PARKER RIVER RESTORATION PROJECT

LARKIN ROAD DAM REMOVAL
USGS GAGE WEIR REMOVAL
I-95 SCOUR COUNTERMEASURE

TOWN OF NEWBURY, ESSEX COUNTY, MASSACHUSETTS

FINAL DRAWINGS - ISSUED FOR BID

NEWBURY CONTRACT NO. 25-07

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FUNDING PARTNERS

- TOWN OF NEWBURY
- MA DEPT. OF FISH & GAME, DIV. OF ECOLOGICAL RESTORATION
- US FISH & WILDLIFE SERVICE
- NATIONAL OCEANIC & ATMOSPHERIC ADMINISTRATION RESTORATION CENTER

SOURCE: USGS *SCALE: 1" = 2000'*

PROJECT SITE

SOURCE: ESRI *SCALE: 1" = 500'*

500' 0 500' 1000'
SCALE: 1"=500'

2000' 0 2000' 4000'
SCALE: 1"=2000'

DIG-SAFE

CONTRACTOR SHALL CALL DIG-SAFE CALL CENTER AT 811 OR 1-888-344-7233 AT LEAST 72 HOURS PRIOR TO STARTING ANY EXCAVATION. SATURDAYS, SUNDAYS, AND LEGAL HOLIDAYS ARE NOT TO BE INCLUDED IN THE REQUIRED 72 HOUR NOTICE.

COMMONWEALTH OF MASSACHUSETTS
JILL W. GRIFFITHS
CIVIL
No. 51893
REGISTERED PROFESSIONAL ENGINEER

DATE	#	DESCRIPTIONS	BY	APP
06/04/25	0	ISSUED FOR BID	MAO	JWG

DRAWN BY: MAO
CHECKED BY: JWG
APPROVED BY: JWG
PROJECT NO. 02430 DATE: 06/04/2025

PARKER RIVER
RESTORATION PROJECT

COVER

Town of Newbury
12 Kent Way
Byfield, MA 01922

Gomez and Sullivan Engineers, D.P.C.
41 Liberty Hill Road
PO Box 2179
Henniker, NH 03242

SCALE: AS NOTED

DRAWING: G-1

DATA SOURCES

1. HORIZONTAL DATUM IS NORTH AMERICAN DATUM (NAD) 1983, MASSACHUSETTS STATE PLANE COORDINATE SYSTEM, MAINLAND ZONE. VERTICAL DATUM IS NORTH AMERICAN VERTICAL DATUM (NAVD) 1988 FEET.
2. CONTOUR INTERVAL SHOWN ON PLANS IS 1 FOOT.
3. BATHYMETRIC DATA WITHIN THE IMPOUNDMENT COLLECTED BY GOMEZ AND SULLIVAN ENGINEERS, DPC ON APRIL 28, 2022 AND CR ENVIRONMENTAL, INC NOVEMBER 17, 2022.
4. TOPOGRAPHIC SURVEY IN THE VICINITY OF LARKIN ROAD DAM CONDUCTED BY JE BELANGER LAND SURVEYING PLLC ON JULY 29, 2009. TOPOGRAPHIC SURVEY IN THE VICINITY OF THE USGS GAGE WEIR AND SUPPLEMENTAL SURVEY IN THE VICINITY OF LARKIN ROAD DAM CONDUCTED BY GOMEZ AND SULLIVAN ENGINEERS, DPC ON NOVEMBER 18, 2022.
5. ALL OTHER TOPOGRAPHY OUTSIDE SURVEY AREAS DERIVED FROM LIDAR DATA WITH A VERTICAL ACCURACY OF 0.56 FEET COLLECTED IN WINTER/SPRING 2011 AND OBTAINED FROM MASSGIS.
6. WETLAND BOUNDARIES DELINEATED BY CR ENVIRONMENTAL, INC ON AUGUST 11, 2009 (ENTIRE PROJECT AREA) AND NOVEMBER 17, 2022 (IN THE VICINITY OF LARKIN ROAD DAM AND USGS GAGE WEIR). WETLAND BOUNDARIES BEYOND THE PROJECT AREA DERIVED FROM 2005 MASSACHUSETTS DEPT. OF ENVIRONMENTAL PROTECTION (MASSDEP) WETLANDS DATA AND/OR AERIAL IMAGERY.
7. PROPERTY BOUNDARIES OBTAINED FROM MASSGIS.
8. BORDERING LAND SUBJECT TO FLOODING (BLSF) DEPICTED ON THE PLANS IS BASED ON THE 100-YEAR FLOOD INUNDATION MAPPING DEVELOPED BY GOMEZ AND SULLIVAN ENGINEERS, DPC FOR EXISTING AND PROPOSED CONDITIONS. THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) 100-YEAR REGULATORY FLOODPLAIN (ZONE AE) IS ALSO SHOWN FOR REFERENCE BUT IS ASSUMED TO BE LESS ACCURATE THAN THE MODELED BLSF.

GENERAL NOTES

1. CONTRACTOR SHALL CONFIRM THE LOCATION OF ALL UTILITIES PRIOR TO THE COMMENCEMENT OF EXCAVATION. CONTRACTOR SHALL NOTIFY DIG SAFE MASSACHUSETTS AT 811 OR 1-888-344-7233 AT LEAST 72 HOURS PRIOR TO COMMENCING ANY EXCAVATION. SATURDAYS, SUNDAYS, AND LEGAL HOLIDAYS ARE NOT TO BE INCLUDED IN THE REQUIRED 72 HOUR NOTICE.
2. CONTRACTOR SHALL MAINTAIN CONTROL POINTS DURING CONSTRUCTION, INCLUDING BENCHMARKS AND ELEVATIONS AT CRITICAL AREAS. SITE LAYOUT SURVEY REQUIRED FOR CONSTRUCTION SHALL BE PROVIDED BY THE CONTRACTOR AND PERFORMED BY A MASSACHUSETTS' REGISTERED PROFESSIONAL LAND SURVEYOR. ALL GRADE STAKES SET BY SURVEYOR SHALL BE MAINTAINED BY CONTRACTOR UNTIL FINAL INSPECTION OF THE ITEM HAS BEEN COMPLETED BY ENGINEER.
3. EXCESSIVE IDLING DURING THE CONSTRUCTION PERIOD IS PROHIBITED. SIGNS SHALL BE POSTED AT THE SITE LIMITING IDLING TO 5 MINUTES OR LESS. PERIODIC INSPECTIONS SHALL BE CONDUCTED BY SITE SUPERVISORS TO ENSURE COMPLIANCE. STAGING AREAS SHALL BE LOCATED TO MINIMIZE EMISSION IMPACTS TO ABUTTING PROPERTIES.
4. ACCESS AGREEMENTS HAVE BEEN EXECUTED BETWEEN THE TOWN OF NEWBURY AND 12 KENT WAY, LLC FOR WORK ON PARCEL U14-0-2A AND BETWEEN THE TOWN OF NEWBURY AND JOANNE C. PURINTON FOR WORK ON PARCEL U14-0-1.

PERMIT CONDITIONS

1. CONTRACTOR SHALL COMPLY WITH ALL CONDITIONS CONTAINED IN RELEVANT PERMITS, INCLUDING, BUT NOT LIMITED TO, THE FOLLOWING.
2. IN ACCORDANCE WITH THE PROJECT ARCHEOLOGICAL SITE AVOIDANCE AND PROTECTION PLAN (ASAPP), THE PROJECT ARCHAEOLOGIST, THE PUBLIC ARCHAEOLOGICAL LABORATORY, INC. (PAL), WILL INSPECT AND MONITOR SENSITIVE ARCHEOLOGICAL AREAS DURING CONSTRUCTION TO ENSURE THAT THE AVOIDANCE AND PROTECTION CONTROLS ARE BEING PROPERLY INSTALLED, MAINTAINED, AND OBSERVED BY THE CONTRACTOR. ASAPP CONDITIONS INCLUDE, BUT ARE NOT LIMITED TO, 1) INSTALLATION OF HIGH-VISIBILITY PROTECTIVE FENCING AND SIGNAGE ALONG EDGES OF ALL TEMPORARY ACCESS AND STAGING AREAS, 2) NO GROUND DISTURBANCE IN SENSITIVE AREAS BEYOND FENCE LIMITS, 3) ALL TEMPORARY ACCESS, STAGING, AND DEWATERING AREAS WITHIN SENSITIVE AREAS SHALL BE PROTECTED FROM GROUND DISTURBANCE WITH GEOTEXTILE FABRIC AND A 12" MIN. GRAVEL SUBBASE, AND 4) NO STONES SHALL BE DISTURBED FROM THE "STONE WALL ENCLOSURE" AT THE USGS GAGE SITE SHOWN ON THE PLANS.
3. CUTTING OF TREES NECESSARY FOR ACCESS HAS BEEN COMPLETED BY THE TOWN. CONTRACTOR IS RESPONSIBLE FOR CLEARING OF FELLED TREES. NO TREE CUTTING SHALL OCCUR DURING THE TIME-OF-YEAR (TOY) RESTRICTION FOR NORTHERN LONG-EARED BATS (NLEB) WITHOUT CONSULTATION WITH AND APPROVAL FROM THE US FISH AND WILDLIFE SERVICE (USFWS). THE NLEB TOY IS ASSUMED TO BE APRIL 1 THROUGH OCTOBER 1 IN A GIVEN YEAR, BUT MUST BE CONFIRMED WITH USFWS FOR ANY PROPOSED CUTTING. NO STUMP REMOVAL OR GRUBBING OF ROOT SYSTEMS BELOW GROUND SURFACE WILL BE PERMITTED WITHIN SENSITIVE ARCHEOLOGICAL AREAS DESIGNATED IN THE ASAPP.
4. IN ACCORDANCE WITH THE FISHWAY CONSTRUCTION PERMIT (TO BE FINALIZED IN COORDINATION WITH CONTRACTOR), IN-WATER AND SILT-PRODUCING WORK SHALL NOT BE CONDUCTED DURING THE TOY RESTRICTION OF APRIL 1 THROUGH JUNE 15 OF ANY GIVEN YEAR. THE MASSACHUSETTS DEPARTMENT OF FISH AND GAME, DIVISION OF MARINE FISHERIES (DMF) MUST APPROVE THE WATER CONTROL PLAN AND INSPECT ALL INSTALLED WATER CONTROL MEASURES.
5. THE USGS WILL REMOVE STREAM GAGING EQUIPMENT FROM THE RIVER AT THE GAGING STATION PRIOR TO CONSTRUCTION AND WILL RESET AND RECALIBRATE THE EQUIPMENT FOLLOWING CONSTRUCTION. THE USGS SHALL APPROVE THE WATER CONTROL PLAN FOR THE WEIR SITE. IT IS DESIRED TO HAVE THE GAGING EQUIPMENT REINSTALLED WITHIN 2 WEEKS OF ITS REMOVAL; OTHERWISE, A TEMPORARY GAGE MAY NEED TO BE INSTALLED BY USGS.

CONSTRUCTION WASTE MANAGEMENT

1. SITE SHALL BE KEPT WELL ORGANIZED, SIGNED, AND FREE OF WASTE MATERIALS, DEBRIS, AND RUBBISH AT ALL TIMES. GOOD HOUSEKEEPING PRACTICES SHALL BE MAINTAINED ON A CONTINUOUS BASIS FROM WORK SITE TO WORK SITE. DISPOSAL OF ANY WASTE MATERIALS ON THE CONSTRUCTION SITE IS PROHIBITED.
2. SANITARY, WASTE DISPOSAL, AND EMPLOYEE FACILITIES SHALL BE PROVIDED BY CONTRACTOR.
3. ALL WATER RESOURCES (E.G., GROUND AND SURFACE WATERS), INCLUDING ALL DRAINS AND CATCH BASINS, SHALL BE PROTECTED FROM LEACHING AND/OR RUN-OFF OF CHEMICAL POLLUTANTS, SOLID WASTES, AND CONSTRUCTION SITE DEBRIS. ALL CATCH BASINS SHALL BE MAINTAINED FREE FLOWING.
4. ALL COMBUSTIBLE WASTE MATERIALS SHALL BE PLACED IN COVERED METAL CONTAINERS AND PROMPTLY DISPOSED OF IN AN APPROVED MANNER AT AN APPROVED WASTE DISPOSAL FACILITY.
5. STORAGE AND/OR USE OF CHEMICALS, FUELS, OILS, GREASES, BITUMINOUS MATERIALS, SOLIDS, WASTE WASHINGS, AND CEMENT SHALL BE HANDLED APPROPRIATELY AS TO PREVENT LEACHING OR SURFACE RUNOFF INTO PUBLIC WATERS OR DRAINS. ALL APPROVED STORAGE AREAS FOR THESE MATERIALS MUST BE DIKED.
6. ALL ROADWAYS SHALL BE MAINTAINED FREE OF DEBRIS. STABILIZED CONSTRUCTION ENTRANCES SHALL BE CONSTRUCTED TO CAPTURE DEBRIS FROM WHEELS OF CONSTRUCTION VEHICLES. VEHICLES SHALL BE INSPECTED AT ENTRANCES BEFORE TURNING ONTO THE ROADWAY AND EXCESS DEBRIS SHALL BE REMOVED.
7. ALL EXCESS DREDGED MATERIALS SHALL BE REMOVED FROM THE SITE AS SOON AS POSSIBLE AND IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS FOR REUSE AND DISPOSAL.

POLLUTION CONTROL

1. A CHEMICAL AND OIL SPILL PREVENTION AND CLEANUP PLAN SHALL BE PROVIDED BY THE CONTRACTOR AND IMPLEMENTED DURING THE COURSE OF WORK.
2. CONTRACTOR SHALL MAINTAIN, ON SITE, SUFFICIENT QUANTITIES OF ABSORBENT MATERIALS FOR USE IN CASE OF CHEMICAL OR OIL SPILLS.
3. ALL EQUIPMENT SHALL BE INSPECTED PRIOR TO ENTERING WETLAND RESOURCE AREAS. ANY WORN HYDRAULIC LINES SHALL BE REPLACED PRIOR TO COMMENCING WORK.
4. IN THE EVENT OF ANY ACTUAL OR SUSPECTED SPILL OF ANY CHEMICAL, PETROLEUM PRODUCT, OR WASTE WATER, CONTRACTOR SHALL IMMEDIATELY NOTIFY RELEVANT AGENCIES AND PROMPTLY TAKE ALL MEASURES NECESSARY TO CONTROL THE SPREAD OF THE SPILLED MATERIAL AND TO CLEAN IT UP.
5. AN INCIDENT NOTIFICATION PROCEDURE WILL BE DEVELOPED BY THE ENGINEER AND FILED WITH MASSDEP IN ACCORDANCE WITH THE 401 WATER QUALITY CERTIFICATION. CONTRACTOR SHALL COMPLY WITH THE NOTIFICATION PROCEDURE SPECIFIED THEREIN FOR ANY OBSERVED DEAD OR DISTRESSED FISH OR OTHER ORGANISMS, OILY SHEEN ON WATER SURFACES, SEDIMENT SPILLS, OR NON-PERMITTED TURBIDITY PLUMES BEYOND DEPLOYED BMPS.

CARE AND DIVERSION OF WATER

1. CONTRACTOR SHALL PREPARE A WATER CONTROL PLAN STAMPED BY A PROFESSIONAL ENGINEER LICENSED IN MASSACHUSETTS TO BE APPROVED BY ENGINEER, MADMF, AND USGS, INCLUDING 1) PROPOSED COFFERDAM/TEMPORARY BYPASS PLAN, DETAILS, AND CALCULATIONS 2) WATER CONTROL CONTINGENCY PLAN, AND 3) DEWATERING/SEDIMENT CONTROL METHODS. WATER CONTROL PLAN SHALL CONFORM TO ALL APPLICABLE ENVIRONMENTAL PERMIT REQUIREMENTS AND CONDITIONS.
2. CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT DAMAGE TO WORK OR EQUIPMENT BY HIGH WATER OR STORMS.
3. ANY WATER PUMPED FROM THE EXCAVATION MUST FLOW THROUGH A SEDIMENT FILTER BAG (OR APPROVED EQUAL) PRIOR TO RELEASE INTO ANY WATERBODY.
4. BASED ON A FLOOD FREQUENCY ANALYSIS OF ANNUAL PEAK FLOW AT USGS GAGE NO, 01101000 (PARKER RIVER AT BAYFIELD) THROUGH 2020 AND REGIONAL REGRESSION EQUATIONS, CONSERVATIVE ESTIMATES FOR THE 2-, 10-, 50-, AND 100-YEAR FLOODS (50%, 10%, 2%, & 1% AEP) ARE 307, 639, 1,010 AND 1,190 CUBIC FEET PER SECOND (CFS) RESPECTIVELY.
5. BASED ON A DURATION ANALYSIS OF AVG. DAILY FLOWS AT USGS GAGE NO. 01101000 THROUGH JUNE 2023, THE ANNUAL MEDIAN FLOW IS APPROX. 24 CFS AND THE 5% EXCEEDANCE FLOW FOR THE MONTHS OF JUL. THROUGH DEC. RANGES FROM APPROX. 28 CFS IN AUG. TO 124 CFS. IN DEC.

TEMPORARY ACCESS ROUTE STABILIZATION

1. DEFINITION: THE STABILIZATION OF TEMPORARY CONSTRUCTION ACCESS ROUTES, ON-SITE VEHICLE TRANSPORTATION ROUTES, AND CONSTRUCTION PARKING AREAS.
2. PURPOSE: TO CONTROL EROSION ON TEMPORARY CONSTRUCTION ROUTES AND PARKING AREAS.
3. CONDITION WHERE PRACTICE APPLIES: ALL TRAFFIC ROUTES AND PARKING AREAS FOR TEMPORARY USE BY CONSTRUCTION TRAFFIC.
4. DESIGN CRITERIA: CONSTRUCTION ROADS SHOULD BE LOCATED TO REDUCE EROSION POTENTIAL, MINIMIZE IMPACT ON EXISTING SITE RESOURCES, AND MAINTAIN OPERATIONS IN A SAFE MANNER. HIGHLY EROSIVE SOILS, WET OR ROCKY AREAS, AND STEEP SLOPES SHOULD BE AVOIDED. ROADS SHOULD BE ROUTED WHERE SEASONAL WATER TABLES ARE DEEPER THAN 18 INCHES. SURFACE RUNOFF AND CONTROL SHOULD BE IN ACCORDANCE WITH OTHER STANDARDS.
5. ROAD GRADE: A MAXIMUM GRADE OF 12% IS RECOMMENDED, ALTHOUGH GRADES UP TO 20% ARE ACCEPTABLE FOR SHORT DISTANCES.
6. ROAD WIDTH: 12 FT (9 FT MINIMUM) FOR ONE-WAY TRAFFIC, OR 24 FT MINIMUM FOR TWO-WAY TRAFFIC.
7. SIDE SLOPE OF ROAD EMBANKMENT: 2:1 OR FLATTER.
8. COMPOSITION: USE AN 12-INCH LAYER OF STATE DOT APPROVED GRAVEL SUB-BASE OR EQUIVALENT, PLACED ON A GEOTEXTILE FABRIC.
9. MAINTENANCE: ACCESS ROUTES AND PARKING AREAS SHALL BE INSPECTED PERIODICALLY FOR CONDITION OF SURFACE AND TOPDRESSED WITH NEW GRAVEL AS NEEDED.
10. RESTORATION: UPON COMPLETION OF THE WORK, ALL TEMPORARY MATERIALS SHALL BE REMOVED AND THE SITE SHALL BE RESTORED TO PRE-PROJECT CONDITIONS EXCEPT AS INDICATED ON THE PLANS.

SOIL EROSION AND SEDIMENTATION CONTROL

1. ALL WORK SHALL BE CONDUCTED IN ACCORDANCE WITH MASSDEP EROSION AND SEDIMENTATION CONTROL GUIDELINES AND APPLICABLE NPDES STANDARDS.
2. ALL APPLICABLE SOIL EROSION AND SEDIMENT CONTROL PRACTICES ARE TO BE INSTALLED PRIOR TO ANY SOIL OR STREAM DISTURBANCE, OR IN THEIR PROPER SEQUENCE, AND MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED.
3. PROTECT EXISTING TREES FROM DAMAGE FROM CONSTRUCTION OPERATIONS. PROTECT TREE ROOT SYSTEMS FROM DAMAGE, FLOODING, AND EROSION.
4. PROTECT POORLY DRAINED SOILS FROM CONSTRUCTION OPERATIONS. INSTALL TEMPORARY ACCESS MATTING ON POORLY DRAINED SOILS WHEN DEVIATING FROM THE TEMPORARY ACCESS ROAD.
5. ALL DISTURBED AREAS THAT WILL BE LEFT EXPOSED MORE THAN FOURTEEN (14) DAYS, AND NOT SUBJECT TO CONSTRUCTION TRAFFIC, SHALL IMMEDIATELY RECEIVE A TEMPORARY SEEDING WITH A NATIVE SEED MIXTURE. MULCH, WATER AND ANCHOR AS NECESSARY TO ESTABLISH GRASS AND PREVENT LOSS TO WIND OR EROSION. IF THE SEASON PREVENTS THE ESTABLISHMENT OF A TEMPORARY COVER, THE DISTURBED AREAS SHALL BE MULCHED WITH SMALL GRAIN STRAW AT A RATE OF TWO (2) TONS PER ACRE IN ACCORDANCE WITH STATE STANDARDS.
6. PERMANENT VEGETATION SHALL BE SEEDED WITH NEW ENGLAND EROSION CONTROL/RESTORATION MIX FOR DRY SITES OR APPROVED EQUAL ON ALL EXPOSED AREAS IMMEDIATELY AFTER FINAL GRADING. MULCH SHALL BE USED AS NECESSARY FOR PROTECTION UNTIL SEEDING IS ESTABLISHED.
7. ALL CRITICAL AREAS SUBJECT TO EROSION SHALL RECEIVE A TEMPORARY SEEDING WITH AN APPROVED NATIVE SEED MIXTURE IN COMBINATION WITH STRAW MULCH, AT A RATE OF TWO (2) TONS PER ACRE IN ACCORDANCE WITH STATE STANDARDS.
8. SHOULD THE CONTROL OF DUST AT THE SITE BE NECESSARY, THE SITE SHALL BE SPRINKLED WITH WATER UNTIL THE SURFACE IS WET, TEMPORARY VEGETATIVE COVER SHALL BE ESTABLISHED, OR MULCH SHALL BE APPLIED IN ACCORDANCE WITH STATE STANDARDS FOR EROSION CONTROL.
9. ALL SOIL WASHED, DROPPED, SPILLED, OR TRACKED OUTSIDE THE LIMIT OF DISTURBANCE OR ONTO PUBLIC RIGHTS-OF-WAY SHALL BE REMOVED IMMEDIATELY.
10. STOCKPILE AND STAGING LOCATIONS DETERMINED IN THE FIELD SHALL BE PLACED WITHIN THE LIMIT OF DISTURBANCE. ALL SOIL STOCKPILES SHALL BE TEMPORARILY STABILIZED IN ACCORDANCE WITH NOTE #5 AND PROTECTED BY COMPOST FILTER SOCKS ON DOWNHILL SIDES.
11. TOPSOIL USED FOR PERMANENT SITE STABILIZATION SHALL BE FRIABLE AND LOAMY. APPLY 6 INCHES OF TOP SOIL IN ALL AREAS THAT REQUIRE PERMANENT STABILIZATION AFTER CONSTRUCTION IS COMPLETE. IF TOPSOIL IS LEFT EXPOSED WITH A LOOSE, ROUGH, OR IRREGULAR SURFACE AFTER CONSTRUCTION FILL OPERATIONS THE TOPSOIL SHALL BE SMOOTHED WITH BLADE AND ROLL.
12. THE CONTRACTOR SHALL INSPECT DISTURBED AREAS OF THE CONSTRUCTION SITE, AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION AND THAT HAVE NOT BEEN FINALLY STABILIZED, STABILIZATION PRACTICES, STRUCTURAL PRACTICES, AND OTHER CONTROLS AT LEAST ONCE EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS AFTER THE END OF ANY STORM THAT PRODUCES AT LEAST 0.5 INCHES OF RAINFALL AT THE SITE. WHERE SITES HAVE BEEN FINALLY STABILIZED, SUCH INSPECTION SHALL BE CONDUCTED AT LEAST ONCE EVERY MONTH UNTIL FINAL COMPLETION. CRITICAL AREAS AND AREAS WHERE VEHICLES EXIT THE SITE SHALL BE INSPECTED DAILY.

CONSTRUCTION SEQUENCE

1. CONTRACTOR SHALL PREPARE A CONSTRUCTION SEQUENCE PLAN TO BE APPROVED BY OWNER AND ENGINEER. THE FOLLOWING GENERAL SEQUENCE SHALL BE ADAPTED FOR THE SITE-SPECIFIC REQUIREMENTS.
2. SURVEY AND STAKE THE PROPOSED LIMIT OF DISTURBANCE AND LIMIT OF EROSION CONTROLS. INSTALL EROSION CONTROLS AND CONTAINMENT MEASURES AS INDICATED IN THE PLANS.
3. FLAG BOUNDARY OF BORDERING VEGETATED WETLAND IN THE VICINITY OF THE PROPOSED WORK AREA.
4. FLAG LIMITS OF CLEARING. TREES TO BE REMOVED OR PROTECTED TO BE APPROVED BY OWNER'S REPRESENTATIVE PRIOR TO ANY WORK. CLEAR AND GRUB ALONG APPROVED ACCESS ROUTES AS NEEDED.
5. INSTALL TEMPORARY EROSION AND POLLUTION CONTROLS, STAGING AREA, AND TEMPORARY ACCESS RAMPS/ROUTES AS NEEDED. UTILIZE SWAMP MATS (OR APPROVED EQUAL) TO MINIMIZE DISTURBANCE TO WETLAND AREAS.
6. INSTALL DEWATERING AND/OR WATER DIVERSION MEASURES AS NECESSARY IN ACCORDANCE WITH THE APPROVED WATER CONTROL PLAN.
7. COMMENCE SITE WORK (SEE DETAILED SEQUENCE ON PROPOSED ACCESS PLAN FOR EACH SITE).
8. STOCKPILE ANY EXCESS DREDGED SEDIMENT FOR DEWATERING WITH COMPOST FILTER SOCKS OR APPROVED EQUAL INSTALLED ON DOWNSLOPE SIDES. DEWATERED SEDIMENT TO BE TRANSPORTED OFFSITE AND FOR LAWFUL REUSE OR DISPOSAL.
9. REMOVE TEMPORARY DEWATERING/WATER DIVERSION MEASURES.
10. REMOVE ANY TEMPORARY ACCESS ROUTES. RESTORE ACCESS AND STAGING AREAS TO FORMER CONDITIONS.
11. LOAM AND SEED DISTURBED AREAS WITH A NATIVE SEED MIXTURE APPROVED BY ENGINEER.
12. REMOVE EROSION AND POLLUTION CONTROL MEASURES ONLY AFTER ALL AREAS ARE STABILIZED WITH VEGETATIVE COVER TO THE SATISFACTION OF ENGINEER.

WETLAND RESOURCE AREA IMPACTS

WETLAND RESOURCE	AREA (SF)	
	TEMP. DISTURBANCE	PERMANENT CHANGE
BANK (LINEAR FEET)	770	-600
LAND UNDER WATER (LUW)	17,000	-67,000
BORDERING VEGETATED WETLANDS (BVW)	800	67,000
BORDERING LAND SUBJECT TO FLOODING (BLSF)	700	30,000
BVW BUFFER ZONE	20,000	0
RIVERFRONT AREA (RFA)	20,000	-37,000

DREDGE/FILL QUANTITIES

CATEGORY	DESCRIPTION	VOLUME (CY) OR DIMENSIONS AS SPECIFIED			
		LARKIN DAM	I-95 BRIDGE	USGS WEIR	TOTAL
DREDGE VOLUME	PASSIVE SEDIMENT RELEASE	1,000	-	-	1,000
	ACTIVE SEDIMENT DREDGING	260	700	340	1,300
	CONCRETE REMOVAL	62	-	13	75
	STONE MASONRY REMOVAL	3	-	22	25
	TOTAL DREDGE	**1,325**	**700**	**375**	**2,400**
FILL VOLUME	RIPRAP+FILTER STONE	-	1,300	170	**1,470**
	TOTAL FILL	**-**	**1,300**	**170**	**1,470**
NET DREDGE/FILL VOLUME	*NEGATIVE = NET DREDGE*	**-1,350**	**600**	**-205**	**-930**
DREDGE EXTENTS	LENGTH (FT)	170	260	50	**480**
	MAX WIDTH (FT)*	70	35	25	**70**
	MAX DEPTH (FT)*	7	4	5	**7**
	AREA (SF)	4,970	11,580	2,510	**19,060**
FILL EXTENTS	LENGTH (FT)	-	260	50	**310**
	MAX WIDTH (FT)*	-	35	25	**35**
	MAX DEPTH (FT)*	-	4	4	**4**
	AREA (SF)	-	11,580	2,510	**14,090**

*WIDTH AND DEPTH REPORTED AS MAXIMUM VALUES RATHER THAN TOTALS FOR PROJECT TOTAL.

COMMONWEALTH OF MASSACHUSETTS
JILL W. GRIFFITHS
CIVIL
No. 51893
REGISTERED PROFESSIONAL ENGINEER

DATE	#	DESCRIPTIONS	BY	APP
06/04/25	0	ISSUED FOR BID	MAO	JWG

DRAWN BY: MAO
CHECKED BY: JWG
APPROVED BY: JWG
PROJECT NO. 02430 DATE: 06/04/2025

PARKER RIVER RESTORATION PROJECT

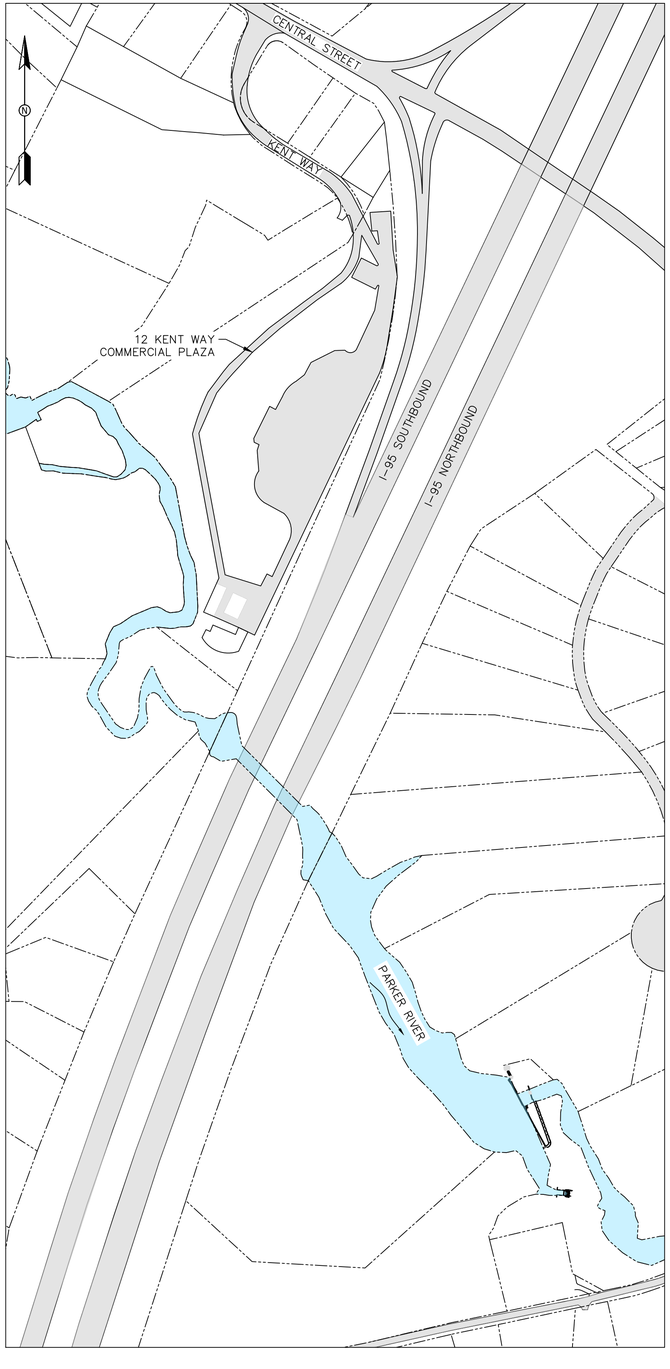
GENERAL NOTES

Town of Newbury
12 Kent Way
Byfield, MA 01922

Gomez and Sullivan Engineers, D.P.C.
41 Liberty Hill Road
PO Box 2179
Henniker, NH 03242

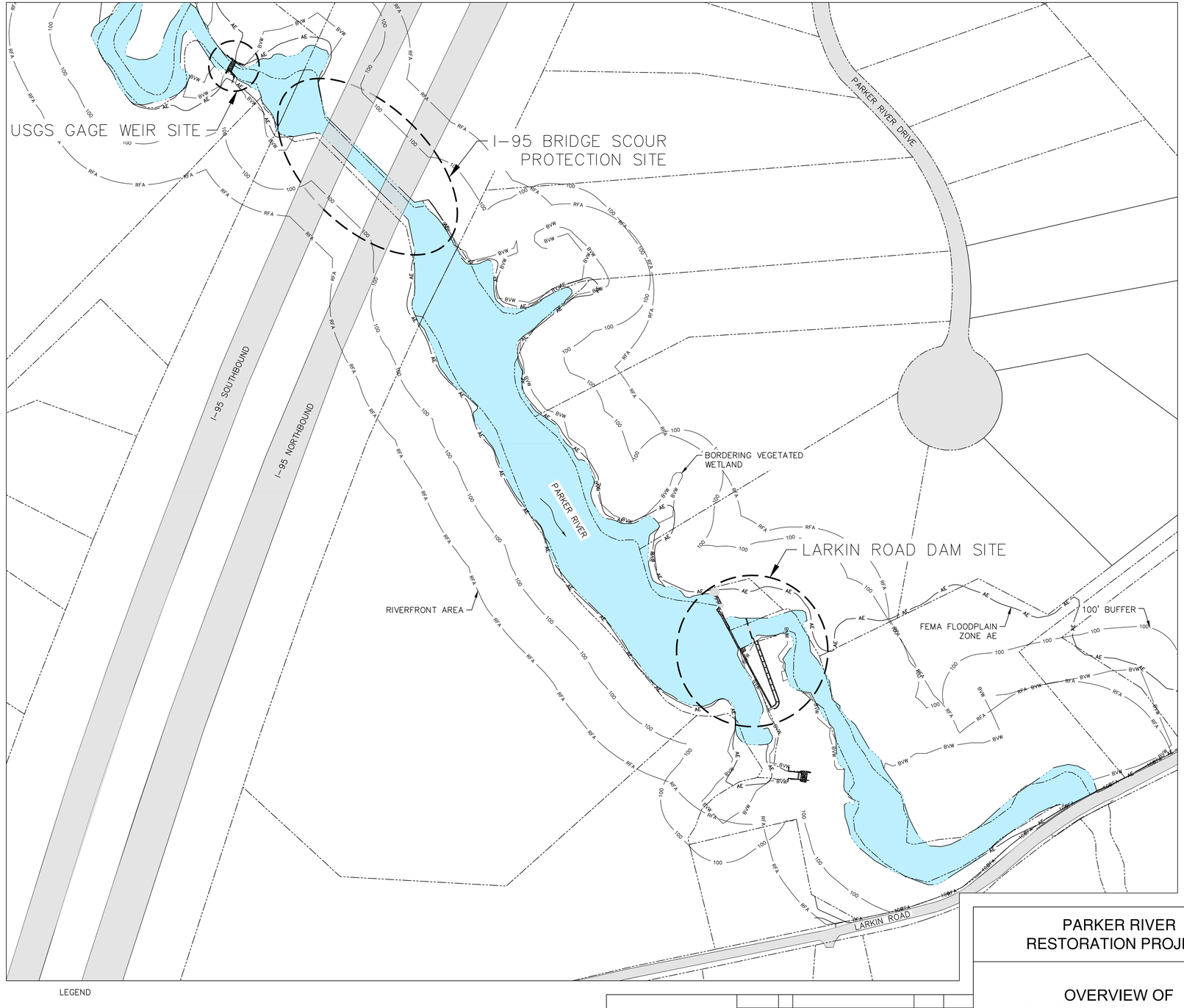
SCALE: NONE

DRAWING: G-2



OVERVIEW PLAN
SCALE: 1"=200'

200' 0 200' 400'
SCALE: 1"=200'



LEGEND

- BANK/MEAN ANNUAL HIGH WATER (MAHW)/ORDINARY HIGH WATER (OHW)
- BVW — BORDERING VEGETATED WETLAND (BVW)
- 100 — 100' BUFFER
- RFA — RIVERFRONT AREA
- AE — FEMA FLOODPLAIN ZONE AE
- EXISTING FENCE
- PROPERTY BOUNDARY
- APPROXIMATE WATER SURFACE EXTENTS (MAHW/OHW)

SITE PLAN
SCALE: 1"=100'

100' 0 100' 200'
SCALE: 1"=100'

COMMONWEALTH OF MASSACHUSETTS
JILL W. GRIFFITHS
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No. 51893
REGISTERED PROFESSIONAL ENGINEER

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DRAWN BY: MAO
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PARKER RIVER RESTORATION PROJECT

OVERVIEW OF EXISTING PROJECT AREA

Town of Newbury
12 Kent Way
Byfield, MA 01922

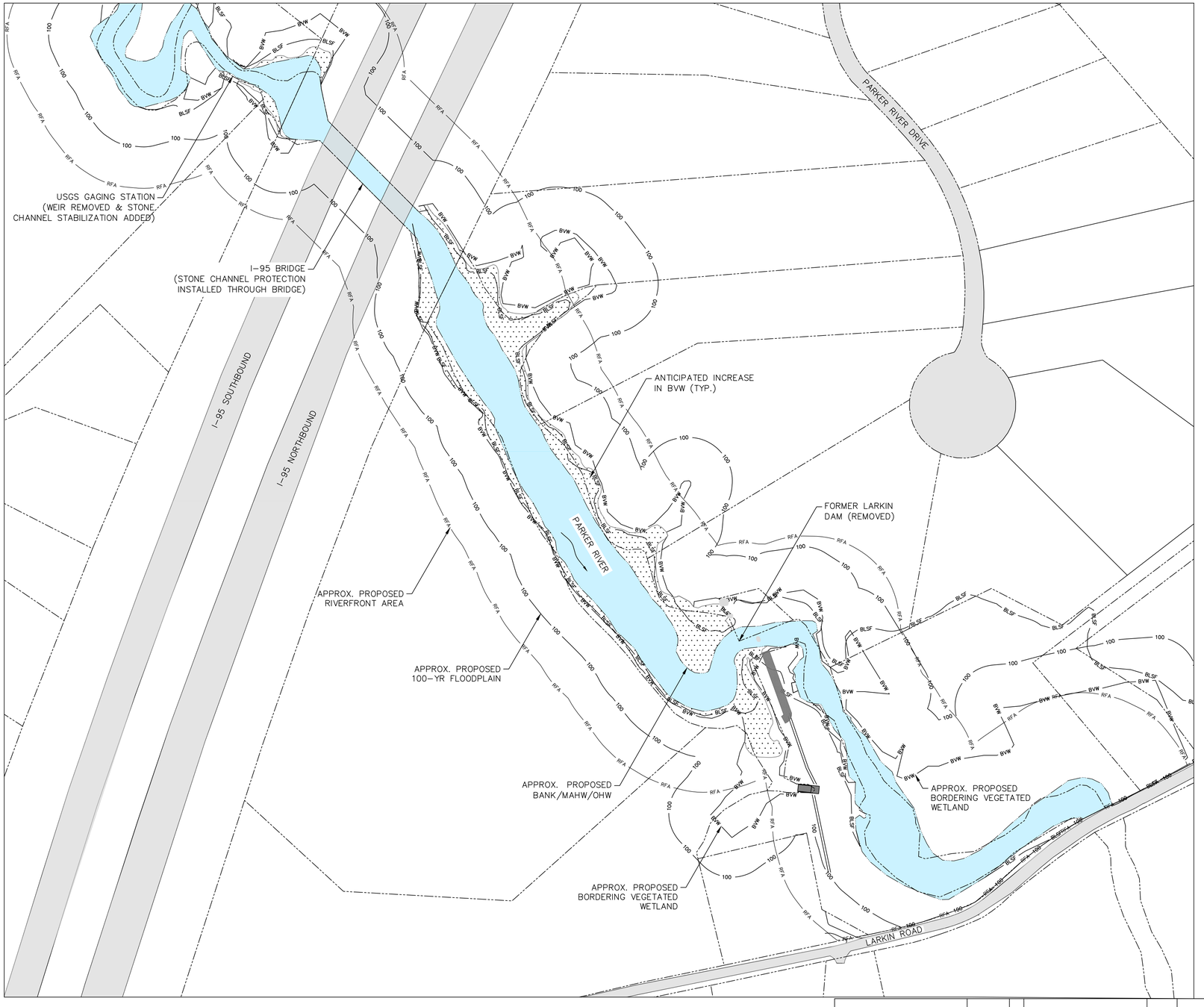
Gomez and Sullivan Engineers, D.P.C.
41 Liberty Hill Road
PO Box 2179
Henniker, NH 03242

SCALE: AS NOTED

DRAWING: G-3

LEGEND

- EXISTING BANK/MEAN ANNUAL HIGH WATER (MAHW)/ORDINARY HIGH WATER (OHW)
- BVW — BORDERING VEGETATED WETLAND (BVW)
- 100 — 100' BUFFER
- RFA — RIVERFRONT AREA
- BLSF — BORDERING LAND SUBJECT TO FLOODING
- PROPERTY BOUNDARY
- NEW BORDERING VEGETATED WETLAND
- APPROXIMATE PROPOSED WATER SURFACE EXTENTS (MAHW/OHW)



SITE PLAN
SCALE: 1"=100'

100' 0 100' 200'
SCALE: 1"=100'

COMMONWEALTH OF MASSACHUSETTS
JILL W. GRIFFITHS
CIVIL
No. 51893
REGISTERED PROFESSIONAL ENGINEER

DATE	#	DESCRIPTIONS	BY	APP
06/04/25	0	ISSUED FOR BID	MAO	JWG

DRAWN BY: MAO
CHECKED BY: JWG
APPROVED BY: JWG
PROJECT NO. 02430 DATE: 06/04/2025

PARKER RIVER RESTORATION PROJECT

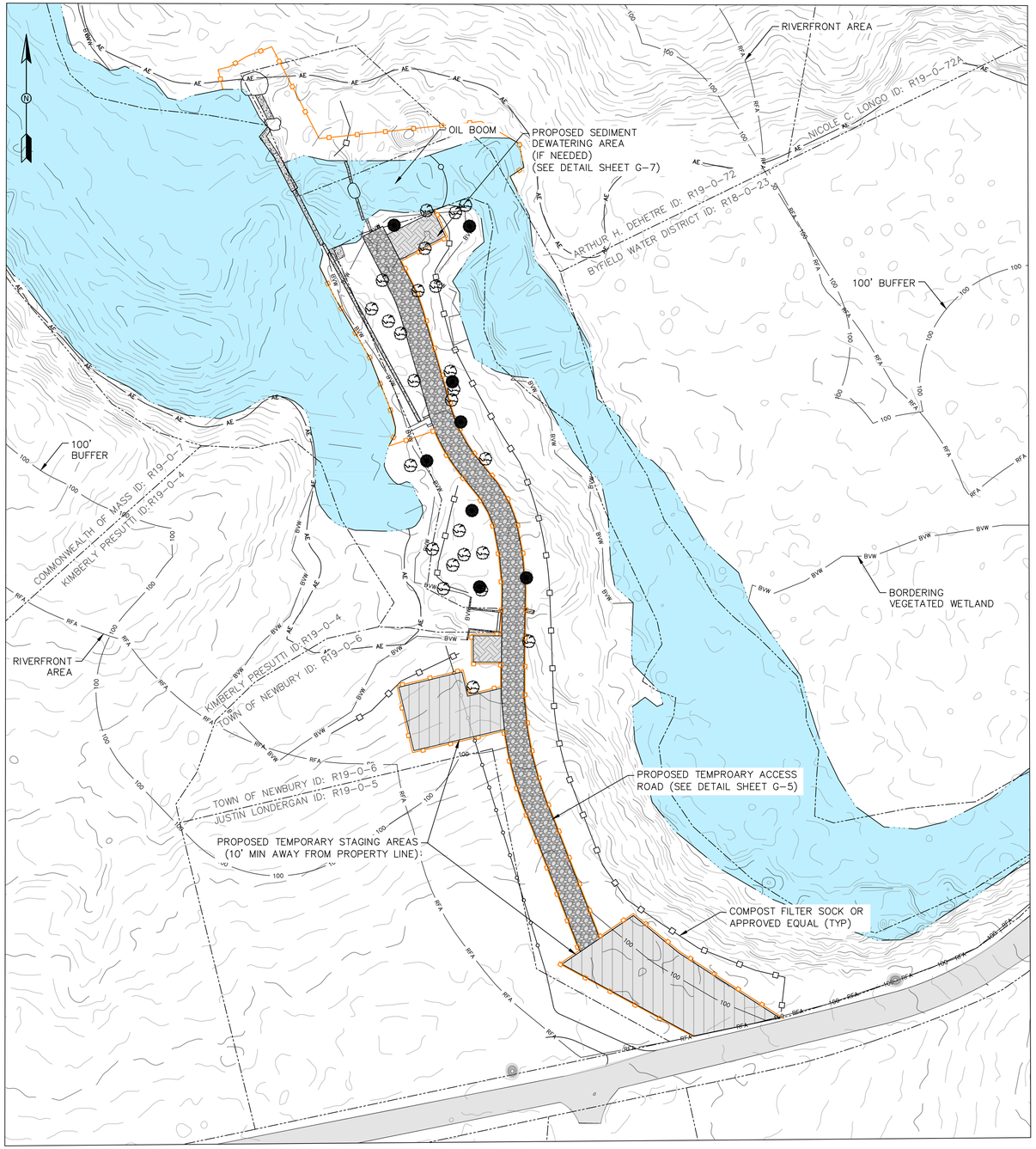
OVERVIEW OF PROPOSED PROJECT AREA

Town of Newbury
12 Kent Way
Byfield, MA 01922

Gomez and Sullivan Engineers, D.P.C.
41 Liberty Hill Road
PO Box 2179
Henniker, NH 03242

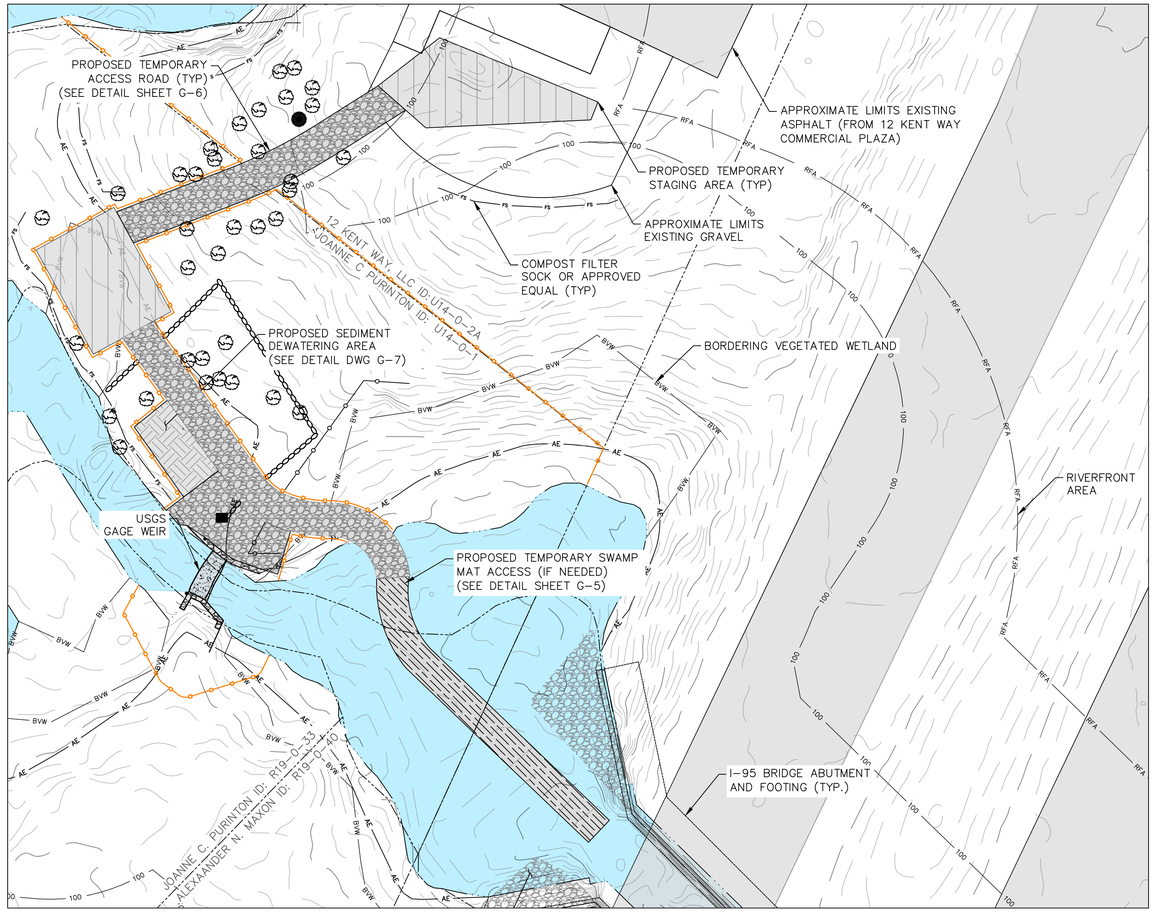
SCALE: AS NOTED

DRAWING: G-4



LARKIN ROAD DAM SITE PLAN
SCALE: 1"=40'

40' 0 40' 80'
SCALE: 1"=40'



USGS GAGE WEIR AND I-95 BRIDGE ACCESS PLAN
SCALE: 1"=30'

30' 0 30' 60'
SCALE: 1"=30'

LEGEND

- BANK/MEAN ANNUAL HIGH WATER (MAHW)/ORDINARY HIGH WATER (OHW)
- BVW — BORDERING VEGETATED WETLAND (BVW)
- 100 — 100' BUFFER
- RFA — RIVERFRONT AREA
- FENCE
- PROPERTY BOUNDARY
- FS — COMPOST FILTER SOCK
- HIGH VISIBILITY FENCE
- CONIFEROUS TREE
- DECIDUOUS TREE
- APPROXIMATE EXTENTS OF WATER SURFACE (MAHW/OHW)

COMMONWEALTH OF MASSACHUSETTS
JILL W. GRIFFITHS
CIVIL
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DRAWN BY: MAO
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PARKER RIVER RESTORATION PROJECT

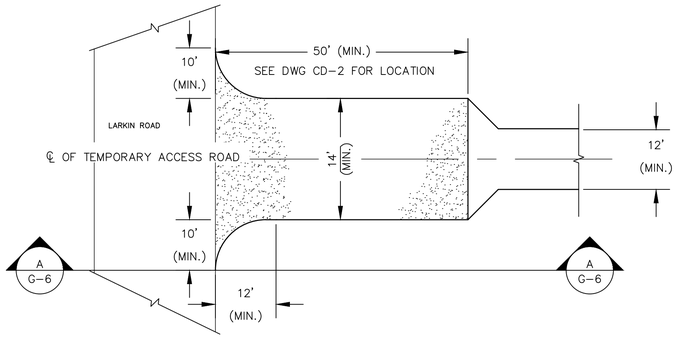
EROSION AND SEDIMENT CONTROL PLAN

Town of Newbury
12 Kent Way
Byfield, MA 01922

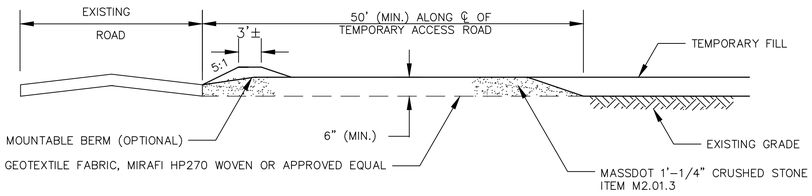
Gomez and Sullivan Engineers, D.P.C.
41 Liberty Hill Road
PO Box 2179
Henniker, NH 03242

SCALE: AS NOTED

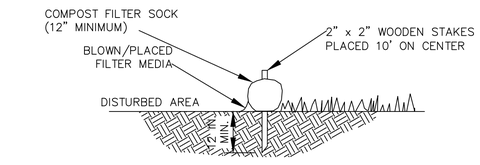
DRAWING: G-5

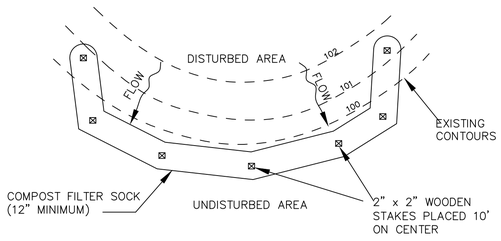


A G-5 STABILIZED CONSTRUCTION ENTRANCE
SCALE: NOT TO SCALE (NTS)



A-A G-6 CONSTRUCTION ENTRANCE SECTION
SCALE: NTS

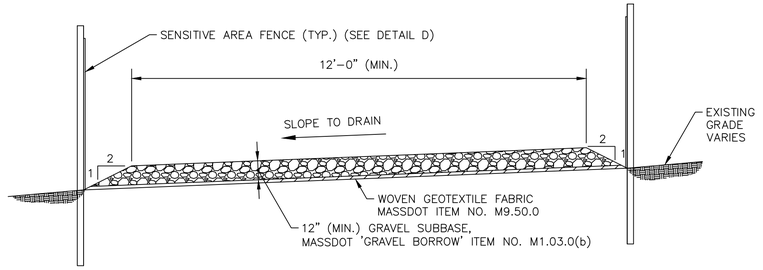




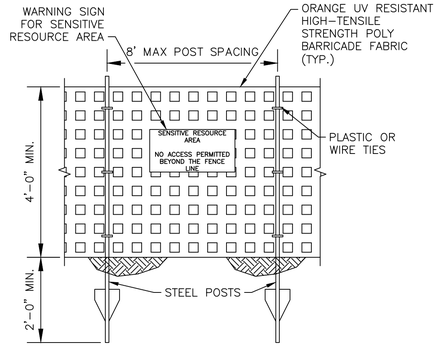
B G-5 COMPOST FILTER SOCK
SCALE: NTS

NOTES:

1. SOCK FABRIC SHALL MEET MADEP STANDARDS.
2. COMPOST FILTER SOCK SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE BARRIER SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DEGREES TO THE MAIN BARRIER ALIGNMENT. MAXIMUM SLOPE LENGTH ABOVE ANY BARRIER SHALL NOT EXCEED THAT SPECIFIED FOR THE SIZE OF THE SOCK AND THE SLOPE OF ITS TRIBUTARY AREA.
3. TRAFFIC SHALL NOT BE PERMITTED TO CROSS COMPOST FILTER SOCKS.
4. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES 1/2 THE ABOVE GROUND HEIGHT OF THE BARRIER AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE PLAN.
5. COMPOST FILTER SOCKS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.
6. UPON STABILIZATION OF THE AREA TRIBUTARY TO THE SOCK, STAKES SHALL BE REMOVED. THE SOCK MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IN THE LATTER CASE, THE MESH SHALL BE CUT OPEN AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.
7. IF THERE ARE SEAMS WHERE ONE SOCK ABUTS ANOTHER, THERE NEEDS TO BE OVERLAP AND STAKING PER MANUFACTURERS SPECIFICATIONS.



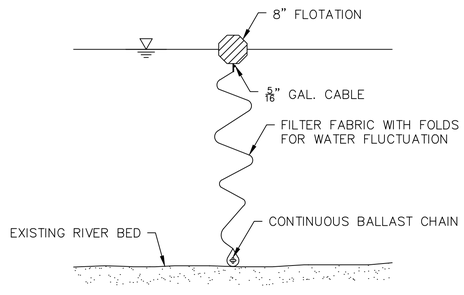
C G-5 TEMPORARY ACCESS ROAD
SCALE: NTS



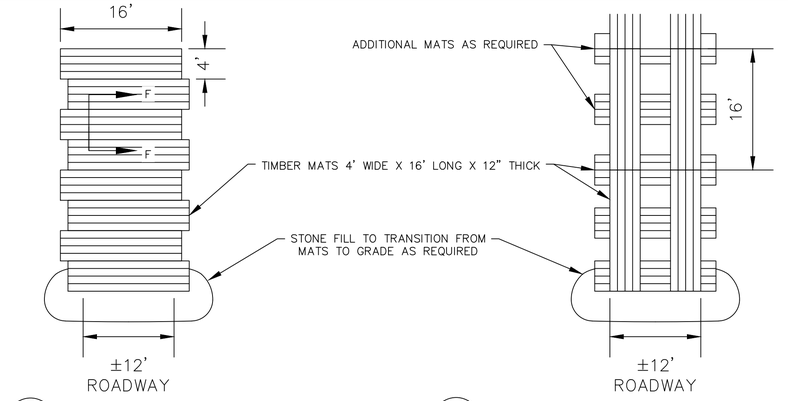
D G-5 SENSITIVE AREA FENCE
SCALE: NTS

NOTES:

1. FENCING SHALL BE INSTALLED AROUND PERIMETER OF ALL EXISTING TREES TO BE PROTECTED AS APPROVED BY ENGINEER.
2. FENCING SHALL REMAIN IN PLACE AND BE MAINTAINED THROUGHOUT CONSTRUCTION AND THEN REMOVED COMPLETELY AS DIRECTED BY THE OWNER.

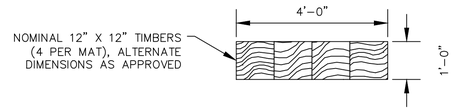


E G-5 OIL BOOM
SCALE: NTS



F G-5 SINGLE LAYER SWAMP MAT DETAIL
SCALE: NTS

G G-5 DOUBLE LAYER SWAMP MAT DETAIL
SCALE: NTS



F-F G-6 SINGLE LAYER SWAMP MAT SECTION
SCALE: NTS

NOTES:

INSTALLATION

1. MATS SHALL BE IN GOOD CONDITION TO ENSURE PROPER INSTALLATION, USE AND REMOVAL.
2. OPERATING HEAVY EQUIPMENT IN WETLANDS SHALL BE MINIMIZED, AND SUCH EQUIPMENT OTHER THAN FIXED EQUIPMENT (DRILL RIGS, FIXED CRANES, ETC.) SHALL NOT BE STORED, MAINTAINED, FUELED OR REPAIRED IN WETLANDS UNLESS THE EQUIPMENT IS BROKEN DOWN AND CANNOT BE EASILY REMOVED.
3. AN ADEQUATE SUPPLY OF SPILL CONTAINMENT EQUIPMENT SHALL BE MAINTAINED ON SITE.
4. MINIMIZE IMPACTS TO WETLAND AREAS DURING INSTALLATION, USE, AND REMOVAL.
5. INSTALL ADEQUATE EROSION AND SEDIMENT CONTROLS AT APPROACHES TO MATS TO PROMOTE A SMOOTH TRANSITION TO, AND MINIMIZE SEDIMENT TRACKING ONTO, SWAMP MATS.
6. IN MOST CASES, CONSTRUCTION MATS SHOULD BE PLACED ALONG THE TRAVEL AREA SO THAT THE INDIVIDUAL BOARDS ARE RESTING PERPENDICULAR TO THE DIRECTION OF TRAFFIC. NO GAPS SHOULD EXIST BETWEEN MATS. PLACE MATS FAR ENOUGH ON EITHER SIDE OF THE RESOURCE AREA TO REST ON FIRM GROUND.

MAINTENANCE

1. MAT INSTALLATIONS SHOULD BE MONITORED TO ASSURE CORRECT FUNCTIONING OF THE MATS. INSPECT MATS AFTER USE. LOOK FOR ANY DEFECTS OR STRUCTURAL PROBLEMS. MATS WHICH BECOME COVERED WITH SOILS OR CONSTRUCTION DEBRIS SHOULD BE CLEANED AND THE MATERIALS REMOVED AND DISPOSED OF IN AN UPLAND LOCATION. THE MATERIAL SHOULD NOT BE SCRAPED AND SHOVELED INTO THE RESOURCE AREA. MATS WHICH BECOME IMBEDDED MUST BE RESET OR LAYERED TO PREVENT MUD FROM COVERING THEM OR WATER PASSING OVER THEM.

REMOVAL

1. MATTING SHOULD BE REMOVED BY "BACKING" OUT OF THE SITE, REMOVING MATS ONE AT A TIME. ANY RUTTING OR SIGNIFICANT INDENTATIONS IDENTIFIED DURING MAT REMOVAL SHOULD BE REGRADED IMMEDIATELY, TAKING CARE NOT TO COMPACT SOILS.
2. MATS SHOULD BE CLEANED BEFORE TRANSPORT TO ANOTHER WETLAND/STREAM LOCATION TO REMOVE SOIL AND ANY INVASIVE PLANT SPECIES SEED STOCK OR PLANT MATERIAL.
3. MATS SHALL BE CLEANED OF SOIL AND ANY INVASIVE PLANT SPECIES SEED STOCK OR PLANT MATERIAL FROM BEFORE INSTALLATION.
4. CLEANING METHODS MAY INCLUDE BUT ARE NOT LIMITED TO SHAKING OR DROPPING MATS IN A CONTROLLED MANNER WITH A PIECE OF MACHINERY TO KNOCK OFF ATTACHED SOIL AND DEBRIS, SPRAYING WITH WATER OR AIR, AND SWEEPING.

RESTORATION

1. SPECIAL PRECAUTIONS SHOULD BE TAKEN TO PROMPTLY STABILIZE AREAS OF DISTURBED SOIL LOCATED NEAR WETLANDS AND STREAMS. MATTED AREAS WITHIN WETLANDS SHALL BE RESTORED TO THEIR ORIGINAL CONDITION AND ELEVATION. THIS MAY INVOLVE NATURAL REVEGETATION FROM EXISTING ROOT AND SEED STOCK OF NATIVE PLANT SPECIES. CONDITIONS MAY WARRANT PLANTING AND THE BROADCAST OF A WETLAND SEED MIX OVER THE MATTED AREA TO SUPPLEMENT THE EXISTING . SEED AND ROOTSTOCK. SEED MIXES AND VEGETATION SHALL CONTAIN ONLY PLANT SPECIES NATIVE TO NEW ENGLAND. THE USE OF MULCH IN WETLANDS SHALL CONSIST OF WEED– FREE MULCH TO MITIGATE THE RISK OF THE SPREAD OF INVASIVE PLANT SPECIES.

COMMONWEALTH OF MASSACHUSETTS
Licensed
JILL W. GRIFFITHS
CIVIL
No. 51893
REGISTERED PROFESSIONAL ENGINEER

DATE	#	DESCRIPTIONS	BY	APP
06/04/25	0	ISSUED FOR BID	MAO	JWG

DRAWN BY: MAO
CHECKED BY: JWG
APPROVED BY: JWG
PROJECT NO. 02430 DATE: 06/04/2025

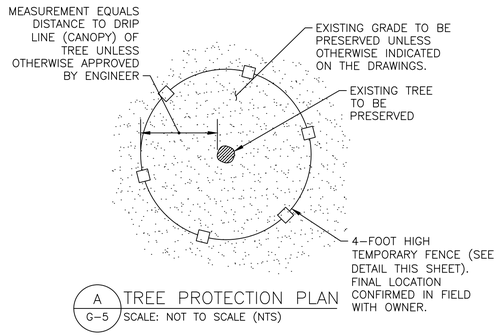
PARKER RIVER RESTORATION PROJECT

GENERAL ACCESS, EROSION, & WATER CONTROL DETAILS SHEET 1 OF 2

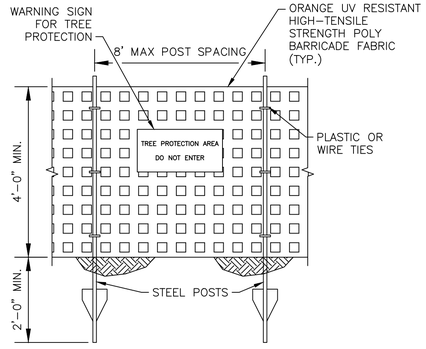
Town of Newbury
12 Kent Way
Byfield, MA 01922

Gomez and Sullivan Engineers, D.P.C.
41 Liberty Hill Road
PO Box 2179
Henniker, NH 03242

SCALE: AS NOTED
DRAWING: G-6



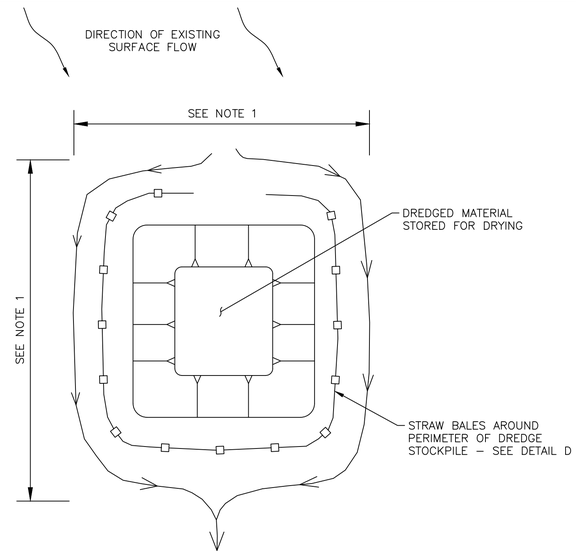
A G–5 TREE PROTECTION PLAN
SCALE: NOT TO SCALE (NTS)



B G–5 TREE PROTECTION FENCE
SCALE: NTS

NOTES:

1. FENCING SHALL BE INSTALLED AROUND PERIMETER OF ALL EXISTING TREES TO BE PROTECTED AS APPROVED BY ENGINEER.
2. FENCING SHALL REMAIN IN PLACE AND BE MAINTAINED THROUGHOUT CONSTRUCTION AND THEN REMOVED COMPLETELY AS DIRECTED BY THE OWNER.

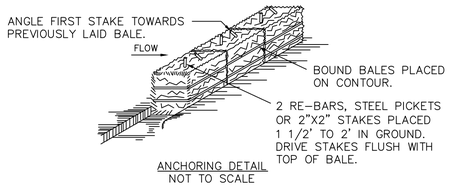


C G–5 TEMPORARY DEWATERING AREA
SCALE: NTS

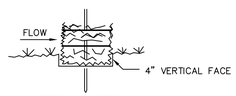
NOTES:

1. OVERALL DIMENSIONS OF DISTURBED AREA TO BE SET TO MAINTAIN LESS THAN 1 ACRE.
2. UPON COMPLETION OF THE WORK, THE AREA SHALL BE RESTORED TO ORIGINAL GRADES, SEEDED, MULCHED, AND PROTECTED UNTIL AN ACCEPTABLE STAND OF GRASS IS ESTABLISHED.

DRAINAGE AREA NO MORE THAN 1/4 ACRE PER 100 FEET OF STRAW BALE DIKE FOR SLOPES LESS THAN 25%.



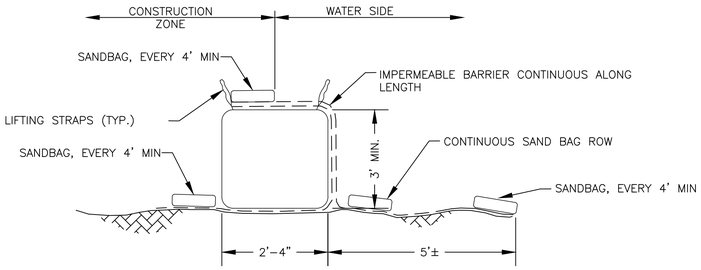
ANCHORING DETAIL
NOT TO SCALE



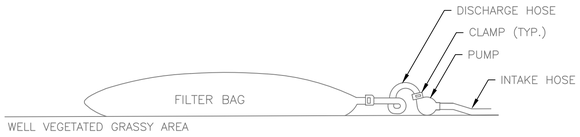
BEDDING DETAIL
NOT TO SCALE

D G–5 TEMPORARY DEWATERING AREA
SCALE: NTS

NOTES:
1. BALES SHALL BE PLACED AT THE TOE OF A SLOPE OR ON THE CONTOUR AND IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
2. EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF 4 INCHES, AND PLACED SO THE BINDINGS ARE HORIZONTAL.
3. BALES SHALL BE SECURELY ANCHORED IN PLACE BY EITHER TWO STAKES OR RE–BARS DRIVEN THROUGH THE BALE. THE FIRST STAKE IN EACH BALE SHALL BE DRIVEN TOWARD THE PREVIOUSLY LAID BALE AT AN ANGLE TO FORCE THE BALES TOGETHER. STAKES SHALL BE DRIVEN FLUSH WITH THE BALE.
4. INSPECTION SHALL BE FREQUENT AND REPAIR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
5. BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR PURPOSE SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.



E CD–2 SUPER SACK DETAIL
SCALE: NTS



F CD–2 DEWATERING BAG
SCALE: NTS

NOTES:

1. BAGS SHALL BE LOCATED IN WELL–VEGETATED (GRASSY) AREA, AND DISCHARGE ONTO STABLE, EROSION RESISTANT AREAS. WHERE THIS IS NOT POSSIBLE, A GEOTEXTILE UNDERLAYMENT AND FLOW PATH SHALL BE PROVIDED. BAGS MAY BE PLACED ON FILTER STONE TO INCREASE DISCHARGE CAPACITY.
2. BAGS SHALL NOT BE PLACED ON SLOPES GREATER THAN 5%. FOR SLOPES EXCEEDING 5%, CLEAN ROCK OR OTHER NON–ERODIBLE AND NON–POLLUTING MATERIAL MAY BE PLACED UNDER THE BAG TO REDUCE SLOPE STEEPNESS.

COMMONWEALTH OF MASSACHUSETTS
Lic/cert
JILL W. GRIFFITHS
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06/04/25	0	ISSUED FOR BID	MAO	JWG

DRAWN BY: MAO
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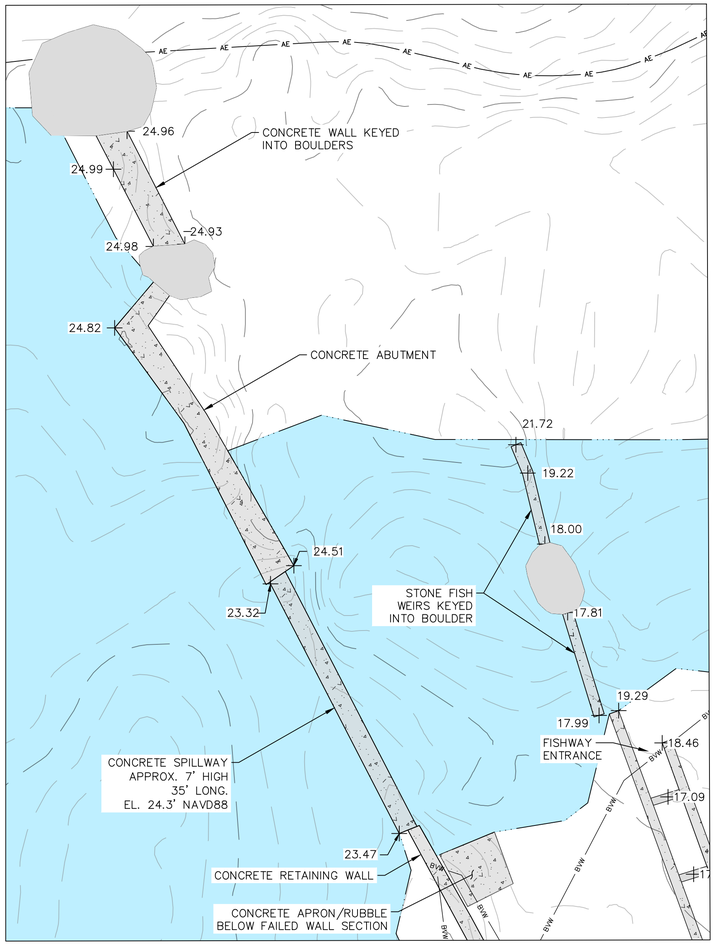
PARKER RIVER RESTORATION PROJECT

GENERAL ACCESS, EROSION, & WATER CONTROL DETAILS SHEET 2 OF 2

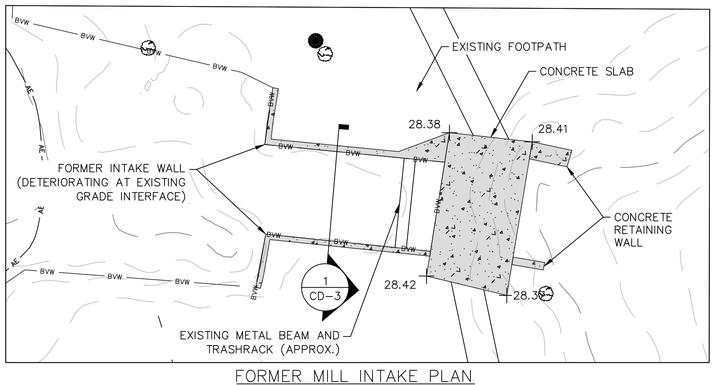
Town of Newbury
12 Kent Way
Byfield, MA 01922

Gomez and Sullivan Engineers, D.P.C.
41 Liberty Hill Road
PO Box 2179
Henniker, NH 03242

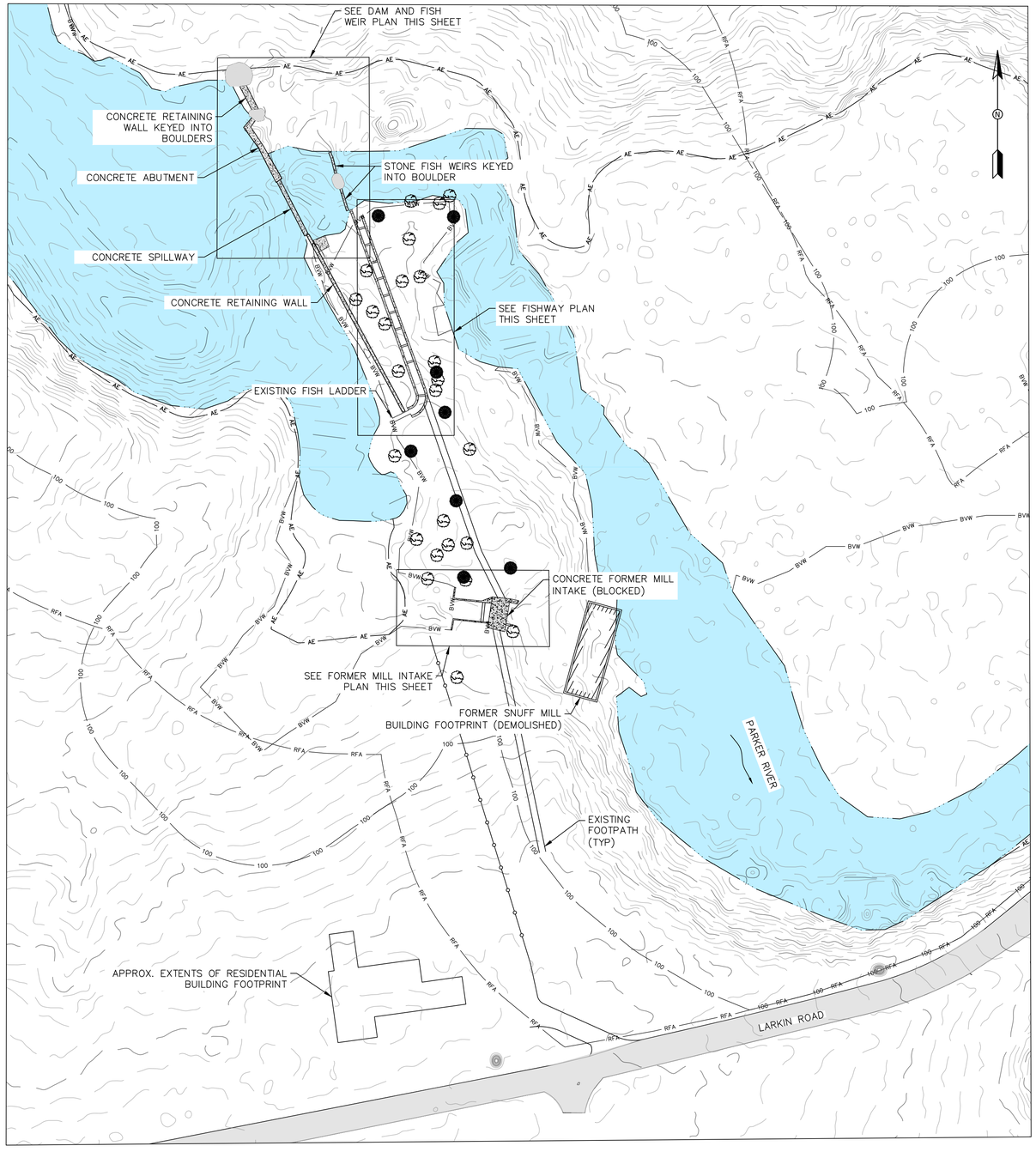
SCALE: AS NOTED
DRAWING: G-7



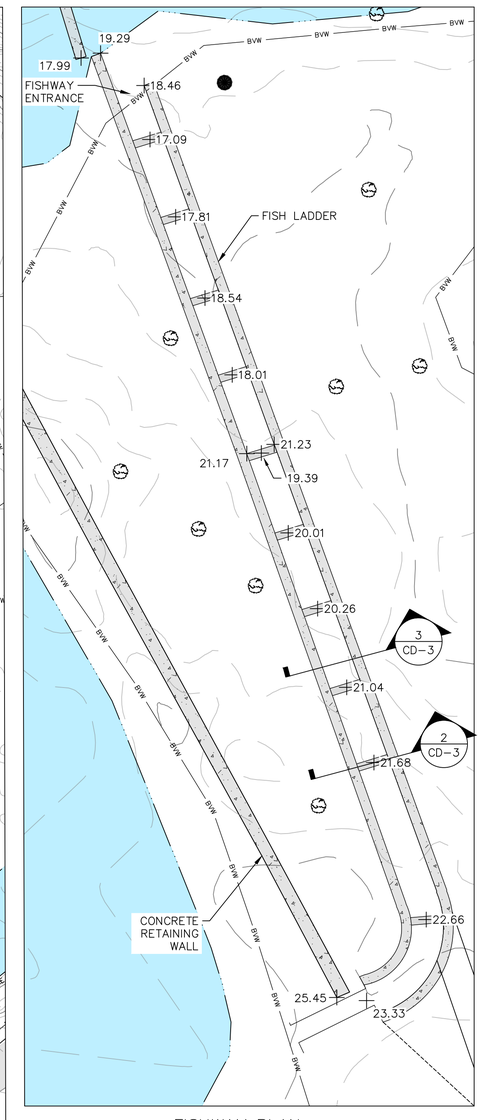
DAM AND FISH WEIR PLAN
SCALE: 1"=10'



FORMER MILL INTAKE PLAN
SCALE: 1"=10'



LARKIN ROAD DAM SITE PLAN
SCALE: 1"=40'



FISHWAY PLAN
SCALE: 1"=10'

10' 0 10' 20'
SCALE: 1"=10'

40' 0 40' 80'
SCALE: 1"=40'

LEGEND

- BANK/MEAN ANNUAL HIGH WATER (MAHW)/ORDINARY HIGH WATER (OHW)
- BVW — BORDERING VEGETATED WETLAND (BVW)
- 100 — 100' BUFFER
- RFA — RIVERFRONT AREA
- EXISTING FENCE
- APPROXIMATE WATER SURFACE EXTENTS (MAHW/OHW)
- CONIFEROUS TREE
- DECIDUOUS TREE

COMMONWEALTH OF MASSACHUSETTS
Jillian W. GRIFFITHS
CIVIL
No. 51893
REGISTERED PROFESSIONAL ENGINEER

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06/04/25	0	ISSUED FOR BID	MAO	JWG

DRAWN BY: MAO
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PROJECT NO. 02430 DATE: 06/04/2025

PARKER RIVER RESTORATION PROJECT

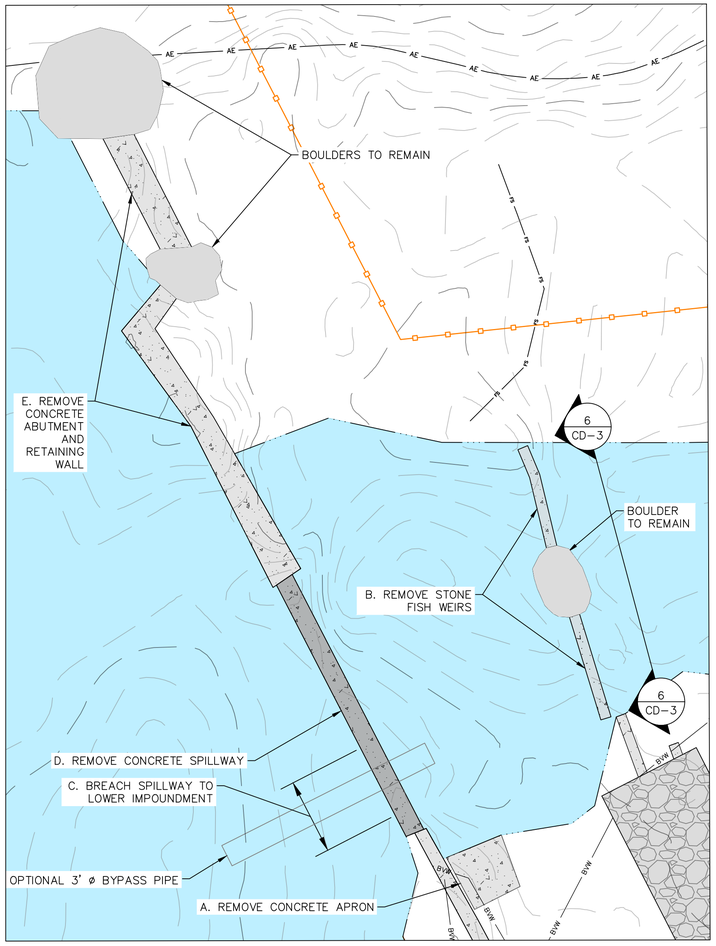
LARKIN DAM REMOVAL EXISTING PLAN

Town of Newbury
12 Kent Way
Byfield, MA 01922

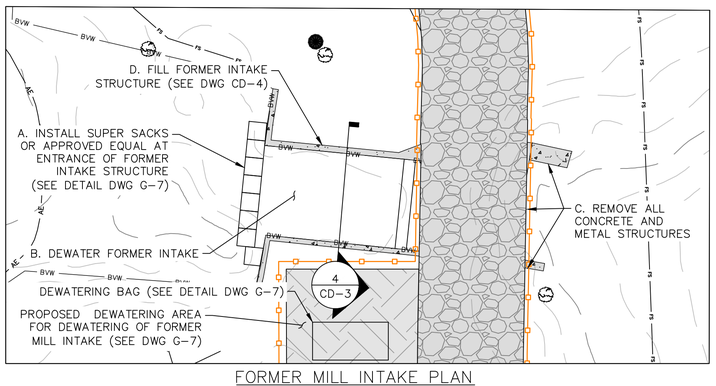
Gomez and Sullivan Engineers, D.P.C.
41 Liberty Hill Road
PO Box 2179
Henniker, NH 03242

SCALE: AS NOTED

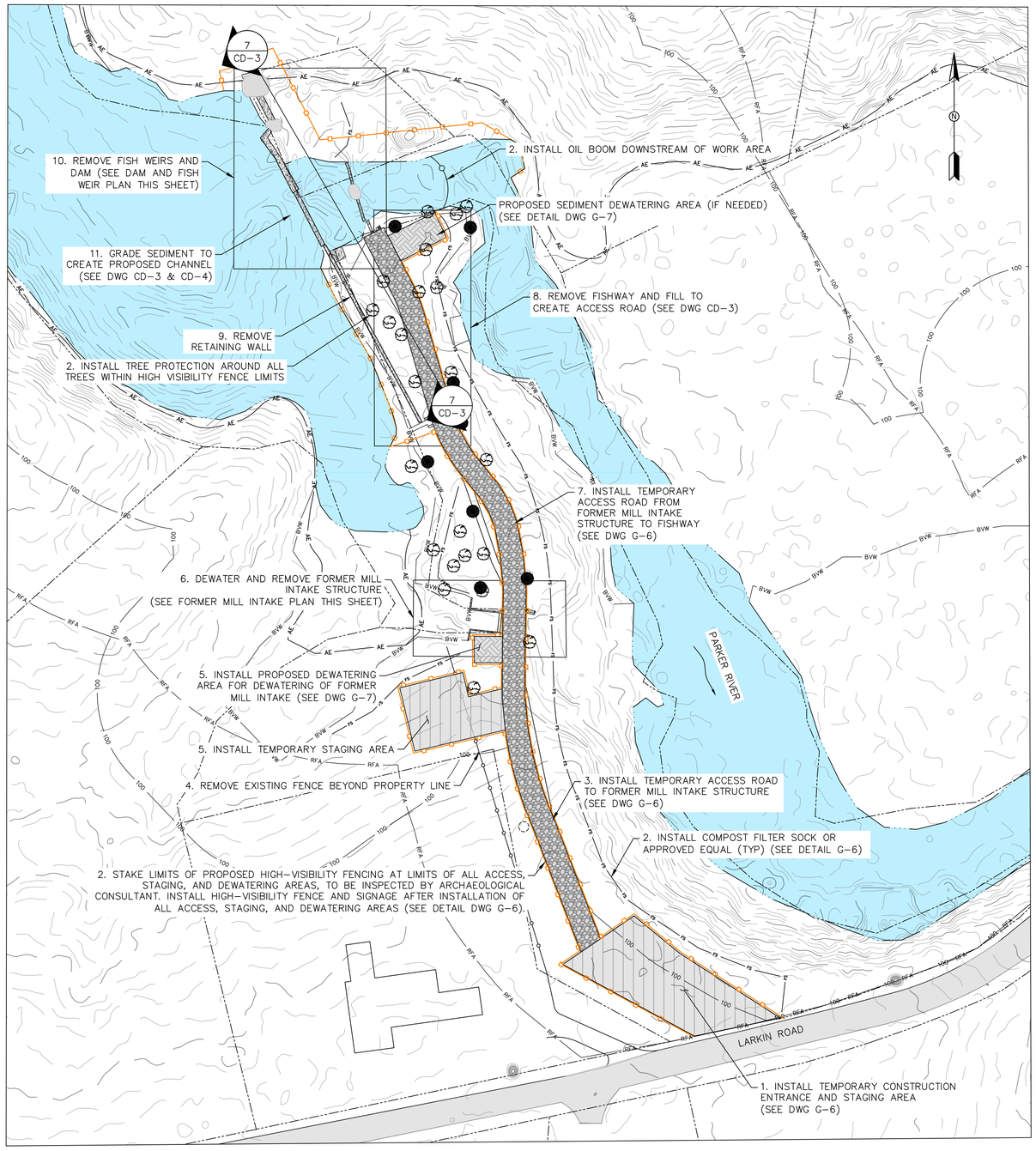
DRAWING: CD-1



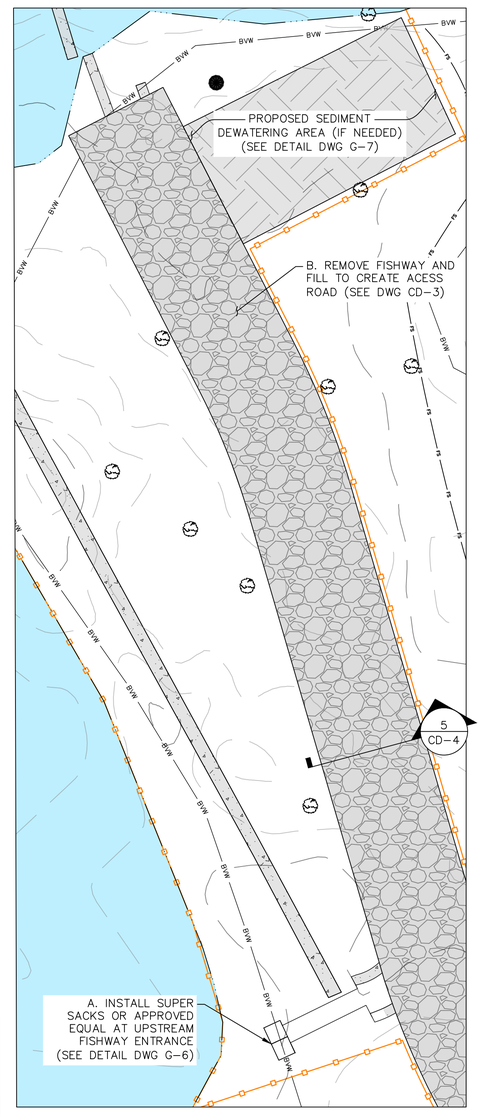
DAM AND FISH WEIR PLAN
SCALE: 1"=10'



FORMER MILL INTAKE PLAN
SCALE: 1"=10'



LARKIN DAM SITE PLAN
SCALE: 1"=40'



FISHWAY PLAN
SCALE: 1"=10'

10' 0 10' 20'
SCALE: 1"=10'

40' 0 40' 80'
SCALE: 1"=40'

LEGEND

- BANK/MEAN ANNUAL HIGH WATER (MAHW)/ORDINARY HIGH WATER (OHW)
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- 100 — 100' BUFFER
- RFA — RIVERFRONT AREA
- EXISTING FENCE
- HIGH VISIBILITY FENCE
- APPROXIMATE WATER SURFACE EXTENTS (MAHW/OHW)
- CONIFEROUS TREE
- DECIDUOUS TREE

COMMONWEALTH OF MASSACHUSETTS — Stefanie JILL W. GRIFFITHS CIVIL No. 51893 REGISTERED PROFESSIONAL ENGINEER

DATE	#	DESCRIPTIONS	BY	APP
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DRAWN BY: MAO
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PARKER RIVER RESTORATION PROJECT

LARKIN DAM REMOVAL ACCESS AND REMOVAL PLAN

Town of Newbury
12 Kent Way
Byfield, MA 01922

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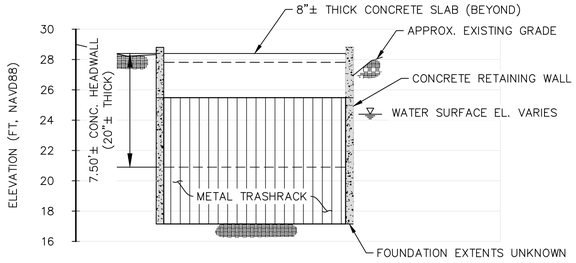
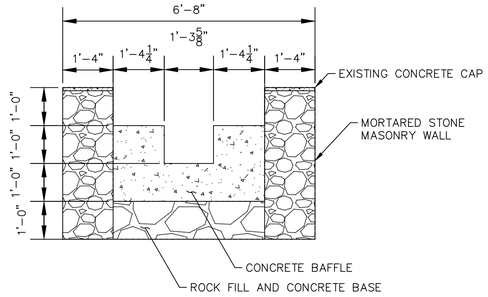
41 Liberty Hill Road
PO Box 2179
Henniker, NH 03242

SCALE: AS NOTED

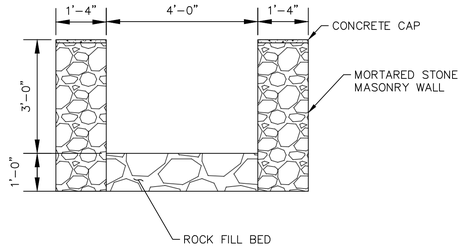
DRAWING: CD-2



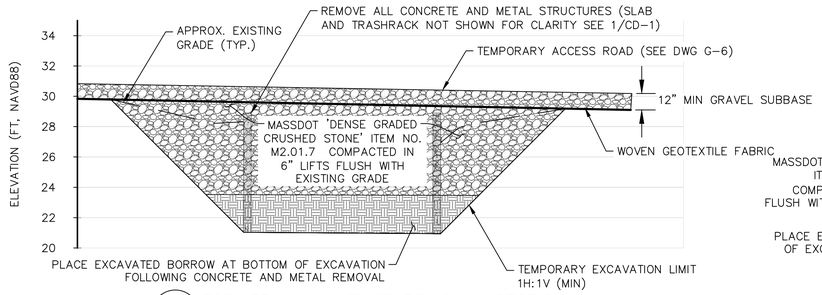
1 CD-1 FORMER MILL INTAKE SECTION
SCALE: 1"=5'



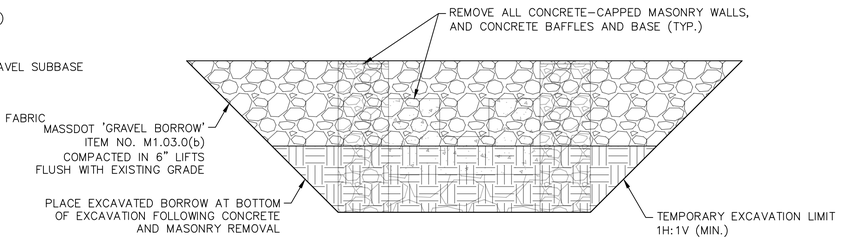
2 CD-1 EXISTING FISHWAY SECTION WITH BAFFLE
SCALE: 1"=2'



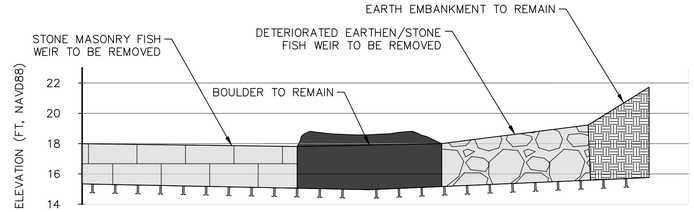
3 CD-1 EXISTING FISHWAY SECTION WITHOUT BAFFLE
SCALE: 1"=2'



4 CD-2 FORMER MILL INTAKE REMOVAL SECTION
SCALE: 1"=5'



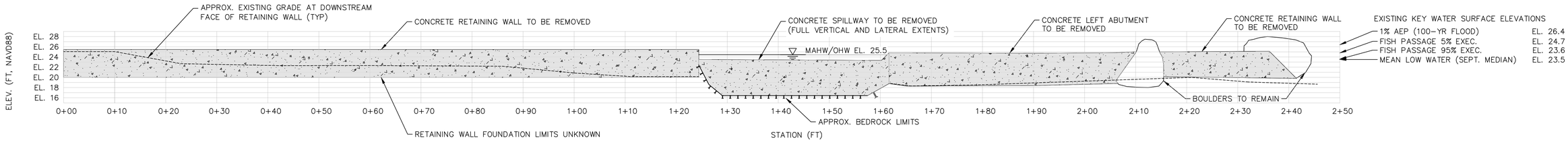
5 CD-2 FISHWAY REMOVAL SECTION
SCALE: 1"=2'



6 CD-2 FISH WEIR ELEVATION
SCALE: 1"=10'

NOTE:

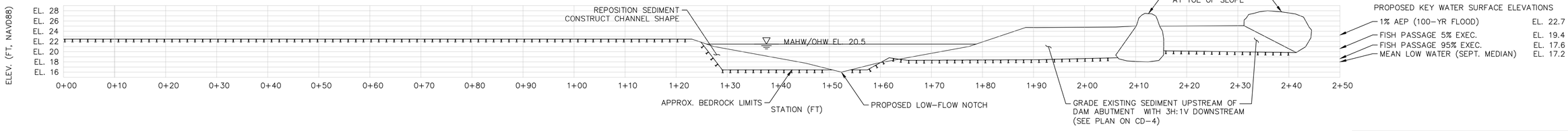
1. SECTION WITHOUT BAFFLE SIMILAR.



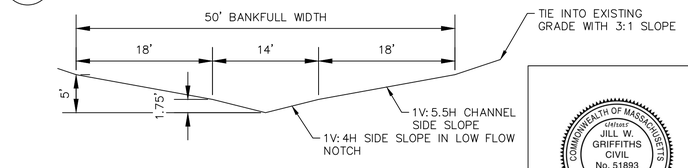
7 CD-2 DAM ELEVATION
SCALE: 1"=10'

NOTE:

1. WATER SURFACE ELEVATIONS SHOWN UPSTREAM OF DAM.



8 CD-4 PROPOSED DAM BREACH ELEVATION
SCALE: 1"=10'



9 PROPOSED TYPICAL CHANNEL DETAIL
1"=10'

2' 0 2' 4'
SCALE: 1"=2'

5' 0 5' 10'
SCALE: 1"=5'

10' 0 10' 20'
SCALE: 1"=10'

COMMONWEALTH OF MASSACHUSETTS
JILL W. GRIFFITHS
CIVIL
No. 51893
REGISTERED PROFESSIONAL ENGINEER

DATE	#	DESCRIPTIONS	BY	APP
06/04/25	0	ISSUED FOR BID	MAO	JWG

DRAWN BY: MAO
CHECKED BY: JWG
APPROVED BY: JWG
PROJECT NO. 02430 DATE: 06/04/2025

PARKER RIVER RESTORATION PROJECT

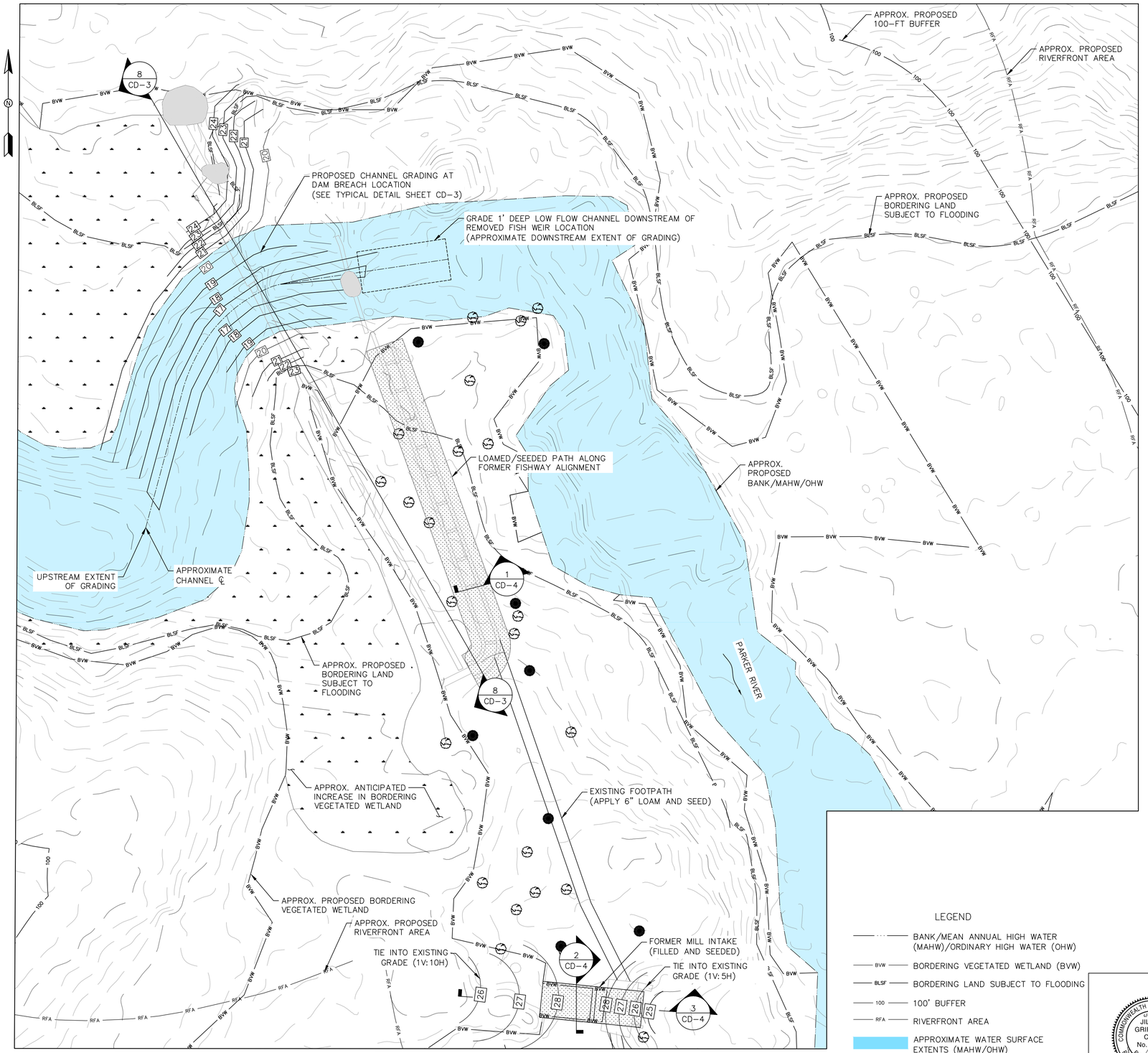
LARKIN DAM REMOVAL EXISTING & PROPOSED ELEVATIONS, PROFILES & SECTIONS

Town of Newbury
12 Kent Way
Byfield, MA 01922

Gomez and Sullivan Engineers, D.P.C.
41 Liberty Hill Road
PO Box 2179
Henniker, NH 03242

SCALE: AS NOTED

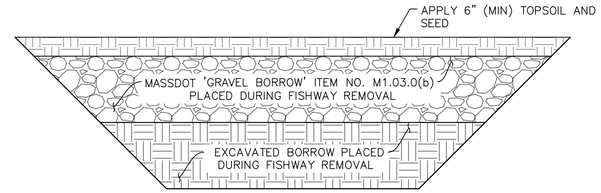
DRAWING: CD-3



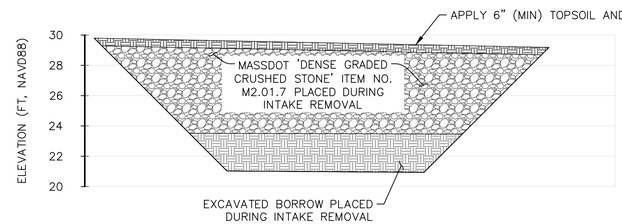
PROPOSED LARKIN DAM SITE PLAN
SCALE: 1"=20'

LEGEND

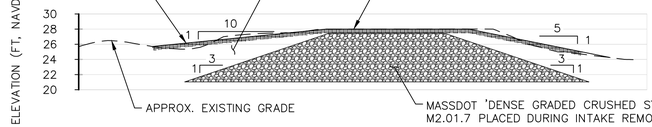
- BANK/MEAN ANNUAL HIGH WATER (MAHW)/ORDINARY HIGH WATER (OHW)
- BVW — BORDERING VEGETATED WETLAND (BVW)
- BLSF — BORDERING LAND SUBJECT TO FLOODING
- 100 — 100' BUFFER
- RFA — RIVERFRONT AREA
- APPROXIMATE WATER SURFACE EXTENTS (MAHW/OHW)
- CONIFEROUS TREE
- DECIDUOUS TREE



1 CD-4 PROPOSED FORMER FISHWAY SECTION
SCALE: 1"=2'



2 CD-4 PROPOSED FORMER MILL INTAKE SECTION
SCALE: 1"=5'



3 CD-4 PROPOSED FORMER MILL INTAKE PROFILE
SCALE: 1"=10'

2' 0 2' 4'
SCALE: 1"=2'

5' 0 5' 10'
SCALE: 1"=5'

10' 0 10' 20'
SCALE: 1"=10'

20' 0 20' 40'
SCALE: 1"=20'

PARKER RIVER RESTORATION PROJECT

LARKIN DAM REMOVAL PROPOSED PLAN & FISHWAY & INTAKE SECTIONS

COMMONWEALTH OF MASSACHUSETTS — Jillian W. GRIFFITHS — CIVIL — No. 51893 — REGISTERED PROFESSIONAL ENGINEER

DATE	#	DESCRIPTIONS	BY	APP
06/04/25	0	ISSUED FOR BID	MAO	JWG

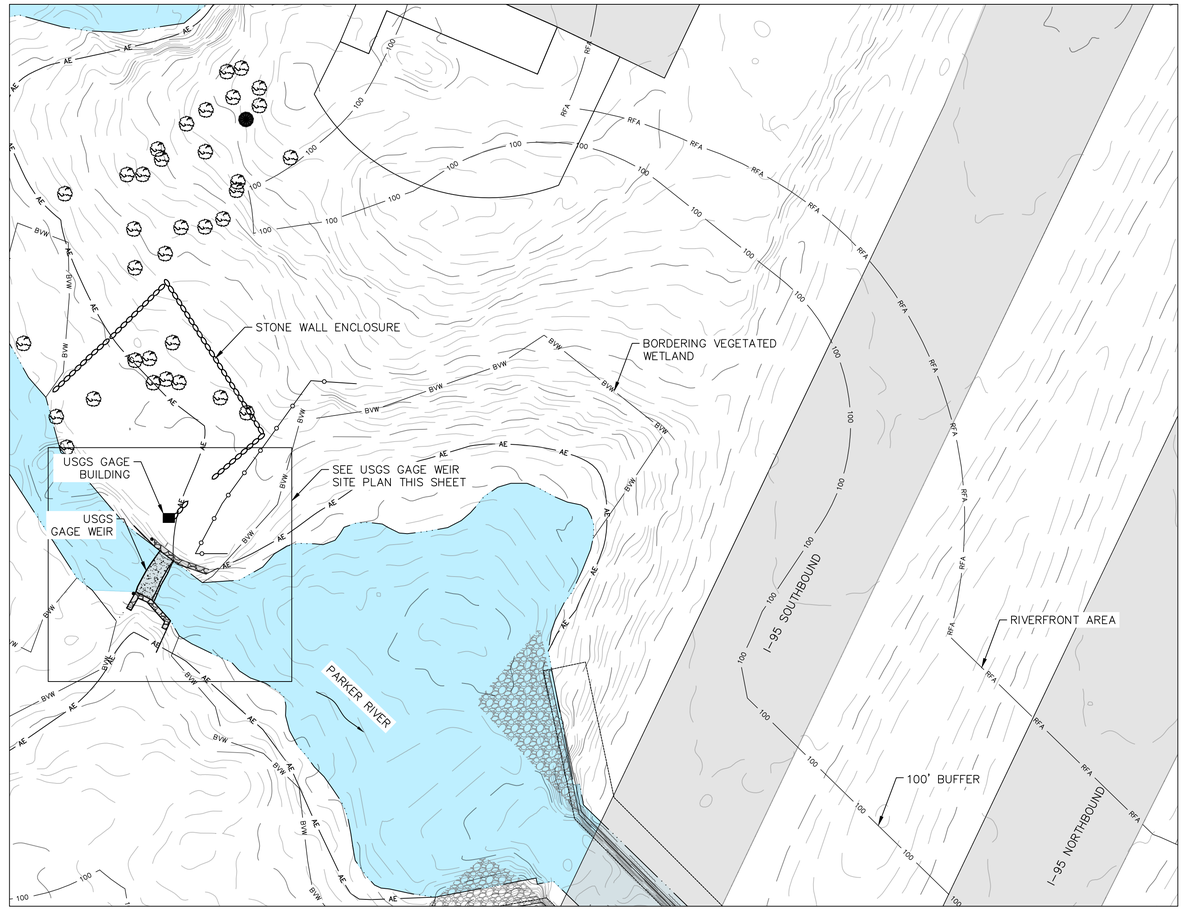
DRAWN BY: MAO
CHECKED BY: JWG
APPROVED BY: JWG
PROJECT NO. 02430 DATE: 06/04/2025

Town of Newbury
12 Kent Way
Byfield, MA 01922

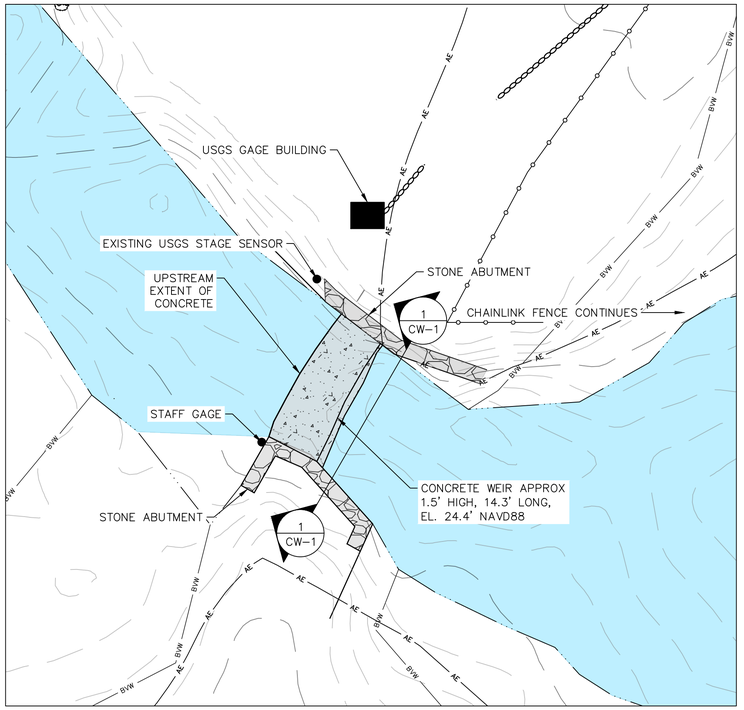
Gomez and Sullivan Engineers, D.P.C.
41 Liberty Hill Road
PO Box 2179
Henniker, NH 03242

SCALE: AS NOTED

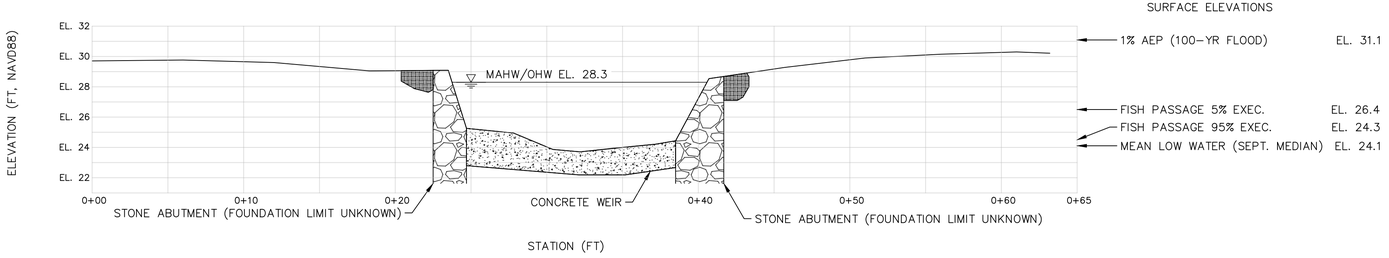
DRAWING: CD-4



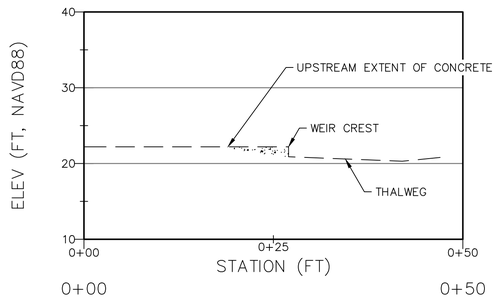
USGS GAGE WEIR OVERVIEW PLAN
SCALE: 1"=30'



USGS GAGE WEIR SITE PLAN
SCALE: 1"=10'



1 CW-1 EXISTING WEIR
SCALE: 1"=5'



USGS GAGE WEIR PROFILE
SCALE: 1"=10'

LEGEND

- BANK/MEAN ANNUAL HIGH WATER (MAHW)/ORDINARY HIGH WATER (OHW)
- BORDERING VEGETATED WETLAND (BVW)
- 100' BUFFER
- RIVERFRONT AREA
- EXISTING FENCE
- APPROXIMATE WATER SURFACE EXTENTS (MAHW/OHW)
- CONIFEROUS TREE
- DECIDUOUS TREE

5' 0 5' 10'
SCALE: 1"=5'

10' 0 10' 20'
SCALE: 1"=10'

30' 0 30' 60'
SCALE: 1"=30'

COMMONWEALTH OF MASSACHUSETTS
Jillian
JILL W. GRIFFITHS
CIVIL
No. 51893
REGISTERED PROFESSIONAL ENGINEER

DATE	#	DESCRIPTIONS	BY	APP
06/04/25	0	ISSUED FOR BID	MAO	JWG

DRAWN BY: MAO
CHECKED BY: JWG
APPROVED BY: JWG
PROJECT NO. 02430 DATE: 06/04/2025

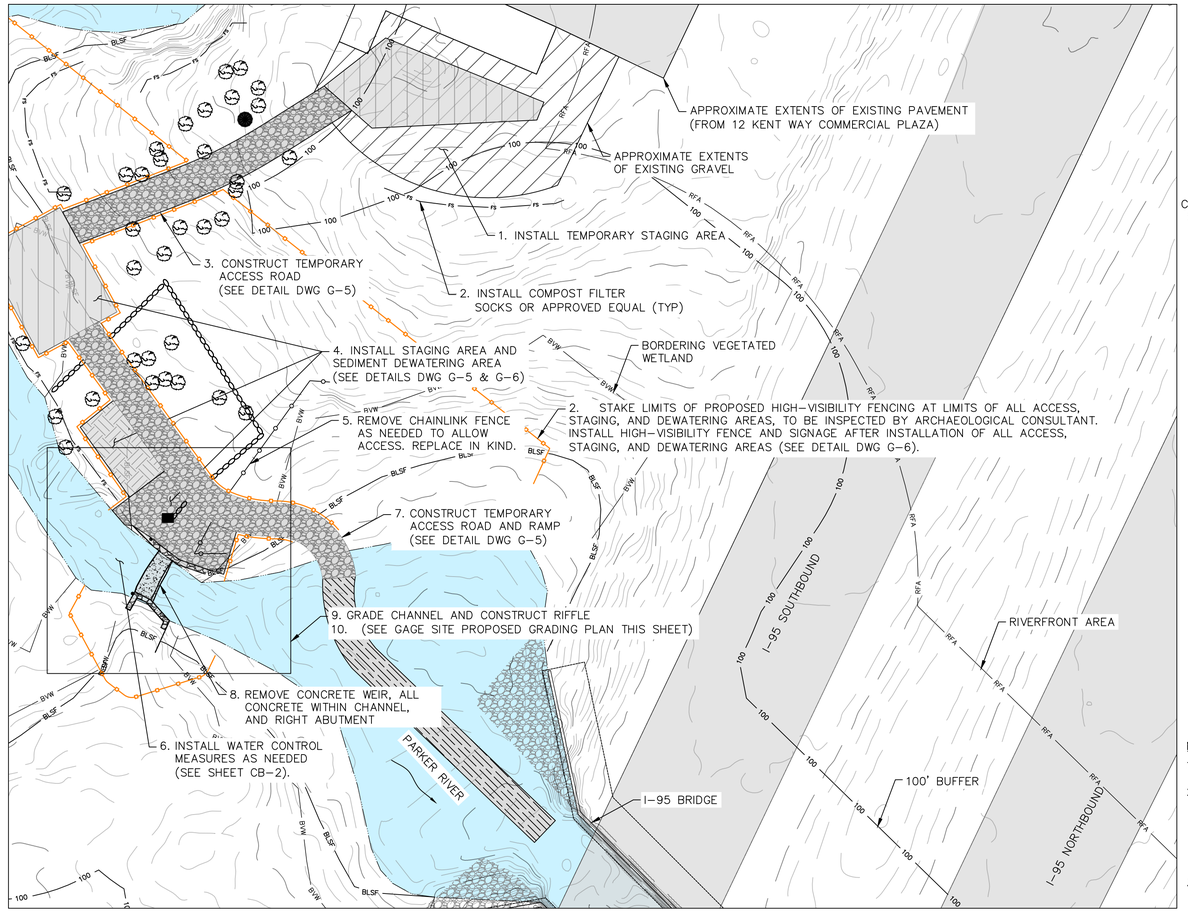
PARKER RIVER RESTORATION PROJECT

USGS GAGE WEIR REMOVAL EXISTING PLAN, PROFILE, & ELEVATION

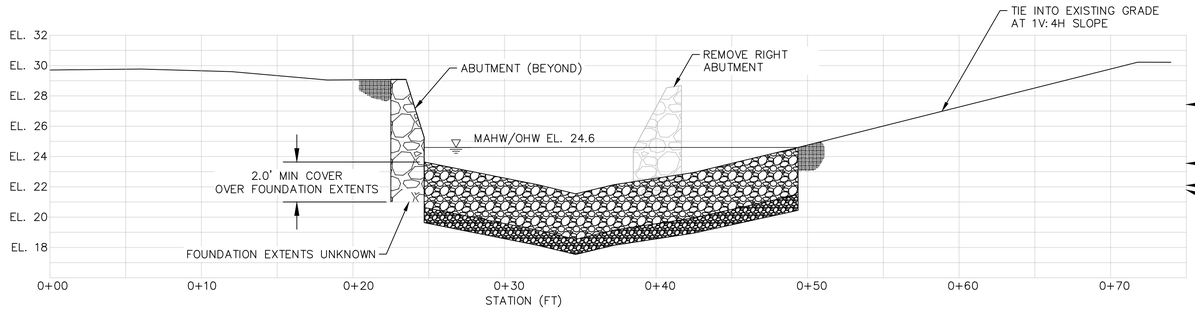
Town of Newbury
12 Kent Way
Byfield, MA 01922

Gomez and Sullivan Engineers, D.P.C.
41 Liberty Hill Road
PO Box 2179
Henniker, NH 03242

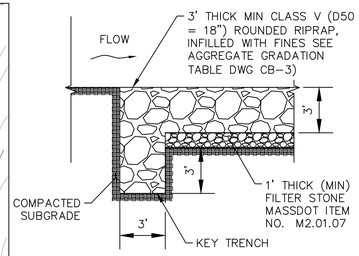
SCALE: AS NOTED
DRAWING: CW-1



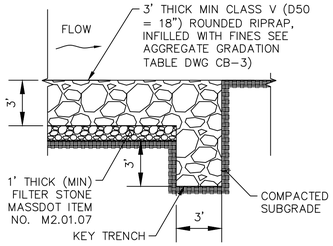
USGS GAGE WEIR AND I-95 BRIDGE ACCESS PLAN
SCALE: 1"=30'



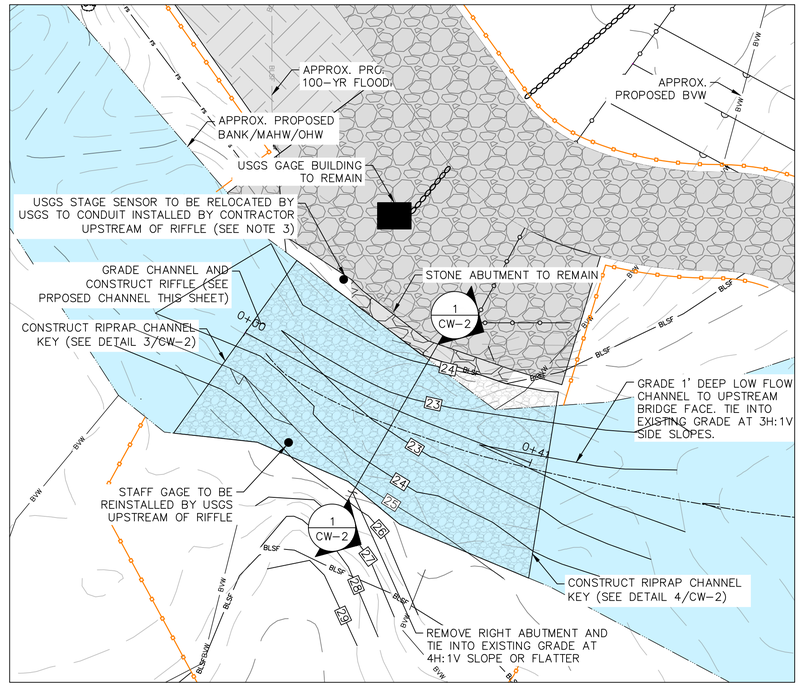
1 CW-2 PROPOSED CHANNEL
SCALE: 1"=5'



3 CW-2 UPSTREAM CHANNEL KEY
SCALE: 1"=5'



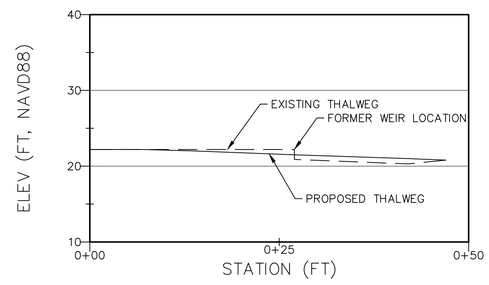
4 CW-2 DOWNSTREAM CHANNEL KEY
SCALE: 1"=5'



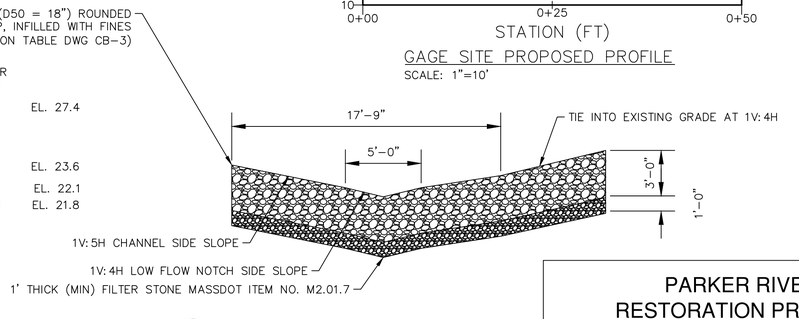
GAGE SITE PROPOSED GRADING PLAN
SCALE: 1"=10'

NOTES

1. REMOVED ABUTMENT ROCKS SHALL BE APPROVED BY ENGINEER PRIOR TO USE IN ARMORED CHANNEL AND/OR KEY.
2. IF DIVERSION OF WATER IS NEEDED TO COMPLETE THE WORK, THE WATER MANAGEMENT PLAN SHOWN ON DRAWING CB-2 FOR THE I-95 BRIDGE WORK CAN BE IMPLEMENTED PRIOR TO COMPLETING THE WEIR REMOVAL AND/OR RIFFLE CONSTRUCTION WORK. THE BYPASS PIPE CAN BE SHORTENED AND THE DOWNSTREAM COFFERDAM MOVED UPSTREAM TO BELOW THE PROPOSED RIFFLE IF NOT COMPLETING THE BRIDGE SCOUR COUNTERMEASURE DURING THE SAME CONSTRUCTION MOBILIZATION.
3. 2" Ø SCHED. 40 GALVANIZED STEEL CONDUIT TO BE INSTALLED UPSTREAM OF RIFFLE, RUN HORIZONTALLY THROUGH TO CHANNEL THALWEG, AND ANCHOR TO BEDROCK OR DRIVEN POST TO ACCOMODATE STREAMGAGE PRESSURE SENSOR LINE TO BE INSTALLED BY USGS. CONDUIT INSTALLATION SHALL BE INSPECTED AND APPROVED BY USGS.



GAGE SITE PROPOSED PROFILE
SCALE: 1"=10'



2 PROPOSED TYPICAL CHANNEL DETAIL
1"=5'

LEGEND

- BANK/MEAN ANNUAL HIGH WATER (MAHW)/ORDINARY HIGH WATER (OHW)
- BVW — BORDERING VEGETATED WETLAND (BVW)
- 100 — 100' BUFFER
- RFA — RIVERFRONT AREA
- EXISTING FENCE
- AE — FEMA FLOODPLAIN ZONE AE
- HIGH VISIBILITY FENCE
- APPROXIMATE WATER SURFACE EXTENTS (MAHW/OHW)
- CONIFEROUS TREE
- DECIDUOUS TREE

5' 0 5' 10'
SCALE: 1"=5'

10' 0 10' 20'
SCALE: 1"=10'

30' 0 30' 60'
SCALE: 1"=30'

COMMONWEALTH OF MASSACHUSETTS
JILL W. GRIFFITHS
CIVIL
No. 51893
REGISTERED PROFESSIONAL ENGINEER

DATE	#	DESCRIPTIONS	BY	APP
06/04/25	0	ISSUED FOR BID	MAO	JWG

DRAWN BY: MAO
CHECKED BY: JWG
APPROVED BY: JWG
PROJECT NO. 02430 DATE: 06/04/2025

PARKER RIVER RESTORATION PROJECT

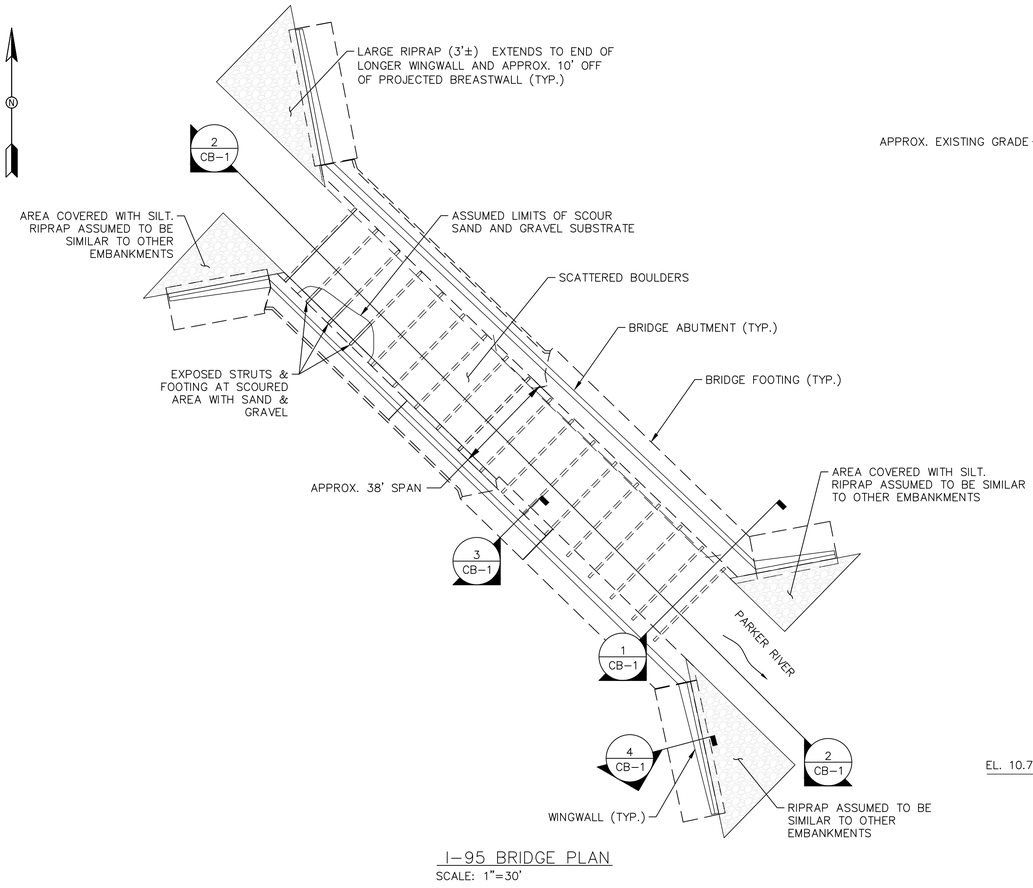
USGS GAGE WEIR REMOVAL PROPOSED PLAN, PROFILE, & ELEVATION

Town of Newbury
12 Kent Way
Byfield, MA 01922

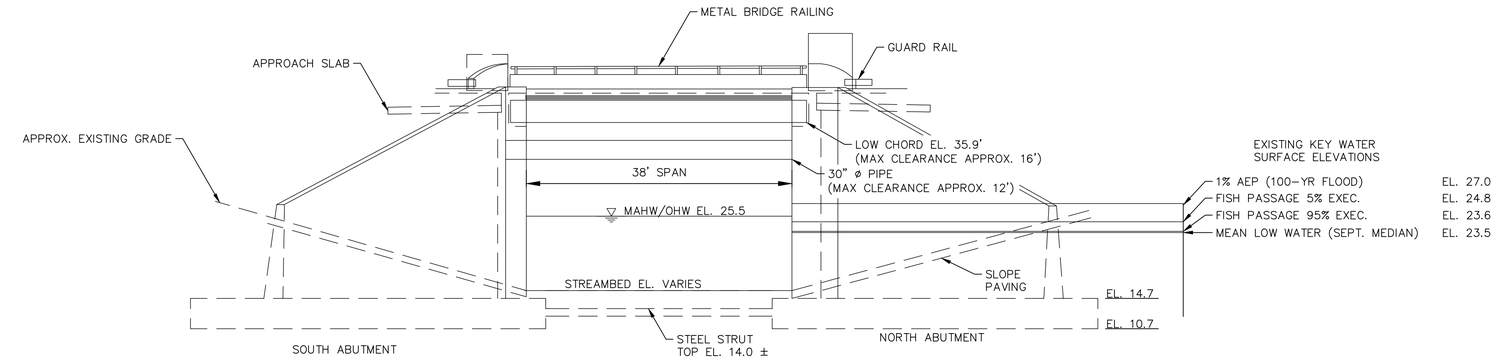
Gomez and Sullivan Engineers, D.P.C.
41 Liberty Hill Road
PO Box 2179
Henniker, NH 03242

SCALE: AS NOTED

DRAWING: CW-2



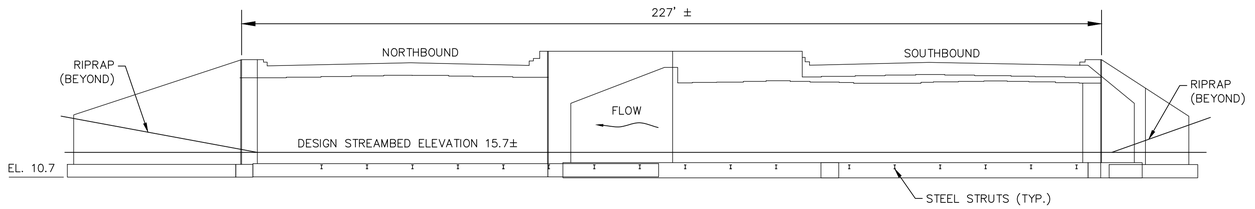
I-95 BRIDGE PLAN
SCALE: 1"=30'



1 CB-1 NORTHBOUND BRIDGE SECTION
SCALE: 1"=10'

NOTE:

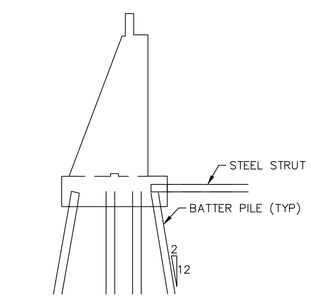
1. SOUTHBOUND DECK SIMILAR.
2. PILES NOT SHOWN.
3. WATER SURFACE ELEVATIONS SHOWN FOR UPSTREAM FACE OF BRIDGE.



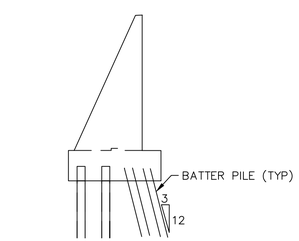
2 CB-1 SOUTH BRIDGE ABUTMENT ELEVATION
SCALE: 1"=20'

NOTES:

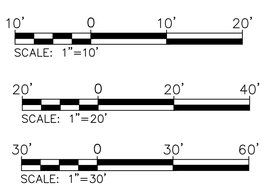
1. CONTOURS, WATER SURFACE, AND OTHER INFORMATION NOT SHOWN FOR CLARITY.
2. SUBSTRATE CONSISTS OF SILT AND LEAVES UNLESS OTHERWISE NOTED.
3. ASSUMED LOCATIONS FOR STRUTS ON NORTHBOUND ABUTMENT.
4. INFORMATION ABOUT SUBSTRATE AND EXISTING SCOUR FROM MASSDOT UNDERWATER INSPECTION CONDUCTED APRIL 28, 2022.



3 CB-1 ABUTMENT DETAIL
SCALE: 1"=10'



4 CB-1 WINGWALL DETAIL
SCALE: 1"=10'



COMMONWEALTH OF MASSACHUSETTS
JILL W. GRIFFITHS
CIVIL
No. 51893
REGISTERED PROFESSIONAL ENGINEER

DATE	#	DESCRIPTIONS	BY	APP
06/04/25	0	ISSUED FOR BID	MAO	JWG

DRAWN BY: MAO
CHECKED BY: JWG
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PROJECT NO. 02430 DATE: 06/04/2025

BRIDGE NO. N-10-020 (2VJ) - I-95 NB BRIDGE
BRIDGE NO. N-10-020 (2VK) - I-95 SB BRIDGE

PARKER RIVER RESTORATION PROJECT

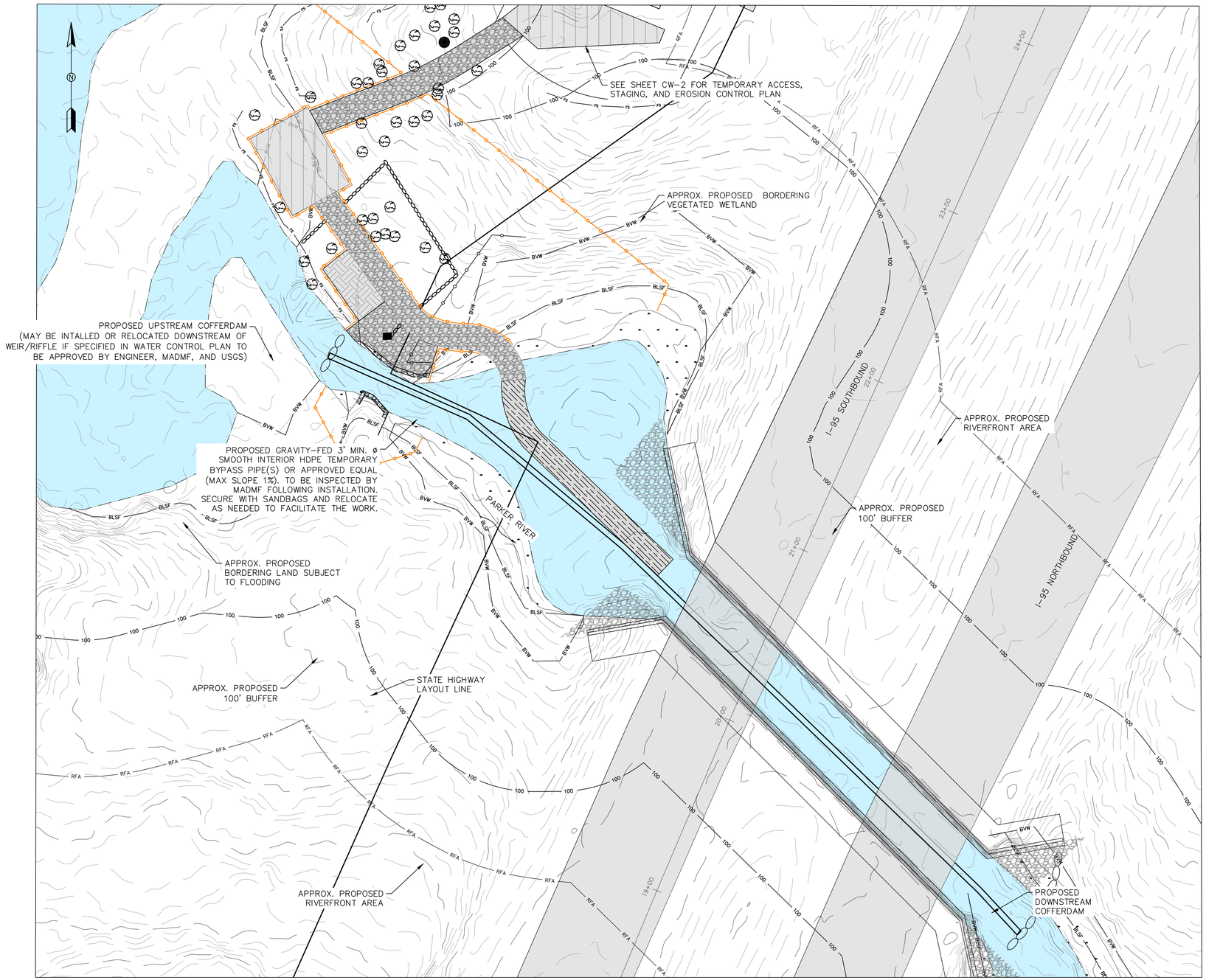
I-95 BRIDGE SCOUR COUNTERMEASURE EXISTING PLAN, ELEVATION, & DETAILS

Town of Newbury
12 Kent Way
Byfield, MA 01922

Gomez and Sullivan Engineers, D.P.C.
41 Liberty Hill Road
PO Box 2179
Henniker, NH 03242

SCALE: AS NOTED

DRAWING: CB-1



WATER MANAGEMENT PLAN
SCALE: 1"=30'

LEGEND

- BANK/MEAN ANNUAL HIGH WATER (MAHW)/ORDINARY HIGH WATER (OHW)
- BVW — BORDERING VEGETATED WETLAND (BVW)
- 100 — 100' BUFFER
- RFA — RIVERFRONT AREA
- EXISTING FENCE
- FS — COMPOST FILTER SOCK
- APPROXIMATE WATER SURFACE EXTENTS (MAHW/OHW)

30' 0 30' 60'
SCALE: 1"=30'

BRIDGE NO. N-10-020 (2VJ) - I-95 NB BRIDGE
BRIDGE NO. N-10-020 (2VK) - I-95 SB BRIDGE

PARKER RIVER
RESTORATION PROJECT

I-95 BRIDGE SCOUR COUNTER MEASURE & USGS WEIR REMOVAL WATER MANAGEMENT PLAN

COMMONWEALTH OF MASSACHUSETTS
JILL W. GRIFFITHS
CIVIL
No. 51893
REGISTERED PROFESSIONAL ENGINEER

DATE	#	DESCRIPTIONS	BY	APP
06/04/25	0	ISSUED FOR BID	MAO	JWG

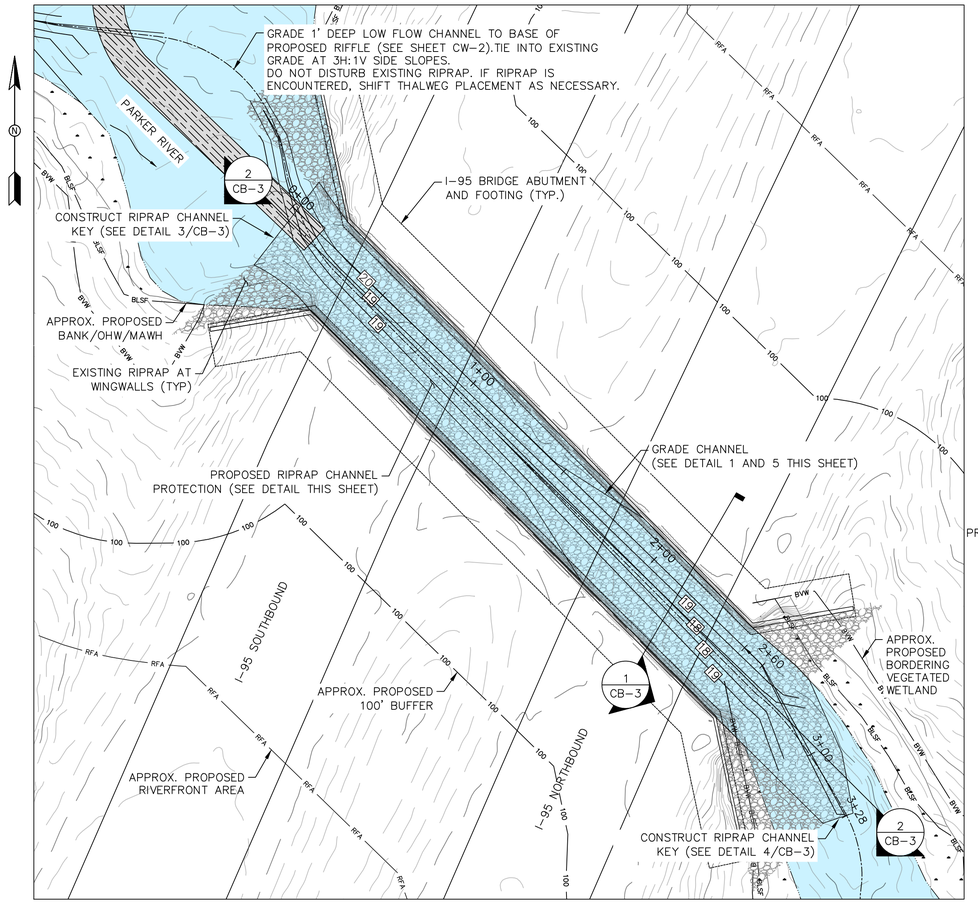
DRAWN BY: MAO
CHECKED BY: JWG
APPROVED BY: JWG
PROJECT NO. 02430 DATE: 06/04/2025

Town of Newbury
12 Kent Way
Byfield, MA 01922

Gomez and Sullivan Engineers, D.P.C.
41 Liberty Hill Road
PO Box 2179
Henniker, NH 03242

SCALE: AS NOTED

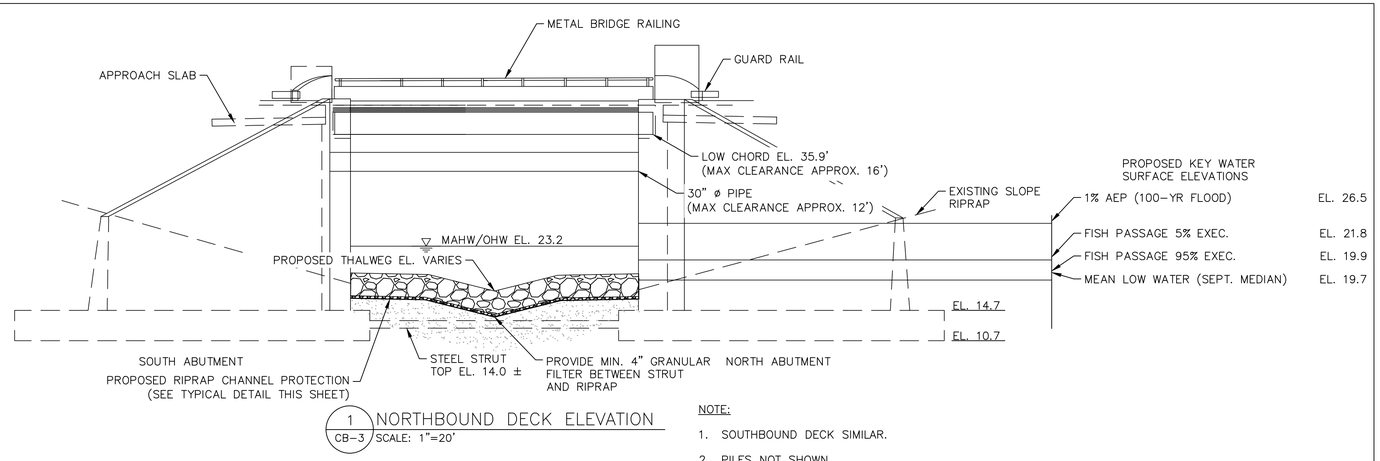
DRAWING: CB-2



I-95 BRIDGE PLAN
SCALE: 1"=30'

NOTES:

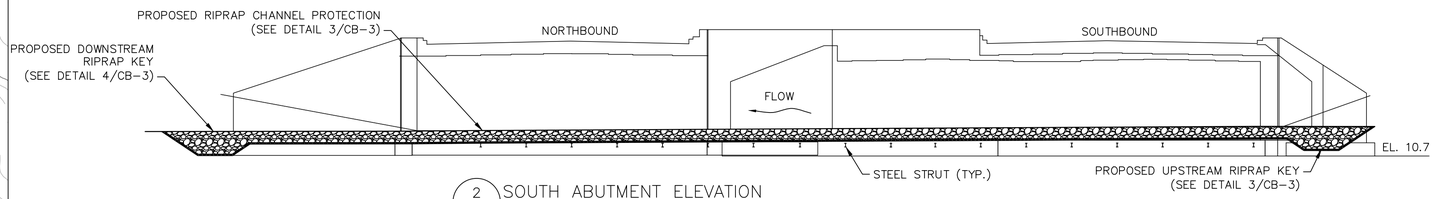
1. WATER SURFACE EXTENTS AND BYPASS PIPE NOT SHOWN FOR CLARITY.



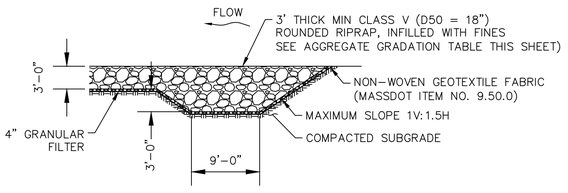
1 CB-3 NORTHBOUND DECK ELEVATION
SCALE: 1"=20'

NOTE:

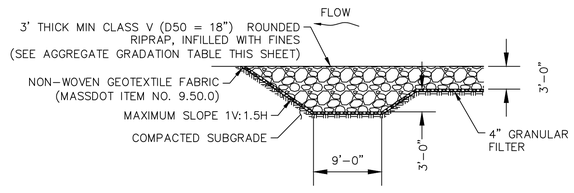
1. SOUTHBOUND DECK SIMILAR.
2. PILES NOT SHOWN.
3. WATER SURFACE ELEVATIONS SHOWN FOR UPSTREAM FACE OF BRIDGE.



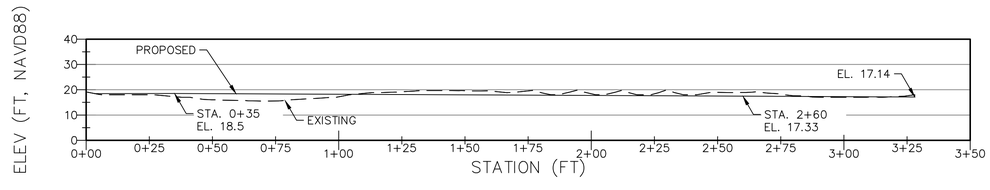
2 CB-3 SOUTH ABUTMENT ELEVATION
SCALE: 1"=20'



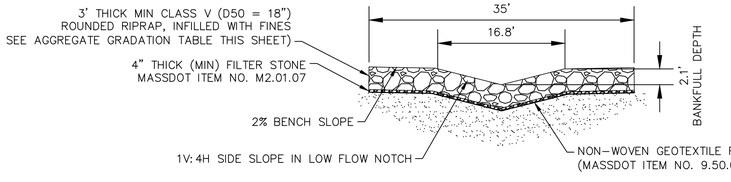
3 CB-3 UPSTREAM CHANNEL KEY
SCALE: 1"=10'



4 CB-3 DOWNSTREAM CHANNEL KEY
SCALE: 1"=10'



I-95 BRIDGE EXISTING AND PROPOSED PROFILES
SCALE: 1"=30'



5 TYPICAL PROPOSED CHANNEL CROSS-SECTION
1"=10'

LEGEND

- BANK/MEAN ANNUAL HIGH WATER (MAHW)/ORDINARY HIGH WATER (OHW)
- BVW — BORDERING VEGETATED WETLAND (BVW)
- 100 — 100' BUFFER
- RFA — RIVERFRONT AREA
- EXISTING FENCE
- FS — COMPOST FILTER SOCK
- APPROXIMATE WATER SURFACE EXTENTS (MAHW/OHW)

AGGREGATE GRADATION			
PERCENT PASSING BY WEIGHT	SIZE (INCHES OR SIEVE #)		
	ROUNDED RIPRAP		FINES
	MIN	MAX	
100	-	36	1
85	24	28	0.75
50	17	21	#4
30	14	17	-
15	11	16	#200

10' 0 10' 20'
SCALE: 1"=10'

20' 0 20' 40'
SCALE: 1"=20'

30' 0 30' 60'
SCALE: 1"=30'

COMMONWEALTH OF MASSACHUSETTS
Affidavit
JILL W. GRIFFITHS
CIVIL
No. 51893
REGISTERED PROFESSIONAL ENGINEER

BRIDGE NO. N-10-020 (2VJ) - I-95 NB BRIDGE
BRIDGE NO. N-10-020 (2VK) - I-95 SB BRIDGE

PARKER RIVER RESTORATION PROJECT

I-95 BRIDGE SCOUR COUNTERMEASURE PROPOSED PLAN, ELEVATION, & PROFILE

DATE	#	DESCRIPTIONS	BY	APP
06/04/25	0	ISSUED FOR BID	MAO	JWG

DRAWN BY: MAO
CHECKED BY: JWG
APPROVED BY: JWG
PROJECT NO. 02430 DATE: 06/04/2025
SCALE: AS NOTED
DRAWING: CB -3

Town of Newbury
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Byfield, MA 01922

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