

October 20, 2022

PRINCIPALS

Ms. Lori Capone
Theodore A Barten, PE Sudbury Conservation Commission
Margaret B Briggs 275 Old Lancaster Road
Dale T Raczynski, PE Sudbury, MA 01776

Dale T Raczynski, PE Cindy Schlessinger

Lester B Smith, Jr

Robert D O'Neal, CCM, INCE

Michael D Howard, PWS

Subject: Sudbury-Hudson Transmission Reliability Project (DEP File # 301-1287)

Snow Removal Plan and Request for Minor Change to Equipment Storage

Michael D Howard, PWS

Douglas J Kelleher

as J Kelleher Condition

AJ Jablonowski, PE Stephen H Slocomb, PE

Dear Ms. Capone and Sudbury Conservation Commission Members:

David E Hewett, LEED AP

Dwight R Dunk, LPD

David C Klinch, PWS, PMP

Maria B Hartnett

On behalf of NSTAR d/b/a Eversource Energy ("Eversource"), Epsilon Associates, Inc. ("Epsilon") is submitting this letter to provide details regarding the proposed snow removal plan for the Project and to request a minor deviation from existing Permit Condition Part II: Conditions Specific to Phase I, Eversource Underground Transmission Line, Condition ee.

Richard M Lampeter, INCE Geoff Starsiak, LEED AP BD+C

Marc Bergeron, PWS, CWS

Equipment Storage (Special Condition: Part II: Conditions Specific To Phase I: Eversource Underground Transmission Line, Item ee)

ASSOCIATES

This condition states "No spoils of construction, construction material, or equipment shall be stored, placed, or operated in the wetland resource areas or the wetland buffer zone except as may be permitted by this Order for work in the riverfront and upland resource area. These activities may not occur within the bordering vegetated wetland or within bordering land subject to flooding. "

Alyssa Jacobs, PWS
Holly Carlson Johnston
Brian Lever
Dorothy K. Buckoski, PE

The contractor requests the Commission to allow the feller buncher, which is part of the vegetation removal operation, to be stored overnight within the limits of work only along the segment of the Project from Union Avenue to the Sudbury Substation. This segment of the Project is almost entirely within the 100-foot buffer zone, or the inner riparian zone and this equipment would need to be moved great distances each day to mobilize to and demobilize from the work area to comply with this condition. For the vegetation removal process, the Contractor needs to utilize mats to facilitate movement of their equipment over the existing tracks and to protect the integrity of the existing tracks for efficient removal. Their plan is to have the feller buncher advance on a series of timber mats, placed in a leapfrog fashion as they progress with the vegetation removal. If this equipment has to mobilize to and demobilize from these segments of

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978 897 7100 FAX **978 897 0099** the Project each day, it will significantly delay the project's construction schedule. To protect adjacent wetlands and waterbodies from any potential unforeseen releases of fluids from the equipment while stored overnight, the Contractor will place secondary containment under the machine at the end of each workday. A picture of the feller buncher with the secondary containment deployed is attached to the email transmission for this letter. We estimate that vegetation removal activities in this segment of the Project if allowed to proceed in this manner, will take approximately two weeks to complete.

Snow Removal Plan

Condition ii, in Part II: Conditions Specific to Phase I: Eversource Underground Transmission Line requires that the Contractor to stockpile snow within the limits of work only or remove it from the site outside of wetlands resource areas.

Based on experience, the Contractor foresees the need to clear snow from the project site (limits of work), during a 2-inch or greater snow event. This type of snow event in a construction zone of this relatively small size will hinder the movement of construction equipment and cause safety concerns and delays to the progress of construction of the Project.

The Contractor is proposing to employ the following methods of snow removal along the Project during a 2-inch or greater snow event. Depending upon the event and the work operations occurring at the time of the event one or more of these techniques could be employed. These techniques are consistent with the Stormwater Management Permit issued by the Sudbury Planning Board.

- Disperse snow outside the limits of work by means of either snow blower attachment or loader bucket with raised skis (approx. 1 inch off the ground) along areas not within the Commission's jurisdiction (i.e., outside of wetland resource areas).
- Stockpile snow at manhole locations within the limits of work within or outside
 of areas subject to the Commission's jurisdiction. In these instances and due to
 workspace constraints in the limits of work these stockpiles would typically be
 limited to approximately 20 feet long and 15 feet wide.
- Stockpile snow outside of limits of work within areas not subject to the Commission's jurisdiction (i.e., outside of wetland resource areas). The approximate size of these piles would be limited to 40 feet long and 40 feet wide. Silt fence would be placed and maintained around these snow stockpiles until melt is complete in the spring.

 Snow will be loaded and hauled to a stockpile location at a facility away from the project area. This could occur within or outside of areas subject to the Commission's jurisdiction.

Thank you for your consideration of our request and please do not hesitate to contact me at 508-212-0420 or via email at mbergeron@epsilonassociates.com if you have any questions related to this submission. I look forward to discussing these topics with the Commission at the October 31, 2022, Conservation Commission meeting.

Sincerely,

Marc Bergeron, PWS, NHCWS Project Manager/Principal

Man Berger

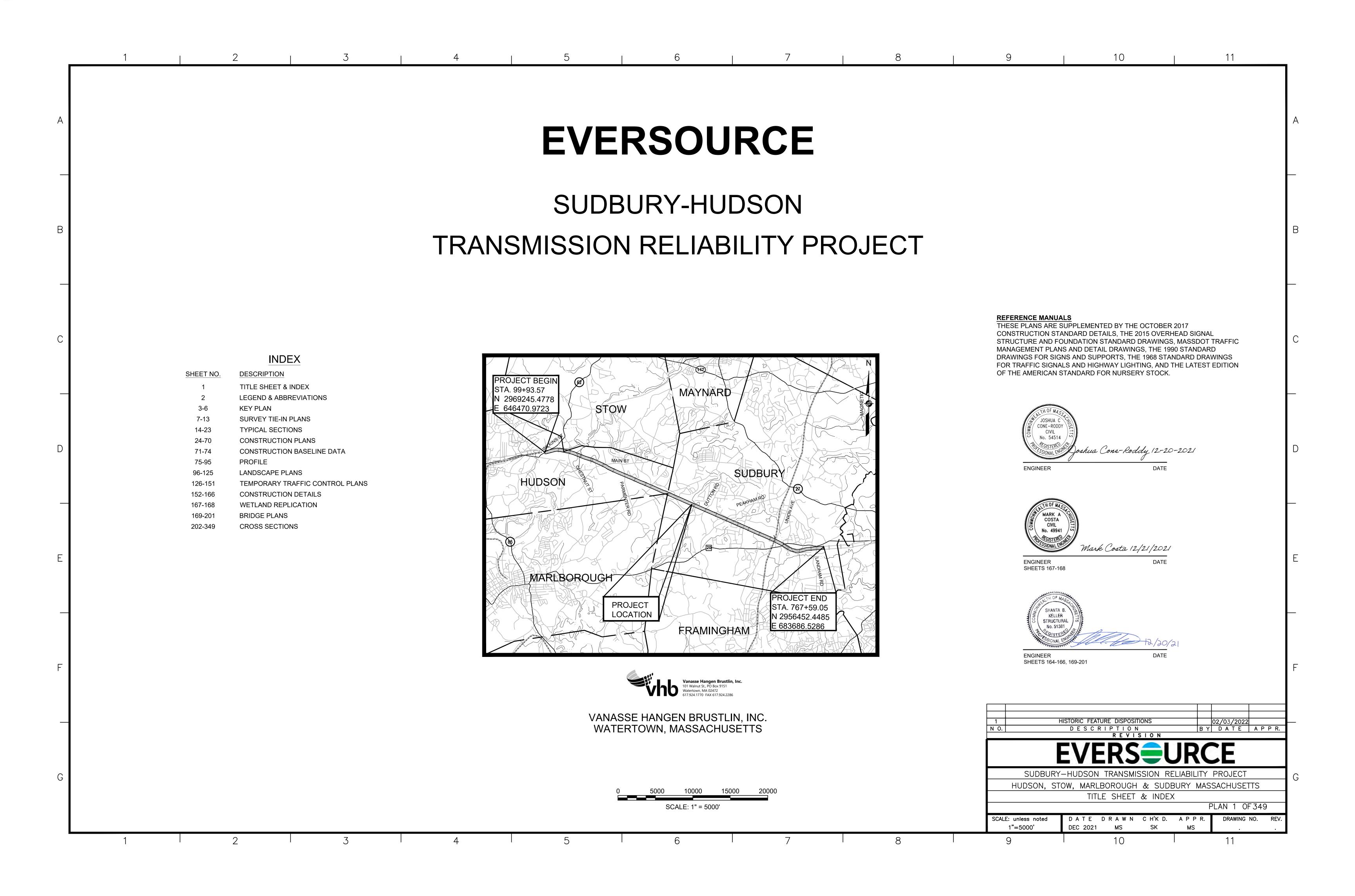
Cc: Denise Bartone, Eversource
Rebecca Weissman, SWCA
Michael Hager, Eversource
Matt Devlin, Eversource

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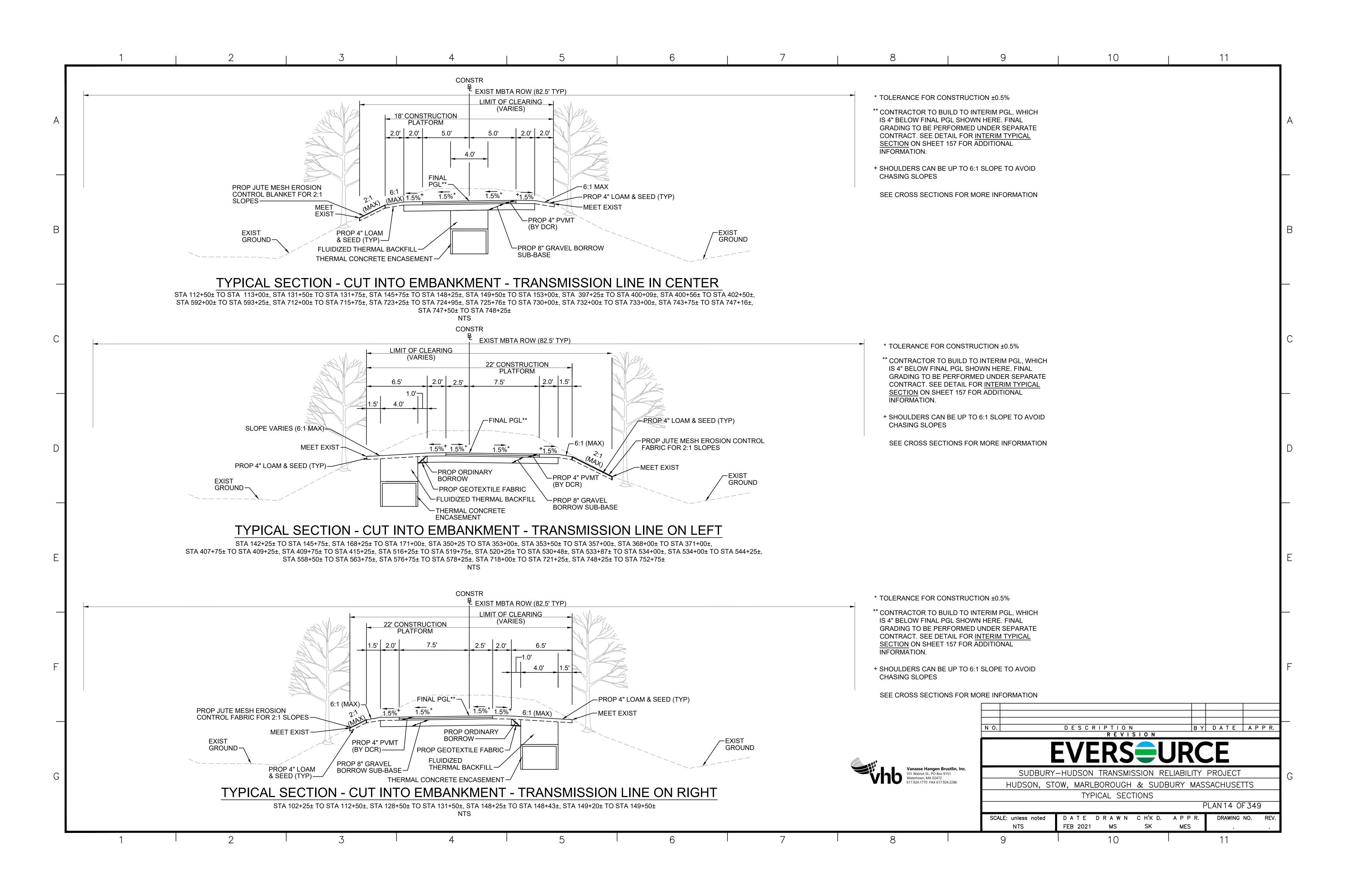


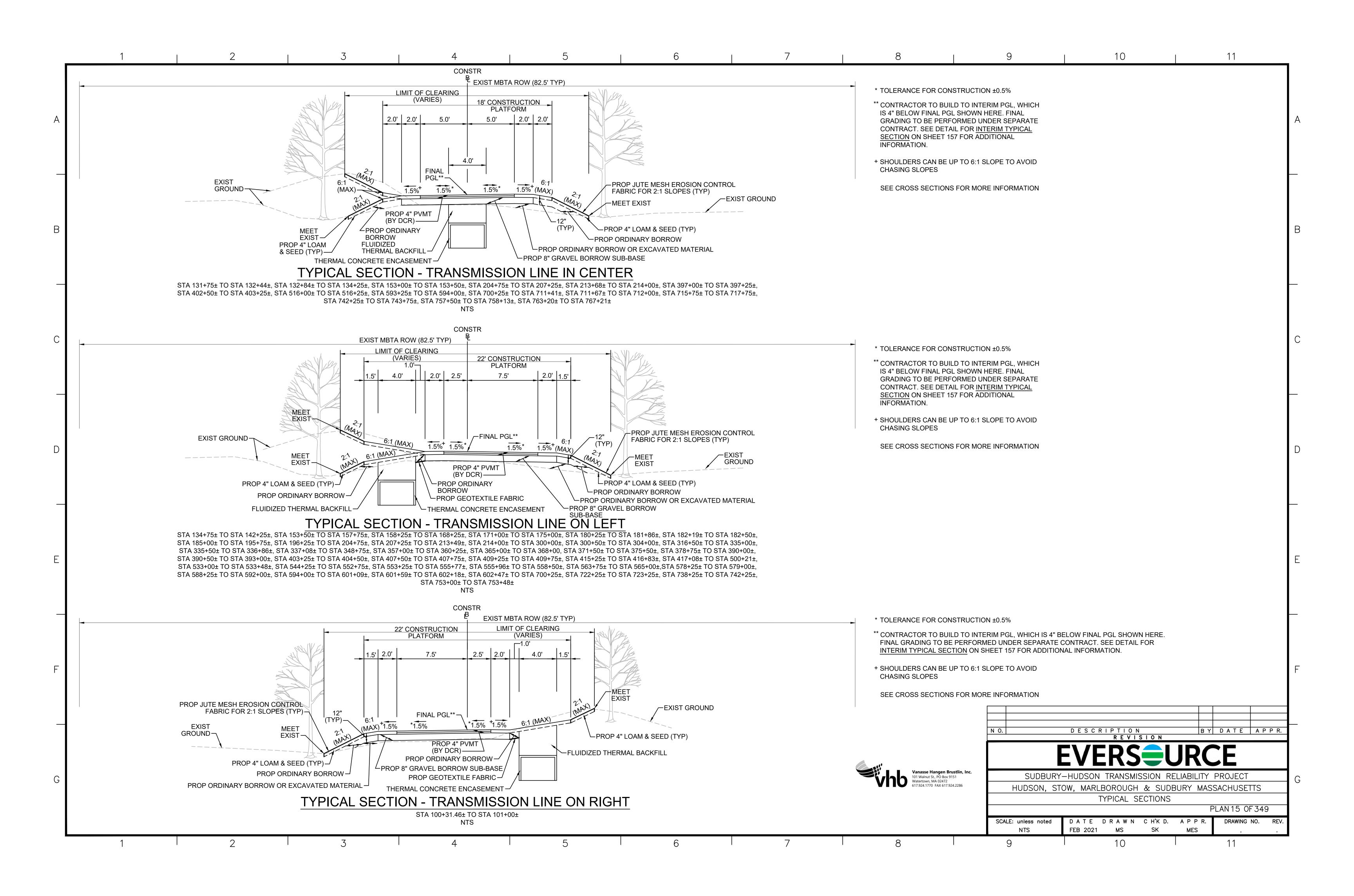
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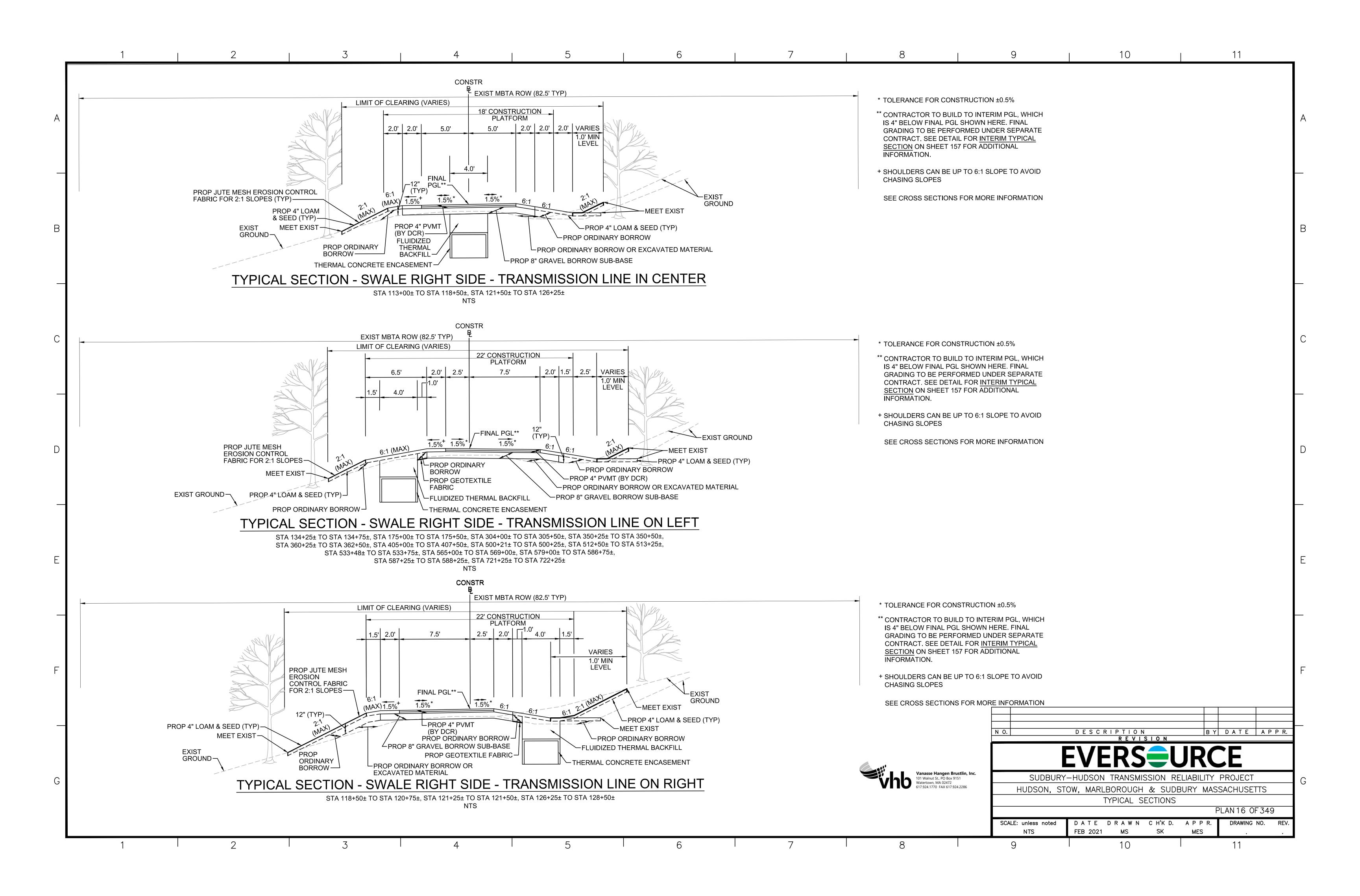
Project Plans

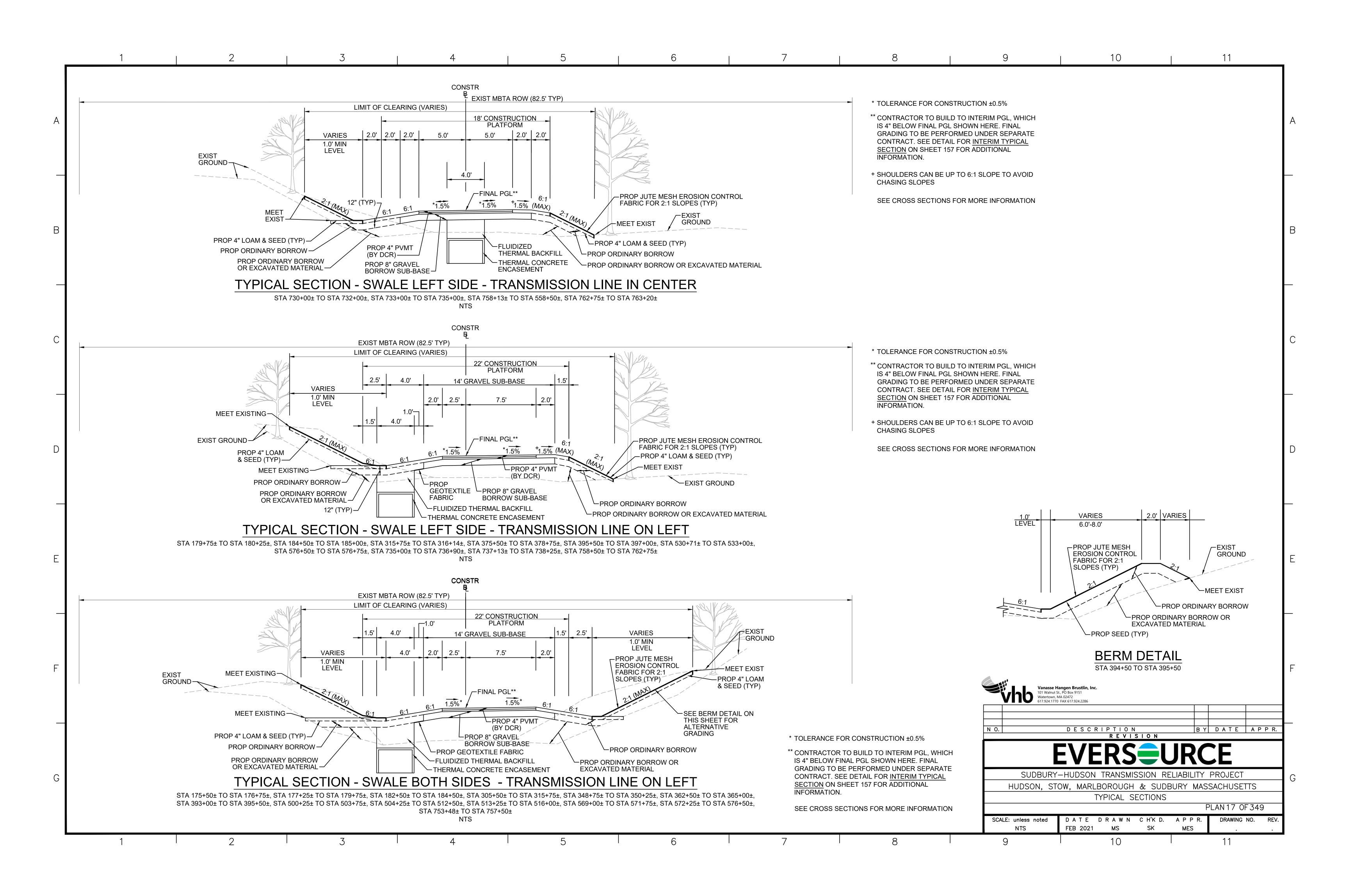


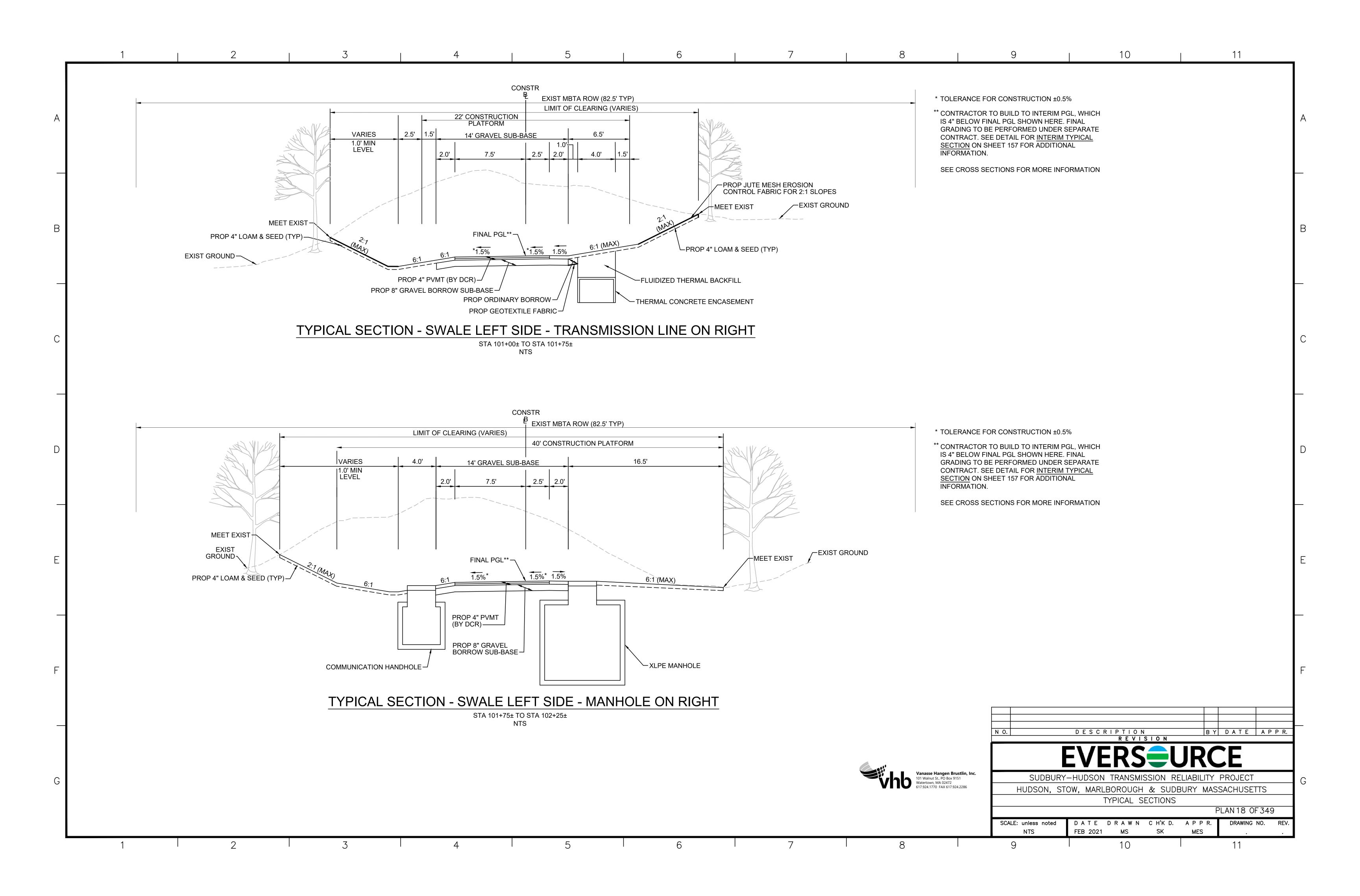
			2 3	4	5	6		7	8	9 10 11
ſ			GENERAL SYMBOLS		GENERAL SYMBOLS (cont.)		PAVI	EMENT MARKIN	IGS SYMBOLS	GENERAL NOTES:
ı	<u>EXISTING</u>	PROPOSED	DESCRIPTION	EXISTING	PROPOSED DESCRIPTION	 DN	EXISTING	PROPOSED	DESCRIPTION	1. THE PROPERTY LINES SHOWN ON THIS PLAN OF THE PARCELS AT 44 FOREST AVENUE IN HUDSON, 163 BOSTON POST ROAS SUDBURY AND THE FORMER RAILROAD RIGHT-OF-WAY ARE BASED UPON AN ACTUAL FIELD SURVEY CONDUCTED BY VHB.
ı	0€	<u> </u>	TRAFFIC SIGNAL		EXISTING WALKING TRAIL	<u> </u>		CW	CROSSWALK - 12" WHITE	2015 AND FROM DEEDS AND PLANS OF RECORD
ı	⊞ ⊕ ≜ CB		CATCH BASIN / DROP INLET		— — — — LIMIT OF GRADING				SOLID WHITE LINE - 4"	2. THE EXISTING CONDITIONS SHOWN ON THIS PLAN WERE DEVELOPED FROM A COMBINED EFFORT OF AERIAL
ı			CATCH BASIN CURB INLET		TRAFFIC SIGNAL CONDUIT			SWL	— (UNLESS OTHERWISE	PHOTOGRAMMETRIC MAPPING BY EASTERN TOPOGRAPHICS, INC., BASED ON AERIAL PHOTOGRAPHS TAKEN ON FEBRUAR 2013, AND AUGMENTED BY AN ON-THE-GROUND SURVEY PERFORMED BY VHB DURING 2015 AND 2017.
ı	G GP □ MB		GAS PUMP MAIL BOX		—— —— —— EASEMENT PERMANENT EASEMENT ON	MBTA PROPERT	ТҮ		NOTED)	1. 3. THE HORIZONTAL CONTROL IS BASED ON THE MASSACHUSETTS MAINLAND STATE PLANE COORDINATE SYSTEM AND THE
ı			POST SQUARE	+ + + + + + + + + + + + + + + + + + + +	+ SLIPPLEMENTAL PLANTING		_	DBYL	DOUBLE YELLOW LINE - 4' (UNLESS OTHERWISE	NATIONAL GEODETIC SURVEY (NAD83). ALL ELEVATION IS US FEET, REFERENCED TO THE NORTH AMERICA VERTICAL DAT 1988 (NAVD88).
ı	0		POST CIRCULAR		FLOODWAY	TO \ /EOFT A TED			NOTED)	
ı	⊕ GAS VENT		GAS VENT		PERMANENT DISTURBANCE WETLAND	TO VEGETATED		TRAFFIC SYM	MBOLS	 THE CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND GRADES IN THE FIELD BEFORE COMMENCING WORK AN PROMPTLY NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
1	□ EHH		ELECTRIC HANDHOLE FENCE GATE POST		TEMPORARY DISTURBANCE	TO VEGETATED	EXISTING	PROPOSED	DESCRIPTION	— 5. THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES SHOWN ON THIS PLAN ARE BASED ON FIELD OBSERVATIONS AND
ı	© GG		GAS GATE		WETLAND		<u>EXIOTITO</u>	THOI GOLD		INFORMATION OF RECORD. THEY 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 SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK.
ı	⊕ BM		BENCHMARK		100-YEAR FLOOD				PULL BOX 12"x12" TRAFFIC SIGNAL	FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EX
ı	()		HYDRANT		—— 500-YEAR FLOOD			======	CONDUIT	LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.
ı	※□ CO.BD.		LIGHT POLE COUNTY BOUND							6. THE DELINEATED WETLANDS SHOWN ON THIS PLAN WERE FLAGGED BY THE VHB ENVIRONMENTAL DEPARTMENT AND FIE SURVEYED BY THE VHB SURVEY DEPARTMENT IN SEPTEMBER AND OCTOBER 2017 AND WERE UPDATED IN MAY 2018 (SUD
ı	© <u>A</u>		GPS POINT		ABBREVIATIONS		ABBREVIATIONS (co	ant)		ONLY).
ı	©		CABLE MANHOLE	OFNEDAL	ADDREVIATIONS	OFNEDAL	ADDITE VIATIONS (CO			7. THE APPROXIMATE WETLANDS AND STREAMS, AND THEIR ASSOCIATED BUFFERS AND RIVERFRONT AREAS, WHERE APPLI
ı	D		DRAINAGE MANHOLE	<u>GENERAL</u>	ADANDON	GENERAL	LENGTH OF CHRVE			WERE TAKEN FROM AVAILABLE MASSGIS DATA. THESE WERE NOT FIELD DELINEATED OR FIELD VERIFIED.
ı	(E)		ELECTRIC MANHOLE	ABAN ADJ	ABANDON ADJUST	L LP	LENGTH OF CURVE LIGHT POLE			8. THE CONTRACTOR SHALL VERIFY BY TEST PIT, THE LOCATIONS OF EXISTING UTILITIES THAT MAY CONFLICT WITH PROPOSE TRANSMISSION LINE. ANY FIELD ADJUSTMENTS REQUIRED WILL BE MADE AS APPROVED OR DIRECTED BY THE ENGINEER
1	(M)		GAS MANHOLE MISC MANHOLE	APPROX.	APPROXIMATE	LT	LEFT			9. WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK. THE LOCATION, ELEVATION AND SIZE OF
	<u>S</u>		SEWER MANHOLE	AURA	ADJACENT UPLAND RESOURCE AREA	LUW	LAND UNDER WATER			UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION FURNISHED
	(T)		TELEPHONE MANHOLE	BIT.	BITUMINOUS BOTTOM OF CURB	MAX MB	MAXIMUM MAILBOX			THE ENGINEER FOR RESOLUTION OF THE CONFLICT.
	W MHB		WATER MANHOLE MASSACHUSETTS HIGHWAY BOUND		BOUND	MH	MANHOLE			10. THE CONTRACTOR SHALL ALTER THE MASONRY OF THE TOP SECTION OF ALL EXISTING DRAINAGE AND SEWER STRUCTUIN NECESSARY FOR CHANGES IN GRADE, AND RESET ALL WATER AND DRAINAGE FRAMES, GRATES AND BOXES TO THE PRO
	□ MON		MASSACHUSETTS HIGHWAY BOUND MONUMENT	BL	BASELINE	МНВ	MASSACHUSETTS HIGH	WAY BOUND		FINISH SURFACE GRADE. REQUIRED NEW MASONRY SHALL BE CLAY BRICK.
	□ SBDH		STONE BOUND		BUILDING	MIN	MINIMUM			11. THE CONTRACTOR SHALL MAKE ALL ARRANGEMENTS FOR THE ALTERATION AND ADJUSTMENT OF GAS, ELECTRIC, TELEP
ı	■ TB		TOWN OR CITY BOUND		BORDERING LAND SUBJECT TO FLOODING BENCHMARK	NIC NO.	NOT IN CONTRACT NUMBER			AND ANY OTHER PRIVATE UTILITIES BY THE UTILITY COMPANIES.
	Δ TDL 55 OLIV		TRAVERSE OR TRIANGULATION STATION TROLLEY POLE OR GUY POLE		BY OTHERS	NTS	NOT TO SCALE			12. EXISTING UTILITY POLES WILL BE RELOCATED BY OTHERS IF REQUIRED.
ı	- TPL or GUY HTP		TROLLEY POLE OR GUY POLE TRANSMISSION POLE		BOTTOM OF SLOPE	OBL	OBLIGATE WETLAND			13. TREES AND SHRUBS WITHIN THE LIMITS OF GRADING SHALL BE REMOVED ONLY UPON APPROVAL OF THE ENGINEER.
ı	-b- UFB		UTILITY POLE W/ FIREBOX	BR.	BRIDGE	PB	PULL BOX			14. AREAS OUTSIDE THE LIMITS OF PROPOSED WORK DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED
1	-∳- UPDL		UTILITY POLE WITH DOUBLE LIGHT	BVW BZ	BORDERING VEGETATED WETLAND BUFFER ZONE	PC PCC	POINT OF CURVATURE POINT OF COMPOUND O	CURVATURE		THE CONTRACTOR TO THEIR ORIGINAL CONDITION AT NO EXPENSE TO THE OWNER.
l	-5- ULT		UTILITY POLE W / 1 LIGHT		CATCH BASIN	P.G.L.	PROFILE GRADE LINE	701 (17 (17 G) (L		15. THE TERM "PROPOSED" (PROP) MEANS WORK TO BE CONSTRUCTED USING NEW MATERIALS OR, WHERE APPLICABLE, RE- EXISTING MATERIALS IDENTIFIED AS "REMOVE AND RESET" (R&R).
	-o- UPL		UTILITY POLE BUSH		CATCH BASIN WITH CURB INLET	PI	POINT OF INTERSECTIO	N		
ı	SIZE & TYPE		TREE		CEMENT CONCRETE	POC POT	POINT ON CURVE POINT ON TANGENT			16. ALL PROP LOAM AND SEED CALLED OUT ON THE CONSTRUCTION PLANS TO ADHERE TO PLANTING SCHEDULE A PROVIDE DETAIL SHEET 161 UNLESS NOTED OTHERWISE.
ı	0		STUMP	CCM CEM	CEMENT CONCRETE MASONRY CEMENT	PRC	POINT ON TANGENT	RVATURE		17. JOINTS BETWEEN NEW ASPHALT CONCRETE ROADWAY PAVEMENT AND SAWCUT EXISTING PAVEMENT SHALL BE SEALED
ı			WATER GATE		CURB INLET	PROJ	PROJECT			BITUMEN AND BACKSANDED.
ı			OVERHEAD CABLE/WIRE STEEL SHEETING	CIP	CAST IRON PIPE	PROP	PROPOSED			18. EXISTING SIGNS WITHIN THE PROJECT LIMITS SHALL BE RETAINED UNLESS INDICATED OTHERWISE ON THE DRAWINGS.
ı			- CONTOURS (ON-THE-GROUND SURVEY DATA)	CLF	CHAIN LINK FENCE	PT PVC	POINT OF TANGENCY POINT OF VERTICAL CU	R\/ATLIRE		19. IF SUITABLE, ALL EXISTING GRANITE CURB & EDGING SHALL BE RE-USED IN THE PROPOSED WORK, EXCEPT CURVED STOR
ı		99	- CONTOURS (PHOTOGRAMMETRIC DATA)	CL CMP	CENTERLINE CORRUGATED METAL PIPE	PVI	POINT OF VERTICAL INT			A DIFFERENT RADIUS THAN PROPOSED CURB.
1			UNDERGROUND DRAIN PIPE (DOUBLE LINE 24 INCH AND OVER)		CORRUGATED STEEL PIPE	PVT	POINT OF VERTICAL TAI	NGENCY		20. ALL PROPOSED HOT MIX ASPHALT CURB SHALL BE MASSDOT TYPE 2.
ı	CATV		UNDERGROUND CATV CONDUIT UNDERGROUND GAS MAIN (DOUBLE LINE 24 INCH AND OVER)	CO.	COUNTY	PVMT	PAVEMENT	_		21. ALL EXISTING STATE, COUNTY, CITY, AND TOWN LOCATION LINES AND PRIVATE PROPERTY LINES HAVE BEEN ESTABLISHED TO A STATE OF A STATE
ı	SEWER		UNDERGROUND SEWER MAIN (DOUBLE LINE 24 INCH AND OVER)	CONC	CONCRETE	R RA	RADIUS OF CURVATURE RIVERFRONT AREA	<u>:</u>		FROM AVAILABLE INFORMATION AND THEIR EXACT LOCATIONS ARE NOT GUARANTEED.
ı			UNDERGROUND TELEPHONE DUCT (DOUBLE LINE 24 INCH AND OVER)	CONT CONST	CONTINUOUS CONSTRUCTION	R&D	REMOVE AND DISPOSE			22. ALL PROPOSED BOUNDS SHALL BE PLACED BY A LICENSED PROFESSIONAL SURVEYOR. THE CONTRACTOR SHALL EXERCE DUE CARE WHEN WORKING AROUND ALL PROPERTY BOUNDS WHICH ARE TO REMAIN. SHOULD ANY DAMAGE TO A BOUND
			UNDERGROUND WATER MAIN (DOUBLE LINE 24 INCH AND OVER)	DI	DROP INLET	RCP	REINFORCED CONCRET	E PIPE		RESULT FROM THE ACTIONS OF THE CONTRACTOR, THE CONTRACTOR SHALL HAVE THE BOUND REPLACED AND/OR REAL BY A LICENSED PROFESSIONAL SURVEYOR AS DIRECTED BY THE ENGINEER AT NO ADDITIONAL COST.
	00000000000		BALANCED STONE WALL - GUARD RAIL - STEEL POSTS	DIA	DIAMETER	RD RDWY	ROAD ROADWAY			
			GUARD RAIL - STEEL POSTS - GUARD RAIL - WOOD POSTS		DUCTILE IRON PIPE	REM	REMOVE			23. DISPOSAL OF ALL SURPLUS MATERIAL SHALL BE AS APPROVED BY THE ENGINEER AND OWNER AND IN ACCORDANCE WITH PERMITS AND LAWS REGULATING SOIL DISPOSAL.
	x		CHAIN LINK OR METAL FENCE		STEADY DON'T WALK - PORTLAND ORANGE DRIVEWAY	RET	RETAIN			24. LATERAL DRAIN PIPES SHALL BE INSTALLED WITH A PITCH OF 0.01 FOOT PER FOOT (MINIMUM) UNLESS NOTED OTHERWISE
		o	- WOOD FENCE		EROSION CONTROL BARRIER	RET WALL	RETAINING WALL			THE PLANS.
ı			CONSTRUCTION FENCE		ELEVATION	ROW	RIGHT OF WAY			25. WHERE DEWATERING IS REQUIRED, CONTRACTOR SHALL TREAT WATER WITH DEWATERING BASIN OR DEWATERING FILTI
	. •	C::::::X:::::X:::::X:::::X:::::X:::::X::::	· EROSION CONTROL BARRIER CHECK DAM		EMBANKMENT	RR R&R	RAILROAD REMOVE AND RESET			BAGS BASED ON INPUT FROM LOCAL CONSERVATION COMMISSIONS.
	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		TREE LINE	EOP EXIST (or EX)	EDGE OF PAVEMENT	R&S	REMOVE AND STACK			26. SYNCOPATED SILT FENCE TO BE USED AS AN EROSION CONTROL BARRIER WITHIN 450' OF VERNAL POOLS AND PRIORITY HABITAT AREAS.
	_		- SAWCUT LINE	EXC	EXCAVATION	RT	RIGHT			
	_		TOP OR BOTTOM OF SLOPE	F&C	FRAME AND COVER	SB SHLD	STONE BOUND SHOULDER			27. THE LOCATIONS OF ALL EROSION CONTROL BARRIER SHALL BE ESTABLISHED BY SURVEY-GRADE EQUIPMENT AND ARE SUBJECT TO CHANGE BASED ON FIELD CONDITIONS
			<ul> <li>LIMIT OF EDGE OF PAVEMENT OR COLD PLANE AND OVERLAY</li> <li>BANK OF RIVER OR STREAM</li> </ul>		FRAME AND GRATE	SMH	SEWER MANHOLE			28. ALL HISTORIC RAILROAD FEATURES LOCATED WITHIN THE LIMIT OF WORK AND OUTSIDE THE LIMITS OF THE 14' GRAVEL
			BORDER OF WETLAND		FACULTATIVE FACULTATIVE UPLAND	ST	STREET		_	SUB-BASE SHALL BE RETAINED AND PROTECTED UNLESS OTHERWISE NOTED. CONSTRUCTION FENCING AND SIGNAGE SHINSTALLED AROUND THE FEATURE IN CONSULTATION WITH THE CULTURAL RESOURCES CONSULTANT. 24 HOURS ADVANCE.
			LIMIT OF NHESP PRIORITY & ESTIMATED HABITAT		FACULTATIVE OPLAND  FACULTATIVE WETLAND	STA	STATION	NCE		NOTICE SHALL BE GIVEN TO THE CULTURAL RESOURCES CONSULTANT BEFORE ANY CONSTRUCTION WITHIN THE IMMEDIA
			APPROXIMATE WETLAND LINE	FDN.	FOUNDATION	SSD SHLO	STOPPING SIGHT DISTA STATE HIGHWAY LAYOU			VICINITY OF THE FEATURE OCCURS. IF IT IS NOT POSSIBLE TO RETAIN THE FEATURE, IT SHALL BE CAREFULLY REMOVED A RESET AS CLOSE AS POSSIBLE TO THE ORIGINAL LOCATION. THE REMOVAL AND RESETTING OF ANY HISTORIC RAILROAD
	100'BLSF BZ		100 FT WETLAND BUFFER  100 FT BORDERING LAND SUBJECT TO FLOODING BUFFER	FLDSTN	FIELDSTONE	SW	SIDEWALK	1		FEATURE SHALL ONLY BE DONE WITH CONSULTATION OF THE CULTURAL RESOURCES CONSULTANT.
			200 FT RIVERFRONT AREA BUFFER		GROUND GAS GATE	Т	TANGENT DISTANCE OF	CURVE/TRUCK	(%	
	APX 200'RA		APPROX 200 FT RIVERFRONT AREA BUFFER		GALVANIZED IRON PIPE	TAN	TANGENT			1 HISTORIC FEATURE DISPOSITIONS 02/03/2022  NO. DESCRIPTION BY DATE AP
4	100'RA		100 FT RIVERFRONT AREA BUFFER	GRAN	GRANITE	TEMP TYP	TEMPORARY TYPICAL			REVISION
	APX 100'RA		APPROX 100 FT RIVERFRONT AREA BUFFER AURA BUFFER		GRAVEL	UP	UTILITY POLE			
			100 FT AURA BUFFER		GUARD HEADWALL	UPL	OBLIGATE UPLAND			EVERSOURCE
			100 FT VERNAL POOL AREA BUFFER		HOT MIX ASPHALT	VAR VEDT	VARIES			SUDBURY-HUDSON TRANSMISSION RELIABILITY PROJECT
			STATE HIGHWAY LAYOUT		HORIZONTAL	VERT VC	VERTICAL VERTICAL CURVE			HUDSON, STOW, MARLBOROUGH & SUDBURY MASSACHUSETTS
			TOWN OR CITY LAYOUT		HYDRANT	VP	VERNAL POOL			LEGEND, ABBREVIATIONS, & GENERAL NOTES
			COUNTY LAYOUT TOWN OR CITY BOUNDARY LINE		INVERT	WCR	WHEEL CHAIR RAMP		-41	PLAN 2 OF 349
			PROPERTY LINE OR APPROXIMATE PROPERTY LINE		ISOLATED LAND SUBJECT TO FLOODING ISOLATED VEGETATED WETLAND	WG WM	WATER GATE	ΜΛΙΝΙ		Vanasse Hangen Brustlin, Inc.
		o	CONSTRUCTION BASELINE		JUNCTION	WM	WATER METER/WATER	IVIAIIV	VNO	101 Walnut St., PO Box 9151 Watertown, MA 02472 617.924.1770 FAX 617.924.2286  SCALE: unless noted  DATE DRAWING NO.  DEC 2021 MS SK MS  .
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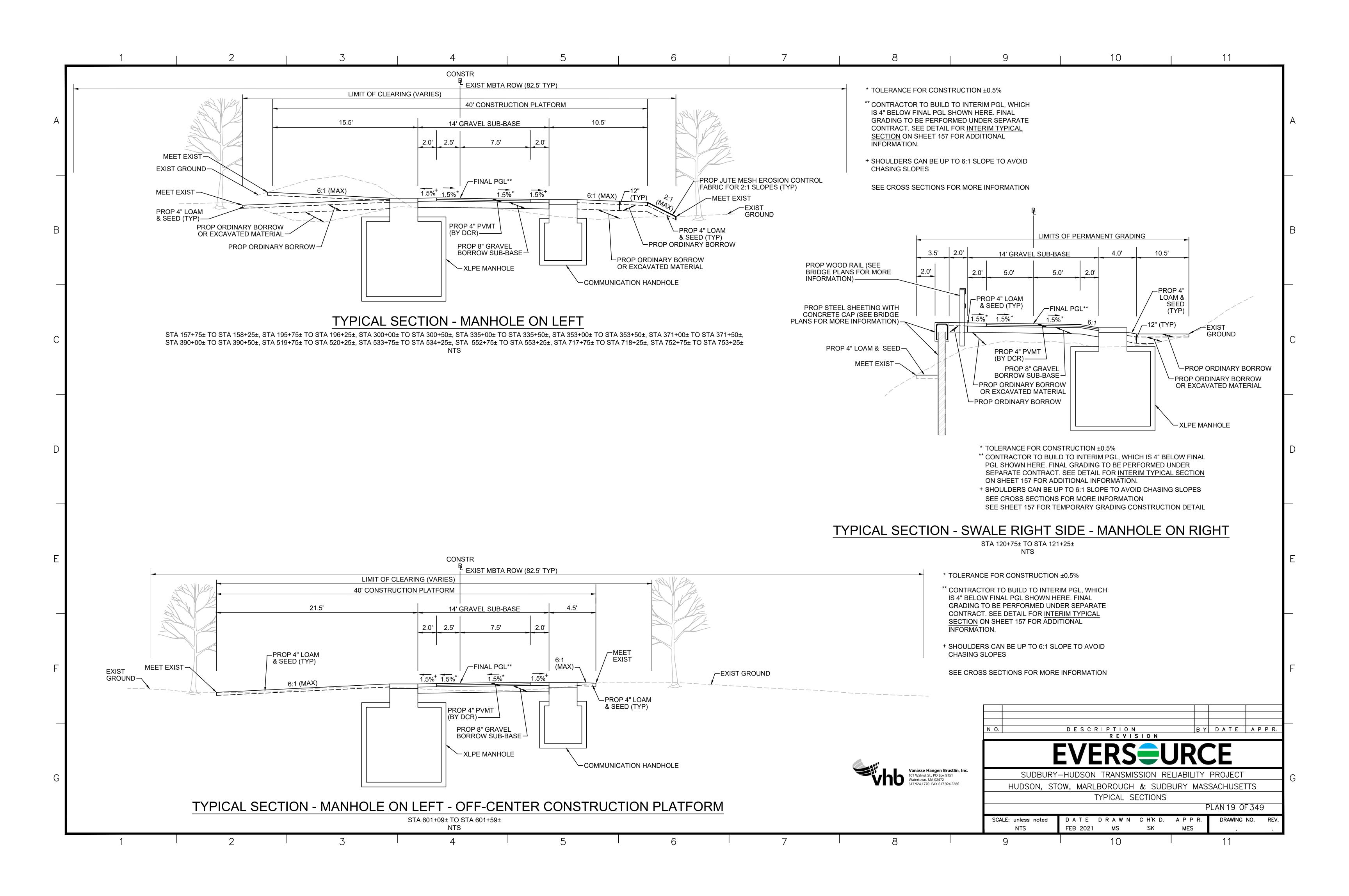


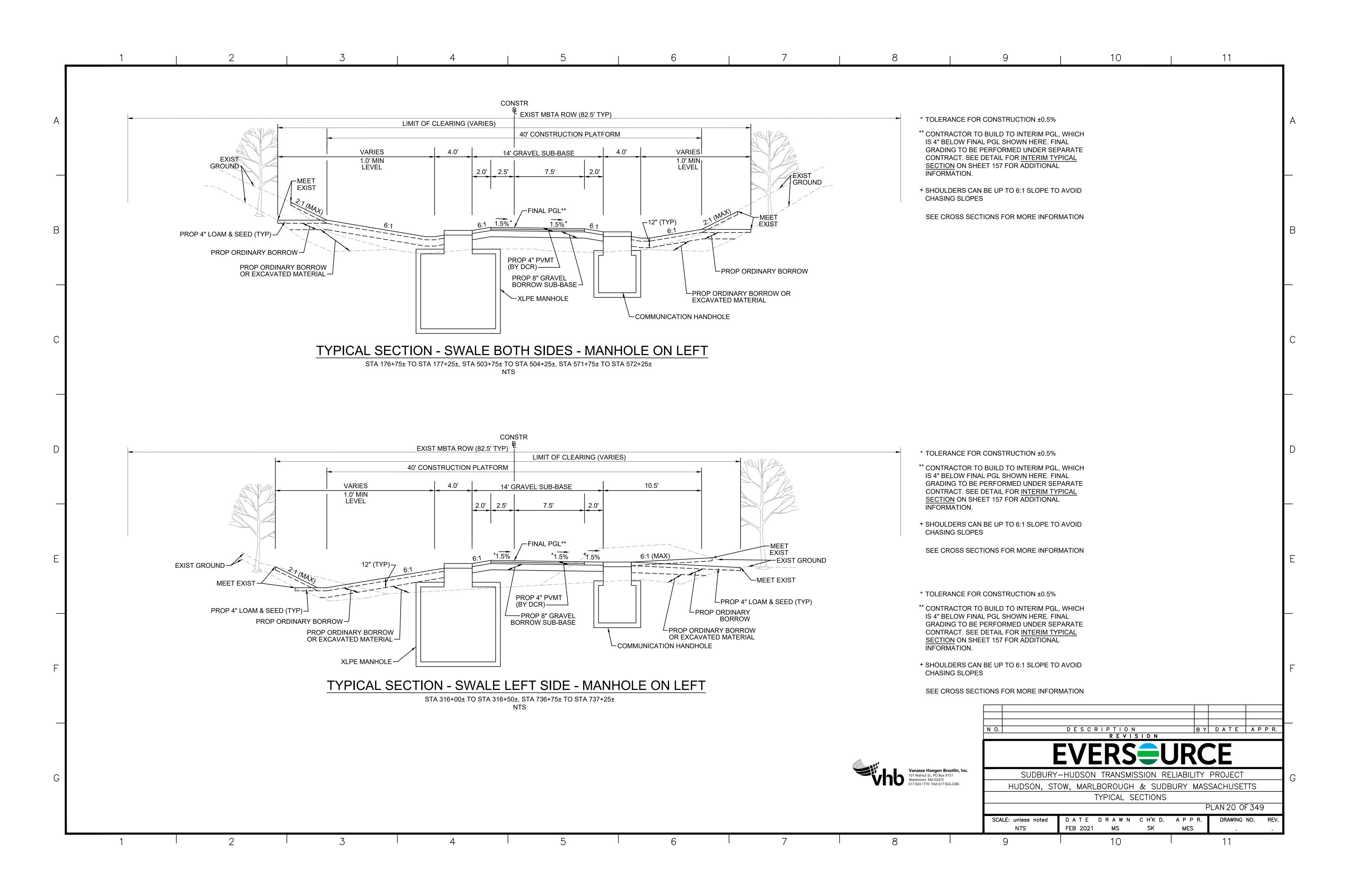


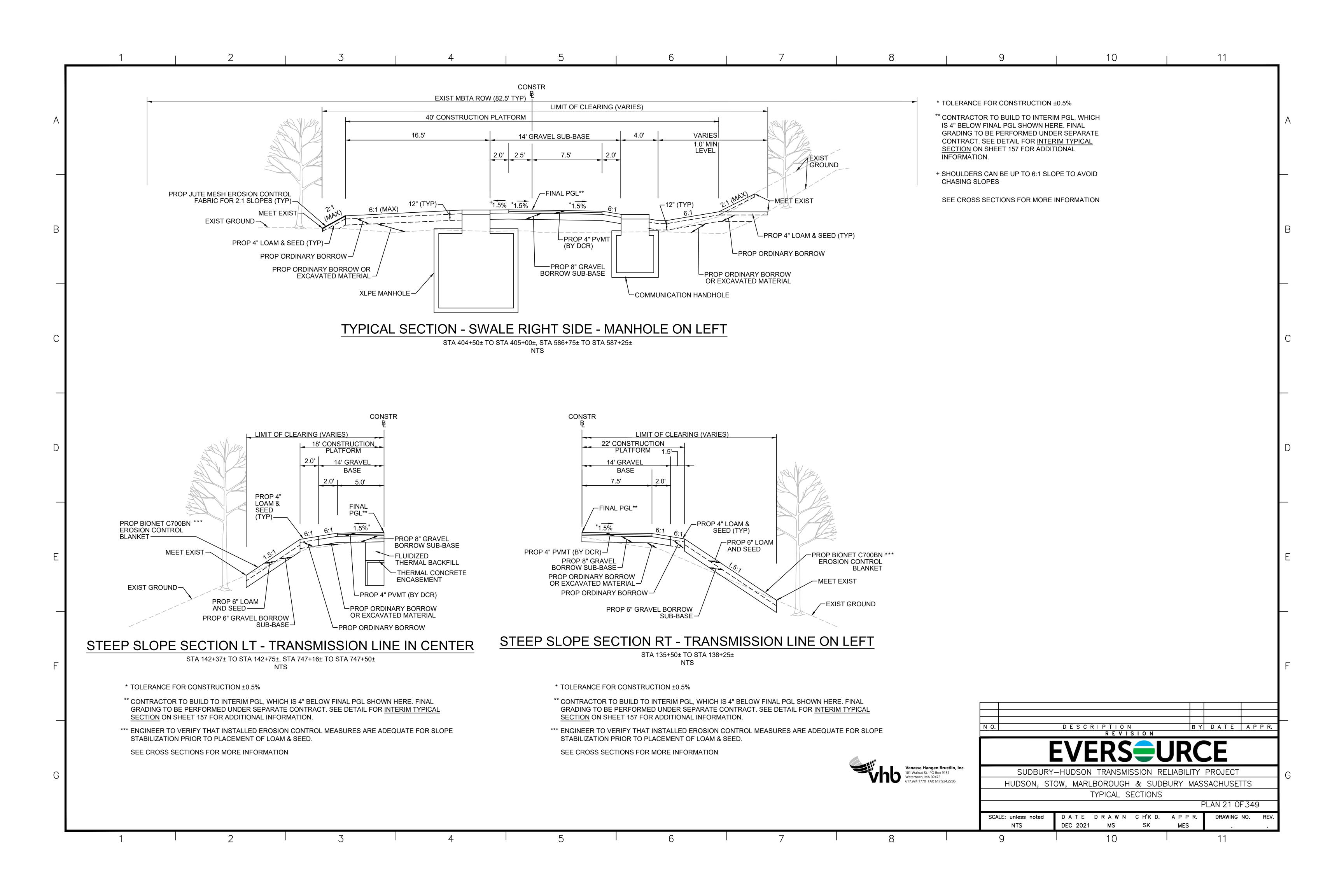


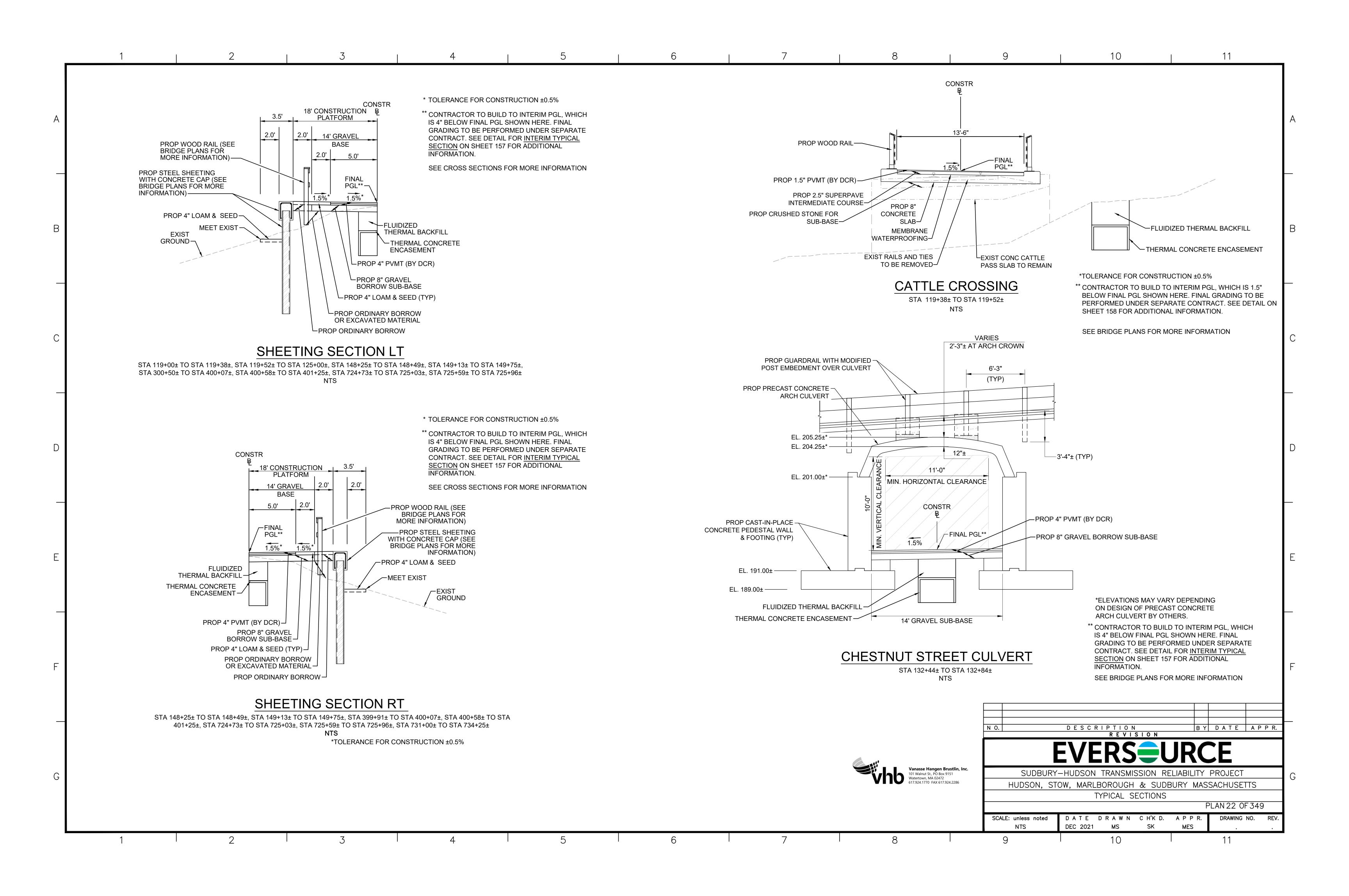


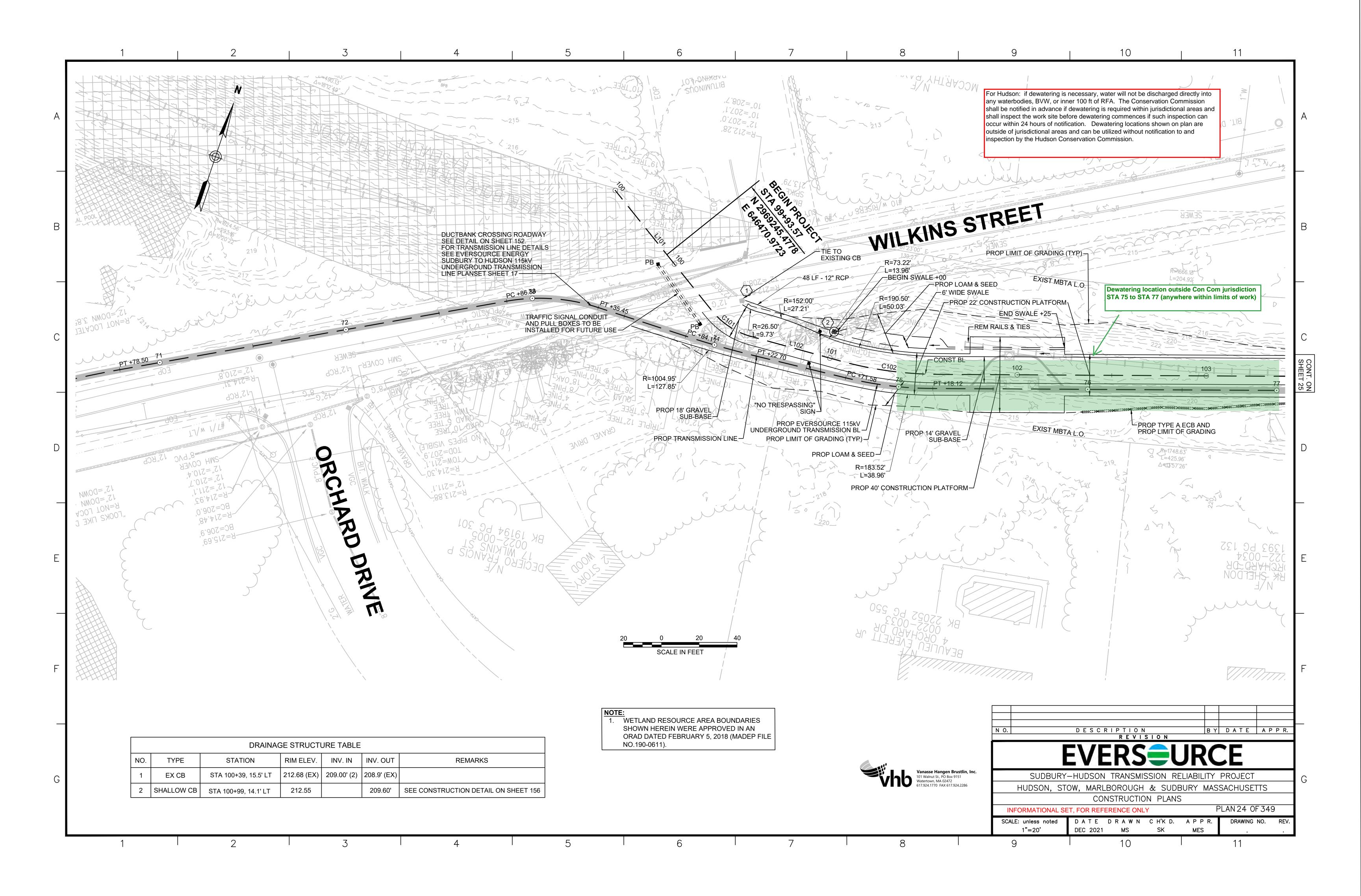


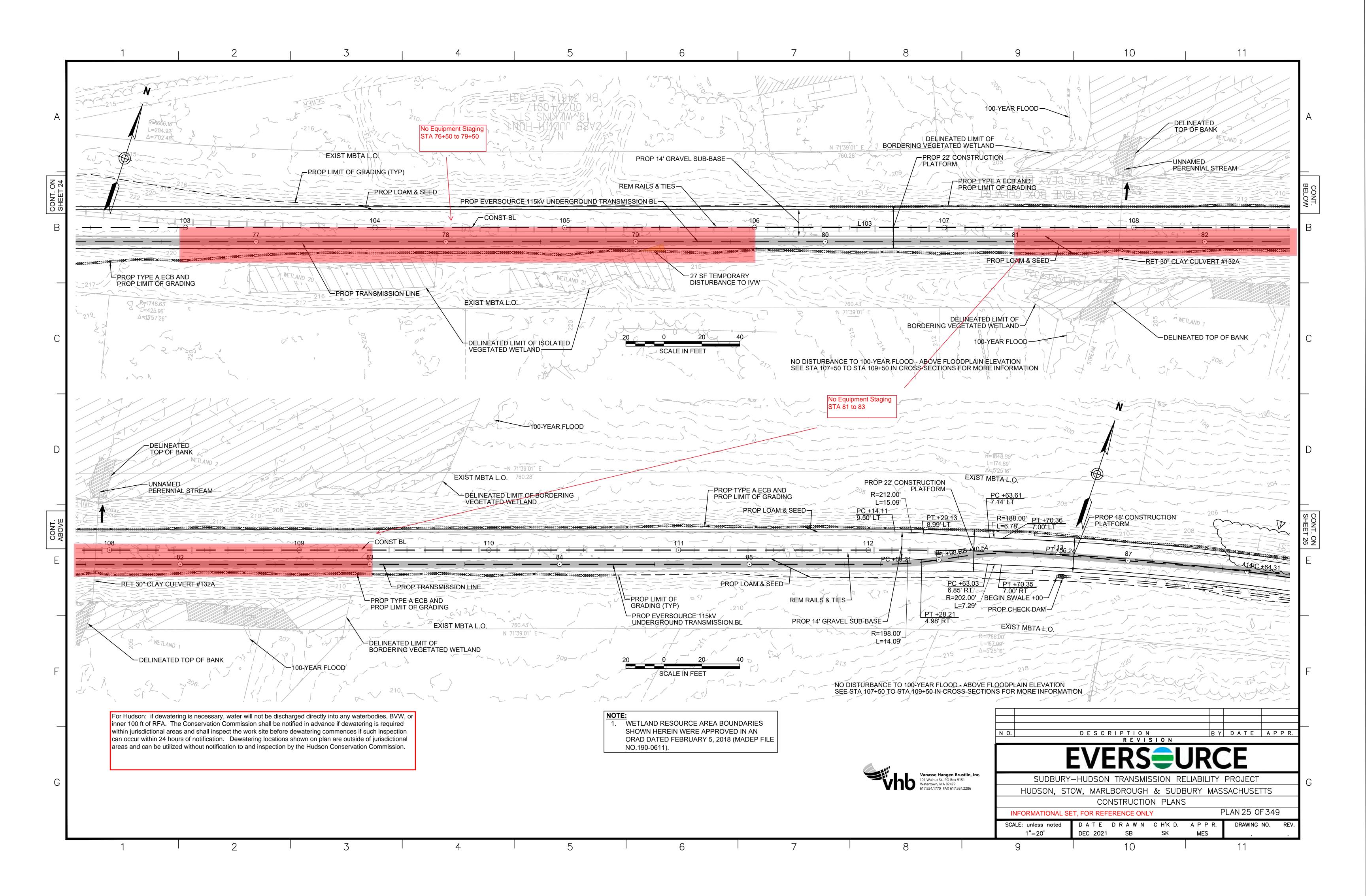


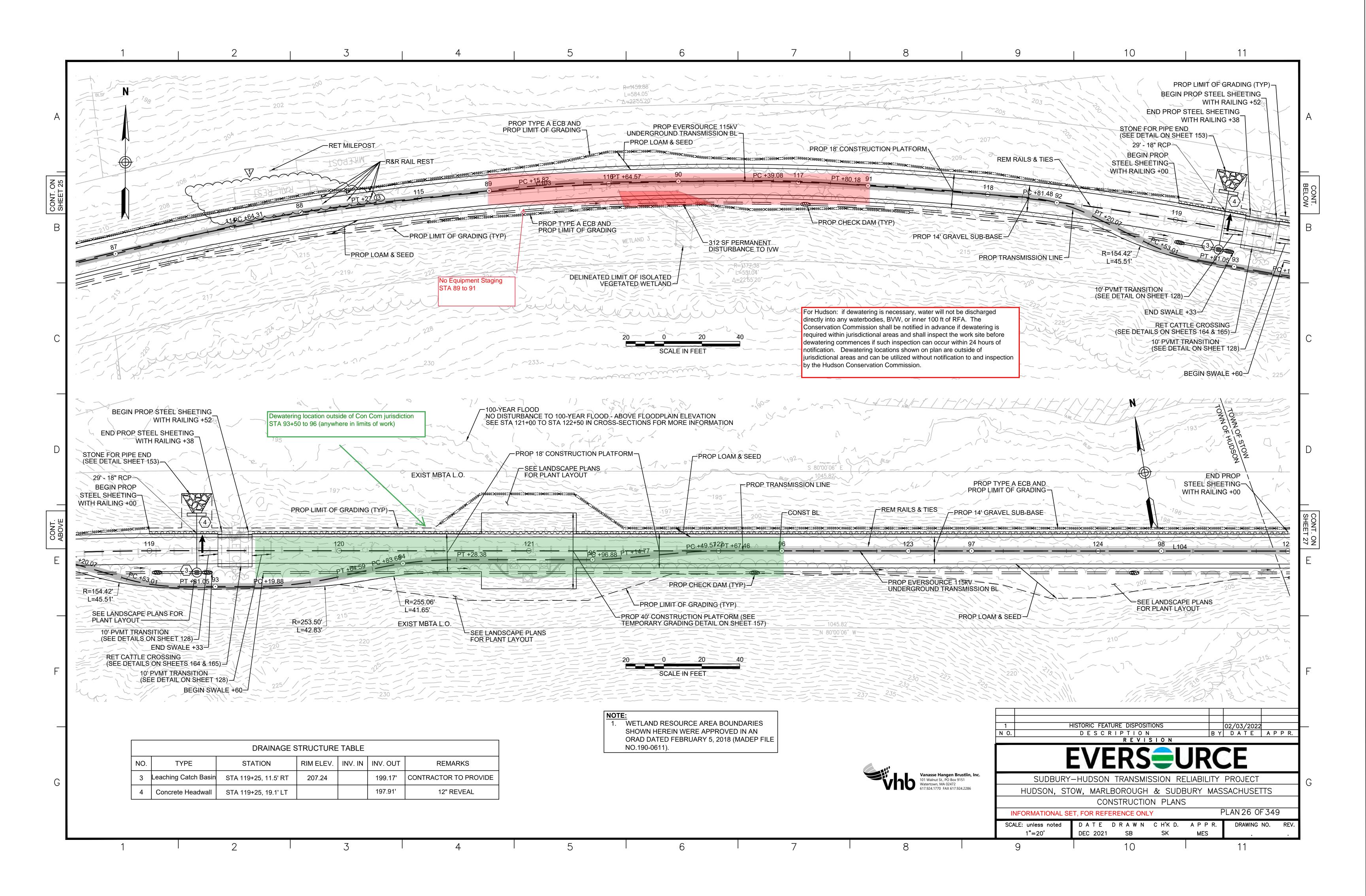


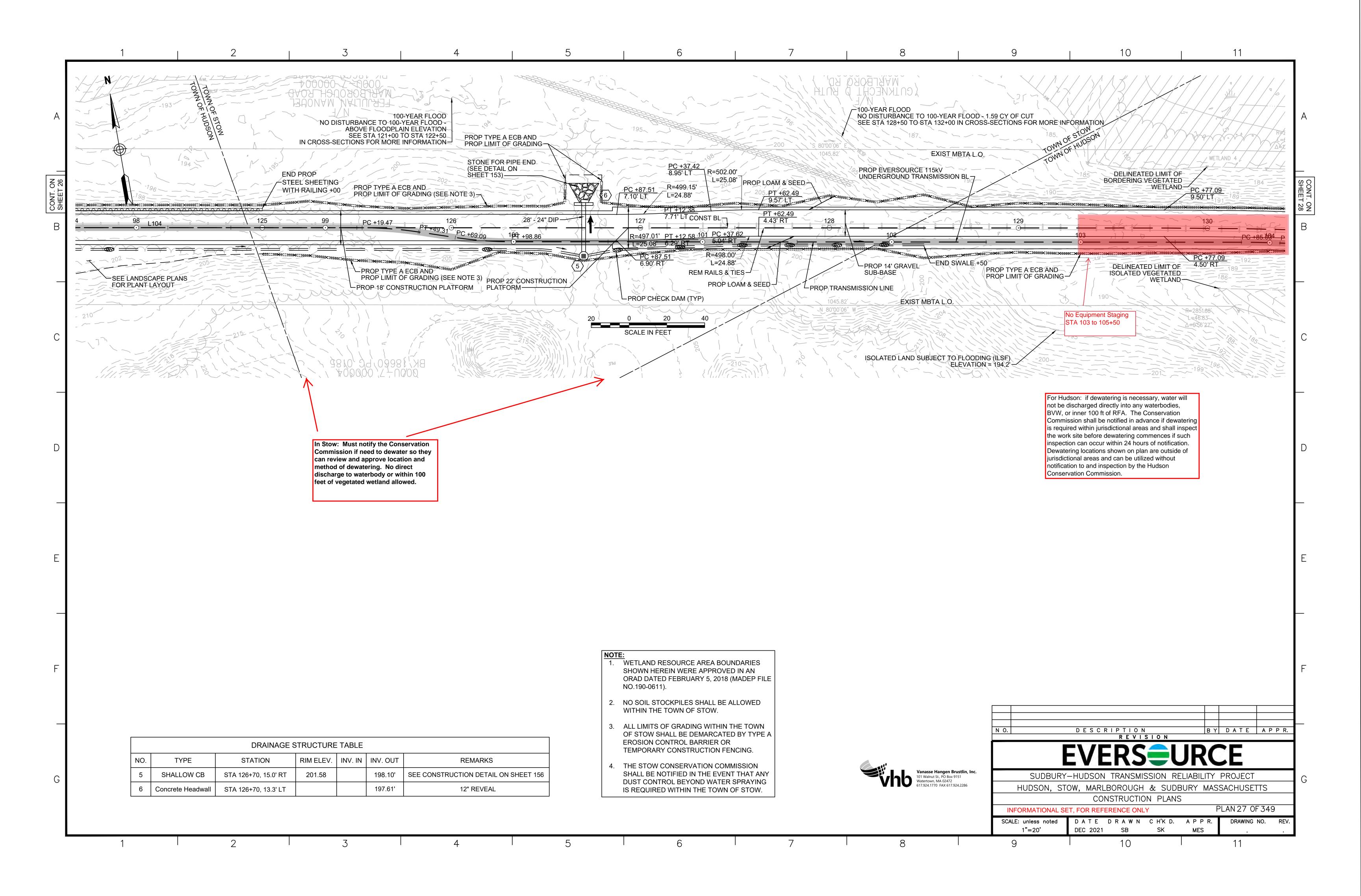


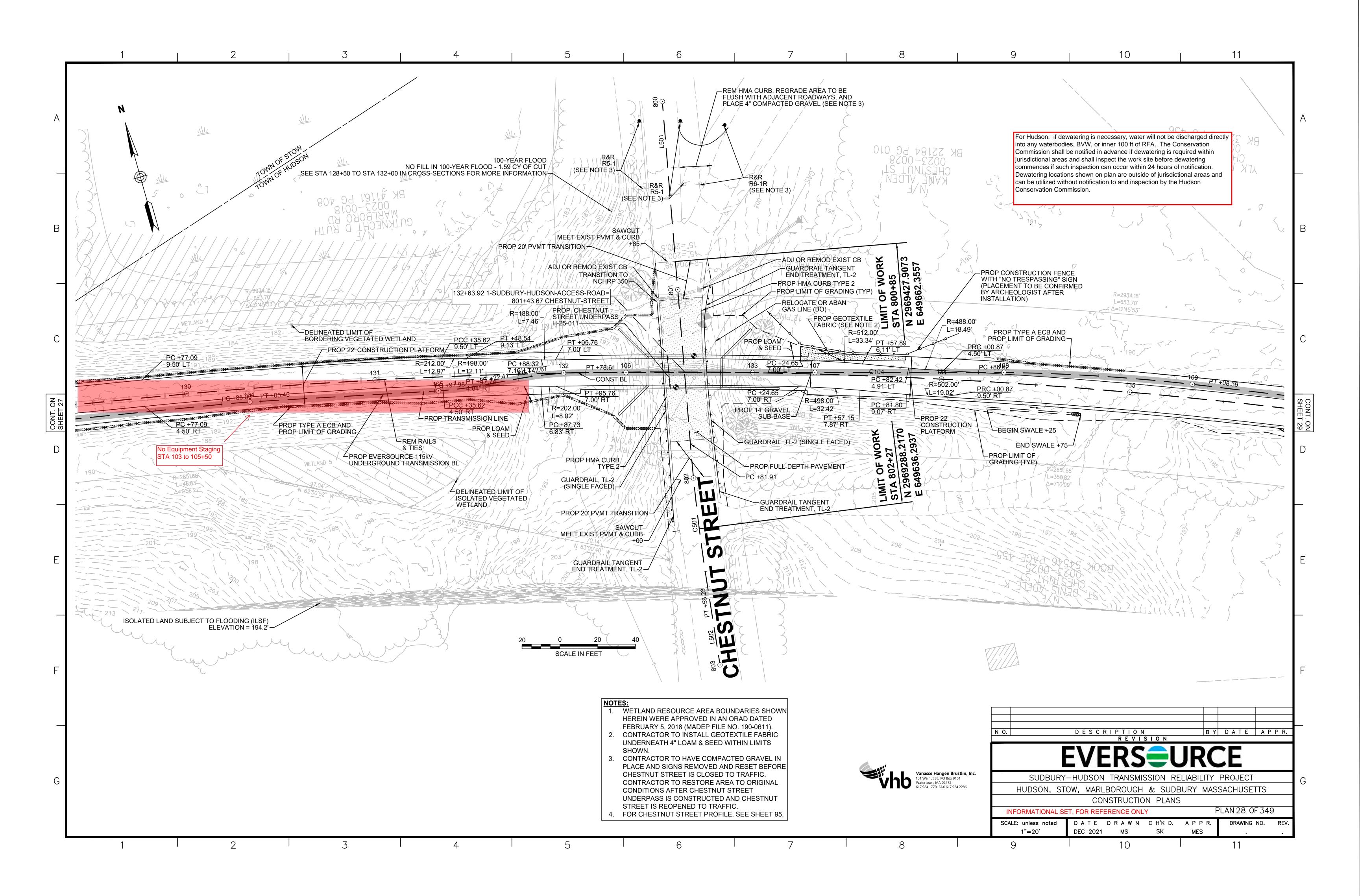


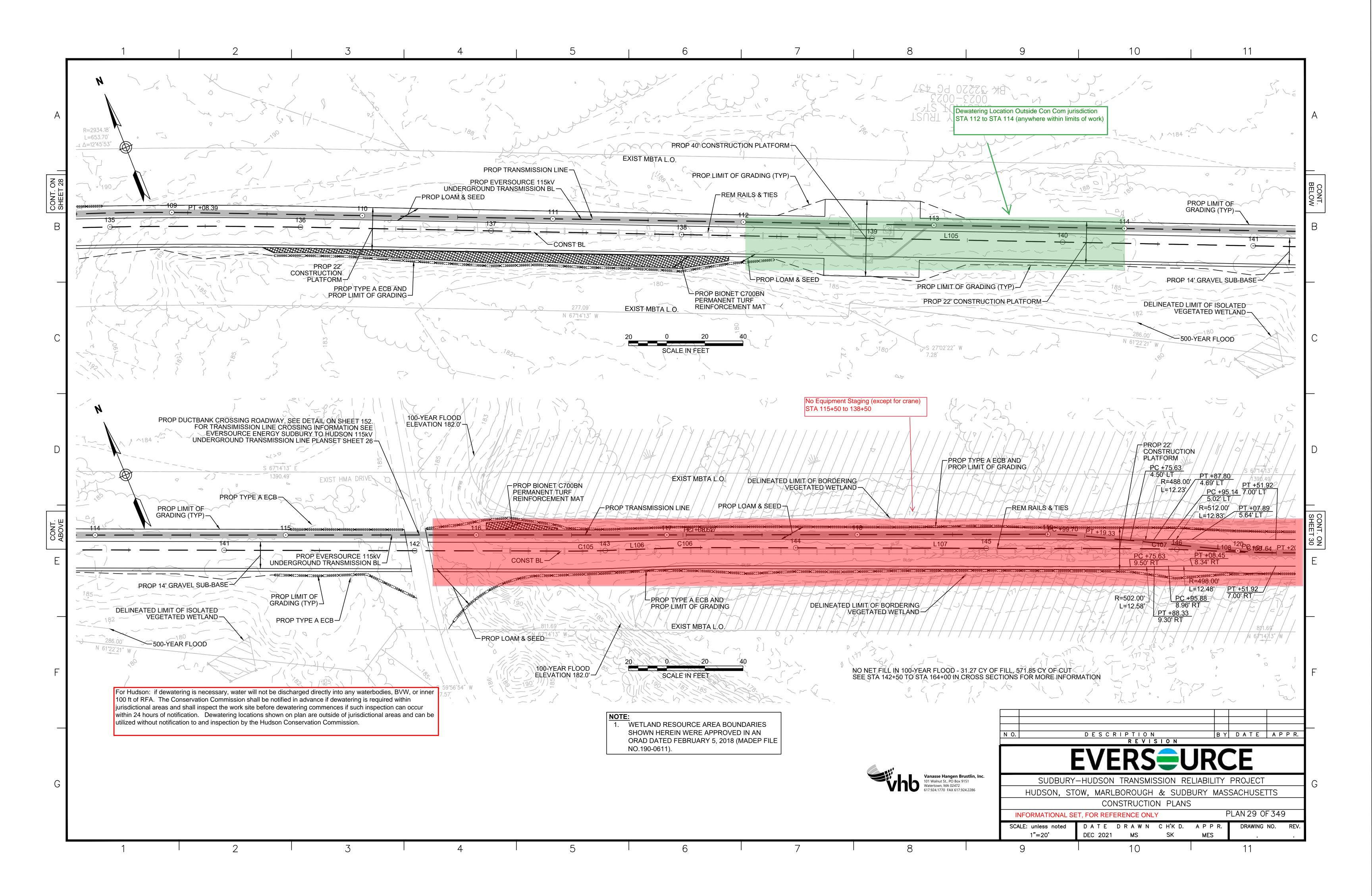


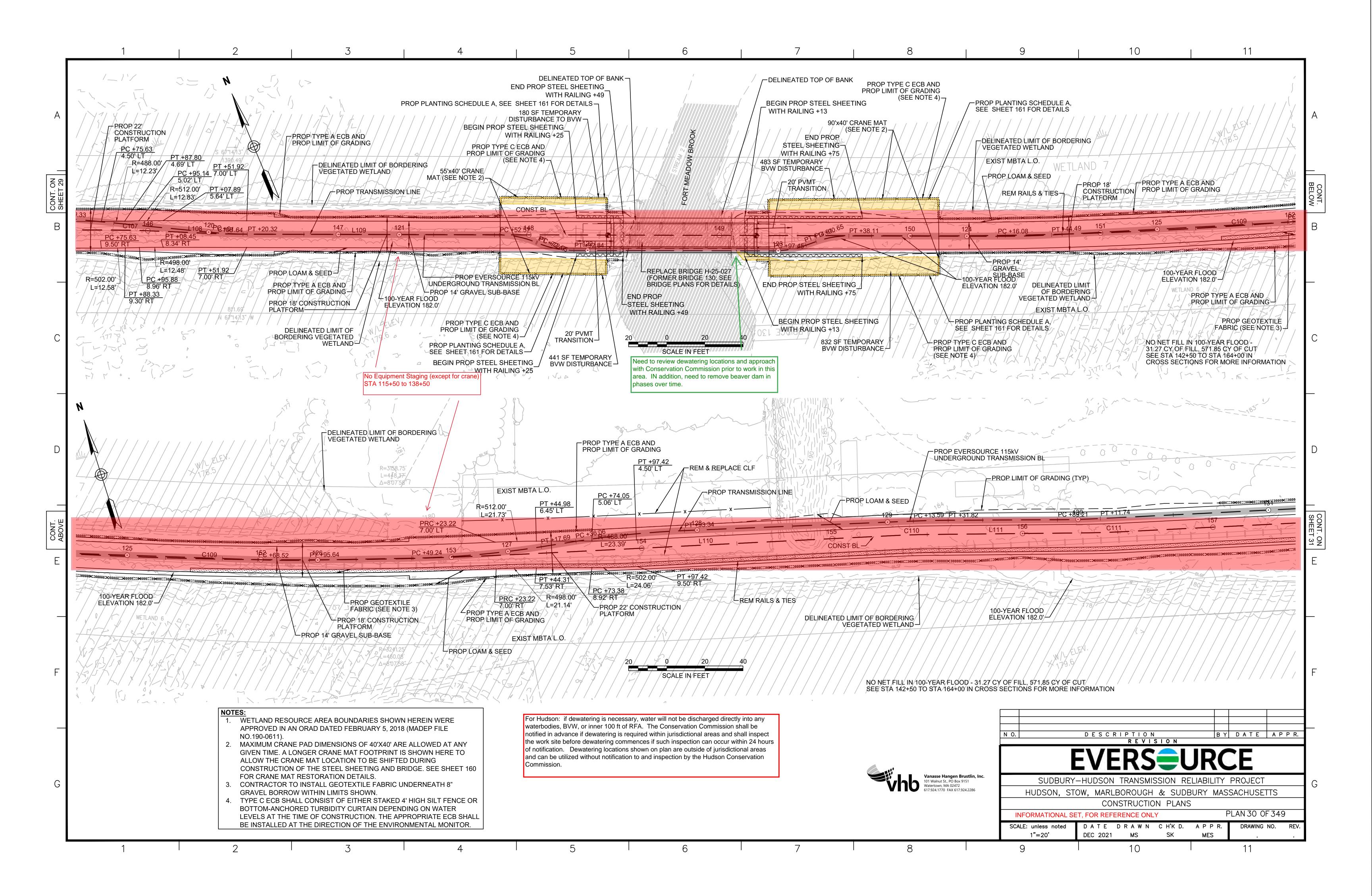


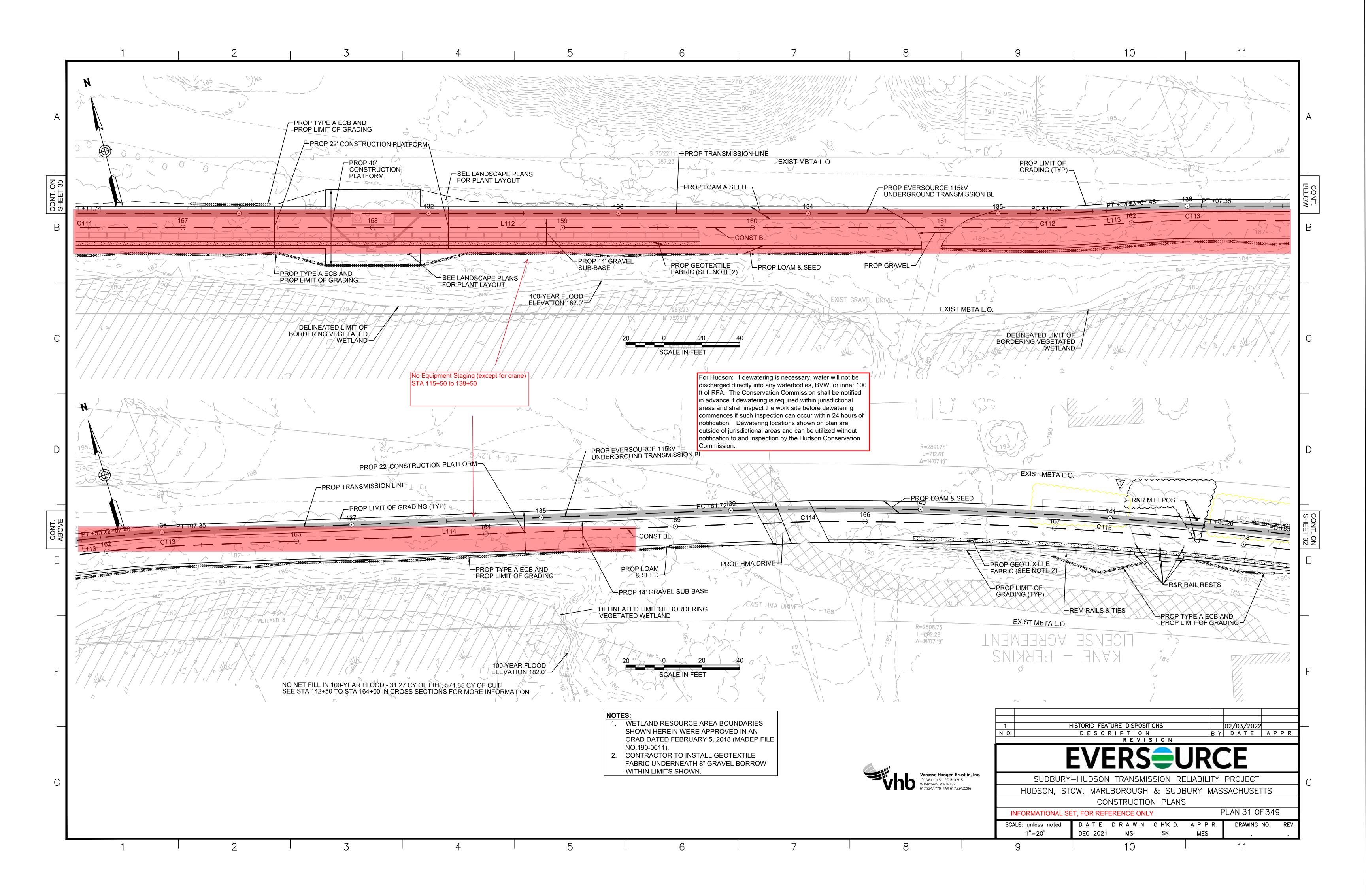


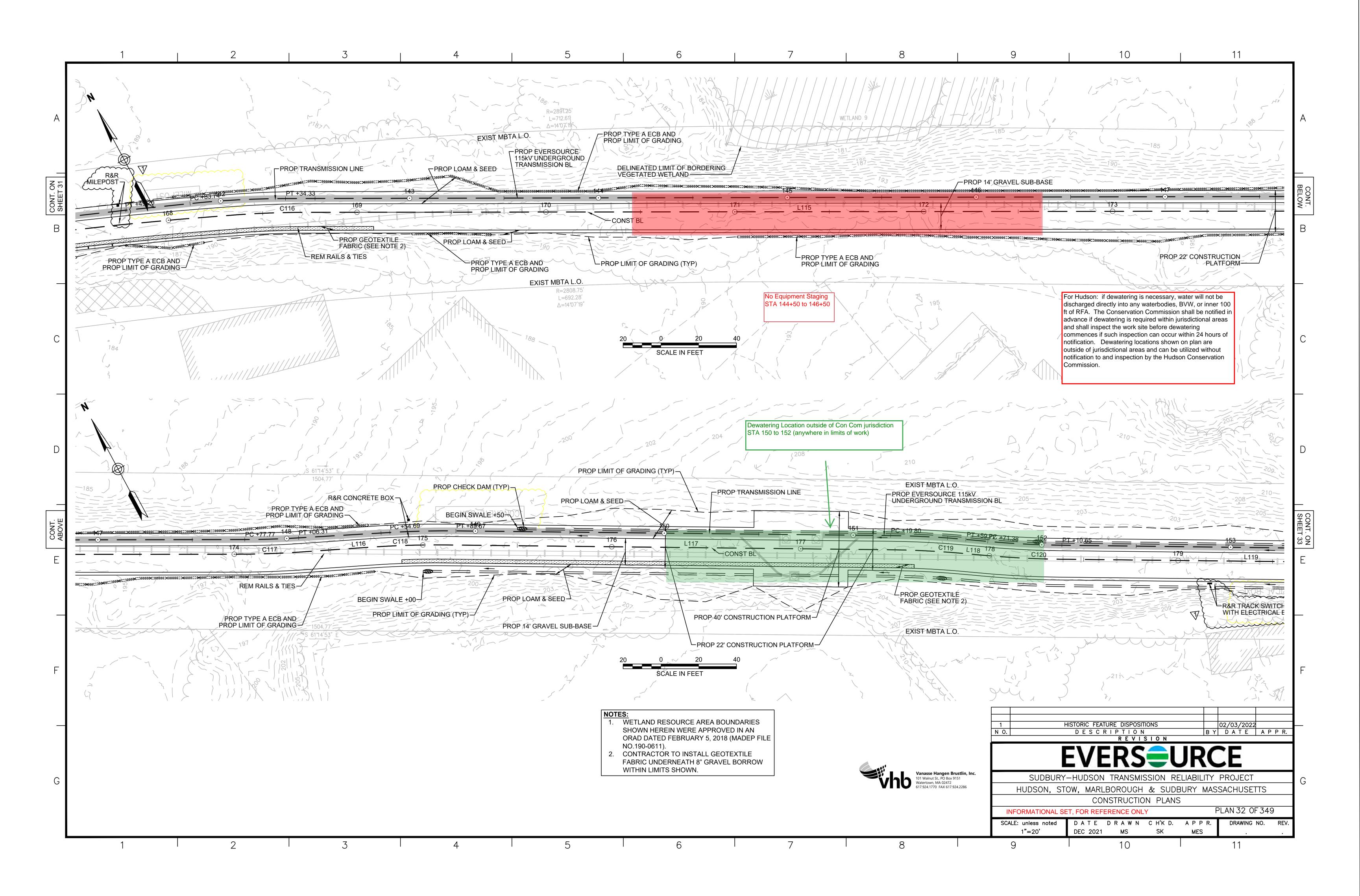


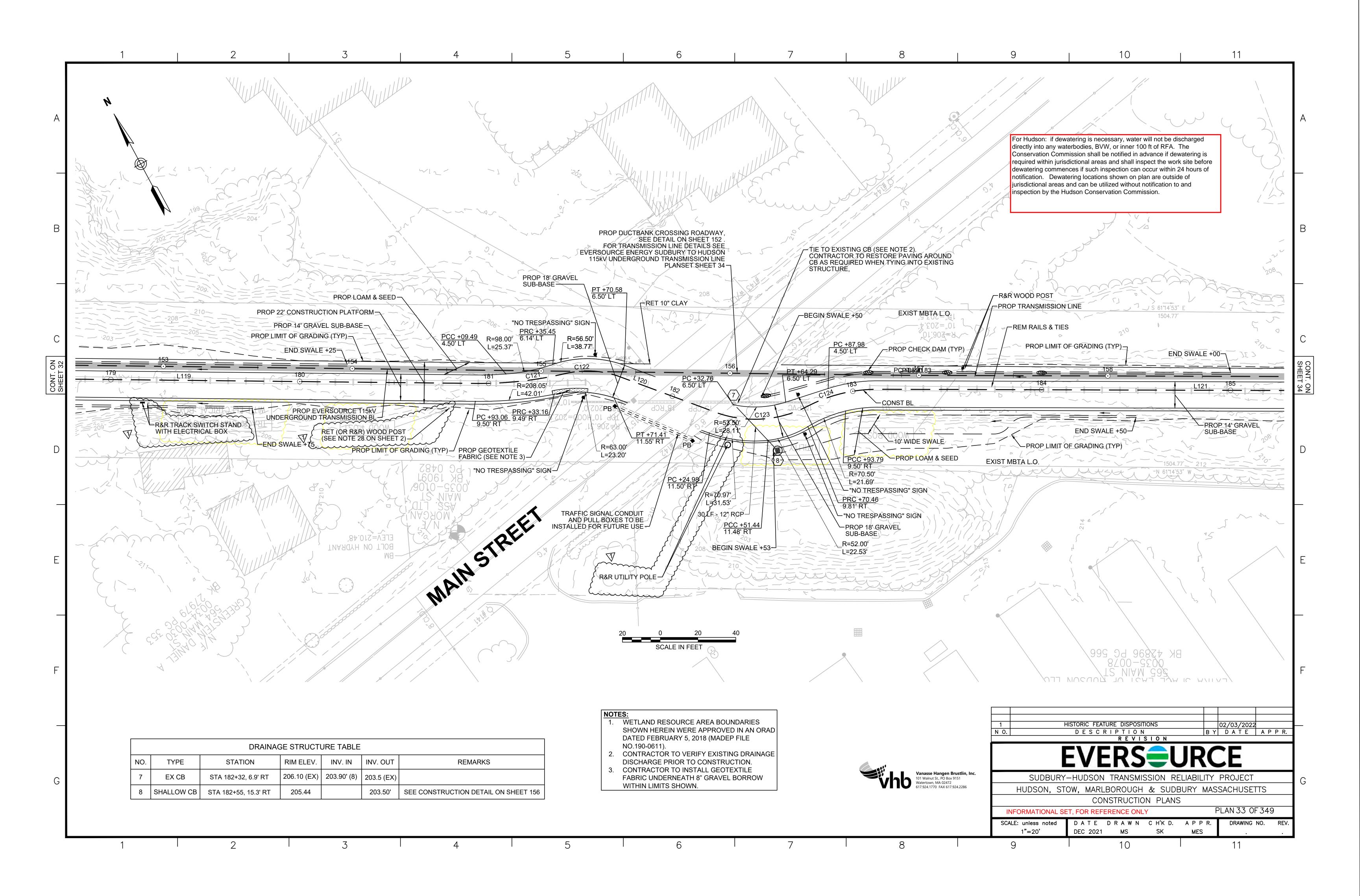


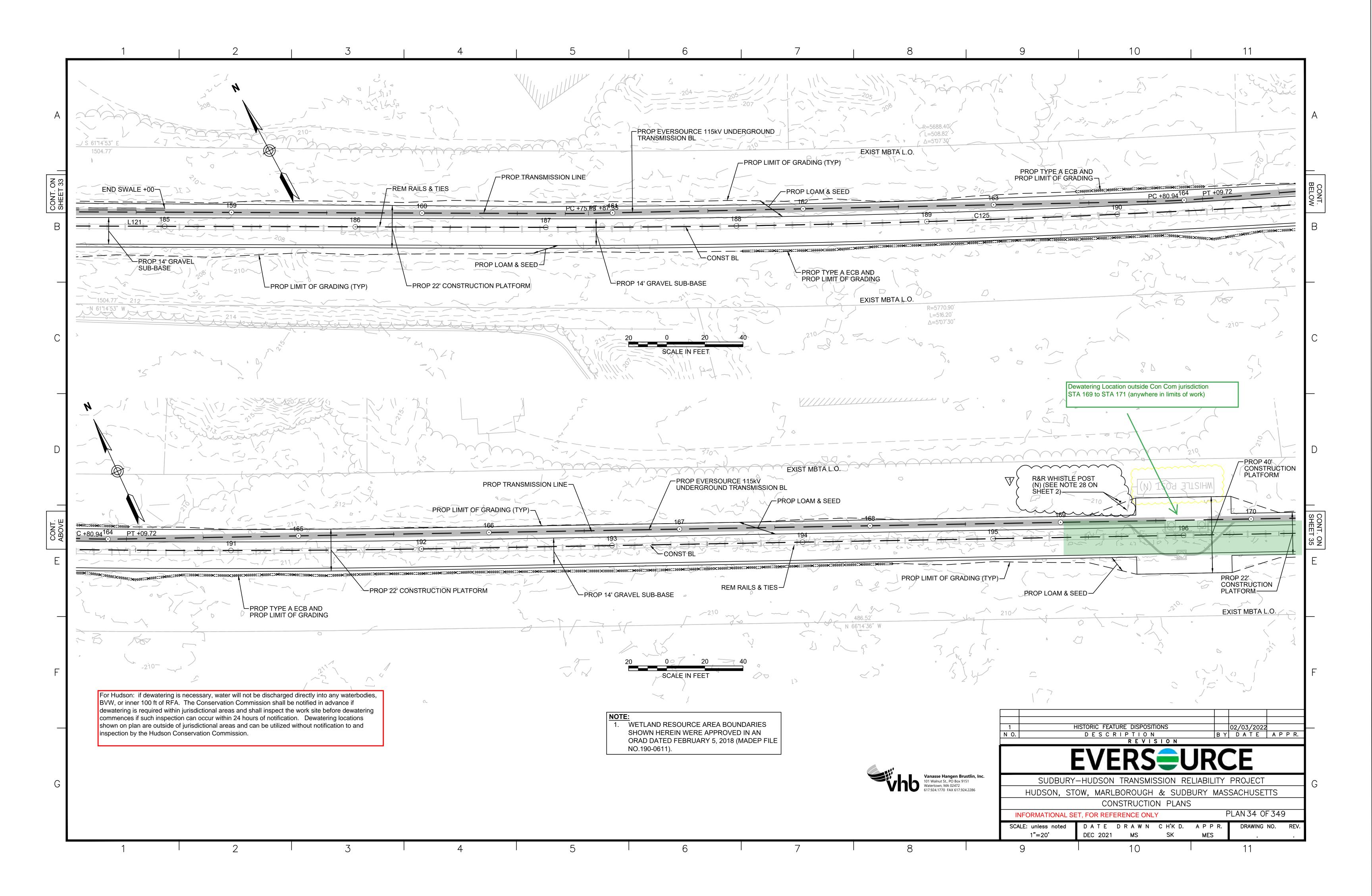


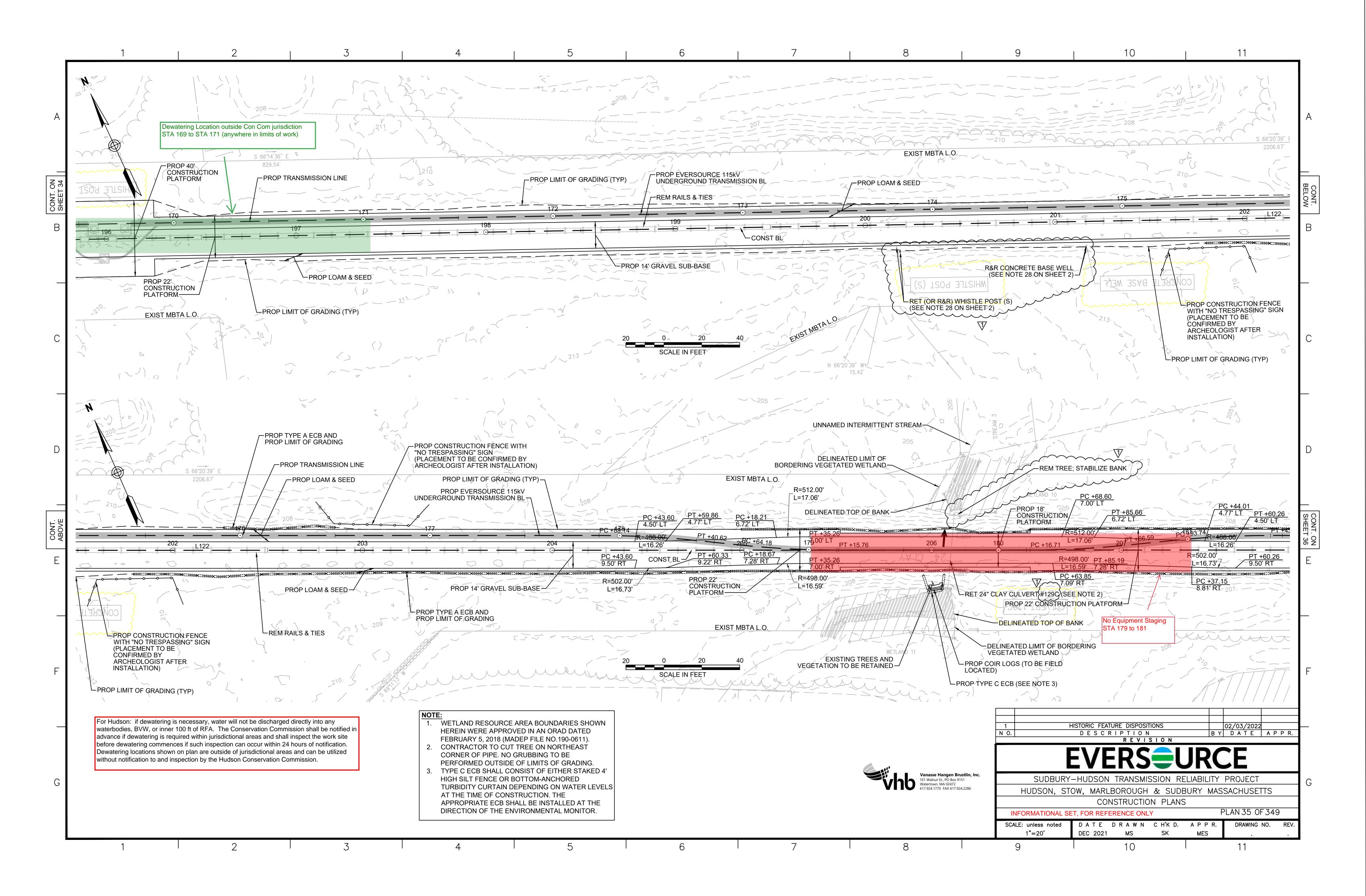


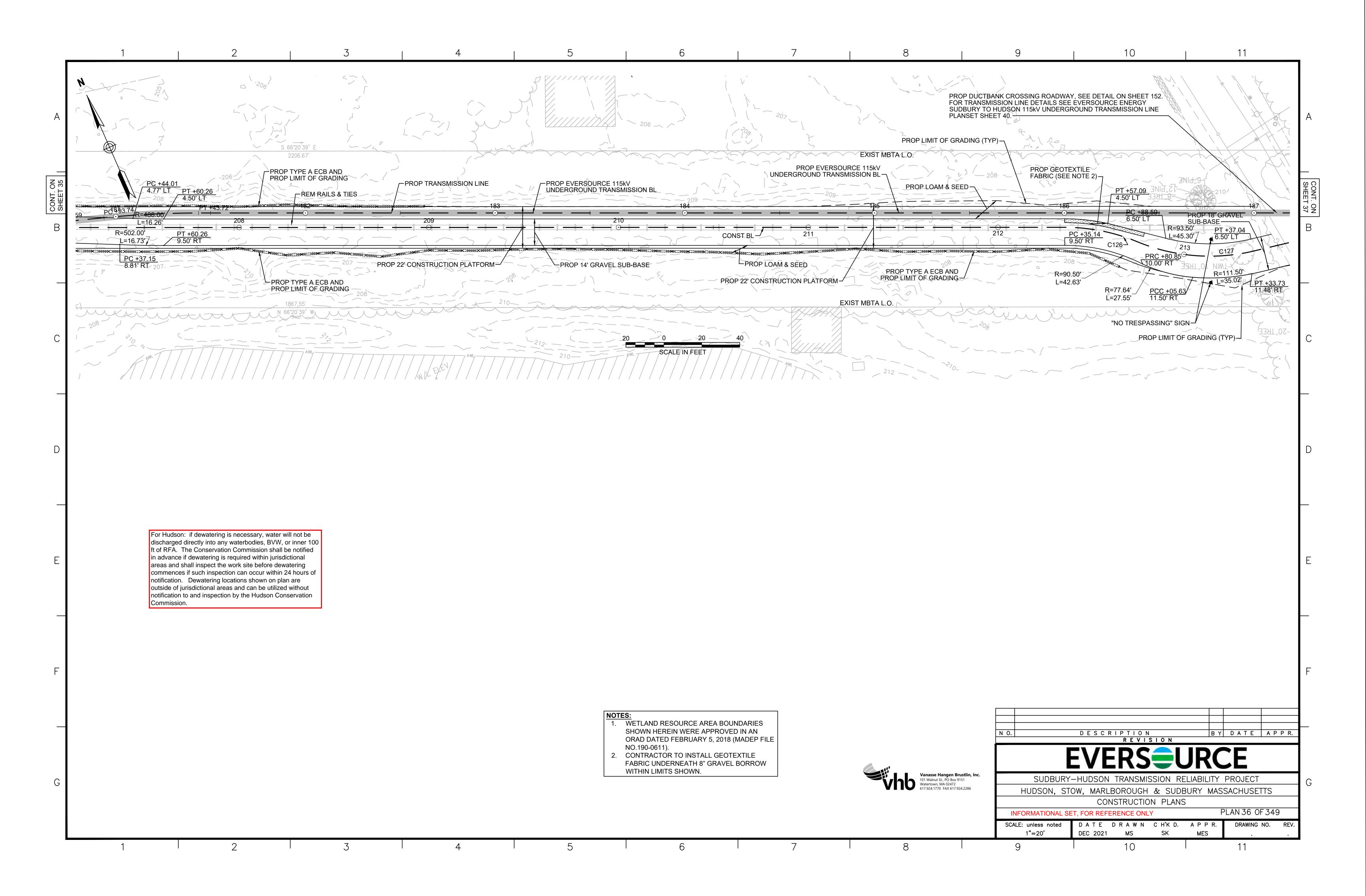


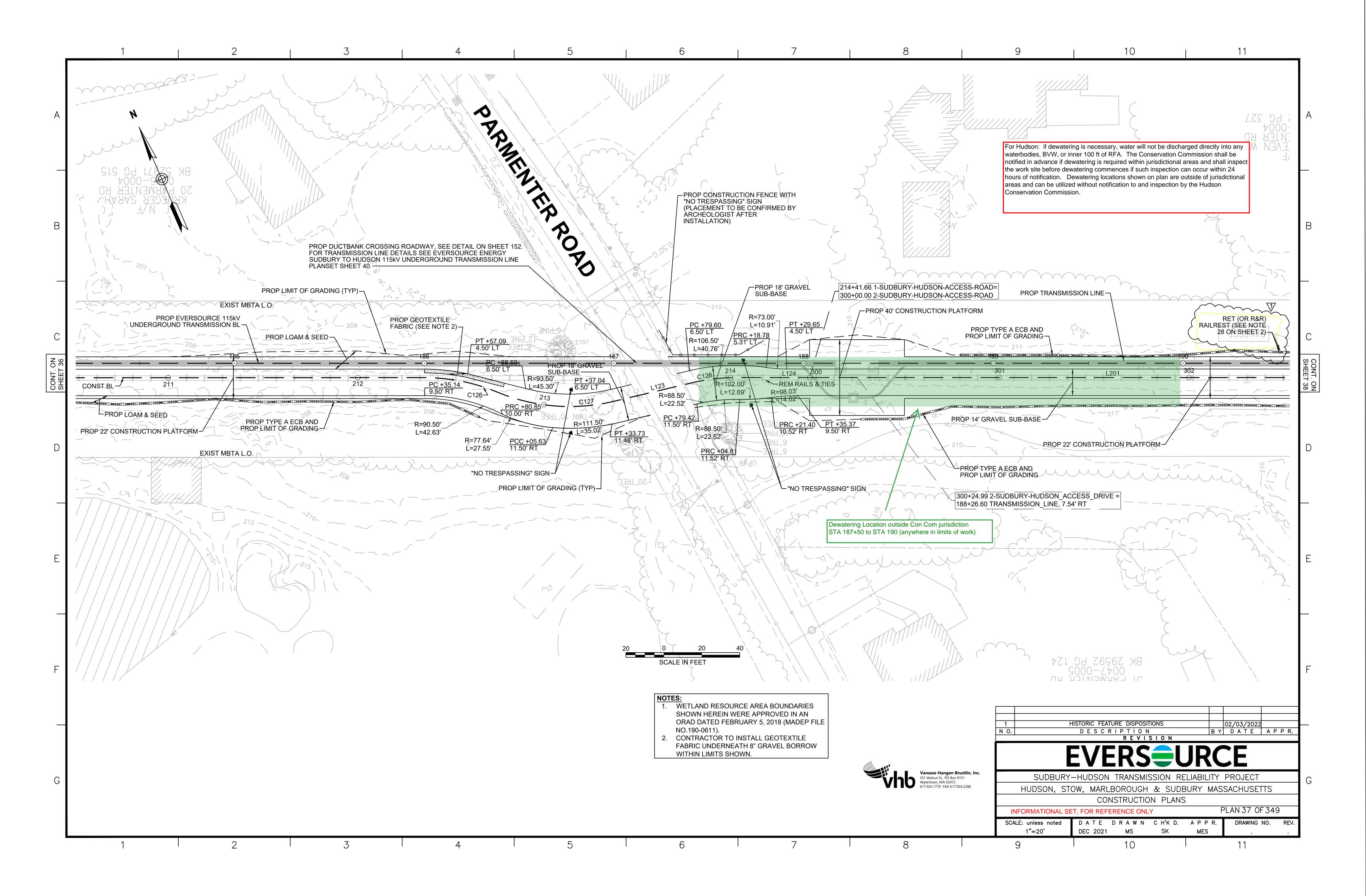


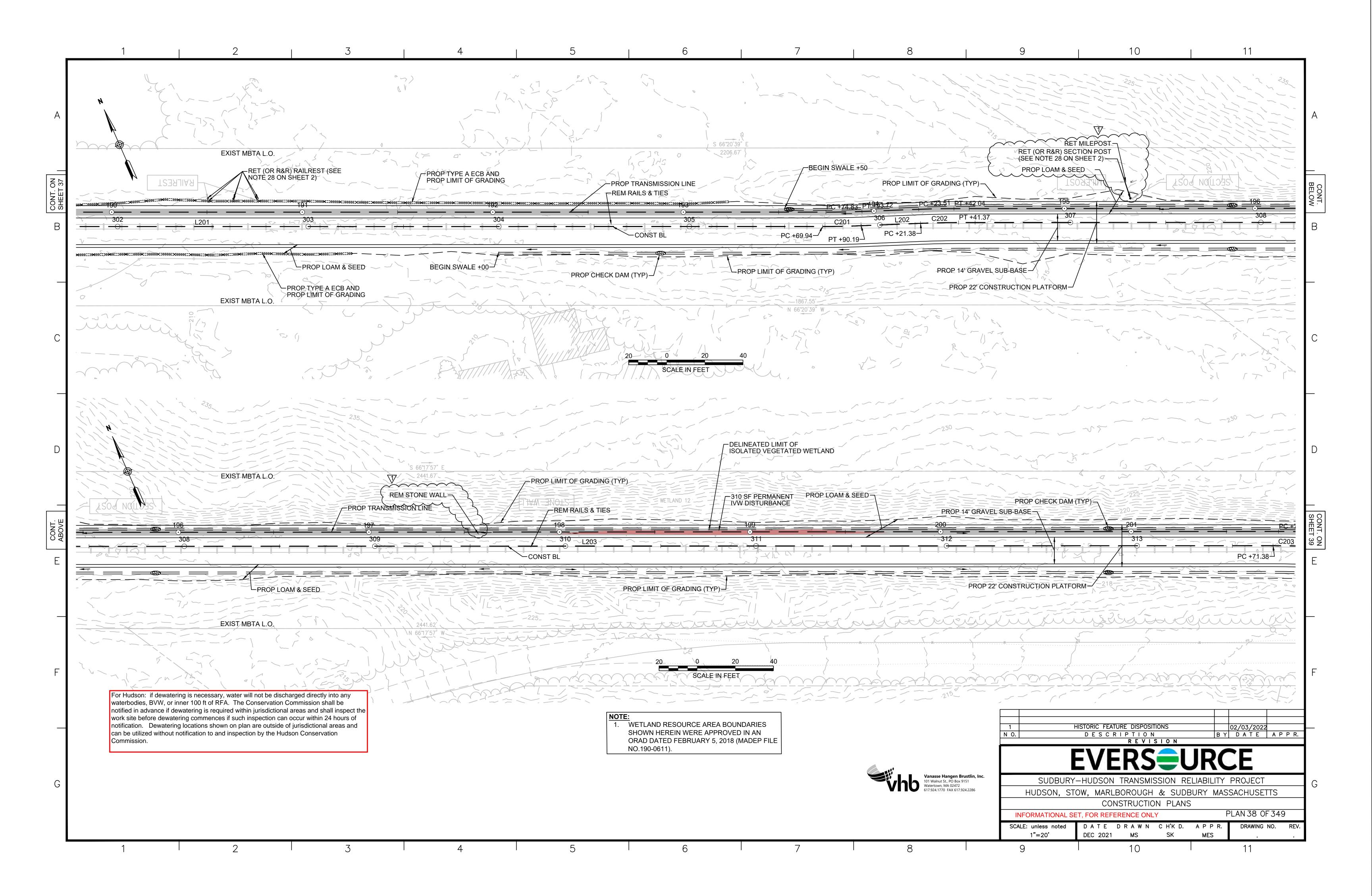


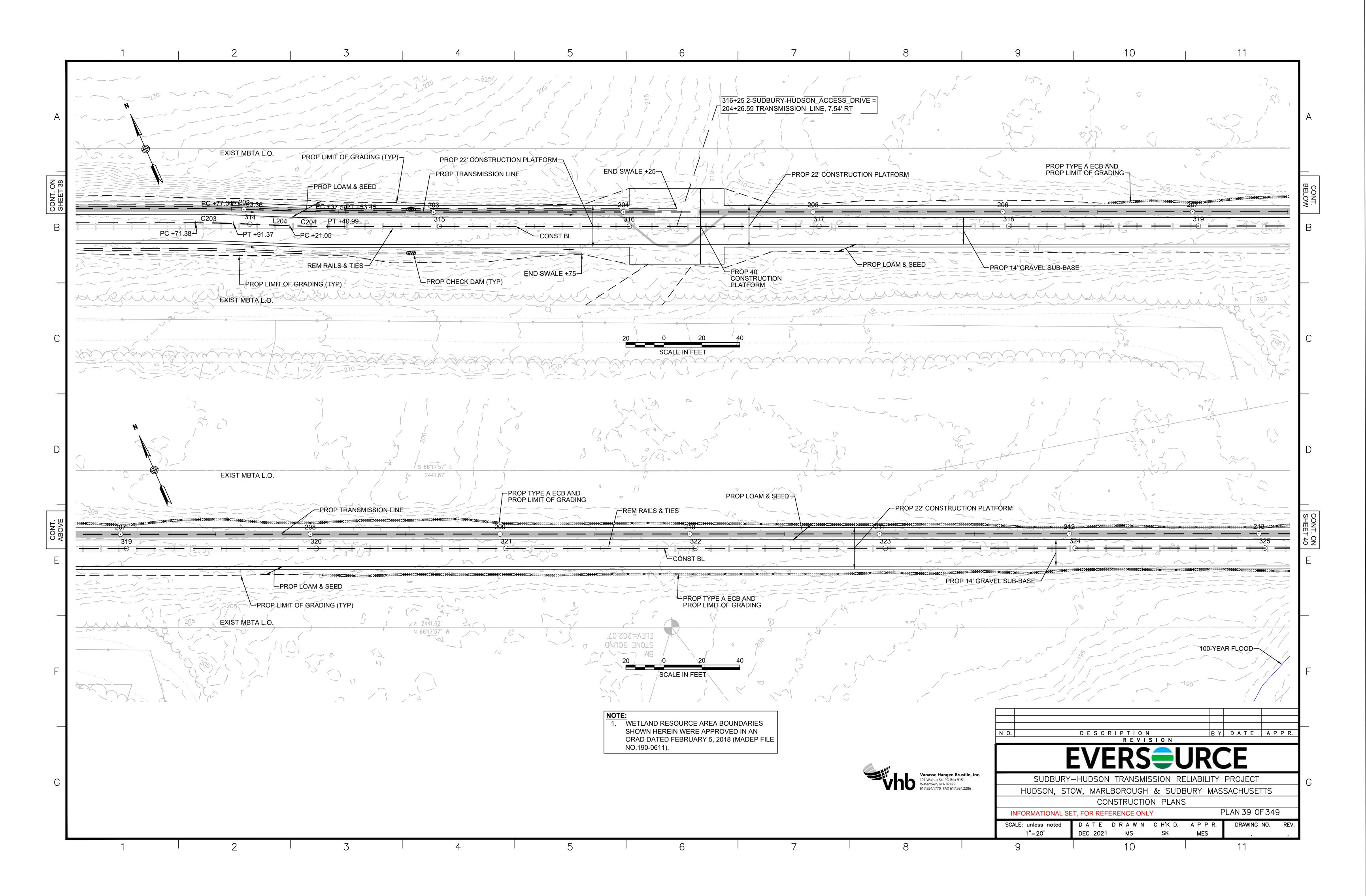


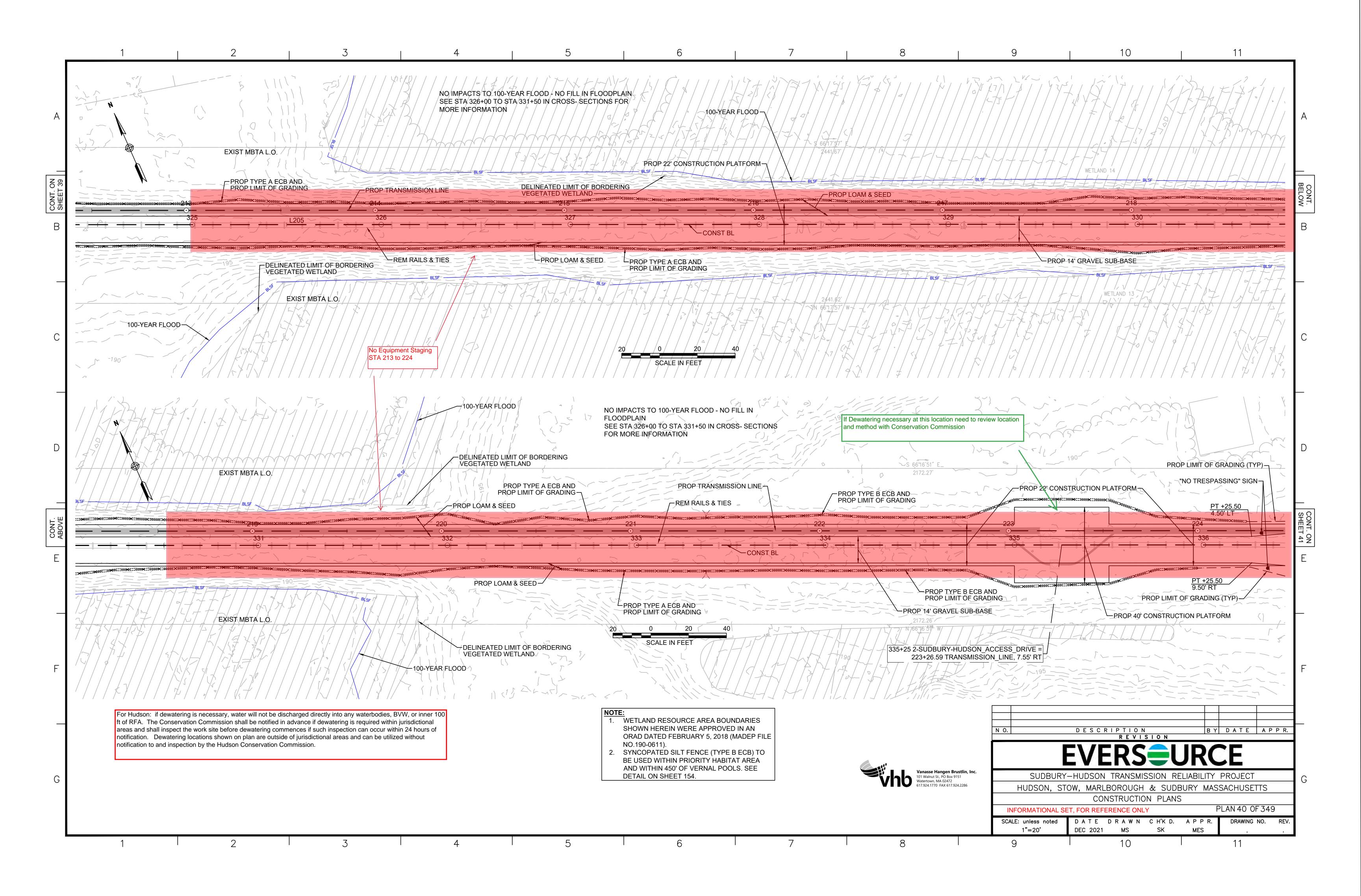


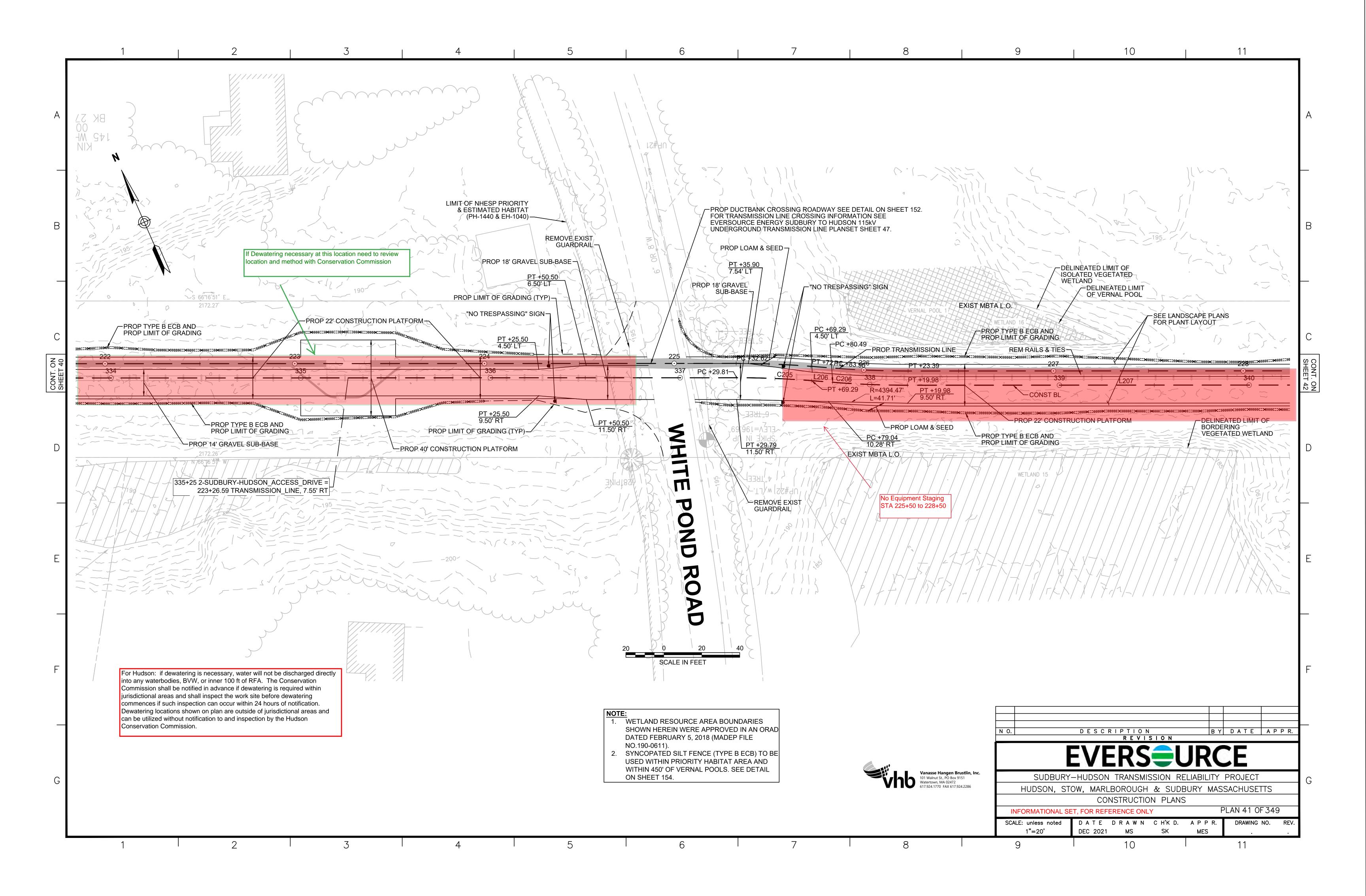


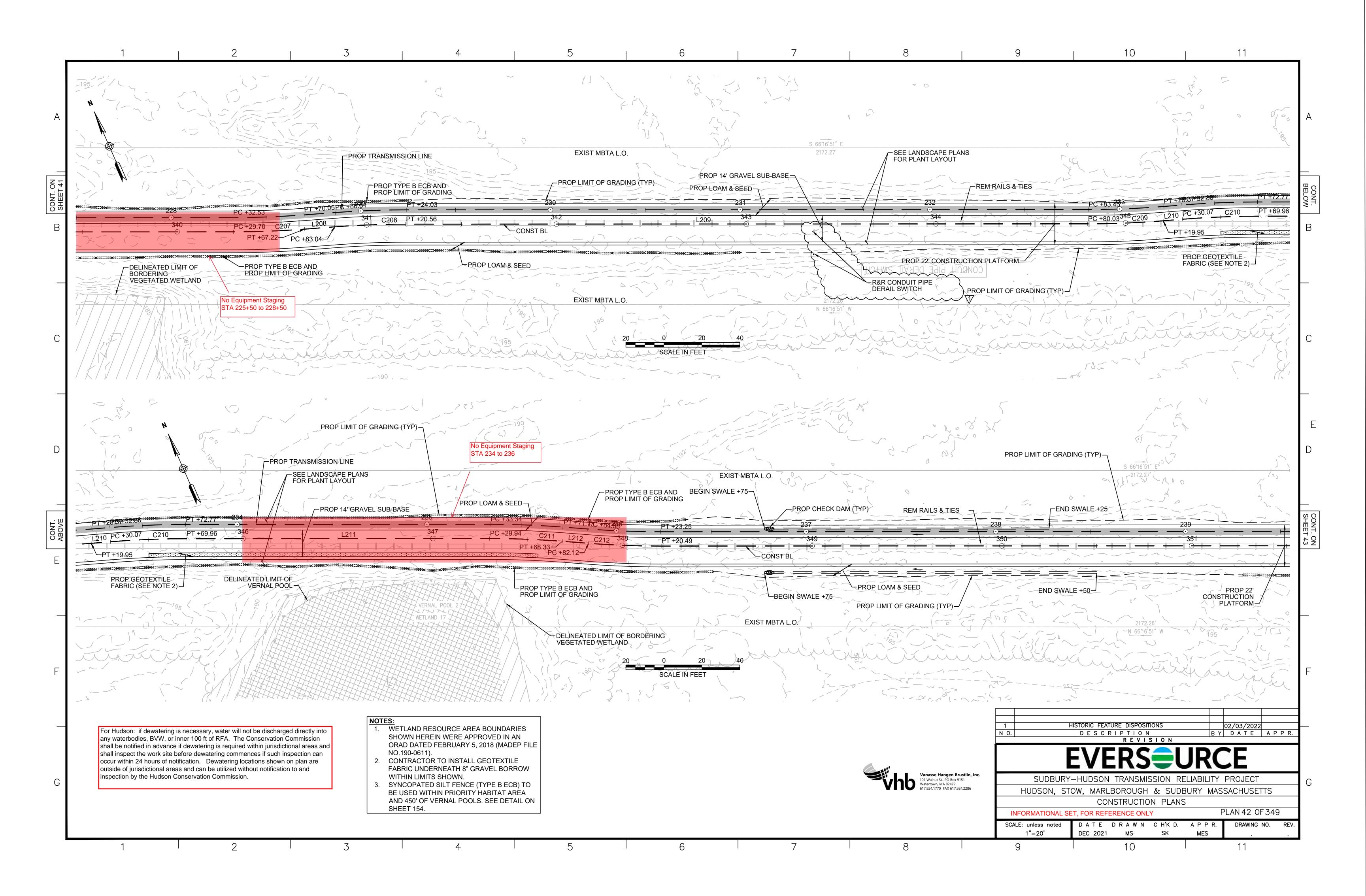


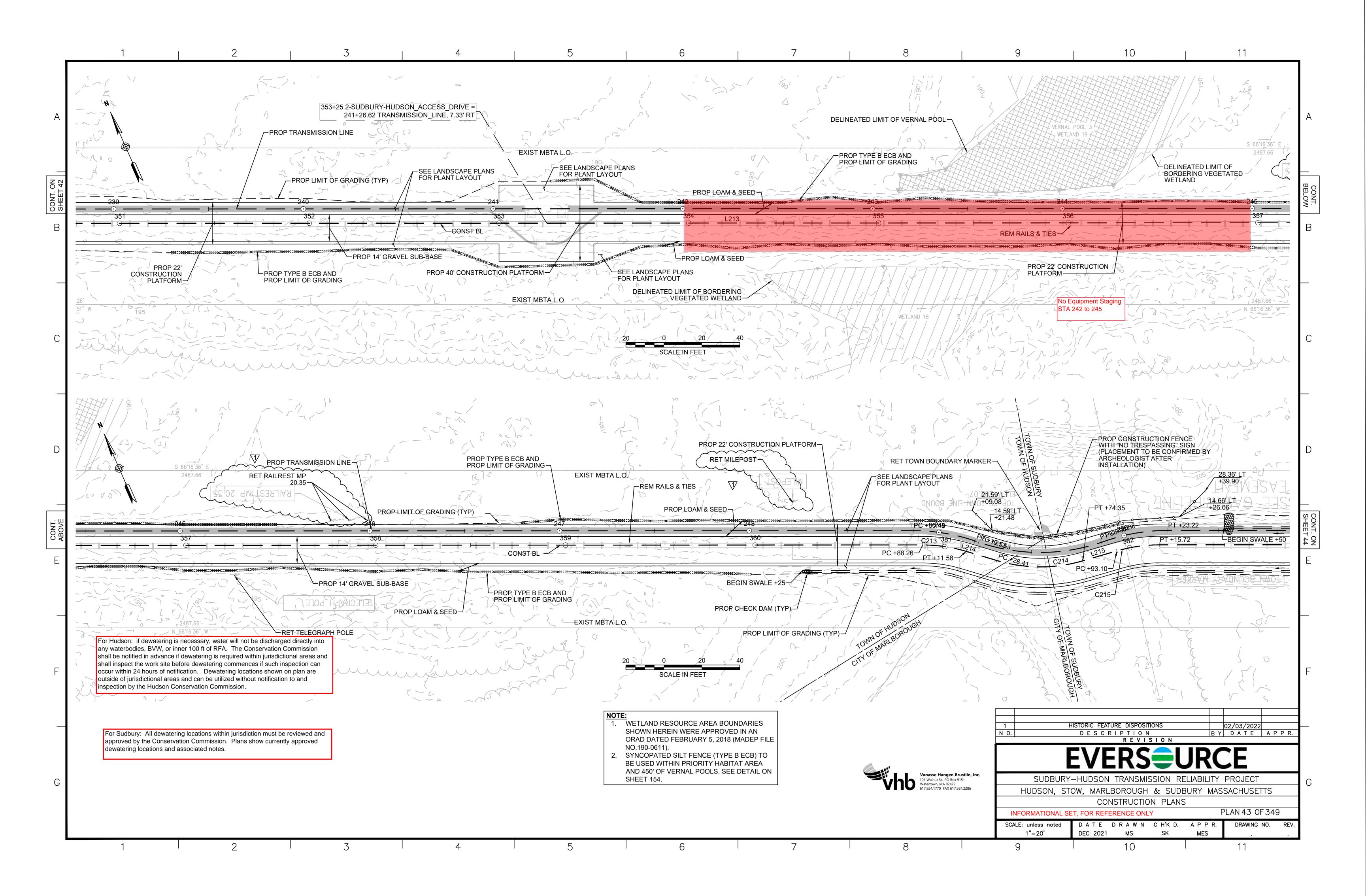


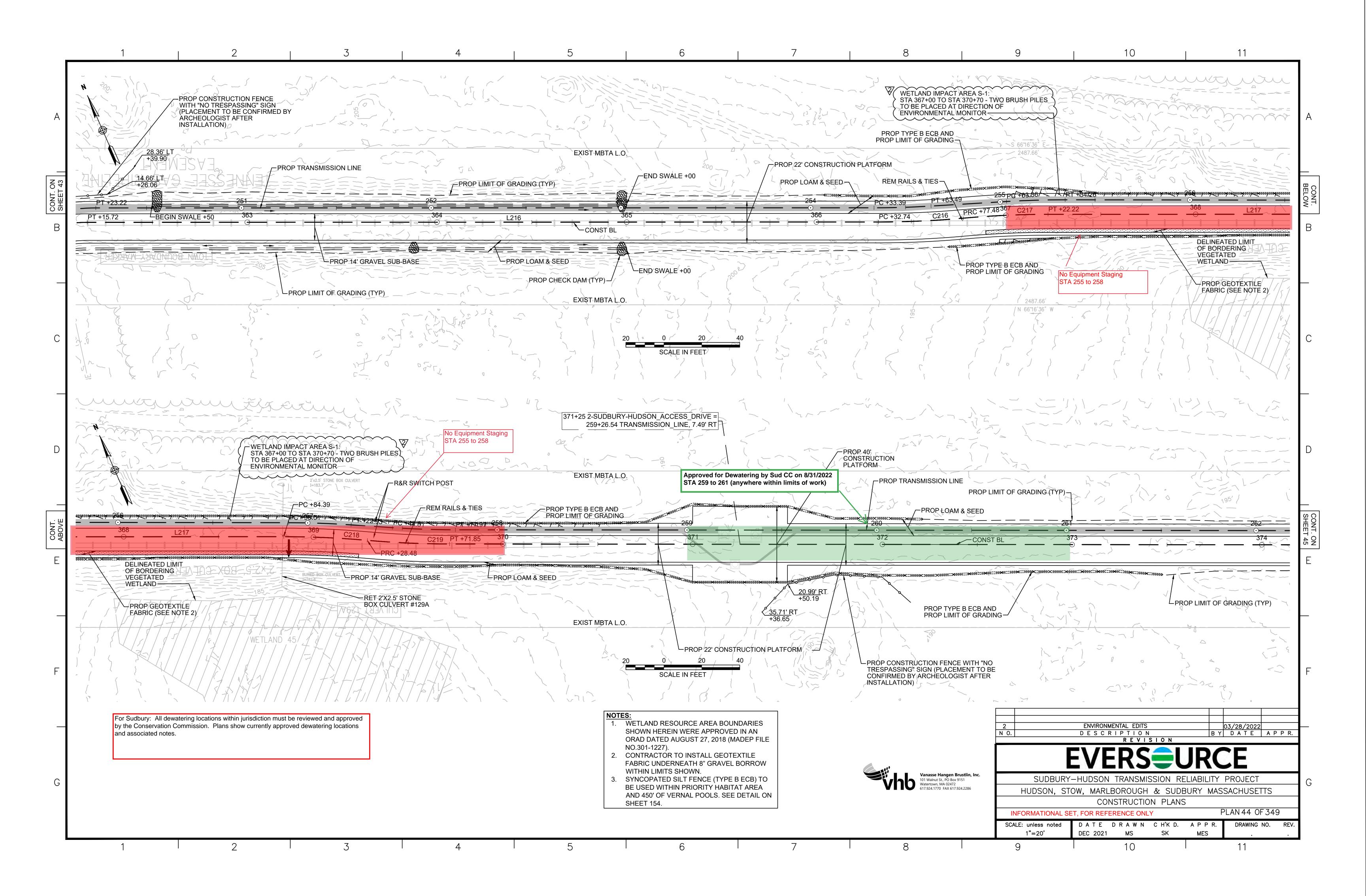


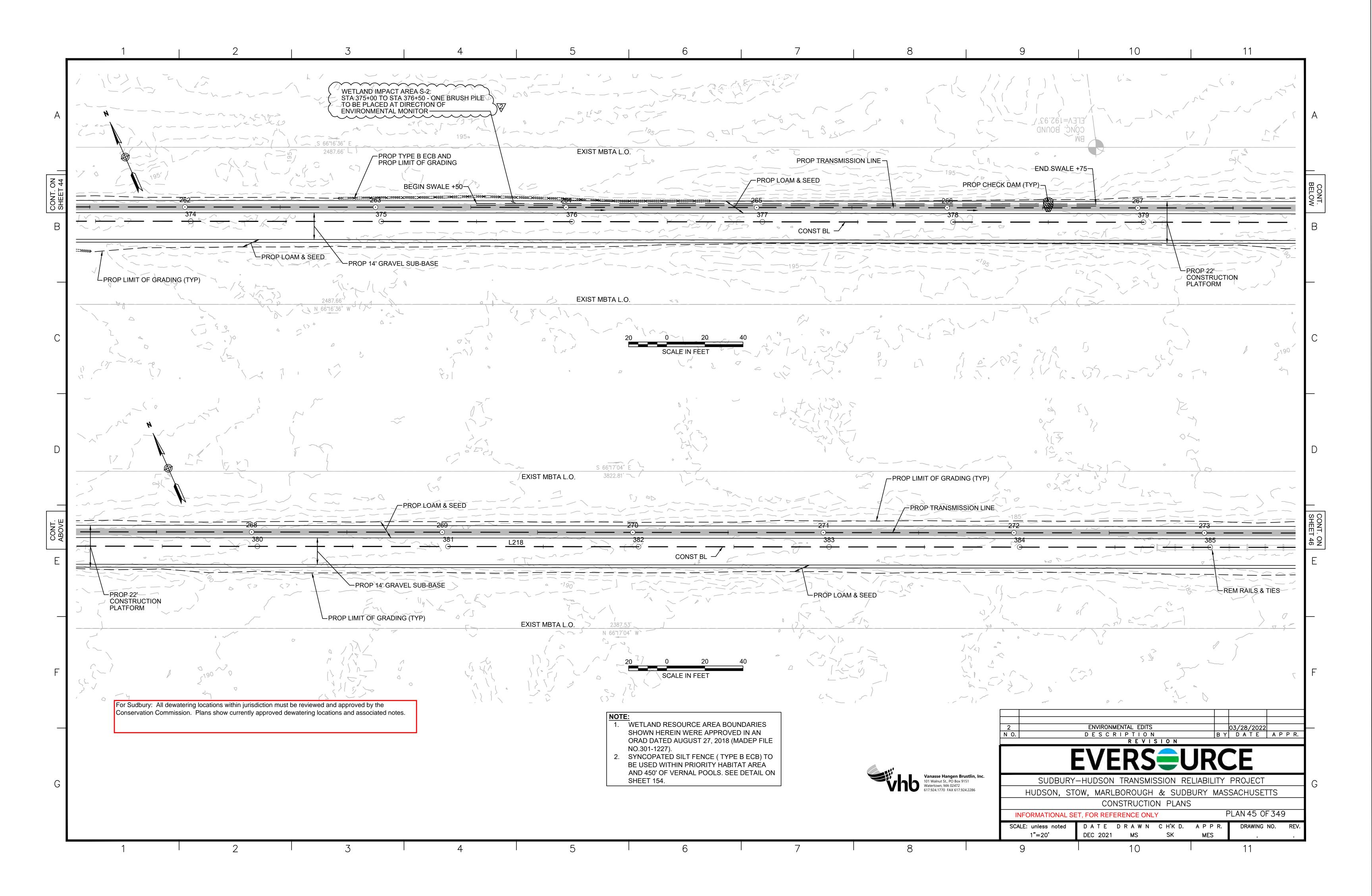


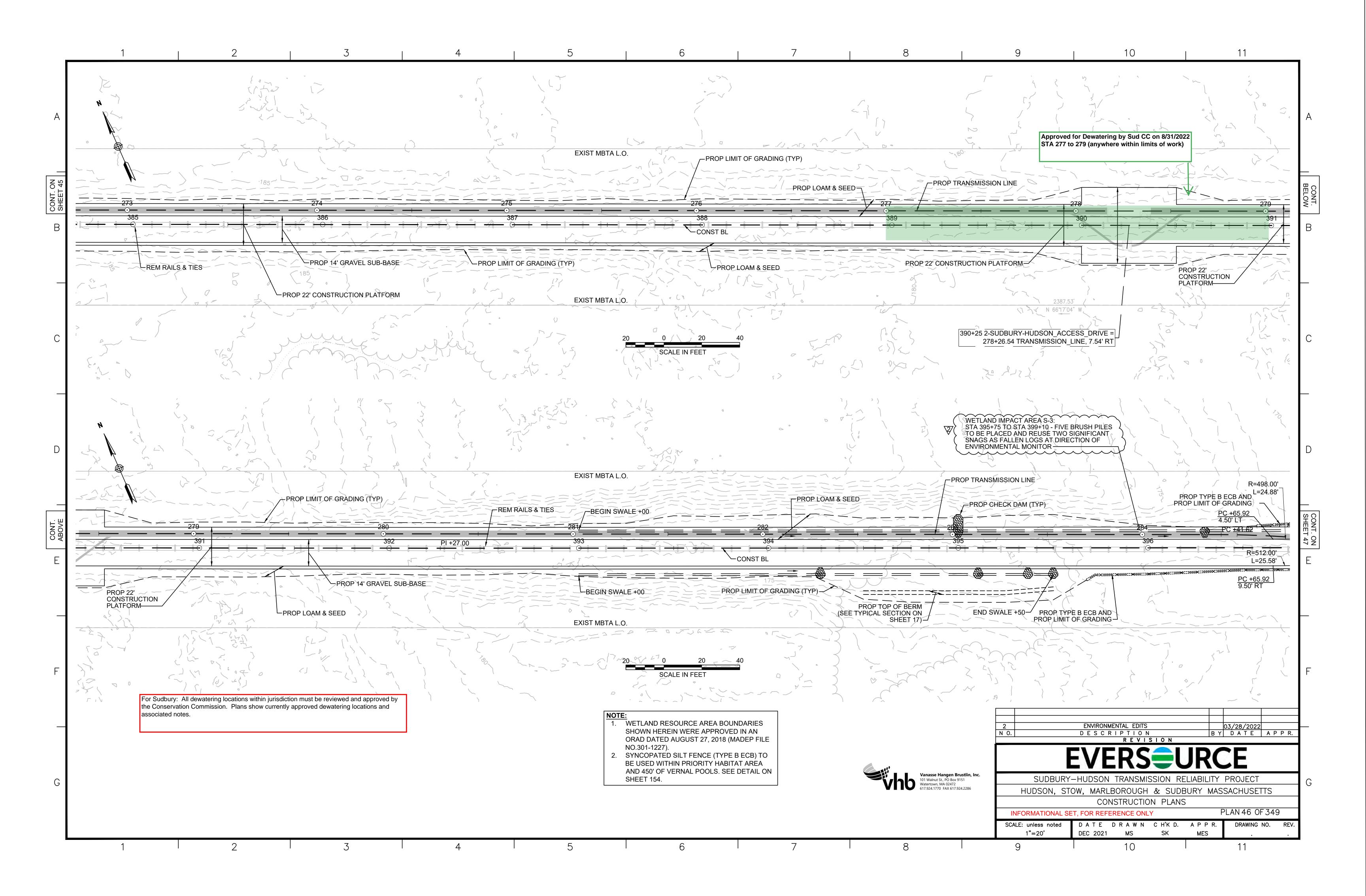


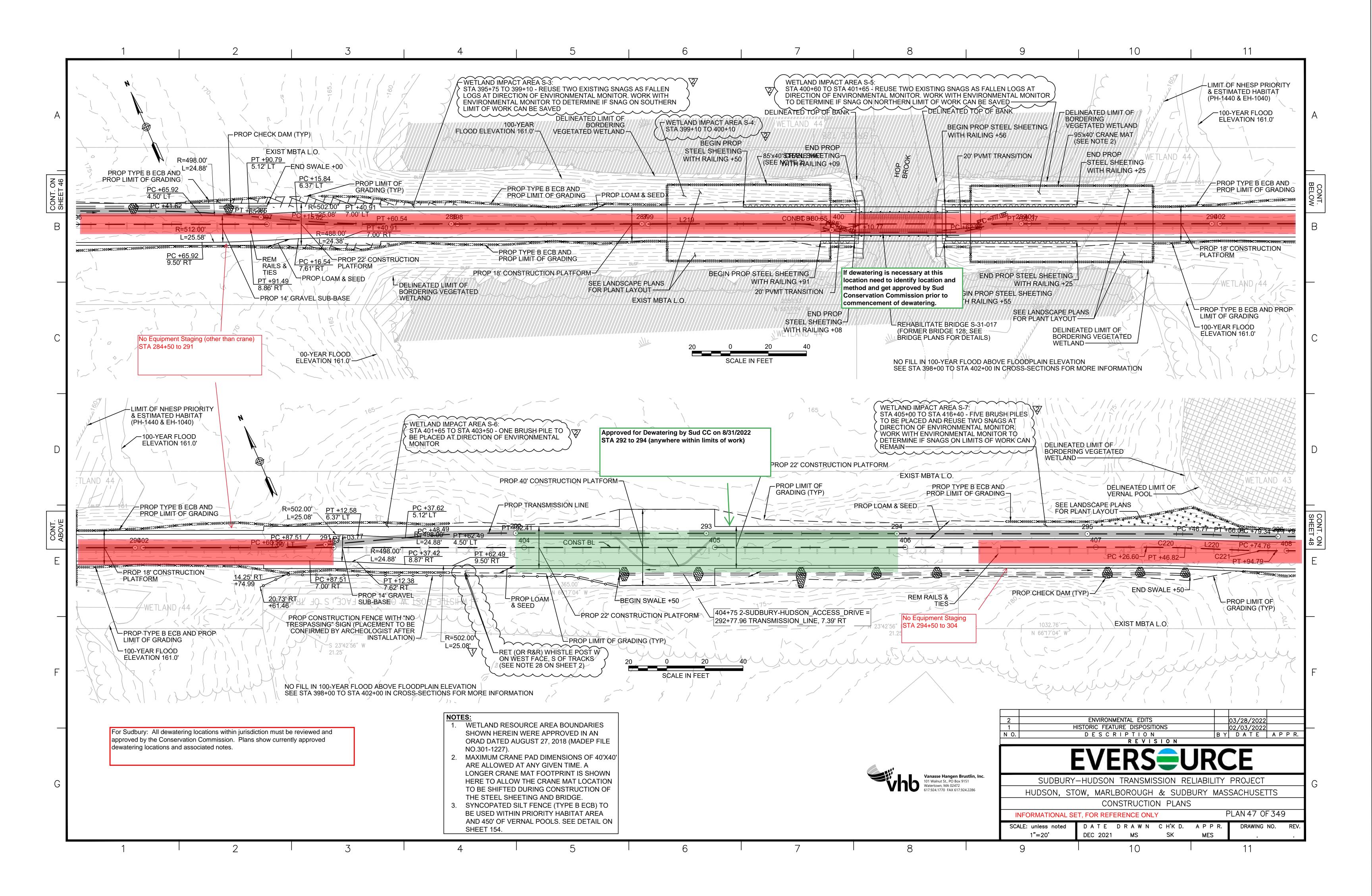


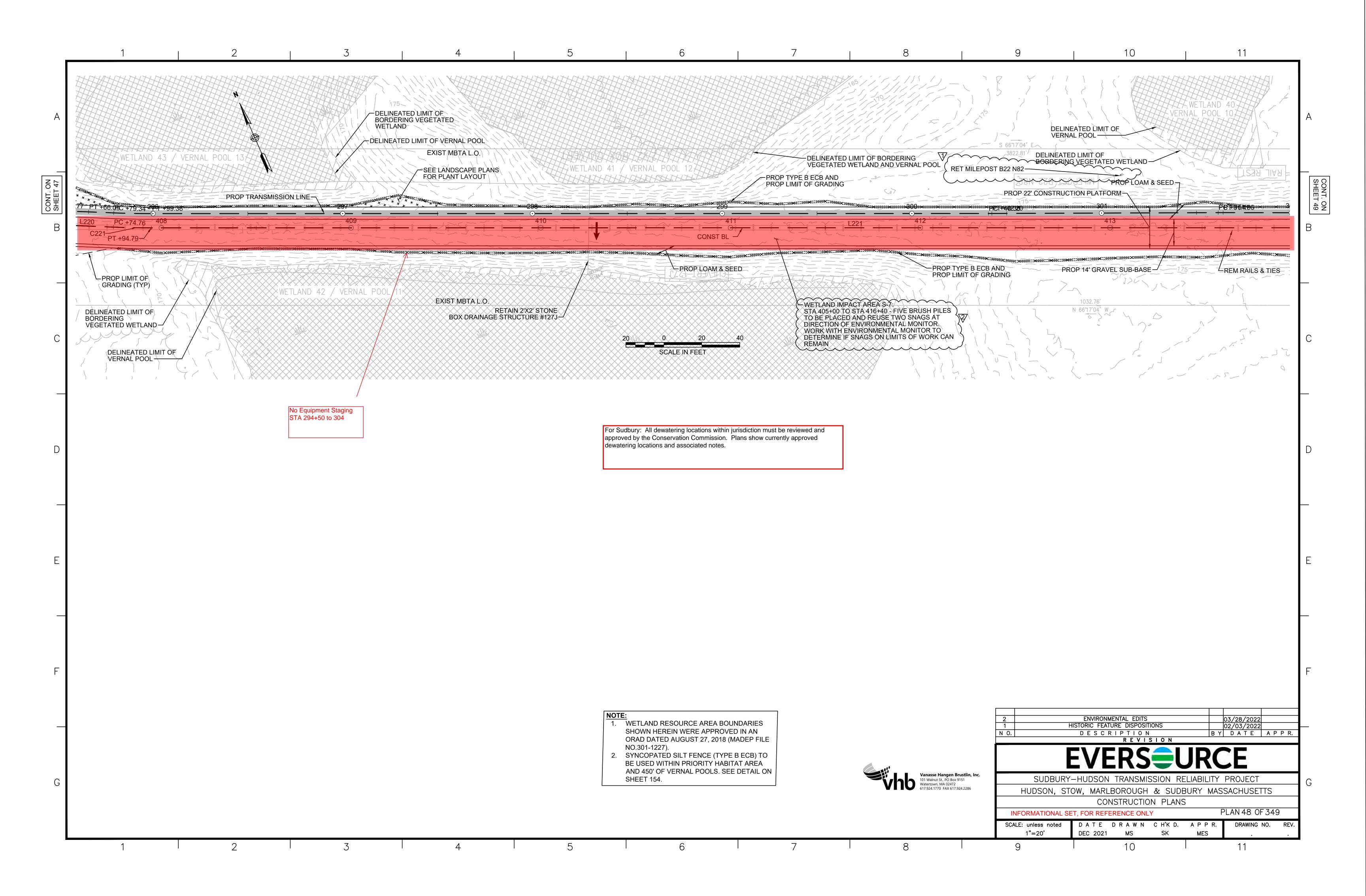


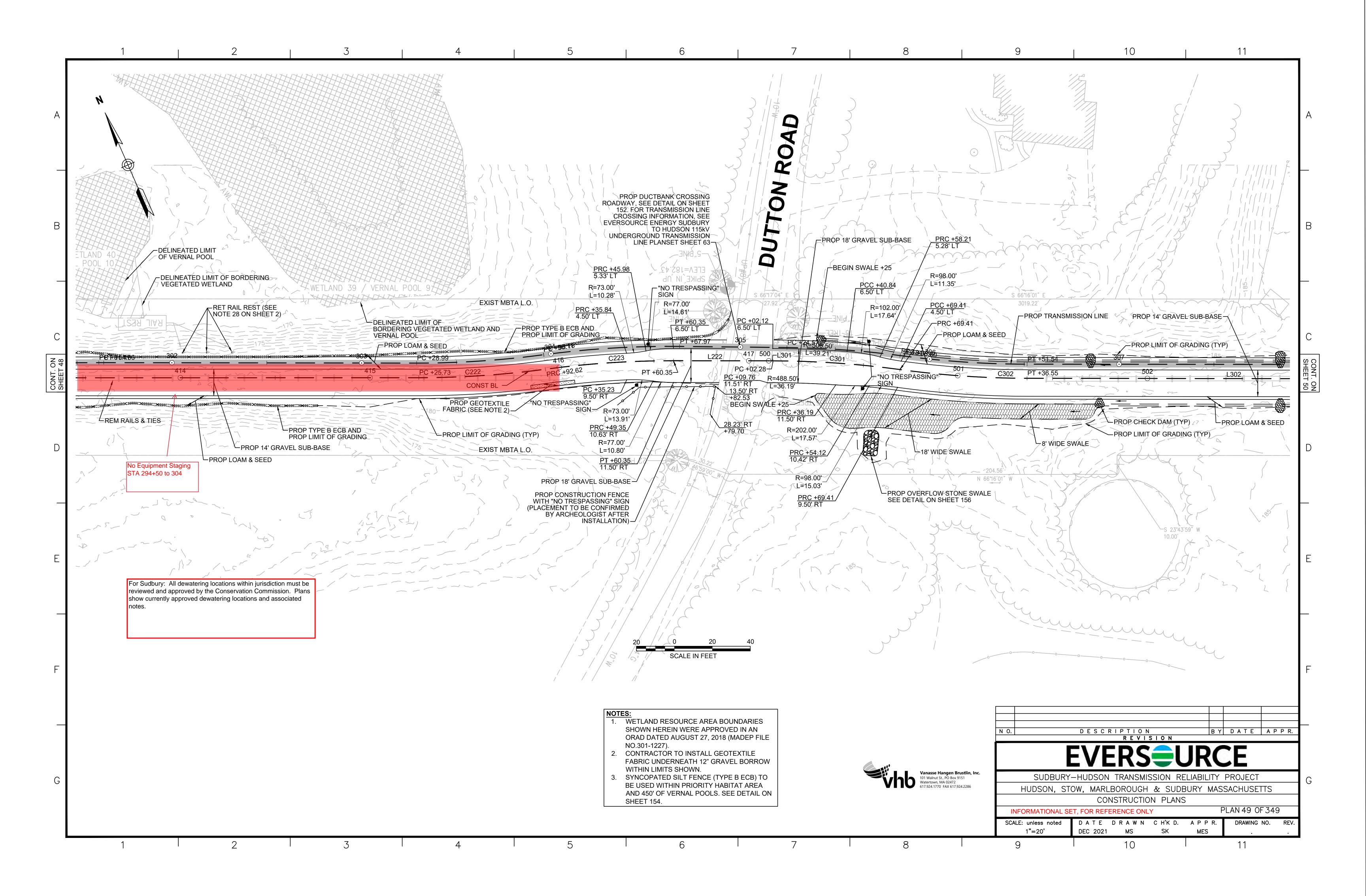


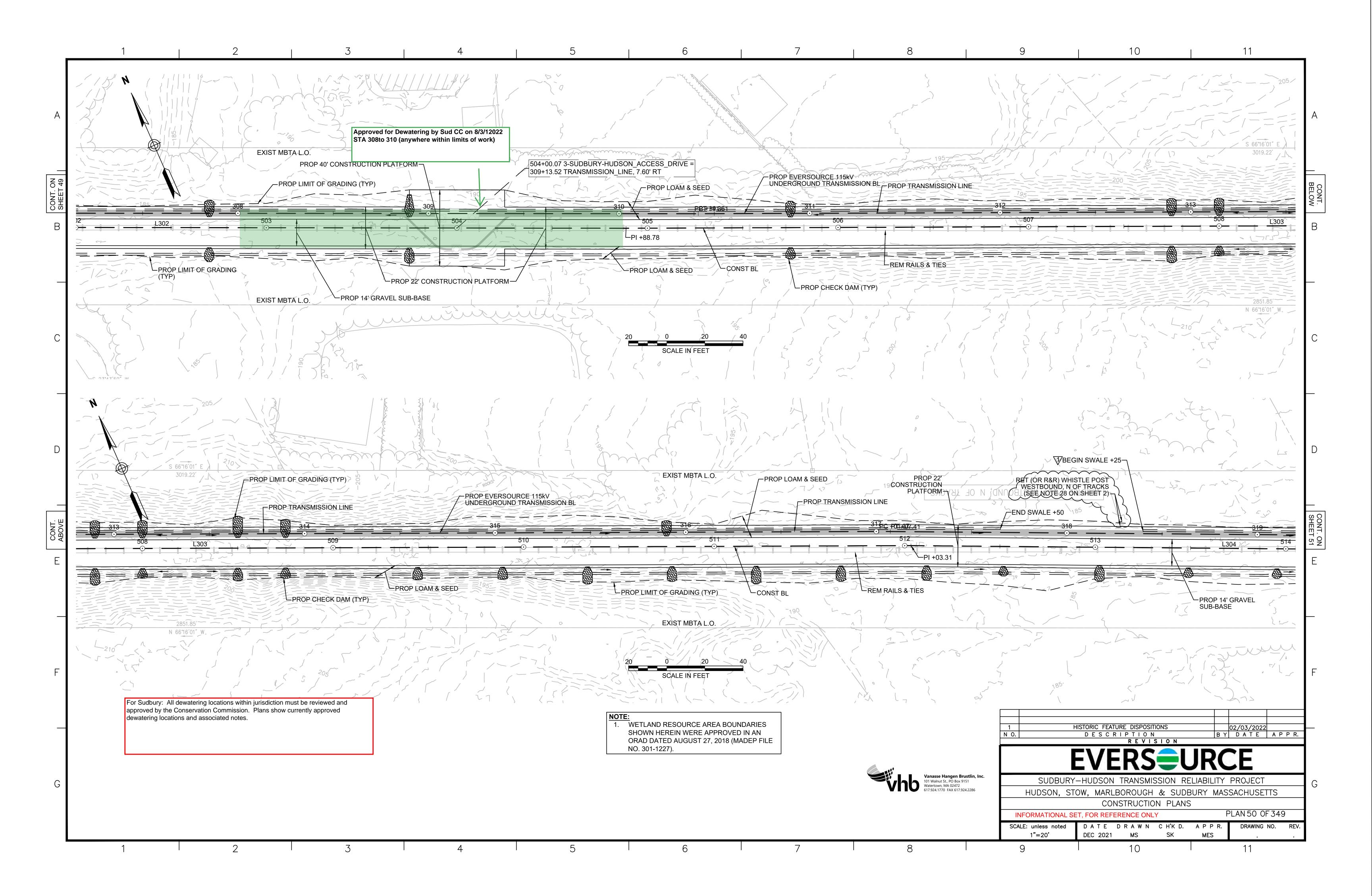


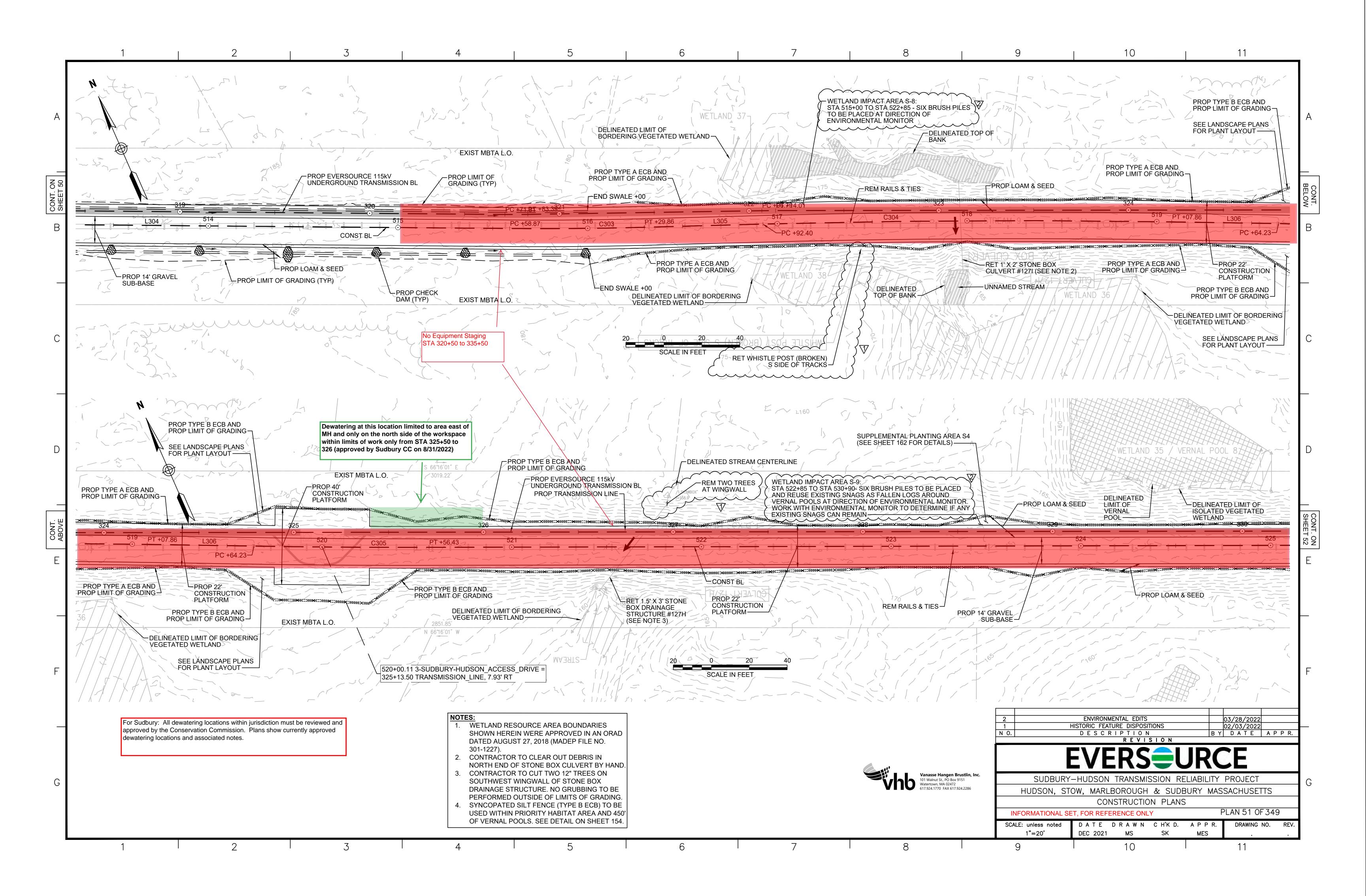


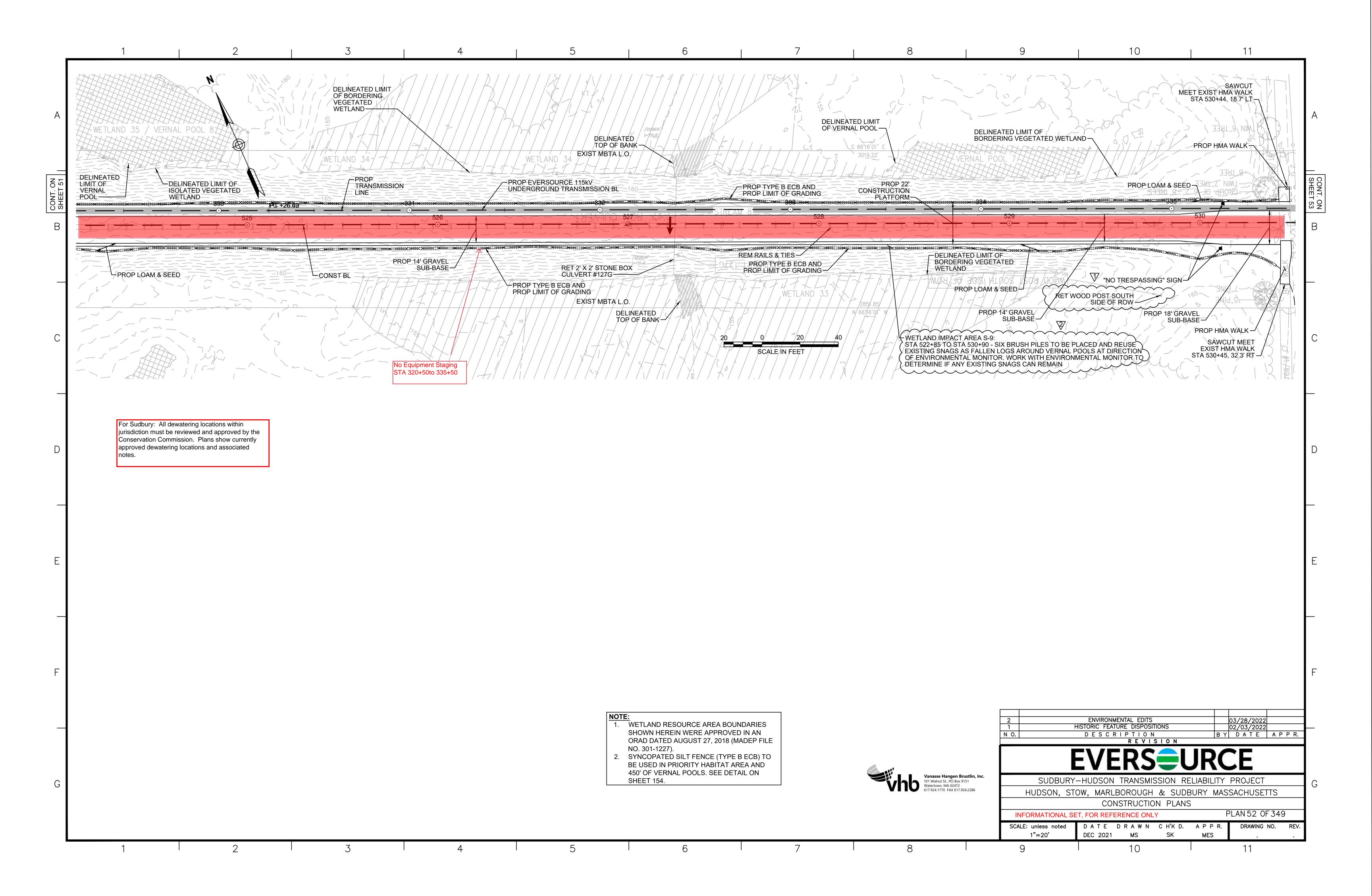


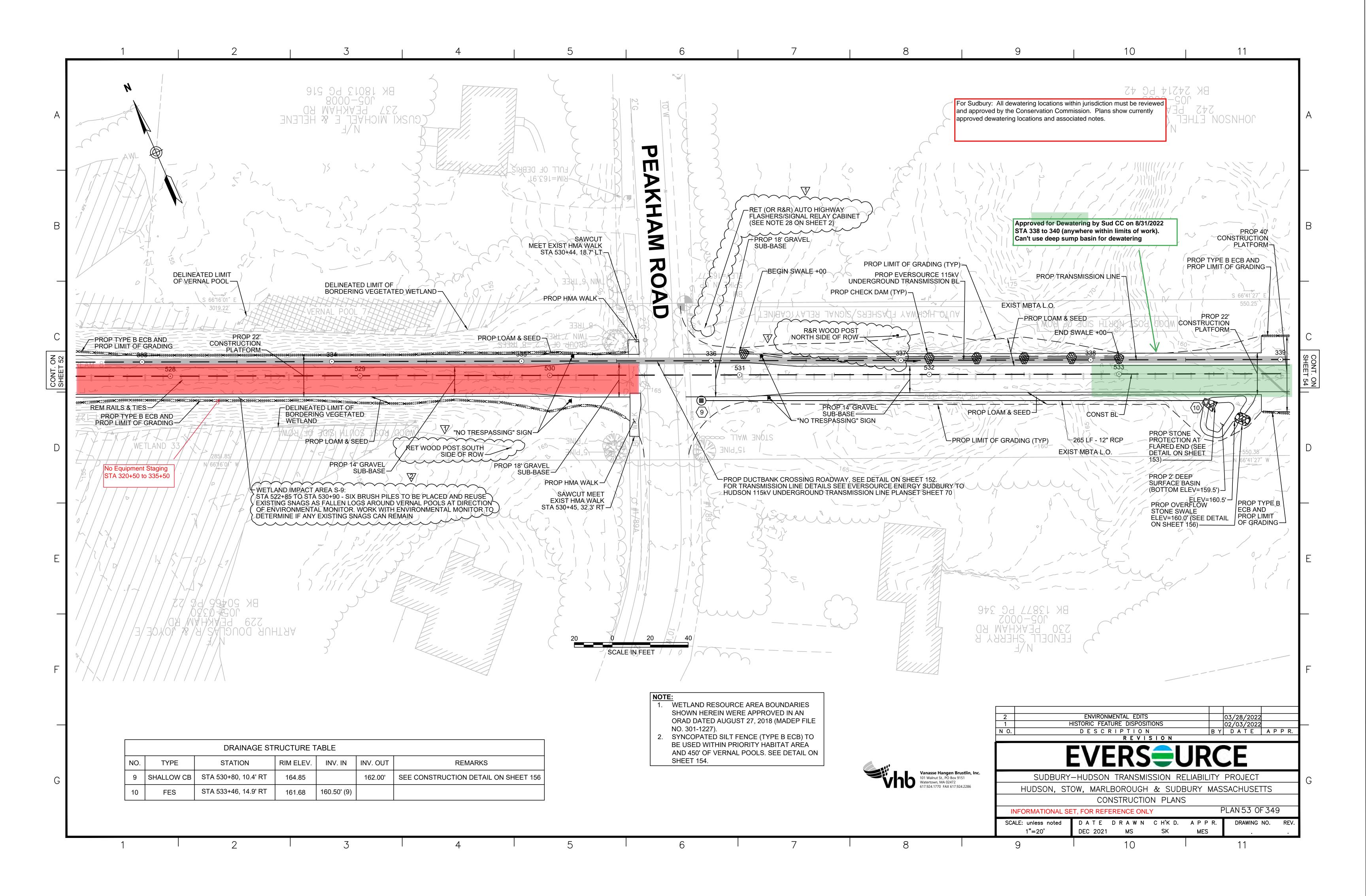


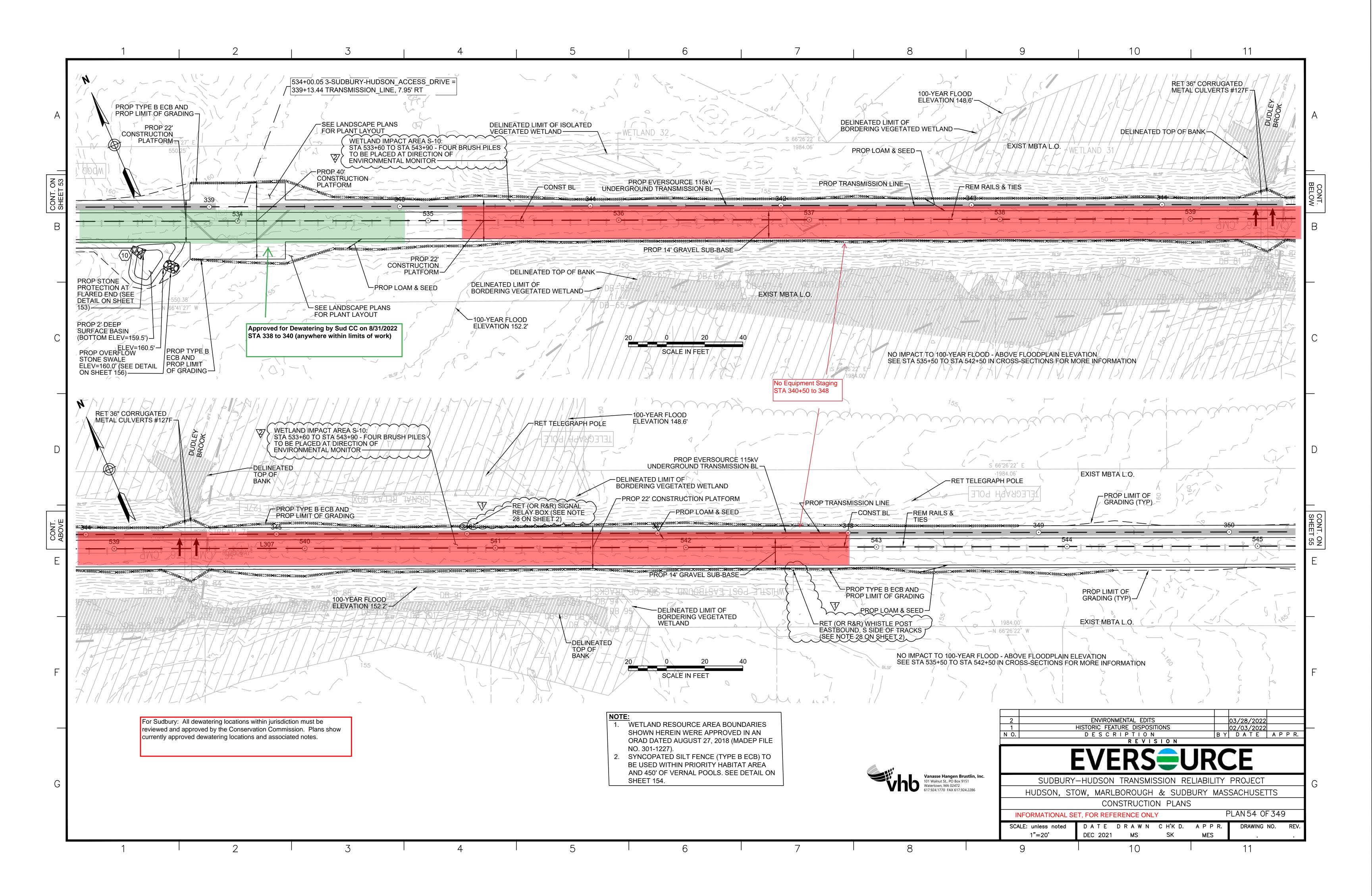


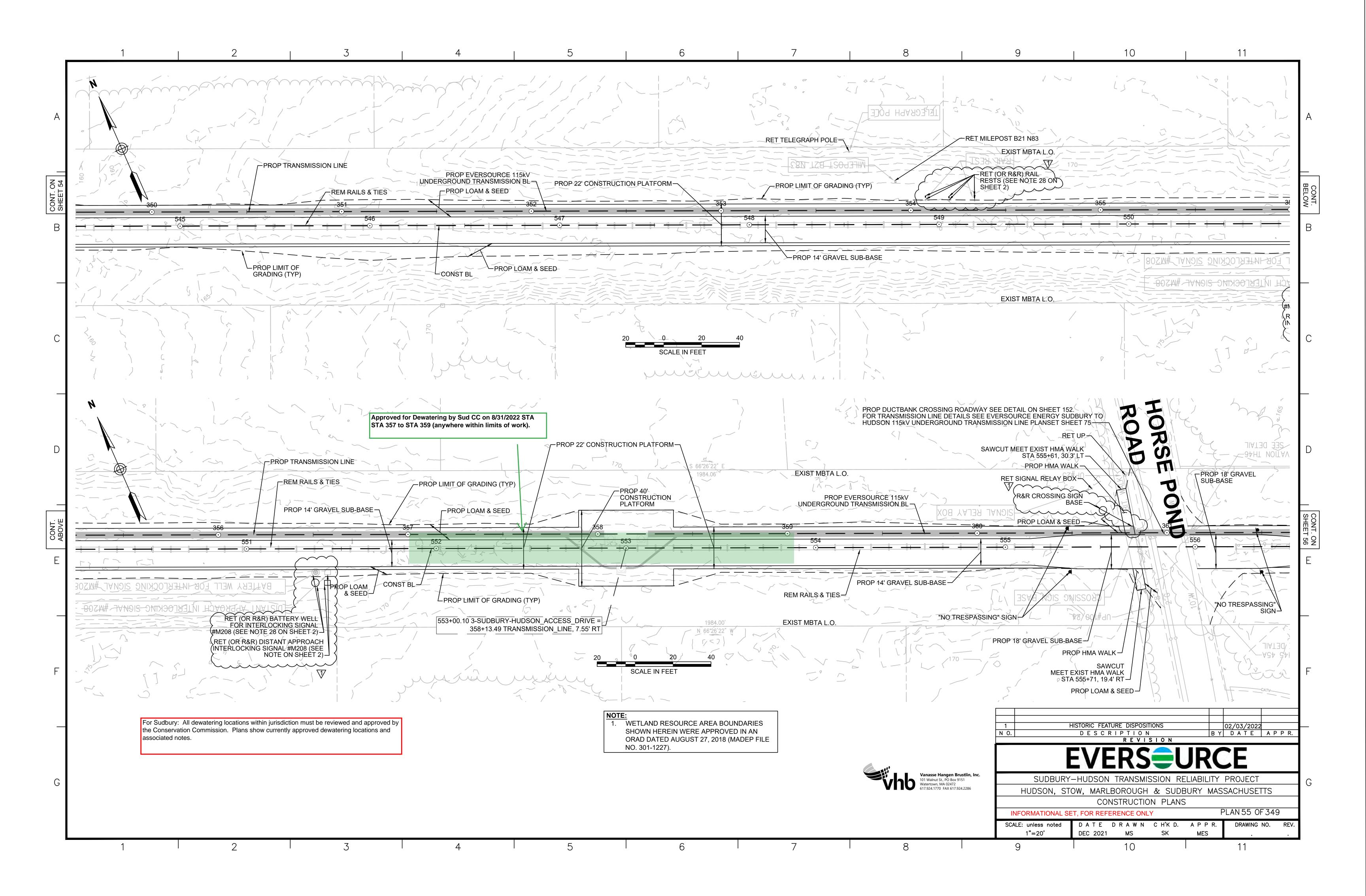


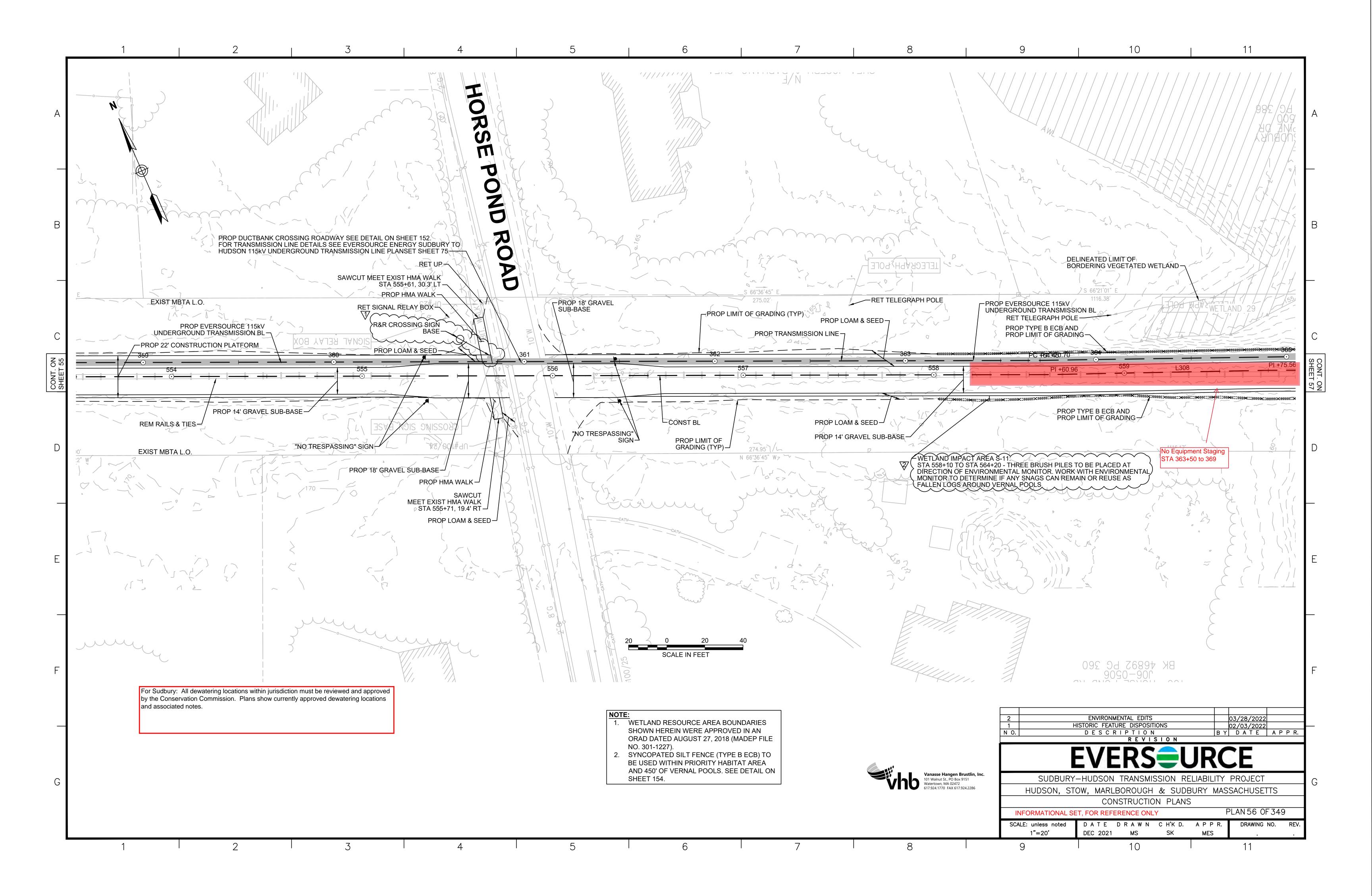


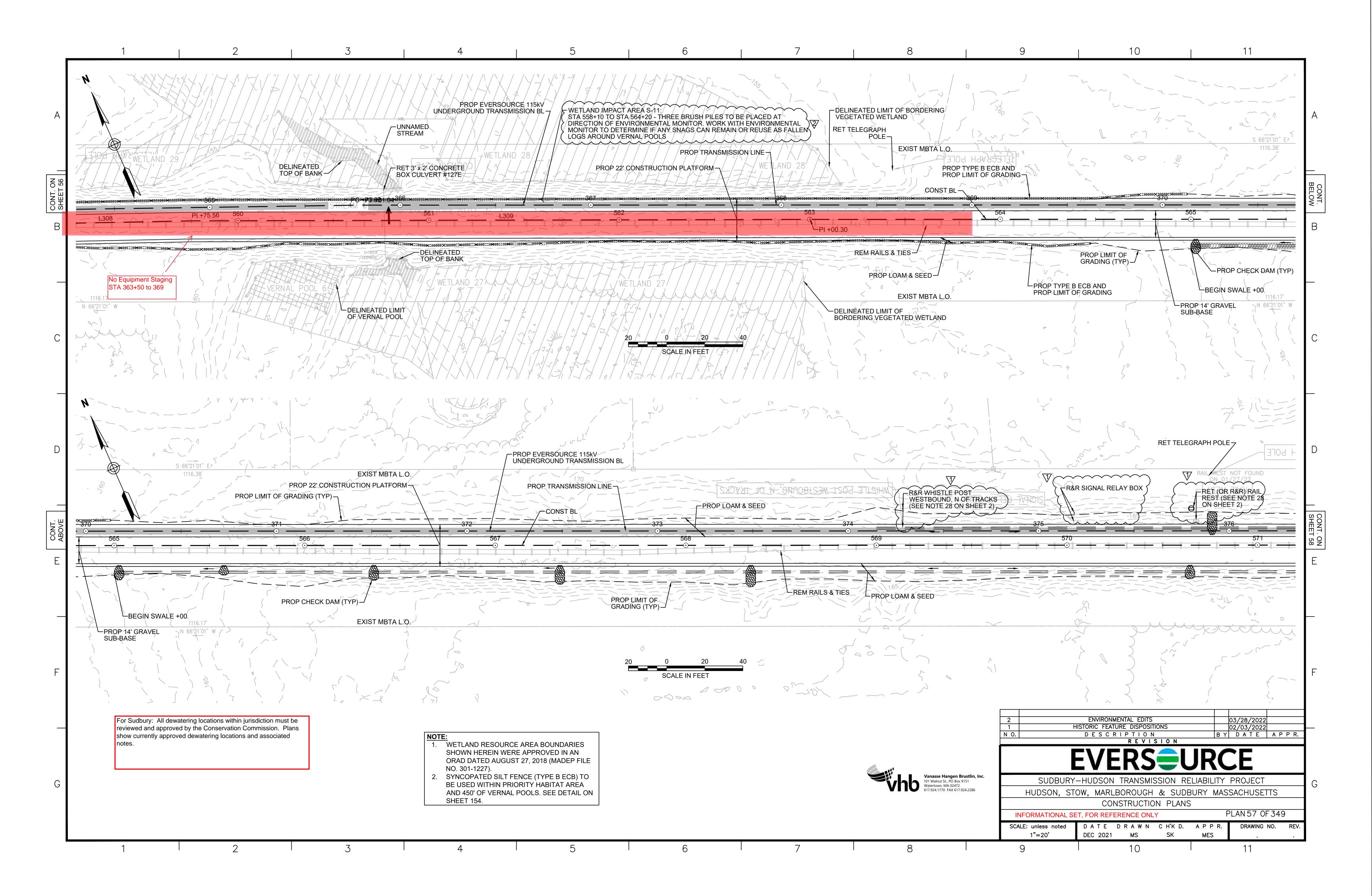


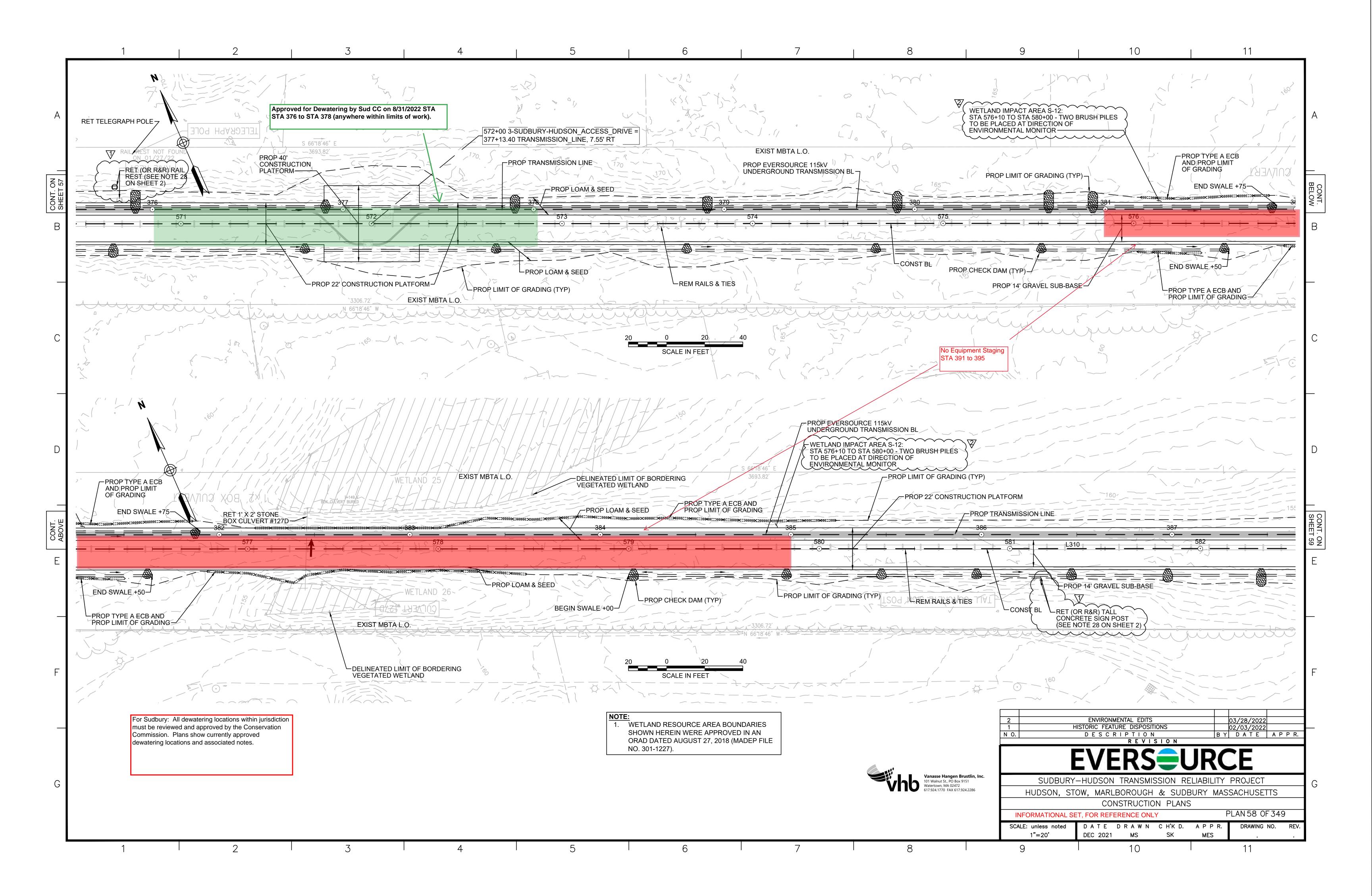


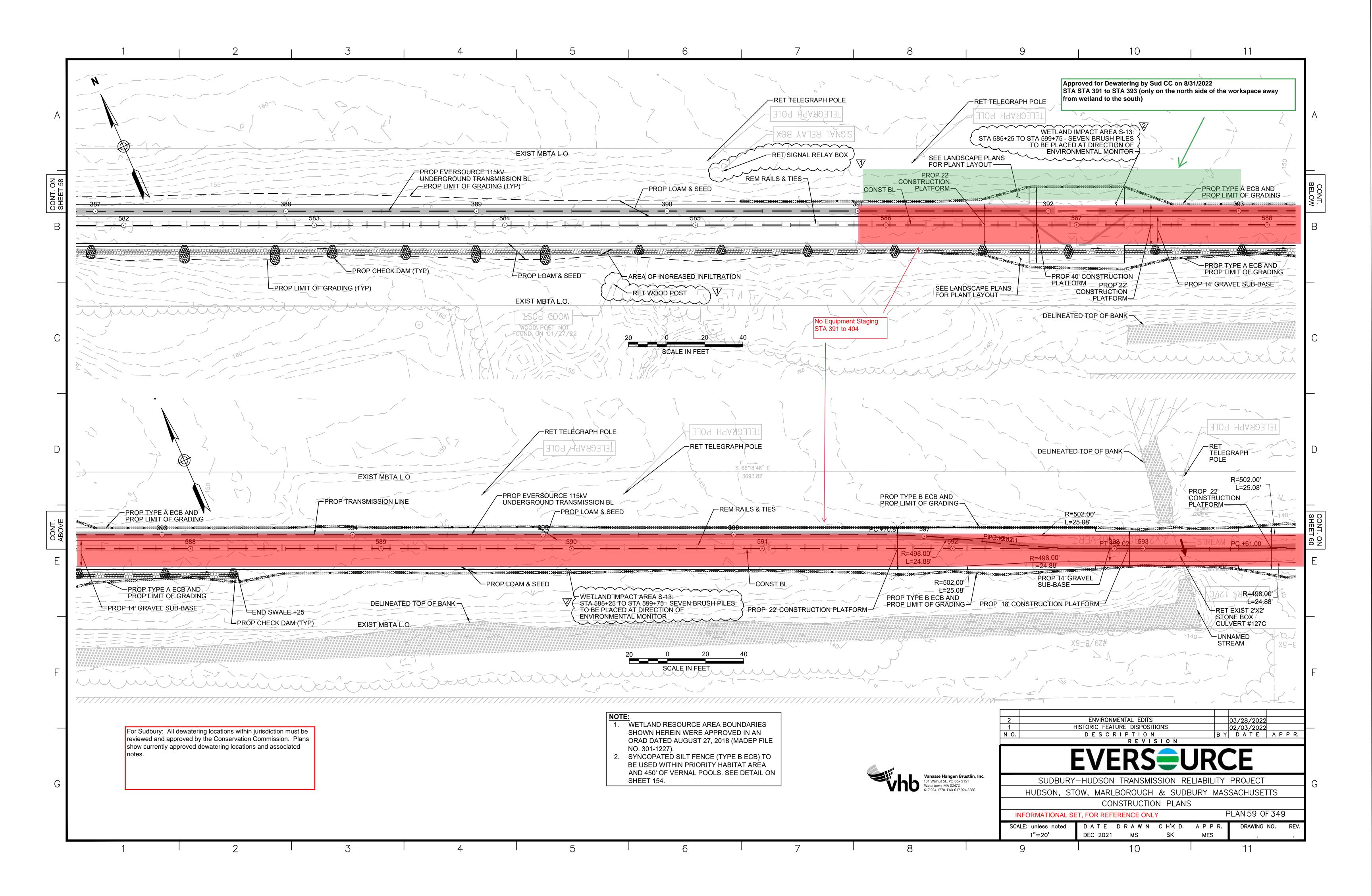


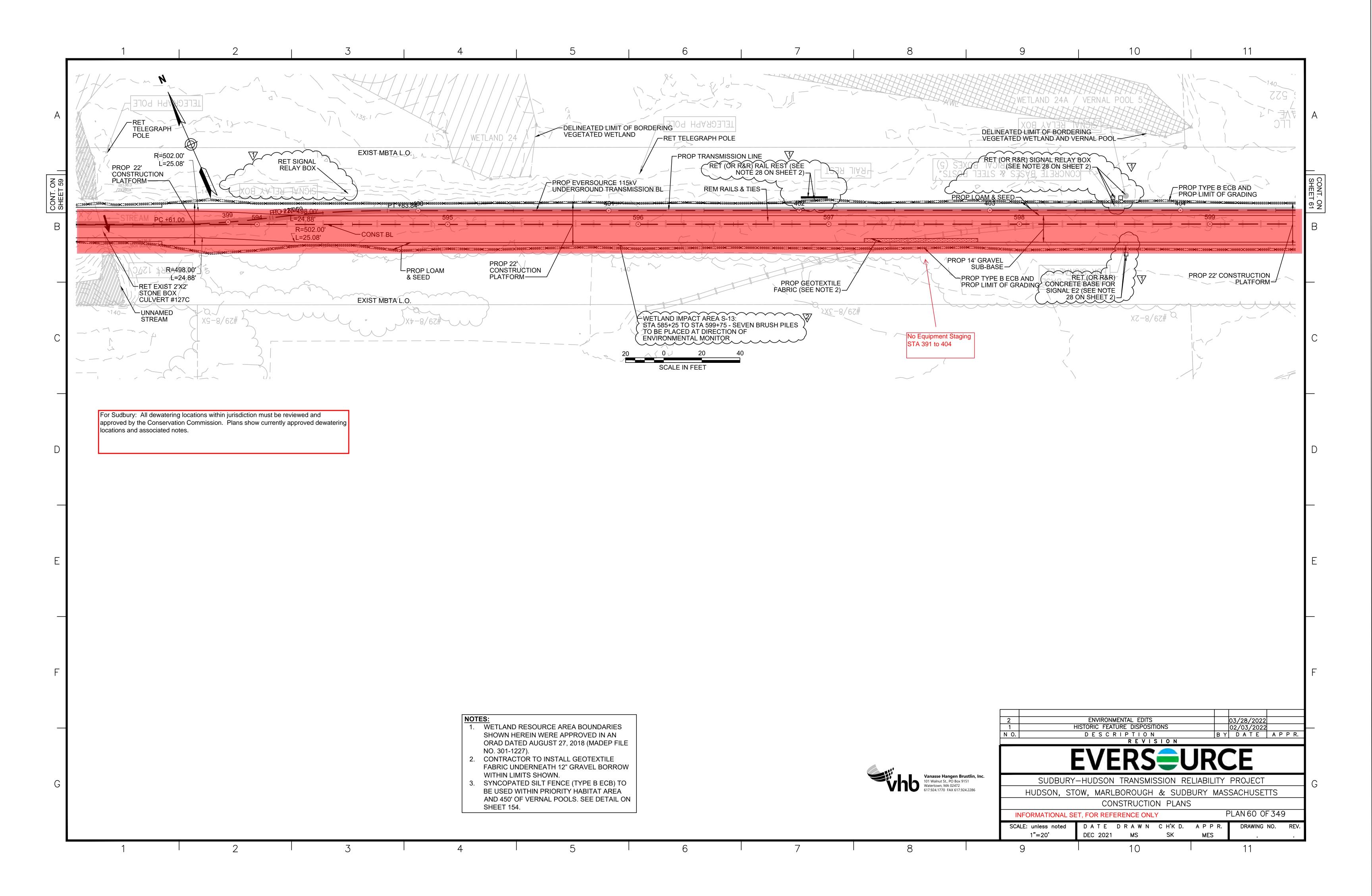


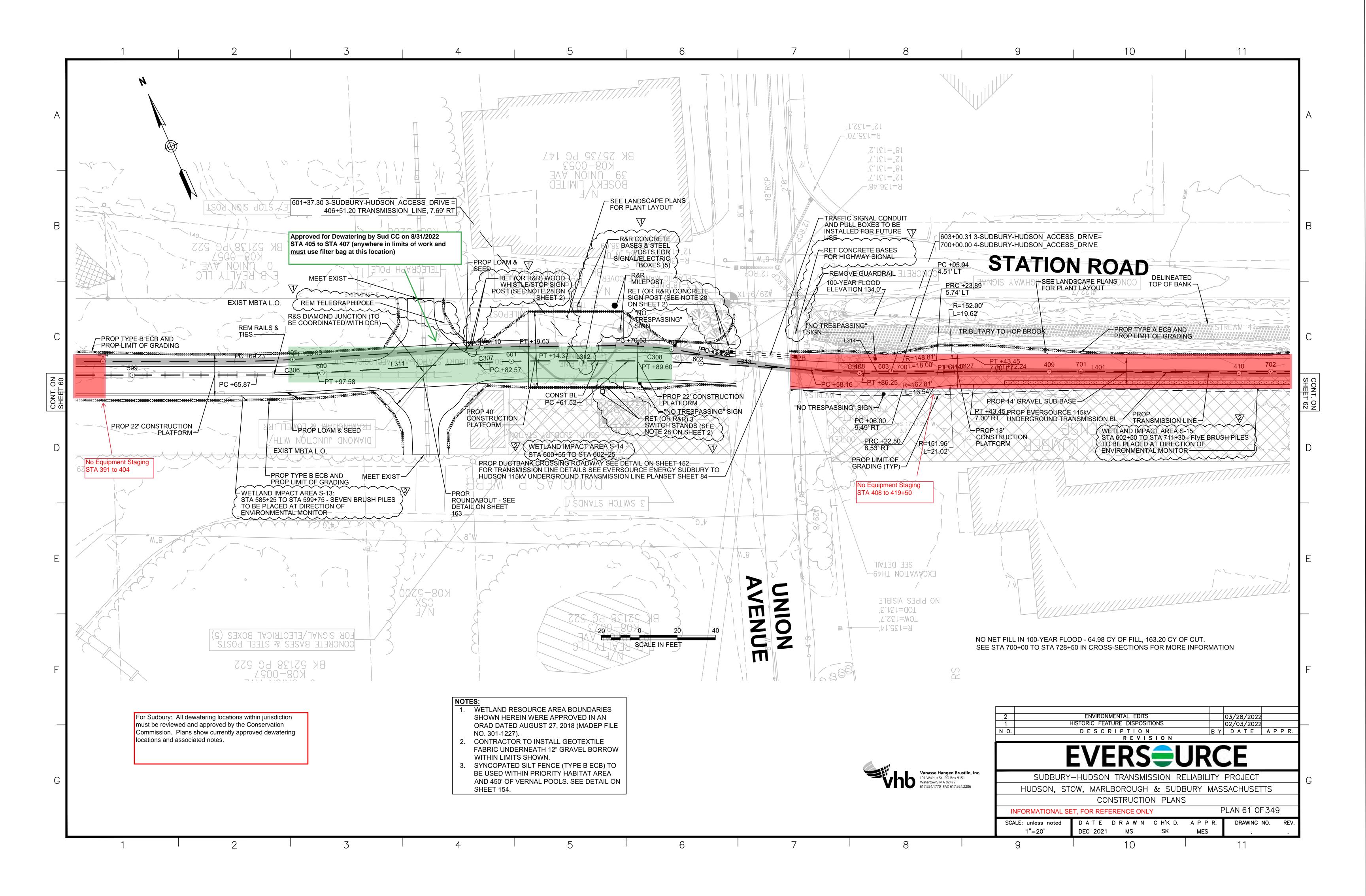


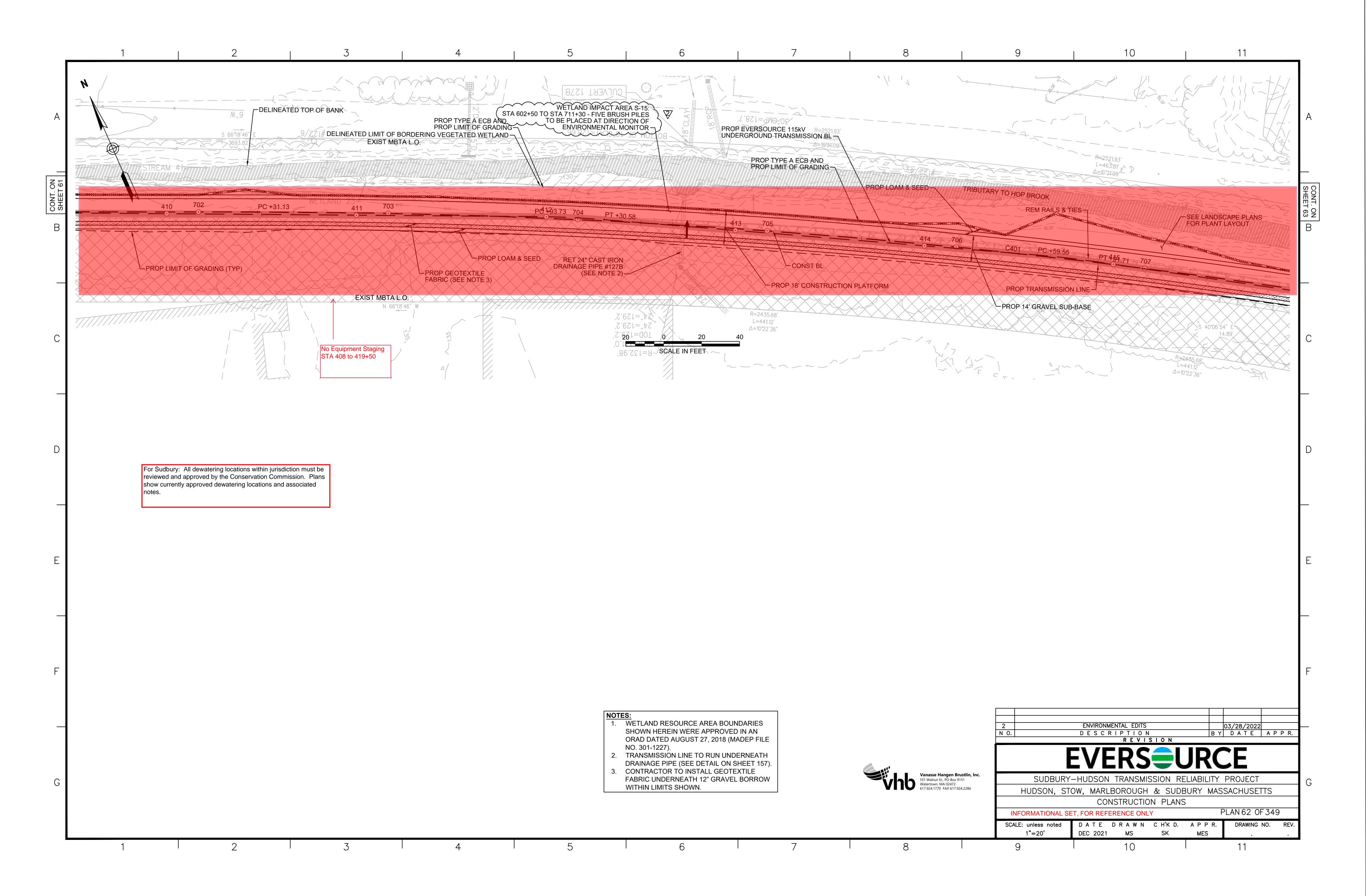


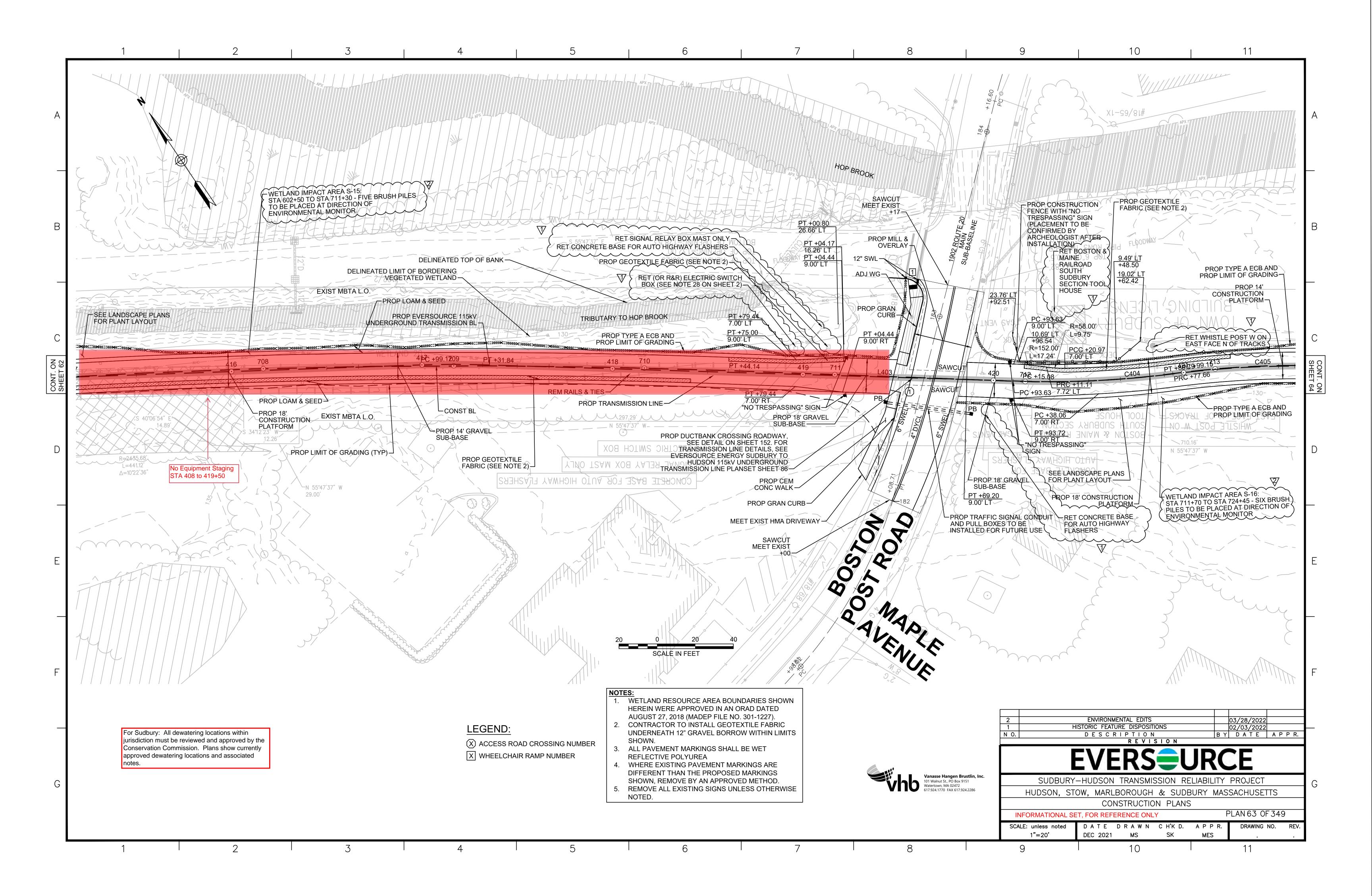


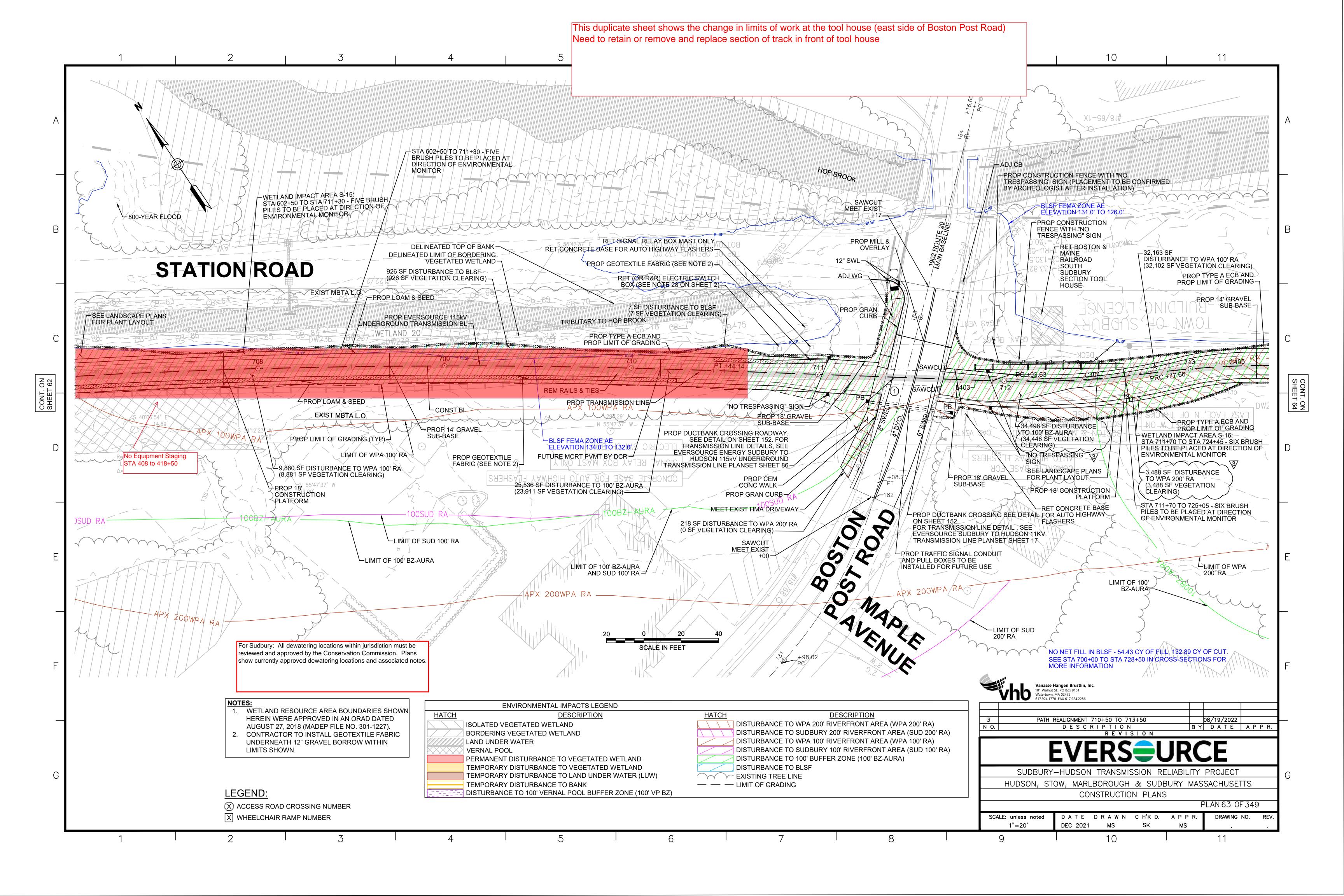


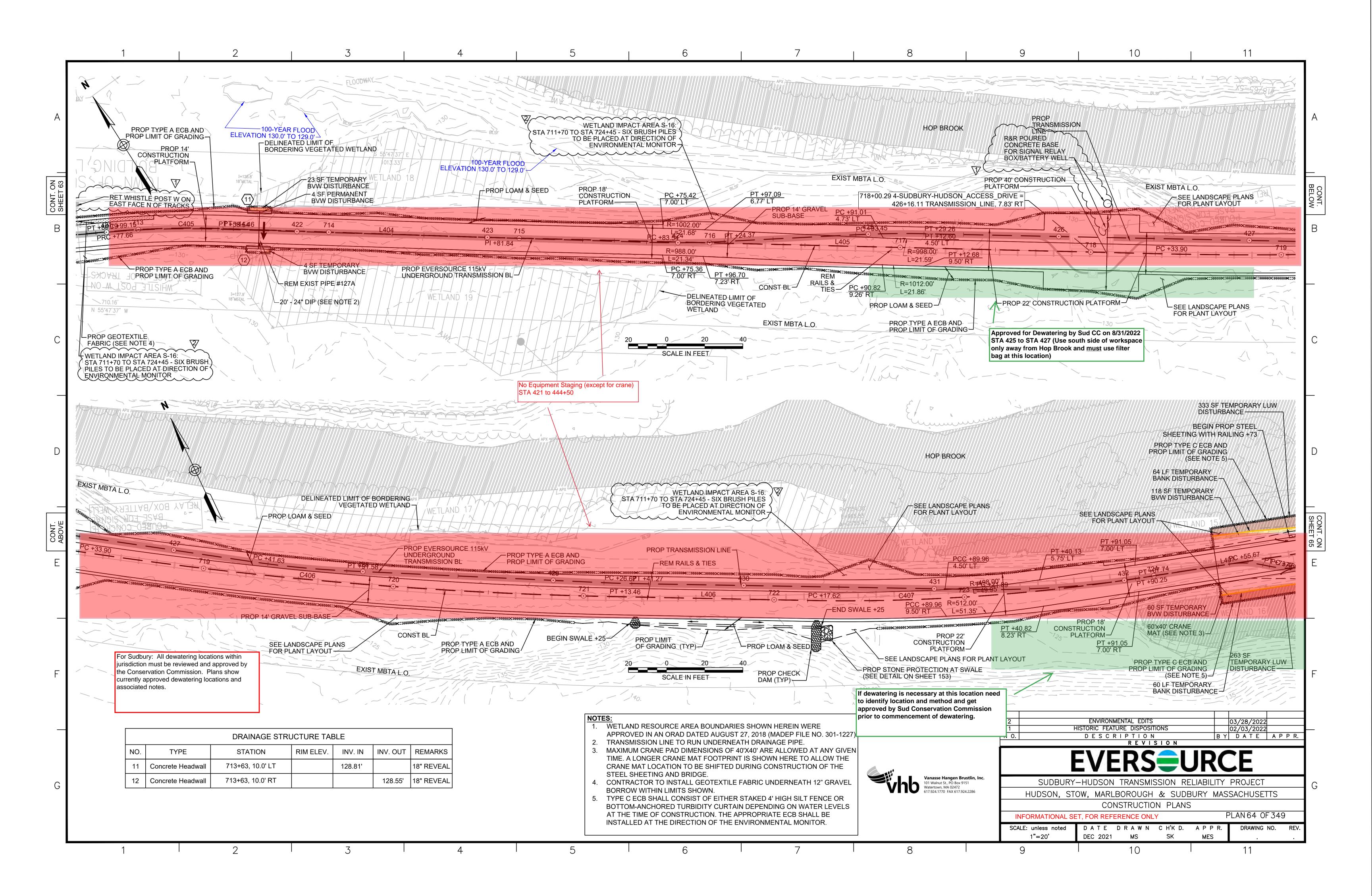


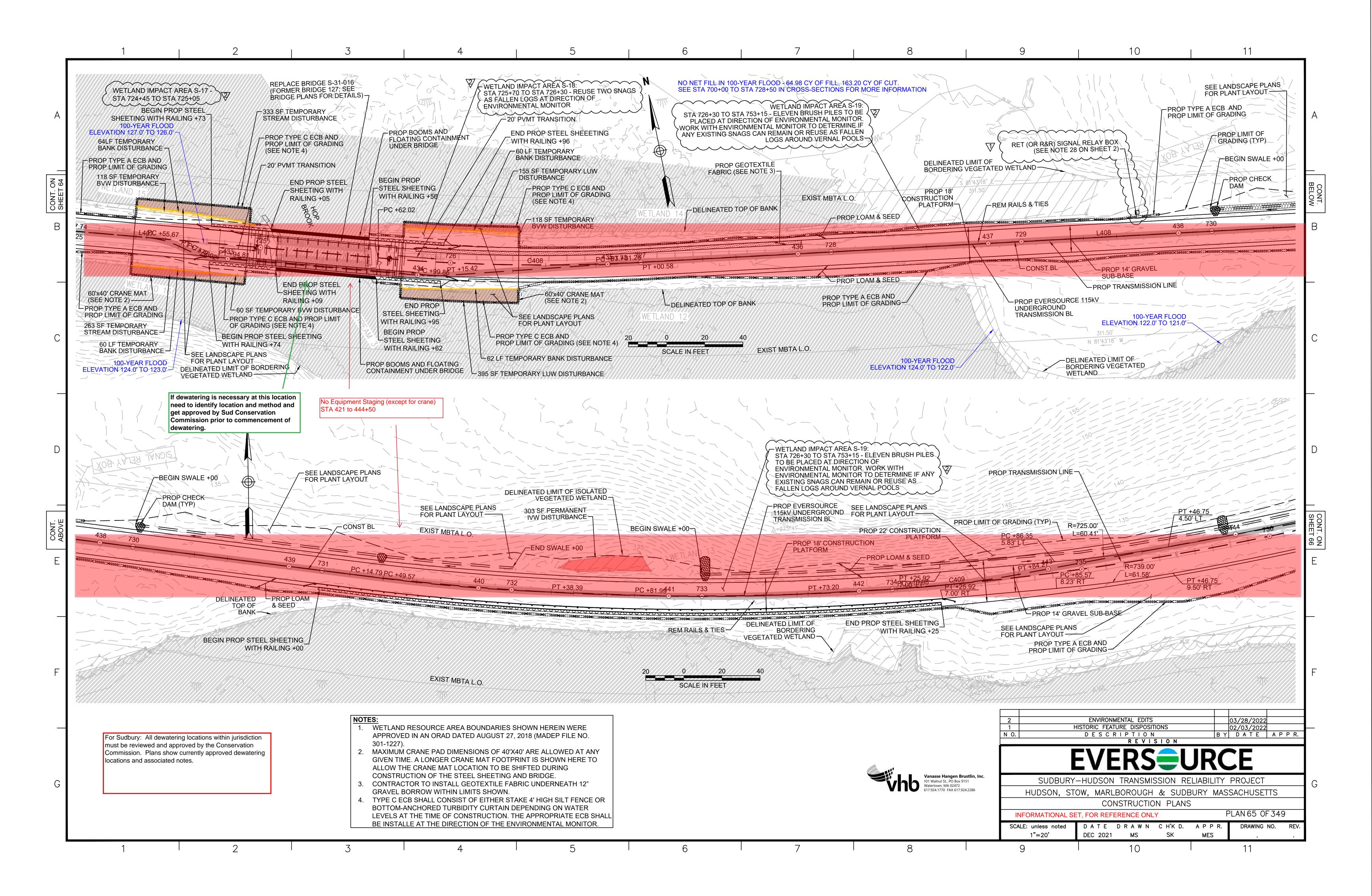


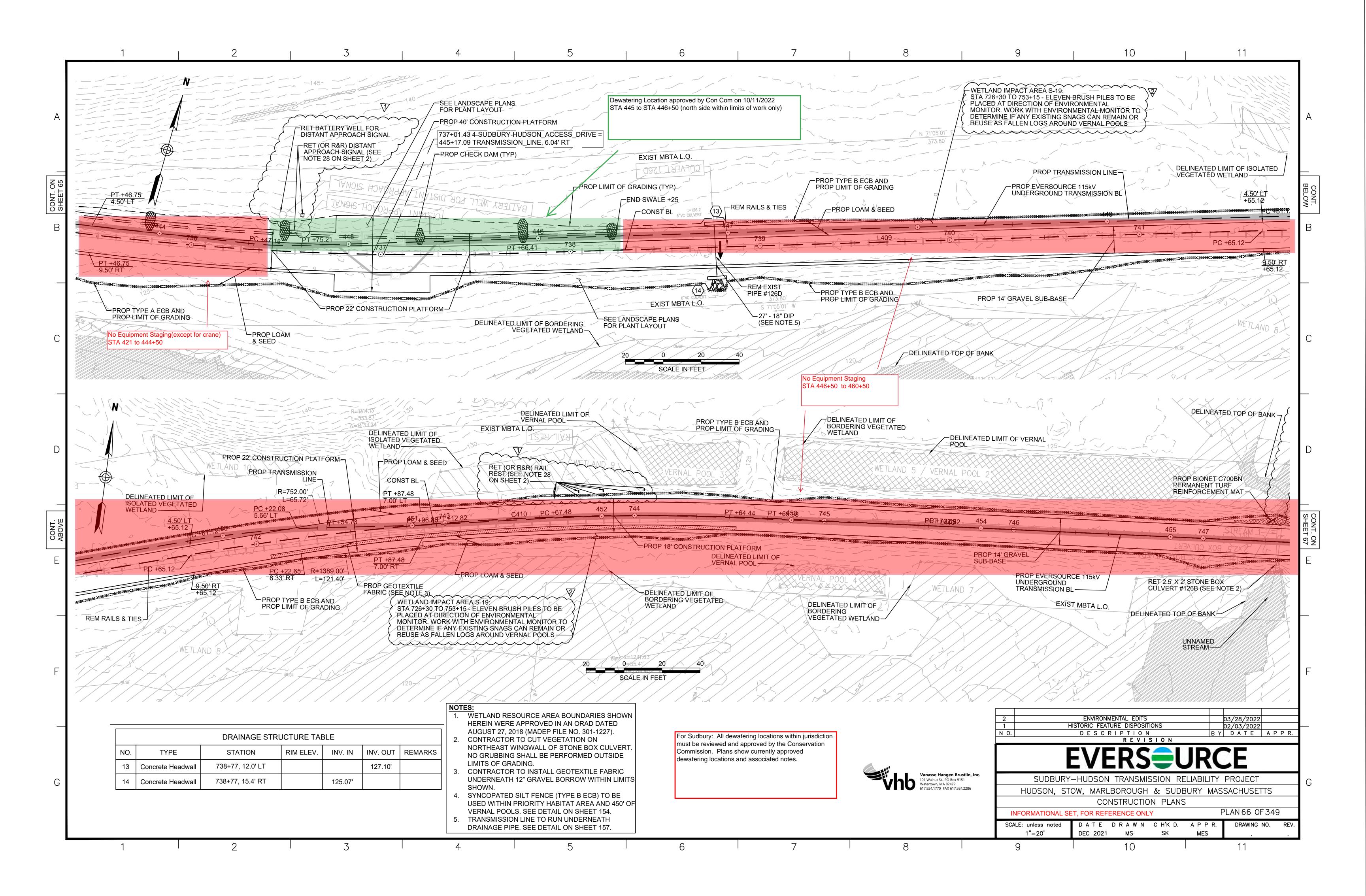


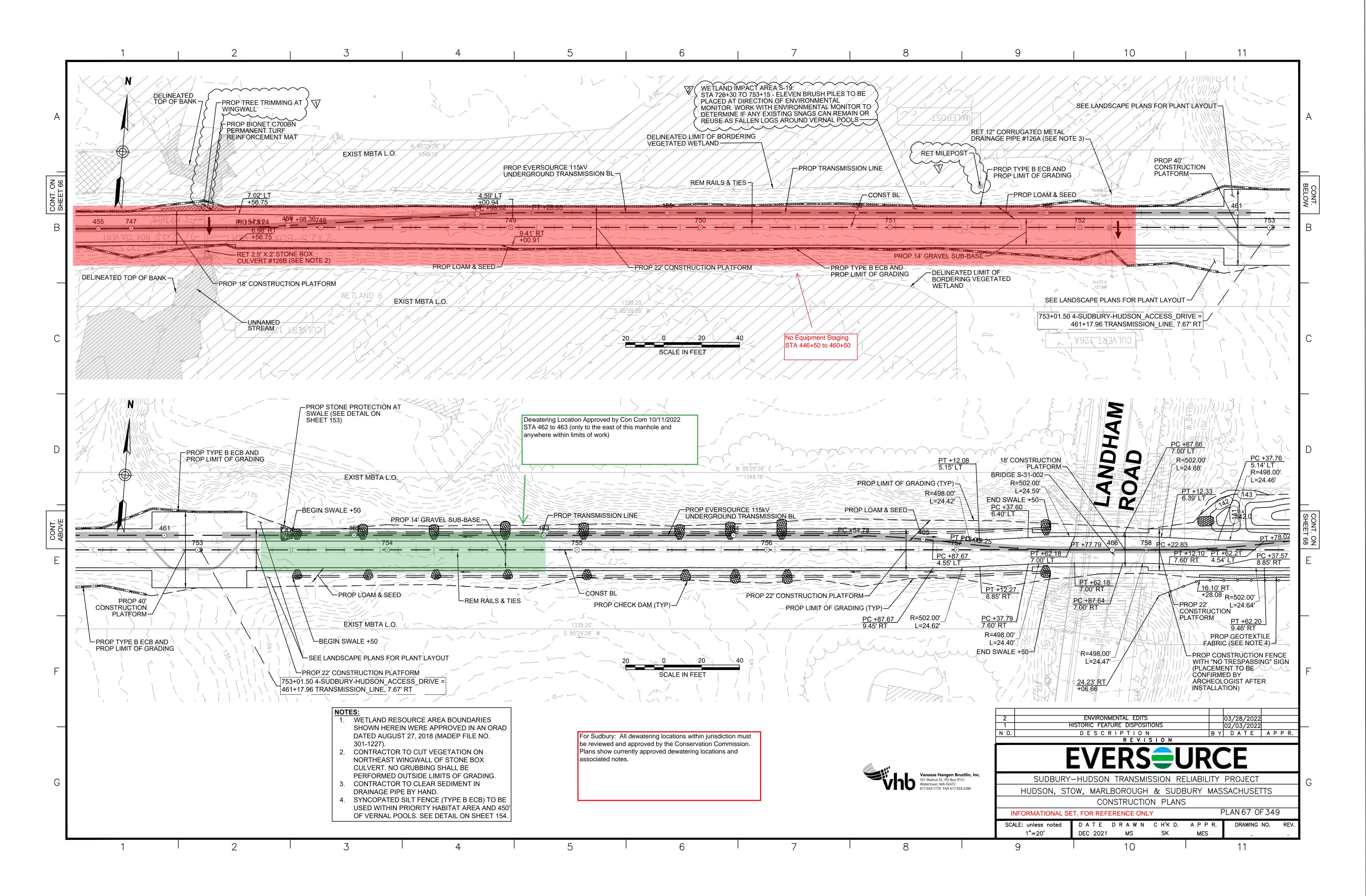


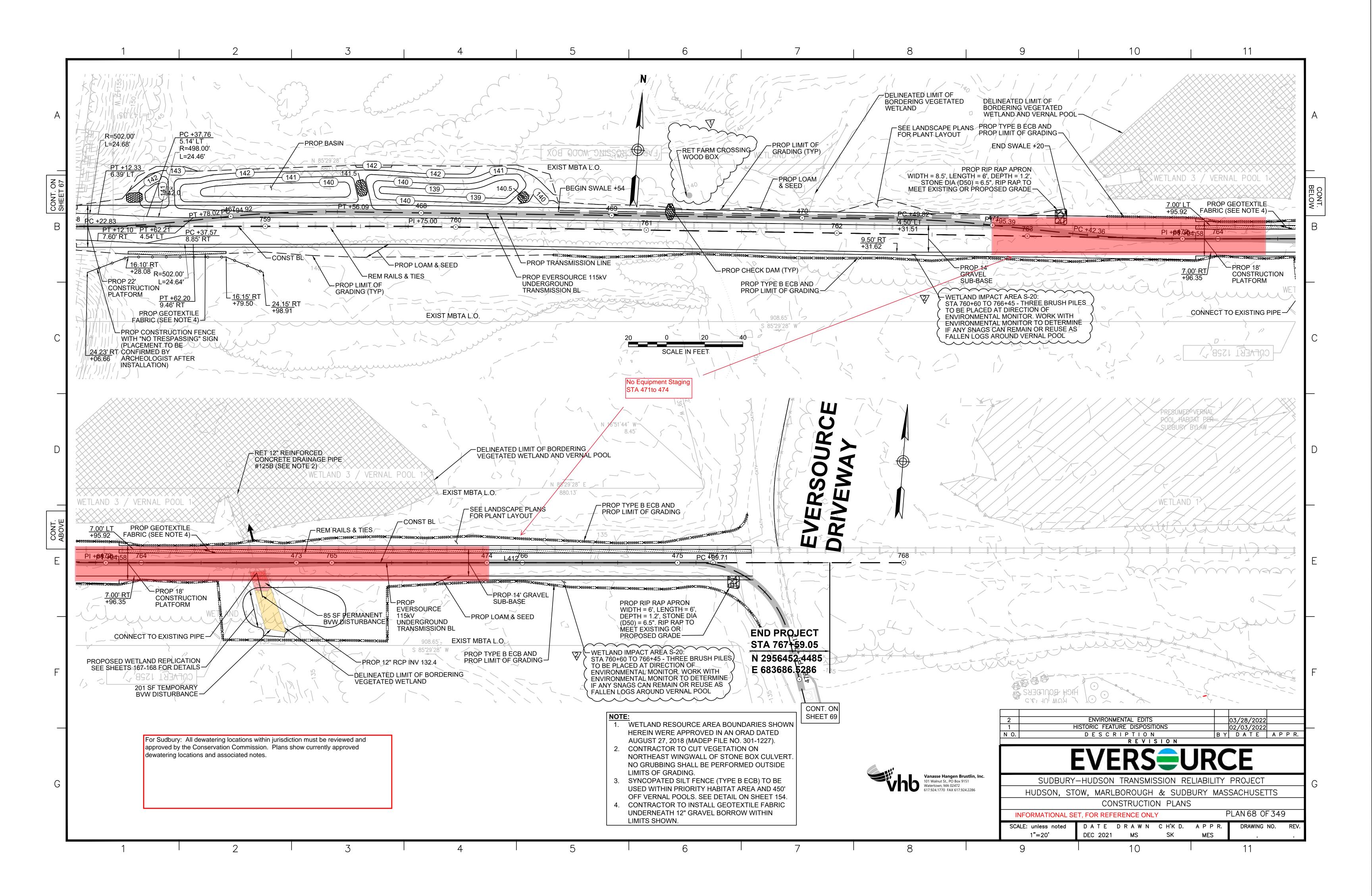


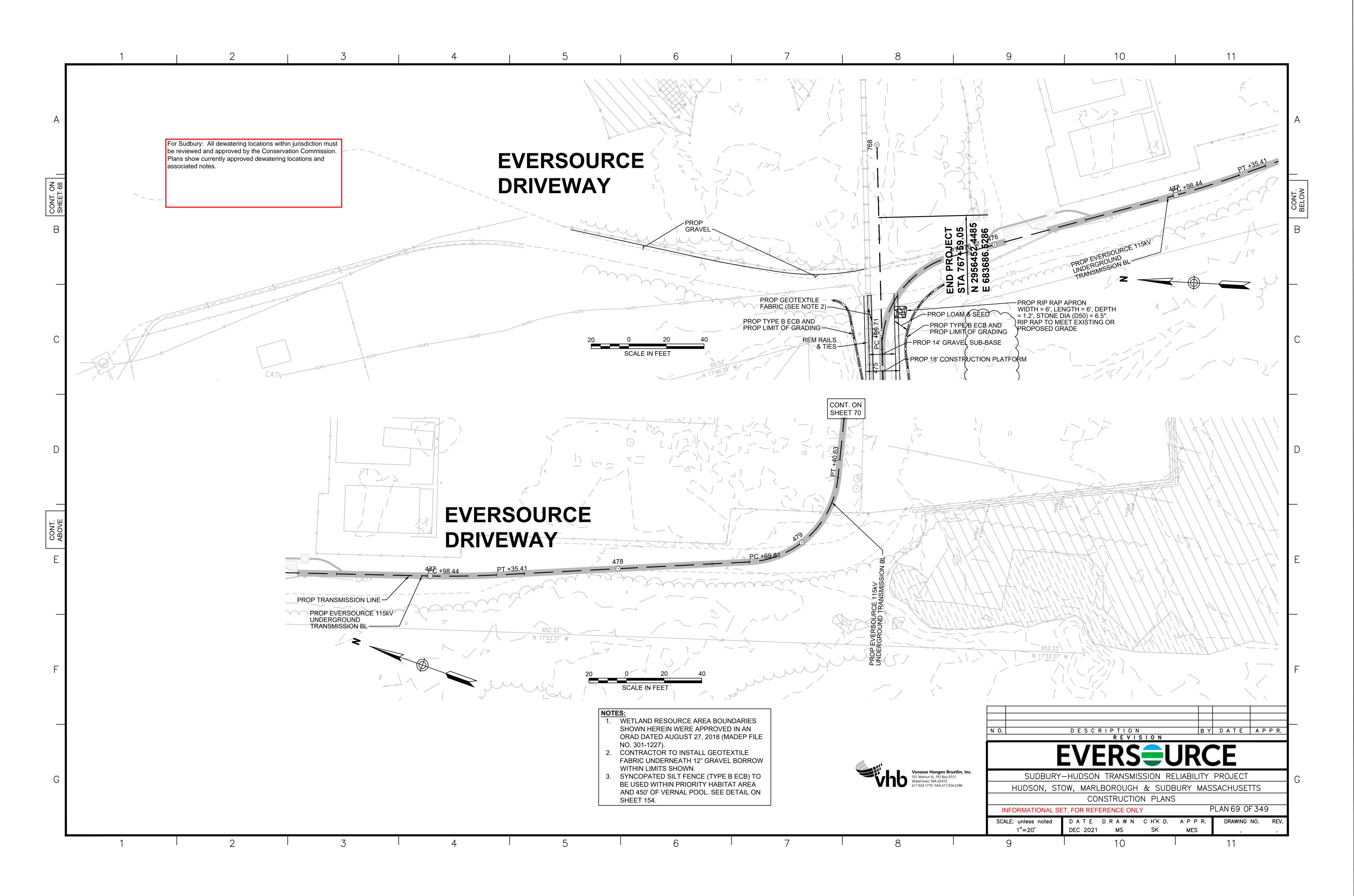


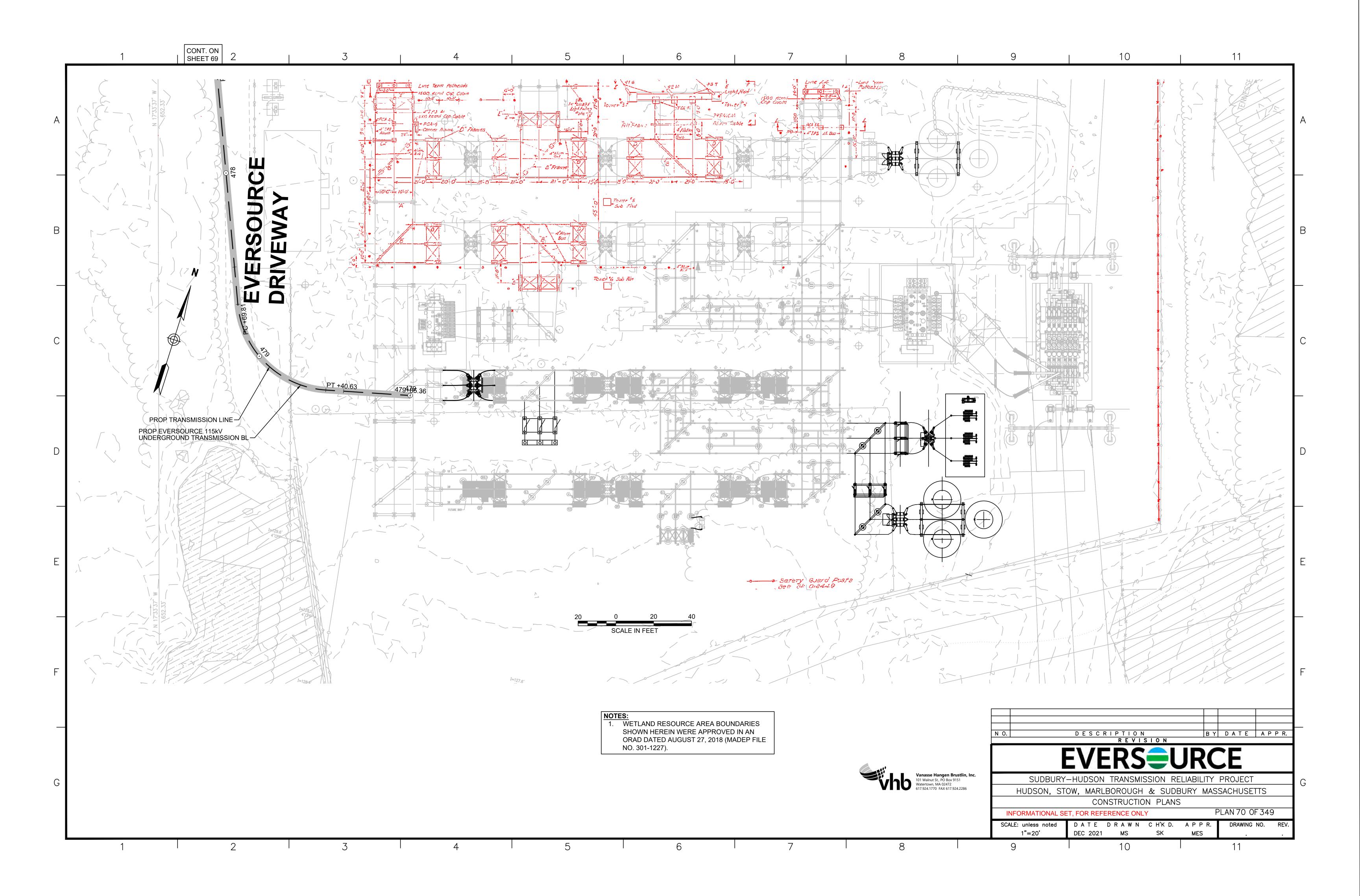


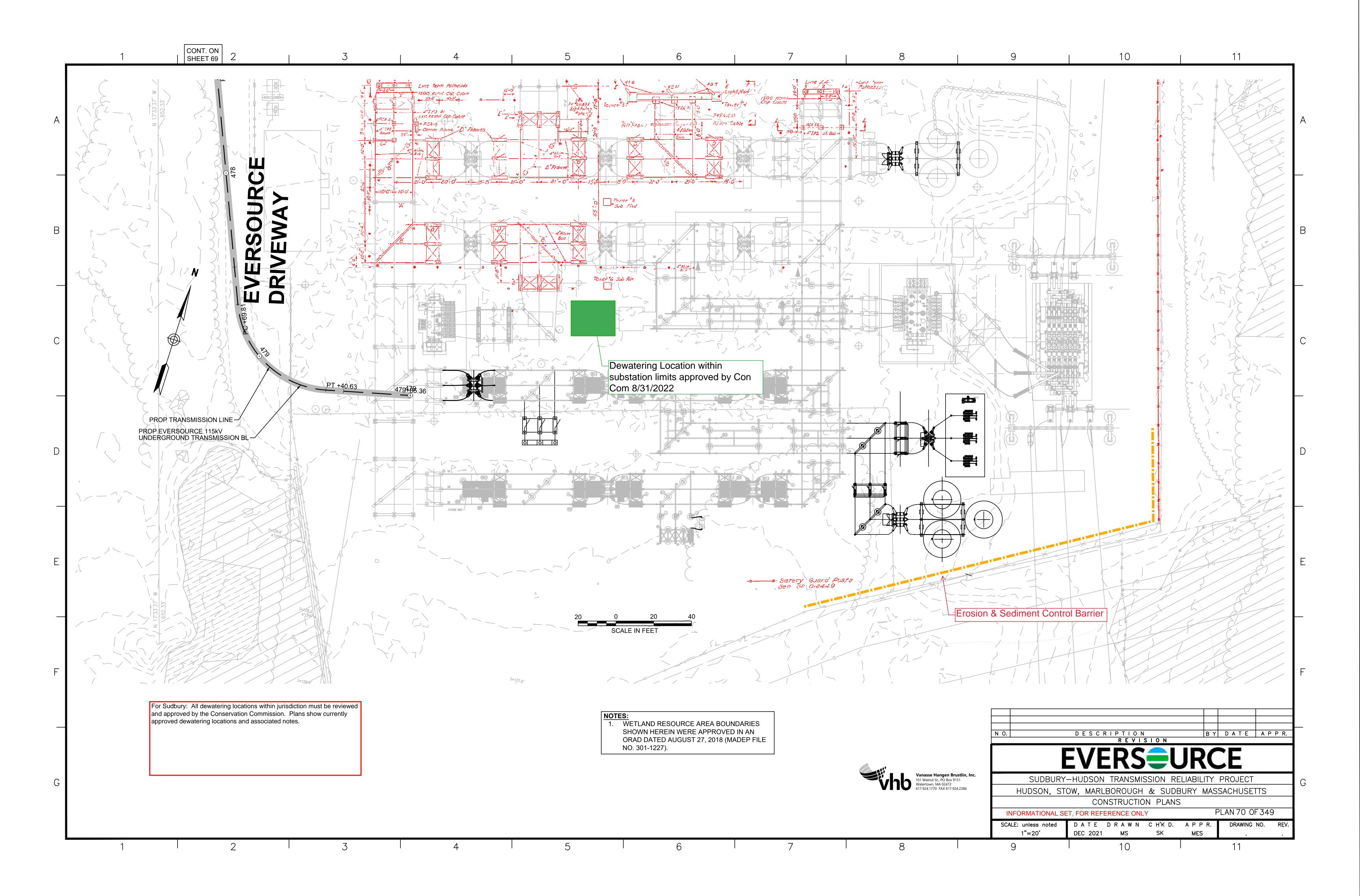


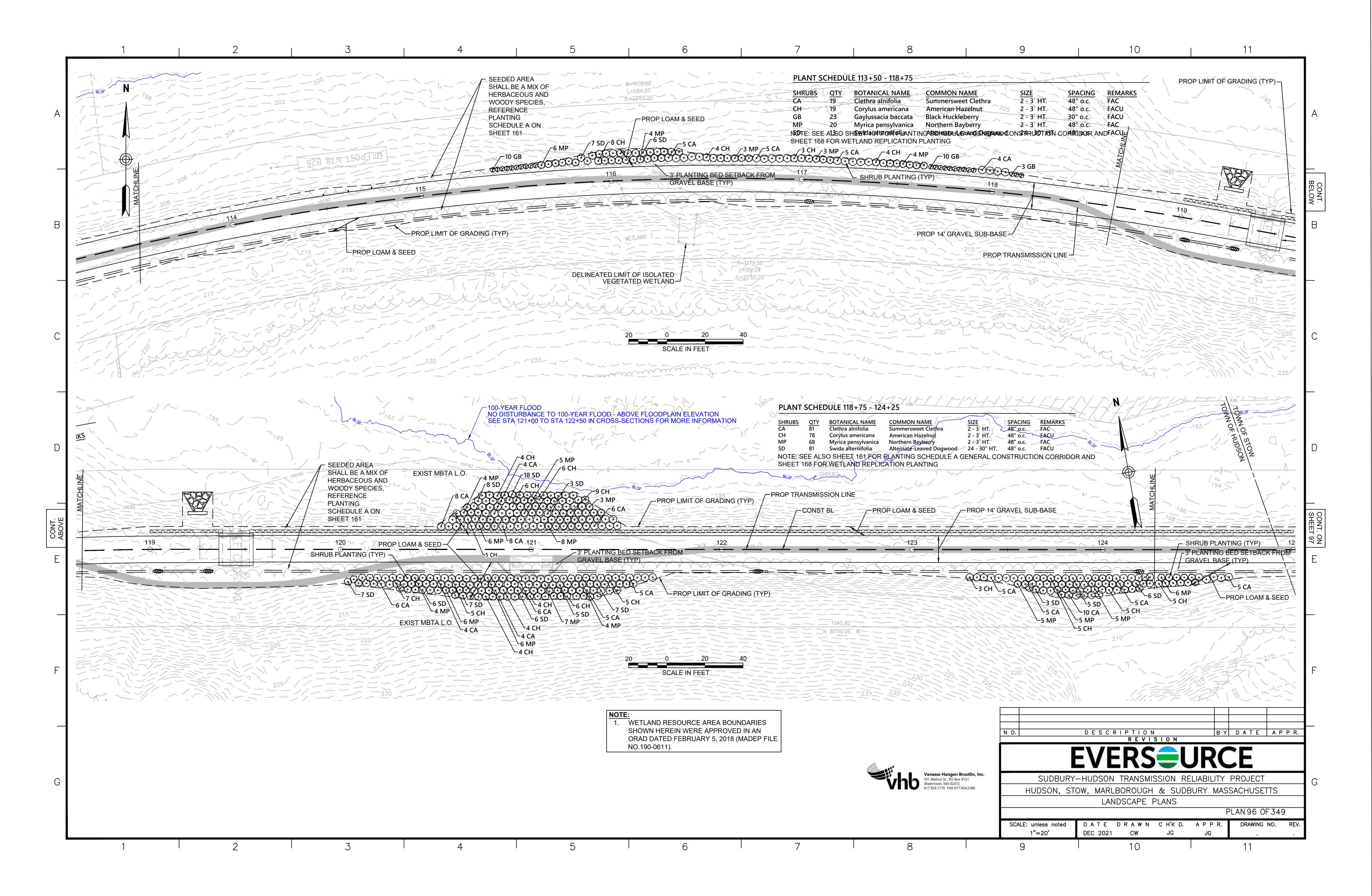


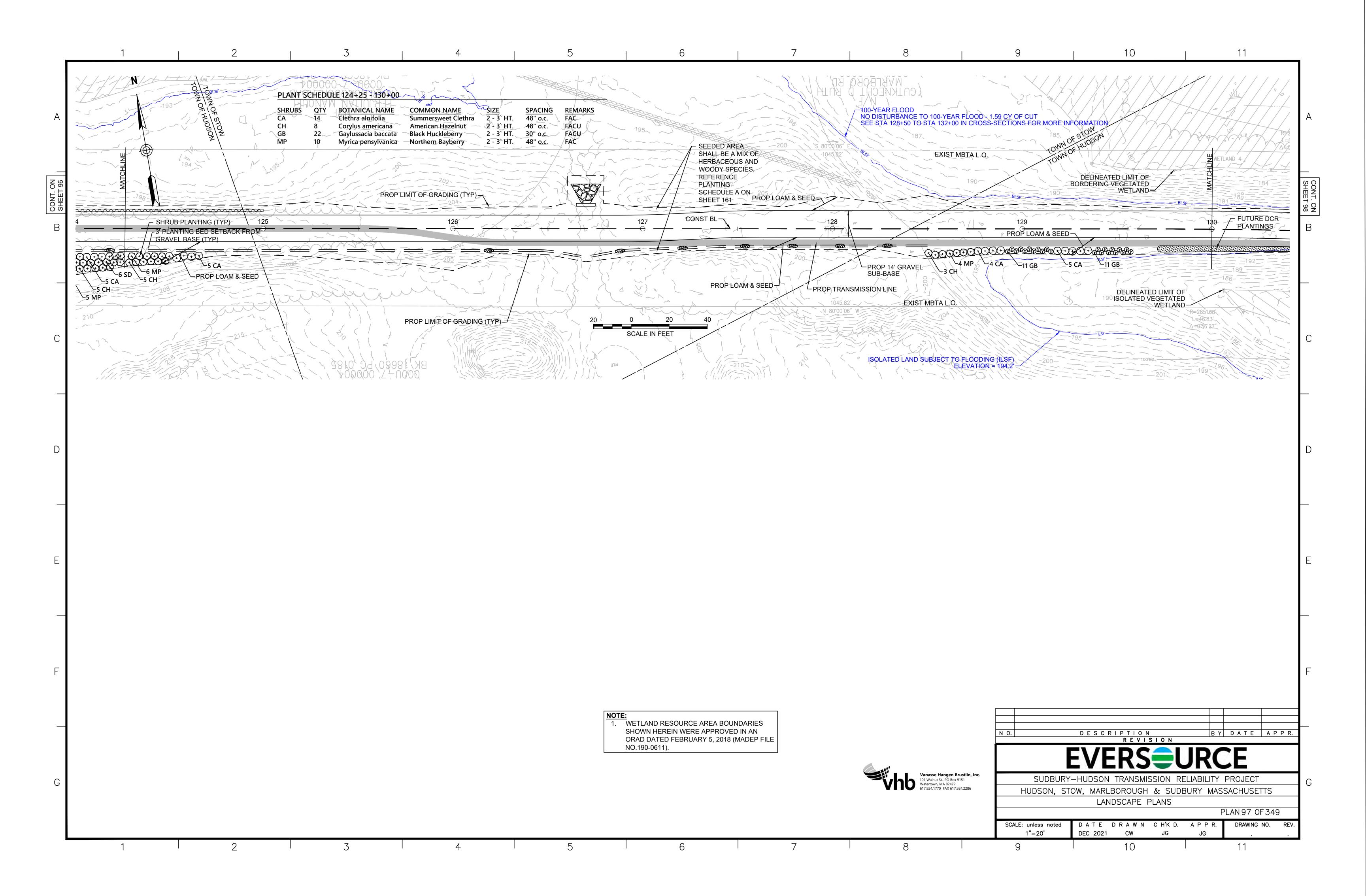


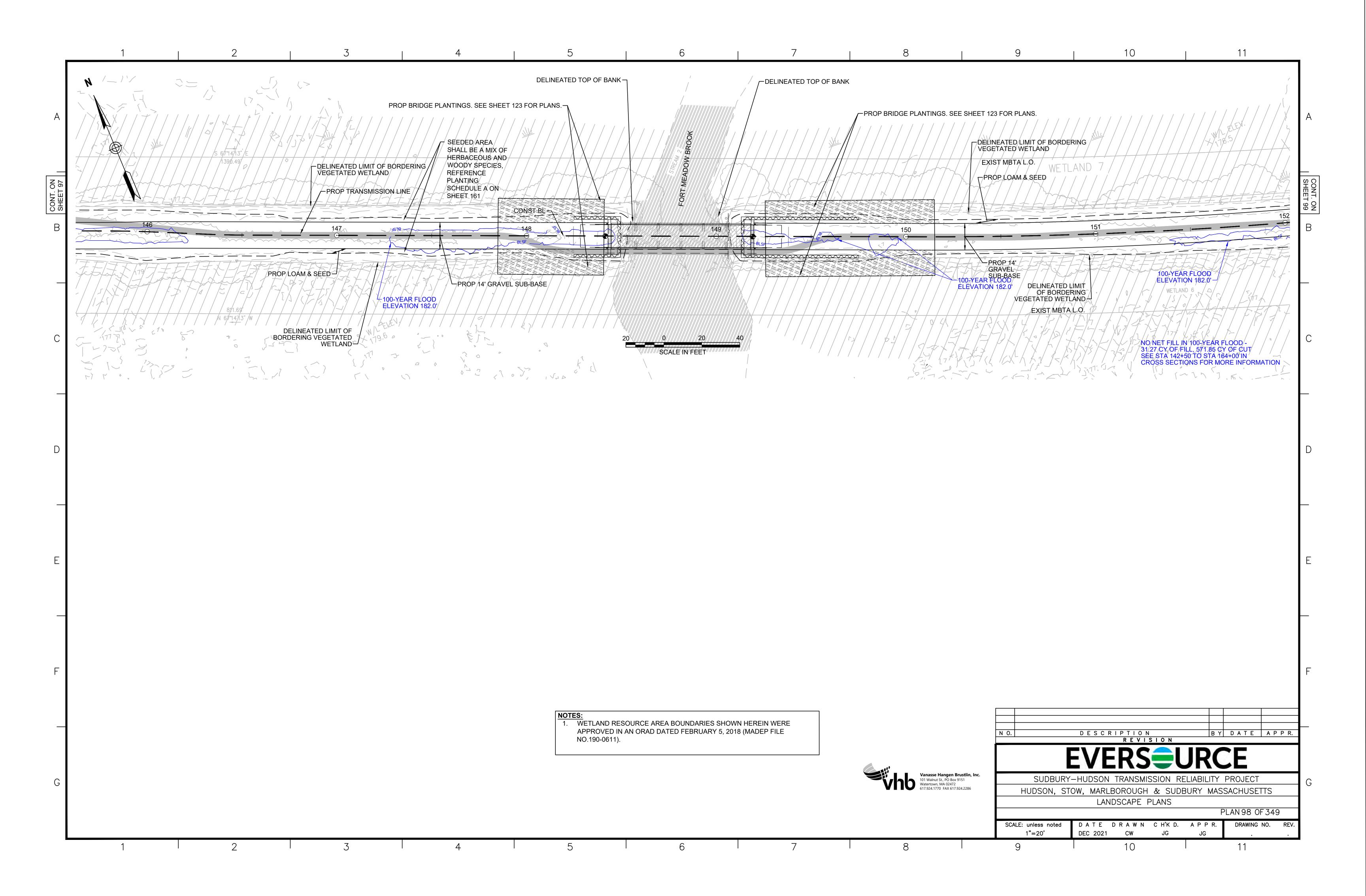


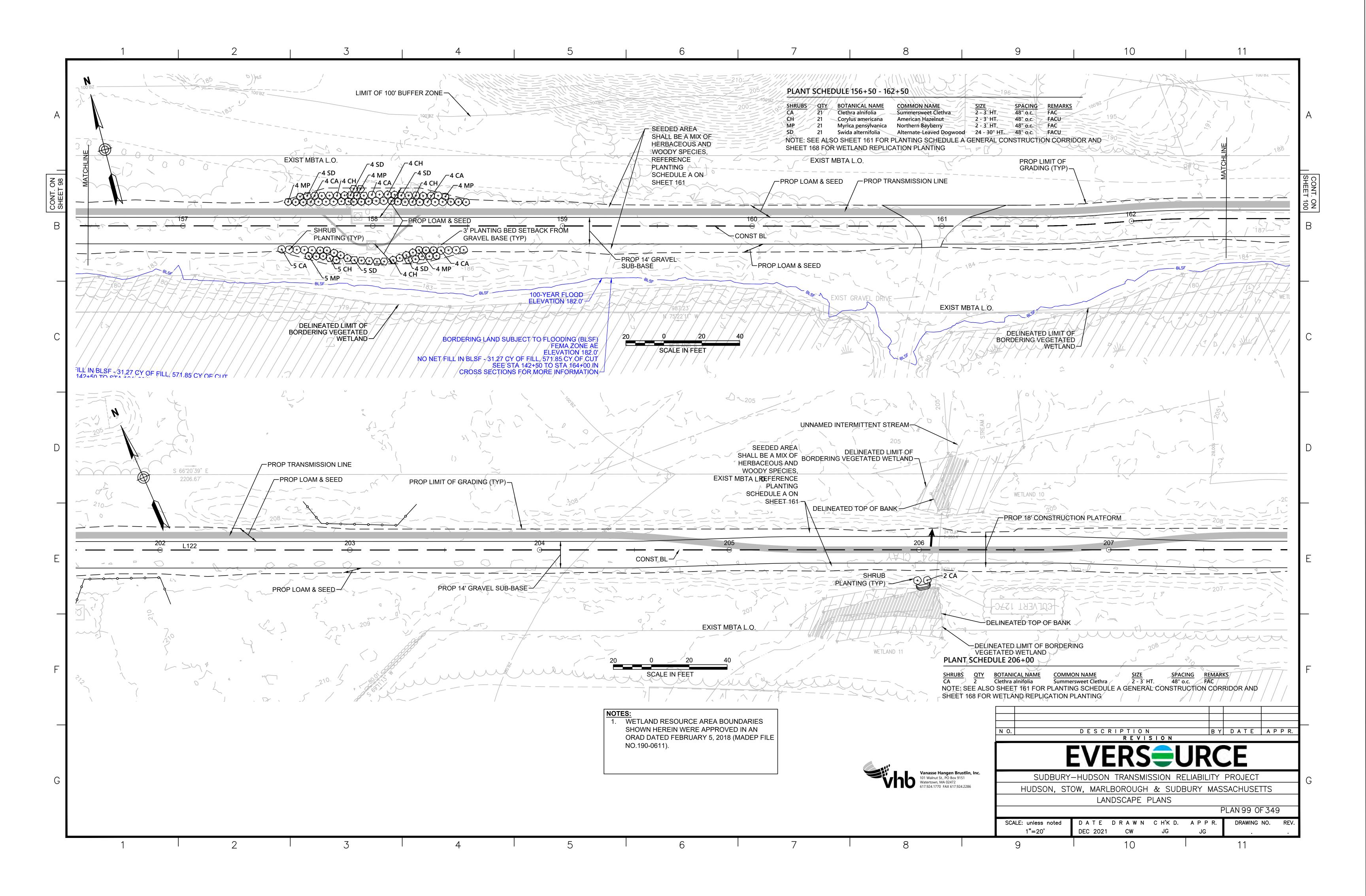


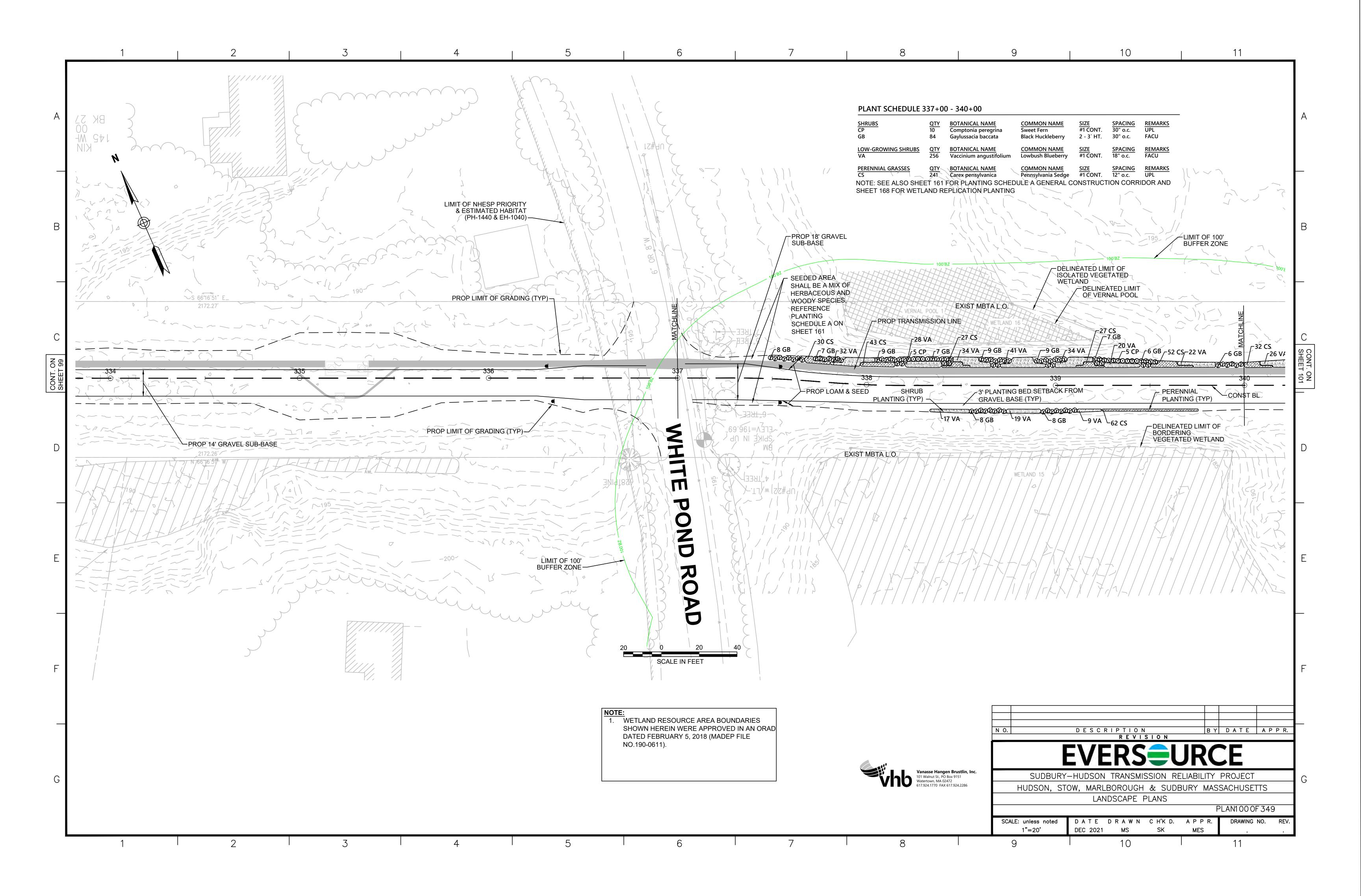


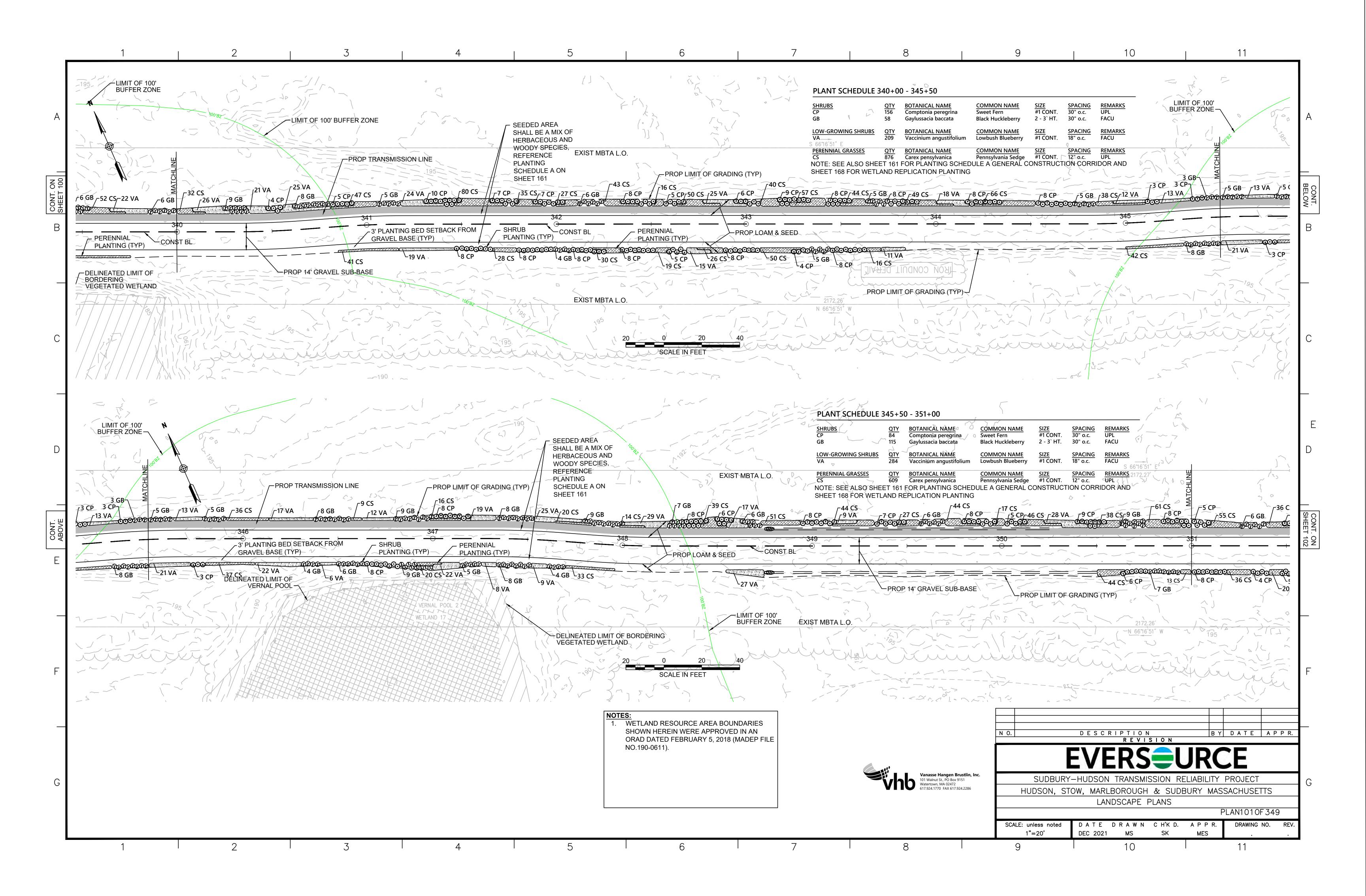


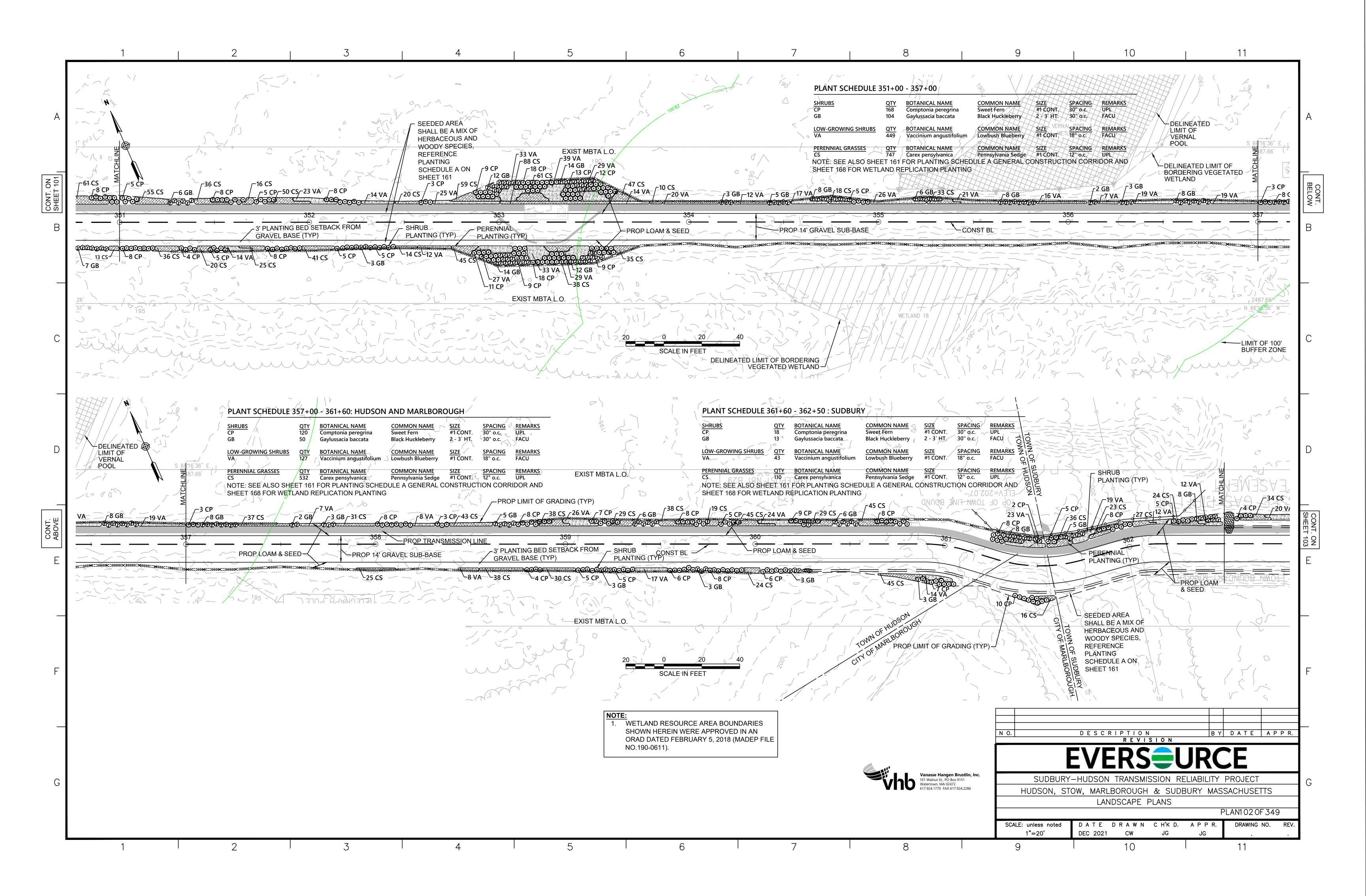


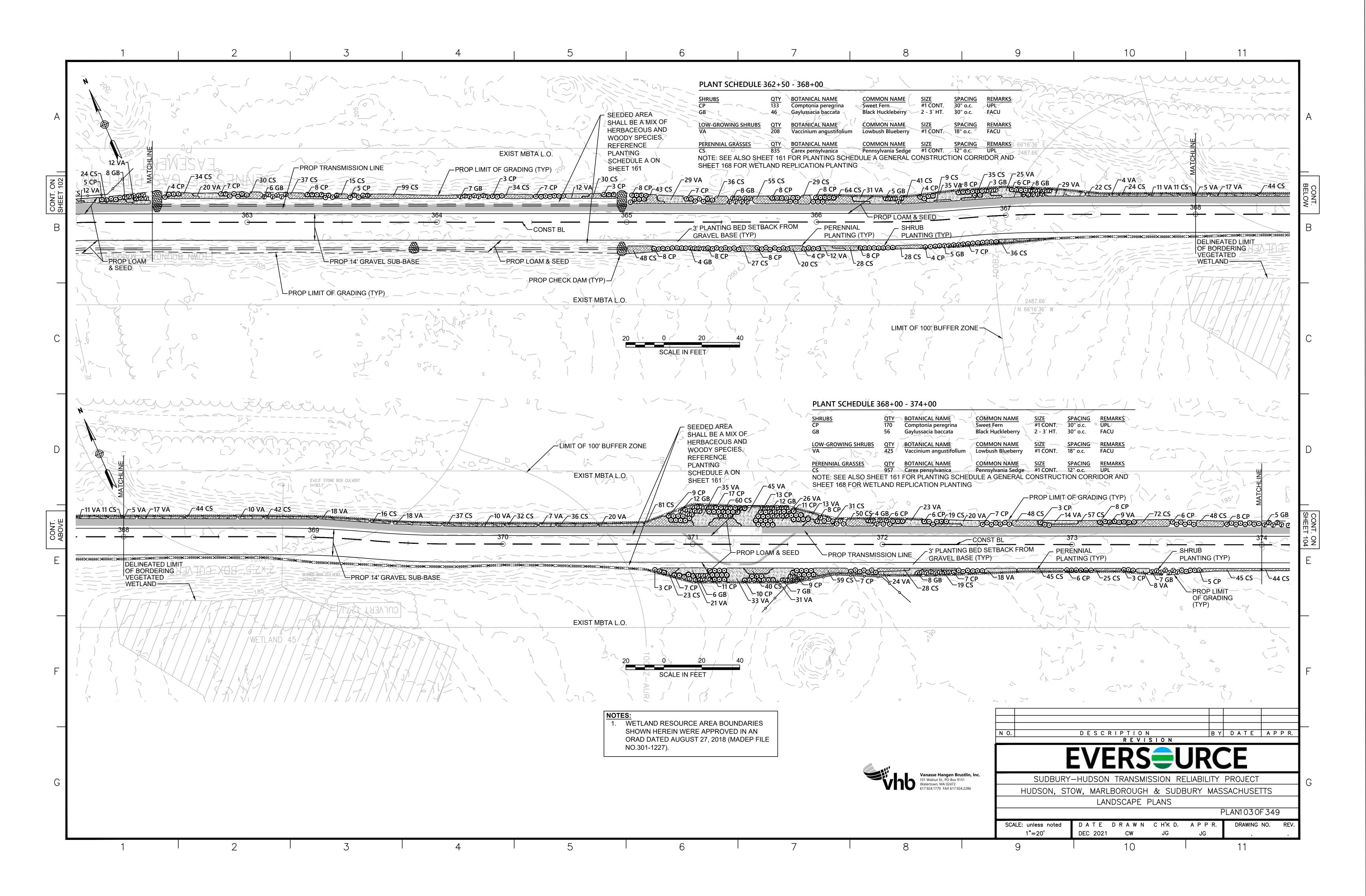


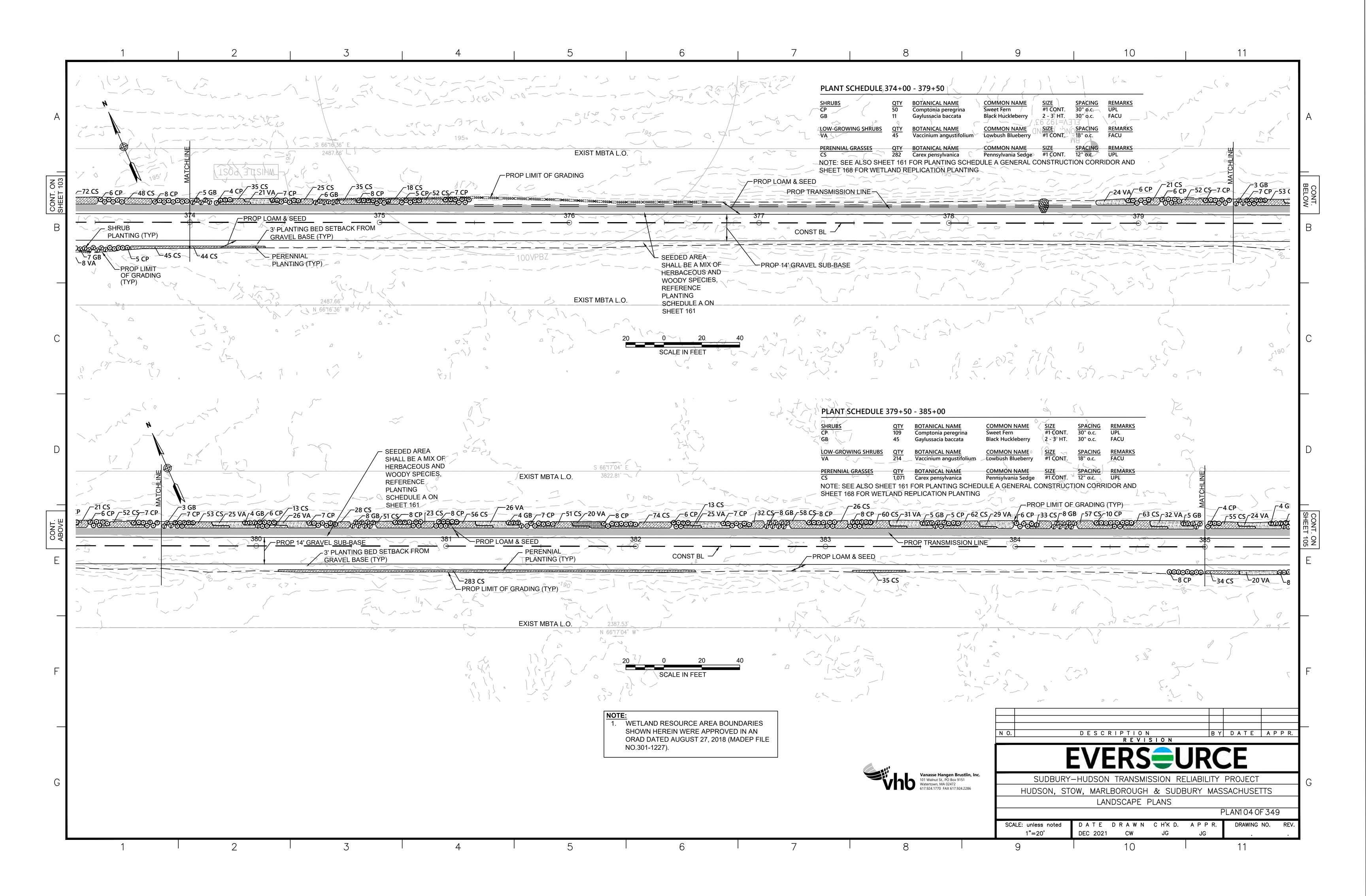


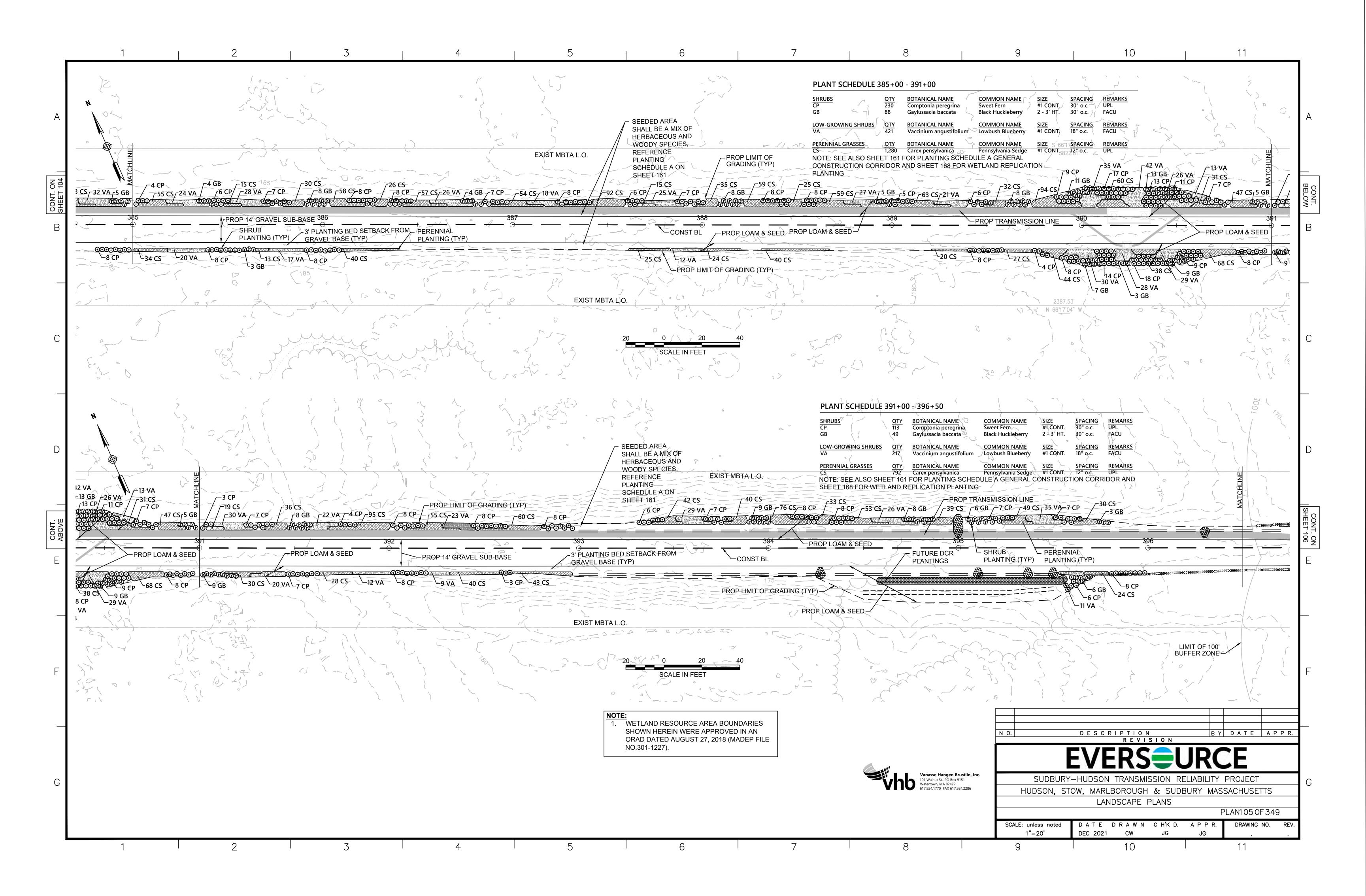


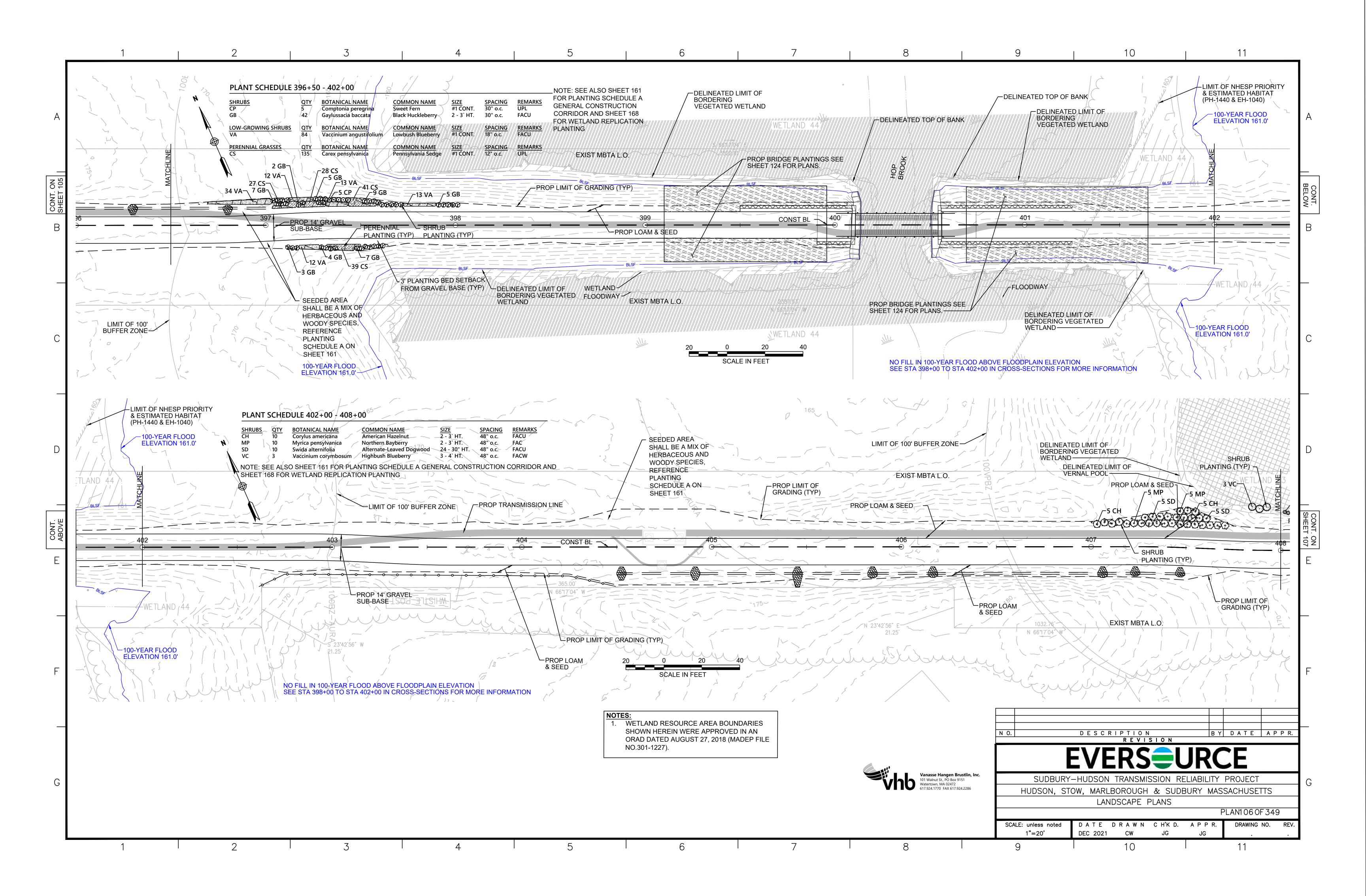


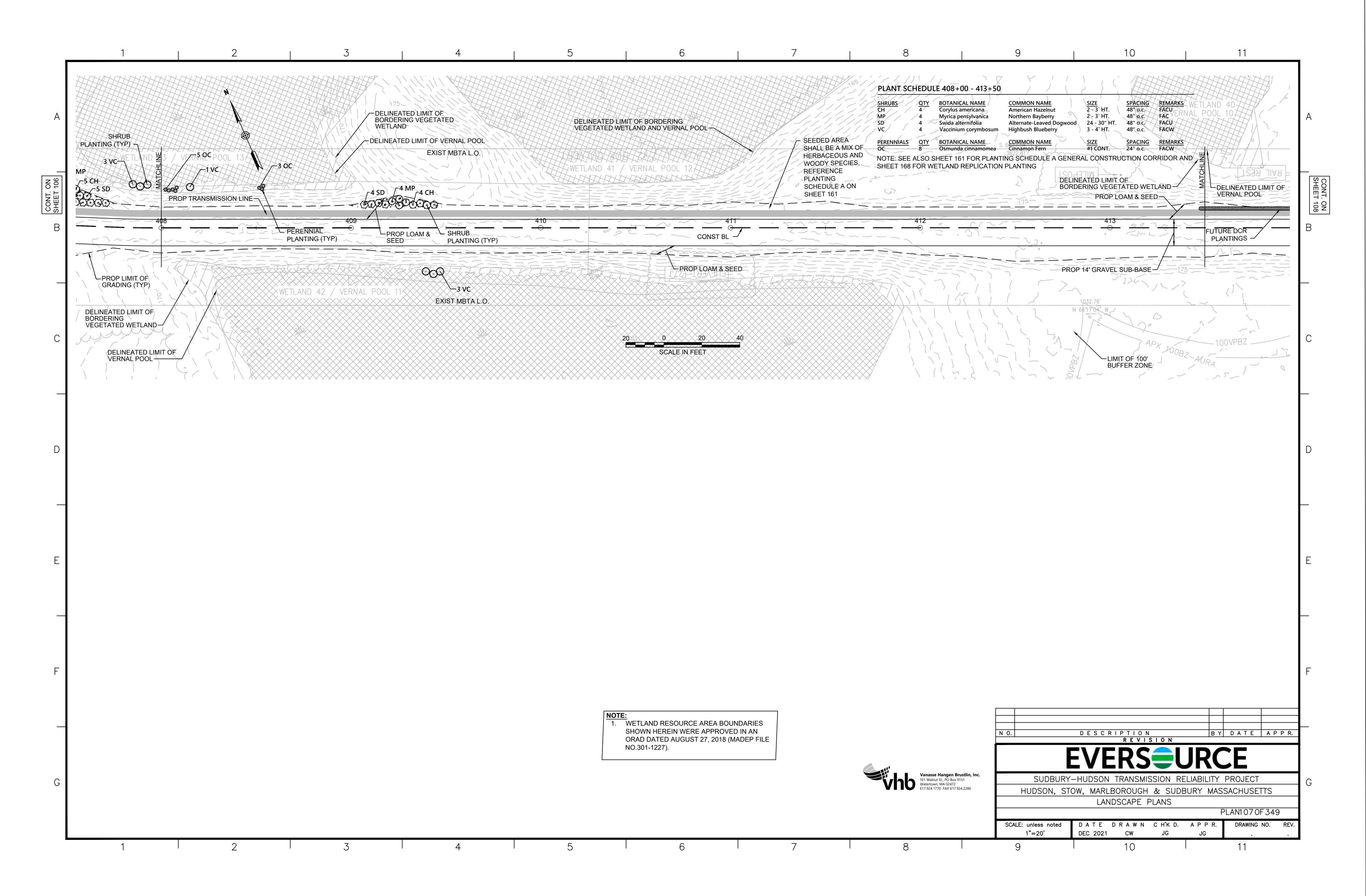


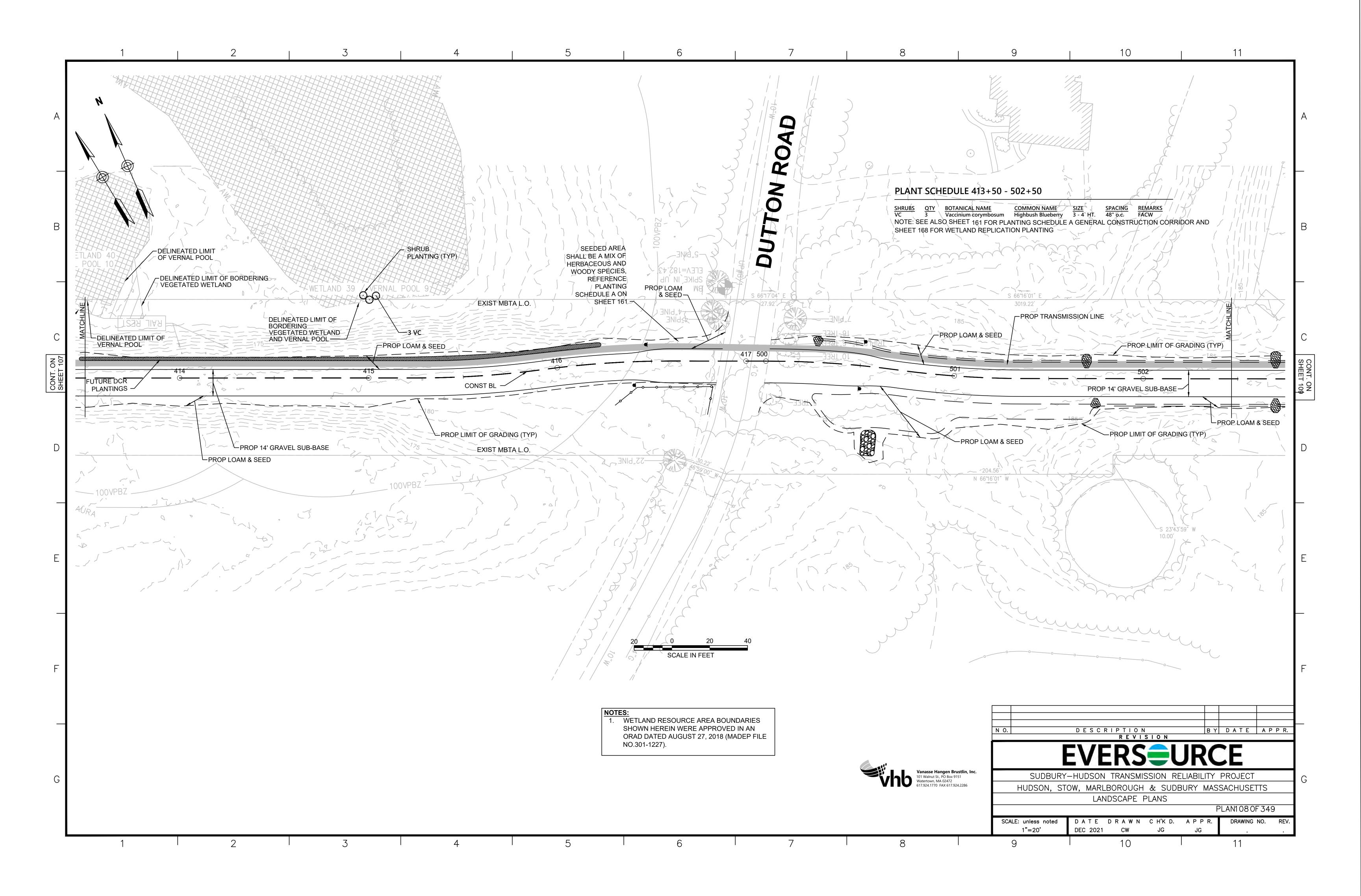


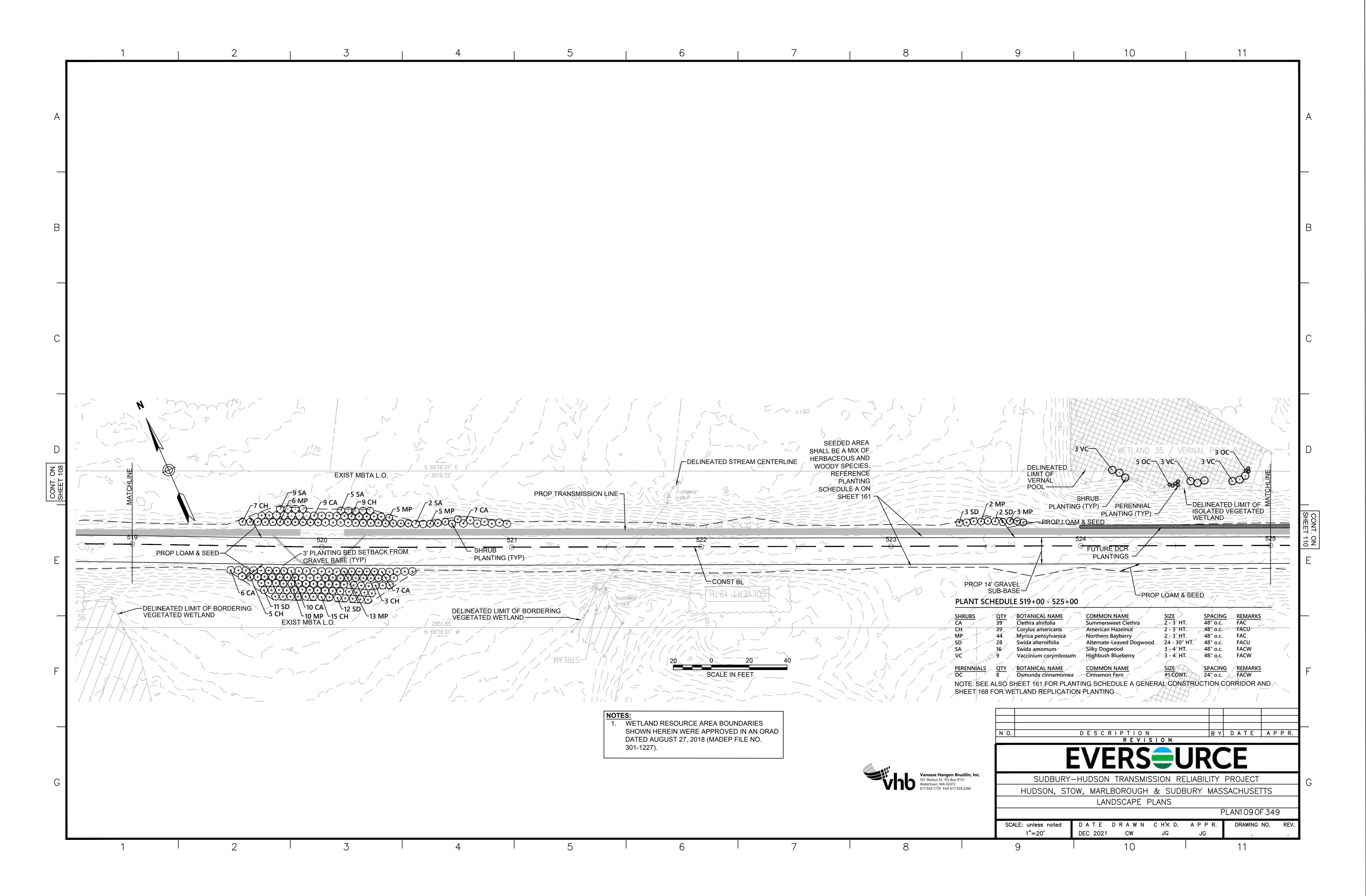


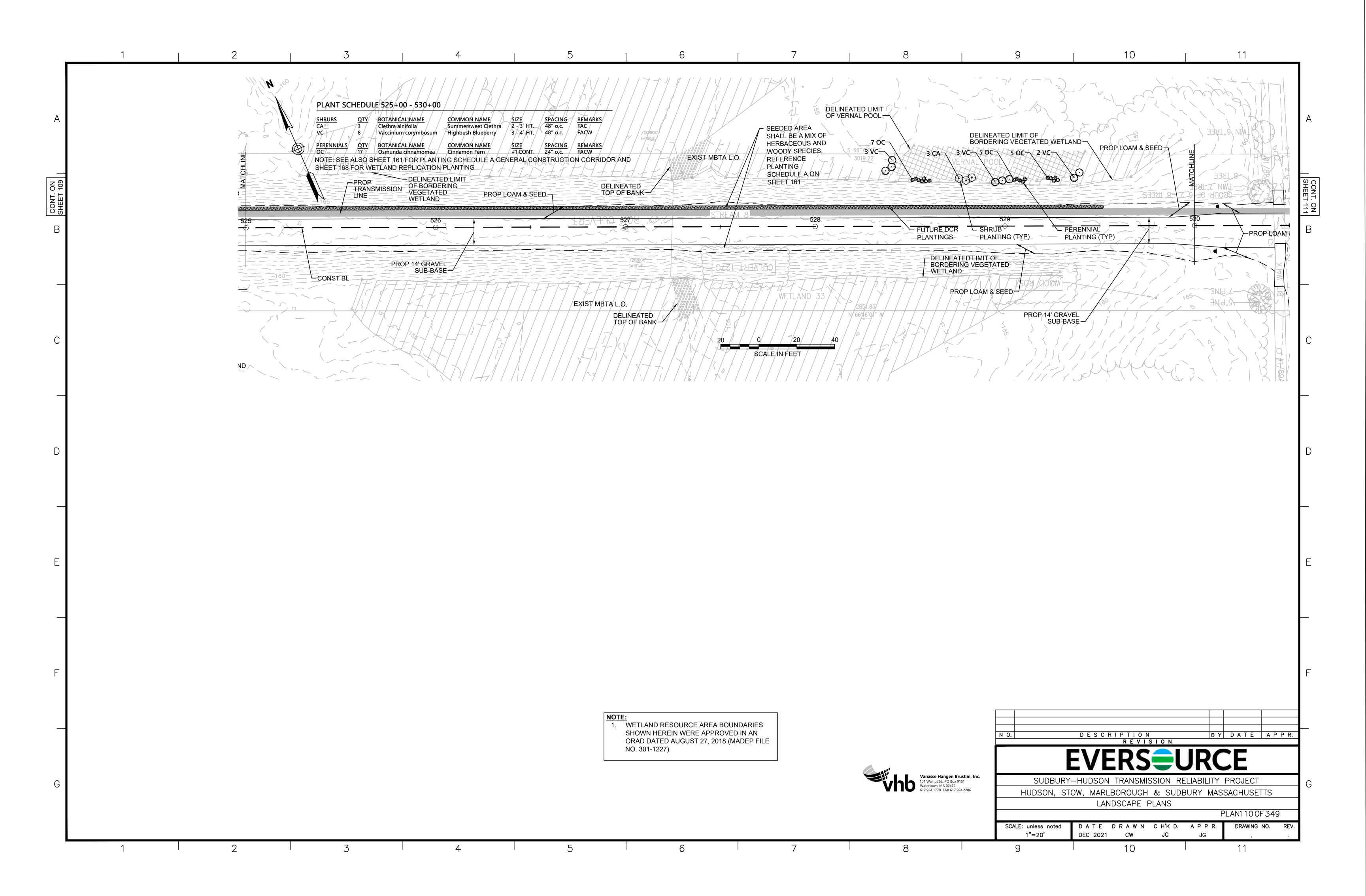


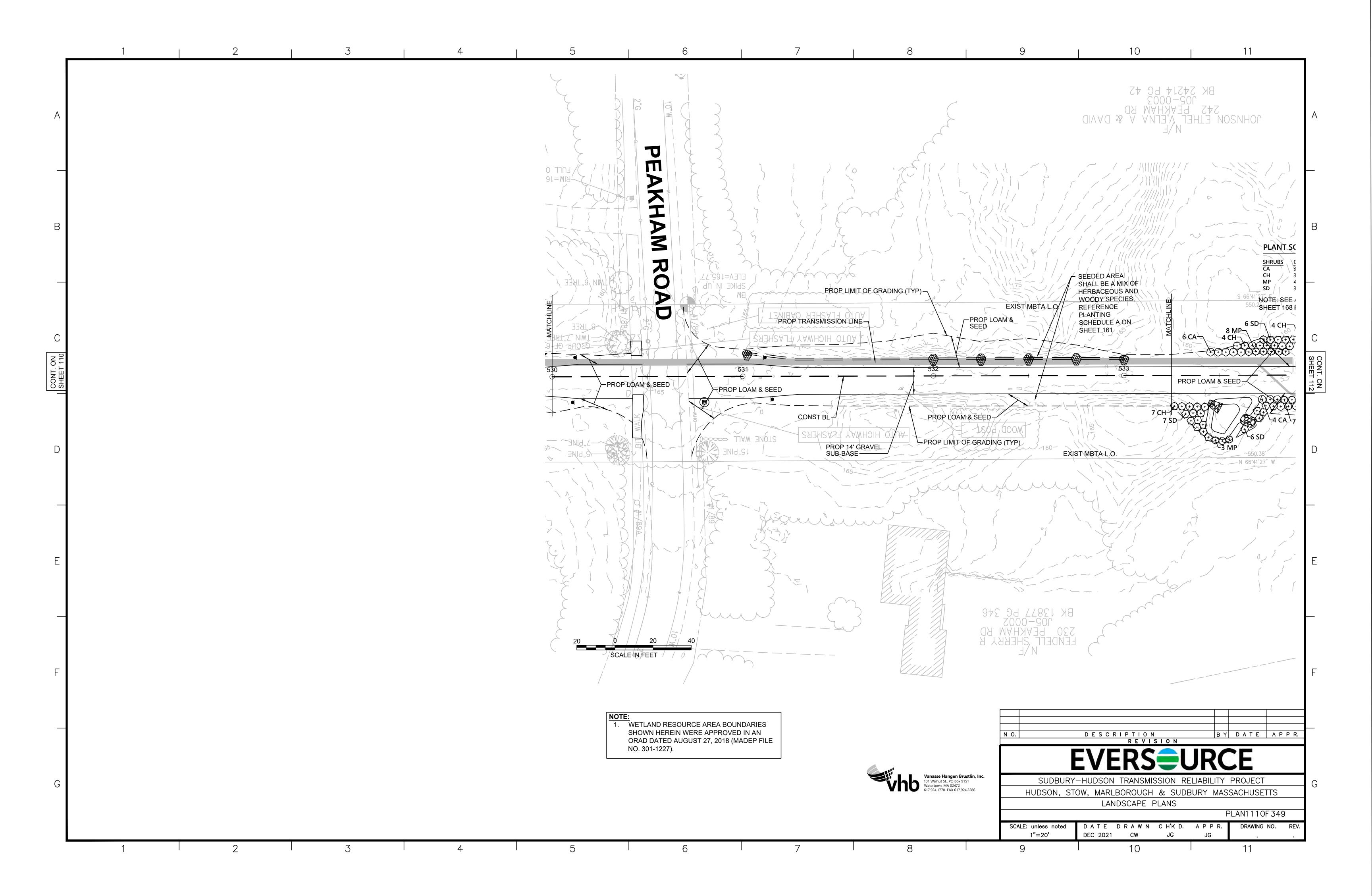


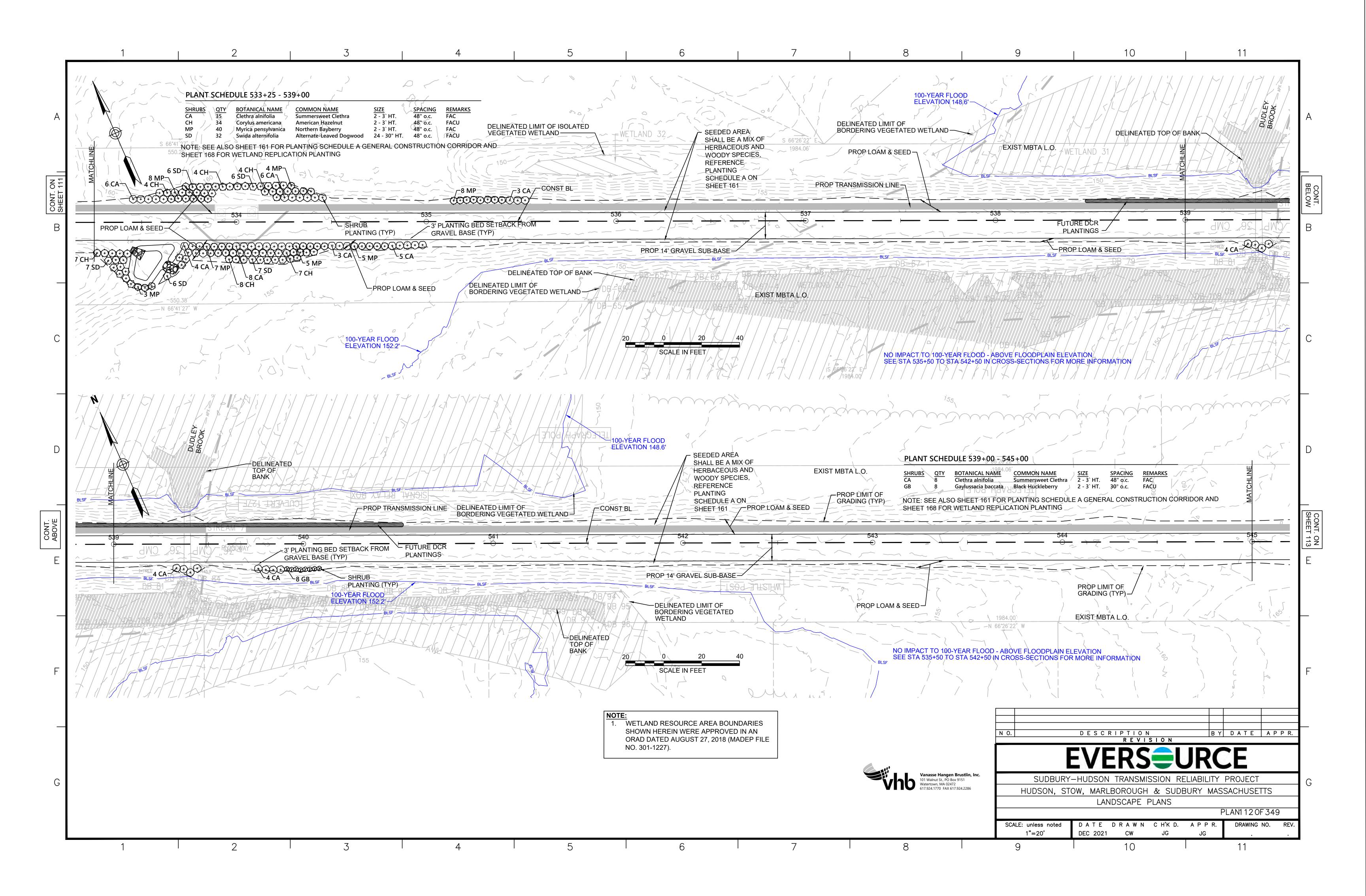


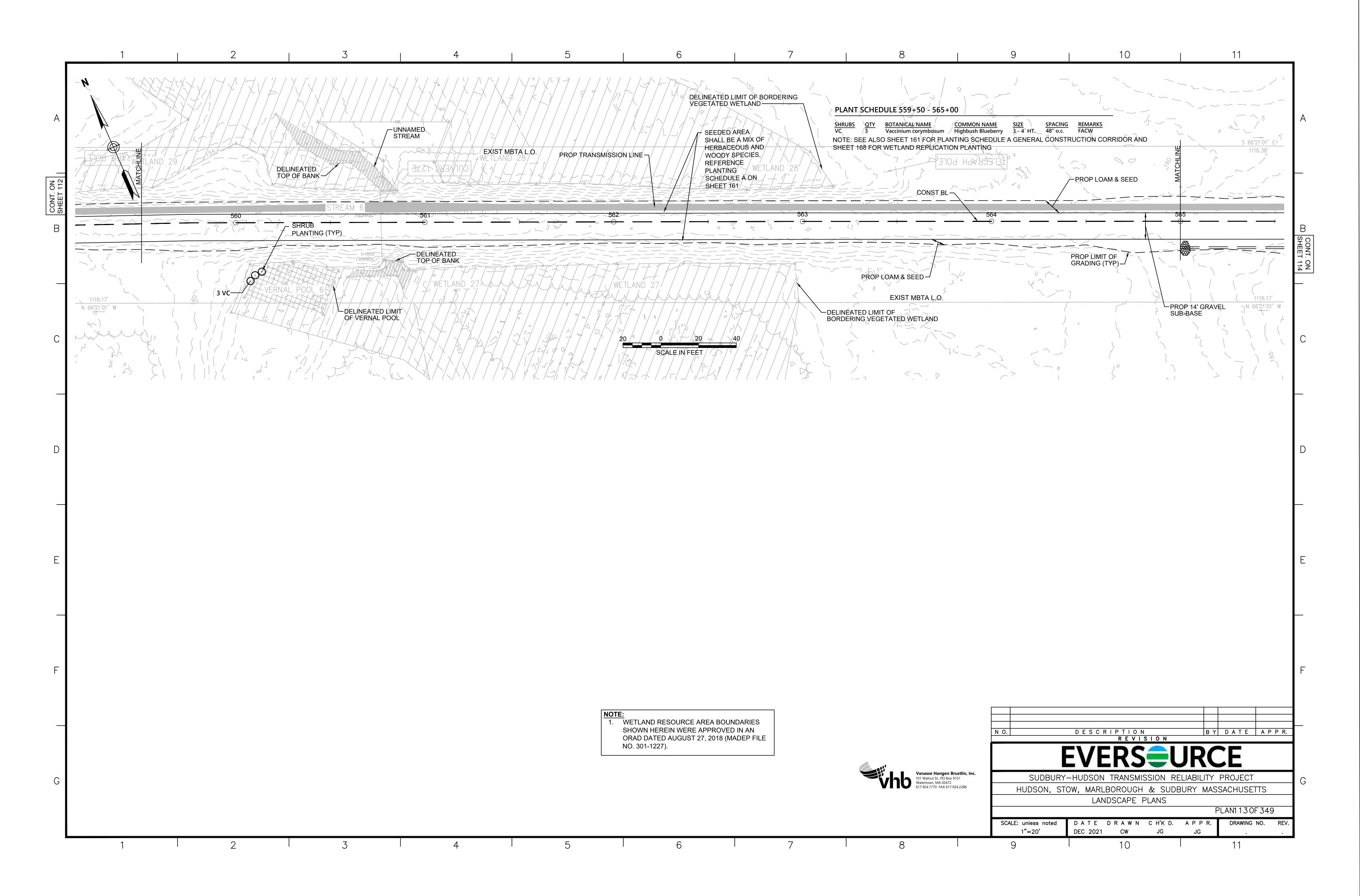


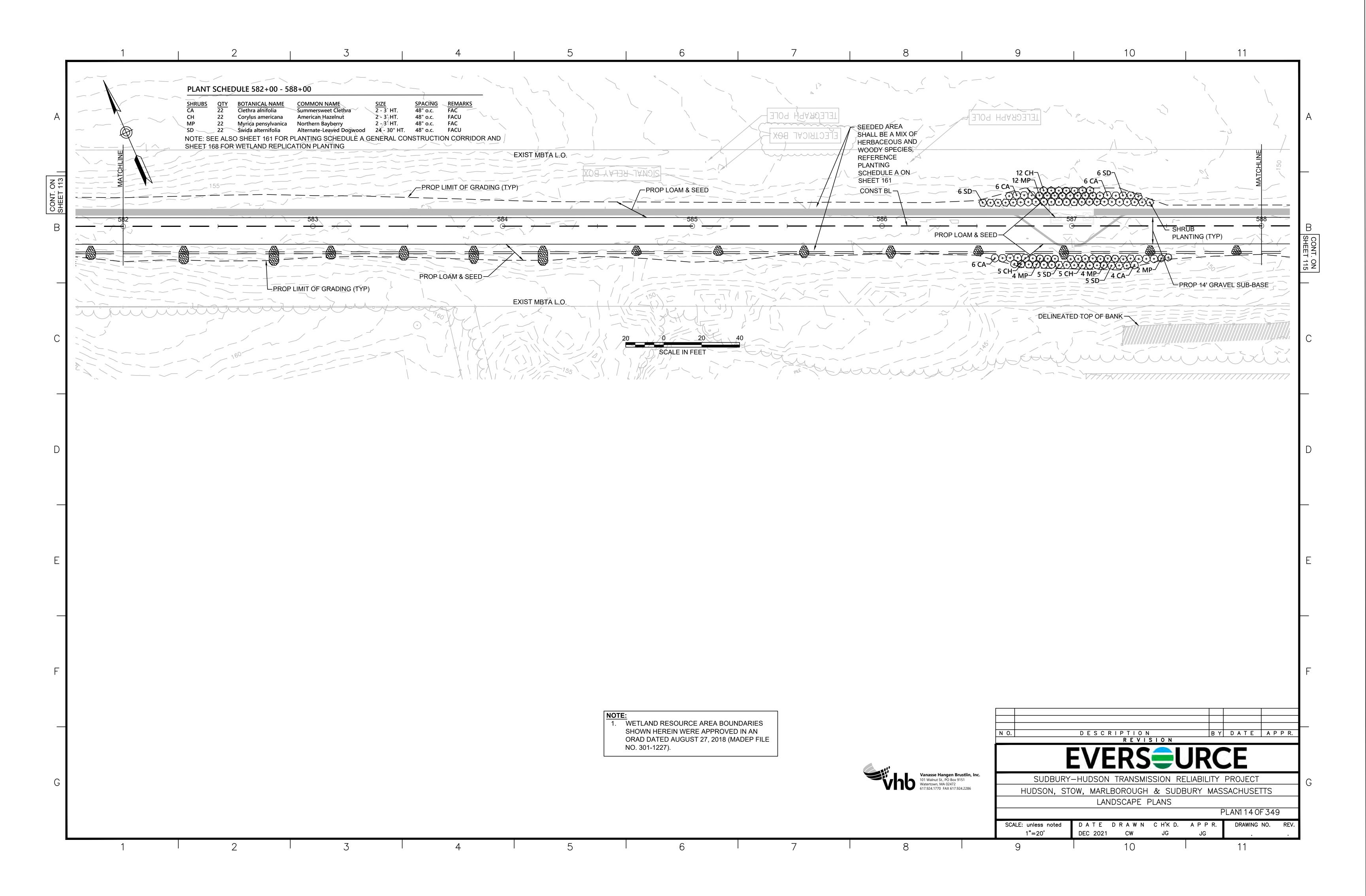


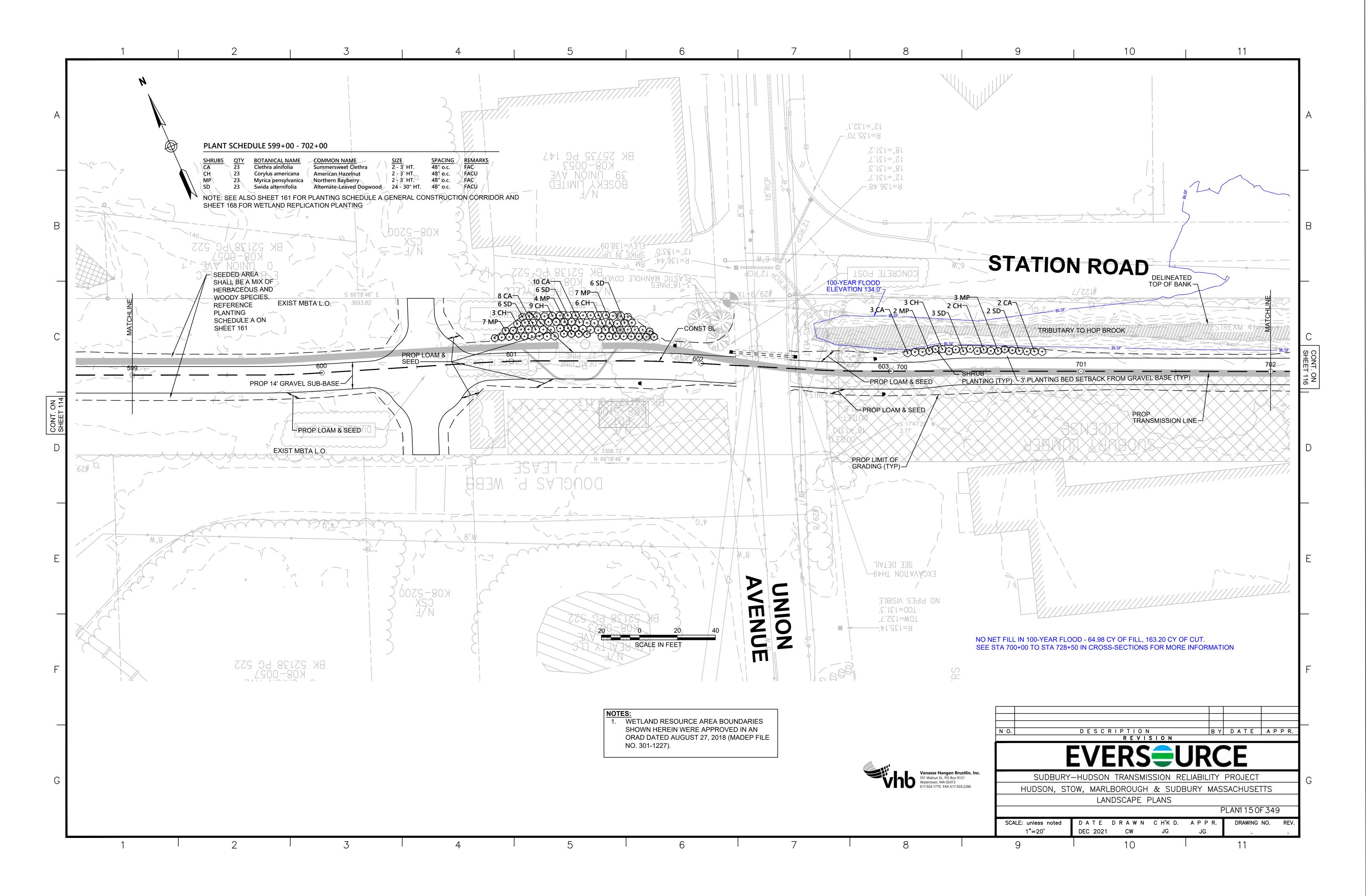


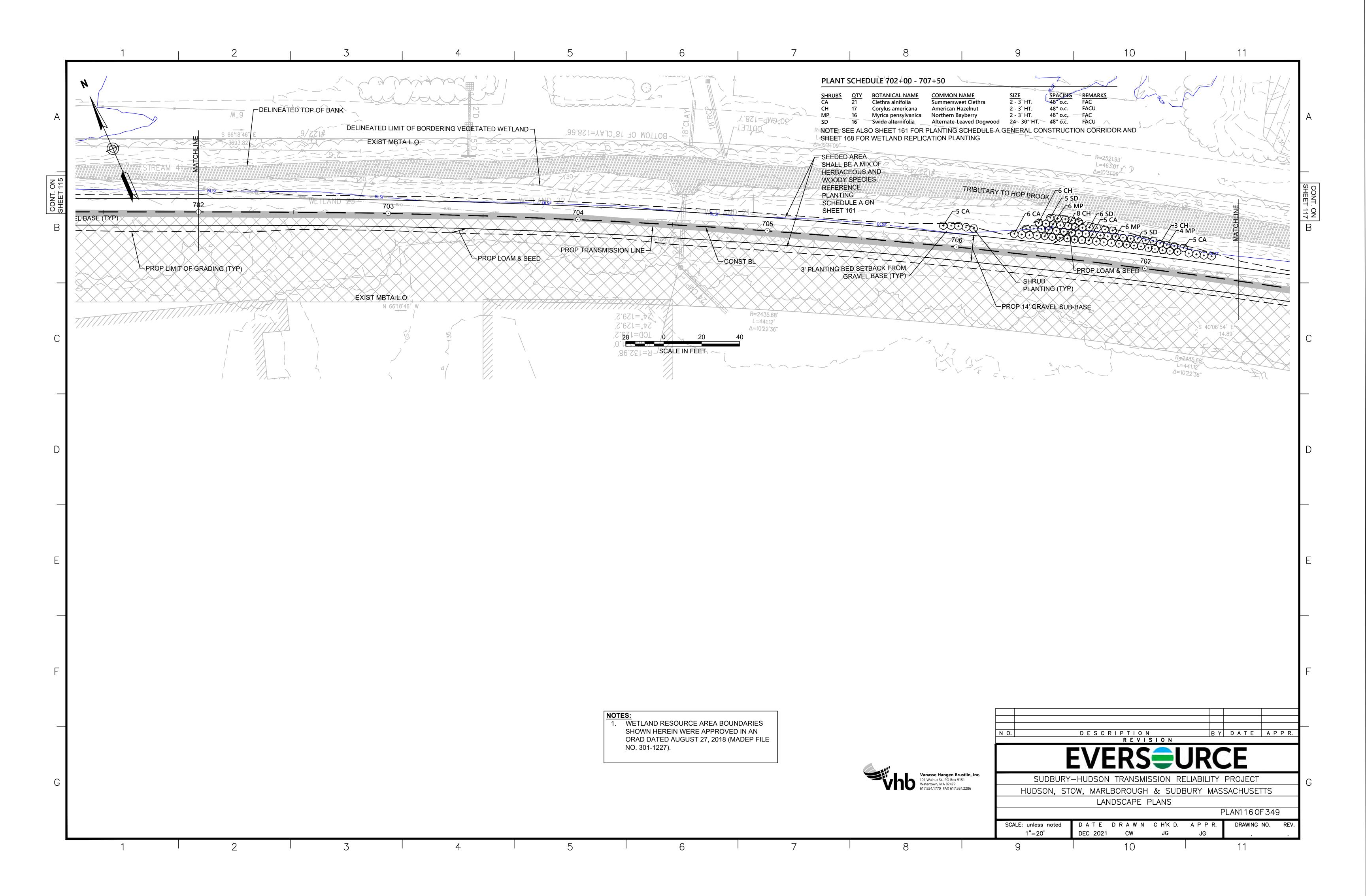


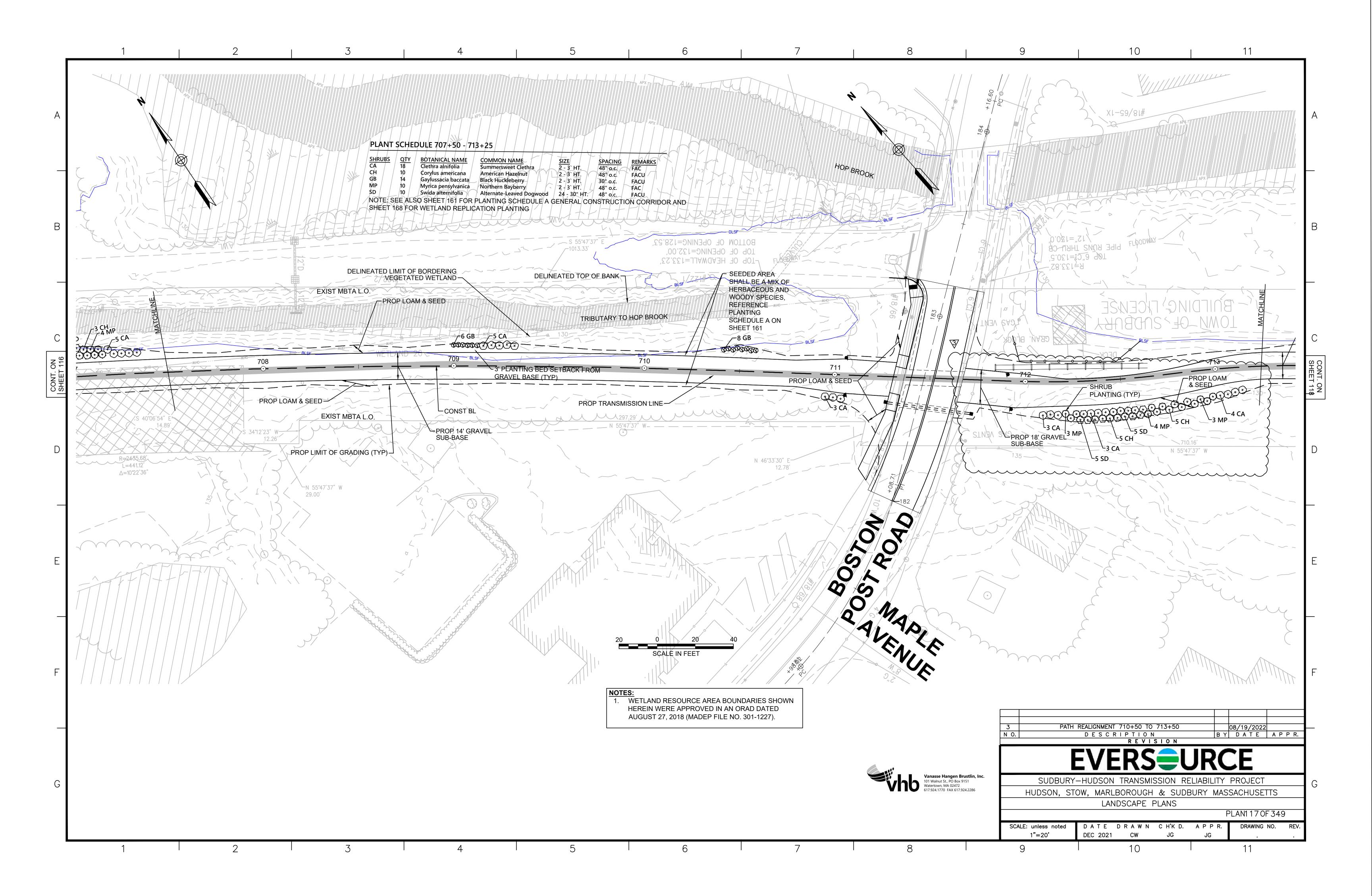


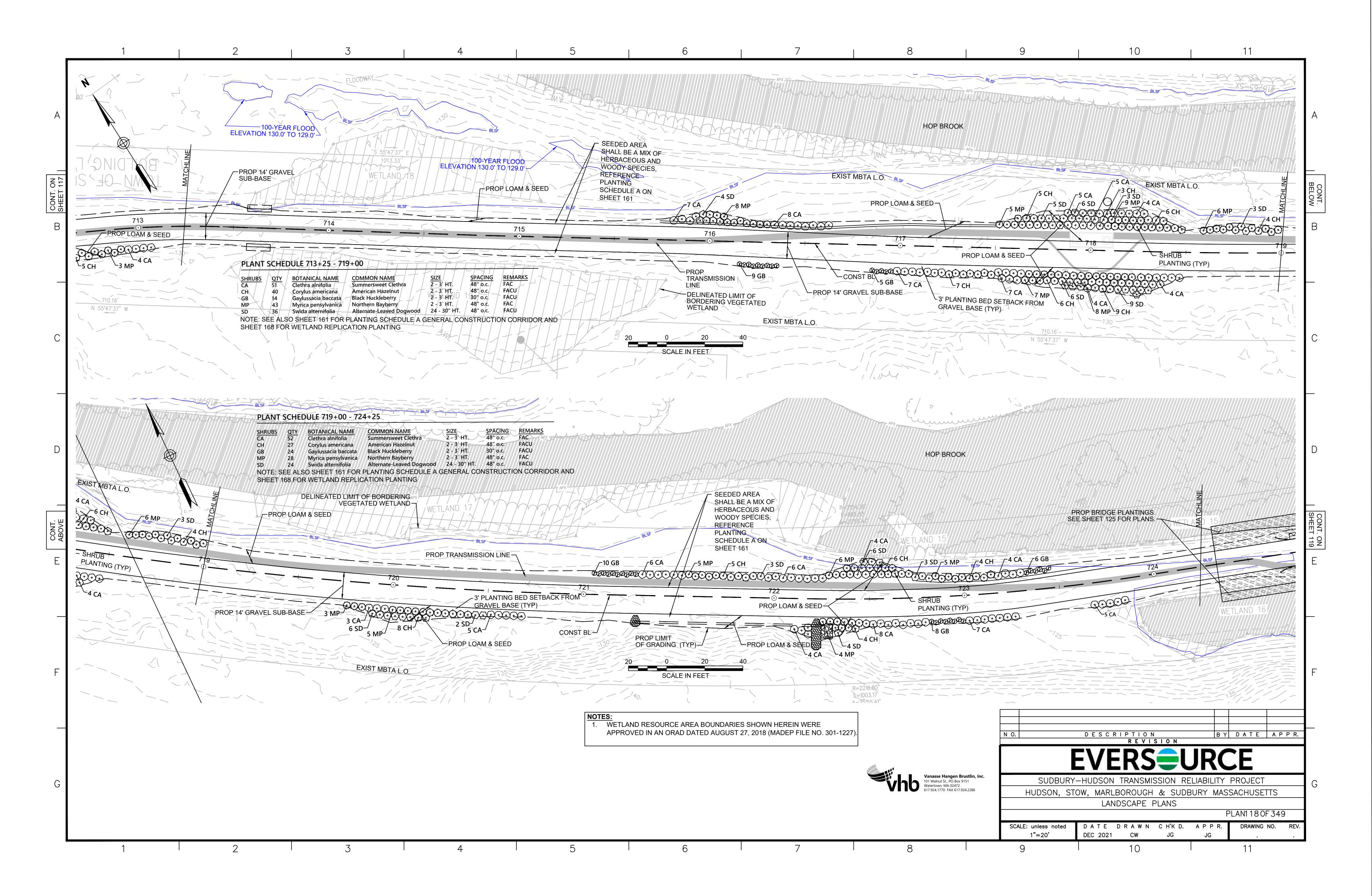


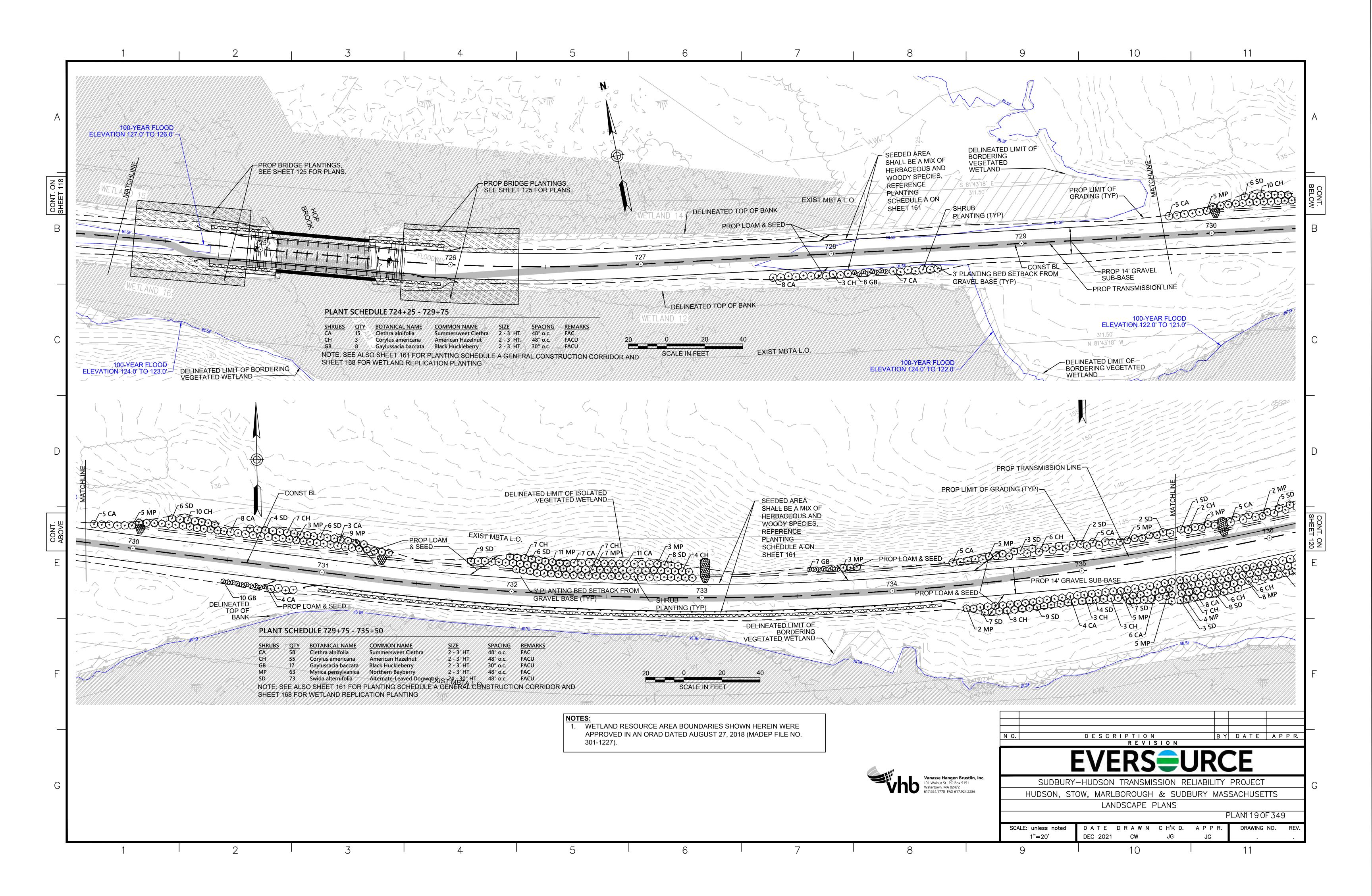


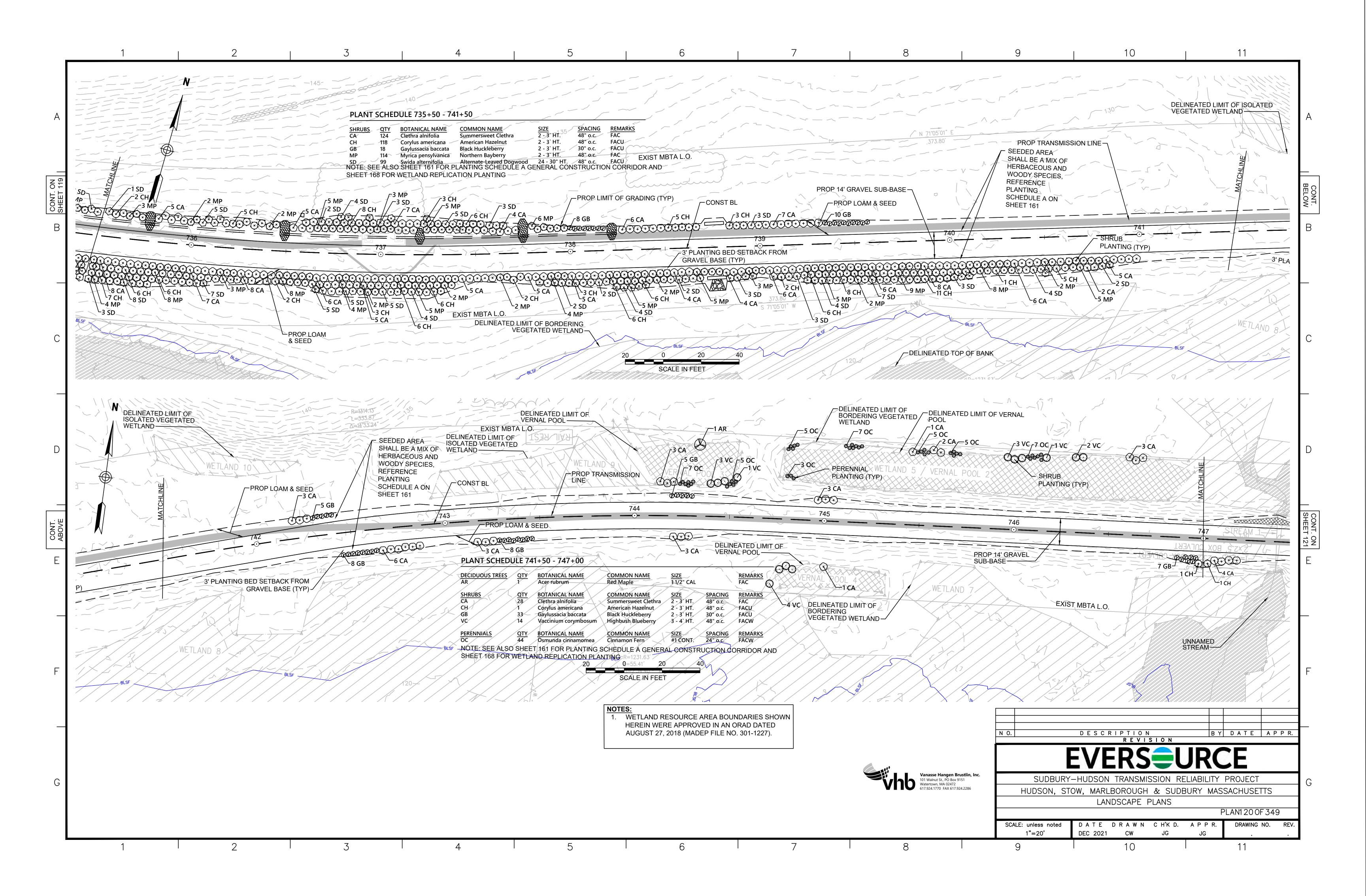


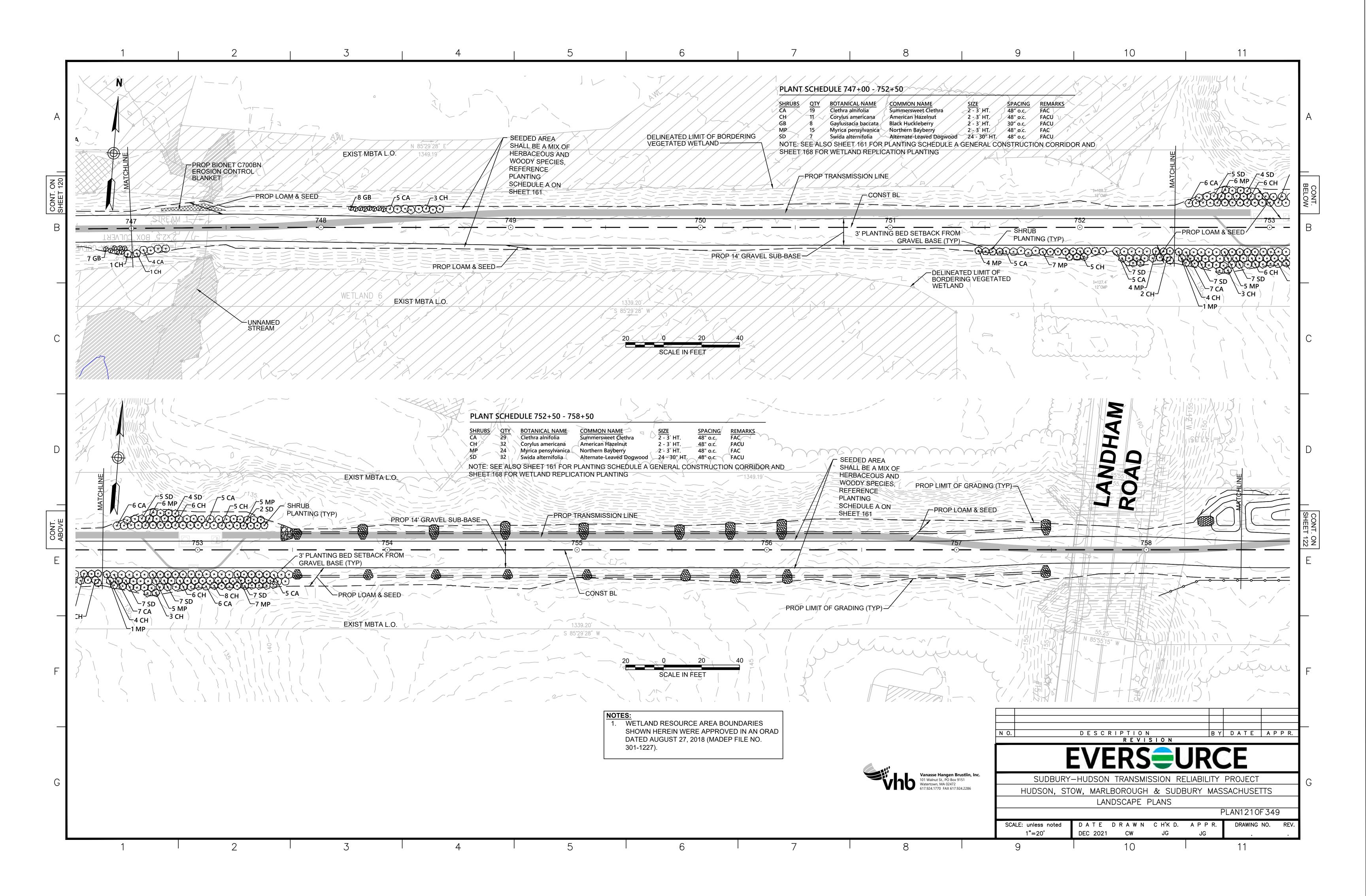


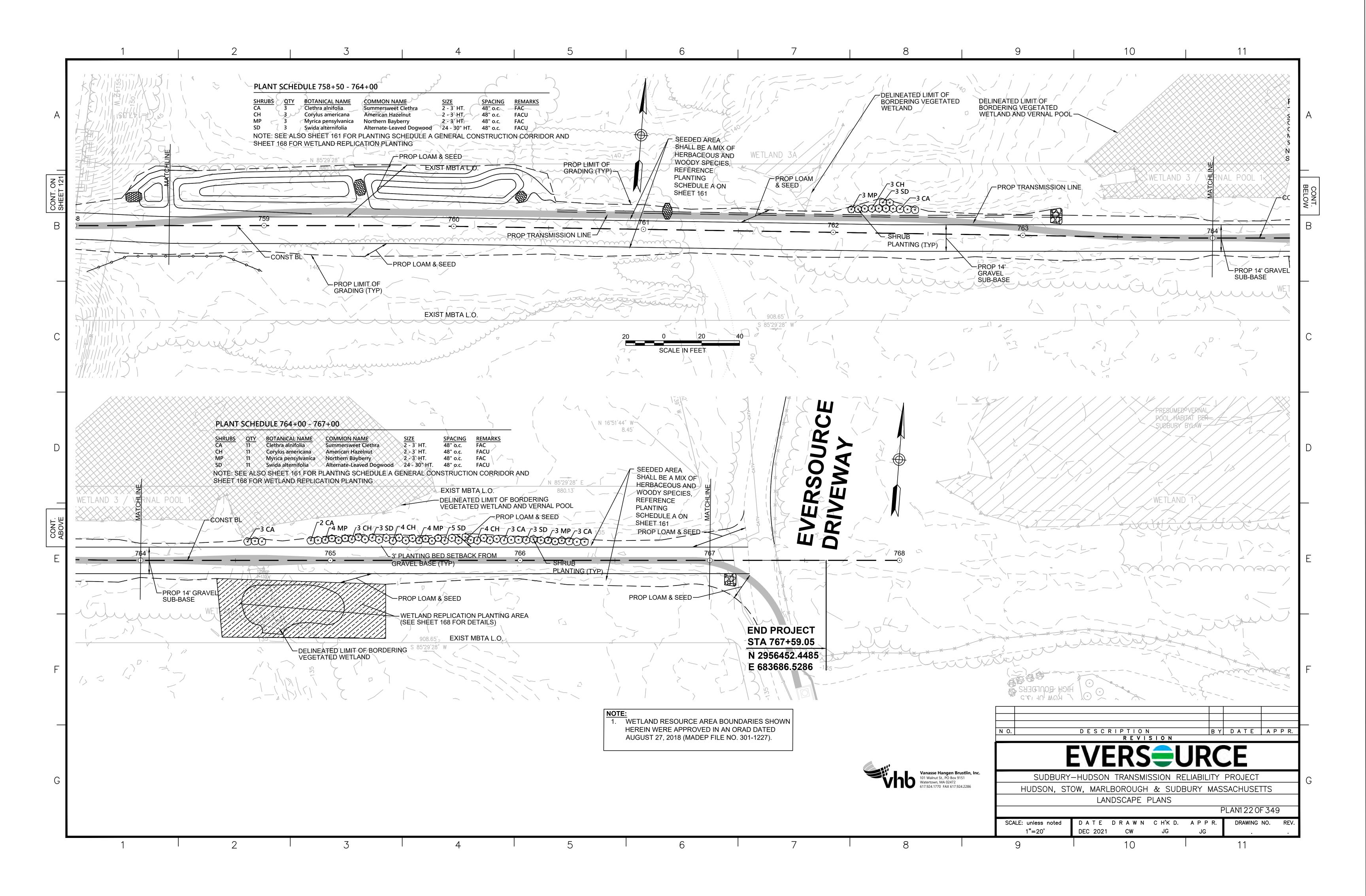


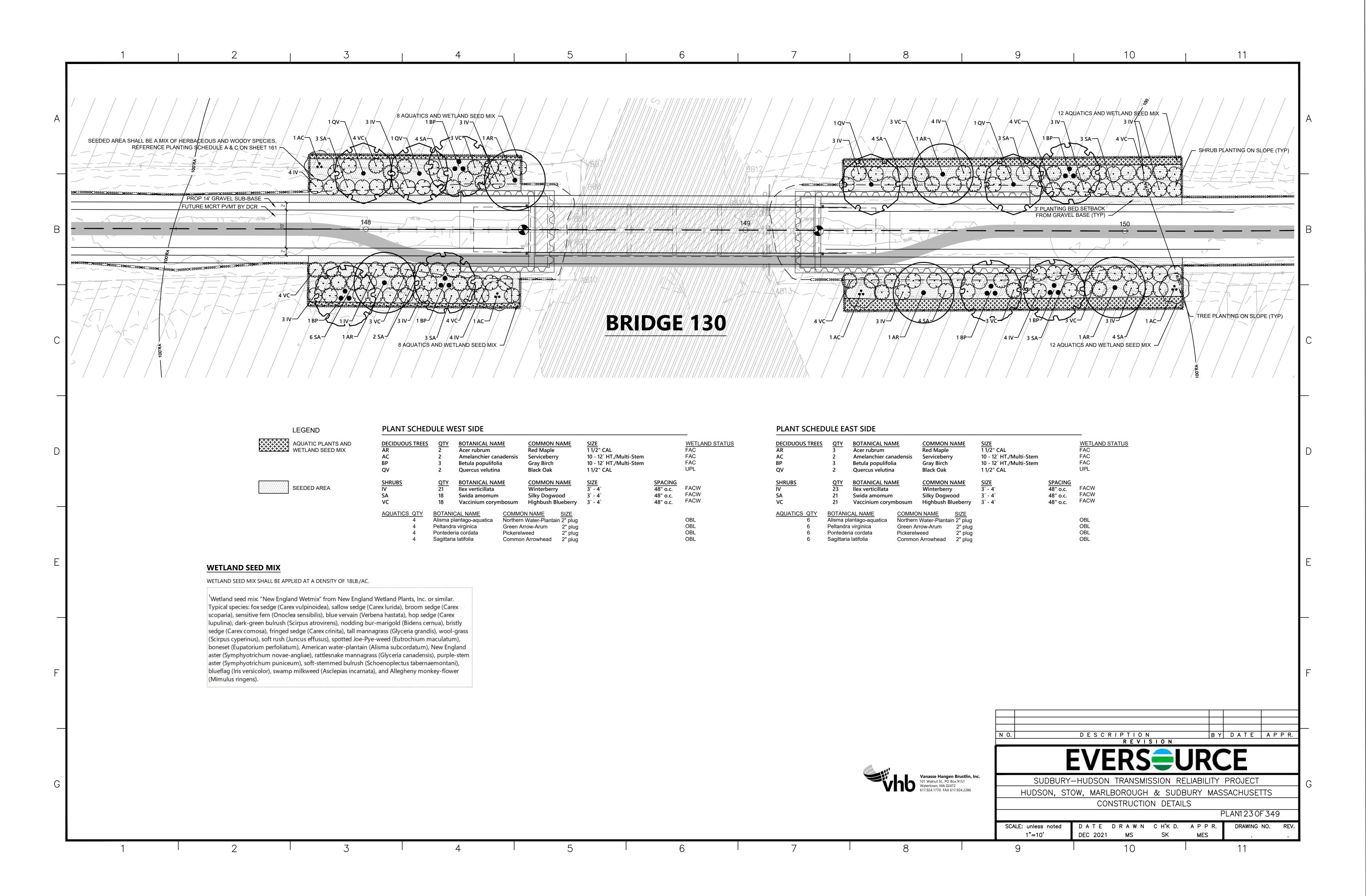


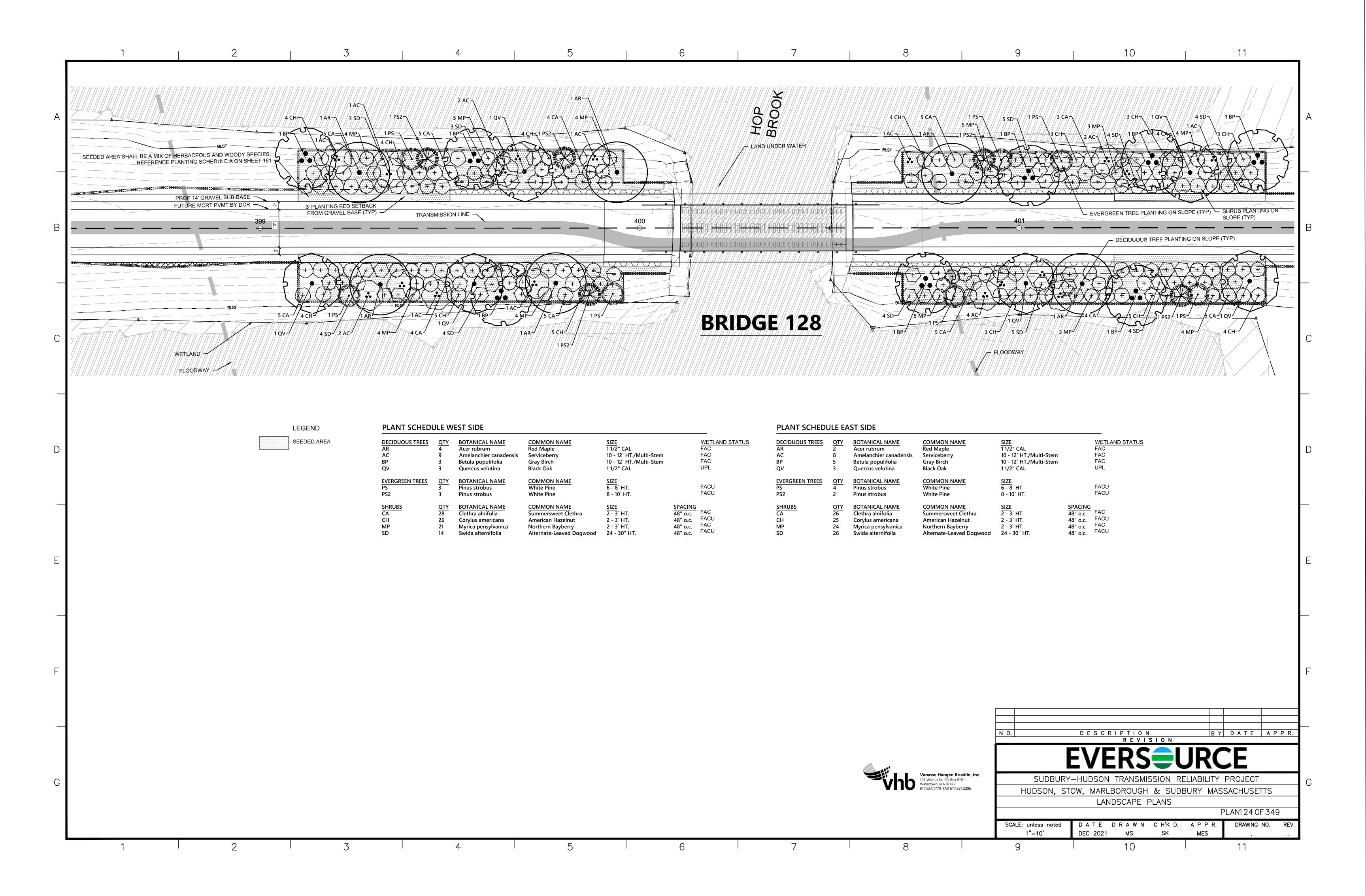


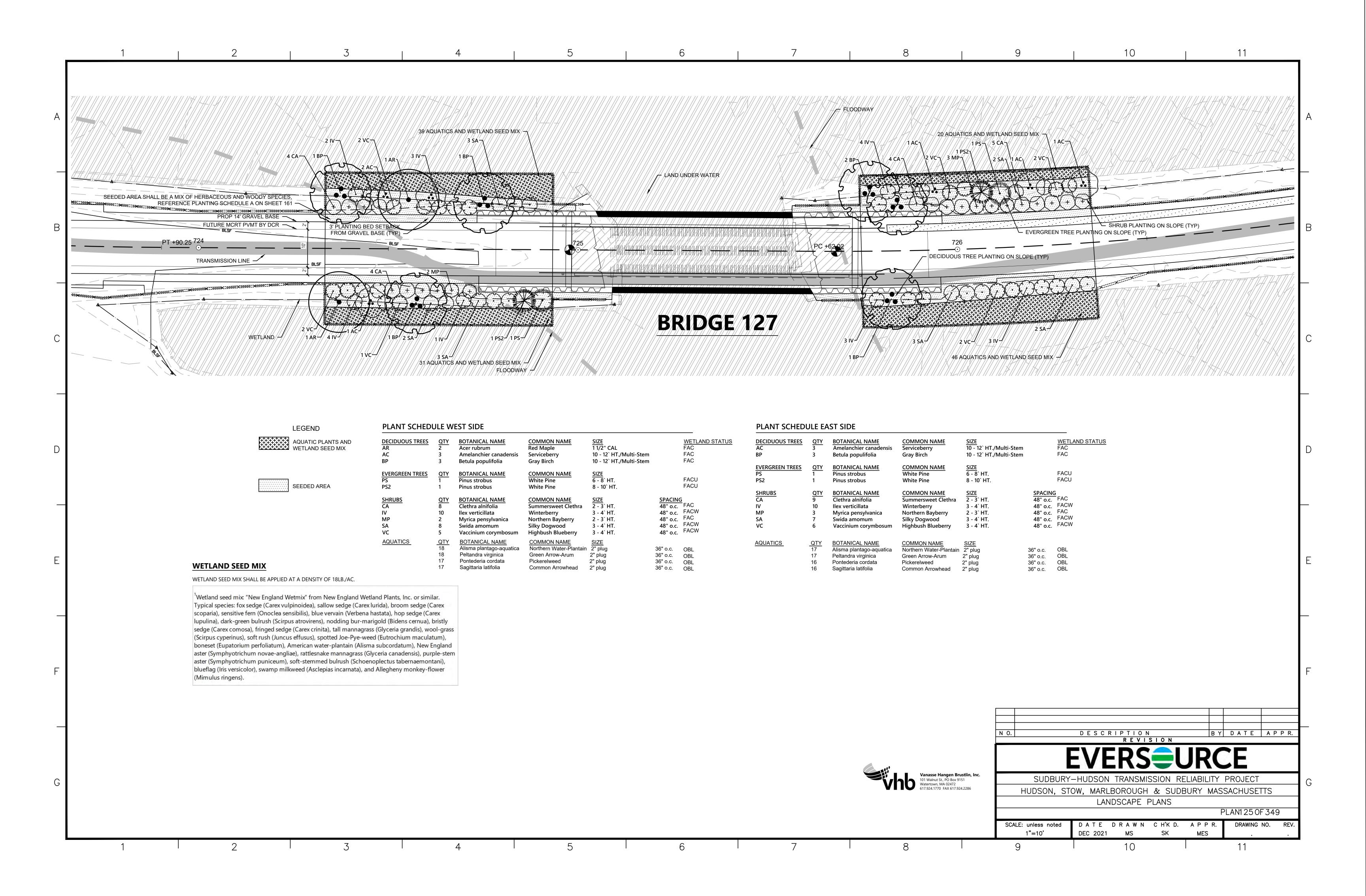


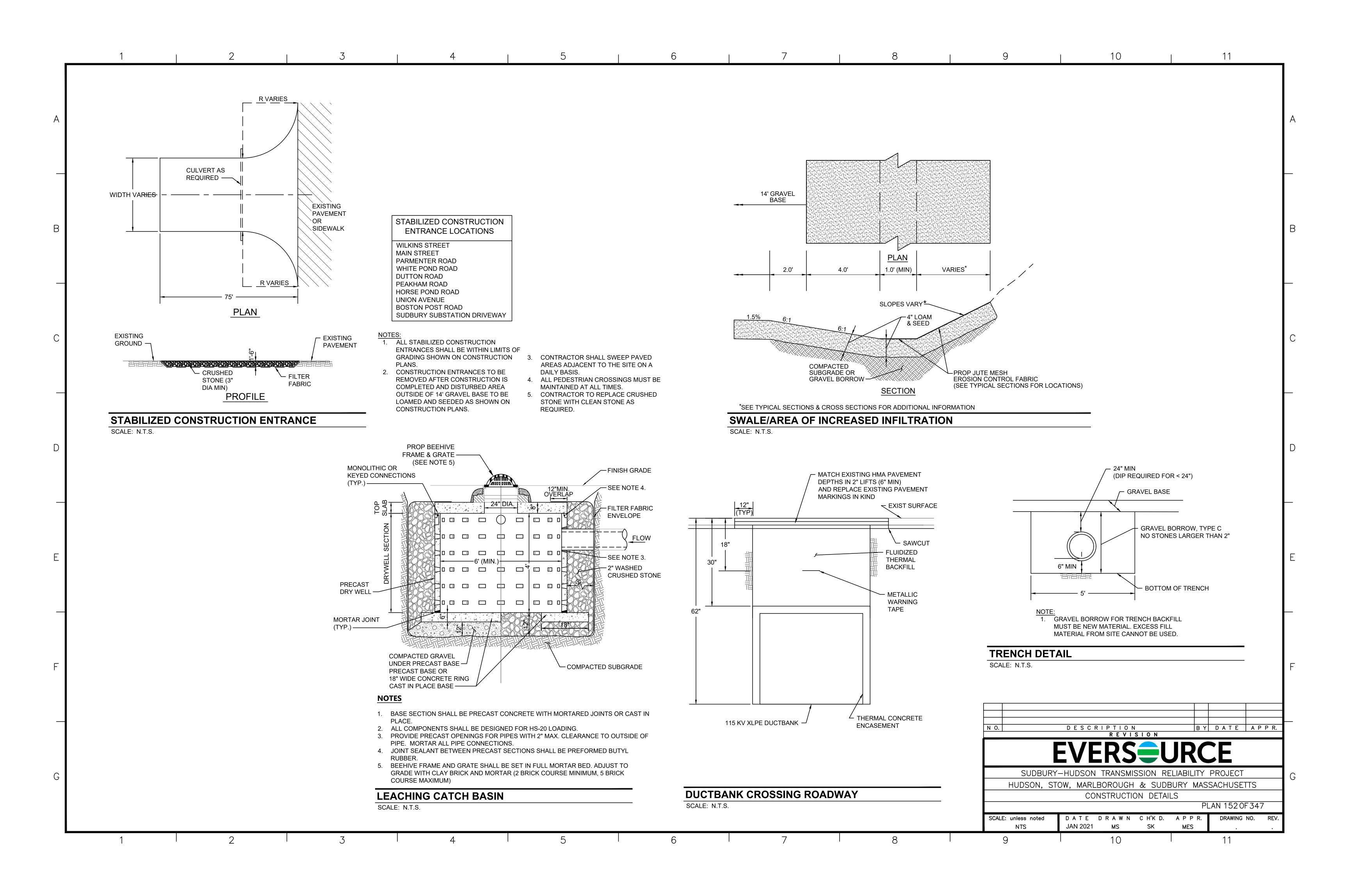


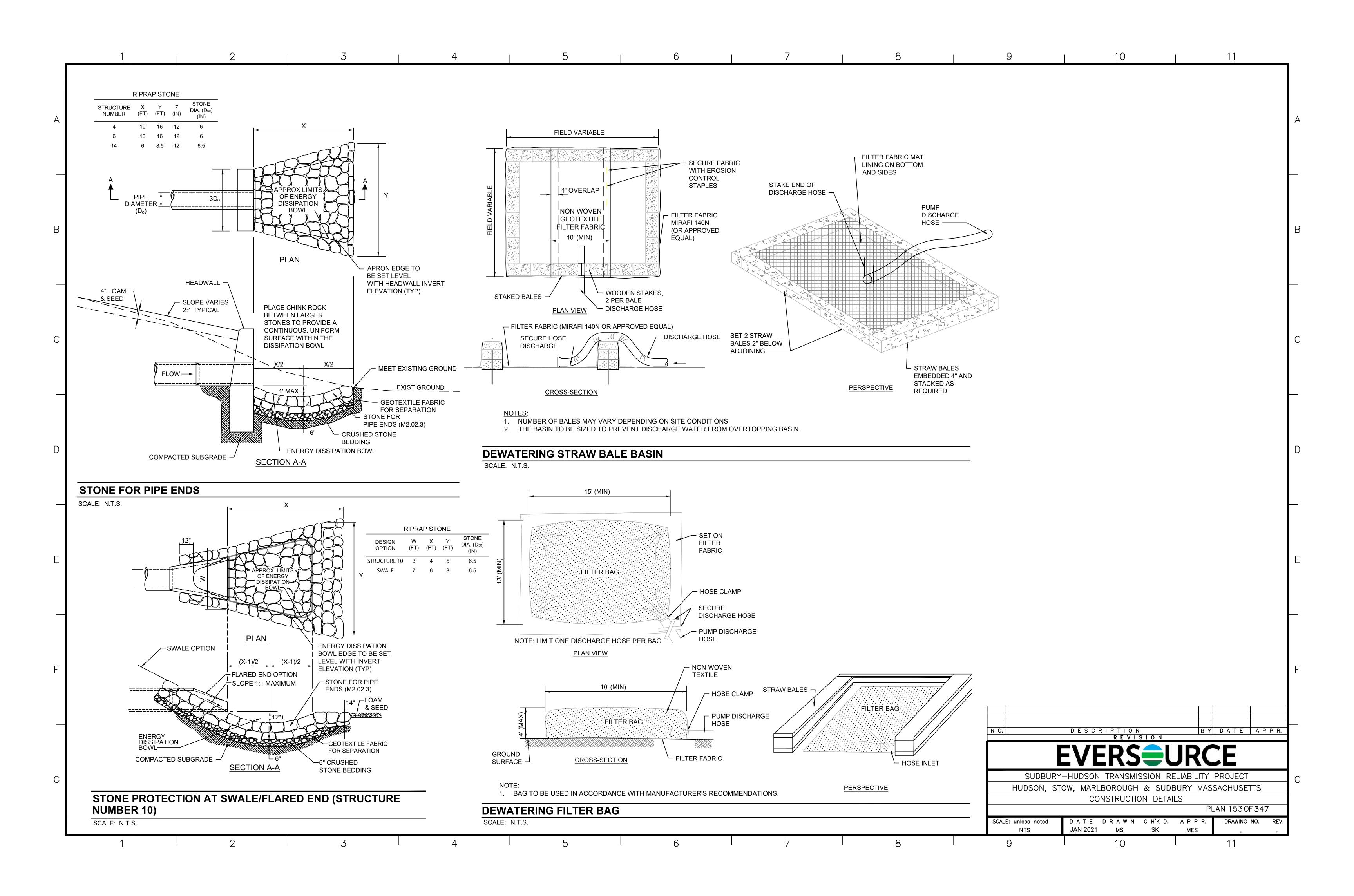


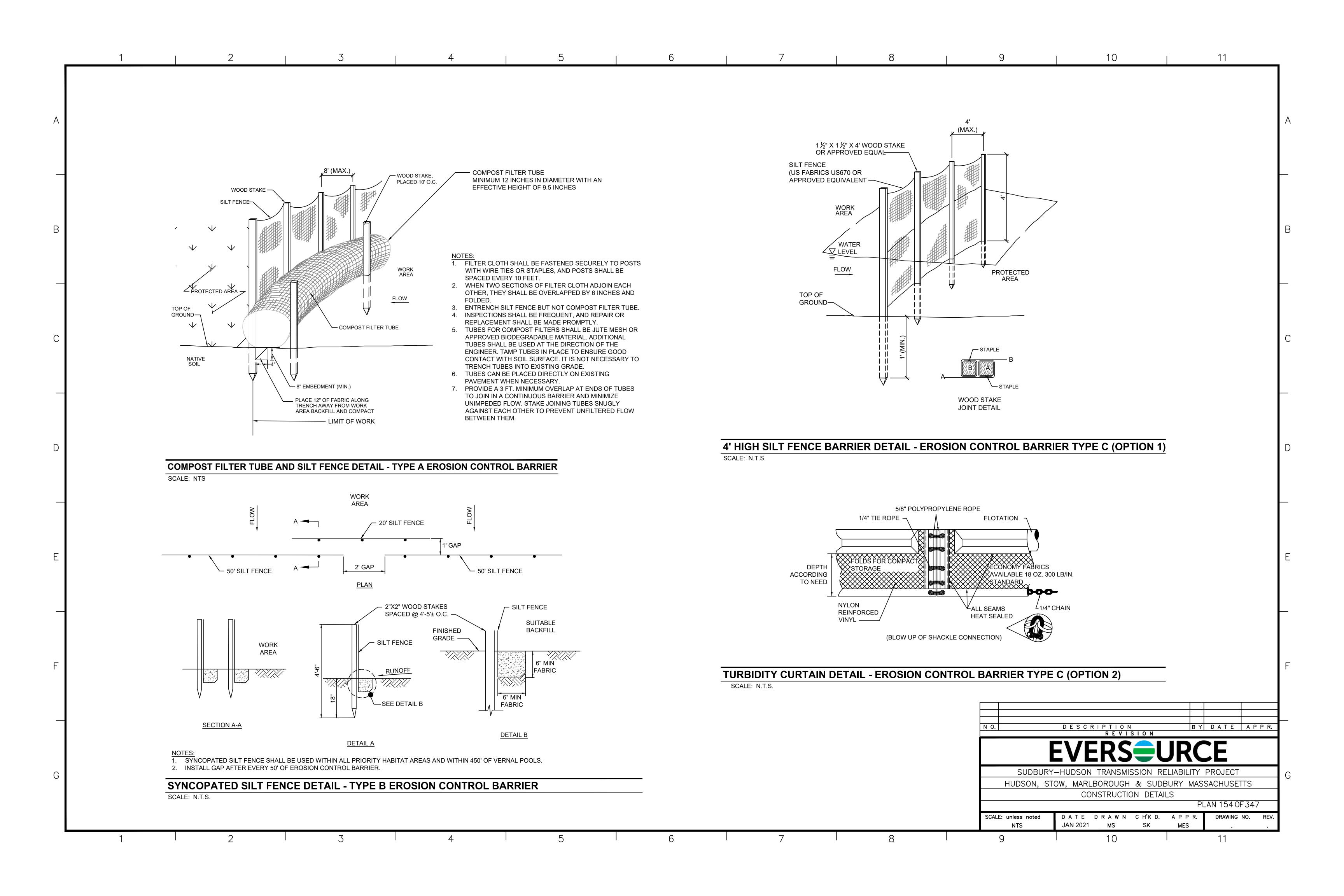


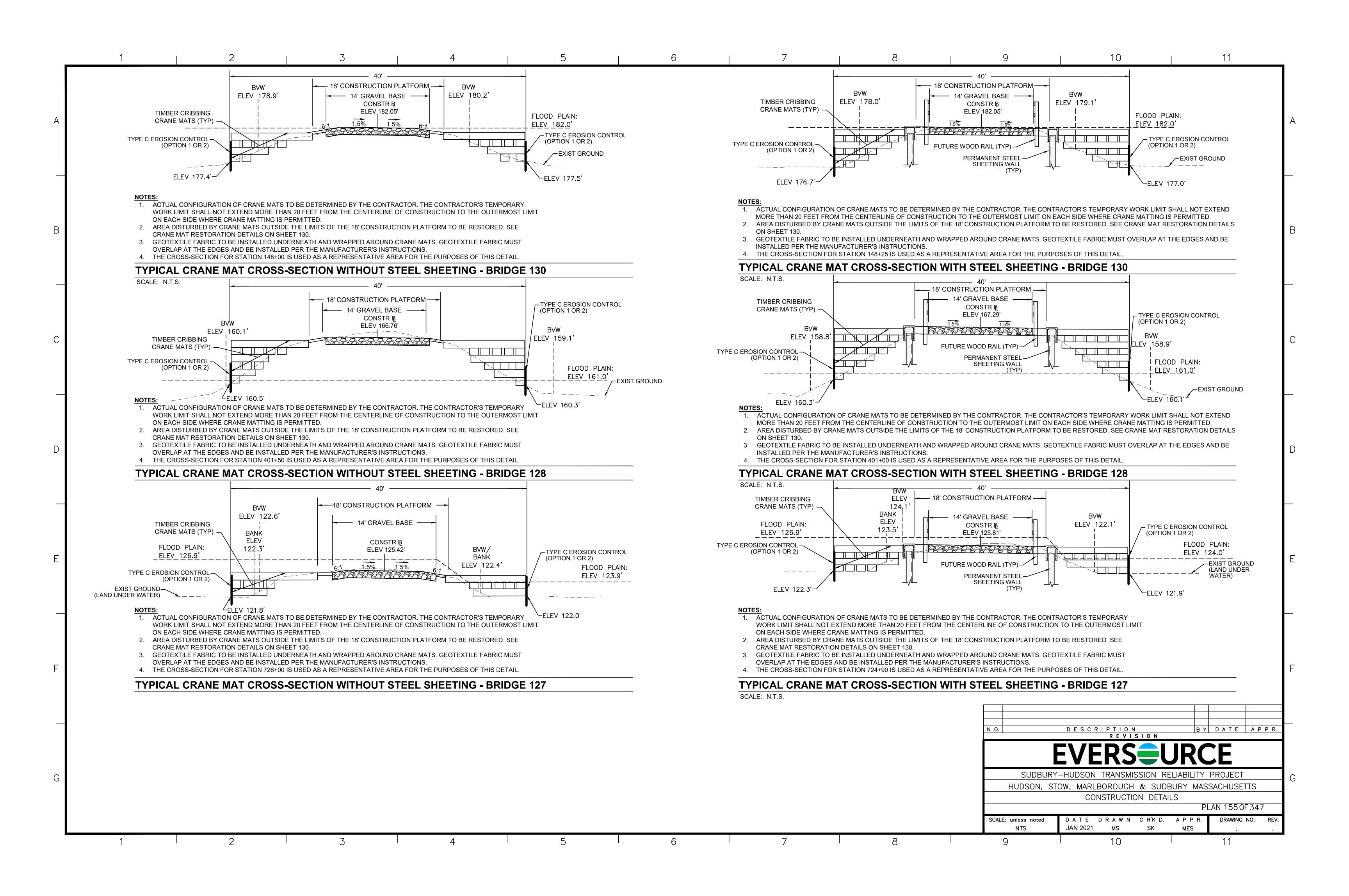


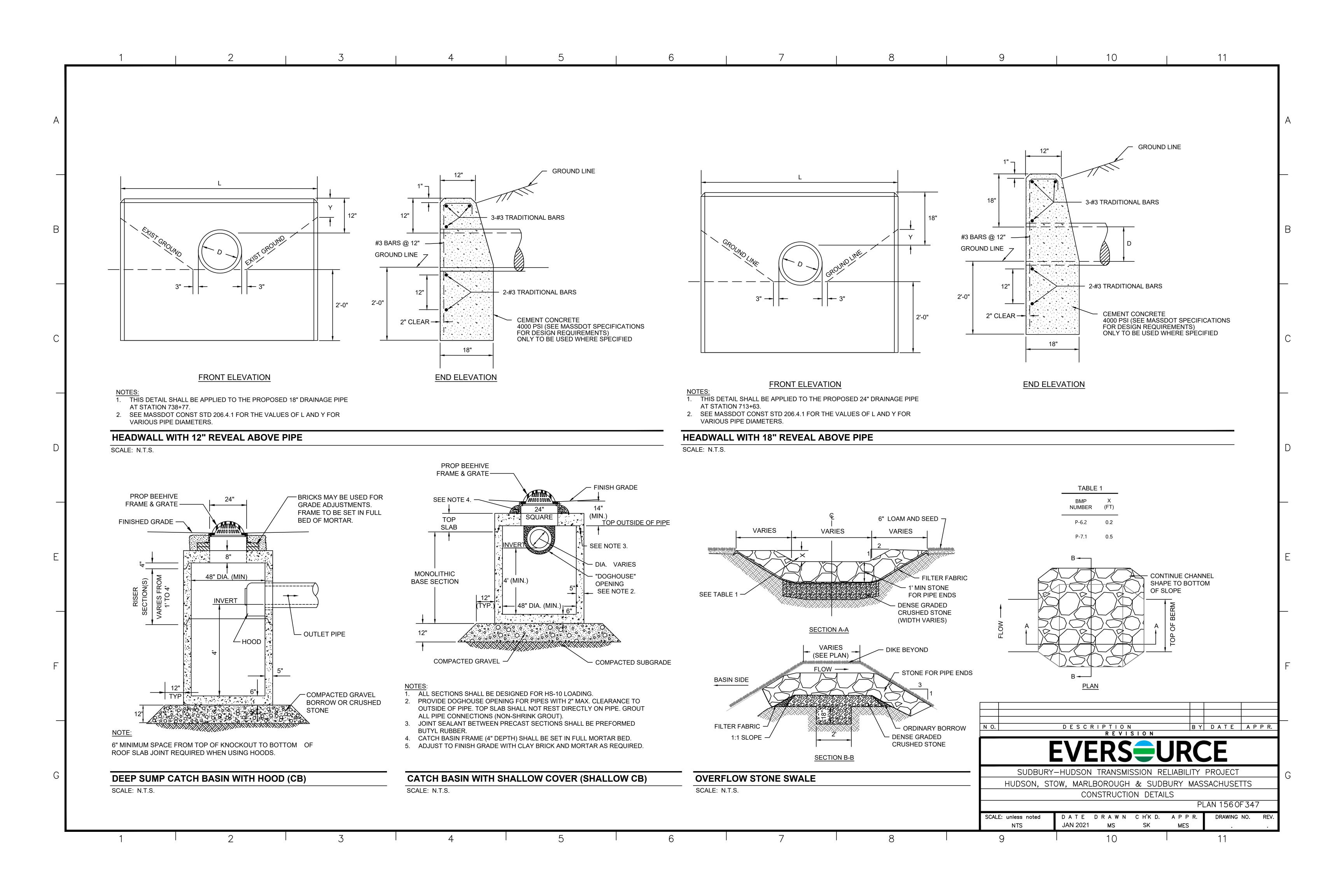


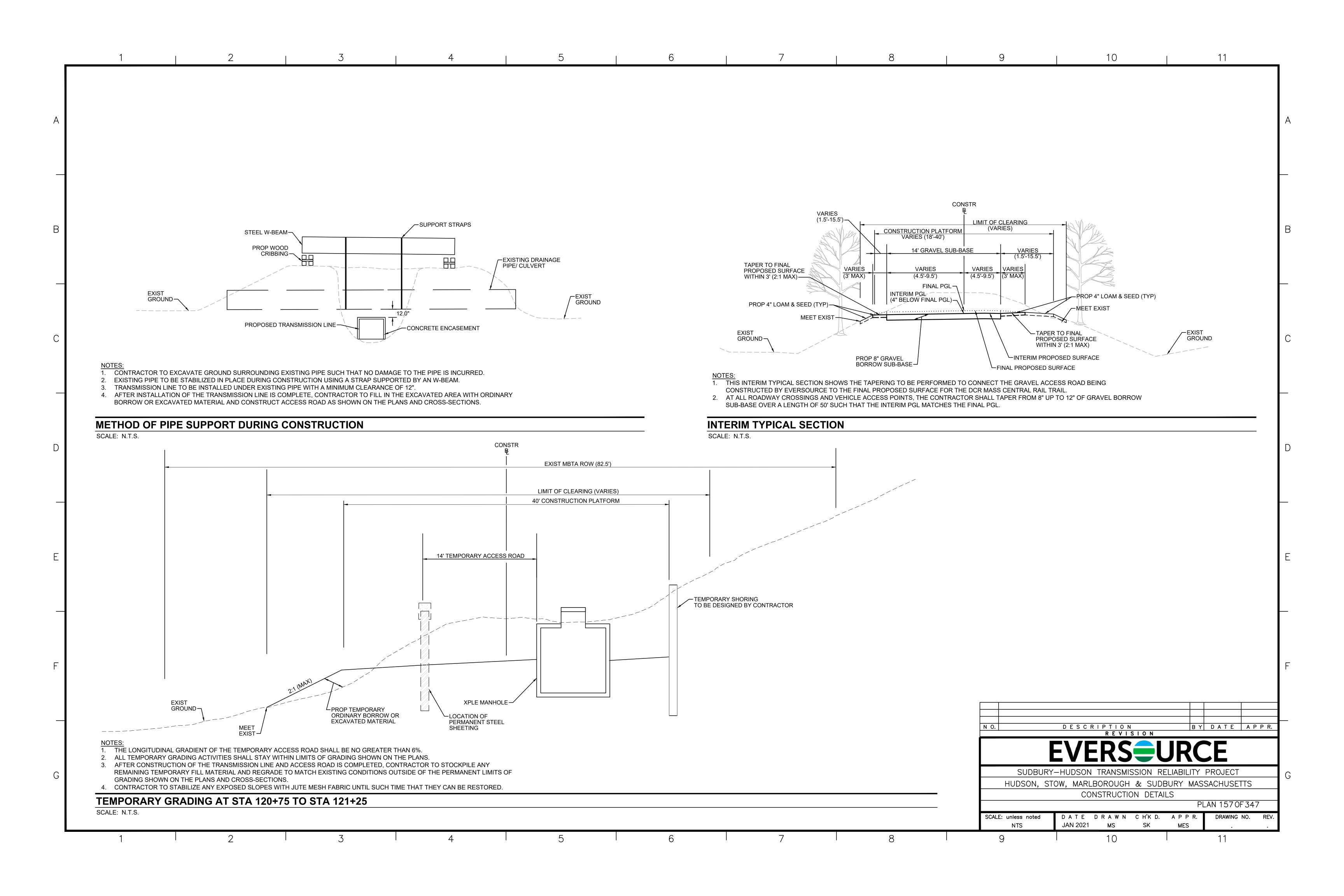


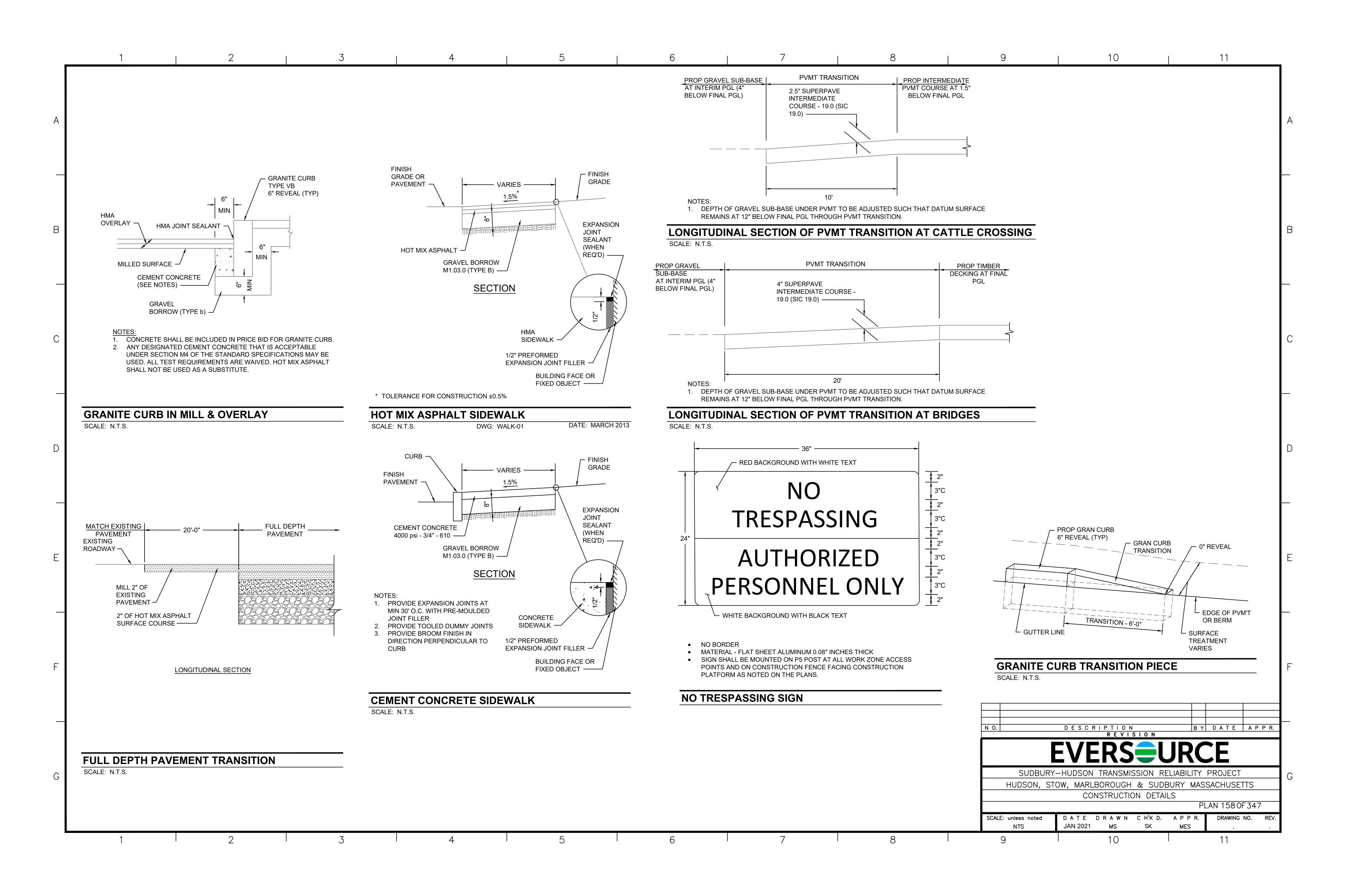


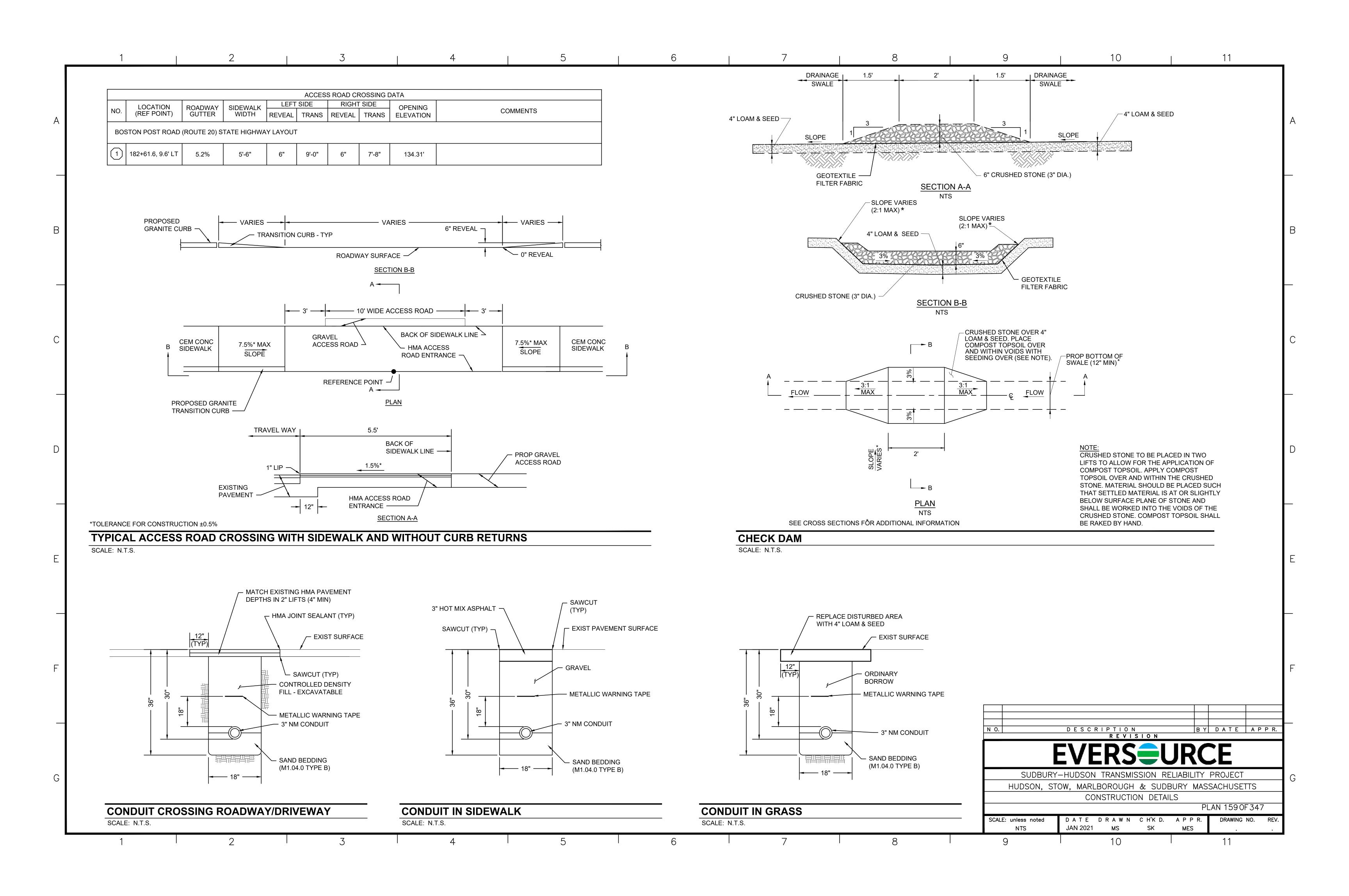


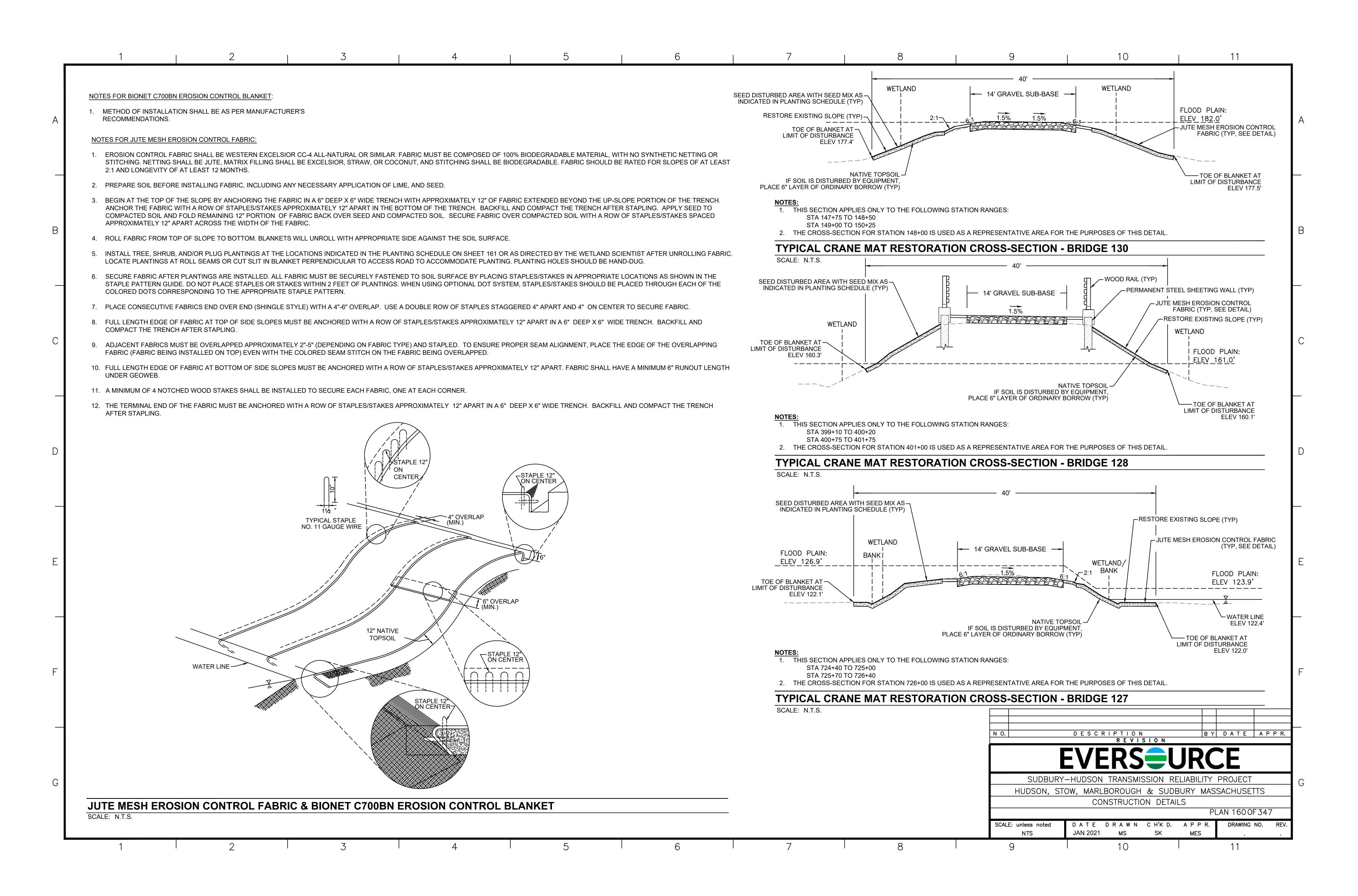












## PLANTING SCHEDULE A: GENERAL CONSTRUCTION CORRIDOR

HERBACEOUS SEED MIX													
SPECIES	WETLAND STATUS	%											
VIRGINIA WILD RYE ( <i>ELYMUS VIRGINICUS</i> )	FACW	25.00											
CANADA WILD RYE ( <i>ELYMUS CANADENSIS</i> )	FACU	25.00											
LITTLE BLUESTEM (SCHIZACHYRIUM SCOPARIUM)	FACU	25.00											
DEER-TONGUE GRASS ( <i>DICHANTHELIUM CLANDESTINUM</i> )	FACW	8.00											
UPLAND BENTGRASS (AGROSTIS PERENNANS)	FACU	8.00											
FOX SEDGE (CAREX VULPINOIDEA)	OBL	2.00											
PATH RUSH ( <i>JUNCUS TENUIS</i> )	FAC	2.00											
SOFT RUSH (JUNCUS EFFUSUS)	OBL	0.10											
BEARD-TONGUE ( <i>PENSTEMON DIGITALIS</i> )	FAC	2.00											
NEW ENGLAND ASTER (SYMPHYOTRICHUM NOVAE-ANGLIAE)	FACW	1.00											
WOODLAND GOLDENROD (SOLIDAGO CAESIA)	FACU	0.50											
BLUE WOOD ASTER (SYMPHYOTRICHUM CORDIFOLIUM)	UPL	0.50											
JOE-PYE WEED ( <i>EUTROCHIUM MACULATUM</i> )	OBL	0.30											
WHITE AVENS (GEUM CANADENSE)	FAC	0.30											
RIGID GOLDENROD (OLIGONEURON RIGIDUM)	UPL	0.30											

SHRUB SEED MIX		
SPECIES	WETLAND STATUS	LBS/AC
ALTERNATE-LEAVED DOGWOOD (SWIDA ALTERNIFOLIA)	FACU	2.00
AMERICAN HAZELNUT (CORYLUS AMERICANA)	FACU	2.00
ARROWWOOD (VIBURNUM DENTATUM)	FAC	2.00
NANNYBERRY (VIBURNUM LENTAGO)	FAC	2.00

NOTE: HERBACEOUS AND SHRUB SEED MIXES TO BE APPLIED AT AN APPLICATION RATE RECOMMENDED BY THE SUPPLIER

SOD SEED MIX										
SPECIES	%									
KENTUCKY BLUEGRASS (POA PRATENSIS)	60-75									
PERENNIAL RYEGRASS (LOLIUM PERENNE)	10-20									
TALL FESCUE (SCHEDONORUS ARUNDINACEUS)	15									

NOTE: SOD SEED MIX TO BE USED INSTEAD OF HERBACEOUS SEED MIX AND SHRUB SEED MIX FOR AREA OF INCREASED INFILTRATION P-10.13A (STA 753+50 TO STA 756+50)

## PLANTING SCHEDULE B: SUPPLEMENTAL PLANTING AREAS

SUPPLEMENTAL PLANTINGS																																		
SPECIES	WETLAND STATUS	SPACING	PLANT SIZE																															
				H1	H2	H3	H4 NORTH	H4 SOUTH	S1	S2	S3 NORTH	S3 SOUTH	S4	S5 NORTH	S5 SOUTH	S6 NORTH	S6 SOUTH	S7	S8	S9	S10	S11	S12	S13	S14	S15	S16	S17	S18	S19	S20	S21	S22	S23
SUMMERSWEET CLETHRA (CLETHRA ALNIFOLIA)	FAC	48" O.C.	2' - 3'	58	26	30	12	9			16	23		12	20	12	10	18	5	16	10	14	15	8	6	4	15	18	30	100	11	27	3	11
ALTERNATE-LEAVED DOGWOOD (SWIDA ALTERNIFOLIA)	FACU	48" O.C.	24" - 30"	58	26	30	12	9	10	4	16	23	5	12	20	12	10	18	5	16	10	14	15	8	6	4	15	18	30	100	11	27	3	11
NORTHERN BAYBERRY (MYRICA PENSYLVANICA)	FAC	48" O.C.	2' - 3'	58	26	30	12	9	10	4	16	23	5	12	20	12	10	18	5	16	10	14	15	8	6	4	15	18	30	100	11	27	3	11
AMERICAN HAZELNUT (CORYLUS AMERICANA)	FACU	48" O.C.	2' - 3'	58	26	30	12	9	10	4	16	23		12	20	12	10	18	5	16	10	14	15	8	6	4	15	18	30	100	11	27	3	11

## **PLANTING NOTES:**

- 1. ALL PROPOSED PLANTING LOCATIONS SHALL BE STAKED AS SHOWN ON THE PLANS FOR FIELD REVIEW AND APPROVAL BY THE LANDSCAPE ARCHITECT OR ENVIRONMENTAL MONITOR PRIOR TO INSTALLATION.
- 2. ANY PROPOSED PLANT SUBSTITUTIONS MUST BE REVIEWED BY LANDSCAPE ARCHITECT AND APPROVED IN WRITING BY THE ENVIRONMENTAL MONITOR.
- 3. ONLY SPECIES ARE ALLOWED (NO HORTICULTURAL CULTIVARS OR VARIETIES).
- 4. SEED MIX AND PLANT STOCK SHALL BE OBTAINED FROM A NURSERY THAT SPECIALIZES IN NATIVE ECOLOGICAL PLANTINGS. PLANT STOCK SHALL BE SUPPLIED IN A PLANTING-READY CONDITION. ALL MATERIALS MUST BE INSPECTED AND APPROVED BY THE ENVIRONMENTAL MONITOR PRIOR TO BEING PLANTED. IF NOT PLANTED WITHIN 12 HOURS FROM WHEN THEY WERE COLLECTED, PLANTS SHALL BE STORED IN ACCORDANCE WITH RECOMMENDATIONS PROVIDED BY THE NURSERY.
- 5. PLANT STOCK WILL BE INSTALLED IN HAND-DUG HOLES IN LOCATIONS TO BE DETERMINED BY ENVIRONMENTAL MONITOR.
- 6. A 3-INCH DEEP MULCH PER SPECIFICATION SHALL BE INSTALLED UNDER ALL TREES AND SHRUBS, AND IN ALL PLANTINGS BEDS, UNLESS OTHERWISE INDICATED ON THE PLANS, OR AS DIRECTED BY THE ENVIRONMENTAL MONITOR.
- 7. NO FERTILIZERS SHALL BE APPLIED.
- 7. NO PLANT MATERIALS SHALL BE INSTALLED UNTIL ALL GRADING AND CONSTRUCTION HAS BEEN COMPLETED IN THE IMMEDIATE AREA. CONTRACTOR SHALL NOTIFY THE ENVIRONMENTAL MONITOR OF ANY CONFLICT.
- 8. ALL PLANT MATERIALS INSTALLED SHALL MEET THE SPECIFICATIONS OF THE "AMERICAN STANDARDS FOR NURSERY STOCK" BY THE AMERICAN ASSOCIATION OF NURSERYMEN AND CONTRACT DOCUMENTS.
- 9. ALL PLANT MATERIALS SHALL BE GUARANTEED FOR ONE YEAR FOLLOWING DATE OF FINAL ACCEPTANCE.
- 10. ALL TREES SHALL BE BALLED AND BURLAPPED, UNLESS OTHERWISE NOTED IN THE DRAWINGS OR SPECIFICATION, OR APPROVED BY THE ENVIRONMENTAL MONITOR.
- 11. FINAL QUANTITY FOR EACH PLANT TYPE SHALL BE AS GRAPHICALLY SHOWN ON THE PLAN. THIS NUMBER SHALL TAKE PRECEDENCE IN CASE OF ANY DISCREPANCY BETWEEN QUANTITIES SHOWN ON THE PLANT LIST AND ON THE PLAN. THE CONTRACTOR SHALL REPORT ANY DISCREPANCIES BETWEEN THE NUMBER OF PLANS SHOWN ON THE PLANT LIST AND PLANT LABELS PRIOR TO BIDDING.

- 12. AREAS DESIGNATED AS "LOAM & SEED" SHALL RECEIVE MINIMUM 4" OF LOAM AND SPECIFIED SEED MIX.
- 13. THIS PLAN IS INTENDED FOR PLANTING PURPOSES. REFER TO SITE/CIVIL DRAWINGS FOR ALL OTHER SITE CONSTRUCTION INFORMATION.

## **PLANT MAINTENANCE NOTES:**

- 1. CONTRACTOR SHALL PROVIDE COMPLETE MAINTENANCE OF SEEDED AREAS AND PLANTINGS. NO IRRIGATION IS PROPOSED FOR THIS SITE. THE CONTRACTOR SHALL SUPPLY SUPPLEMENTAL WATERING FOR SEEDED AREAS AND PLANTINGS DURING THE ONE YEAR PLANT GUARANTEE PERIOD.
- 2. CONTRACTOR SHALL PROVIDE ALL MATERIALS, LABOR, AND EQUIPMENT FOR THE COMPLETE LANDSCAPE MAINTENANCE WORK. WATER SHALL BE PROVIDED BY THE CONTRACTOR.
- 3. WATERING SHALL BE REQUIRED DURING THE GROWING SEASON, WHEN NATURAL RAINFALL IS BELOW ONE INCH PER WEEK.
- 4. WATER SHALL BE APPLIED IN SUFFICIENT QUANTITY TO THOROUGHLY SATURATE THE SOIL IN THE ROOT ZONE OF EACH PLANT.
- 5. PROTECT PLANTING AREAS AND PLANTS AGAINST TRESPASSING AND DAMAGE OF ALL KINDS FOR THE DURATION OF THE MAINTENANCE PERIOD. IF ANY PLANTS BECOME DAMAGED OR INJURED, THEY SHALL BE TREATED OR REPLACED AS REQUIRED.
- 6. CONTRACTOR SHALL REPLACE DEAD OR DYING PLANTS AT THE END OF THE ONE YEAR GUARANTEE PERIOD. CONTRACTOR SHALL TURN OVER MAINTENANCE TO THE FACILITY MAINTENANCE STAFF AT THAT TIME.

NO. DESCRIPTION BY DATE APPR.

REVISION

EVERSURCE

SUDBURY-HUDSON TRANSMISSION RELIABILITY PROJECT
HUDSON, STOW, MARLBOROUGH & SUDBURY MASSACHUSETTS
CONSTRUCTION DETAILS

PLAN 1610F347

SCALE: unless noted DATE DRAWN CH'K D. APPR. DRAWING NO. REV.

SK

MES

MS

JAN 2021

