

MASSACHUSETTS DEPARTMENT OF TRANSPORTATION HIGHWAY DIVISION

PLAN AND PROFILE OF
BEACH ROAD
IN THE TOWN OF
TISBURY
DUKES COUNTY

TISBURY BEACH ROAD			
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	1	75
PROJECT FILE NO.		607411	

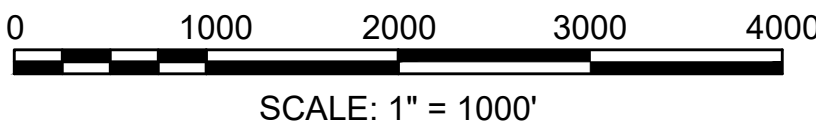
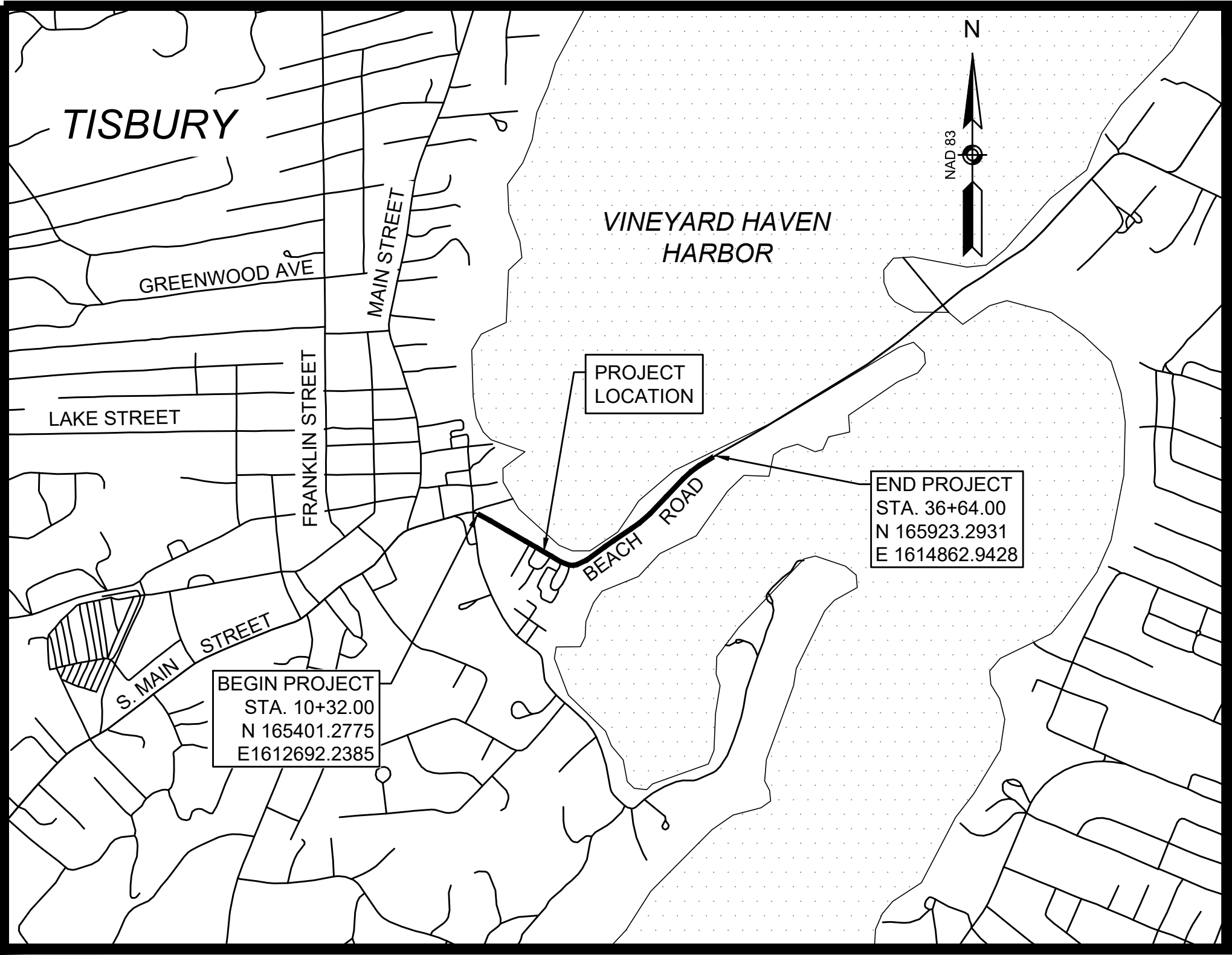
TITLE SHEET & INDEX

THE MASSACHUSETTS HIGHWAY DEPARTMENT STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES DATED 1988, AS AMENDED, THE SUPPLEMENTAL SPECIFICATIONS DATED JULY 1, 2015, THE OCTOBER 2017 CONSTRUCTION STANDARD DETAILS, THE 2015 OVERHEAD SIGNAL STRUCTURE AND FOUNDATION STANDARD DRAWINGS, MASSDOT TRAFFIC MANAGEMENT PLANS AND DETAIL DRAWINGS, THE LATEST MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS WITH 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, WILL GOVERN.

NOI SUBMITTAL

INDEX

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LENGTH OF PROJECT = 2,632 FEET = 0.4985 MILES

DESIGN DESIGNATION (BEACH ROAD)

DESIGN SPEED	30 MPH
ADT (2015)	13,500
ADT (2022)	14,500
K	7.0%
D	55%
T (PEAK HOUR)	3.5%
T (AVERAGE DAY)	3.5%
DHV	1,015
DDHV	560
FUNCTIONAL CLASSIFICATION	URBAN PRINCIPAL ARTERIAL

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>

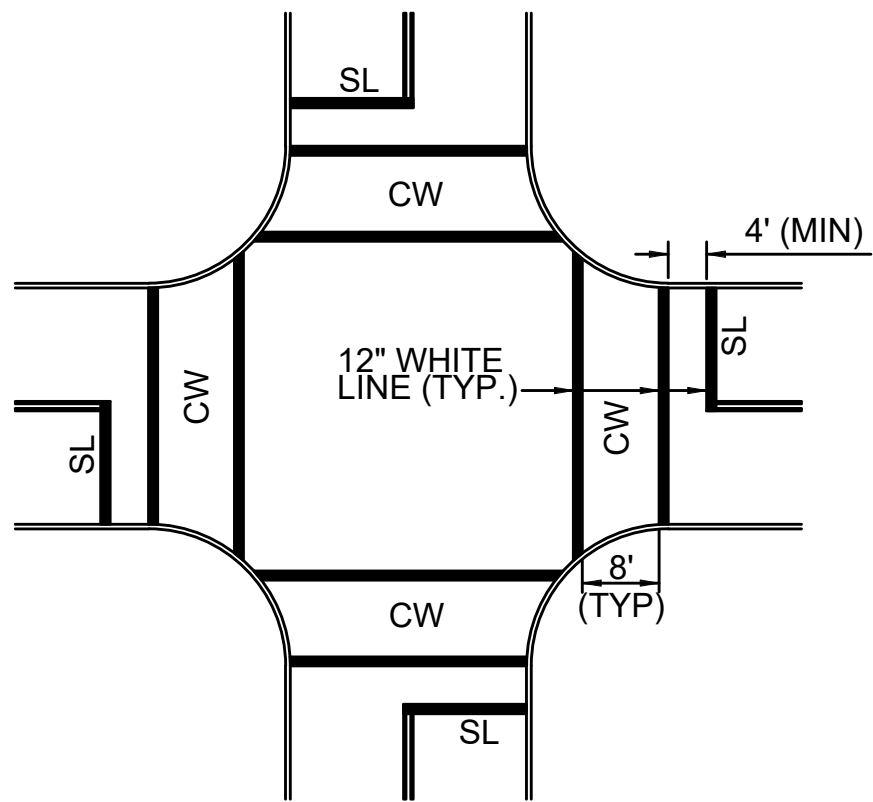
DATE	DESCRIPTION	REV #

DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION APPROVED: DIVISION ADMINISTRATOR DATE	 RECOMMENDED FOR APPROVAL _____ CHIEF ENGINEER DATE
	APPROVED _____ HIGHWAY ADMINISTRATOR DATE

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

PAVEMENT MARKINGS SYMBOLS		
EXISTING	PROPOSED	DESCRIPTION
		PAVEMENT ARROW - WHITE
		LEGEND "ONLY" - WHITE
		STOP LINE (12" WHITE)
		CROSSWALK (12")
		SOLID WHITE LINE (6")
		SOLID YELLOW LINE (6")
		BROKEN WHITE LINE (6")
		BROKEN YELLOW LINE (6")
		DOTTED WHITE LINE (6")
		DOTTED YELLOW LINE (6")
		DOTTED WHITE LINE EXTENSION (6")
		DOTTED YELLOW LINE EXTENSION (6")
		DOUBLE WHITE LINE (6")
		DOUBLE YELLOW LINE (6")

BROKEN LINES TO BE 10' IN LENGTH WITH 30' GAP (TYP.)
DOTTED LINES TO BE 2' IN LENGTH WITH 6' GAP (TYP.)



TYPICAL CROSSWALK MARKINGS
NOT TO SCALE

GENERAL NOTES

- TOPOGRAPHICAL INFORMATION WAS PROVIDED BY GREENMAN-PEDERSEN, INC. (978) 570-2977, OCTOBER 2013. VERTICAL DATUM IS BASED ON NAVD88. HORIZONTAL DATUM IS BASED ON NAD83 MASSACHUSETTS STATE PLANE, ISLAND ZONE.
- 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 PAVEMENT MARKINGS SHALL BE THERMOPLASTIC.
- ALL EXISTING STATE, COUNTY, CITY AND TOWN LOCATION LINES AND PRIVATE PROPERTY LINES HAVE BEEN ESTABLISHED FROM AVAILABLE INFORMATION AND THEIR EXACT LOCATIONS ARE NOT GUARANTEED.
- ALL JOINTS BETWEEN NEW SURFACE PAVEMENT AND EXISTING SURFACE PAVEMENT TO REMAIN SHALL BE COATED WITH A HOT MIX ASPHALT JOINT SEALANT MEETING SPECIAL PROVISION ITEM 453.
- ALL DISTURBED AREAS NOT DESIGNATED TO BE PAVED SHALL HAVE LOAM BORROW PLACED AND SEEDED. THE LOAM BORROW SHALL HAVE A MINIMUM DEPTH OF 4 INCHES AND SHALL BE PLACED FLUSH WITH THE TOP OF THE ADJACENT CURB, EDGING, BERM OR PAVEMENT SURFACE.
- 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 PUBLICLY OWNED GATE BOXES, SERVICE BOXES, 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.
- DRAINAGE ELEVATIONS ARE PROVIDED FOR DESIGN PURPOSES ONLY. THE CONTRACTOR SHALL VERIFY BY TEST PIT, THE LOCATIONS OF EXISTING UTILITIES WHICH MAY CONFLICT WITH THE PROPOSED DRAINAGE DESIGN. ANY FIELD ADJUSTMENTS REQUIRED WILL BE MADE AS APPROVED OR DIRECTED BY THE ENGINEER. ONLY AFTER THE CONTRACTOR VERIFIES ELEVATIONS FOR THE CONSTRUCTABILITY OF THE DRAINAGE SYSTEM SHALL ANY STRUCTURES BE ORDERED. ANY FIELD ADJUSTMENTS TO LINE & GRADE UP TO A DEPTH OF 5' SHALL BE INCLUDED IN THE COST OF THE PIPE. PIPE EXCAVATION GREATER THAN 5' WILL BE PAID UNDER CLASS B TRENCH EXCAVATION.

GENERAL ABBREVIATIONS

AADT	ANNUAL AVERAGE DAILY TRAFFIC	EXC	EXCAVATION	PVI	POINT OF VERTICAL INTERSECTION
ABAN	ABANDON	F&C	FRAME AND COVER	PVT	POINT OF VERTICAL TANGENCY
ADJ	ADJUST	F&G	FRAME AND GRATE	PVMT	PAVEMENT
APPROX	APPROXIMATE	FDN	FOUNDATION	PWW	PAVED WATER WAY
A.C.	ASPHALT CONCRETE	FLDSTN	FIELDSTONE	R	RADIUS OF CURVATURE
ACCM PIPE	ASPHALT COATED CORRUGATED METAL PIPE	GAR	GARAGE	R&D	REMOVE AND DISPOSE
BIT	BITUMINOUS	GD	GROUND	RCP	REINFORCED CONCRETE PIPE
BC	BOTTOM OF CURB	GG	GAS GATE	RD	ROAD
BD	BOUND	GI	GUTTER INLET	RDWY	ROADWAY
BL	BASELINE	GIP	GALVANIZED IRON PIPE	REM	REMOVE
BLDG	BUILDING	GRAN	GRANITE	RET	RETAIN
BM	BENCHMARK	GRAV	GRAVEL	RET WALL	RETAINING WALL
BO	BY OTHERS	GRD	GUARD	ROW	RIGHT OF WAY
BOS	BOTTOM OF SLOPE	HDW	HEADWALL	RR	RAILROAD
BR	BRIDGE	HMA	HOT MIX ASPHALT	R&R	REMOVE AND RESET
CB	CATCH BASIN	HOR	HORIZONTAL	R&S	REMOVE AND STACK
CBCI	CATCH BASIN WITH CURB INLET	HYD	HYDRANT	RT	RIGHT
CC	CEMENT CONCRETE	INV	INVERT	SB	STONE BOUND
CCM	CEMENT CONCRETE MASONRY	JCT	JUNCTION	SHLD	SHOULDER
CEM	CEMENT	L	LENGTH OF CURVE	SMH	SEWER MANHOLE
CI	CURB INLET	LB	LEACH BASIN	ST	STREET
CIP	CAST IRON PIPE	LP	LIGHT POLE	STA	STATION
CIT	CHANGE IN TYPE	LT	LEFT	SSD	STOPPING SIGHT DISTANCE
CLF	CHAIN LINK FENCE	MAX	MAXIMUM	SHLO	STATE HIGHWAY LAYOUT LINE
CL	CENTERLINE	MB	MAILBOX	SW	SIDEWALK
CMP	CORRUGATED METAL PIPE	MH	MANHOLE	T	TANGENT DISTANCE OF CURVE/TRUCK %
CSP	CORRUGATED STEEL PIPE	MHB	MASSACHUSETTS HIGHWAY BOUND	TAN	TANGENT
CO	COUNTY	MIN	MINIMUM	TEMP	TEMPORARY
CONC	CONCRETE	NIC	NOT IN CONTRACT	TC	TOP OF CURB
CONT	CONTINUOUS	NO	NUMBER	TOS	TOP OF SLOPE
CONST	CONSTRUCTION	PC	POINT OF CURVATURE	TYP	TYPICAL
CR GR	CROWN GRADE	PCC	POINT OF COMPOUND CURVATURE	UP	UTILITY POLE
DHV	DESIGN HOURLY VOLUME	P.G.L.	PROFILE GRADE LINE	VAR	VARIES
DI	DROP INLET	PI	POINT OF INTERSECTION	VERT	VERTICAL
DIA	DIAMETER	POC	POINT ON CURVE	VC	VERTICAL CURVE
DIP	DUCTILE IRON PIPE	POT	POINT ON TANGENT	WCR	WHEEL CHAIR RAMP
DW	STEADY DON'T WALK - PORTLAND ORANGE	PRC	POINT OF REVERSE CURVATURE	WG	WATER GATE
DWY	DRIVEWAY	PROJ	PROJECT	WIP	WROUGHT IRON PIPE
ELEV (or EL.)	ELEVATION	PROP	PROPOSED	WM	WATER METER/WATER MAIN
EMB	EMBANKMENT	PSB	PLANTABLE SOIL BORROW	X-SECT	CROSS SECTION
EOP	EDGE OF PAVEMENT	PT	POINT OF TANGENCY		
EXIST (or EX)	EXISTING	PVC	POINT OF VERTICAL CURVATURE		

TISBURY BEACH ROAD

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MA	-	2	75
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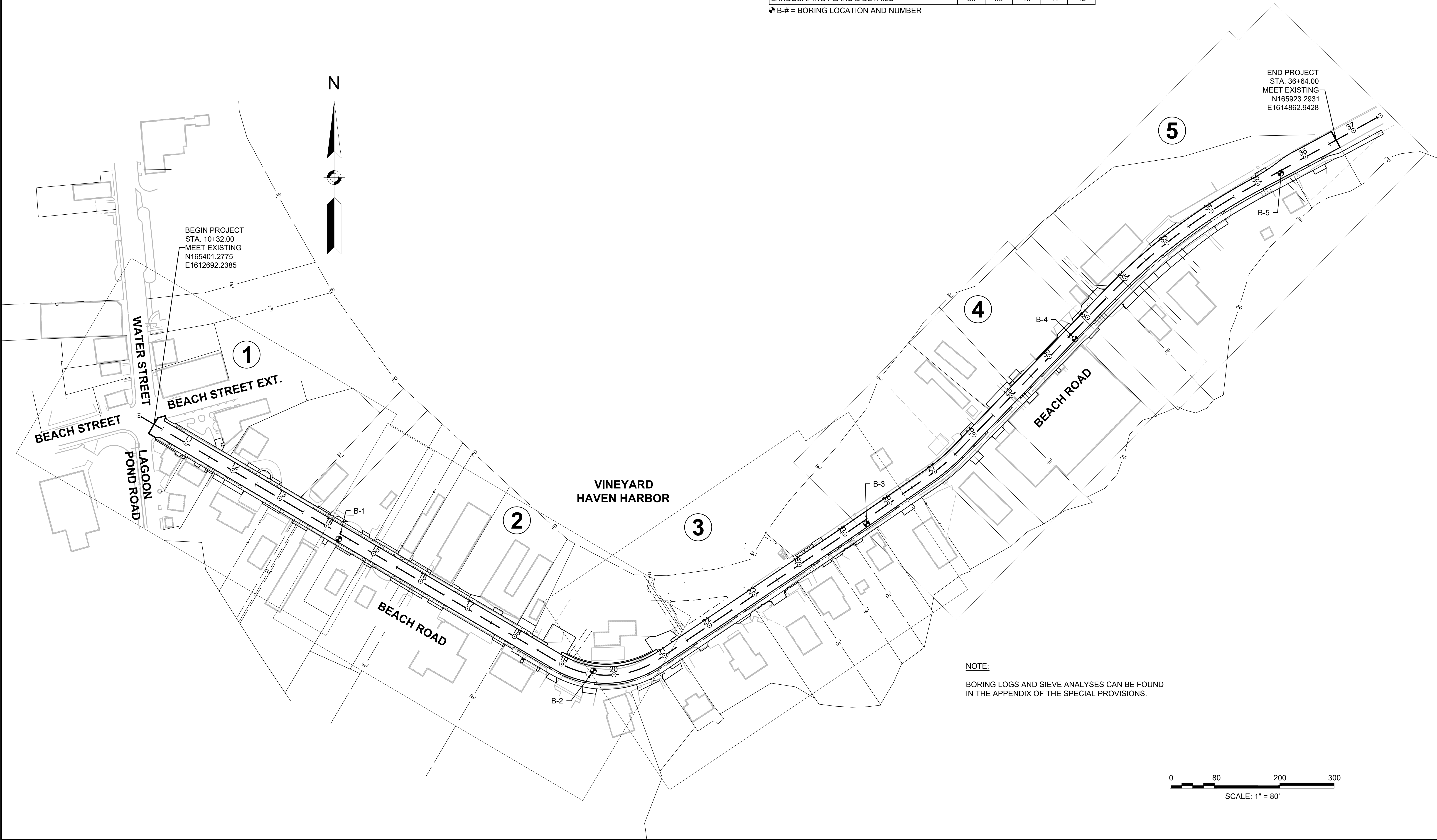
LEGEND & ABBREVIATIONS

SHEET REFERENCE:	1	2	3	4	5
Drawing Title:	Drawing Number:				
CONSTRUCTION PLANS & PROFILES	6	7	8	9	10
CURB TIE & GRADING PLANS	11	12	13	14	15
DRAINAGE & UTILITY PLANS	16	17	18	19	20
TRAFFIC SIGN & PAVEMENT MARKING PLANS	21	22	23	24	25
LIGHTING PLANS	30	31	32	33	34
LANDSCAPING PLANS & DETAILS	38	39	40	41	42

♣ B-# = BORING LOCATION AND NUMBER

TISBURY BEACH ROAD			
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MA	-	3	75
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KEY PLAN & BORING LOCATIONS



TISBURY
BEACH ROAD

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MA	-	4	75
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TYPICAL SECTIONS

PAVEMENT NOTES

FULL DEPTH HMA CONSTRUCTION

SURFACE COURSE: 1-1/2" SUPERPAVE SURFACE COURSE - 9.5 (SSC - 9.5) OVER
2" SUPERPAVE INTERMEDIATE COURSE - 12.5 (SIC - 12.5) OVER

BASE: 4" SUPERPAVE BASE COURSE - 37.5 (SBC - 37.5) OVER

SUBBASE: 4" DENSE GRADED CRUSHED STONE OVER
8" GRAVEL BORROW TYPE B (OR SUITABLE EXISTING MATERIAL)

HMA DRIVEWAYS AND SHARED USE PATH

SURFACE COURSE: 1-1/2" SUPERPAVE SURFACE COURSE - 9.5 (SSC - 9.5) OVER
2" SUPERPAVE INTERMEDIATE COURSE - 12.5 (SIC - 12.5) OVER

SUBBASE: 8" GRAVEL BORROW TYPE B (OR SUITABLE EXISTING MATERIAL)

CEMENT CONCRETE SIDEWALK AT DRIVEWAYS & CEMENT CONCRETE DRIVEWAYS

SURFACE COURSE: 6" CEMENT CONCRETE (AIR ENTRAINED 4000 PSI, 3/4", 610) OVER

SUBBASE: 8" GRAVEL BORROW TYPE B (OR SUITABLE EXISTING MATERIAL)

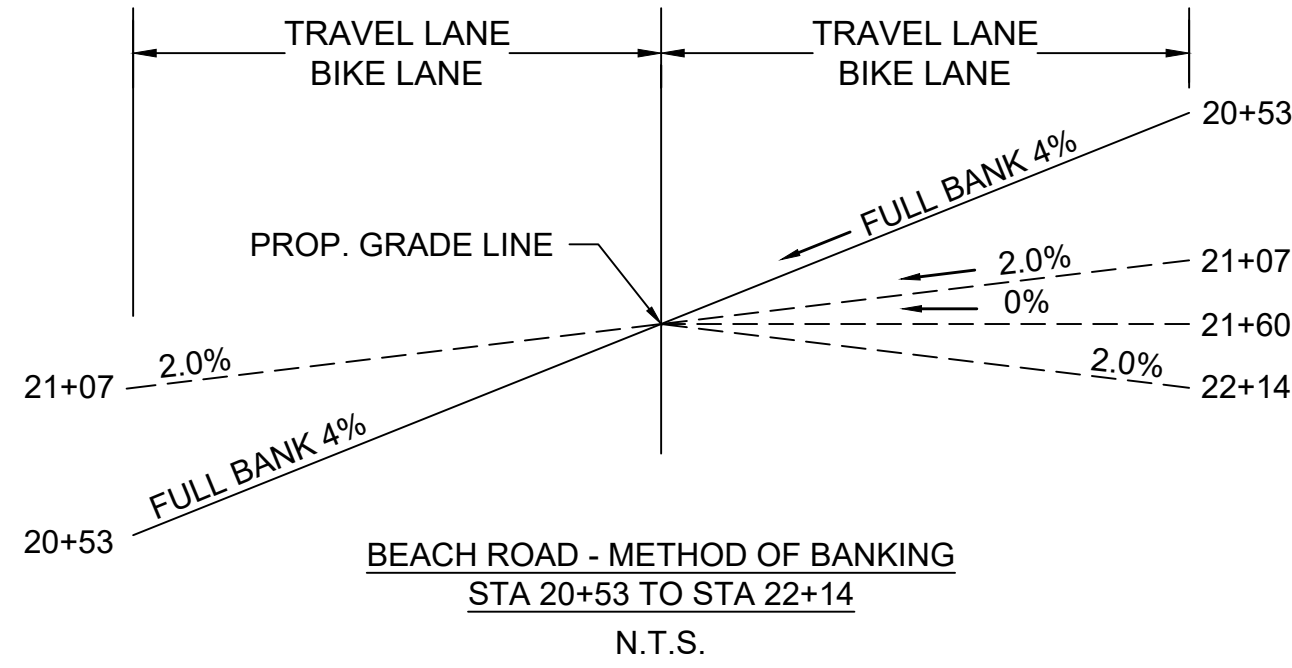
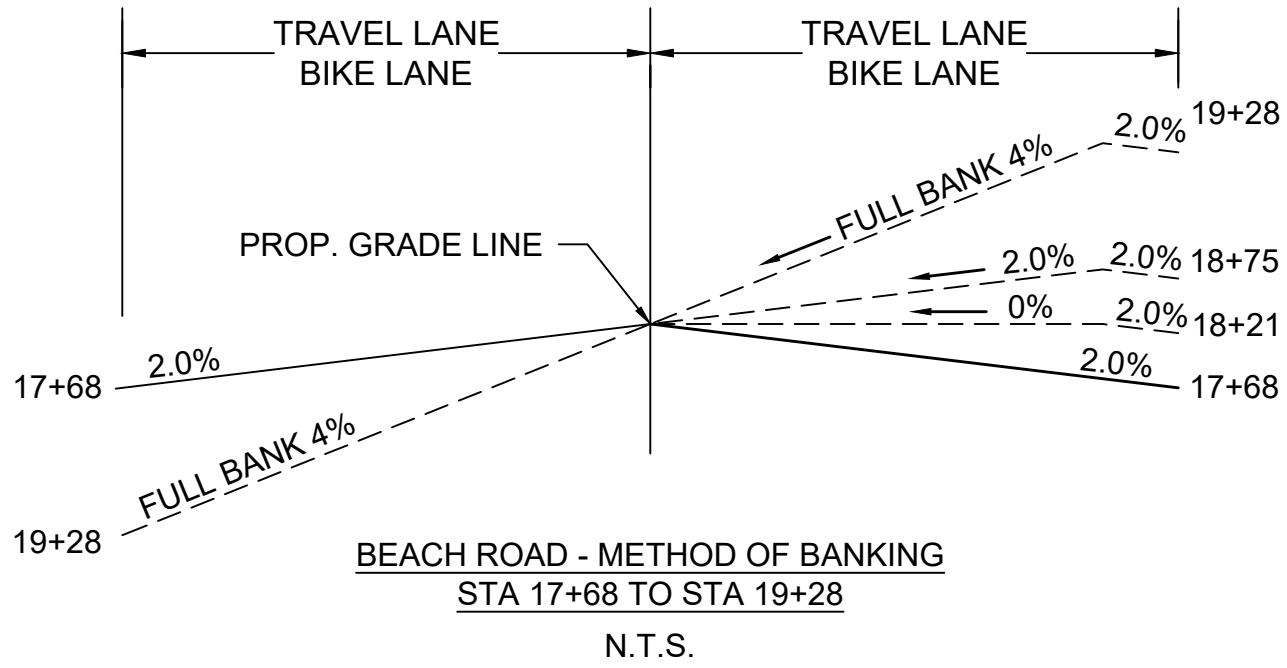
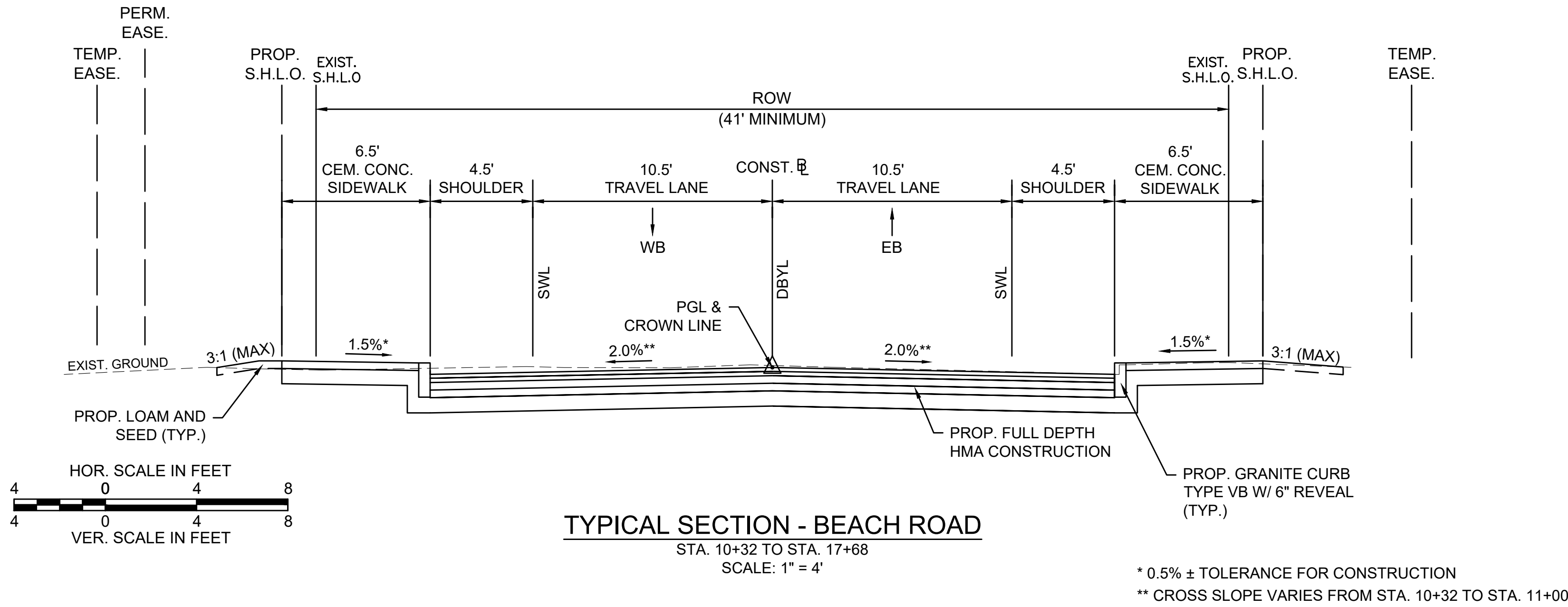
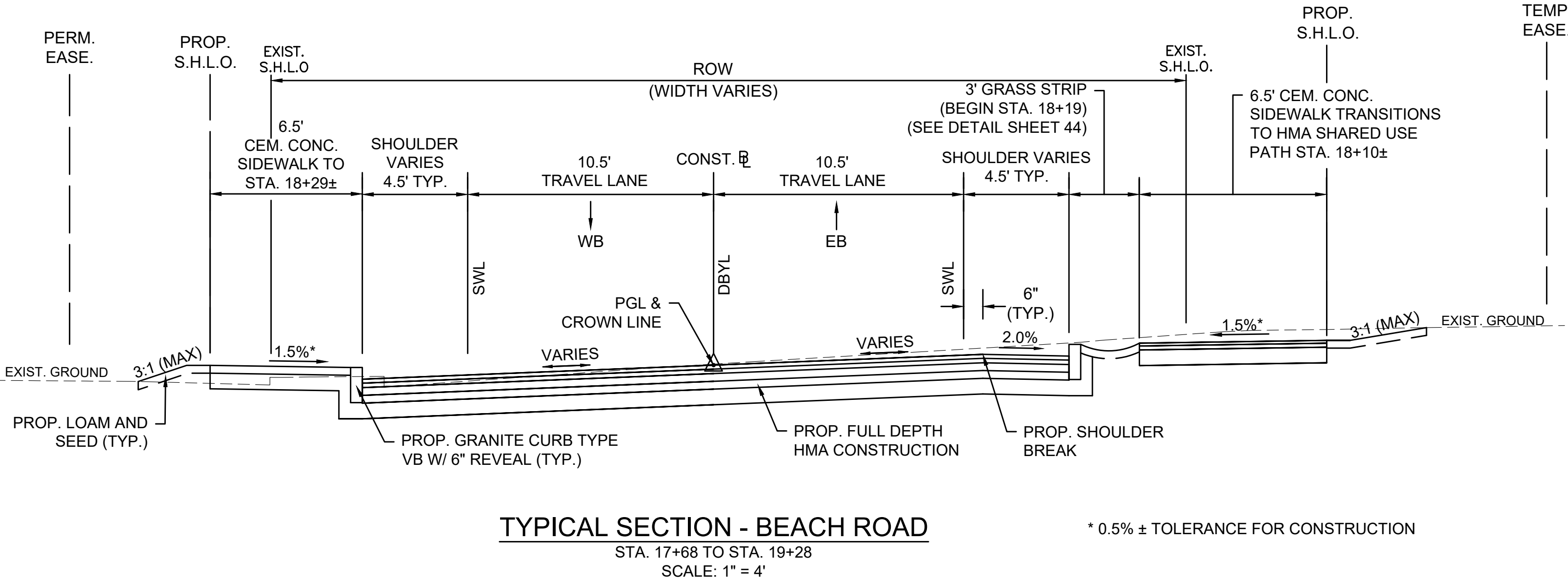
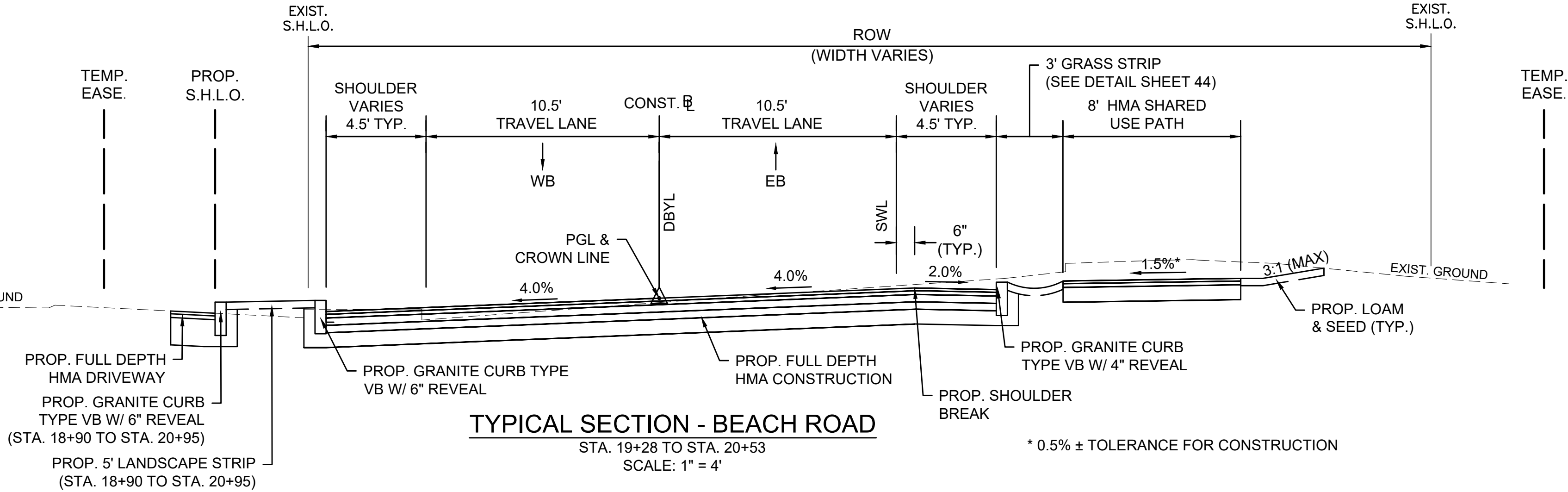
CEMENT CONCRETE SIDEWALK & WHEELCHAIR RAMPS

SURFACE COURSE: 4" CEMENT CONCRETE (AIR ENTRAINED 4000 PSI, 3/4", 610) OVER

SUBBASE: 8" GRAVEL BORROW TYPE B (OR SUITABLE EXISTING MATERIAL)

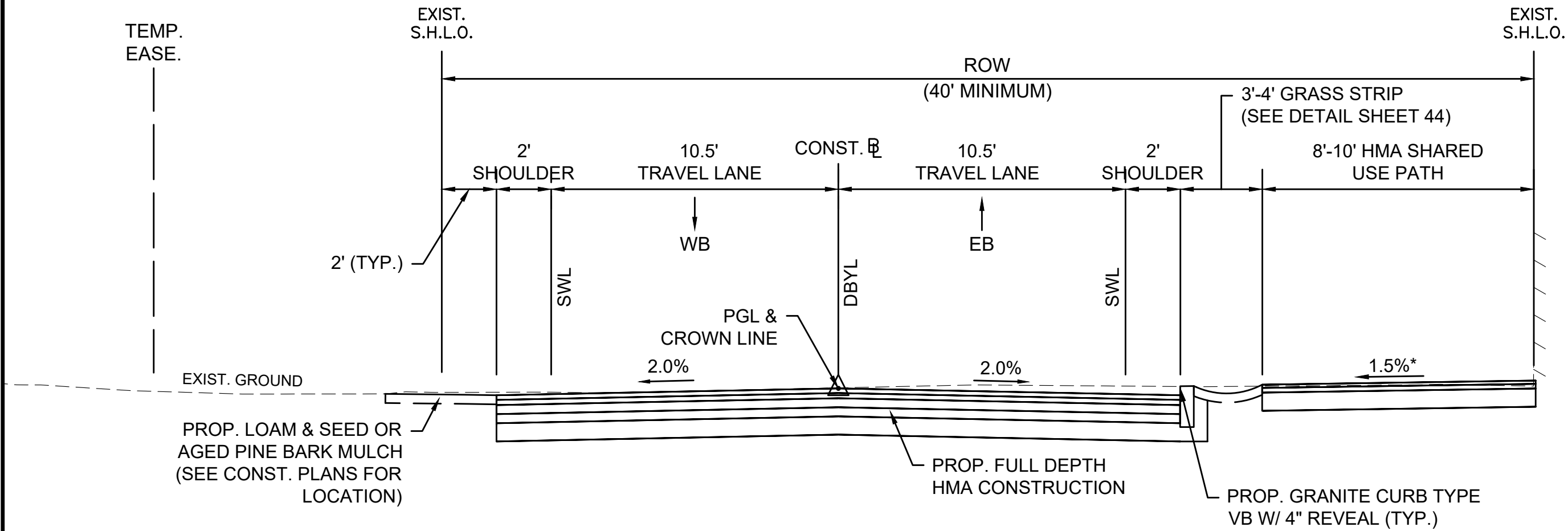
GENERAL NOTES:

- ALL SIDEWALKS SHALL HAVE A CROSS SLOPE OF 1.5% (0.015 FT/FT). TOLERANCE FOR CONSTRUCTION SHALL BE $\pm 0.50\%$. IN NO CASE SHALL THE SIDEWALK CROSS SLOPE EXCEED 2.0% (0.02 FT/FT). SIDEWALKS SHALL HAVE A MINIMUM CLEAR PATH OF 36" FREE OF OBSTRUCTION (UTILITY POLES, HYDRANTS, ETC.).
- ASPHALT EMULSION FOR TACK COAT (R5-1) SHALL BE APPLIED AT THE RATE OF 0.05 GALLONS PER SQUARE YARD OVER TIGHT PAVED SURFACES PER SECTION 450.53.
- THE CONTRACTOR IS HEREBY NOTIFIED THAT IT IS ANTICIPATED THAT THE EXISTING SUBBASE MAY BE SUITABLE FOR REUSE AS GRAVEL BORROW MATERIAL. THE EXISTING SUBBASE MATERIAL WILL BE TESTED BY MASSDOT. IF THE TESTING REVEALS THAT THE EXISTING SUBBASE MATERIAL IS SUITABLE FOR REUSE AS GRAVEL BORROW FOR FULL DEPTH CONSTRUCTION AREAS, IT SHALL BE RETAINED AND THE QUANTITIES FOR EXCAVATION, DENSE GRADED CRUSHED STONE AND GRAVEL BORROW SHALL BE ADJUSTED ACCORDINGLY.



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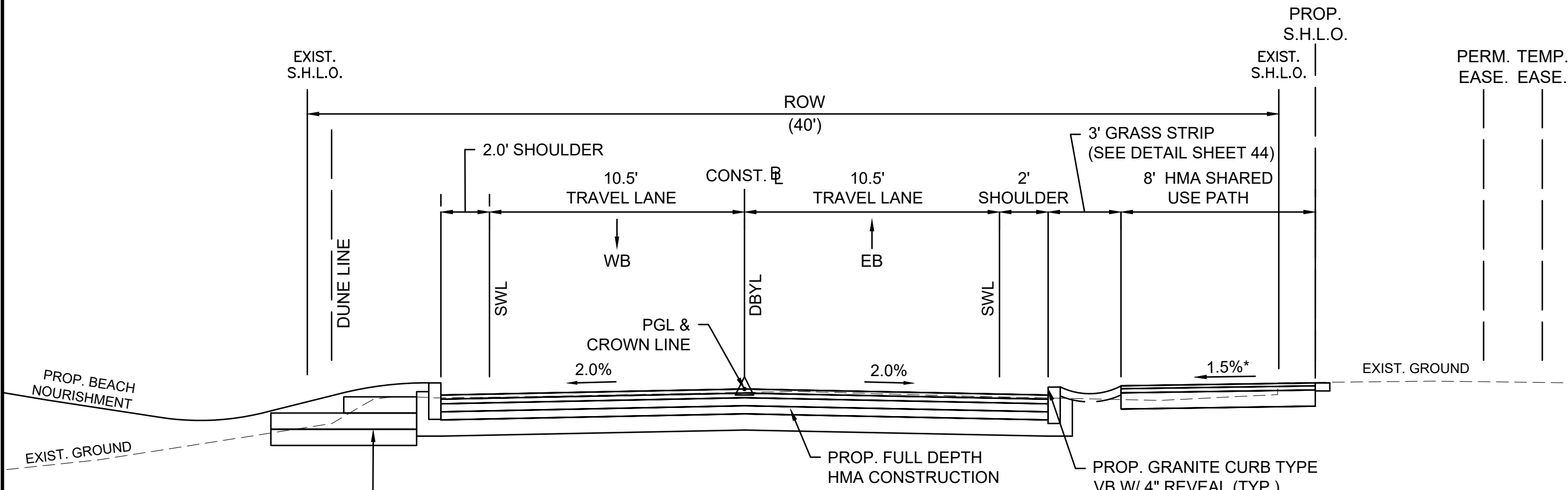
TYPICAL SECTIONS



TYPICAL SECTION - BEACH ROAD

STA. 24+40 TO STA. 31+00
SCALE: 1" = 4'

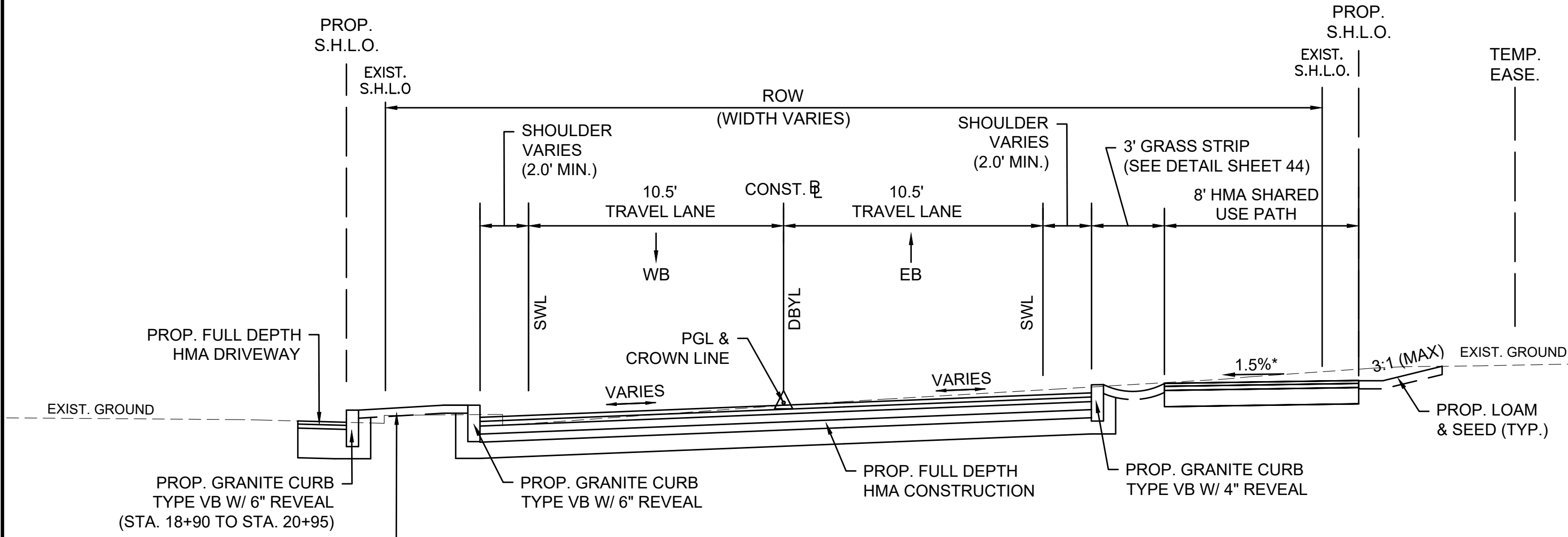
* 0.5% ± TOLERANCE FOR CONSTRUCTION



TYPICAL SECTION - BEACH ROAD

STA. 22+14 TO STA. 24+40
SCALE: 1" = 4'

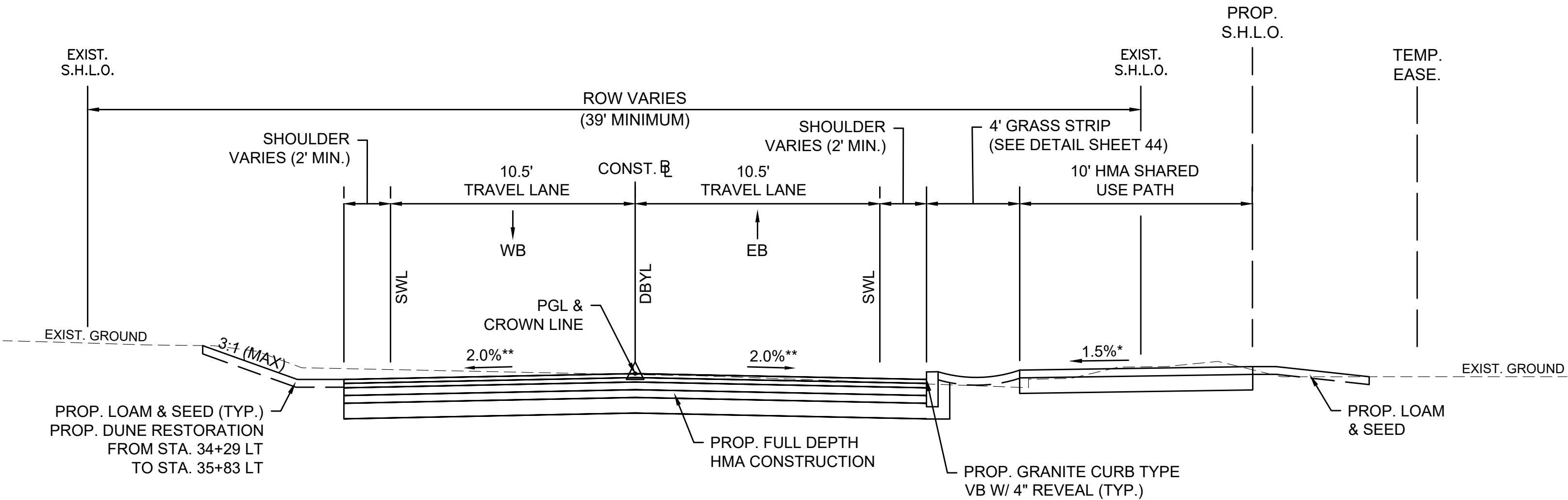
* 0.5% ± TOLERANCE FOR CONSTRUCTION



TYPICAL SECTION - BEACH ROAD

STA. 20+53 TO STA. 22+14
SCALE: 1" = 4'

* 0.5% ± TOLERANCE FOR CONSTRUCTION

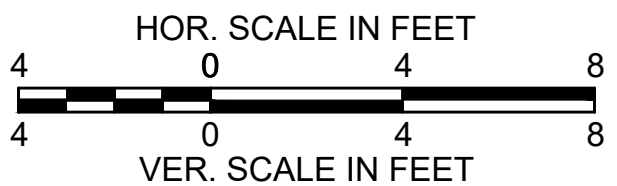


TYPICAL SECTION - BEACH ROAD

STA. 31+00 TO STA. 36+64
SCALE: 1" = 4'

* 0.5% ± TOLERANCE FOR CONSTRUCTION

** CROSS SLOPE VARIES FROM STA. 36+00 TO STA. 36+64



HIGHWAY GUARD DETAILS
NONE

WATER SUPPLY ALTERATIONS
SEE SHEET 16

DRAINAGE DETAILS
SEE SHEET 16

TISBURY
BEACH ROAD

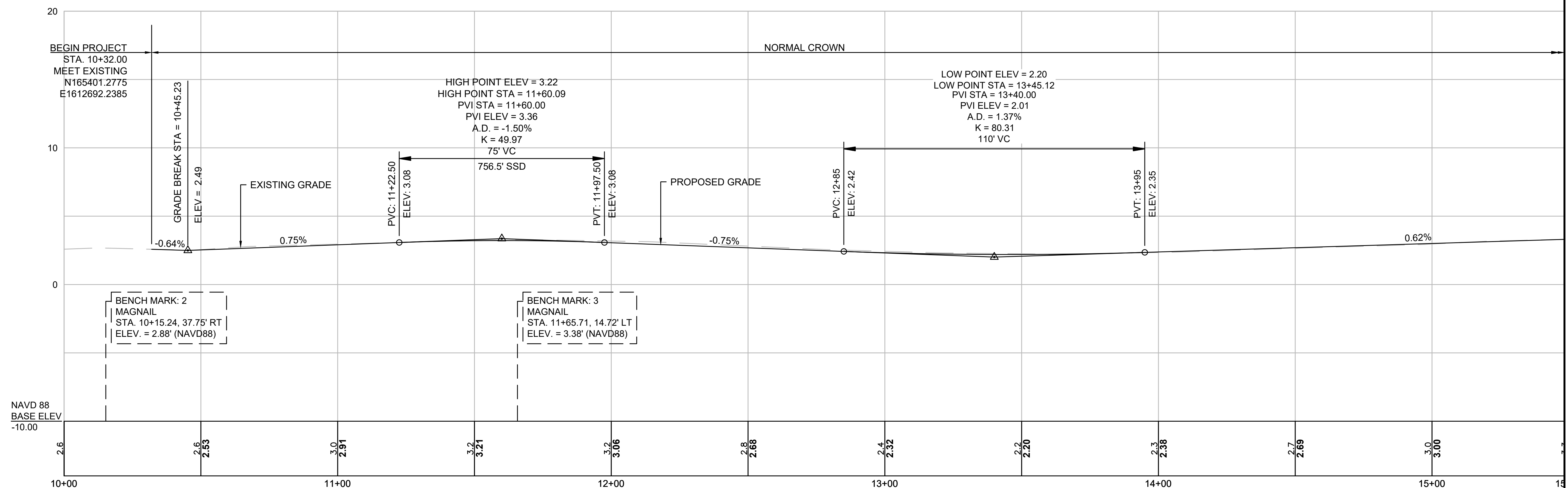
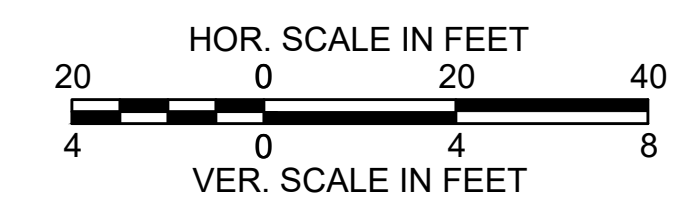
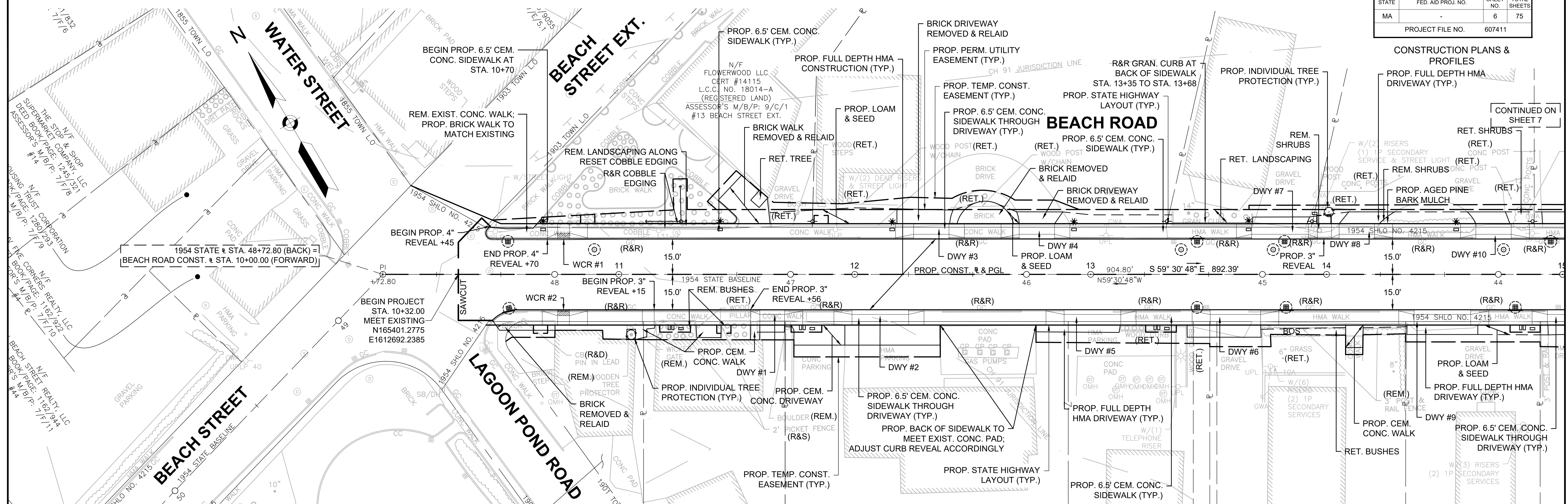
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
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CONSTRUCTION PLANS & PROFILES

- PROP. FULL DEPTH
DRIVEWAY (TYP.)

CONTINUED ON
SHEET 7

607411_HD (CO).DWG Plotted on 19-Mar-2018 11:48 AM



CONTINUED ON
SHEET 6

HIGHWAY GUARD DETAILS

NONE

WATER SUPPLY ALTERATIONS

SEE SHEET 17

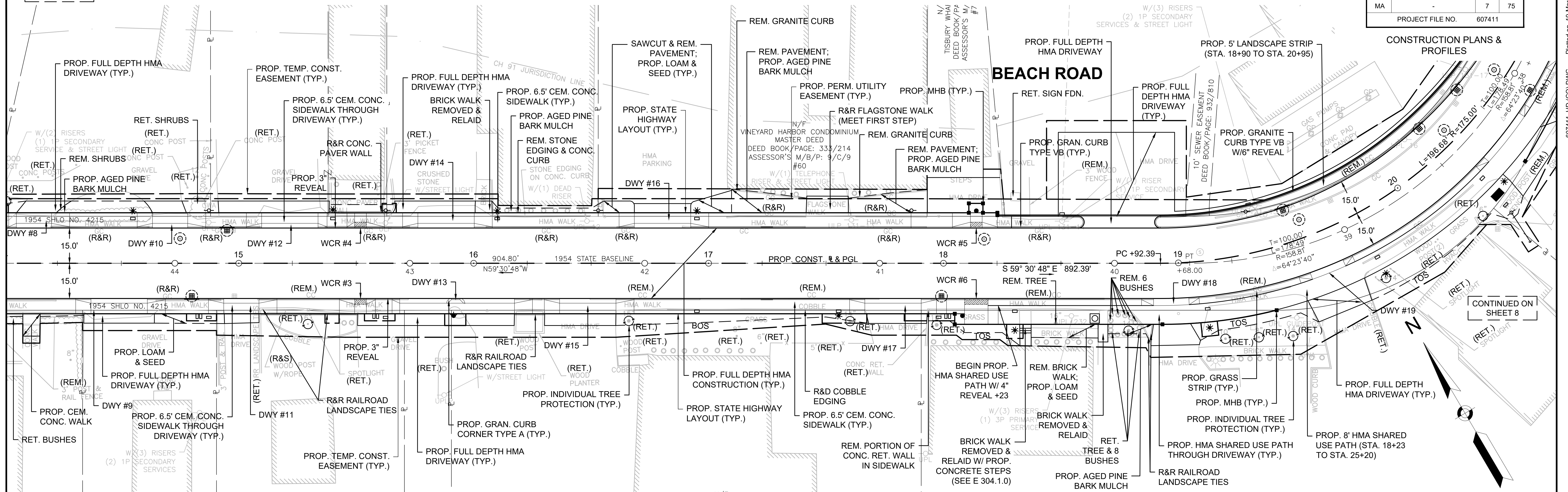
DRAINAGE DETAILS

SEE SHEET 17

TISBURY BEACH ROAD

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MA	-	7	75
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CONSTRUCTION PLANS & PROFILES

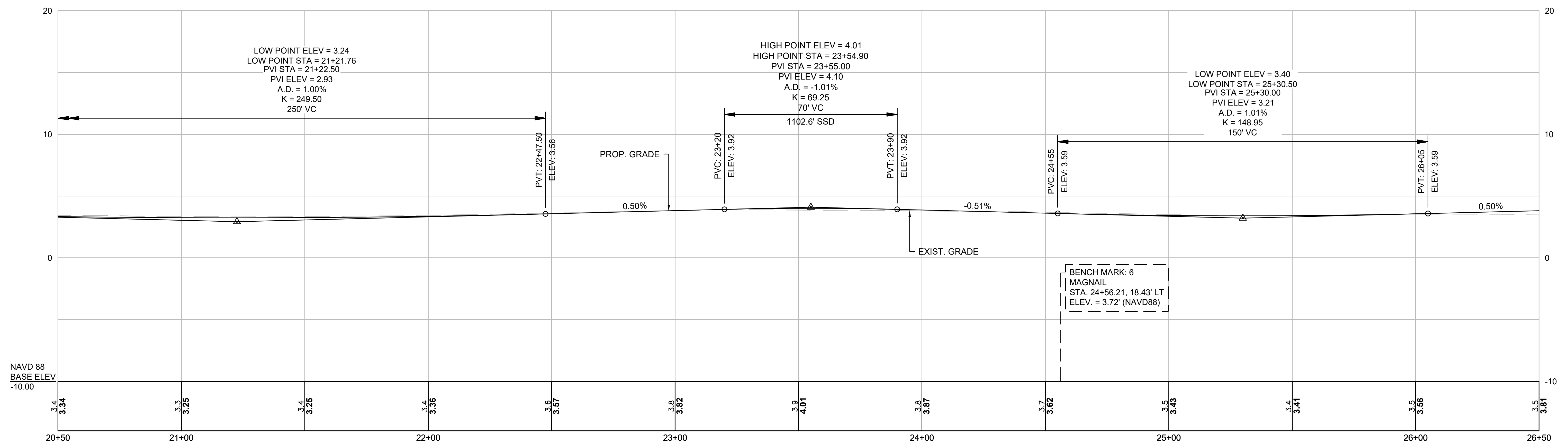
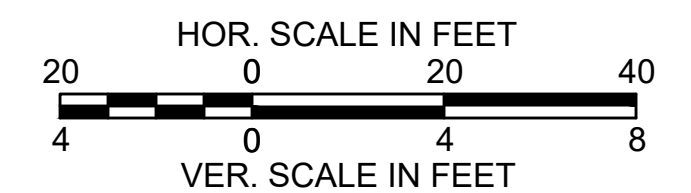


TISBURY
BEACH ROAD

CONSTRUCTION PLANS & PROFILES

N/F
TISBURY WHARF CO. INC.
DEED BOOK/PAGE: 394/768
ASSESSOR'S M/B/P: 9/C/13
#138

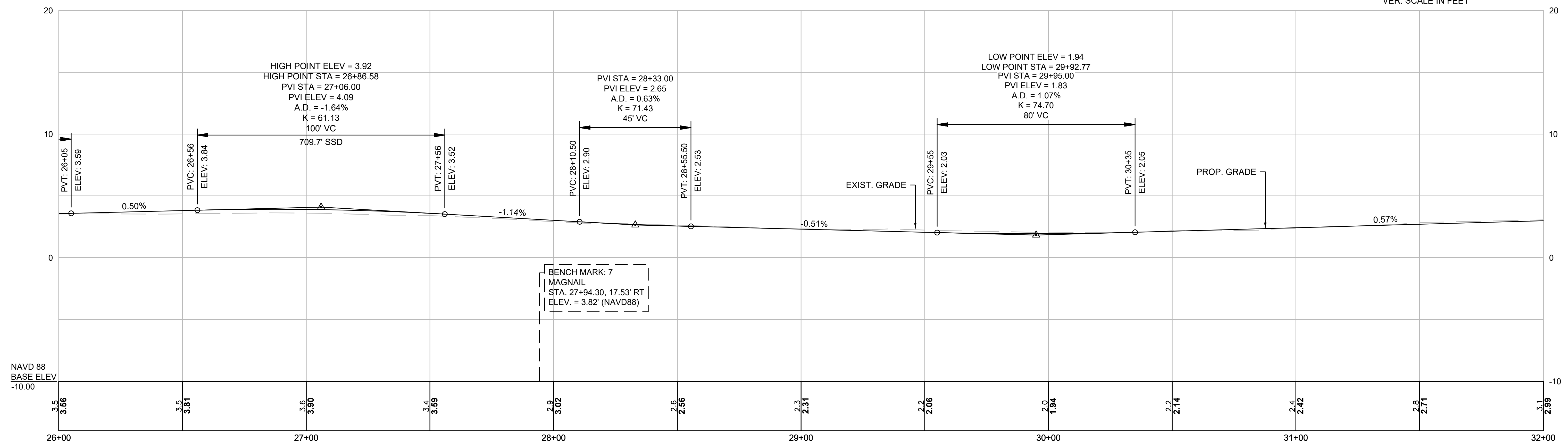
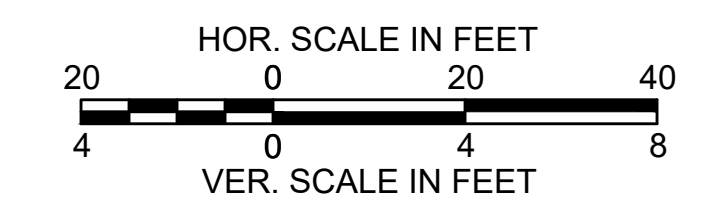
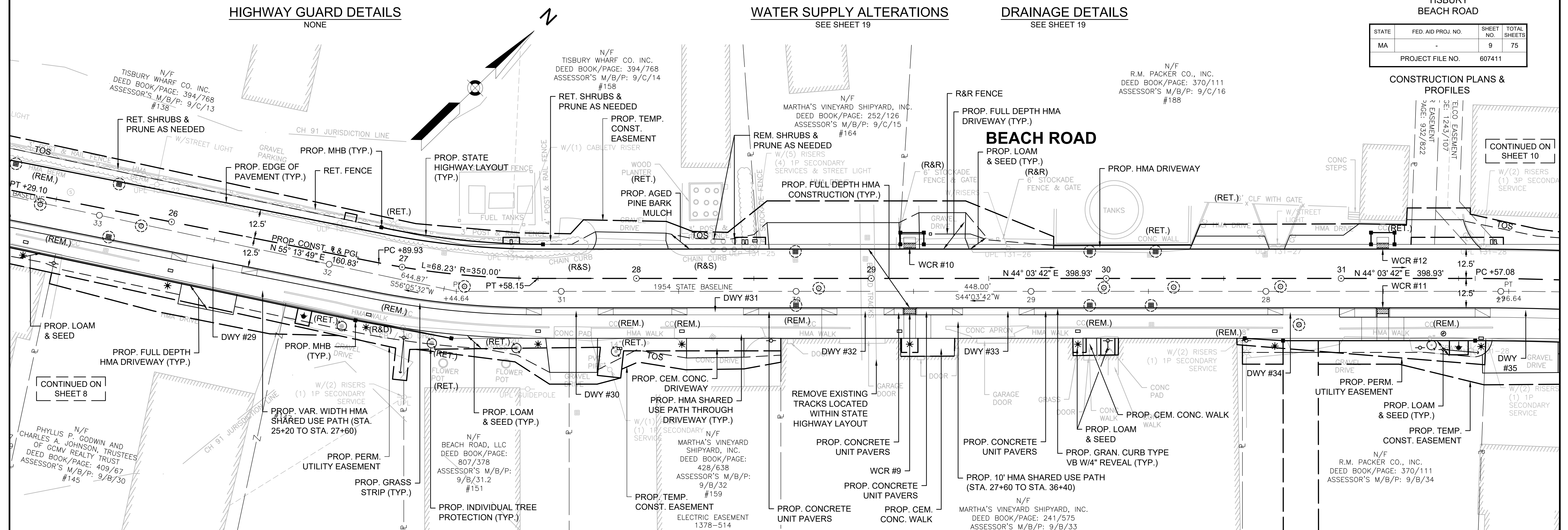
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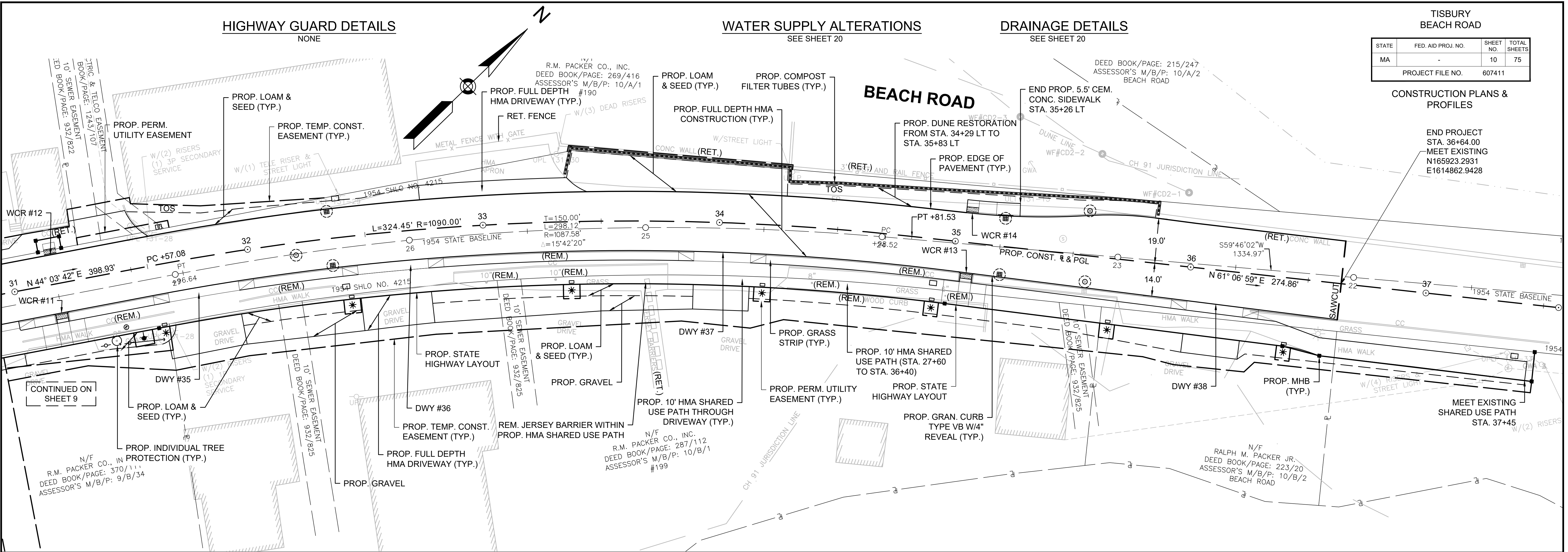
TISBURY
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CONTINUED ON
SHEET 10



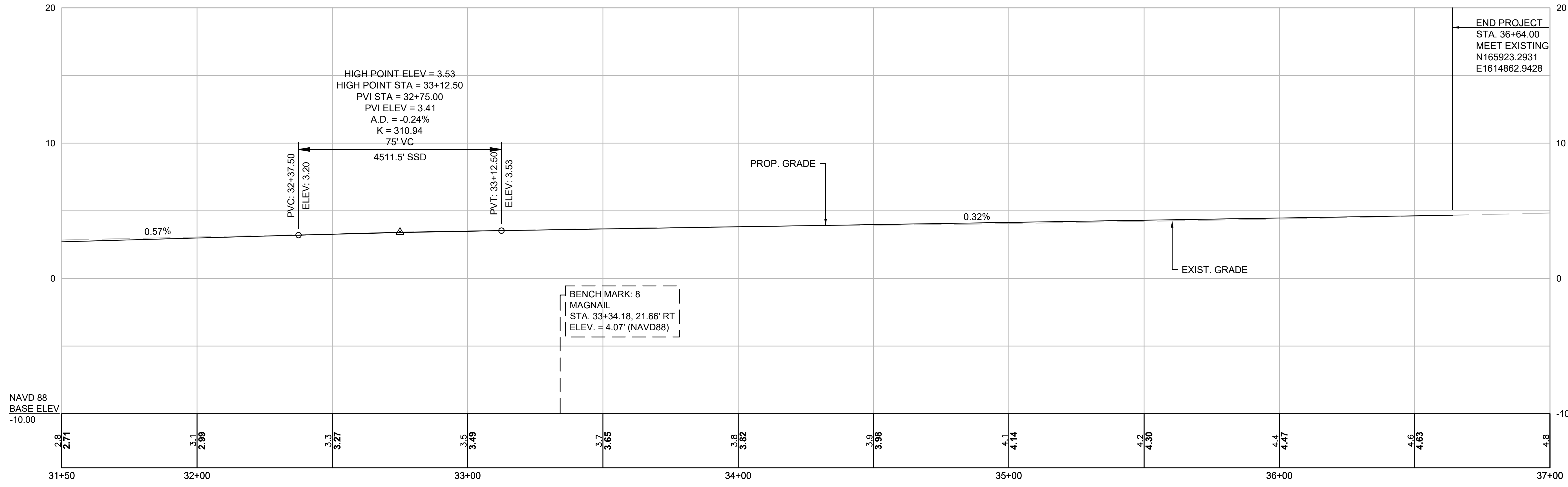
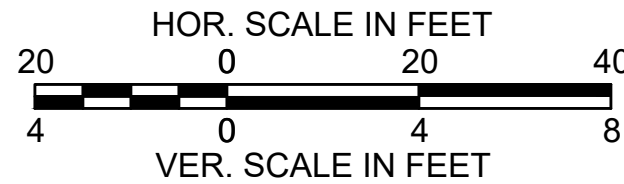
607411_HD (CO).DWG Plotted on 19-Mar-2018 11:48 AM



TISBURY BEACH ROAD			
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	10	75
PROJECT FILE NO.		607411	

CONSTRUCTION PLANS & PROFILES

END PROJECT STA. 36+64.00
MEET EXISTING N165923.2931
E1614862.9428

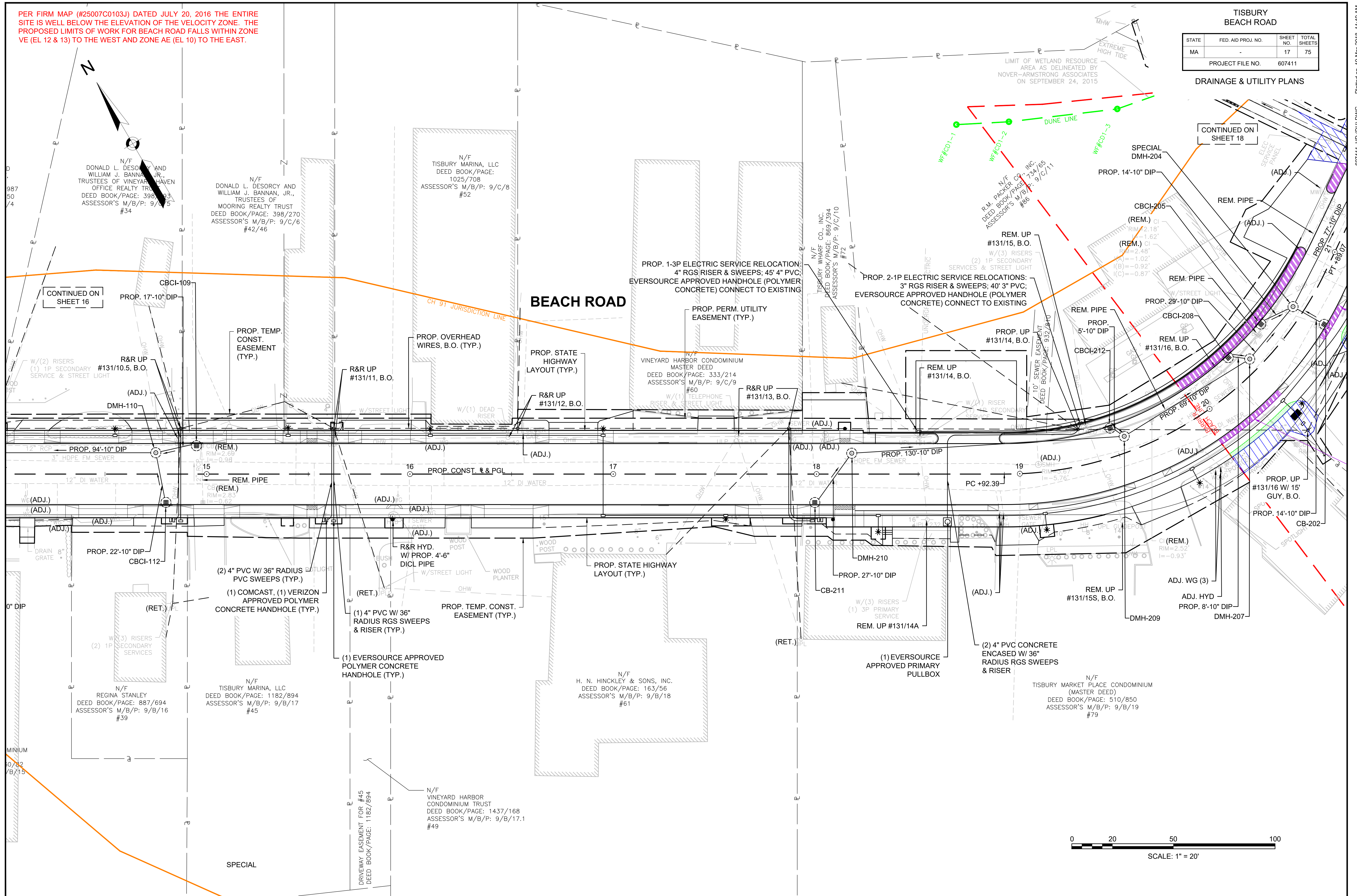


PER FIRM MAP (#25007C0103J) DATED JULY 20, 2016 THE ENTIRE SITE IS WELL BELOW THE ELEVATION OF THE VELOCITY ZONE. THE PROPOSED LIMITS OF WORK FOR BEACH ROAD FALLS WITHIN ZONE VE (EL 12 & 13) TO THE WEST AND ZONE AE (EL 10) TO THE EAST.

TISBURY
BEACH ROAD

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	17	75
PROJECT FILE NO.		607411	

DRAINAGE & UTILITY PLANS



607411_HD (DU).DWG Fluted Oil 19-Mar-2018 11:49 AM

PER FIRM MAP (#25007C0103J) DATED JULY 20, 2016 THE ENTIRE SITE IS WELL BELOW THE ELEVATION OF THE VELOCITY ZONE. THE PROPOSED LIMITS OF WORK FOR BEACH ROAD FALLS WITHIN ZONE VE (EL 12 & 13) TO THE WEST AND ZONE AE (EL 10) TO THE EAST.

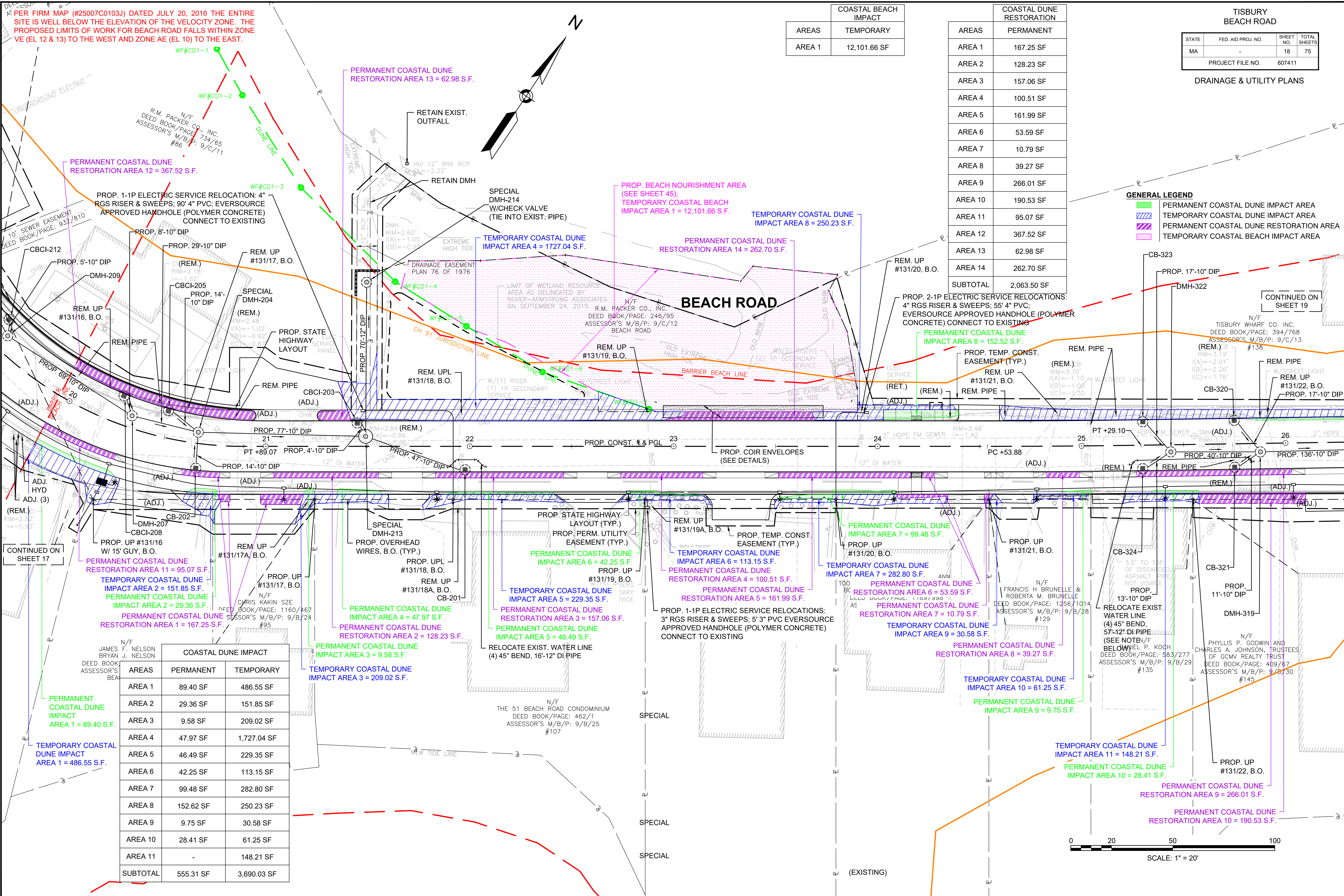
COASTAL BEACH IMPACT	
AREAS	TEMPORARY
AREA 1	12,101.66 SF

COASTAL DUNE RESTORATION	
AREAS	PERMANENT
AREA 1	167.25 SF
AREA 2	128.23 SF
AREA 3	157.06 SF
AREA 4	100.51 SF
AREA 5	161.99 SF
AREA 6	53.59 SF
AREA 7	10.79 SF
AREA 8	39.27 SF
AREA 9	266.01 SF
AREA 10	190.53 SF
AREA 11	95.07 SF
AREA 12	367.52 SF
AREA 13	62.98 SF
AREA 14	262.70 SF
SUBTOTAL	2,063.50 SF

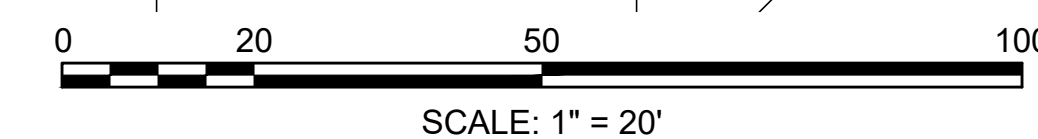
TISBURY BEACH ROAD			
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	18	75
PROJECT FILE NO.		607411	

DRAINAGE & UTILITY PLANS

- GENERAL LEGEND**
- PERMANENT COASTAL DUNE IMPACT AREA
 - TEMPORARY COASTAL DUNE IMPACT AREA
 - PERMANENT COASTAL DUNE RESTORATION AREA
 - TEMPORARY COASTAL BEACH IMPACT AREA



COASTAL DUNE IMPACT		
AREAS	PERMANENT	TEMPORARY
AREA 1	89.40 SF	486.55 SF
AREA 2	29.36 SF	151.85 SF
AREA 3	9.58 SF	209.02 SF
AREA 4	47.97 SF	1,727.04 SF
AREA 5	46.49 SF	229.35 SF
AREA 6	42.25 SF	113.15 SF
AREA 7	99.48 SF	282.80 SF
AREA 8	152.62 SF	250.23 SF
AREA 9	9.75 SF	30.58 SF
AREA 10	28.41 SF	61.25 SF
AREA 11	-	148.21 SF
SUBTOTAL	555.31 SF	3,690.03 SF



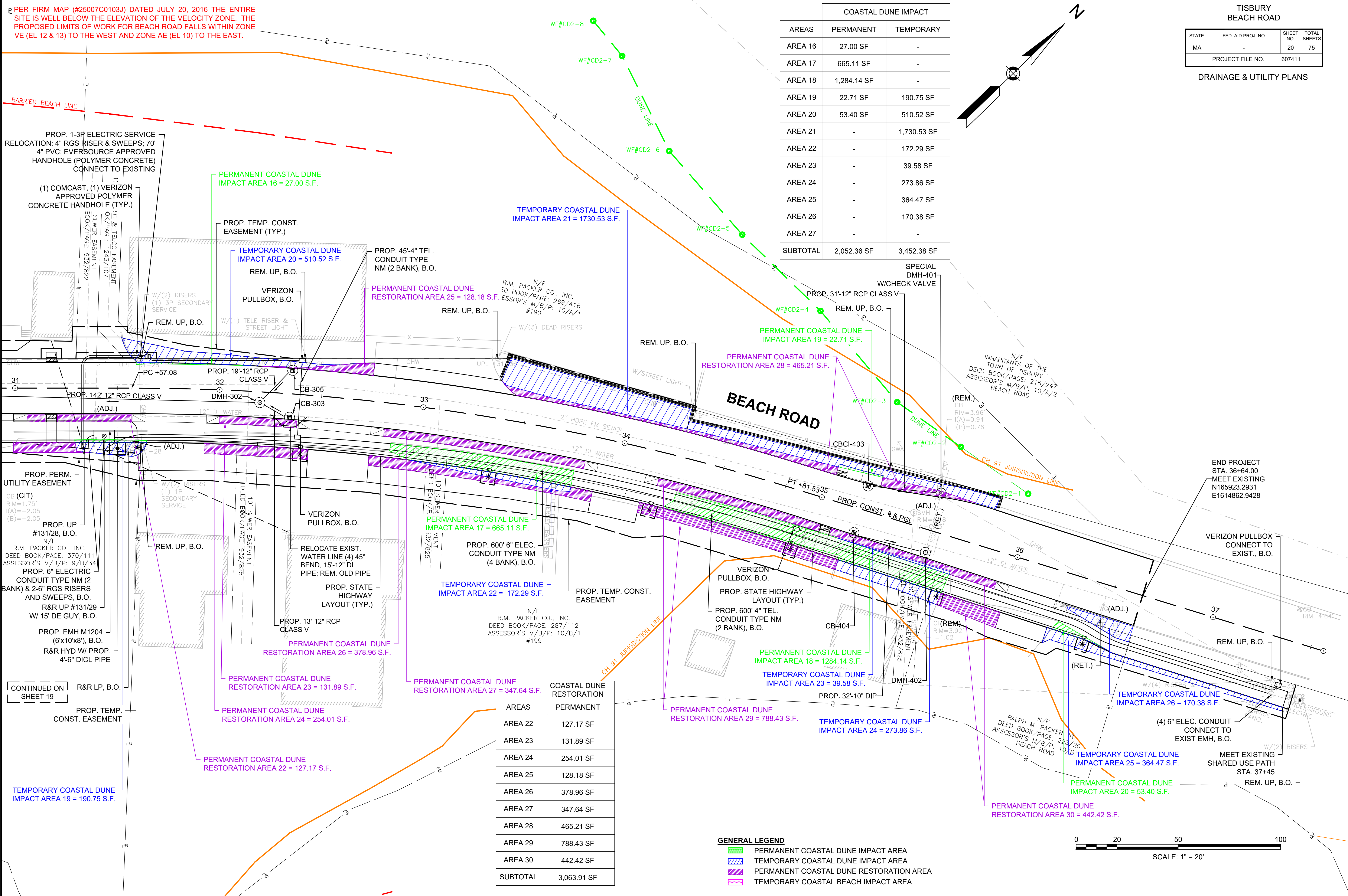
PER FIRM MAP (#25007C0103J) DATED JULY 20, 2016 THE ENTIRE SITE IS WELL BELOW THE ELEVATION OF THE VELOCITY ZONE. THE PROPOSED LIMITS OF WORK FOR BEACH ROAD FALLS WITHIN ZONE VE (EL 12 & 13) TO THE WEST AND ZONE AE (EL 10) TO THE EAST.

	COASTAL DUNE IMPACT	
AREAS	PERMANENT	TEMPORARY
AREA 16	27.00 SF	-
AREA 17	665.11 SF	-
AREA 18	1,284.14 SF	-
AREA 19	22.71 SF	190.75 SF
AREA 20	53.40 SF	510.52 SF
AREA 21	-	1,730.53 SF
AREA 22	-	172.29 SF
AREA 23	-	39.58 SF
AREA 24	-	273.86 SF
AREA 25	-	364.47 SF
AREA 26	-	170.38 SF
AREA 27	-	-
SUBTOTAL	2,052.36 SF	3,452.38 SF

TISBURY
BEACH ROAD

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	20	75
PROJECT FILE NO.		607411	

DRAINAGE & UTILITY PLANS

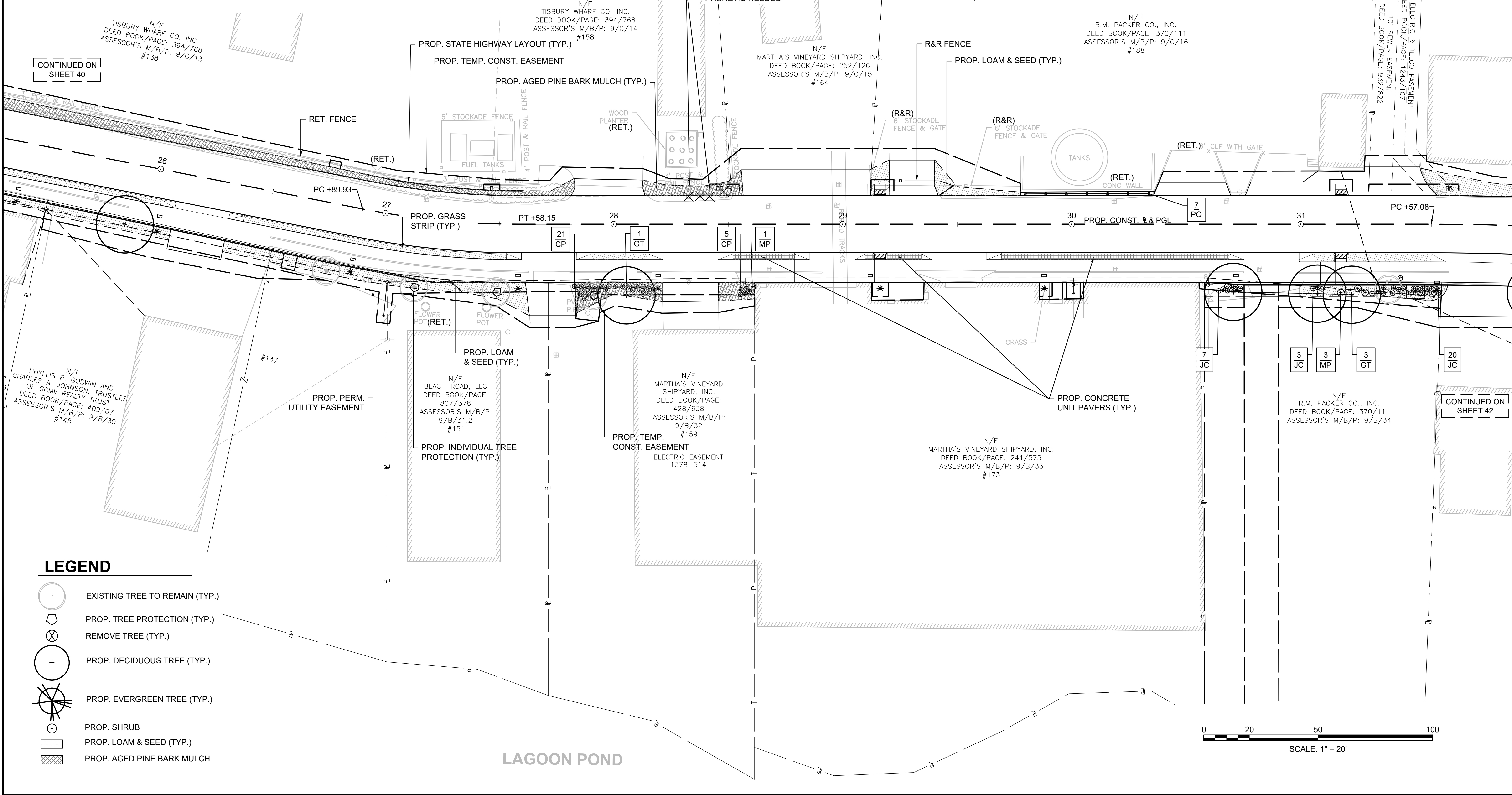


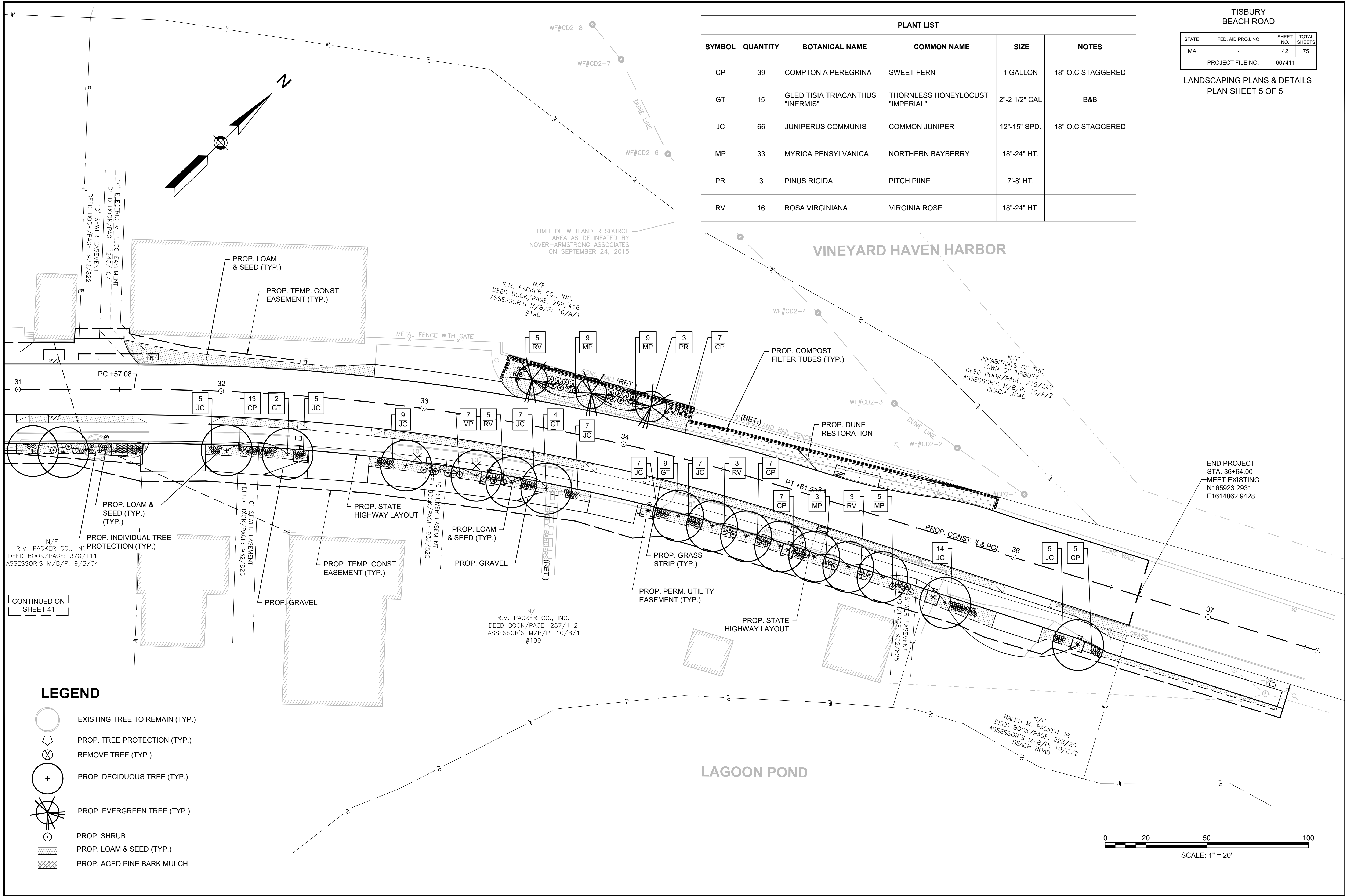
PLANT LIST					
SYMBOL	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	NOTES
CP	26	COMPTONIA PEREGRINA	SWEET FERN	1 GALLON	18" O.C STAGGERED
GT	4	GLEDTISIA TRIACANTHUS "INERMIS"	THORNLESS HONEYLOCUST "IMPERIAL"	2"-2 1/2" CAL	B&B
JC	30	JUNIPERUS COMMUNIS	COMMON JUNIPER		12"-15" SPD.
MP	4	MYRICA PENSYLVANICA	NORTHERN BAYBERRY	18"-24" HT.	
PQ	7	PARTHENOCEISSUS QUINQUEFOLIA	VIRGINA CREEPER	1 GALLON	BASE OF WALL

TISBURY
BEACH ROAD

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	41	75
PROJECT FILE NO.		607411	

LANDSCAPING PLANS & DETAILS
PLAN SHEET 4 OF 5





PLANT LIST					
SYMBOL	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	NOTES
CP	39	COMPTONIA PEREGRINA	SWEET FERN	1 GALLON	18" O.C STAGGERED
GT	15	GLEDITISIA TRIACANTHUS "INERMIS"	THORNLESS HONEYLOCUST "IMPERIAL"	2"-2 1/2" CAL	B&B
JC	66	JUNIPERUS COMMUNIS	COMMON JUNIPER	12"-15" SPD.	18" O.C STAGGERED
MP	33	MYRICA PENSYLVANICA	NORTHERN BAYBERRY	18"-24" HT.	
PR	3	PINUS RIGIDA	PITCH PIINE	7'-8' HT.	
RV	16	ROSA VIRGINIANA	VIRGINIA ROSE	18"-24" HT.	

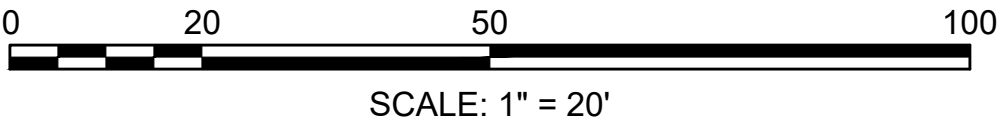
TISBURY
BEACH ROAD

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	42	75
PROJECT FILE NO.		607411	

LANDSCAPING PLANS & DETAILS
PLAN SHEET 5 OF 5

LEGEND

- EXISTING TREE TO REMAIN (TYP.)
- PROP. TREE PROTECTION (TYP.)
- REMOVE TREE (TYP.)
- PROP. DECIDUOUS TREE (TYP.)
- PROP. EVERGREEN TREE (TYP.)
- PROP. SHRUB
- PROP. LOAM & SEED (TYP.)
- PROP. AGED PINE BARK MULCH



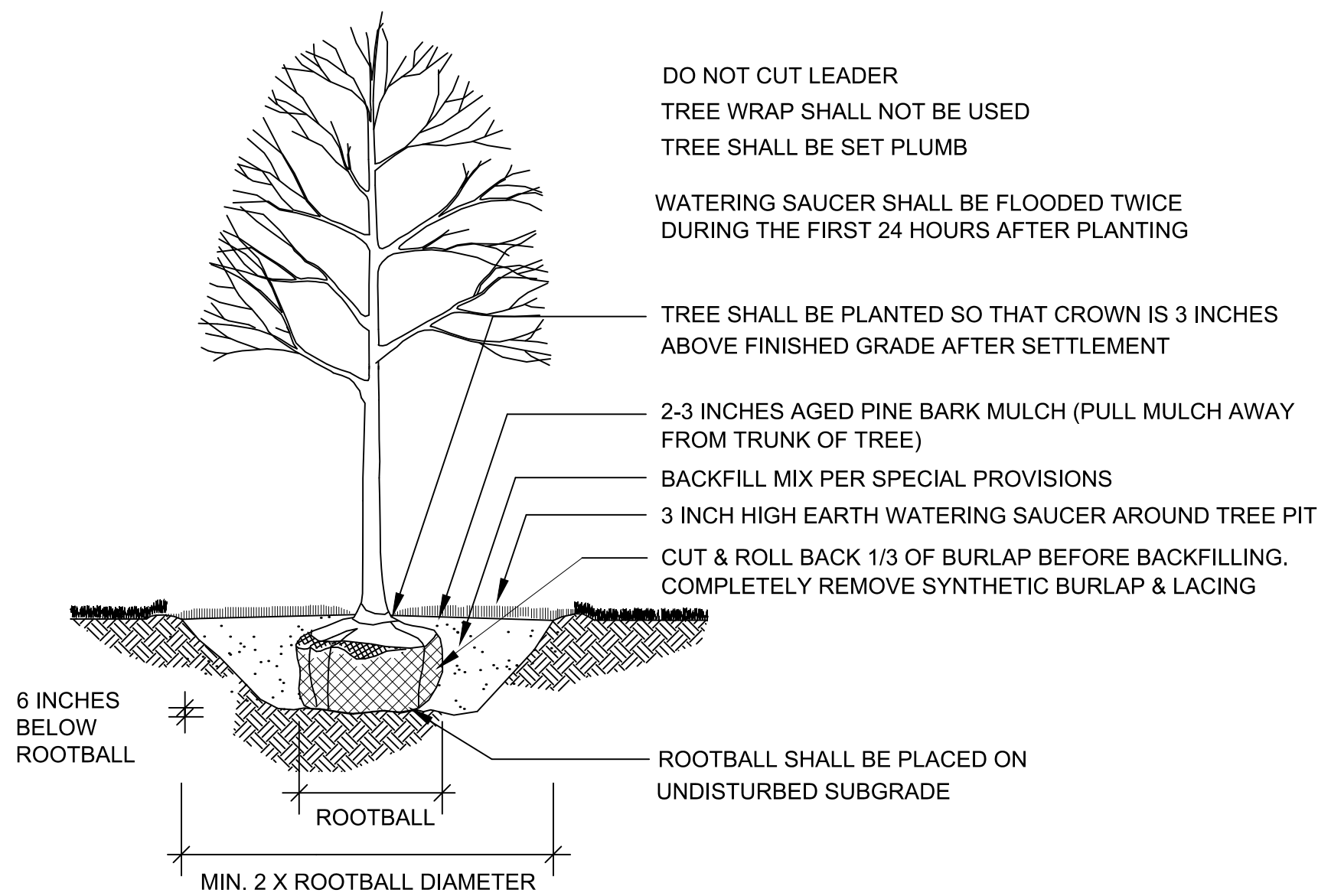
TISBURY
BEACH ROAD

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	43	75
PROJECT FILE NO.		607411	

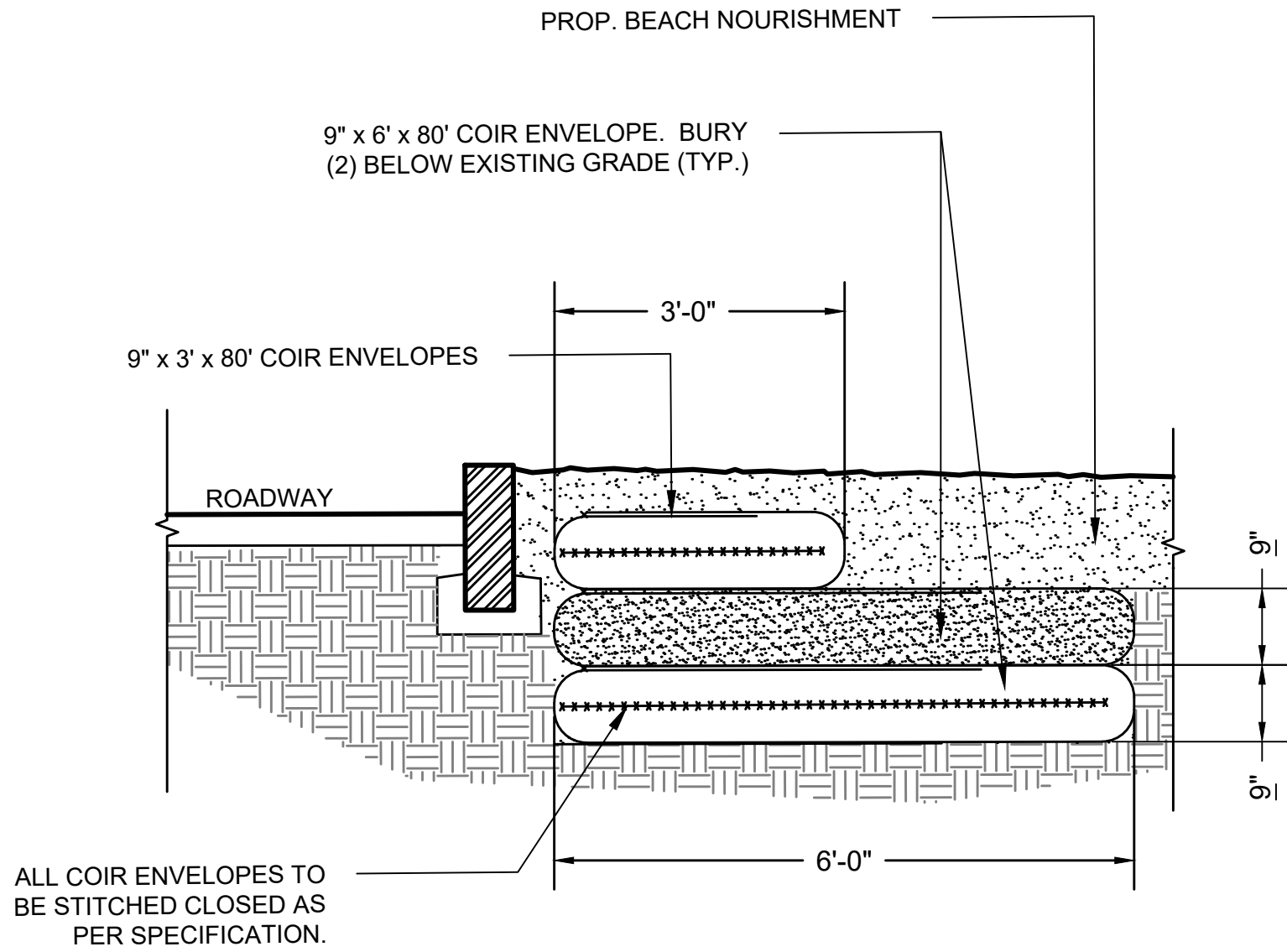
LANDSCAPING PLANS & DETAILS
DETAIL SHEET 1 OF 2

PLANT LIST										
QTY.	ID	BOTANICAL NAME	COMMON NAME	SIZE	COMMENT	SHEET 1	SHEET 2	SHEET 3	SHEET 4	SHEET 5
		<u>TREES</u>								
25	GT	GLEDETISIA TRIACANTHUS "INERMIS"	THORNLESS HONEYLOCUST "IMPERIAL"	2"-2.5" CALIPER		3	2	1	4	15
3	PR	PINUS RIGIDA	PITCH PINE	7'-8" HT.		-	-	-	-	3
		<u>SHRUBS</u>								
105	CP	COMPTONIA PEREGRINA	SWEET FERN	1 GALLON	18" O.C STAGGERED	-	-	40	26	39
96	JC	JUNIPERUS COMMUNIS	COMMON JUNIPER	12"-15" SPD.		-	-	-	30	66
81	MP	MYRICA PENSYLVANICA	NORTHERN BAYBERRY	18"-24" HT.		-	3	41	4	33
16	RV	ROSA VIRGINIANA	VIRGINIA ROSE	18"-24" HT.		-	-	-	-	16
		<u>GROUNDCOVERS & PERENNIALS</u>								
7	PQ	PARTHENOCISSUS QUINQUEFOLIA	VIRGINA CREEPER	1 GALLON	BASE OF WALL	-	-	-	7	-
		<u>COASTAL BANK PLUGS</u>								
10,875	AB	AMMOPHILIA BREVIQULATA	AMERICAN BEACHGRASS	CULMS	2 PER HOLE, 12" O.C STAGGERED	-	-	10,875	-	-

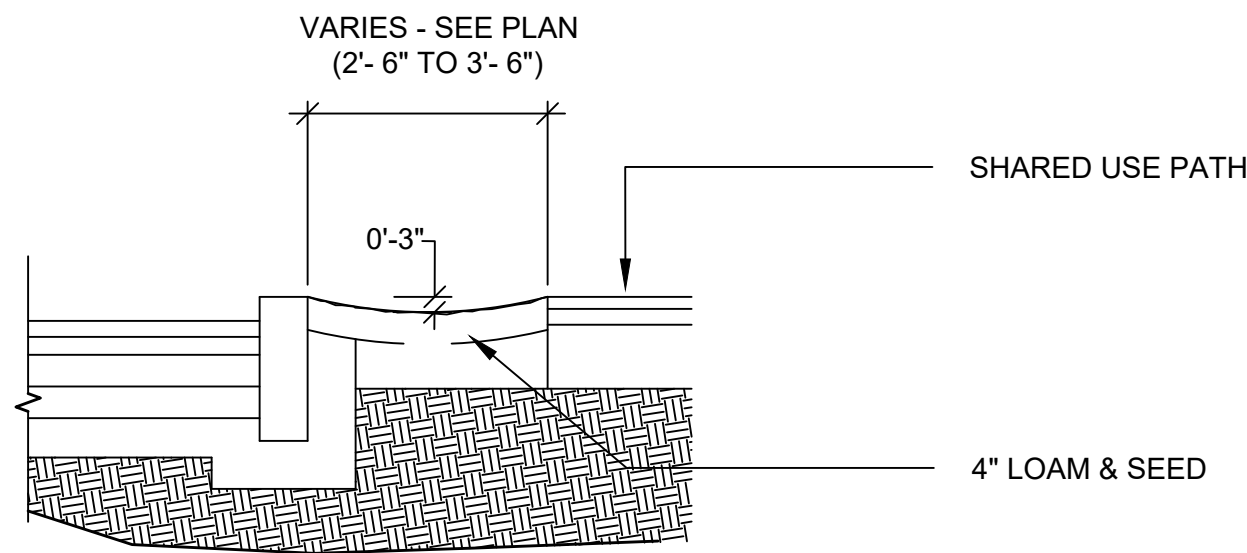
STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	44	75
PROJECT FILE NO.		607411	



1 DECIDUOUS TREE PLANTING
NOT TO SCALE

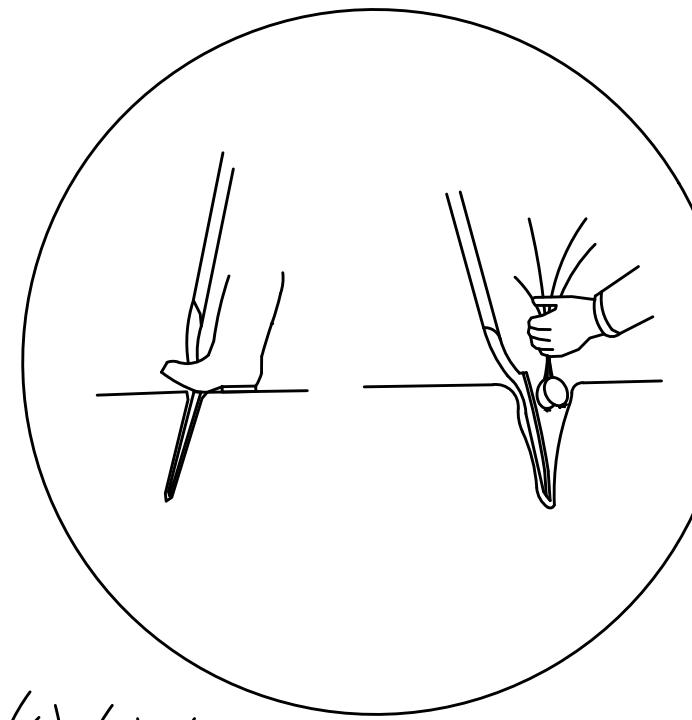


3 COIR ENVELOPES
NOT TO SCALE

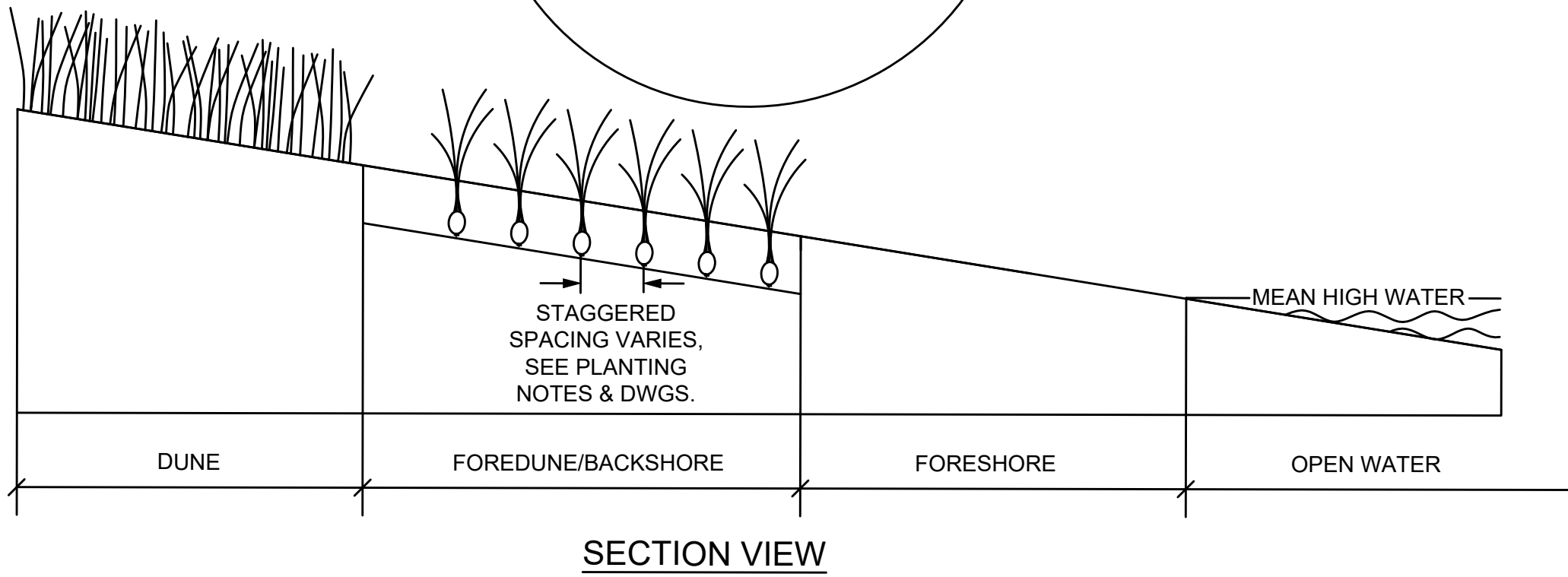


2 SHARED USE PATH GRASS STRIP
SCALE: 1/2"=1' 0"

PLANTING DETAIL



- NOTES:
1. CULMS SHALL BE PLANTED WITH EITHER A "POGO" STYLE PLANTER OR A STRAIGHT BLADE SHOVEL.
 2. HOLES SHALL BE 8"-10" DEEP TO ALLOW THE LIVING NODE TO REACH DEEPLY INTO THE SAND.
 3. TWO CULMS SHALL BE PLACED IN EACH HOLE.
 4. SLIDE THE PLANT DOWN THE BLADE WITH THE BLADE IN THE GROUND. PUSH THE RHIZOMES DOWN INTO THE HOLE AS SHOVEL IS LIFTED.
 5. HEEL-IN EACH BUNDLE USING THE FOOT OR PALM OF HAND. CHECK FOR FIRMNESS. PLANTS SHOULD WITHSTAND A GENTLE PULL.
 6. APPLY FERTILIZATION AS PER SPECIFICATION.

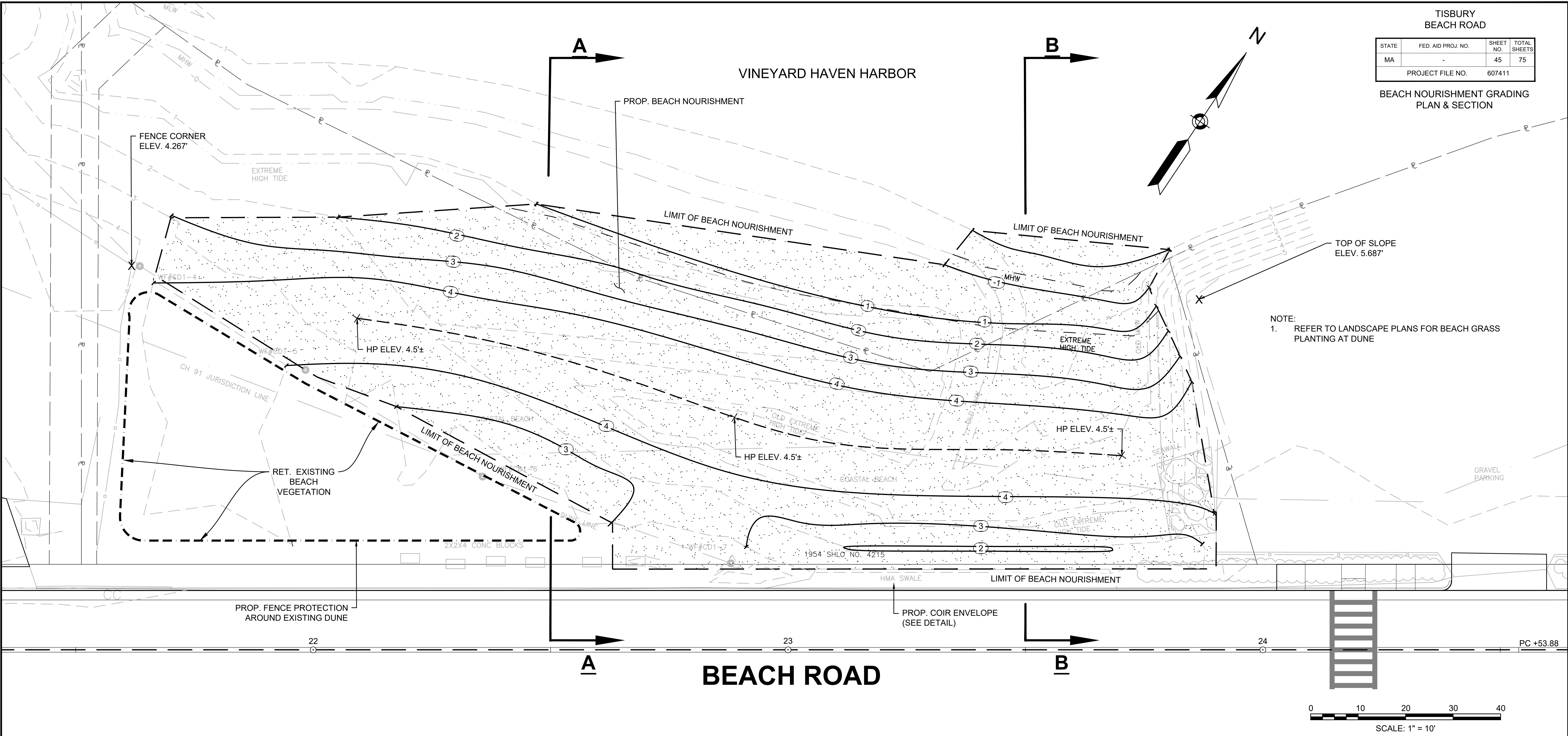


4 CULM PLANTING
NOT TO SCALE

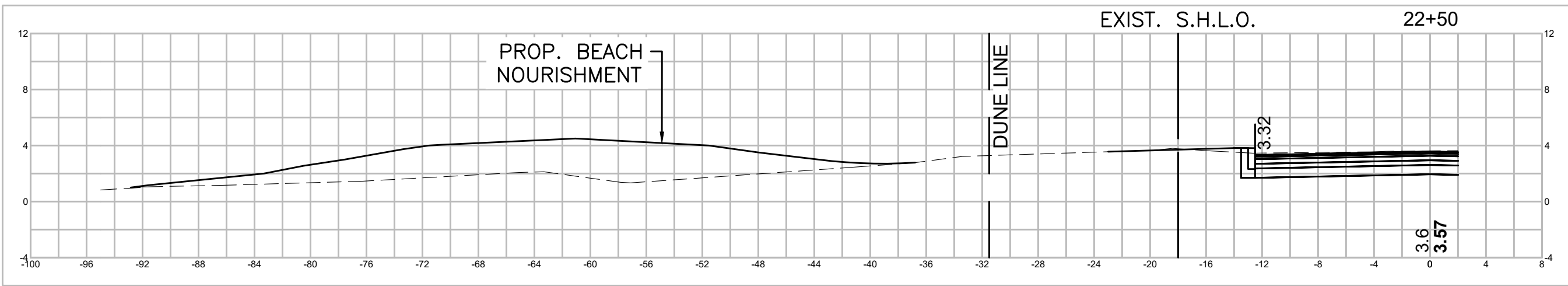
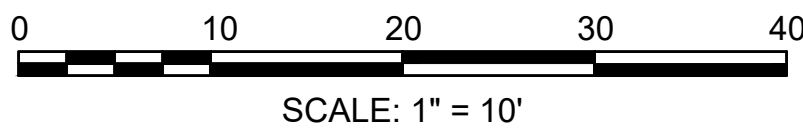
TISBURY
BEACH ROAD

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	45	75
PROJECT FILE NO.		607411	

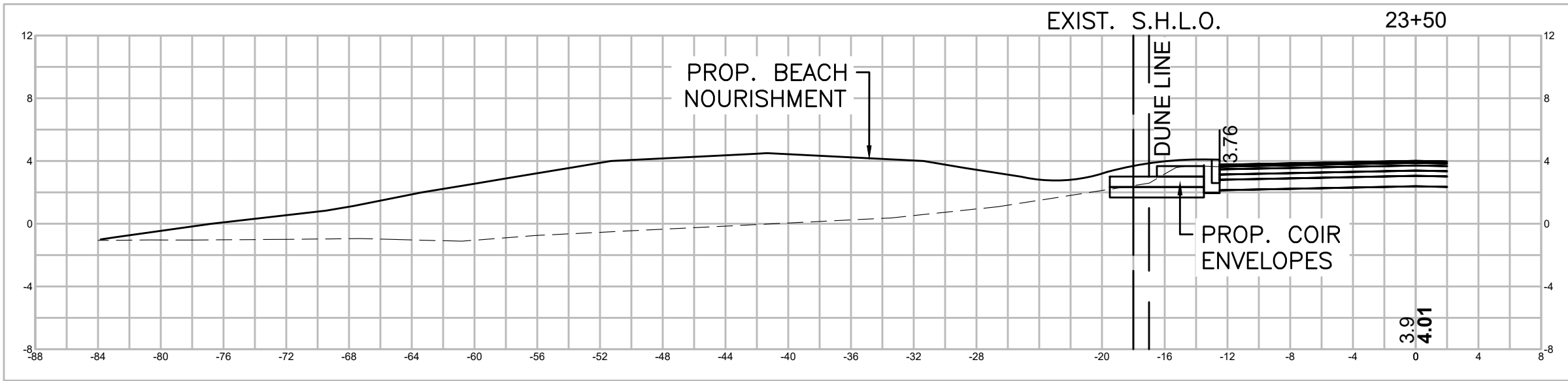
BEACH NOURISHMENT GRADING
PLAN & SECTION



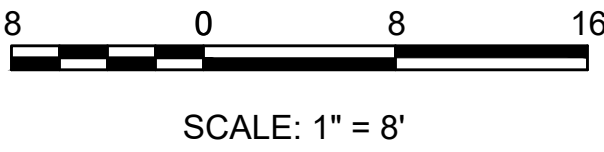
NOTE:
1. REFER TO LANDSCAPE PLANS FOR BEACH GRASS
PLANTING AT DUNE



SECTION A-A



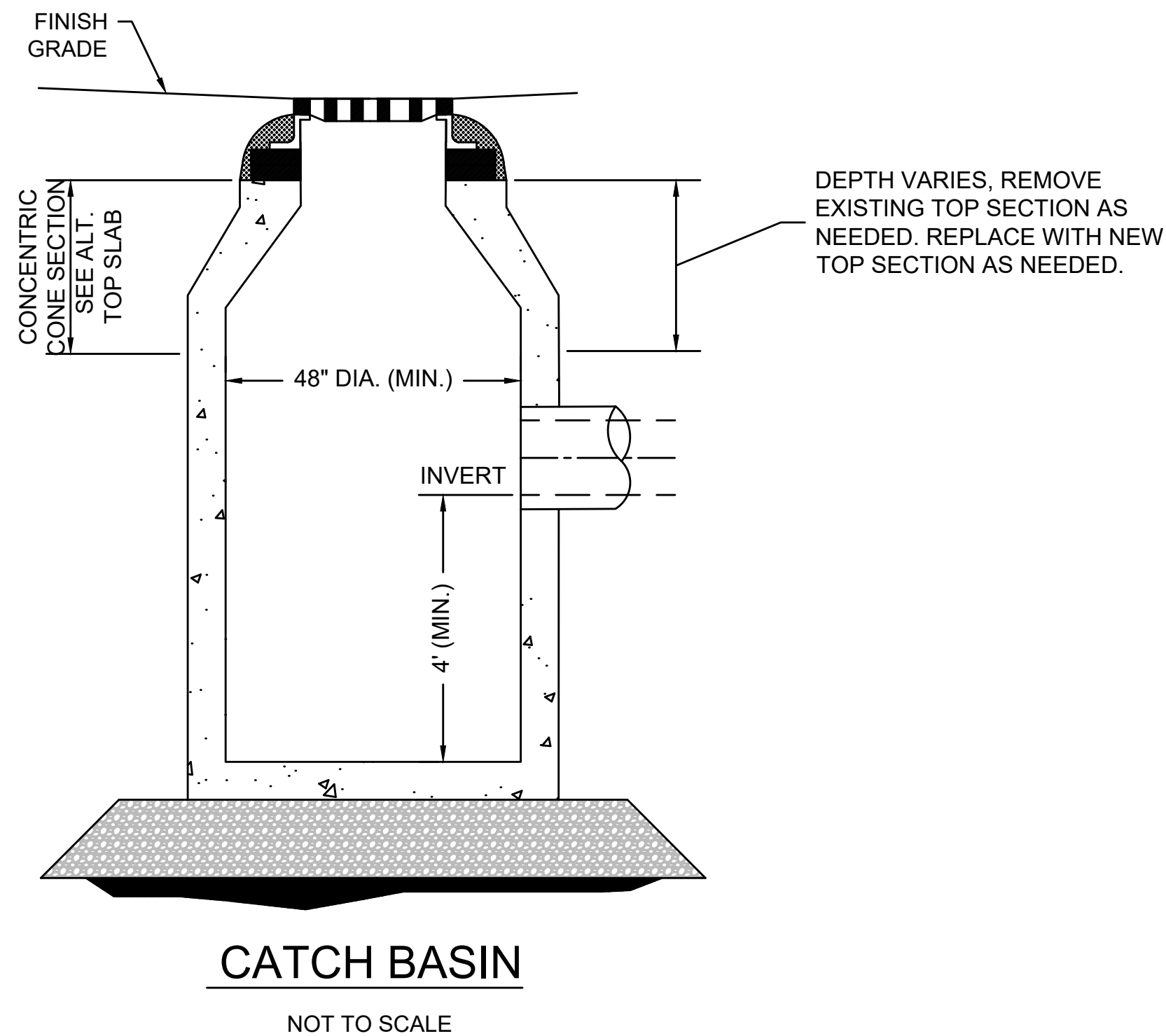
SECTION B-B





CONSTRUCTION DETAILS

1. IF UNSUITABLE MATERIAL IS ENCOUNTERED AS DETERMINED BY THE ENGINEER, ADDITIONAL BEDDING SHALL BE PAID FOR UNDER ITEM 156.

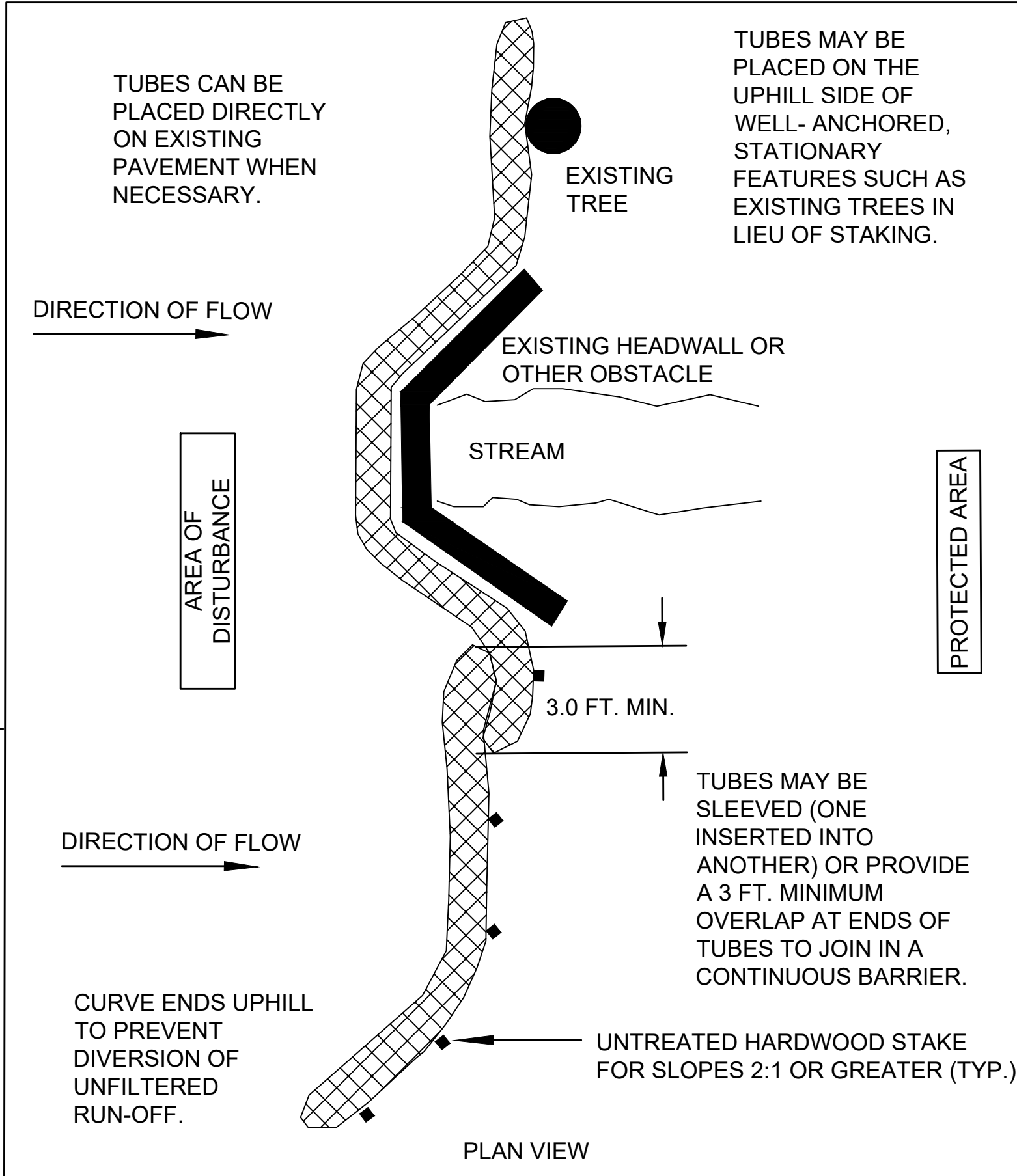
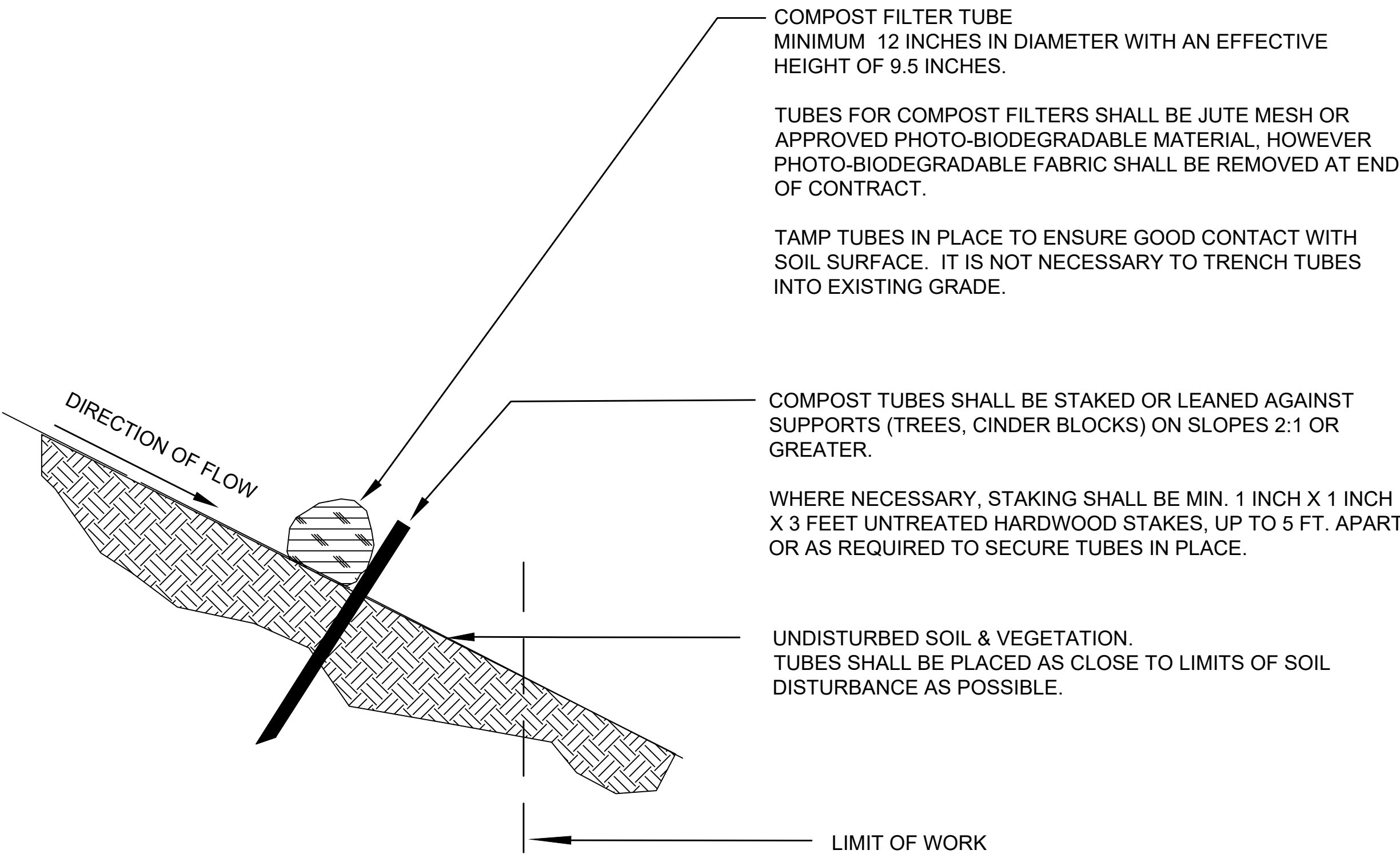


1. ALL CONDUITS ENCASED IN CONCRETE, SHALL USE PLASTIC SPACERS TO MAINTAIN CONDUIT SPACING. SPACERS SHALL MEET UTILITY SPECIFICATIONS FOR DESIGN AND SPACING.
2. EACH DUCT BANK SHALL HAVE ASSOCIATED WARNING TAPE INSTALLED. ELECTRIC DUCT BANKS WILL HAVE 6 INCH, COLOR RED AND CATV & TELEPHONE DUCT BANKS WILL HAVE 6 INCH, COLOR ORANGE; DETECTABLE METALLIC WARNING TAPE PLACED 12 INCHES ABOVE EACH CONCRETE ENCASEMENT.
3. CONDUITS SHALL BE BLOWN CLEAN USING COMPRESSED AIR. RUN MANDEREL THRU EACH CONDUIT TO CONFIRM VIABLE PATHWAY.
4. WOVEN POLYESTER MULE TAPE WITH A MINIMUM BREAKING STRENGTH OF 2500 LB. TENSILE STRENGTH SHALL BE INSTALLED WITHIN EACH CONDUIT AND THE ENDS PLUGGED.
5. A UTILITY COMPANY REPRESENTATIVE SHALL BE PRESENT TO APPROVE ALL CATV, ELECTRIC, AND TELEPHONE CONDUITS INSTALLED.



STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	47	75
PROJECT FILE NO.		607411	

CONSTRUCTION DETAILS

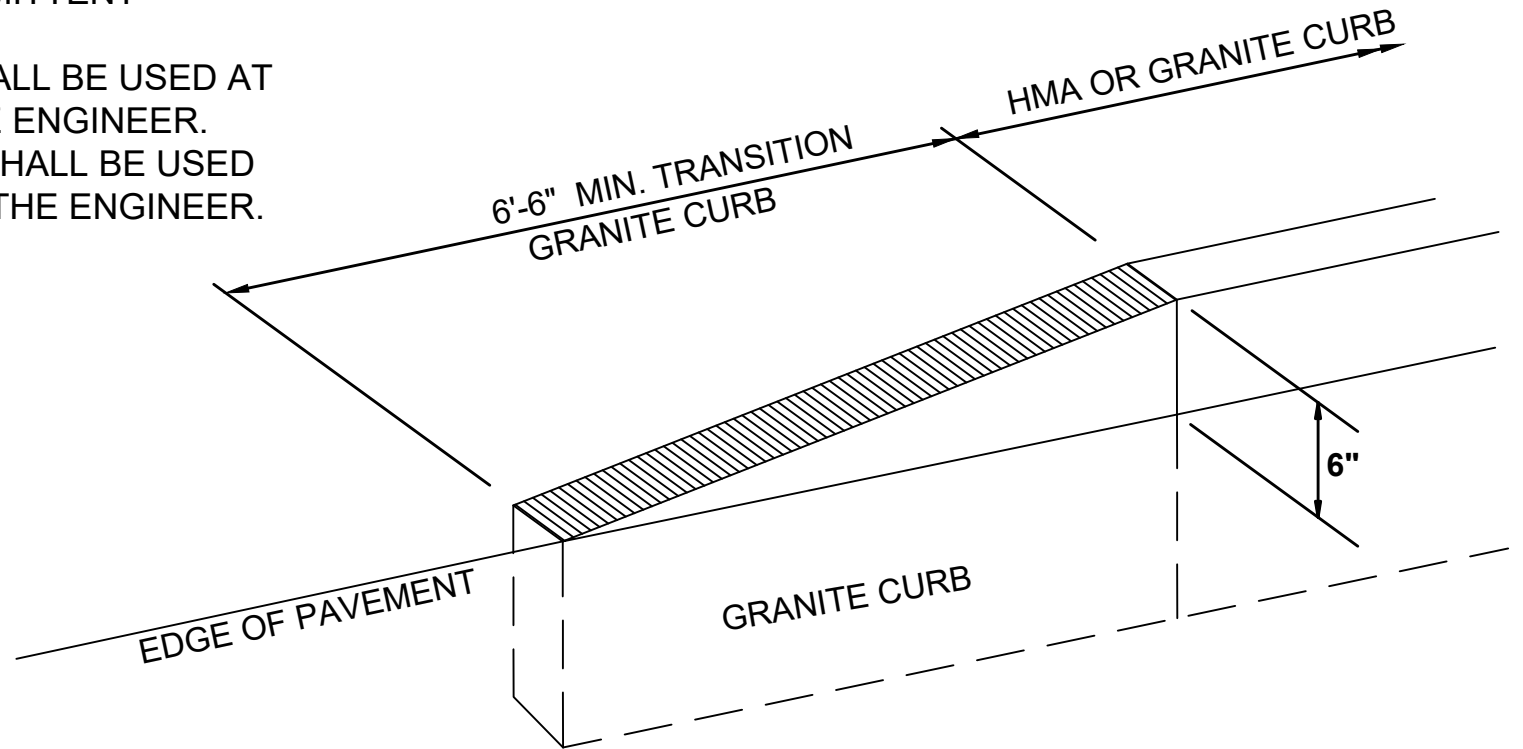


SINGLE COMPOST FILTER TUBE DETAIL

NOT TO SCALE

GENERAL NOTES:

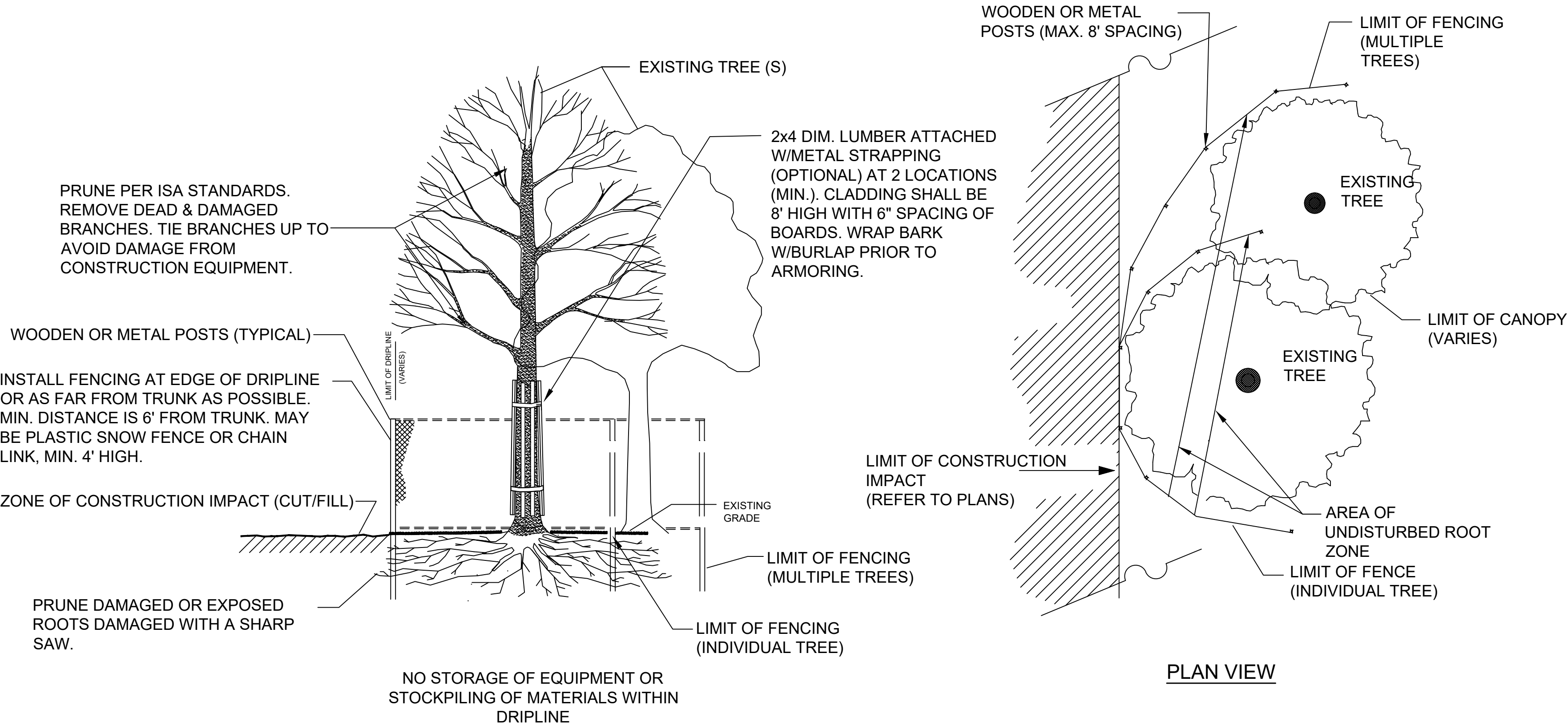
1. PROVIDE A MINIMUM TUBE DIAMETER OF 12 INCHES FOR SLOPES UP TO 50 FEET IN LENGTH WITH A SLOPE RATIO OF 3H:1V OR STEEPER. LONGER SLOPES OF 3H:1V MAY REQUIRE LARGER TUBE DIAMETER OR ADDITIONAL COURSING OF FILTER TUBES TO CREATE A FILTER BERM. REFER TO MANUFACTURER'S RECOMMENDATIONS FOR SITUATIONS WITH LONGER OR STEEPER SLOPES.
2. INSTALL TUBES ALONG CONTOURS AND PERPENDICULAR TO SHEET OR CONCENTRATED FLOW.
3. TUBE LOCATION MAY BE SHIFTED TO ADJUST TO LANDSCAPE FEATURES, BUT SHALL PROTECT UNDISTURBED AREA AND VEGETATION TO MAXIMUM EXTENT POSSIBLE.
4. DO NOT INSTALL IN PERENNIAL, EPHEMERAL OR INTERMITTENT STREAMS.
5. ADDITIONAL TUBES SHALL BE USED AT THE DIRECTION OF THE ENGINEER.
6. ADDITIONAL STAKING SHALL BE USED AT THE DIRECTION OF THE ENGINEER.



CURB TRANSITION DETAIL

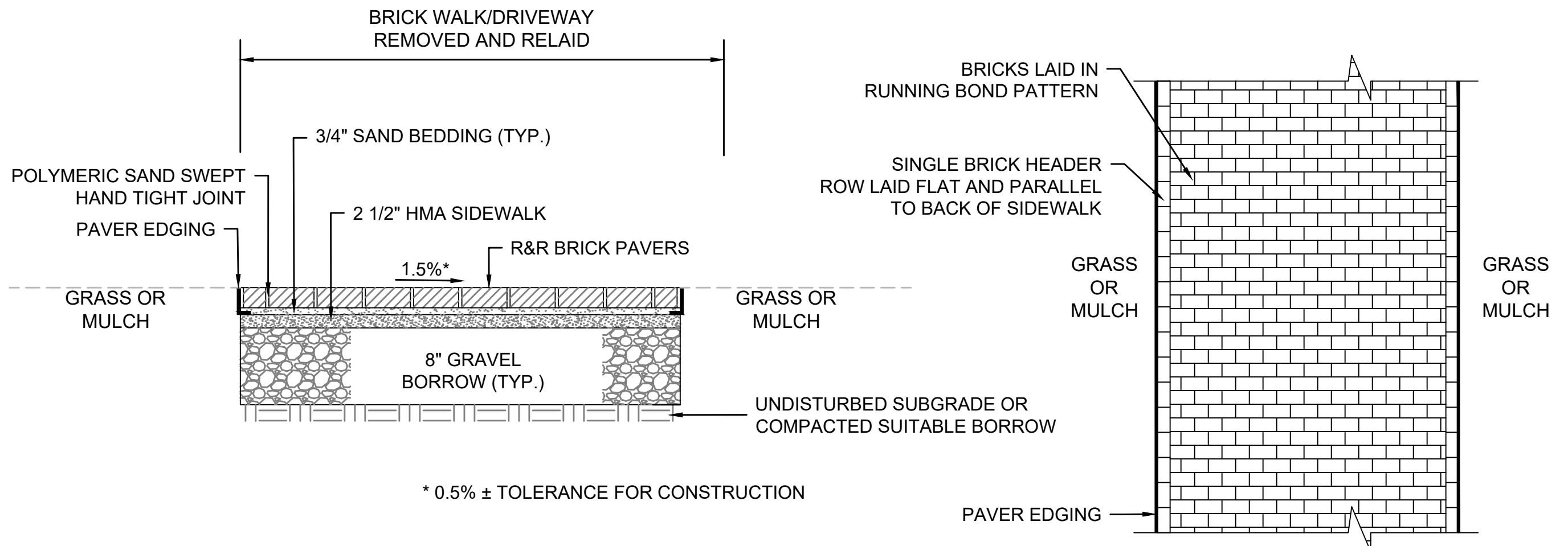
NOT TO SCALE

TO BE USED FOR TRANSITION FROM HMA CURB OR GRANITE CURB TO EDGE OF PAVEMENT



TREE PROTECTION - EXISTING TREES

NOT TO SCALE



SECTION

PLAN

BRICK WALK/DRIVEWAY REMOVED AND RELAI

NOT TO SCALE