

State Technology Loading Dock Expansion

BLOCK 14, LOT 1

Tax Sheet 4

BOROUGH OF SAYREVILLE
MIDDLESEX COUNTY, NEW JERSEY

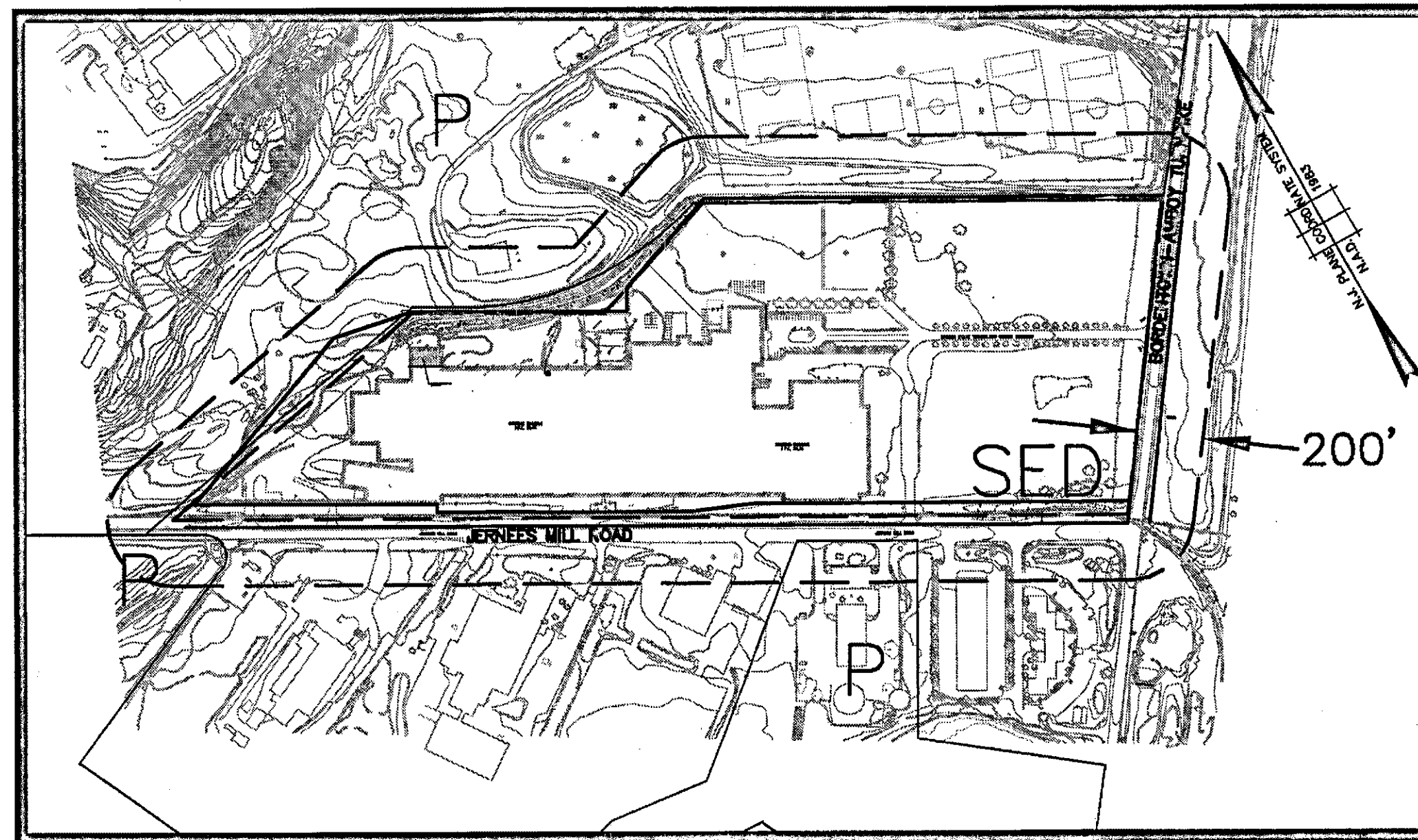
MINOR SITE PLAN

ADJONING PROPERTY OWNER'S LIST
200' RADIUS

Block	Lot	Owner	Block	Lot	Owner
10.04	2.08	Gillette Enterprises, Inc. 11 Locklin Court Sayreville, NJ 08872	13	4	County of Middlesex John F. Kennedy Square New Brunswick, NJ 08901
10.04	2.71	Gillette Enterprises, Inc. 11 Locklin Court Sayreville, NJ 08872	14	1.04	Borough of Sayreville 167 Main Street Sayreville, NJ 08872
13	1.01	Salima Realty, Inc. 3237 Bordentown Avenue Parlin, NJ 08859	54.01	1.01	State of NJ Dept. of Env. Protection John Filch Plaza Trenton, NJ 08625
13	1.03	MCA Realty Group, Inc. 650 Jernee Mill Road Sayreville, NJ 08872	62.03	8	Transcontinental Gas Pipeline Corporation P.O. Box 1386 Houston, TX 77251
13	1.04	David J. Siwulec 700 Jernee Mill Road Sayreville, NJ 08872	Easement		Consolidated Rail Corporation P.O. Box 8499 Philadelphia, PA 19101
13	2	Jersey Central Power & Light Company P.O. Box 1911 Morristown, NJ 07982	Easement		Borough of Sayreville 167 Main Street Sayreville, NJ 08872
13	3.01	Jernee Mill Associates, LLC P.O. Box 874 Matawan, NJ 07747	Easement		Transcontinental Gas Pipeline Corporation P.O. Box 1386 Houston, TX 77251
13	3.02	Woodmont Realty Group Sayreville, LLC 119 Cherry Hill Road Parsippany, NJ 07054			

Zoning Information Table

ZONE SED (Special Economic Development)			
GENERAL ZONING DATA	ORDINANCE REQUIREMENTS		PROPOSED (* VARIANCE REQUEST)
BULK AREA REQUIREMENTS			
MIN. LOT AREA	60,000 SF	2,016,125.96 SF (46.28 AC.)	(EXISTING CONDITION)
MIN. LOT FRONTAGE	150'	925'	(EXISTING CONDITION)
MIN. LOT DEPTH	100'	2,830.22'	(EXISTING CONDITION)
MIN. FRONT YARD SETBACK	50'	786.02'	(EXISTING CONDITION)
MIN. ONE SIDE/TOTAL SIDE YARD SETBACK	20'/50'	1'/85.9'	(EXISTING & PROPOSED CONDITION) *
MIN. REAR YARD SETBACK	40'	88.2'	(EXISTING CONDITION)
MAX. BUILDING HT.	50'	48'	(EXISTING CONDITION)
MAX. IMPERVIOUS COVERAGE	85%		60%
OFFICE:	4 SPACES/1,000 SF OF BUILDING FLOOR AREA 45,300 SF/1,000 SF * 4 = 182 SPACES		
WAREHOUSE:	1 SPACE/2,000 SF OF BUILDING FLOOR AREA 848,700 SF/2,000 SF * 1 = 170 SPACES		
TOTAL SPACES REQUIRED = 352		TOTAL SPACES PROVIDED = 409	
HANDICAP SPACES:		8 SPACES REQUIRED	
HANDICAP SPACES:		8 SPACES PROVIDED	
LOADING	1 SPACE FOR FIRST 25,000 SF OF GROSS FLOOR AREA + ONE ADDITIONAL SPACE FOR EACH ADDITIONAL 15,000 SF OF GROSS FLOOR AREA 1+(45,300-25,000)/15,000 = 3 SPACES		
WAREHOUSE:	SAME AS OFFICE 1+(848,700 SF - 25,000 SF)/15,000 SF = 56 SPACES		
TOTAL SPACES REQUIRED = 59		TOTAL SPACES PROVIDED = 69	
MIN. LIGHTING INTENSITY	0.5 FOOTCANDLES		0.5
MAX. LIGHTING INTENSITY	AT PROPERTY LINES - 0.5 FOOTCANDLES		< 0.5
MAX. LIGHT STANDARD HEIGHT	LESSER OF BUILDING HEIGHT OR 25'		31' (TO MATCH EXISTING CONDITION) *



Site Map

Scale: 1" = 200'

General Notes

1. This set of plans has been prepared for purposes of municipal and agency review and approval. This set of plans shall not be utilized as construction documents until all conditions of approval have been satisfied on the drawings and each drawing has been revised to indicate "Issued for Construction".
2. Existing utility information shown herein has been collected from various sources and is not intended to be a warranty of completeness. The contractor shall verify all information to his satisfaction prior to excavation. Where existing utilities are to be crossed by proposed construction, test pits shall be dug by the contractor prior to construction to ascertain existing inlets, materials and sizes. Test pit information shall be given to the engineer prior to construction to permit adjustments as required to avoid conflicts.
3. The contractor shall notify the undersigned professional immediately if any field conditions encountered differ materially from those represented herein.
4. All materials, workmanship, and construction for site improvements shown herein shall be in accordance with:
 - A. N.J. Department of Transportation "Standard Specifications for Road and Bridge Construction", as currently amended;
 - B. Current, prevailing municipal and/or county specifications, standards, and requirements;
 - C. Current, prevailing utility company/authority specifications, standards and requirements.
5. All traffic control signs and striping shall be in accordance with the M.U.T.C.D. handbook. Exact location of street signs shall be determined by the local engineer.
6. All storm sewer to be Class III reinforced concrete pipe unless otherwise noted. All sanitary sewer piping to be SDR 35 PVC unless noted otherwise. Proper pipe coverage is to be maintained during all phases of construction.
7. These general notes apply to all sheets in this set of plans.
8. Elevation are based on N.A.V.D. 1988.
9. All pipe lengths are to be measured from center of structure to center of structure.
10. Headwall inverts shown are calculated to the end of the incoming pipe.

Map References

1. MAP ENTITLED, "BOUNDARY & TOPOGRAPHIC SURVEY, LOT 1, BLOCK 14, BOROUGH OF SAYREVILLE, MIDDLESEX COUNTY, NEW JERSEY," PREPARED BY CHARLES V. BELL ASSOCIATES INC., DATED MAY 11, 1998.
2. MAP ENTITLED, "TOPOGRAPHIC MAP", FROM PHOTOGRAPHY DATED DECEMBER 17, 2002, PROJECT # 2001-0218, PREPARED BY ATLANTIS AERIAL SURVEY CO., INC.
3. TRACT AND ADJACENT LOTS SHOWN ON TAX MAP 4, TOWNSHIP OF SAYREVILLE.

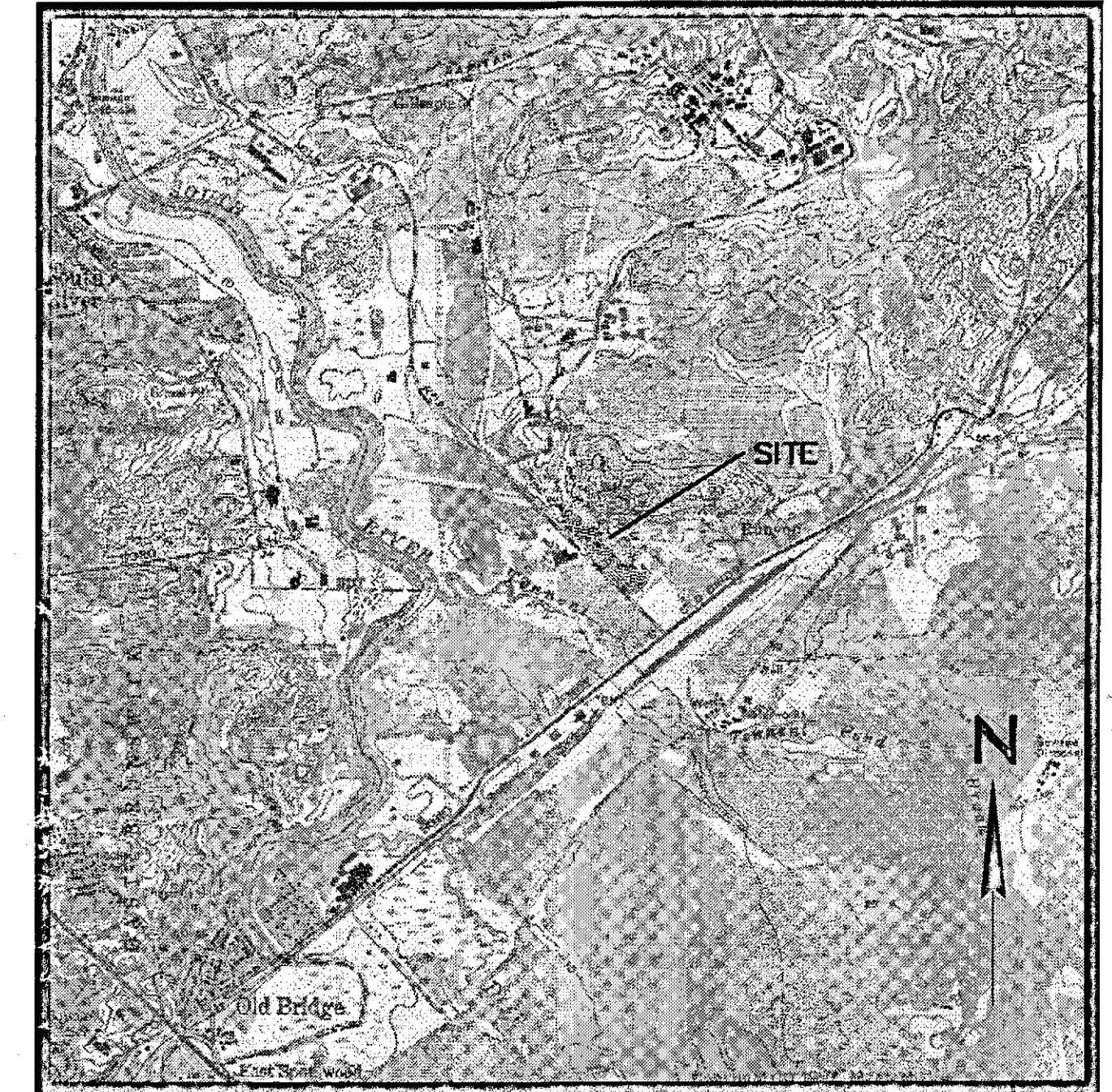
I CONSENT TO THE FILING OF THIS SITE PLAN WITH THE
PLANNING BOARD OF THE TOWNSHIP OF SAYREVILLE:
OWNER/APPLICANT:

SAYREVILLE L.L.C.
60 BROAD STREET, SUITE 3503, NEW YORK, NY 10004

APPROVED BY THE PLANNING BOARD

(CHAIRMAN) (DATE)

(SECRETARY) (DATE)



Key Map

Scale: 1" = 2000'

PROJECT DESIGN

T & M Associates
Consulting Engineers & Landscape Architects

11 Tindall Road
Middletown, New Jersey 07748

OWNER / APPLICANT

SAYREVILLE L.L.C.

60 Broad Street, Suite 3503
New York, NY 10004

Sheet Index

[illegible]

3	06/17/03	AS PER PLANNING BOARD REVIEW	JLR	WCB
2	05/01/03	AS PER PLANNING BOARD RESOLUTION COMPLIANCE	ALK	WCB
1	3/27/03	AS PER PLANNING BOARD REVIEW COMMENTS	JLR	WCB
NO.	DATE	REVISIONS	BY	CHECKED



T&M
ASSOCIATES

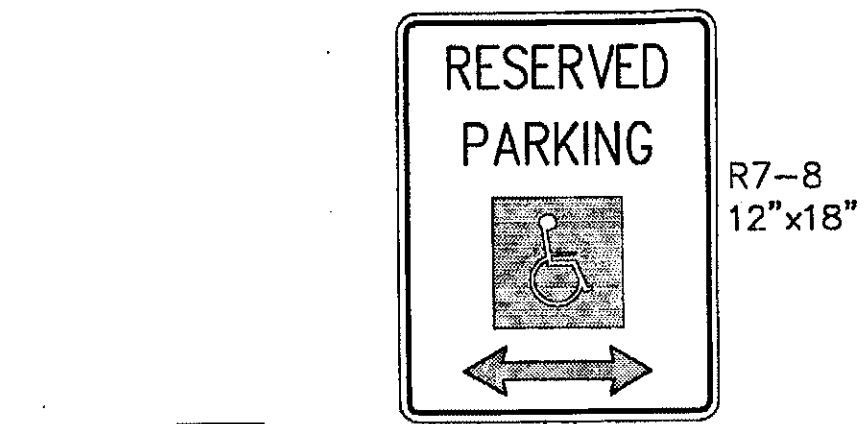


2/14/2003

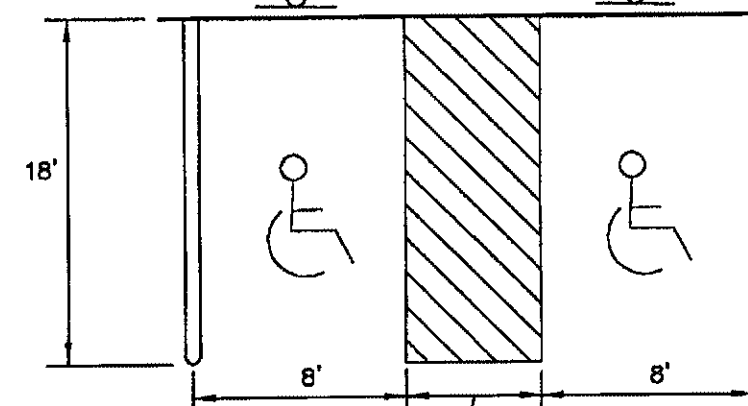
(DATE)

Gary C. Dahms, PE

LICENSED PROFESSIONAL ENGINEER
STATE OF NEW JERSEY LICENSE NO. GE 31177



NOTE: FOR REGULATORY SIGNS, ALL COLORS, MATERIALS AND METHODS OF CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES." ALL SIGN SYMBOLS AND LETTERING TO BE REFLECTORIZED.

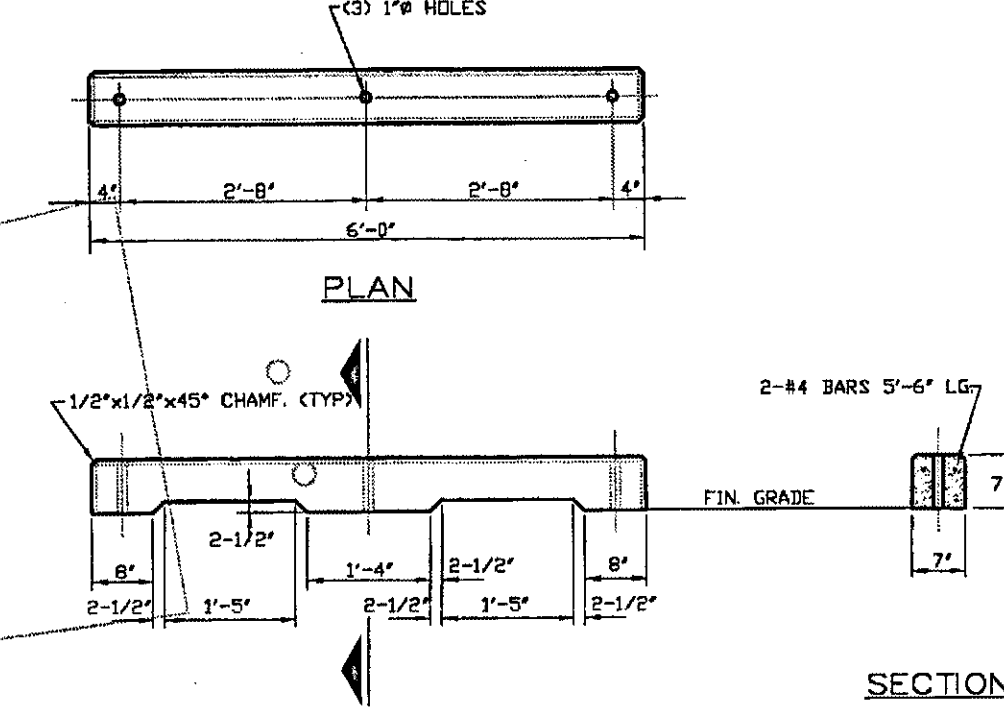


1.2 HANDICAP PARKING STALL
NOT TO SCALE

1.4 TYPICAL CROSSWALK STRIPING DETAIL
NOT TO SCALE

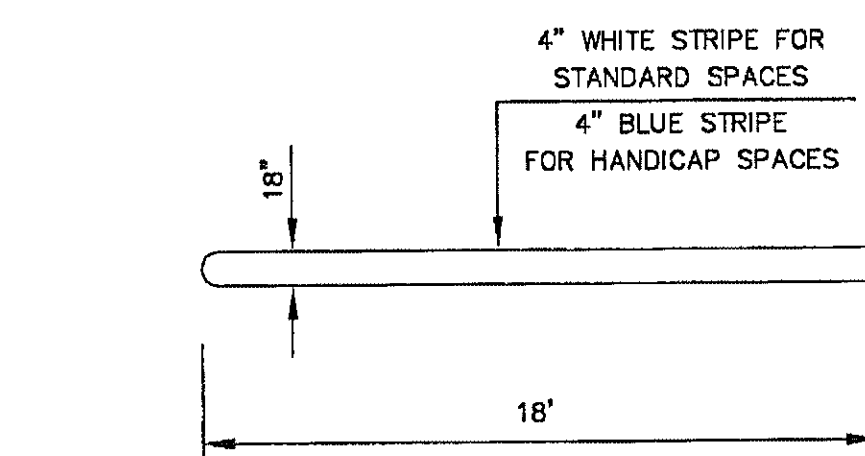
AREA NAME	DESCRIPTIONS	QTY	AVE	MAX	MIN	MAX/AVE	AVE/AVE
RAV LANE	10'0"	1	0.0	0.0	0.0	0.0/0.0	0.0/0.0

LAMP	DESCRIPTION	QTY	AVE	MAX	MIN	MAX/AVE	AVE/AVE
F-1	HUBBELL LIGHTING, INC. HANDBUILT HY SERIES (EXISTING) REFLECTOR: TWIN PARABOLIC ENCLOSED: TEMPERED GLASS	1	0.0	0.0	0.0	0.0/0.0	0.0/0.0
F-2	HUBBELL LIGHTING, INC. HANDBUILT HY SERIES REFLECTOR: TWIN PARABOLIC ENCLOSED: TEMPERED GLASS	1	0.0	0.0	0.0	0.0/0.0	0.0/0.0

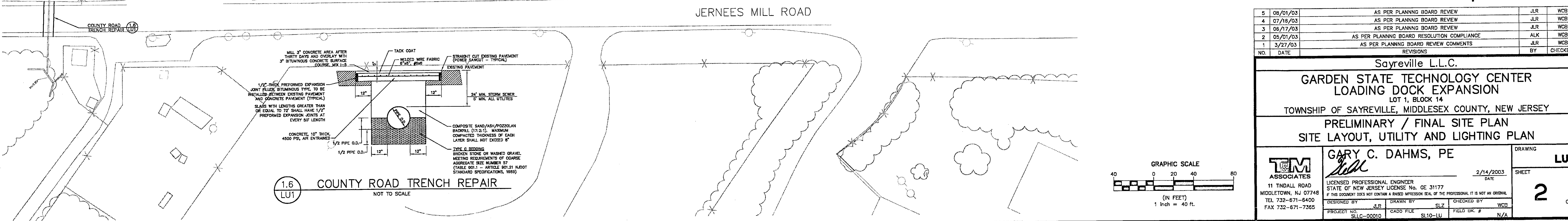
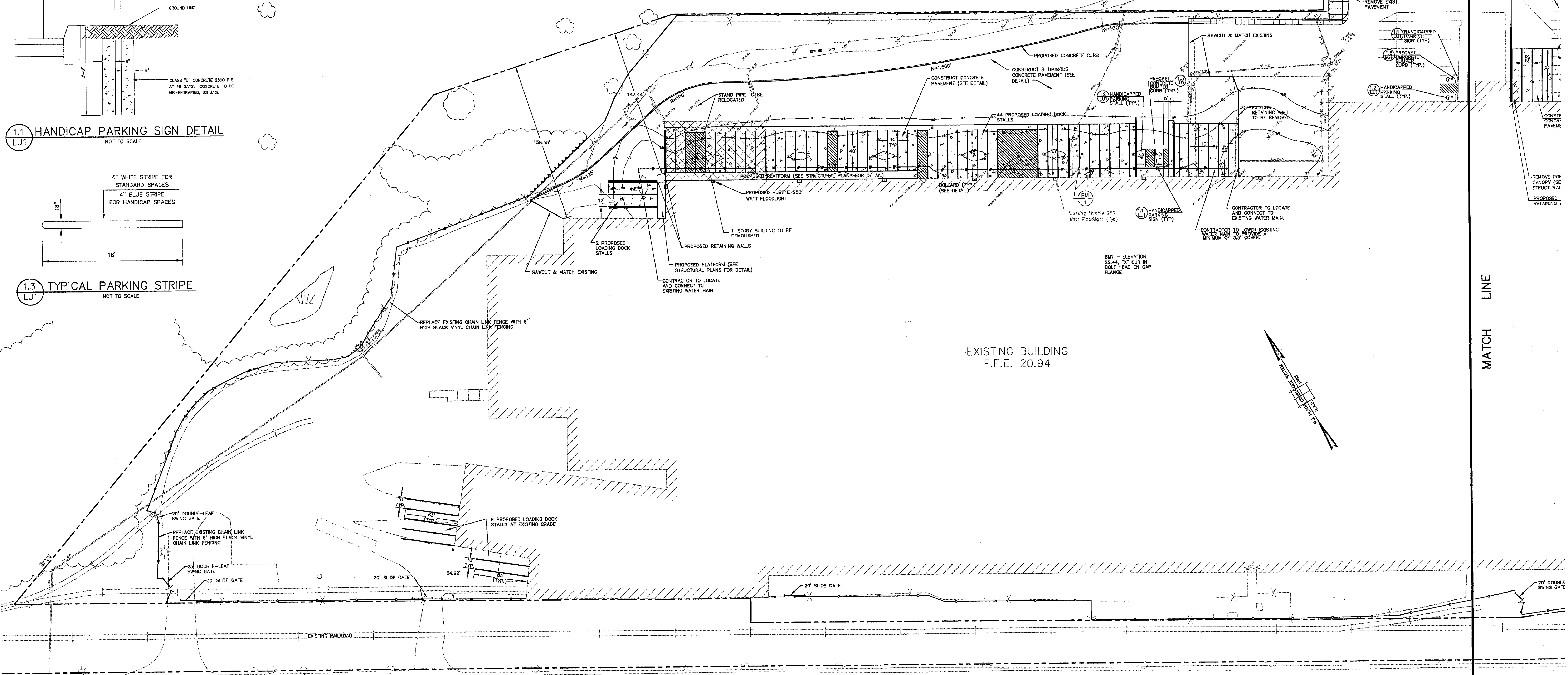


1.5 PRECAST CONCRETE BUMPER CURB
NOT TO SCALE

1.1 HANDICAP PARKING SIGN DETAIL
NOT TO SCALE



1.3 TYPICAL PARKING STRIPE
NOT TO SCALE



1.6 COUNTY ROAD TRENCH REPAIR
NOT TO SCALE

NO.	DATE	REVISIONS	BY	CHECKED
5	06/01/03	AS PER PLANNING BOARD REVIEW	JLR	WCB
4	07/16/03	AS PER PLANNING BOARD REVIEW	JLR	WCB
3	06/17/03	AS PER PLANNING BOARD REVIEW	JLR	WCB
2	05/01/03	AS PER PLANNING BOARD RESOLUTION COMPLIANCE	ALK	WCB
1	3/27/03	AS PER PLANNING BOARD REVIEW COMMENTS	JLR	WCB

Sayreville L.L.C.

GARDEN STATE TECHNOLOGY CENTER

LOADING DOCK EXPANSION

LOT 1, BLOCK 14

TOWNSHIP OF SAYREVILLE, MIDDLESEX COUNTY, NEW JERSEY

PRELIMINARY / FINAL SITE PLAN

SITE LAYOUT, UTILITY AND LIGHTING PLAN

GARY C. DAHMS, PE

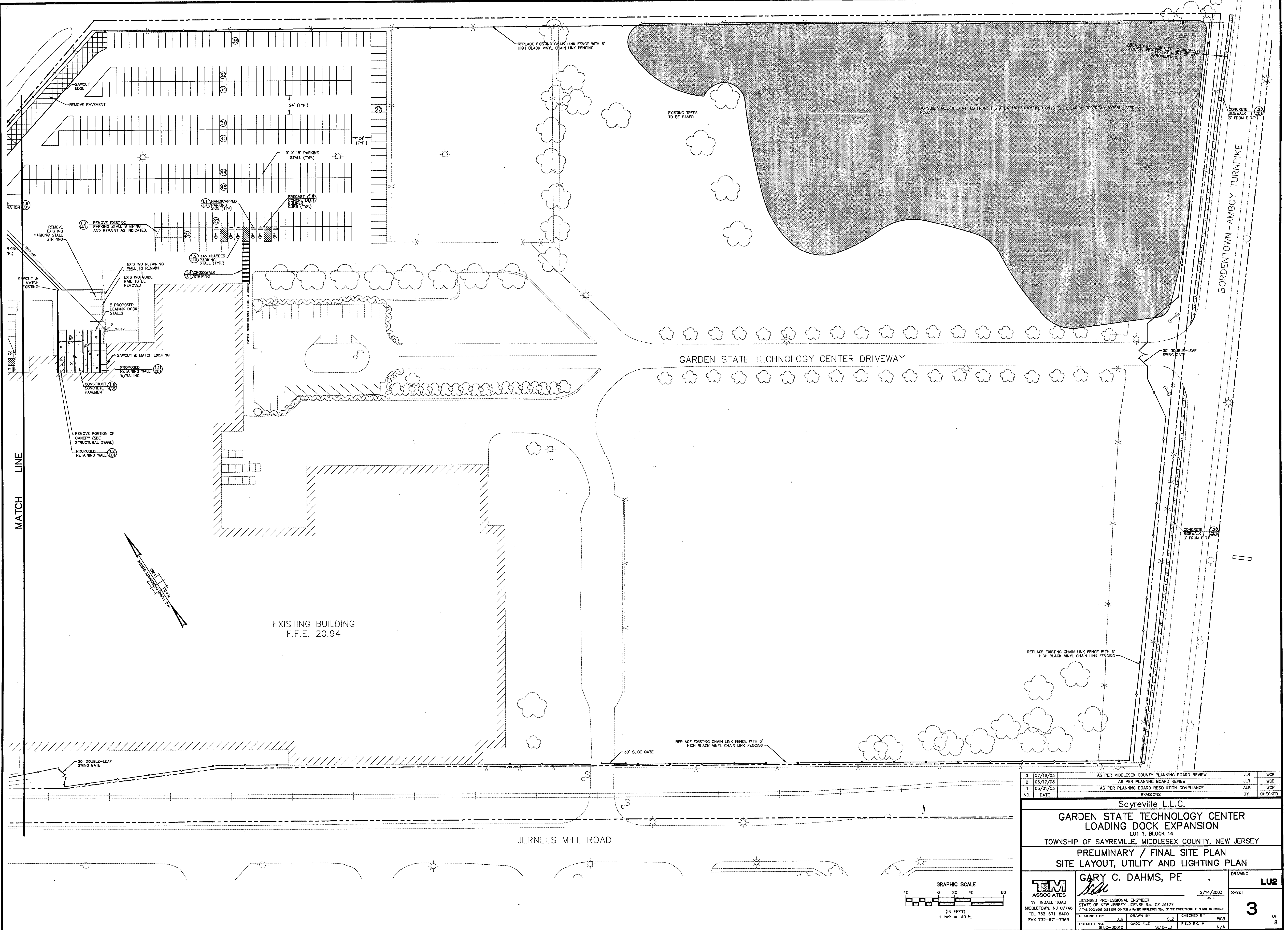
11 TINDALL ROAD
MIDDLETOWN, NJ 07748
TEL 732-671-8400
FAX 732-671-7365

DESIGNED BY: JLR
DRAWN BY: SLZ
CHECKED BY: WCB
PROJECT NO: SLIC-00010
CADD FILE: SLIC-LU
FIELD UK: N/A

DATE: 2/14/2003

SHEET: 2 OF 8

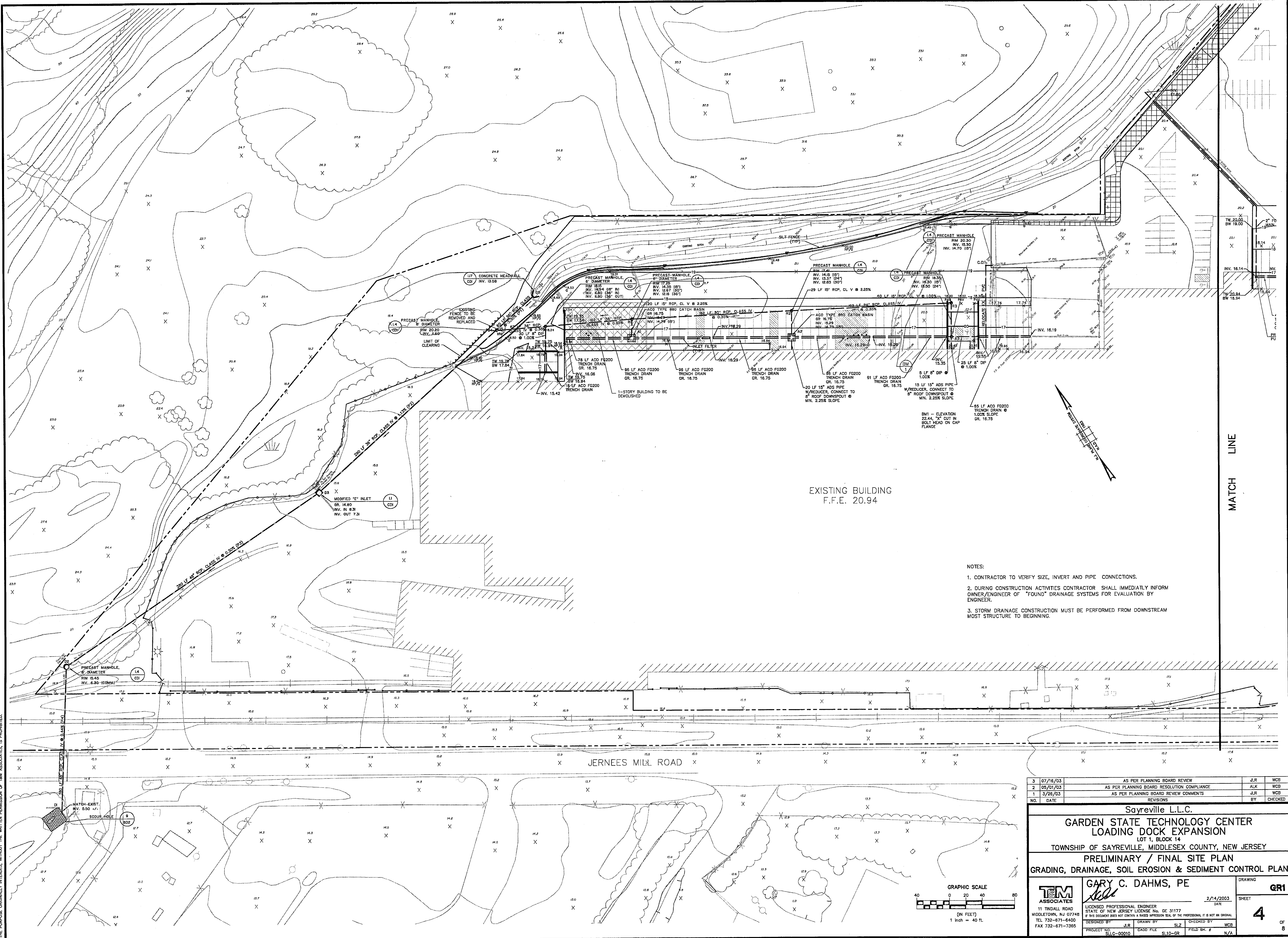
Plot Date: 5/12/03



3	07/16/03	AS PER MIDDLESEX COUNTY PLANNING BOARD REVIEW	JLR	WCB
2	06/17/03	AS PER PLANNING BOARD REVIEW	JLR	WCB
1	05/01/03	AS PER PLANNING BOARD RESOLUTION COMPLIANCE	ALK	WCB
NO.	DATE	REVISIONS	BY	CHECKED

Sayreville L.L.C.	
GARDEN STATE TECHNOLOGY CENTER LOADING DOCK EXPANSION	
LOT 1, BLOCK 14	
TOWNSHIP OF SAYREVILLE, MIDDLESEX COUNTY, NEW JERSEY	
PRELIMINARY / FINAL SITE PLAN	
SITE LAYOUT, UTILITY AND LIGHTING PLAN	
GARY C. DAHMS, PE	DATE: 2/14/2003
LICENSED PROFESSIONAL ENGINEER STATE OF NEW JERSEY LICENSE No. 0E 31177	DATE
DESIGNED BY: JLR	CHECKED BY: WCB
DRAWN BY: SZ	FILED BY: N/A
PROJECT NO: SL10-LU	CADD FILE: SL10-LU

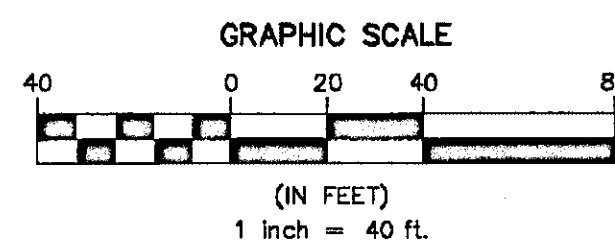
TM ASSOCIATES 11 TINDALL ROAD MIDDLETOWN, NJ 07748 TEL 732-671-6400 FAX 732-671-7365	GRAPHIC SCALE 1 inch = 40 ft. (IN FEET)	DATE: 2/14/2003	SHEET: 3 OF 8
--	---	-----------------	---------------

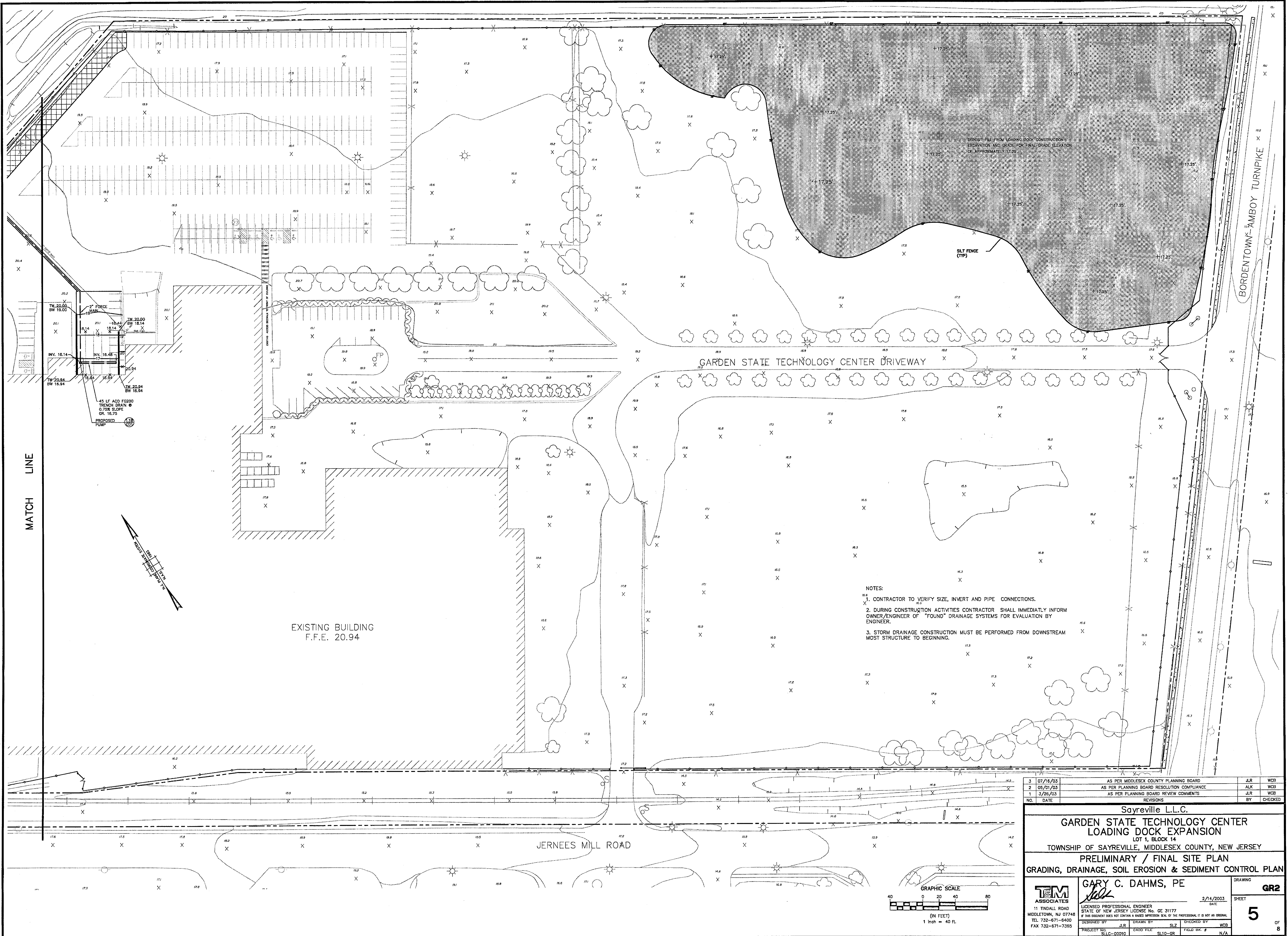


EXISTING BUILDING
F.F.E. 20.94

- NOTES:
1. CONTRACTOR TO VERIFY SIZE, INVERT AND PIPE CONNECTIONS.
 2. DURING CONSTRUCTION ACTIVITIES CONTRACTOR SHALL IMMEDIATELY INFORM OWNER/ENGINEER OF "FOUND" DRAINAGE SYSTEMS FOR EVALUATION BY ENGINEER.
 3. STORM DRAINAGE CONSTRUCTION MUST BE PERFORMED FROM DOWNSTREAM MOST STRUCTURE TO BEGINNING.

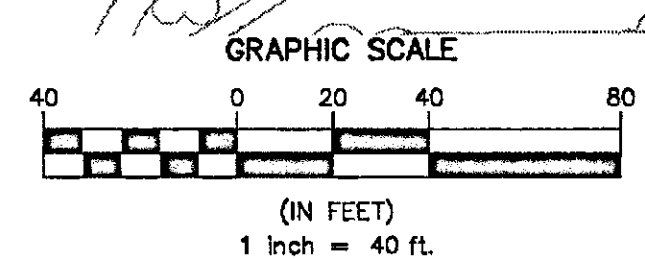
3	07/16/03	AS PER PLANNING BOARD REVIEW	JLR	WCB
2	05/01/03	AS PER PLANNING BOARD RESOLUTION COMPLIANCE	XLK	WCB
1	12/26/03	AS PER PLANNING BOARD REVIEW COMMENTS	JLR	WCB
NO.	DATE	REVISIONS	BY	CHECKED
Sayreville L.L.C.				
GARDEN STATE TECHNOLOGY CENTER LOADING DOCK EXPANSION				
LOT 1, BLOCK 14				
TOWNSHIP OF SAYREVILLE, MIDDLESEX COUNTY, NEW JERSEY				
PRELIMINARY / FINAL SITE PLAN				
GRADING, DRAINAGE, SOIL EROSION & SEDIMENT CONTROL PLAN				
GARY C. DAHMS, PE			DRAWING	GR1
11 TINDALL ROAD MIDDLETOWN, NJ 07748 TEL 732-671-6400 FAX 732-671-7265			SHEET	4
DESIGNED BY: JLR DRAWN BY: SLZ CHECKED BY: WCB PROJECT NO: SL10-00010 CADD FILE: SL10-GR FIELD BK: # N/A			DATE: 2/14/2003	OF 8





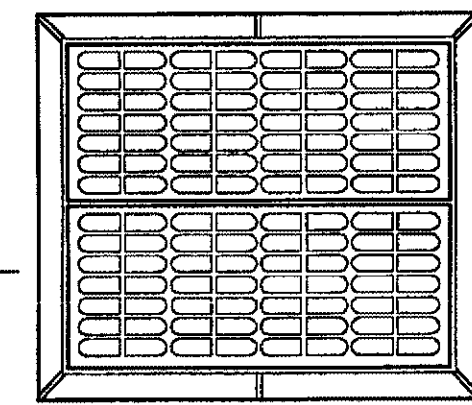
NOTES:
 1. CONTRACTOR TO VERIFY SIZE, INVERT AND PIPE CONNECTIONS.
 2. DURING CONSTRUCTION ACTIVITIES CONTRACTOR SHALL IMMEDIATELY INFORM OWNER/ENGINEER OF "FOUND" DRAINAGE SYSTEMS FOR EVALUATION BY ENGINEER.
 3. STORM DRAINAGE CONSTRUCTION MUST BE PERFORMED FROM DOWNSTREAM MOST STRUCTURE TO BEGINNING.

3	07/16/03	AS PER MIDDLESEX COUNTY PLANNING BOARD	JLR	WCB
2	05/01/03	AS PER PLANNING BOARD RESOLUTION COMPLIANCE	ALK	WCB
1	3/26/03	AS PER PLANNING BOARD REVIEW COMMENTS	JLR	WCB
NO.	DATE	REVISIONS	BY	CHECKED
Sayreville L.L.C.				
GARDEN STATE TECHNOLOGY CENTER				
LOADING DOCK EXPANSION				
LOT 1, BLOCK 14				
TOWNSHIP OF SAYREVILLE, MIDDLESEX COUNTY, NEW JERSEY				
PRELIMINARY / FINAL SITE PLAN				
GRADING, DRAINAGE, SOIL EROSION & SEDIMENT CONTROL PLAN				
GARY C. DAHMS, PE			DRAWING	GR2
11 TINDALL ROAD MIDDLETOWN, NJ 07748 TEL 732-671-8400 FAX 732-671-7385			SHEET	5
PROJECT NO. SL10-0010			DATE	2/14/2003
DESIGNED BY JLR			CHECKED BY	N/A
DRAWN BY SLZ			FIELD REC. #	N/A
CADD FILE SL10-GR				

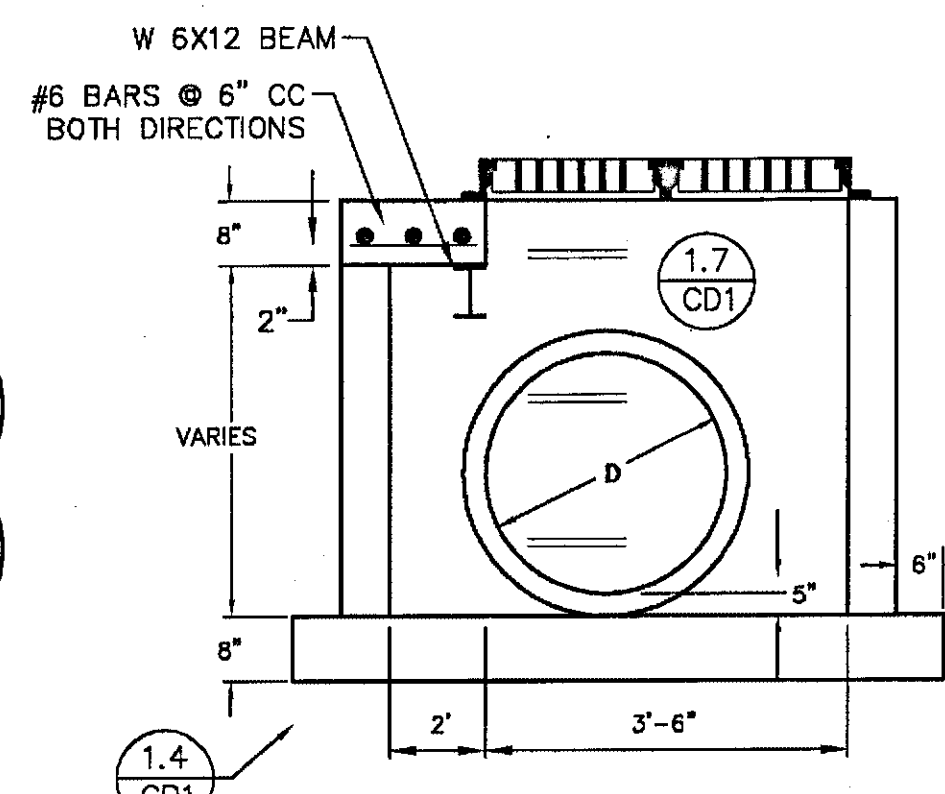


GENERAL NOTES

1. FOOTER AND INVERT TO BE NOT CLASS "B" CONCRETE, 4500 PSI.
2. IF WALL CONSTRUCTION IS OTHER THAN CONCRETE THE WALLS SHALL BE PLASTERED BOTH INSIDE AND OUTSIDE WITH 1/2" THICK CEMENT PLASTER.
3. CASTING TO BE CAMPBELL FOUNDRY NO. 2618 (W/CHILD SAFETY GRATE) OR EQUIVALENT.
4. PROVIDE 3/4" DIA. ALUMINUM IRON LADDER RUNGS, 18" O.C.
5. WHEN ADDITIONAL DEPTH IS SCHEDULED, WALLS BELOW THE DEPTH OF 8'-0" MEASURED FROM THE INLET OUTLET TO INVERT, SHALL BE 12" THICK IF CONCRETE OR DOUBLE BLOCK BLOCK. THE FOUNDATION DIMENSION SHALL BE INCREASED 12" IN WIDTH AND TO 12" IN DEPTH.
6. TO BE DETERMINED AS PER FIELD CONDITIONS.
7. W-6X12 BEAM TO BE HOT DIPPED GALVANIZED.
8. REINFORCED CONCRETE SLAB SHALL BE DESIGNED TO SUPPORT HS20 PLUS 10% LOADING.
9. ALL CONCRETE SHALL BE AIR ENTRAINED, 6% ±1%.

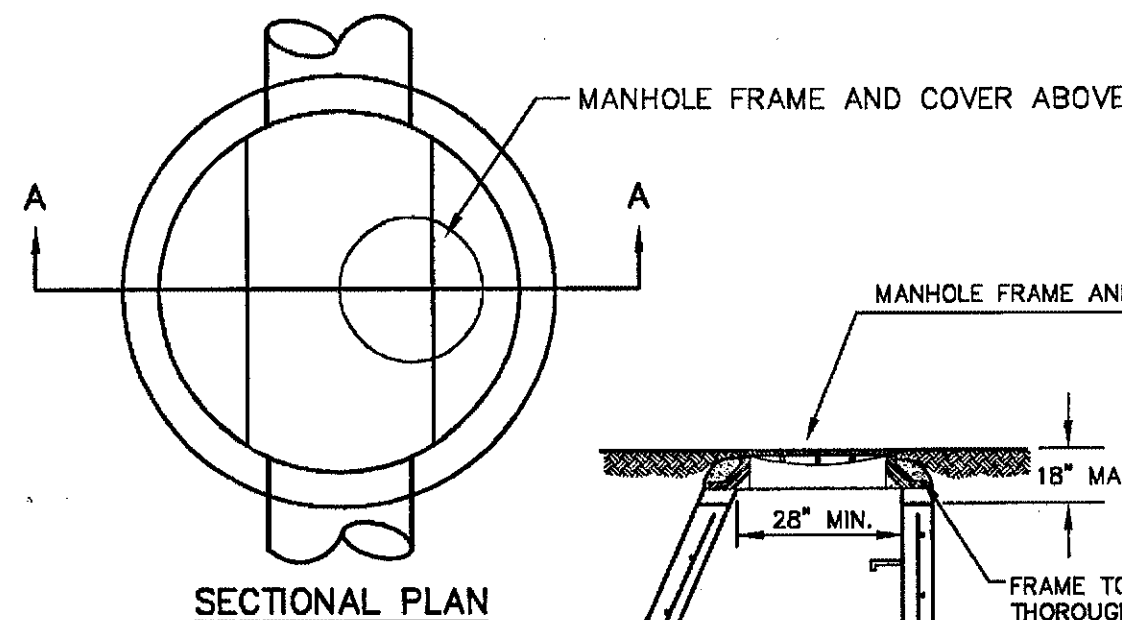


SECTION A-A
THROUGH INVERT DETAIL

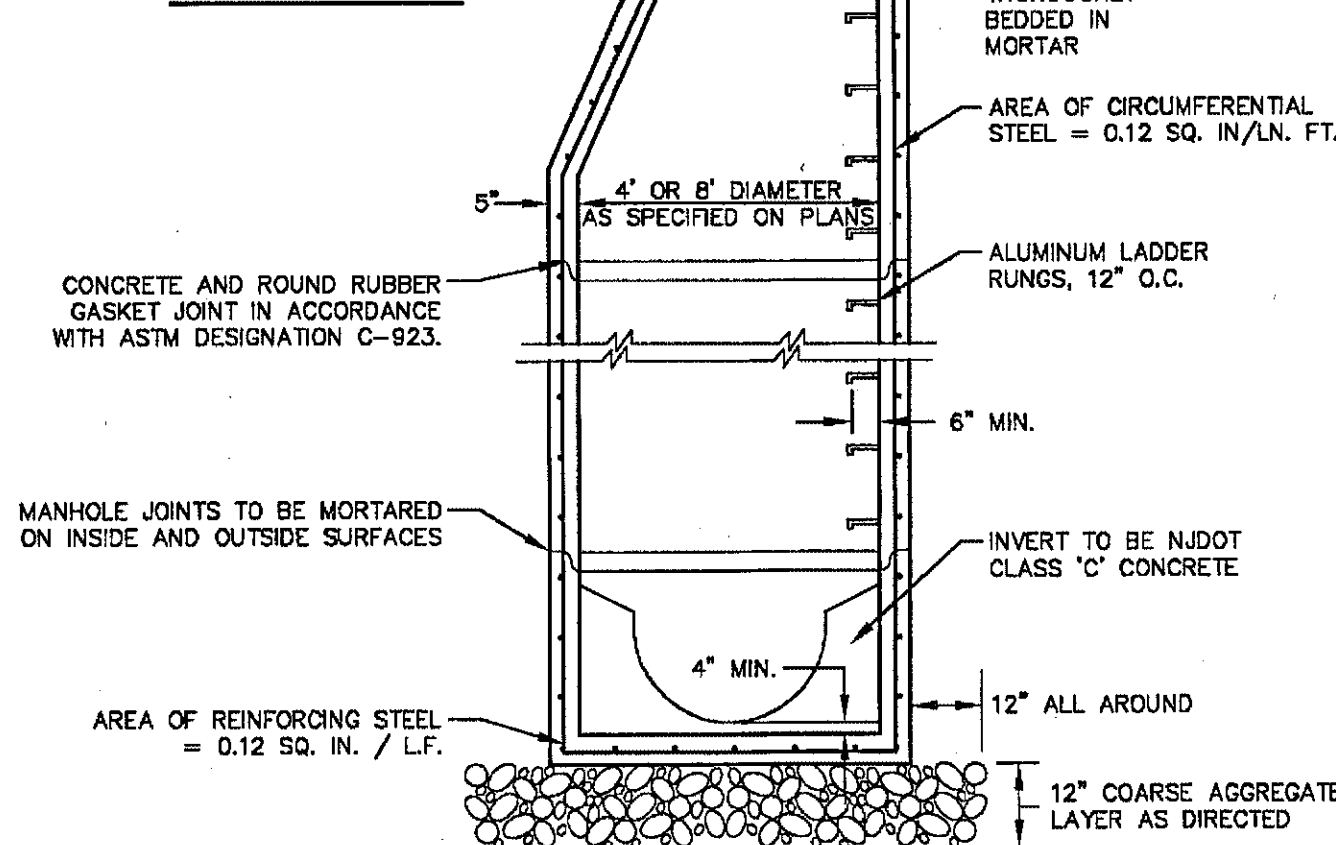


SECTION B-B
TERMINAL INVERT DETAIL

1.1 TYPE "E" MODIFIED INLET
CD1 NOT TO SCALE



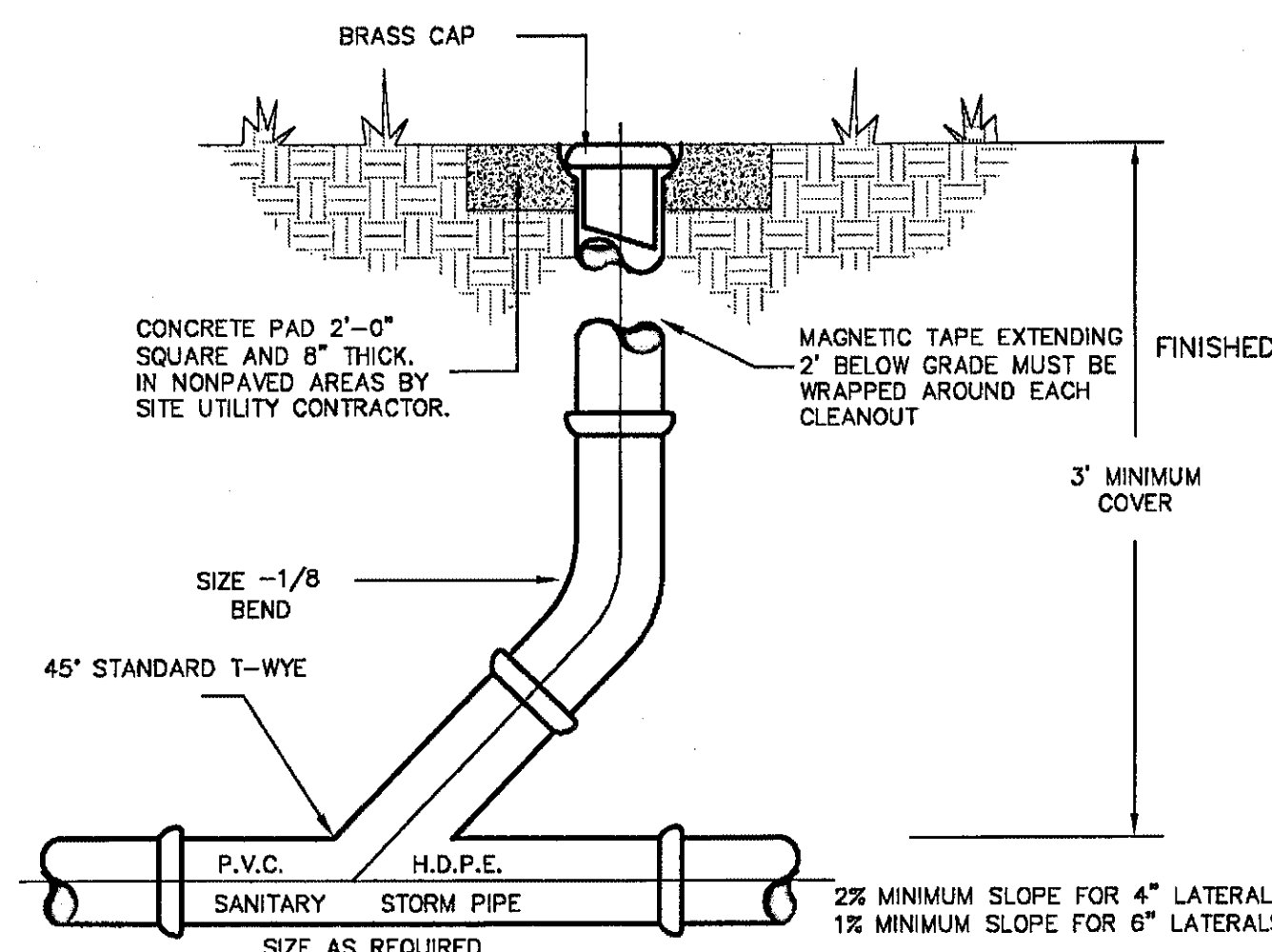
SECTIONAL PLAN



- CONSTRUCTION NOTES:
1. PRECAST MANHOLE SECTIONS TO BE ON ACCORDANCE WITH LATEST ASTM SPECIFICATION ASTM C-473 WITH RUBBER GASKET JOINTS, CONFORMING TO ASTM SPECIFICATION C-923. MAXIMUM ADSORPTION TO BE 6% IN ACCORDANCE WITH ASTM SPECIFICATION C-478.
 2. MINIMUM COMPRESSION STRENGTH TO BE 4500 PSI.

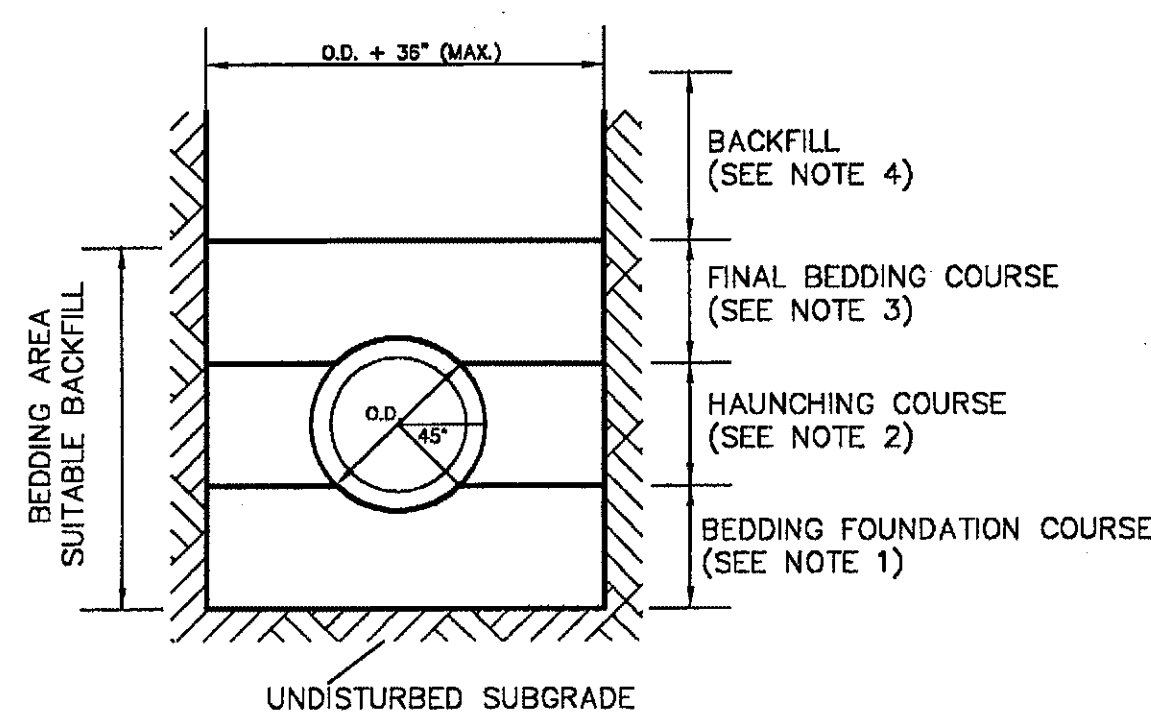
SECTION A-A

1.4 PRECAST DRAINAGE MANHOLE
CD1 NOT TO SCALE



CLEANOUTS LOCATED IN DRIVEWAYS, PARKING LOTS, OR OTHER PAVED AREAS SHALL BE COVERED WITH A CAMPBELL MODEL #4155 MONUMENT BOX

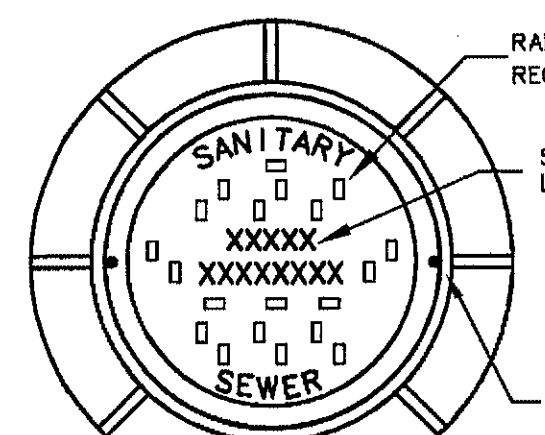
1.10 CLEANOUT DETAIL
CD1 NOT TO SCALE



PIPE BEDDING NOTES:

1. BEDDING FOUNDATION COURSE: EXISTING TRENCH EXCAVATION MATERIAL MAY BE USED IF DETERMINED SUITABLE BY THE ENGINEER. UNSUITABLE TRENCH MATERIALS SHALL BE REMOVED AND REPLACED WITH CRUSHED STONE. CRUSHED STONE (CHOKED) FOUNDATION COURSE (NJDOT No. 57 COARSE AGG.) COMPACTED TO DENSITY OF IN-SITU SOILS IN 6" LAYERS. EXISTING MATERIALS DETERMINED TO BE SUITABLE THAT HAVE BEEN DISTURBED, SHALL BE RECOMPACTED TO A DENSITY EQUAL TO THAT OF THE UNDISTURBED. RECOMPACTED SHALL TAKE PLACE PRIOR TO PIPE INSTALLATION. IN ALL CASES THE BEDDING FOUNDATION COURSE SHALL PROVIDE UNIFORM, CONTINUOUS AND ADEQUATE SUPPORT FOR THE PIPE.
2. HAUNCHING COURSE: TO BE SELECT OR SUITABLE BACKFILL, TAMPING ON SIDE OF PIPE REQUIRED WITH CAUTIONS TAMPING DIRECTLY OVER TOP OF PIPE TO PRECLUDE MOVEMENT OR DEFLECTION OF PIPE. MATERIAL TO BE PLACED AND MECHANICALLY TAMPED IN 12" LAYERS PLACED OVER THE 12" OF COMPACTED GRANULAR SELECT BACKFILL.
3. FINAL BEDDING COURSE: TO BE SELECT OR SUITABLE BACKFILL, TAMPING ON SIDE OF PIPE REQUIRED WITH CAUTIONS TAMPING DIRECTLY OVER TOP OF PIPE TO PRECLUDE MOVEMENT OR DEFLECTION OF PIPE. MATERIAL TO BE PLACED AND MECHANICALLY TAMPED IN 12" LAYERS PLACED OVER THE 12" OF COMPACTED GRANULAR SELECT BACKFILL.
4. BACKFILL ABOVE THE BEDDING AREA SHALL BE A SUITABLE MATERIAL COMPACTED TO A DENSITY EQUAL TO OR GREATER THAN THE ADJACENT UNDISTURBED MATERIALS. SAID COMPACTION TO BE REACHED PRIOR TO BITUMINOUS STABILIZED BASE COURSE CONSTRUCTION. DENSITY TESTS MAY BE REQUIRED BY THE TOWNSHIP ENGINEER AND COSTS OF SAME TO BE BORNE BY THE CONTRACTOR.

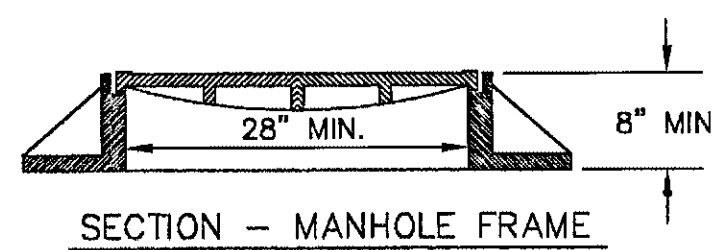
1.7 BEDDING FOR PVC PIPE (ASTM-D2321)
CD1 NOT TO SCALE



PLAN - MANHOLE FRAME

CONSTRUCTION NOTES:

1. MANHOLE FRAME AND COVER CASTINGS SHALL CONFORM TO THE LATEST ASTM A-48 CLASS 30 SPECIFICATION AND BE SUITABLE FOR HS-20 LOADING CAPACITY.
2. FRAME AND COVERS SHALL BE COATED WITH TWO COATS OF ASPHALTUM VARNISH.
3. THE MANHOLE FRAME SHALL HAVE A MINIMUM OVERALL HEIGHT OF 8".
4. THE MANHOLE COVER THICKNESS SHALL BE A MINIMUM OF 2".

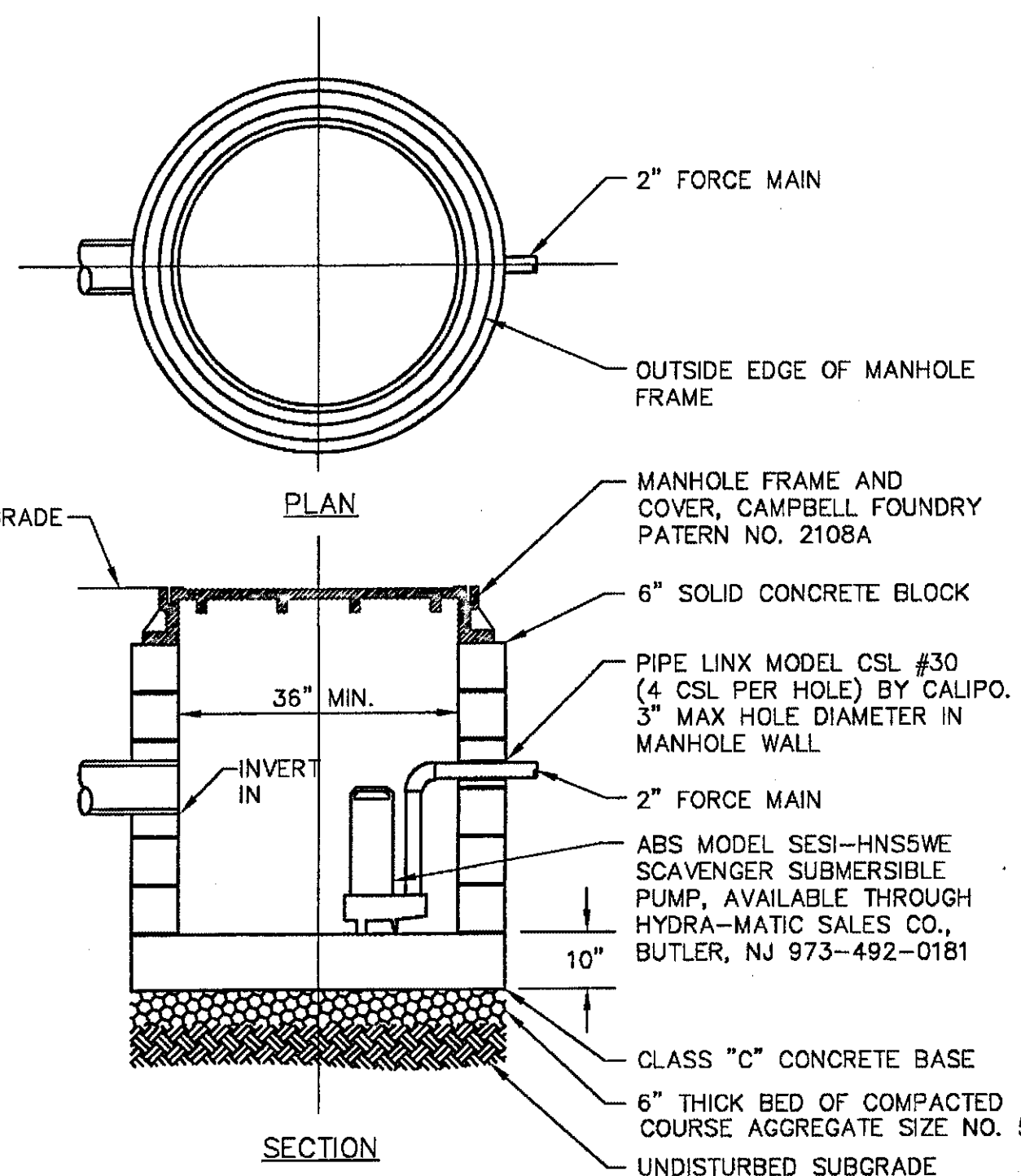


SECTION - MANHOLE FRAME

MANHOLE COVERS AND FRAMES SHALL BE:

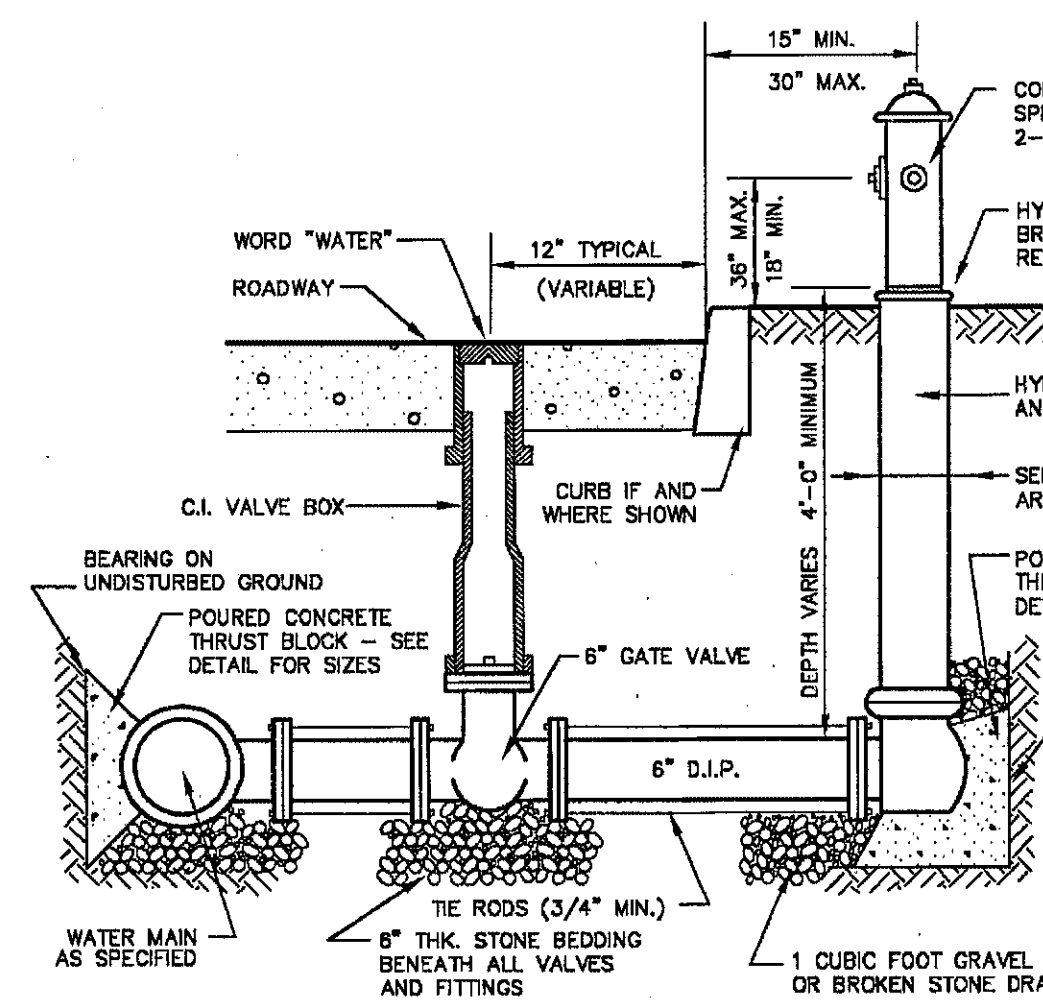
- STANDARD (Heavy Traffic Type)
Campbell Foundry Company -----Pattern No. 1203, or equal.
w/ Flow Seal Cover
- WATERTIGHT
Campbell Foundry Company -----Pattern No. 1502, or equal.
- LOCKING TYPE
Campbell Foundry Company -----Pattern No. 1487, or equal.

1.5 TYPICAL MANHOLE FRAME AND COVER
CD1



1.18 TRENCH DRAIN PUMP DETAIL
CD1 NOT TO SCALE

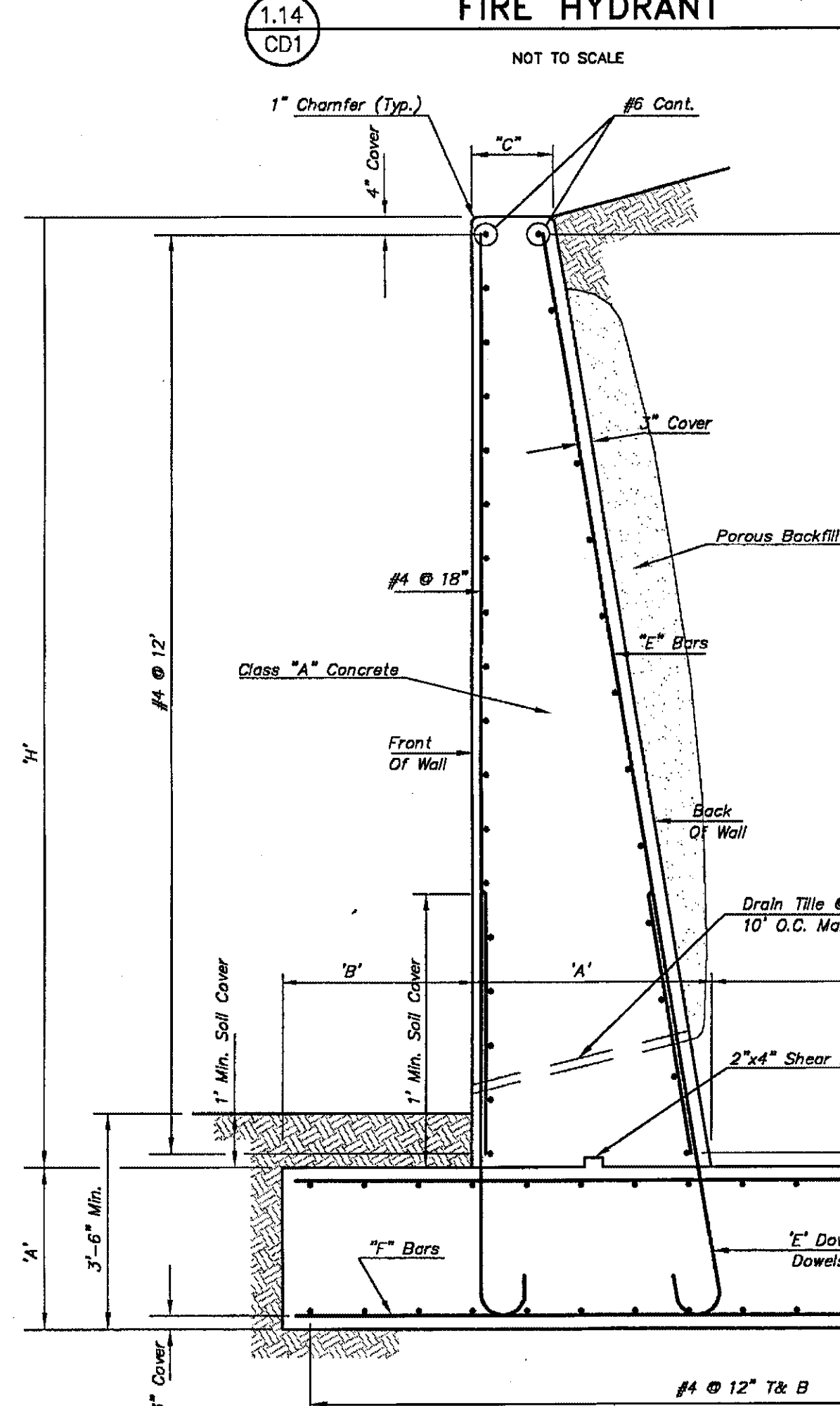
1.8 TYPICAL TRENCH & PAVEMENT REPAIR
CD1 NOT TO SCALE



CONSTRUCTION NOTES:

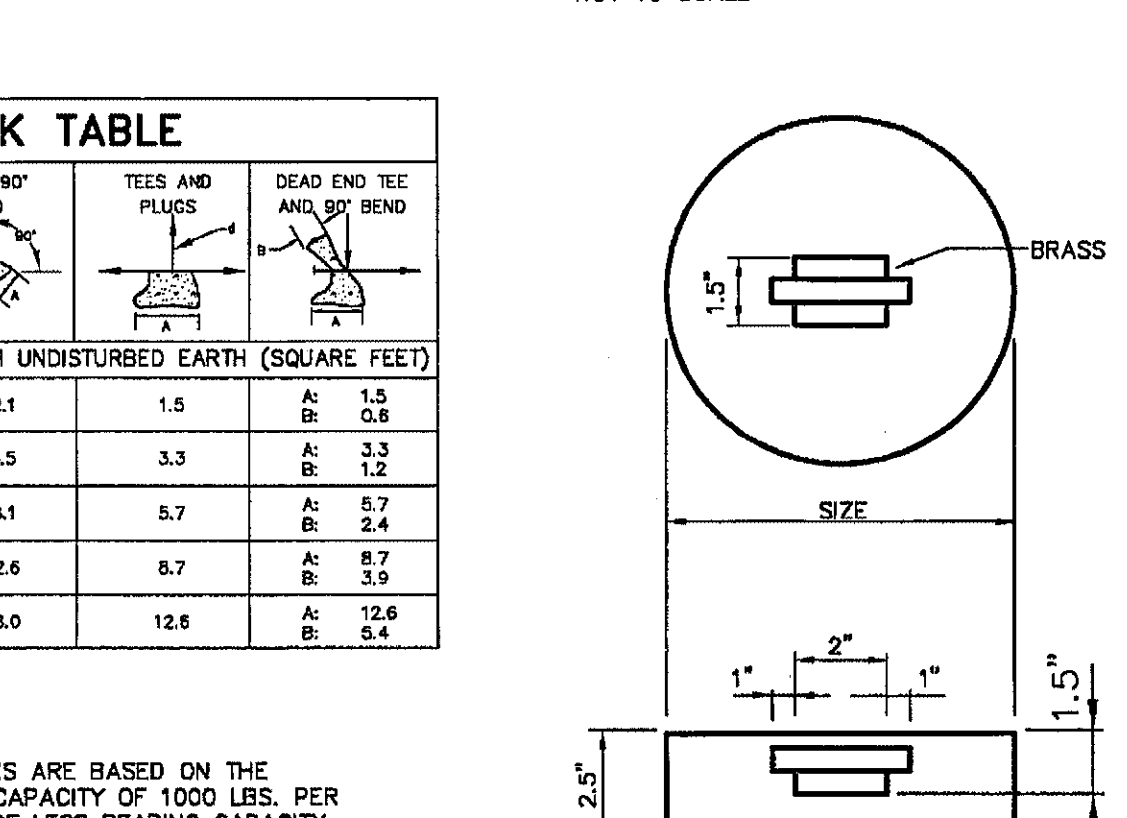
1. CONCRETE FOR THRUST BLOCKS SHALL CONFORM TO THE STANDARD DETAIL FOR THRUST BLOCKS.
2. SIZE AND BEARING AREA FOR THRUST BLOCKS SHALL CONFORM TO THE STANDARD DETAIL FOR THRUST BLOCKS.
3. FINISH PAINTING AND VARNISHING SHALL BE DESIGNATED ON THE PLANS OR CONTRACT DOCUMENTS OR SHALL BE AS DIRECTED BY THE ENGINEER.
4. SPECIAL HYDRANT ARRANGEMENTS OR SETTINGS TO BE DETAILED BY CONTRACTOR SELECTED TO ENGINEER'S APPROVAL.
5. ALL CONNECTIONS AND FITTINGS TO BE MECHANICAL JOINT.

1.14 FIRE HYDRANT
CD1 NOT TO SCALE

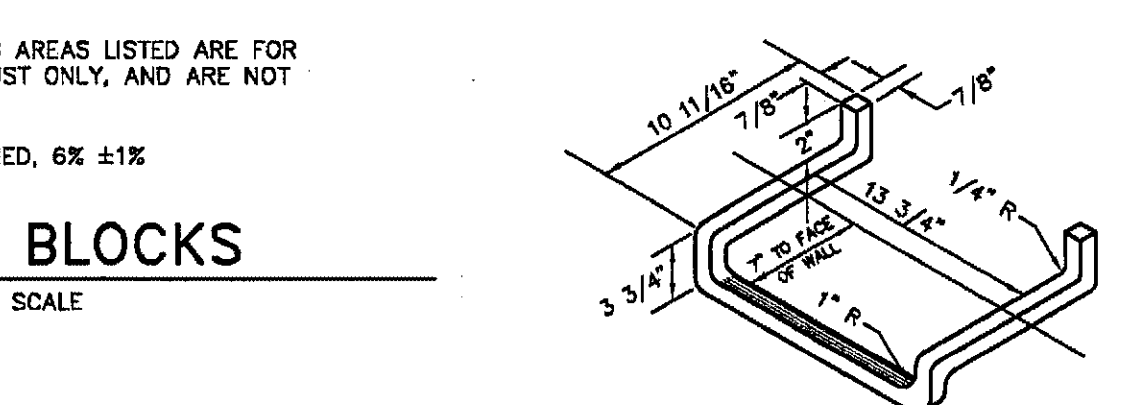


1.18 CONCRETE RETAINING WALL
CD1 NOT TO SCALE

1.13 MECHANICAL JOINT END CAP FOR ACTIVE WATER MAIN
CD1 NOT TO SCALE



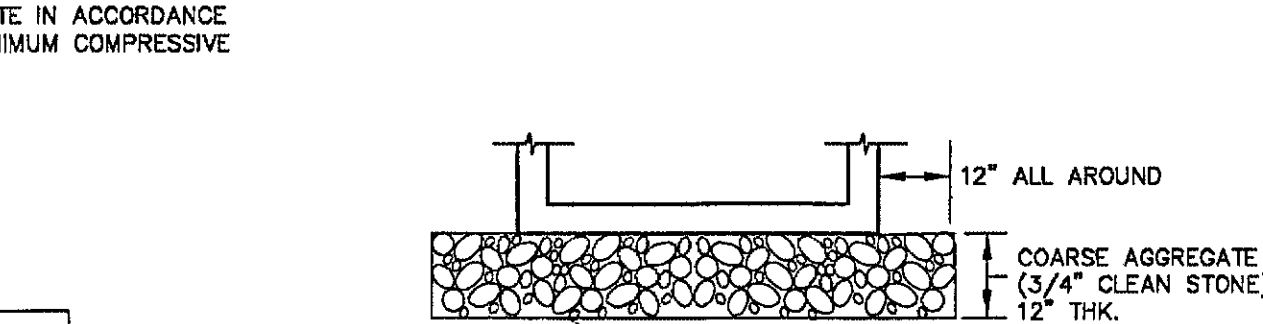
1.19 CLEANOUT PLUG DETAIL
CD1 NOT TO SCALE



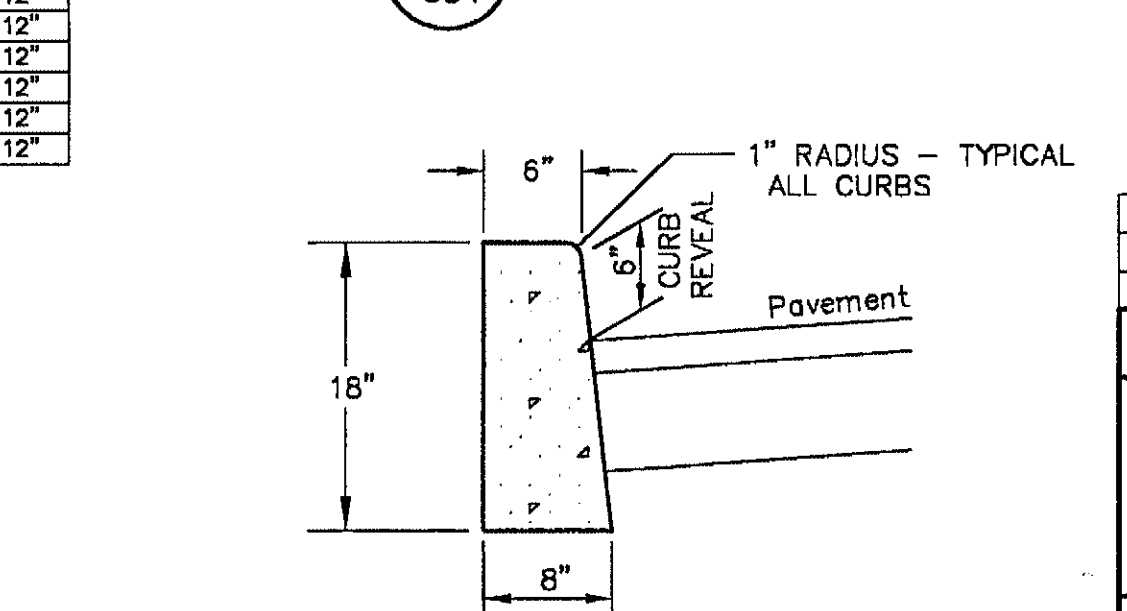
CONSTRUCTION NOTE:

1. PORTION EMBEDDED IN MASONRY TO BE COATED WITH SOLAR PITCH VARNISH OR OTHER SPECIFIED MATERIAL AND SHALL BE PROTECTED WITH THE LATEST O.S.H.A. STANDARDS.
2. STEPS TO BE EXTENDED 8061-18 ALUMINUM 28 DAYS (CLASS C).
3. STEPS SHALL BE PROVIDED AT 12" ON CENTER

1.3 ALUMINUM LADDER RUNG
CD1 NOT TO SCALE



1.2 STONE BEDDING UNDER STRUCTURES
CD1 NOT TO SCALE



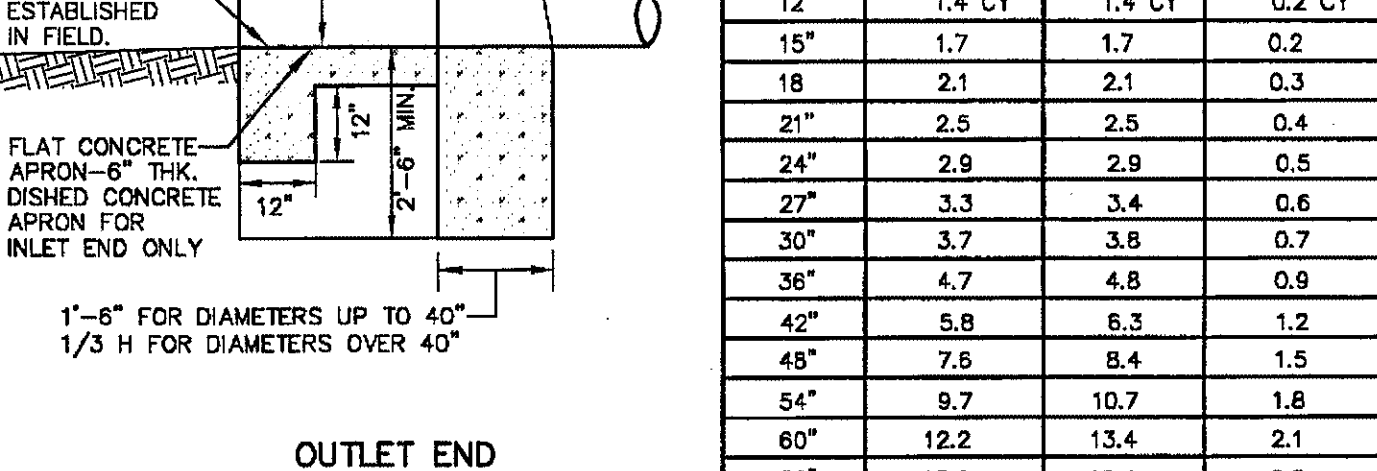
- CONSTRUCTION NOTES:
1. ALL CONCRETE SHALL BE 5000 PSI, AIR ENTRAINED
 2. SIX (6") INCH FILL TO BE PROVIDED
 3. PROVIDE PREFORMED BITUMINOUS FIBER EXPANSION JOINTS, 1/2" THICK AT 20'-0" (MAXIMUM) INTERVALS. PROVIDE DUMMY JOINTS (FORMED) BETWEEN EXPANSION JOINTS.

1.12 6"x8"x18" VERTICAL CONCRETE CURB
CD1 NOT TO SCALE

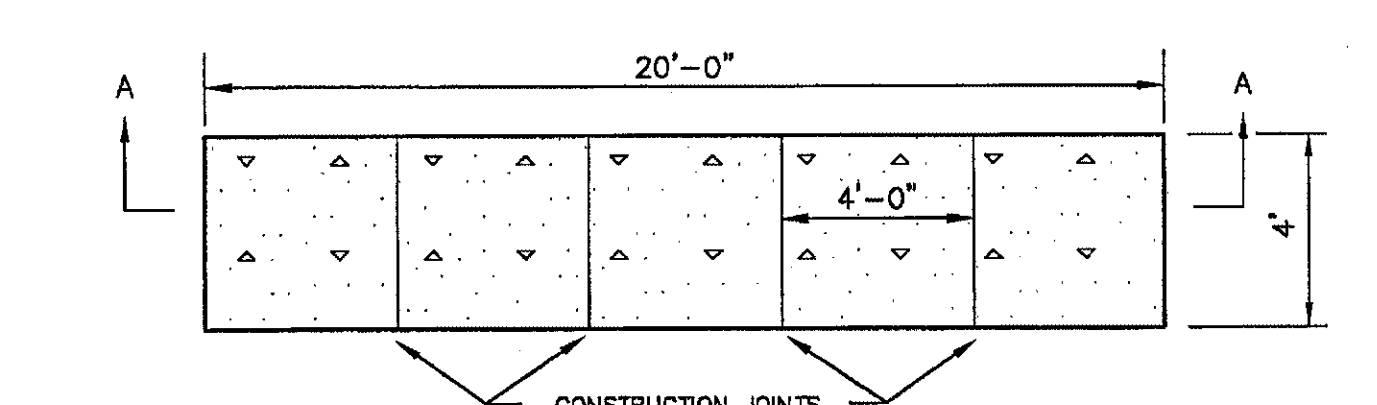
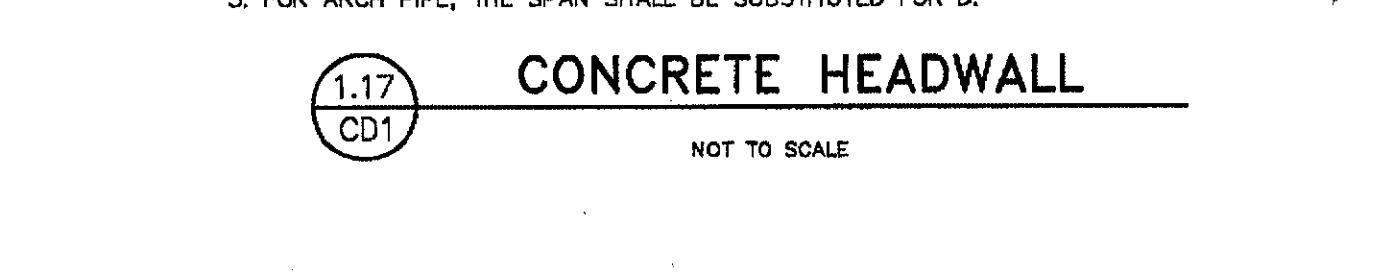
CONSTRUCTION NOTES:

1. ALL EDGES TO BE CHAMFERED 1"
2. CONCRETE TO BE N.J.D.O.T. CLASS "C"
3. APRONS TO BE 6" THK. CONC. FLAT AT OUTLET END, DISHED AT INLET END.
4. EXPOSED PORTIONS OF WALL TO BE RUBBED AND FLOATED.
5. FOR ARCH PIPE, THE SPAN SHALL BE SUBSTITUTED FOR D.

1.16 BOLLARD
CD1 NOT TO SCALE



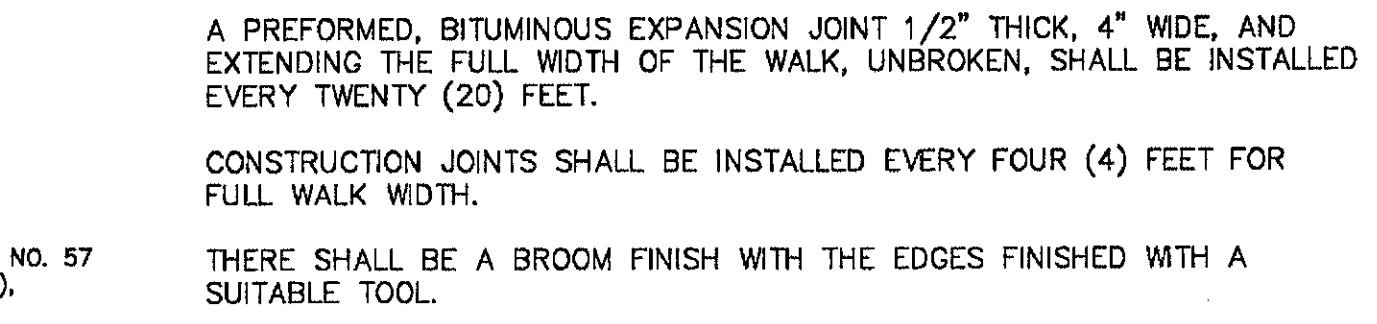
1.17 CONCRETE HEADWALL
CD1 NOT TO SCALE



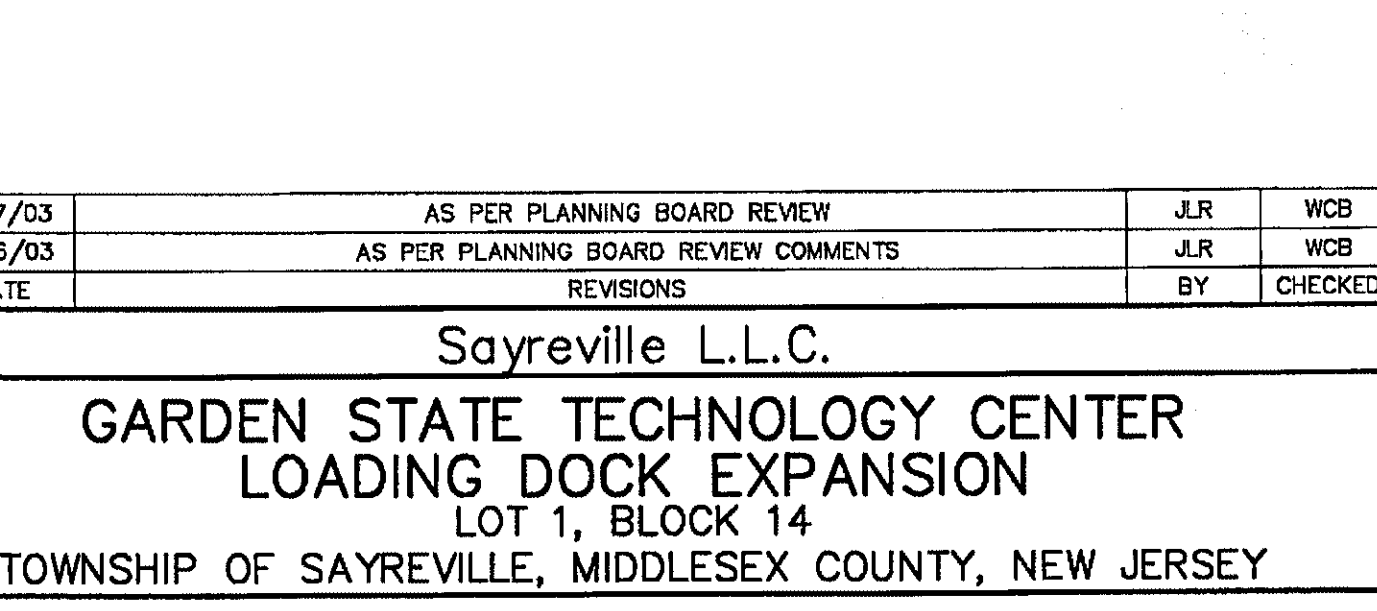
CONSTRUCTION NOTES:

1. A PREFORMED, BITUMINOUS EXPANSION JOINT 1/2" THICK, 4" WIDE, AND EXTENDING THE FULL WIDTH OF THE WALK, UNBROKEN, SHALL BE INSTALLED EVERY TWENTY (20) FEET.
2. CONSTRUCTION JOINTS SHALL BE INSTALLED EVERY FOUR (4) FEET FOR FULL WALK WIDTH.
3. THERE SHALL BE A BROOM FINISH WITH THE EDGES FINISHED WITH A SUITABLE TOOL.

1.20 CONCRETE SIDEWALK
CD1 NOT TO SCALE



1.20 CONCRETE SIDEWALK
CD1 NOT TO SCALE



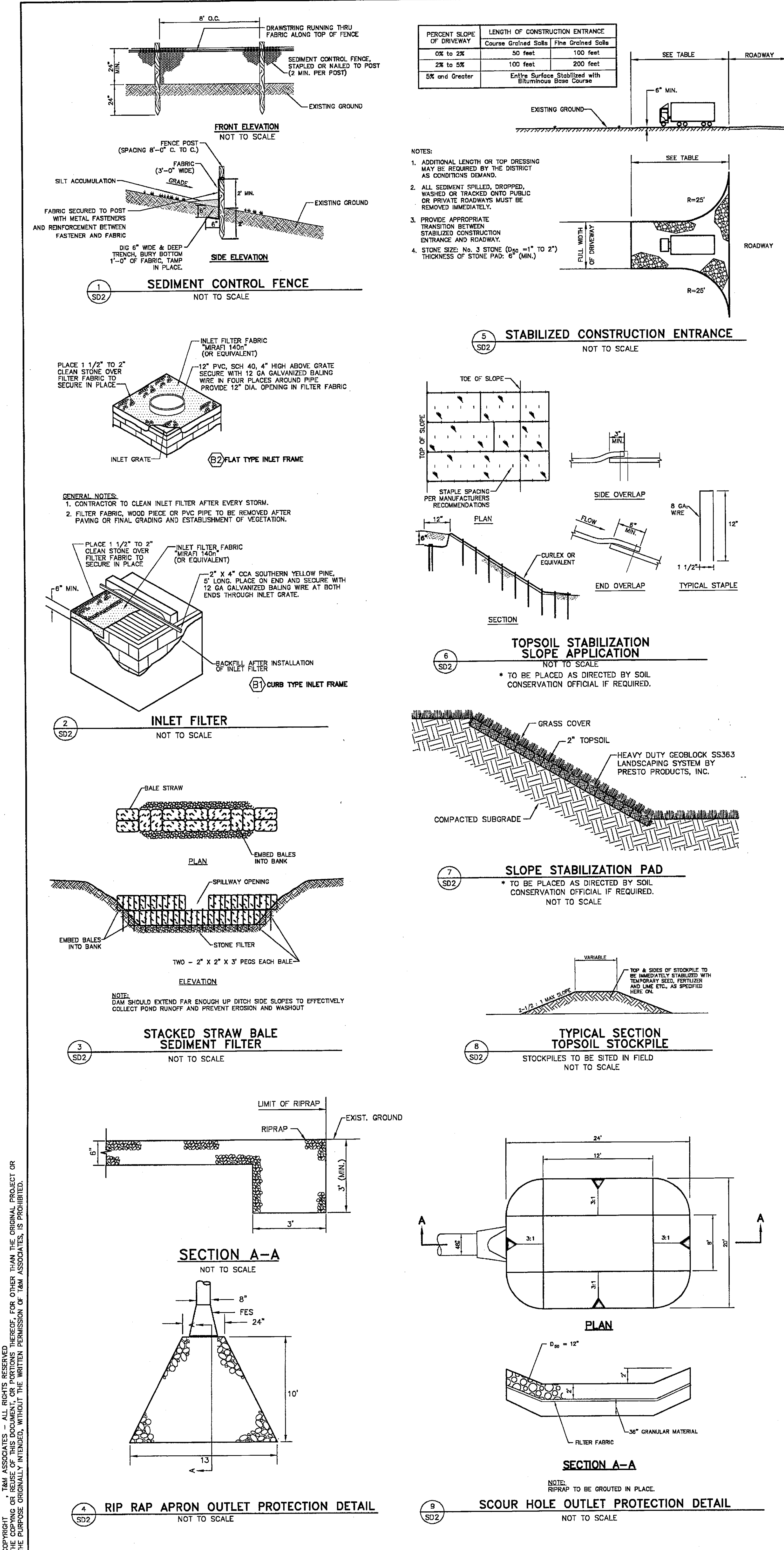
- CONSTRUCTION NOTES:
1. ALL EDGES TO BE CHAMFERED 1"
 2. CONCRETE TO BE N.J.D.O.T. CLASS "C"
 3. APRONS TO BE 6" THK. CONC. FLAT AT OUTLET END, DISHED AT INLET END.
 4. EXPOSED PORTIONS OF WALL TO BE RUBBED AND FLOATED.
 5. FOR ARCH PIPE, THE SPAN SHALL BE SUBSTITUTED FOR D.

1.16 BOLLARD
CD1 NOT TO SCALE

CONSTRUCTION NOTES:

1. ALL EDGES TO BE CHAMFERED 1"
2. CONCRETE TO BE N.J.D.O.T. CLASS "C"
3. APRONS TO BE 6" THK. CONC. FLAT AT OUTLET END, DISHED AT INLET END.
4. EXPOSED PORTIONS OF WALL TO BE RUBBED AND FLOATED.
5. FOR ARCH PIPE, THE SPAN SHALL BE SUBSTITUTED FOR D.

DATE: 11/10/2003
DRAWN BY: JLR
CHECKED BY: WCB
PROJECT: GARDEN STATE TECHNOLOGY CENTER LOADING DOCK EXPANSION
SHEET: 7 OF 8
CADD FILE: H:\SLC\000\0\PLANS\SL10-SE
PLOT DATE: 5/12/03



STANDARD FOR TEMPORARY VEGETATIVE COVER FOR SOIL STABILIZATION

Definition: Establishment of temporary vegetative cover on soils exposed for periods of two to six months which are not being graded, under active construction or not scheduled for permanent seeding within 60 days.

Purpose: To temporarily stabilize the soil and reduce damage from wind and water erosion until permanent stabilization is accomplished.

Water Quality Enhancement: Provide temporary protection against the impacts of wind and rain, slow the overland movement of stormwater runoff, increase infiltration and reduce soil erosion and sedimentation.

Where Applicable: On exposed soils that have the potential for causing off-site environmental damage.

Methods and Materials:

A. Grade as needed and feasible to permit the use of conventional equipment for seedbed preparation, seeding, mulch application, and mulch anchoring. All grading should be done in accordance with Standards for Land Grading, 19-1-1, Standards for Soil Erosion and Sediment Control in New Jersey (S.E.S.C.N.J.).

B. Install needed erosion control practices or facilities such as diversion, grade stabilization structures, channel stabilization measures, sediment basins, and waterways. See Standard 11 through 42 (S.E.S.C.N.J.).

C. Immediately prior to seeding, the surface should be scarified 6" to 12" where there has been soil compaction. This practice is permissible only where there is no danger to underground utilities (cables, irrigation systems, etc.).

D. Apply ground limestone and fertilizer according to soil test recommendations such as those offered by Rutgers Cooperative Extension. Soil sample methods are available from the local Rutgers Cooperative Extension offices. Apply limestone at the rate of 2 tons/acre unless a soil test indicates otherwise. Apply fertilizer at the rate of 2 tons/acre unless a soil test indicates otherwise. Cadmium carbonate is the equivalent and standard for the quality of living materials to neutralize soil acidity and supply calcium and magnesium to grasses and legumes. The table below is a general guideline for limestone application.

SOIL TEXTURE	TONS/ACRE	LIBS./1,000 SQ. FT.
Clay, clay loam, and high organic soil	3	135
Sandy loam, loam, silt loam	2	90
Loamy sand, sand	1	45

* Pulverized dolomitic limestone is preferred for most soils south of the New Brunswick-Trenton line.

E. Work time and fertilizer into the soil as nearly as practical to a depth of 4 inches with a disc, springtooth harrow, or other suitable equipment. The final harrowing or disking operation should be on the general contour.

F. Inspect seeded just before seeding. If traffic has left the soil compacted, the area must be retitled as above.

G. Soil high on sulfides or having a pH of 4 or less refer to Standard for Management of High Acid Producing Soils, 19-1-1 of the Standards for Soil Erosion and Sediment Control in New Jersey.

Seeding:

A. Select seed from recommendations in Table.

B. Temporary Vegetative Stabilization Grasses, Seeding Rates, Dates and Depth

SEED TYPES	SEEDING RATES (1) (pounds) Per Acre	OPTIMUM SEEDING DATE (2) Based on Plant Hardiness Zone (3)	OPTIMUM SEED DEPTH (4) (inches)	
COOL SEASON GRASSES				
Perennial ryegrass	100	3/15-6/1 8/9-9/15	2/15-5/1 8/15-10/15	0.5
Spring oats	85	3/15-6/1 8/15-10/1	2/15-5/1 8/15-10/15	1.0
Winter barley	95	6/1-8/15 8/15-10/1	8/15-10/15	1.0
Winter cereal rye	112	6/1-11/1 8/1-11/15	8/1-12/15	1.0
WARM SEASON GRASSES				
Pearl millet	20	6/1-8/1 5/15-8/15	5/1-8/1	1.0
Millet (German or Hungarian)	30	6/1-8/1 5/15-8/15	5/1-8/1	1.0
Weeping lovegrass	5	6/1-8/1 5/15-8/15	5/1-8/1	0.25

(1) Seeding rates for warm season grasses shall be adjusted to reflect the amount of Pure Seed (P.S.) as determined by a germination test result. No adjustment is required for cool season grasses.

(2) May be planted throughout summer if soil moisture is adequate or can be irrigated.

(3) Plant Hardiness Zone (see below):

Zone 5b (-10 to -15) Portions of Sussex and Warren Counties

Zone 6a (-5 to -10) Portions of Sussex, Warren, Passaic, Morris, Somerset and Hunterdon counties.

Zone 6b (0 to -5) Portions of Bergen, Camden, Essex and Gloucester, Hunterdon, Mercer, Middlesex, Hudson, Ocean, Burlington, Morris, Passaic, Somerset, Union, Atlantic, Cumberland, and Cape May counties.

Zone 7a (5 to 10) Portions of Camden, Gloucester, Salem, Cumberland, Cape May, Atlantic, Burlington, Ocean, and Monmouth counties.

Zone 7b (10 to 15) Portions of Cape May, Atlantic, Ocean and Monmouth counties.

(4) Twice the depth for sandy soils.

C. Conventional Seeding - Apply seed uniformly by hand, cyclone (centrifugal) seeder, drop seeder, drill or catbox seeder. Except for drilled, hydroseeded or catbox seeded, seed shall be incorporated into the soil to a depth of 1/4 to 1/2 inch, by raking or dragging. Depth of seed placement may be 1/4 inch deeper on coarse textured soil.

D. Hydroseeding is a broadcast seeding method usually involving a truck or trailer mounted tank, with an application system and hydraulic pump for mixing seed, water and fertilizer and spraying the mix onto the prepared seedbed. Mulch shall not be included in the tank with seed. Short fibered mulch may be applied with a hydroseeder following seeding. Hydroseeding is not a preferred seeding method because seed and fertilizer are applied to the surface and not incorporated into the soil. For seed to soil contact occurs resulting in poor germination and growth. Hydroseeding may be used for areas too steep for conventional equipment to traverse or too obstructed with rocks, stumps, etc.

E. After seeding, firming the soil with a corrugated roller will ensure good seed-to-soil contact, restore capillarity, and improve seedling emergence. This is the preferred method. When performed on the contour, sheet erosion will be minimized and water conservation on site will be maximized.

Mulching:

A. Mulching is required on all seedings. Mulch will insure against erosion before grass is established and will promote faster and earlier establishment. The existence of vegetation sufficient to control soil erosion shall be deemed compliance with this mulching requirement.

B. Straw or Hay, Unrotted small grain straw, hay free of seeds, or salt hay to be applied at the rate of 1-1/2 to 2 tons per acre (70 to 90 pounds per 1,000 square feet), except that where a erimpr is used instead of liquid mulch (topkilling or adhesive agent), the rate of application is 3 tons per acre. Mulch choppers-blowers must not grind the mulch. Hay mulch is not recommended for establishing the turf or for use on the presence of weed seed.

C. Application, spread uniformly by hand mechanically so that approximately 85% of the soil surface will be covered. For uniform distribution of hand-spread mulch, divide area into approximately 1,000 square foot sections and distribute 70 to 80 pounds within each section.

D. Anhydrous should be accomplished immediately after placement to minimize loss by wind or water. This may be done by one of the following methods, depending upon the size of the area, steepness of slopes, and costs:

1. Peg and Twine - Drive 8 to 10 inch wooden pegs to within 2 to 3 inches of the soil surface every 4 feet in all directions. Slides may be driven before or after applying mulch. Secure twine around each peg with two or more round turns.

2. Mulch Netting - Staple paper, jute, cotton, or plastic netting to the soil surface. Use a degradable netting in areas to be mowed.

3. Crimper (mulch anchoring tool) - A tractor-drawn implement, somewhat like a disc-harrow, especially designed to push or cut some of the broadcast long fiber mulch 3 to 4 inches into the soil so as to anchor it and leave soil standing upright. This technique is limited to areas traversable by a tractor, which must operate on the contour of slopes. Straw mulch rate must be 3 tons per acre. No topkilling or adhesive agent is required.

4. Liquid Mulch-Binders - May be used to anchor salt hay or straw mulches.

a. Applications should be heavier at edges where wind catches the mulch, in valleys, and at crests of banks. Remainder of area should be uniform in appearance.

b. Use one of the following:

(1) Emulsified asphalt - (SS-1, CSS-1, CMS-2, MS-2, RS-1, RS-2, CSS-1, and CSS-2). Apply 0.04 gal./sq. ft. or 194 gal./acre on flat slopes less than 8 feet high. On slopes 8 feet or more high, use 0.075 gal./sq. ft. or 363 gal./acre. These materials may be difficult to apply uniformly and will discolored surfaces.

(2) Organic and Vegetable Based Binders - Naturally occurring, powder based, hydrophilic materials when mixed with water formulates a gel and when applied to mulch under satisfactory curing conditions will form membrane networks of insoluble polymers. The vegetable gel shall be physiologically harmless and not result in a phytotoxic effect or impede growth of turfgrasses. Use of rates and conditions as recommended by the manufacturer to anchor materials. Many new products are available, some of which may not be further evaluated for use in this state.

(3) Synthetic binders - High polymer synthetic emulsion, miscible with water when diluted and following application to mulch, drying and curing shall no longer be soluble or dispersible in water. It shall be applied at rates recommended by the manufacturer and remain tacky until germination of grass.

5. Wood-fiber or paper-fiber mulch. Shall be made from wood, plant fibers or paper containing no growth or germination inhibiting materials, used at the rate of 1,500 pounds per acre (or as recommended by the product manufacturer) and may be applied by a hydroseeder. This mulch shall not be mixed in the tank with the seed. Use is limited to faster slopes and during optimum seeding periods in spring and fall.

6. Pelletized mulch, Compressed and extruded paper and/or wood fiber product, which may contain co-polymers, fertilizers and coloring agents. The dry pellets, when applied to a seeded area and watered, form a mulch mat. Pelletized mulch shall be applied in accordance with the manufacturer's recommendations. Mulch may be applied by hand or mechanical spreader at the rate of 60-75 lbs./1,000 square feet and achieved with 0.2 to 0.4 inches of water. This material has been found to be beneficial for use on small lawn or renovation areas, seeded areas where weed-seed free mulch is desired or on sites where straw mulch and topkilling agent are not practical or desirable. Applying the full 0.2 to 0.4 inches of water after spreading pelletized mulch on the seed bed is extremely important for sufficient activation and expansion of the mulch to provide soil coverage.

Irrigation (where feasible)

If soil moisture is deficient, and mulch is not used, supply new seedlings with adequate water (a minimum of 1/4 inch below a dry unit level) until germination is well established. This is especially true when seedlings are made in abnormally dry or hot weather or on droughty sites.

Topdressing:

Since slow release nitrogen fertilizer (water insoluble) is prescribed in Section 11.A, Seeded preparation in this standard, no follow-up of topdressing is necessary. An exception may be made where grass nitrogen deficiency extends to the extent that turf failure may develop. In that instance, topdress with 10-10-10 or equivalent of 400 pounds per 1,000 square feet.

Establishing Permanent Vegetative Stabilization:

The quality of permanent vegetative stabilization with the contractor. The timing of seeding, preparing the seedbed, applying nutrients, mulch and other management are essential. The seed application rate is required when a Report of Compliance is requested prior to actual establishment of permanent vegetation. Up to 50% reduction in application rates may be used when permanent vegetation is established prior to receiving a Report of Compliance from the district. This rate applies to all methods of seeding. Establishing permanent vegetation means 85% vegetative cover (of the seeded species) and mowed areas.

SAYREVILLE SOIL CONSERVATION DISTRICT
SOIL EROSION AND SEDIMENT CONTROL NOTES

1. ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES TO BE INSTALLED PRIOR TO ANY MAJOR SOIL DISTURBANCE, OR IN THEIR PROPER SEQUENCE, AND MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED.

2. ANY DISTURBED AREAS THAT WILL BE LEFT EXPOSED MORE THAN THIRTY (30) DAYS, AND NOT SUBJECT TO CONSTRUCTION TRAFFIC, WILL IMMEDIATELY RECEIVE A TEMPORARY VEGETATIVE COVER. THE DISTURBED AREAS WILL BE MULCHED WITH STRAW OR EQUIVALENT MATERIAL, AT A RATE OF TWO (2) TONS PER ACRE, ACCORDING TO STATE STANDARDS.

3. PERMANENT VEGETATION TO BE SEEDING OR SOODED ON ALL EXPOSED AREAS WITHIN TEN (10) DAYS AFTER FINAL GRADING. MULCH IS REQUIRED ON ALL SEEDING, WHEN HYDROSEEDING, MULCH SHOULD NOT BE INCLUDED IN THE TANK WITH SEED.

4. ALL WORK TO BE DONE IN ACCORDANCE WITH THE STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL, IN NEW JERSEY.

5. A SUBBASE COURSE WILL BE APPLIED IMMEDIATELY FOLLOWING ROUGH GRADING AND INSTALLATION OF IMPROVEMENTS IN ORDER TO STABILIZE STREETS, ROADS, DRIVEWAYS AND PARKING AREAS. IN AREAS WHERE NO UTILITIES ARE PRESENT, THE SUBBASE SHALL BE INSTALLED WITHIN FIFTEEN (15) DAYS OF THE PRELIMINARY GRADING.

6. IMMEDIATELY FOLLOWING FINAL DISTURBANCE OR ROUGH GRADING, ALL CRITICAL AREAS SUBJECT TO EROSION (E.g. STEEP SLOPES AND ROADWAY EMBANKMENTS) WILL RECEIVE A TEMPORARY SEEDING IN COMBINATION WITH STRAW MULCH OR A SUITABLE EQUIVALENT, AT A RATE OF TWO (2) TONS PER ACRE, ACCORDING TO STATE STANDARDS.

7. ANY STEEP SLOPES RECEIVING PIPELINE INSTALLATION WILL BE BACKFILLED AND STABILIZED DURING THE INSTALLATION PROCESS (E.G. SLOPES GREATER THAN 3:1).

8. THE STANDARD FOR STABILIZED CONSTRUCTION AREAS REQUIRES THE INSTALLATION OF STONE PAD OF 1-1/2" TO 2" STONE AT ALL CONSTRUCTION DRIVEWAYS, IMMEDIATELY AFTER INITIAL SITE DISTURBANCE.

9. IN ACCORDANCE WITH THE STANDARD FOR MANAGEMENT OF HIGH ACID PRODUCING SOILS, ANY SOIL HAVING A PH OF 4 OR LESS OR CONTAINING IRON SULFIDES SHALL BE COVERED WITH A MINIMUM OF TWELVE (12) INCHES OF MULCH, OR 5 OR MORE POUNDS TO SEEDBED PREPARATION AREAS WHERE TREES OR SHRUBS ARE TO BE PLANTED SHALL BE COVERED WITH A MINIMUM OF TWENTY FOUR (24) INCHES OF MULCH HAVING A PH OF 5 OR MORE.

10. THE SAYREVILLE SOIL CONSERVATION DISTRICT SHALL BE NOTIFIED SEVENTY-TWO (72) HOURS IN ADVANCE OF ANY LAND DISTURBING ACTIVITY.

11. AT THE TIME WHEN THE SITE PREPARATION FOR PERMANENT VEGETATIVE STABILIZATION IS GOING TO BE ACCOMPLISHED, ANY SOIL THAT WILL PROVIDE A SUITABLE ENVIRONMENT TO SUPPORT ADDED VEGETATIVE VEGETATION COVER, SHALL BE REMOVED OR TREATED IN SUCH A WAY THAT WILL PERMANENTLY ADJUST THE SOIL CONDITIONS AND RENDER IT SUITABLE FOR VEGETATIVE GROWING COVER. IF THE REMOVAL OR TREATMENT OF THE SOIL WILL NOT PROVIDE SUITABLE CONDITIONS, NON-VEGETATIVE MEANS OF PERMANENT GROUND STABILIZATION WILL HAVE TO BE EMPLOYED.

12. IN THAT N.J.S.A. 4:24-39 ET SEQ. REQUIRES THAT NO CERTIFICATE OF OCCUPANCY BE ISSUED BEFORE THE PROVISIONS OF THE CERTIFIED PLAN FOR SOIL EROSION AND SEDIMENT CONTROL HAVE BEEN COMPLIED WITH OR PERMANENT MEASURES, ALL SITE WORK FOR SITE PLANS AND ALL WORK AMONG INDIVIDUAL LOTS IN SUBDIVISIONS, SHALL HAVE TO BE COMPLETED PRIOR TO THE DISTRICT ISSUING A REPORT OF COMPLIANCE FOR THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY BY THE MUNICIPALITY.

13. CONDUIT OUTLET PROTECTION MUST BE INSTALLED AT ALL REQUIRED OUTFALLS PRIOR TO THE DRAINAGE SYSTEM BECOMING OPERATIONAL.

14. ANY CHANGES TO THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLANS WILL REQUIRE THE SUBMISSION OF A REVISED SOIL EROSION AND SEDIMENT CONTROL PLANS TO THE DISTRICT FOR RE-CERTIFICATION. THE REVISED PLANS MUST MEET ALL CURRENT STATE SOIL EROSION AND SEDIMENT CONTROL STANDARDS.

15. UNFILTERED DRAINAGE IS NOT PERMITTED. TAKE ALL NECESSARY PRECAUTIONS DURING ALL DRAINAGE OPERATIONS TO MINIMIZE SEDIMENT TRANSFER. ANY DRAINAGE METHODS USED MUST BE IN ACCORDANCE WITH THE STANDARD FOR SOIL EROSION AND SEDIMENT CONTROL.

16. SHOULD THE CONTROL OF DUST AT THE SITE BE NECESSARY, THE SITE WILL BE SPRINKLED UNTIL THE SURFACE IS WET. TEMPORARY VEGETATIVE COVER, BE ESTABLISHED OR MULCH SHALL BE APPLIED IN ACCORDANCE WITH STATE STANDARDS FOR EROSION CONTROL.

17. ALL SOIL WASHED, DROPPED, SPILLED, OR TRACKED OUTSIDE THE LIMIT OF DISTURBANCE OR ONTO PUBLIC RIGHTS OF WAY WILL BE REMOVED IMMEDIATELY.

18. THE RESPONSIBILITY FOR THE PROTECTION OF ANY EROSION OR SEDIMENTATION THAT MAY OCCUR BELOW CONSTRUCTION OF THE PROJECT.

19. STOCKPILE AND STAGING LOCATIONS DETERMINED IN THE CERTIFIED PLAN SHALL BE PLACED IN ACCORDANCE WITH THE CERTIFIED PLAN. STAGING AND STOCKPILES SHALL BE PLACED IN ACCORDANCE WITH THE CERTIFIED PLAN. THE DISTRICT RESERVES THE RIGHT TO DETERMINE WHEN CERTIFICATION OF A NEW AND SEPARATE SOIL EROSION AND SEDIMENT CONTROL PLAN WILL BE REQUIRED FOR THESE ACTIVITIES.

20. ALL SOIL STOCKPILES ARE TO BE TEMPORARILY STABILIZED IN ACCORDANCE WITH SOIL EROSION AND SEDIMENT CONTROL NOTE #2.

STANDARD FOR STABILIZATION WITH MULCH ONLY

Definition: Stabilizing exposed soils with non-vegetative material.

Purpose: To protect exposed soil surfaces from erosion damage and to reduce off-site environmental damage.

Water Quality Enhancement: Provides temporary mechanical protection against wind or rainfall induced soil erosion until permanent vegetative cover may be established.

Where Applicable: This practice is applicable to areas subject to erosion, where the season and other conditions may not be suitable for growing an erosion resistant cover or where stabilization is needed for a short period until more suitable protection can be applied.

Methods and Materials:

1. Grade as needed and feasible to permit the use of conventional equipment and mulch anchoring. All grading should be done in accordance with Standards for Land Grading, 19-1-1, Standards for Soil Erosion and Sediment Control in New Jersey.

2. Install needed erosion control practices or facilities such as diversion, grade stabilization structures, channel stabilization measures, sediment basins, and waterways. See Standards 11 through 42.

A. Unrotted small-grain straw, or salt hay 2.0 to 2.5 tons per acre is spread uniformly over the area to be stabilized. The straw or salt hay shall be applied in a cross-hatch pattern. Secure twine around each peg with two or more round turns.

B. Asphalt emulsions recommended at the rate of 600 to 1,200 pounds per acre. This is suitable for a limited period of time where travel by people, animals, or machines is not a problem.

C. Synthetic or organic soil stabilizers may be used under suitable conditions and in quantities as recommended by the manufacturer.

D. Wood-fiber or paper-fiber mulch of the rate of 1,500 pounds per acre (or according to the manufacturer's requirements) may be applied by a hydroseeder.

E. Mulch netting, such as paper, jute, excelsior, cotton, or plastic, may be used.

F. Woodchips applied uniformly to a minimum depth of 2 inches may be used. Woodchips will not be used on areas where flowing water could wash them into the inlet and plug it.

G. Gravel, crushed stone, or slag at the rate of 9 cubic yards per 1,000 sq. ft. or 5 tons (or 5-33) is recommended.

3. Mulch anchoring should be accomplished immediately after placement of hay or straw mulch to minimize loss by wind or water. This may be done by one of the following methods, depending upon the size of the area and steepness of slopes.

A. Peg and Drive - Drive 8 to 10 inch pegs to within 2 to 3 inches of the soil surface every 4 feet in all directions. Slides may be driven before or after applying mulch. Secure twine around each peg with two or more round turns.

B. Mulch Netting - Staple paper, cotton, or plastic netting over mulch. Use a degradable netting in areas to be mowed. Netting is usually available in rolls 4 feet wide and 500 feet long.

C. Crimper - Mulch Anchoring Tool - A tractor-drawn implement especially designed to punch and anchor mulch into the soil surface. This practice affords maximum erosion control, but its use is limited to areas where the tractor can operate safely. Soil penetration should be about 3 to 4 inches. On sloping land, the operation should be on the contour.

D. Liquid Mulch - Binders

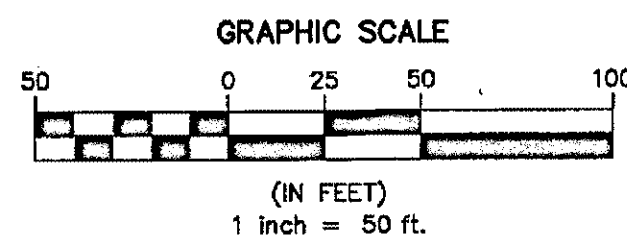
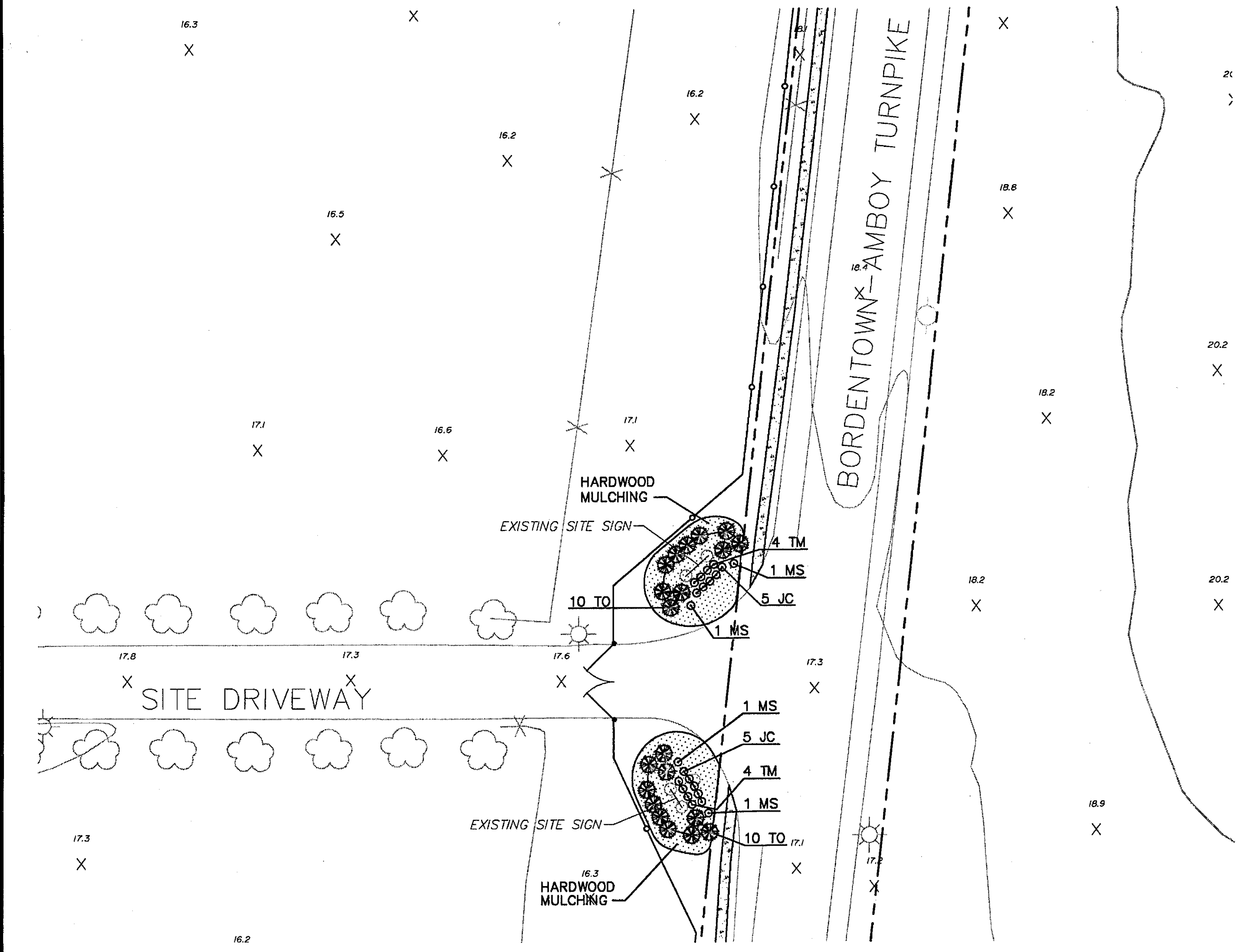
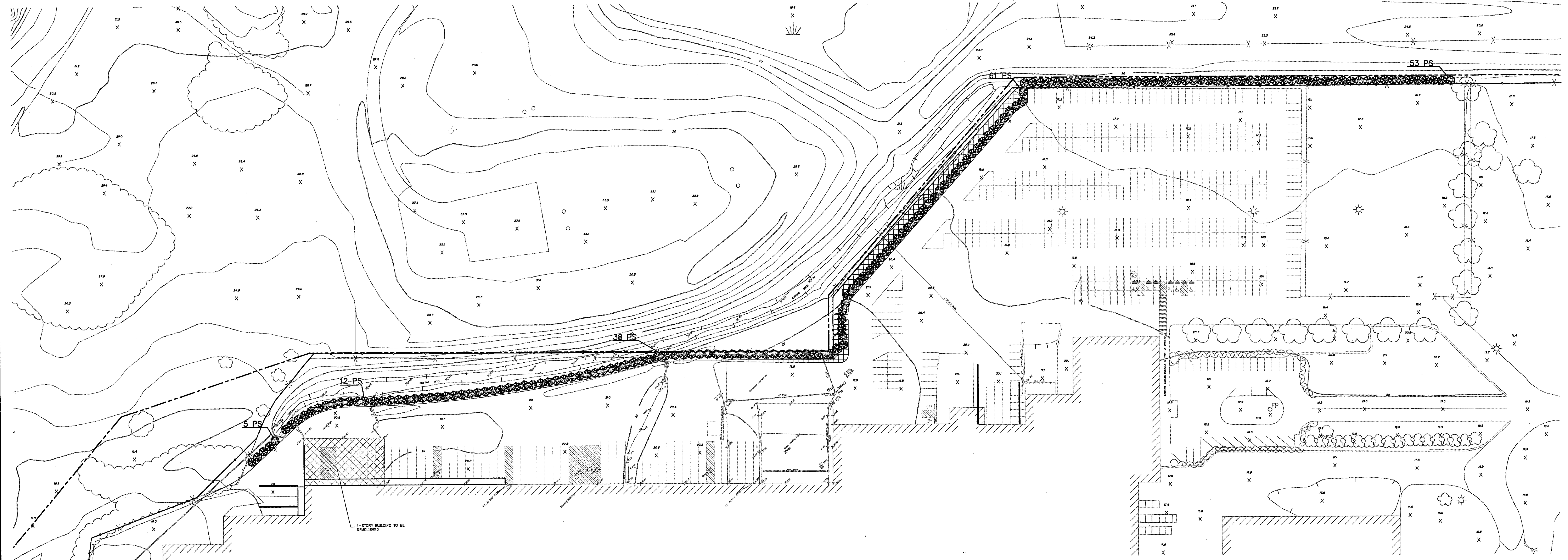
1. Application should be heavier at edges where wind catches the mulch, in valleys, and at crests of banks. Remainder of area should be uniform in appearance.

2. Use one of the following:

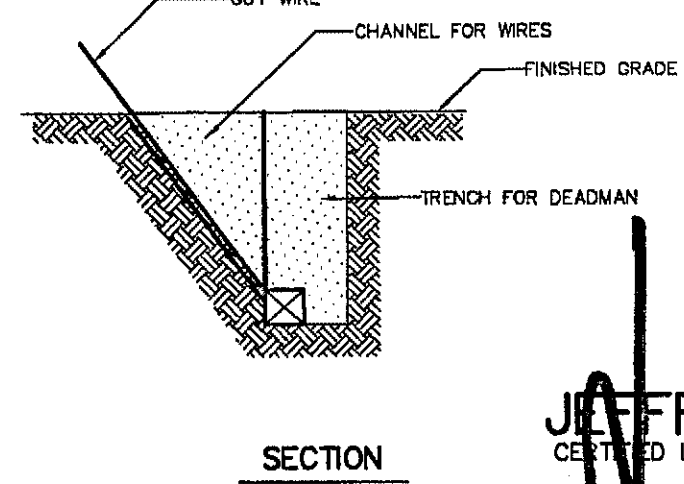
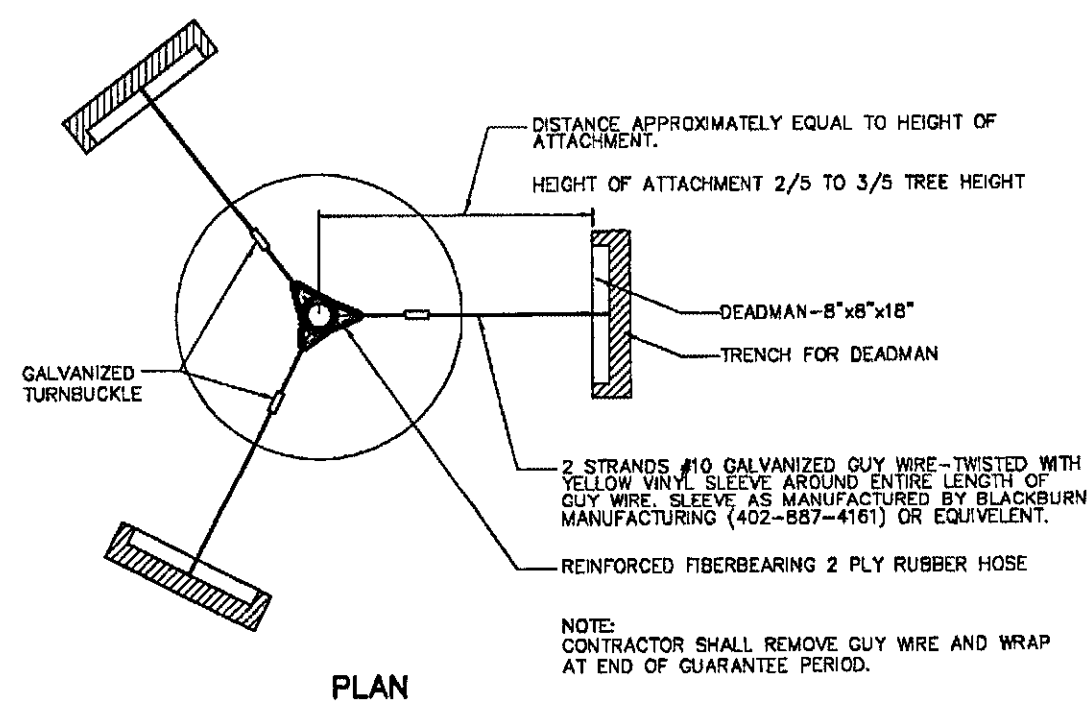
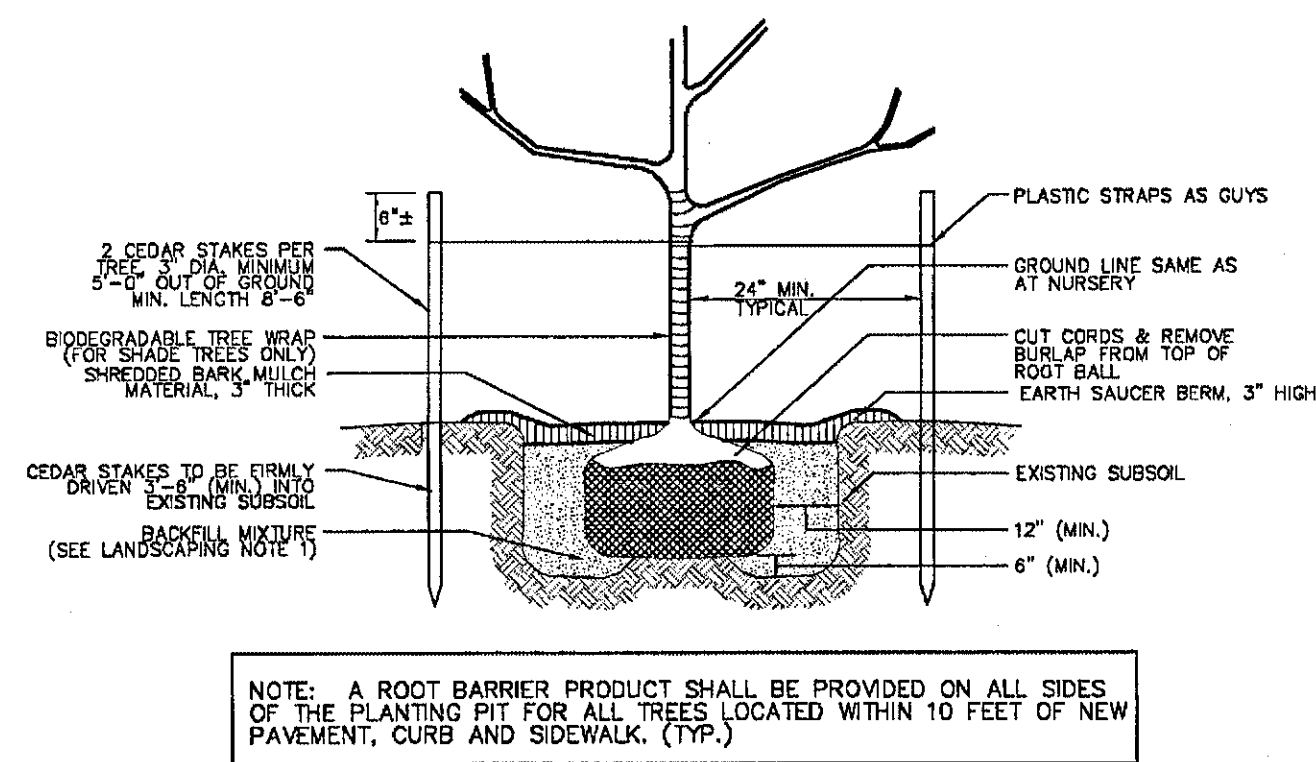
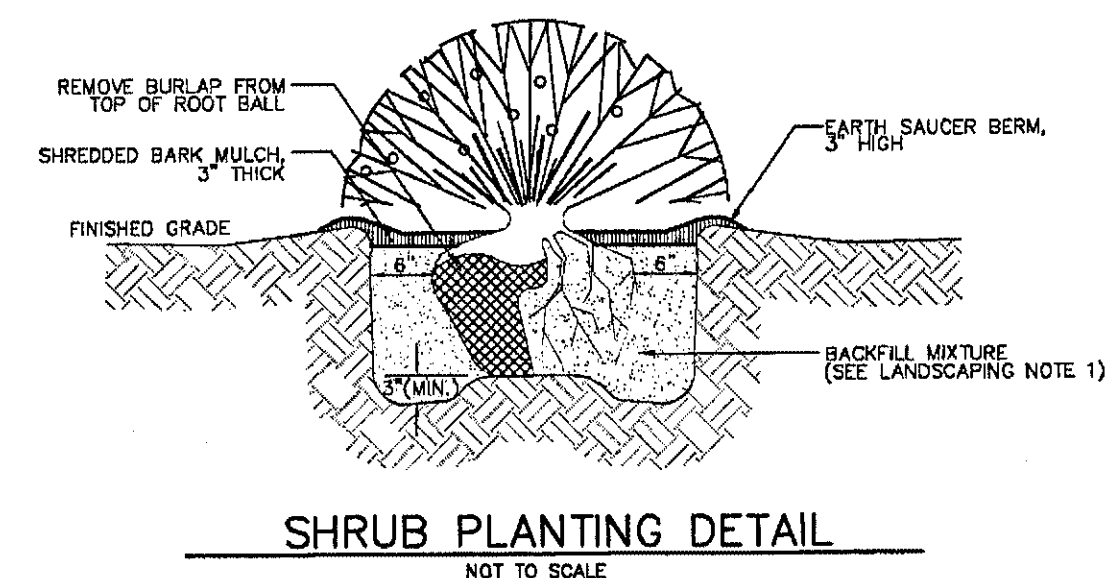
a. Emulsified Asphalt - (SS-1, CSS-1, CMS-2, MS-2, RS-1, RS-2, CSS-1, and CSS-2). Apply 0.04 gal./sq. ft. or 194 gal./acre on flat areas and on slopes less than 8 ft. of more high, use 0.075 gal./sq. ft. or 363 gal./acre. These materials may be difficult to apply uniformly and will discolored surfaces.

b. Organic and Vegetable Based Binders - Naturally occurring, powder based, hydrophilic materials when mixed with water formulates a gel and when applied to mulch under satisfactory curing conditions will form membrane networks of insoluble polymers. The vegetable gel shall be physiologically harmless and not result in a phytotoxic effect or impede growth of turfgrasses. Use of rates and conditions as recommended by the manufacturer to anchor materials. Many new products are available, some of which may not be further evaluated for use in this state.

c. Synthetic binders - High polymer synthetic emulsion, miscible with water when diluted and following application to mulch, drying and curing shall no longer be soluble or dispersible in water. It shall be applied at rates recommended by the manufacturer and remain tacky until germination of grass.



KEY	BOTANICAL NAME	COMMON NAME	SIZE	CALIPER	TYPE	SPACING	QUANTITY	NOTES
EVERGREEN TREES								
PS	PINUS STROBUS	EASTERN WHITE PINE	8'	-	B&B	10' O.C.	169	FULL TO GROUND
TO	THUJA OCCIDENTALIS "NIGRA"	DARK AMERICAN ARBORVITAE	10'-12'	-	B&B	10' O.C.	20	FULL TO GROUND
DECIDUOUS AND EVERGREEN SHRUBS								
TM	TAXUS X MEDIA "EVERLOW"	EVERLOW YEW	24"-36"	-	B&B	4' O.C.	8	FULL PLANTS
JC	JUNIPERIS CHINENSIS "PFITZERIANA COMPACTA"	COMPACT PFITZER JUNIPER	18"-24"	-	B&B	4' O.C.	10	FULL PLANTS
GRASSES								
MS	MISCANTHUS SINENSIS "GRACILLIMUS"	SILVER VARIEGATED MAIDEN GRASS	3 GAL	-	B&B	-	4	FULL PLANTS



MAJOR TREE GUYING DETAIL

LANDSCAPING NOTES

- THE BACKFILL MIXTURE FOR TREES, SHRUBS AND GROUNDCOVERS SHALL BE A TOPSOIL AND PEAT MOSS MIXTURE WITH A 5:1 RATION RESPECTIVELY.
- CONTRACTOR SHALL VERIFY PLANT QUANTITIES PRIOR TO SELECTING PLANTS AT NURSERY SOURCES. NOTIFY LANDSCAPE ARCHITECT OF DISCREPANCIES BETWEEN PLANTING PLANS AND PLANT LIST. IN THE EVENT OF A DISCREPANCY, THE PLANTING PLANS SHALL PREVAIL.
- PLANT MATERIAL SHALL BE TAGGED AT THE NURSERY OR APPROVED ONSITE BY THE PROJECT LANDSCAPE ARCHITECT PRIOR TO PLANTING.
- MINIMUM DISTANCE BETWEEN CANOPY TREES AND ROADWAY/PARKING LOT LIGHT POLES SHALL BE TWENTY FEET.
- ALL PLANT MATERIALS USED SHALL BE TRUE TO NAME AND SIZE IN CONFORMITY WITH THE AMERICAN STANDARD OF NURSERY STOCK AND SHALL BE TYPICAL OF THEIR SPECIES AND VARIETY. ALL PLANTS SHALL HAVE NORMAL WELL-DEVELOPED BRANCHES AND VIGOROUS ROOT SYSTEMS. THEY SHALL BE HEALTHY, VIGOROUS, FREE FROM DEFECTS, DISFIGURING KNOTS, ABRASIONS OF THE BARK, SUNSCALD INJURIES, PLANT DISEASES, INSECT EGGS, BORERS AND ALL FORMS OF INFECTION. ALL PLANTS SHALL BE NURSERY GROWN.
- ALL PLANT MATERIAL SHALL BEAR THE SAME RELATION TO FINISHED GRADE AS IT BORE TO EXISTING GRADE AT THE NURSERY.
- ANY SUBSTITUTIONS OF PLANT MATERIAL WITH REGARD TO SIZE, SPECIES, VARIETY, ETC., SHALL BE SUBJECT TO APPROVAL BY THE PROJECT LANDSCAPE ARCHITECT AND BOROUGH.
- UNDER NO CIRCUMSTANCES SHOULD THE MAIN LEADER OF A DECIDUOUS OR EVERGREEN TREE BE TOPPED.
- PLANTS PLANTED IN ROWS SHALL BE MATCHED SPECIMENS AND BE UNIFORM IN SIZE AND FORM.
- ALL PLANT MATERIAL IS TO BE GUARANTEED FOR A PERIOD OF 24 MONTHS FROM TIME OF FINAL ACCEPTANCE OF THE PROJECT OR AS REGULATED BY THE BOROUGH. IF ANY PLANTS ARE DEAD OR IN AN UNHEALTHY CONDITION BEFORE FINAL ACCEPTANCE OF THE PROJECT, THE LANDSCAPE CONTRACTOR SHALL REPLACE THEM AT HIS EXPENSE. THE DETERMINATION OF WHICH PLANTS REQUIRE REPLACEMENT SHALL BE BY THE PROJECT LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE.
- THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR ANY DAMAGE TO EXISTING UTILITIES OR STRUCTURES CAUSED BY ANY PERSON, VEHICLE, EQUIPMENT, OR TOOLS RELATED TO THE EXECUTION OF THIS CONTRACT.
- EXCAVATION NEAR EXISTING UTILITIES SHALL BE CAREFULLY PERFORMED BY HAND.
- TRANSPLANT TREE NOTES:
 - PERFORM ALL TRANSPLANT WORK WHEN THE TREES ARE DORMANT, TYPICALLY OCTOBER 31 TO MARCH 30.
 - MINIMUM ROOTBALL DIAMETER: 10" PER 1" CAL.
 - MINIMUM ROOTBALL DEPTH: MINIMUM 2/3 OF ROOTBALL DIAMETER.
 - TREES 6" CALIPER OR LESS MAY BE HAND OR MACHINE DUG.
 - TREES GREATER THAN 6" CALIPER SHALL BE HAND DUG.
- SHADE TREES LOCATED ADJACENT TO SIDEWALKS SHALL HAVE A MINIMUM FIRST BRANCH HEIGHT OF 7'.
- ALL PLANTING BEDS SHALL BE MULCHED WITH SHREDDED HARDWOOD BARK, 3" THICK, THROUGHOUT. PLANTING BEDLINES SHALL BE EDGED WITH A SPADE PRIOR TO MULCHING.

2	07/15/03	AS PER PLANNING BOARD RESOLUTION COMPLIANCE	JLR	WCB
1	05/01/03	AS PER PLANNING BOARD RESOLUTION COMPLIANCE	JLR	WCB
NO.	DATE	REVISIONS	BY	CHECKED
Sayreville L.L.C.				
GARDEN STATE TECHNOLOGY CENTER LOADING DOCK EXPANSION				
LOT 1, BLOCK 14 TOWNSHIP OF SAYREVILLE, MIDDLESEX COUNTY, NEW JERSEY				
PRELIMINARY / FINAL SITE PLAN TREE PRESERVATION PLAN				
GARY C. DAHMS, PE		DATE: 2/14/2003		
T&M ASSOCIATES		SHEET 8 OF 8		
11 TINDALL ROAD MIDDLETOWN, NJ 07748 TEL 732-671-6400 FAX 732-671-7365		DESIGNED BY: JLR DRAWN BY: SLZ CHECKED BY: WCB PROJECT NO.: SLG-00010 CADD FILE: SL10-LU FIELD BK: # N/A		

Loading Dock Expansion

BLOCK 14, LOT 1

Tax Sheet 4

BOROUGH OF SAYREVILLE
MIDDLESEX COUNTY, NEW JERSEY

MINOR SITE PLAN

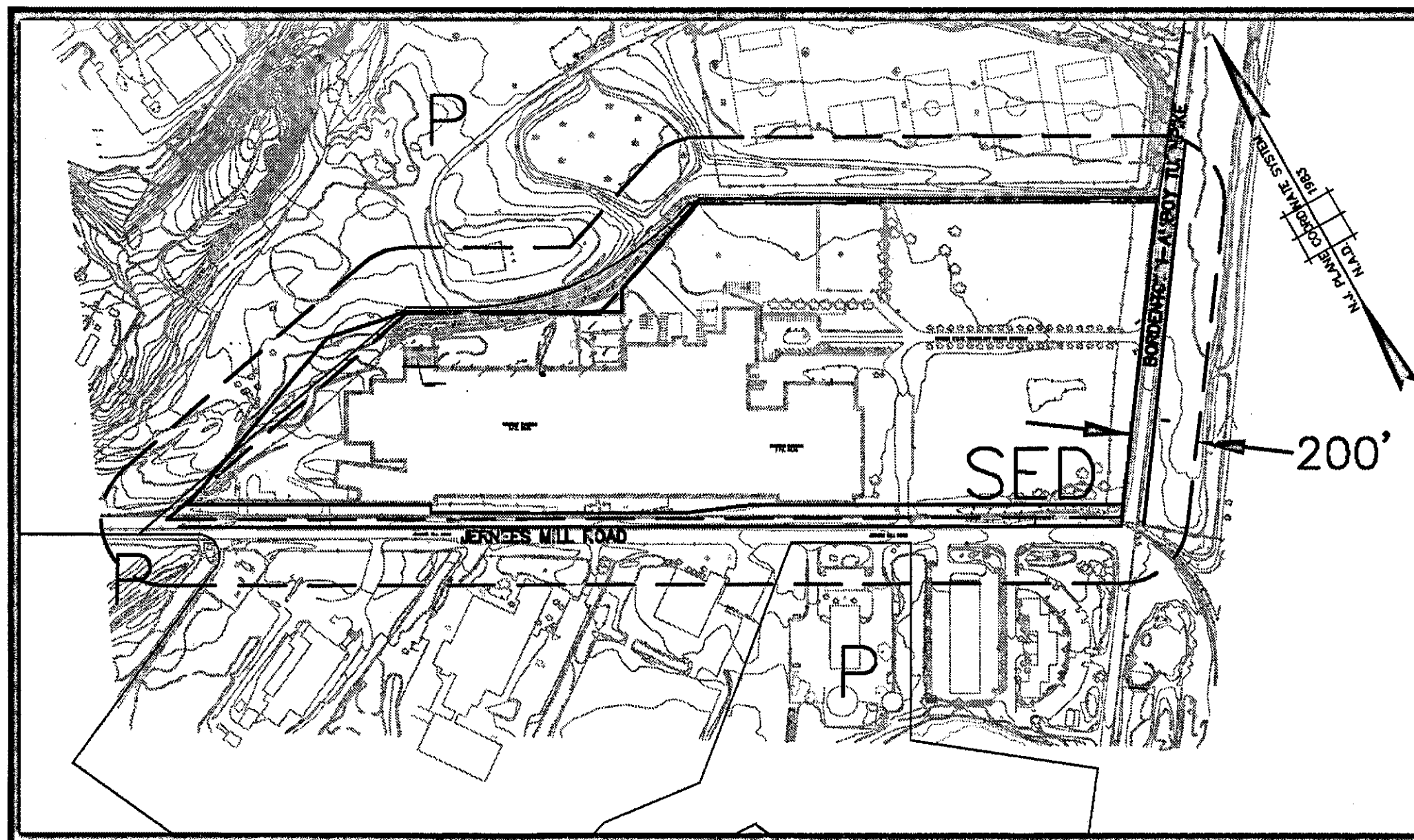
ADJOINING PROPERTY OWNER'S LIST
200' RADIUS

Block	Lot	Owner	Block	Lot	Owner
10.04	2.08	Gillette Enterprises, Inc. 11 Locklin Court Sayreville, NJ 08872	13	4	County of Middlesex John F. Kennedy Square New Brunswick, NJ 08901
10.04	2.71	Gillette Enterprises, Inc. 11 Locklin Court Sayreville, NJ 08872	14	1.04	Borough of Sayreville 167 Main Street Sayreville, NJ 08872
13	1.01	Salima Realty, Inc. 3237 Bordentown Avenue Parlin, NJ 08859	54.01	1.01	State of NJ Dept. of Env. Protection John Fitch Plaza Trenton, NJ 08625
13	1.03	MCA Realty Group, Inc. 650 Jernee Mill Road Sayreville, NJ 08872	62.03	8	Transcontinental Gas Pipeline Corporation P.O. Box 1386 Houston, TX 77251
13	1.04	David J. Siwulec 700 Jernee Mill Road Sayreville, NJ 08872	Easement		Consolidated Rail Corporation P.O. Box 8499 Philadelphia, PA 19101
13	2	Jersey Central Power & Light Company P.O. Box 1911 Morristown, NJ 07962	Easement		Borough of Sayreville 167 Main Street Sayreville, NJ 08872
13	3.01	Jernee Mill Associates, LLC P.O. Box 874 Matawan, NJ 07747	Easement		Transcontinental Gas Pipeline Corporation P.O. Box 1386 Houston, TX 77251
13	3.02	Woodmont Realty Group Sayreville, LLC 119 Cherry Hill Road Parsippany, NJ 07054			

Zoning Information Table

ZONE SED (Special Economic Development)

GENERAL ZONING DATA		ORDINANCE REQUIREMENTS	PROPOSED (* VARIANCE REQUEST)
BULK AREA REQUIREMENTS			
MIN. LOT AREA		60,000 SF	2,016,125.96 SF (46.28 AC.) (EXISTING CONDITION)
MIN. LOT FRONTAGE		150'	925' (EXISTING CONDITION)
MIN. LOT DEPTH		100'	2,830.22' (EXISTING CONDITION)
MIN. FRONT YARD SETBACK		50'	786.02 (EXISTING CONDITION)
MIN. ONE SIDE/TOTAL SIDE YARD SETBACK		20'/50'	1'/85.9' (EXISTING & PROPOSED CONDITION) *
MIN. REAR YARD SETBACK		40'	88.2' (EXISTING CONDITION)
MAX. BUILDING HT.		50'	46' (EXISTING CONDITION)
MAX. IMPERVIOUS COVERAGE		85%	60%
PARKING FOR MOTOR VEHICLES	OFFICE:	4 SPACES/1,000 SF OF BUILDING FLOOR AREA 45,300 SF/1,000 SF x 4 = 182 SPACES	
	WAREHOUSE:	1 SPACE/2,000 SF OF BUILDING FLOOR AREA 849,700 SF /2,000 SF x 1 = 170 SPACES	
		TOTAL SPACES REQUIRED = 352	TOTAL SPACES PROVIDED = 409
HANDICAP SPACES:		8 SPACES REQUIRED	8 SPACES PROVIDED
LOADING	OFFICE:	1 SPACE FOR FIRST 25,000 SF OF GROSS FLOOR AREA + ONE ADDITIONAL SPACE FOR EACH ADDITIONAL 15,000 SF OF GROSS FLOOR AREA 1+(45,300-25,000)/15,000 = 3 SPACES	
	WAREHOUSE:	SAME AS OFFICE 1+(849,700 SF - 25,000 SF)/15,000 SF = 56 SPACES	
		TOTAL SPACES REQUIRED = 59	TOTAL SPACES PROVIDED = 69
MIN. LIGHTING INTENSITY		0.5 FOOTCANDLES	0.5
MAX. LIGHTING INTENSITY		AT PROPERTY LINES - 0.5 FOOTCANDLES	< 0.5
MAX. LIGHT STANDARD HEIGHT		LESSER OF BUILDING HEIGHT OR 25'	31' (TO MATCH EXISTING CONDITION) *



Site Map

Scale: 1" = 200'

General Notes

1. This set of plans has been prepared for purposes of municipal and agency review and approval. This set of plans shall not be approved as construction documents until all conditions of approval have been satisfied on the drawings and each drawing has been revised to indicate "based for Construction".
2. Existing utility information shown herein has been collected from various sources and is not guaranteed to be accurate or complete. The contractor shall verify all information to his satisfaction prior to excavation. Where existing utilities are to be crossed by proposed construction, test pits shall be dug by the contractor prior to construction to ascertain existing utilities, materials and sizes. Test pit information shall be given to the engineer prior to construction to permit adjustments as required to avoid conflicts.
3. The contractor shall notify the undersigned professional immediately if any field conditions encountered differ materially from those represented herein.
4. All materials, workmanship, and construction for site improvements shown herein shall be in accordance with:
 - A. N.J. Department of Transportation "Standard Specifications for Road and Bridge Construction", as currently amended.
 - B. Current, prevailing municipal and/or county specifications, standards, and requirements.
 - C. Current, prevailing utility company/utility specifications, standards and requirements.
5. All traffic control signs and striping shall be in accordance with M.U.T.C.D. handbook. Exact location of street signs shall be determined by the local engineer.
6. All storm sewer to be Class III reinforced concrete pipe unless otherwise noted. All sanitary sewer piping to be SDR 35 PVC unless noted otherwise. Proper pipe coverage is to be maintained during all phases of construction.
7. These general notes apply to all sheets in this set of plans.
8. Elevation are based on N.A.V.D. 1988.
9. All pipe lengths are to be measured from center of structure to center of structure.
10. Headwall inverts shown are calculated to the end of the incoming pipe.

Map References

1. MAP ENTITLED, "BOUNDARY & TOPOGRAPHIC SURVEY, LOT 1, BLOCK 14, BOROUGH OF SAYREVILLE, MIDDLESEX COUNTY, NEW JERSEY", PREPARED BY CHARLES V. BELL ASSOCIATES INC., DATED MAY 11, 1999.
2. MAP ENTITLED, "TOPOGRAPHIC MAP", FROM PHOTOGRAPHY DATED DECEMBER 17, 2002, PROJECT # 2001-0218, PREPARED BY ATLANTIS AERIAL SURVEY CO., INC.
3. TRACT AND ADJACENT LOTS SHOWN ON TAX MAP 4, TOWNSHIP OF SAYREVILLE.

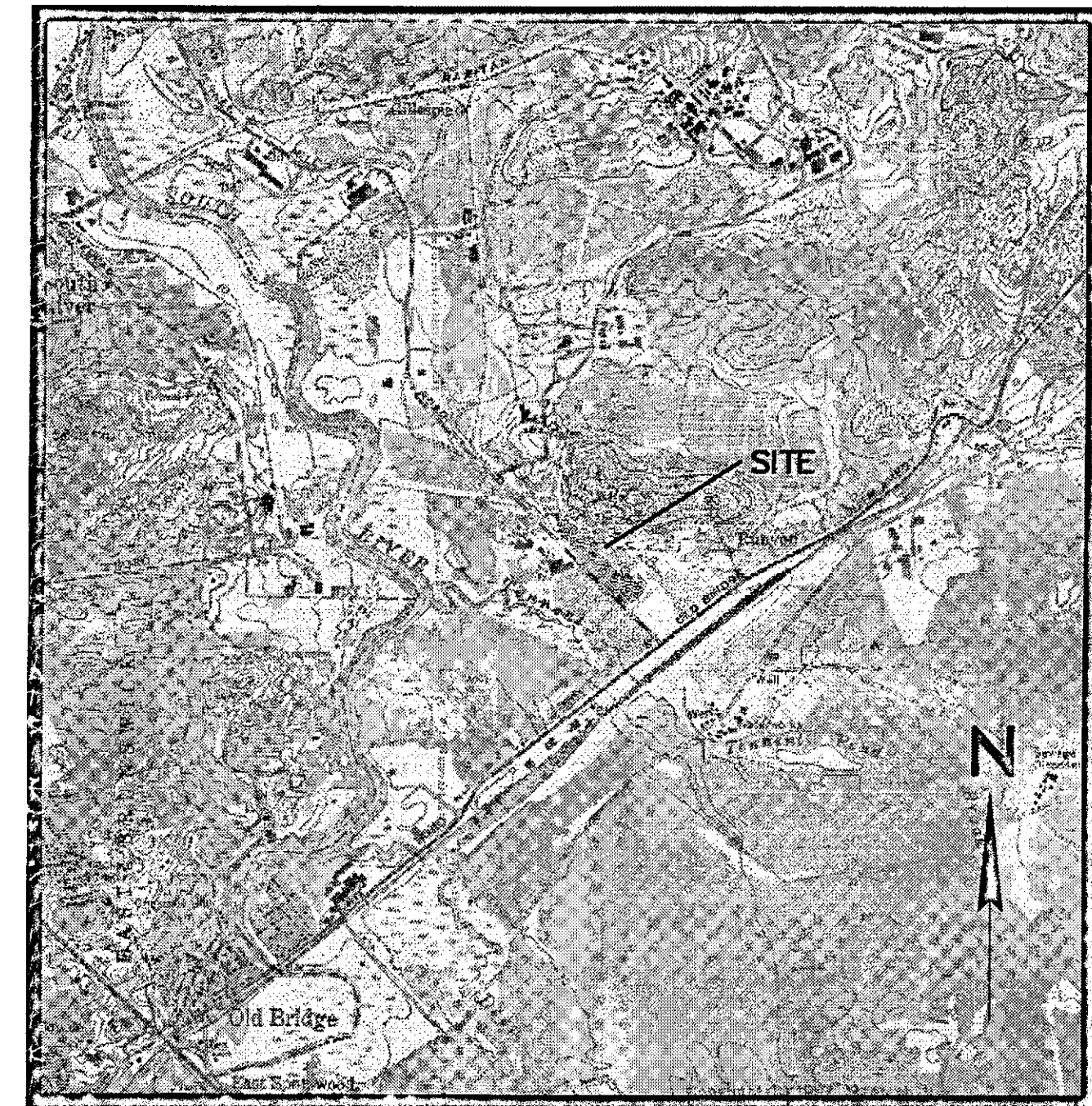
I CONSENT TO THE FILING OF THIS SITE PLAN WITH THE
PLANNING BOARD OF THE TOWNSHIP OF SAYREVILLE:
OWNER/APPLICANT:

SAYREVILLE L.L.C.
60 BROAD STREET, SUITE 3503, NEW YORK, NY 10004

APPROVED BY THE PLANNING BOARD

(CHAIRMAN) _____ (DATE) _____

(SECRETARY) (DATE)



Key Map

Scale: 1" = 2000'

PROJECT DESIGN

T & M Associates
Consulting Engineers & Landscape Architects

11 Tindall Road
Middletown, New Jersey 07748

OWNER / APPLICANT

SAYREVILLE L.L.C.

60 Broad Street, Suite 3503
New York, NY 10004

Sheet Index

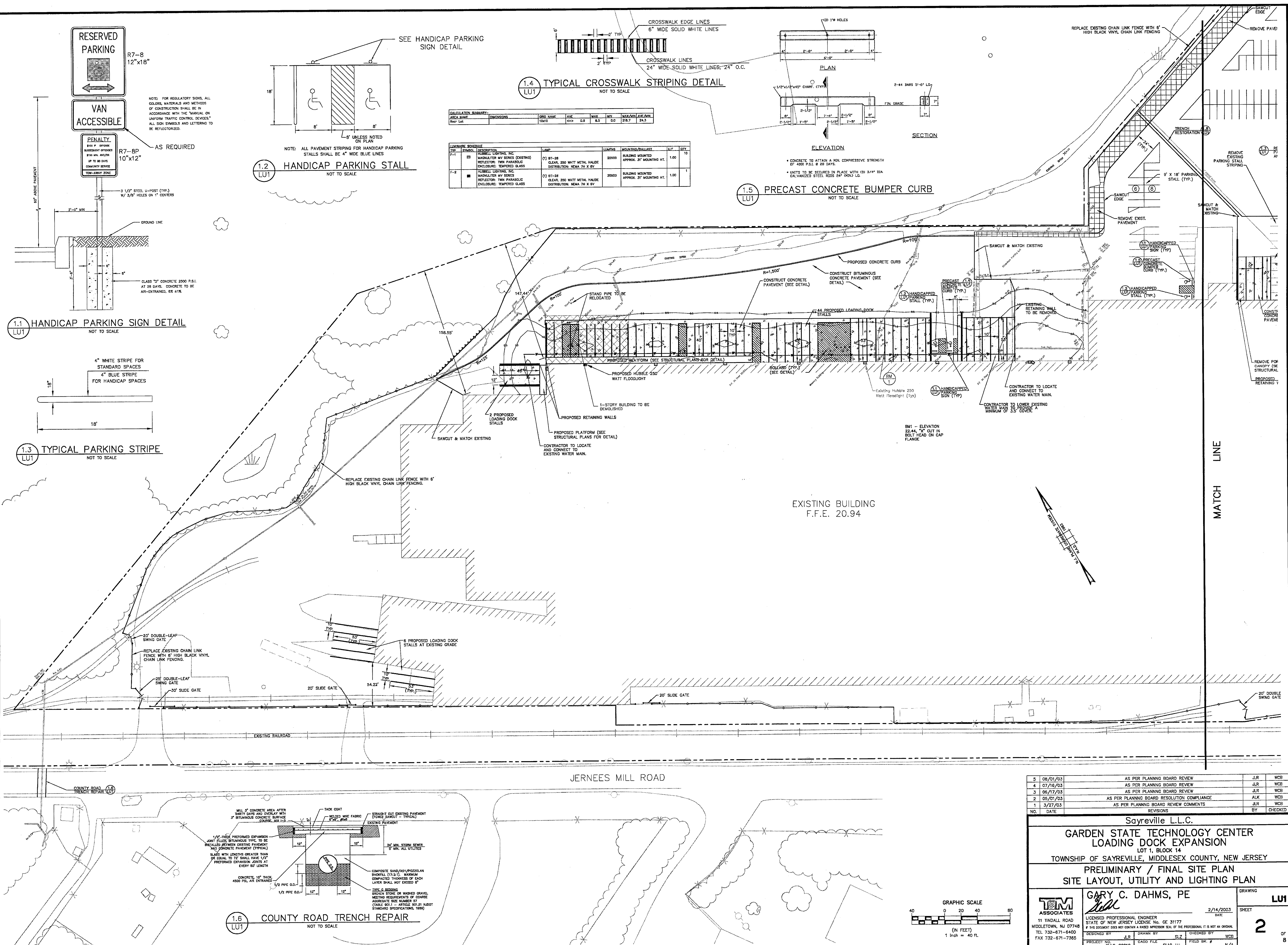
Sheet No.	Dwg. No.	Description
1	CVR	COVER SHEET
2-3	LU1, LU2	SITE LAYOUT, UTILITY & LIGHTING PLAN
4-5	GR1, GR2	GRADING, DRAINAGE & SOIL EROSION AND SEDIMENT CONTROL PLAN
6	CD1	CONSTRUCTION DETAILS
7	SE1	SOIL EROSION AND SEDIMENT CONTROL DETAILS
8	TPP1	TREE PRESERVATION PLAN

3	06/17/03	AS PER PLANNING BOARD REVIEW					JLR	WCB	
2	05/01/03	AS PER PLANNING BOARD RESOLUTION COMPLIANCE					ALK	WCB	
1	3/27/03	AS PER PLANNING BOARD REVIEW COMMENTS					JLR	WCB	
NO.	DATE	REVISIONS					BY	CHECKED	

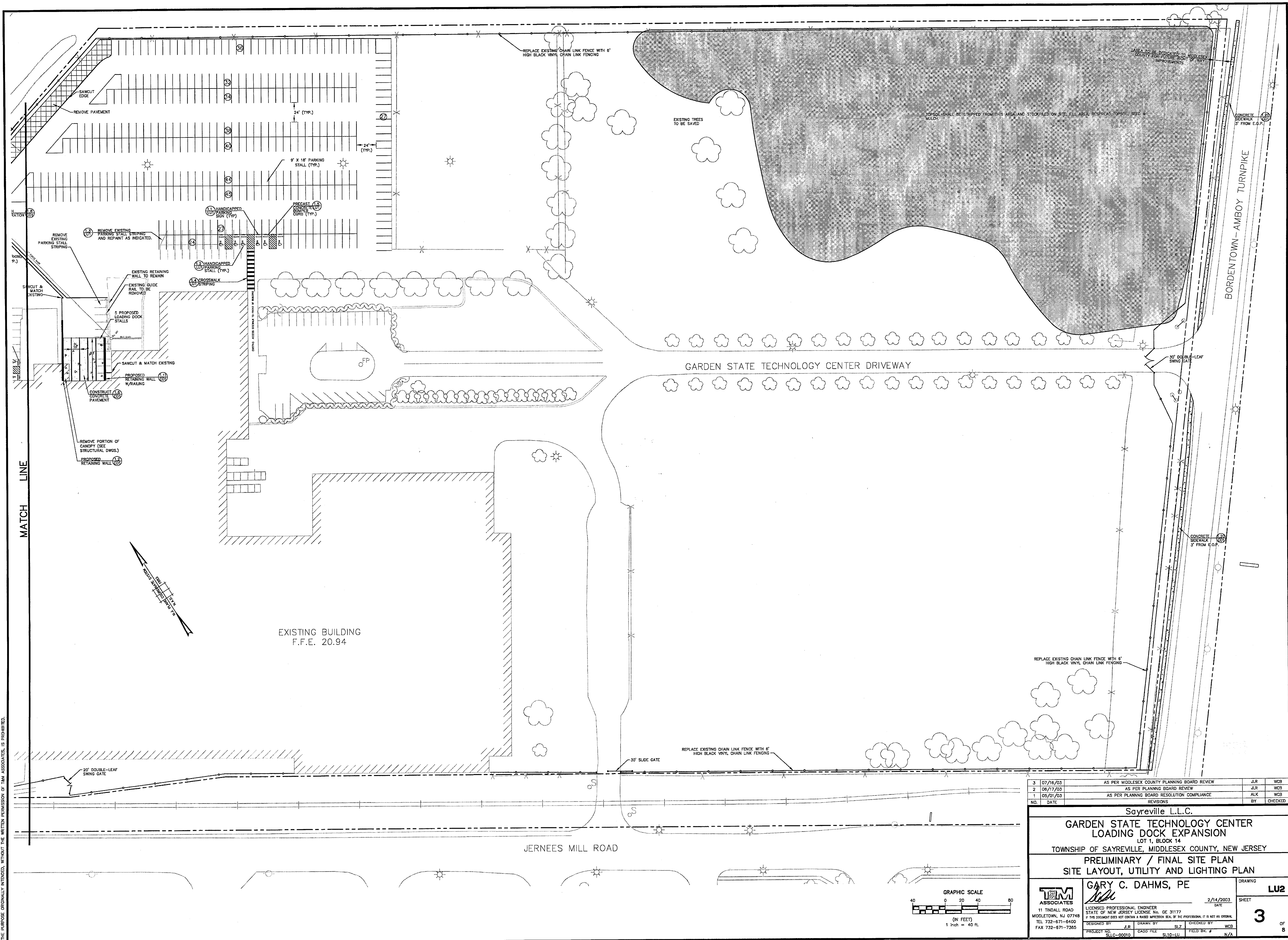
2/14/2003
(DATE)

Gary C. Dahms, PE

LICENSED PROFESSIONAL ENGINEER
STATE OF NEW JERSEY LICENSE NO. GE 31177



5	08/01/03	AS PER PLANNING BOARD REVIEW	JLR	WCB
4	07/16/03	AS PER PLANNING BOARD REVIEW	JLR	WCB
3	06/17/03	AS PER PLANNING BOARD REVIEW	JLR	WCB
2	05/01/03	AS PER PLANNING BOARD RESOLUTION COMPLIANCE	ALK	WCB
1	3/27/03	AS PER PLANNING BOARD REVIEW COMMENTS	JLR	WCB
NO.	DATE	REVISIONS	BY	CHECKED
Sayreville L.L.C.				
GARDEN STATE TECHNOLOGY CENTER LOADING DOCK EXPANSION LOT 1, BLOCK 14 TOWNSHIP OF SAYREVILLE, MIDDLESEX COUNTY, NEW JERSEY				
PRELIMINARY / FINAL SITE PLAN SITE LAYOUT, UTILITY AND LIGHTING PLAN				
GARY C. DAHMS, PE		DRAWING		
11 TINDALL ROAD MIDDLETOWN, NJ 07748 TEL 732-671-6400 FAX 732-671-7365		SHEET		
DESIGNED BY: JLR PROJECT NO.: SLIC-00010		2/14/2003 DATE		
DRAWN BY: SLZ CHECKED BY: WCB		2		
FIELD BK: N/A		OF 8		



3	07/16/03	AS PER MIDDLESEX COUNTY PLANNING BOARD REVIEW	JLR	WCB
2	06/17/03	AS PER PLANNING BOARD REVIEW	JLR	WCB
1	05/01/03	AS PER PLANNING BOARD RESOLUTION COMPLIANCE	ALK	WCB
NO.	DATE	REVISIONS	BY	CHECKED

Sayreville L.L.C.

GARDEN STATE TECHNOLOGY CENTER
LOADING DOCK EXPANSION

TOWNSHIP OF SAYREVILLE, MIDDLESEX COUNTY, NEW JERSEY

PRELIMINARY / FINAL SITE PLAN
SITE LAYOUT, UTILITY AND LIGHTING PLAN

GARY C. DAHMS, PE

T&M
ASSOCIATES
11 TINDALL ROAD
MIDDLETOWN, NJ 077
TEL 732-671-6400
FAX 732-671-7365

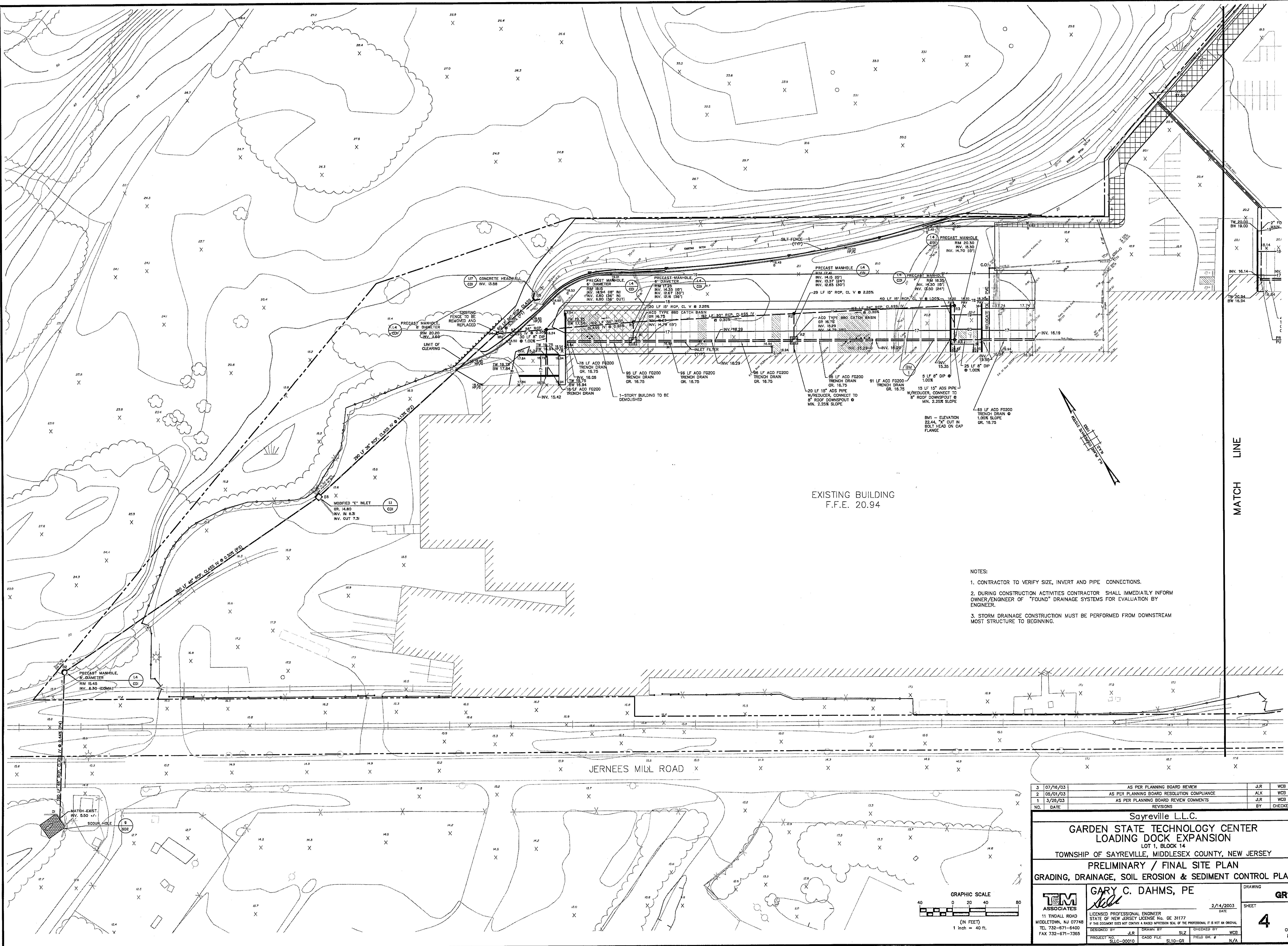
DATE _____

LICENSED PROFESSIONAL ENGINEER
STATE OF NEW JERSEY LICENSE No. GE 31177

IF THIS DOCUMENT DOES NOT CONTAIN A RAISED IMPRESSION SEAL OF THE PROFESSIONAL, IT IS NOT AN ORIGINAL

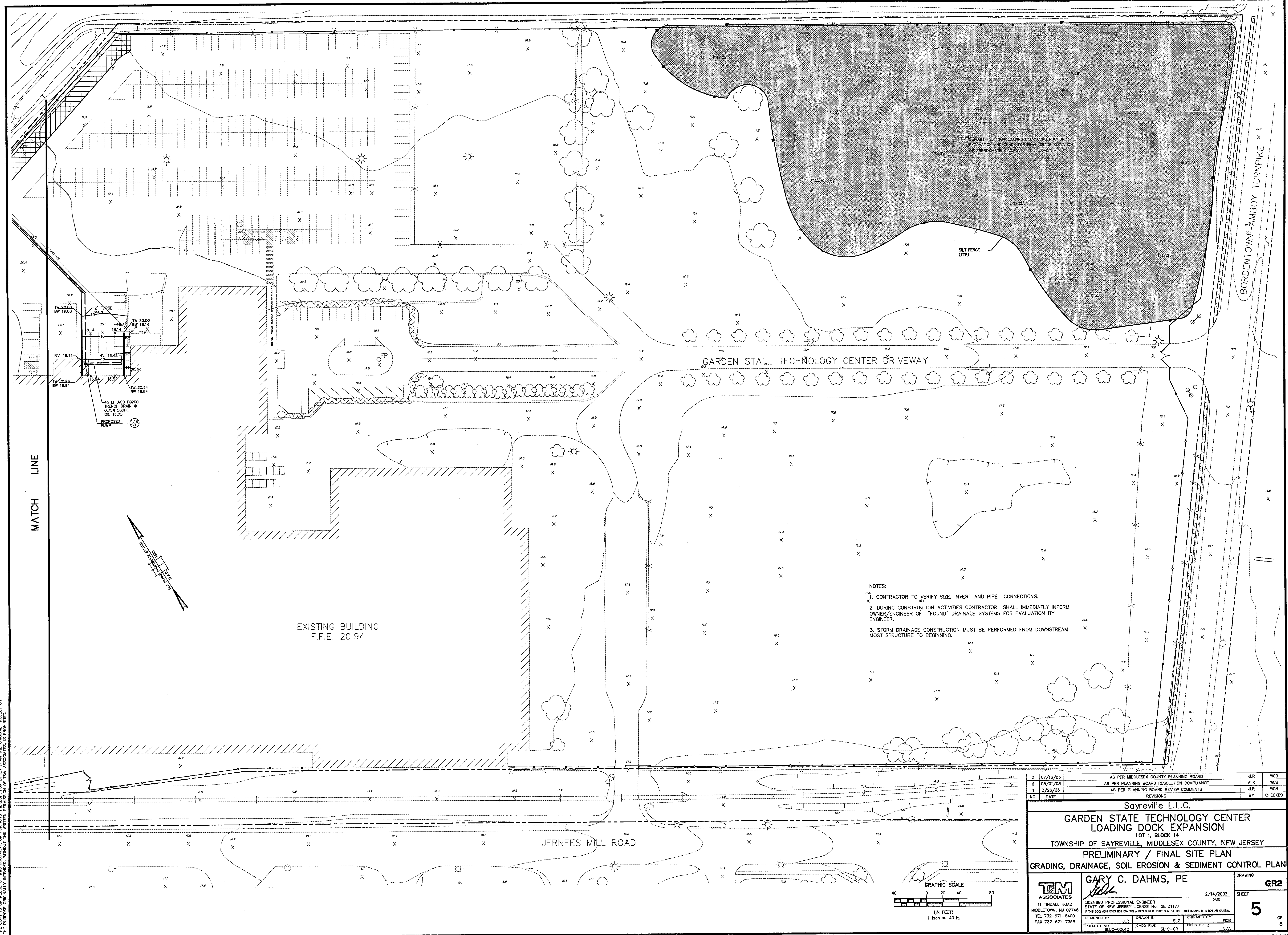
DESIGNED BY	JJR	DRAWN BY	SLZ	CHECKED BY	WC
-------------	-----	----------	-----	------------	----

DRAWING	LU2
SHEET	3 OF 8



- NOTES:
1. CONTRACTOR TO VERIFY SIZE, INVERT AND PIPE CONNECTIONS.
 2. DURING CONSTRUCTION ACTIVITIES CONTRACTOR SHALL IMMEDIATELY INFORM OWNER/ENGINEER OF "FOUND" DRAINAGE SYSTEMS FOR EVALUATION BY ENGINEER.
 3. STORM DRAINAGE CONSTRUCTION MUST BE PERFORMED FROM DOWNSTREAM MOST STRUCTURE TO BEGINNING.

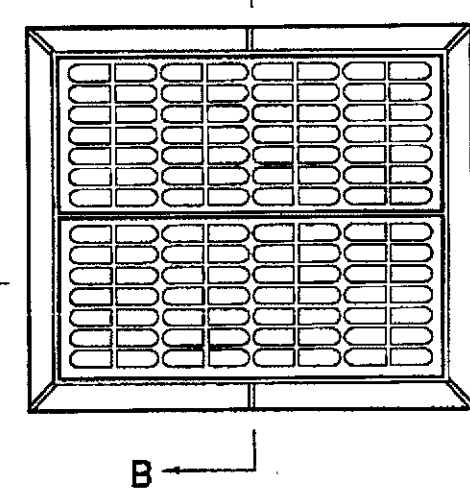
3	07/16/03	AS PER PLANNING BOARD REVIEW	JLR	WCB
2	05/01/03	AS PER PLANNING BOARD RESOLUTION COMPLIANCE	ALX	WCB
1	3/26/03	AS PER PLANNING BOARD REVIEW COMMENTS	JLR	WCB
NO.	DATE	REVISIONS	BY	CHECKED
Sayreville L.L.C.				
GARDEN STATE TECHNOLOGY CENTER LOADING DOCK EXPANSION LOT 1, BLOCK 14 TOWNSHIP OF SAYREVILLE, MIDDLESEX COUNTY, NEW JERSEY				
PRELIMINARY / FINAL SITE PLAN GRADING, DRAINAGE, SOIL EROSION & SEDIMENT CONTROL PLAN				
GARY C. DAHMS, PE			DRAWING	GR1
LICENSED PROFESSIONAL ENGINEER STATE OF NEW JERSEY LICENSE NO. CE 31177 MIDDLETOWN, NJ 07748 TEL 732-671-6400 FAX 732-671-7365			DATE	2/14/2003
DESIGNED BY	JLR	DRAWN BY	SLZ	CHECKED BY
PROJECT NO.	SLC-00010	CADD FILE	SL10-GR	FIELD BK #
				N/A



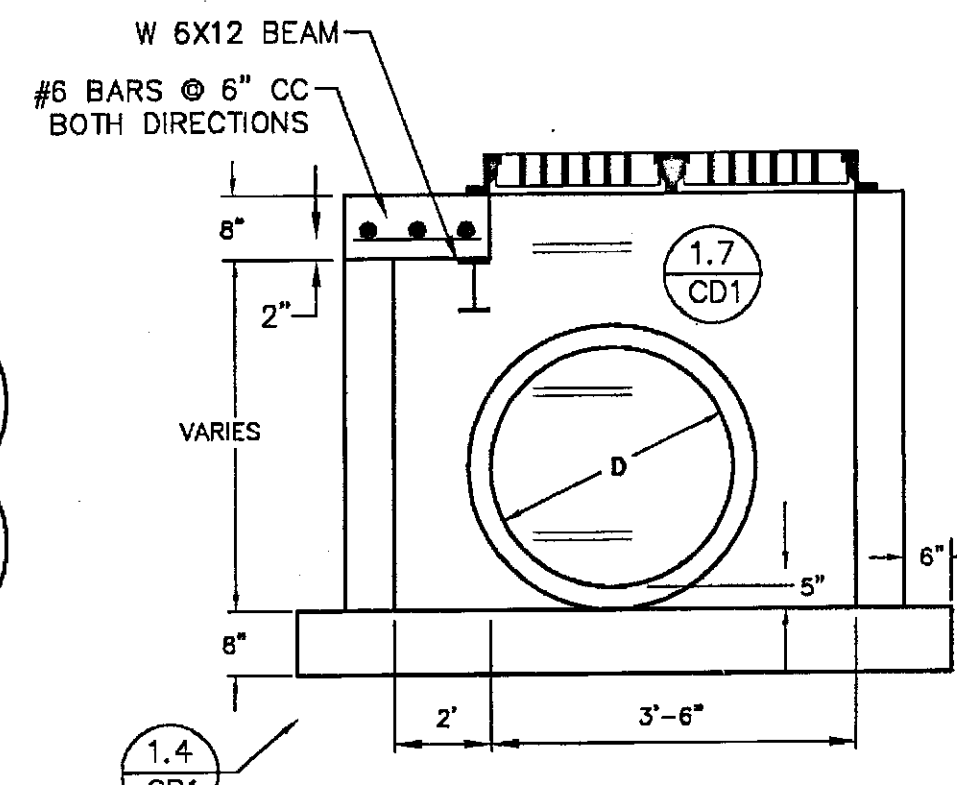
3	07/16/03	AS PER MIDDLESEX COUNTY PLANNING BOARD	JLR	WCB	
2	05/01/03	AS PER PLANNING BOARD RESOLUTION COMPLIANCE	ALK	WCB	
1	3/26/03	AS PER PLANNING BOARD REVIEW COMMENTS	JLR	WCB	
NO.	DATE	REVISIONS	BY	CHECKED	
Sayreville L.L.C.					
GARDEN STATE TECHNOLOGY CENTER LOADING DOCK EXPANSION LOT 1, BLOCK 14 TOWNSHIP OF SAYREVILLE, MIDDLESEX COUNTY, NEW JERSEY					
PRELIMINARY / FINAL SITE PLAN					
GRADING, DRAINAGE, SOIL EROSION & SEDIMENT CONTROL PLAN					
GARY C. DAHMS, PE 			DRAWING	GR2	
 11 TINDALL ROAD MIDDLETOWN, NJ 07748 TEL 732-671-6400 FAX 732-671-7365			SHEET	5	
			OF 8		
LICENSED PROFESSIONAL ENGINEER STATE OF NEW JERSEY LICENSE NO. GE 31177 IF THIS DOCUMENT DOES NOT CONTAIN A RAISED IMPRESSION SEAL OF THE PROFESSIONAL, IT IS NOT AN ORIGINAL.					
DESIGNED BY	JLR	DRAWN BY	SLZ	CHECKED BY	WCB
PROJECT NO.	SLC-00010	CADD FILE	SL10-CR	FIELD BOK. #	N/A

GENERAL NOTES

- FOOTER AND INVERT TO BE N.JDOT CLASS "B" CONCRETE, 4500 PSI.
- IF WALL CONSTRUCTION IS OTHER THAN CONCRETE THE WALLS SHALL BE PLASTERED BOTH INSIDE AND OUTSIDE WITH 1/2" THICK GYPSUM PLASTER.
- CASTING TO BE CAMPBELL FOUNDRY NO. 2618 (W/CHILD SAFETY GRATE) OR EQUIVALENT.
- PROVIDE 3/4" DIA. ALUMINUM IRON LADDER RUNGS, 18" O.C.
- WHEN ADDITIONAL DEPTH IS SCHEDULED, WALLS BELOW THE DEPTH OF 8'-0" MEASURED FROM THE INLET GUTTER TO INVERT, SHALL BE 12" THICK IF CONCRETE OR DOUBLE BLOCK BLOCK. THE FOUNDATION DIMENSION SHALL BE INCREASED 12" IN WIDTH AND TO 12" IN DEPTH.
- TO BE DETERMINED AS PER FIELD CONDITIONS.
- W-6X12 BEAM TO BE HOT DIPPED GALVANIZED.
- REINFORCED CONCRETE SLAB SHALL BE DESIGNED TO SUPPORT 1500 PLUS 10% LOADING.
- ALL CONCRETE SHALL BE AIR ENTRAINED, 6% ±1%.

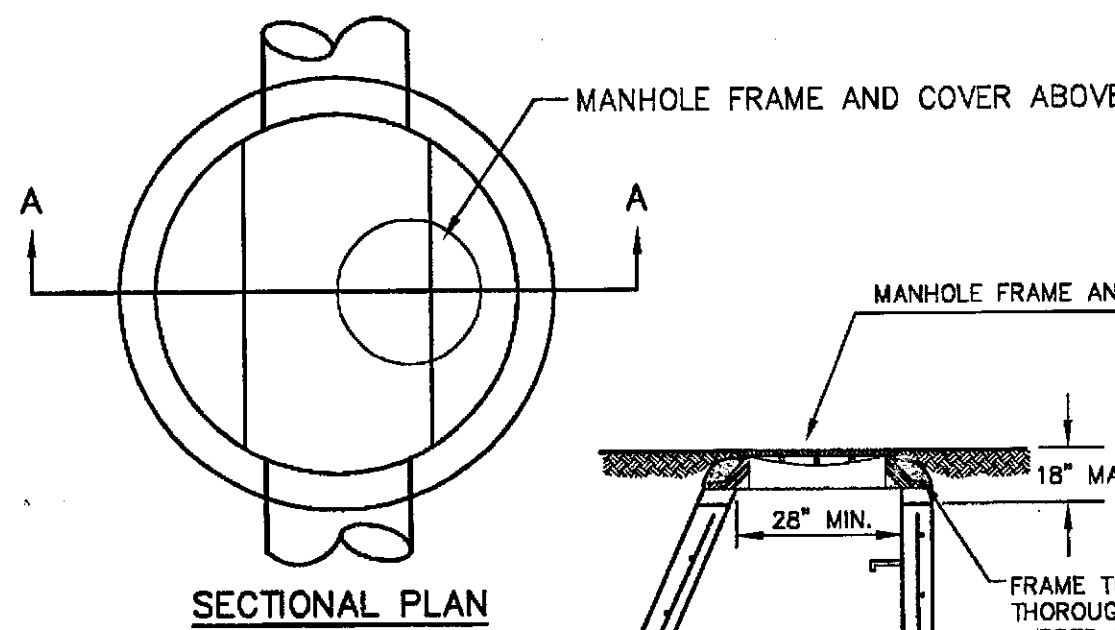


SECTION A-A
THROUGH INVERT DETAIL

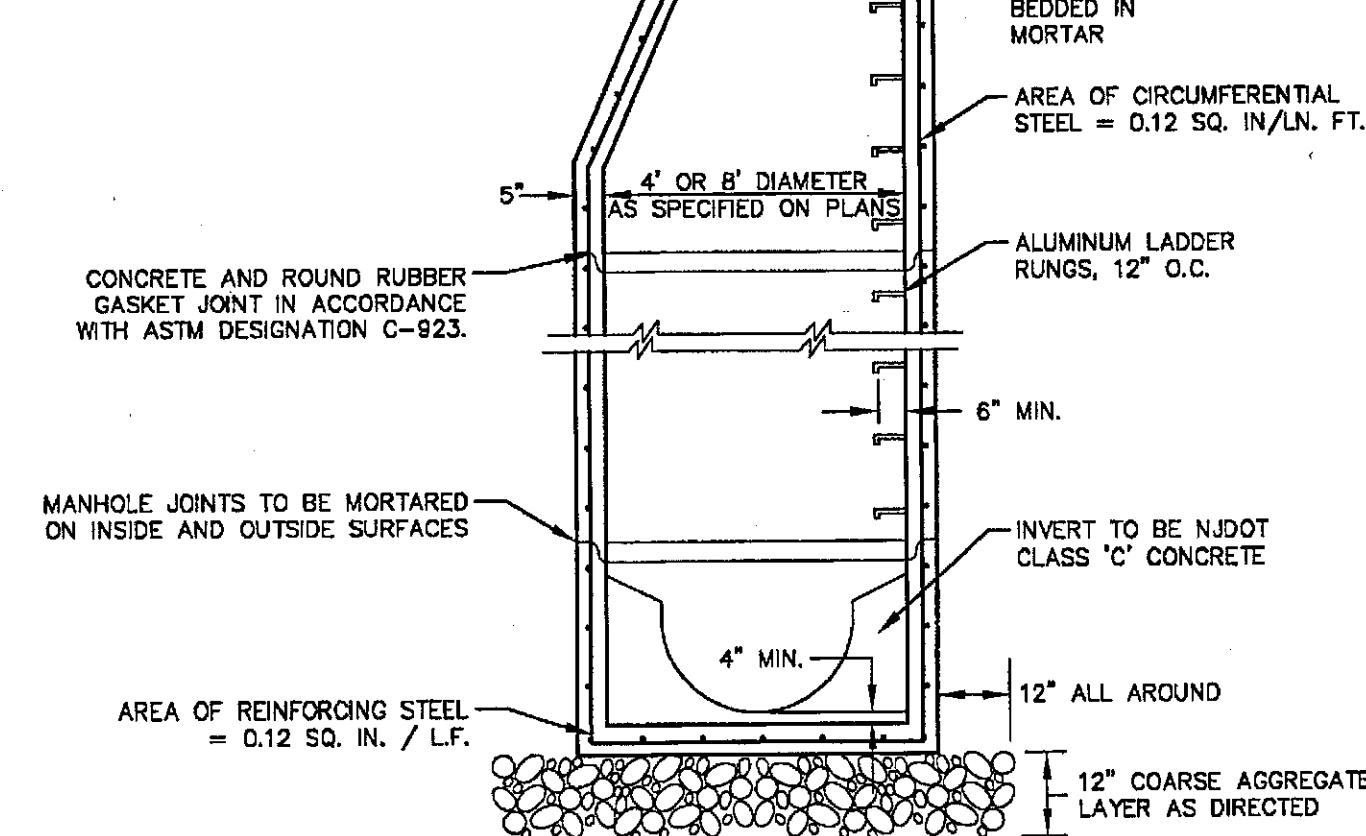


SECTION B-B
TERMINAL INVERT DETAIL

1.1 TYPE "E" MODIFIED INLET NOT TO SCALE



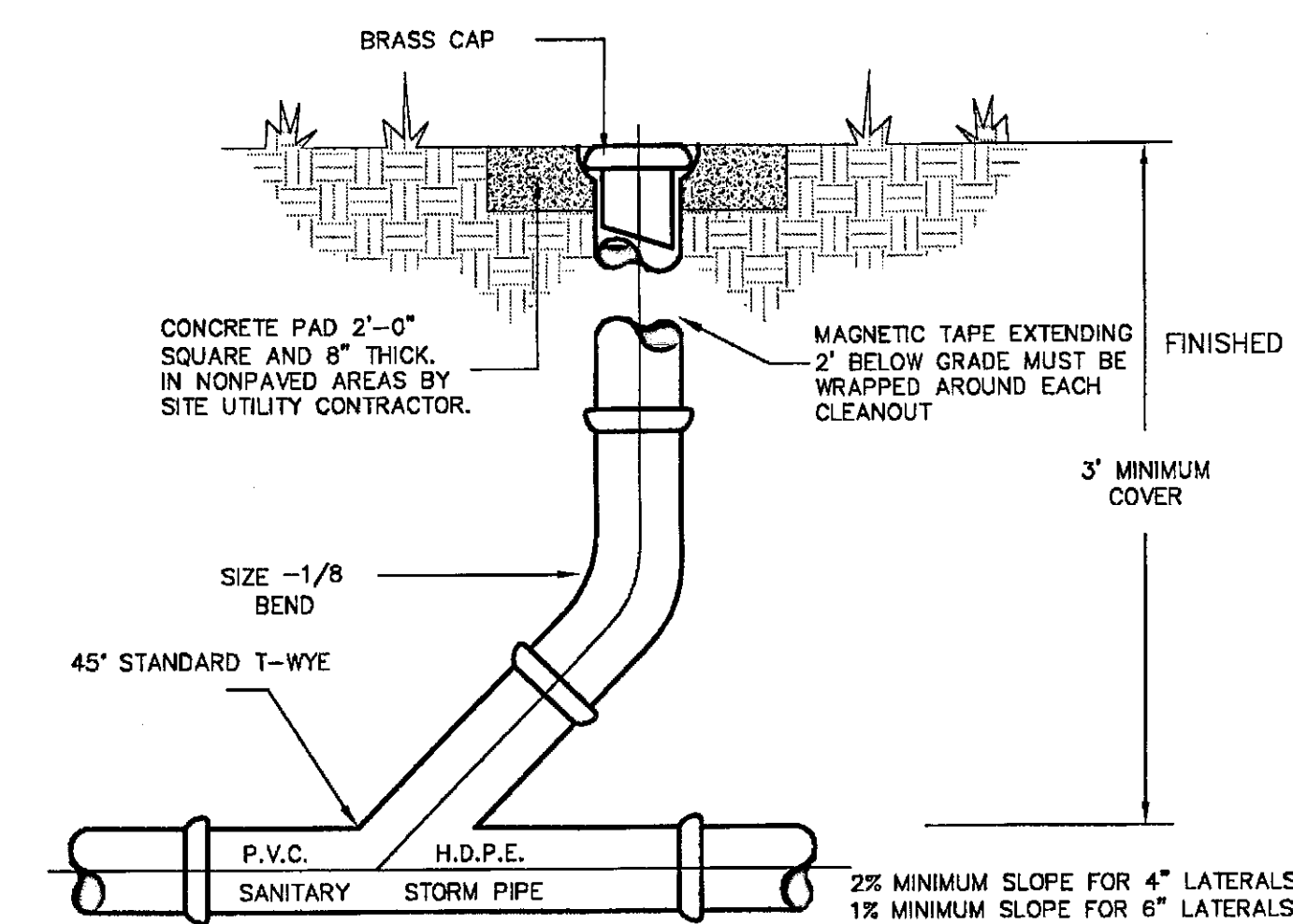
SECTIONAL PLAN



CONSTRUCTION NOTES:

- PRECAST MANHOLE SECTIONS TO BE IN ACCORDANCE WITH LATEST ASTM SPECIFICATION ASTM C-473 WITH RUBBER GASKET JOINTS, CONFORMING TO ASTM SPECIFICATION C-923. MAXIMUM ABSORPTION TO BE 8% IN ACCORDANCE WITH ASTM SPECIFICATION C-478.
- MINIMUM COMPRESSION STRENGTH TO BE 4500 PSI.

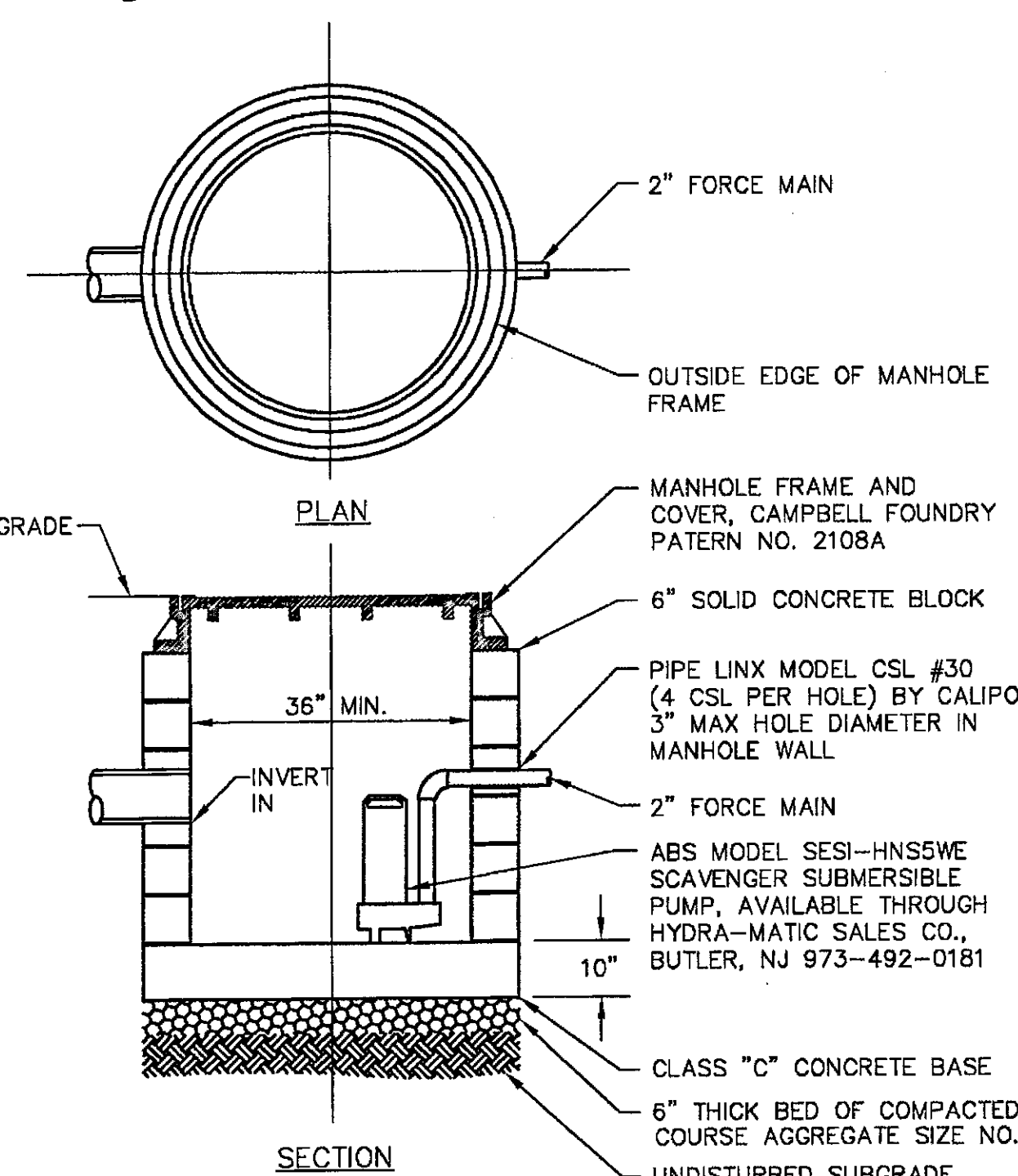
1.4 PRECAST DRAINAGE MANHOLE NOT TO SCALE



CLEANOUT DETAIL

NOT TO SCALE

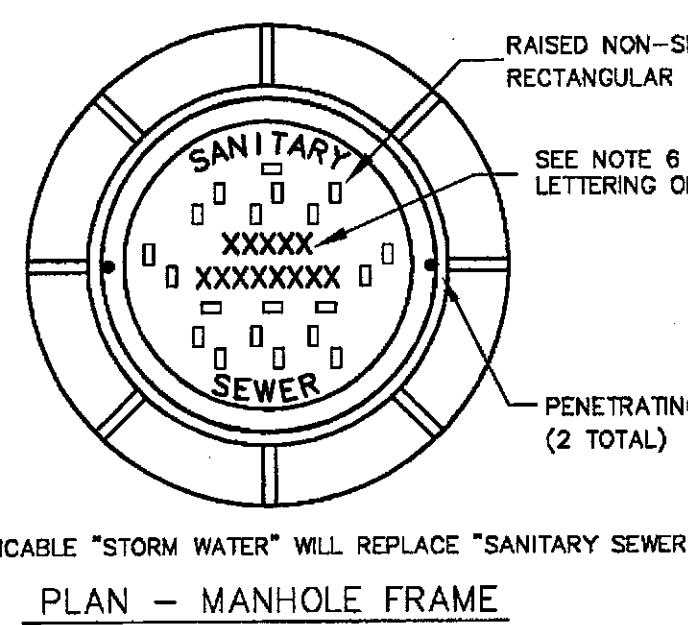
1.5 TYPICAL MANHOLE FRAME AND COVER NOT TO SCALE



TRENCH DRAIN PUMP DETAIL

NOT TO SCALE

1.7 BEDDING FOR PVC PIPE (ASTM-D2321) NOT TO SCALE



CONSTRUCTION NOTES:

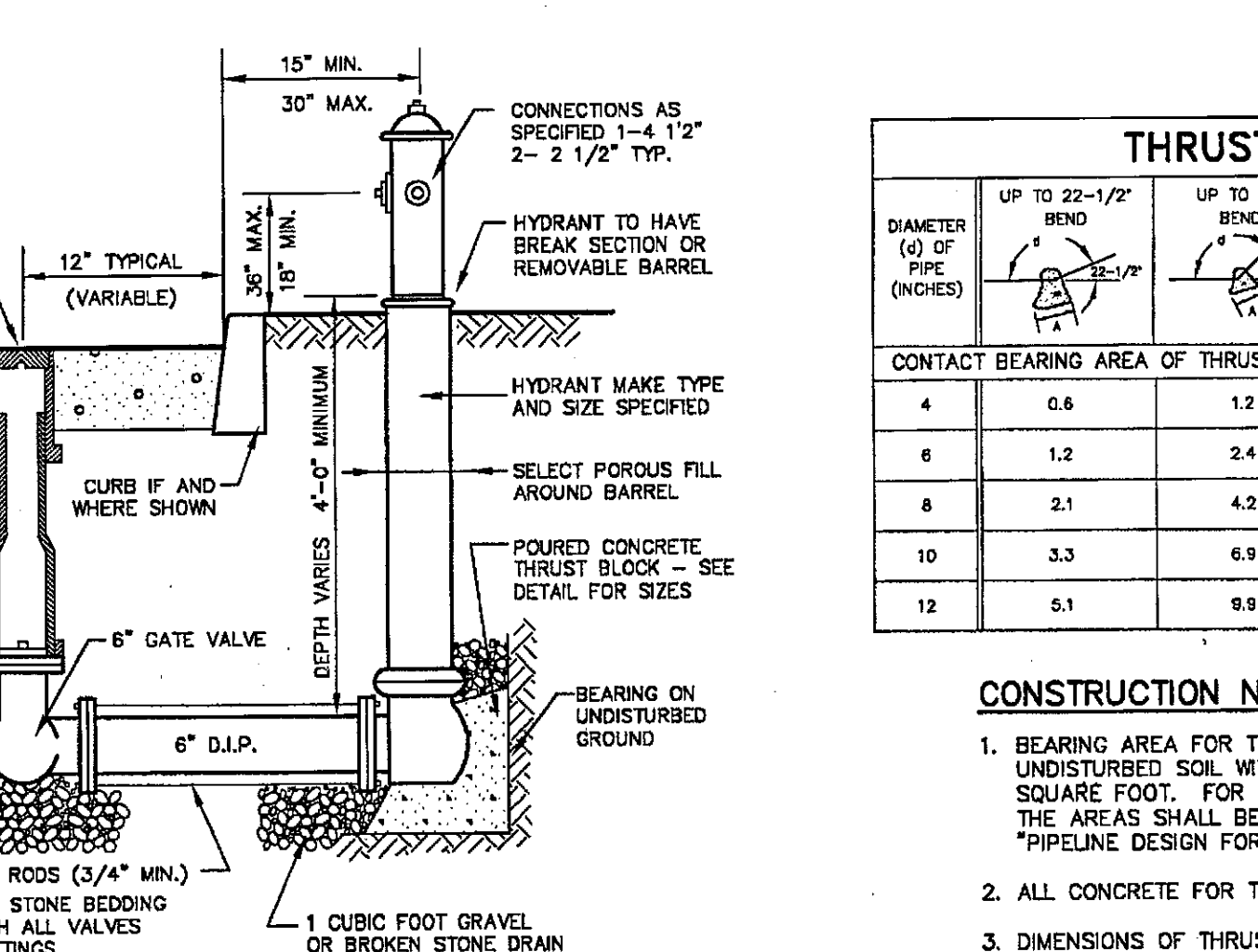
- MANHOLE FRAME AND COVER CASTINGS SHALL CONFORM TO THE LATEST ASTM A-48 CLASS 30 SPECIFICATION AND BE SUITABLE FOR HS-20 LOADING CAPACITY.
- FRAME AND COVERS SHALL BE COATED WITH TWO COATS OF ASPHALTUM VARNISH.
- THE MANHOLE FRAME SHALL HAVE A MINIMUM OVERALL HEIGHT OF 8".
- THE MANHOLE COVER THICKNESS SHALL BE A MINIMUM OF 2".

MANHOLE COVERS AND FRAMES SHALL BE:

- STANDARD (Heavy Traffic Type)
Campbell Foundry Company -----Pattern No. 1203, or equal.
W/Flow Seal Cover
- WATERTIGHT
Campbell Foundry Company -----Pattern No. 1502, or equal.
LOCKING TYPE
- Campbell Foundry Company -----Pattern No. 1487, or equal.

- PIPE BEDDING NOTES:
- BEDDING FOUNDATION COURSE: EXISTING TRENCH EXCAVATION MATERIAL MAY BE USED IF DETERMINED SUITABLE BY THE ENGINEER. UNSUITABLE TRENCH MATERIALS SHALL BE REMOVED AND REPLACED WITH CRUSHED STONE, CRUSHED STONE (CHOKED) FOUNDATION COURSE (N.JDOT No. 57 COARSE AGG.) COMPACTED TO DENSITY OF IN-SITU SOILS IN 6" LAYERS. EXISTING MATERIALS DETERMINED TO BE SUITABLE THAT HAVE BEEN DISTURBED, SHALL BE RECOMPACTED TO A DENSITY EQUAL TO THAT OF THE UNDISTURBED. RECOMPACTED SHALL TAKE PLACE PRIOR TO PIPE INSTALLATION. IN ALL CASES THE BEDDING FOUNDATION COURSE SHALL PROVIDE UNIFORM, CONTINUOUS AND ADEQUATE SUPPORT FOR THE PIPE.
 - HAUNCHING COURSE: TO BE SELECTED OR SUITABLE BACKFILL SO AS TO PROVIDE LATERAL SUPPORT TO PREVENT DEFLECTION OR MOVEMENT OF THE PIPE BOTH VERTICALLY AND HORIZONTALLY. MATERIAL TO BE THE SAME AS BEDDING FOUNDATION COURSE. MATERIAL SHALL BE HAND TAMPED IN TWO 6" LAYERS.
 - FINAL BEDDING COURSE: TO BE SELECTED OR SUITABLE BACKFILL, TAMPING ON SIDE OF PIPE REQUIRED WITH CAUTIOUS TAMPING DIRECTLY OVER TOP OF PIPE TO PRECLUDE MOVEMENT OR DEFLECTION OF PIPE. MATERIAL TO BE PLACED AND MECHANICALLY TAMPED IN 12" LAYERS PLACED OVER THE 12" OF COMPACTED GRANULAR SELECT BACKFILL.
 - BACKFILL ABOVE THE BEDDING AREA SHALL BE A SUITABLE MATERIAL COMPACTED TO A DENSITY EQUAL TO OR GREATER THAN THE ADJACENT UNDISTURBED MATERIALS. SAID COMPACTION TO BE REACHED PRIOR TO BITUMINOUS STABILIZED BASE COURSE CONSTRUCTION. DENSITY TESTS MAY BE REQUIRED BY THE TOWNSHIP ENGINEER AND COSTS OF SAME TO BE BORNE BY THE CONTRACTOR.

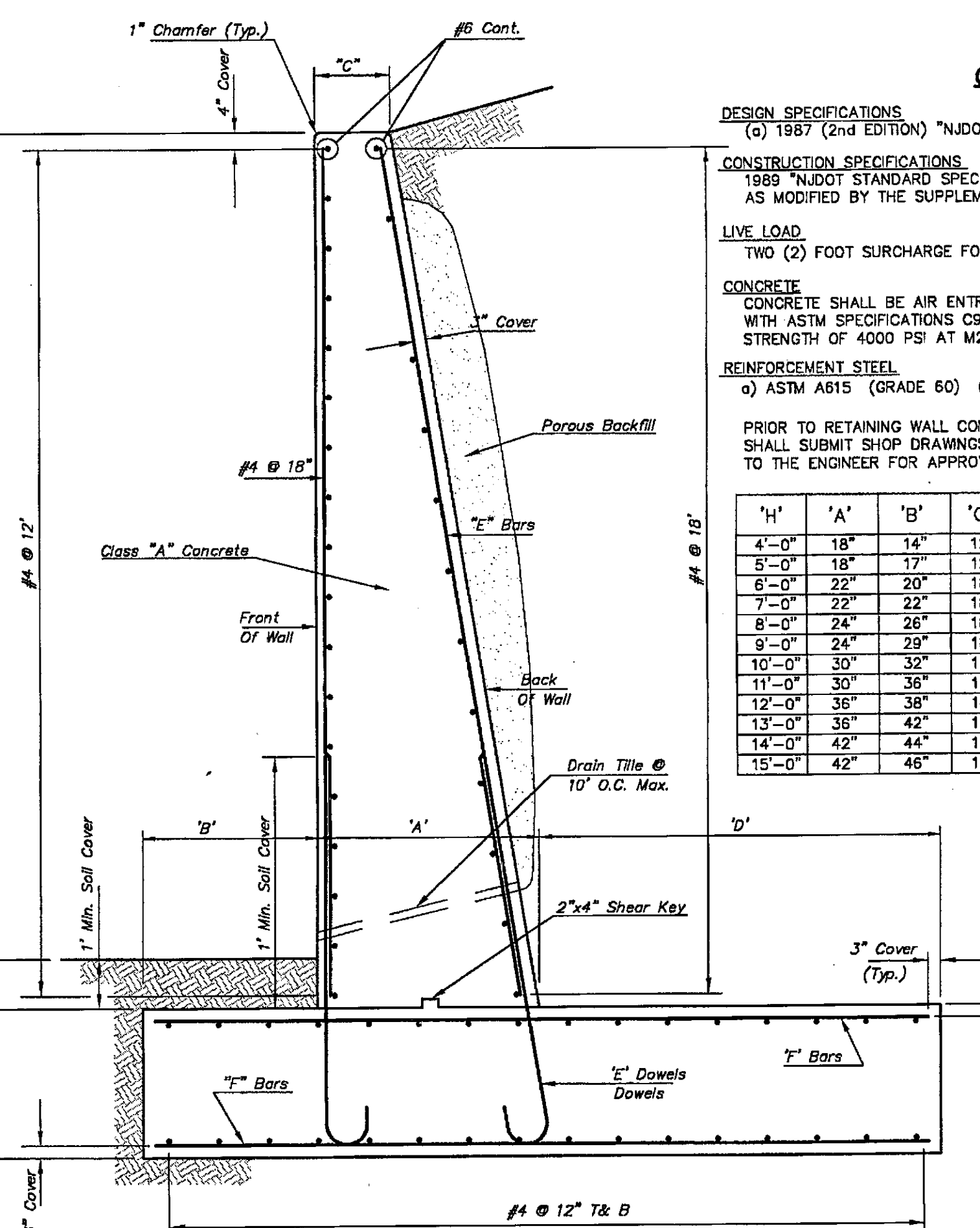
1.8 TYPICAL TRENCH & PAVEMENT REPAIR NOT TO SCALE



CONSTRUCTION NOTES:

- CONCRETE FOR THRUST BLOCKS SHALL CONFORM TO THE STANDARD DETAIL FOR THRUST BLOCKS.
- SIZE AND BEARING AREA FOR THRUST BLOCKS SHALL CONFORM TO THE STANDARD DETAIL FOR THRUST BLOCKS.
- FINISH PAINTING AND MARKING SHALL BE DESIGNATED ON THE PLANS OR CONTRACT DOCUMENTS OR SHALL BE AS DIRECTED BY THE ENGINEER.
- SPECIAL HYDRANT ARRANGEMENTS OR SETTINGS TO BE DETAILED BY CONTRACTOR SELECTED TO ENGINEER'S APPROVAL.
- ALL CONNECTIONS AND FITTINGS TO BE MECHANICAL JOINT.

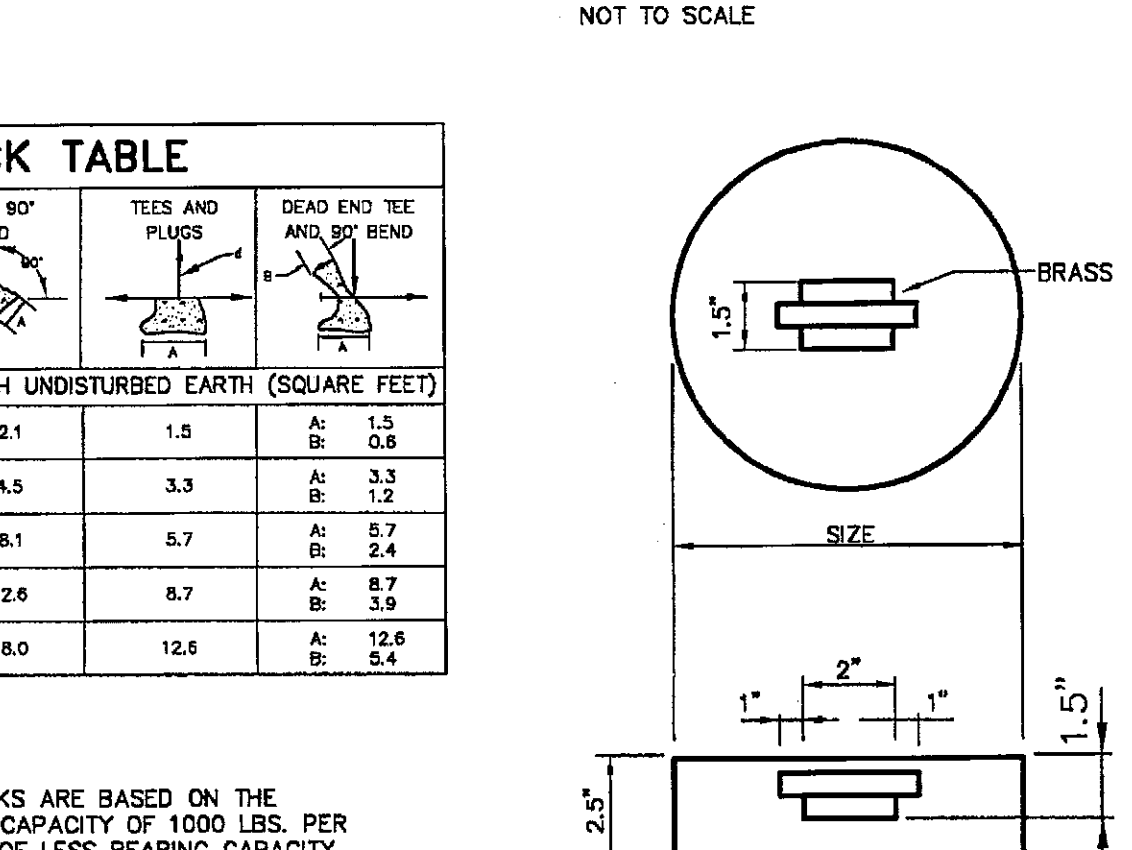
1.14 FIRE HYDRANT NOT TO SCALE



CONCRETE RETAINING WALL

NOT TO SCALE

1.13 MECHANICAL JOINT END CAP FOR ACTIVE WATER MAIN NOT TO SCALE



CONSTRUCTION NOTES:

- BEARING AREA FOR THRUST BLOCKS ARE BASED ON THE UNDISTURBED SOIL WITH BEARING CAPACITY OF 1000 LBS. PER SQUARE FOOT. FOR OTHER SOIL OF LESS BEARING CAPACITY, THE AREAS SHALL BE ADJUSTED ACCORDINGLY. (FIG. 14, ASCE "PIPELINE DESIGN FOR WATER AND WASTEWATER, 1975").
- ALL CONCRETE FOR THRUST BLOCKS SHALL BE N.JDOT, CLASS C.
- DIMENSIONS OF THRUST BLOCKS SHALL BE APPROXIMATELY SQUARE AND THE THRUST BLOCKS SHALL BE POURED FORM FITTING SUCH THAT THEY BEAR ON THE UNDISTURBED WALL OF THE TRENCH.
- THE TABULATED CONTACT BEARING AREAS LISTED ARE FOR HORIZONTAL AND DOWNWARD THRUST ONLY, AND ARE NOT APPLICABLE FOR UPWARD THRUST.
- ALL CONCRETE TO BE AIR ENTRAINED, 6% ±1%.

1.9 THRUST BLOCKS NOT TO SCALE

THRUST BLOCK TABLE									
DIAMETER (Ø) OF PIPE (INCHES)	UP TO 22-1/2" WIND	UP TO 45" WIND	UP TO 90" WIND	TEES AND ELBOWS	DEAD END USE AND 90° WIND				
	1/2"	1/2"	1/2"	1/2"	1/2"				
	1/2"	1/2"	1/2"	1/2"	1/2"				
	1/2"	1/2"	1/2"	1/2"	1/2"				
	1/2"	1/2"	1/2"	1/2"	1/2"				
	1/2"	1/2"	1/2"	1/2"	1/2"				
	1/2"	1/2"	1/2"	1/2"	1/2"				
	1/2"	1/2"	1/2"	1/2"	1/2"				
	1/2"	1/2"	1/2"	1/2"	1/2"				
	1/2"	1/2"	1/2"	1/2"	1/2"				

GENERAL NOTES

- DESIGN SPECIFICATIONS
(C) 1987 (2nd EDITION) "NJDOT DESIGN MANUAL - BRIDGES AND STRUCTURES."
- CONSTRUCTION SPECIFICATIONS
1989 "NJDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" AS MODIFIED BY THE SUPPLEMENTARY SPECIFICATIONS.

LIVE LOAD
TWO (2) FOOT SURCHARGE FOR LEVEL BACKFILL.

CONCRETE
CONCRETE SHALL BE AIR ENTRAINING PORTLAND CEMENT CONCRETE IN ACCORDANCE WITH ASTM SPECIFICATIONS C54, PROPORTIONED TO ATTAIN A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI AT 28 DAYS.

REINFORCEMENT STEEL

- a) ASTM A615 (GRADE 60) (fy=24,000 psi)

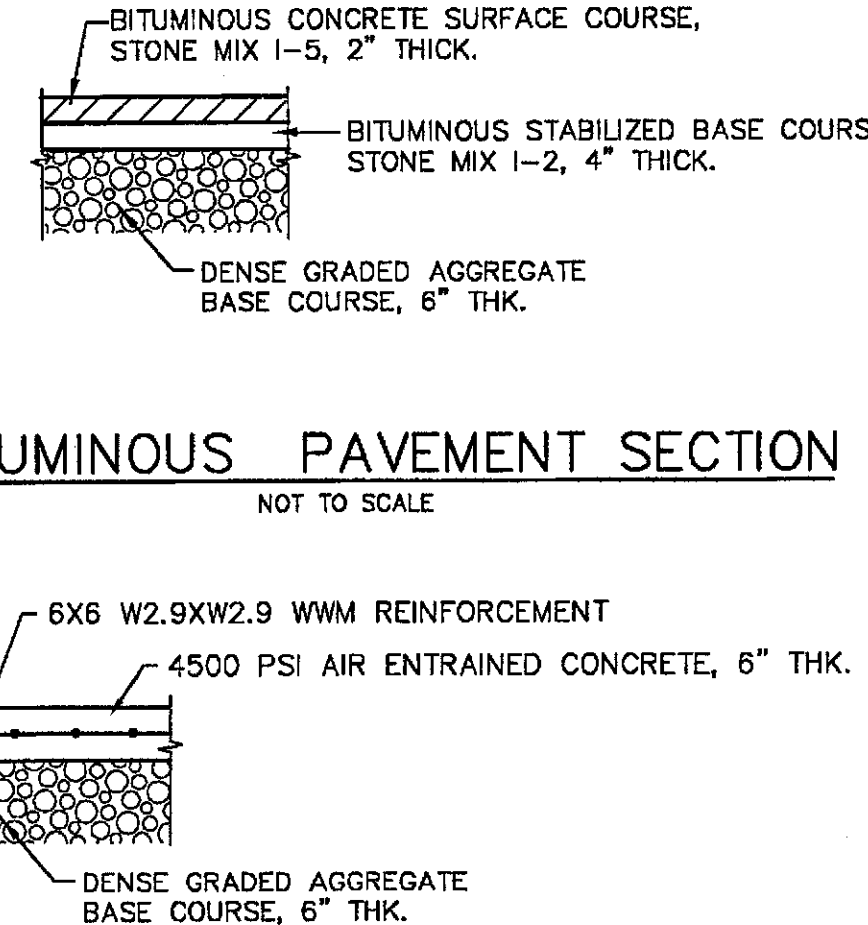
PRIOR TO RETAINING WALL CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND DESIGN CALCULATIONS TO THE ENGINEER FOR APPROVAL.

H'	A'	B'	C'	D'	E' BARS	F' BARS
4'-0"	18"	14"	12"	24"	#3 @ 12"	#3 @ 18"
5'-0"	18"	17"	12"	30"	#3 @ 12"	#3 @ 18"
6'-0"	22"	20"	18"	36"	#3 @ 9"	#3 @ 18"
7'-0"	22"	22"	18"	36"	#3 @ 9"	#3 @ 18"
8'-0"	24"	26"	18"	42"	#4 @ 12"	#3 @ 18"
9'-0"	24"	29"	18"	42"	#4 @ 10"	#3 @ 12"
10'-0"	30"	30"	18"	48"	#5 @ 10"	#3 @ 12"
11'-0"	30"	36"	18"	48"	#6 @ 12"	#4 @ 12"
12'-0"	36"	36"	18"	54"	#7 @ 12"	#4 @ 12"
13'-0"	36"	42"	18"	54"	#8 @ 12"	#4 @ 12"
14'-0"	42"	42"	18"	60"	#8 @ 12"	#4 @ 12"
15'-0"	42"	46"	18"	60"	#9 @ 12"	#5 @ 12"

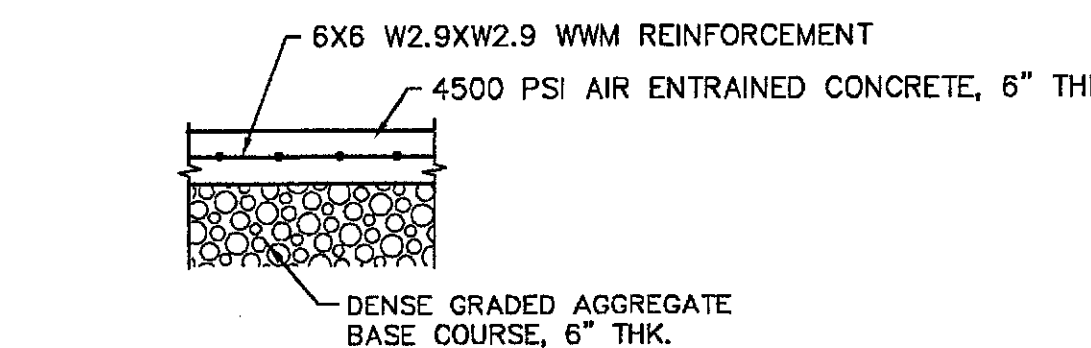
CONSTRUCTION NOTES:

- ALL CONCRETE SHALL BE 5000 PSI, AIR ENTRAINED
- SIX (6") INCH FACE TO BE PROVIDED
- PROVIDE PREFORMED BITUMINOUS FIBER EXPANSION JOINTS, 1/2" THICK AT 20'-0" (MAXIMUM) INTERVALS. PROVIDE DUMMY JOINTS (FORMED) BETWEEN EXPANSION JOINTS.

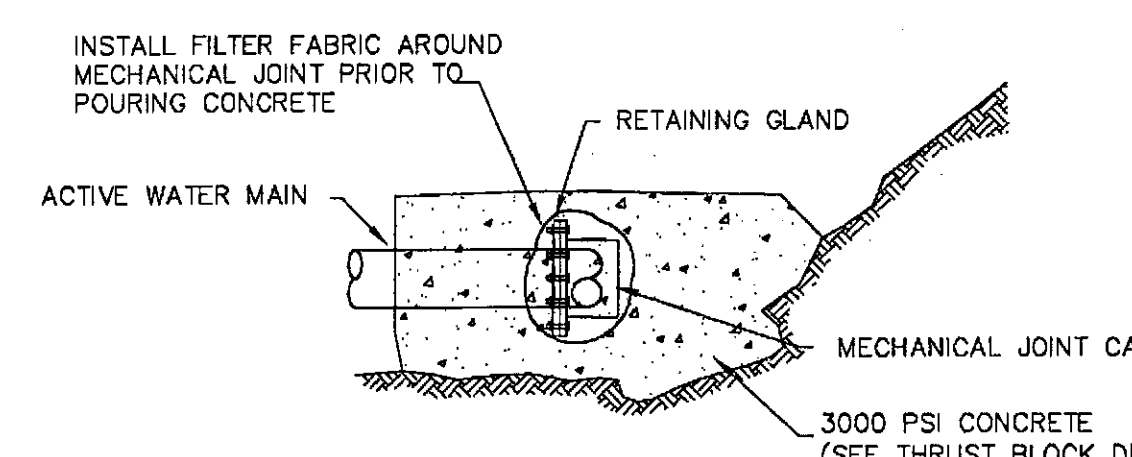
1.12 6"x8"x18" VERTICAL CONCRETE CURB NOT TO SCALE



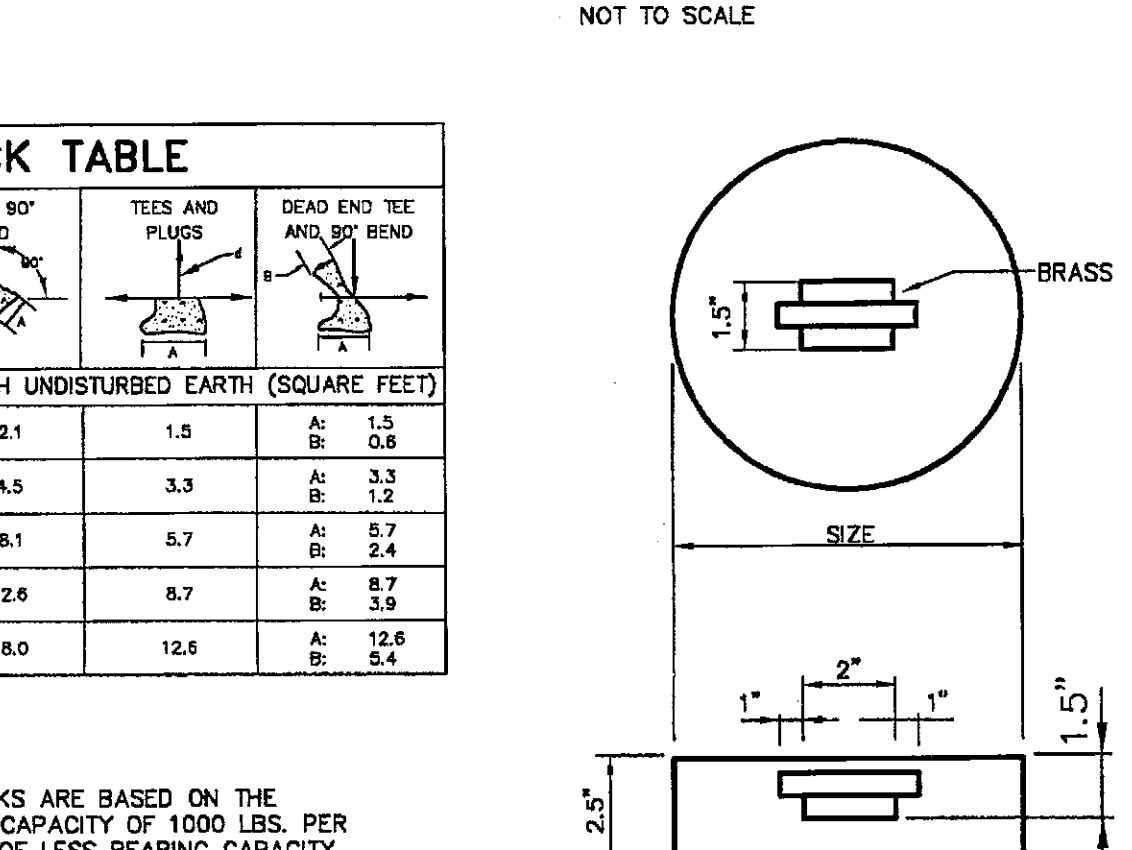
1.11 BITUMINOUS PAVEMENT SECTION NOT TO SCALE



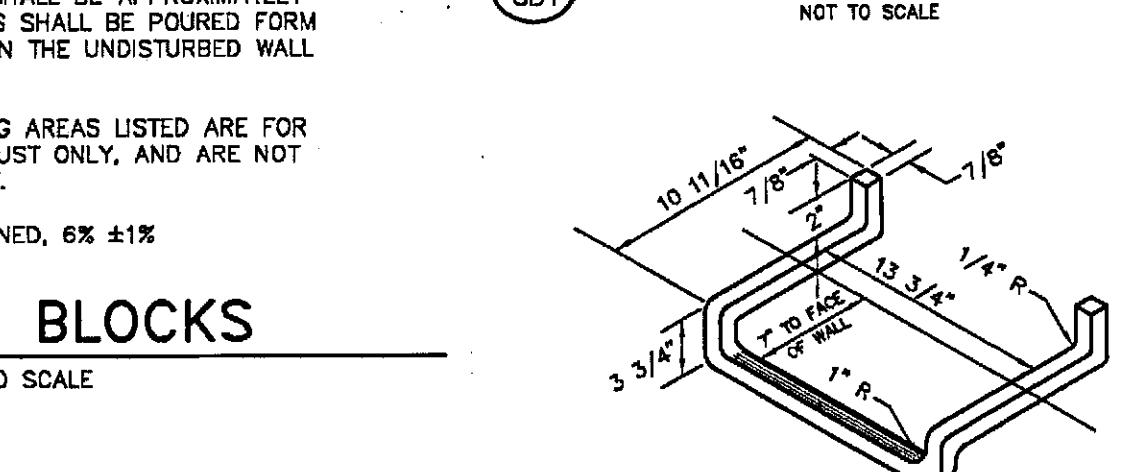
1.19 CONCRETE PAVEMENT SECTION NOT TO SCALE



1.13 MECHANICAL JOINT END CAP FOR ACTIVE WATER MAIN NOT TO SCALE



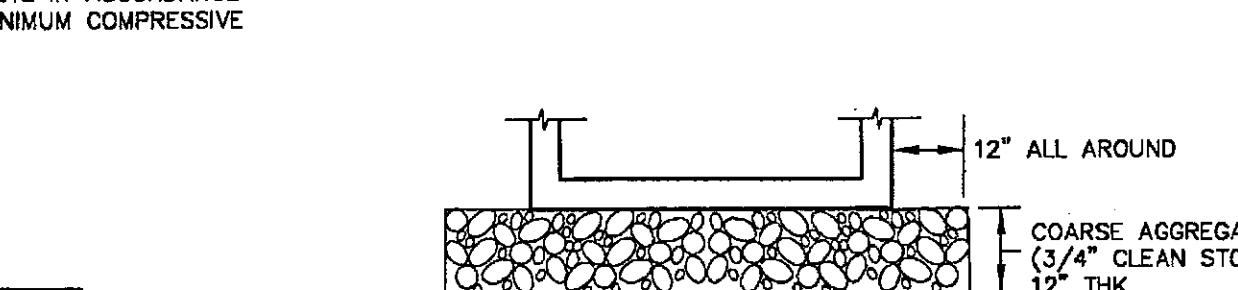
1.15 CLEANOUT PLUG DETAIL NOT TO SCALE



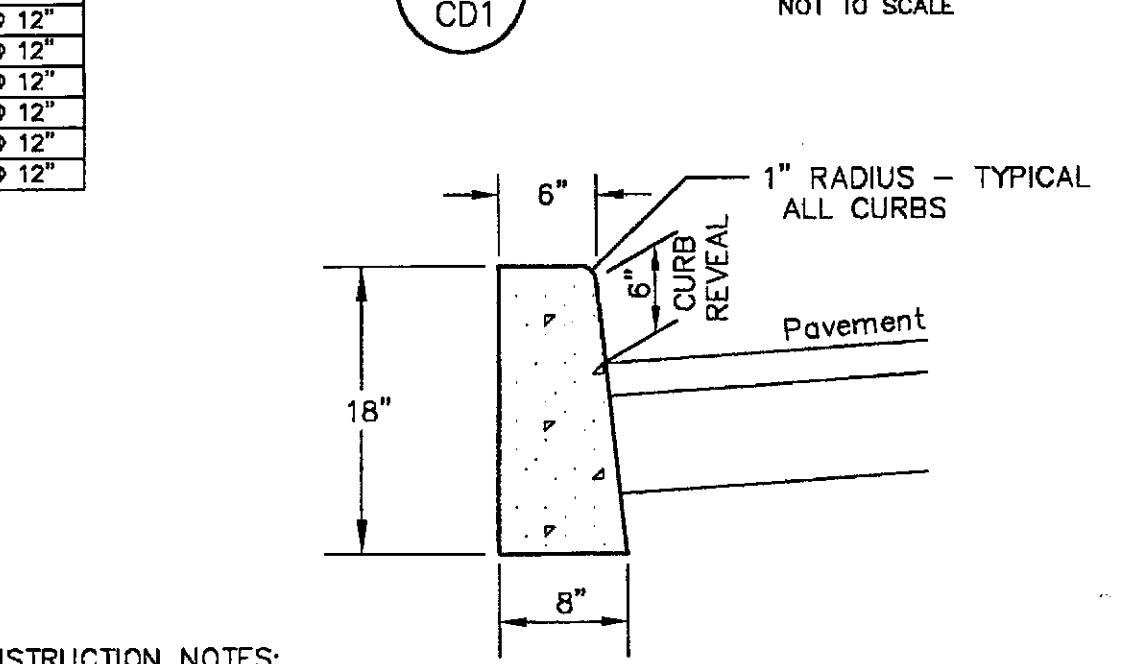
CONSTRUCTION NOTE:

- PORTION EMBEDDED IN MASONRY TO BE COATED WITH COAL-TAR PITCH VARNISH OR OTHER SPECIFIED MATERIAL. NO SMALLER THAN 1/2" DIA. WITH THE LATEST O.S.H.A. STANDARDS.
- STEPS TO BE EXTRUDED 6061-T6 ALUMINUM
- STEPS SHALL BE PROVIDED AT 6' ON CENTER

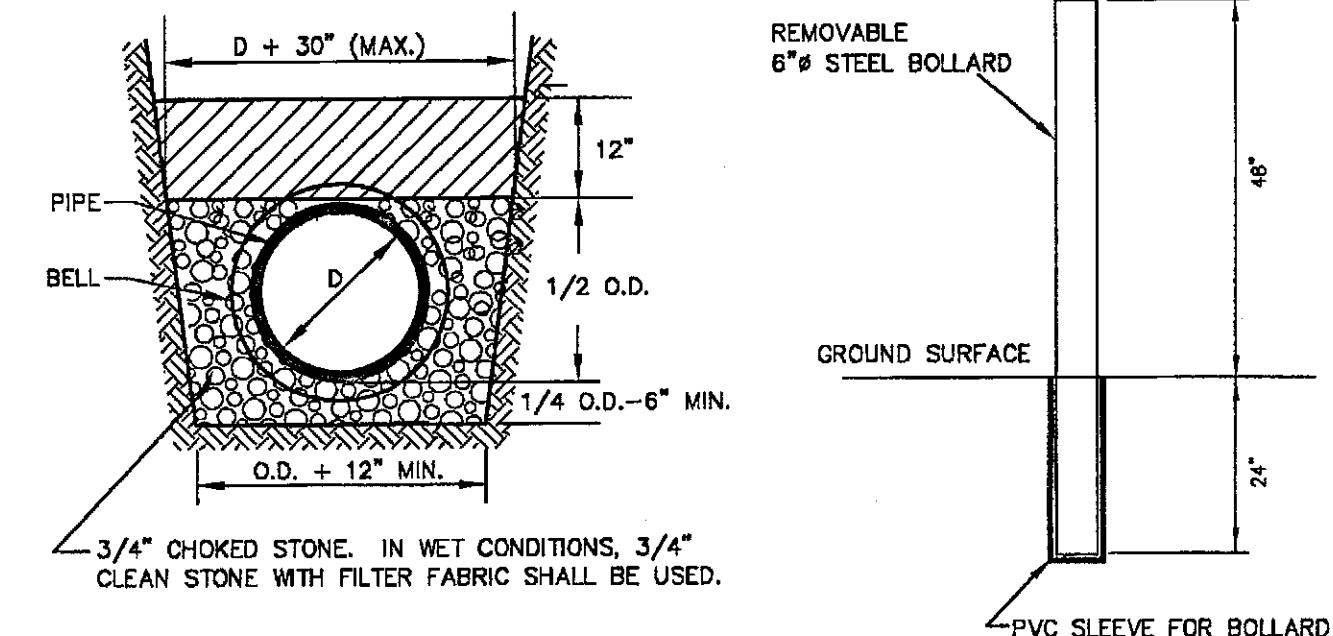
1.3 ALUMINUM LADDER RUNG NOT TO SCALE



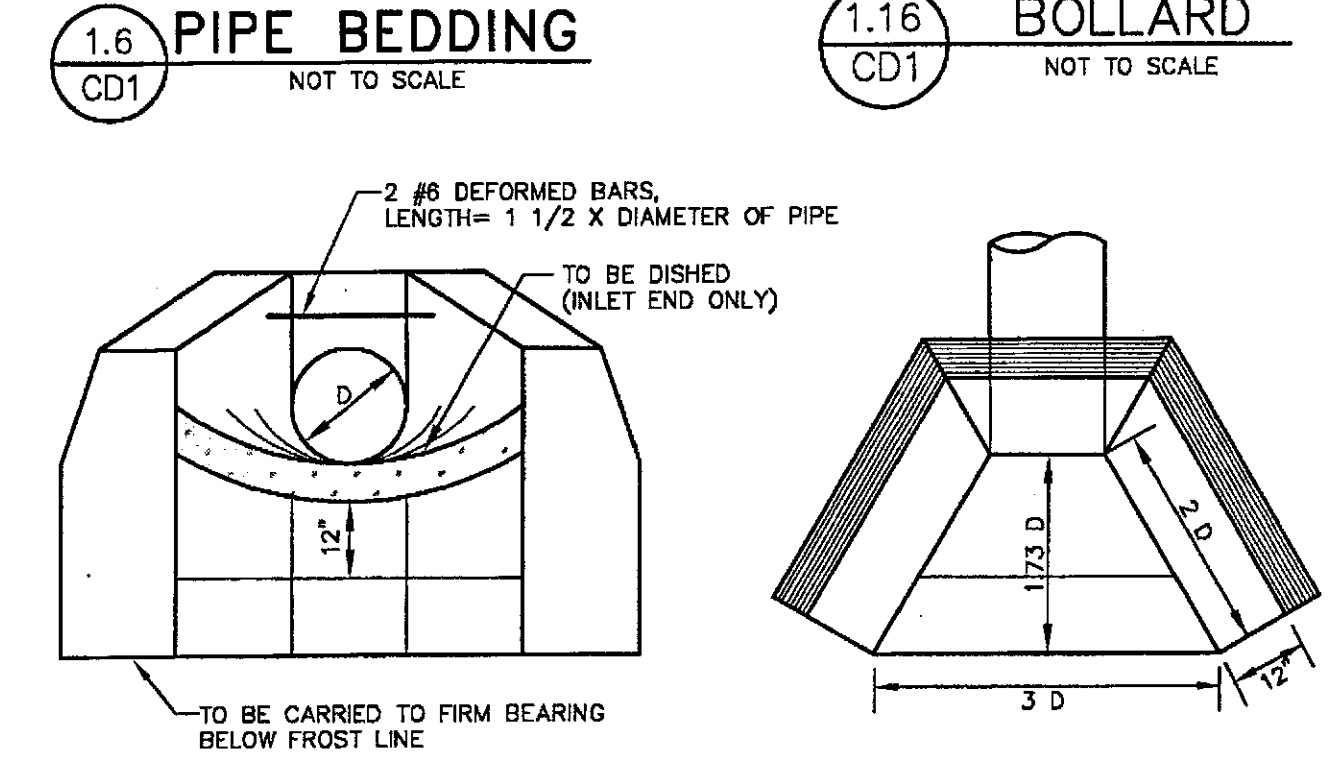
1.2 STONE BEDDING UNDER STRUCTURES NOT TO SCALE



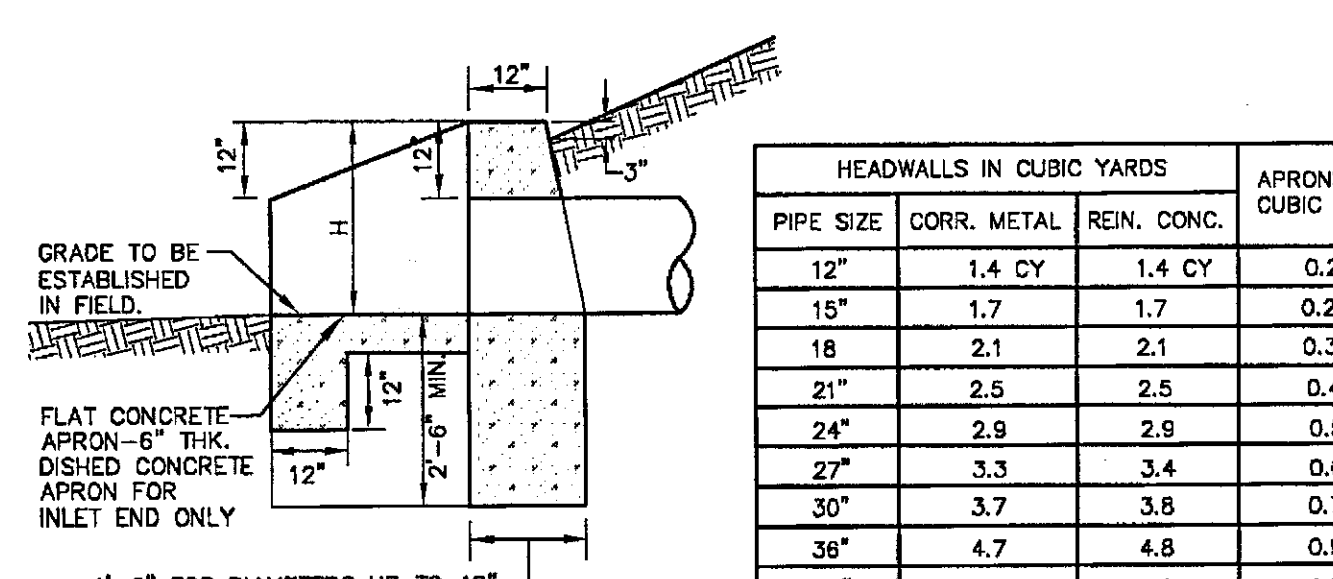
- ALL CONCRETE SHALL BE 5000 PSI, AIR ENTRAINED
- SIX (6") INCH FACE TO BE PROVIDED
- PROVIDE PREFORMED BITUMINOUS FIBER EXPANSION JOINTS, 1/2" THICK AT 20'-0" (MAXIMUM) INTERVALS. PROVIDE DUMMY JOINTS (FORMED) BETWEEN EXPANSION JOINTS.



1.16 BOLLARD NOT TO SCALE



1.6 PIPE BEDDING NOT TO SCALE

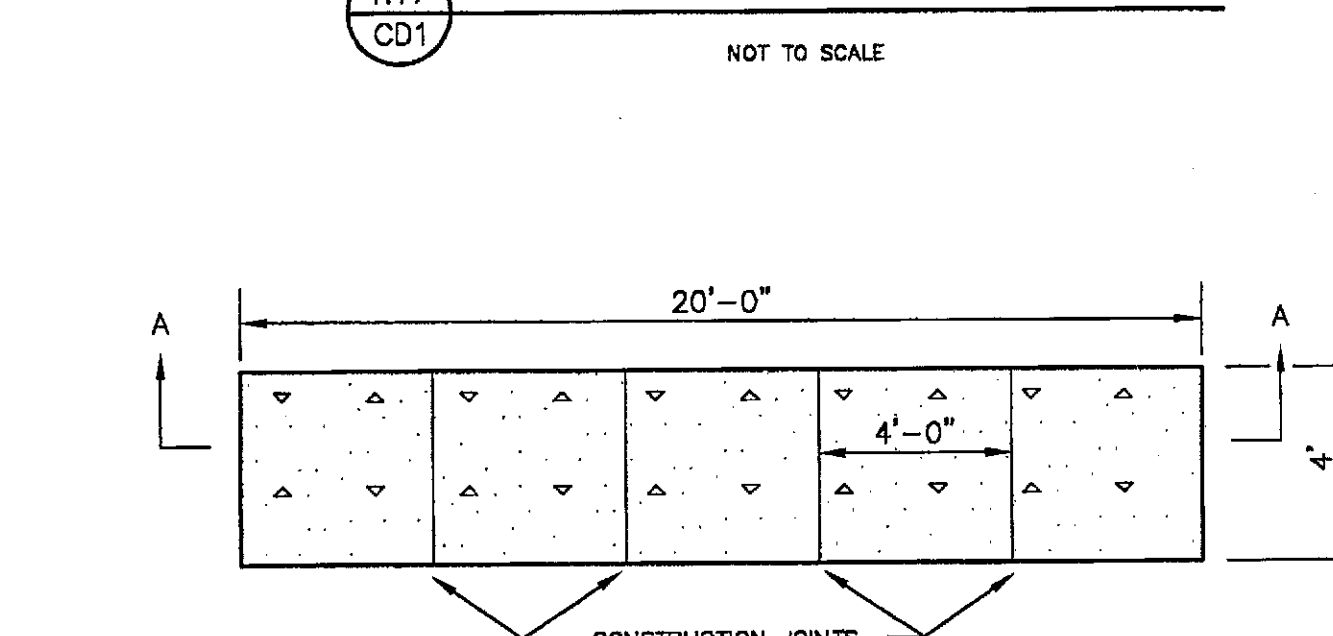


1.17 CONCRETE HEADWALL NOT TO SCALE

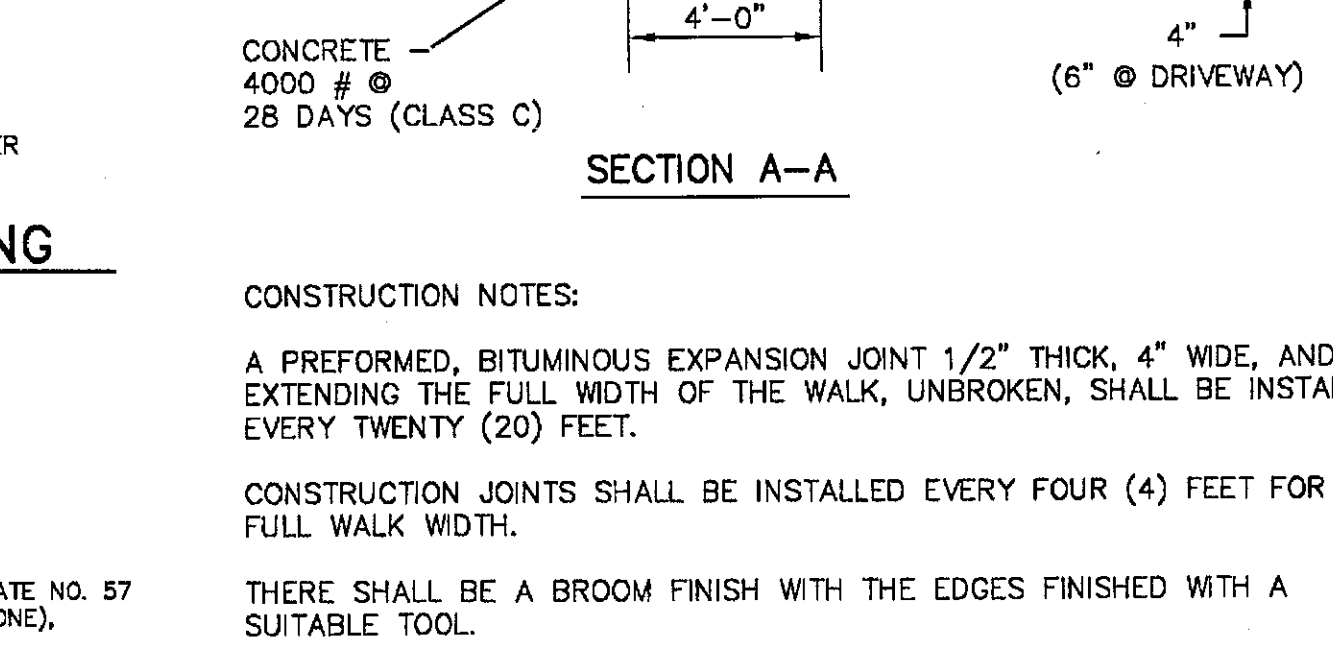
GENERAL NOTES:

- ALL EDGES TO BE CHAMFERED 1"
- CONCRETE TO BE N.JDOT CLASS "C"
- APRONS TO BE 6" THK. CONC., FLAT AT OUTLET END, DISHED AT INLET END
- EXPOSED PORTIONS OF WALL TO BE RUBBED AND FLOATED.
- FOR ARCH PIPE, THE SPAN SHALL BE SUBSTITUTED FOR D.

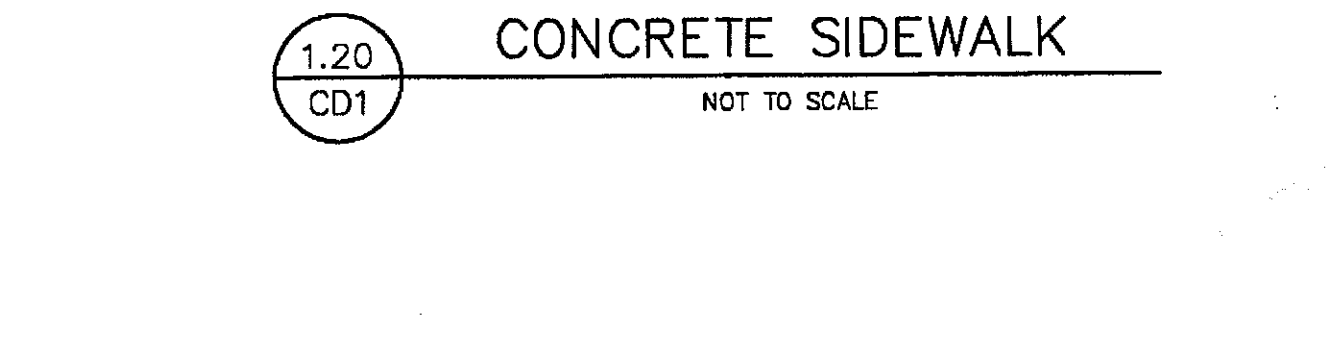
1.17 CONCRETE HEADWALL NOT TO SCALE



1.20 CONCRETE SIDEWALK NOT TO SCALE



1.20 CONCRETE SIDEWALK NOT TO SCALE

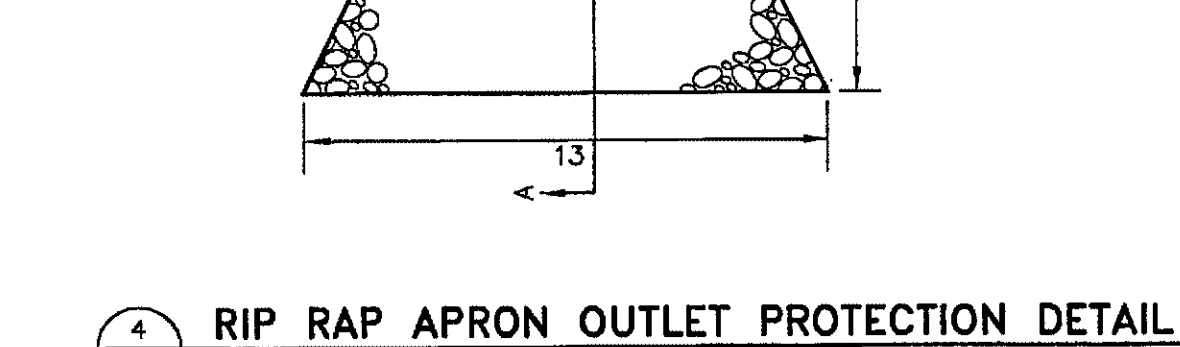


1.20 CONCRETE SIDEWALK NOT TO SCALE

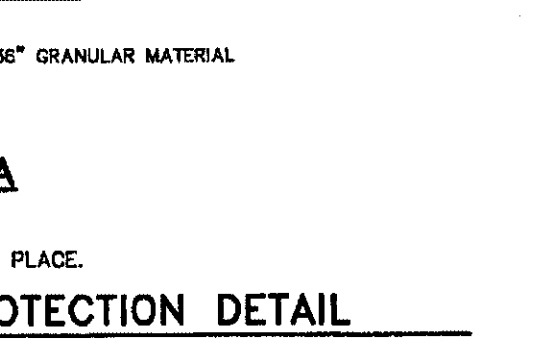
1.20 CONCRETE SIDEWALK NOT TO SCALE

1.20 CONCRETE SIDEWALK NOT TO SCALE

1.20 CONCRETE SIDEWALK NOT TO SCALE



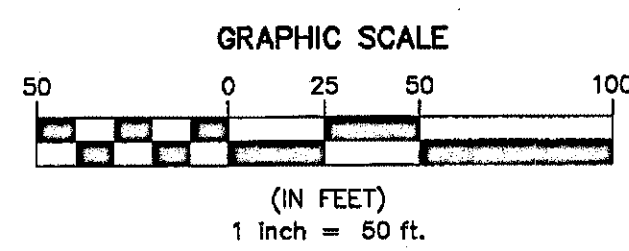
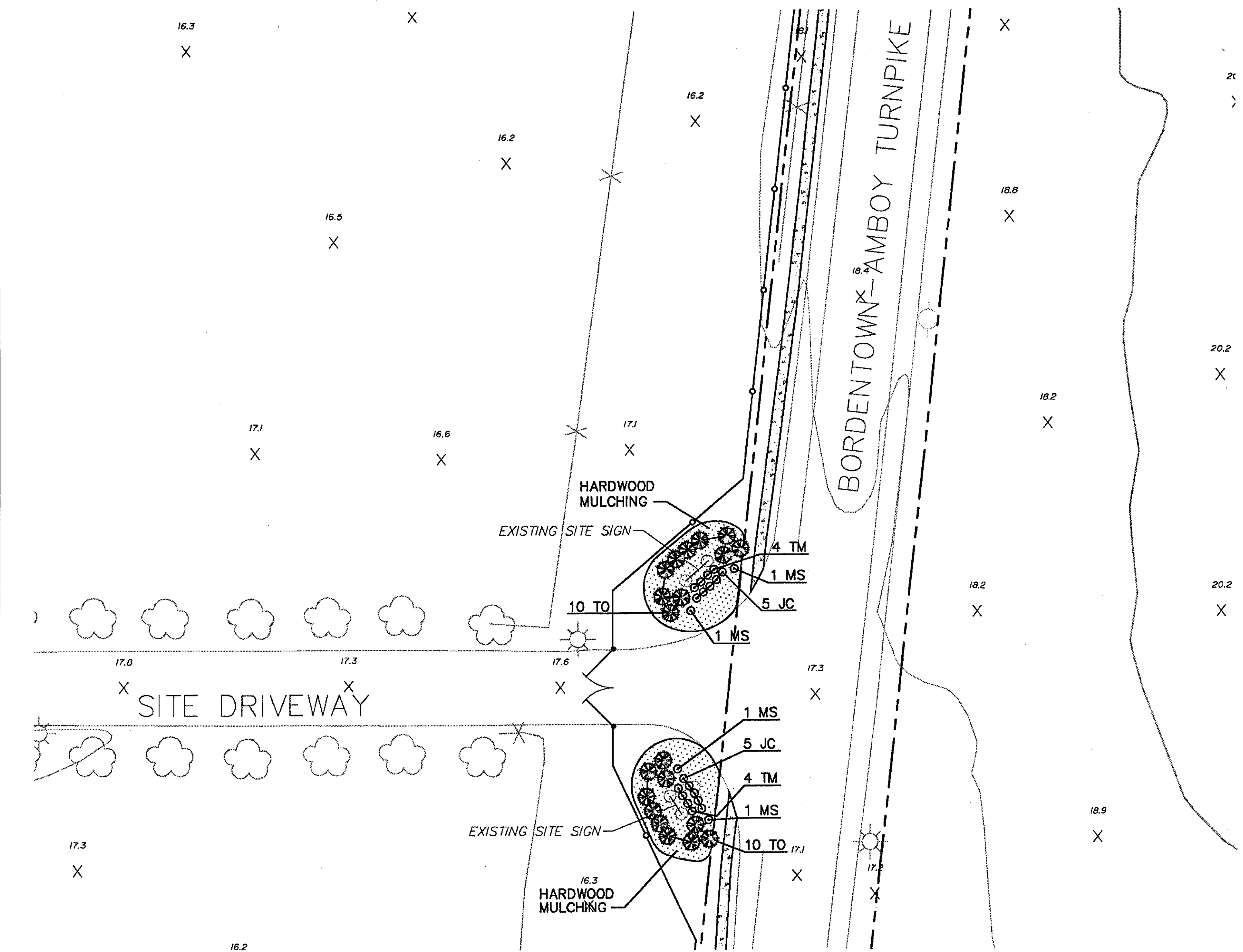
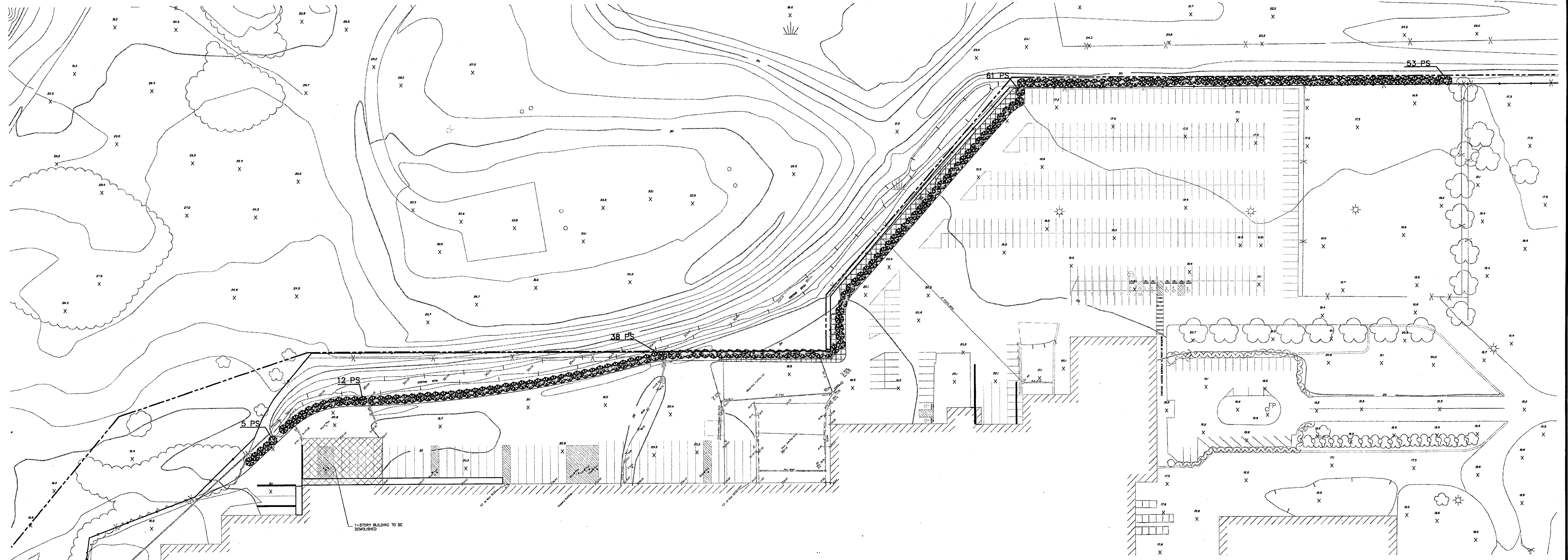
SD2 NOT TO SCALE



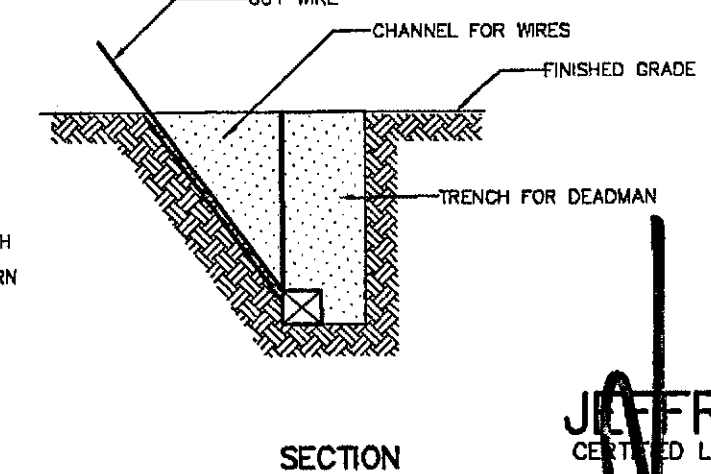
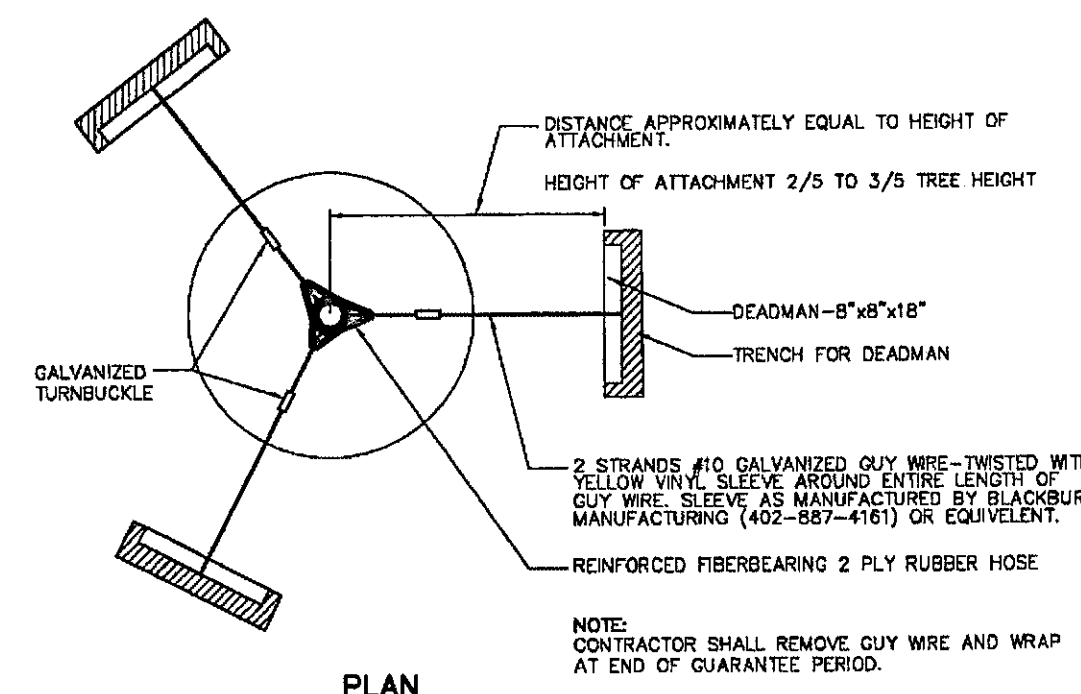
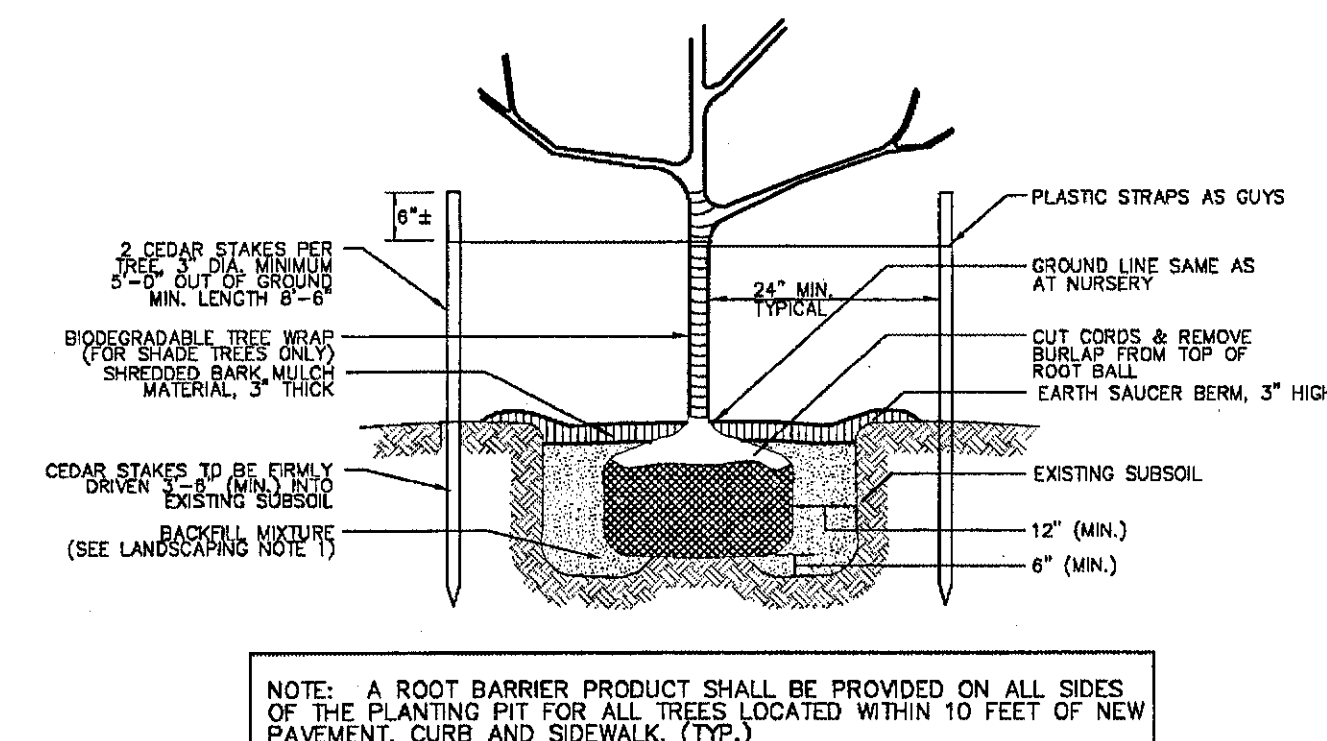
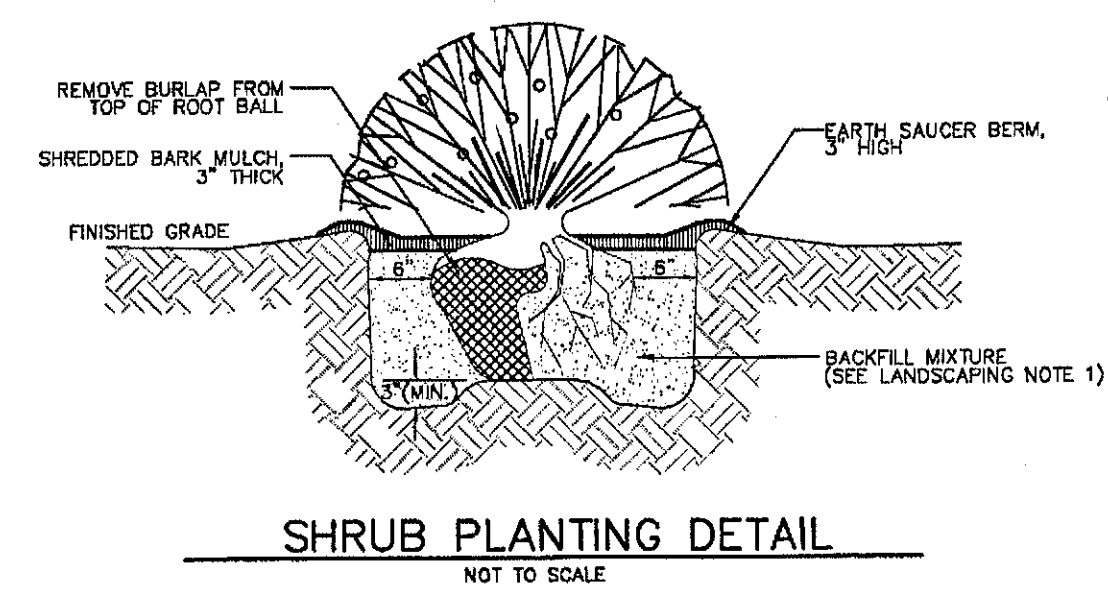
DURATION: 1 DAYS

ENGINEERS AND SURVEYORS AUTHORIZATION 07	JLR	SLZ	WCB
	PROJECT NO. SLLC-00010	CADD FILE SL10-SE	FIELD BK. # N/A

CONSTRUCTION SEQUENCE



PLANT LIST						
KEY	BOTANICAL NAME	COMMON NAME	SIZE	CALIPER	TYPE	SPACING QUANTITY NOTES
EVERGREEN TREES						
PS	PINUS STROBUS	EASTERN WHITE PINE	8'	-	B&B	10' O.C. 169 FULL TO GROUND
TO	THUJA OCCIDENTALIS "NIGRA"	DARK AMERICAN ARBORVITAE	10'-12'	-	B&B	10' O.C. 20 FULL TO GROUND
DECIDUOUS AND EVERGREEN SHRUBS						
TM	TAXUS X MEDIA "EVERLOW"	EVERLOW YEW	24"-36"	-	B&B	4' O.C. 8 FULL PLANTS
JC	JUNIPERUS CHINENSIS "PFITZERIANA COMPACTA"	COMPACT PFITZER JUNIPER	18"-24"	-	B&B	4' O.C. 10 FULL PLANTS
GRASSES						
MS	MISCANTHUS SINENSIS "GRACILLIMUS"	SILVER VARIEGATED MAIDEN GRASS	3 GAL	-	B&B	- 4 FULL PLANTS



JEFFREY H. BOTTER, C.L.A.
CERTIFIED LANDSCAPE ARCHITECT
STATE OF NEW JERSEY LICENSE No. 00216
7/15/03

LANDSCAPING NOTES

- THE BACKFILL MIXTURE FOR TREES, SHRUBS AND GROUNDCOVERS SHALL BE A TOPSOIL AND PEAT MOSS MIXTURE WITH A 5:1 RATIO RESPECTIVELY.
- CONTRACTOR SHALL VERIFY PLANT QUANTITIES PRIOR TO SELECTING PLANTS AT NURSERY SOURCES. NOTIFY LANDSCAPE ARCHITECT OF DISCREPANCIES BETWEEN PLANTING PLANS AND PLANT LIST. IN THE EVENT OF A DISCREPANCY, THE PLANTING PLANS SHALL PREVAIL.
- PLANT MATERIAL SHALL BE TAGGED AT THE NURSERY OR APPROVED ON SITE BY THE PROJECT LANDSCAPE ARCHITECT PRIOR TO PLANTING.
- MINIMUM DISTANCE BETWEEN CANOPY TREES AND ROADWAY/PARKING LOT LIGHT POLES SHALL BE TWENTY FEET.
- ALL PLANT MATERIALS USED SHALL BE TRUE TO NAME AND SIZE IN CONFORMITY WITH THE AMERICAN STANDARD OF NURSERY STOCK AND SHALL BE TYPICAL OF THEIR SPECIES AND VARIETY. ALL PLANTS SHALL HAVE NORMAL WELL-DEVELOPED BRANCHES AND VIGOROUS ROOT SYSTEMS. THEY SHALL BE HEALTHY, VIGOROUS, FREE FROM DEFECTS, DISTURBING KNOTS, ABRASIONS OF THE BARK, SUNSCALD INJURIES, PLANT DISEASES, INSECT EGGS, BORERS AND ALL FORMS OF INFECTION. ALL PLANTS SHALL BE NURSERY GROWN.
- ALL PLANT MATERIAL SHALL BEAR THE SAME RELATION TO FINISHED GRADE AS IT BORE TO EXISTING GRADE AT THE NURSERY.
- ANY SUBSTITUTIONS OF PLANT MATERIAL WITH REGARD TO SIZE, SPECIES, VARIETY, ETC., SHALL BE SUBJECT TO APPROVAL BY THE PROJECT LANDSCAPE ARCHITECT AND BOROUGH.
- UNDER NO CIRCUMSTANCES SHOULD THE MAIN LEADER OF A DECIDUOUS OR EVERGREEN TREE BE TOPPED.
- PLANTS PLANTED IN ROWS SHALL BE MATCHED SPECIMENS AND BE UNIFORM IN SIZE AND FORM.
- ALL PLANT MATERIAL IS TO BE GUARANTEED FOR A PERIOD OF 24 MONTHS FROM TIME OF FINAL ACCEPTANCE OF THE PROJECT OR AS REGULATED BY THE BOROUGH. IF ANY PLANTS ARE DEAD OR IN AN UNHEALTHY CONDITION BEFORE FINAL ACCEPTANCE OF THE PROJECT, THE LANDSCAPE CONTRACTOR SHALL REPLACE THEM AT HIS EXPENSE. THE DETERMINATION OF WHICH PLANTS REQUIRE REPLACEMENT SHALL BE BY THE PROJECT LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE.
- THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR ANY DAMAGE TO EXISTING UTILITIES OR STRUCTURES CAUSED BY ANY PERSON, VEHICLE, EQUIPMENT, OR TOOLS RELATED TO THE EXECUTION OF THIS CONTRACT.
- EXCAVATION NEAR EXISTING UTILITIES SHALL BE CAREFULLY PERFORMED BY HAND.
- TRANSPLANT TREE NOTES
A. PERFORM ALL TRANSPLANT WORK WHEN THE TREES ARE DORMANT, TYPICALLY OCTOBER 31 TO MARCH 30.
B. MINIMUM ROOTBALL DIAMETER: 10" PER 1" CAL. MINIMUM ROOTBALL DEPTH: MINIMUM 2/3 OF ROOTBALL DIAMETER.
C. TREES 6" CALIPER OR LESS MAY BE HAND OR MACHINE DUG. TREES GREATER THAN 6" CALIPER SHALL BE HAND DUG.
- SHADE TREES LOCATED ADJACENT TO SIDEWALKS SHALL HAVE A MINIMUM FIRST BRANCH HEIGHT OF 7'.
- ALL PLANTING BEDS SHALL BE MULCHED WITH SHREDDED HARDWOOD BARK, 3" THICK, THROUGHOUT. PLANTING BEDLINES SHALL BE EDGED WITH A SPADE PRIOR TO MULCHING.

2	07/15/03	AS PER PLANNING BOARD RESOLUTION COMPLIANCE	JLR	WCB
1	05/01/03	AS PER PLANNING BOARD RESOLUTION COMPLIANCE	JLR	WCB
NO.	DATE	REVISIONS	BY	CHECKED
Sayreville L.L.C.				
GARDEN STATE TECHNOLOGY CENTER LOADING DOCK EXPANSION				
LOT 1, BLOCK 14 TOWNSHIP OF SAYREVILLE, MIDDLESEX COUNTY, NEW JERSEY				
PRELIMINARY / FINAL SITE PLAN TREE PRESERVATION PLAN				
GARY C. DAHMS, PE		DATE 7/15/2003		
11 TINDAL ROAD MIDDLETOWN, NJ 07748 TEL 732-671-6400 FAX 732-671-7365		DESIGNED BY JLR DRAWN BY SLZ CHECKED BY WCB PROJECT NO. SLG-00010 CADD FILE SLG-LU FIELD BK. # N/A		
SHEET		TTP		
8		OF 8		