

# MASSACHUSETTS DEPARTMENT OF TRANSPORTATION HIGHWAY DIVISION

MONTAGUE GREENFIELD ROAD			
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	FED. AID	1	157
PROJECT FILE NO.		601657	

TITLE & INDEX

## RECONSTRUCTION OF GREENFIELD ROAD IN THE TOWN OF MONTAGUE FRANKLIN COUNTY

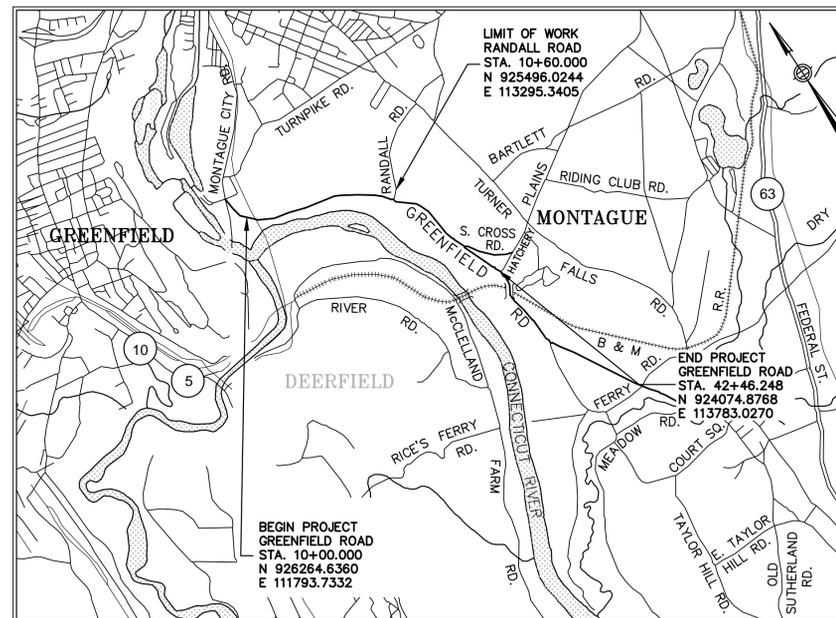
FEDERAL AID PROJECT NO.

### INDEX

#### SHEET NO. DESCRIPTION

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ALL WORK DONE UNDER THIS CONTRACT SHALL BE IN CONFORMANCE WITH THE MASSACHUSETTS DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION 1995 METRIC EDITION STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES, THE SUPPLEMENTAL SPECIFICATIONS DATED JUNE 15, 2012; THE 2012 CONSTRUCTION STANDARD DETAILS, THE 1996 CONSTRUCTION AND TRAFFIC STANDARD DETAILS (AS RELATES TO TRAFFIC STANDARD DETAILS ONLY); THE 2009 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES WITH MASSACHUSETTS AMENDMENTS; THE 1968 STANDARD DRAWINGS FOR TRAFFIC SIGNALS AND HIGHWAY LIGHTING; THE LATEST EDITION OF AMERICAN STANDARD FOR NURSERY STOCK;



LOCATION MAP

SCALE: 1 = 40,000  
(IN METERS)

LENGTH OF PROJECT = 3,246 m = 3.246 km

### DESIGN DESIGNATION

DESIGN SPEED:	60 km/hr
ADT (2014):	2,350
ADT (2034):	2,860
K:	9.2%
D:	69.6%
T (PEAK HOUR):	3.4%
T (AVERAGE DAY):	3.9%
DHV:	260
DDHV:	180

**GPI** Greenman-Pedersen, Inc.  
Engineers, Architects, Planners, Construction Engineers & Inspectors  
181 Ballardvale Street, Suite 202, Wilmington, MA 01887  
Tel: (978) 570-2999 Fax: (978) 658-3044  
http://www.gpinet.com

DATE	DESCRIPTION	REV #

**PS&E  
SUBMISSION**



RECOMMENDED FOR APPROVAL

CHIEF ENGINEER DATE

DEPARTMENT OF TRANSPORTATION  
FEDERAL HIGHWAY ADMINISTRATION

APPROVED

APPROVED:

DIVISION ADMINISTRATOR DATE

HIGHWAY ADMINISTRATOR DATE

IN CHARGE OF \_\_\_\_\_  
DRAWN BY \_\_\_\_\_  
CHECKED BY \_\_\_\_\_

**MONTAGUE  
GREENFIELD ROAD**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	FED. AID	2	157
PROJECT FILE NO. 601657			

**GENERAL LEGEND,  
ABBREVIATIONS & NOTES**

**GENERAL NOTES**

- EXISTING CONDITIONS INFORMATION IS BASED ON AN AERIAL SURVEY PROVIDED BY EASTERN TOPOGRAPHICS, SUPPLEMENTED BY GREENMAN-PEDERSEN, INC., AND PROVIDED BY MASSDOT.
- THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO LOCATE EXACTLY AND TO PRESERVE ANY AND ALL UNDERGROUND UTILITIES. CALL "DIG-SAFE" 1-888-DIGSAFE (344-7233) AT LEAST 72 HOURS BEFORE COMMENCING CONSTRUCTION.
- WHERE AN EXISTING UNDERGROUND UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, THE LOCATION, ELEVATION AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION FURNISHED TO THE ENGINEER FOR RESOLUTION OF THE CONFLICT.
- THE CONTRACTOR SHALL MAKE ALL ARRANGEMENTS FOR THE ALTERATION AND ADJUSTMENT OF GAS, ELECTRIC, TELEPHONE AND ANY OTHER PRIVATE UTILITIES BY THE UTILITY COMPANIES.
- AREAS OUTSIDE THE LIMITS OF PROPOSED WORK DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE.
- THE TERM "PROPOSED" (PROP.) MEANS WORK TO BE CONSTRUCTED USING NEW MATERIALS, OR, WHERE APPLICABLE, RE-USING EXISTING MATERIALS IDENTIFIED AS "REMOVE & RESET" (R&R).
- ALL EXISTING SIGNS WITHIN THE PROJECT LIMITS SHALL BE RETAINED UNLESS NOTED OTHERWISE.
- ALL PROPOSED PERMANENT PAVEMENT MARKINGS SHALL BE THERMOPLASTIC.
- ALL EXISTING STATE, COUNTY AND TOWN LOCATION LINES AND PRIVATE PROPERTY LINES HAVE BEEN ESTABLISHED FROM AVAILABLE INFORMATION AND THEIR EXACT LOCATIONS ARE NOT GUARANTEED.
- ALL TRANSVERSE JOINTS, AND ALL LONGITUDINAL JOINTS BETWEEN NEW SURFACE PAVEMENT AND EXISTING SURFACE PAVEMENT TO REMAIN SHALL BE COATED WITH A HOT POURED RUBBERIZED ASPHALT SEALANT MEETING THE REQUIREMENTS OF FEDERAL SPECIFICATION NUMBER SS-S-1401.
- ALL DISTURBED AREAS NOT DESIGNATED TO BE PAVED SHALL HAVE LOAM BORROW PLACED AND SEED. THE LOAM BORROW SHALL HAVE A MINIMUM DEPTH OF 100 MILLIMETERS AND SHALL BE PLACED FLUSH WITH THE TOP OF THE ADJACENT CURB, EDGING, BERM OR PAVEMENT SURFACE.
- THE LIMIT OF WORK AREA SHALL BE THE STREET RIGHT OF WAY UNLESS SHOWN OTHERWISE.
- PRIOR TO THE START OF ANY NEW UTILITY WORK, ALL ELEVATIONS OF EXISTING UTILITIES IN THOSE AREAS ARE TO BE VERIFIED. THE ENGINEER IS TO BE NOTIFIED IMMEDIATELY SHOULD ANY DISCREPANCIES OCCUR.
- ALL CASTINGS SHALL BE SET FLUSH WITH FINISHED GRADE.
- ALL GATE BOXES, SERVICE BOXES AND PUBLICLY OWNED MANHOLE FRAMES AND COVERS SHALL BE ADJUSTED TO GRADE BY THE CONTRACTOR.
- ALL NEW SIDEWALKS AND DRIVEWAY GRADES SHALL MATCH EXISTING GRADES AT BACK OF SIDEWALK LINE UNLESS SHOWN OTHERWISE ON THE PLANS AND CROSS-SECTIONS.
- THE CONTRACTOR SHALL TAKE EVERY PRECAUTION TO PROTECT ALL EXISTING TREES AND ROOTS THAT ARE NOT DESIGNATED FOR REMOVAL.
- THE INVERTS SHOWN ON THE PLANS ARE "PROPOSED" AND ARE SHOWN FOR BIDDING PURPOSES ONLY. ACTUAL INVERT ELEVATIONS SHALL BE CONFIRMED IN THE FIELD.
- HORIZONTAL CONTROL IS BASED ON VALUES PROVIDED BY MEANS OF GLOBAL POSITIONING SYSTEM METHODS, AND IS BASED UPON THE NORTH AMERICAN DATUM OF 1983 (NAD 83), MASSACHUSETTS STATE PLANE COORDINATE SYSTEM MAINLAND ZONE. VERTICAL CONTROL IS BASED UPON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

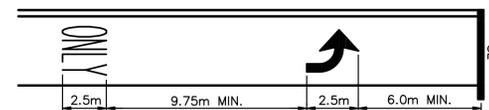
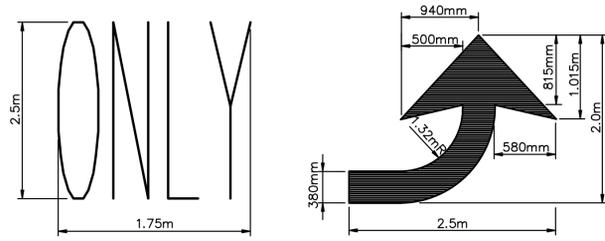
**GENERAL ABBREVIATIONS**

ABAN	ABANDON
ACCMP	ASPHALT COATED CORRUGATED METAL PIPE
ADJ	ADJUST
APPROX	APPROXIMATE
BC	BOTTOM OF CURB
BD	BOUND
BIT CONC	BITUMINOUS CONCRETE
BO	BY OTHERS
BM	BENCH MARK
BW	BOTTOM OF WALL
CEM CONC	CEMENT CONCRETE
CCB	CAPE COD BERM
CI	CURB INLET
CIP	CAST IRON PIPE
CH	CHANGE IN TYPE
CLR	CLEARANCE
CLF	CHAIN LINK FENCE
CLDI	CEMENT LINED DUCTILE IRON
CMP	CORRUGATED METAL PIPE
CPP	CORRUGATED PLASTIC PIPE
COND	CONDUIT
DIP	DUCTILE IRON PIPE
DR	DRIVEWAY
ELEV OR EL	ELEVATION
EP	EDGE OF PAVEMENT
ETW	EDGE OF TRAVELED WAY
EXIST	EXISTING
F & C	FRAME AND COVER
F & G	FRAME AND GRATE
FDN	FOUNDATION
FND	FOUND
FWD	FILLED WITH DEBRIS
GRAN	GRANITE
HMA	HOT MIX ASPHALT
HOR	HORIZONTAL
HP	HIGH POINT
INV	INVERT
LB	LOAM BORROW
LO	LAYOUT
LP	LOW POINT
MAX	MAXIMUM
MIN	MINIMUM
MHB	MASSACHUSETTS HIGHWAY BOUND
MHD	MASSACHUSETTS HIGHWAY DEPARTMENT
MLB	MODIFIED LOAM BORROW
MON	MONUMENT
NIC	NOT IN CONTRACT
NGVD	NATIONAL GEODETIC VERTICAL DATUM
N/F	NOW OR FORMERLY
OHW	OVERHEAD WIRE
PC	POINT OF CURVE
PCC	POINT OF COMPOUND CURVE
PGL	PROFILE GRADE LINE
POC	POINT ON CURVE
PRC	POINT OF REVERSE CURVE
PROP	PROPOSED
PT	POINT OF TANGENT
PVCC	POINT OF VERTICAL CURVE
PVCP	POLYVINYLCHLORIDE PIPE
PVI	POINT OF VERTICAL INTERSECTION
PVMT	PAVEMENT
PVT	POINT OF VERTICAL TANGENT
PWW	PAVED WATERWAY
R&D	REMOVE AND DISPOSE
R&R	REMOVE AND RESET
R&S	REMOVE AND STACK
REM	REMOVE
REMOD	REMODEL
RCP	REINFORCED CONCRETE PIPE
RET	RETAIN
ROW	RIGHT OF WAY
RR	RAILROAD
SB	STONE BOUND
SB/DH	STONE BOUND/DRILL HOLE
SHLD	SHOULDER
SHLO	STATE HIGHWAY LAYOUT
STA	STATION
STL	STEEL
TBM	TEMPORARY BENCH MARK
TC	TOP OF CURB
TOS	TOP OF SLOPE
TS	TRAFFIC SIGNAL
TSV & B	TAPPING SLEEVE, VALVE AND BOX
TYP	TYPICAL
TW	TOP OF WALL
UC	UNDER CONSTRUCTION
USGS	U.S. GEOLOGICAL SURVEY
VCP	VITRIFIED CLAY PIPE
VERT	VERTICAL
WCR	WHEELCHAIR RAMP

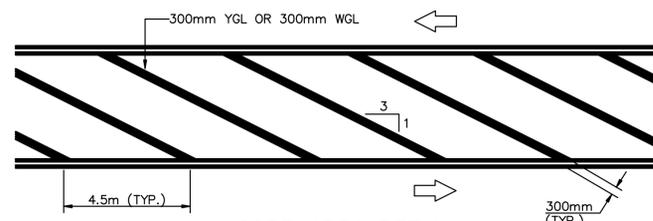
**PAVEMENT MARKING  
LEGEND**

EXISTING	PROPOSED	DESCRIPTION
---	SL	STOP LINE - 300mm
	CW	CROSSWALK - 2x300mm WHITE LINES
---	SWL	SOLID WHITE LANE LINE - 100mm
---	SWEL	SOLID WHITE EDGE LINE - 100mm
---	SWG	SOLID WHITE GORE LINE - 200mm
---	BWL	*BROKEN WHITE LANE LINE - 100mm
---	BYL	*BROKEN YELLOW LANE LINE - 100mm
---	WGL	WHITE GORE LINE - 300mm
---	DWL	**DASHED WHITE LINE - 100mm
---	DYL	**DASHED YELLOW LINE - 100mm
---	SYL	SOLID YELLOW LINE - 100mm
---	SYCL	SOLID YELLOW CENTER LINE - 200mm
---	SYGL	SOLID YELLOW GORE LINE - 200mm
---	YGL	YELLOW GORE LINE - 300mm
---	DYL	DOUBLE YELLOW LINE - 2x100mm
---	DYCL	DOUBLE YELLOW CENTER LINE - 2x100mm
→	→	PAVEMENT ARROWS

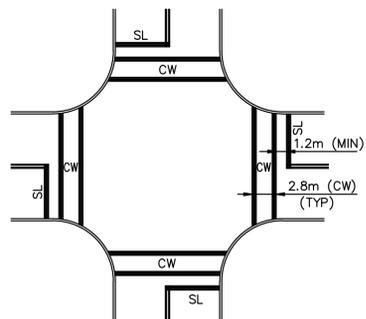
\*BROKEN LANE LINES TO BE 3.0m IN LENGTH WITH 9.0m GAP (TYP.)  
\*\*DASHED LINES TO BE 1.5m IN LENGTH WITH 1.5m GAP (TYP.)



**ARROW & ONLY DETAIL**  
NOT TO SCALE



**GORE AREA DETAIL**  
NOT TO SCALE



**TYPICAL CROSSWALK MARKINGS**  
NOT TO SCALE

**GENERAL LEGEND**

EXISTING	PROPOSED	DESCRIPTION
---	---	STATE BOUNDARY LINE
---	---	CITY, TOWN OR COUNTY BOUNDARY LINE
---	---	STATE HIGHWAY LAYOUT LINE
---	---	CITY, TOWN OR COUNTY LAYOUT LINE
---	---	EASEMENT LINE
---	---	PROPERTY LINE
WF	WF	EDGE OF VEGETATED WETLAND/WETLAND FLAG
---	---	HIGHWAY/PROPERTY BOUND (TYPE NOTED)
PT 8	PT 8	CONSTRUCTION/SURVEY BASELINE
+	+	TREE (TYPE & SIZE NOTED)
---	---	EDGE OF WOODS/SHRUBS
---	---	HANDICAP RAMP
MB	MB	BENCH
MB	MB	MAIL BOX
PM	PM	PARKING METER
---	---	SIGN
---	---	FENCE (SIZE & TYPE AS NOTED)
---	---	HIGHWAY GUARD (TYPE AS NOTED)
---	---	BALANCED WALL (SIZE & TYPE AS NOTED)
---	---	RETAINING WALL (SIZE & TYPE AS NOTED)
---	---	CONTOURS
---	---	SPOT ELEVATION, TOP AND BOTTOM CURB
---	---	CURB OR BERM (TYPE AS NOTED)
---	---	EDGE OF PAVEMENT (NO CURB OR BERM)
---	---	BACK OF SIDEWALK
---	---	TOP OR BOTTOM OF SLOPE (CUT OR FILL)
---	---	SAWCUT LINE
---	---	APPROX. COLD PLANING/TRANSITION AREA
---	---	GRANITE RUBBLE BLOCK PAVEMENT
---	---	SCORED CONCRETE PAVEMENT
B-1	B-1	BORINGS, PAVEMENT CORES (SEE SPEC. PROV.)
D	D	DRAIN LINE
UD	UD	UNDERDRAIN (PERFORATED)
---	---	DIRECTION OF FLOW
---	---	PAVED WATERWAY
DMH	DMH	DRAIN MANHOLE
CB,GI,DI	CB,GI,DI	CATCH BASIN, DROP OR GUTTER INLET
CB,CI,GICI	CB,CI,GICI	CATCH BASIN (OR GUTTER INLET) WITH CURB INLET
LB	LB	LEACHING BASIN
FE	FE	FLARED END
HDWL	HDWL	HEADWALL
S	S	SEWER LINE
SMH	SMH	SEWER MANHOLE
CS	CS	COMBINED SEWER LINE
CSMH	CSMH	COMBINED SEWER MANHOLE
FMGV	FMGV	FORCE MAIN GATE VALVE
W	W	WATER MAIN
WMH	WMH	WATER MANHOLE
HYD	HYD	HYDRANT
FA,FSP	FA,FSP	FIRE ALARM BOX, FIRE STAND PIPE
---	---	REDUCER
CS,WSO	CS,WSO	CURB STOP OR WATER SHUT OFF
WG	WG	WATER GATE
G	G	GAS MAIN
GG	GG	GAS GATE
GSO	GSO	GAS SHUT OFF
E	E	ELECTRICAL LINE OR DUCT
---	---	ELECTRICAL CONDUIT
EMH	EMH	ELECTRICAL MANHOLE
EHH	EHH	ELECTRICAL HANDHOLE
PB	PB	PULL BOX (300mm x 300mm)
JB,SB	JB,SB	ELECTRICAL JUNCTION OR SWITCH BOX
LCC	LCC	ELECTRICAL LOAD CENTER CABINET W/FPN
LP	LP	LIGHT POLE
UP	UP	UTILITY POLE
GUY	GUY	GUY WIRE & ANCHOR
---	---	TELEPHONE LINE OR DUCT
TMH	TMH	TELEPHONE MANHOLE
ST	ST	STEAM LINE
STMH	STMH	STEAM MANHOLE/TUNNEL HATCH
---	---	PLUG OR CAP
---	---	DELINEATOR
---	---	OVERHEAD WIRES
CATV	CATV	CABLE TV

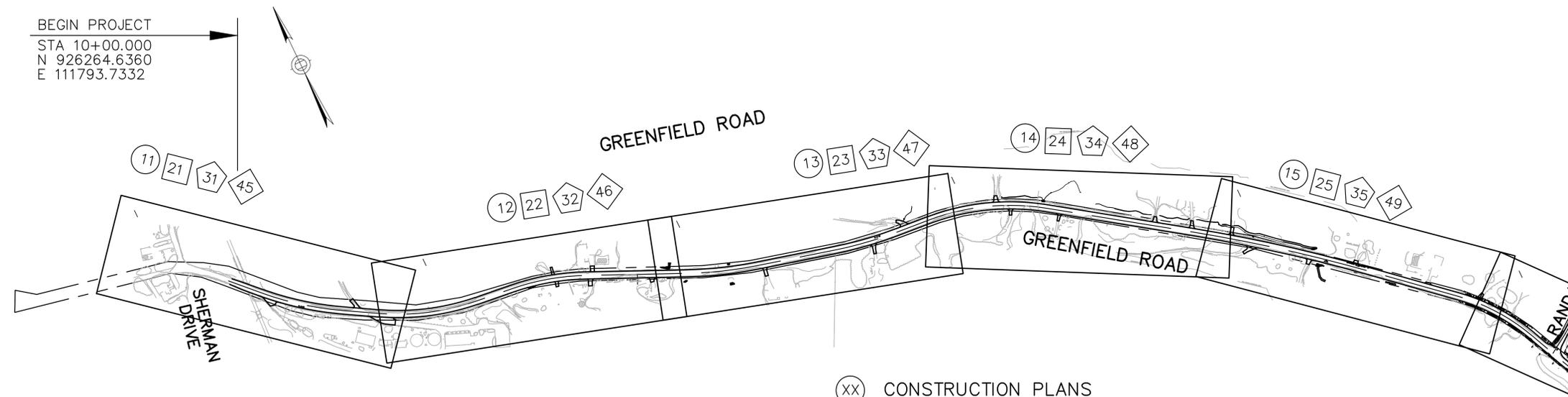
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DRAWN BY: RJD  
CHECKED BY: MDE

**MONTAGUE  
GREENFIELD ROAD**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	FED. AID	3	157
PROJECT FILE NO.		601657	

**KEY PLAN**

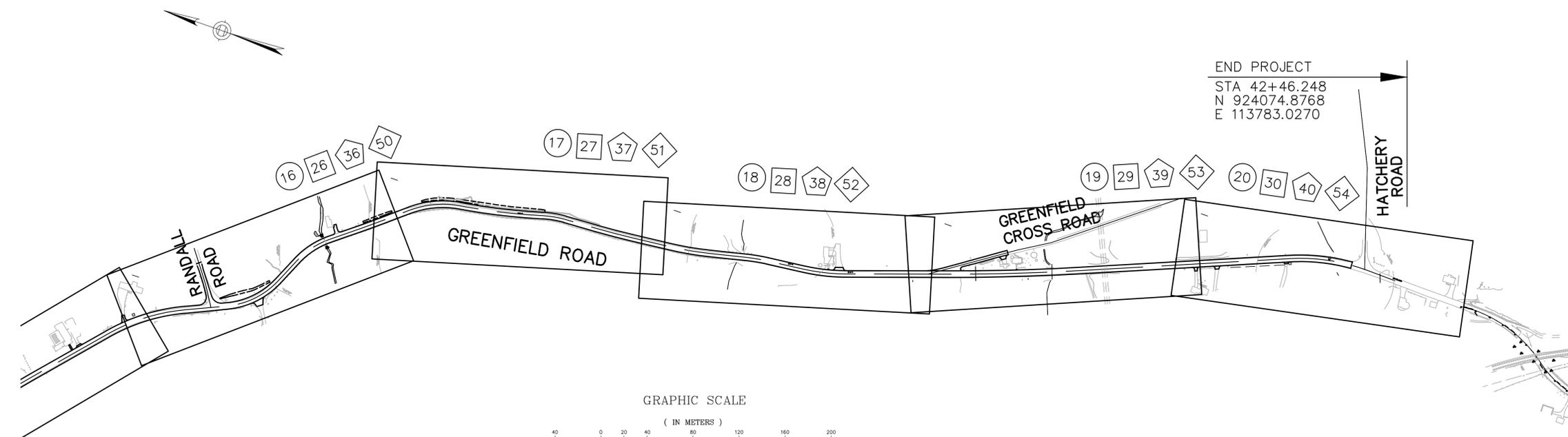
BEGIN PROJECT  
STA 10+00.000  
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E 111793.7332



CONT.  
BELOW

- (XX) CONSTRUCTION PLANS
- XX CURB TIE & GRADING PLANS
- XX DRAINAGE & UTILITY PLANS
- XX PAVEMENT MARKING & SIGNING PLANS

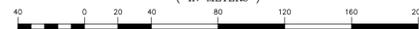
END PROJECT  
STA 42+46.248  
N 924074.8768  
E 113783.0270



CONT. FROM  
ABOVE

GRAPHIC SCALE

( IN METERS )



1 : 2000

IN CHARGE OF \_\_\_\_\_  
DRAWN BY \_\_\_\_\_  
CHECKED BY \_\_\_\_\_

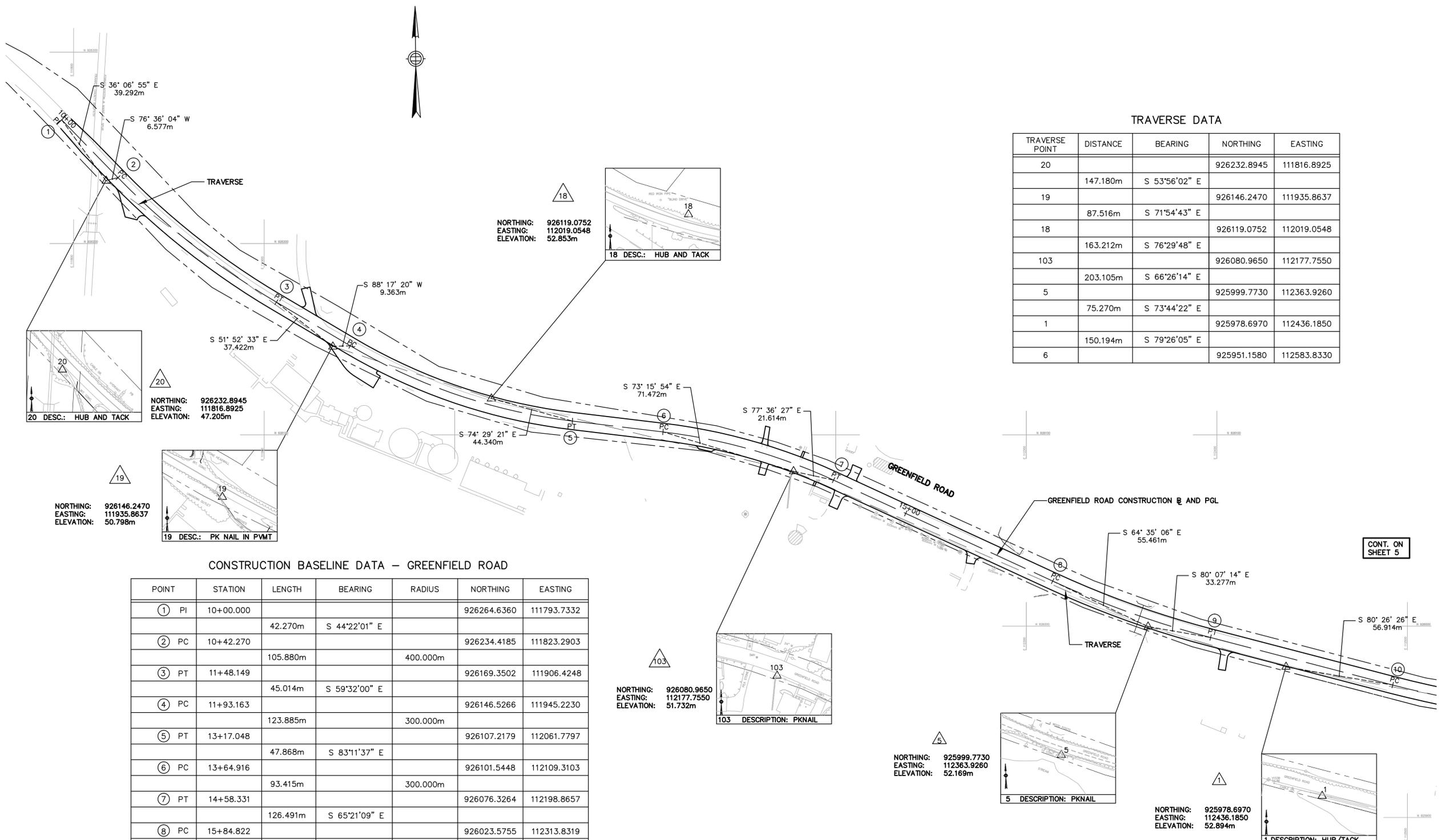
**MONTAGUE  
GREENFIELD ROAD**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	FED. AID	4	157
PROJECT FILE NO.		601657	

**SURVEY CONTROL PLAN**

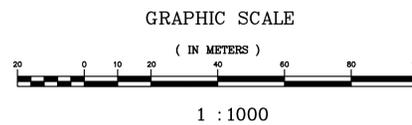
**TRAVERSE DATA**

TRAVERSE POINT	DISTANCE	BEARING	NORTHING	EASTING
20			926232.8945	111816.8925
	147.180m	S 53°56'02" E		
19			926146.2470	111935.8637
	87.516m	S 71°54'43" E		
18			926119.0752	112019.0548
	163.212m	S 76°29'48" E		
103			926080.9650	112177.7550
	203.105m	S 66°26'14" E		
5			925999.7730	112363.9260
	75.270m	S 73°44'22" E		
1			925978.6970	112436.1850
	150.194m	S 79°26'05" E		
6			925951.1580	112583.8330



**CONSTRUCTION BASELINE DATA – GREENFIELD ROAD**

POINT	STATION	LENGTH	BEARING	RADIUS	NORTHING	EASTING
① PI	10+00.000				926264.6360	111793.7332
② PC	10+42.270	42.270m	S 44°22'01" E		926234.4185	111823.2903
③ PT	11+48.149	105.880m		400.000m	926169.3502	111906.4248
④ PC	11+93.163	45.014m	S 59°32'00" E		926146.5266	111945.2230
⑤ PT	13+17.048	123.885m		300.000m	926107.2179	112061.7797
⑥ PC	13+64.916	47.868m	S 83°11'37" E		926101.5448	112109.3103
⑦ PT	14+58.331	93.415m		300.000m	926076.3264	112198.8657
⑧ PC	15+84.822	126.491m	S 65°21'09" E		926023.5755	112313.8319
⑨ PT	16+72.911	88.089m		500.000m	925994.0635	112396.7098
⑩ PC	17+71.679	98.768m	S 75°26'49" E		925969.2453	112492.3084
⑪ PT	18+54.004	82.325m		500.000m	925955.1973	112573.3316



IN CHARGE OF: \_\_\_\_\_  
 DRAWN BY: \_\_\_\_\_  
 CHECKED BY: \_\_\_\_\_

CONT. ON SHEET 5



**MONTAGUE  
GREENFIELD ROAD**

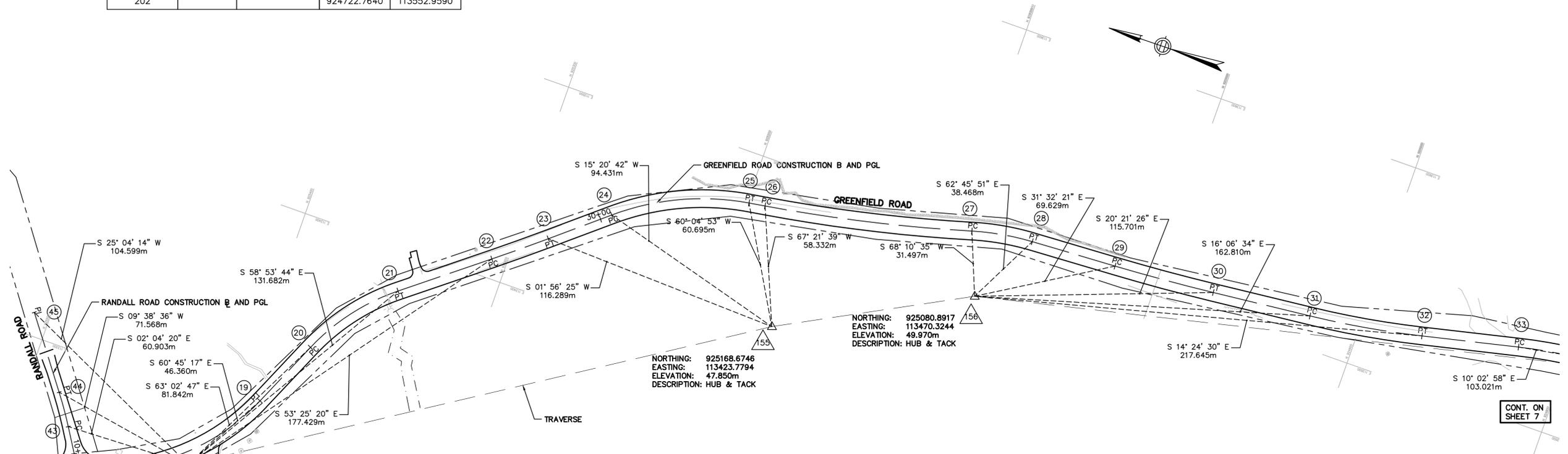
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	FED. AID	6	157
PROJECT FILE NO. 601657			

**SURVEY CONTROL PLAN**

**TRAVERSE DATA**

TRAVERSE POINT	DISTANCE	BEARING	NORTHING	EASTING
8			925413.1740	113266.9180
	290.492m	S 32°40'58" E		
155			925168.6746	113423.7794
	99.359m	S 27°56'02" E		
156			925080.8917	113470.3244
	367.538m	S 12°59'35" E		
202			924722.7640	113552.9590

CONT. ON SHEET 5



CONT. ON SHEET 7

**CONSTRUCTION BASELINE DATA – GREENFIELD ROAD**

POINT	STATION	LENGTH	BEARING	RADIUS	NORTHING	EASTING
17 PT	26+78.242				925493.1854	113231.9127
		54.490m	S 24°10'28" E			
18 PC	27+32.732			105.000m	925443.4736	113254.2272
		76.712m				
19 PT	28+09.444				925390.5248	113307.3690
		35.567m	S 66°02'03" E			
20 PC	28+45.011			105.000m	925376.0779	113339.8694
		50.902m				
21 PT	28+95.913				925345.1471	113379.6681
		48.019m	S 38°15'30" E			
22 PC	29+43.932				925307.4415	113409.4016
		29.047m		1000.000m		
23 PT	29+72.979				925284.8974	113427.7166
		32.804m	S 39°55'22" E			
24 PC	30+05.783				925259.7393	113448.7689
		67.591m		125.000m		
25 PT	30+73.374				925198.9475	113476.3861

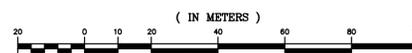
**CONSTRUCTION BASELINE DATA – GREENFIELD ROAD**

POINT	STATION	LENGTH	BEARING	RADIUS	NORTHING	EASTING
25 PT	30+73.374				925198.9475	113476.3861
		7.916m	S 08°56'28" E			
26 PC	30+81.290			800.000m	925191.1279	113477.6163
		101.009m				
27 PRC	31+82.299			130.000m	925092.6008	113499.5643
		29.796m				
28 PT	32+12.096				925063.2867	113504.5272
		41.798m	S 03°02'35" E			
29 PC	32+53.893				925021.5478	113506.7460
		49.285m		1000.000m		
30 PT	33+03.178				924972.4167	113510.5738
		48.195m	S 05°52'00" E			
31 PC	33+51.373				924924.4746	113515.5000
		55.153m		450.000m		
32 PT	34+06.526				924870.0926	113524.4813
		47.074m	S 12°53'21" E			
33 PC	34+53.600				924824.2046	113534.9819

**CONSTRUCTION BASELINE DATA – RANDALL ROAD**

POINT	STATION	LENGTH	BEARING	RADIUS	NORTHING	EASTING
42 PI	10+00.000				925462.2693	113245.7903
		22.286m	N 58°07'34" E			
43 PC	10+22.286				925474.0373	113264.7157
		17.191m		200.000m		
44 PT	10+39.477				925483.7309	113278.9067
		40.379m	N 53°12'05" E			
45 PI	10+79.856				925507.9181	113311.2399

**GRAPHIC SCALE**



1 : 1000

IN CHARGE OF: \_\_\_\_\_  
DRAWN BY: \_\_\_\_\_  
CHECKED BY: \_\_\_\_\_

**MONTAGUE  
GREENFIELD ROAD**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	FED. AID	7	157
PROJECT FILE NO.		601657	

**SURVEY CONTROL PLAN**

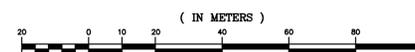
**TRAVERSE DATA**

TRAVERSE POINT	DISTANCE	BEARING	NORTHING	EASTING
202			924722.7640	113552.9590
	169.923m	S 15°13'36" E		
9			924558.8060	113597.5870
	205.017m	S 21°42'27" E		
21			924368.3279	113673.4162
	128.731m	S 25°05'07" E		
204			924251.7390	113727.9940
	192.110m	S 18°55'31" E		
10			924070.0140	113790.3020
	101.692m	S 07°28'02" E		
205			923969.1840	113777.0860

**CONSTRUCTION BASELINE DATA – GREENFIELD ROAD**

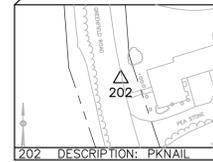
POINT	STATION	LENGTH	BEARING	RADIUS	NORTHING	EASTING
33	PC	34+53.600			924824.2046	113534.9819
		28.521m		250.000m		
34	PT	34+82.121			924796.1000	113539.7459
		48.710m	S 06°21'09" E			
35	PC	35+30.831			924747.6893	113545.1354
		54.885m		250.000m		
36	PT	35+85.716			924694.2425	113557.1233
		131.355m	S 18°55'53" E			
37	PC	37+17.071			924569.9926	113599.7392
		177.260m		3000.000m		
38	PT	38+94.331			924404.1172	113662.1668
		270.274m	S 22°19'00" E			
39	PC	41+64.605			924154.0867	113764.7967
		103.290m		250.00m		
40	PT	42+67.895			924053.2409	113783.4518
		38.353m	S 01°21'20" W			
41	PI	43+06.248			924014.8985	113782.5445

**GRAPHIC SCALE**

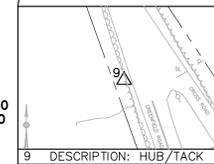


1 : 1000

CONT. ON SHEET 6



NORTHING: 924722.7640  
EASTING: 113552.9590  
ELEVATION: 68.372m



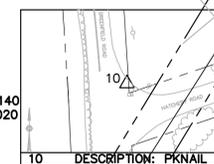
NORTHING: 924558.8060  
EASTING: 113597.5870  
ELEVATION: 69.246m



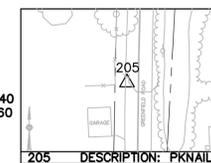
NORTHING: 924368.3279  
EASTING: 113673.4162  
ELEVATION: 68.052m



NORTHING: 924251.7390  
EASTING: 113727.9940  
ELEVATION: 67.292m



NORTHING: 924070.0140  
EASTING: 113790.3020  
ELEVATION: 65.427m



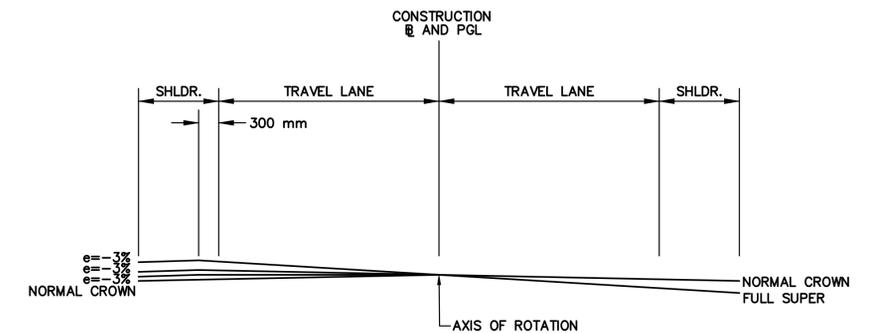
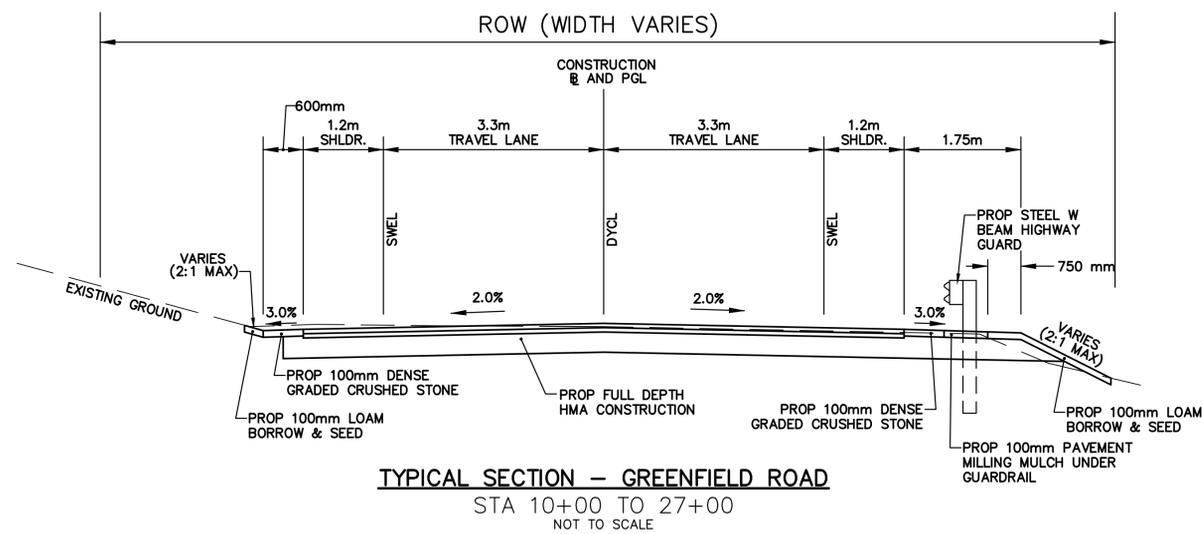
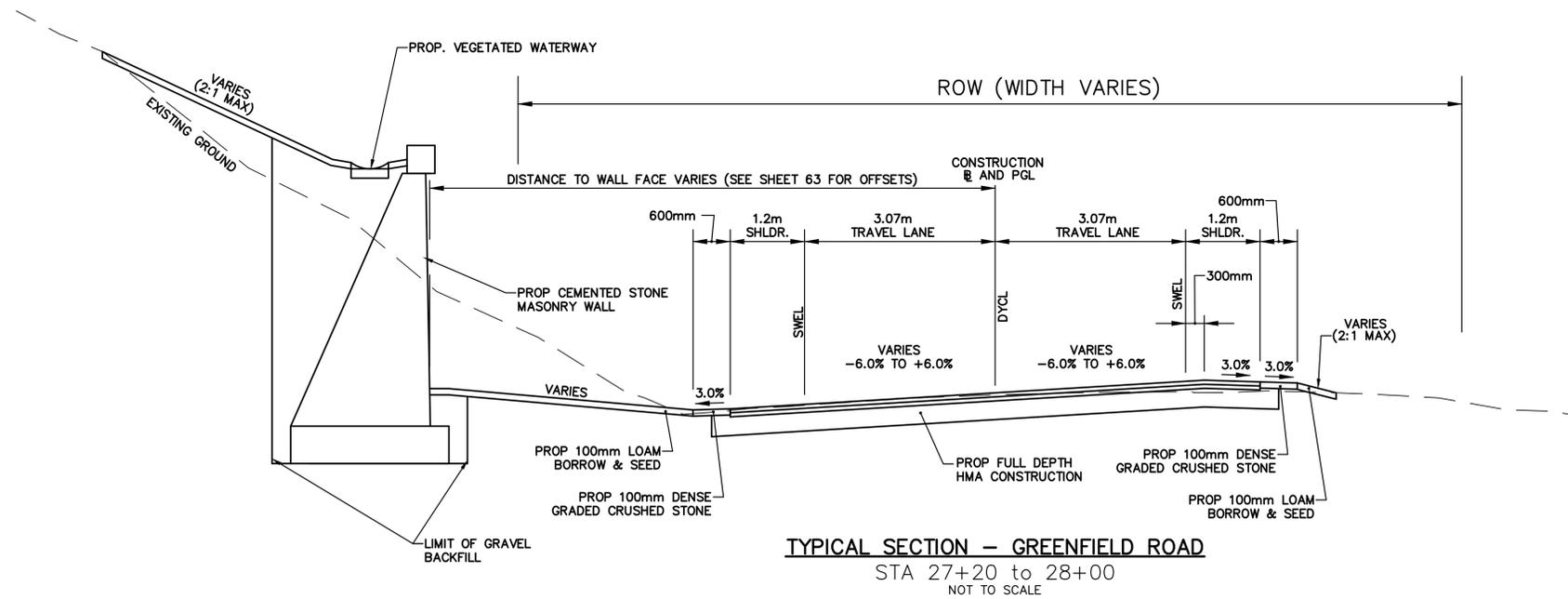
NORTHING: 923969.1840  
EASTING: 113777.0860  
ELEVATION: 63.702m

IN CHARGE OF: MDE  
DRAWN BY: RJD  
CHECKED BY: MDE

**MONTAGUE  
GREENFIELD ROAD**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	FED. AID	8	157
PROJECT FILE NO.		601657	

**TYPICAL SECTIONS**



PAVEMENT NOTES

FULL DEPTH HMA CONSTRUCTION

- SURFACE COURSE: 50mm SUPERPAVE SURFACE COURSE 12.5 (SSC-12.5)
- INTERMEDIATE COURSE: 65mm SUPERPAVE INTERMEDIATE COURSE 19.0 (SIC-19.0)
- SUBBASE: RECLAIMED ASPHALT PAVEMENT BORROW (LIQUID ASPHALT STABILIZED)  
RECLAIM TO A DEPTH OF 300mm

PAVEMENT OVERLAY

- SURFACE MILLING: MICRO-MILL TO A DEPTH OF 50mm
- SURFACE COURSE: 50mm SUPERPAVE SURFACE COURSE 12.5 (SSC-12.5)
- TACK COAT: ASPHALT EMULSION FOR TACK COAT AT 0.28 L/SM OVER PAVEMENT AFTER MILLING AT 0.20 LTR/SM BETWEEN NEW PAVEMENT LAYERS.

HOT MIX ASPHALT DRIVEWAY

- SURFACE COURSE: 90mm HOT MIX ASPHALT PLACED IN TWO LAYERS:  
40mm SURFACE COURSE OVER 50mm BINDER COURSE MATERIAL
- SUBBASE: 200mm GRAVEL BASE COURSE (M1.03.0 - TYPE B)

CEMENT CONCRETE WALK

- SURFACE COURSE: 100mm CEMENT CONCRETE (AIR ENTRAINED 30 MPA, 20 mm, 390 KG)
- SUBBASE: 200mm GRAVEL BASE COURSE (M1.03.0 - TYPE B)

HOT MIX ASPHALT WALK

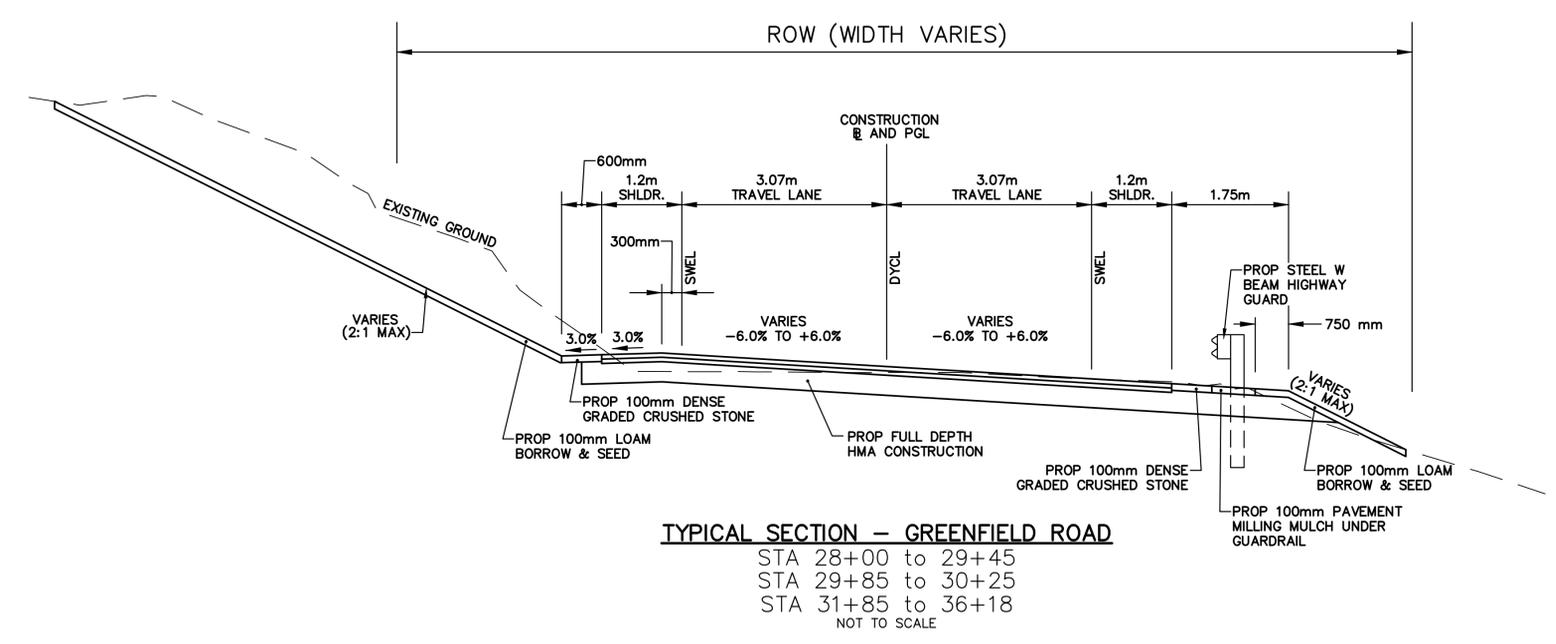
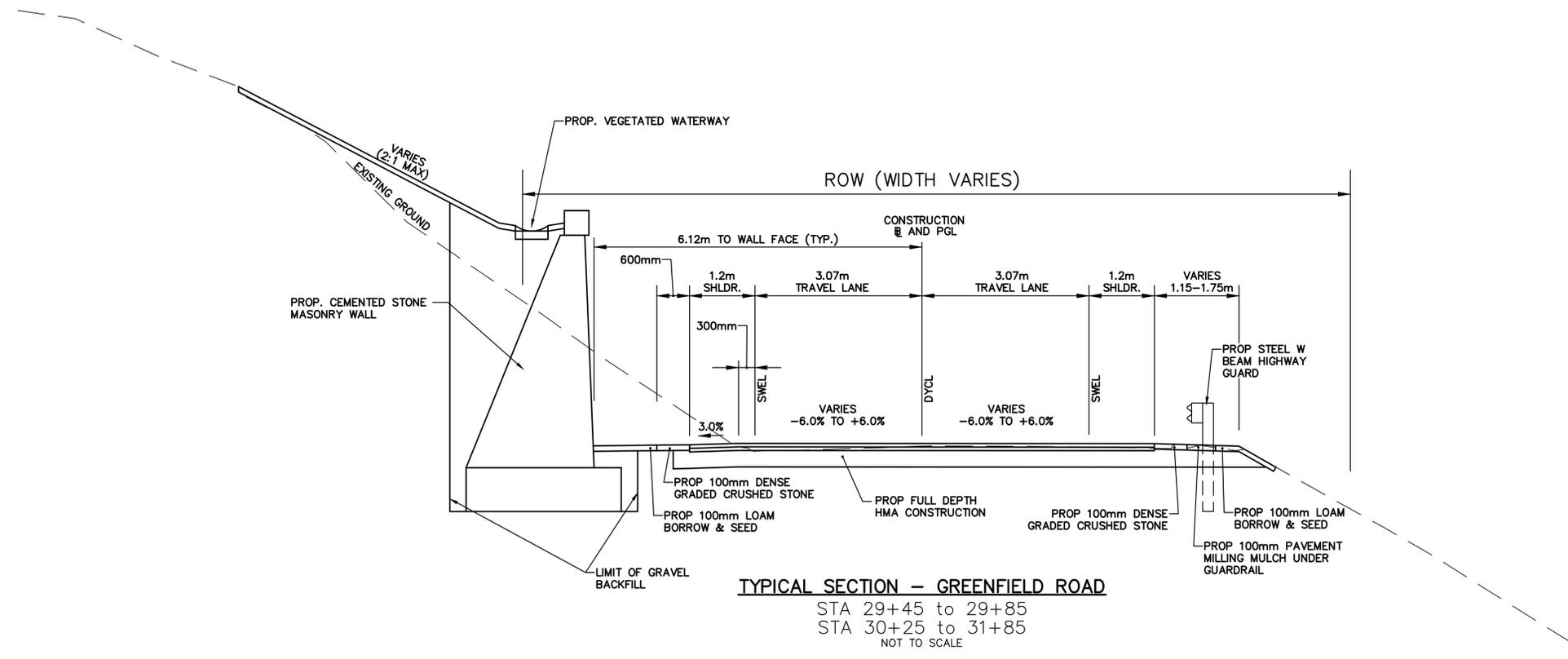
- SURFACE COURSE: 60mm HOT MIX ASPHALT PLACED IN TWO LAYERS:  
30mm TOP COURSE OVER 30mm BOTTOM COURSE
- SUBBASE: 200mm GRAVEL BASE COURSE (M1.03.0 - TYPE B)

IN CHARGE OF \_\_\_\_\_  
DRAWN BY \_\_\_\_\_  
CHECKED BY \_\_\_\_\_

**MONTAGUE  
GREENFIELD ROAD**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	FED. AID	9	157
PROJECT FILE NO.		601657	

**TYPICAL SECTIONS**

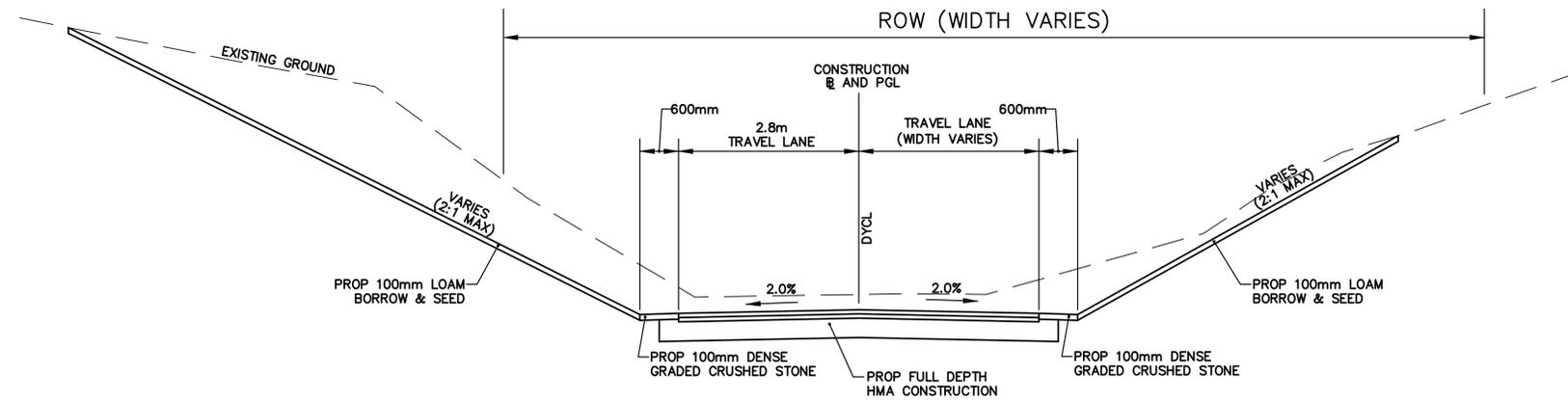


IN CHARGE OF \_\_\_\_\_  
 DRAWN BY \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_

**MONTAGUE  
GREENFIELD ROAD**

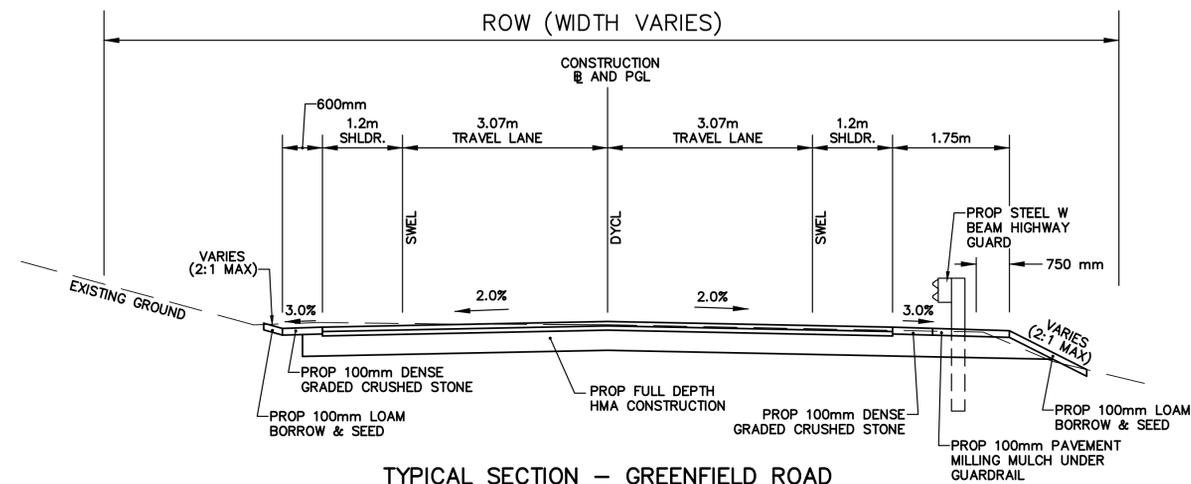
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	FED. AID	10	157
PROJECT FILE NO.		601657	

**TYPICAL SECTIONS**



**TYPICAL SECTION - RANDALL ROAD**

STA 10+20 TO 10+60  
NOT TO SCALE



**TYPICAL SECTION - GREENFIELD ROAD**

STA 36+18 TO 42+46  
NOT TO SCALE

IN CHARGE OF \_\_\_\_\_  
DRAWN BY \_\_\_\_\_  
CHECKED BY \_\_\_\_\_

**MONTAGUE  
GREENFIELD ROAD**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	FED. AID	11	157
PROJECT FILE NO. 601657			

**CONSTRUCTION PLAN  
& PROFILE**

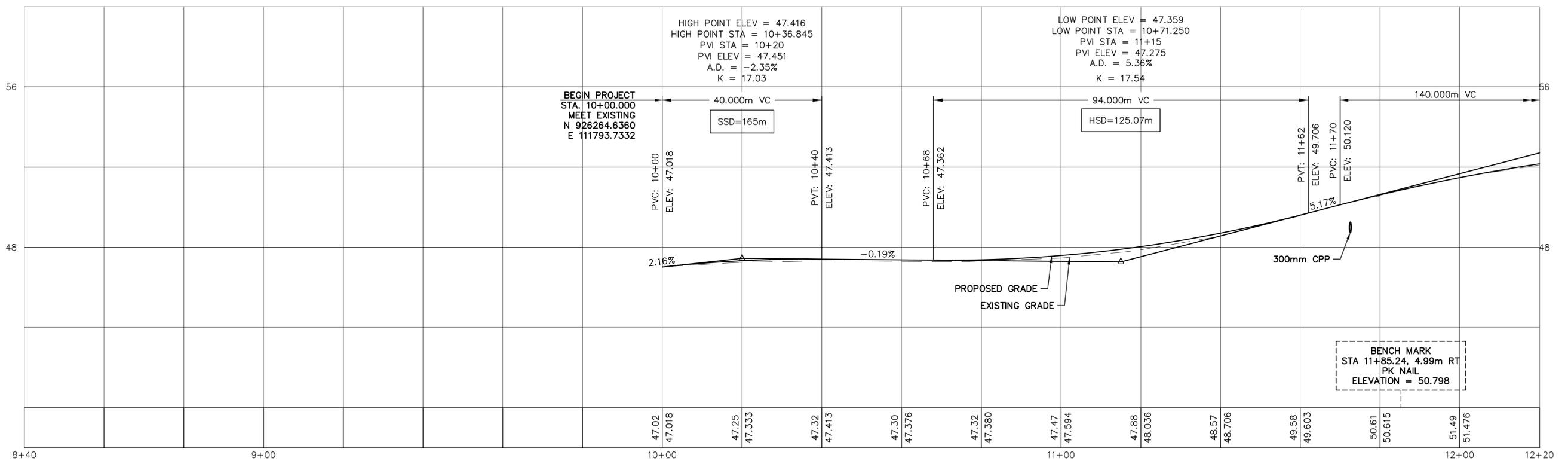
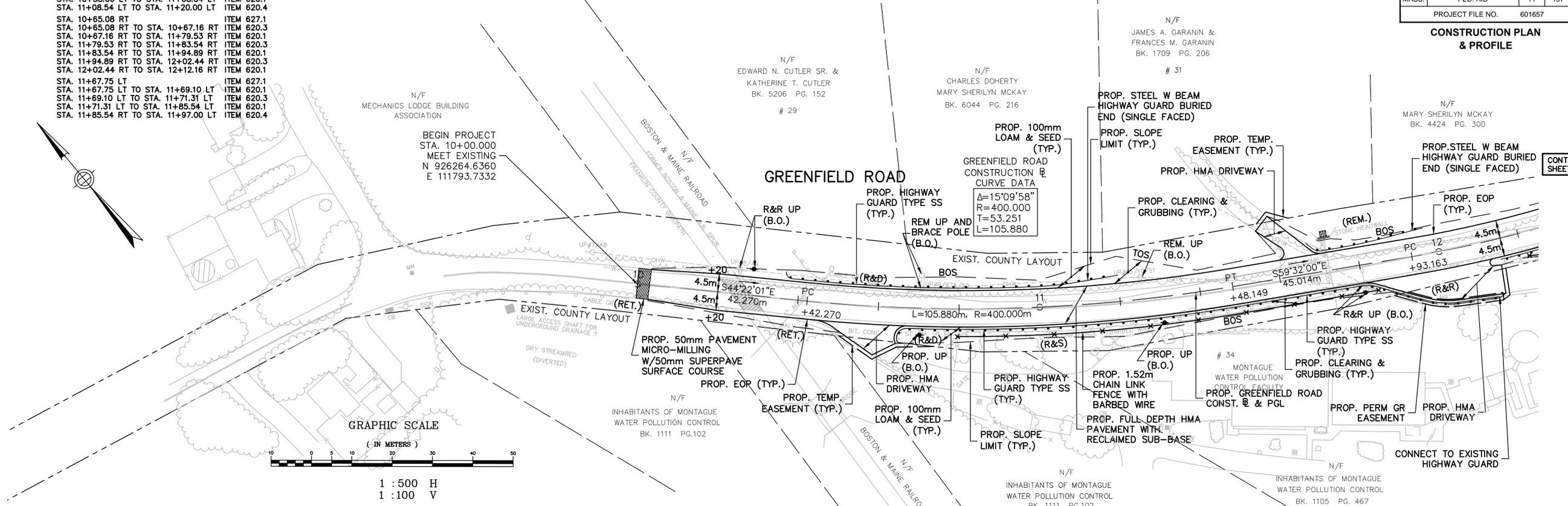
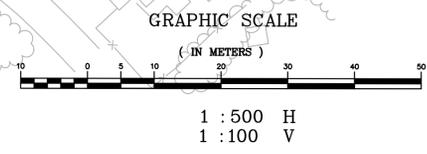
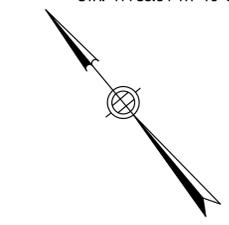
**HIGHWAY GUARD DETAILS**

STA. 10+36.48 LT	ITEM 627.1
STA. 10+36.48 LT TO STA. 10+38.00 LT	ITEM 620.3
STA. 10+38.00 LT TO STA. 11+08.54 LT	ITEM 620.1
STA. 11+08.54 LT TO STA. 11+20.00 LT	ITEM 620.4
STA. 10+65.08 RT	ITEM 627.1
STA. 10+65.08 RT TO STA. 10+67.16 RT	ITEM 620.3
STA. 10+67.16 RT TO STA. 11+79.53 RT	ITEM 620.1
STA. 11+79.53 RT TO STA. 11+83.54 RT	ITEM 620.3
STA. 11+83.54 RT TO STA. 11+94.89 RT	ITEM 620.1
STA. 11+94.89 RT TO STA. 12+02.44 RT	ITEM 620.3
STA. 12+02.44 RT TO STA. 12+12.16 RT	ITEM 620.1
STA. 11+67.75 LT	ITEM 627.1
STA. 11+67.75 LT TO STA. 11+69.10 LT	ITEM 620.1
STA. 11+69.10 LT TO STA. 11+71.31 LT	ITEM 620.3
STA. 11+71.31 LT TO STA. 11+85.54 LT	ITEM 620.1
STA. 11+85.54 RT TO STA. 11+97.00 LT	ITEM 620.4

**TRAFFIC SIGNAL CONDUIT**  
NONE

**WATER SUPPLY ALTERATIONS**  
SEE SHEET 31

**DRAINAGE DETAILS**  
SEE SHEET 31

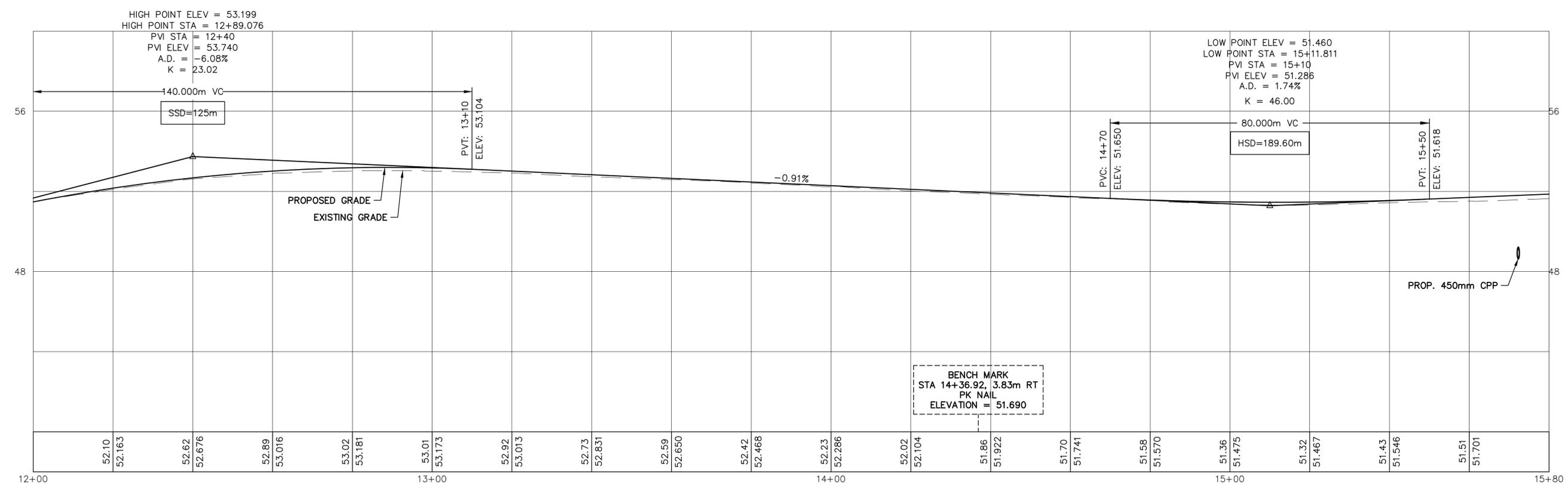
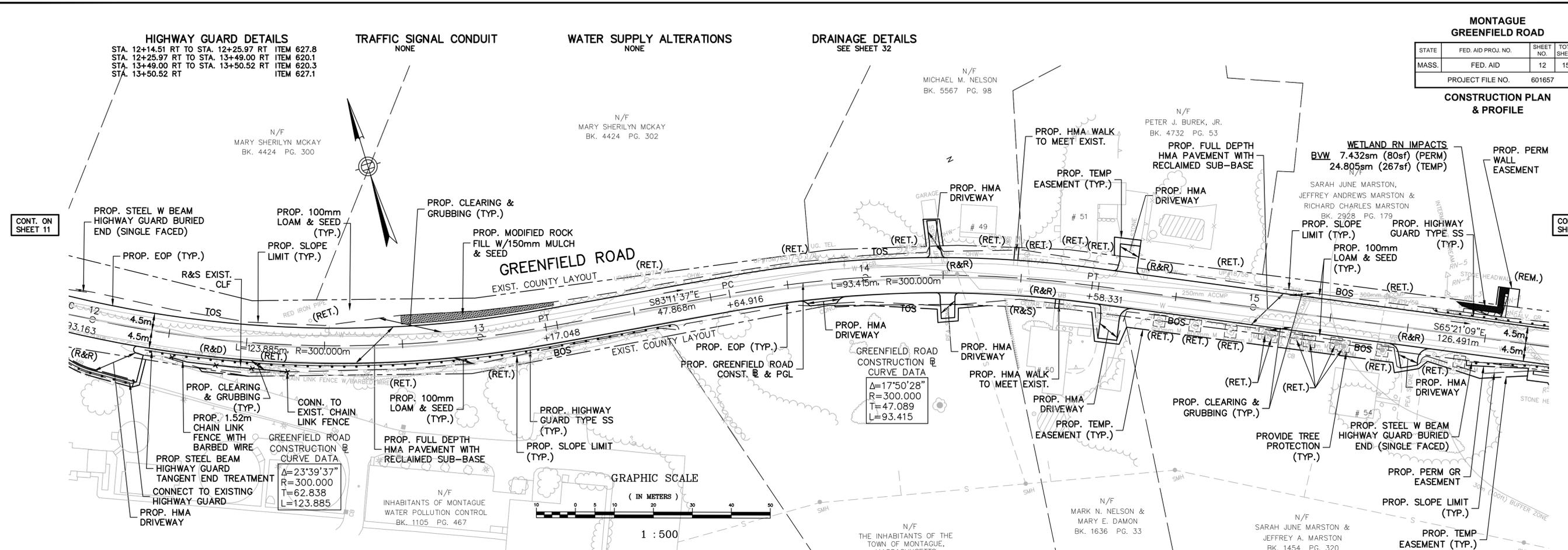


IN CHARGE OF \_\_\_\_\_  
DRAWN BY \_\_\_\_\_  
CHECKED BY \_\_\_\_\_

**MONTAGUE  
GREENFIELD ROAD**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	FED. AID	12	157
PROJECT FILE NO. 601657			

**CONSTRUCTION PLAN  
& PROFILE**



IN CHARGE OF: MDE  
 DRAWN BY: RJD  
 CHECKED BY: MDE

**MONTAGUE  
GREENFIELD ROAD**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	FED. AID	13	157
PROJECT FILE NO. 601657			

**CONSTRUCTION PLAN  
& PROFILE**

**HIGHWAY GUARD DETAILS**

STA. 15+45.89 LT	ITEM 627.1
STA. 15+45.89 LT TO STA. 15+47.00 LT	ITEM 620.3
STA. 15+47.00 LT TO STA. 15+81.56 LT	ITEM 620.1
STA. 15+81.56 LT TO STA. 15+93.02 LT	ITEM 620.4
STA. 15+93.02 LT TO STA. 15+68.46 RT	ITEM 620.4
STA. 15+68.46 RT TO STA. 16+76.91 RT	ITEM 620.1
STA. 16+76.91 RT TO STA. 16+78.45 RT	ITEM 620.3
STA. 16+78.45 RT	ITEM 627.1
STA. 16+22.90 LT	ITEM 627.1
STA. 16+22.90 LT TO STA. 16+24.44 LT	ITEM 620.3
STA. 16+24.44 LT TO STA. 16+48.54 LT	ITEM 620.1
STA. 16+48.54 LT TO STA. 16+60.00 LT	ITEM 627.8
STA. 17+00.00 RT TO STA. 17+11.46 RT	ITEM 620.4
STA. 17+11.46 RT TO STA. 18+15.00 RT	ITEM 620.1
STA. 18+15.00 RT TO STA. 18+16.50 RT	ITEM 620.3
STA. 18+16.50 RT	ITEM 627.1

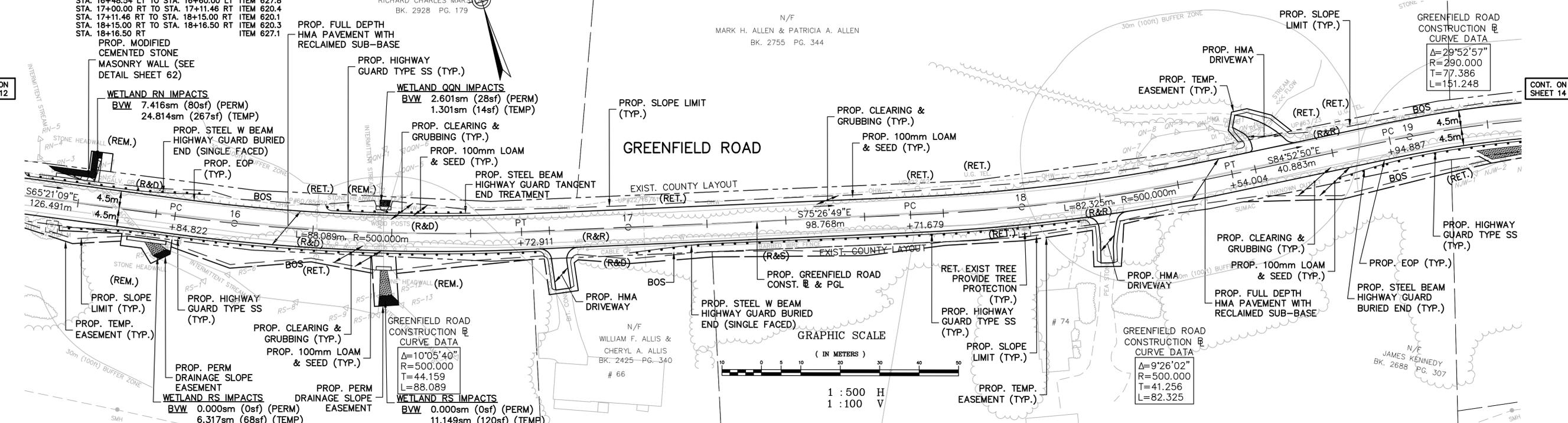
**TRAFFIC SIGNAL CONDUIT**  
NONE

N/F  
SARAH JUNE MARSTON,  
JEFFREY ANDREWS MARSTON,  
RICHARD CHARLES MARSTON  
BK. 2928 PG. 179

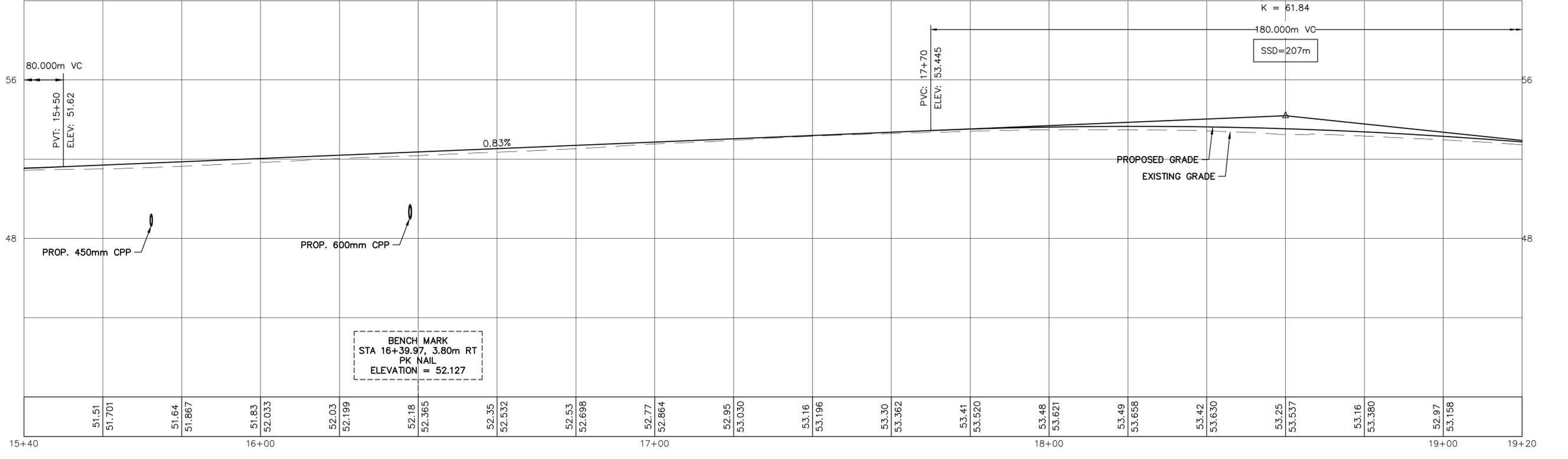
**WATER SUPPLY ALTERATIONS**  
NONE

**DRAINAGE DETAILS**  
SEE SHEET 33

N/F  
MARK H. ALLEN & PATRICIA A. ALLEN  
BK. 2755 PG. 344



HIGH POINT ELEV = 53.658  
HIGH POINT STA = 18+21.343  
PVI STA = 18+60  
PVI ELEV = 54.192  
A.D. = -2.91%  
K = 61.84

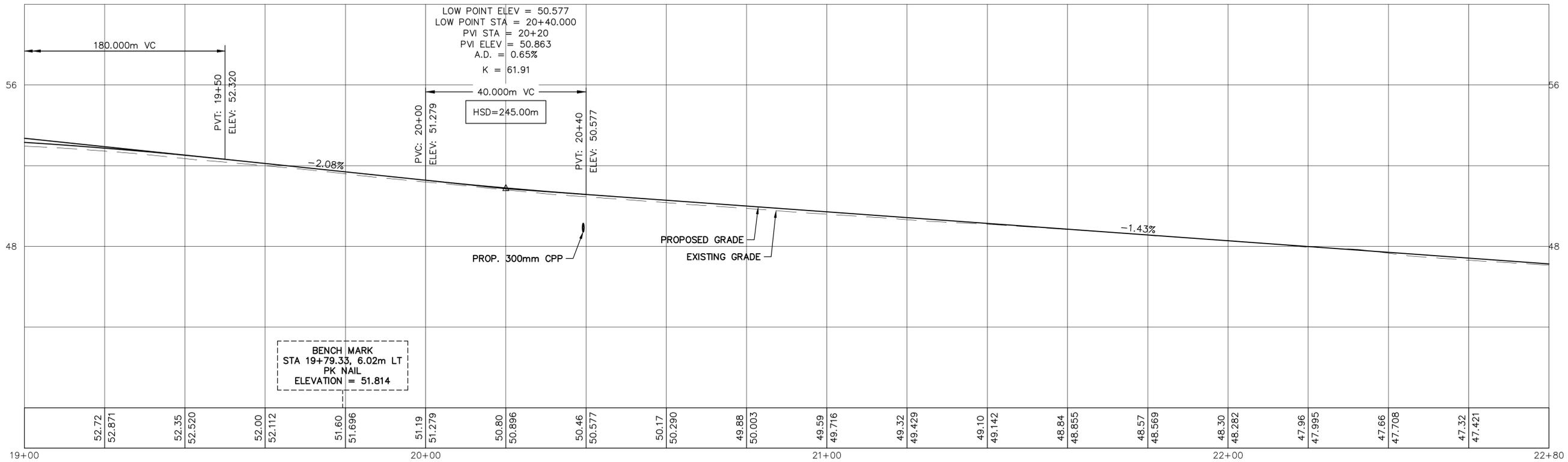
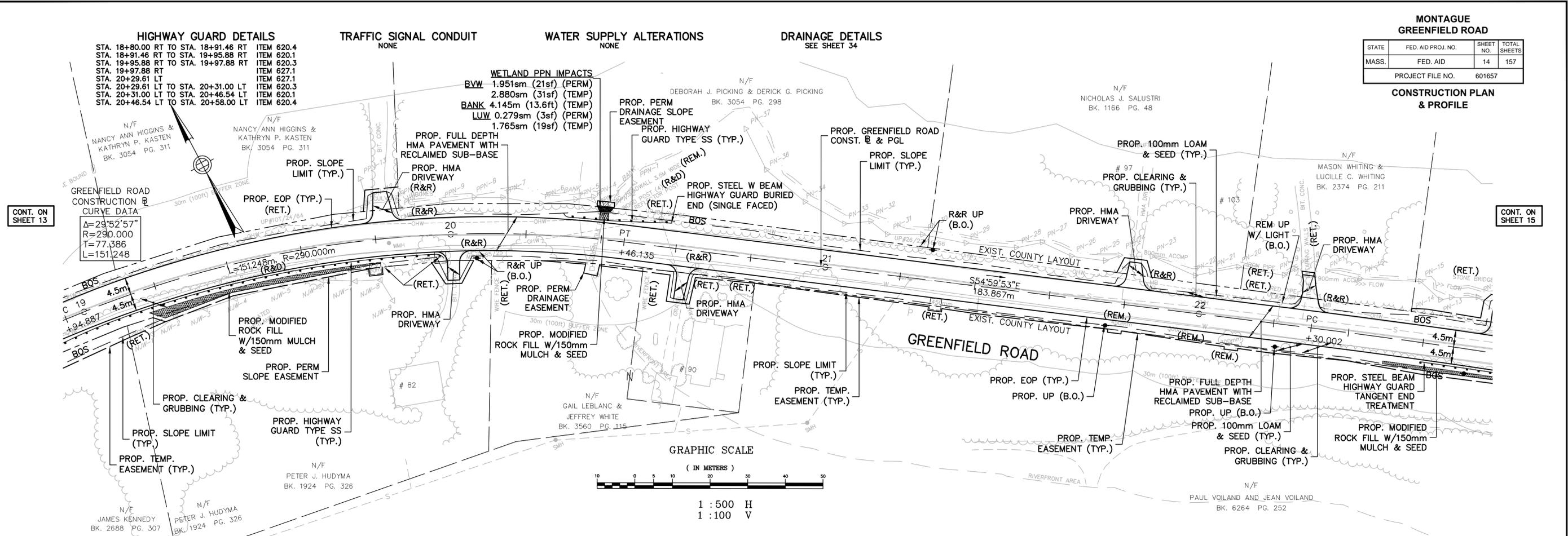


IN CHARGE OF \_\_\_\_\_  
DRAWN BY \_\_\_\_\_  
CHECKED BY \_\_\_\_\_

**MONTAGUE  
GREENFIELD ROAD**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	FED. AID	14	157
PROJECT FILE NO. 601657			

**CONSTRUCTION PLAN  
& PROFILE**

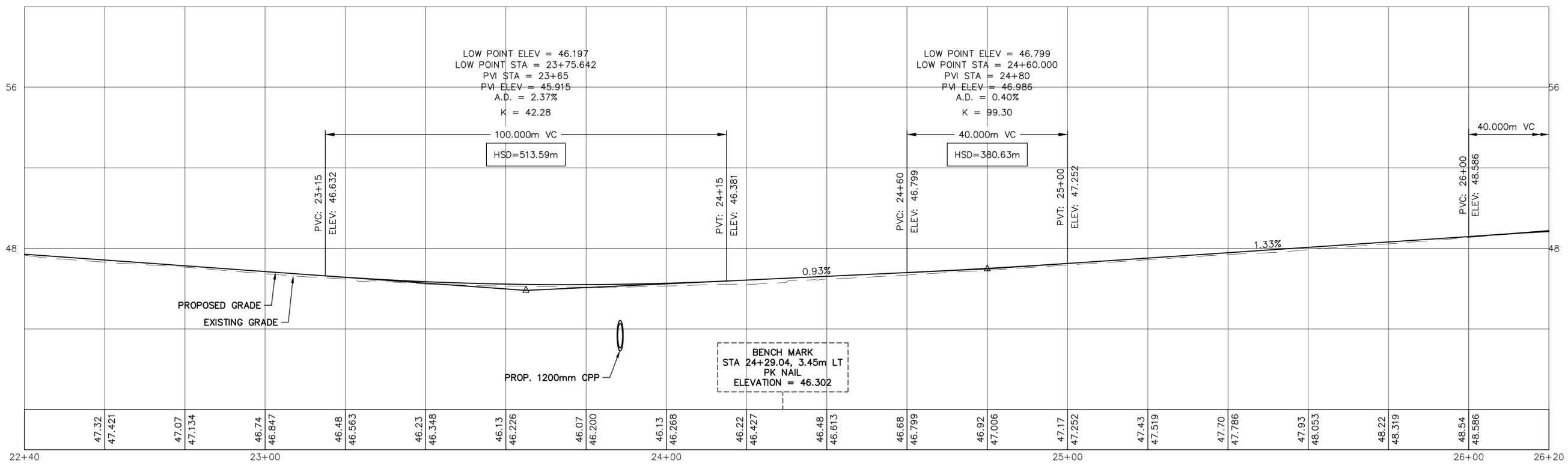
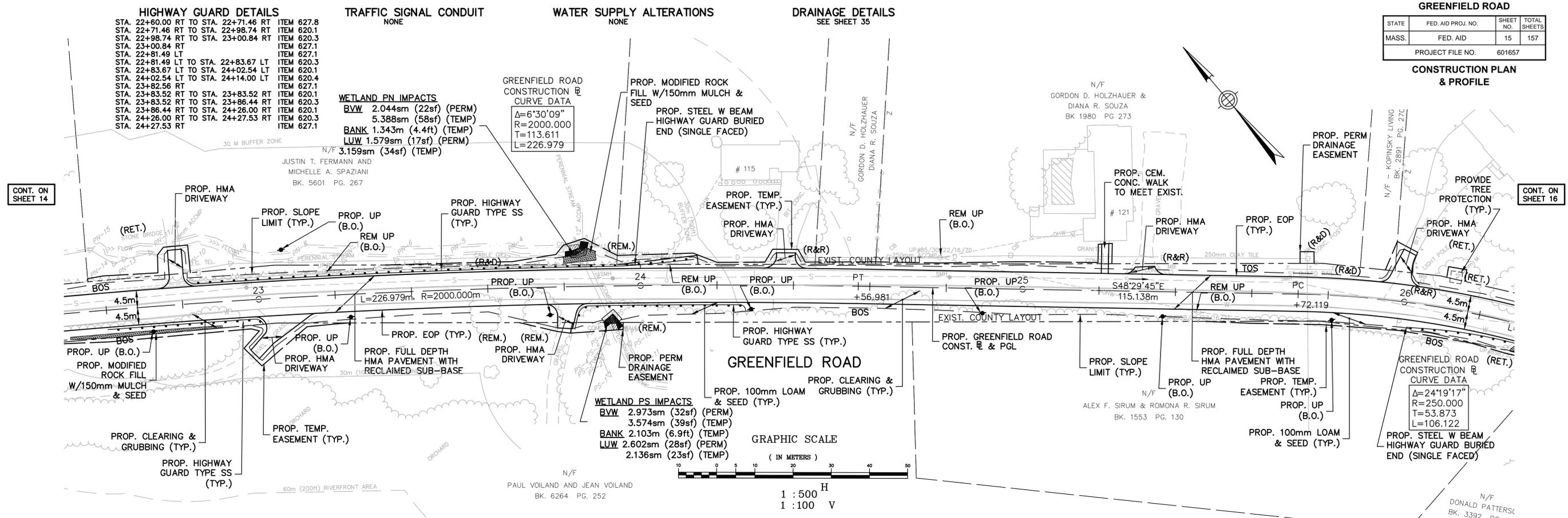


IN CHARGE OF \_\_\_\_\_  
 DRAWN BY \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_

**MONTAGUE  
GREENFIELD ROAD**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	FED. AID	15	157
PROJECT FILE NO. 601657			

**CONSTRUCTION PLAN  
& PROFILE**



IN CHARGE OF \_\_\_\_\_  
 DRAWN BY \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_

**HIGHWAY GUARD DETAILS**

STA. 26+01.47 RT TO STA. 26+12.93 RT	ITEM 620.4
STA. 26+12.93 RT TO STA. 27+63.80 RT	ITEM 620.1
STA. 27+63.80 RT TO STA. 27+66.96 RT	ITEM 620.3
STA. 27+66.96 RT TO STA. 28+66.00 LT	ITEM 627.1
STA. 28+66.00 LT TO STA. 28+67.00 LT	ITEM 620.3
STA. 28+67.00 LT TO STA. 29+02.79 LT	ITEM 620.1
STA. 29+02.79 LT TO STA. 29+05.10 LT	ITEM 620.3
STA. 29+05.10 LT	ITEM 627.1

**TRAFFIC SIGNAL CONDUIT**

NONE

**WATER SUPPLY ALTERATIONS**

SEE SHEET 36

**DRAINAGE DETAILS**

SEE SHEET 36

**NOTES:**

1. POST SPACING FOR PROP. HIGHWAY GUARD BETWEEN STA. 26+30 RT AND 27+70 RT SHALL BE 953mm. POSTS SHALL BE 2.134m LONG. SEE SPECIAL PROVISIONS.
2. INSTALL TEMPORARY TREE PROTECTION FENCE AT LIMIT OF CLEARING & GRUBBING BETWEEN STA 27+25 LT AND STA 28+00 LT.

**MONTAGUE GREENFIELD ROAD**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	FED. AID	16	157

**CONSTRUCTION PLAN & PROFILE**

**GRAPHIC SCALE**

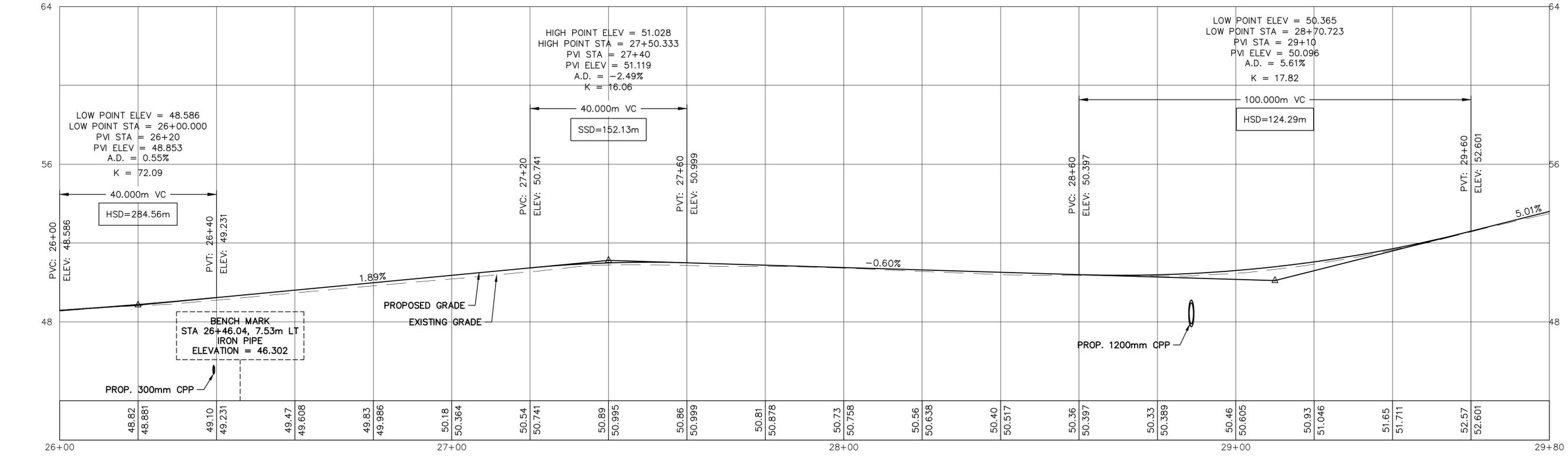
( IN METERS )

1 : 500 H

1 : 100 V

CONT. ON SHEET 15

CONT. ON SHEET 17



IN CHARGE OF: \_\_\_\_\_  
 DRAWN BY: \_\_\_\_\_  
 CHECKED BY: \_\_\_\_\_

**HIGHWAY GUARD DETAILS**  
 STA. 28+00.00 RT TO STA. 28+11.46 RT ITEM 620.4  
 STA. 28+11.46 RT TO STA. 35+11.40 RT ITEM 620.1  
 STA. 35+11.40 RT TO STA. 35+22.86 RT ITEM 620.4

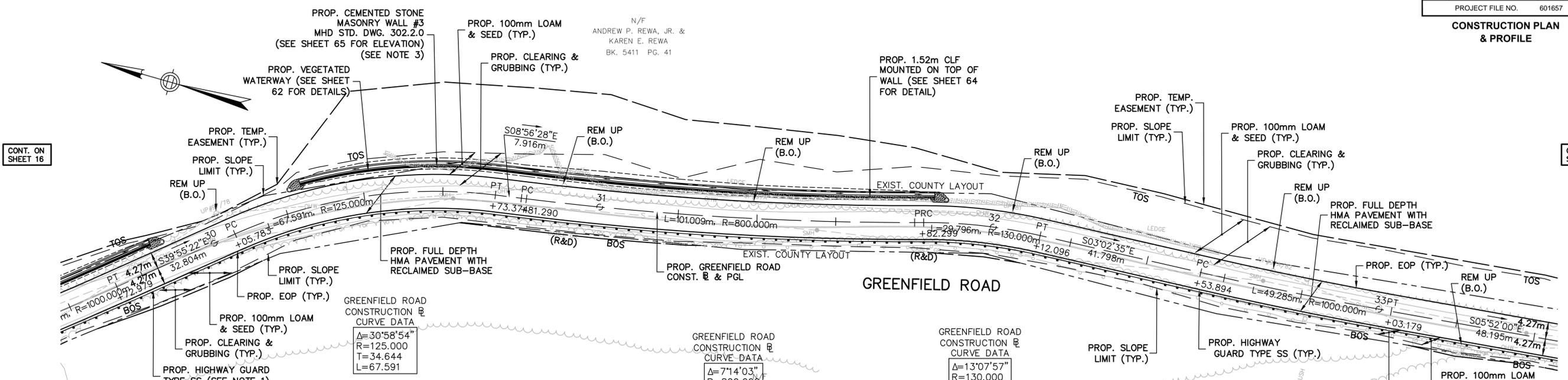
**TRAFFIC SIGNAL CONDUIT**  
 NONE

**WATER SUPPLY ALTERATIONS**  
 NONE

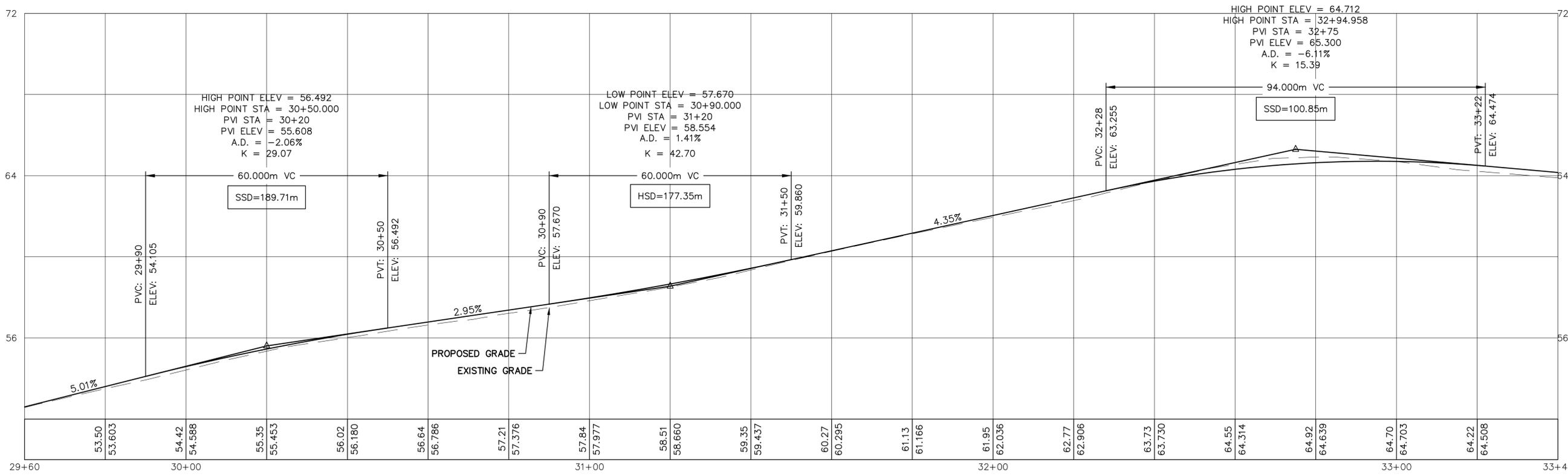
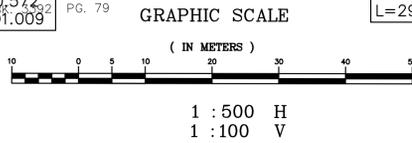
**DRAINAGE DETAILS**  
 SEE SHEET 37

MONTAGUE GREENFIELD ROAD			
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	FED. AID	17	157
PROJECT FILE NO. 601657			

**CONSTRUCTION PLAN & PROFILE**



- NOTES:**
- POST SPACING FOR PROP. HIGHWAY GUARD BETWEEN STA. 29+70 RT AND 29+90 RT, STA 30+50 RT AND 31+10 RT, AND STA. 33+10 RT AND 33+70 RT SHALL BE 953mm. POSTS SHALL BE 2.134m LONG. SEE SPECIAL PROVISIONS.
  - INSTALL TEMPORARY TREE PROTECTION FENCE AT LIMIT OF CLEARING & GRUBBING BETWEEN STA 29+40 LT AND STA 34+00 LT.
  - IF IT IS DETERMINED THAT THE EXISTING LEDGE IS STABLE, THE PROPOSED RETAINING WALL WILL BE REPLACED WITH THE STANDARD ROCK CUT SECTION AS DETAILED IN MASSDOT CONSTRUCTION STANDARD E 102.1.0. QUANTITIES WILL BE UPDATED ACCORDINGLY.



IN CHARGE OF: \_\_\_\_\_  
 DRAWN BY: \_\_\_\_\_  
 CHECKED BY: \_\_\_\_\_

**MONTAGUE  
GREENFIELD ROAD**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	FED. AID	18	157

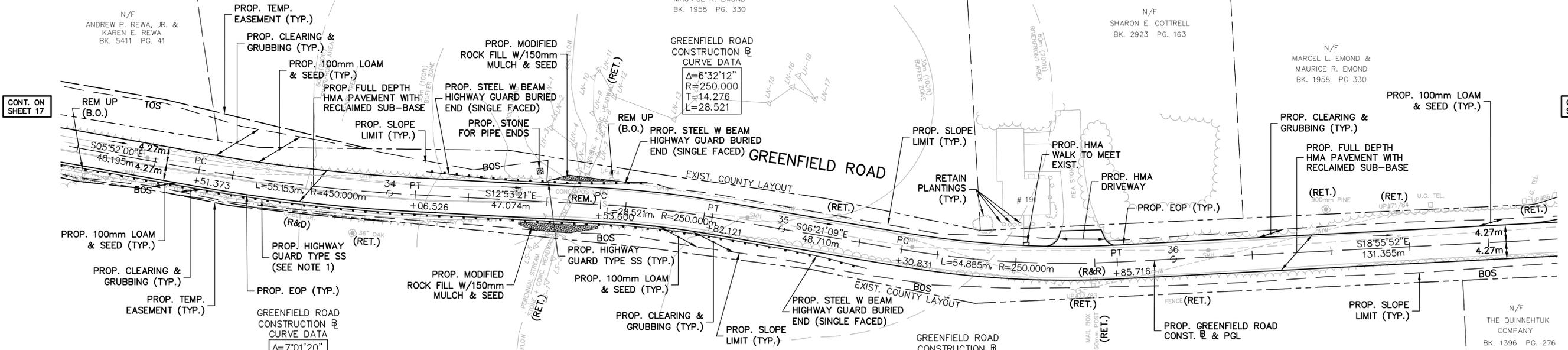
PROJECT FILE NO. 601657  
**CONSTRUCTION PLAN  
& PROFILE**

**HIGHWAY GUARD DETAILS**  
 STA. 28+00.00 RT TO STA. 28+11.46 RT ITEM 620.4  
 STA. 28+11.46 RT TO STA. 35+11.40 RT ITEM 620.1  
 STA. 35+11.40 RT TO STA. 35+22.86 RT ITEM 620.4  
 STA. 34+09.04 LT TO STA. 34+20.50 LT ITEM 620.4  
 STA. 34+20.50 LT TO STA. 34+54.79 LT ITEM 620.1  
 STA. 34+54.79 LT TO STA. 34+66.25 LT ITEM 620.4

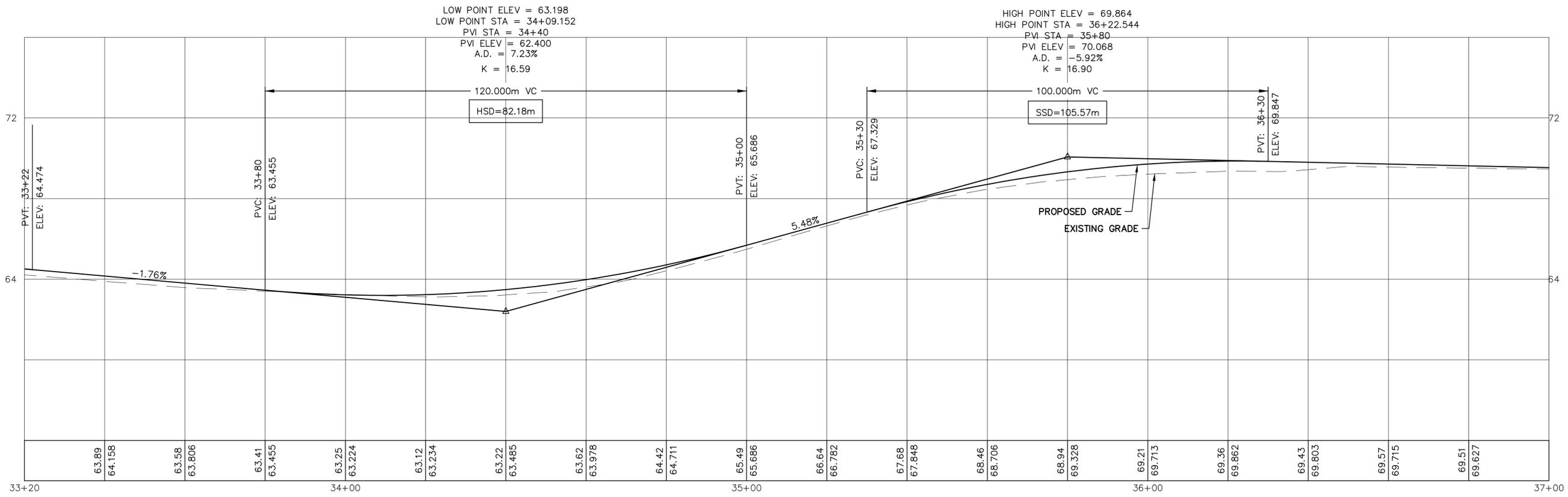
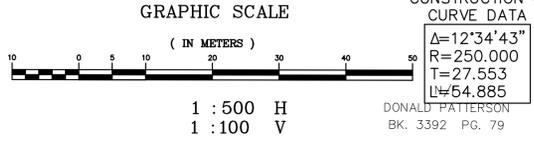
**TRAFFIC SIGNAL CONDUIT**  
NONE

**WATER SUPPLY ALTERATIONS**  
NONE

**DRAINAGE DETAILS**  
SEE SHEET 38



**NOTES:**  
 1. POST SPACING FOR PROP. HIGHWAY GUARD BETWEEN STA. 33+10 RT AND 33+50 RT AND STA. 34+30 RT AND 34+50 RT SHALL BE 953mm. POSTS SHALL BE 2.134m LONG. SEE SPECIAL PROVISIONS.



IN CHARGE OF \_\_\_\_\_  
 DRAWN BY \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_

**MONTAGUE  
GREENFIELD ROAD**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	FED. AID	19	157
PROJECT FILE NO. 601657			

**CONSTRUCTION PLAN  
& PROFILE**

**HIGHWAY GUARD DETAILS**

STA. 38+24.00 RT TO STA. 38+35.46 RT	ITEM 620.4
STA. 38+35.46 RT TO STA. 38+82.25 RT	ITEM 620.1
STA. 38+82.25 RT TO STA. 38+83.74 RT	ITEM 620.3
STA. 38+83.74 RT	ITEM 627.1
STA. 38+32.03 LT	ITEM 627.1
STA. 38+32.03 LT TO STA. 38+33.25 LT	ITEM 620.3
STA. 38+33.25 LT TO STA. 38+69.80 LT	ITEM 620.1
STA. 38+69.80 LT TO STA. 38+81.26 LT	ITEM 620.4

**TRAFFIC SIGNAL CONDUIT**  
NONE

**WATER SUPPLY ALTERATIONS**  
NONE

**DRAINAGE DETAILS**  
SEE SHEET 39

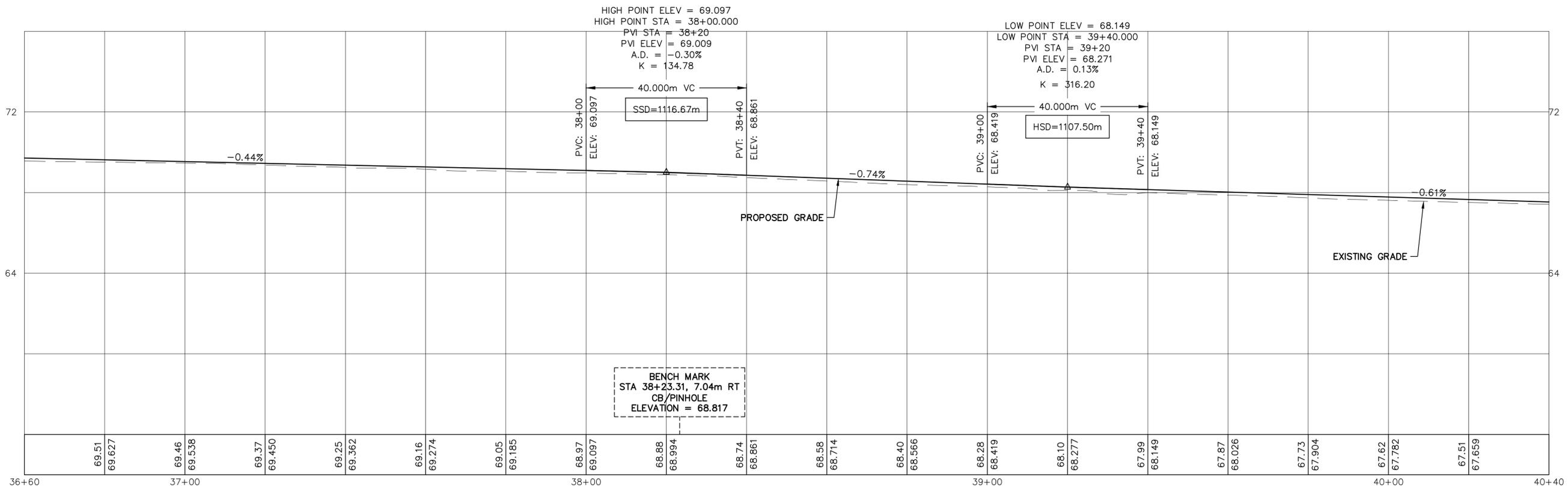
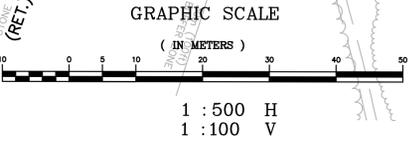
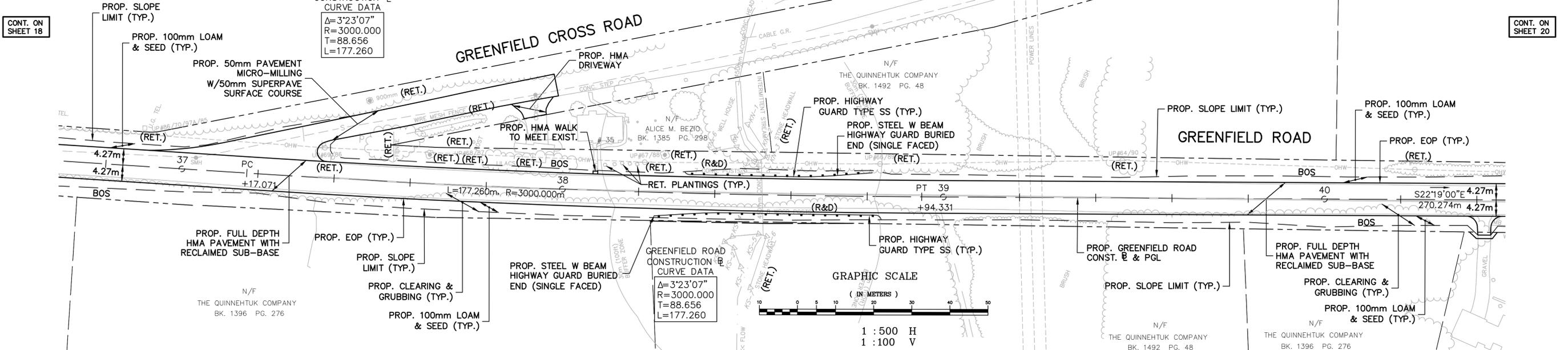
N/F  
MARCEL L. EMOND &  
MAURICE R. EMOND  
BK. 1958 PG. 330

**GREENFIELD ROAD  
CONSTRUCTION  
CURVE DATA**  
 $\Delta=3^{\circ}23'07''$   
 $R=3000.000$   
 $T=88.656$   
 $L=177.260$

**GREENFIELD ROAD  
CONSTRUCTION  
CURVE DATA**  
 $\Delta=3^{\circ}23'07''$   
 $R=3000.000$   
 $T=88.656$   
 $L=177.260$

CONT. ON  
SHEET 18

CONT. ON  
SHEET 20

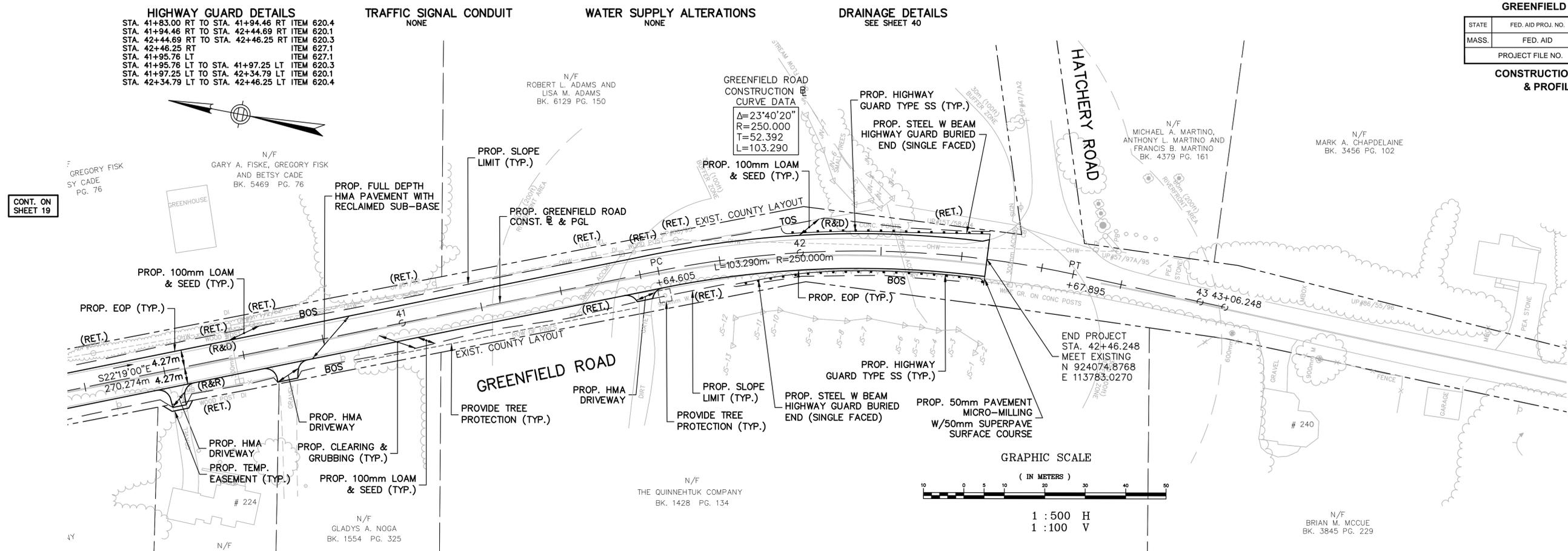


IN CHARGE OF  
DRAWN BY  
CHECKED BY

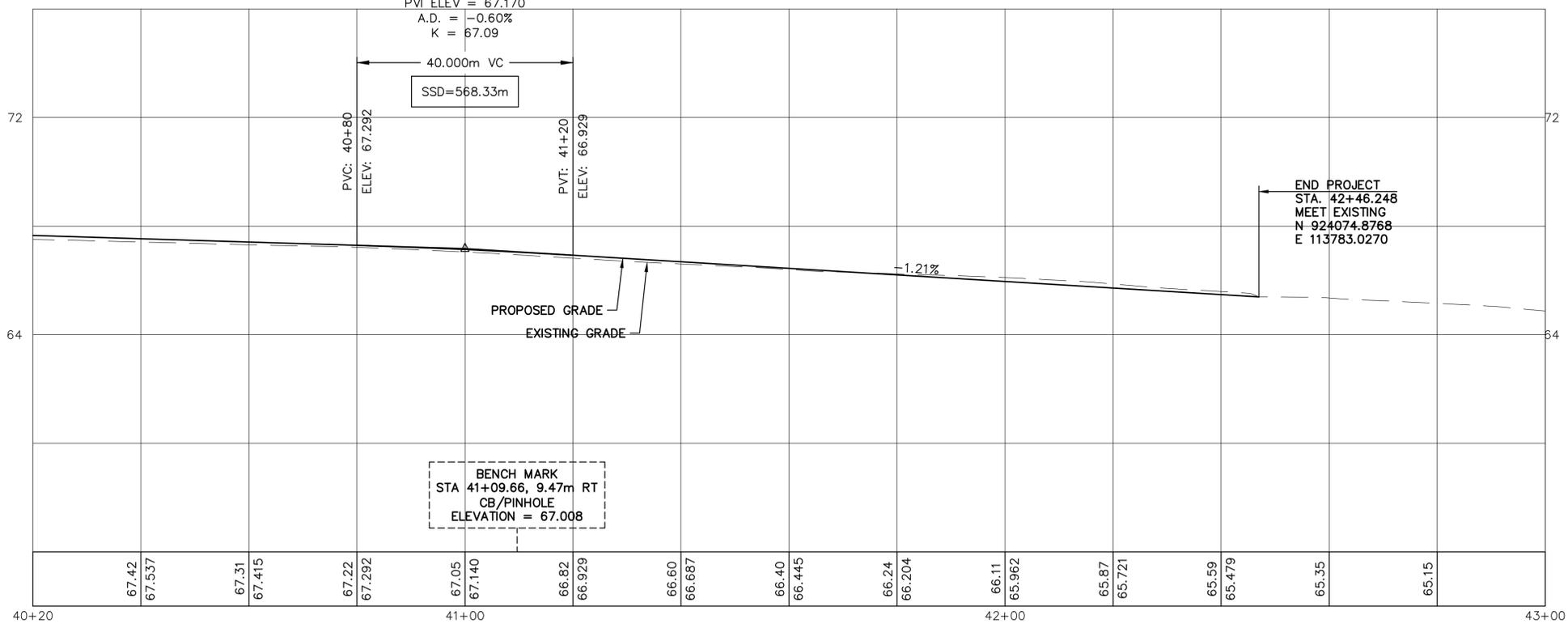
**MONTAGUE  
GREENFIELD ROAD**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	FED. AID	20	157
PROJECT FILE NO.		601657	

**CONSTRUCTION PLAN  
& PROFILE**



HIGH POINT ELEV = 67.292  
 HIGH POINT STA = 40+80.000  
 PVI STA = 41+00  
 PVI ELEV = 67.170  
 A.D. = -0.60%  
 K = 67.09

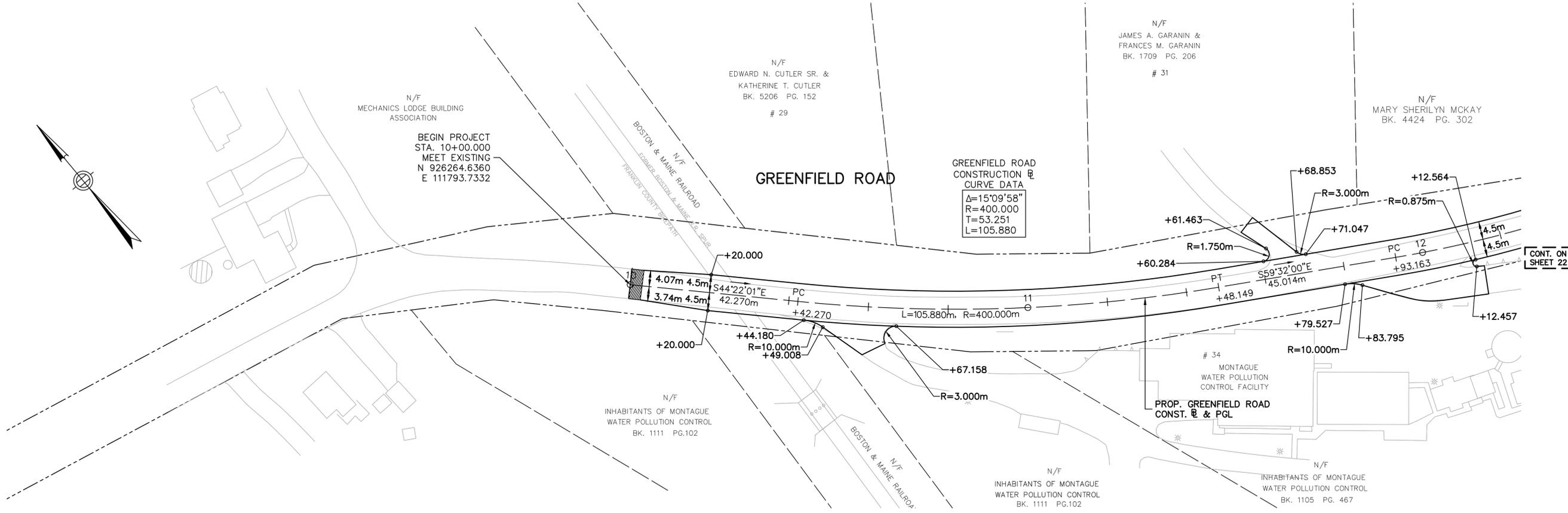


IN CHARGE OF \_\_\_\_\_  
 DRAWN BY \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_

**MONTAGUE  
GREENFIELD ROAD**

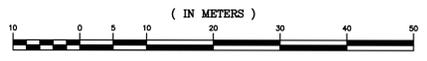
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	FED. AID	21	157
PROJECT FILE NO.		601657	

**CURB TIE &  
GRADING PLAN**



CONT. ON  
SHEET 22

**GRAPHIC SCALE**



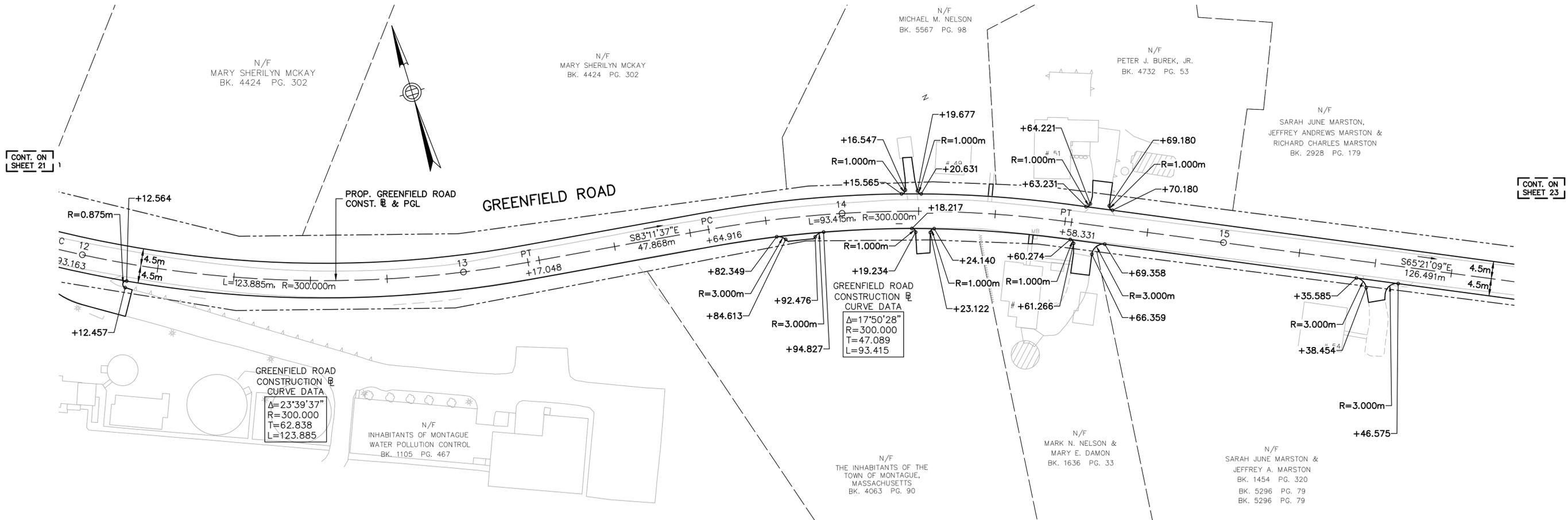
1 : 500

IN CHARGE OF \_\_\_\_\_  
 DRAWN BY \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_

**MONTAGUE  
GREENFIELD ROAD**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	FED. AID	22	157
PROJECT FILE NO.		601657	

**CURB TIE &  
GRADING PLAN**



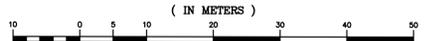
CONT. ON SHEET 21

CONT. ON SHEET 23

GREENFIELD ROAD  
CONSTRUCTION  
CURVE DATA  
Δ=17°50'28"  
R=300.000  
T=47.089  
L=93.415

GREENFIELD ROAD  
CONSTRUCTION  
CURVE DATA  
Δ=23°39'37"  
R=300.000  
T=62.838  
L=123.885

**GRAPHIC SCALE**



1 : 500

IN CHARGE OF \_\_\_\_\_  
DRAWN BY \_\_\_\_\_  
CHECKED BY \_\_\_\_\_

**MONTAGUE  
GREENFIELD ROAD**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	FED. AID	23	157
PROJECT FILE NO.		601657	

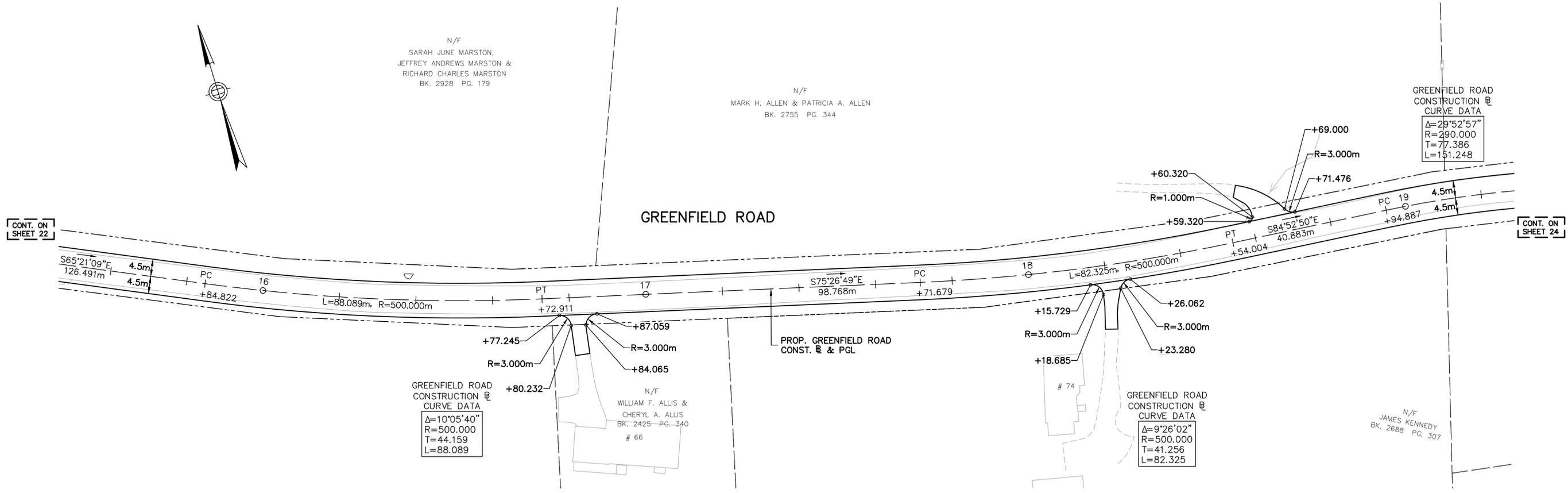
**CURB TIE &  
GRADING PLAN**



N/F  
SARAH JUNE MARSTON,  
JEFFREY ANDREWS MARSTON &  
RICHARD CHARLES MARSTON  
BK. 2928 PG. 179

N/F  
MARK H. ALLEN & PATRICIA A. ALLEN  
BK. 2755 PG. 344

GREENFIELD ROAD  
CONSTRUCTION &  
CURVE DATA  
 $\Delta=29^{\circ}52'57''$   
R=290.000  
T=77.386  
L=151.248



CONT. ON SHEET 22

CONT. ON SHEET 24

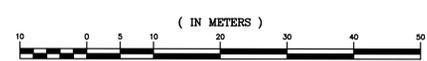
GREENFIELD ROAD  
CONSTRUCTION &  
CURVE DATA  
 $\Delta=10^{\circ}05'40''$   
R=500.000  
T=44.159  
L=88.089

N/F  
WILLIAM F. ALLIS &  
CHERYL A. ALLIS  
BK. 2425 PG. 340  
# 66

GREENFIELD ROAD  
CONSTRUCTION &  
CURVE DATA  
 $\Delta=9^{\circ}26'02''$   
R=500.000  
T=41.256  
L=82.325

N/F  
JAMES KENNEDY  
BK. 2688 PG. 307

**GRAPHIC SCALE**



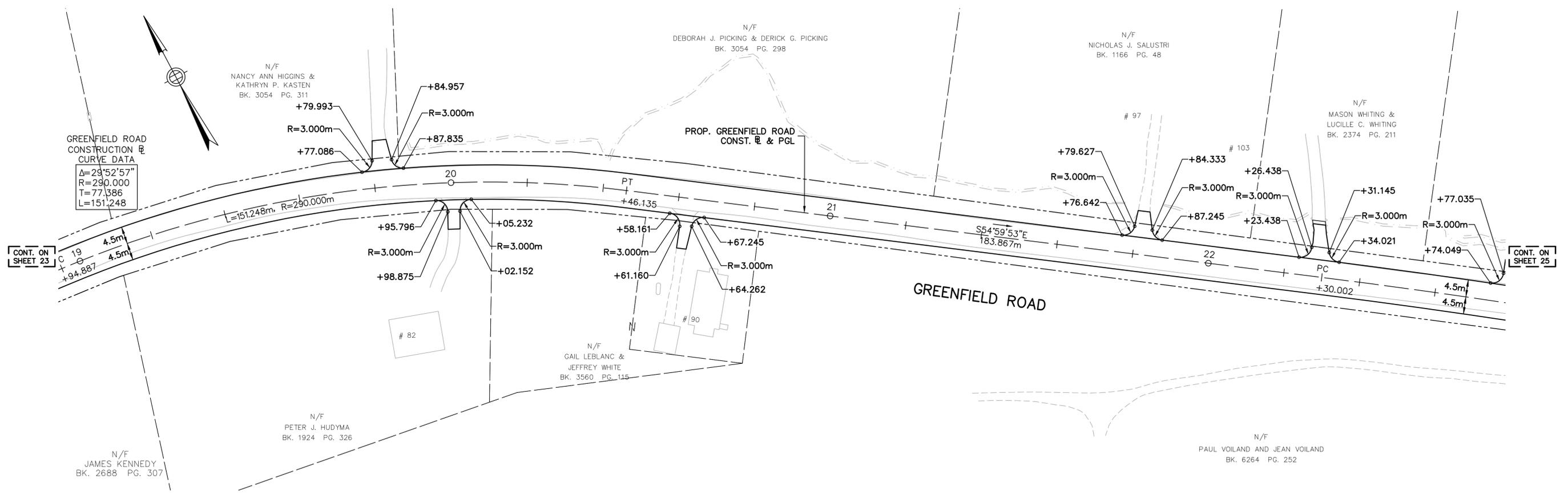
( IN METERS )  
1 : 500

IN CHARGE OF \_\_\_\_\_  
DRAWN BY \_\_\_\_\_  
CHECKED BY \_\_\_\_\_

**MONTAGUE  
GREENFIELD ROAD**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	FED. AID	24	157
PROJECT FILE NO.		601657	

**CURB TIE &  
GRADING PLAN**

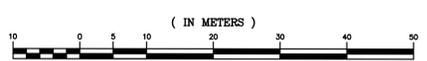


GREENFIELD ROAD  
CONSTRUCTION &  
CURVE DATA  
Δ=29°52'57"  
R=290.000  
T=77.386  
L=151.248

CONT. ON  
SHEET 23

CONT. ON  
SHEET 25

**GRAPHIC SCALE**



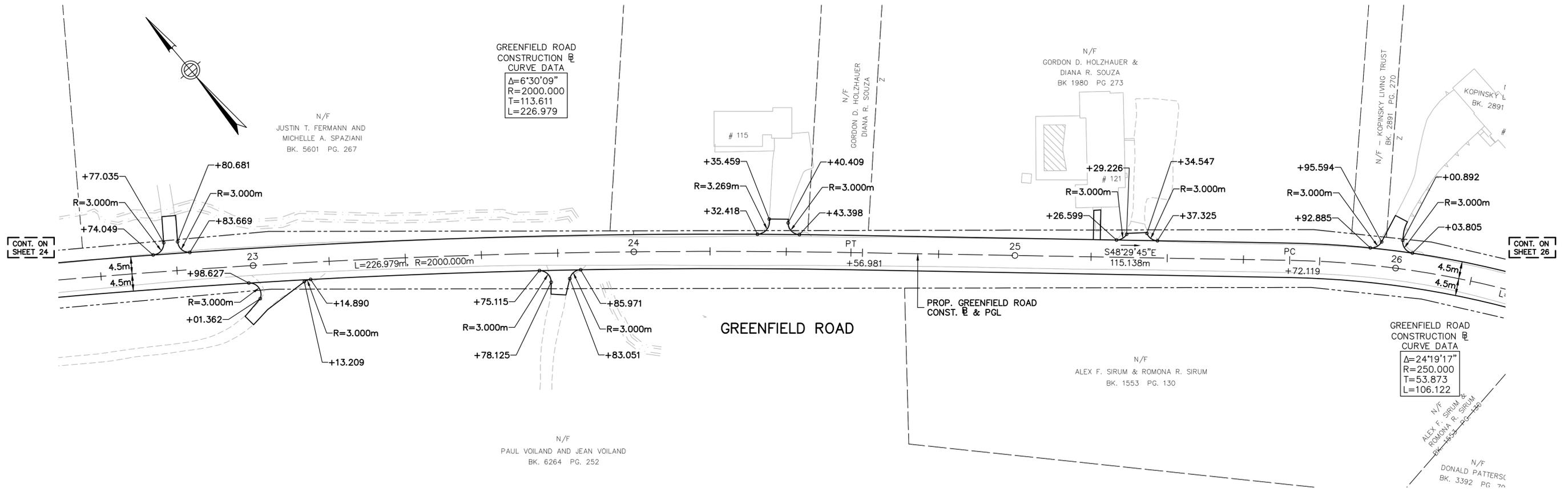
( IN METERS )  
1 : 500

IN CHARGE OF \_\_\_\_\_  
DRAWN BY \_\_\_\_\_  
CHECKED BY \_\_\_\_\_

**MONTAGUE  
GREENFIELD ROAD**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	FED. AID	25	157
PROJECT FILE NO.		601657	

**CURB TIE &  
GRADING PLAN**



CONT. ON SHEET 24

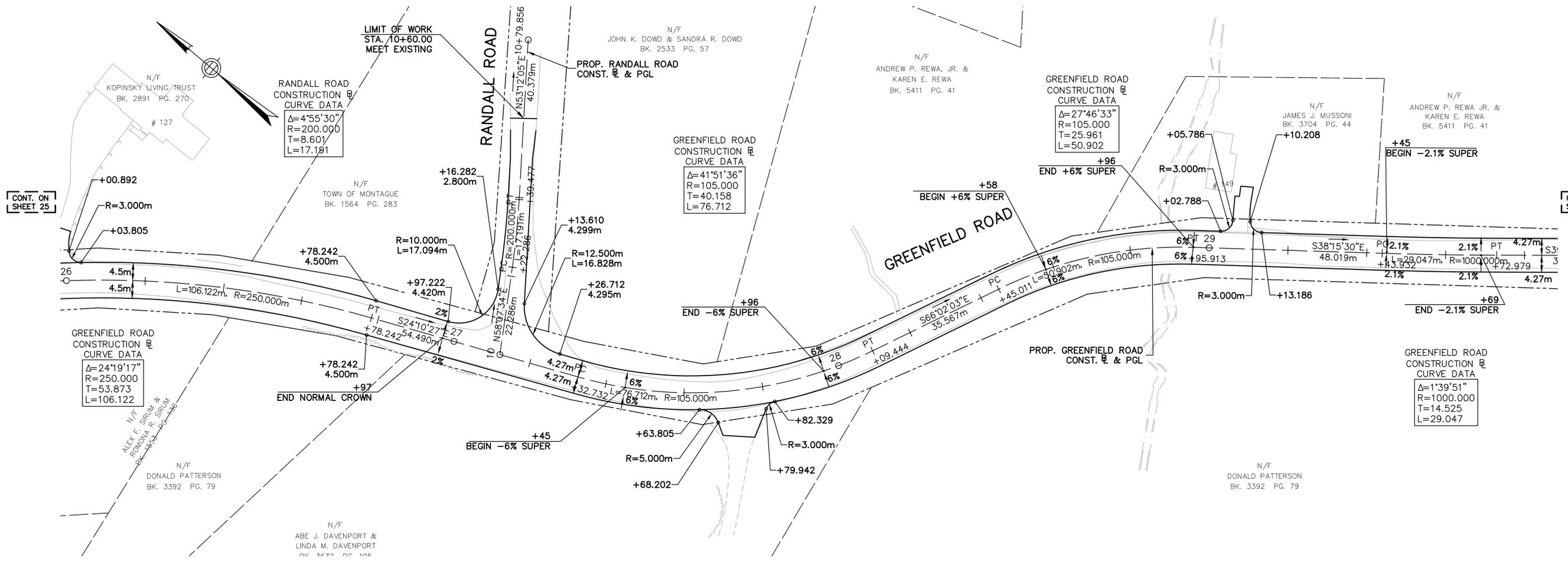
CONT. ON SHEET 26

IN CHARGE OF \_\_\_\_\_  
 DRAWN BY \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_

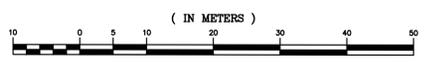
**MONTAGUE  
GREENFIELD ROAD**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	FED. AID	26	157
PROJECT FILE NO.		601657	

**CURB TIE &  
GRADING PLAN**



GRAPHIC SCALE



1 : 500

CONT. ON SHEET 25

CONT. ON SHEET 27

IN CHARGE OF \_\_\_\_\_  
 DRAWN BY \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_



**MONTAGUE  
GREENFIELD ROAD**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	FED. AID	28	157
PROJECT FILE NO.		601657	

**CURB TIE &  
GRADING PLAN**

CONT. ON  
SHEET 27

CONT. ON  
SHEET 29

N/F  
ANDREW P. REWA JR. &  
SANDRA R. DOWD  
BK. 2528 PG. 45

N/F  
MARCEL L. EMOND &  
MAURICE R. EMOND  
BK. 1958 PG. 330

N/F  
SHARON E. COTTRELL  
BK. 2923 PG. 163

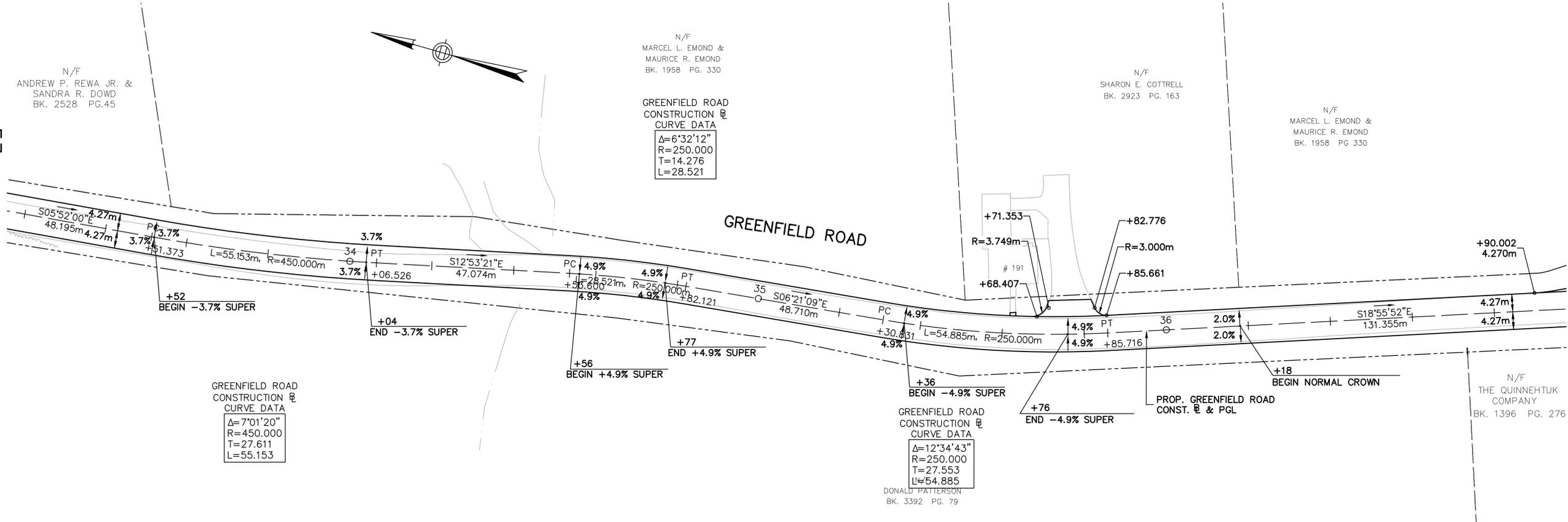
N/F  
MARCEL L. EMOND &  
MAURICE R. EMOND  
BK. 1958 PG. 330

N/F  
THE QUINNEHTUK  
COMPANY  
BK. 1396 PG. 276

GREENFIELD ROAD  
CONSTRUCTION &  
CURVE DATA  
Δ=6°32'12"  
R=250.000  
T=14.276  
L=28.521

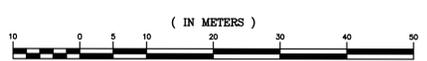
GREENFIELD ROAD  
CONSTRUCTION &  
CURVE DATA  
Δ=7°01'20"  
R=450.000  
T=27.611  
L=55.153

GREENFIELD ROAD  
CONSTRUCTION &  
CURVE DATA  
Δ=12°34'43"  
R=250.000  
T=27.553  
L=54.885  
DONALD PATTERSON  
BK. 3392 PG. 79



GREENFIELD ROAD

GRAPHIC SCALE



( IN METERS )  
1 : 500

IN CHARGE OF \_\_\_\_\_  
DRAWN BY \_\_\_\_\_  
CHECKED BY \_\_\_\_\_

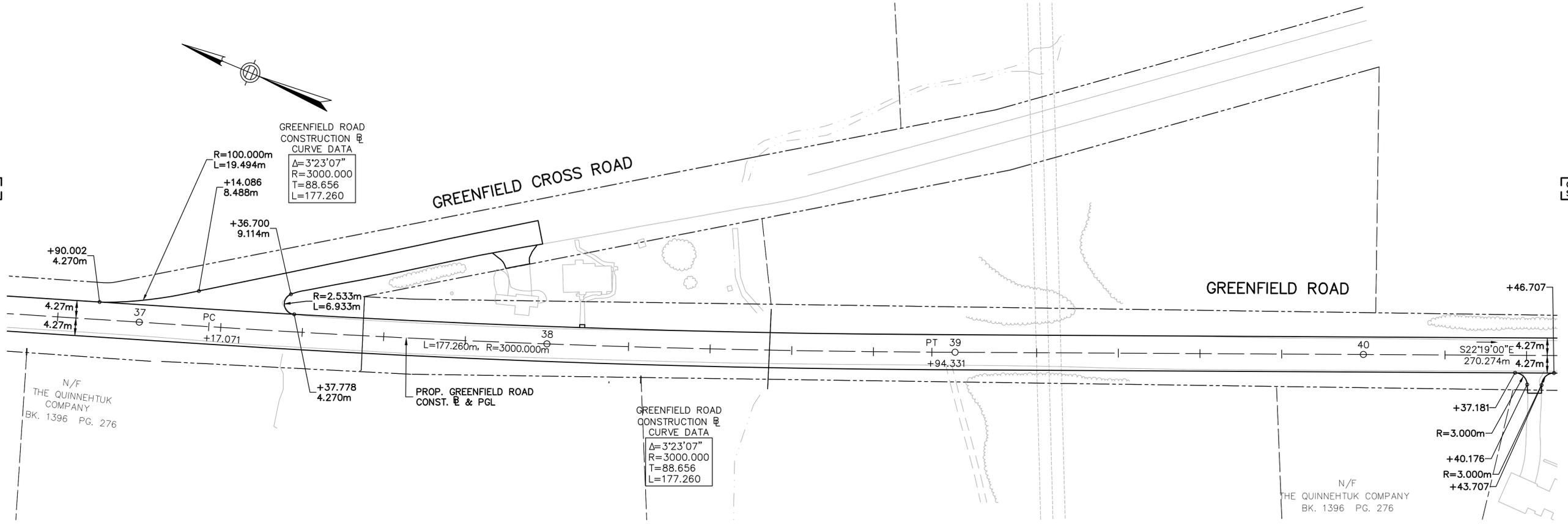
**MONTAGUE  
GREENFIELD ROAD**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	FED. AID	29	157
PROJECT FILE NO.		601657	

**CURB TIE &  
GRADING PLAN**

CONT. ON  
SHEET 28

CONT. ON  
SHEET 30



GRAPHIC SCALE

( IN METERS )



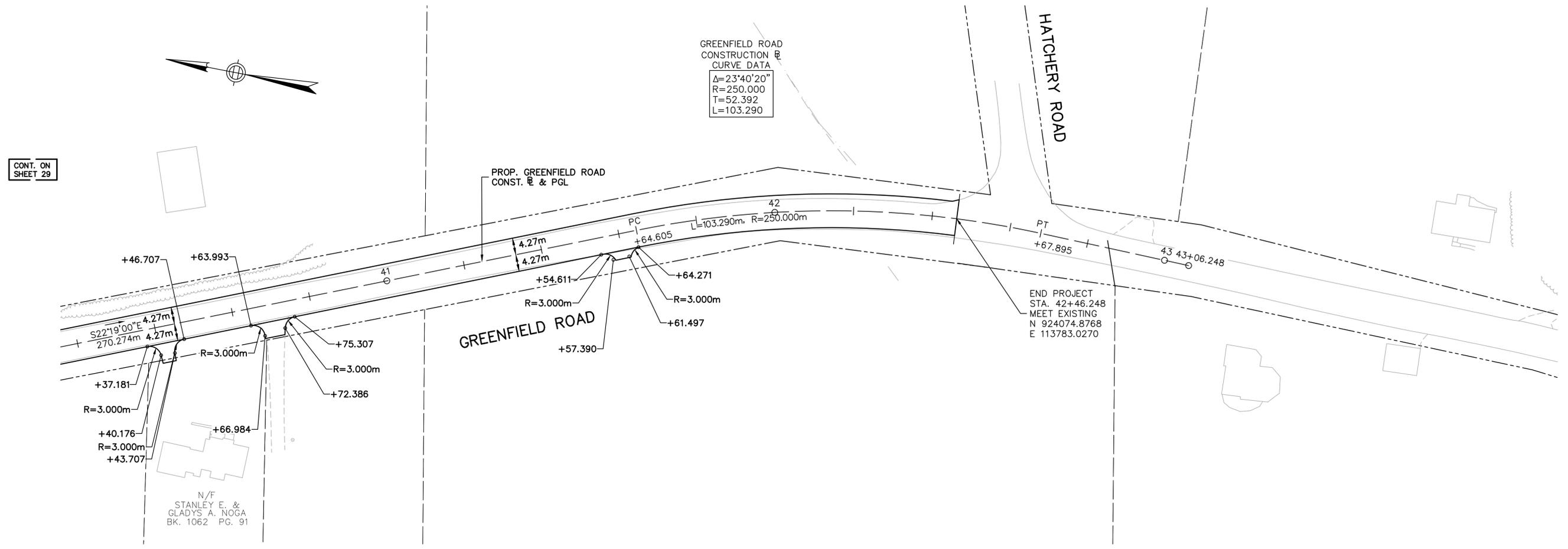
1 : 500

IN CHARGE OF \_\_\_\_\_  
 DRAWN BY \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_

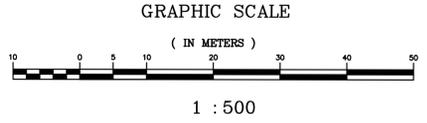
**MONTAGUE  
GREENFIELD ROAD**

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	FED. AID	30	157
PROJECT FILE NO.		601657	

**CURB TIE &  
GRADING PLAN**



CONT. ON SHEET 29



IN CHARGE OF \_\_\_\_\_  
 DRAWN BY \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_