

KILBY STREET BOOSTER PUMP STATION

WEIR RIVER WATER SYSTEM HINGHAM, MA

FOR PERMITTING
MAY 2025

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APEX COMPANIES, LLC

HINGHAM DEPARTMENT OF PUBLIC WORKS

ASHLEY SANFORD - SUPERINTENDENT
JR FREY - TOWN ENGINEER

HINGHAM TOWN ADMINISTRATOR

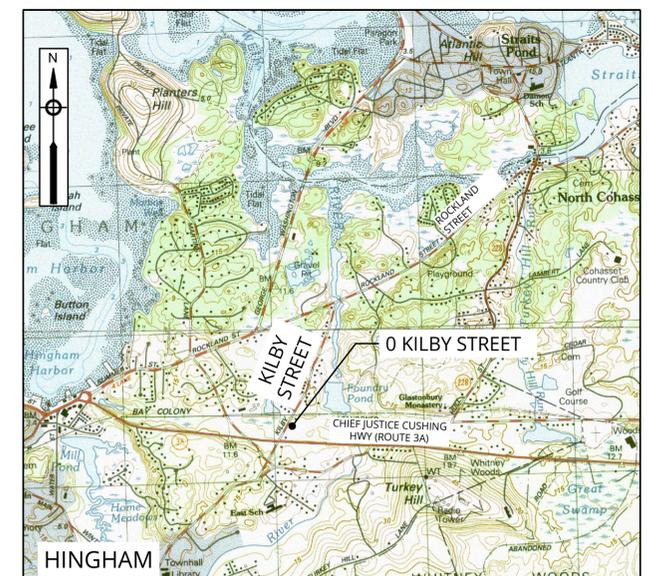
THOMAS MAYO

BOARD OF WATER COMMISSIONERS

BILL RAMSEY
LIZ KLEIN
JULIE STEHLE

MANAGING DIRECTOR / SUPERINTENDENT

RUSSELL TIERNEY



VICINITY MAP
1" = 2000'

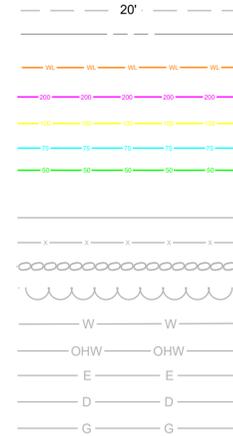
GENERAL NOTES

- BASEMAP INFORMATION IS FROM A SURVEY PERFORMED BY LANDTECH, INC. IN JUNE 2024 AND SUPPLEMENTED BY RECORD INFORMATION PROVIDED BY THE WEIR RIVER WATER SYSTEM. THE BASIS OF BEARING FOR THE SURVEY IS THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) AND THE HORIZONTAL DATUM USED IS THE NORTH AMERICAN DATUM OF 1983 (NAD83).
- EXISTING GAS, ELECTRIC, TELEPHONE, AND CABLE/TELEVISION UTILITY INFORMATION SHOWN ON ALL SHEETS IS TAKEN FROM RECORD INFORMATION SUPPLIED BY THE UTILITY PROVIDER. IT IS NOTED THAT ADDITIONAL UTILITY PIPES, WIRES, AND STRUCTURES MAY EXIST.
- WETLAND RESOURCE AREA DELINEATION FLAGGED BY PINEBROOK CONSULTING ON JUNE 7, 2024 AND FIELD LOCATED BY LANDTECH, INC. AS PART OF THE SITE SURVEY.
- BASEMAP INFORMATION FOR THE KILBY STREET BOOSTER PUMP STATION IS SUPPLEMENTED WITH MASSGIS, LIDAR, AND RECORD INFORMATION.
- THE DRAWINGS ARE DIAGRAMMATIC AND ARE INTENDED TO DESCRIBE THE WORK TO BE COMPLETED, AND INDICATE THE GENERAL LOCATION OF MATERIALS AND EQUIPMENT, BUT DO NOT PURPORT TO COVER ALL DETAILS NEEDED FOR A COMPLETE SYSTEM. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DETAILS THAT MAY BE NECESSARY TO PROPERLY INSTALL, ADJUST AND PLACE INTO OPERATION THE INSTALLATION INCLUDING ALL COORDINATION WITH SUBCONTRACTORS, FILED SUB-BIDDERS, AND EQUIPMENT SUPPLIERS. THE CONTRACTOR WILL BE SOLELY RESPONSIBLE FOR PROVIDING A FULLY FUNCTIONAL SYSTEM.
- CONSTRUCTION STAKING CONTROL: THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING AND MAINTAINING ALL CONTROL POINTS AND BENCHMARKS NECESSARY TO PERFORM THE WORK.
- THE GENERAL CONTRACTOR SHALL NOT STORE ANY APPARATUS, MATERIALS, SUPPLIES, OR EQUIPMENT ON DRAINAGE STRUCTURES, PRIVATE PROPERTY OR OUTSIDE THE LIMIT OF WORK. WORK WITHIN THE 100-FOOT WETLAND BUFFER ZONE SHALL BE LIMITED TO THE EXTENTS SHOWN ON THESE PLANS.
- NORTH DIRECTION SHOWN IS APPROXIMATE.
- ALL EXISTING UTILITY SHOWN ARE APPROXIMATE, THE GENERAL CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UTILITIES. GENERAL CONTRACTOR SHALL NOTIFY DIG SAFE AT LEAST 72 HOURS IN ADVANCE, EXCLUDING WEEKENDS AND HOLIDAYS, PRIOR TO ANY EXCAVATION.
- THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE SUPPORT OF ALL UTILITIES AND STRUCTURES DURING CONSTRUCTION.
- ALL EXISTING UTILITY LINES ENCOUNTERED DURING CONSTRUCTION ARE TO REMAIN IN SERVICE, UNLESS OTHERWISE NOTED. THE GENERAL CONTRACTOR, AT NO ADDITIONAL COST TO THE OWNER, SHALL REPAIR ANY EXISTING SEWERS, STORM DRAIN LINES, CULVERTS, OR OTHER UNDERGROUND UTILITIES DAMAGED DURING CONSTRUCTION.
- ALL STRUCTURES AND PIPELINES LOCATED ADJACENT TO TRENCH EXCAVATION SHALL BE PROTECTED AND FIRMLY SUPPORTED BY THE GENERAL CONTRACTOR UNTIL THE TRENCH IS BACKFILLED. INJURY TO ANY SUCH STRUCTURE CAUSED BY, OR RESULTING FROM, THE GENERAL CONTRACTOR'S OPERATIONS SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. ALL UTILITIES REQUIRING REPAIR, RELOCATION OR ADJUSTMENT AS A RESULT OF THE PROJECT SHALL BE COORDINATED THROUGH THE RESPECTIVE UTILITY AND THE TOWN. OPEN TRENCHES MUST BE BACK FILLED AT THE END OF THE WORKDAY OR COVERED WITH STEEL PLATES. NO EXCEPTIONS SHALL BE PERMITTED.
- GENERAL CONTRACTOR SHALL REMOVE AND REPLACE, OR REPAIR, ALL CURBS, SIDE WALKS, PAVEMENT AND OTHER ITEMS DAMAGED BY CONSTRUCTION ACTIVITIES TO AT LEAST THEIR ORIGINAL CONDITION, AND TO THE SATISFACTION OF THE OWNER AND ENGINEER.
- IF ENCOUNTERED, GENERAL CONTRACTOR SHALL HANDLE, STORE, REMOVE, TRANSPORT AND LEGALLY DISPOSE OF ANY ASBESTOS-CEMENT PIPE IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS. ASBESTOS NOTIFICATION FORMS SHALL BE COMPLETED AND SUBMITTED TO THE APPROPRIATE AGENCY/AGENCIES.
- THE GENERAL CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS FOR WORK IN ROADWAYS (INCLUDING, BUT NOT LIMITED TO STREET OPENING PERMIT AND TRENCH PERMIT). THE GENERAL CONTRACTOR IS RESPONSIBLE FOR CONFORMING TO ALL PERMITS AS AN INTEGRAL PART OF THEIR WORK.
- THE GENERAL CONTRACTOR SHALL HANDLE GROUNDWATER, WHERE ENCOUNTERED, IN AN APPROVED MANNER. DURING ANY DEWATERING, THE GENERAL CONTRACTOR SHALL USE STONE AROUND THE SUCTION END TO MINIMIZE DISCHARGE OF TRENCH MATERIALS. THE DISCHARGED WATER SHALL PASS THROUGH DEWATERING BAGS.
- FINAL LOCATION OF EQUIPMENT AND CONNECTION POINTS SHALL BE APPROVED BY THE ENGINEER AND SHALL BE DETERMINED IN THE FIELD WITH THE GENERAL CONTRACTOR BEING RESPONSIBLE FOR DIMENSIONS THAT SHALL BE CONFIRMED AND CORRELATED AT THE JOB SITE.
- THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR GRADING ALL DISTURBED AREAS TO DRAIN.
- ADEQUATE PROTECTION OF PERSONS AND PROPERTY SHALL BE PROVIDED AT ALL TIMES. THE WORK SHALL BE EXECUTED IN SUCH A WAY AS TO AVOID HAZARD TO PERSONS AND PROPERTY. WORK SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE REQUIREMENTS OF LOCAL, STATE AND FEDERAL AUTHORITIES HAVING JURISDICTION OVER THE WORK.
- THE GENERAL CONTRACTOR SHALL NOT OPEN OR CLOSE ANY VALVES OR HYDRANTS WHICH HOLD WATER IN THE SYSTEM. THE OWNER WILL, ON 24 HOURS NOTICE FROM THE CONTRACTOR, OPEN AND/OR CLOSE ANY VALVES OR HYDRANTS REQUIRED FOR CONNECTING THE BOOSTER PUMP STATION TO THE DISTRIBUTION SYSTEM.
- ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE TOWNS OF HINGHAM AND HULL CONSERVATION COMMISSIONS ORDER OF CONDITIONS AND ANY PLANNING BOARD AND/OR ZONING BOARD APPROVALS.

CONSERVATION NOTES

- ALL SEDIMENTATION BARRIERS SHALL BE MAINTAINED IN GOOD REPAIR UNTIL ALL DISTURBED AREAS HAVE BEEN FULLY STABILIZED AS APPROVED BY THE ENGINEER/OWNER. THE GENERAL CONTRACTOR SHALL INSPECT EROSION CONTROLS ON A DAILY BASIS AND REMOVE ACCUMULATED SEDIMENTS AS NEEDED. THE ENGINEER/OWNER RESERVES THE RIGHT TO REQUIRE ADDITIONAL EROSION CONTROLS AND/OR DAMAGE PREVENTION CONTROLS AT NO ADDITIONAL COST TO THE OWNER.
- THE CONTRACTOR SHALL FURNISH AND INSTALL SILT SACKS IN ALL CATCH BASINS ASSOCIATED WITH THE WORK AREA AND AS DIRECTED BY THE ENGINEER.
- SILT SACKS AND OTHER EROSION AND SEDIMENT CONTROL MEASURES/DEVICES SHALL BE INSPECTED, CLEANED, REPLACED AND/OR REPAIRED AS NECESSARY, AND AFTER EACH SIGNIFICANT RAINFALL.
- THE CONTRACTOR SHALL STOCKPILE SUFFICIENT SOIL EROSION AND SEDIMENT CONTROL MATERIALS ONSITE TO REPAIR ANY DAMAGED SOIL EROSION AND SEDIMENT CONTROLS.
- THE CONSERVATION ADMINISTRATOR SHALL INSPECT ALL EROSION AND SEDIMENT CONTROLS PRIOR TO THE START OF ANY SITE WORK.
- THE CONTRACTOR SHALL NOT DISCHARGE WATER FROM DEWATERING OPERATIONS DIRECTLY INTO A WETLAND, SURFACE WATER, OR ANY STORM SEWER.
- GROUNDWATER FROM DEWATERING OPERATIONS SHALL BE TREATED TO REDUCE THE AMOUNT OF SEDIMENT CONTAINED IN THE WATER TO ALLOWABLE LEVELS.
- ALL DEWATERING DISCHARGES SHALL ALSO INCLUDE ENERGY DISSIPATION TO PREVENT SCOURING.
- PLANTINGS SHALL BE 75% SUCCESSFUL AT THE END OF 2 FULL GROWING SEASONS. THE GROWING SEASON SHALL BE DEFINED AS MAY 1ST THROUGH SEPTEMBER 30TH. THE FIRST FULL GROWING SEASON FOR PLANTS PUT IN AFTER MAY 1ST SHALL BE THE FOLLOWING YEAR.

EXISTING



DESCRIPTION

- 1' MAJOR CONTOUR
- PROPERTY LINES
- LIMIT OF WETLAND
- 200' RIVERFRONT AREA
- 100' WETLAND BUFFER
- 75' WETLAND BUFFER
- 50' NO DISTURB BUFFER
- EDGE OF PAVEMENT
- CHAIN LINK FENCE
- STONE WALL
- EDGE OF VEGETATION
- WATER MAIN
- ELECTRIC OVERHEAD WIRES
- ELECTRIC UNDERGROUND
- DRAIN PIPE
- GAS MAIN
- HYDRANT
- GATE VALVE
- WATER SERVICE
- UTILITY POLE
- GUY WIRE ANCHOR
- GUY WIRE
- CATCH BASIN
- DRAIN MANHOLE
- GAS SERVICE
- EVERGREEN TREE
- DECIDUOUS TREE
- STREET SIGN
- BOLLARD
- MAILBOX
- WETLAND FLAG
- SURVEY BENCHMARK

PROPOSED



DESCRIPTION

- CHAIN LINK FENCE
- TEMPORARY CONSTRUCTION FENCE
- LIMIT OF WORK
- FILTER SOCK
- POLYETHYLENE "V-BIO" ENCASED FINISHED WATER MAIN
- POLYETHYLENE "V-BIO" ENCASED RAW WATER MAIN
- FIRE PROTECTION WATER MAIN
- LIMITS OF GRADING
- STOCKPILE
- NEW ENGLAND WETLAND PLANTS; "NEW ENGLAND NATIVE WARM SEASON GRASS MIX" SEED MIX
- NEW ENGLAND WETLAND PLANTS; "NEW ENGLAND WILDFLOWER MIX" SEED MIX
- NEW ENGLAND WETLAND PLANTS; "NEW ENGLAND EROSION CONTROL/RESTORATION MIX FOR DETENTION BASINS AND MOIST SITES" SEED MIX
- TEST PIT
- COMMON WITCHHAZEL
- SILKY DOGWOOD
- VIRGINIA ROSE
- EASTERN REDBUD
- EASTERN RED CEDAR
- RED MAPLE

TYPICAL ABBREVIATIONS

KEY	DESCRIPTION	KEY	DESCRIPTION	KEY	DESCRIPTION
AD	AREA DRAIN	INV. / I	INVERT	SMH	SEWER MANHOLE
APPROX.	APPROXIMATE	LF	LINEAR FOOT	STA.	STATION
ARCH.	ARCHITECTURAL	LOD	LIMIT OF DISTURBANCE	STM.	STORM
BC	BOTTOM CURB	LOW	LIMIT OF WORK	TBD	TO BE DETERMINED
BLDG.	BUILDING	LP	LOW POINT	TBR	TO BE REMOVED
BIT	BITUMINOUS	L.S.A.	LANDSCAPED AREA	TBR/R	TO BE REMOVED AND REPLACED
BM.	BENCHMARK	MAX.	MAXIMUM	TC	TOP CURB
BOT	BOTTOM	ME	MEET EXISTING	STM.	STORM
BW	BOTTOM OF WALL GRADE	MEP	MECHANICAL ELECTRICAL PLUMBING	TBD	TO BE DETERMINED
CB / CBN	CATCH BASIN	MIN.	MINIMUM	TBR	TO BE REMOVED
CLDI	CEMENT LINED DUCTILE IRON	No. / #	NUMBER	TBR/R	TO BE REMOVED AND REPLACED
CONC.	CONCRETE	NTS	NOT TO SCALE	TC	TOP CURB
DI	DUCTILE IRON	O.C.	ON CENTER	TPF	TREE PROTECTION FENCE
DMH	DRAIN MANHOLE	OCS	OUTLET CONTROL STRUCTURE	TR	TOP OF RAMP
ELEV. / EL	ELEVATION	O.D.	OUTSIDE DIAMETER	TW	TOP OF WALL
EOP	EDGE OF PAVEMENT	PERF.	PERFORATED	TYP.	TYPICAL
EXIST.	EXISTING	PROP.	PROPOSED	UGS	UNDERGROUND SYSTEM
FDC	FIRE DEPARTMENT CONNECTION	PVC	POLYVINYL CHLORIDE PIPE	UNG.	UNDERGROUND
FES	FLARED END STRUCTURE	R	RADIUS	VC	VITRIFIED CLAY
FFE	FINISHED FLOOR ELEVATION	RCP	REINFORCED CONCRETE PIPE	VGC	VERTICAL GRANITE CURB
FG	FINISHED GRADE	RDG	RIDGE LINE	V.I.F.	VERIFY IN FIELD
GC	GENERAL CONTRACTOR	RE	RIM ELEVATION	W.	WIDE
GSF	GROSS SQUARE FEET	RET	RETAINING	WF	WETLAND FLAG
GW	GROUNDWATER	R.O.W.	RIGHT OF WAY	WQU	WATER QUALITY UNIT
HDPE	HIGH DENSITY POLYETHYLENE PIPE	RR	RAILROAD	'	DEGREE
HMA	HOT MIX ASPHALT	S	SLOPE	Ø / DIA.	DIAMETER
HP	HIGH POINT	SAN.	SANITARY	±	PLUS OR MINUS
HT	HEIGHT	SF	SQUARE FEET		
HYD	HYDRANT	SGC	SLOPED GRANITE CURB		



5/20/2025

MARK	DATE	DESCRIPTION

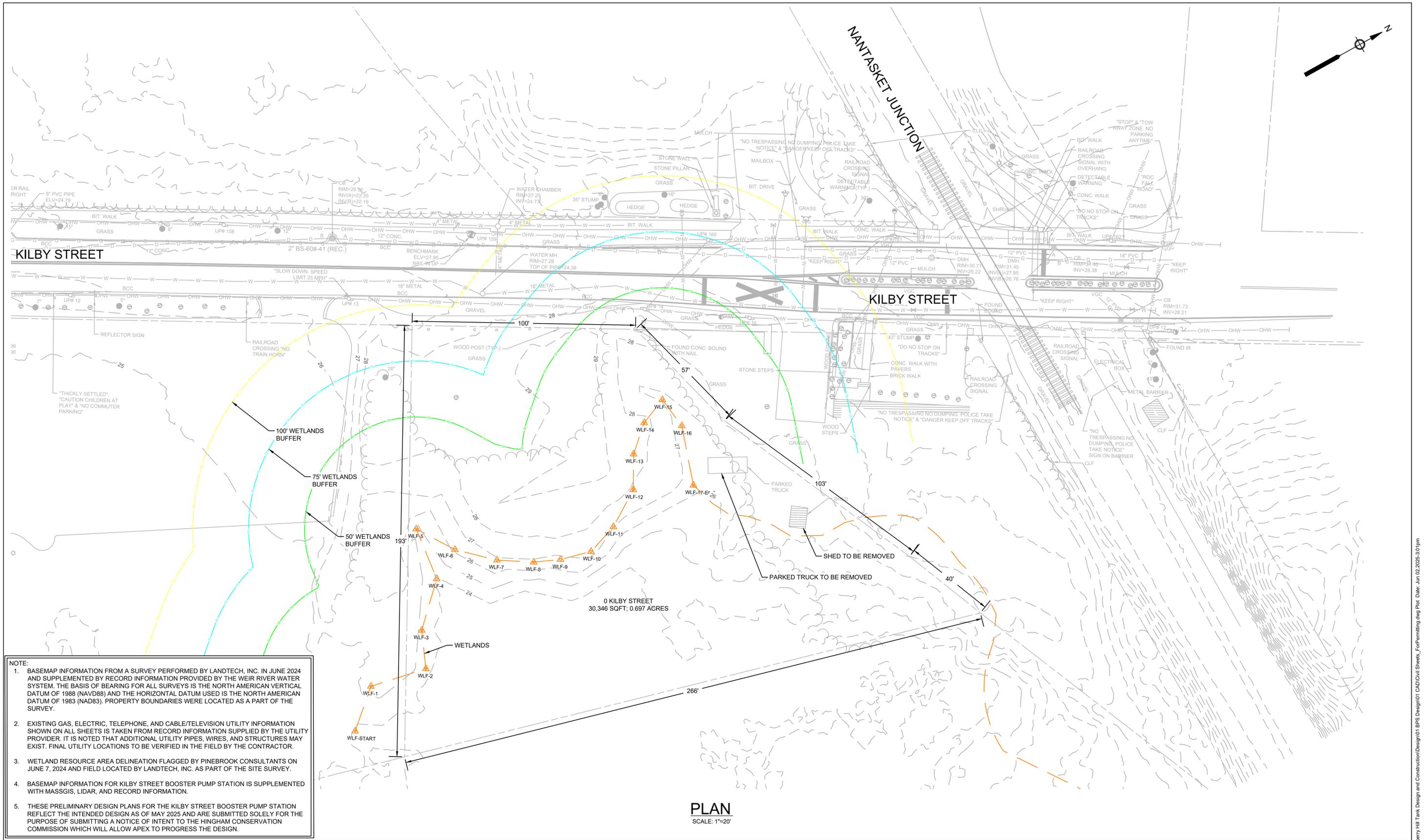
Scale	N.T.S.
Date	MAY 2025
Job No.	22012525
Designed by	JDH
Drawn by	JDH
Checked by	RPN
Approved by	RPN

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

KILBY STREET BOOSTER PUMP STATION WEIR RIVER WATER SYSTEM

GENERAL NOTES AND LEGEND

FOR PERMITTING
Sheet No.
G-1



NOTE:

- BASEMAP INFORMATION FROM A SURVEY PERFORMED BY LANDTECH, INC. IN JUNE 2024 AND SUPPLEMENTED BY RECORD INFORMATION PROVIDED BY THE WEIR RIVER WATER SYSTEM. THE BASIS OF BEARING FOR ALL SURVEYS IS THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) AND THE HORIZONTAL DATUM USED IS THE NORTH AMERICAN DATUM OF 1983 (NAD83). PROPERTY BOUNDARIES WERE LOCATED AS A PART OF THE SURVEY.
- EXISTING GAS, ELECTRIC, TELEPHONE, AND CABLE/TELEVISION UTILITY INFORMATION SHOWN ON ALL SHEETS IS TAKEN FROM RECORD INFORMATION SUPPLIED BY THE UTILITY PROVIDER. IT IS NOTED THAT ADDITIONAL UTILITY PIPES, WIRES, AND STRUCTURES MAY EXIST. FINAL UTILITY LOCATIONS TO BE VERIFIED IN THE FIELD BY THE CONTRACTOR.
- WETLAND RESOURCE AREA DELINEATION FLAGGED BY PINEBROOK CONSULTANTS ON JUNE 7, 2024 AND FIELD LOCATED BY LANDTECH, INC. AS PART OF THE SITE SURVEY.
- BASEMAP INFORMATION FOR KILBY STREET BOOSTER PUMP STATION IS SUPPLEMENTED WITH MASSGIS, LIDAR, AND RECORD INFORMATION.
- THESE PRELIMINARY DESIGN PLANS FOR THE KILBY STREET BOOSTER PUMP STATION REFLECT THE INTENDED DESIGN AS OF MAY 2025 AND ARE SUBMITTED SOLELY FOR THE PURPOSE OF SUBMITTING A NOTICE OF INTENT TO THE HINGHAM CONSERVATION COMMISSION WHICH WILL ALLOW APEX TO PROGRESS THE DESIGN.

PLAN
SCALE: 1"=20'



MARK	DATE	DESCRIPTION

Scale	1" = 20'
Date	MAY 2025
Job No.	22012525
Designed by	JDH
Drawn by	JDH/AKS
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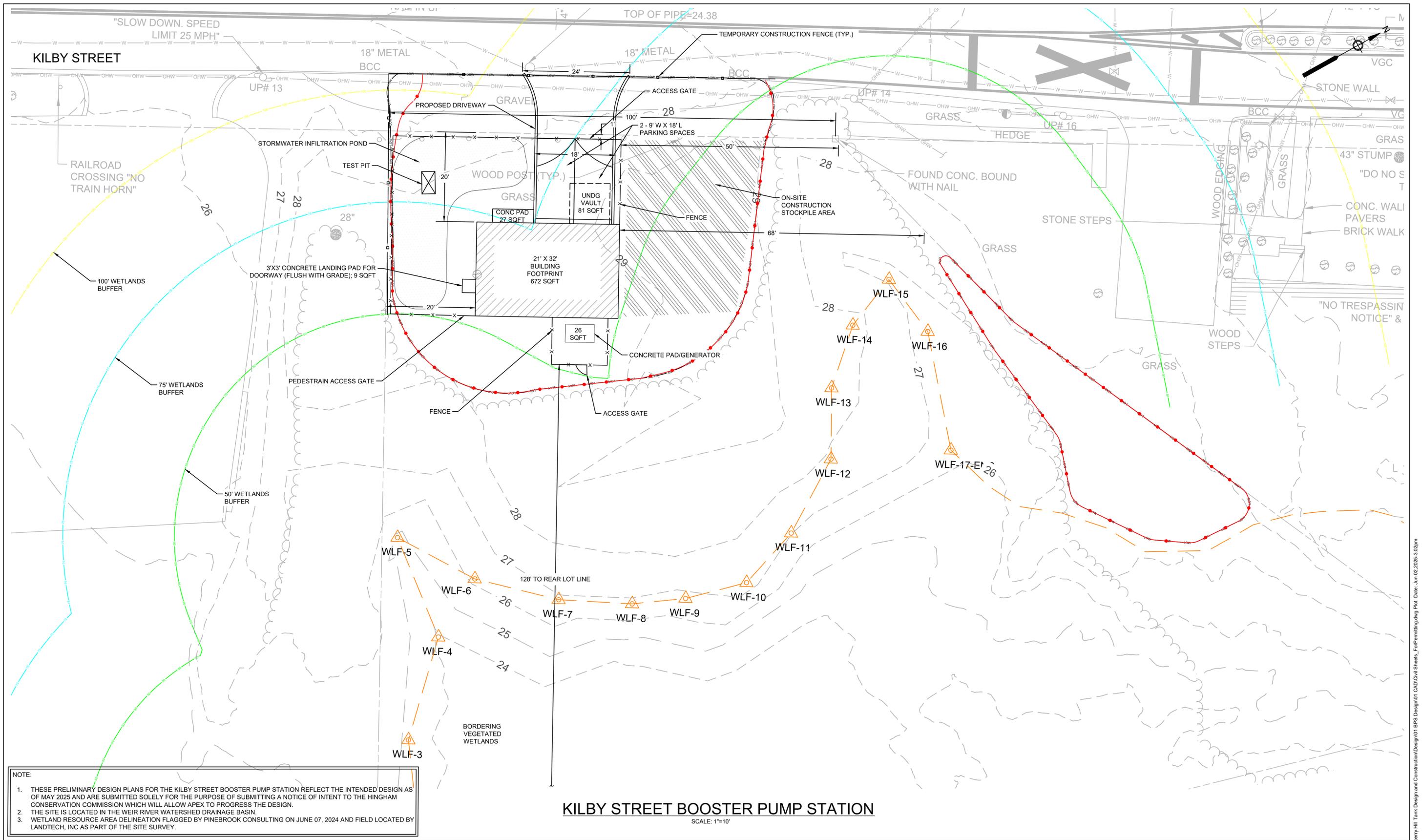
**KILBY STREET BOOSTER PUMP STATION
WEIR RIVER WATER SYSTEM**

EXISTING CONDITIONS

FOR PERMITTING

Sheet No.

C-1



NOTE:

1. THESE PRELIMINARY DESIGN PLANS FOR THE KILBY STREET BOOSTER PUMP STATION REFLECT THE INTENDED DESIGN AS OF MAY 2025 AND ARE SUBMITTED SOLELY FOR THE PURPOSE OF SUBMITTING A NOTICE OF INTENT TO THE HINGHAM CONSERVATION COMMISSION WHICH WILL ALLOW APEX TO PROGRESS THE DESIGN.
2. THE SITE IS LOCATED IN THE WEIR RIVER WATERSHED DRAINAGE BASIN.
3. WETLAND RESOURCE AREA DELINEATION FLAGGED BY PINEBROOK CONSULTING ON JUNE 07, 2024 AND FIELD LOCATED BY LANDTECH, INC AS PART OF THE SITE SURVEY.

KILBY STREET BOOSTER PUMP STATION

SCALE: 1"=10'



APEX



5/20/2025

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**KILBY STREET BOOSTER PUMP STATION
WEIR RIVER WATER SYSTEM**

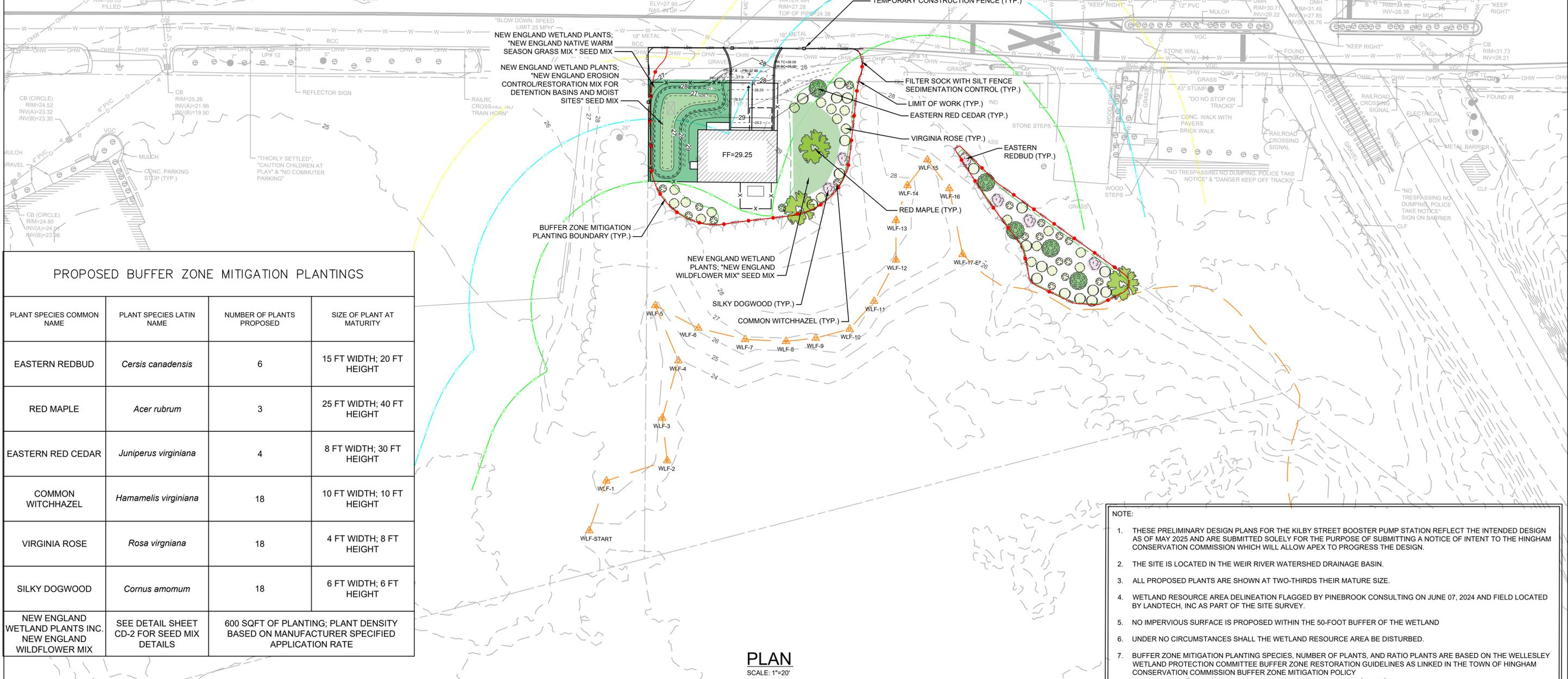
DRAFT SITE PLAN

FOR PERMITTING

Sheet No.

C-2

PROPOSED IMPERVIOUS SURFACE AREA WITHIN THE 100-FOOT BUFFER ZONE	
SITE FEATURE	IMPERVIOUS AREA (SQFT)
BUILDING	672
GENERATOR PAD	30
CONCRETE LANDING PAD FOR BATHROOM DOORWAY	9
CONCRETE LANDING PAD FOR PUMP ROOM AND SEWER ROOM DOORWAYS	30
PARKING SPACES	609
TOTAL PROPOSED IMPERVIOUS AREA = 1,350 SQUARE FEET	
REQUIRED BUFFER MITIGATION POLICY PLANTING AREA 1:1 = 1,350 SQUARE FEET	
PROPOSED BUFFER MITIGATION POLICY PLANTING AREA = 2,416 SQUARE FEET	



PROPOSED BUFFER ZONE MITIGATION PLANTINGS			
PLANT SPECIES COMMON NAME	PLANT SPECIES LATIN NAME	NUMBER OF PLANTS PROPOSED	SIZE OF PLANT AT MATURITY
EASTERN REDBUD	<i>Cercis canadensis</i>	6	15 FT WIDTH; 20 FT HEIGHT
RED MAPLE	<i>Acer rubrum</i>	3	25 FT WIDTH; 40 FT HEIGHT
EASTERN RED CEDAR	<i>Juniperus virginiana</i>	4	8 FT WIDTH; 30 FT HEIGHT
COMMON WITCHHAZEL	<i>Hamamelis virginiana</i>	18	10 FT WIDTH; 10 FT HEIGHT
VIRGINIA ROSE	<i>Rosa virginiana</i>	18	4 FT WIDTH; 8 FT HEIGHT
SILKY DOGWOOD	<i>Cornus amomum</i>	18	6 FT WIDTH; 6 FT HEIGHT
NEW ENGLAND WETLAND PLANTS INC. NEW ENGLAND WILDFLOWER MIX	SEE DETAIL SHEET CD-2 FOR SEED MIX DETAILS	600 SQFT OF PLANTING; PLANT DENSITY BASED ON MANUFACTURER SPECIFIED APPLICATION RATE	

- NOTE:
- THESE PRELIMINARY DESIGN PLANS FOR THE KILBY STREET BOOSTER PUMP STATION REFLECT THE INTENDED DESIGN AS OF MAY 2025 AND ARE SUBMITTED SOLELY FOR THE PURPOSE OF SUBMITTING A NOTICE OF INTENT TO THE HINGHAM CONSERVATION COMMISSION WHICH WILL ALLOW APEX TO PROGRESS THE DESIGN.
 - THE SITE IS LOCATED IN THE WEIR RIVER WATERSHED DRAINAGE BASIN.
 - ALL PROPOSED PLANTS ARE SHOWN AT TWO-THIRDS THEIR MATURE SIZE.
 - WETLAND RESOURCE AREA DELINEATION FLAGGED BY PINEBROOK CONSULTING ON JUNE 07, 2024 AND FIELD LOCATED BY LANDTECH, INC AS PART OF THE SITE SURVEY.
 - NO IMPERVIOUS SURFACE IS PROPOSED WITHIN THE 50-FOOT BUFFER OF THE WETLAND
 - UNDER NO CIRCUMSTANCES SHALL THE WETLAND RESOURCE AREA BE DISTURBED.
 - BUFFER ZONE MITIGATION PLANTING SPECIES, NUMBER OF PLANTS, AND RATIO PLANTS ARE BASED ON THE WELLESLEY WETLAND PROTECTION COMMITTEE BUFFER ZONE RESTORATION GUIDELINES AS LINKED IN THE TOWN OF HINGHAM CONSERVATION COMMISSION BUFFER ZONE MITIGATION POLICY

PLAN
SCALE: 1" = 20'

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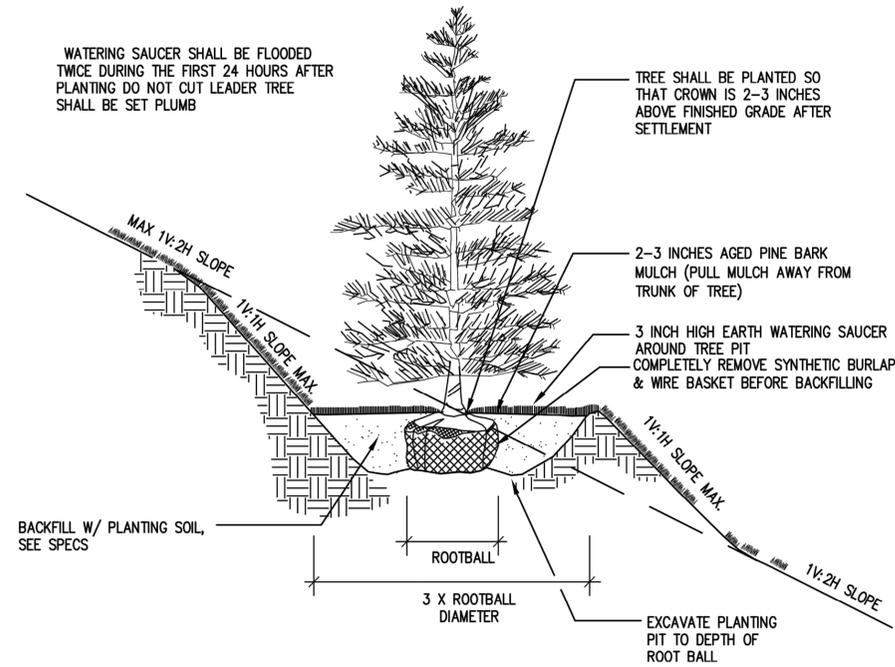
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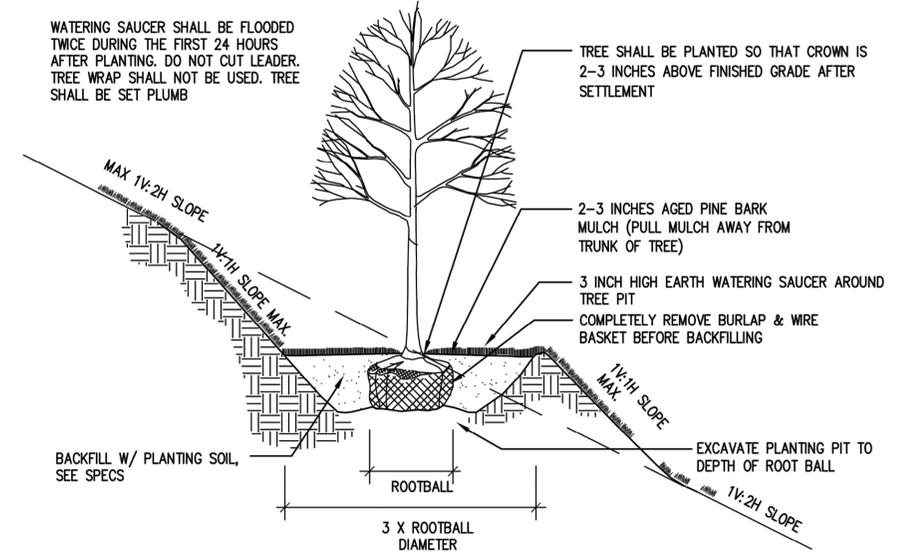
**KILBY STREET BOOSTER PUMP STATION
WEIR RIVER WATER SYSTEM**

BUFFER ZONE MITIGATION AND STORMWATER MANAGEMENT

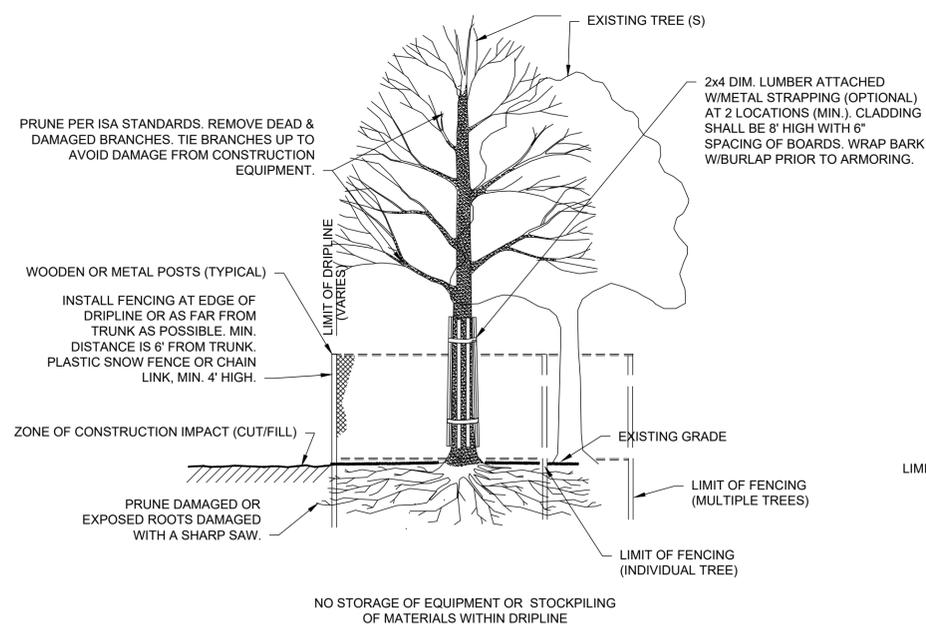
FOR PERMITTING
Sheet No.
C-3



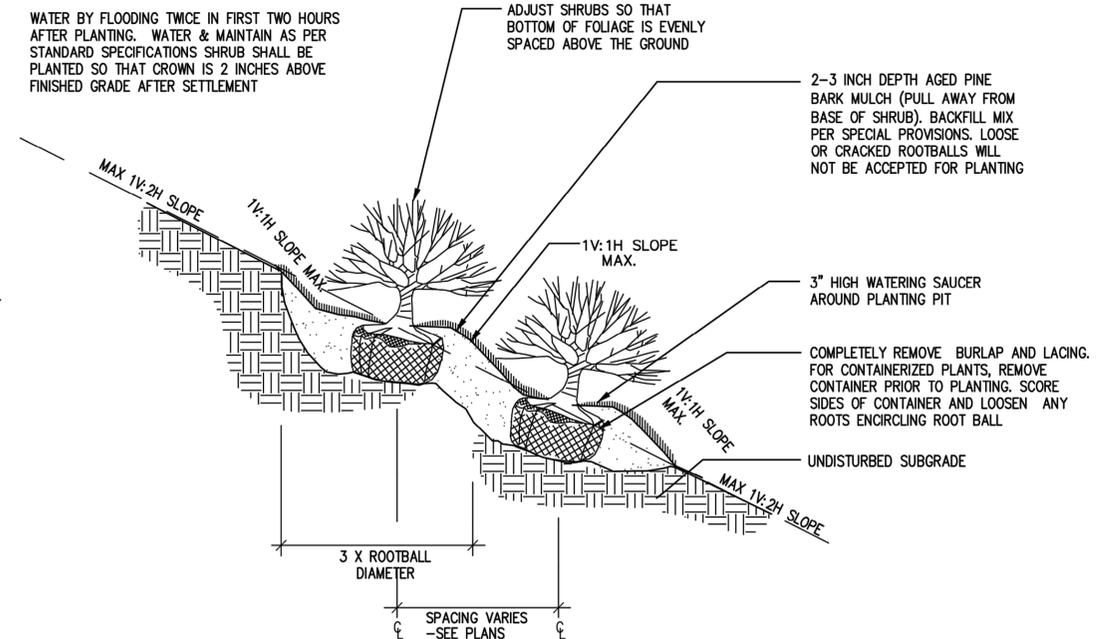
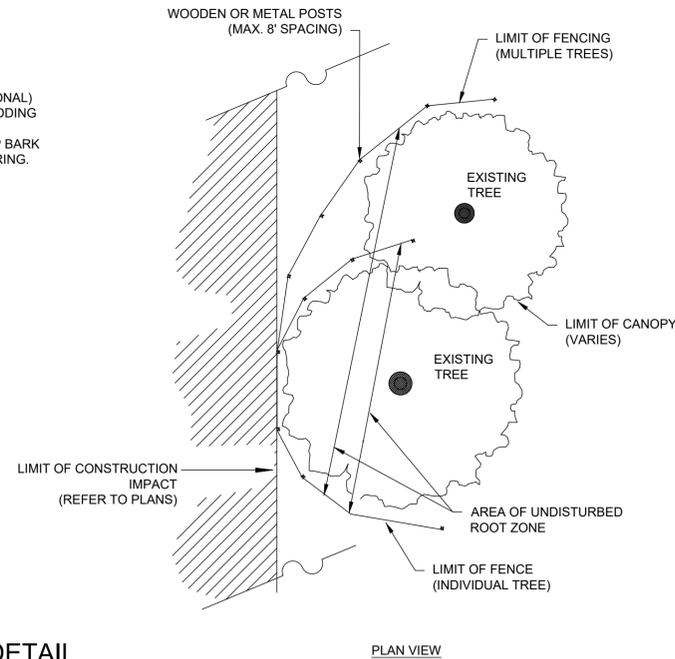
EVERGREEN TREE PLANTING
SCALE: N.T.S.



CONIFEROUS TREE PLANTING
SCALE: N.T.S.



TREE PROTECTION DETAIL
SCALE: N.T.S.



CONTAINERIZED SHRUB PLANTING
SCALE: N.T.S.



5/20/2025

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**KILBY STREET BOOSTER PUMP STATION
WEIR RIVER WATER SYSTEM**

CIVIL CONSTRUCTION DETAILS I

FOR PERMITTING

Sheet No.

CD-1

NEW ENGLAND WETLAND PLANTS, INC

14 Pearl Lane South Hadley, MA 01075
 PHONE: 413-548-8000 FAX 413-549-4000
 EMAIL: INFO@NEWP.COM WEB ADDRESS: WWW.NEWP.COM

New England Erosion Control/Restoration Mix For Detention Basins and Moist Sites

Botanical Name	Common Name	Indicator
<i>Elymus riparius</i>	Riverbank Wild Rye	FACW
<i>Schizachyrium scoparium</i>	Little Bluestem	FACU
<i>Festuca rubra</i>	Red Fescue	FACU
<i>Andropogon gerardii</i>	Big Bluestem	FAC
<i>Panicum virgatum</i>	Switch Grass	FAC
<i>Vernonia noveboracensis</i>	New York Ironweed	FACW+
<i>Agrostis perennans</i>	Upland Bentgrass	FACU
<i>Bidens frondosa</i>	Beggar Ticks	FACW
<i>Eupatorium maculatum (Eutrochium maculatum)</i>	Spotted Joe Pye Weed	OBL
<i>Eupatorium perfoliatum</i>	Boneset	FACW
<i>Aster novae-angliae (Symphyotrichum novae-angliae)</i>	New England Aster	FACW-
<i>Scirpus cyperinus</i>	Wool Grass	FACW
<i>Juncus effusus</i>	Soft Rush	FACW+

APPLY: 35 LBS/ACRE :1250 sq ft/lb

The New England Erosion Control/Restoration Mix for Detention Basins and Moist Sites contains a selection of native grasses and wildflowers designed to colonize generally moist, recently disturbed sites where quick growth of vegetation is desired to stabilize the soil surface. It is an appropriate seed mix for ecologically sensitive restorations that require stabilization as well as long-term establishment of native vegetation. This mix is particularly appropriate for detention basins that do not hold standing water. Many of the plants in this mix can tolerate infrequent inundation, but not constant flooding. The mix may be applied by hand, by mechanical spreader, or by hydro-seeder. After sowing, lightly rake, roll or cultipack to insure good seed-to-soil contact. Best results are obtained with a Spring or late Summer seeding. Late Fall and Winter dormant seeding requires an increase in the application rate. A light mulching of clean, weed-free straw is recommended.

New England Wetland Plants, Inc. may modify seed mixes at any time depending upon seed availability. The design criteria and ecological function of the mix will remain unchanged. Price is \$/bulk pound, FOB warehouse, Plus SH and applicable taxes.

RETENTION POND SEED MIX SPECIES DETAIL

NEW ENGLAND WETLAND PLANTS, INC

14 Pearl Lane South Hadley, MA 01075
 PHONE: 413-548-8000 FAX 413-549-4000
 EMAIL: INFO@NEWP.COM WEB ADDRESS: WWW.NEWP.COM

New England Wildflower Mix

Botanical Name	Common Name	Indicator
<i>Schizachyrium scoparium</i>	Little Bluestem	FACU
<i>Sorghastrum nutans</i>	Indian Grass	UPL
<i>Chamaecrista fasciculata</i>	Partridge Pea	FACU
<i>Elymus virginicus</i>	Virginia Wild Rye	FACW-
<i>Elymus canadensis</i>	Canada Wild Rye	FACU+
<i>Festuca rubra</i>	Red Fescue	FACU
<i>Asclepias tuberosa</i>	Butterfly Milkweed	NI
<i>Vernonia noveboracensis</i>	New York Ironweed	FACW+
<i>Oenothera biennis</i>	Evening Primrose	FACU-
<i>Aster novae-angliae (Symphyotrichum novae-angliae)</i>	New England Aster	FACW-
<i>Rudbeckia hirta</i>	Black Eyed Susan	FACU-
<i>Solidago juncea</i>	Early Goldenrod	
<i>Eupatorium fistulosum (Eutrochium fistulosum)</i>	Hollow-Stem Joe Pye Weed	FACW
<i>Aster lateriflorus (Symphyotrichum lateriflorum)</i>	Starved/Calico Aster	FACW

APPLY: 23 LBS/ACRE :1900 sq ft/lb

New England Wetland Plants, Inc. may modify seed mixes at any time depending upon seed availability. The design criteria and ecological function of the mix will remain unchanged. Price is \$/bulk pound, FOB warehouse, Plus SH and applicable taxes.

HERBACEOUS PLANTINGS SEED MIX SPECIES DETAIL

NEW ENGLAND WETLAND PLANTS, INC

14 Pearl Lane South Hadley, MA 01075
 PHONE: 413-548-8000 FAX 413-549-4000
 EMAIL: INFO@NEWP.COM WEB ADDRESS: WWW.NEWP.COM

New England Native Warm Season Grass Mix

Botanical Name	Common Name	Indicator
<i>Schizachyrium scoparium</i>	Little Bluestem	FACU
<i>Andropogon gerardii</i>	Big Bluestem	FAC
<i>Elymus virginicus</i>	Virginia Wild Rye	FACW-
<i>Sorghastrum nutans</i>	Indian Grass	UPL
<i>Festuca rubra</i>	Red Fescue	FACU
<i>Panicum virgatum</i>	Switch Grass	FAC

APPLY: 23 LBS/ACRE :1900 sq ft/lb

The New England Native Warm Season Grass Mix contains a broad spectrum of native warm season grasses to insure that a variety of the species will survive in the sandy, droughty conditions typically found along roadsides, gravel mine reclamation areas, and other low-fertility well drained soil conditions. This mix is somewhat slow to germinate and establish during the first year of planting, but it will produce good cover by the end of the second growing season to produce long-living native stands. The cool season grasses have been added as a "starter" seed for erosion control. This mix has excellent heat and drought tolerance, and grows best in well drained soils. Warm season grasses provide excellent year round cover and food for wildlife, particularly as winter cover for small animals. This mix can be applied by hydroseeding, by mechanical spreader or by hand. Best results are obtained with a mid-late Spring seeding.

New England Wetland Plants, Inc. may modify seed mixes at any time depending upon seed availability. The design criteria and ecological function of the mix will remain unchanged. Price is \$/bulk pound, FOB warehouse, Plus SH and applicable taxes.

NATIVE GRASS SEED MIX SPECIES DETAIL



MARK	DATE	DESCRIPTION

Scale	NTS
Date	MAY 2025
Job No.	22012525
Designed by	JDH/AKS
Drawn by	JDH/AKS
Checked by	RPN
Approved by	RPN

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

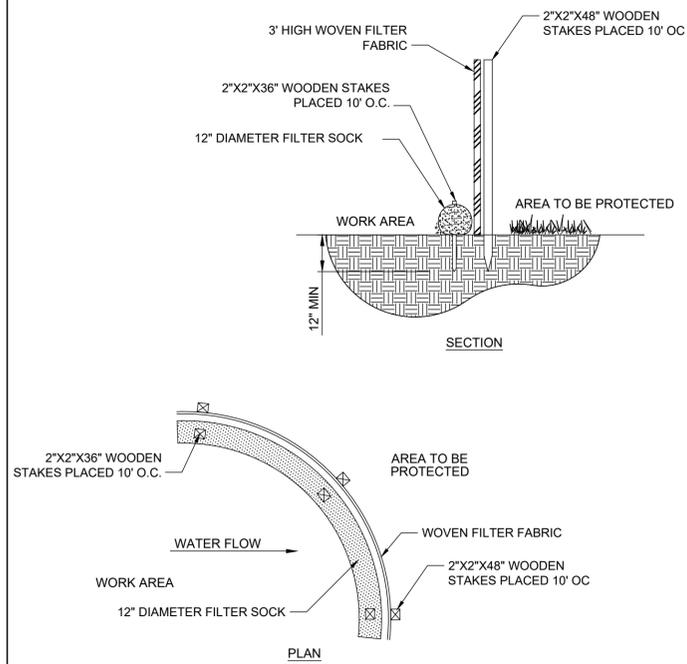
**KILBY STREET BOOSTER PUMP STATION
WEIR RIVER WATER SYSTEM**

CIVIL CONSTRUCTION DETAILS II

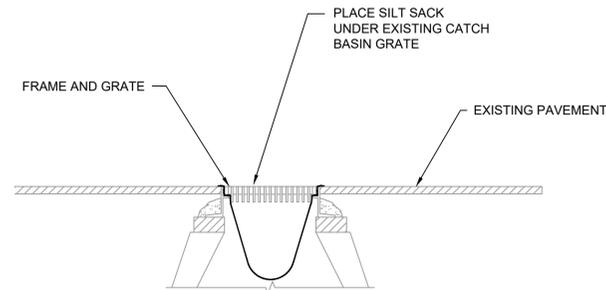
FOR PERMITTING

Sheet No.

CD-2

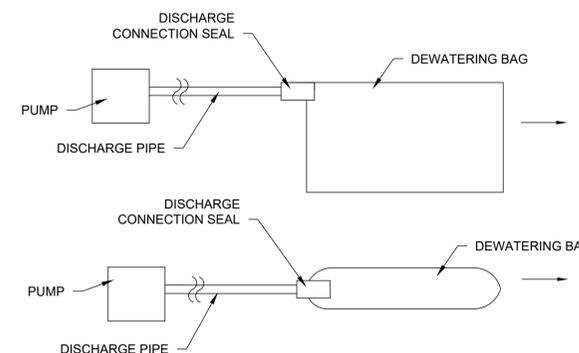


12" DIAMETER FILTER SOCK WITH SILT FENCE
SCALE: N.T.S.



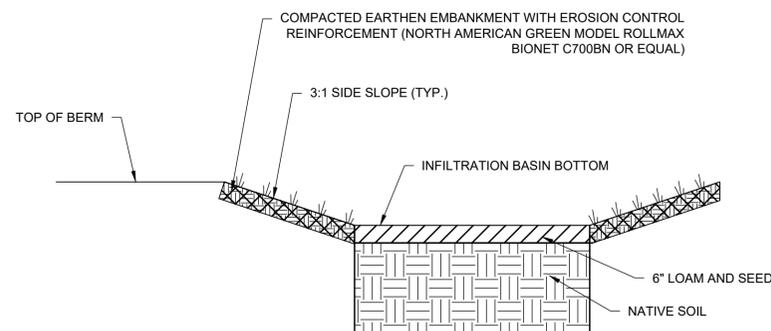
- NOTES:**
- SILT SACKS SHALL BE INSPECTED WEEKLY AND ACCUMULATED SILT REMOVED TO ALLOW CATCH BASIN TO FUNCTION PROPERLY.
 - SILT SACK AS MANUFACTURED BY ACF ENVIRONMENTAL OR APPROVED EQUAL.

SEDIMENTATION CONTROL AT CATCH BASINS SILT SACKS
SCALE: N.T.S.



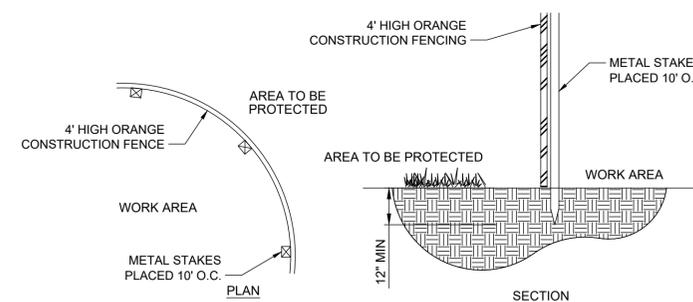
- NOTES:**
- DEWATERING BAG SIZE AND QUANTITY SHALL BE AS NEEDED TO ADEQUATELY FILTER ALL PUMP EFFLUENT FROM DEWATERING ACTIVITIES. CONTRACTOR SHALL PROVIDE A REDUNDANT BAG ON SITE AT ALL TIMES.
 - EACH BAG SHALL HANDLE A 2", 3", OR 4" DISCHARGE HOSE.
 - DISCHARGE HOSES CAN BE PLACED ALONG ANY EDGE BY MAKING A SMALL INCISION INTO THE FABRIC, INSERTING THE HOSE, AND THEN CLAMPING THE FABRIC TO THE HOSE VIA WIRE, TIES, CLAMP, ROPE OR SIMILAR TO CREATE A GOOD SEAL.
 - CONTRACTOR SHALL AVOID DISCHARGING MULTIPLE PIPES INTO ONE BAG.

DEWATERING BAGS
SCALE: N.T.S.



TYPICAL STORM WATER INFILTRATION BASIN DETAIL
SCALE: N.T.S.

- NOTES:**
- PROVIDE TOPSOIL IN ACCORDANCE WITH SECTION 02920.
 - REFER TO C-3 FOR SEED MIX REQUIREMENTS FOR SIDE SLOPES AND BASIN BOTTOM.
 - DIRECT STORMWATER RUNOFF TO CONSTRUCTION PERIOD BMPs UNTIL SITE STABILIZATION. STORMWATER MAY BE DIRECTED TO THE STORM WATER INFILTRATION BASINS ONLY ONCE THE CHANNEL AND THE CONTRIBUTING DRAINAGE AREA HAVE BEEN FULLY STABILIZED.
 - DURING CONSTRUCTION AVOID EXCESSIVELY COMPACTING SOILS AROUND THE INFILTRATION BASIN. TO AVOID COMPACTION OF THE PARENT MATERIAL, WORK FROM THE EDGE OF PROPOSED INFILTRATION BASIN AND COMPACT WITH MINIMAL PRESSURE UNTIL THE DESIRED ELEVATION IS REACHED.
 - INFILTRATION BASINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE MASSACHUSETTS STORMWATER HANDBOOK.



ORANGE CONSTRUCTION FENCE
SCALE: N.T.S.



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Drawn by	JDH/AKS
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Approved by	RPN

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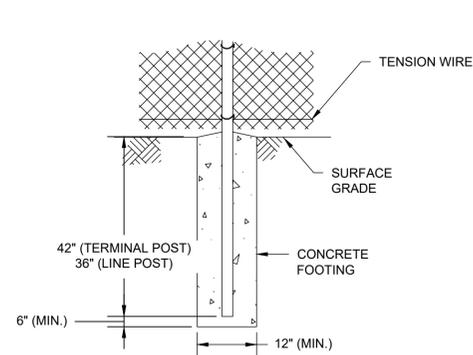
**KILBY STREET BOOSTER PUMP STATION
WEIR RIVER WATER SYSTEM**

CIVIL CONSTRUCTION DETAILS III

FOR PERMITTING

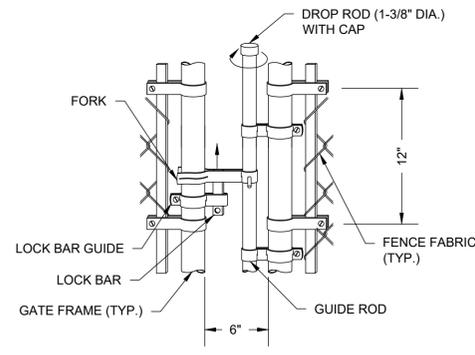
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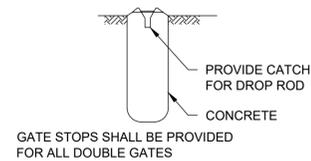
FENCE FOOTING DETAIL

SCALE: N.T.S.



DROP ROD ASSEMBLY DETAIL

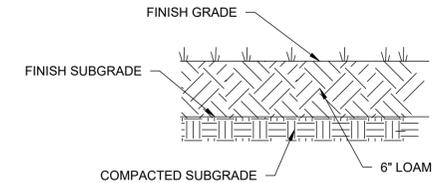
SCALE: N.T.S.



GATE STOPS SHALL BE PROVIDED FOR ALL DOUBLE GATES

GATE STOP DETAIL

SCALE: N.T.S.

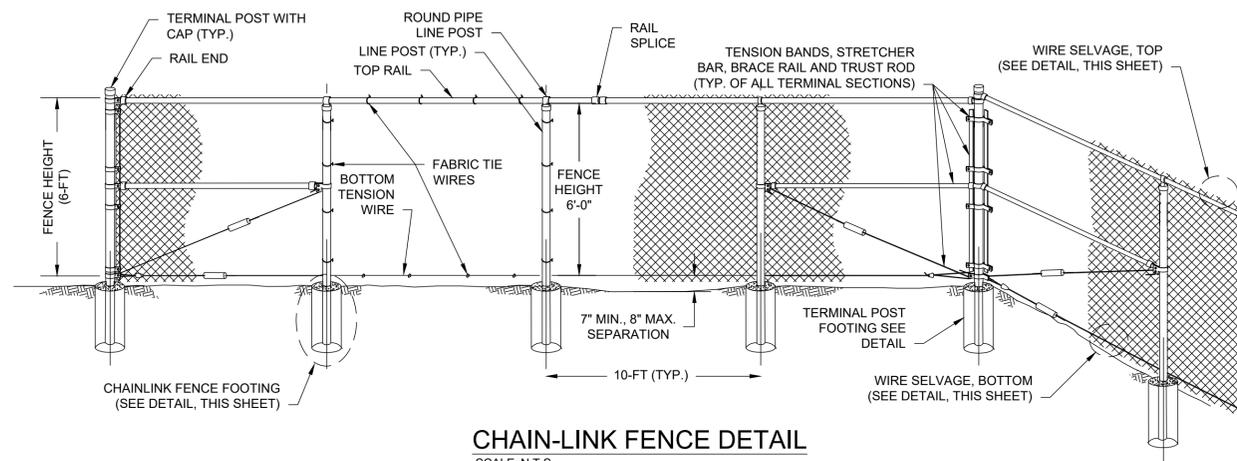


NOTE:

1. INSTALL CURLEX CL EROSION CONTROL BLANKET AS MANUFACTURED BY AMERICAN EXCELSIOR COMPANY (OR APPROVED EQUAL) ON ALL LOAM AND SEEDED SLOPES 3:1 OR STEEPER.
2. REFER TO L-DRAWINGS FOR SEED MIX.

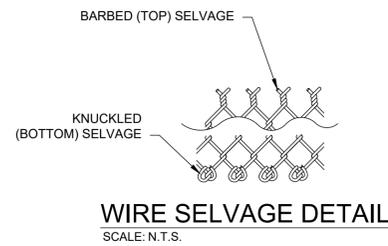
LOAM AND SEED (DISTURBED AREAS)

SCALE: N.T.S.



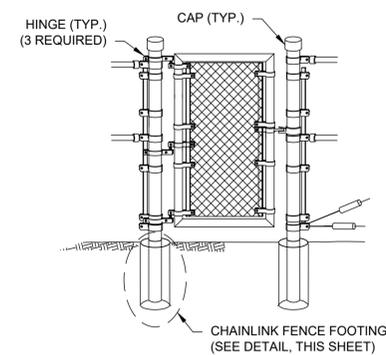
CHAIN-LINK FENCE DETAIL

SCALE: N.T.S.



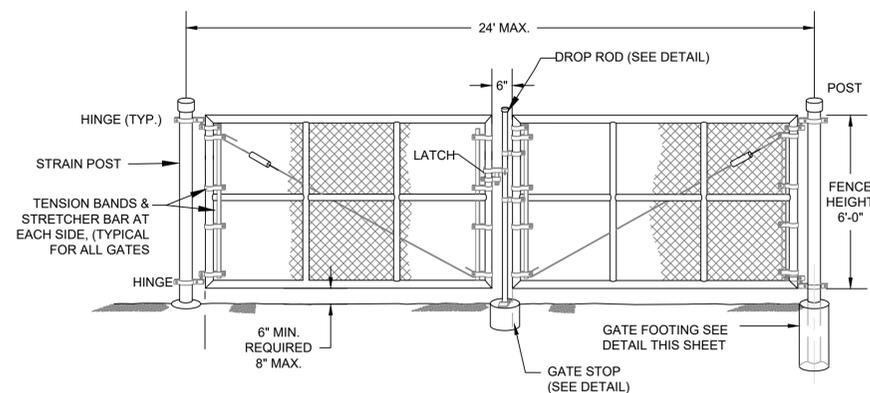
WIRE SELVAGE DETAIL

SCALE: N.T.S.



4-FT WIDE PEDESTRIAN GATE

SCALE: N.T.S.



DOUBLE SWING GATE DETAIL

SCALE: N.T.S.



5/20/2025

MARK	DATE	DESCRIPTION

Scale	NTS
Date	MAY 2025
Job No.	22012525
Designed by	JDH/MEPA
Drawn by	JDH/MEPA
Checked by	MEPA
Approved by	ASK

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**KILBY STREET BOOSTER PUMP STATION
WEIR RIVER WATER SYSTEM**

CIVIL CONSTRUCTION DETAILS IV

FOR PERMITTING

Sheet No.

CD-4