

TOWN OF AMHERST

ERIE COUNTY

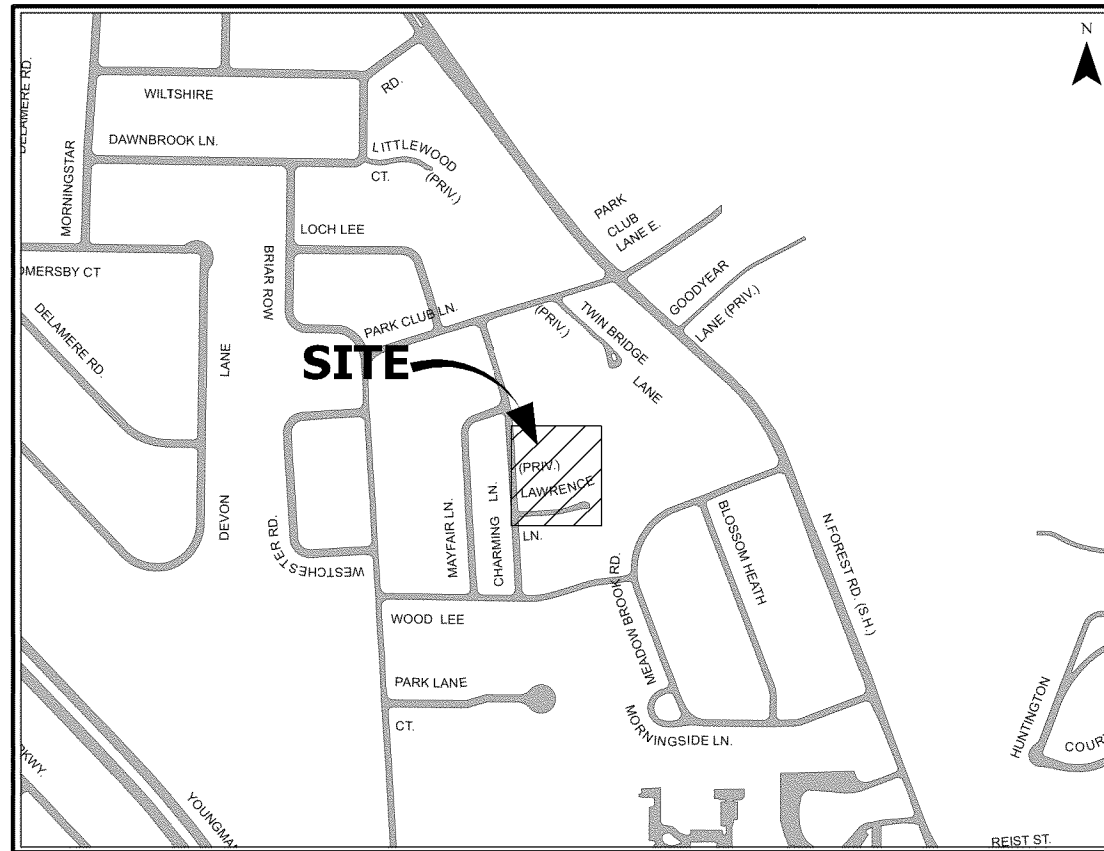


NEW YORK

DITCH 9A SOUTH WEIR REPLACEMENT JOB # 99-90A

Town Supervisor
Barry A. Weinstein

Town Councilmembers
Richard "Jay" Anderson
Mark A. Manna
Guy R. Marlette, Deputy Supervisor
Barbara S. Nuchereno
Steven D. Sanders



APRIL 2013

Town Attorney
E. Thomas Jones

Interim Town Engineer
Thomas C. Ketchum, P.E.

Supt. of Highways
Robert Anderson



TOWN OF AMHERST
THOMAS C. KETCHUM, P.E.
ENGINEERING DEPARTMENT
1100 N. FOREST RD.
WILLAMSVILLE, NY 14221



DITCH 9A SOUTH WEIR REPLACEMENT

TITLE PAGE

FIELD CREW: CPS/SKG

DRAWN BY: SKG

JOB NO. 99-90A

CHECKED BY: CPS

CHECKED BY: BJA

SCALE: VARIES

DATE: 4/19/13

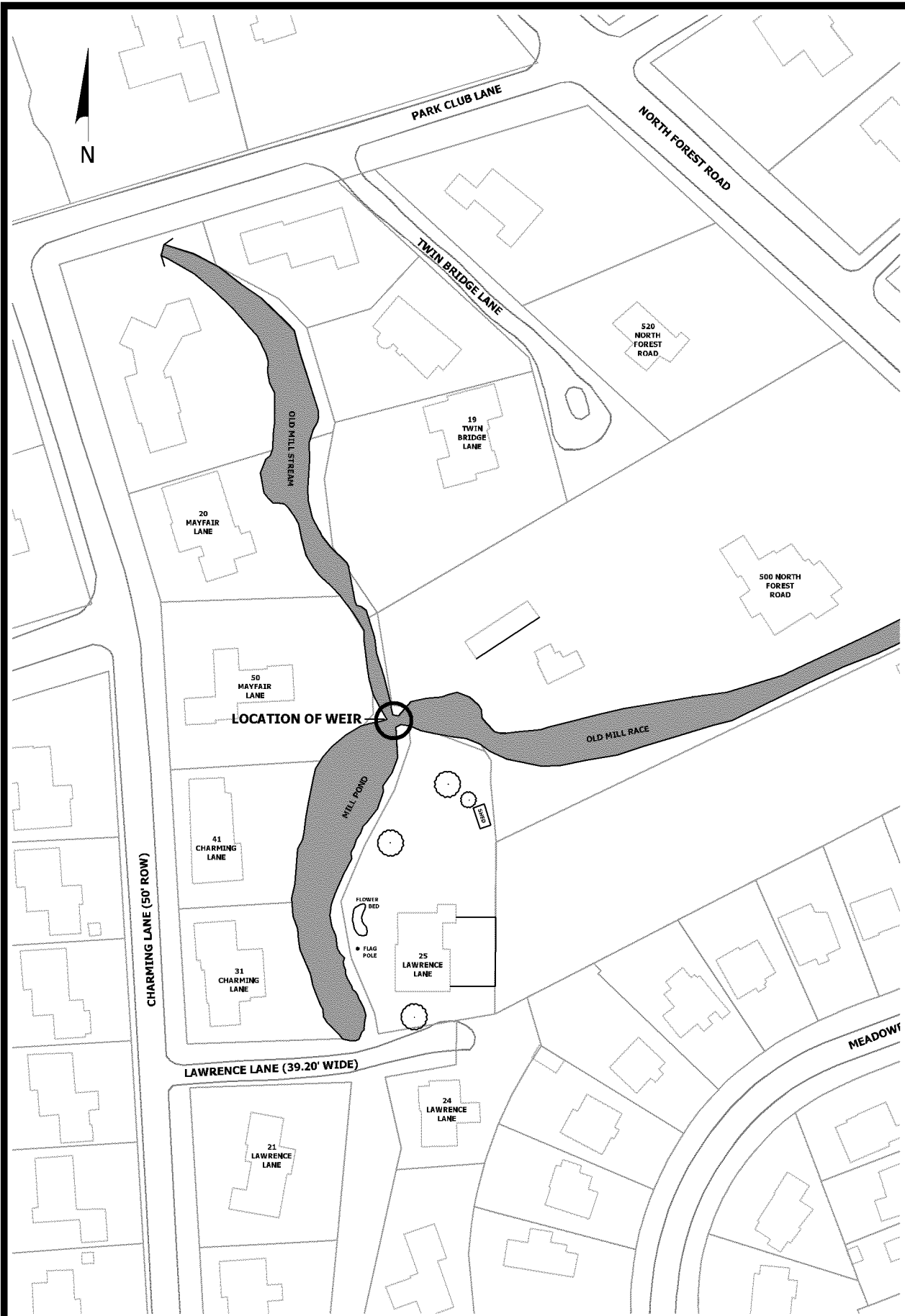
REVISIONS

NO. BY DATE

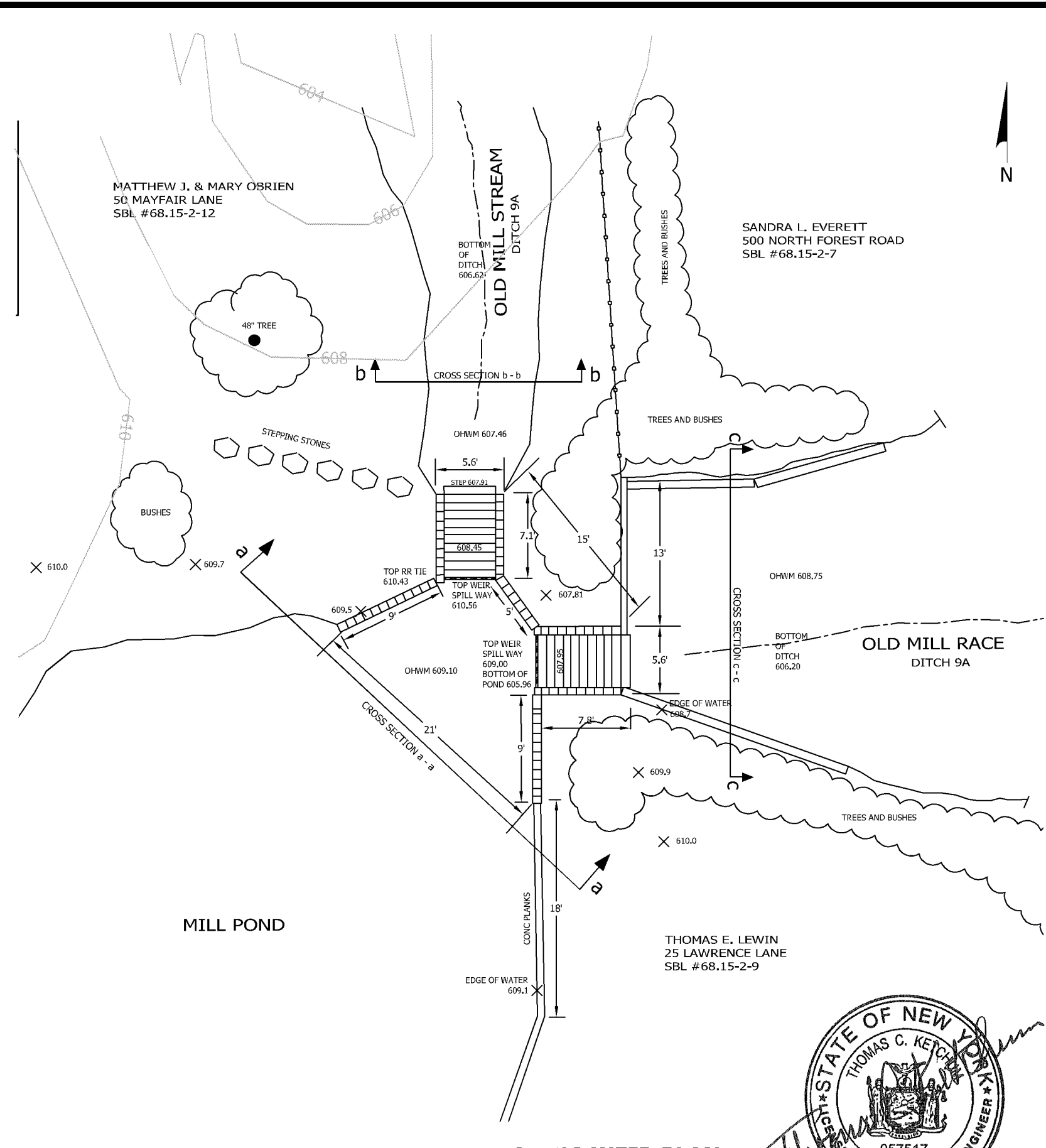
DWG. NO.

1

SHT. NO. 1 OF 12



EXISTING DITCH 9A PLAN
NTS



EXISTING WEIR PLAN
SCALE: 1" = 20'



TOWN OF AMHERST
THOMAS C. KETCHUM, P.E.
ENGINEERING DEPARTMENT
1100 N. FOREST RD.
WILLAMSVILLE, NY 14221



DITCH 9A SOUTH WEIR REPLACEMENT
EXISTING SITE PLAN

FIELD CREW:	CPS/SKG	
DRAWN BY:	SKG	
JOB NO.	99-90A	
CHECKED BY:	CPS	
CHECKED BY:	BJA	
SCALE:	VARIES	
DATE:	4/19/13	
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DITCH 9A SOUTH WEIR REPLACEMENT
 PROPOSED SITE PLAN

FIELD CREW: CPS/SKG

DRAWN BY: SKG

JOB NO. 99-90A

CHECKED BY: CPS

CHECKED BY: BJA

SCALE: 1" = 6'

DATE: 4/19/13

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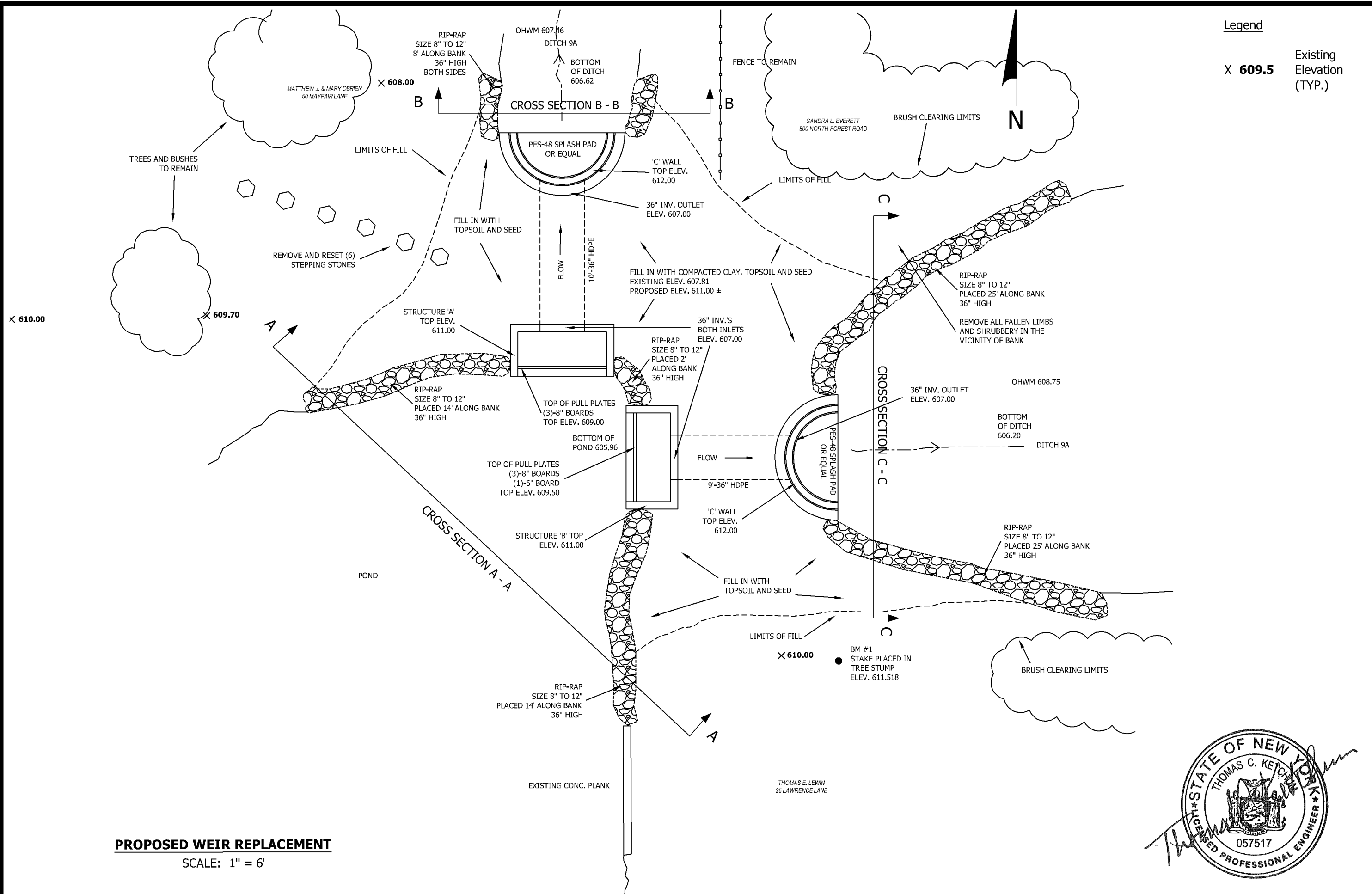
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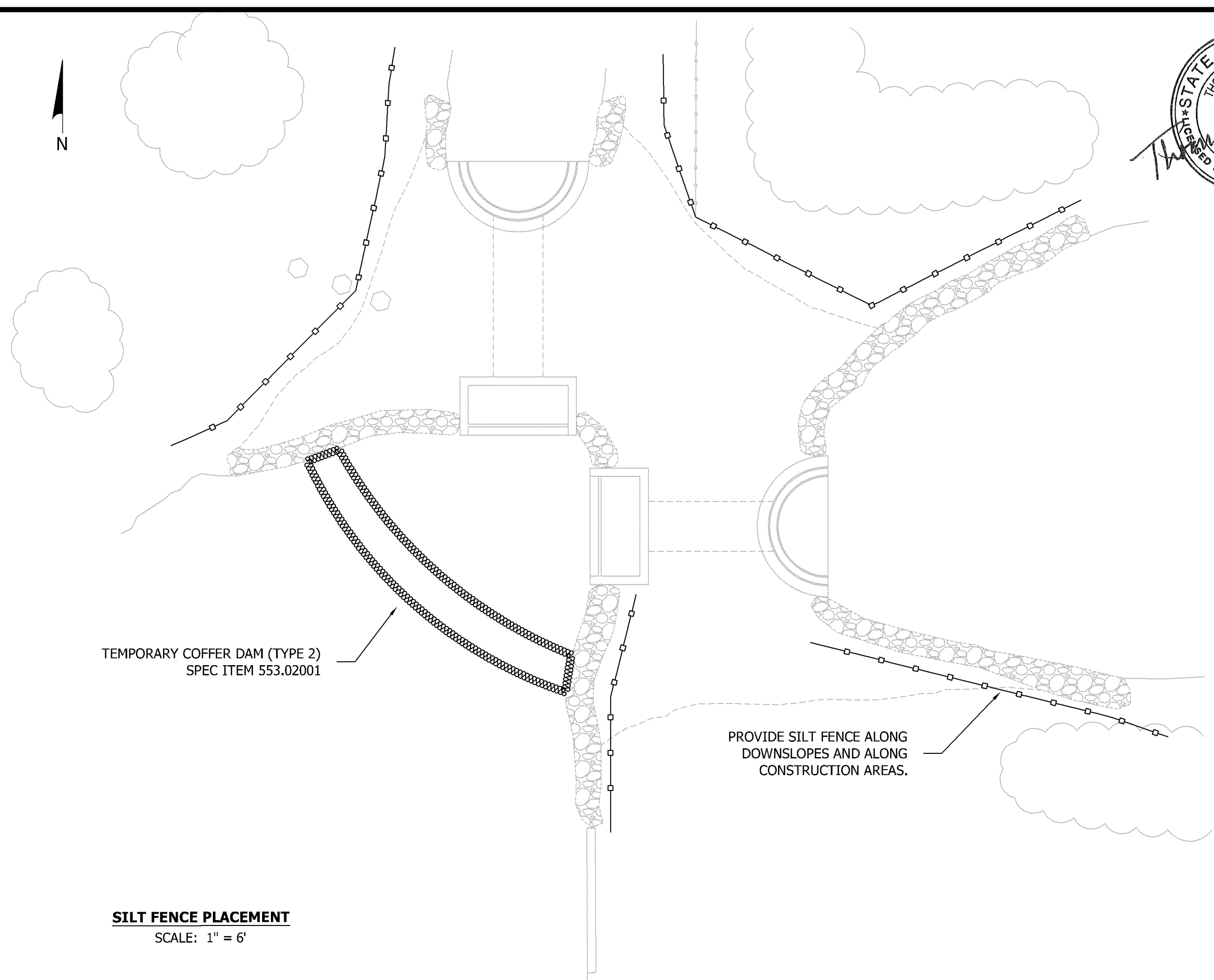
3

SHT. NO. 3 OF 12

Legend

X 609.5 Existing Elevation (TYP.)





TEMPORARY COFFER DAM (TYPE 2)
SPEC ITEM 553.02001

PROVIDE SILT FENCE ALONG
DOWNSLOPES AND ALONG
CONSTRUCTION AREAS.

SILT FENCE PLACEMENT
SCALE: 1" = 6'



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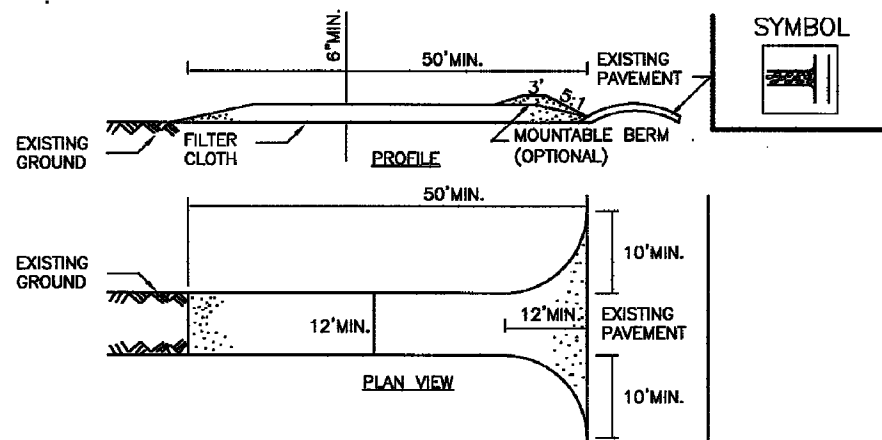


DITCH 9A SOUTH WEIR REPLACEMENT
EROSION CONTROL PLAN

FIELD CREW: CPS/SKG
DRAWN BY: SKG
JOB NO. 99-90A
CHECKED BY: CPS
CHECKED BY: BJA
SCALE: 1" = 6'
DATE: 4/19/13

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DWG. NO.
4
SHT. NO. 4 OF 12



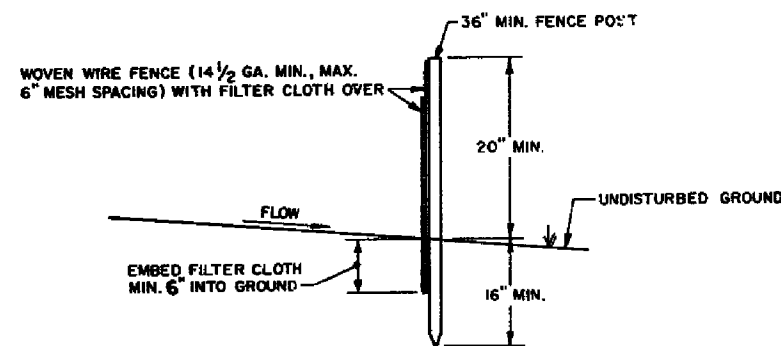
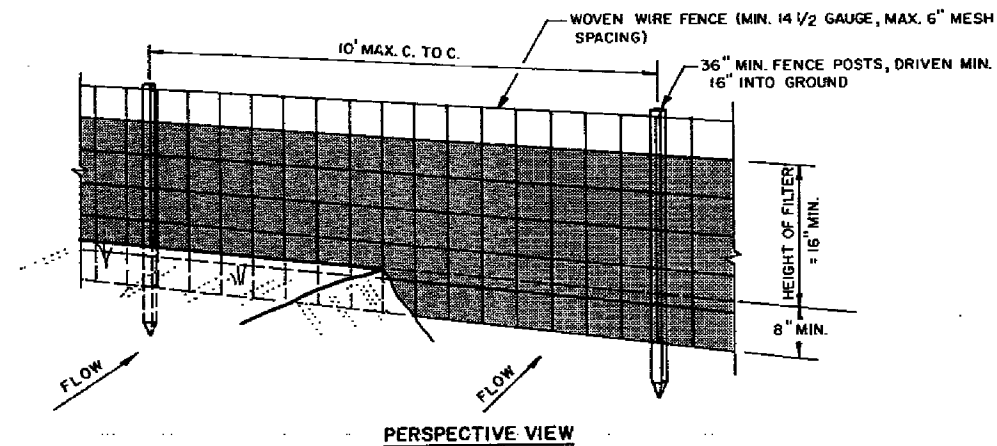
CONSTRUCTION SPECIFICATIONS

1. STONE SIZE - USE 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH - NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY).
3. THICKNESS - NOT LESS THAN SIX (6) INCHES.
4. WIDTH - TWELVE (12) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. TWENTY-FOUR (24) FOOT IF SINGLE ENTRANCE TO SITE.
5. FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
6. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY, ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
8. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON A AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

STABILIZED CONSTRUCTION ENTRANCE

CONSTRUCTION SEQUENCING SCHEDULE

1. OBTAIN PLAN APPROVAL AND OTHER APPLICABLE PERMITS.
2. FLAG WETLANDS AND/OR OTHER SENSITIVE AREAS FOR PROTECTION. FLAG CLEARING LIMITS IN ACCORDANCE WITH EROSION CONTROL PLAN. THE AREA TO BE CLEARED IS DELINEATED ON THE PLANS.
3. INSTALL THE STABILIZED CONSTRUCTION ENTRANCE OFF LAWRENCE LANE.
4. INSTALL ALL TEMPORARY EROSION AND SEDIMENT CONTROL PRACTICES (SILT FENCE AND STONE CHECK DAMS) AS DESIGNED ON PLANS.
5. PERFORM INITIAL SITE INSPECTION OF ALL INSTALLED EROSION AND SEDIMENT CONTROL PRACTICES.
6. CLEAR AND STRIP AREA TO BE FILLED.
7. PLACE FILL WHERE SHOWN ON PLANS.
8. STABILIZE ALL DISTURBED AREAS AS SOON AS POSSIBLE.
9. ONCE ALL DISTURBED AREAS ARE VEGETATED, ALL TEMPORARY SEDIMENT CONTROL MEASURES CAN BE REMOVED. SITE CONTRACTOR MUST HAVE THE ENTIRE SITE STABILIZED PRIOR TO WITHDRAWING FROM SITE.



SILT FENCE DETAIL

N.T.S.

FABRICATED SILT FENCE NOTES

1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES.
2. FILTER CLOTH TO BE TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED.
4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE

POSTS: STEEL EITHER "T" OR "U" TYPE OR 2" HARDWOOD

FENCE: WOVEN WIRE, 14 1/2 GA. 6" MAX. MESH OPENING

FILTER CLOTH: FILTER X, MIRAFI 100X, STABILINKA T140N OR APPROVED EQUAL.

PREFABRICATED UNIT: GEOFAB, ENVIROFENCE, OR APPROVED EQUAL.

SOIL EROSION AND SEDIMENT NOTES

1. THE CONTRACTOR SHALL COMPLY WITH ALL GENERAL NOTES FOR THE UNITED STATES ARMY CORPS OF ENGINEERS, SECTION 404 NATIONWIDE PERMITS.
2. THE CONTRACTOR SHALL COMPLY WITH ALL GENERAL NOTES FOR THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION, SECTION 401 WATER QUALITY CERTIFICATION.
3. ALL STORM DRAINAGE OUTLETS SHALL BE STABILIZED, AS REQUIRED AND A.O.B.E., BEFORE THE DISCHARGE POINTS BECOME OPERATIONAL.
4. THE SITE SHALL AT ALL TIMES BE GRADED AND MAINTAINED SUCH THAT ALL STORM WATER RUNOFF IS DIVERTED TO SOIL EROSION AND SEDIMENT CONTROL DEVICES.
5. STORM WATER FROM DISTURBED AREAS MUST BE PASSED THROUGH A SEDIMENT TRAP OR SILT FENCE BEFORE DISCHARGE BEYOND DISTURBED AREAS OR INTO INLETS OF OTHER DRAINAGE SYSTEMS.
6. NO MATERIAL SHALL BE ALLOWED TO BE DROPPED INTO THE STREAM CHANNEL. ANY DEBRIS OR EXCESS MATERIALS FROM CONSTRUCTION OF THIS PROJECT SHALL BE IMMEDIATELY AND COMPLETELY REMOVED FROM THE BED AND BANKS OF ALL WATER AREAS TO AN APPROPRIATE UPLAND AREA FOR DISPOSAL.
7. ALL DREDGED AND EXCAVATED MATERIAL SHALL BE DISPOSED OF ON AN UPLAND SITE AND SUITABLY STABILIZED SO THAT IT CANNOT REASONABLY RE-ENTER ANY WATER BODY.
8. IN THE EVENT OF DE-WATERING OPERATIONS BECOME NECESSARY, A SETTLING BASIN WILL BE REQUIRED UNLESS THE PUMP DISCHARGE IS AS CLEAR AND FREE OF SEDIMENT AS THE FLOWING STREAM.
9. THE LOCATIONS AND TYPES OF EROSION AND SEDIMENT CONTROL MEASURES, AS INDICATED IN THE CONTRACT DOCUMENTS MAY REQUIRE FIELD ADJUSTMENT DEPENDING ON THE SEQUENCE OF CONSTRUCTION ACTIVITIES, CONSTRUCTION METHODS, AND/OR ACTUAL FIELD CONDITIONS.
10. ALL IN-STREAM WORK SHALL BE CONDUCTED DURING PERIODS OF LOW FLOW.
11. THE CONTRACTOR SHALL NOT USE THE STREAM BED OR BANKS AS A STAGING AREA FOR EQUIPMENT OR MATERIALS. AFTER EACH WORK DAY, ALL MECHANIZED EQUIPMENT SHALL BE REMOVED FROM THE BED AND BANKS OF THE CREEK AND STORED IN AN APPROVED UPLAND SITE.
12. THE CONTRACTOR SHALL SUBMIT FOR APPROVAL TO THE ENGINEER IN CHARGE A WRITTEN SCHEDULE AND PROPOSED MEASURES FOR TEMPORARY AND PERMANENT SOIL EROSION AND SEDIMENT CONTROL AS REQUIRED BE SECTION 209 OF THE NYS DOT STANDARD SPECIFICATIONS.

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DITCH 9A SOUTH WEIR REPLACEMENT

EROSION CONTROL DETAILS

FIELD CREW: CPS/SKG

DRAWN BY: SKG

JOB NO. 99-90A

CHECKED BY: CPS

CHECKED BY: BJA

SCALE: 1" = 6'

DATE: 4/19/13

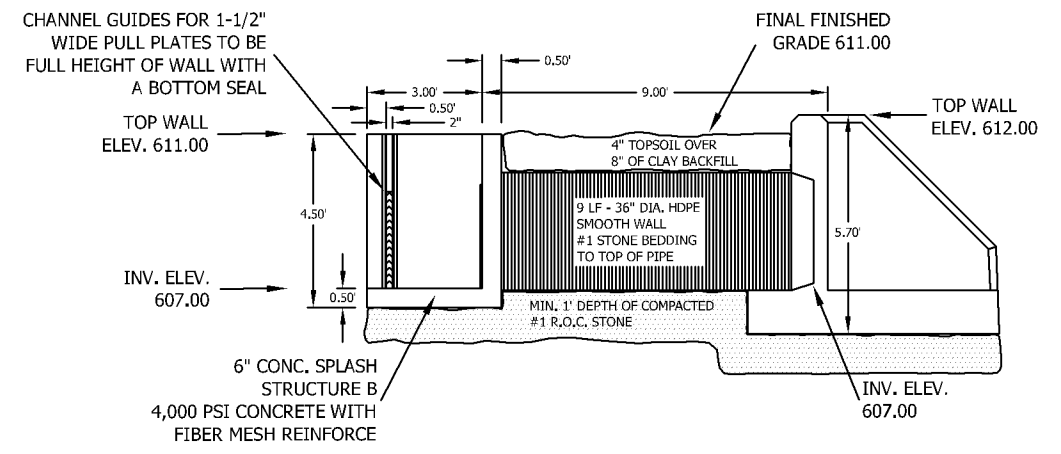
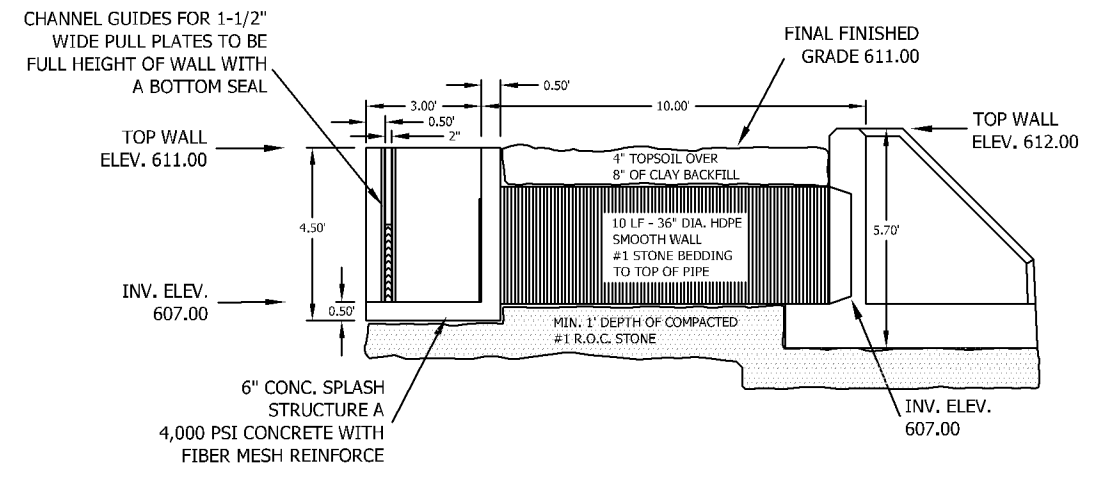
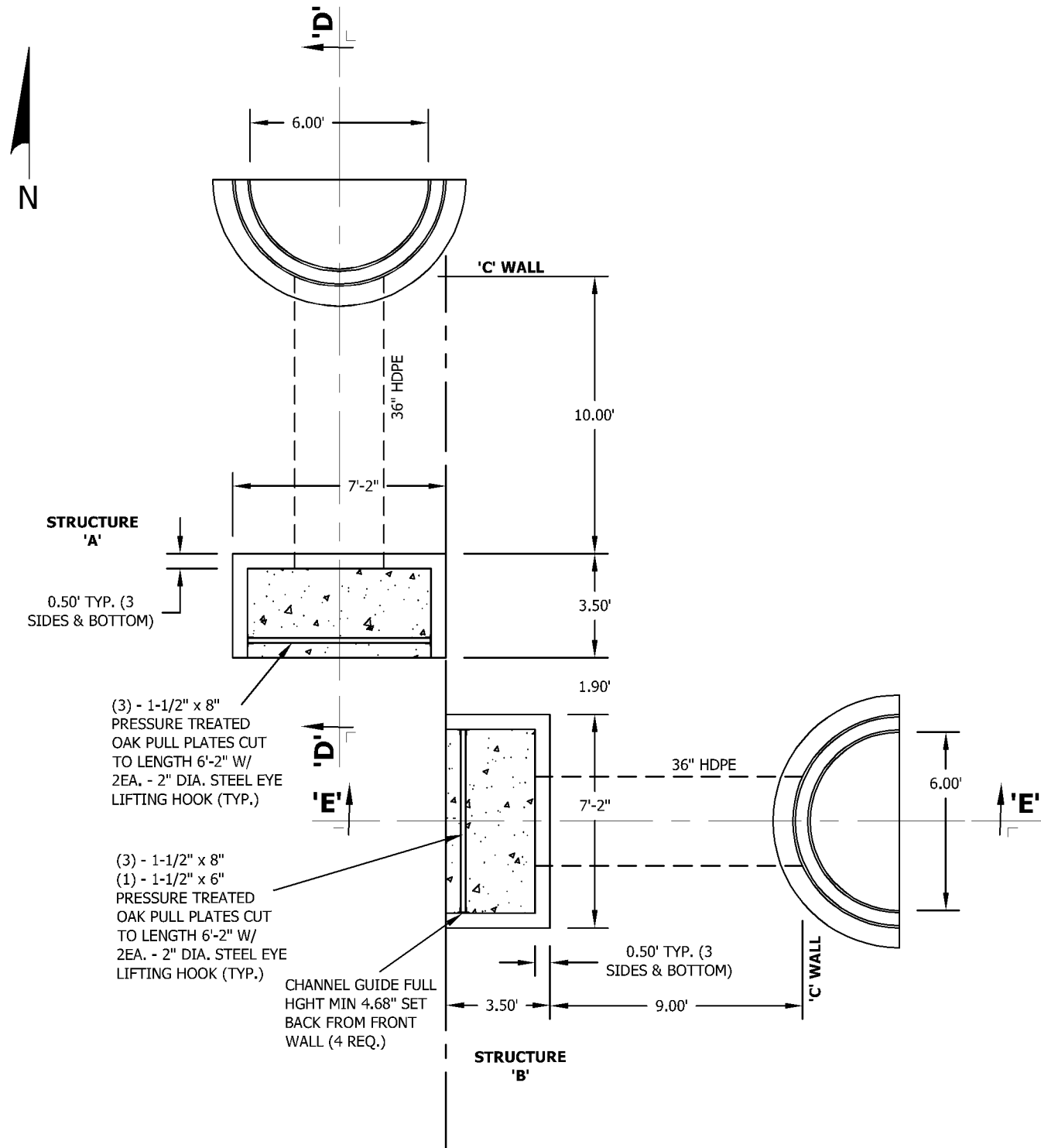
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DWG. NO.

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SHT. NO. 5 OF 12



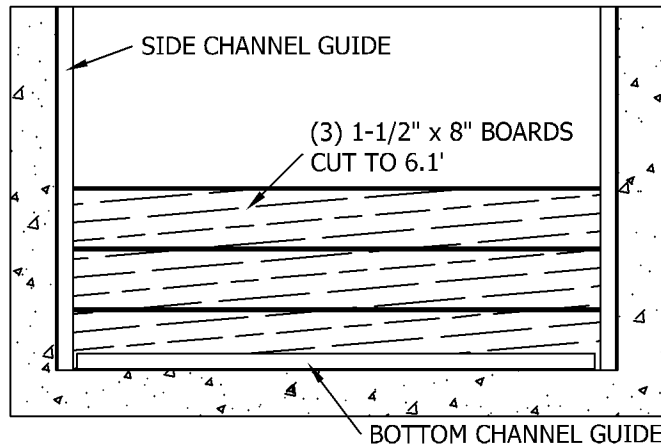
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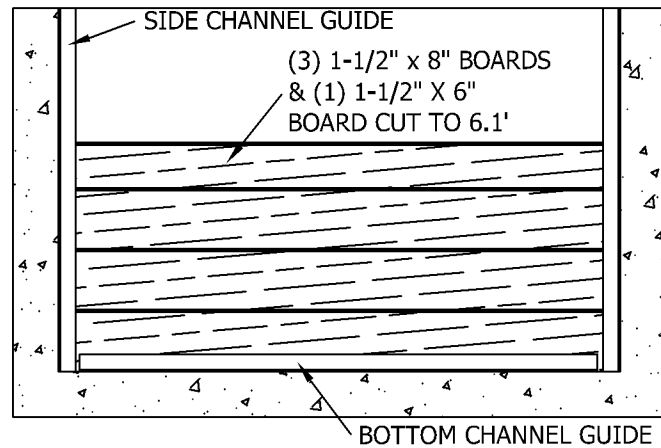
DITCH 9A SOUTH WEIR REPLACEMENT
DETAILS

FIELD CREW: CPS/SKG
DRAWN BY: SKG
JOB NO. 99-90A
CHECKED BY: CPS
CHECKED BY: BJA
SCALE: 1" = 5'
DATE: 4/19/13

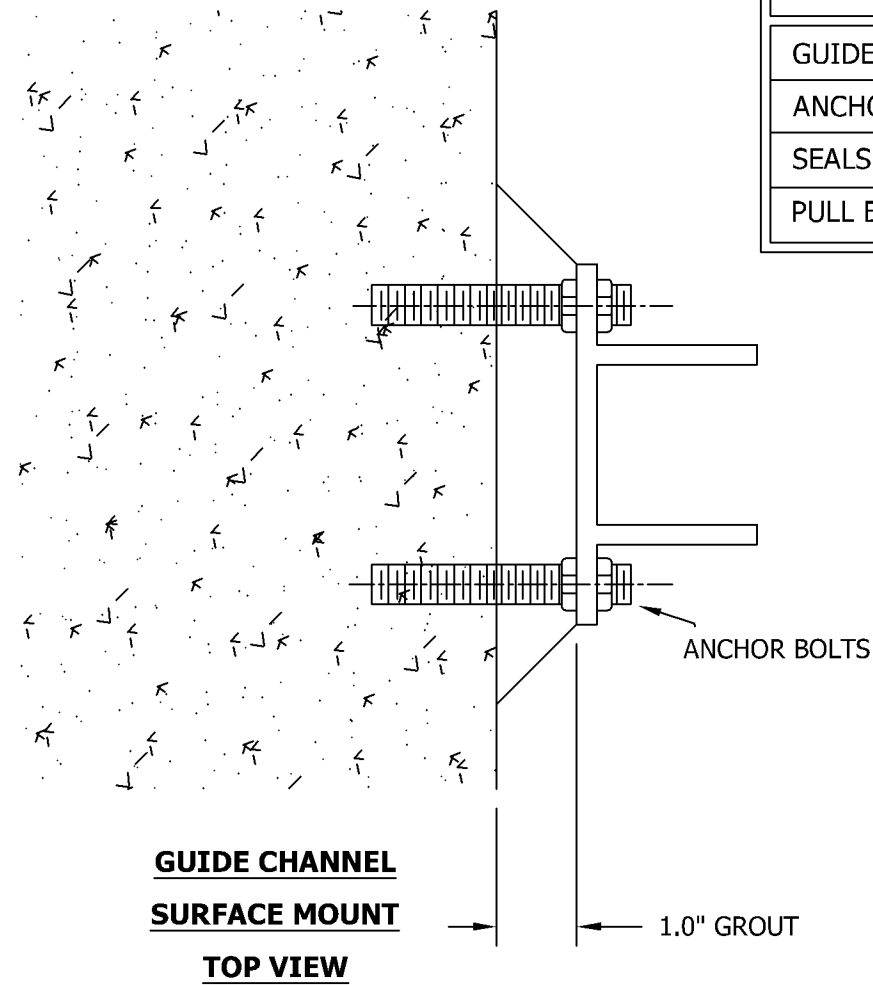
REVISIONS		
NO.	BY	DATE



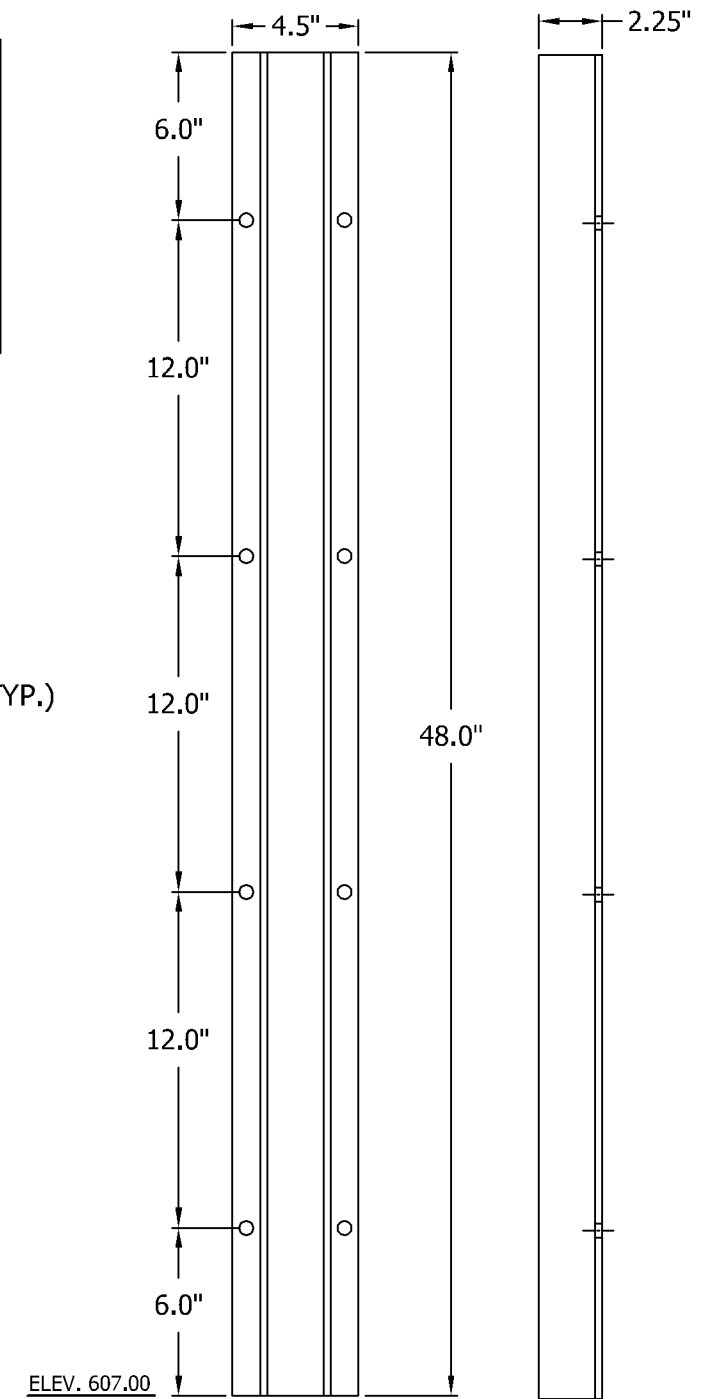
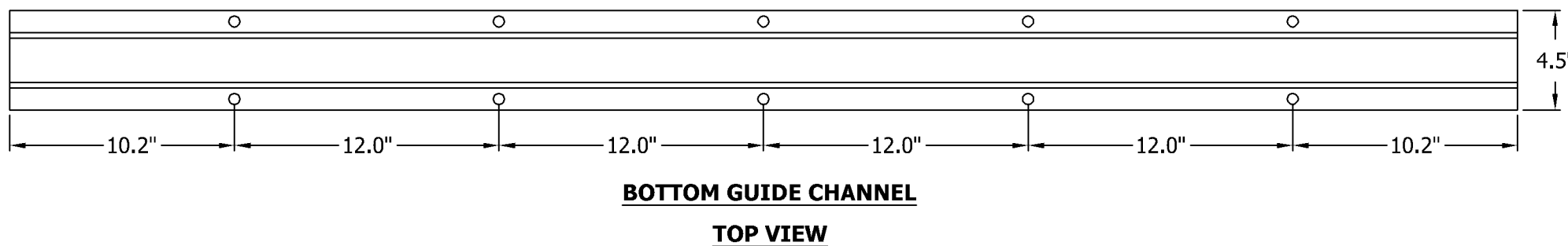
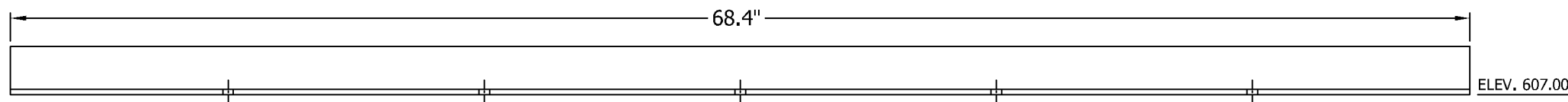
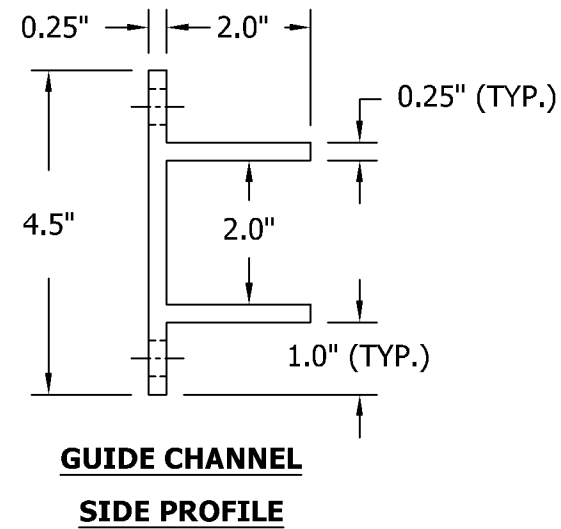
STRUCTURE A



STRUCTURE B



PARTS	MATERIAL
GUIDE CHANNEL	ALUMINUM
ANCHOR BOLTS	STAINLESS STEEL
SEALS	APPROVED BY ENGINEER
PULL BOARDS	PRESSURE TREATED OAK



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DITCH 9A SOUTH WEIR REPLACEMENT
 GUIDE CHANNEL DETAILS

FIELD CREW: CPS/SKG
 DRAWN BY: SKG
 JOB NO. 99-90A
 CHECKED BY: CPS
 CHECKED BY: BJA

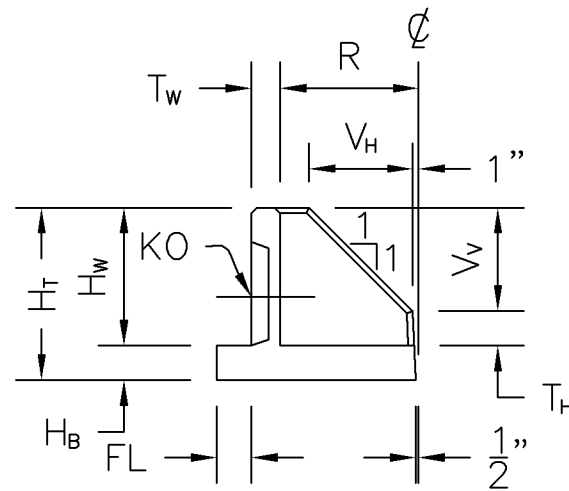
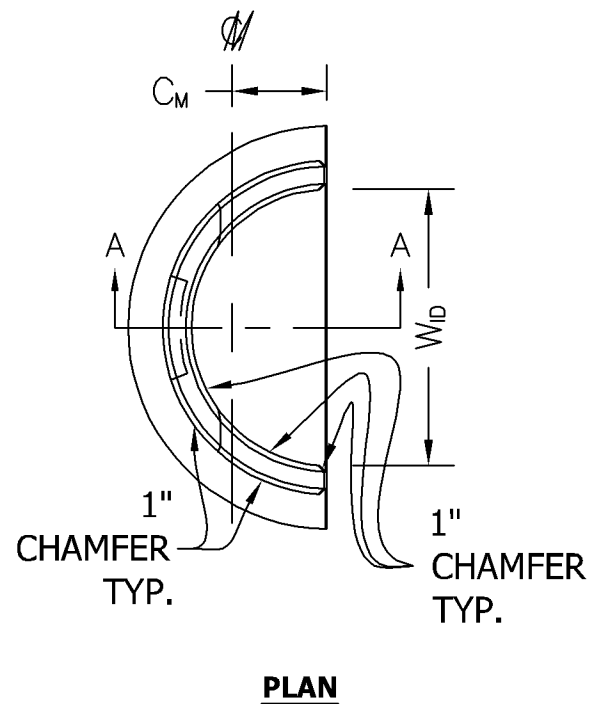
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 DATE: 4/19/13

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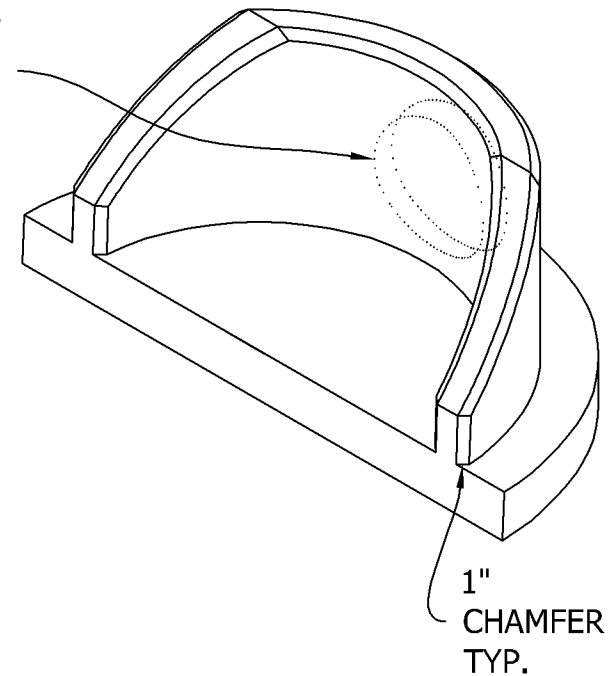
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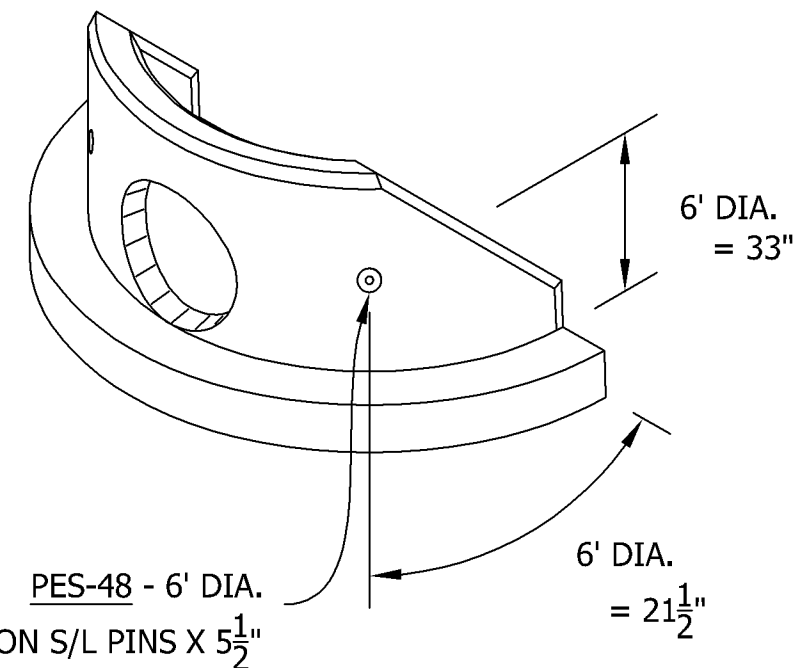
SHT. NO. 8 OF 12



CONTRACTOR TO BREAK OUT
KNOCKOUT AS REQUIRED,
INSTALL PIPE AND GROUT IN PLACE



ISOMETRIC - RIGHT SIDE VIEW

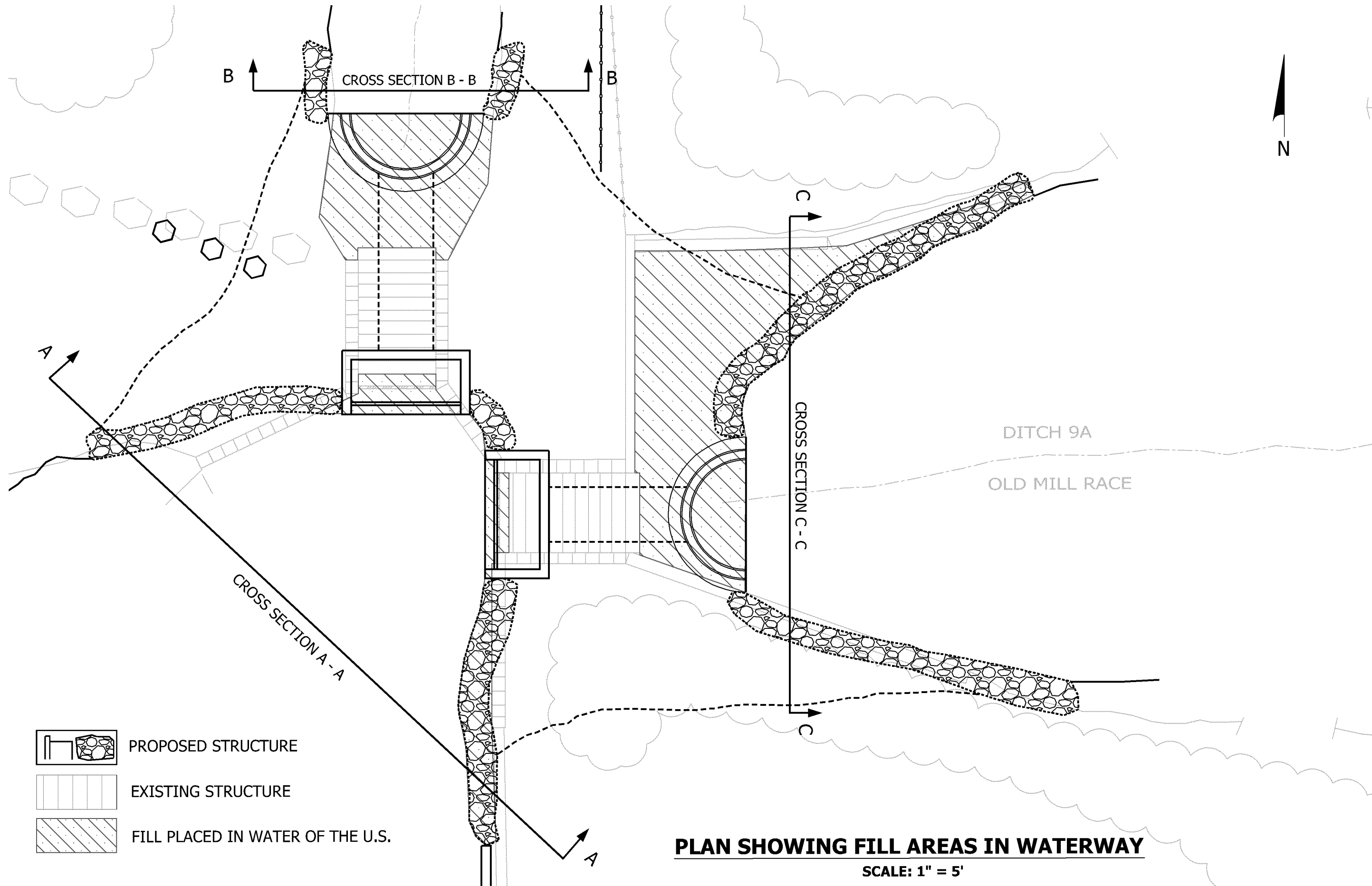



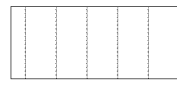
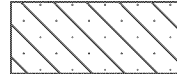
ISOMETRIC - LEFT SIDE VIEW

SPECIFICATIONS:
 CONCRETE: 4,000 P.S.I. @ 28 DAYS.
 ENTRAINED AIR: 5% - 9%.
 STEEL: A.S.T.M. A496-A615 GRADE 60-60 KSI.
 DESIGN LOADING: A.A.S.H.T.O. HS-20-44 WITH 30% IMPACT AND EQUIVALENT
 SOIL PRESSURE EQUIVALENT SOIL PRESSURE OF 130 (PCF).
 FLOTATION FORCES NOT ACCOUNTED FOR.

CODE	W _{ID}	MAX PIPE OD	KO	R	T _w	H _w	H _B	H _T	T _H	V _H	V _V	FL	C _M	WEIGHT
PES-48	6'	48"	48"	3'	7"	60"	8"	68"	30"	30"	30"	6"		6,115.7 LBS.





-  PROPOSED STRUCTURE
-  EXISTING STRUCTURE
-  FILL PLACED IN WATER OF THE U.S.

PLAN SHOWING FILL AREAS IN WATERWAY

SCALE: 1" = 5'

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**DITCH 9A SOUTH WEIR REPLACEMENT
 SUPERIMPOSED STRUCTURE**

FIELD CREW: CPS/SKG

DRAWN BY: SKG

JOB NO. 99-90A

CHECKED BY: CPS

CHECKED BY: BJA

SCALE: 1" = 5'

DATE: 4/19/13

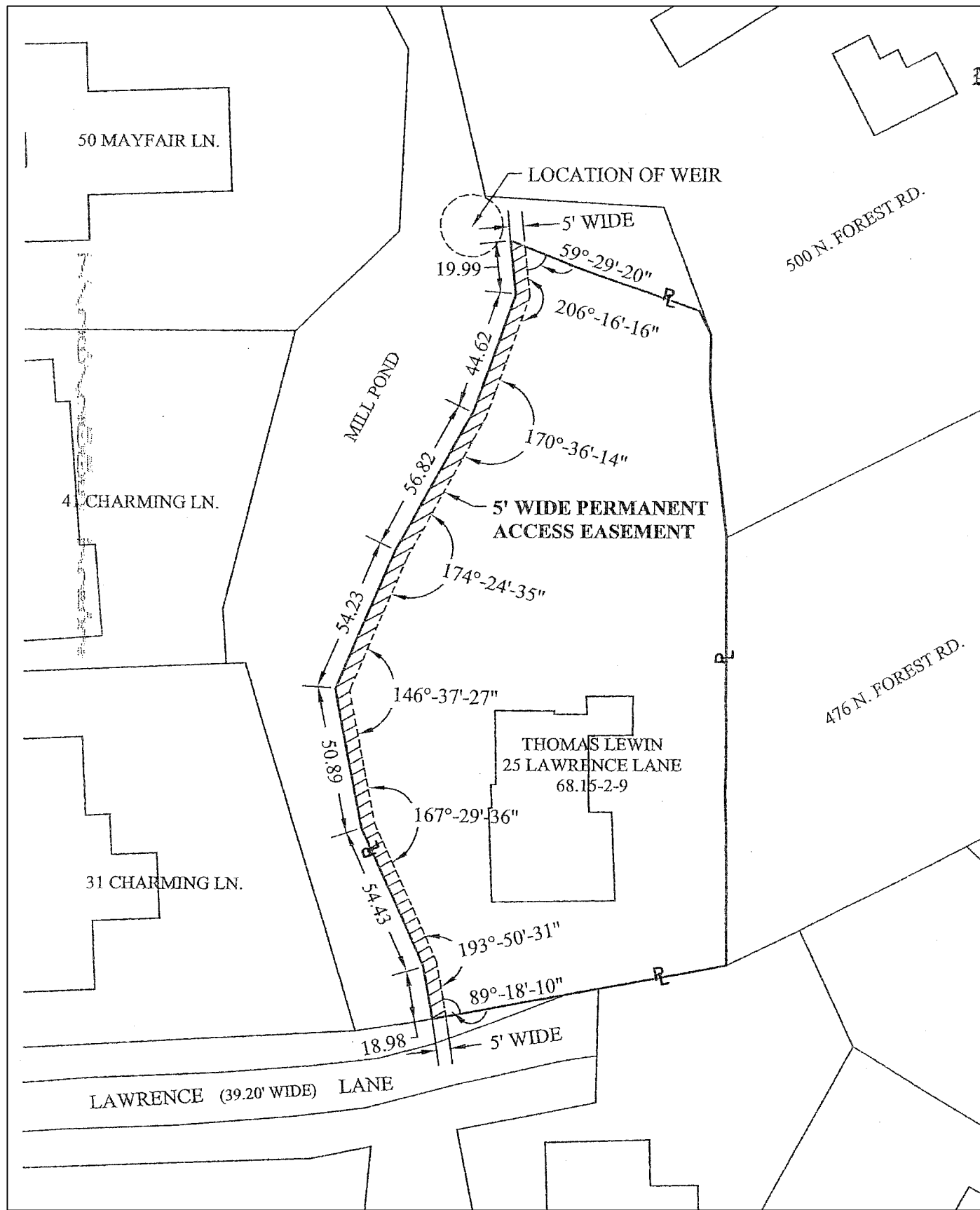
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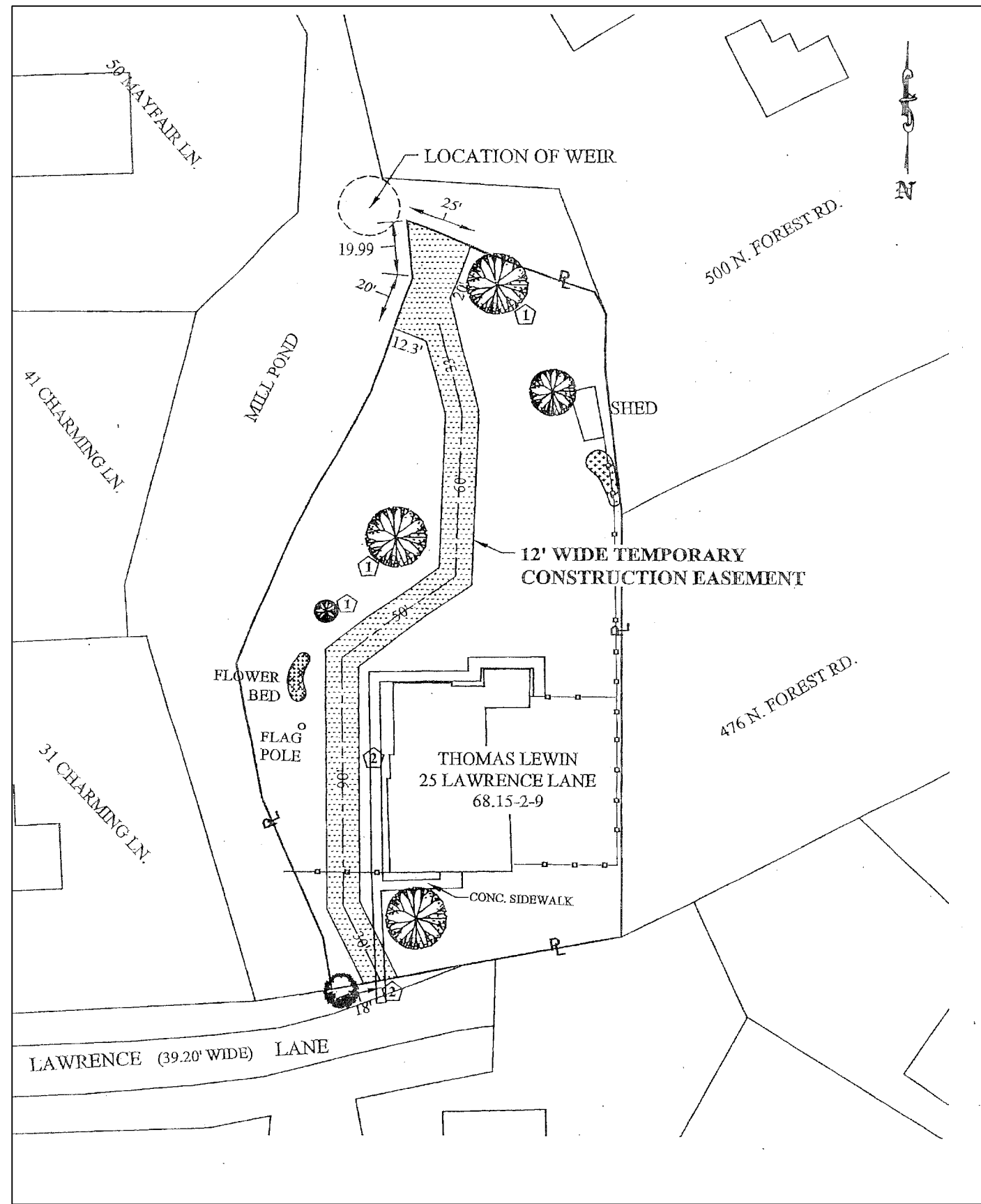
DWG. NO.

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SHT. NO. 10 OF 12



**PERMANENT ACCESS
EASEMENT**



**TEMPORARY CONSTRUCTION
EASEMENT**



**DITCH 9A SOUTH WEIR REPLACEMENT
EASEMENTS**

FIELD CREW: CPS/SKG

DRAWN BY: SKG

JOB NO. 99-90A

CHECKED BY: CPS

CHECKED BY: BJA

SCALE: 1" = 50'

DATE: 4/19/13

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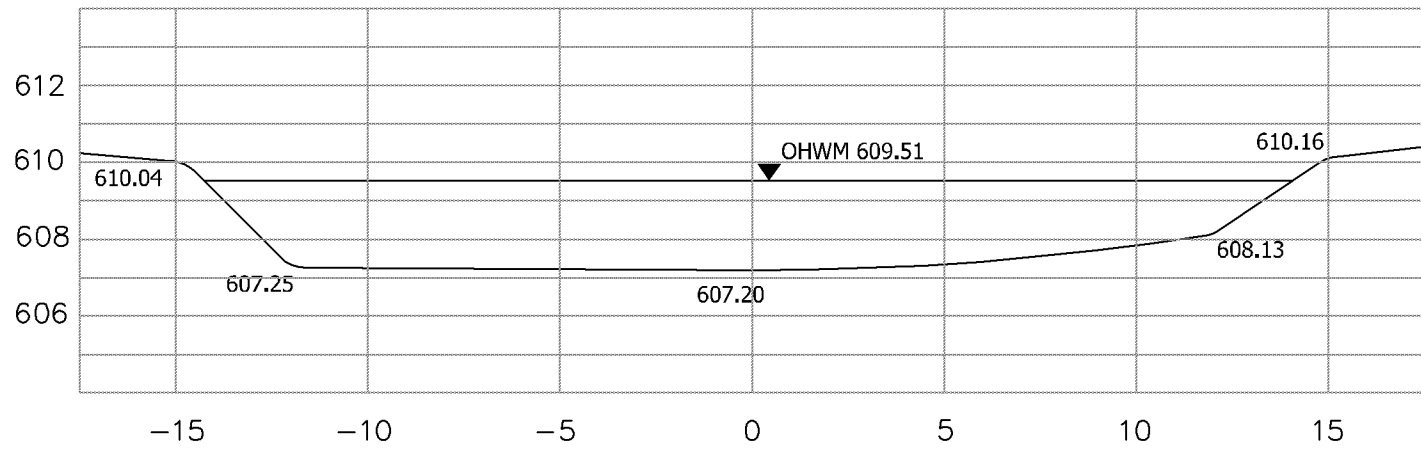
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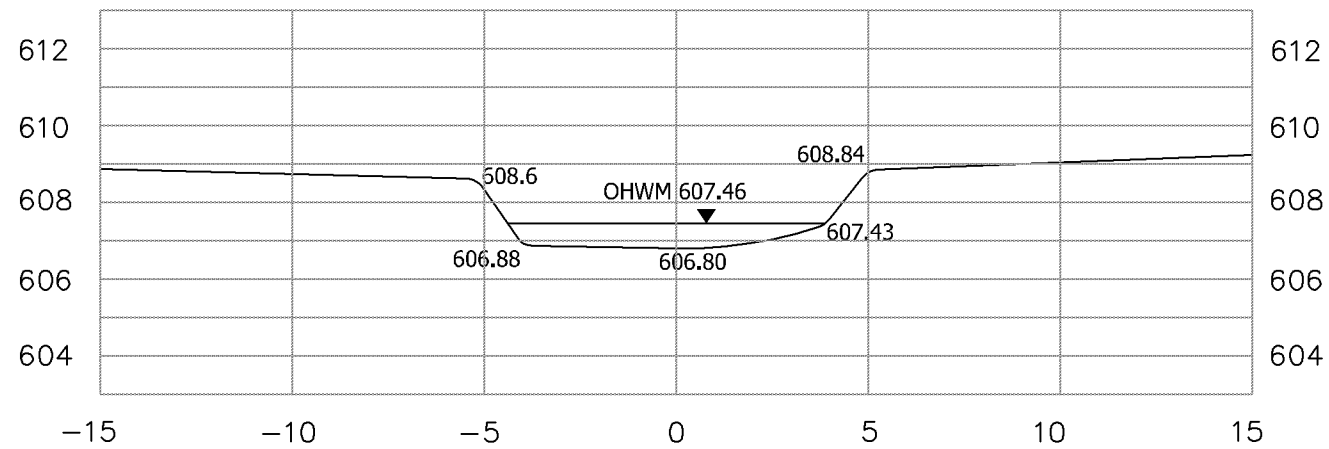
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SHT. NO. 12 OF 12

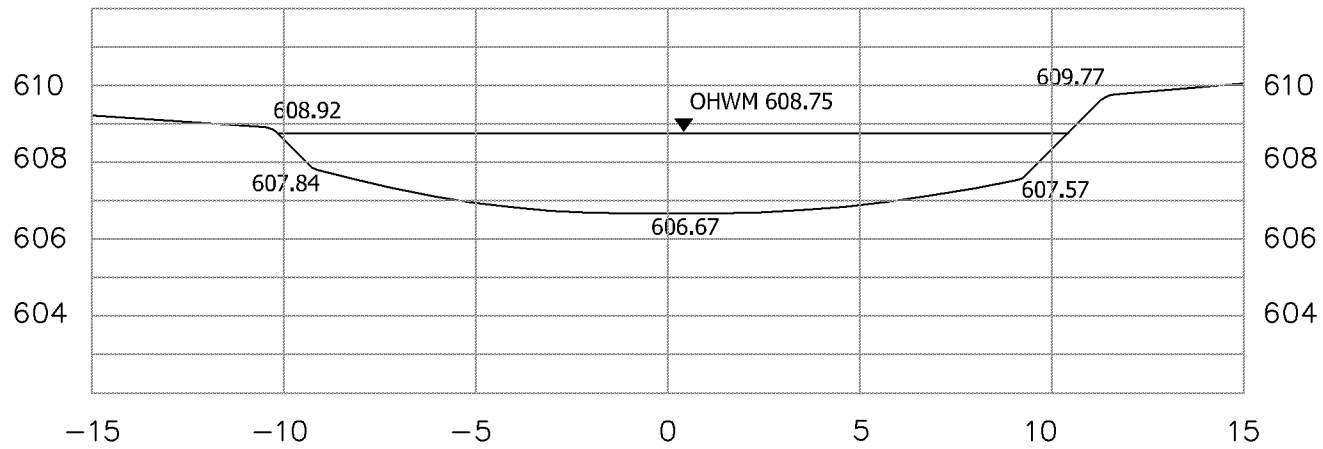
EXISTING



SECTION a-a
SCALE: 1" = 5'

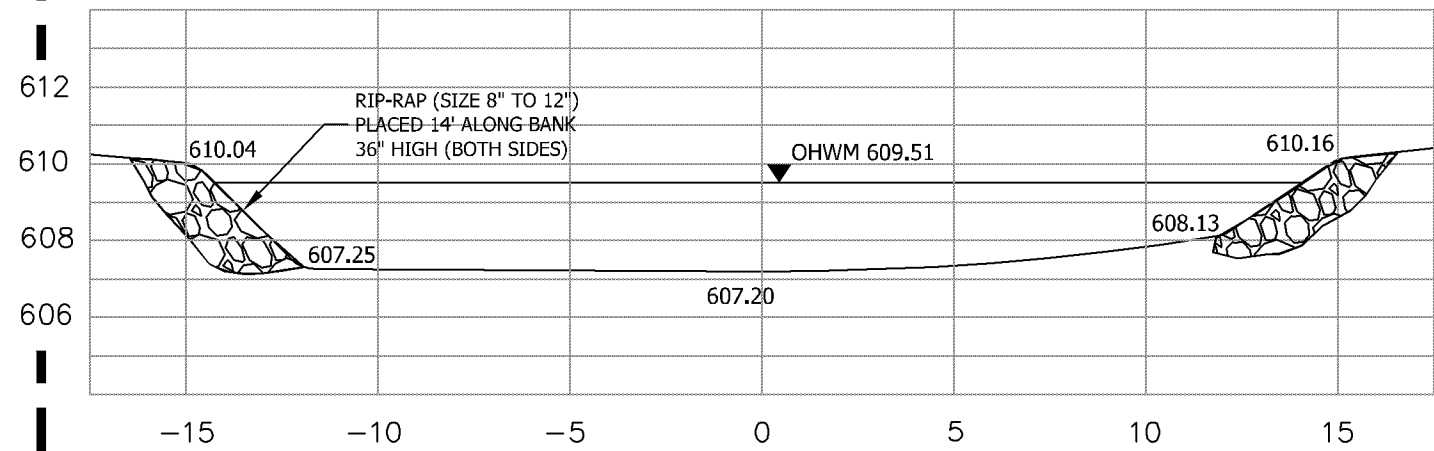


SECTION b-b
SCALE: 1" = 5'

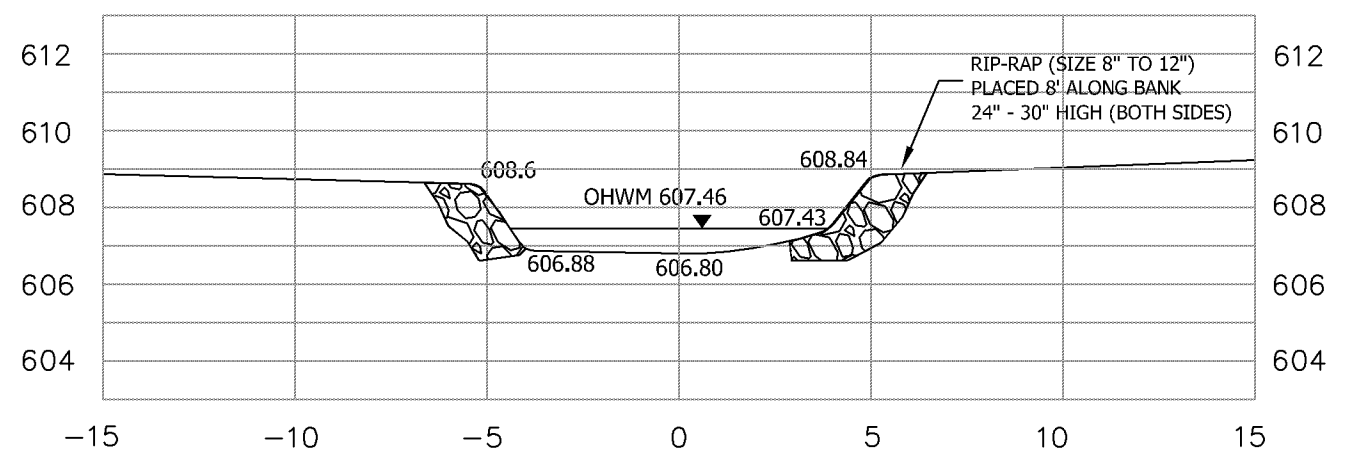


SECTION c-c
SCALE: 1" = 5'

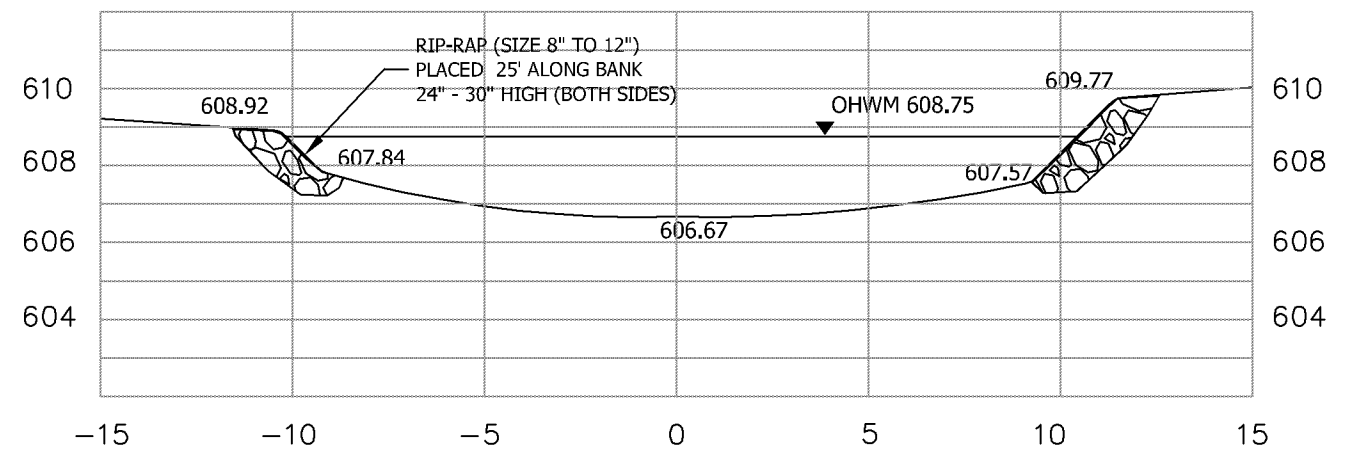
PROPOSED



SECTION A-A
SCALE: 1" = 5'



SECTION B-B
SCALE: 1" = 5'



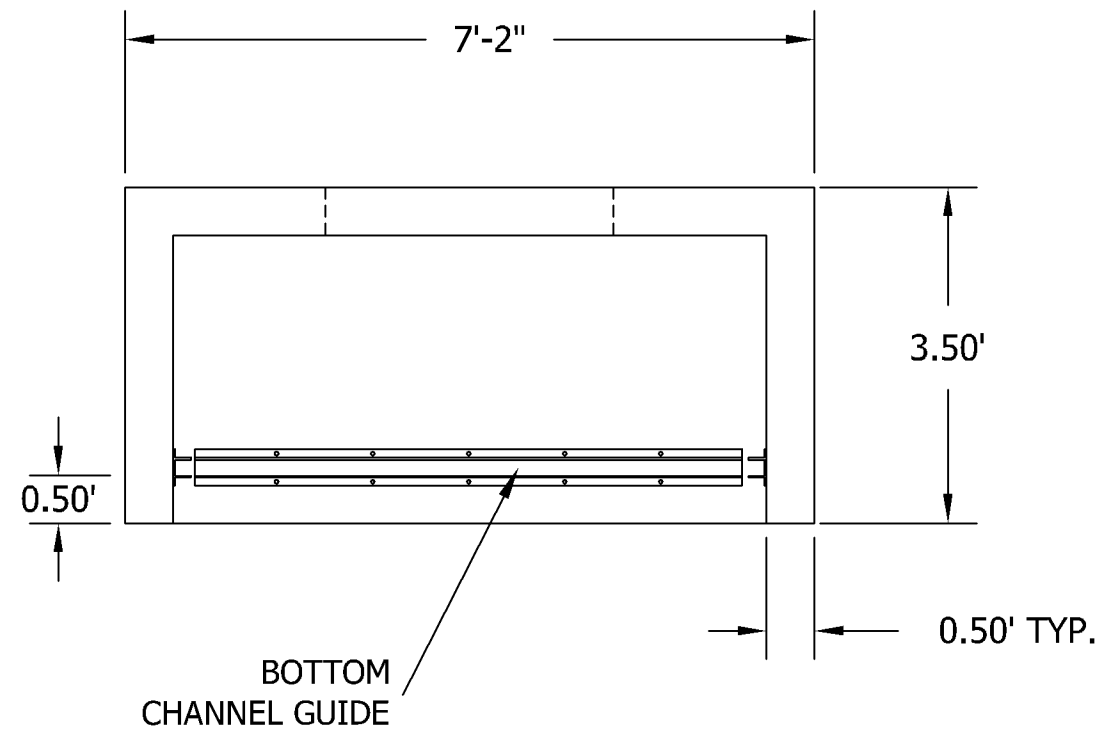
SECTION C-C
SCALE: 1" = 5'



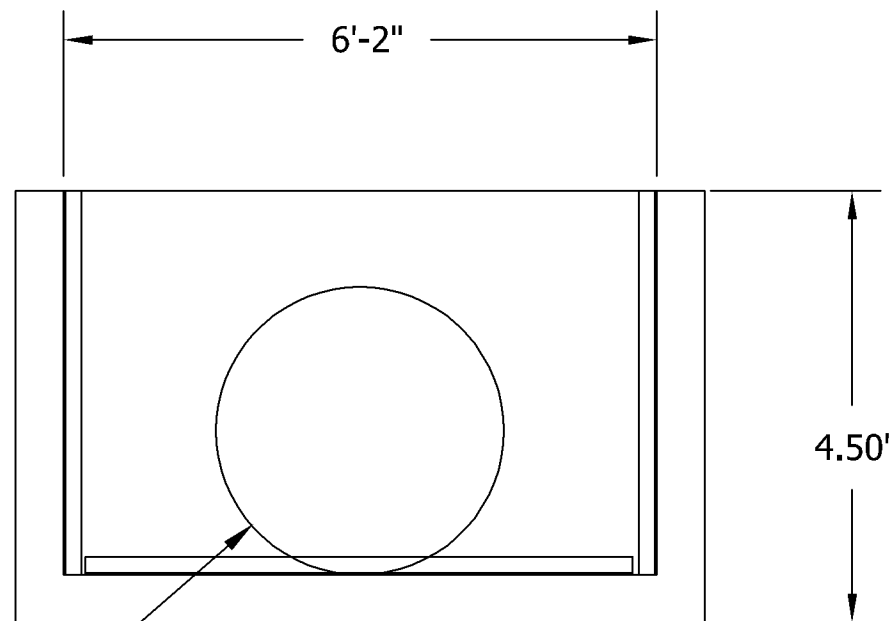
**DITCH 9A SOUTH WEIR REPLACEMENT
CROSS SECTIONS**

FIELD CREW: CPS/SKG
DRAWN BY: SKG
JOB NO. 99-90A
CHECKED BY: CPS
CHECKED BY: BJA
SCALE: 1" = 5'
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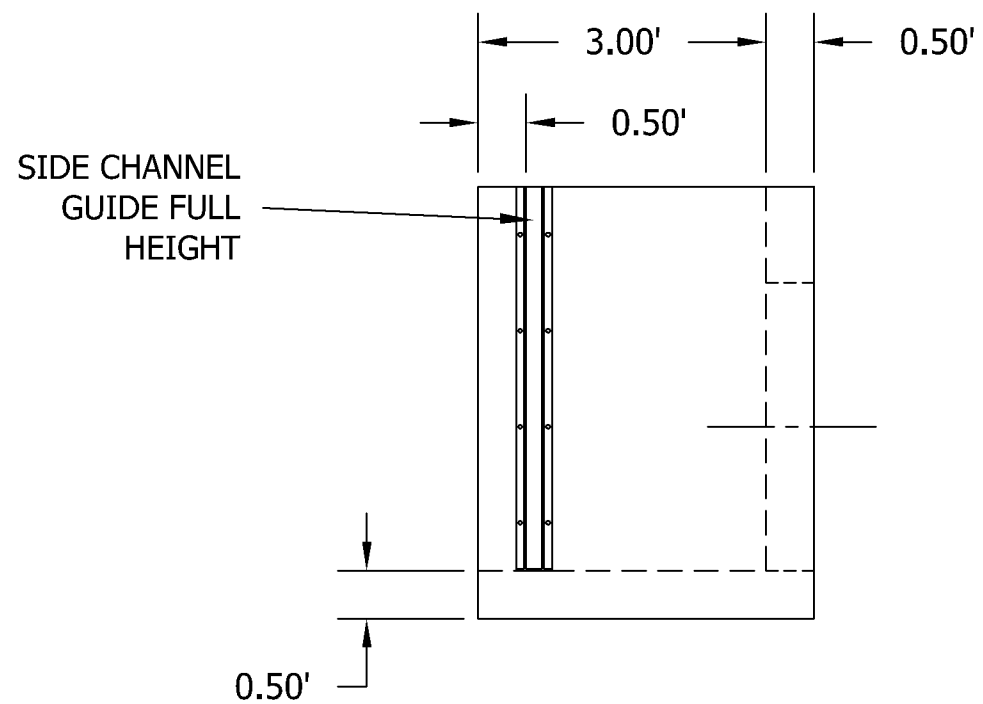


TOP VIEW
SCALE: 1" = 2'



36" DIA. VOID TO
RECEIVE 36" DIA.
HDPE PIPE

FRONT VIEW
SCALE: 1" = 2'



SIDE VIEW
SCALE: 1" = 2'



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DITCH 9A SOUTH WEIR REPLACEMENT

DETAILS

FIELD CREW: CPS/SKG

DRAWN BY: SKG

JOB NO. 99-90A

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SCALE: 1" = 2'

DATE: 4/19/13

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DWG. NO.

7

SHEET NO. 7 OF 12