FORTRESS BIBLE CHURCH

ROUTE 100B, DOBBS FERRY ROAD

TOWN OF GREENBURGH, NEW YORK

DRAWING LIST

——— COVER SHEET

1 of 13 ——— EXISTING CONDITIONS

2 of 13 ——— OVERALL SITE PLAN

3 of 13 ——— SITE LAYOUT PLAN

4 of 13 ——— SITE GRADING PLAN

5 of 13 ——— SITE UTILITY PLAN

6 of 13 ——— SITE SEDIMENT & EROSION CONTROL PLAN

7 of 13 ——— TREE REMOVAL PLAN

8 of 13 ——— DRAINAGE PROFILES

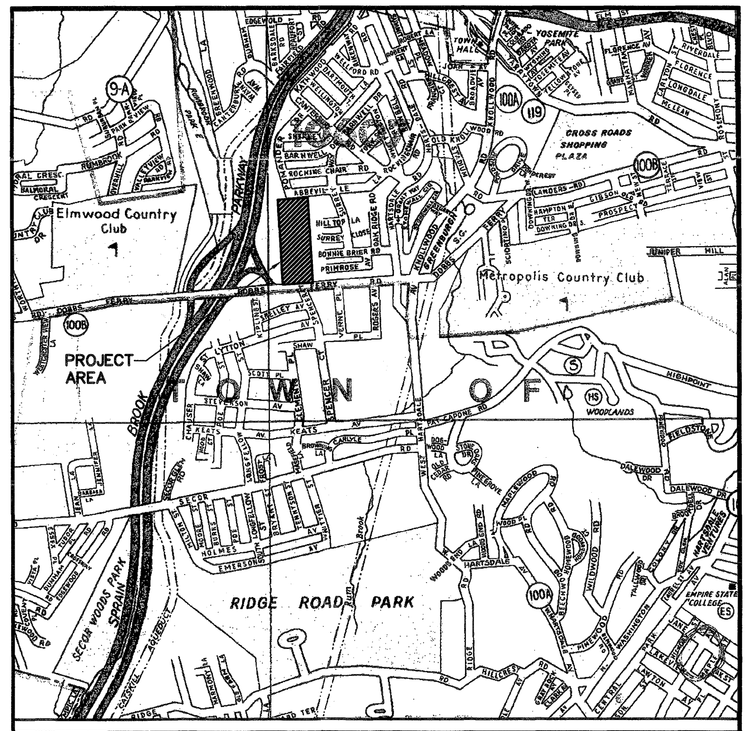
9 of 13 ——— WATER PROFILES

10 of 13 ——— SECTIONS

11 of 13 ——— SEDIMENT & EROSION CONTROL DETAILS

12 of 13 ——— CONSTRUCTION DETAILS

13 of 13 ——— CONSTRUCTION DETAILS



LOCATION MAP

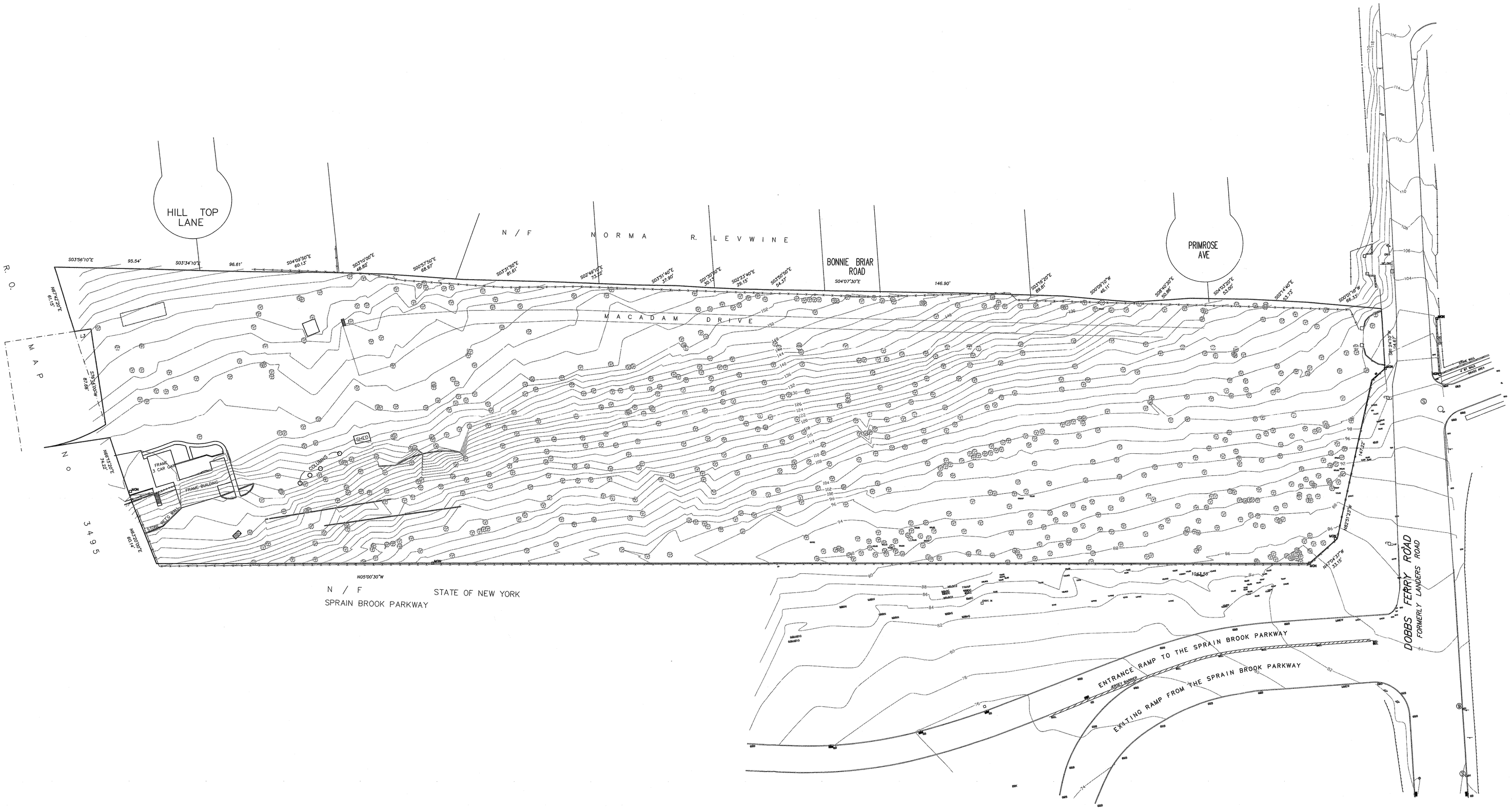
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(914) 422-0070 FAX 422-3009

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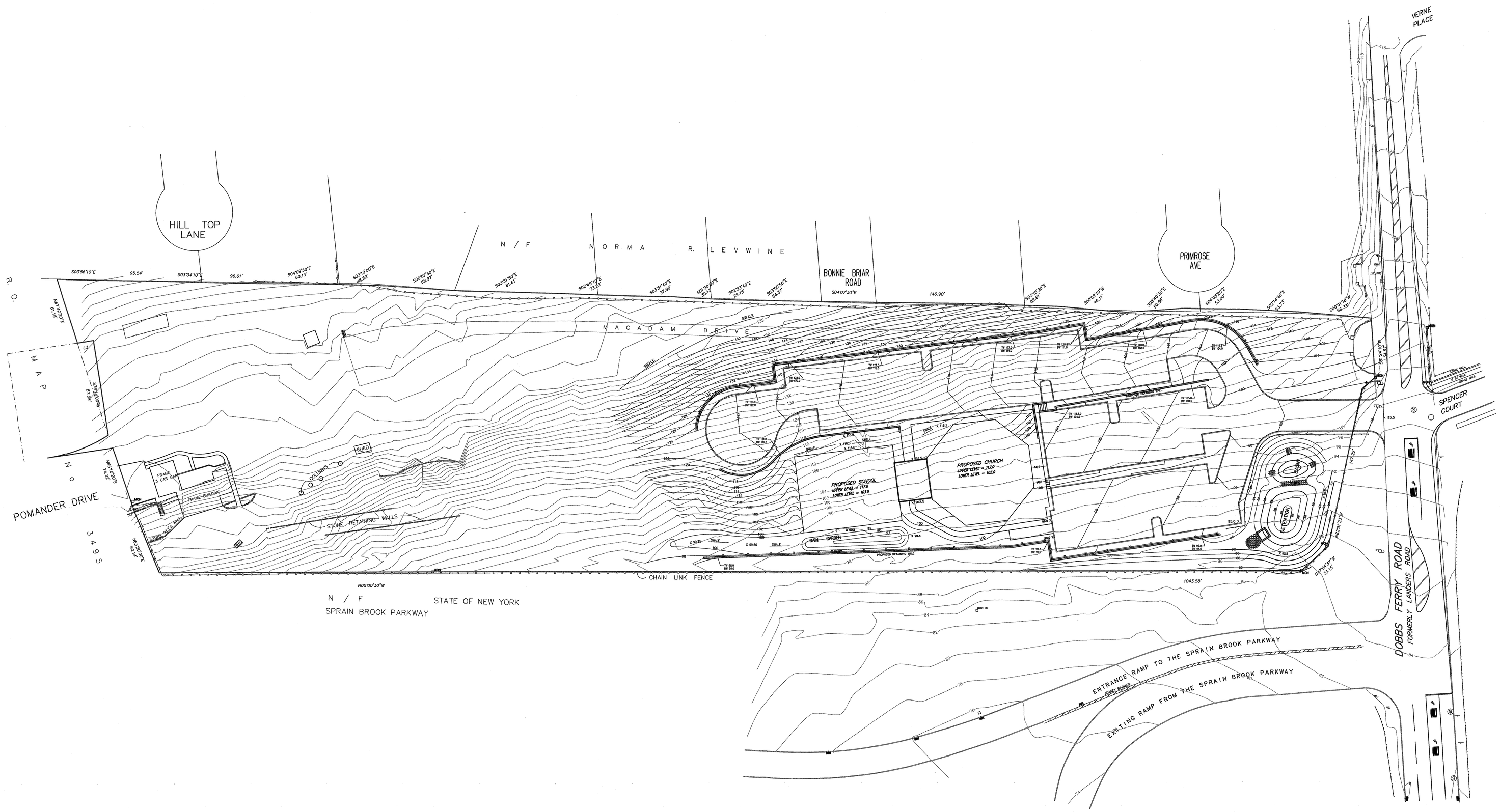
EXISTING CONDITIONS

FORTRESS BIBLE CHURCH
TOWN OF GREENBURGH
WESTCHESTER COUNTY, NEW YORK

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OVERALL SITE PLAN
FORTRESS BIBLE CHURCH
TOWN OF GREENBURGH
WESTCHESTER COUNTY, NEW YORK

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sheet 2 of 13

M A R. L E V W I N E

BONNIE BRIAR ROAD

PRIMROSE AVE

C A D A M D R I V E

S03°51'40"E 37.90'
S01°30'00"E 30.13'
S02°23'40"E 29.15'
S03°50'50"E 54.37'
S04°07'30"E 146.90'
S03°16'20"E 89.81'
S00°09'10"W 46.11'
S05°40'30"E 50.86'
S04°03'20"E 53.00'
S02°14'40"E 53.73'
S00°01'10"W 66.33'
S81°24'10"W 54.62'

REMOVE EXISTING MACADAM DRIVE

PROPOSED RETAINING WALL WITH 6' HIGH C-L FENCE

PROPOSED LIGHT PLOE (TYP)

PROPOSED SCHOOL
UPPER LEVEL = 117.0
LOWER LEVEL = 103.0

PROPOSED CHURCH
UPPER LEVEL = 117.0
LOWER LEVEL = 103.0

5' WIDE SIDEWALK

PROPOSED RETAINING WALL

4' WIDE SIDEWALK

LOADING ZONE

RAIN GARDEN

PROPOSED RETAINING WALL WITH 6' HIGH C-L FENCE

CHAIN LINK FENCE

1043.58'

DYCL

REMOVE EXIST FENCE AS DIRECTED

RELOCATE EXIST. UTILITY POLE

PROPOSED GUIDE RAIL

ENERGY DISSIPATER

BASIN

STONE SPILLWAY

DETENTION

EMERGENCY SPILLWAY

N82°51'23"W 147.22'

N47°04'37"W 33.15'

MON

STONE WALL
4' BT WALK
GRASS AREA

SPENCER COURT

PROPOSED TRAFFIC SIGNAL WITH INTERCONNECTION TO SPRAIN BROOK PARKWAY RAMP SIGNAL

PROPOSED LEFT TURN LANE

ONLY

DOBBS FERRY ROAD
FORMERLY LANDERS ROAD

EXISTING TRAFFIC SIGNAL

ENTRANCE RAMP TO THE SPRAIN BROOK PARKWAY

JERSEY BARRIER

EXITING RAMP FROM THE SPRAIN BROOK PARKWAY

ZONING TABLE

ZONE:	R-10
AREA:	6.53 ACRES
PROPOSED USE:	CHURCH & ASSOCIATED SCHOOL BUILDING
PROPOSED BUILDING FOOTPRINT:	±14,600 SF

DIMENSIONAL REQUIREMENTS:	REQUIRED	PROVIDED
MINIMUM LOT AREA	5 ACRES	6.53 ACRES
MINIMUM LOT WIDTH		
PRINCIPAL BUILDING	22.0%	±5.1%
ACCESSORY BUILDING	5.5%	N/A
ALL BUILDINGS	27.5%	±5.1%
IMPERVIOUS SURFACES	37.25	±32.9%
MINIMUM YARDS		
FRONT	±105.4 FEET (CHURCH)	±272 FEET
SIDE	±105.5 FEET (CHURCH)	±35 FEET/105.5 FEET
REAR	±105.4 FEET (CHURCH)	±650 FEET
MAXIMUM HEIGHT	75'	±30.4 FEET (MEAN HEIGHT BETWEEN EAVE AND RIDGE MEASURED FROM THE AVERAGE, LEVEL OF THE FINISHED GROUND SURFACE ACCROSS THE THE FRONT OF THE BUILDING)

SIGN TABLE

SYMBOL NUMBER	SIZE	SIGN	COLOR	REGULATORY NUMBER	MOUNTING HEIGHT
1	30"x30"		WHITE ON RED	R1-1	7'-0"
2	12"x18"	PARKING ONLY	GREEN & BLUE ON WHITE	R7-8	7'-0"

PAVEMENT MARKING LEGEND

DYCL	4"	DOUBLE YELLOW CENTER LINE
SWSL	18"	SOLID WHITE STOP LINE

NOTE: TRAFFIC PAINT MARKINGS AND SIGNS SHALL BE IN ACCORDANCE TO THE LATEST REGULATIONS OF THE NYSDOT "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES". ALL NEW MARKINGS SHALL BE EPOXY.

PARKING TABLE

BUILDING AREA	PARKING REQUIRED BY ZONING	PARKING PROVIDED
RELIGIOUS INSTUTION	125 SPACES (1 FOR EACH 4 SEATS OF AUDITORIUM)	126 SPACES
ELEMENTARY OR JUNIOR HIGH SCHOOL	1.25 PER STAFF MEMBER	–
	1 FOR EACH STAFF MEMBER +1 FOR EVERY 5 SEATS IN LARGEST ASSEMBLY HALL	–

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GRAPHIC SCALE
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SITE LAYOUT PLAN

FORTRESS BIBLE CHURCH
TOWN OF GREENBURGH
WESTCHESTER COUNTY, NEW YORK

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O R M A R. L E V W I N E

BONNIE BRIAR ROAD

PRIMROSE AVE

M A C A D A M D R I V E

SPENCER COURT

DOBBS FERRY ROAD
FORMERLY LANDERS ROAD

CHAIN LINK FENCE

PROPOSED SCHOOL
UPPER LEVEL = 117.0
LOWER LEVEL = 103.0

PROPOSED CHURCH
UPPER LEVEL = 117.0
LOWER LEVEL = 103.0

PROPOSED RETAINING WALL

PROPOSED RETAINING WALL

RAIN GARDEN

DETENTION BASIN

ENTRANCE RAMP TO THE SPRAIN BROOK PARKWAY

EXITING RAMP FROM THE SPRAIN BROOK PARKWAY

JERSEY BARRIER

S03°51'40"E 37.90'
S01°30'00"E 30.13'
S02°23'40"E 29.15'
S03°50'50"E 54.37'
S04°07'30"E 146.90'
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S00°01'10"W 66.33'
S81°24'10"W 54.67'
N82°51'23"W 147.22'
N47°04'37"W 33.15'
1043.58'

TW 127.0 BW 114.0
TW 126.8 BW 111.0
TW 120.0 BW 108.0
TW 115.8 BW 104.0
TW 105.0 BW 100.5
TW 111.5.0 BW 104.5
TW 129.5 BW 118.0
TW 134.0 BW 120.0
TW 128.0 BW 122.0
TW 121.0 BW 116.0
TW 99.3 BW 91.5
TW 96.0 BW 94.0
TW 98.0 BW 96.0

EXIST. DI

MON

GW.S

18" CMP

STONE WALL

4' BT WALK

GRASS AR

ONLY

LEGEND

EXISTING	PROPOSED	
200	200	CONTOUR
+ 215.30	+ 215.30	SPOT ELEVATIONS
○	●	SEWER MANHOLE
⊘	◒	DRAIN MANHOLE
▨	◧	CATCH BASIN
⊠	◨	DRAIN INLET
◠	◠	HEADWALL
⊲	⊲	HYDRANT

GRAPHIC SCALE
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(IN FEET)
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SITE GRADING PLAN

FORTRESS BIBLE CHURCH
TOWN OF GREENBURGH
WESTCHESTER COUNTY, NEW YORK

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sheet 4 of 13

MACADAM DRIVE

CONNECT TO EXIST. 8" WATER MAIN

6" VALVE

8" X 6" TEE

PROPOSED 8" DIP CL 54 WATER MAIN

8" X 8" TEE WITH 8" VALVES

PROPOSED 8" DIP CL 54 WATER MAIN

CB A6 R=111.60 I=108.05

I=108.05

117 LF 15" HDPE @ 5.37%

20 LF 15" HDPE @ 2.0%

PROVIDE 18" MIN. SEP. (TYP)

CB A5A R=106.16 I=101.86

THRUST BLOCK (TYP)

42 LF 15" HDPE @ 5.26%

CB A5 R=105.76 I=101.76

DMH A2 R=102.40 I(IN)=98.40 I(OUT)=95.88

CB A3 R=97.80 I=93.10

PROPOSED 8" DIP CL 54 WATER MAIN

CB B3 R=96.3 I=93.0

PROPOSED RETAINING WALL

53 LF 15" CMP @ 2.0%

CB A4 R=99.90 I=94.16

CB A2 R=97.80 I=92.58

26 LF 15" HDPE @ 2.0%

35 LF 15" HDPE @ 6.0%

CB B2 R=94.0 I=90.90

125 LF 12" HDPE @ 2.0%

98 LF 12" HDPE @ 1.0%

22 LF 12" HDPE @ 1.0%

DI A3 R=116.20 I=110.55

DI A2 R=116.20 I=110.77

DI A1 R=115.0 I=111.75

PROPOSED SCHOOL
UPPER LEVEL = 117.0
LOWER LEVEL = 103.0

PROPOSED CHURCH
UPPER LEVEL = 112.0
LOWER LEVEL = 103.0

CB A1B R=99.0 I=93.5

26 LF 15" HDPE @ 1.8%

CB A1 R=96.40 I=91.30

HW D1 I=92.0

16 LF 15" HDPE HDPE @ 3.62%

HW B1 I=90.6

62 LF 15" HDPE @ 0.5%

20 LF 15" HDPE HDPE @ 1.5%

HW A1 I=91.0

BASIN

25 LF 15" HDPE @ 6.8%

CB A1A R=96.40 I=91.80

I=87.0

350 LF 4' WIDE X 6' DEEP CONCRETE BOX CULVERT I=85.9

3 LF 24" DIP (TYP)

R=95.8

R=95.7

R=95.6

61 LF 12" HDPE @ 3.11%

HW C1 I=88.8

42 LF 15" HDPE @ 1.0%

CB A1C R=95.00 I=91.72

DETENTION

STONE SPILLWAY I=89.5

CO # 7 R=99.77 I=94.35

I=94.35

8" X 6" REDUCER 6" VALVE

2" DOMESTIC SERVICE 6" FIRE SERVICE

CO # 4 R=95.90 I=87.26

CO # 5 R=97.20 I=89.83

SANITARY

6"

CO # 6 R=98.20 I=92.40

O.C.S. R=98.75 I=94.5

(2) 4" PERF HDPE

RAIN GARDEN

224 LF 15" HDPE @ 1.0%

77 LF 15" HDPE @ 0.7%

160 LF 18" HDPE @ 1.2%

CONTROL STRUCTURE R=92.0 I(18")=84.00 I(3"ø)=84.00 I(WEIR)=91.00

CO # 3 R=95.90 I=87.26

CB A1d R=96.2 I=92.25

I=85.14

78 LF 18" HDPE @ 1.0%

38 LF 18" HDPE @ 2.0%

DMH D2 R=89.7 I=81.30

DMH D1 R=88.0 I=82.08

DISCHARGE CHAMBER 3' WEIR EL. 91.0 3" ø ORFICE EL 85.9 18" OUT EL 85.9

EMERGENCY SPILLWAY I=92.0

CO # 2 R=95.37 I=84.69

CO # 1 R=95.90 I=87.26

SEWER SERVICE

CHAIN LINK FENCE

EXIST. DI

134 LF 18" HDPE @ 7.1%

9" WATER MAIN

(DOG HOUSE MH) BUILD SMH OVER EXIST. SEWER MAIN R=89.5 I=72.23

ENTRANCE RAMP TO THE SPRAIN BROOK PARKWAY

EXITING RAMP FROM THE SPRAIN BROOK PARKWAY

JERSEY BARRIER

16" WATER MAIN

CONNECT TO EX. DI R=75.56 I=71.80

R=75.56

I 71.8

I 71.2

I 72.9

18" CONC

18" CONC

NATIONAL DRAIN

R+/-75 I+/-69.2

I 62.1

R=82.5

DOBBS FERRY ROAD
FORMERLY LANDERS ROAD

GW

18" CMP

8" SANITARY SEWER

STONE WALL

5' BT WALK

GRASS AR

SPENCER COURT

8"CLAY

12" CLAY

R=94.8 I=87.6

ABANDONED

87.3

12" WATER MAIN

8" WATER MAIN

CONNECT TO E WATER MAIN E TAPPING SLEEF 8" VALVE

LEGEND

EXISTING	PROPOSED	
—S—	———	SANITARY SEWER LINE
———	———	SANITARY SEWER SERVICE
—D—	—D—	DRAINAGE LINE
—W—	—W—	WATER LINE
○		SEWER MANHOLE
	● CO	SEWER CLEAN OUT MANHOLE
⊘	◒	DRAIN MANHOLE
▭	▭	CATCH BASIN
⊠	▣	DRAIN INLET
	◠	HEADWALL
♉	●	HYDRANT

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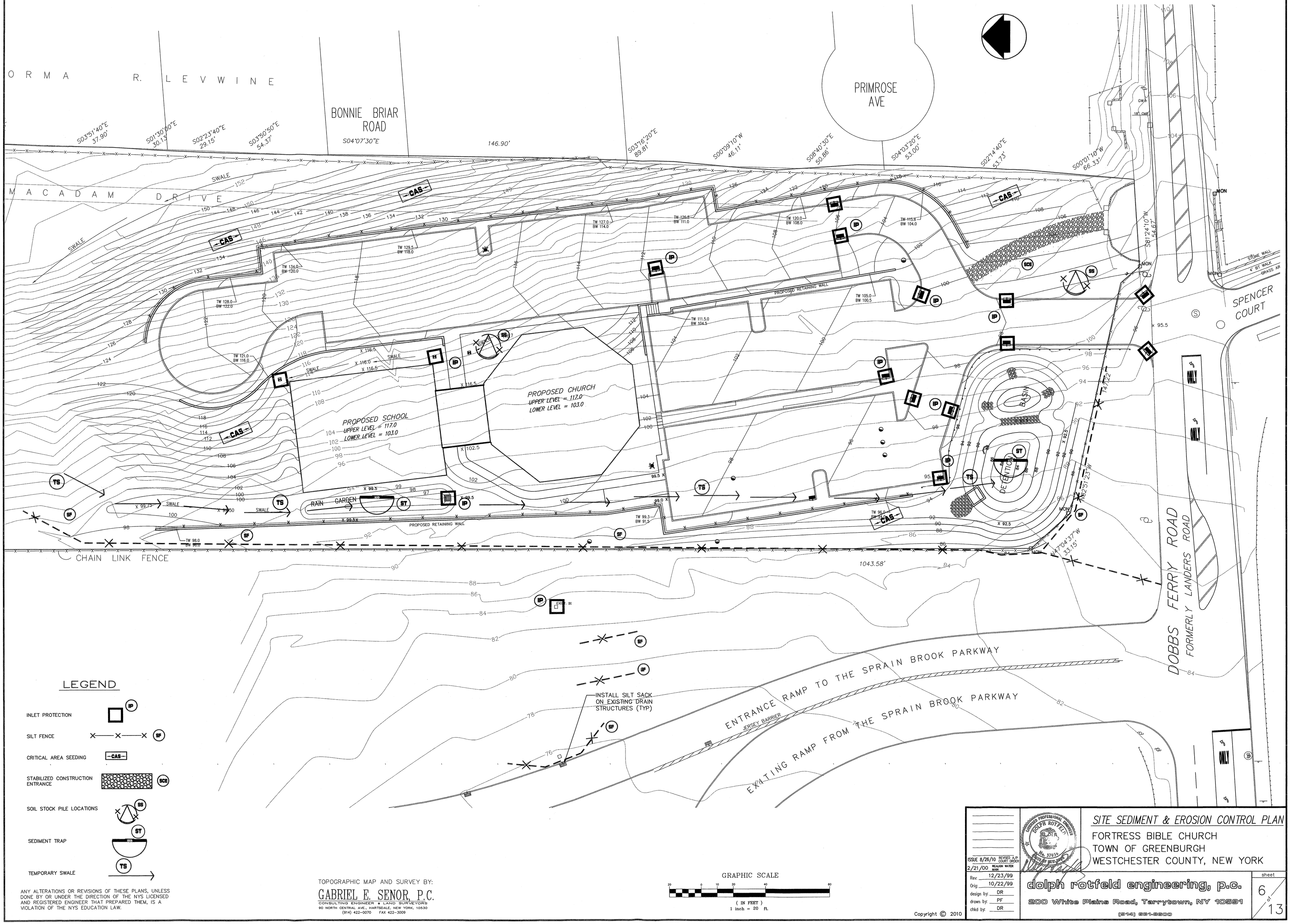
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ADOLPH ROTFELD
No. 54937
STATE OF NEW YORK

SITE UTILITY PLAN

FORTRESS BIBLE CHURCH
TOWN OF GREENBURGH
WESTCHESTER COUNTY, NEW YORK

dolph rotfeld engineering, p.c.
200 White Plains Road, Tarrytown, NY 10591
(914) 631-8200

sheet 5 of 13



LEGEND

- INLET PROTECTION (IP)
- SILT FENCE (SF)
- CRITICAL AREA SEEDING (CAS)
- STABILIZED CONSTRUCTION ENTRANCE (SCE)
- SOIL STOCK PILE LOCATIONS (SS)
- SEDIMENT TRAP (ST)
- TEMPORARY SWALE (TS)

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SITE SEDIMENT & EROSION CONTROL PLAN

FORTRESS BIBLE CHURCH
TOWN OF GREENBURGH
WESTCHESTER COUNTY, NEW YORK

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TREE REMOVAL LEGEND

10CHY = TREES TO BE REMOVED

GRAPHIC SCALE

20 0 10 20 40 80

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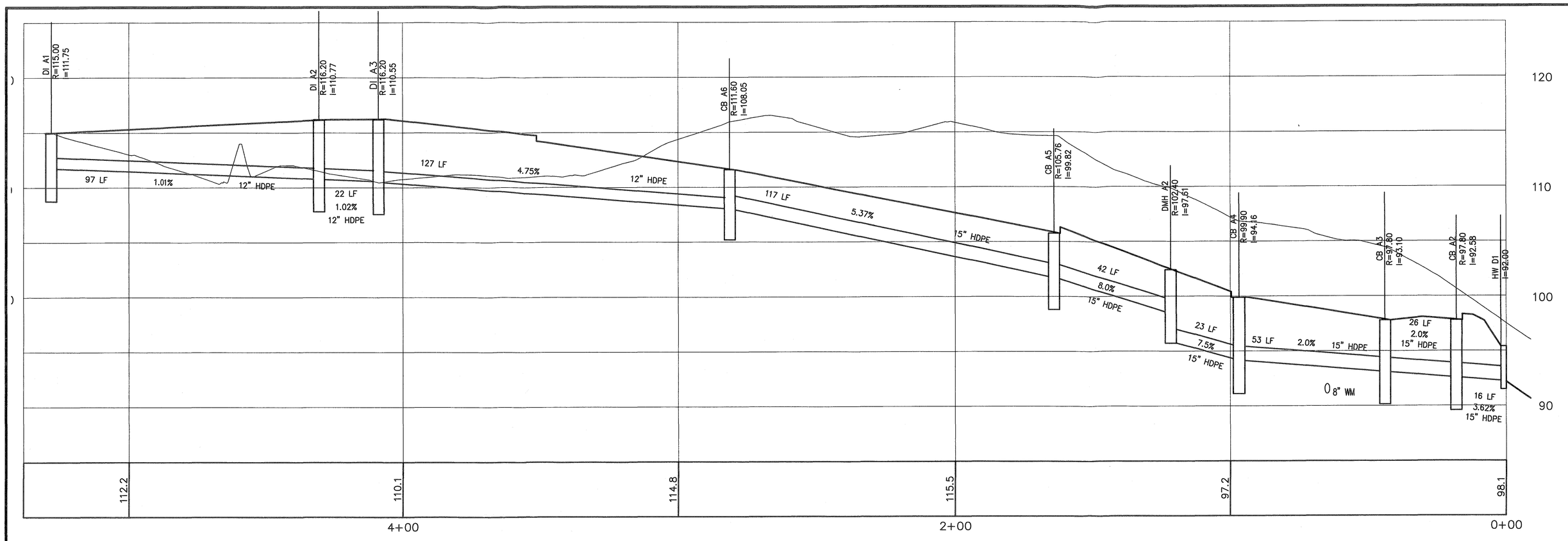
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TREE REMOVAL PLAN

FORTRESS BIBLE CHURCH
TOWN OF GREENBURGH
WESTCHESTER COUNTY, NEW YORK

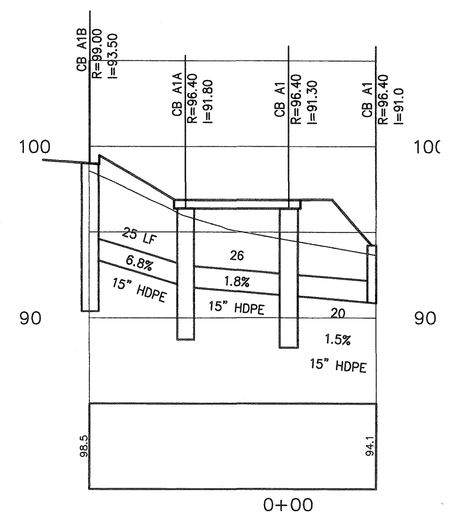
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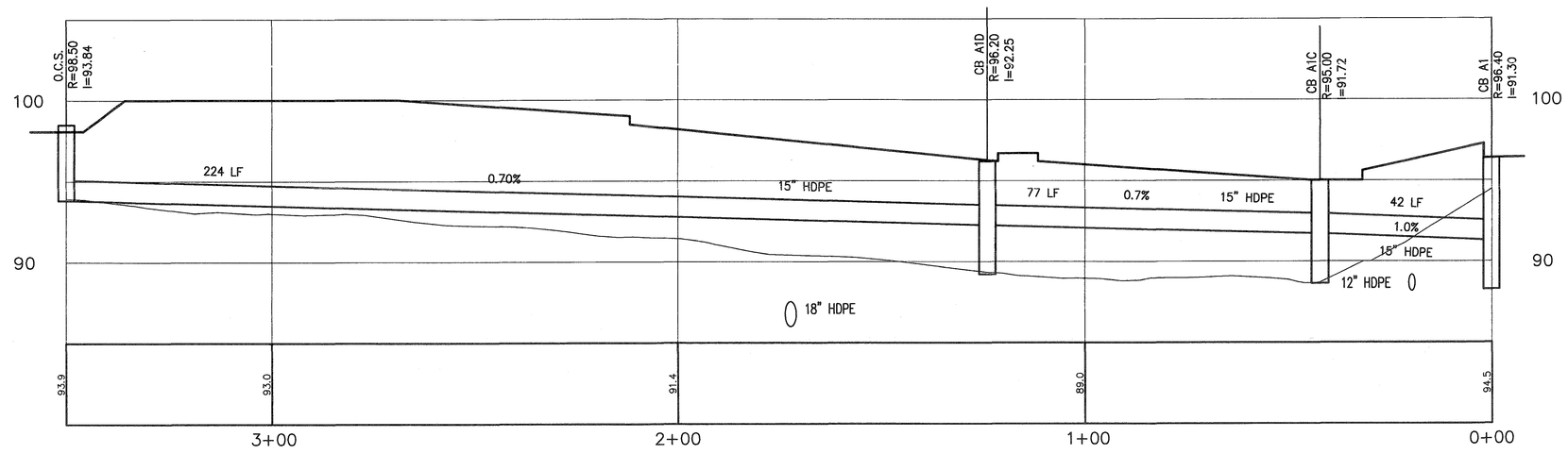
DRAINAGE PROFILE HW D1 TO DI A1

SCALE HORIZ. 1"=20'
VERT. 1"=5'



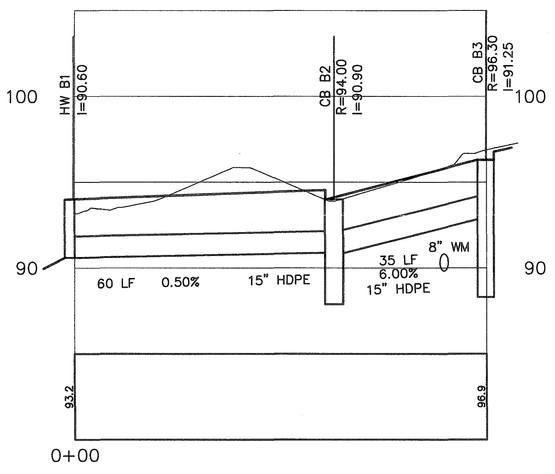
DRAINAGE PROFILE CB A1 TO CB A1B

SCALE HORIZ. 1"=20'
VERT. 1"=5'



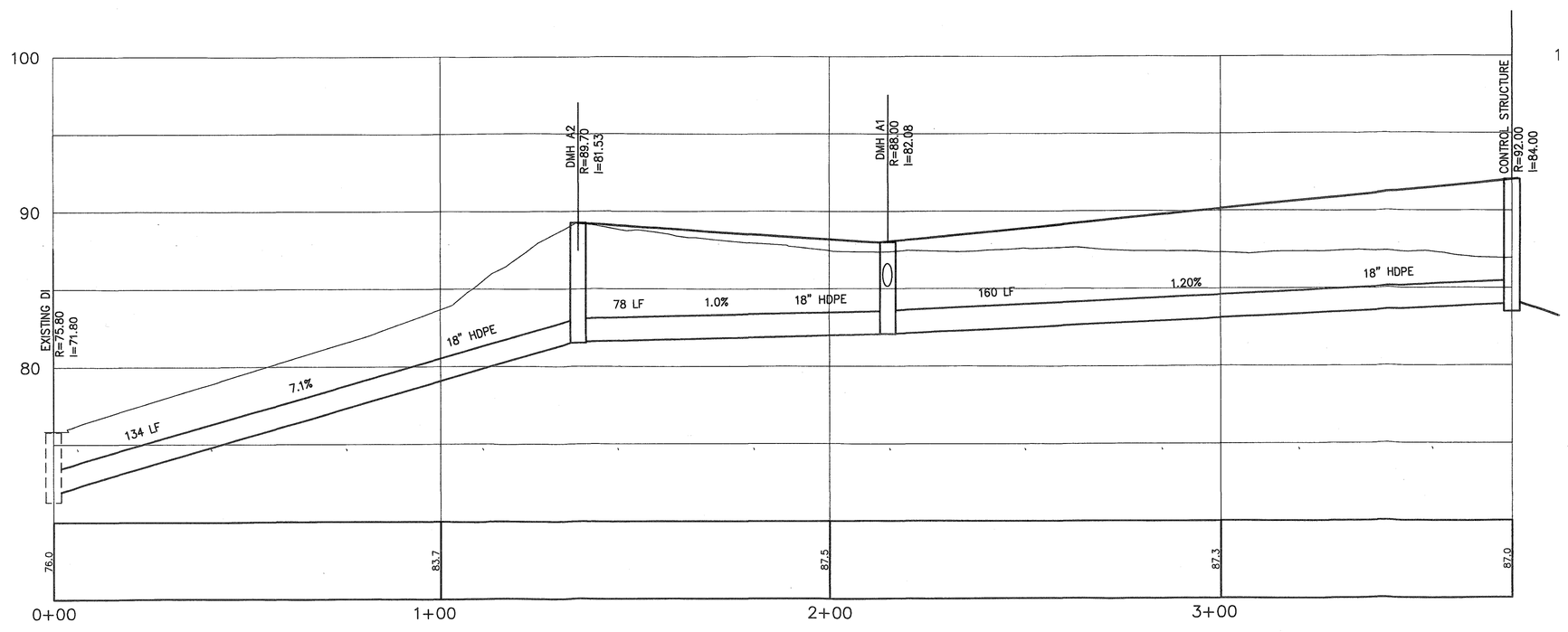
DRAINAGE PROFILE CB A1 TO O.C.S.

SCALE HORIZ. 1"=20'
VERT. 1"=5'



DRAINAGE PROFILE HW B1 TO CB B3

SCALE HORIZ. 1"=20'
VERT. 1"=5'



DRAINAGE PROFILE EXISTING DI TO CONTROL STRUCTURE

SCALE HORIZ. 1"=20'
VERT. 1"=5'

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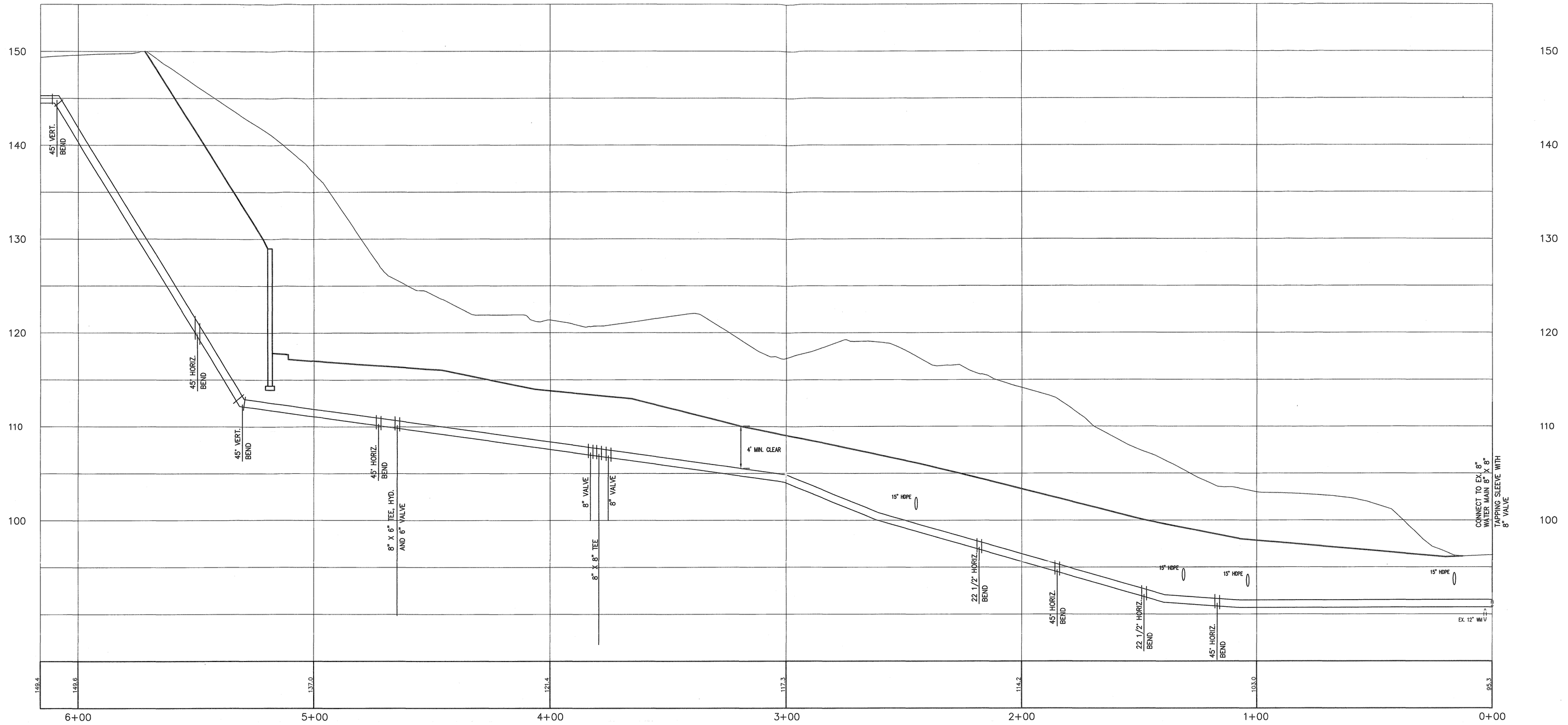
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STATE OF NEW YORK

DRAINAGE PROFILES

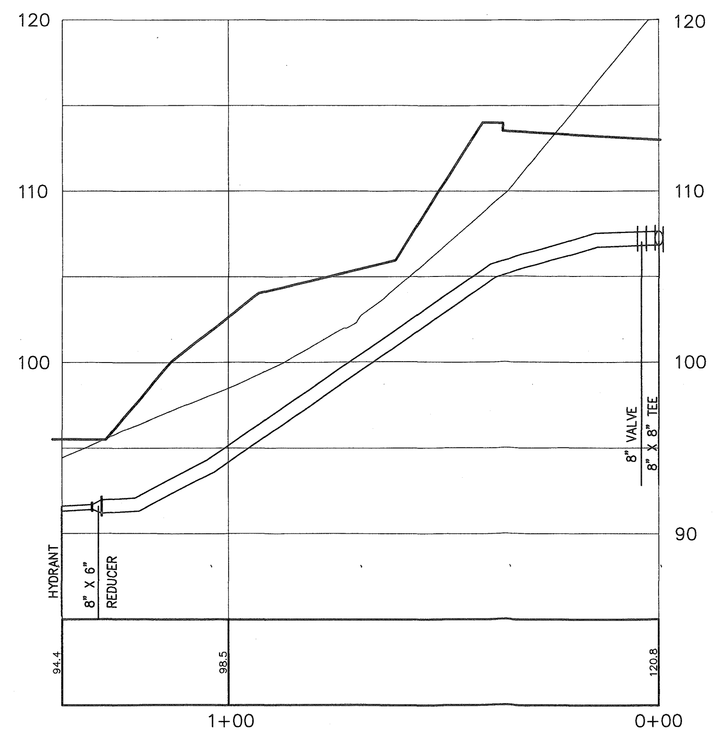
FORTRESS BIBLE CHURCH
TOWN OF GREENBURGH
WESTCHESTER COUNTY, NEW YORK

dolph rotfeld engineering, p.c.
200 White Plains Road, Tarrytown, NY 10591
(914) 631-2300

sheet 8 of 13



WATER MAIN PROFILE
SCALE HORIZ. 1"=20'
VERT. 1"=5'



WATER MAIN PROFILE
SCALE HORIZ. 1"=20'
VERT. 1"=5'

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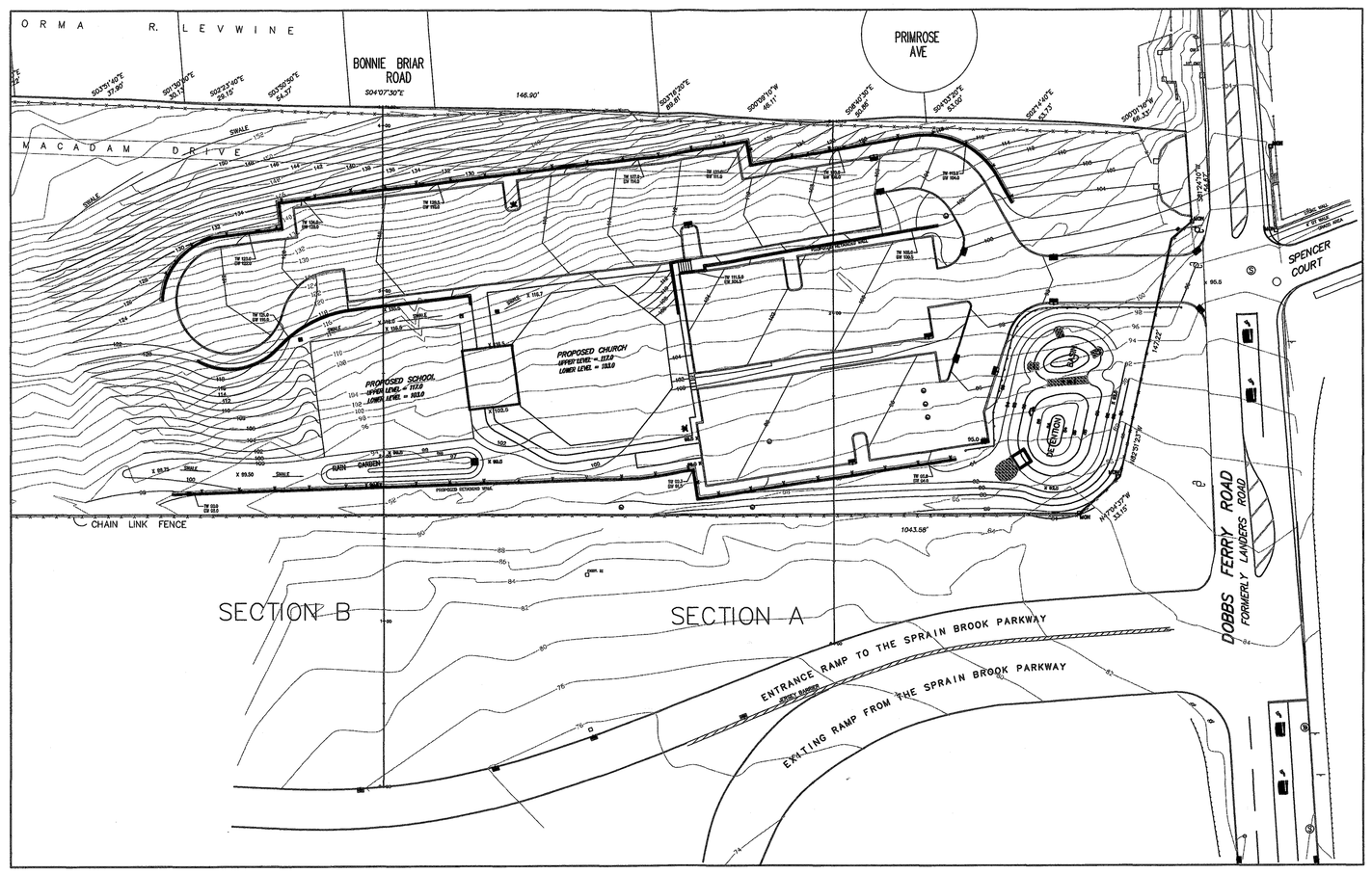
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WATER MAIN PROFILES

FORTRESS BIBLE CHURCH
TOWN OF GREENBURGH
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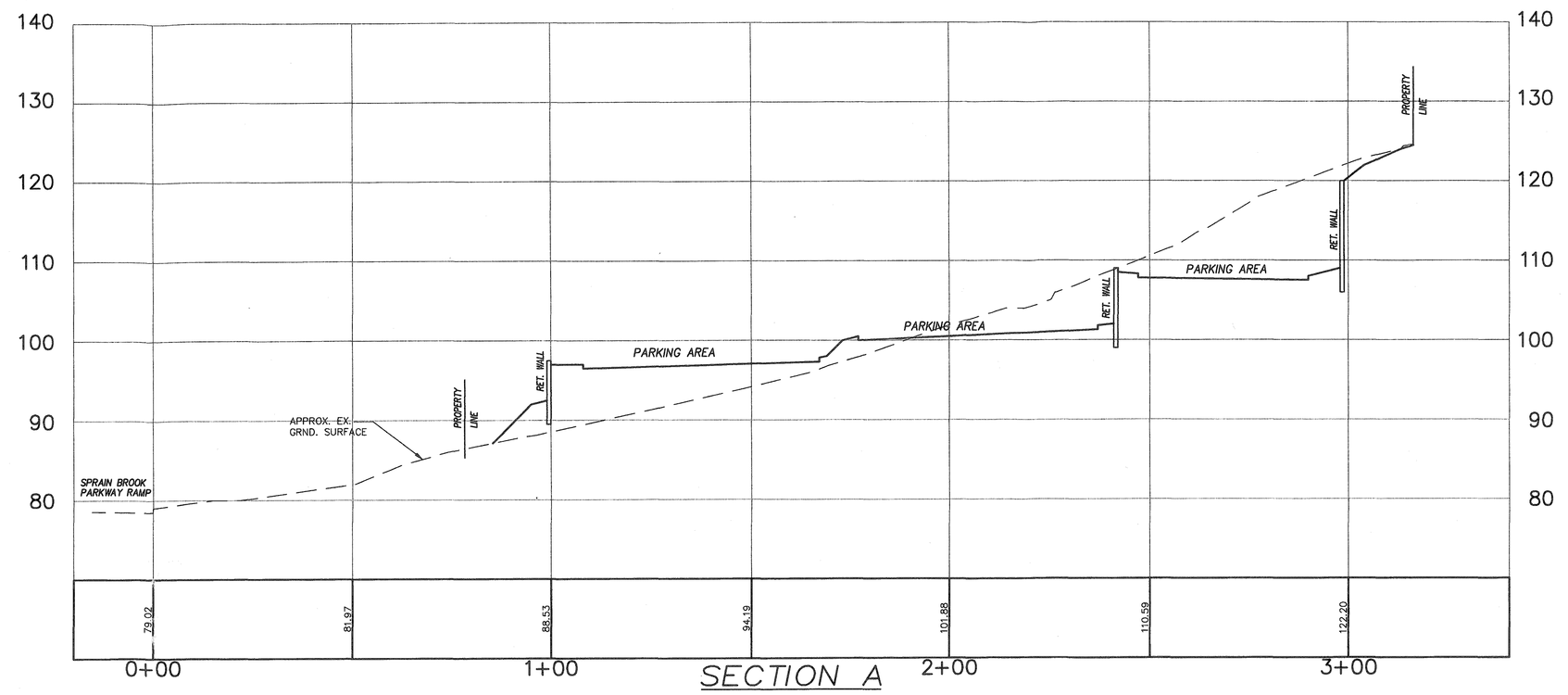
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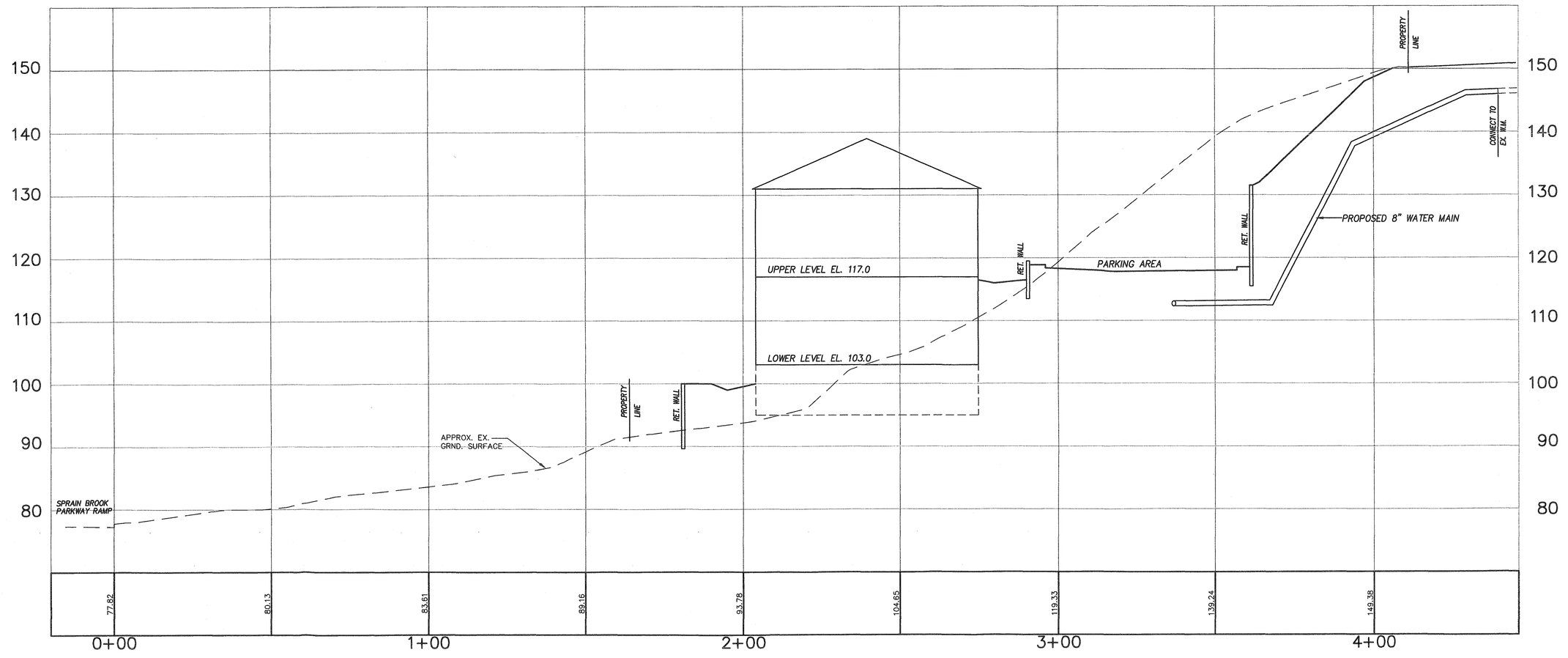
SITE PLAN

SCALE : 1"=50'



SECTION A

SCALE : HORIZ. 1"=20'
VERT. 1"=10'



SECTION B

SCALE : HORIZ. 1"=20'
VERT. 1"=10'

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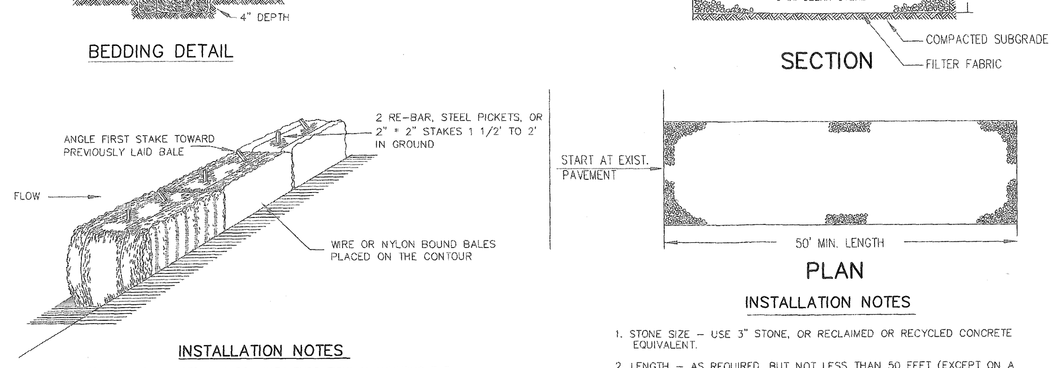
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ADOLPH ROTFELD
No. 37031
STATE OF NEW YORK

SECTIONS
FORTRESS BIBLE CHURCH
TOWN OF GREENBURGH
WESTCHESTER COUNTY, NEW YORK

dolph rotfeld engineering, p.c.
200 White Plains Road, Tarrytown, NY 10591
(914) 631-8800

sheet 10 of 13

BEDDING DETAIL

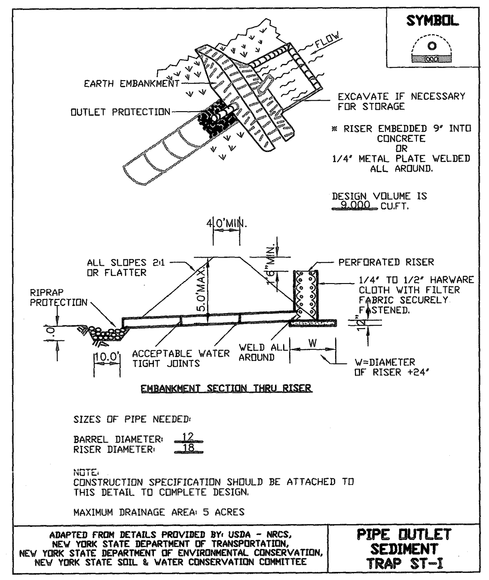


SECTION

INSTALLATION NOTES

1. BALES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
2. EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF 4".
3. BALES SHALL BE SECURELY ANCHORED IN PLACE BY STAKES OR RE-BAR DRIVEN THROUGH THE BALES. THE FIRST STAKE IN EACH BALE SHALL BE ANGLED TOWARD PREVIOUSLY LAID BALE TO FORCE BALES TOGETHER.
4. BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULLNESS SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

STRAWBALE SEDIMENT BARRIERS



ENHANCEMENT SECTION THRU RISER

SIZES OF PIPE NEEDED

BARREL DIAMETER:	12
RISER DIAMETER	18

NOTE:
CONSTRUCTION SPECIFICATION SHOULD BE ATTACHED TO THIS DETAIL TO COMPLETE DESIGN.

MAXIMUM DRAINAGE AREA= 5 ACRES

ADAPTED FROM DETAILS PROVIDED BY: USDA – NRCS, NEW YORK STATE DEPARTMENT OF TRANSPORTATION, NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION, NEW YORK STATE SOIL & WATER CONSERVATION COMMITTEE

PIPE OUTLET SEDIMENT TRAP ST-1

CONSTRUCTION SPECIFICATIONS

SYMBOL

1. AREA UNDER EMBANKMENT SHALL BE CLEARED, GRUBBED AND STRIPPED OF ANY VEGETATION AND ROOT MAT. THE POOL AREA SHALL BE CLEARED.
2. THE FILL MATERIAL FOR THE EMBANKMENT SHALL BE FREE OF ROOTS OR OTHER WOODY VEGETATION AS WELL AS OVER-SIZED STONES, ROCKS, ORGANIC MATERIAL, OR OTHER OBJECTIONABLE MATERIAL. THE EMBANKMENT SHALL BE COMPACTED BY TRAVERSING WITH EQUIPMENT WHILE IT IS BEING CONSTRUCTED.
3. VOLUME OF SEDIMENT STORAGE SHALL BE 3600 CUBIC FEET PER ACRE OF CONTRIBUTORY DRAINAGE.
4. SEDIMENT SHALL BE REMOVED AND TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO 1/2 THE DESIGN DEPTH OF THE TRAP. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND STABILIZED.
5. THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NEEDED.
6. CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND SEDIMENT ARE CONTROLLED.
7. THE STRUCTURE SHALL BE REMOVED AND AREA STABILIZED WHEN THE DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.
8. ALL FILL SLOPES SHALL BE 2:1 OR FLATTER; CUT SLOPES 1:1 OR FLATTER.
9. ALL PIPE CONNECTIONS SHALL BE WATERTIGHT.
10. THE TOP 2/3 OF THE RISER SHALL BE PERFORATED WITH ONE (1) INCH DIAMETER HOLES OR SLITS SPACED SIX (6) INCHES VERTICALLY AND HORIZONTALLY AND PLACED IN THE CONCAVE PORTION OF PIPE. NO HOLES WILL BE ALLOWED WITHIN SIX (6) INCHES OF THE HORIZONTAL BARREL.
11. THE RISER SHALL BE WRAPPED WITH 1/4 TO 1/2 INCH HARDWARE CLOTH WIRE THEN WRAPPED WITH FILTER CLOTH HAVING AN EQUIVALENT SIEVE SIZE OF 40–80). THE FILTER CLOTH SHALL EXTEND SIX (6) INCHES ABOVE THE HIGHEST HOLE AND SIX (6) INCHES BELOW THE LOWEST HOLE, WHERE ENDS OF THE FILTER CLOTH COME TOGETHER, THEY SHALL BE OVER-LAPPED, FOLDED AND STAPLED TO PREVENT BYPASS.
12. STRAPS OR CONNECTING BANDS SHALL BE USED TO HOLD THE FILTER CLOTH AND WIRE FABRIC IN PLACE. THEY SHALL BE PLACED AT THE TOP AND BOTTOM OF THE CLOTH.
13. FILL MATERIAL AROUND THE PIPE SPILLWAY SHALL BE HAND COMPACTED IN FOUR (4) INCH LAYERS. A MINIMUM OF TWO (2) FEET OF HAND COMPACTED BACKFILL SHALL BE PLACED OVER THE PIPE SPILLWAY BEFORE CROSSING IT WITH CONSTRUCTION EQUIPMENT.
14. THE RISER SHALL BE ANCHORED WITH EITHER A CONCRETE BASE OR STEEL PLATE BASE TO PREVENT FLOTATION. FOR CONCRETE BASES THE DEPTH SHALL BE TWELVE (12) INCHES WITH THE RISER EMBEDDED NINE (9) INCHES. A 1/4 INCH MINIMUM THICKNESS STEEL PLATE SHALL BE ATTACHED TO THE RISER BY A CONTINUOUS WELD AROUND THE BOTTOM TO FORM A WATERTIGHT CONNECTION AND THEN PLACE TWO (2) FEET OF STONE, GRAVEL, OR TAMPED EARTH ON THE PLATE.

ADAPTED FROM DETAILS PROVIDED BY: USDA – NRCS, NEW YORK STATE DEPARTMENT OF TRANSPORTATION, NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION, NEW YORK STATE SOIL & WATER CONSERVATION COMMITTEE

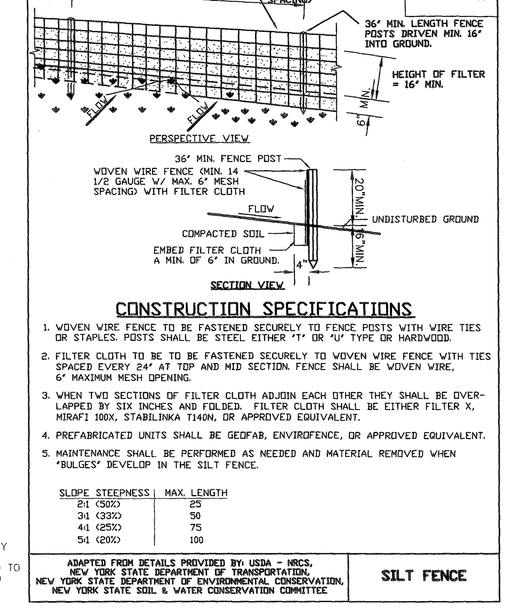
PIPE OUTLET SEDIMENT TRAP ST-I

STABILIZED CONSTRUCTION ENTRANCE

PLAN

INSTALLATION NOTES

1. STONE SIZE – USE 3" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH – AS REQUIRED, BUT NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY.
3. THICKNESS – NOT LESS THAN SIX (6) INCHES.
4. WIDTH – 25 FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCUR.
5. FILTER CLOTH – WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE. FILTER CLOTH WILL NOT BE REQUIRED ON A SINGLE FAMILY RESIDENCE LOT.
6. SURFACE WATER – ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. 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, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHT OF WAY MUST BE REMOVED IMMEDIATELY.
8. WASHING – 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 STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.



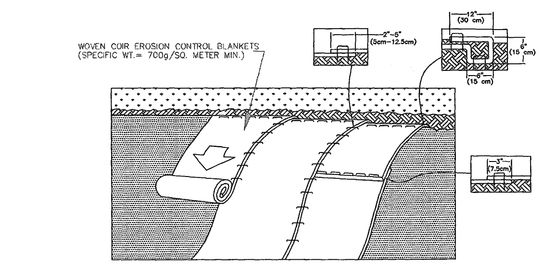
CONSTRUCTION SPECIFICATIONS

1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES. POSTS SHALL BE STEEL EITHER "T" OR "U" TYPE OR HARDWOOD.
2. FILTER CLOTH TO BE TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION. FENCE SHALL BE WOVEN WIRE, 6" MAXIMUM MESH OPENING.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVER-LAPPED BY SIX INCHES AND FOLDED. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAFI 100X, STABILINKA T140N, OR APPROVED EQUIVALENT.
4. PREFABRICATED UNITS SHALL BE GEOFAB, ENVIROFENCE, OR APPROVED EQUIVALENT.
5. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

SLOPE STEEPNESS	MAX. LENGTH
2:1 (50%)	25
3:1 (33%)	50
4:1 (25%)	75
5:1 (20%)	100

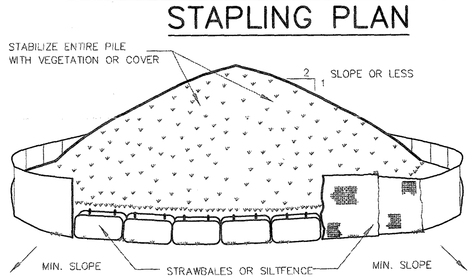
ADAPTED FROM DETAILS PROVIDED BY: USDA – NRCS, NEW YORK STATE DEPARTMENT OF TRANSPORTATION, NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION, NEW YORK STATE SOIL & WATER CONSERVATION COMMITTEE

SILT FENCE



1.15 STAPLES PER SQ. YD.
(1.35 STAPLES PER SQ. M)

EROSION CONTROL BLANKETS STAPLING PLAN



INSTALLATION NOTES

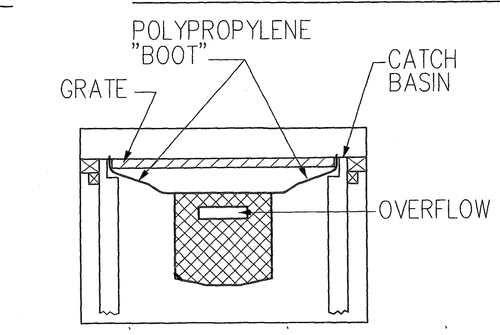
1. AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE.
2. SOILS OR FILL TO BE STOCKPILED ON SITE DURING CUTTING AND FILLING ACTIVITIES SHOULD BE LOCATED ON LEVEL PORTIONS OF THE SITE WITH A MINIMUM OF 50–75 FOOT SETBACKS FROM TEMPORARY DRAINAGE SWALES.
3. MAXIMUM SLOPE OF STOCKPILE SHALL BE 1:2.
4. UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE SURROUNDED WITH EITHER SILT FENCING OR STRAWBALES, THEN STABILIZED WITH VEGETATION OR COVERED.
5. STOCKPILES REMAINING IN PLACE FOR MORE THAN A WEEK SHOULD BE SEEDED MULCHED OR COVERED WITH GEOTEXTILE FABRIC SURROUNDED BY SILT FENCE.
6. SEE SPECIFICATIONS (THIS MANUAL) FOR INSTALLATION OF SILTFENCE.

EROSION CONTROL BLANKETS

1. PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECP's), INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE RECP'S IN A 6" (15 CM) DEEP X 6" (15 CM) WIDE TRENCH WITH APPROXIMATELY 12" (30cm) OF RECP'S EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE RECP'S WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30 CM) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" (30 CM) PORTION OF RECP'S BACK OVER SEED AND COMPACTED SOIL. SECURE RECP'S OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" (30 CM) APART ACROSS THE WIDTH OF THE RECP'S.
3. ROLL THE RECP'S (A) DOWN OR (B) HORIZONTALLY ACROSS THE SLOPE. RECP'S WILL UNROLL WITH APPROPRIATE SIDE FACING DOWNSLOPE. A DOUBLE ROW OF STAGGERED STAPLES/STAKES SHOULD BE PLACED 4" TO 6" (10 CM TO 15 CM) APART ACROSS THE WIDTH OF THE RECP'S. STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
4. THE EDGES OF PARALLEL RECP'S MUST BE STAPLED WITH APPROXIMATELY 2" – 5" (5 CM – 12.5 CM) OVERLAP DEPENDING ON RECP'S TYPE.
5. CONSECUTIVE RECP'S SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" (7.5 CM) OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" (30 CM) APART ACROSS ENTIRE RECP'S WIDTH.
NOTE:
IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 8" (15 CM) MAY BE NECESSARY TO PROPERLY SECURE THE RECP's.

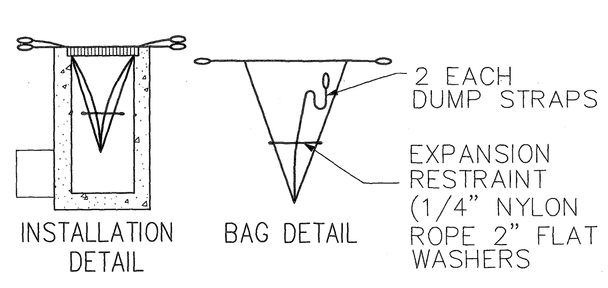
SOIL STOCKPILING

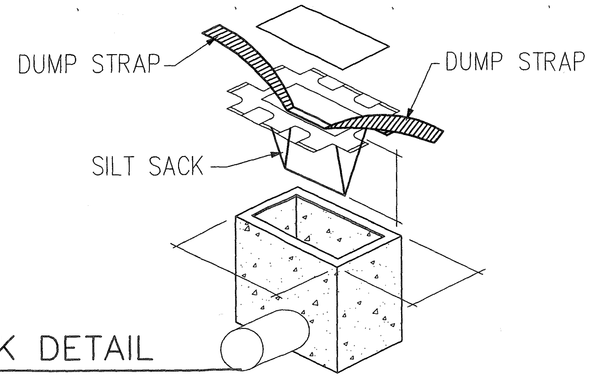
EXCAVATED DROP INLET PROTECTION



TEMPORARY INLET SEDIMENT FILTER

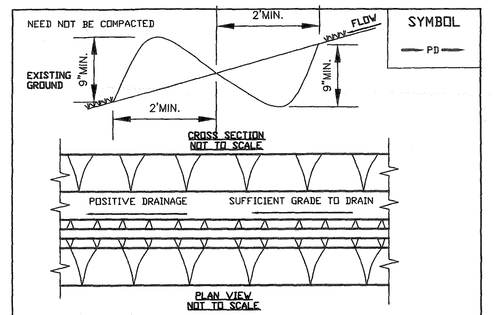
NOTE:
INSERTS TO BE MODEL #1341 ADJUSTABLE CATCH BASIN INSERTS BY ENPAC STORM SENTIENCE OR EQUAL.





SILT SACK DETAIL
NO SCALE

NEED NOT BE COMPACTED



CONSTRUCTION SPECIFICATIONS

1. ALL PERIMETER DIKE/SWALE SHALL HAVE UNINTERRUPTED POSITIVE GRADE TO AN OUTLET.
2. DIVERTED RUNOFF FROM A DISTURBED AREA SHALL BE CONVEYED TO A SEDIMENT TRAPPING DEVICE.
3. DIVERTED RUNOFF FROM AN UNDISTURBED AREA SHALL OUTLET INTO AN UNDISTURBED STABILIZED AREA AT NON-EROSION VELOCITY.
4. THE SWALE SHALL BE EXCAVATED OR SHAPED TO LINE GRADE, AND CROSS SECTION AS REQUIRED TO MEET THE CRITERIA SPECIFIED IN THE STANDARD.
5. STABILIZATION OF THE AREA DISTURBED BY THE DIKE AND SWALE SHALL BE DONE IN ACCORDANCE WITH THE STANDARD AND SPECIFICATIONS FOR TEMPORARY SEEDING AND MULCHING, AND SHALL BE DONE WITHIN 10 DAYS.
6. PERIODIC INSPECTION AND REQUIRED MAINTENANCE MUST BE PROVIDED AFTER EACH RAIN EVENT.

MAX. DRAINAGE AREA LIMIT= 2 ACRES

U.S. DEPARTMENT OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE, NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION, NEW YORK STATE SOIL & WATER CONSERVATION COMMITTEE

PERIMETER DIKE OR SWALE

STORMWATER BASIN TEMPORARY STABILIZATION METHODS
THE TEMPORARY SEDIMENT TRAPS AND BASIN, SHOULD BE STABILIZED IMMEDIATELY. THIS SHOULD BE ACHIEVED BY PLACING A MINIMUM OF 6 INCHES OF TOPSOIL AND THEN USE ANY OF THE FOLLOWING METHODS FOR STABILIZATION OF STORMWATER BAGIN SIDE SLOPES OR CRITICAL AREAS.
THE FOLLOWING SEEDING APPLICATION SHOULD BE USED DEPENDING ON THE TIME OF YEAR.
- SPRING/SUMMER OR EARLY FALL SEED THE AREA WITH RYEGRASS (ANNUAL OR PERENNIAL) AT 30 LBS. PER ACRE (APPROXIMATELY 0.7 LB./1000 SQ. FT. OR USE 1 LB./1000 SQ. FT.).
- LATE FALL OR EARLY WINTER, SEED (CERTIFIED 'VAROOSTOOK' WINTER RYE (CEREAL RYE) AT 100 LBS. PER ACRE (2.5 LBS./1000 SQ. FT.)

ONCE THE SEED HAS BEEN APPLIED, THE AREA MUST BE IMMEDIATELY ANCHORED USING ONE OF THE FOLLOWING PRACTICES.
- MULCH THE AREA WITH HAY OR STRAW AT 2 TONS/ACRE (APPROX. 90 LBS./1000 SQ. FT. OR 2 BALES). MULCH ANCHORING IS REQUIRED.
- A ROLLED EROSION CONTROL BLANKET SHOULD BE USED TO STABILIZE THE BASIN SIDE SLOPES. NORTH AMERICAN GREEN S150BN BIODEGRADABLE STRAW EROSION CONTROL BLANKET OR AN ENGINEER APPROVED EQUAL.
- HYDROSEEDING/MULCHING

DEPENDING ON THE TIME OF YEAR AND AMOUNT OF RAINFALL, WATERING MAY BE NECESSARY TO ENSURE GROWTH.

ADDRESS:

PHONE NUMBER:
FAX NUMBER:

IF THERE IS ANY CHANGE IN OWNERSHIP RESPONSIBILITY. THE OWNER SHALL INFORM.

INSPECTION AND MAINTENANCE
DURING AND AFTER CONSTRUCTION THE OWNER WILL BE RESPONSIBLE FOR THE INSPECTION AND MAINTENANCE OF THE EROSION AND SEDIMENT CONTROL PRACTICES AND STORMWATER INFRASTRUCTURE.

INSPECTION AND MAINTENANCE PLAN - TEMPORARY
AT A MINIMUM EACH OF THE FOLLOWING SHALL BE INSPECTED ONCE A WEEK. THEY SHOULD ALSO BE INSPECTED BEFORE AND AFTER EVERY STORM EVENT.

TEMPORARY SWALE REMOVE ANY OBSTRUCTIONS OUT OF THE FLOW PATH. REMOVE ACCUMULATED SEDIMENT WHEN IT REACHES A DEPTH MORE THAN HALF THE DEPTH OF THE SWALE. MAINTAIN VEGETATION.
CATCH BASIN REMOVE ANY OBSTRUCTIONS SUCH AS LEAF LITTER OR DEBRIS. REMOVE ACCUMULATED SEDIMENT FROM THE BOTTOM OF THE CATCH BASIN WHEN IT REACHES A DEPTH OF 12 INCHES BELOW THE OUTLET INVERT.
TEMPORARY SEDIMENT TRAP MONITOR THE OUTLET DURING STORM EVENTS TO DETERMINE IF THE BASIN IS FUNCTIONING ACCURATELY AND THAT THE WATER AS IT EXITS DOES NOT CAUSE CONTRAVENTION TO THE RECEIVING WATER BODIES. MONITOR THE VEGETATION, RILLING, SEEPS AND LEAKS ON THE BASINS SIDE SLOPES AND MAKE REPAIRS AS NECESSARY. EVALUATE THE ACCUMULATED SEDIMENT AROUND THE TEMPORARY INLET AND OUTLET DEVICES AND REMOVE AS NECESSARY. CLEANOUT ACCUMULATED SEDIMENT WHEN IT REACHES HALF OF THE TOTAL DEPTH OF THE BASIN.
SILT FENCE REMOVE ANY SEDIMENT ACCUMULATED BEHIND THE SILT FENCE. EXAMINE THE SILT FENCE FOR ANY BREECHES, BULGES OR BLOWOUTS AND REPLACE AS NEEDED.
HAY BALES/STRAW BALES REMOVE ANY SEDIMENT ACCUMULATED BEHIND THE STRAW BALES. EXAMINE THE STRAW BALES FOR ANY UNDERMINING AND REPLACE AS NEEDED.

INSPECTION AND MAINTENANCE PLAN - PERMANENT

SWALES INSPECT AFTER MAJOR STORM EVENTS AND AT LEAST ONCE A YEAR. REMOVE ANY OBSTRUCTIONS, INCLUDING BUT NOT LIMITED, LEAF LITTER, BRANCHES, GARBAGE, ETC. REMOVE ACCUMULATED SEDIMENT ONCE IT HAS REACHED 25% OF THE TOTAL DEPTH OF THE SWALE. MOW AS NECESSARY TO MAINTAIN GRASS LENGTH BETWEEN 4 AND 6 INCHES. MAINTAIN VEGETATION; REPLACE WHERE THERE ARE ANY MISSING PATCHES.
CATCH BASINS & STORMWATER INFRASTRUCTURE INSPECT AFTER MAJOR STORM EVENTS AND AT LEAST ONCE A YEAR. REMOVE ANY OBSTRUCTIONS, INCLUDING BUT NOT LIMITED, LEAF LITTER, BRANCHES, GARBAGE, ETC. REMOVE SEDIMENT ACCUMULATED AT THE BOTTOM ONCE IT REACHES 24 INCHES BELOW THE OUTLET INVERT.
RAIN GARDEN INSPECT AFTER MAJOR STORM EVENTS AND AT LEAST ONCE A YEAR. SEDIMENT REMOVAL EVERY FIVE TO SIX YEARS OR WHEN 50% FULL. THE OUTLET BOX STRUCTURE WILL HAVE AN EXTERNAL MARK THAT SIGNIFIES WHEN SEDIMENT REMOVAL IS REQUIRED. THE EMBANKMENT SIDE SLOPES WILL BE MOWED AT LEAST TWICE A YEAR TO MINIMIZE THE POTENTIAL FOR TREE GROWTH ON THE EMBANKMENT.

SEQUENCE OF CONSTRUCTION

THE FOLLOWING IS THE SEQUENCE OF CONSTRUCTION AS IT IS PRESENTED ON THE EROSION AND SEDIMENT CONTROL PLAN.
A PRE CONSTRUCTION MEETING SHALL BE HELD WITH REPRESENTATIVES OF THE CITY AND THE CONTRACTOR PRIOR TO ANY SITE DISTURBANCE.

1. INSTALL STABILIZED CONSTRUCTION ENTRANCE AT THE PROPOSED DRIVEWAY ENTRANCE.
2. PRIOR TO CLEARING, GRUBBING OR PERFORMING ANY GRADING, THE DRAINAGE SYSTEM FROM EX. DI TO THE TEMPORARY SEDIMENT TRAP AT SITE OF DETENTION BASIN SHALL BE INSTALLED. ALL EROSION AND SEDIMENT CONTROL PRACTICES NECESSARY FOR THIS ACTIVITY SHALL BE INSTALLED.
3. CONSTRUCT THE TEMPORARY SEDIMENT TRAP IN ACCORDANCE WITH THE DETAIL. IMMEDIATELY STABILIZE THE SIDE SLOPES VIA THE METHODS OUTLINED IN THE TEMPORARY SEDIMENT TRAP DETAIL AND INSTALL PIPE OUTLET.
4. INSTALL SILT FENCE AS THE REMAINING PORTION OF THE SITE IS CLEARED AND GRUBBED.
5. CONSTRUCT TEMPORARY SWALES CONVEYING STORMWATER TO TEMPORARY SEDIMENT TRAP STABILIZE THE SWALES IMMEDIATELY.
6. CONSTRUCT THE BUILDING, PARKING AREA AND ASSOCIATED STORMWATER DRAINAGE NETWORK. ONCE THE STORMWATER DRAINAGE SYSTEM IS CONNECTED THE PERIMETER DIKE/SWALES CAN BE REMOVED AND THE AREA GRADED TO FINAL.
7. ONCE THE FINAL TOP COURSE OF PAVEMENT IS PLACED, THE REMAINING PORTION OF THE AREA SHALL BE VEGETATED ACCORDING TO THE FINAL LANDSCAPING PLAN.

ISSUE 8/26/10 REVISED 3/X COURT ORDER
Rev: 12/23/99
Orig: 10/21/99
design by: DR
drawn by: PF
chkd by: DR

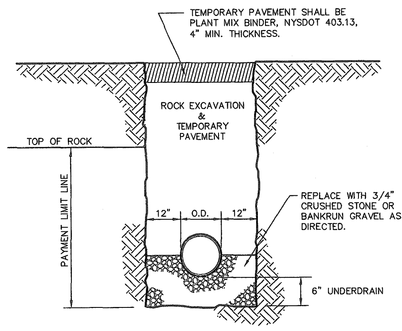
SEDIMENT & EROSION CONTROL DETAILS
FORTRESS BIBLE CHURCH
TOWN OF GREENBURGH
WESTCHESTER COUNTY, NEW YORK

dolph rotfeld engineering, p.c.
200 White Plains Road, Tarrytown, NY 10591
(914) 631-8800

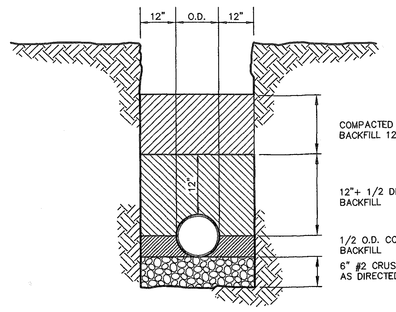
sheet 11 of 13

ANY ALTERATIONS OR REVISIONS OF THESE PLANS, UNLESS DONE BY OR UNDER THE DIRECTION OF THE NYS LICENSED AND REGISTERED ENGINEER THAT PREPARED THEM, IS A VIOLATION OF THE NYS EDUCATION LAW.

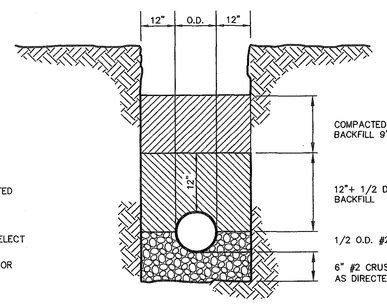
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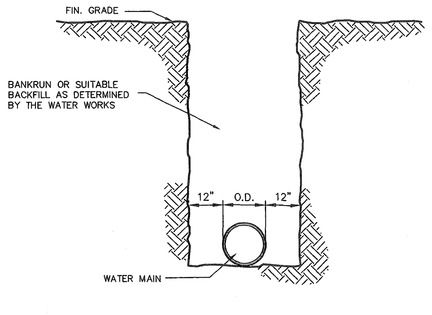
ROCK EXCAVATION TRENCH TEMPORARY PAVEMENT (FOR ALL PIPES)



TRENCH BEDDING CMP PIPE

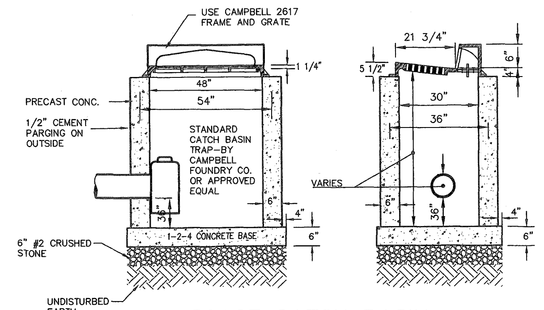


TRENCH BEDDING P.V.C. PIPE



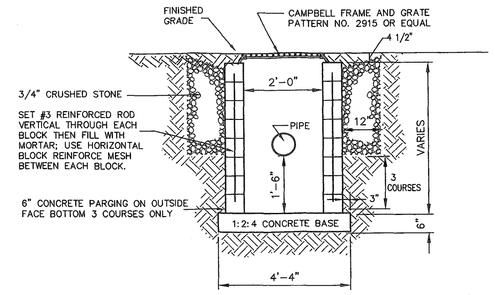
NOTE:
WATER MAIN TO BE PLACED ON UNDISTURBED EARTH.

TRENCH DETAIL FOR WATER LINE



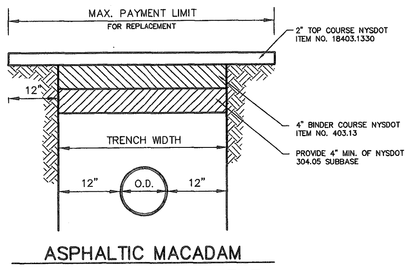
PRECAST CATCH BASIN

NOTE: ALL RIMS TO BE SET 1 1/2" BELOW ANY PAVEMENT GRADE UNTIL FINAL PAVEMENT COURSE IS PLACED



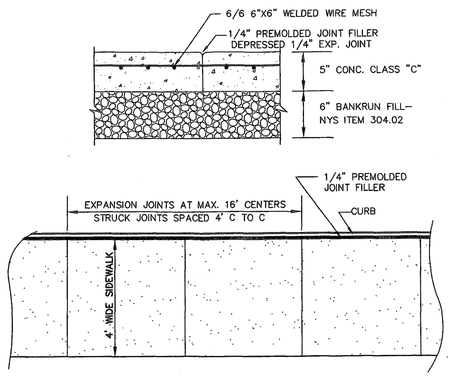
NOTE:
VERTICAL JOINTS ABOVE THIRD COURSE SHALL HAVE 1/4" OPENINGS.

DRAIN INLET DETAIL



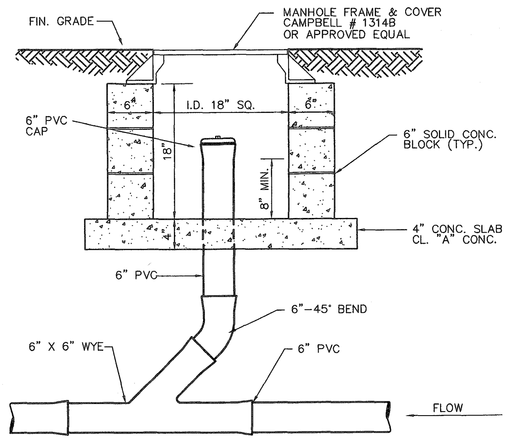
ASPHALTIC MACADAM PAVEMENT REPLACEMENT

N.T.S.



NOTE:
PROVIDE 1/4" PREMOLDED JOINT FILLER AT BUILDING

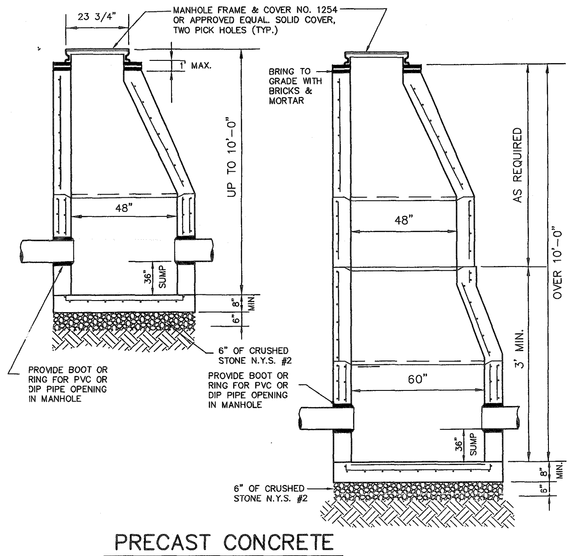
CONCRETE WALK



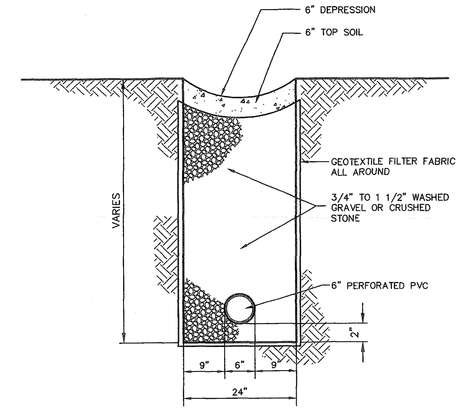
ALTERNATE SEWER CLEANOUT DETAIL

N.T.S.

(TO BE INSTALLED AS DIRECTED BY ENGINEER)

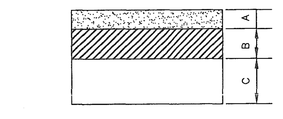


PRECAST CONCRETE DRAIN MANHOLE



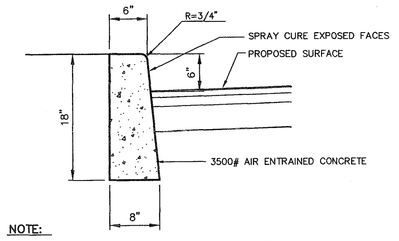
CURTAIN DRAIN

WHERE DIRECTED BY THE ENGINEER



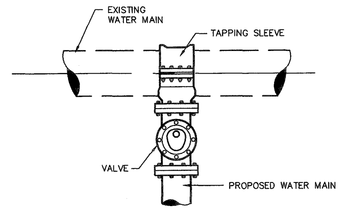
A- 2" TOP COURSE- N.Y.S.D.O.T. ITEM, 403.1701, TYPE SF
B- 3" BINDER COURSE- N.Y.S.D.O.T. ITEM, 403.13, TYPE 3
C- 6" BASE COURSE- N.Y.S.D.O.T. ITEM, 403.11, TYPE 1

PAVEMENT SECTION

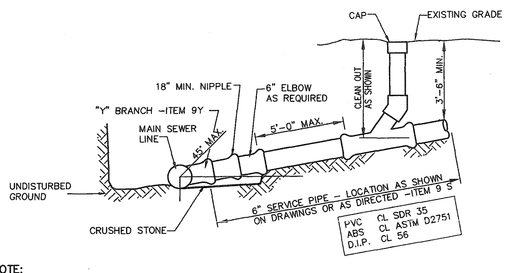


NOTE:
EXPANSION JOINTS TO BE INSTALLED EVERY 10 FEET.

CONCRETE CURB

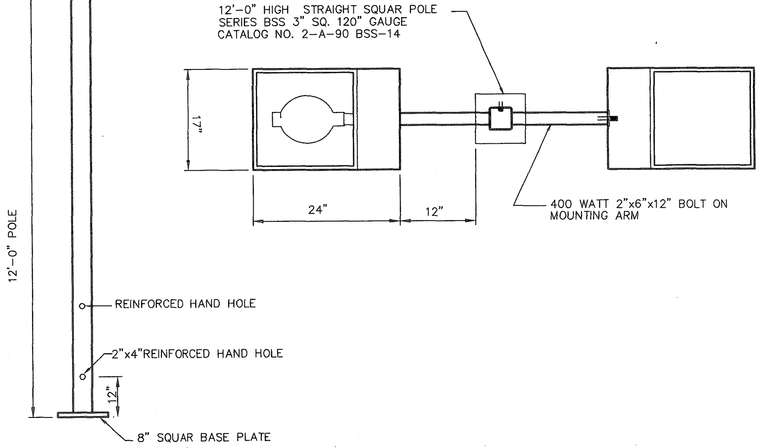


CONNECTION TO EXIST. WATER MAIN

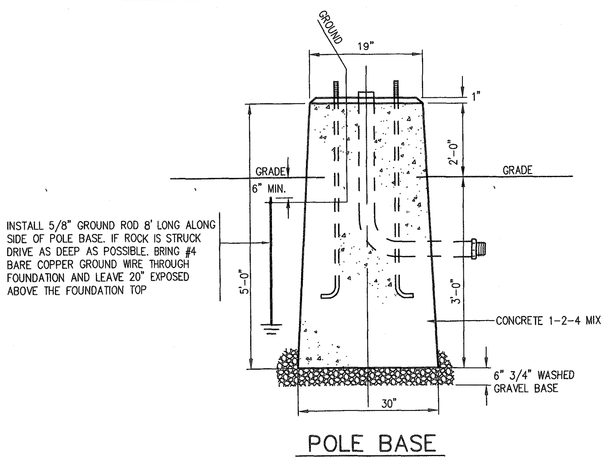


NOTE:
1. MINIMUM SLOPE OF LATERAL-1/4" PER FOOT, EXCEPT AS OTHERWISE NOTED.
2. MAXIMUM SLOPE OF LATERAL -AS DETERMINED BY GRADES OF MAIN LINE AND HOUSE ELEVATION.
3. NO CHIMNEY TYPE CONSTRUCTION SHALL BE PERMITTED. LATERALS MUST REST ON UNDISTURBED GROUND.
4. CLEAN OUTS TO BE INSTALLED EVERY 50' OR WHERE SHOWN OR AS DIRECTED.
5. LATERAL TO EXTEND TO INSIDE FACE OF WALLS ON PROPERTY.

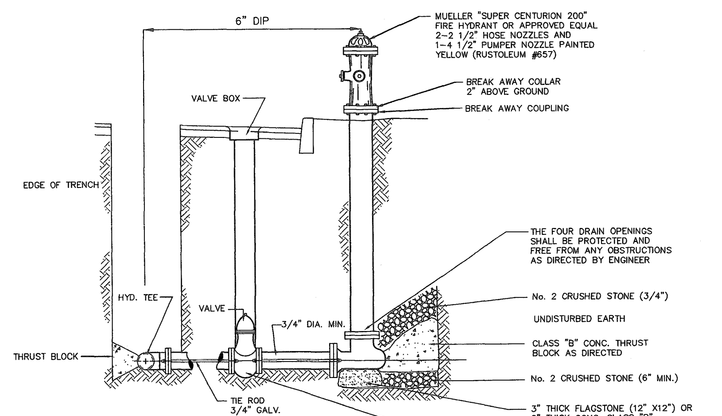
SERVICE LINE - ITEM 9 S



STREET LIGHT DETAIL

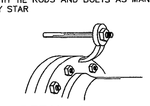


POLE BASE



FIRE HYDRANT DETAIL

STRAP VALVE TO TEE AND HYD. TO VALVE WITH TIE RODS AND BOLTS AS MANUFACTURED BY STAR



DETAIL A

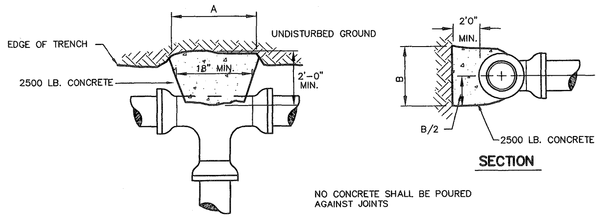
TIE BOLTS

TIE BOLTS (STAR BOLTS) WITH NUTS AS SUPPLIED BY STAR SUPPLY CORP., COLUMBUS, OHIO, OR APPROVED EQUAL

IF GROUND WATER IS ENCOUNTERED WITHIN 7 FEET, THAN HYDRANT DRAINS MUST BE PLUGGED. THE BARRELS MUST BE PUMPED DRY AFTER USE DURING FREEZING WEATHER. WHERE HYDRANT DRAINS ARE NOT PLUGGED A GRAVEL POCKET OR DRY WELL SHALL BE PROVIDED. HYDRANT DRAINS SHALL NOT BE CONNECTED TO OR LOCATED WITHIN 10 FEET OF SANITARY SEWERS OR STORM DRAINS

WATER MAIN NOTES

1. WATER MAIN SHALL HAVE A MIN. OF 4' OF COVER AND A MAX. OF 6' COVER
2. DEFLECTION OF JOINTS ON WATER MAIN SHALL NOT EXCEED 50% OF THE MAXIMUM DEFLECTION RECOMMENDED BY THE MANUFACTURER, OR AS ORDERED BY THE ENGINEER.
3. EXACT LOCATION OF ALL FITTINGS SHALL BE APPROVED IN THE FIELD BY THE ENGINEER.
4. ALL HORIZONTAL AND VERTICAL BRADS REQUIRE THRUST BLOCKS, SEE SCHEDULE THIS SHEET FOR MINIMUM REQUIREMENTS.
5. PROVIDE CONTINOUS ELECTRICAL CONDUCTIVITY ACROSS THE ENTIRE NEW WATER MAIN AS APPROVED BY THE ENGINEER. TYTON JOINTS 6" THRU 12" PIPES TO HAVE TWO BRONZE WEDGES PER JOINT AND 16" THRU 20" PIPES TO HAVE THREE BRONZE WEDGES PER JOINT. MECHANICAL JOINTS TO HAVE RETAINER GLANDS.
6. ALL FITTINGS TO BE MECHANICAL JOINT DIP CL. 350, "FULL FLOW" TYPE.(OTHER THAN VAULT)
7. ALL TYPES OF INSTALLED PIPE SHALL BE PRESSURE TESTED AND LEAKAGE TESTED IN ACCORDANCE WITH THE LATEST EDITION OF THE A W W A STANDARD C-600
8. ALL NEW, CLEANED OR REPAIRED WATER MAINS SHALL BE DISINFECTED IN ACCORDANCE WITH A W W A STANDARD C-651-86 EXCEPT SEC. 51, THE SPECIFICATIONS SHALL INCLUDE DETAILED PROCEDURES TO ADEQUATE FLUSHING, DISINFECTION AND MICROBIOLOGICAL TESTING OF ALL WATER MAINS.
9. ALL PIPES TO BE DIP CL. 54 (TYTON TYPE JOINTS).(OTHER THAN VAULT)
10. "TERRA TAPE" IS TO BE INSTALLED IN ALL TRENCHES, 1' BELOW FINISHED GRADE.

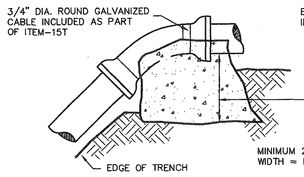


NO CONCRETE SHALL BE POURED AGAINST JOINTS

PLAN

SECTION

THRUST BLOCK AT TEE

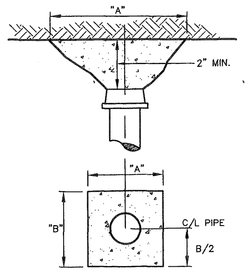


THRUST BLOCK AT VERTICAL BENDS

FOR 6" & 8" WATER MAINS			
FITTING	C.Y.	A	B
45± BEND	1/3	2'-6"	2'-0"
22 1/2° BEND	1/5	2'-2"	1'-6"
11 1/4° BEND	1/7	2'-2"	1'-0"
TEE	4/5	3'-6"	3'-0"
PLUG	4/5	3'-6"	3'-0"
FOR 10" & 12" WATER MAINS			
45± BEND	1	3'-6"	3'-6"
22 1/2° BEND	2/5	3'-0"	2'-0"
11 1/4° BEND	1/3	2'-6"	1'-6"
TEE	1 1/2	5'-0"	4'-0"
PLUG	1 1/2	5'-0"	4'-0"

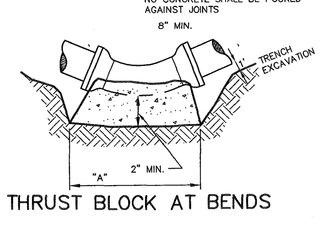
SCHEDULE THRUST BLOCK DIMENSIONS

DIMENSIONS IN THIS TABLE BASED ON WATER PRESSURE OF 250 PSI AND SOIL BEARING CAPACITY OF 2000 LB./SQ. FT. THE ENGINEER SHALL ASCERTAIN IF OTHER CONDITIONS PREVAIL AND DESIGN THRUST BLOCKS ACCORDINGLY.



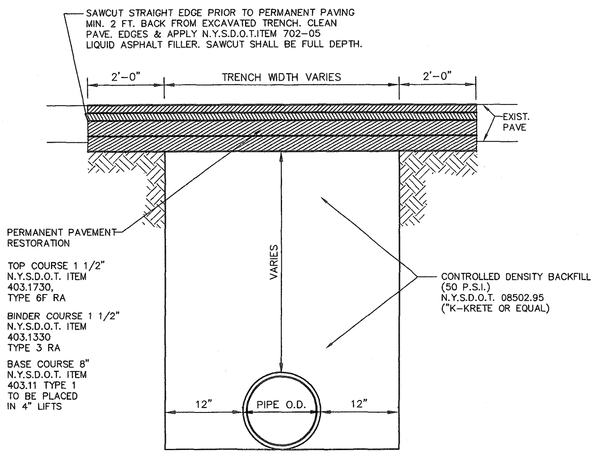
THRUST BLOCK AT PLUG

NOTE:
IN ADDITION TO CONCRETE THRUST BLOCKS, ALL FITTINGS TO BE TIED TOGETHER WITH TIE BOLTS ("STAR"), 3/4" THREADED GALVANIZED RODS, NUTS, ETC.



THRUST BLOCK AT BENDS

CONCRETE THRUST BLOCK - ITEM 15T



OPEN CUT STREET CROSSING N.Y.S.D.O.T. PAVEMENT RESTORATION DETAIL

NOTES:
1. WHERE PAVE. HAS NOT BEEN RESTORED, TRENCH SHALL BE 100% PLATED DURING NON-WORKING HOURS.
2. IF ADJACENT PAVE. WITHIN CLOSE PROXIMITY OF TRENCH EXCAVATION SHOWS STRUCTURAL FATIGUE, ADDITIONAL PAVE. RESTORATION SHALL BE REQUIRED AT THE DISCRETION OF THE STATE'S REPRESENTATIVE.
3. TRAFFIC SHALL BE CONTROLED AT ALL TIMES BY MEANS OF SIGNS, FLAGMAN, CONES, BARRICADES, ETC., AS PER THE NEW YORK STATE MANUAL OF UNIFORM TRAFFIC CONTROL DIVICES.
4. NO MONO CURB & SIDEWALK.

GENERAL NOTES

1. THE ENGINEER OR THE SUPERINTENDENT OF HIGHWAYS IS AUTHORIZED TO MAKE ANY CHANGES WHATSOEVER TO IMPROVEMENTS SHOWN ON OR NOT SHOWN ON CONTRACT DRAWINGS TO MEET FIELD CONDITIONS.
2. THE UTILITY MAINS, DUCTS, POLES AND SERVICES IN THE CONSTRUCTION AREA, WHERE SHOWN ON THE CONTRACT DRAWINGS ARE AT THE APPROX. LOCATIONS FURNISHED BY THE VARIOUS UTILITIES CONCERNED. WHENEVER EXISTING IMPROVEMENT INFORMATION IS EITHER INDICATED ON THE DRAWINGS OR SUPPLIED TO THE CONTRACTOR AT A LATER DATE, IT IS UNDERSTOOD THAT SUCH INFORMATION IS FURNISHED IN GOOD FAITH FOR THE CONTRACTOR'S CONVENIENCE. THE CONTRACTOR MUST INTERPRET THIS INFORMATION ACCORDING TO HIS OWN JUDGMENT, AND MUST MAKE MAKE HIS OWN DETERMINATIONS REGARDING THE LOCATION OF ALL IMPROVEMENTS. NO CLAIM WILL BE ALLOWED BECAUSE OF INCORRECT, INCOMPLETE OR OMITTED EXISTING IMPROVEMENT INFORMATION.
3. ALL RIM ELEVATIONS FOR MANHOLES, CATCH BASINS, ETC. MUST BE VERIFIED AND ADJUSTED TO MEET FIELD CONDITIONS.
4. ALL WORK, MATERIALS, SPECIFICATIONS, REGULATIONS, RULES, PERMITS, ETC., OF ALL STATE, COUNTY AND LOCAL GOVERNMENTS AND ALL UTILITY AGENCIES SHALL BE FOLLOWED BY THE CONTRACTOR.
5. THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE STATE IF NEW YORK DEPARTMENT OF LABOR, BOARD OF STANDARDS AND APPEALS INDUSTRIAL CODE RULE 53 - "CONSTRUCTION, EXCAVATION AND DEMOLITION OPERATIONS AT OR NEAR UNDERGROUND FACILITIES", EFFECTIVE APRIL 1, 1975. THE CONTRACTOR WILL BE REQUIRED TO COMPLY WITH ALL APPLICABLE REQUIREMENTS OF INDUSTRIAL CODE RULE 53.
6. PRIVATE UTILITIES, CONTRACTORS, DEVELOPERS, OR OTHER PARTIES MAY BE EXPECTED TO BE WORKING WITHIN THE CONTRACT AREA DURING THIS CONTRACT. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE HIS WORK UNDER THIS CONTRACT WITH THE WORK BEING DONE BY OTHERS IN ORDER THAT THE CONSTRUCTION MAY PROCEED IN A EFFICIENT AND LOGICAL MANNER.
7. THE CONTRACTOR SHALL VERIFY ALL EXISTING AND PROPOSED ELEVATIONS IN THE FIELD.
8. THE CONTRACTOR SHALL PROVIDE ALL BARRICADES, SIGNS, LIGHTS, ETC., FOR MAINTENANCE AND PROTECTION OF TRAFFIC FOR THE DURATION OF THIS CONTRACT, ALL IN ACCORDANCE WITH THE LATEST NYSDOT MANUAL OF TRAFFIC CONTROL DEVICES.
10. THE CONTRACTOR SHALL COMPLY WITH ALL RULES, REGULATIONS AND DIRECTIVES BY THE TOWN OF GREENBURGH POLICE DEPARTMENT.
11. THE CONTRACTOR SHALL RESTORE ALL DISTURBED EXISTING FEATURES TO A CONDITION EQUAL TO OR BETTER THAN CURRENTLY EXISTED .
12. THE CONTRACTOR SHALL COMPLY WITH THE LATEST OSHA CONFINED SPACE ENTRY REQUIREMENTS (29 CFR PART 1910).
13. THE CONTRACTOR SHALL COMPLY WITH THE LATEST REVISED OSHA SHEETING REQUIREMENTS (29 CFR PART 1926.650,651,652).

WATER NOTES

1. ALL WORK TO BE CARRIED OUT IN ACCORDANCE WITH THE REQUIREMENTS OF THE WATER DEPARTMENT HAVING JURISDICTION AND IN ACCORDANCE WITH REQUIREMENTS AND SPECIFICATIONS AS SET FOURTH BY THE SUPERINTENDENT OF THE WATER WORKS.
2. MINIMUM COVER FOR WATER MAINS TO BE 4'-0" OR AS DIRECTED BY THE SUPERINTENDENT OF THE WATER DEPARTMENT TO MEET FIELD CONDITIONS.
3. HYDRANTS ARE TO BE LOCATED IN ACCORDANCE WITH THE WATER DEPARTMENT REQUIREMENTS.
4. THE SUPERINTENDENT OF THE WATER WORKS DECISION SHALL BE FINAL ON ANY CONSTRUCTION DISPUTES TO MEET FIELD CONDITIONS.
5. WATER MAIN PASSES UNDER SEWER. A MINIMUM OF 18 INCHES VERTICAL CLEARANCE IS REQUIRED. ALL WORK MUST BE CARRIED OUT IN ACCORDANCE WITH REQUIREMENTS OF THE WATER WORKS.
6. ALL WATER MAINS SHALL BE TYPE AND WEIGHT AS SPECIFIED BY THE WATER WORKS.
7. ALL WATER MAINS TO BE DIP CL. 54 CEMENT LINED.
8. WATER MAINS INSTALLED IN FILL AREAS WITHIN EASEMENTS SHALL HAVE FILL UNDER PIPE PLACED AND COMPACTED IN 8" LAYERS TO HAVE A PROCTOR DENSITY OF 98%, TO BE TESTED AND CERTIFIED.
9. ALL WATER MAINS TO BE PRESSURE TESTED AND CHLORINATED IN ACCORDANCE WITH AWWA STANDARDS C 600-93 SECTION 4 ,& C 651-92 EXCEPT SEC. 5.1 TABLET METHOD. ALL BACTERIOLOGICAL TESTING MUST BE PERFORMED BY A NYS APPROVED LABORATORY AND SENT TO AND APPROVED BY WESTCHESTER COUNTY DEPARTMENT OF HEALTH BEFORE WATER MAIN IS PUT INTO SERVICE. ALL PRESSURE TESTING MUST BE PERFORMED, AND WITNESSED BY A NYS PE, AND ALL RESULTS CERTIFIED TO THE WCDOH BEFORE WATER MAIN IS PUT INTO SERVICE.
10. ONLY DETAILS RELEVANT TO THE SPECIFIC WATER SUPPLY IMPROVEMENTS SHOWN ON THE PLANS ARE APPLICABLE.

ANY ALTERATIONS OR REVISIONS OF THESE PLANS, UNLESS DONE BY OR UNDER THE DIRECTION OF THE NYS LICENSED AND REGISTERED ENGINEER THAT PREPARED THEM, IS A VIOLATION OF THE NYS EDUCATION LAW.

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Rev: 12/23/99
Orig: 10/22/99
design by: DR
drawn by: PF
chkd by: DR

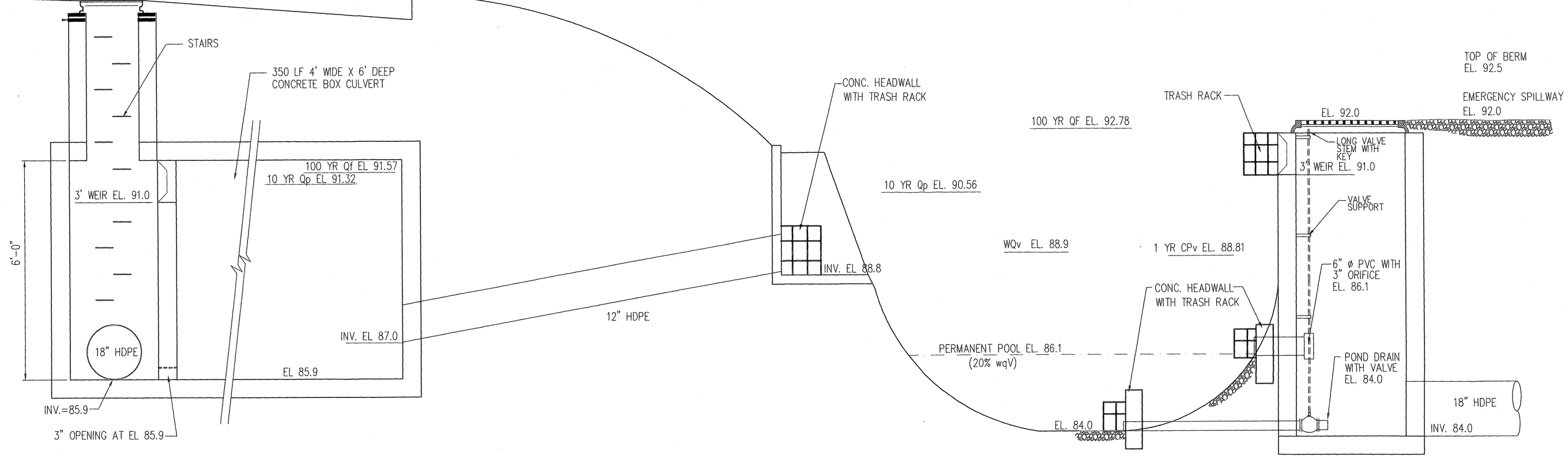
LICENSED PROFESSIONAL ENGINEER DOLPH ROTFELD 072 STATE OF NEW YORK

CONSTRUCTION DETAILS

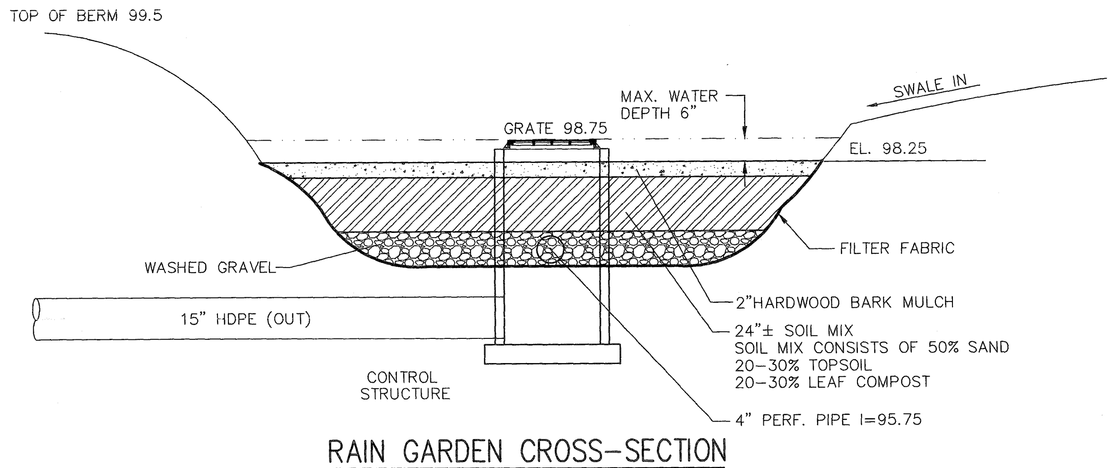
FORTRESS BIBLE CHURCH
TOWN OF GREENBURGH
WESTCHESTER COUNTY, NEW YORK

dolph rotfeld engineering, p.c.
200 White Plains Road, Tarrytown, NY 10591
(914) 631-6600

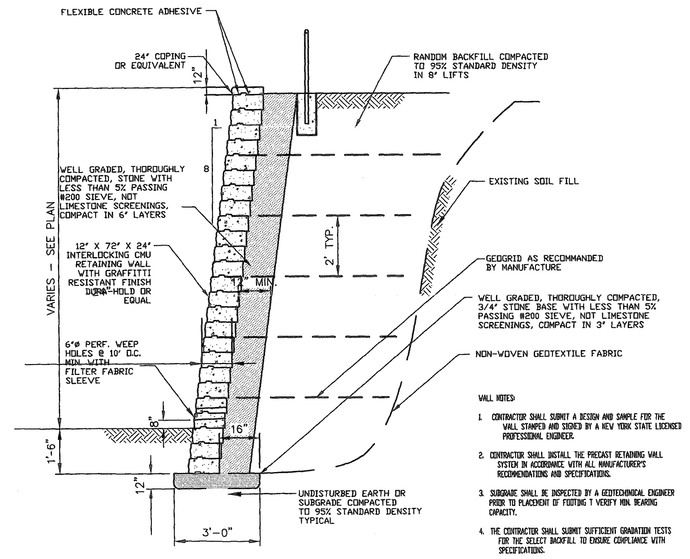
sheet 12 of 13



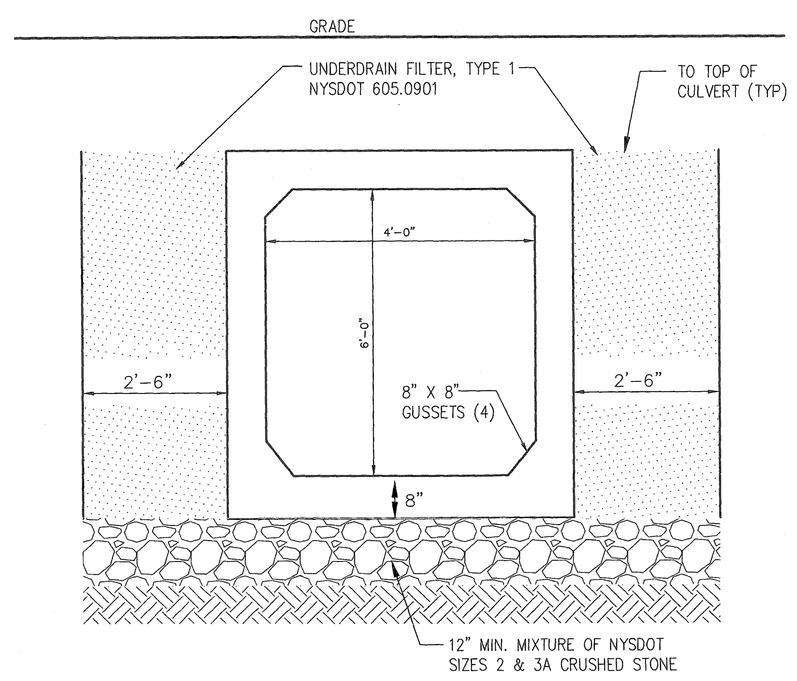
WATER QUALITY SYSTEM SCHEMATIC



RAIN GARDEN CROSS-SECTION
CONSTRUCTION DETAIL (TYP.)
N.T.S



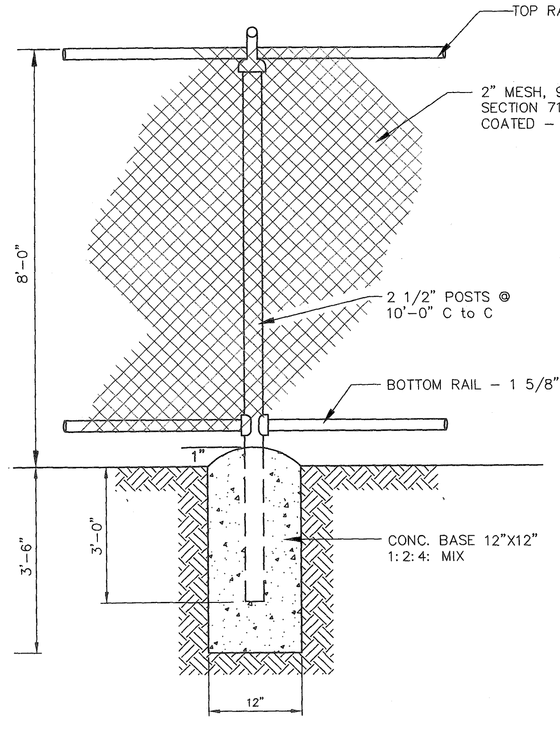
TYPICAL RETAINING WALL DETAIL
(NOT TO SCALE)



PRECAST CONCRETE BOX CULVERT

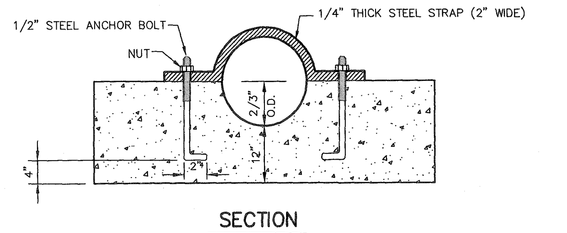
NOTES:

1. CULVERT TO BE FABRICATED IN ACCORDANCE TO THE LATEST NYSDOT MATERIAL SPECIFICATION 706-17 "PRECAST CONCRETE BOX CULVERT".
2. CONTRACTOR TO SUBMIT SHOP DRAWINGS FROM THE BOX CULVERT MANUFACTURER'S TO THE ENGINEER FOR HIS APPROVAL.

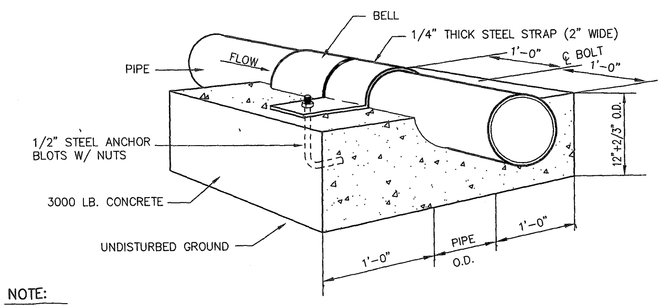


CHAIN LINK FENCE

NOTE: END AND CORNER POSTS SHALL BE 4" DIA., ALL POSTS AND RAIL TO SCHEDULE 40.



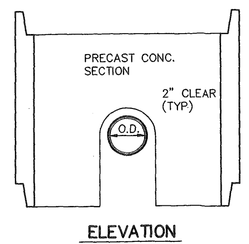
SECTION



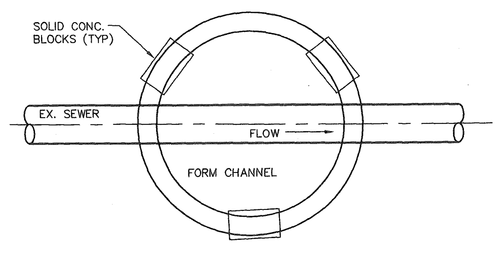
NOTE:

ANCHORS TO BE PLACED AT THE FOLLOWING INTERVALS:
- –SLOPES 20 TO 35% NOT OVER 36' CENTER TO CENTER.
- –SLOPES 35 TO 50% NOT OVER 24' CENTER TO CENTER.
- –SLOPES 50% AND GREATER NOT OVER 16' CENTER TO CENTER.
- –FIRST ANCHOR TO BE PLACED AT THE BELL OF THE FIRST LENGTH OF PIPE LEAVING MANHOLE, OR AS DIRECTED BY THE ENGINEER.

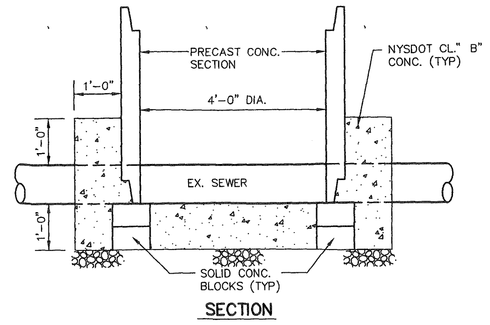
ANCHOR



ELEVATION
TYPICAL OPENING OF
PRECAST M.H. BASE SECTION



PLAN



SECTION

DOG HOUSE MANHOLE DETAIL

ANY ALTERATIONS OR REVISIONS OF THESE PLANS, UNLESS DONE BY OR UNDER THE DIRECTION OF THE NYS LICENSED AND REGISTERED ENGINEER THAT PREPARED THEM, IS A VIOLATION OF THE NYS EDUCATION LAW.

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LICENSED PROFESSIONAL ENGINEER DOLPH ROTFELD STATE OF NEW YORK

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