

COMPREHENSIVE PERMIT PRELIMINARY PLAN SUBMISSION

FOR

HOPKINS GREEN II
WITH HOPKINS GREEN I MODIFICATIONS

AP 48-2, LOT 126

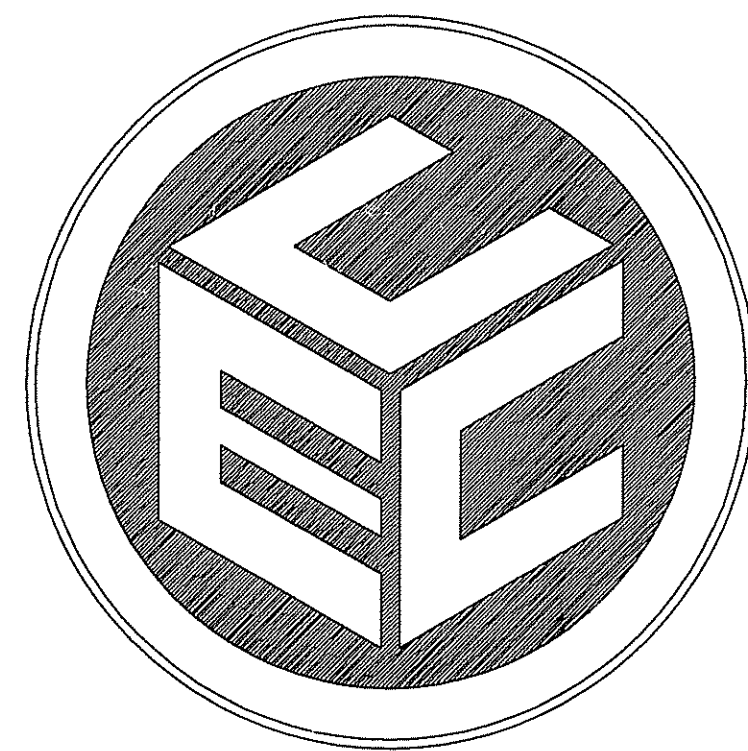
HOPKINS LANE

IN

SOUTH KINGSTOWN, RHODE ISLAND

OWNER/APPLICANT:

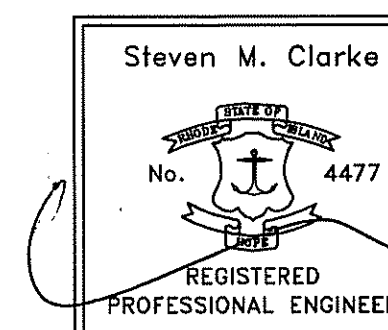
LISA FIORE
74 KETTLE POND DRIVE
SOUTH KINGSTOWN, RHODE ISLAND 02879



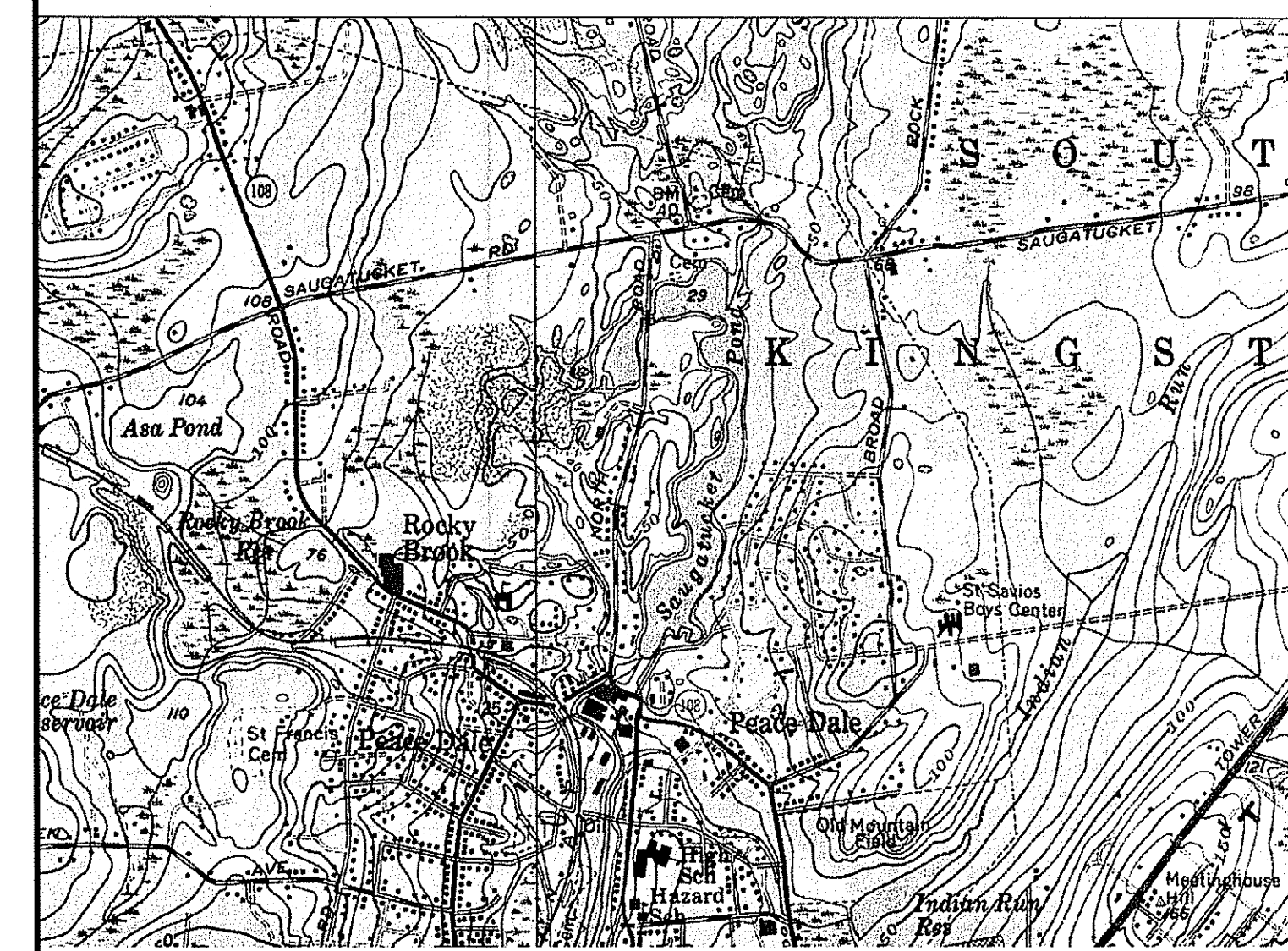
COMMONWEALTH
ENGINEERS & CONSULTANTS, INC.

400 SMITH STREET
PROVIDENCE, RI 02908
(401) 273-6600

JUNE 1, 2007
REVISED NOVEMBER 19, 2007



Kindly be advised that this
Permit is not equivalent to a
verification of the type or extent
of freshwater wetlands on site.



LOCUS MAP

NOT TO SCALE

LIST OF DRAWINGS

1. TITLE SHEET
2. ABUTTERS MAP & LIST
3. EXISTING CONDITIONS PLAN
4. LAYOUT PLAN
5. GRADING PLAN
6. UTILITY PLAN
7. ROAD IMPROVEMENT PLAN
- ~~8. LANDSCAPE PLAN~~
9. CONSTRUCTION DETAILS - 1
10. CONSTRUCTION DETAILS - 2
11. CONSTRUCTION DETAILS - 3
12. CONSTRUCTION DETAILS - 4
13. CONSTRUCTION DETAILS - 5
14. CONSTRUCTION DETAILS - 6

COMPREHENSIVE PERMIT DEVELOPMENT

**HOPKINS GREEN II
ZONING CLASSIFICATION:**

R-20 MEDIUM HIGH DENSITY RESIDENTIAL

	REQUIRED (R-20)
AREA=	20,000 SF
FRONTAGE/WIDTH=	100 FT
LOT BUILDING COVERAGE=	25%
MAX. HEIGHT=	35 FT
MIN. YARD SETBACKS	
FRONT=	35 FT
CORNER SIDE=	25 FT
SIDE=	15 FT
REAR=	35 FT

**HOPKINS GREEN II
PARKING**

16 NEW UNITS @ 2 SP/UNIT = 32 SPACES
32 NEW SPACES PROVIDED

**HOPKINS GREEN I
ZONING CLASSIFICATION:**

RM-RESIDENTIAL MULTI-HOUSEHOLD DISTRICT

	REQUIRED (RM) (LOT 86)
AREA=	80,000 S.F.
FRONTAGE/WIDTH=	150 FT.
LOT BUILDING COVERAGE=	50%
MAX. HEIGHT=	35 FT.
MIN. YARD SETBACKS	
FRONT=	25 FT.
CORNER SIDE=	20 FT.
SIDE=	10 FT.
REAR=	30 FT.

**HOPKINS GREEN I
PARKING**

16 NEW UNITS @ 2 SP/UNIT = 32 SPACES
40 NEW SPACES PROVIDED

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED MAR 28 2008 FILE # 07-0322
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL.
APPROVED PLANS MUST BE AT CONSTRUCTION SITE.

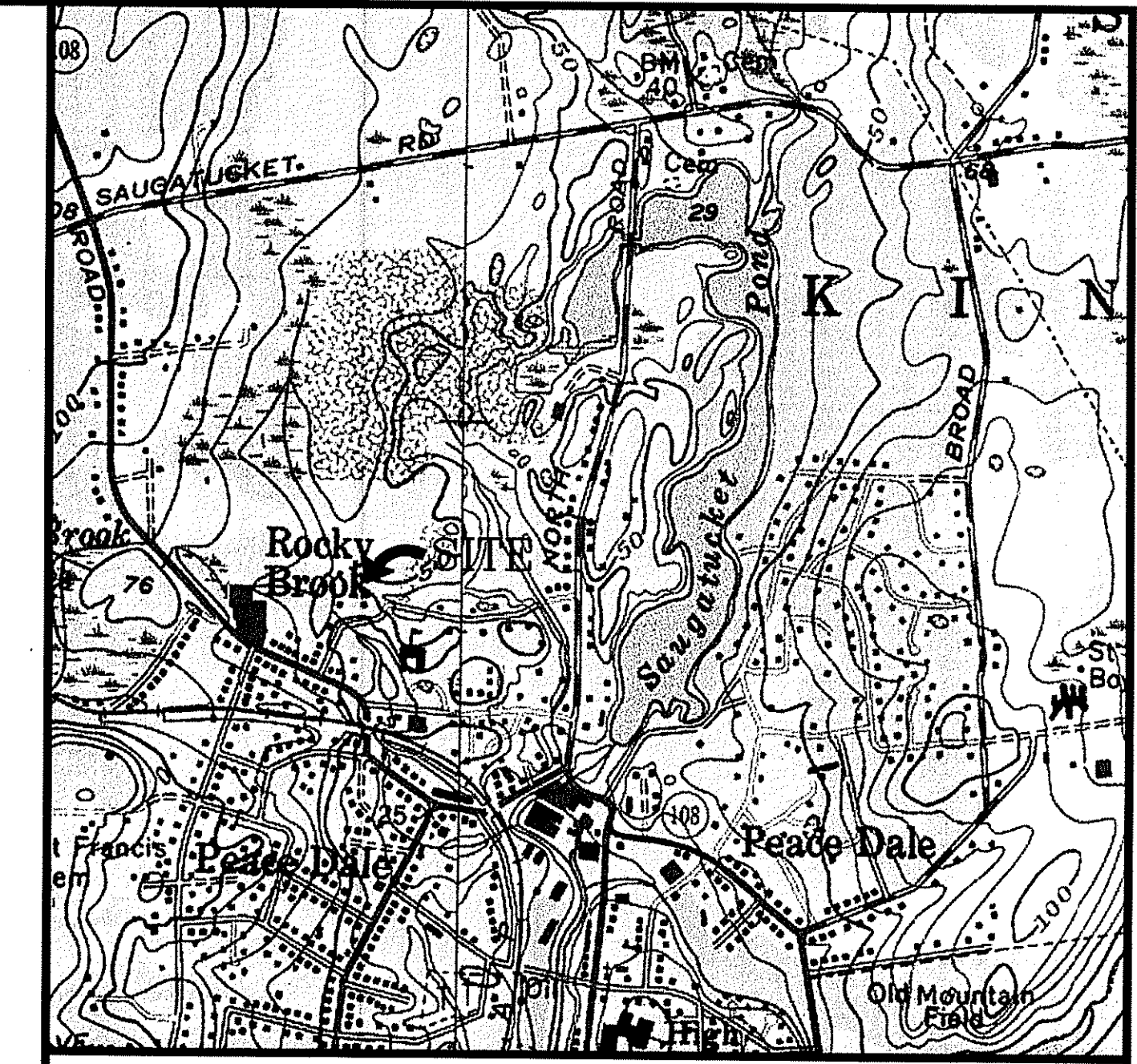
W. Joseph Conroy

NOV 30 2007

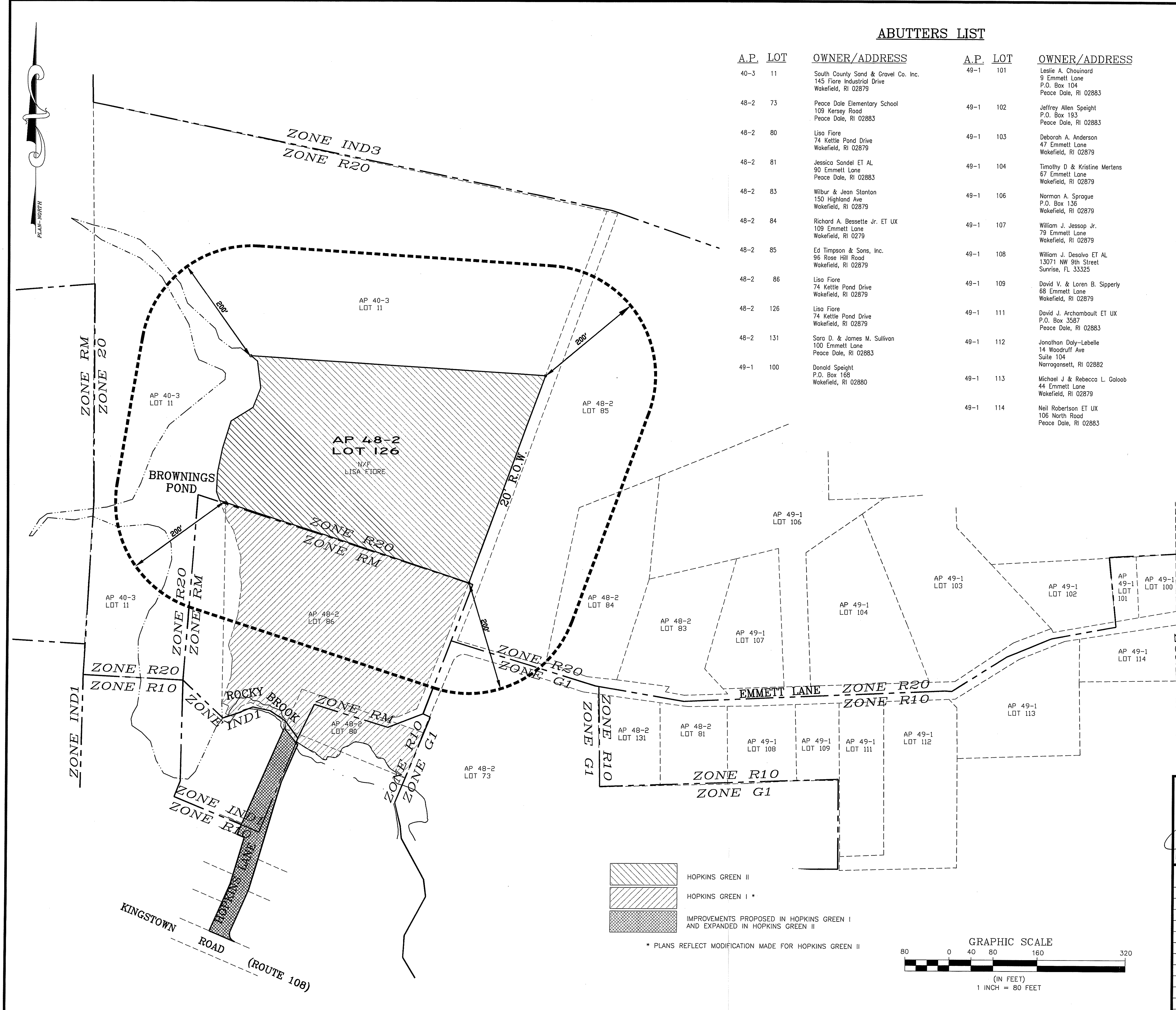
PROJECT NO. 01146.00

ABUTTERS LIST

A.P.	LOT	OWNER/ADDRESS	A.P.	LOT	OWNER/ADDRESS
40-3	11	South County Sand & Gravel Co. Inc. 145 Fiore Industrial Drive Wakefield, RI 02879	49-1	101	Leslie A. Chouinard 9 Emmett Lane P.O. Box 104 Peace Dale, RI 02883
48-2	73	Peace Dale Elementary School 109 Kersey Road Peace Dale, RI 02883	49-1	102	Jeffrey Allen Speight P.O. Box 193 Peace Dale, RI 02883
48-2	80	Lisa Fiore 74 Kettle Pond Drive Wakefield, RI 02879	49-1	103	Deborah A. Anderson 47 Emmett Lane Wakefield, RI 02879
48-2	81	Jessica Sandel ET AL 90 Emmett Lane Peace Dale, RI 02883	49-1	104	Timothy D & Kristine Mertens 67 Emmett Lane Wakefield, RI 02879
48-2	83	Wilbur & Jean Stanton 150 Highland Ave Wakefield, RI 02879	49-1	106	Norman A. Sprague P.O. Box 136 Wakefield, RI 02879
48-2	84	Richard A. Besette Jr. ET UX 109 Emmett Lane Wakefield, RI 02879	49-1	107	William J. Jessop Jr. 79 Emmett Lane Wakefield, RI 02879
48-2	85	Ed Timpson & Sons, Inc. 96 Rose Hill Road Wakefield, RI 02879	49-1	108	William J. Desolve ET AL 13071 NW 9th Street Sunrise, FL 33325
48-2	86	Lisa Fiore 74 Kettle Pond Drive Wakefield, RI 02879	49-1	109	David V. & Loren B. Sipperly 68 Emmett Lane Wakefield, RI 02879
48-2	126	Lisa Fiore 74 Kettle Pond Drive Wakefield, RI 02879	49-1	111	David J. Archambault ET UX P.O. Box 3587 Peace Dale, RI 02883
48-2	131	Sara D. & James M. Sullivan 100 Emmett Lane Peace Dale, RI 02883	49-1	112	Jonathan Daly-Lebelle 14 Woodruff Ave Suite 104 Narragansett, RI 02882
49-1	100	Donald Speight P.O. Box 168 Wakefield, RI 02880	49-1	113	Michael J. & Rebecca L. Galoob 44 Emmett Lane Wakefield, RI 02879
			49-1	114	Neil Robertson ET UX 106 North Road Peace Dale, RI 02883



LOCUS MAP
SCALE: 1"=1000±

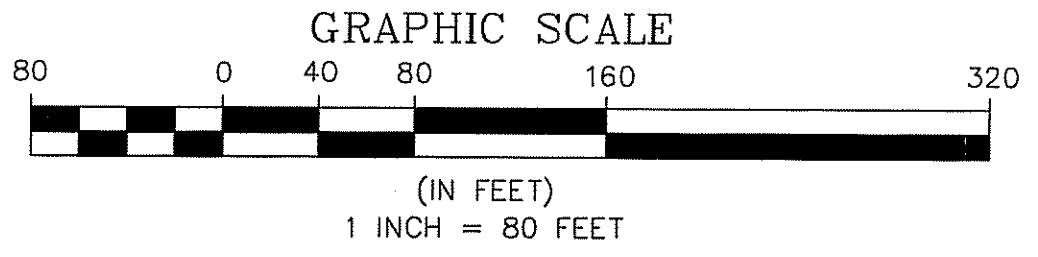


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DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED **MAR 28 2008** FILE # **07-0322**
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W. Joseph Cooney

HOPKINS GREEN II
 HOPKINS GREEN I *
 IMPROVEMENTS PROPOSED IN HOPKINS GREEN I AND EXPANDED IN HOPKINS GREEN II
 * PLANS REFLECT MODIFICATION MADE FOR HOPKINS GREEN II



Steven M. Clarke
No. 4477
REGISTERED PROFESSIONAL ENGINEER

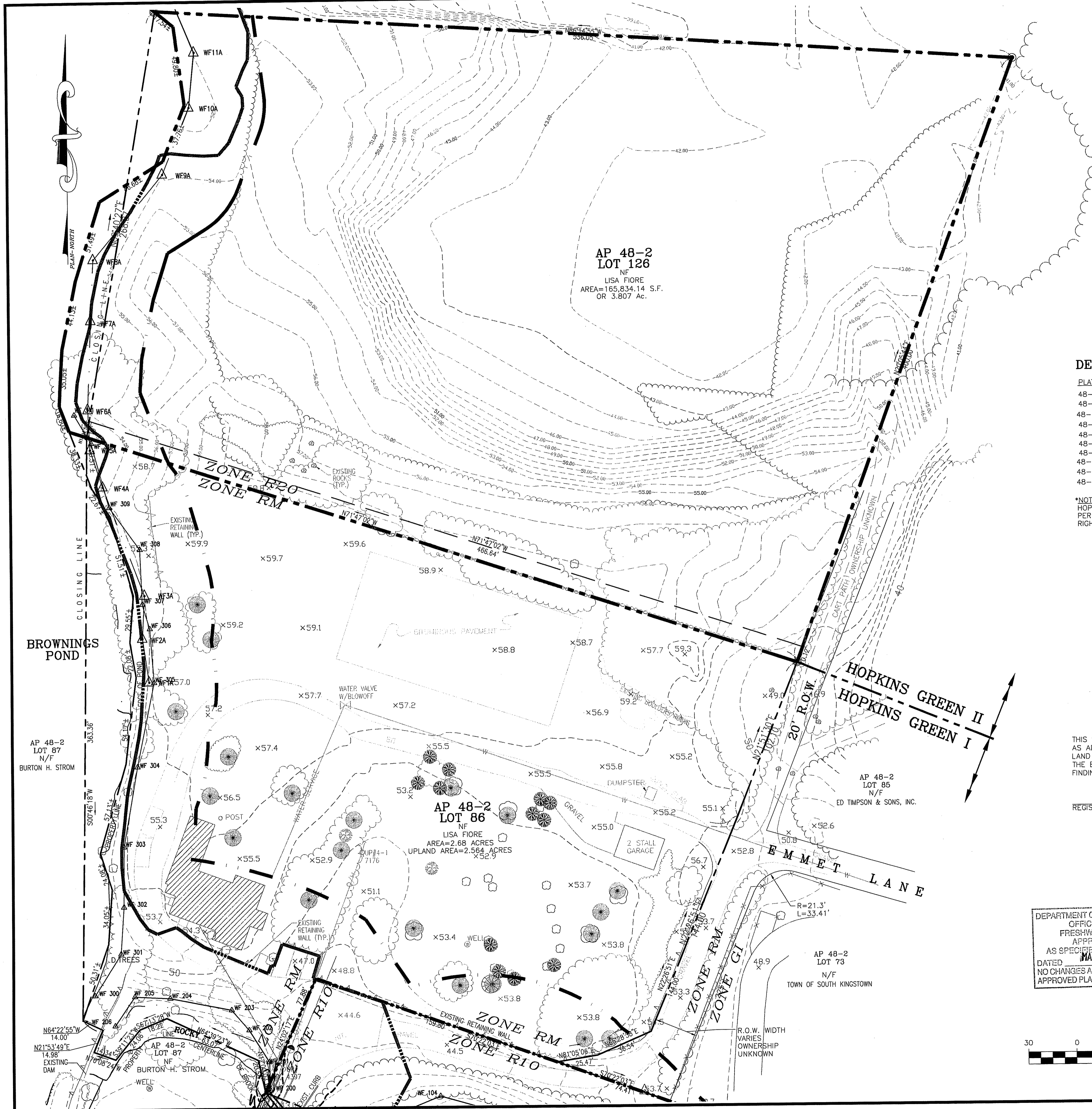
COMMONWEALTH
ENGINEERS & CONSULTANTS, INC.
400 SMITH STREET
PROVIDENCE, RHODE ISLAND 02908
401-273-6600

REVISIONS

No.	DATE	DRWN	CHKD
1.	11/19/07	KAB	SMC

COMPREHENSIVE PERMIT PRELIMINARY PLAN SUBMISSION
for
HOPKINS GREEN II
in
SOUTH KINGSTOWN, RHODE ISLAND
ABUTTERS MAP

SCALE: 1"=80' SHEET NO: 2 of 14
DRAWN BY: DMS DESIGN BY: INT CHECKED BY: SMC
DATE: 6/1/07 PROJECT NO.: 01146.00



- NOTES:**
- THIS SITE IS NOT IDENTIFIED AS A NATURAL HERITAGE AREA BY RIDEM.
 - THIS SITE IS NOT LOCATED WITHIN THE CRMC NARROW RIVER SPECIAL AREA MANAGEMENT PLAN OR THE SALT PONDS SPECIAL AREA MANAGEMENT PLAN.
 - THIS SITE IS NOT LOCATED WITHIN A TOWN GROUNDWATER PROTECTION OVERLAY DISTRICT.
 - THIS SITE IS NOT LOCATED WITHIN A FEMA DESIGNATED 100-YEAR FLOOD ZONE PER FIRM COMMUNITY PANEL NO. 445407 0018E, DATED JUNE 16, 1992.
 - THE CONDITIONS SHOWN ON LOT 86 AS EXISTING FOR THE PURPOSES OF THIS SUBMISSION. THIS LAYOUT IS AS APPROVED BY THE TOWN OF SOUTH KINGSTOWN.

- PLAN REFERENCES:**
- "LAND AT PEACEDALE IN SOUTH KINGSTOWN, RI" TO BE DEEDED BY HEIRS OF JOHN N. HAZARD TO GEORGE A. HOLLEY SCALE 1"=100' DATES JANUARY 14, 1927.
 - "PLAT OF LAND IN ROCKY BROOK IN TOWN OF SOUTH KINGSTOWN, RI" TO BE DEEDED BY ORESTE AND FELICIA BORAGINE TO JAMES HENRY DELUCA AND SYLVIA M. DELUCA DATED MAY 1947.
 - LAND IN ROCKY BROOK IN SOUTH KINGSTOWN, RI SOLD BY HEIRS OF JOHN W. HAZARD TO PHILIP PAGAN HUFFMAN, DATED JANUARY 16, 1918.

FLOOD ZONE
 A PORTION OF THIS SITE IS LOCATED IN A 100-YEAR FLOOD ZONE, AS MAPPED BY THE U.S.D.A. SOIL CONSERVATION SERVICE STUDY, ENTITLED: "FLOOD HAZARD ANALYSES, SAUGATUCKET RIVER AND TRIBUTARIES, SOUTH KINGSTOWN, RHODE ISLAND." DATED FEB. 1976.

DEED REFERENCES:

PLAT/LOT	BOOK	PAGE
48-2/86	127	589
48-2/86	127	591
48-2/80*	156	239
48-2/85	648	473
48-2/85	161	13
48-2/85	100	84
48-2/87	482	90
48-2/126	160	36
48-2/128	373	445
48-2/142	841	306

*NOTE:
 HOPKINS LANE ACROSS LOT 80
 PER DEED REFERENCE IS A
 RIGHT OF WAY.

LEGEND

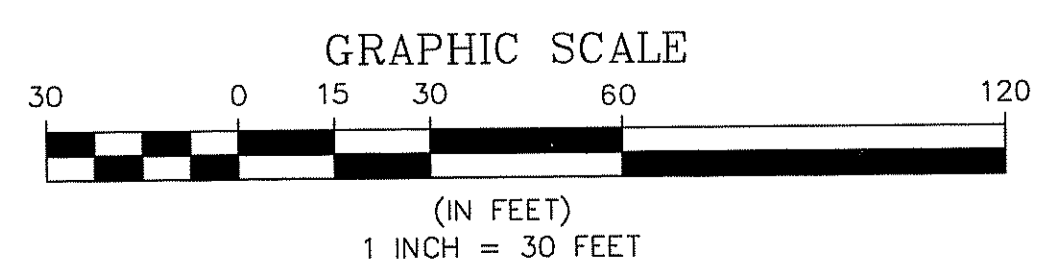
EXISTING	PROPOSED
x 135.5	SPOT ELEVATION x 135.5
134	CONTOUR 134
---	PROPERTY LINE
---	EDGE OF PAVEMENT
---	PRECAST CONC. CURB
+	HYDRANT
W	WATER LINE
FM	SAN. FORCE MAIN
D	DRAIN LINE
CB	CATCH BASIN
DMH	DRAIN MANHOLE
SMH	SANITARY MANHOLE
O/H	OVERHEAD ELEC.
E	ELECTRIC LINE
W	WOOD FENCE
X X X X X	CHAIN LINK FENCE
▨	BUILDING
---	CUT & MATCH
---	STONE WALL
U.P.#2	UTIL. POLE W/NO.
V V V V V	RETAINING WALL
---	STAKED HAYBALES
---	LIMITS OF DISTURBANCE
WF 16	EASEMENT
WF 17	WETLAND FLAG
---	LIMITS OF DISTURBANCE (NO HAYBALES)
---	100-YEAR FLOODPLAIN (SCS STUDY OF SAUGATUCKET)

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THIS SURVEY AND PLAN CONFORM TO A CLASS I STANDARD AS ADOPTED BY THE RHODE ISLAND BOARD OF PROFESSIONAL LAND SURVEYORS. THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND IS SUBJECT TO THE FINDINGS SUCH A REPORT MIGHT DISCLOSE.

REGISTERED LAND SURVEYOR _____ DATE _____

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF WATER RESOURCES
 FRESHWATER WETLANDS PROGRAM
 APPROVED WITH CONDITIONS
 AS SPECIFIED IN THE LETTER OF APPROVAL
 MAR 28 2008 FILE # 07-0322
 DATED _____
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 APPROVED PLANS MUST BE AT CONSTRUCTION SITE.
W. Joseph Carey



Steven M. Clarke
 No. 4477
 REGISTERED PROFESSIONAL ENGINEER

COMMONWEALTH
 ENGINEERS & CONSULTANTS, INC.
 400 SMITH STREET
 PROVIDENCE, RHODE ISLAND 02908
 401-273-6600

REVISIONS

No.	DATE	DRWN	CHKD
1.	11/19/07	KAB	SMC

COMPREHENSIVE PERMIT PRELIMINARY PLAN SUBMISSION
 for
HOPKINS GREEN II
 in
 SOUTH KINGSTOWN, RHODE ISLAND
EXISTING CONDITIONS PLAN

SCALE: 1"=30' SHEET NO: 3 of 14
 DRAWN BY: DMS DESIGN BY: INT CHECKED BY: SMC
 DATE: 6/1/07 PROJECT NO.: 01146.00

NOTES

1. ACCESS TO/FROM EMMET LANE IS FOR EMERGENCY VEHICLES ONLY. ACCESS IS PERMISSIBLE TO/FROM THE SITE VIA HOPKINS LANE ONLY.

EXISTING	LEGEND	PROPOSED
134.5	SPOT ELEVATION	x (135.5)
134	CONTOUR	(134)
---	PROPERTY LINE	---
---	EDGE OF PAVEMENT	---
---	PRECAST CONC. CURB	---
⊕	HYDRANT	⊕
---	WATER LINE	---
---	SAN. FORCE MAIN	---
---	DRAIN LINE	---
⊕	CATCH BASIN	⊕
⊕	DRAIN MANHOLE	⊕
⊕	SANITARY MANHOLE	⊕
---	OVERHEAD ELEC.	---
---	ELECTRIC LINE	---
---	WOOD FENCE	---
---	CHAIN LINK FENCE	---
---	BUILDING	---
---	CUT & MATCH	---
---	STONE WALL	---
---	UTIL. POLE W/NO.	---
---	RETAINING WALL	---
---	EASEMENT	---
WF 16	WETLAND FLAG	WF 17
---	100-YEAR FLOODPLAIN (SCS STUDY OF SAUGATUCKET)	---
---	OPEN SPACE	---



**HOPKINS GREEN II
PARKING REQUIREMENTS:**
2 SPACES FOR EACH MULTI HOUSEHOLD DWELLING UNIT
PROPOSED: 16 UNITS x 2 SPACES = 32 SPACES REQUIRED
32 SPACES PROPOSED

BUILDING COVERAGE
MAXIMUM ALLOWED = 30% x 3.81 ACRES = 1.143 ACRES
BUILDING COVERAGE PROPOSED = 5.55%

OPEN SPACE CALCULATIONS:
(PRIVATE COMMON USE)
REQUIRED: 0.30 x 3.81 ACRES = 1.14 ACRES
TOTAL PROVIDED: = 89,534.03 SF OR 2.06 ACRES
UPLAND = 1.99 ACRES (96.60%)
WETLAND = 0.07 ACRES (3.40%)

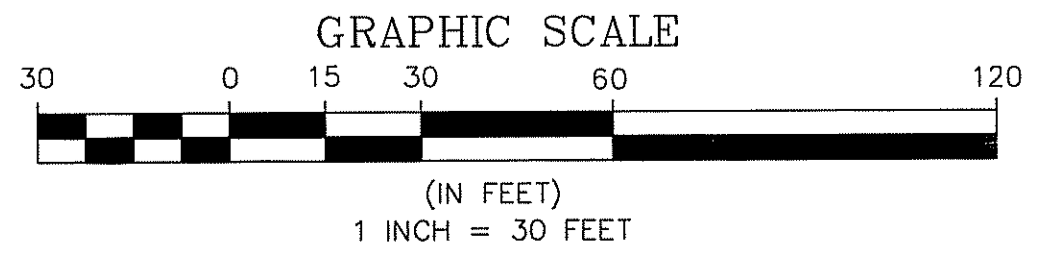
**HOPKINS GREEN I
PARKING REQUIREMENTS:**
2 SPACES FOR EACH MULTI HOUSE HOLD DWELLING UNIT
PROPOSED: 16 UNITS x 2 SPACES = 32 SPACES REQUIRED
38 SPACES PROPOSED

BUILDING COVERAGE
MAXIMUM ALLOWED = 30% x 3.12 ACRES = 0.936 ACRES
BUILDING COVERAGE PROPOSED = 8.65%

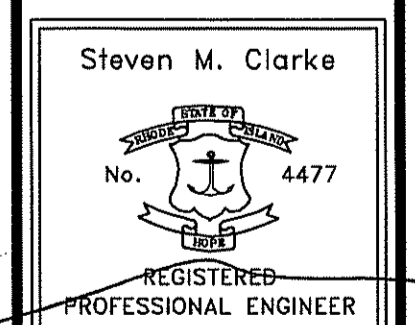
OPEN SPACE CALCULATIONS:
(PRIVATE COMMON USE)
REQUIRED: 0.30 x 3.12 ACRES = 0.96 ACRES
TOTAL PROVIDED: = 58,734.42 OR 1.348356 ACRES
UPLAND = 0.965940 ACRES (71.64%)
WETLAND = 0.618104 ACRES (16.18%)
PAVEMENT/GRAVEL = 0.054516 ACRES (4.04%)
DETENTION BASINS = 0.109796 ACRES (8.14%)

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DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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FRESHWATER WETLANDS PROGRAM
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DATED MAR 28 2008 FILE # 07-0322
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OWNER:
LISA FIORE
74 KETTLE POND DRIVE
SOUTH KINGSTOWN, RHODE ISLAND 02879



REVISIONS			
No.	DATE	DRWN	CHKD
1.	11/19/07	KAB	SMC

**COMPREHENSIVE PERMIT
PRELIMINARY PLAN SUBMISSION**
for
HOPKINS GREEN II
in
SOUTH KINGSTOWN, RHODE ISLAND
LAYOUT PLAN

SCALE: 1"=30'
DRAWN BY: DMS DESIGN BY: INT CHECKED BY: SMC
DATE: 6/1/07 SHEET NO: 4 of 14 PROJECT NO.: 01146.00

NOTES

1. ACCESS TO/FROM EMMET LANE IS FOR EMERGENCY VEHICLES ONLY. ACCESS IS PERMISSIBLE TO/FROM THE SITE VIA HOPKINS LANE ONLY.

LEGEND

EXISTING	PROPOSED
SPOT ELEVATION	SPOT ELEVATION x 135.5
CONTOUR	CONTOUR
PROPERTY LINE	PROPERTY LINE
EDGE OF PAVEMENT	EDGE OF PAVEMENT
PRECAST CONC. CURB	PRECAST CONC. CURB
HYDRANT	HYDRANT
WATER LINE	WATER LINE
SAN. FORCE MAIN	SAN. FORCE MAIN
SANITARY SEWER	SANITARY SEWER
DRAIN LINE	DRAIN LINE
CATCH BASIN	CATCH BASIN
DRAIN MANHOLE	DRAIN MANHOLE
SANITARY MANHOLE	SANITARY MANHOLE
OVERHEAD ELEC.	OVERHEAD ELEC.
ELECTRIC LINE	ELECTRIC LINE
WOOD FENCE	WOOD FENCE
CHAIN LINK FENCE	CHAIN LINK FENCE
BUILDING	BUILDING
CUT & MATCH	CUT & MATCH
STONE WALL	STONE WALL
UTIL. POLE W/NO.	UTIL. POLE W/NO.
RETAINING WALL	RETAINING WALL
STAKED HAYBALES @ LIMITS OF DISTURBANCE	STAKED HAYBALES @ LIMITS OF DISTURBANCE
EASEMENT	EASEMENT
WETLAND FLAG	WETLAND FLAG
100-YEAR FLOODPLAIN (SCS STUDY OF SAUGATUCKET)	100-YEAR FLOODPLAIN (SCS STUDY OF SAUGATUCKET)
REMOVE TREE	REMOVE TREE
PROPOSED LIGHT	PROPOSED LIGHT

SANITARY SEWER INVERT

STRUCTURE NUMBER	RIM ELEVATION	INVERT IN	INVERT OUT
1	58.30	48.09(S) 52.96(E) 53.40(W)	47.89(N)
2	50.80	42.68(S)	42.58(N)
PUMP STA.	50.3	42.28	

SANITARY SEWER INVERTS AT BUILDINGS

BUILDING NUMBER	INVERTS
1	50.5
2	54.0
3	54.3
4	55.5
5	54.0
6	55.0
7	48.5
8	50.5
EXISTING	50.5

RIDEM APPROVAL
RIDEM FRESHWATER WETLANDS APPROVAL #02-0236 FOR PHASE I.

CONSTRUCTION ACCESS
ACCESS TO THE SITE WILL BE GAINED FROM ROUTE 108 VIA HOPKINS LANE.

NOTES:
1. GRAVITY SEWER ON-SITE TO BE 6" PVC SCH 40.
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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74 KETTLE POND DRIVE
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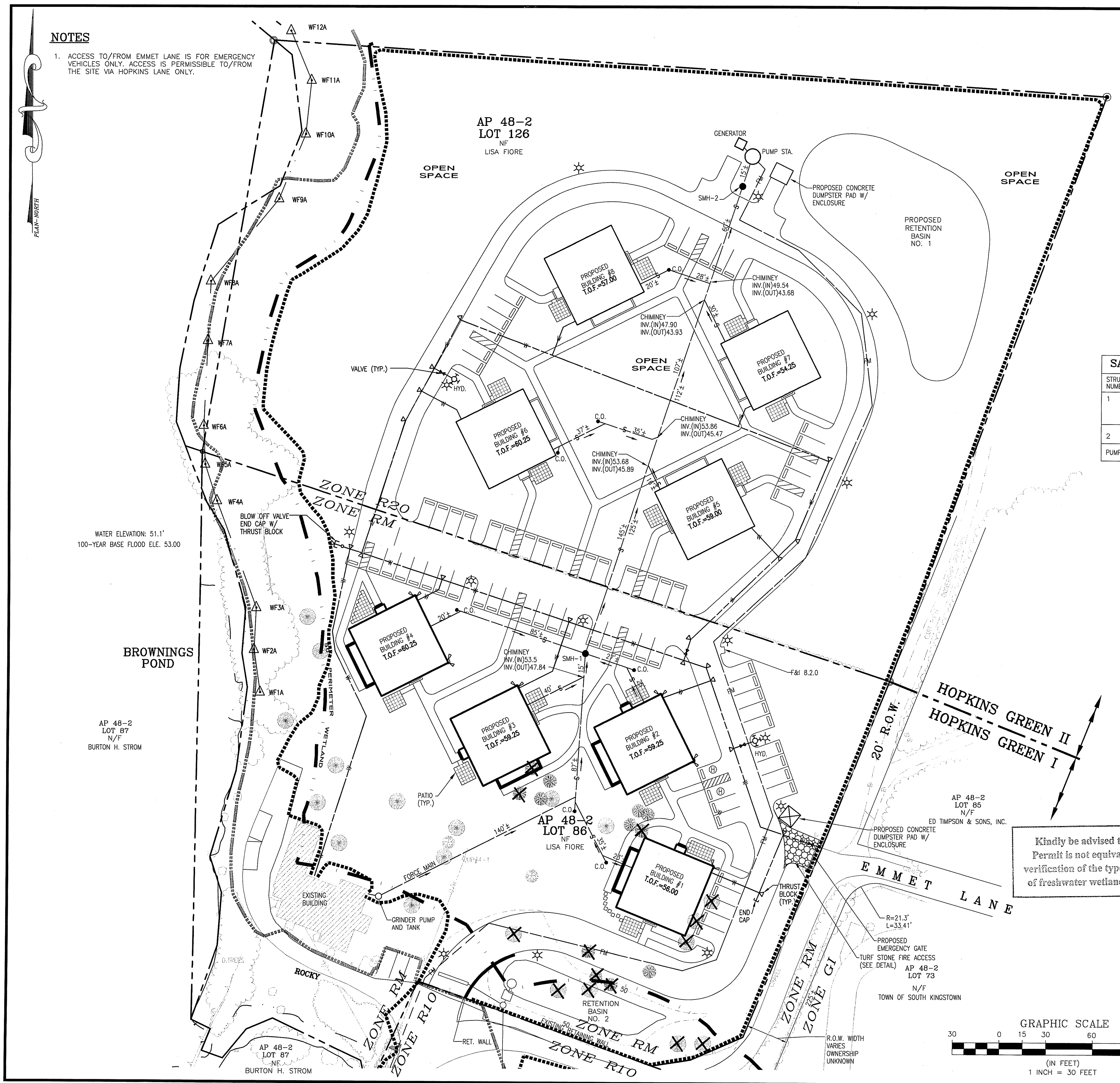
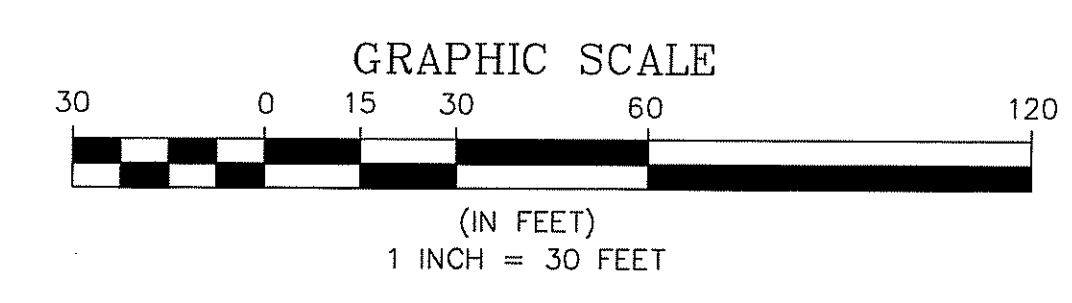
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COMPREHENSIVE PERMIT PRELIMINARY PLAN SUBMISSION
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UTILITY PLAN

SCALE: 1"=30'
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DATE: 6/1/07 SHEET NO: 6 of 14 PROJECT NO.: 01146.00

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WATER ELEVATION: 51.1'
100-YEAR BASE FLOOD ELE. 53.00

AP 48-2 LOT 87 N/F BURTON H. STROM

AP 48-2 LOT 85 N/F ED TIMPSON & SONS, INC.

AP 48-2 LOT 86 N/F LISA FIORE

AP 48-2 LOT 87 N/F BURTON H. STROM

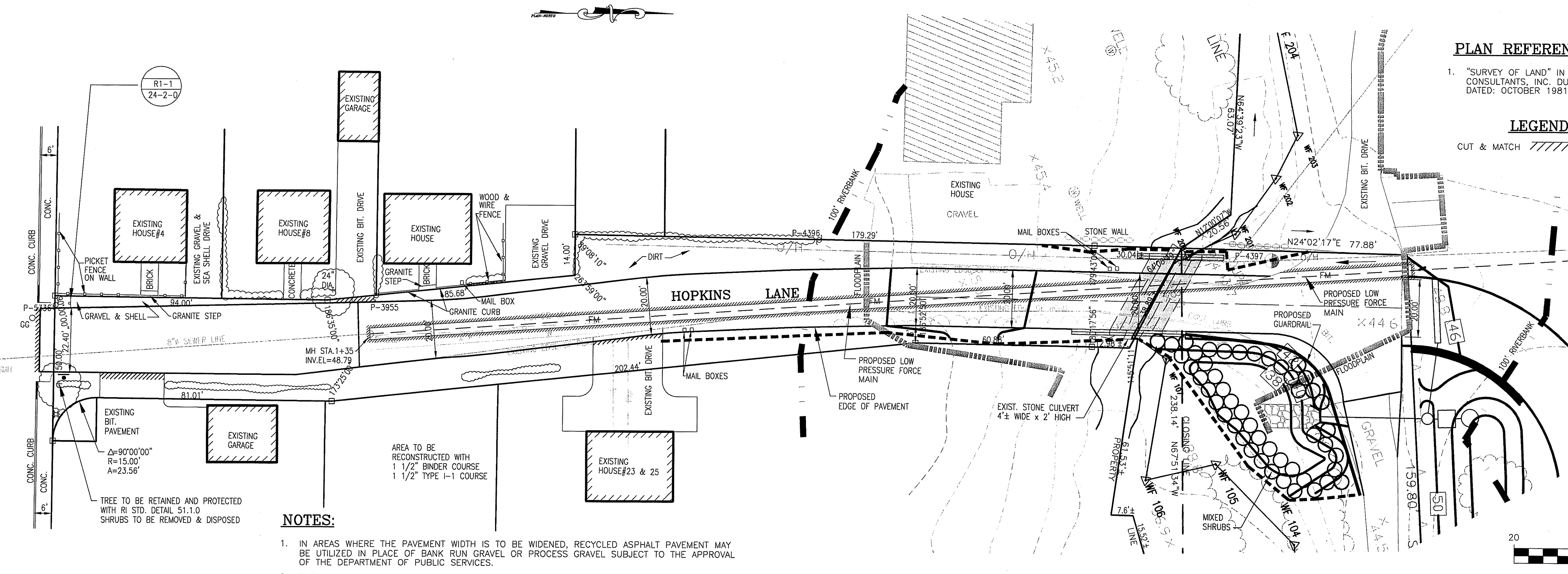
PLAN REFERENCES:

- "SURVEY OF LAND" IN PEACEDALE, SOUTH KINGSTOWN, RI BY ENVIRONMENTAL CONSULTANTS, INC. DUGWAY BRIDGE ROAD, WEST KINGSTON, RI SCALE: 1"=30' DATED: OCTOBER 1981

LEGEND

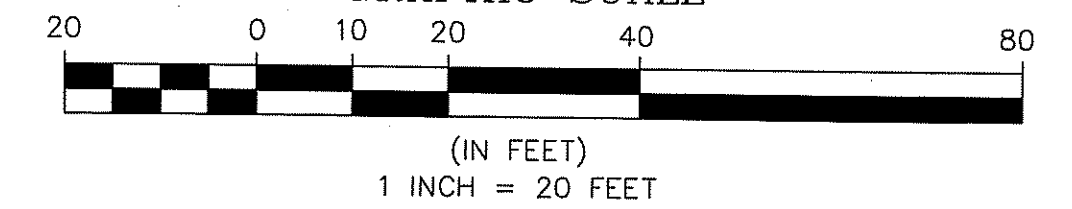
CUT & MATCH

KINGSTOWN ROAD (ROUTE 108)



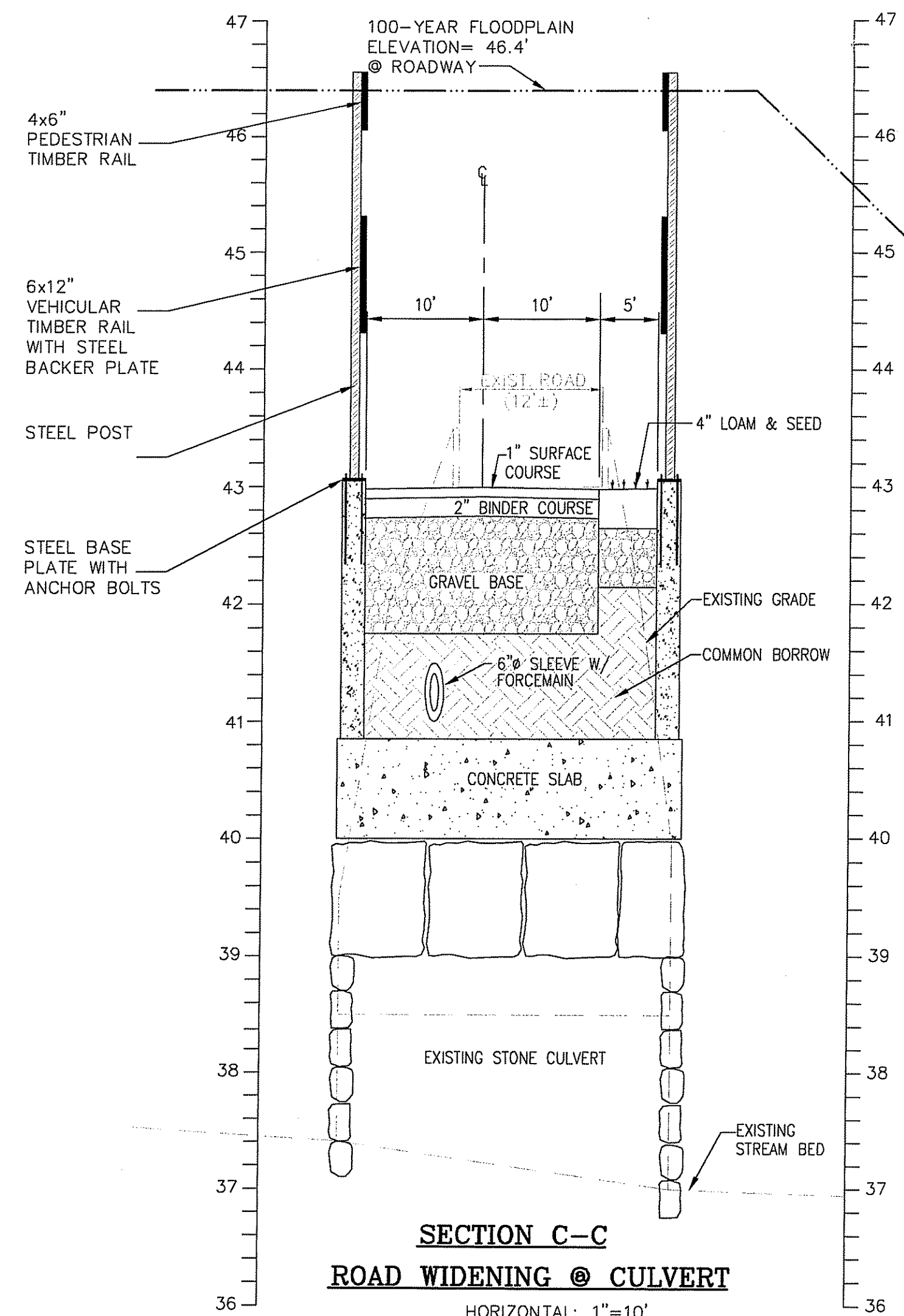
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PLAN GRAPHIC SCALE

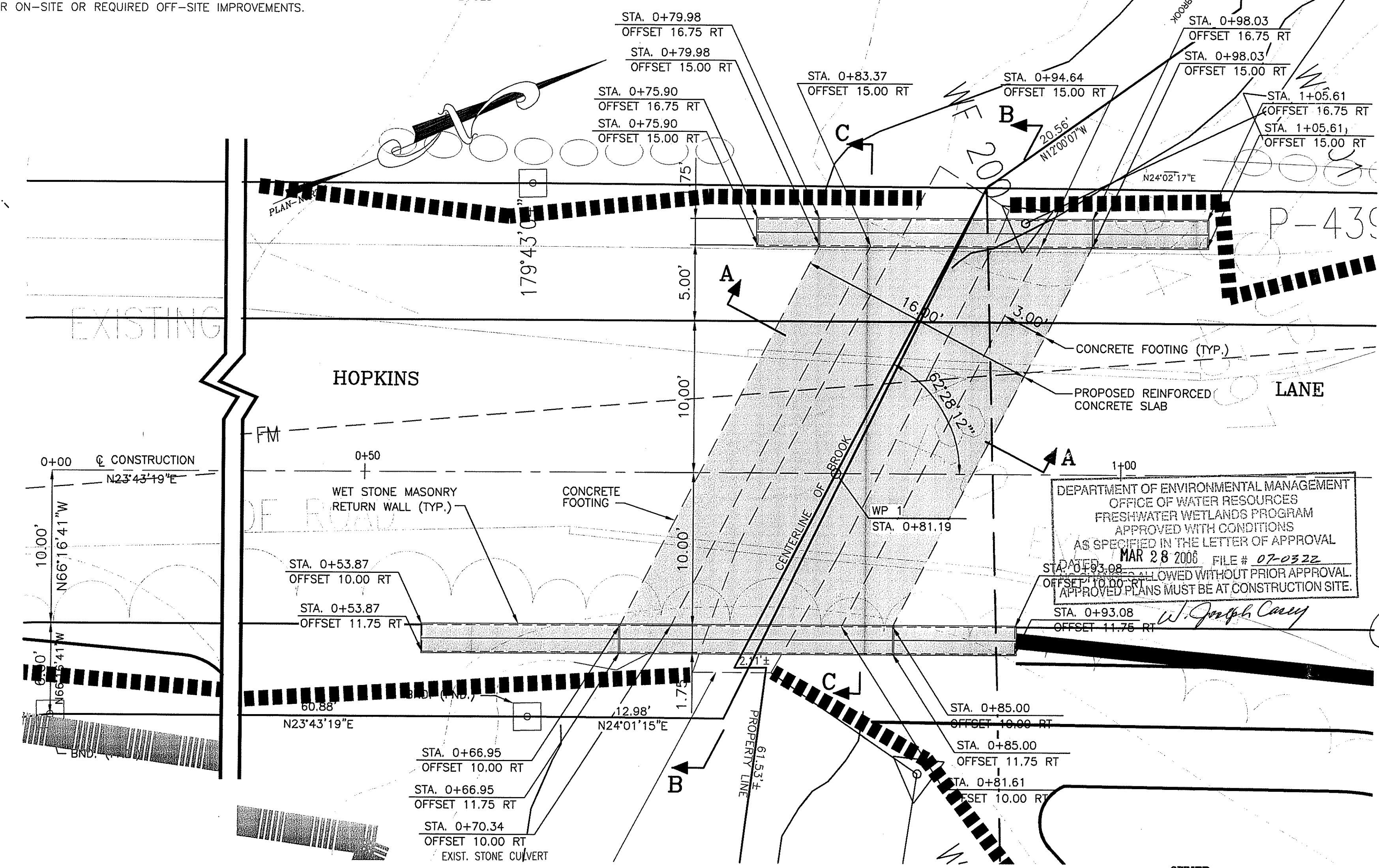


NOTES:

- IN AREAS WHERE THE PAVEMENT WIDTH IS TO BE WIDENED, RECYCLED ASPHALT PAVEMENT MAY BE UTILIZED IN PLACE OF BANK RUN GRAVEL OR PROCESS GRAVEL SUBJECT TO THE APPROVAL OF THE DEPARTMENT OF PUBLIC SERVICES.
- THE MATERIALS FROM THE EXISTING SLAB AND PAVED AREAS TO BE REMOVED SHALL BE DISPOSED OF OFF-SITE AT AN APPROPRIATE LOCATION.
- EXISTING STONE WALLS SHALL BE PRESERVED AND ANY DISTURBED STONE SHALL BE REUSED FOR EITHER ON-SITE OR REQUIRED OFF-SITE IMPROVEMENTS.

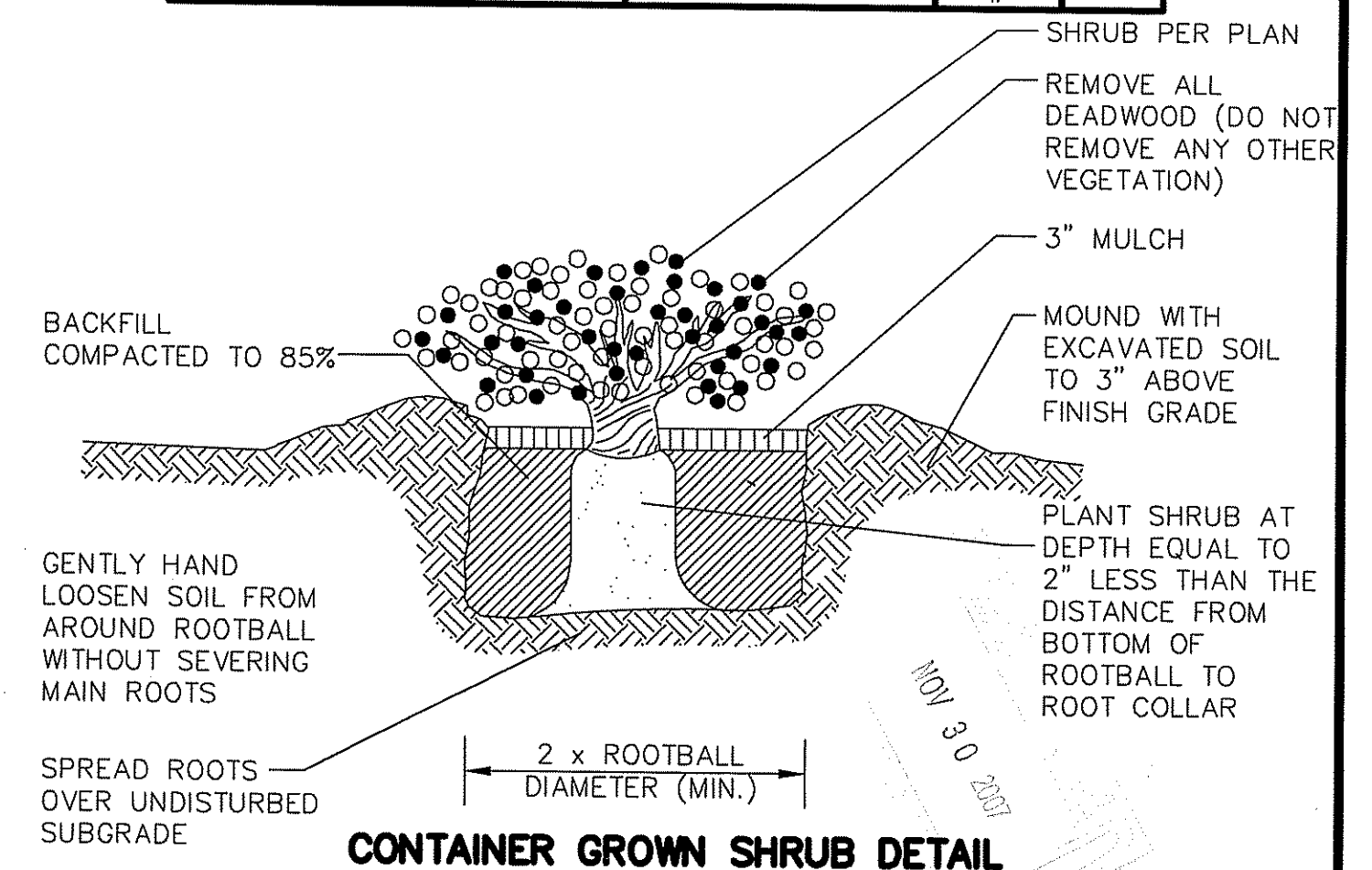


SECTION C-C
ROAD WIDENING @ CULVERT
HORIZONTAL: 1"=10'
VERTICAL: 1"=1'



GENERAL PLAN
SCALE: 1"=5'

MIXED SHRUBS				
QTY.	BOTANICAL NAME	COMMON NAME	SIZE	ROOT
16	Cornus amomum	Silky dogwood	#2	CAN
16	Ilex verticillata	Winterberry	#2	CAN
16	Vaccinium corymbosum	Highbush blueberry	#2	CAN



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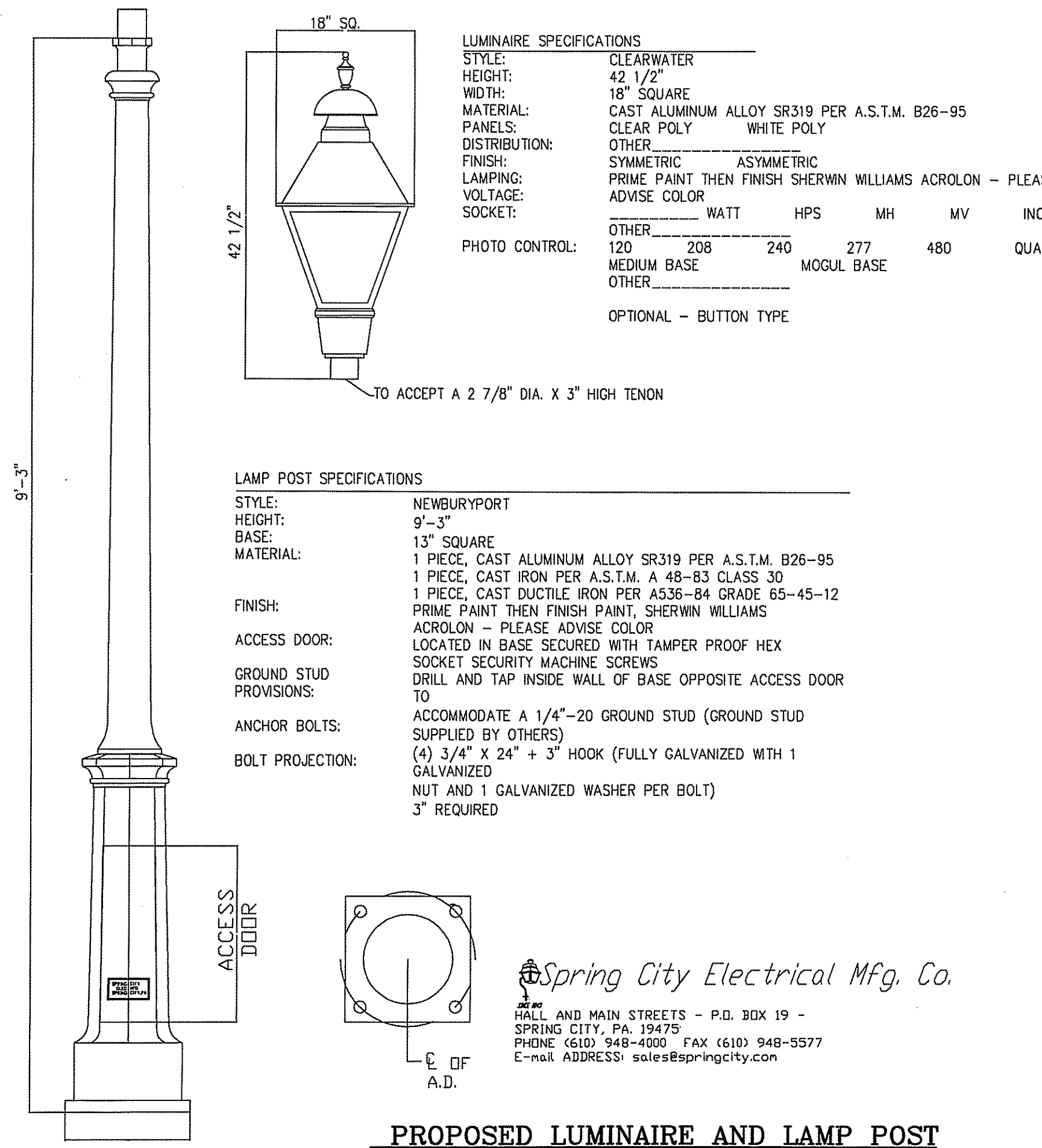
REVISIONS

No.	DATE	DRWN	CHKD
1.	11/19/07	KAB	SMC

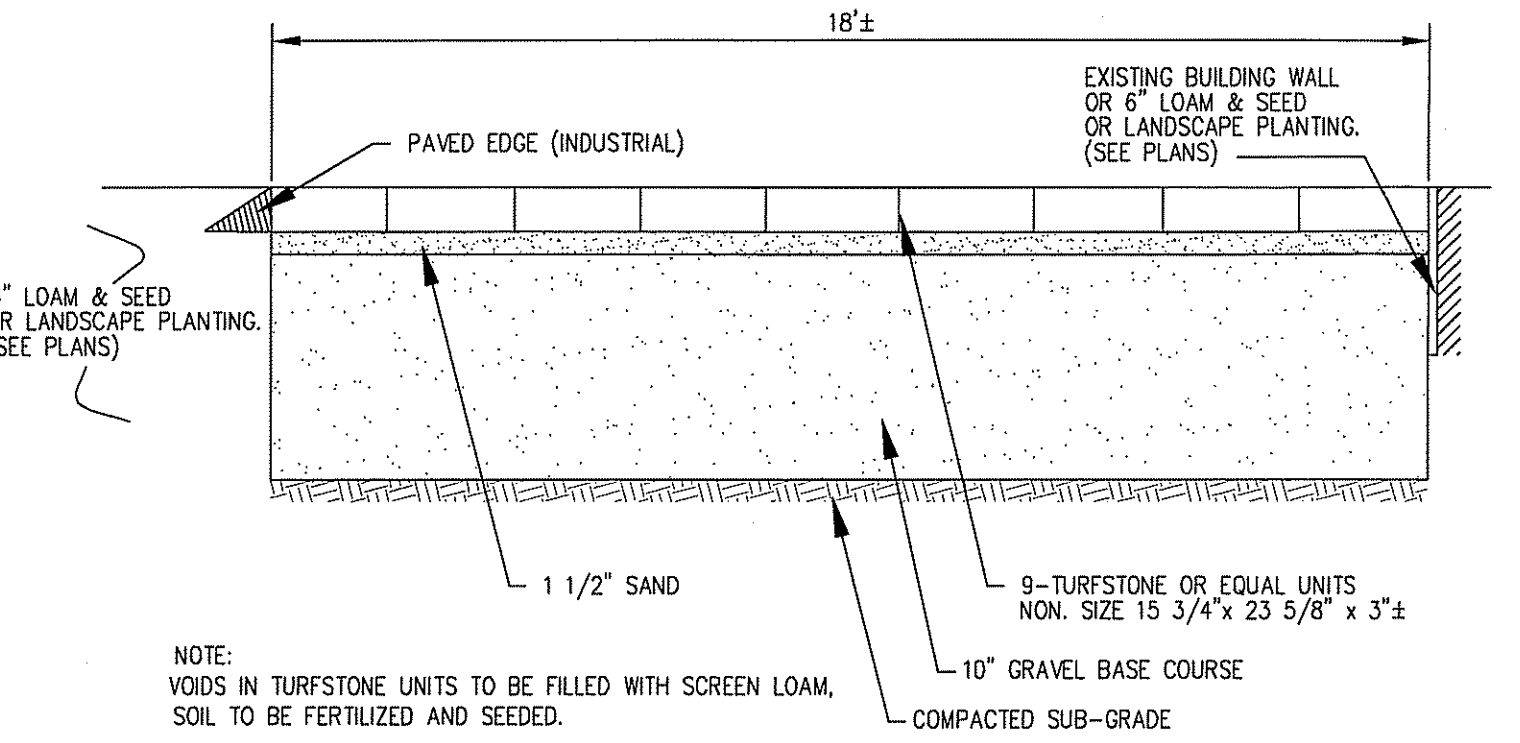
COMPREHENSIVE PERMIT
PRELIMINARY PLAN SUBMISSION
for
HOPKINS GREEN II
in
SOUTH KINGSTOWN, RHODE ISLAND
ROAD IMPROVEMENT PLAN

SCALE: 1"=20' SHEET NO: 7 of 14
DRAWN BY: DMS DESIGN BY: INT CHECKED BY: SMC
DATE: 6/1/07 PROJECT NO.: 01146.00

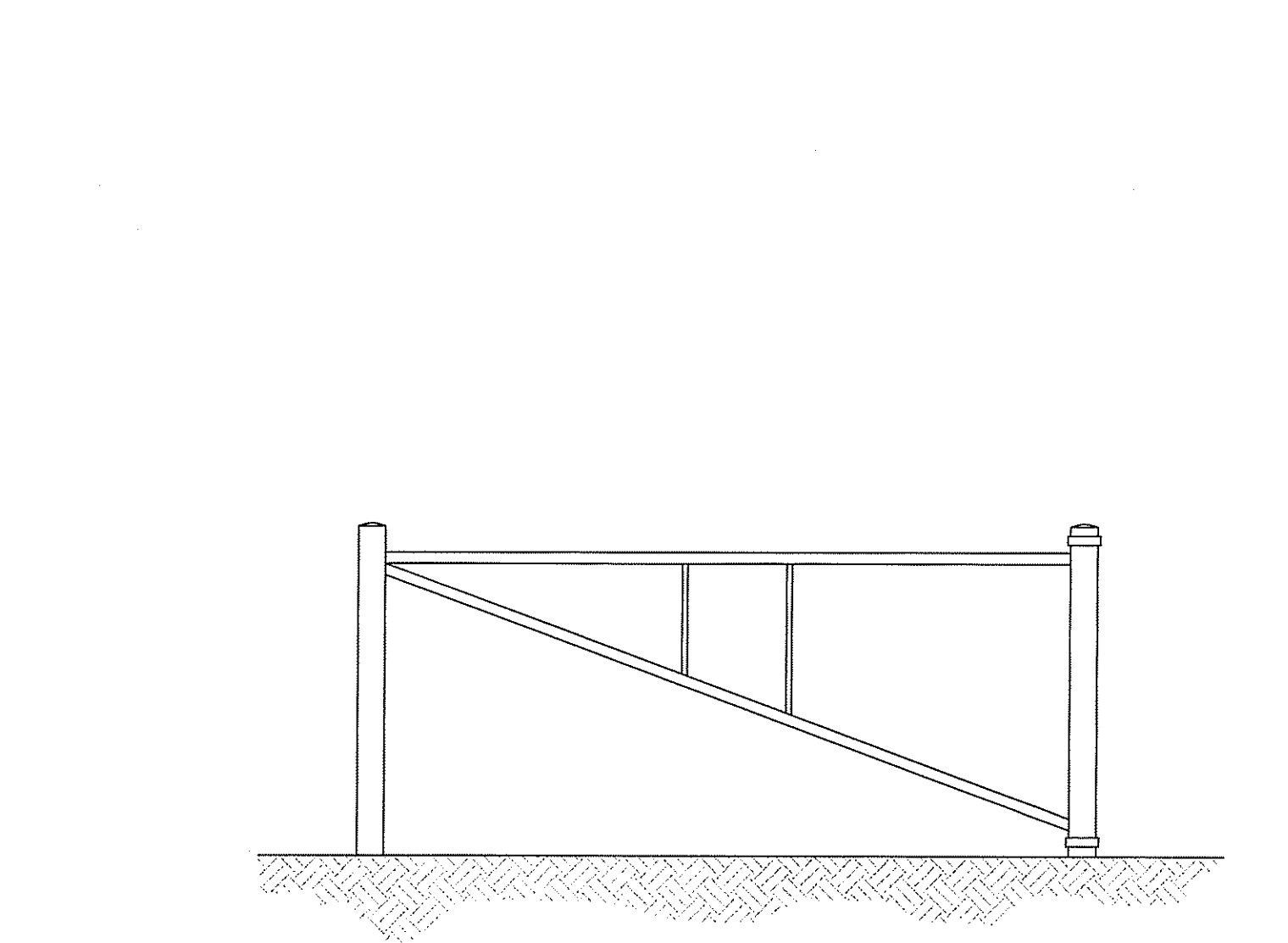
OWNER:
LISA FIORE
74 KETTLE POND DRIVE
SOUTH KINGSTOWN, RHODE ISLAND 02879



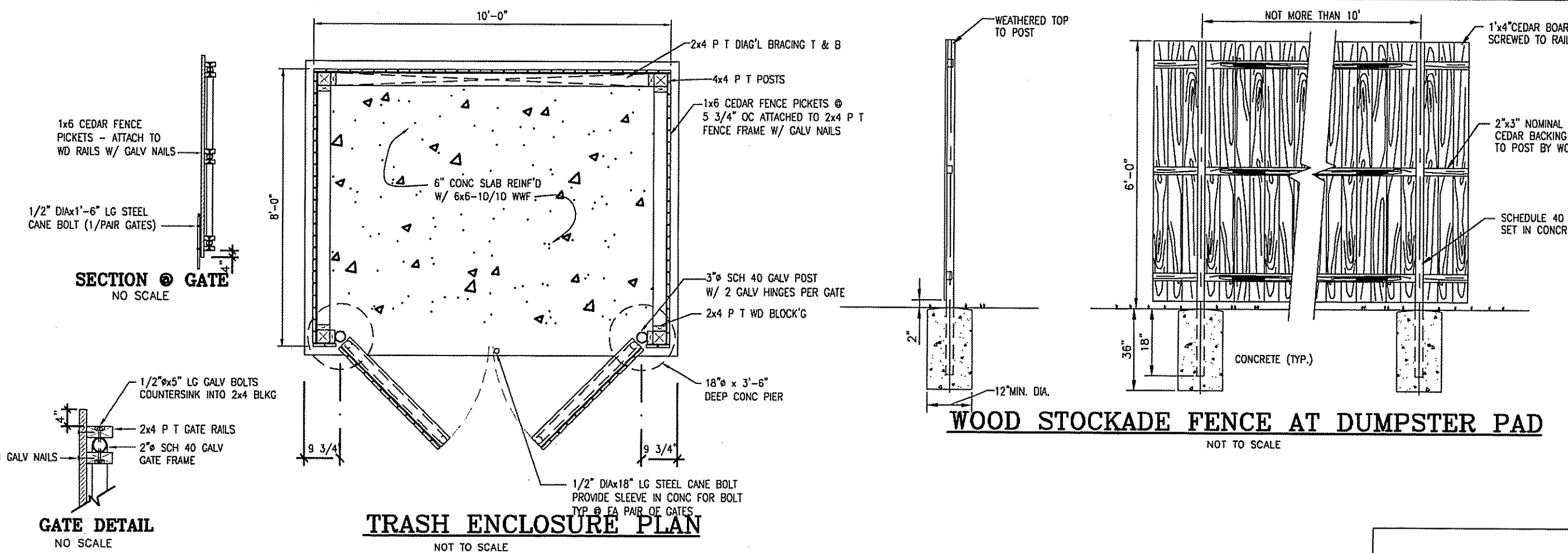
PROPOSED LUMINAIRE AND LAMP POST



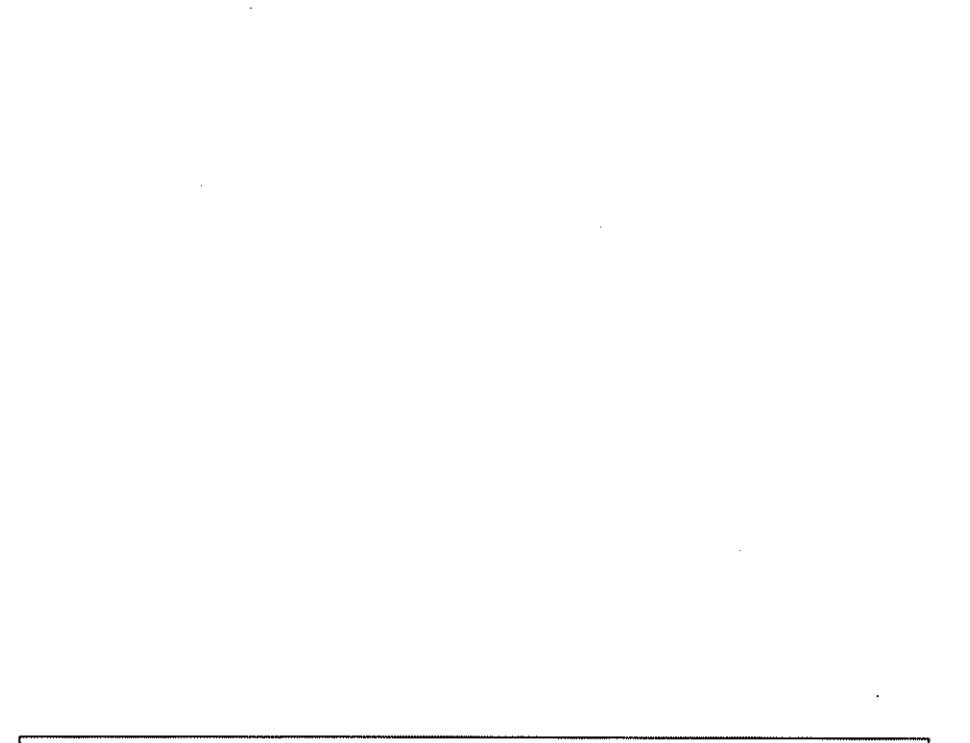
FIRE ACCESS LANE
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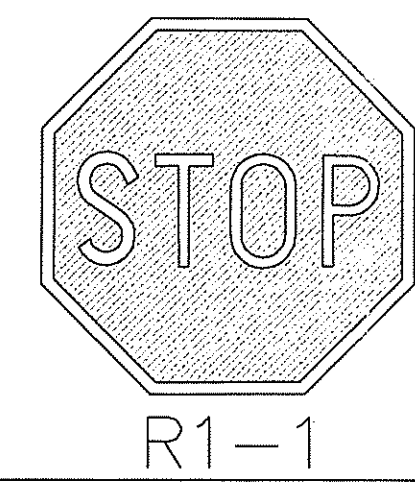
VEHICLE EMERGENCY GATE
NOT TO SCALE
SHOP DRAWING SUBMITTAL REQUIRED
COMMUNITY PUBLIC SAFETY DEPARTMENT APPROVAL REQUIRED.



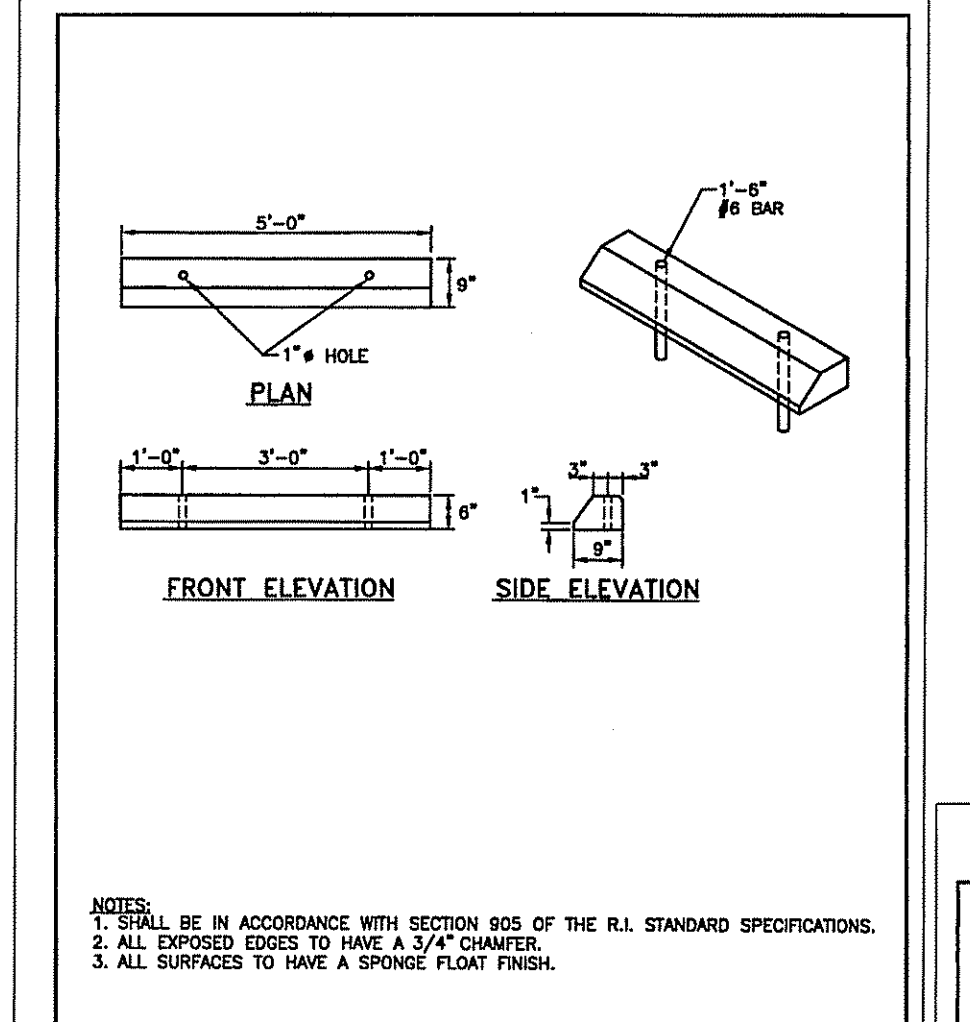
TRASH ENCLOSURE PLAN
NOT TO SCALE



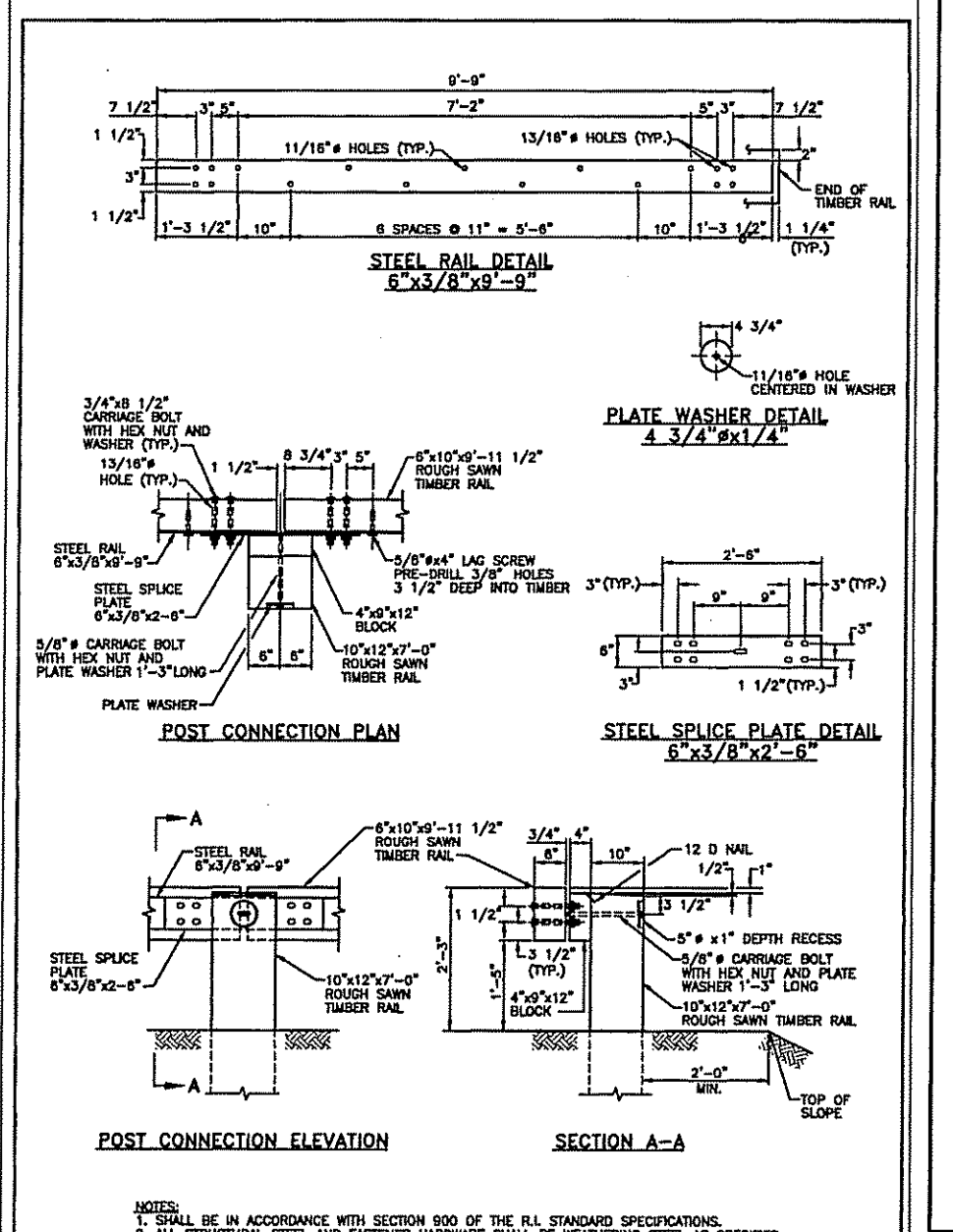
HANDICAP PARKING SPACES
NOT TO SCALE



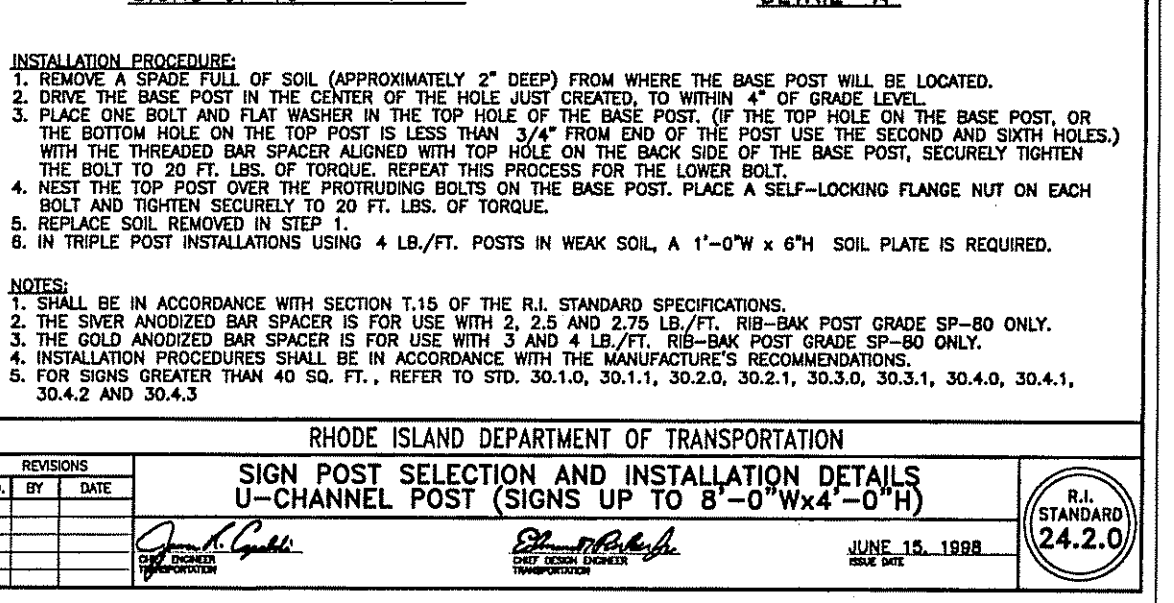
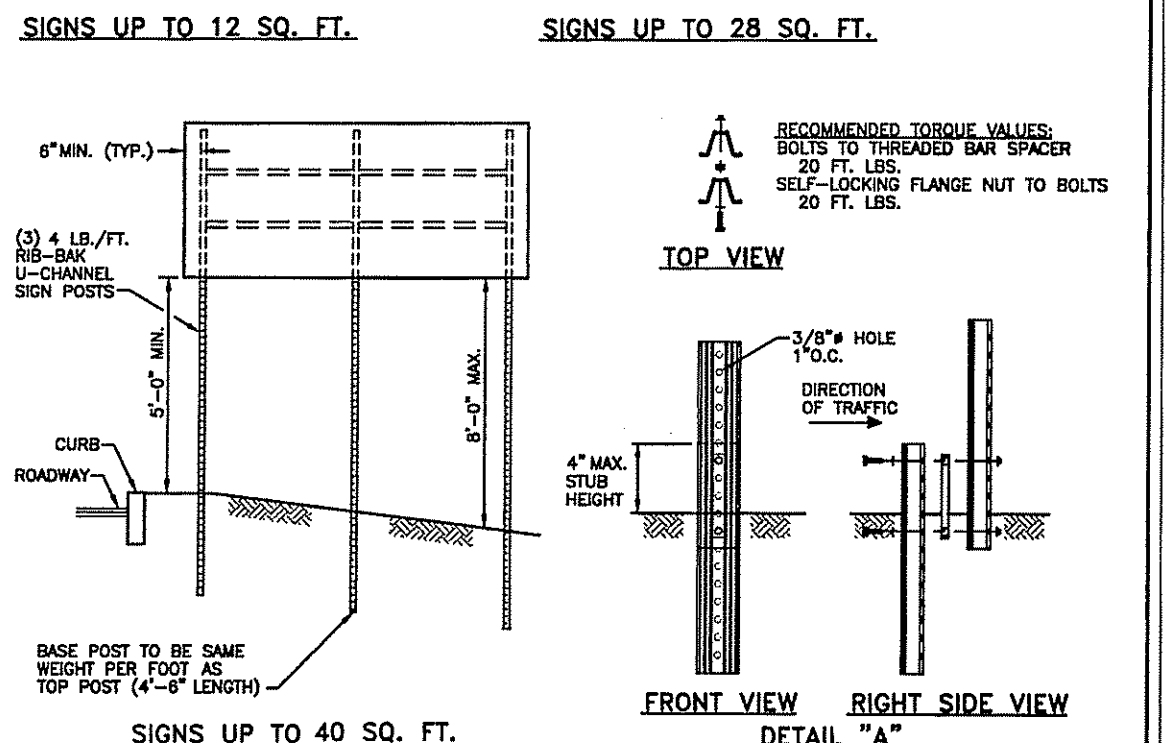
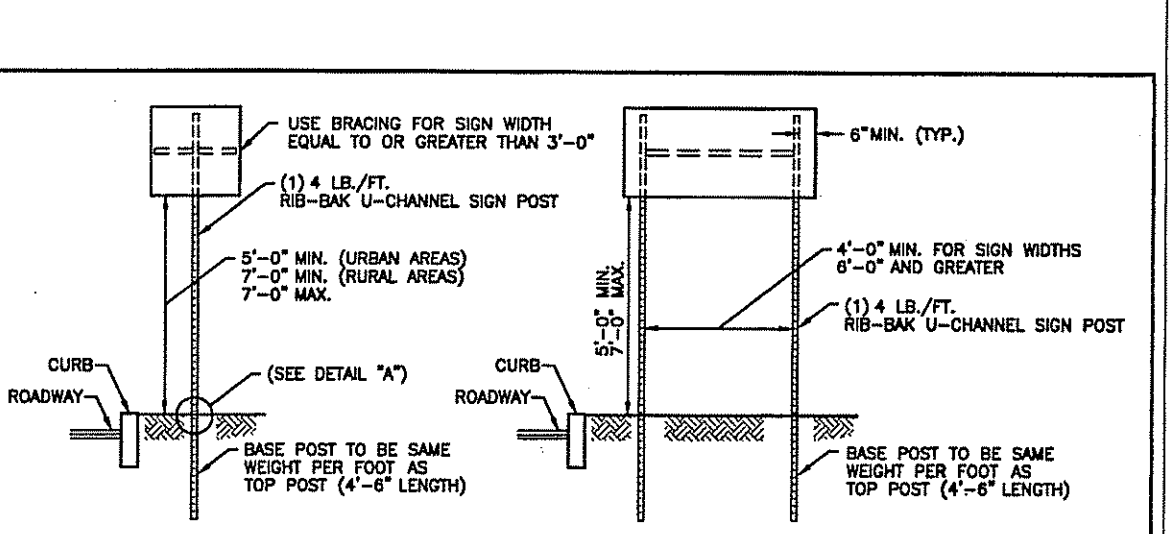
HANDICAPPED PARKING SYMBOL
NOT TO SCALE



PRECAST CONCRETE CAR STOPS
NOT TO SCALE

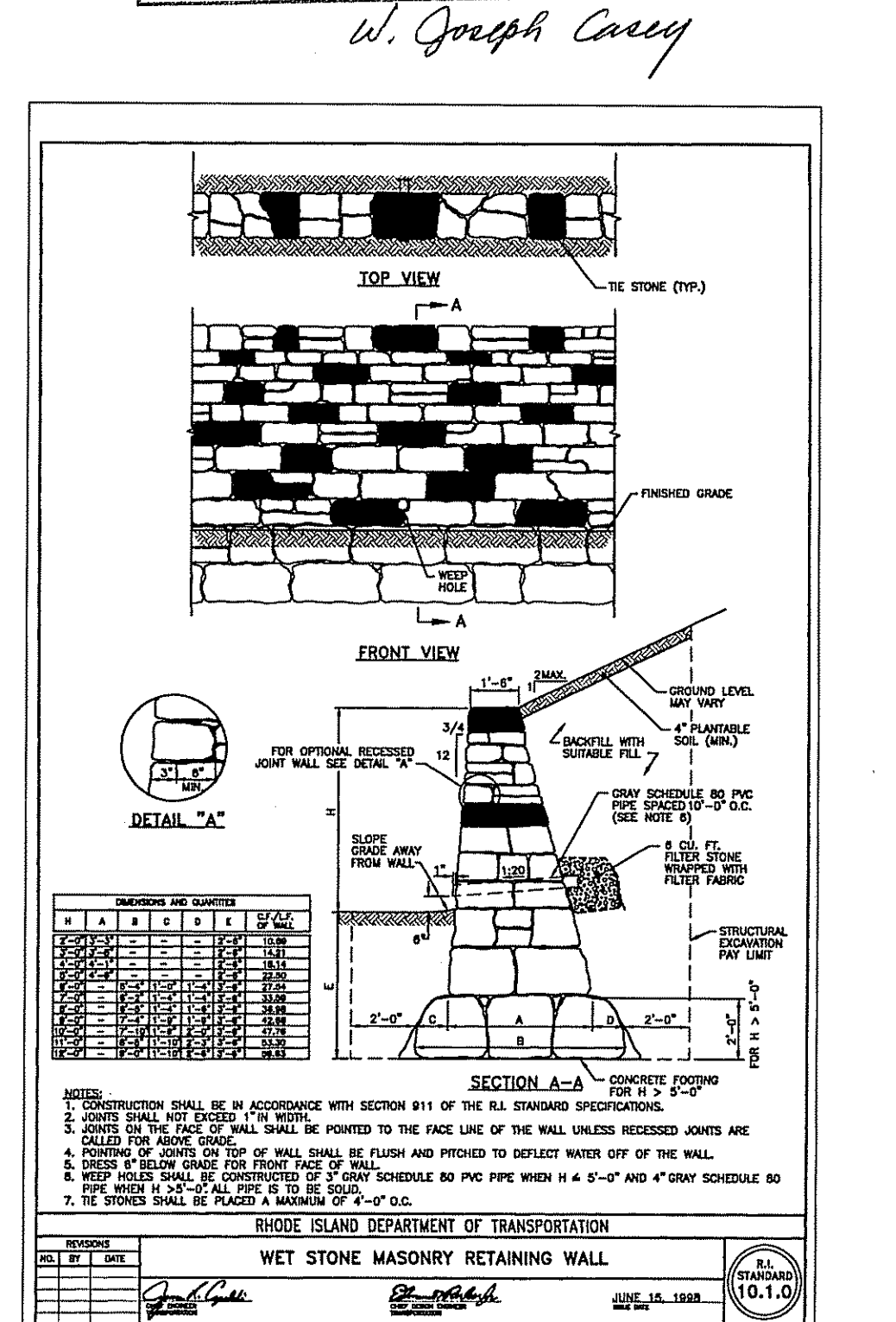


STEEL RAIL DETAIL
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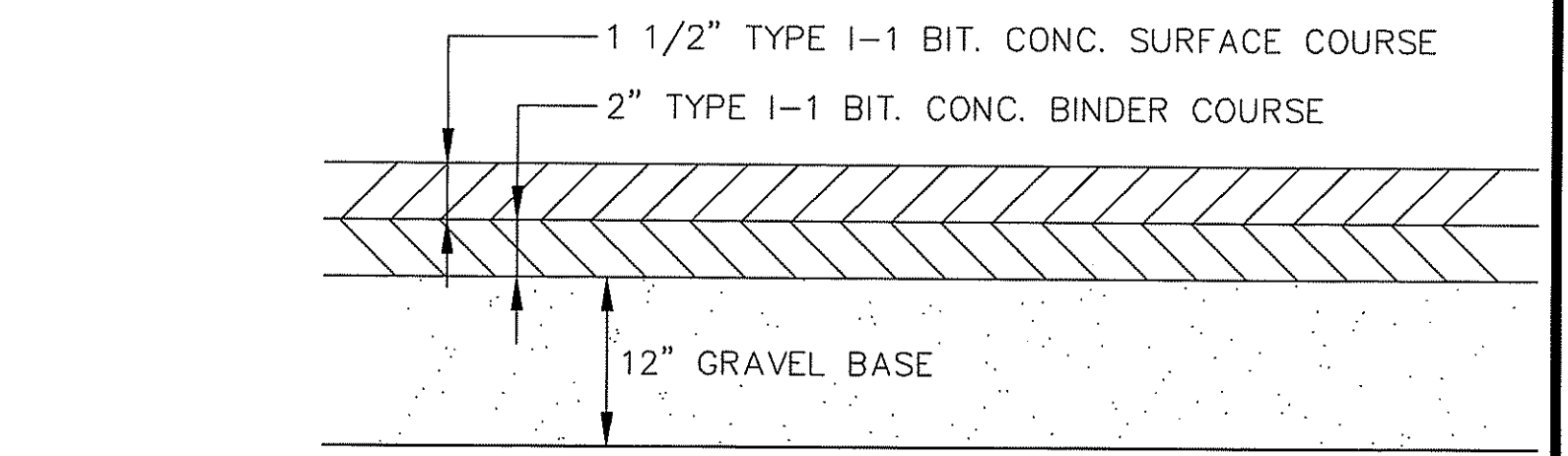


DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED MAR 28 2003 FILE # 07-0322
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL.
APPROVED PLANS MUST BE AT CONSTRUCTION SITE.

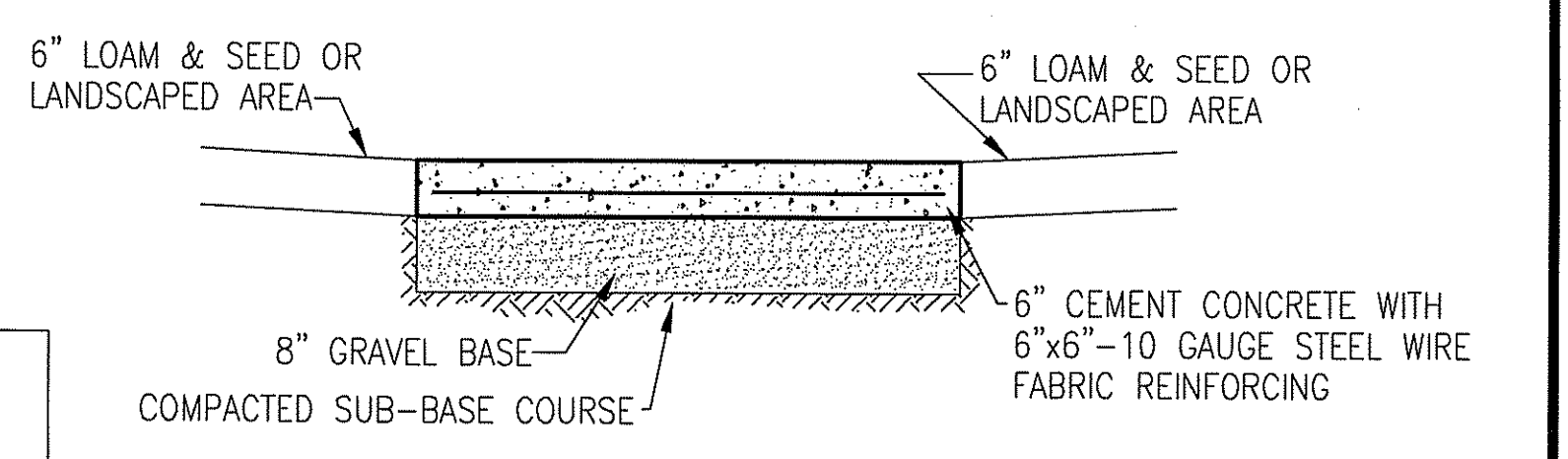
W. Joseph Casey



WET STONE MASONRY RETAINING WALL
NOT TO SCALE



PAVEMENT CROSS SECTION
NOT TO SCALE



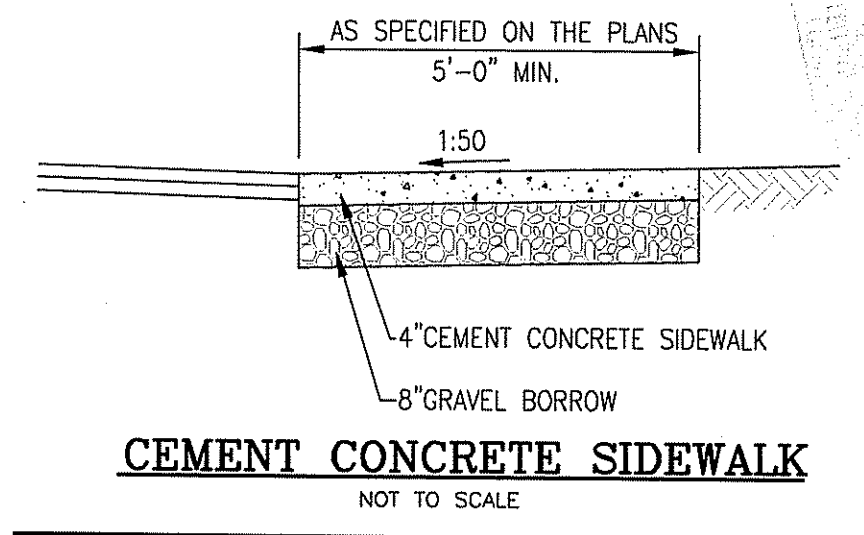
CONCRETE PAD & RAMP DETAIL
NOT TO SCALE

- NOTES:
1. CONCRETE PADS SHALL BE IN ACCORDANCE WITH SECTION 904 OF R.I. STANDARD SPECIFICATION.
 2. CONCRETE SHALL BE 5% AIR ENTRAINED, 4000 PSI WITH 3/4" STONE

Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.

NOTES:

1. CONCRETE SCORING PATTERN TO BE APPROVED BY OWNER.
2. UNLESS SPECIFIED ON PROJECT DRAWINGS, CONTROL JOINTS SHALL OCCUR AT THE SAME DIMENSION AS THE SIDEWALK WIDTH.
3. UNLESS SPECIFIED OTHERWISE, ISOLATION JOINTS SHALL OCCUR AT THE FOLLOWING LOCATIONS:
 - BETWEEN CURB AND WALK
 - INTERSECTION OF WALKS
 - BETWEEN WALK AND BUILDING WALLS
 - BETWEEN WALK AND ALL STRUCTURES, I.E., WALLS AND PLANTERS
 - ON CONTINUOUS WALKS, ISOLATION JOINTS SHALL BE AT A MAXIMUM OF (30') THIRTY FEET APART.
4. CONCRETE WALKS AND DRIVEWAYS SHALL BE IN ACCORDANCE WITH SECTION 904 OF THE R.I. STANDARD SPECIFICATIONS.
5. CONCRETE SHALL BE 5% AIR ENTRAINED, 4000 PSI WITH 3/4" STONE.
6. SAME REQUIREMENTS WITHOUT CURB.



CEMENT CONCRETE SIDEWALK
NOT TO SCALE

Steven M. Clarke
No. 4477
REGISTERED PROFESSIONAL ENGINEER

COMMONWEALTH ENGINEERS & CONSULTANTS, INC.
400 SMITH STREET
PROVIDENCE, RHODE ISLAND 02908
401-273-6600

REVISIONS

No.	DATE	DRWN	CHKD
1.	11/19/07	KAB	SMC

COMPREHENSIVE PERMIT PRELIMINARY PLAN SUBMISSION
for
HOPKINS GREEN II
in
SOUTH KINGSTOWN, RHODE ISLAND
CONSTRUCTION DETAILS - 1

SCALE: AS NOTED	SHEET NO: 9 of 14
DRAWN BY: DMS	DESIGN BY: INT
DATE: 6/1/07	CHECKED BY: SMC
PROJECT NO.: 01146.00	

GENERAL NOTES

- IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO OBTAIN ANY AND ALL PERMITS REQUIRED BY THE STATE OF RHODE ISLAND AND THE MUNICIPALITY PRIOR TO COMMENCING ANY WORK.
- IT SHALL ALSO BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO MAINTAIN THE INTEGRITY OF ALL EXISTING UTILITIES, STRUCTURES, AND ADJUTING PROPERTIES. THE COST OF ANY REPAIR OR REPLACEMENT OF DAMAGED ITEMS SHALL BE BORNE BY THE CONTRACTOR.
- BEFORE STARTING ANY CONSTRUCTION THE CONTRACTOR SHALL COORDINATE INSTALLATION OF ANY HYDRANTS, WATER MAINS, BLOWOFF ASSEMBLIES, FITTINGS, AND VALVES WITH THE LOCAL WATER DEPARTMENT AS TO TYPE AND MANUFACTURER.
- THE CONTRACTOR SHALL COORDINATE ALL WORK WITH THE MUNICIPAL ENGINEERING DEPARTMENT AND ALL UTILITY INSTALLATIONS AND INSPECTIONS WITH THE APPROPRIATE UTILITY COMPANY. A 48 HOUR ADVANCE NOTICE IS REQUIRED BEFORE WORK COMMENCEMENT.
- THE STATE OF RHODE ISLAND STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 2004 EDITION AND THE RHODE ISLAND STANDARD DETAILS AND THE TOWN OF SOUTH KINGSTOWN SPECIFICATIONS WITH ALL CORRECTIONS AND ADDENDA AREA MADE A PART HEREOF AS FULLY AND COMPLETELY AS IF ATTACHED HERETO. THE 2004 RHODE ISLAND STANDARD SPECIFICATIONS AND STANDARD DETAILS MAY BE OBTAINED AT THE RHODE ISLAND DEPARTMENT OF TRANSPORTATION WEB PAGE.
- THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR QUANTITY TAKE-OFF IN COMPUTING ANY ESTIMATES.
- EMBANKMENT SLOPES AND ALL DISTURBED AREAS ARE TO RECEIVE 4" OF TOPSOIL AND SEEDED, SEE EROSION CONTROL PROGRAM.
- UNLESS OTHERWISE SPECIFIED, ALL STORM DRAINS SHALL BE REINFORCED CONCRETE CLASS III PIPE.
- THE CONTRACTOR IS RESPONSIBLE FOR ALL CONSTRUCTION INDICATED ON THESE PLANS. THAT INCLUDES ANY CONSTRUCTION TO BRING UTILITIES TO SITE, ANY REPAIRS, ANY TRENCHING REQUIRED, HYDRANTS, ANY AND ALL CONSTRUCTION FOR ACCEPTANCE OF ROADS AND EASEMENTS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING AND MAINTAINING ALL TEMPORARY SEDIMENTATION AND EROSION CONTROLS.
- THE LOCATION OF EXISTING UTILITIES AS SHOWN ARE APPROXIMATE AND SHALL BE VERIFIED BY THE CONTRACTOR. "DIG SAFE" SHALL BE CONTACTED BY THE CONTRACTOR AS PART OF THIS VERIFICATION.
- IN ALL EXCAVATION AND PLACEMENT OF FILL, THE CONTRACTOR SHALL PERFORM THE WORK IN FULL COMPLIANCE WITH THE R.I. STANDARD SPECIFICATION SECTION 202.
- ALL WATER MAINS SHALL BE DEFLECTED ALONG A CURVE WITH A MINIMUM RADIUS OF 250'. AT ANY LOCATION WHERE THIS IS NOT POSSIBLE, PROPER BENDS AND FITTINGS SHALL BE USED.
- ALL EXCESS SOIL, STUMPS, TREES, ROCKS, BOULDERS, AND OTHER REFUSE SHALL BE DISCARDED OFF SITE, IN ACCORDANCE WITH STATE AND LOCAL REGULATIONS.
- IF CEMENT CONCRETE MIX TRUCKS ARE TO BE WASHED OUT ON SITE, THE CONTRACTOR IS RESPONSIBLE FOR ESTABLISHING AND MAINTAINING A WASH OUT AREA WITH APPROPRIATE CONTROLS.
- THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING AND MAINTAINING COLLECTION AND STORAGE LOCATIONS ON-SITE FOR ALL CONSTRUCTION DEBRIS AND TRASH SO THAT THIS MATERIAL DOES NOT BECOME A NEIGHBORHOOD NUISANCE.

EROSION CONTROL & SOIL STABILIZATION PROGRAM

- DEMUDED SLOPES SHALL NOT BE UNATTENDED OR EXPOSED FOR EXCESSIVE PERIODS OF TIME SUCH AS THE INACTIVE WINTER SEASON.
- ALL DISTURBED SLOPES, EITHER NEWLY CREATED OR EXPOSED PRIOR TO OCTOBER 15, SHALL BE SEEDED OR PROTECTED BY THAT DATE, FOR ANY WORK COMPLETED DURING EACH CONSTRUCTION YEAR.
- THE TOPSOIL SHALL HAVE A SANDY LOAM TEXTURE RELATIVELY FREE OF SUBSOIL MATERIAL, STONES, ROOTS, LUMPS OF SOIL, TREE LIMBS, TRASH OR CONSTRUCTION DEBRIS AND SHALL CONFORM WITH R.I. STD SPECIFICATION M 20.
- THE SEED MIX SHALL BE INOCULATED WITHIN 24 HOURS, BEFORE MIXING AND PLANTING, WITH APPROPRIATE INOCULUM FOR EACH VARIETY.
- THE DESIGN MIX SHALL BE COMPRISED OF THE FOLLOWING PERMANENT SEEDING MIXTURES:

MIXTURE:	% BY WEIGHT:	SEEDING DATES:
RED FESCUE	75	APRIL 1 - JUNE 15
KENTUCKY BLUEGRASS	15	AUGUST 15 - OCTOBER 15
COLONIAL BENTGRASS	5	
PERENNIAL RYEGRASS	5	
TOTAL:	100 lbs./Ac.	
- UNMOWED AREA OR INFREQUENTLY MOWED (FLAT SLOPES GREATER THAN 3:1)

MIXTURE:	% BY WEIGHT:	SEEDING DATES:
RED FESCUE	75	APRIL 1 - JUNE 15
COLONIAL BENTGRASS	5	AUGUST 15 - OCTOBER 15
PERENNIAL RYEGRASS	5	
BIRDSFOOT TREFLOIL	15	
TOTAL:	100 lbs./Ac.	
- TEMPORARY TREATMENTS SHALL CONSIST OF A HAY, STRAW, OR FIBER MULCH OR PROTECTIVE COVERS SUCH AS A MAT OR FIBER LINING (BURLAP, JUTE, FIBERGLASS NETTING, EXCELSIOR BLANKETS) THEY SHALL BE INCORPORATED INTO THE WORK AS WARRANTED OR AS ORDERED BY THE ENGINEER.
- HAY OR STRAW APPLICATIONS SHOULD BE IN THE AMOUNT OF 3,000 - 4,000 lbs./Ac.
- ALL HAYBALES OR TEMPORARY PROTECTION SHALL REMAIN IN PLACE UNTIL AN ACCEPTABLE STAND OF GRASS OR APPROVED GROUND COVER IS ESTABLISHED. IF NEEDED, TEMPORARY SEEDING CAN HELP MINIMIZE THE EROSION. A TEMPORARY SEEDING GUIDE MUST BE INCLUDED AS A REFERENCE. THE FOLLOWING SPECIES ARE RECOMMENDED:

MIXTURE:	lbs./1,000 S.F.	SEEDING DATES:
ANNUAL RYEGRASS	1.0 - 1.5	3/1 - 6/1
PERENNIAL RYEGRASS	1.0 - 1.5	3/1 - 6/1
SUDAN GRASS	0.7 - 1.0	5/15 - 8/15
MILLET	0.7 - 1.0	30 - 40
WINTER RYE	3.0	4/15 - 8/15
OATS	0.5 - 5.0	3/1 - 6/15
WEEPING COVERGRASS	0.5 - 5.0	5/1 - 7/1

- THE CONTRACTOR MUST REPAIR AND/OR RESEED ANY AREAS THAT DO NOT DEVELOPE WITHIN THE PERIOD OF ONE YEAR AND HE SHALL DO SO AT NO ADDITIONAL EXPENSE.
- ALL FILL SHALL BE THOROUGHLY COMPACTED UPON PLACEMENT IN STRICT CONFORMANCE WITH THE R.I.D.P.W. STD SPECIFICATIONS SECTION 202.
- STABILIZATION OF ONE FORM OR ANOTHER AS DESCRIBED ABOVE SHALL BE ACHIEVED WITHIN 15 DAYS OF FINAL GRADING.
- STOCKPILES OF TOPSOIL SHALL NOT BE LOCATED NEAR WATERWAYS, THEY SHALL HAVE SIDE SLOPES NO GREATER THAN 30% AND STOCKPILES SHALL ALSO BE SEEDED AND/OR STABILIZED.
- ON BOTH STEEP AND LONG SLOPES CONSIDERATION SHALL BE GIVEN TO "CRIMPING" OR "TRACKING" TO TACK DOWN MULCH APPLICATIONS.
- REFERENCE THE SEDIMENTATION CONTROL PROGRAM AND ORDER OF PROCEDURE FOR PROPER COODINATION.
- THE DRAINAGE SYSTEM SHALL RECEIVE ONE FINAL CLEANING PRIOR TO ACCEPTANCE TO THE OVERALL PROJECT BY THE OWNER. SEDIMENTS SHALL BE DISPOSED OF IN A PROPER MANNER.

ORDER OF PROCEDURE:

- IMMEDIATELY UPON COMPLETION OF THE CLEARING OPERATION AND PRIOR TO ANY ROUGH GRADING, TEMPORARY HAYBALES AND SANDBAGS SHALL BE PLACED OUTSIDE THE LIMITS OF CONSTRUCTION AS PER THE PLANS (I.E. ALONG ROADWAYS, STREAM BANKS, CRITICAL AREAS, ETC.).
- ALL EROSION AND SEDIMENTATION CONTROL STRUCTURES SHALL BE PERIODICALLY MAINTAINED AS PER THE RESPECTIVE PROGRAMS FOR TEMPORARY CONTROL.
- IF WORK PROGRESS IS TO BE INTERRUPTED AT ANY TIME, REFERENCE EROSION AND SEDIMENTATION PROGRAMS FOR TEMPORARY CONTROL.
- TEMPORARY HAYBALES AND SANDBAGS ALONG AND AT THE ENDS OF ROADWAYS MAY ALSO BE REMOVED AFTER FINAL SOIL STABILIZATION HAS BEEN ACHIEVED AN APPROVED.
- HAYBALES LOCATED AT DRAINAGE OUTLETS MUST REMAIN UNTIL SUCH TIME THAT A DESIRABLE STAND OF GRASS OR COVER HAS BEEN ESTABLISHED AND THE PROJECT RECEIVES A FAVORABLE APPROVAL FOR FINAL ACCEPTANCE FROM THE ENGINEER.

RIPRAP SWALE MAINTENANCE:

- INSPECTION OF THE SWALE SHOULD BE PERFORMED AT LEAST TWICE PER YEAR, PREFERABLY DURING A STORM EVENT, TO INSPECT FOR PROPER FUNCTIONING. ALL TRASH AND OTHER LITTER MUST BE REMOVED DURING INSPECTIONS.
- THE PARTY RESPONSIBLE FOR MAINTENANCE OF THE SWALE IS: LISA FIORE.

SEDIMENTATION CONTROL PROGRAM:

- RIP RAP SPLASH PADS SHALL BE INSTALLED AT THE OUTLETS FOR ALL CULVERTS DISCHARGING INTO A WATERWAY.
- EXTREME CARE SHALL BE EXERCISED SO AS TO PREVENT ANY UNSUITABLE MATERIAL ENTERING THE WETLANDS.
- ALL DISTURBED AREAS SUBJECT TO EROSION TENDENCIES WHETHER THEY BE NEWLY FILLED OR EXCAVATED SHALL BE SEEDED AND PROTECTED WITH A FIBER MULCH.
- DURING CONSTRUCTION, THE CONTRACTOR AND/OR DEVELOPER SHALL BE RESPONSIBLE FOR MAINTAINING DRAINAGE AND RUNOFF FLOW DURING STORMS AND PERIODS OF RAINFALL.
- SEDIMENTATION CONTROL DEVICES SHALL BE INSPECTED CLOSELY AND MAINTAINED PROMPTLY AFTER EACH RAINFALL.
- CARE SHOULD BE TAKEN SO AS NOT TO PLACE "REMOVED SEDIMENTS" WITHIN THE PATH OF EXISTING, NEWLY CREATED (BOTH TEMPORARY AND PERMANENT) OR PROPOSED WATERCOURSES OR THOSE AREAS SUBJECT TO STORM WATER FLOW.
- ADDITIONAL HAYBALES OR SANDBAGS SHALL BE LOCATED AS CONDITIONS WARRANT.
- ALL SEDIMENTS SHALL BE REMOVED FROM THE DRAINAGE AND DETENTION FACILITIES AS SCHEDULED FOR EACH FACILITY (SEE DETENTION/RETENTION BASIN MAINTENANCE, THIS SHEET).
- REFERENCE THE "R.I. SOIL EROSION AND SEDIMENT CONTROL HANDBOOK" PREPARED BY THE U.S. DEPT. OF AGRICULTURE, SOIL CONSERVATION SERVICE, 1989, AS A GUIDE.

TRENCH DRAIN MAINTENANCE:

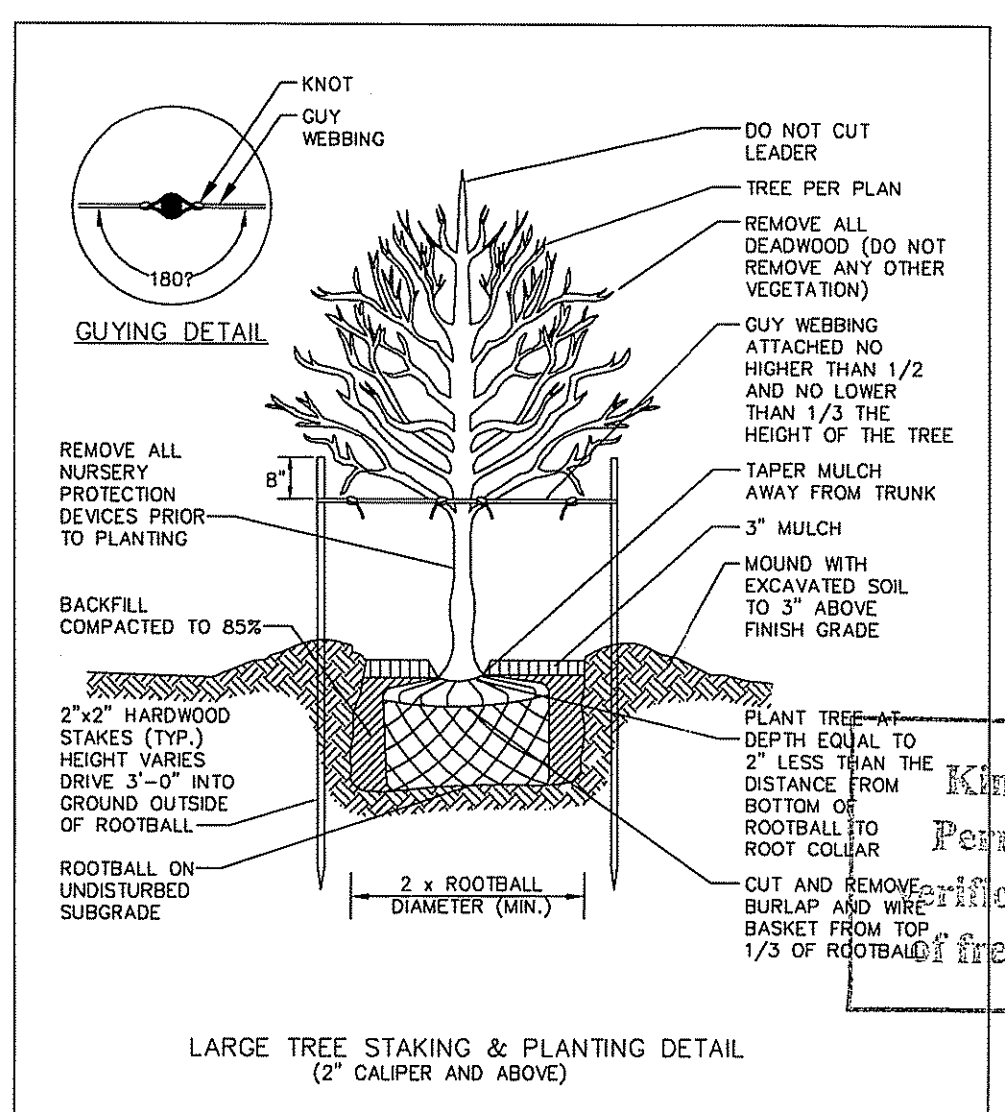
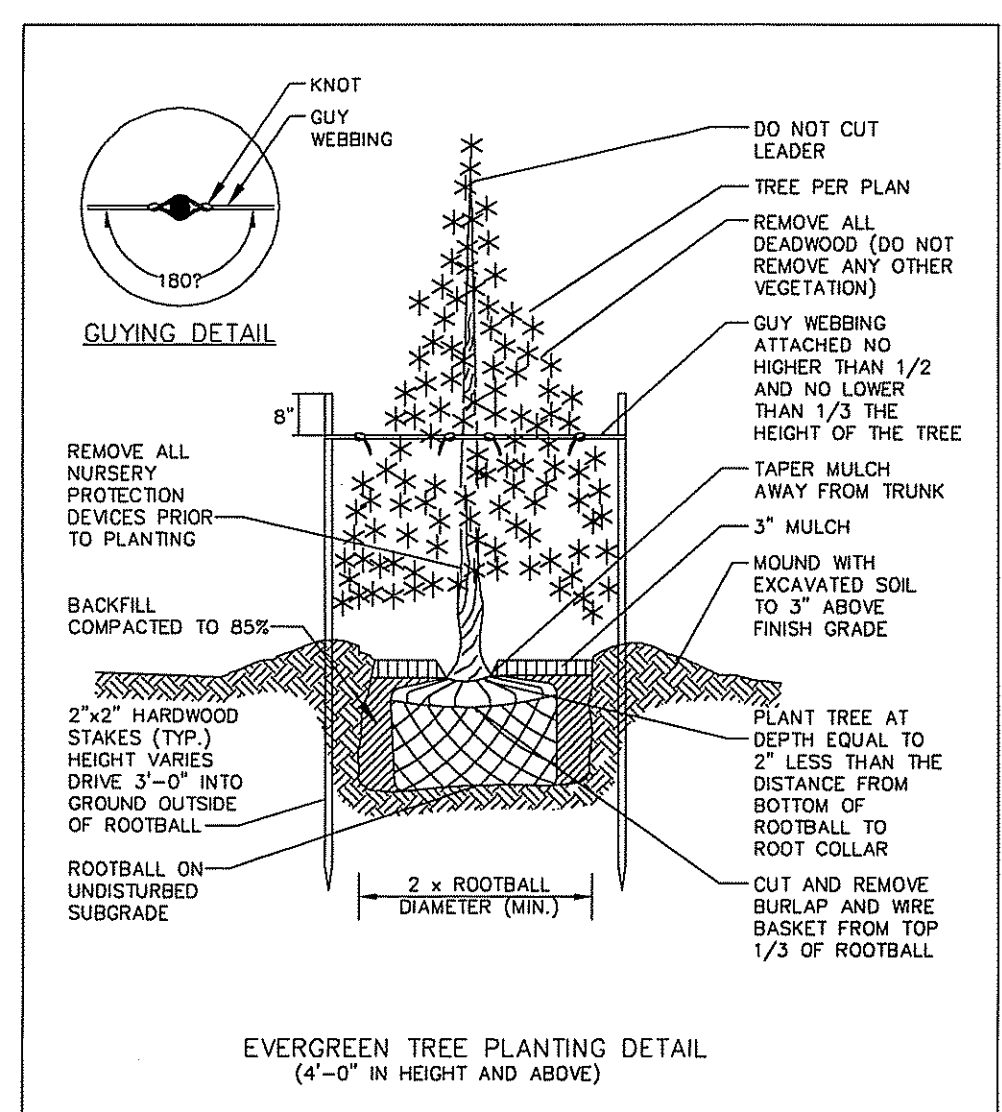
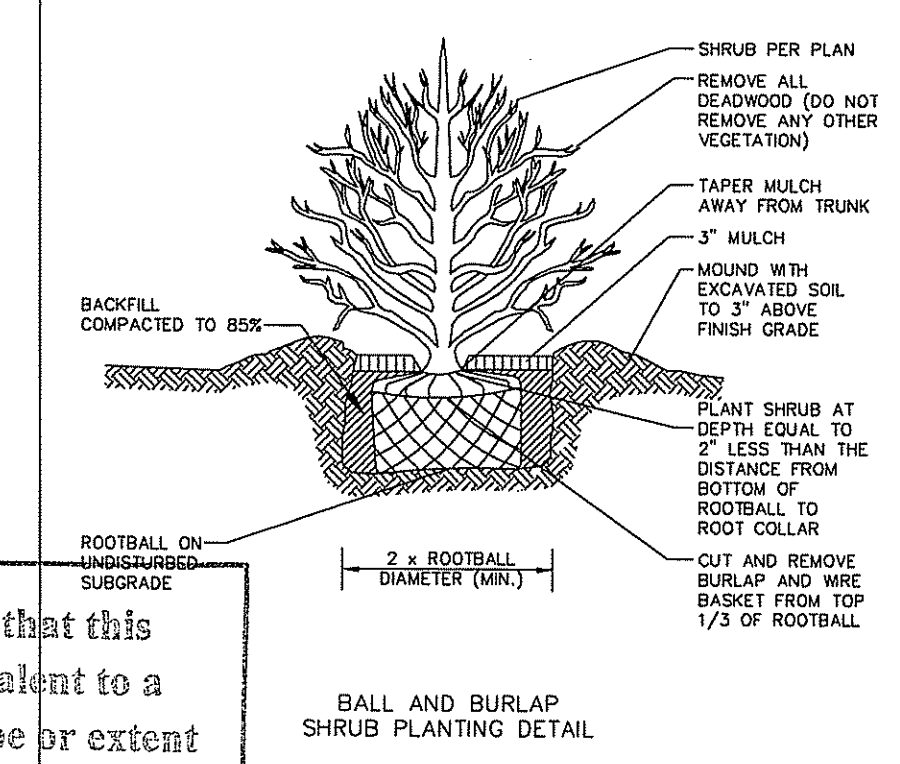
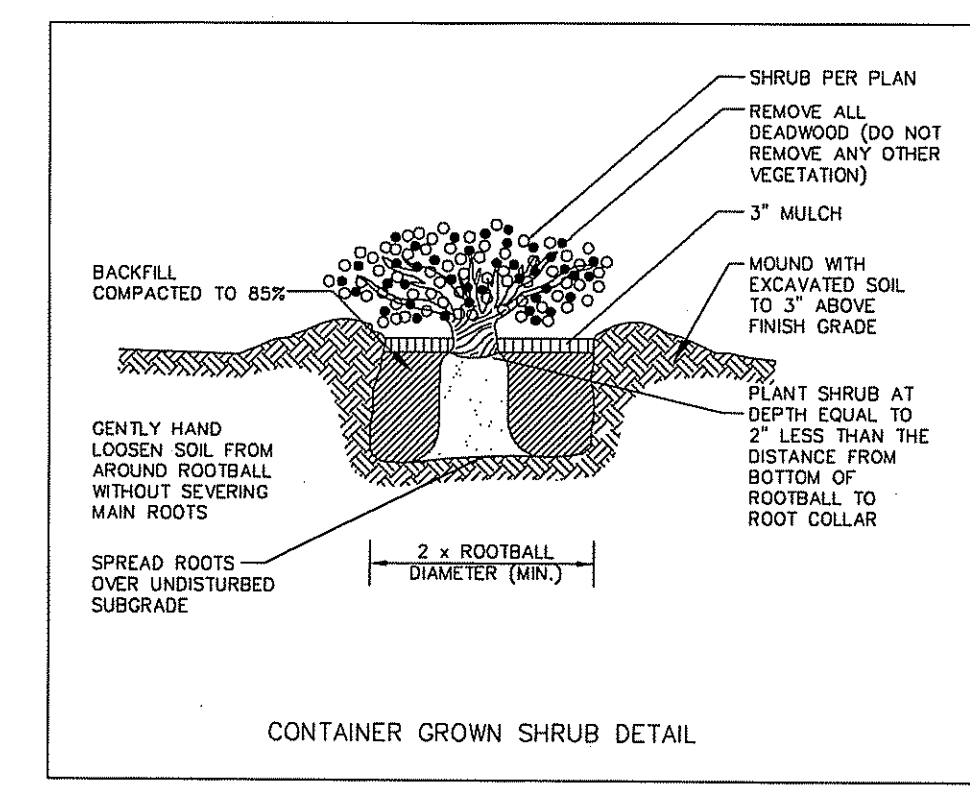
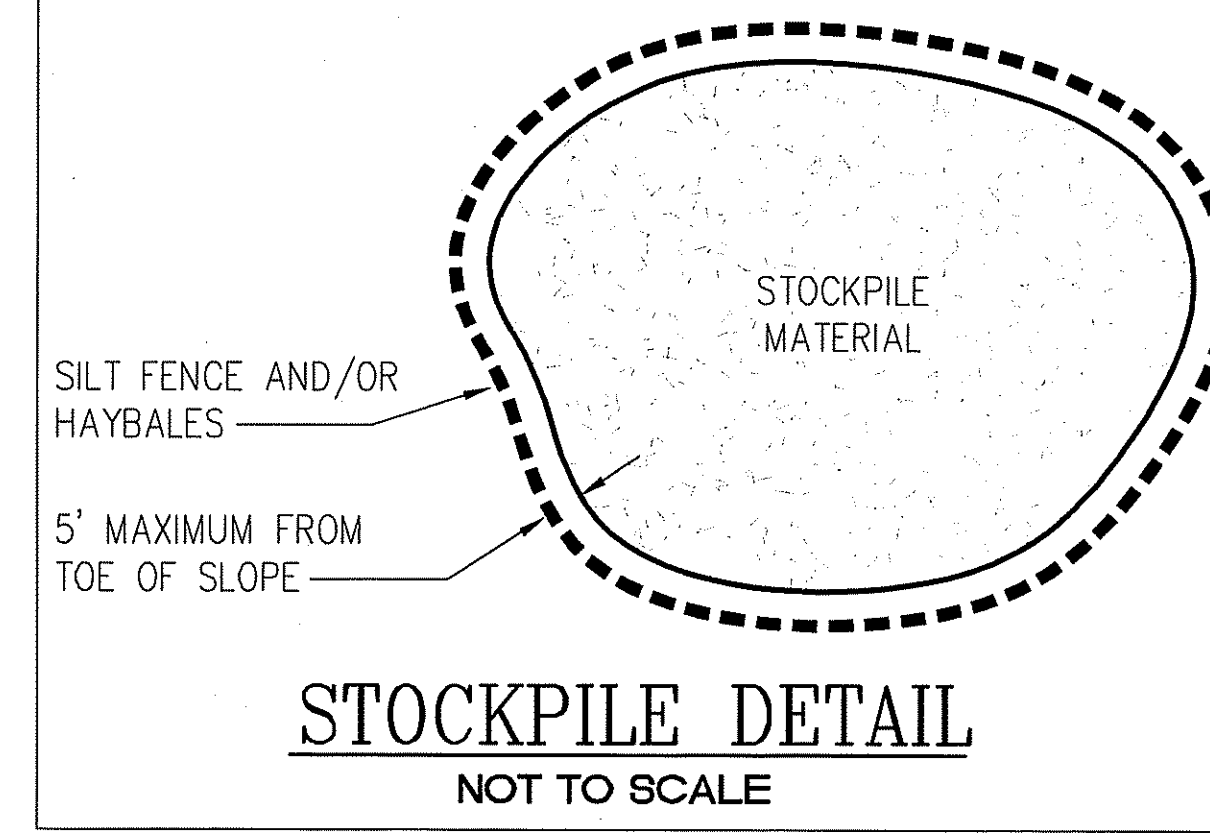
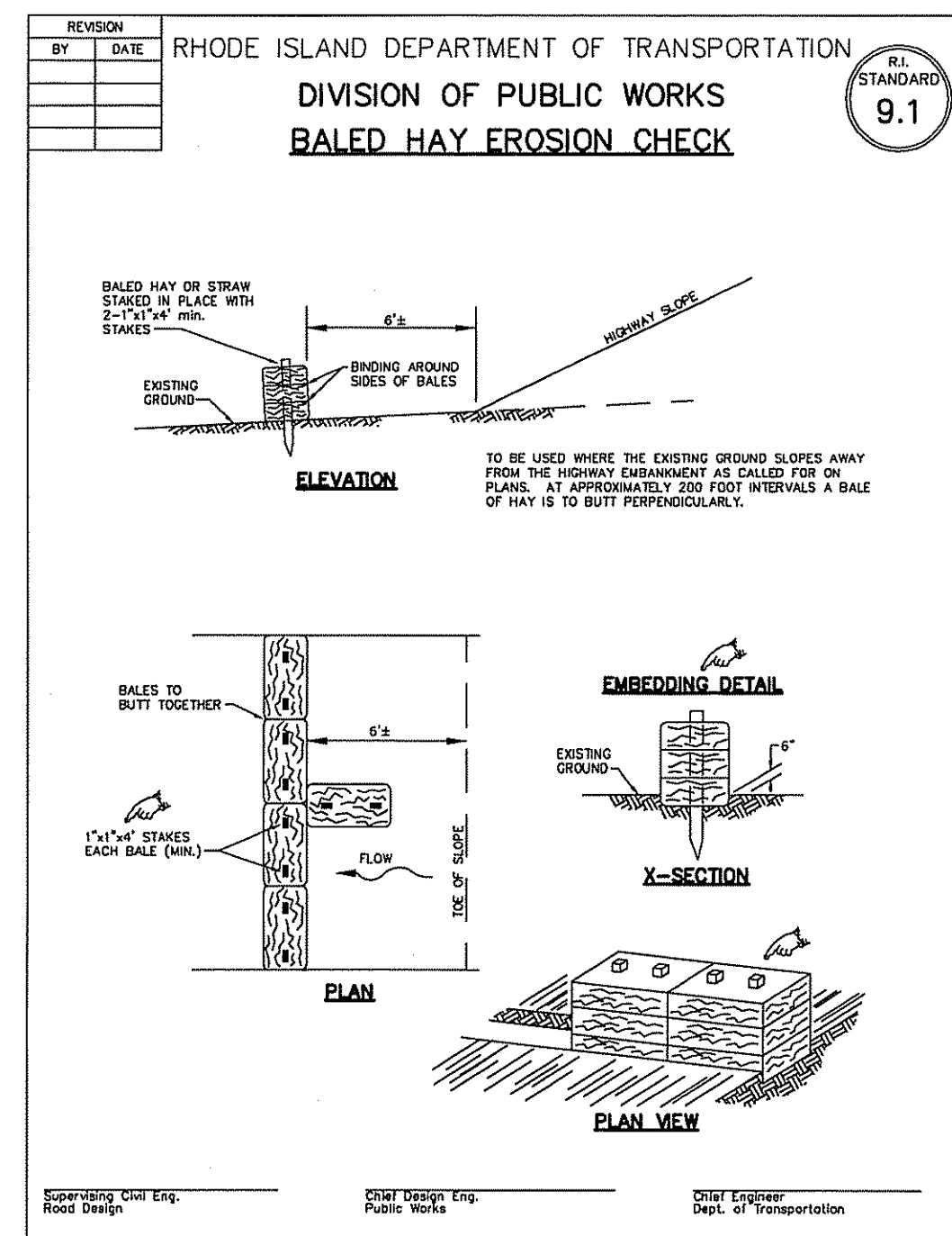
- INSPECTION OF ALL DRAINAGE STRUCTURES SHOULD BE PERFORMED AT LEAST TWICE PER YEAR, PREFERABLY DURING A STORM EVENT, TO INSPECT FOR PROPER FUNCTIONING OF THE FACILITY.
- SEDIMENTS SHOULD BE REMOVED FROM THE TRENCHES DURING THE FIRST (INITIAL) YEAR OF OPERATION AND EVERY YEAR THEREAFTER.
- INSPECTIONS SHALL BE ACCOMPLISHED SEVERAL TIMES DURING THE FIRST SIX (6) MONTHS OF OPERATION, ESPECIALLY AFTER RAINFALL EVENTS, TO CHECK FOR CLOGGING.
- THE PARTY RESPONSIBLE FOR MAINTENANCE OF THE TRENCHES IS: LISA FIORE.

DETENTION BASIN MAINTENANCE:

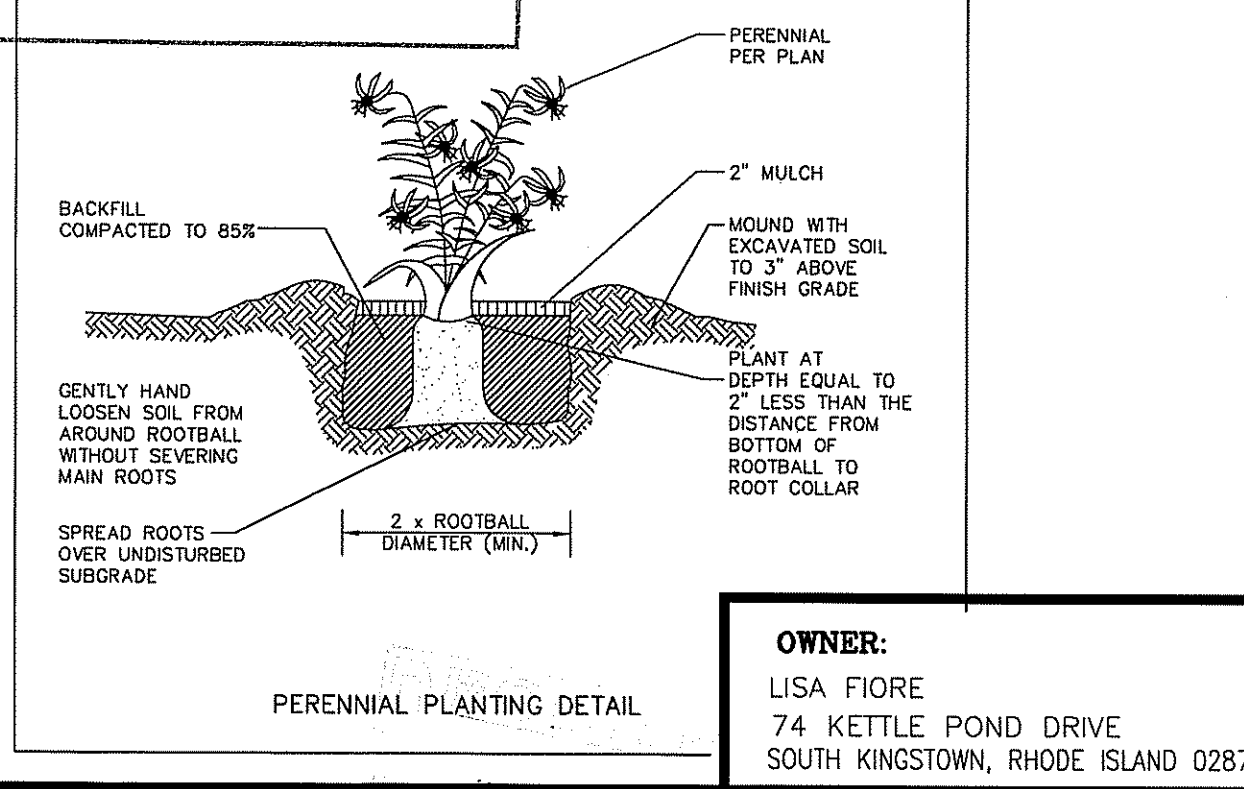
- INSPECTION OF THE BASIN AND ALL INLET AND OUTLET STRUCTURES SHOULD BE PERFORMED AT LEAST TWICE PER YEAR, PREFERABLY DURING A STORM EVENT TO INSPECT FOR PROPER FUNCTIONING OF THE FACILITY.
- SEDIMENTS SHOULD BE REMOVED FROM THE BASIN DURING THE FIRST (INITIAL) YEAR OF OPERATION AND EVERY YEAR THEREAFTER.
- THE GRASSED AREAS OF THE BASIN SHOULD BE INSPECTED AT LEAST TWICE PER YEAR TO CHECK FOR EROSION PROBLEMS. PROBLEM AREAS SHOULD BE RESEDED IMMEDIATELY TO STABILIZE EXPOSED SOILS, THEREBY PREVENTING EROSION. THE BASIN SHALL BE MOWED AT LEAST ONCE PER GROWING SEASON.
- INSPECTIONS SHALL BE ACCOMPLISHED SEVERAL TIMES DURING THE FIRST SIX (6) MONTHS OF OPERATION, ESPECIALLY AFTER RAINFALL EVENTS, TO CHECK FOR CLOGGING OR TOO RAPID A RELEASE.
- THE PARTY RESPONSIBLE FOR MAINTENANCE OF THE BASIN IS: LISA FIORE.

INFILTRATION BASIN MAINTENANCE:

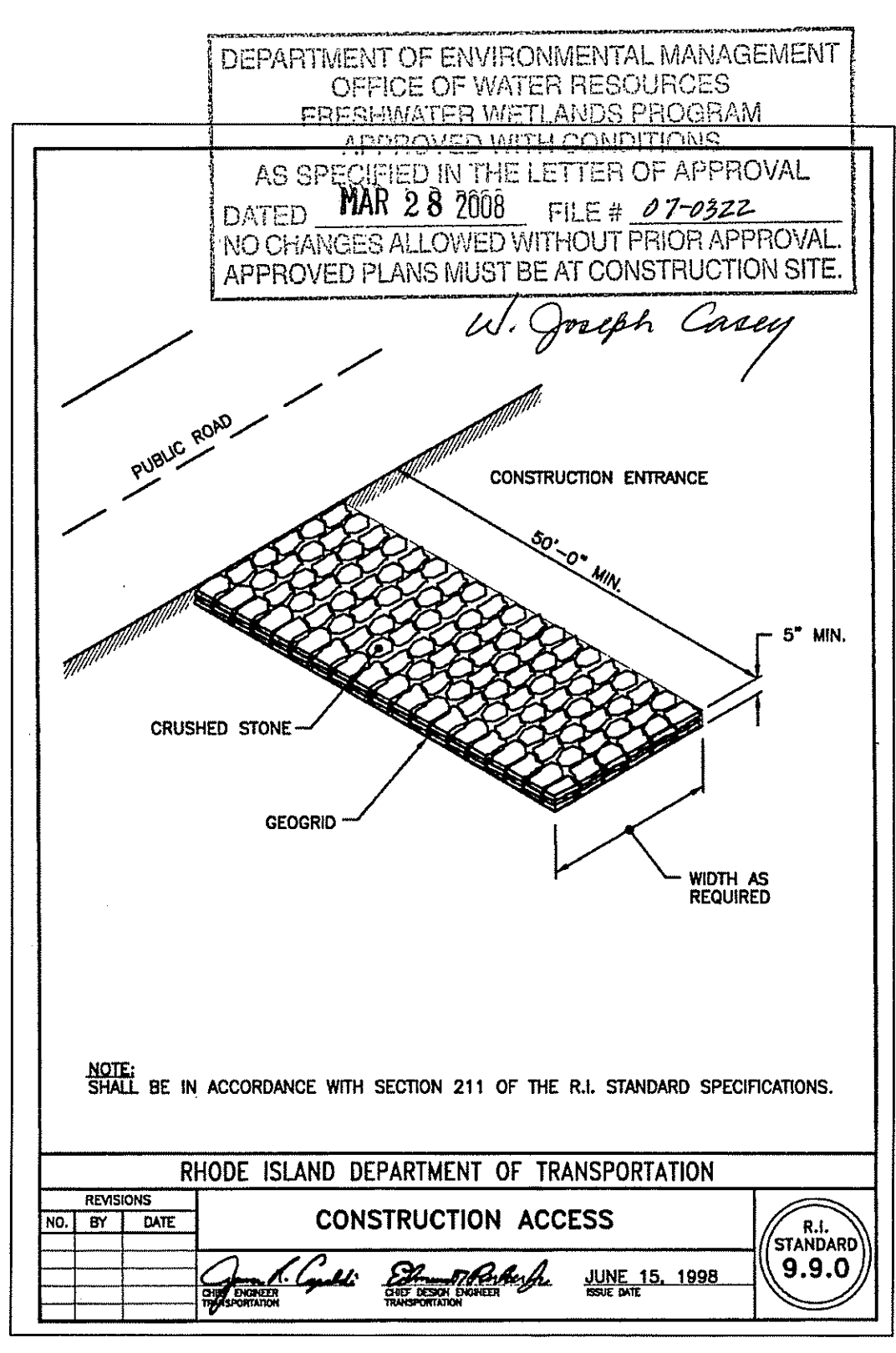
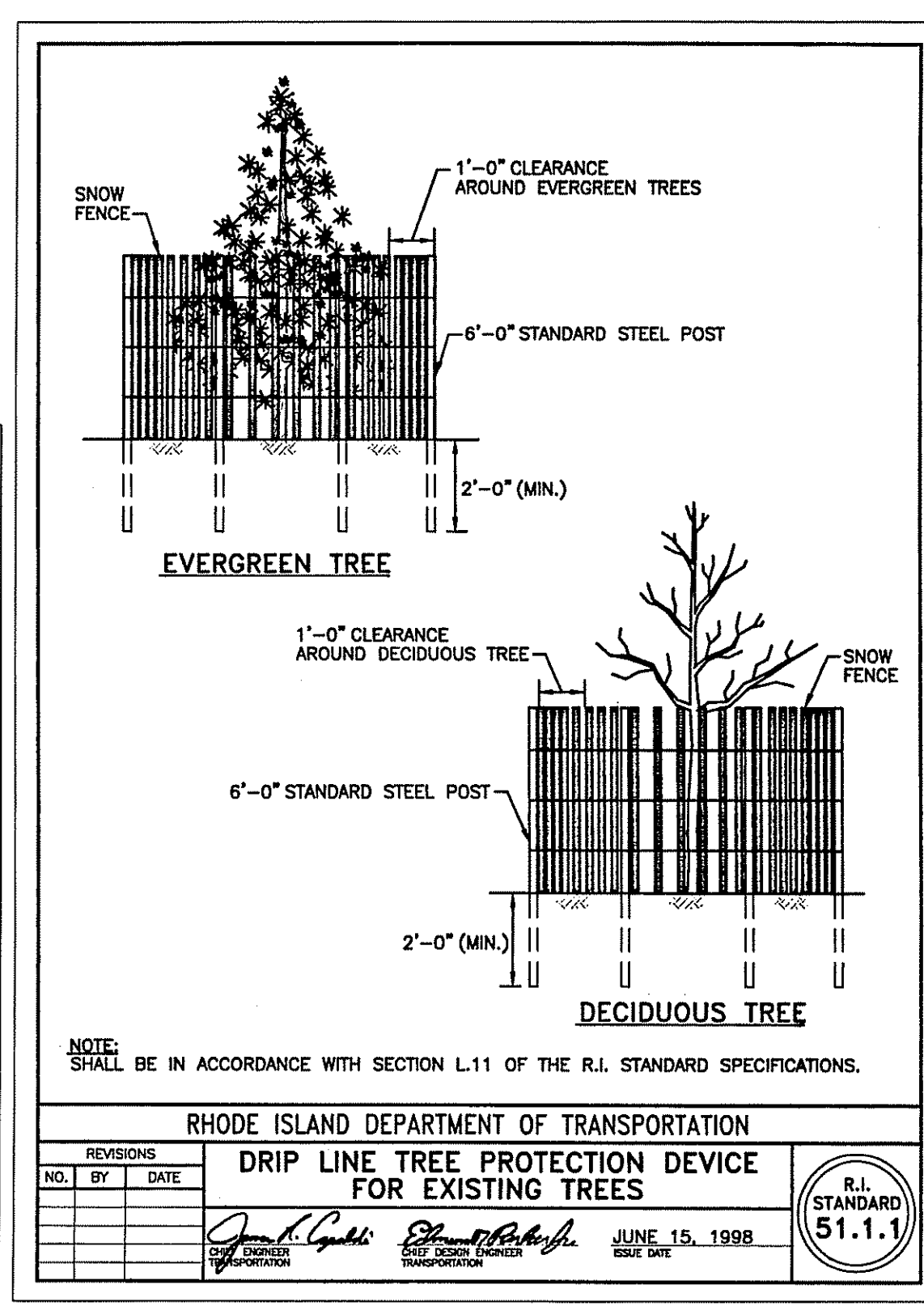
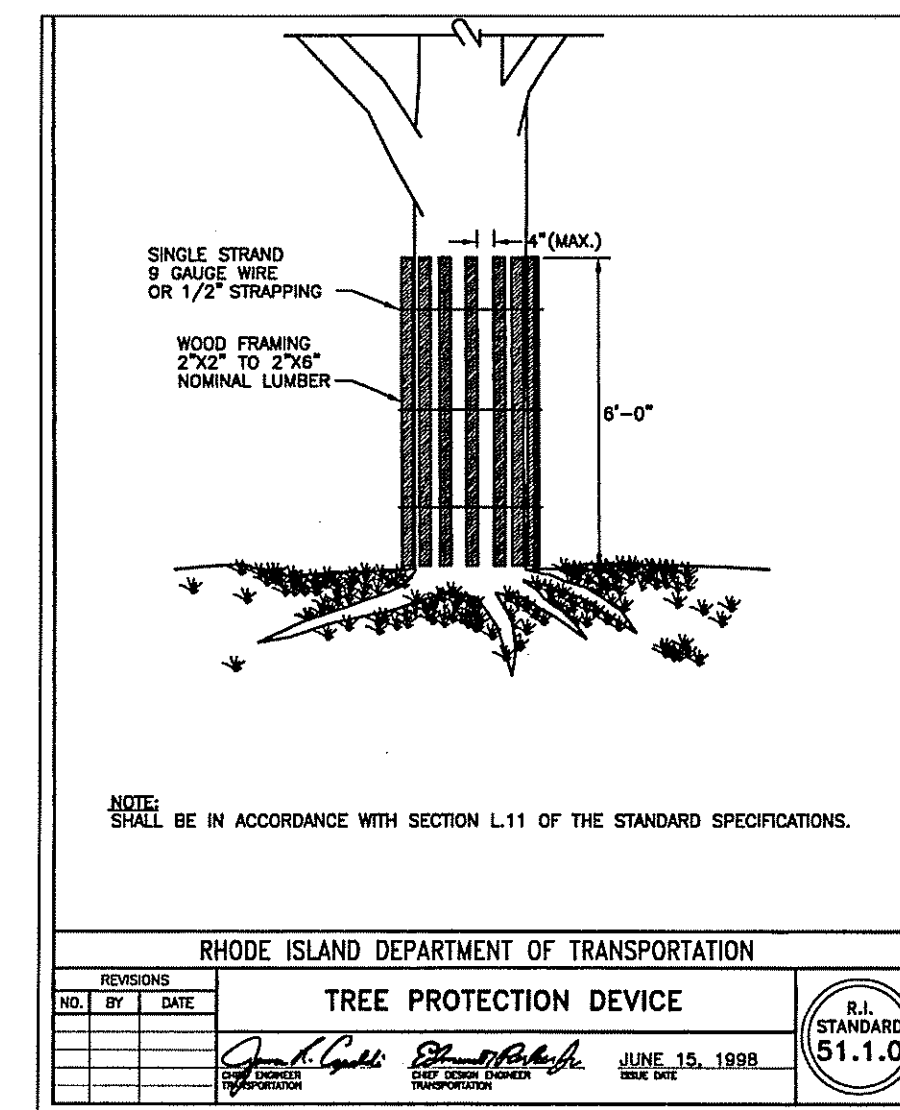
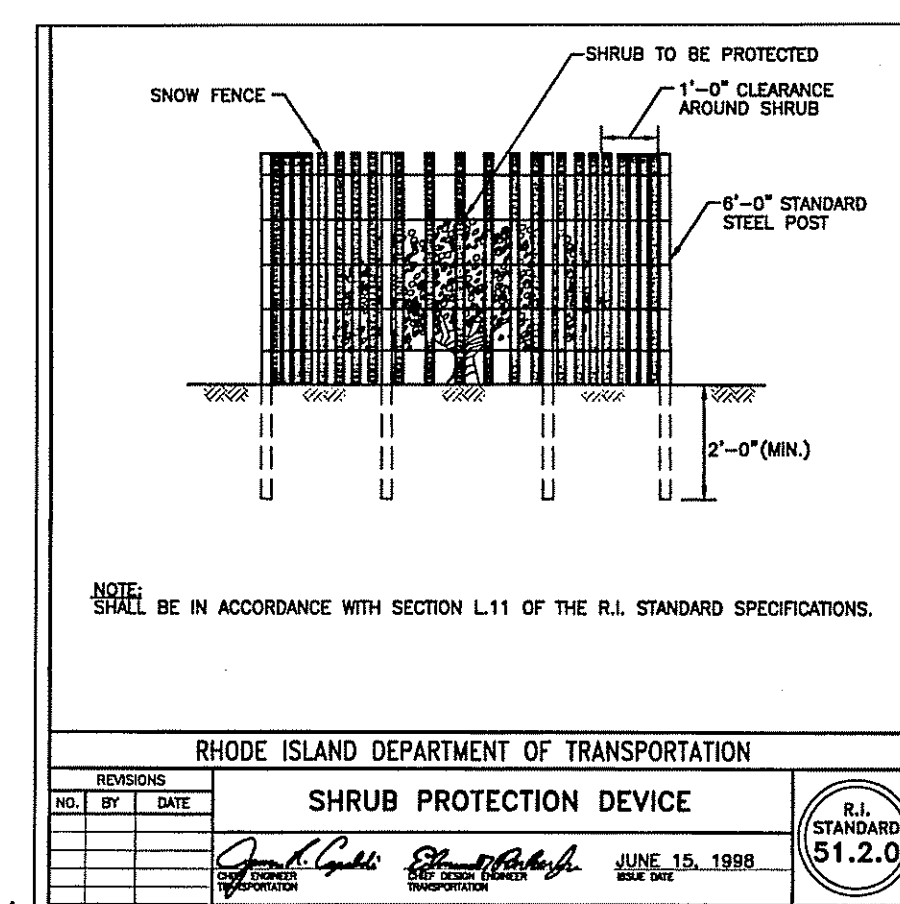
- INSPECTION OF THE BASIN SHOULD BE PERFORMED AT LEAST TWICE PER YEAR, PREFERABLY DURING A STORM EVENT, TO INSPECT FOR PROPER FUNCTIONING OF THE FACILITY.
- SEDIMENTS SHOULD BE REMOVED FROM THE BASIN DURING THE FIRST (INITIAL) YEAR OF OPERATION AND EVERY YEAR THEREAFTER.
- THE GRASSED AREAS OF THE BASIN SHOULD BE INSPECTED AT LEAST TWICE PER YEAR TO CHECK FOR EROSION PROBLEMS. PROBLEM AREAS SHOULD BE RESEDED IMMEDIATELY TO STABILIZE EXPOSED SOILS, THEREBY PREVENTING EROSION. THE BASIN SHALL BE MOWED AT LEAST ONCE PER GROWING SEASON.
- IN ORDER TO RE-ESTABLISH THE INFILTRATION RATE FOR THE BASIN, THE BASIN SHALL BE DEEP TILLED, FOLLOWED BY RE-GRADING AND LEVELING, EVERY 5 TO 10 YEARS, BASED UPON BASIN INSPECTION OF THE INFILTRATION RATES ON A YEARLY BASIS. SAND OR ORGANIC MATTER MAY ALSO BE TILLED INTO THE BASIN SOILS TO AID INFILTRATION.
- THE PARTY RESPONSIBLE FOR MAINTENANCE OF THE BASIN IS: LISA FIORE.



Kindly be advised that this permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.



OWNER:
LISA FIORE
74 KETTLE POND DRIVE
SOUTH KINGSTOWN, RHODE ISLAND 02879



DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED MAR 28 2008 FILE # 07-0322
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE.

W. Joseph Casey

Steven M. Clarke
No. 4477
REGISTERED PROFESSIONAL ENGINEER

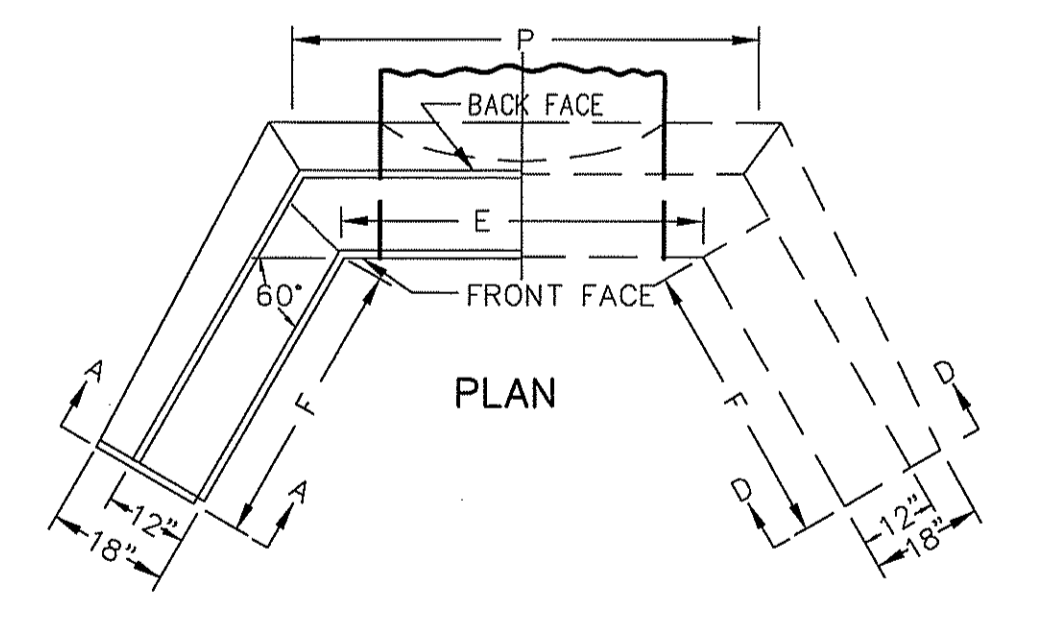
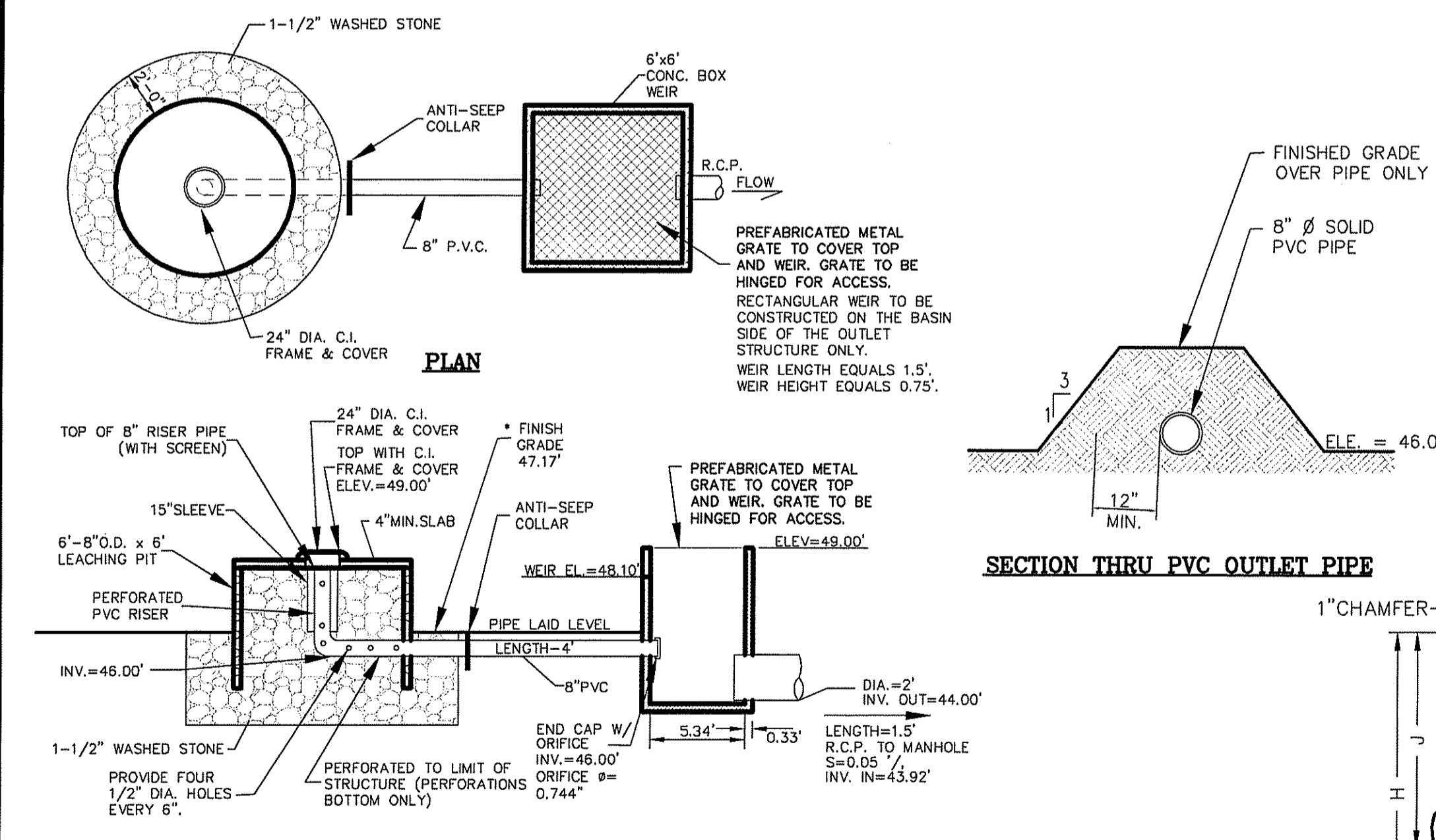
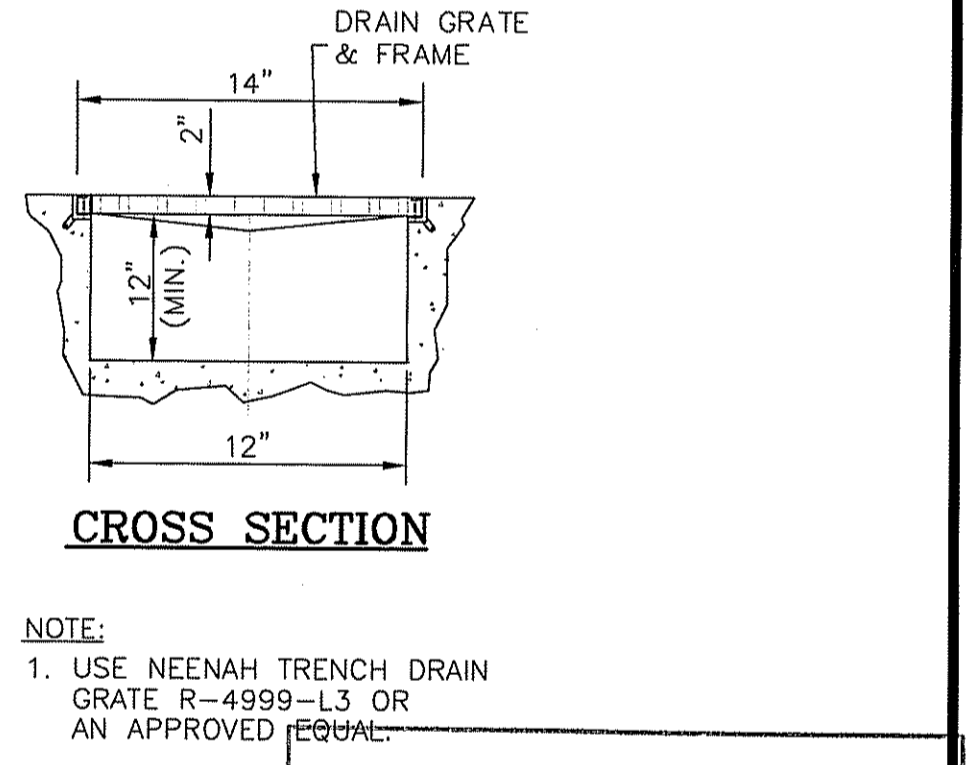
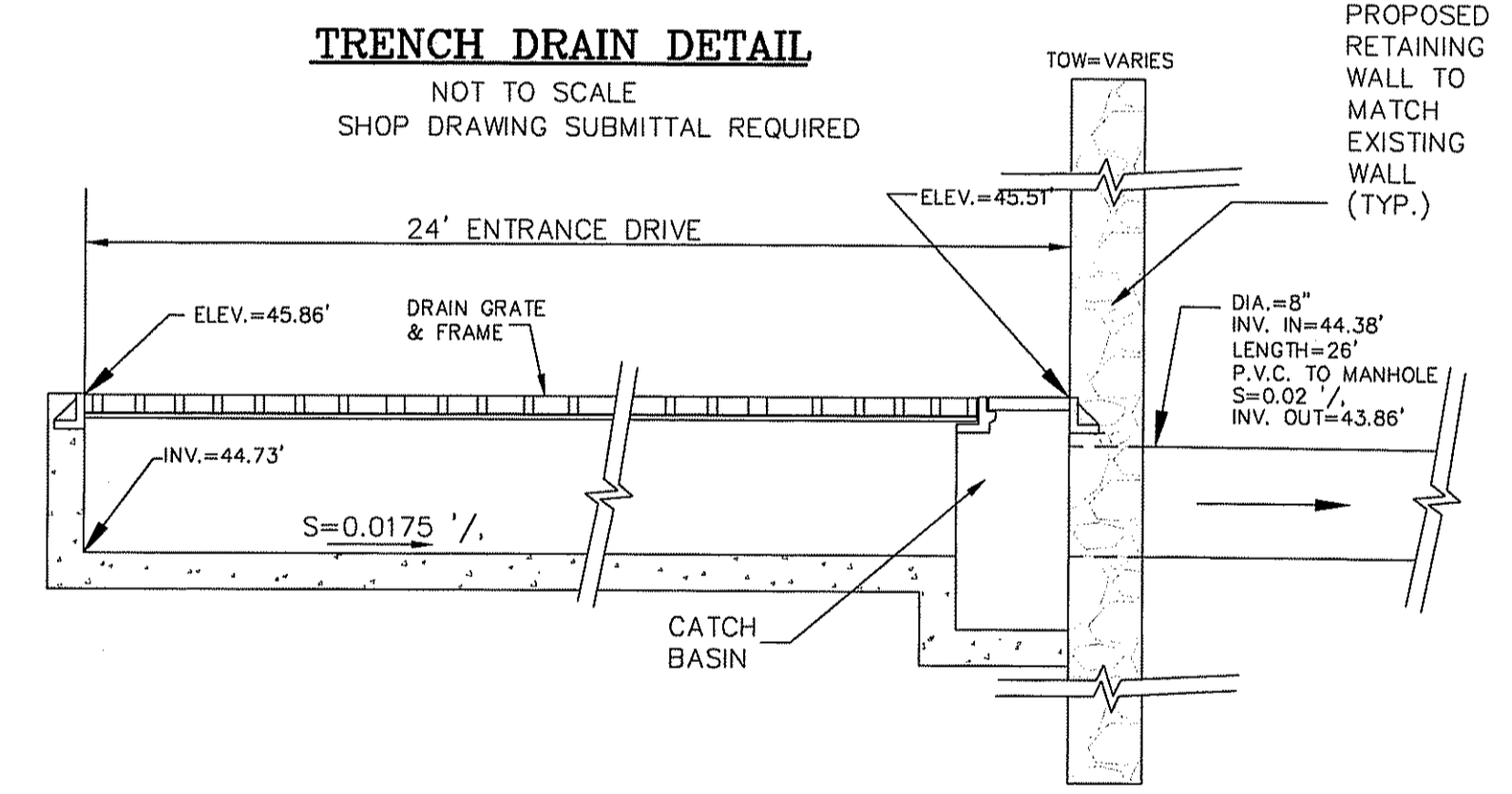
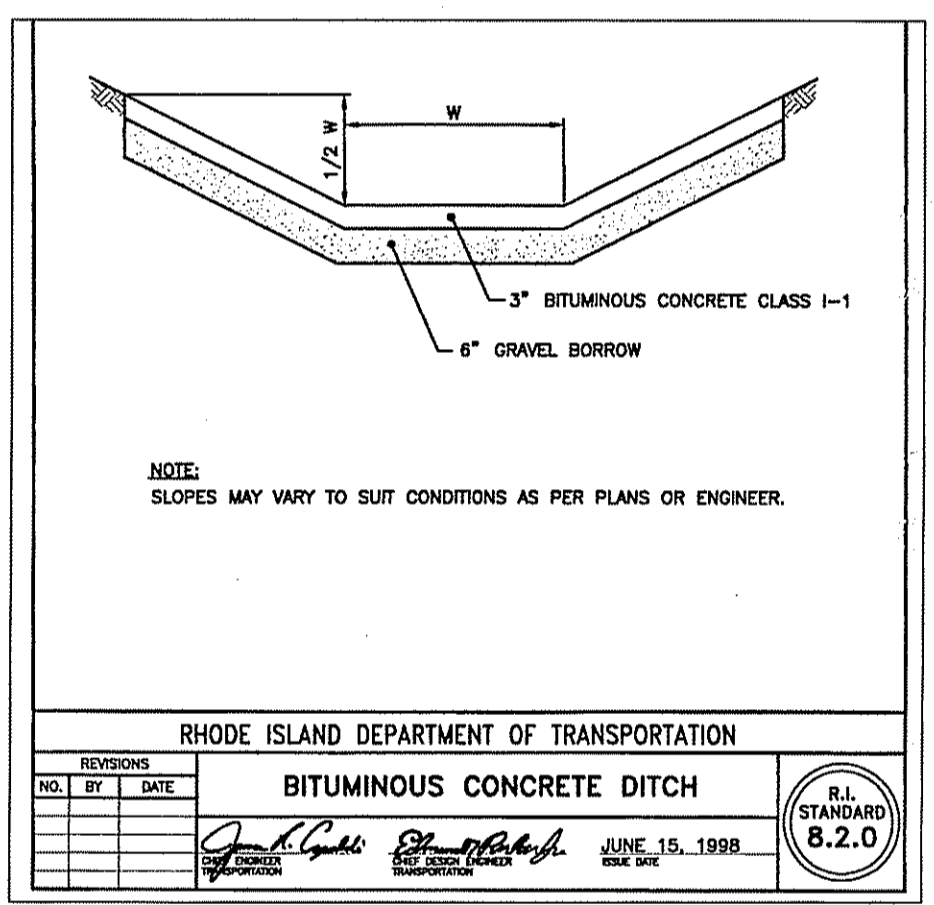
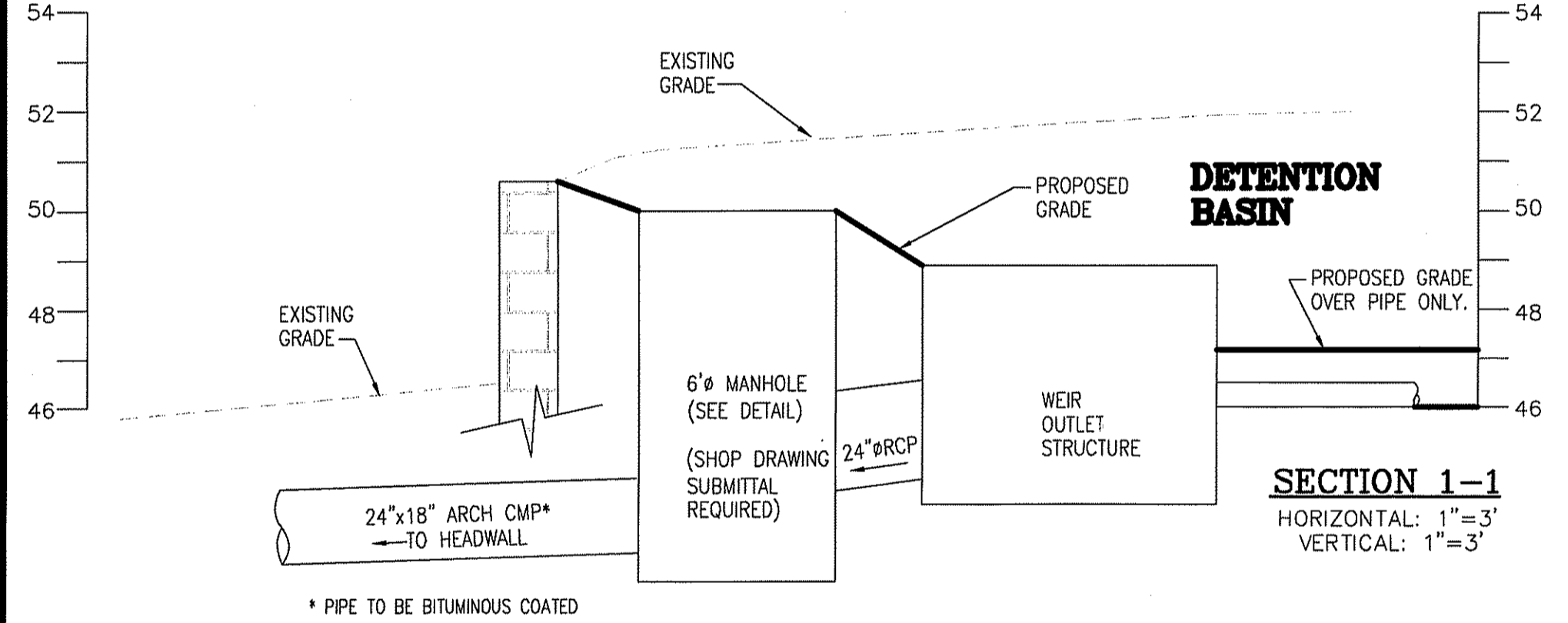
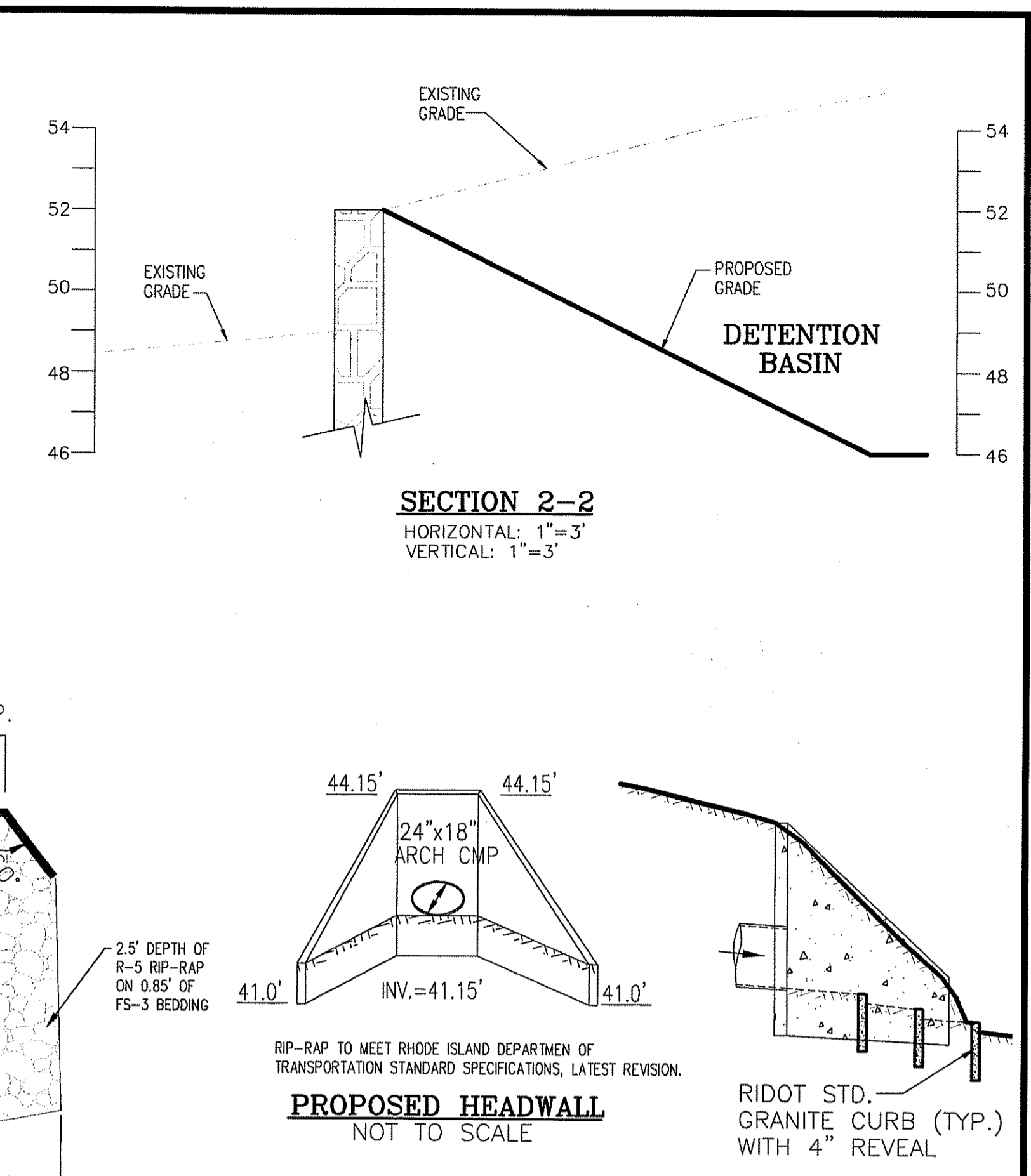
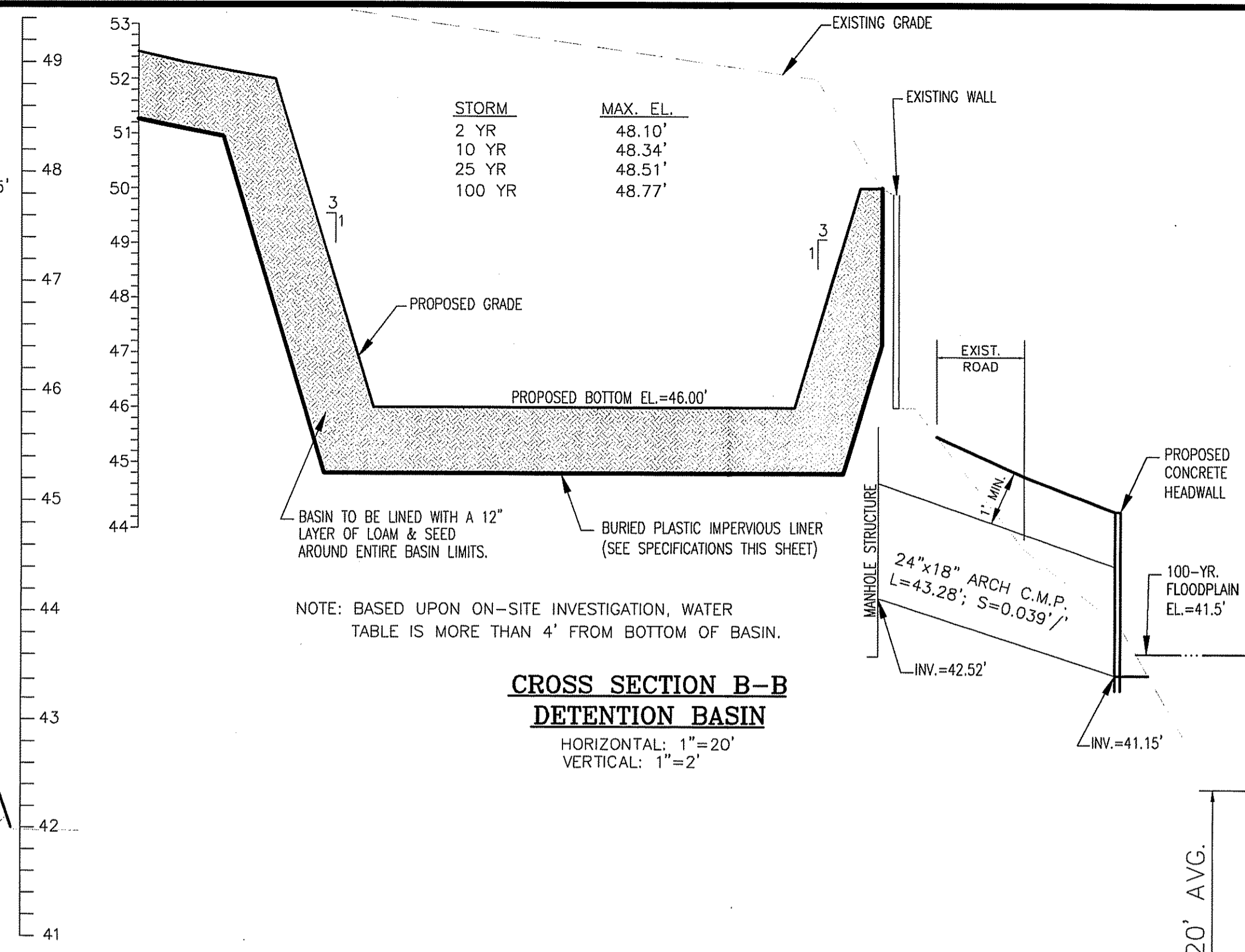
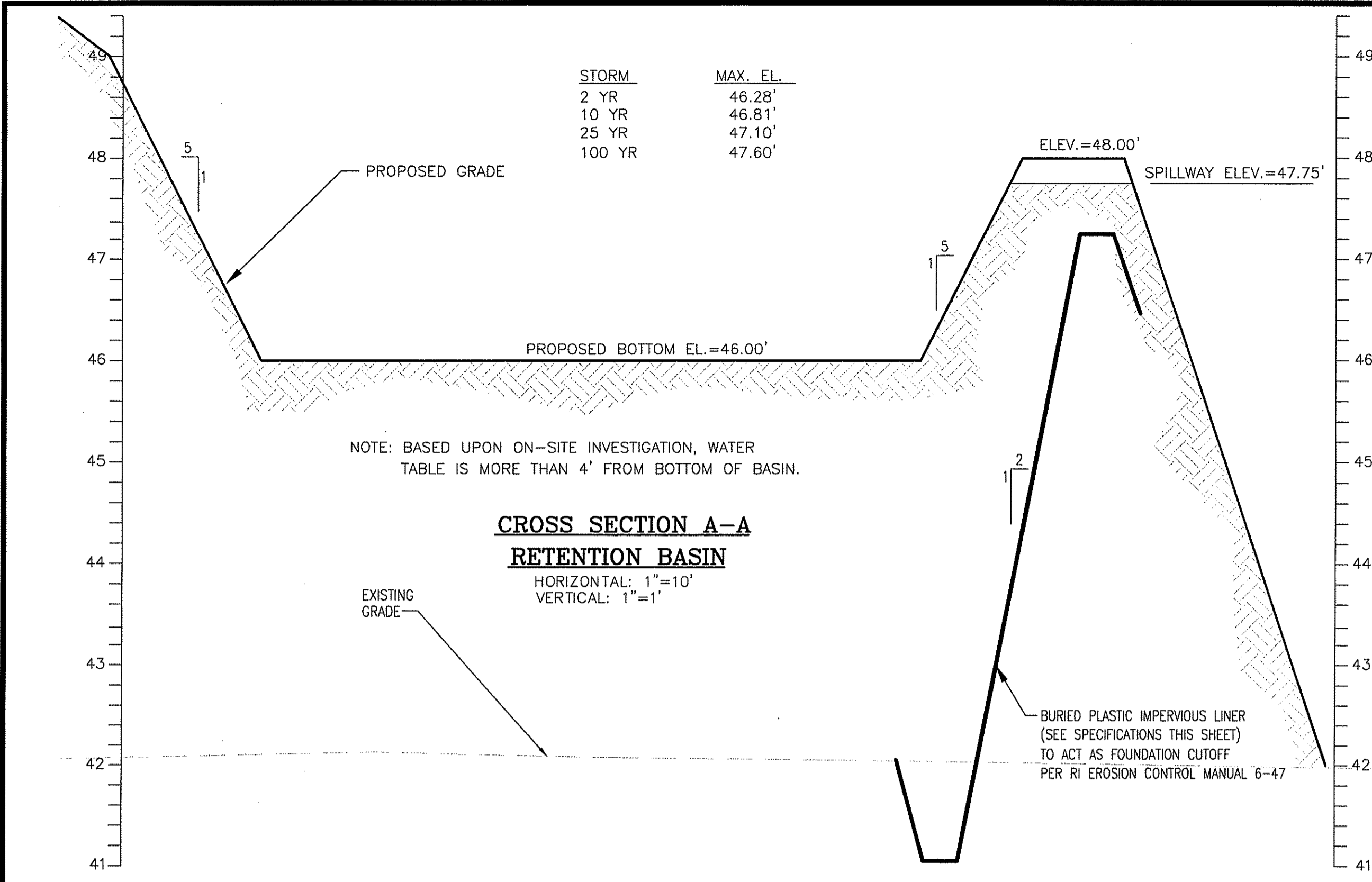
COMMONWEALTH ENGINEERS & CONSULTANTS, INC.
400 SMITH STREET
PROVIDENCE, RHODE ISLAND 02908
401-273-6600

REVISIONS

No.	DATE	DRWN	CHKD
1.	11/19/07	KAB	SMC

COMPREHENSIVE PERMIT PRELIMINARY PLAN SUBMISSION for HOPKINS GREEN II in SOUTH KINGSTOWN, RHODE ISLAND CONSTRUCTION DETAILS - 2

SCALE: AS NOTED SHEET NO: 10 of 14
DRAWN BY: DMS DESIGN BY: INT CHECKED BY: SMC
DATE: 6/1/07 PROJECT NO.: 01146.00

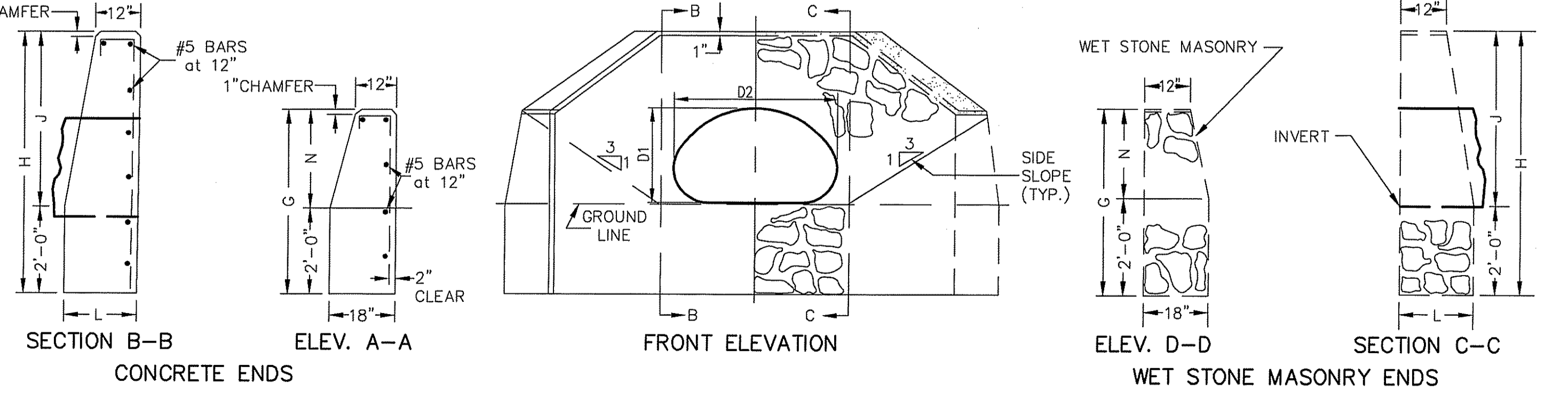


- 1.) ALL CONCRETE DIMENSIONS SHOWN ARE MINIMUM
- 2.) CONCRETE SHALL BE 4000 P.S.I. MINIMUM
- 3.) ALL REINFORCING SHALL BE #5 MINIMUM
- 4.) ALL REINFORCING BARS SHALL BE EPOXY COATED
- 5.) INDICATED DIMENSIONS ARE MINIMUM UNLESS NOTED OTHERWISE ON PLANS.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED **MAR 28 2007** FILE # **07-0922**
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
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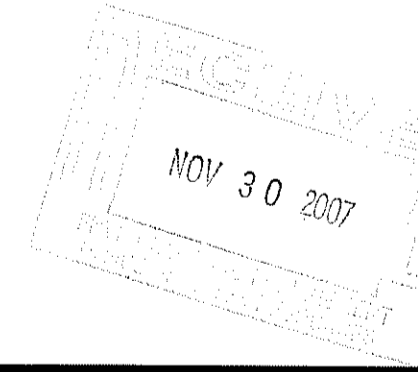
W. Joseph Conroy

D1	D2	E	F	G	H	J	L	N	P
18"	24"	3'-6"	7'-0"	3'-6"	4'-6"	2'-6"	1'-6"	1'-6"	4'-7"



CONCRETE AND WET STONE MASONRY HEADWALL / WINGWALL DETAILS
FOR ARCH METAL PIPE
NOT TO SCALE

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OWNER:
LISA FIORE
74 KETTLE POND DRIVE
SOUTH KINGSTOWN, RHODE ISLAND 02879

Steven M. Clarke
No. 4477
REGISTERED PROFESSIONAL ENGINEER

COMMONWEALTH
ENGINEERS & CONSULTANTS, INC.
400 SMITH STREET
PROVIDENCE, RHODE ISLAND 02908
401-273-6600

REVISIONS

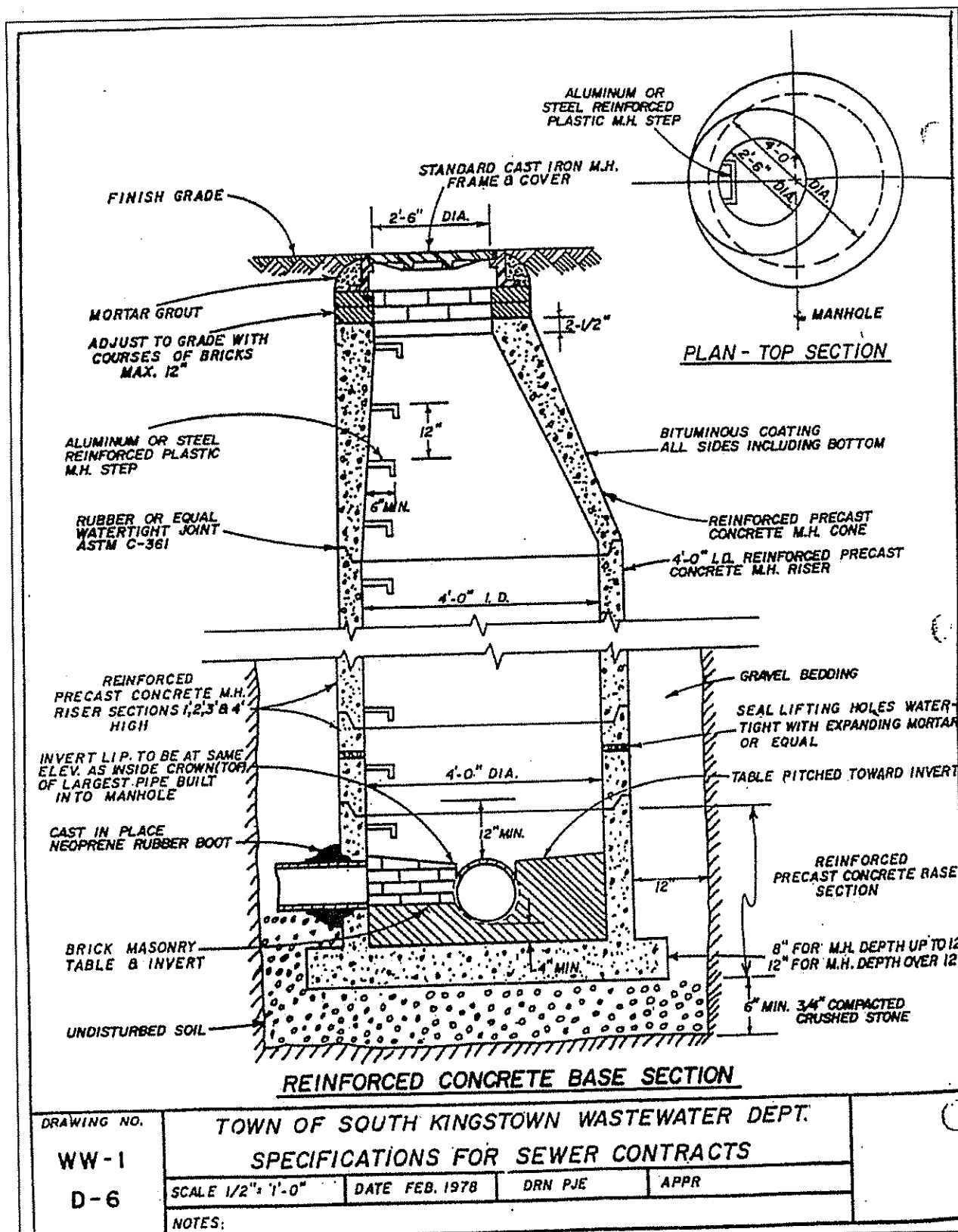
No.	DATE	DRWN	CHKD
1.	11/19/07	KAB	SMC

COMPREHENSIVE PERMIT PRELIMINARY PLAN SUBMISSION
for
HOPKINS GREEN II
in
SOUTH KINGSTOWN, RHODE ISLAND
CONSTRUCTION DETAILS - 3

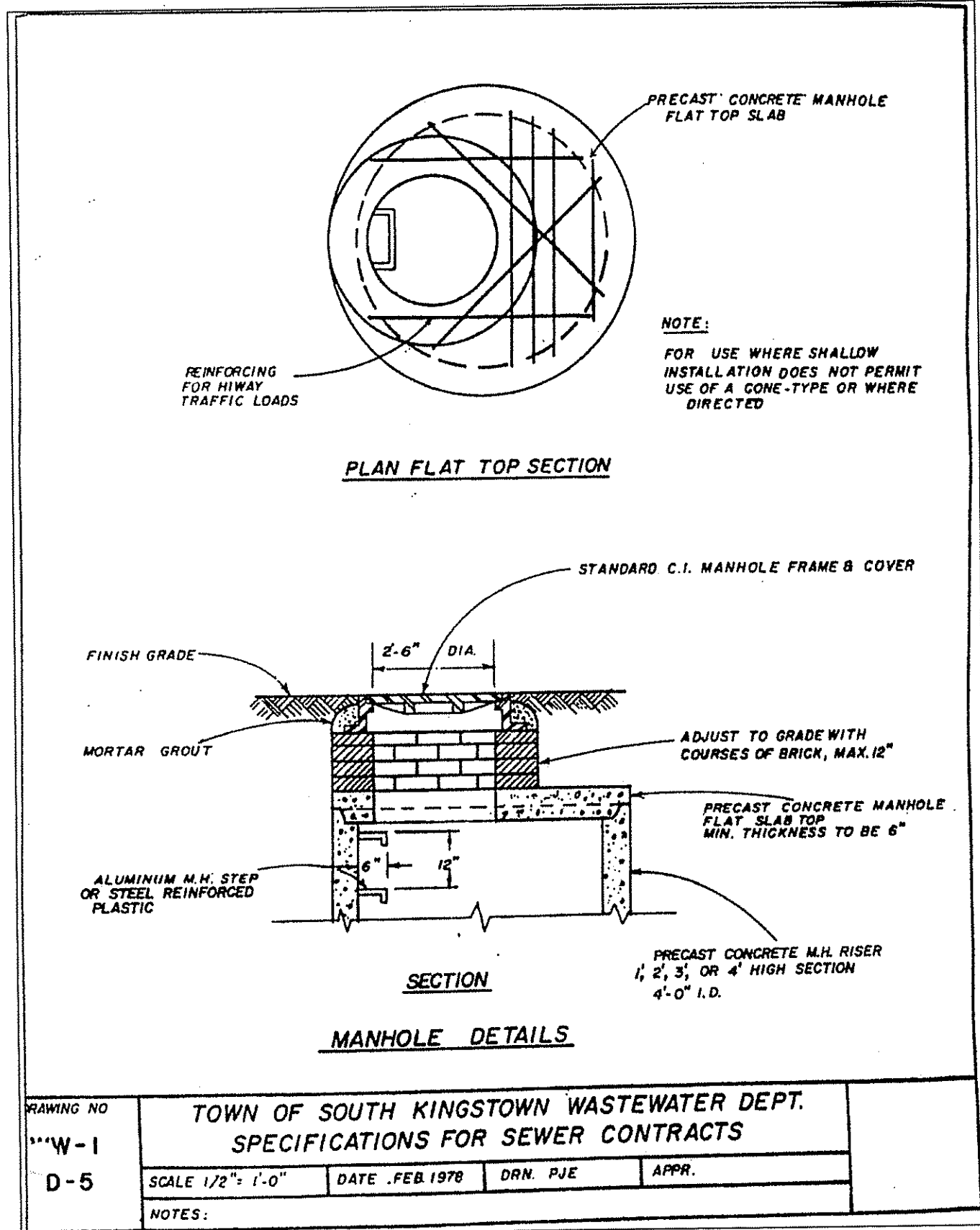
SCALE: AS NOTED SHEET NO: 11 of 14
DRAWN BY: DMS DESIGN BY: INT CHECKED BY: SMC
DATE: 6/1/07 PROJECT NO.: 01146.00

BURIED PLASTIC IMPERVIOUS LINER NOTES
IMPERVIOUS LINER FORMED OF BLACK COLORED POLYVINYL CHLORIDE PLASTIC FILM. WHERE FOUNDATION IS ROUGH OR ROCKY, PLACE A LAYER 2 TO 4 INCHES THICK OF FINE-GRAINED SOIL BENEATH LINER. SEAL LINER SECTIONS BY BONDING WITH MANUFACTURER'S RECOMMENDED SOLVENT WITH 6-INCH OVERLAP AT JOINTS. PROTECT LINER BY 6-INCH MIN. COVER OF FINE GRAINED SOIL. ANCHOR LINE IN A TRENCH AT TOP OF SLOPE. AVOID DIRECT CONTACT WITH SUNLIGHT DURING CONSTRUCTION BEFORE COVERING WITH FILL AND IN COMPLETED INSTALLATION. THE LINER SHALL BE CAPABLE OF PROVIDING THE FOLLOWING MINIMUM PROPERTIES:

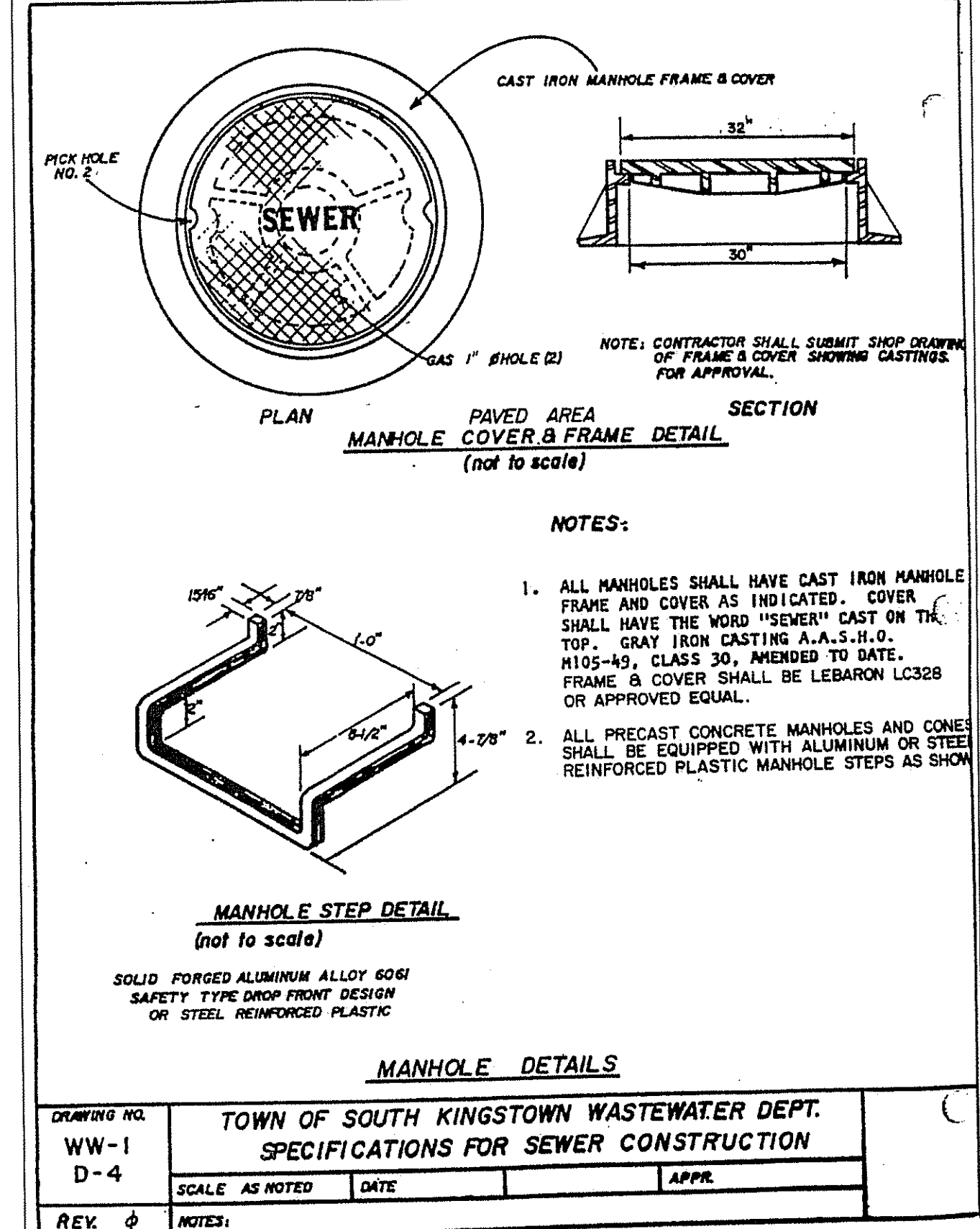
1. THICKNESS	40 MILS	ASTM D1593
2. TENSILE STRENGTH YIELD	54 LBS/IN WIDTH	ASTM D638
3. ELONGATION AT BREAK	900%	ASTM D638
4. HYDROSTATIC RESISTANCE	170 PSI	ASTM D751
5. TEAR RESISTANCE	22 LBS	ASTM D1004



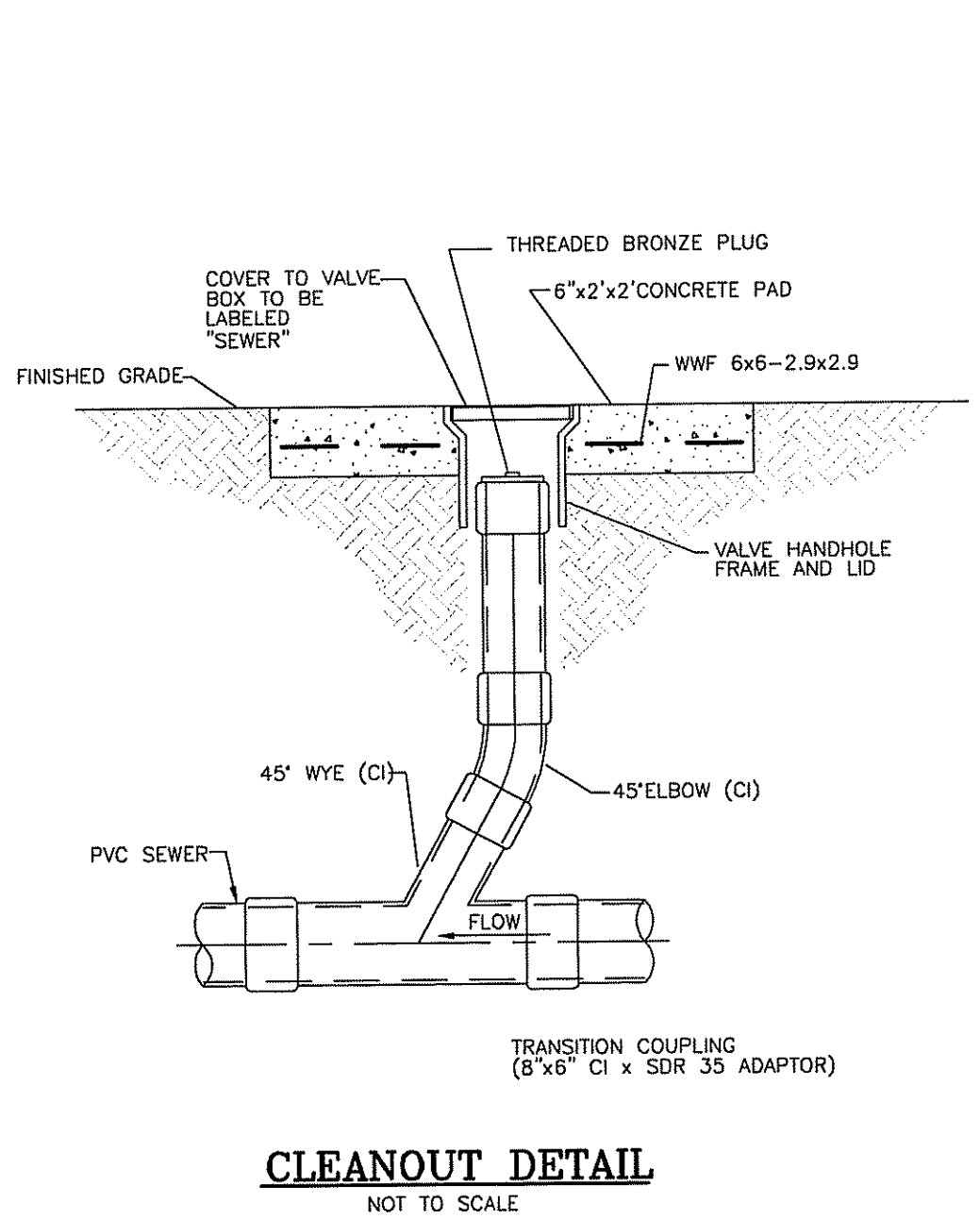
DRAWING NO. TOWN OF SOUTH KINGSTOWN WASTEWATER DEPT.
 WW-1 SPECIFICATIONS FOR SEWER CONTRACTS
 D-6 SCALE 1/2" = 1'-0" DATE FEB. 1978 DRN. PJE APPR.



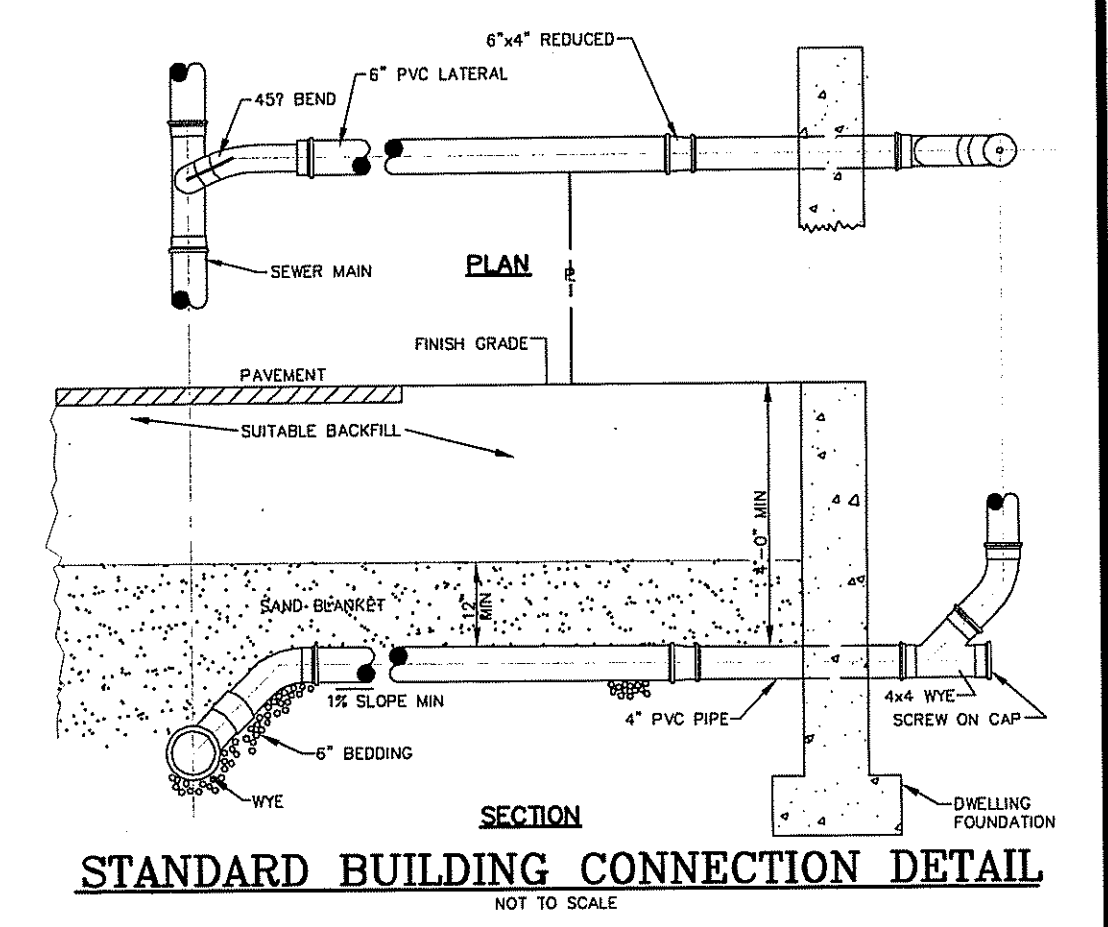
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 WW-1 SPECIFICATIONS FOR SEWER CONTRACTS
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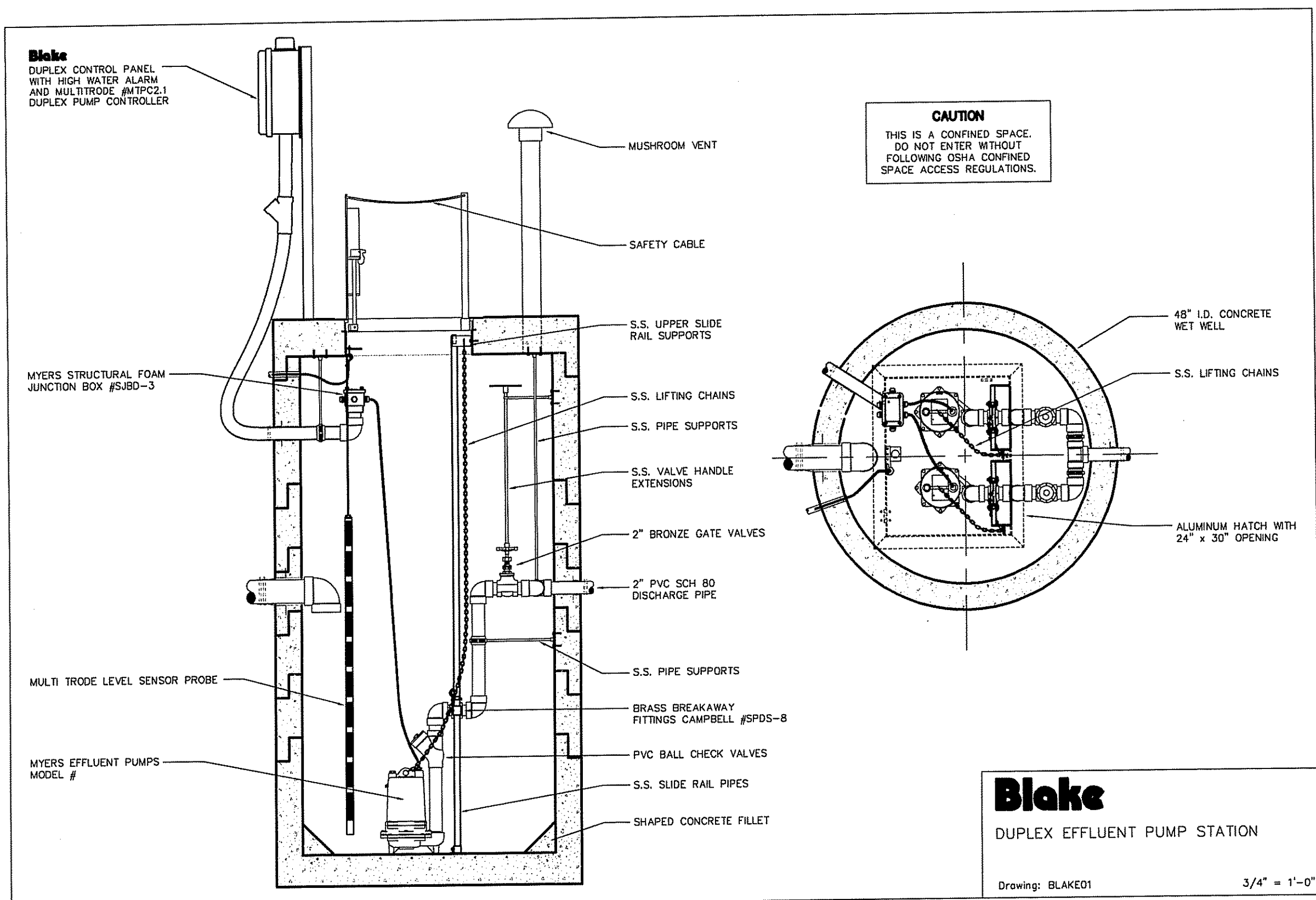
DRAWING NO. TOWN OF SOUTH KINGSTOWN WASTEWATER DEPT.
 WW-1 SPECIFICATIONS FOR SEWER CONSTRUCTION
 D-4 SCALE AS NOTED DATE APPR.



CLEANOUT DETAIL
 NOT TO SCALE

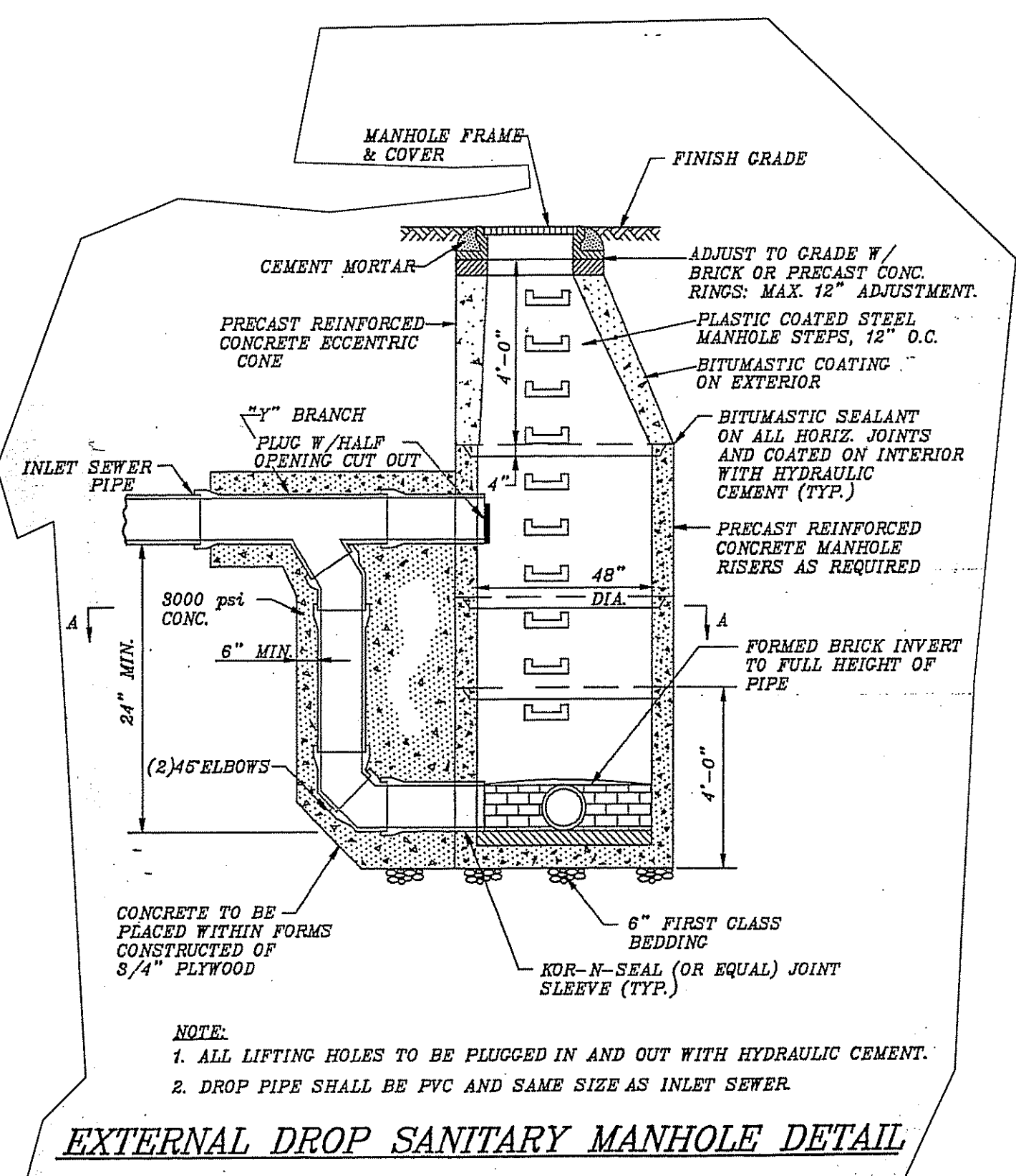


STANDARD BUILDING CONNECTION DETAIL
 NOT TO SCALE

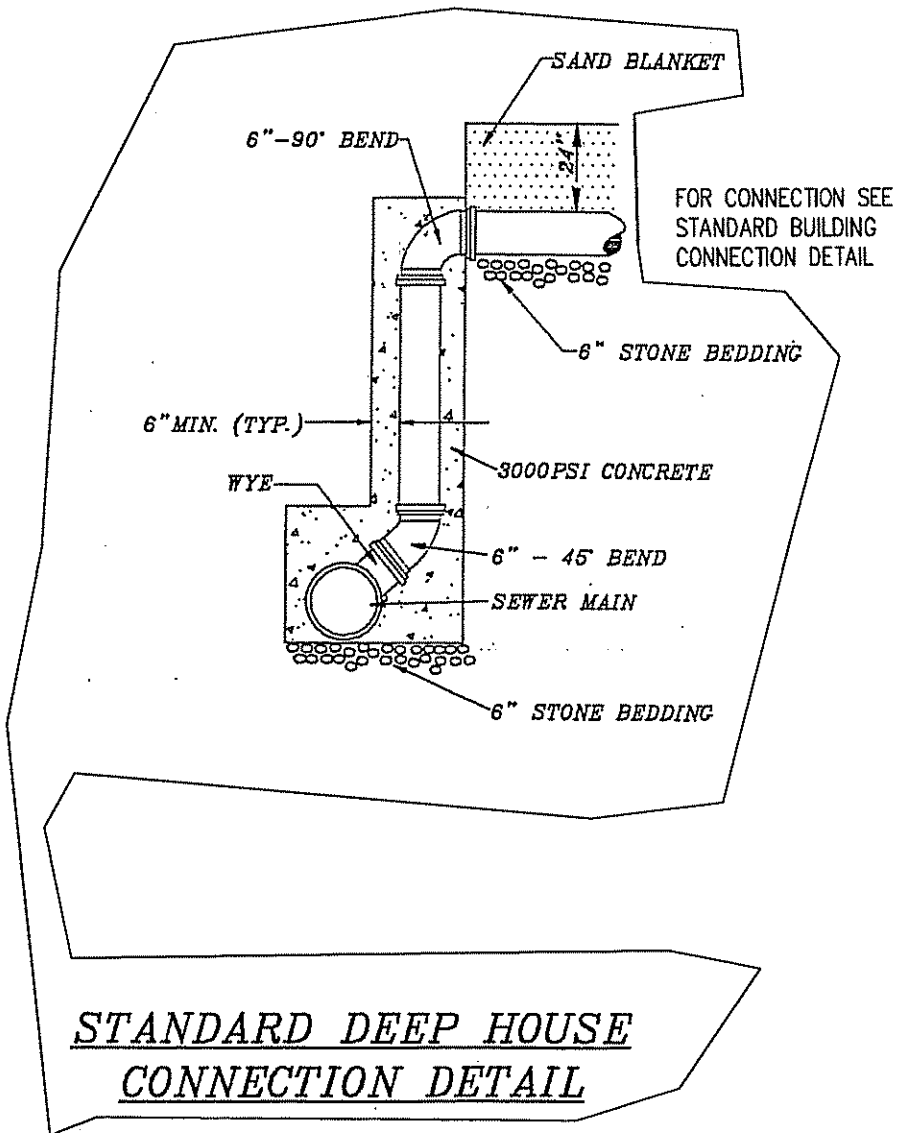


Blake
 DUPLEX EFFLUENT PUMP STATION
 Drawing: BLAKE01 3/4" = 1'-0"

SHOP DRAWING TO BE PROVIDED BY CONTRACTOR AND TO BE APPROVED BY THE TOWN OF SOUTH KINGSTOWN, RHODE ISLAND PUBLIC WORKS DEPARTMENT



EXTERNAL DROP SANITARY MANHOLE DETAIL



STANDARD DEEP HOUSE CONNECTION DETAIL

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W. Joseph Casey

NOV 30 2007

OWNER:
 LISA FIORE
 74 KETTLE POND DRIVE
 SOUTH KINGSTOWN, RHODE ISLAND 02879

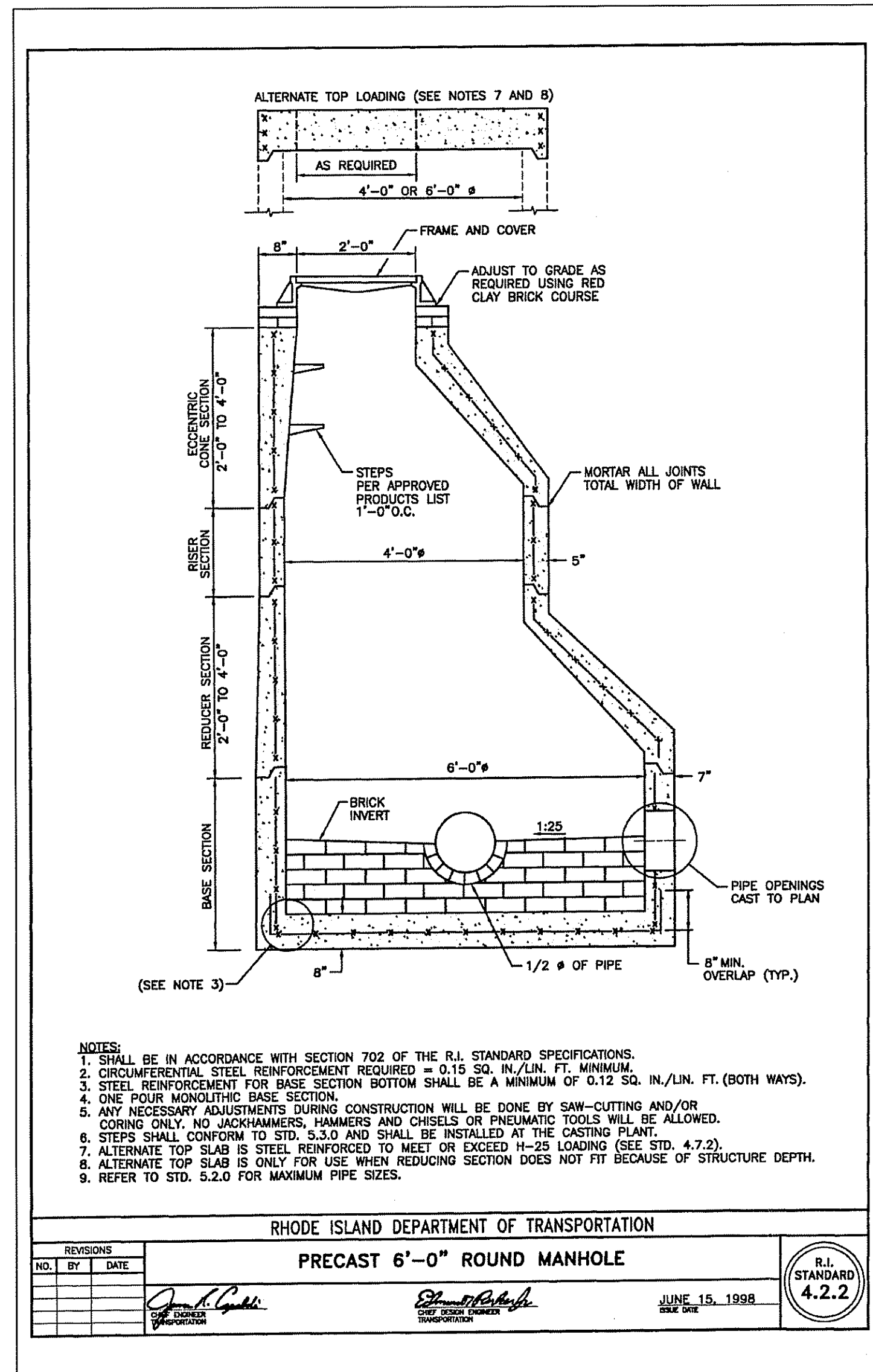
Steven M. Clarke
 No. 4477
 REGISTERED PROFESSIONAL ENGINEER

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 ENGINEERS & CONSULTANTS, INC.
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 PROVIDENCE, RHODE ISLAND 02908
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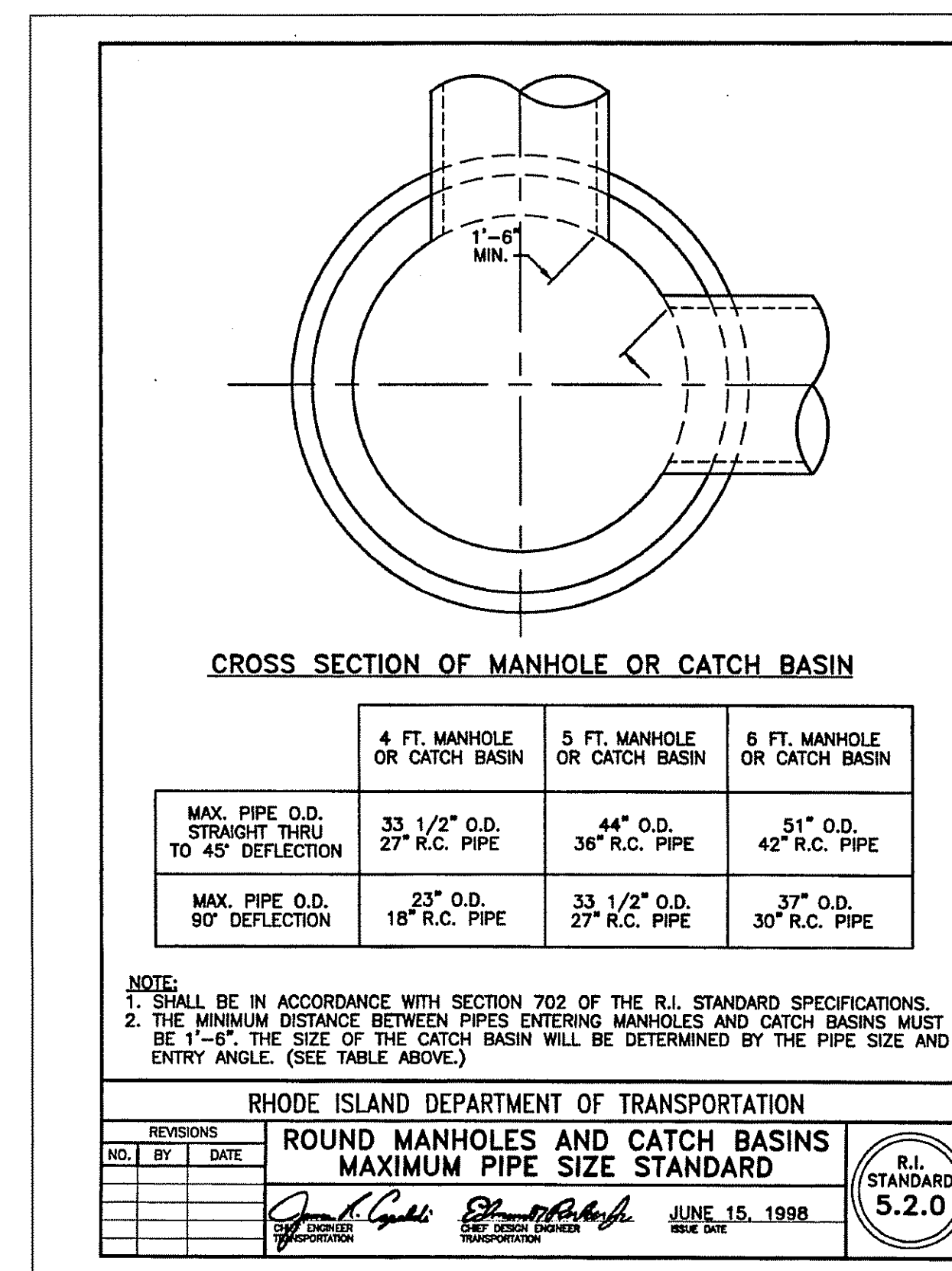
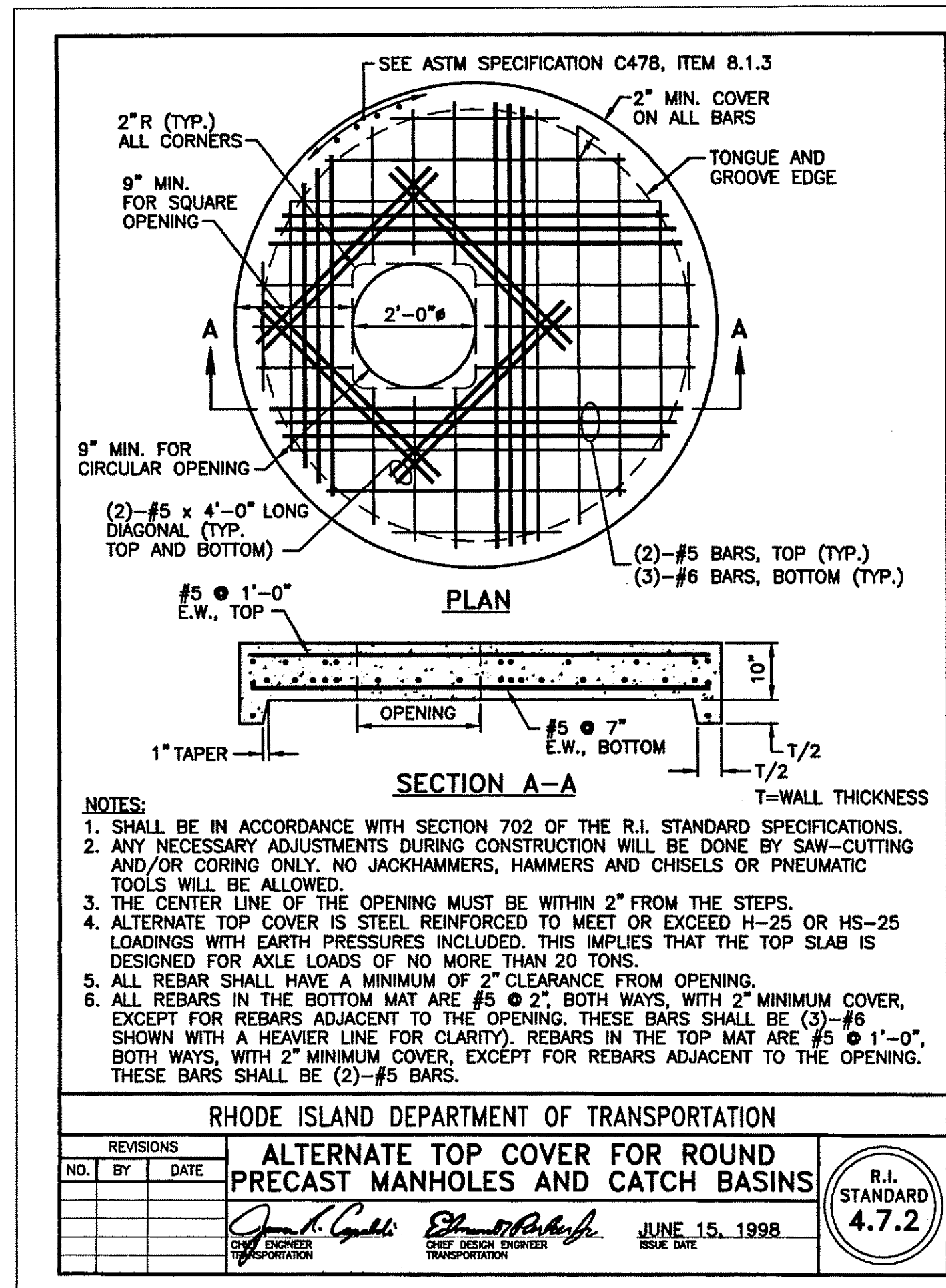
REVISIONS			
No.	DATE	DRWN	CHKD
1.	11/19/07	KAB	SMC

COMPREHENSIVE PERMIT
 PRELIMINARY PLAN SUBMISSION
 for
HOPKINS GREEN II
 in
 SOUTH KINGSTOWN, RHODE ISLAND
CONSTRUCTION DETAILS - 4

SCALE: AS NOTED SHEET NO: 12 of 14
 DRAWN BY: DMS DESIGN BY: INT CHECKED BY: SMC
 DATE: 6/1/07 PROJECT NO.: 01146.00



- NOTES:
1. SHALL BE IN ACCORDANCE WITH SECTION 702 OF THE R.I. STANDARD SPECIFICATIONS.
 2. CIRCUMFERENTIAL STEEL REINFORCEMENT REQUIRED = 0.15 SQ. IN./LIN. FT. MINIMUM.
 3. STEEL REINFORCEMENT FOR BASE SECTION BOTTOM SHALL BE A MINIMUM OF 0.12 SQ. IN./LIN. FT. (BOTH WAYS).
 4. ONE POUR MONOLITHIC BASE SECTION.
 5. ANY NECESSARY ADJUSTMENTS DURING CONSTRUCTION WILL BE DONE BY SAW-CUTTING AND/OR CORING ONLY. NO JACKHAMMERS, HAMMERS OR PNEUMATIC TOOLS WILL BE ALLOWED.
 6. STEPS SHALL CONFORM TO STD. 5.3.0 AND SHALL BE INSTALLED AT THE CASTING PLANT.
 7. ALTERNATE TOP SLAB IS STEEL REINFORCED TO MEET OR EXCEED H-25 LOADING (SEE STD. 4.7.2).
 8. ALTERNATE TOP SLAB IS ONLY FOR USE WHEN REDUCING SECTION DOES NOT FIT BECAUSE OF STRUCTURE DEPTH.
 9. REFER TO STD. 5.2.0 FOR MAXIMUM PIPE SIZES.



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OFFICE OF WATER RESOURCES
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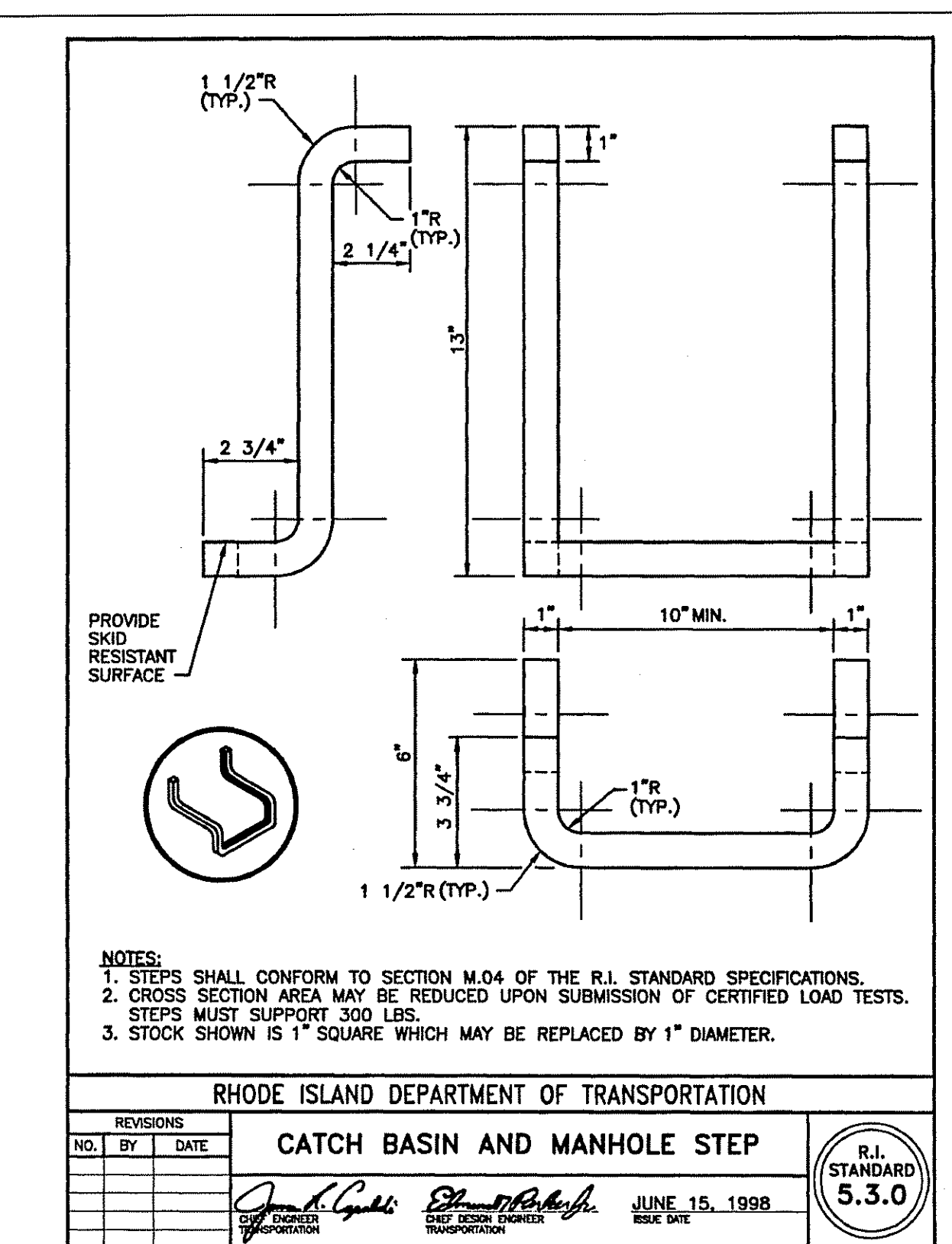
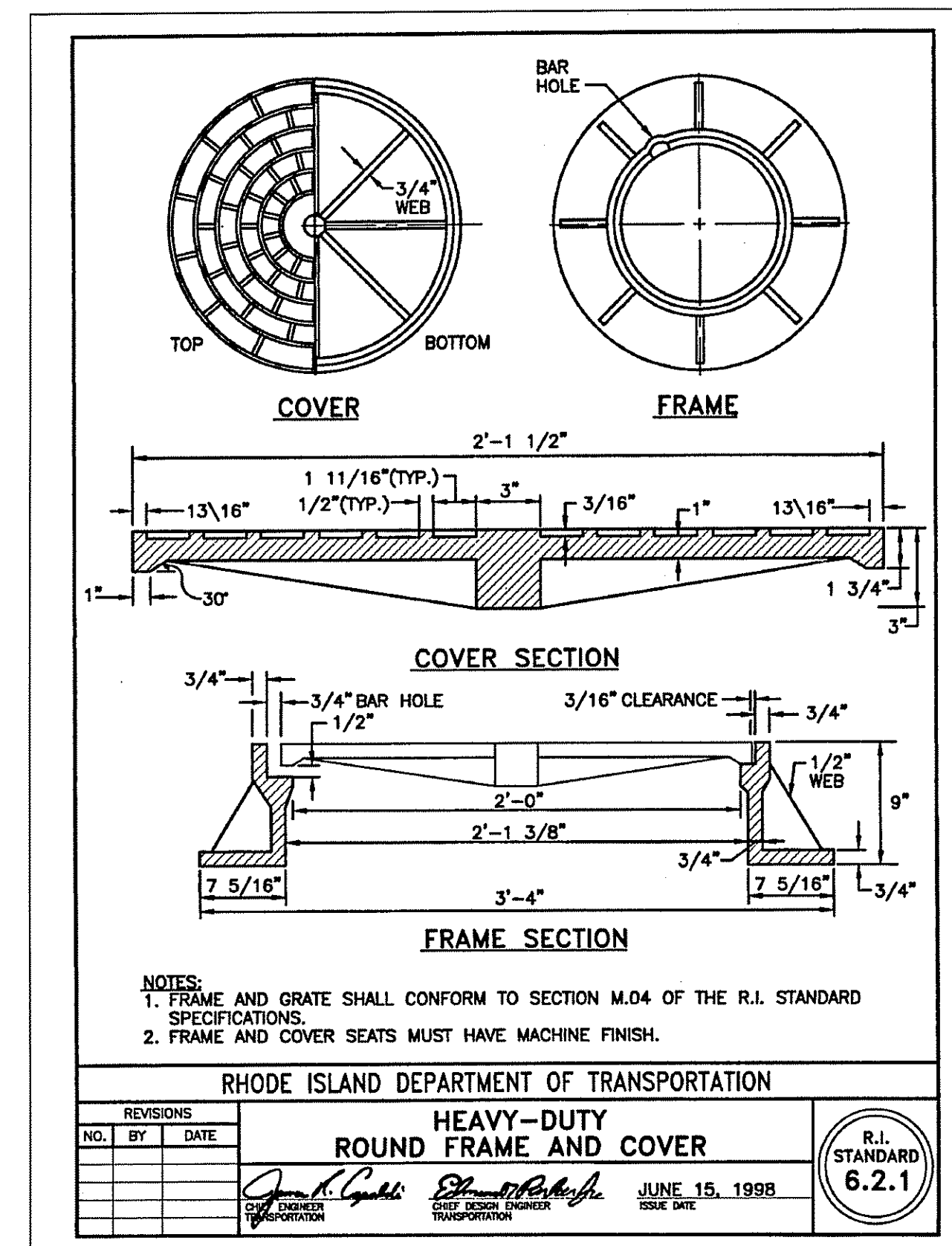
W. Joseph Conroy

OWNER:
LISA FIORE
74 KETTLE POND DRIVE
SOUTH KINGSTOWN, RHODE ISLAND 02879

COMMONWEALTH ENGINEERS & CONSULTANTS, INC.
400 SMITH STREET
PROVIDENCE, RHODE ISLAND 02908
401-273-6600

COMPREHENSIVE PERMIT
PRELIMINARY PLAN SUBMISSION
for
HOPKINS GREEN II
in
SOUTH KINGSTOWN, RHODE ISLAND
CONSTRUCTION DETAILS - 5

SCALE: AS NOTED SHEET NO: 13 of 14
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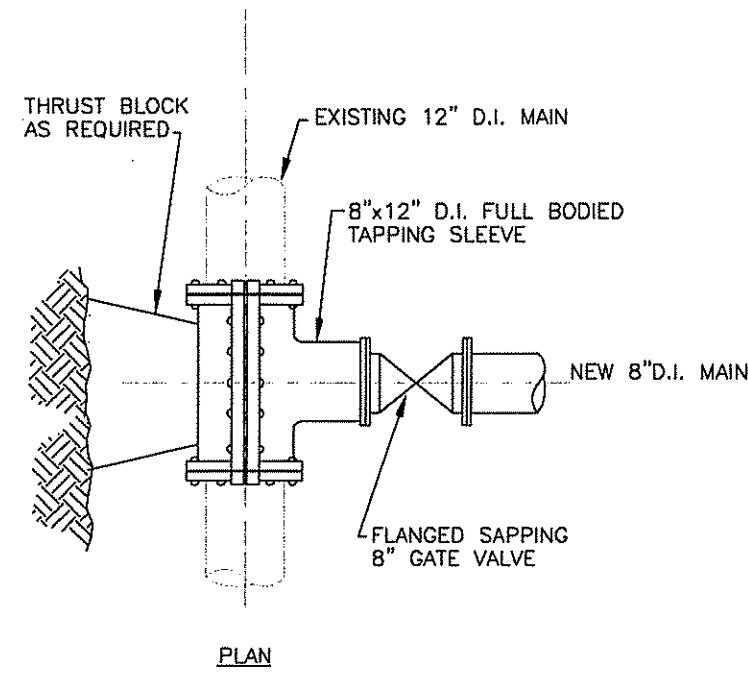


REVISIONS

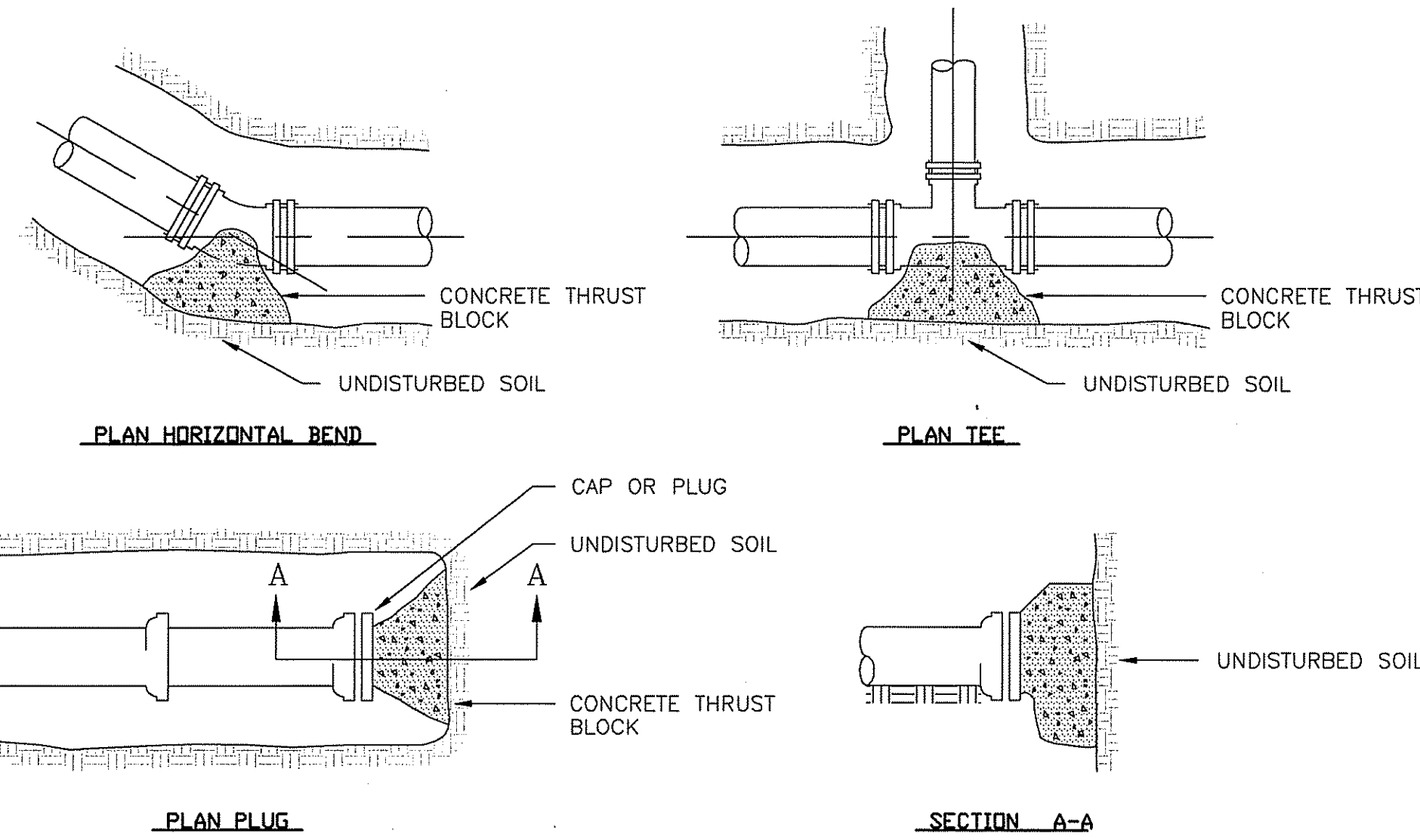
No.	DATE	DRWN	CHKD
1.	11/19/07	KAB	SMC

INSTALLATION OF TAPPING SLEEVES AND VALVES:

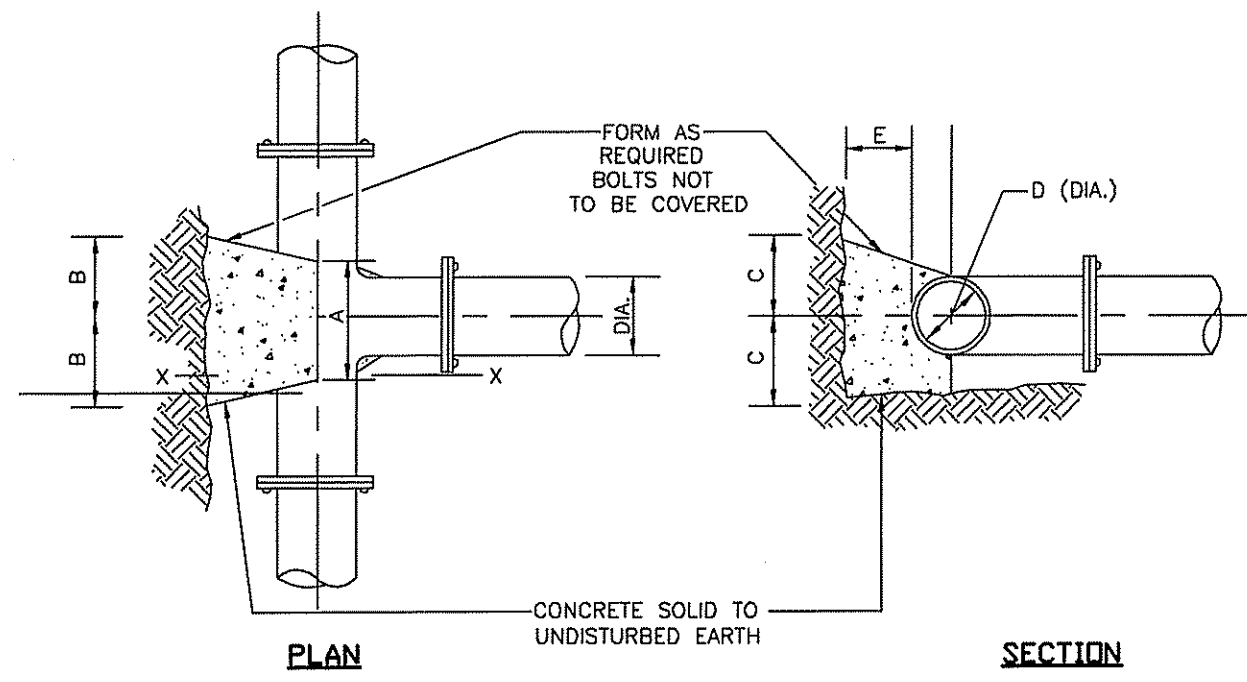
1. THE UNITED WATER COMPANY SHALL BE CONTACTED AND THEIR PERMISSION GRANTED PRIOR TO TAPPING A "LIVE" LINE. THE REQUIRED PROCEDURES AND TIME TABLE SHALL BE FOLLOWED EXACTLY.
2. INSTALLATION SHALL BE MADE UNDER PRESSURE AND FLOW SHALL BE MAINTAINED. THE DIAMETERS OF THE TAP SHALL BE NOT LESS THAN 1/4-IN LESS THAN THE INSIDE DIAMETER OF THE BRANCH LINE.
3. THE ENTIRE OPERATION SHALL BE CONDUCTED BY WORKERS EXPERIENCED IN THE INSTALLATION OF TAPPING SLEEVES AND VALVES. THE TAPPING MACHINE SHALL BE FURNISHED BY THE CONTRACTOR.
4. DETERMINE THE LOCATION OF THE LINE TO BE TAPPED TO CONFIRM THAT THE PROPOSED LOCATION WILL BE SATISFACTORY AND THAT NOT INTERFERENCE WILL BE ENCOUNTERED SUCH AS JOINTS OR FITTINGS. NO TAP OR SLEEVE WILL BE MADE CLOSER THAN THREE FEET FROM A PIPE JOINT.
5. TAPPING SLEEVE AND VALVE WITH BOXES SHALL BE SET SQUARELY CENTERED ON THE LINE TO BE TAPPED. ADEQUATE SUPPORT SHALL BE PROVIDED UNDER THE SLEEVE AND VALVE DURING THE TAPPING OPERATION. THRUST BLOCKS OR OTHER PERMANENT RESTRAINTS SHALL BE PROVIDED BEHIND ALL TAPPING SLEEVES. PROPER TAMPING OF SUPPORTING PIPE BEDDING MATERIAL AROUND AND UNDER THE VALVE AND SLEEVE IS MANDATORY FOR BURIED INSTALLATIONS.
6. AFTER COMPLETING THE TAP, THE VALVE SHALL BE FLUSHED TO ENSURE THAT THE VALVE SEAT IS CLEAN. ALL PROPER REGULATORY PROCEDURES (INCLUDING DISINFECTION) SHALL BE FOLLOWED EXACTLY.



TAPPING SLEEVE AND VALVE DETAILS
NOT TO SCALE



THRUST BLOCK DETAILS
NOT TO SCALE



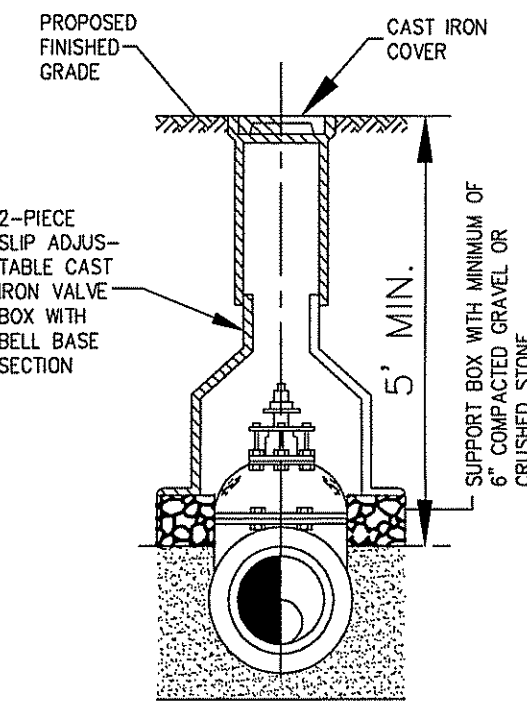
TEES & END CAPS

- NOTES**
1. ALL CONCRETE SHALL BE 4000 PSI @ 28 DAYS.
 2. CONCRETE THRUST BLOCK BLOCKS SHALL BEAR AGAINST UNDISTURBED EARTH.
 3. TO BE USED ONLY WHERE RESTRAINED PIPE CAN NOT BE USED DUE TO INSUFFICIENT LENGTH ON SIDE OR BRANCH CONNECTION.
 4. ALL DEAD END PIPE SHALL BE PROPERLY RESTRAINED WITH THRUST BLOCKS PRIOR TO PRESSURE TESTING.
 5. SIZE TABLE:

TEES		PIPE SIZE-D (DIA.)			
		6"	8"	12"	16" 20"
A	8"	10"	1'-0"	1'-3"	1'-6"
B	8"	10"	1'-2"	1'-4"	1'-6"
C	10"	1'-10"	1'-3"	1'-6"	1'-8"
E	8"	10"	1'-2"	1'-6"	1'-10"

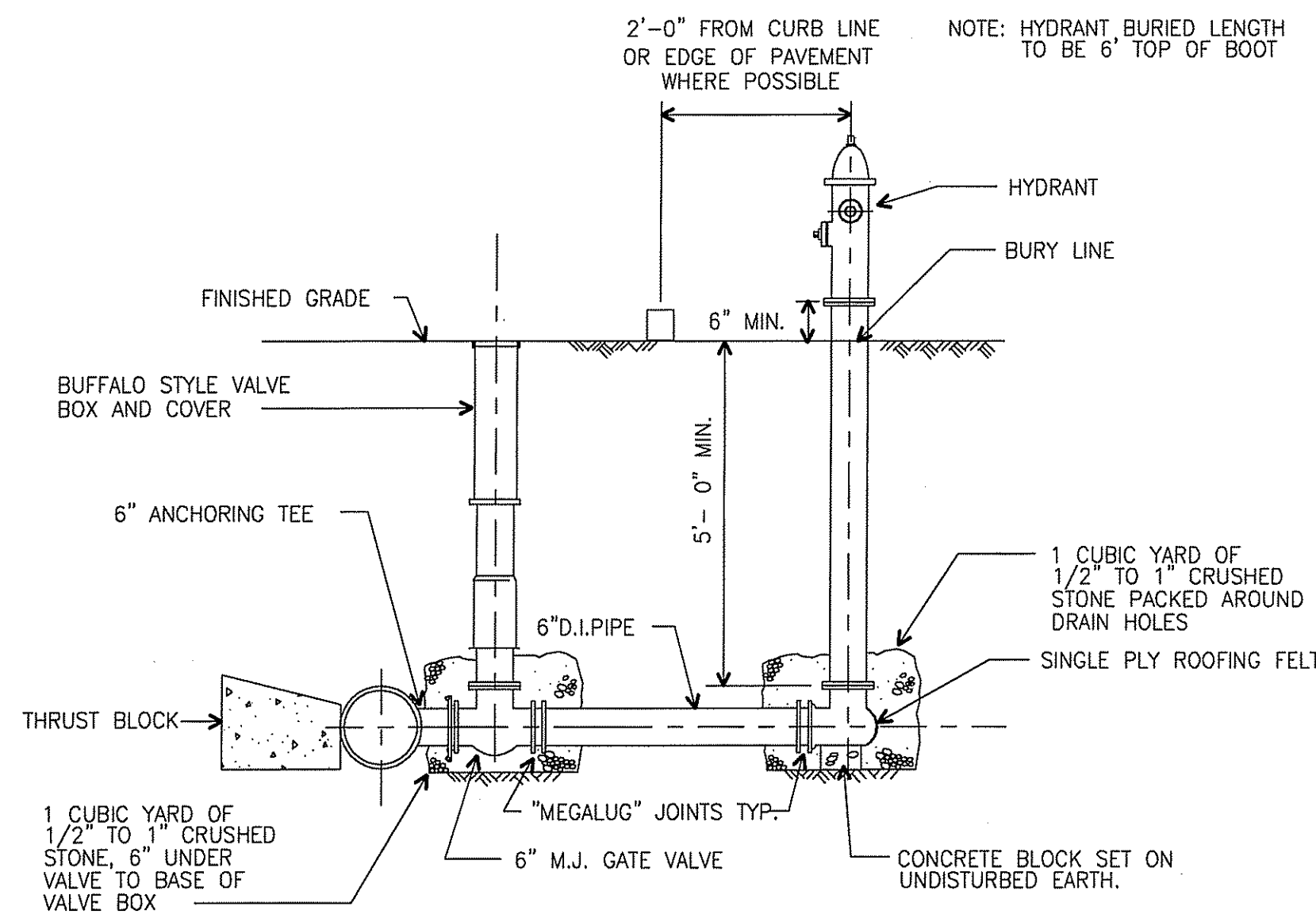
CONCRETE THRUST BLOCK REQUIREMENTS	
FITTING	MINIMUM BEARING AREA "H"X"B"
6-IN. TEE OR CAP	3 SQ. FT.
HYDRANT	3 SQ. FT.

TYPICAL THRUST BLOCK DETAIL
NOT TO SCALE

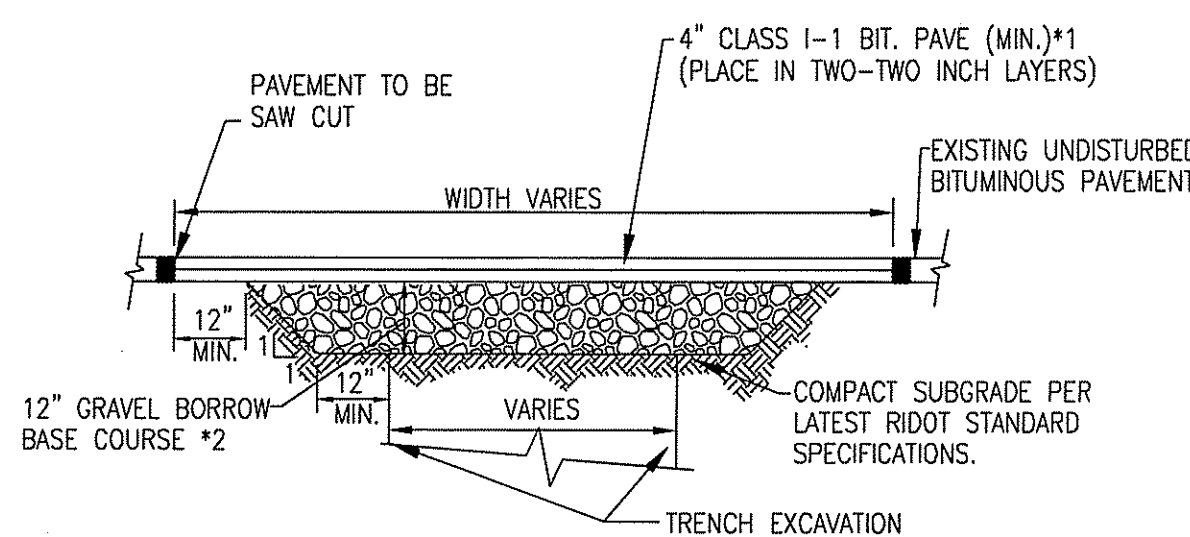


- NOTES:**
- CAST IRON AMERICAN OR FOREIGN MADE MEETING ALL REQUIREMENTS OF KOWA WITH PRIOR APPROVAL. SLIP STYLE 24" TOP SECTION, 48" BOTTOM SECTION WITH 5/16" BURY, LIDS WITH "WATER" CAST UPON IT.

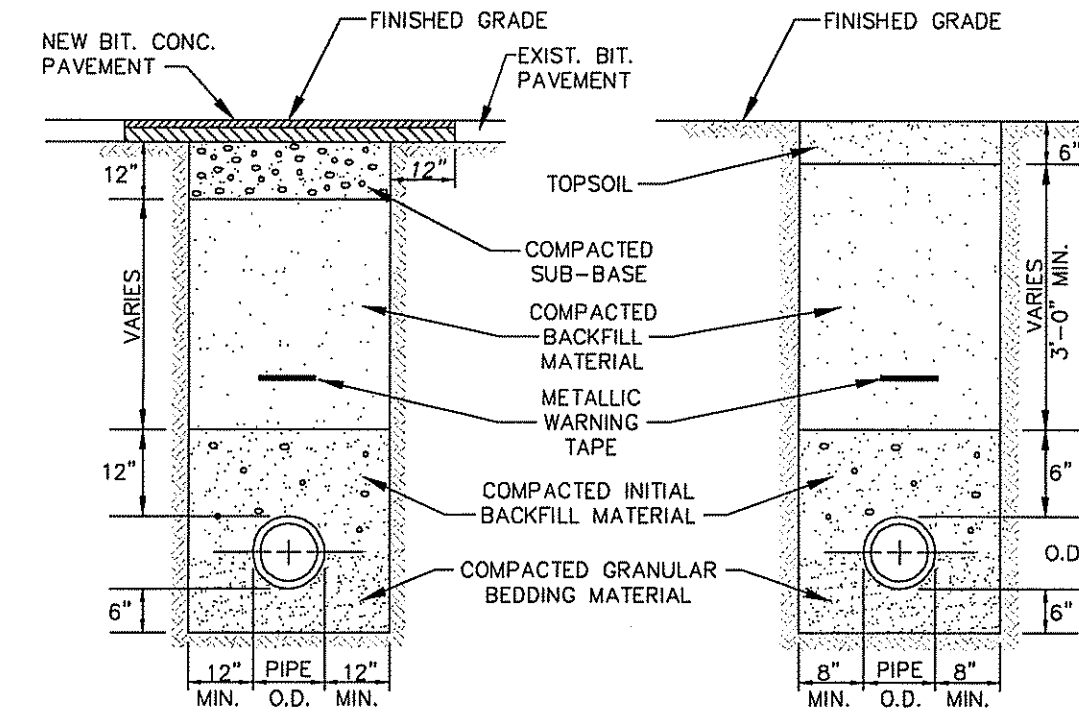
VALVE BOX ASSEMBLY DETAIL
NOT TO SCALE



TYPICAL HYDRANT DETAIL
NOT TO SCALE



PUBLIC STREET PAVEMENT CUT AND RESTORATION DETAIL
NOT TO SCALE



- GENERAL NOTES:**
1. REFER TO SPECIFICATION REGARDING BACKFILL MATERIALS.
 2. REFER TO SPECIFICATIONS AND DETAILS REGARDING PAVEMENT AND SURFACE RESTORATION.

TYPICAL DRAIN, SEWER, WATER & GAS TRENCH DETAILS
NOT TO SCALE

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W. Joseph Conroy

NOV 30 2007

OWNER:
LISA FIORE
74 KETTLE POND DRIVE
SOUTH KINGSTOWN, RHODE ISLAND 02879

Steven M. Clarke
No. 4477
REGISTERED PROFESSIONAL ENGINEER

COMMONWEALTH ENGINEERS & CONSULTANTS, INC.
400 SMITH STREET
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REVISIONS

No.	DATE	DRWN	CHKD
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COMPREHENSIVE PERMIT PRELIMINARY PLAN SUBMISSION
for
HOPKINS GREEN II
in
SOUTH KINGSTOWN, RHODE ISLAND
CONSTRUCTION DETAILS - 6

SCALE: AS NOTED SHEET NO: 14 of 14
DRAWN BY: DMS DESIGN BY: INT CHECKED BY: SMC
DATE: 6/1/07 PROJECT NO.: 01146.00