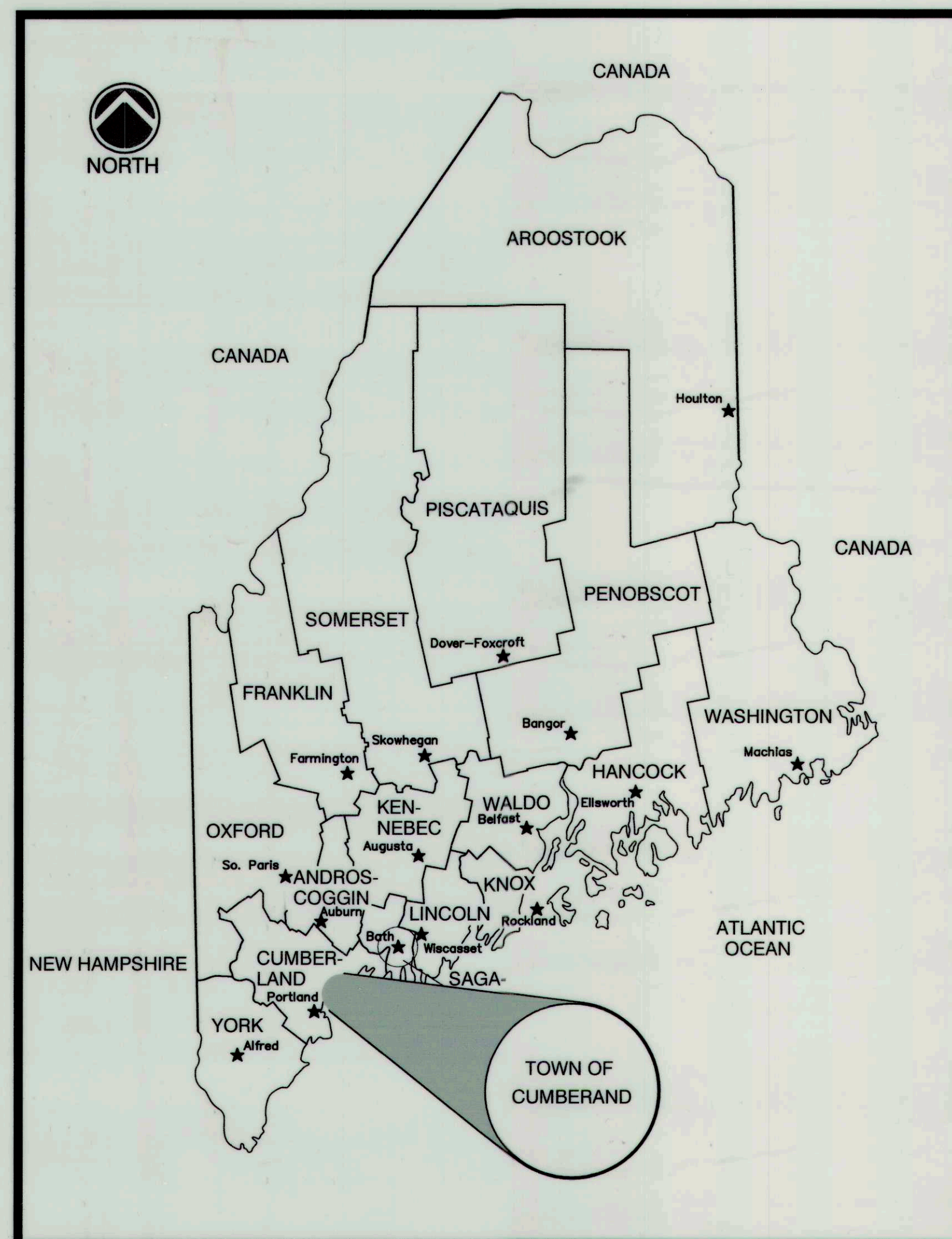


Town of Cumberland, Maine Skillin Road Reconstruction



VICINITY MAP
NOT TO SCALE

CONTRACT DRAWINGS

SHT. NO.	TITLE	DWG. NO.
1	COVER SHEET	---
2	PLAN AND PROFILE STA 0+00 TO STA 6+50-PHASE 1	C-100
3	PLAN AND PROFILE STA 6+50 TO STA 13+00-PHASE 1	C-101
4	PLAN AND PROFILE STA 13+00 TO STA 19+50-PHASE 1	C-102
5	PLAN AND PROFILE STA 19+50 TO STA 26+00-PHASE 1	C-103
6	PLAN AND PROFILE STA 26+00 TO STA 32+00-PHASE 1	C-104
7*	PLAN AND PROFILE STA 32+00 TO STA 38+50-PHASE 1 & PHASE 2	C-105
8*	PLAN AND PROFILE STA 38+50 TO STA 45+00-PHASE 2	C-106
9*	PLAN AND PROFILE STA 45+00 TO STA 48+00-PHASE 2	C-107
10	TYPICAL CROSS SECTIONS	C-108
11	TYPICAL CROSS SECTIONS AND WATER MAIN DESIGN FOR BLACKSTRAP/GRAY AND SKILLIN ROAD INTERSECTION	C-109
12	CONSTRUCTION DETAILS	C-110
13	CONSTRUCTION DETAILS	C-111
14	CONSTRUCTION DETAILS	C-112
	APPENDED PORTLAND WATER DISTRICT DETAILS	1 & 2

* A PORTION OF DRAWING C-105 AND DRAWINGS C-106 THROUGH C-107 IS PART OF PHASE 2 OF THIS PROJECT AND HAS NOT BEEN CONSTRUCTED AS OF THE DATE OF THIS ISSUING OF THESE RECORD DRAWINGS BUT THEY ARE INCLUDED AS PART OF THIS SET.

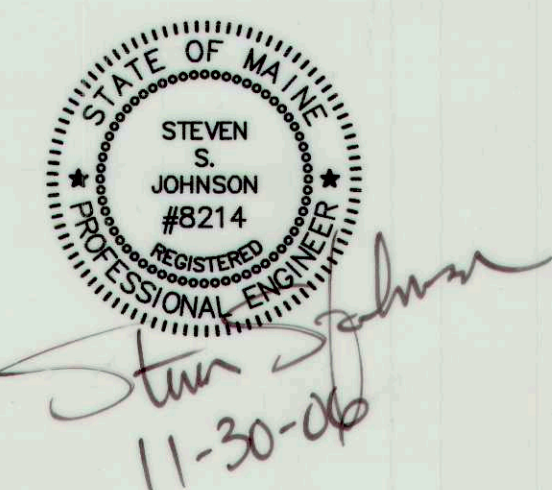
LEGEND	
---	RIGHT OF WAY
---	EDGE OF TRAVEL LANE
---	TYPE 3 BITUMINOUS CURBING-MOLD 2
---	TYPE 3 BITUMINOUS CURBING-CAPE COD STYLE
---	STORM DRAIN
---	UNDERDRAIN
---	UNDERDRAIN CAP
---	CATCH BASIN
---	BORING
---	DITCH
---	RIPRAP
---	STONE CHECK DAM



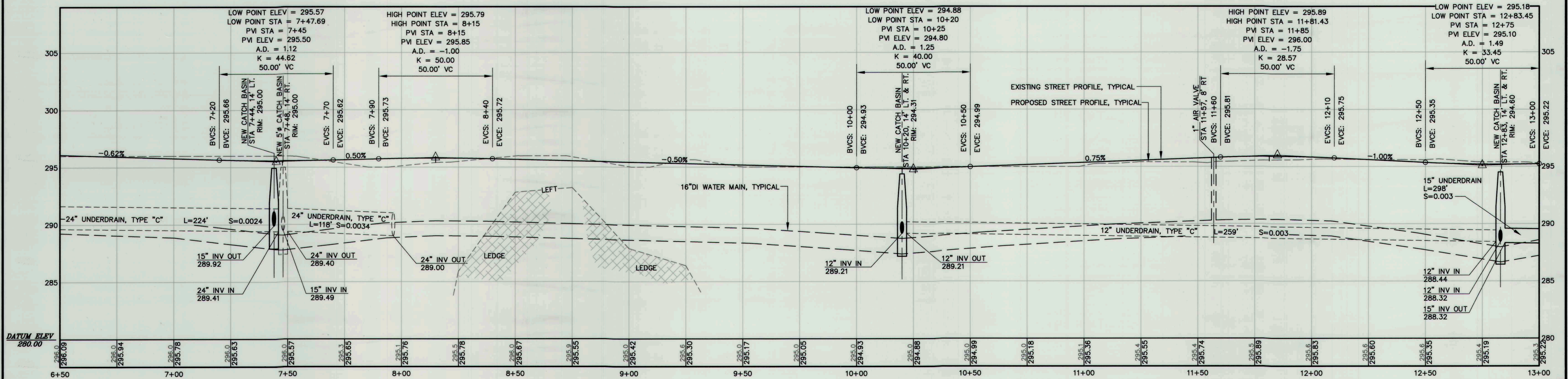
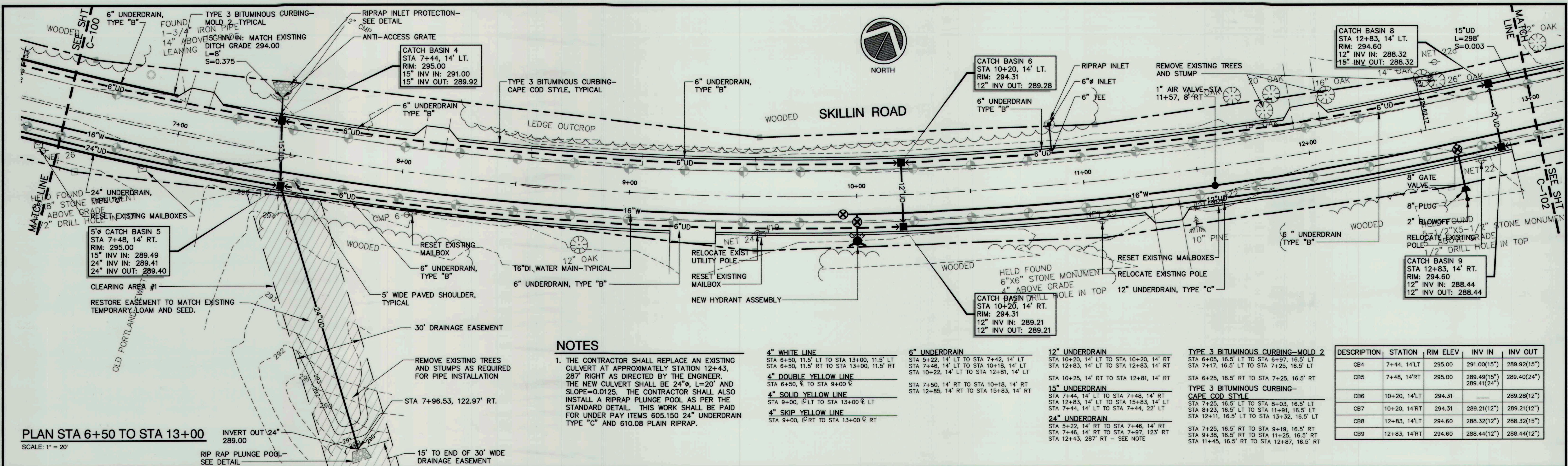
Aquarion Engineering Services

222 St. John Street, Suite 314
Portland, ME 04102
www.aquarion.com

RECORD
DRAWINGS



NOVEMBER, 2006



RECORD DRAWINGS

TOWN OF CUMBERLAND
SKILLIN ROAD RECONSTRUCTION

PLAN AND PROFILE
STA 6+50 TO STA 13+00
PHASE 1

DESIGN BY: SSJ
DRAWN BY: JAR
CHECKED BY: SJB
DATE: 08-23-05
JOB NO: 1001-01
SCALE: AS NOTED
C-101
SHEET 3 OF 14

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Portland, ME 04102
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R	SSJ	11-29-06	ISSUED FOR: RECORD DRAWINGS	1001-01_R_C101
C	SSJ	11-11-05	ISSUED FOR: BIDDING	1001-01_c_C101
REV.	BY	DATE	STATUS	CAD NO.

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4" WHITE LINE
STA 13+00, 11.5' LT TO STA 19+50, 11.5' RT
STA 13+00, 11.5' RT TO STA 19+50, 11.5' LT

4" SOLID YELLOW LINE
STA 13+00, 6' LT TO STA 19+50, 6' LT
STA 17+50, 6' RT TO STA 19+50, 6' RT

4" SKIP YELLOW LINE
STA 17+50, 6' LT TO STA 19+50, 6' LT
STA 13+00, 6' RT TO STA 19+50, 6' RT

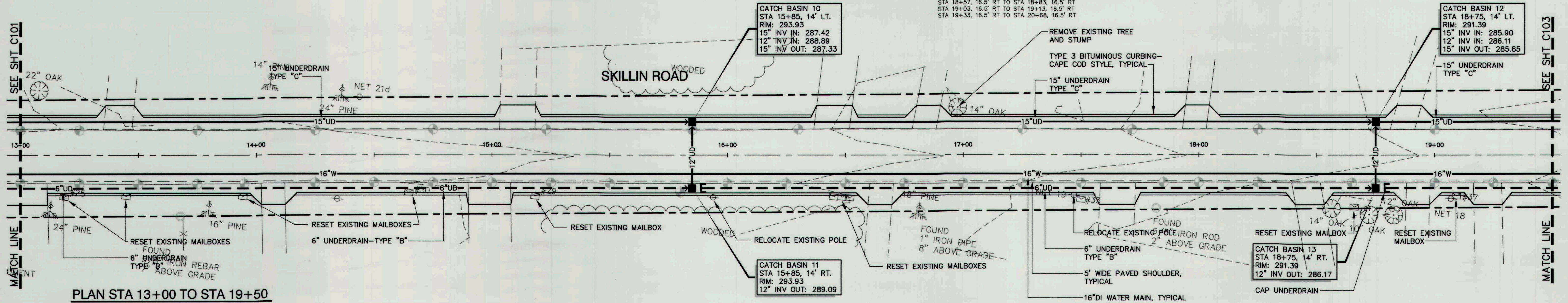
6" UNDERDRAIN
STA 12+85, 14' RT TO STA 15+83, 14' RT
STA 15+87, 14' RT TO STA 18+73, 14' RT
STA 18+87, 14' RT TO STA 22+80, 14' RT
STA 22+80, 14' RT TO STA 22+90, 20' RT

12" UNDERDRAIN
STA 15+85, 14' LT TO STA 15+85, 14' RT
STA 18+75, 14' LT TO STA 18+75, 14' RT

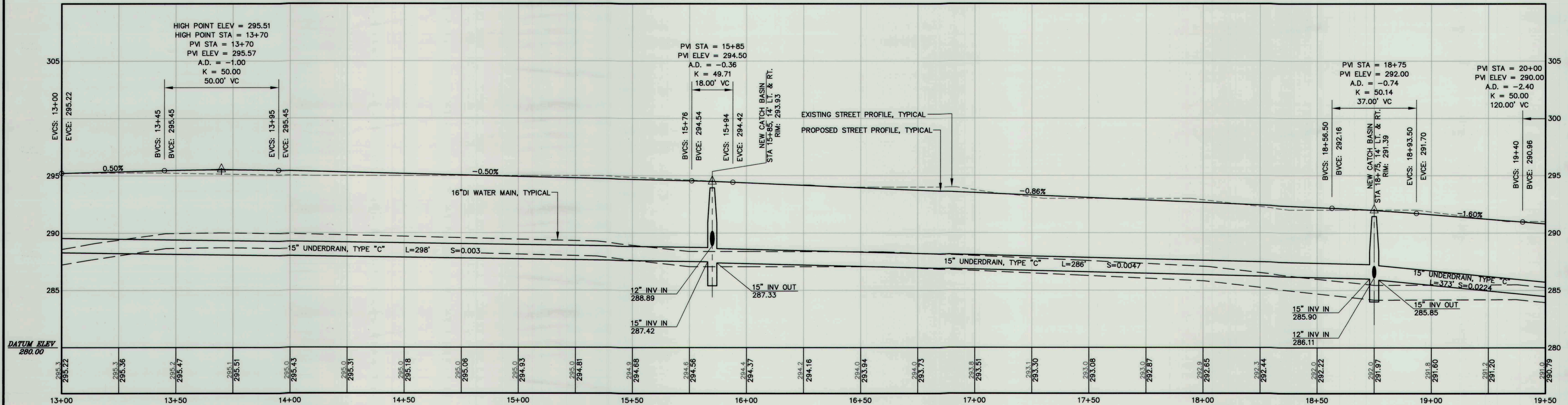
15" UNDERDRAIN
STA 12+83, 14' LT TO STA 15+83, 14' LT
STA 15+87, 14' LT TO STA 18+73, 14' LT
STA 18+77, 14' LT TO STA 22+50, 23' LT

TYPE 3 BITUMINOUS CURBING-CAPE COD STYLE
STA 12+11, 16.5' LT TO STA 13+32, 16.5' LT
STA 13+52, 16.5' LT TO STA 15+01, 16.5' LT
STA 15+21, 16.5' LT TO STA 16+55, 16.5' LT
STA 16+55, 16.5' LT TO STA 16+75, 16.5' LT
STA 16+95, 16.5' LT TO STA 17+89, 16.5' LT
STA 18+09, 16.5' LT TO STA 18+79, 16.5' LT
STA 18+99, 16.5' LT TO STA 20+00, 16.5' LT
STA 11+45, 16.5' RT TO STA 12+87, 16.5' RT
STA 13+11, 16.5' RT TO STA 13+97, 16.5' RT
STA 14+17, 16.5' RT TO STA 14+89, 16.5' RT
STA 15+09, 16.5' RT TO STA 16+55, 16.5' RT
STA 16+75, 16.5' RT TO STA 17+85, 16.5' RT
STA 17+75, 16.5' RT TO STA 18+37, 16.5' RT
STA 18+57, 16.5' RT TO STA 18+83, 16.5' RT
STA 19+03, 16.5' RT TO STA 19+13, 16.5' RT
STA 19+33, 16.5' RT TO STA 20+68, 16.5' RT

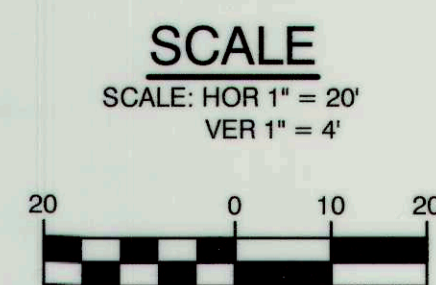
DESCRIPTION	STATION	RIM ELEV	INV IN	INV OUT
CB10	15+85, 14' LT	293.93	288.89(12") 287.42(15")	287.33(15")
CB11	15+85, 14' RT	293.93	—	289.09(12")
CB12	18+75, 14' LT	291.39	286.11(12") 285.90(15")	285.85(15")
CB13	18+75, 14' RT	291.39	—	286.17(12")



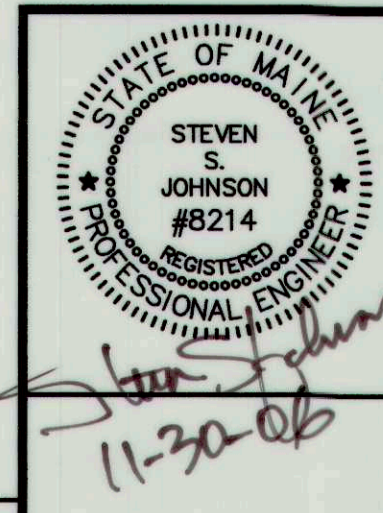
PLAN STA 13+00 TO STA 19+50
SCALE: 1" = 20'



PROFILE STA 13+00 TO STA 19+50
SCALE: (H) 1" = 20' (V) 1" = 4'



RECORD DRAWINGS



**TOWN OF CUMBERLAND
SKILLIN ROAD RECONSTRUCTION**

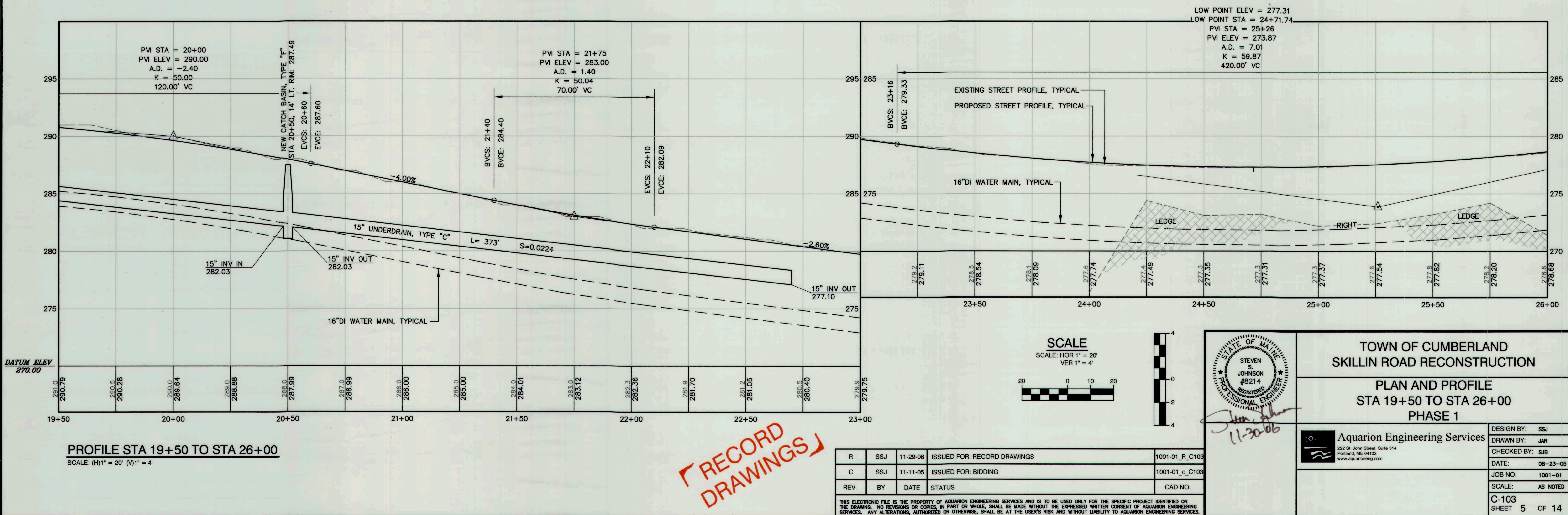
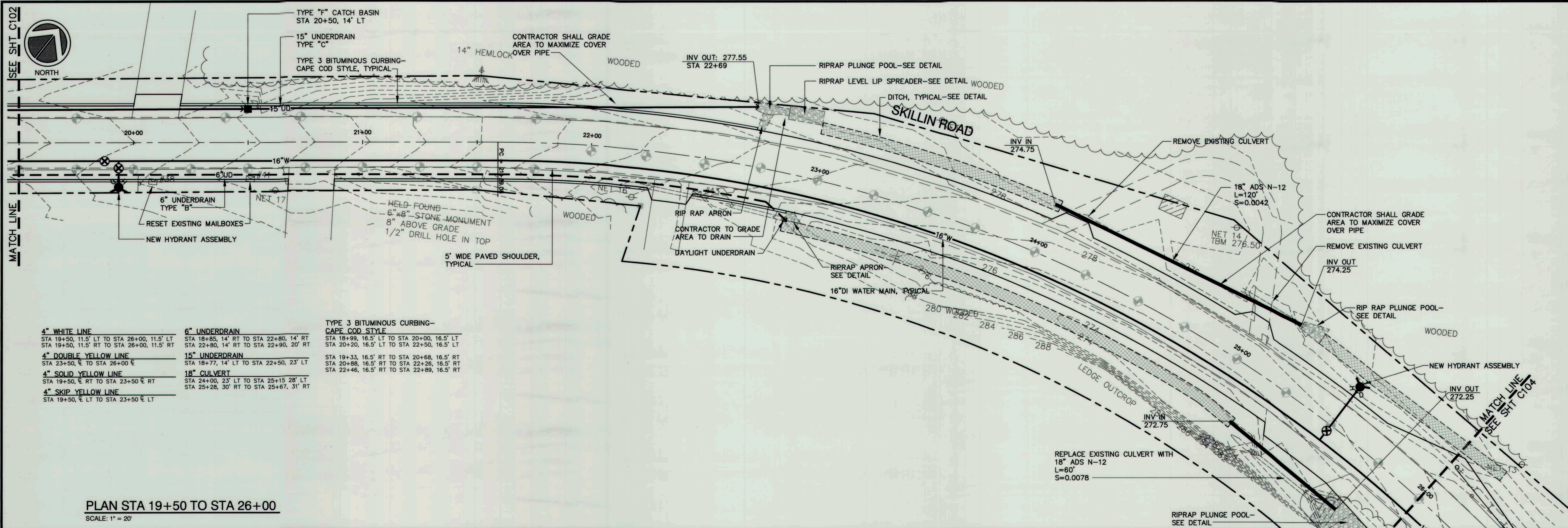
**PLAN AND PROFILE
STA 13+00 TO STA 19+50
PHASE 1**

Aquarion Engineering Services
222 St. John Street, Suite 314
Portland, ME 04102
www.aquarioneng.com

R	SSJ	11-29-06	ISSUED FOR: RECORD DRAWINGS	1001-01_R_C102
C	SSJ	11-11-05	ISSUED FOR: BIDDING	1001-01_C_C102
REV.	BY	DATE	STATUS	CAD NO.

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DESIGN BY:	SSJ
DRAWN BY:	JAR
CHECKED BY:	SJB
DATE:	08-23-05
JOB NO:	1001-01
SCALE:	AS NOTED
C-102	
SHEET 4 OF 14	



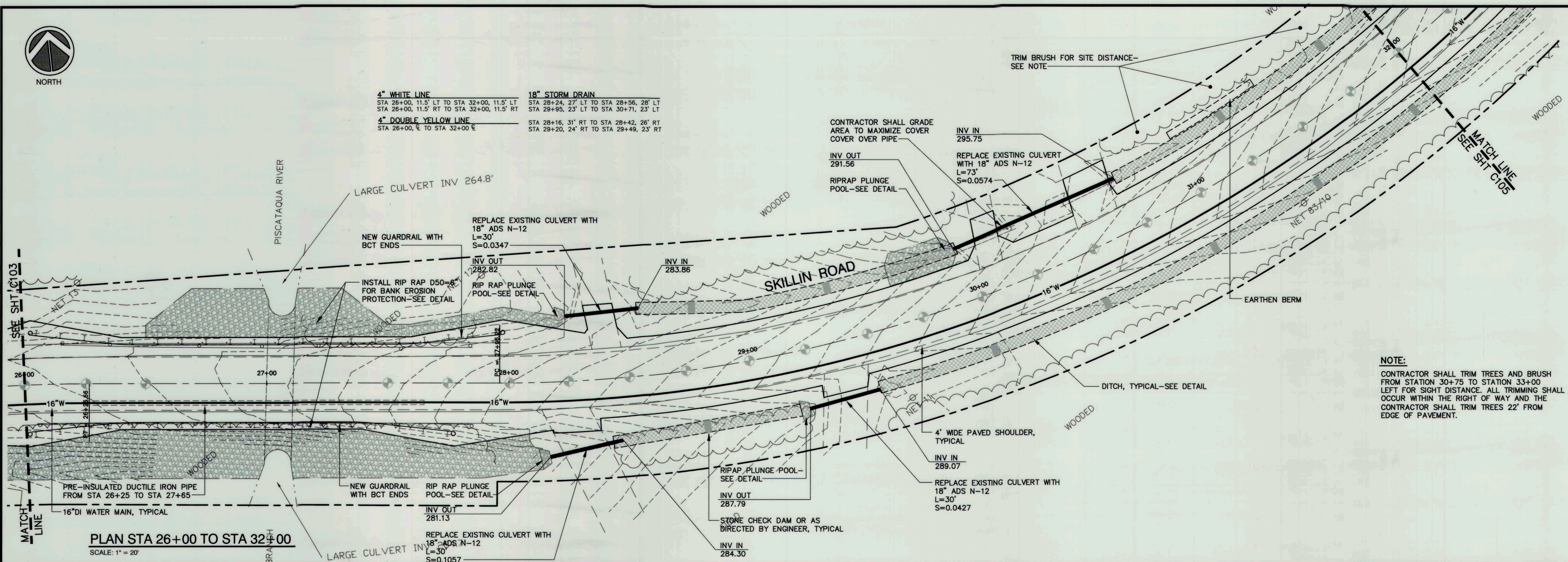


4" WHITE LINE
STA 26+00, 11.5' LT TO STA 32+00, 11.5' LT
STA 26+00, 11.5' RT TO STA 32+00, 11.5' RT

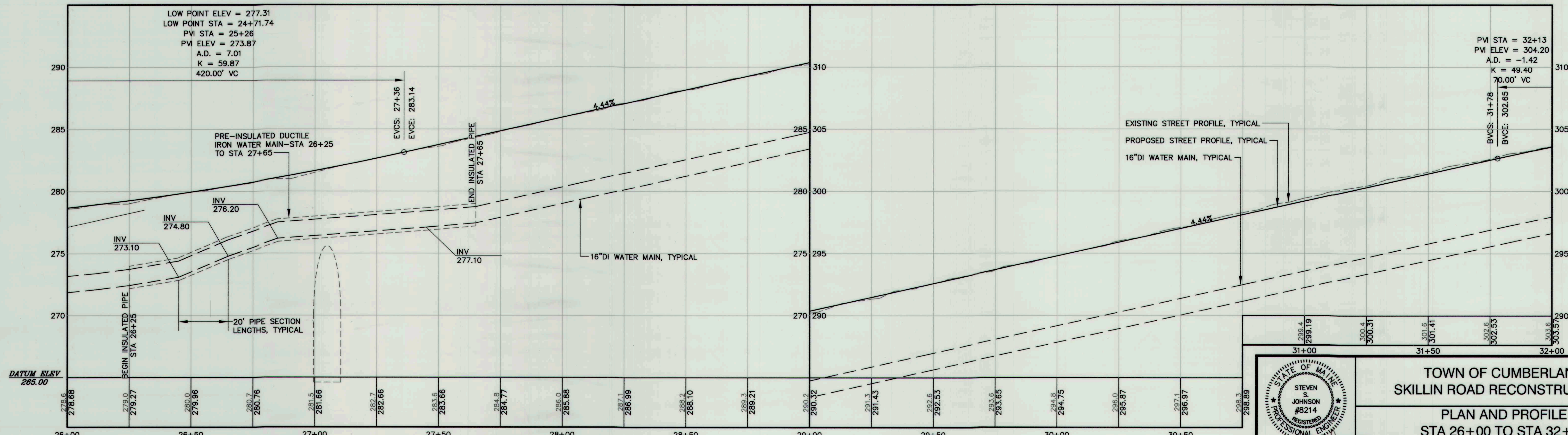
18" STORM DRAIN
STA 28+24, 27' LT TO STA 28+56, 28' LT
STA 29+95, 23' LT TO STA 30+71, 23' LT

4" DOUBLE YELLOW LINE
STA 26+00, 0' TO STA 32+00, 0'

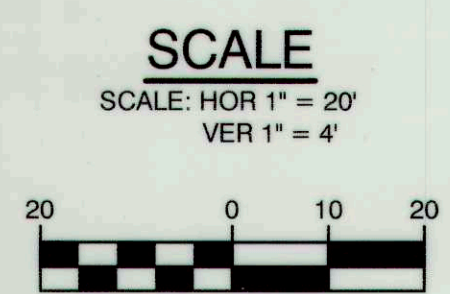
STA 28+16, 31' RT TO STA 28+42, 26' RT
STA 29+20, 24' RT TO STA 29+49, 23' RT



NOTE:
CONTRACTOR SHALL TRIM TREES AND BRUSH FROM STATION 30+75 TO STATION 33+00 LEFT FOR SIGHT DISTANCE. ALL TRIMMING SHALL OCCUR WITHIN THE RIGHT OF WAY AND THE CONTRACTOR SHALL TRIM TREES 22' FROM EDGE OF PAVEMENT.

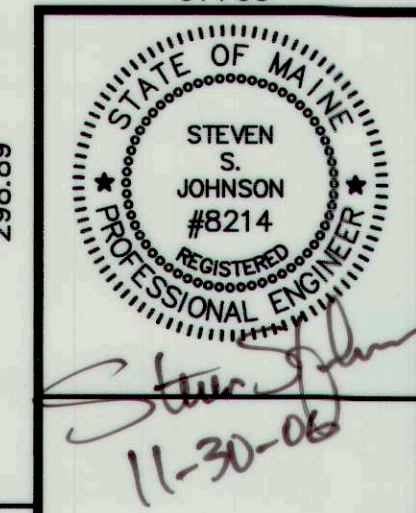


RECORD DRAWINGS



R	SSJ	11-29-06	ISSUED FOR: RECORD DRAWINGS	1001-01_R_C104
C	SSJ	11-11-05	ISSUED FOR: BIDDING	1001-01_C_C104
REV.	BY	DATE	STATUS	CAD NO.

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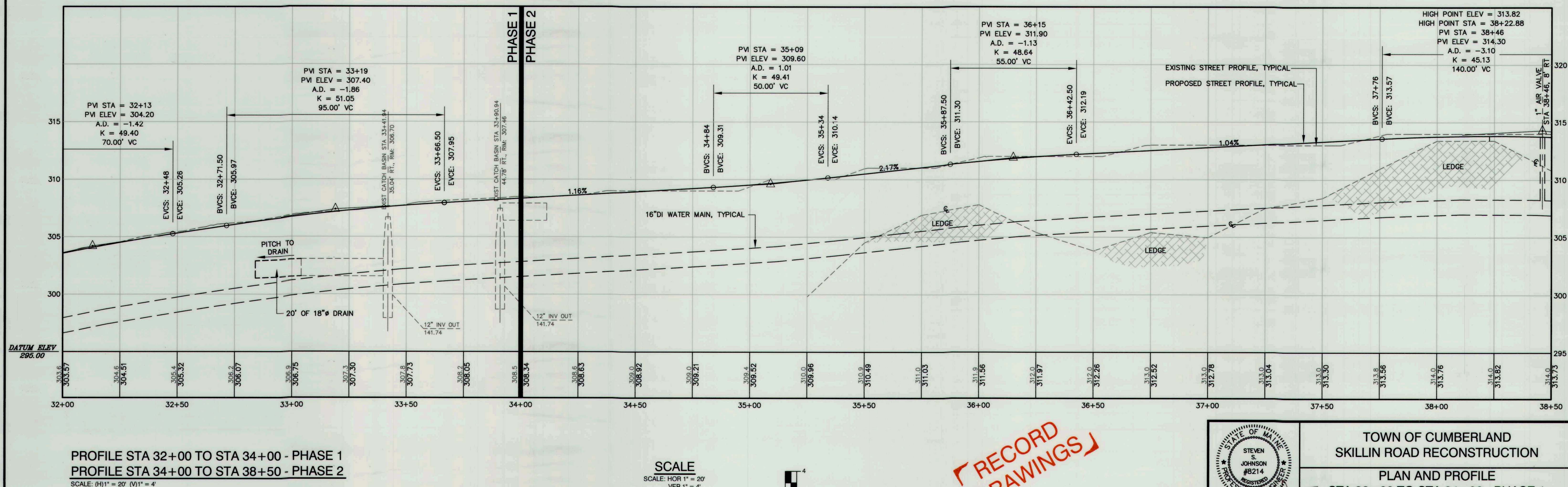
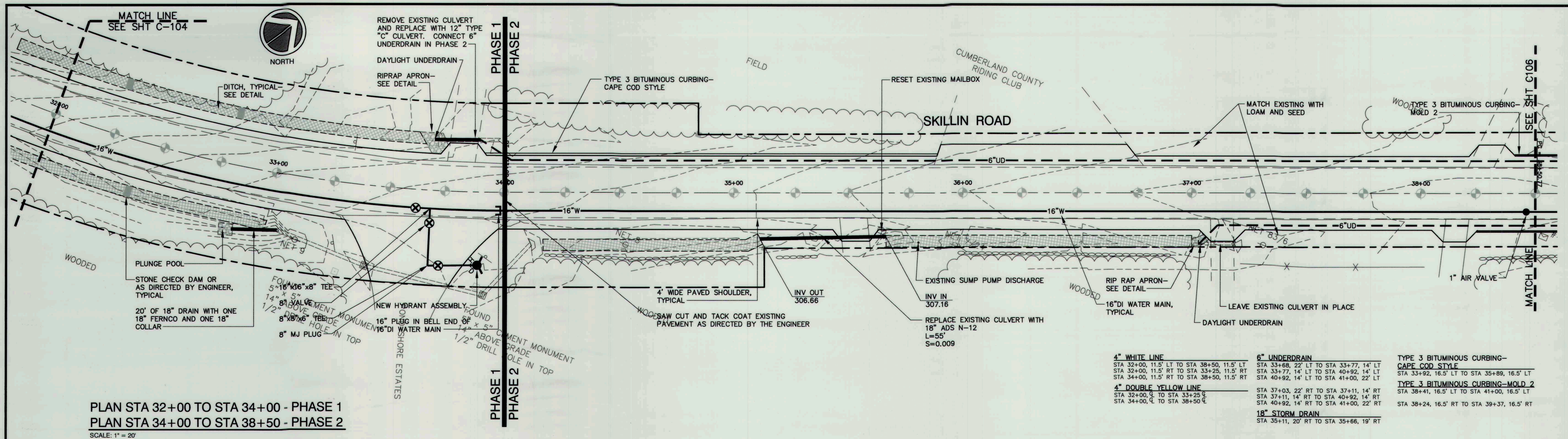


TOWN OF CUMBERLAND
SKILLIN ROAD RECONSTRUCTION

PLAN AND PROFILE
STA 26+00 TO STA 32+00
PHASE 1

Aquarion Engineering Services
222 St. John Street, Suite 314
Portland, ME 04102
www.aquarioneng.com

DESIGN BY: SSJ
DRAWN BY: JAR
CHECKED BY: SJB
DATE: 08-23-05
JOB NO.: 1001-01
SCALE: AS NOTED
C-104
SHEET 6 OF 14



R	SSJ	11-29-06	ISSUED FOR: RECORD DRAWINGS	1001-01_R_C105
C	SSJ	11-11-05	ISSUED FOR: BIDDING	1001-01_C_C105
REV.	BY	DATE	STATUS	CAD NO.

TOWN OF CUMBERLAND
SKILLIN ROAD RECONSTRUCTION

PLAN AND PROFILE
STA 32+00 TO STA 34+00 - PHASE 1
STA 34+00 TO STA 38+50 - PHASE 2

Aquarion Engineering Services
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 Portland, ME 04102
 www.aquarioneng.com

DESIGN BY: SSJ
 DRAWN BY: JAR
 CHECKED BY: SJR
 DATE: 08-23-05
 JOB NO: 1001-01
 SCALE: AS NOTED
C-105
 SHEET 7 OF 14



4" WHITE LINE
STA 38+50, 11.5' LT TO STA 45+00, 11.5' LT
STA 38+50, 11.5' RT TO STA 45+00, 11.5' RT

4" DOUBLE YELLOW LINE
STA 38+50, 0' TO STA 45+00, 0'

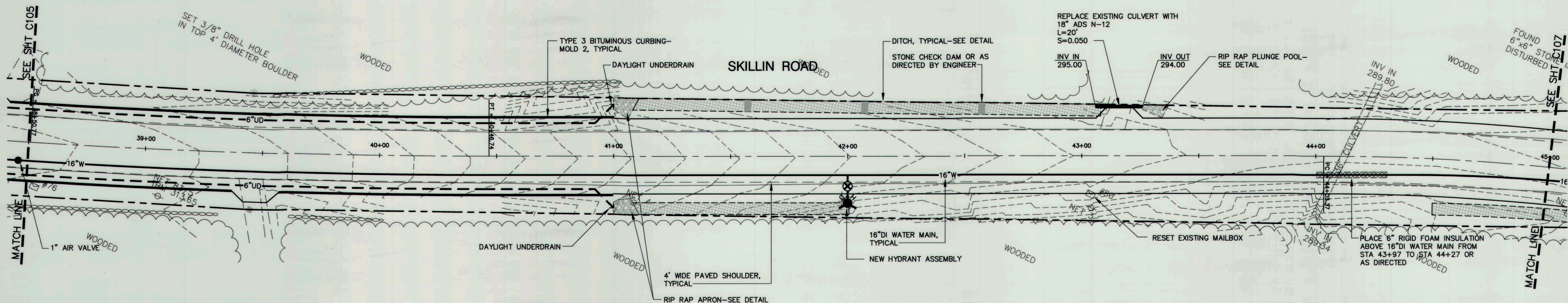
6" UNDERDRAIN
STA 33+77, 14' LT TO STA 40+92, 14' LT
STA 40+92, 14' LT TO STA 41+00, 22' LT

STA 37+11, 14' RT TO STA 40+92, 14' RT
STA 40+92, 14' RT TO STA 41+00, 22' RT

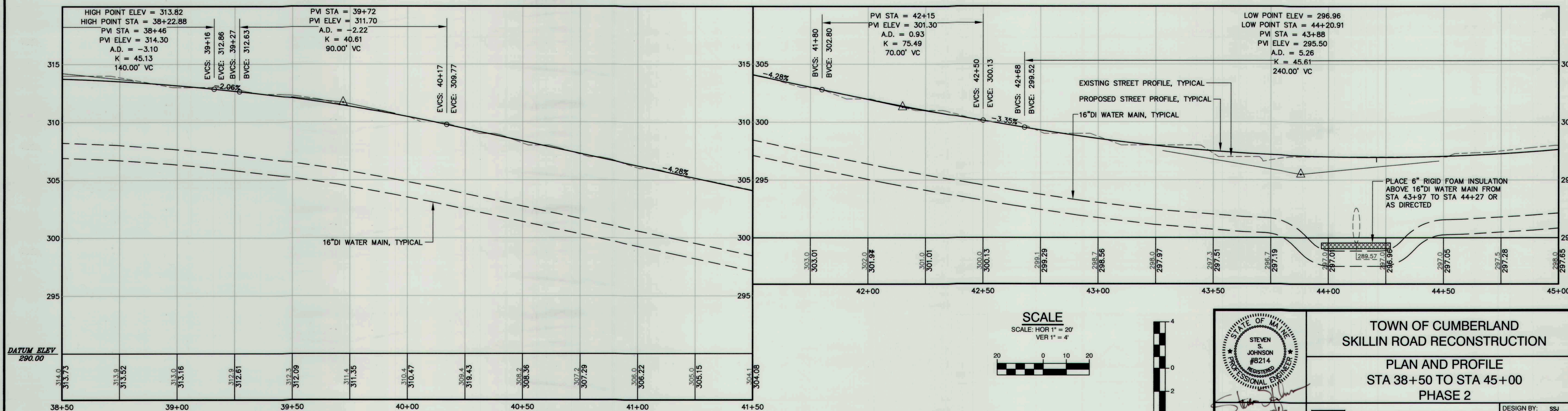
18" STORM DRAIN
STA 43+06, 21' LT TO STA 43+26, 21' LT

TYPE 3 BITUMINOUS CURBING-MOLD 2
STA 38+41, 16' LT TO STA 41+00, 16.5' LT
STA 38+24, 16' RT TO STA 39+37, 16.5' RT
STA 39+57, 16' RT TO STA 41+00, 16.5' RT

NOTE:
6' FROM SHOULDER TO C OF DITCH (TYP.).

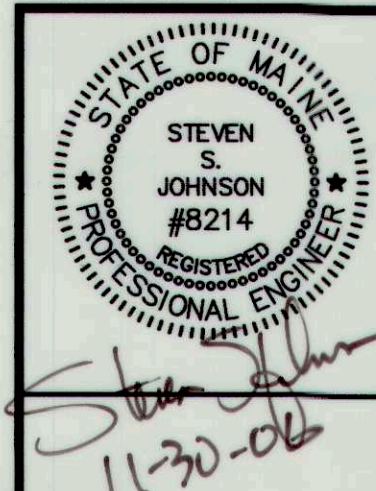


PLAN STA 38+50 TO STA 45+00
SCALE: 1" = 20'



PROFILE STA 38+50 TO STA 45+00
SCALE: (H) 1" = 20' (V) 1" = 4'

R	SSJ	11-29-06	ISSUED FOR: RECORD DRAWINGS	1001-01_R_C106
C	SSJ	11-11-05	ISSUED FOR: BIDDING	1001-01_C_C106
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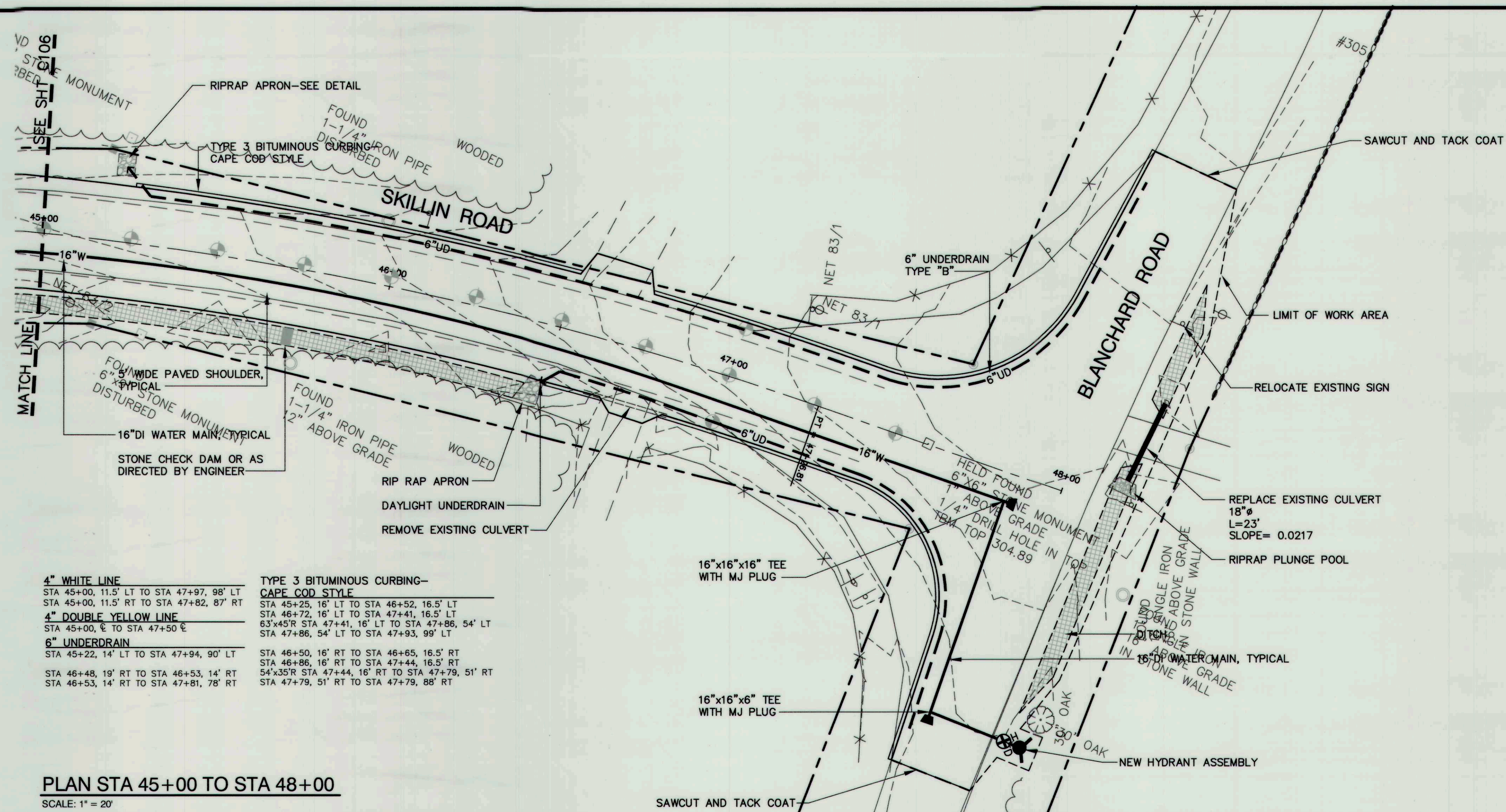


TOWN OF CUMBERLAND
SKILLIN ROAD RECONSTRUCTION

PLAN AND PROFILE
STA 38+50 TO STA 45+00
PHASE 2

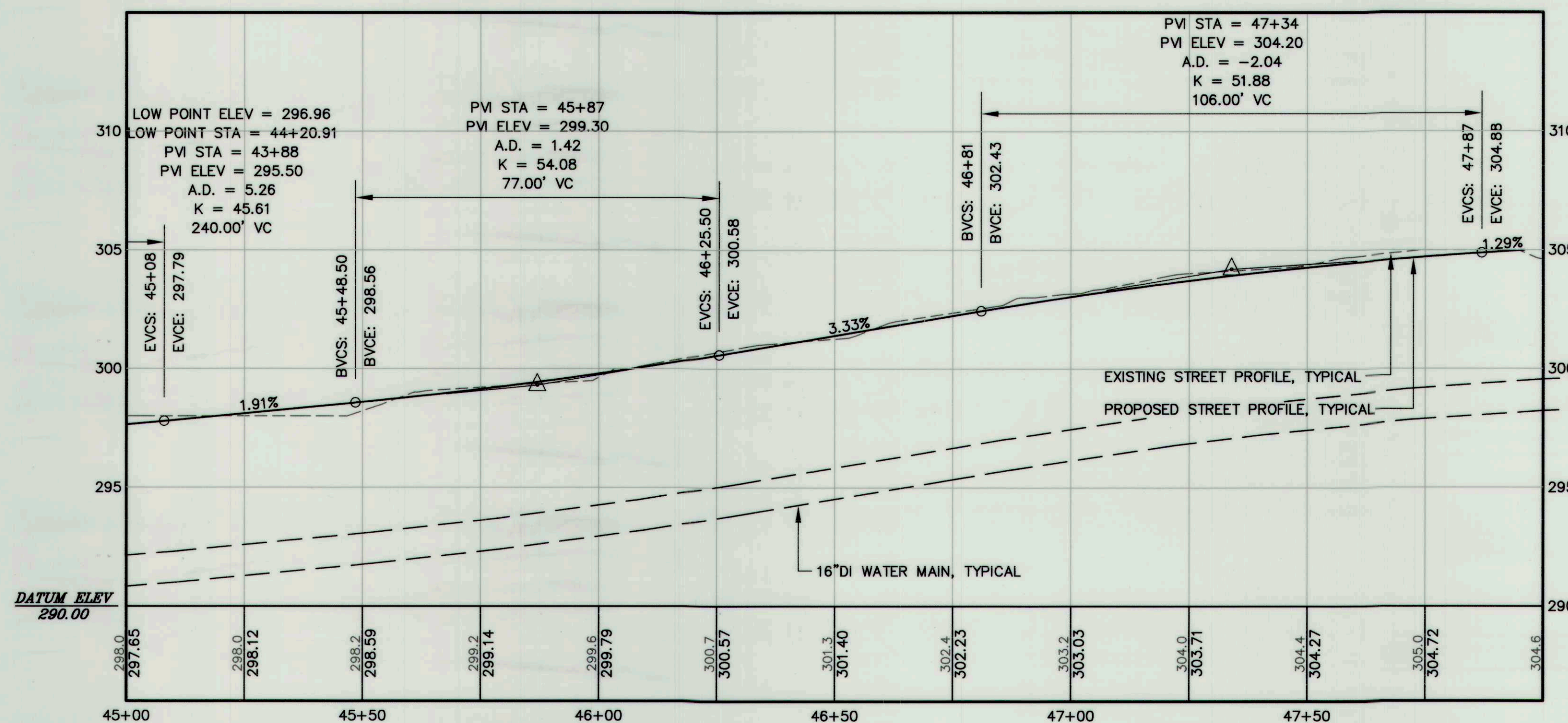
Aquarium Engineering Services
222 St. John Street, Suite 314
Portland, ME 04102
www.aquariumeng.com

DESIGN BY: SSJ
DRAWN BY: JAR
CHECKED BY: SJB
DATE: 08-23-05
JOB NO: 1001-01
SCALE: AS NOTED
C-106
SHEET 8 OF 14



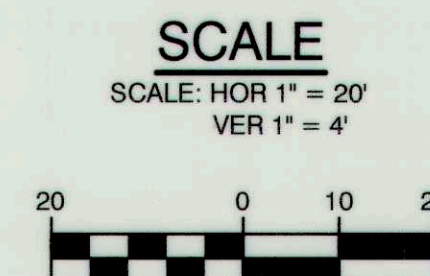
PLAN STA 45+00 TO STA 48+00

SCALE: 1" = 20'



PROFILE STA 45+00 TO STA 48+00

SCALE: (H) 1" = 20' (V) 1" = 4'



R	SSJ	11-29-06	ISSUED FOR: RECORD DRAWINGS	1001-01_R_C107
C	SSJ	11-11-06	ISSUED FOR: BIDDING	1001-01_C_C107
REV.	BY	DATE	STATUS	CAD NO.

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STEVEN S. JOHNSON
#8214
REGISTERED PROFESSIONAL ENGINEER

TOWN OF CUMBERLAND
SKILLIN ROAD RECONSTRUCTION

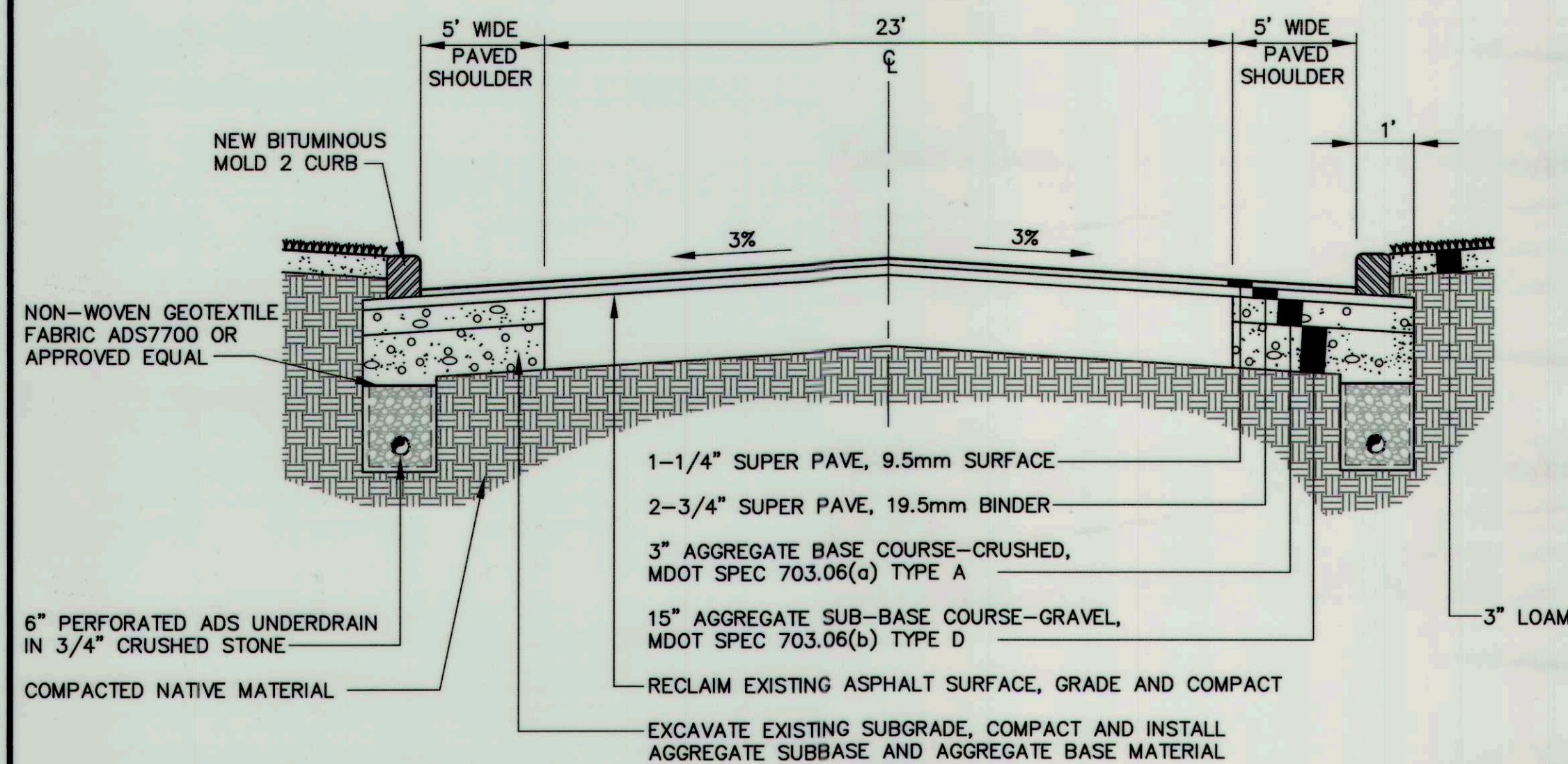
PLAN AND PROFILE
STA 45+00 TO STA 48+00
PHASE 2

Aquarium Engineering Services
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www.aquariumeng.com

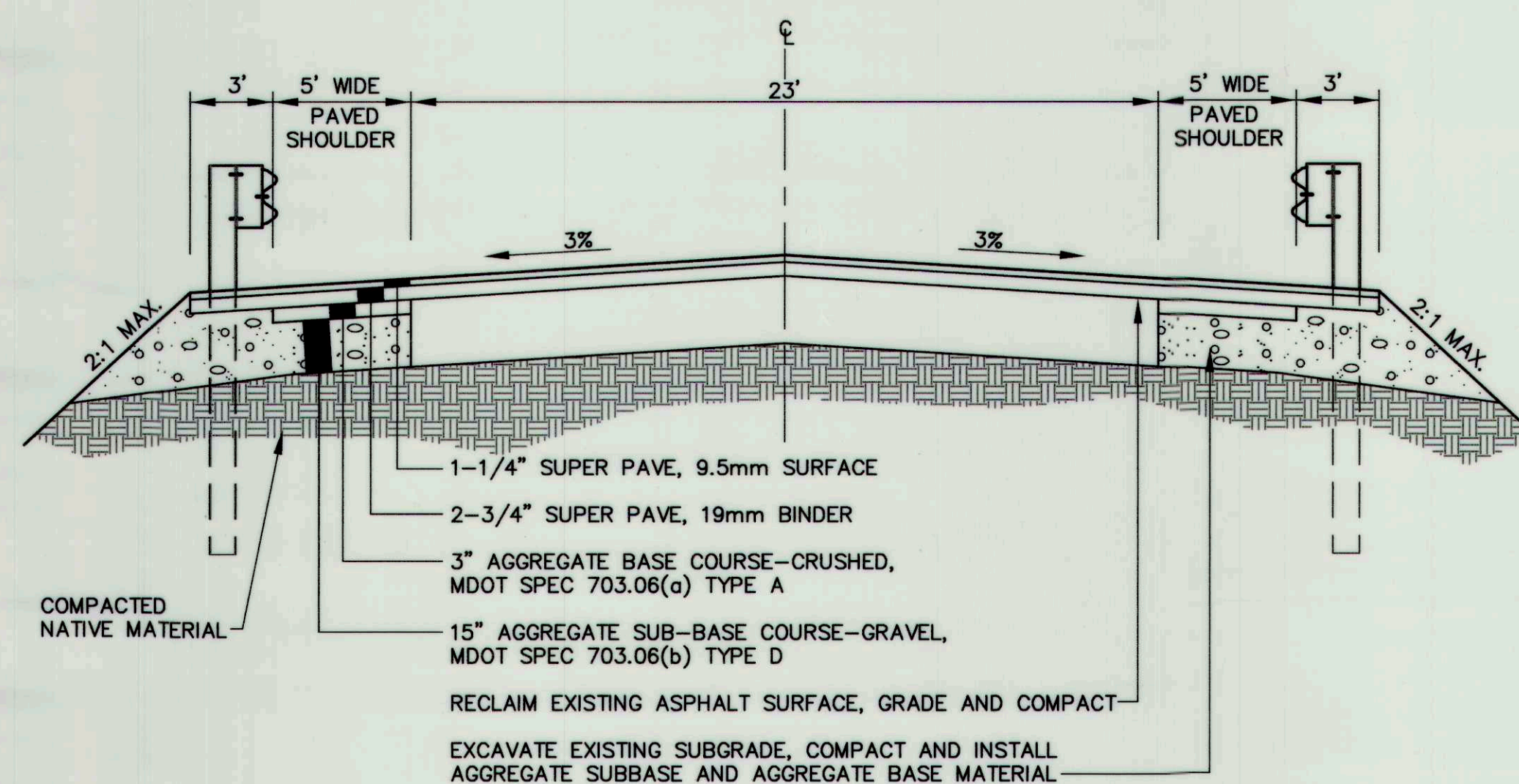
DESIGN BY:	SSJ
DRAWN BY:	JAR
CHECKED BY:	SJB
DATE:	08-23-05
JOB NO:	1001-01
SCALE:	AS NOTED
C-107	
SHEET	9 OF 14

NOTES

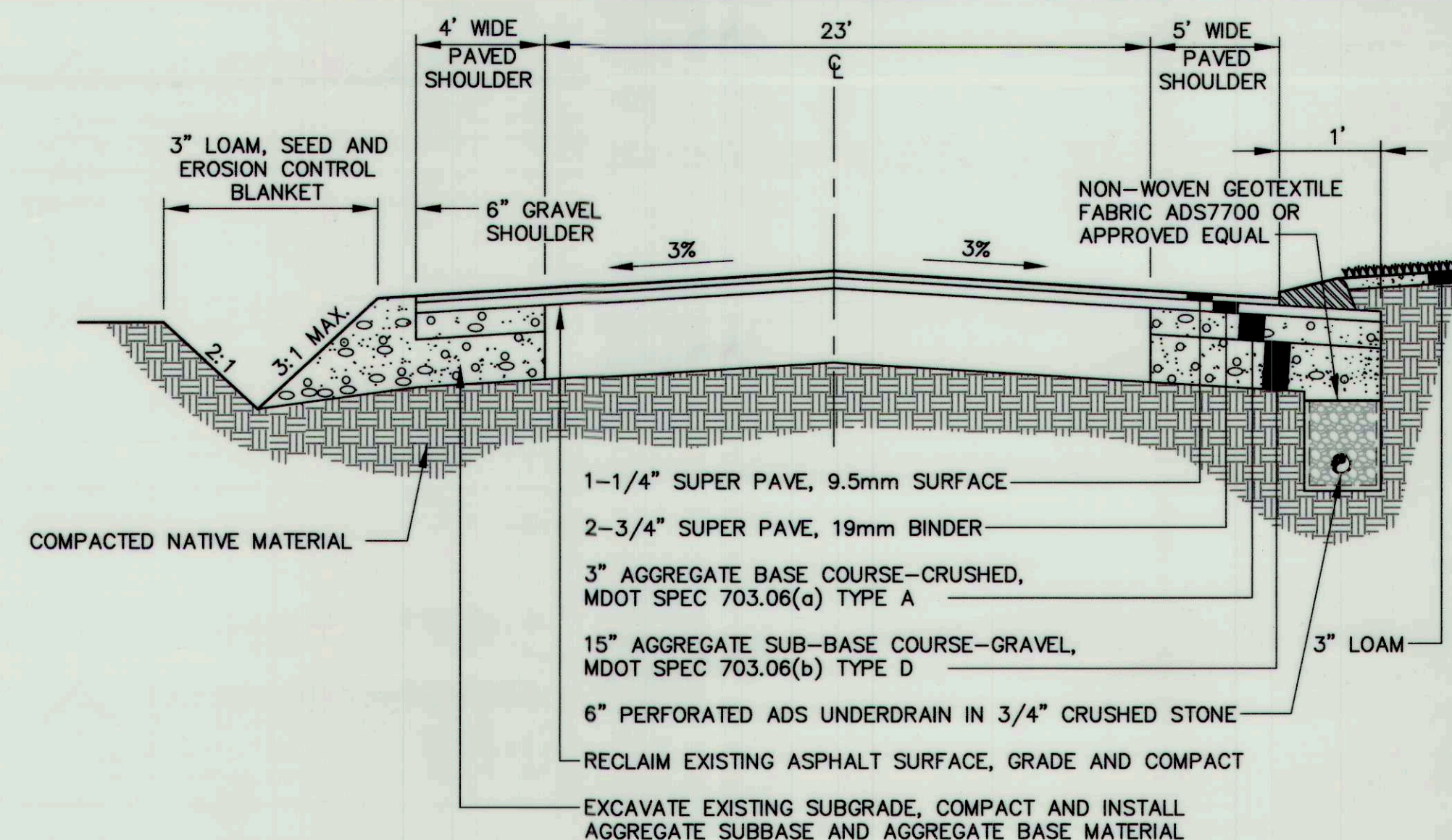
1. FULL WIDTH BOX CUT OF ROAD BASE FROM STA 2+05 TO STA 34+00 DUE TO LACK OF ADEQUATE GRAVEL (EXCEPT FOR AREAS IN GUARDRAIL SECTION).



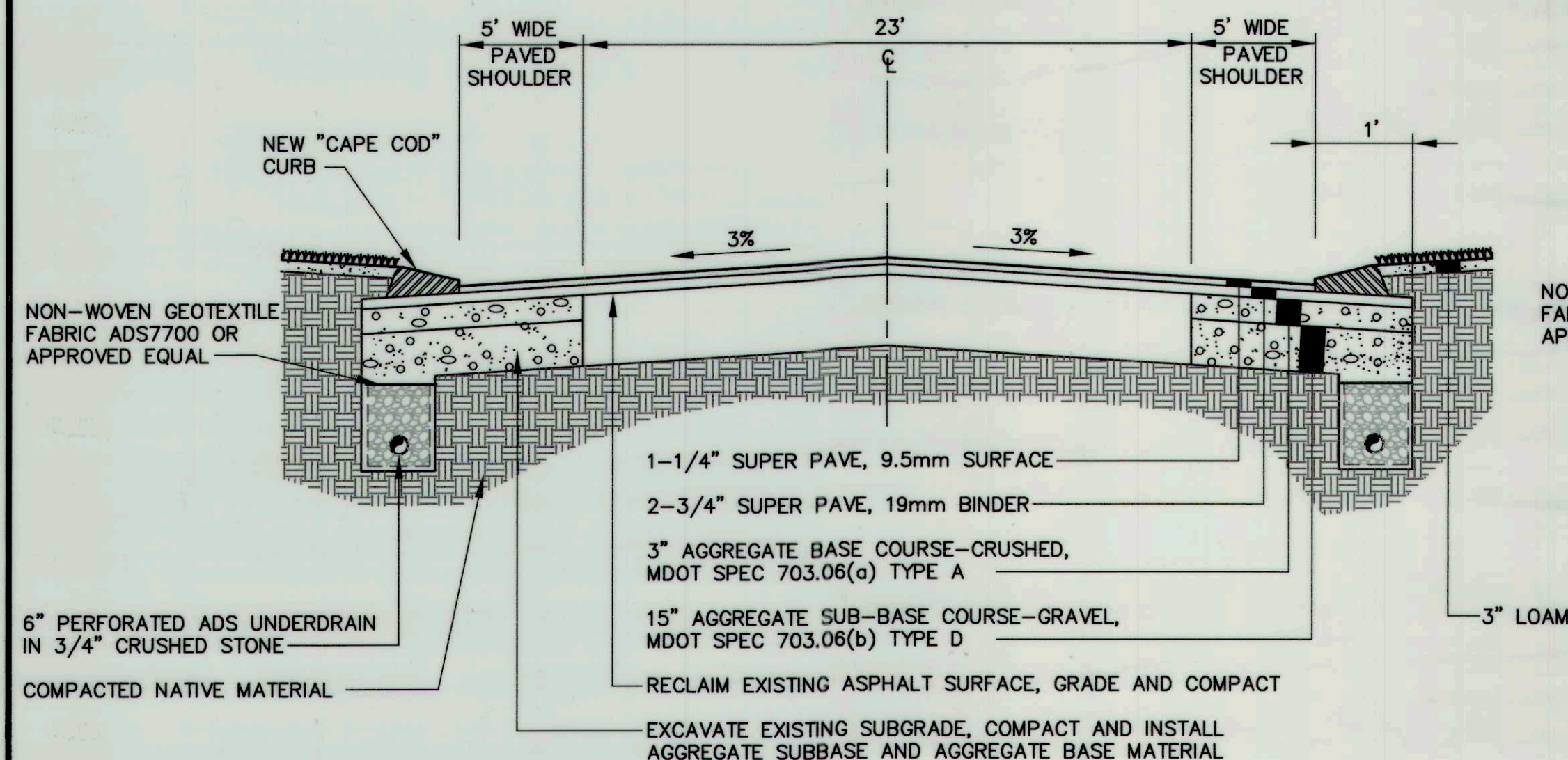
TYPICAL CROSS-SECTION STA 2+07 TO STA 3+00
TYPICAL CROSS-SECTION STA 4+00 TO STA 7+25
TYPICAL CROSS-SECTION STA 38+25 TO STA 41+00
NOT TO SCALE



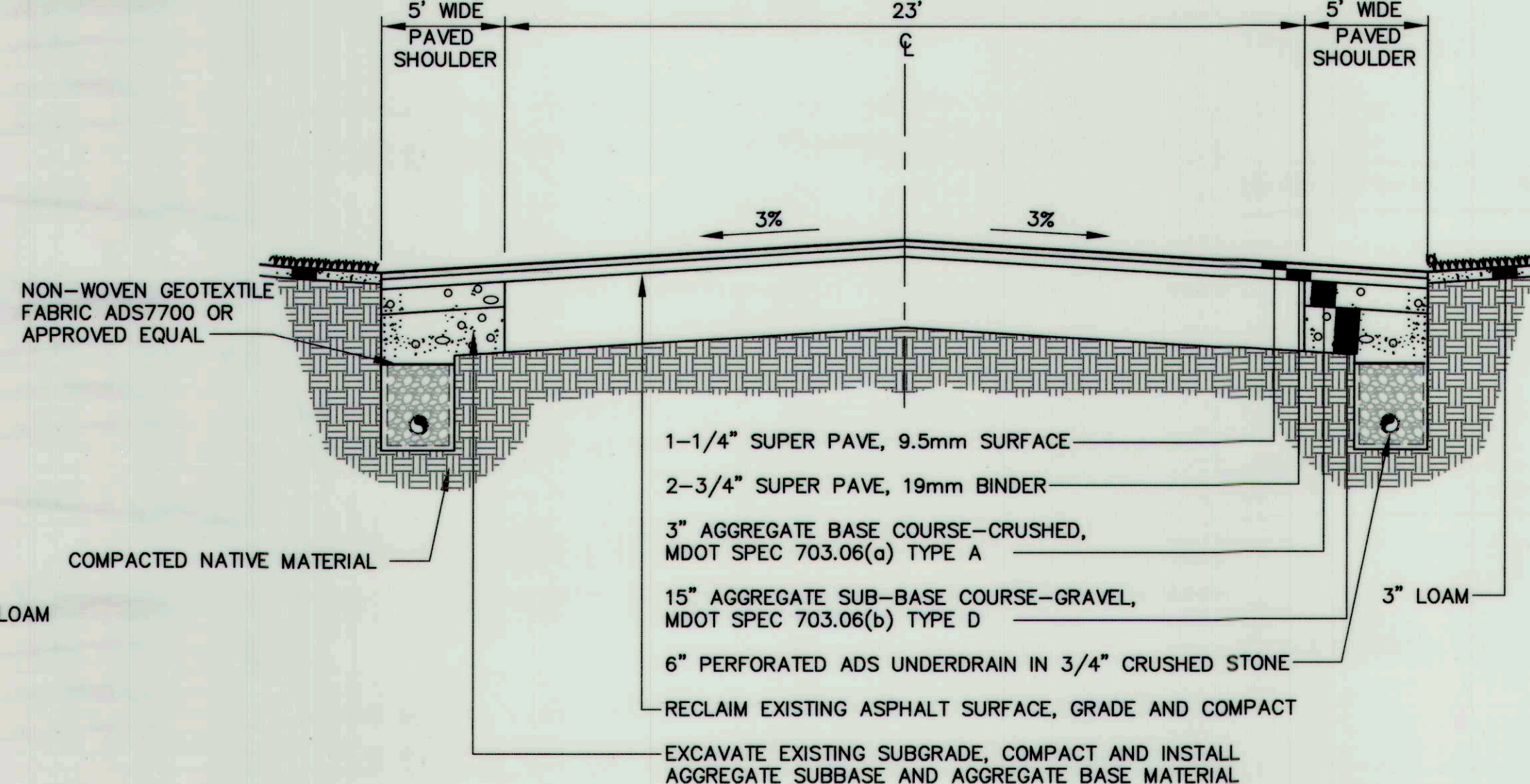
TYPICAL CROSS-SECTION STA 26+00 TO STA 28+00
NOT TO SCALE



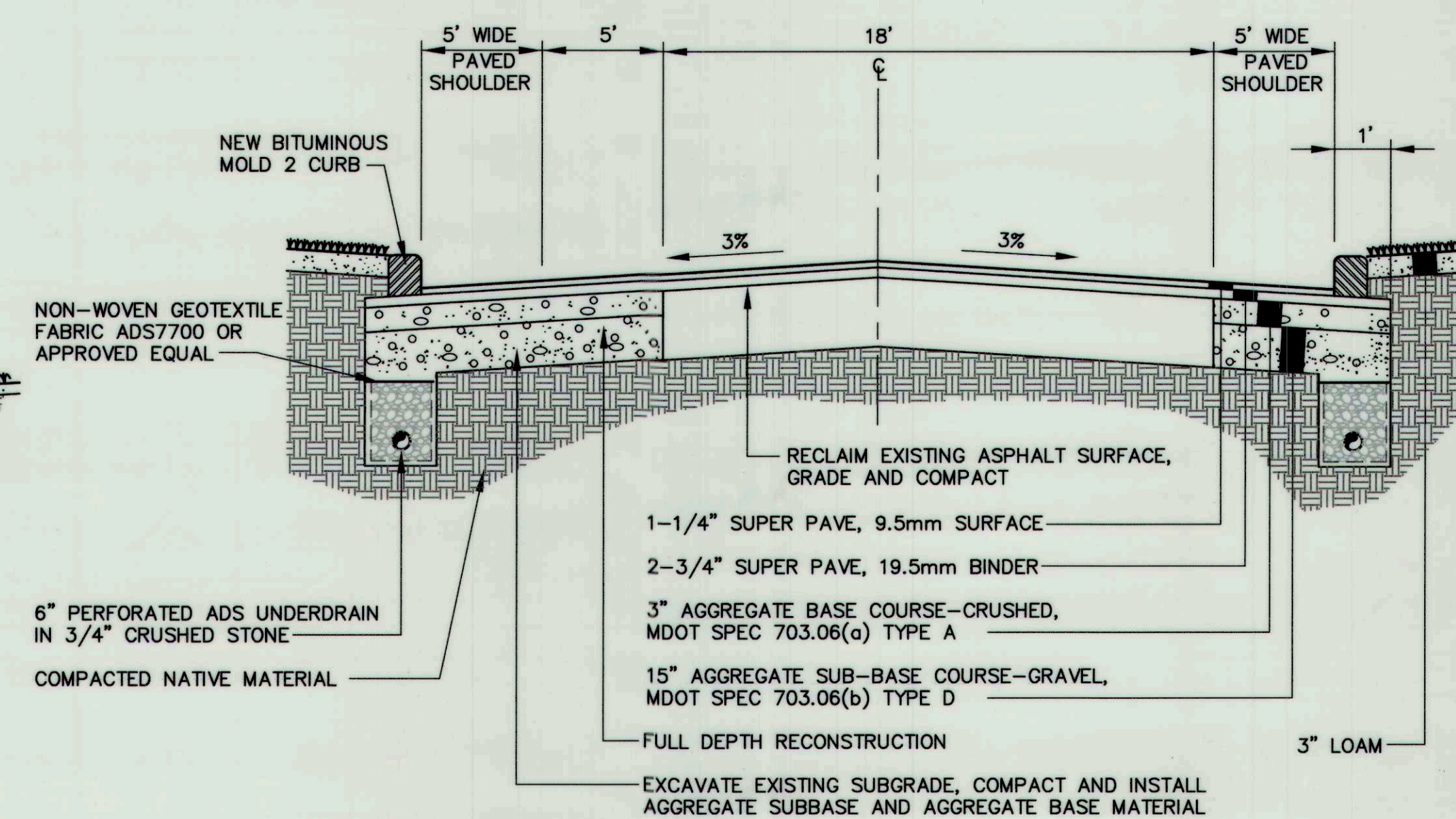
TYPICAL CROSS-SECTION STA 22+50 TO STA 22+90
TYPICAL CROSS-SECTION SKILLIN RD/BLANCHARD RD INTERSECTION
NOT TO SCALE



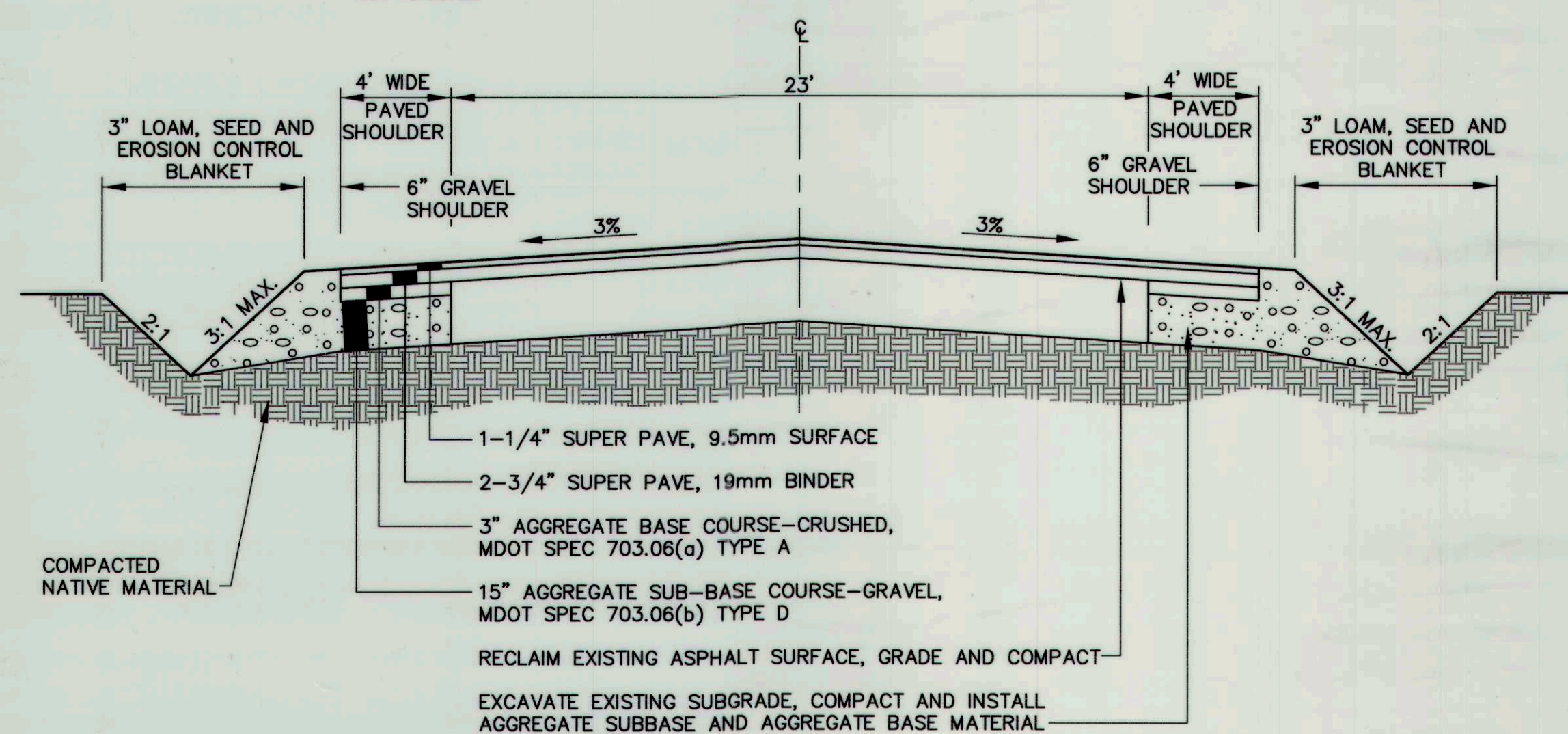
TYPICAL CROSS-SECTION STA 7+25 TO STA 11+00
TYPICAL CROSS-SECTION STA 19+00 TO STA 22+50
TYPICAL CROSS-SECTION STA 46+50 TO STA 47+98
NOT TO SCALE



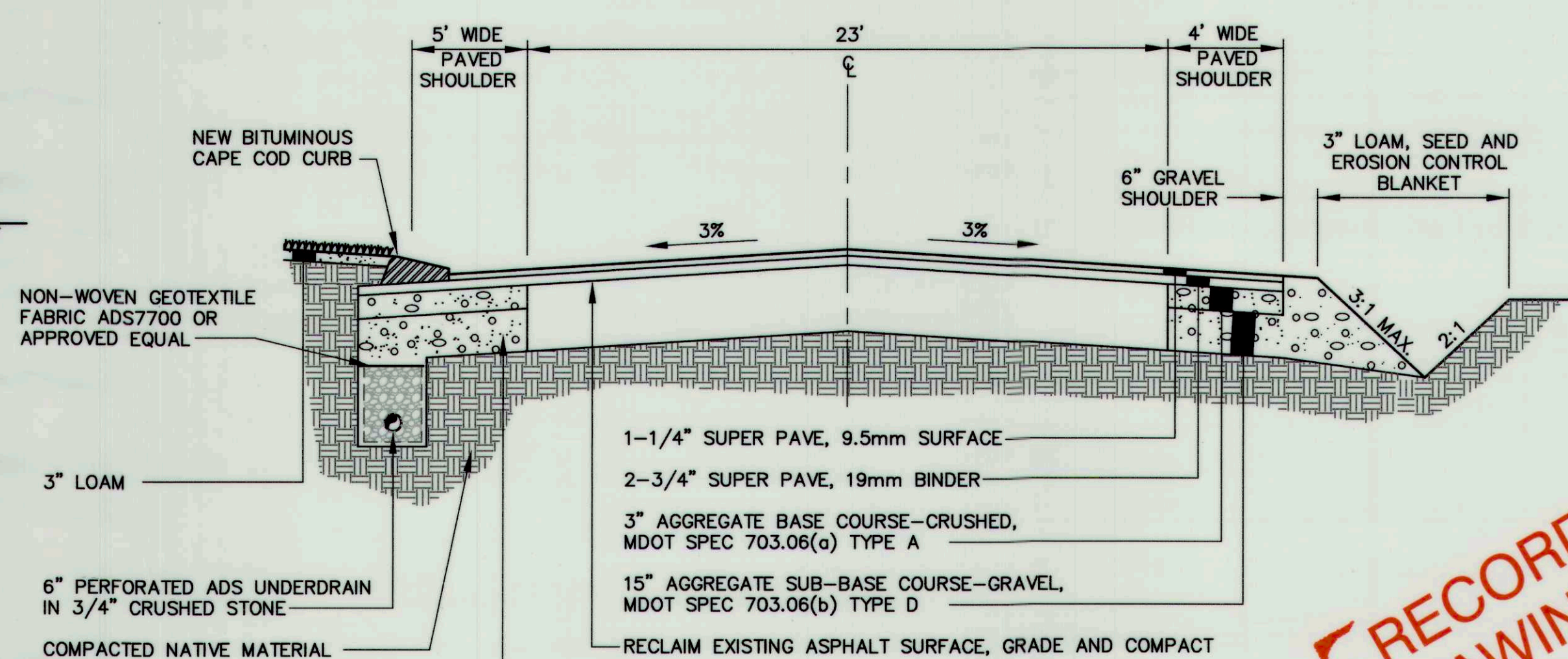
TYPICAL CROSS-SECTION STA 37+00 TO STA 38+25
NOT TO SCALE



TYPICAL CROSS-SECTION STA 3+00 TO STA 4+00
NOT TO SCALE



TYPICAL CROSS-SECTION STA 22+90 TO STA 26+00
TYPICAL CROSS-SECTION STA 28+00 TO STA 33+92
TYPICAL CROSS-SECTION STA 41+00 TO STA 45+25
NOT TO SCALE



TYPICAL CROSS-SECTION STA 45+25 TO STA 46+50
NOT TO SCALE

UNDERDRAIN NOTES

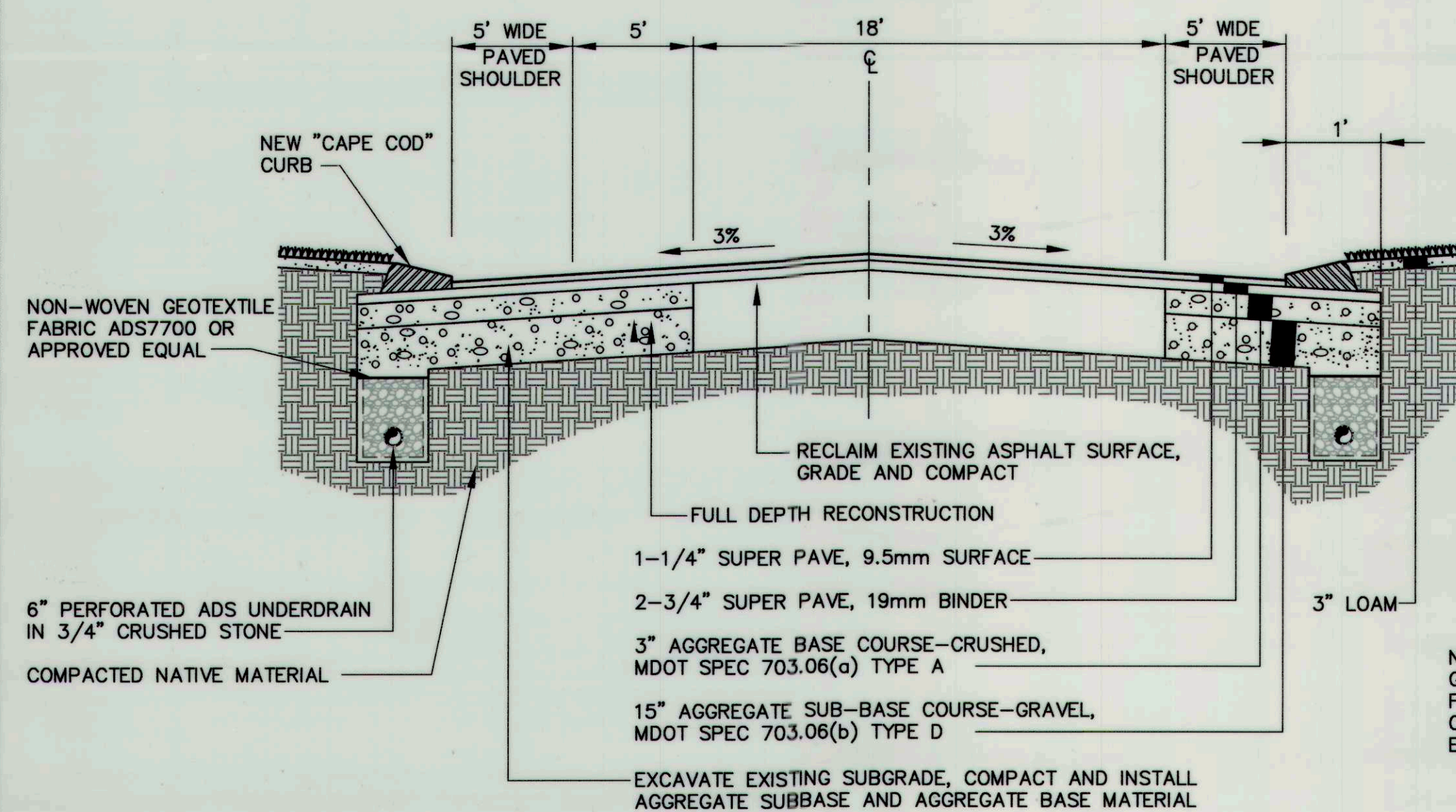
1. TYPICAL SECTIONS DO NOT SHOW TYPE "C" UNDERDRAIN. THE CONTRACTOR SHALL REFER TO THE PLAN/PROFILE SHEETS. IN AREAS THAT HAVE TYPE "C" UNDERDRAIN TYPE "B" UNDERDRAIN SHALL NOT BE INSTALLED.

R	SSJ	11-29-06	ISSUED FOR: RECORD DRAWINGS	1001-01_R_C108
C	SSJ	11-11-05	ISSUED FOR: BIDDING	1001-01_c_C108
REV.	BY	DATE	STATUS	CAD NO.

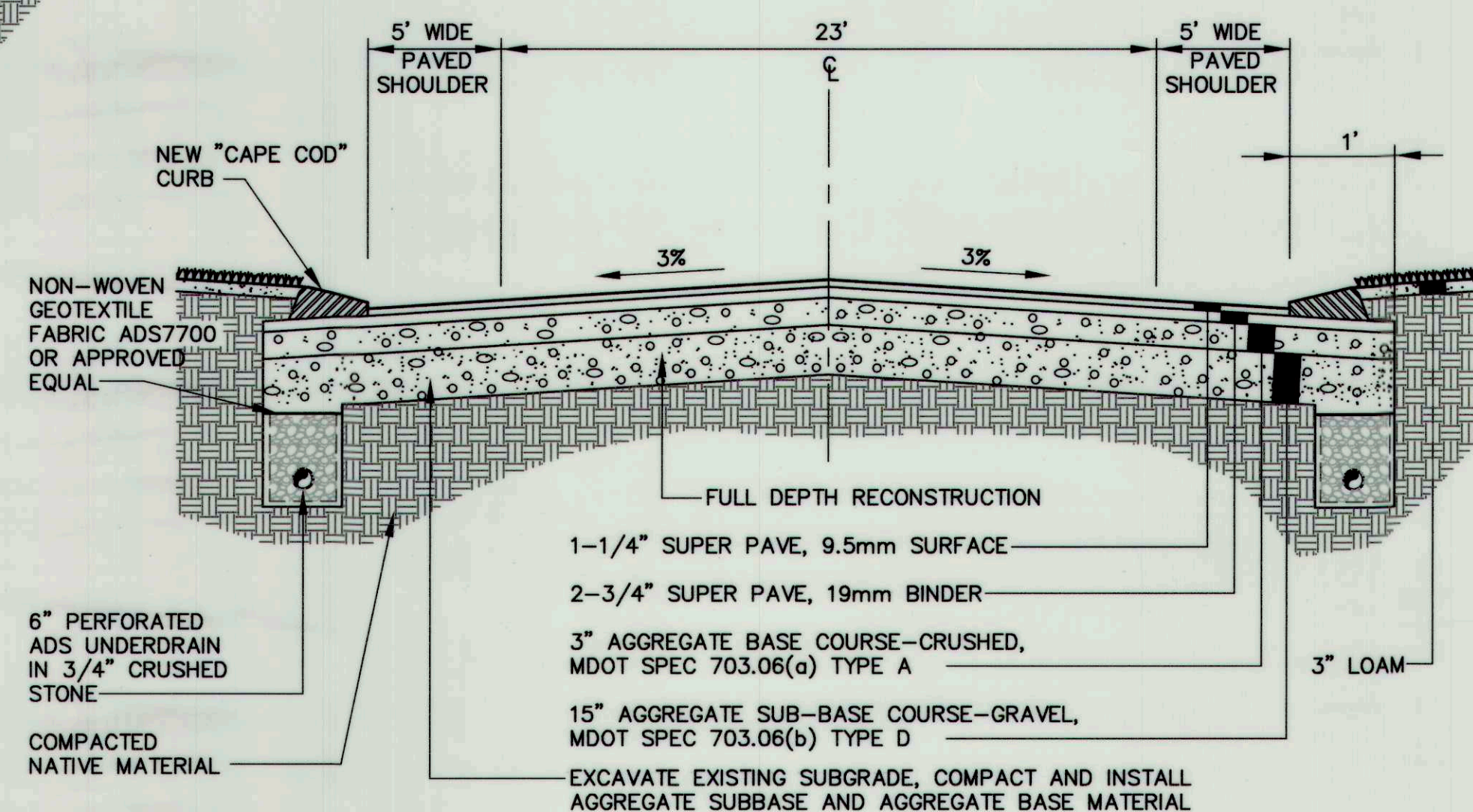
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<div> <div> <div>STATE OF MAINE</div> <div>STEVEN S. JOHNSON</div> <div>#8214</div> <div>REGISTERED PROFESSIONAL ENGINEER</div> </div> <div>11-20-06</div> </div>		<div>TOWN OF CUMBERLAND</div> <div>SKILLIN ROAD RECONSTRUCTION</div>	
<div> <div>Aquarian Engineering Services</div> <div>222 St. John Street, Suite 314</div> <div>Portland, ME 04102</div> <div>www.aquarianeng.com</div> </div>		<div>TYPICAL CROSS SECTIONS</div>	
DESIGN BY:	SSJ	DRAWN BY:	JAR
CHECKED BY:	SJB	DATE:	08-23-05
JOB NO.:	1001-01	SCALE:	AS NOTED
C-108		SHEET	10 OF 14

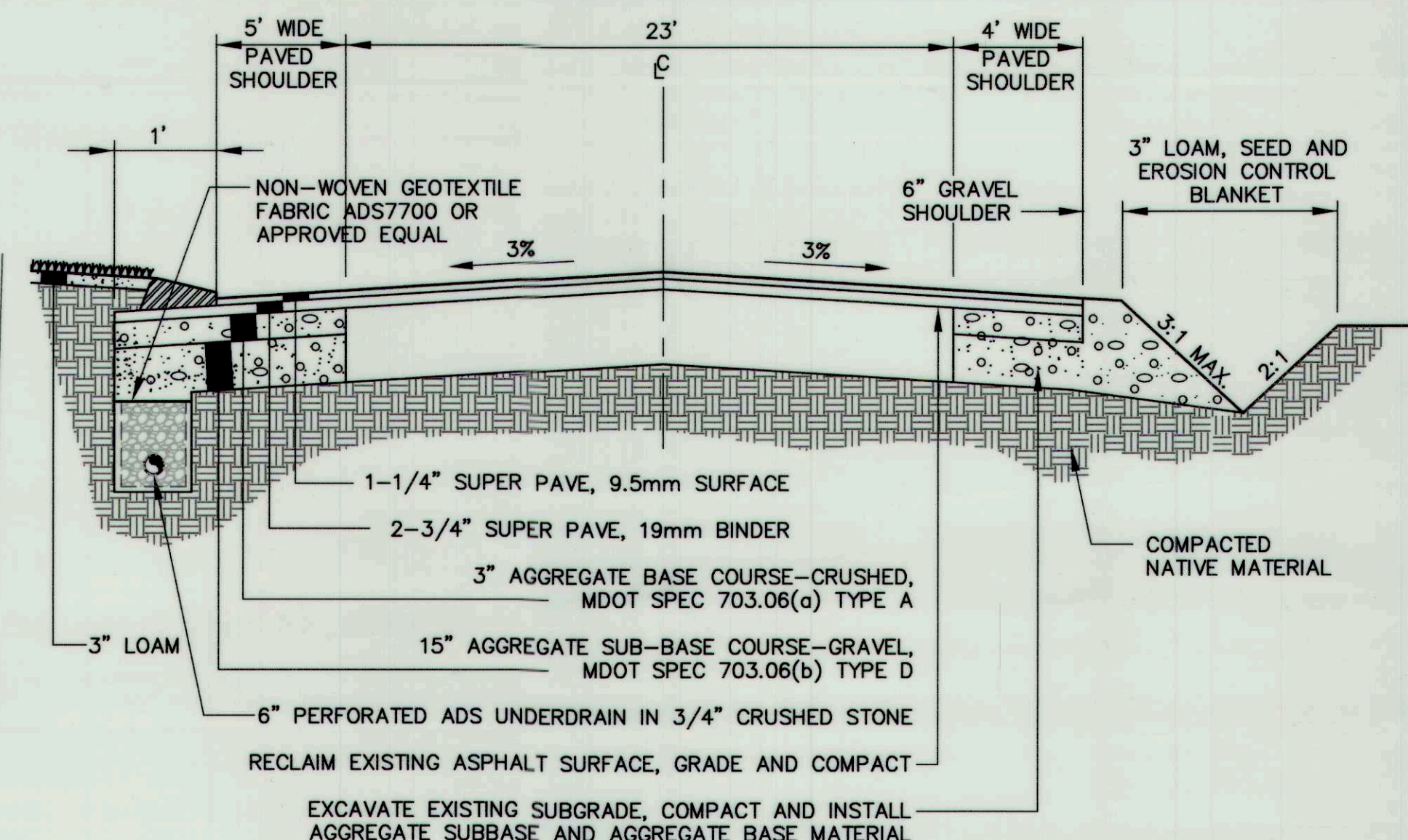
RECORD DRAWINGS



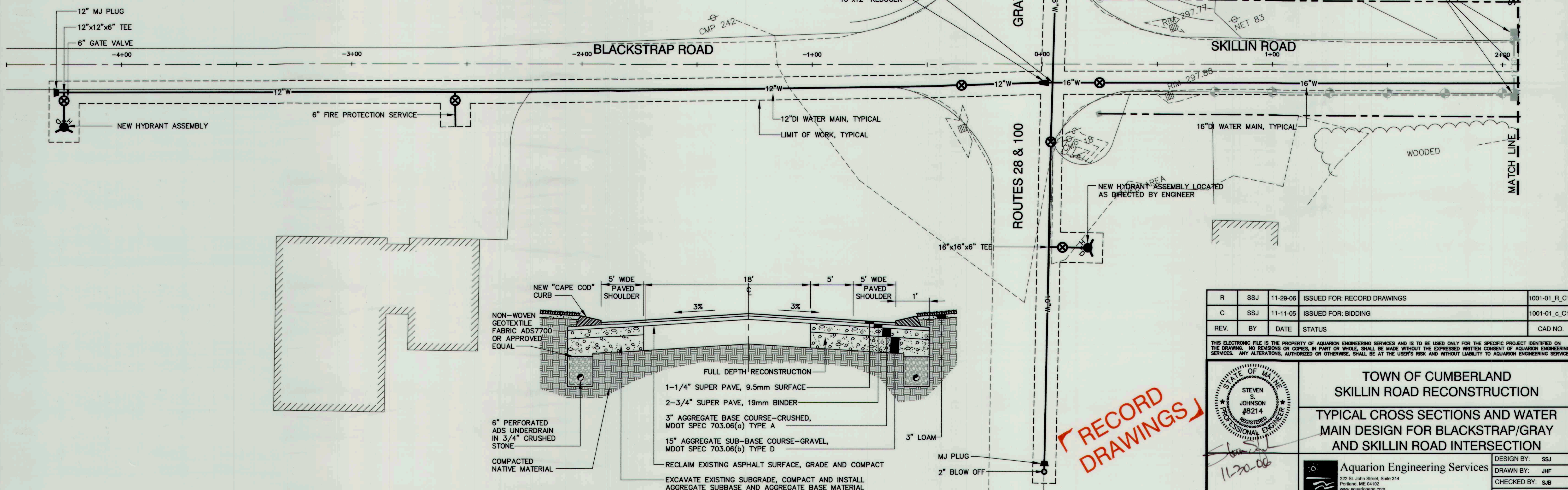
TYPICAL CROSS-SECTION STA 11+00 TO STA 14+00
NOT TO SCALE



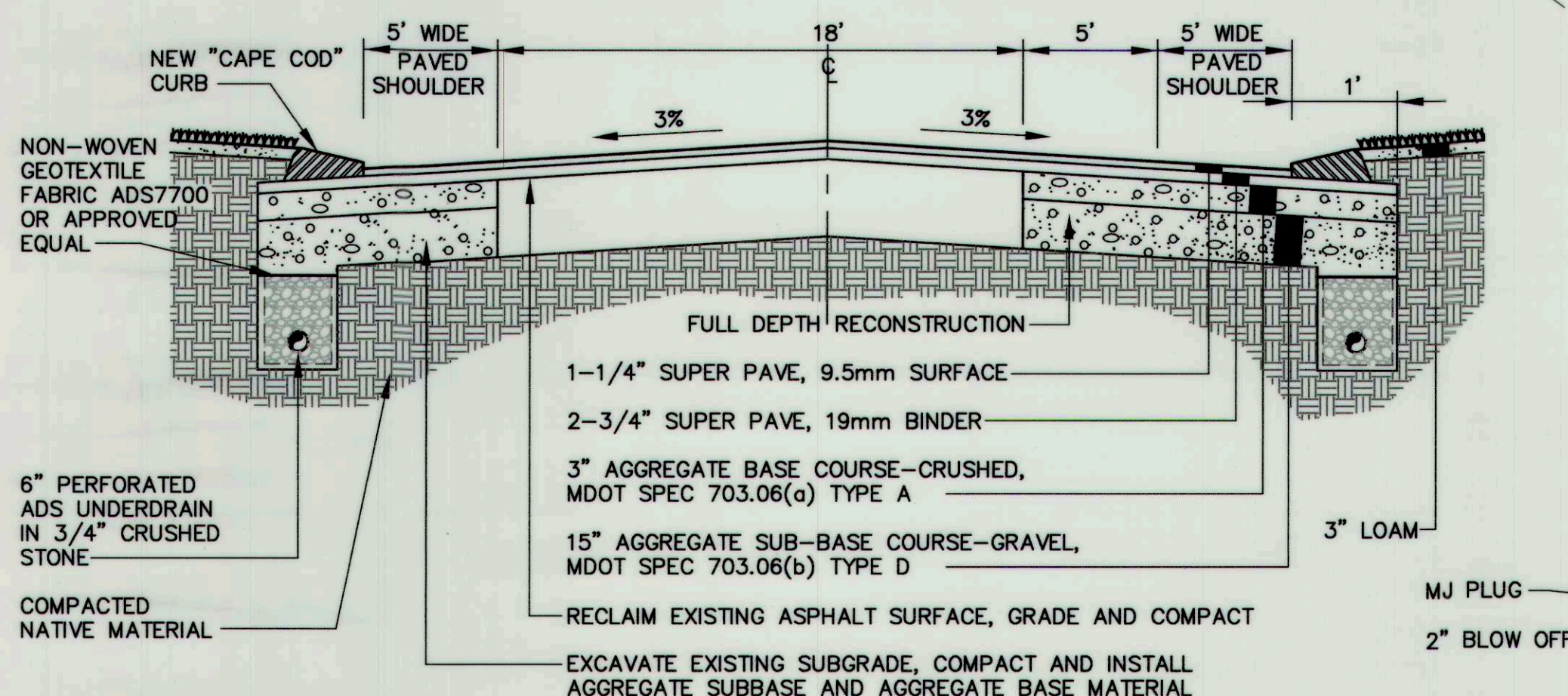
TYPICAL CROSS-SECTION STA 14+00 TO STA 16+00
NOT TO SCALE



TYPICAL CROSS-SECTION STA 33+92 TO STA 36+75
NOT TO SCALE



WATER MAIN PLAN STA -4+50 TO STA 2+07
SCALE: 1" = 20'



TYPICAL CROSS-SECTION STA 16+00 TO STA 19+00
NOT TO SCALE

**RECORD
DRAWINGS**

R	SSJ	11-29-06	ISSUED FOR: RECORD DRAWINGS	1001-01_R_C109
C	SSJ	11-11-05	ISSUED FOR: BIDDING	1001-01_c_C109
REV.	BY	DATE	STATUS	CAD NO.

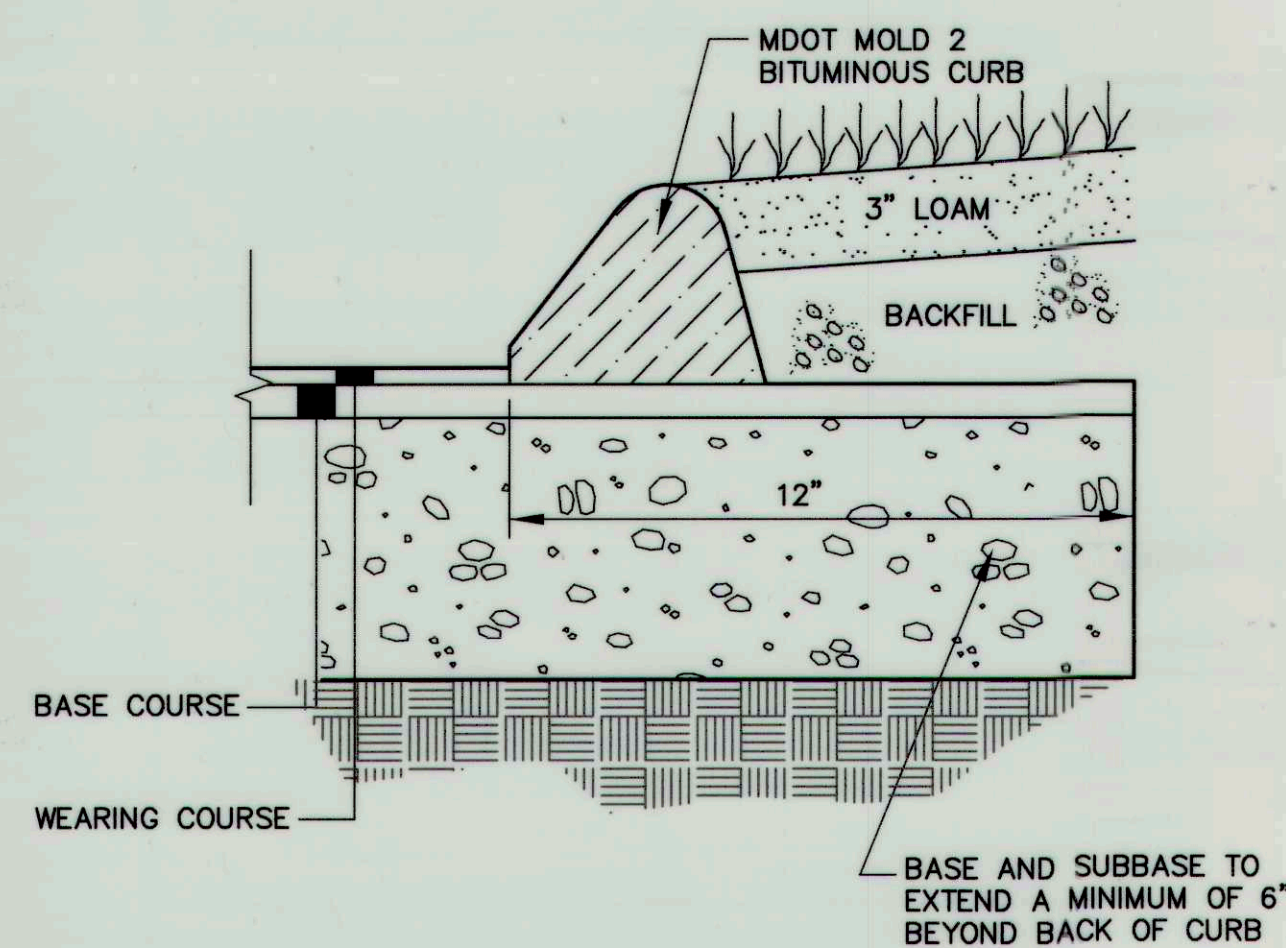
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TOWN OF CUMBERLAND
SKILLIN ROAD RECONSTRUCTION

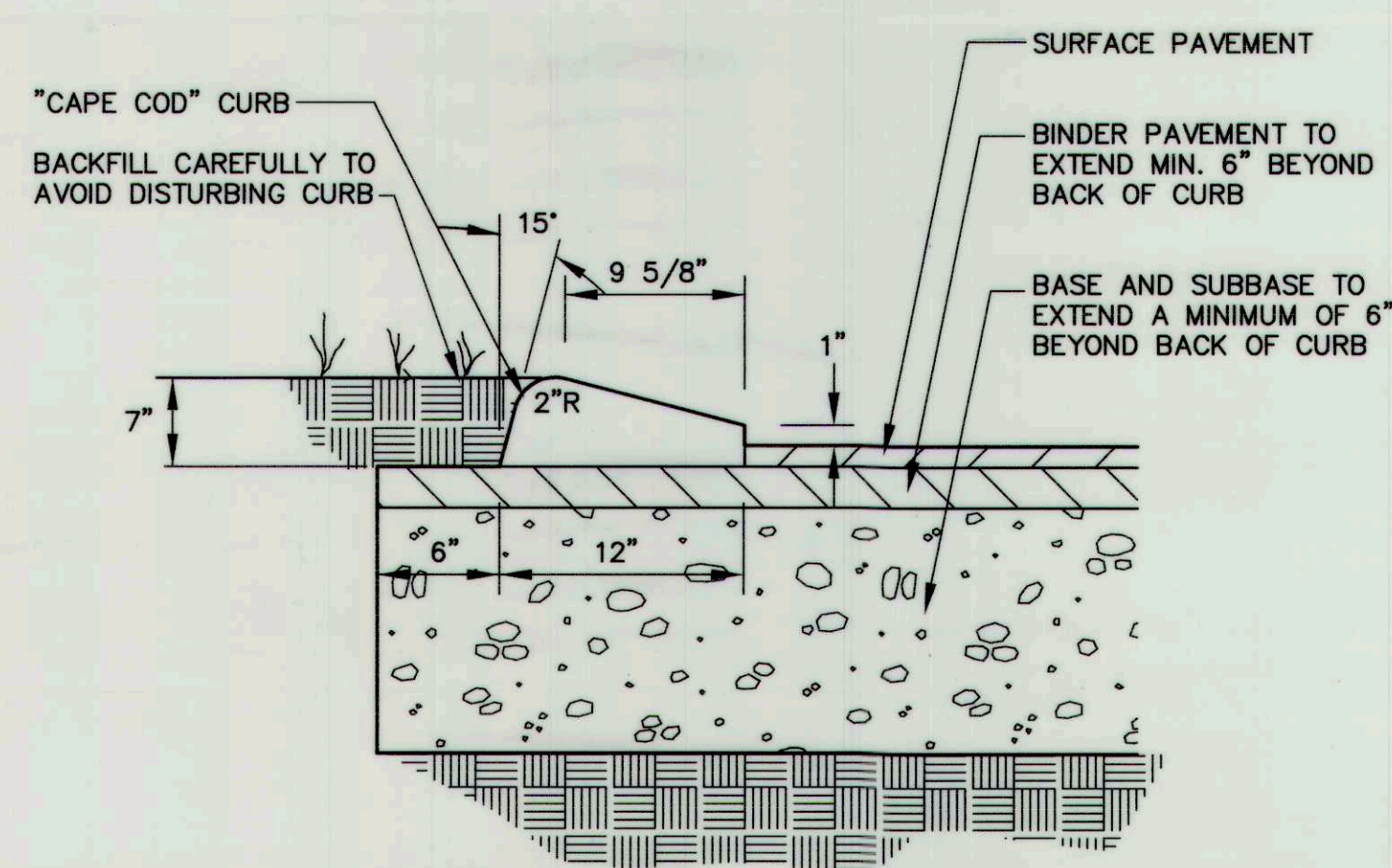
TYPICAL CROSS SECTIONS AND WATER MAIN DESIGN FOR BLACKSTRAP/GRAY AND SKILLIN ROAD INTERSECTION

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222 St. John Street, Suite 314
Portland, ME 04102
www.aquariumeng.com

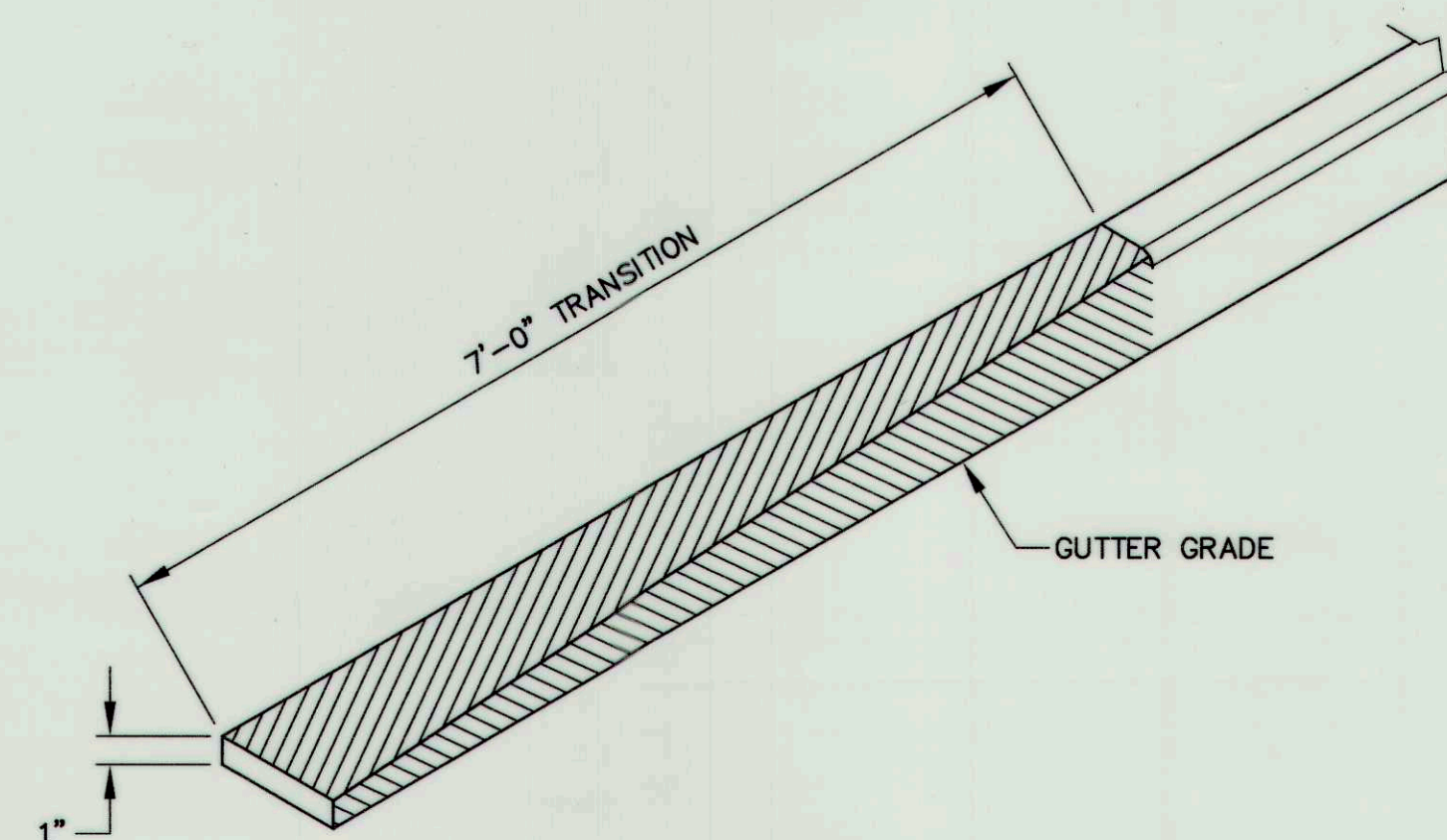
DESIGN BY: SSJ
DRAWN BY: JHF
CHECKED BY: SJR
DATE: 08-23-05
JOB NO: 1001-01
SCALE: AS NOTED
C-109
SHEET 11 OF 14



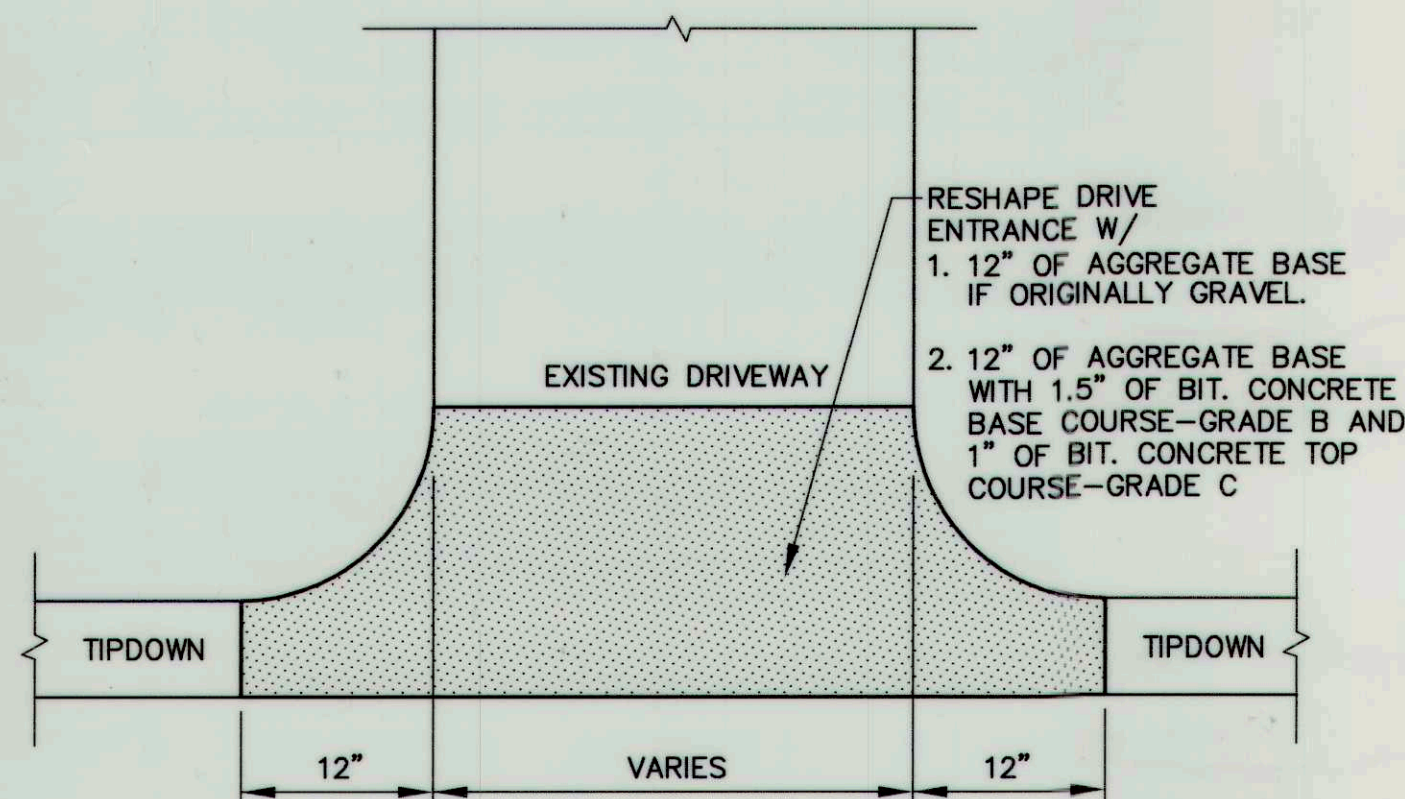
TYPE 3 BITUMINOUS CURBING-MOLD 2
NOT TO SCALE



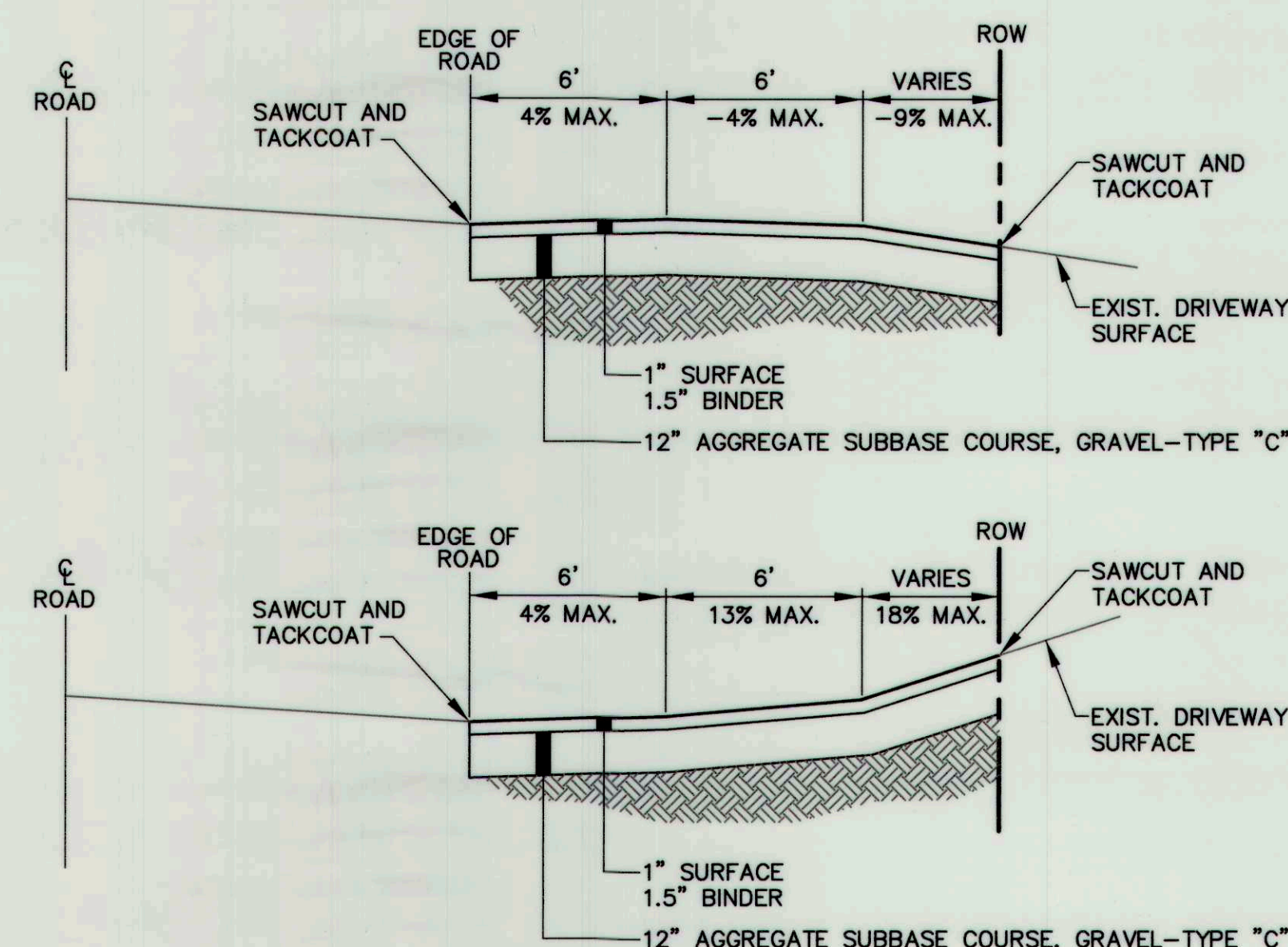
TYPE 3 BITUMINOUS CURBING-CAPE COD STYLE
NOT TO SCALE



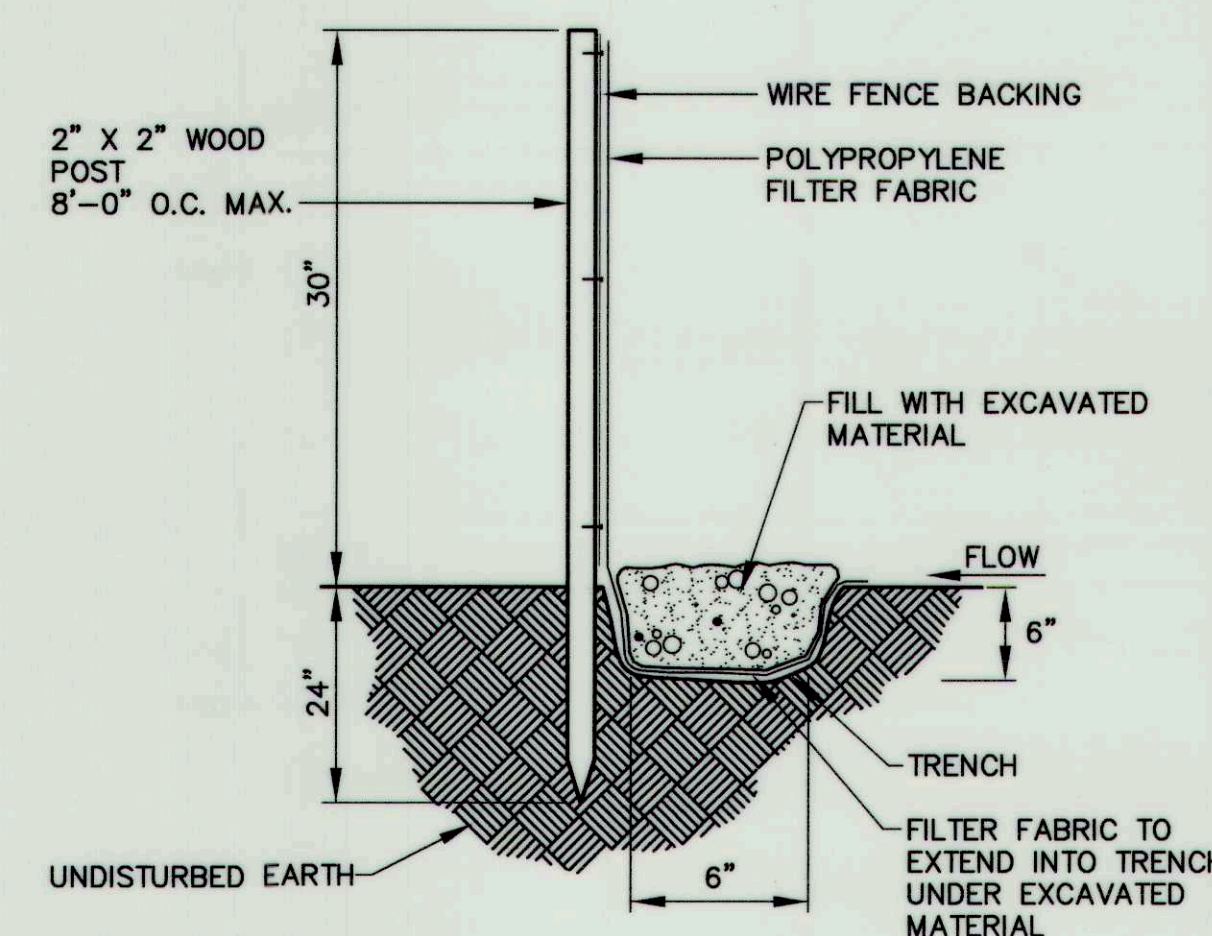
BITUMINOUS TRANSITION CURB
NOT TO SCALE



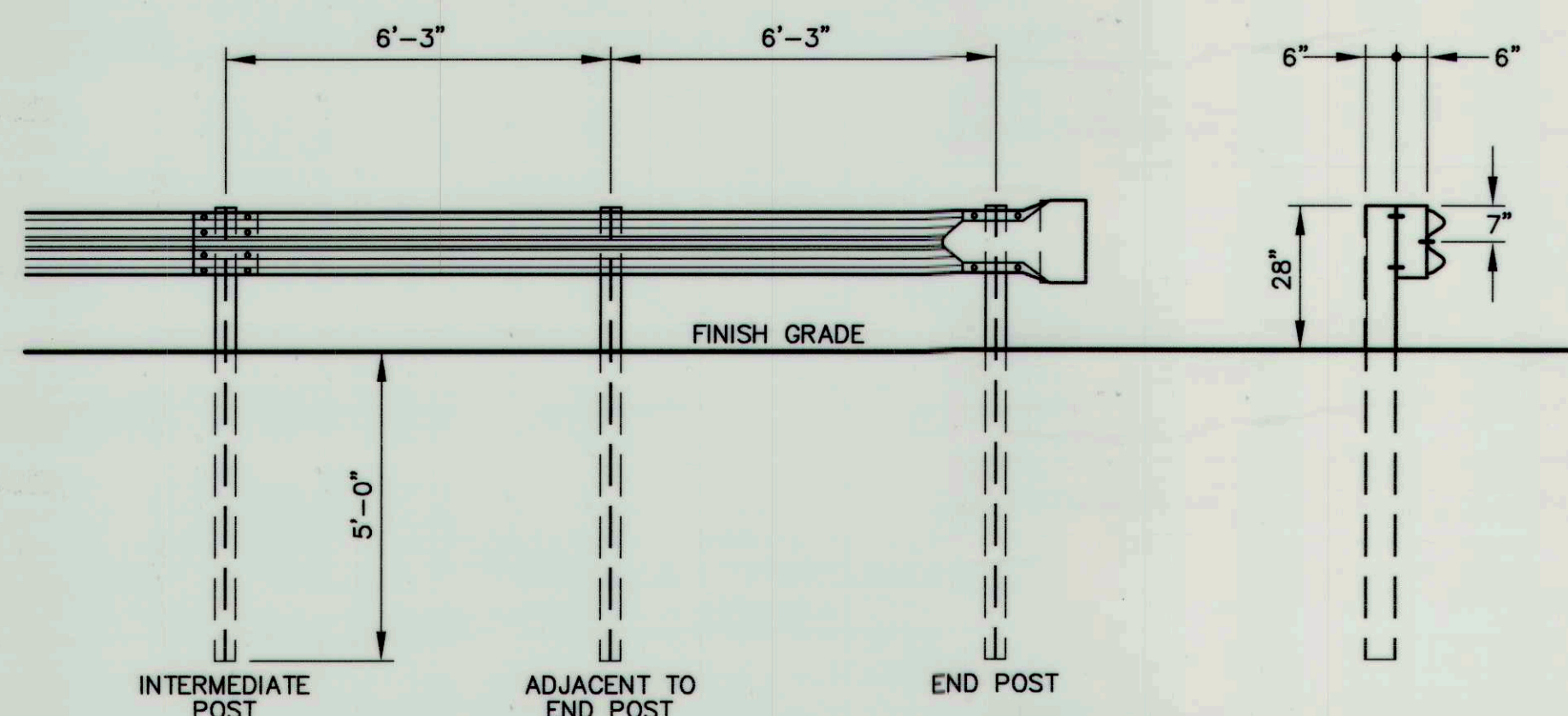
TYPICAL DRIVEWAY (NEW/REPLACEMENT)
NOT TO SCALE



DRIVEWAY APRON DETAIL
NOT TO SCALE

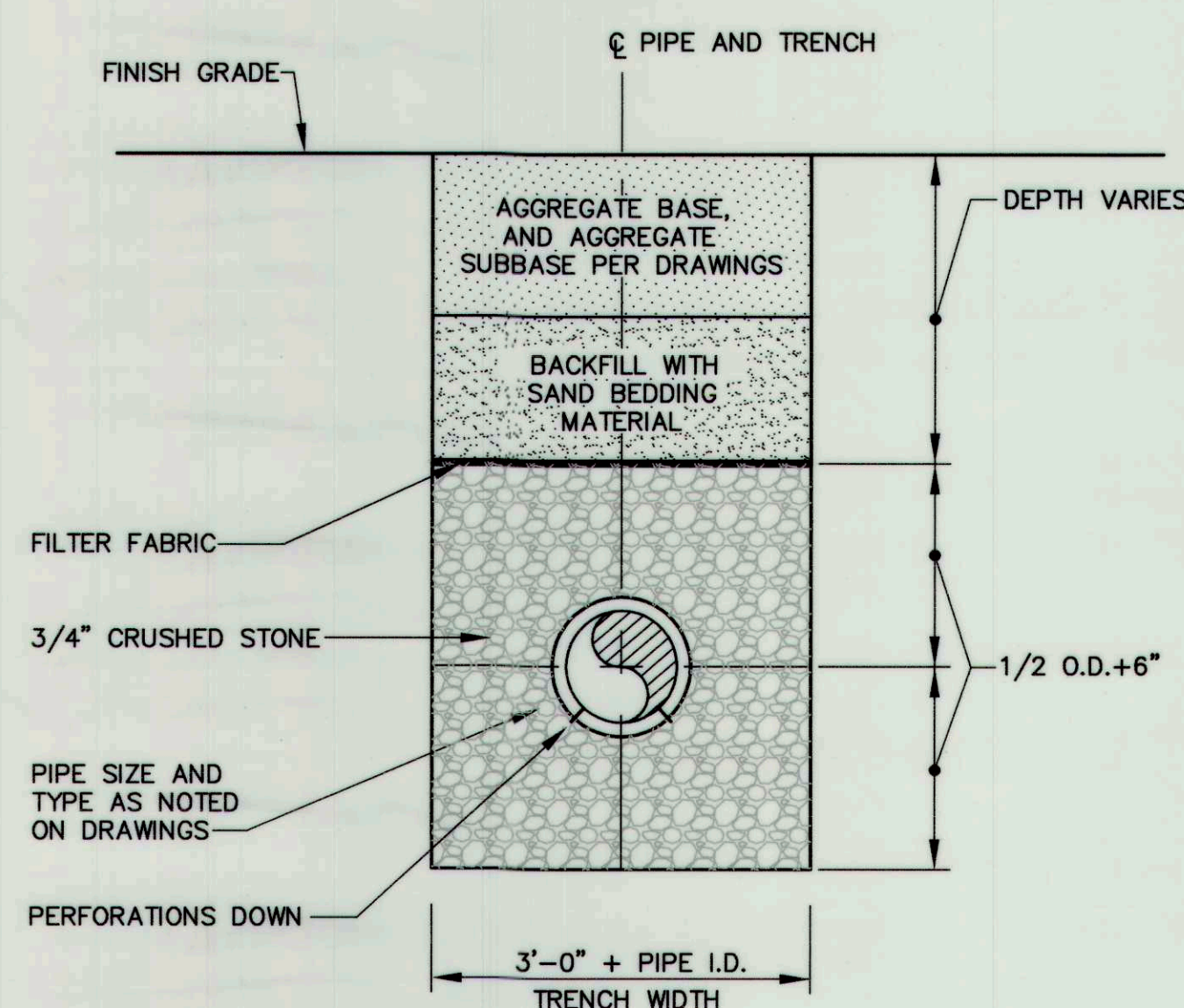


EROSION CONTROL FENCE DETAIL
NOT TO SCALE

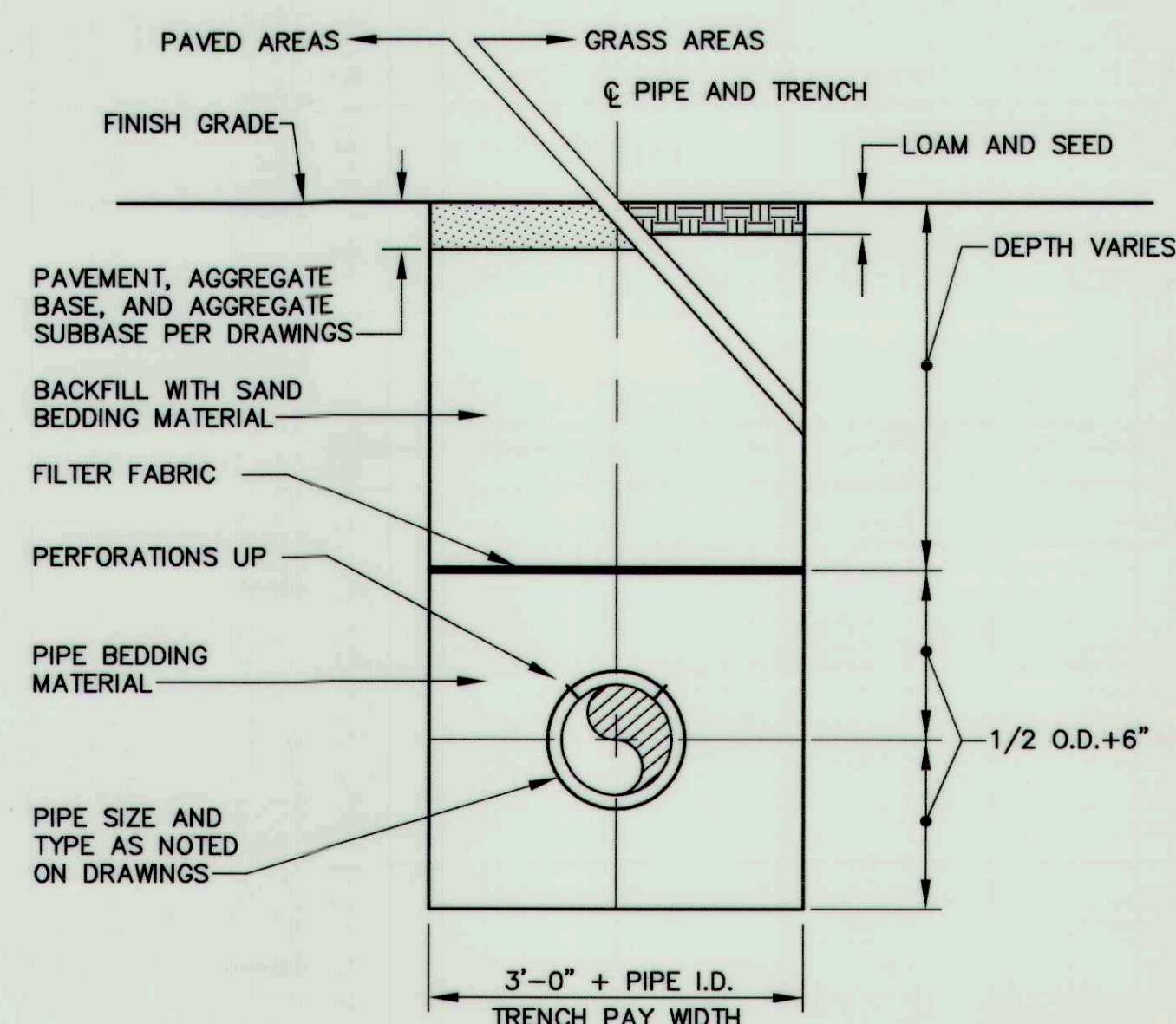


- NOTES:**
- INTERMEDIATE POST SPACING SHALL BE 6'-3" UNLESS OTHERWISE SHOWN.
 - STEEL POST AND OFFSET BRACKETS FOR GUARD RAIL SHALL BE W6x8.5 OR W6x9.
 - "W" BEAM BACK UP PLATES SHALL BE PLACED BEHIND RAIL ELEMENTS AT INTERMEDIATE STEEL POSTS (NON SPLICE POSTS).
 - OFFSET BRACKET SHALL BE INSTALLED ON ALL POSTS.
 - GUARD RAIL - BREAKAWAY CABLE TERMINAL END (BCT) TO BE USED ON ALL ENDS, AS PER THE LATEST MDOT STANDARDS.
 - GUARD RAIL SHALL HAVE DOUBLE-SIDED REFLECTIVE DELINEATORS AT EVERY FIFTH POST OF ALL GUARD RAIL SECTIONS AS PER MDOT STANDARDS.
 - GUARD RAIL SHALL INCLUDE INITIAL RED AND GREEN DELINEATOR POSTS AT GUARD RAIL BEGINNING AND ENDING POINTS AS PER MDOT STANDARDS.

GUARD RAIL DETAIL
NOT TO SCALE



TYPICAL UNDERDRAIN TRENCH DETAIL
NOT TO SCALE
MDOT TYPE "B" UNDERDRAIN



TYPICAL TRENCH DETAIL
NOT TO SCALE
MDOT TYPE "C" UNDERDRAIN

EROSION CONTROL NOTES

- APPLICATION OF TEMPORARY AND PERMANENT EROSION CONTROL MEASURES FOR THE PROJECT SHALL BE IN ACCORDANCE WITH SPECIAL PROVISIONS SECTION 656 TEMPORARY SOIL EROSION AND WATER POLLUTION CONTROL.
- SILTATION FENCE SHALL BE INSTALLED BEFORE GRUBBING OR EARTH MOVING OPERATIONS.
- PERMANENT SEEDING SHALL BE APPLIED WITHIN 15 DAYS OF FINAL GRADING FROM APRIL 15 TO SEPTEMBER 1.
- PERMANENT SEEDING SHALL BE AS NOTED IN THE SPECIFICATIONS.
- TEMPORARY SEEDING SHALL BE APPLIED AS NOTED IN THE SPECIFICATIONS.
- FERTILIZER SHALL BE 10-20-20 GRANULAR GARDEN FERTILIZER AND APPLIED AT 18.4 LBS/1,000 S.F.
- LIMESTONE SHALL BE GROUND WITH 50% CALCIUM PLUS MAGNESIUM OXIDE AND APPLIED AT 138 LBS/1,000 S.F.
- MULCH SHALL BE HAY OR STRAW APPLIED AT 70-90 LBS/1,000 S.F.
- WINTER MULCH SHALL BE APPLIED BETWEEN OCTOBER 1 AND APRIL 1 AND SHALL BE HAY OR STRAW APPLIED AT 300 LBS/1,000 S.F.
- ALL EROSION CONTROL MEASURES, SEEDING AND MULCHING SHALL BE INSPECTED WEEKLY, AFTER RAINSTORMS AND DURING RUNOFF EVENTS. ALL MEASURES SHALL BE REPAIRED OR REPLACED WHEN NO LONGER SERVICEABLE DUE TO SEDIMENT ACCUMULATION OR DAMAGE.
- SEEDING AND MULCHING SHALL BE MAINTAINED UNTIL FINAL ACCEPTANCE OF THE WORK. SEED CATCH SHALL BE ACCEPTABLE WHEN 75 PERCENT CATCH IS ESTABLISHED. MAINTENANCE SHALL CONSIST OF PROVIDING PROTECTION AGAINST TRAFFIC AND REPAIRING ANY AREAS TO RE-ESTABLISHED THE CONDITION AND GRADE OF THE SOIL PRIOR TO SEEDING AND SHALL THEN BE REFERTILIZED, RESEEDING AND REMULCHED.
- TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED UPON COMPLETION OF GRADING OPERATIONS AND ESTABLISHMENT OF A 75 PERCENT CATCH OF GRASS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING EROSION CONTROL MEASURES DURING CONSTRUCTION.
- EROSION CONTROL INSPECTION SHALL BE PERFORMED BY:
AQUARIUM ENGINEERING SERVICES CO.
STEVEN S. JOHNSON, P.E.
222 ST. JOHN STREET SUITE 314
(207) 828-1272
- EROSION CONTROL AND CONSTRUCTION SEQUENCE:
a) INSTALL ALL TEMPORARY EROSION CONTROL IN ACCORDANCE WITH THE THE DETAILS AND BMP'S IN THE SPECIAL PROVISIONS.
b) IMMEDIATELY UPON INSTALLATION OF CULVERTS, CONSTRUCT RIPRAP INLET AND OUTLET PROTECTION AND LEVEL LIP SPREADERS.
c) REMOVE TEMPORARY EROSION CONTROL MEASURES ONCE IMPROVEMENTS ARE COMPLETE AND THERE IS 75% CATCH OF GRASS.
d) INSTALL PERMANENT EROSION CONTROL MEASURES.

RECORD DRAWINGS

R	SSJ	11-29-06	ISSUED FOR: RECORD DRAWINGS	1001-01_R_C110
C	SSJ	11-11-05	ISSUED FOR: BIDDING	1001-01_c_C110
REV.	BY	DATE	STATUS	CAD NO.

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	TOWN OF CUMBERLAND	
	SKILLIN ROAD RECONSTRUCTION	
	CONSTRUCTION DETAILS	
DESIGN BY: SSJ	DRAWN BY: JAR	CHECKED BY: SJB
DATE: 08-23-05	JOB NO: 1001-01	SCALE: AS NOTED
C-110	SHEET 12	OF 14

LEVEL BOTTOM OF TRENCH WITH
6" OF 3/4" CRUSHED STONE

2" RIGID BLUE BOARD INSULATION

SPRING LINE

A diagram showing a yin-yang symbol (a circle divided vertically, with the left half black and the right half white) resting on a layer of small, irregular stones. The stones are contained within a rectangular frame. A line points from the text 'yin-yang symbol' to the symbol.

-
- A cross-sectional diagram of a trench. The trench is rectangular, with a bottom layer of hatched material (likely compacted gravel or subgrade) and a top layer of a material with a circular pattern (likely crushed gravel or pavement). A line labeled 'FILTER FABRIC' points to the top surface of the circular-patterned layer. The trench is surrounded by a material with a diagonal hatched pattern.
- CRUSHED GRAVEL OR PAVEMENT
- AFTER FABRIC IS DOWN, PLACE MDOT TYPE "C" GRAVEL IN TRENCH (3" CRUSHED GRAVEL IS ACCEPTABLE). INSTALL PAVEMENT OR CRUSHED GRAVEL 3" FROM TOP OF DRIVEWAY
- FILTER FABRIC

-
- Diagram illustrating the cross-section of a roadway cross culvert, showing the following components and materials:
- CLAY OR CONCRETE CHECK DAM**: A sloped structure on the left side of the culvert.
 - PIPE**: The main culvert structure.
 - 2" BLUE BOARD RIGID INSULATION SHALL BE INSTALLED THE WIDTH OF ALL DRIVEWAYS AND ROADWAY CROSS CULVERTS LOCATED WITHIN THE TOWN RIGHT OF WAY**: Insulation layer beneath the pipe.
 - 3' - 6' PER ENGINEER**: Dimension indicating the length of the riprap section.
 - RIPRAP TYPICAL 8" CRUSHED OR BLASTED ROCK**: The material filling the culvert bed and sides.
 - DITCH LINE**: The boundary of the ditch on the right side.
 - FILTER FABRIC—SYNTHETIC INDUSTRIES 200 ST OR APPROVED EQUAL**: A layer beneath the riprap on the right side.

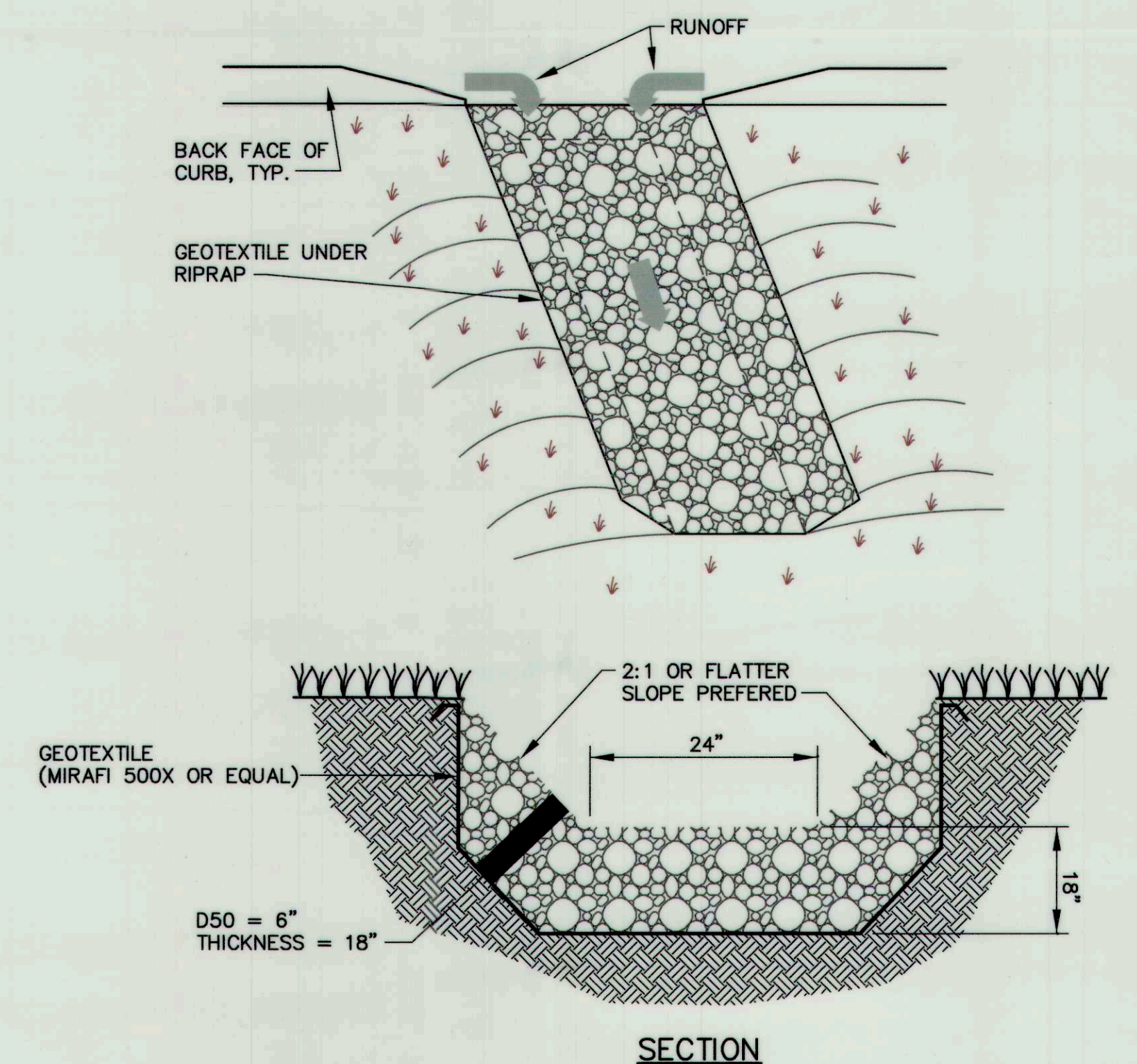
-
- CATCH BASIN FRAME AND GRATED COVER. "CASCADE TYPE" GRATE PER MDOT STANDARD
 GROUT
 ADJUST TO GRADE WITH 2 (MIN.) TO 5 BRICK COURSES
 ECCENTRIC CONE SECTION. CONE SECTION MUST HAVE A VERTICAL EXTERIOR SURFACE
 FLEXIBLE JOINT SEALANT TO FILL AT LEAST 75% OF JOINT CAVITY
 PRECAST BARREL SECTION
 WALL THICKNESS (AS SPECIFIED)
 MONOLITHIC CATCH BASIN BASE
 BEDDING MATERIAL PER ADJOINING PIPE
 UNDISTURBED EARTH
 FLOOR THICKNESS (AS SPECIFIED)
 BEDDING MATERIAL PER ADJOINING PIPE
 MONOLITHIC CATCH BASIN BASE
 WALL THICKNESS (AS SPECIFIED)
 PRECAST BARREL SECTION
 FLEXIBLE JOINT SEALANT TO FILL AT LEAST 75% OF JOINT CAVITY
 ECCENTRIC CONE SECTION. CONE SECTION MUST HAVE A VERTICAL EXTERIOR SURFACE
 ADJUST TO GRADE WITH 2 (MIN.) TO 5 BRICK COURSES
 GROUT
 CATCH BASIN FRAME AND GRATED COVER. "CASCADE TYPE" GRATE PER MDOT STANDARD
 DRAINAGE
 2'-0" SUMP UNLESS NOTED OTHERWISE ON DRAWINGS
 DIAMETER AS SPECIFIED
 PIPE STUB
 MAX. LENGTH 2'-0"
 FLEXIBLE CATCH BASIN CONNECTION WITH STAINLESS STEEL BAND

I.D.	WALL WIDTH	FLOOR THICKNESS
4'-0"	5"	6"
5'-0"	6"	6"
6'-0"	7"	6"
8'-0"	8"	8"
10'-0"	10"	9"

A cross-sectional diagram of a sag vertical curve. The road surface is shown as a dashed line sloping down from the left and up to the right. A horizontal line at the top represents the 'RETAIN NORMAL CURB GRADE'. Below this, a solid line represents the 'HOT BITUMINOUS PAVEMENT SHIM INCIDENTAL TO CURB'. The 'FACE OF CURB' is indicated at the top of the road. The 'NORMAL GUTTER GRADE' is shown as a horizontal line below the road surface. A 'GUTTER' is shown on the right side of the road. A 'CATCH BASIN' is shown at the bottom of the road, with a width of '10'-0" (FOR SAG)'. The distance from the left side of the catch basin to the right side is '10'-0"'. The diagram is labeled with 'FLOW' on both sides, indicating traffic direction.


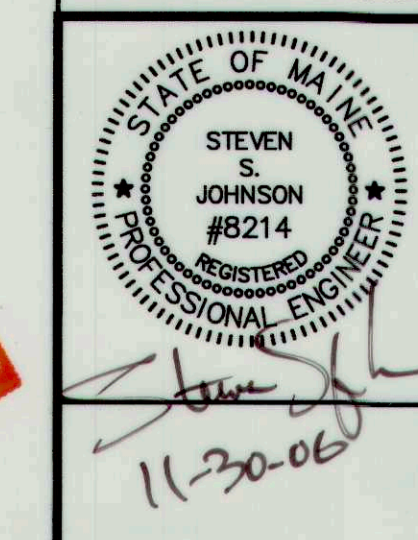
A cross-sectional diagram of a catch basin installation. The diagram shows a concrete catch basin with a sloped roof. A hot bituminous pavement shim is applied to the top of the catch basin walls, extending to the curb. The shim is labeled "HOT BITUMINOUS PAVEMENT SHIM INCIDENTAL TO CURB". The curb is labeled "FACE OF CURB". The normal gutter grade is shown as a dashed line, and the retain normal curb grade is shown as a solid line. The gutter is labeled "GUTTER". The catch basin is labeled "CATCH BASIN". The distance from the normal gutter grade to the face of the curb is labeled "10'-0\"". The distance from the face of the curb to the gutter is labeled "5'-0\"". The flow direction is indicated by an arrow labeled "FLOW".

GUTTER GRADE TRANSITION AT CATCH BASIN
NOT TO SCALE



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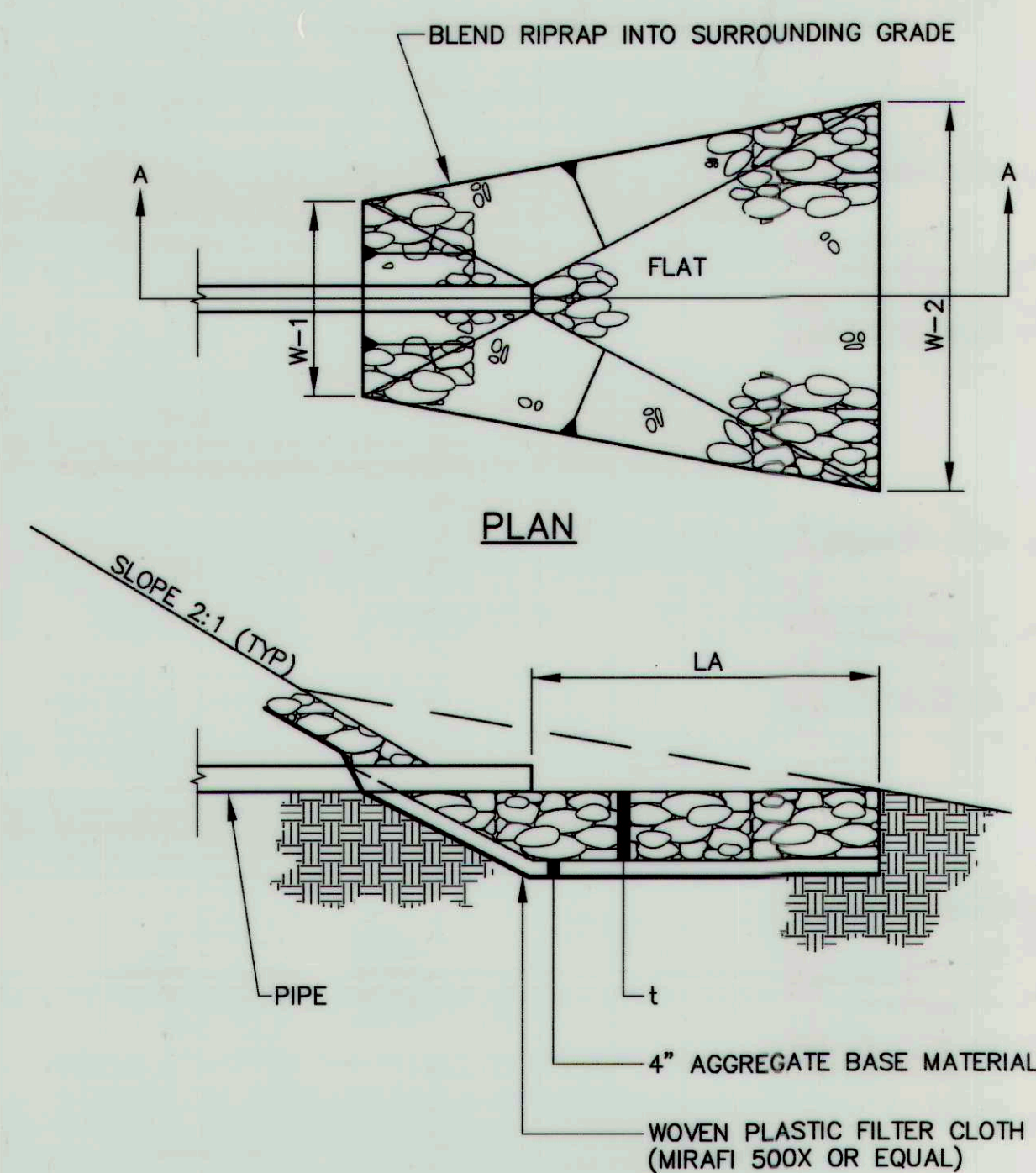
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222 St. John Street, Suite 314
Portland, ME 04102
www.aquarioneng.com

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CHECKED BY:	SJB
DATE:	08-23-05
DOB NO:	1001-01
SCALE:	AS NOTED
111 SHEET 13 OF 14	

RECORD
DRAWINGS



SECTION A-A

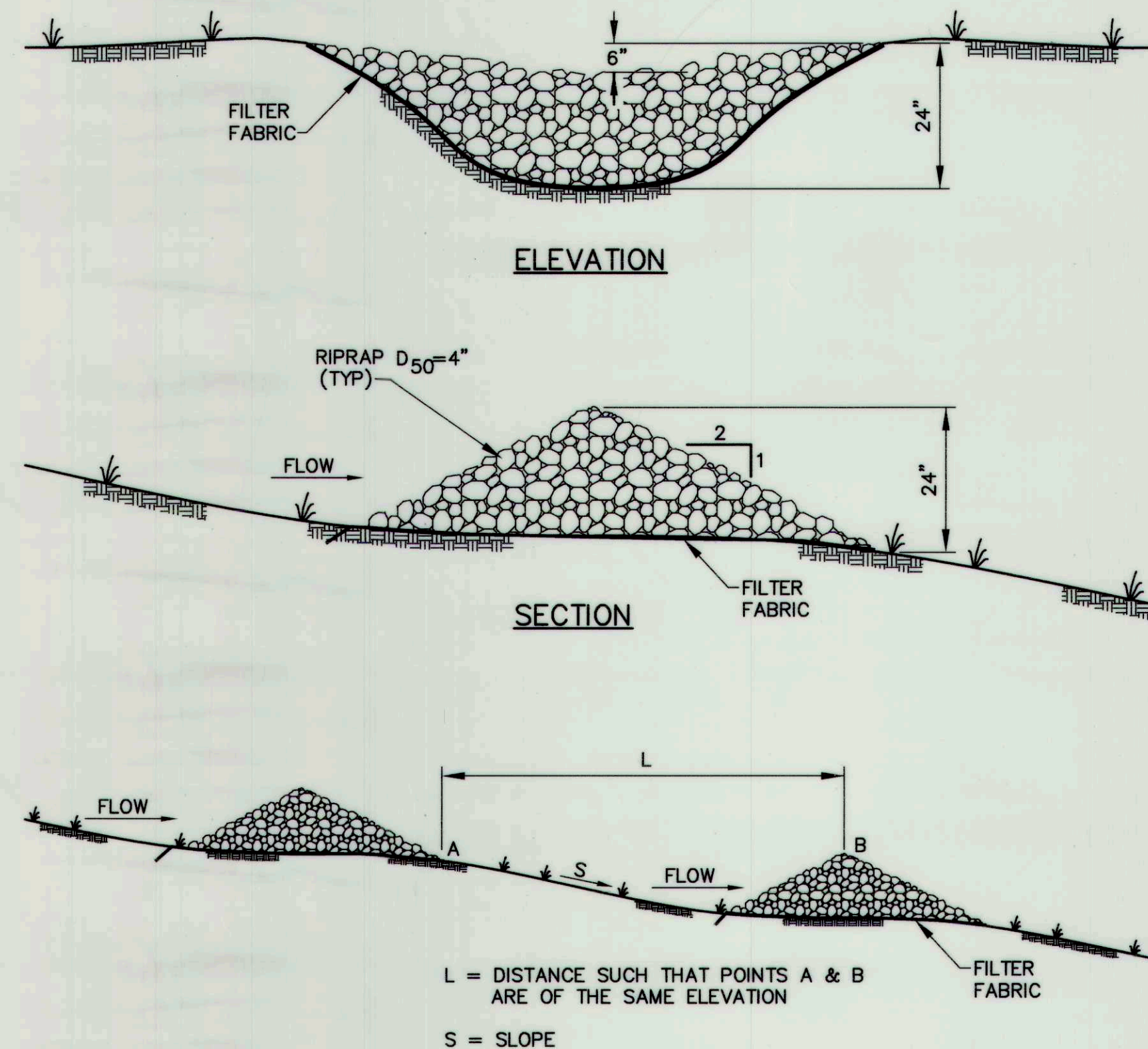
APRON SCHEDULE					
CULVERT	RIPRAP			RIPRAP	
	d50 SIZE (FT)	THICKNESS t (INCH)	LENGTH LA (FT) (MIN)	WIDTH W1 (FT)	WIDTH W2 (FT)
12" OR LESS	0.5'	15"	10'	3.0'	12'
15"	0.5'	15"	10'	3.75'	12'
18"	0.5'	15"	10'	4.5'	12'
24"	0.5'	15"	14'	6.0'	12'
30"	0.5'	15"	16'	7.5'	12'
36"	0.5'	18"	24'	9.0'	27'
42"	1.0'	24"	32'	10.5'	36'
48"	1.0'	24"	34'	12'	38'

RIPRAP APRON DETAIL
NOT TO SCALE

NOTE:

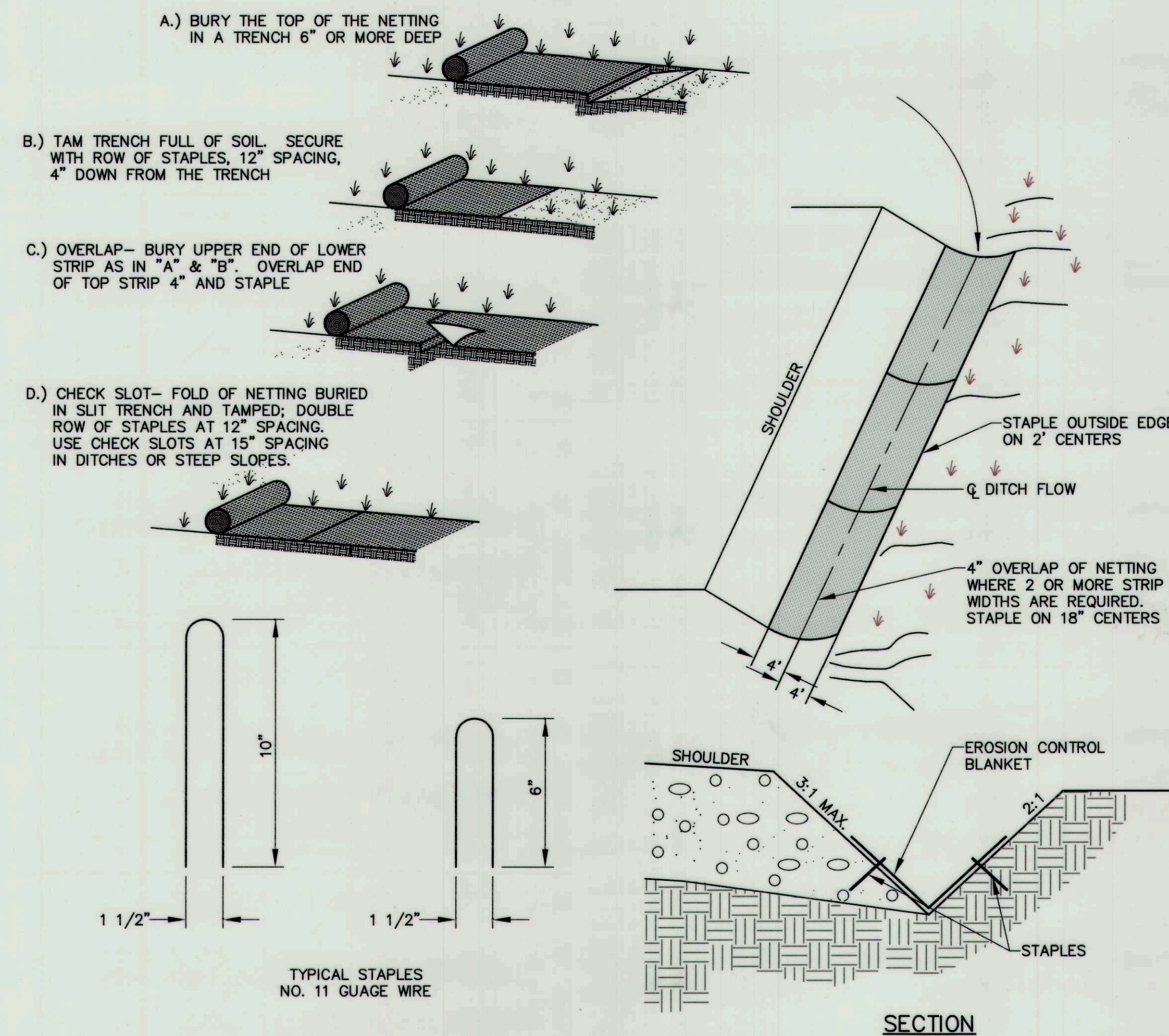
1. ALL STORM DRAIN SHALL BE PERFORATED ABOVE THE SPRINGLINE OF THE PIPE, EXCEPT WHERE NOTED.
2. DRIVEWAY CULVERTS SHALL NOT BE PERFORATED.
3. THE CONTRACTOR SHALL PROVIDE ALL TRAFFIC CONTROL PLANS IN CONFORMANCE WITH MUTCD AND MDOT REQUIREMENTS.
4. SEE BORING LOG IN SPECIFICATIONS.
5. RESEARCH OF HISTORICAL DATABASES PERFORMED BY MAINEDOT SUGGEST THAT THE SUBSURFACE ENVIRONMENT IN THE VICINITY OF 33 AND 37 SKILLIN ROAD HAS BEEN IMPACTED BY PETROLEUM CONSTITUENTS. A CONVERSATION WITH A MDEP OFFICIAL FAMILIAR WITH THE SITE AND DATA REVIEW SUGGEST THAT THE CONTAMINATION FLOWED AWAY FROM THE ROAD AND SHOULD NOT IMPACT ANY PROPOSED EXCAVATION PLANNED FOR THIS PROJECT. HOWEVER, IN LIGHT OF THE RESEARCH AND MDEP'S FINDINGS AT BOTH LOCATIONS, THE CONTRACTOR SHALL EMPLOY APPROPRIATE HEALTH AND SAFETY MEASURES TO PROTECT ITS WORKERS AGAINST HAZARDS ASSOCIATED WITH EXCAVATING AND WORKING NEAR PETROLEUM-IMPACTED SOILS. FURTHERMORE, THE CONTRACTOR SHALL REMAIN ALERT FOR ANY ADDITIONAL EVIDENCE OF CONTAMINATION. IF THE CONTRACTOR ENCOUNTERS EVIDENCE OF SOIL OR GROUNDWATER CONTAMINATION, THE CONTRACTOR SHALL SECURE THE EXCAVATION, STOP WORK IN THE CONTAMINATED AREA, AND IMMEDIATELY NOTIFY THE ENGINEER. THE ENGINEER SHALL CONTACT THE HYDROGEOLOGIST IN MDOT'S ENVIRONMENTAL OFFICE AT 207-624-3100 AND THE MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION AT 800-482-0777. WORK MAY ONLY CONTINUE WITH AUTHORIZATION FROM THE ENGINEER.

IT SHOULD BE NOTED THAT THE MAINEDOT WILL BE DOING WORK AT THE INTERSECTION OF SKILLIN ROAD/BLACKSTRAP ROAD/RT 100. THIS IS A SEPARATE PROJECT BEING UNDERTAKEN BY MAINEDOT TRAFFIC DIVISION. A SPECIAL PROVISION HAS BEEN PREPARED FOR THIS INTERSECTION AS PETROLEUM HAS IMPACTED THE AREA. IF THE CONTRACTOR ENCOUNTERS EVIDENCE OF SOIL OR GROUNDWATER CONTAMINATION WHILE WORKING ADJACENT TO THE MAINEDOT WORK AREA IN THE VICINITY OF THE INTERSECTION, THE CONTRACTOR SHALL AGAIN SECURE THE EXCAVATION, STOP WORK IN THE CONTAMINATED AREA, AND IMMEDIATELY NOTIFY THE ENGINEER. THE ENGINEER SHALL CONTACT THE HYDROGEOLOGIST IN MDOT'S ENVIRONMENTAL OFFICE AT 207-624-3100 AND THE MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION AT 800-482-0777. WORK MAY ONLY CONTINUE WITH AUTHORIZATION FROM THE ENGINEER.

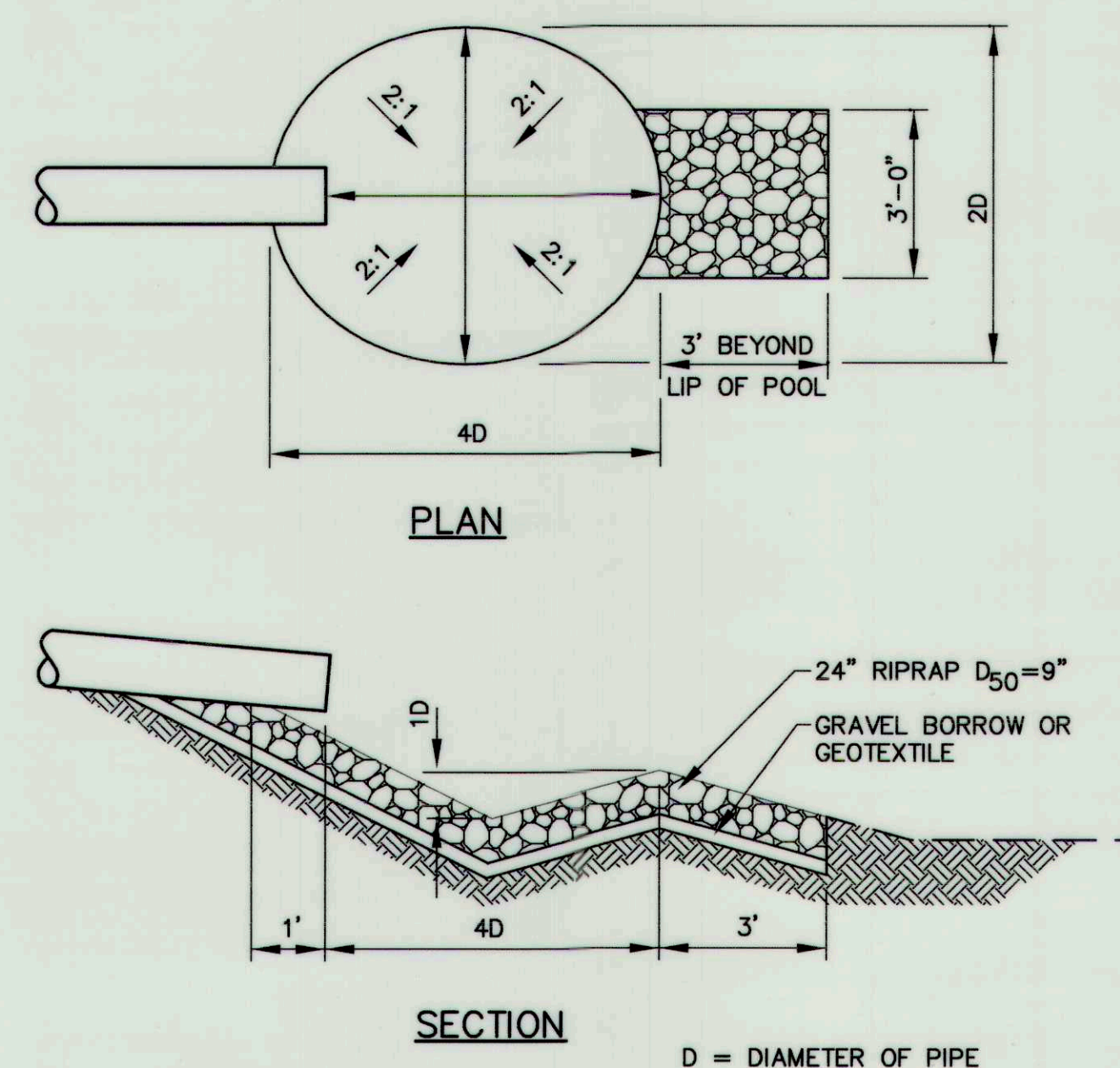


STONE CHECK DAM
NOT TO SCALE

S (FT/FT)	L (FT)
0.020	100
0.030	66
0.040	50
0.050	40
0.080	25
0.100	20
0.120	17
0.150	13



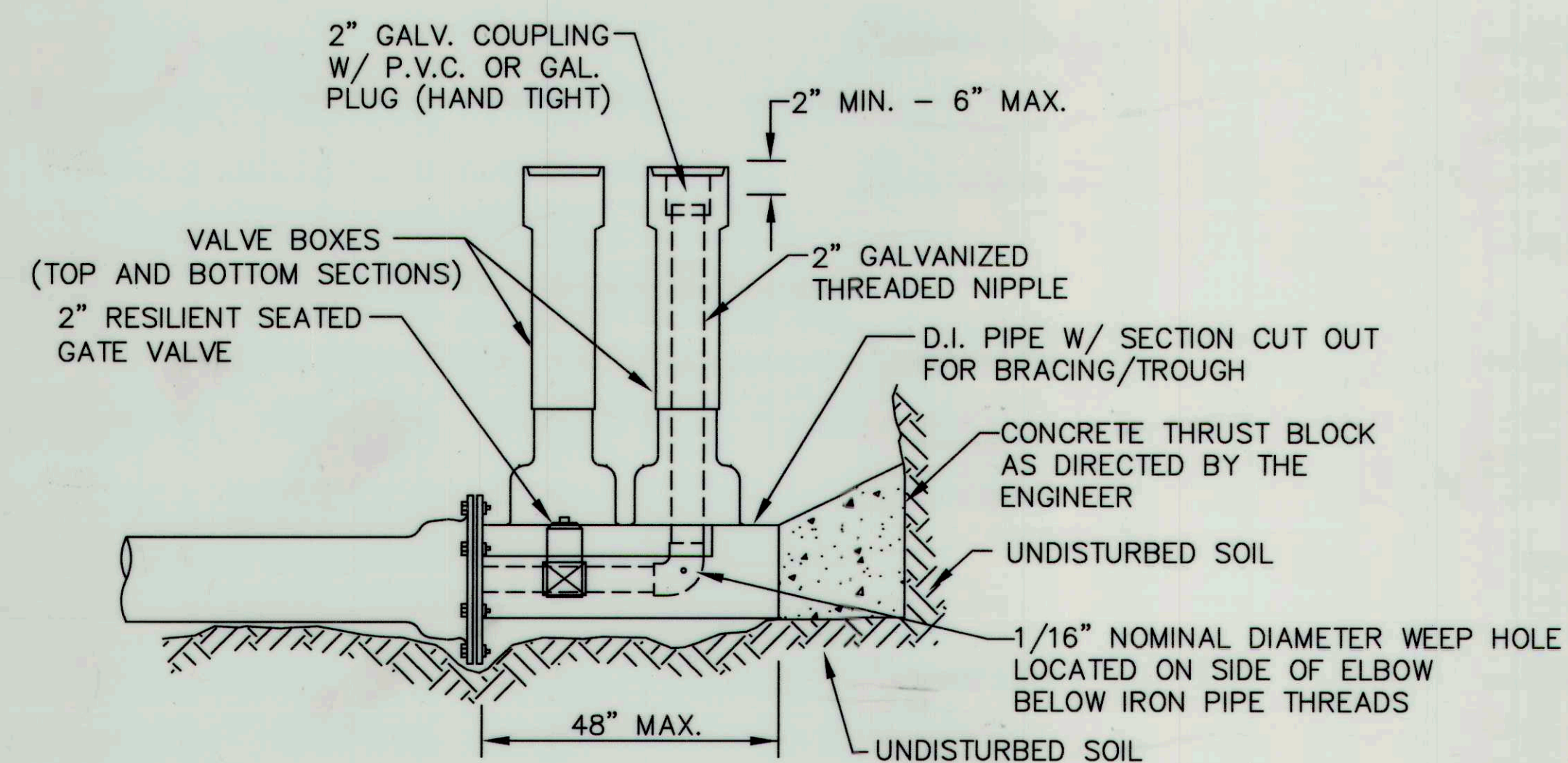
INSTALLATION OF EROSION CONTROL BLANKET (TYPICAL)
NOT TO SCALE



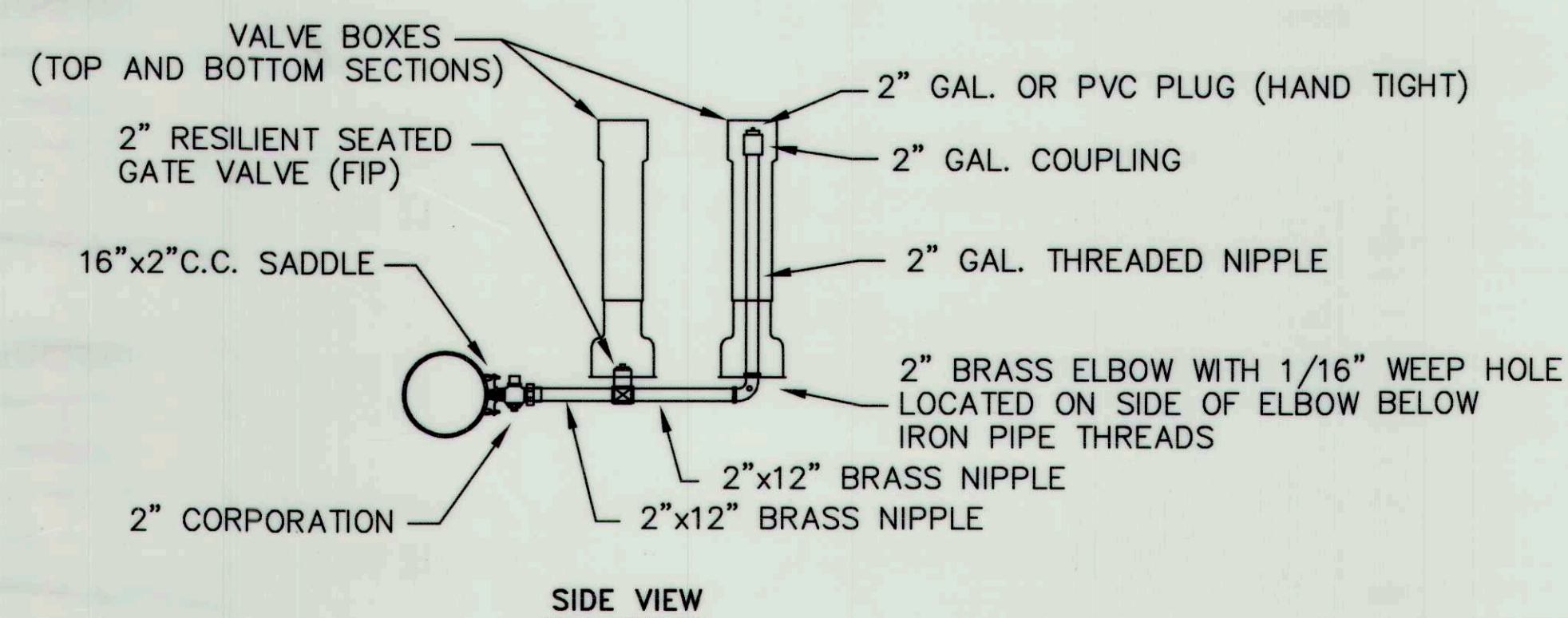
OUTLET PLUNGE POOL
NOT TO SCALE

RECORD
DRAWINGS

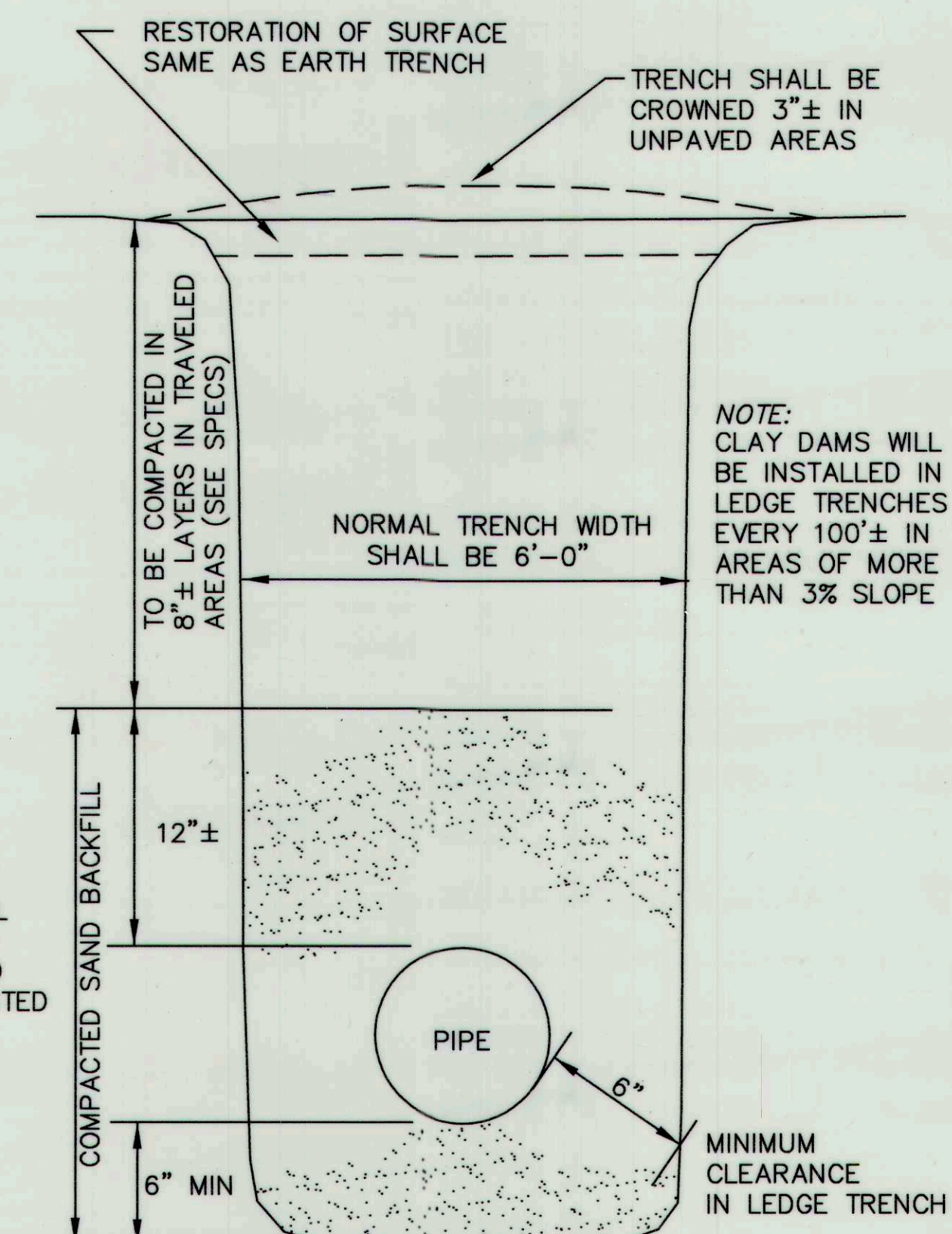
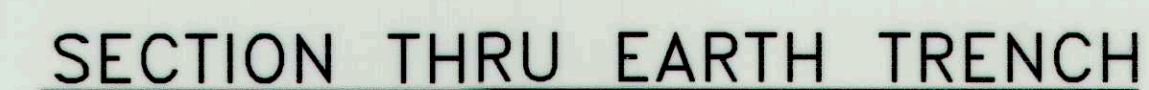
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C	SSJ	11-11-05	ISSUED FOR: BIDDING	1001-01_c_C112
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STATE OF MAINE STEVEN S. JOHNSON #8214 REGISTERED PROFESSIONAL ENGINEER			TOWN OF CUMBERLAND SKILLIN ROAD RECONSTRUCTION	
AQUARIUM ENGINEERING SERVICES			CONSTRUCTION DETAILS	
222 St. John Street, Suite 314 Portland, ME 04102 www.aquariumeng.com			DESIGN BY: SSJ	
			DRAWN BY: JAR	
			CHECKED BY: SJB	
			DATE: 08-23-05	
			JOB NO: 1001-01	
			SCALE: AS NOTED	
			C-112	
			SHEET 14 OF 14	



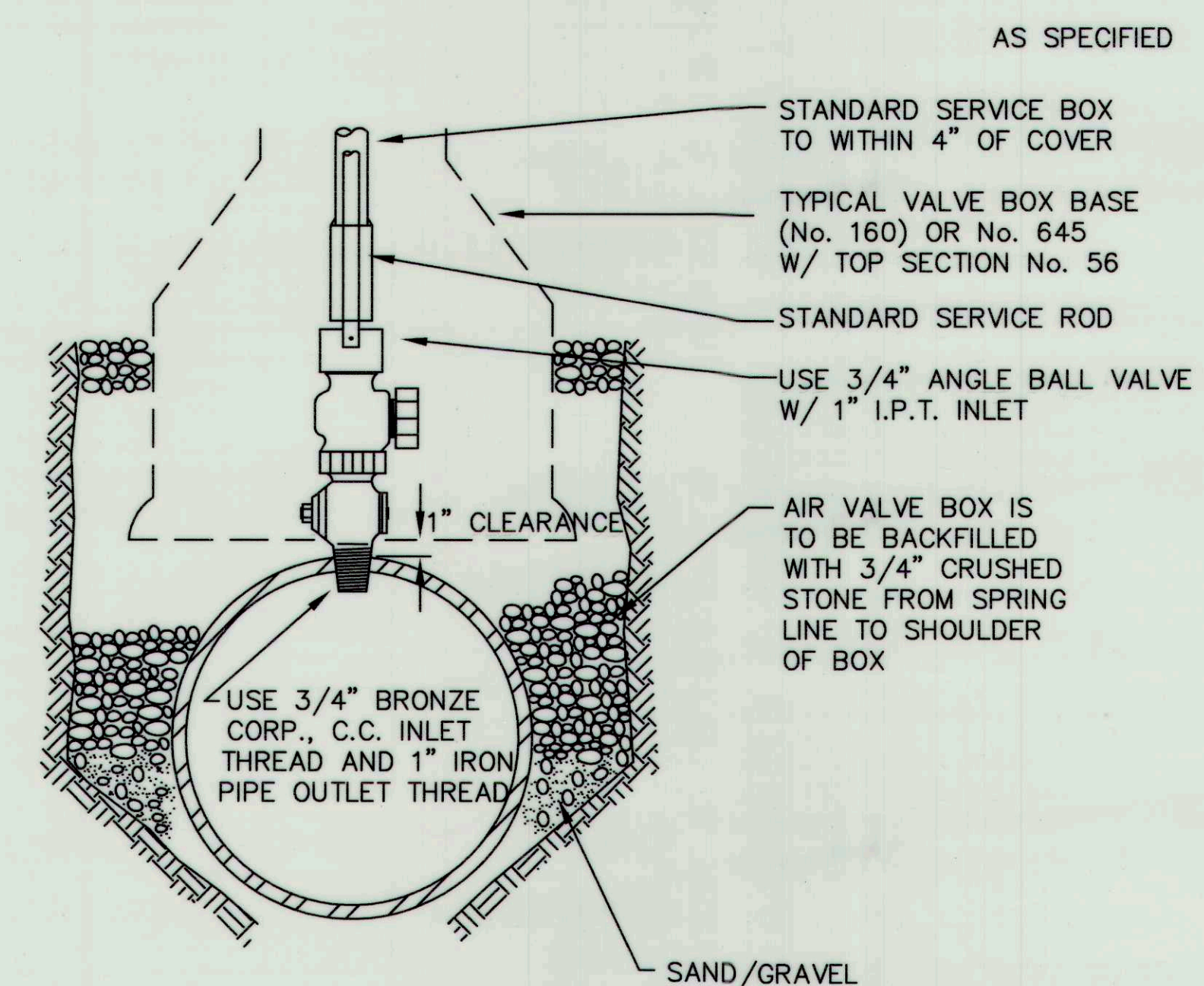
STANDARD 2" BLOW OFF



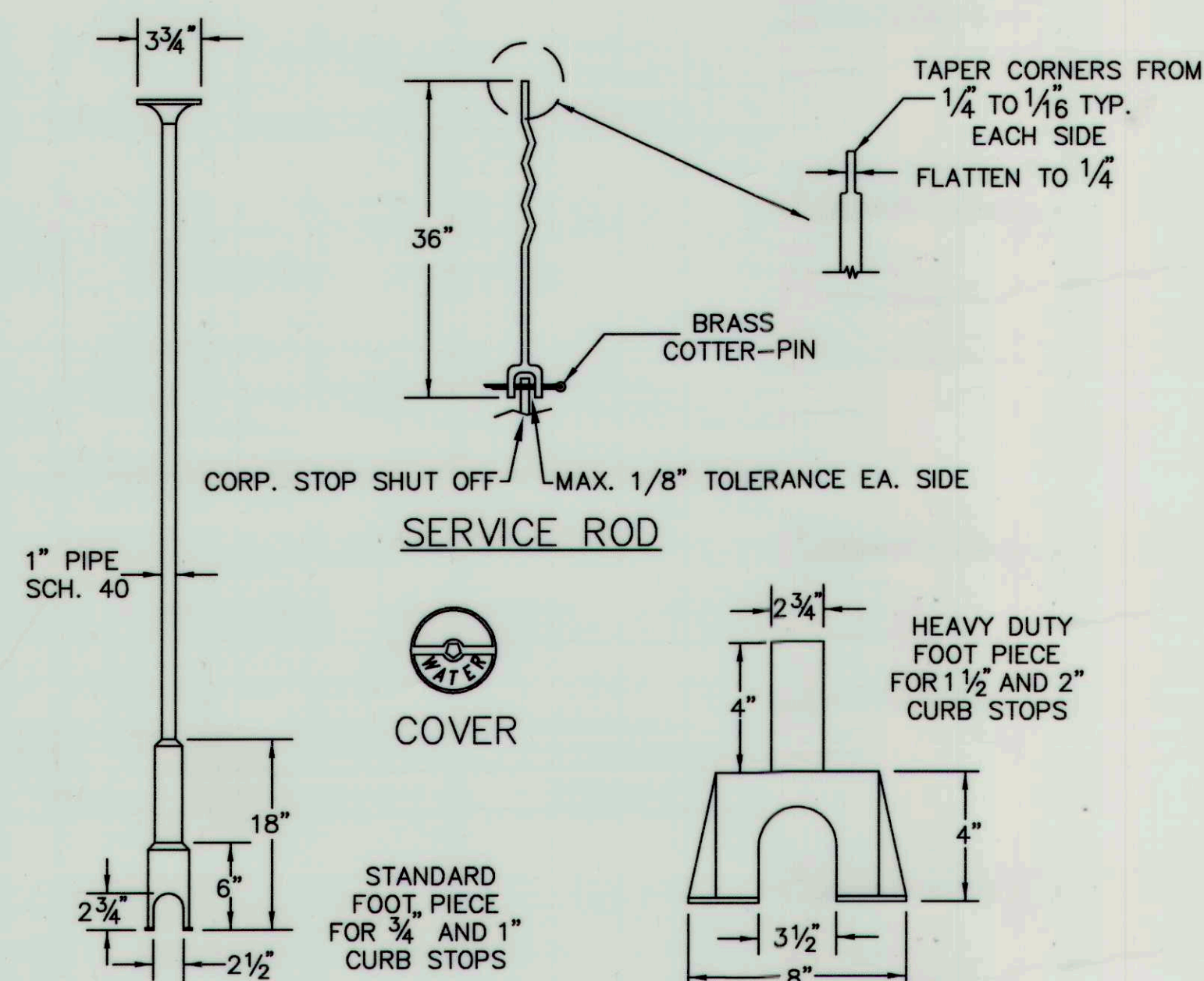
SIDE-ARM BLOW-OFF 4" & LARGER MAINS



SECTION THRU LEDGE TRENCH



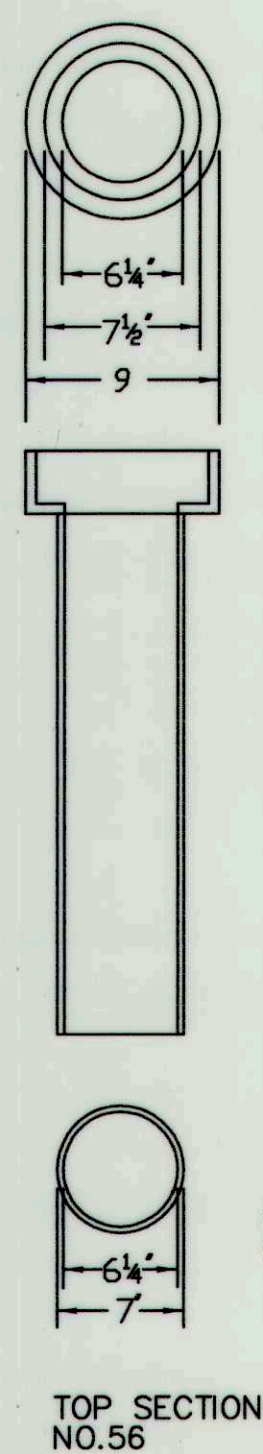
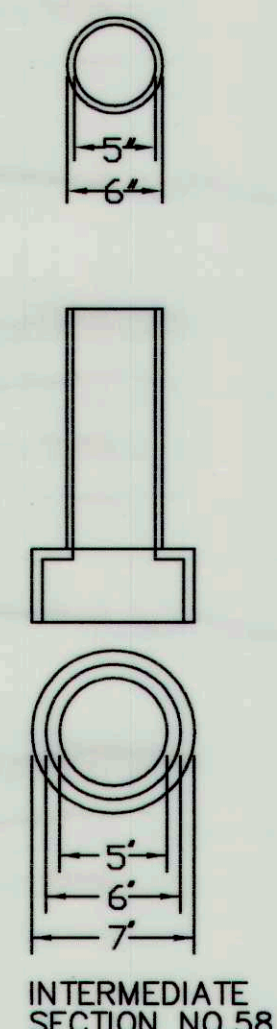
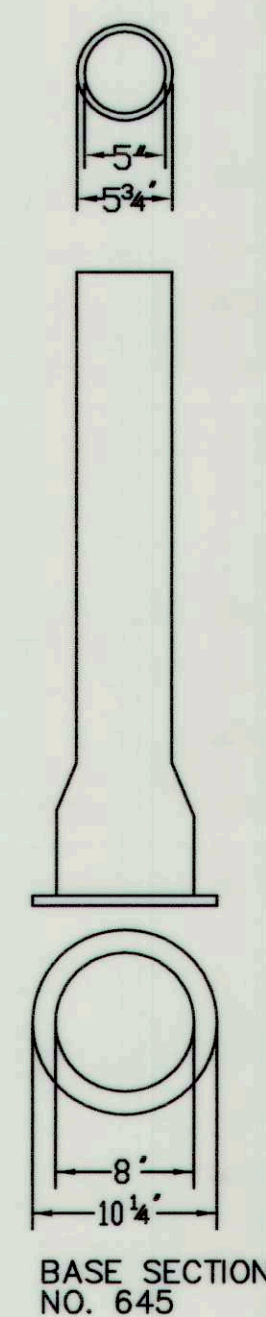
TYPICAL AIR VALVE (1")



SERVICE BOX

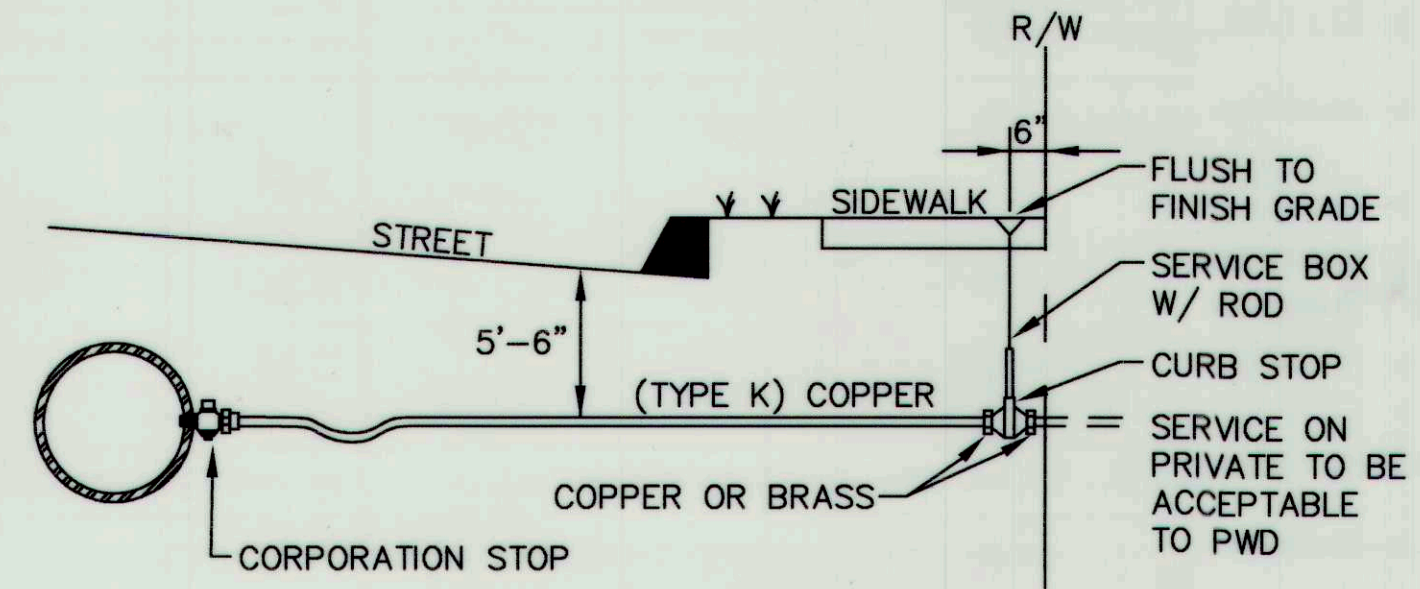
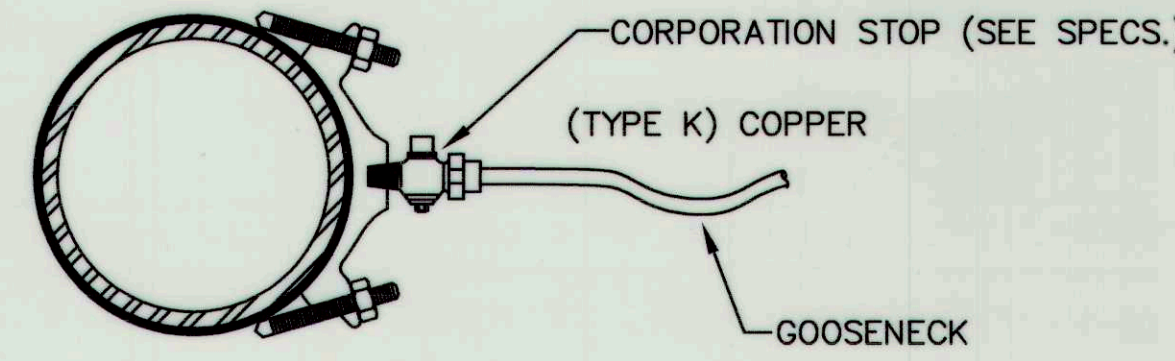
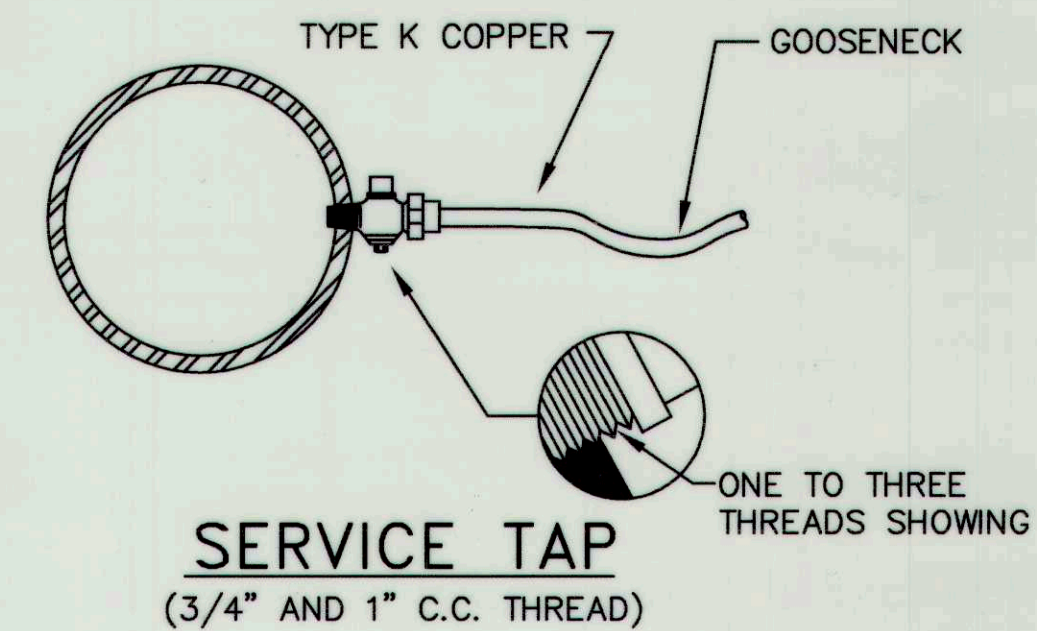
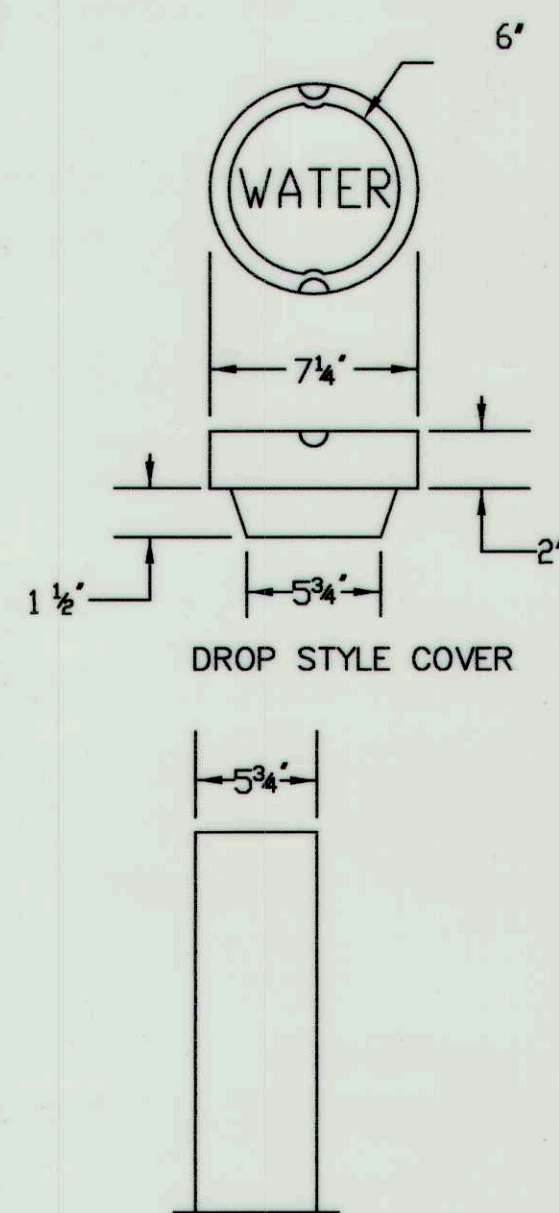
NOTE : ANY EXTENSION OF SERVICE BOX REQUIRES:
 1) 1" FEMALE IRON PIPE COUPLING
 2) 1" THREADED PIPE
 (THIS IS TO BE A NON-WELDED, TWO PIECE ARRANGEMENT. SLIP ON ADAPTERS ARE NOT PERMISSIBLE.)

FOOT PIECE



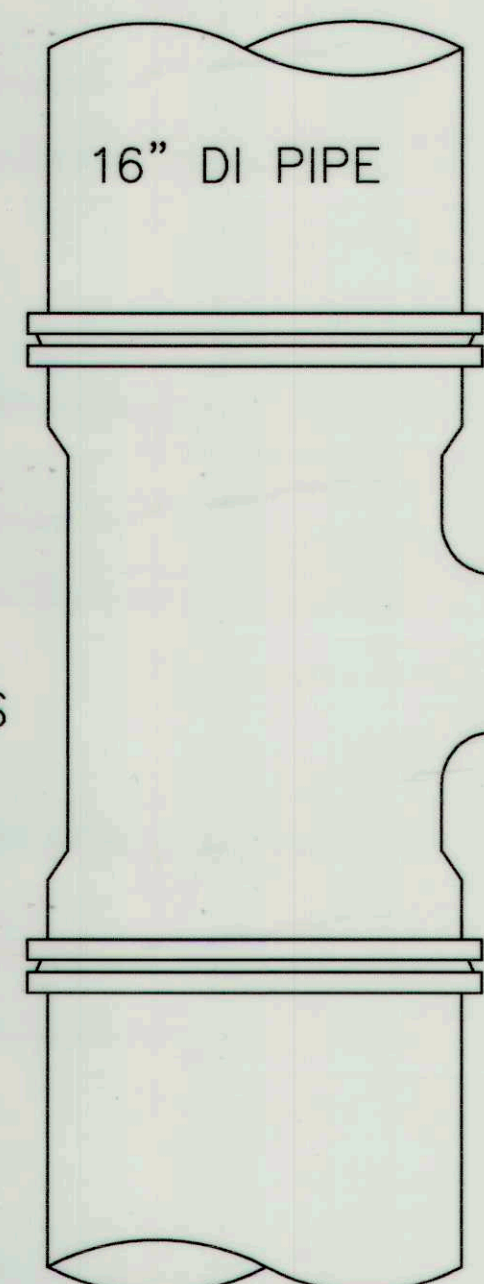
VALVE BOX & COVER

(NUMBERS ARE FOR 5 1/4" BUFFALO VALVE BOXES)
 (BASE SECTION MAY BE USED AS INTERMEDIATE SECTION)



TYPICAL SERVICE CONNECTION

16"x16"x6" MJ MJ MJ TEE w/ RETAINER GLANDS



6" DI NIPPLE 36" LONG

6" MJ MJ RSGV w/ RETAINER GLANDS

6" MJ CAP w/ RETAINER GLANDS

6" DI NIPPLE, LENGTH AS REQ'D TO PLACE FUTURE HYDRANT IN PROPER LOCATION (18' MAX)

BRANCH PIPE FOR FUTURE HYDRANT

Portland Water District
 ASSET MANAGEMENT & PLANNING DEPT.
 222 DOUGLASS STREET P.O. BOX 3531 PORTLAND, MAINE 04104-3531

REV. NO.	DATE	DRWN	CHKD	REMARKS
2	MAR 04	RS	TM	REMOVED IRON PIPE THREAD FROM SADDLE DETAIL
1	DEC 03	RS	TM	SHOWING DIMENSIONS FOR THE REMOVED

SKILLIN ROAD, CUMBERLAND
 STANDARD WATER DETAILS

PROJECT NO.:
 FIELD BOOK:
 SHEET
 2 OF 2