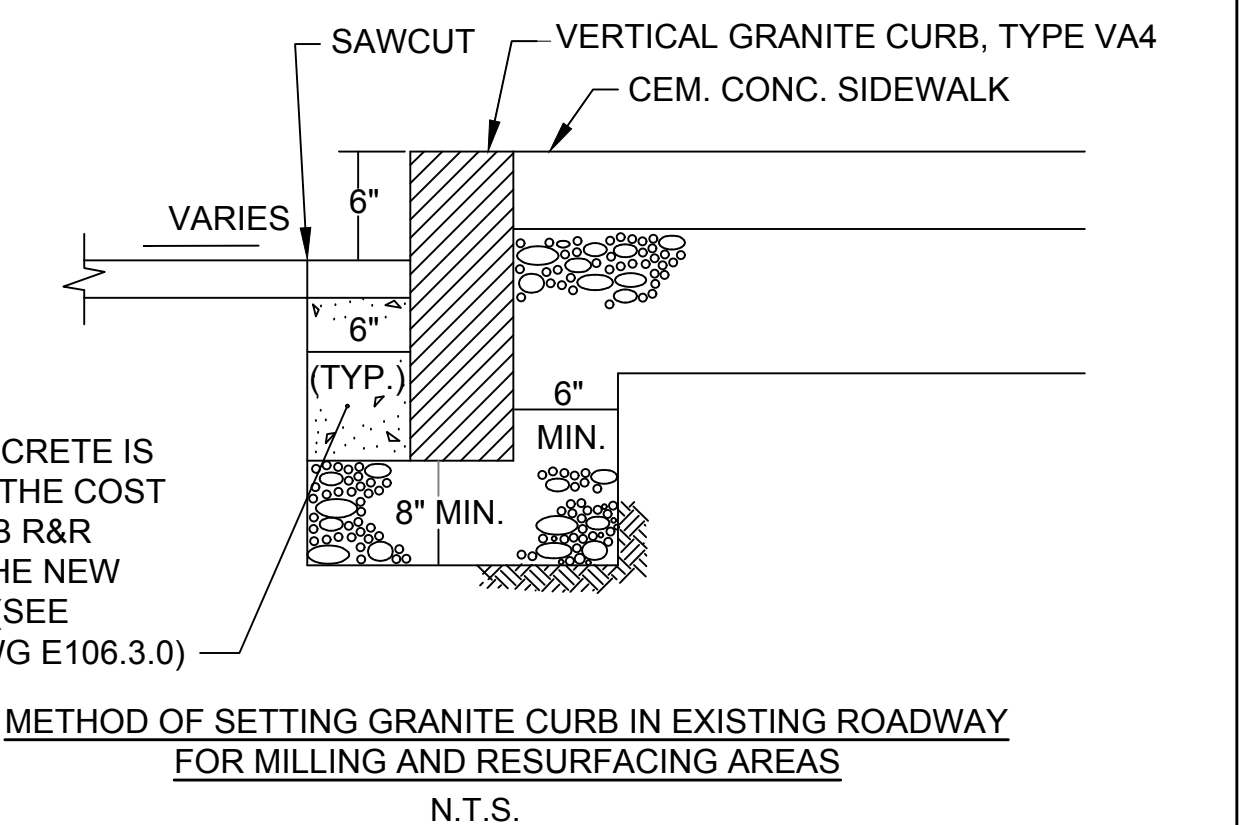
07



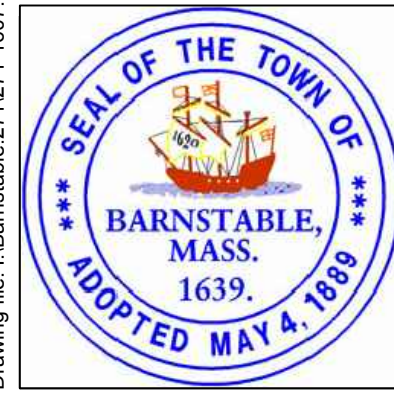
ALIGNMENT	REFERENCE STATION (±)	TABLE HEIGHT (IN)	DOWN STATION TRANSITION LENGTH (FT)	UP STATION TRANSITION LENGTH (FT)
MAIN STREET	99+08	6	8.5	8.5
MAIN STREET	109+98	2	6.0	8.0
MAIN STREET	116+30	6	8.5	8.5
MAIN STREET	119+60	3	4.0	5.0
MILLWAY	61+10	4	7.0	7.0



NOTES:
• CONFORM TO MASSDOT STANDARD DETAIL E105.2.0



Drawing file: I:\Barnstable - Improvement along Main Street (Route 6A)\ACAD\Sheet05 - Construction Details\UPDAT\DWG Plot Date: Oct 18, 2018 9:17am



MARK	DATE	DESCRIPTION	DESIGNED BY	DATE	SCALE
			JRC	OCTOBER 2018	NTS
03	10/19/18	REVISED FINAL SUBMISSION	JRC		
02	08/22/18	FINAL SUBMISSION	AMT		
01	08/01/18	DRAFT PRELIMINARY DESIGN SUBMISSION	JRC		
			JDF		

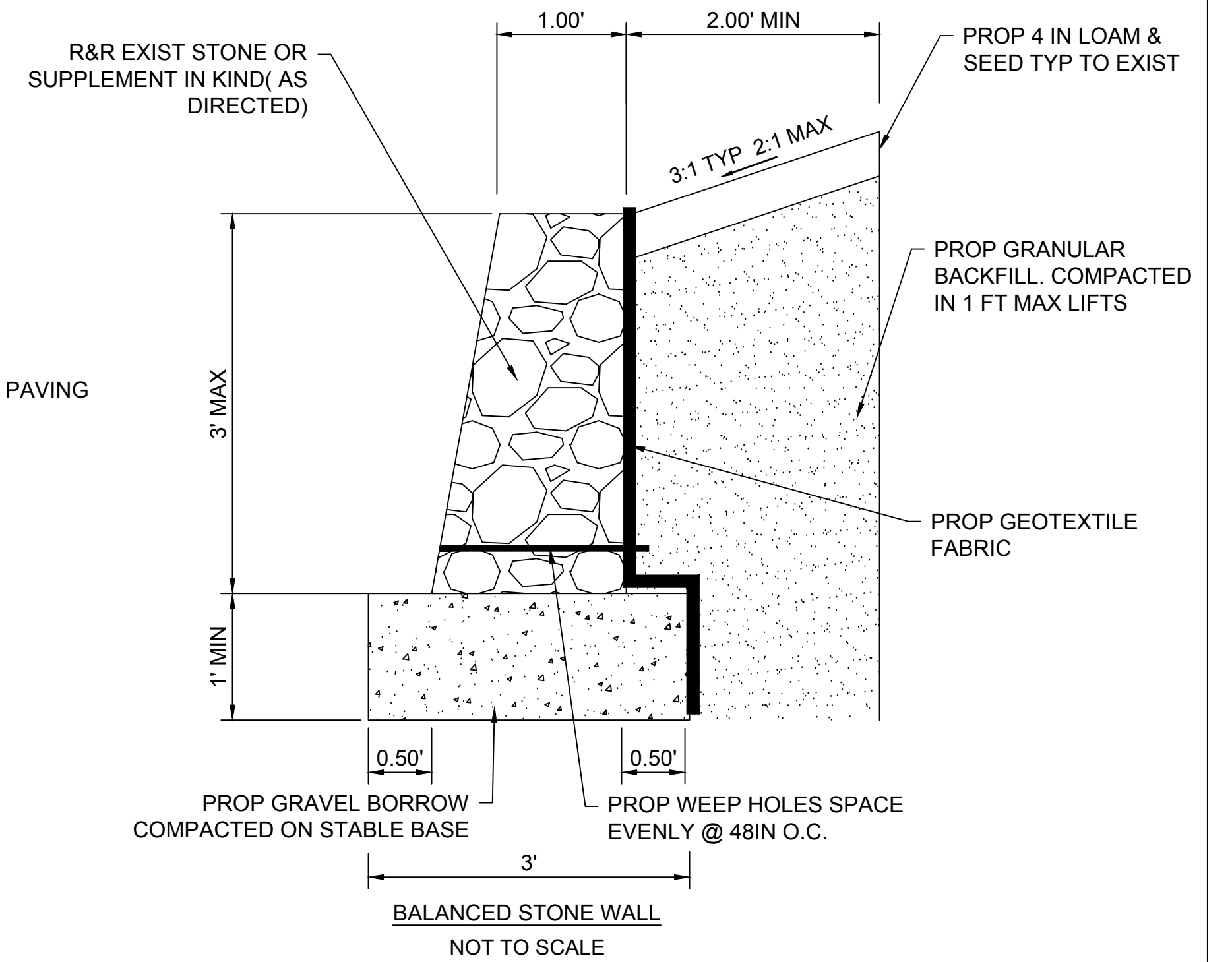
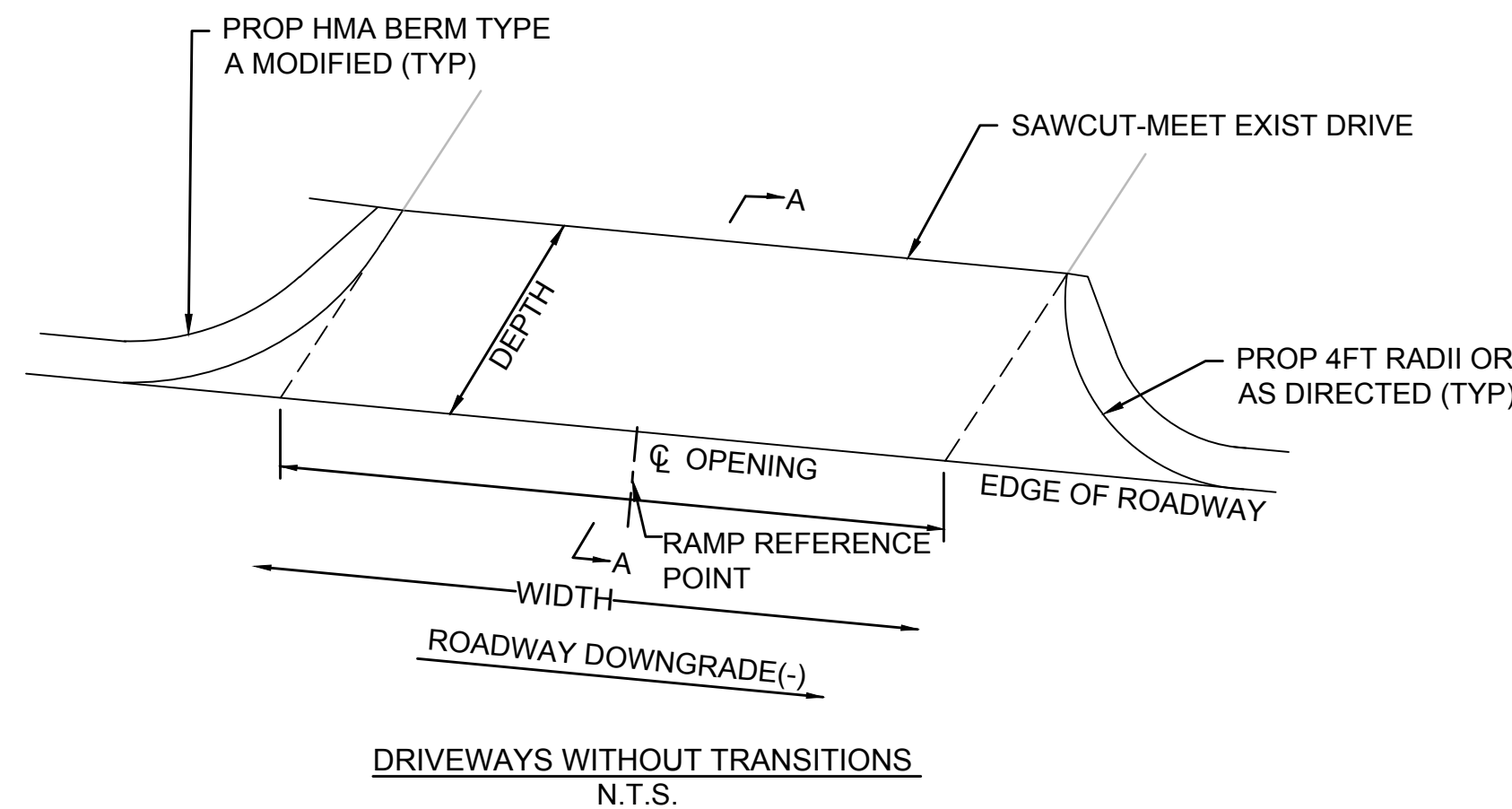
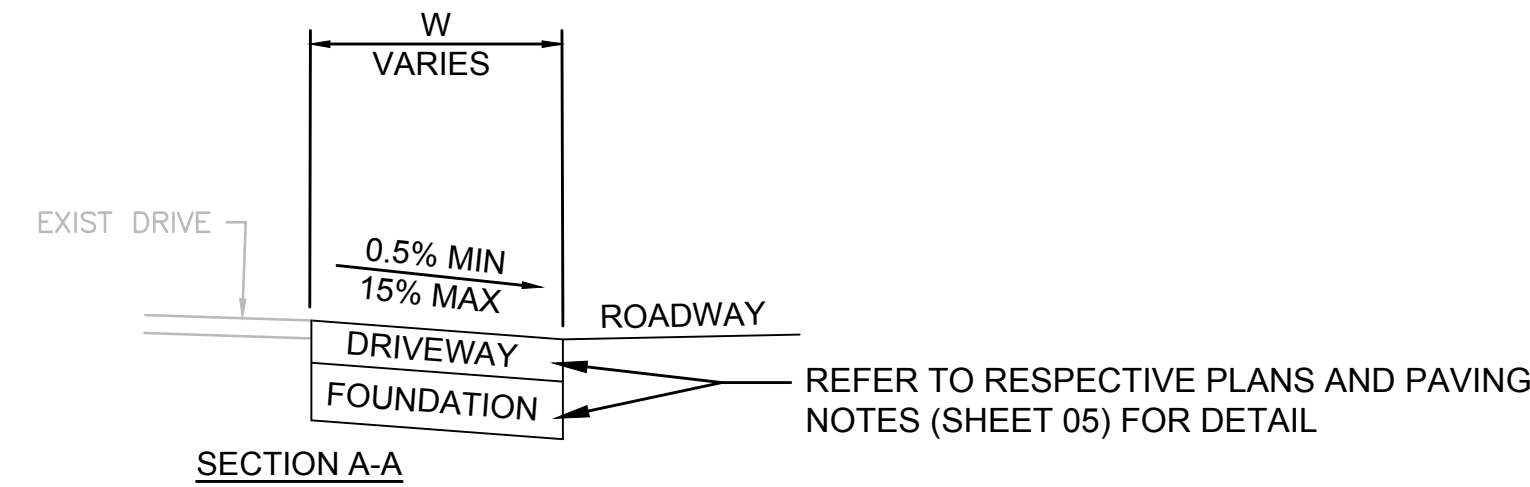
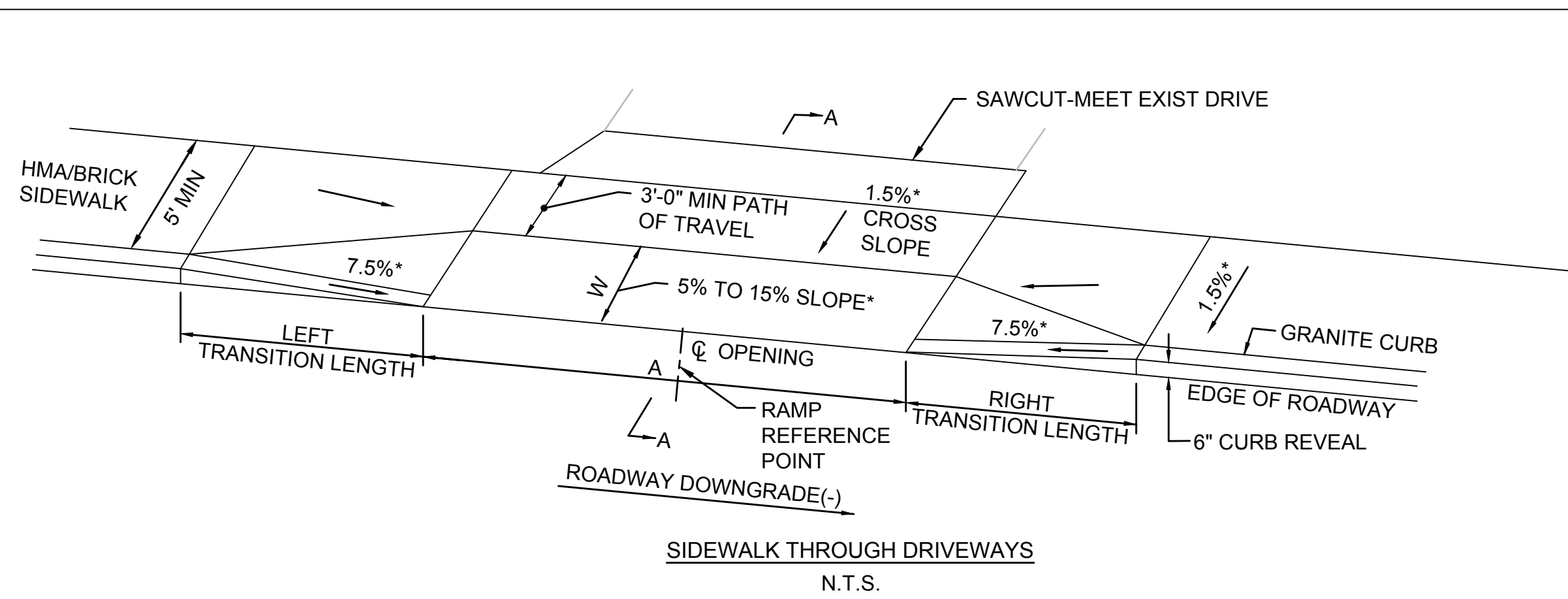
THIS LINE IS ONE INCH LONG WHEN PLOTTED AT FULL SCALE ON A 22" X 34" DRAWING

TRANSPORTATION IMPROVEMENTS
ALONG MAIN STREET (ROUTE 6A) AND MILLWAY
BARNSTABLE, MASSACHUSETTS

CONSTRUCTION DETAILS - 02

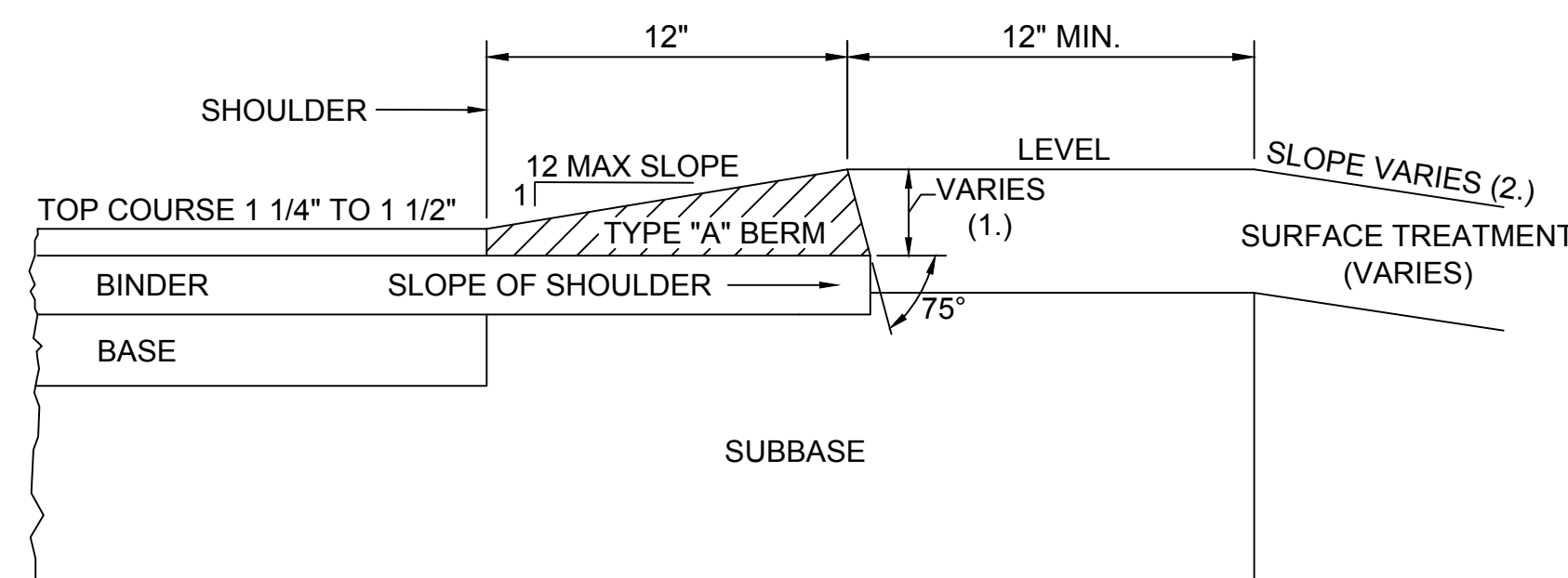
NOT FOR CONSTRUCTION
Sheet No.
08

Drawing file: I:\Barnstable\2711271-1607-00 Barnstable - Improvement along Main Street (Route 6A)\ACAD\Sheet\05 - Construction Details\UPDA TED.dwg Plot Date: Oct 18, 2018 9:18:18am



DWY #	ALIGNMENT	DWY REFERENCE POINT Q		LENGTH OF PRIMARY RAMP (W)	PATH OF TRAVEL (MIN 3.00 FT)	WIDTH OF DRIVEWAY RAMP (A)	ROADWAY GUTTER SLOPE (±)	TRANSITION LENGTH (FT)	
		STATION	OFFSET					LEFT	RIGHT
2	MAIN STREET	99+65.64'	12.60' RT	5.50'	4.98'	17.71'	+0.82%	7.67'	6.50'
3	MAIN STREET	101+00.74'	12.00' RT	2.50'	3.00'	19.37'	+1.43%	9.00'	6.50'
4	MAIN STREET	101+53.41'	12.00' RT	2.50'	3.00'	13.52'	+1.45%	9.00'	6.50'
7	MAIN STREET	102+32.42'	12.00' RT	2.50'	3.00'	11.99'	+2.07%	11.00'	6.50'
8	MAIN STREET	105+24.58'	12.00' RT	2.06'	5.00'	21.11'	+3.08%	14.00'	6.50'
10	MAIN STREET	108+34.07'	12.00' LT	3.34'	5.00'	9.64'	-1.69%	9.00'	6.50'
12	MAIN STREET	110+63.64'	18.00' RT	2.50'	3.00'	16.33'	-2.20%	6.50'	11.00'
14	MAIN STREET	111+40.53'	18.00' RT	2.50'	3.00'	19.78'	-0.80%	6.50'	7.67'
18	MAIN STREET	116+68.73'	12.00' LT	4.75'	4.49'	24.61'	+0.59%	6.50'	7.67'
19	MAIN STREET	117+62.91'	12.00' LT	2.46'	4.50'	28.43'	+0.39%	6.50'	7.67'
20	MAIN STREET	118+28.47'	12.00' LT	2.50'	3.00'	18.15'	+0.39%	6.50'	7.67'
21	MAIN STREET	118+84.84'	18.00' RT	2.50'	3.00'	22.60'	+0.61%	7.67'	6.50'
22	MAIN STREET	118+99.56'	12.00' LT	2.50'	3.00'	21.91'	+0.39%	6.50'	7.67'
23	MAIN STREET	119+41.24'	12.00' LT	2.50'	3.00'	19.94'	+0.40%	6.50'	3.84'
24	MAIN STREET	119+76.45'	18.00' RT	3.63'	5.00'	27.66'	+0.67%	7.67'	6.50'
25	MAIN STREET	120+00.45'	12.00' LT	2.50'	3.00'	23.84'	0.47%	6.50'	7.67'
27	MAIN STREET	120+67.74'	12.00' LT	2.50'	3.00'	19.94'	+0.49%	6.50'	7.67'
29	MAIN STREET	122+35.69'	12.00' LT	2.50'	4.96'	19.06'	+2.20%	6.50'	11.00'
30	MAIN STREET	123+06.59'	12.00' LT	2.50'	3.00'	13.16'	+2.35%	6.50'	11.00'
33	MILLWAY	50+74.40'	12.98' RT	2.50'	3.00'	18.02'	+2.20%	11.00'	6.50'
34	MILLWAY	52+73.40'	12.00' LT	2.50'	3.00'	22.96'	-0.54%	7.67'	6.50'
35	MILLWAY	54+69.55'	12.00' LT	2.50'	3.00'	14.81'	+1.26%	6.50'	9.00'
36	MILLWAY	55+66.45'	12.00' LT	2.50'	3.00'	31.92'	+1.64%	6.50'	9.00'
37	MILLWAY	58+45.14'	12.00' LT	2.50'	3.00'	15.15'	-3.79%	14.00'	6.50'
41	MILLWAY	60+70.07'	12.00' LT	2.50'	3.00'	22.27'	-2.61%	11.00'	6.50'
43	MILLWAY	63+08.28'	12.00' RT	2.50'	3.00'	18.00'	+0.40%	7.67'	6.50'
44	MILLWAY	63+67.77'	12.00' RT	2.50'	3.00'	14.25'	+0.55%	7.67'	6.50'
46	MILLWAY	65+54.59'	12.00' RT	2.50'	3.00'	14.23'	-0.81%	6.50'	7.67'
50	MAIN STREET	118+35.39'	18.00' RT	2.50'	3.00'	16.88'	+0.38%	7.67'	6.50'
51	MILLWAY	52.96.00'	12.00' RT	2.50'	3.00'	34.30'	-1.08%	6.50'	9.00'

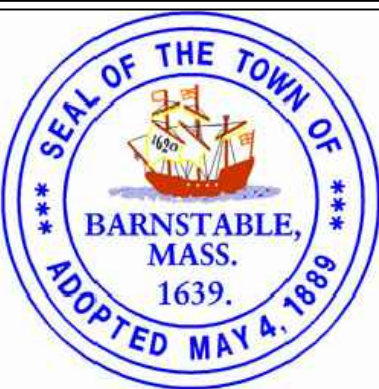
DWY#	ALIGNMENT	DWY REFERENCE POINT Q		DEPTH	WIDTH
		STATION	OFFSET		
38	MILLWAY	58+81.87'	12.00' RT	5.00'	26.54'
39	MILLWAY	59+37.94'	12.00' RT	4.00'	32.18'
40	MILLWAY	60+61.58'	12.00' RT	6.00'	17.72'
42	MILLWAY	62+73.27'	12.00' LT	5.00'	20.36'
45	MILLWAY	65+35.38'	12.00' LT	3.00'	13.50'
48	MILLWAY	62+51.49'	12.00' LT	5.00'	8.91'



- NOTES:**
- FOR MODIFIED BERMS THE SLOPE REMAINS CONSTANT AT 1 (V) TO 12 (H)
 - 1. THIS DIMENSION VARIES WITH THE THICKNESS OF THE TOP COURSE AND SLOPE OF BINDER
 - 2. SEE TYPICAL SECTIONS FOR PROJECT

ALIGNMENT	STATION	OFFSET (FT)	BASE OF WALL ELEVATION (FT)	TOP OF WALL ELEVATION (FT)	HEIGHT (FT)
MAIN STREET	104+21.15	18.50' RT	24.37	25.37	1.00
MAIN STREET	104+40	18.48' RT	25.05	26.09	1.04
MAIN STREET	104+62.62	19.08' RT	25.79	26.02	0.23
MAIN STREET	107+51.44	22.50' RT	34.21	35.21	1.00
MAIN STREET	107+70	22.50' RT	34.77	36.65	1.58
MAIN STREET	107+90	22.50' RT	35.02	37.00	1.98
MAIN STREET	108+09.70	22.52' RT	35.05	37.62	2.57
MAIN STREET	107+60	24.73' LT	34.58	36.35	1.77
MAIN STREET	107+80	23.57' LT	34.92	37.92	3.00
MAIN STREET	108+00	22.50' LT	35.06	38.06	3.00
MAIN STREET	108+27.35	20.96' LT	34.89	37.42	2.53
MAIN STREET	108+11.68	22.53' RT	35.04	37.46	2.42
MAIN STREET	108+30	22.70' RT	35.44	38.44	3.00
MAIN STREET	108+50	23.28 RT	35.12	38.12	3.00
MAIN STREET	108+70	23.70' RT	34.59	37.59	3.00
MAIN STREET	108+90	24.20' RT	33.68	36.68	3.00
MAIN STREET	109+10	24.70' RT	32.52	35.52	3.00
MAIN STREET	109+34.85	25.14' RT	31.24	34.24	3.00
MAIN STREET	108+39	21.20' LT	34.69	36.00	1.31
MAIN STREET	108+60	21.02' LT	34.17	37.17	3.00
MAIN STREET	108+80	21.46' LT	33.46	36.46	3.00
MAIN STREET	109+00	21.92' LT	32.55	34.29	1.74
MAIN STREET	109+20	22.05' LT	31.42	32.97	1.55

ALTERATIONS TO WALL HEIGHTS/SIZE AT THE DIRECTION OF THE ENGINEER



Environmental Partners GROUP
A partnership for engineering solutions.

MARK	DATE	DESCRIPTION	DESIGNED BY	CHECKED BY	APPROVED BY
03	10/19/18	REVISED FINAL SUBMISSION	JRC	JRC	JDF
02	08/22/18	FINAL SUBMISSION	AMT	AMT	JDF
01	08/01/18	DRAFT PRELIMINARY DESIGN SUBMISSION	JRC	JRC	JDF

Scale	NTS
Date	OCTOBER 2018
Job No.	271-1607
Designed by	JRC
Drawn by	AMT
Checked by	JRC
Approved by	JDF

THIS LINE IS ONE INCH LONG WHEN PLOTTED AT FULL SCALE ON A 22" X 34" DRAWING

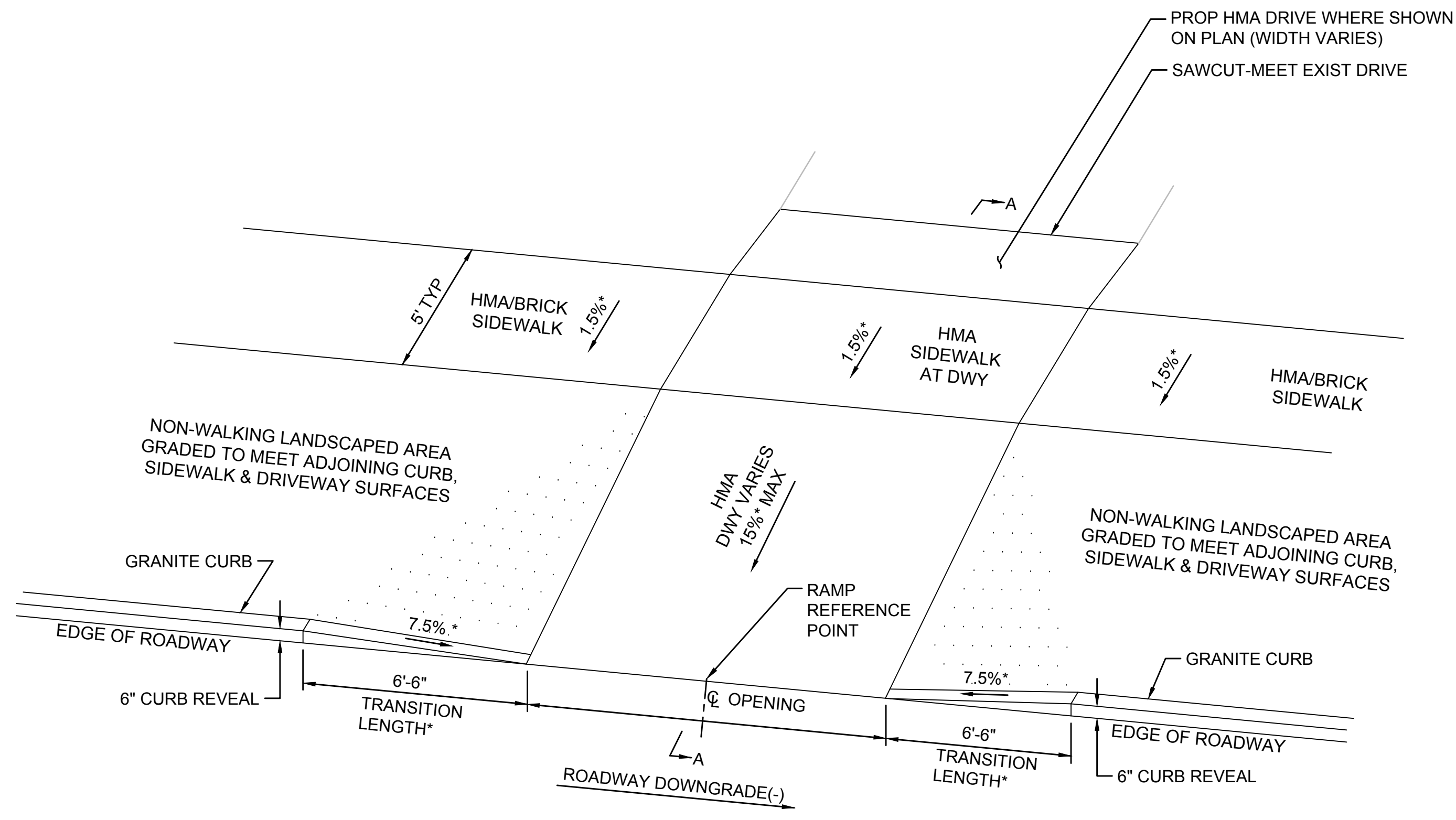
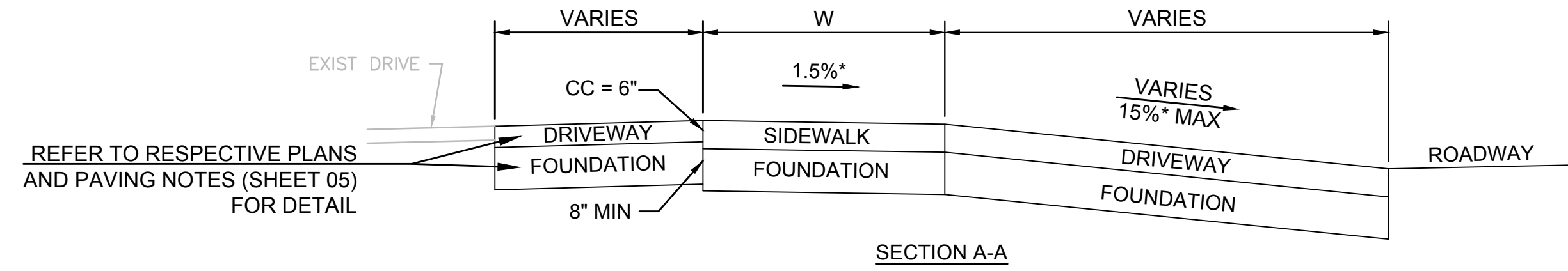
TRANSPORTATION IMPROVEMENTS
ALONG MAIN STREET (ROUTE 6A) AND MILLWAY
BARNSTABLE, MASSACHUSETTS

WHEELCHAIR RAMP AND DRIVEWAY DETAILS - 01

NOT FOR CONSTRUCTION
Sheet No. **09**

LEGEND:

- HMA HOT MIX ASPHALT
- * TOLERANCE FOR CONSTRUCTION ±0.5%



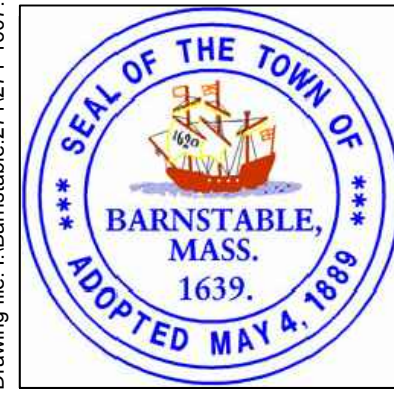
DRIVEWAYS AT SIDEWALKS WITH LANDSCAPING WITH CURB RETURNS
N.T.S.

DWY #	ALIGNMENT	DWY REFERENCE POINT C		LENGTH OF PRIMARY RAMP (W ₁)	PATH OF TRAVEL (MIN 3.00 FT)	WIDTH OF DRIVEWAY RAMP (A)	ROADWAY GUTTER SLOPE (±)	TRANSITION LENGTH (FT)	
		STATION	OFFSET					LEFT	RIGHT
5	MAIN STREET	101+81.52'	12.00' LT	3.39'	5.00'	14.99'	+1.80%	6.50'	9.00'
6	MAIN STREET	102+29.28'	12.00' LT	3.35'	5.00'	29.20'	+1.84%	6.50'	9.00'
9	MAIN STREET	106+32.14'	12.00' LT	9.69'	5.00'	14.00'	+2.83%	6.50'	11.00'
11	MAIN STREET	110+46.10'	12.00' LT	3.00'	5.00'	13.41'	-4.18%	15.00'	6.50'
13	MAIN STREET	111+09.98'	12.00' LT	4.65'	5.00'	24.39'	-2.35%	11.00'	6.50'
15	MAIN STREET	113+15.68'	18.00' LT	5.50'	5.00'	17.50'	-2.66%	11.00'	6.50'
17	MAIN STREET	115+20.86'	12.00' LT	5.00'	5.00'	34.53'	-0.58%	7.67'	6.50'
28	MAIN STREET	120+98.59'	18.00' RT	5.32'	5.00'	13.25'	+0.65%	7.67'	6.50'
31	MAIN STREET	123+77.93'	12.00' RT	3.10'	5.00'	14.41'	+3.00%	**5.50'	6.50'
32	MAIN STREET	124+08.89'	12.00' RT	2.61'	5.00'	12.72'	+2.99%	11.00'	**3.25'

** INDICATES 3 INCH CURB REVEAL

Drawing file: I:\Barnstable\2711271-1607-00 Barnstable - Improvement along Main Street (Route 6A)\ACAD\Sheet\05 - Construction Details\UPDATED.dwg Plot Date: Oct 18, 2018 8:51:19am

OF FENCING
PLE



MARK	DATE	DESCRIPTION	DESIGNED BY	CHECKED BY	APPROVED BY
03	10/19/18	REVISED FINAL SUBMISSION	JRC	JRC	JDF
02	08/22/18	FINAL SUBMISSION	AMT	JRC	JDF
01	08/01/18	DRAFT PRELIMINARY DESIGN SUBMISSION	JRC	JRC	JDF

Scale	NTS
Date	OCTOBER 2018
Job No.	271-1607
Designed by	JRC
Drawn by	AMT
Checked by	JRC
Approved by	JDF

THIS LINE IS ONE INCH LONG WHEN PLOTTED AT FULL SCALE ON A 22" X 34" DRAWING

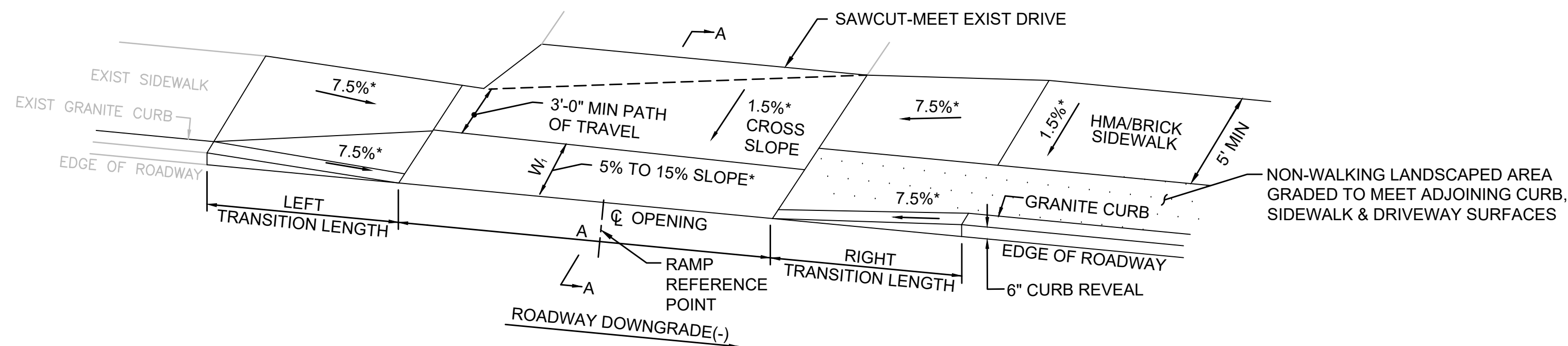
**TRANSPORTATION IMPROVEMENTS
ALONG MAIN STREET (ROUTE 6A) AND MILLWAY
BARNSTABLE, MASSACHUSETTS**

WHEELCHAIR RAMP AND DRIVEWAY DETAILS - 02

NOT FOR CONSTRUCTION

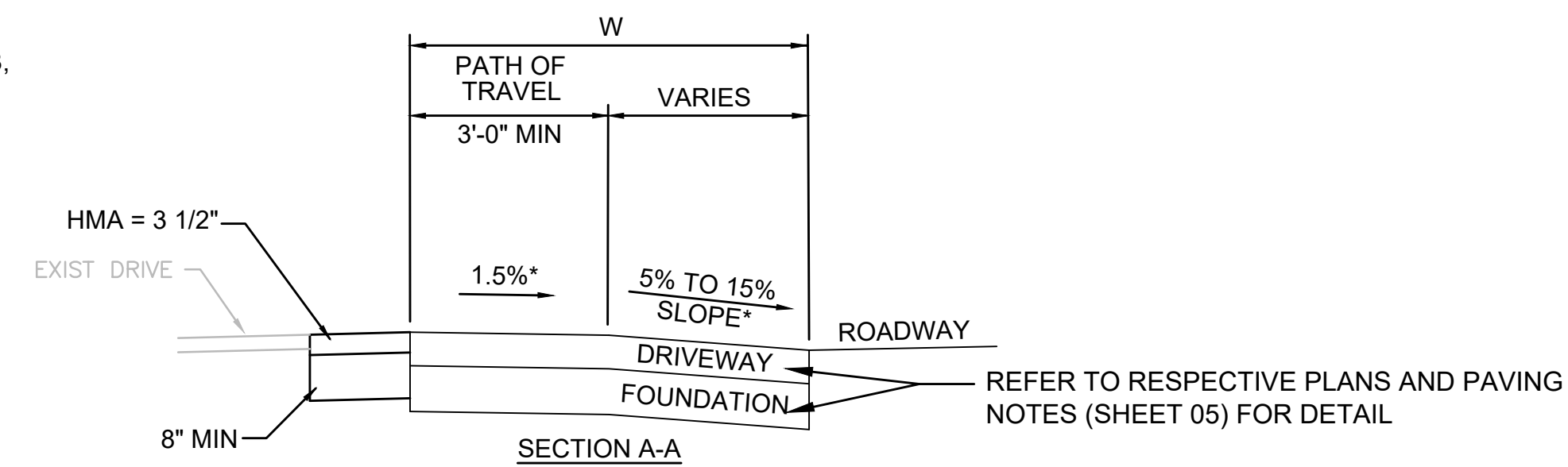
Sheet No.

10

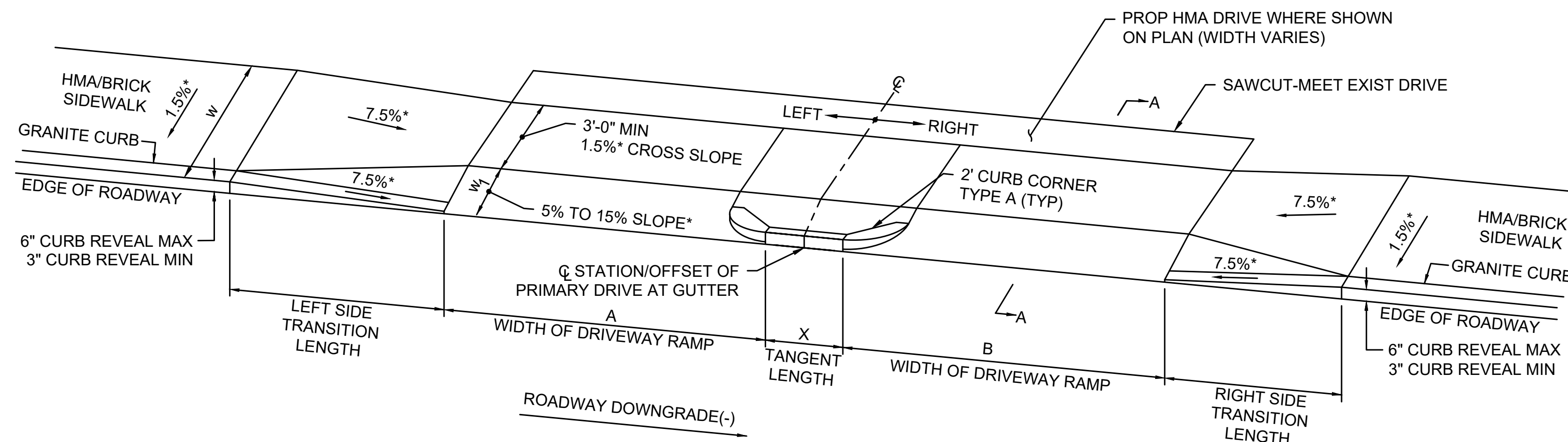


SIDEWALK THROUGH DRIVEWAYS WITH CURB RETURNS
N.T.S.

DWY #	ALIGNMENT	DWY REFERENCE POINT C		LENGTH OF PRIMARY RAMP (W ₁)	PATH OF TRAVEL (MIN 3.00 FT)	WIDTH OF DRIVEWAY RAMP (A)	ROADWAY GUTTER SLOPE (%)	TRANSITION LENGTH (FT)	
		STATION	OFFSET					LEFT	RIGHT
1	MAIN STREET	99+67.25'	12.91' LT	4.59'	4.96'	12.13'	+1.00%	6.50'	7.67'
26	MAIN STREET	120+36.44'	18.00' RT	5.13'	5.00'	24.10'	+0.66%	7.67'	6.50'

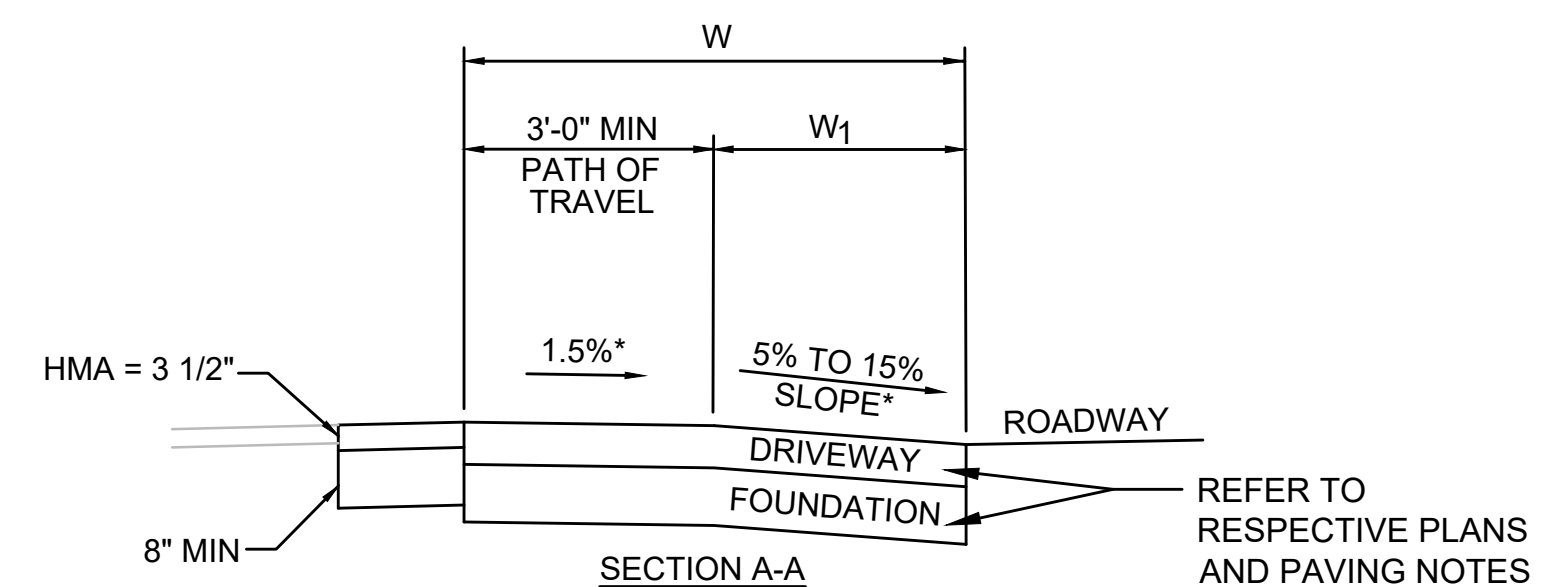


LEGEND:
 HSL HIGH SIDE FRONT TRANSITION LENGTH (SEE E 107.9.0)
 W SIDEWALK WIDTH
 CC CEMENT CONCRETE
 HMA HOT MIX ASPHALT
 * TOLERANCE FOR CONSTRUCTION ±0.5%



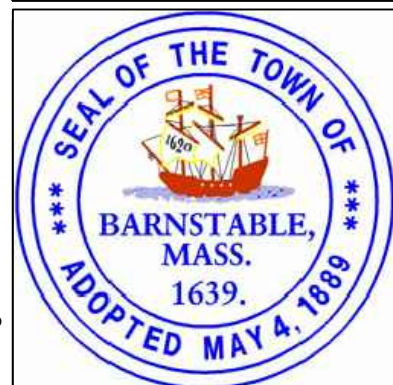
SIDEWALK THROUGH DRIVEWAYS WITHOUT CURB RETURNS
(LESS THAN 14' APART)
N.T.S.

DWY#	ALIGNMENT	DWY REFERENCE POINT C		LENGTH OF PRIMARY RAMP (W ₁)	DEPTH OF LEVEL LANDING (MIN 3.00')	WIDTH OF DRIVEWAY RAMP (A)	TANGENT LENGTH (X)	WIDTH OF DRIVEWAY RAMP (B)	ROADWAY GUTTER SLOPE (±)	TRANSITION LENGTH	
		STATION	OFFSET							LEFT	RIGHT
16	MAIN STREET	114+15.87'	12.00' LT	12.05'	5.00'	16.46'	5.15'	13.13'	-2.67%	11.00'	6.50'



LEGEND:
 W SIDEWALK WIDTH
 HMA HOT MIX ASPHALT
 * TOLERANCE FOR CONSTRUCTION ±0.5%
 ** TRANSITION TO 3" CURB REVEAL AS SHOWN ON GRADE PLANS

Drawing file: I:\Barnstable\2711271-1607-00 Barnstable - Improvement along Main Street (Route 6A)\ACAD\Sheet05 - Construction Details\UPDAT\Sheet05 - Construction Details\UPDAT.dwg Plot Date: Oct 22, 2018 7:31pm



MARK	DATE	DESCRIPTION	DESIGNED BY	CHECKED BY	APPROVED BY
03	10/19/18	REVISED FINAL SUBMISSION	JRC	JRC	JDF
02	08/22/18	FINAL SUBMISSION	AMT	AMT	JDF
01	08/01/18	DRAFT PRELIMINARY DESIGN SUBMISSION	JRC	JRC	JDF

Scale	NTS
Date	OCTOBER 2018
Job No.	271-1607
Designed by	JRC
Drawn by	AMT
Checked by	JRC
Approved by	JDF

THIS LINE IS ONE INCH LONG WHEN PLOTTED AT FULL SCALE ON A 22" X 34" DRAWING

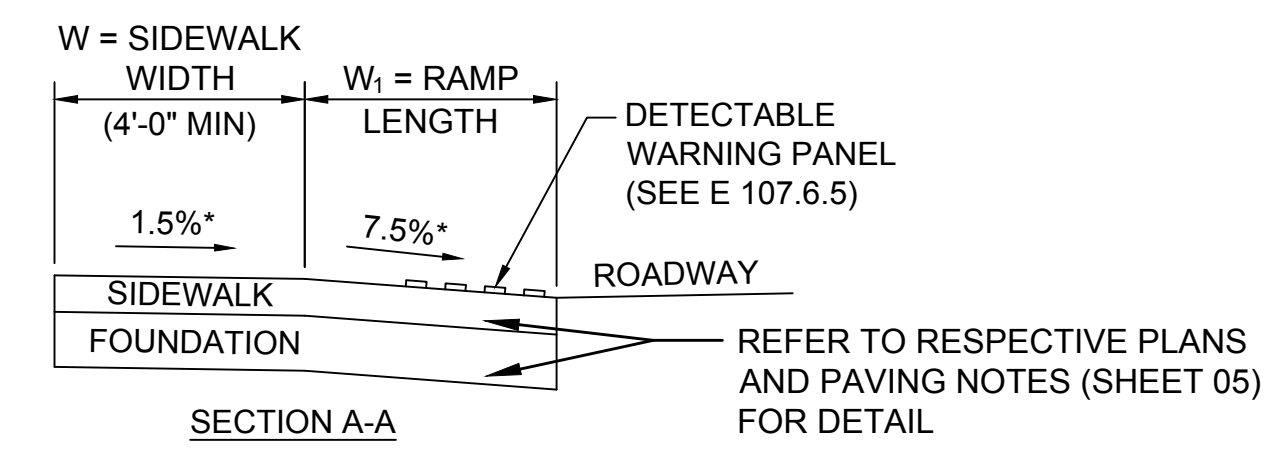
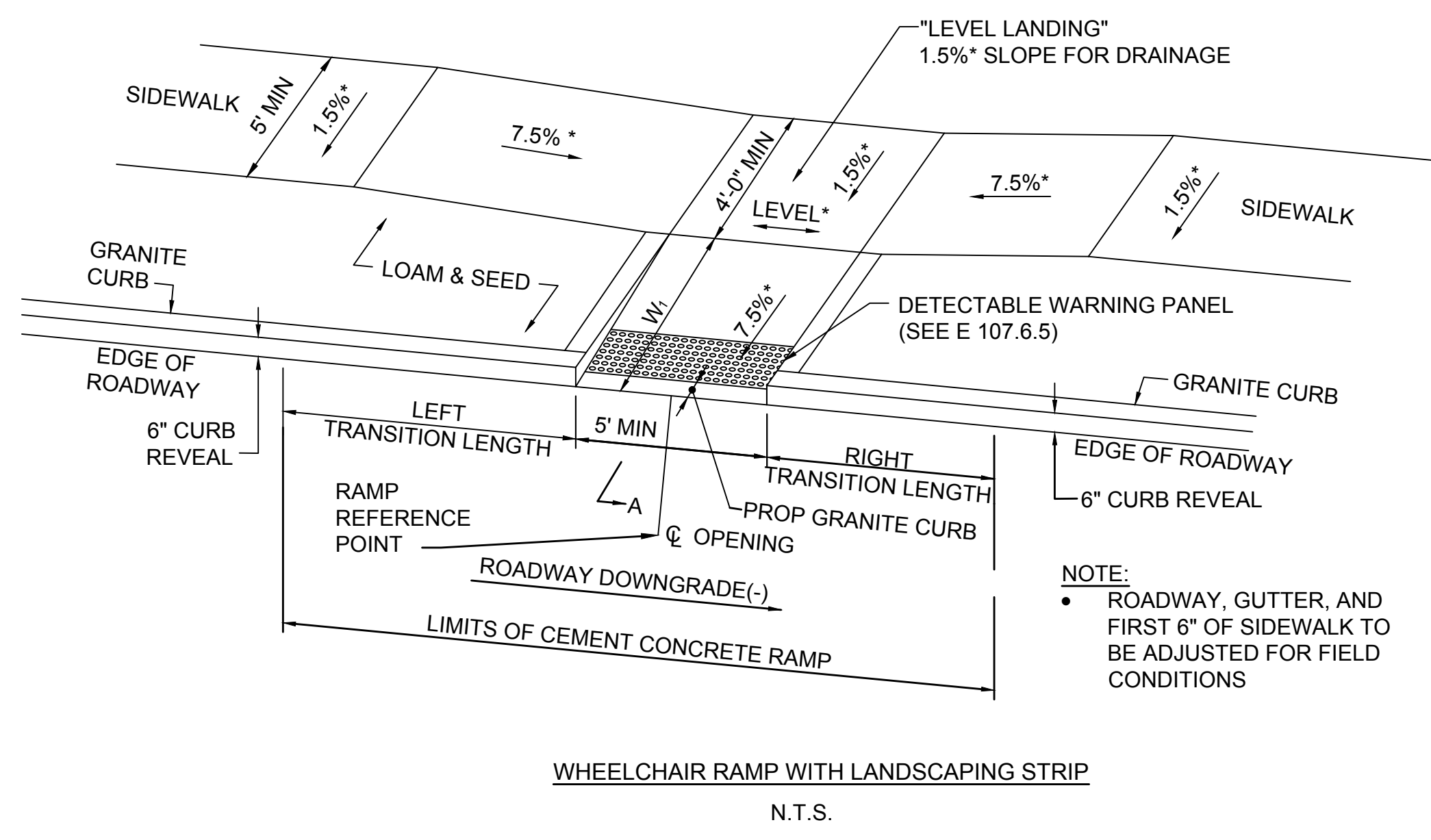
TRANSPORTATION IMPROVEMENTS
ALONG MAIN STREET (ROUTE 6A) AND MILLWAY
BARNSTABLE, MASSACHUSETTS

WHEELCHAIR RAMP AND DRIVEWAY DETAILS - 03

NOT FOR CONSTRUCTION
Sheet No.

11

- NOTES:**
- SEE CONSTRUCTION STANDARD E 107.6.0
 - *CONSTRUCTION TOLERANCE ±0.5%
 - **SEE CONSTRUCTION STANDARD E 107.9.0
 - WHEELCHAIR RAMPS WILL BE FITTED WITH DETECTABLE WARNING PANELS (SEE E 107.6.5)

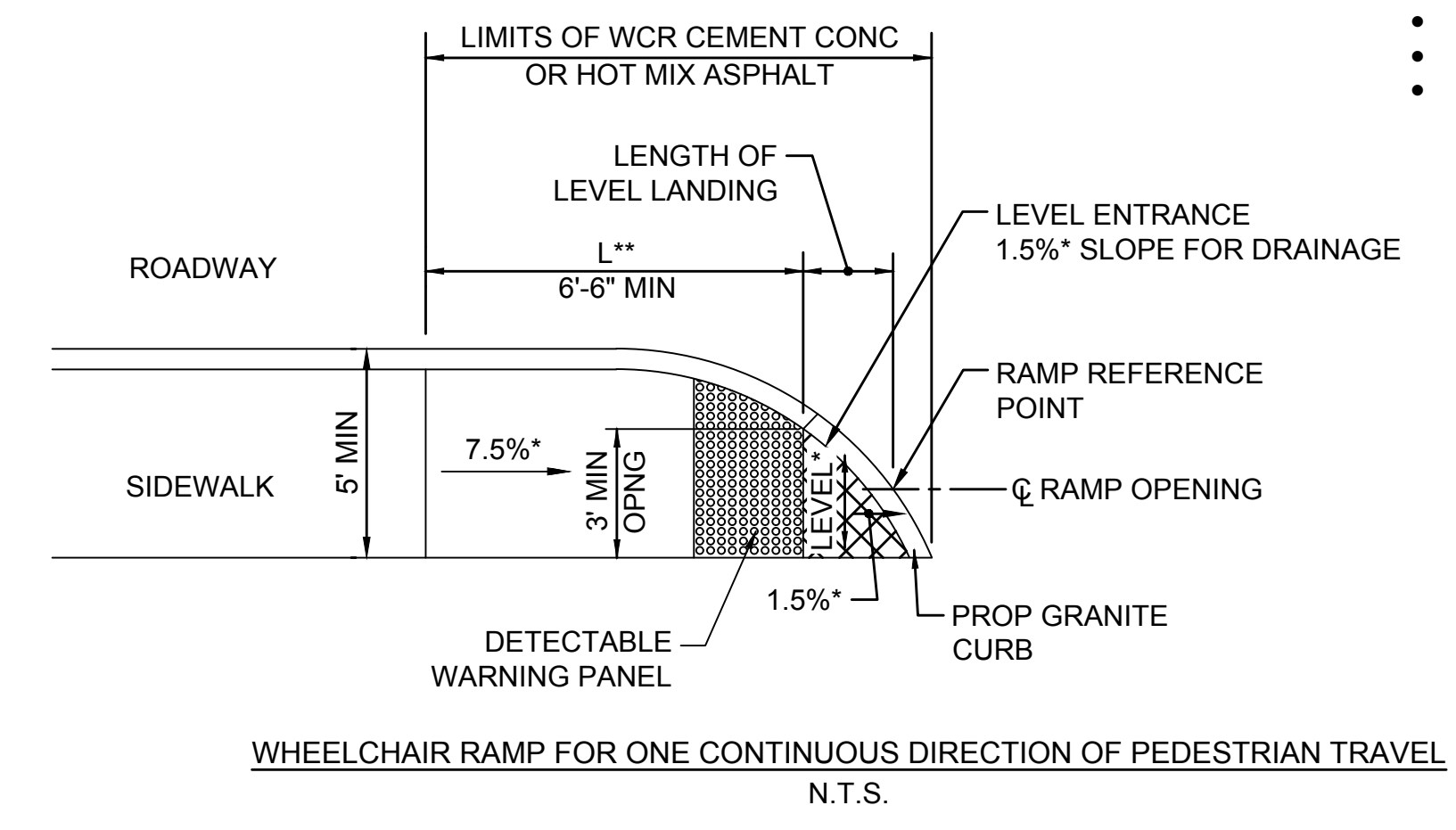


LEGEND:
 W SIDEWALK WIDTH
 W₁ PERPENDICULAR RAMP LENGTH

* TOLERANCE FOR CONSTRUCTION ±0.5%
 SIDEWALK TRANSITION MAY NOT BE REQUIRED AT EACH WHEELCHAIR RAMP, SEE TABLE BELOW FOR APPLICABLE TRANSITIONS

USABLE SIDEWALK WIDTH PER AAB IS NOT TO BE LESS THAN 4'0"

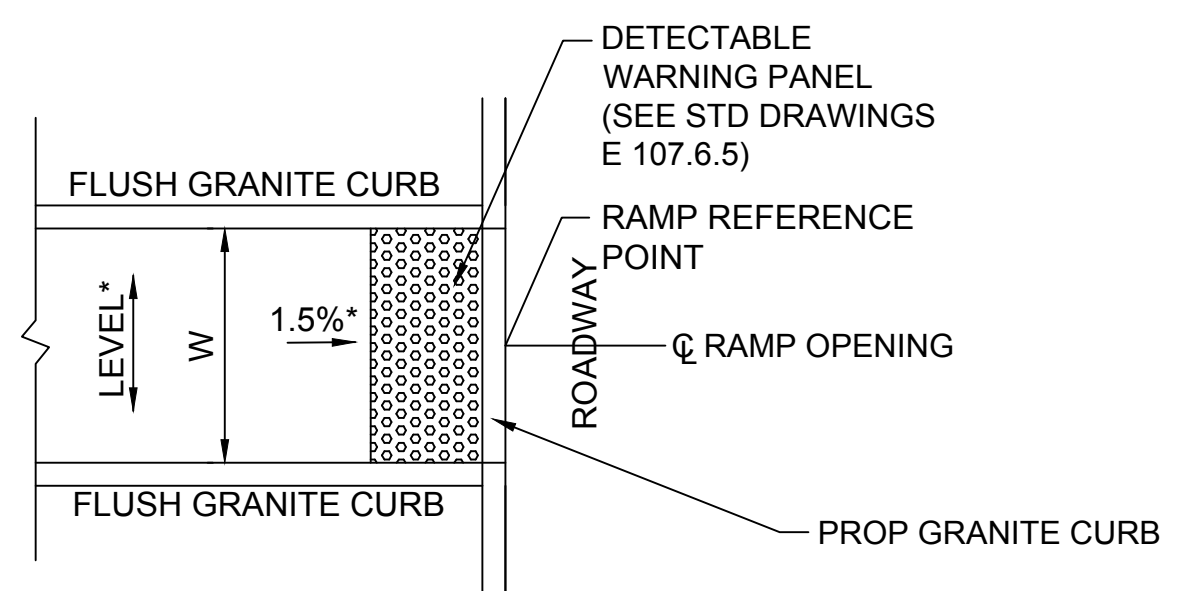
WHEELCHAIR RAMPS WILL BE FITTED WITH DETECTABLE WARNING PANELS (SEE E107.6.5)



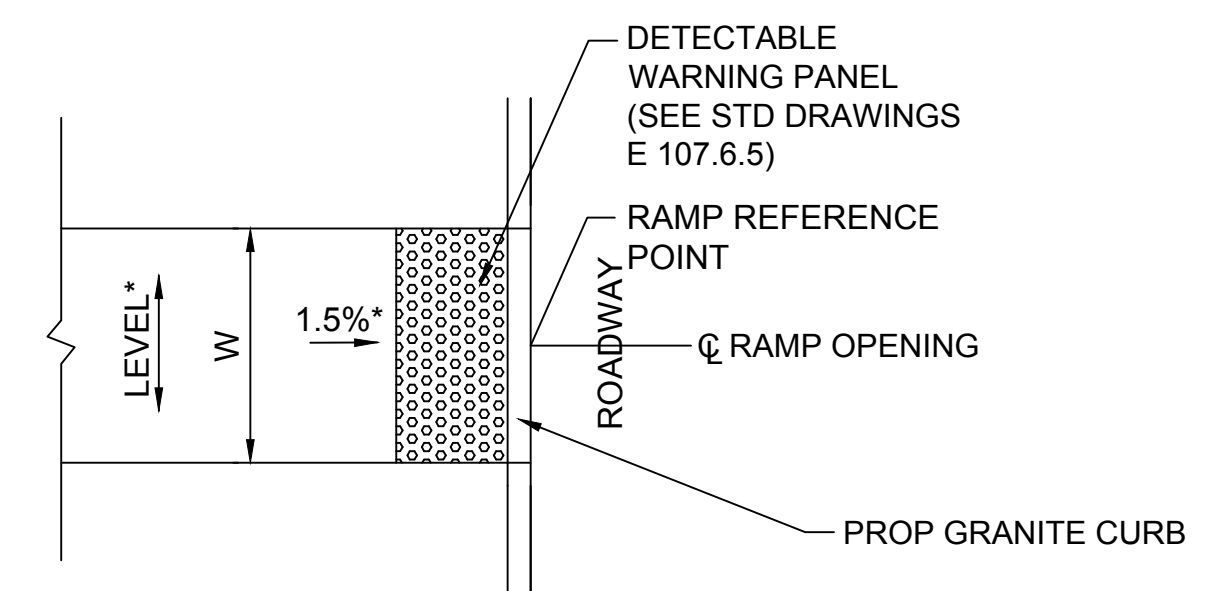
WHEELCHAIR RAMP FOR ONE CONTINUOUS DIRECTION OF PEDESTRIAN TRAVEL
 N.T.S.

WCR #	ALIGNMENT	RAMP REFERENCE POINT		LENGTH OF LEVEL LANDING	WIDTH OF RAMP (MIN 3.00')	WIDTH OF SIDEWALK (W)	TRANSITION	
		STATION	OFFSET				ROADWAY GRADE (±)	L
7	PINE LANE	5+17.09'	12.48' RT	3.23'	5.00'	5.00'	+2.61%	6.50'
8	PINE LANE	5+19.05'	12.13' LT	2.92'	5.00'	5.00'	+2.49%	11.00'
12	RAILROAD AVENUE	5+20.87'	13.78' LT	1.97'	5.00'	5.00'	-3.36%	6.50'
16	COURT ACCESS	5+20.78'	11.82' LT	1.52'	5.00'	5.00'	-1.58%	6.50'
19	FIRE STATION ACCESS	5+20.51'	16.66' RT	2.30'	3.00'	5.00'	+1.87%	9.00'
33	FIRE STATION ACCESS	6+80.94'	23.66' LT	3.27'	5.00'	5.00'	+1.87%	6.50'
34	FIRE STATION ACCESS	7+30.65'	20.04' LT	2.76'	3.00'	5.00'	+2.53%	9.00'

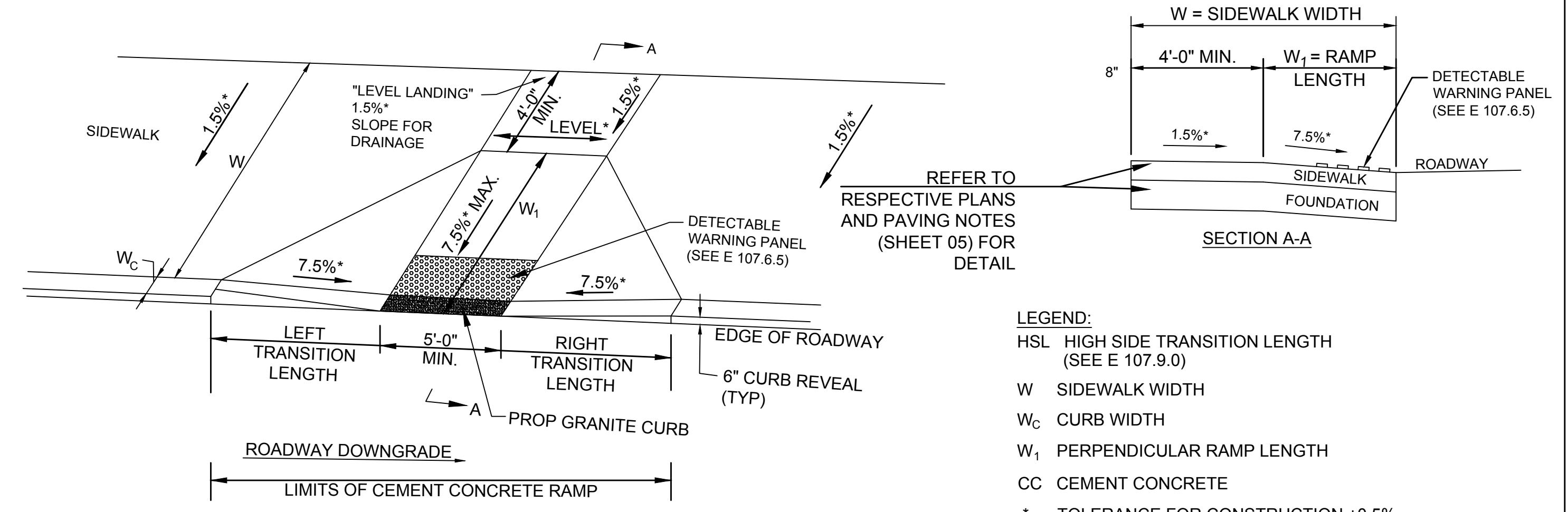
WCR #	ALIGNMENT	RAMP REFERENCE POINT		LENGTH OF RAMP (W')	WIDTH OF RAMP (MIN 5.00')	DEPTH OF LEVEL LANDING (MIN 4.00')	ROADWAY GUTTER SLOPE (±)	TRANSITION LENGTH	
		STATION	OFFSET					LEFT	RIGHT
11	RAILROAD AVENUE	5+21.40'	12.49' RT	8.25'	5.00'	10.11'	-2.66%		
13	MAIN STREET	114+93.15'	12.00' LT	5.60'	5.00'	5.00'	-2.30%	N/A	N/A
26	MAIN STREET	126+20.78'	15.5' RT	2.64'	5.00'	7.09'	+5.50%		



WHEELCHAIR RAMP AT REFUGE ISLAND
 NOT TO SCALE



WHEELCHAIR RAMP AT RAISED CROSSING
 NOT TO SCALE



WHEELCHAIR RAMP GREATER THAN 12'-4\"/>
 N.T.S.

LEGEND:
 HSL HIGH SIDE TRANSITION LENGTH (SEE E 107.9.0)
 W SIDEWALK WIDTH
 W_C CURB WIDTH
 W₁ PERPENDICULAR RAMP LENGTH
 CC CEMENT CONCRETE
 * TOLERANCE FOR CONSTRUCTION ±0.5%
 USABLE SIDEWALK WIDTH PER AAB = W - W_C
 RAMP LENGTH, W₁ = 4 - 4'0" MIN
 WHEELCHAIR RAMPS WILL BE FITTED WITH DETECTABLE WARNING PANELS (SEE E 107.6.5)

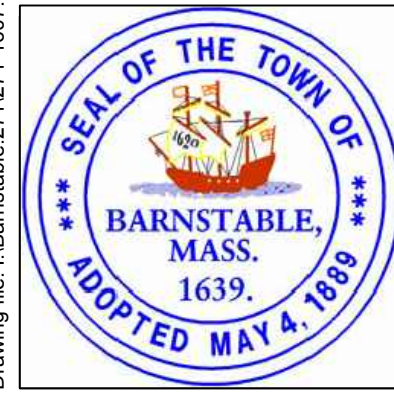
WCR #	ALIGNMENT	RAMP REFERENCE POINT		WIDTH OF SIDEWALK (W)	WIDTH OF RAMP (MIN 5.00')
		STATION	OFFSET		
4	MAIN STREET	99+08.00'	3.00' LT	5.00'	10.00'
5	MAIN STREET	99+07.93'	3.00' RT	5.00'	10.00'

WCR #	ALIGNMENT	RAMP REFERENCE POINT		WIDTH OF SIDEWALK (W)	WIDTH OF RAMP (MIN 5.00')
		STATION	OFFSET		
3	MAIN STREET	99+08.29'	16.00' LT	5.00'	10.00'
6	MAIN STREET	99+08.29'	16.00' RT	5.00'	10.00'
9	MAIN STREET	109+99.96'	12.00' LT	5.00'	10.00'
10	MAIN STREET	110+00.08'	12.02' RT	5.00'	10.00'
17	MAIN STREET	116+30.09'	12.00' LT	5.00'	10.00'
18	MAIN STREET	116+30.09'	12.02' RT	5.00'	10.00'
21	MAIN STREET	119+60.88'	12.00' LT	5.00'	10.00'
22	MAIN STREET	119+60.88'	18.00' RT	5.00'	10.00'
31	MILLWAY	61+07.76'	12.70' LT	5.00'	10.00'
32	MILLWAY	61+10.08'	12.00' RT	5.00'	10.00'

WCR #	ALIGNMENT	RAMP REFERENCE POINT		LENGTH OF RAMP (W)	WIDTH OF RAMP (MIN 5.00')	DEPTH OF LEVEL LANDING (MIN 4.00')	ROADWAY GUTTER SLOPE (±)	TRANSITION LENGTH	
		STATION	OFFSET					LEFT	RIGHT
14	MAIN STREET	114+93.30'	12.00' RT	2.57'	5.00'	9.30'	+1.18%	**3.25'	9.0'
15	COURT ACCESS	5+21.80'	12.00' RT	9.12'	5.00'	6.46'	+2.95%	11.00'	**3.25'
25	MAIN STREET	126+20.92'	13.00' LT	5.50'	5.00'	6.00'	+6.57%	6.50'	N/A
30	MILLWAY	51+61.60'	14.70' RT	7.03'	5.00'	4.00'	-4.88%	N/A	15.00'

** 3IN CURB REVEAL

Drawing file: I:\Barnstable - Improvement along Main Street (Route 6A)\ACAD\Sheet05 - Construction Details\UPDATED.dwg Plot Date: Oct 18, 2018 9:21 am

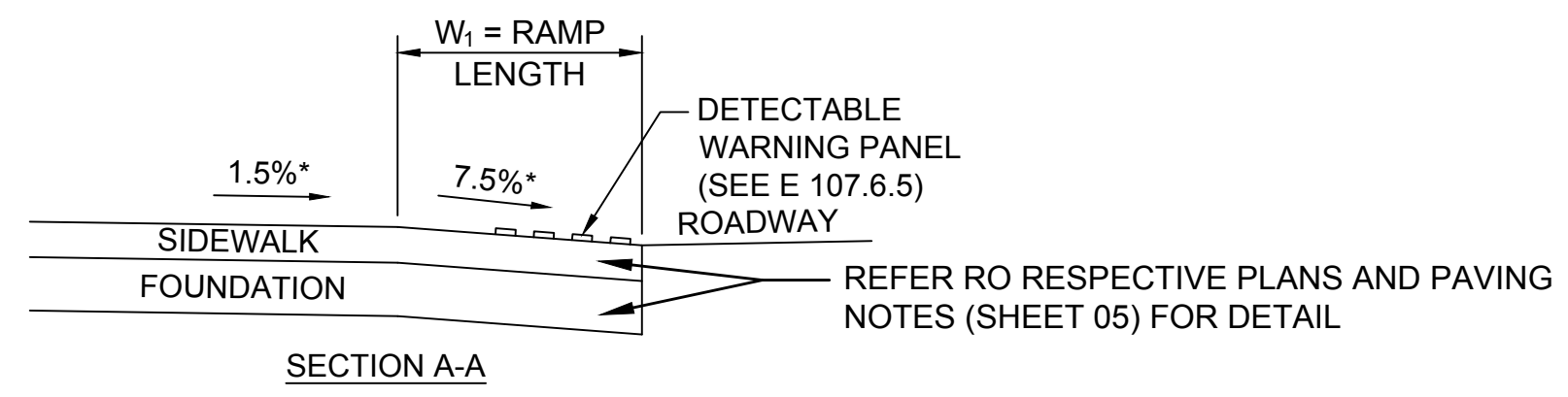
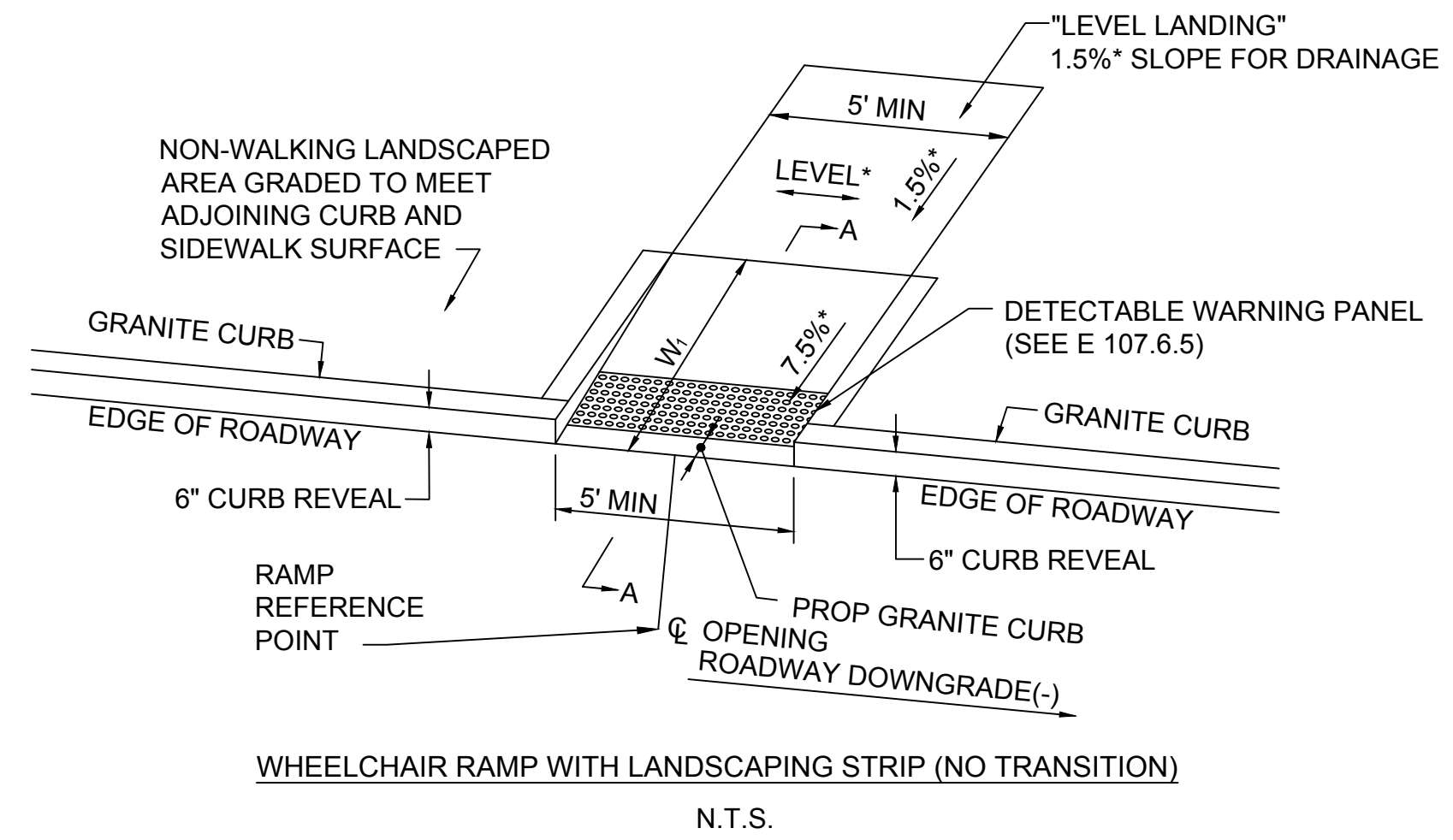


MARK	DATE	DESCRIPTION	DESIGNED BY	CHECKED BY	APPROVED BY
03	10/19/18	REVISED FINAL SUBMISSION	JRC	JRC	JDF
02	08/22/18	FINAL SUBMISSION	AMT	AMT	JDF
01	08/01/18	DRAFT PRELIMINARY DESIGN SUBMISSION	JRC	JRC	JDF

Scale: NTS
 Date: OCTOBER 2018
 Job No.: 271-1607
 THIS LINE IS ONE INCH LONG WHEN PLOTTED AT FULL SCALE ON A 22" X 34" DRAWING

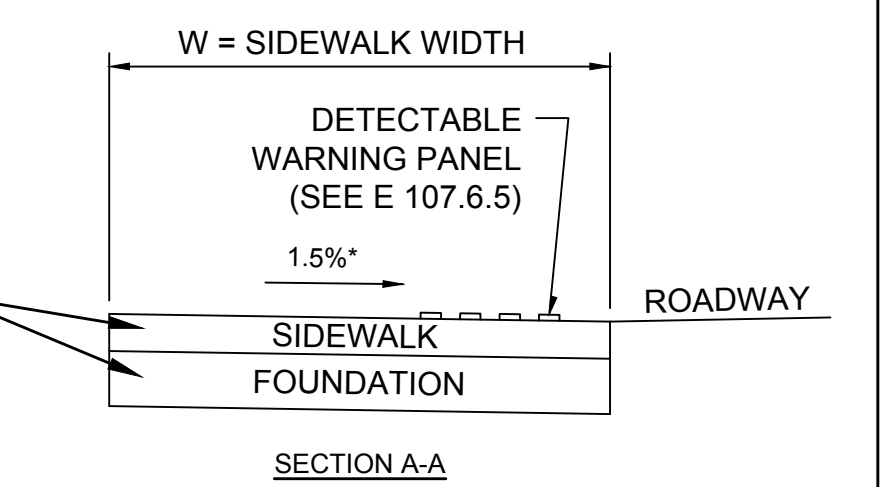
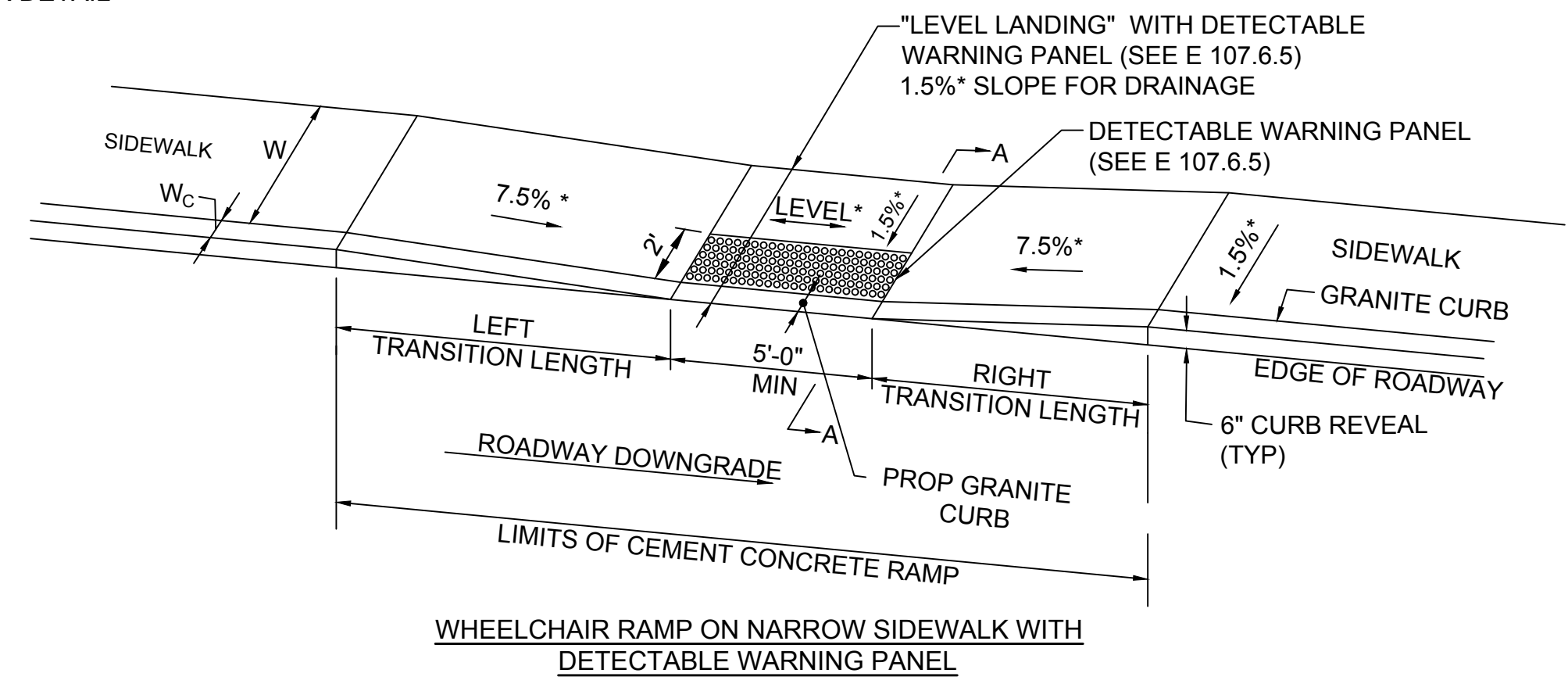
TRANSPORTATION IMPROVEMENTS
 ALONG MAIN STREET (ROUTE 6A) AND MILLWAY
 BARNSTABLE, MASSACHUSETTS
 WHEELCHAIR RAMP AND DRIVEWAY DETAILS - 04

NOT FOR CONSTRUCTION
 Sheet No.
 12



LEGEND:
 HSL HIGH SIDE FRONT TRANSITION LENGTH (SEE E 107.9.0)
 W SIDEWALK WIDTH
 W₁ PERPENDICULAR RAMP LENGTH
 * TOLERANCE FOR CONSTRUCTION ±0.5%
 USABLE SIDEWALK WIDTH PER AAB IS NOT TO BE LESS THAN 4'0"

NOTE:
 ROADWAY, GUTTER, AND FIRST 6" OF SIDEWALK TO BE ADJUSTED FOR FIELD CONDITIONS



LEGEND:
 HSL HIGH SIDE FRONT TRANSITION LENGTH (SEE E 107.9.0)
 W SIDEWALK WIDTH
 W_C CURB WIDTH
 * TOLERANCE FOR CONSTRUCTION ±0.5%
 USABLE SIDEWALK WIDTH PER AAB = W-W_C
 USABLE SIDEWALK WIDTH PER AAB IS NOT TO BE LESS THAN 4'0"
 WHEELCHAIR RAMPS WILL BE FITTED WITH DETECTABLE WARNING PANELS (SEE E 107.6.5)

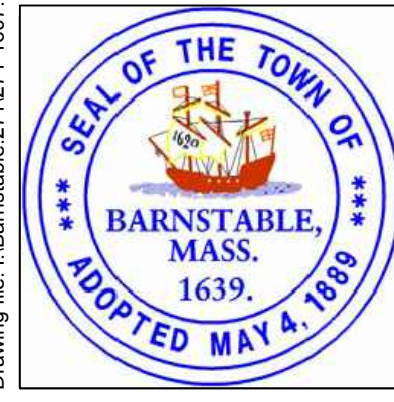
NOTE:
 ROADWAY, GUTTER, AND FIRST 6" OF SIDEWALK TO BE ADJUSTED FOR FIELD CONDITIONS

WCR #	ALIGNMENT	RAMP REFERENCE POINT		LENGTH OF RAMP (W)	WIDTH OF RAMP (MIN 5.00')	DEPTH OF LEVEL LANDING (MIN 4.00')	TRANSITION LENGTH	
		STATION	OFFSET				LEFT	RIGHT
9	MAIN STREET	109+99.96'	12.00' LT	2.50'	5.00'	5.50'		
13	MAIN STREET	114+93.15'	12.00' LT	2.49'	5.00'	8.21'		
17	MAIN STREET	116+30.09'	12.00' LT	2.50'	5.00'	7.50'		
18	MAIN STREET	116+30.09'	12.02' RT	2.50'	5.00'	9.98'		
20	FIRE STATION	5+25.28	17.52' LT	5.35'	5.00'	10.00'		
26	MAIN STREET	126+20.78'	15.5' RT	2.64'	5.00'	7.09'		

WCR #	ALIGNMENT	RAMP REFERENCE POINT		WIDTH OF SIDEWALK (W)	WIDTH OF RAMP (MIN 5.00')	DEPTH OF LEVEL LANDING (MIN 4.00')	ROADWAY GUTTER SLOPE (±)	TRANSITION LENGTH	
		STATION	OFFSET					LEFT	RIGHT
23	MAIN STREET	125+40.89'	19.60' LT	5.00'	5.00'	5.50'	-3.40%	14.00'	6.50'
24	MAIN STREET	125+42.19'	12.60' RT	5.00'	5.00'	5.50'	+3.48	6.50'	14.00'
27	MILLWAY	50+99.15'	18.00' RT	5.00'	5.00'	5.57'	-0.62%	7.67'	6.50'
28	MILLWAY	51+02.08'	18.80' RT	5.10'	5.00'	5.85'	+4.32%	**7.50'	6.50'
29	MILLWAY	51+70.65'	27.88' LT	5.00'	5.00'	5.50'	+1.87%	**3.25'	9.00'

**INDICATES 3 INCH CURB REVEAL

Drawing file: I:\Barnstable\2711271-1607-00 Barnstable - Improvement along Main Street (Route 6A)\ACAD\Sheet\05 - Construction Details\UPDA TED.dwg Plot Date: Oct 18, 2018 8:52:33am

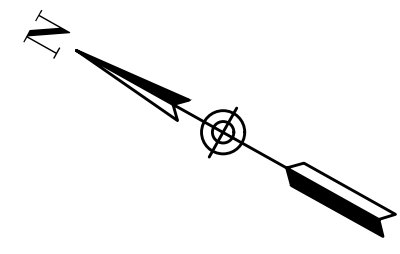


MARK	DATE	DESCRIPTION	DESIGNED BY	CHECKED BY	APPROVED BY
			JRC	JRC	JDF
03	10/19/18	REVISED FINAL SUBMISSION	JRC	JRC	JDF
02	08/22/18	FINAL SUBMISSION	AMT	AMT	JDF
01	08/01/18	DRAFT PRELIMINARY DESIGN SUBMISSION	JRC	JRC	JDF

Scale: NTS
 Date: OCTOBER 2018
 Job No.: 271-1607
 THIS LINE IS ONE INCH LONG WHEN PLOTTED AT FULL SCALE ON A 22" X 34" DRAWING

TRANSPORTATION IMPROVEMENTS
 ALONG MAIN STREET (ROUTE 6A) AND MILLWAY
 BARNSTABLE, MASSACHUSETTS
 WHEELCHAIR RAMP AND DRIVEWAY DETAILS - 05

NOT FOR CONSTRUCTION
 Sheet No. 13

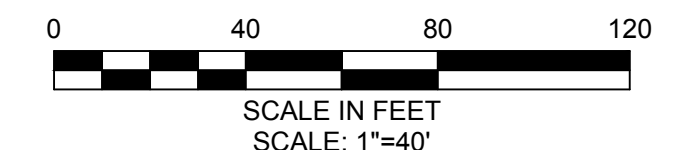
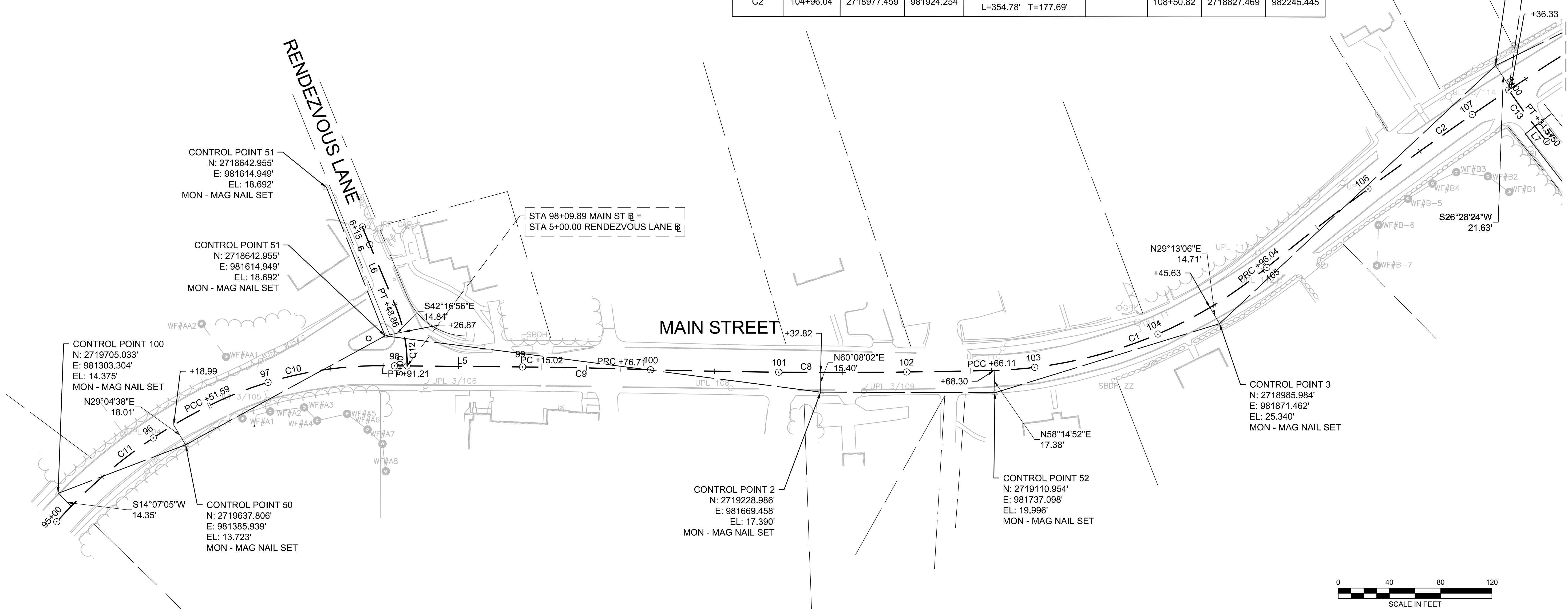


RENDEZVOUS LANE CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
C12	5+00.00	2719518.796	981525.748	R=120.00' Δ=23°19'46" L=48.86' T=24.77'		5+48.86	2719550.723	981562.290
L6	5+48.86	2719550.723	981562.290		N37°11'31"E 66.14'	6+15.00	2719603.410	981602.271

ROUTE 6A CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
C11	95+00.00	2719694.831	981283.586	R=392.00' Δ=22°09'23" L=151.59' T=76.75'		96+51.59	2719636.540	981422.496
C10	96+51.59	2719636.540	981422.496	R=300.00' Δ=26°39'59" L=139.62' T=71.10'		97+91.21	2719535.056	981516.552
L5	97+91.21	2719535.056	981516.552		S29°29'28"E 123.81'	99+15.02	2719427.288	981577.503
C9	99+15.02	2719427.288	981577.503	R=2500.00' Δ=1°24'50" L=61.69' T=30.85'		99+76.71	2719373.222	981607.206
C8	99+76.71	2719373.222	981607.206	R=5000.00' Δ=3°18'59" L=289.40' T=144.74'		102+66.11	2719121.966	981750.727
C1	102+66.11	2719121.966	981750.727	R=350.00' Δ=37°38'25" L=229.93' T=119.29'		104+96.04	2718977.459	981924.254
C2	104+96.04	2718977.459	981924.254	R=2500.00' Δ=8°07'52" L=354.78' T=177.69'		108+50.82	2718827.469	982245.445

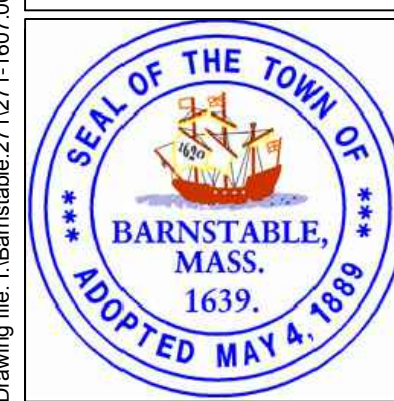
STA 107+34.39 MAIN ST @ =
STA 5+00.00 PINE LANE @

CONTROL POINT 4
N: 2718900.199'
E: 982153.805'
EL: 34.360'
MON - MAG NAIL SET



CONTINUED
ON SHEET 15

Drawing file: I:\Barnstable\271271-1607-00 Barnstable - Improvement along Main Street (Route 6A)\CAD\Sheet05 - Survey Control Plan.dwg Plot Date: Oct 18, 2018 9:28am



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MARK	DATE	DESCRIPTION	Scale	AS NOTED
			Date	OCTOBER 2018
			Job No.	271-1607
03	10/19/18	REVISED FINAL SUBMISSION	Designed by	JRC
02	08/22/18	FINAL SUBMISSION	Drawn by	KMB
01	08/01/18	DRAFT PRELIMINARY DESIGN SUBMISSION	Checked by	BLH
			Approved by	JDF

THIS LINE IS ONE INCH LONG WHEN PLOTTED AT FULL SCALE ON A 22" X 34" DRAWING

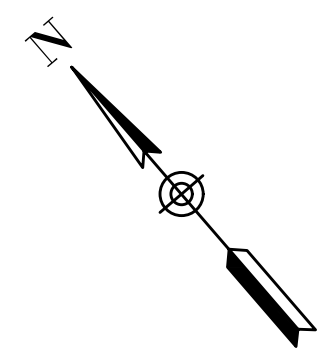
TRANSPORTATION IMPROVEMENTS
ALONG MAIN STREET (ROUTE 6A) AND MILLWAY
BARNSTABLE, MASSACHUSETTS

SURVEY CONTROL PLAN - 01

NOT FOR CONSTRUCTION

Sheet No.

14



PINE LANE CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
C13	5+00.00	2718881.701	982142.422	R=500.00' Δ=3°57'40" L=34.57' T=17.29'		5+34.57	2718850.184	982128.242
L7	5+34.57	2718850.184	982128.242		S22°14'37"W 15.43'	5+50.00	2718835.900	982122.400

RAILROAD AVENUE CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L8	5+00.00	2718751.815	982401.898		S19°24'45"W 60.00'	5+60.00	2718695.226	982381.956

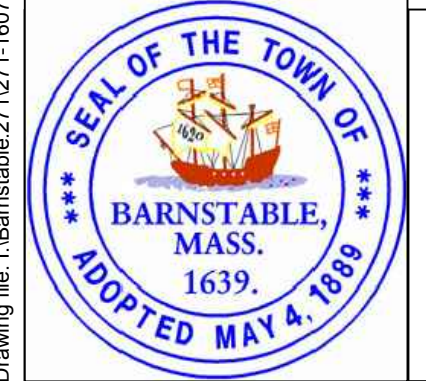
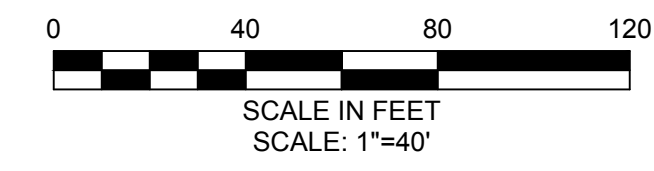
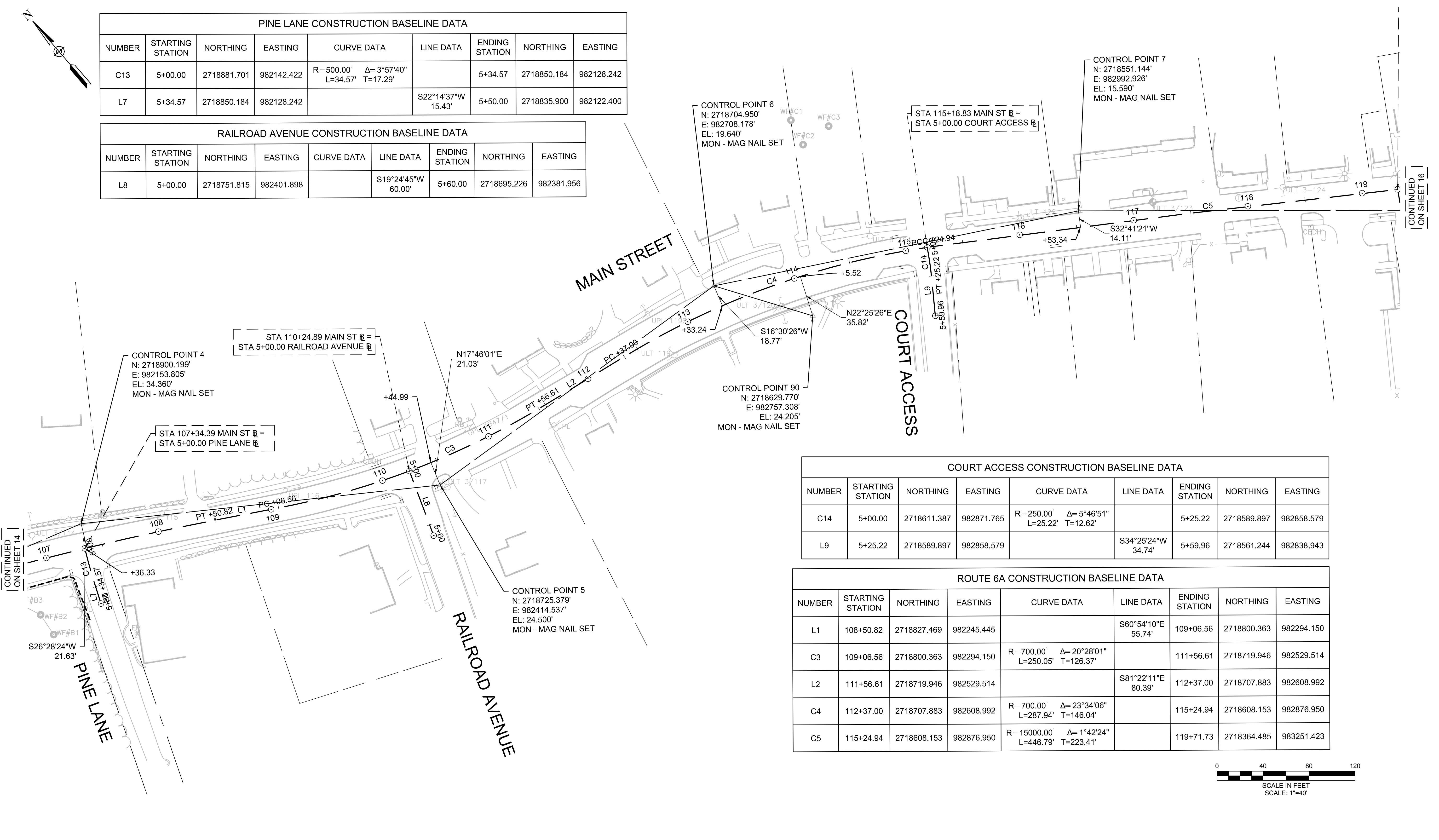
COURT ACCESS CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
C14	5+00.00	2718611.387	982871.765	R=250.00' Δ=5°46'51" L=25.22' T=12.62'		5+25.22	2718589.897	982858.579
L9	5+25.22	2718589.897	982858.579		S34°25'24"W 34.74'	5+59.96	2718561.244	982838.943

ROUTE 6A CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L1	108+50.82	2718827.469	982245.445		S60°54'10"E 55.74'	109+06.56	2718800.363	982294.150
C3	109+06.56	2718800.363	982294.150	R=700.00' Δ=20°28'01" L=250.05' T=126.37'		111+56.61	2718719.946	982529.514
L2	111+56.61	2718719.946	982529.514		S81°22'11"E 80.39'	112+37.00	2718707.883	982608.992
C4	112+37.00	2718707.883	982608.992	R=700.00' Δ=23°34'06" L=287.94' T=146.04'		115+24.94	2718608.153	982876.950
C5	115+24.94	2718608.153	982876.950	R=15000.00' Δ=1°42'24" L=446.79' T=223.41'		119+71.73	2718364.485	983251.423

Drawing file: I:\Barnstable\271271-1-1607-00 Barnstable - Improvement along Main Street (Route 6A)\CAD\Sheet05 - Survey Control Plan.dwg Date: Oct 18, 2018 9:27am

CONTINUED ON SHEET 14

CONTINUED ON SHEET 16



MARK	DATE	DESCRIPTION	Scale	AS NOTED
			Date	OCTOBER 2018
			Job No.	271-1607
03	10/19/18	REVISED FINAL SUBMISSION	Designed by	JRC
02	08/22/18	FINAL SUBMISSION	Drawn by	KMB
01	08/01/18	DRAFT PRELIMINARY DESIGN SUBMISSION	Checked by	BLH
			Approved by	JDF

THIS LINE IS ONE INCH LONG WHEN PLOTTED AT FULL SCALE ON A 22" X 34" DRAWING

TRANSPORTATION IMPROVEMENTS
ALONG MAIN STREET (ROUTE 6A) AND MILLWAY
BARNSTABLE, MASSACHUSETTS

SURVEY CONTROL PLAN - 02

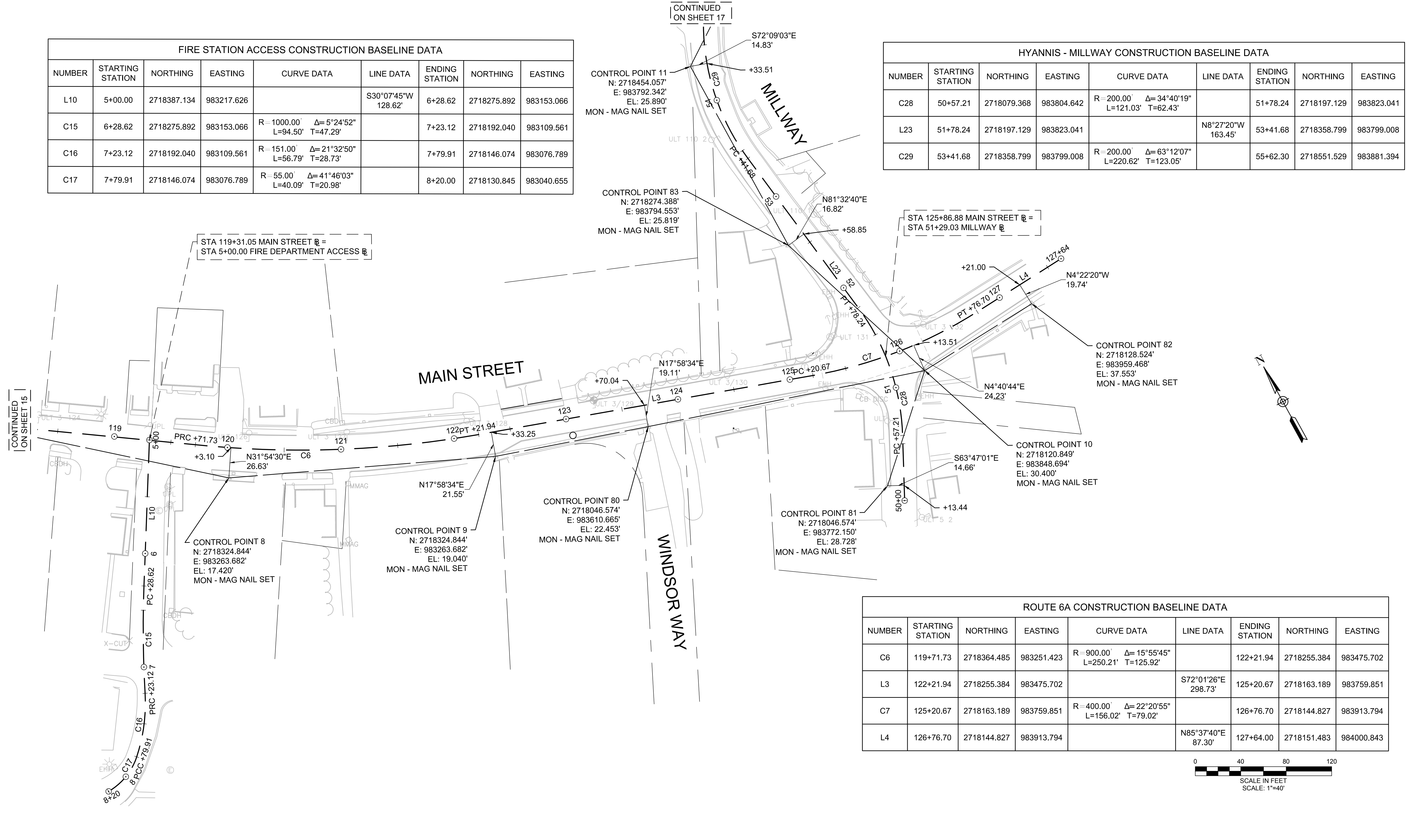
NOT FOR CONSTRUCTION

Sheet No.

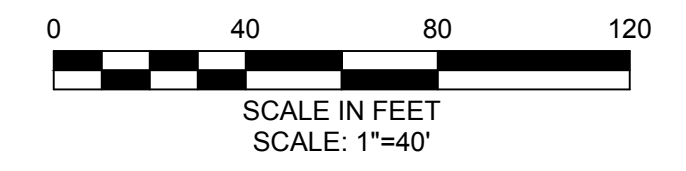
15

FIRE STATION ACCESS CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L10	5+00.00	2718387.134	983217.626		S30°07'45"W 128.62'	6+28.62	2718275.892	983153.066
C15	6+28.62	2718275.892	983153.066	R=1000.00' Δ=5°24'52" L=94.50' T=47.29'		7+23.12	2718192.040	983109.561
C16	7+23.12	2718192.040	983109.561	R=151.00' Δ=21°32'50" L=56.79' T=28.73'		7+79.91	2718146.074	983076.789
C17	7+79.91	2718146.074	983076.789	R=55.00' Δ=41°46'03" L=40.09' T=20.98'		8+20.00	2718130.845	983040.655

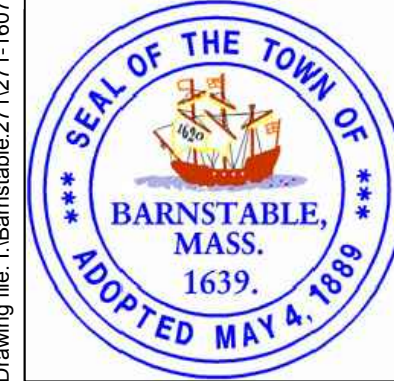
HYANNIS - MILLWAY CONSTRUCTION BASELINE DATA									
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING	
C28	50+57.21	2718079.368	983804.642	R=200.00' Δ=34°40'19" L=121.03' T=62.43'		51+78.24	2718197.129	983823.041	
L23	51+78.24	2718197.129	983823.041		N8°27'20"W 163.45'	53+41.68	2718358.799	983799.008	
C29	53+41.68	2718358.799	983799.008	R=200.00' Δ=63°12'07" L=220.62' T=123.05'		55+62.30	2718551.529	983881.394	



ROUTE 6A CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
C6	119+71.73	2718364.485	983251.423	R=900.00' Δ=15°55'45" L=250.21' T=125.92'		122+21.94	2718255.384	983475.702
L3	122+21.94	2718255.384	983475.702		S72°01'26"E 298.73'	125+20.67	2718163.189	983759.851
C7	125+20.67	2718163.189	983759.851	R=400.00' Δ=22°20'55" L=156.02' T=79.02'		126+76.70	2718144.827	983913.794
L4	126+76.70	2718144.827	983913.794		N85°37'40"E 87.30'	127+64.00	2718151.483	984000.843



Drawing file: I:\Barnstable\271271-1607-00 Barnstable - Improvement along Main Street (Route 6A)\CAD\Sheet06 - Survey Control Plan.dwg Plot Date: Oct 18, 2018 9:36am



MARK	DATE	DESCRIPTION	Scale	AS NOTED
			Date	OCTOBER 2018
			Job No.	271-1607
03	10/19/18	REVISED FINAL SUBMISSION	Designed by	JRC
02	08/22/18	FINAL SUBMISSION	Drawn by	KMB
01	08/01/18	DRAFT PRELIMINARY DESIGN SUBMISSION	Checked by	BLH
			Approved by	JDF

THIS LINE IS ONE INCH LONG WHEN PLOTTED AT FULL SCALE ON A 22" X 34" DRAWING

TRANSPORTATION IMPROVEMENTS
ALONG MAIN STREET (ROUTE 6A) AND MILLWAY
BARNSTABLE, MASSACHUSETTS

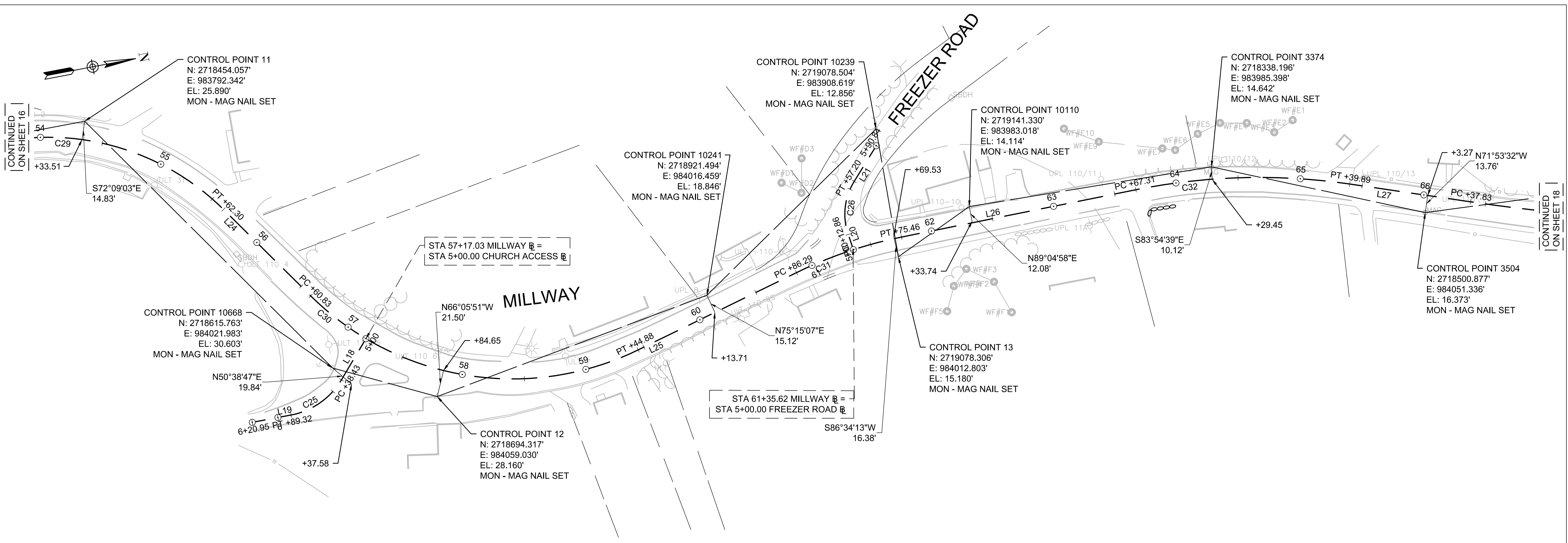
SURVEY CONTROL PLAN - 03

NOT FOR CONSTRUCTION

Sheet No.

16

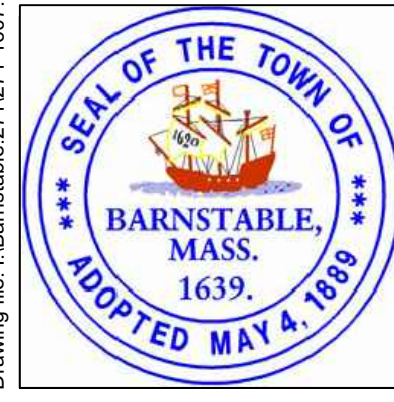
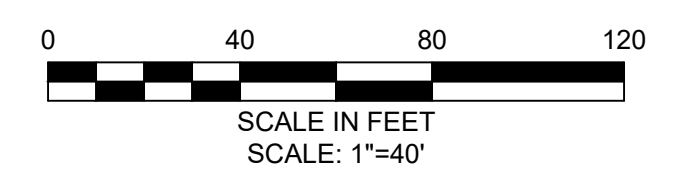
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CHURCH ACCESS CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L18	5+00.00	2718646.094	984003.348		S49°15'12"E 38.43'	5+38.43	2718621.013	984032.459
C25	5+38.43	2718621.013	984032.459	R=60.00' Δ=48°35'55" L=50.89' T=27.09'		5+89.32	2718576.243	984053.293
L19	5+89.32	2718576.243	984053.293		S0°39'16"E 31.63'	6+20.95	2718544.616	984053.654

FREEZER ROAD CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L20	5+00.00	2719043.759	984000.947		S81°01'08"W 12.86'	5+12.86	2719041.751	983988.242
C26	5+12.86	2719041.751	983988.242	R=50.00' Δ=50°48'04" L=44.33' T=23.74'		5+57.20	2719053.876	983947.097
L21	5+57.20	2719053.876	983947.097		N48°10'48"W 33.64'	5+90.84	2719076.308	983922.025

HYANNIS - MILLWAY CONSTRUCTION BASELINE DATA									
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING	
C29	53+41.68	2718358.799	983799.008	R=200.00' Δ=63°12'07" L=220.62' T=123.05'		55+62.30	2718551.529	983881.394	
L24	55+62.30	2718551.529	983881.394		N54°44'47"E 98.53'	56+60.83	2718608.400	983961.855	
C30	56+60.83	2718608.400	983961.855	R=230.00' Δ=70°45'32" L=284.04' T=163.33'		59+44.88	2718859.665	984050.176	
L25	59+44.88	2718859.665	984050.176		N16°00'45"W 141.41'	60+86.29	2718995.591	984011.167	
C31	60+86.29	2718995.591	984011.167	R=350.00' Δ=14°35'49" L=89.17' T=44.83'		61+75.46	2719083.491	983997.695	
L26	61+75.46	2719083.491	983997.695		N1°24'56"W 191.85'	63+67.31	2719275.285	983992.955	
C32	63+67.31	2719275.285	983992.955	R=500.00' Δ=19°46'33" L=172.58' T=87.16'		65+39.89	2719445.133	984018.255	
L27	65+39.89	2719445.133	984018.255		N18°21'37"E 97.94'	66+37.83	2719538.087	984049.105	



MARK	DATE	DESCRIPTION	Scale	AS NOTED
			Date	OCTOBER 2018
			Job No.	271-1607
03	10/19/18	REVISED FINAL SUBMISSION	Designed by	JRC
02	08/22/18	FINAL SUBMISSION	Drawn by	KMB
01	08/01/18	DRAFT PRELIMINARY DESIGN SUBMISSION	Checked by	BLH
			Approved by	JDF

THIS LINE IS ONE INCH LONG WHEN PLOTTED AT FULL SCALE ON A 22" X 34" DRAWING

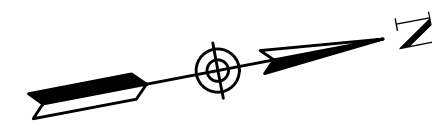
TRANSPORTATION IMPROVEMENTS
ALONG MAIN STREET (ROUTE 6A) AND MILLWAY
BARNSTABLE, MASSACHUSETTS

SURVEY CONTROL PLAN - 04

NOT FOR CONSTRUCTION

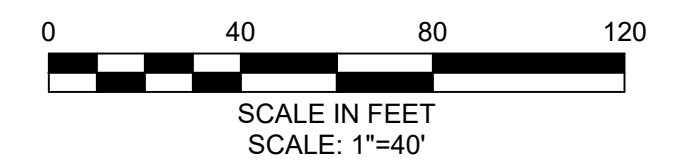
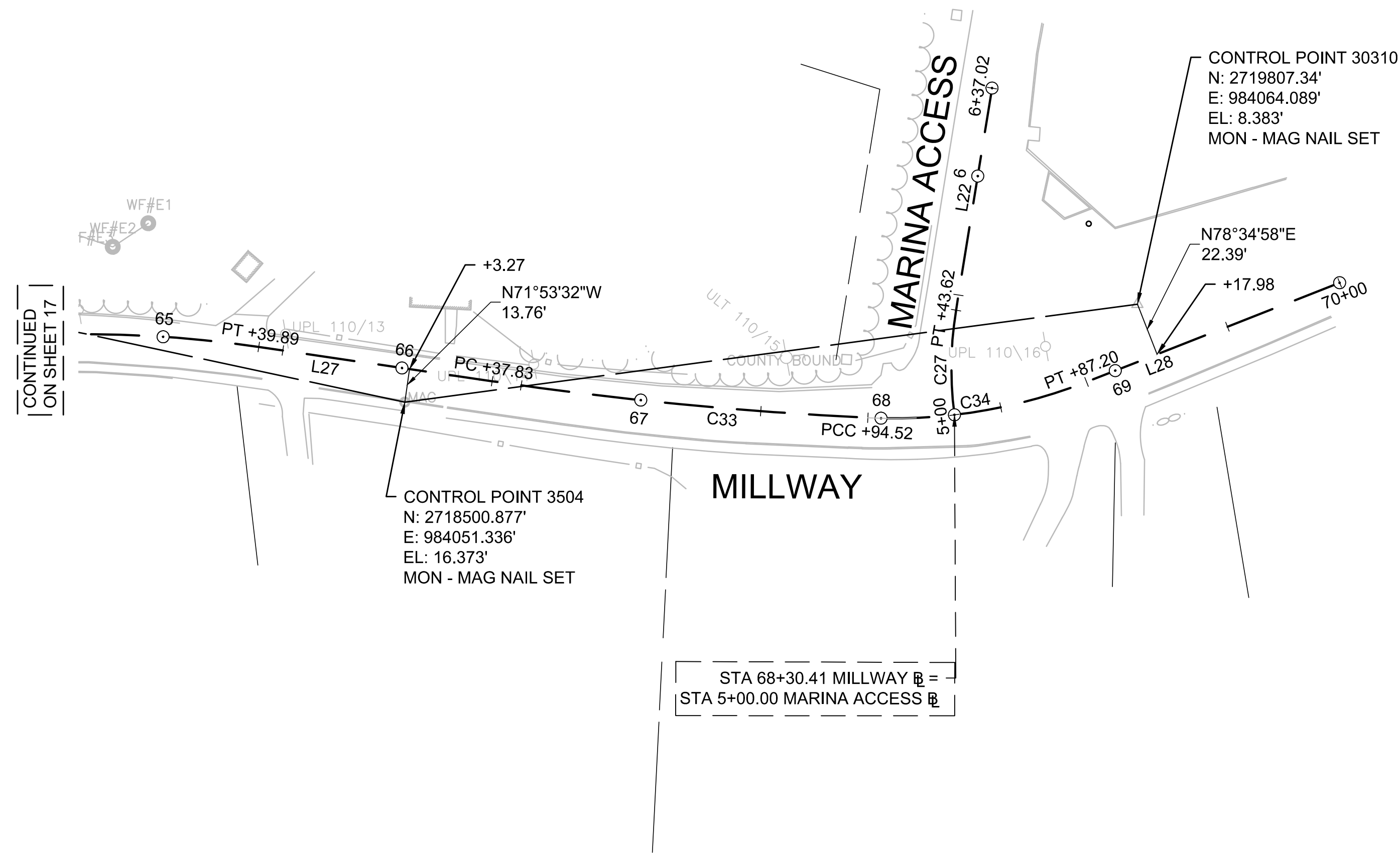
Sheet No.

17



HYANNIS - MILLWAY CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
L27	65+39.89	2719445.133	984018.255		N18°21'37"E 97.94'	66+37.83	2719538.087	984049.105
C33	66+37.83	2719538.087	984049.105	R=1600.00' Δ=5°36'40" L=156.69' T=78.41'		67+94.52	2719688.977	984091.106
C34	67+94.52	2719688.977	984091.106	R=220.00' Δ=24°08'20" L=92.69' T=47.04'		68+87.20	2719780.973	984092.198
L28	68+87.20	2719780.973	984092.198		N11°23'23"W 112.80'	70+00.00	2719891.549	984069.923

MARINA ACCESS CONSTRUCTION BASELINE DATA								
NUMBER	STARTING STATION	NORTHING	EASTING	CURVE DATA	LINE DATA	ENDING STATION	NORTHING	EASTING
C27	5+00.00	2719724.597	984096.150	R=150.00' Δ=16°39'42" L=43.62' T=21.96'		5+43.62	2719732.793	984053.463
L22	5+43.62	2719732.793	984053.463		N70°48'03"W 93.40'	6+37.02	2719763.509	983965.256



Drawing file: I:\Barnstable\2711271-1607-00 Barnstable - Improvement along Main Street (Route 6A)\ACAD\Sheet\06 - Survey Control Plan.dwg Plot Date: Oct 22, 2018 7:37pm



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MARK	DATE	DESCRIPTION	Scale	AS NOTED
			Date	OCTOBER 2018
			Job No.	271-1607
03	10/19/18	REVISED FINAL SUBMISSION	Designed by	JRC
02	08/22/18	FINAL SUBMISSION	Drawn by	KMB
01	08/01/18	DRAFT PRELIMINARY DESIGN SUBMISSION	Checked by	BLH
			Approved by	JDF

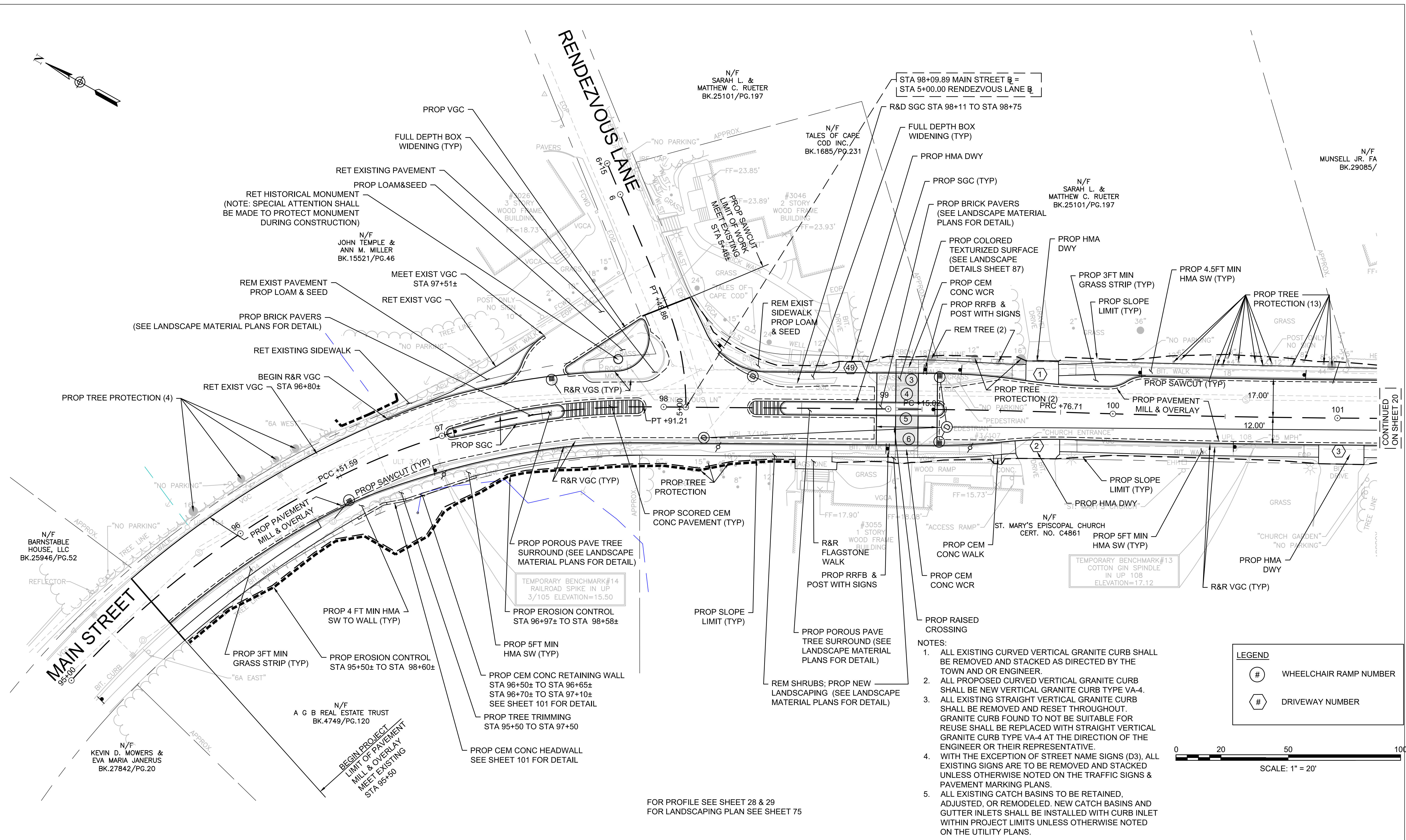
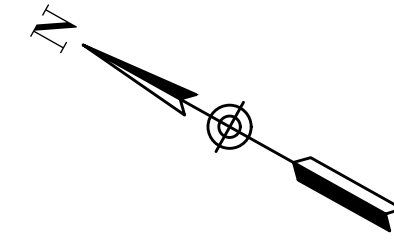
THIS LINE IS ONE INCH LONG WHEN PLOTTED AT FULL SCALE ON A 22" X 34" DRAWING

TRANSPORTATION IMPROVEMENTS
ALONG MAIN STREET (ROUTE 6A) AND MILLWAY
BARNSTABLE, MASSACHUSETTS

SURVEY CONTROL PLAN - 05

NOT FOR CONSTRUCTION
Sheet No.

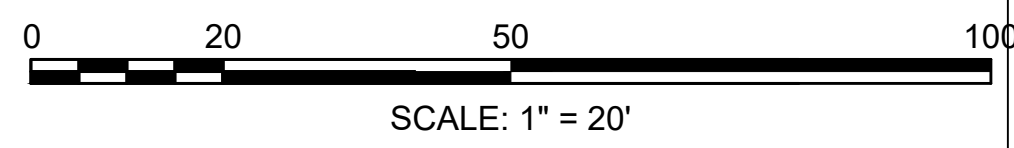
18



CONTINUED ON SHEET 20

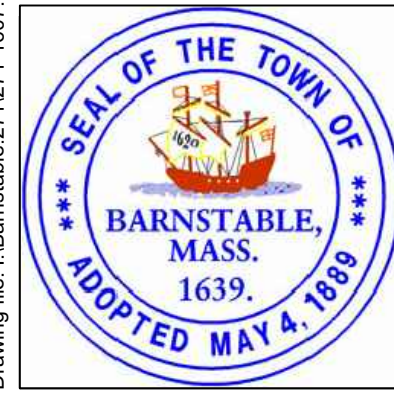
- NOTES:**
1. ALL EXISTING CURVED VERTICAL GRANITE CURB SHALL BE REMOVED AND STACKED AS DIRECTED BY THE TOWN AND OR ENGINEER.
 2. ALL PROPOSED CURVED VERTICAL GRANITE CURB SHALL BE NEW VERTICAL GRANITE CURB TYPE VA-4.
 3. ALL EXISTING STRAIGHT VERTICAL GRANITE CURB SHALL BE REMOVED AND RESET THROUGHOUT. GRANITE CURB FOUND TO NOT BE SUITABLE FOR REUSE SHALL BE REPLACED WITH STRAIGHT VERTICAL GRANITE CURB TYPE VA-4 AT THE DIRECTION OF THE ENGINEER OR THEIR REPRESENTATIVE.
 4. WITH THE EXCEPTION OF STREET NAME SIGNS (D3), ALL EXISTING SIGNS ARE TO BE REMOVED AND STACKED UNLESS OTHERWISE NOTED ON THE TRAFFIC SIGNS & PAVEMENT MARKING PLANS.
 5. ALL EXISTING CATCH BASINS TO BE RETAINED, ADJUSTED, OR REMODELED. NEW CATCH BASINS AND GUTTER INLETS SHALL BE INSTALLED WITH CURB INLET WITHIN PROJECT LIMITS UNLESS OTHERWISE NOTED ON THE UTILITY PLANS.

LEGEND	
#	WHEELCHAIR RAMP NUMBER
#	DRIVEWAY NUMBER



FOR PROFILE SEE SHEET 28 & 29
FOR LANDSCAPING PLAN SEE SHEET 75

Drawing file: I:\Barnstable - Improvement along Main Street (Route 6A)\ACAD\Sheet07 - Construction Plans.dwg PLOT Date: Oct 23, 2018 - 12:35pm



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MARK	DATE	DESCRIPTION	Scale	AS NOTED
			Date	OCTOBER 2018
			Job No.	271-1607
03	10/19/18	REVISED FINAL SUBMISSION	Designed by	JRC
02	08/22/18	FINAL SUBMISSION	Drawn by	KMB
01	08/01/18	DRAFT PRELIMINARY DESIGN SUBMISSION	Checked by	BLH
			Approved by	JDF

THIS LINE IS ONE INCH LONG WHEN PLOTTED AT FULL SCALE ON A 22" X 34" DRAWING

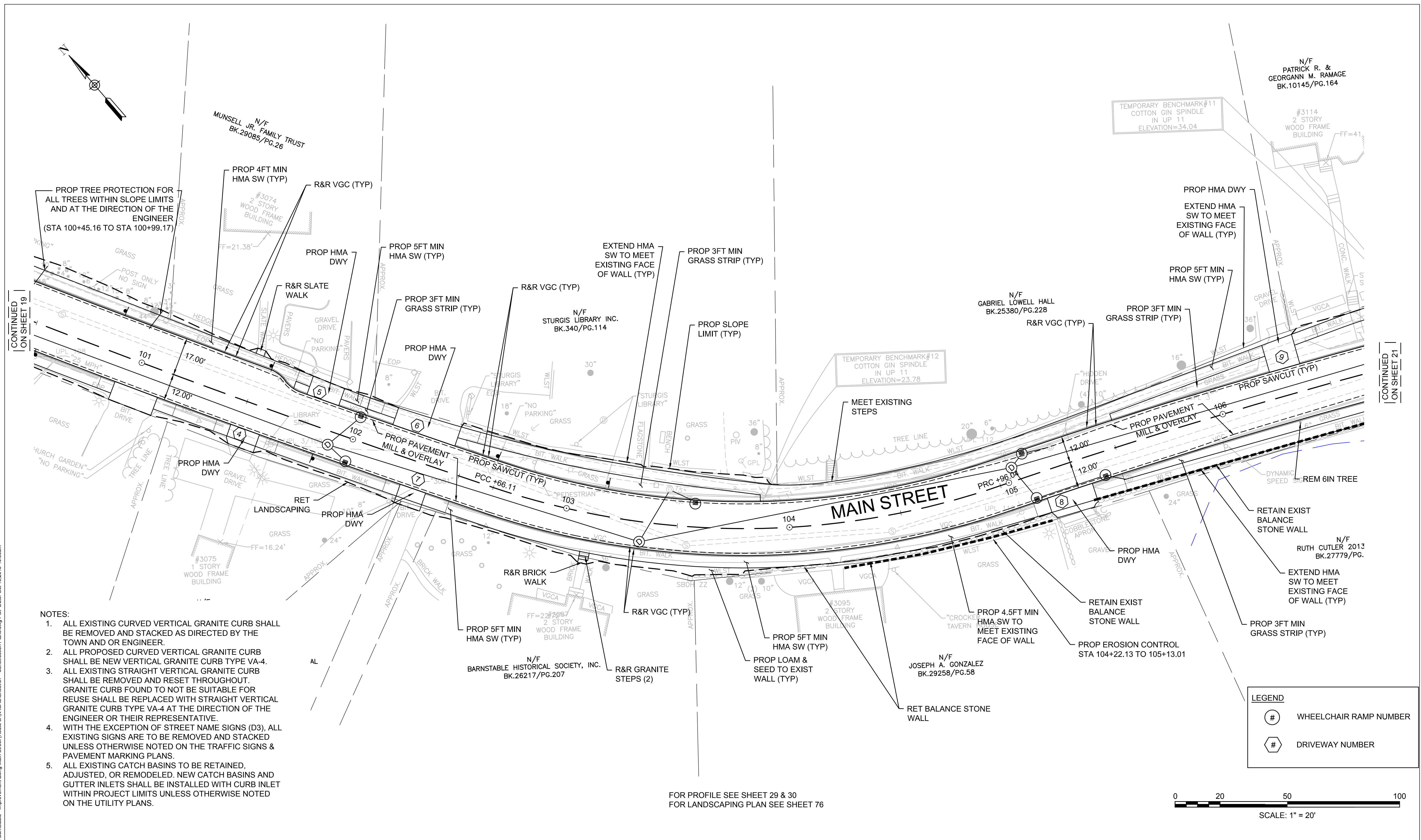
TRANSPORTATION IMPROVEMENTS
ALONG MAIN STREET (ROUTE 6A) AND MILLWAY
BARNSTABLE, MASSACHUSETTS

CONSTRUCTION PLAN - 01

NOT FOR CONSTRUCTION

Sheet No.

19

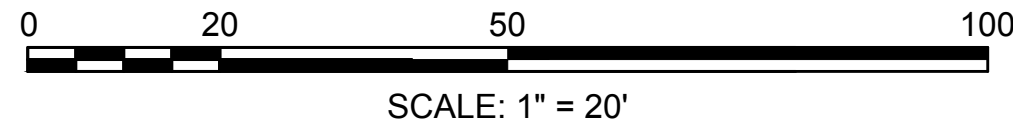


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CONTINUED ON SHEET 21

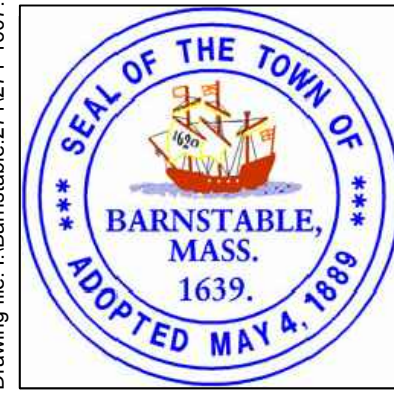
- NOTES:**
1. ALL EXISTING CURVED VERTICAL GRANITE CURB SHALL BE REMOVED AND STACKED AS DIRECTED BY THE TOWN AND OR ENGINEER.
 2. ALL PROPOSED CURVED VERTICAL GRANITE CURB SHALL BE NEW VERTICAL GRANITE CURB TYPE VA-4.
 3. ALL EXISTING STRAIGHT VERTICAL GRANITE CURB SHALL BE REMOVED AND RESET THROUGHOUT. GRANITE CURB FOUND TO NOT BE SUITABLE FOR REUSE SHALL BE REPLACED WITH STRAIGHT VERTICAL GRANITE CURB TYPE VA-4 AT THE DIRECTION OF THE ENGINEER OR THEIR REPRESENTATIVE.
 4. WITH THE EXCEPTION OF STREET NAME SIGNS (D3), ALL EXISTING SIGNS ARE TO BE REMOVED AND STACKED UNLESS OTHERWISE NOTED ON THE TRAFFIC SIGNS & PAVEMENT MARKING PLANS.
 5. ALL EXISTING CATCH BASINS TO BE RETAINED, ADJUSTED, OR REMODELED. NEW CATCH BASINS AND GUTTER INLETS SHALL BE INSTALLED WITH CURB INLET WITHIN PROJECT LIMITS UNLESS OTHERWISE NOTED ON THE UTILITY PLANS.

FOR PROFILE SEE SHEET 29 & 30
FOR LANDSCAPING PLAN SEE SHEET 76



LEGEND

- # WHEELCHAIR RAMP NUMBER
- # DRIVEWAY NUMBER



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MARK	DATE	DESCRIPTION	Scale	AS NOTED
			Date	OCTOBER 2018
			Job No.	271-1607
03	10/19/18	REVISED FINAL SUBMISSION	Designed by	JRC
02	08/22/18	FINAL SUBMISSION	Drawn by	KMB
01	08/01/18	DRAFT PRELIMINARY DESIGN SUBMISSION	Checked by	BLH
			Approved by	JDF

THIS LINE IS ONE INCH LONG WHEN PLOTTED AT FULL SCALE ON A 22" X 34" DRAWING

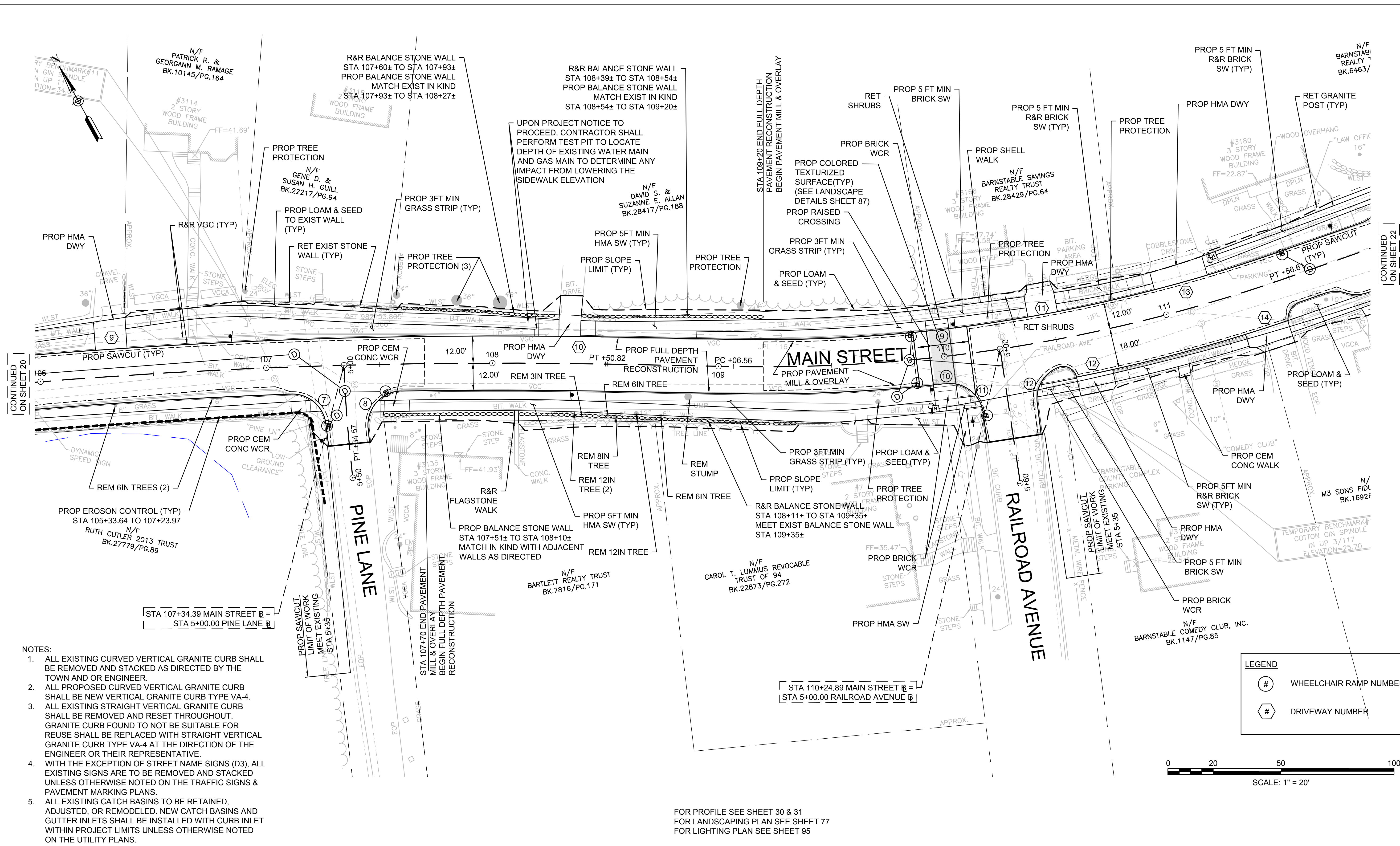
TRANSPORTATION IMPROVEMENTS
ALONG MAIN STREET (ROUTE 6A) AND MILLWAY
BARNSTABLE, MASSACHUSETTS

CONSTRUCTION PLAN - 02

NOT FOR CONSTRUCTION
Sheet No.
20

Drawing file: I:\Barnstable\2711271-1607-00 Barnstable - Improvement along Main Street (Route 6A)\CAD\Sheet07 - Construction Plans.dwg Plot Date: Oct 18, 2018 - 10:36am

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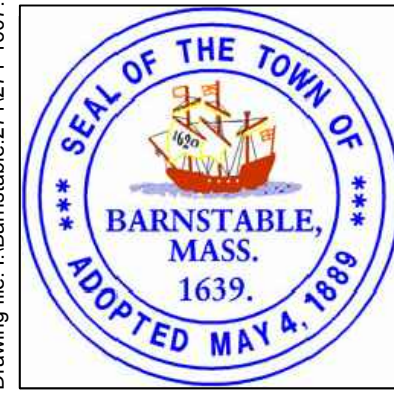
- NOTES:**
1. ALL EXISTING CURVED VERTICAL GRANITE CURB SHALL BE REMOVED AND STACKED AS DIRECTED BY THE TOWN AND OR ENGINEER.
 2. ALL PROPOSED CURVED VERTICAL GRANITE CURB SHALL BE NEW VERTICAL GRANITE CURB TYPE VA-4.
 3. ALL EXISTING STRAIGHT VERTICAL GRANITE CURB SHALL BE REMOVED AND RESET THROUGHOUT. GRANITE CURB FOUND TO NOT BE SUITABLE FOR REUSE SHALL BE REPLACED WITH STRAIGHT VERTICAL GRANITE CURB TYPE VA-4 AT THE DIRECTION OF THE ENGINEER OR THEIR REPRESENTATIVE.
 4. WITH THE EXCEPTION OF STREET NAME SIGNS (D3), ALL EXISTING SIGNS ARE TO BE REMOVED AND STACKED UNLESS OTHERWISE NOTED ON THE TRAFFIC SIGNS & PAVEMENT MARKING PLANS.
 5. ALL EXISTING CATCH BASINS TO BE RETAINED, ADJUSTED, OR REMODELED. NEW CATCH BASINS AND GUTTER INLETS SHALL BE INSTALLED WITH CURB INLET WITHIN PROJECT LIMITS UNLESS OTHERWISE NOTED ON THE UTILITY PLANS.

LEGEND

WHEELCHAIR RAMP NUMBER

DRIVEWAY NUMBER

FOR PROFILE SEE SHEET 30 & 31
 FOR LANDSCAPING PLAN SEE SHEET 77
 FOR LIGHTING PLAN SEE SHEET 95



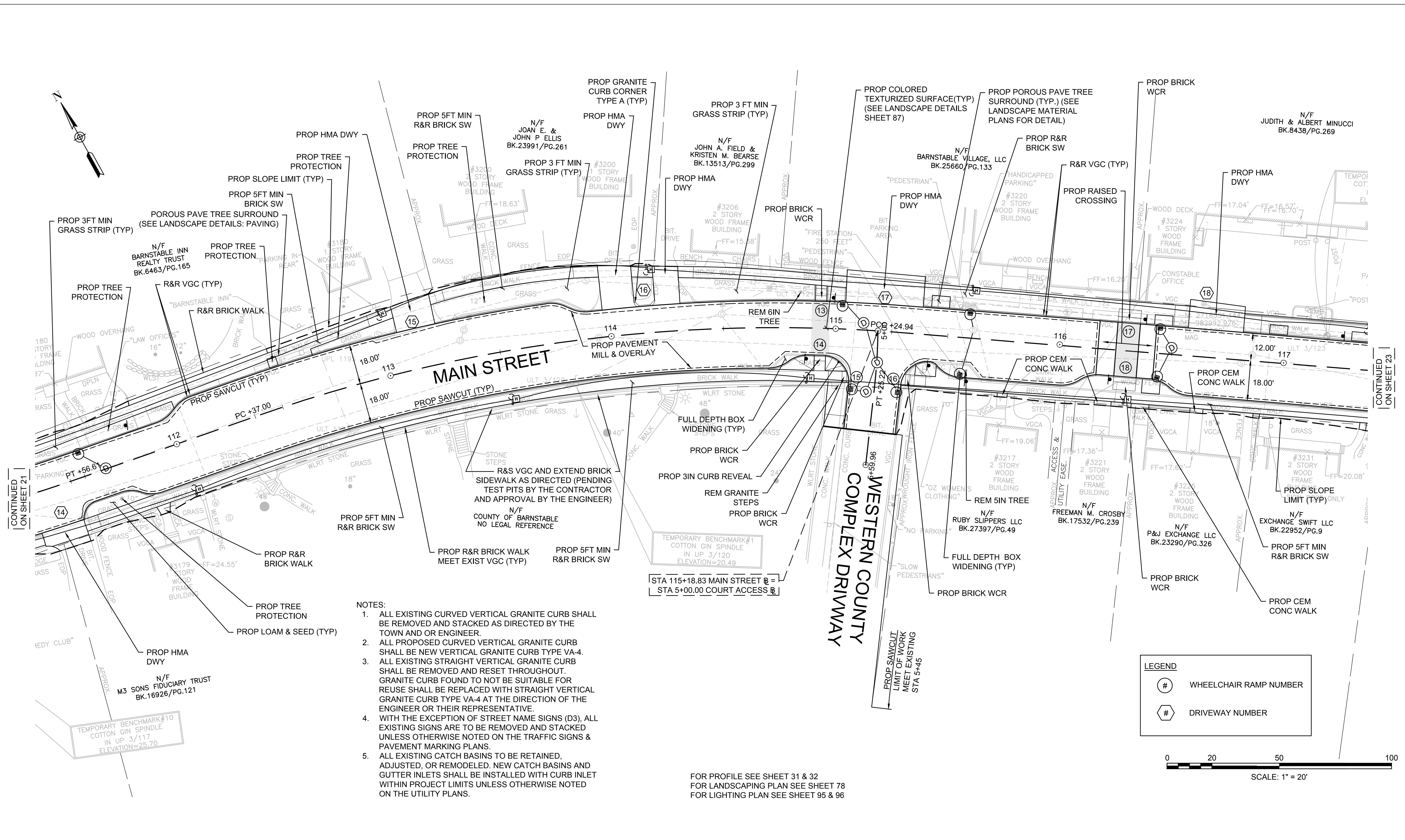
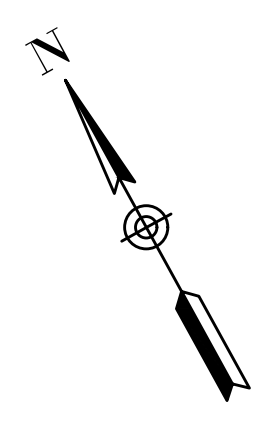
MARK	DATE	DESCRIPTION	DESIGNED BY	CHECKED BY	APPROVED BY
			JRC	BLH	JDF
03	10/19/18	REVISED FINAL SUBMISSION			
02	08/22/18	FINAL SUBMISSION			
01	08/01/18	DRAFT PRELIMINARY DESIGN SUBMISSION			

Scale AS NOTED
 Date OCTOBER 2018
 Job No. 271-1607
 Designed by JRC
 Drawn by KMB
 Checked by BLH
 Approved by JDF

TRANSPORTATION IMPROVEMENTS
 ALONG MAIN STREET (ROUTE 6A) AND RAILWAY
 BARNSTABLE, MASSACHUSETTS

CONSTRUCTION PLAN - 03

NOT FOR CONSTRUCTION
 Sheet No. 21



- NOTES:
1. ALL EXISTING CURVED VERTICAL GRANITE CURB SHALL BE REMOVED AND STACKED AS DIRECTED BY THE TOWN AND OR ENGINEER.
 2. ALL PROPOSED CURVED VERTICAL GRANITE CURB SHALL BE NEW VERTICAL GRANITE CURB TYPE VA-4.
 3. ALL EXISTING STRAIGHT VERTICAL GRANITE CURB SHALL BE REMOVED AND RESET THROUGHOUT. GRANITE CURB FOUND TO NOT BE SUITABLE FOR REUSE SHALL BE REPLACED WITH STRAIGHT VERTICAL GRANITE CURB TYPE VA-4 AT THE DIRECTION OF THE ENGINEER OR THEIR REPRESENTATIVE.
 4. WITH THE EXCEPTION OF STREET NAME SIGNS (D3), ALL EXISTING SIGNS ARE TO BE REMOVED AND STACKED UNLESS OTHERWISE NOTED ON THE TRAFFIC SIGNS & PAVEMENT MARKING PLANS.
 5. ALL EXISTING CATCH BASINS TO BE RETAINED, ADJUSTED, OR REMODELED. NEW CATCH BASINS AND GUTTER INLETS SHALL BE INSTALLED WITH CURB INLET WITHIN PROJECT LIMITS UNLESS OTHERWISE NOTED ON THE UTILITY PLANS.

FOR PROFILE SEE SHEET 31 & 32
 FOR LANDSCAPING PLAN SEE SHEET 78
 FOR LIGHTING PLAN SEE SHEET 95 & 96

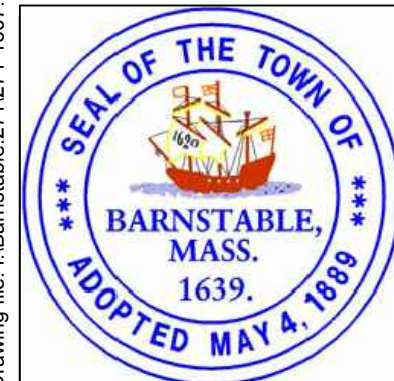
LEGEND

- ⊙ WHEELCHAIR RAMP NUMBER
- ⊕ DRIVEWAY NUMBER



CONTINUED ON SHEET 21

CONTINUED ON SHEET 23



MARK	DATE	DESCRIPTION	DESIGNED BY	CHECKED BY	APPROVED BY
03	10/19/18	REVISED FINAL SUBMISSION	JRC	BLH	JDF
02	08/22/18	FINAL SUBMISSION	KMB	BLH	JDF
01	08/01/18	DRAFT PRELIMINARY DESIGN SUBMISSION	KMB	BLH	JDF

Scale AS NOTED
 Date OCTOBER 2018
 Job No. 271-1607
 THIS LINE IS ONE INCH LONG WHEN PLOTTED AT FULL SCALE ON A 22" X 34" DRAWING

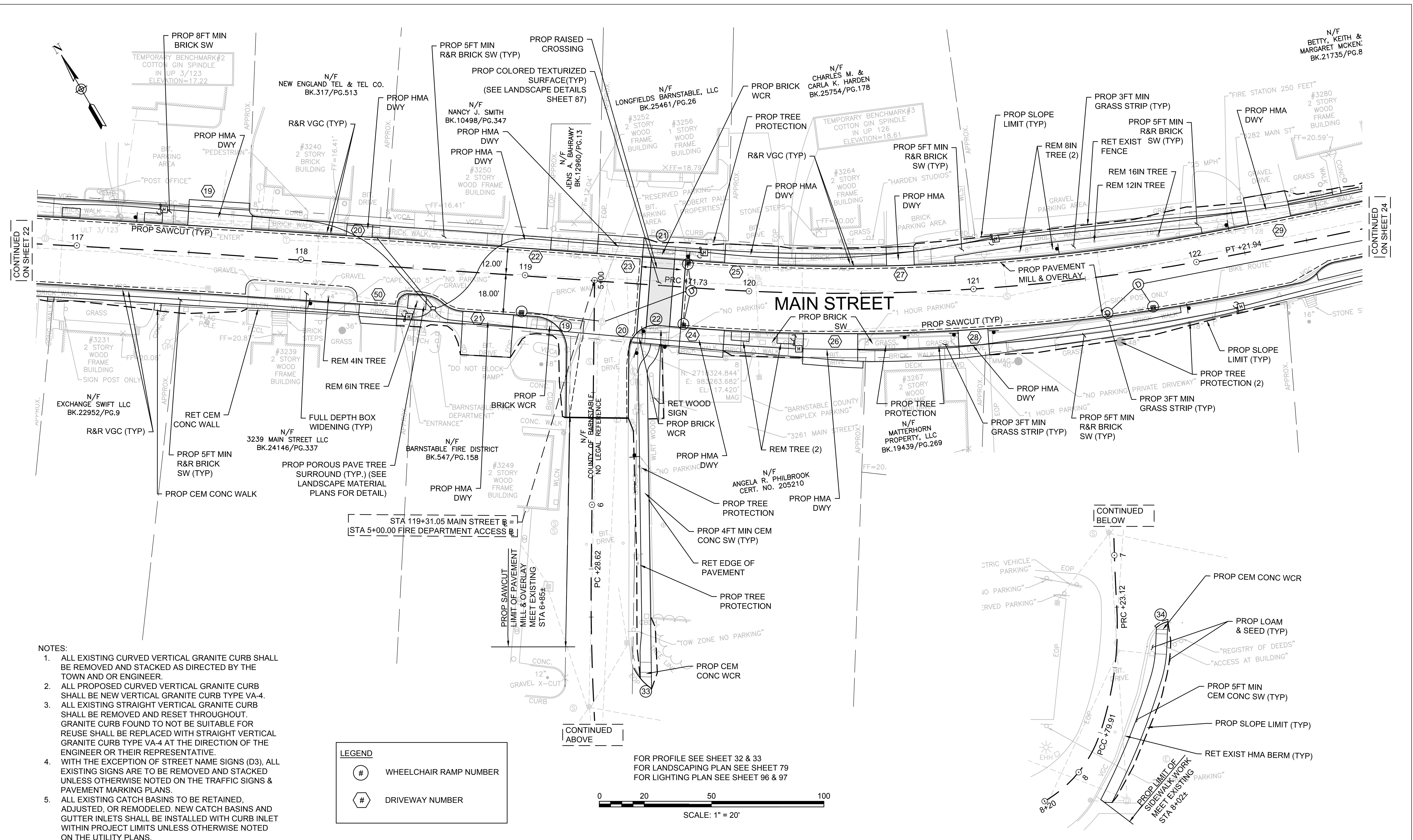
TRANSPORTATION IMPROVEMENTS
 ALONG MAIN STREET (ROUTE 6A) AND MILLWAY
 BARNSTABLE, MASSACHUSETTS

CONSTRUCTION PLAN - 04

NOT FOR CONSTRUCTION
 Sheet No. 22

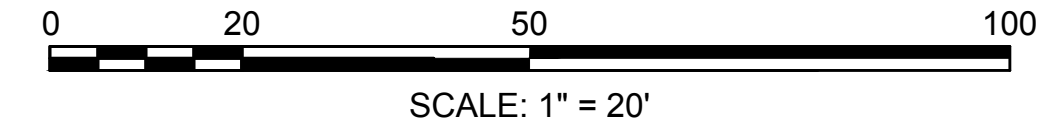
Drawing file: I:\Barnstable\2711271-1607-00 Barnstable - Improvement along Main Street (Route 6A)\ACAD\Sheet07 - Construction Plans.dwg Plot Date: Oct 23, 2018 9:58am

Drawing file: I:\Barnstable\2711271-1607-00 Barnstable - Improvement along Main Street (Route 6A)\ACAD\Sheet07 - Construction Plans.dwg PLOT Date: Oct 18, 2018 - 10:34am

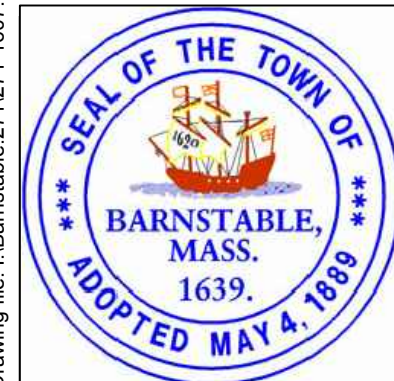


- NOTES:**
1. ALL EXISTING CURVED VERTICAL GRANITE CURB SHALL BE REMOVED AND STACKED AS DIRECTED BY THE TOWN AND OR ENGINEER.
 2. ALL PROPOSED CURVED VERTICAL GRANITE CURB SHALL BE NEW VERTICAL GRANITE CURB TYPE VA-4.
 3. ALL EXISTING STRAIGHT VERTICAL GRANITE CURB SHALL BE REMOVED AND RESET THROUGHOUT. GRANITE CURB FOUND TO NOT BE SUITABLE FOR REUSE SHALL BE REPLACED WITH STRAIGHT VERTICAL GRANITE CURB TYPE VA-4 AT THE DIRECTION OF THE ENGINEER OR THEIR REPRESENTATIVE.
 4. WITH THE EXCEPTION OF STREET NAME SIGNS (D3), ALL EXISTING SIGNS ARE TO BE REMOVED AND STACKED UNLESS OTHERWISE NOTED ON THE TRAFFIC SIGNS & PAVEMENT MARKING PLANS.
 5. ALL EXISTING CATCH BASINS TO BE RETAINED, ADJUSTED, OR REMODELED. NEW CATCH BASINS AND GUTTER INLETS SHALL BE INSTALLED WITH CURB INLET WITHIN PROJECT LIMITS UNLESS OTHERWISE NOTED ON THE UTILITY PLANS.

LEGEND	
#	WHEELCHAIR RAMP NUMBER
#	DRIVEWAY NUMBER



FOR PROFILE SEE SHEET 32 & 33
 FOR LANDSCAPING PLAN SEE SHEET 79
 FOR LIGHTING PLAN SEE SHEET 96 & 97



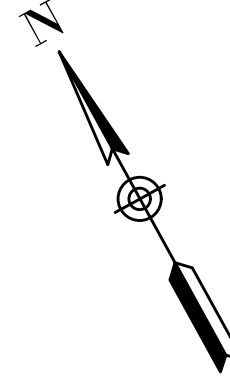
MARK	DATE	DESCRIPTION	Scale	AS NOTED
			Date	OCTOBER 2018
			Job No.	271-1607
03	10/19/18	REVISED FINAL SUBMISSION	Designed by	JRC
02	08/22/18	FINAL SUBMISSION	Drawn by	KMB
01	08/01/18	DRAFT PRELIMINARY DESIGN SUBMISSION	Checked by	BLH
			Approved by	JDF

THIS LINE IS ONE INCH LONG WHEN PLOTTED AT FULL SCALE ON A 22" X 34" DRAWING

**TRANSPORTATION IMPROVEMENTS
 ALONG MAIN STREET (ROUTE 6A) AND MILLWAY
 BARNSTABLE, MASSACHUSETTS**

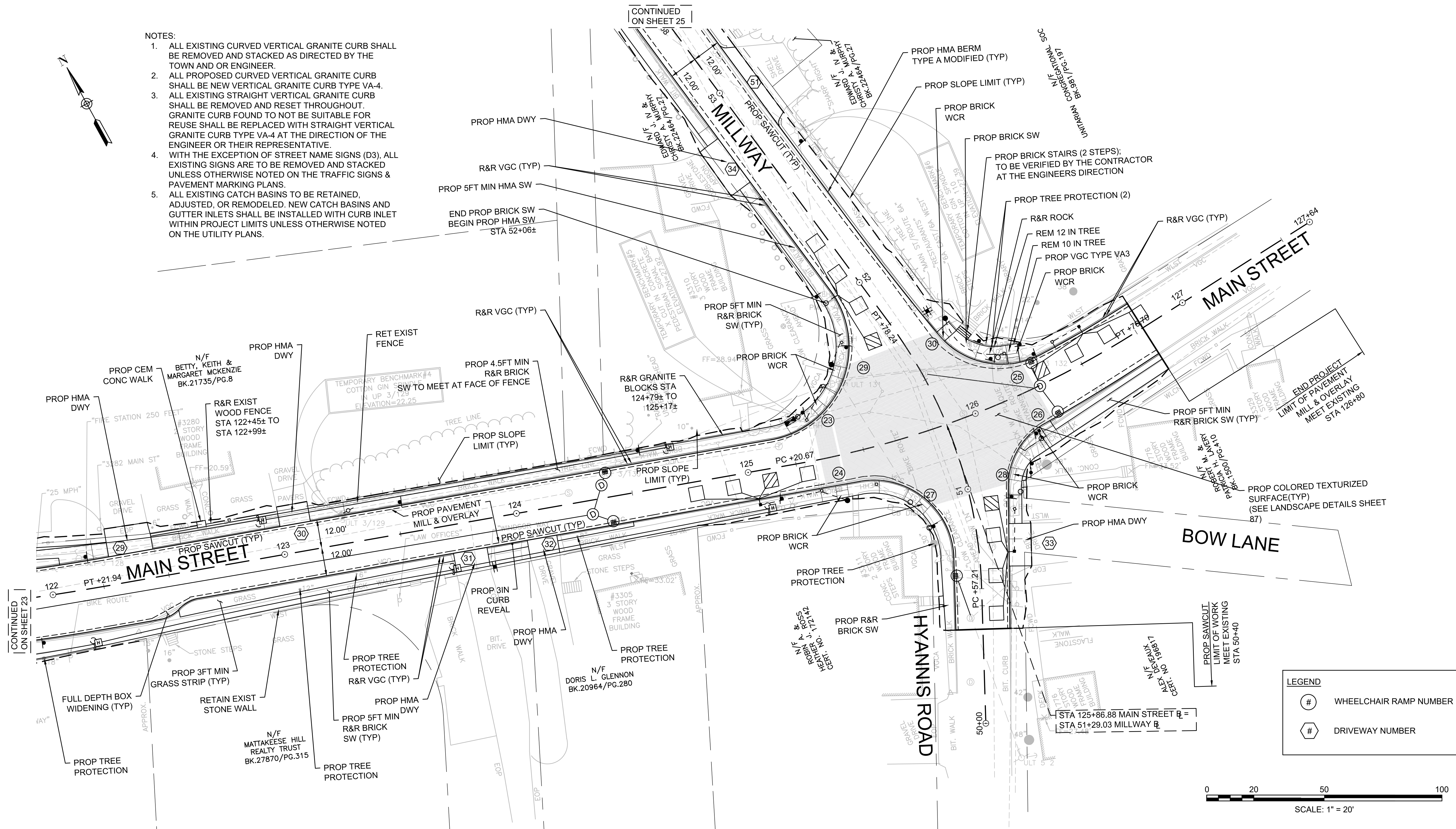
CONSTRUCTION PLAN - 05

NOT FOR CONSTRUCTION
 Sheet No. **23**



NOTES:

1. ALL EXISTING CURVED VERTICAL GRANITE CURB SHALL BE REMOVED AND STACKED AS DIRECTED BY THE TOWN AND OR ENGINEER.
2. ALL PROPOSED CURVED VERTICAL GRANITE CURB SHALL BE NEW VERTICAL GRANITE CURB TYPE VA-4.
3. ALL EXISTING STRAIGHT VERTICAL GRANITE CURB SHALL BE REMOVED AND RESET THROUGHOUT. GRANITE CURB FOUND TO NOT BE SUITABLE FOR REUSE SHALL BE REPLACED WITH STRAIGHT VERTICAL GRANITE CURB TYPE VA-4 AT THE DIRECTION OF THE ENGINEER OR THEIR REPRESENTATIVE.
4. WITH THE EXCEPTION OF STREET NAME SIGNS (D3), ALL EXISTING SIGNS ARE TO BE REMOVED AND STACKED UNLESS OTHERWISE NOTED ON THE TRAFFIC SIGNS & PAVEMENT MARKING PLANS.
5. ALL EXISTING CATCH BASINS TO BE RETAINED, ADJUSTED, OR REMODELED. NEW CATCH BASINS AND GUTTER INLETS SHALL BE INSTALLED WITH CURB INLET WITHIN PROJECT LIMITS UNLESS OTHERWISE NOTED ON THE UTILITY PLANS.



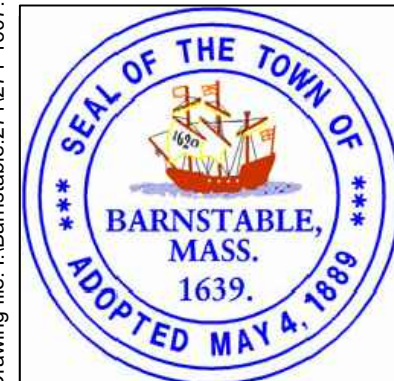
LEGEND

- # WHEELCHAIR RAMP NUMBER
- # DRIVEWAY NUMBER



FOR PROFILE SEE SHEET 33, 34, & 35
 FOR LANDSCAPING PLAN SEE SHEET 80
 FOR LIGHTING PLAN SEE SHEET 97 & 98
 FOR TRAFFIC SIGNAL PLAN SEE SHEET 69

Drawing file: I:\Barnstable\2711271-1607-00 Barnstable - Improvement along Main Street (Route 6A)\ACAD\Sheet07 - Construction Plans.dwg PLOT Date: Oct 22, 2018 - 7:54pm



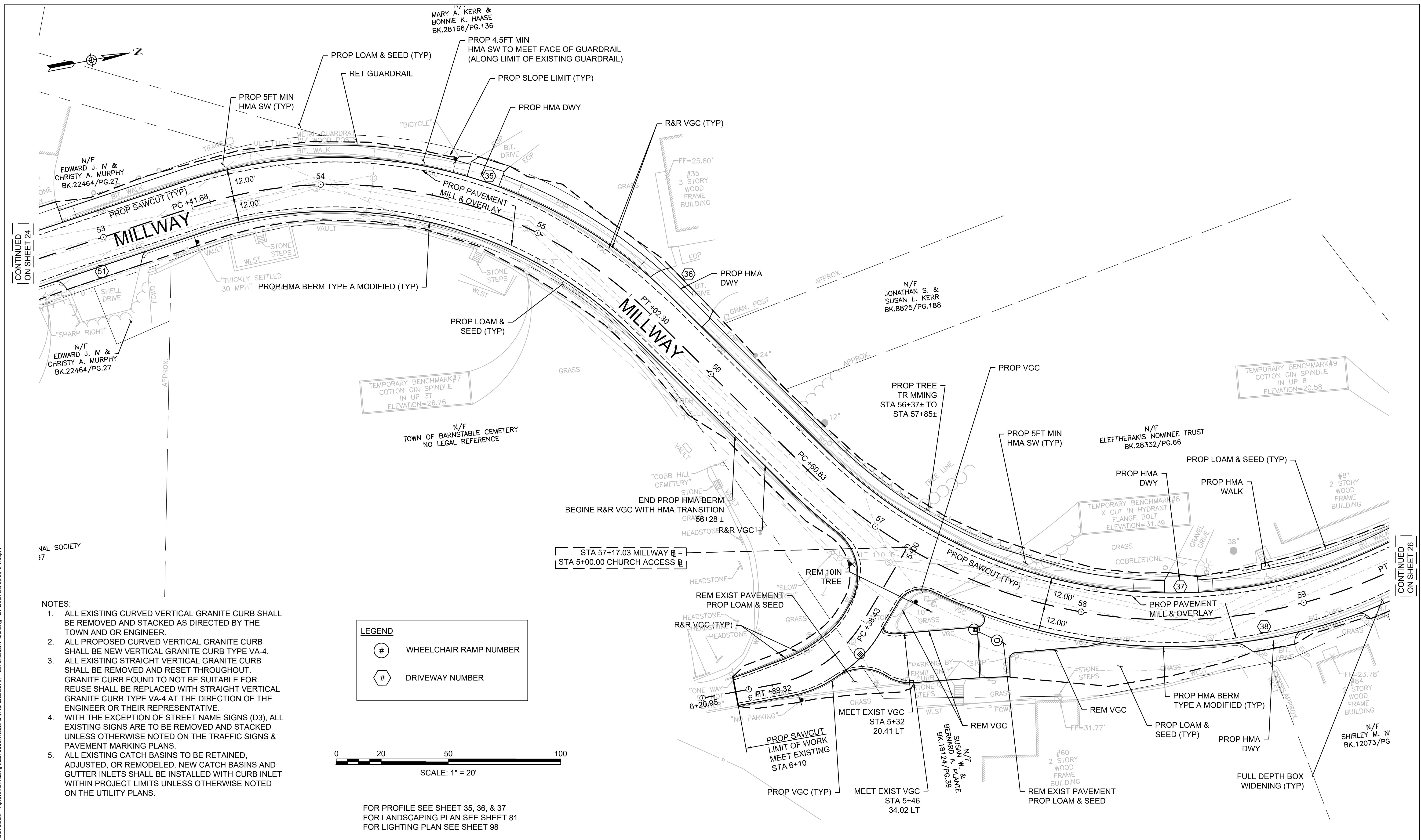
MARK	DATE	DESCRIPTION	DESIGNED BY	CHECKED BY	APPROVED BY
03	10/19/18	REVISED FINAL SUBMISSION	JRC	BLH	JDF
02	08/22/18	FINAL SUBMISSION	KMB	BLH	JDF
01	08/01/18	DRAFT PRELIMINARY DESIGN SUBMISSION	JRC	BLH	JDF

Scale AS NOTED
 Date OCTOBER 2018
 Job No. 271-1607

**TRANSPORTATION IMPROVEMENTS
 ALONG MAIN STREET (ROUTE 6A) AND MILLWAY
 BARNSTABLE, MASSACHUSETTS**

CONSTRUCTION PLAN - 06

NOT FOR CONSTRUCTION
 Sheet No. 24



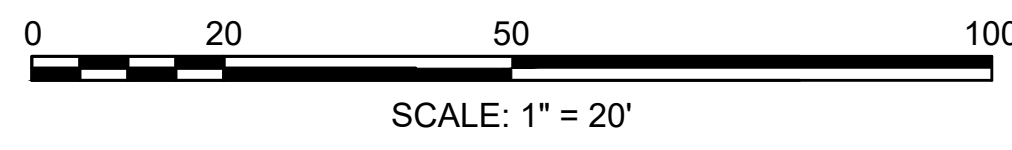
CONTINUED ON SHEET 24

CONTINUED ON SHEET 26

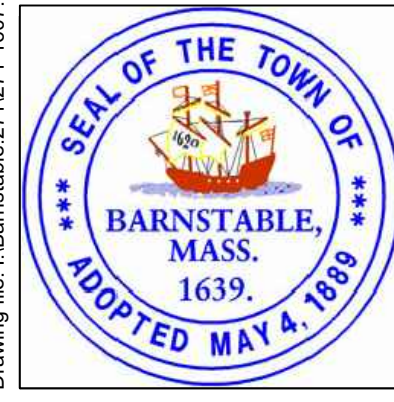
- NOTES:**
1. ALL EXISTING CURVED VERTICAL GRANITE CURB SHALL BE REMOVED AND STACKED AS DIRECTED BY THE TOWN AND OR ENGINEER.
 2. ALL PROPOSED CURVED VERTICAL GRANITE CURB SHALL BE NEW VERTICAL GRANITE CURB TYPE VA-4.
 3. ALL EXISTING STRAIGHT VERTICAL GRANITE CURB SHALL BE REMOVED AND RESET THROUGHOUT. GRANITE CURB FOUND TO NOT BE SUITABLE FOR REUSE SHALL BE REPLACED WITH STRAIGHT VERTICAL GRANITE CURB TYPE VA-4 AT THE DIRECTION OF THE ENGINEER OR THEIR REPRESENTATIVE.
 4. WITH THE EXCEPTION OF STREET NAME SIGNS (D3), ALL EXISTING SIGNS ARE TO BE REMOVED AND STACKED UNLESS OTHERWISE NOTED ON THE TRAFFIC SIGNS & PAVEMENT MARKING PLANS.
 5. ALL EXISTING CATCH BASINS TO BE RETAINED, ADJUSTED, OR REMODELED. NEW CATCH BASINS AND GUTTER INLETS SHALL BE INSTALLED WITH CURB INLET WITHIN PROJECT LIMITS UNLESS OTHERWISE NOTED ON THE UTILITY PLANS.

LEGEND

- # WHEELCHAIR RAMP NUMBER
- # DRIVEWAY NUMBER



FOR PROFILE SEE SHEET 35, 36, & 37
 FOR LANDSCAPING PLAN SEE SHEET 81
 FOR LIGHTING PLAN SEE SHEET 98



MARK	DATE	DESCRIPTION	DESIGNED BY	CHECKED BY	APPROVED BY
03	10/19/18	REVISED FINAL SUBMISSION	JRC	BLH	JDF
02	08/22/18	FINAL SUBMISSION	KMB	BLH	JDF
01	08/01/18	DRAFT PRELIMINARY DESIGN SUBMISSION	KMB	BLH	JDF

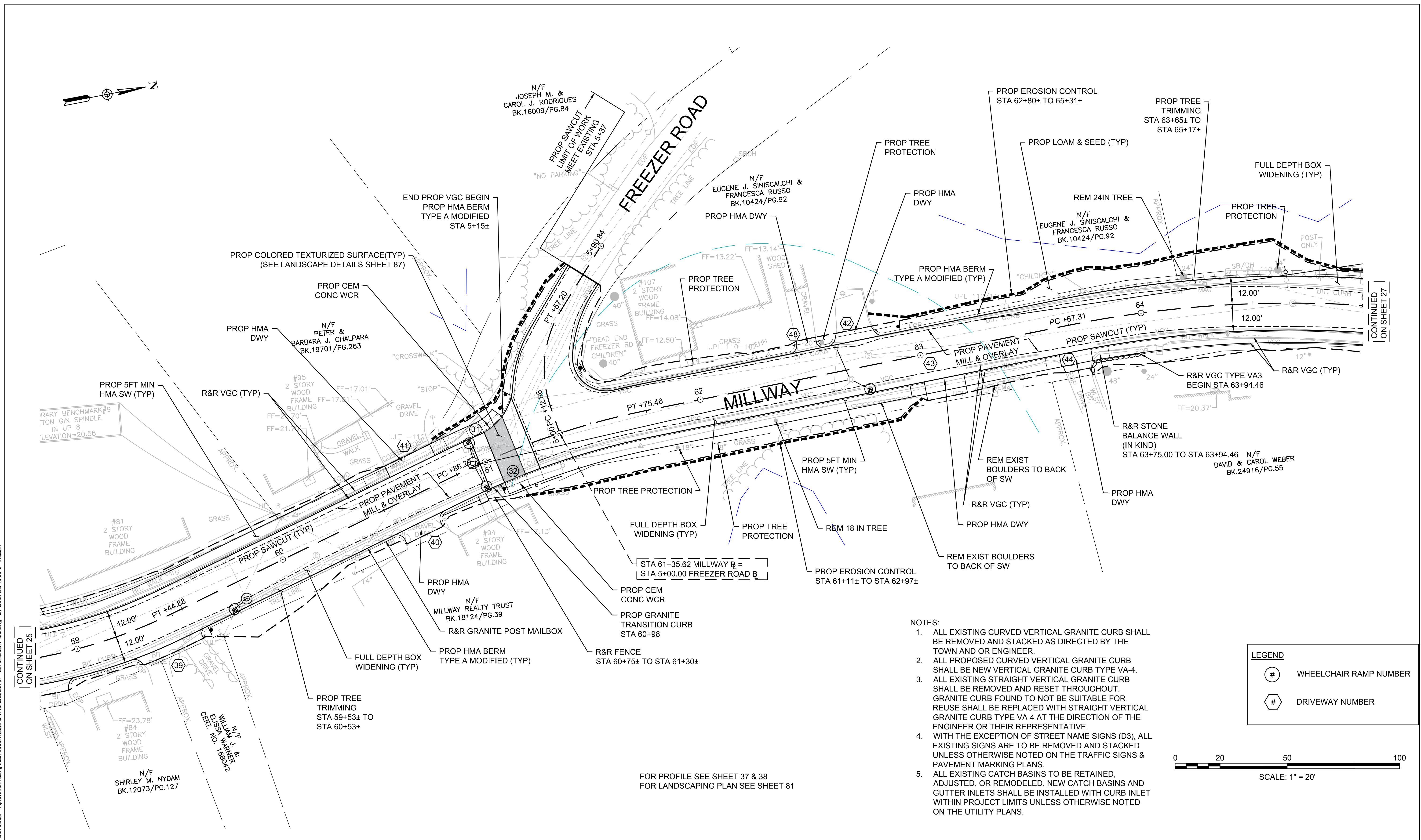
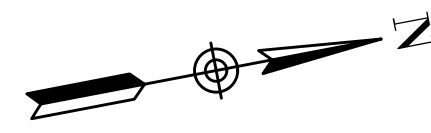
Scale AS NOTED
 Date OCTOBER 2018
 Job No. 271-1607
 THIS LINE IS ONE INCH LONG WHEN PLOTTED AT FULL SCALE ON A 22" X 34" DRAWING

**TRANSPORTATION IMPROVEMENTS
 ALONG MAIN STREET (ROUTE 6A) AND MILLWAY
 BARNSTABLE, MASSACHUSETTS**

CONSTRUCTION PLAN - 07

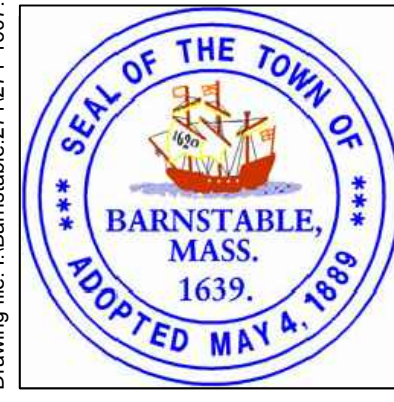
NOT FOR CONSTRUCTION
 Sheet No. **25**

Drawing file: I:\Barnstable\2711271-1607-00 Barnstable - Improvement along Main Street (Route 6A)\ACAD\Sheet07 - Construction Plans.dwg Plot Date: Oct 22, 2018 - 7:55pm



- NOTES:**
- ALL EXISTING CURVED VERTICAL GRANITE CURB SHALL BE REMOVED AND STACKED AS DIRECTED BY THE TOWN AND OR ENGINEER.
 - ALL PROPOSED CURVED VERTICAL GRANITE CURB SHALL BE NEW VERTICAL GRANITE CURB TYPE VA-4.
 - ALL EXISTING STRAIGHT VERTICAL GRANITE CURB SHALL BE REMOVED AND RESET THROUGHOUT. GRANITE CURB FOUND TO NOT BE SUITABLE FOR REUSE SHALL BE REPLACED WITH STRAIGHT VERTICAL GRANITE CURB TYPE VA-4 AT THE DIRECTION OF THE ENGINEER OR THEIR REPRESENTATIVE.
 - WITH THE EXCEPTION OF STREET NAME SIGNS (D3), ALL EXISTING SIGNS ARE TO BE REMOVED AND STACKED UNLESS OTHERWISE NOTED ON THE TRAFFIC SIGNS & PAVEMENT MARKING PLANS.
 - ALL EXISTING CATCH BASINS TO BE RETAINED, ADJUSTED, OR REMODELED. NEW CATCH BASINS AND GUTTER INLETS SHALL BE INSTALLED WITH CURB INLET WITHIN PROJECT LIMITS UNLESS OTHERWISE NOTED ON THE UTILITY PLANS.

FOR PROFILE SEE SHEET 37 & 38
FOR LANDSCAPING PLAN SEE SHEET 81



MARK	DATE	DESCRIPTION	DESIGNED BY	DATE
			JRC	OCTOBER 2018
03	10/19/18	REVISED FINAL SUBMISSION	JRC	
02	08/22/18	FINAL SUBMISSION	KMB	
01	08/01/18	DRAFT PRELIMINARY DESIGN SUBMISSION	BLH	
			JDF	

THIS LINE IS ONE INCH LONG WHEN PLOTTED AT FULL SCALE ON A 22" X 34" DRAWING

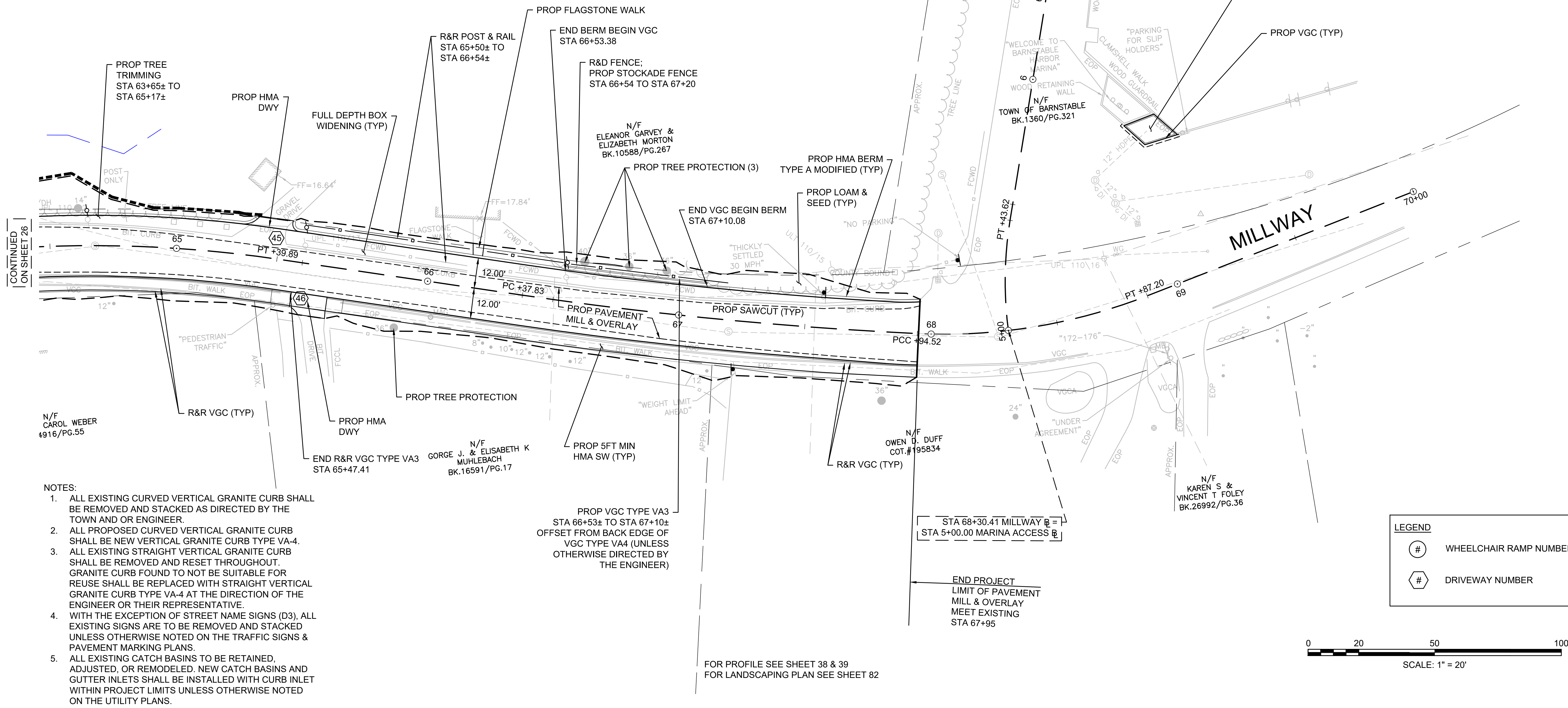
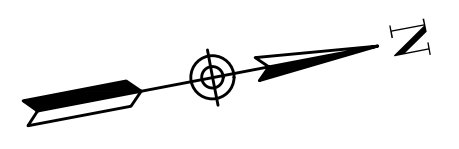
TRANSPORTATION IMPROVEMENTS
ALONG MAIN STREET (ROUTE 6A) AND MILLWAY
BARNSTABLE, MASSACHUSETTS

CONSTRUCTION PLAN - 08

NOT FOR CONSTRUCTION

Sheet No. **26**

Drawing file: I:\Barnstable - Improvement along Main Street (Route 6A)\ACAD\Sheet07 - Construction Plans.dwg PLOT Date: Oct 18, 2018 - 10:32am



CONTINUED ON SHEET 26

- NOTES:**
1. ALL EXISTING CURVED VERTICAL GRANITE CURB SHALL BE REMOVED AND STACKED AS DIRECTED BY THE TOWN AND OR ENGINEER.
 2. ALL PROPOSED CURVED VERTICAL GRANITE CURB SHALL BE NEW VERTICAL GRANITE CURB TYPE VA-4.
 3. ALL EXISTING STRAIGHT VERTICAL GRANITE CURB SHALL BE REMOVED AND RESET THROUGHOUT. GRANITE CURB FOUND TO NOT BE SUITABLE FOR REUSE SHALL BE REPLACED WITH STRAIGHT VERTICAL GRANITE CURB TYPE VA-4 AT THE DIRECTION OF THE ENGINEER OR THEIR REPRESENTATIVE.
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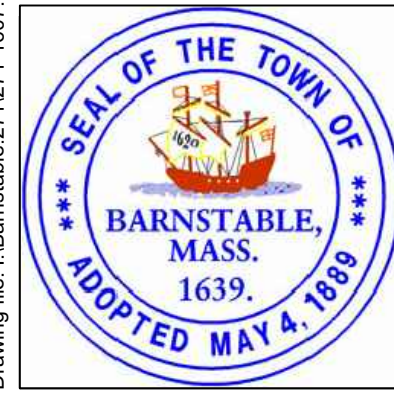
LEGEND

- # WHEELCHAIR RAMP NUMBER
- # DRIVEWAY NUMBER



FOR PROFILE SEE SHEET 38 & 39
FOR LANDSCAPING PLAN SEE SHEET 82

Drawing file: I:\Barnstable - Improvement along Main Street (Route 6A)\ACAD\Sheet07 - Construction Plans.dwg PLOT Date: Oct 22, 2018 - 7:59pm



MARK	DATE	DESCRIPTION	Scale	AS NOTED
			Date	OCTOBER 2018
			Job No.	271-1607
03	10/19/18	REVISED FINAL SUBMISSION	Designed by	JRC
02	08/22/18	FINAL SUBMISSION	Drawn by	KMB
01	08/01/18	DRAFT PRELIMINARY DESIGN SUBMISSION	Checked by	BLH
			Approved by	JDF

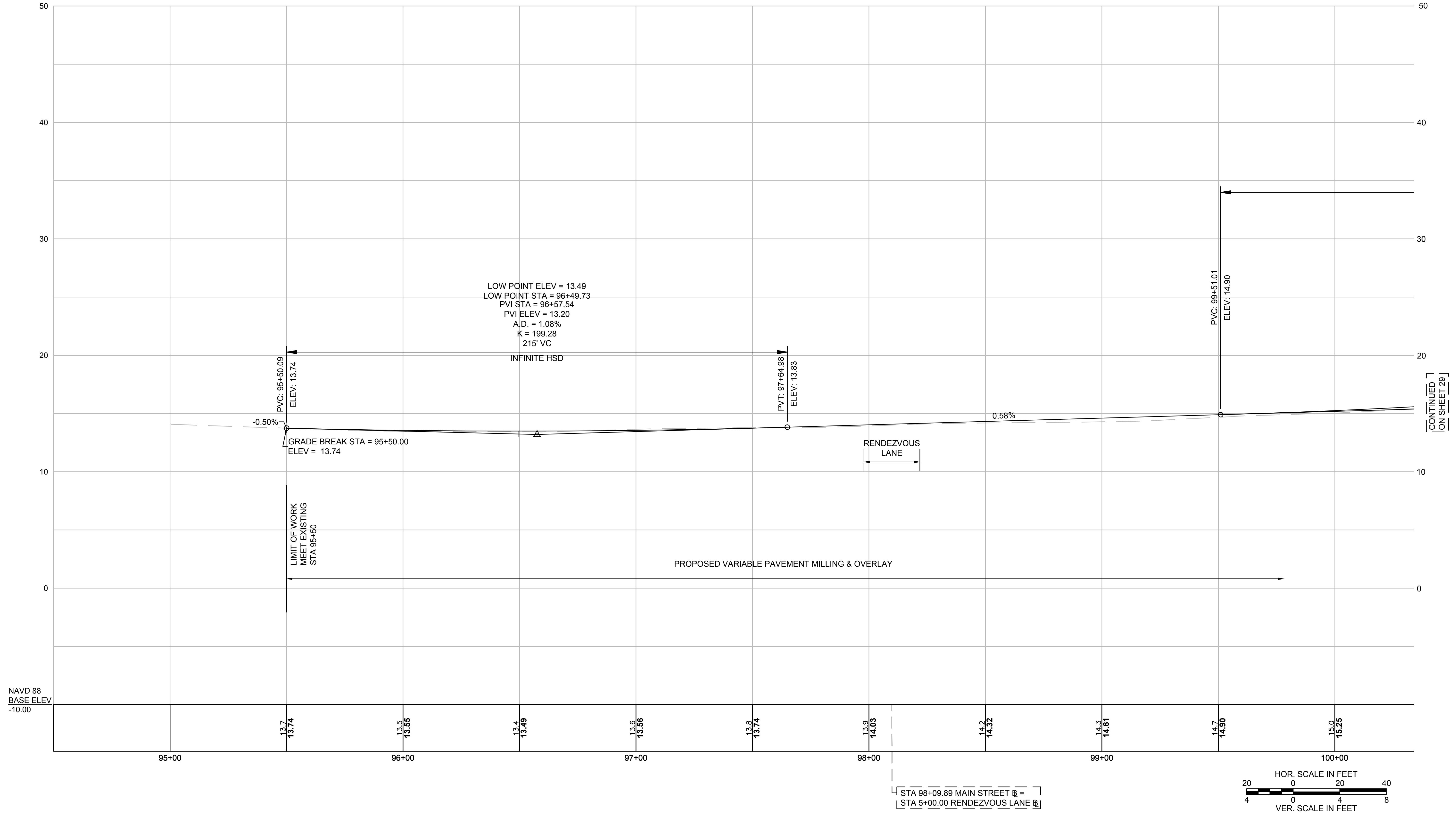
THIS LINE IS ONE INCH LONG WHEN PLOTTED AT FULL SCALE ON A 22" X 34" DRAWING

**TRANSPORTATION IMPROVEMENTS
ALONG MAIN STREET (ROUTE 6A) AND MILLWAY
BARNSTABLE, MASSACHUSETTS**

CONSTRUCTION PLAN - 09

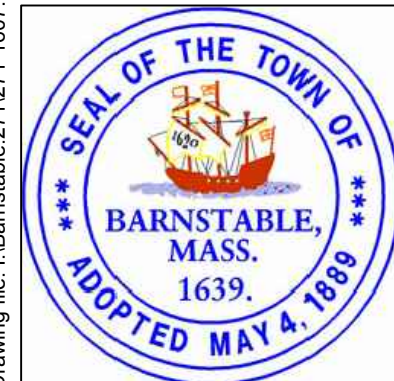
NOT FOR CONSTRUCTION
Sheet No.
27

MAIN STREET



CONTINUED
ON SHEET 29

Drawing file: I:\Barnstable\2711271-1607-00 Barnstable - Improvement along Main Street (Route 6A)\ACAD\Sheet\08 - Profile - Main Street.dwg Plot Date: Oct 18 2018 10:50am



MARK	DATE	DESCRIPTION	DESIGNED BY	CHECKED BY	APPROVED BY
03	10/19/18	REVISED FINAL SUBMISSION	JRC	BLH	JDF
02	08/22/18	FINAL SUBMISSION	JRC		
01	08/01/18	DRAFT PRELIMINARY DESIGN SUBMISSION			

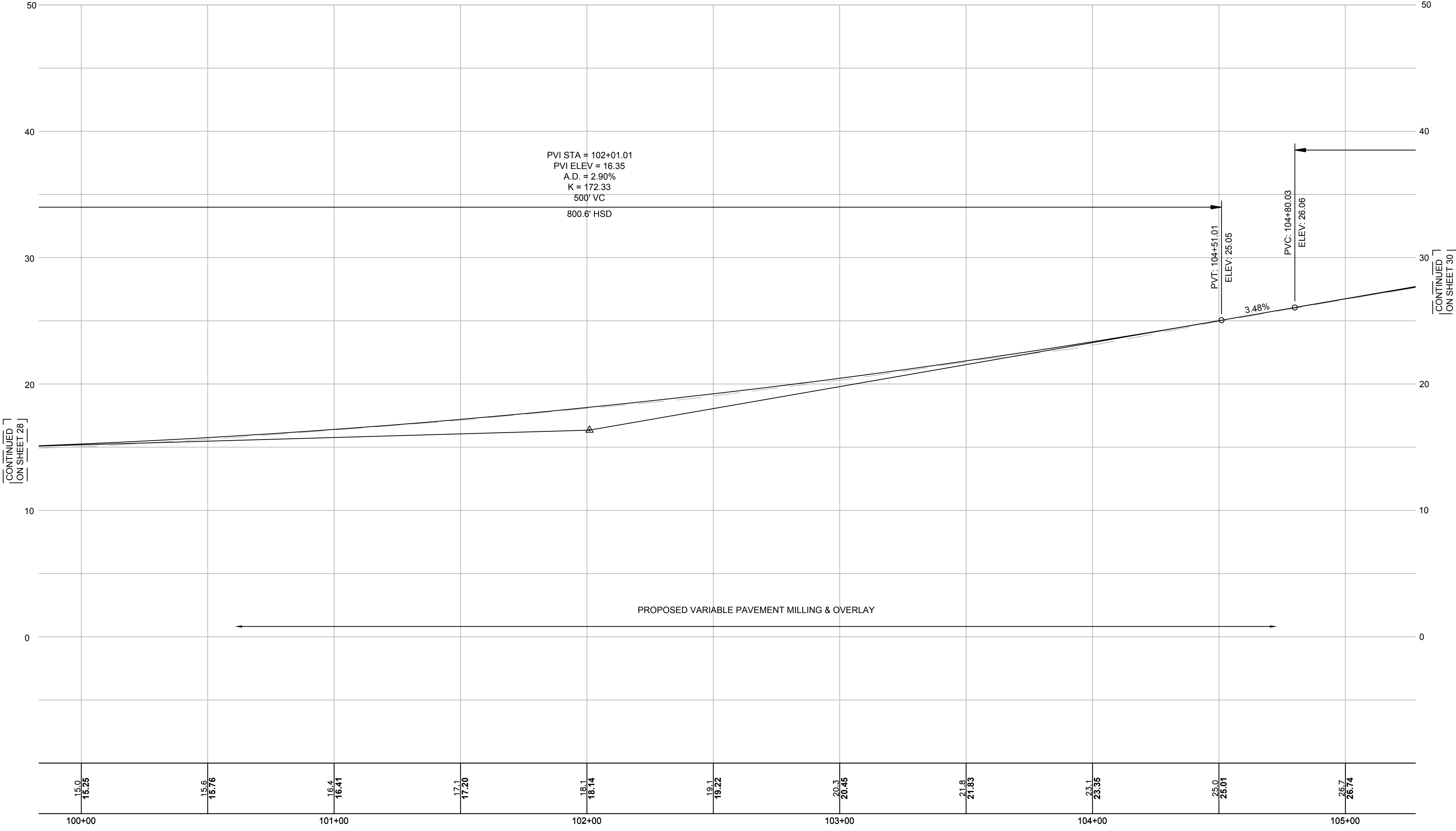
Scale AS NOTED
 Date OCTOBER 2018
 Job No. 271-1607
 THIS LINE IS ONE INCH LONG WHEN PLOTTED AT FULL SCALE ON A 22" X 34" DRAWING

TRANSPORTATION IMPROVEMENTS
 ALONG MAIN STREET (ROUTE 6A) AND MILLWAY
 BARNSTABLE, MASSACHUSETTS

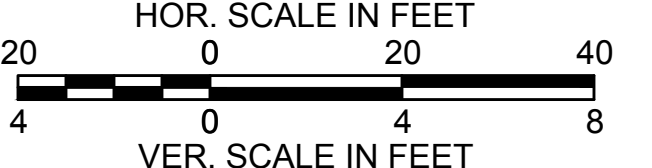
PROFILE - MAIN STREET - 01

NOT FOR CONSTRUCTION
 Sheet No. 28

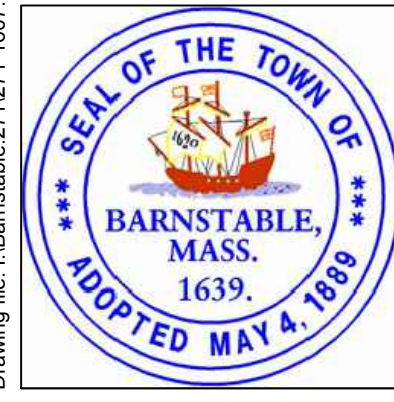
MAIN STREET



PROPOSED VARIABLE PAVEMENT MILLING & OVERLAY



Drawing file: I:\Barnstable\271\271-1607-00 Barnstable - Improvement along Main Street (Route 6A)\ACAD\Sheet\08 - Profile - Main Street.dwg Plot Date: Oct 18 2018 10:50am



MARK	DATE	DESCRIPTION	DESIGNED BY	CHECKED BY	APPROVED BY
			JRC	BLH	JDF
03	10/19/18	REVISED FINAL SUBMISSION	JRC	BLH	JDF
02	08/22/18	FINAL SUBMISSION	JRC	BLH	JDF
01	08/01/18	DRAFT PRELIMINARY DESIGN SUBMISSION	JRC	BLH	JDF

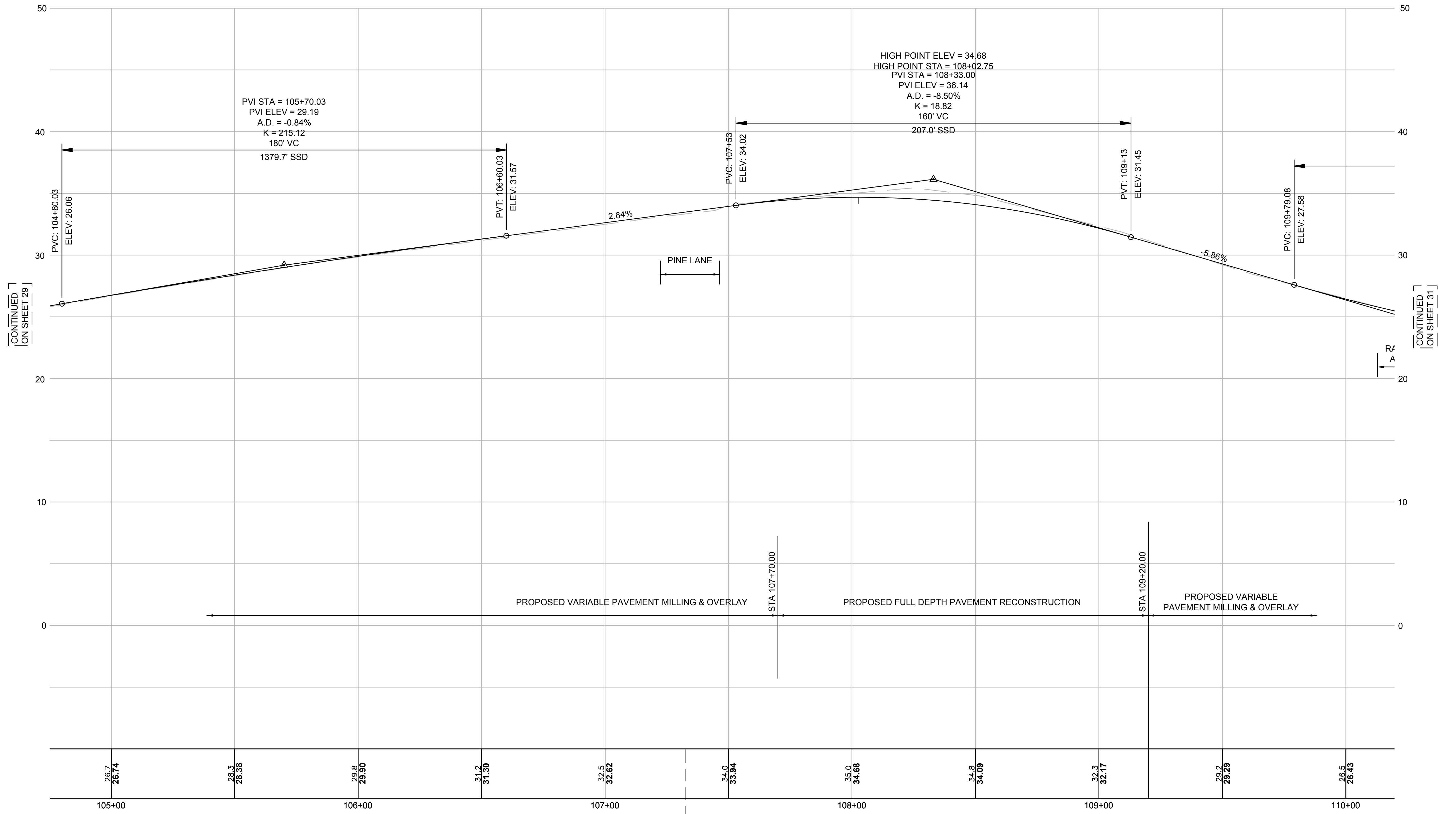
Scale AS NOTED
Date OCTOBER 2018
Job No. 271-1607
THIS LINE IS ONE INCH LONG WHEN PLOTTED AT FULL SCALE ON A 22" X 34" DRAWING

**TRANSPORTATION IMPROVEMENTS
ALONG MAIN STREET (ROUTE 6A) AND MILLWAY
BARNSTABLE, MASSACHUSETTS**

PROFILE - MAIN STREET - 02

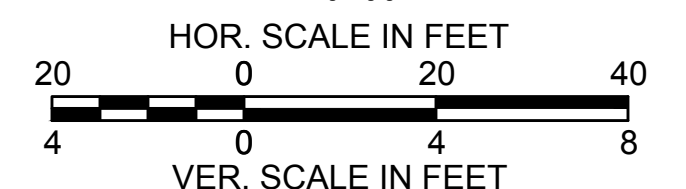
NOT FOR CONSTRUCTION
Sheet No. **29**

MAIN STREET



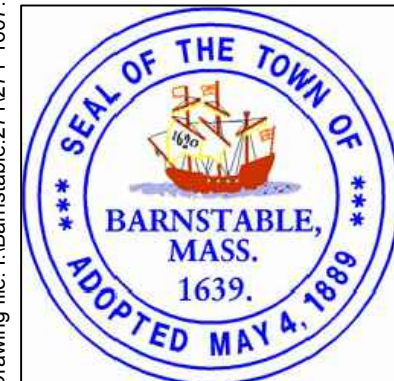
[CONTINUED
ON SHEET 29]

[CONTINUED
ON SHEET 31]



STA 107+34.39 MAIN STREET =
STA 5+00.00 PINE LANE =

Drawing file: I:\Barnstable\2711271-1607-00 Barnstable - Improvement along Main Street (Route 6A)\ACAD\Sheet\08 - Profile - Main Street.dwg Plot Date: Oct 18, 2018 10:48am



MARK	DATE	DESCRIPTION	DESIGNED BY	CHECKED BY	APPROVED BY
03	10/19/18	REVISED FINAL SUBMISSION	JRC	BLH	JDF
02	08/22/18	FINAL SUBMISSION	JRC		
01	08/01/18	DRAFT PRELIMINARY DESIGN SUBMISSION			

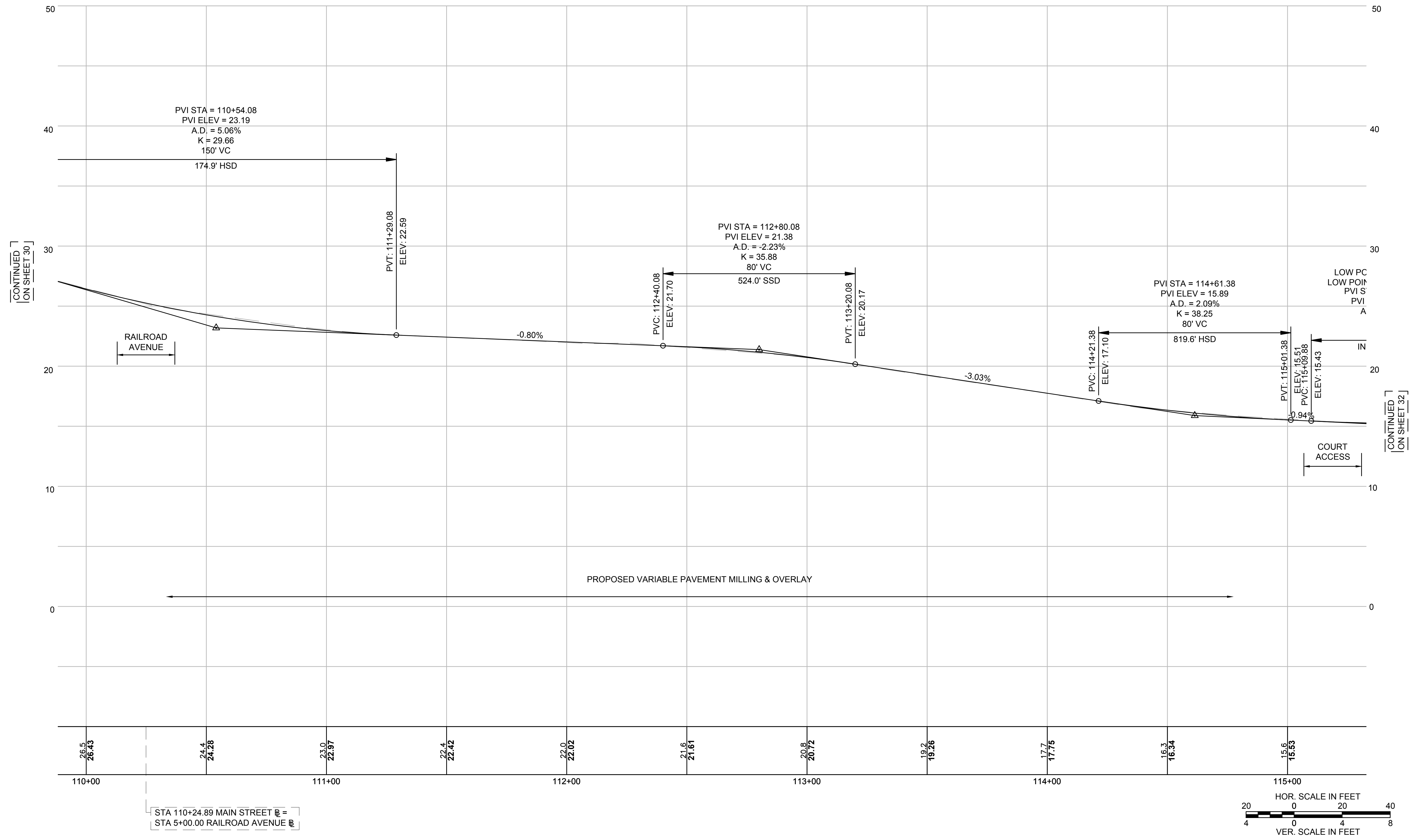
Scale AS NOTED
Date OCTOBER 2018
Job No. 271-1607
THIS LINE IS ONE INCH LONG WHEN PLOTTED AT FULL SCALE ON A 22" X 34" DRAWING

TRANSPORTATION IMPROVEMENTS
ALONG MAIN STREET (ROUTE 6A) AND MILLWAY
BARNSTABLE, MASSACHUSETTS

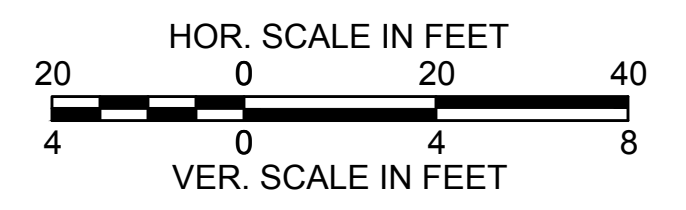
PROFILE - MAIN STREET - 03

NOT FOR CONSTRUCTION
Sheet No. **30**

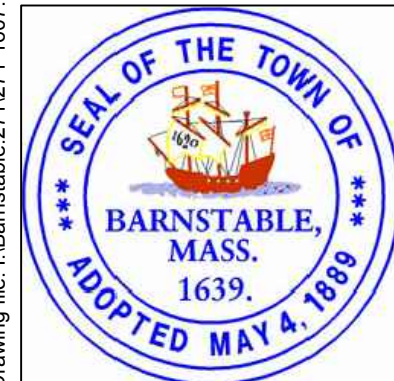
MAIN STREET



STA 110+24.89 MAIN STREET =
STA 5+00.00 RAILROAD AVENUE



Drawing file: I:\Barnstable\2711271-1607-00 Barnstable - Improvement along Main Street (Route 6A)\ACAD\Sheet\08 - Profile - Main Street.dwg Plot Date: Oct 18 2018 10:48am



MARK	DATE	DESCRIPTION	Scale	AS NOTED
			Date	OCTOBER 2018
			Job No.	271-1607
03	10/19/18	REVISED FINAL SUBMISSION	Designed by	JRC
02	08/22/18	FINAL SUBMISSION	Drawn by	JRC
01	08/01/18	DRAFT PRELIMINARY DESIGN SUBMISSION	Checked by	BLH
			Approved by	JDF

THIS LINE IS ONE INCH LONG WHEN PLOTTED AT FULL SCALE ON A 22" X 34" DRAWING

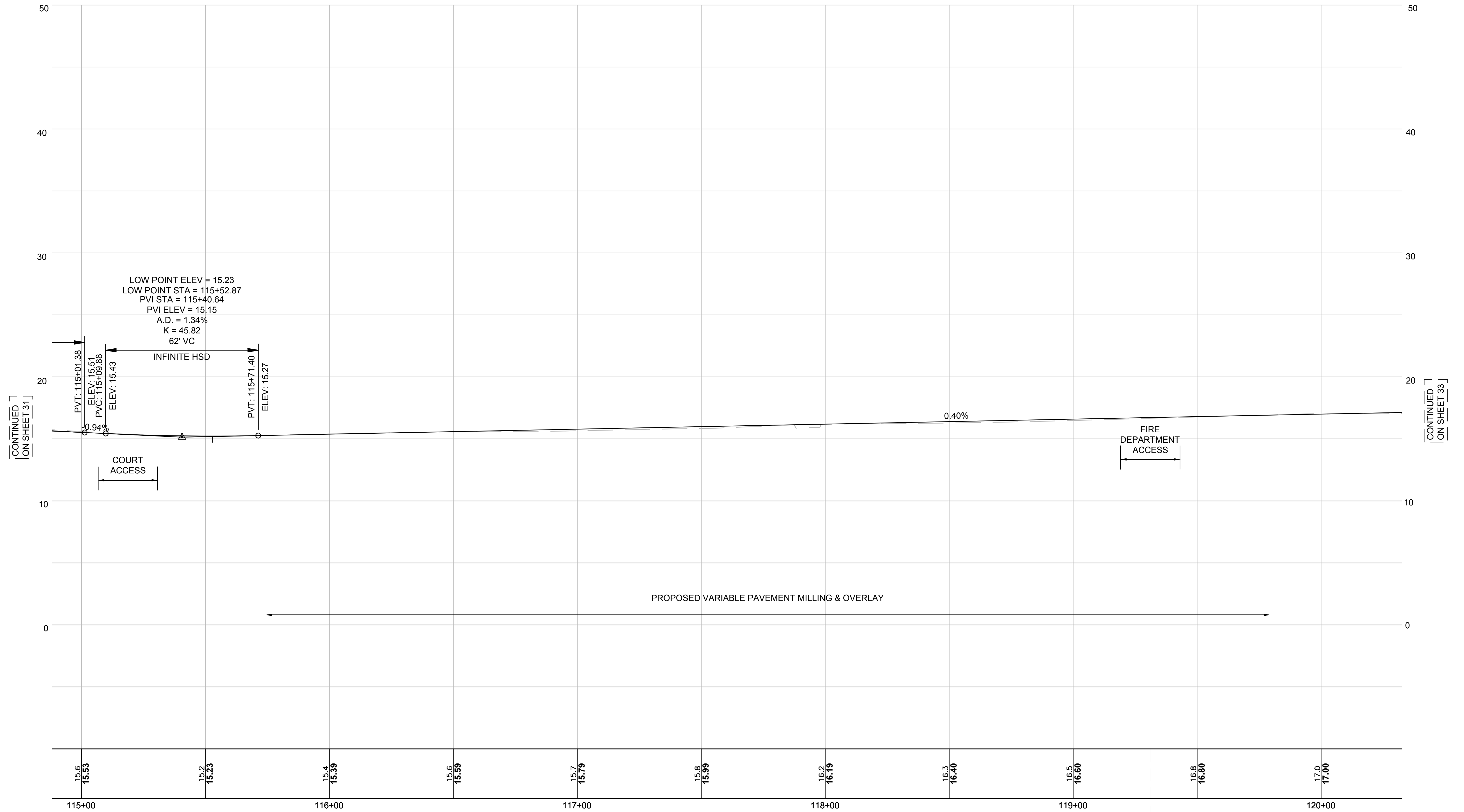
**TRANSPORTATION IMPROVEMENTS
ALONG MAIN STREET (ROUTE 6A) AND MILLWAY
BARNSTABLE, MASSACHUSETTS**

PROFILE - MAIN STREET - 04

NOT FOR CONSTRUCTION

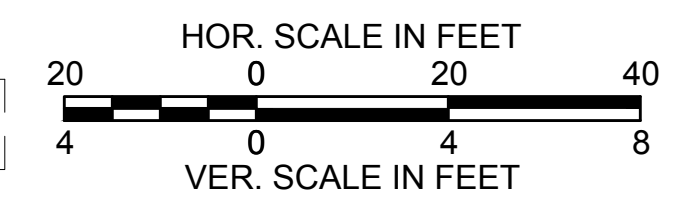
Sheet No. 31

MAIN STREET

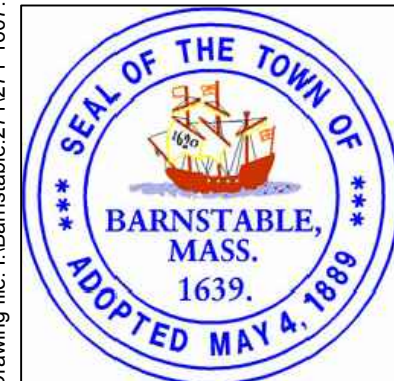


STA 115+18.83 MAIN STREET @ =
 STA 5+00.00 COURT ACCESS @

STA 119+31.05 MAIN STREET @ =
 STA 5+00.00 FIRE DEPT. ACCESS @



Drawing file: I:\Barnstable\2711271-1607-00 Barnstable - Improvement along Main Street (Route 6A)\ACAD\Sheet\08 - Profile - Main Street.dwg Plot Date: Oct 18 2018 10:48am



MARK	DATE	DESCRIPTION	DESIGNED BY	CHECKED BY	APPROVED BY
03	10/19/18	REVISED FINAL SUBMISSION	JRC	BLH	JDF
02	08/22/18	FINAL SUBMISSION	JRC		
01	08/01/18	DRAFT PRELIMINARY DESIGN SUBMISSION			

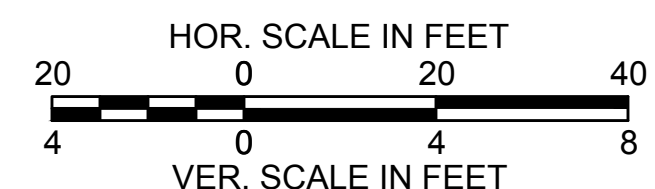
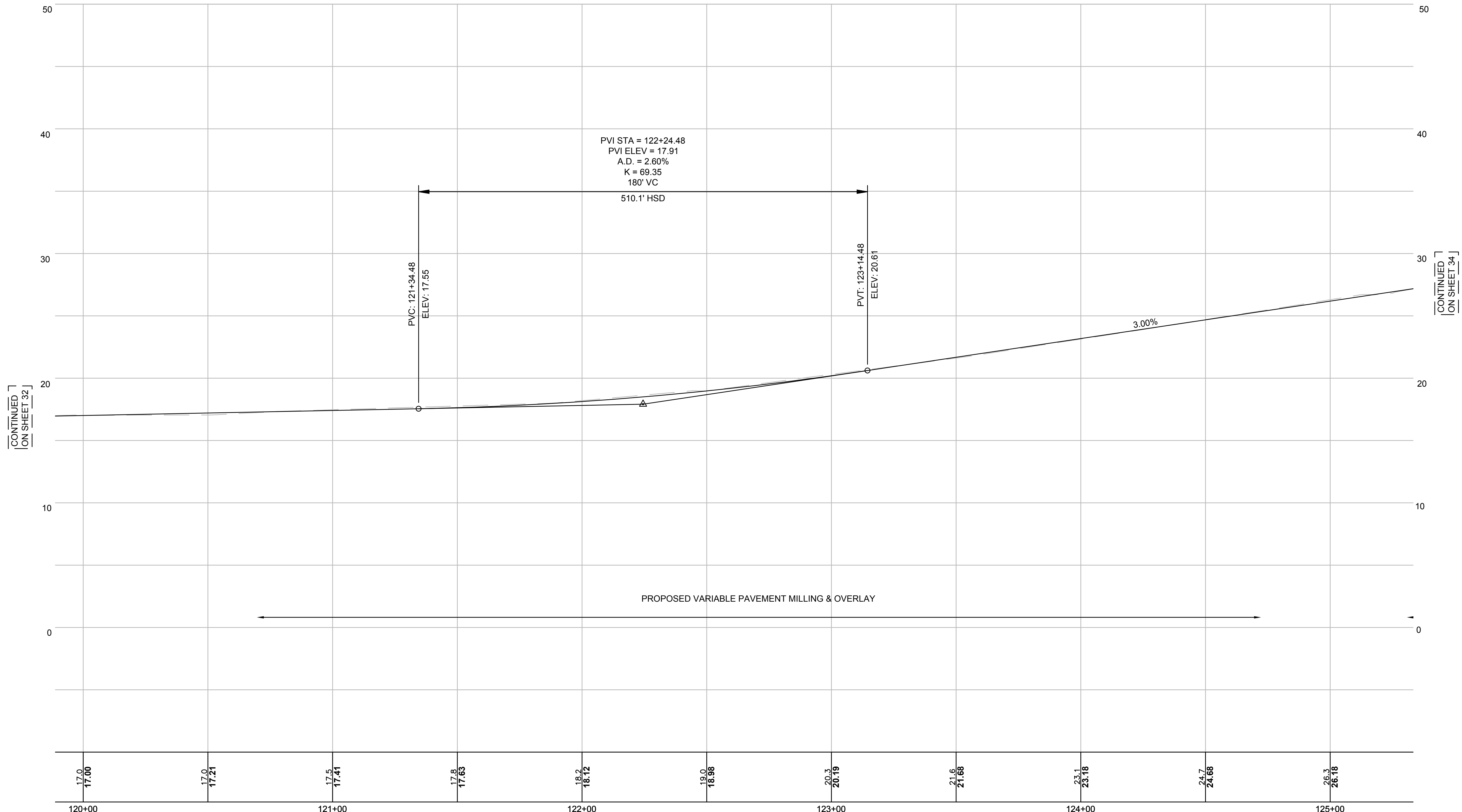
Scale: AS NOTED
 Date: OCTOBER 2018
 Job No.: 271-1607
 THIS LINE IS ONE INCH LONG WHEN PLOTTED AT FULL SCALE ON A 22" X 34" DRAWING

**TRANSPORTATION IMPROVEMENTS
 ALONG MAIN STREET (ROUTE 6A) AND MILLWAY
 BARNSTABLE, MASSACHUSETTS**

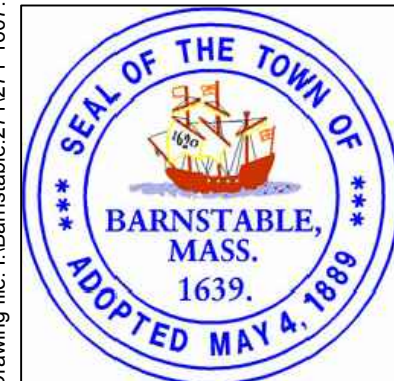
PROFILE - MAIN STREET - 05

NOT FOR CONSTRUCTION
 Sheet No.
32

MAIN STREET



Drawing file: I:\Barnstable\2711271-1607-00 Barnstable - Improvement along Main Street (Route 6A)\ACAD\Sheet\08 - Profile - Main Street.dwg Plot Date: Oct 18, 2018 10:48am



MARK	DATE	DESCRIPTION	Scale	AS NOTED
			Date	OCTOBER 2018
			Job No.	271-1607
03	10/19/18	REVISED FINAL SUBMISSION	Designed by	JRC
02	08/22/18	FINAL SUBMISSION	Drawn by	JRC
01	08/01/18	DRAFT PRELIMINARY DESIGN SUBMISSION	Checked by	BLH
			Approved by	JDF

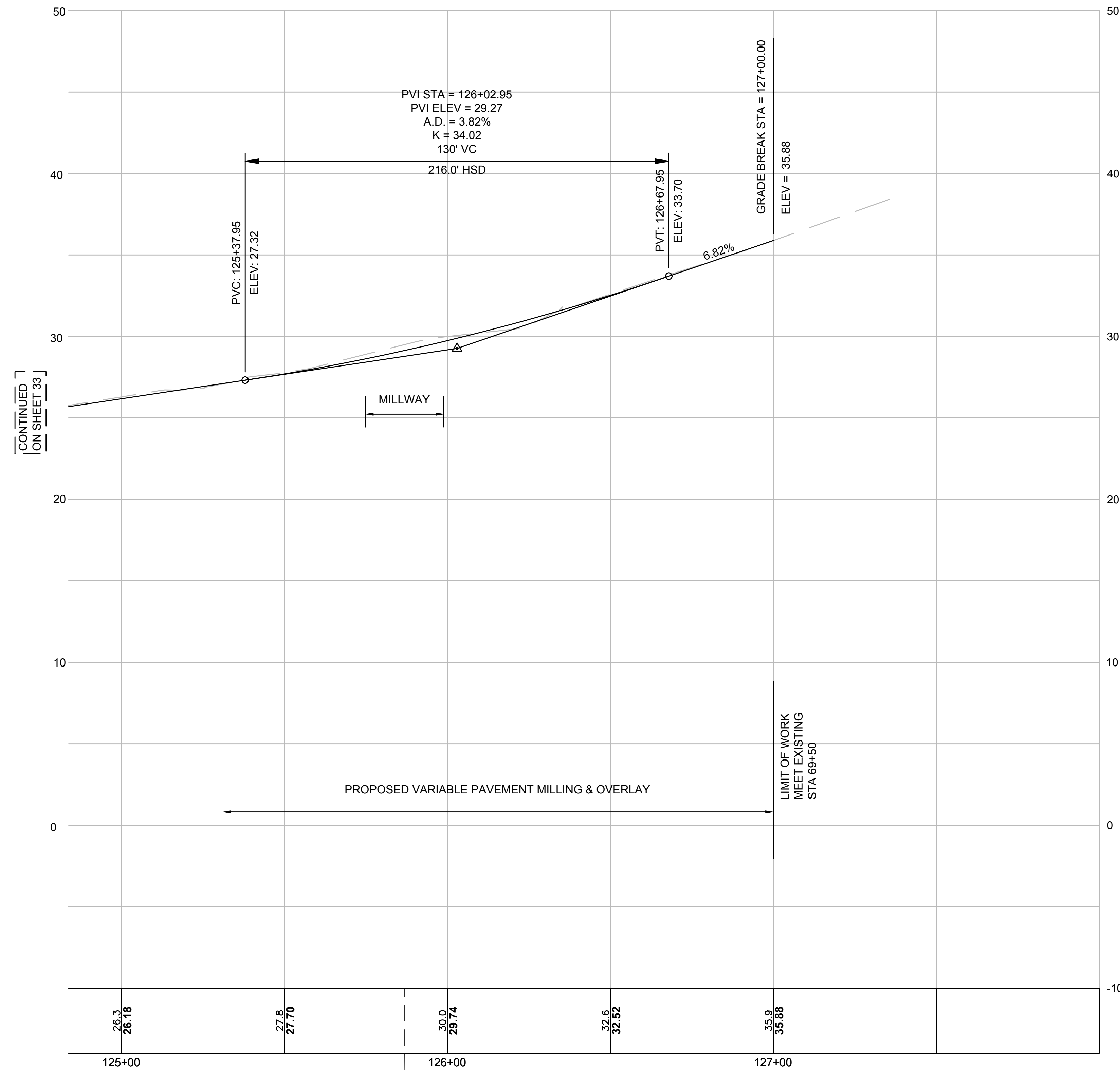
THIS LINE IS ONE INCH LONG WHEN PLOTTED AT FULL SCALE ON A 22" X 34" DRAWING

**TRANSPORTATION IMPROVEMENTS
ALONG MAIN STREET (ROUTE 6A) AND MILLWAY
BARNSTABLE, MASSACHUSETTS**

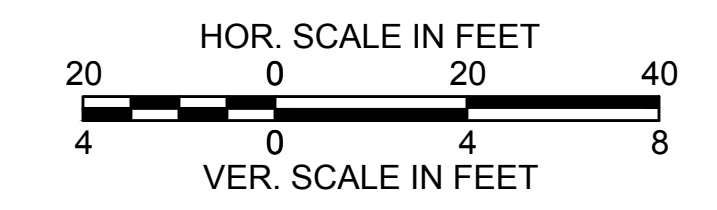
PROFILE - MAIN STREET - 06

NOT FOR CONSTRUCTION
Sheet No.
33

MAIN STREET

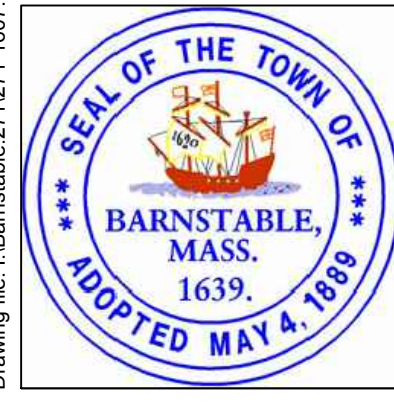


CONTINUED
ON SHEET 33



STA 125+86.88 MAIN STREET @ =
STA 51+29.03 MILLWAY @

Drawing file: I:\Barnstable\2711271-1607-00 Barnstable - Improvement along Main Street (Route 6A)\ACAD\Sheet\08 - Profile - Main Street.dwg Plot Date: Oct 18, 2018 10:47am



MARK	DATE	DESCRIPTION	Scale	AS NOTED
			Date	OCTOBER 2018
			Job No.	271-1607
03	10/19/18	REVISED FINAL SUBMISSION	Designed by	JRC
02	08/22/18	FINAL SUBMISSION	Drawn by	JRC
01	08/01/18	DRAFT PRELIMINARY DESIGN SUBMISSION	Checked by	BLH
			Approved by	JDF

THIS LINE IS ONE INCH LONG WHEN PLOTTED AT FULL SCALE ON A 22" X 34" DRAWING

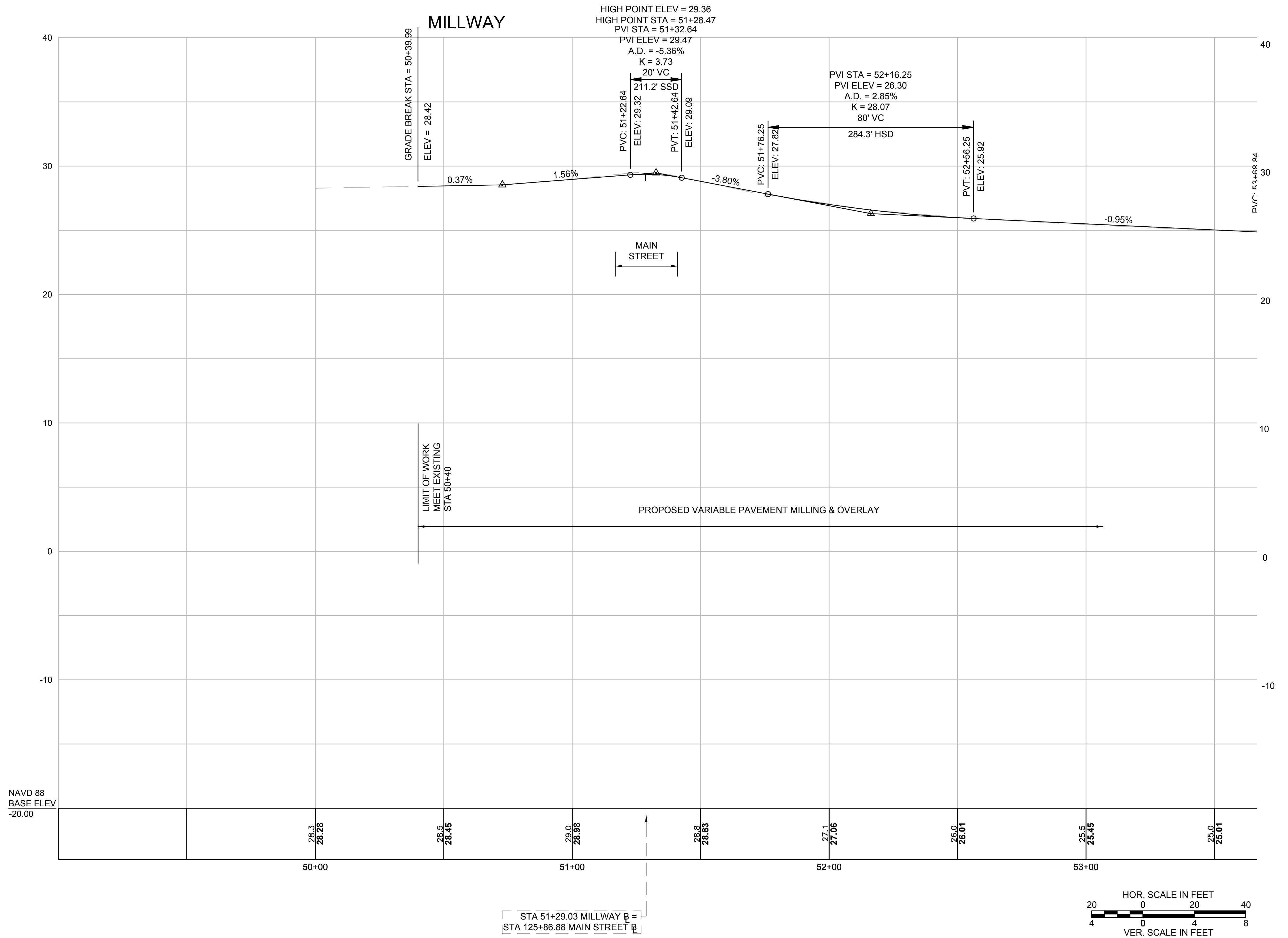
**TRANSPORTATION IMPROVEMENTS
ALONG MAIN STREET (ROUTE 6A) AND MILLWAY
BARNSTABLE, MASSACHUSETTS**

PROFILE - MAIN STREET - 07

NOT FOR CONSTRUCTION

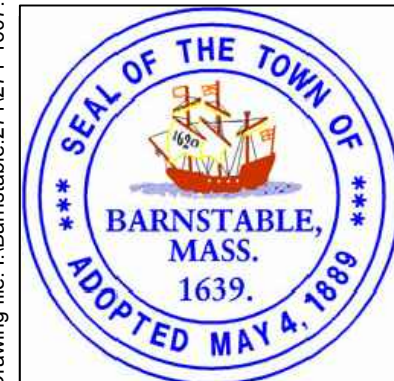
Sheet No.

34



CONTINUED
ON SHEET 36

Drawing file: I:\Barnstable\2711271-1607-00 Barnstable - Improvement along Main Street (Route 6A)\ACAD\Sheet\09 - Profile - Millway.dwg Plot Date: Oct 18, 2018 - 10:56am



MARK	DATE	DESCRIPTION	DESIGNED BY	CHECKED BY	APPROVED BY
			JRC	BLH	JDF
03	10/19/18	REVISED FINAL SUBMISSION	JRC	BLH	JDF
02	08/22/18	FINAL SUBMISSION	JRC	BLH	JDF
01	08/01/18	DRAFT PRELIMINARY DESIGN SUBMISSION	JRC	BLH	JDF

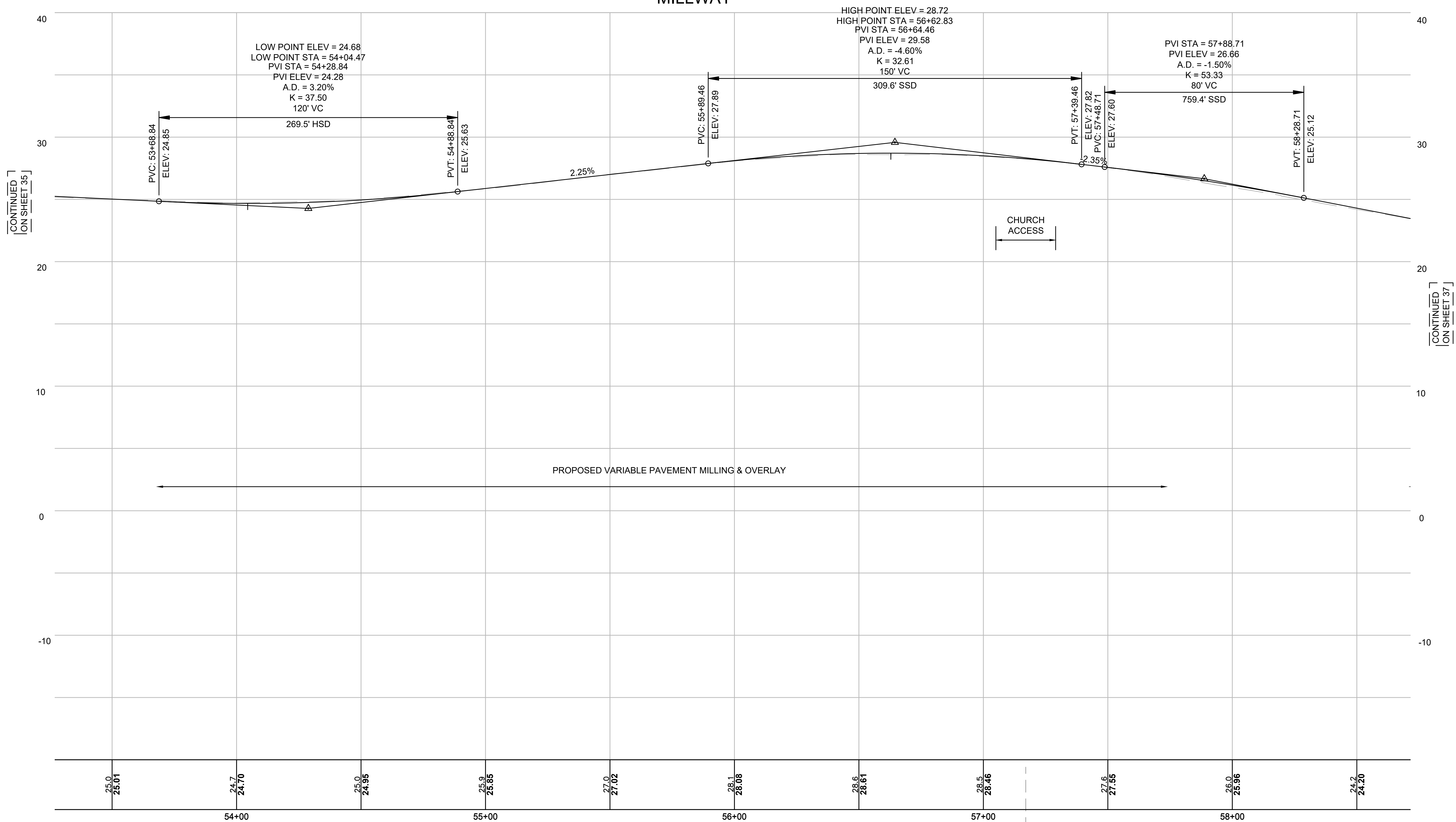
Scale AS NOTED
Date OCTOBER 2018
Job No. 271-1607
THIS LINE IS ONE INCH LONG WHEN PLOTTED AT FULL SCALE ON A 22" X 34" DRAWING

TRANSPORTATION IMPROVEMENTS
ALONG MAIN STREET (ROUTE 6A) AND MILLWAY
BARNSTABLE, MASSACHUSETTS

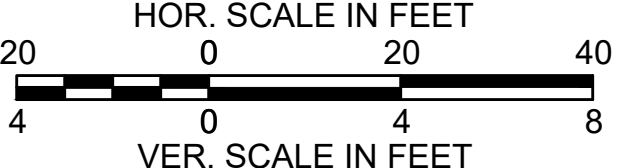
PROFILE - MILLWAY - 01

NOT FOR CONSTRUCTION
Sheet No. 35

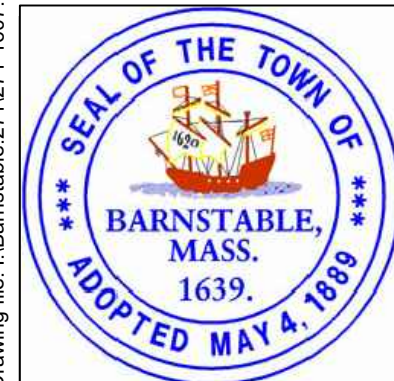
MILLWAY



STA 57+17.03 MILLWAY =
STA 5+00.00 CHURCH ACCESS



Drawing file: I:\Barnstable\2711271-1607-00 Barnstable - Improvement along Main Street (Route 6A)\ACAD\Sheet\09 - Profile - Millway.dwg Plot Date: Oct 22, 2018 - 11:05pm



MARK	DATE	DESCRIPTION	Scale	AS NOTED
			Date	OCTOBER 2018
			Job No.	271-1607
03	10/19/18	REVISED FINAL SUBMISSION	Designed by	JRC
02	08/22/18	FINAL SUBMISSION	Drawn by	JRC
01	08/01/18	DRAFT PRELIMINARY DESIGN SUBMISSION	Checked by	BLH
			Approved by	JDF

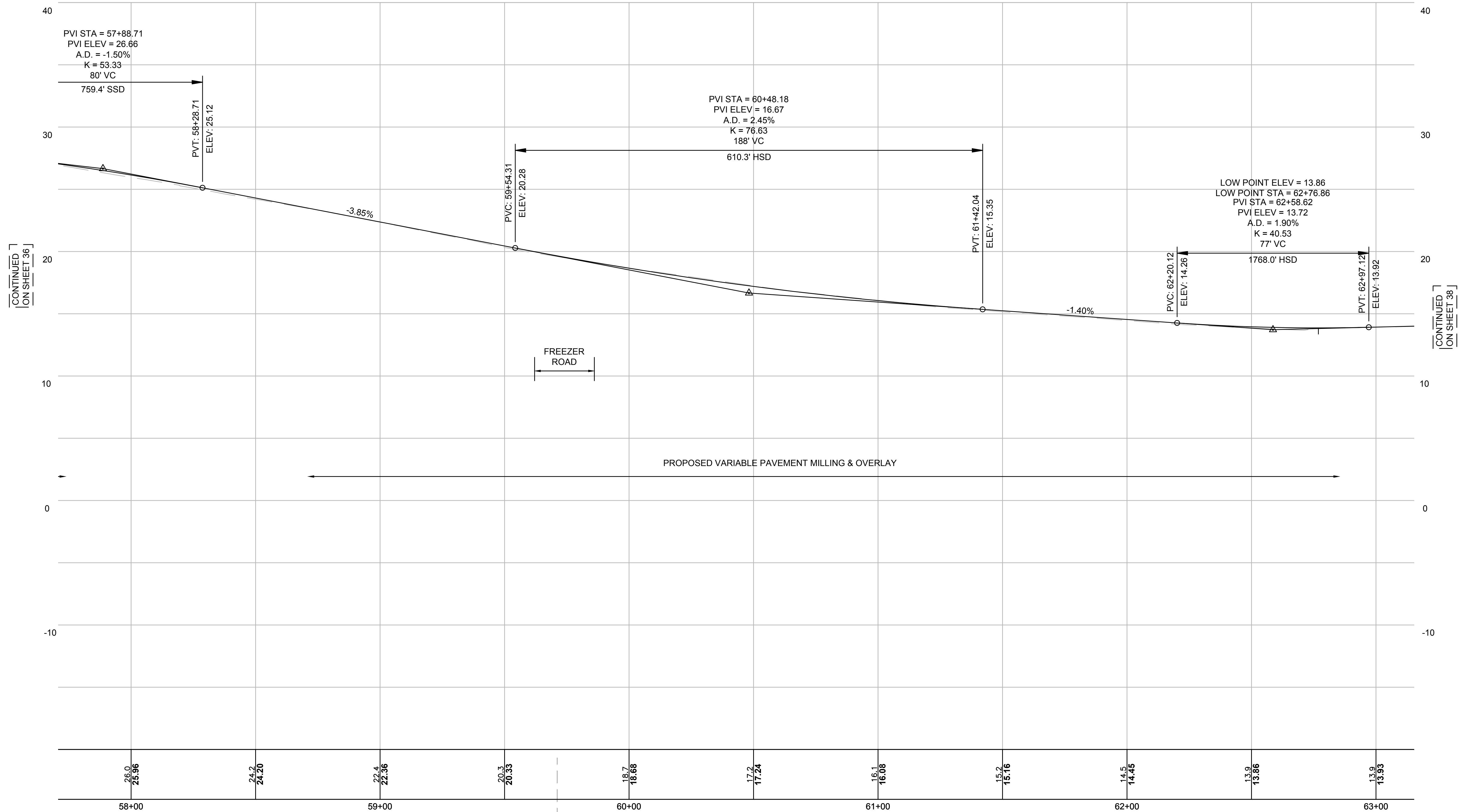
THIS LINE IS ONE INCH LONG WHEN PLOTTED AT FULL SCALE ON A 22" X 34" DRAWING

TRANSPORTATION IMPROVEMENTS
ALONG MAIN STREET (ROUTE 6A) AND MILLWAY
BARNSTABLE, MASSACHUSETTS

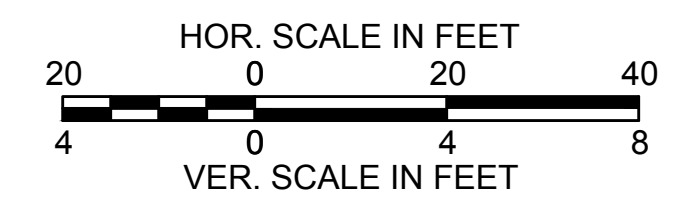
PROFILE - MILLWAY - 02

NOT FOR CONSTRUCTION
Sheet No.
36

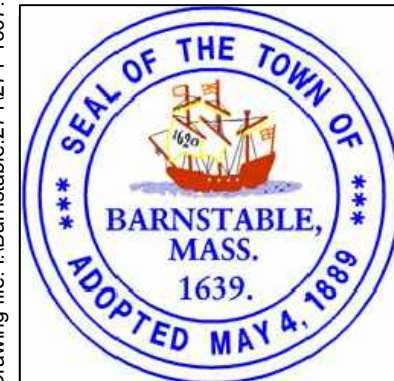
MILLWAY



STA 61+35.62 MILLWAY =
STA 5+00.00 FREEZER ROAD



Drawing file: I:\Barnstable 271271-1607-00 Barnstable - Improvement along Main Street (Route 6A)\ACAD\Sheet09 - Profile - Millway.dwg Plot Date: Oct 18, 2018 - 10:55am



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MARK	DATE	DESCRIPTION	Scale	AS NOTED
			Date	OCTOBER 2018
			Job No.	271-1607
03	10/19/18	REVISED FINAL SUBMISSION	Designed by	JRC
02	08/22/18	FINAL SUBMISSION	Drawn by	JRC
01	08/01/18	DRAFT PRELIMINARY DESIGN SUBMISSION	Checked by	BLH
			Approved by	JDF

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TRANSPORTATION IMPROVEMENTS
ALONG MAIN STREET (ROUTE 6A) AND MILLWAY
BARNSTABLE, MASSACHUSETTS

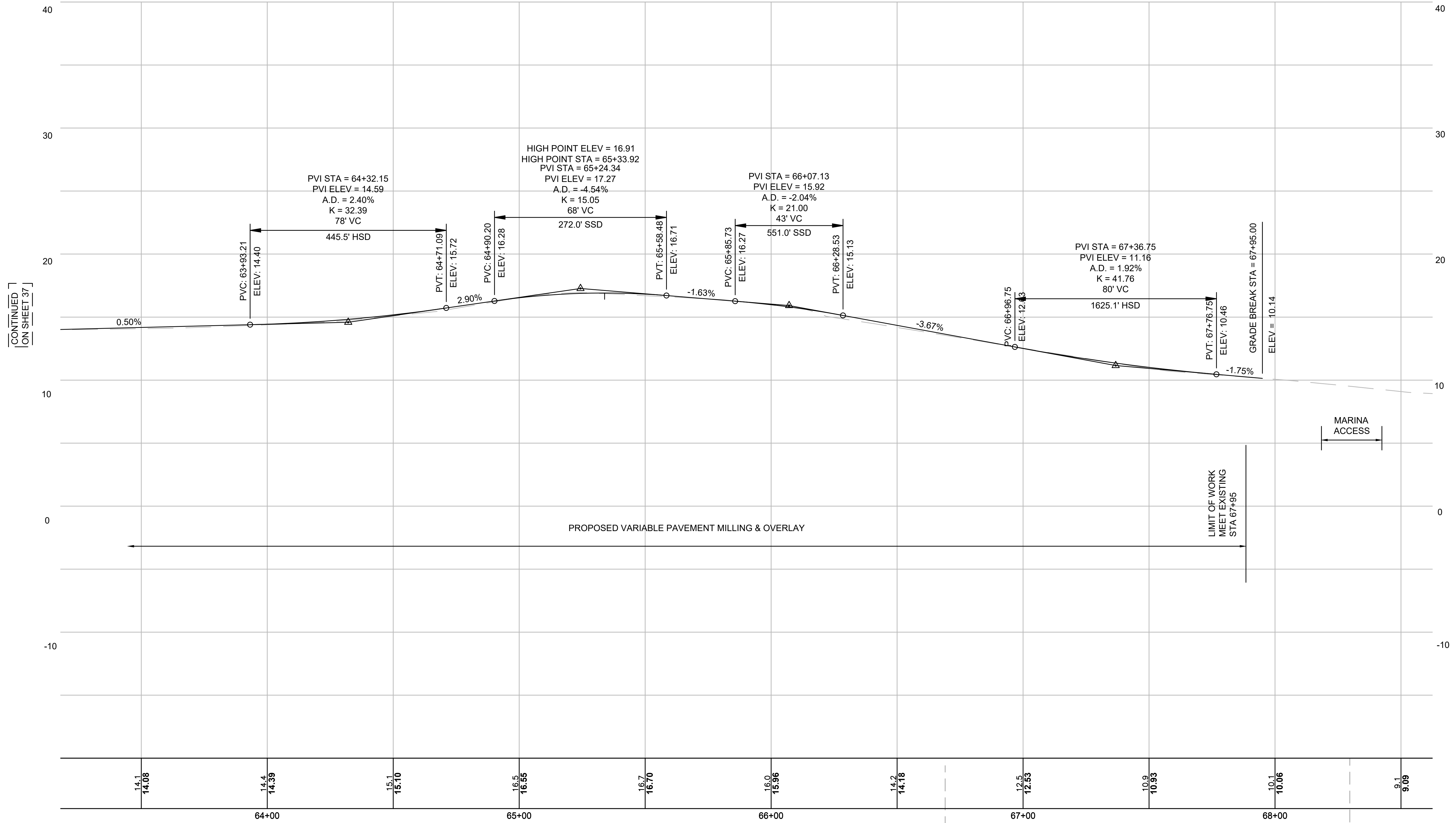
PROFILE - MILLWAY - 03

NOT FOR CONSTRUCTION

Sheet No.

37

MILLWAY



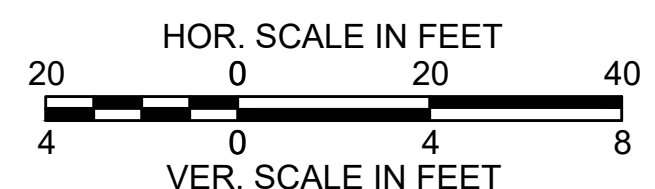
CONTINUED ON SHEET 37

PROPOSED VARIABLE PAVEMENT MILLING & OVERLAY

LIMIT OF WORK MEET EXISTING STA 67+95

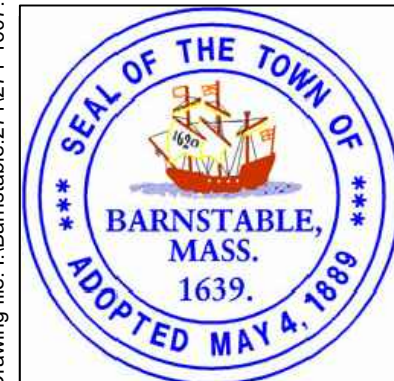
MARINA ACCESS

STA 68+30.41 MILLWAY B = STA 5+00.77 MARINA ACCESS B



STA 68+30.41 MILLWAY B = STA 5+00.00 MARINA ACCESS B

Drawing file: I:\Barnstable\2711271-1607-00 Barnstable - Improvement along Main Street (Route 6A)\ACAD\Sheet\09 - Profile - Millway.dwg Plot Date: Oct 22, 2018 - 11:08pm



MARK	DATE	DESCRIPTION	Scale	AS NOTED
			Date	OCTOBER 2018
			Job No.	271-1607
03	10/19/18	REVISED FINAL SUBMISSION	Designed by	JRC
02	08/22/18	FINAL SUBMISSION	Drawn by	JRC
01	08/01/18	DRAFT PRELIMINARY DESIGN SUBMISSION	Checked by	BLH
			Approved by	JDF

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TRANSPORTATION IMPROVEMENTS
ALONG MAIN STREET (ROUTE 6A) AND MILLWAY
BARNSTABLE, MASSACHUSETTS

PROFILE - MILLWAY - 04

NOT FOR CONSTRUCTION

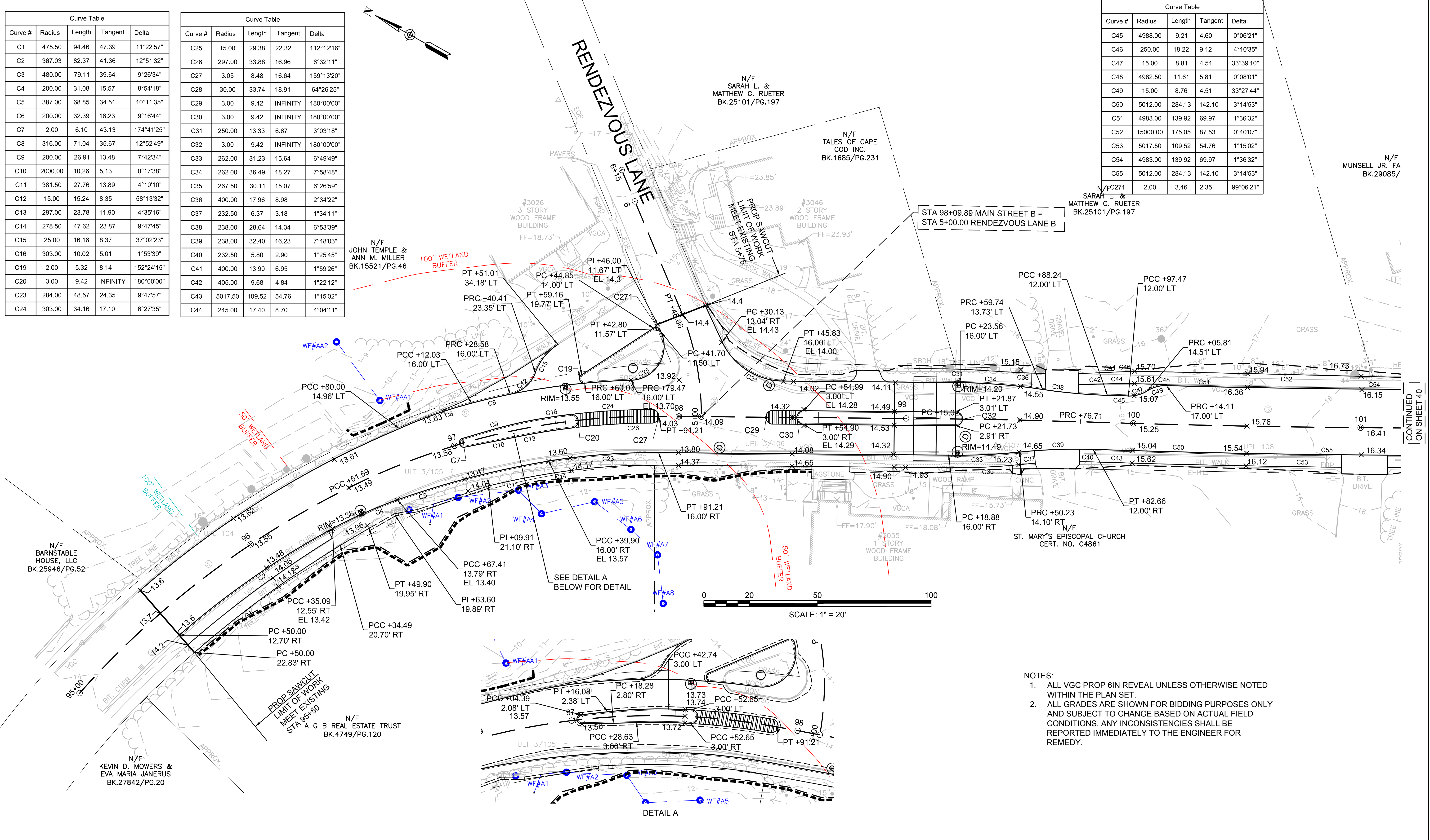
Sheet No.

38

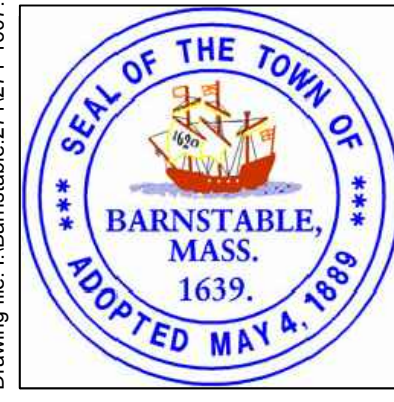
Curve #	Radius	Length	Tangent	Delta
C1	475.50	94.46	47.39	11°22'57"
C2	367.03	82.37	41.36	12°51'32"
C3	480.00	79.11	39.64	9°26'34"
C4	200.00	31.08	15.57	8°54'18"
C5	387.00	68.85	34.51	10°11'35"
C6	200.00	32.39	16.23	9°16'44"
C7	2.00	6.10	43.13	174°41'25"
C8	316.00	71.04	35.67	12°52'49"
C9	200.00	26.91	13.48	7°42'34"
C10	2000.00	10.26	5.13	0°17'38"
C11	381.50	27.76	13.89	4°10'10"
C12	15.00	15.24	8.35	58°13'32"
C13	297.00	23.78	11.90	4°35'16"
C14	278.50	47.62	23.87	9°47'45"
C15	25.00	16.16	8.37	37°02'23"
C16	303.00	10.02	5.01	1°53'39"
C19	2.00	5.32	8.14	152°24'15"
C20	3.00	9.42	INFINITY	180°00'00"
C23	284.00	48.57	24.35	9°47'57"
C24	303.00	34.16	17.10	6°27'35"

Curve #	Radius	Length	Tangent	Delta
C25	15.00	29.38	22.32	112°12'16"
C26	297.00	33.88	16.96	6°32'11"
C27	3.05	8.48	16.64	159°13'20"
C28	30.00	33.74	18.91	64°26'25"
C29	3.00	9.42	INFINITY	180°00'00"
C30	3.00	9.42	INFINITY	180°00'00"
C31	250.00	13.33	6.67	3°03'18"
C32	3.00	9.42	INFINITY	180°00'00"
C33	262.00	31.23	15.64	6°49'49"
C34	262.00	36.49	18.27	7°58'48"
C35	267.50	30.11	15.07	6°26'59"
C36	400.00	17.96	8.98	2°34'22"
C37	232.50	6.37	3.18	1°34'11"
C38	238.00	28.64	14.34	6°53'39"
C39	238.00	32.40	16.23	7°48'03"
C40	232.50	5.80	2.90	1°25'45"
C41	400.00	13.90	6.95	1°59'26"
C42	405.00	9.68	4.84	1°22'12"
C43	5017.50	109.52	54.76	1°15'02"
C44	245.00	17.40	8.70	4°04'11"

Curve #	Radius	Length	Tangent	Delta
C45	4988.00	9.21	4.60	0°06'21"
C46	250.00	18.22	9.12	4°10'35"
C47	15.00	8.81	4.54	33°39'10"
C48	4982.50	11.61	5.81	0°08'01"
C49	15.00	8.76	4.51	33°27'44"
C50	5012.00	284.13	142.10	3°14'53"
C51	4983.00	139.92	69.97	1°36'32"
C52	15000.00	175.05	87.53	0°40'07"
C53	5017.50	109.52	54.76	1°15'02"
C54	4983.00	139.92	69.97	1°36'32"
C55	5012.00	284.13	142.10	3°14'53"
C271	2.00	3.46	2.35	99°06'21"



Drawing file: I:\Barnstable\2710271-1607-00 Barnstable - Improvement along Main Street (Route 6A)\ACAD\Sheet11 - CTG.dwg Plot Date: Oct 18, 2018 - 11:20am



MARK	DATE	DESCRIPTION	Scale	AS NOTED
			Date	OCTOBER 2018
			Job No.	271-1607
			Designed by	BLH
			Drawn by	JRC
			Checked by	BLH
			Approved by	JDF

THIS LINE IS ONE INCH LONG WHEN PLOTTED AT FULL SCALE ON A 22" X 34" DRAWING

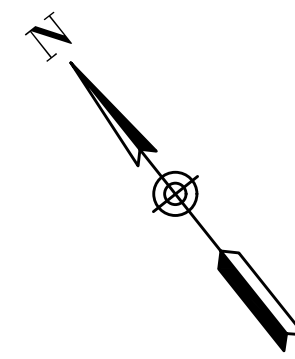
TRANSPORTATION IMPROVEMENTS
ALONG MAIN STREET (ROUTE 6A) AND MILLWAY
BARNSTABLE, MASSACHUSETTS

CURB TIE AND GRADING PLAN - 01

NOT FOR CONSTRUCTION

Sheet No.

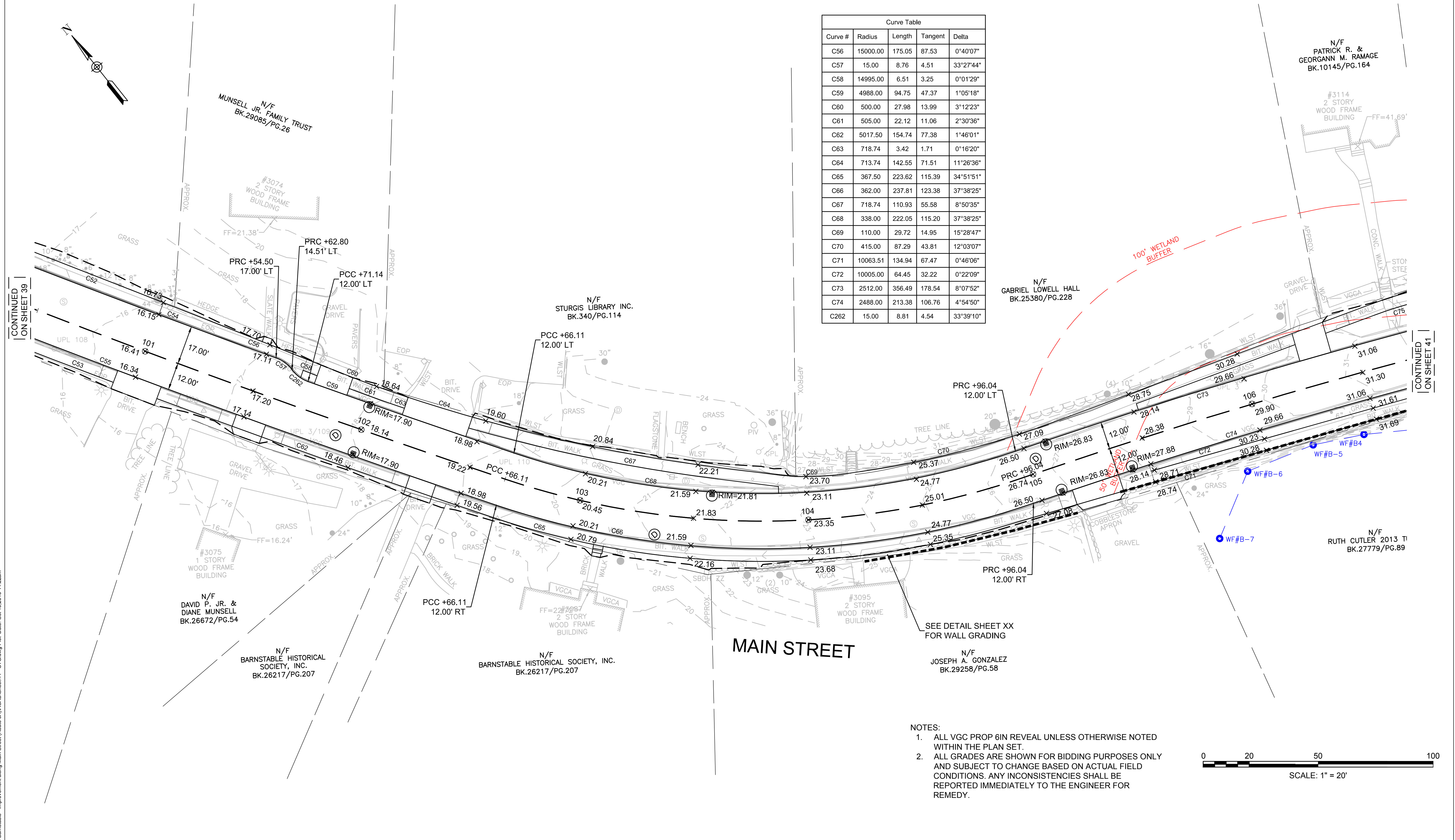
39



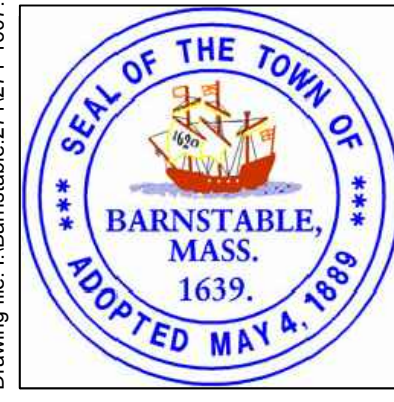
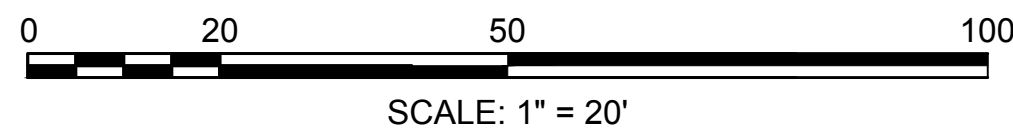
Curve Table				
Curve #	Radius	Length	Tangent	Delta
C56	15000.00	175.05	87.53	0°40'07"
C57	15.00	8.76	4.51	33°27'44"
C58	14995.00	6.51	3.25	0°01'29"
C59	4988.00	94.75	47.37	1°05'18"
C60	500.00	27.98	13.99	3°12'23"
C61	505.00	22.12	11.06	2°30'36"
C62	5017.50	154.74	77.38	1°46'01"
C63	718.74	3.42	1.71	0°16'20"
C64	713.74	142.55	71.51	11°28'36"
C65	367.50	223.62	115.39	34°51'51"
C66	362.00	237.81	123.38	37°38'25"
C67	718.74	110.93	55.58	8°50'35"
C68	338.00	222.05	115.20	37°38'25"
C69	110.00	29.72	14.95	15°28'47"
C70	415.00	87.29	43.81	12°03'07"
C71	10063.51	134.94	67.47	0°46'06"
C72	10005.00	64.45	32.22	0°22'09"
C73	2512.00	356.49	178.54	8°07'52"
C74	2488.00	213.38	106.76	4°54'50"
C262	15.00	8.81	4.54	33°39'10"

CONTINUED ON SHEET 39

CONTINUED ON SHEET 41



- NOTES:
1. ALL VGC PROP 6IN REVEAL UNLESS OTHERWISE NOTED WITHIN THE PLAN SET.
 2. ALL GRADES ARE SHOWN FOR BIDDING PURPOSES ONLY AND SUBJECT TO CHANGE BASED ON ACTUAL FIELD CONDITIONS. ANY INCONSISTENCIES SHALL BE REPORTED IMMEDIATELY TO THE ENGINEER FOR REMEDY.



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MARK	DATE	DESCRIPTION	Scale	AS NOTED
			Date	OCTOBER 2018
			Job No.	271-1607
03	10/19/18	REVISED FINAL SUBMISSION	Designed by	BLH
02	08/22/18	FINAL SUBMISSION	Drawn by	JRC
01	08/01/18	DRAFT PRELIMINARY DESIGN SUBMISSION	Checked by	BLH
			Approved by	JDF

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TRANSPORTATION IMPROVEMENTS
 ALONG MAIN STREET (ROUTE 6A) AND MILLWAY
 BARNSTABLE, MASSACHUSETTS

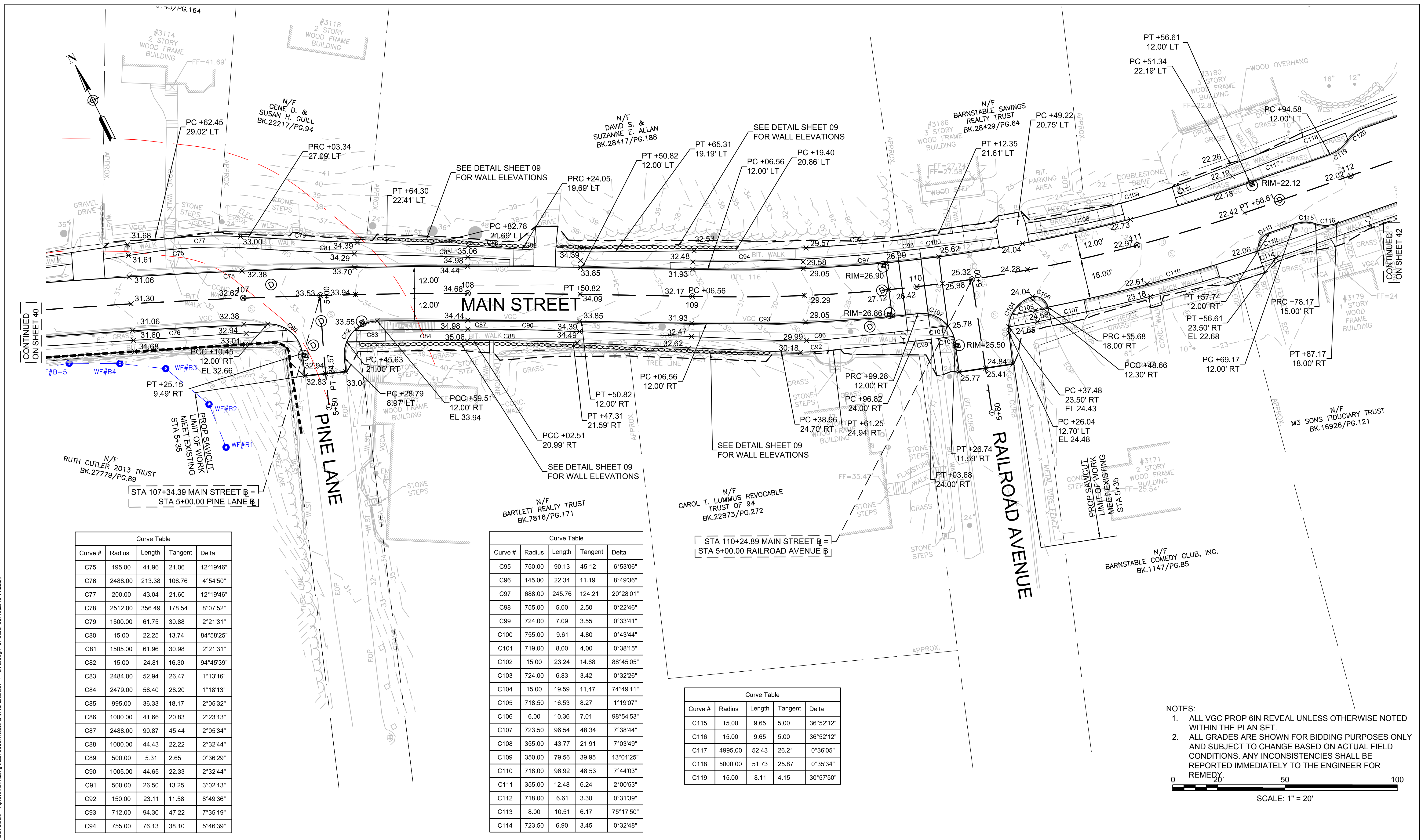
CURB TIE AND GRADING PLAN - 02

NOT FOR CONSTRUCTION

Sheet No.

40

Drawing file: I:\Barnstable\2711271-1607-00 Barnstable - Improvement along Main Street (Route 6A)\ACAD\Sheet11 - CTG.dwg Plot Date: Oct 18, 2018 - 11:22am



CONTINUED ON SHEET 40

CONTINUED ON SHEET 42

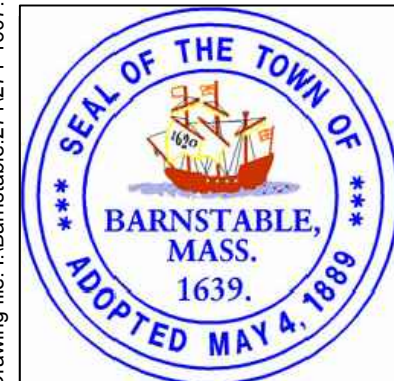
Curve #	Radius	Length	Tangent	Delta
C75	195.00	41.96	21.06	12°19'46"
C76	2488.00	213.38	106.76	4°54'50"
C77	200.00	43.04	21.60	12°19'46"
C78	2512.00	356.49	178.54	8°07'52"
C79	1500.00	61.75	30.88	2°21'31"
C80	15.00	22.25	13.74	84°58'25"
C81	1505.00	61.96	30.98	2°21'31"
C82	15.00	24.81	16.30	94°45'39"
C83	2484.00	52.94	26.47	1°13'16"
C84	2479.00	56.40	28.20	1°18'13"
C85	995.00	36.33	18.17	2°05'32"
C86	1000.00	41.66	20.83	2°23'13"
C87	2488.00	90.87	45.44	2°05'34"
C88	1000.00	44.43	22.22	2°32'44"
C89	500.00	5.31	2.65	0°36'29"
C90	1005.00	44.65	22.33	2°32'44"
C91	500.00	26.50	13.25	3°02'13"
C92	150.00	23.11	11.58	8°49'36"
C93	712.00	94.30	47.22	7°35'19"
C94	755.00	76.13	38.10	5°46'39"

Curve #	Radius	Length	Tangent	Delta
C95	750.00	90.13	45.12	6°53'06"
C96	145.00	22.34	11.19	8°49'36"
C97	688.00	245.76	124.21	20°28'01"
C98	755.00	5.00	2.50	0°22'46"
C99	724.00	7.09	3.55	0°33'41"
C100	755.00	9.61	4.80	0°43'44"
C101	719.00	8.00	4.00	0°38'15"
C102	15.00	23.24	14.68	88°45'05"
C103	724.00	6.83	3.42	0°32'26"
C104	15.00	19.59	11.47	74°49'11"
C105	718.50	16.53	8.27	1°19'07"
C106	6.00	10.36	7.01	98°54'53"
C107	723.50	96.54	48.34	7°38'44"
C108	355.00	43.77	21.91	7°03'49"
C109	350.00	79.56	39.95	13°01'25"
C110	718.00	96.92	48.53	7°44'03"
C111	355.00	12.48	6.24	2°00'53"
C112	718.00	6.61	3.30	0°31'39"
C113	8.00	10.51	6.17	75°17'50"
C114	723.50	6.90	3.45	0°32'48"

Curve #	Radius	Length	Tangent	Delta
C115	15.00	9.65	5.00	36°52'12"
C116	15.00	9.65	5.00	36°52'12"
C117	4995.00	52.43	26.21	0°36'05"
C118	5000.00	51.73	25.87	0°35'34"
C119	15.00	8.11	4.15	30°57'50"

NOTES:
 1. ALL VGC PROP 6IN REVEAL UNLESS OTHERWISE NOTED WITHIN THE PLAN SET.
 2. ALL GRADES ARE SHOWN FOR BIDDING PURPOSES ONLY AND SUBJECT TO CHANGE BASED ON ACTUAL FIELD CONDITIONS. ANY INCONSISTENCIES SHALL BE REPORTED IMMEDIATELY TO THE ENGINEER FOR REMEDY.

0 20 50 100
 SCALE: 1" = 20'



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			Date	OCTOBER 2018
			Job No.	271-1607
03	10/19/18	REVISED FINAL SUBMISSION	Designed by	BLH
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01	08/01/18	DRAFT PRELIMINARY DESIGN SUBMISSION	Checked by	BLH
			Approved by	JDF

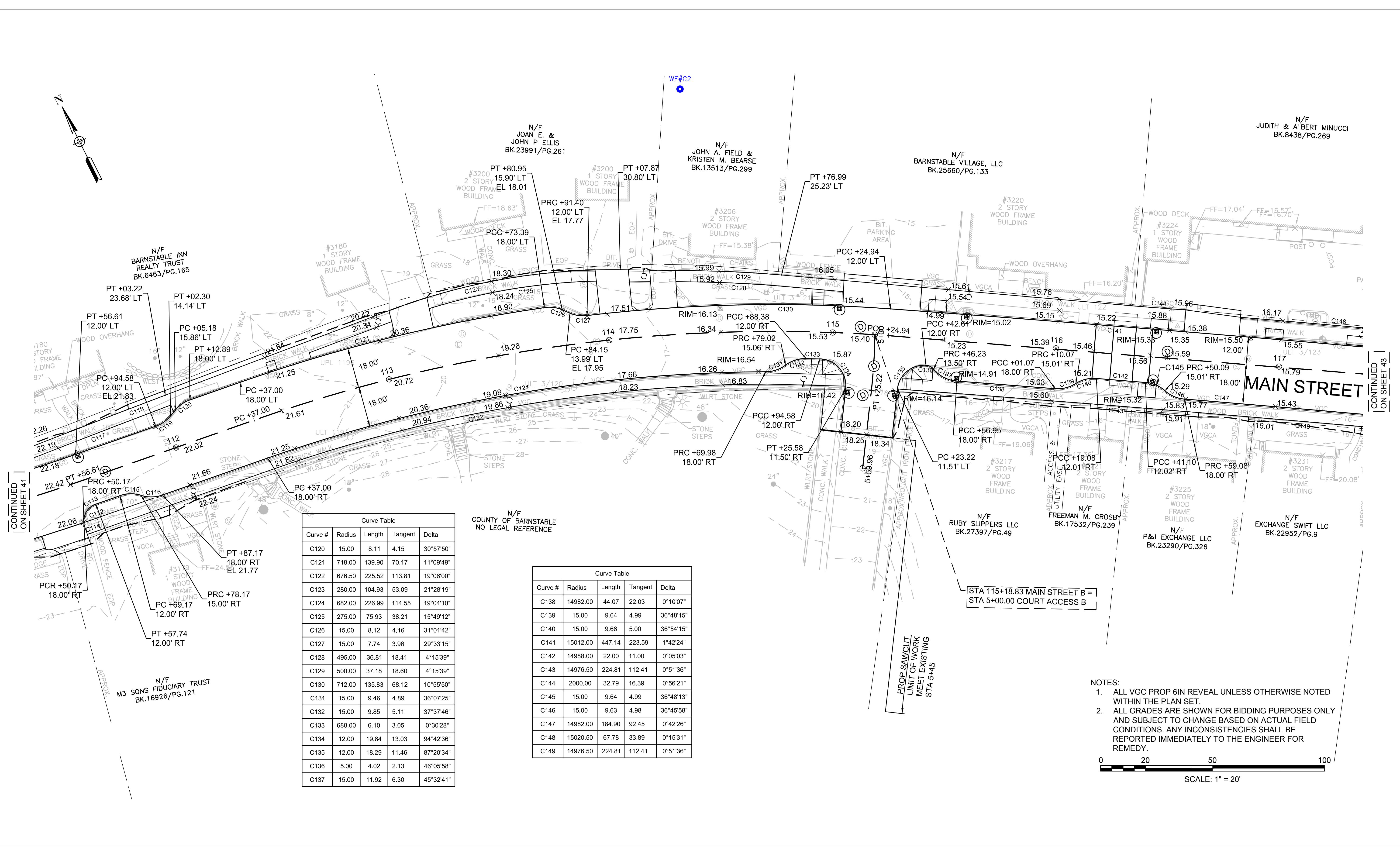
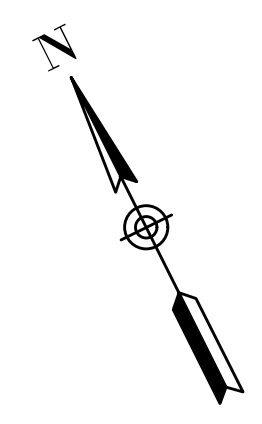
THIS LINE IS ONE INCH LONG WHEN PLOTTED AT FULL SCALE ON A 22" X 34" DRAWING

TRANSPORTATION IMPROVEMENTS
 ALONG MAIN STREET (ROUTE 6A) AND MILLWAY
 BARNSTABLE, MASSACHUSETTS

CURB TIE AND GRADING PLAN - 03

NOT FOR CONSTRUCTION
 Sheet No. **41**

Drawing file: I:\Barnstable\2711271-1607-00 Barnstable - Improvement along Main Street (Route 6A)\ACAD\Sheet11 - CTG.dwg Plot Date: Oct 18, 2018 - 11:23am



CONTINUED ON SHEET 41

CONTINUED ON SHEET 43

Curve #	Radius	Length	Tangent	Delta
C120	15.00	8.11	4.15	30°57'50"
C121	718.00	139.90	70.17	11°09'49"
C122	676.50	225.52	113.81	19°06'00"
C123	280.00	104.93	53.09	21°28'19"
C124	682.00	226.99	114.55	19°04'10"
C125	275.00	75.93	38.21	15°49'12"
C126	15.00	8.12	4.16	31°01'42"
C127	15.00	7.74	3.96	29°33'15"
C128	495.00	36.81	18.41	4°15'39"
C129	500.00	37.18	18.60	4°15'39"
C130	712.00	135.83	68.12	10°55'50"
C131	15.00	9.46	4.89	36°07'25"
C132	15.00	9.85	5.11	37°37'46"
C133	688.00	6.10	3.05	0°30'28"
C134	12.00	19.84	13.03	94°42'36"
C135	12.00	18.29	11.46	87°20'34"
C136	5.00	4.02	2.13	46°05'58"
C137	15.00	11.92	6.30	45°32'41"

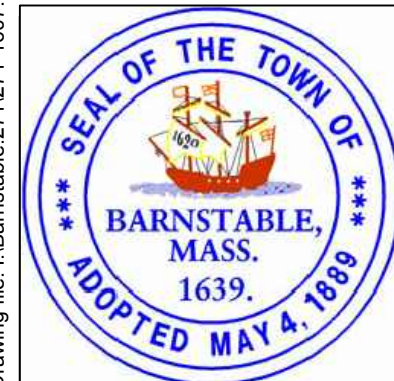
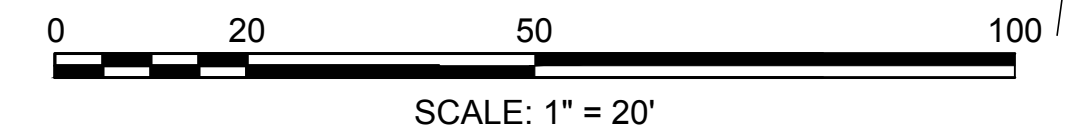
N/F COUNTY OF BARNSTABLE
NO LEGAL REFERENCE

Curve #	Radius	Length	Tangent	Delta
C138	14982.00	44.07	22.03	0°10'07"
C139	15.00	9.64	4.99	36°48'15"
C140	15.00	9.66	5.00	36°54'15"
C141	15012.00	447.14	223.59	1°42'24"
C142	14988.00	22.00	11.00	0°05'03"
C143	14976.50	224.81	112.41	0°51'36"
C144	2000.00	32.79	16.39	0°56'21"
C145	15.00	9.64	4.99	36°48'13"
C146	15.00	9.63	4.98	36°45'58"
C147	14982.00	184.90	92.45	0°42'26"
C148	15020.50	67.78	33.89	0°15'31"
C149	14976.50	224.81	112.41	0°51'36"

STA 115+18.83 MAIN STREET B =
STA 5+00.00 COURT ACCESS B

PROP SAWCUT
LIMIT OF WORK
MEET EXISTING
STA 5+45

- NOTES:
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MARK	DATE	DESCRIPTION	DESIGNED BY	CHECKED BY	APPROVED BY
03	10/19/18	REVISED FINAL SUBMISSION	BLH	BLH	JDF
02	08/22/18	FINAL SUBMISSION	JRC	JRC	JDF
01	08/01/18	DRAFT PRELIMINARY DESIGN SUBMISSION	BLH	BLH	JDF

Scale	AS NOTED
Date	OCTOBER 2018
Job No.	271-1607
Designed by	BLH
Drawn by	JRC
Checked by	BLH
Approved by	JDF

THIS LINE IS ONE INCH LONG WHEN PLOTTED AT FULL SCALE ON A 22" X 34" DRAWING

TRANSPORTATION IMPROVEMENTS
ALONG MAIN STREET (ROUTE 6A) AND MILLWAY
BARNSTABLE, MASSACHUSETTS

CURB TIE AND GRADING PLAN - 04

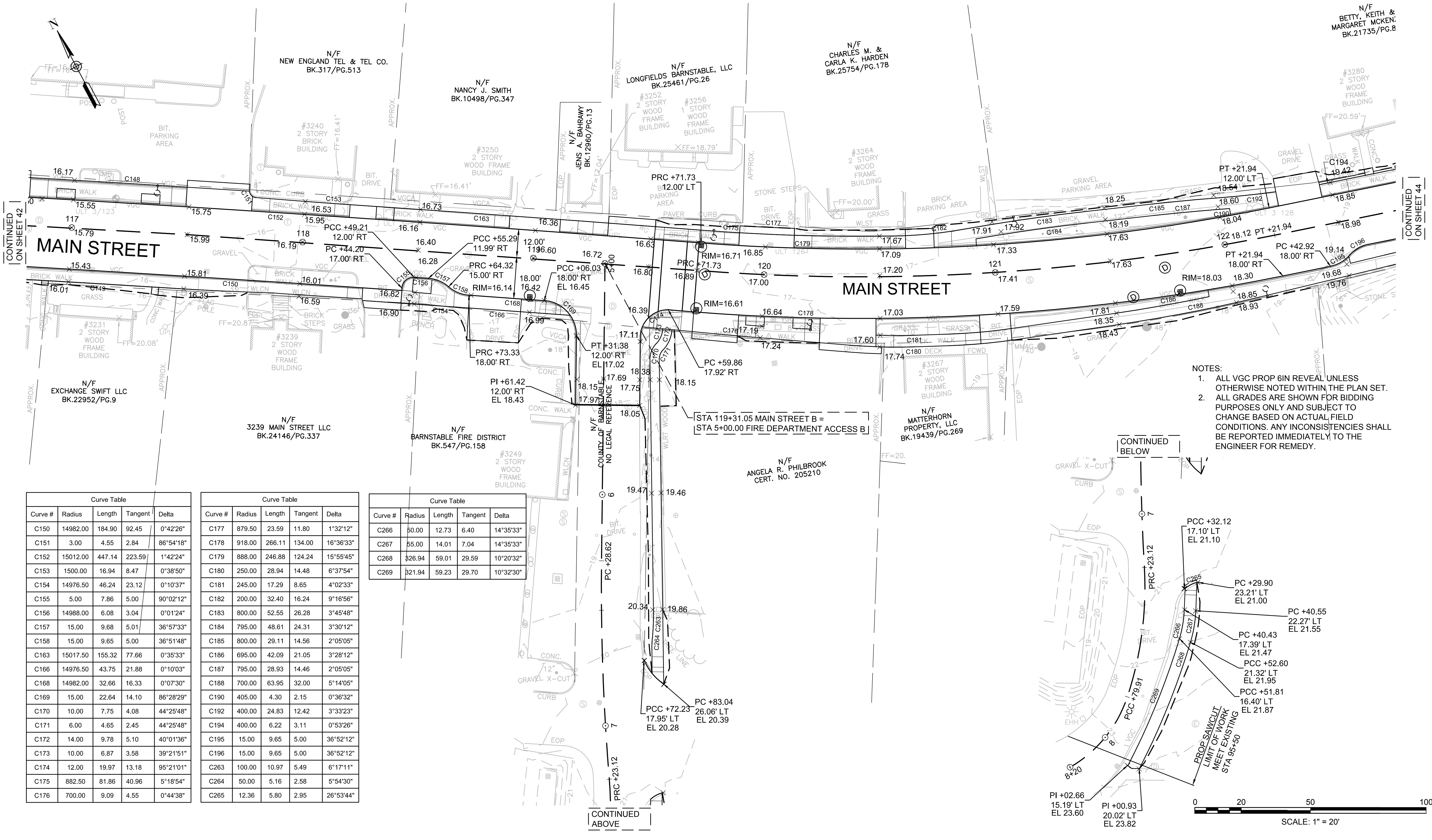
NOT FOR CONSTRUCTION

Sheet No.

42

Drawing file: I:\Barnstable\2711271-1607-00 Barnstable - Improvement along Main Street (Route 6A)\ACAD\Sheet11 - CTG.dwg Plot Date: Oct 18, 2018 - 11:24am

Drawing file: I:\Barnstable\271271-1607-00 Barnstable - Improvement along Main Street (Route 6A)\ACAD\Sheet\11 - CTG.dwg Plot Date: Oct 18, 2018 - 11:25am

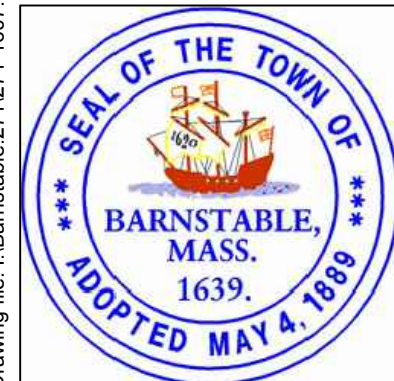
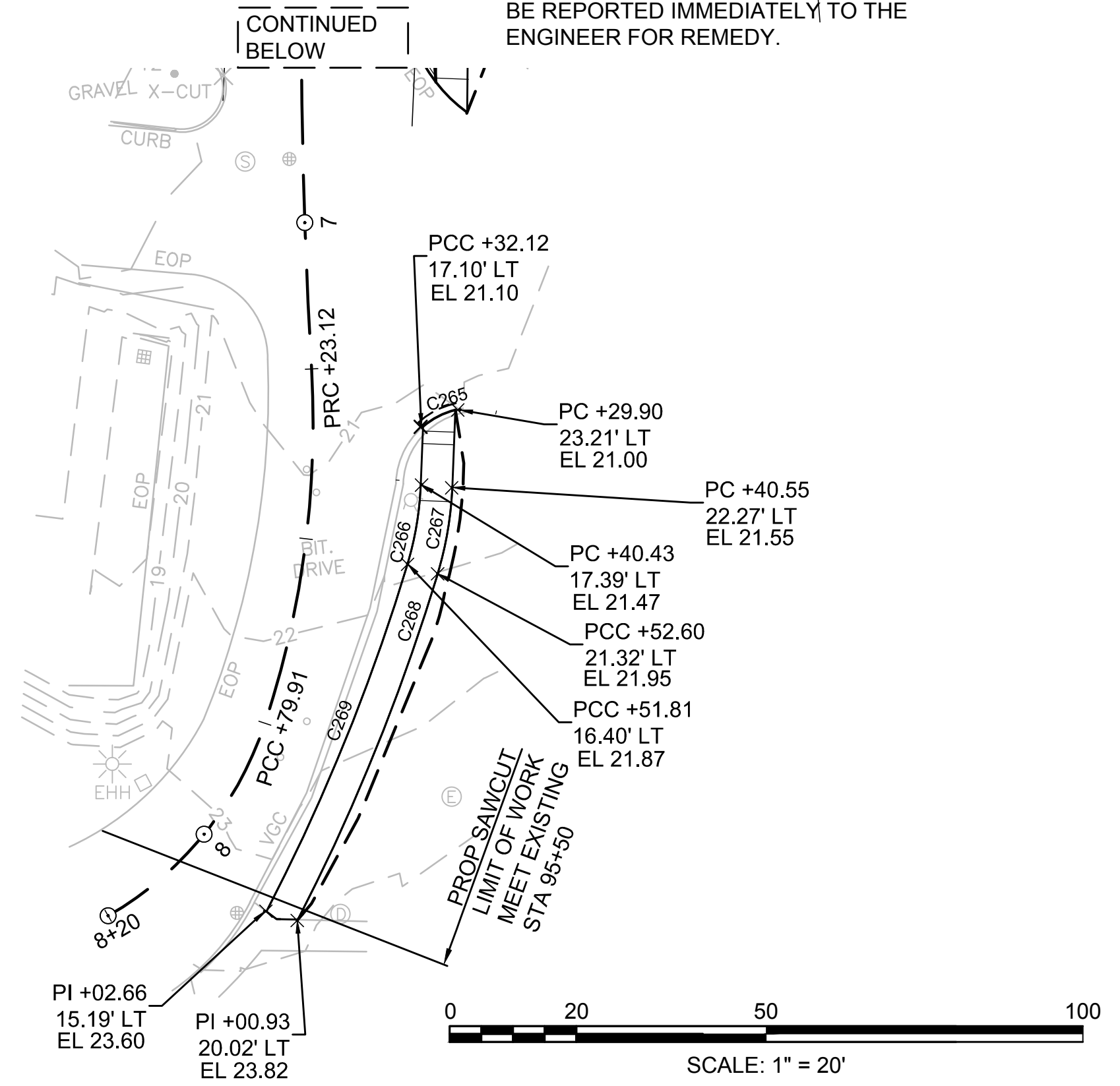


- NOTES:
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 2. ALL GRADES ARE SHOWN FOR BIDDING PURPOSES ONLY AND SUBJECT TO CHANGE BASED ON ACTUAL FIELD CONDITIONS. ANY INCONSISTENCIES SHALL BE REPORTED IMMEDIATELY TO THE ENGINEER FOR REMEDY.

Curve #	Radius	Length	Tangent	Delta
C150	14982.00	184.90	92.45	0°42'26"
C151	3.00	4.55	2.84	86°54'18"
C152	15012.00	447.14	223.59	1°42'24"
C153	1500.00	16.94	8.47	0°38'50"
C154	14976.50	46.24	23.12	0°10'37"
C155	5.00	7.86	5.00	90°02'12"
C156	14988.00	6.08	3.04	0°01'24"
C157	15.00	9.68	5.01	36°57'33"
C158	15.00	9.65	5.00	36°51'48"
C163	15017.50	155.32	77.66	0°35'33"
C166	14976.50	43.75	21.88	0°10'03"
C168	14982.00	32.66	16.33	0°07'30"
C169	15.00	22.64	14.10	86°28'29"
C170	10.00	7.75	4.08	44°25'48"
C171	6.00	4.65	2.45	44°25'48"
C172	14.00	9.78	5.10	40°01'36"
C173	10.00	6.87	3.58	39°21'51"
C174	12.00	19.97	13.18	95°21'01"
C175	882.50	81.86	40.96	5°18'54"
C176	700.00	9.09	4.55	0°44'38"

Curve #	Radius	Length	Tangent	Delta
C177	879.50	23.59	11.80	1°32'12"
C178	918.00	266.11	134.00	16°36'33"
C179	888.00	246.88	124.24	15°55'45"
C180	250.00	28.94	14.48	6°37'54"
C181	245.00	17.29	8.65	4°02'33"
C182	200.00	32.40	16.24	9°16'56"
C183	800.00	52.55	26.28	3°45'48"
C184	795.00	48.61	24.31	3°30'12"
C185	800.00	29.11	14.56	2°05'05"
C186	695.00	42.09	21.05	3°28'12"
C187	795.00	28.93	14.46	2°05'05"
C188	700.00	63.95	32.00	5°14'05"
C190	405.00	4.30	2.15	0°36'32"
C192	400.00	24.83	12.42	3°33'23"
C194	400.00	6.22	3.11	0°53'26"
C195	15.00	9.65	5.00	36°52'12"
C196	15.00	9.65	5.00	36°52'12"
C263	100.00	10.97	5.49	6°17'11"
C264	50.00	5.16	2.58	5°54'30"
C265	12.36	5.80	2.95	26°53'44"

Curve #	Radius	Length	Tangent	Delta
C266	50.00	12.73	6.40	14°35'33"
C267	55.00	14.01	7.04	14°35'33"
C268	326.94	59.01	29.59	10°20'32"
C269	321.94	59.23	29.70	10°32'30"



MARK	DATE	DESCRIPTION	Scale	AS NOTED
			Date	OCTOBER 2018
			Job No.	271-1607
03	10/19/18	REVISED FINAL SUBMISSION	Designed by	BLH
02	08/22/18	FINAL SUBMISSION	Drawn by	JRC
01	08/01/18	DRAFT PRELIMINARY DESIGN SUBMISSION	Checked by	BLH
			Approved by	JDF

THIS LINE IS ONE INCH LONG WHEN PLOTTED AT FULL SCALE ON A 22" X 34" DRAWING

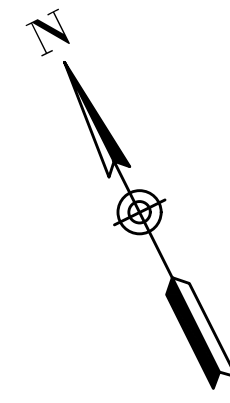
TRANSPORTATION IMPROVEMENTS
ALONG MAIN STREET (ROUTE 6A) AND MILLWAY
BARNSTABLE, MASSACHUSETTS

CURB TIE AND GRADING PLAN - 05

NOT FOR CONSTRUCTION

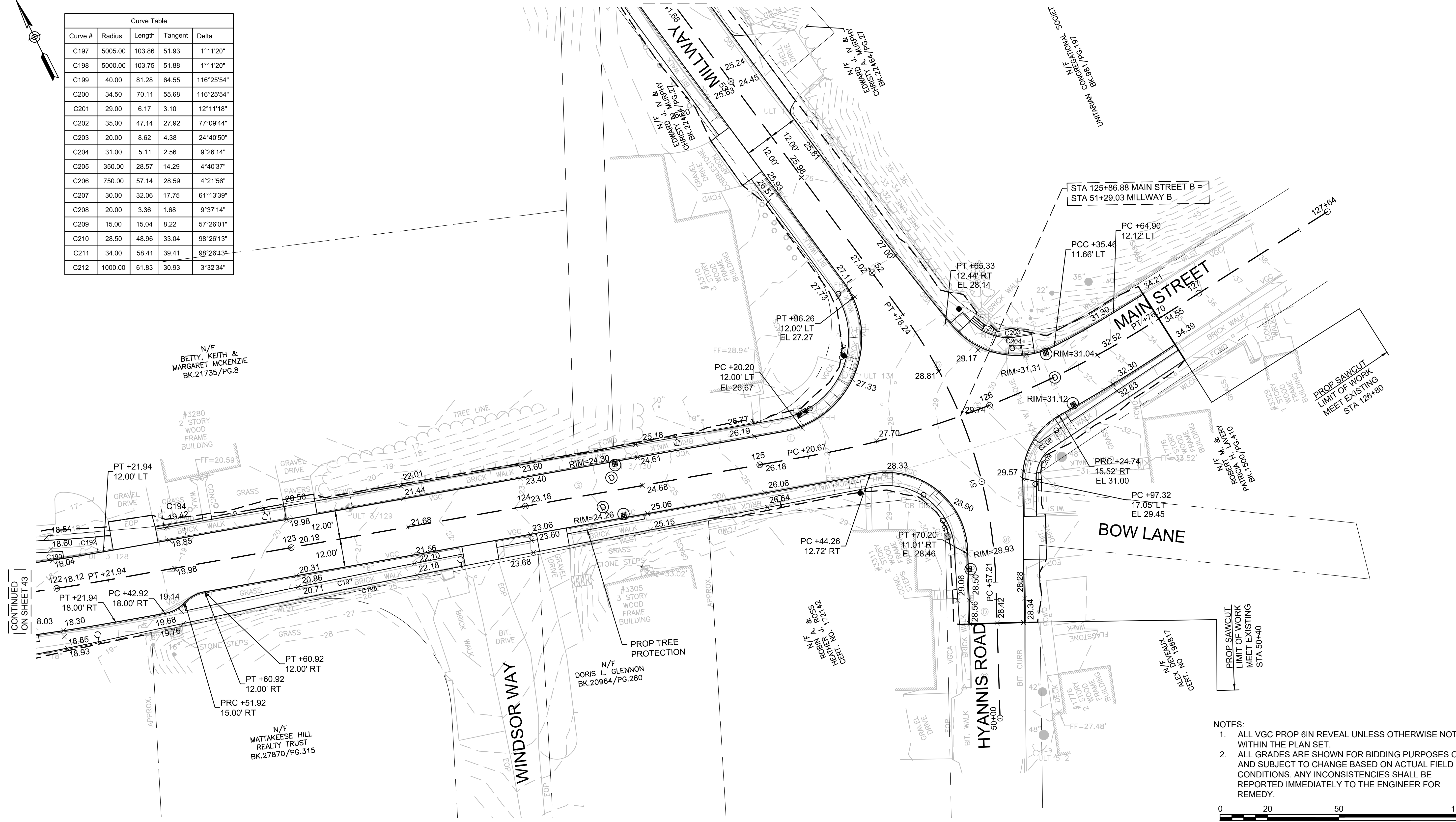
Sheet No.

43



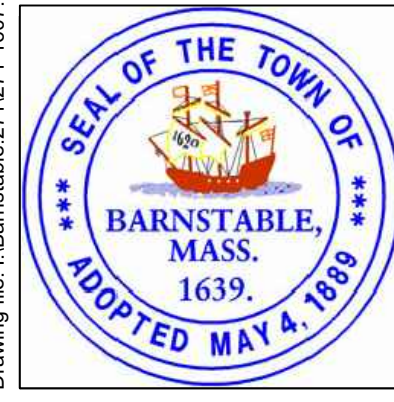
Curve Table				
Curve #	Radius	Length	Tangent	Delta
C197	5005.00	103.86	51.93	1°11'20"
C198	5000.00	103.75	51.88	1°11'20"
C199	40.00	81.28	64.55	116°25'54"
C200	34.50	70.11	55.68	116°25'54"
C201	29.00	6.17	3.10	12°11'18"
C202	35.00	47.14	27.92	77°09'44"
C203	20.00	8.62	4.38	24°40'50"
C204	31.00	5.11	2.56	9°26'14"
C205	350.00	28.57	14.29	4°40'37"
C206	750.00	57.14	28.59	4°21'56"
C207	30.00	32.06	17.75	61°13'39"
C208	20.00	3.36	1.68	9°37'14"
C209	15.00	15.04	8.22	57°26'01"
C210	28.50	48.96	33.04	98°26'13"
C211	34.00	58.41	39.41	98°26'13"
C212	1000.00	61.83	30.93	3°32'34"

CONTINUED ON SHEET 45



- NOTES:
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- 0 20 50 100
SCALE: 1" = 20'

Drawing file: I:\Barnstable\271271-1607-00 Barnstable - Improvement along Main Street (Route 6A)\ACAD\Sheet\11 - CTG.dwg Plot Date: Oct 22, 2018 - 11:13am



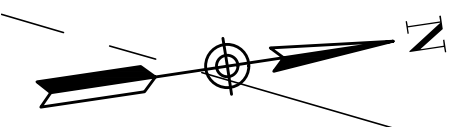
MARK	DATE	DESCRIPTION	DESIGNED BY	CHECKED BY	APPROVED BY
03	10/19/18	REVISED FINAL SUBMISSION	BLH	BLH	JDF
02	08/22/18	FINAL SUBMISSION	JRC	BLH	JDF
01	08/01/18	DRAFT PRELIMINARY DESIGN SUBMISSION	BLH	BLH	JDF

Scale AS NOTED
Date OCTOBER 2018
Job No. 271-1607
Designed by BLH
Drawn by JRC
Checked by BLH
Approved by JDF

TRANSPORTATION IMPROVEMENTS
ALONG MAIN STREET (ROUTE 6A) AND MILLWAY
BARNSTABLE, MASSACHUSETTS

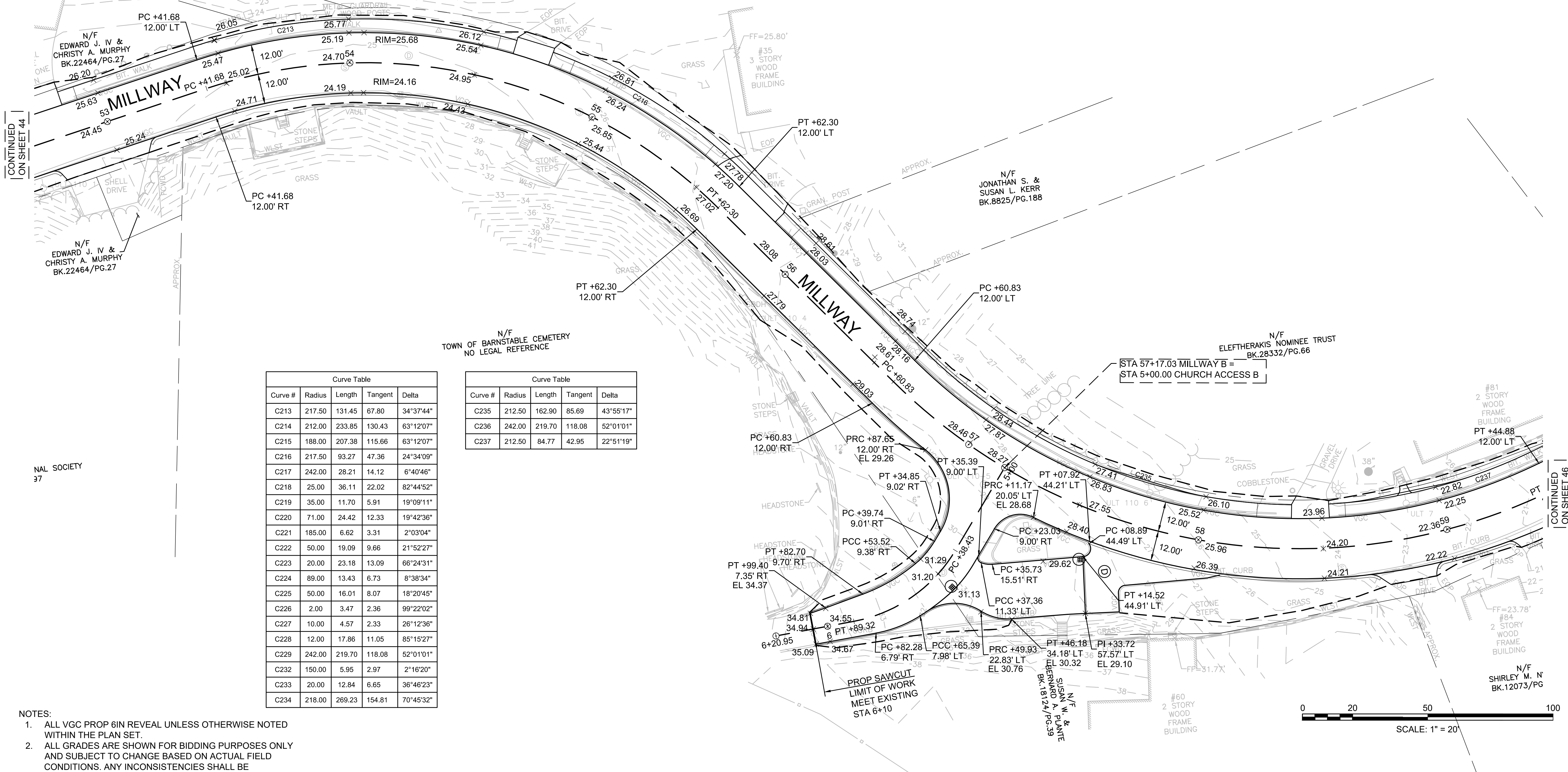
CURB TIE AND GRADING PLAN - 06

NOT FOR CONSTRUCTION
Sheet No. 44



CONTINUED ON SHEET 44

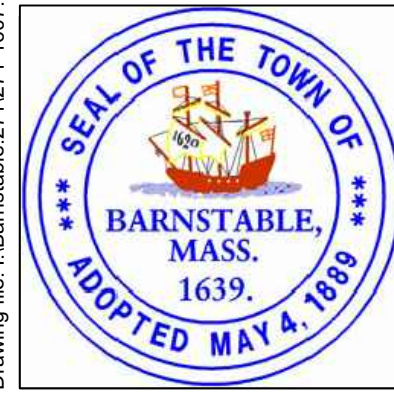
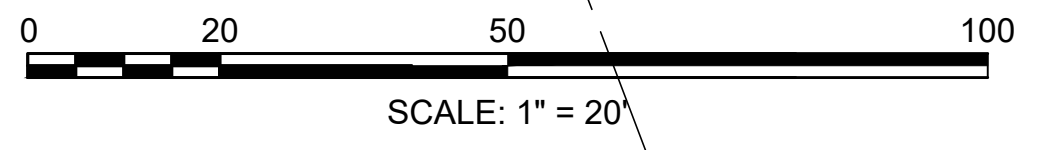
CONTINUED ON SHEET 46



Curve Table			
Curve #	Radius	Length	Delta
C213	217.50	131.45	67.80
C214	212.00	233.85	130.43
C215	188.00	207.38	115.66
C216	217.50	93.27	47.36
C217	242.00	28.21	14.12
C218	25.00	36.11	22.02
C219	35.00	11.70	5.91
C220	71.00	24.42	12.33
C221	185.00	6.62	3.31
C222	50.00	19.09	9.66
C223	20.00	23.18	13.09
C224	89.00	13.43	6.73
C225	50.00	16.01	8.07
C226	2.00	3.47	2.36
C227	10.00	4.57	2.33
C228	12.00	17.86	11.05
C229	242.00	219.70	118.08
C232	150.00	5.95	2.97
C233	20.00	12.84	6.65
C234	218.00	269.23	154.81

Curve Table			
Curve #	Radius	Length	Delta
C235	212.50	162.90	85.69
C236	242.00	219.70	118.08
C237	212.50	84.77	42.95

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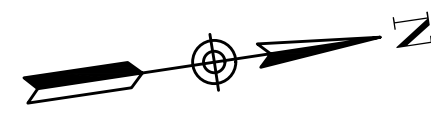
MARK	DATE	DESCRIPTION	DESIGNED BY	CHECKED BY	APPROVED BY
03	10/19/18	REVISED FINAL SUBMISSION	BLH		
02	08/22/18	FINAL SUBMISSION	JRC		
01	08/01/18	DRAFT PRELIMINARY DESIGN SUBMISSION	BLH		
					JDF

Scale AS NOTED
Date OCTOBER 2018
Job No. 271-1607
Designed by BLH
Drawn by JRC
Checked by BLH
Approved by JDF

TRANSPORTATION IMPROVEMENTS
ALONG MAIN STREET (ROUTE 6A) AND MILLWAY
BARNSTABLE, MASSACHUSETTS

CURB TIE AND GRADING PLAN - 07

NOT FOR CONSTRUCTION
Sheet No. 45



N/F
JOSEPH M. &
CAROL J. RODRIGUES
BK.16009/PG.84

N/F
EUGENE J. SINISCALCHI &
FRANCESCA RUSSO
BK.10424/PG.92

N/F
PETER &
BARBARA J. CHALPARA
BK.19701/PG.263

N/F
DAVID & CAROL WEBER
BK.24916/PG.55

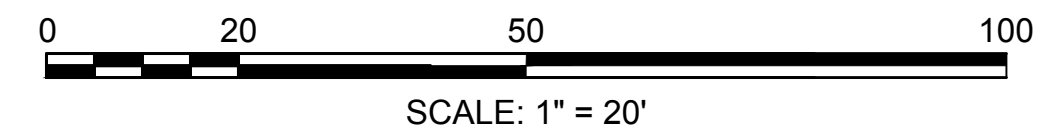
N/F
MILLWAY REALTY TRUST
BK.18124/PG.39

N/F
SHIRLEY M. NYDAM
BK.12073/PG.127

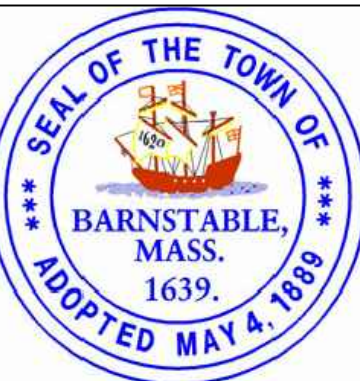
Curve Table				
Curve #	Radius	Length	Tangent	Delta
C238	367.50	16.79	8.40	2°37'04"
C239	362.00	16.54	8.27	2°37'04"
C240	19.50	10.31	5.28	30°17'10"
C241	25.00	27.48	15.31	62°58'07"
C242	60.00	28.43	14.49	27°08'52"
C243	60.00	30.33	15.50	28°57'52"
C244	15.00	28.03	20.30	107°04'01"
C245	332.50	67.52	33.87	11°38'03"
C246	338.00	86.11	43.29	14°35'49"
C247	362.00	12.27	6.13	1°56'29"
C248	488.00	168.44	85.06	19°46'33"
C249	512.00	176.72	89.25	19°46'33"
C250	482.50	166.54	84.11	19°46'33"
C270	482.50	166.54	84.11	19°46'33"

STA 61+35.62 MILLWAY B =
STA 5+00.00 FREEZER ROAD B

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Drawing file: I:\Barnstable\2711271-1607-00 Barnstable - Improvement along Main Street (Route 6A)\ACAD\Sheet11 - CT.G.dwg Plot Date: Oct 18 2018 - 11:28am



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MARK	DATE	DESCRIPTION	Designed by	Checked by	Approved by
03	10/19/18	REVISED FINAL SUBMISSION	BLH	BLH	JDF
02	08/22/18	FINAL SUBMISSION	JRC	JRC	JDF
01	08/01/18	DRAFT PRELIMINARY DESIGN SUBMISSION	BLH	BLH	JDF

Scale AS NOTED
Date OCTOBER 2018
Job No. 271-1607
THIS LINE IS ONE INCH LONG WHEN PLOTTED AT FULL SCALE ON A 22" X 34" DRAWING

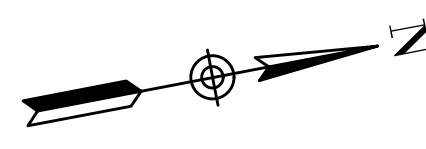
TRANSPORTATION IMPROVEMENTS
ALONG MAIN STREET (ROUTE 6A) AND MILLWAY
BARNSTABLE, MASSACHUSETTS

CURB TIE AND GRADING PLAN - 08

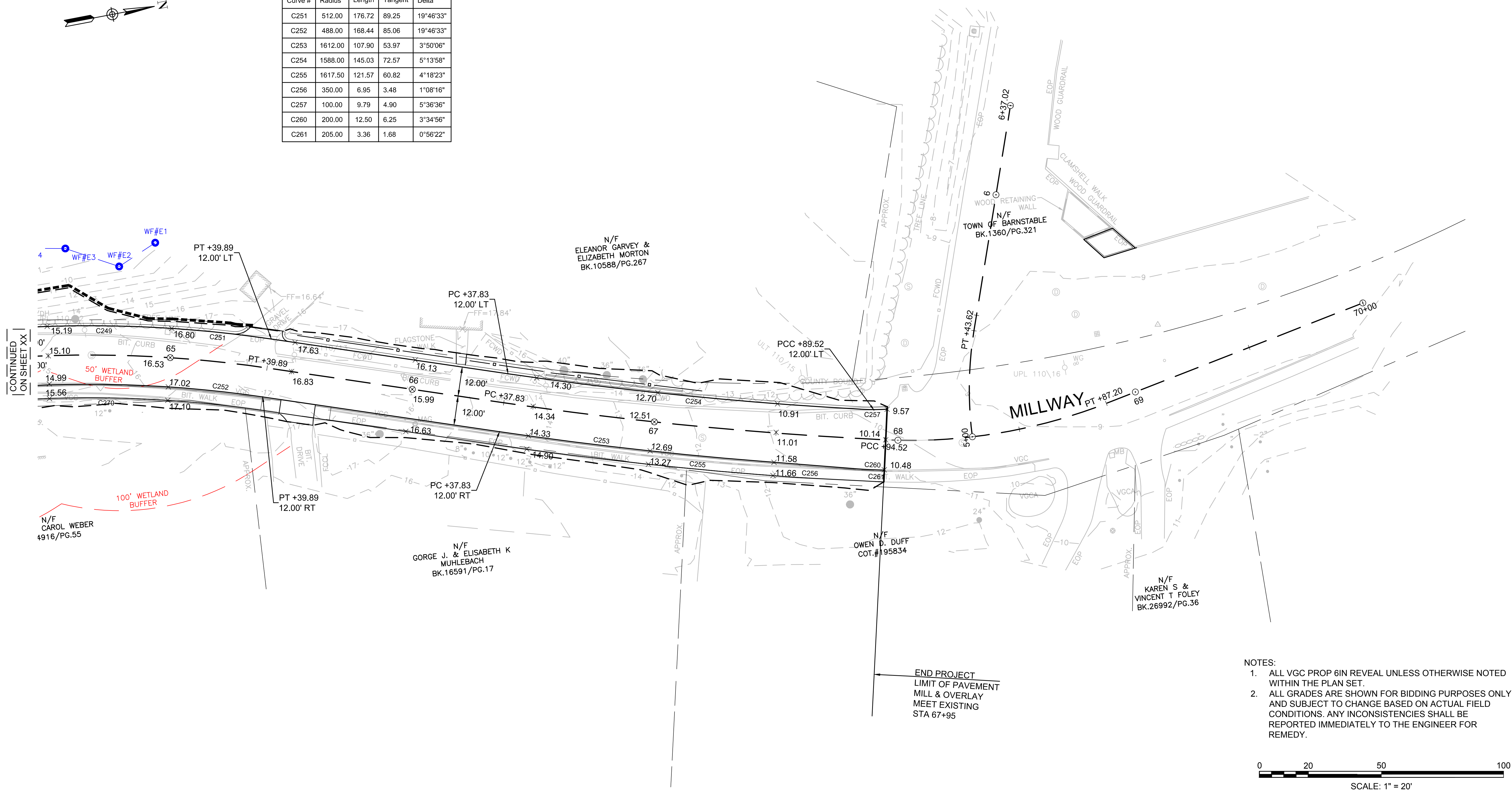
NOT FOR CONSTRUCTION
Sheet No. **46**

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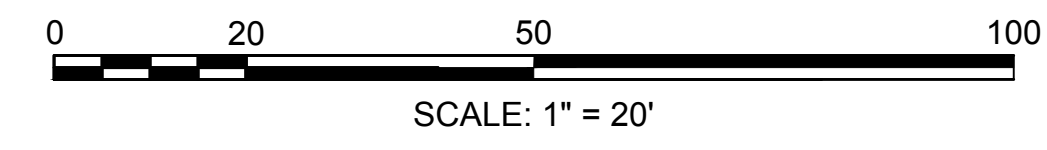
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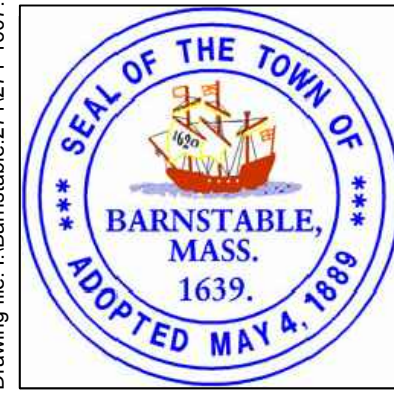
Curve Table				
Curve #	Radius	Length	Tangent	Delta
C251	512.00	176.72	89.25	19°46'33"
C252	488.00	168.44	85.06	19°46'33"
C253	1612.00	107.90	53.97	3°50'06"
C254	1588.00	145.03	72.57	5°13'58"
C255	1617.50	121.57	60.82	4°18'23"
C256	350.00	6.95	3.48	1°08'16"
C257	100.00	9.79	4.90	5°36'36"
C260	200.00	12.50	6.25	3°34'56"
C261	205.00	3.36	1.68	0°56'22"



- NOTES:
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Drawing file: I:\Barnstable\2711271-1607-00 Barnstable - Improvement along Main Street (Route 6A)\ACAD\Sheet\11 - CTG.dwg Plot Date: Oct 18, 2018 - 11:30am



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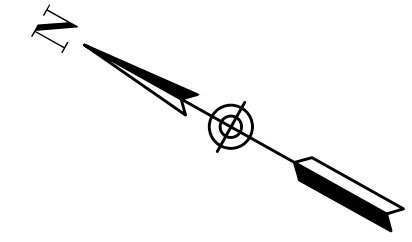
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03	10/19/18	REVISED FINAL SUBMISSION	BLH	BLH	JDF
02	08/22/18	FINAL SUBMISSION	JRC	JRC	JDF
01	08/01/18	DRAFT PRELIMINARY DESIGN SUBMISSION	BLH	BLH	JDF

Scale AS NOTED
 Date OCTOBER 2018
 Job No. 271-1607
 THIS LINE IS ONE INCH LONG WHEN PLOTTED AT FULL SCALE ON A 22" X 34" DRAWING

TRANSPORTATION IMPROVEMENTS
 ALONG MAIN STREET (ROUTE 6A) AND MILLWAY
 BARNSTABLE, MASSACHUSETTS

CURB TIE AND GRADING PLAN - 09

NOT FOR CONSTRUCTION
 Sheet No. **47**



N/F
SARAH L. &
MATTHEW C. RUETER
BK.25101/PG.197

N/F
TALES OF CAPE
COD INC.
BK.1685/PG.231

N/F
SARAH L. &
MATTHEW C. RUETER
BK.25101/PG.197

N/
MUNSELL JR. I
BK.2908E

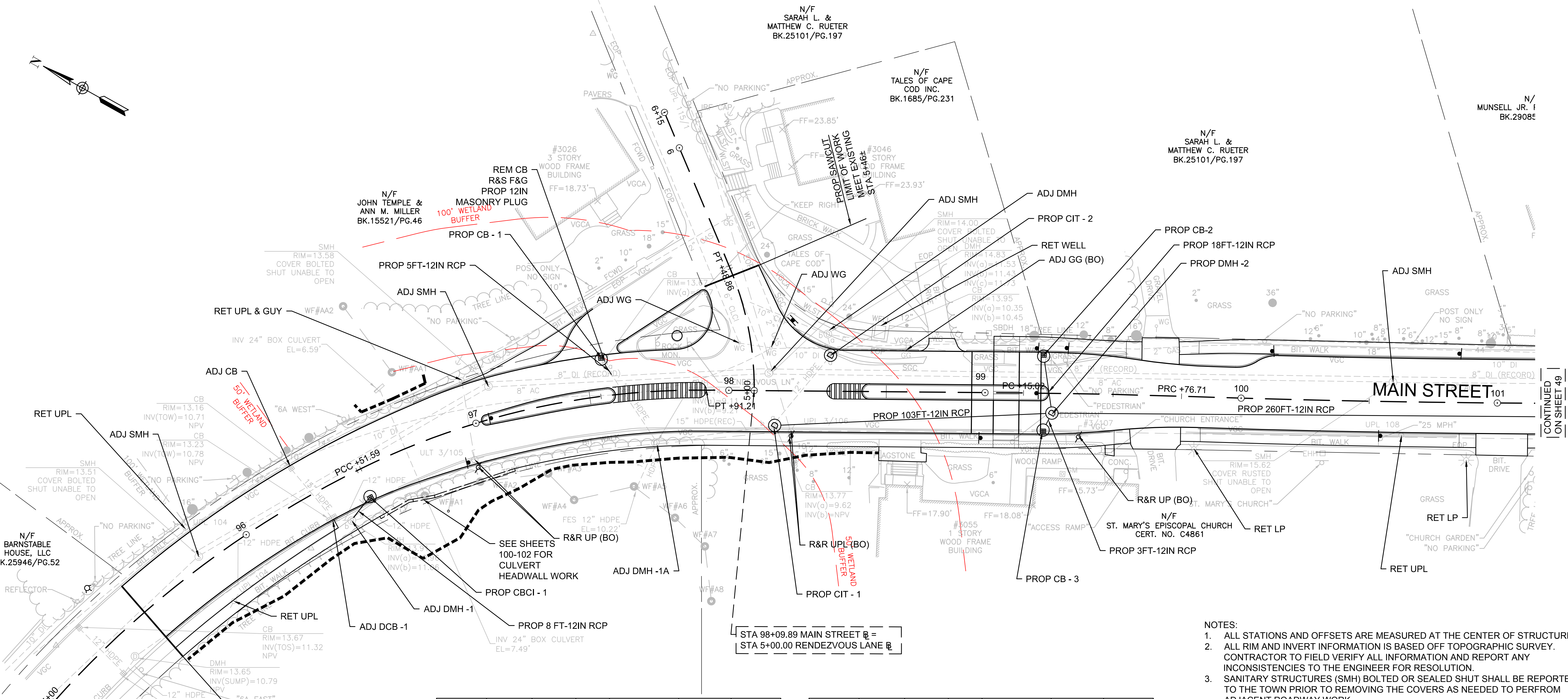
N/F
JOHN TEMPLE &
ANN M. MILLER
BK.15521/PG.46

N/F
BARNSTABLE
HOUSE, LLC
BK.25946/PG.52

N/F
KEVIN D. MOWERS &
EVA MARIA JANERUS
BK.27842/PG.20

N/F
A G B REAL ESTATE TRUST
BK.4749/PG.120

REM CB
R&S F&G
PROP 12IN
MASONRY PLUG

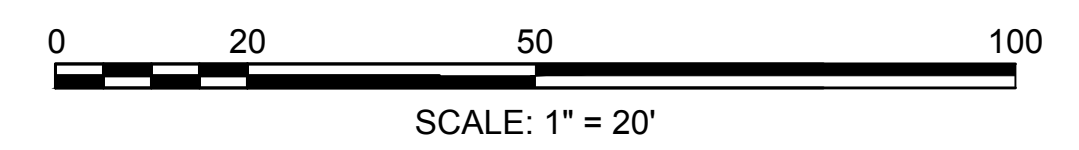


CONTINUED
ON SHEET 49

STA 98+09.89 MAIN STREET =
STA 5+00.00 RENDEZVOUS LANE

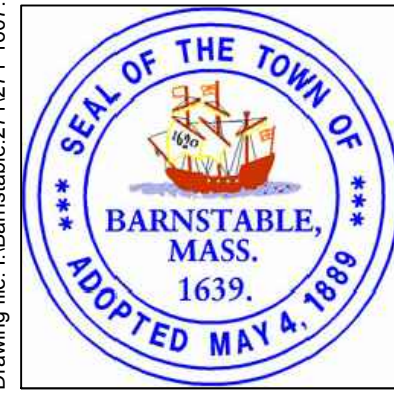
NOTES:

1. ALL STATIONS AND OFFSETS ARE MEASURED AT THE CENTER OF STRUCTURES.
2. ALL RIM AND INVERT INFORMATION IS BASED OFF TOPOGRAPHIC SURVEY. CONTRACTOR TO FIELD VERIFY ALL INFORMATION AND REPORT ANY INCONSISTENCIES TO THE ENGINEER FOR RESOLUTION.
3. SANITARY STRUCTURES (SMH) BOLTED OR SEALED SHUT SHALL BE REPORTED TO THE TOWN PRIOR TO REMOVING THE COVERS AS NEEDED TO PERFORM ADJACENT ROADWAY WORK.
4. ALL DRAINAGE STRUCTURES AND PIPES PROPOSED TO BE RETAINED AND/OR UTILIZED WITHIN THE PROJECT LIMITS AND AS DIRECTED BY THE TOWN SHALL BE CLEANED OF ALL SEDIMENT AND DEBRIS TO THE SATISFACTION OF THE TOWN AND THE ENGINEER.
5. TEST PITS IDENTIFIED WITHIN THE PLAN SET AND AS DIRECTED BY THE TOWN AND/OR ENGINEER FOR PURPOSES OF VERIFYING POTENTIAL UTILITY CONFLICTS SHALL BE DONE BY VACUUM EXCAVATION ONLY, NO EXCEPTION TAKEN. CONTRACTOR SHALL TAKE SPECIAL CARE IN AREAS ADJACENT TO AC SEWER PIPES.



NO	STATION	OFFSET	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT	REMARK
DMH-1	96+39	16.5' RT	13.96	11.06(DCB-1) 11.09(CBCI-1)	RETAIN EXISTING	ADJ
CBCI-1	96+50	12.0 RT	13.38	-	11.18 (DMH-1)	
DCB-1	96+33	12.0' RT	13.42	RETAIN EXISTING	RETAIN EXISTING	ADJ
CB-1	97+52	15.0' LT	13.55	-	9.67 (DMH-1A)	
DMH-1A	97+70	30.3' RT	14.22	RETAIN EXISTING (CIT-1)	RETAIN EXISTING	ADJ
CIT-1	98+18	13.5' RT	13.94	9.62(CIT-1) 9.65(DMH-2)	9.60 (DMH-1A)	CB TO DMH

NO	STATION	OFFSET	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT	REMARK
CIT-2	98+39	14.0' LT	13.94	RETAIN EXISTING	RETAIN EXISTING (CIT-1)	CB TO DMH
CB-2	99+23	15.0' LT	14.20	-	10.74 (DMH-2)	
DMH-2	99+26	8.0' RT	14.63	10.95(CB-3) 10.45(DMH-3) 10.54(CB-2)	10.16 (CIT-1)	
CB-3	99+23	15.0' RT	14.49	-	10.99 (DMH-2)	



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MARK	DATE	DESCRIPTION	Scale	AS NOTED
			Date	OCTOBER 2018
			Job No.	271-1607
03	10/19/18	REVISED FINAL SUBMISSION	Designed by	JRC
02	08/22/18	FINAL SUBMISSION	Drawn by	KMB
01	08/01/18	DRAFT PRELIMINARY DESIGN SUBMISSION	Checked by	BLH
			Approved by	JDF

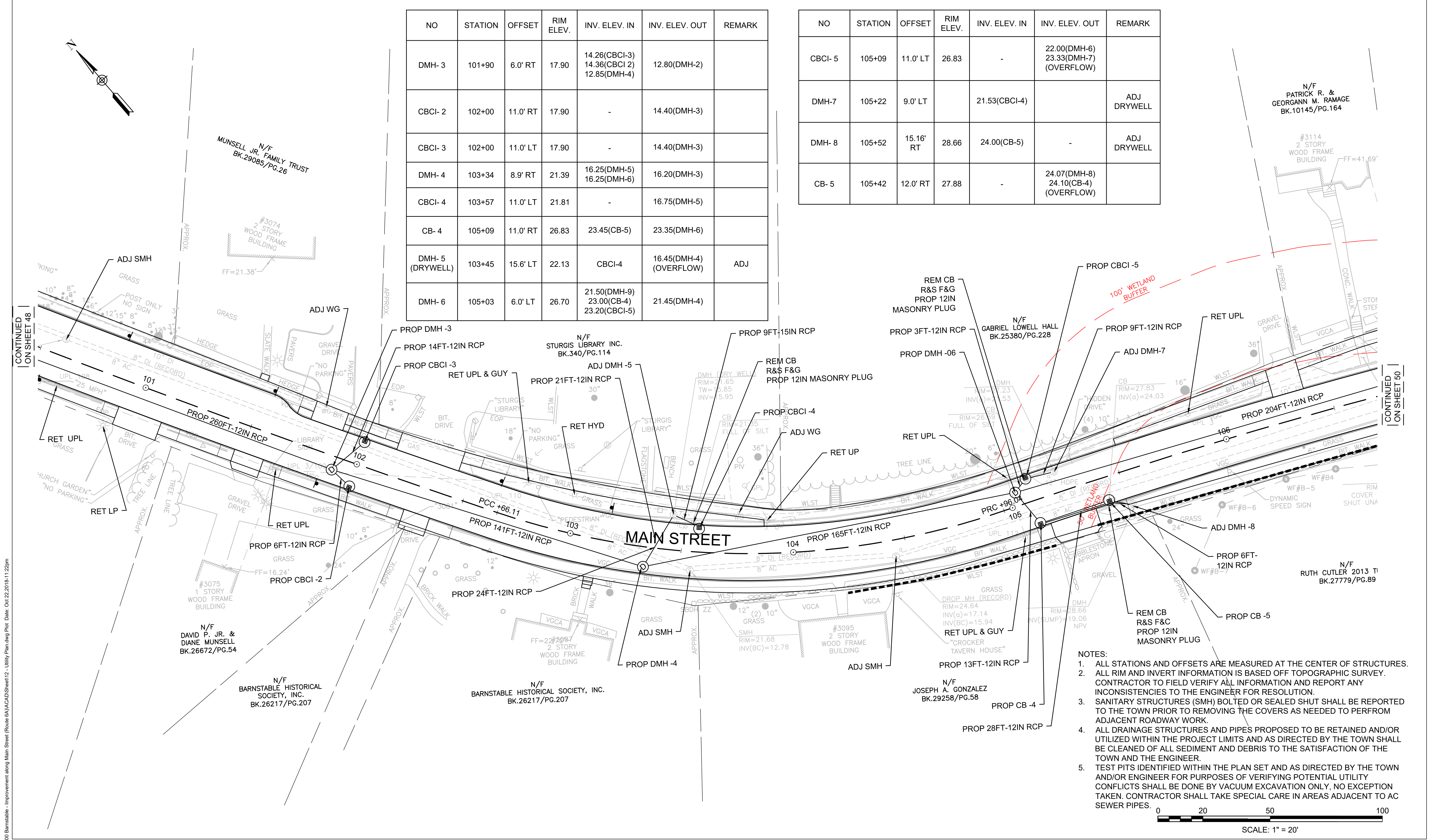
THIS LINE IS ONE INCH LONG WHEN PLOTTED AT FULL SCALE ON A 22" X 34" DRAWING

TRANSPORTATION IMPROVEMENTS
ALONG MAIN STREET (ROUTE 6A) AND MILLWAY
BARNSTABLE, MASSACHUSETTS

UTILITY PLAN - 01

NOT FOR CONSTRUCTION
Sheet No.
48

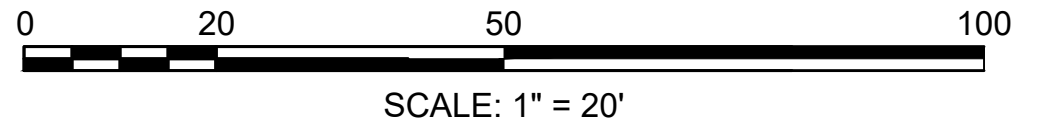
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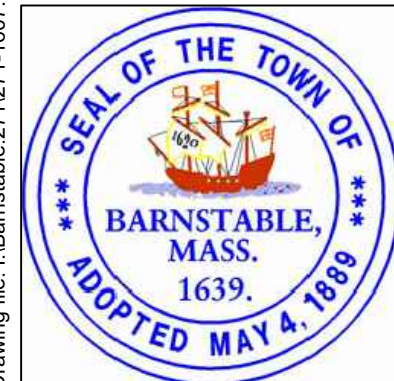
NO	STATION	OFFSET	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT	REMARK
DMH-3	101+90	6.0' RT	17.90	14.26(CBCI-3) 14.36(CBCI-2) 12.85(DMH-4)	12.80(DMH-2)	
CBCI-2	102+00	11.0' RT	17.90	-	14.40(DMH-3)	
CBCI-3	102+00	11.0' LT	17.90	-	14.40(DMH-3)	
DMH-4	103+34	8.9' RT	21.39	16.25(DMH-5) 16.25(DMH-6)	16.20(DMH-3)	
CBCI-4	103+57	11.0' LT	21.81	-	16.75(DMH-5)	
CB-4	105+09	11.0' RT	26.83	23.45(CB-5)	23.35(DMH-6)	
DMH-5 (DRYWELL)	103+45	15.6' LT	22.13	CBCI-4	16.45(DMH-4) (OVERFLOW)	ADJ
DMH-6	105+03	6.0' LT	26.70	21.50(DMH-9) 23.00(CB-4) 23.20(CBCI-5)	21.45(DMH-4)	

NO	STATION	OFFSET	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT	REMARK
CBCI-5	105+09	11.0' LT	26.83	-	22.00(DMH-6) 23.33(DMH-7) (OVERFLOW)	
DMH-7	105+22	9.0' LT		21.53(CBCI-4)		ADJ DRYWELL
DMH-8	105+52	15.16' RT	28.66	24.00(CB-5)	-	ADJ DRYWELL
CB-5	105+42	12.0' RT	27.88	-	24.07(DMH-8) 24.10(CB-4) (OVERFLOW)	

- NOTES:
1. ALL STATIONS AND OFFSETS ARE MEASURED AT THE CENTER OF STRUCTURES.
 2. ALL RIM AND INVERT INFORMATION IS BASED OFF TOPOGRAPHIC SURVEY. CONTRACTOR TO FIELD VERIFY ALL INFORMATION AND REPORT ANY INCONSISTENCIES TO THE ENGINEER FOR RESOLUTION.
 3. SANITARY STRUCTURES (SMH) BOLTED OR SEALED SHUT SHALL BE REPORTED TO THE TOWN PRIOR TO REMOVING THE COVERS AS NEEDED TO PERFORM ADJACENT ROADWAY WORK.
 4. ALL DRAINAGE STRUCTURES AND PIPES PROPOSED TO BE RETAINED AND/OR UTILIZED WITHIN THE PROJECT LIMITS AND AS DIRECTED BY THE TOWN SHALL BE CLEANED OF ALL SEDIMENT AND DEBRIS TO THE SATISFACTION OF THE TOWN AND THE ENGINEER.
 5. TEST PITS IDENTIFIED WITHIN THE PLAN SET AND AS DIRECTED BY THE TOWN AND/OR ENGINEER FOR PURPOSES OF VERIFYING POTENTIAL UTILITY CONFLICTS SHALL BE DONE BY VACUUM EXCAVATION ONLY, NO EXCEPTION TAKEN. CONTRACTOR SHALL TAKE SPECIAL CARE IN AREAS ADJACENT TO AC SEWER PIPES.



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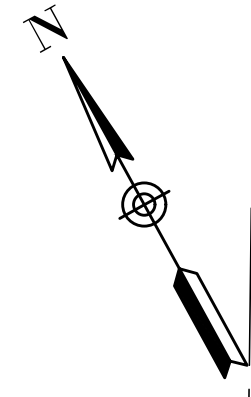
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03	10/19/18	REVISED FINAL SUBMISSION	JRC	BLH	JDF
02	08/22/18	FINAL SUBMISSION	KMB	BLH	JDF
01	08/01/18	DRAFT PRELIMINARY DESIGN SUBMISSION	BLH	BLH	JDF

Scale AS NOTED
Date OCTOBER 2018
Job No. 271-1607
Designed by JRC
Drawn by KMB
Checked by BLH
Approved by JDF

TRANSPORTATION IMPROVEMENTS
ALONG MAIN STREET (ROUTE 6A) AND MILLWAY
BARNSTABLE, MASSACHUSETTS

UTILITY PLAN - 02

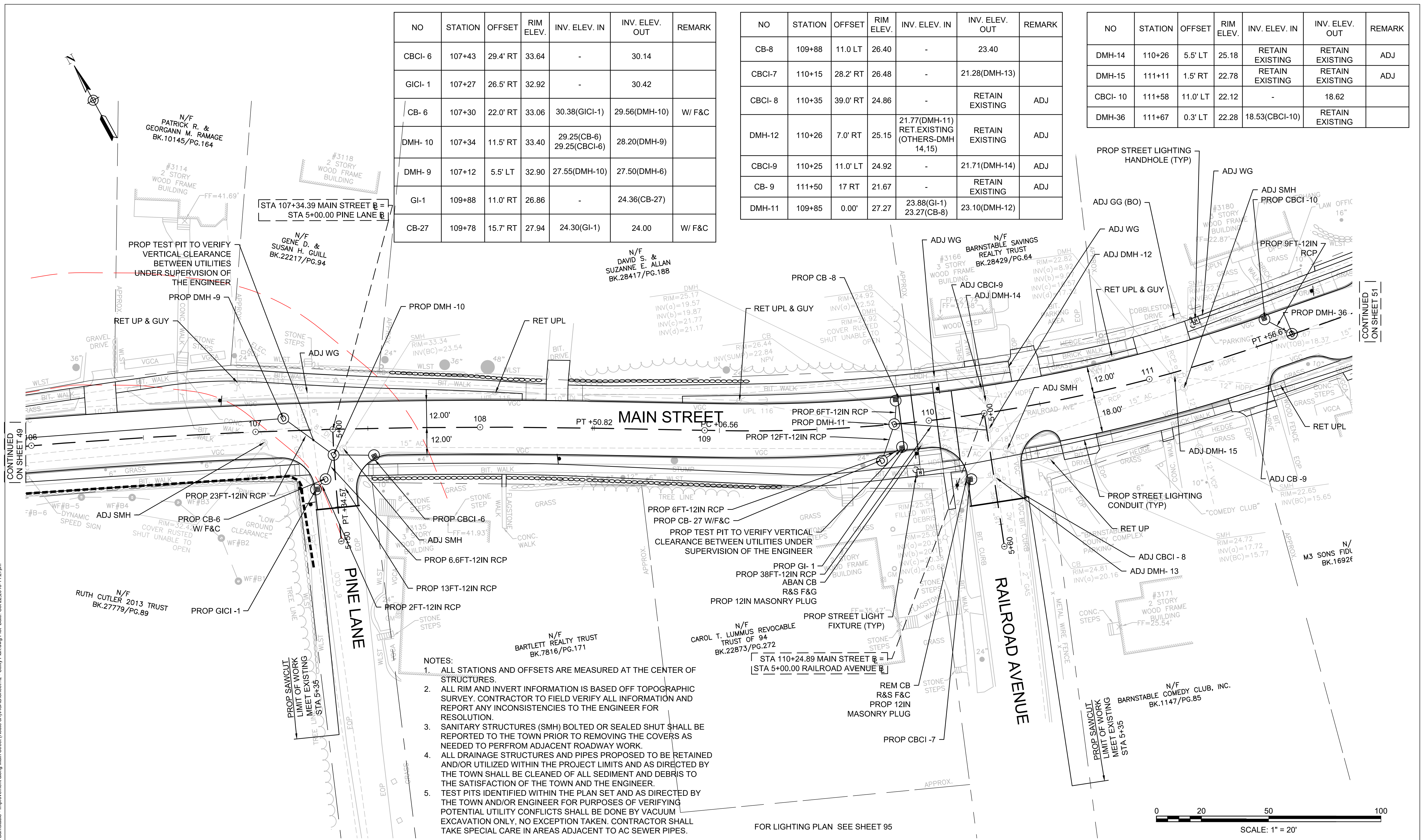
NOT FOR CONSTRUCTION
Sheet No. 49



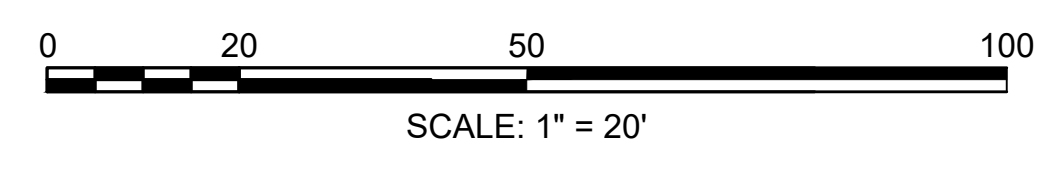
NO	STATION	OFFSET	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT	REMARK
CBCI- 6	107+43	29.4' RT	33.64	-	30.14	
GICI- 1	107+27	26.5' RT	32.92	-	30.42	
CB- 6	107+30	22.0' RT	33.06	30.38(GICI-1)	29.56(DMH-10)	W/ F&C
DMH- 10	107+34	11.5' RT	33.40	29.25(CB-6) 29.25(CBCI-6)	28.20(DMH-9)	
DMH- 9	107+12	5.5' LT	32.90	27.55(DMH-10)	27.50(DMH-6)	
GI-1	109+88	11.0' RT	26.86	-	24.36(CB-27)	
CB-27	109+78	15.7' RT	27.94	24.30(GI-1)	24.00	W/ F&C

NO	STATION	OFFSET	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT	REMARK
CB-8	109+88	11.0 LT	26.40	-	23.40	
CBCI-7	110+15	28.2' RT	26.48	-	21.28(DMH-13)	
CBCI- 8	110+35	39.0' RT	24.86	-	RETAIN EXISTING	ADJ
DMH-12	110+26	7.0' RT	25.15	21.77(DMH-11) RET EXISTING (OTHERS-DMH 14,15)	RETAIN EXISTING	ADJ
CBCI-9	110+25	11.0' LT	24.92	-	21.71(DMH-14)	ADJ
CB- 9	111+50	17 RT	21.67	-	RETAIN EXISTING	ADJ
DMH-11	109+85	0.00'	27.27	23.88(GI-1) 23.27(CB-8)	23.10(DMH-12)	

NO	STATION	OFFSET	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT	REMARK
DMH-14	110+26	5.5' LT	25.18	RETAIN EXISTING	RETAIN EXISTING	ADJ
DMH-15	111+11	1.5' RT	22.78	RETAIN EXISTING	RETAIN EXISTING	ADJ
CBCI- 10	111+58	11.0' LT	22.12	-	18.62	
DMH-36	111+67	0.3' LT	22.28	18.53(CBCI-10)	RETAIN EXISTING	

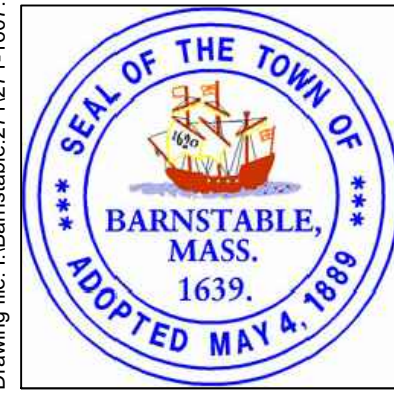


- NOTES:
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 2. ALL RIM AND INVERT INFORMATION IS BASED OFF TOPOGRAPHIC SURVEY. CONTRACTOR TO FIELD VERIFY ALL INFORMATION AND REPORT ANY INCONSISTENCIES TO THE ENGINEER FOR RESOLUTION.
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CONTINUED ON SHEET 49

CONTINUED ON SHEET 51



MARK	DATE	DESCRIPTION	Scale	AS NOTED
			Date	OCTOBER 2018
			Job No.	271-1607
03	10/19/18	REVISED FINAL SUBMISSION	Designed by	JRC
02	08/22/18	FINAL SUBMISSION	Drawn by	KMB
01	08/01/18	DRAFT PRELIMINARY DESIGN SUBMISSION	Checked by	BLH
			Approved by	JDF

THIS LINE IS ONE INCH LONG WHEN PLOTTED AT FULL SCALE ON A 22" X 34" DRAWING

TRANSPORTATION IMPROVEMENTS
ALONG MAIN STREET (ROUTE 6A) AND MILLWAY
BARNSTABLE, MASSACHUSETTS

UTILITY PLAN - 03

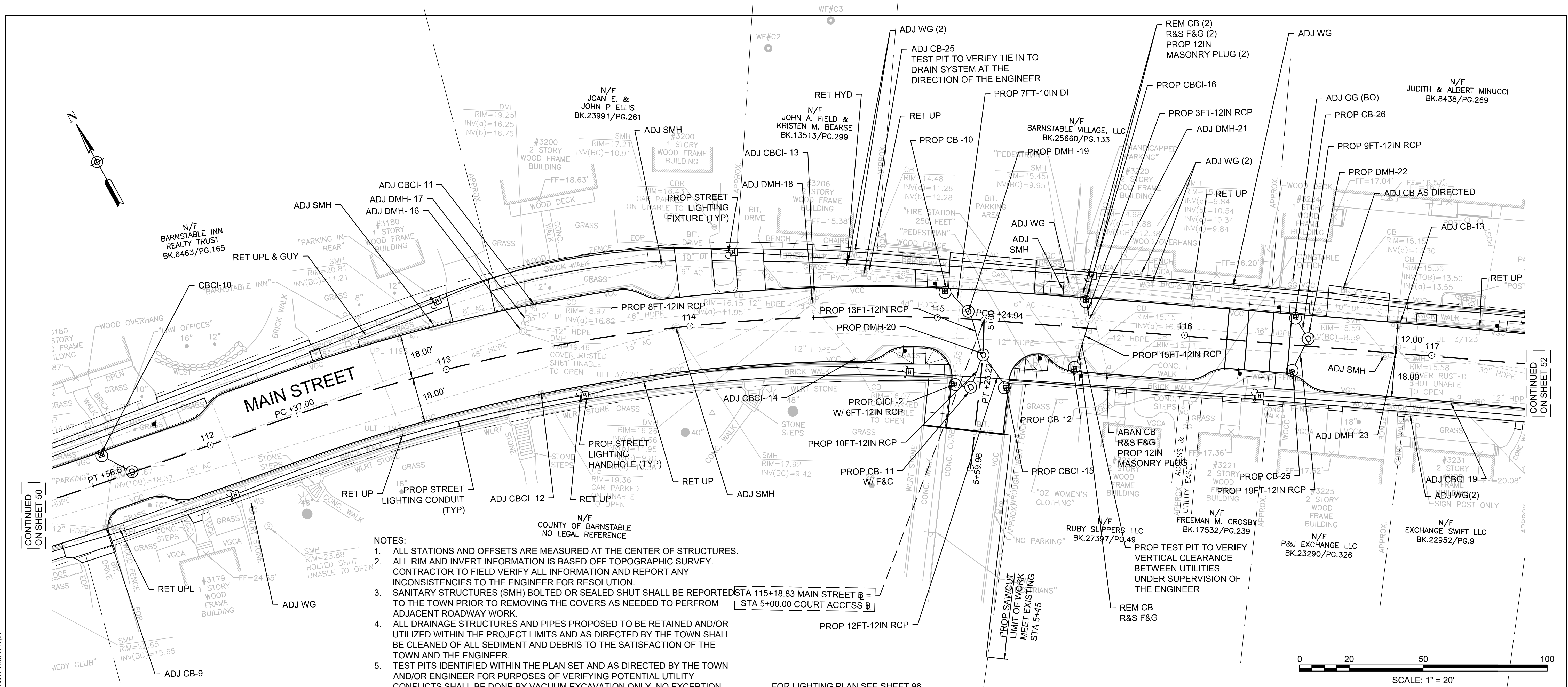
NOT FOR CONSTRUCTION

Sheet No.

50

Drawing file: I:\Barnstable\271071-1607-00 Barnstable - Improvement along Main Street (Route 6A)\ACAD\Sheet\12 - Utility Plan.dwg Plot Date: Oct 22, 2018 11:27am

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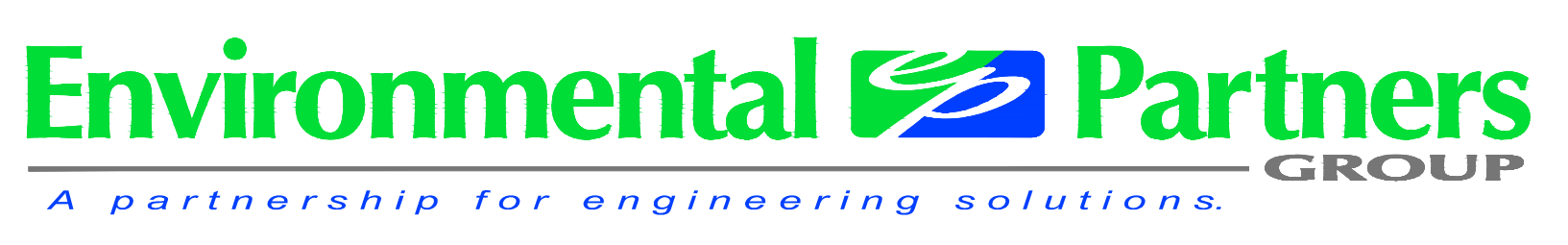
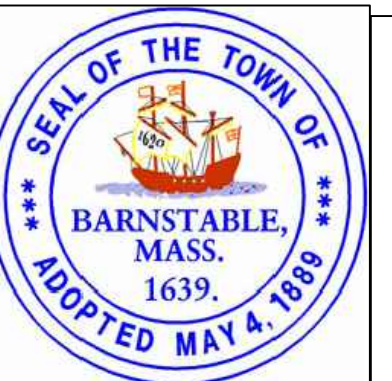
- NOTES:**
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NO	STATION	OFFSET	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT	REMARK
DMH-16	113+33	8.5' LT	19.60	RETAIN EXISTING	RETAIN EXISTING	ADJ
DMH-17	113+36	12.7' LT	19.43	RETAIN EXISTING	RETAIN EXISTING	ADJ
CBCI- 11	113+39	17.8' LT	19.24	-	RETAIN EXISTING	ADJ
CBCI- 12	113+35	17.0' RT	19.56	-	RETAIN EXISTING	ADJ
CB- 10	115+03	11.0' LT	15.43	-	11.93(DMH-19)	

NO	STATION	OFFSET	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT	REMARK
CBCI- 14	114+67	17.0' RT	16.04	-	RETAIN EXISTING	ADJ
CBCI-13	114+50	10.7' LT	16.12	-	RETAIN EXISTING	ADJ
DMH- 18	114+50	6.4' LT	16.23	RETAIN EXISTING	RETAIN EXISTING	ADJ
DMH-19	115+12	3.1' LT	15.40	11.86 (CB-10) 9.86(DMH-18) 11.86 (DMH-20)	9.86(DMH-21)	
DMH-20	115+19	14.0' RT	15.62	12.20(CB-11) 12.10(CBCI-15)	11.99(DMH-19)	
CB-12	115+57	17.0' RT	14.91	-	11.41	

NO	STATION	OFFSET	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT	REMARK
DMH- 21	115+61	3.5' LT	15.19	EXIST(DMH-19) 10.54(CBCI-16) 11.26(CB-12)	RETAIN EXISTING (DMH-22)	ADJ
CBCI- 16	115+59	11.0' LT	15.02	-	10.60	
CB- 11	115+19	28.3' RT	16.47	13.10(GICI-2)	13.00(DMH-20)	W/COVER
GICI- 02	115+08	26.6' RT	16.41	-	13.91(CB-11)	
CBCI- 15	115+30	26.7' RT	16.14	-	12.64(DMH-20)	
CB-26	116+42	11.0' LT	15.31	-	11.81(DMH-22)	

NO	STATION	OFFSET	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT	REMARK
DMH- 22	116+49	2.5' LT	15.42	11.71 (CB-25) 11.72 (CB-26)	RETAIN EXISTING	
CB- 25	116+44	11.0' RT	15.31	-	11.81(DMH-22)	
DMH- 23	116+85	2.3' LT	15.60	RETAIN EXISTING	RETAIN EXISTING	ADJ
CBCI- 19	117+10	18.0' RT	15.50	RETAIN EXISTING	RETAIN EXISTING	ADJ
CB- 13	116+86	11.5' LT	15.50	RETAIN EXISTING	RETAIN EXISTING	ADJ



MARK	DATE	DESCRIPTION
03	10/19/18	REVISED FINAL SUBMISSION
02	08/22/18	FINAL SUBMISSION
01	08/01/18	DRAFT PRELIMINARY DESIGN SUBMISSION
		MARKED FOR CONSTRUCTION

Scale	Date
Scale	OCTOBER 2018
Job No.	271-1607
Designed by	JRC
Drawn by	KMB
Checked by	BLH
Approved by	JDF

THIS LINE IS ONE INCH LONG WHEN PLOTTED AT FULL SCALE ON A 22" X 34" DRAWING

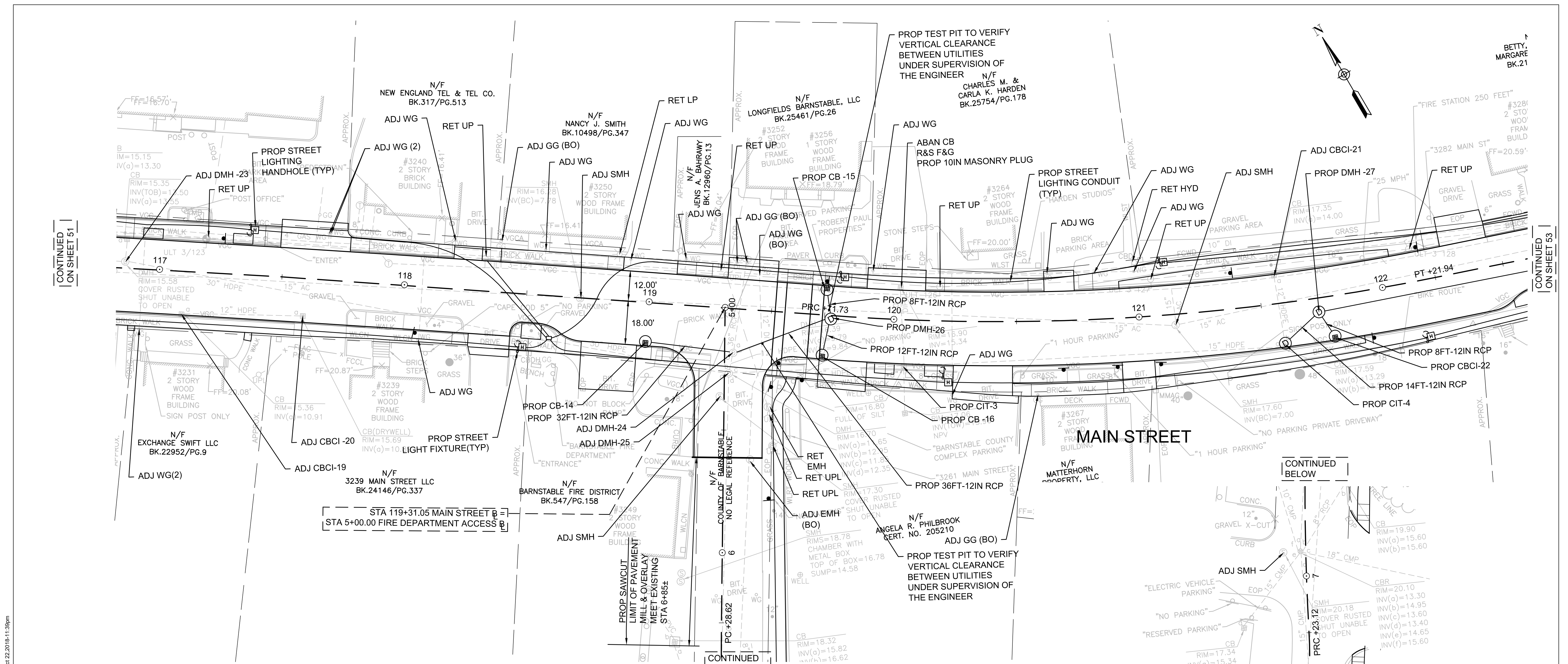
TRANSPORTATION IMPROVEMENTS
ALONG MAIN STREET (ROUTE 6A) AND MILLWAY
BARNSTABLE, MASSACHUSETTS

UTILITY PLAN - 04

NOT FOR CONSTRUCTION

Sheet No.

51



CONTINUED ON SHEET 51

CONTINUED ON SHEET 53

STA 119+31.05 MAIN STREET @
STA 5+00.00 FIRE DEPARTMENT ACCESS

CONTINUED BELOW

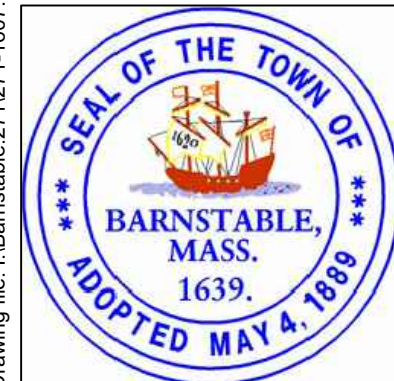
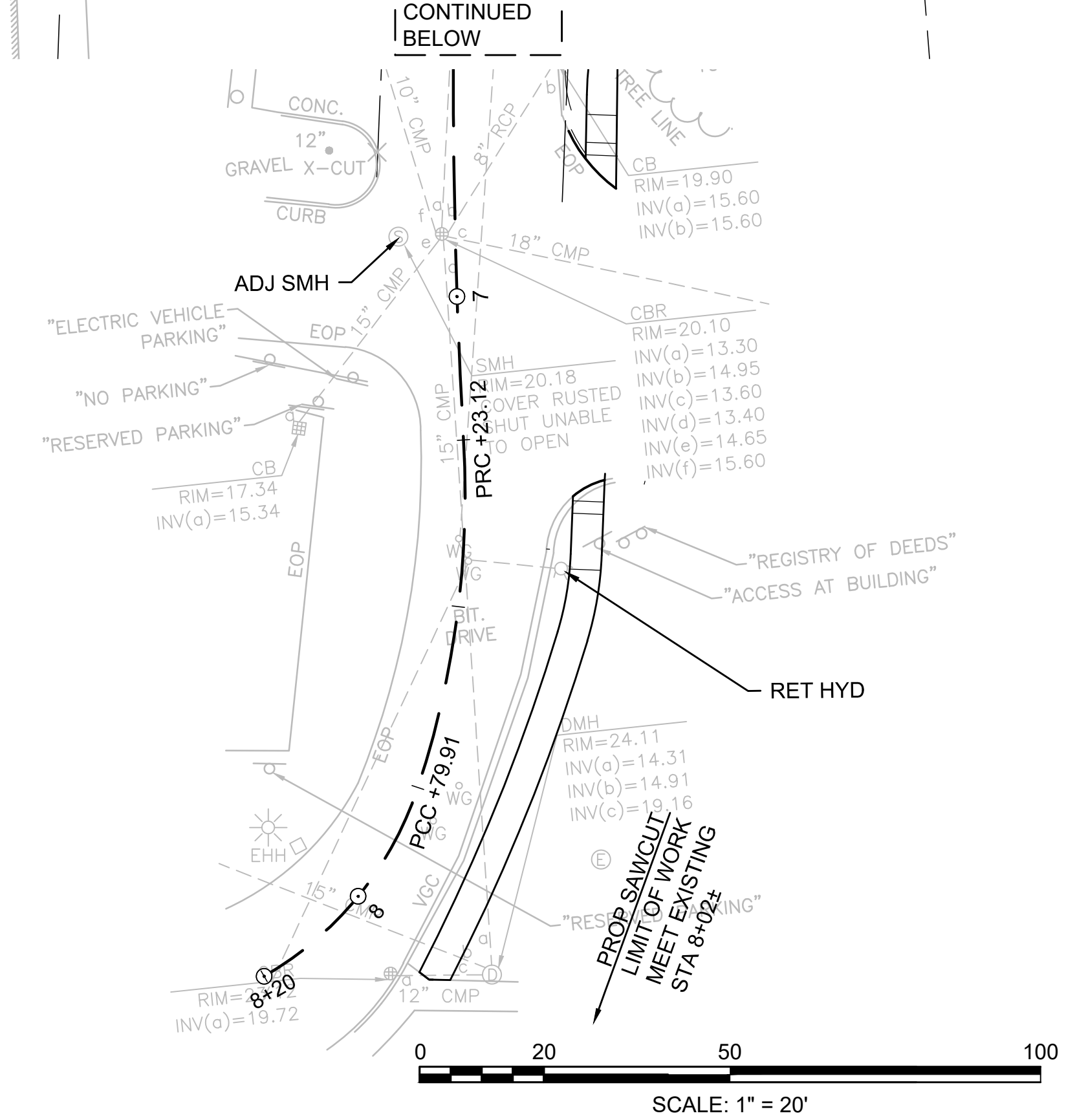
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NO	STATION	OFFSET	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT	REMARK
CBCI-20	117+60	15.5' RT	15.88	RETAIN EXISTING	RETAIN EXISTING	ADJ
CB-14	119+00	16.8' RT	16.41	-	12.91(DMH-24)	
DMH-24	119+36	18.2' RT	16.48	12.27(CB-14) EXIST(DMH-25) 12.34(DMH-26)	RETAIN EXISTING	ADJ
DMH-25	119+35	26.7' RT	16.76	RETAIN EXISTING	RETAIN EXISTING	ADJ
CB-16	119+72	17.0' RT	16.61	-	13.11(DMH-26)	
CB-15	119+72	11.0' LT	16.71	-	13.11(DMH-26)	

DMH-26	119+74	0.3' RT	16.88	13.14(CB-15) 12.89(CB-16)	12.70(DMH-24)	
CIT-3	120+05	19.0' RT	17.24	RETAIN EXISTING	RETAIN EXISTING	CIT CB TO DMH
DMH-27	121+73	6.0' RT	17.87	13.80(CBCI-22) 13.80(DMH-28)	13.68(CIT-4)	
NO	STATION	OFFSET	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT	REMARK
CBCI-21	121+57	11.6' LT	17.69	-	RETAIN EXISTING	ADJ
CBCI-22	121+78	17.0' RT	18.03	-	13.96(DMH-27)	
CIT-4	121+58	16.5' RT	17.87	EXIST(CBCI-21) 13.54(DMH-27)	RETAIN EXISTING	CIT CB TO DMH

NOTES:

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- SANITARY STRUCTURES (SMH) BOLTED OR SEALED SHUT SHALL BE REPORTED TO THE TOWN PRIOR TO REMOVING THE COVERS AS NEEDED TO PERFORM ADJACENT ROADWAY WORK. ALL DRAINAGE STRUCTURES AND PIPES PROPOSED TO BE RETAINED AND/OR UTILIZED WITHIN THE PROJECT LIMITS AND AS DIRECTED BY THE TOWN SHALL BE CLEANED OF ALL SEDIMENT AND DEBRIS TO THE SATISFACTION OF THE TOWN AND THE ENGINEER.
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- FOR LIGHTING PLAN SEE SHEET 97



MARK	DATE	DESCRIPTION	Scale	AS NOTED
			Date	OCTOBER 2018
			Job No.	271-1607
03	10/19/18	REVISED FINAL SUBMISSION	Designed by	JRC
02	08/22/18	FINAL SUBMISSION	Drawn by	KMB
01	08/01/18	DRAFT PRELIMINARY DESIGN SUBMISSION	Checked by	BLH
			Approved by	JDF

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TRANSPORTATION IMPROVEMENTS
ALONG MAIN STREET (ROUTE 6A) AND MILLWAY
BARNSTABLE, MASSACHUSETTS

UTILITY PLAN - 05

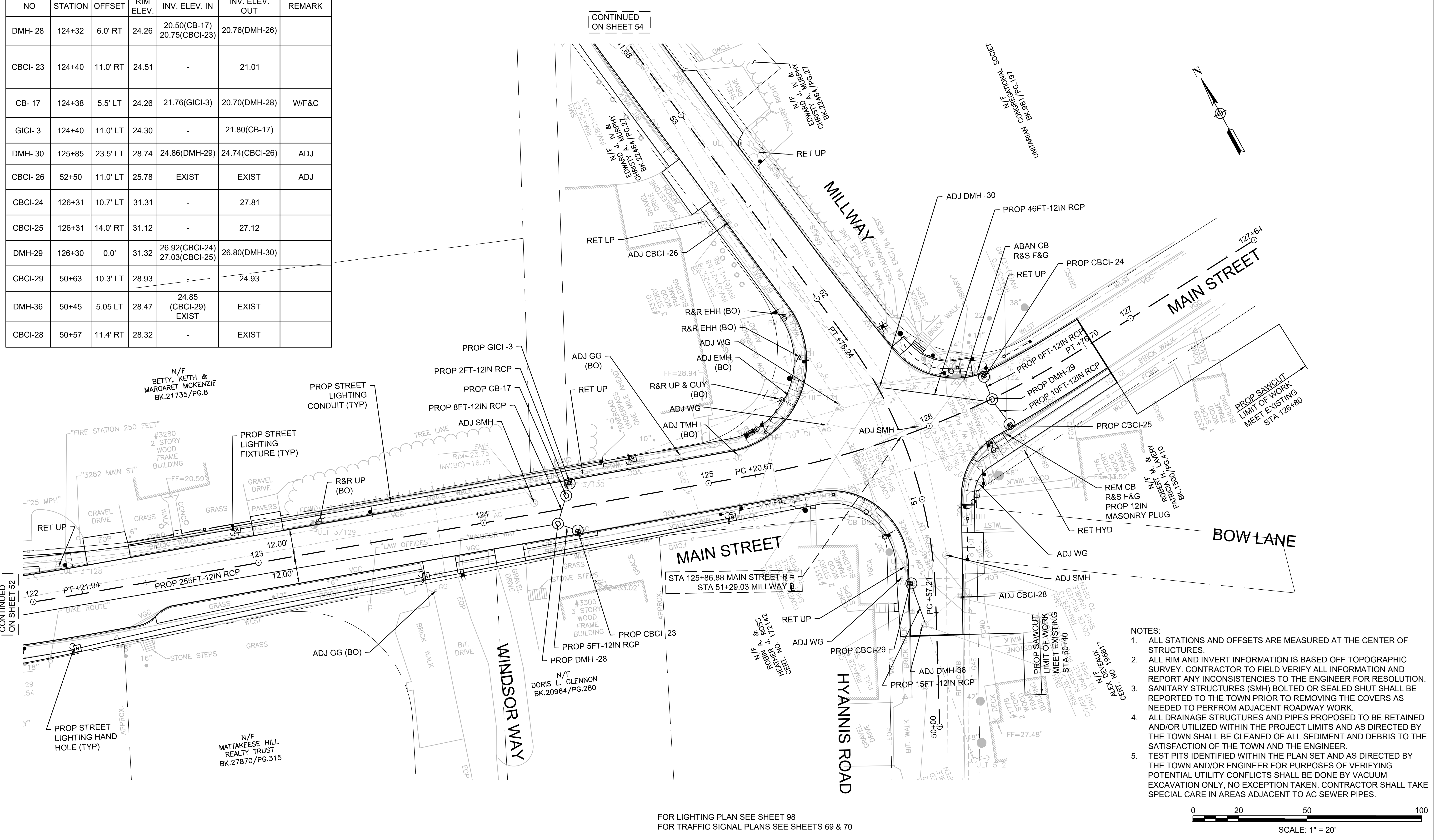
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Sheet No.

52

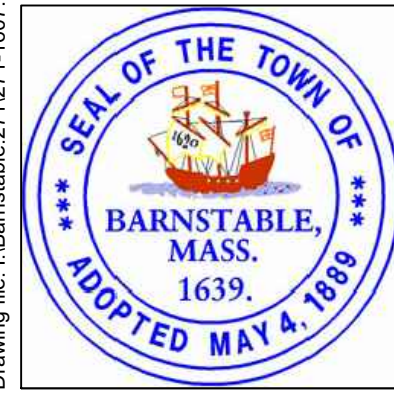
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NO	STATION	OFFSET	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT	REMARK
DMH- 28	124+32	6.0' RT	24.26	20.50(CB-17) 20.75(CBCI-23)	20.76(DMH-26)	
CBCI- 23	124+40	11.0' RT	24.51	-	21.01	
CB- 17	124+38	5.5' LT	24.26	21.76(GICI-3)	20.70(DMH-28)	W/F&C
GICI- 3	124+40	11.0' LT	24.30	-	21.80(CB-17)	
DMH- 30	125+85	23.5' LT	28.74	24.86(DMH-29)	24.74(CBCI-26)	ADJ
CBCI- 26	52+50	11.0' LT	25.78	EXIST	EXIST	ADJ
CBCI-24	126+31	10.7' LT	31.31	-	27.81	
CBCI-25	126+31	14.0' RT	31.12	-	27.12	
DMH-29	126+30	0.0'	31.32	26.92(CBCI-24) 27.03(CBCI-25)	26.80(DMH-30)	
CBCI-29	50+63	10.3' LT	28.93	-	24.93	
DMH-36	50+45	5.05 LT	28.47	24.85 (CBCI-29) EXIST	EXIST	
CBCI-28	50+57	11.4' RT	28.32	-	EXIST	



FOR LIGHTING PLAN SEE SHEET 98
FOR TRAFFIC SIGNAL PLANS SEE SHEETS 69 & 70

Drawing file: I:\Barnstable\2710271-1607-00 Barnstable - Improvement along Main Street (Route 6A)\ACAD\Sheet\12 - Utility Plan.dwg Plot Date: Oct 22, 2018 11:42am



MARK	DATE	DESCRIPTION	Scale	AS NOTED
			Date	OCTOBER 2018
			Job No.	271-1607
03	10/19/18	REVISED FINAL SUBMISSION	Designed by	JRC
02	08/22/18	FINAL SUBMISSION	Drawn by	KMB
01	08/01/18	DRAFT PRELIMINARY DESIGN SUBMISSION	Checked by	BLH
			Approved by	JDF

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TRANSPORTATION IMPROVEMENTS
ALONG MAIN STREET (ROUTE 6A) AND MILLWAY
BARNSTABLE, MASSACHUSETTS

UTILITY PLAN - 06

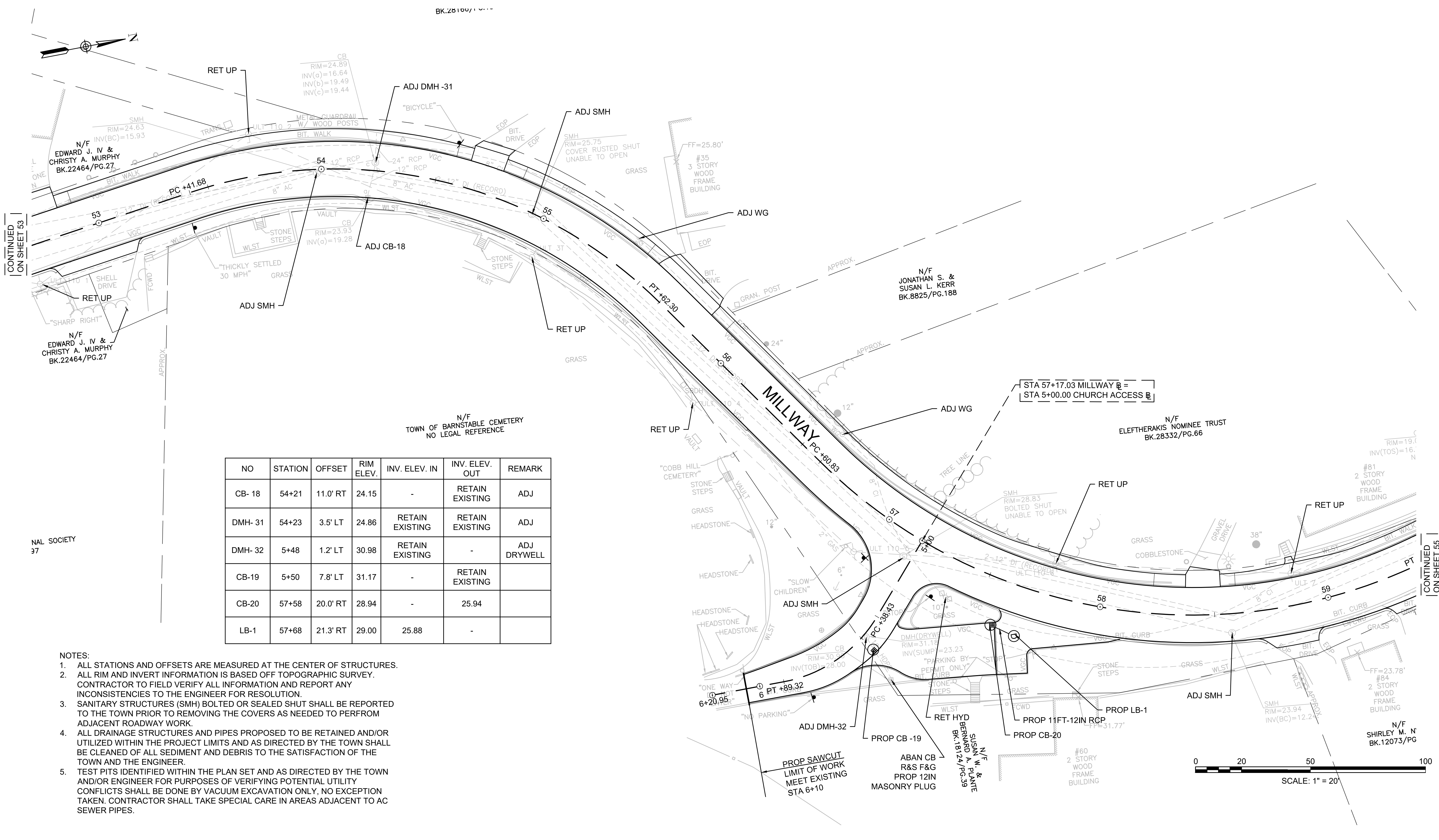
NOT FOR CONSTRUCTION

Sheet No.

53

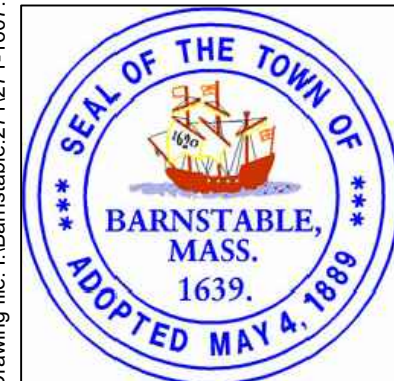
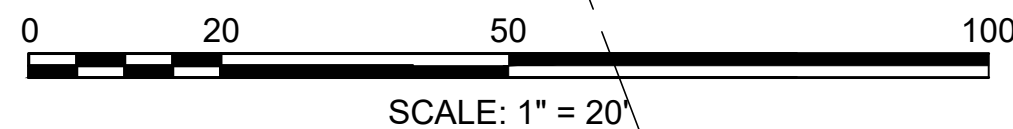
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CONTINUED ON SHEET 55



NO	STATION	OFFSET	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT	REMARK
CB-18	54+21	11.0' RT	24.15	-	RETAIN EXISTING	ADJ
DMH-31	54+23	3.5' LT	24.86	RETAIN EXISTING	RETAIN EXISTING	ADJ
DMH-32	5+48	1.2' LT	30.98	RETAIN EXISTING	-	ADJ DRYWELL
CB-19	5+50	7.8' LT	31.17	-	RETAIN EXISTING	
CB-20	57+58	20.0' RT	28.94	-	25.94	
LB-1	57+68	21.3' RT	29.00	25.88	-	

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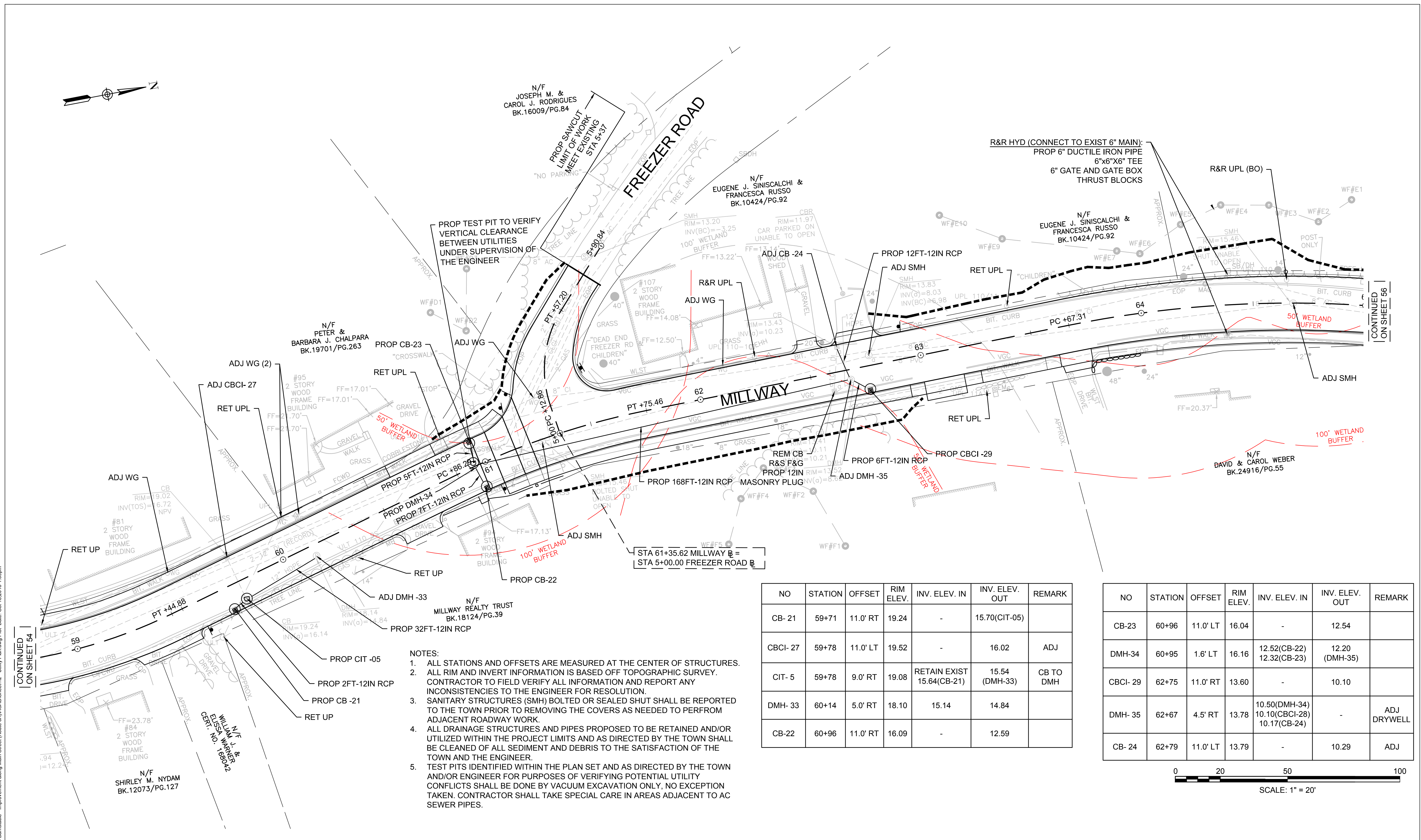
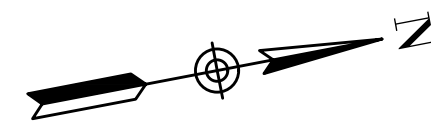
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			JRC	BLH	JDF
03	10/19/18	REVISED FINAL SUBMISSION			
02	08/22/18	FINAL SUBMISSION			
01	08/01/18	DRAFT PRELIMINARY DESIGN SUBMISSION			

Scale: AS NOTED
 Date: OCTOBER 2018
 Job No.: 271-1607
 THIS LINE IS ONE INCH LONG WHEN PLOTTED AT FULL SCALE ON A 22" X 34" DRAWING

TRANSPORTATION IMPROVEMENTS
 ALONG MAIN STREET (ROUTE 6A) AND MILLWAY
 BARNSTABLE, MASSACHUSETTS

UTILITY PLAN - 07

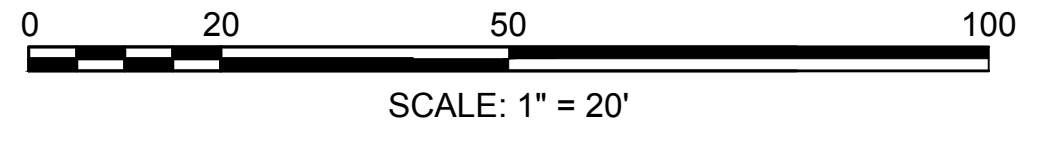
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 Sheet No. **54**



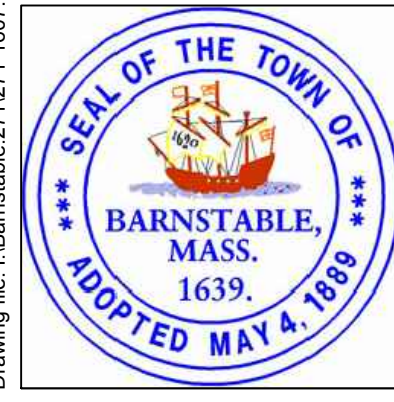
- NOTES:**
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NO	STATION	OFFSET	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT	REMARK
CB- 21	59+71	11.0' RT	19.24	-	15.70(CIT-05)	
CBCI- 27	59+78	11.0' LT	19.52	-	16.02	ADJ
CIT- 5	59+78	9.0' RT	19.08	RETAIN EXIST 15.64(CB-21)	15.54 (DMH-33)	CB TO DMH
DMH- 33	60+14	5.0' RT	18.10	15.14	14.84	
CB-22	60+96	11.0' RT	16.09	-	12.59	

NO	STATION	OFFSET	RIM ELEV.	INV. ELEV. IN	INV. ELEV. OUT	REMARK
CB-23	60+96	11.0' LT	16.04	-	12.54	
DMH-34	60+95	1.6' LT	16.16	12.52(CB-22) 12.32(CB-23)	12.20 (DMH-35)	
CBCI- 29	62+75	11.0' RT	13.60	-	10.10	
DMH- 35	62+67	4.5' RT	13.78	10.50(DMH-34) 10.10(CBCI-28) 10.17(CB-24)	-	ADJ DRYWELL
CB- 24	62+79	11.0' LT	13.79	-	10.29	ADJ



Drawing file: I:\Barnstable\2711271-1607-00 Barnstable - Improvement along Main Street (Route 6A)\ACAD\Sheet\12 - Utility Plan.dwg Plot Date: Oct 18, 2018 1:39pm



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03	10/19/18	REVISED FINAL SUBMISSION	Designed by	JRC
02	08/22/18	FINAL SUBMISSION	Drawn by	KMB
01	08/01/18	DRAFT PRELIMINARY DESIGN SUBMISSION	Checked by	BLH
			Approved by	JDF

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TRANSPORTATION IMPROVEMENTS
ALONG MAIN STREET (ROUTE 6A) AND MILLWAY
BARNSTABLE, MASSACHUSETTS

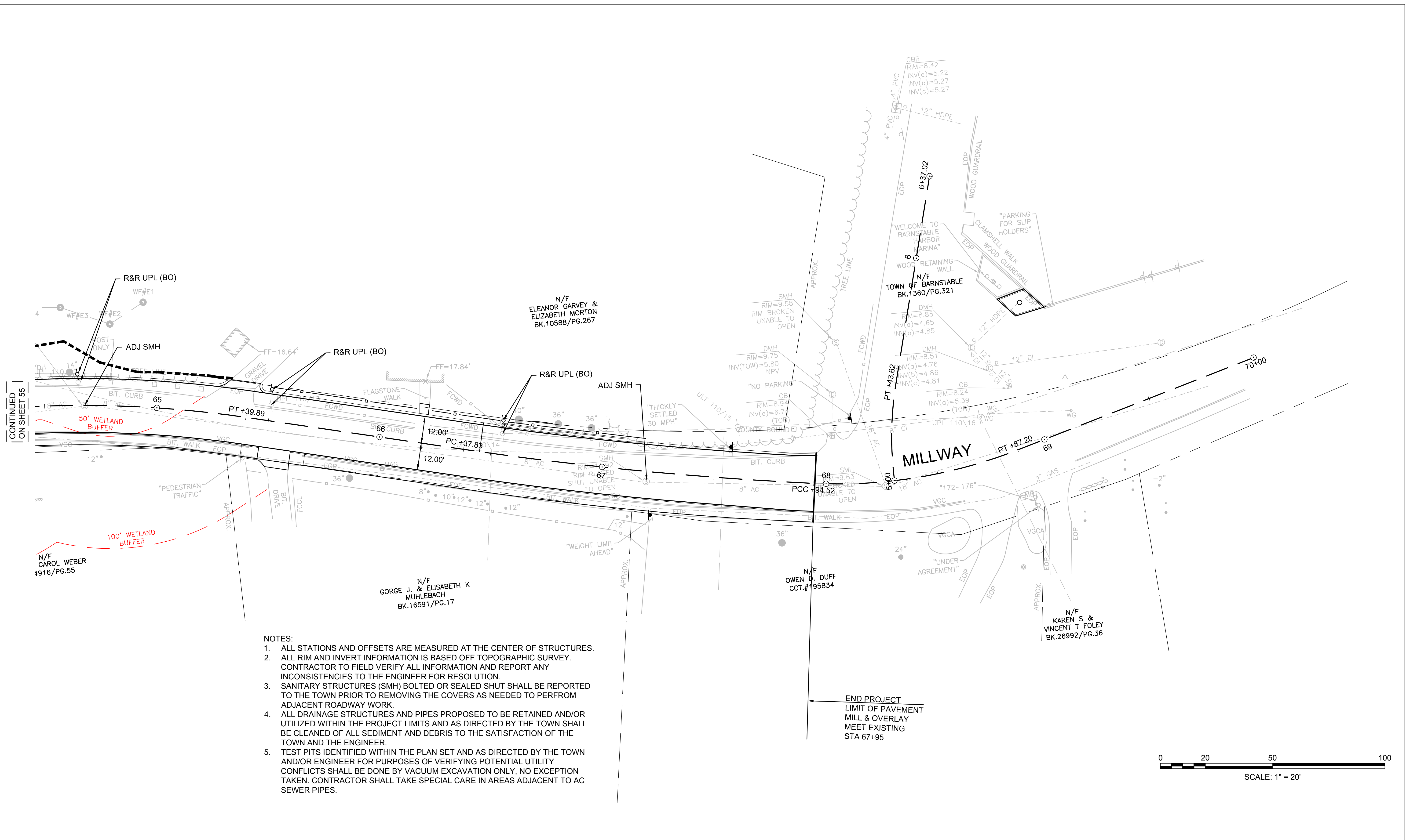
UTILITY PLAN - 08

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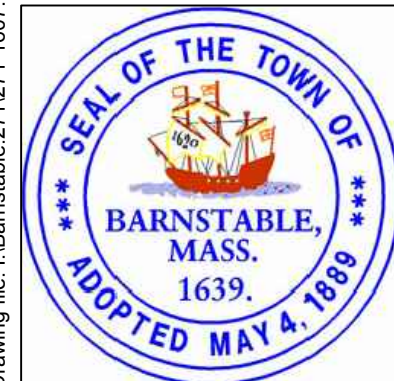
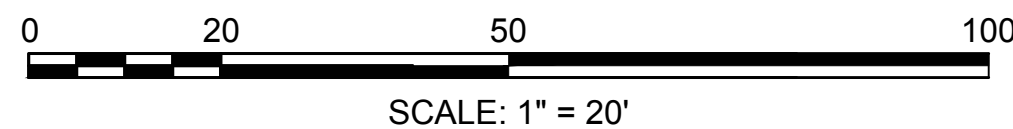
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Drawing file: I:\Barnstable\2711271-1607-00 Barnstable - Improvement along Main Street (Route 6A)\ACAD\Sheet\12 - Utility Plan.dwg Plot Date: Oct 18, 2018 1:44 pm



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END PROJECT
LIMIT OF PAVEMENT
MILL & OVERLAY
MEET EXISTING
STA 67+95



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**TRANSPORTATION IMPROVEMENTS
ALONG MAIN STREET (ROUTE 6A) AND MILLWAY
BARNSTABLE, MASSACHUSETTS**

UTILITY PLAN - 09

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Sheet No.
56