

PRELIMINARY & FINAL SITE PLAN

LOT No. 15, BLOCK No. 409

TAX MAP SHEET No. 36

BOROUGH OF SOUTH PLAINFIELD

MIDDLESEX COUNTY

NEW JERSEY

LIST OF PROPERTY OWNERS WITHIN 200' RADIUS

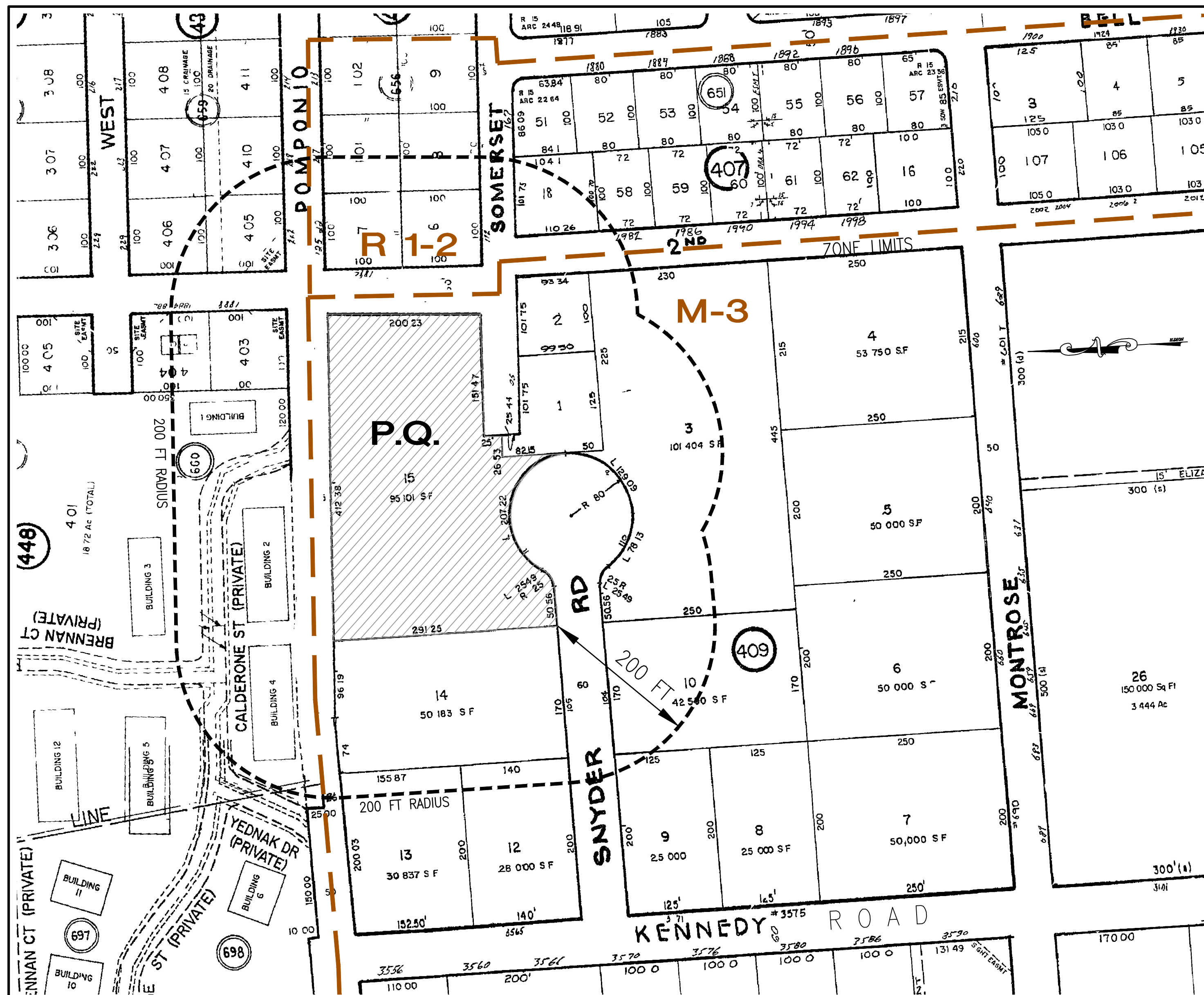
BLOCK	LOT	OWNER	ADDRESS	
407	18	ROBERT&CAROL THIENE	171 SOMERSET ST.	SOUTH PLAINFIELD, NJ 07080
407	58	JAMES&VELMA JOHNSON	1982 SECOND PL.	SOUTH PLAINFIELD, NJ 07080
409	1	TOM WACKER&CAROL SABINO	305 SOMERSET ST.	SOUTH PLAINFIELD, NJ 07080
409	2	DONNA ZELANO&RICH HILL	301 SOMERSET AVE.	SOUTH PLAINFIELD, NJ 07080
409	3	WADE REALTY CO. C/O HUDD STEEL	110 SNYDER RD.	SOUTH PLAINFIELD, NJ 07080
409	9	GIANNA PROP. LLC	713 JACKSON AVE.	SOUTH PLAINFIELD, NJ 07080
409	10	RANDY ENTER.LLC	104 SNYDER RD.	SOUTH PLAINFIELD, NJ 07080
409	12	HADA REAL ESTATE PARTNERSHIP	3565 KENNEDY RD.	SOUTH PLAINFIELD, NJ 07080
409	13	ROBERT MIKUSKI	3567 KENNEDY RD.	SOUTH PLAINFIELD, NJ 07080
409	14	R&D REALTY CORP & C/O PFING ST CO.	P.O. BOX 377	SOUTH PLAINFIELD, NJ 07080
409	15	JRB PROPERTIES,LLC	111 SNYDER RD.	SOUTH PLAINFIELD, NJ 07080
448	4.01	BLDG. 1,2,3,4,5 WOODLAND 520 MANOR ASSOC. LLC	RT.22 P.O. BOX 6872	BRIDGEWATER, NJ 08807
431	1.01	LORRANE&ROBERT	217 POMPONIO AVE.	SOUTH PLAINFIELD, NJ 07080
431	6	JAMES&LURENE BARRY	172 SOMERSET ST.	SOUTH PLAINFIELD, NJ 07080
431	7	B.P.U. ASSOCIATES GREENBROOK,NJ 08812	P.O. BOX 861	SOUTH PLAINFIELD, NJ 07080
431	8	JOE&DEB. GREGO	168 SOMERSET ST.	SOUTH PLAINFIELD, NJ 07080
432	4.05	JHK&ASHING MICHEN	222 POMPONIO AVE.	SOUTH PLAINFIELD, NJ 07080
432	4.06	DIYAND&NAUNITA PATEL	229 WEST AVE.	SOUTH PLAINFIELD, NJ 07080
432	4.10	GOVIND RAJ&ASHA MENDU	218 POMPONIO AVE.	SOUTH PLAINFIELD, NJ 07080
448	4.03	CHARLES&KIM GRIVEN III	1888-1890 SECOND PL.	SOUTH PLAINFIELD, NJ 07080
448	4.04	MIKE&ARNESHA LEWIS	1882 SECOND PL.	SOUTH PLAINFIELD, NJ 07080
448	4.04	TOM& JILL NICHUCK	1884 SECOND PL.	SOUTH PLAINFIELD, NJ 07080

GENERAL NOTES:

- THE LOCATION OF ALL EXISTING AND PROPOSED UTILITY SERVICES SHOWN ARE APPROXIMATE AND MUST BE CONFIRMED INDEPENDENTLY WITH THE UTILITY COMPANIES PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- THE CONTRACTOR SHALL NOTIFY HARBOR CONSULTANTS IMMEDIATELY IF ACTUAL EXISTING SITE CONDITIONS DIFFER, OR, IF THE PROPOSED CONSTRUCTION WOULD BE INHIBITED BY ANY OTHER FEATURES NOT IDENTIFIED HEREIN.
- CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF EXISTING TOPOGRAPHIC INFORMATION AND UTILITY INVERT ELEVATIONS PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION.
- SOLID WASTE IS TO BE DISPOSED OF BY CONTRACTOR IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.
- AS BUILT DRAWINGS WILL BE PROVIDED UPON COMPLETION OF THE PROJECT.

UTILITY NOTICE PERSONNEL & MAILING ADDRESS

PLAINFIELD AREA REGIONAL 200 CLAY AVENUE MIDDLESEX, NJ 08846	PUBLIC SERVICE ELECTRIC & GAS COMPANY MANAGER-CORPORATE PROPERTIES 80 PARK PLAZA T68 NEWARK, NJ 07102
MIDDLESEX WATER COMPANY 1500 RANSON ROAD ISELIN, NJ 08830	ELIZABETHTOWN WATER COMPANY 1341 NORTH AVENUE PLAINFIELD, NJ 07060
NEW JERSEY BELL 445 GEORGES ROAD NORTH BRUNSWICK, NJ 08902	PISCATAWAY TOWNSHIP SEWER 455 HOES LANE PISCATAWAY, NJ 08854
CONRAIL CORPORATION 2001 MARKET STREET 7 LAW DEPARTMENT, 16TH FLOOR PHILADELPHIA, PA 07080	SOUTH PLAINFIELD SEWER UTILITY 2480 PLAINFIELD AVENUE SOUTH PLAINFIELD, NJ 07080
TEXAS EASTERN GAS PIPELINE 501 COOLIDGE STREET SOUTH PLAINFIELD, NJ 07080	SUNOCO PIPELINE L.P. RIGHT OF WAY DEPT. MONTEILLO COMPLEX 525 FITZTOWN ROAD SINKING SPRING, PA 19608
MCI WORLDWIDE NETWORK SERVICING ATTN: NATIONAL SUPPORT/INVESTIGATIONS DEPT.2885 LOC. 642 2250 LAKESIDE BLVD. RICHARDSON, TX 75082	



PROJECT AREA & ZONING MAP
1"=100'

PREPARED NOVEMBER 2006

OWNER LOT 15, BLOCK 409

BOROUGH OF SOUTH PLAINFIELD
111 SNYDER ROAD
SOUTH PLAINFIELD, NJ 07080

I HEREBY CERTIFY THAT I AM
OWNER OF RECORD OF THE SITE
HEREIN DEPICTED AND THAT I
CONCUR WITH THE PLAN

OWNER DATE

SHEET NO.	DESCRIPTION	PREPARED	LAST REVISED
1	COVER SHEET	11/30/06	12/14/18
2	EXISTING CONDITIONS & DEMOLITION PLAN & TREE MANAGEMENT PLAN	11/30/06	11/28/18
3	LAYOUT & DIMENSIONING PLAN	11/30/06	11/28/18
4	GRADING & UTILITY PLAN	11/30/06	12/14/18
5	LANDSCAPE & LIGHTING PLAN	11/30/06	11/28/18
6	SOIL EROSION & SEDIMENT CONTROL PLAN	11/30/06	11/28/18
6A	SOIL EROSION & SEDIMENT CONTROL DETAILS	11/30/06	6/04/18
7	CONSTRUCTION DETAILS - 1	11/30/06	11/28/18
8	CONSTRUCTION DETAILS - 2	11/30/06	11/28/18

OWNER/APPLICANT

JRB, L.L.C.
111 SNYDER RD.
SOUTH PLAINFIELD, NJ 07080
TEL. 908-753-4949

NAME DATE

CERTIFICATION OF APPROVAL

APPROVED BY THE PLANNING BOARD
OF THE BOROUGH OF SOUTH PLAINFIELD

CHAIRMAN DATE

SECRETARY DATE

ENGINEER DATE



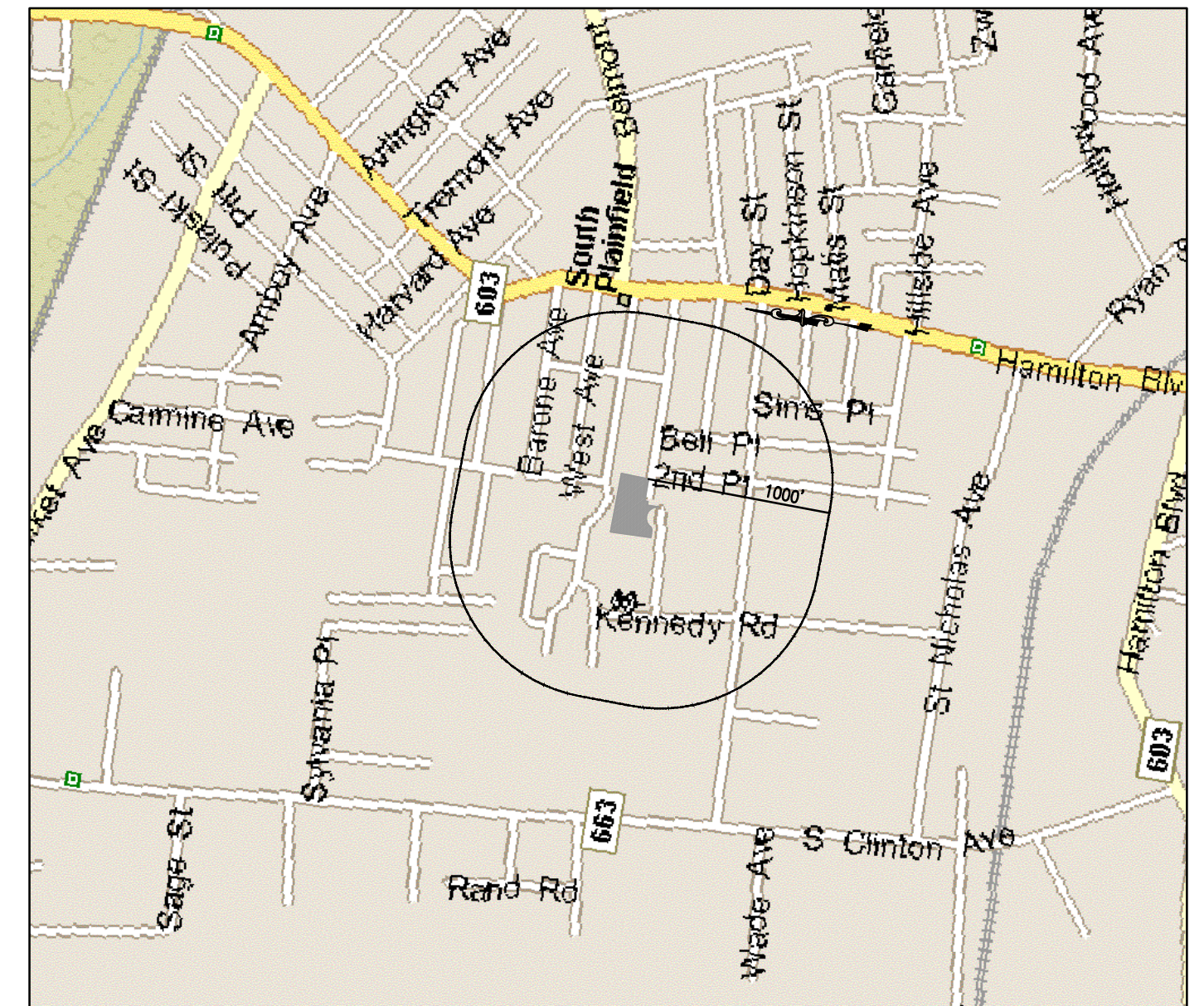
Harbor Consultants Inc.
Engineers & Surveyors
320 NORTH AVENUE EAST
CRANFORD, N.J. 07016
Phone (908) 276-2715 Fax (908) 709-1738
Email: info@harborconsultantsinc.com

PRELIMINARY & FINAL SITE PLAN
COVER SHEET

LOT No. 15, BLOCK No. 409

SCALE:	DATE:	DESIGNED BY:	DRAWN BY:	WORK FILE:	CERTIFICATE OF AUTHORIZATION No.	PROJECT No.
AS SHOWN	11/30/06	A.G.	S.B.	2006085 COVER	24GA27962100	2006085

VICTOR E. VINEGRA
PROFESSIONAL ENGINEER & LAND SURVEYOR
NEW JERSEY LICENSE No. 34460



KEY MAP

1"=1000'

BOROUGH OF SOUTH PLAINFIELD, MIDDLESEX COUNTY, NEW JERSEY
SCHEDULE OF ZONE DISTRICT AREA, YARD & BUILDING REQUIREMENTS
ZONE M-3 (INDUSTRIAL ZONE)

ITEM	REQUIRED	EXISTING	PROPOSED
MINIMUM SIZE OF LOTS			
MIN. LOT AREA	40,000 S.F.	95,125 S.F.	95,125 S.F.
MIN. LOT WIDTH	200 FT.	403.12 FT.	403.12 FT.
MIN. LOT DEPTH	200 FT.	232 FT.	232 FT.
MIN. FRONT YARD SETBACK	50 FT.	30 FT.*	30 FT./**
MIN. REAR YARD SETBACK	20 FT.	79.90 FT.	34.41 FT.
MIN. SIDE YARD SETBACK	30 FT.	49.0 FT.	30.02 FT.
MAX. BLDG. HEIGHT	50 FT.	1 STORY	1 STORY
MAX. LOT COVERAGE	50%	15.7%	32.5%
TOTAL LOT AREA COVERAGE	-	-	43.3%
OPEN SPACE	N/A	N/A	N/A

* EXISTING NON-CONFORMING CONDITION
** VARIANCE REQUIRED

PARKING CALCULATIONS

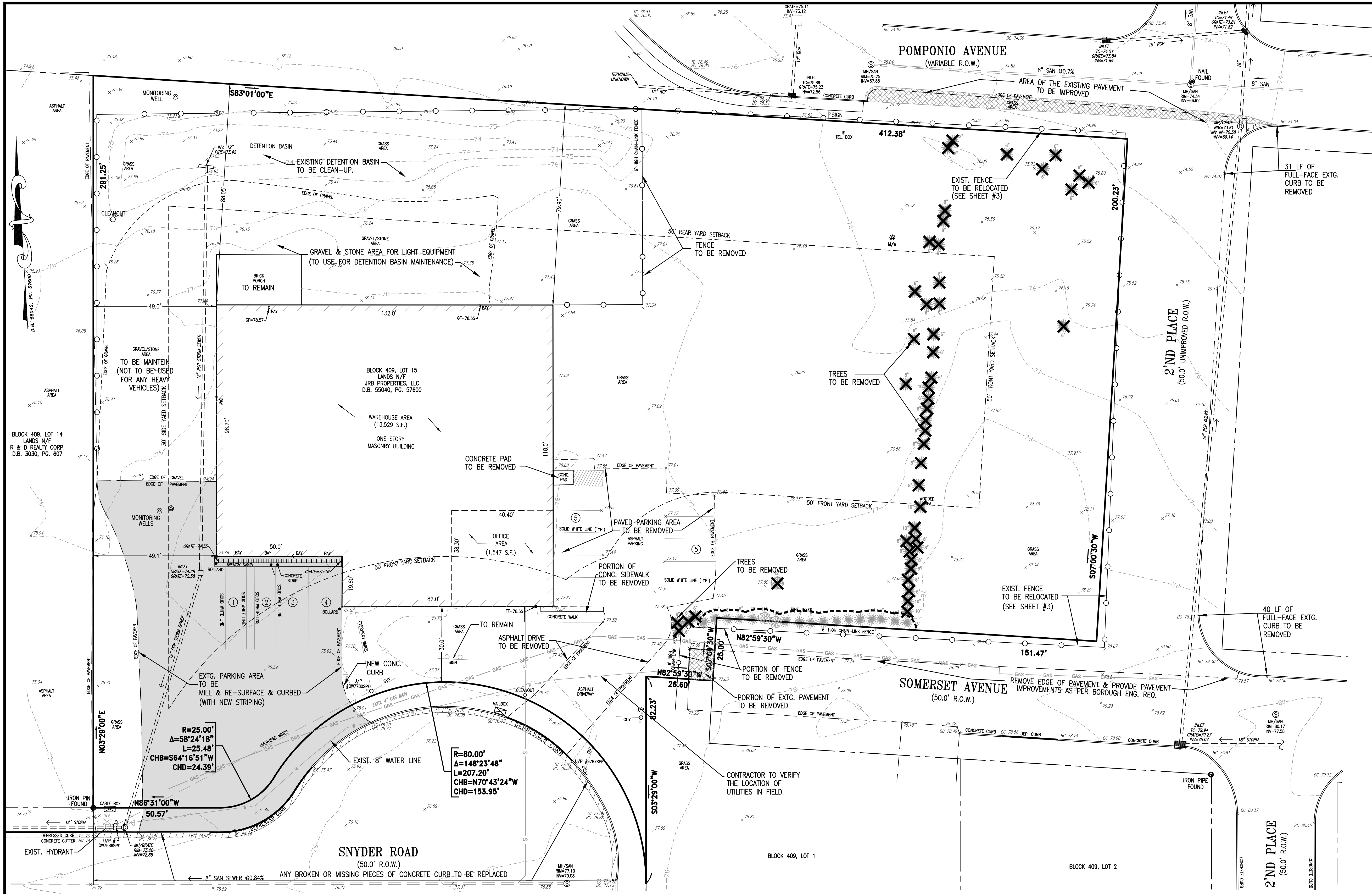
OFF-STREET PARKING:			
EXISTING CONDITIONS:			
1 - OFFICE	1 SPACE	1,547 S.F.	
REQUIRED	200 S.F.	200 S.F.	7.7 → 8 SPACES *
2 - WAREHOUSE	1 SPACE	13,529 S.F.	
REQUIRED	1,500 S.F.	1,500 S.F.	9.01 → 9 SPACES
		TOTAL =	17 SPACES REQ'D
			(1) 10 SPACES PROVIDED
3 - LOADING PARKING	1 SPACE		
	10,000-40,000 S.F.		1 SPACE - REQUIRED
			4 SPACES - PROVIDED
PROPOSED CONDITIONS:			
1 - OFFICE	1 SPACE	2,440 S.F.	
	200 S.F.	200 S.F.	12.2 → 12 SPACES REQUIRED
2 - WAREHOUSE	1 SPACE	13,263 S.F.	
	1,500 S.F.	1,500 S.F.	8.8 → 9 SPACES REQUIRED
		TOTAL PARKING REQUIRED =	38 SPACES REQ'D
		TOTAL PARKING PROVIDED =	31 SPACES (2)
		(24) PROP. + (7) EXTG. =	31
3 - LOADING PARKING REQ'D:	1 SPACE		
	10,000-40,000 S.F.		1 SPACE
		TOTAL PROVIDED =	6 SPACES

(1) EXISTING NON-CONFORMING CONDITION (2) VARIANCE REQUIRED

* 1 SPACE/200 S.F. OF FLOOR AREA OR 1 SPACE/1.5 EMPLOYEES AN THE WHICHEVER IS GREATER. 4.5 = 3 SPACES

4.5 AS 4 - FULL - TIME EMPLOYEES PLUS 1 - PARTIME OCCASIONALLY WHICHEVER IS GREATER.

N	11/28/18	AS PER BOROUGH ENGINEER		
M	6/04/18	AS PER LETTER COMMENTS FROM FREEHOLD SOIL CONSERVATION DISTRICT		
L	5/24/18	AS PER LETTER COMMENTS FROM FREEHOLD SOIL CONSERVATION DISTRICT		
K	7/30/09	SHEETS 4 AND 7		
J	6/24/09	REFUSE & RECYCLING ENCLOSURE		
I	6/16/08	AS PER BOROUGH ENGINEER LETTER		
H	6/4/08	AS PER BOROUGH ENGINEER LETTER		
G	4/7/08	PARKING CALCULATION REVISED		
F	1/14/08	AS PER LETTER OF COMMENTS		
E	11/8/07	AS PER LETTER OF COMMENTS		
D	10/8/07	AS PER LETTER OF COMMENTS		
C	7/24/07	ZONING SCHEDULE REVISED		
B	6/27/07	AS PER LETTER OF COMMENTS		
A	5/18/07	GRADING AND DRAINAGE REVISED		
REV.	DATE	DESCRIPTION	CHK'D	APP'VD



DEMOLITION NOTES:

1. WORK TO BE IN ACCORDANCE WITH ALL LOCAL AND STATE RULES AND REGULATIONS AND THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA).
2. PROTECT AT ALL TIMES ADJACENT PROPERTIES AND PUBLIC RIGHT-OF-WAYS FROM DAMAGE, DUST AND DEBRIS. PROVIDE FOR THE SAFETY OF PEDESTRIANS AT ALL TIMES.
3. ALL UNDERGROUND PIPING TO BE REMOVED SHALL BE CAPPED AT THE PROPERTY LINE.
4. THE USE OF EXPLOSIVES IS PROHIBITED WITHOUT THE REQUIRED LOCAL AND STATE PERMITS.
5. THE LOCATION OF ALL UNDERGROUND UTILITIES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE TO BE FIELD VERIFIED PRIOR TO ANY CONSTRUCTION ACTIVITIES. ANY DISCREPANCIES BETWEEN PLAN AND FIELD INFORMATION ARE TO BE REPORTED IMMEDIATELY TO HARBOR CONSULTANTS.
6. THE DISRUPTION OF EXISTING UTILITY SERVICES SHALL BE AVOIDED TO THE GREATEST EXTENT POSSIBLE. ANY REQUIRED DISRUPTION OF SERVICES SHALL BE COORDINATED IN ADVANCE WITH THE RESPECTIVE AUTHORITY AND AFFECTED USERS SHALL BE ADEQUATELY NOTIFIED.
7. ALL CONSTRUCTION DEBRIS AND REFUSE SHALL BE DISPOSED OF OFF-SITE IN AN APPROPRIATE MANNER.

GENERAL NOTES:

1. THE PREMISES SHOWN HEREON WERE SURVEYED WITHOUT THE BENEFIT OF A TITLE SEARCH AND IS SUBJECT TO SUCH FACTS AS A CURRENT TITLE SEARCH MAY DISCLOSE. THE PROPERTY ALSO MAY BE SUBJECT TO THE FOLLOWING:
 - A. RIGHTS OF CLAIMS OF PARTIES IN POSSESSION SHOWN BY THE PUBLIC RECORD.
 - B. RIGHTS OF CLAIMS OF PARTIES IN POSSESSION NOT SHOWN BY THE PUBLIC RECORD.
 - C. EASEMENTS OR CLAIMS OF EASEMENTS, SHOWN BY THE PUBLIC RECORD.
 - D. EASEMENTS OR CLAIMS OF EASEMENTS, NOT SHOWN BY THE PUBLIC RECORD.
2. NO DETERMINATIONS HAVE BEEN MADE REGARDING UNDERGROUND UTILITIES WHICH MAY EXIST, UNLESS AS SHOWN.
3. NO DETERMINATIONS HAVE BEEN MADE REGARDING HAZARDOUS MATERIAL CONDITIONS.
4. NO DETERMINATIONS HAVE BEEN MADE REGARDING WETLANDS LOCATION.
5. NO DETERMINATIONS HAVE BEEN MADE REGARDING FLOOD PLAIN LOCATION.
6. PLANIMETRIC FEATURES SHOWN HEREON HAVE BEEN DRAWN IN ACCORDANCE WITH FIELD SURVEY PERFORMED BY HARBOR CONSULTANTS, INC. OCTOBER, 2006.
7. EXISTING UTILITY INFORMATION SHOWN HEREON HAS BEEN COLLECTED FROM VARIOUS SOURCES AND IS NOT GUARANTEED AS TO ACCURACY OR 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 INVERTS, MATERIALS AND SIZES. TEST PIT INFORMATION SHALL BE GIVEN TO THE ENGINEER PRIOR TO CONSTRUCTION TO PERMIT ADJUSTMENTS AS REQUIRED TO AVOID CONFLICTS.
8. TOPOGRAPHIC INFORMATION SHOWN HEREON HAVE BEEN DRAWN IN ACCORDANCE WITH FIELD SURVEY PERFORMED BY HARBOR CONSULTANTS, INC. OCTOBER, 2006. ELEVATIONS ARE BASED ON USCG DATUM (NAVD 1988).
9. PROPERTY CORNERS HAVE NOT BEEN SET PER CONTRACT AGREEMENT.
10. TOTAL COMBINED AREA=95,125 sq. ft. OR 2.184 ACRES
11. PROPERTY KNOWN AS LOTS 15 AND 16 ON A PLAN ENTITLED "PLANNED INDUSTRIAL ROUTE 287 CENTER-SECTION NO. 10, BOROUGH OF SOUTH PLAINFIELD, MIDDLESEX COUNTY, NJ" DATED 03-18-74, FILED IN THE MIDDLESEX CO. CLERK'S OFFICE AS MAP #3741, FILE 961, ON 10-07-74.
12. THE APPLICANT WILL PROVIDE A GENERAL SITE CLEAN-UP AND REMOVE EXISTING SOIL STOCK PILE IN THE REAR OF THE BUILDING. SOIL STOCK PILE MAY BE UTILIZED AS PER BOROUGH ENGINEER APPROVEMENT.
13. THE APPLICANT WILL PROVIDE CLEAN-UP AND PROPER MAINTENANCE FOR EXISTING DETENTION BASIN.

DIG SAFELY - NEW JERSEY

CALL BEFORE YOU DIG
1-800-272-1000
IT'S THE LAW

DigiSafely

NEW JERSEY ONE CALL
CONTRACTORS SHALL CALL 1-800-272-1000
MINIMUM THREE DAYS, MAXIMUM 10 DAYS NOTICE PRIOR TO BEGINNING EXCAVATION

TEMPORARY MECHANICAL TREE PROTECTION DETAIL

N.T.S.

EXISTING TREE LEGEND:
TREES AS SHOWN ARE 4" CALIPER AND ABOVE

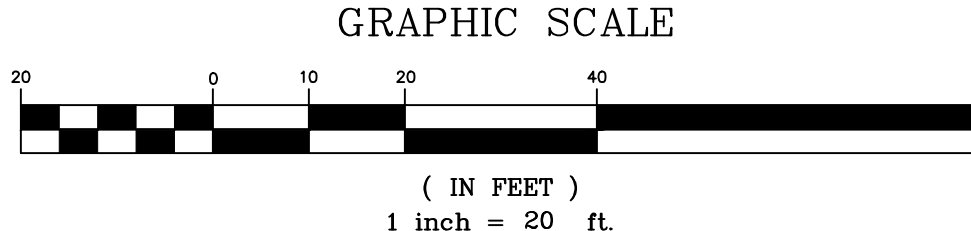
SYMBOL	SPECIES	QUANTITY
	OAK	3
	PINE	62
TOTAL		65

PROPOSED TREE TO BE REMOVED (TYP.) FOR REMOVAL DETAILS & REPLACEMENT SEE TREE MANAGEMENT NOTES.

PROPOSED MECHANICAL TREE PROTECTION (TYP.) SEE DETAIL.

TREE MANAGEMENT PLAN SCHEDULE (TREES WITHIN AREA OF DISTURBANCE)						
EXISTING TREES 4" TO <16"	EXISTING TREES 16" TO <18"	TREES REMOVED DUE TO IMPROV. 6" TO 16"	NUMBER OF TREES REMOVED TO BE REPLACED	NUMBER OF TREES REMOVED TO BE REPLACED	NUMBER OF SAVED TREES REQUIRING MECH. PROTECTION	NUMBER OF TREES PROVIDED
65	0	47	72%	16	61	108

(*) AS PER ORDINANCE (BUILDING PERIMETER AREA)



REV.	DATE	DESCRIPTION	CHK'D	APP'D
N	11/28/18	AS PER BOROUGH ENGINEER		
I	5/24/18	AS PER LETTER COMMENTS FROM FREEHOLD SOIL CONSERVATION DISTRICT		
H	6/4/08	AS PER BOROUGH ENGINEER LETTER		
G	4/30/08	AS PER LETTER OF COMMENTS		
F	1/14/08	AS PER LETTER OF COMMENTS		
E	11/8/07	AS PER LETTER OF COMMENTS		
D	10/8/07	AS PER LETTER OF COMMENTS		
B	7/24/07	INFORMATION ADDED		
A	6/27/07	AS PER LETTER OF COMMENTS		

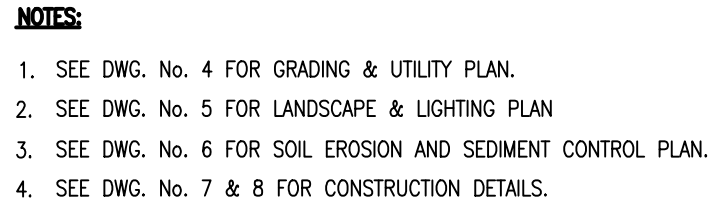
Harbor Consultants Inc.
Engineers & Surveyors
320 NORTH AVENUE EAST
CRANFORD, N.J. 07016
Phone (908) 276-2715 Fax (908) 709-1738
Email: info@harborconsultantsinc.com

PRELIMINARY & FINAL SITE PLAN
**EXISTING CONDITIONS & DEMOLITION PLAN
& TREE MANAGEMENT PLAN**
LOT 15, BLOCK 409
SOUTH PLAINFIELD BOROUGH MIDDLESEX COUNTY NEW JERSEY

SCALE: 1"=20' DATE: 11/29/06 DESIGNED BY: A.G. DRAWN BY: S.B. WORK FILE: 2006085-Exon&Demo

CERTIFICATE OF AUTHORIZATION No. 246427962100 PROJECT No. 2006085

VICTOR E. VINEGRA
N.J. P.E. & L.S. Lic. No. 34460



M	11/28/18	AS PER BOROUGH ENGINEER		
L	5/24/18	AS PER LETTER COMMENTS FROM FREEHOLD SOIL CONSERVATION DISTRICT		
J	6/24/09	REFUSE & RECYCLING ENCLOSURE		
I	6/16/08	AS PER BOROUGH ENGINEER LETTER		
H	6/4/08	AS PER BOROUGH ENGINEER LETTER		
G	4/30/08	AS PER LETTER OF COMMENTS		
F	1/14/08	AS PER LETTER OF COMMENTS		
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D	10/8/07	AS PER LETTER OF COMMENTS		
B	6/27/07	AS PER LETTER OF COMMENTS		
A	5/18/07	GRADING & DRAINAGE REVISED		
REV.	DATE	DESCRIPTION	CHK'D	APPY'D

Harbor Consultants Inc.
Engineers & Surveyors
320 NORTH AVENUE EAST
CRANFORD, N.J. 07016
Phone (908) 276-2715 Fax (908) 709-1738

PRELIMINARY & FINAL SITE PLAN
LAYOUT & DIMENSIONING PLAN



VICTOR E. VINEGRA
PROFESSIONAL ENGINEER & LAND SURVEYOR
NEW JERSEY LICENSE No. 34460

CERTIFICATE OF AUTHORIZATION No.	PROJECT No.
24CA27062100	20060

3

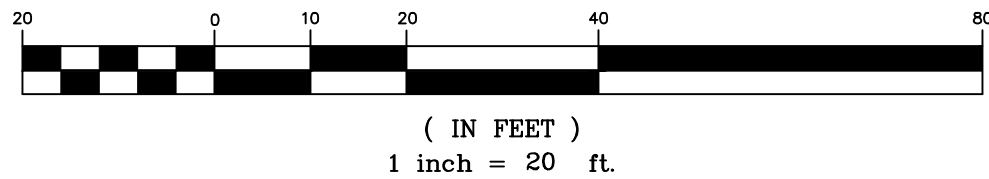
SCALE: 1"=20'	DATE: 11/30/06	DESIGNED BY: A C	DRAWN BY: S B	WORK FILE: 2006085-1 & D	CERTIFICATE OF AUTHORIZATION No. 24CA27062100	PROJECT No: 2006085
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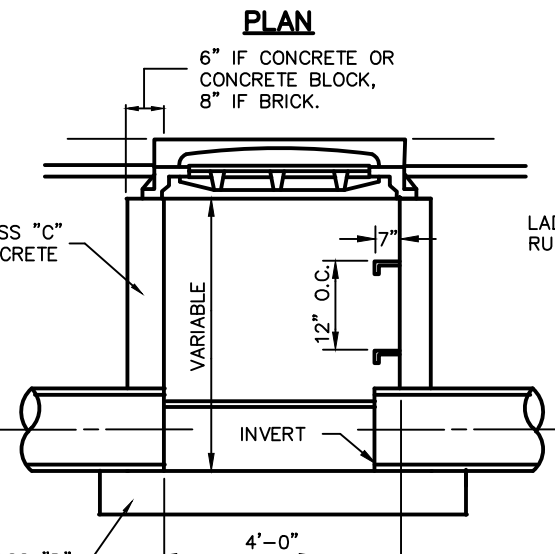
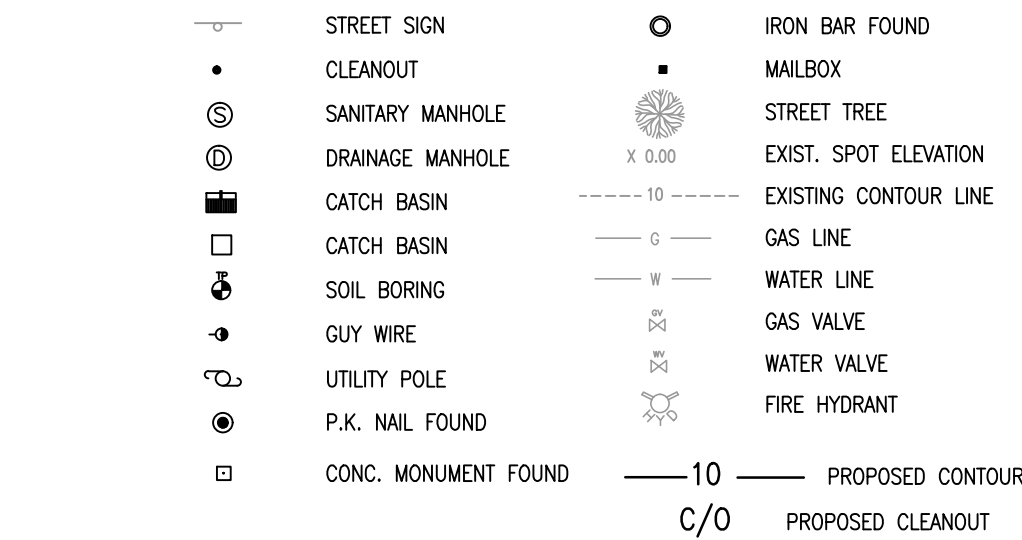
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THE COPYING OR REUSE OF THIS DOCUMENT, OR PORTIONS THEREOF, FOR OTHER THAN THE ORIGINAL PROJECT OR THE PURPOSE ORIGINALLY INTENDED, WITHOUT THE WRITTEN PERMISSION OF HARBOR CONSULTANTS INC. IS PROHIBITED.

LEGEND

- | | | | |
|---|----------------------|---|-----------------------|
|  | STREET SIGN |  | IRON BAR FOUND |
|  | CLEANOUT |  | MAILBOX |
|  | SANITARY MANHOLE |  | STREET TREE |
|  | DRAINAGE MANHOLE |  | EXIST. SPOT ELEVATION |
|  | CATCH BASIN |  | EXISTING CONTOUR LINE |
|  | CATCH BASIN |  | GAS LINE |
|  | SOIL BORING |  | WATER LINE |
|  | GUY WIRE |  | GAS VALVE |
|  | UTILITY POLE |  | WATER VALVE |
|  | P.K. NAIL FOUND |  | FIRE HYDRANT |
|  | CONC. MONUMENT FOUND |  | PROPOSED CONTOUR |
| | |  | PROPOSED CLEANOUT |

GRAPHIC SCALE





TYPE "B" INLET



NOTES:

1. INVERTS TO BE ELIMINATED IN BOTTOM OF TERMINAL INLETS. BOTTOMS SHALL BE DISHED AND SLOPED TOWARDS THE OUTLET PIPE AT A RATE OF GRADE OF 2 INCHES PER FOOT.
2. THIS INLET MAY BE CONSTRUCTED OF BRICK, CONCRETE OR CONCRETE BLOCK. IF BRICK OR CONCRETE BLOCK IS USED, THE BOTTOM SHALL BE AS SHOWN FOR CONCRETE & THE OUTSIDE OF THE WALLS SHALL BE PLASTERED WITH 1/2" COAT OF 1:2 CEMENT SAND MORTAR.
3. INLET FRAME AND GRATES TO BE CAMPBELL FOUNDRY PATTERN NO. 3404 OR APPROVED EQUAL.

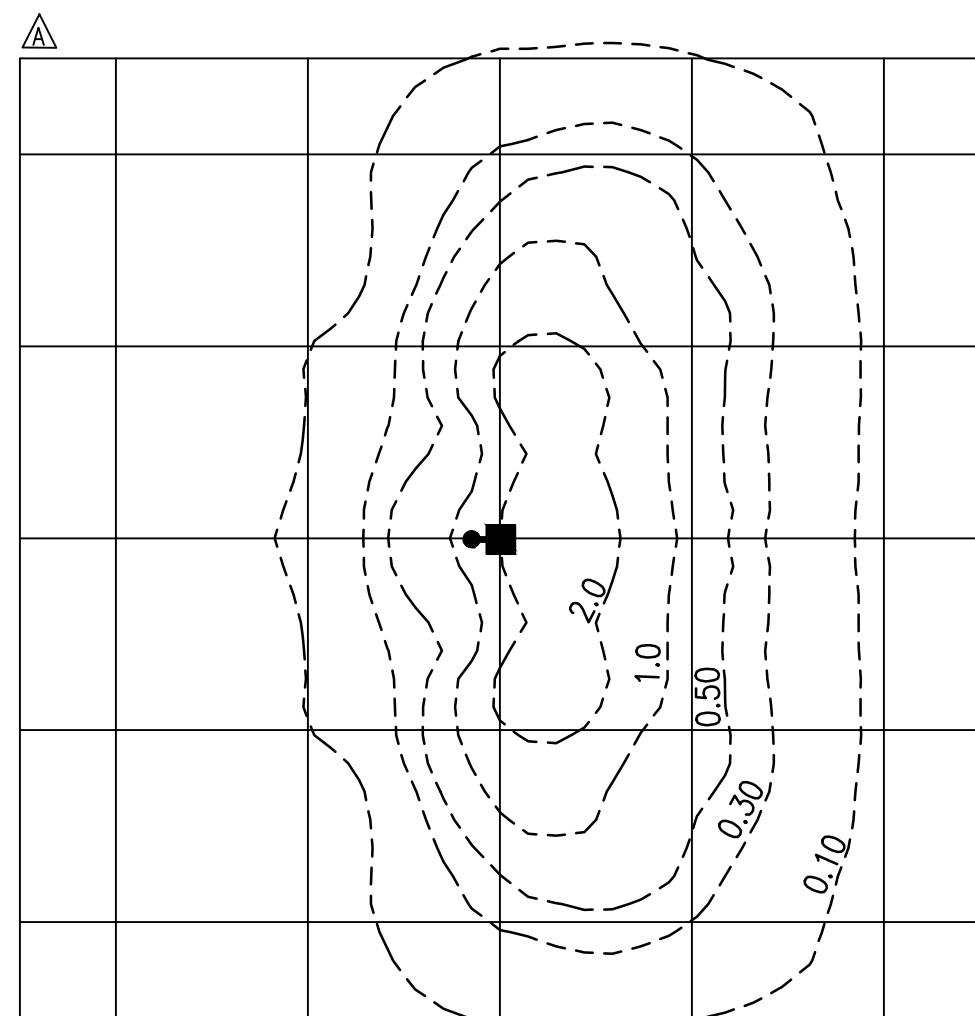
1. LOT AREA = 95,125 S.F. OR 2.184 AC.
2. SEE DRAWING NO. 5 FOR LANDSCAPE & LIGHTING PLAN.
3. SEE DRAWING NO. 6 FOR SOIL EROSION AND SEDIMENT CONTROL PLAN.
4. SEE DRAWING NO. 7 & 8 FOR CONSTRUCTION DETAILS.
5. AS BUILT DRAWINGS MUST BE SUBMITTED TO THE BOROUGH ENGINEER'S OFFICE FOR APPROVAL PRIOR TO THE ISSUANCE OF CERTIFICATION OF OCCUPANCY. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE APPROVAL PLANS.
6. ALL GRADING OF LAWN AREAS SHOULD BE A MINIMUM OF 2% AND A MAXIMUM OF 3 FEET HORIZONTALLY TO 1 FOOT VERTICALLY.
7. LOCATION AND INSTALLATION OF REMAINING UTILITY SERVICES - I.E., ELECTRIC, GAS, CATV - TO BE COORDINATED WITH THE RESPECTIVE UTILITY COMPANIES SERVING THIS AREA.
8. A MAINTENANCE PLAN FOR THE PROPOSED STORMWATER MANAGEMENT SYSTEM MUST BE SUBMITTED USING THE NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION'S "STORMWATER BEST MANAGEMENT PRACTICES" MANUAL AS A GUIDELINE. THIS PLAN MUST INCLUDE THE NAME, ADDRESS AND TELEPHONE NUMBER OF THE PERSON OR PERSONS RESPONSIBLE FOR THE LONG TERM MAINTENANCE OF THE SYSTEM.

PURSUANT TO N.J.A.C. 7-14-A-22 THE FOLLOWING IS THE
ESTIMATED WASTE WATER FLOW:

WAREHOUSE-TYPE OF ESTABLISHMENT 25 GPD/EMPLOYEE
FOR 10 EMPLOYEES - 250 GPD

THE ABOVE OUTFLOW WILL BE LESS THAN 8,000 GPD
THUS NOT REQUIRING AN NJ DEP TREATMENT FLOWS APPROVAL.

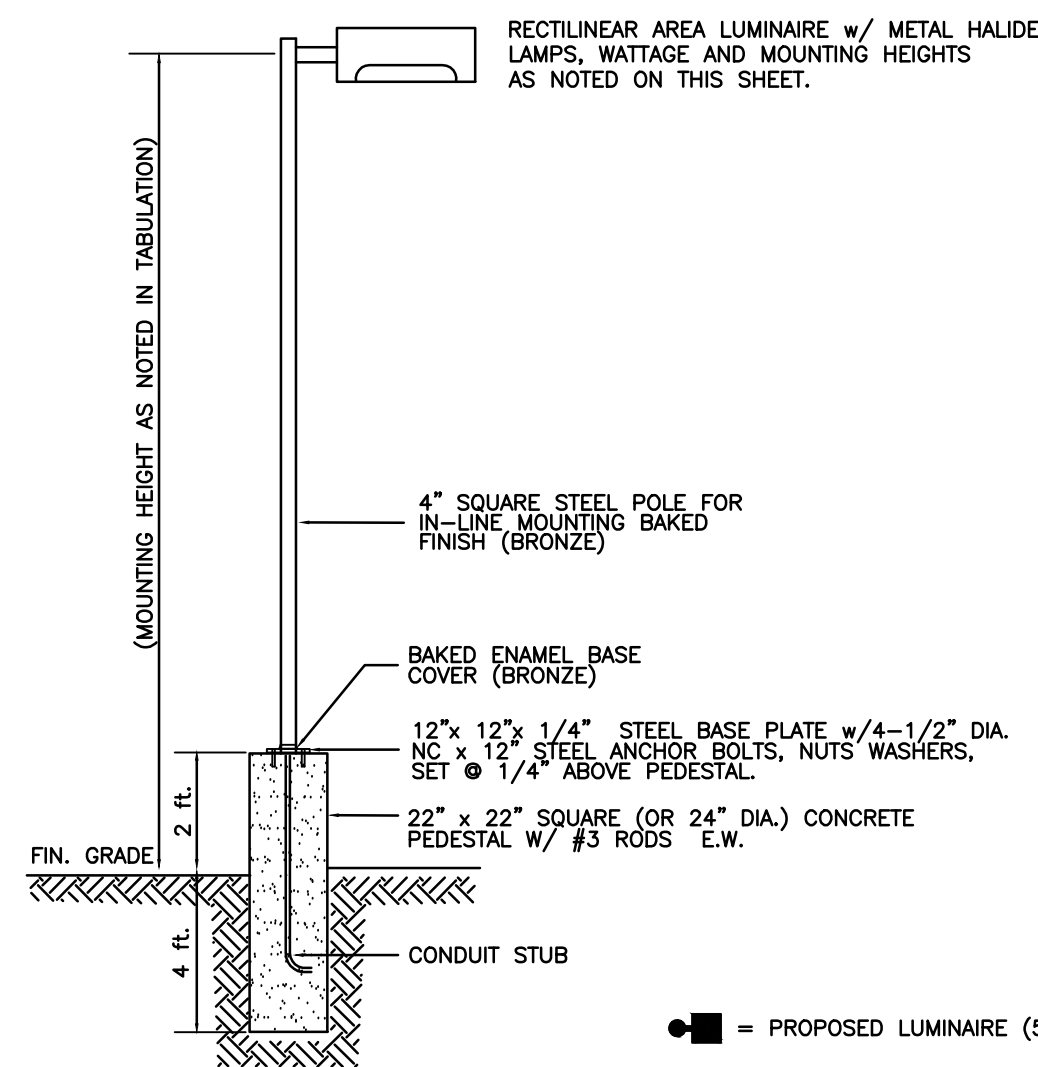
4
VICTOR E. VINEGRA
 PROFESSIONAL ENGINEER & LAND SURVEYOR
 NEW JERSEY LICENSE No. 34460



EMCO 250W HPS, SINGLE UNIT, TYPE III w/HSS
22 FT. MOUNTING HEIGHT.

ISOLUX PATTERNS FOR PROPOSED LUMINAIRES

SCALE: AS SHOWN



● = PROPOSED LUMINAIRE (5 TOTAL)

LIGHTING FIXTURE DETAIL

LIGHTING SCHEDULE (BY EMCO CATALOG)			
KEY	QUANTITY	DESCRIPTION	MOUNTING HEIGHT
A	3	EMCO 250W HPS, SINGLE UNIT, TYPE III	22 ft.
B	3	EMCO 250W HPS, SINGLE UNIT, TYPE III WALL MOUNTED	18 ft.

N	11/28/18	AS PER BOROUGH ENGINEER		
J	5/24/18	AS PER LETTER COMMENTS FROM FREEHOLD SOIL CONSERVATION DISTRICT		
I	6/24/09	REFUSE & RECYCLING ENCLOSURE		
H	6/4/08	AS PER BOROUGH ENGINEER LETTER		
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F	1/14/08	AS PER LETTER OF COMMENTS		
E	11/8/07	AS PER LETTER OF COMMENTS		
D	10/8/07	AS PER LETTER OF COMMENTS		
A	6/27/07	GRADING & DRAINAGE REVISED		
REV.	DATE	DESCRIPTION	CHK'D	APPV'D



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MIDDLESEX COUNTY NEW JERSEY

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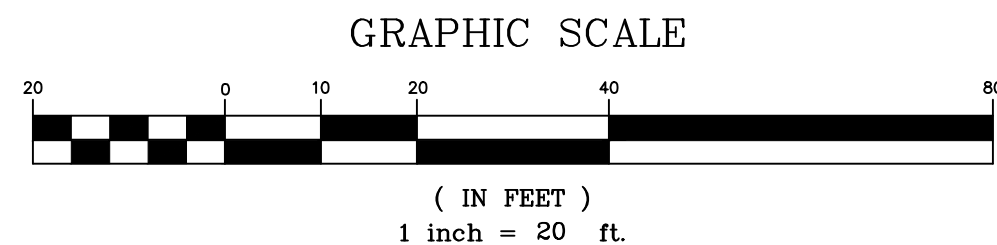
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1. THE CONTRACTOR SHALL LOCATE AND VERIFY THE EXISTENCE OF ALL UTILITIES PRIOR TO STARTING WORK.
2. THE CONTRACTOR SHALL SUPPLY ALL PLANT MATERIAL IN QUANTITIES SUFFICIENT TO COMPLETE THE WORK SHOWN ON THE LANDSCAPING PLANS.
3. ALL PLANT MATERIAL SHALL CONFORM TO THE GUIDELINES ESTABLISHED BY THE CURRENT AMERICAN STANDARD FOR NURSERY STOCK, PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN OR EQUIVALENT.
4. NO PLANT SHALL BE PUT INTO THE GROUND BEFORE GRADING HAS BEEN FINISHED.
5. ALL PLANTS SHALL BEAR THE SAME RELATIONSHIP TO FINISHED GRADE AS THE PLANT'S ORIGINAL GRADE BEFORE DIGGING.
6. ALL PLANTS SHALL BE BALLED AND WRAPPED OR CONTAINER GROWN AS SPECIFIED ON THE CONTRACTOR'S PLANS. BALLS WILL BE ACCEPTED IF THE ROOT BOUND. ALL ROOT WRAPPING MATERIAL MADE OF SYNTHETICS OR PLASTICS SHALL BE REMOVED AT THE TIME OF PLANTING.
7. WITH CONTAINER GROWN STOCK, THE CONTAINER SHALL BE REMOVED AND THE CONTAINER BALL SHALL BE CUT THROUGH THE SURFACE IN THREE VERTICAL LOCATIONS.
8. THE DAY PRIOR TO PLANTING, THE LOCATION OF ALL TREES AND SHRUBS SHALL BE STAKED IN THE FIELD. AT THAT TIME, THE LOCATIONS OF THE PLANTING MATERIAL SHALL BE APPROVED BY THE PROJECT LANDSCAPE ARCHITECT.
9. ALL PLANT MATERIAL SHALL BE SELECTED AT THE NURSERIES BY THE PROJECT LANDSCAPE ARCHITECT.
10. ALL PLANTS SHALL BE TAGGED AT THE NURSERY, INDICATING BOTANICAL NAME, COMMON NAME, VARIETY AND SIZE. IT IS ASSUMED THAT ALL PLANT MATERIAL IS AVAILABLE IN CENTRAL NEW JERSEY.
11. AT PLANTING TIME, ALL PLANTS SHALL BE THINNED BY REMOVING A BALANCED ONE - THIRD OF THE VEGETATION MATERIAL.
12. ALL TREES TO BE PRUNED OF FORM AND CLEAR OF BRANCHES TO SEVEN FEET ABOVE GROUND.

13. ALL PLANTS SHALL BE SPRAYED WITH AN ANTIDOTSICANT WITH 24 HOURS AFTER PLANTING.
14. ALL PLANTS SHALL BE INSTALLED AS PER DETAILS.
15. ALL PLANTS AND STIKES SHALL BE SET PLUMB UNLESS OTHERWISE SPECIFIED.
16. TOPSOIL SHALL BE SANDY LOAM, FREE FROM SUBSOL, STONES LARGER THAN ONE INCH AND ANY UNDESIRABLE MATERIAL. A CERTAINING ORGANIC MATTER, PH. 5.0 TO 6.5.
17. ALL PLANTS SHALL BE WATERED THOROUGHLY, TWICE DURING THE FIRST 24-HOUR PERIOD AFTER PLANTING. ALL PLANTS SHALL BE WATERED WEEKLY OR MORE OFTEN, IF NECESSARY, DURING THE FIRST GROWING SEASON.
18. ALL PLANTS AND THE ENTIRE SHRUB BED SHALL RECEIVE A MINIMUM OF A 4 INCH LAYER OF SHEPHERD HAWKWOOD BARK MULCH. MUCH ALL MULCH SHALL BE 3 INCHES DEEP.
19. TREE STAKES AND GUY WIRES TO BE CHECKED AFTER FIRST YEAR ALONG WITH CONDITIONS OF PLANT MATERIAL. STAKES AND GUY WIRES SHALL BE REMOVED AFTER A ONE YEAR PERIOD.
20. CONSTRUCTION OR SEED ALL DISTURBED AREAS AS A RESULT OF ANY AND ALL CONSTRUCTION OR STORAGE EQUIPMENT, WHETHER AREAS ARE SHOWN ON THE PLANS OR NOT. CONTRACTOR TO FILL VERTY AREAS OF SEED.
21. THE FOLLOWING SEED MIXTURES SHALL BE USED WITHIN THE AREAS SPECIFIED:

<u>LAWN AREAS</u>	
KENTUCKY BLUE GRASS	Ø 30 LBS./ACRE
HARD FESCUE	Ø 30 LBS./ACRE
PERENNIAL RYEGRASS	Ø 30 LBS./ACRE
22. OPTIMUM SEEDING DATES: 2/15 TO 5/1 AND 6/15 TO 10/15
23. NO GRADING, PLANTING OR STRUCTURE SHALL BE EXERCISED OR MAINTAINED MORE THAN 10 FEET FROM THE EXISTING STREET CENTER LINE IN THE ESTABLISHED RIGHT TRIANGLES.
24. SHOULD DISCREPANCIES OCCUR BETWEEN THE QUANTITY OF PLANTINGS SHOWN ON THE PLANTING SCHEDULE AND THE PLANS, THE NUMBER AS SHOWN ON THE PLANS SHOULD BE USED.
25. ALL PLANTING OF A SIDEWALK, CURB OR PAVEMENT AREA SHALL BE PROVIDED WITH A ROOT BARRIER PRODUCT.



ING NOTES:

1. PLANTING DEPTH SHALL BE THE SAME AS GROWN IN NURSERY

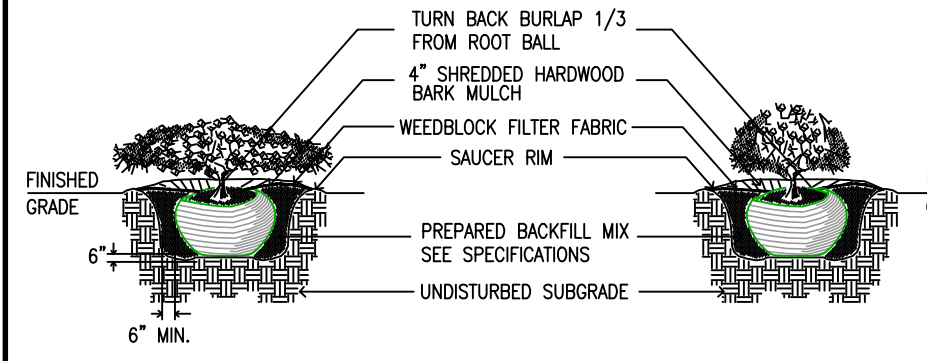
The diagram illustrates the correct planting depth for a tree. It shows a cross-section of a tree being planted in a hole. The hole is filled with soil, and the tree is positioned so that its base is at the same depth as it was in the nursery. The diagram includes labels for 'THREE FEET VARIES' and 'FINISHED GRADE'.

CONIFEROUS TREE PLANTING DETAIL



RUBBER HOSE (1/2"
RDWOOD STAKES
HT. - 3 PER TREE
BURLAP 1/3
BALL
HARDWOOD
CKFILL MIX
ATIONS
SUBGRADE

SHRUB PLANTING DETAIL



PLANTING NOTES

1. PLANTING DEPTH SHALL BE THE SAME AS GROWN IN NURSERY.

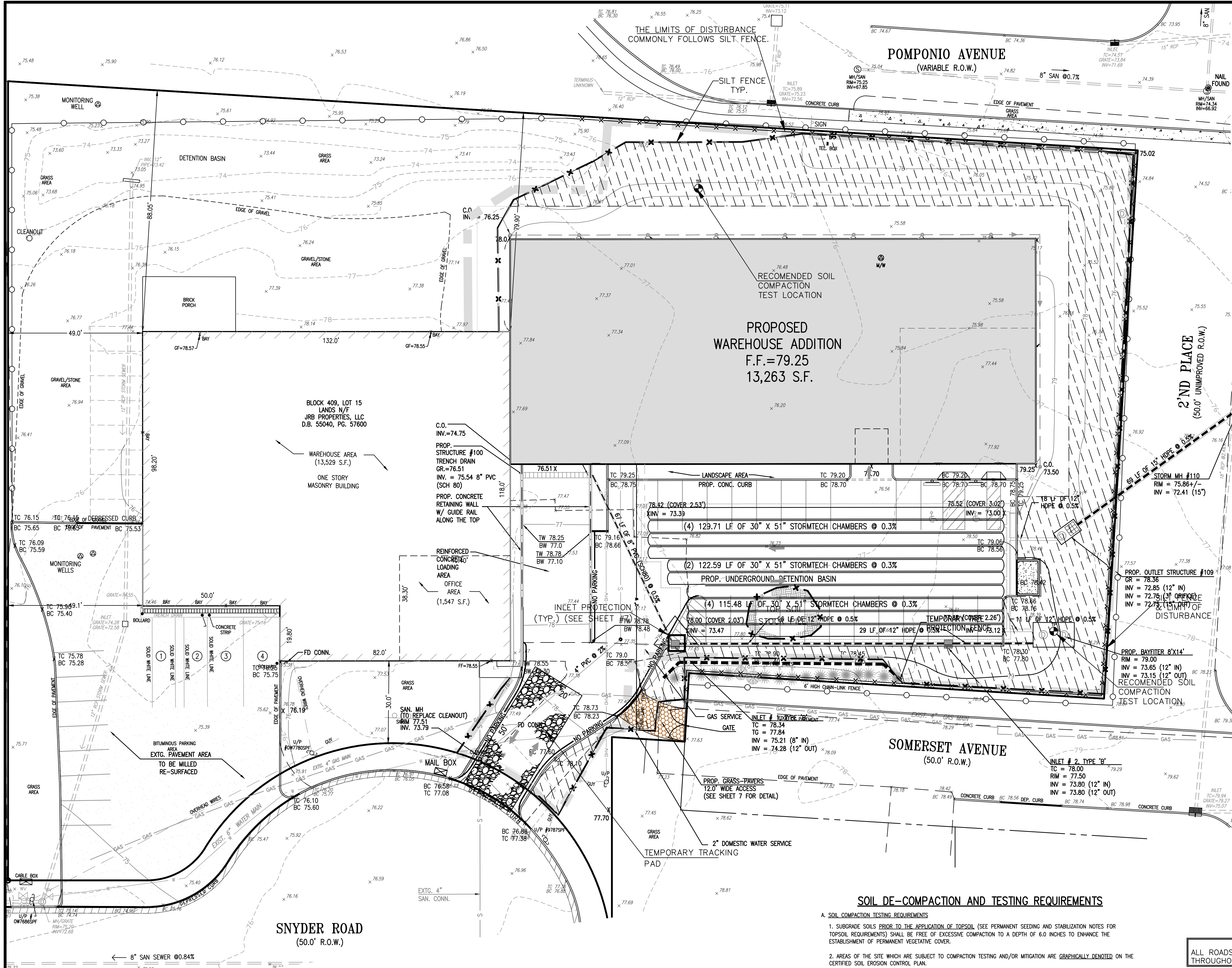
PLANT LIST

KEY	QTY	BOTANICAL NAME	COMMON NAME	DESCRIPTION		COMMENTS
				HEIGHT	ROOT	
PA	144	Picea Abies	Norway Spruce	8-10 feet	B & B	
CS	11	Cornus Alba 'Sibirica'	Red Twig Dogwood	2'-3'	#5 Can	

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STANDARD FOR STABILIZATION WITH MULCH ONLY

(REVISED PER "NJ STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL" 7th EDITION, DECEMBER 2017)

- METHODS AND MATERIALS**
- I. SITE PREPARATIONS**
- 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.
- B. INSTALL NEEDED EROSION CONTROL PRACTICES OR FACILITIES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENT BASINS, AND WATERWAYS. SEE STANDARDS 11 THROUGH 42.
- II. PROTECTIVE MATERIALS:**
- A. UNWEIGHTED SMALL-GRAIN STRAW, AT 2.0 TO 2.5 TONS PER ACRE, IS SPREAD UNIFORMLY AT 90 TO 115 POUNDS PER 1,000 SQUARE FEET AND ANCHORED WITH A MULCH ANCHORING TOOL, LIQUID MULCH BINDERS, OR NETTING THE DOWN. OTHER SUITABLE MATERIALS MAY BE USED IF APPROVED BY THE SOIL CONSERVATION DISTRICT. THE APPROVED RATES ABOVE HAVE BEEN MET WHEN THE MULCH COVERS THE GROUND COMPLETELY UPON VISUAL INSPECTION, I.E. THE SOIL CANNOT BE SEEN BELOW THE MULCH.
- B. (ELIMINATED FROM 7th EDITION, JANUARY 2014)
- 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 AT THE RATE OF 1,500 POUNDS PER ACRE (OR ACCORDING TO THE MANUFACTURER'S REQUIREMENTS) MAY BE APPLIED BY A HYDROSEDER.
- E. MULCH NETTING, SUCH AS PAPER JUTE, EXCELISOR, COTTON, 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 AN INLET AND PLUG IT.
- G. GRAVEL, CRUSHED STONE, OR SLAG AT THE RATE OF 9 CUBIC YARDS PER 1,000 SQ. FT. APPLIED UNIFORMLY TO A MINIMUM DEPTH OF 3 INCHES MAY BE USED. SIZE 2 OR 3 (ASTM C-33) IS RECOMMENDED.
- III. 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 TWINE:
DRIVE 8 TO 10 INCH WOODEN PEGS TO WITHIN 2 TO 3 INCHES OF THE SOIL SURFACE EVERY 4 FEET IN ALL DIRECTIONS. STAKES MAY BE DRIVEN BEFORE OR AFTER APPLYING MULCH. SECURE MULCH TO SOIL SURFACE BY STRETCHING TWINE BETWEEN PEGS IN A CRISS-CROSS AND A SQUARE PATTERN. SECURE TWINE AROUND EACH PEG WITH TWO OR MORE ROUND TURNS.
- B. MULCH NETTINGS:
STAPLE PAPER, COTTON, OR PLASTIC NETTINGS OVER MULCH. USE A DEGRADABLE NETTING IN AREAS TO BE MOWED. NETTING IS USUALLY AVAILABLE IN ROLLS 4 FEET WIDE AND UP TO 300 FEET LONG.
- C. CRIMPER MULCH ANCHORING COULTER 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 THOSE SLOPES UPON WHICH THE TRACTOR CAN OPERATE SAFELY. SOIL PENETRATION SHOULD BE DONE ABOUT 3 TO 4 INCHES. ON SLOPING LAND, THE OPERATION SHOULD BE DONE ON THE CONTOUR.
- D. LIQUID MULCH-BINDERS:
1. 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.
2. USE ONE OF THE FOLLOWING:
A. ORGANIC AND VEGETABLE BASED BINDERS - NATURALLY OCCURRING, POWDER BASED, HYDROPHILIC MATERIALS THAT MIX WITH WATER FORMULATES A GEL AND WHEN APPLIED TO MULCH UNDER SATISFACTORY CURING CONDITIONS WILL FORM MEMBRANED NETWORKS OF INSOLUBLE POLYMERS. THE VEGETABLE GEL SHALL BE PHYSIOLOGICALLY HARMLESS AND NOT RESULT IN A PHYTOXIC EFFECT OR INHIBIT GROWTH OF TURFGRASSES. VEGETABLE BASED GELS SHALL BE APPLIED AT RATES AND WEATHER CONDITIONS RECOMMENDED BY THE MANUFACTURER.
- B. 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 DISPENSIBLE IN WATER. IT SHALL BE APPLIED AT RATES AND WEATHER CONDITIONS RECOMMENDED BY THE MANUFACTURER AND REMAIN TACKLY UNTIL GERMINATION OF GRASS.

SEEDING SCHEDULE

- (REVISED PER "NJ STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL" 7th EDITION, DECEMBER 2017)
1. REMOVE FROM THE SURFACE ALL STONES TWO INCHES OR LARGER IN ANY DIMENSION, REMOVE ALL OTHER DEBRIS, SUCH AS WIRE, CABLE, TREE ROOTS, PIECES OF CONCRETE, CLOUDS, LUMPS OR OTHER UNSUITABLE MATERIAL.
2. INSPECT SEEDBED JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT SOIL COMPACTED, THE AREA MUST BE RETILLED AND FIRMED AS ABOVE.
3. APPLY GROUND LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST RECOMMENDATIONS SUCH AS OFFERED BY RUTGERS CO-OPERATIVE EXTENSION. SOIL SAMPLE MAULERS ARE AVAILABLE FROM THE LOCAL RUTGERS COOPERATIVE EXTENSION OFFICES. FERTILIZER SHALL BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE OR 11 POUNDS PER 1,000 SQUARE FEET OF 10-20-20 OR EQUIVALENT WITH 50% WATER INSOLUBLE NITROGEN. SOIL TEST INDICATES OTHERWISE. APPLY LIMESTONE AT THE RATE OF 2 TONS/ACRE UNLESS SOIL TESTING INDICATES OTHERWISE. CALCIUM CARBONATE IS THE EQUIVALENT AND STANDARD FOR MEASURING THE ABILITY OF LIMING MATERIALS TO NEUTRALIZE SOIL ACIDITY AND SUPPLY CALCIUM AND MAGNESIUM TO GRASSES AND LEGUMES.
4. PERMANENT SEEDING SHALL CONSIST OF THE FOLLOWING MIXTURE OR APPROVED EQUAL:
SITE CONTAINS SOIL HALEDON-URBAN LAND-HASBROUCK COMPLEX, 0 TO 8 PERCENT SLOPES CLASSIFIED AS "SOMEWHAT POORLY DRAINAGE" AS PER NJ WEB SOIL SURVEY DATA.
PLANTING MIXTURE TO BE USED: MIX-16 (RESIDENTIAL/COMMERCIAL USE)
ROUGH BLUEGRASS @ 90 lb./Ac.
STRONG CREEPING RED FESCUE @ 130 lb./Ac.
SITE IS LOCATED WITHIN USDA PLANT HARDINESS ZONE 6b, PLANTING DATES:
ACCEPTABLE DATE: 3/01 TO 4/30
ACCEPTABLE DATE: 5/01 TO 8/14 (**)
OPTIMAL DATE: 8/15 TO 10/15
(**) SUMMER SEEDINGS SHOULD ONLY BE CONDUCTED WHEN THE SITE IS IRRIGATED. MAKES INCLUDING WHITE CLOVER REQUIRE THAT AT LEAST SIX SEEDS OF GROUND COVER REMAIN AFTER SEEDING TO ENSURE ESTABLISHMENT BEFORE FREEZING CONDITIONS.
5. "PERMANENT SEEDING TO BE APPLIED BY CYCLONE SPREADER OR OTHER APPROVED METHOD, AT A RATE OF 150#/ACRE. SLOPED AREA TO BE COVERED WITH MULCH AS INDICATED IN NOTE 6".
6. FERTILIZER FOR THE ESTABLISHMENT OF PERMANENT VEGETATIVE COVER SHALL BE 10-10-10 APPLIED AT A RATE OF 11lb/1000 SF OR AS DETERMINED BY SOIL TESTS. LIMESTONE APPLICATION RATES SHALL BE DETERMINED THROUGH SOIL TEST RESULTS.
7. IF SEASON PREVENTS THE ESTABLISHMENT OF TEMPORARY OR PERMANENT SEEDING, EXPOSED AREA TO BE STABILIZED WITH MULCH
8. ALL SEEDED AREAS SHALL BE MULCHED. MULCH SHALL CONSIST OF SMALL GRAIN STRAW OR SALT HAY ANCHORED WITH A WOOD AND FIBER MULCH BINDER, LIQUID MULCH BINDER, OR AN APPROVED EQUAL AT A RATE OF 70-90 LBS. PER 1000 SF.

SOIL EROSION AND SEDIMENT CONTROL NOTES

1. THE FREEHOLD SOIL CONSERVATION DISTRICT SHALL BE NOTIFIED FORTY-EIGHT (48) HOURS IN ADVANCE OF ANY LAND DISTURBING ACTIVITY.
2. ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES ARE TO BE INSTALLED PRIOR TO ANY MAJOR SOIL DISTURBANCES, OR IN THEIR PROPER SEQUENCE, AND MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED.
3. ANY CHANGES TO THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLANS WILL REQUIRE THE SUBMISSION OF 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.
4. N.J.S.A. 4:24-39 ET SEQ. REQUIRES THAT NO CERTIFICATES OF OCCUPANCY BE ISSUED BEFORE THE DISTRICT DETERMINES THAT A PROJECT OR PORTION THEREOF IS IN A FULL COMPLIANCE WITH THE CERTIFIED PLAN AND STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY AND A REPORT OF COMPLIANCE HAS BEEN ISSUED. UPON WRITTEN REQUEST FROM THE APPLICATION, THE DISTRICT MAY ISSUE A REPORT OF COMPLIANCE WITH CONDITIONS ON A LOT-BY-LOT OR SECTION-BY-SECTION BASIS, PROVIDED THAT THE PROJECT OR PORTION THEREOF IS IN SATISFACTORY COMPLIANCE WITH THE SEQUENCE OF DEVELOPMENT AND TEMPORARY MEASURES FOR SOIL EROSION AND SEDIMENT CONTROL HAVE BEEN IMPLEMENTED, INCLUDING PROVISIONS FOR STABILIZATION AND SITE WORK.
5. ANY DISTURBED AREAS THAT WILL BE LEFT EXPOSED MORE THAN SIXTY (60) DAYS, AND NOT SUBJECT TO CONSTRUCTION TRAFFIC, WILL IMMEDIATELY RECEIVE A TEMPORARY SEEDING. IF THE SEASON PREVENTS THE ESTABLISHMENT OF A TEMPORARY COVER, THE DISTURBED AREAS WILL BE MULCHED WITH STRAW, OR EQUIVALENT MATERIAL, AT A RATE OF 2 TO 2 1/2 TONS PER ACRE, ACCORDING TO STANDARDS FOR STABILIZATION WITH MULCH ONLY.
6. IMMEDIATELY FOLLOWING INITIAL DISTURBANCES OR ROUGH GRADING, ALL CRITICAL AREAS SUBJECT TO EROSION (I.E. SOIL STOCKPILES, STEEP SLOPES AND ROADWAY EMBANKMENTS) WILL RECEIVE A TEMPORARY SEEDING IN COMBINATION WITH STRAW MULCH OR A SUITABLE EQUIVALENT, AND MULCH ANCHOR, ACCORDING TO STATE STANDARDS.
7. A SUB-BASE COURSE WILL BE APPLIED IMMEDIATELY FOLLOWING ROUGH GRADING AND INSTALLATION OF IMPROVEMENTS TO STABILIZE STREETS, ROADS, DRIVEWAYS AND PARKING AREAS. IN AREAS WHERE NO UTILITIES ARE PRESENT, THE SUBBASE SHALL BE INSTALLED WITHIN 15 DAYS OF THE PRELIMINARY GRADING.
8. THE STANDARD FOR STABILIZATION CONSTRUCTION ACCESS REQUIRES THE INSTALLATION OF A PAD OF CLEAN CRUSHED STONE AT POINTS WHERE TRAFFIC WILL BE ACCESSING THE CONSTRUCTION SITE. AFTER INTERIOR ROADWAYS ARE PAVED, INDIVIDUAL LOTS REQUIRE A STABILIZED CONSTRUCTION ACCESS CONSISTING OF ONE INCH TO TWO INCH (1" - 2") STONE FOR A MINIMUM LENGTH OF TEN FEET (10') EQUAL TO THE LOT ENTRANCE WIDTH. ALL OTHER ACCESS POINT SHALL BE BLOCKED OFF.
9. ALL SOIL WASHED, DROPPED, SPILLED, OR TRACKED OUTSIDE THE LIMIT OF DISTURBANCE OR ONTO PUBLIC RIGHT-OF-WAY WILL BE REMOVED IMMEDIATELY.
10. PERMANENT VEGETATION TO BE SEEDING OR SOODED ON ALL EXPOSED AREAS WITHIN TEN (10) DAYS AFTER FINAL GRADING.
11. AT THE TIME WHEN THE SITE PREPARATION FOR PERMANENT VEGETATION STABILIZATION IS GOING TO BE ACCOMPLISHED, ANY SOIL THAT WILL NOT PROVIDE A SUITABLE ENVIRONMENT TO SUPPORT ADEQUATE VEGETATIVE GROUND COVER IT, SHALL BE REMOVED OR TREATED IN SUCH A WAY THAT WILL PERMANENTLY ADJUST THE SOIL CONDITIONS AND RENDER IT SUITABLE FOR VEGETATIVE GROUND 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 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 ULTIMATELY PLACED OR BURIED WITH LIMESTONE APPLIED AT THE RATE OF 10 TONS/ACRE, (OR 450 LBS/1,000 SQ FT OF SURFACE AREA) AND COVERED WITH A MINIMUM OF 12" OF SETTLED SOIL WITH A PH OF 5 OR MORE, OR 24" WHERE TREES OR SHRUBS ARE TO BE PLANTED.
13. CONDUIT OUTLET PROTECTION MUST BE INSTALLED AT ALL REQUIRED OUTFALLS PRIOR TO THE DRAINAGE SYSTEM BECOMING OPERATIONAL.
14. UNFILTERED SEWAGE TREATMENT IS NOT PERMITTED. NECESSARY PRECAUTIONS MUST BE TAKEN DURING ALL DRAINAGE OPERATIONS TO MINIMIZE SEDIMENT TRANSFER. ANY DRAINAGE METHODS USED MUST BE IN ACCORDANCE WITH THE STANDARD FOR DUST CONTROL.
15. SHOULD THE CONTROL OF DUST AT THE SITE BE NECESSARY, THE SITE WILL BE SPRINKLED UNTIL THE SURFACE IS WET. TEMPORARY VEGETATIVE COVER SHALL BE ESTABLISHED OR MULCH SHALL BE APPLIED IN ACCORDANCE WITH STATE STANDARDS FOR EROSION CONTROL.
16. STOCKPILE AND STAGING LOCATIONS ESTABLISHED IN THE FIELD SHALL BE PLACED WITHIN THE LIMIT OF DISTURBANCE ACCORDING TO THE CERTIFIED PLAN. STAGING AND STOCKPILES NOT LOCATED WITHIN THE LIMIT OF DISTURBANCE WILL REQUIRE CERTIFICATION OF A NEW SOIL EROSION AND SEDIMENT CONTROL PLAN. CERTIFICATION OF A NEW SOIL EROSION AND SEDIMENT CONTROL PLAN MAY BE REQUIRED FOR THESE ACTIVITIES IF AN AREA GREATER THAN 5,000 SQUARE FEET IS DISTURBED.
17. ALL SOIL STOCKPILES AREA TO BE TEMPORARILY STABILIZED IN ACCORDANCE WITH SOIL EROSION AND SEDIMENT CONTROL NOTE #6.
18. THE PROPERTY OWNER SHALL BE RESPONSIBLE FOR ANY EROSION OR SEDIMENTATION THAT MAY OCCUR BELOW STORM WATER OUTFALLS OR OFF SITE AS A RESULT OF CONSTRUCTION OF THE PROJECT.
19. THIS PROJECT QUALIFIES FOR THE URBAN REDEVELOPMENT AREA EXEMPTION LISTED WITHIN EXEMPTION 6 ON PAGE 19-2. THIS PROJECT IS WITHIN THE METROPOLITAN PLANNING AREA (PA-1) AND IS PREVIOUSLY DEVELOPED.

SEQUENCE OF CONSTRUCTION OPERATIONS

ACTIVITY	TIME PERIOD
1. INSTALL SILT FENCE AND TREE PROTECTION	2 DAYS
2. CUT TREES AND REMOVE STUMPS	3 DAYS
3. DEMOLITION OF EXISTING STRUCTURES	1 WEEK
4. STRIP TOPSOIL AND STOCKPILES	1 WEEK
5. EXCAVATE AND CONSTRUCT FOUNDATION	2 MONTHS
6. BACK FILL FOUNDATION, ROUGH GRADE SITE AND APPLY TEMPORARY SEEDING AND OR MULCH AS REQUIRED	1 MONTH
7. INSTALL UNDERGROUND STORM WATER DETENTION FACILITY, STRUCTURES AND WATER QUALITY DEVICE	1 MONTH
9. CONSTRUCT SANITARY SEWER LATERAL AND DOMESTIC UTILITIES	1 MONTH
10. CONSTRUCT PARKING CURB AND PAVE ROAD BASE COURSE	1 MONTH
11. BEGIN BUILDING CONSTRUCTION	AS REQUIRED
12. INSTALL SERVICES WALKWAYS AND PAVE DRIVEWAYS	2 WEEKS
13. FINISH GRADING SITE AND APPLY PERMANENT STABILIZATION MEASURES	1 MONTH
14. APPLY TOP COURSE, TOP COURSE TO BE APPLIED AFTER MAJOR CONSTRUCTION TRAFFIC HAS DIMINISHED. BASE COURSE TO BE SWEEP AND TACK COAT APPLIED PRIOR TO TOP COURSE.	1 MONTH
15. REMOVE TEMPORARY SOIL EROSION MEASURES	2 DAYS
16. COMPLETE BUILDING AND LANDSCAPING	1 MONTH
17. PERFORM PENETROMETER TEST, SCARIFY SUB-GRADE AS REQUIRED, PROVIDE PERMANENT STABILIZATION MEASURES.	1 WEEK

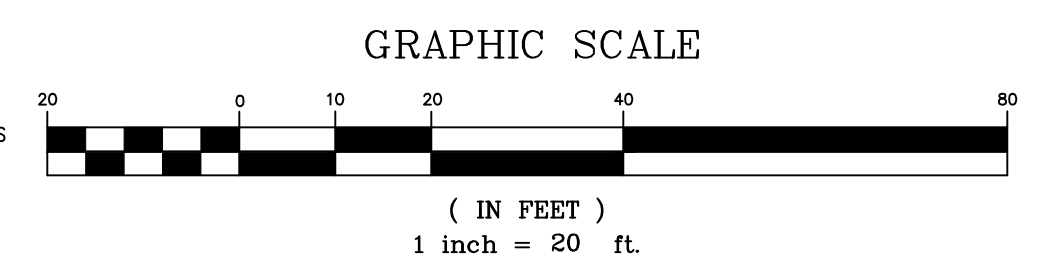
ALL ROADS AND WALKWAYS WILL BE SWEEP DAILY THROUGHOUT THE DURATION OF CONSTRUCTION.

AREA OF LIMIT OF DISTURBANCE = 43,520 SQ. FT. (0.99 ACRES)

THIS PLAN IS ONLY TO BE USED AS A GUIDE TO THE IMPLEMENTATION OF SOIL EROSION CONTROL MEASURES. IT IS NOT TO BE USED FOR CONSTRUCTION. REFER TO GRADING AND UTILITY PLANS AND SUPPLEMENTS THERETO.

SOIL DE-COMPACTION AND TESTING REQUIREMENTS

- A. SOIL COMPACTION TESTING REQUIREMENTS**
1. SUBGRADE SOILS PRIOR TO THE APPLICATION OF TOPSOIL (SEE PERMANENT SEEDING AND STABILIZATION NOTES FOR TOPSOIL REQUIREMENTS) SHALL BE FREE OF EXCESSIVE COMPACTION TO A DEPTH OF 6.0 INCHES TO ENHANCE THE ESTABLISHMENT OF PERMANENT VEGETATIVE COVER.
2. AREAS OF THE SITE WHICH ARE SUBJECT TO COMPACTION TESTING AND/OR MITIGATION ARE GRAPHICALLY DENOTED ON THE CERTIFIED SOIL EROSION CONTROL PLAN.
3. COMPACTION TESTING LOCATIONS ARE DENOTED ON THE PLAN. A COPY OF THE PLAN SHALL BE USED TO MARK LOCATIONS OF TESTS, AND ATTACHED TO THE COMPACTION MITIGATION VERIFICATION FORM, AVAILABLE FROM THE LOCAL SOIL CONSERVATION DISTRICT. THIS FORM MUST BE FILLED OUT AND SUBMITTED PRIOR TO RECEIVING A CERTIFICATE OF COMPLIANCE FROM THE DISTRICT.
4. IN THE EVENT THAT TESTING INDICATES COMPACTION IN EXCESS OF THE MAXIMUM THRESHOLDS INDICATED FOR THE SIMPLIFIED TESTING METHODS (SEE DETAILS BELOW), THE CONTRACTOR/OWNER SHALL HAVE THE OPTION TO PERFORM EITHER (1) COMPACTION MITIGATION OVER THE ENTIRE MITIGATION AREA DENOTED ON THE PLAN (EXCLUDING EXEMPT AREAS), OR (2) PERFORM ADDITIONAL, MORE DETAILED TESTING TO ESTABLISH THE LIMITS OF EXCESSIVE COMPACTION WHEREUPON ONLY THE EXCESSIVELY COMPACTED AREAS WOULD REQUIRE COMPACTION MITIGATION. ADDITIONAL DETAILED TESTING SHALL BE PERFORMED BY A TRAINED LICENSED PROFESSIONAL.
- B. COMPACTION TESTING METHODS**
1. PROBING WIRE TEST (SEE DETAIL)
2. HAND-HELD PENETROMETER TEST (SEE DETAIL)
3. TUBE BULK DENSITY TEST (LICENSED PROFESSIONAL ENGINEER REQUIRED)
4. NUCLEAR DENSITY TEST (LICENSED PROFESSIONAL ENGINEER REQUIRED)
5. NOTE: ADDITIONAL TESTING METHODS WHICH CONFORM TO ASTM STANDARDS AND SPECIFICATIONS, AND WHICH PRODUCE A DRY WEIGHT, SOIL BULK DENSITY MEASUREMENT MAY BE ALLOWED SUBJECT TO DISTRICT APPROVAL.
6. SOIL COMPACTION TESTING IS NOT REQUIRED IF WHEN SUB SOIL COMPACTION REMEDIATION (SCARIFICATION/TILLAGE (6" MINIMUM DEPTH) OR SIMILAR) IS PROPOSED AS PART OF THE SEQUENCE OF CONSTRUCTION.
- C. PROCEDURES FOR SOIL COMPACTION MITIGATION**
1. PROCEDURES SHALL BE USED TO MITIGATE EXCESSIVE SOIL COMPACTION PRIOR TO PLACEMENT OF TOPSOIL AND ESTABLISHMENT OF PERMANENT VEGETATIVE COVER.
2. RESTORATION OF COMPACTED SOILS SHALL BE THROUGH DEEP SCARIFICATION/TILLAGE (6" MINIMUM DEPTH) WHERE THERE IS NO DANGER TO UNDERGROUND UTILITIES (CABLES, IRRIGATION SYSTEMS, ETC.). IN THE ALTERNATIVE, ANOTHER METHOD AS SPECIFIED BY A NEW JERSEY LICENSED PROFESSIONAL ENGINEER MAYBE SUBSTITUTED SUBJECT TO DISTRICT APPROVAL.



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PRELIMINARY & FINAL SITE PLAN				
SOIL EROSION & SEDIMENT CONTROL PLAN				
LOT 15, BLOCK 409				
SOUTH PLAINFIELD BOROUGH MIDDLESEX COUNTY NEW JERSEY				
SCALE: 1"=20'	DATE: 11/30/06	DESIGNED BY: A.G.	DRAWN BY: S.B.	WORK FILE: 2006085-SE
CERTIFICATE OF AUTHORIZATION No. 24GA27962100		PROJECT No: 2006085		

VICTOR E. LINGRA
N.J. P.E. & L.S. LIC. No. 34460

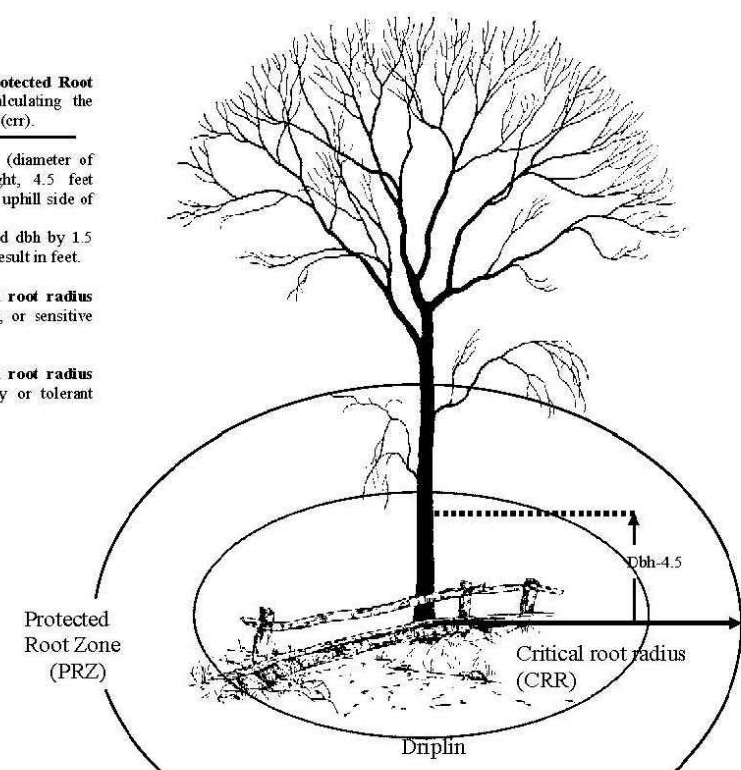
Figure 9-3: Root Protection During Construction Guide

Estimate a tree's Protected Root Zone (PRZ) by calculating the Critical Root Radius (CRR).

1. Measure the dbh (diameter of tree at breast height, 4.5 feet above ground on the uphill side of level in radius).
2. Multiply measured dbh by 1.5 or 1.0. Express the result in feet.

Dbh $\times$ 1.5: Critical root radius for older, established, or sensitive species.

Dbh $\times$ 1.0: Critical root radius for younger, healthy or tolerant species.



9-5

Return to TOC

Figure 9-5: Tree Protection in Cut Areas

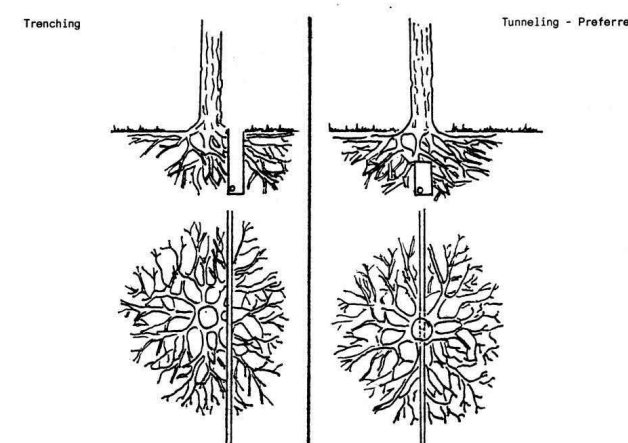
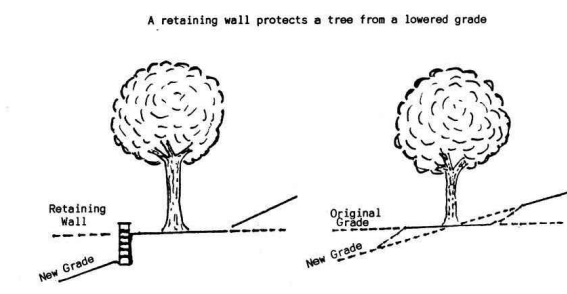
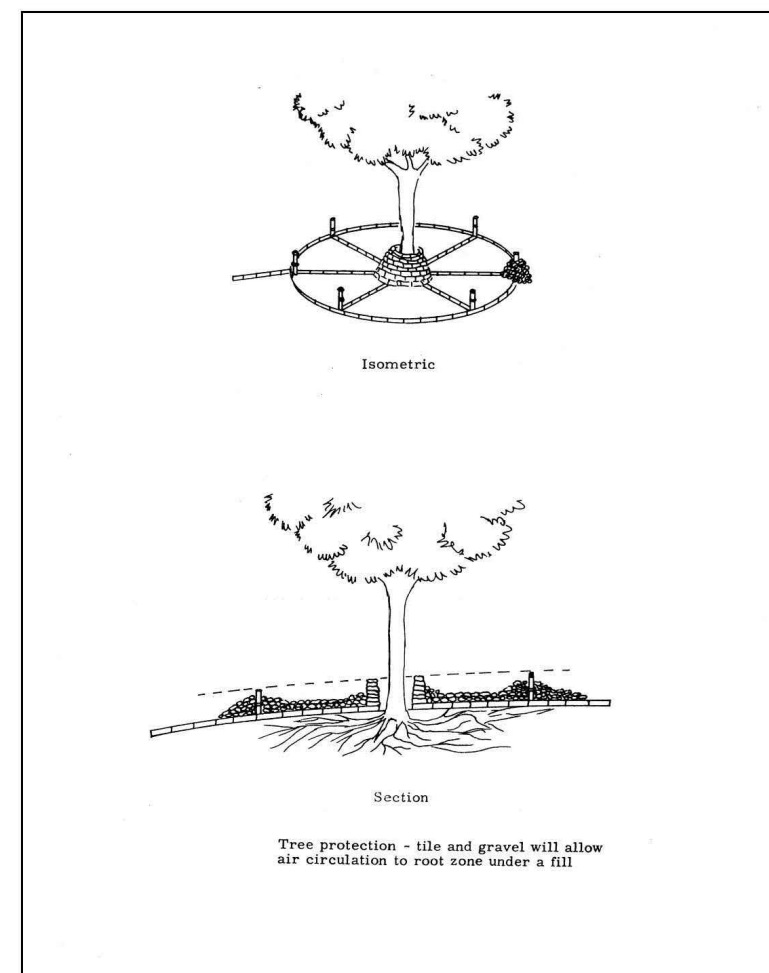


Figure 9-6: Tree Protection - Underground Utility Installation

9-7

Return to TOC

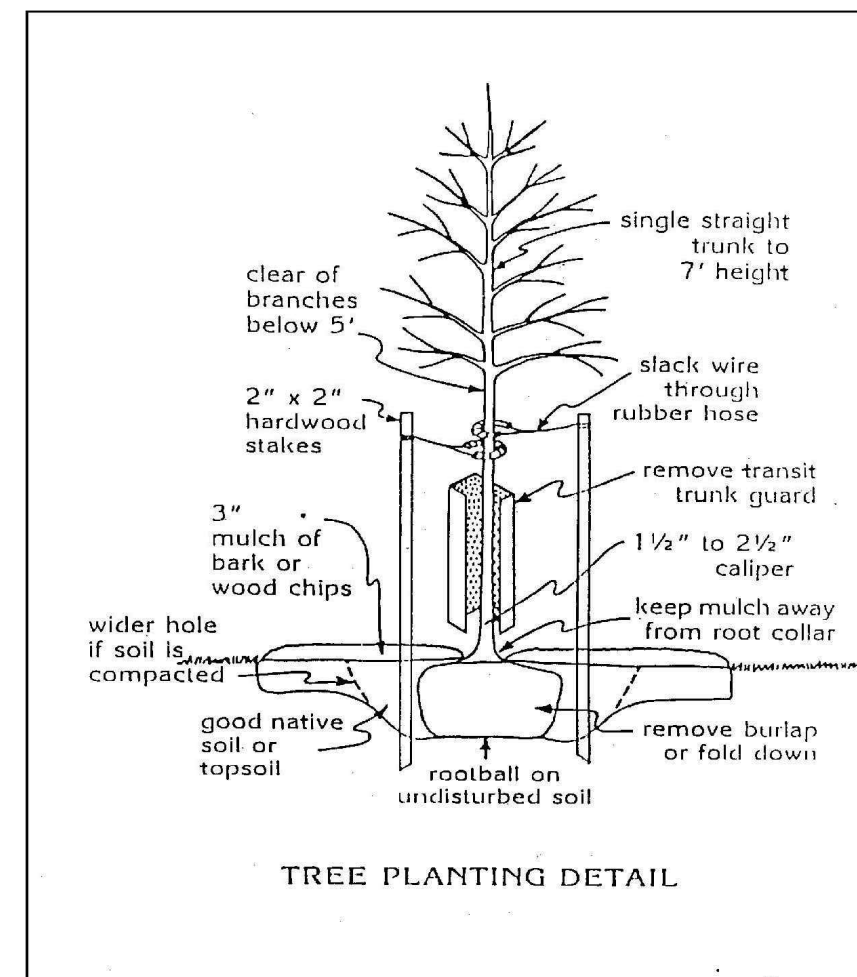
Figure 9-4: Tree Protection in Fill Areas



9-6

Return to TOC

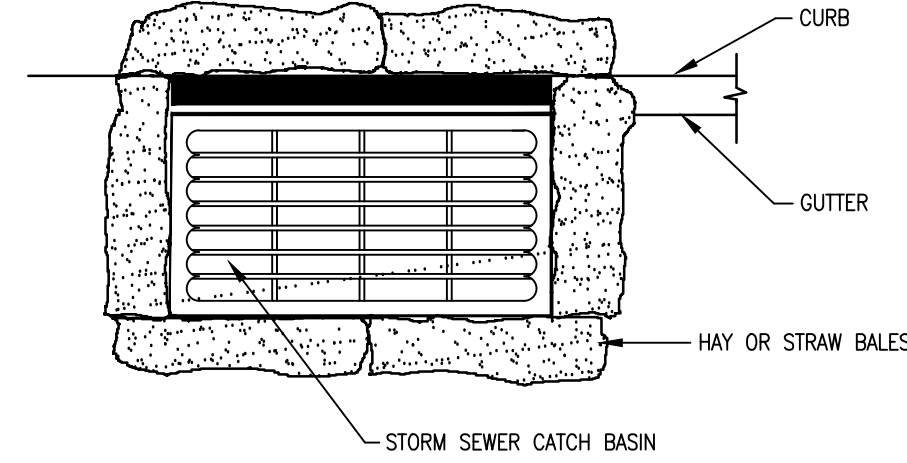
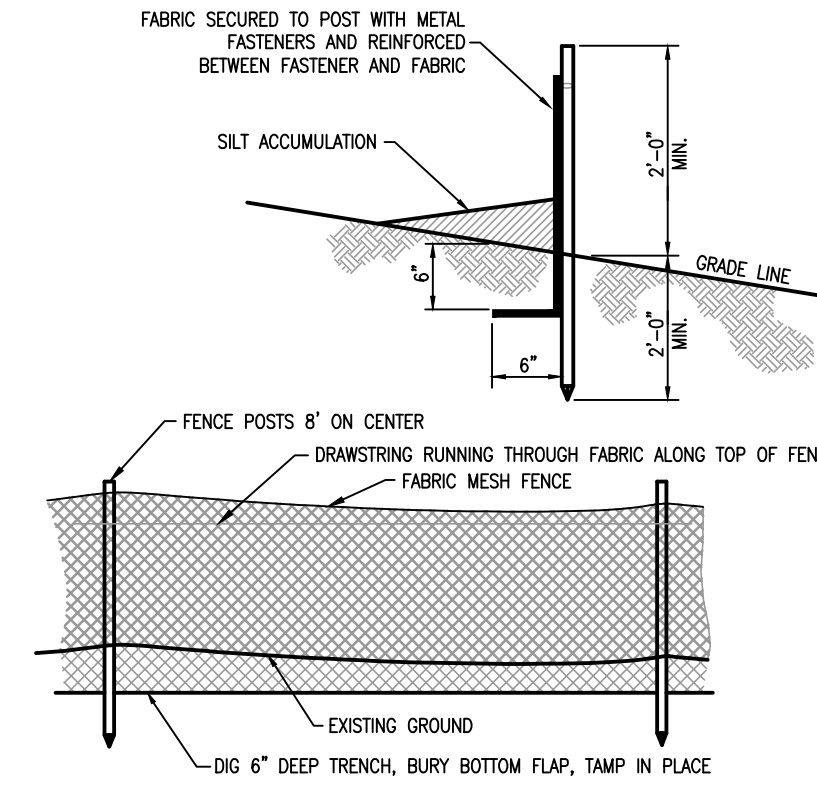
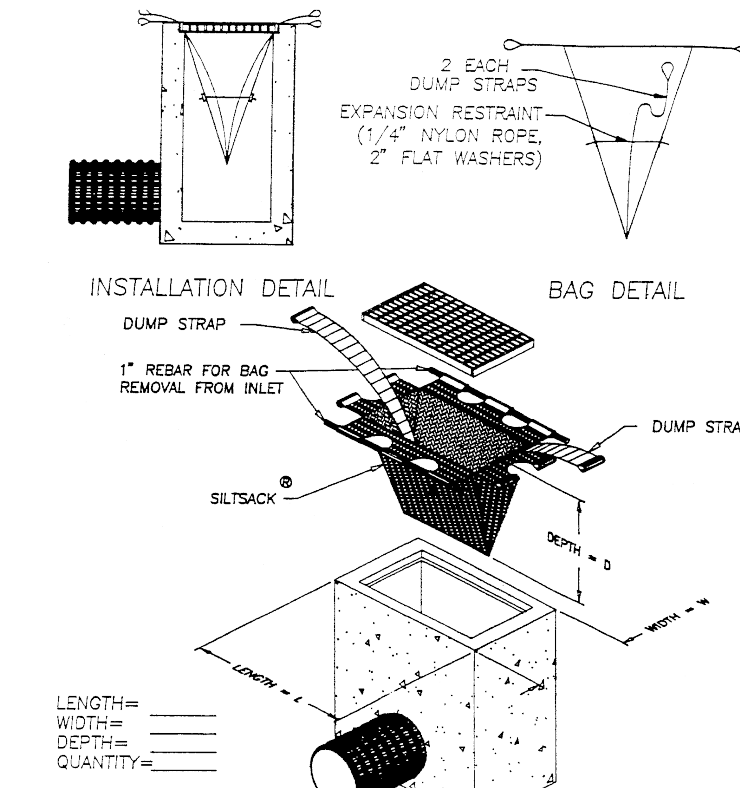
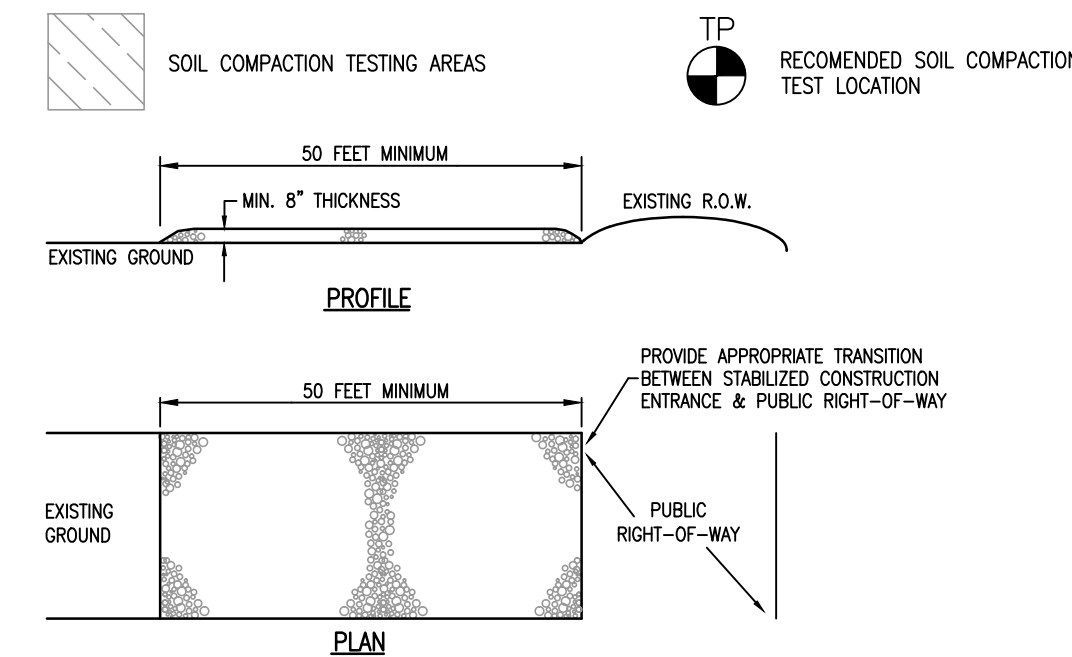
FIGURE 10-1: TYPICAL TREE PLANTING DETAIL



TREE PLANTING DETAIL

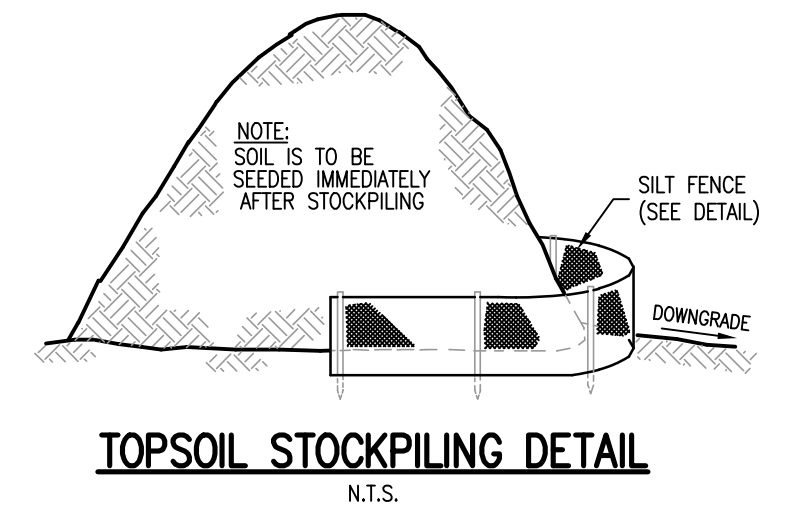
10-4

Return to TOC

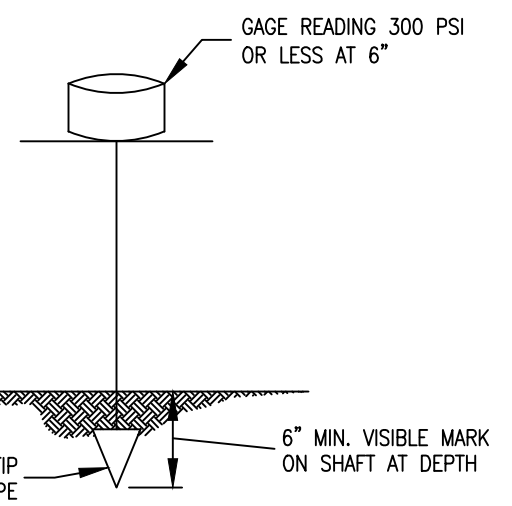
INLET PROTECTION DETAIL
N.T.S.SILTATION FENCE DETAIL
N.T.S.STORM SEWER INLET TYPE "B" PROTECTION DETAIL
N.T.S.

STABILIZED CONSTRUCTION ENTRANCE SPECIFICATIONS

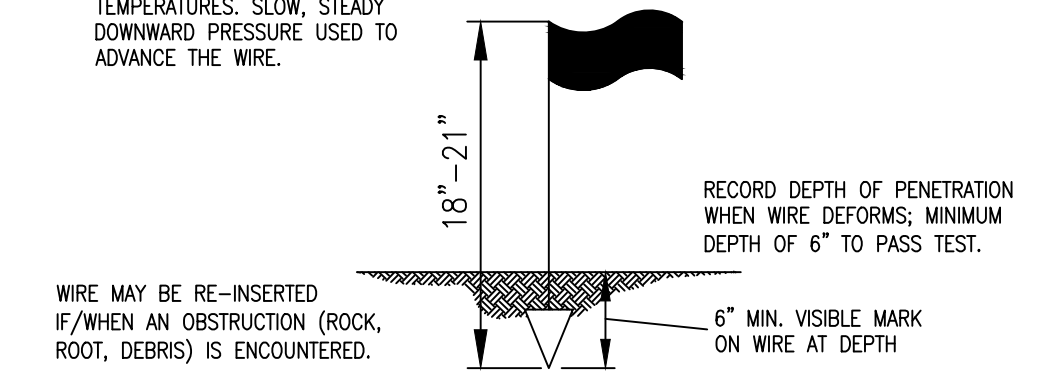
1. STONE SIZE - USE ASTM C-33, SIZES NO. 2 OR 3. USE CRUSHED STONES.
2. LENGTH - AS EFFECTIVE, BUT NOT LESS THAN 50 FEET.
3. THICKNESS - NOT LESS THAN 8 INCHES.
4. WIDTH - NOT LESS THAN FULL WIDTH OF ALL POINTS OF INGRESS OR EGRESS, BUT IN NO CASE LESS THAN 15' WIDE.
5. WASHING - WHEN NECESSARY, WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHT OF WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE WHICH DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH, OR WATER COURSE THROUGH USE OF SAND BAGS, GRASS, BARRIERS, OR OTHER APPROVED METHODS.
6. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT OF WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DRIFTED, WASHED, OR TRACKED ONTO PUBLIC RIGHT OF WAY MUST BE REMOVED IMMEDIATELY.
7. AT POORLY DRAINED LOCATIONS, SUBSURFACE DRAINAGE SHALL BE INSTALLED BEFORE INSTALLATION.

STABILIZED CONSTRUCTION ENTRANCE
N.T.S.TOPSOIL STOCKPILING DETAIL
N.T.S.

NOTE: SOIL SHOULD BE MOIST BUT NOT SATURATED. DO NOT TEST WHEN SOIL IS EXCESSIVELY DRY OR SUBJECT TO FREEZING TEMPERATURES. SLOW, STEADY DOWNWARD PRESSURE USED TO ADVANCE THE PROBE. MEASURE DEPTH WHEN GAGE READING REACHES 300 PSI OR DEPTH OF 6"

HANDHELD SOIL PENETROMETER TEST
N.T.S.

NOTE: SOIL SHOULD BE MOIST BUT NOT SATURATED. DO NOT TEST WHEN SOIL IS EXCESSIVELY DRY OR SUBJECT TO FREEZING TEMPERATURES. SLOW, STEADY DOWNWARD PRESSURE USED TO ADVANCE THE WIRE.

PROBING WIRE TEST
15.5 GA. STEEL WIRE (SURVEY FLAG)
N.T.S.

DIG SAFELY - NEW JERSEY

CALL BEFORE YOU DIG
1-800-272-1000
IT'S THE LAW



Dig Safely

NEW JERSEY ONE CALL

CONTRACTORS SHALL CALL 1-800-272-1000
MINIMUM THREE DAYS, MAXIMUM 10 DAYS NOTICE PRIOR TO BEGINNING EXCAVATION

REV.	DATE	DESCRIPTION	CHK'D	APP'D
L	6/04/18	AS PER LETTER COMMENTS FROM FREEHOLD SOIL CONSERVATION DISTRICT		
K	5/15/18	AS PER LETTER COMMENTS FROM FREEHOLD SOIL CONSERVATION DISTRICT		
J	6/24/09	REFUSE & RECYCLING ENCLOSURE		
I	6/16/08	AS PER BOROUGH ENGINEER LETTER		
H	6/4/08	AS PER BOROUGH ENGINEER LETTER		
G	4/30/08	AS PER LETTER OF COMMENTS		
F	1/14/08	AS PER LETTER OF COMMENTS		
E	11/8/07	AS PER LETTER OF COMMENTS		
D	10/8/07	AS PER LETTER OF COMMENTS		
A	6/27/07	GRADING & DRAINAGE REVISED		



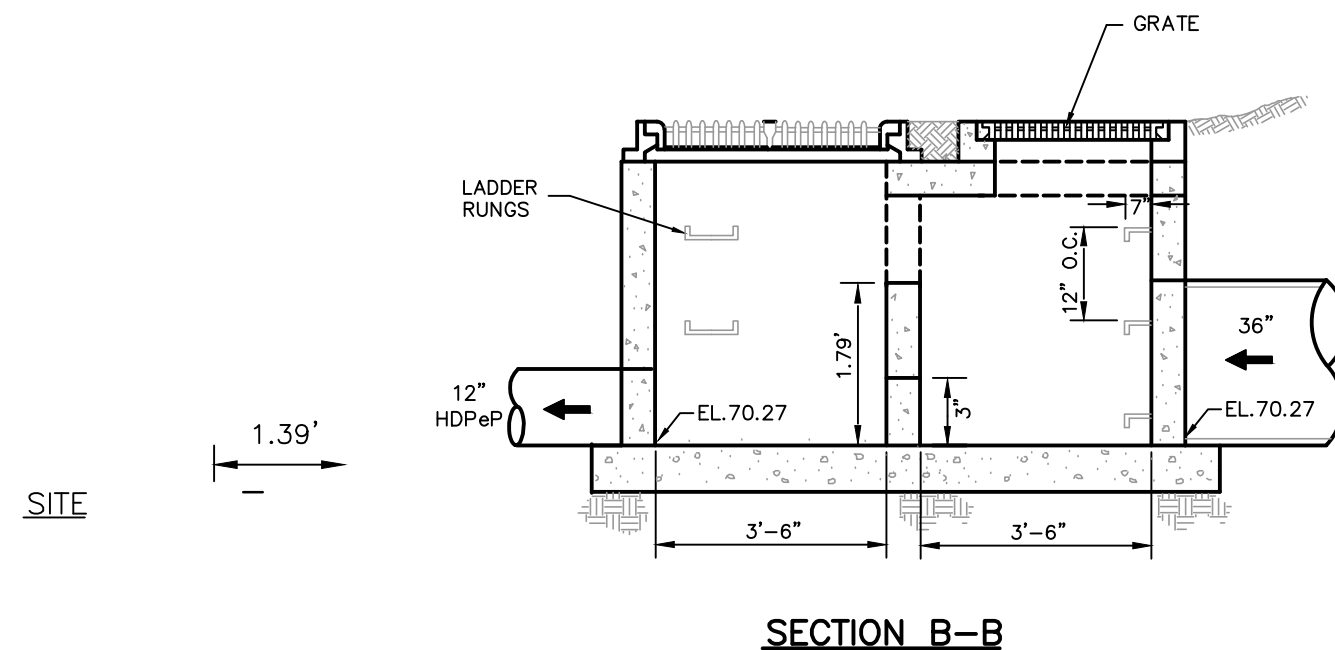
Harbor Consultants Inc.
Engineers & Surveyors
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PRELIMINARY & FINAL SITE PLAN
SOIL EROSION & SEDIMENT CONTROL DETAILS

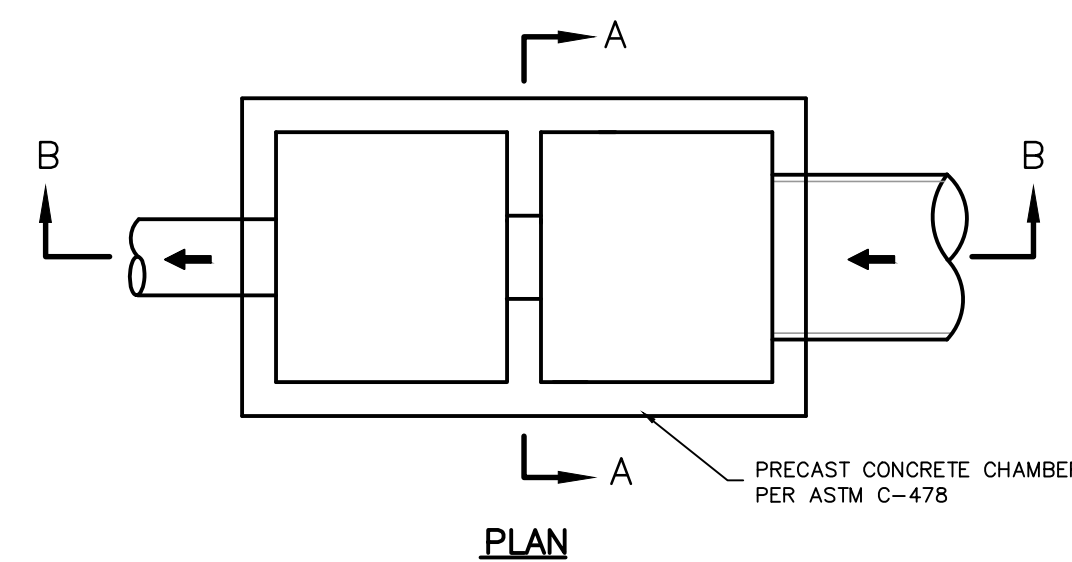
SOUTH PLAINFIELD BOROUGH		MIDDLESEX COUNTY		NEW JERSEY	
SCALE: 1"=20'	DATE: 11/30/06	DESIGNED BY: A.G.	DRAWN BY: S.B.	WORK FILE: 2006085-SE	CERTIFICATE OF AUTHORIZATION No.: 24GA27962100

VICTOR E. VINEGRA
N.J. P.E. & L.S. LIC. No. 34460

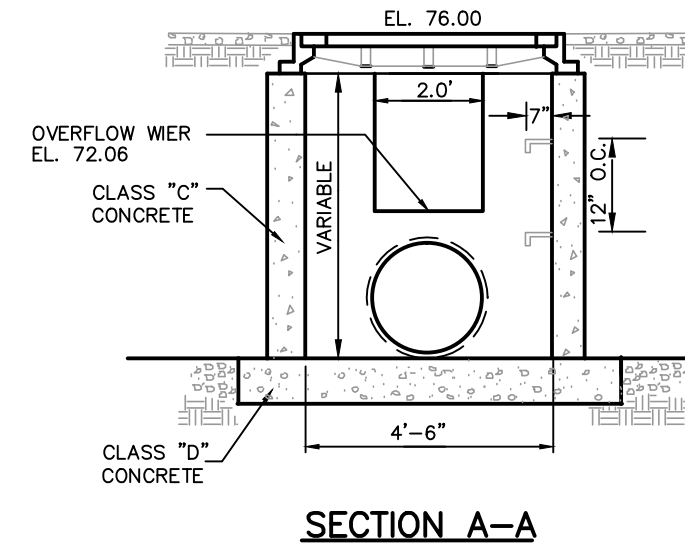
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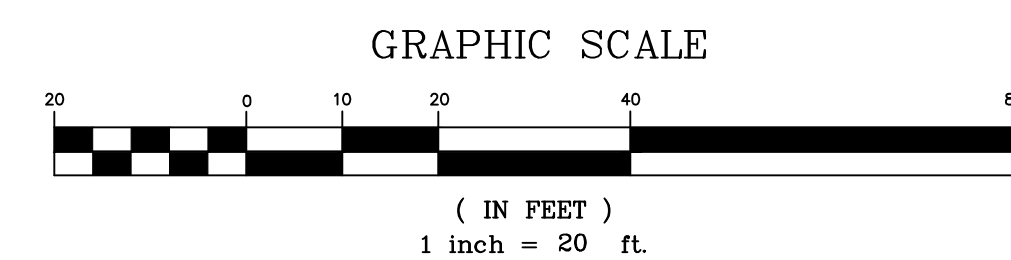
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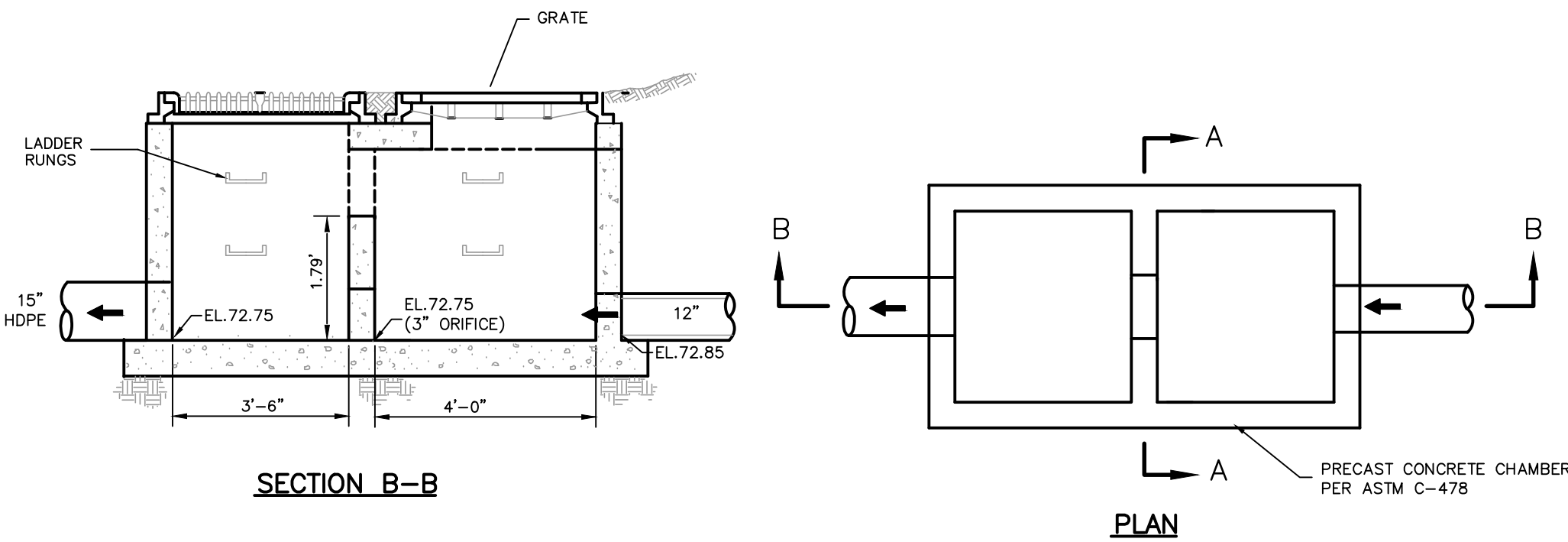


PLAN

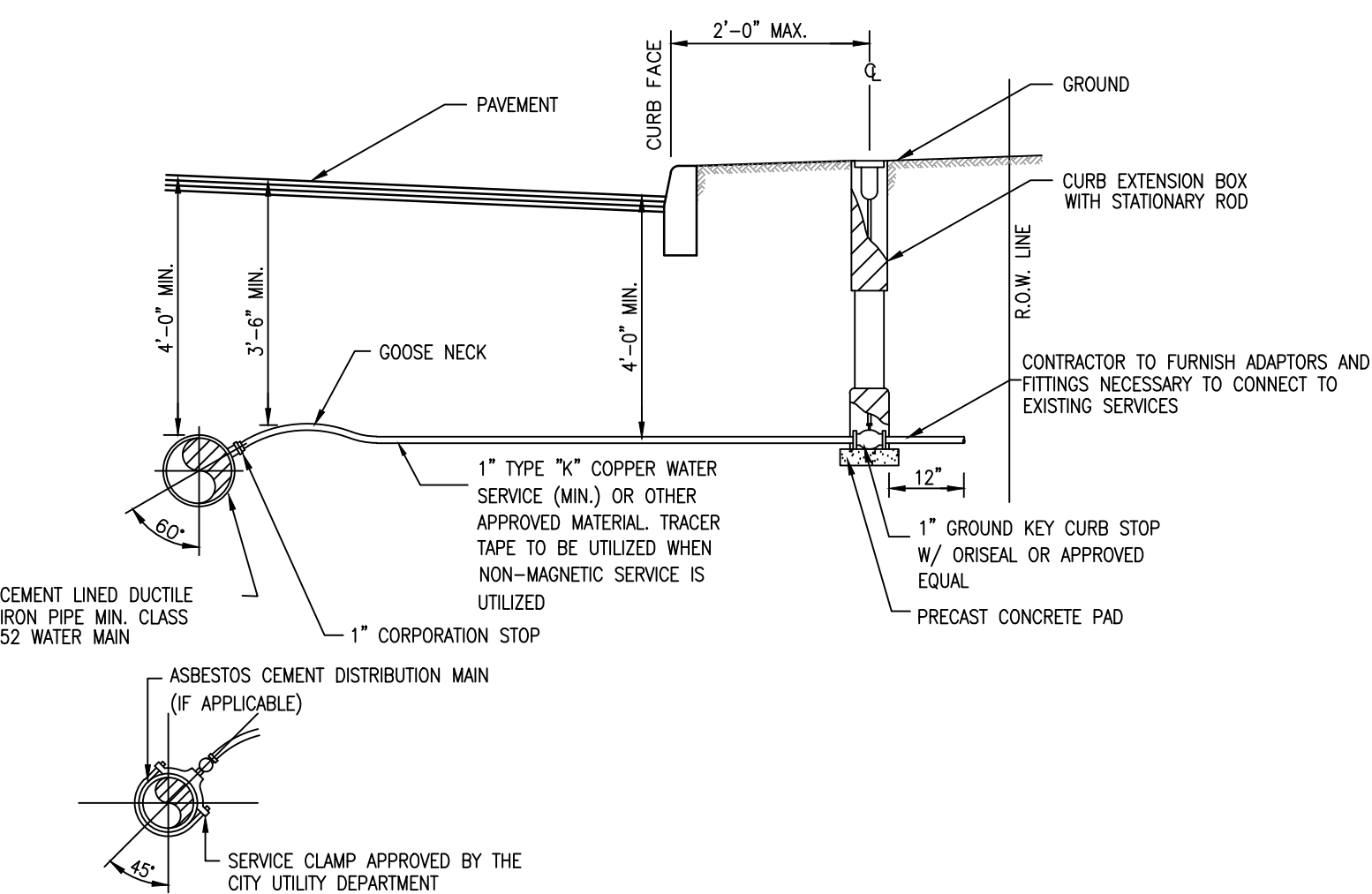
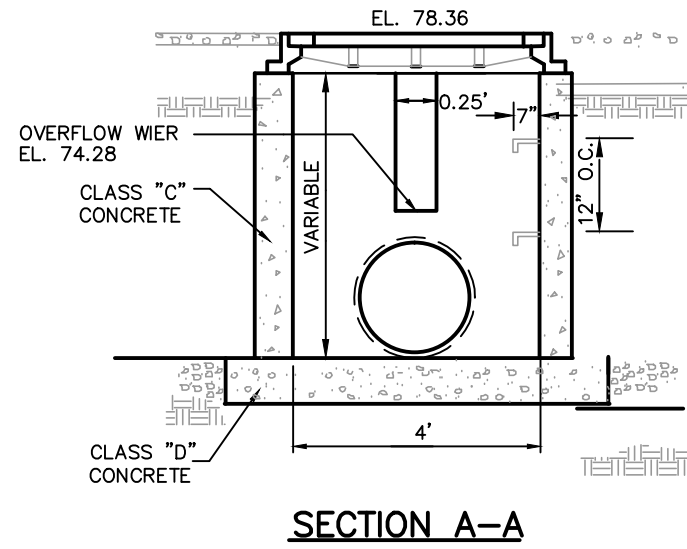
OUTLET STRUCTURE DETAIL
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SECTION A-A

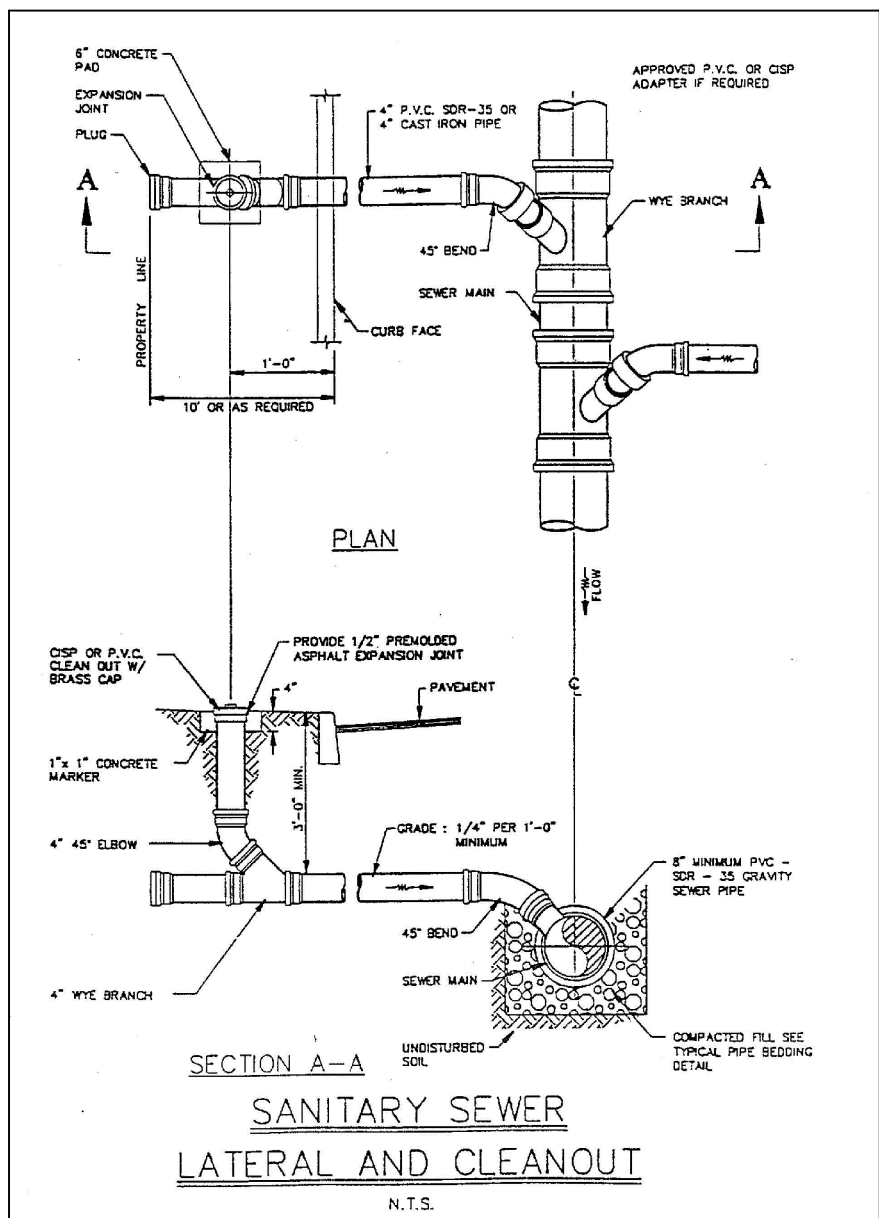




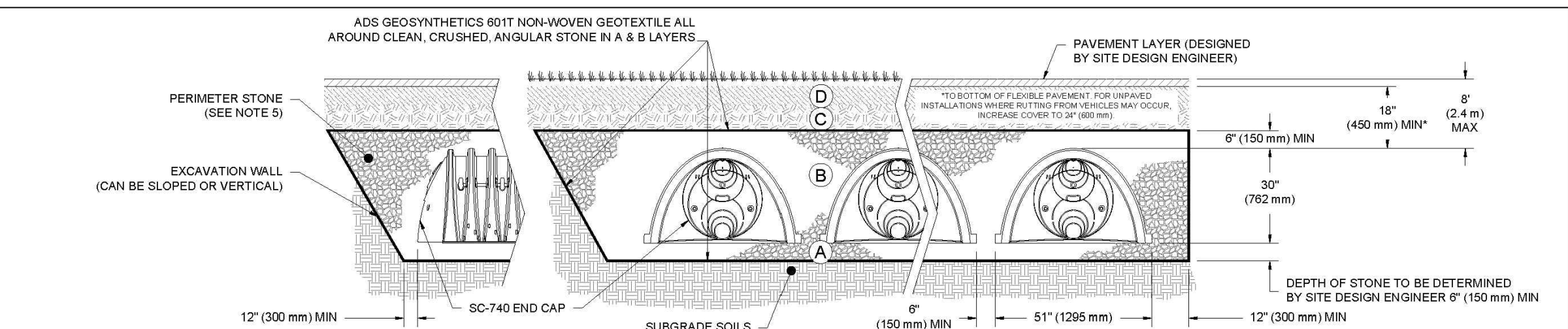
OUTLET STRUCTURE DETAIL
N.T.S.



WATER SERVICE CONNECTION DETAIL
N.T.S.

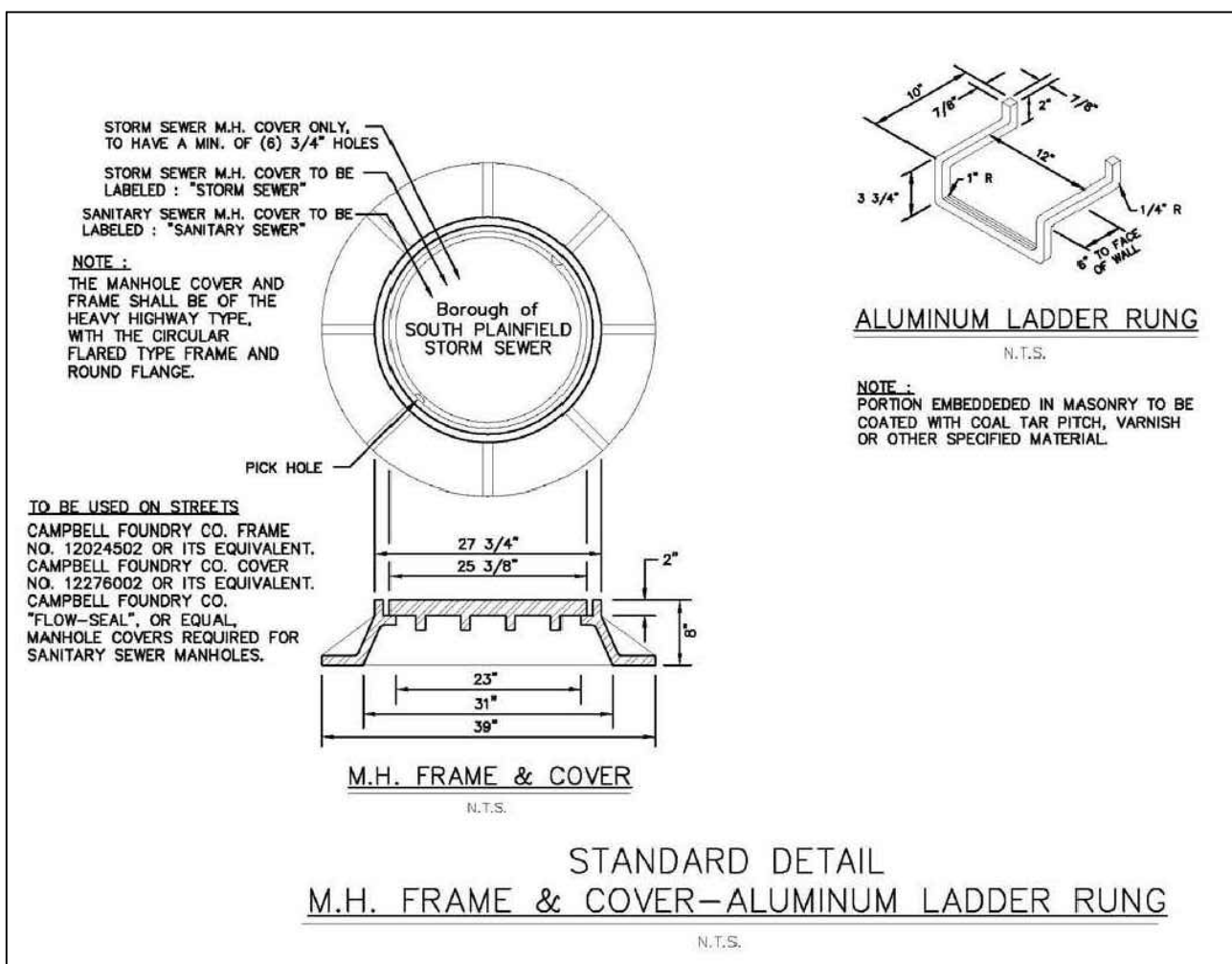


SANITARY SEWER
LATERAL AND CLEANOUT
N.T.S.

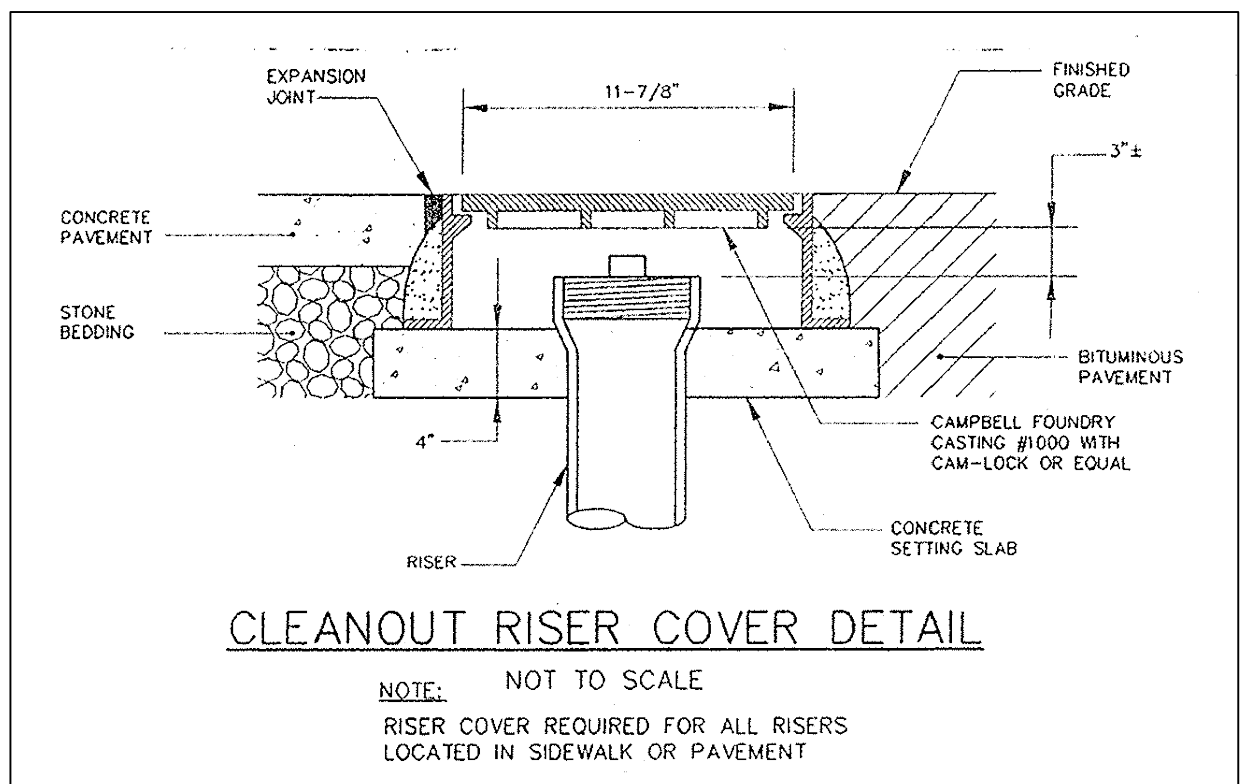


- NOTES:**
- SC-740 CHAMBERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM F2418 "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS", OR ASTM F2922 "STANDARD SPECIFICATION FOR POLYETHYLENE (PE) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
 - SC-740 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
 - "ACCEPTABLE FILL MATERIALS" TABLE ABOVE PROVIDES MATERIAL LOCATIONS, DESCRIPTIONS, GRADATIONS, AND COMPACTION REQUIREMENTS FOR FOUNDATION, EMBEDMENT, AND FILL MATERIALS.
 - THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
 - PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
 - ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.

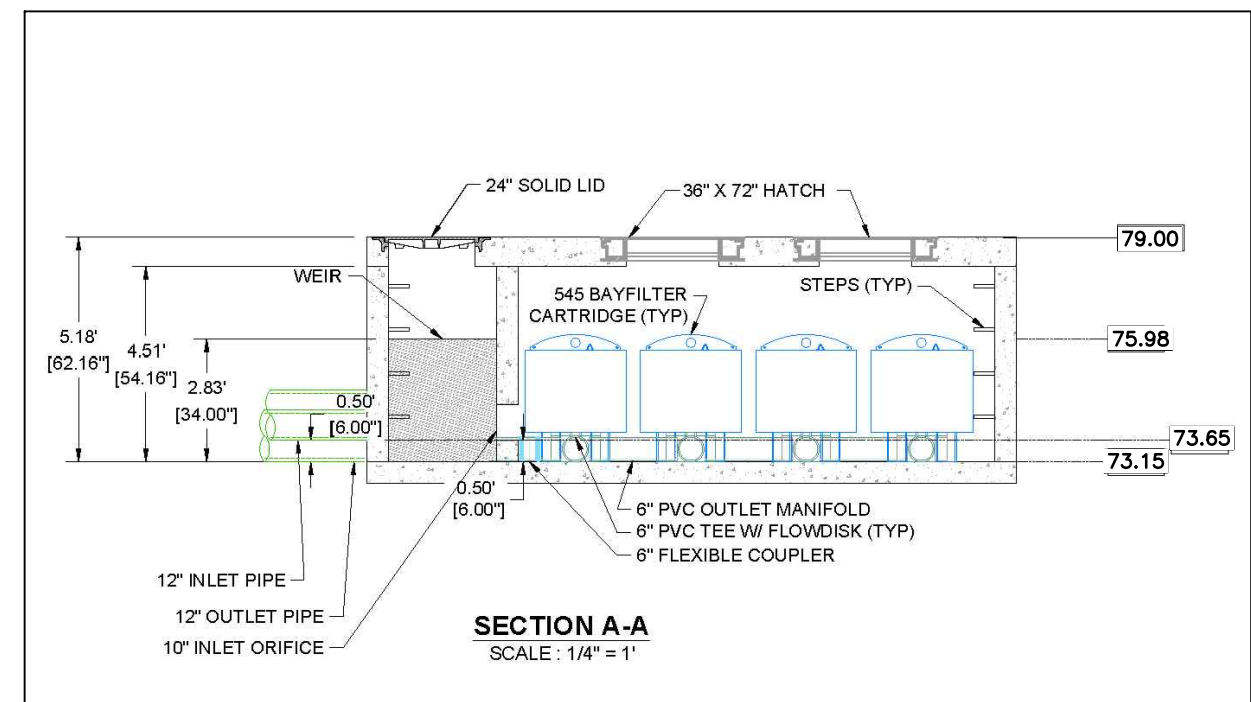
STORMTECH SC-740 CHAMBER SYSTEMS DETAIL
N.T.S.



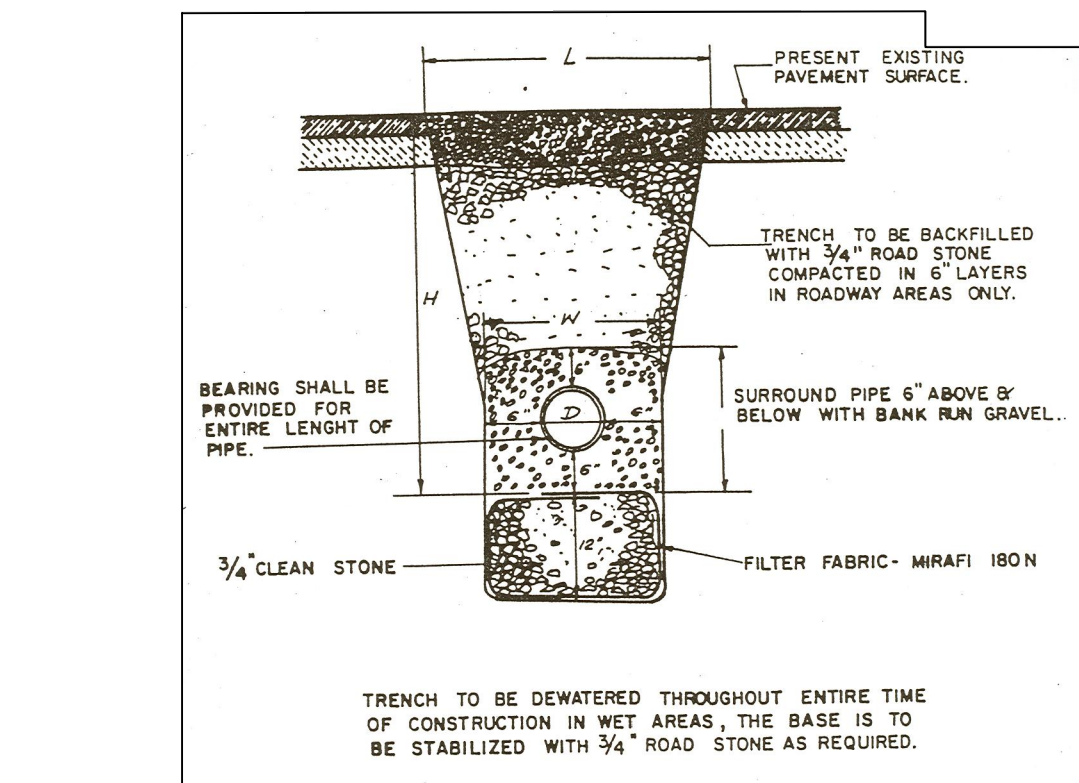
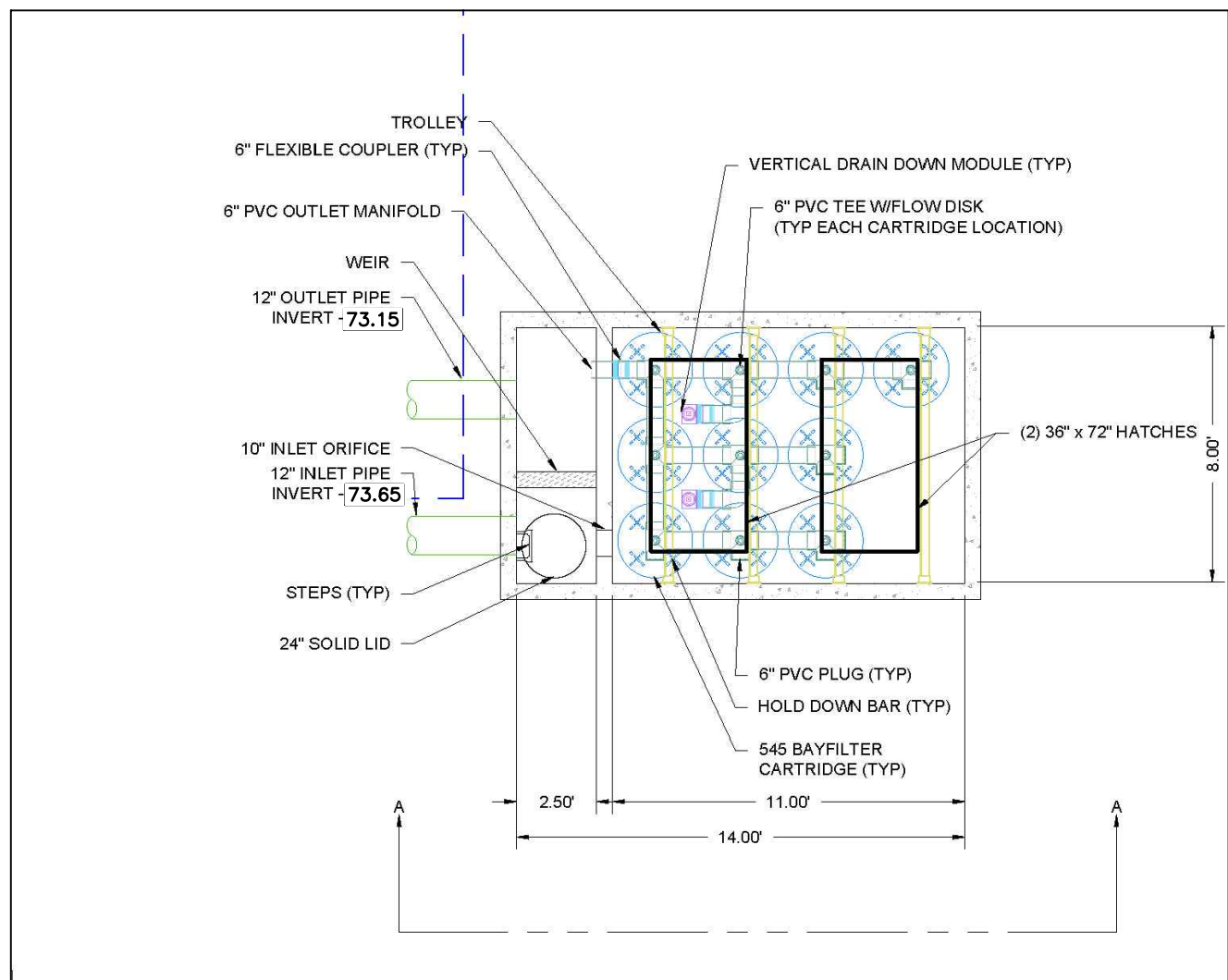
STANDARD DETAIL
M.H. FRAME & COVER-ALUMINUM LADDER RUNG
N.T.S.



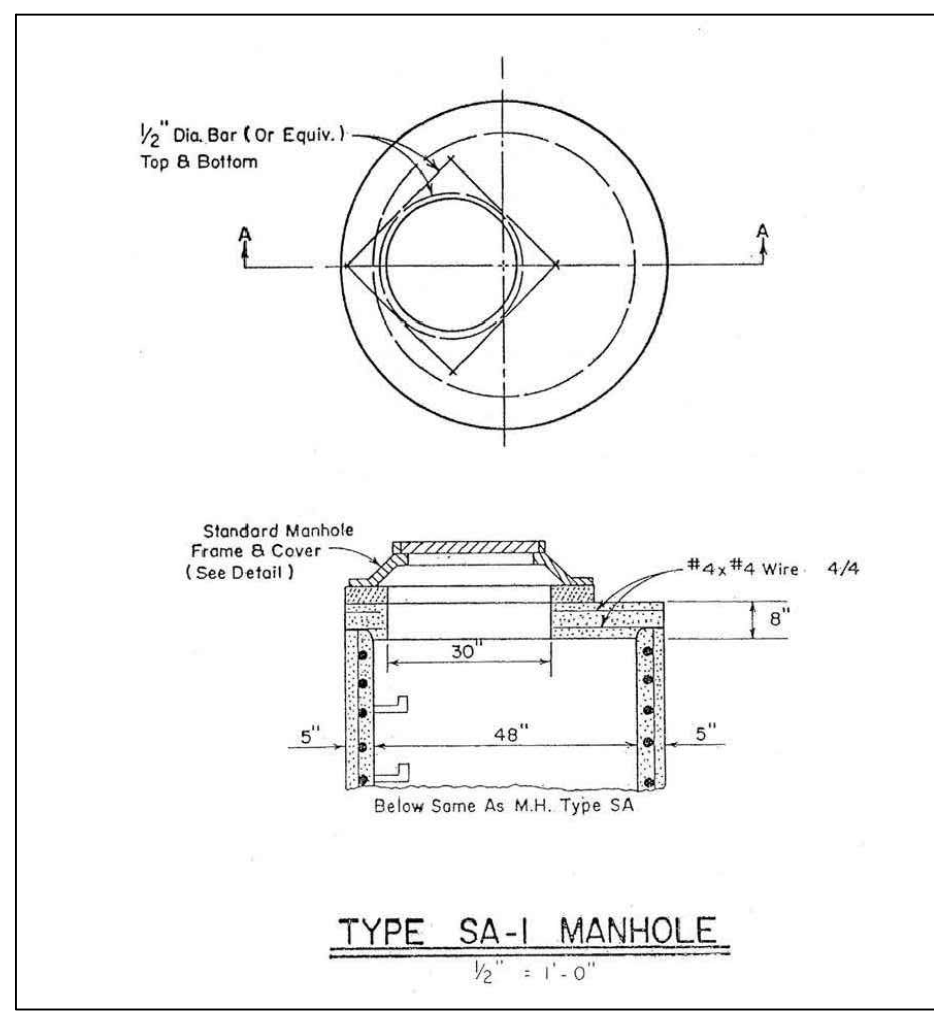
CLEANOUT RISER COVER DETAIL
NOTE: NOT TO SCALE
RISER COVER REQUIRED FOR ALL RISERS
LOCATED IN SIDEWALK OR PAVEMENT



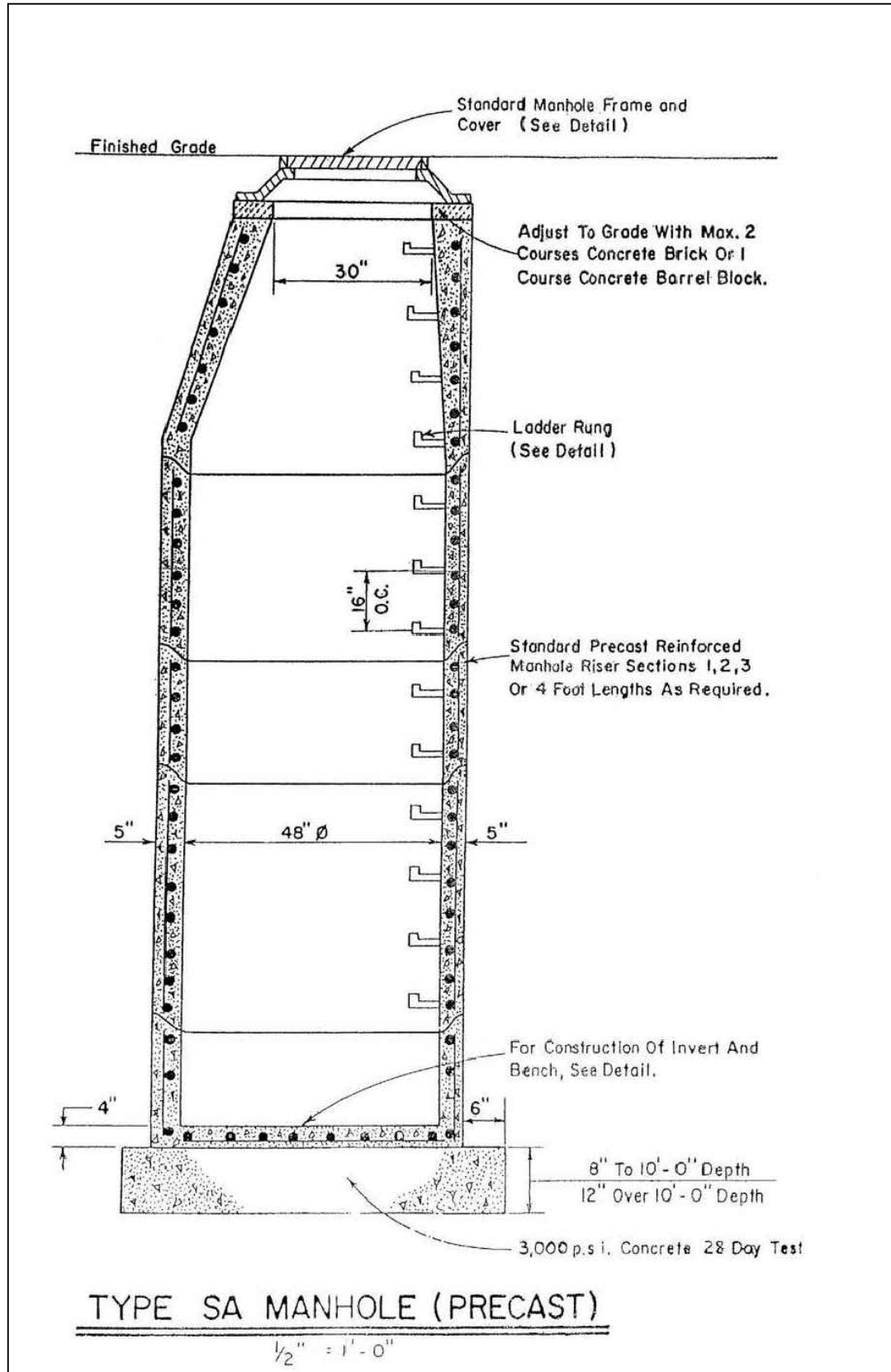
BAYFILTER DETAIL
N.T.S.



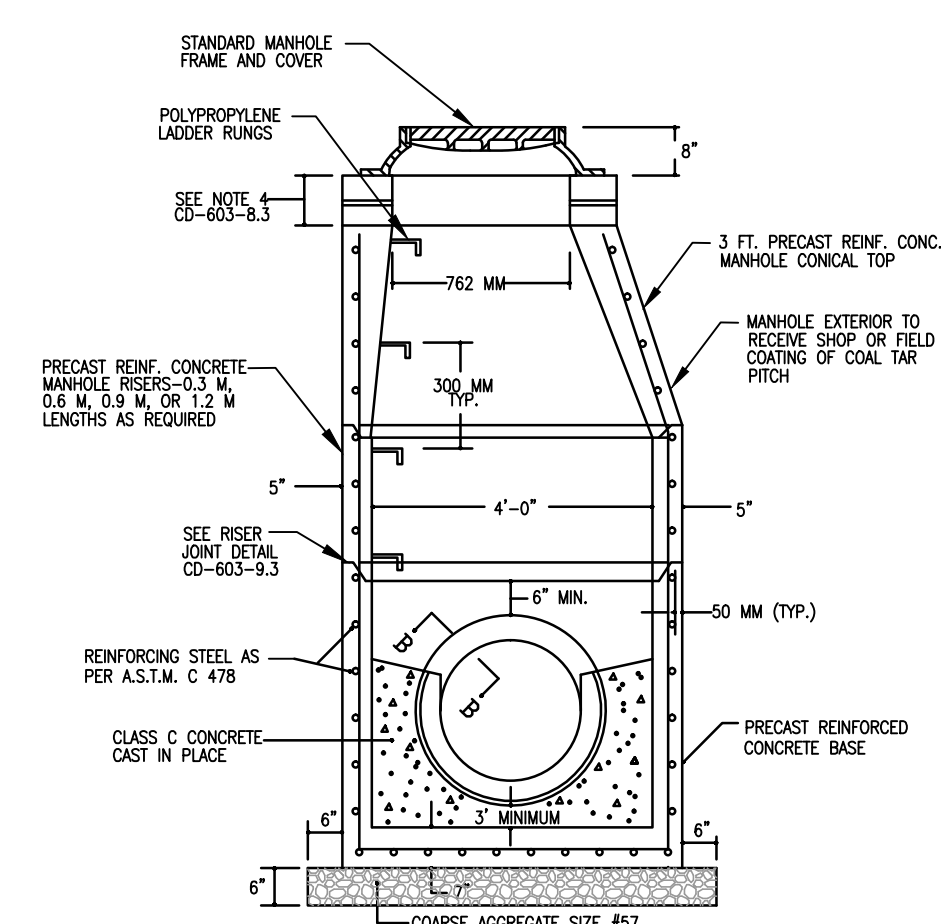
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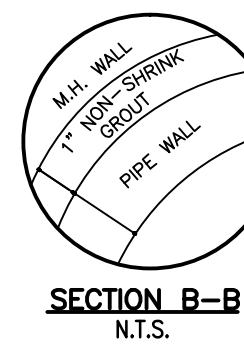
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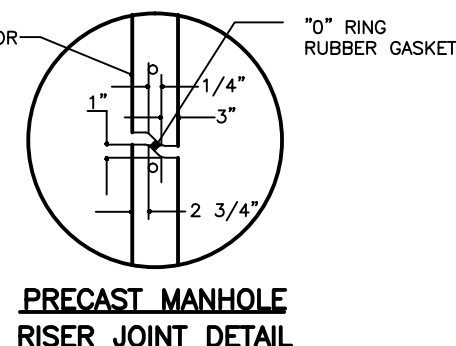
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1/2\"/>



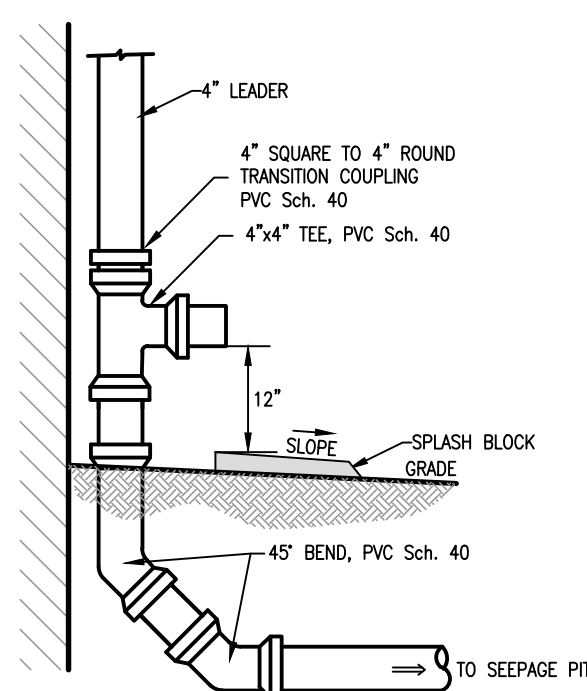
MANHOLES, 4' DIAMETER



SECTION B-B
N.T.S.

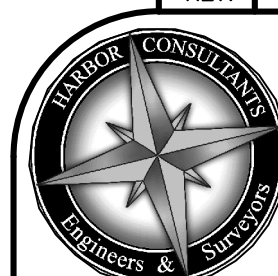


PRECAST MANHOLE
RISER JOINT DETAIL
N.T.S.



ROOF LEADER SPILL-OFF
N.T.S.

N	11/28/18	AS PER BOROUGH ENGINEER		
G	5/24/18	AS PER LETTER COMMENTS FROM FREEHOLD SOIL CONSERVATION DISTRICT		
F	6/4/08	AS PER BOROUGH ENGINEER LETTER		
E	11/8/07	AS PER LETTER OF COMMENTS		
D	10/8/07	AS PER LETTER OF COMMENTS		
A	6/27/07	AS PER LETTER OF COMMENTS		
REV.	DATE	DESCRIPTION	CHK'D	APP'D



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PRELIMINARY & FINAL SITE PLAN
CONSTRUCTION DETAILS - 2

SCALE:	DATE:	DESIGNED BY:	DRAWN BY:	WORK FILE:	CERTIFICATE OF AUTHORIZATION No.:	PROJECT No.:
AS SHOWN	11/30/06	A.G.	M.P.C.	2006085-DETAILS-2	24GA27962100	2006085

VICTOR E. VINEGRA
PROFESSIONAL ENGINEER & LAND SURVEYOR
NEW JERSEY LICENSE No. 34460