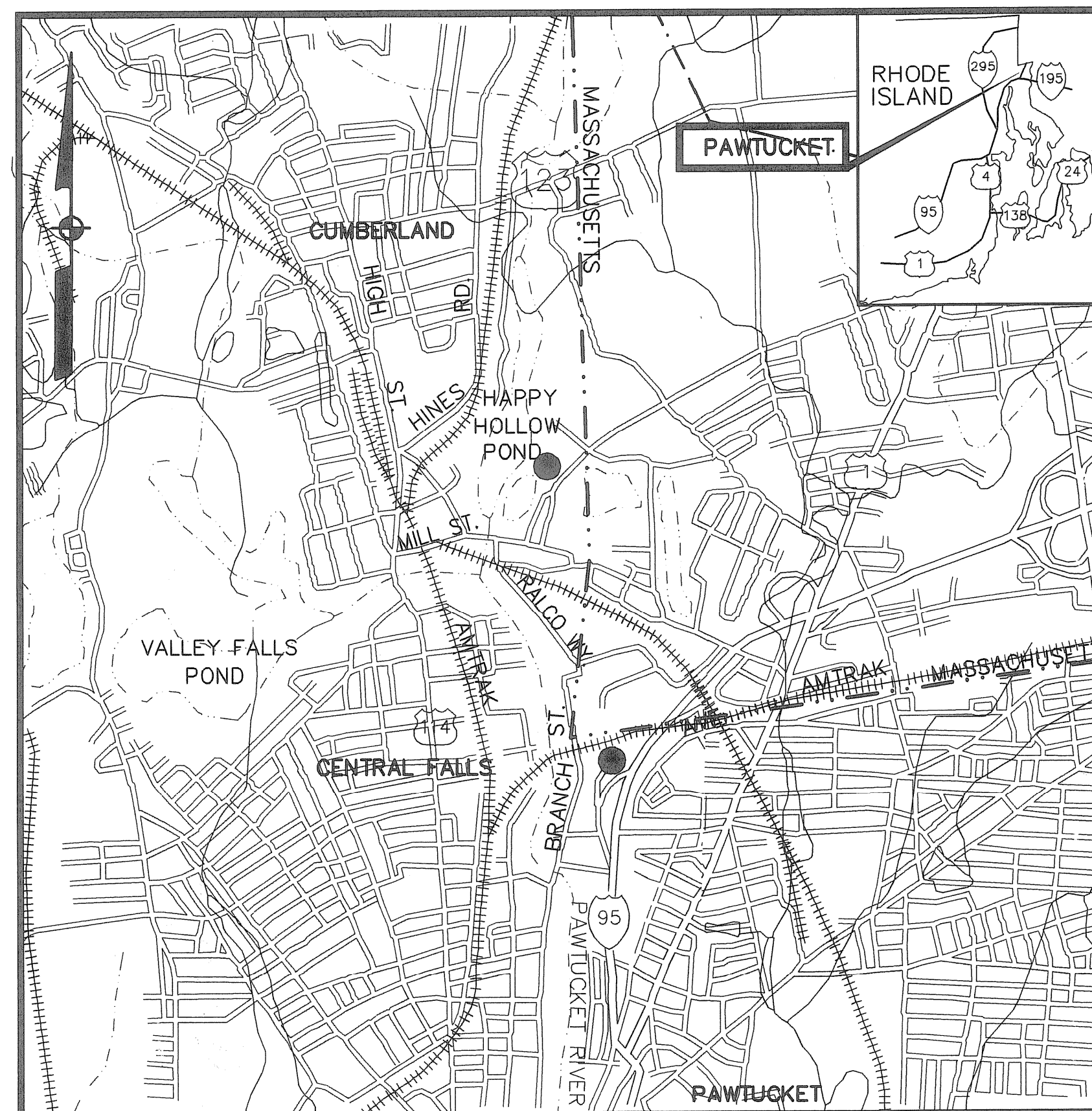


CONTRACT DRAWINGS - FOR - Pawtucket Regional Water Treatment Facility Pkg 2A - Construction

Pawtucket, Rhode Island

INDEX

OCTOBER 31, 2006

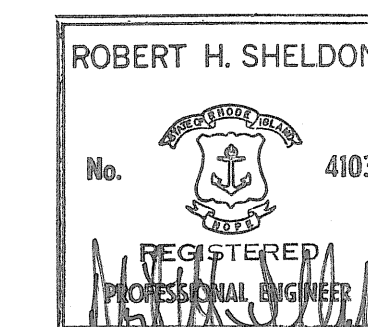


DWG.

TITLE

<u>DWG.</u>	<u>TITLE</u>
	COVER
	<u>SITE</u>
LA-5	SITE RESTORATION PLAN
LA-6	LAYOUT AND MATERIALS PLAN
LA-7	GRADING PLAN
LA-8	DRAINAGE PLAN
LA-9	PLANTING PLAN
LA-10	DRIVEWAY PROFILE AND CROSS SECTION
LA-11	SITE DETAILS
LA-12	SITE DETAILS
ST-1	SITE PIPING PLAN
ST-2	42" OVERFLOW PROFILE
ST-3	SITE PIPING DETAILS
	<u>STRUCTURAL</u>
S-1	RETAINING WALL PLANS AND SECTIONS

LOCUS
NOT TO SCALE



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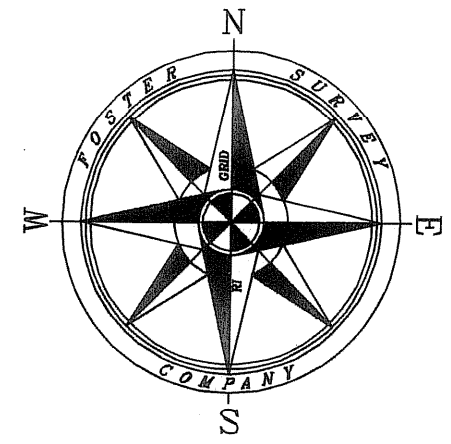
300 Baker Avenue Suite 290 Concord, Mass.

GENERAL NOTES

LOCATIONS OF ALL UTILITIES AND SUB-SURFACE STRUCTURES ARE FROM SURVEY AND RECORDS OF TOWN, CORPORATIONS, ETC., AND ARE CONSIDERED APPROXIMATE BOTH AS TO SIZE AND LOCATION AND ARE INDICATED ON THESE DRAWINGS TO GIVE BIDDERS A GENERAL IDEA OF EXISTING CONDITIONS TO BE INVESTIGATED BY THE BIDDER. IT IS UNDERSTOOD AND AGREED THAT EACH BIDDER WILL NOT RELY UPON THESE DRAWINGS FOR SUCH INFORMATION, BUT THAT EACH BIDDER SHALL MAKE EXAMINATIONS IN THE FIELD BY VARIOUS AVAILABLE METHODS AND SHALL OBTAIN INFORMATION FROM UTILITY CORPORATIONS AND INDIVIDUALS AS TO THE LOCATION OF ALL SUB-SURFACE STRUCTURES.

ALL ELEVATIONS REFER TO NATIONAL GEODETIC VERTICAL DATUM OF 1929.

Filename: L:\WORK\69993\CAD\AS-BUILT\2A) WTP\SITE\69993 - BRANCH ST WTP - FINAL SITEWORK.DWG
 Plot File Date Created: Sep/22/2008 10:38 AM



100 YEAR FLOODPLAIN
 (EL. 48.0)
 REMOVE SILT
 SACKS FROM
 EXISTING CATCH
 BASINS AFTER
 CONSTR.
 REMOVE TEMPORARY
 CONSTRUCTION
 FENCING
 REMOVE EROSION
 CONTROL BARRIER
 (TYP.)

REMOVE TEMPORARY APPROXIMATE
 CONSTRUCTION
 FENCING

REMOVE TEMPORARY
 EMPLOYEE
 PARKING
 LOT AND
 GUARDRAIL
 BLACKSTONE
 RIVER

REMOVE TEMPORARY
 VISITOR PARKING
 LOT

BEGIN REMOVAL OF TEMPORARY CONSTRUCTION FENCING
 (REMOVE RIPRAP DRAINAGE SWALE AFTER CONSTRUCTION OPERATIONS)

REMOVE CRUSHED STONE CONSTRUCTION TRUCK
 CLEANING PAD AFTER CONSTRUCTION OPERATIONS
 REMOVE RIPRAP DRAINAGE SWALE
 AFTER CONSTRUCTION OPERATIONS

REMOVE TEMPORARY CONSTRUCTION FENCING
 REMOVE PROPOSED EROSION CONTROL BARRIER

REMOVE RIPRAP DRAINAGE SWALE AFTER CONSTRUCTION OPERATIONS

END REMOVAL OF TEMPORARY CONSTRUCTION FENCING

REMOVE CRUSHED STONE CONSTRUCTION TRUCK
 CLEANING PAD AFTER CONSTRUCTION OPERATIONS
 REMOVE RIPRAP DRAINAGE SWALE
 AFTER CONSTRUCTION OPERATIONS

REMOVE TEMPORARY CONSTRUCTION
 FENCING (TO 1' BEYOND PROPERTY LINE)

GENERAL NOTES:

1. ALL EXISTING CONDITIONS ARE FROM A SURVEY PERFORMED BY FOSTER SURVEY COMPANY, FOSTER R.I., TITLED "SURVEY & TOPOGRAPHIC PLAN, PAWTUCKET WATER SUPPLY BOARD-BRANCH ST." SURVEY WAS PERFORMED IN AUGUST, 2001 AND WAS UPDATED IN MARCH, 2004.
2. REFER TO THE SPECIFICATIONS FOR BORING DATES AND LOGS.
3. THE LIMIT OF WORK SHALL BE THE PROPERTY LINE, OR THE EROSION CONTROL BARRIER (ECB), EXCEPT WHERE SHOWN THUS:
4. ALL DISTURBED AREAS WITHIN THE LIMIT OF WORK NOT OTHERWISE DESIGNATED FOR BUILDINGS, PAVEMENT, SIDEWALKS, PLANTING BEDS, ETC. SHALL RECEIVE EROSION CONTROL MATS TO PREVENT EROSION OF EXPOSED SLOPES. SEE SEEDING NOTES ON DWG. LA-3 FOR SPECIFIC SEEDING REQUIREMENTS WEST OF BRANCH STREET.
5. ALL PAVEMENT OR SIDEWALKS REMOVED DUE TO CONSTRUCTION SHALL BE REMOVED AND DISPOSED OF OFF SITE.
6. CASTINGS IN THE AREA OF THE TEMPORARY PARKING LOTS SHALL BE ADJUSTED TO GRADE.
7. CONTRACTOR SHALL STAKE OUT LOCATIONS OF SHEETING, FENCING, GUARDRAIL AND DRIVEWAY CENTERLINE FOR REVIEW AND APPROVAL BEFORE WORK BEGINS ON THOSE ITEMS.
8. REFER TO THE RHODE ISLAND ENVIRONMENTAL REGULATIONS FOR ENVIRONMENTAL PROTECTION, MONITORING AND REPORTING REQUIREMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLIANCE WITH ALL REQUIREMENTS, AND WITH THOSE IN SPECIFICATION SECTION 01140 - ENVIRONMENTAL PROTECTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY FEES, FINES AND/OR PENALTIES IF THE PROJECT SITE IS FOUND TO BE IN VIOLATION OF THESE REQUIREMENTS.
9. CONTRACTOR SHALL BE LIMITED TO THE PROJECT SITE PROPERTY BOUNDARIES FOR CONSTRUCTION OPERATIONS. EXCEPTIONS TO THIS INCLUDE WORK PERFORMED IN:

BRANCH STREET ROW - CONTINGENT UPON APPROVAL FROM THE CITY OF PAWTUCKET, RI
 ELDRIDGE STREET ROW - CONTINGENT UPON APPROVAL FROM THE CITY OF PAWTUCKET, RI
 ROOSEVELT AVE EXT. ROW - CONTINGENT UPON APPROVAL FROM RIDOT
 AMTRAK PROPERTY - CONTINGENT UPON APPROVAL FROM AMTRAK

DEMOLITION NOTES:

1. DEMOLITION SCOPE SHALL INCLUDE THE COMPLETE REMOVAL AND LEGAL DISPOSAL OF ALL ITEMS INDICATED FOR DEMOLITION OR REMOVAL.
2. FENCE AND GUARDRAIL REMOVAL SHALL INCLUDE THE REMOVAL OF ALL ITEMS, INCLUDING CONCRETE FOOTINGS.

EROSION CONTROL NOTES:

1. ALL EROSION CONTROL MEASURES (EROSION CONTROL BARRIERS, SILT SACKS, ETC.) SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION. EROSION CONTROL MEASURES SHALL BE CHECKED DAILY, AND REPLACED IF DAMAGED. EROSION CONTROL MEASURES SHALL BE REMOVED AND DISPOSED OF AFTER CONSTRUCTION IS COMPLETE, AND AFTER SLOPES HAVE BEEN STABILIZED.
2. ALL SLOPES SHALL BE STABILIZED WITH EROSION CONTROL BLANKETS AS SOON AS POSSIBLE AFTER CONSTRUCTION. 2:1 SLOPES ADJACENT TO GRAVEL ENTRANCE DRIVE, AND SWALES AT THE TOE OF SLOPES ARE ESPECIALLY SUBJECT TO EROSION.
3. CONTRACTOR SHALL CONTROL WATER IN LOW POINTS, AND SHALL TREAT FOR SEDIMENT BEFORE DISCHARGING TO STORM WATER DRAINAGE SYSTEM.

LANDSCAPING NOTES:

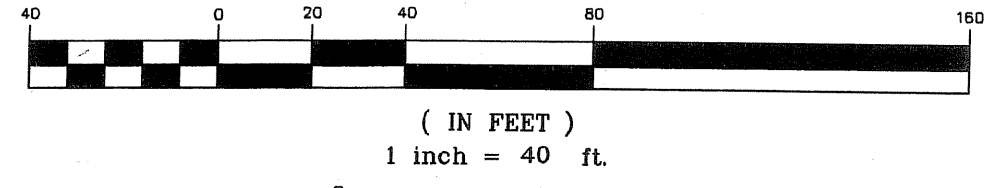
1. TEMPORARY PARKING LOT BETWEEN BRANCH ST. AND THE BLACKSTONE RIVER IS TO BE REMOVED, AND ALL GRADES RESTORED TO PRE-CONSTRUCTION CONDITIONS AFTER CONSTRUCTION OF THE WTP IS COMPLETE.
2. ALL DISTURBED AREAS BETWEEN BRANCH ST. AND THE BLACKSTONE RIVER TO RECEIVE 6" LOAM AND SEED. SEED MIX TO BE M.18.09.3 OF RIDOT SPECS.
3. A ROW OF 25. NORTHERN WHITE CEDARS (MIN. 4' HIGH) SHALL BE PLANTED AT 6' O.C. IN THIS AREA AFTER THE TEMPORARY PARKING LOT HAS BEEN REMOVED (REFER TO PLANTING PLAN).

NOTE:
 THIS DRAWING DEPICTS CONDITIONS INTENDED TO HAVE BEEN CONSTRUCTED AS PART OF THE EARLY SITE WORK PACKAGE.
 THE INTENT OF THIS DRAWING IS TO IDENTIFY PREVIOUSLY CONTRACTED TEMPORARY CONSTRUCTION MEASURES TO BE COORDINATED WITHIN THIS FINAL SITE WORK PACKAGE PRIOR TO THE END OF CONSTRUCTION. ACTUAL SCHEDULING OF THIS WORK IS TO BE DETERMINED BY THE CONTRACTOR.

GENERAL LEGEND

EXISTING	PROPOSED
INTERMEDIATE CONTOUR	37
INDEX CONTOUR	35
SPOT ELEVATION	+ 36.30
BORING/TEST PIT/PROBE LOCATION (SEE GEN. NOTE 2)	
GRAVEL DRIVEWAY	
CHAIN LINK FENCE	
LIMIT-OF-WORK LINE (SEE GEN. NOTE 3)	
EROSION CONTROL BARRIER	-ECB-
HIGHWAY GUARDRAIL	

GRAPHIC SCALE



PRESTRESSED CONC.
 TANK
 119' I.D.
 60' HIGH TO H.W.
 75.5' TO
 TOP OF VENT
 BOTTOM OF TANK =
 EL. 60.00

ELDRIDGE STREET
 (PUBLIC-26' WIDTH)

ROOSEVELT (EXTENSION)

US ROUTE 95 FREEWAY
 (SEE HP #1173)

NO.	DATE	BY	REVISIONS
1	09/22/05	GM	ISSUED FOR CONSTRUCTION
2	10/21/06	GM	HEALTH COMPLAINTS
3	05/2008	DPB	AS-BUILT DRAWING FILE

ROBERT H. SHELDON
 No. 4103
 Professional Engineer
 State of Rhode Island
 5/1/08

PAWTUCKET, RHODE ISLAND
 PAWTUCKET REGIONAL
 WATER TREATMENT FACILITY
 PKG 2A - CONSTRUCTION
 BRANCH STREET WTP
 SITE RESTORATION PLAN

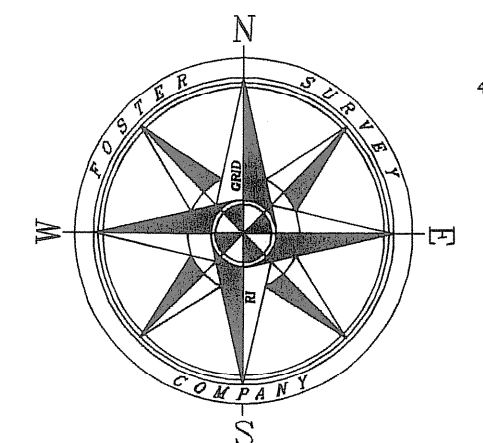
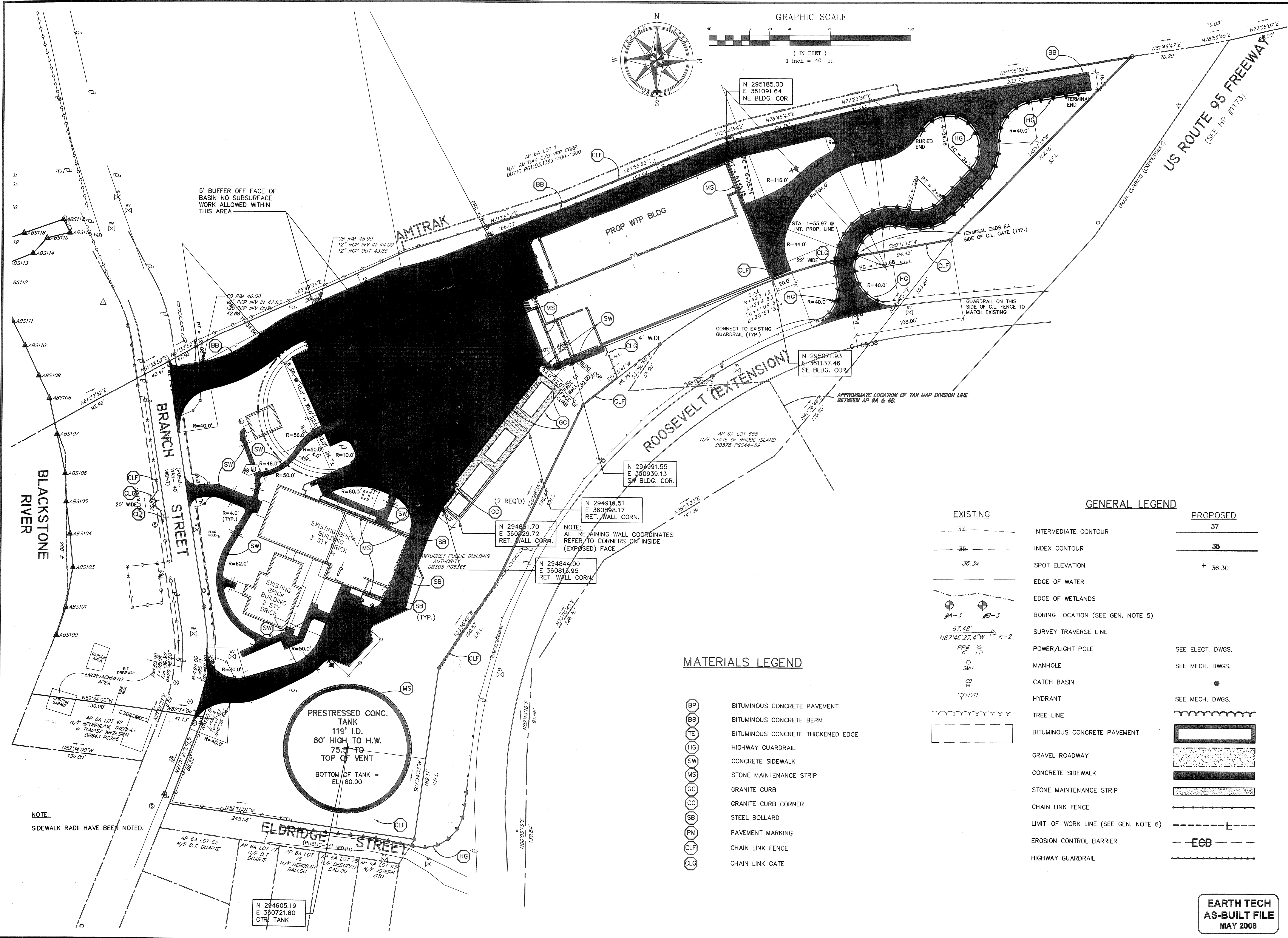
DESIGNED BY	DWG SCALE
	1"=40'
DRAWN BY	CONTRACT NO.
CHECKED BY	DATE
	OCTOBER 31, 2008

EARTH TECH
 AS-BUILT FILE
 MAY 2008

LA-5

SHEET 2 OF

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 300 BAKER AVENUE SUITE 200 CONCORD MA 01742 (978) 371-4000



N 295185.00
E 361091.64
NE BLDG. COR.

N 295071.93
E 361137.46
SE BLDG. COR.

N 294991.55
E 360939.13
SW BLDG. COR.

N 294915.51
E 360938.17
RET. WALL CORN.

N 294817.70
E 360729.72
RET. WALL CORN.

N 294844.00
E 360812.95
RET. WALL CORN.

N 294605.19
E 360721.60
CTR. TANK

BLACKSTONE RIVER

BRANCH STREET

AMTRAK

PROP WTP BLDG

ROOSEVELT (EXTENSION)

US ROUTE 95 FREEWAY
(SEE HP #1173)

NOTE:
SIDEWALK RADII HAVE BEEN NOTED.

PRESTRESSED CONC. TANK
119' I.D.
60' HIGH TO H.W.
75.3' TO TOP OF VENT
BOTTOM OF TANK = EL. 60.00

MATERIALS LEGEND

- BP BITUMINOUS CONCRETE PAVEMENT
- BB BITUMINOUS CONCRETE BERM
- TE BITUMINOUS CONCRETE THICKENED EDGE
- HG HIGHWAY GUARDRAIL
- SW CONCRETE SIDEWALK
- MS STONE MAINTENANCE STRIP
- GC GRANITE CURB
- CC GRANITE CURB CORNER
- SB STEEL BOLLARD
- PM PAVEMENT MARKING
- CLF CHAIN LINK FENCE
- CLG CHAIN LINK GATE

EXISTING

- 37- INTERMEDIATE CONTOUR
- 35- INDEX CONTOUR
- 36.3x SPOT ELEVATION
- EDGE OF WATER
- EDGE OF WETLANDS
- ⊕ BORING LOCATION (SEE GEN. NOTE 5)
- SURVEY TRAVERSE LINE
- PP# LP POWER/LIGHT POLE
- SMH MANHOLE
- CB CATCH BASIN
- HYD HYDRANT
- TREE LINE
- BITUMINOUS CONCRETE PAVEMENT
- GRAVEL ROADWAY
- CONCRETE SIDEWALK
- STONE MAINTENANCE STRIP
- CHAIN LINK FENCE
- LIMIT-OF-WORK LINE (SEE GEN. NOTE 6)
- EROSION CONTROL BARRIER
- HIGHWAY GUARDRAIL

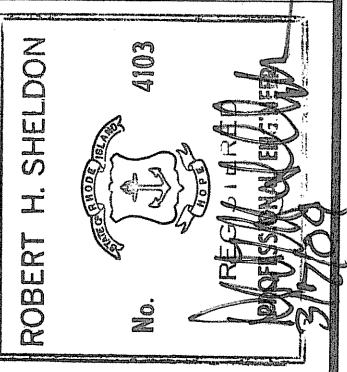
GENERAL LEGEND

PROPOSED

- 37 INTERMEDIATE CONTOUR
- 35 INDEX CONTOUR
- + 36.30 SPOT ELEVATION
- EDGE OF WATER
- EDGE OF WETLANDS
- ⊕ BORING LOCATION (SEE GEN. NOTE 5)
- SURVEY TRAVERSE LINE
- SEE ELECT. DWGS. POWER/LIGHT POLE
- SEE MECH. DWGS. MANHOLE
- SEE MECH. DWGS. CATCH BASIN
- SEE MECH. DWGS. HYDRANT
- TREE LINE
- BITUMINOUS CONCRETE PAVEMENT
- GRAVEL ROADWAY
- CONCRETE SIDEWALK
- STONE MAINTENANCE STRIP
- CHAIN LINK FENCE
- LIMIT-OF-WORK LINE (SEE GEN. NOTE 6)
- EROSION CONTROL BARRIER
- HIGHWAY GUARDRAIL

FULL SIZE DRAWING = 4"

NO.	BY	DATE	REVISIONS
3	DB	MAY 2008	AS-BUILT DRAWING FILE
2	CBW	10/21/06	ISSUED FOR RFI POSTED SET
1	CBW	09/15/05	HEALTH COMMENTS
0	CBW	06/22/05	ISSUED FOR CONSTRUCTION

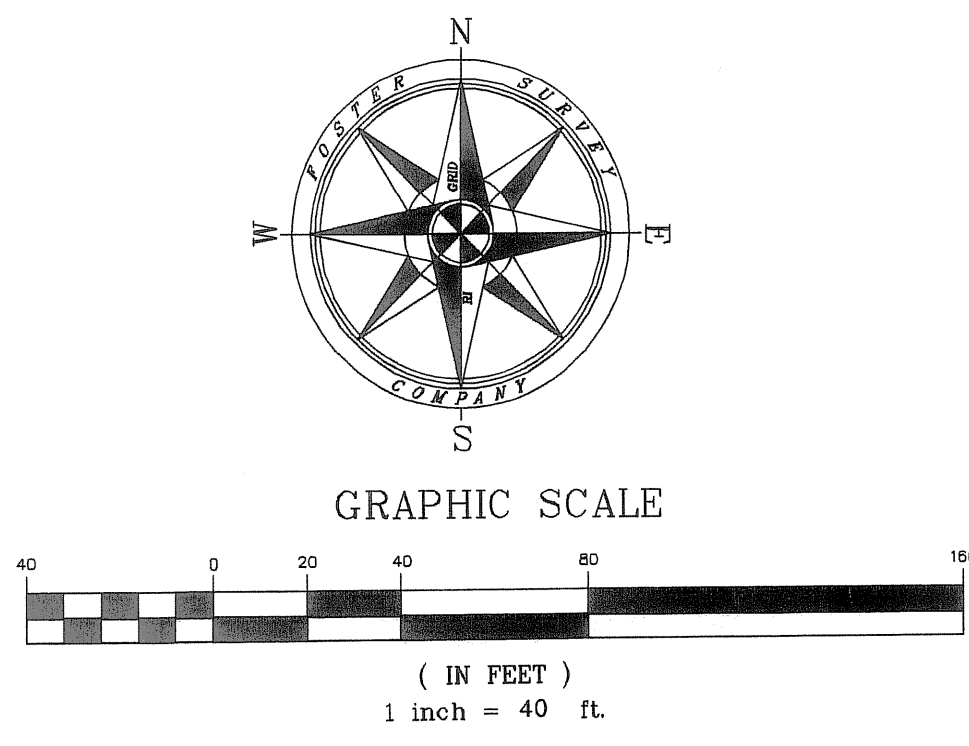
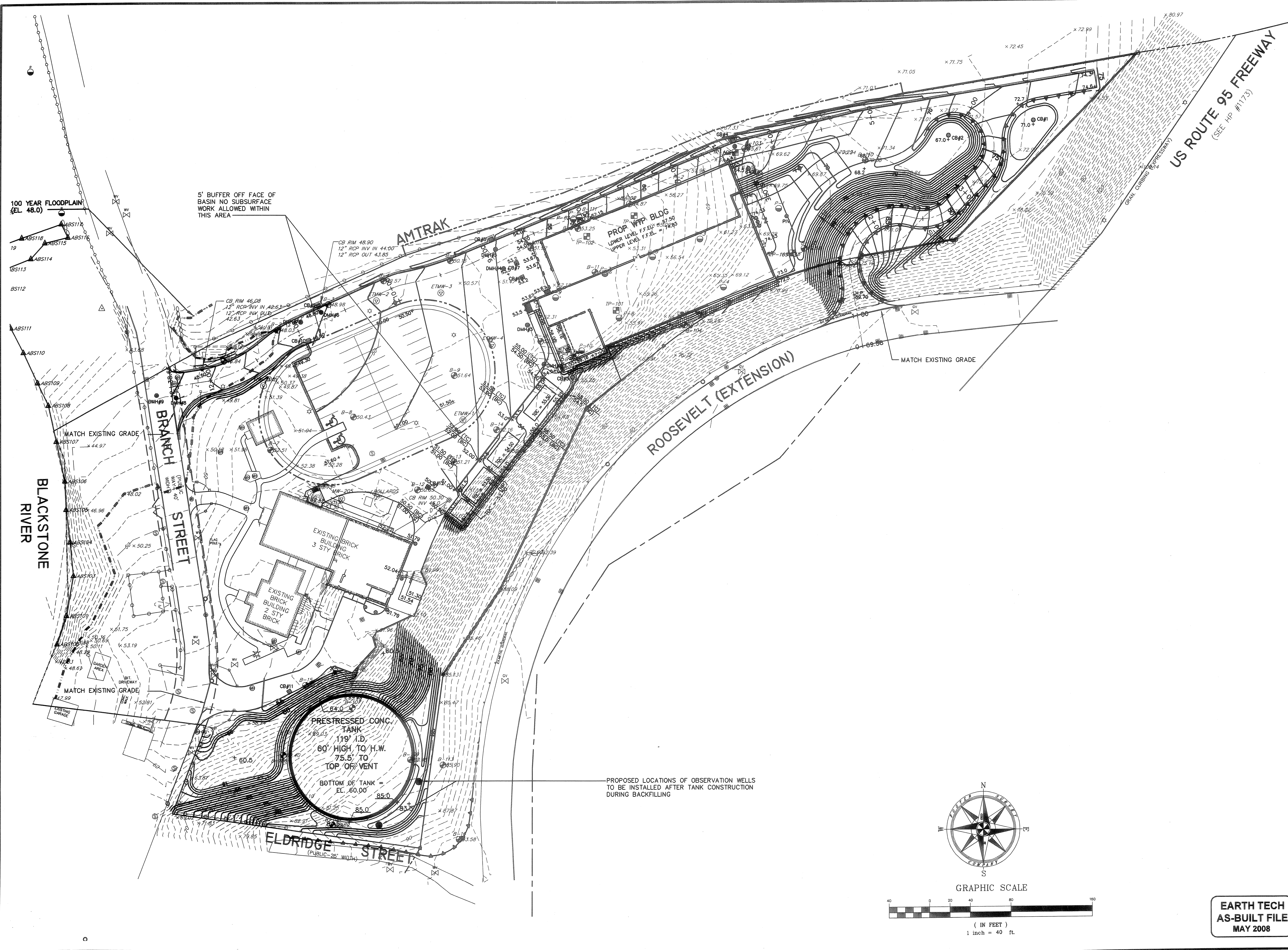


PAWTUCKET, RHODE ISLAND
PAWTUCKET REGIONAL WATER TREATMENT FACILITY
PKG 2A - CONSTRUCTION
 BRANCH STREET WTP
 LAYOUT AND MATERIALS PLAN

DESIGNED BY	DWG SCALE
DRAWN BY	CONTRACT NO.
CHECKED BY	DATE
	OCTOBER 31, 2008

EARTH TECH
AS-BUILT FILE
 MAY 2008

Filename: L:\WORK\69993\CAD\AS-BUILT\2A) WTP\SITE\69993 - BRANCH ST WTP - FINAL SITEWORK.DWG
 Plot File Date Created: Sep/22/2008 10:38 AM



EARTH TECH
 AS-BUILT FILE
 MAY 2008

FULL SIZE DRAWING = 4"

NO.	DATE	BY	REVISIONS
3	MAY 2008	DPB	AS-BUILT DRAWING FILE
2	10/31/06	GBW	ISSUED FOR RFI POSTED SET
1	09/19/05	GBW	HEALTH COMMENTS
0	06/22/05	GBW	ISSUED FOR CONSTRUCTION

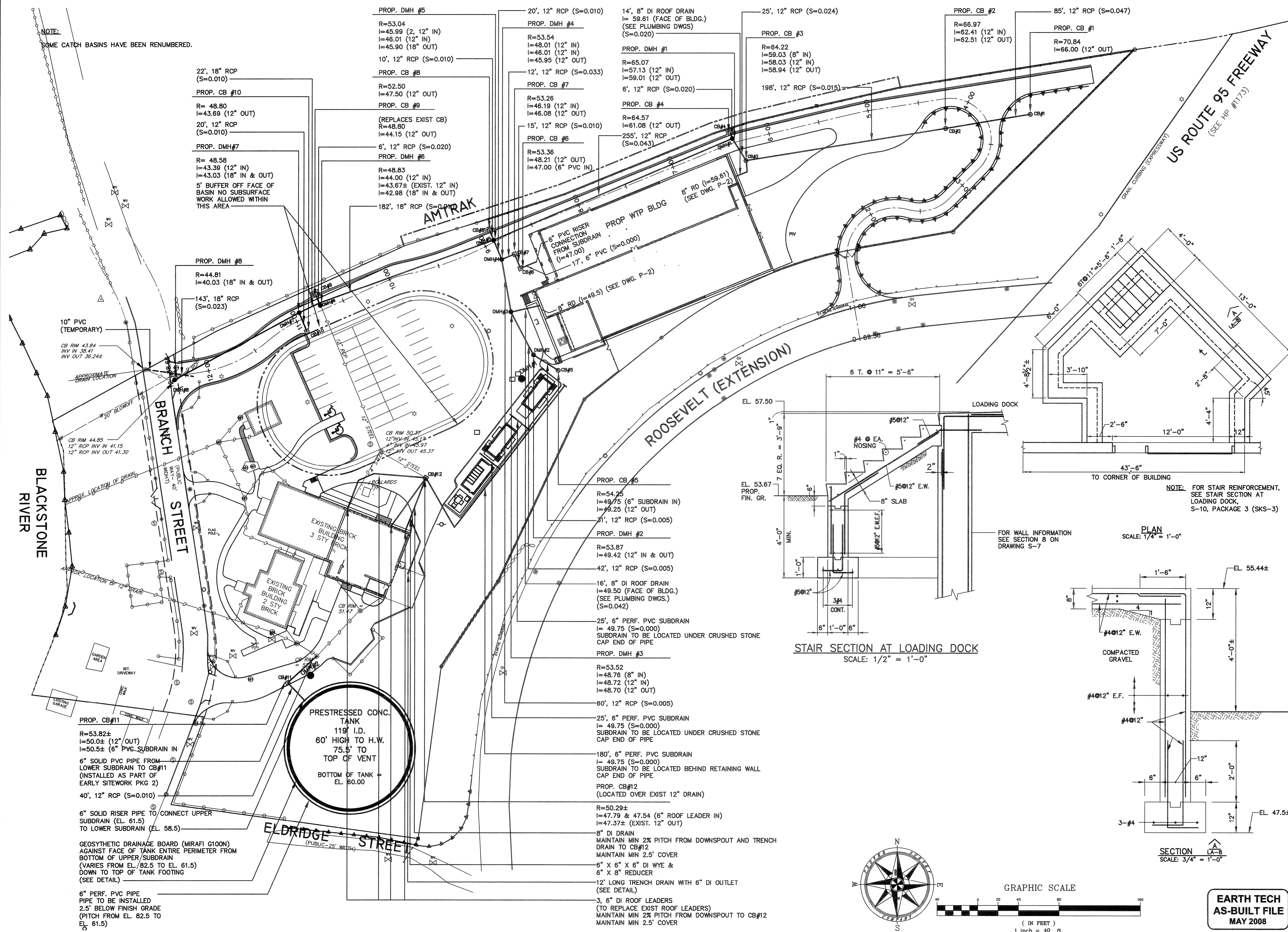
ROBERT H. SHELDON
 No. 4103
 REGISTERED PROFESSIONAL ENGINEER
 STATE OF RHODE ISLAND
 2/17/08

PAWTUCKET, RHODE ISLAND
**PAWTUCKET REGIONAL
 WATER TREATMENT FACILITY
 PKG 2A - CONSTRUCTION**
 BRANCH STREET WTP
 GRADING PLAN

DESIGNED BY	DWG SCALE
DRAWN BY	1"=40'
CHECKED BY	CONTRACT NO.
	DATE
	OCTOBER 31, 2008

LA-7
 SHEET 4 OF

Filename: L:\WORK\69993\CAD\AS-BUILT\17\DWG\DRAWINGS\69993 - BRANCH ST WTP - FINAL SITEWORK.DWG
 Plot File Date Created: Mar/05/2009 11:17 AM



NOTE:
 SOME CATCH BASINS HAVE BEEN RENUMBERED.

22", 18" RCP (S=0.010)
 PROP. CB #10
 R= 48.80
 I=43.69 (12" OUT)
 20", 12" RCP (S=0.010)
 PROP. DMH #7
 R= 48.58
 I=43.39 (12" IN)
 I=43.03 (18" IN & OUT)
 5' BUFFER OFF FACE OF BASIN NO SUBSURFACE WORK ALLOWED WITHIN THIS AREA

PROP. DMH #8
 R=44.81
 I=40.03 (18" IN & OUT)
 143", 18" RCP (S=0.023)

10" PVC (TEMPORARY)
 CB RIM 43.84
 INV IN 38.41
 INV OUT 36.24±
 APPROXIMATE DRAIN LOCATION
 W/20' BLOWOFF
 CB RIM 44.85
 12" RCP INV IN 41.15
 12" RCP INV OUT 41.30
 APPROX. LOCATION OF DRAIN
 APPROX. LOCATION OF 8" 12" DRAIN

PROP. CB #11
 R=53.82±
 I=50.0± (12" OUT)
 I=50.5± (6" PVC SUBDRAIN IN)
 6" SOLID PVC PIPE FROM LOWER SUBDRAIN TO CB#11 (INSTALLED AS PART OF EARLY SITEWORK PKG 2)
 40', 12" RCP (S=0.010)
 6" SOLID RISER PIPE TO CONNECT UPPER SUBDRAIN (EL. 61.5) TO LOWER SUBDRAIN (EL. 58.5)
 GEOSYNTHETIC DRAINAGE BOARD (MIRAFI G100N) AGAINST FACE OF TANK ENTIRE PERIMETER FROM BOTTOM OF UPPER SUBDRAIN (VARIES FROM EL. 82.5 TO EL. 61.5) DOWN TO TOP OF TANK FOOTING (SEE DETAIL)
 6" PERF. PVC PIPE PIPE TO BE INSTALLED 2.5' BELOW FINISH GRADE (PITCH FROM EL. 82.5 TO EL. 61.5)

PRESTRESSED CONC. TANK
 119' I.D.
 60' HIGH TO H.W.
 75.5' TO TOP OF VENT
 BOTTOM OF TANK = EL. 60.00

PROP. DMH #5
 R=53.04
 I=45.99 (2, 12" IN)
 I=46.01 (12" IN)
 I=45.90 (18" OUT)
 10", 12" RCP (S=0.010)
 PROP. CB #8
 R=52.50
 I=47.50 (12" OUT)
 PROP. CB #9
 (REPLACES EXIST CB)
 R=48.80
 I=44.15 (12" OUT)
 6", 12" RCP (S=0.020)
 PROP. DMH #6
 R=48.83
 I=44.00 (12" IN)
 I=43.67± (EXIST. 12" IN)
 I=42.98 (18" IN & OUT)
 182", 18" RCP (S=0.010)

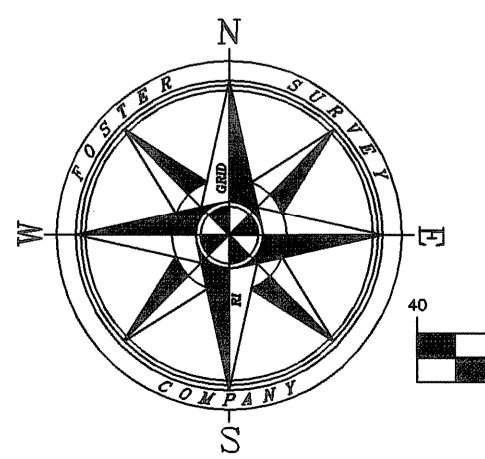
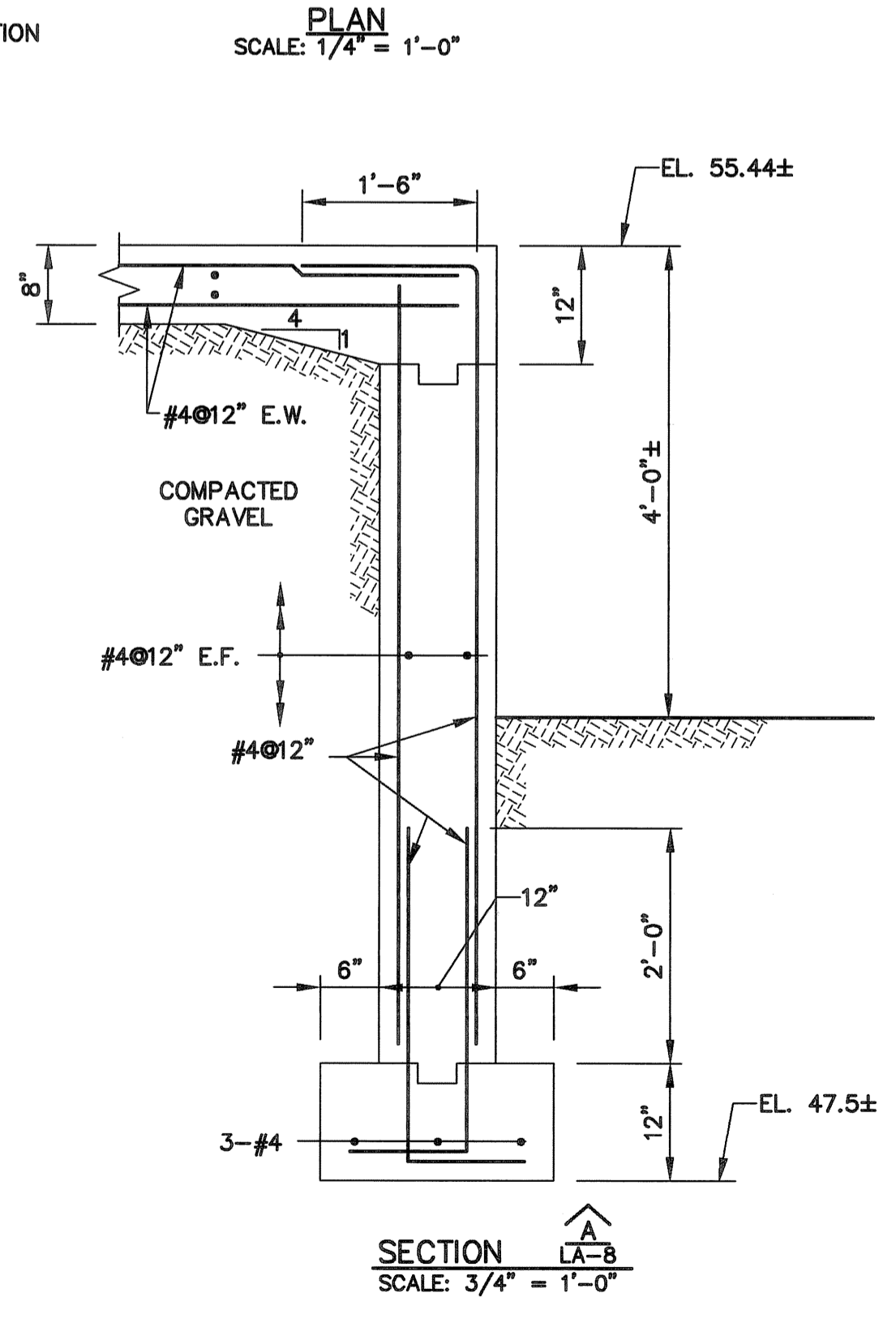
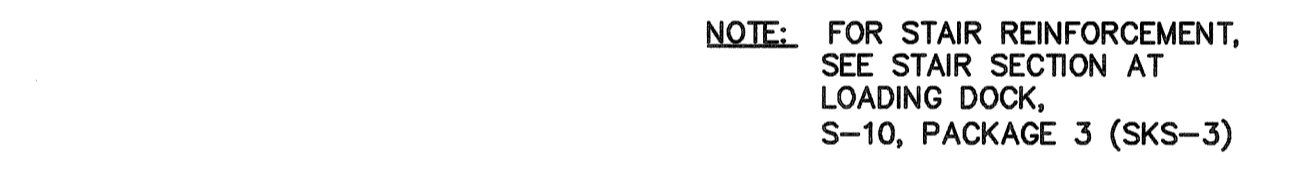
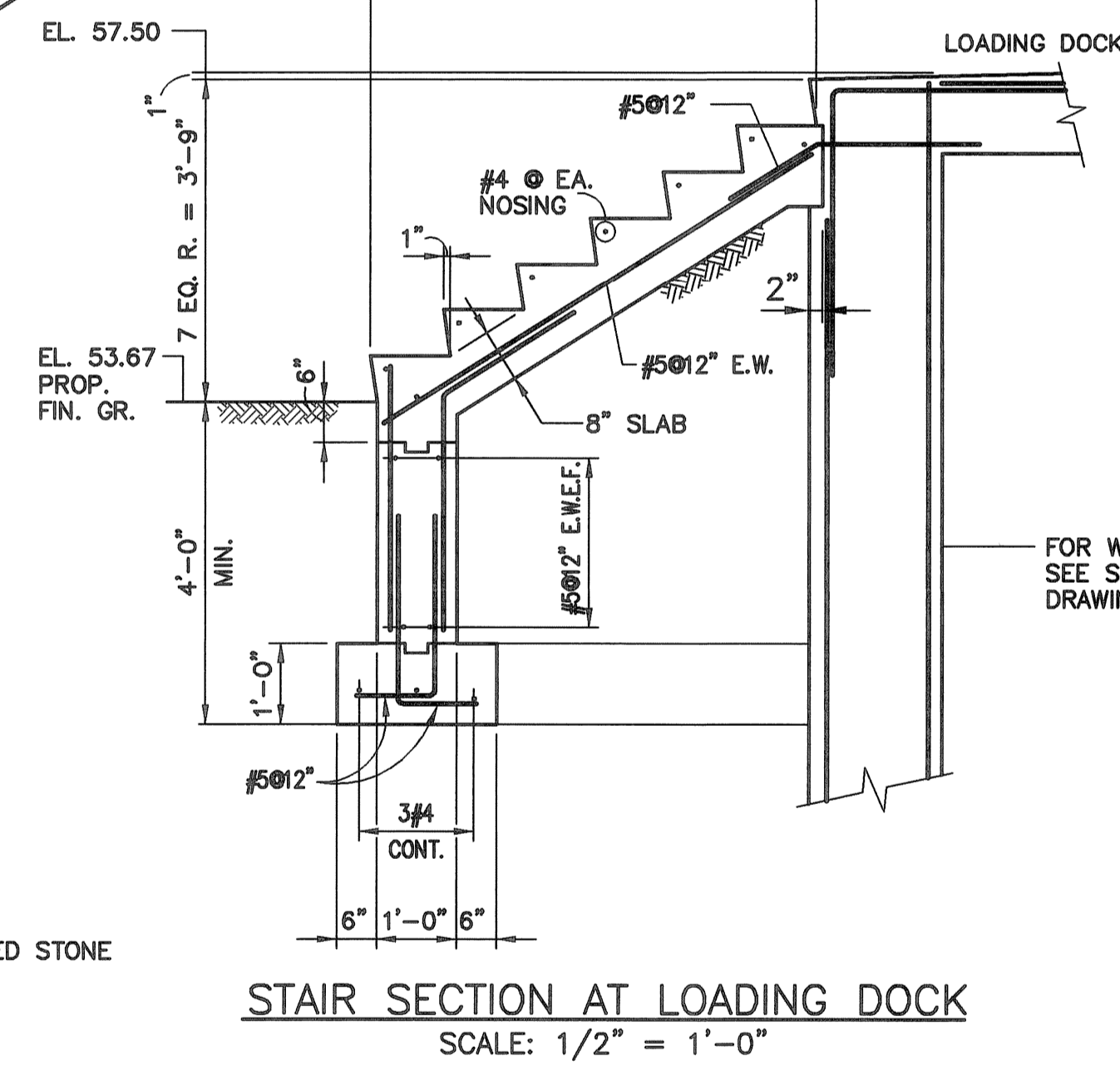
20', 12" RCP (S=0.010)
 PROP. DMH #4
 R=53.54
 I=48.01 (12" IN)
 I=46.01 (12" IN)
 I=45.95 (12" OUT)
 12', 12" RCP (S=0.033)
 PROP. CB #7
 R=53.26
 I=46.19 (12" IN)
 I=46.08 (12" OUT)
 15', 12" RCP (S=0.010)
 PROP. CB #6
 R=53.36
 I=48.21 (12" OUT)
 I=47.00 (6" PVC IN)

14", 8" DI ROOF DRAIN I= 59.61 (FACE OF BLDG.) (SEE PLUMBING DWGS) (S=0.020)
 PROP. DMH #1
 R=65.07
 I=57.13 (12" IN)
 I=59.01 (12" OUT)
 6", 12" RCP (S=0.020)
 PROP. CB #4
 R=64.57
 I=61.08 (12" OUT)
 255", 12" RCP (S=0.043)

25', 12" RCP (S=0.024)
 PROP. CB #3
 R=64.22
 I=59.03 (8" IN)
 I=58.03 (12" IN)
 I=58.94 (12" OUT)
 198', 12" RCP (S=0.015)

PROP. CB #2
 R=66.97
 I=62.41 (12" IN)
 I=62.51 (12" OUT)
 PROP. CB #1
 R=70.84
 I=66.00 (12" OUT)

PROP. CB #5
 R=54.25
 I=49.75 (6" SUBDRAIN IN)
 I=49.25 (12" OUT)
 21", 12" RCP (S=0.005)
 PROP. DMH #2
 R=53.87
 I=49.42 (12" IN & OUT)
 42', 12" RCP (S=0.005)
 16", 8" DI ROOF DRAIN I=49.50 (FACE OF BLDG.) (SEE PLUMBING DWGS.) (S=0.042)
 25', 6" PERF. PVC SUBDRAIN I= 49.75 (S=0.000) SUBDRAIN TO BE LOCATED UNDER CRUSHED STONE CAP END OF PIPE
 PROP. DMH #3
 R=53.52
 I=48.76 (8" IN)
 I=48.72 (12" IN)
 I=48.70 (12" OUT)
 60', 12" RCP (S=0.005)
 25', 6" PERF. PVC SUBDRAIN I= 49.75 (S=0.000) SUBDRAIN TO BE LOCATED UNDER CRUSHED STONE CAP END OF PIPE
 180', 6" PERF. PVC SUBDRAIN I= 49.75 (S=0.000) SUBDRAIN TO BE LOCATED BEHIND RETAINING WALL CAP END OF PIPE
 PROP. CB #12 (LOCATED OVER EXIST 12" DRAIN)
 R=50.29±
 I=47.79 & 47.54 (6" ROOF LEADER IN)
 I=47.37± (EXIST. 12" OUT)
 8" DI DRAIN MAINTAIN MIN 2% PITCH FROM DOWNSPOUT AND TRENCH DRAIN TO CB#12 MAINTAIN MIN 2.5' COVER
 6" X 6" X 6" DI WYE & 6" X 8" REDUCER
 12' LONG TRENCH DRAIN WITH 6" DI OUTLET (SEE DETAIL)
 3, 6" DI ROOF LEADERS (TO REPLACE EXIST ROOF LEADERS) MAINTAIN MIN 2% PITCH FROM DOWNSPOUT TO CB#12 MAINTAIN MIN 2.5' COVER



EARTH TECH
 AS-BUILT FILE
 MAY 2008

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 300 BAKER AVENUE SUITE 280 CONCORD, MA 01742 (978) 371-0000

NO.	DATE	BY	REVISIONS
1	06/22/05	GW	ISSUED FOR CONSTRUCTION
2	09/15/05	GW	HEALTH COMMENTS
3	10/27/05	GW	ISSUED FOR REPOSTED SET
4	05/20/06	GW	AS-BUILT DRAWING FILE
5	MAY 2008	DPS	AS-BUILT DRAWING FILE

ROBERT H. SHELDON
 No. 4103
 REG. PROFESSIONAL ENGINEER
 STATE OF MASSACHUSETTS
 51784

PAWTUCKET, RHODE ISLAND
**PAWTUCKET REGIONAL
 WATER TREATMENT FACILITY
 PKG 2A - CONSTRUCTION**
 BRANCH STREET WTP
 DRAINAGE PLAN

DESIGNED BY

DWG SCALE

DRAWN BY

CONTRACT NO.

CHECKED BY

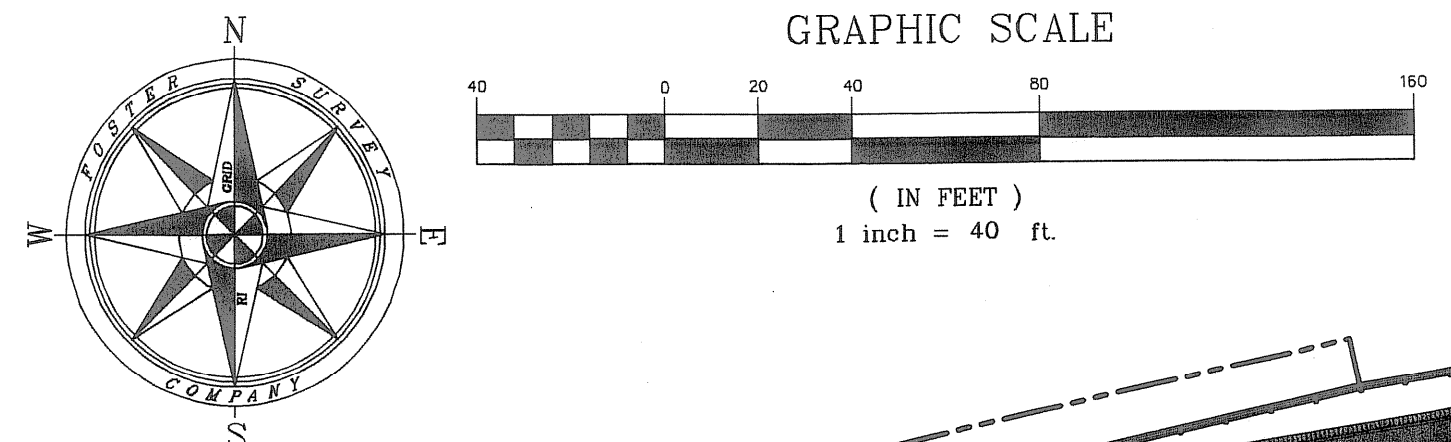
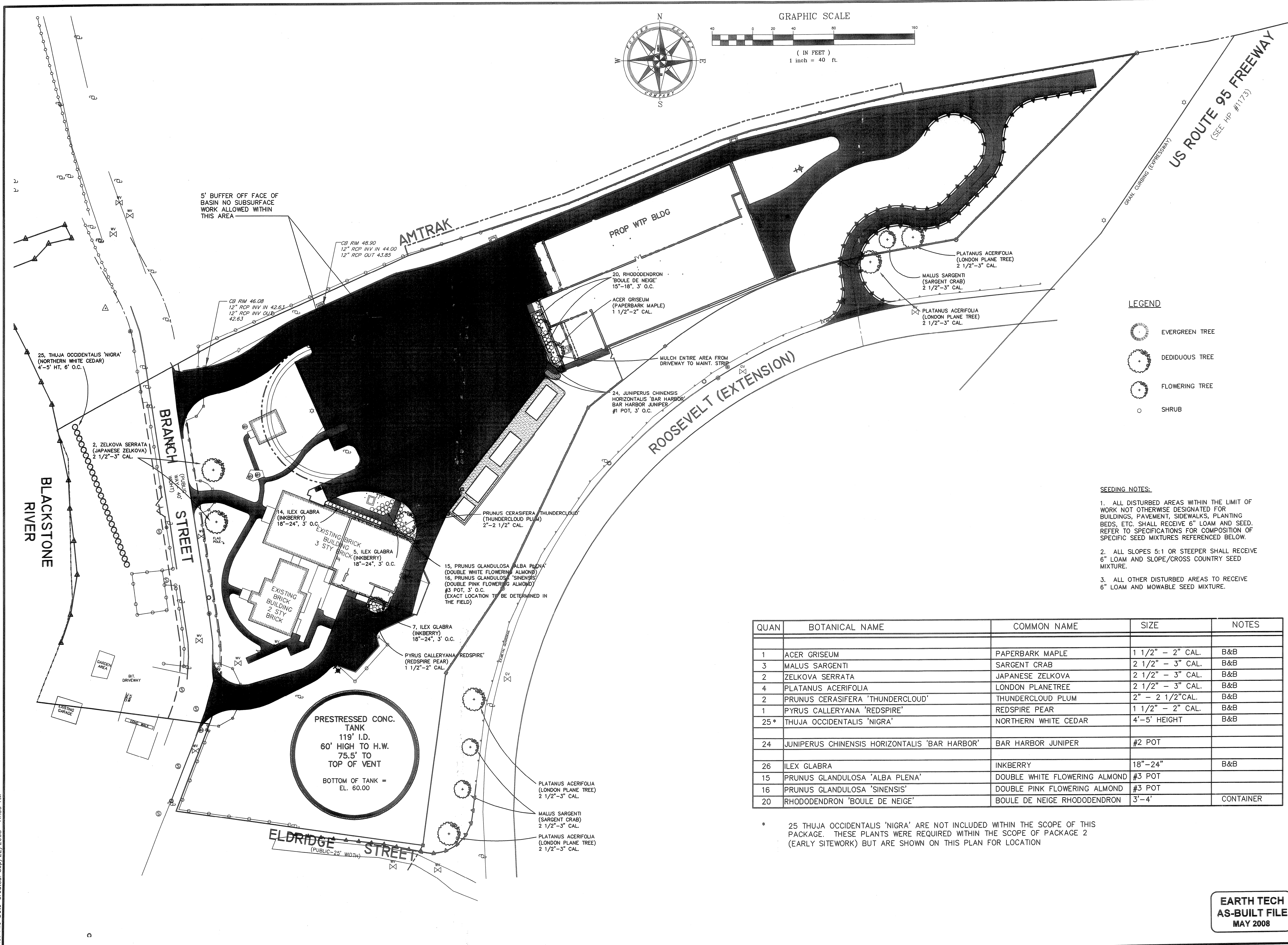
DATE

OCTOBER 31, 2008

LA-8

SHEET 5 OF

Filename: L:\WORK\69993\CAD\AS-BUILT\2A) WTP\SITE\69993 - BRANCH ST WTP - FINAL SITEWORK.DWG
 Plot File Date Created: Sep/22/2008 10:39 AM



- LEGEND**
- EVERGREEN TREE
 - DECIDUOUS TREE
 - FLOWERING TREE
 - SHRUB

- SEEDING NOTES:**
1. ALL DISTURBED AREAS WITHIN THE LIMIT OF WORK NOT OTHERWISE DESIGNATED FOR BUILDINGS, PAVEMENT, SIDEWALKS, PLANTING BEDS, ETC. SHALL RECEIVE 6" LOAM AND SEED. REFER TO SPECIFICATIONS FOR COMPOSITION OF SPECIFIC SEED MIXTURES REFERENCED BELOW.
 2. ALL SLOPES 5:1 OR STEEPER SHALL RECEIVE 6" LOAM AND SLOPE/CROSS COUNTRY SEED MIXTURE.
 3. ALL OTHER DISTURBED AREAS TO RECEIVE 6" LOAM AND MOWABLE SEED MIXTURE.

QUAN	BOTANICAL NAME	COMMON NAME	SIZE	NOTES
1	ACER GRISEUM	PAPERBARK MAPLE	1 1/2" - 2" CAL.	B&B
3	MALUS SARGENTI	SARGENT CRAB	2 1/2" - 3" CAL.	B&B
2	ZELKOVA SERRATA	JAPANESE ZELKOVA	2 1/2" - 3" CAL.	B&B
4	PLATANUS ACERIFOLIA	LONDON PLANETREE	2 1/2" - 3" CAL.	B&B
2	PRUNUS CERASIFERA 'THUNDERCLOUD'	THUNDERCLOUD PLUM	2" - 2 1/2" CAL.	B&B
1	PYRUS CALLERYANA 'REDSPIRE'	REDSPIRE PEAR	1 1/2" - 2" CAL.	B&B
25*	THUJA OCCIDENTALIS 'NIGRA'	NORTHERN WHITE CEDAR	4'-5' HEIGHT	B&B
24	JUNIPERUS CHINENSIS HORIZONTALIS 'BAR HARBOR'	BAR HARBOR JUNIPER	#2 POT	
26	ILEX GLABRA	INKBERRY	18"-24"	B&B
15	PRUNUS GLANDULOSA 'ALBA PLENA'	DOUBLE WHITE FLOWERING ALMOND	#3 POT	
16	PRUNUS GLANDULOSA 'SINENSIS'	DOUBLE PINK FLOWERING ALMOND	#3 POT	
20	RHODODENDRON 'BOULE DE NEIGE'	BOULE DE NEIGE RHODODENDRON	3'-4'	CONTAINER

* 25 THUJA OCCIDENTALIS 'NIGRA' ARE NOT INCLUDED WITHIN THE SCOPE OF THIS PACKAGE. THESE PLANTS WERE REQUIRED WITHIN THE SCOPE OF PACKAGE 2 (EARLY SITEWORK) BUT ARE SHOWN ON THIS PLAN FOR LOCATION

FULL SIZE DRAWING = 4"

NO.	DATE	BY	REVISIONS
3	MAY 2008	DPS	AS-BUILT DRAWING FILE
2	10/31/06	GBW	ISSUED FOR RFI POSTED SET
1	09/15/05	GBW	HEALTH COMMENTS
0	06/22/05	GBW	ISSUED FOR CONSTRUCTION

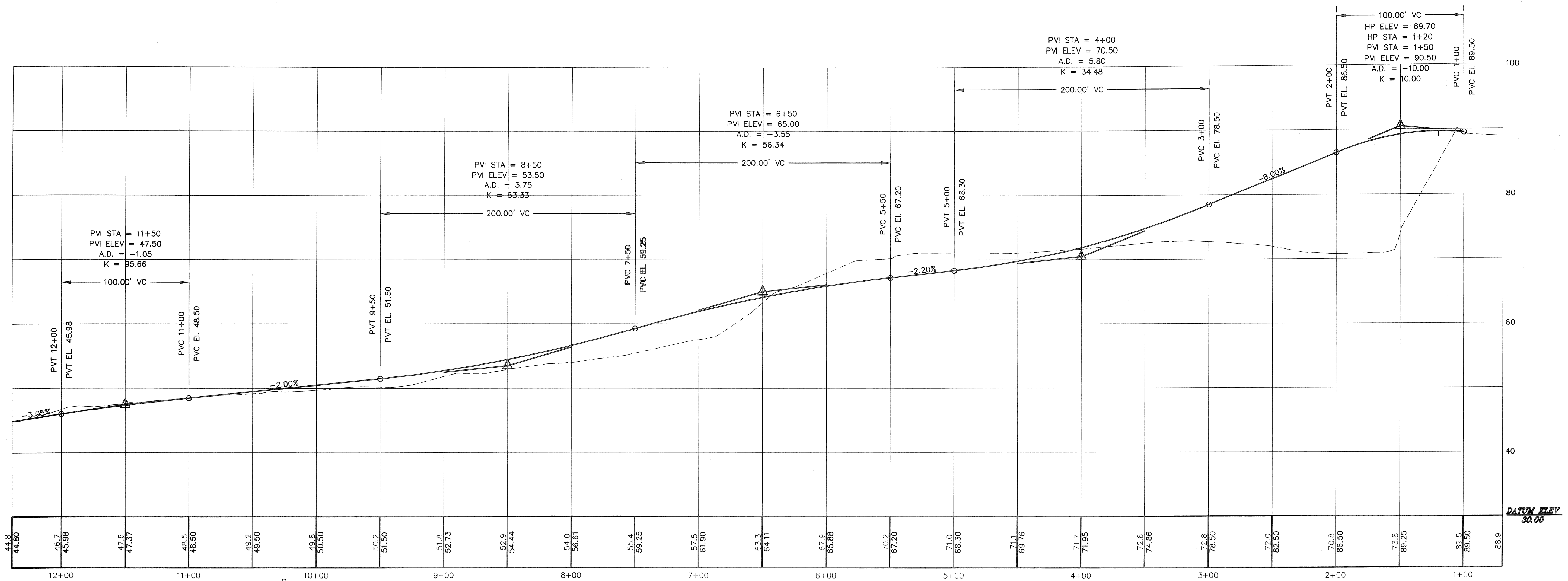
ROBERT H. SHELDON
 No. 4103
 10/31/06

PAWTUCKET, RHODE ISLAND
PAWTUCKET REGIONAL WATER TREATMENT FACILITY
PKG 2A - CONSTRUCTION
 BRANCH STREET WTP
 PLANTING PLAN

DESIGNED BY	DWG SCALE
DRAWN BY	1"=40'
CHECKED BY	CONTRACT NO.
	DATE
	OCTOBER 31, 2008

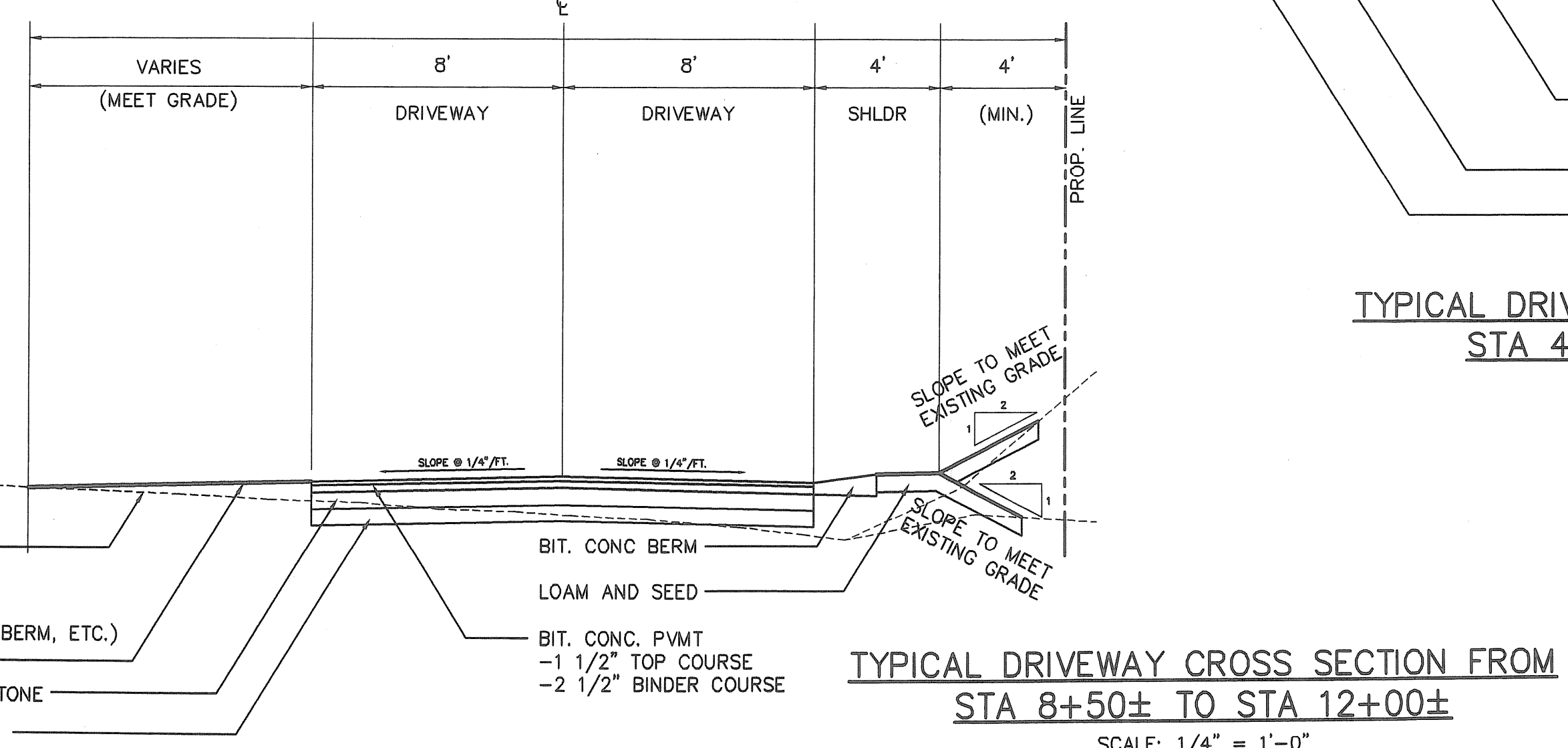
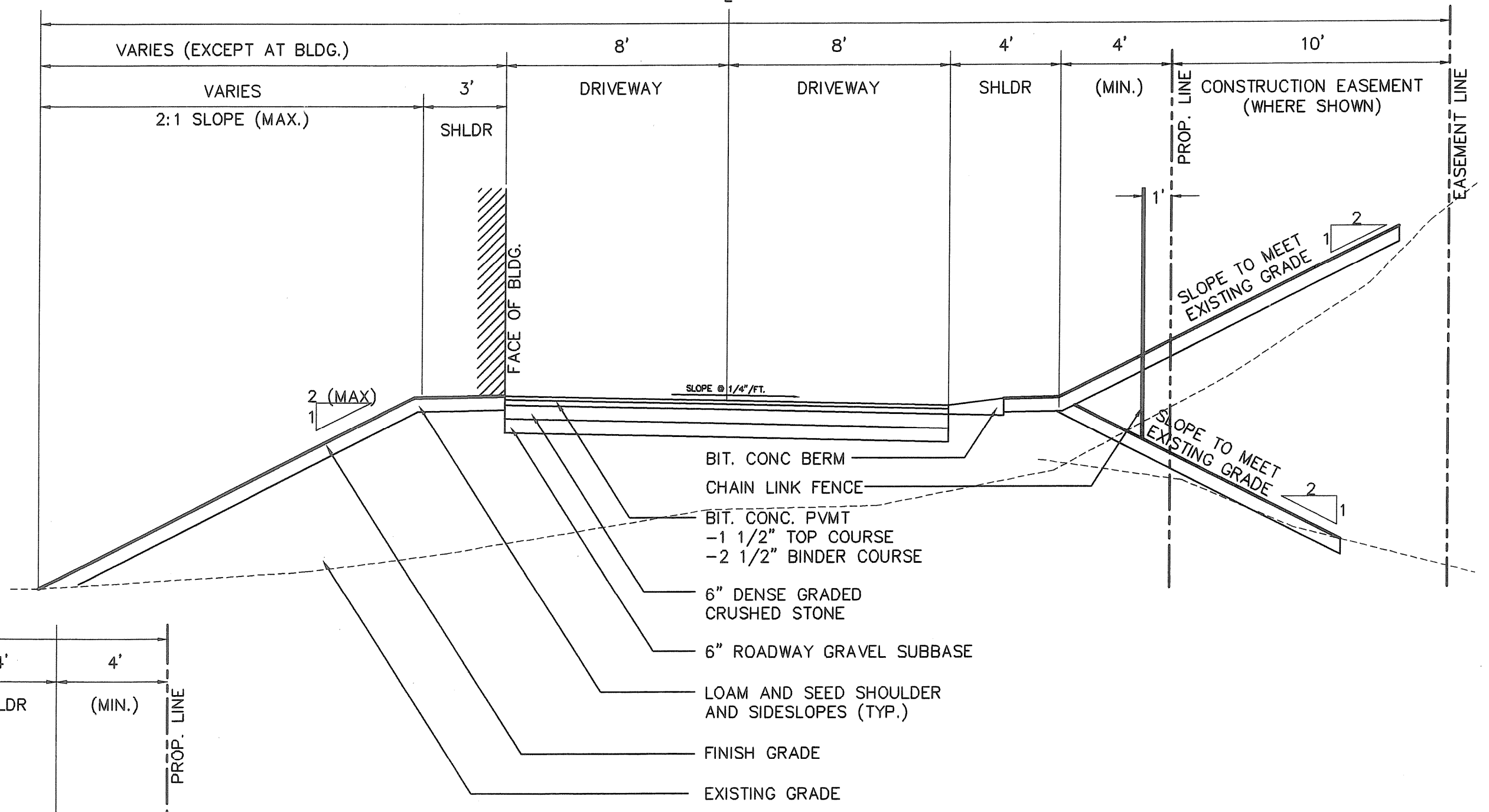
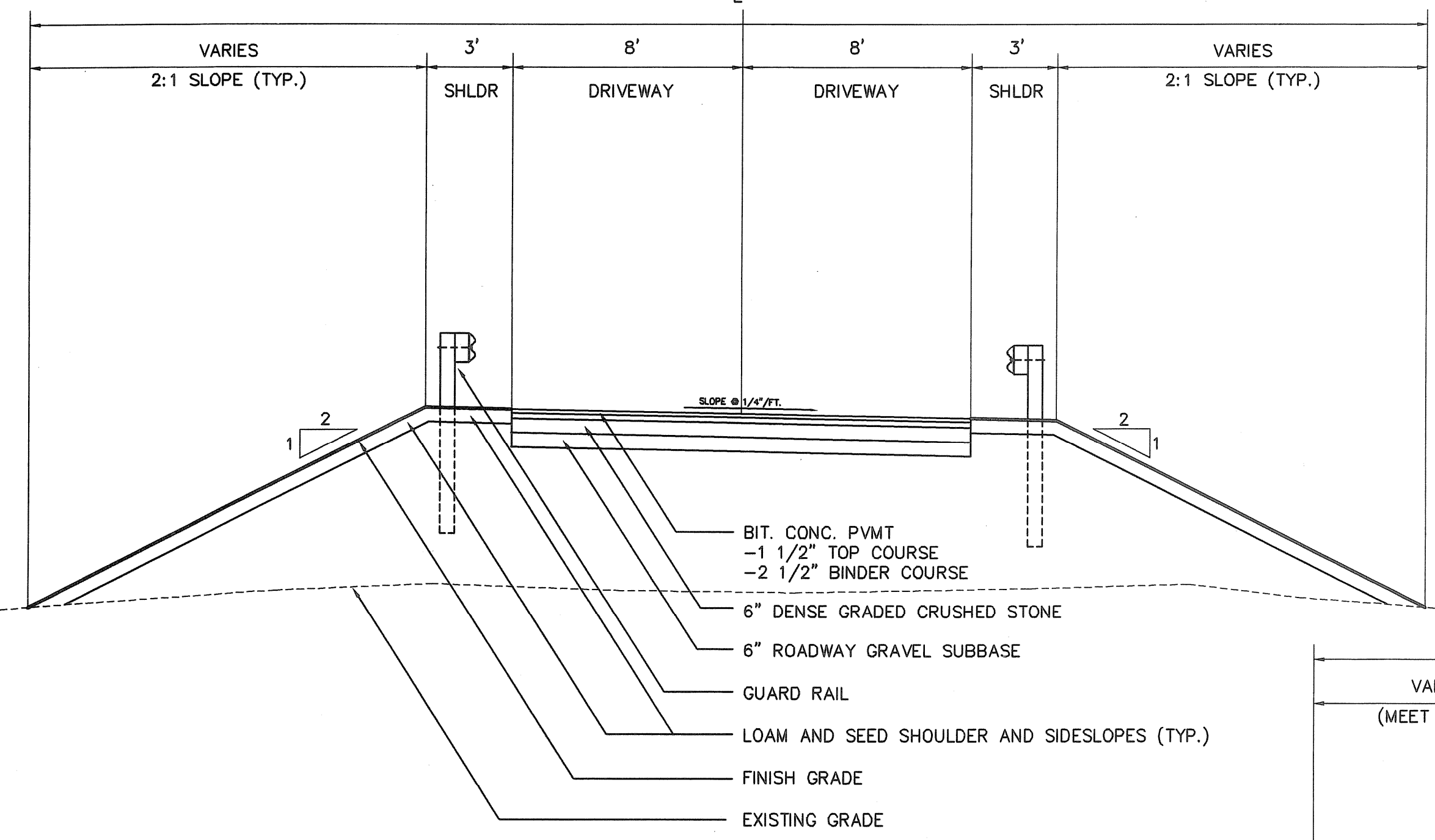
EARTH TECH
 AS-BUILT FILE
 MAY 2008

Filename: L:\WORK\69993\CAD\AS-BUILT\2A WTP\SITE\69993 - BRANCH ST WTP - FINAL SITEWORK.DWG
 Plot File Date Created: Sep/22/2008 10:39 AM



DRIVEWAY PROFILE

HOR. SCALE: 1"=40'
 VERT. SCALE: 1"= 4'



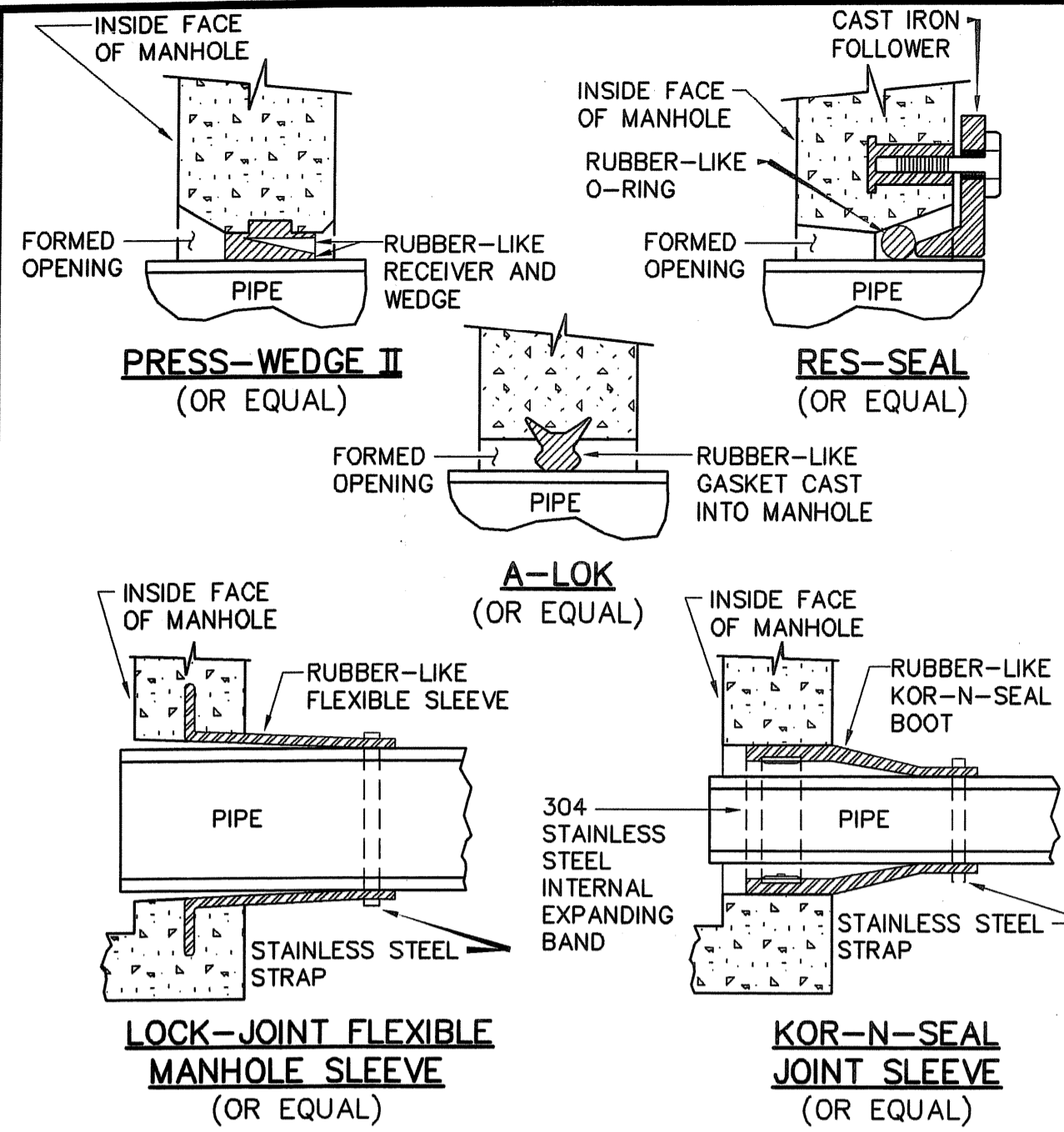
NO.	DATE	BY	REVISIONS
5	MAY 2008	DPB	AS-BUILT DRAWING FILE
2	10/31/08	GRW	ISSUED FOR RFI POSTED SET
1	09/15/08	GRW	HEALTH COMMENTS
0	08/22/08	GRW	ISSUED FOR CONSTRUCTION

ROBERT H. SHELDON
 No. 4103
 5/27/08

PAWTUCKET, RHODE ISLAND
PAWTUCKET REGIONAL WATER TREATMENT FACILITY
PKG 2A - CONSTRUCTION
 BRANCH STREET WTP
 DRIVEWAY PROFILE AND CROSS SECTION

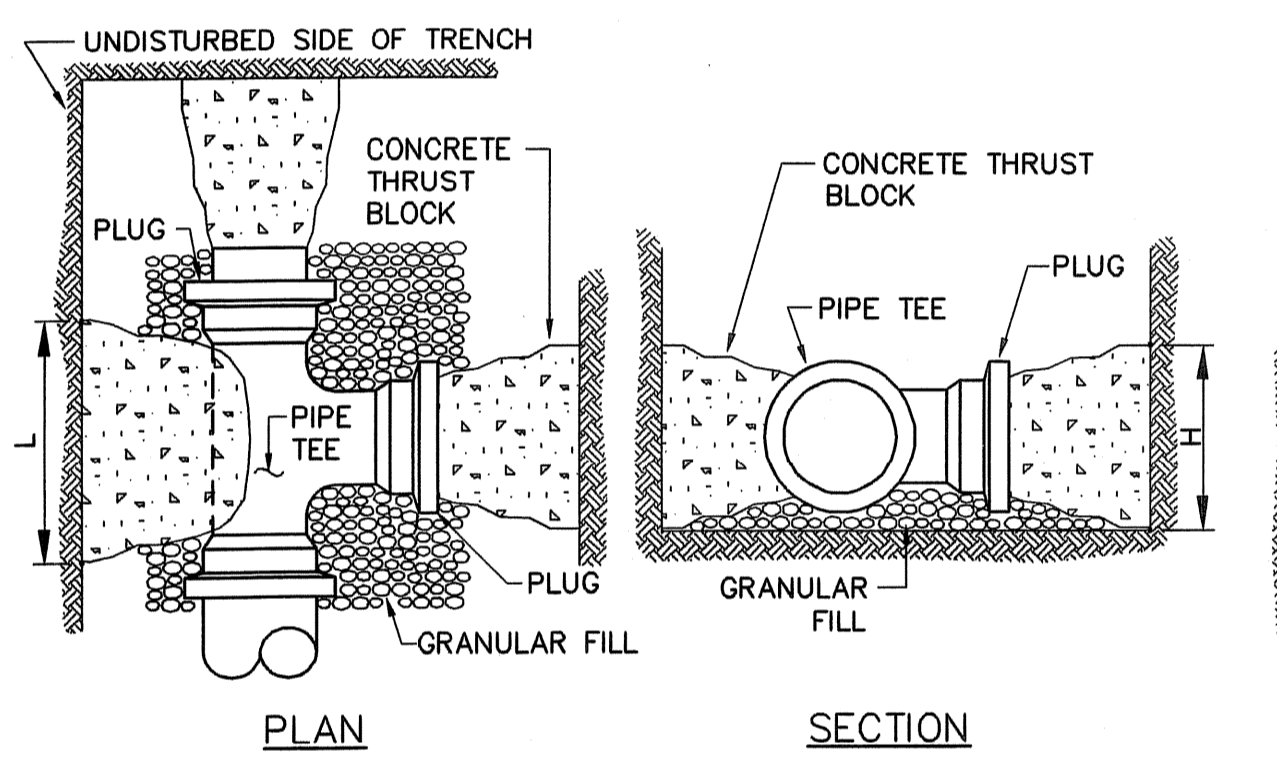
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DRAWN BY	1"=40'
CHECKED BY	CONTRACT NO.
	DATE
	OCTOBER 31, 2008

EARTH TECH
 AS-BUILT FILE
 MAY 2008



NOTE: ALL GASKETS, SEALANTS, MORTAR ETC. SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS WRITTEN INSTRUCTIONS.

TYPICAL SLEEVE DETAILS
NOT TO SCALE

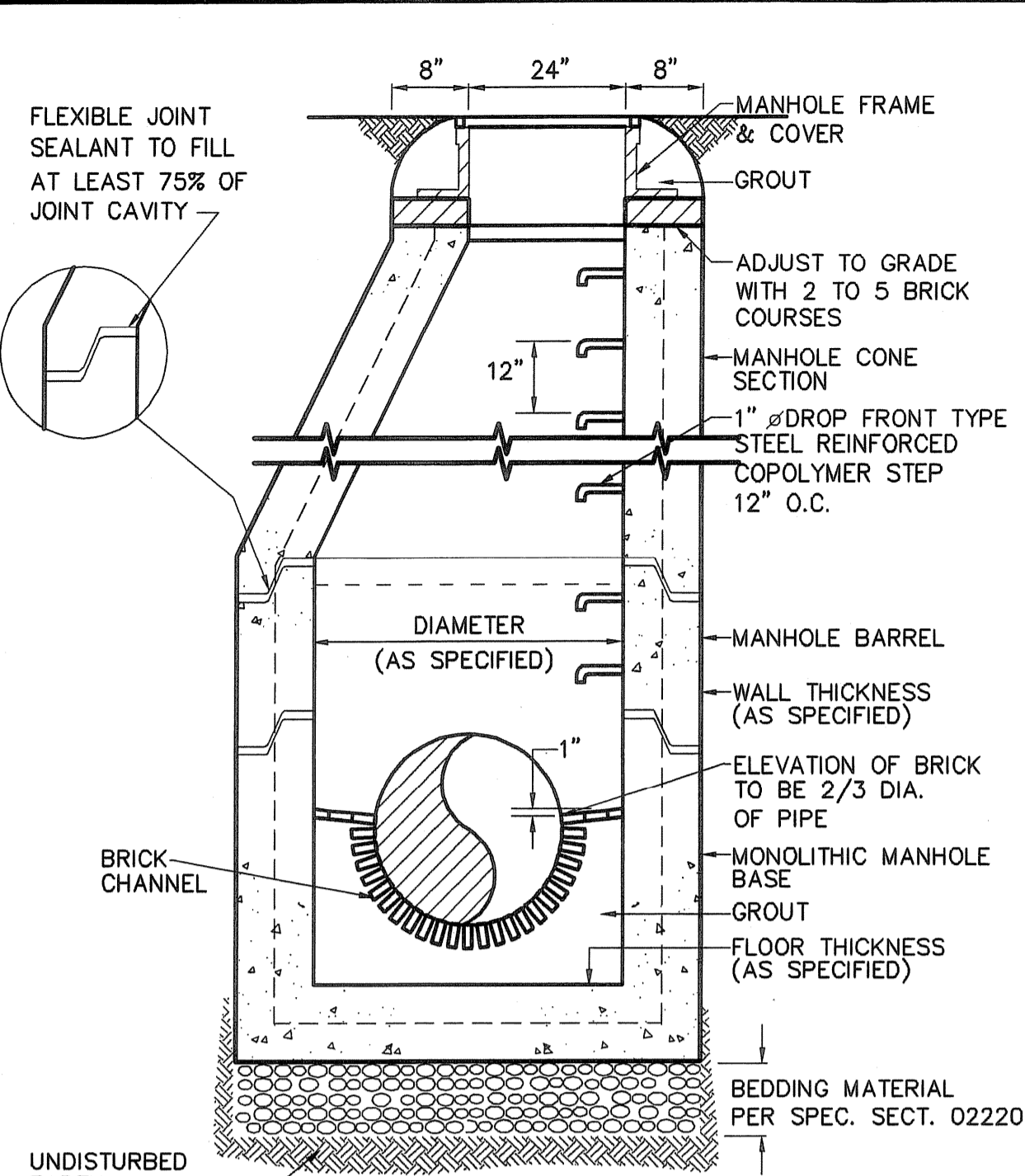


NOTE: ALL FITTINGS TO BE PLACED ON WELL CONSOLIDATED GRAVEL. BLOCK HEIGHT (H) SHOULD BE APPROXIMATELY 1/2 LENGTH (L) AT SOIL BEARING FACE.

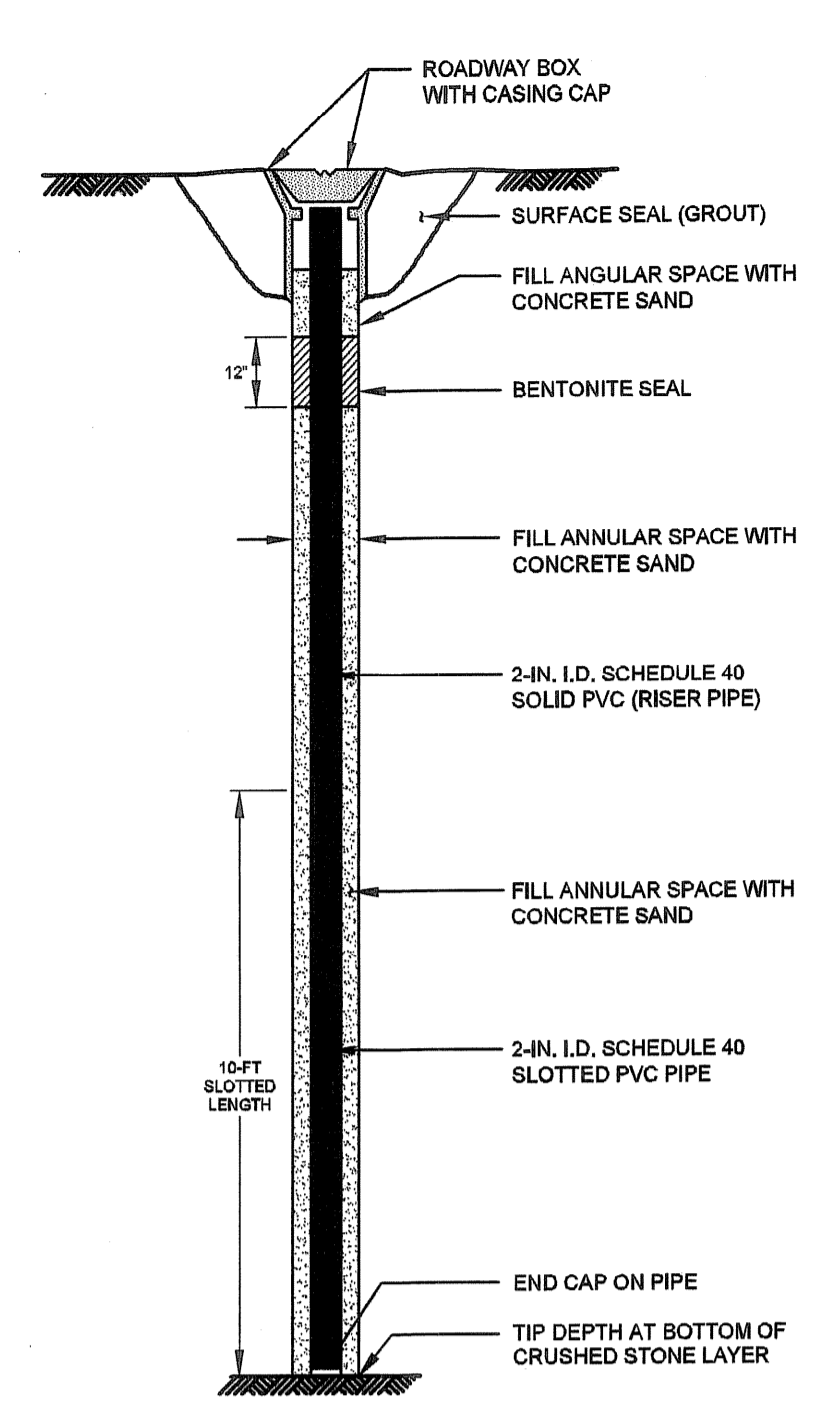
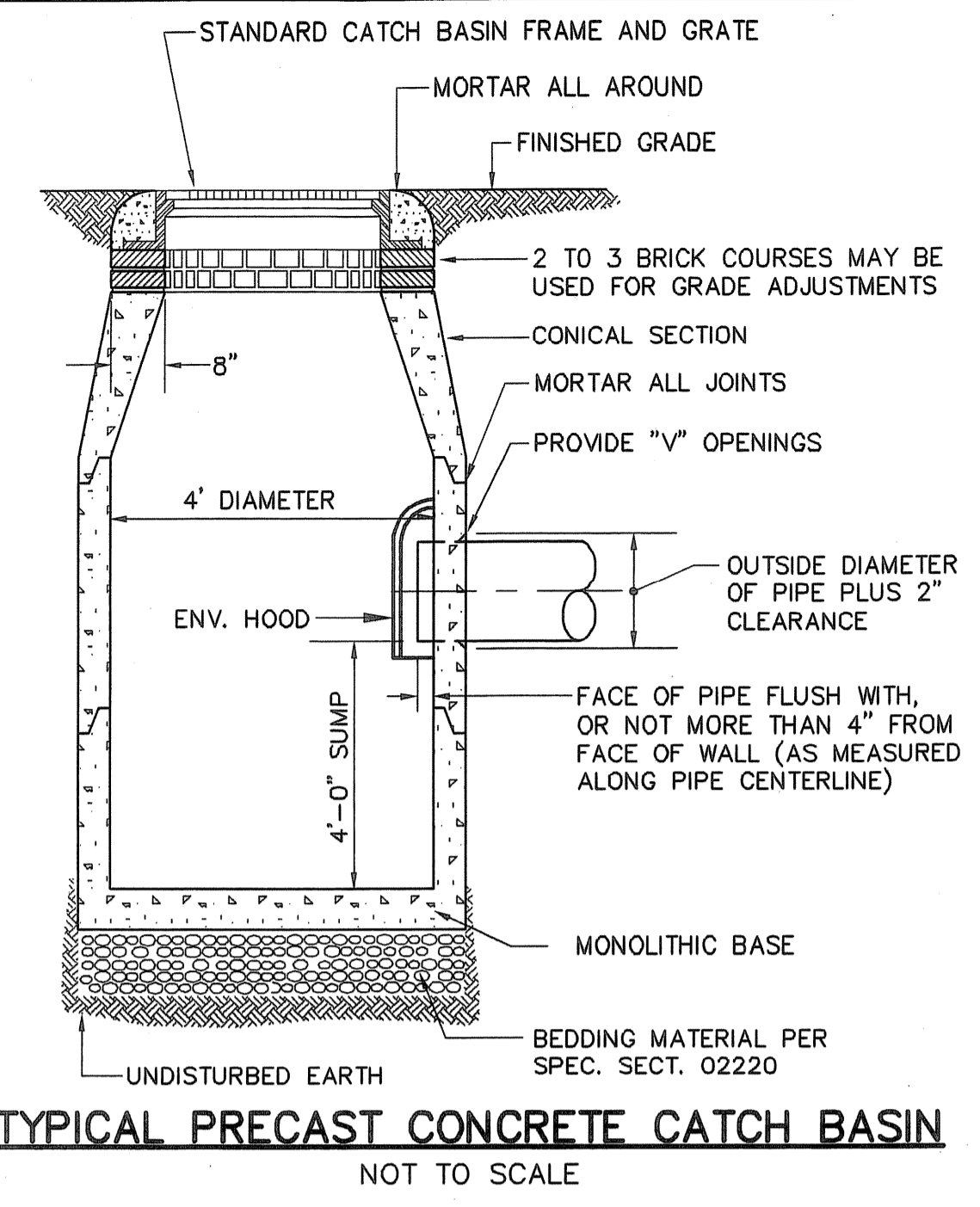
MINIMUM BEARING AREA - FT.²

PIPE DIAMETER (INCHES)	TEES, DEAD ENDS VALVES	90° BENDS	45° BENDS	22 1/2° BENDS	11 1/4° BENDS
4	2.0	2.0	2.0	2.0	2.0
6	2.5	3.6	2.0	2.0	2.0
8	4.4	6.2	3.3	2.0	2.0
10	6.5	9.2	5.0	2.6	2.0
12	8.9	12.6	6.8	3.4	2.0
14	12.0	16.9	9.2	4.6	2.3
16	14.8	-	11.4	5.8	2.9
18	-	-	12.8	7.3	3.7
20	-	-	16.8	8.6	4.2
24	-	-	-	12.0	6.0
30	-	-	-	-	9.1
36	-	-	-	-	12.7
42	-	-	-	-	16.8

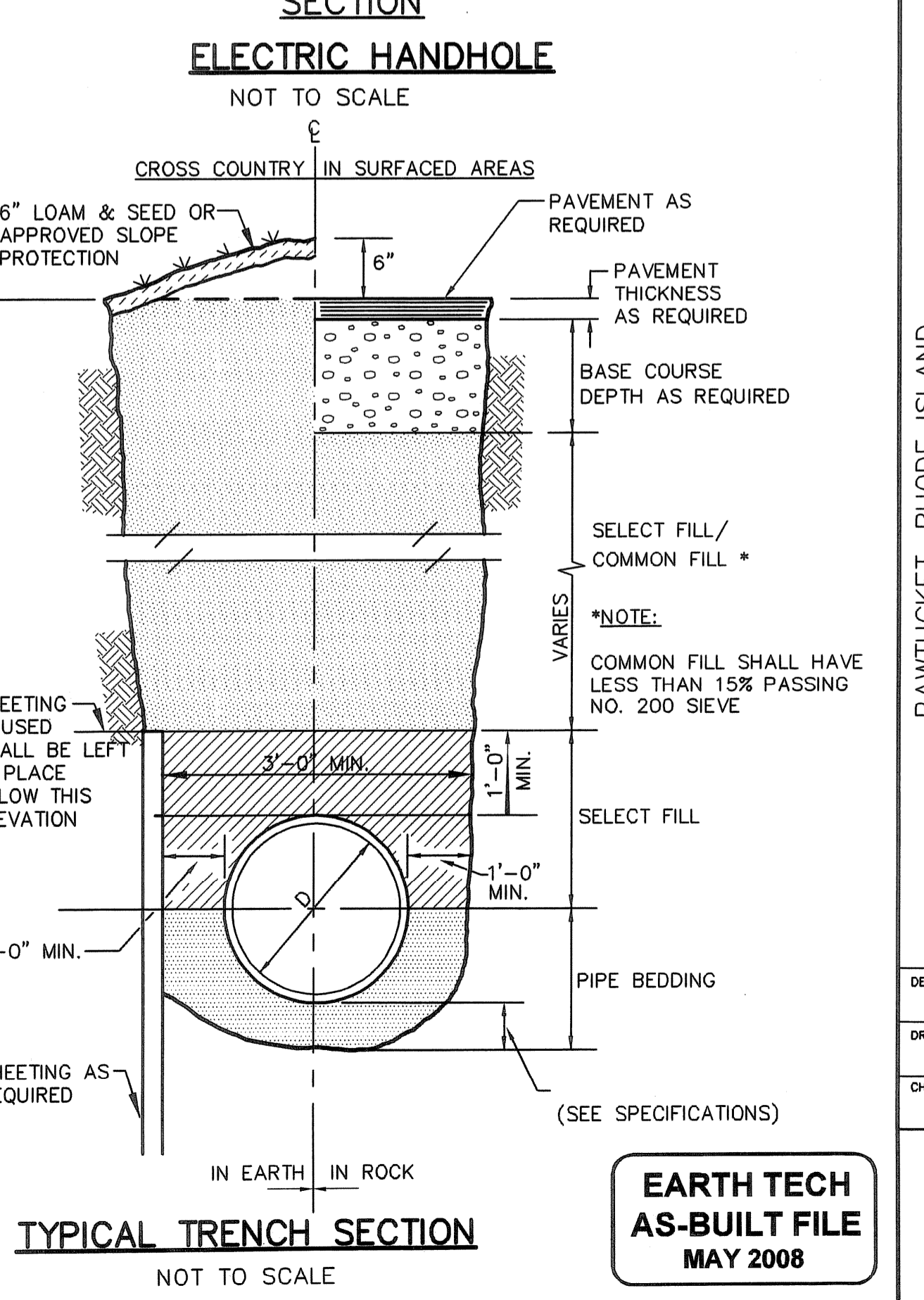
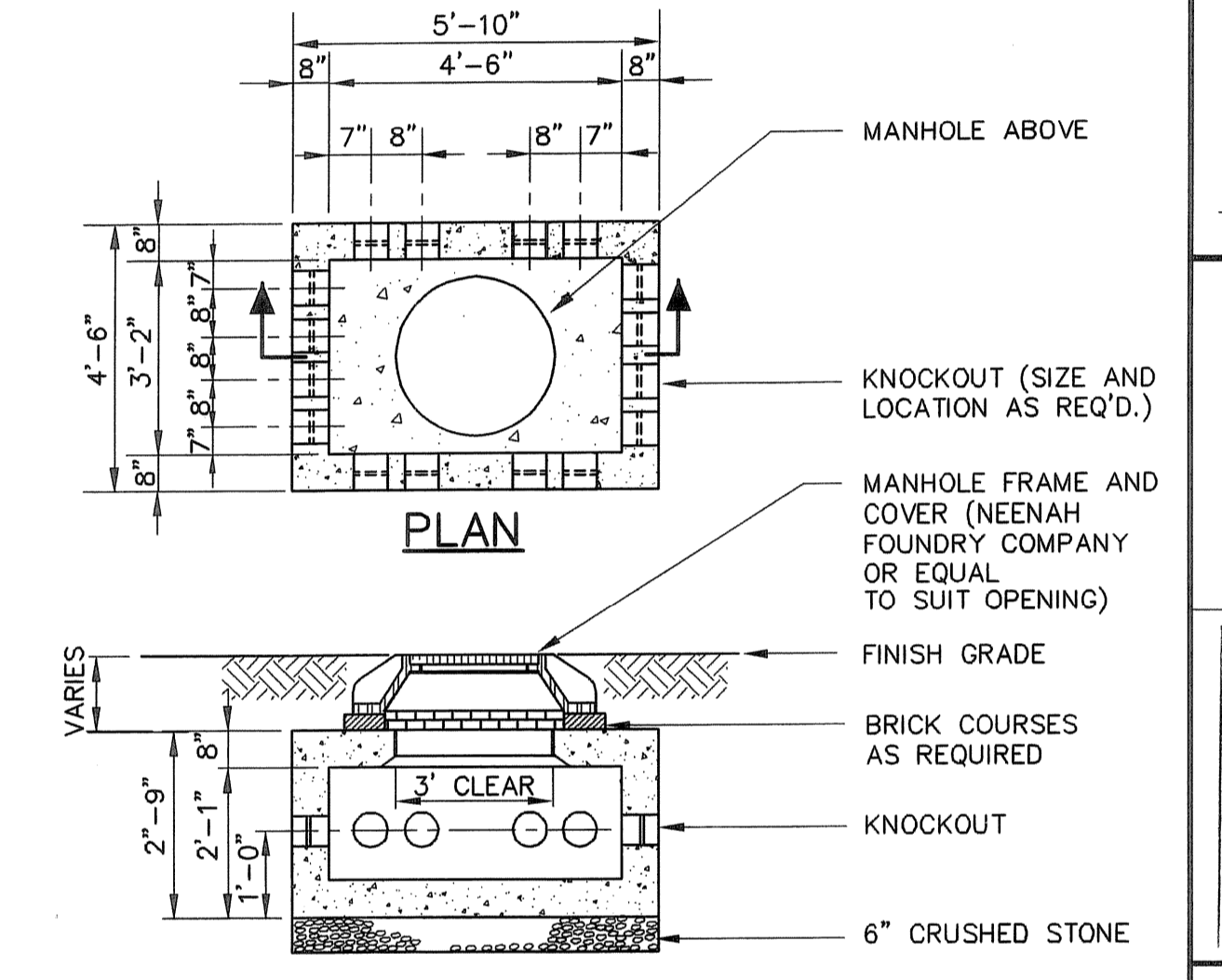
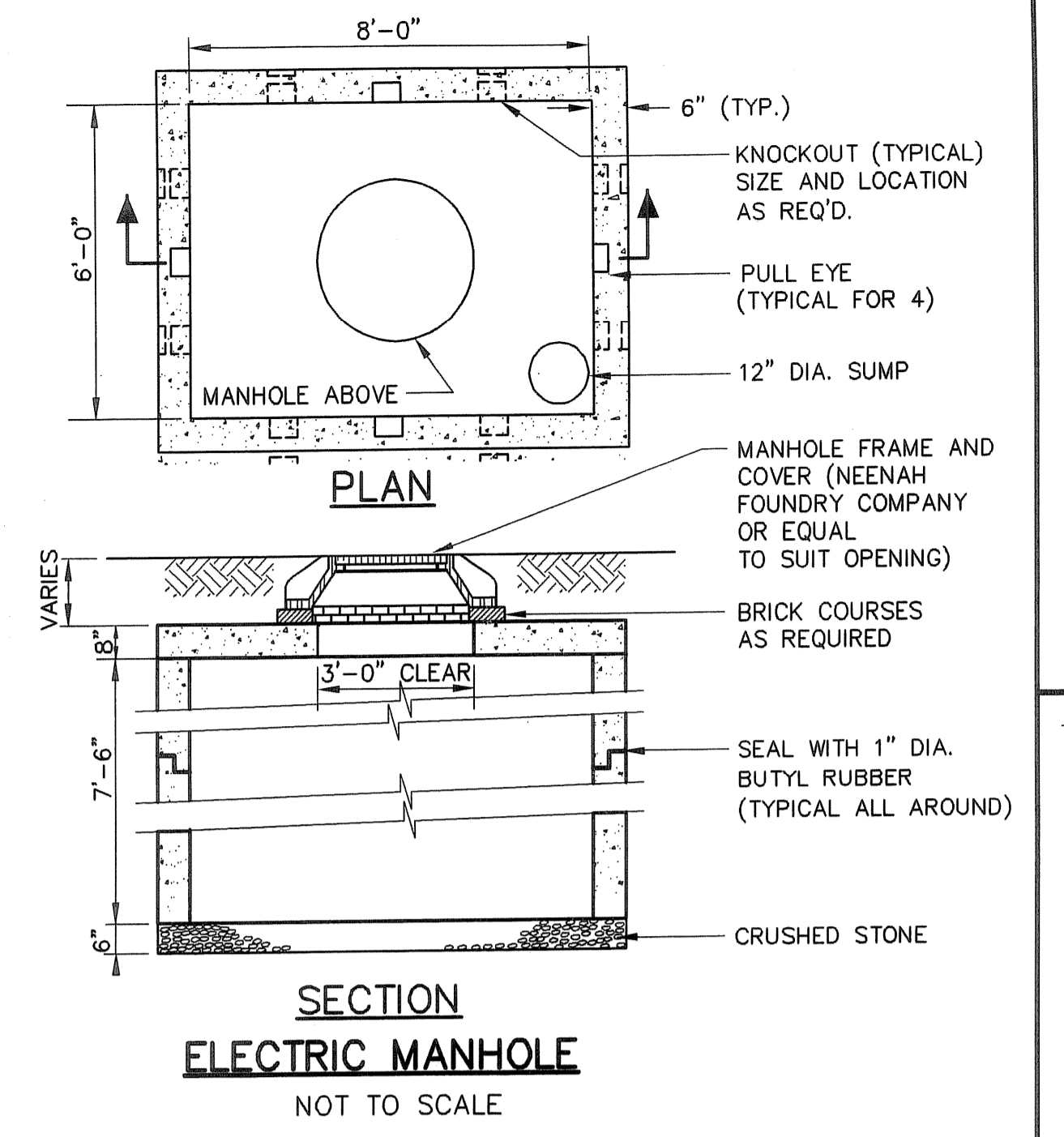
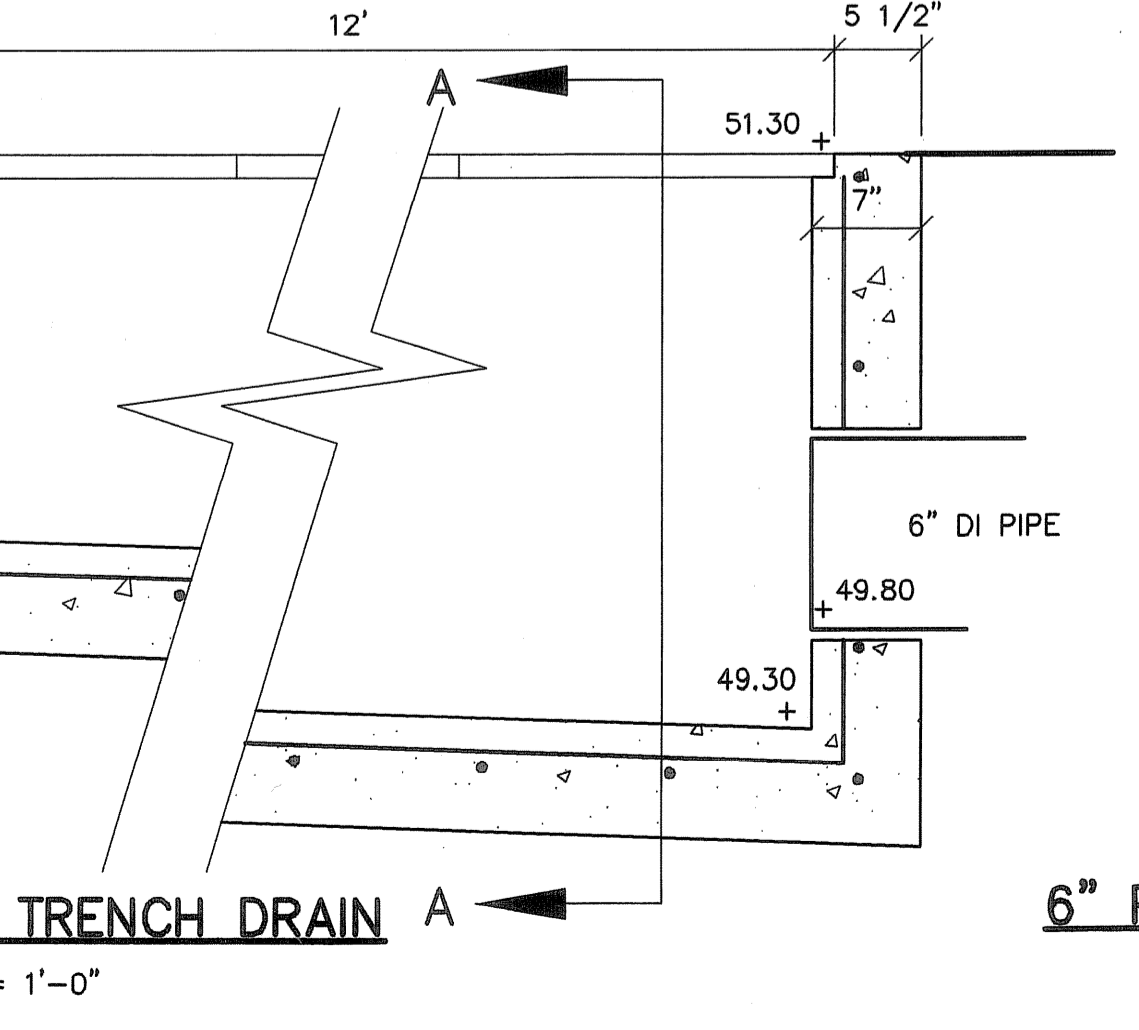
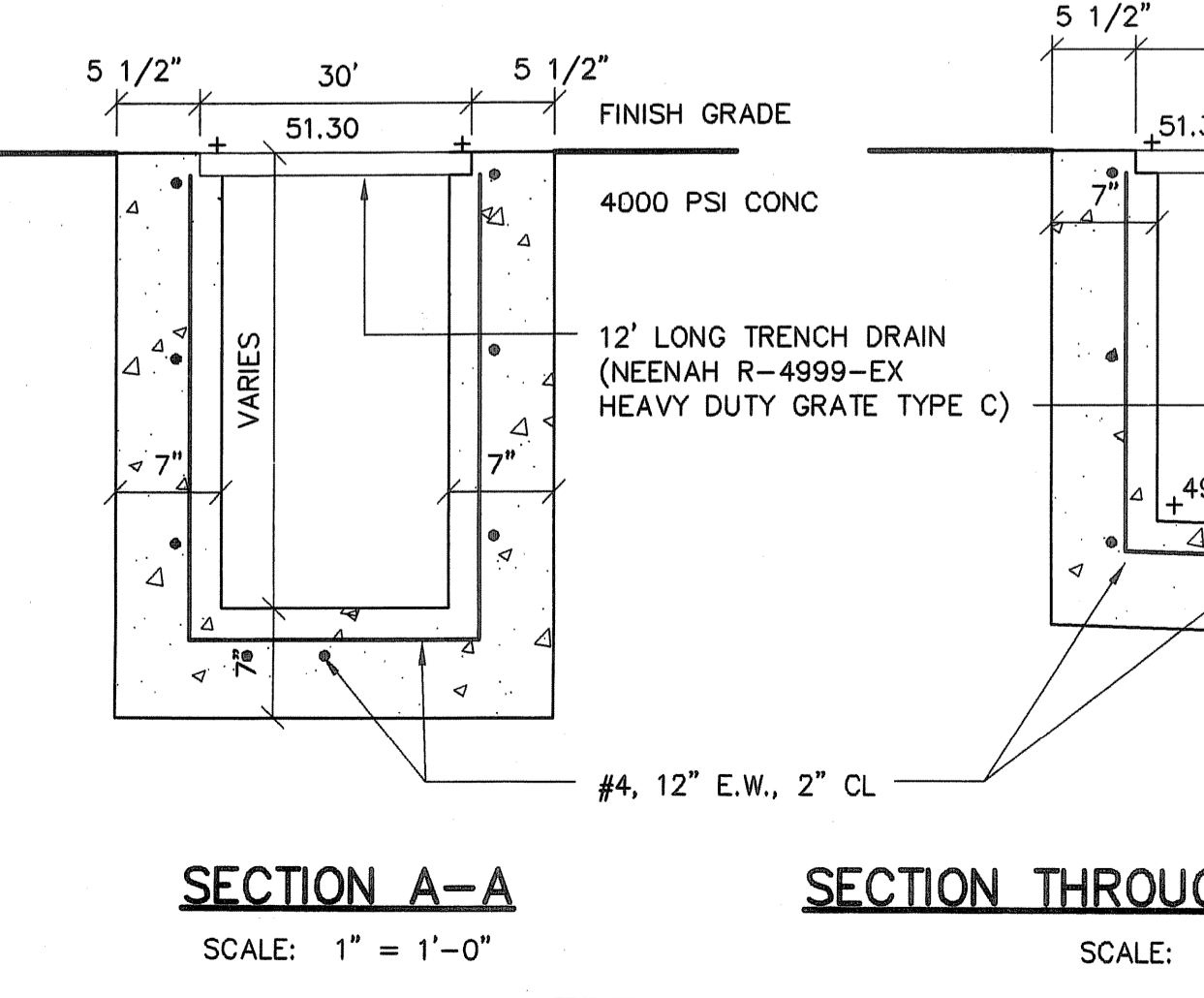
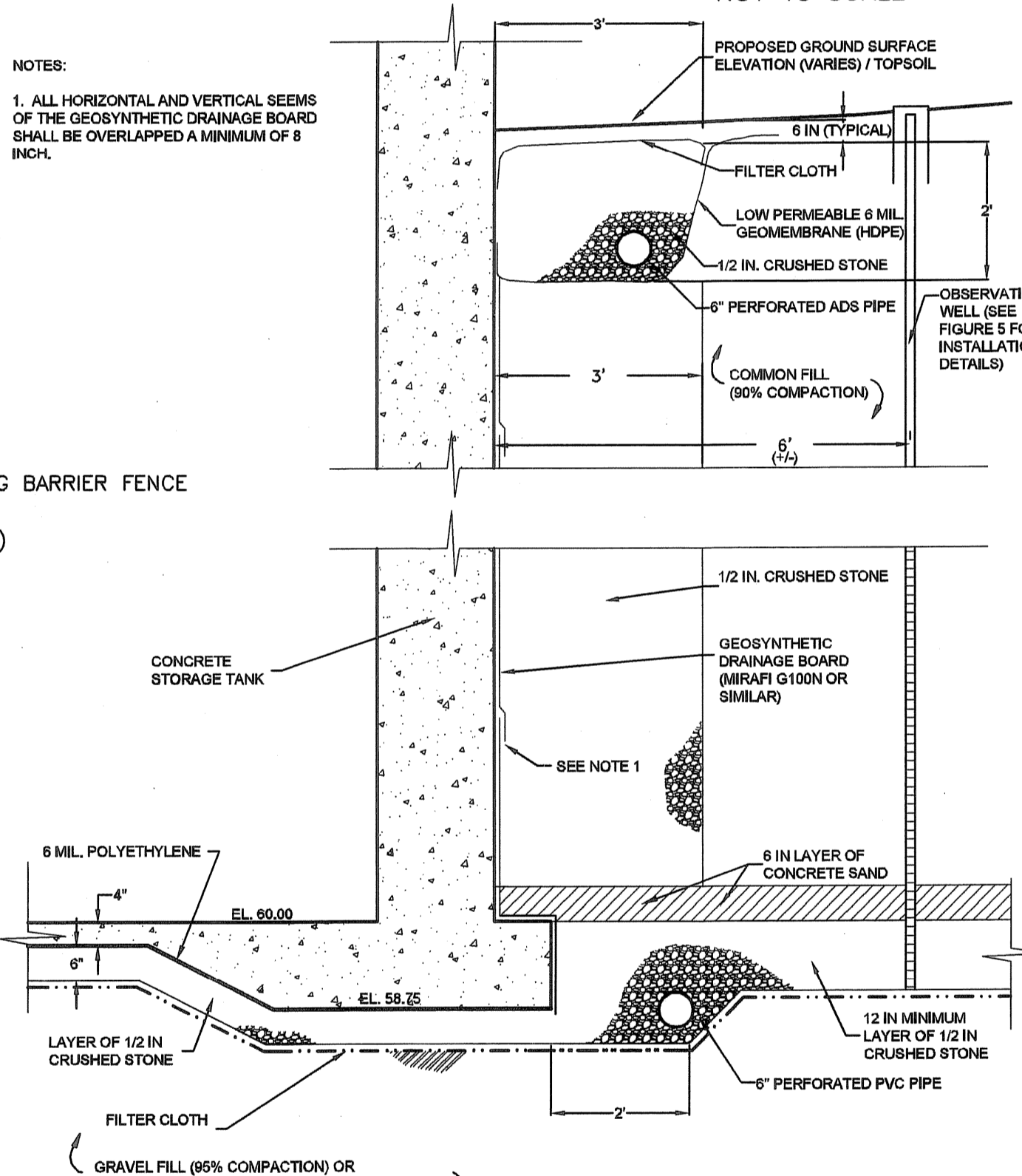
- NOTE**
- BEARING AREAS, BASED ON SOIL BEARING CAPACITY OF 4,000 PSF. MINIMUM BEARING AREA IS 2.0 SQUARE FEET.
 - IF SOIL HAS DIFFERENT BEARING CAPACITY THAN NOTED, NEW BEARING CAN BE CALCULATED BY RATIO I.E., IF SOIL HAS BEARING OF 2,000 PSF, MULTIPLY TABULATED VALUE BY 4/2.
 - TABLE IS FOR HORIZONTAL RESTRAINT ONLY.
 - VALUES SHOWN ARE FOR TEST PRESSURE OF 150 PSI WITH A 100 PSI SURGE ALLOWANCE.
 - THRUST BLOCKS SHALL NOT BE PLACED AGAINST THE FOLLOWING SOILS: A) PEAT, ORGANIC SILT AND ORGANIC SOILS; B) SOFT CLAY; C) RUBBISH FILL AND OTHER UNSUITABLE ARTIFICIAL FILL; D) SHATTERED SHALE; E) INORGANIC SILT AND VERY FINE SANDS.
 - WHERE POSSIBLE, POUR CONCRETE ANCHOR BLOCKS AGAINST UNDISTURBED EARTH. OTHERWISE, PLACE COMPACTED BACKFILL USING GRAVEL AND WELL GRADED SAND AFTER REMOVING FORMS.
 - BACKFILL SHOULD BE COMPACTED TO AT LEAST 90 PERCENT OF MAXIMUM DRY UNIT WEIGHT DETERMINED BY ASTM TEST DESIGNATION D-1557.



DIAMETER	WALL THICKNESS	FLOOR THICKNESS
4 FT.	5 IN.	6 IN.
5 FT.	6 IN.	7 IN.
6 FT.	7 IN.	8 IN.
8 FT.	9 3/4 IN.	8 IN.



NOTES:
1. ALL HORIZONTAL AND VERTICAL SEAMS OF THE GEOSYNTHETIC DRAINAGE BOARD SHALL BE OVERLAPPED A MINIMUM OF 8 INCH.



EARTH TECH AS-BUILT FILE MAY 2008

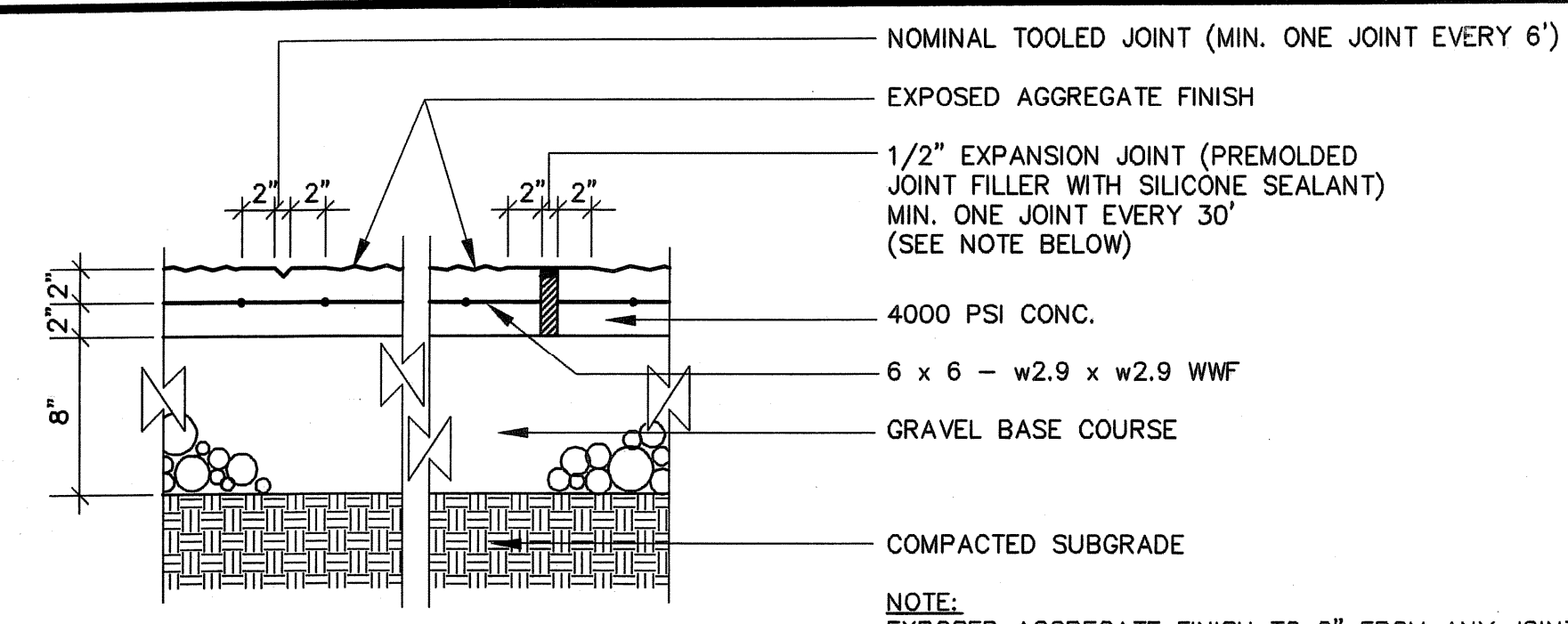
NO.	DATE	BY	REVISIONS
4	10/21/04	GRW	ISSUED FOR PER POSTED SET
3	12/20/04	GRW	HEALTH COMMENTS
2	08/15/05	GRW	HEALTH COMMENTS
1	07/12/05	GRW	REVISED TANK FOUNDATION DRAIN DETAIL
5	MAY 2008	DRP	AS-BUILT DRAWING FILE

ROBERT H. SHELTON
No. 4103
Professional Engineer
5/17/08

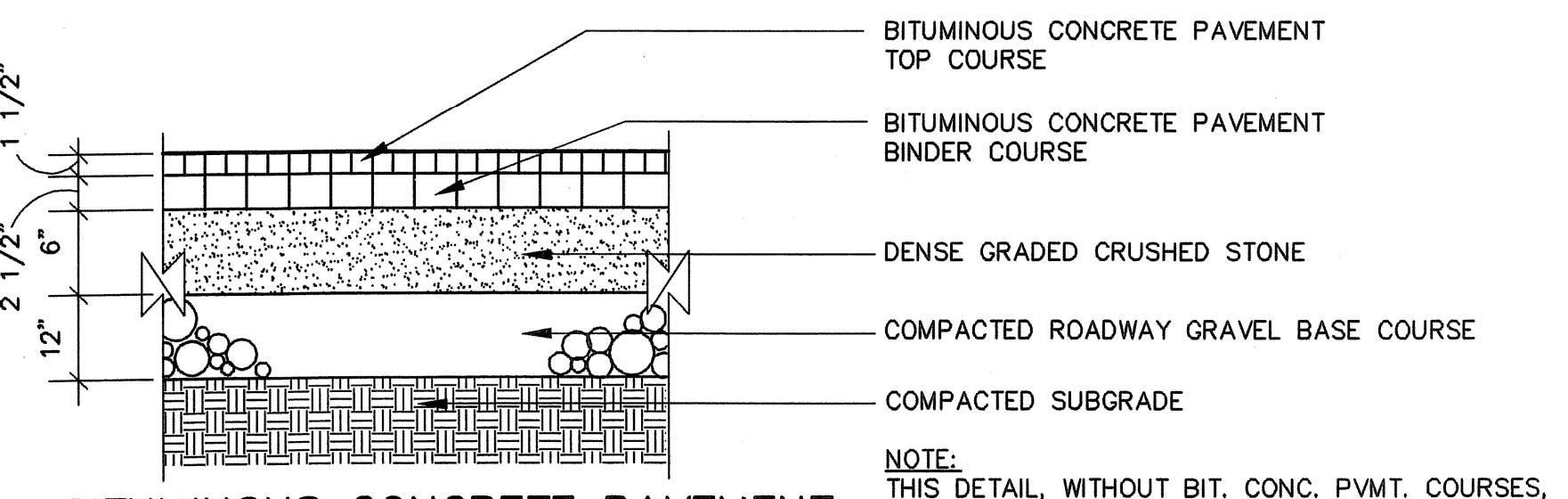
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DRAWN BY	CONTRACT NO.
CHECKED BY	DATE

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Plot File Date Created: Sep/22/2008 10:39 AM

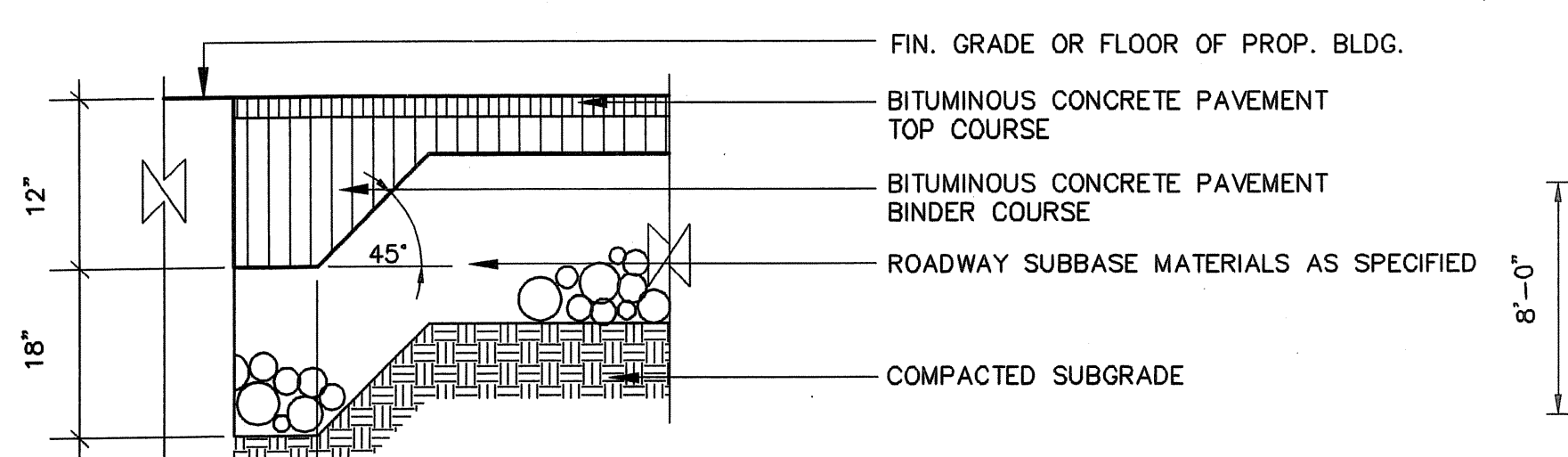
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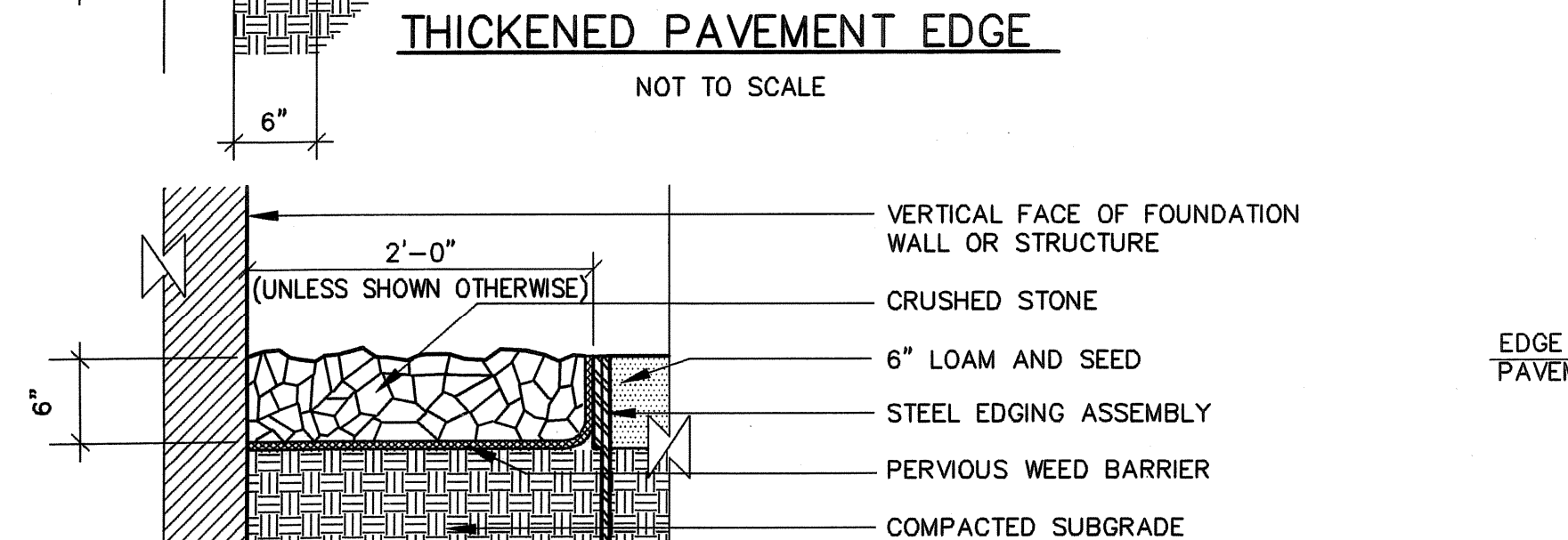
CONCRETE SIDEWALK
NOT TO SCALE



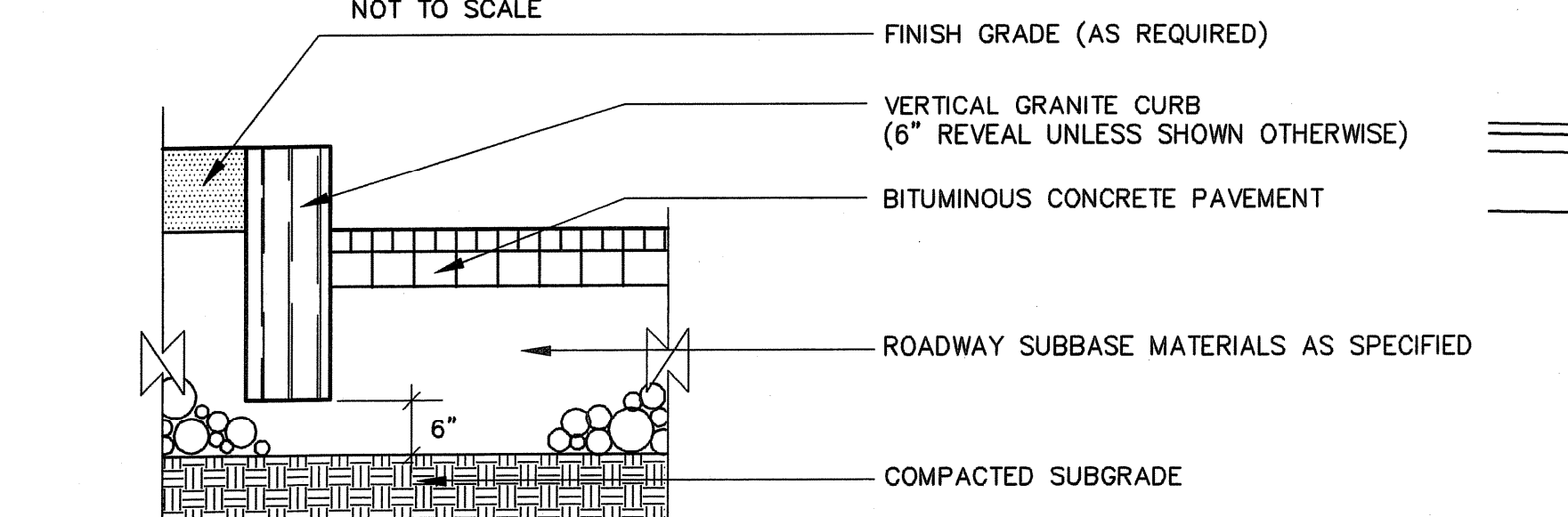
BITUMINOUS CONCRETE PAVEMENT
NOT TO SCALE



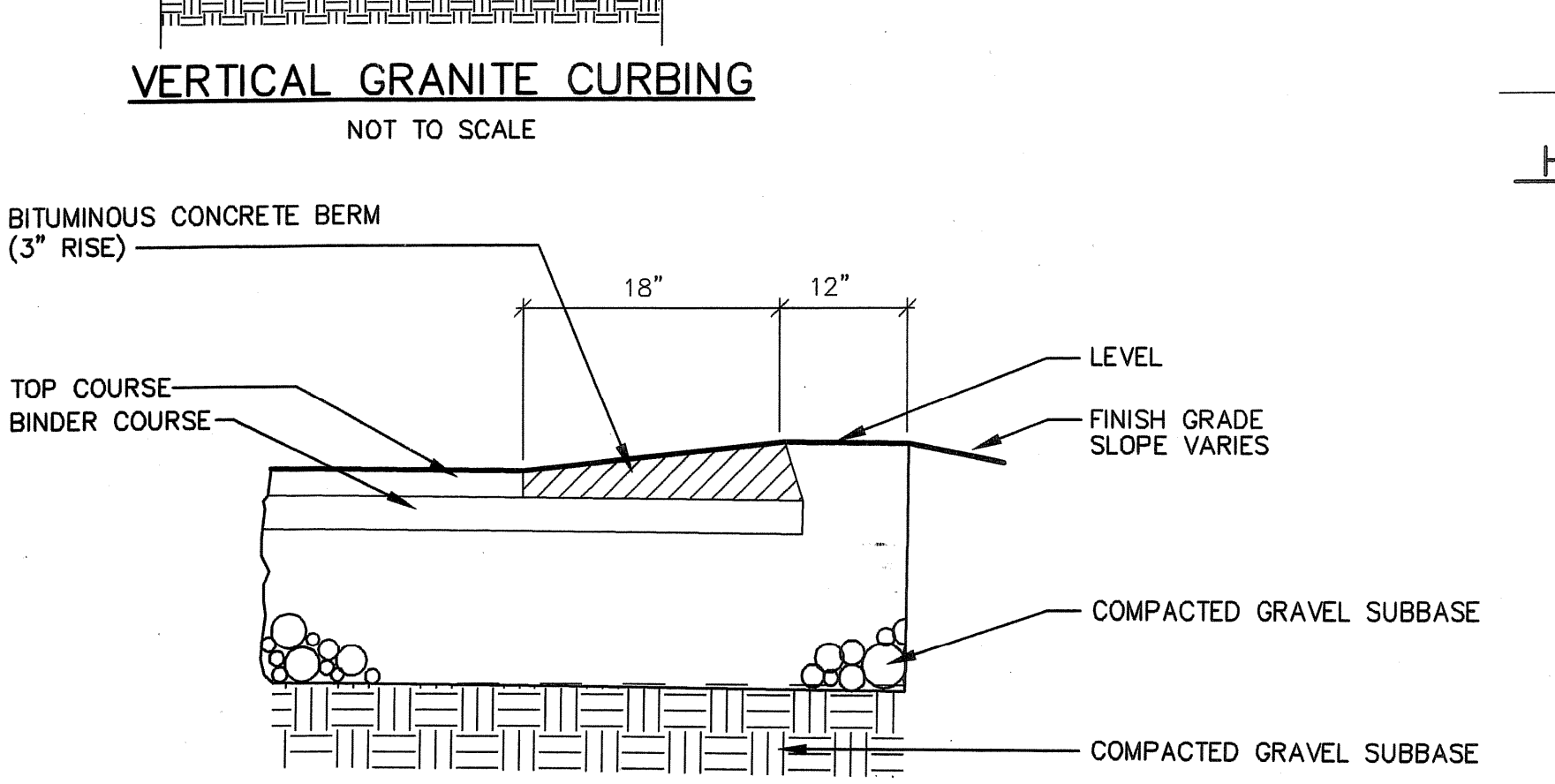
THICKENED PAVEMENT EDGE
NOT TO SCALE



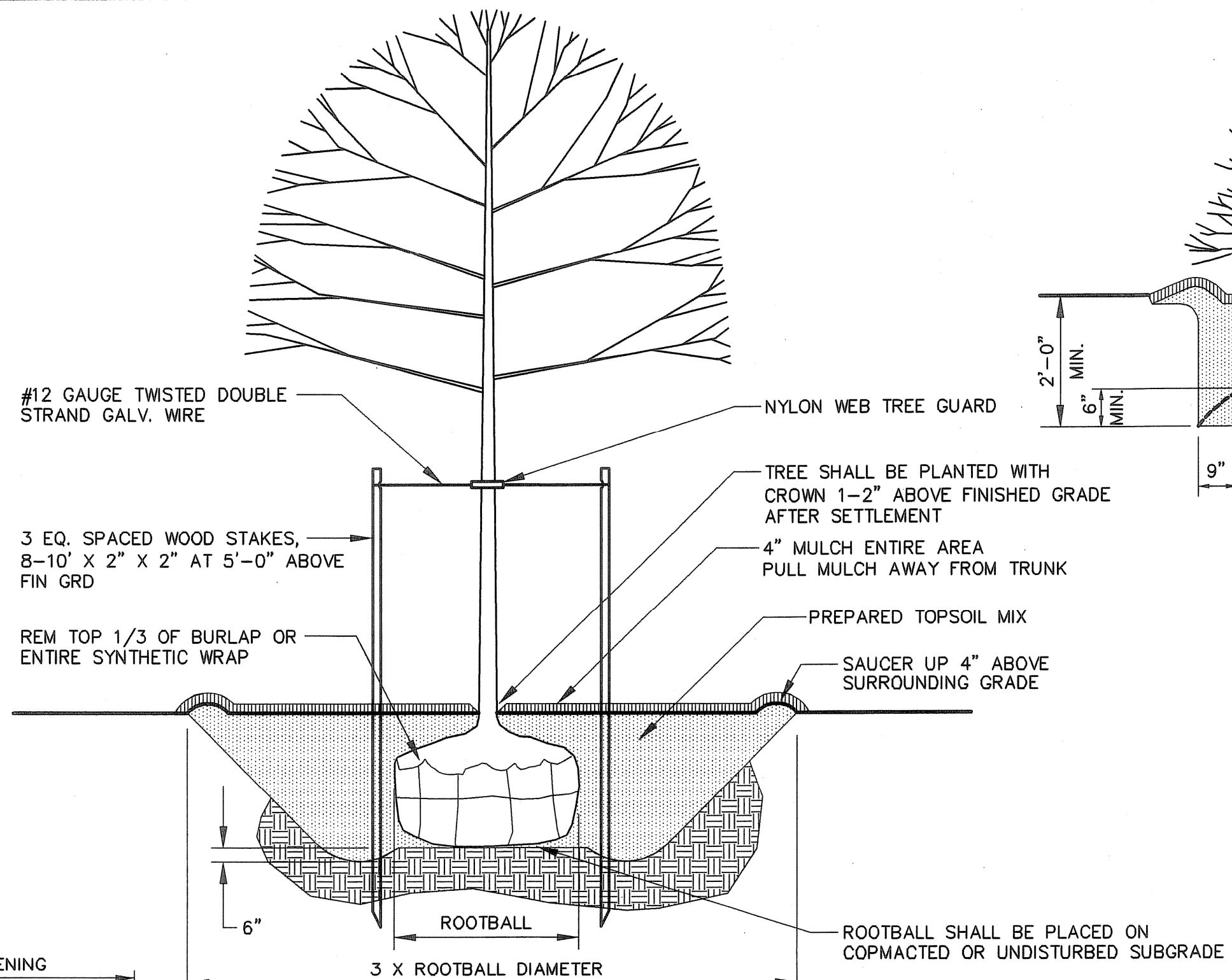
STONE MAINTENANCE STRIP
NOT TO SCALE



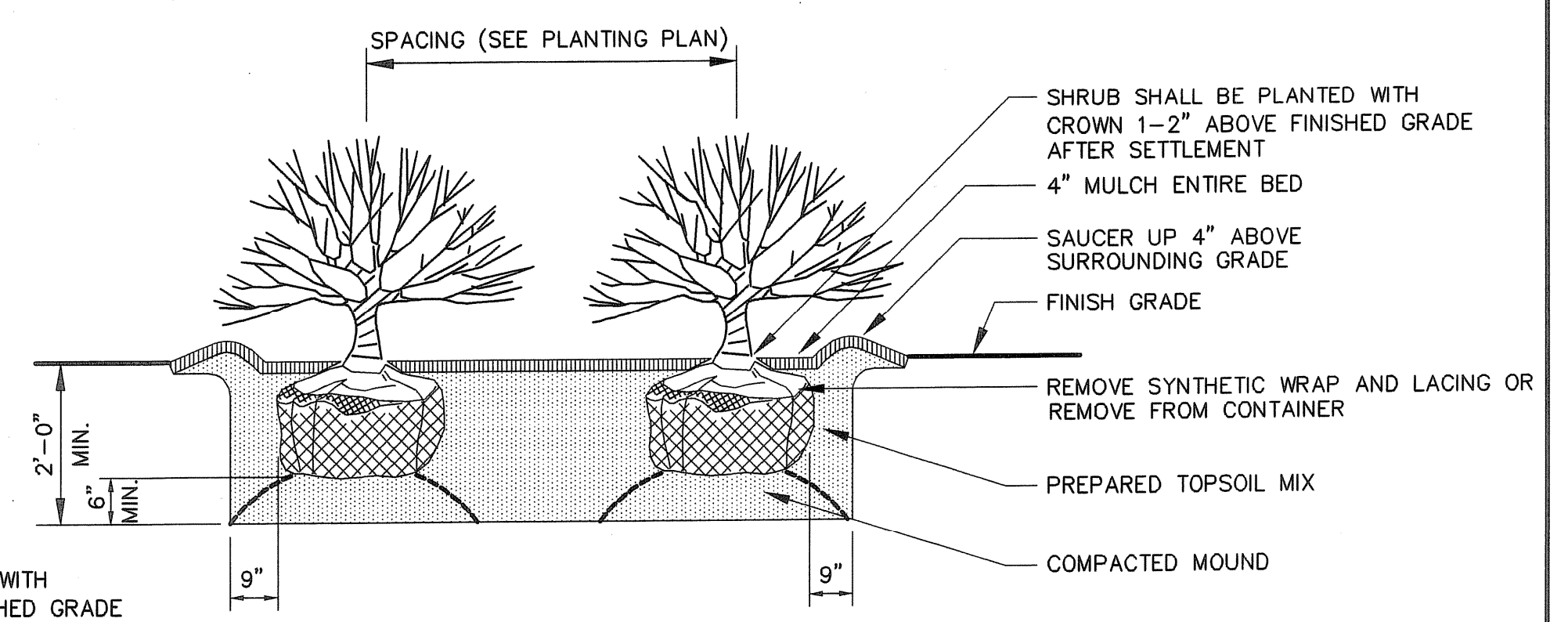
VERTICAL GRANITE CURBING
NOT TO SCALE



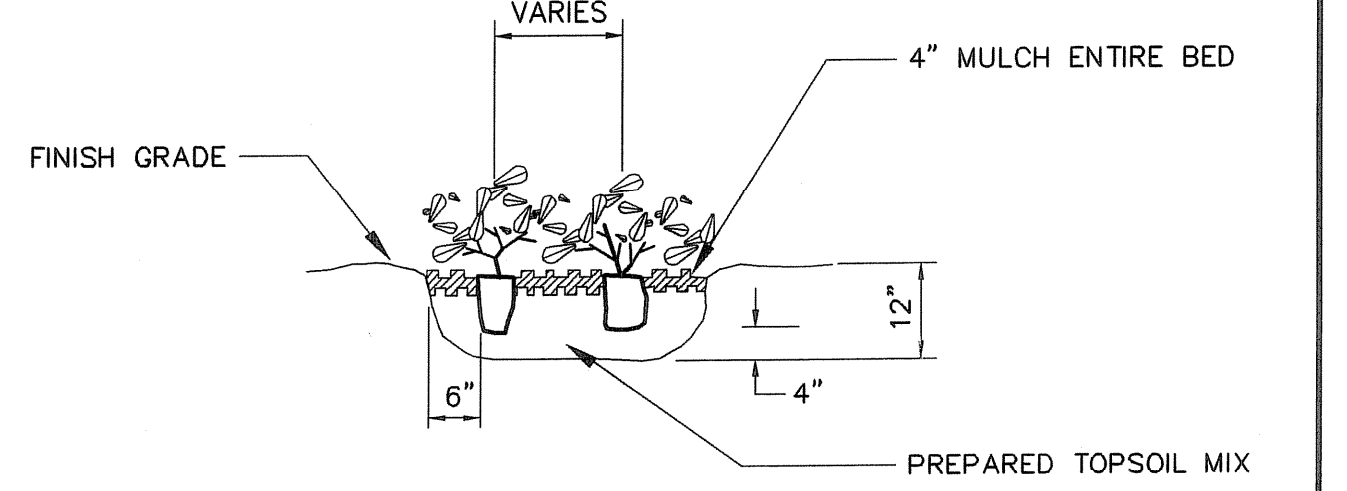
BITUMINOUS CONCRETE BERM
NOT TO SCALE



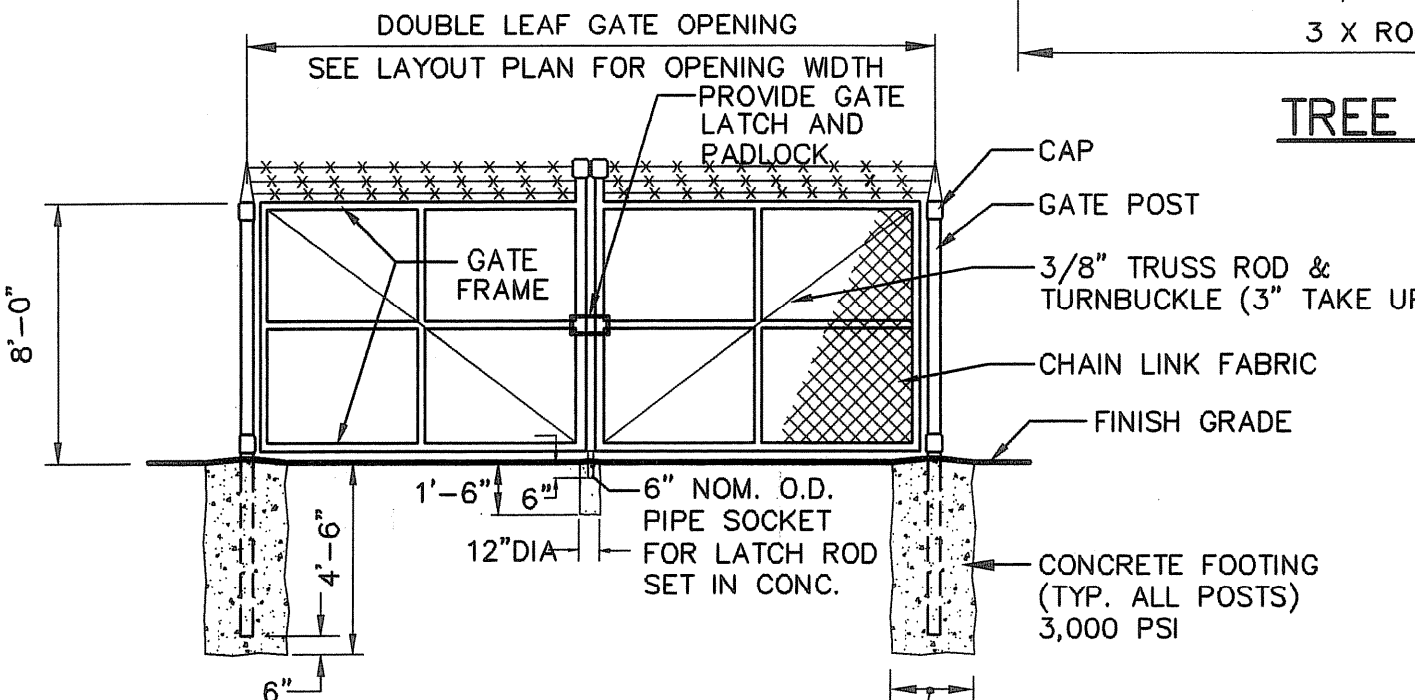
TREE PLANTING DETAIL
NOT TO SCALE



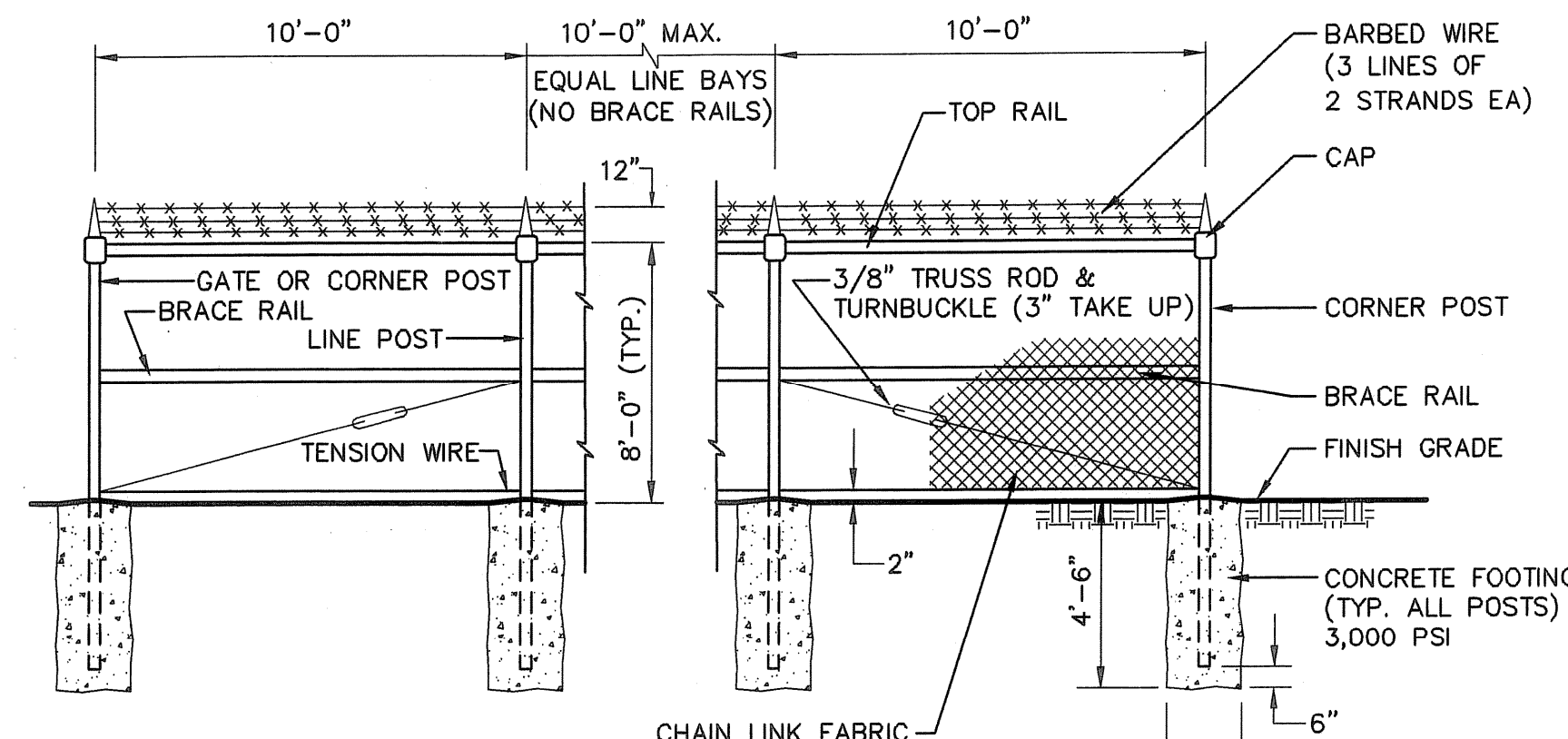
SHRUB PLANTING DETAIL
NOT TO SCALE



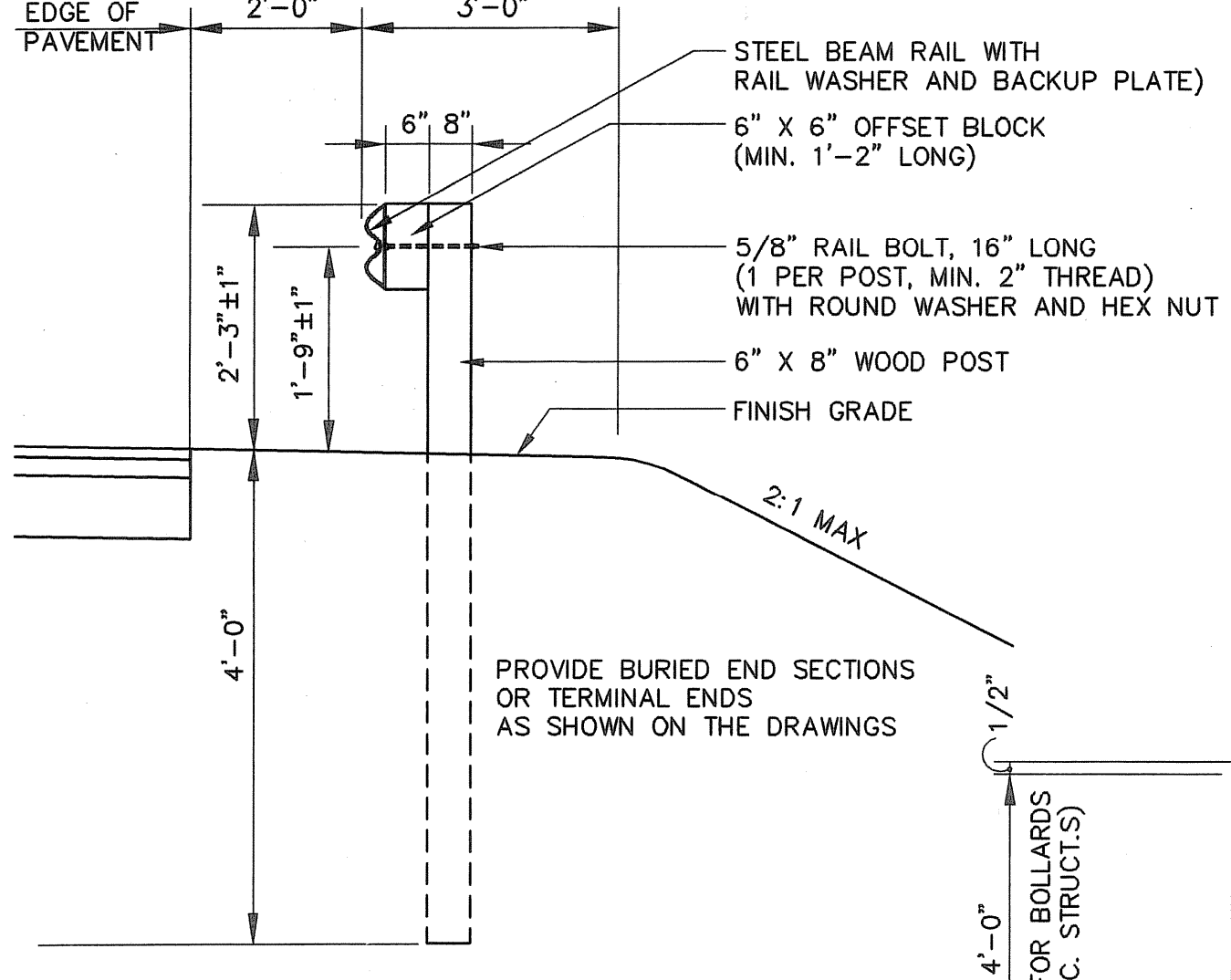
GROUND COVER PLANTING DETAIL
NOT TO SCALE



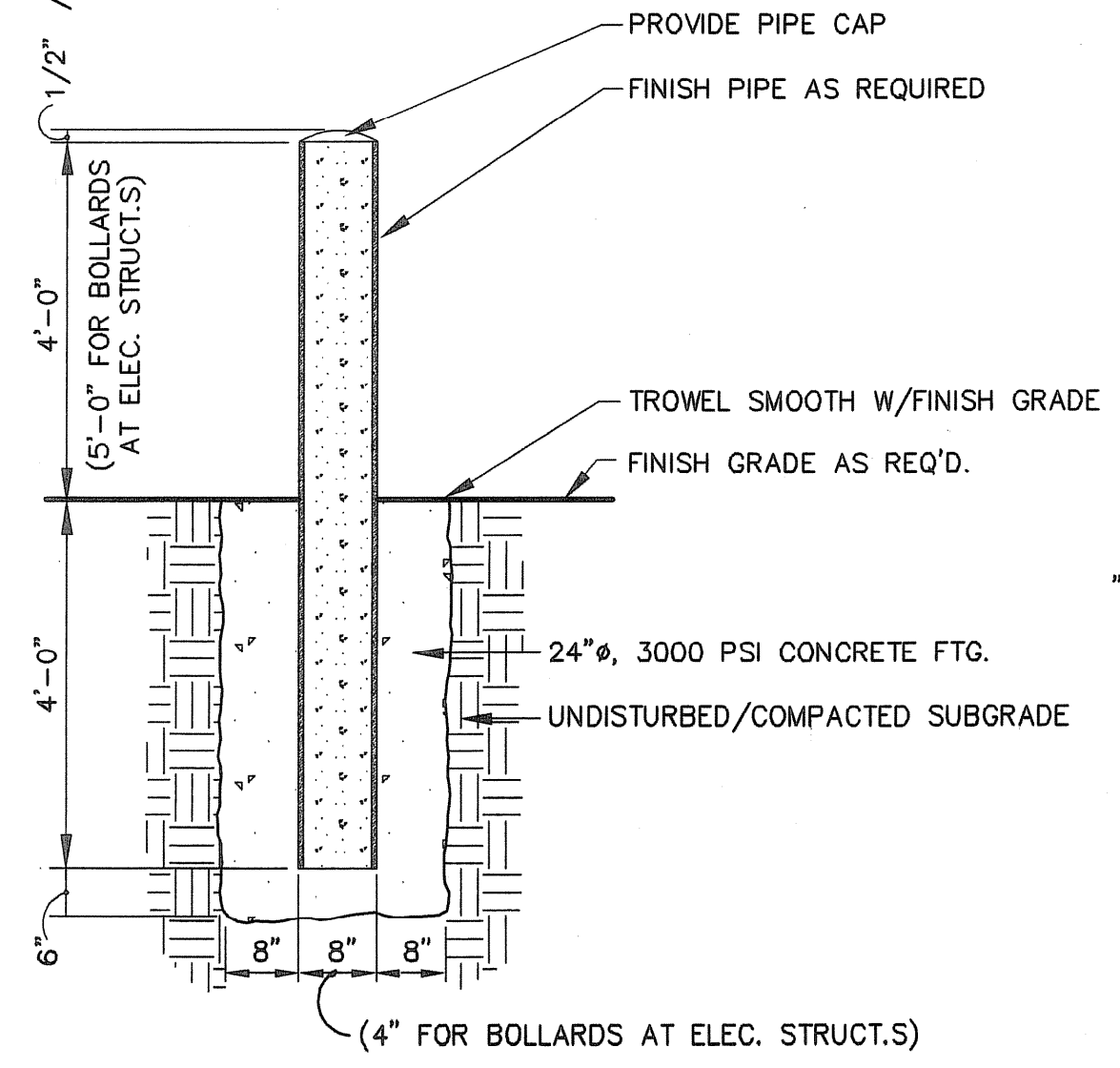
DOUBLE LEAF GATE DETAIL
NOT TO SCALE



CHAIN LINK FENCE WITH BARBED WIRE
NOT TO SCALE

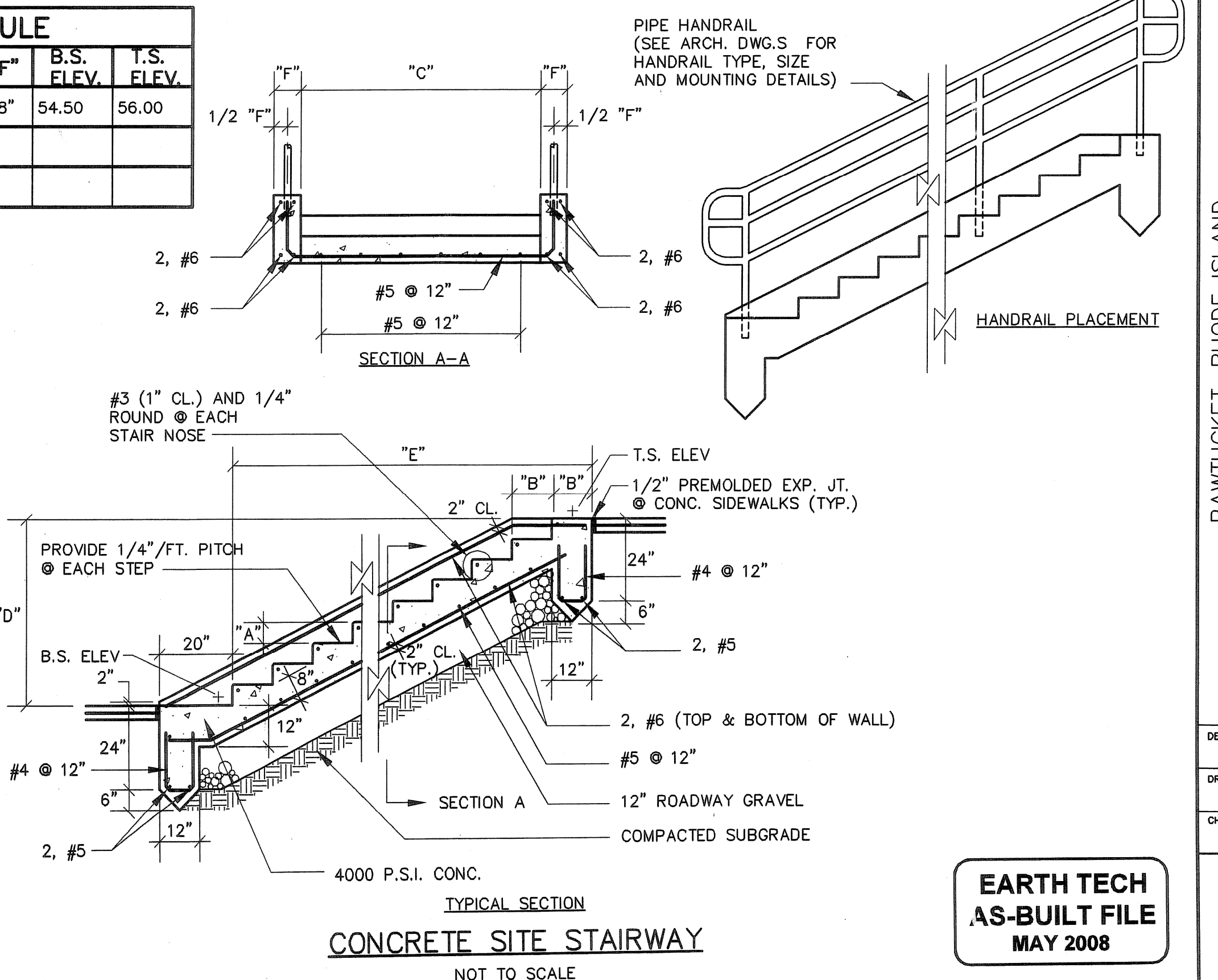


HIGHWAY GUARD RAIL
NOT TO SCALE



STEEL BOLLARD
NOT TO SCALE

SITE STAIRWAY SCHEDULE							
STAIRWAY	"A"	"B"	"C"	"D"	"E"	"F"	
1	6"	12"	5'-0"	1'-6"	3'-0"	8"	B.S. ELEV. 54.50 T.S. ELEV. 56.00



CONCRETE SITE STAIRWAY
NOT TO SCALE

DATE	BY	REVISIONS
MAY 2008		
DWG	AS-BUILT DRAWING FILE	
ISSUED FOR RFI POSTED SET	ISSUED FOR RFI POSTED SET	
HEALTH COMMENTS	HEALTH COMMENTS	
ISSUED FOR CONSTRUCTION	ISSUED FOR CONSTRUCTION	
REVISIONS		

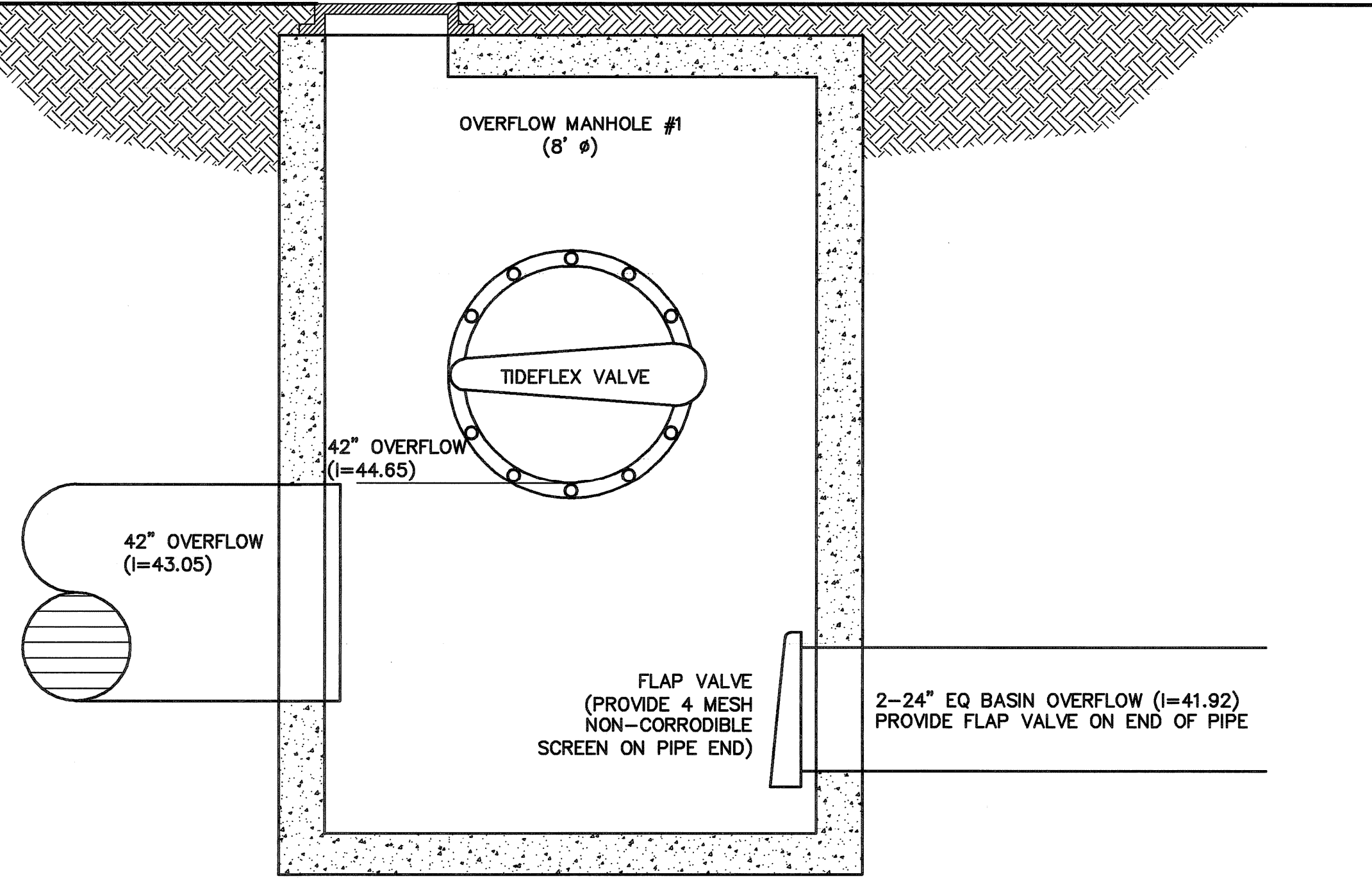
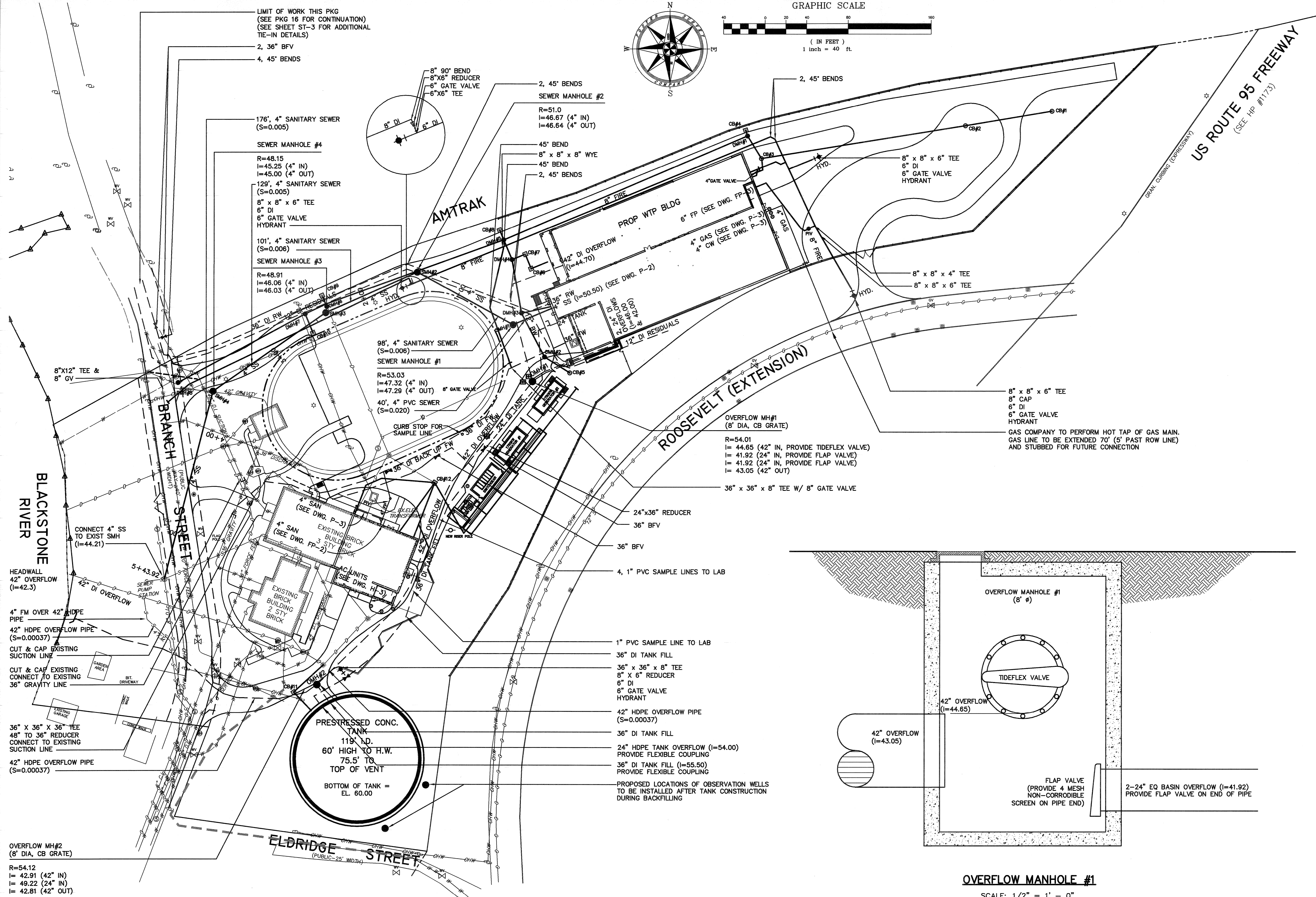
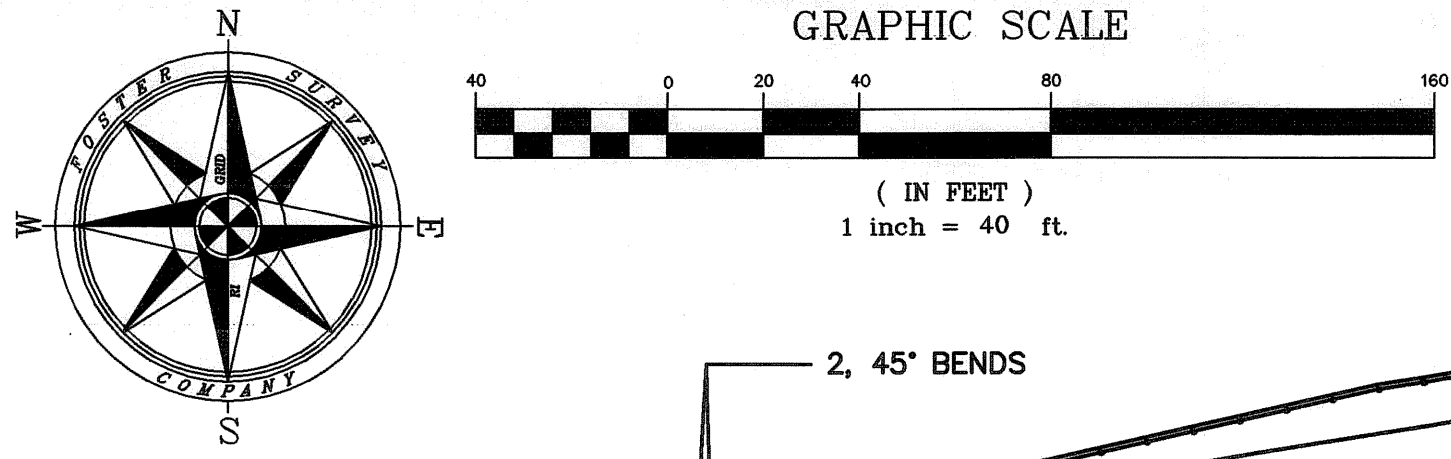
ROBERT H. SHELDON
No. 4103
Professional Engineer
State of Massachusetts
0107709

PAWTUCKET, RHODE ISLAND
**PAWTUCKET REGIONAL
 WATER TREATMENT FACILITY
 PKG 2A - CONSTRUCTION**
 BRANCH STREET WTP
 SITE DETAILS

DESIGNED BY	DWG SCALE
DRAWN BY	1"=40'
CHECKED BY	CONTRACT NO.
DATE	OCTOBER 31, 2008

EARTH TECH
AS-BUILT FILE
MAY 2008

Filename: L:\WORK\69993\CAD\AS-BUILT\17\DWG\DRAWINGS\69993 - BRANCH ST WTP - FINAL SITEWORK.DWG
 Plot File Date Created: Mar/05/2009 4:17 PM



OVERFLOW MANHOLE #1
 SCALE: 1/2" = 1' - 0"

LIMIT OF WORK THIS PKG
 (SEE PKG 16 FOR CONTINUATION)
 (SEE SHEET ST-3 FOR ADDITIONAL
 TIE-IN DETAILS)

2, 36" BFV
 4, 45' BENDS

176', 4" SANITARY SEWER
 (S=0.005)

SEWER MANHOLE #4

R=48.15
 I=45.25 (4" IN)
 I=45.00 (4" OUT)

129', 4" SANITARY SEWER
 (S=0.005)

8" x 8" x 6" TEE
 6" DI
 6" GATE VALVE
 HYDRANT

101', 4" SANITARY SEWER
 (S=0.006)

SEWER MANHOLE #3
 R=48.91
 I=46.06 (4" IN)
 I=46.03 (4" OUT)

8" 90° BEND
 8"X6" REDUCER
 6" GATE VALVE
 6"X6" TEE

2, 45' BENDS
 SEWER MANHOLE #2

R=51.0
 I=46.67 (4" IN)
 I=46.64 (4" OUT)

45' BEND
 8" x 8" x 8" WYE
 45' BEND
 2, 45' BENDS

AMTRAK

PROP WTP BLDG

6" FP (SEE DWG. FP-5)
 4" GAS (SEE DWG. P-3)
 4" CW (SEE DWG. P-3)

8" x 8" x 6" TEE
 6" DI
 6" GATE VALVE
 HYDRANT

8" x 8" x 4" TEE
 8" x 8" x 6" TEE

8" x 8" x 6" TEE
 8" CAP
 6" DI
 6" GATE VALVE
 HYDRANT

GAS COMPANY TO PERFORM HOT TAP OF GAS MAIN.
 GAS LINE TO BE EXTENDED 70' (5' PAST ROW LINE)
 AND STUBBED FOR FUTURE CONNECTION

OVERFLOW MH#1
 (8' DIA, CB GRATE)
 R=54.01
 I= 44.65 (42" IN, PROVIDE TIDEFLEX VALVE)
 I= 41.92 (24" IN, PROVIDE FLAP VALVE)
 I= 41.92 (24" IN, PROVIDE FLAP VALVE)
 I= 43.05 (42" OUT)

36" x 36" x 8" TEE W/ 8" GATE VALVE

24"x36" REDUCER
 36" BFV

4, 1" PVC SAMPLE LINES TO LAB

1" PVC SAMPLE LINE TO LAB
 36" DI TANK FILL

36" x 36" x 8" TEE
 8" x 6" REDUCER
 6" DI
 6" GATE VALVE
 HYDRANT

42" HDPE OVERFLOW PIPE
 (S=0.00037)
 36" DI TANK FILL

24" HDPE TANK OVERFLOW (I=54.00)
 PROVIDE FLEXIBLE COUPLING
 36" DI TANK FILL (I=55.50)
 PROVIDE FLEXIBLE COUPLING

PROPOSED LOCATIONS OF OBSERVATION WELLS
 TO BE INSTALLED AFTER TANK CONSTRUCTION
 DURING BACKFILLING

PRESTRESSED CONC.
 TANK
 119' DIA.
 60' HIGH TO H.W.
 75.5' TO
 TOP OF VENT
 BOTTOM OF TANK =
 EL. 60.00

BLACKSTONE RIVER

BRANCH STREET

ROOSEVELT (EXTENSION)

US ROUTE 95 FREEWAY
 (SEE HP #1173)

HEADWALL
 42" OVERFLOW
 (I=42.3)

4" FM OVER 42" HDPE
 PIPE
 42" HDPE OVERFLOW PIPE
 (S=0.00037)

CUT & CAP EXISTING
 SUCTION LINE
 CUT & CAP EXISTING
 CONNECT TO EXISTING
 36" GRAVITY LINE

36" x 36" x 36" TEE
 48" TO 36" REDUCER
 CONNECT TO EXISTING
 SUCTION LINE
 42" HDPE OVERFLOW PIPE
 (S=0.00037)

OVERFLOW MH#2
 (8' DIA, CB GRATE)

R=54.12
 I= 42.91 (42" IN)
 I= 49.22 (24" IN)
 I= 42.81 (42" OUT)

NO.	DATE	REVISIONS
1	10/21/06	ISSUED FOR RFP POSTED SET
2	11/20/06	CHANGES PER HEALTH COMMENTS
3	07/19/06	CHANGES PER HEALTH COMMENTS
4	07/19/06	REDUCED PIPE AND VALVE SIZE (42" TO 36")
5	MAY 2008	AS-BUILT DRAWING FILE

ROBERT H. SHELDON
 No. 4103
 PROFESSIONAL ENGINEER
 STATE OF MASSACHUSETTS
 5/17/08

PAWTUCKET, RHODE ISLAND
**PAWTUCKET REGIONAL
 WATER TREATMENT FACILITY**
PKG 2A - CONSTRUCTION
 BRANCH STREET WTP
 SITE PIPING PLAN

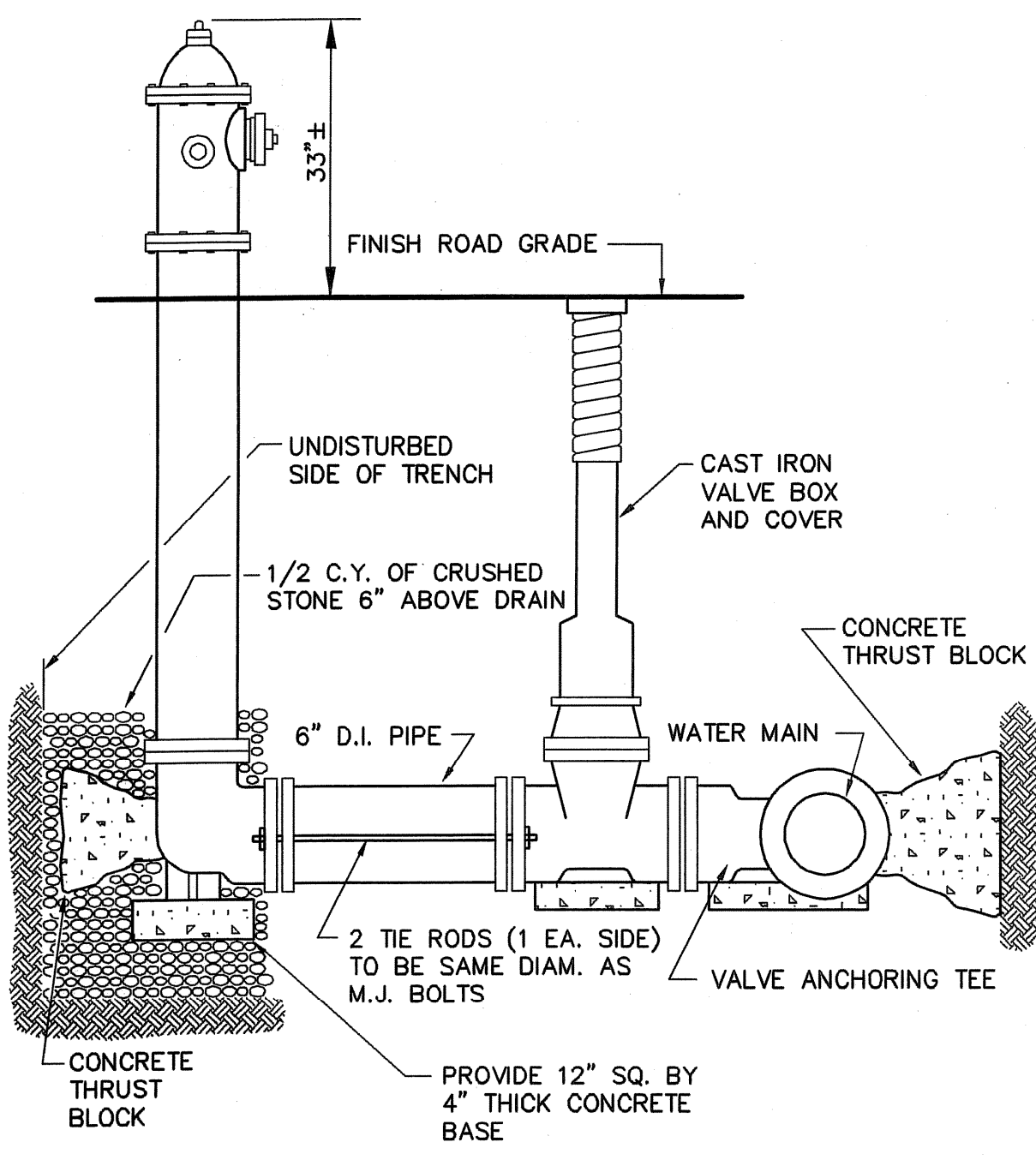
DESIGNED BY	DWG SCALE
DRAWN BY	CONTRACT NO.
CHECKED BY	DATE
	OCTOBER 31, 2008

EARTH TECH
AS-BUILT FILE
 MAY 2008

ST-1

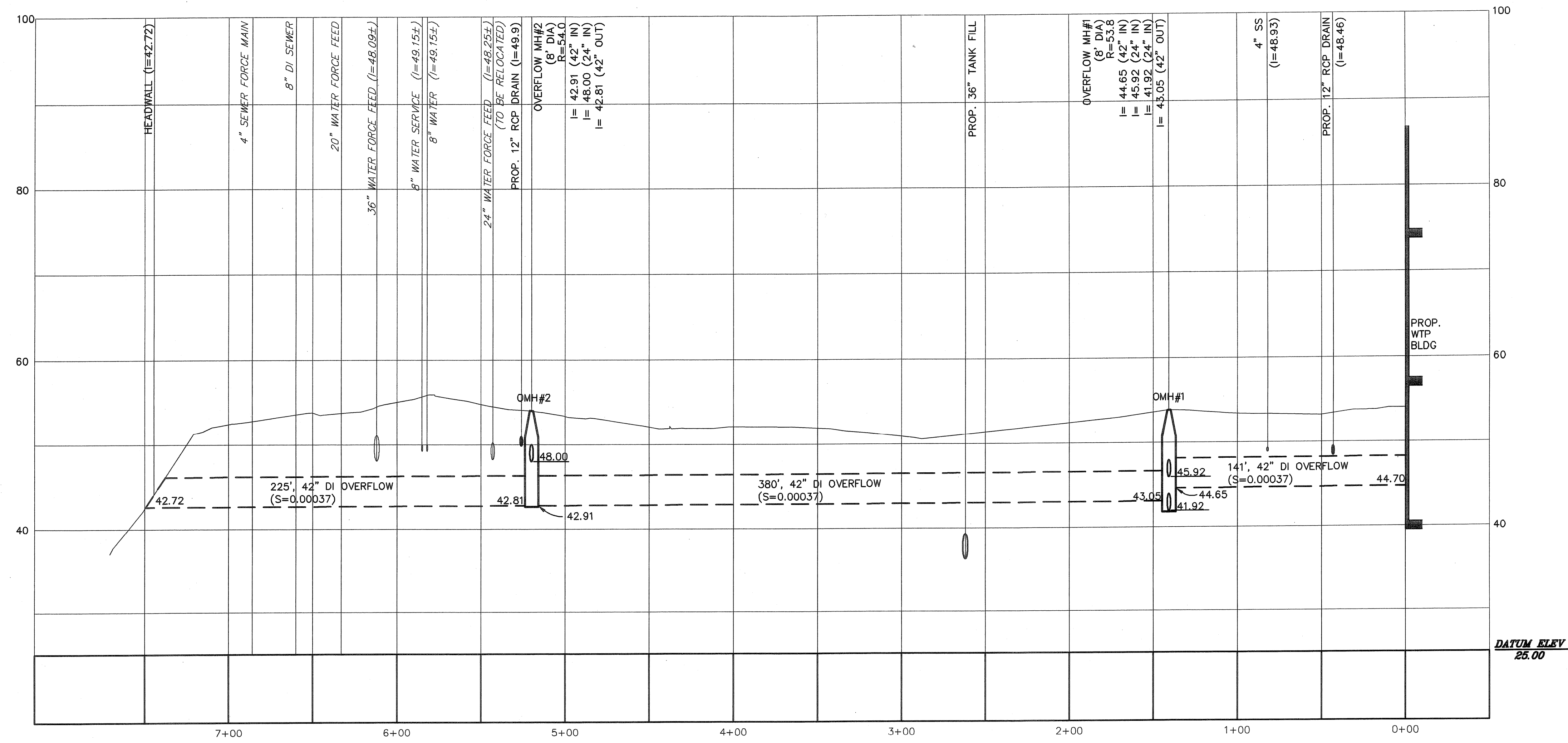
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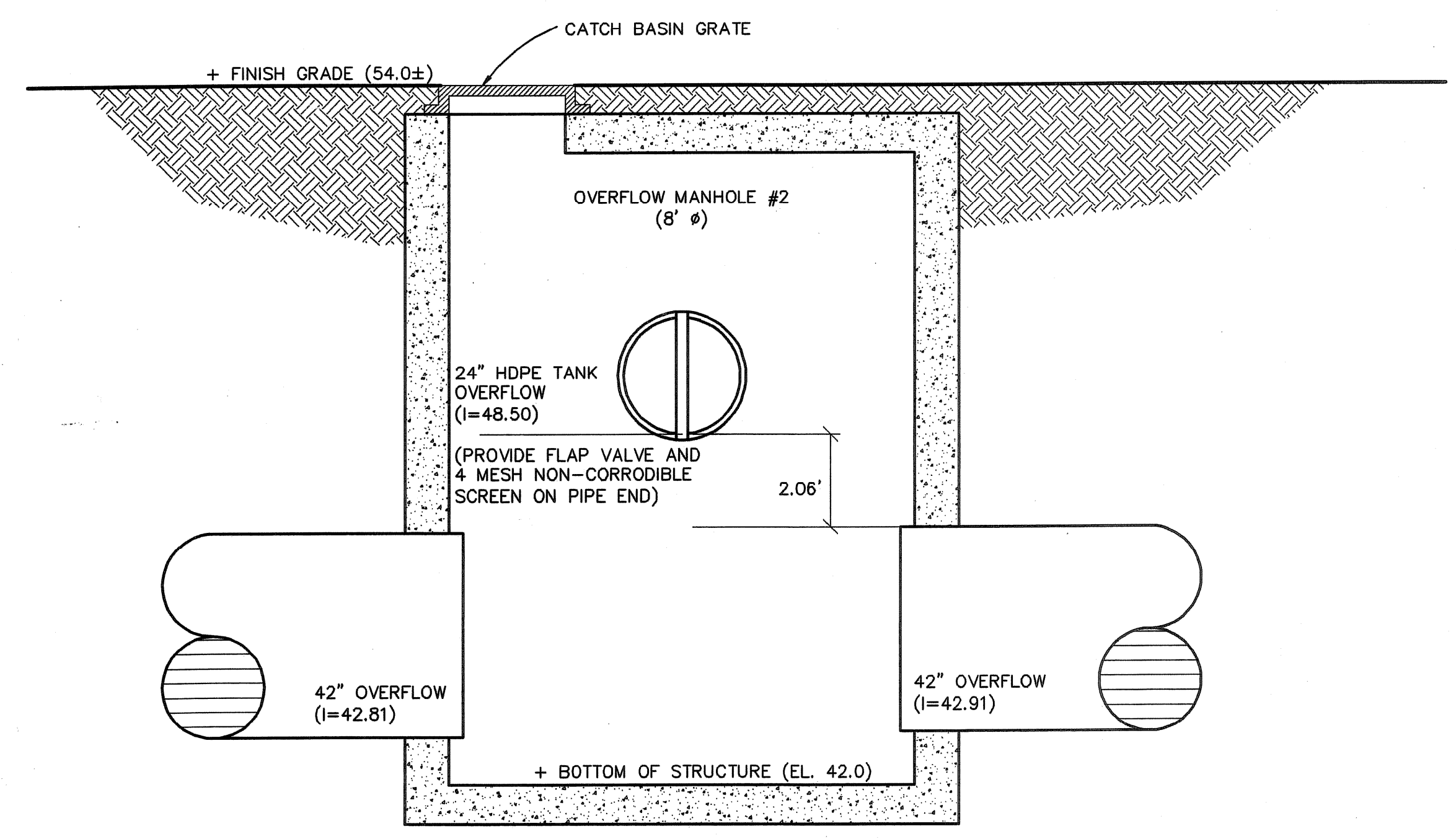


NOTE:
 TIE RODS TO BE USED IN PLACE OF THRUST BLOCKS IN FILL AREAS OR WHERE EXISTING SOIL LACKS SUFFICIENT BEARING STRENGTH.

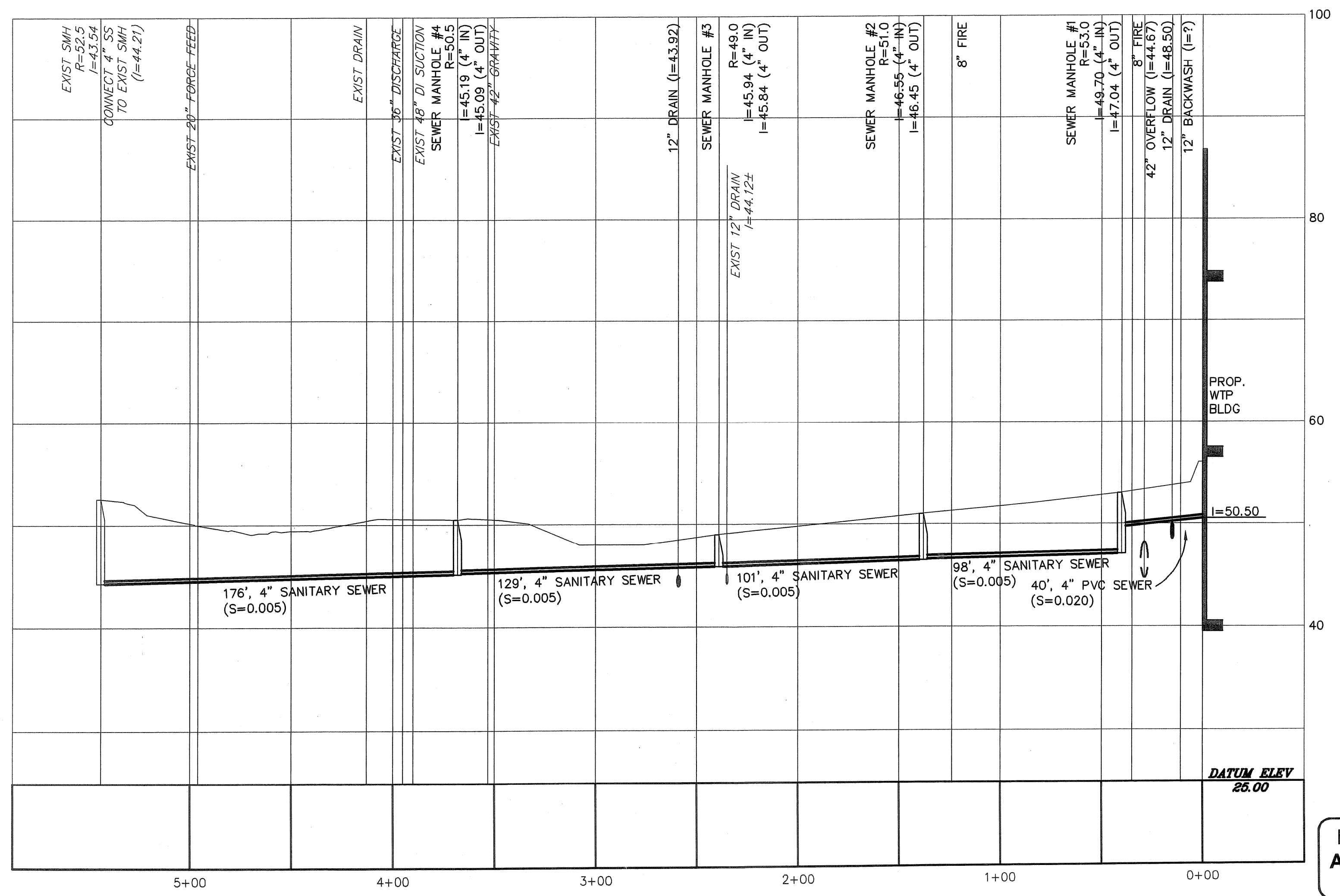
TYPICAL HYDRANT DETAIL
 NOT TO SCALE



**42\"/>
 HOR. SCALE: 1"=40'
 VERT. SCALE: 1"= 8'**



OVERFLOW MANHOLE #2
 SCALE: 1/2" = 1' - 0"



**4\"/>
 HOR. SCALE: 1"=40'
 VERT. SCALE: 1"= 8'**

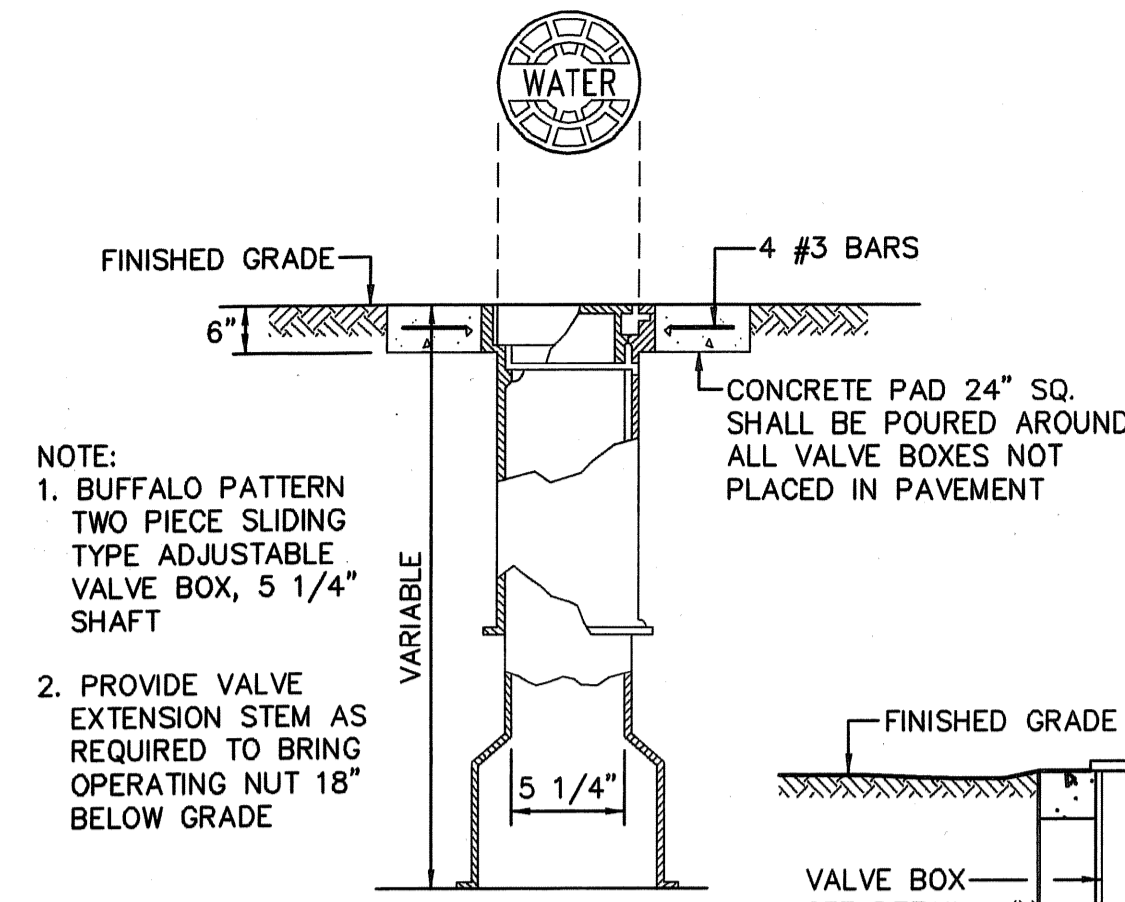
No.	REVISIONS	DATE	BY
3	AS-BUILT DRAWING FILE	10/31/08	DPB
2	ISSUED FOR RFI POSTED SET	09/15/08	GRW
1	HEALTH COMMENTS	09/15/08	GRW
0	ISSUED FOR CONSTRUCTION	08/22/08	GRW

ROBERT H. SHELDON
 No. 4103
 Professional Engineer
 State of Massachusetts
 319109

PAWTUCKET, RHODE ISLAND
PAWTUCKET REGIONAL WATER TREATMENT FACILITY
PKG 2A - CONSTRUCTION
 BRANCH STREET WTP
 SITE PIPING PROFILES

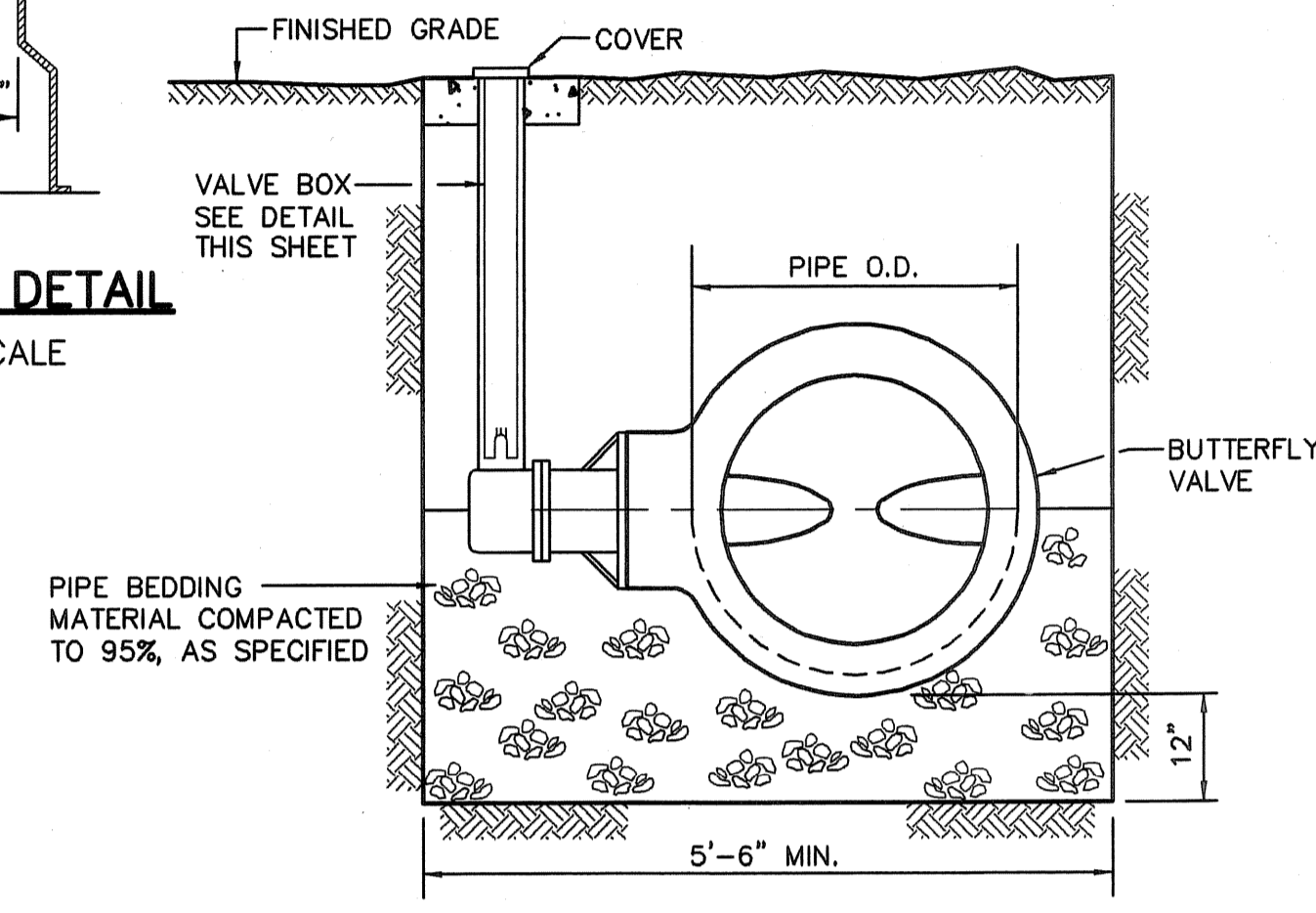
DESIGNED BY	DWG SCALE
DRAWN BY	AS NOTED
CHECKED BY	CONTRACT NO.
	DATE
	OCTOBER 31, 2008

EARTH TECH
 AS-BUILT FILE
 MAY 2008

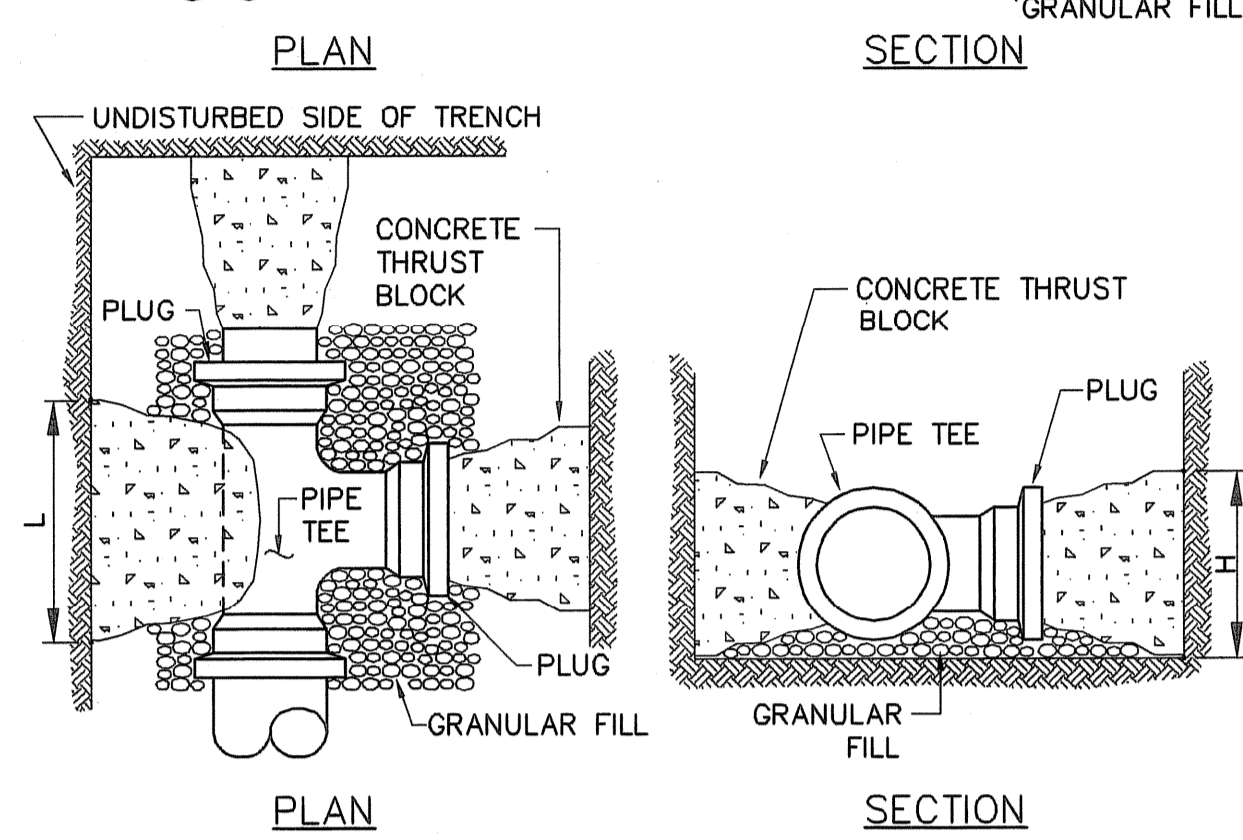
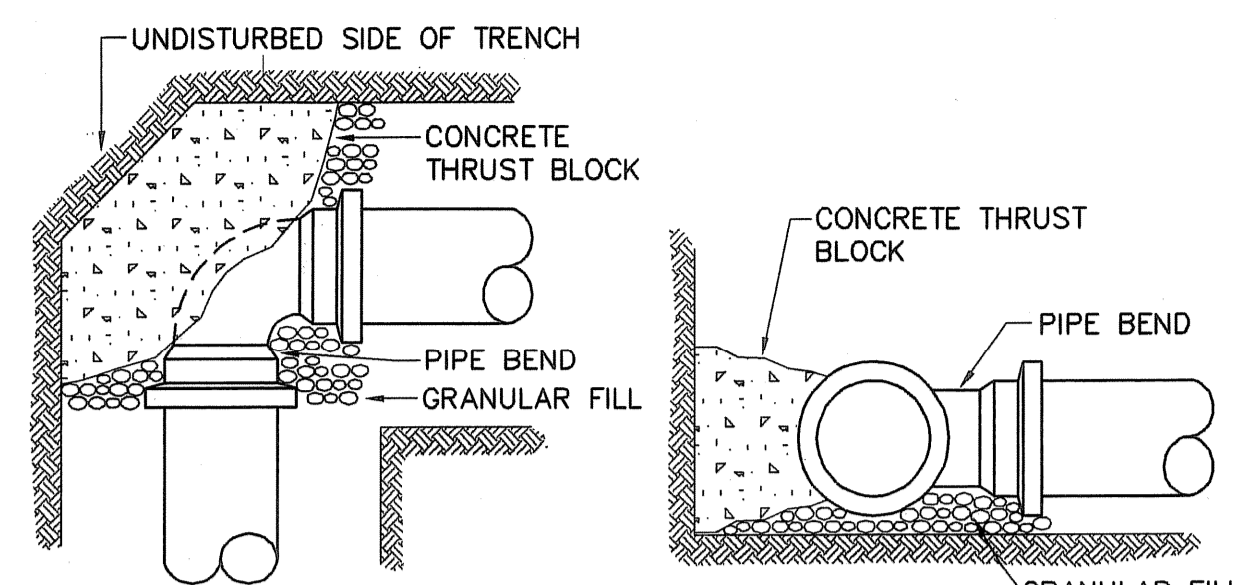


NOTE:
 1. BUFFALO PATTERN TWO PIECE SLIDING TYPE ADJUSTABLE VALVE BOX, 5 1/4" SHAFT
 2. PROVIDE VALVE EXTENSION STEM AS REQUIRED TO BRING OPERATING NUT 18" BELOW GRADE

VALVE BOX DETAIL
NOT TO SCALE

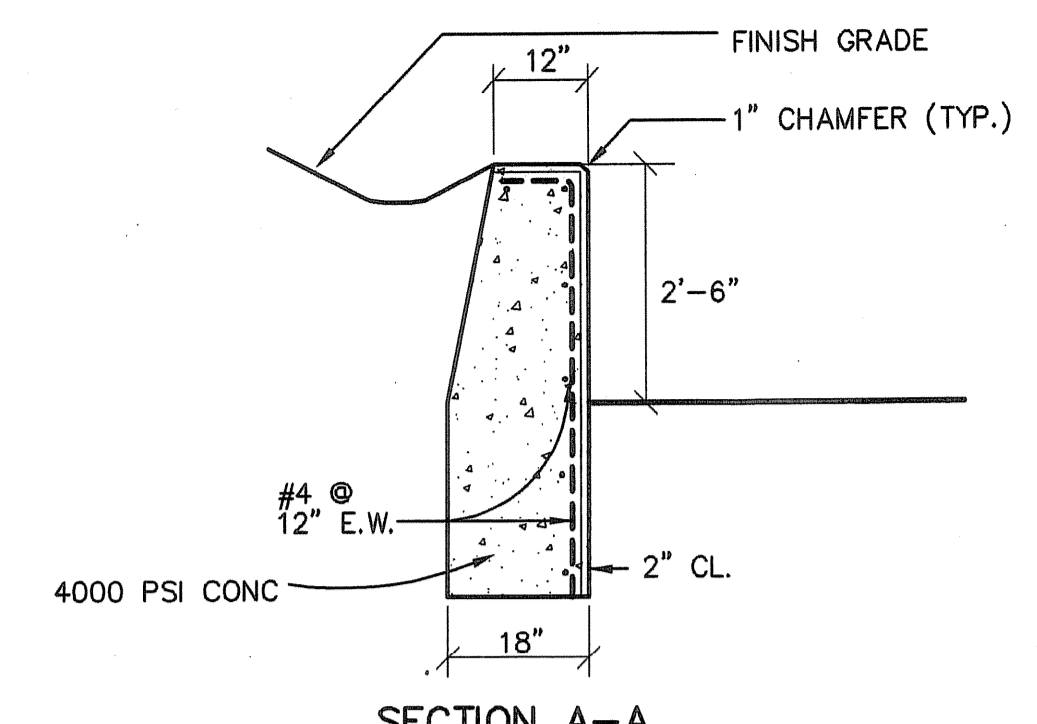


BURIED BUTTERFLY DETAIL (TYP.)
NOT TO SCALE

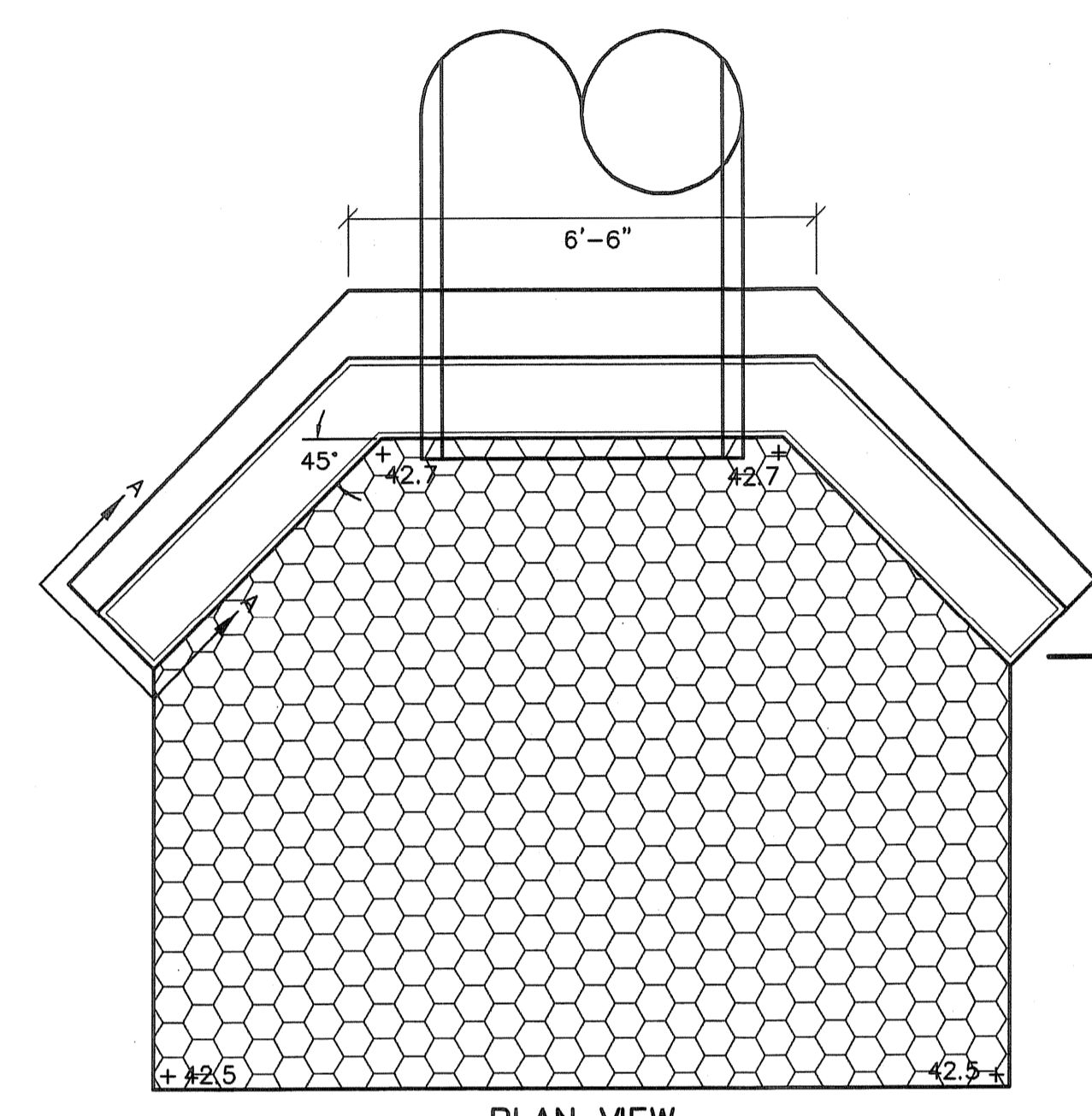


NOTE: ALL FITTINGS TO BE PLACED ON WELL CONSOLIDATED GRAVEL BLOCK HEIGHT (H) SHOULD BE APPROXIMATELY 1/2 LENGTH (L) AT SOIL BEARING FACE.

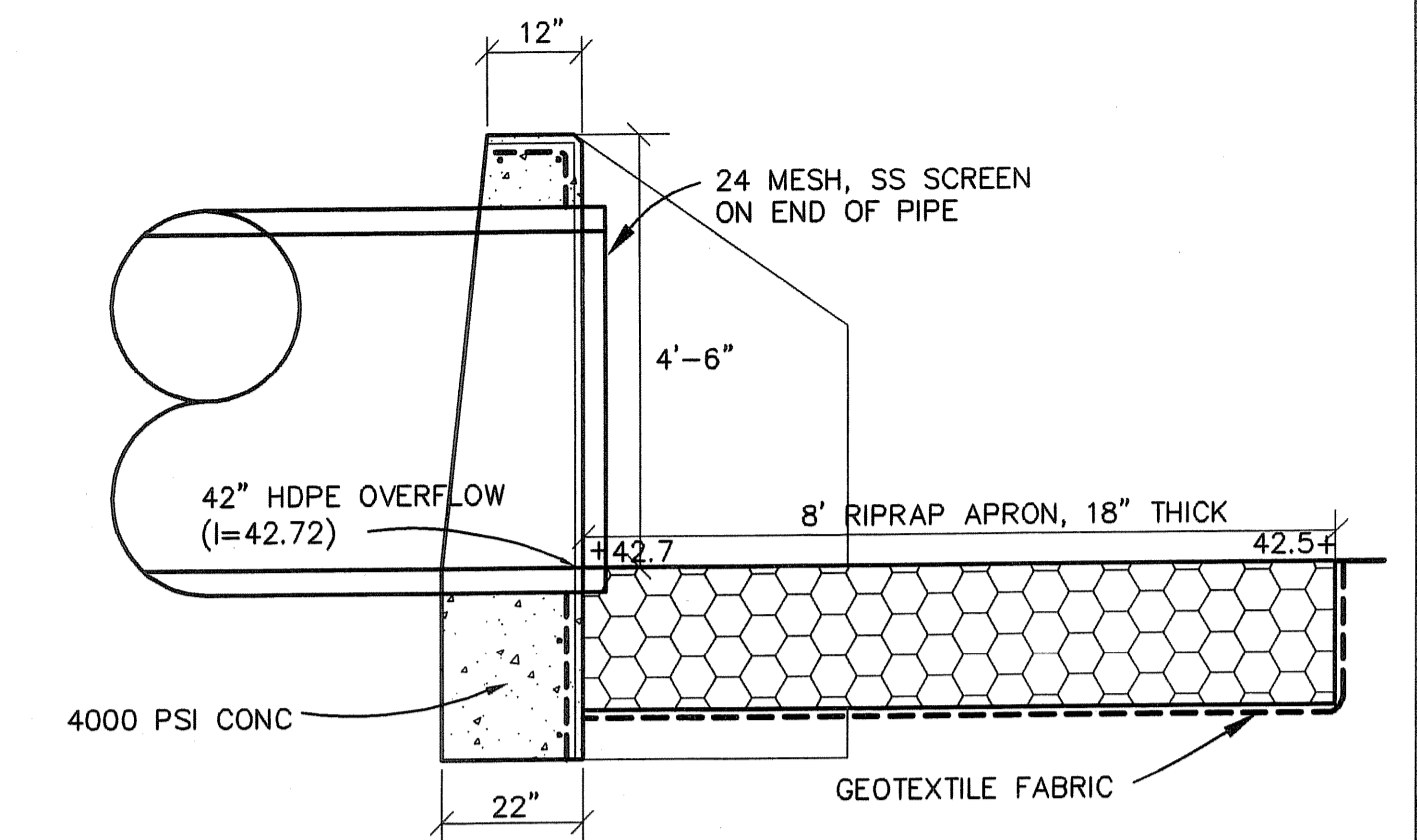
TYPICAL THRUST BLOCK PLACEMENT ON BENDS, TEES AND PLUGS
NOT TO SCALE



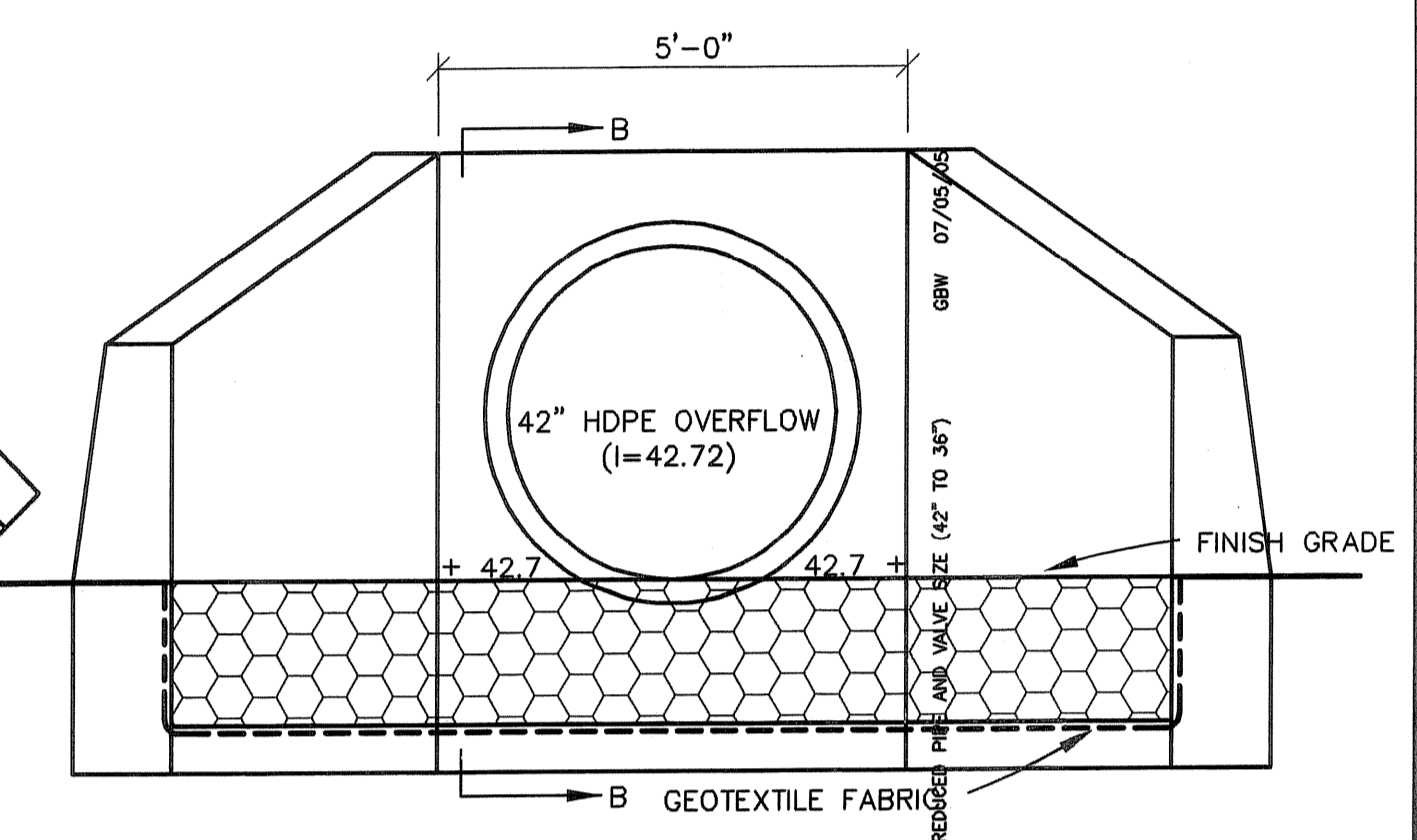
SECTION A-A



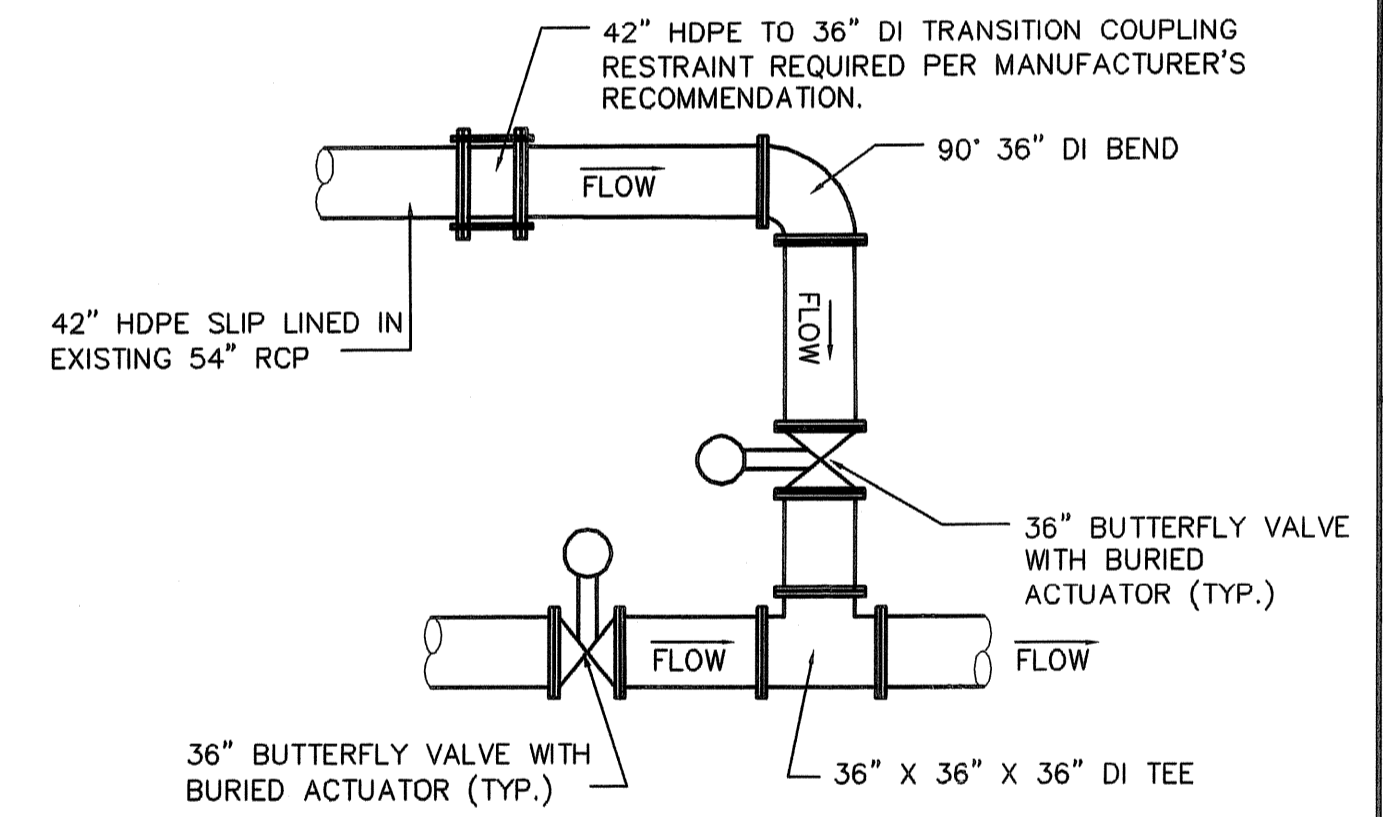
PLAN VIEW



SECTION B-B



HEADWALL/OUTFALL DETAILS
NOT TO SCALE



DETAIL FOR PACKAGE 16 TIE IN
NOT TO SCALE

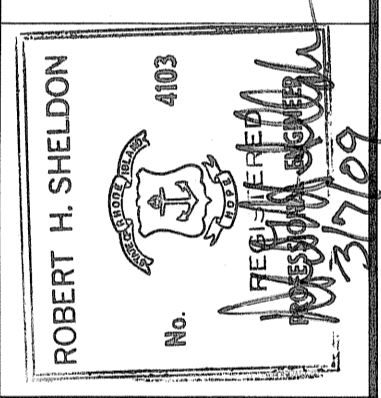
MINIMUM RESTRAINED LENGTH (FEET)

	DIAMETER (INCHES)										
	4	6	8	10	12	14	16	18	20	24	36
BENDS											
11.25	1	1	2	2	3	3	3	4	4	5	9
22.5	2	3	4	5	6	6	7	8	9	10	18
45	4	6	8	10	11	13	15	16	18	21	46
90	10	15	19	23	27	31	35	39	43	50	111
TEES											
4	8	0	0	0	0	0	0	0	0	0	0
6	18	0	0	0	0	0	0	0	0	0	0
8	29	13	8	2	0	0	0	0	0	0	0
10	38	25	16	12	8	3	0	0	0	0	0
12	48	35	28	25	21	16	12	8	3	0	0
14	58	46	43	40	37	31	25	21	14	0	0
16	68	56	53	51	45	30	28	25	21	14	0
18	78	66	64	59	56	56	56	53	51	45	30
20	87	76	72	72	72	72	72	72	72	72	72
24	106	87	84	84	84	84	84	84	84	84	100
36	106	106	106	106	106	106	106	106	106	106	138
REDUCER											
4	18	32	45	56	60	72	77	84	91	106	162
6	19	34	47	60	72	84	91	106	121	138	208
8	18	34	49	62	74	84	91	106	121	138	208
10	19	36	50	64	77	84	91	106	121	138	208
12	19	36	51	65	77	84	91	106	121	138	208
14	19	36	52	67	79	84	91	106	121	138	208
16	19	36	52	67	79	84	91	106	121	138	208
18	19	36	52	67	79	84	91	106	121	138	208
20	19	36	52	67	79	84	91	106	121	138	208
VERTICAL OFFSETS (DOWN)											
11.25	0 0	3 0	6 0	8 0	11 0	14 0	16 1	19 1	21 2	26 4	31 10
22.5	9 0	15 2	20 4	26 5	31 7	36 8	42 10	47 12	52 13	62 16	63 20
45	25 6	54 11	49 14	60 17	71 20	82 24	93 27	104 30	114 33	135 40	130 40
DEAD END											
	24	34	45	55	65	75	85	95	104	124	263

- VALUES WERE CALCULATED ASSUMING A MINIMUM OF 5 FEET OF COVER OVER THE PIPE, TYPE 5 LAYING CONDITION AND A TOTAL PRESSURE OF 250 PSI (150 PSI TEST PRESSURE WITH A 100 PSI SURGE ALLOWANCE).
- THE VALUES LISTED FOR BENDS IS THE LENGTH OF RESTRAINED JOINT PIPING REQUIRED FOR EACH SIDE OF THE FITTING.
- THE VALUES LISTED FOR TEES IS THE LENGTH OF RESTRAINED JOINT PIPING REQUIRED FOR THE TEE BRANCH. VALUES WERE CALCULATED BASED ON A MINIMUM LENGTH OF 10 FEET BETWEEN THE NEAREST JOINTS ON BOTH SIDES OF THE TEE.
- THE VALUES LISTED FOR REDUCERS IS THE LENGTH OF RESTRAINED JOINT PIPING REQUIRED FOR THE LARGER PIPE.
- THE VALUES LISTED FOR VERTICAL OFFSETS ARE THE LENGTHS OF THE RESTRAINED JOINT PIPING REQUIRED FOR THE HIGHER PIPE AND THE LOWER PIPE, RESPECTIVELY, AND ASSUMING A VERTICAL OFFSET OF 3 FEET.
- WHERE THE RESTRAINED LENGTH OF TWO OR MORE FITTINGS OVERLAP, THE LARGER RESTRAINED LENGTH SHALL GOVERN.
- BACKFILL SHOULD BE COMPACTED TO AT LEAST 90 PERCENT OF MAXIMUM DRY UNIT WEIGHT DETERMINED BY ASTM TEST DESIGNATION D-1557.
- VALUES LISTED ARE FOR THE SPECIFIC LAYING CONDITIONS LISTED ABOVE. FOR THE LENGTH OF RESTRAINED JOINT PIPING FOR OTHER CONDITIONS, SEE THE ENGINEER.

MINIMUM RESTRAINED JOINT PIPE LENGTH - WATER MAINS

NO.	DATE	BY	REVISIONS
4	07/05/06	GBW	ISSUED FOR CONSTRUCTION
3	06/15/06	GBW	ADDED TIE-IN DETAIL
2	06/15/06	GBW	CHANGES PER HEALTH COMMENTS
1	10/31/05	GBW	ISSUED FOR RFI POSTED SET
	MAY 2008	DPB	AS-BUILT DRAWING FILE

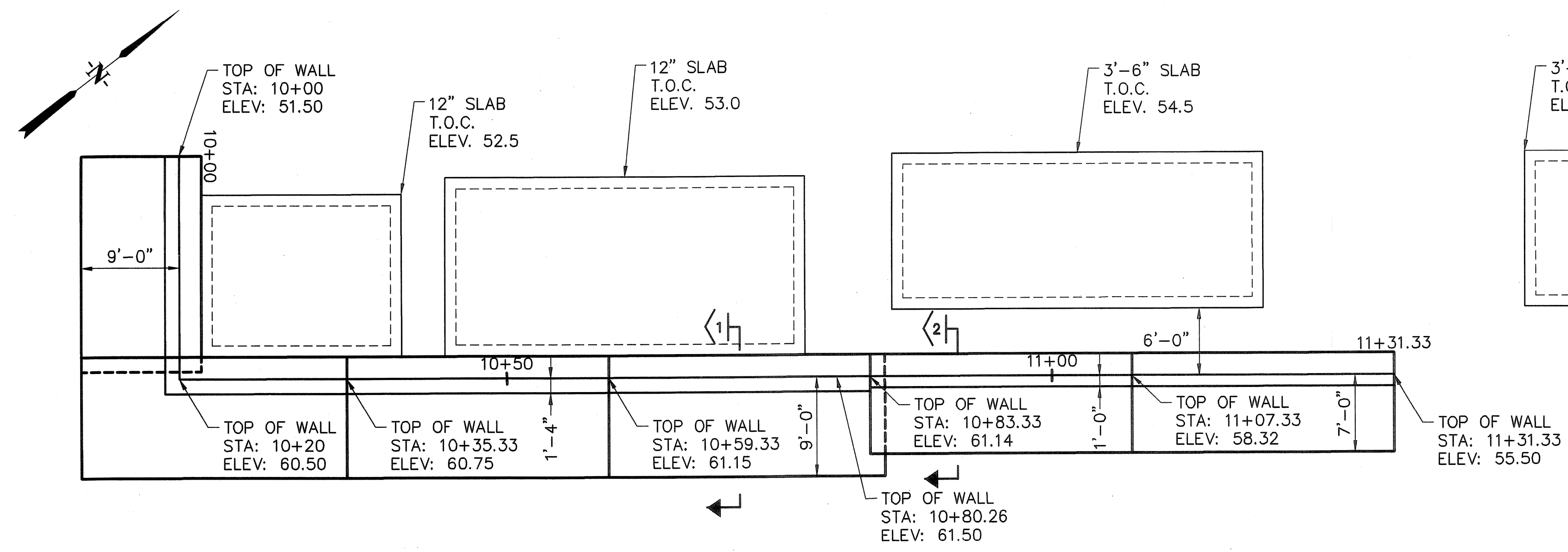


PAWTUCKET, RHODE ISLAND
PAWTUCKET REGIONAL WATER TREATMENT FACILITY
PKG 2A - CONSTRUCTION
 BRANCH STREET WTP
 SITE PIPING DETAILS

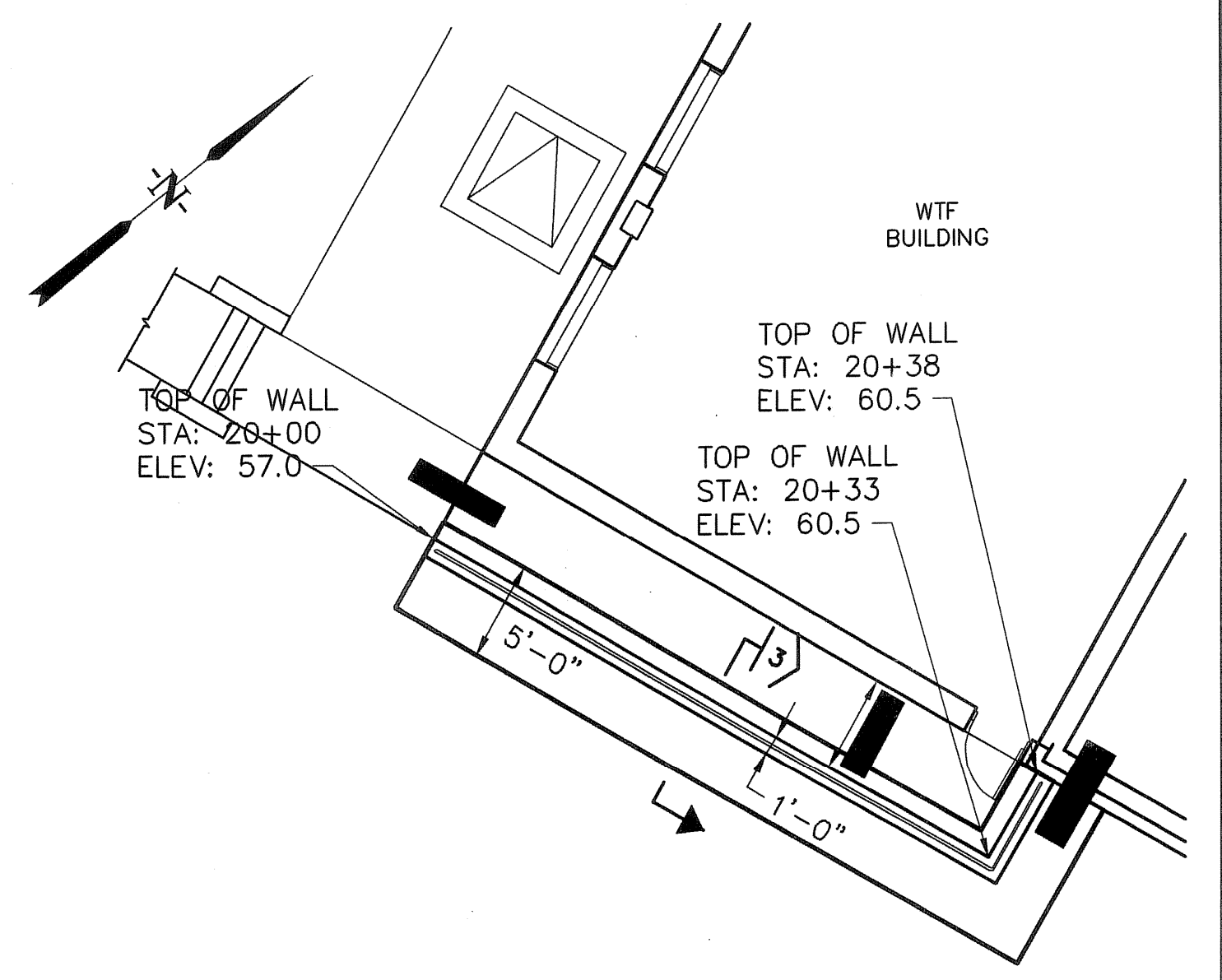
DESIGNED BY	DWG SCALE
DRAWN BY	AS NOTED
CHECKED BY	CONTRACT NO.
	DATE
	OCTOBER 31, 2008

EARTH TECH
 AS-BUILT FILE
 MAY 2008

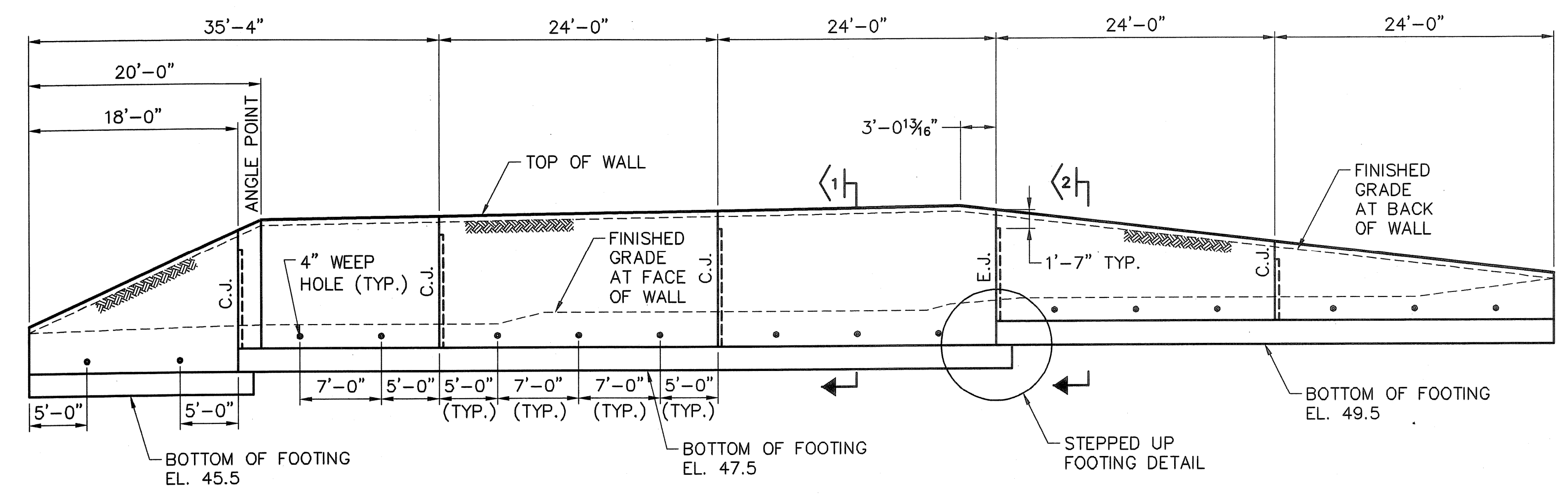
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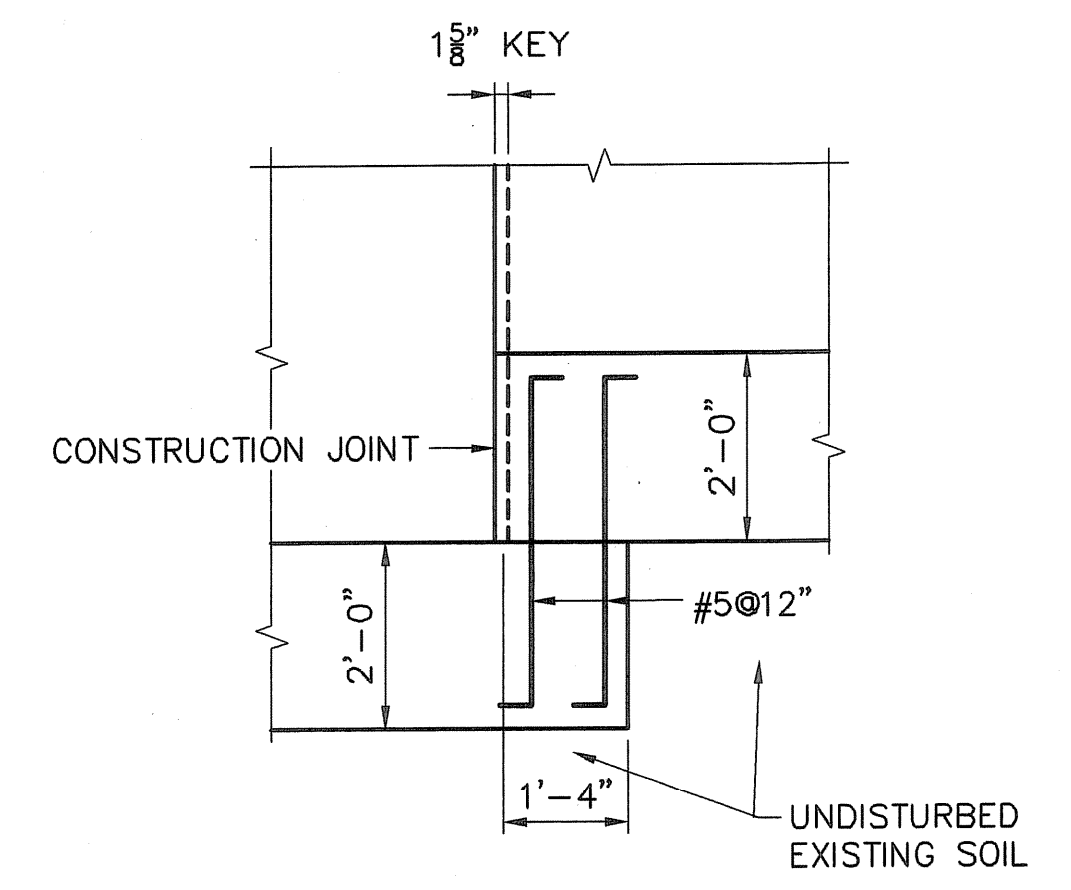
FOUNDATION PLAN @ EQUIPMENT PADS
 SCALE: 1/8" = 1'-0"



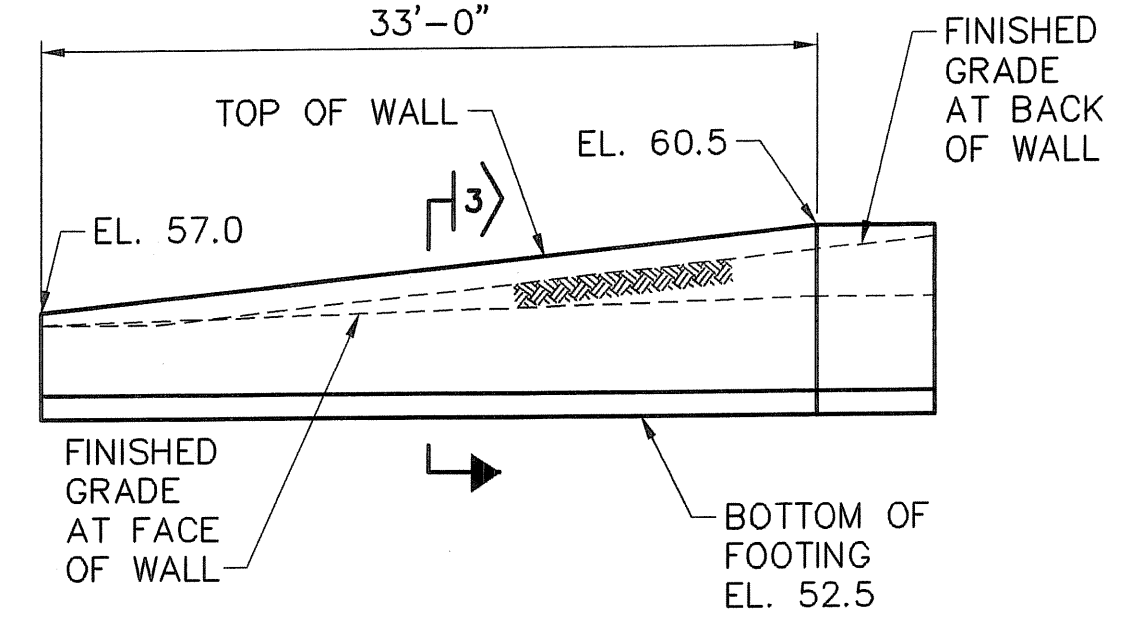
FOUNDATION PLAN @ WTF BUILDING
 SCALE: 1/8" = 1'-0"



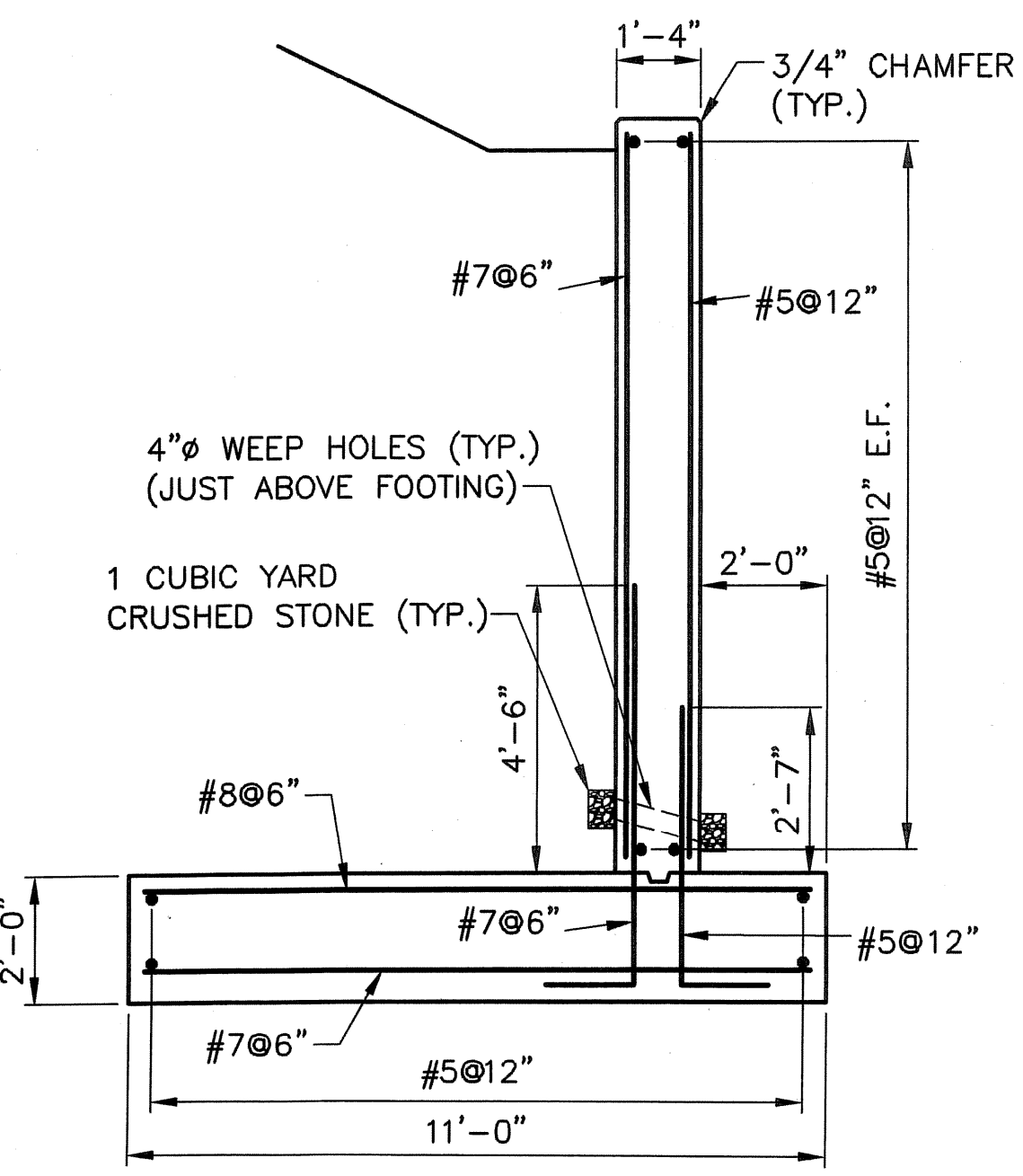
RETAINING WALL SECTION ALONG BASELINE @ EQUIPMENT PADS
 SCALE: 1/8" = 1'-0"



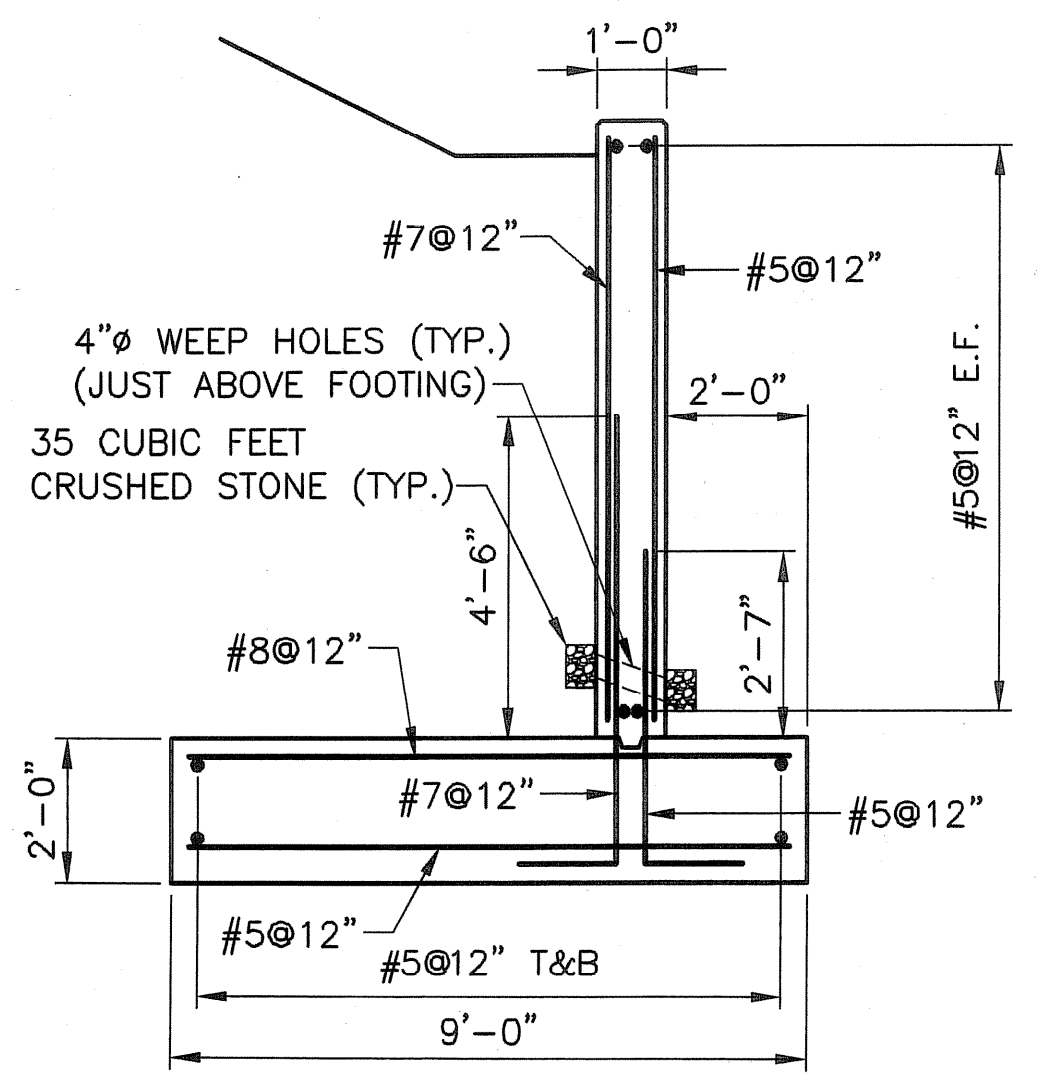
STEPPED-UP FOOTING DETAIL @ CONST. JOINT
 SCALE: 1/2" = 1'-0"



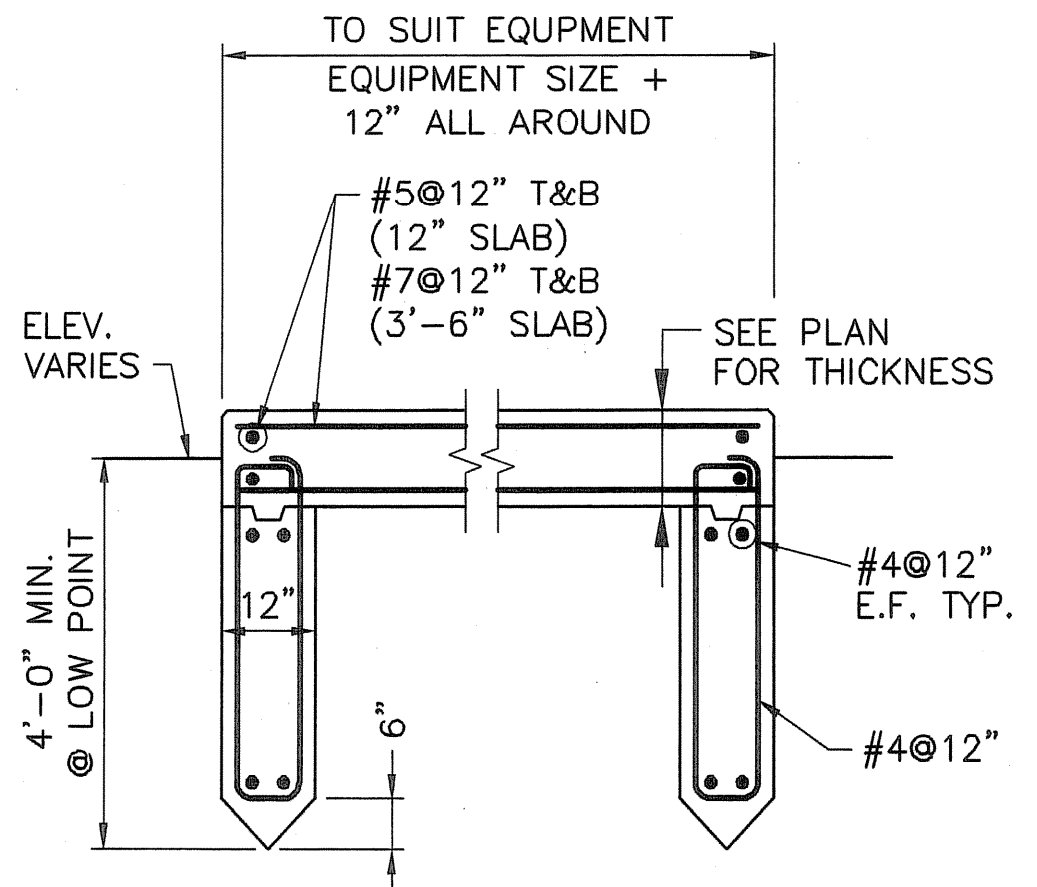
RETAINING WALL ELEVATION ALONG BASELINE @ WTF BUILDING
 SCALE: 1/8" = 1'-0"



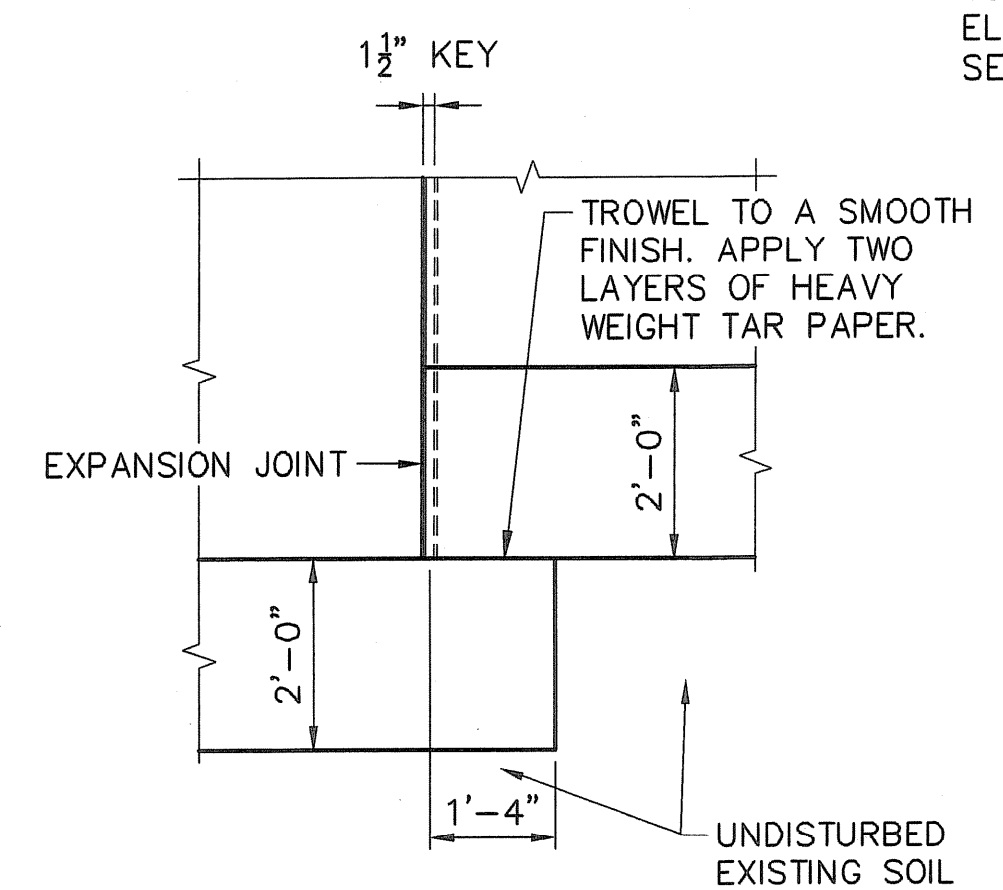
SECTION 1
 SCALE: 3/8" = 1'-0"



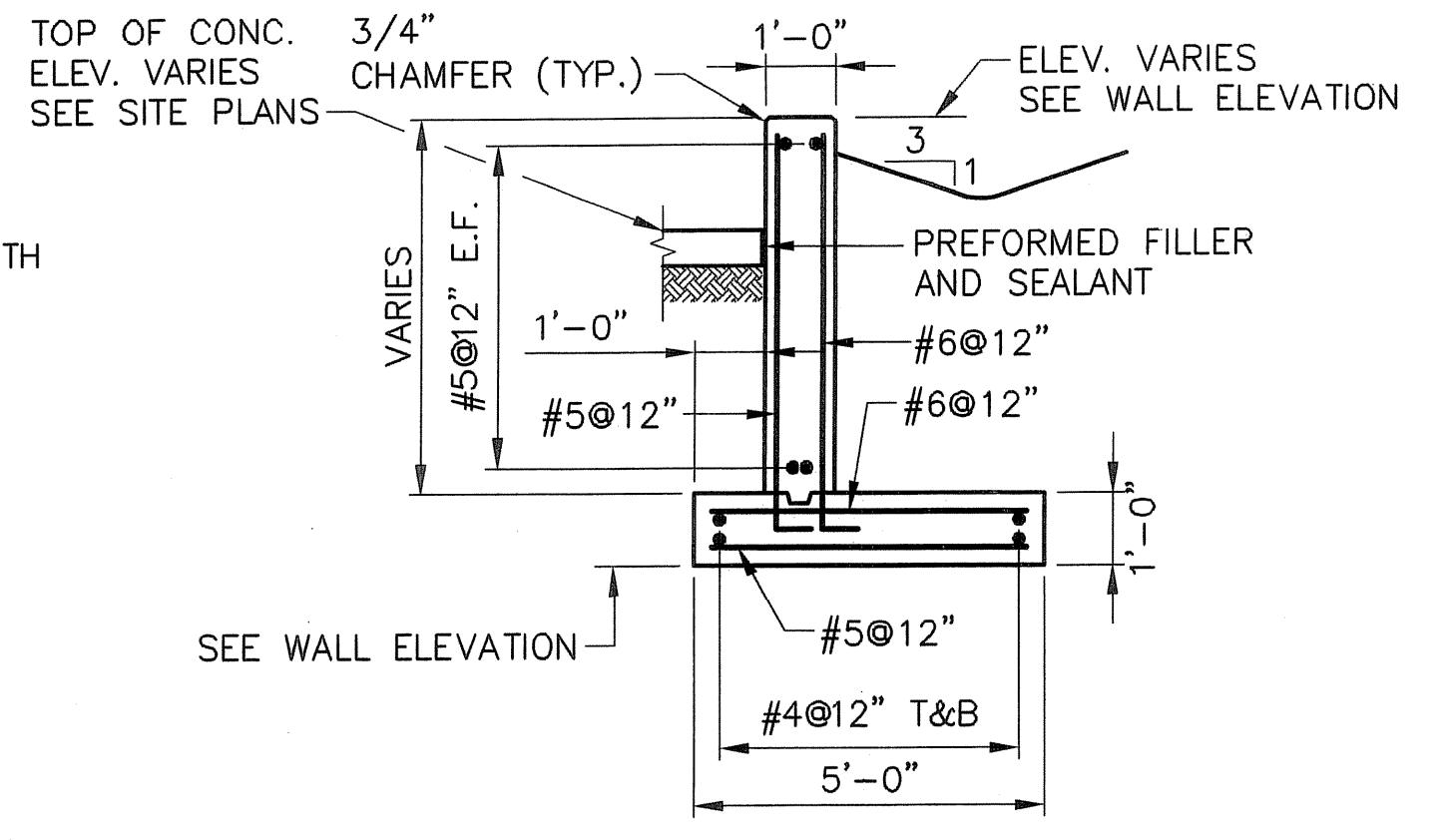
SECTION 2
 SCALE: 3/8" = 1'-0"



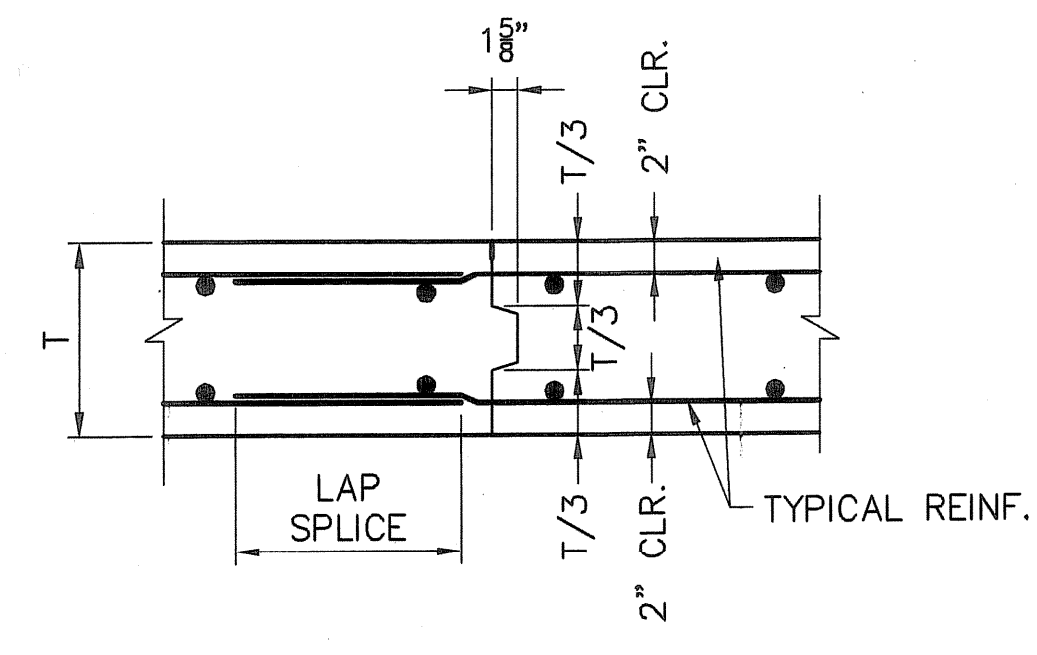
TYPICAL EQUIPMENT PAD DETAIL
 SCALE: 3/8" = 1'-0"



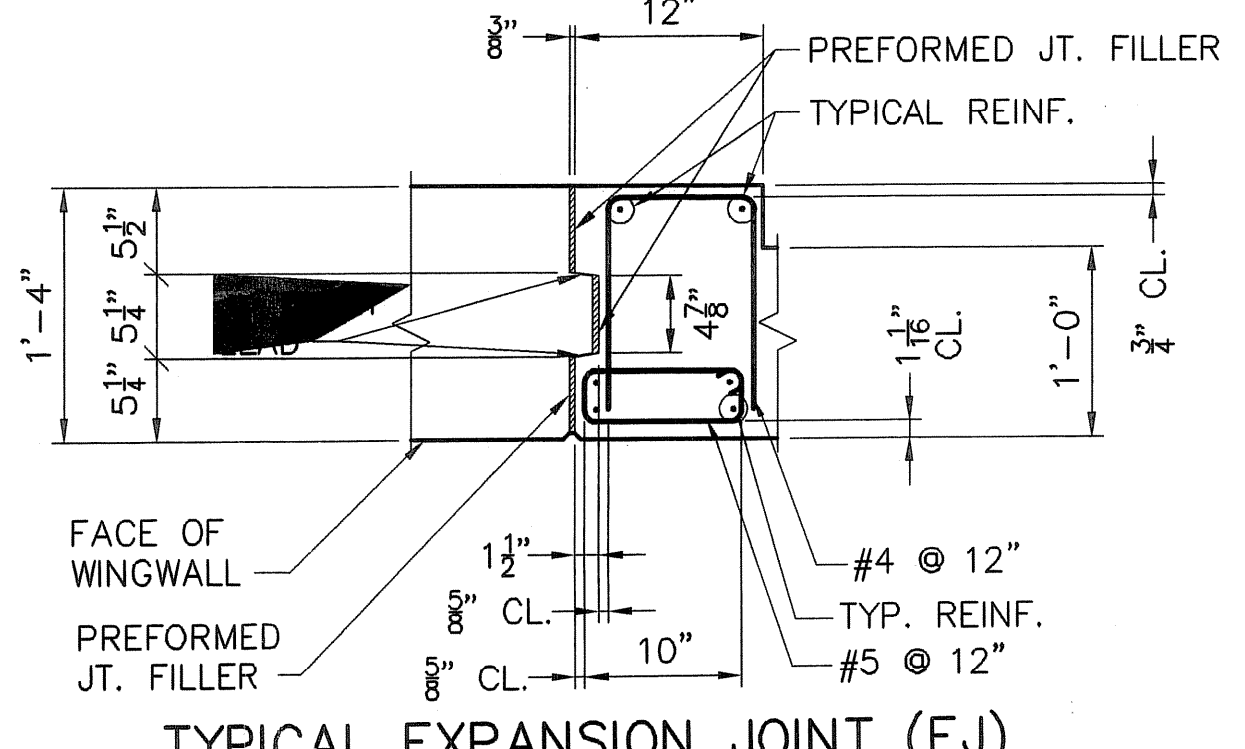
STEPPED-UP FOOTING DETAIL @ EXP. JOINT
 SCALE: 1/2" = 1'-0"



SECTION 3
 SCALE: 3/8" = 1'-0"



TYPICAL CONSTRUCTION JOINT (CJ)
 SCALE: 1" = 1'-0"



TYPICAL EXPANSION JOINT (EJ)
 SCALE: 1" = 1'-0"

NO.	DATE	BY	REVISIONS
3	MAY 2008	JPM	AS-BUILT DRAWING FILE
2	10/31/06	R&D	ISSUED FOR RFI POSTED SET
1	09/15/05	R&D	CHANGES PER HEALTH COMMENTS
0	06/22/05	GBM	ISSUED FOR CONSTRUCTION

ROBERT H. SHELDON
 No. 4103
 REGISTERED PROFESSIONAL ENGINEER
 STATE OF RHODE ISLAND

PAWTUCKET, RHODE ISLAND
PAWTUCKET REGIONAL WATER TREATMENT FACILITY
PKG 2A - CONSTRUCTION
 RETAINING WALL PLANS AND SECTIONS

DESIGNED BY EM	DWG SCALE AS NOTED
DRAWN BY JPM	CONTRACT NO.
CHECKED BY R&D	DATE OCTOBER 31, 2008

EARTH TECH
AS-BUILT FILE
 MAY 2008