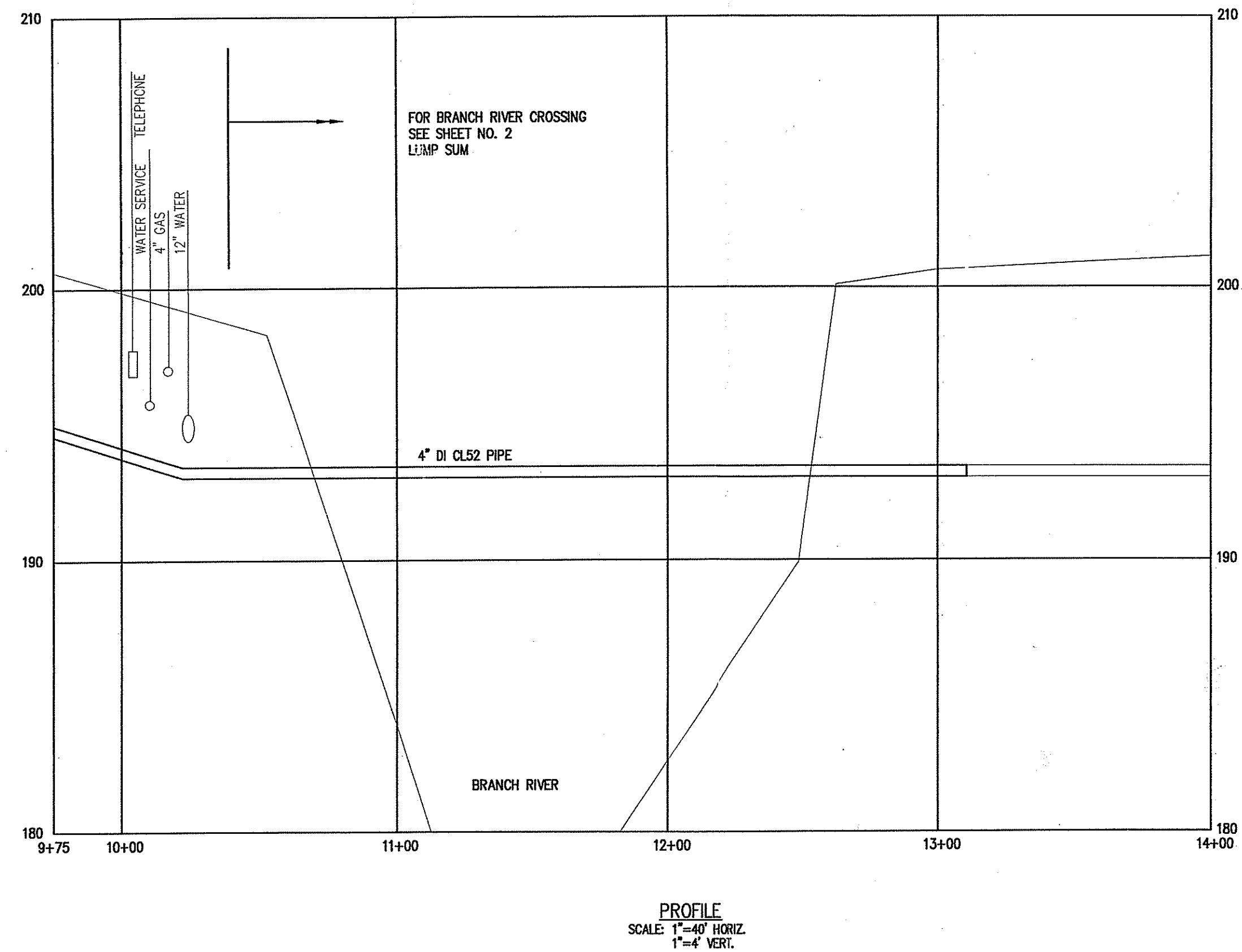
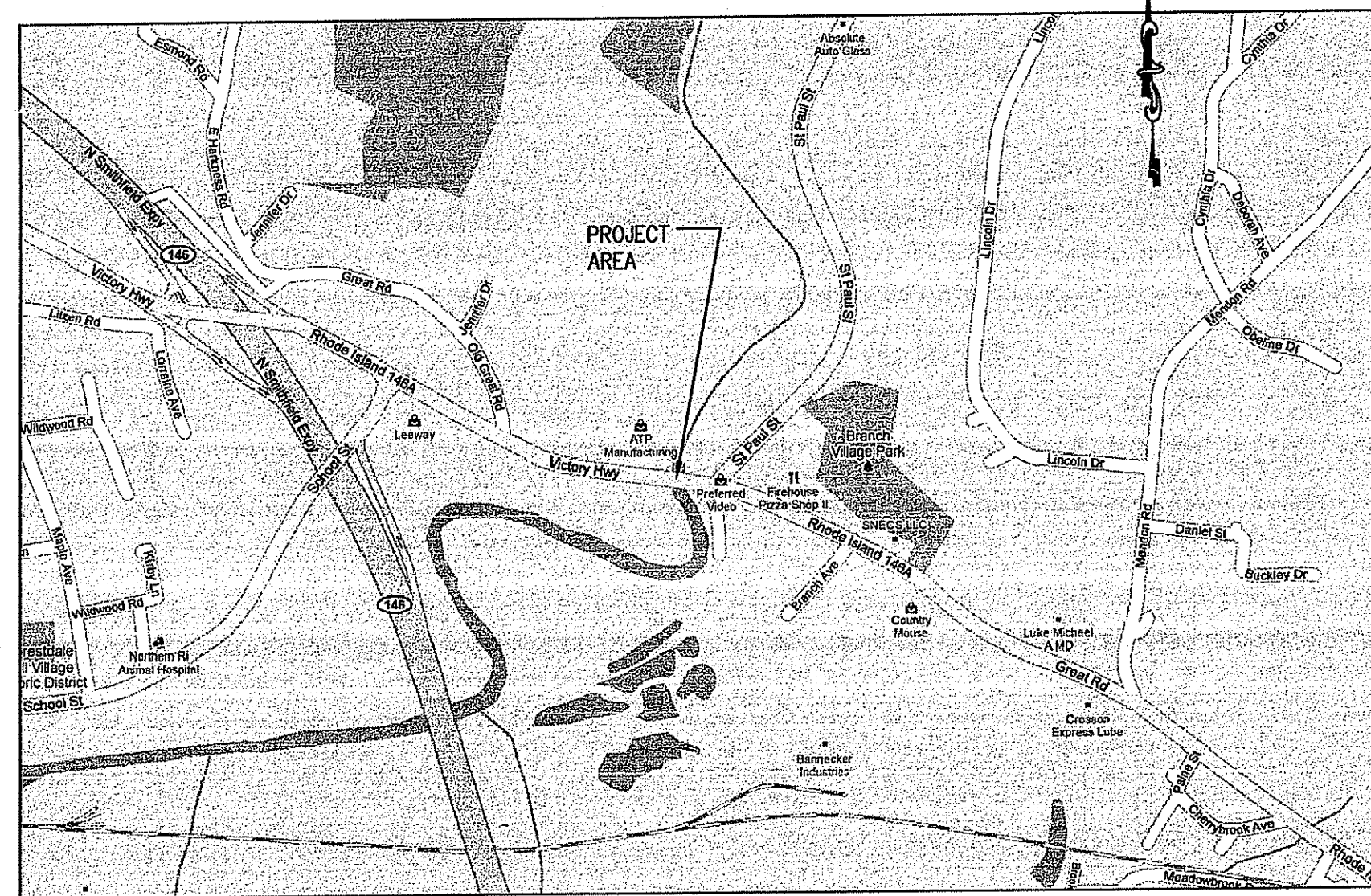


PLAN SCALE: 1"=40'



PROFILE SCALE: 1"=40' HORIZ. 1"=4' VERT.



LOCUS NO SCALE

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JAN 24 2010

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JAN 25 2010

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED 10-0009 FILE # FEB 12 2010
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE.

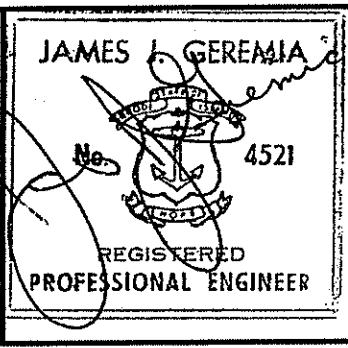
Tele# 454-7000

Application # 10-0009

1st Submittal

NO.:	BY:	DATE:	REMARKS:
CADD FILE:			DATE PRINTED:

DESIGNED BY: RMH
DRAWN BY: CJB
CHECKED BY: JJC
SCALE: AS SHOWN
DATE: DEC 2009



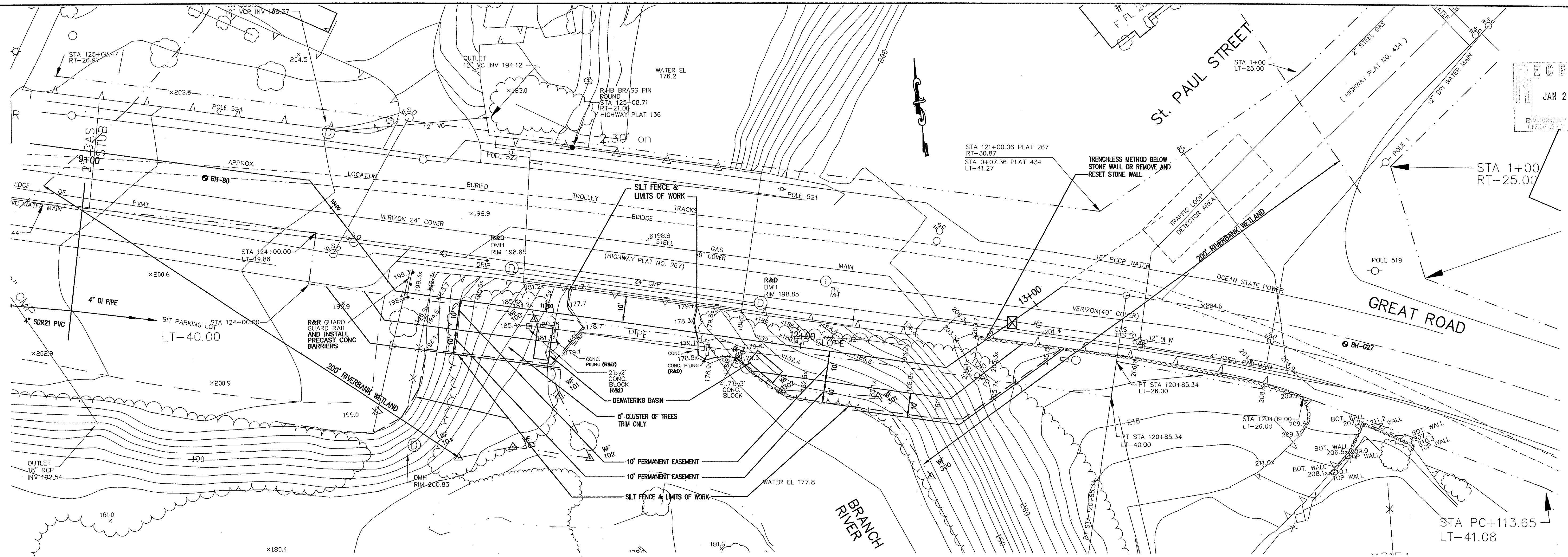
JAMES J. GEREMIA & ASSOCIATES, INC.
CONSULTING ENVIRONMENTAL ENGINEERS & SCIENTISTS
272 W. Exchange Street Suite 201 Providence, RI 02903-1025
Phone: 401-454-7000 Fax: 401-454-7415

PHASE III
NORTH SMITHFIELD WASTEWATER
COLLECTION SYSTEM IMPROVEMENTS
TOWN OF NORTH SMITHFIELD

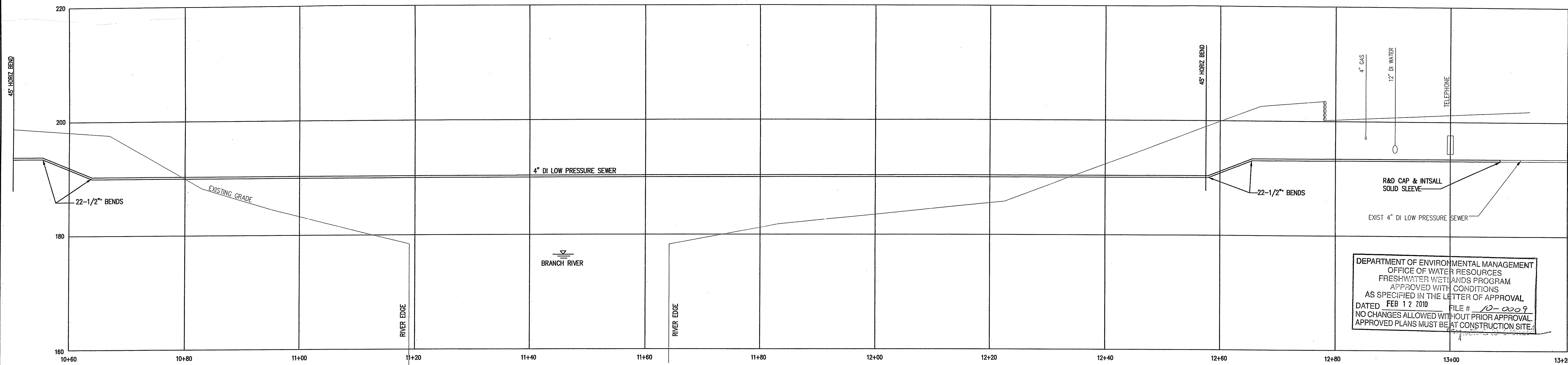
PLAN & PROFILE
GREAT ROAD STA 9+75 TO STA 13+10
NORTH SMITHFIELD, RI

SHEET NO.
1
of 10

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JAN 21 2010



NOTE:
1. ALL DISTURBED AREAS TO BE 4" LOAM & SEED WITH CURLEX II EROSION CONTROL BLANKET. RESTORE DISTURBED AREAS TO ORIGINAL GRADE.
2. PER FLOOD INSURANCE RATE MAP AREA IS IN ZONE A FOR 100 YEAR FLOOD.



DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED FEB 12 2010 FILE # 10-009
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL.
APPROVED PLANS MUST BE AT CONSTRUCTION SITE.

NO.:	BY:	DATE:	REMARKS:
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DESIGNED BY: RMH
DRAWN BY: CJB
CHECKED BY: JJG
SCALE: AS SHOWN
DATE: DEC 2009

JAMES J. GEREMIA
REGISTERED PROFESSIONAL ENGINEER
No. 4521

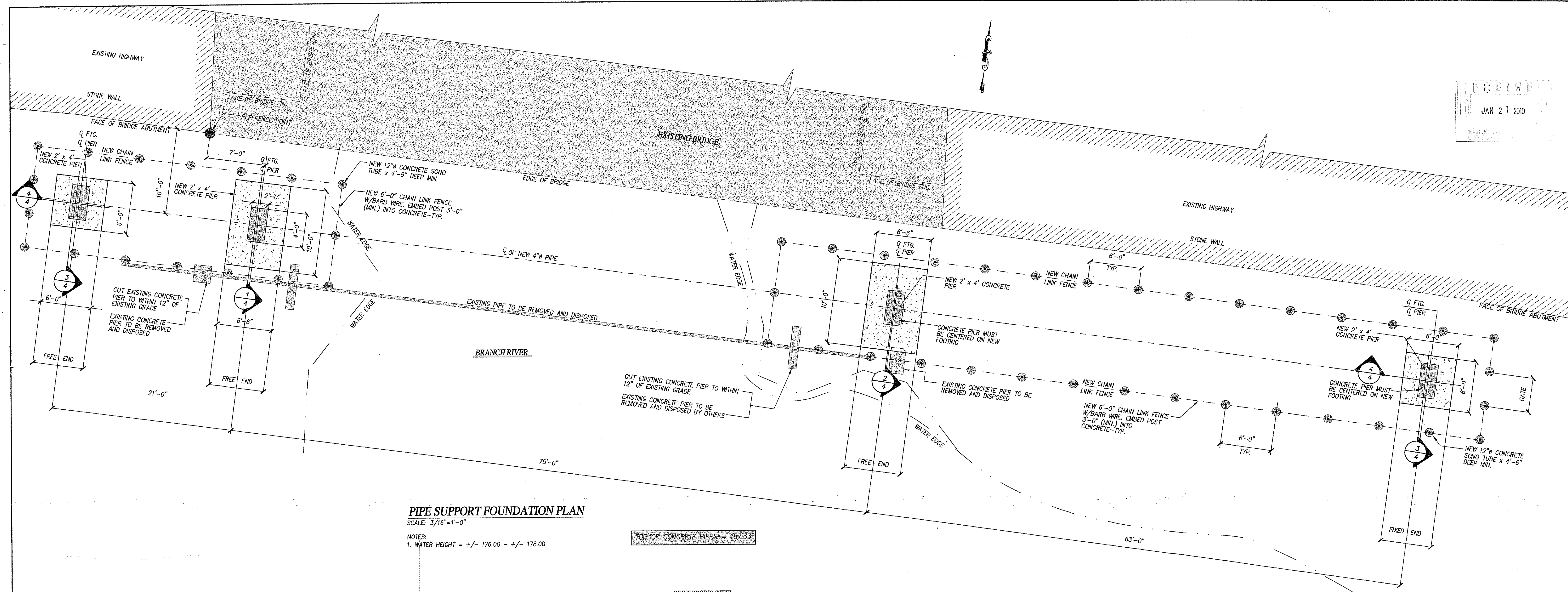
JAMES J. GEREMIA & ASSOCIATES, INC.
CONSULTING ENVIRONMENTAL ENGINEERS & SCIENTISTS
272 W. Exchange Street Suite 201 Providence, RI 02903-1025
Phone: 401-454-7000 Fax: 401-454-7415

PHASE III
NORTH SMITHFIELD WASTEWATER
COLLECTION SYSTEM IMPROVEMENTS
PREPARED FOR
TOWN OF NORTH SMITHFIELD

PLAN & PROFILE
BRANCH RIVER CROSSING
NORTH SMITHFIELD, RI

SHEET NO.
2
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OFFICE OF WATER RESOURCES



PIPE SUPPORT FOUNDATION PLAN
SCALE: 3/16"=1'-0"

NOTES:
1. WATER HEIGHT = +/- 176.00 - +/- 178.00

TOP OF CONCRETE PIERS = 187.33'

GENERAL

STRUCTURAL DESIGN IS BASED ON, AND CONSTRUCTION SHALL CONFORM TO REQUIREMENTS OF THE LATEST EDITION OF THE RHODE ISLAND STATE BUILDING CODE. THE CONTRACTOR SHALL COMPLY WITH LOCAL SAFETY REGULATIONS AND WITH THE PROVISIONS OF THE OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA) IN ALL PHASES OF THE WORK.

INFORMATION REGARDING EXISTING CONSTRUCTION AND CONDITIONS IS BASED ON FIELD INSPECTION, AND IS INCLUDED TO ASSIST THE CONTRACTOR. ITS ACCURACY AND COMPLETENESS CANNOT BE GUARANTEED.

THE CONTRACTOR SHALL NOTIFY THE ENGINEER WHEN UNANTICIPATED OR APPARENTLY DANGEROUS CONDITIONS ARE UNCOVERED DURING CONSTRUCTION OR DEMOLITION.

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS ON THE JOB BEFORE PROCEEDING WITH FABRICATION AND CONSTRUCTION. DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH THAT PORTION OF THE WORK.

TEMPORARY ERECTION OR CONSTRUCTION LOADS AND ANY LOADS CAUSED FROM CONSTRUCTION SEQUENCE HAVE NOT BEEN INCLUDED IN THE DESIGN OF THIS STRUCTURE. THE CONTRACTOR SHALL STORE MATERIALS AND CONSTRUCT THE BRIDGE IN A MANNER THAT WILL NOT OVERSTRESS THE STRUCTURE.

STRUCTURAL COMPONENTS AND MATERIALS AWAITING INSTALLATION SHALL BE STORED PROPERLY AND IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS SO AS NOT TO CAUSE ANY DAMAGE THAT MAY IMPAIR THEIR LOAD-CARRYING CAPABILITIES.

THE CONTRACTOR SHALL LAY OUT AND SHALL BE RESPONSIBLE FOR ALL LINES, ELEVATIONS AND MEASUREMENTS OF THE BRIDGE, UTILITIES AND SITE WORK EXECUTED AS PART OF THIS PROJECT. THE CONTRACTOR MUST VERIFY ALL FIGURES SHOWN BEFORE LAYING OUT WORK AND SHALL BE RESPONSIBLE FOR ANY ERROR RESULTING FROM FAILURE TO DO SO. ALL LINES, LEVELS AND DIMENSIONS SHALL BE ESTABLISHED BY A REGISTERED LAND SURVEYOR.

FOUNDATIONS

SOIL BEARING STRUCTURES SHALL BEAR ON A MINIMUM OF 1'-FOOT OF COMPACTED GRAVEL WITH FOUNDATIONS DESIGNED FOR A BEARING CAPACITY OF 1000 PSF.

GENERAL CONTRACTOR SHALL CONFIRM BEARING CAPACITY DURING CONSTRUCTION AND SUBMIT CONFIRMATION IN WRITING, STAMPED BY A RHODE ISLAND LICENSED SOILS ENGINEER.

CONCRETE

CONCRETE WORK SHALL CONFORM TO LATEST EDITIONS OF "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" (ACI 318) AND "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS" (ACI 301).

CONCRETE REQUIREMENTS:
A. 28-DAY COMPRESSIVE STRENGTH $f'_c = 4000$ PSI.
B. CEMENT: ASTM C150, TYPE 1 OR 2.
C. AGGREGATE: ASTM C33, MAX. DIA. = 1 1/2".
D. WATER: POTABLE.
E. SLUMP: 2 - 4 INCHES.
F. AIR-ENTRAINMENT: 5 - 7%.

GROUT FOR BASE PLATES SHALL BE PREPACKAGED NON-SHRINK GROUT, WITH MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 7500 PSI. CLEAN BASE PLATES AND TOPS OF CONCRETE SURFACES TO RECEIVE GROUT.

REINFORCING STEEL

REINFORCING STEEL SHALL BE GRADE 60, NEW BILLET STEEL CONFORMING TO ASTM A615. LAP REINFORCEMENT BARS 48 BAR DIAMETERS UNLESS NOTED OTHERWISE, UNLESS NOTED OTHERWISE PROVIDE A MINIMUM CONCRETE COVER AS FOLLOWS:

ALL REINFORCING STEEL SHALL BE EPOXY COATED PER ASTM A 775

FOOTINGS: 2" TOP, 3" BOTTOM
WALLS: 2" EACH FACE

STRUCTURAL STEEL

STRUCTURAL STEEL DESIGN IS BASED ON, AND CONSTRUCTION SHALL CONFORM TO THE LATEST EDITION OF AISC SPECIFICATIONS FOR DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS, CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES AND STRUCTURAL WELDING CODE OF THE AMERICAN WELDING SOCIETY.

HIGH-STRENGTH BOLTING SHALL CONFORM TO THE LATEST EDITION OF AISC SPECIFICATIONS FOR STRUCTURAL JOINTS USING ASTM A325 BOLTS.

PAINTING, INCLUDING SURFACE PREPARATION, SHALL CONFORM TO STEEL STRUCTURES PAINTING COUNCIL SPECIFICATIONS.

ALL EPOXY PAINTED STEEL WILL BE TOUCHED UP IN FIELD AS REQUIRED.

STRUCTURAL STEEL SHALL BE NEW STEEL CONFORMING TO THE FOLLOWING ASTM DESIGNATIONS:
ROLLED SHAPES ASTM A992
PLATES ASTM A36
BEAM SPLICE PLATES ASTM A572 GRADE 50
ALL WELDING ELECTRODES SHALL BE E70XX.

ALL FIELD CONNECTIONS SHALL BE FILLET WELDS.

ALL BOLTED CONNECTIONS SHALL BE 3/4" ASTM A325N BOLTS WITH HARDENED WASHERS TIGHTENED TO THE SNUG TIGHT CONDITION.

WELDED CONNECTIONS SHALL BE MADE BY A CERTIFIED WELDER. ALL WELDS SHALL BE INSPECTED BY A QUALIFIED INDEPENDENT TESTING AGENCY. ALL WELDS TO BE PAINTED WITH EPOXY PAINT AFTER INSPECTION.

SHOP DRAWINGS ARE REQUIRED FOR THE FABRICATION OF THE COMPONENT PARTS OF THE STRUCTURE AND CONNECTIONS. ENGINEER'S REVIEW IS FOR GENERAL CONFORMANCE WITH DESIGN ONLY. CONTRACTOR'S RESPONSIBILITY INCLUDES QUANTITIES AND DIMENSIONS, FABRICATION AND CONSTRUCTION, COORDINATION WITH OTHER TRADES, AND SAFE AND SATISFACTORY WORK.

ALL STRUCTURAL STEEL WORK, INCLUDING PAINTING, FABRICATION, WELDING AND BOLTING SHALL BE SUBJECT TO OBSERVATIONS AND MONITORING BY THE ENGINEER AND BY AN INDEPENDENT TESTING AGENCY.

BRIDGE BEARING PLATES SHALL BE LOCATED BY TEMPLATES AND SUPPORTED AND ALIGNED ON STEEL WEDGES AND SHIMS OR LEVELING NUTS. AFTER THE SUPPORTED MEMBERS HAVE BEEN PLUMBED AND PROPERLY POSITIONED AND ANCHOR NUTS TIGHTENED, THE ENTIRE BEARING AREA UNDER THE PLATE SHALL BE PACKED SOLIDLY WITH NON-SHRINK GROUT. WEDGES AND SHIMS SHALL BE CUT OFF FLUSH WITH THE EDGES OF PLATES AND SHALL BE LEFT IN PLACE.

FIELD CUTTING OR ANY OTHER FIELD MODIFICATIONS OF STRUCTURAL STEEL SHALL NOT BE MADE WITHOUT APPROVAL FROM THE ENGINEER FOR EACH SPECIFIC CASE.

SHORING AND RENOVATION

THE CONTRACTOR SHALL SHORE, BRACE, SHEETPILE OR OTHERWISE SUPPORT THE STRUCTURE AND EXISTING SEWER PIPE TO REMAIN AGAINST WIND LOADS AND ALL CONSTRUCTION LOADS THROUGHOUT THE WORK AND AS REQUIRED TO MAINTAIN STRUCTURAL INTEGRITY AT ALL TIMES.

NEW STRUCTURAL SYSTEMS SHALL BE COMPLETELY INSTALLED AND CAPABLE OF SUPPORTING DESIGN LOADS BEFORE SHORES ARE REMOVED. SHORES SHALL BE RELEASED GRADUALLY.

EMBEDDED ITEMS

IDENTIFY AND LOCATE ALL EMBEDDED ITEMS (PIPES, SLEEVES, EQUIPMENT, BOLTS, RAILINGS, LIFTING RINGS, FRAMES, ETC.) AND ARE TO BE USED IN CONJUNCTION WITH STRUCTURAL DRAWINGS DURING CONSTRUCTION.

ALL EQUIPMENT ANCHOR BOLTS FURNISHED BY EQUIPMENT MANUFACTURER TO BE INSTALLED BY GENERAL CONTRACTOR.

DEWATERING NOTES:

DEWATERING PLAN: A MINIMUM OF 14 DAYS BEFORE STARTING THE WORK THE CONTRACTOR SHALL SUBMIT DETAILED DEWATERING CALCULATIONS AND DEWATERING PLAN PREPARED AND STAMPED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF RHODE ISLAND DESCRIBING THE BASIC COMPONENTS OF THE DEWATERING SYSTEM PROPOSED AND ITS PLANNED METHOD OF OPERATION.

THE CONTRACTOR SHALL CONTROL AND PITCH THE GRADING TO PREVENT WATER FROM PONDING ON THE PREPARED SUBGRADES FROM RUNNING INTO THE EXCAVATIONS OR TO PREVENT DAMAGE TO OTHER STRUCTURES OR WORK ALREADY ACCOMPLISHED.

THE CONTRACTOR SHALL FURNISH ALL PUMPING AND OTHER DEWATERING EQUIPMENT NECESSARY TO KEEP THE EXCAVATED AREAS DRY DURING CONSTRUCTION. THE GROUNDWATER SHALL BE PUMPED ADEQUATELY SO THAT THE PERMEATIO SURFACE IS MAINTAINED A MINIMUM OF TWO (2) FEET BELOW THE BOTTOM OF THE EXCAVATION AT ALL TIMES. FILTERS SHALL BE USED ON THE DEWATERING DEVICES TO PREVENT THE REMOVAL OF FINES FROM THE SOIL. WATER SHALL NOT BE CONDUCTED ONTO ADJACENT PROPERTY EXCEPT IN EXISTING WATER COURSES.

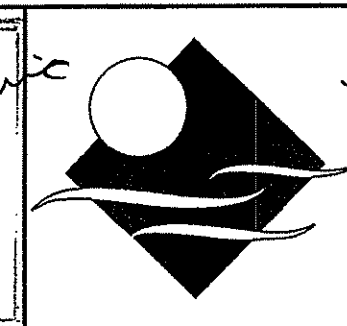
OPERATION AND PERFORMANCE: OPERATE THE DEWATERING SYSTEM CONTINUOUSLY, 24 HOURS PER DAY, 7 DAYS PER WEEK, UNTIL SUCH TIME AS CONSTRUCTION WORK BELOW EXISTING WATER LEVELS IS COMPLETE, UNLESS DIRECTED OTHERWISE. MEASURE AND RECORD THE PERFORMANCE OF THE DEWATERING SYSTEM AT THE SAME TIME EACH DAY BY USE OF SUITABLE OBSERVATION WELLS OR PIEZOMETERS INSTALLED IN CONJUNCTION WITH THE DEWATERING SYSTEM. AT NO TIME SHOULD THE WATER LEVEL BE ALLOWED TO RISE HIGHER THAN TWO FEET BELOW THE PREVAILING LEVEL OF EXCAVATION OR BACKFILL. SUBMIT THE DEWATERING PERFORMANCE RECORD WEEKLY.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
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DATED FEB 12 2010 FILE # 10-0009
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CONSULTANT LOGO:
PAUL B. ALDINGER AND ASSOCIATES, INC.
STRUCTURAL AND GEOTECHNICAL ENGINEERING
800A WATERMAN AVE.
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JAMES J. GALUSKA
No. 4790
REGISTERED PROFESSIONAL ENGINEER

JAMES J. GEREMIA
No. 4521
REGISTERED PROFESSIONAL ENGINEER



JAMES J. GEREMIA & ASSOCIATES, INC.
CONSULTING ENVIRONMENTAL ENGINEERS & SCIENTISTS
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Phone: 401-454-7000 Fax: 401-454-7415

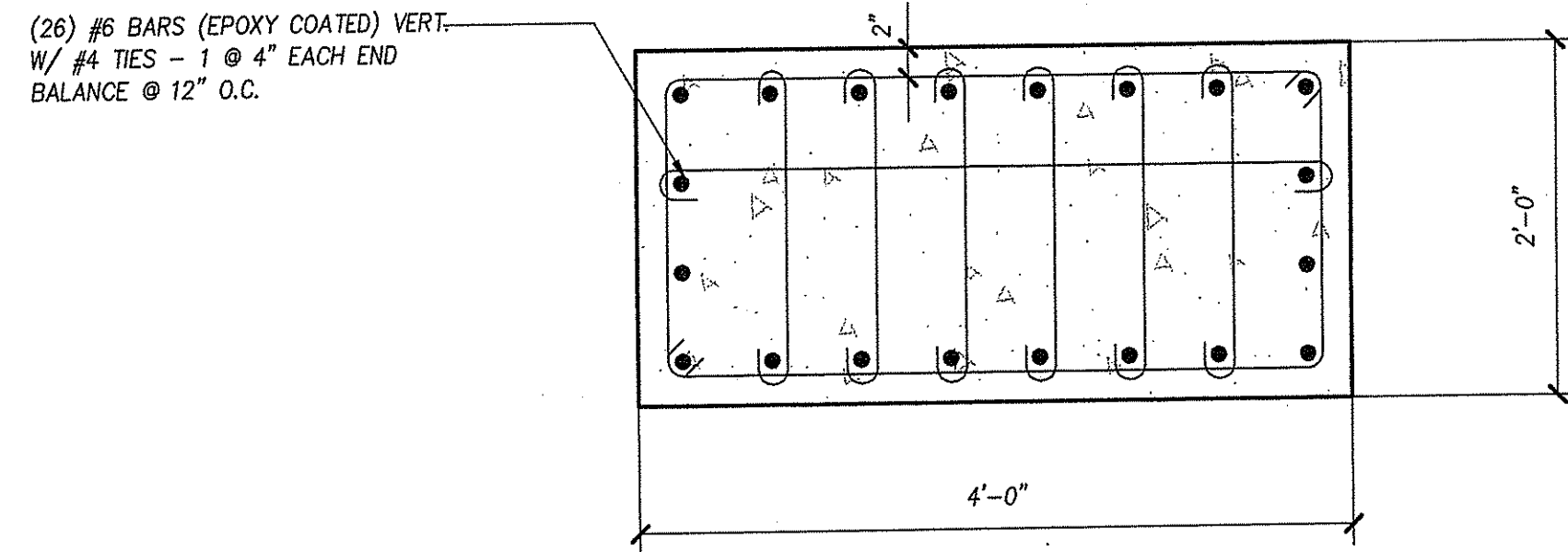
BRANCH RIVER CROSSING
FORCE MAIN
NORTH SMITHFIELD, RI

NEW FOUNDATION LAYOUT PLAN
&
GENERAL NOTES

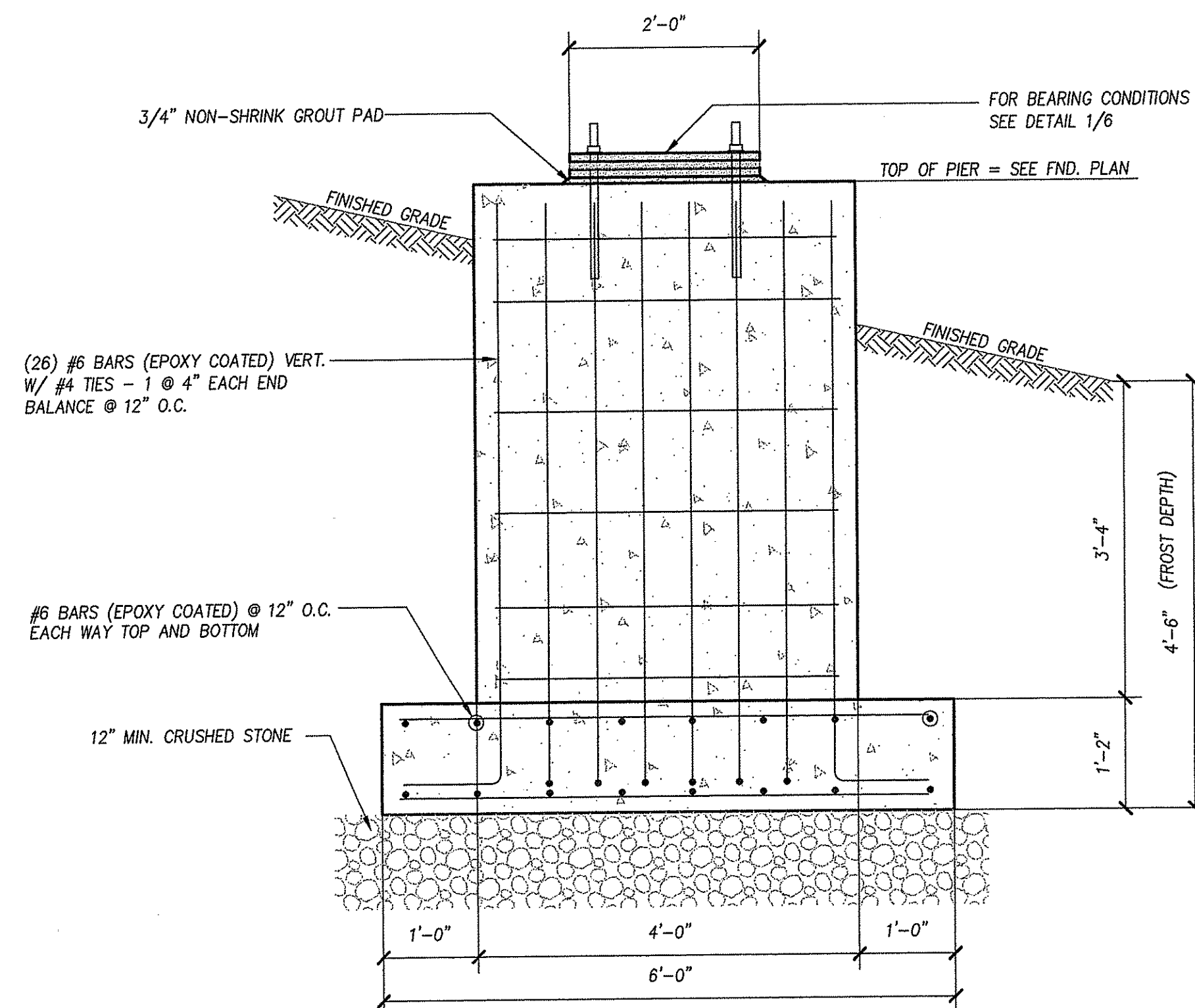
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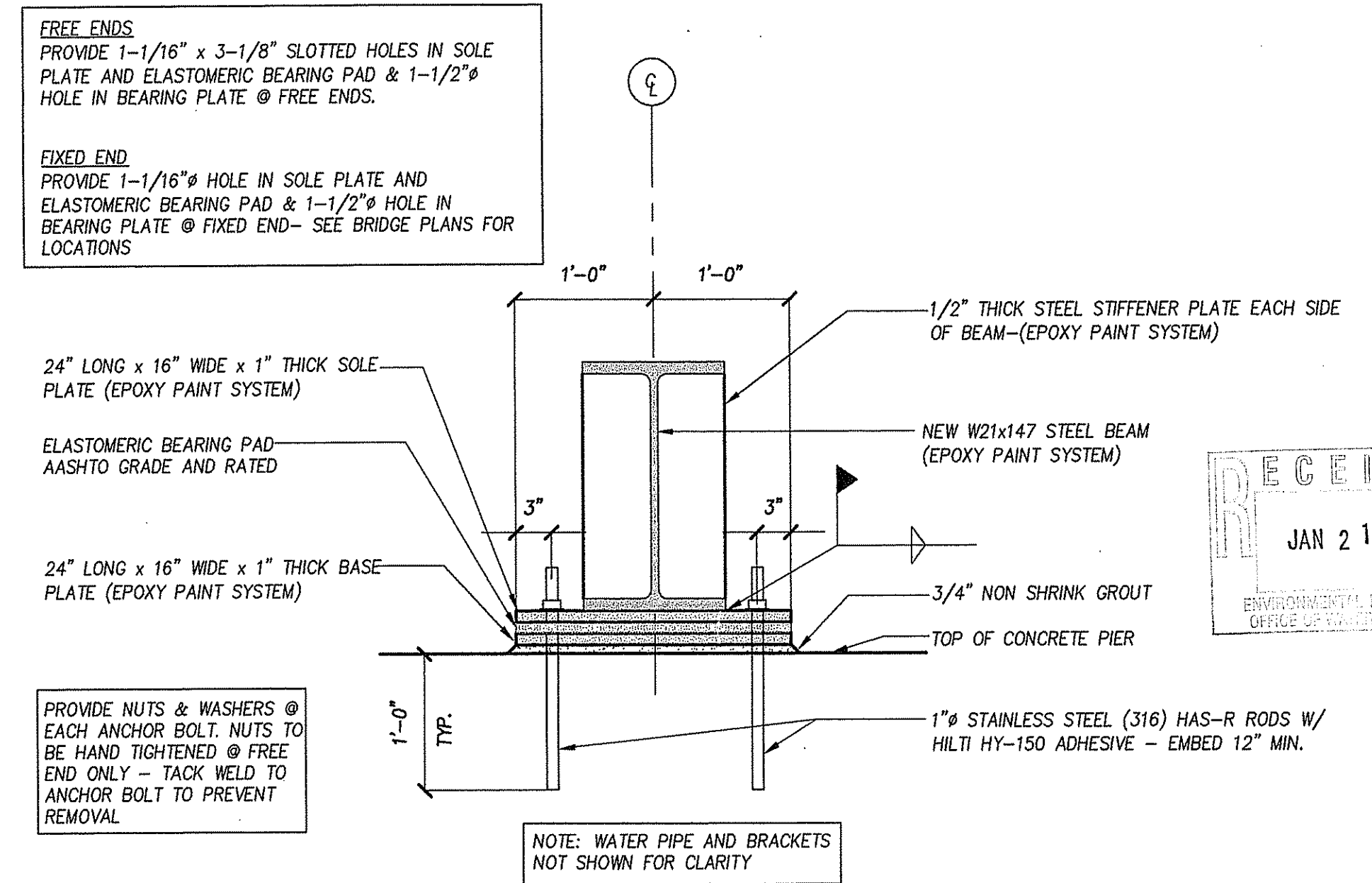
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DRAWN BY: RWF
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SCALE: AS NOTED
DATE: DEC. 2009



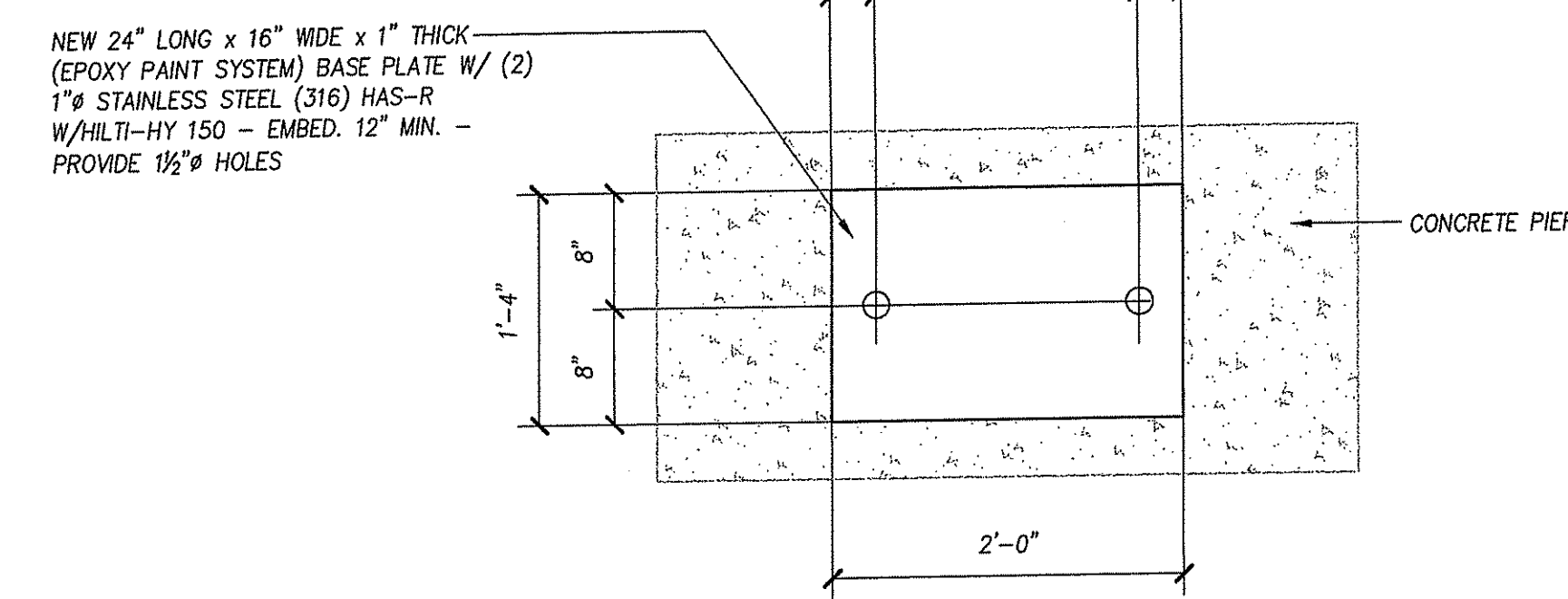
5 PLAN VIEW @ NEW CONCRETE PIER PIPE SUPPORT
SCALE: 1" = 1'-0"



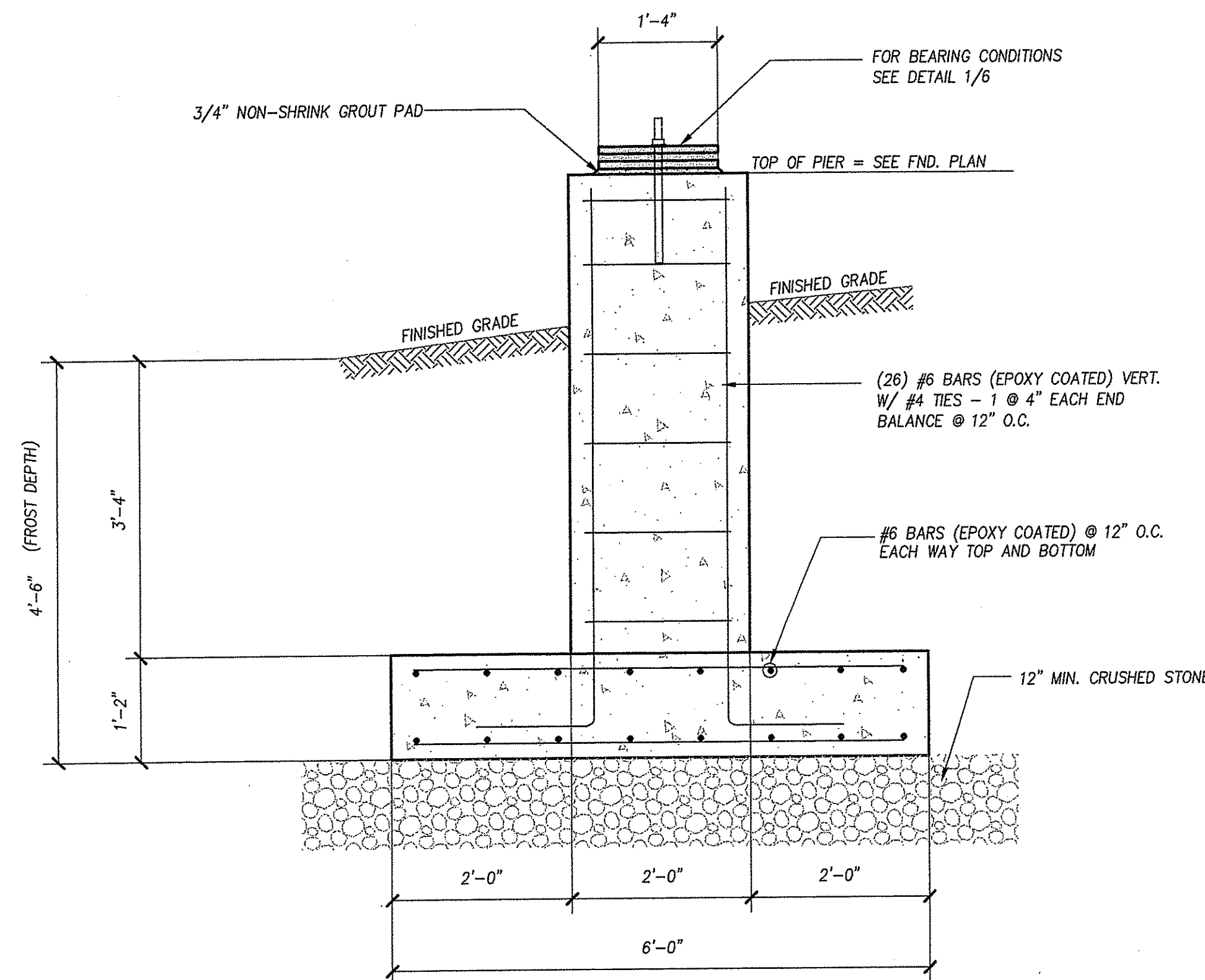
3 SECTION @ NEW CONCRETE PIER PIPE SUPPORT
SCALE: 3/4" = 1'-0"



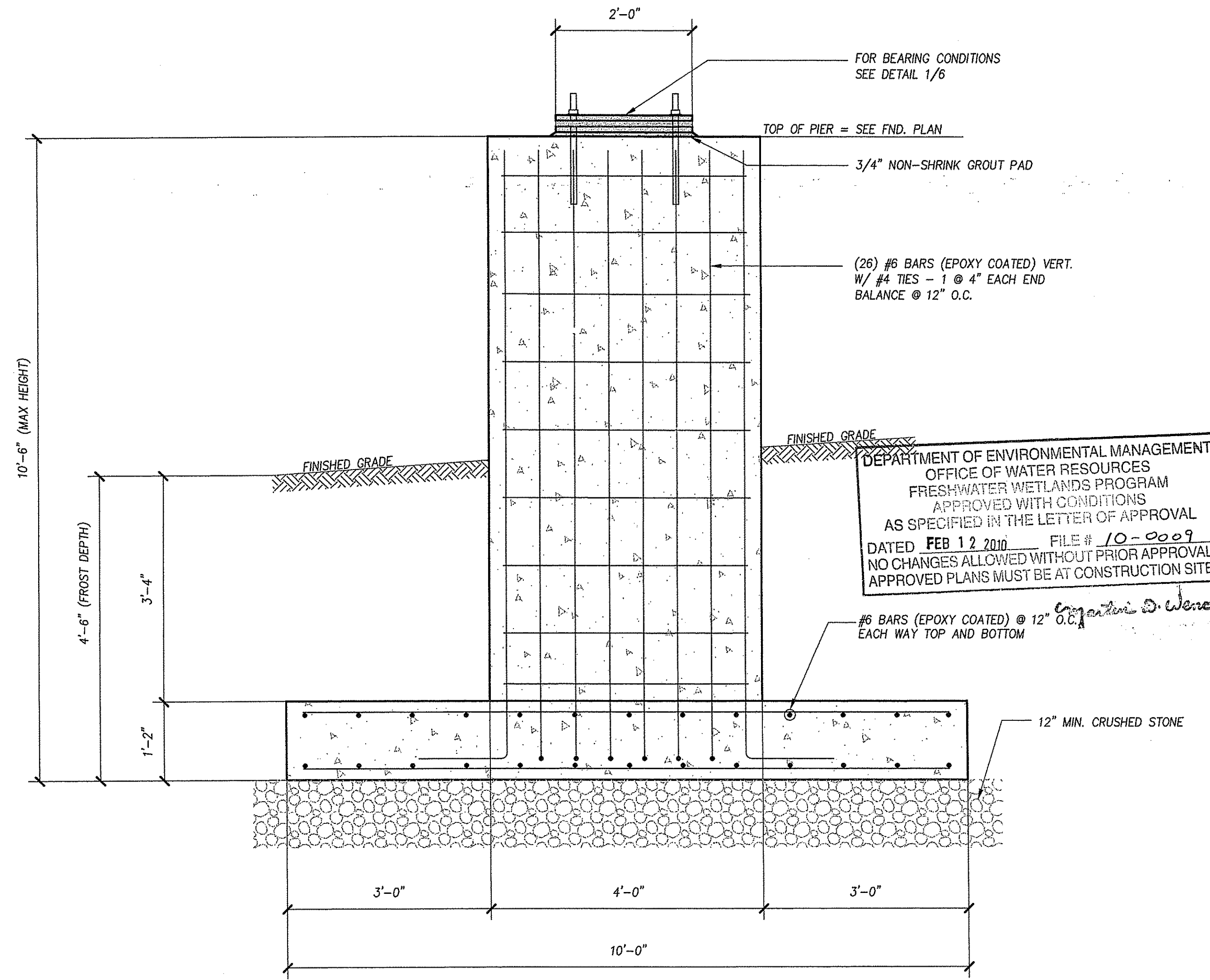
1 SECTION TYP. BRG. PLATE @ CONC. PIER
SCALE: 1" = 1'-0"



6 PLAN VIEW NEW STEEL BASE PLATE
SCALE: 1" = 1'-0"



4 SECTION @ NEW CONCRETE PIER PIPE SUPPORT
SCALE: 3/4" = 1'-0"



2 SECTION @ NEW CONCRETE PIER PIPE SUPPORT
SCALE: 3/4" = 1'-0"

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PAUL B. ALDINGER AND ASSOCIATES, INC.
STRUCTURAL AND GEOTECHNICAL ENGINEERING
860A WATERMAN AVE. SUITE 69
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JAMES J. GALUSKA
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DESIGNED BY: RWF
DRAWN BY: RWF
CHECKED BY: JJG
SCALE: AS NOTED
DATE: DEC. 2009

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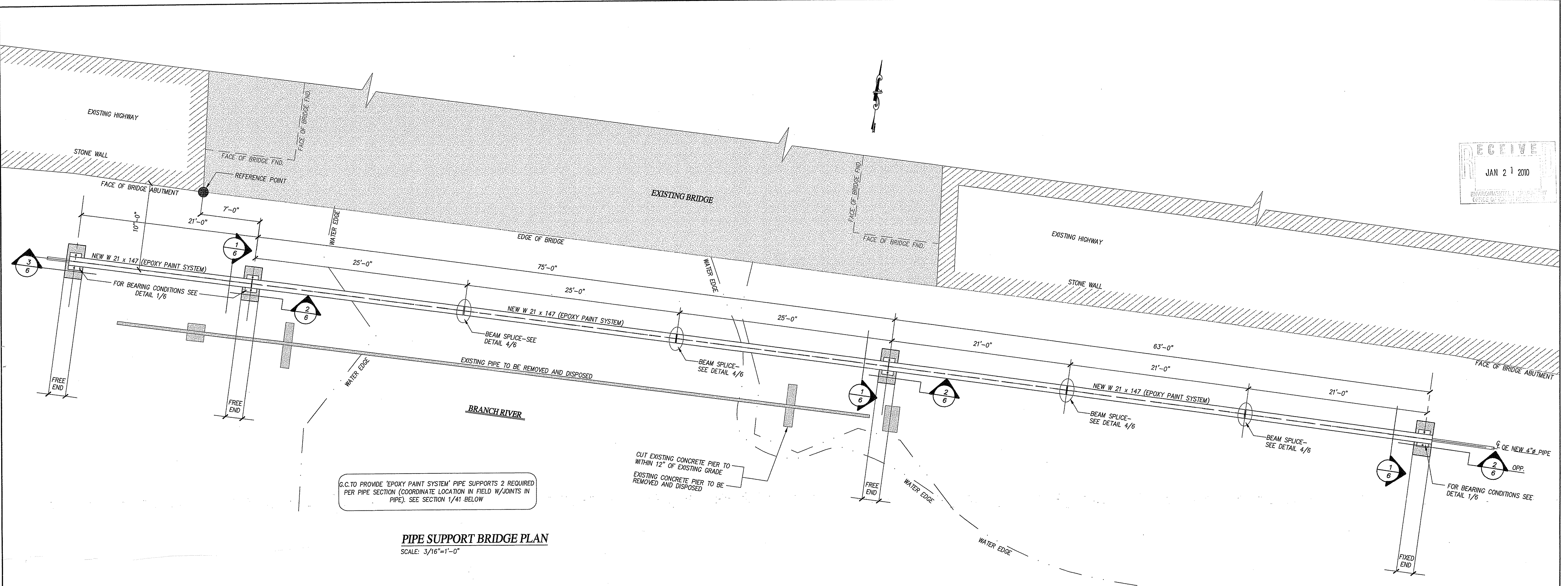
BRANCH RIVER CROSSING
FORCE MAIN
NORTH SMITHFIELD, RI

STRUCTURAL SECTIONS & DETAILS

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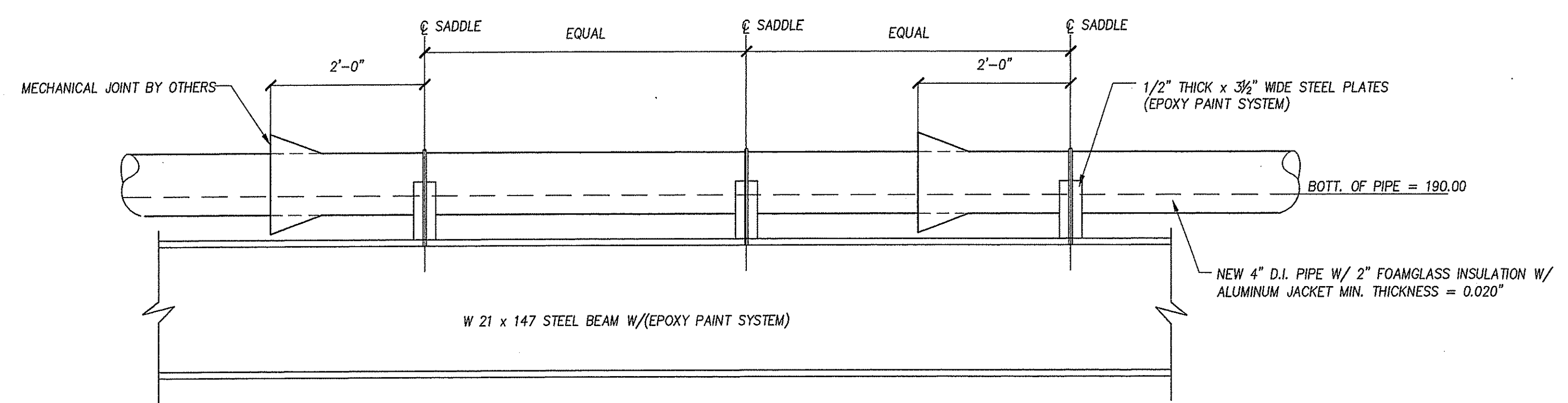
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G.C. TO PROVIDE 'EPOXY PAINT SYSTEM' PIPE SUPPORTS 2 REQUIRED PER PIPE SECTION (COORDINATE LOCATION IN FIELD W/JOINTS IN PIPE). SEE SECTION 1/41 BELOW

PIPE SUPPORT BRIDGE PLAN
 SCALE: 3/16"=1'-0"

- NOTES:**
- 2" FOAMGLASS INSULATION AND ALUMINUM JACKET SHALL BE INSTALLED BY A FIRM THAT SPECIALIZES IN SUCH WORK.
 - PIPE COVERING PROTECTION SADDLES AND INSULATION PROTECTIONS SADDLES SHALL BE AS MANUFACTURED BY B-LINE.



1
5 **ELEVATION** © NEW STEEL BEAM & 4"Ø PIPE
 SCALE: 1" = 1'-0"

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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W. Wenzel

CONSULTANT:
PAUL B. ALDINGER AND ASSOCIATES, INC.
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DESIGNED BY: RWF
 DRAWN BY: RWF
 CHECKED BY: JJG
 SCALE: AS NOTED
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JAMES J. GEREMIA
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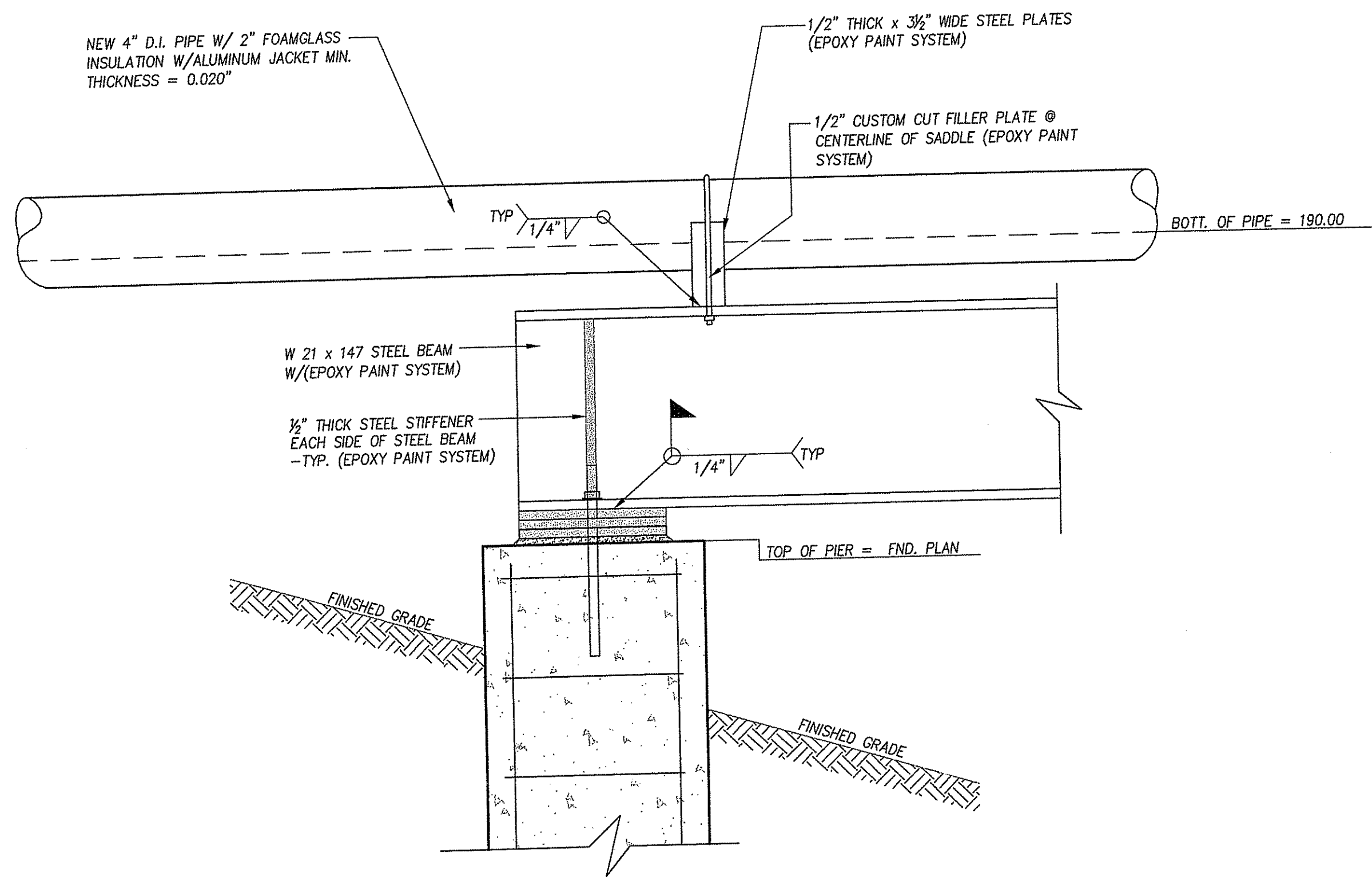
JAMES J. GEREMIA & ASSOCIATES, INC.
 CONSULTING ENVIRONMENTAL ENGINEERS & SCIENTISTS
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 Phone: 401-454-7000 Fax: 401-454-7415

BRANCH RIVER CROSSING
 FORCE MAIN
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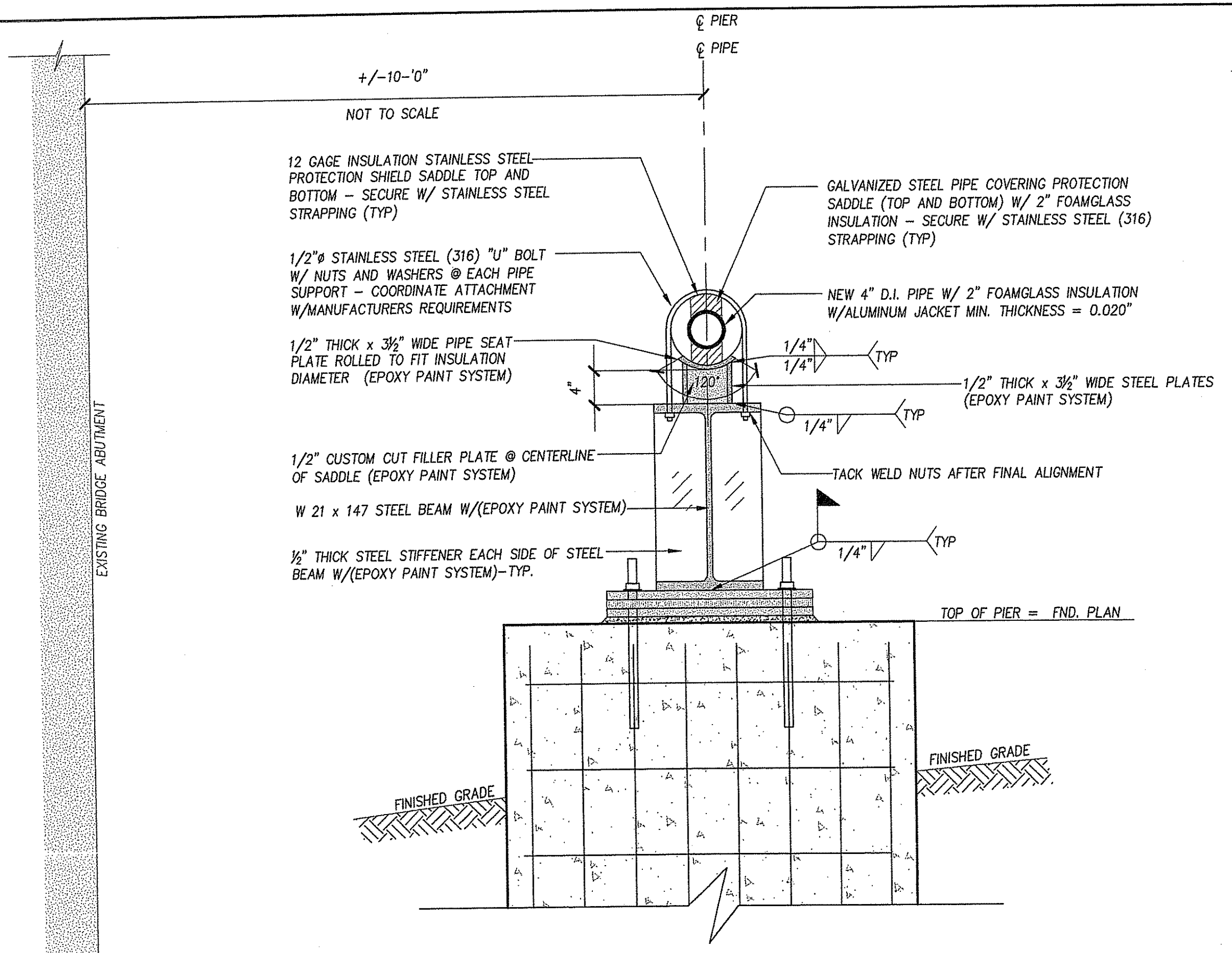
NEW STEEL BEAM & PIPE LAYOUT PLAN
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 SECTIONS

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 5
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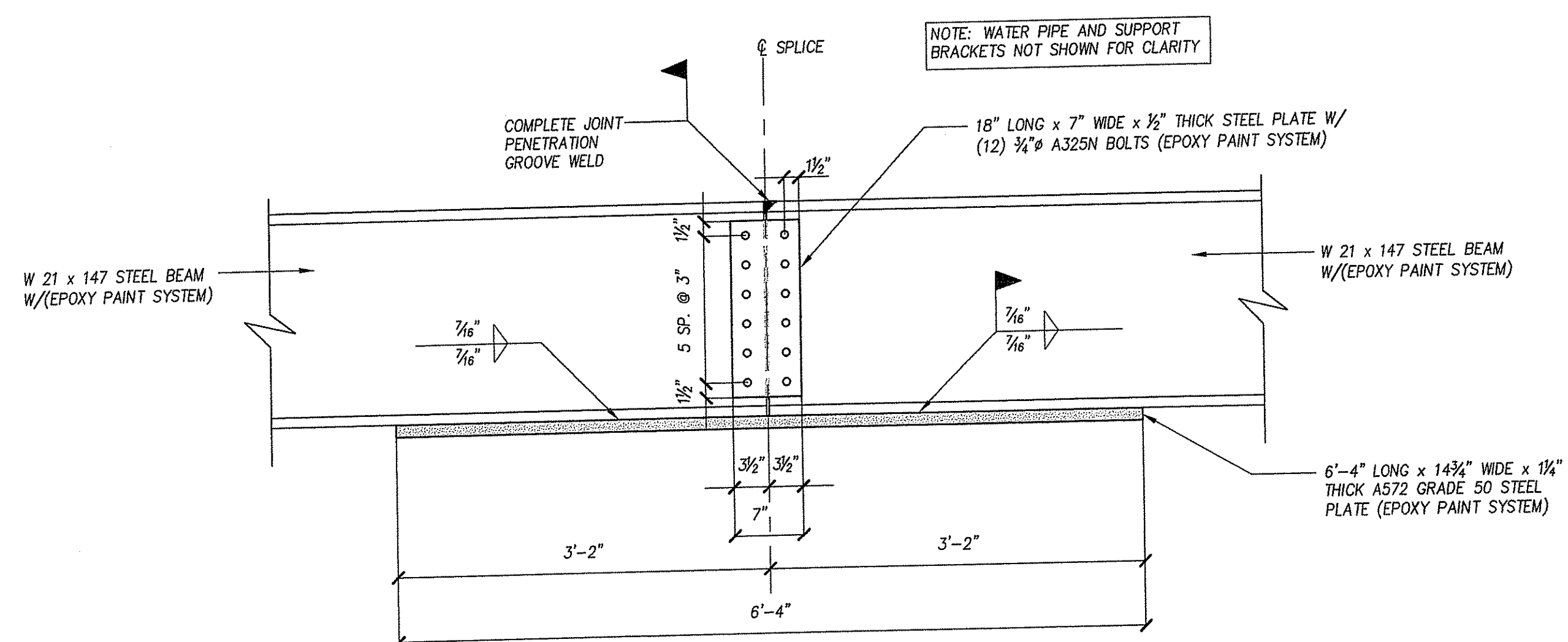


3 SECTION @ NEW STEEL BEAM & 4" PIPE
SCALE: 1" = 1'-0"

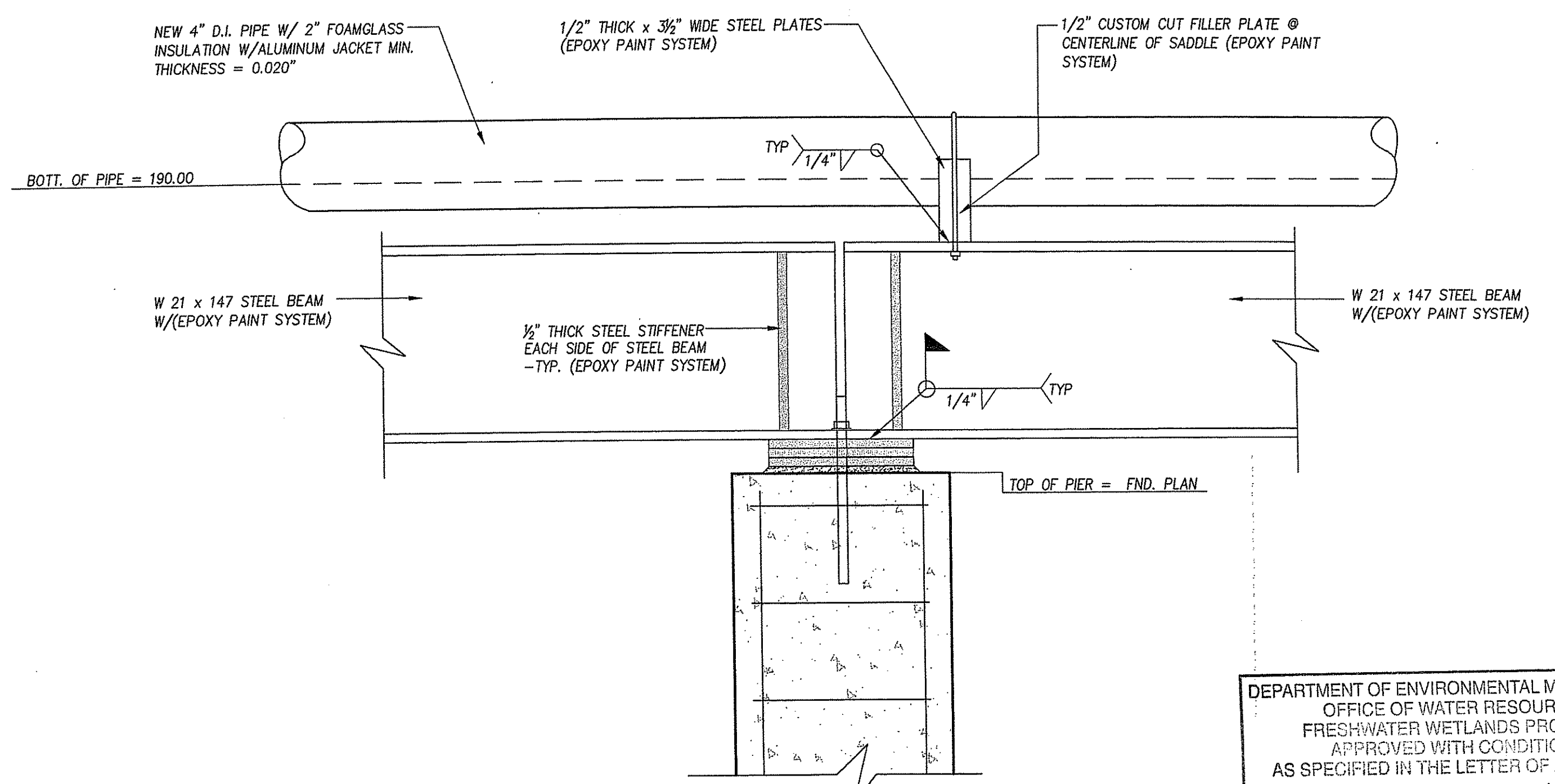


1 SECTION @ NEW STEEL BEAM & 4" PIPE
SCALE: 1" = 1'-0"

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OFFICE OF WATER RESOURCES



4 SECTION @ NEW STEEL BEAM SPLICE CONNECTION
SCALE: 1" = 1'-0"



2 SECTION @ NEW STEEL BEAM & 4" PIPE
SCALE: 1" = 1'-0"

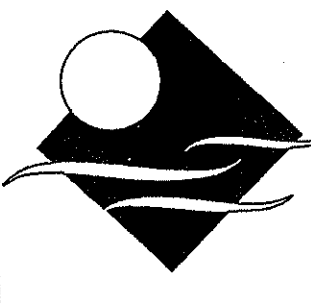
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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860A WATERMAN AVE. SUITE 49
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JAMES J. GALUSKA
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DESIGNED BY: RWF
DRAWN BY: RWF
CHECKED BY: JJG
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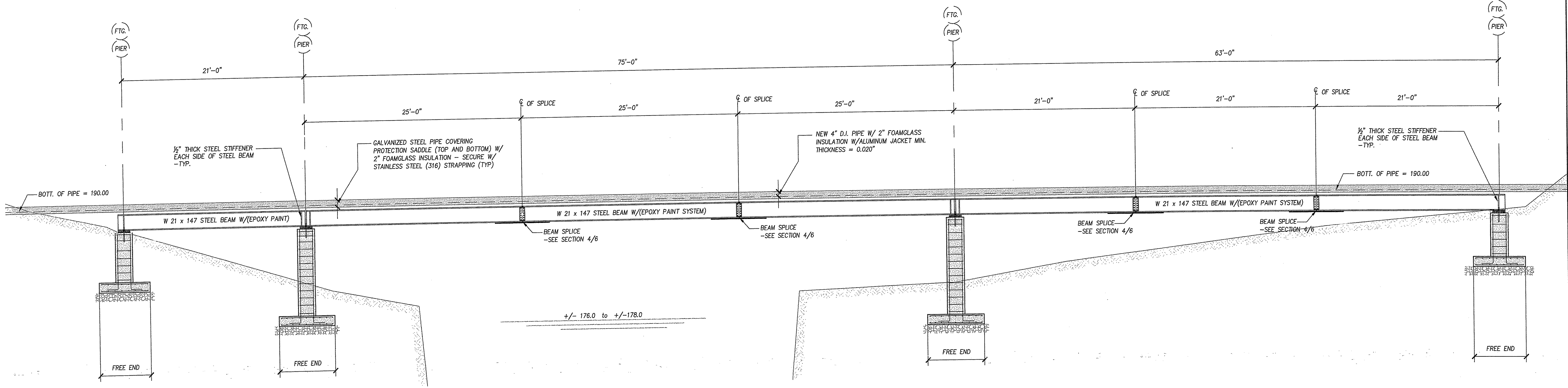
BRANCH RIVER CROSSING
FORCE MAIN
NORTH SMITHFIELD, RI

STRUCTURAL SECTIONS & DETAILS

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6
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ELEVATION - NEW STEEL BEAM PIPE SUPPORT
 SCALE: 3/16"=1'-0"

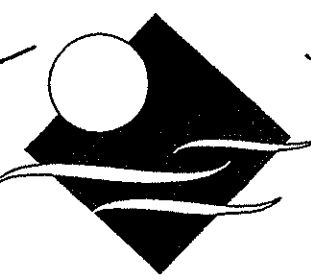
- NOTES:
1. G.C. TO PROVIDE "EPOXY PAINT SYSTEM" PIPE SUPPORTS 2 REQUIRED PER PIPE SECTION (COORDINATE LOCATION IN FIELD W/JOINTS IN PIPE).
 2. 2" FOAMGLASS INSULATION AND ALUMINUM JACKET SHALL BE INSTALLED BY A FIRM THAT SPECIALIZES IN SUCH WORK.
 3. PIPE COVERING PROTECTION SADDLES AND INSULATION PROTECTIONS SADDLES SHALL BE AS MANUFACTURED BY B-LINE.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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Signature: D. Wenzel

CONSULTANT LOGO:
PAUL B. ALDINGER AND ASSOCIATES, INC.
 STRUCTURAL AND GEOTECHNICAL ENGINEERING
 880A WATERDEMAN AVE. SUITE #9
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JAMES J. GALUSKA
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 REGISTERED PROFESSIONAL ENGINEER

JAMES J. GEREMIA
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 272 W. Exchange Street Suite 201 Providence, RI 02903-1025
 Phone: 401-454-7000 Fax: 401-454-7415

BRANCH RIVER CROSSING
 FORCE MAIN
 NORTH SMITHFIELD, RI

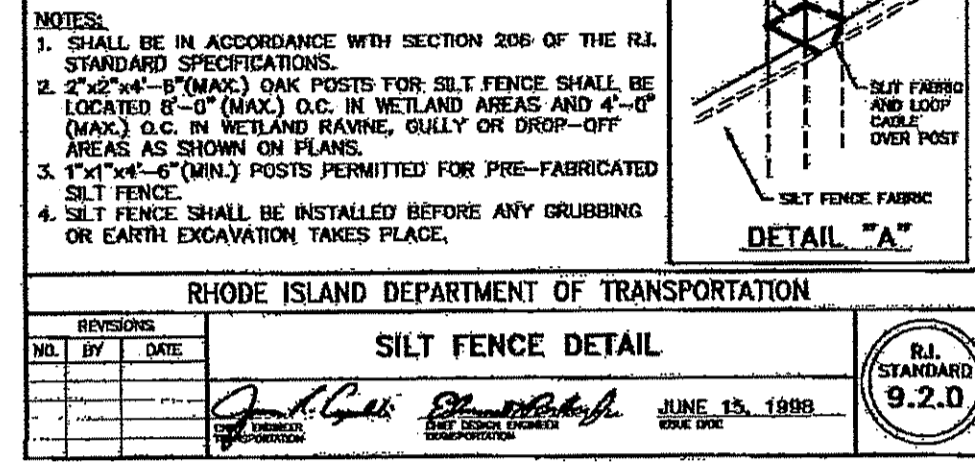
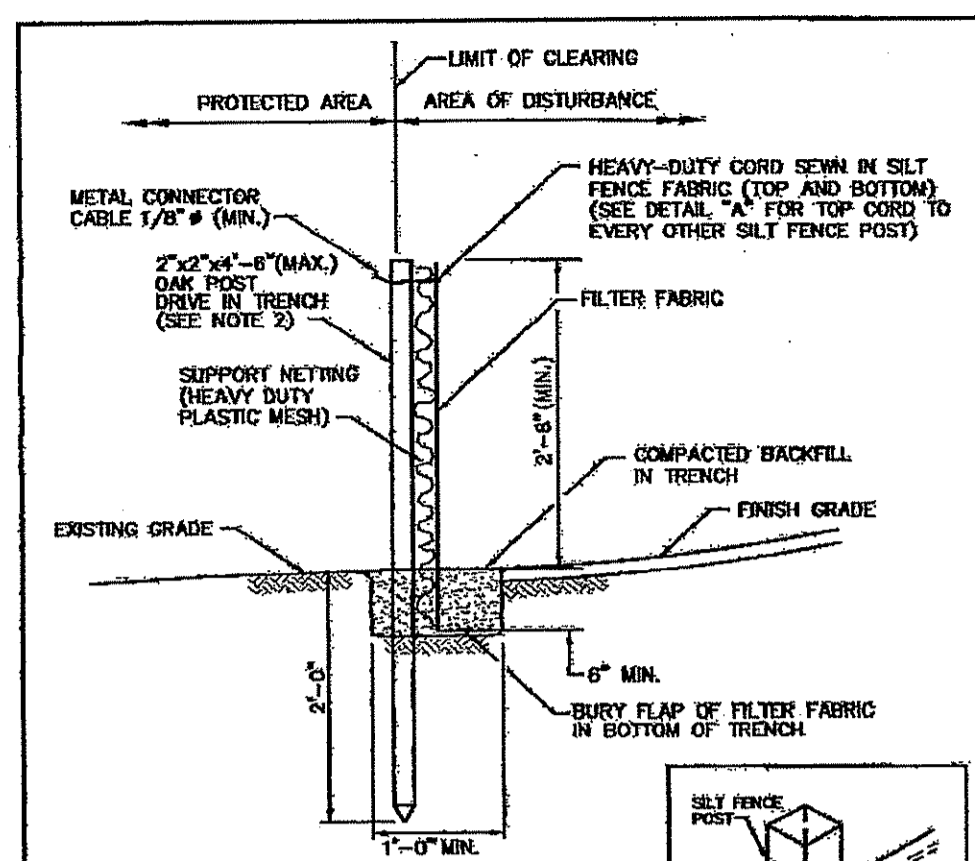
NEW STEEL BEAM
 &
 FOUNDATION ELEVATION

SHEET NO.
 of 7
 10

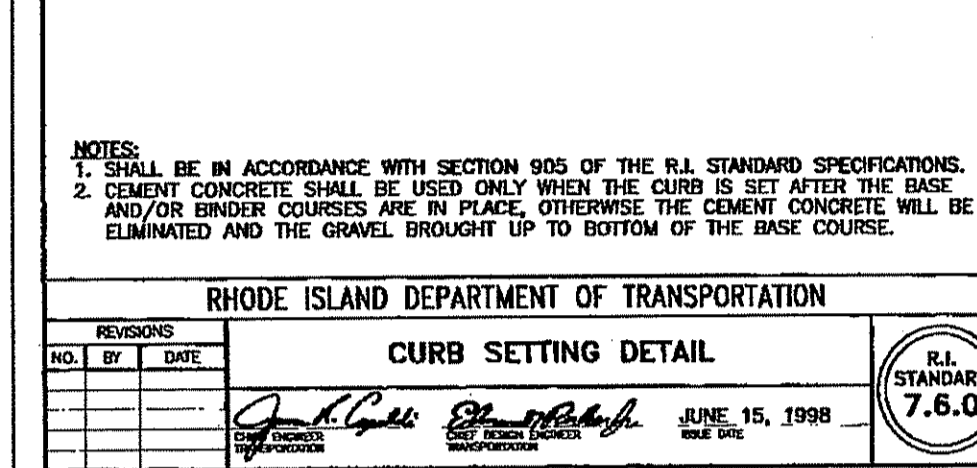
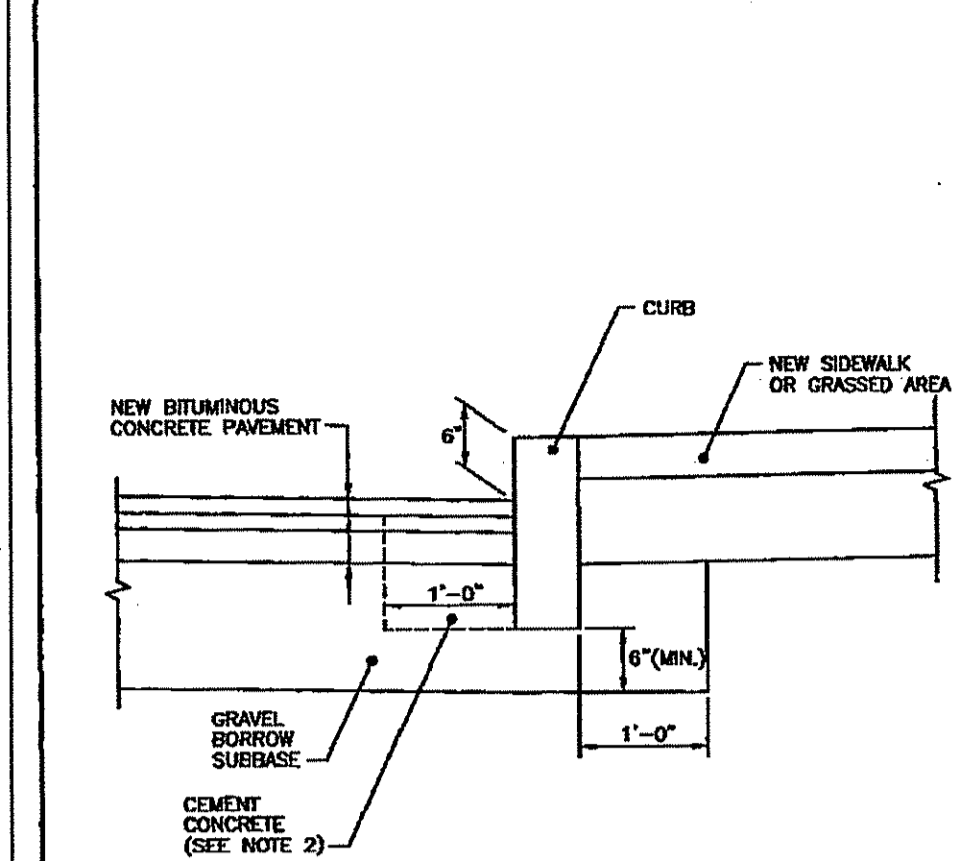
DESIGNED BY: RWF	REMARKS:
DRAWN BY: RWF	DATE PRINTED:
CHECKED BY: JJG	
SCALE: AS NOTED	
DATE: DEC. 2009	
NO: BY:	
CADD FILE:	

GENERAL NOTES:

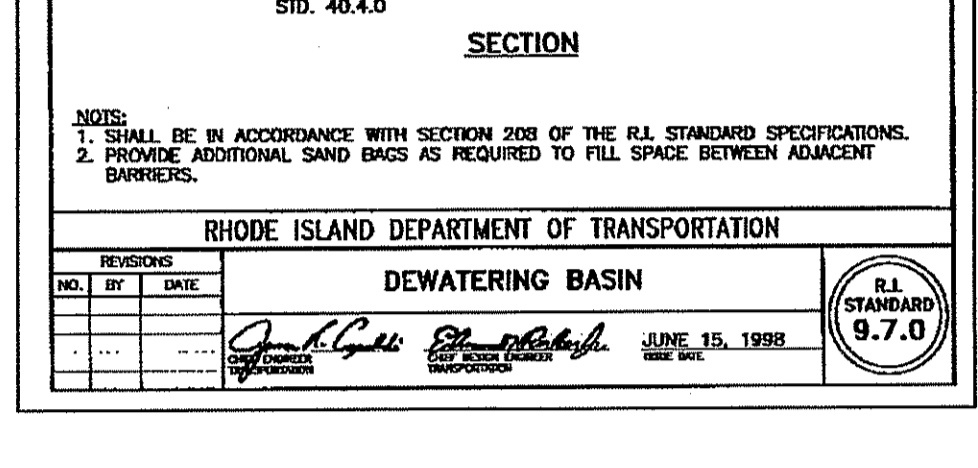
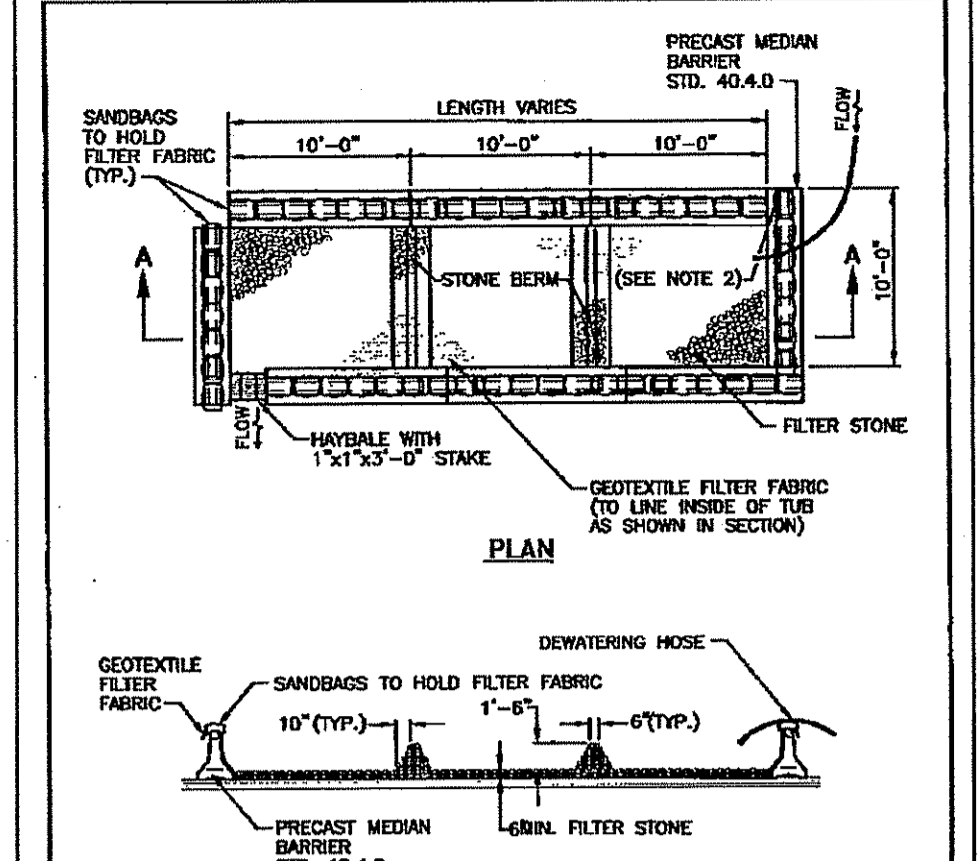
- PLANIMETRIC AND TOPOGRAPHIC MAPPING BY COL-EAST INC.
- FIELD EDITING BY MARC N. NYBERG ASSOC. WETLAND FLAGGING BY APPLIED BIOSYSTEMS. HORIZONTAL DATUM = NAD 1983 AND VERTICAL DATUM = NAVD 1988
- LOCATION AND DEPTHS OF EXISTING UTILITIES ARE APPROXIMATE AND HAVE BEEN PLOTTED FROM THE BEST AVAILABLE INFORMATION BY MARC NYBERG & ASSOC. THE CONTRACTOR SHALL VERIFY LOCATIONS OF ALL EXIST. UTILITIES AND NOTIFY THE APPROPRIATE UTILITY AUTHORITIES INCLUDING "DIG SAFE" PRIOR TO STARTING WORK ANY DAMAGE TO UTILITIES CAUSED BY THE CONTRACTOR'S OPERATIONS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND THE COST OF REPAIRS SHALL BE BORNE BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE OWNER.
- PROTECTION OF WATER LINES: SEWERS SHALL BE LAID AT A MIN. AT LEAST 10 FEET HORIZONTALLY FROM ANY EXIST. OR PROPOSED WATER MAIN OR SERVICE. SHOULD LOCAL CONDITIONS PREVENT A LATERAL SEPARATION OF 10 FEET, THE SEWER LINE SHALL BE CONSTRUCTED OF AWWA 900 POLYVINYL CHLORIDE PRESSURE PIPE. WHENEVER SEWERS CROSS UNDER WATER MAINS, OR SERVICES, THE SEWER SHALL BE LAID AT SUCH AN ELEVATION THAT THE TOP OF THE SEWER IS AT LEAST 18 INCHES BELOW THE BOTTOM OF THE WATER MAIN. WHEN THE ELEVATION OF THE SEWER CANNOT BE RELOCATED TO PROVIDE THIS, SEPARATION, THE SEWER LINE SHALL BE CONSTRUCTED OF AWWA 900 POLYVINYL CHLORIDE PRESSURE PIPE FOR A DISTANCE OF 10 FEET ON EACH SIDE OF THE WATER MAIN. SEWERS SHALL BE LAID AT A MINIMUM AT LEAST 50 FEET, HORIZ. FROM ANY EXIST. OR PROPOSED PRIVATE WELL. SHOULD LOCAL CONDITIONS PREVENT A LATERAL SEPARATION OF 50 FEET, THE SEWER LINE SHALL BE CONSTRUCTED OF AWWA 900 POLYVINYL CHLORIDE PRESSURE PIPE FROM MANHOLE TO MANHOLE. REACH INCLUDING THE SERVICE CONNECTION PIPE. THE CONTRACTOR SHALL VERIFY AND DOCUMENT SUCH CONDITIONS FOR PRE-FABRICATED SILT FENCE.
- THE CONTRACTOR SHALL CONFINED HIS OPERATIONS AND ACTIVITIES FOR CONSTRUCTION PURPOSES TO WITHIN THE STREET LINES, EASEMENTS AND/OR RIGHT OF WAY ACROSS PRIVATE PROPERTY.
- ALL AREAS DISTURBED BY THE CONTRACTOR SHALL BE RESTORED TO THEIR ORIGINAL CONDITION.
- WATER, GAS, SEWER AND OTHER UTILITIES SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION.
- ALL GRASSED AREAS DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE LOAMED AND SEED.
- ALL CURBING DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPLACED AND RESTORED AT NO ADDITIONAL EXPENSE TO THE OWNER.
- A HOUSE CONNECTION SHALL BE PROVIDED FOR EVERY HOUSE LOT ALONG THE ROUTE OF THE SEWER LINE, AND AS DIRECTED BY THE OWNER. EXACT LOCATIONS AND END DEPTHS OF HOUSE CONNECTIONS SHALL BE DETERMINED BY THE OWNER'S REPRESENTATIVE DURING CONSTRUCTION.
- PROPERTY AND STREET LINE INFORMATION SHOWN ON THE DRAWINGS WERE OBTAINED FROM ASSESSOR'S PLAT MAPS AND SHOULD BE CONSIDERED APPROXIMATE.
- ALL ELEVATIONS ARE BASED ON NATIONAL GEODETIC VERTICAL DATUM OF 1988 AND HORIZONTAL DATUM OF NAD 83. BENCH MARK ELEVATIONS ARE AS SHOWN ON PLANS.
- SAW CUT PAVEMENT FULL-DEPTH PRIOR TO THE INSTALLATION OF SEWERS.
- DRIVEWAYS TO BE SAW CUT.
- EACH DWELLING UNIT AND COMMERCIAL ESTABLISHMENT SHALL BE ACCESSIBLE FOR TRASH REMOVAL AND POSTAL SERVICE.
- SCHOOL BUS SERVICE SHALL NOT BE DISRUPTED.
- AT THE END OF EACH WORK DAY THE TRENCH SHALL BE TOTALLY BACKFILLED.
- DEWATERING SYSTEMS EFFLUENT FOR TRENCH EXCAVATIONS SHALL BE DISCHARGED INTO DEWATERING BASINS. THE EFFLUENT FROM THE DEWATERING BASINS SHALL HAVE NO VISUAL SEDIMENTATION PRESENT AND SHALL NOT CAUSE SILTATION OF EXISTING DRAINAGE SYSTEM AND REGULATED WETLANDS. THE DEWATERING BASINS SHALL HAVE A VOLUME NOT LESS THAN THE TOTAL VOLUME OF WATER THAT WILL BE PUMPED DURING A FOUR-HOUR PERIOD.
- THE DEWATERING BASINS SHALL BE DESIGNED IN ACCORDANCE WITH THE R.I. SOIL EROSION AND SEDIMENTATION CONTROL HANDBOOK.
- THE CONTRACTOR SHALL SUBMIT CALCULATIONS FOR SIZING OF DEWATERING BASINS TO THE ENGINEER FOR REVIEW.
- THE CONTRACTOR WILL BE RESPONSIBLE FOR SEDIMENTATION THAT ENTERS THE DRAINAGE SYSTEM AND REGULATED WETLANDS. THE WETLANDS SHALL BE RESTORED IN ACCORDANCE WITH RIDEM REQUIREMENTS AT NO ADDITIONAL COST TO THE OWNER. THE CONTRACTOR WILL BE RESPONSIBLE FOR FINES THAT MAY BE IMPOSED BY THE RIDEM, AND THE OWNER WILL NOT REIMBURSE THE CONTRACTOR.
- PRIOR TO COMMENCING CONSTRUCTION OPERATIONS, SILT FENCING SHALL BE PLACED SO AS TO PREVENT SEDIMENT FROM ENTERING ADJOINING REGULATED WETLANDS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EROSION CONTROL MAINTENANCE AND SHALL INSPECT/REPLACE DAILY AND AFTER EACH RAINFALL. REPAIRS SHALL BE MADE IMMEDIATELY. ALL SEDIMENT MUST BE REMOVED WHEN THE HEIGHT OF THE SEDIMENT REACHES < THE HEIGHT OF THE SEDIMENT BARRIER (SILT FENCE).
- THE "R.I. EROSION AND SEDIMENT CONTROL HANDBOOK" PREPARED BY THE U.S. DEPARTMENT OF AGRICULTURE, SOIL CONSERVATION SERVICE, LATEST EDITION, MUST BE UTILIZED BY THE CONTRACTOR AS A GUIDE.
- THE CONTRACTOR SHALL HAVE TRAFFIC CONTROL DEVICES, SUCH AS SIGNAGE, ETC., INSTALLED PRIOR TO THE START OF CONSTRUCTION, IN ACCORDANCE WITH THE TOWN AND THE RHODE ISLAND DEPARTMENT OF TRANSPORTATION, AND THE MUTCD MANUAL.
- CONTRACTOR SHALL SUBMIT TO RIDOT TRAFFIC CONTROL PLANS FOR APPROVAL PRIOR TO BEGINNING THE PROJECT.
- THE CONTRACTOR WILL BE REQUIRED TO PROVIDE CERTIFICATION BY A PROFESSIONAL ENGINEER THAT THE SOIL CONSTRUCTION OF TRENCHES MEETS SPECIFIED STANDARDS.
- TEMPORARY PAVEMENT SHALL BE INSTALLED AT THE END OF EACH WORK DAY
- CONSTRUCTION ON GREAT ROAD ACCORDANCE WITH THE LATEST REVISION OF AND MODIFICATIONS TO THE STATE OF RHODE ISLAND STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION & STANDARD DETAILS.
- THE CONTRACTOR SHALL NOTIFY THE WATER USERS 24 HOURS PRIOR TO ANY WATER SHUT DOWNS.
- CONTRACTOR IS REQUIRED TO ESTABLISH ADDITIONAL BENCHMARKS AS REQUIRED FOR HIS OR HER OPERATIONS AT NO ADDITIONAL COST TO THE OWNER.
- CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANY TO SECURE POLES AND PROVIDE SHIELDS AS REQUIRED DURING CONSTRUCTION AT NO ADDITIONAL COST TO THE OWNER.
- DRAIN PIPES THAT ARE DAMAGED OR REMOVED BY THE CONTRACTOR SHALL BE REPLACED IN KIND PRIOR TO THE END OF THE WORK DAY AT NO ADDITIONAL COST TO THE OWNER.
- WORK HOURS ON STATE ROADWAY SHALL BE FROM 9:00 AM TO 3:00 PM



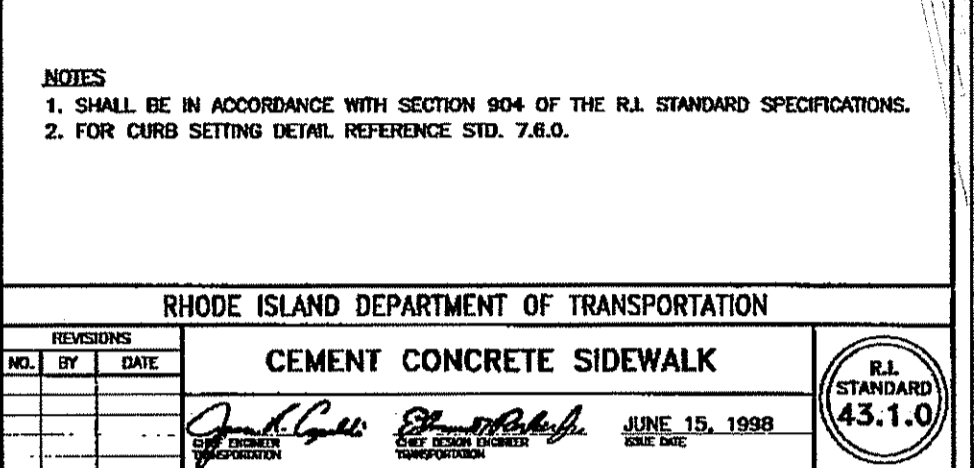
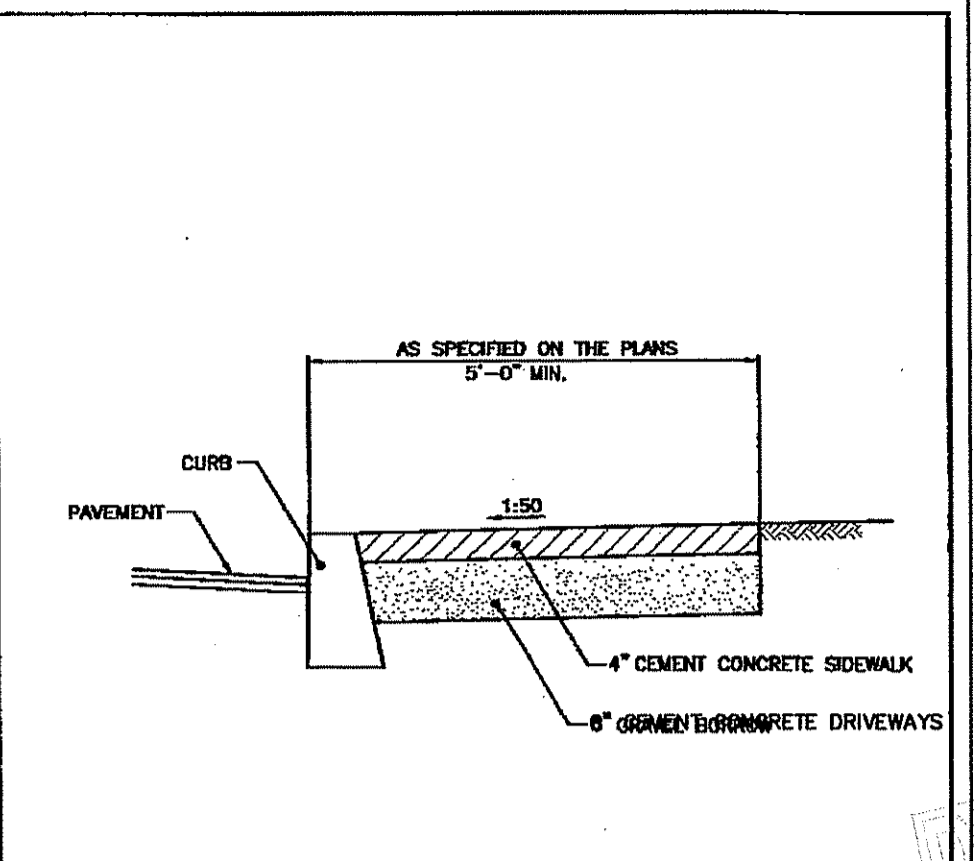
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SILT FENCE DETAIL
R.I. STANDARD 9.2.0
JUNE 15, 1998



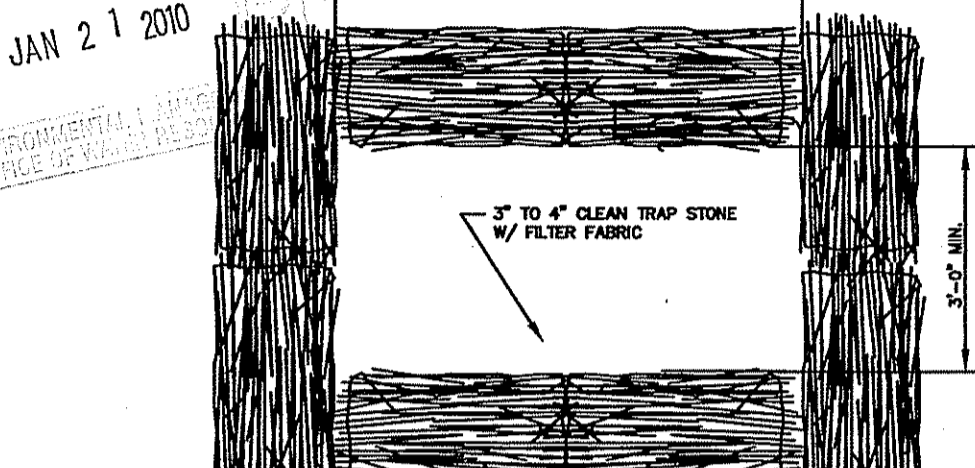
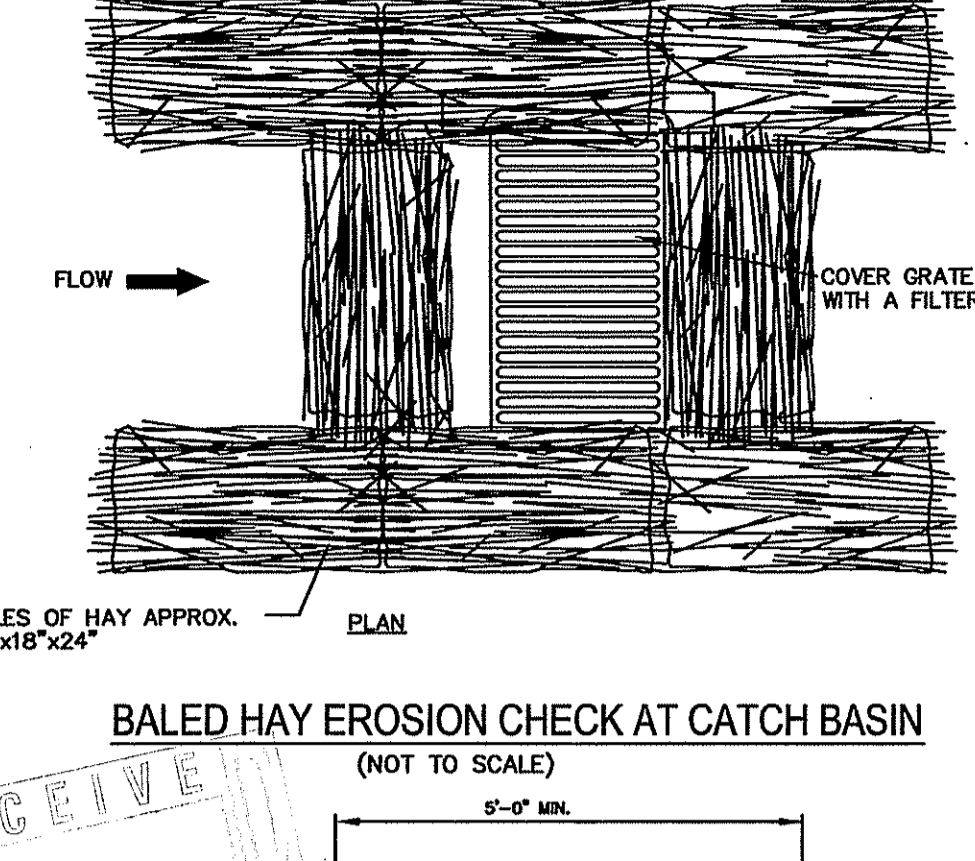
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CURB SETTING DETAIL
R.I. STANDARD 7.6.0
JUNE 15, 1998



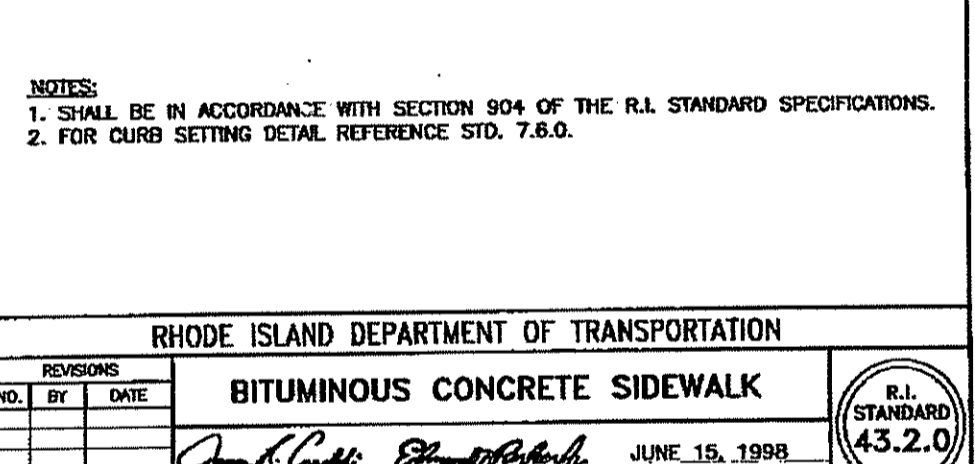
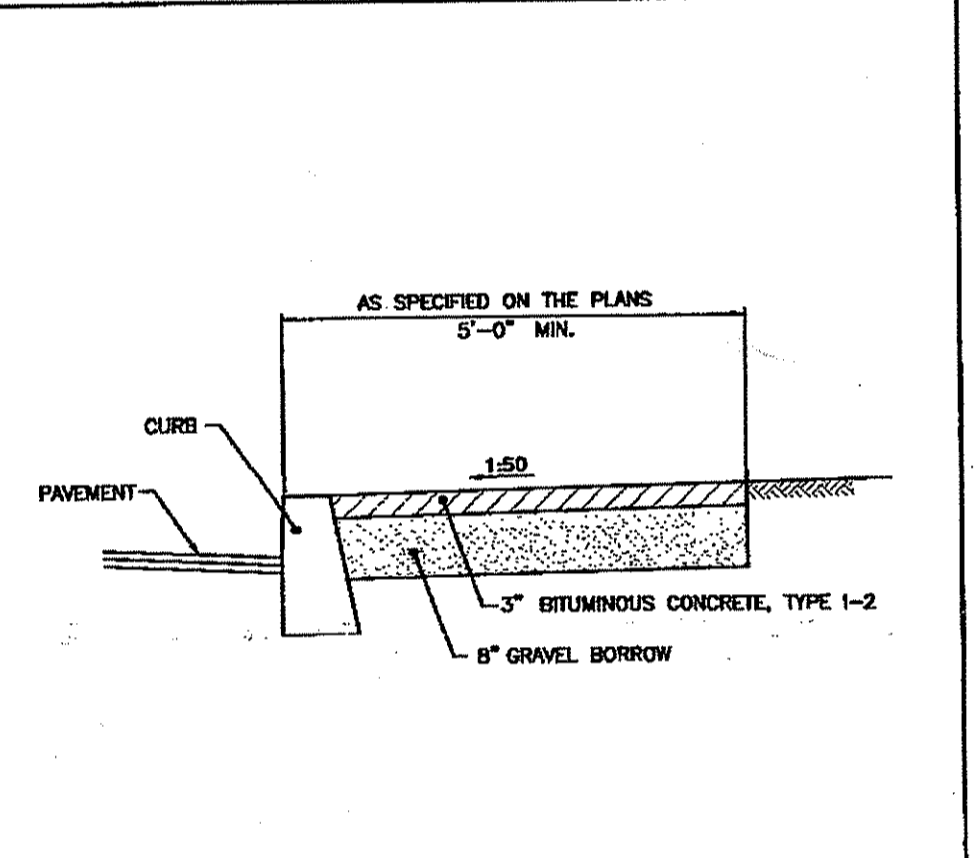
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DEWATERING BASIN
R.I. STANDARD 9.7.0
JUNE 15, 1998



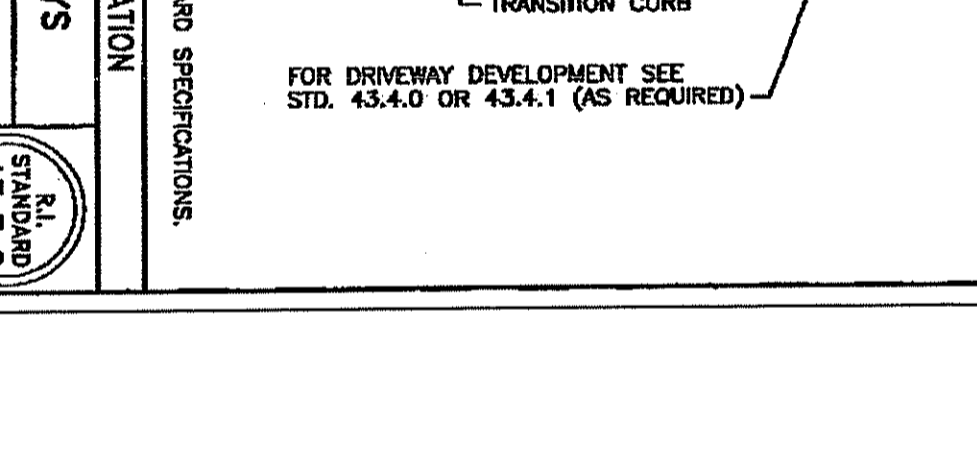
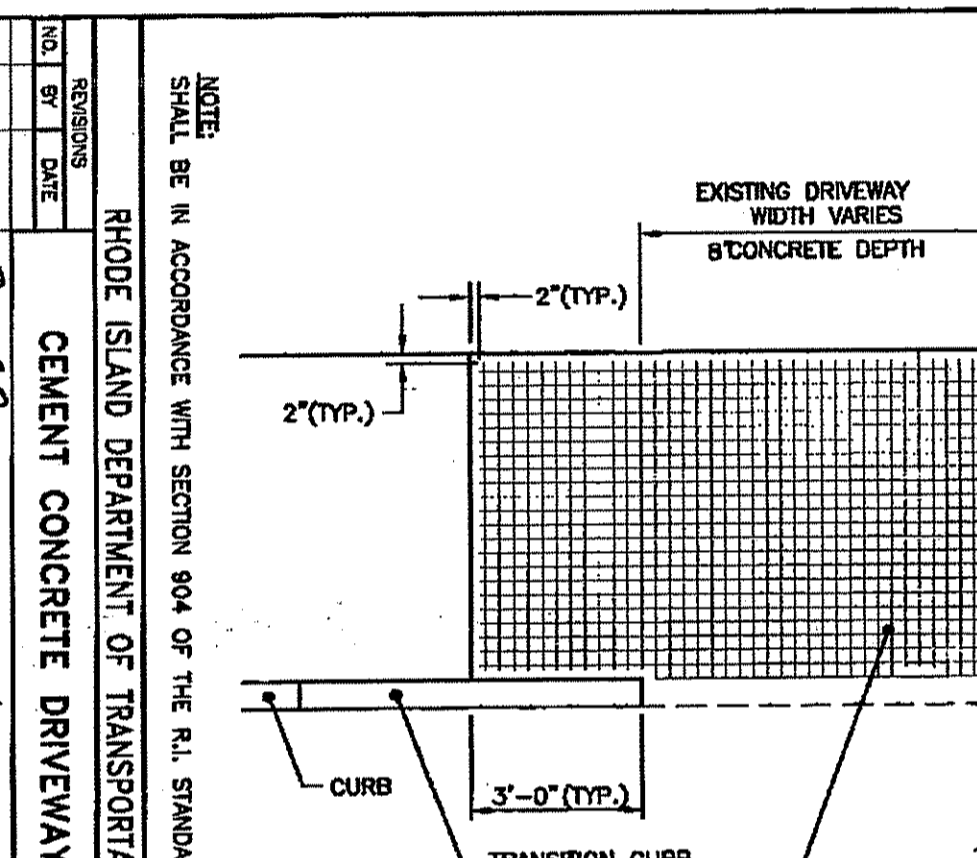
RHODE ISLAND DEPARTMENT OF TRANSPORTATION
CEMENT CONCRETE SIDEWALK
R.I. STANDARD 43.1.0
JUNE 15, 1998



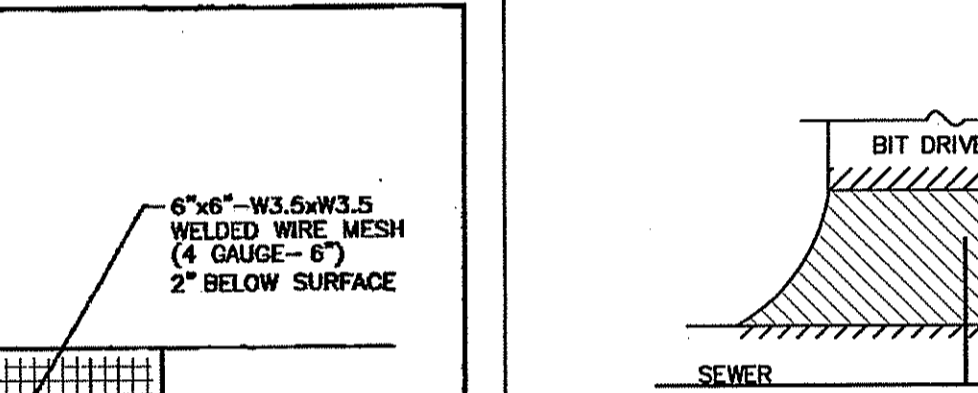
RHODE ISLAND DEPARTMENT OF TRANSPORTATION
BALED HAY EROSION CHECK AT CATCH BASIN
(NOT TO SCALE)
R.I. STANDARD 43.1.0
JUNE 15, 1998



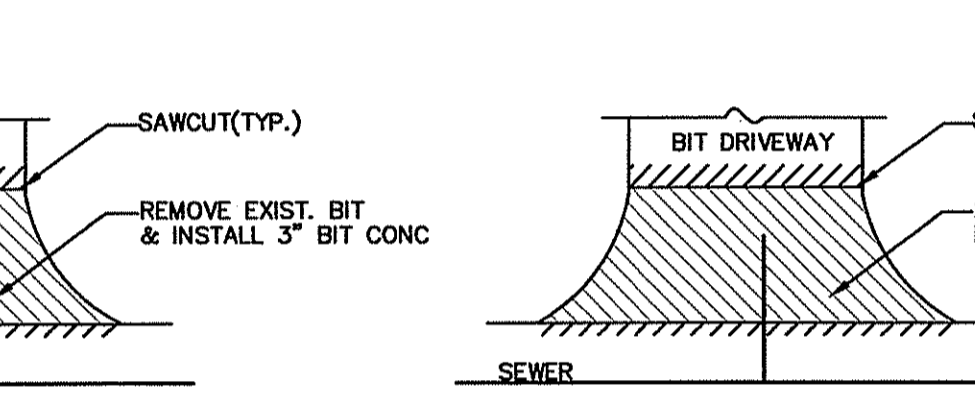
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BITUMINOUS CONCRETE SIDEWALK
R.I. STANDARD 43.2.0
JUNE 15, 1998



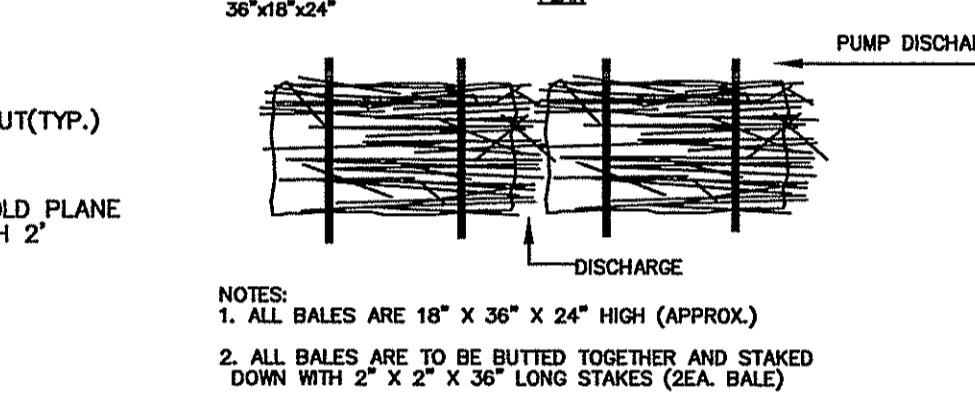
RHODE ISLAND DEPARTMENT OF TRANSPORTATION
CEMENT CONCRETE DRIVEWAYS
R.I. STANDARD 43.3.0
JUNE 15, 1998



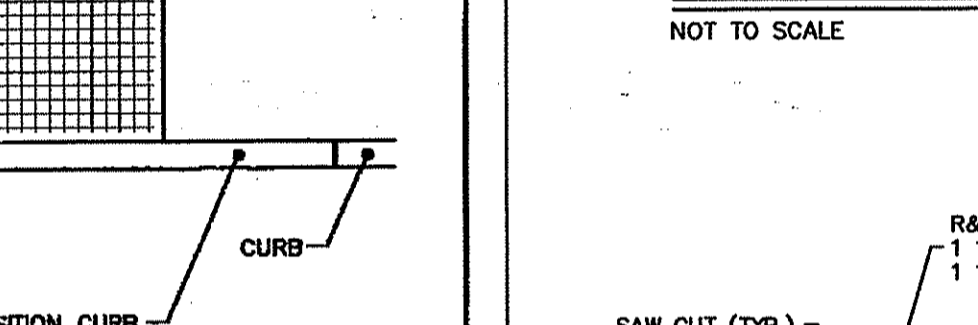
PERMANENT PAVEMENT: BIT. CONC. DRIVEWAYS W/ SEWER SERVICE
NOT TO SCALE



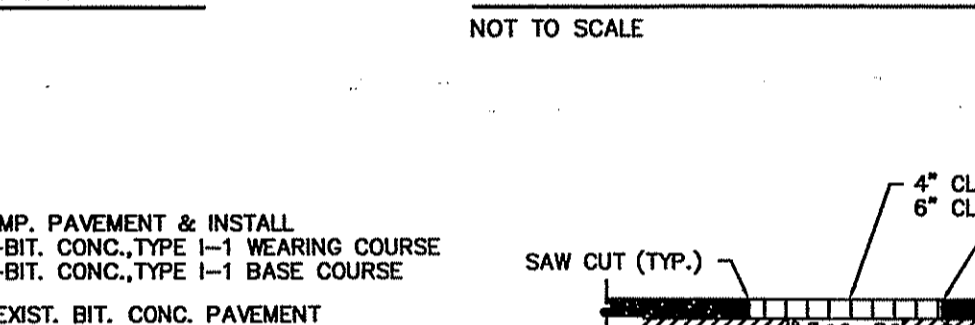
PERMANENT PAVEMENT: BIT. CONC. DRIVEWAYS W/ NO SEWER SERVICE
NOT TO SCALE



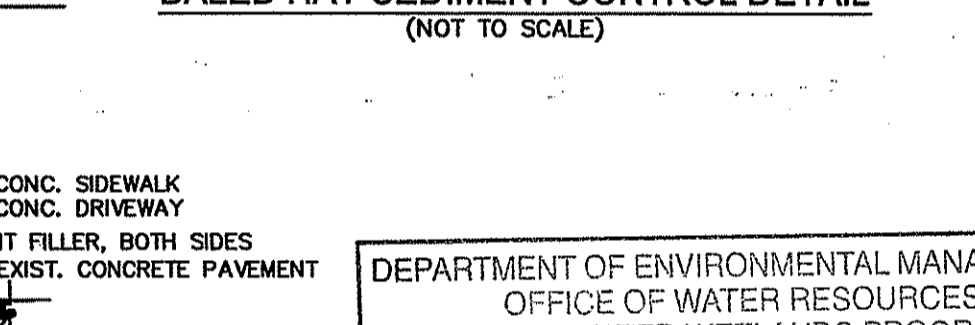
BALED HAY SEDIMENT CONTROL DETAIL
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JUNE 15, 1998



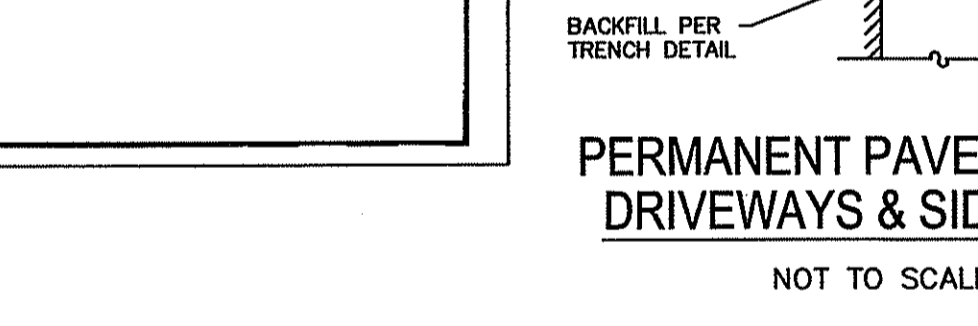
PERMANENT PAVEMENT-BIT. DRIVEWAYS & SIDEWALKS
NOT TO SCALE



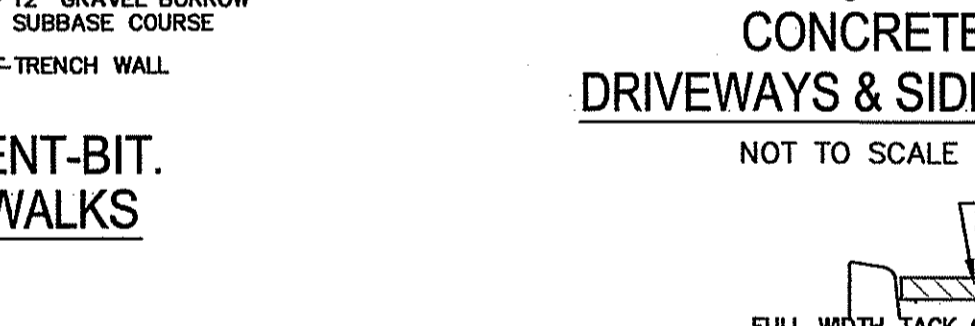
CONCRETE DRIVEWAYS & SIDEWALKS
NOT TO SCALE



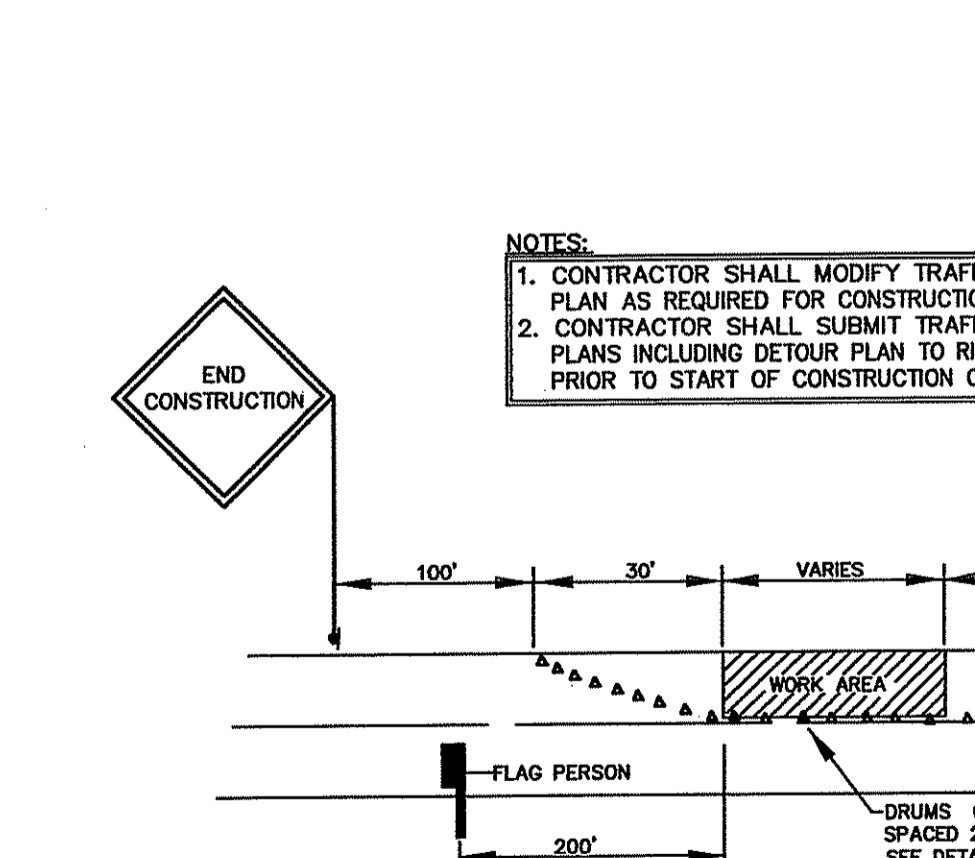
PERMANENT PAVEMENT VICTORY HIGHWAY
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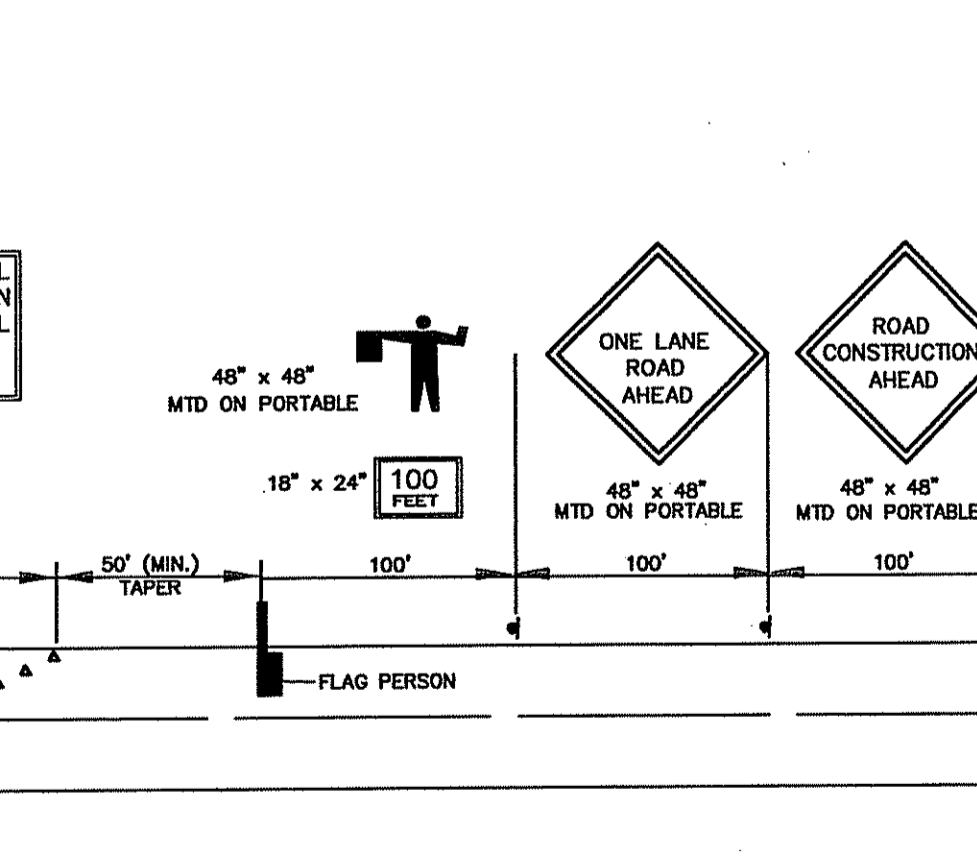
PERMANENT PAVEMENT RESTORATION GREAT ROAD
NOT TO SCALE



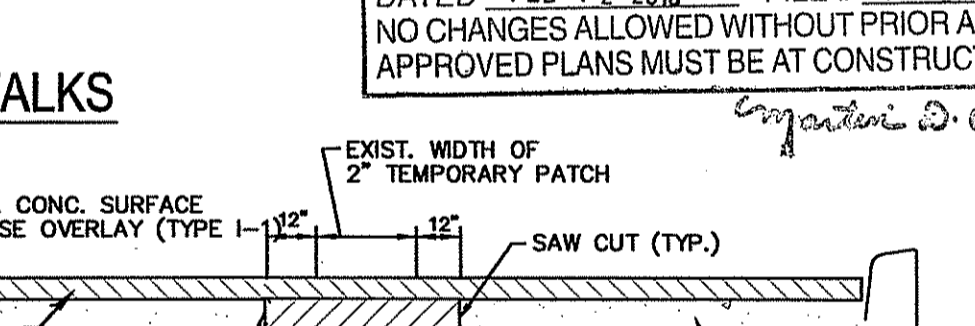
PAVEMENT RESTORATION TOWN ROADS
NOT TO SCALE



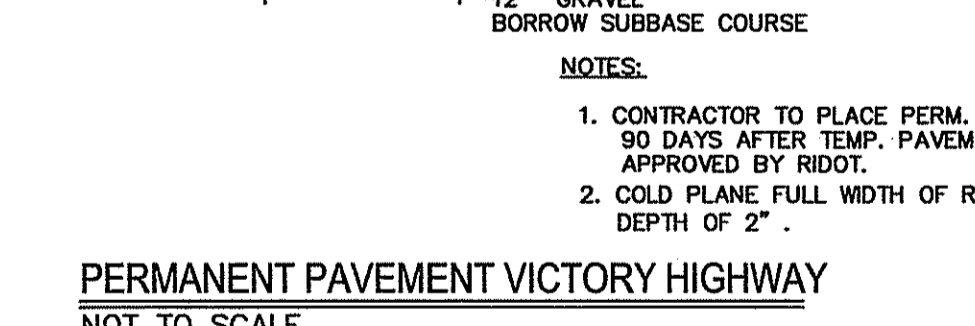
TRAFFIC CONTROL PLAN (ONE LANE CLOSED)
NOT TO SCALE



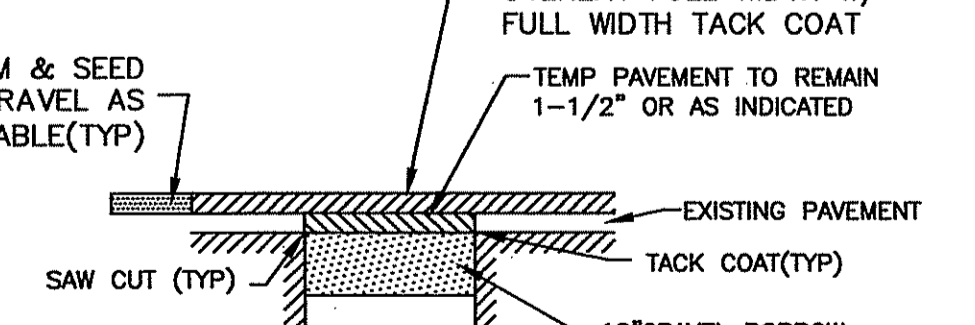
TRAFFIC CONTROL PLAN (ONE LANE CLOSED)
NOT TO SCALE



PERMANENT PAVEMENT RESTORATION TOWN ROADS
NOT TO SCALE



PERMANENT PAVEMENT RESTORATION GREAT ROAD
NOT TO SCALE



PAVEMENT RESTORATION TOWN ROADS
NOT TO SCALE

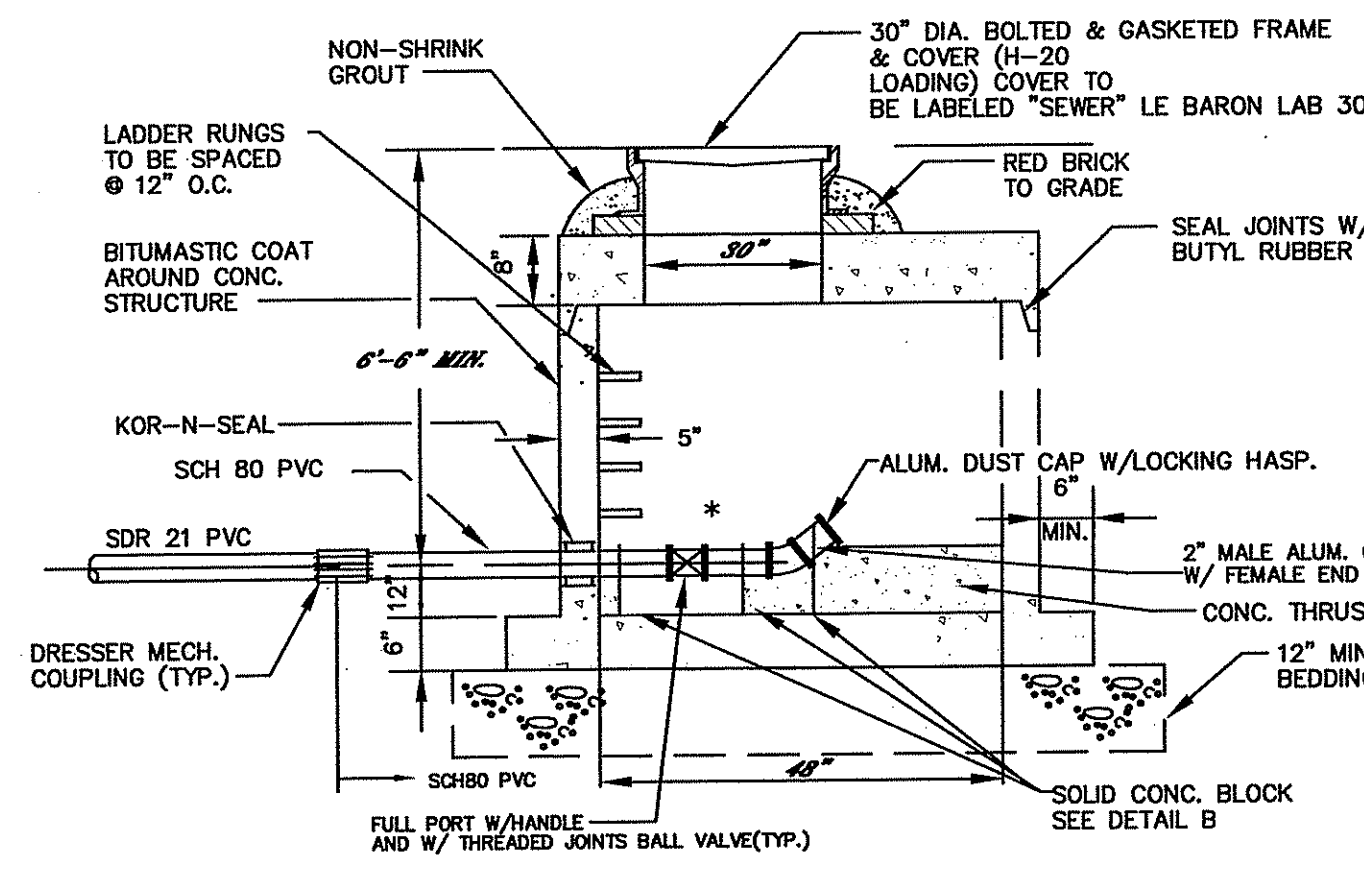
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DATE: FEB 2009

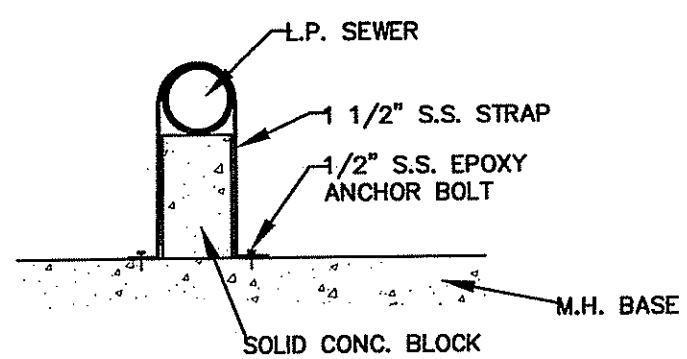
JAMES J. GEREMIA & ASSOCIATES, INC.
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PHASE III
NORTH SMITHFIELD WASTEWATER
COLLECTION SYSTEM IMPROVEMENTS
PREPARED FOR
TOWN OF NORTH SMITHFIELD

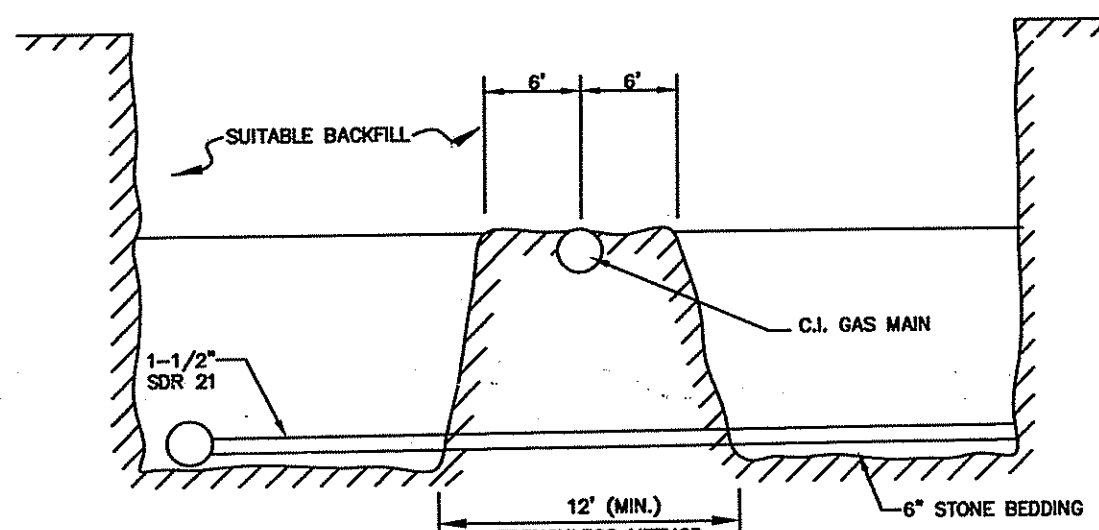
MISCELLANEOUS DETAILS I
SHEET NO. 8
of 10



LOW PRESSURE TERMINAL END SEWER FLUSHING CONNECTION
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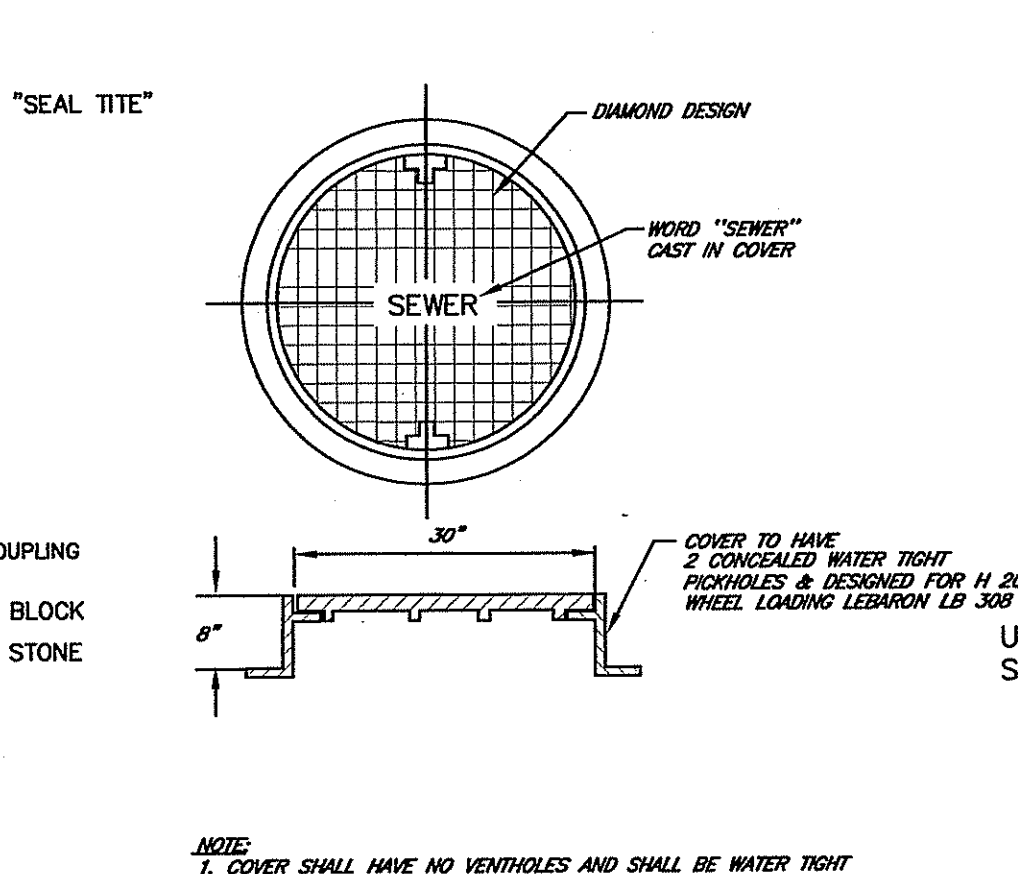


DETAIL "B"
NOT TO SCALE

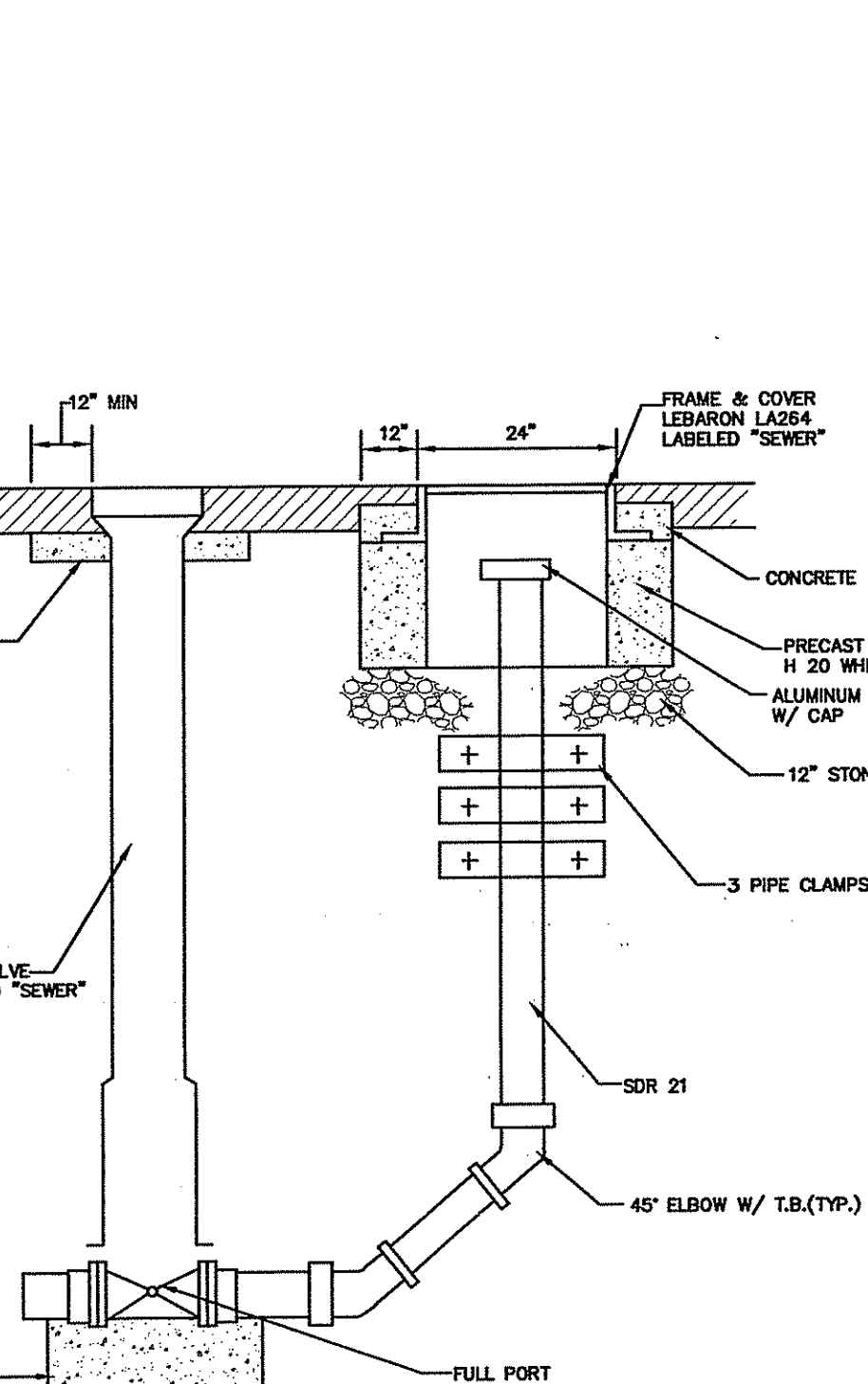


INSTALLATION BELOW C.I. GAS MAINS & OCEAN STATE POWER PIPELINE (OSP)
NOT TO SCALE

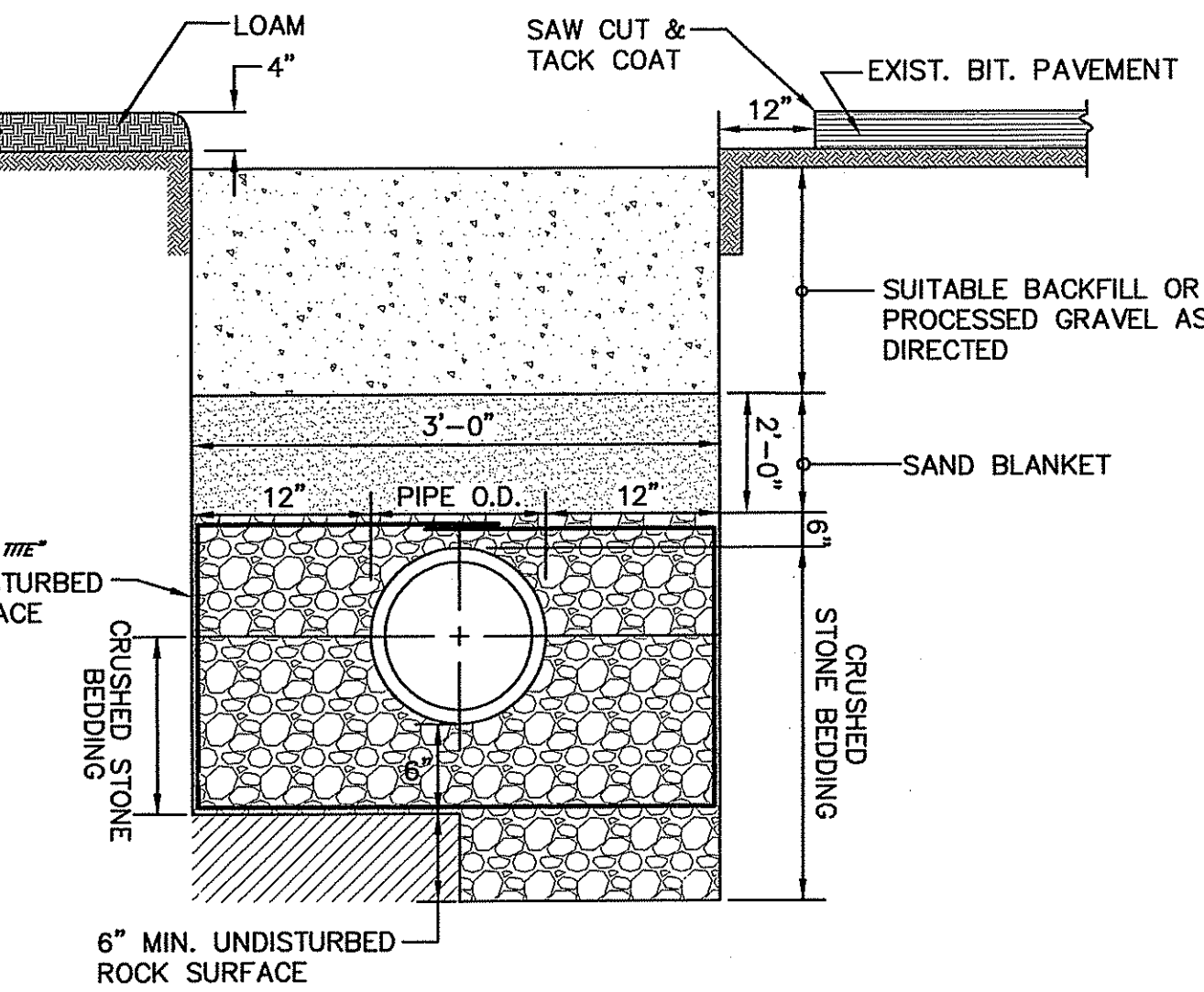
NOTE:
DURING THE EXCAVATION THE CONTRACTOR SHALL LOCATE THE TOP OF THE GAS & OSP PIPES AT NO ADDITIONAL COST TO THE OWNER.



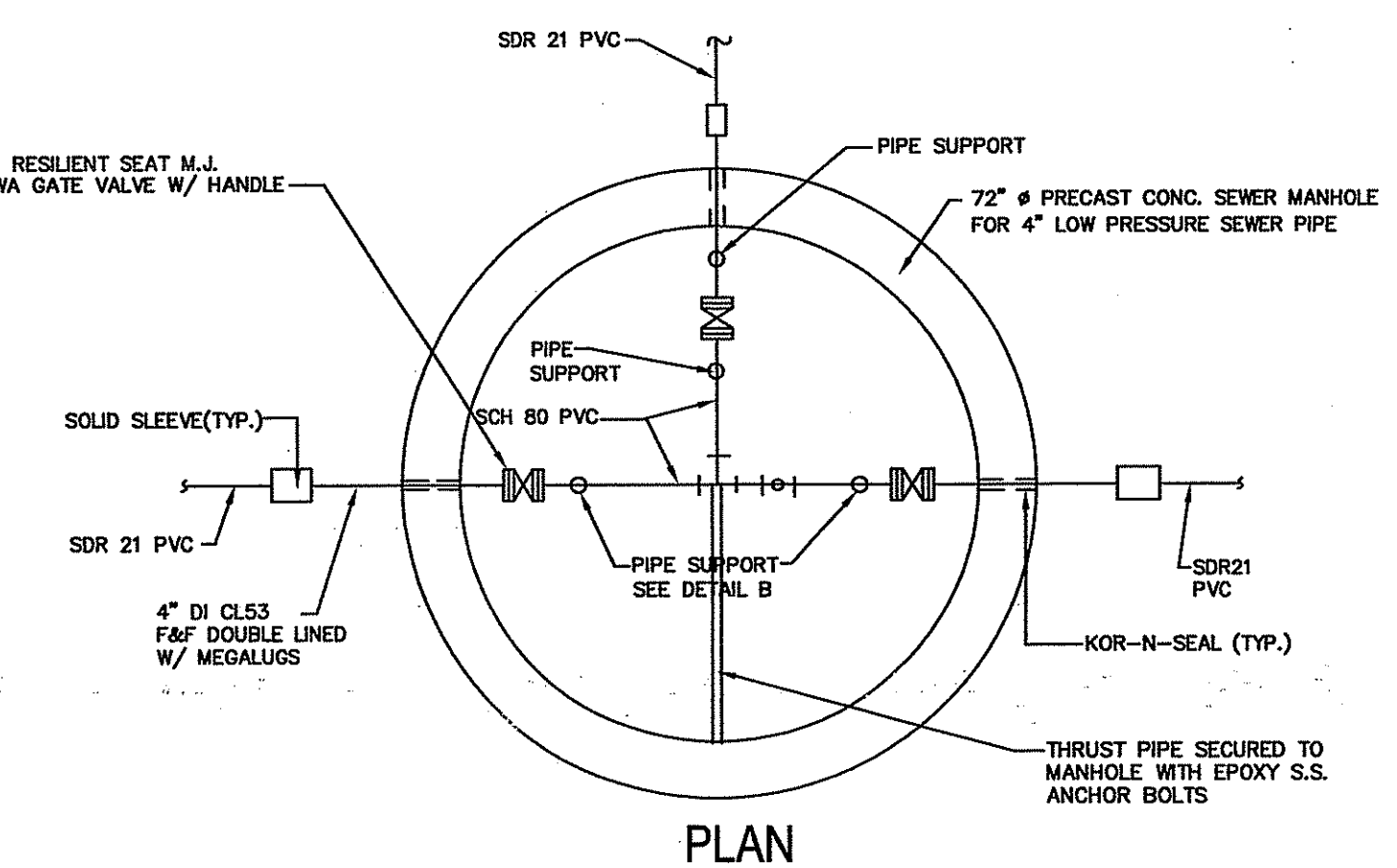
SANITARY MANHOLE FRAME & COVER DETAIL
NOT TO SCALE



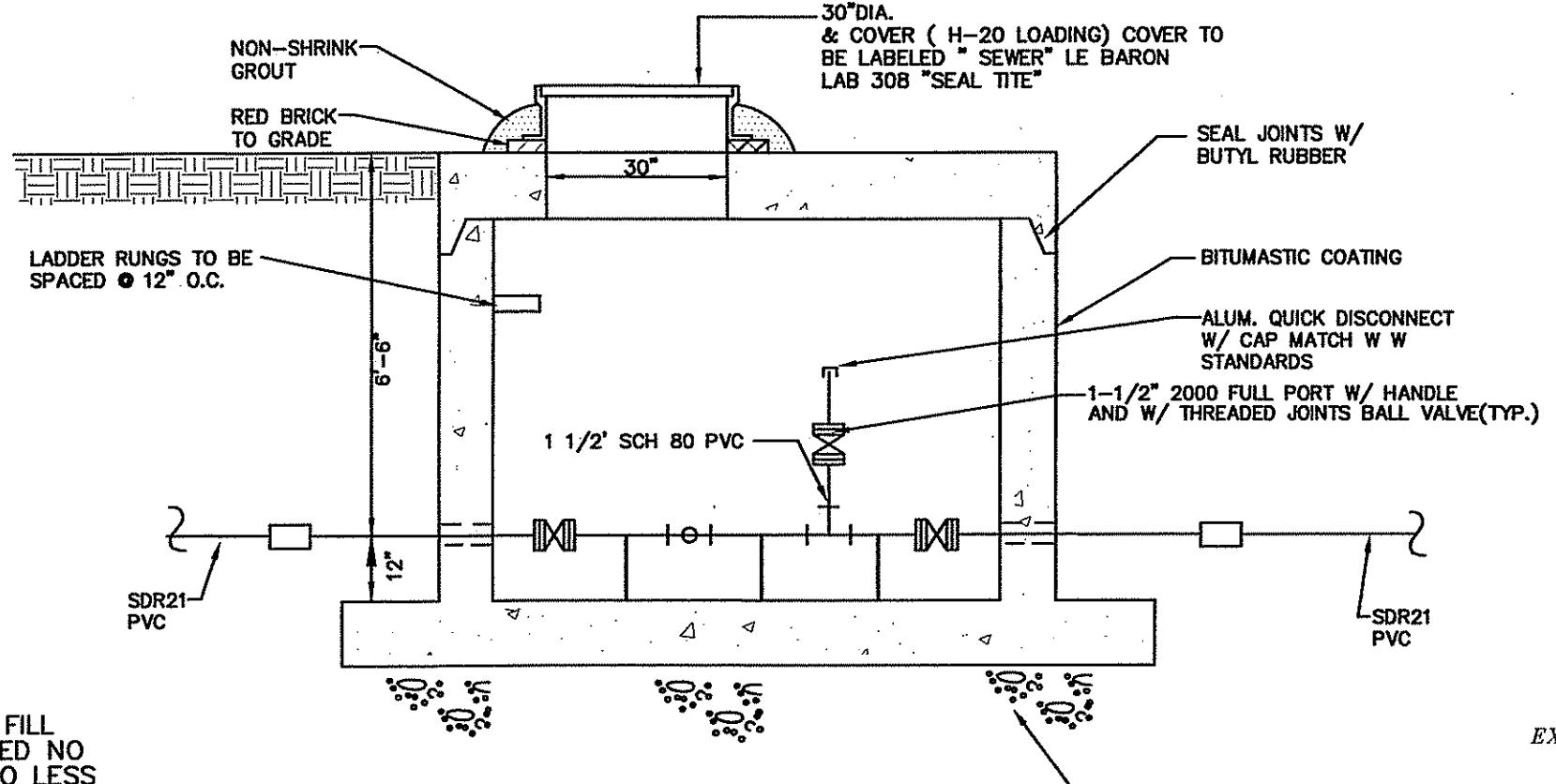
LOW PRESSURE SEWER FLUSHING CONNECTION FOR NO. 1, 3A AND NO. 12A
NOT TO SCALE



SEWER TRENCH DETAIL (WET AREA)
NOT TO SCALE

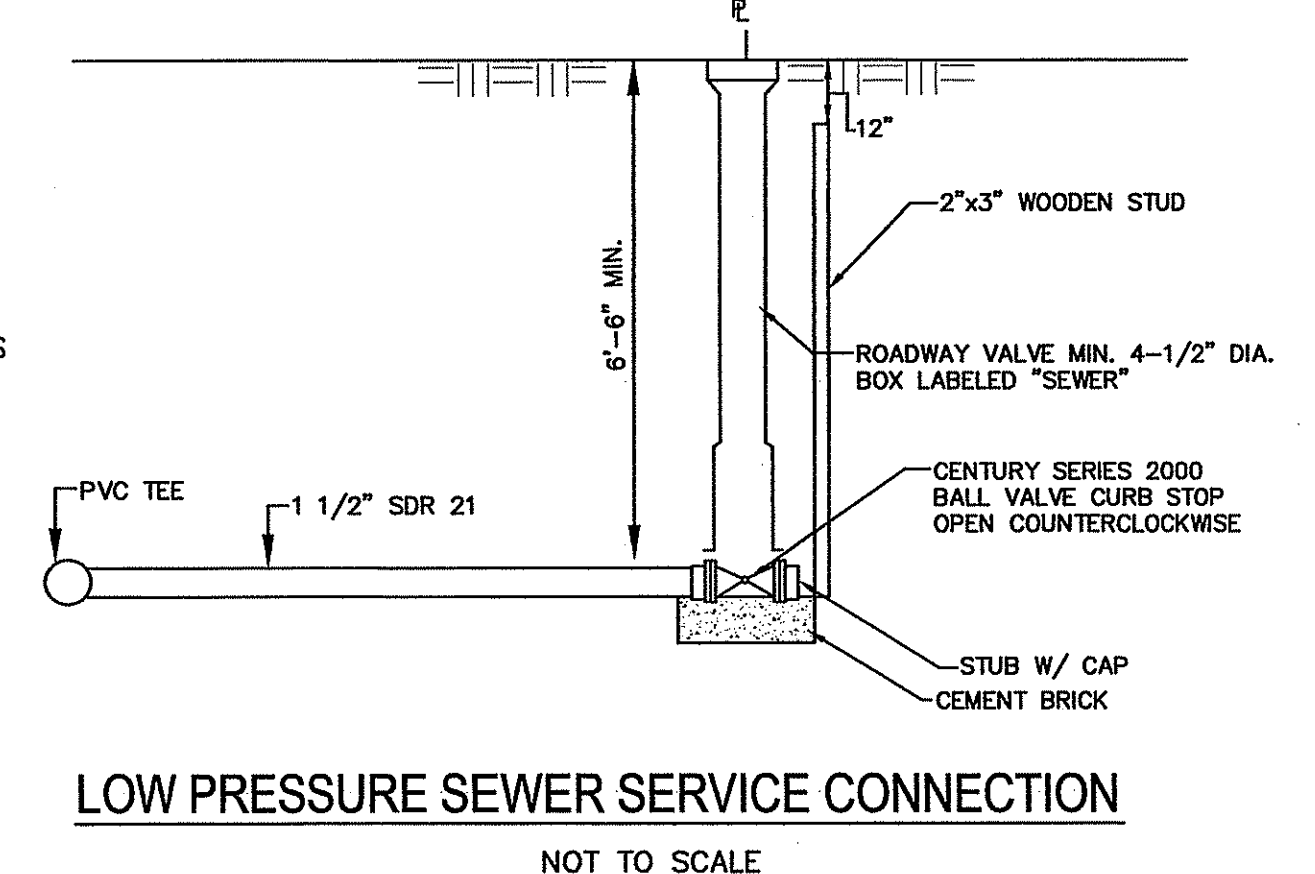


PLAN

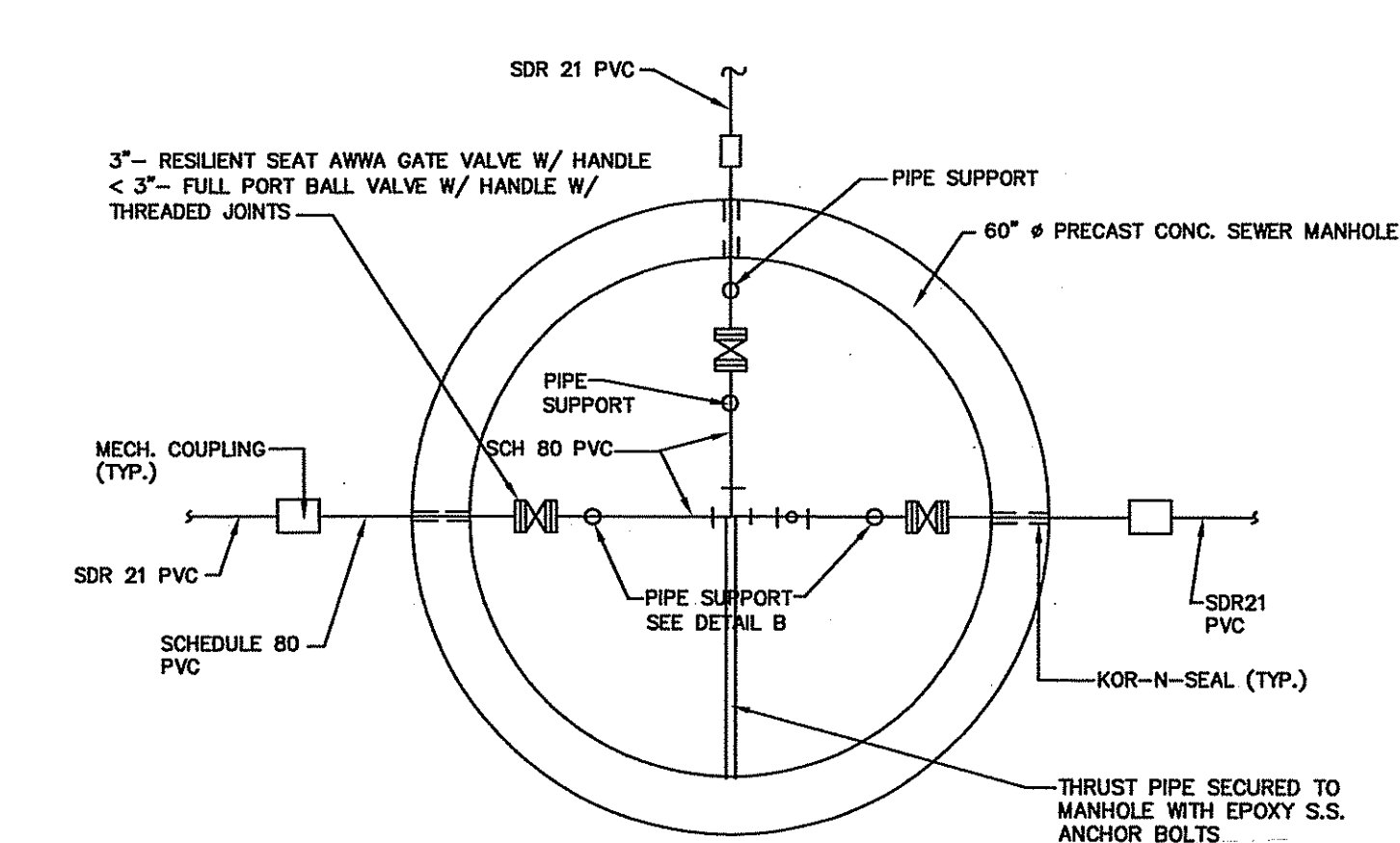


IN LINE FLUSHING CONNECTION SECTION FOR 4\"/>

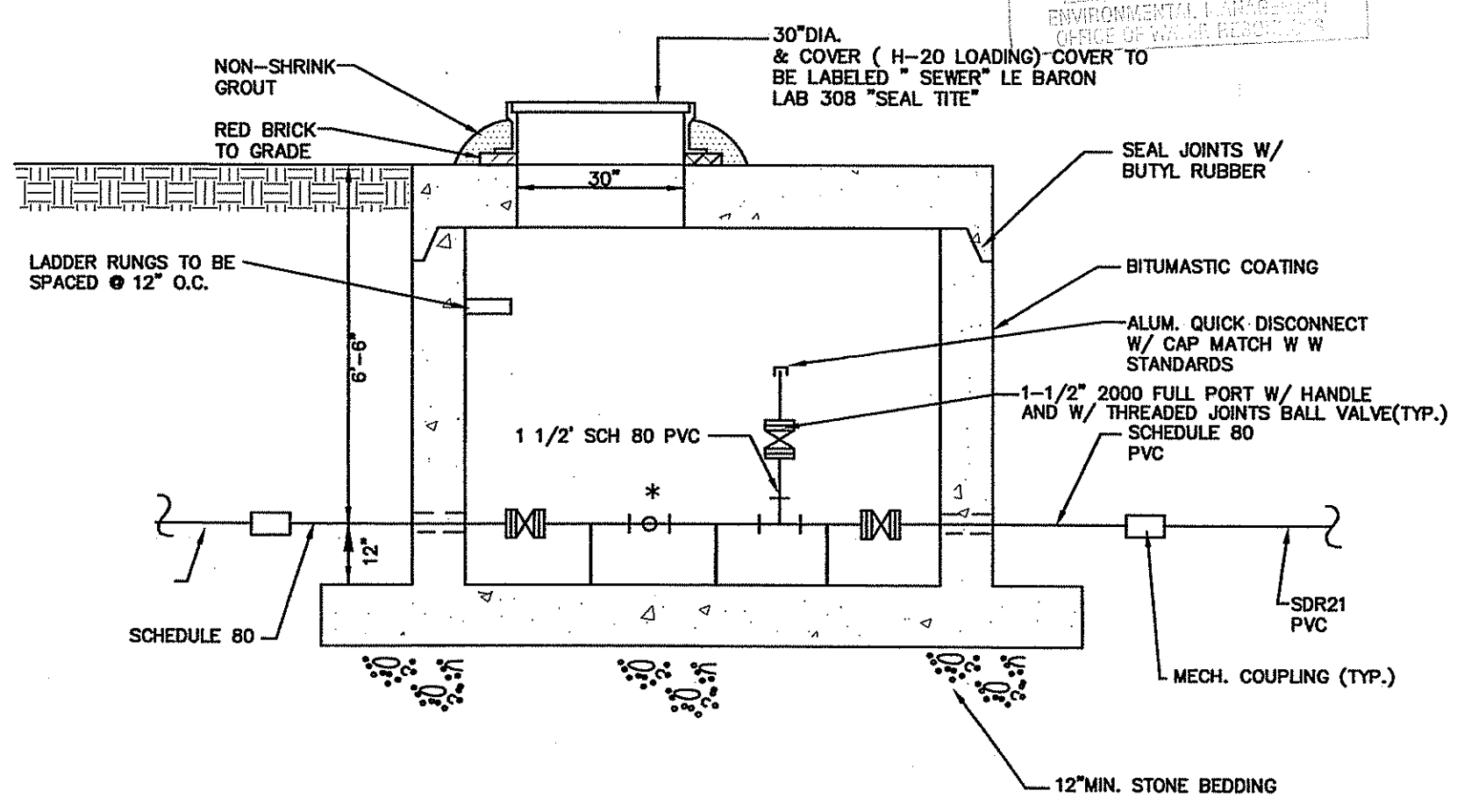
NOT TO SCALE



LOW PRESSURE SEWER SERVICE CONNECTION
NOT TO SCALE



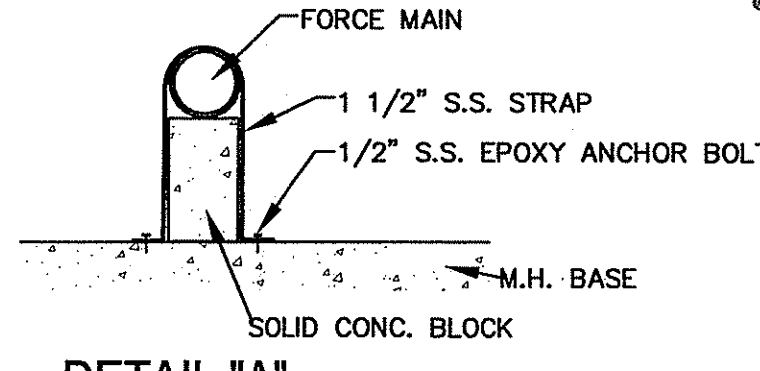
PLAN



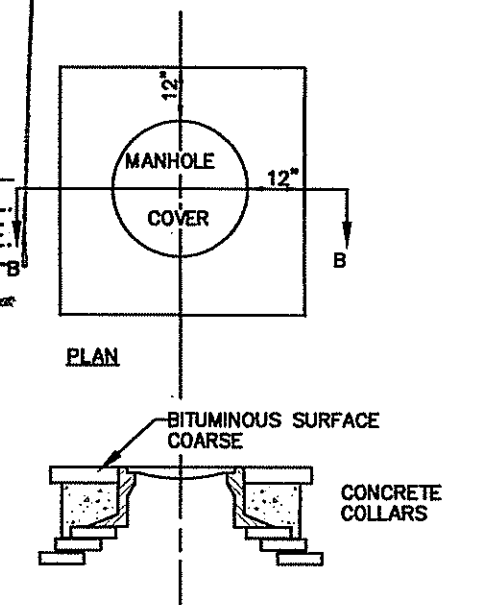
SECTION IN LINE FLUSHING CONNECTION
NOT TO SCALE

*JOINTS TO BE THREADED OR SOLVENT JOINT

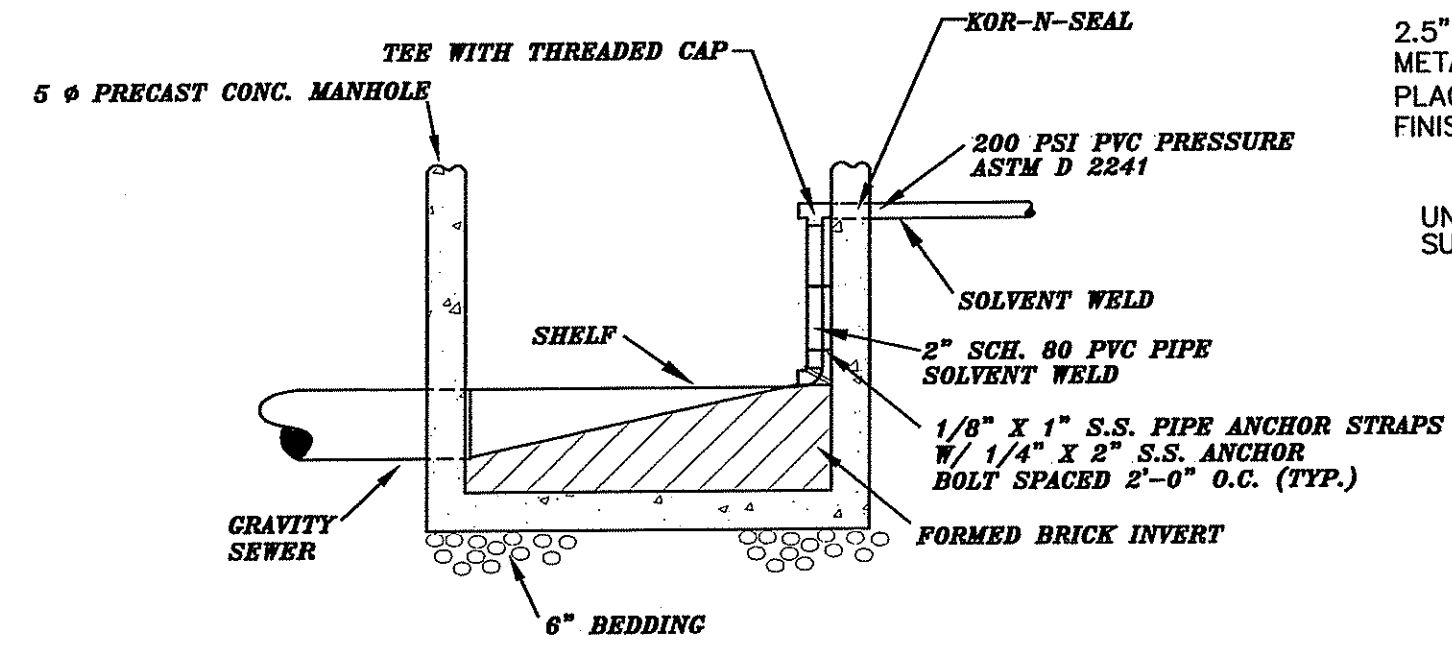
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED FEB 12 2010 FILE # 10-0009
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL.
APPROVED PLANS MUST BE AT CONSTRUCTION SITE.



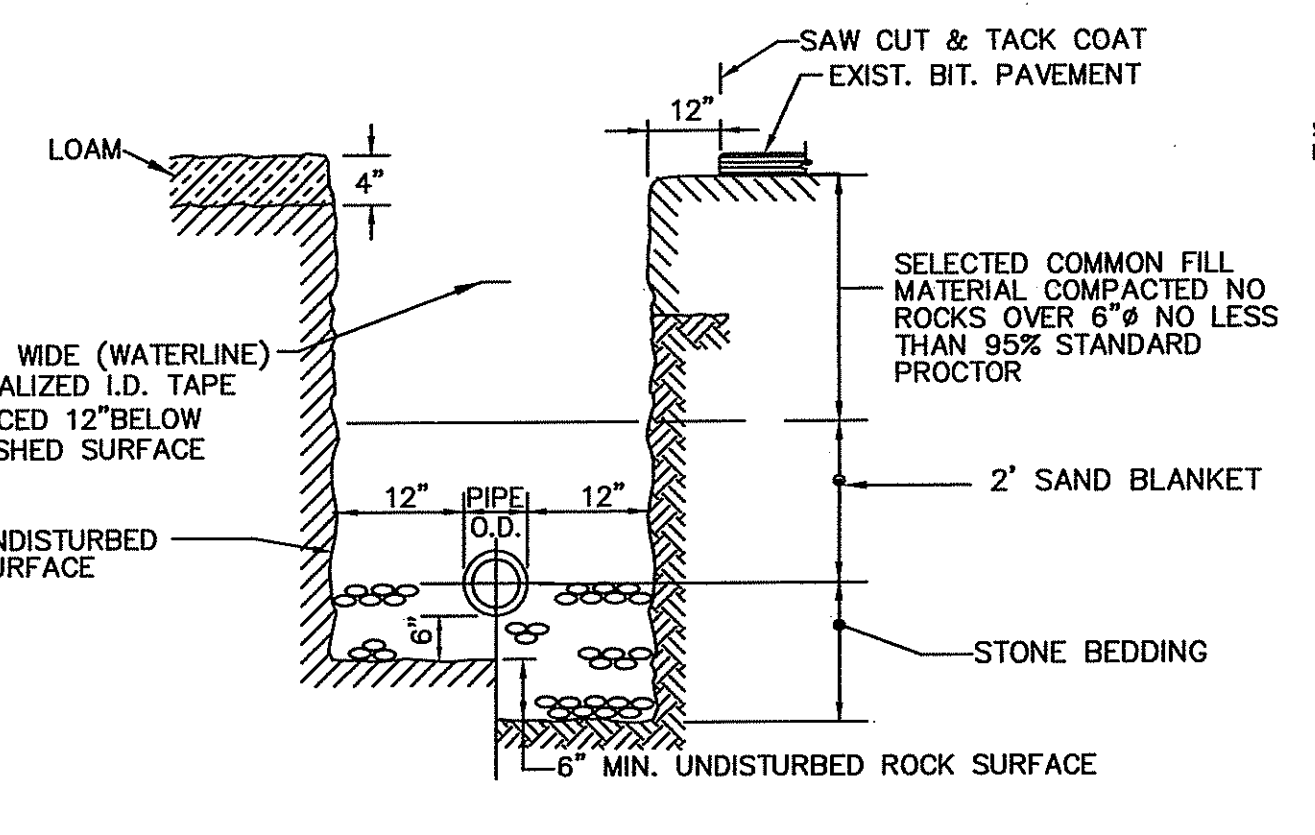
DETAIL "A"
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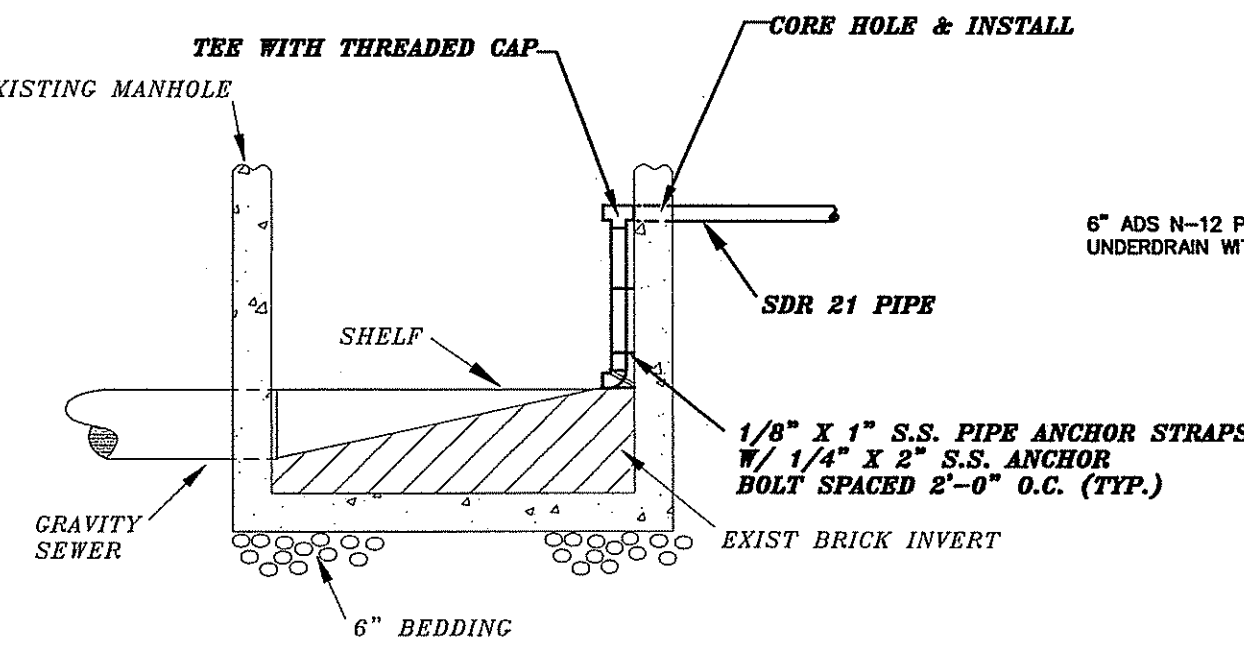
CONC. COLLAR DETAIL
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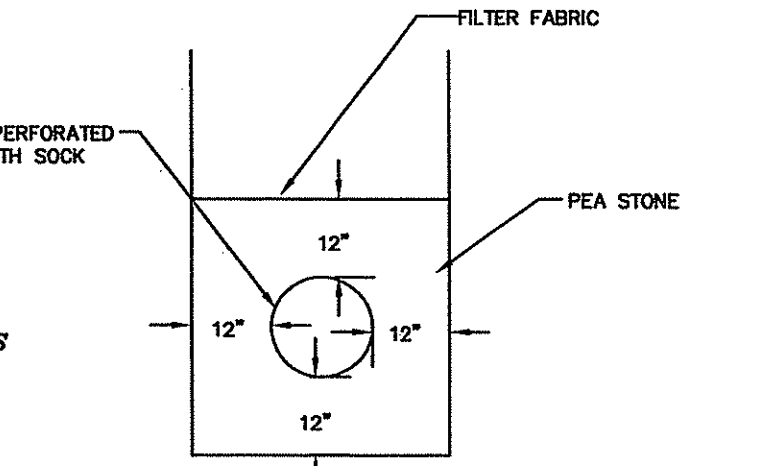
LOW PRESSURE SEWER INSIDE DROP CONNECTION
NOT TO SCALE



TRENCH DETAIL (DRY AREAS)
NOT TO SCALE



EXISTING SEWER MANHOLE
NOT TO SCALE



UNDERDRAIN DETAIL
NOT TO SCALE

NO.:	BY:	DATE:	REMARKS:
CADD FILE:			DATE PRINTED:

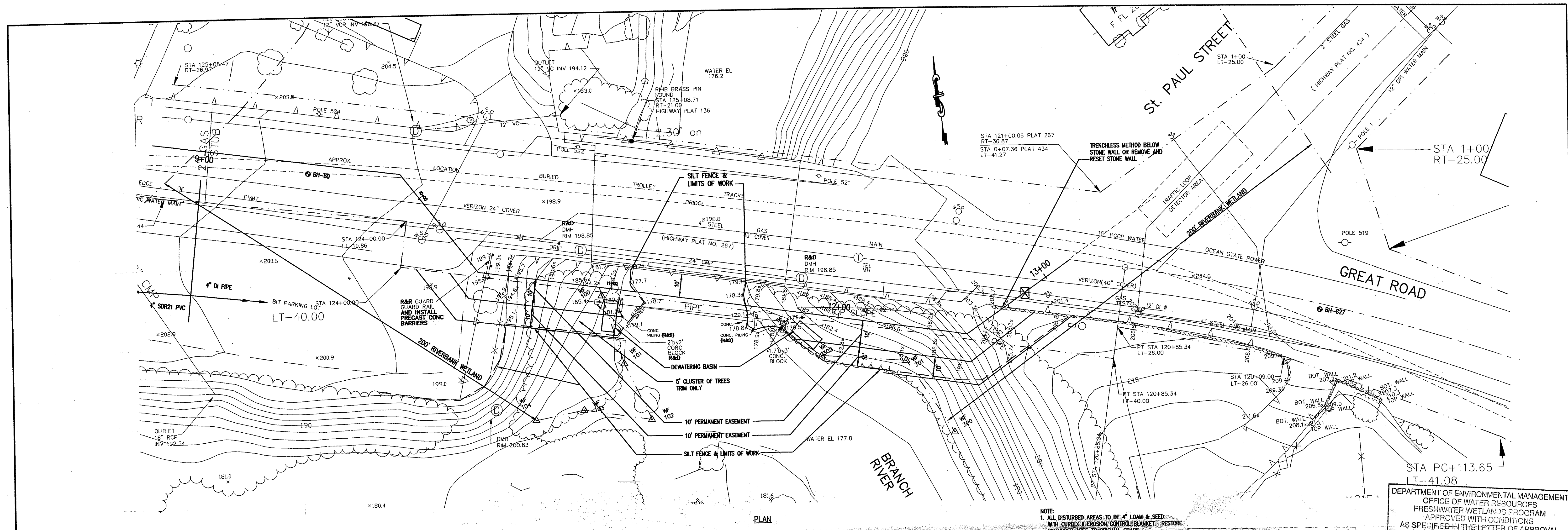
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SCALE: AS SHOWN
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PHASE III
NORTH SMITHFIELD WASTEWATER COLLECTION SYSTEM IMPROVEMENTS
PREPARED FOR
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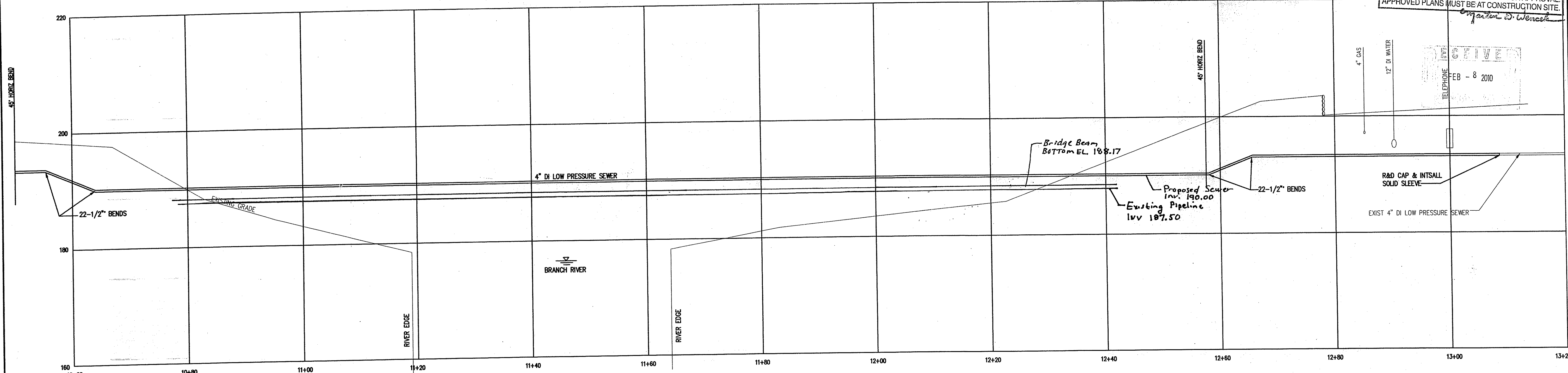
MISCELLANEOUS DETAILS II

SHEET NO.
9
8/10



NOTE:
 1. ALL DISTURBED AREAS TO BE 4" LOAM & SEED WITH CURLEX II EROSION CONTROL BLANKET. RESTORE DISTURBED AREAS TO ORIGINAL GRADE.
 2. PER FLOOD INSURANCE RATE MAP AREA IS IN ZONE A FOR 100 YEAR FLOOD

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF WATER RESOURCES
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 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
 APPROVED PLANS MUST BE AT CONSTRUCTION SITE.
Ernest W. Wenzel



PROFILE
 SCALE: 1/8" = 1'-0" HORIZ
 1/8" = 1'-0" VERT.

NO.:	BY:	DATE:	REMARKS:
CADD FILE:			DATE PRINTED:

DESIGNED BY: RMH
 DRAWN BY: CJB
 CHECKED BY: JJC
 SCALE: AS SHOWN
 DATE: DEC 2009

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NORTH SMITHFIELD WASTEWATER
COLLECTION SYSTEM IMPROVEMENTS
 PREPARED FOR
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