CITY OF PORTSMOUTH
PUBLIC WORKS DEPARTMENT

DESIGN DATA	SAGAMORE AVE.
AVERAGE DAILY TRAFFIC 2007	8,300
DESIGN SPEED	35 MPH
LENGTH OF PROJECT	0.25 MILES

SAGAMORE BRIDGE REPLACEMENT

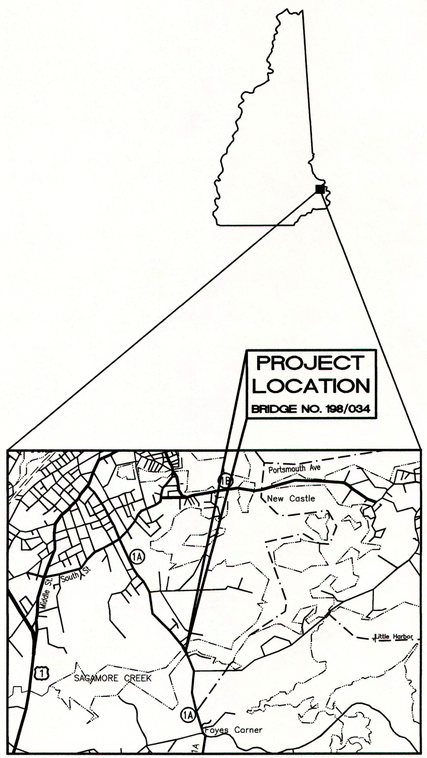
(NH ROUTE 1A / SAGAMORE CREEK)
BRIDGE NO. 198/034

PORTSMOUTH, NEW HAMPSHIRE

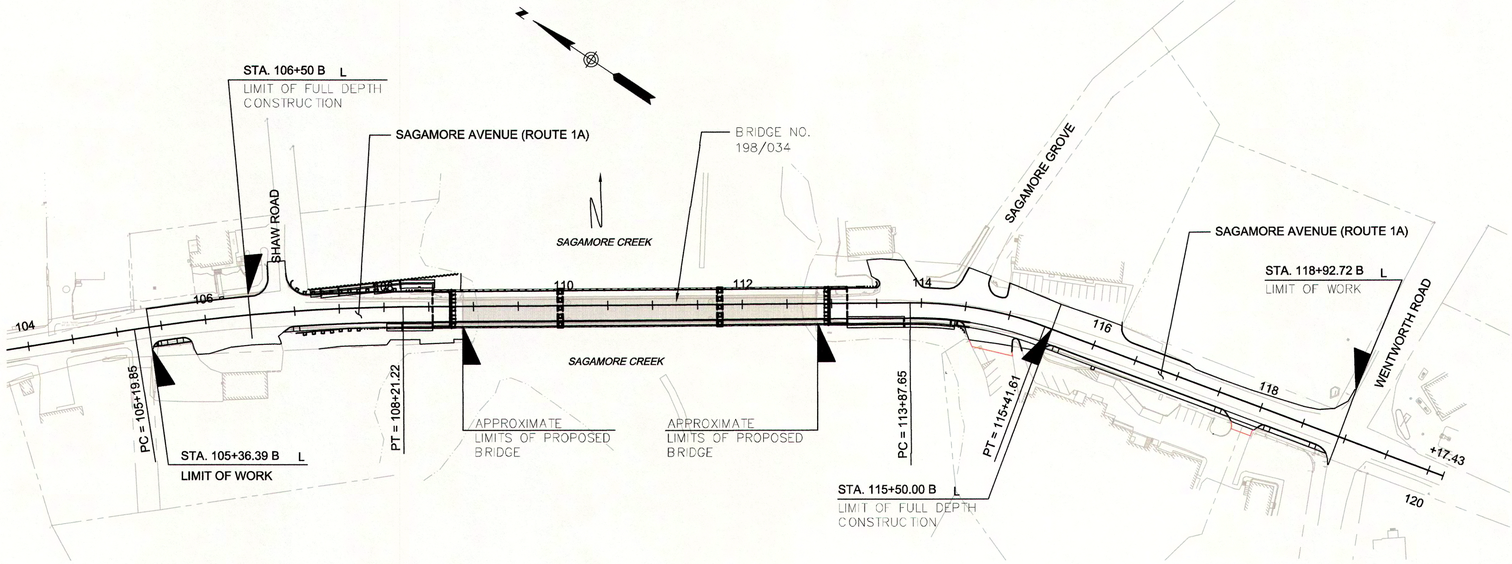
STATE PROJECT NUMBER: 14493
FEDERAL AID PROJECT NUMBER: X-A000(417)

Prepared for:

CITY OF PORTSMOUTH
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION
680 PEVERLY HILL ROAD
PORTSMOUTH, NEW HAMPSHIRE 03801



LOCATION PLAN
SCALE : 1" = 1/2 MILE



CITY OF PORTSMOUTH
COUNTY OF ROCKINGHAM
SCALE : 1" = 80'

DRAWN BY ARM DATE 4/13
CHECKED BY DRM DATE 4/13

CIVIL PLANS PREPARED BY:
ENGINEERS FST Since 1914
FAY, SPOFFORD & THORNDIKE, LLC
ENGINEERS PLANNERS SCIENTISTS LANDSCAPE ARCHITECTS
288 SOUTH RIVER ROAD, BUILDING C, BEDFORD, NH 03110
TEL (603) 669-2000 FAX (603) 668-2670

STAMP:
STATE OF NEW HAMPSHIRE – DAVID G. McNAMARA No. 11241 LICENSED PROFESSIONAL ENGINEER
7/1/13

STRUCTURAL PLANS PREPARED BY:
ENGINEERS FST Since 1914
FAY, SPOFFORD & THORNDIKE, LLC
ENGINEERS PLANNERS SCIENTISTS LANDSCAPE ARCHITECTS
288 SOUTH RIVER ROAD, BUILDING C, BEDFORD, NH 03110
TEL (603) 669-2000 FAX (603) 668-2670

STAMP:
STATE OF NEW HAMPSHIRE – THOMAS A. DENSFORD No. 9345 LICENSED PROFESSIONAL ENGINEER
7-1-13

FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
X-A000(417)	14493	1	91

REVISIONS AFTER PROPOSAL

NUMBER	DATE	STATION	STATION	DESCRIPTION

NOTEBOOKS

BOOK		PAGE
BOOK		PAGE
BOOK		PAGE

EXISTING DETAIL	ARM	DATE 11/10
PROPOSED DESIGN	DEM	DATE 4/13
SHEET CHECKED	TAT	DATE 4/13
AS BUILT DETAILS		DATE

INDEX OF SHEETS

THE FOLLOWING GENERAL NOTES WILL BE USED ON THIS PROJECT:

1		3		5	6	7	8	9	10	11	12
			16								

GENERAL NOTES

1. FOR STANDARD PLANS, SEE "STANDARD PLANS FOR ROAD AND BRIDGE CONSTRUCTION", DATED 2001 (A BOUND BOOK).
2. HIGH TENSION OVERHEAD TRANSMISSION LINES ARE LOCATED THROUGHOUT THE PROJECT WITH CROSSINGS AT VARIOUS LOCATIONS AND RUNNING ALONG THE ROAD THROUGHOUT THE PROJECT EVEN ON REGULAR POLES. THE CONTRACTOR IS ADVISED THAT EXTREME CAUTION WILL BE REQUIRED IN THE OPERATION OF EQUIPMENT, ESPECIALLY CRANES AND PILE DRIVING EQUIPMENT.
3. REMOVE TOPSOIL FOR ITS TOTAL DEPTH WITHIN THE LIMITS OF THE SLOPE LINES. UNLESS OTHERWISE DIRECTED, STOCKPILE TOPSOIL AND USE IT ON THIS PROJECT AS NEEDED UNDER SECTION 641 – LOAM AND/OR SECTION 647 – HUMUS.
4. REMOVAL OF EXISTING CONCRETE PAVEMENT WILL BE PAID UNDER ITEM 203.2 – ROCK EXCAVATION. THE BITUMINOUS PAVEMENT ABOVE THE CONCRETE WILL NOT BE PAID UNDER ITEM 203.2.
5. MODIFY SUPERELEVATION ON EXISTING CURVES BY THE USE OF A PAVEMENT LEVELING COURSE TO THE RATES INDICATED ON THE PLANS OR AS ORDERED.
6. EXISTING DELINEATORS AND WITNESS MARKERS THAT ARE REMOVED AND DETERMINED BY THE ENGINEER TO BE IN ACCEPTABLE CONDITION SHALL BE RESET (SUBSIDIARY). ADDITIONAL DELINEATORS AND WITNESS MARKERS ORDERED WILL BE PAID UNDER THE APPROPRIATE ITEMS OF THE CONTRACT.
7. NO EXISTING MONUMENTS, BOUNDS, OR BENCHMARKS SHALL BE DISTURBED WITHOUT FIRST MAKING PROVISIONS FOR RELOCATION.
8. PERFORM ALL WORK WITHIN THE EXISTING RIGHT–OF–WAY, UNLESS OTHERWISE SHOWN ON THE PLANS OR AS ORDERED BY THE ENGINEER.
9. REMOVE UNPROTECTED PROJECT MARKERS (SUBSIDIARY).
10. SURVEY DATA FOR THIS PROJECT WAS PREPARED FROM AN ACTUAL ON THE GROUND FIELD SURVEY CONDUCTED BY WSP SELLS FROM JANUARY 22, 2010 TO FEBRUARY 19, 2010. COORDINATES ARE NEW HAMPSHIRE STATE PLANE COORDINATES OF N.A.D. 1983 AND THE VERTICAL DATUM SHOWN HEREON REFERNCES NAVD88.
11. QUANTITIES FOR EMBANKMENT AND EXCAVATION FOR SLOPE ROUNDINGS AS SHOWN ON THE TYPICALS HAVE NOT BEEN CALCULATED AND ARE NOT INCLUDED IN THE QUANTITY SUMMARIES AND ARE CONSIDERED SUBSIDIARY TO THE APPROPRIATE 203 ITEMS.
12. THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO ENSURE THAT DEBRIS DOES NOT FALL INTO THE WATERWAY BELOW THE EXISTING STRUCTURE. ALL COSTS SHALL BE PAID UNDER ITEM 502, REMOVAL OF EXISTING BRIDGE STRUCTURE.
13. NO SCAFFOLDING SHALL BE ERECTED OR OPERATIONS CONDUCTED IN THE WATERWAY, UNLESS APPROVED BY THE CONTRACT ADMINISTRATOR.
14. NO CLEARING IS ALLOWED ALONG THE BANKS OF THE WATERWAY.
15. DURING REMOVAL AND REPAIR OPERATIONS, EXTREME CARE SHALL BE TAKEN NOT TO DAMAGE EXISTING STRUCTURAL STEEL AND REINFORCING STEEL THAT IS TO REMAIN IN PLACE. ANY DAMAGE SHALL BE IMMEDIATELY REPORTED TO THE ENGINEER AND REPAIRED AS DIRECTED, AT THE CONTRACTOR'S EXPENSE.
16. THE CONTRACTOR SHALL MEET OSHA REQUIREMENTS FOR WORKER PROTECTION FOR WORKING WITH MEMBERS WITH LEAD BASED PAINT.
17. THE EXISTING BRIDGE HAS BEEN POSTED FOR A LOAD LIMIT OF 6 TONS BASED ON THE CONDITION OF SOME OF THE EXISTING FLOOR BEAMS. THE CONTRACTOR SHALL VERIFY THE CONDITION OF FLOOR BEAMS THAT WILL BE LOADED BY THE CONSTRUCTION OPERATIONS AND DETERMINE THAT THE PROPOSED CONSTRUCTION LOADING DOES NOT EXCEED THE BEAM CAPACITIES.
18. THE CONTRACTOR SHALL NOT PLACE EQUIPMENT OR MATERIALS ON THE EXISTING BRIDGE IN A MANNER THAT COULD OVERLOAD THE EXISTING BRIDGE COMPONENTS (DECK, FLOOR BEAMS, GIRDERS, ETC) AND SHALL CONSIDER THE DETERIORATED CONDITION OF STRUCTURAL ELEMENTS AS NEEDED. IF THE CONTRACTOR'S WORK PLAN INVOLVES PLACEMENT OF EQUIPMENT ON THE BRIDGE, SUCH AS A SMALL CRANE OR OTHER EQUIPMENT TO FACILITATE COMPLETION OF THE WORK, THE CONTRACTOR SHALL PLAN HIS WORK IN ADVANCE AND SHALL PROVIDE LAYOUT DRAWINGS OF PROPOSED EQUIPMENT AND LOAD DISTRIBUTION METHODS WITH STRUCTURAL CALCULATIONS PREPARED UNDER THE SUPERVISION OF A REGISTERED PROFESSIONAL ENGINEER LICENSED IN THE STATE OF NEW HAMPSHIRE. THE PLAN AND CALCULATIONS SHALL BE SUBMITTED FOR REVIEW AND SHALL BE STAMPED BY THE CONTRACTOR'S PROFESSIONAL ENGINEER.
19. PAVEMENT JOINT ADHESIVE, ITEM 403.6 SHALL BE APPLIED TO ALL EXPOSED LONGITUDINAL JOINTS FOR ALL PAVEMENT COURSES PRIOR TO PLACEMENT OF EACH PAVEMENT COURSE PASS. PAVEMENT JOINT ADHESIVE SHALL ALSO BE APPLIED AT PAVEMENT MATCH TRANSVERSE JOINTS AND ALL PAVEMENT JOINTS ACROSS THE LENGTH OF BRIDGE DECK (FOR BOTH WEARING AND BASE COURSES). APPLICATION OF JOINT ADHESIVE SHALL ALSO BE PLACED ALONG BRIDGE CURBES AND U–BACK WINGWALL CURBS FOR ALL PAVEMENT COURSES.

FAY, SPOFFORD & THORNDIKE, LLC

CITY OF PORTSMOUTH

DEPARTMENT OF PUBLIC WORKS

INDEX OF SHEETS AND GENERAL NOTES

FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
X–A000(417)	14493	2	91

GENERAL

EDGE OF PAVEMENT
TRAVELED WAY
PROPOSED ROADWAY
existing roadway
(pavement removed outside slope lines)

DRIVEWAYS
(label surface type)

BUILDINGS
(building to be removed)
(label house or type of building)

FOUNDATION
(label type)

LEACH FIELD
leach field

BRIDGE CROSSINGS
STREAM
OVERPASS

STEPS AND WALK
(label type)

INTERMITTENT WATER COURSE

SHORE LINE
river/stream
pond
(label name of water body)

POTENTIAL WET AREA SYMBOL

BRUSH OR WOODS LINE

TREES (PLANS)
(deciduous) (coniferous) (stump)

TREE OR STUMP (CROSS-SECTIONS)
(show station, circumference in feet & type)

HEDGE
(label type)

MONITORING WELL
mon W

WELL
W

FLAG POLE
fp

ORIGINAL GROUND (TYPICALS)

ROCK OUTCROP

ROCK LINE (TYPICALS & SECTIONS ONLY)

GUARDRAIL (LABEL TYPE)
existing: bgr, cgr
PROPOSED: BGR, MEDIAN CGR

JERSEY BARRIER

CURB (LABEL TYPE)

STONE WALL

RETAINING WALL (LABEL TYPE)
(points toward retained ground)

FENCE (LABEL TYPE)

SIGNS
(single post)
(double post)

GAS PUMP
gp

FUEL TANK (ABOVE GROUND)
ft (label size & type)

STORAGE TANK FILLER CAP
fc

SEPTIC TANK
S

GRAVE
gr

MAILBOX
mb

VENT PIPE
vp

SATELLITE DISH ANTENNA
da

PHONE
ph

GROUND LIGHT/LAMP POST
gl lp

BORING LOCATION
B

TEST PIT
TP

INTERSTATE NUMBERED HIGHWAY
293

UNITED STATES NUMBERED HIGHWAY
3

STATE NUMBERED HIGHWAY
102

WETLANDS

WETLAND DESIGNATION AND TYPE
2
PUB2E

DELINEATED WETLAND — DW —
PRIME WETLAND — PWET —
ORDINARY HIGH WATER — OHW —
TOP OF BANK — TOB —
TOP OF BANK & ORDINARY HIGH WATER — TOBOHW —
MEAN HIGH TIDE — MHT —
TIDAL BUFFER ZONE — TBZ —
HIGHEST OBSERVABLE TIDAL LINE — HOTL —
SPECIAL AQUATIC SITE — SAS —
VERNAL POOL — VP —
INVASIVE SPECIES LABEL
I.S. I
I.S. II
INVASIVE SPECIES — INV —
WATER FRONT BUFFER — WB50 —
NATURAL WOODLAND BUFFER — NWB150 —
PROTECTED SHORE LAND — PS250 —

FLOODPLAIN / FLOODWAY

500 YEAR FLOODPLAIN BOUNDARY — FP500 —
100 YEAR FLOODPLAIN BOUNDARY — FP100 —
FLOODWAY — FW —

ENGINEERING

CONSTRUCTION BASELINE
30 31 32

PC. PT. POT (ON CONST BASELINE)

PI (IN CONSTRUCTION BASELINES)

INTERSECTION OR EQUATION OF TWO LINES

ORIGINAL GROUND LINE (PROFILES AND CROSS-SECTIONS)

PROFILE GRADE LINE (PROFILES AND CROSS-SECTIONS)

CLEARING LINE
SLOPE LINE
SLOPE LINE (FILL)
SLOPE LINE (CUT)
SLOPE LINE
CLEARING LINE

PROFILES AND CROSS SECTIONS:
ORIGINAL GROUND ELEVATION (LEFT) 72.5
FINISHED GRADE ELEVATION (RIGHT) 79.14

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION ∘ BUREAU OF HIGHWAY DESIGN

STANDARD SYMBOLS

FAY, SPOFFORD & THORNDIKE, LLC

REVISION DATE	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
3-15-13	stdsymb1	14493	3	91

DRAINAGE

MANHOLE
CATCH BASIN — cb
DROP INLET — di
(existing) (PROPOSED)

DRAINAGE PIPE (existing) (label size & type)
DRAINAGE PIPE (PROPOSED)
UNDERDRAIN (existing) W/ FLUSHING BASIN — fb (label size & type)
UNDERDRAIN (PROPOSED) W/ FLUSHING BASIN
show direction of flow
HEADER (existing & PROPOSED) (with stone outlet protection)
END SECTION (existing & PROPOSED) METAL or PLASTIC, RCP
OPEN DITCH (PROPOSED)
EROSION CONTROL/ STONE SLOPE PROTECTION

BOUNDARIES / RIGHT-OF-WAY

RIGHT-OF-WAY LINE (label type)
RR RIGHT-OF-WAY LINE
PROPERTY LINE
PROPERTY LINE (COMMON OWNER) — Z — Z —
TOWN LINE — BOW / CONCORD
COUNTY LINE — COOS / GRAFTON
STATE LINE — MAINE / NEW HAMPSHIRE
NATIONAL FOREST
LCHIP CONSERVATION EASEMENT
BENCH MARK / SURVEY DISK
BOUND — bnd — (PROPOSED)
STATE LINE/ TOWN LINE MONUMENT — S/L — T/L
NHDOT PROJECT MARKER
IRON PIPE OR PIN — ip
DRILL HOLE IN ROCK — dh
TAX MAP AND LOT NUMBER — 156 / 14 — 1642/341 — 6.80 Ac.±
PROPERTY PARCEL NUMBER — 12
HISTORIC PROPERTY — H

UTILITIES

existing PROPOSED

TELEPHONE POLE
POWER POLE
JOINT OCCUPANCY
MISCELLANEOUS/UNKNOWN POLE
GUY POLE OR PUSH BRACE
(plot point at face not center of symbol)
LIGHT POLE
LIGHT ON POWER POLE
LIGHT ON JOINT POLE

POLE STATUS:
REMOVE, LEAVE, PROPOSED, OR TEMPORARY
AS APPLICABLE e.g.:

R L — P+04 25.0' — T+04 25.0'

RAILROAD — (label ownership)
RAILROAD SIGN
RAILROAD SIGNAL
UTILITY JUNCTION BOX — jb — JB
OVERHEAD ELECTRIC — OE — OE — OE — OE

UNDERGROUND UTILITIES

WATER (on existing lines label size, type and note if abandoned) — W — W — PW — PW
SEWER — S — S — PS — PS
TELEPHONE — T — T — PT — PT
ELECTRIC — E — E — PE — PE
GAS — G — G — PG — PG
LIGHTING — L — L — PL — PL
INTELLIGENT TRANSPORTATION SYSTEM — ITS — ITS — PITS — PITS
FIBER OPTIC — FO — FO — PFO — PFO
WATER SHUT OFF
GAS SHUT OFF
HYDRANT

MANHOLES

SEWER — MHS
TELEPHONE — MHT
ELECTRICAL — MHE
GAS — MHG
UNKNOWN

FAY, SPOFFORD & THORNDIKE, LLC

TRAFFIC SIGNALS / ITS

existing PROPOSED

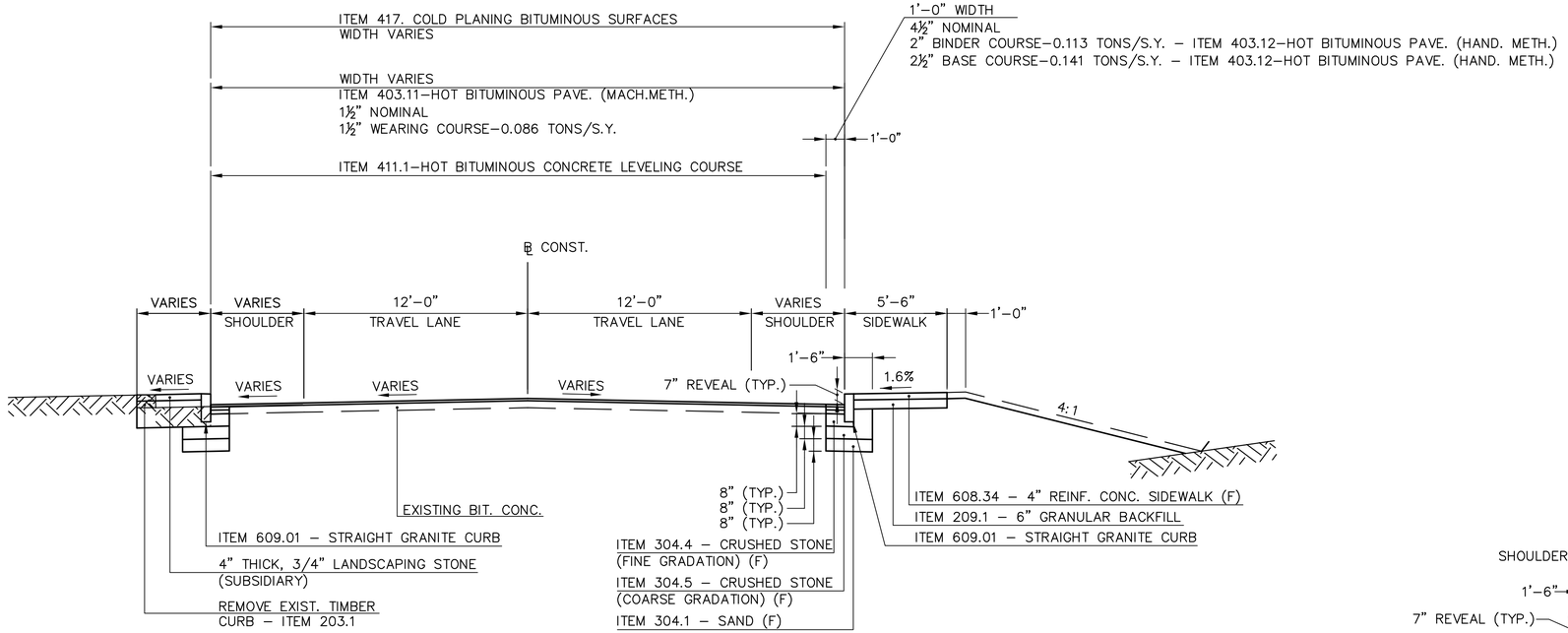
MAST ARM (existing) — 30' MA (NOTE ANGLE FROM ℄)
OPTICOM RECEIVER
OPTICOM STROBE
TRAFFIC SIGNAL
PEDESTAL WITH PEDESTRIAN SIGNAL HEADS AND PUSH BUTTON UNIT
SIGNAL CONDUIT — C — C — C — PC — PC — PC
CONTROLLER CABINET — cc — CC
METER PEDESTAL — mp — MP
PULL BOX — pb — PB
LOOP DETECTOR (QUADRUPOLE) — (label size)
LOOP DETECTOR (RECTANGULAR) — (label size)
CAMERA POLE (CCTV)
FIBER OPTIC DELINEATOR — fod — FOD
FIBER OPTIC SPLICE VAULT — SVF
ITS EQUIPMENT CABINET — its — ITS
VARIABLE SPEED LIMIT SIGN
DYNAMIC MESSAGE SIGN
ROAD AND WEATHER INFO SYSTEM

CONSTRUCTION NOTES

CURB MARK NUMBER - BITUMINOUS — B-1
CURB MARK NUMBER - GRANITE — G-1
CLEARING AND GRUBBING AREA — A
DRAINAGE NOTE — 1
EROSION CONTROL NOTE — A
FENCING NOTE — A
GUARDRAIL NOTE — 1
ITS NOTE — 1
LIGHTING NOTE — A
TRAFFIC SIGNAL NOTE — 1

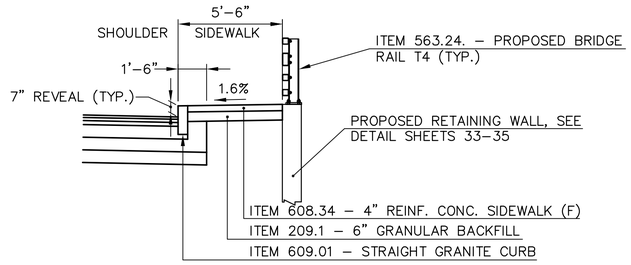
STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION ◦ BUREAU OF HIGHWAY DESIGN
STANDARD SYMBOLS

REVISION DATE	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
3-15-13	stdsymb2	14493	4	91



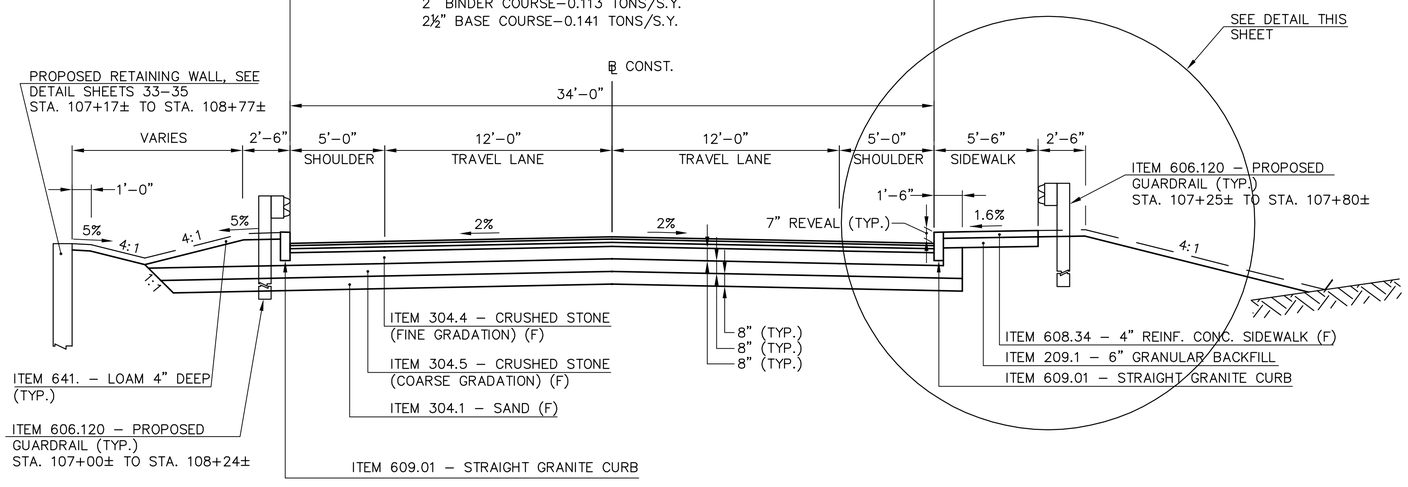
SAGAMORE AVE

STA. 105+36± TO 106+50±
SCALE: 1/4" = 1'–0"



SAGAMORE AVE DETAIL

STA. 108+10± TO 108+77±
SCALE: 1/4" = 1'–0"



SAGAMORE AVE

STA. 106+50± TO 108+77±
SCALE: 1/4" = 1'–0"

SCALE: HORIZ. 1/4"=1 FT.

FAY, SPOFFORD & THORNDIKE, LLC

CITY OF PORTSMOUTH

DEPARTMENT OF PUBLIC WORKS

TYPICAL SECTION
SAGAMORE AVENUE

FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
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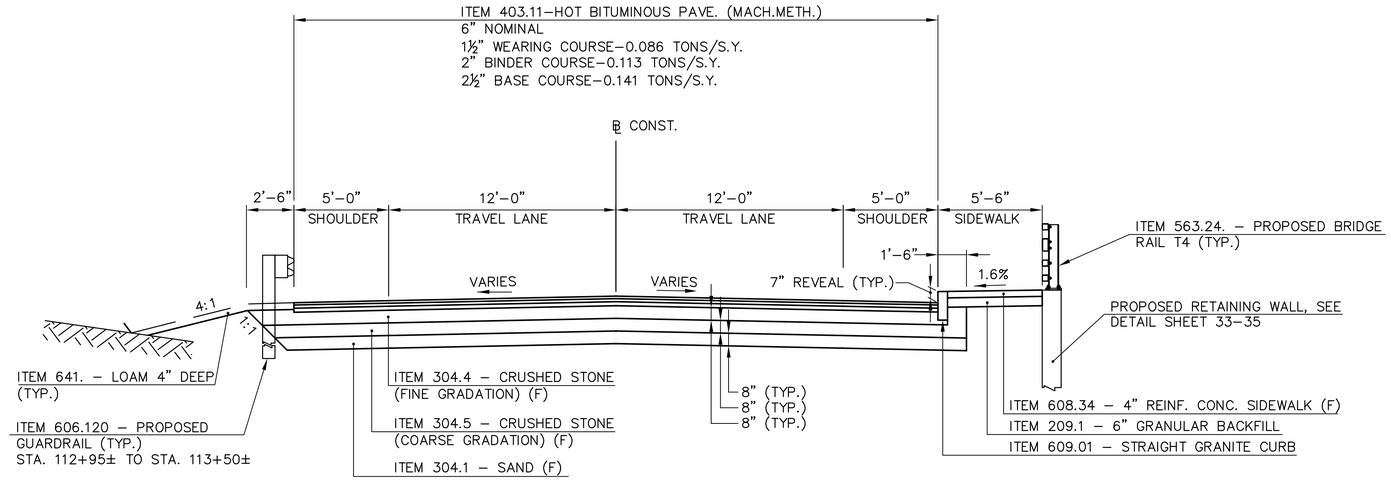
REVISIONS AFTER PROPOSAL

NUMBER	DATE	STATION	STATION	DESCRIPTION

NOTEBOOKS

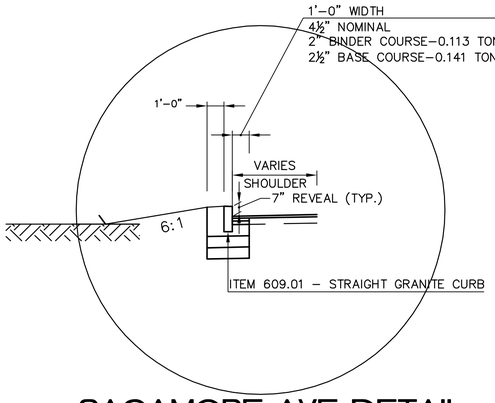
	BOOK	PAGE		
	BOOK	PAGE		
	BOOK	PAGE		

EXISTING DETAIL	ARM	DATE 11/10
PROPOSED DESIGN	DEM	DATE 4/13
SHEET CHECKED	TAT	DATE 4/13
AS BUILT DETAILS		DATE



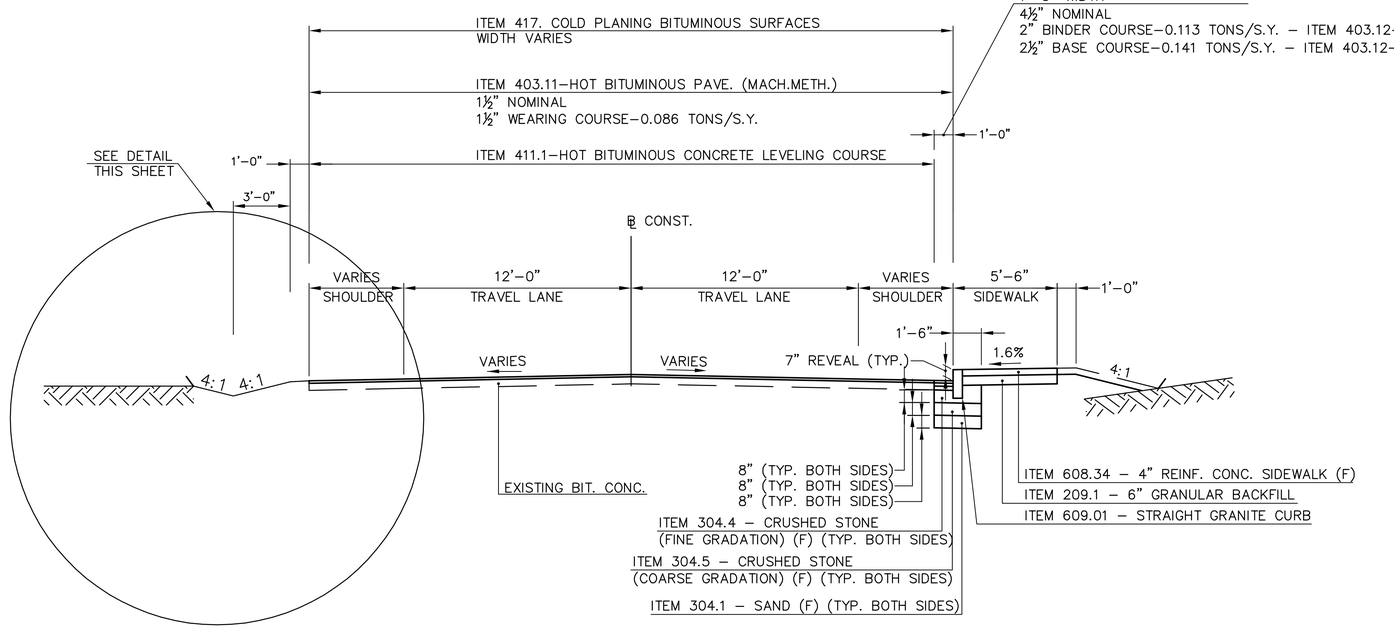
SAGAMORE AVE

STA. 112+95± TO 115+50±
SCALE: 1/4" = 1'–0"



SAGAMORE AVE DETAIL

STA. 116+41± TO 117+08±
SCALE: 1/4" = 1'–0"



SAGAMORE AVE

STA. 115+50± TO 118+93±
SCALE: 1/4" = 1'–0"

SCALE: HORIZ. 1/4"=1 FT.

FAY, SPOFFORD & THORNDIKE, LLC

CITY OF PORTSMOUTH

DEPARTMENT OF PUBLIC WORKS

TYPICAL SECTION SAGAMORE AVENUE

FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
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REVISIONS AFTER PROPOSAL

NUMBER	DESCRIPTION	STATION	STATION	DATE

NOTEBOOKS

BOOK	PAGE	BOOK	PAGE	BOOK	PAGE

EXISTING DETAIL	ARM	DATE 11/10
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AS BUILT DETAILS		DATE

DRAINAGE SUMMARY

REF. NO.	202.41 REMOVAL OF EXISTING PIPE 0-24" DIAMETER	202.5 REMOVAL OF CATCH BASINS, DROP INLETS, AND MANHOLES	206.1 COMMON STRUCTURE EXCAVATION	585.3 STONE FILL, CLASS C	593.421 GEOTEXTILE; PERM. CONTROL CL.2, NON-WOVEN	603.0001 VIDEO INSPECTION	603.00215 15" R.C. PIPE, 2000D	603.00315 15" R.C. PIPE, 3000D	603.36115 15" ALUMINIZED STEEL END SECTION	603.82206 6" PE PIPE (TYPE S)	603.82212 12" PE PIPE (TYPE S)	603.82215 15" PE PIPE (TYPE S)	604.0007 POLY ETHYLENE LINER	604.12 CATCH BASINS, TYPE B		604.125 CATCH BASINS TYPE B, 5-FOOT DIAMETER		604.32 DRAINAGE MANHOLES		604.325 DRAINAGE MANHOLES, 5' DIAMETER		604.9109 FLOW CONTROL STRUCTURE	605.906 6" PIPE UNDERDRAIN (CONTRACTOR'S OPTION)	613.1 UNDERGROUND SAND FILTRATION SYSTEM	622.1 STEEL WITNESS MARKERS	REMARKS
	LF	EA	CY	CY	SY	LF	LF	LF	EA	LF	LF	LF	EA	ACT. (U)	EST. (U)	ACT. (U)	EST. (U)	ACT. (U)	EST. (U)	ACT. (U)	EST. (U)	EA	LF	EA	EA	
S1			8.4			21	21						1	1	1.3											
S2			13.0	3.1	20.2	10			1			10	1	1	1.5										1	
S3			7.0			6	6						1	1	1.2											
S4			9.3	2.7	18.1	6			1			6		1	1.2										2	
S5			6.0			61		61					1	1	1.2											
S6			5.5			4						4								1	1.0					
S7			4.9			34		34					1	1	1.1											
S8			20.1	6.3	34.1	21			1			21	1	1	1.4										1	
S9			13.5			31	31											1	1.4							
S10			19.4			55	55						1			1	2.0									
S11			7.2			98	98						1	1	1.3											
S12			6.9			81	81						1	1	1.2											
S13			9.5			29						29											1			
S14			5.1			28		28					1	1	1.1											
S15			7.7			4						4	1	1	1.3											
S16																								1		
S17						7				7																
S18						4					4															
S19						177	177						1	1	1.0											
S20						16				16																CONNECT TO EXIST PVC PIPE (SUBSIDIARY)
E1	18																									REMOVE 7" x 15" CMP (SUBSIDIARY TO S8)
E2	58																									REMOVE CB & 11" x 12" CMP (SUBSIDIARY TO S10)
Water main	254																									
Sand Filter																							32			
Telephone MH		2																								
SUB-TOTAL	**330**	**2**	**143.3**	**12.1**	**72.4**	**693**	**469**	**123**	**3**	**23**	**4**	**74**	**12**	*	**14.8**	*	**2.0**	*	**1.4**	*	**1.0**	**1**	**32**	**1**	**4**	
ROUNDING	**10**	**0**	**6.7**	**2.9**	**2.6**	**7**	**1**	**7**	**0**	**7**	**6**	**6**	**0**	*	**0.2**	*	**0.0**	*	**0.6**	*	**0**	**0**	**0**	**0**	**0**	
ITEM TOTAL	**340**	**2**	**150**	**15.0**	**75.0**	**700**	**470**	**130**	**3**	**30**	**10**	**80**	**12**	*	**15**	*	**2**	*	**2**	*	**1**	**1**	**32**	**1**	**4**	
*** - Not an Item Total**																										

GUARDRAIL AND CONCRETE BARRIER

NOTE NO.	ITEM NO. / ITEM	202.7 REMOVAL OF GUARDRAIL	203.5555 GUARDRAIL 25 FT. EAGRT PLATFORM	606.120 BEAM GUARDRAIL (STANDARD SECTION - STEEL POSTS)	606.1255 BEAM GUARDRAIL (TERM. UNIT TYPE EAGRT 25 FT.)	606.1270 BEAM GUARDRAIL (TERM. UNIT TYPE G-2, STEEL POST)	606.417 PORTABLE CONCRETE BARRIER FOR TRAFFIC CONTROL	621.2 RETROREFLECTIVE BEAM GUARDRAIL DELINEATOR (WHITE)	621.31 SINGLE DELINEATOR WITH POST	REMARKS
	UNIT	LF	UNIT	LF	UNIT	UNIT	LF	EA	EA	
	LOCATION									
1	STA 107+00, LT 34.3' - STA 108+25, LT 17.5'			139		1		2	1	
	STA 107+23, LT 21.0' - STA 108+85, LT 9.4'	165								
2	STA 107+25, RT 23.7' - STA 107+74, RT 22.5'			48				1	1	
	STA 107+00, RT 24.8' - STA 107+25, RT 23.7'		1		1					
	STA 106+90, RT 21.4' - STA 108+86, RT 21.4'	202								
3	STA 113+47, LT 17.5' - STA 113+50, LT 23.8'			9		1		1	1	
	STA 112+85, LT 9.4' - STA 113+53, LT 20.0'	74								
4	STA 112+85, RT 21.6' - STA 114+55, RT 30.8'	170								
	Southwest Approach								1	
	Roadway Closure						165			
	SUBTOTAL	**611**	**1**	**196**	**1**	**2**	**165**	**4**	**4**	
	ROUNDING	**9**	**0**	**4**	**0**	**0**	**5**	**1**	**0**	
	TOTAL	**620**	**1**	**200**	**1**	**2**	**170**	**5**	**4**	

REVISIONS AFTER PROPOSAL

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FAY, SPOFFORD & THORNDIKE, LLC

CITY OF PORTSMOUTH

DEPARTMENT OF PUBLIC WORKS

SUMMARY OF QUANTITIES

FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
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CURBING

ITEM NO.				202.6	609.01	609.02
DESCRIPTION		MARK NUMBER	RADIUS	CURB REMOVAL FOR STORAGE	STRAIGHT GRANITE CURB	CURVED GRANITE CURB
UNIT			LF	LF	LF	LF
LOCATION						
START	END					
STA. 105+38.42, 22.50' RT.	STA. 105+47.49, 17.00' RT.	G1	10.1			11.1
STA. 105+47.49, 17.00' RT.	STA. 105+72.55, 17.00' RT.	G2	1983.0		24.9	
STA. 105+72.55, 17.00' RT.	STA. 105+81.59, 22.50' RT.	G3	10.0			11.1
STA. 106+86.01, 22.50' RT.	STA. 106+91.76, 18.70' RT.	G4			6.8	
STA. 106+91.76, 18.70' RT.	STA. 106+97.40, 17.00' RT.	G5	10.0			5.9
STA. 106+97.40, 17.00' RT.	STA. 108+21.22, 17.00' RT.	G6	1983.0		122.8	
STA. 108+21.22, 17.00' RT.	STA. 108+76.75, 17.00' RT.	G7			55.5	
STA. 108+21.22, 17.00' LT.	STA. 108+76.75, 17.00' LT.	G8			55.5	
STA. 112+94.75, 17.00' RT.	STA. 113+87.65, 17.00' RT.	G9			92.9	
STA. 113+87.65, 17.00' RT.	STA. 114+42.55, 17.00' RT.	G10	403.0		52.7	
STA. 114+42.55, 17.00' RT.	STA. 114+52.04, 22.50' RT.	G11	10.0			11.2
STA. 114+70.68, 34.58' LT.	STA. 114+71.28, 38.02' LT.	G12			3.5	
STA. 115+11.41, 27.43' RT.	STA. 115+14.77, 38.80' RT.	G13			11.8	
STA. 115+11.41, 27.43' RT.	STA. 115+18.54, 24.28' RT.	G14	3.8			10.5
STA. 115+18.54, 24.28' RT.	STA. 115+25.98, 33.79' RT.	G15			11.8	
STA. 115+49.34, 22.50' RT.	STA. 115+58.27, 17.00' RT.	G16	10.0			11.0
STA. 115+58.27, 17.00' RT.	STA. 117+58.92, 17.00' RT.	G17			200.7	
STA. 117+58.92, 17.00' RT.	STA. 117+64.94, 19.01' RT.	G18	10.0			6.5
STA. 117+64.94, 19.01' RT.	STA. 117+69.57, 22.50' RT.	G19			5.8	
STA. 118+03.85, 22.50' RT.	STA. 118+06.55, 18.97' RT.	G20			4.5	
STA. 118+10.52, 17.00' RT.	STA. 118+72.07, 17.00' RT.	G21			61.6	
STA. 118+72.07, 17.00' RT.	STA. 118+85.84, 22.50' RT.	G22	20.0		15.2	
STA. 112+94.75, 17.00' LT.	STA. 113+48.63, 17.00' LT.	G23	.		53.9	
STA. 118+06.55, 18.97' RT.	STA. 118+10.52, 17.00' RT.	G24	5.0			4.6
STA. 113+95.44, 24.56' LT.	STA. 113+97.35, 21.50' LT.	G25			3.8	
STA. 113+95.44, 21.40' LT.	STA. 114+05.25, 17.00' LT.	G26	10.0			9.7
STA. 114+05.25, 17.00' LT.	STA. 114+25.66, 17.00' LT.	G27	437.0		21.2	
STA. 114+25.66, 17.00' LT.	STA. 114+42.59, 28.84' LT.	G28	20.0		22.6	
STA. 114+42.59, 28.84' LT.	STA. 114+48.08, 43.19' LT.	G29			15.5	
STA. 114+70.68, 34.58' LT.	STA. 114+84.37, 17.00' LT.	G30	15.0			25.9
STA. 114+84.37, 17.00' LT.	STA. 114+87.79, 17.00' LT.	G31	437.0		3.6	
STA. 114+87.79, 17.00' LT.	STA. 114+92.53, 22.30' LT.	G32	5.0			8.1
STA. 114+92.53, 22.30' LT.	STA. 114+91.77, 34.68' LT.	G33			12.4	
STA. 116+21.61, 30.75' LT.	STA. 116+40.61, 17.00' LT.	G34	20.0		25.1	
STA. 116+40.61, 17.00' LT.	STA. 117+08.06, 17.00' LT	G35			67.5	
STA. 113+48.63, 17.00' LT.	STA. 113+51.10, 26.35' LT	G36	5.0			13.1
STA. 113+51.10, 26.35' LT	STA. 113+49.68, 27.16' LT	G37			1.64	
STA. 105+38.42, 22.50' RT	STA. 105+81.59, 22.50' RT	G38	1977.5		42.68	
STA 105+36.39, 20.50' LT	STA 106+53.72, 20.50' LT	G39	2020.5		118.53	
STA 106+53.72, 20.50 ' LT	STA 106+73.31, 39.68' LT	G40	20.0		30.5	
STA 106+73.31, 39.68' LT	STA 106+73.76, 52.57' LT	G41			12.89	
STA 106+93.06, 42.30' LT	STA 107+17.58, 17.00' LT	G42	25.0		39.41	
STA 107+17.58, 17.00' LT	STA. 108+76.75, 17.00' LT.	G43	2017.0		104.53	
CURB REMOVAL FOR STORAGE				121.0		
		SUBTOTAL		121.0	1301.5	128.6
		ROUNDING		4	8.5	1.4
		TOTAL		125.0	1310.0	130.0

SURFACING MATERIALS

ITEM NO.	304.1	304.4	304.5	403.11	403.12	403.6	411.1	417	628.2
ITEM	SAND (F)	CRUSHED STONE (FINE GRADATION) (F)	CRUSHED STONE (COURSE GRADATION) (F)	HOT BITUMINOUS PAVEMENT, MACH. METH.	HOT BIT. PAVEMENT, HAND METHOD	PAVEMENT JOINT ADHESIVE	HOT BITUMINOUS CONCRETE LEVELING COURSE	COLD PLANING BITUMINOUS SURFACES	SAWED BITUMINOUS PAVEMENT
UNIT	CY	CY	CY	TON	TON	LF	TON	SY	LF
LOCATION									
SAGAMORE AVE.	523	675	523	964	177	6459	103	1826	727
SUBTOTAL	523	675	523	964	177	6459	103	1826	727
ROUNDING	0	0	0	6	3	41	7	24	23
TOTAL	523	675	523	970	180	6500	110	1850	750

INCIDENTAL ITEMS - PARTICIPATING

ITEM NO.	ITEM	UNIT	TOTAL
201.881	INVASIVE SPECIES CONTROL, TYPE I	SY	560
201.882	INVASIVE SPECIES CONTROL, TYPE II	SY	140
206.19	COMMON STRUCTURE EXCAVATION, EXPLORATORY	CY	10
214.	FINE GRADING	U	1
611.90001	ADJUSTING WATER GATES AND SHUTOFFS SET BY OTHERS	EA	3
618.6	UNIFORMED OFFICERS	$	*
618.7	FLAGGERS	HR	2000
619.1	MAINTENANCE OF TRAFFIC	U	1
619.25	PORTABLE CHANGEABLE MESSAGE SIGN	U	2
645.7	STORMWATER POLLUTION PREVENTION PLAN	U	1
645.71	MONITORING SWPPP & EROSION AND SEDIMENT CONTROLS	HR	260
670.6051	PEA STONE	CY	2
670.641	SAND FILTER MEDIA MIX	CY	8
670.9	TEMPORARY STABILIZATION OF UTILITY INFRASTRUCTURE	U	1
692.	MOBILIZATION	U	1
693.	ON THE JOB TRAINING OF UNSKILLED WORKERS	$	*
697.11	INVASIVE SPECIES CONTROL AND MANAGEMENT PLAN	U	1
697.41	CRITICAL PATH METHOD (CPM) ELECTRONIC SCHEDULE	U	1
698.12	FIELD OFFICE TYPE B	MO	24
698.2	PHYSICAL TESTING LABORATORY	MO	21
699.	MISCELLANEOUS TEMPORARY EROSION AND SEDIMENT CONTROL	$	*
1008.8	WINTER MAINTENANCE	$	*
1010.15	FUEL ADJUSTMENT	$	*
1010.2	ASPHALT CEMENT ADJUSTMENT	$	*

* - NOT A BID ITEM

TEMPORARY EROSION CONTROL

ITEM NO.	645.0001	645.3	645.42	645.512	645.531
ITEM	TURBIDITY CURTAIN	EROSION STONE	TEMPORARY SLOPE STABILIZATION, TYPE B (WILDLIFE FRIENDLY)	COMPOST SOCK FOR PERIMETER BERM	SILT FENCE
UNIT	LF	TON	SY	LF	LF
LOCATION					
SAGAMORE AVE.		326	1591		
ALONG TOE OF SLOPE	950			600	1500
SUBTOTAL	950	326	1,591	600	1,500
ROUNDING	50	4	9	0	0
TOTAL	1,000	330	1,600	600	1,500

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FAY, SPOFFORD & THORNDIKE, LLC

CITY OF PORTSMOUTH

DEPARTMENT OF PUBLIC WORKS

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CLEARING AND GRUBBING

ITEM NO.		201.1	201.21
ITEM		CLEARING AND GRUBBING (F)	REMOVING SMALL TREES
UNIT		ACRE	EA
THE AREAS LISTED BELOW ARE SHOWN ON THE PLANS BY LETTER ID's			
LOCATION	DESIGNATED AREAS		
SAGAMORE AVE.			
STA. 107+09, RT.			1
STA. 107+42, RT. to STA. 108+77, RT.	A	0.05	
STA. 107+00, LT. to STA. 108+77, LT.	B	0.07	
STA. 112+95, RT. to STA. 114+58, RT.	C	0.07	
STA. 116+88, LT. to STA. 117+91, LT.	D	0.02	
SUB-TOTAL		0.21	1
ROUNDING		0	0
TOTAL		0.21	1

LANDSCAPING AND SLOPE PROTECTION

ITEM NO.	641.	643.21	644.15	646.31
ITEM	LOAM	FERTILIZER FOR REFERTILIZATION	PARK SEED TYPE 15 (SUBSIDIARY TO ITEM 646.3)*	TURF ESTABLISHMENT WITH MULCH & TACKIFIERS
UNIT	CY	TON	LB	SY
LOCATION				
SAGAMORE AVE.				
SIDE SLOPES	171.6	278.0	40	1591
SUBTOTAL	171.6	278.0	40	1591
ROUNDING	8.4	2.0		9
TOTAL	180.0	280.0	*	1600

* - NOT AN ITEM TOTAL

SIDEWALK

ITEM NO.	209.1	608.34	608.36	608.54
ITEM	GRANULAR BACKFILL	4" REINFORCED CONCRETE SIDEWALK (F)	6" REINFORCED CONCRETE SIDEWALK (F)	DETECTABLE WARNING DEVICES, CAST IRON
UNIT	CY	SY	SY	SY
LOCATION				
SAGAMORE AVE.	67	405	6	1.0
SUBTOTAL	67	405	6	1.0
ROUNDING	3	0	0	1.0
ITEM TOTAL	70	405	6	2.0

SUBSIDIARY ITEMS

DESCRIPTION	LOCATION	QUANTITY
SAWCUT (LONGITUDINAL) - SUBSIDIARY TO ITEM 203.1 (COMMON EXCAVATION)		
SALVAGE OF MATERIALS - SEE SALVAGE OF MATERIALS SUMMARY		
CONSTRUCTING WATERTIGHT CONNECTIONS TO EXISTING PIPES AND STRUCTURES - SUBSIDIARY TO THE ITEMS OF THE WORK		
REMOVAL OF TYPE B/C SIGNS UNDER ITEM 615.		2
REMOVAL OF EXISTING PIPES AND STRUCTURES WHERE INDICATED		
NOTE: THIS LIST SHOULD NOT BE CONSIDERED TO BE A LIST OF SUBSIDIARY WORK PRESENT IN THE PROJECT. REFER ALSO TO THE PLANS, PROPOSAL, SPECIAL PROVISIONS, AND TO THE STANDARD SPECIFICATIONS.		

EARTHWORK

		CY	TOTAL
Common Excavation in Sections, Including Boulders and Pavement		1,628	
Common Excavation Not In Sections (Bituminous Pavement)		0	
Drive and Approach Excavation, Including Boulders		0	
Common Excavation in Sections, Excl. Bldrs. & Conc. Pvmt.		1,628	
Topsoil Removed Beneath Fill Sections		0	
Bituminous Pavement Removed Beneath Fill Sections		0	
COMMON EXCAVATION	ITEM 203.1	1,628	1,650
Rock Excavation		163	
ROCK STRUCTURE EXCAVATION FOR ESTIMATE	ITEM 203.2	163	165
Sections Fill		198	
Topsoil Replacement		0	
Drive and Approach Fill		0	
Replace Bituminous Pavement in Sections		0	
EMBANKMENT-IN-PLACE (F)	ITEM 203.6	198	198

WATER MAIN

ITEM NO.	ITEM	UNIT	TOTAL
520.2	CONCRETE CLASS B	CY	20
611.05206	6" CEMENT LINED DUCTILE IRON WATER PIPE, CL 52	LF	40
611.05210	10" CEMENT LINED DUCTILE IRON WATER PIPE, CL 52	LF	130
611.05212	12" CEMENT LINED DUCTILE IRON WATER PIPE, CL 52	LF	110
611.06210	10" CEMENT LINED DUCTILE IRON BRIDGE CROSSING PIPE, CL 52	LF	420
611.35220	20" CASING PIPE W/ 12" CEMENT LINED DI MJ, CL 52 CARRIER PIPE	LF	60
611.70006	6" FITTING	EA	1
611.70010	10" FITTING	EA	4
611.70012	12" FITTING	EA	9
611.71006	6" GATE VALVE	EA	1
611.71012	12" GATE VALVE	EA	2
611.74	CHLORINE INJECTION TAP	EA	1
611.81	HYDRANTS	EA	1
611.952	ROUND RIGID PIPE INSULATION	LF	480

PAVEMENT MARKINGS

ITEM NO.	632.0104	632.3106	632.3118
ITEM	RETROREFLECTIVE PAINT PAVE. MARKING, 4" LINE	RETROREFLECT. THERMOPLAS. PAVE. MARKING, 6" LINE	RETROREFLECT. THERMOPLAS. PAVE. MARKING, 18" LINE
UNIT	LF	LF	LF
LOCATION			
SAGAMORE AVE.	5544	227	26
SUBTOTAL	5544	227	26
ROUNDING	6	3	4
TOTAL	5550	230	30

FORCE ACCOUNT WORK BY UTILITIES

(NOT PART OF THIS CONTRACT)

PUBLIC SERVICE OF NEW HAMPSHIRE

FIRE DEPARTMENT (PRE-EMPT CABLE)

COMCAST COMMUNICATIONS (CABLE AND PHONE)

FAIRPOINT COMMUNICATIONS (PHONE)

SIGNING

ITEM NO.	ITEM	UNIT	TOTAL
615.03	TRAFFIC SIGN, TYPE C (F)	SF	23
615.034	RELOCATING TRAFFIC SIGN, TYPE C	U	5

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FAY, SPOFFORD & THORNDIKE, LLC

CITY OF PORTSMOUTH

DEPARTMENT OF PUBLIC WORKS

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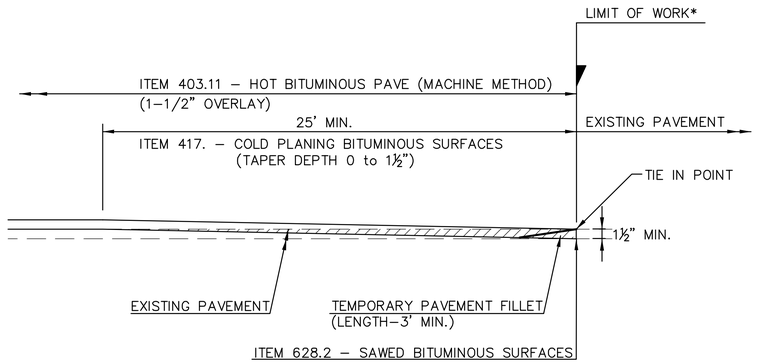
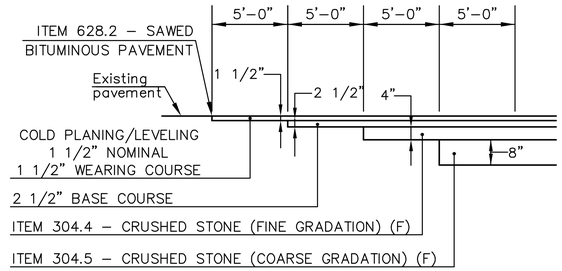


*APPLY AT LIMIT OF SAGAMORE GROVE

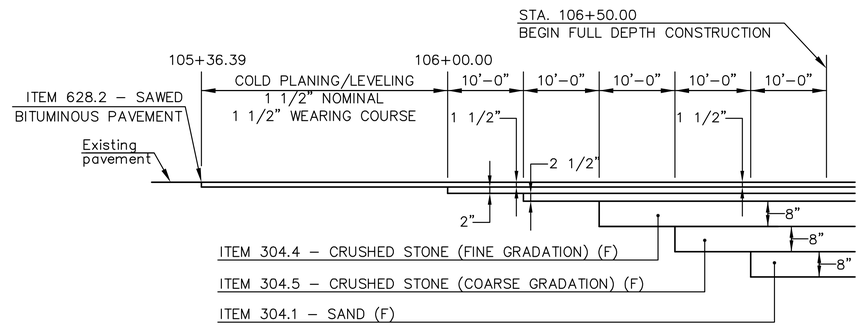
OVERLAY PAVEMENT TRANSITION DETAIL

NOT TO SCALE



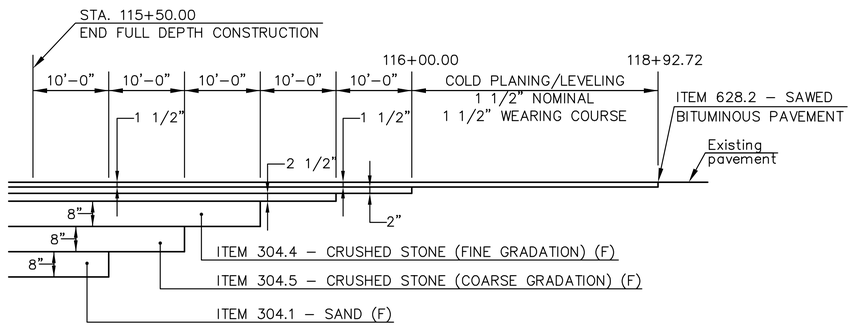
SHAW ROAD CONSTRUCTION APPROACH

NOT TO SCALE



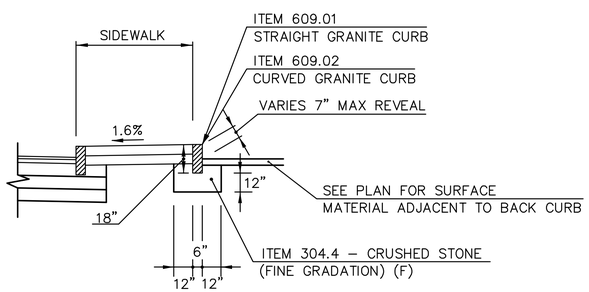
SAGAMORE AVE CONSTRUCTION APPROACH

STA. 105+36.39 TO STA. 106+50.00
NOT TO SCALE



SAGAMORE AVE CONSTRUCTION APPROACH

STA. 115+50.00 TO STA. 118+92.72
NOT TO SCALE



BACK-CURB DETAILS

NOT TO SCALE

NOT TO SCALE
(Except as noted)

FAY, SPOFFORD & THORNDIKE, LLC

CITY OF PORTSMOUTH

DEPARTMENT OF PUBLIC WORKS

MISCELLANEOUS DETAILS

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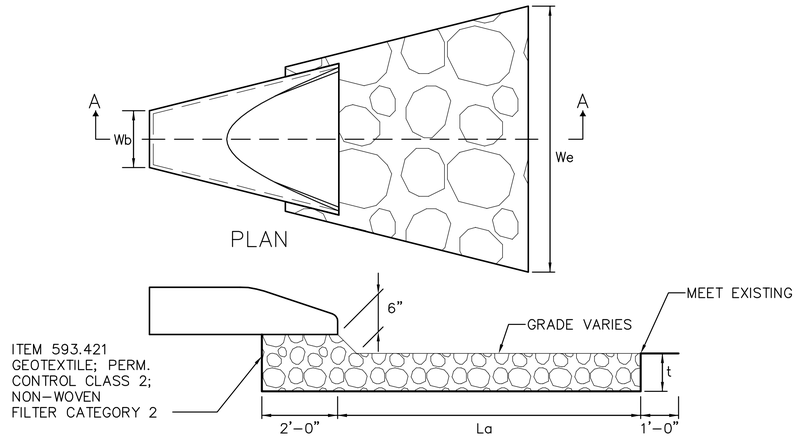


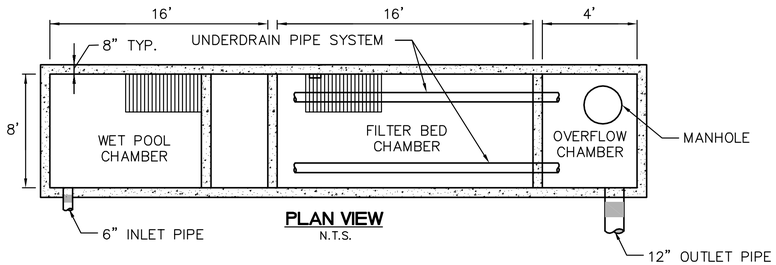
SECTION A–A

OUTLET PROTECTION SUMMARY TABLE						
DRAIN NOTE NUMBER	Q (cfs)	La (ft)	Wb (ft)	We (ft)	STONE CLASS	THICKNESS (ft)
S2	1.53	10.7	3.8	12.0	C	1
S4	0.82	9.8	3.8	11.1	C	1
S8	5.13	11.0	3.8	5.7	C	1

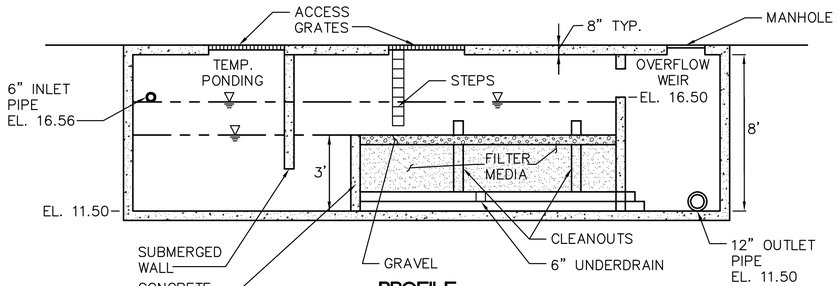
* SLOPES ARE NOTED ON CROSS–SECTIONS.

PIPE OUTLET TO FLAT AREA WITH NO CHANNEL

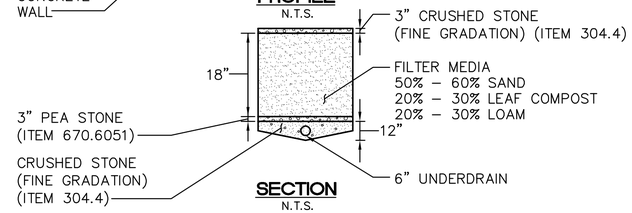
SCALE: NOT TO SCALE



PLAN VIEW
N.T.S.



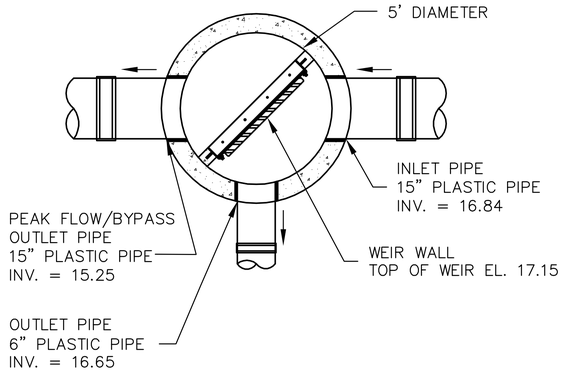
PROFILE
N.T.S.



SECTION
N.T.S.

UNDERGROUND SAND FILTER

NOT TO SCALE



FLOW CONTROL STRUCTURE
PLAN VIEW
NTS

NOT TO SCALE
(Except as noted)

FAY, SPOFFORD & THORNDIKE, LLC

CITY OF PORTSMOUTH

DEPARTMENT OF PUBLIC WORKS

MISCELLANEOUS DETAILS

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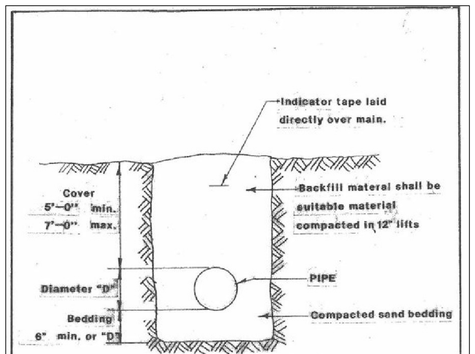
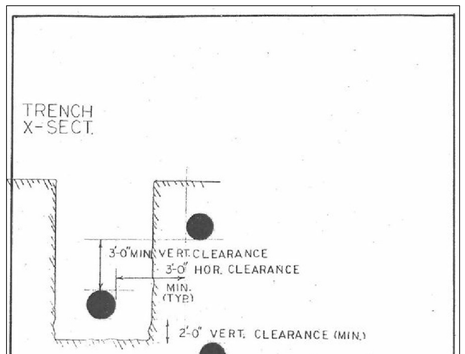
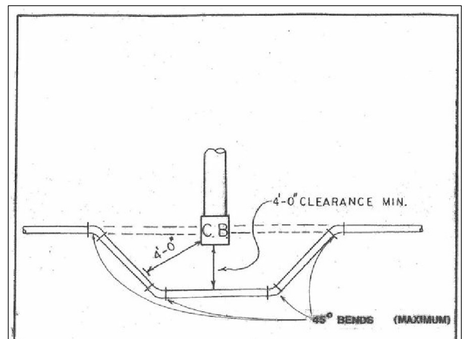


Pipe as specified by Portsmouth Water Division
See specifications

APPROVED:	PORTSMOUTH WATER DIVISION	REV. 4 DATE 9/88	STD. NO.
ENGINEERING	PIPE LINE INSTALLATION		780304-3

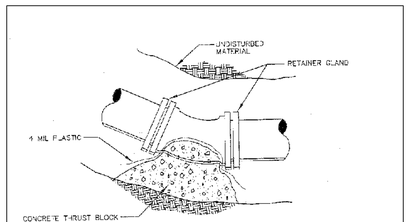


APPROVED:	PORTSMOUTH WATER DIVISION	REV. DATE	STD. NO.
ENGINEERING	CLEARANCE STD.		780305-0

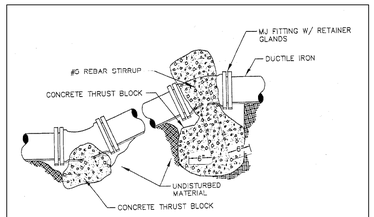


NOTE'S
1 ALL FITTINGS SHALL BE M.J. WITH RETAINER GLANDS.
2 ALL PIPE, FITTINGS AND MATERIAL SHALL CONFORM TO PORTSMOUTH WATER WORKS STANDARDS
3 ALL WORK AND MATERIALS ARE SUBJECT TO INSPECTION AND APPROVAL BY PORTSMOUTH WATER WORKS PRIOR TO FINAL ACCEPTANCE.

APPROVED:	PORTSMOUTH WATER DIVISION	REV. 2 DATE 9/88	STD. NO.
ENGINEERING	HORIZONTAL WATER MAIN RELOCATION		780306-1



M.J. BEND
N.T.S.



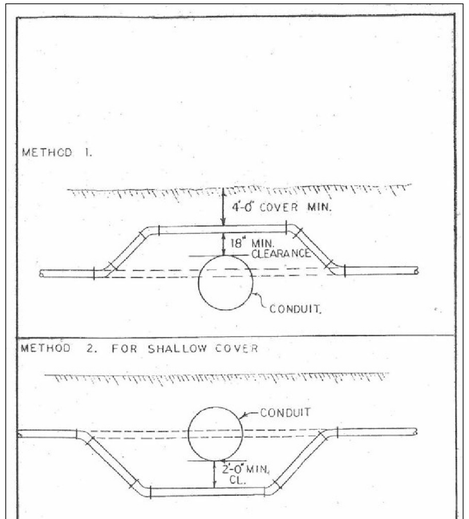
NOTE: EXTEND REINFORCED THRUST BLOCK 2' MINIMUM EITHER SIDE OF FITTING TO MAXIMIZE DOWN-PRESSURE EFFECT OF EARTH BACKFILL.

MJ VERTICAL BENDS – ELEVATION
N.T.S.

THRUST BLOCK BEARING AREA IN SQ. FT.
(PRESSURE = 150 PSI, FACTOR OF SAFETY = 2.0)

FITTINGS	WET SILT & SOFT CLAY	SILT	SAND	COARSE SAND & GRAVEL	HARDPAN
16" TEE, CAP	60.3	30.2	20.1	15.1	12.1
1/4 BEND	85.3	42.7	28.4	21.3	17.1
1/8 BEND	46.2	23.1	15.4	11.5	9.2
1/16 BEND	23.5	11.8	7.8	5.9	4.7
1/32 BEND	11.8	5.9	3.9	3.0	2.4
12" TEE, CAP	33.9	17.0	11.3	8.5	6.8
1/4 BEND	48.0	24.0	16.0	12.0	9.6
1/8 BEND	26.0	13.0	8.7	6.5	5.2
1/16 BEND	13.2	6.6	4.4	3.3	2.6
1/32 BEND	6.7	3.3	2.2	1.7	1.5
10" TEE, CAP	23.6	11.8	7.9	5.9	4.7
1/4 BEND	33.3	16.7	11.1	8.3	6.7
1/8 BEND	18.0	9.0	6.0	4.5	3.6
1/16 BEND	9.2	4.6	3.1	2.3	1.8
1/32 BEND	4.6	2.3	1.5	1.5	1.5
8" TEE, CAP	15.1	7.5	5.0	3.8	3.0
1/4 BEND	21.3	10.7	7.1	5.3	4.3
1/8 BEND	11.5	5.8	3.8	2.9	2.3
1/16 BEND	5.9	2.9	2.0	1.5	1.5
1/32 BEND	3.0	1.5	1.5	1.5	1.5
6" TEE, CAP	8.5	4.2	2.8	2.1	1.7
1/4 BEND	12.0	6.0	4.0	3.0	2.4
1/8 BEND	6.5	3.2	2.2	1.6	1.3
1/16 BEND	3.3	1.7	1.1	1.0	1.0
1/32 BEND	1.7	1.0	1.0	1.0	1.0
4" TEE, CAP	3.8	1.9	1.3	0.9	0.8
1/4 BEND	5.3	2.7	1.8	1.3	1.5
1/8 BEND	2.9	1.4	1.0	0.7	0.5
1/16 BEND	1.5	0.7	0.5	0.5	0.5
1/32 BEND	0.7	0.5	0.5	0.5	0.5
3" TEE, CAP	2.1	1.1	0.7	0.5	0.5
1/4 BEND	3.0	1.5	1.0	0.7	0.6
1/8 BEND	1.6	0.8	0.5	0.5	0.5
1/16 BEND	0.8	0.5	0.5	0.5	0.5
1/32 BEND	0.5	0.5	0.5	0.5	0.5
2" TEE, CAP	0.9	0.5	0.5	0.5	0.5
1/4 BEND	1.3	0.7	0.5	0.5	0.5
1/8 BEND	0.7	0.5	0.5	0.5	0.5
1/16 BEND	0.5	0.5	0.5	0.5	0.5
1/32 BEND	0.5	0.5	0.5	0.5	0.5

SOIL TYPE	BEARING CAPACITY (psf)
MUCK	--0--
WET SILT & SOFT CLAY	1000
SILT	2000
SAND	3000
COARSE SAND & GRAVEL	4000
HARDPAN	5000

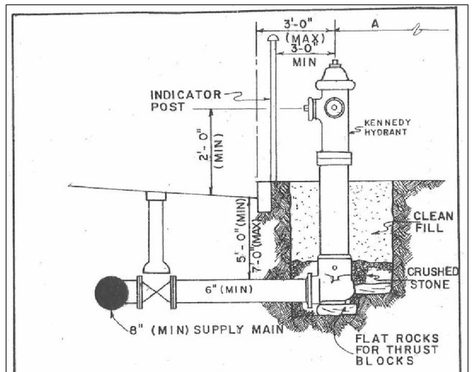


NOTES TYPICAL TO BOTH.
1. ALL FITTINGS SHALL BE M.J WITH RETAINER GLANDS.
2. ALL PIPES SHALL BE CEMENT LINED DUCTILE IRON CLASS 52.

APPROVED:	PORTSMOUTH WATER DIVISION	REV. 1 DATE 9/88	STD. NO.
ENGINEERING	VERTICAL WATER MAIN RELOCATION		780307-0

3. ALL PIPE, FITTINGS, AND MATERIAL SHALL CONFORM TO PORTSMOUTH WATER DIVISION STANDARDS.
4. WHEN THE CONDUIT IS A SEWER, METHOD ONE IS THE ONLY ALLOWABLE METHOD. IF COVER IS TO SHALLOW AN APPROVED INSULATION SHALL BE USED TO PREVENT FREEZING.
5. ALL WORK AND MATERIALS ARE SUBJECT TO INSPECTION AND APPROVAL BY PORTSMOUTH WATER DIVISION

APPROVED:	PORTSMOUTH WATER DIVISION	REV. DATE	STD. NO.
ENGINEERING	VERTICAL WATER MAIN RELOCATION		780307-0



NOTES:
1. HYDRANT TYPE AS SPECIFIED BY PORTS WATER DIV.
2. "A" SHALL BE 10' CLEAR RADIUS IN HEAVY GROWTH AREAS.
3. INDICATOR POST AS SPECIFIED BY THE PORTSMOUTH WATER DIVISION.

APPROVED:	PORTSMOUTH WATER DIVISION	REV. 3 DATE 12/84	STD. NO.
ENGINEERING	STANDARD FIRE HYDRANT INSTALLATION		780309-2

1. HYDRANTS SHALL BE INSTALLED A MAXIMUM DISTANCE OF 3'-0" CURB LINE TO OPERATING NUT.
2. THE PUMPER OUTLET NOZZLE SHALL FACE THE STREET.
3. CENTERLINE OF NOZZLES SHALL BE A MINIMUM OF 2'-0" ABOVE FINISHED GRADE OF STREET.
4. AREA AROUND HYDRANT SHALL BE GRADED TO ALLOW ANY SURFACE WATER TO DRAIN AWAY FROM HYDRANT.
5. HYDRANT SHALL BE FIRMLY SUPPORTED UNDERGROUND ALL AROUND THE STANDPIPE.
6. EARTHFILL SHALL BE TAMPED TO GIVE FIRM SUPPORT TO THE HYDRANT BARREL.
7. A GATE VALVE SHALL BE INSTALLED BETWEEN THE HYDRANT AND THE MAIN ON THE LATERAL.
8. HYDRANT LATERALS SHALL BE 6" INSIDE DIAMETER MINIMUM.
9. HYDRANT LATERALS SHALL BE TAKEN FROM WATER MAINS 8" IN DIAMETER OR LARGER.
10. ALL JOINTS AT HYDRANT CONNECTION SHALL BE RESTRAINED MECHANICAL JOINT.
11. INSTALLATION OF HYDRANTS IN AREAS OF HEAVY GROWTH SHALL HAVE A 10' RADIUS CLEAR AREA ALL AROUND THE OPERATING NUT OF HYDRANT.
12. THERE SHALL ALSO BE AN INDICATOR POST FABRICATED FROM 2" I.D. GALV. STEEL PIPE, 7'0" ABOVE FINISHED GRADE, AND SET 2'-0" BELOW GRADE IN CLASS "A" CONCRETE 6" ALL AROUND POST. THIS POST SHALL BE PRIMED WITH ZINC CHROMATE PRIMER AND PAINTED WITH HIGH VISIBILITY RED. THE INDICATOR POST SHALL BE NO CLOSER THEN 3'-0" FROM THE OPERATING NUT, AND SET ON SIDE OF HYDRANT THAT IS FACING ONCOMING TRAFFIC. TOP OF POST SHALL BE THREADED AND CAPPED.
13. INSTALLATION OF HYDRANTS IN HEAVY GROWTH AREAS SHALL HAVE GATE BOXES RAISED 6" ABOVE GRADE AND BE PAINTED ORANGE FOR HIGH VISIBILITY.

APPROVED:	PORTSMOUTH WATER DIVISION	REV. 2 DATE 12/84	STD. NO.
ENGINEERING	STANDARD FIRE HYDRANT INSTALLATION		780309-2

FAY, SPOFFORD & THORNDIKE, LLC

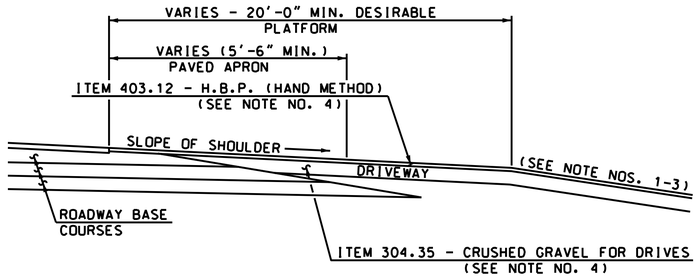
CITY OF PORTSMOUTH

DEPARTMENT OF PUBLIC WORKS

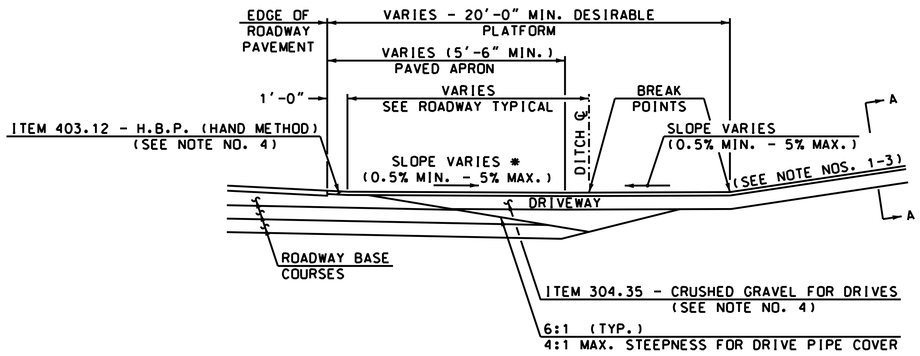
WATERMAIN DETAILS

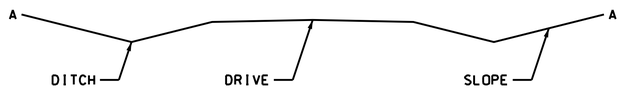
FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
X-A000(417)	14493	12	91

NOTE: REFER TO PAVEMENT LAYOUT PLANS AND CROSS-SECTIONS FOR DRIVEWAY LENGTHS, WIDTHS, RADII, CURB CUTS, GRADES AND PAVEMENT & BASE COURSE DEPTHS



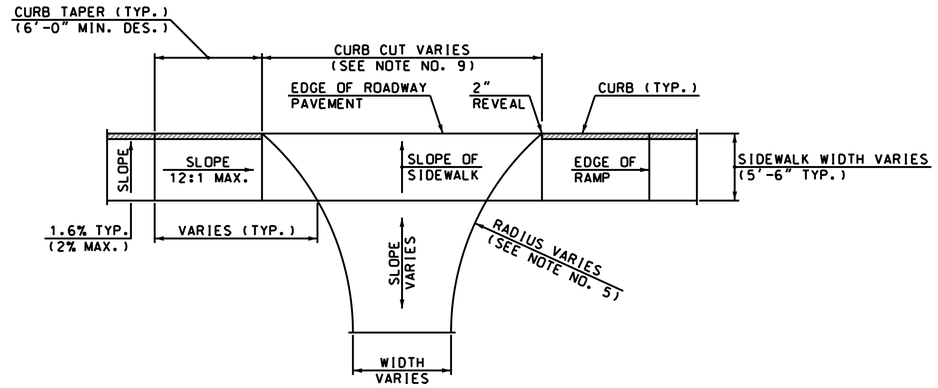
TYPICAL UNCURBED DRIVE IN FILL SECTION



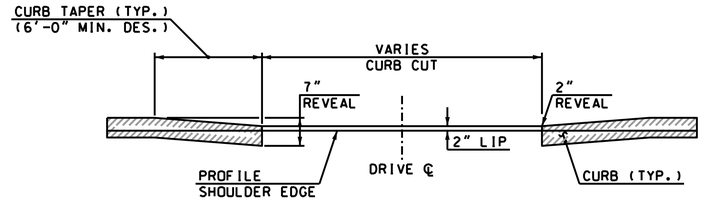


A-A DRIVEWAY CROSS-SECTION

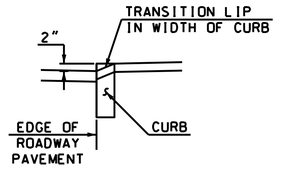
TYPICAL UNCURBED DRIVE IN CUT SECTION



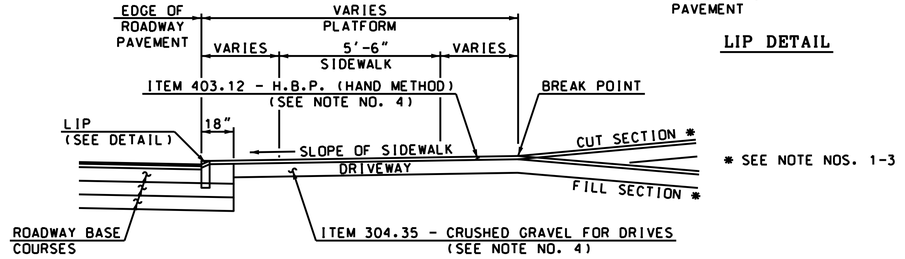
PLAN VIEW WITH SIDEWALK RAMP



END VIEW



LIP DETAIL



TYPICAL URBAN CURBED DRIVE IN CUT/FILL SECTION

GENERAL NOTES

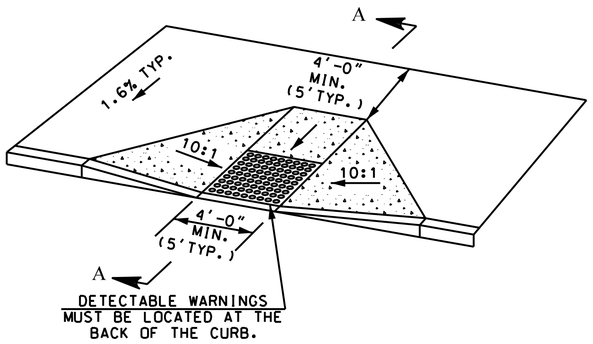
1. GRADES OF MAJOR ENTRANCES BEYOND THE PLATFORM SHOULD NOT EXCEED 8%.
2. GRADES OF OTHER DRIVES BEYOND THE PLATFORM SHOULD NOT EXCEED 15%.
3. THE ALGEBRAIC DIFFERENCE BETWEEN TWO ADJACENT GRADES SHOULD NOT EXCEED 10%.
4. PAVEMENT AND BASE COURSE DEPTHS ARE:
   A. TYPICALLY 8" CRUSHED GRAVEL WITH 3" HBP (HAND METHOD, PLACED IN 2 COURSES) FOR RESIDENTIAL DRIVES ADJACENT TO ROADWAYS WITH CONVENTIONAL CRUSHED GRAVEL, GRAVEL, AND SAND STRUCTURAL BOX. IF THE DRIVE IS ADJACENT TO A ROADWAY WITH A CRUSHED STONE STRUCTURAL BOX, 6" OF CRUSHED STONE FINE GRADATION MAY BE SUBSTITUTED FOR THE 8" OF CRUSHED GRAVEL NOTED ABOVE.
   B. TYPICALLY 12" CRUSHED GRAVEL WITH 3" HBP (HAND METHOD, PLACED IN 2 COURSES) FOR COMMERCIAL DRIVES WITH FREQUENT HEAVY TRUCK TRAFFIC THAT ARE ADJACENT TO ROADWAYS WITH CONVENTIONAL CRUSHED GRAVEL, GRAVEL, AND SAND STRUCTURAL BOX. IF THE DRIVE IS ADJACENT TO A ROADWAY WITH A CRUSHED STONE STRUCTURAL BOX, 9" OF CRUSHED STONE FINE GRADATION MAY BE SUBSTITUTED FOR THE 12" OF CRUSHED GRAVEL NOTED ABOVE.
5. FOR DESIGN CRITERIA AND OTHER ADDITIONAL INFORMATION, REFER TO THE NHDOT DRIVEWAY MANUAL.
6. DITCHES ARE RECOMMENDED FOR UNCURBED DRIVEWAYS IN CUT SLOPES.
7. USE SLOPED END SECTIONS ON DRIVE PIPES FOR UNCURBED DRIVEWAYS.
8. CURBING CAN BE FLARED TO FIT DRIVE RADII IF APPROPRIATE OR ENDED AS DETAILED ABOVE.
9. CURB CUTS FOR RESIDENTIAL DRIVES WITH ANGLES OF ENTRY OF 75°-90° ARE TYPICALLY 20'-0", UNLESS OTHERWISE NOTED ON THE PLANS.

CITY OF PORTSMOUTH

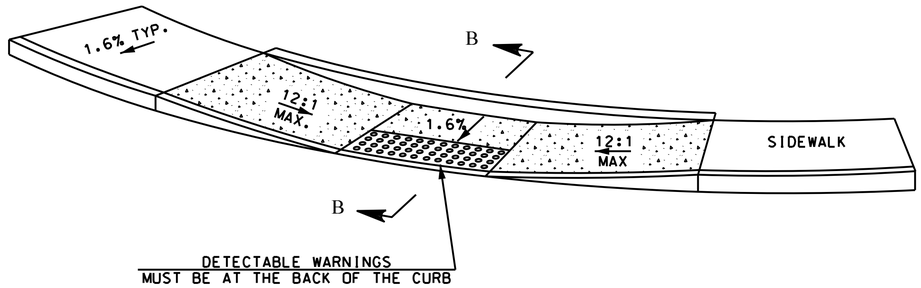
DEPARTMENT OF PUBLIC WORKS

DRIVEWAY DETAILS

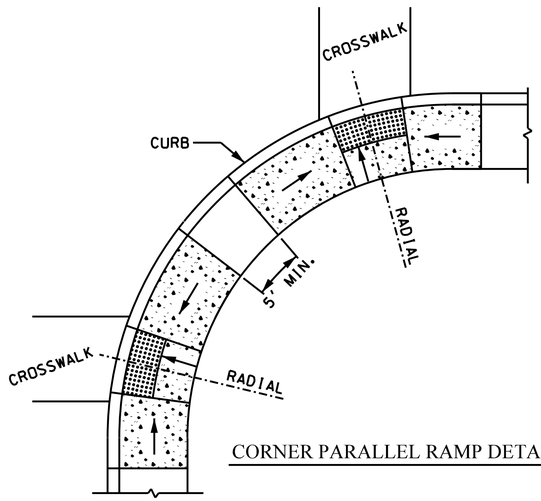
REVISION DATE	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
06/04/12		14493	13	91



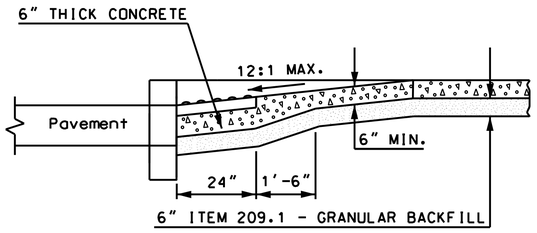
PERPENDICULAR CURB RAMP DETAIL



PARALLEL CURB RAMP DETAIL

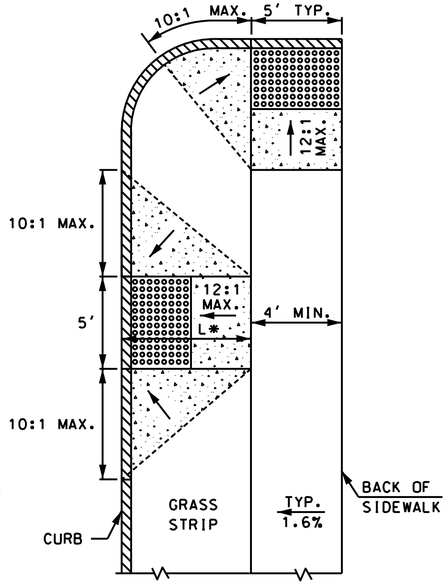


CORNER PARALLEL RAMP DETAIL



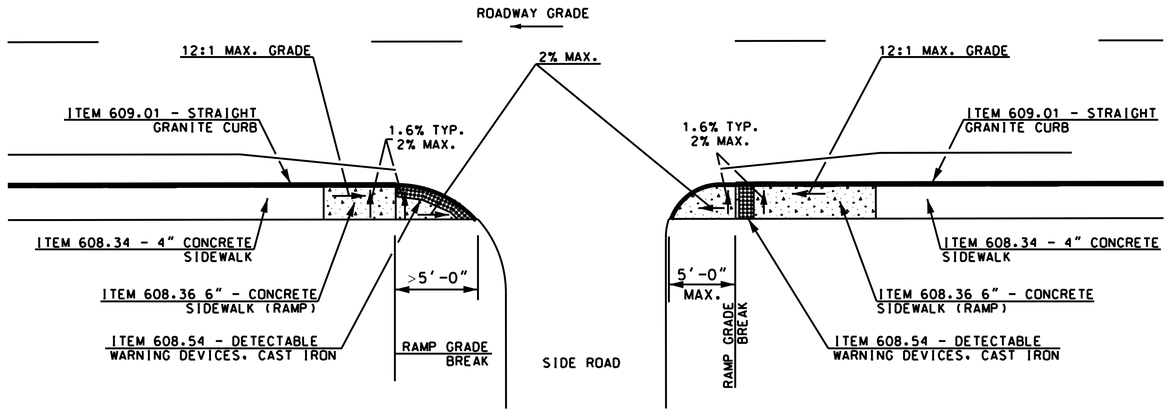
SECTION A-A

SECTION B-B



PERPENDICULAR RAMP WITH GRASS PANEL

* LENGTH OF RAMP VARIES WITH SLOPE & WIDTH OF GRASS PANEL



TRANSITION RAMPS:

BLENDED TRANSITIONS HAVE A RUNNING SLOPE GREATER THAN 2% BUT LESS THAN 5%. CURB RAMPS HAVE A RUNNING SLOPE OF 5% MIN. TO 8.33% MAX. SIDEWALK. BLENDED TRANSITIONS. AND CURB RAMPS HAVE A MAX. CROSS SLOPE OF 2%.

ALL GRADE BREAKS BETWEEN LANDINGS. RAMPS. AND BLENDED TRANSITIONS SHALL BE PERPENDICULAR TO THE DIRECTION OF TRAVEL.

IF IT IS NECESSARY TO USE SIDEWALK WIDTHS 5'-0" OR LESS. PROVIDE A WIDENED AREA A MINIMUM OF 5'-0" WIDE BY 5'-0" LONG SPACED AT INTERVALS OF 200' MAXIMUM TO ALLOW FOR USERS TO PASS EACH OTHER.

PROVIDE DETECTABLE WARNING SURFACES ANYTIME THAT A CURB RAMP. BLENDED TRANSITION. OR LANDING CONNECTS TO A STREET. PLACEMENT FOR DETECTABLE WARNING SURFACES ARE AS FOLLOWS:

PERPENDICULAR CURB RAMPS:

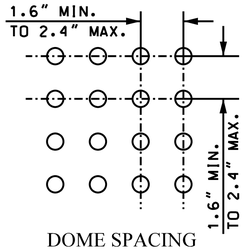
WHERE BOTH ENDS OF THE BOTTOM GRADE ARE LESS THAN 5'- 0" FROM THE BACK OF THE CURB. LOCATE THE DETECTABLE WARNING PANELS ON THE RAMP SURFACE AT THE BOTTOM OF THE RAMP. WHERE EITHER END OF THE BOTTOM GRADE IS GREATER THAN 5'-0" FROM THE BACK OF THE CURB. LOCATE THE DETECTABLE WARNINGS AT THE BOTTOM OF THE LANDING.

PARALLEL CURB RAMPS:

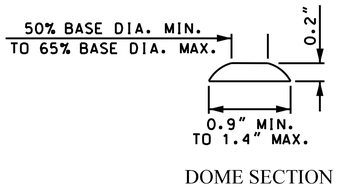
LOCATE THE DETECTABLE WARNING SURFACES AT THE BACK OF THE CURB ALONG THE EDGE OF THE LANDING.

FOR BLENDED TRANSITIONS AND LANDINGS:

LOCATE THE DETECTABLE WARNING SURFACES AT THE BACK OF THE CURB.



DOME SPACING



DOME SECTION

THE ORDER OF PREFERENCE FOR LOCATION OF CORNER RAMPS:

1. TWO SEPARATE RAMPS LOCATED ON TANGENT SIDEWALK AREA IMMEDIATELY OUTSIDE OF CORNER RADIUS.
2. TWO SEPARATE RAMPS SEPARATED BY 5' MINIMUM AS SHOWN ABOVE.
3. SINGLE RAMP SERVING TWO CROSSWALKS.

GENERAL NOTES

1. THE MAXIMUM RUNNING SLOPE OF ANY SIDEWALK CURB RAMP IS 12:1. THE MAXIMUM CROSS SLOPE IS 2%. THE SLOPE OF THE LANDING SHALL NOT EXCEED 2% IN ANY DIRECTION.

   RAMP RUNNING SLOPE EXCEPTION: A GREATER THAN 8.33% RAMP RUNNING GRADE IS ALLOWED WHERE THE THE ROADWAY AND THE SIDEWALK(S) ARE PARALLEL AND VERY CLOSE TOGETHER. WITH THE SAME GRADE. AND USING A GRADE OF 8.33% WOULD RESULT IN A RAMP LENGTH LONGER THAN 15'. IN THOSE CIRCUMSTANCES USE A MAXIMUM RAMP LENGTH OF 15'AND THE ALLOWABLE RUNNING SLOPE OF THE RAMP(S) IS GREATER THAN 8.33%.
2. TRANSITIONS SHALL BE FLUSH AND FREE OF ABRUPT CHANGES. ROADWAY SHOULDER SLOPES ADJOINING SIDEWALK CURB RAMPS SHALL BE A MAXIMUM OF 5% (FULL WIDTH) FOR A DISTANCE OF 2 FT. FROM THE ROADWAY CURBLINE.
3. INTERCEPT DRAINAGE ALONG THE CURB IN ADVANCE OF SIDEWALK CURB RAMPS OR LANDINGS. CATCH BASINS. MANHOLES. ETC. SHALL NOT BE LOCATED IN. OR AT THE BASE OF. SIDEWALK CURB RAMPS OR LANDINGS.
4. THE BOTTOM OF THE SIDEWALK CURB RAMP OR LANDING. EXCLUSIVE OF THE FLARED SIDES. SHALL BE WHOLLY CONTAINED WITHIN THE CROSSWALK MARKINGS.
5. THE SURFACE OF A PERPENDICULAR SIDEWALK CURB RAMP OR THE LANDING OF A PARALLEL SIDEWALK CURB RAMP SHALL CONTRAST VISUALLY WITH THE ADJOINING SIDEWALK SURFACE. EITHER ASPHALT/LIGHT-COLORED CONCRETE OR LIGHT-COLORED CONCRETE/DARK-STAINED CONCRETE. THE CONCRETE SURFACE SHALL BE SLIP RESISTANT.
6. DETECTABLE WARNING PANELS SHALL BE THE FULL WIDTH OF THE LANDING. BLENDED TRANSITION. OR CURB RAMP THEY ARE A PART OF AND SHALL BE A MINIMUM OF 2 FEET IN DEPTH. THE ROWS OF TRUNCATED DOMES SHALL BE ALIGNED PERPENDICULAR TO THE GRADE BREAK BETWEEN THE RAMP. BLENDED TRANSITION. OR LANDING AND THE STREET.

CITY OF PORTSMOUTH

DEPARTMENT OF PUBLIC WORKS

SIDEWALK CURB RAMPS WITH DETECTABLE WARNINGS

FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
	14493	14	91

REVISIONS AFTER PROPOSAL

NUMBER	DATE	STATION	STATION	DESCRIPTION

NOTEBOOKS

BOOK		PAGE
BOOK		PAGE
BOOK		PAGE

EXISTING DETAIL	ARM	DATE 11/10
PROPOSED DESIGN	DEM	DATE 4/13
SHEET CHECKED	TAT	DATE 4/13
AS BUILT DETAILS		DATE

GRID

PRESERVE EXISTING SHRUBS AND LANDSCAPING

REMOVE EXIST. TIMBER CURB, MATCH LANDSCAPING STONE (SUBSIDIARY) BEHIND GRANITE CURB TO EXIST.

TIP DOWN CURB AND MEET EXISTING WALKWAY

LIMIT OF WORK

R = 5' INSTALL G-2 TERMINAL END UNIT (ITEM 606.127)

REMOVE EXISTING STONE RETAINING WALL

PROPOSED RETAINING WALL SEE SHEET 33-35

ITEM 202.7 REMOVAL OF GUARDRAIL

ITEM 606.120 BEAM GUARDRAIL (TYP.)

INSTALL COFFERDAMS ITEM 503.201, NO WORK BEYOND R.O.W.

REMOVE TELEPHONE MANHOLE ITEM 202.5 (CABLES TO BE REMOVED IN ADVANCE BY OTHERS)

P | +39.8 | 21.5' LT.

P | +15.2 | 21.2' LT.

LIMITS OF PROPOSED BRIDGE 42'-6"

LIMITS OF EXISTING BRIDGE

SHAW ROAD

SAGAMORE AVENUE (ROUTE 1A)

SAGAMORE CREEK

S42°52'38"E

S34°14'37"E

PC = 105+19.85

STA. 105+36.39 LIMIT OF WORK

STA. 106+50 LIMIT OF FULL DEPTH CONSTRUCTION

STA. 108+77 APPROXIMATE LIMITS OF PROPOSED BRIDGE

MEET EXISTING PAVEMENT

PRESERVE EXISTING FENCE

PROPOSED RETAINING WALL SEE SHEET 33-35

ITEM 606.120 BEAM GUARDRAIL (TYP.)

CLEARING LINE (TYP.)

ITEM 202.7 REMOVAL OF GUARDRAIL

ITEM 606.1255 BEAM GUARDRAIL (TERM. UNIT TYPE EAGRT 25 FT.)

ITEM 563.24 BRIDGE RAIL T4 (TYP.)

INSTALL 10" WATERMAIN (ITEM 611.06210) PROVIDE SUPPORT FOR WATER SEE STRUCTURAL DRAWINGS FOR PIPE SUPPORT DETAILS

P | +08.8 | 61.2' RT.

P | +98.7 | 141.6' RT.

MAP 223 LOT 16 NOW OR FORMERLY JOHN PALLAZOLA 7 SHAW ROAD BK 4454 PAGE 2317

MAP 223 LOT 24 NOW OR FORMERLY JAMES H. OLIVER 14 SHAW ROAD BK 2769 PAGE 1777 PLAN REF. #2

MAP 223 LOT 15 NOW OR FORMERLY GREEN FAMILY REVOCABLE TRUST OF 2003 900 SAGAMORE AVE BK 4227 PAGE 2200

MAP 223 LOT 34 NOW OR FORMERLY JONATHON F. PANEK INVESTMENT TRUST 895 SAGAMORE AVE BK 4291 PAGE 0233

MAP 223 LOT 31 NOW OR FORMERLY NISSLEY LLC 915 SAGAMORE AVE BK 4061 PAGE 2312

MAP 223 LOT 32 NOW OR FORMERLY ROBERT W. SIMPSON BK 1853 PAGE 0465

MATCH TO SHEET NO. 57

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

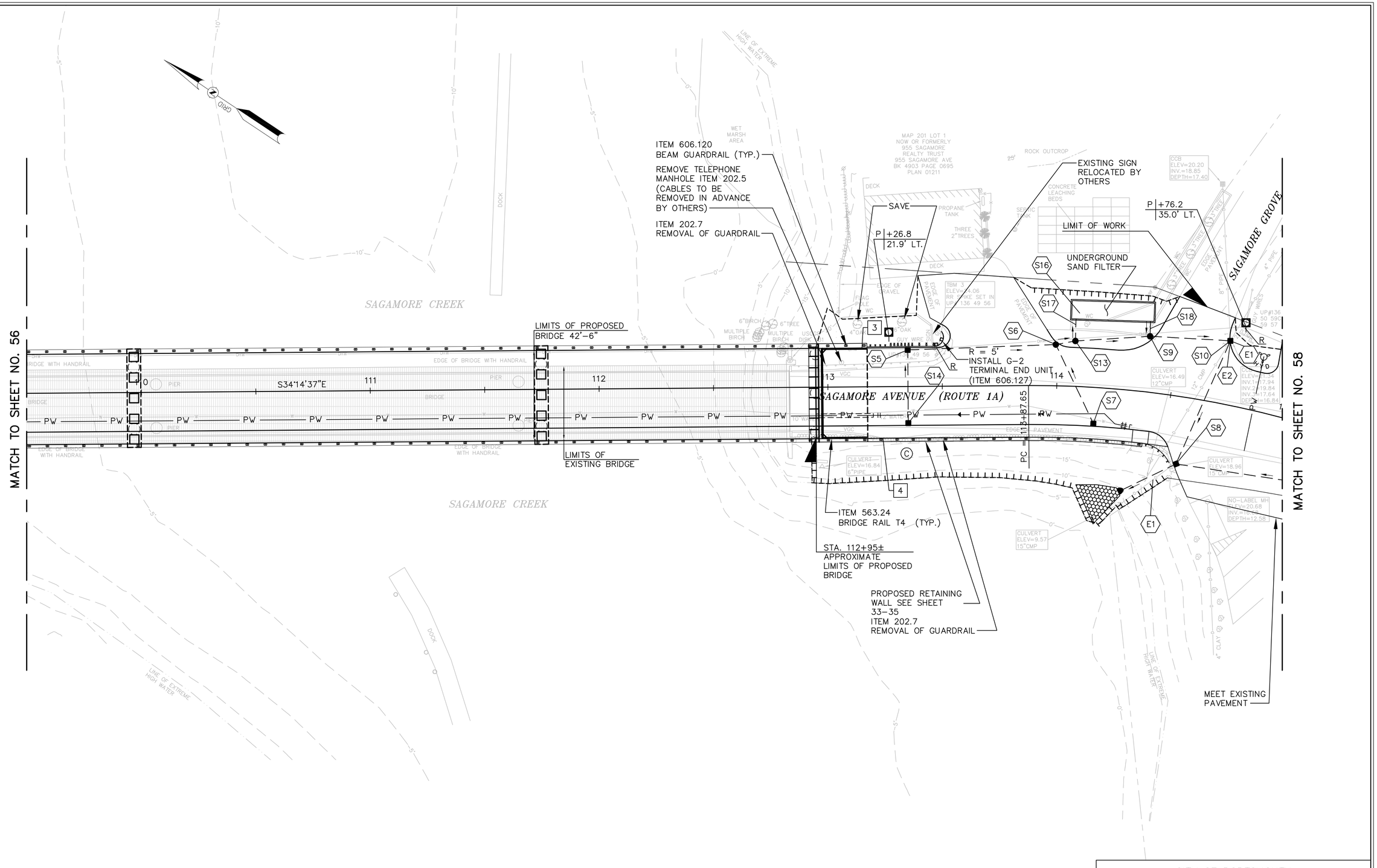
FAY, SPOFFORD & THORNDIKE, LLC

CITY OF PORTSMOUTH

DEPARTMENT OF PUBLIC WORKS

GENERAL PLANS

FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
X-A000(417)	14493	56	91



20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

FAY, SPOFFORD & THORNDIKE, LLC

CITY OF PORTSMOUTH

DEPARTMENT OF PUBLIC WORKS

GENERAL PLANS

FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
X-A000(417)	14493	57	91

REVISIONS AFTER PROPOSAL

NUMBER	DESCRIPTION	STATION	STATION	DATE

NOTEBOOKS

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BOOK		PAGE
BOOK		PAGE

EXISTING DETAIL	ARM	DATE 11/10
PROPOSED DESIGN	DEM	DATE 4/13
SHEET CHECKED	TAT	DATE 4/13
AS BUILT DETAILS		DATE

REVISIONS AFTER PROPOSAL

NUMBER	DATE	STATION	STATION	DESCRIPTION

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BOOK		PAGE

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MATCH TO SHEET NO. 57

GOSSELIN LIVING TRUST
960 SAGAMORE AVE
BK 3469 PAGE 2151
PLAN 01224 & 25616

MAP 201 LOT 9
NOW OR FORMERLY
BLUESTONE PROPERTIES
OF RYE LLC
BK 3497 PAGE 0747
PLAN 01671

MAP 201 LOT 22
NOW OR FORMERLY
RYE CORNER GAS LLC
1150 SAGAMORE AVE
BK 3841 PAGE 0156

MAP 223 LOT 25
NOW OR FORMERLY
SEACOAST MENTAL
HEALTH CENTER
1145 SAGAMORE AVE
BK 2575 PAGE 1319
PLAN 18178

MAP 223 LOT 25-A
NOW OR FORMERLY
SEACOAST MENTAL
HEALTH CENTER
1145 SAGAMORE AVE
BK 2575 PAGE 1319
PLAN 18178

MAP 223 LOT 25-B
NOW OR FORMERLY
CITY OF PORTSMOUTH
BK 4125 PAGE 1223
PLAN 18178

MAP 224 LOT 19
NOW OR FORMERLY
JUSTIN P. NADEAU
1151 SAGAMORE AVE
BK 5023 PAGE 1431

SAGAMORE AVENUE (ROUTE 1A)

WENTWORTH ROAD

MEET EXISTING PAVEMENT

PT = 115+41.61

STA. 115+50
LIMIT OF FULL DEPTH CONSTRUCTION

MEET EXISTING PAVEMENT

MEET EXISTING WALKWAY

EXISTING SIGN TO REMAIN

MEET EXISTING PAVEMENT

CONNECT TO EXISTING PIPE. FITTINGS, REDUCERS, AND BENDS SHALL BE INCIDENTAL TO THE PIPE (TYP.)

EXISTING SIGN TO REMAIN

PRESERVE EXISTING FENCE

EXISTING HYDRANT AND BOLLARDS TO REMAIN

STA. 118+92.72
LIMIT OF WORK

SAVE

S11 S12 S19 S20

N13°14'26"W 118

(ADJ.) (ADJ.)

119

120 +17.43

TBM 4
ELEV=32.99
RR SPIKE SET IN
UP# 136 61

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

FAY, SPOFFORD & THORNDIKE, LLC

CITY OF PORTSMOUTH

DEPARTMENT OF PUBLIC WORKS

GENERAL PLANS

FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
X-A000(417)	14493	58	91

SAGAMORE AVE ℄

S1 STA 108+59.2, RT 16.0' TO STA 108+34.2, RT 16.0'
CONSTRUCT 21' x 15" RCP
CONSTRUCT CB–B @ +34.2, RT 16.0'
15" INV. OUT = 17.50
GRATE ELEV. = 23.9

S2 STA 108+59.2, RT 28.0' TO STA 108+59.2, RT 16.0'
CONSTRUCT 10' x 15" PE PIPE (TYPE S)
CONSTRUCT 15" ALUMINIZED STEEL END SECTION @ +59.2, RT 28.0'
INV. @ PIPE = 16.47
CONSTRUCT CLASS C STONE STONE FILL AT PIPE OUTLET
(SEE DETAIL SHEET 11)
CONSTRUCT CB–B @ +59.2, RT 16.0'
15" INV. OUT = 16.65
15" INV. IN = 16.90
GRATE ELEV. = 23.9

S3 STA 108+49.3, LT 16.0' TO STA 108+59.2, LT 16.0'
CONSTRUCT 6' x 15" RCP
CONSTRUCT CB–B @ +59.2, LT 16.0'
15" INV. OUT = 18.36
GRATE ELEV. = 23.9

S4 STA 108+57.0, LT 23.1' TO STA 108+49.4, LT 23.3'
CONSTRUCT 6' x 15" PE PIPE (TYPE S)
CONSTRUCT 15" ALUMINIZED STEEL END SECTION @ +57.0, LT 23.1'
INV. @ PIPE = 17.50
CONSTRUCT CLASS C STONE STONE FILL AT PIPE OUTLET
(SEE DETAIL SHEET 11)
CONSTRUCT CB–B @ +49.4, LT 23.3'
15" INV. OUT = 17.66
15" INV. IN = 17.91
GRATE ELEV. = 23.0

S5 STA 114+07.5 LT 15.3' TO STA 113+35.0, LT 16.0'
CONSTRUCT 61' x 15" RCP (3000D)
CONSTRUCT CB–B @ +35.0, LT 16.0'
15" INV. OUT = 17.50
15" INV. IN = 17.75
GRATE ELEV. = 22.4

S6 STA 114+07.4, LT 19.8' TO STA 113+99.2, LT 18.0'
CONSTRUCT 4' x 15" PE PIPE (TYPE S)
CONSTRUCT 5' DIA. DMH @ +99.2, LT 18.0'
15" INV. OUT = 16.86
15" INV. IN (N) = 17.11
15" INV. IN (W) = 17.11
GRATE ELEV. = 22.3

S7 STA 113+99.2, LT 18.0' TO STA 114+17.0 RT 16.0'
CONSTRUCT 34' x 15" RCP (3000D)
CONSTRUCT CB–B @ +17.0 RT 16.0'
15" INV. OUT = 17.28
GRATE ELEV. = 21.6

S8 STA 114+33.0, RT 43.0' TO STA 114+57.0, RT 29.4'
CONSTRUCT 21' X 15" PE PIPE (TYPE S)
CONSTRUCT 15" ALUMINIZED STEEL END SECTION @ +33.0, RT 43.0'
INV. @ PIPE = 10.00
CONSTRUCT CLASS C STONE FILL @ PIPE OUTLET
(SEE DETAIL SHEET 11)
CONSTRUCT CB–B @ +57.0, RT 29.4'
15" INV. OUT = 10.27
15" INV. IN (S) = 13.52
15" INV. IN (E) = 10.52
GRATE ELEV. = 19.9

S9 STA 114+71.1, LT 27.7' TO STA 114+38.2, LT 24.4'
CONSTRUCT 31' X 15" RCP
CONSTRUCT DMH @ +38.2, LT 24.4'
15" INV. OUT = 11.21
15" INV. IN (W) = 15.05
15" INV. IN (E) = 11.46
GRATE ELEV. = 22.7

S10 STA 114+57.0, RT 29.4' TO STA 114+71.1, LT 27.7'
CONSTRUCT 55' X 15" RCP
CONSTRUCT 5' DIAMETER CB–B @ +71.1, LT 27.7'
15" INV. OUT = 10.80
15" INV. IN = 11.05
EXIST 8" INV. IN = 17.94
EXIST 4" INV. IN = 19.84
GRATE ELEV. = 22.3

S11 STA 114+57.0, RT 29.4' TO STA 115+64.0, RT 16.0'
CONSTRUCT 98' X 15" RCP
CONSTRUCT CB–B @ +64, RT 16.0'
15" INV. OUT = 18.14
15" INV. IN = 18.39
12" INV. IN = 18.39
GRATE ELEV. = 23.8

SAGAMORE AVE ℄

S12 STA 115+64.0, RT 16.0' TO STA 116+42.0, LT 16.0'
CONSTRUCT 81' X 15" RCP
CONSTRUCT CB–B @+42.0, LT 16.0'
15" INV. OUT = 20.40
15" INV. IN = 20.65
GRATE ELEV. = 25.9

S13 STA 114+38.2, LT 24.4' TO STA 114+07.4, LT 19.8'
CONSTRUCT 29' X 15" PE PIPE (TYPE S)
CONSTRUCT 5' DIA. FLOW CONTROL STRUCTURE @ +07.4, LT 19.8'
(SEE DETAIL SHEET NO. 11)
15" INV. OUT (S) = 15.25
6" INV. OUT (E) = 16.65
15" INV. IN (N) = 16.84
GRATE ELEV. = 22.7

S14 STA 113+35.0, LT 16.0' TO STA 113+35.0, RT 16.0'
CONSTRUCT 28' X 15" RCP (3000D)
CONSTRUCT CB–B @ +35.0, RT 16.0'
15" INV. OUT = 17.92
GRATE ELEV. = 22.3

S15 STA 108+49.4, LT 23.3' TO STA 108+49.3, LT 16.0'
CONSTRUCT 4' x 15" PE PIPE (TYPE S)
CONSTRUCT CB–B @ +49.3, LT 16.0'
15" INV OUT = 17.99
15" INV IN = 18.24
GRATE ELEV. =23.9

S16 CONSTRUCT UNDERGROUND SAND FILTER
(SEE DETAIL SHEET 11)

S17 STA 114+07.3, LT 29.4' TO STA 114+07.4, LT 19.8'
CONSTRUCT 7' X 6" PE PIPE (TYPE S)

S18 STA 114+37.7, LT 30.8' TO STA 114+38.2, LT 24.4'
CONSTRUCT 4' X 12" PE PIPE (TYPE S)

S19 STA 116+42.0, LT 16.0' TO STA 118+18.5, RT 16.0'
CONSTRUCT 177' X 15" RCP
CONSTRUCT CB–B @ +18.5, RT 16.0'
15" INV. OUT = 21.54
6" INV. IN = 24.00
GRATE ELEV. = 29.6

S20 STA 118+18.5, RT 16.0' TO STA 118+6.6, RT 26.3'
CONSTRUCT 16' X 6" PE PIPE (TYPE S)
CONNECT TO EXISTING PLASTIC PIPE (SUBSIDIARY)

E1 STA 114+33.8, RT 49.2' TO STA 114+48.4, RT 36.7'
REMOVE 18' x 15" CMP
STA 114+48.4, RT 36.7' TO STA 114+53.8, RT 31.8'
REMOVE 7' x 15" CMP (SUBSIDIARY TO NOTE S8)

E2 STA 114+44.2, RT 36.9' TO STA 114+67.0, LT 16.4'
REMOVE 58' x 12" CMP
STA 114+67.0, LT 16.4' TO STA 114+70.9, LT 27.6'
REMOVE 11' x 12" CMP (SUBSIDIARY TO NOTE S10)
REMOVE CB @ +70.9, LT 27.6' (SUBSIDIARY TO NOTE S10)

NOTES:

1. ALL CATCH BASIN SUMP DEPTHS TO BE FOUR TIMES THE DIAMETER OF THE CATCH BASIN OUTLET PIPE.

REVISIONS AFTER PROPOSAL

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BOOK		PAGE

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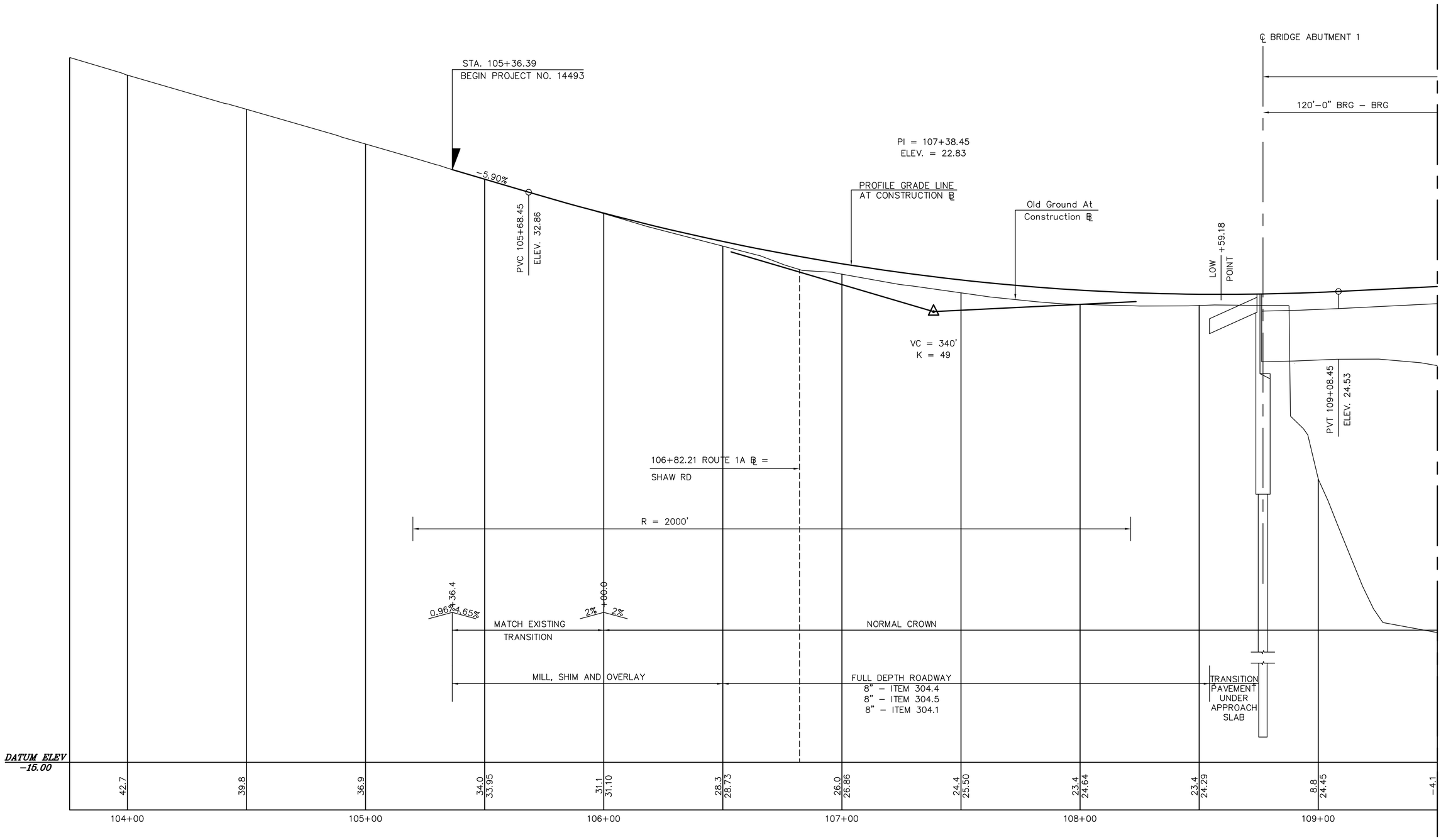
FAY, SPOFFORD & THORNDIKE, LLC

CITY OF PORTSMOUTH

DEPARTMENT OF PUBLIC WORKS

DRAINAGE NOTES

FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
X–A000(417)	14493	59	91



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SCALE: HORIZ. 1"=20FT.
VERT. 1"=4FT.

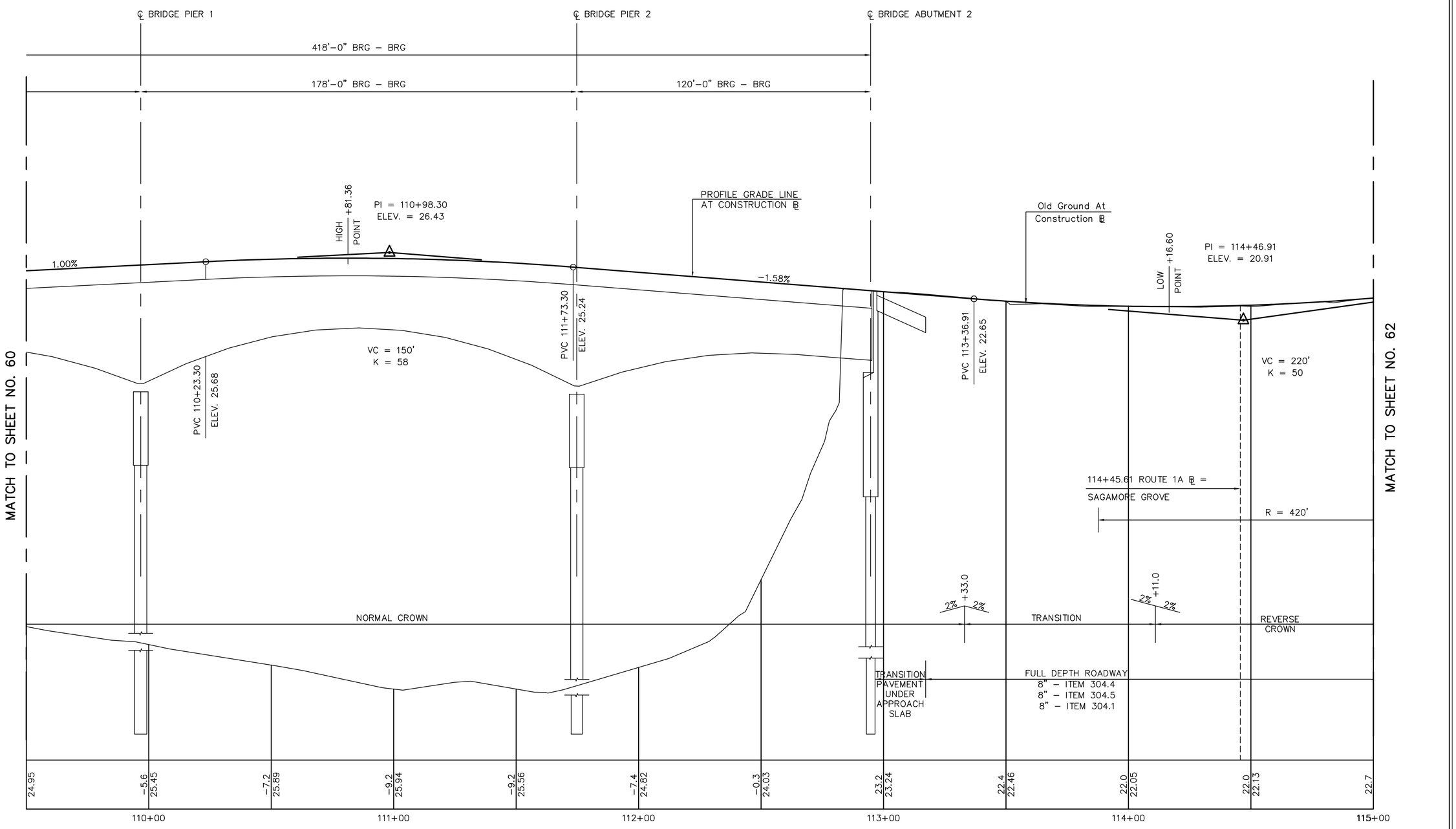
FAY, SPOFFORD & THORNDIKE, LLC

CITY OF PORTSMOUTH

DEPARTMENT OF PUBLIC WORKS

SAGAMORE AVENUE PROFILE

FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
X-A000(417)	14493	60	91



REVISIONS AFTER PROPOSAL

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BOOK		PAGE

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SCALE: HORIZ. 1"=20FT.
VERT. 1"=4FT.

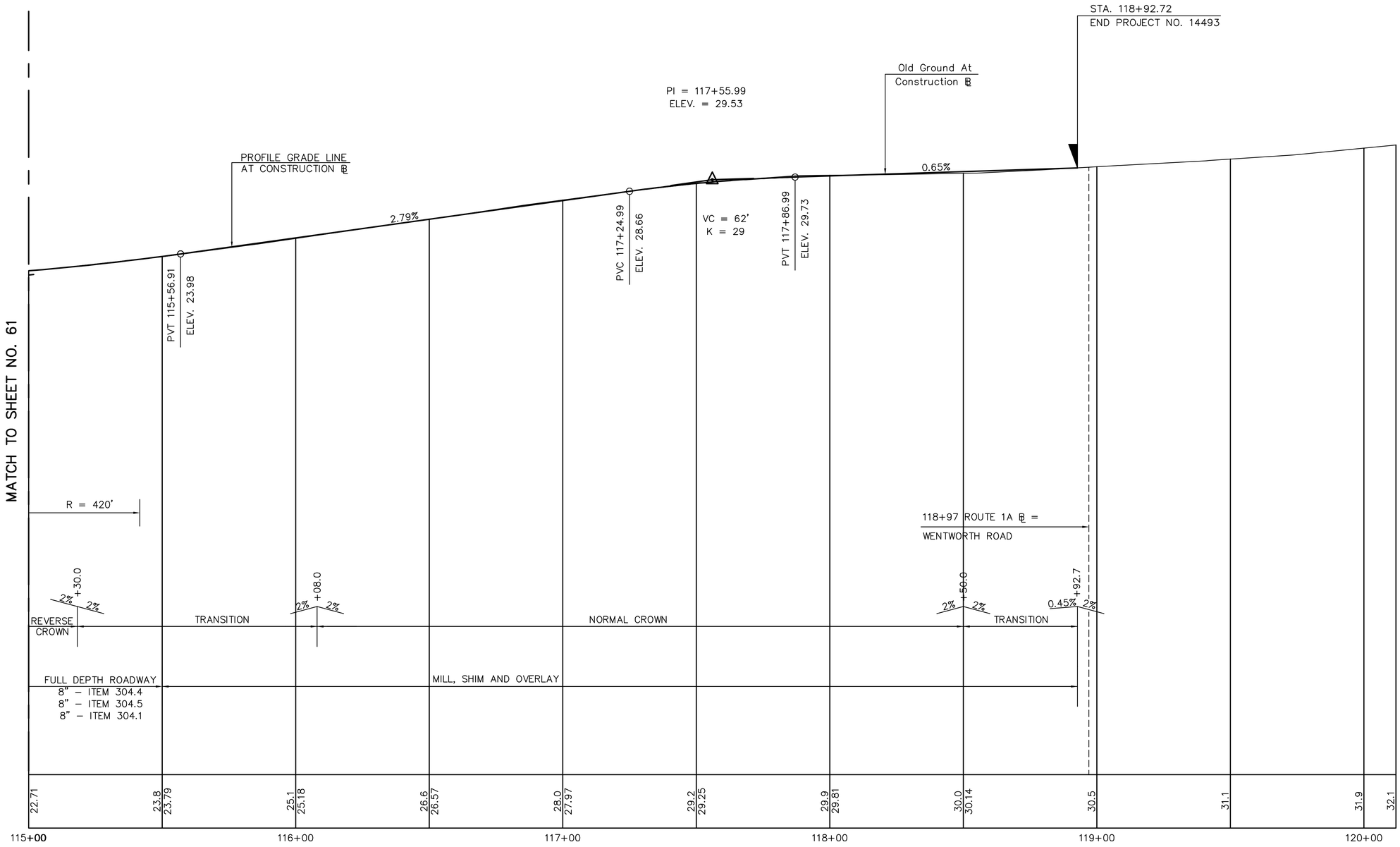
FAY, SPOFFORD & THORNDIKE, LLC

CITY OF PORTSMOUTH

DEPARTMENT OF PUBLIC WORKS

SAGAMORE AVENUE PROFILE

FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
X–A000(417)	14493	61	91



REVISIONS AFTER PROPOSAL

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SCALE: HORIZ. 1"=20FT.
VERT. 1"=4FT.

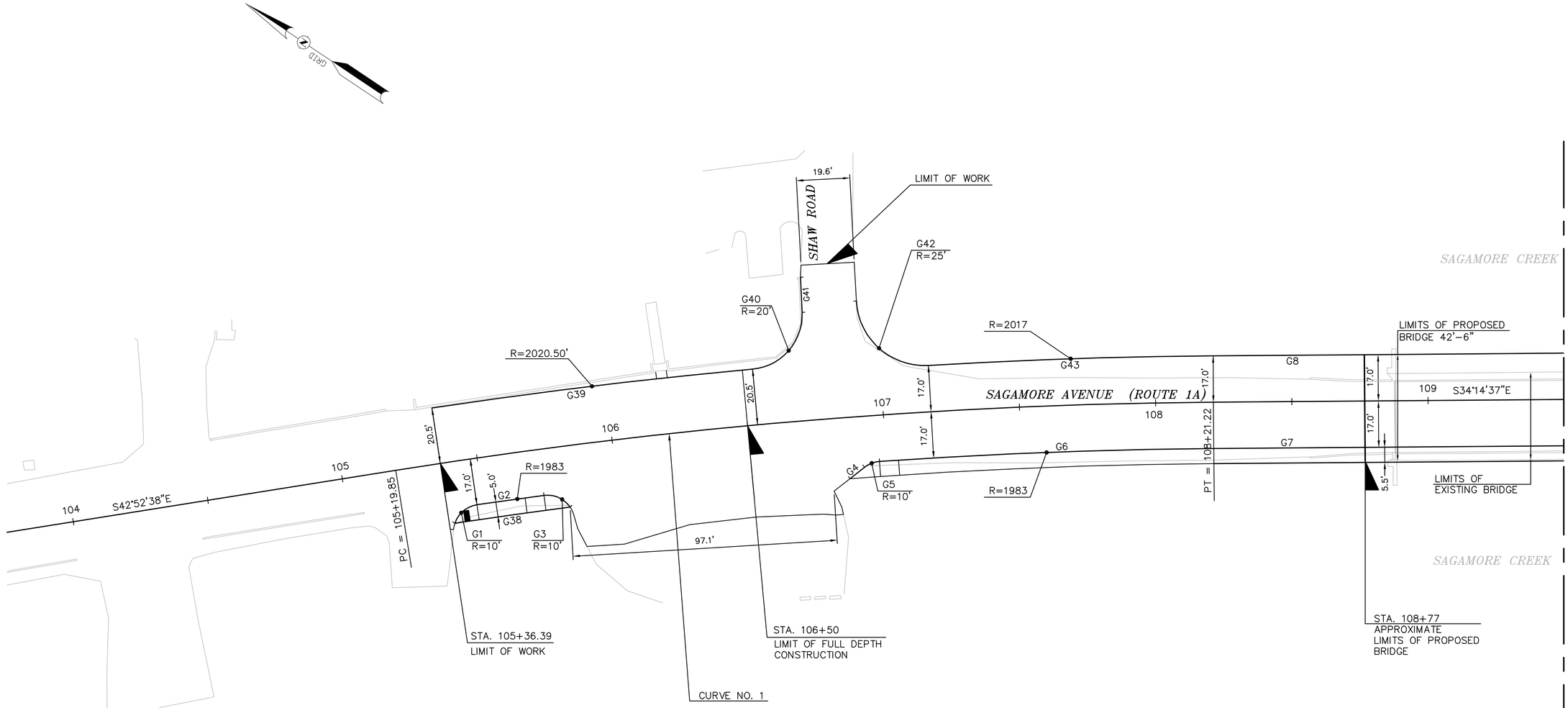
FAY, SPOFFORD & THORNDIKE, LLC

CITY OF PORTSMOUTH

DEPARTMENT OF PUBLIC WORKS

SAGAMORE AVENUE PROFILE

FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
X-A000(417)	14493	62	91



CURVE NO. 1
PI = 106+70.82
N = 203860.42
E = 1229276.08
Δ = 08°-38'-01" RT.
D = 02°-51'-53"
T = 150.97 FT
R = 2000.00 FT
L = 301.37 FT
E = 5.69 FT

SUPERELEVATION TABLE		
LEFT	STA	RIGHT
-0.96%	105+36.39	-4.65%
-2.00%	106+00.00	-2.00%
-2.00%	113+33.00	-2.00%
-1.13%	113+50.00	-2.00%
0%	113+72.00	-2.00%
0.14%	113+75.00	-2.00%
2.00%	114+00.00	-2.00%
2.00%	114+50.00	-2.00%
2.00%	115+00.00	-2.00%

SUPERELEVATION TABLE		
LEFT	STA	RIGHT
2.00%	115+30.00	-2.00%
0.98%	115+50.00	-2.00%
0.00%	115+69.00	-2.00%
-1.60%	116+00.00	-2.00%
-2.00%	116+08.00	-2.00%
-2.00%	118+50.00	-2.00%
-0.45%	118+92.72	-2.00%

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

FAY, SPOFFORD & THORNDIKE, LLC

CITY OF PORTSMOUTH
DEPARTMENT OF PUBLIC WORKS
CURBING AND ALIGNMENT PLANS

FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
X-A000(417)	14493	63	91

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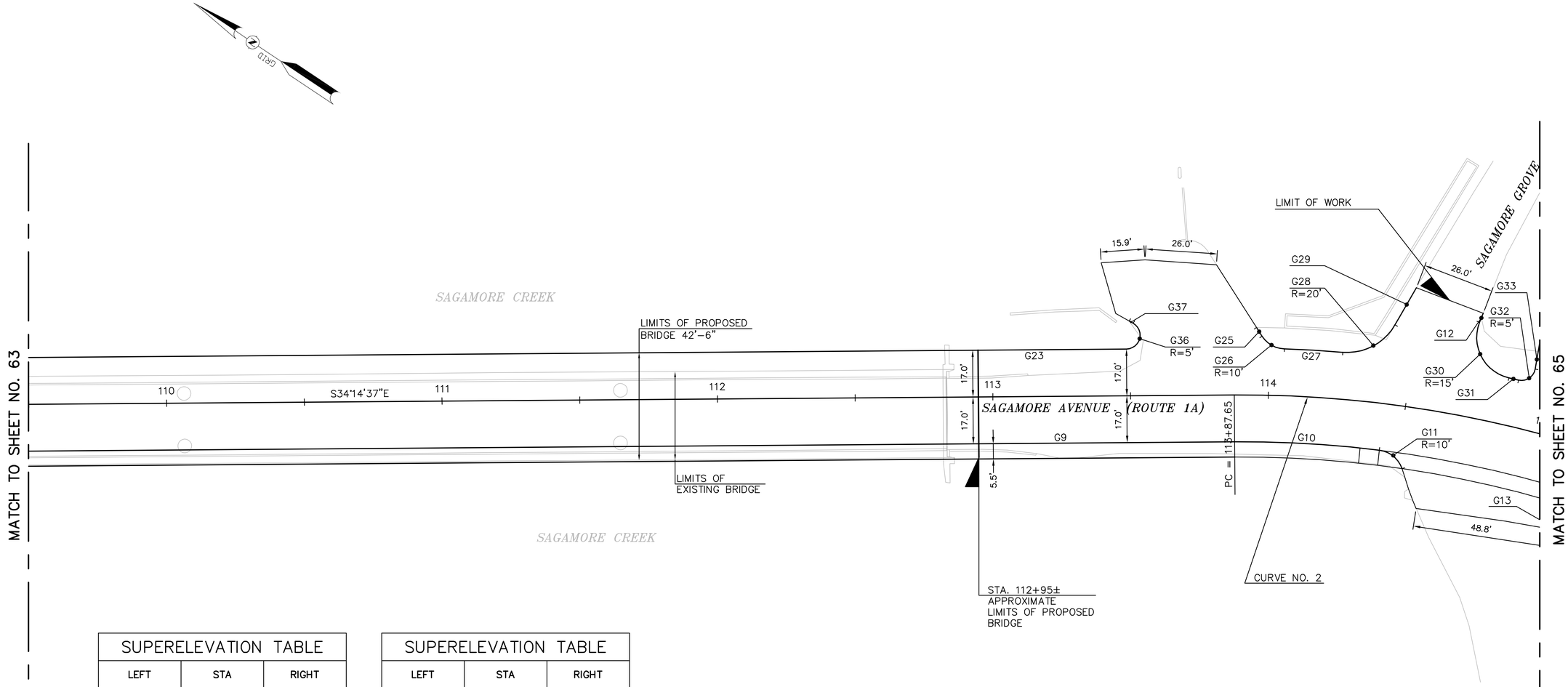

SUPERELEVATION TABLE		
LEFT	STA	RIGHT
−0.96%	105+36.39	−4.65%
−2.00%	106+00.00	−2.00%
−2.00%	113+33.00	−2.00%
−1.13%	113+50.00	−2.00%
0%	113+72.00	−2.00%
0.14%	113+75.00	−2.00%
2.00%	114+00.00	−2.00%
2.00%	114+50.00	−2.00%
2.00%	115+00.00	−2.00%

SUPERELEVATION TABLE		
LEFT	STA	RIGHT
2.00%	115+30.00	−2.00%
0.98%	115+50.00	−2.00%
0.00%	115+69.00	−2.00%
−1.60%	116+00.00	−2.00%
−2.00%	116+08.00	−2.00%
−2.00%	118+50.00	−2.00%
−0.45%	118+92.72	−2.00%

CURVE NO. 2
PI = 114+65.50
N = 203203.02
E = 1229723.58
Δ = 21°−00'−11" RT.
D = 13°−38'−31"
T = 77.85 FT
R = 420.00 FT
L = 153.96 FT
E = 7.15 FT

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

FAY, SPOFFORD & THORNDIKE, LLC

CITY OF PORTSMOUTH

DEPARTMENT OF PUBLIC WORKS

CURBING AND ALIGNMENT PLANS

FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
X-A000(417)	14493	64	91

REVISIONS AFTER PROPOSAL

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SHEET CHECKED TAT DATE 4/13
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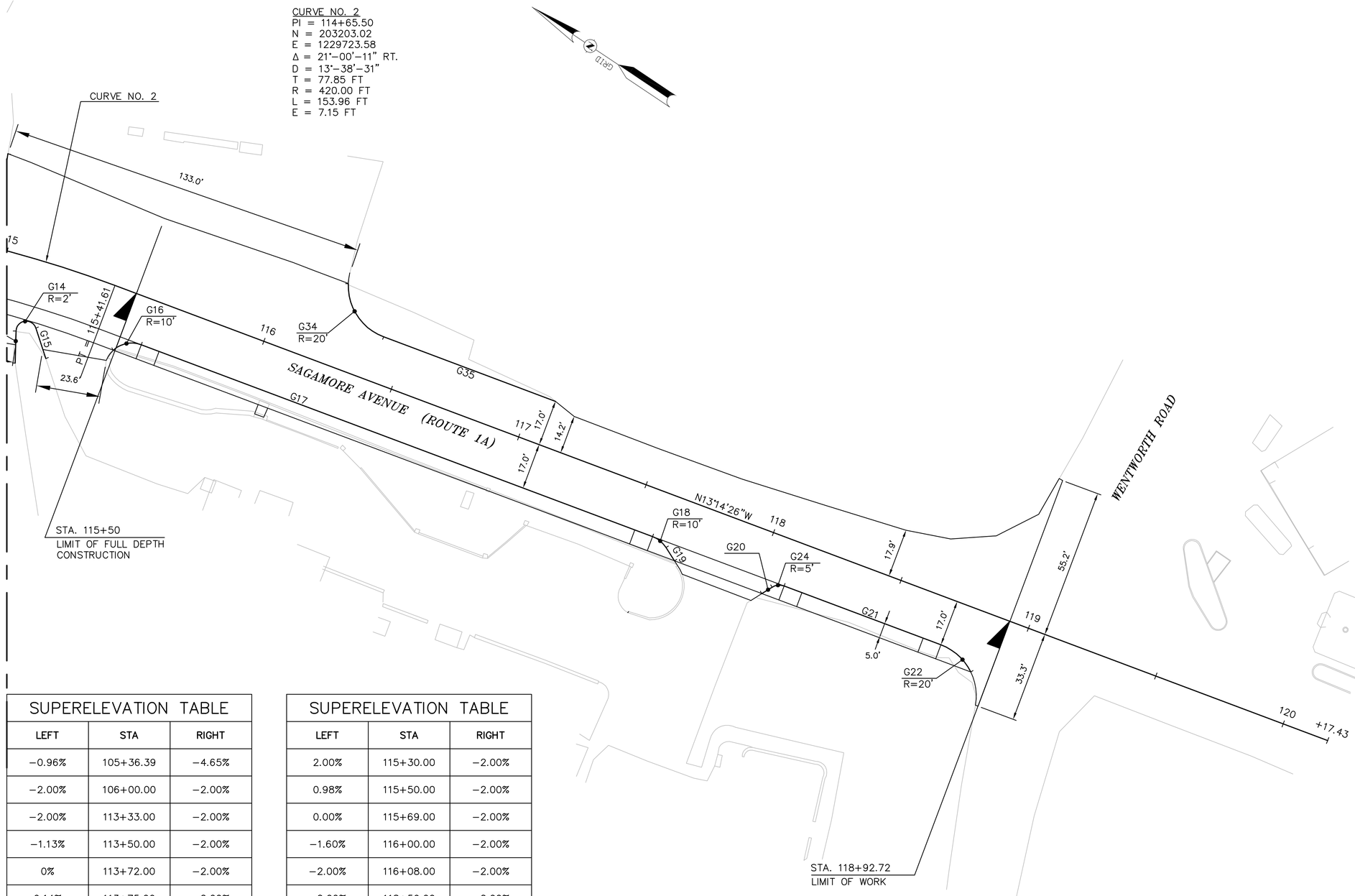
CURVE NO. 2
PI = 114+65.50
N = 203203.02
E = 1229723.58
Δ = 21°–00'–11" RT.
D = 13°–38'–31"
T = 77.85 FT
R = 420.00 FT
L = 153.96 FT
E = 7.15 FT



MATCH TO SHEET NO. 64

SUPERELEVATION TABLE		
LEFT	STA	RIGHT
−0.96%	105+36.39	−4.65%
−2.00%	106+00.00	−2.00%
−2.00%	113+33.00	−2.00%
−1.13%	113+50.00	−2.00%
0%	113+72.00	−2.00%
0.14%	113+75.00	−2.00%
2.00%	114+00.00	−2.00%
2.00%	114+50.00	−2.00%
2.00%	115+00.00	−2.00%

SUPERELEVATION TABLE		
LEFT	STA	RIGHT
2.00%	115+30.00	−2.00%
0.98%	115+50.00	−2.00%
0.00%	115+69.00	−2.00%
−1.60%	116+00.00	−2.00%
−2.00%	116+08.00	−2.00%
−2.00%	118+50.00	−2.00%
−0.45%	118+92.72	−2.00%

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

FAY, SPOFFORD & THORNDIKE, LLC

CITY OF PORTSMOUTH
DEPARTMENT OF PUBLIC WORKS
CURBING AND ALIGNMENT PLANS

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X–A000(417)	14493	65	91

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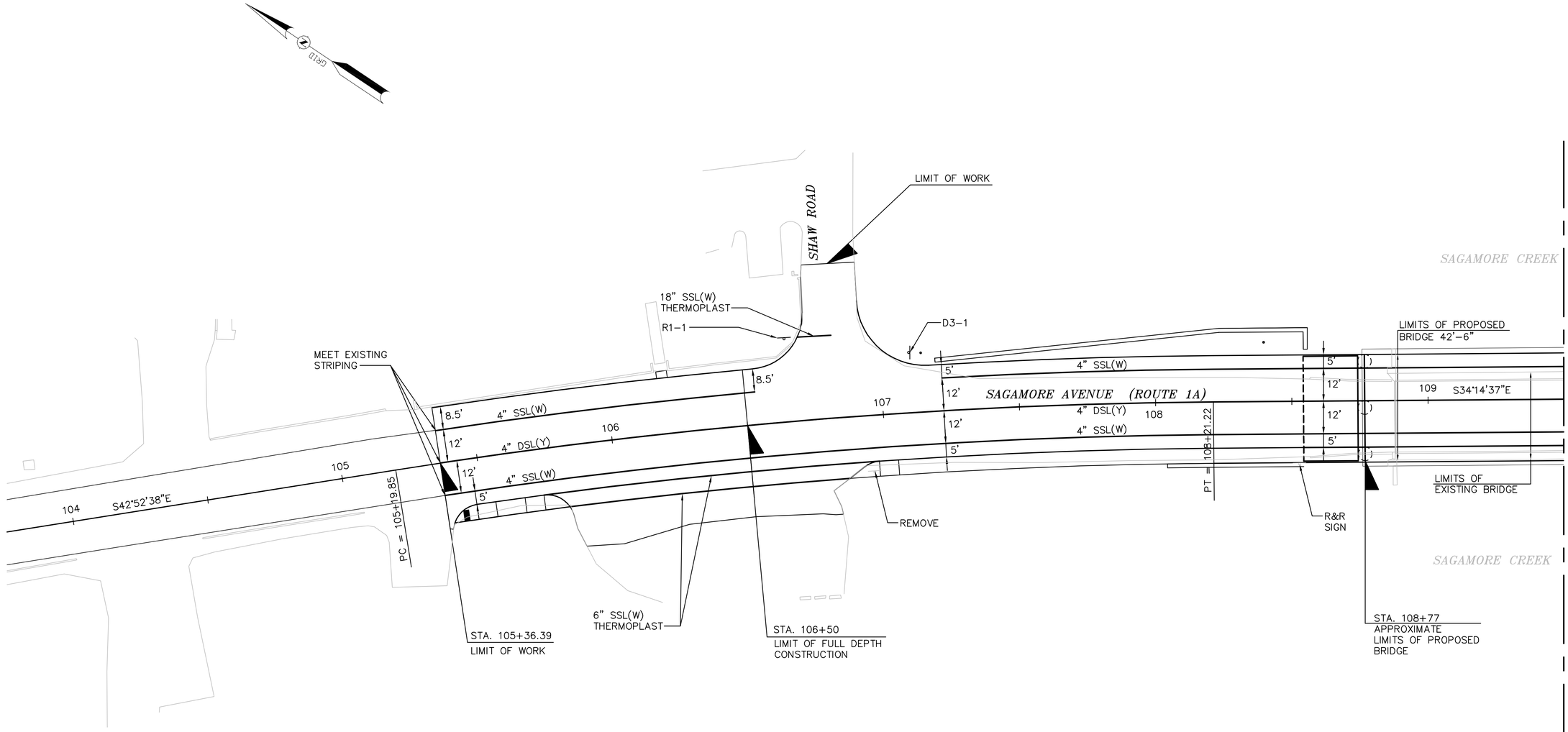

LEGEND:

DSL (Y)	DOUBLE SOLID LINE (YELLOW)
SSL (W)	SINGLE SOLID LINE (WHITE)
R&R	REMOVE AND RESET

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

FAY, SPOFFORD & THORNDIKE, LLC

CITY OF PORTSMOUTH

DEPARTMENT OF PUBLIC WORKS

PAVEMENT MARKING AND SIGNAGE PLAN

FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
X-A000(417)	14493	66	91

REVISIONS AFTER PROPOSAL

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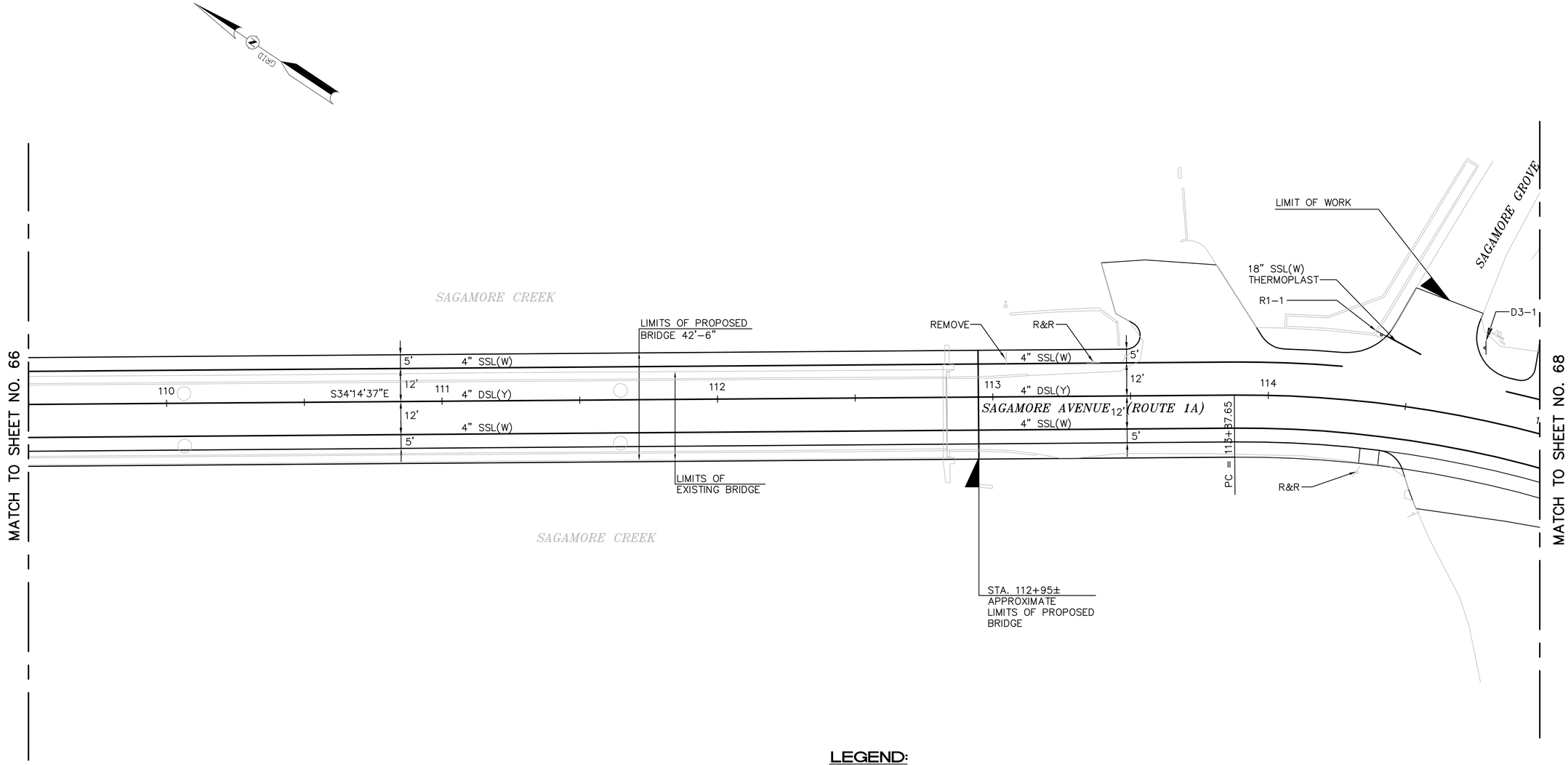

LEGEND:

SSL (W)	SINGLE SOLID LINE (WHITE)
DSL (Y)	DOUBLE SOLID LINE (YELLOW)
R&R	REMOVE AND RESET

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

FAY, SPOFFORD & THORNDIKE, LLC

CITY OF PORTSMOUTH

DEPARTMENT OF PUBLIC WORKS

PAVEMENT MARKING AND SIGNAGE PLAN

FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
X-A000(417)	14493	67	91

REVISIONS AFTER PROPOSAL

NUMBER	DATE	STATION	STATION	DESCRIPTION

NOTEBOOKS

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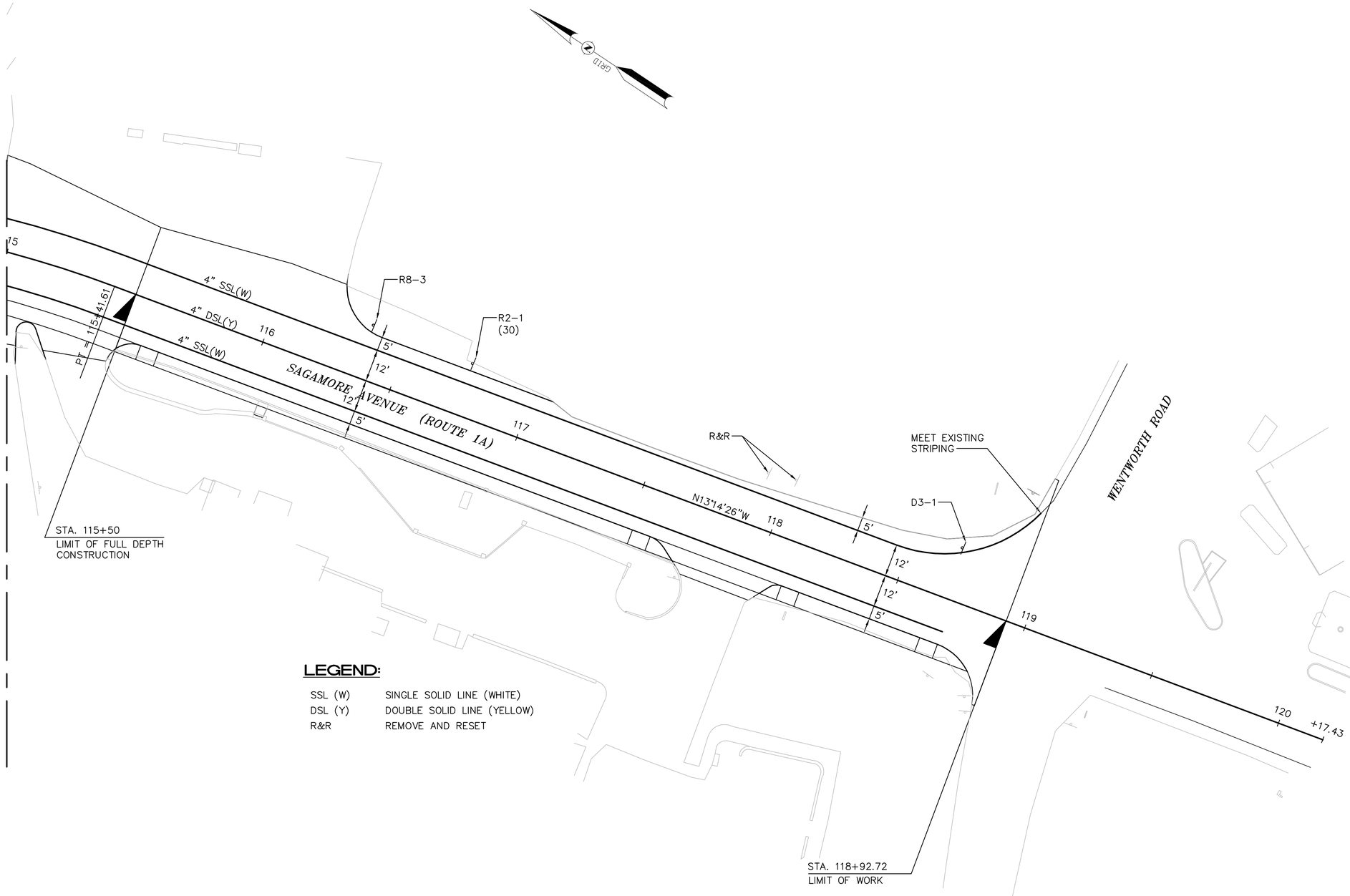

LEGEND:

SSL (W)	SINGLE SOLID LINE (WHITE)
DSL (Y)	DOUBLE SOLID LINE (YELLOW)
R&R	REMOVE AND RESET

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

FAY, SPOFFORD & THORNDIKE, LLC

CITY OF PORTSMOUTH

DEPARTMENT OF PUBLIC WORKS

PAVEMENT MARKING AND SIGNAGE PLAN

FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
X–A000(417)	14493	68	91

REVISIONS AFTER PROPOSAL

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NOTEBOOKS

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GRID

SHAW ROAD

SAGAMORE AVENUE (ROUTE 1A)

SAGAMORE CREEK

LIMIT OF WORK

TEMPORARILY CAP EXISTING 12" WATER MAIN DURING BRIDGE CONSTRUCTION. INSTALL 12" COUPLING TO CONNECT PROPOSED PIPE TO EXISTING

REMOVE EXISTING WATER MAIN BETWEEN NEW WATER VALVES

INSTALL 12" x 10" REDUCER

INSTALL 10" WATERMAIN (ITEM 611.05210) WITH ROUND RIGID PIPE INSULATION (ITEM 611.952) IN 20" SLEEVE (ITEM 611.35220) UNDER APPROACH SLAB THROUGH ABUTMENT WALL

LIMITS OF PROPOSED BRIDGE 42'-6"

LIMITS OF EXISTING BRIDGE

INSTALL 12" GATE VALVE AND BOX

INSTALL 12" DI WATER MAIN (ITEM 611.05212).

INSTALL 2-10" 45° BEND VERTICAL WITH 5.5 CY THRUST BLOCK AT TOP BEND SEE DETAIL SHEET ON SHEET 12. CONSTRUCT BEARING BLOCK UNDER BOTTOM BEND (6.5 SF)

INSTALL 10" WATERMAIN (ITEM 611.06210) WITH ROUND RIGID PIPE INSULATION (ITEM 611.952) AND ALUMINUM JACKET (INCIDENTAL). PROVIDE SUPPORT FOR WATER SEE STRUCTURAL DRAWINGS FOR PIPE SUPPORT DETAILS

STA. 105+36.39
LIMIT OF WORK

STA. 106+50
LIMIT OF FULL DEPTH CONSTRUCTION

STA. 108+77
APPROXIMATE LIMITS OF PROPOSED BRIDGE

PC = 105+19.85

PT 108+30.22

S42°52'38"E

S34°14'37"E

(ADJ.)

MAP 223 LOT 16 NOW OR FORMERLY JOHN PALLAZOLA 7 SHAW ROAD BK 4454 PAGE 2317

MAP 223 LOT 15 NOW OR FORMERLY GREEN FAMILY REVOCABLE TRUST OF 2003 900 SAGAMORE AVE BK 4227 PAGE 2200

MAP 223 LOT 24 NOW OR FORMERLY JAMES H. OLIVER 14 SHAW ROAD BK 2769 PAGE 1777 PLAN REF. #2

MAP 223 LOT 34 NOW OR FORMERLY JONATHON F. PANEK INVESTMENT TRUST 895 SAGAMORE AVE BK 4291 PAGE 0233

MAP 223 LOT 31 NOW OR FORMERLY NISSLEY LLC 915 SAGAMORE AVE BK 4061 PAGE 2312

MAP 223 LOT 32 NOW OR FORMERLY ROBERT W. SIMPSON BK 1853 PAGE 0465

MATCH TO SHEET NO. 70

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

FAY, SPOFFORD & THORNDIKE, LLC

CITY OF PORTSMOUTH

DEPARTMENT OF PUBLIC WORKS

WATER MAIN REPLACEMENT PLAN

FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
X-A000(417)	14493	69	91

REVISIONS AFTER PROPOSAL

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MATCH TO SHEET NO. 69

SAGAMORE CREEK

LIMITS OF PROPOSED BRIDGE 42'-6"

LIMITS OF EXISTING BRIDGE

S34°14'37"E

INSTALL 10" WATERMAIN (ITEM 611.06210) WITH ROUND RIGID PIPE INSULATION (ITEM 611.952) AND ALUMINUM JACKET (INCIDENTAL). PROVIDE SUPPORT FOR WATER SEE STRUCTURAL DRAWINGS FOR PIPE SUPPORT DETAILS.

REMOVAL OF EXISTING 10" WATER MAIN ON BRIDGE SUBSIDIARY TO ITEM 502.

REMOVE EXISTING WATER MAIN BETWEEN NEW WATER VALVES

INSTALL 2–10" 45° BEND VERTICAL WITH 5.5 CY THRUST BLOCK SEE DETAIL SHEET ON SHEET 12. CONSTRUCT BEARING BLOCK UNDER BOTTOM BEND (6.5 SF)

INSTALL 10" WATERMAIN (ITEM 611.05210) WITH ROUND RIGID PIPE INSULATION (ITEM 611.952) IN 20" SLEEVE (ITEM 611.35220) UNDER APPROACH SLAB THROUGH ABUTMENT WALL

INSTALL 2–12" 45° BEND HORIZONTAL WITH 5.5 CY THRUST BLOCK SEE DETAIL SHEET ON SHEET 12. CONSTRUCT BEARING BLOCK UNDER BOTTOM BEND (6.5 SF)

ITEM 611.81 – HYDRANT
INSTALL 2–12" COUPLINGS
12" X 6" ANCHOR TEE
6" GATE VALVE AND BOX
6" DI PIPE
6" HYDRANT

INSTALL 12" GATE VALVE AND BOX

SAGAMORE AVENUE (ROUTE 1A)

PC = 113+87.65

INSTALL 12"X10" REDUCER

INSTALL 12" WATERMAIN (ITEM 611.05212)

STA. 112+95± APPROXIMATE LIMITS OF PROPOSED BRIDGE

TEMPORARILY CAP EXISTING 12" WATER MAIN DURING BRIDGE CONSTRUCTION. INSTALL 12" COUPLING TO CONNECT PROPOSED PIPE TO EXISTING

LIMIT OF WORK

SAGAMORE GROVE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

FAY, SPOFFORD & THORNDIKE, LLC

CITY OF PORTSMOUTH

DEPARTMENT OF PUBLIC WORKS

WATER MAIN REPLACEMENT PLAN

FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
X-A000(417)	14493	70	91

GENERAL NOTES:

1. THIS PLAN IS INTENDED AS A GENERAL OVERVIEW OF TEMPORARY EROSION CONTROL METHODS. PER SECTION 108.03 OF THE NHDOT STANDARD SPECIFICATIONS, THE CONTRACTOR IS REQUIRED TO PREPARE AND SUBMIT A DETAILED STORMWATER POLLUTION PREVENTION PLAN (SWPPP), WHICH REFLECTS THE CONTRACTOR'S PROPOSED SCHEDULE OF OPERATIONS.

2. EROSION CONTROLS ARE TO BE CONSTRUCTED IN ACCORDANCE WITH THE DETAILS SHOWN ON THE TEMPORARY EROSION CONTROL DETAILS SHEETS AND THE NEW HAMPSHIRE STORMWATER MANUAL VOLUME 3, EROSION AND SEDIMENT CONTROLS DURING CONSTRUCTION, DECEMBER 2008.

3. THE PROJECT SHALL BE MANAGED TO MEET THE REQUIREMENTS AND INTENT OF RSA 430:53 AND AGR 3800 RELATIVE TO INVASIVE SPECIES.

CONSTRUCTION SEQUENCE:

1. INSTALL PROJECT–WIDE EROSION CONTROLS, INCLUDING SILT FENCES, SILT SCREENS, COMPOST SOCKS, AND CATCH BASIN AND CULVERT PROTECTION AS SHOWN ON THE PLANS PRIOR TO ANY EARTH MOVING OPERATIONS THAT WILL GENERATE STORMWATER RUNOFF.

2. ALL EROSION CONTROLS SHALL BE INSPECTED WEEKLY AND AFTER EVERY ½" OF RAINFALL DURING THE LIFE OF THE PROJECT. ALL DAMAGED EROSION CONTROLS SHALL BE REPAIRED AT NO CHARGE TO THE OWNER. SEDIMENT DEPOSITS SHALL BE PERIODICALLY REMOVED.

3. SITE PREPARATION TO INCLUDE, BUT NOT LIMITED TO PAVEMENT AND DEBRIS REMOVAL, CLEARING AND GRUBBING, TREE REMOVAL AND STRIPPING AND STOCKPILING TOPSOIL. IN GENERAL, THE CONTRACTOR SHALL LIMIT THE AREA OF DISTURBANCE COMMENSURATE WITH THE CONTRACTOR'S CAPABILITY AND PROGRESS IN KEEPING GRADING, MULCHING, SEEDING AND TEMPORARY AND PERMANENT EROSION CONTROL MEASURES CONCURRENT WITH OPERATIONS. ALL AREAS SHALL BE TEMPORARILY STABILIZED AS SOON AS PRACTICABLE, BUT WITHIN 45 DAYS OF INITIAL DISTURBANCE, AND PERMANENTLY STABILIZED AS SOON AS PRACTICABLE, BUT NO LATER THAN 3 DAYS OF FINAL GRADING. THE AREA OF UNSTABILIZED SOIL SHALL NOT EXCEED 5 ACRES AT ANY TIME. EARTH STOCKPILES ARE TO BE SEEDED AND MULCHED AND HAVE SILT FENCE INSTALLED ON THE DOWNSLOPE SIDE.

4. CONSTRUCTION LAYOUT.

5. CONSTRUCT TEMPORARY BRIDGE TRESTLE AND STAGING AREAS.

6. REMOVE EXISTING BRIDGES AND SUBSTRUCTURES.

7. EXCAVATE AND GRADE FOR BRIDGE SUBSTRUCTURES, PIERS AND RETAINING WALLS.

8. CREATE TEMPORARY STOCKPILES OUTSIDE THE 50–FT WATERFRONT BUFFER SHOWN ON THE PLANS. PROPERLY REMOVE FROM SITE AND DISPOSE OF DREDGE SPOILS. STABILIZE DREDGED AREA WITH CLASS C STONE FILL TO THE LINES AND GRADES INDICATED ON THE PLANS.

9. CONSTRUCT BRIDGES AND RETAINING WALLS.

10. GRADE UNDERGROUND SAND FILTER AND DRAINAGE SWALES.

11. INSTALL DRAINAGE SYSTEMS, PIPES, CULVERTS, SAND FILTER, DITCHES AND TEMPORARY EROSION CONTROL PROTECTIONS IN A SEQUENCE FROM OUTLET TO INLET IN ORDER TO STABILIZE OUTLET AREAS BEFORE RUNOFF IS DIRECTED TO THEM. NO STORMWATER FLOWS ARE TO BE DIRECTED TO THE UNDERGROUND SAND FILTER UNTIL CONTRIBUTING AREAS HAVE BEEN FULLY STABILIZED.

12. CONSTRUCT TEMPORARY CULVERTS AND DIVERSION CHANNELS AS REQUIRED.

13. ROUGH GRADE SITE TO APPROXIMATE SUBGRADES ENSURING APPROPRIATE COMPACTION WHERE REQUIRED. REMOVE UNSUITABLE SOILS AND DEWATER AS REQUIRED.

14. GRADE AND GRAVEL ROADWAY AND PARKWAY AREAS. ALL ROADWAYS AND PARKING AREAS SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE. THESE AREAS SHALL BE CONSIDERED STABLE WHEN BASE COURSE MATERIALS HAVE BEEN INSTALLED.

15. INSTALL PERMANENT AND TEMPORARY SEEDING AND MULCHING. ALL CUT AND FILL SLOPES SHALL BE SEEDED AND MULCHED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE. THESE AREAS SHALL BE CONSIDERED STABLE WHENEVER 85% OF VEGETATIVE GROWTH IS ESTABLISHED, A MINIMUM OF 3 INCHES OF NON–EROSIVE MATERIAL HAS BEEN INSTALLED OR EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.

16. FINE GRADE AND COMPACT.

17. INSTALL PAVEMENT.

18. INSTALL PAVEMENT MARKINGS AND SIGNAGE.

19. COMPLETE PERMANENT SEEDING AND LANDSCAPING.

20. MAINTAIN AND CLEAN ALL TEMPORARY EROSION CONTROLS AND DRAINAGE FACILITIES UNTIL VEGETATED AREAS HAVE BEEN STABILIZED AND RUNOFF IS DIRECTED TOWARDS THEM.

21. REMOVE ACCUMULATED SEDIMENTS FROM EROSION CONTROL DEVICES AND DISPOSE OF IN A SECURE LOCATION. REMOVE TEMPORARY EROSION CONTROLS. DISTURBED AREAS RESULTING FROM THE REMOVAL OPERATION SHALL BE PERMANENTLY SEEDED.

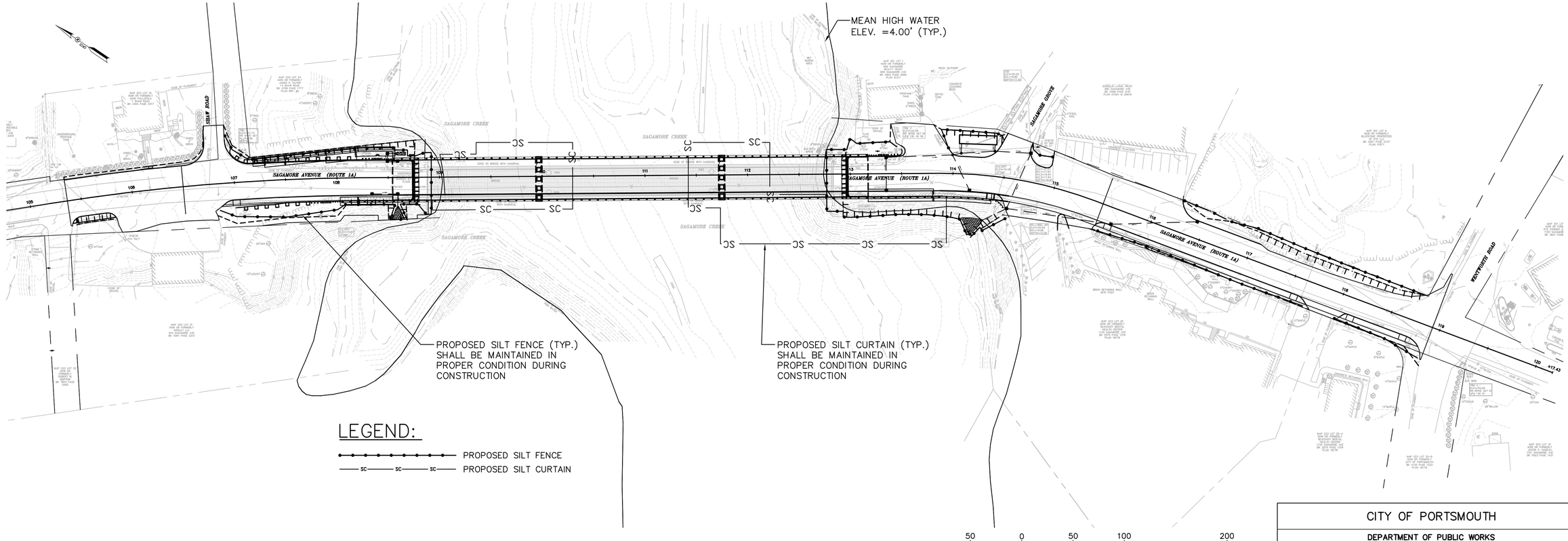
22. WINTER NOTES:

   A. ALL PROPOSED VEGETATED AREAS WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, SHALL BE STABILIZED BY SEEDING AND INSTALLING EROSION CONTROL BLANKETS ON SLOPES GREATER THAN 3:1, AND SEEDING AND PLACING 3 TO 4 TONS OF MULCH PER ACRE, SECURED WITH ANCHORED NETTING ELSEWHERE. THE INSTALLATION OF EROSION CONTROL BLANKETS OR MULCH AND NETTING SHALL NOT OCCUR OVER ACCUMULATED SNOW OR ON FROZEN GROUND AND SHALL BE COMPLETED IN ADVANCE OF THAW OR SPRING MELT EVENTS.

   B. ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, SHALL BE STABILIZED TEMPORARILY WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS.

   C. AFTER NOVEMBER 15TH, INCOMPLETE ROAD OR PARKING SURFACES WHERE WORK HAS STOPPED FOR THE WINTER SEASON SHALL BE PROTECTED WITH A MINIMUM OF 3 INCHES OF CRUSHED GRAVEL PER NHDOT ITEM 304.3.

   D. THE SITE SHALL BE STABILIZED IN ACCORDANCE WITH ENV–WQ 1505.05 FOR CONSTRUCTION TAKING PLACE DURING THE PERIOD OF NOVEMBER 30TH THROUGH MAY 1ST.



LEGEND:

PROPOSED SILT FENCE

SC SC SC PROPOSED SILT CURTAIN

50 0 50 100 200

(IN FEET)
1 inch = 50 ft.

FAY, SPOFFORD & THORNDIKE, LLC

CITY OF PORTSMOUTH

DEPARTMENT OF PUBLIC WORKS

EROSION AND SEDIMENTATION CONTROL PLAN

FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
X–A000(417)	14493	71	91

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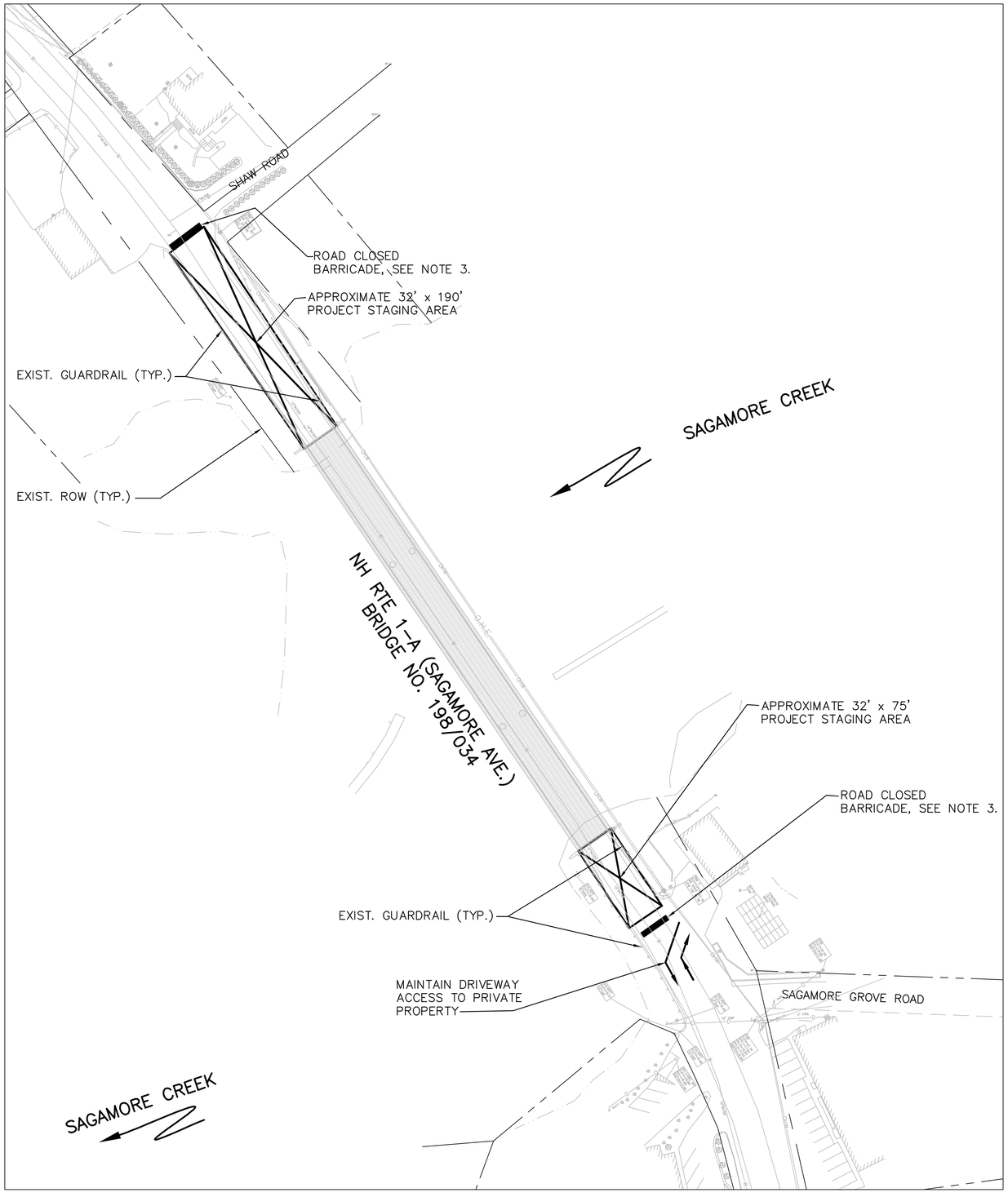

SITE / STAGING PLAN

APPROX. SCALE : 1" = 50'

DETOUR & TRAFFIC CONTROL NOTES:

1. THE EXISTING TRUCK DETOUR CURRENTLY IN PLACE WILL SERVE AS THE "ALL–TRAFFIC" DETOUR DURING THE CLOSURE FOR BRIDGE REPLACEMENT WORK.
2. THE CONTRACTOR WILL FURNISH, INSTALL, AND MAINTAIN DETOUR SIGNAGE THROUGHOUT THE PROJECT DURATION.
3. THE CONTRACTOR SHALL FURNISH, INSTALL AND MAINTAIN ROAD CLOSED BARRICADES AT THE PROJECT STAGING AREAS ON EACH END OF THE BRIDGE AS REQUIRED TO PROVIDE WORK ZONE ISOLATION, SAFETY, AND WORK ACCESS. EACH ROAD CLOSED BARRICADE, AT A MINIMUM, SHALL CONSIST OF WEIGHTED ORANGE TRAFFIC BARRELS AT 4' O/C, BARRICADE WARNING BOARD, ROAD CLOSED SIGN, AND FLASHING YELLOW BARREL–MOUNTED WARNING LIGHTS. ROAD CLOSED BARRICADES AND ALL INCIDENTAL WORK SHALL BE SUBSIDIARY TO ITEM 692 – MOBILIZATION.
4. CRASHWORTY BARRICADE TO BE INSTALLED TO PROTECT PROJECT AREA DURING DEMOLITION AND CONSTRUCTION.

SITE / STAGING PLAN NOTES:

1. PROJECT STAGING AREAS SHOWN ARE APPROXIMATE. ALL CONSTRUCTION OPERATIONS TO BE MAINTAINED WITHIN THE EXISTING RIGHT–OF–WAY UNLESS SPECIFIC EASEMENTS AND RIGHT–OF–ENTRY IS OBTAINED BY THE CONTRACTOR FOR THE PROPOSED WORK PLAN.
2. ALL PROJECT STAGING AREAS AND WORK SHALL BE ABOVE TOP OF BANK ELEVATION OF SAGAMORE CREEK.

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FAY, SPOFFORD & THORNDIKE, LLC

CITY OF PORTSMOUTH

DEPARTMENT OF PUBLIC WORKS

SITE STAGING PLAN

FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
X–A000(417)	14493	72	91

DYNAMIC MESSAGE SIGN
(BY CONTRACTOR)

BRIDGE CLOSED AHEAD
LOCAL TRAFFIC ONLY
OPEN TO SHAW ROAD

DETOUR

DETOUR ROUTE

DETOUR ROUTE

DETOUR ROUTE

PROJECT LOCATION
BRIDGE NO. 198/034

DYNAMIC MESSAGE SIGN
(BY CONTRACTOR)

DETOUR
BRIDGE CLOSED AHEAD
LOCAL TRAFFIC ONLY
OPEN TO NH RTE 1B

FOR FOYES CORNER SIGNS, SEE DETAIL "A"

DETAIL "A"
FOYES CORNER

DETOUR PLAN

SCALE : 1" = 1/2 MILE

FAY, SPOFFORD & THORNDIKE, LLC

CITY OF PORTSMOUTH

DEPARTMENT OF PUBLIC WORKS

DETOUR PLAN

FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
X-A000(417)	14493	73	91

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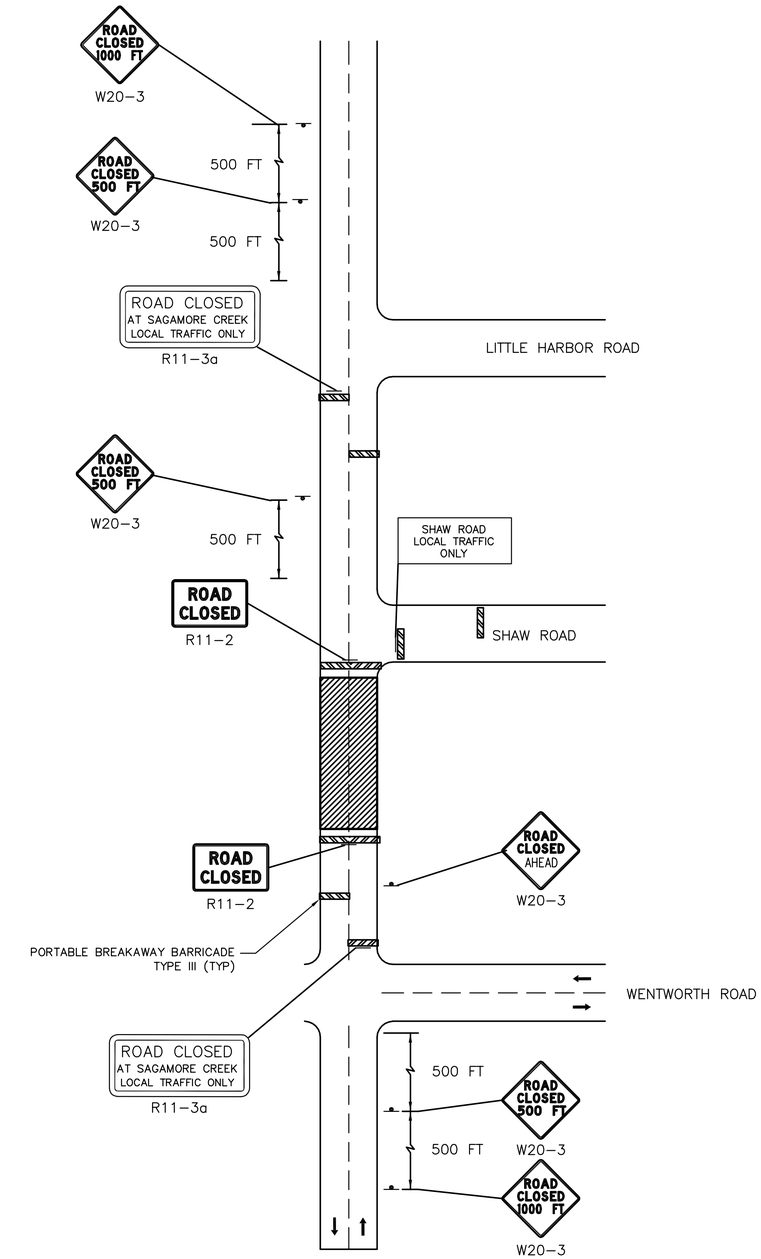
ITEM #	IDENT #	SIGN SIZE WIDTH (inch)	SIGN SIZE HEIGHT (inch)	TEXT	TEXT DIMENSIONS LETTER HEIGHT (inch) UC	LC	CAPS	SHIELD SIZE (inch)	ARROW (inch)	NUMERAL (inch)	# SIGNS REQ'D	SIGN AREA (SQ. FT.) NOM AREA	TOTAL AREA	POSTS PER SIGN BREAKAWAY	STEEL I-BEAM	CONCRETE BASE	4" ALUMINUM	U-CHANNEL-GALV.	REMARKS
619.1	R11-2	48	30	ROAD CLOSED			8D 8D				2	10.0	20.0						BLACK/WHITE
619.1	R11-3a	60	30	ROAD CLOSED AT SAGAMORE CREEK LOCAL TRAFFIC ONLY			6C 5C 4C				5	12.5	62.5					2	BLACK/WHITE
619.1	W20-2c	36	36	DETOUR AHEAD			6D 6D				5	9.0	45.0					1	BLACK/ORANGE
619.1	W20-3	36	36	ROAD CLOSED AHEAD			5D 5D 5D				1	9.0	9.0					1	BLACK/ORANGE
619.1	W20-3 (XX)	36	36	ROAD CLOSED XX FT			5D 5D 5D				5	9.0	45.0					1	BLACK/ORANGE
619.1	M1-5 (1A)	24	24	1A			12D				37	4.0	148.0					1	BLACK/ORANGE
619.1	M1-5 (1B)	24	24	1B			12D				1	4.0	4.0					1	BLACK/ORANGE
619.1	M3-1	24	12	NORTH			6C				19	2.0	38.0						BLACK/ORANGE
619.1	M3-3	24	12	SOUTH			6C				19	2.0	38.0						BLACK/ORANGE
619.1	M4-5	24	12	TO			6E				1	2.0	2.0						BLACK/ORANGE
619.1	M4-8	24	12	DETOUR			6B				35	2.0	70.0						BLACK/ORANGE
619.1	M4-8a	24	18	END DETOUR			4D 4D				2	3.0	6.0					1	BLACK/ORANGE
619.1	M4-10L	48	18	DETOUR			6D				1	6.0	6.0						BLACK/ORANGE
619.1	M4-10R	48	18	DETOUR			6D				2	6.0	12.0						BLACK/ORANGE
619.1	M5-1L	15	21								7	2.1875	15.3125						BLACK/ORANGE
619.1	M5-1R	15	21								4	2.1875	8.75						BLACK/ORANGE
619.1	M6-1R	15	21								3	2.1875	6.5625						BLACK/ORANGE
619.1	M6-1L	15	21								8	2.1875	17.5						BLACK/ORANGE
619.1	M6-2R	15	21								4	2.1875	8.75						BLACK/ORANGE
619.1	M6-2L	15	21								1	2.1875	2.1875						BLACK/ORANGE
619.1	M6-3	15	21								8	2.1875	17.5						BLACK/ORANGE
619.1	SP-1	60	30	ROUTE 1A SAGAMORE CREEK BRIDGE CLOSED			6C 5C 4C				10	12.5	125.0					2	BLACK/WHITE
619.1	SP-2	60	30	SHAW ROAD LOCAL TRAFFIC ONLY			6C 5C 4C				1	12.5	12.5						BLACK/WHITE



WORK AREA SIGNS

NOT TO SCALE

REVISIONS AFTER PROPOSAL

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CITY OF PORTSMOUTH

DEPARTMENT OF PUBLIC WORKS

DETOUR SIGN SUMMARY

FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
X-A000(417)	14493	74	91

FAY, SPOFFORD & THORNDIKE, LLC