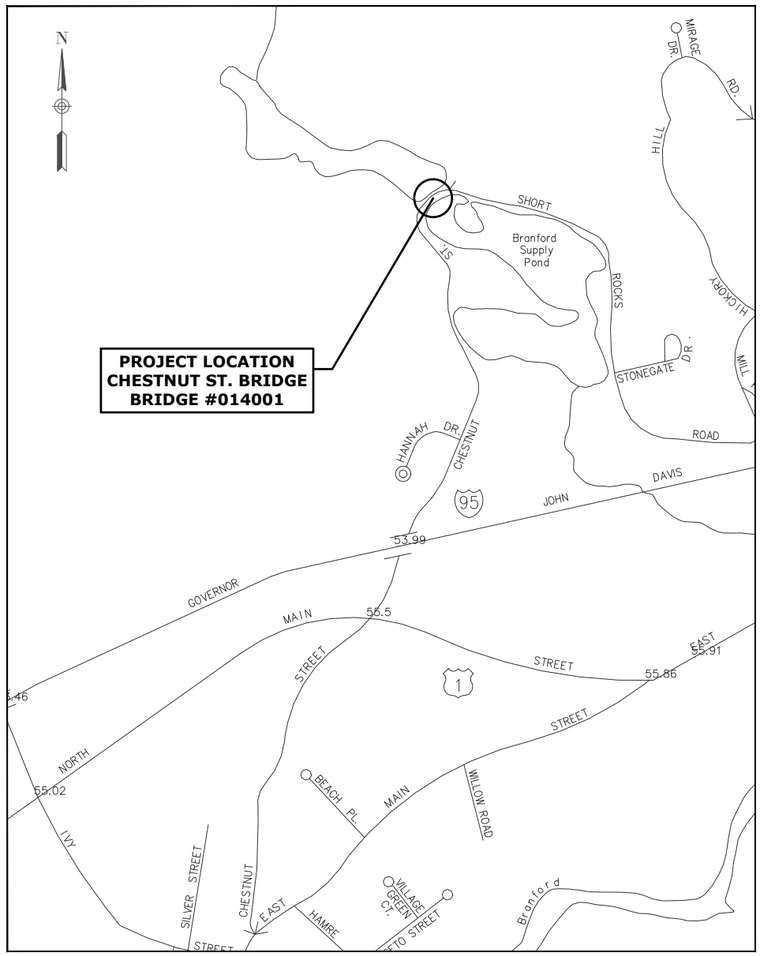
TOWN OF BRANFORD, CONNECTICUT

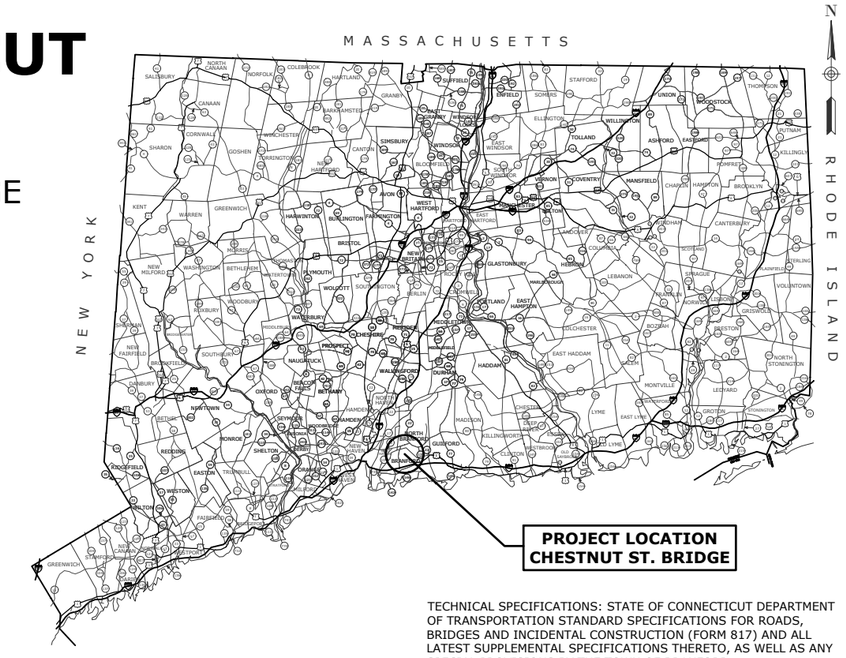
PLAN FOR
REPLACEMENT OF CHESTNUT STREET BRIDGE
OVER BRANFORD SUPPLY POND

STATE PROJECT #9014-0001
BRIDGE RECONSTRUCTION
TO BE MAINTAINED BY THE TOWN OF BRANFORD



LOCATION MAP

SCALE: 1" =500'



ROAD CLASSIFICATION: LOCAL
DESIGN SPEED: 25 MPH
AADT (2022): 850 V.P.D.
ROADSIDE CLEAR ZONE: xx' MIN.

TECHNICAL SPECIFICATIONS: STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROADS, BRIDGES AND INCIDENTAL CONSTRUCTION (FORM 817) AND ALL LATEST SUPPLEMENTAL SPECIFICATIONS THERETO, AS WELL AS ANY SPECIAL PROVISIONS BY THE TOWN OF BRANFORD.

DESIGN STANDARDS: AASHTO POLICY ON THE GEOMETRIC DESIGN OF HIGHWAYS AND STREETS, DATED 2004 AND THE CONNECTICUT DEPARTMENT OF TRANSPORTATION HIGHWAY DESIGN MANUAL DATED 2003.

SURVEY: ALL COORDINATES ON THE PROJECT ARE BASED ON NAD 83. ALL ELEVATIONS ARE BASED ON NAVD 1988.

CONNECTICUT DEPARTMENT OF TRANSPORTATION OR TOWN OF BRANFORD BIDDING AND OTHER INFORMATION AND DOCUMENTS WHICH ARE OBTAINED THROUGH THE INTERNET, WORLD WIDE WEB SITES OR OTHER SOURCES ARE NOT TO BE CONSTRUED TO BE OFFICIAL INFORMATION FOR THE PURPOSES OF BIDDING OR CONDUCTING OTHER BUSINESS WITH THE TOWN OF BRANFORD.

IT IS THE RESPONSIBILITY OF EACH BIDDER AND ALL OTHER INTERESTED PARTIES TO OBTAIN ALL BIDDING RELATED INFORMATION AND DOCUMENTS FROM OFFICIAL SOURCES WITHIN THE TOWN OF BRANFORD.

PERSONS AND/OR ENTITIES WHICH REPRODUCE AND/OR MAKE SUCH INFORMATION AVAILABLE BY ANY MEANS ARE NOT AUTHORIZED BY THE TOWN OF BRANFORD TO DO SO AND MAY BE LIABLE FOR CLAIMS RESULTING FROM THE DISSEMINATION OF UNOFFICIAL, INCOMPLETE AND/OR INACCURATE INFORMATION.

LIST OF DRAWINGS

SHEET NO.	TITLE
1	TITLE SHEET
2	DETOUR PLAN
3	EXISTING CONDITIONS PLAN
4	PROPOSED ROADWAY PLAN
5	ROADWAY PROFILE
6	ROADWAY DETAILS
7-10	ROADWAY CROSS SECTIONS
11	HANDLING WATER PLAN
12	HANDLING WATER DETAILS (TYP.)
13	EROSION AND SEDIMENTATION CONTROL DETAILS
14	STRUCTURE PLAN
15	STRUCTURE SECTION AND ELEVATIONS
16	BORING LOGS

STANDARD DRAWINGS

DWG. NO.	TITLE

STANDARD CONVENTIONS

North Arrow W/No. Coor. — Grid Arrow

- Edge Of Road
- Concrete Pavement
- Dirt Road
- B.C.L.C.
- Concrete Curb
- Guide Rail
- Concrete Median Barrier
- Bit. Walk
- Conc. Sidewalk
- Railroad Tracks
- Chain Link Fence
- Rustic Fence
- Pipe Fence
- Board Fence
- Water Edge
- Stream
- Ditch
- TOWN LINE
- Boring Location
- Limit Of Marsh
- Stone Wall
- Ledge Outcrop
- Connecticut Wetland Limits
- Federal Wetlands Limits
- STATE LINE
- Power Line
- Swamp
- Building
- Transmission Tower
- Riprap
- Hedge Row
- Tree Line
- Shrub
- Evergreen Tree
- Deciduous Tree
- Highway Line
- Street Line
- Property Line
- Lot Line
- Easement Line

LEGEND:

- Iron Pin (Found)
- Monument (Found)
- Sign
- Manhole
- "C" Catch Basin
- "C-L" Catch Basin
- Utility Pole
- Light Pole
- Metal Post
- Guy Anchor
- Water Gate
- Gas Valve
- Gas Meter
- Mail Box
- Underground Piping (San.,Stm.)
- E — U/G Elec. Line
- W — Water Line
- OHW — Overhead Utilities
- T — U/G Tele. Line
- Property Line
- 100 — Contour Line
- Wetlands Boundary
- WF #69 — Wetlands Flag
- WF #69 OHW — Ordinary High Water

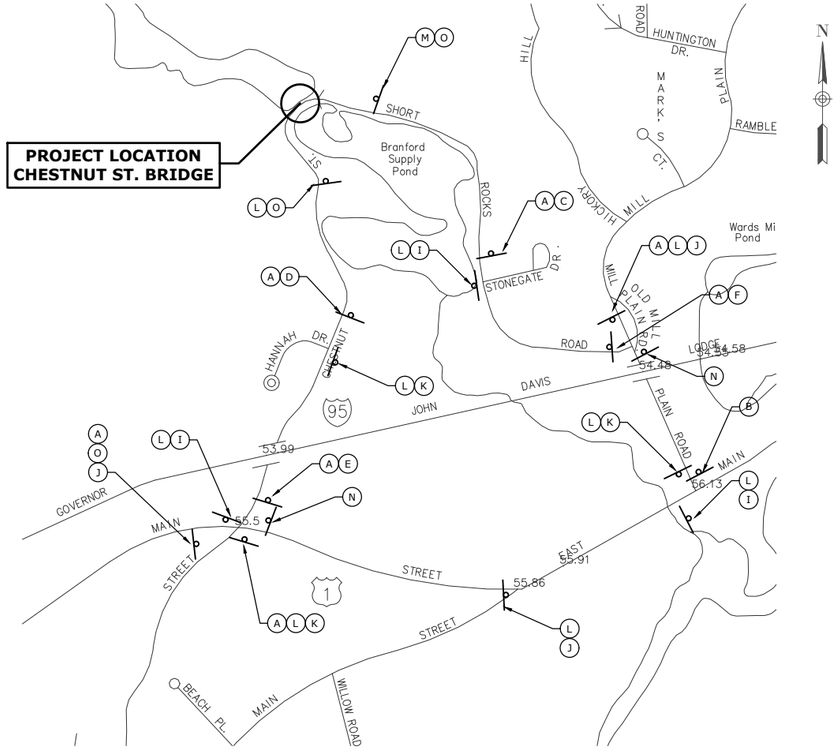
DESIGNED BY WMC CONSULTING ENGINEERS

SUBMITTED BY _____ DATE _____

TOWN ENGINEER - TOWN OF BRANFORD

_____ DATE _____
JOHN HOEFFERLE, P.E.

DATE: 03/27/2024



DETOUR PLAN

SCALE: 1" =500'

CHESTNUT STREET BRIDGE REPLACEMENT CONSTRUCTION SIGNING

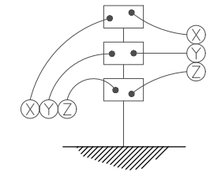
	SIGN	CONNDOT	DIMENSION	DESCRIPTION	NO. REQ.'D
*	A	80-9929	72" X 48"	CHESTNUT STREET & SHORT ROCKS ROAD CLOSED TO THRU TRAFFIC EFFECTIVE MONDAY (00/00)	7
	C	80-9078	60" X 30"	BRIDGE CLOSED 0.4 MILES AHEAD. LOCAL TRAFFIC ONLY	1
	D	80-9078	60" X 30"	BRIDGE CLOSED 0.3 MILES AHEAD. LOCAL TRAFFIC ONLY	1
	E	80-9078	60" X 30"	BRIDGE CLOSED 0.6 MILES AHEAD. LOCAL TRAFFIC ONLY	1
	F	80-9078	60" X 30"	BRIDGE CLOSED 0.7 MILES AHEAD. LOCAL TRAFFIC ONLY	1
**	G	80-9080	48" X 30"	ROAD CLOSED	2
**	H	31-0552	30"	STOP	2
	I	80-9710	30" X 24"	DETOUR (LEFT ARROW)	4
	J	80-9710	30" X 24"	DETOUR (STRAIGHT ARROW)	3
	K	80-9710	30" X 24"	DETOUR (RIGHT ARROW)	4
	L	80-9928	60" X 30"	CHESTNUT STREET/ SHORT ROCKS ROAD	8
	N	80-9708	24" X 18"	END DETOUR	2
	O	80-9082	48" X 30"	BRIDGE CLOSED	2

* INDICATES SIGNS TO BE POSTED AT LEAST 2 WEEKS PRIOR TO CONSTRUCTION AND THEN COVERED OR REMOVED DURING CONSTRUCTION (SEE NOTE 7, THIS SHEET).

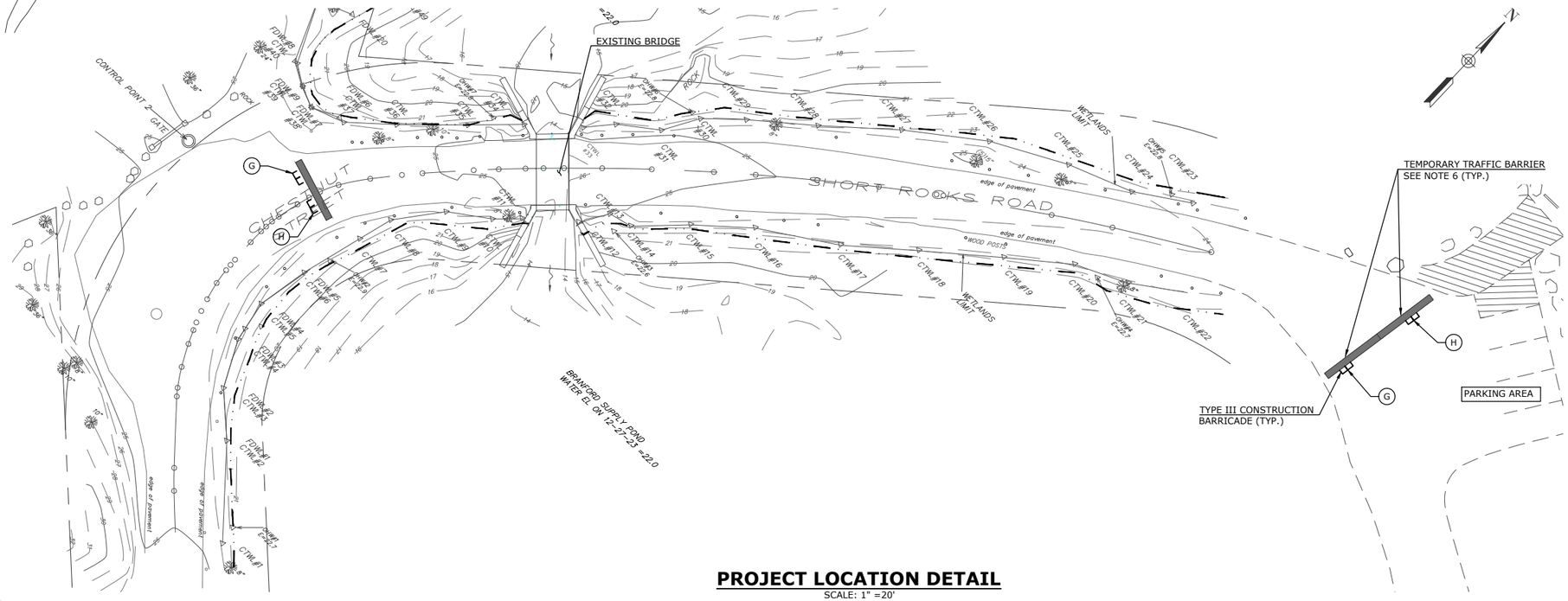
** INDICATES SIGNS MOUNTED ON TYPE III CONSTRUCTION BARRICADES WHICH SHALL BE INSTALLED WITH A BARRICADE WARNING LIGHT – HIGH INTENSITY

MAINTENANCE AND PROTECTION OF TRAFFIC NOTES

1. THE CONTRACTOR SHALL LOCATE AND PLACE ALL SIGNS AS INDICATED ON THIS SHEET OR AS DIRECTED BY THE ENGINEER.
2. THE CONTRACTOR SHALL CLOSE REMAINDER OF CHESTNUT STREET BEGINNING AT INTERSECTION OF HANNAH DRIVE, AND THE REMAINDER OF SHORT ROCKS ROAD BEGINNING AT INTERSECTION OF STONEGATE DRIVE FOR THE DURATION OF THE BRIDGE REPLACEMENT AND ROADWAY CONSTRUCTION.
3. ALL TRAFFIC OVER CHESTNUT STREET SHALL BE TURNED AROUND AND DETOURED TO INTERSTATE-95 EAST.
4. TEMPORARY PRECAST CONCRETE BARRIER CURBS (TPCBC) SHALL BE PROVIDED AT BOTH ENDS OF THE WORK AREA TO ADEQUATELY WARN, AND PROHIBIT MOTORISTS AND PEDESTRIANS FROM USING THE BRIDGE DURING CONSTRUCTION. THE TPCBC SHALL EXTEND ACROSS THE FULL WIDTH OF THE EXISTING ROADWAY AND BEYOND. THE CONTRACTOR SHALL ALSO PROVIDE MOVEABLE TYPE III CONSTRUCTION BARRICADE AS SHOWN ON THE PLANS, OR AS ORDERED BY THE ENGINEER, TO FURTHER INSURE MOTORIST AND PEDESTRIAN SAFETY. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO ENSURE THE UPRIGHT STABILITY OF THE TYPE III CONSTRUCTION BARRICADES AT ALL TIMES.
5. ALL TRAFFIC CONTROL AND PROTECTION DEVICES, INCLUDING PAVEMENT MARKINGS, SHALL BE IN PLACE BEFORE RESPECTIVE CONSTRUCTION OPERATION COMMENCES.
6. ALL TPCBC TO HAVE THREE (3) TYPE DE-7C DELINEATORS MOUNTED ON TOP (10' SPACING) AND REFLECTIVE TAPE ON TRAFFIC SIDE FOR THE ENTIRE LENGTH.
7. THE CONTRACTOR SHALL POST THE ADVANCE NOTICE SIGNS (SIGN A) AT LEAST 2 WEEKS PRIOR TO CLOSING THE ROAD. NOTICE TO PROCEED WILL BE GIVEN TO INSTALL THE ADVANCED NOTICE SIGNS, BUT THE ROAD MUST REMAIN OPEN UNTIL THE DATE ON THE ADVANCE NOTICE SIGNS.



SIGN MOUNTING ORDER



PROJECT LOCATION DETAIL

SCALE: 1" =20'

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NO.	DATE	DESCRIPTION

REVISIONS

SUPV.	K.O.E.
DESIGN	D.T.J.
DRAWN	D.T.J.
CHECKED	P.W.S.
DATE	04/03/24

P.D. SUBMITTAL

WMC CONSULTING ENGINEERS

• WENGELL, McDONNELL & COSTELLO •
87 HOLMES ROAD
NEWINGTON, CT 06111
(860) 667-9624

PREPARED FOR

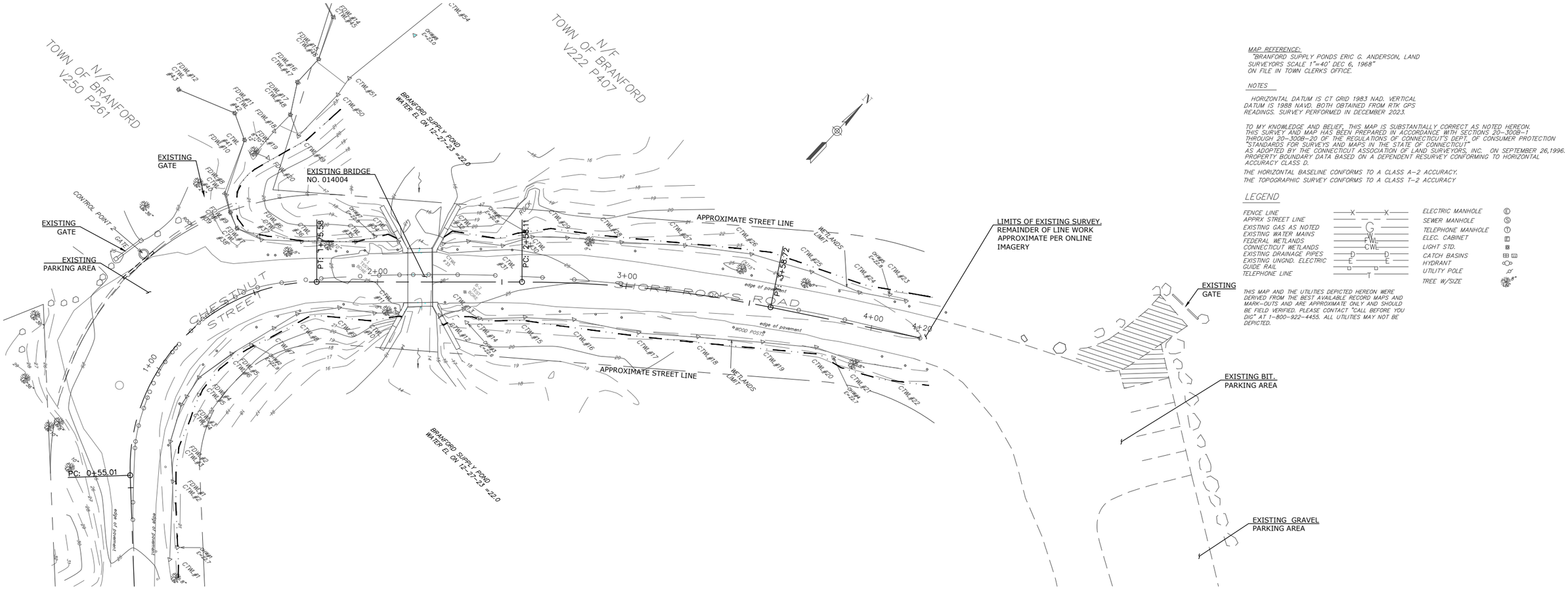
TOWN OF BRANFORD

1019 MAIN STREET

BRANFORD, CT 06405

REPLACEMENT OF CHESTNUT STREET BRIDGE OVER BRANFORD SUPPLY POND DETOUR PLAN

SIZE	PROJECT	FILE NAME	NUMBER	REV.	SHEET	OF
D	CHESTNUT STREET	P.D.	23008		2	16



EXISTING CONDITIONS PLAN

SCALE: 1" = 20'-0"

MAP REFERENCE:
"BRANFORD SUPPLY PONDS ERIC G. ANDERSON, LAND SURVEYORS SCALE 1"=40' DEC 6, 1968" ON FILE IN TOWN CLERKS OFFICE.

NOTES

HORIZONTAL DATUM IS CT GRID 1983 NAD. VERTICAL DATUM IS 1988 NAVD. BOTH OBTAINED FROM RTK GPS READINGS. SURVEY PERFORMED IN DECEMBER 2023.

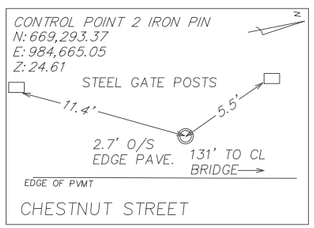
TO MY KNOWLEDGE AND BELIEF, THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON. THIS SURVEY AND MAP HAS BEEN PREPARED IN ACCORDANCE WITH SECTIONS 20-300B-1 THROUGH 20-300B-20 OF THE REGULATIONS OF CONNECTICUT'S DEPT. OF CONSUMER PROTECTION "STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT" AS ADOPTED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC. ON SEPTEMBER 26,1996. PROPERTY BOUNDARY DATA BASED ON A DEPENDENT RESURVEY CONFORMING TO HORIZONTAL ACCURACY CLASS D.

THE HORIZONTAL BASELINE CONFORMS TO A CLASS A-2 ACCURACY.
THE TOPOGRAPHIC SURVEY CONFORMS TO A CLASS T-2 ACCURACY

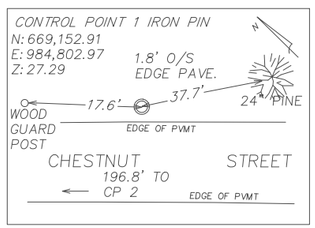
LEGEND

FENCE LINE	X X	ELECTRIC MANHOLE	E
APPRX. STREET LINE		SEWER MANHOLE	S
EXISTING GAS AS NOTED	G	TELEPHONE MANHOLE	T
EXISTING WATER MAINS	W	ELEC. CABINET	
FEDERAL WETLANDS	FWL	LIGHT STD.	
CONNECTICUT WETLANDS	CWL	CATCH BASINS	
EXISTING DRAINAGE PIPES	D D	HYDRANT	
EXISTING UNGND. ELECTRIC	E E	UTILITY POLE	
GUIDE RAIL		TREE W/SIZE	6"
TELEPHONE LINE	T		

THIS MAP AND THE UTILITIES DEPICTED HEREON WERE DERIVED FROM THE BEST AVAILABLE RECORD MAPS AND MARK-OUTS AND ARE APPROXIMATE ONLY AND SHOULD BE FIELD VERIFIED. PLEASE CONTACT "CALL BEFORE YOU DIG" AT 1-800-922-4455. ALL UTILITIES MAY NOT BE DEPICTED.



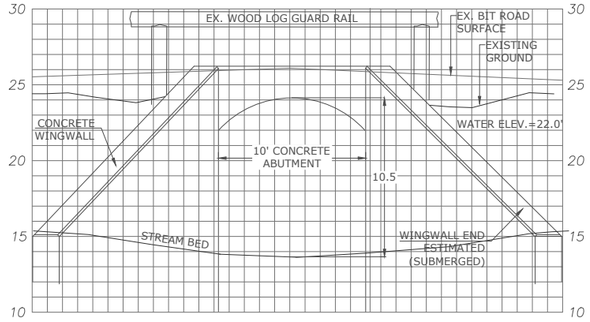
HORIZONTAL DATUM IS NAD 83/87
VERTICAL DATUM IS 88 NAVD.



HORIZONTAL DATUM IS NAD 83/87
VERTICAL DATUM IS 88 NAVD.

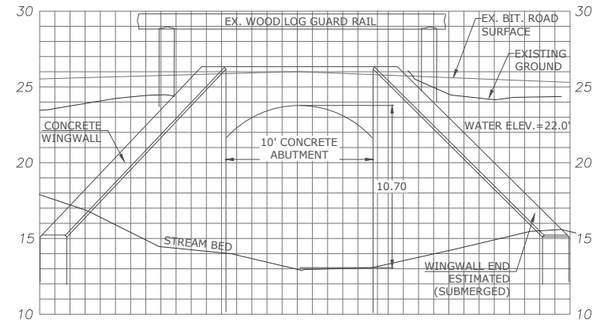
SURVEY TRAVERSE POINTS DATUM LOCATION

SCALE: N.T.S.



EXISTING UPSTREAM STRUCTURE ELEVATION (LOOKING DOWNSTREAM)

SCALE: 1" = 5'-0"



EXISTING DOWNSTREAM STRUCTURE ELEVATION (LOOKING UPSTREAM)

SCALE: 1" = 20'-0"

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REVISIONS

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DRAWN	D.T.J.
CHECKED	P.W.S.
DATE	04/03/24

P.D. SUBMITTAL

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(860) 667-9624

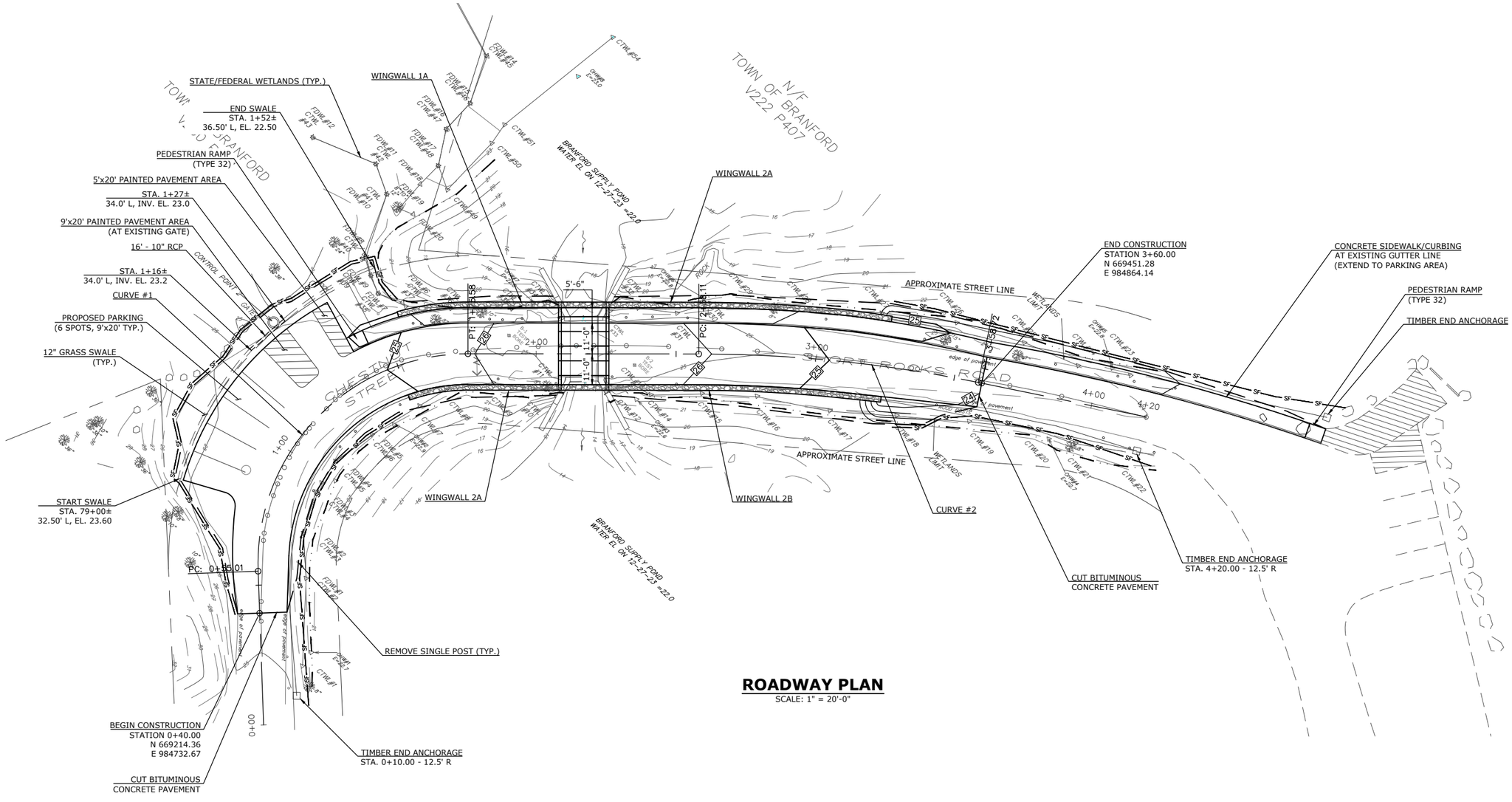
PREPARED FOR

TOWN OF BRANFORD
1019 MAIN STREET
BRANFORD, CT 06405

REPLACEMENT OF CHESTNUT STREET BRIDGE OVER BRANFORD SUPPLY POND
EXISTING CONDITIONS PLAN

SIZE	PROJECT	FILE NAME	NUMBER	REV.
D	CHESTNUT STREET	P.D.	23008	

SHEET 3 OF 16



ROADWAY PLAN

SCALE: 1" = 20'-0"

DESIGN DATA	
ROAD CLASS	MINOR URBAN ARTERIAL
DESIGN SPEED	20 MPH
ADT	7100
RADIUS (MIN.)	75FT. *
e	N/A
MAXIMUM GRADE	3.31%
CROSS SLOPE	2.00%
K (SAG MIN.)	14.06
K (CREST MIN.)	9.07

CURVE #1	CURVE #2
PI N 669279.56	PI N 669424.06
PI E 984666.61	PI E 984820.12
L = 120.57'	L = 61.28'
Δ = 92° 06' 29.88"	Δ = 11° 31' 45.12"
R = 75.00'	R = 500.00'
T = 77.82'	T = 50.48'

SURVEY NOTES:
HORIZONTAL DATUM: NAD83
HORIZONTAL ACCURACY: CLASS A-2
VERTICAL DATUM IS NAVD88
VERTICAL ACCURACY: CLASS T-2

GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)
1 inch = 20 ft.

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1019 MAIN STREET
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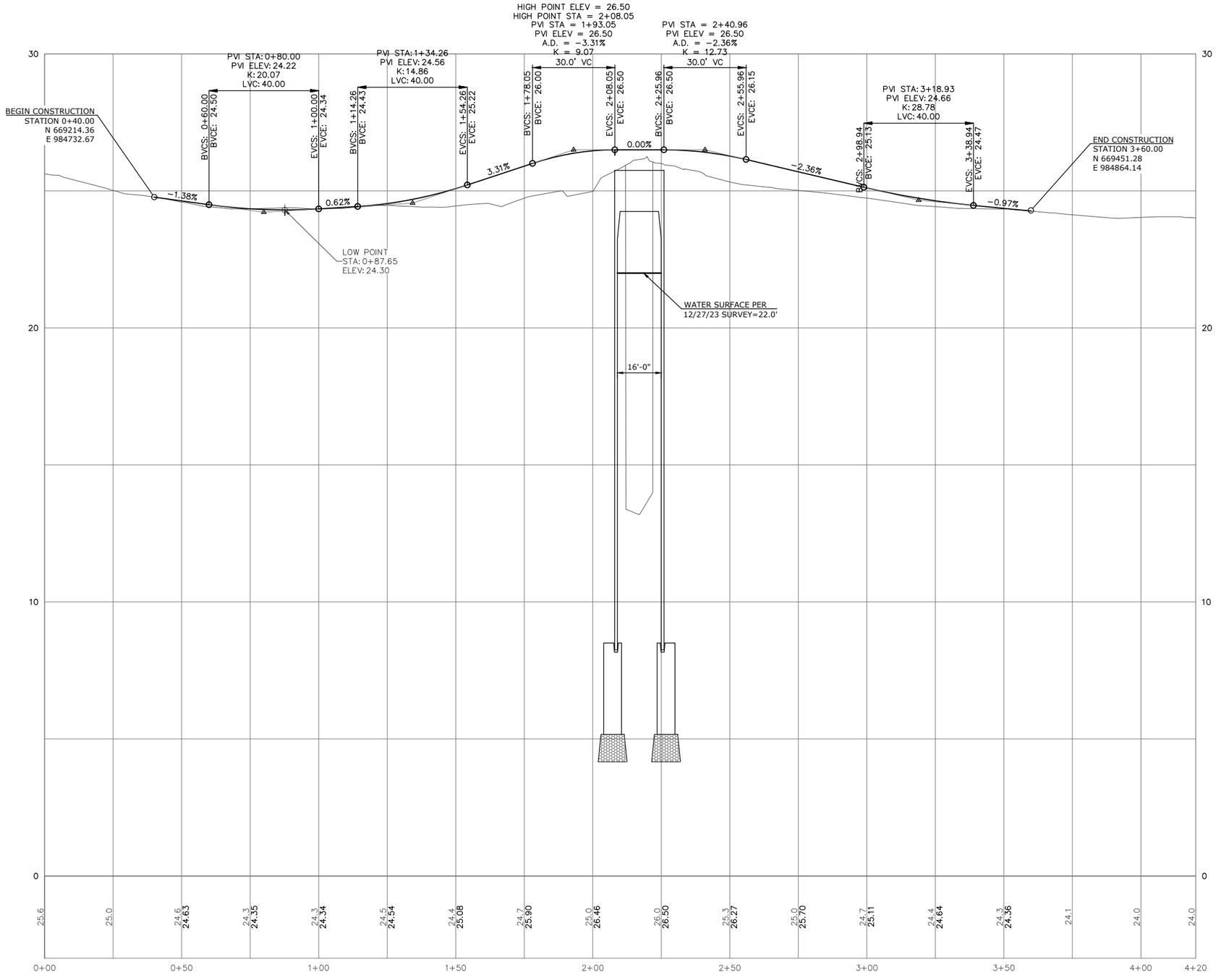
REPLACEMENT OF CHESTNUT STREET BRIDGE OVER BRANFORD SUPPLY POND PROPOSED ROADWAY PLAN

D – CHESTNUT STREET – P.D. – 23008 –
SIZE PROJECT FILE NAME NUMBER REV.



PROPOSED ROADWAY PROFILE

SCALE: 1" =20' (HORIZONTAL)
SCALE: 1"=2' (VERTICAL)

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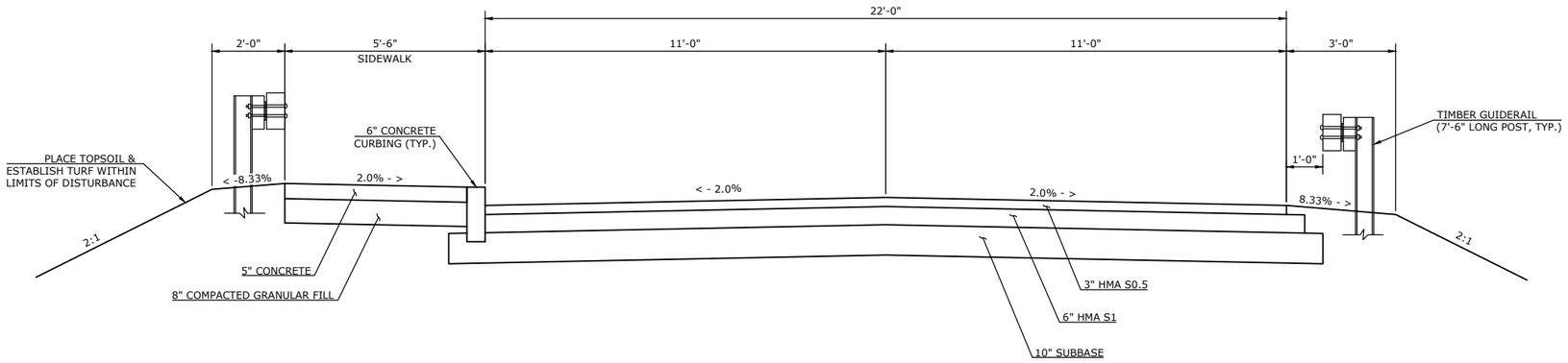
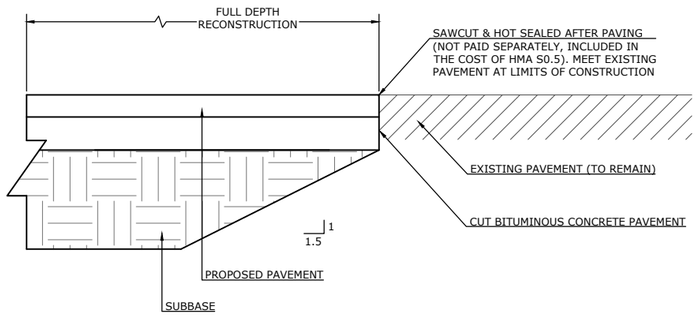
REPLACEMENT OF CHESTNUT STREET BRIDGE OVER BRANFORD SUPPLY POND ROADWAY PROFILE

SIZE	PROJECT	FILE NAME	NUMBER	REV.	SHEET	OF
D	CHESTNUT STREET	P.D.	23008		5	16



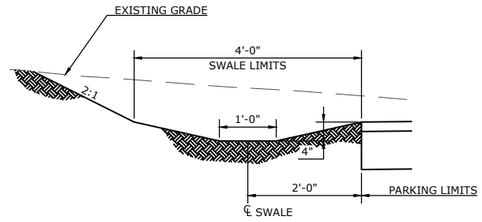
TYPICAL ROADWAY SECTION

SCALE: 1" =2'-0"



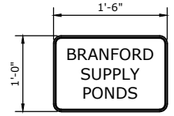
ROADWAY PAVEMENT TRANSITION DETAIL AT CONSTRUCTION LIMITS

SCALE: NOT TO SCALE



GRASS SWALE

SCALE: 3/4" = 1'-0"



CONNDOT SIGN NO. 51-2009

NOT TO SCALE

SCHEDULE OF SIGNS

CONNDOT SIGN NO.	SIZE	LEGEND	LOCATION	ALUM. THK.	POSTS	BACKGROUND COLOR	LEGEND COLOR
51–2009	18" X 12"	BRANFORD SUPPLY PONDS	STA. 2+65, 15'±R	0.080	2	GREEN	WHITE
51–2009	18" X 12"	BRANFORD SUPPLY PONDS	STA. 3+76, 15'±L	0.080	2	GREEN	WHITE

NOTES:
1. FOR SPECIFIC SIGN DESIGN CONTACT CONN. D.O.T., DIVISION OF TRAFFIC ENGINEERING FOR BOLT HOLE PATTERN REFER TO FHWA PUBLICATION "STANDARD HIGHWAY SIGNS". SIGNS OF DIFFERENT DIMENSIONS TO BE ERECTED ON THE SAME POSTS, OR SPAN/MAST ARM MOUNTED, MAY REQUIRE SPECIAL BOLT HOLE PATTERNS.
2. POSTS - SEE TYP. SHEET (SHT #9) - "TYPICAL METAL SIGN POSTS AND SIGN MOUNTING DETAILS."
3. POSTS - TYPE A (EXCEPT WHERE NOTED WITH A "B" FOR TYPE B)
4. SIGNS SHALL BE FABRICATED OF ONE CONTINUOUS PIECE OF SHEET ALUMINUM. SPLICING OF SHEET ALUMINUM WILL NOT BE ACCEPTED.

*** NOTE:** ALL COLORS SHALL BE TYPE IV RETROREFLECTIVE WITH THE EXCEPTION OF BLACK WHICH SHALL BE OPAQUE.

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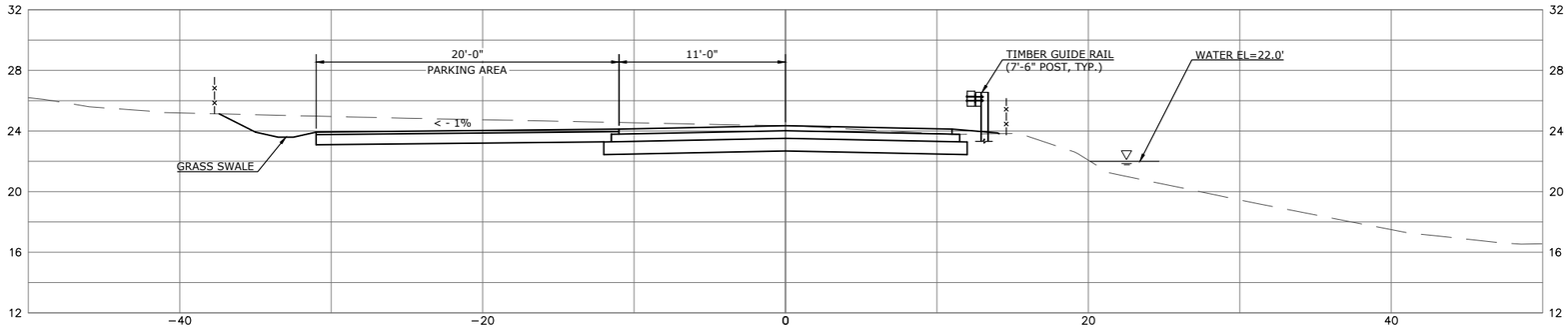
REPLACEMENT OF CHESTNUT STREET BRIDGE OVER BRANFORD SUPPLY POND ROADWAY DETAILS

SIZE	PROJECT	FILE NAME	NUMBER	REV.	SHEET	OF
D	– CHESTNUT STREET	– P.D.	– 23008	–	6	16

1+00



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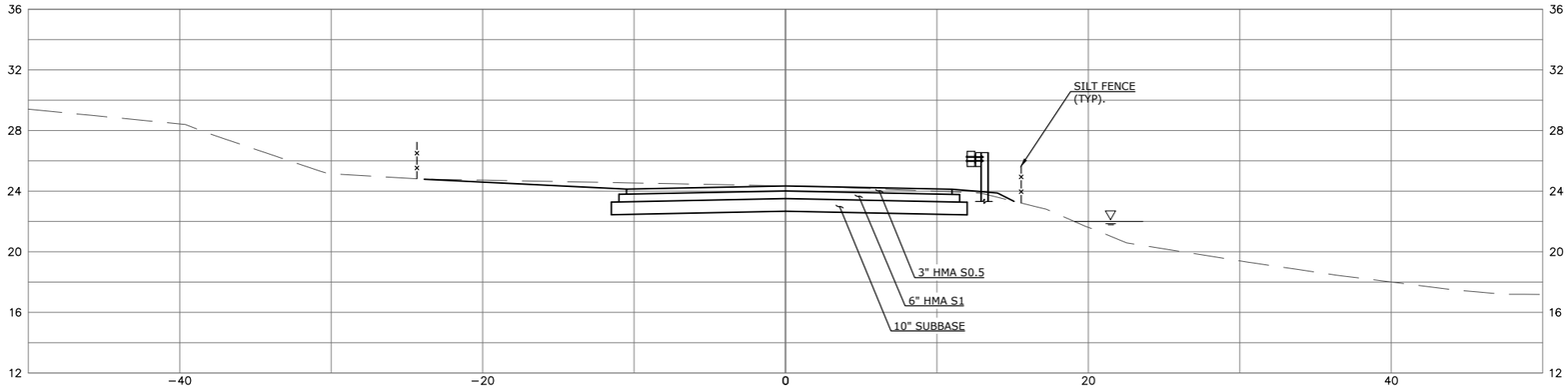

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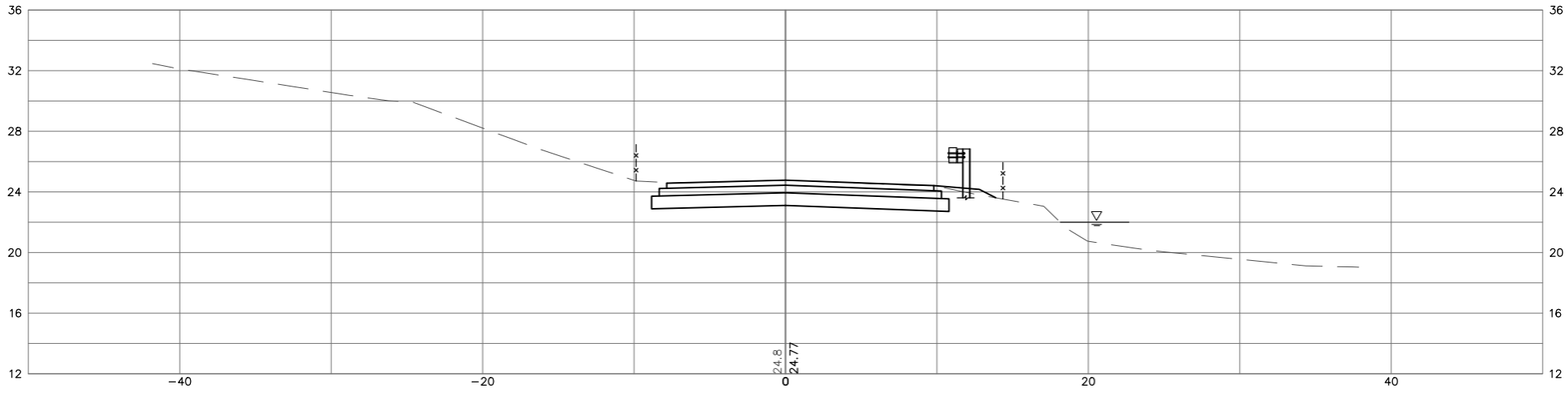

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DRAWN	D.T.J.
CHECKED	P.W.S.
DATE	04/03/24

P.D. SUBMITTAL

WMC CONSULTING ENGINEERS

• WENGELL, McDONNELL & COSTELLO •
87 HOLMES ROAD
NEWINGTON, CT 06111
(860) 667-9624

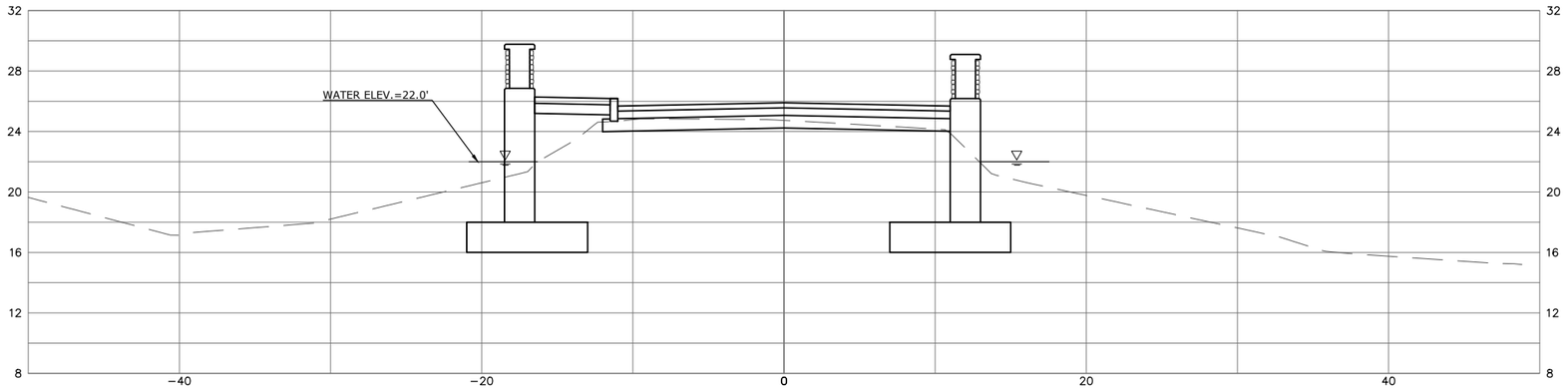
PREPARED FOR

TOWN OF BRANFORD
1019 MAIN STREET
BRANFORD, CT 06405

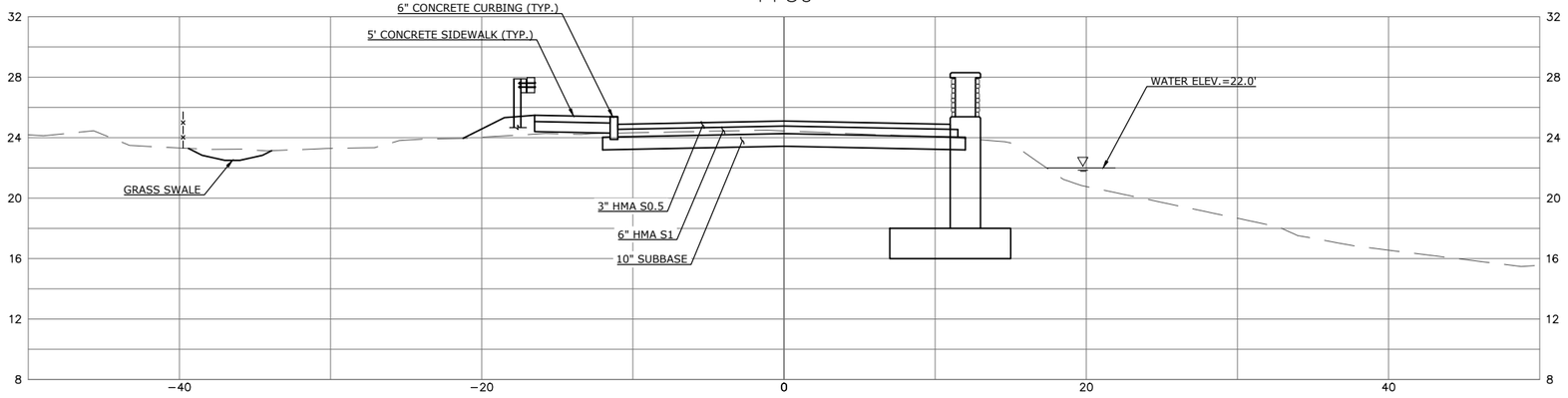
REPLACEMENT OF CHESTNUT STREET BRIDGE OVER BRANFORD SUPPLY POND ROADWAY SECTIONS

SIZE	PROJECT	FILE NAME	NUMBER	REV.	SHEET	OF
D	CHESTNUT STREET	P.D.	23008		7	16

1+75



1+50



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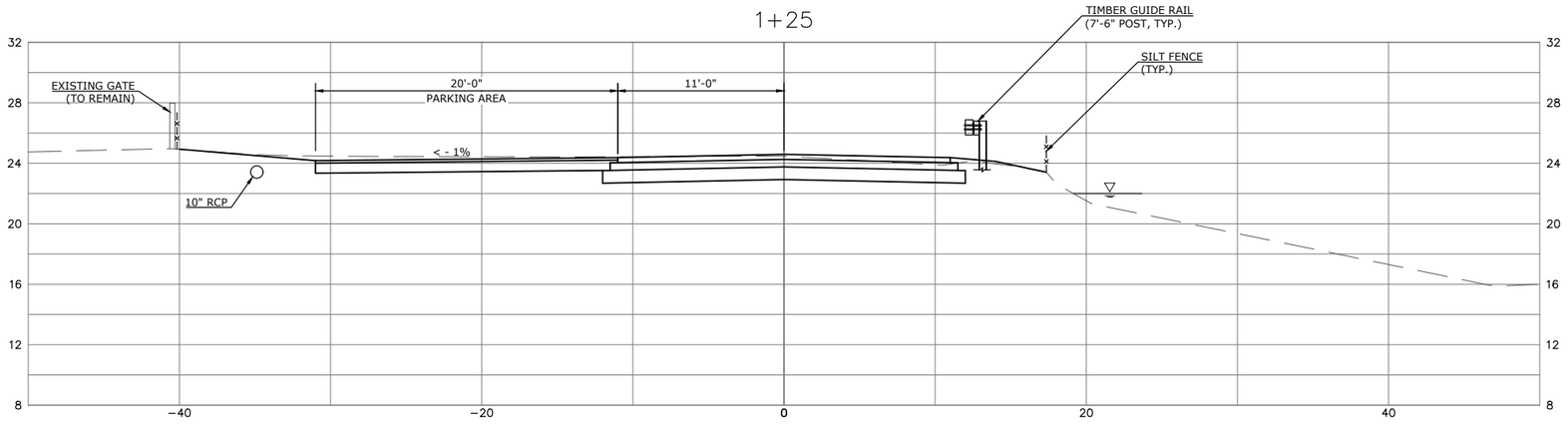

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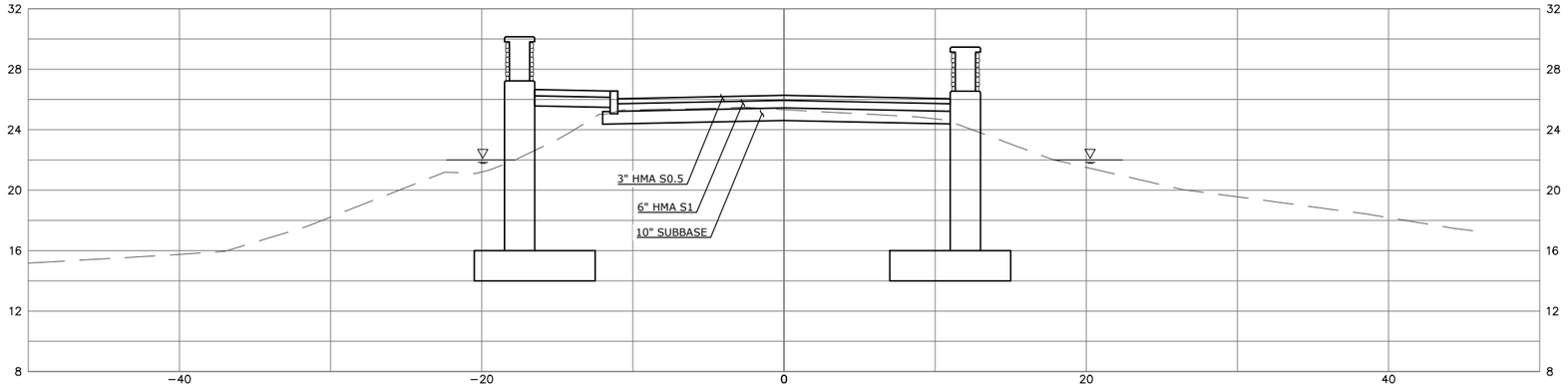
REPLACEMENT OF CHESTNUT STREET BRIDGE OVER BRANFORD SUPPLY POND ROADWAY SECTIONS

SIZE	PROJECT	FILE NAME	NUMBER	REV.	SHEET	OF
D	– CHESTNUT STREET	– P.D.	– 23008	–	8	16

2+50



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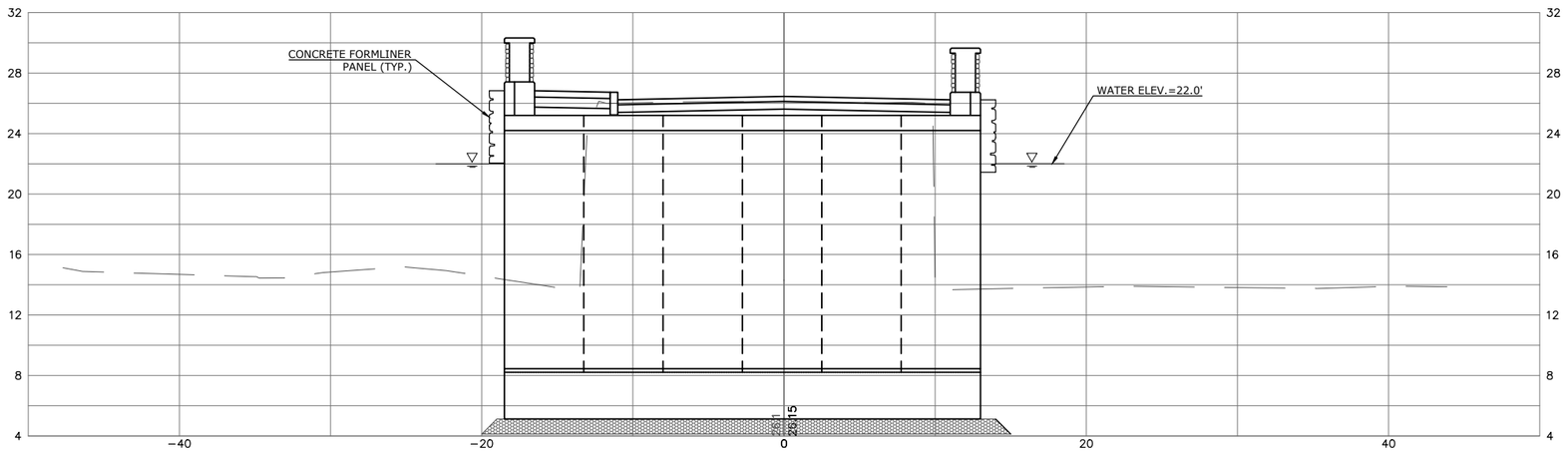
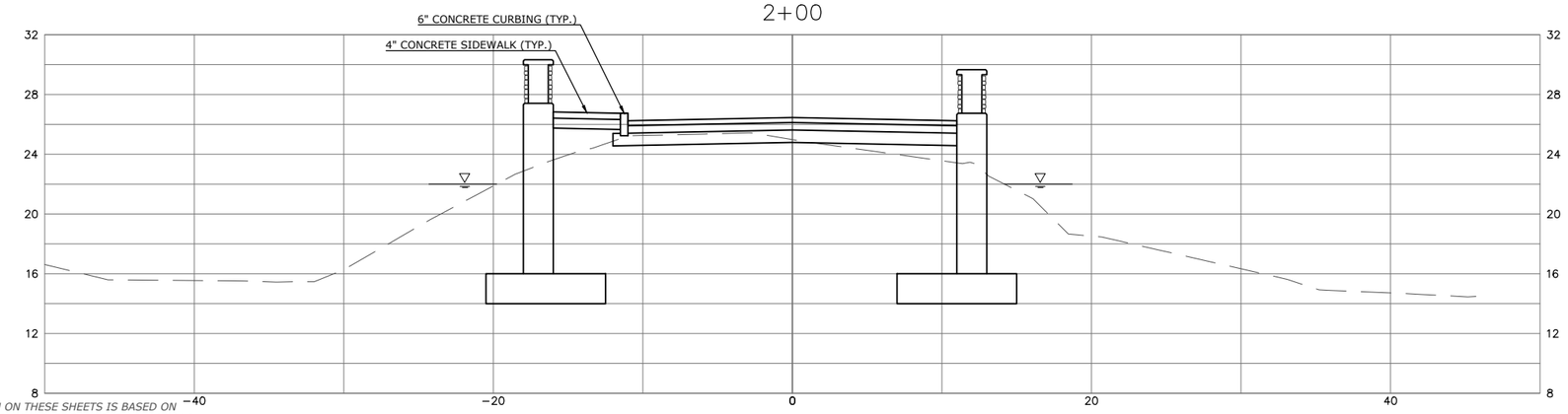


2+00



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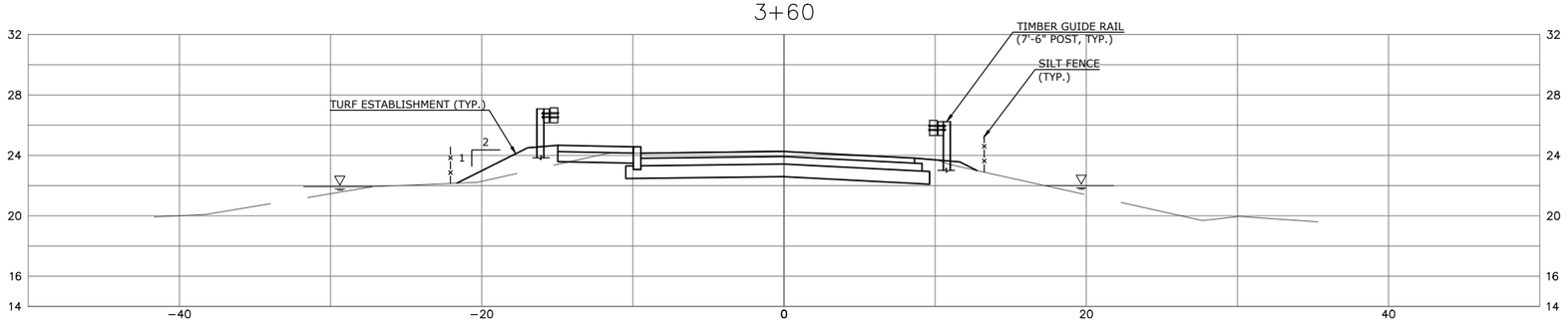
SIZE	PROJECT	FILE NAME	NUMBER	REV.
D	CHESTNUT STREET	P.D.	23008	

SHEET 9
OF 16

3+60



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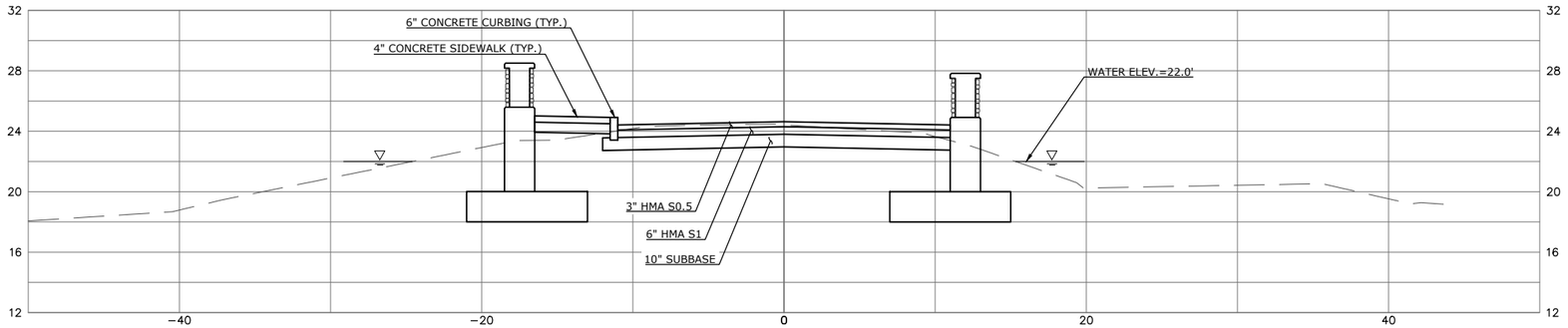

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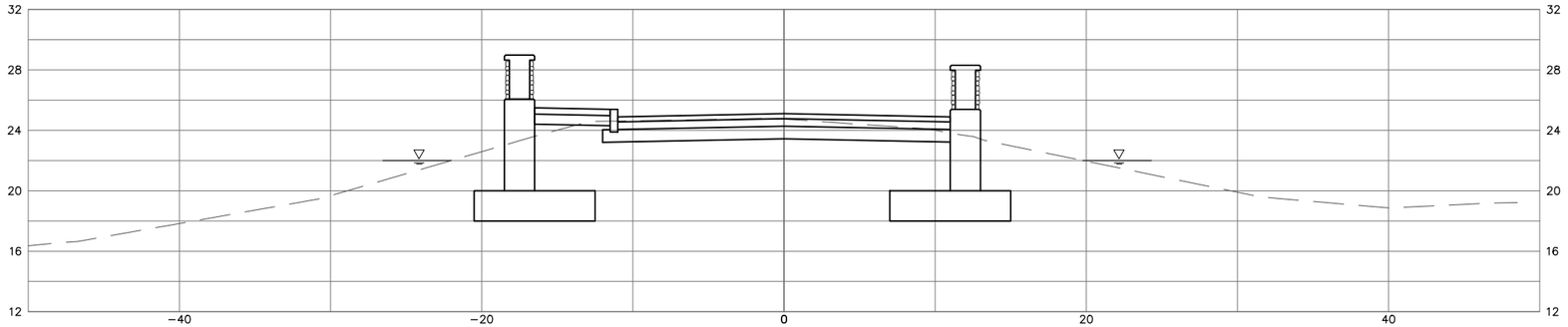

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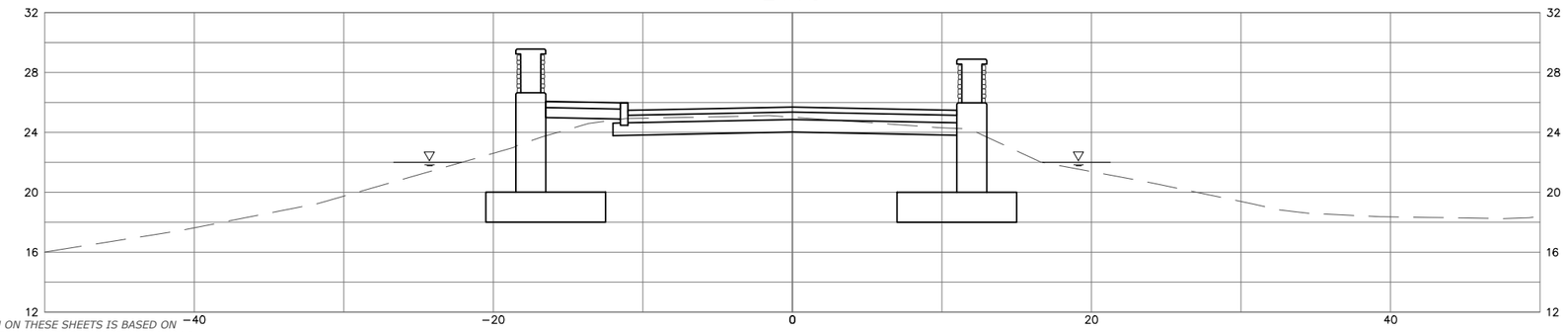

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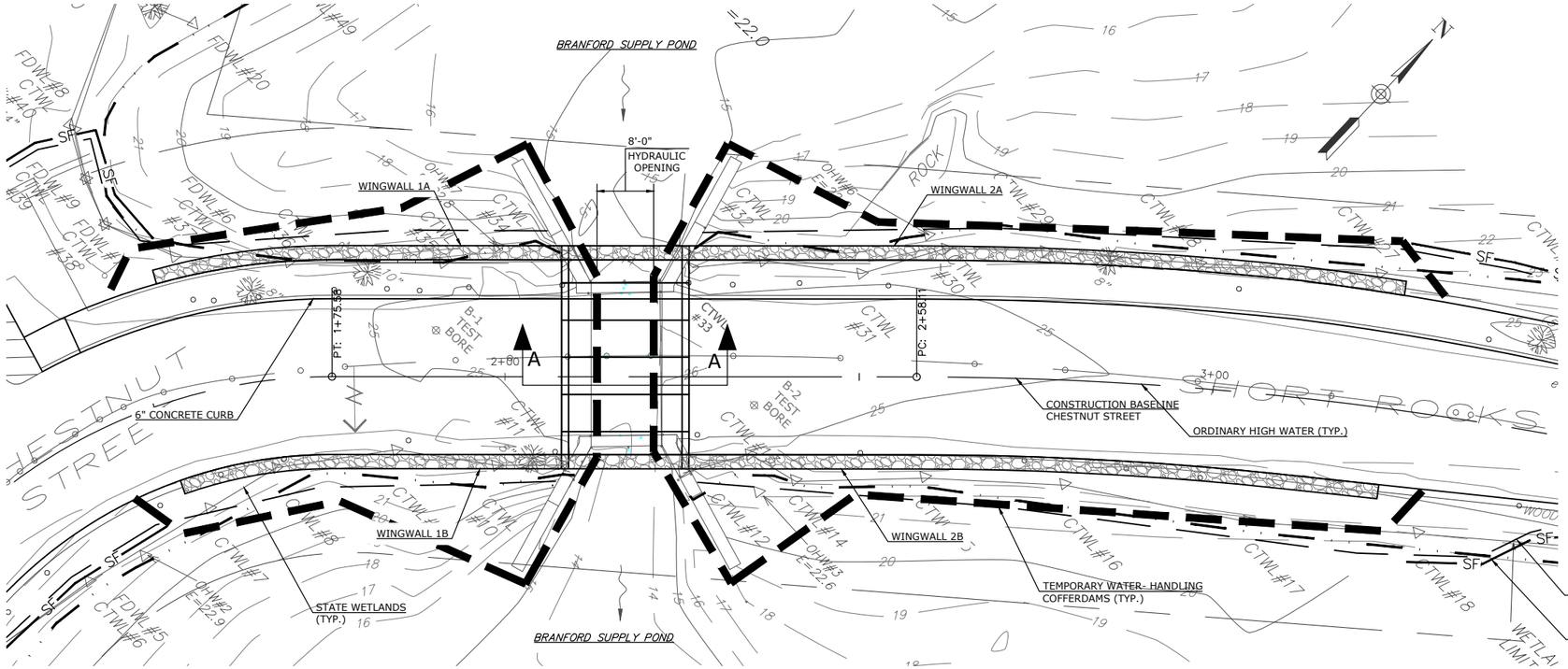
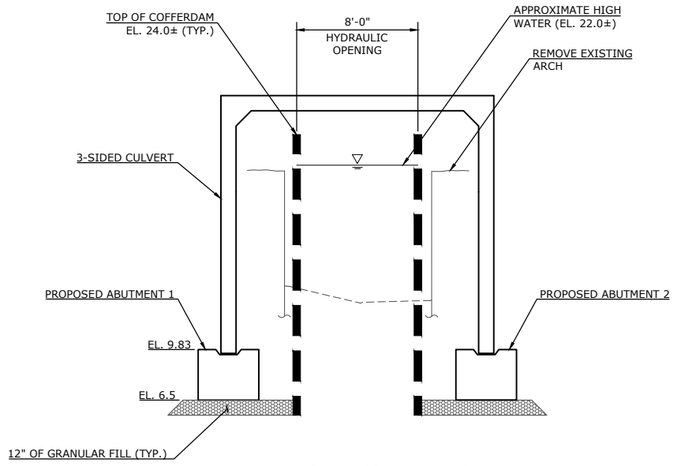
REPLACEMENT OF CHESTNUT STREET BRIDGE OVER BRANFORD SUPPLY POND ROADWAY SECTIONS

SIZE	PROJECT	FILE NAME	NUMBER	REV.	SHEET	OF
D	CHESTNUT STREET	P.D.	23008		10	16



HANDLING WATER PLAN

SCALE: 1" = 10'



HANDLING WATER SECTION A-A

SCALE: 1" = 10'-0"

SUGGESTED CONSTRUCTION SEQUENCE :

1. INSTALL AND MAINTAIN EFFECTIVE EROSION AND SEDIMENTATION CONTROLS THROUGHOUT THE DURATION OF THE PROJECT, IN ACCORDANCE WITH THE CONTRACTOR'S APPROVED PLAN OR AS DIRECTED BY THE ENGINEER.
2. INSTALL TEMPORARY PRECAST BARRIER CURBING, CLOSING CHESTNUT STREET TO THROUGH TRAFFIC.
3. REMOVE EXISTING BRIDGE SUPERSTRUCTURE, PROTECTING THE POND FROM FALLING DEBRIS DURING THE REMOVAL. ANY DEBRIS WHICH FALLS INTO THE POND SHALL BE IMMEDIATELY REMOVED. KEEP THE EXISTING BRIDGE ABUTMENTS IN PLACE.
7. INSTALL TEMPORARY WATER- HANDLING COFFERDAMS TO LIMITS OF PROPOSED WINGWALLS (EL. 24.0).
8. REMOVE EXISTING ABUTMENT & WINGWALLS.
9. CONSTRUCT THE NEW BRIDGE ABUTMENTS AND WINGWALLS.
10. INSTALL THE THREE-SIDED PRECAST BOX SECTIONS AND PERFORM THE REMAINING CULVERT BACKFILL.
11. REMOVE THE REMAINING SECTIONS OF TEMPORARY WATER- HANDLING COFFERDAMS.
12. PAVE ROADWAY, FINALIZE GRADING AND INSTALL GUIDERAIL.
13. PERFORM FINAL SITE STABILIZATION AND CLEANUP AND REMOVE REMAINING EROSION AND SEDIMENTATION CONTROLS.

TIME RESTRICTIONS:

UNCONFINED IN-STREAM: UNCONFINED IN-STREAM ACTIVITIES MUST BE LIMITED TO THE TIME PERIOD JUNE 1 THROUGH SEPTEMBER 30.

WATER HANDLING NOTES:

1. THE CONTRACTOR SHALL MAINTAIN WATER THROUGH THE TEMPORARY COFFERDAMS AS SHOWN DURING CONSTRUCTION FOR BRIDGE 04091.
2. EQUIPMENT SHALL NOT BE PERMITTED IN THE STREAM WHEN TEMPORARY COFFERDAMS ARE NOT IN PLACE WITHOUT THE APPROVAL OF THE ENGINEER.
3. PRIOR TO ANY DEWATERING, THE CONTRACTOR MUST SUBMIT TO THE ENGINEER A WRITTEN PROPOSAL FOR SPECIFIC METHODS AND DEVICES TO BE USED AND MUST OBTAIN THE ENGINEER'S WRITTEN APPROVAL OF SUCH METHODS AND DEVICES.
4. A DEWATERING BASIN SHALL BE ESTABLISHED OUTSIDE OF THE WETLAND LIMITS. THE LOCATIONS OF THE DEWATERING BASIN IS APPROXIMATE. THE EXACT POSITION MAY VARY BASED ON THE PUMPING DESIGN SUBMISSION AND MUST BE APPROVED BY THE ENGINEER. DEWATERING BASINS SHALL BE PAID FOR UNDER ITEM "COFFERDAM AND DEWATERING".
5. TEMPORARY COFFERRDAMS AND WATER-HANDLING-COFFERDAMS SHALL CONSIST OF ANY APPROVED SYSTEM THAT THE CONTRACTOR ELECTS TO USE WHICH WILL SAFELY CONVEY WATER FLOWS THROUGH THE CONSTRUCTION AREA, SHALL BE ABLE TO SUPPORT CONSTRUCTION ACTIVITY AND EXCAVATION, AND SHALL CONFORM TO PERMITS.

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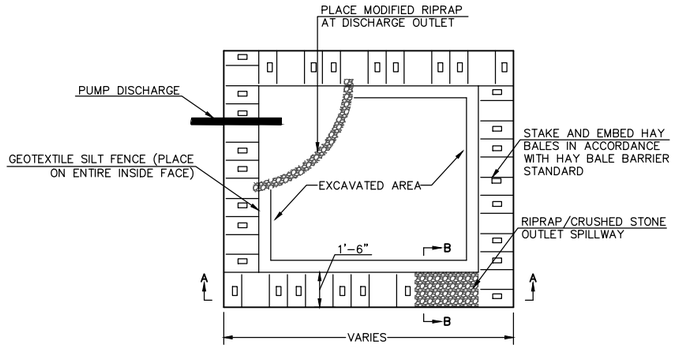
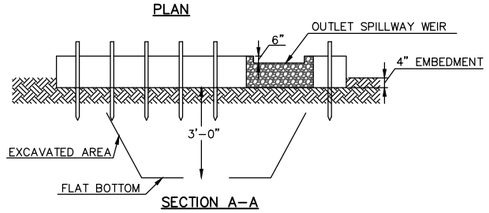
REPLACEMENT OF CHESTNUT STREET BRIDGE OVER BRANFORD SUPPLY POND HANDLING WATER PLAN

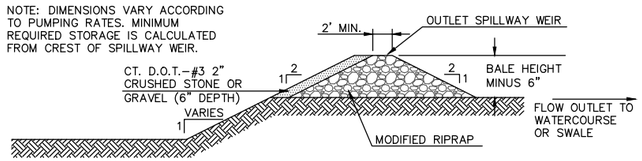
SIZE	PROJECT	FILE NAME	NUMBER	REV.	SHEET	OF
D	CHESTNUT STREET	P.D.	23008		11	16



PLAN



SECTION A–A



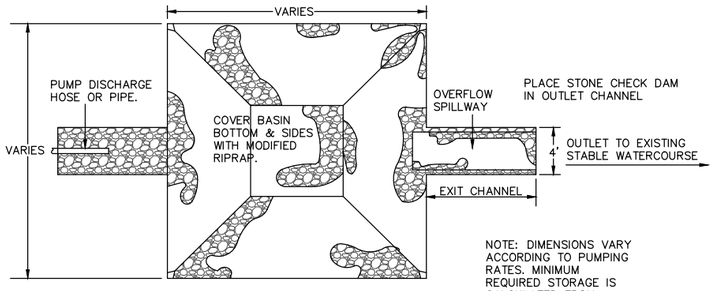
SECTION B–B

REFER TO PAGE 5–13–7 "CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENTATION CONTROL".

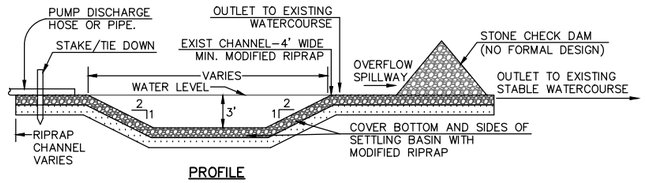
TYPE II PUMPING SETTLING BASIN

N.T.S.

PUMPING SETTLING BASIN NOTES:
1. LOCATION AS DIRECTED BY ENGINEER. REMOVE WHEN PUMPING IS COMPLETED.
2. PUMP DISCHARGE PAD HALL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST THE GENERAL WORK.
3. STORAGE VOLUME BASED UPON PUMP DISCHARGE, LARGER PAD DIMENSIONS MAY BE REQUIRED AS DIRECTED BY THE ENGINEER.
(MINIMUM REQUIRED STORAGE, CUBIC FEET) = 16 x (PUMP DISCHARGE RATE, GPM)
4. TYPE II PUMPING SETTLING BASIN TO BE USED WHEN THE EXPECTED DURATION OF USE IS LESS THAN 3 MONTHS. TYPE III PUMPING SETTLING BASIN TO BE USED WHEN THE EXPECTED DURATION OF USE IS LONGER THAN 3 MONTHS.
5. SETTLING BASIN AND EXIT CHANNEL TO BE BACKFILLED AT COMPLETION OF WORK. AREA SHALL BE GRADED AND STABILIZED ACCORDING TO PLANS OR AS DIRECTED BY THE ENGINEER.



PLAN VIEW

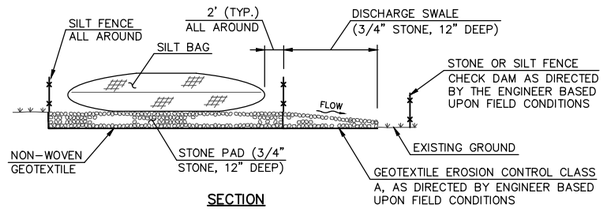


PROFILE

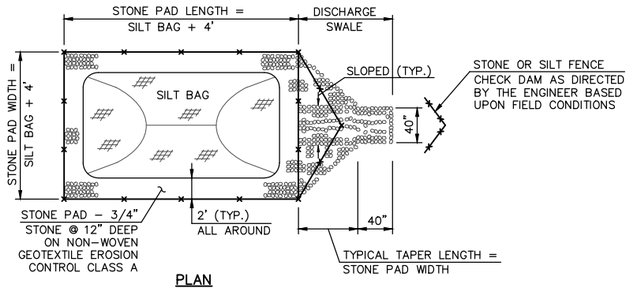
REFER TO PAGE 5–13–7 "CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENTATION CONTROL".

TYPE III PUMPING SETTLING BASIN

N.T.S.



SECTION



PLAN

SILT BAG INSTALLATION

N.T.S.

GENERAL

EFFLUENT FROM DEWATERED WORK AREA(S) SHOULD NOT BE DISCHARGED DIRECTLY TO THE STREAM BUT BE PROCESSED THROUGH TREATMENT STRUCTURE(S). SUCH STRUCTURES SHOULD NOT BE LOCATED WITHIN THE STREAM CHANNEL OR ADJACENT WETLANDS.

THE PROJECT SHOULD NOT BE CONDUCTED IN A MANNER WHICH IMPEDES STREAM FLOW.

UNCONFINED IN–STREAM ACTIVITIES SHOULD BE LIMITED TO THE TIME PERIOD JUNE 1 THROUGH SEPTEMBER 30.

EQUIPMENT OPERATING IN WETLANDS – OPERATION OF EQUIPMENT IN WETLAND AREAS IS NOT ALLOWED ND MUST BE APPROVED IN ADVANCE. ANY EQUIPMENT OPERATING IN WETLAND AREAS SHALL BE LOW GROUND PRESSURE (LESS THAN 3 PSI) OR SHALL BE SET ON TEMPORARY FILL OR MATTING. TEMPORARY FILL, TIMBER MATTING OR OTHER MATTING MUST BE APPROVED IN ADVANCE AND WILL NOT BE PAID SEPARATELY, BUT SHALL BE INCLUDED IN THE GENERAL COST OF OTHER RELATED WORK ITEMS.

TEMPORARY FILL – PLACEMENT OF TEMPORARY FILL IN WETLAND AREAS THAT IS NOT SPECIFICALLY SHOWN ON THE CONTRACT DRAWINGS IS NOT ALLOWED AND MUST BE APPROVED IN ADVANCE. ANY TEMPORARY FILL APPROVED FOR PLACEMENT, SHALL BE PLACED ON GEOTEXTILE LAID ON THE PRE–CONSTRUCTION WETLAND GRADE. UNCONFINED TEMPORARY FILL THAT IS PLACED IN THE FLOWING WATER SHALL BE ONLY CLEAN WASHED STONE.

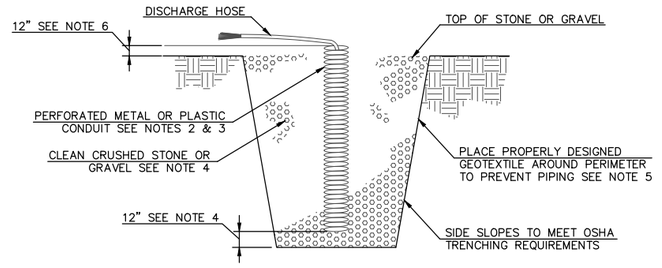
WETLAND DISTURBANCE – ONLY THOSE WETLANDS SPECIFICALLY SHOWN ON THE CONTRACT DRAWINGS OR INCLUDED IN APPROVED PERMITS TO BE DISTURBED, OR ADDITIONAL AREAS SPECIFICALLY APPROVED AS ABSOLUTELY NECESSARY TO COMPLETE THE PROPOSED WORK, SHALL BE DISTURBED.

COFFERDAM NOTES

1. A CONSTRUCTION SEQUENCING PLAN AND A WATER HANDLING PLAN INCLUDING A CONTINGENCY PLAN FOR FLOOD EVENTS MUST BE SUBMITTED IN WRITING TO THE ENGINEER AND APPROVED BY THE ENGINEER PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION IN A WATERWAY.

2. TEMPORARY COFFERDAM SHALL BE DESIGNED AND INSTALLED BY THE CONTRACTOR TO PROVIDE A MAXIMUM HEIGHT ABOVE THE STREAM BED AS NECESSARY TO RETAIN A 3 YEAR STORM EVENT. THE MAXIMUM TOP OF TEMPORARY COFFERDAM ELEVATION SHALL BE AS DESIGNATED ON THE HANDLING WATER PLANS.

3. TEMPORARY COFFERDAM AND PUMPING NOT PAID SEPARATELY. COST TO BE INCLUDED IN THE PAY ITEM "COFFERDAM AND DEWATERING".



REFER TO PAGE 5–13–3 "CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENTATION CONTROL".

NOTE:
1. OVERALL SUMP PIT DIMENSIONS SHALL BE COMPATIBLE WITH ANTICIPATED SEEPAGE RATES AND PUMP SIZE TO BE USED.
2. THE STANDPIPE DIAMETER AND NUMBER OF PERFORATIONS SHALL BE COMPATIBLE WITH THE PUMP SIZE BEING USED.
3. PERFORATIONS IN THE STANDPIPE SHALL BE EITHER CIRCULAR OR SLOTS. PERFORATION SIZE SHALL NOT EXCEED 1/2" IN DIAMETER.
4. CRUSHED STONE OR GRAVEL SHALL BE NO SMALLER THAN CT DOT #67 SIZE NOR LARGER THAN CT DOT #3 SIZE. CRUSHED STONE SHALL EXTEND A MINIMUM OF 12" BELOW THE BOTTOM OF THE STANDPIPE.
5. IF EXCESSIVE MOVEMENT OF FINE SOIL PARTICLES FROM THE SURROUNDING EXISTING SOILS IS ANTICIPATED, A PROPERLY DESIGNED GEOTEXTILE SHALL BE PLACED BETWEEN THE EXISTING SOILS AND THE CRUSHED STONE OR GRAVEL BACKFILL.
6. THE STANDPIPE SHALL EXTEND A MINIMUM OF 12" ABOVE THE SURROUNDING GROUND.

PUMP INTAKE
TYPICAL SECTION OF SUMP PIT

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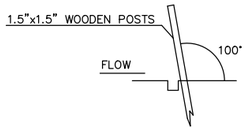
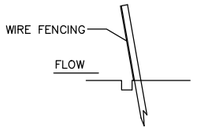
REPLACEMENT OF CHESTNUT STREET BRIDGE OVER BRANFORD SUPPLY POND HANDLING WATER DETAILS

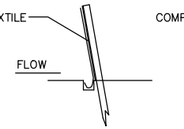
SIZE	PROJECT	FILE NAME	NUMBER	REV.	SHEET	OF
D	CHESTNUT STREET	P.D.	23008		12	16



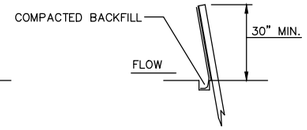
1. SET POSTS AND EXCAVATE A 6"x6" TRENCH. SET POSTS DOWN SLOPE. ANGLE 10° UPSLOPE FOR STABILITY AND SELF CLEANING.



2. ATTACH THE WIRE MESH FENCING TO POST.



3. ATTACH GEOTEXTILE TO THE WIRE FENCING AND EXTEND IT TO THE TRENCH.



4. BACKFILL THE TRENCH AND COMPACT THE EXCAVATED SOIL.

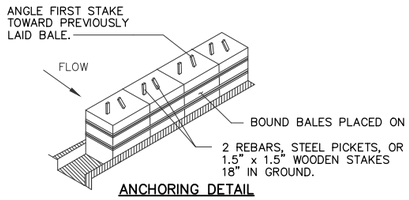
* WHEN INSTALLATION OF TRENCH IS IMPRACTICAL, ALTERNATE INSTALLATION SHALL BE TO LAY 6" FLAP HORIZONTALLY ON GROUND AND BURY FLAP BY RAMP SOIL OR STONE UP TO CONTROL FENCE. DEPTH OF RAMP SHALL BE AS REQUIRED TO HOLD DOWN FLAP WITHOUT LEAKAGE UNDER CONTROL FENCE WHILE MAINTAINING MINIMUM HEIGHT.

GEOTEXTILE FENCE SYSTEM

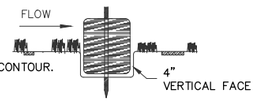
REFER TO PAGE 5-11-35 "CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENTATION CONTROL" AND PAGE 55 "ON-SITE MITIGATION FOR CONSTRUCTION ACTIVITIES".

SEDIMENTATION CONTROL SYSTEM INSTALLATION

N.T.S.



ANCHORING DETAIL



BEDDING DETAIL

HAY BALE CONSTRUCTION SPECIFICATIONS:

1. HAY BALES SHALL BE PLACED AROUND NEWLY INSTALLED CATCH BASINS IN SAGS AND DROP INLETS TO PREVENT SEDIMENTATION AND OTHER DEBRIS FROM ACCUMULATING ON THE GRATE OR IN THE SUMP. HAY BALES SHOULD BE KEPT CLEAN AND FREE OF DEBRIS TO FACILITATE FLOW.
2. EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF 4", AND PLACED SO THE BINDINGS ARE HORIZONTAL.
3. BALES SHALL BE SECURELY ANCHORED IN PLACE BY EITHER TWO STAKES OR REBARS DRIVEN THROUGH THE BALE. THE FIRST STAKE 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 USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

REFER TO PAGE 5-11-30 "CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENTATION CONTROL" AND PAGE 53 "ON-SITE MITIGATION FOR CONSTRUCTION ACTIVITIES".

HAY BALE DETAIL

N.T.S.

GENERAL

THIS PLAN PROPOSES EROSION CONTROL MEASURES TO HELP CONTROL ACCELERATED EROSION AND SEDIMENTATION AND REDUCE THE DANGER FROM STORM WATER RUNOFF AT THE SITE. THE RUNOFF SHALL BE CONTROLLED BY THE INTERCEPTION, DIVERSION, AND SAFE DISPOSAL OF PRECIPITATION. RUNOFF SHALL ALSO BE CONTROLLED BY STAGING CONSTRUCTION ACTIVITY AND PRESERVING NATURAL VEGETATION WHENEVER POSSIBLE. EXISTING VEGETATION SHALL BE PROTECTED AND ONLY THAT CLEARING AND GRUBBING ABSOLUTELY NECESSARY FOR THE PROPOSED CONSTRUCTION SHALL BE PERFORMED. ALL DISTURBED AREAS SHALL BE RESTORED TO THEIR ORIGINAL CONDITION AND CONTOUR, UNLESS OTHERWISE INDICATED ON THE PLANS. THE CONTRACTOR SHALL TAKE SPECIAL CARE WITH HIS CONSTRUCTION METHODS AND SHALL COMPLY WITH THE FOLLOWING GUIDELINES. REFERENCE IS MADE TO THE "CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENTATION CONTROL" (2002), AS AMENDED. THE GUIDELINES ARE OBTAINABLE FROM THE CONNECTICUT DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION, 79 ELM STREET, HARTFORD, CONNECTICUT 06106, AND SHOULD BE USED AS A REFERENCE IN CONSTRUCTING THE EROSION AND SEDIMENTATION CONTROLS INDICATED ON THESE PLANS.

EROSION CONTROL

ALL AREAS SHALL BE PROTECTED FROM EROSION DURING AND AFTER CONSTRUCTION, PARTICULARLY THE STORAGE OF EXCAVATED OR STOCKPILED MATERIAL. THE CONTRACTOR SHALL CAREFULLY STRIP ALL TOPSOIL, LOAM, OR ORGANIC MATTER PRIOR TO TRENCHING OR OTHER OPERATIONS AND SHALL STORE THEM SEPARATELY FROM ALL OTHER MATERIALS DURING EXCAVATION. EACH STOCKPILE MUST BE ADEQUATELY RINGED WITH SEDIMENTATION CONTROL SYSTEM (I.E. HAY BALES AND/OR GEOTEXTILE FENCE). DEBRIS AND OTHER WASTE RESULTING FROM EQUIPMENT MAINTENANCE AND CONSTRUCTION WILL NOT BE DISCARDED ON SITE. STABILIZING OF SLOPES SHALL BE DONE IMMEDIATELY AFTER CONSTRUCTION OF SLOPES. SLOPES STEEPER THAN 3:1 SHALL BE PROTECTED WITH EROSION CONTROL MATTING. THIS MATTING IS MANUFACTURED COMBINATIONS OF MULCH AND NETTING AND SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. ALL OTHER AREAS SHALL BE MULCHED WITH HAY OR STRAW AT A RATE OF 2 TO 3 TONS PER ACRE. STRAW OR HAY MULCH MUST BE ANCHORED IMMEDIATELY AFTER SPREADING TO PREVENT WINDBLOWING. THE METHODS RECOMMENDED BY THE "CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENTATION CONTROL" SHALL BE USED FOR THE ANCHORING OF MULCH OR NETTING.

EROSION AND SEDIMENTATION CONTROL PLAN

AN EROSION AND SEDIMENTATION CONTROL PLAN MUST BE SUBMITTED IN WRITING TO THE ENGINEER AND APPROVED BY THE ENGINEER PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES.
SEDIMENTATION CONTROL SYSTEM – THE SEDIMENTATION CONTROL SYSTEM SHALL CONSIST OF A GEOTEXTILE BARRIER FENCE. THE SEDIMENTATION CONTROL SYSTEM SHALL BE INSTALLED IMMEDIATELY AFTER A CUT SLOPE HAS BEEN GRADED, BEFORE A FILL SLOPE HAS BEEN CREATED AND AS INDICATED ON THE PLANS. THE SYSTEM IS DESIGNED TO INTERCEPT SILT AND SEDIMENT BEFORE IT REACHES THE WETLANDS OR WATERCOURSES. DEPOSITS OF SEDIMENT AND SILT ARE TO BE PERIODICALLY REMOVED FROM THE UPSTREAM SIDE OF THE FENCE. THIS MATERIAL IS TO BE SPREAD AND STABILIZED IN AREAS NOT SUBJECT TO EROSION, OR IN AREAS WHICH ARE NOT TO BE PAVED OR BUILT ON. THE SEDIMENTATION CONTROL SYSTEM IS TO BE REPLACED AS NECESSARY TO PROVIDE PROPER FILTERING ACTION. THE SYSTEM IS TO REMAIN IN PLACE AND BE MAINTAINED TO INSURE EFFICIENT SILTATION CONTROL UNTIL ALL AREAS ABOVE THE FENCE ARE STABILIZED AND VEGETATION HAS BEEN ESTABLISHED.

STACKED HAY BALES – HAY OR STRAW BALES USED FOR EROSION CONTROL SHALL BE STACKED AT CATCH BASINS WHERE SEDIMENT MAY ENTER THE CATCH BASIN OR AS DIRECTED BY THE ENGINEER. DEPOSITS OF SEDIMENT AND SILT ARE TO BE PERIODICALLY REMOVED FROM THE UPSTREAM SIDE OF THE EROSION CHECKS. THIS MATERIAL IS TO BE SPREAD AND STABILIZED IN AREAS NOT SUBJECT TO EROSION, OR IN AREAS WHICH ARE NOT TO BE PAVED OR BUILT ON. HAY OR STRAW BALES ARE TO BE REPLACED AS NECESSARY TO PROVIDE PROPER FILTERING ACTION. THE SYSTEM IS TO REMAIN IN PLACE AND BE MAINTAINED TO INSURE EFFICIENT SILTATION CONTROL UNTIL ALL AREAS ABOVE THE EROSION CHECKS ARE STABILIZED AND VEGETATION HAS BEEN ESTABLISHED.

IN ALL AREAS, REMOVAL OF TREES, BUSHES, AND OTHER VEGETATION, AND DISTURBANCE OF THE SOIL, IS TO BE KEPT TO AN ABSOLUTE MINIMUM WHILE ALLOWING PROPER DEVELOPMENT OF THE SITE.

DURING CONSTRUCTION, AS SMALL AN AREA OF SOIL AS POSSIBLE SHOULD BE EXPOSED FOR AS SHORT A TIME AS POSSIBLE. AFTER CONSTRUCTION, GRADE, RESPREAD TOPSOIL, AND STABILIZE SOIL BY SEEDING AND MULCHING AS TO PREVENT EROSION.

EROSION AND SEDIMENTATION CONTROL MAINTENANCE PROCEDURES

ALL EROSION AND SEDIMENTATION CONTROL DEVICES SHALL BE INSPECTED DURING CONSTRUCTION ON A DAILY BASIS AND FOLLOWING ALL STORMS BY THE RESIDENT ENGINEER. THE CONTRACTOR SHALL MAINTAIN AND MAKE REPAIRS AND REMOVE SEDIMENT AS REQUESTED BY THE ENGINEER. THIS WORK SHALL BE PERFORMED WITHIN 24 HOURS OF THE REQUEST AND THERE SHALL BE NO SEPARATE PAYMENT FOR THIS WORK.

THE CONTRACTOR SHALL CLEAN SEDIMENT AND DEBRIS FROM ALL DRAINAGE STRUCTURES, AND PIPES AT THE COMPLETION OF CONSTRUCTION, AND AS REQUESTED BY THE ENGINEER TO KEEP THE SYSTEM FUNCTIONING PROPERLY DURING CONSTRUCTION.

FOLLOWING COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHALL REPAIR ALL ERODED AREAS AND ENSURE A GOOD STAND OF TURF IS ESTABLISHED THROUGHOUT. THE CONTRACTOR SHALL REPAIR ALL ERODED OR DISPLACED RIPRAP, AND CLEAN SEDIMENT COVERED STONES.

ALL APPROPRIATE EROSION AND SEDIMENT CONTROL MEASURES SHOULD BE ESTABLISHED PRIOR TO AND BE MAINTAINED THROUGH ALL CONSTRUCTION PHASES.

WETLAND IMPACTS & DISTURBANCE

EQUIPMENT OPERATING IN WETLANDS: OPERATION OF EQUIPMENT IN WETLAND AREAS IS GENERALLY NOT ALLOWED AND MUST BE APPROVED IN ADVANCE. ANY EQUIPMENT OPERATING IN WETLAND AREAS SHALL BE LOW GROUND PRESSURE (LESS THAN 3 PSI) OR SHALL BE SET ON TEMPORARY FILL OR MATTING. TEMPORARY FILL, TIMBER MATTING OR OTHER MATTING MUST BE APPROVED IN ADVANCE AND WILL NOT BE PAID SEPARATELY, BUT SHALL BE INCLUDED IN THE GENERAL COST OF OTHER RELATED WORK ITEMS.

TEMPORARY FILL: PLACEMENT OF TEMPORARY FILL (SOIL, RIP RAP, ETC.) IN WETLAND AREAS THAT IS NOT SPECIFICALLY SHOWN ON THE CONTRACT DRAWINGS IS GENERALLY NOT ALLOWED AND MUST BE APPROVED IN ADVANCE. ANY TEMPORARY FILL APPROVED FOR PLACEMENT, SHALL BE PLACED ON GEOTEXTILE LAID ON THE PRE-CONSTRUCTION WETLAND GRADE. UNCONFINED TEMPORARY FILL THAT IS PLACED IN FLOWING WATER SHALL BE ONLY CLEAN WASHED STONE.

WETLAND DISTURBANCE: ONLY THOSE WETLAND AREAS SPECIFICALLY SHOWN ON THE CONTRACT DRAWINGS OR INCLUDED IN APPROVED PERMITS TO BE DISTURBED, OR ADDITIONAL AREAS SPECIFICALLY APPROVED AS ABSOLUTELY NECESSARY TO COMPLETE THE PROPOSED WORK, SHALL BE DISTURBED.

WETLAND & WETLAND FRINGE AREA RESTORATION: ALL DISTURBED WETLAND AND WETLAND FRINGE AREAS SHALL BE RESTORED WITH A WETLAND SEED MIX OR WETLAND TRANSITIONAL SEED MIX CONTAINING ONLY SPECIES NATIVE TO CONNECTICUT. ALL SEED MIX FOR WETLAND OR WETLAND FRINGE (TRANSITIONAL) AREAS MUST BE SUBMITTED AND APPROVED IN ADVANCE. THIS WORK SHALL NOT BE PAID SEPARATELY, BUT SHALL BE INCLUDED IN THE GENERAL COST OF OTHER RELATED WORK ITEMS.

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE TOWN AND IS IN NO WAY WARRANTED TO INDICATE THE TRUE CONDITIONS OR ACTUAL QUANTITIES OR DISTRIBUTION OF QUANTITIES OF WORK WHICH WILL BE REQUIRED.

NO.	DATE	DESCRIPTION

REVISIONS

SUPV.	K.O.E.
DESIGN	D.T.J.
DRAWN	D.T.J.
CHECKED	P.W.S.
DATE	04/03/24

P.D. SUBMITTAL

WMC CONSULTING ENGINEERS
• WENGELL, McDONNELL & COSTELLO •
87 HOLMES ROAD
NEWINGTON, CT 06111
(860) 667-9624

PREPARED FOR

TOWN OF BRANFORD

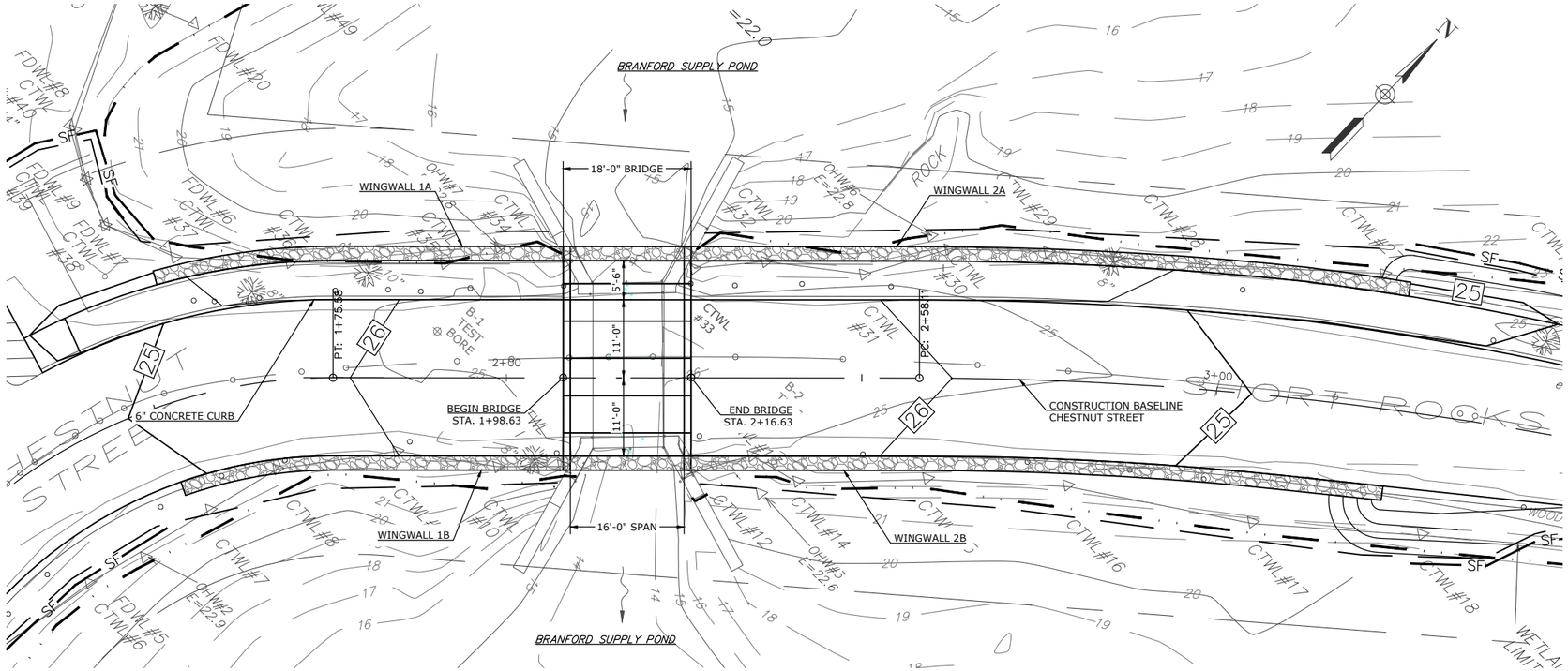
1019 MAIN STREET

BRANFORD, CT 06405

REPLACEMENT OF CHESTNUT STREET BRIDGE OVER BRANFORD SUPPLY POND GENERAL STRUCTURE PLAN

SIZE	PROJECT	FILE NAME	NUMBER	REV.
D	CHESTNUT STREET	P.D.	23008	

SHEET 13
OF 16



STRUCTURE PLAN

SCALE: 1" = 10'

NOTICE TO BRIDGE INSPECTORS	
THE DEPARTMENT'S BRIDGE SAFETY PROCEDURES REQUIRE THIS BRIDGE TO BE INSPECTED FOR, BUT NOT LIMITED TO, ALL APPROPRIATE COMPONENTS INDICATED IN THE GOVERNING MANUALS FOR BRIDGE INSPECTION. ATTENTION MUST BE GIVEN TO INSPECTING THE FOLLOWING SPECIAL COMPONENTS AND DETAILS. (THE LISTING OF COMPONENTS FOR SPECIFIC ATTENTION SHALL NOT BE CONSTRUED TO REDUCE THE IMPORTANCE OF INSPECTION OF ANY OTHER COMPONENT OF THE STRUCTURE.) THE FREQUENCY OF INSPECTION OF THIS STRUCTURE SHALL BE IN ACCORDANCE WITH THE GOVERNING MANUALS FOR BRIDGE INSPECTION, UNLESS OTHERWISE DIRECTED BY THE MANAGER OF BRIDGE SAFETY AND EVALUATION.	
COMPONENT OR DETAIL	STRUCTURE SHEET REFERENCE
NONE	NONE

HYDRAULIC DATA	
DRAINAGE AREA	TBD
DESIGN FREQUENCY	TBD
DESIGN DISCHARGE	TBD
AVERAGE DAILY FLOW ELEVATION	TBD
UPSTREAM DESIGN WATER SURFACE ELEVATION	TBD
DOWNSTREAM DESIGN WATER SURFACE ELEVATION	TBD

CONCRETE DISTRIBUTION	
SUPERSTRUCTURE	TBD
SUBSTRUCTURE	TBD
FOOTING	TBD
TOTAL	TBD

INSPECTION OF FIELD WELDS		
METHODS	UNIT	QUANTITY
ULTRASONIC	INCHES	NONE
MAGNETIC PARTICLE	FEET	NONE

GENERAL NOTES:

SPECIFICATIONS: CONNECTICUT DEPARTMENT OF TRANSPORTATION FORM 817 (2019) SUPPLEMENTAL SPECIFICATIONS DATED JULY 2019 OR LATEST AT THE TIME OF BID AND SPECIAL PROVISIONS.

DESIGN SPECIFICATIONS: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS (AASHTO EIGHTH EDITION, DATED 2017 INCLUDING INTERIM SPECIFICATIONS UP TO 2018), AS SUPPLEMENTED BY THE CONNECTICUT DEPARTMENT OF TRANSPORTATION BRIDGE DESIGN MANUAL (2003).

MATERIAL STRENGTHS:

CONCRETE:

CLASS PCC 03340 f'c = 3000 P.S.I.

CLASS PCC 04462 f'c = 4000 P.S.I.

THE CONCRETE STRENGTH, f'c, USED IN DESIGN OF THE CONCRETE COMPONENTS IS NOTED ABOVE. THE COMPRESSIVE STRENGTH OF THE CONCRETE IN THE CONSTRUCTED COMPONENTS SHALL CONFORM TO THE REQUIREMENTS OF 6.01 - CONCRETE FOR STRUCTURES, AND M.03 - PORTLAND CEMENT CONCRETE

REINFORCEMENT:

ALL REINFORCEMENT SHALL BE GALVANIZED AFTER FABRICATION UNLESS NOTED OTHERWISE. ALL REINFORCEMENT SHALL CONFORM TO THE REQUIREMENTS OF ASTM A767, CLASS 1, INCLUDING SUPPLEMENTAL REQUIREMENTS. THE COST OF FURNISHING AND PLACING THIS REINFORCEMENT SHALL BE INCLUDED IN THE ITEM "DEFORMED STEEL BARS - GALVANIZED." fy = 60,000 P.S.I.

LIVE LOAD: HL-93, LEGAL AND PERMIT VEHICLES

HMA OVERLAY: SHALL CONSIST OF 2" (MIN.) HMA S0.5 ON 1" OF HMA S0.25 ON MEMBRANE WATERPROOFING (COLD LIQUID ELASTOMERIC).

FUTURE PAVING ALLOWANCE: NONE

DIMENSIONS: WHEN DECIMAL DIMENSIONS ARE GIVEN TO LESS THAN THREE DECIMAL PLACES, THE OMITTED DIGITS SHALL BE ASSUMED TO BE ZEROS.

EXISTING DIMENSIONS: DIMENSIONS OF THE EXISTING STRUCTURE SHOWN ON THESE PLANS ARE FOR GENERAL REFERENCE ONLY. THEY HAVE BEEN TAKEN FROM THE ORIGINAL DESIGN DRAWINGS AND ARE NOT GUARANTEED. THE CONTRACTOR SHALL TAKE ALL FIELD MEASUREMENTS NECESSARY TO ASSURE PROPER FIT OF THE FINISHED WORK AND SHALL ASSUME FULL RESPONSIBILITY FOR THEIR ACCURACY. WHEN SHOP DRAWINGS BASED ON FIELD MEASUREMENTS ARE SUBMITTED FOR REVIEW, THE FIELD MEASUREMENTS SHALL ALSO BE SUBMITTED FOR REFERENCE BY THE REVIEWER.

STRUCTURE REMOVAL: BEFORE INITIATING CONSTRUCTION, CONTRACTOR SHALL SUBMIT A PLAN FOR APPROVAL DEFINING METHOD FOR PROTECTION OF THE STREAM AREA DURING REMOVAL OF EXISTING BRIDGE. COST TO BE INCLUDED IN THE COST OF "REMOVAL OF SUPERSTRUCTURE".

COFFERDAMS AND DEWATERING: BEFORE INITIATING CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT A PLAN FOR APPROVAL THAT DEFINES METHODS AND MATERIALS FOR CONTROLLING STREAM WATER (COFFERDAMS, ETC.), DEWATERING, STRUCTURE EXCAVATION AND PROTECTING THE STREAM DURING VARIOUS STAGES OF CONSTRUCTION. THE COST OF THIS WORK SHALL BE INCLUDED IN THE COST OF "COFFERDAM AND DEWATERING".

PRECAST CONCRETE THREE-SIDED CULVERT: SEE SPECIAL PROVISIONS.

UTILITY RELOCATIONS: OVERHEAD OR UNDERGROUND UTILITY LINES MAY BE IN CONFLICT WITH DRIVING SHEET PILING, THE SETTING OF PRECAST CULVERT SECTIONS AND OTHER CONSTRUCTION. DEPENDING UPON THE CONTRACTOR'S CONSTRUCTION OPERATIONS, THESE UTILITIES MAY NEED TO BE TEMPORARILY RELOCATED FOR PORTIONS OF THE CONSTRUCTION OPERATIONS AND THEN MOVED BACK TO PERMANENT LOCATIONS WHICH MAY BE OTHER THAN CURRENT LOCATIONS. EXCEPT FOR UTILITY WORK SPECIFICALLY INCLUDED IN THIS CONTRACT THE ACTUAL UTILITY RELOCATIONS (PERMANENT OR TEMPORARY) WILL BE THE RESPONSIBILITY OF THE INDIVIDUAL UTILITY OWNER, HOWEVER THE CONTRACTOR WILL BE REQUIRED TO COORDINATE ALL UTILITY RELOCATIONS WITH EACH UTILITY OWNER AND TO PHASE HIS WORK AS REQUIRED TO ACCOMMODATE TEMPORARY AND PERMANENT UTILITY RELOCATION WORK.

CONCRETE NOTES:

CONCRETE: THE FOLLOWING PAY ITEMS AND CONCRETE CLASSES ARE REQUIRED FOR CAST-IN-PLACE BRIDGE COMPONENTS:

ITEM	BRIDGE COMPONENTS	PCC CLASS
FOOTING CONCRETE	WINGWALL AND ABUTMENT FOOTINGS	PCC03340
ABUTMENT AND WALL CONCRETE	WINGWALL STEMS AND ABUTMENT STEMS	PCC03340
PARAPET CONCRETE	BRIDGE AND APPROACH WALLS PARAPET	PCC04462

JOINT SEAL: SEE SPECIAL PROVISIONS.

EXPOSED EDGES: EXPOSED EDGES OF CONCRETE SHALL BE BEVELED 1"X1" UNLESS DIMENSIONED OTHERWISE

CONCRETE COVER: ALL REINFORCEMENT SHALL HAVE MIN. 2" COVER UNLESS DIMENSIONED OTHERWISE.

REINFORCEMENT: ALL REINFORCEMENT SHALL BE GALVANIZED AFTER FABRICATION UNLESS NOTED OTHERWISE. ALL REINFORCEMENT SHALL CONFORM TO THE REQUIREMENTS OF ASTM A767, CLASS 1, INCLUDING SUPPLEMENTAL REQUIREMENTS. THE COST OF FURNISHING AND PLACING THIS REINFORCEMENT SHALL BE INCLUDED IN THE ITEM " DEFORMED STEEL BARS-GALVANIZED."

CONSTRUCTION JOINTS: CONSTRUCTION JOINTS, OTHER THAN THOSE SHOWN ON THE PLANS, WILL NOT BE PERMITTED WITHOUT PRIOR APPROVAL OF THE ENGINEER.

PRECAST CONCRETE THREE-SIDED CULVERTS:

FABRICATOR OF PRECAST CONCRETE THREE-SIDED CULVERT SHALL BE REQUIRED TO PROVIDE SHOP DRAWINGS. IF THERE ARE ANY DESIGN CHANGES, THE FABRICATOR SHALL SUBMIT DESIGN CALCULATIONS AND LOAD RATING CALCULATIONS PREPARED AND SIGNED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF CONNECTICUT FOR REVIEW AND APPROVAL. LOAD RATINGS SHALL BE PROVIDED FOR THE INVENTORY & OPERATING LOAD CASES UTILIZING THE LOAD AND RESISTANCE FACTOR RATING (LRFR) METHOD AS FOLLOWS:

LOAD CASE	VEHICLE
INVENTORY	PER CT DOT LOAD RATING MANUAL
OPERATING	PER CT DOT LOAD RATING MANUAL

AVERAGE DAILY TRUCK TRAFFIC (ADTT) <100

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REVISIONS

SUPV. K.O.E.
DESIGN D.T.J.
DRAWN D.T.J.
CHECKED P.W.S.
DATE 04/03/24

P.D. SUBMITTAL

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• WENGELL, McDONNELL & COSTELLO •
87 HOLMES ROAD
NEWINGTON, CT 06111
(860) 667-9624

PREPARED FOR

TOWN OF BRANFORD

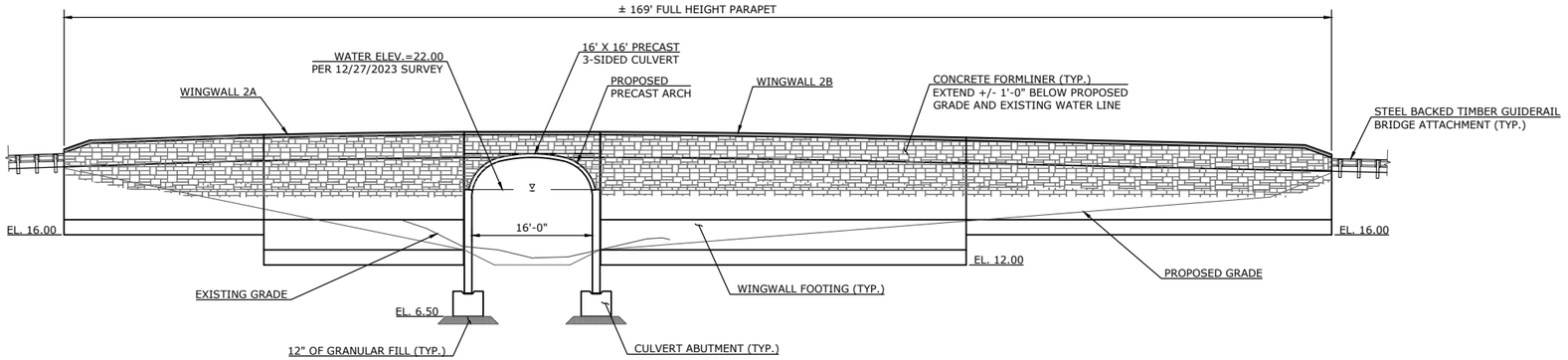
1019 MAIN STREET

BRANFORD, CT 06405

REPLACEMENT OF CHESTNUT STREET BRIDGE OVER BRANFORD SUPPLY POND STRUCTURE PLAN

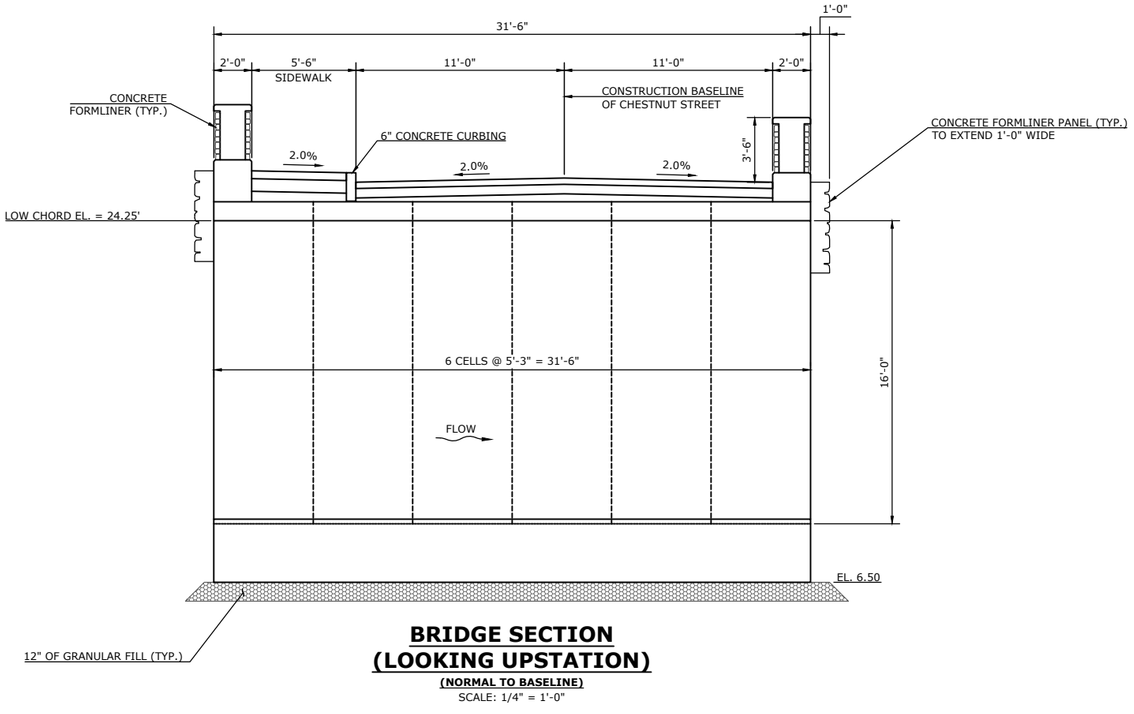
D – CHESTNUT STREET – P.D. – 23008 –

SIZE PROJECT FILE NAME NUMBER REV.



STRUCTURE ELEVATION (LOOKING UPSTREAM)

SCALE: 1" = 10'



BRIDGE SECTION (LOOKING UPSTATION)

(NORMAL TO BASELINE)

SCALE: 1/4" = 1'-0"

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TOWN OF BRANFORD

1019 MAIN STREET

BRANFORD, CT 06405

REPLACEMENT OF CHESTNUT STREET BRIDGE OVER BRANFORD SUPPLY POND STRUCTURE ELEVATION & SECTION

SIZE	PROJECT	FILE NAME	NUMBER	REV.	SHEET	OF
D	CHESTNUT STREET	P.D.	23008		15	16

Jaime Lloret	**TEST BORING REPORT**		SHEET 1 OF 2
DRILLER	**ASSOCIATED BORINGS CO., INC.**		
Colin Sulick	**119 MARGARET CIRCLE, NAUGATUCK, CT 06770**		CME-55
INSPECTOR	**Tel (203) 729-5435 Fax (203) 729-5116**		DRILLING EQUIPMENT
	PROJECT NAME:	Chestnut St over Supply Pond	WMC Consulting Engineers
SOILS ENGINEER	PROJECT NUMBER:	Bridge # 014001	CLIENT
Surface Elevation:	LOCATION:	Branford, Connecticut	

Date Started:	12/20/2023		Auger	Casing	Sampler	Core Bar	Hole No. **B-1**
Date Finished:	12/20/2023	Type	HSA		SS	NQ-2	Line & Station
Groundwater Observations		Size I. D.	3 1/4 in		2 in	2"	Offset
AT 4 ' AFTER 0 HRS		Hammer			140 lb	Bit	N Coordinate
AT ' AFTER HRS		Fall			30 in		E. Coordinate

DEPTH	Casing blows per foot	SAMPLE DEPTH IN FEET FROM - TO	NO.	PEN. INCH	REC. INCH	TYPE	BLOWS PER 6 INCHES ON SAMPLER 0 - 6	6 - 12	12-18	18-24	STRATA CHANGE: DEPTH, ELEV.	FIELD IDENTIFICATION OF SOIL, REMARKS (INCL. COLOR, LOSS OF WASH WATER, ETC.)
											6"	Bituminous Concrete
											3	Red Br. M-F Sand, Some C-F Gravel, Little Silt, (Fill)
												Gr.Blk. M-F Silty Sand, Tr. Organics/Wood
5		5.0 - 7.0	1	24	7	D	2	2	2	5		
											8	
												Red. Br. M-F Sand, Little C-F Gravel, Tr. Silt
10		10.0 - 12.0	2	24	4	D	15	13	7	5		
15		15.0 - 17.0	3	24	10	D	12	15	10	12		
20		20.0 - 22.0	4	24	5	D	18	16	11	7	20	
												Red Br. M-F Sand, Tr. C-F Gravel, Tr. Silt
25		25.0 - 27.0	5	24	10	D	7	7	7	6		
											27	
												Red Br. Silt
30		30.0 - 32.0	6	24	12	D	16	12	15	42		
											32	
												Decomposed Rock/Silty Mica
35		35.0 - 35.9	7	9	9	D	41	50/3"	X	X		
40											40	

From Ground Surface to		Feet Used	Inch Casing Then	Inch Casing For Feet
Footage in Earth 40.0	Footage in Rock 0.0	No. of Samples 7	Hole No. **B-1**	
SAMPLE TYPE CODING:	D = DRIVEN	C = CORE	A = AUGER	UP = UNDISTURBED PISTON
PROPORTIONS USED:	TRACE = 1-10%	LITTLE = 10-20%	SOME = 20-35%	AND = 35-50%

Jaime Lloret	**TEST BORING REPORT**		SHEET 2 OF 2
DRILLER	**ASSOCIATED BORINGS CO., INC.**		
Colin Sulick	**119 MARGARET CIRCLE, NAUGATUCK, CT 06770**		CME-55
INSPECTOR	**Tel (203) 729-5435 Fax (203) 729-5116**		DRILLING EQUIPMENT
	PROJECT NAME:	Chestnut St over Supply Pond	WMC Consulting Engineers
SOILS ENGINEER	PROJECT NUMBER:	Bridge # 014001	CLIENT
Surface Elevation:	LOCATION:	Branford, Connecticut	

Date Started:	12/20/2023		Auger	Casing	Sampler	Core Bar	Hole No. **B-1**
Date Finished:	12/20/2023	Type	HSA		SS	NQ-2	Line & Station
Groundwater Observations		Size I. D.	3 1/4 in		2 in	2"	Offset
AT 4 ' AFTER 0 HRS		Hammer			140 lb	Bit	N Coordinate
AT ' AFTER HRS		Fall			30 in		E. Coordinate

DEPTH	Casing blows per foot	SAMPLE DEPTH IN FEET FROM - TO	NO.	PEN. INCH	REC. INCH	TYPE	BLOWS PER 6 INCHES ON SAMPLER 0 - 6	6 - 12	12-18	18-24	STRATA CHANGE: DEPTH, ELEV.	FIELD IDENTIFICATION OF SOIL, REMARKS (INCL. COLOR, LOSS OF WASH WATER, ETC.)
		40.0 - 45.0	1	60	51	C					40	Cored Run # 1 From 40.0 feet to 45.0 feet Recovery - 51" RQD - 23/60 = 38%
	3											
	3											
	3											
5	4										45	
	3	45.0 - 50.0	2	60	59	C						Cored Run # 2 From 45.0 feet to 50.0 feet Recovery - 59" RQD - 24/60 = 40%
	4											
	3											
	4											
10	4										50	
	3											End of Boring - 50.0
15												
20												
25												
30												
35												
40												

From Ground Surface to		Feet Used	Inch Casing Then	Inch Casing For Feet
Footage in Earth 0.0	Footage in Rock 10.0	No. of Samples 0	Hole No. **B-1**	
SAMPLE TYPE CODING:	D = DRIVEN	C = CORE	A = AUGER	UP = UNDISTURBED PISTON
PROPORTIONS USED:	TRACE = 1-10%	LITTLE = 10-20%	SOME = 20-35%	AND = 35-50%

B-1
STATION=1+90.29
OFFSET=26.03' (LEFT)
X=984728.6828
Y=669347.0530
ELEV.=25.2267'

Jaime Lloret	**TEST BORING REPORT**		SHEET 1 OF 1
DRILLER	**ASSOCIATED BORINGS CO., INC.**		
Colin Sulick	**119 MARGARET CIRCLE, NAUGATUCK, CT 06770**		CME-55
INSPECTOR	**Tel (203) 729-5435 Fax (203) 729-5116**		DRILLING EQUIPMENT
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SOILS ENGINEER	PROJECT NUMBER:	Bridge # 014001	CLIENT
Surface Elevation:	LOCATION:	Branford, Connecticut	

Date Started:	12/21/2023		Auger	Casing	Sampler	Core Bar	Hole No. **B-2**
Date Finished:	12/21/2023	Type	HSA		SS	NQ-2	Line & Station
Groundwater Observations		Size I. D.	3 1/4 in		2 in	2"	Offset
AT 4 ' AFTER 0 HRS		Hammer			140 lb	Bit	N Coordinate
AT ' AFTER HRS		Fall			30 in		E. Coordinate

DEPTH	Casing blows per foot	SAMPLE DEPTH IN FEET FROM - TO	NO.	PEN. INCH	REC. INCH	TYPE	BLOWS PER 6 INCHES ON SAMPLER 0 - 6	6 - 12	12-18	18-24	STRATA CHANGE: DEPTH, ELEV.	FIELD IDENTIFICATION OF SOIL, REMARKS (INCL. COLOR, LOSS OF WASH WATER, ETC.)
											6"	Bituminous Concrete
											3	Red Br. M-F Sand, Some C-F Gravel, Little Silt, (Fill)
												Gr.Blk. M-F Silty Sand, Tr. Organics/Wood
5		5.0 - 7.0	1	24	10	D	2	2	2	4		
10		10.0 - 12.0	2	24	12	D	2	2	9	5		
											13	
												Red. Br. M-F Sand, Little C-F Gravel, Tr. Silt
15		15.0 - 15.9	3	9	4	D	24	50/3	X	X	15	
												Cobbles/Broken Rock
20												
		21.0 - 26.0	1	60	60	C					21	
	4											Cored Run # 1 From 21.0 feet to 26.0 feet Recovery - 60" RQD - 24/60 = 40%
	3											
	4											
25	5											
	4	26.0 - 31.0	2	60	60	C					26	
	5											Cored Run # 2 From 26.0 feet to 31.0 feet Recovery - 60" RQD - 30/60 = 50%
	4											
	4											
30	5											
	5										31	
												End of Boring - 31.0 THIS IS THE 2ND ATTEMPT. 1ST ATTEMPT WAS 4' NE AND REFUSED AT 16' DEEP. IT IS POSSIBLE THAT BORING STOPPED ON BEDROCK.
35												
40												

From Ground Surface to		Feet Used	Inch Casing Then	Inch Casing For Feet
Footage in Earth 21.0	Footage in Rock 10.0	No. of Samples 3	Hole No. **B-2**	
SAMPLE TYPE CODING:	D = DRIVEN	C = CORE	A = AUGER	UP = UNDISTURBED PISTON
PROPORTIONS USED:	TRACE = 1-10%	LITTLE = 10-20%	SOME = 20-35%	AND = 35-50%

B-2
STATION=2+36.18
OFFSET=26.15' (RIGHT)
X=984768.6320
Y=669370.1588
ELEV.=25.6787'

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE TOWN AND IS IN NO WAY WARRANTED TO INDICATE THE TRUE CONDITIONS OR ACTUAL QUANTITIES OR DISTRIBUTION OF QUANTITIES OF WORK WHICH WILL BE REQUIRED.

NO.	DATE	DESCRIPTION

REVISIONS

SUPV.	K.O.E.
DESIGN	D.T.J.
DRAWN	D.T.J.
CHECKED	P.W.S.
DATE	04/03/24

P.D. SUBMITTAL

WMC CONSULTING ENGINEERS
• WENGELL, McDONNELL & COSTELLO •
87 HOLMES ROAD
NEWINGTON, CT 06111
(860) 667-9624

PREPARED FOR
TOWN OF BRANFORD
1019 MAIN STREET
BRANFORD, CT 06405

REPLACEMENT OF CHESTNUT STREET BRIDGE OVER BRANFORD SUPPLY POND BORING LOGS

SIZE	PROJECT	FILE NAME	NUMBER	REV.	SHEET	OF
D	CHESTNUT STREET	P.D.	23008		15	16