**MBU-516-17**

## Civil

**ANN MILLER**

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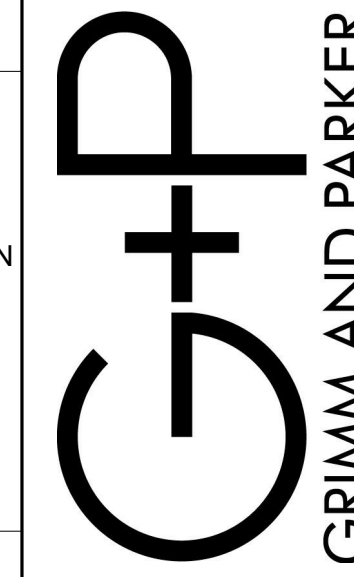
**DEEKSHA WALIA**

## HARDWARE CONSULTANT

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GP #21541

MD  
SCHOOL

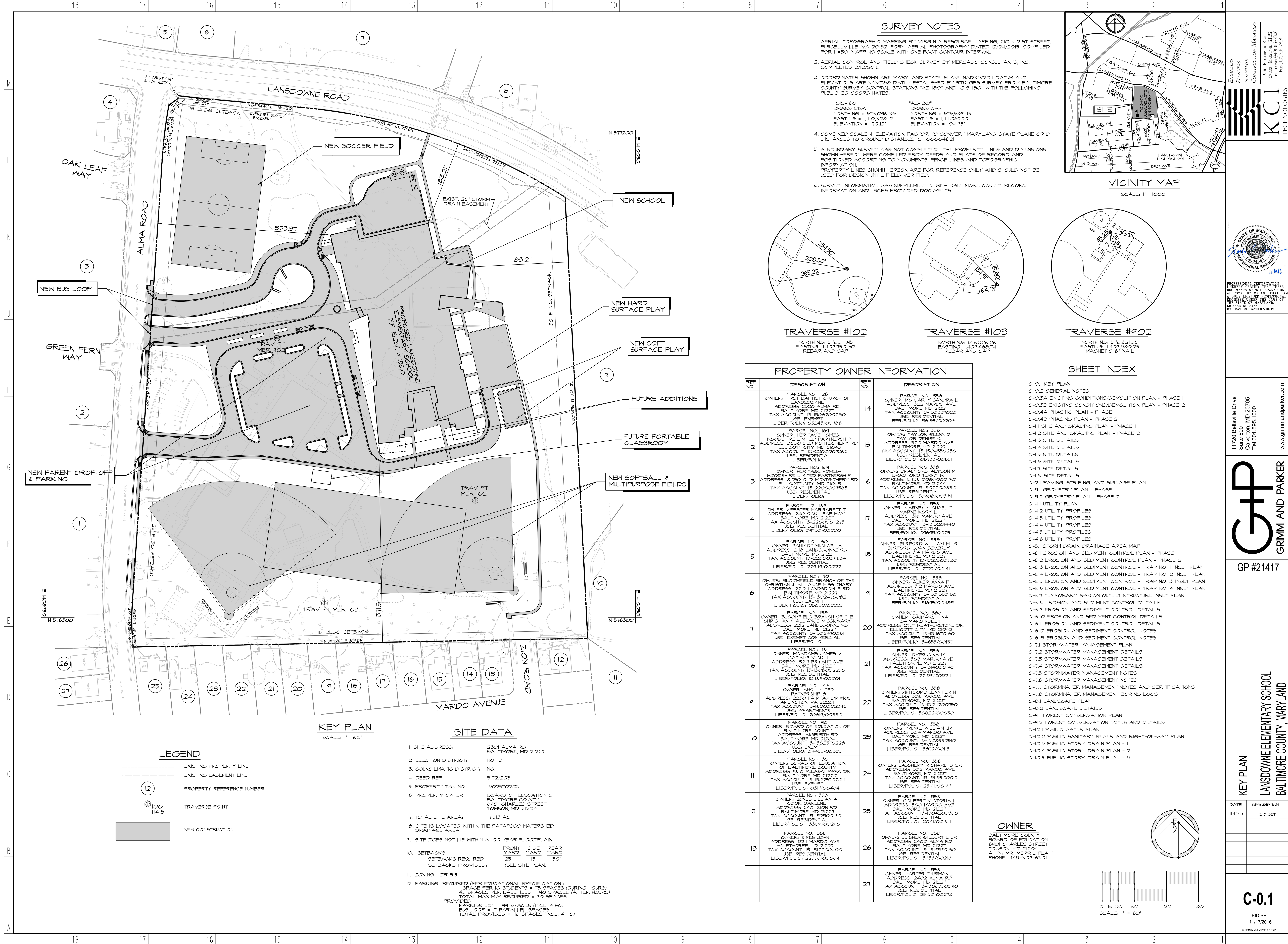
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MD  
SCHOOL

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BID SET

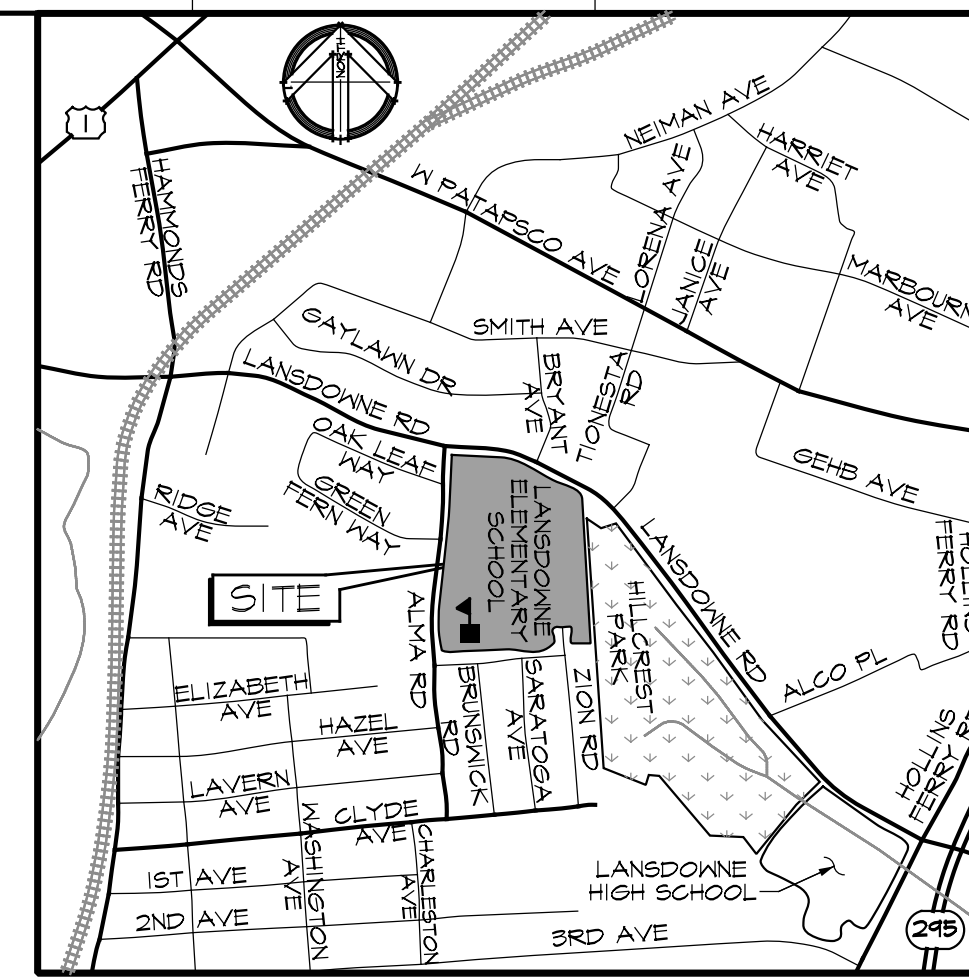
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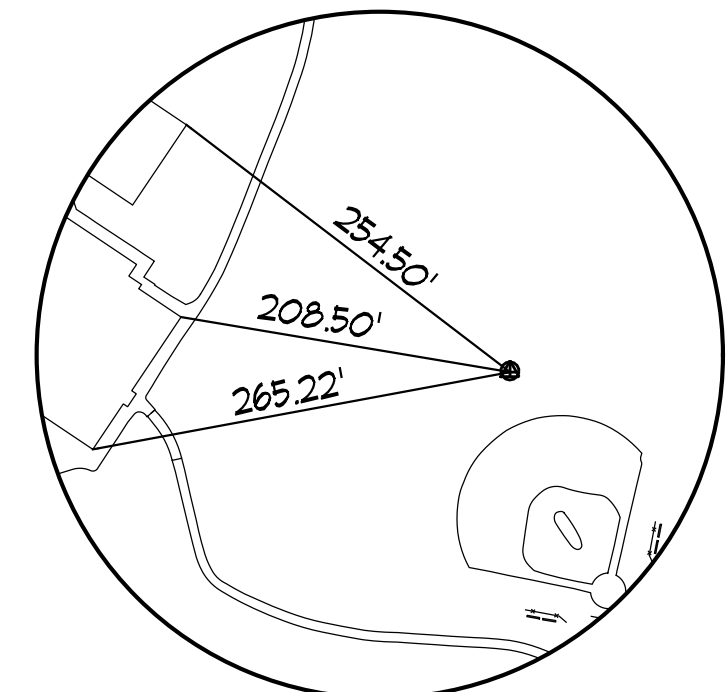
**SURVEY NOTES**

- AERIAL TOPOGRAPHIC MAPPING BY VIRGINIA RESOURCE MAPPING, 210 N 21ST STREET, PURCELLVILLE, VA 20132, FROM AERIAL PHOTOGRAPHY DATED 12/24/2015, COMPILED FOR 1"=30' MAPPING SCALE WITH ONE FOOT CONTOUR INTERVAL.
- AERIAL CONTROL AND FIELD CHECK SURVEY BY MERCADO CONSULTANTS, INC. COMPLETED 2/12/2016.
- COORDINATES SHOWN ARE MARYLAND STATE PLANE NAD83/2011 DATUM AND ELEVATIONS ARE NAVD83 DATUM ESTABLISHED BY RTK GPS SURVEY FROM BALTIMORE COUNTY SURVEY CONTROL STATIONS "AZ-180" AND "G15-180" WITH THE FOLLOWING PUBLISHED COORDINATES:  

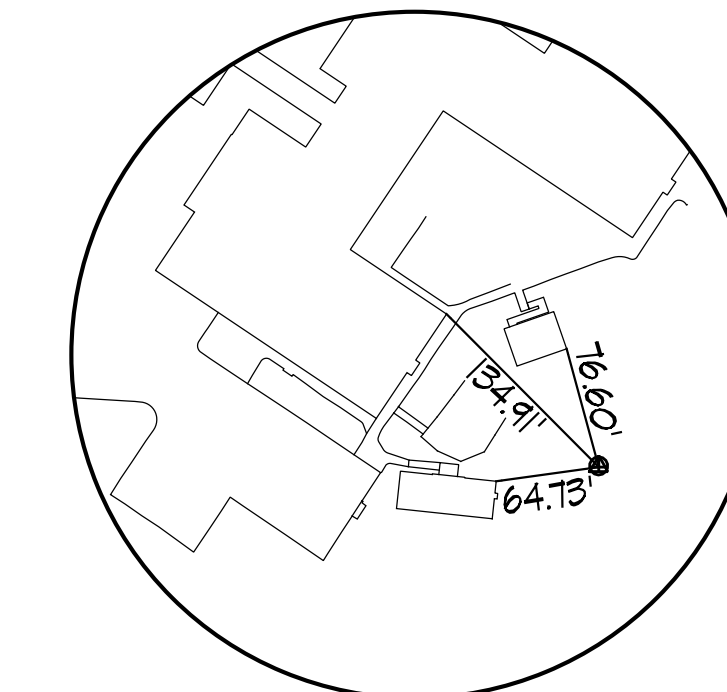
	"G15-180"	"AZ-180"
BRASS DISK		
NORTHING	576,046.86	575,584.45
EASTING	1410,828.12	1410,671.70
ELEVATION	170.12'	104.45'
- COMBINED SCALE & ELEVATION FACTOR TO CONVERT MARYLAND STATE PLANE GRID DISTANCES TO GROUND DISTANCES IS 1.00004821
- A BOUNDARY SURVEY HAS NOT COMPLETED. THE PROPERTY LINES AND DIMENSIONS SHOWN HEREON WERE COMPILED FROM DEEDS AND PLATS OF RECORD AND POSITIONED ACCORDING TO MONUMENTS, FENCE LINES AND TOPOGRAPHIC INFORMATION. PROPERTY LINES SHOWN HEREON ARE FOR REFERENCE ONLY AND SHOULD NOT BE USED FOR DESIGN UNTIL FIELD VERIFIED.
- SURVEY INFORMATION WAS SUPPLEMENTED WITH BALTIMORE COUNTY RECORD INFORMATION AND BCPS PROVIDED DOCUMENTS.



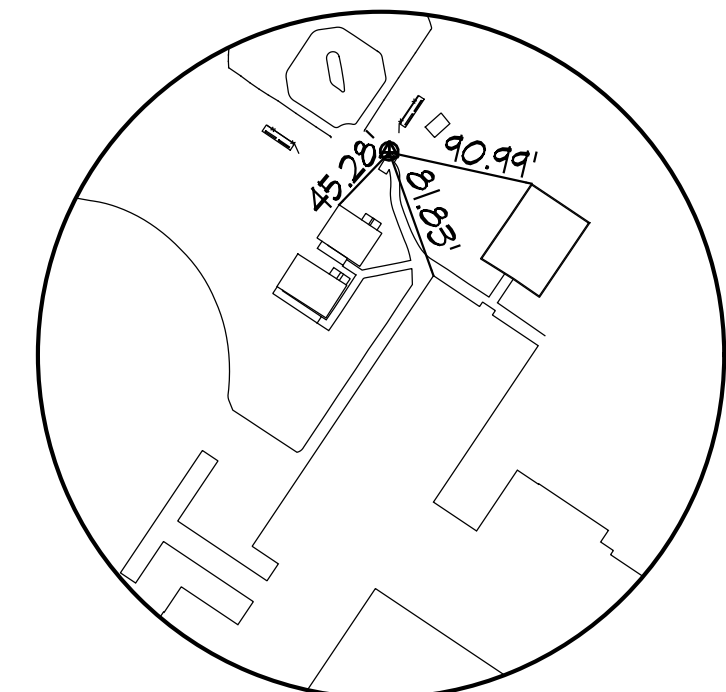
**VICINITY MAP**  
SCALE: 1"= 1000'



**TRAVERSE #102**



**TRAVERSE #103**



**TRAVERSE #102**

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PROPERTY OWNER INFORMATION			
REF NO.	DESCRIPTION	REF NO.	DESCRIPTION
1	PARCEL NO. 126 OWNER: FIRST BAPTIST CHURCH OF ADDRESS: 2501 ALMA RD. BALTIMORE, MD 21221 TAX ACCOUNT: 15-130200280 USE: RESIDENTIAL LIBER/FOLIO: 05243/00786	14	PARCEL NO. 358 OWNER: MD GARY SANDRA L ADDRESS: 322 MARDO AVE BALTIMORE, MD 21221 TAX ACCOUNT: 15-130200201 USE: RESIDENTIAL LIBER/FOLIO: 36185/00206
2	PARCEL NO. 164 OWNER: HERITAGE HOMES- WOODSHIRE LIMITED PARTNERSHIP ADDRESS: 8050 OLD MONTGOMERY RD ELLICOTT CITY, MD 21043 TAX ACCOUNT: 15-2200007362 USE: RESIDENTIAL LIBER/FOLIO:	15	PARCEL NO. 358 OWNER: TAYLOR DENISE C ADDRESS: 330 MARDO AVE BALTIMORE, MD 21221 TAX ACCOUNT: 15-1304550230 USE: RESIDENTIAL LIBER/FOLIO: 06733/00681
3	PARCEL NO. 164 OWNER: HERITAGE HOMES- WOODSHIRE LIMITED PARTNERSHIP ADDRESS: 8050 OLD MONTGOMERY RD ELLICOTT CITY, MD 21043 TAX ACCOUNT: 15-2200007363 USE: RESIDENTIAL LIBER/FOLIO:	16	PARCEL NO. 358 OWNER: BRADY AND LYSON M BRADY TERRY M ADDRESS: 3400 MARDO RD BALTIMORE, MD 21244 TAX ACCOUNT: 15-1302200830 USE: RESIDENTIAL LIBER/FOLIO: 36408/00314
4	PARCEL NO. 164 OWNER: NIEBSTER MARGARET T ADDRESS: 240 OAK LEAF WAY BALTIMORE, MD 21221 TAX ACCOUNT: 15-1302007275 USE: RESIDENTIAL LIBER/FOLIO: 04750/00030	17	PARCEL NO. 358 OWNER: MICHAEL T MARNE KORY L ADDRESS: 316 MARDO AVE BALTIMORE, MD 21221 TAX ACCOUNT: 15-131301440 USE: RESIDENTIAL LIBER/FOLIO: 04643/00251
5	PARCEL NO. 180 OWNER: SCHWIDT MICHAEL A ADDRESS: 318 LANSOWNE RD BALTIMORE, MD 21221 TAX ACCOUNT: 15-1302007634 USE: RESIDENTIAL LIBER/FOLIO: 22444/00022	18	PARCEL NO. 358 OWNER: BURFORD JAY W JR BURFORD JOAN BEVERLY ADDRESS: 323 MARDO AVE BALTIMORE, MD 21221 TAX ACCOUNT: 15-1302000590 USE: RESIDENTIAL LIBER/FOLIO: 27271/00141
6	PARCEL NO. 170 OWNER: ELICOTT BRANCH OF THE CHRISTIAN & ALLIANCE MISSIONARY ADDRESS: 312 LANSOWNE RD BALTIMORE, MD 21221 TAX ACCOUNT: 15-1302470082 USE: RESIDENTIAL LIBER/FOLIO: 05050/00335	19	PARCEL NO. 358 OWNER: ALDER ANNA F ADDRESS: 312 MARDO AVE BALTIMORE, MD 21221 TAX ACCOUNT: 15-131670160 USE: RESIDENTIAL LIBER/FOLIO: 31645/00483
7	PARCEL NO. 188 OWNER: ELICOTT BRANCH OF THE CHRISTIAN & ALLIANCE MISSIONARY ADDRESS: 312 LANSOWNE RD BALTIMORE, MD 21221 TAX ACCOUNT: 15-1302007081 USE: RESIDENTIAL LIBER/FOLIO:	20	PARCEL NO. 358 OWNER: GIANFRANCA GAMARCO RUBEN ADDRESS: 3171 WATERSTONE DR ELLICOTT CITY, MD 21042 TAX ACCOUNT: 15-131670160 USE: RESIDENTIAL LIBER/FOLIO: 34655/00157
8	PARCEL NO. 48 OWNER: MCADAMS JAMES V MCADAMS VICKI L ADDRESS: 3211 BRYANT AVE BALTIMORE, MD 21221 TAX ACCOUNT: 15-1302002250 USE: RESIDENTIAL LIBER/FOLIO: 13464/00001	21	PARCEL NO. 358 OWNER: DRYER V ADDRESS: 308 MARDO AVE BALTIMORE, MD 21221 TAX ACCOUNT: 15-130200140 USE: RESIDENTIAL LIBER/FOLIO: 22594/00324
9	PARCEL NO. 146 OWNER: AGC LIMITED PARTNERSHIP-8 ADDRESS: 2250 FAIRFAX DR #100 ARLINGTON VA 22201 TAX ACCOUNT: 15-1602002342 USE: APARTMENTS LIBER/FOLIO: 20614/00330	22	PARCEL NO. 358 OWNER: RHITCOMB JENNIFER N ADDRESS: 308 MARDO AVE BALTIMORE, MD 21221 TAX ACCOUNT: 15-1304200750 USE: RESIDENTIAL LIBER/FOLIO: 30622/00050
10	PARCEL NO. 90 OWNER: BOARD OF EDUCATION OF BALTIMORE COUNTY ADDRESS: 1610 PARK DR BALTIMORE, MD 21204 TAX ACCOUNT: 15-13022570228 USE: EXEMPT LIBER/FOLIO: 04455/00305	23	PARCEL NO. 358 OWNER: PRUNK WILLIAM JR ADDRESS: 304 MARDO AVE BALTIMORE, MD 21221 TAX ACCOUNT: 15-130200510 USE: RESIDENTIAL LIBER/FOLIO: 15872/00115
11	PARCEL NO. 180 OWNER: BOARD OF EDUCATION OF BALTIMORE COUNTY ADDRESS: 1610 PARK DR BALTIMORE, MD 21204 TAX ACCOUNT: 15-13022570204 USE: EXEMPT LIBER/FOLIO: 0317/00464	24	PARCEL NO. 358 OWNER: LAUGHERY RICHARD D SR ADDRESS: 302 MARDO AVE BALTIMORE, MD 21221 TAX ACCOUNT: 15-131550000 USE: RESIDENTIAL LIBER/FOLIO: 29141/00197
12	PARCEL NO. 358 OWNER: COHEN VICTORIA L ADDRESS: 300 MARDO AVE BALTIMORE, MD 21221 TAX ACCOUNT: 15-130200090 USE: RESIDENTIAL LIBER/FOLIO: 12041/00184	25	PARCEL NO. 358 OWNER: LEISER GILBERT E JR ADDRESS: 3400 ALMA RD BALTIMORE, MD 21221 TAX ACCOUNT: 15-130200090 USE: RESIDENTIAL LIBER/FOLIO: 19456/00216
13	PARCEL NO. 358 OWNER: HARTE THURMAN L ADDRESS: 2402 ALMA RD BALTIMORE, MD 21221 TAX ACCOUNT: 15-130200090 USE: RESIDENTIAL LIBER/FOLIO: 25150/00278	26	
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**KEY PLAN**  
SCALE: 1"= 60'

**SITE DATA**

- SITE ADDRESS: 2501 ALMA RD, BALTIMORE, MD 21221
- ELECTION DISTRICT: NO. 13
- COUNCILMANIC DISTRICT: NO. 1
- DEED REF: 3172/205
- PROPERTY TAX NO.: 1302510203
- PROPERTY OWNER: BOARD OF EDUCATION OF BALTIMORE COUNTY  
6901 CHARLES STREET  
TOWSON, MD 21204
- TOTAL SITE AREA: 17.13 AC.
- SITE IS LOCATED WITHIN THE PATAPSCO WATERSHED DRAINAGE AREA.
- SITE DOES NOT LIE WITHIN A 100 YEAR FLOODPLAIN.
- SETBACKS:  
SETBACKS REQUIRED:  
SETBACKS PROVIDED:  
FRONT SIDE REAR YARD YARD YARD  
25' 15' 50'  
(SEE SITE PLAN)
- ZONING: DR 5.5
- PARKING: REQUIRED (PER EDUCATIONAL SPECIFICATION):  
45 SPACES PER BALLFIELD + 75 SPACES (DURING HOURS)  
45 SPACES PER BALLFIELD + 40 SPACES (AFTER HOURS)  
TOTAL MAXIMUM REQUIRED = 40 SPACES  
PROVIDED:  
PARKING LOT = 99 SPACES (INCL. 4 HC)  
BUS LOOP = 11 PARALLEL SPACES  
TOTAL PROVIDED = 116 SPACES (INCL. 4 HC)

**LEGEND**

- EXISTING PROPERTY LINE
- EXISTING EASEMENT LINE
- PROPERTY REFERENCE NUMBER
- TRAVERSE POINT
- NEW CONSTRUCTION

ENGINEERS  
PLANNERS  
SCIENTISTS  
CONSTRUCTION MANAGERS

11720 Beltsville Drive  
Suite 600  
Cavertown, MD 20705  
Tel 301.595.1000  
www.grimmparker.com

**GP #21417**

**KEY PLAN**

**LANDSDOWNE ELEMENTARY SCHOOL**  
BALTIMORE COUNTY, MARYLAND

DATE	DESCRIPTION
11/17/16	BID SET

**C-0.1**

BID SET  
11/17/2016

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GENERAL NOTES

1. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" (1-800-281-7777) AT LEAST FIVE (5) WORKING DAYS PRIOR TO STARTING ANY WORK. CONTRACTOR SHALL PROVIDE A PRIVATE UTILITY LOCATING SERVICE AS NEEDED THROUGHOUT THE PROJECT.
2. TOPOGRAPHIC & BOUNDARY INFORMATION SHOWN HEREON IS BASED ON EXISTING PLANS AND DEEDS SUPPLIED BY BALTIMORE COUNTY PUBLIC SCHOOLS AND A FIELD RUN SURVEY CONDUCTED BY MERCADO CONSULTANTS, INC. DURING FEBRUARY 2016.
3. EXISTING UTILITY INFORMATION SHOWN HEREON IS BASED ON THE BEST AVAILABLE INFORMATION, WHICH INCLUDES A FIELD RUN SURVEY CONDUCTED BY MERCADO CONSULTANTS, INC. CONDUCTED DURING FEBRUARY 2016. AS-BUILT WATER, WASTEWATER, AND STORM DRAIN PLANS FROM BALTIMORE COUNTY DEPARTMENT OF PUBLIC WORKS AND EXISTING SITE AND UTILITY PLANS PROVIDED BY BALTIMORE COUNTY PUBLIC SCHOOLS.
4. OBSTRUCTIONS SHOWN ON THE DRAWINGS INCLUDED ARE FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. KCI TECHNOLOGIES, INC. DOES NOT WARRANT OR GUARANTEE THE CORRECTNESS OR THE COMPLETENESS OF THE INFORMATION GIVEN. THE CONTRACTOR SHALL VERIFY ALL SUCH INFORMATION TO HIS OWN SATISFACTION. IN THE EVENT THAT INFORMATION IS IN CONFLICT WITH INFORMATION OUTLINED, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT PRIOR TO STARTING ANY WORK.
5. CONTRACTOR SHALL REMOVE PAVING, STRUCTURES, AND CONCRETE WALK TO LIMITS INDICATED ON THE DRAWINGS INCLUDED.
6. CONTRACTOR SHALL NOT PROCEED WITH ANY DEMOLITION WORK UNTIL ALL UTILITY DISCONNECTIONS HAVE BEEN COMPLETED AND VERIFIED IN WRITING BY UTILITY COMPANY.
7. BURNING OF COMBUSTIBLE MATERIALS FROM DEMOLISHED STRUCTURES WILL NOT BE PERMITTED ON-SITE.
8. SEE SITE PLAN TO COORDINATE LIMITS OF APPROXIMATE SIDEWALK, CURB AND GUTTER AND PAVING REMOVAL.
9. THE CONTRACTOR SHALL SUBMIT A DEMOLITION/CONSTRUCTION STAGING PLAN TO THE OWNER AND ARCHITECT FOR APPROVAL, PRIOR TO BEGINNING ANY CONSTRUCTION.
10. CONTRACTOR SHALL VERIFY LOCATION AND ELEVATION OF EXISTING UTILITIES SHOWN HEREON BEFORE STARTING ANY WORK ON THESE PLANS. CONTRACTOR AGREES TO BE FULLY RESPONSIBLE FOR THE COST OF ANY AND ALL DAMAGES WHICH OCCUR AS A RESULT OF A FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL EXISTING UTILITIES TO REMAIN.
11. ALL WORK SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
12. CONTRACTOR SHALL ADJUST ALL FRAMES, GRATES AND COVERS OF ALL EXISTING UTILITIES WITHIN THE LIMITS OF THE CONTRACT TO THE PROPOSED GRADES AS REQUIRED.
13. THE CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE AWAY FROM STRUCTURES AT ALL TIMES.
14. CONTRACTOR SHALL COORDINATE ALL DISCONNECTIONS AND REMOVAL OF EXISTING GAS, ELECTRIC AND TELEPHONE SERVICES AND EQUIPMENT WITH BALTIMORE GAS & ELECTRIC AND VERIZON. SEE MECHANICAL AND ELECTRICAL PLANS FOR ADDITIONAL INFORMATION.
15. CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL EXISTING MECHANICAL AND ELECTRICAL EQUIPMENT AND ACCESSORIES NOT REMOVED BY LOCAL UTILITY COMPANIES, OR SPECIFIED TO BE REMOVED BY OWNER. SEE MECHANICAL AND ELECTRICAL PLANS FOR ADDITIONAL INFORMATION.
16. CONTRACTOR SHALL INSTALL SEDIMENT CONTROLS PRIOR TO BEGINNING ANY WORK AND SHALL MAINTAIN SEDIMENT CONTROLS THROUGHOUT THE ENTIRE DURATION OF DEMOLITION & CONSTRUCTION ACTIVITIES, IN ACCORDANCE WITH ALL APPLICABLE STATE & COUNTY REQUIREMENTS.
17. ALL UTILITY LINES, STRUCTURES, ETC. SHALL BE REMOVED IN THEIR ENTIRETY UNLESS OTHERWISE INDICATED. UTILITY AND UNDERGROUND STRUCTURE REMOVAL SHALL BE COMPLETED IN ACCORDANCE WITH THE LATEST BALTIMORE CO. STD. DETAILS AND SPECIFICATIONS. ALL EXCAVATION SHALL BE BACKFILLED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS. IN THE EVENT THAT A PORTION OF A UTILITY IS TO BE REMOVED, THE CONTRACTOR SHALL TERMINATE & CAP TO THE LIMITS INDICATED IN ACCORDANCE WITH ALL STATE & LOCAL REQUIREMENTS.
18. IT SHALL BE DISTINCTLY UNDERSTOOD THAT FAILURE TO MENTION SPECIFICALLY ANY WORK WHICH WOULD NORMALLY BE REQUIRED TO COMPLETE THIS PROJECT SHALL NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY TO COMPLETE SUCH WORK.
19. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE ENGINEER OF ANY DEVIATION FROM THIS PLAN PRIOR TO ANY CHANGE BEING MADE. ANY DEVIATION FROM THIS PLAN WITHOUT WRITTEN AUTHORIZATION FROM THE ENGINEER WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.
20. SOIL BORINGS WERE COMPLETED BY GEOTECH ENGINEERS, INC. DURING MARCH 2016. A COPY OF THE GEOTECH REPORT IS INCLUDED IN THE PROJECT MANUAL.
21. SEE MECHANICAL, ELECTRICAL, AND PLUMBING PLANS FOR ADDITIONAL INFORMATION RELATED TO UTILITY CONNECTIONS FROM 5' OUTSIDE OF BUILDING TO BUILDING.
22. REFER TO MECHANICAL AND ELECTRICAL PLANS FOR ADDITIONAL DEMOLITION WORK ASSOCIATED WITH GAS AND ELECTRIC.
23. THE DEMOLITION INFORMATION SHOWN ON THE DRAWINGS INCLUDED IS FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. IT IS THE CONTRACTORS RESPONSIBILITY TO DETERMINE THE EXACT LIMITS OF DEMOLITION AND REMOVAL OF AFFECTED SITE ITEMS.

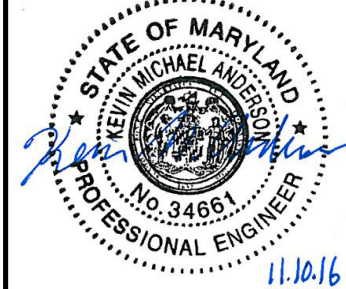
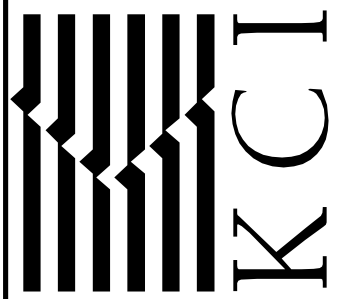
24. SHOULD THE CONTRACTOR DISCOVER DISCREPANCIES BETWEEN THE PLANS AND FIELD CONDITIONS, THE ENGINEER IS TO BE NOTIFIED IMMEDIATELY TO RESOLVE THE SITUATION. SHOULD THE CONTRACTOR MAKE FIELD CORRECTIONS OR ADJUSTMENTS WITHOUT NOTIFYING THE ENGINEER, THEN THE CONTRACTOR ASSUMES ALL RESPONSIBILITY FOR THOSE CHANGES.
25. THE CONTRACTOR SHALL NOTE THAT IN CASE OF ANY DISCREPANCY BETWEEN THE SCALED AND FIGURED DIMENSIONS SHOWN ON THESE PLANS THE FIGURED DIMENSIONS SHALL GOVERN.
26. SOILS CLASSIFIED AS ML, SM, SC, SP, SH OR MORE GRANULAR SOILS IN ACCORDANCE WITH ASTM D-2487 ARE CONSIDERED SUITABLE FOR CONTROLLED FILL FOR SUPPORT OF THE BUILDING, PAVEMENT AND ANY SITE STRUCTURES. PROPOSED FILL MATERIALS SHOULD HAVE A MAXIMUM DRY DENSITY OF AT LEAST 10 PCF AS DETERMINED BY ASTM D-1557. HOWEVER, ALL MATERIALS PROPOSED FOR CONTROLLED FILL SHOULD BE TESTED AND APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO USE. THE ON-SITE EXCAVATED SOILS OF STRATUM C ARE GENERALLY CONSIDERED SUITABLE FOR USE AS CONTROLLED FILL. HOWEVER, MOISTURE CONTENTS OF THE EXCAVATED SOILS SHOULD BE CHECKED PRIOR TO USE. THE CLAY OF STRATA A AND B SHOULD NOT BE USED FOR NEW CONTROLLED FILL FOR ANY STRUCTURAL SUPPORT, BUT MAY BE USED FOR GRADING FILL.
27. CONTROLLED FILL IN THE BUILDING AREA SHOULD BE PLACED IN LOOSE LIFTS NOT EXCEEDING 8 INCHES IN THICKNESS AND BE COMPACTED TO AT LEAST 85 PERCENT OF THE MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D-1557. NEW FILL AND STONE BASE UNDER THE SIDEWALK, CURB AND GUTTER, PATIO AND PAVEMENT SHOULD BE COMPACTED TO AT LEAST 90 PERCENT PER THE SAME STANDARD. NEW FILL IN THE GRASS AREA MAY BE COMPACTED TO 85 PERCENT.
28. BACKFILL FOR THE UTILITIES AND BEHIND THE WALL SHOULD BE PLACED AND COMPACTED IN ACCORDANCE WITH THE CONTROLLED FILL REQUIREMENTS AS DETAILED ABOVE.
29. ALL CONSTRUCTION SHALL BE COMPLETED IN ACCORDANCE WITH THE LATEST BALTIMORE COUNTY STANDARD DETAILS AND SPECIFICATIONS AND ALL REVISIONS THERETO, UNLESS OTHERWISE NOTED.
30. THE CONTRACTOR SHALL NOTIFY THE BALTIMORE COUNTY DEPARTMENT OF PUBLIC WORKS, FIVE (5) WORKING DAYS BEFORE STARTING THE WORK SHOWN ON THESE DRAWINGS.
31. ALL UTILITY STRUCTURE DIMENSIONS REFER TO THE CENTERLINE OF THE STRUCTURES.
32. ALL CLEANOUTS LOCATED IN PAVED AREAS SHALL HAVE COUNTERSUNK LIDS.
33. SEE ELECTRICAL PLANS FOR SITE LIGHTING INFORMATION.
34. CONTRACTOR SHALL CONNECT ALL ON-SITE UTILITIES TO THE PROPOSED BUILDING CONNECTIONS AS REQUIRED.
35. DISTURBED AREAS AROUND THE BUILDING NOT BEING MECHANICALLY STABILIZED WITH IMPROVEMENTS SHALL BE SODDED.
36. ALL ITEMS WITHIN L.O.D. INCLUDING BUT NOT LIMITED TO SIGNS, BOLLARDS, LIGHTPOLES, ETC. ARE TO BE REMOVED. SEE DEMOLITION PLANS FOR ADDITIONAL INFORMATION.
37. ALL CONSTRUCTION DEBRIS WILL BE REMOVED FROM THE SITE AND TAKEN TO AN APPROVED, PERMITTED DISPOSAL FACILITY UNLESS OTHERWISE NOTED. NO RUBBLE IS TO BE LEFT ON SITE.
38. CONTRACTOR SHALL INSPECT AND TAKE PICTURES OF ADJACENT BUILDING WALLS PRIOR TO THE COMMENCEMENT OF ANY DEMOLITION ON THE SITE. EXISTING WALL CRACKS (IF ANY) WILL BE NOTED.
39. CONTRACTOR SHALL NOT EXPOSE UNDERMINE, OR IMPACT THE ZONE OF INFLUENCE FOR FOOTINGS AND FOUNDATIONS OF ADJACENT BUILDINGS. CONTRACTOR WILL BE RESPONSIBLE FOR THE COST TO REPAIR ADJACENT BUILDINGS THAT ARE DAMAGED DUE TO THIS OPERATION.
40. CONTRACTOR SHALL PROVIDE THE NECESSARY MEANS TO CONTROL DUST AND MAINTAIN BALTIMORE COUNTY AIR QUALITY STANDARDS DURING THE DEMOLITION AND REMOVAL OF SITE DEBRIS AND THE NEW CONSTRUCTION.
41. CONTRACTOR SHALL REMOVE EXISTING CURBS & CONCRETE WALKS TO THE NEAREST JOINT. NO PATCHING WILL BE PERMITTED.
42. EXISTING UTILITIES TO BE ABANDONED IN PLACE UNLESS ENCOUNTERED DURING CONSTRUCTION AT WHICH TIME THEY SHALL BE REMOVED IN THEIR ENTIRETY. IF ABANDONED IN PLACE, UTILITIES SHALL BE BACKFILLED WITH FLOWABLE FILL.
43. CONTRACTOR SHALL PROVIDE 6' HIGH TEMPORARY CONSTRUCTION FENCE AROUND THE LIMIT OF DISTURBANCE.
44. ADJUST TOP OF CURB GRADES TO PROVIDE SMOOTH TRANSITION.
45. SAW CUT EXISTING PAVING AS NEEDED TO INSTALL NEW CONSTRUCTION.
46. STRIP AND RESURFACE EXISTING PAVING AS NEEDED TO PROVIDE SMOOTH TRANSITION TO EXISTING SURFACE.
47. PRIOR TO BEGINNING CONSTRUCTION THE CONTRACTOR SHOULD VERIFY ALL TIE-IN ELEVATIONS.
48. PAVING REPAIR SHALL BE IN ACCORDANCE WITH BALTIMORE COUNTY STD. DETAIL R-38.
49. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE PROTECTION OF THE SUB-GRADE UNTIL IT RECEIVES FINAL SURFACE TREATMENT AND SHALL MAINTAIN THE SUB-GRADE AS SUITABLE AND ACCEPTABLE TO THE OWNER OR OWNER'S REPRESENTATIVE AT ALL TIMES. HE SHALL BE COMPLETELY RESPONSIBLE FOR THE RESTORATION OR REPLACEMENT OF THE SUB-GRADE DUE TO MOISTURE DAMAGE, CONSTRUCTION TRAFFIC, OR ANY OTHER CAUSE. REPAIR OR REPLACEMENT OF THE SUBGRADE SHALL BE PERFORMED AT NO ADDITIONAL COST TO THE OWNER.
50. ALL AREAS DISTURBED BY CONSTRUCTION SHALL RECEIVE A MINIMUM OF 6" TOPSOIL, SEED AND MULCH PER SPECIFICATIONS, UNLESS NOTED OTHERWISE.

UTILITY NOTES

1. OBSTRUCTIONS SHOWN ON THIS DRAWING ARE FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. KCI TECHNOLOGIES, INC. DOES NOT WARRANT OR GUARANTEE THE CORRECTNESS OR THE COMPLETENESS OF THE INFORMATION GIVEN. THE CONTRACTOR MUST VERIFY ALL SUCH INFORMATION TO HIS OWN SATISFACTION.
2. CONTRACTOR SHALL CALL "MISS UTILITY" (800-281-7777) AT LEAST FIVE (5) WORKING DAYS PRIOR TO STARTING WORK.
3. CONSTRUCTION OF THE PROPOSED UTILITIES WILL BE IN ACCORDANCE WITH THE BALTIMORE COUNTY PLUMBING CODE AND BY A QUALIFIED CONTRACTOR.
4. NO WORK IS TO COMMENCE UNTIL ALL PERMITS HAVE BEEN OBTAINED.
5. CONTRACTOR SHALL TEST PIT FOR LOCATION OF EXISTING UTILITIES PRIOR TO STARTING CONSTRUCTION.
6. EXISTING CURB AND GUTTER & CONCRETE SIDEWALK SHALL BE REMOVED TO THE NEAREST JOINT. NO PATCHING SHALL BE PERMITTED.
7. SHOULD THE CONTRACTOR DISCOVER DISCREPANCIES BETWEEN THE PLANS AND FIELD CONDITIONS THE ENGINEER IS TO BE NOTIFIED IMMEDIATELY TO RESOLVE THE SITUATION.
8. ALL CLEANOUTS LOCATED IN PAVED AREAS SHALL HAVE COUNTERSUNK LIDS.
9. CONTRACTOR SHALL COORDINATE THE LOCATION OF THE UNDERGROUND ELECTRIC SERVICE AND THE UNDERGROUND GAS SERVICE WITH THE BALTIMORE GAS, ELECTRIC COMPANY. SEE ELECTRICAL PLANS FOR DETAILS.
10. CONTRACTOR SHALL ADJUST TOP OF EXISTING UTILITIES, I.E. MANHOLE FRAME AND COVER, INLET GRATES, ETC. TO FINISHED GRADE.
11. SANITARY SEWER LINES OUTSIDE OF THE BUILDING WILL BE PVC CLASS SDR 35.
12. TRENCH REPAIR ON DELVALE AVENUE SHALL BE PER BALTIMORE COUNTY STD. DETAIL R-38.
13. ALL WATER PIPING, TUBING, FITTINGS AND JOINING METHODS SHALL BE ACCORDING TO THE FOLLOWING APPLICATIONS:  
  
4 INCHES (DN 100) TO 8 INCHES (DN 200), CLASS D' OR CLASS 250 DUCTILE IRON PIPE, DUCTILE IRON COMPACT FITTINGS, AND MECHANICAL JOINTS WITH RETAINER GLANDS.
14. SEE PLUMBING PLANS FOR CONTINUATION OF UTILITY CONNECTIONS TO THE BUILDING.
15. SEE ELECTRICAL PLANS FOR SITE LIGHTING AND CONDUIT LOCATIONS.
16. STORM DRAIN PIPE AND FITTINGS SHALL BE BLUE SEAL WATER-TIGHT CORRUGATED POLYETHYLENE PIPE (HOPE) OR APPROVED EQUAL (UNLESS NOTED OTHERWISE), AS MANUFACTURED BY:  
  
ADVANCED DRAINAGE SYSTEMS, INC.  
3501 GRAYLING DRIVE  
MT. AIRY, MD. 21111
17. ON SITE FIRE HYDRANTS ARE TO BE PAINTED RED AND FIRE HYDRANTS STREAMER NOZZLE TO FACE DRIVE AISLES.
18. ALL EXCAVATION SHALL BE BACKFILLED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS. IN THE EVENT THAT A PORTION OF A UTILITY IS TO BE REMOVED, THE CONTRACTOR SHALL TERMINATE AND GAP TO THE LIMITS INDICATED IN ACCORDANCE WITH ALL STATE AND LOCAL REQUIREMENTS.
19. THE CONTRACTOR IS RESPONSIBLE FOR PERFORMING ALL WORK SHOWN ON THESE DRAWINGS UNLESS OTHERWISE NOTED.
20. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE ENGINEER OF ANY DEVIATION FROM THE PLANS PRIOR TO ANY CHANGE BEING MADE. ANY DEVIATION FROM THIS PLAN WITHOUT WRITTEN AUTHORIZATION FROM THE ENGINEER WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.
21. PRIOR TO BEGINNING ANY UTILITY CONSTRUCTION THE CONTRACTOR SHALL VERIFY THAT ALL EXISTING UTILITIES WILL TIE IN WITH PROPOSED UTILITIES AS SHOWN.
22. SEE MECHANICAL / ELECTRICAL / PLUMBING PLANS FOR GEOTHERMAL SYSTEM INFORMATION.
23. SEE PUBLIC WATER DRAWING, DWS, NO. 2016-1431 FOR PROPOSED WATER METER AND FOR THE ABANDONMENT OF THE EXISTING WATER SERVICE.
24. ALL VALVES SHALL BE IN STANDARD CONCRETE VAULTS IN ACCORDANCE WITH BALTIMORE COUNTY STANDARD DETAILS.
25. ALL ON-SITE PRIVATE FIRE HYDRANTS SHALL BE PAINTED RED.
26. SEE PUBLIC SEWER DRAWING DWS, NO. 2016-1432 FOR PROPOSED SEWER WORK IN LANGDOVNE ROAD AND FOR THE ABANDONMENT OF THE EXISTING SERVICE.
27. SEE PUBLIC STORM DRAIN DRAWING DWS, NO. 2016-1433, 1434, 1435 FOR PROPOSED STORM DRAIN RELOCATION.
28. FINAL ELEVATION OF ALL UTILITY STRUCTURES (MANHOLES, INLETS, CLEAN OUTS, VALVES, VAULTS, ETC.) SHALL BE SET IN THE FIELD.

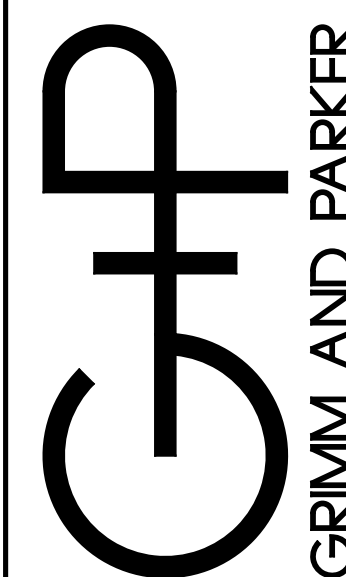
ENGINEERS  
PLANNERS  
SCIENTISTS  
CONSTRUCTION MANAGERS

938 Beltsville Road  
Suite 600  
Calverton, Maryland 20715  
Telephone: (410) 316-7800  
Fax: (410) 316-7818



PROFESSIONAL CERTIFICATION  
I HEREBY CERTIFY THAT THESE  
DRAWINGS WERE PREPARED OR  
APPROVED BY ME AND THAT I AM  
A FULLY LICENSED PROFESSIONAL  
ENGINEER UNDER THE LAWS OF  
THE STATE OF MARYLAND.  
LICENSE NO. 5468  
EXPIRATION DATE 07/10/17

11720 Beltsville Drive  
Suite 600  
Calverton, MD 20705  
Tel 301.595.1000  
[www.grimmandparker.com](http://www.grimmandparker.com)



GP #21417

GENERAL NOTES  
LAUSDOWNE ELEMENTARY SCHOOL  
BALTIMORE COUNTY, MARYLAND

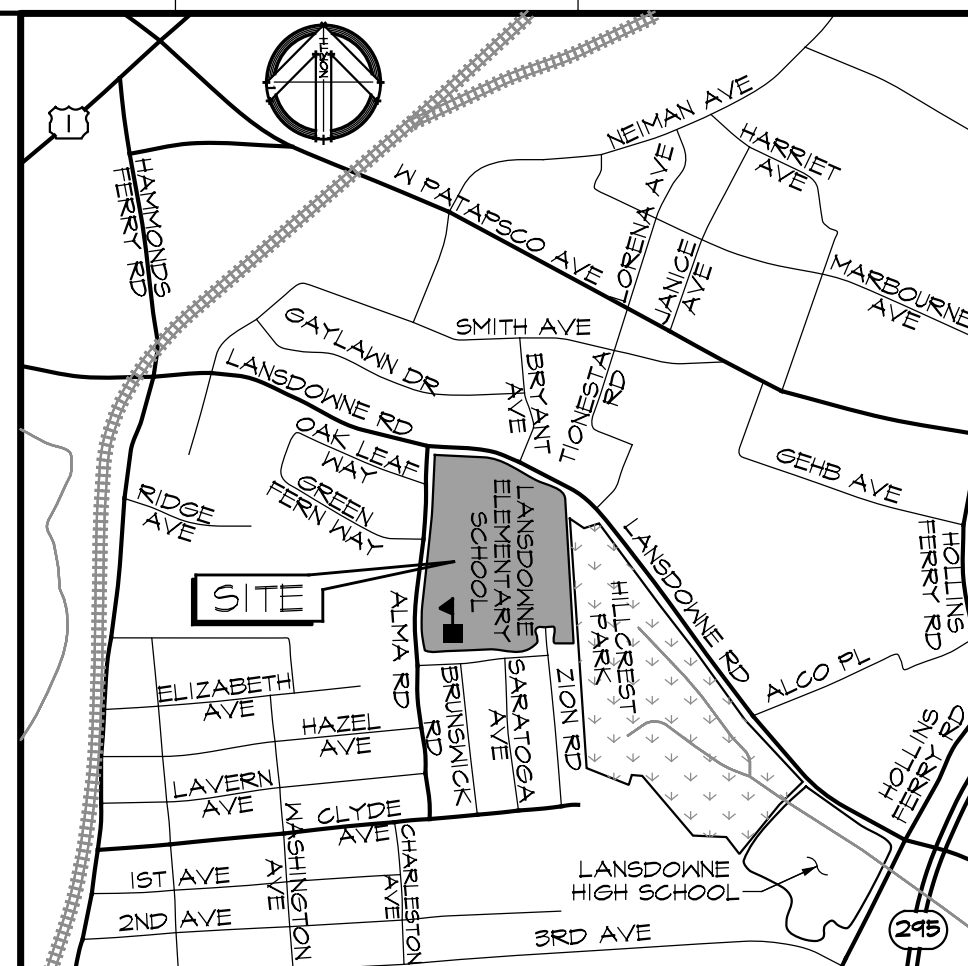
DATE	DESCRIPTION
11/17/16	BID SET

C-0.2  
BID SET  
11/17/2016

# SURVEY NOTES

1. AERIAL TOPOGRAPHIC MAPPING BY VIRGINIA RESOURCE MAPPING, 210 N 21ST STREET, PURCELLVILLE, VA 20132, FROM AERIAL PHOTOGRAPHY DATED 12/24/2015, COMPILED FOR 1"=30' MAPPING SCALE WITH ONE FOOT CONTOUR INTERVAL.
2. AERIAL CONTROL AND FIELD CHECK SURVEY BY MERCADO CONSULTANTS, INC. COMPLETED 2/12/2016.
3. COORDINATES SHOWN ARE MARYLAND STATE PLANE NAD83/2011 DATUM AND ELEVATIONS ARE NAVD83 DATUM ESTABLISHED BY RTK GPS SURVEY FROM BALTIMORE COUNTY SURVEY CONTROL STATIONS "AZ-180" AND "G15-180" WITH THE FOLLOWING PUBLISHED COORDINATES:  

"G15-180"	"AZ-180"
BRASS DISK	BRASS CAP
NORTHING = 576,096.86	NORTHING = 575,584.45
EASTING = 1410,828.12	EASTING = 1411,561.70
ELEVATION = 170.12'	ELEVATION = 104.45'
4. COMBINED SCALE & ELEVATION FACTOR TO CONVERT MARYLAND STATE PLANE GRID DISTANCES TO GROUND DISTANCES IS 1.00004821
5. A BOUNDARY SURVEY HAS NOT COMPLETED. THE PROPERTY LINES AND DIMENSIONS SHOWN HEREON WERE COMPILED FROM DEEDS AND PLATS OF RECORD AND POSITIONED ACCORDING TO MONUMENTS, FENCE LINES AND TOPOGRAPHIC INFORMATION. PROPERTY LINES SHOWN HEREON ARE FOR REFERENCE ONLY AND SHOULD NOT BE USED FOR DESIGN UNTIL FIELD VERIFIED.
6. SURVEY INFORMATION HAS SUPPLEMENTED WITH BALTIMORE COUNTY RECORD INFORMATION AND BCPS PROVIDED DOCUMENTS.



VICINITY MAP  
SCALE: 1" = 1000'

## DEMOLITION LEGEND

1	EXISTING PLAYGROUND, FENCING AND EQUIPMENT TO BE REMOVED
2	EXISTING LIGHT POLE AND BASE TO BE REMOVED
3	EXISTING STORM DRAIN INLET TO BE REMOVED
4	EXISTING MANHOLE TO BE REMOVED
5	EXISTING HANDBOX TO BE REMOVED
6	BCPS TO REMOVE PRIOR TO CONSTRUCTION *SEE NOTE #10 THIS SHEET
7	EXISTING SOFTBALL FIELD, BENCHES, BACKSTOP, DIRT, AND FENCING TO BE REMOVED
8	EXISTING BASKETBALL COURTS, FENCING, WALLS AND EQUIPMENT TO BE REMOVED
9	CONTRACTOR TO REMOVE EXISTING MODULAR *SEE NOTE #10 THIS SHEET

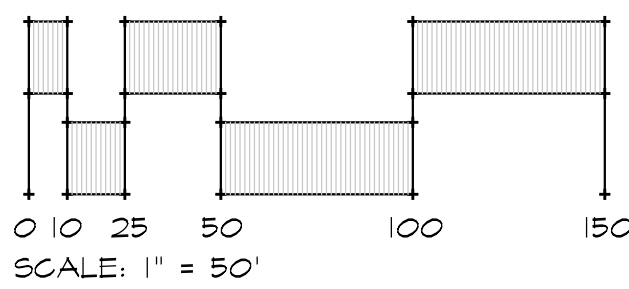
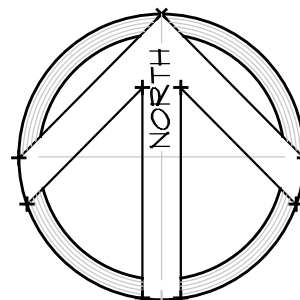
## GENERAL NOTES

1. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" 1-800-251-7777 AT LEAST FIVE (5) WORKING DAYS PRIOR TO STARTING ANY WORK.
2. TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED ON AVAILABLE AS-BUILT PLANS PROVIDED BY BALTIMORE COUNTY PUBLIC SCHOOLS AND BALTIMORE COUNTY DPW, AND A SUPPLEMENTAL SURVEY CONDUCTED BY MERCADO CONSULTANTS, INC. DURING FEBRUARY, 2016.
3. EXISTING UTILITY INFORMATION SHOWN HEREON IS BASED ON THE BEST AVAILABLE INFORMATION, WHICH INCLUDES A FIELD SURVEY CONDUCTED BY MERCADO CONSULTANTS, INC. DURING FEBRUARY, 2016. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COST OF ANY AND ALL DAMAGES WHICH OCCUR AS A RESULT OF A FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL EXISTING UTILITIES LOCATED TO REMAIN.
4. OBSTRUCTIONS SHOWN ON THIS DRAWING ARE FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. KCI TECHNOLOGIES, INC. DOES NOT WARRANT OR GUARANTEE THE CORRECTNESS OR THE COMPLETENESS OF THE INFORMATION GIVEN. THE CONTRACTOR MUST VERIFY ALL SUCH INFORMATION TO HIS OWN SATISFACTION. IN THE EVENT THAT INFORMATION IS IN CONFLICT WITH OR IN ADDITION TO INFORMATION OUTLINED, THE CONTRACTOR SHALL IMMEDIATELY BRING IT TO THE ATTENTION OF THE ARCHITECT PRIOR TO STARTING ANY WORK.
5. CONTRACTOR SHALL VERIFY LOCATION AND ELEVATION OF EXISTING UTILITIES SHOWN HEREON BEFORE STARTING ANY WORK ON THESE PLANS. CONTRACTOR AGREES TO BE FULLY RESPONSIBLE FOR THE COST OF ANY AND ALL DAMAGES WHICH OCCUR AS A RESULT OF A FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL EXISTING UTILITIES LOCATED TO REMAIN.
6. ALL WORK SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
7. CONTRACTOR SHALL ADJUST ALL FRAMES, GRATES AND COVERS OF ALL EXISTING UTILITIES WITHIN THE LIMITS OF THE CONTRACT TO THE PROPOSED GRADES AS REQUIRED.
8. THE CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE AWAY FROM BUILDINGS AND STRUCTURES AT ALL TIMES.
9. CONTRACTOR SHALL COORDINATE ALL DISCONNECTIONS AND REMOVAL OF EXISTING GAS, ELECTRIC AND TELEPHONE SERVICES AND EQUIPMENT WITH BALTIMORE GAS & ELECTRIC AND VERIZON.
10. CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL EXISTING MECHANICAL AND ELECTRICAL EQUIPMENT AND ACCESSORIES NOT REMOVED BY LOCAL UTILITY COMPANIES, OR SPECIFIED TO BE REMOVED BY OWNER.
11. CONTRACTOR SHALL INSTALL SEDIMENT CONTROLS PRIOR TO BEGINNING ANY WORK AND MAINTAIN SEDIMENT CONTROLS THROUGHOUT THE ENTIRE DURATION OF DEMOLITION AND CONSTRUCTION ACTIVITIES.
12. ALL EXCAVATION SHALL BE BACKFILLED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS. IN THE EVENT THAT A PORTION OF A UTILITY IS TO BE REMOVED, THE CONTRACTOR SHALL TERMINATE AND CAP TO THE LIMITS INDICATED IN ACCORDANCE WITH ALL STATE AND LOCAL REQUIREMENTS.
13. IT SHALL BE DISTINCTLY UNDERSTOOD THAT FAILURE TO MENTION SPECIFICALLY ANY WORK WHICH WOULD NORMALLY BE REQUIRED TO COMPLETE THIS PROJECT SHALL NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY TO COMPLETE THIS WORK.
14. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE ENGINEER OF ANY DEVIATION FROM THIS PLAN PRIOR TO ANY CHANGE BEING MADE. ANY DEVIATION FROM THIS PLAN WITHOUT WRITTEN AUTHORIZATION FROM THE ENGINEER WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.
15. SHOULD THE CONTRACTOR DISCOVER DISCREPANCIES BETWEEN THE PLANS AND FIELD CONDITIONS, THE ENGINEER IS TO BE NOTIFIED IMMEDIATELY TO RESOLVE THE SITUATION. SHOULD THE CONTRACTOR MAKE FIELD CORRECTIONS OR ADJUSTMENTS WITHOUT NOTIFYING THE ENGINEER, THEN THE CONTRACTOR ASSUMES ALL RESPONSIBILITY FOR THOSE CHANGES.
16. SOIL BORINGS WERE CONDUCTED BY GEOTECH ENGINEERS, INC. MARCH 2016. A COPY OF THE GEOTECHNICAL REPORT IS INCLUDED WITH THE PROJECT SPECIFICATIONS.
17. CONTRACTOR SHALL SECURE THE CONSTRUCTION AREA AT THE END OF EACH WORKING DAY AND WILL INSPECT THE SECURITY FENCING TO INSURE ITS INTEGRITY.
18. ALL CONSTRUCTION DEBRIS WILL BE REMOVED FROM THE SITE AND TAKEN TO AN APPROVED, PERMITTED DISPOSAL FACILITY. NO RUBBLE IS TO BE LEFT ON SITE.
19. CONTRACTOR SHALL INSPECT AND TAKE PICTURES OF ADJACENT BUILDING WALLS CRACKS (IF ANY) WILL BE NOTED.
20. CONTRACTOR SHALL CONTINUALLY MONITOR THE WALLS OF THE ADJACENT BUILDINGS FOR ANY SIGNS OF STRUCTURAL DISTRESS. IF ANY DISTRESS IS NOTED, CONTRACTOR SHALL STOP WORK IMMEDIATELY AND NOTIFY OWNER.
21. CONTRACTOR SHALL NOT EXPOSE UNDERMINE OR IMPACT THE ZONE OF INFLUENCE FOR FOOTINGS AND FOUNDATIONS OF ADJACENT BUILDINGS. CONTRACTOR SHALL BE RESPONSIBLE FOR THE COST TO REPAIR ADJACENT BUILDINGS THAT ARE DAMAGED DUE TO HIS OPERATION.
22. CONTRACTOR SHALL PROVIDE THE NECESSARY MEANS TO CONTROL DUST AND MAINTAIN BALTIMORE COUNTY AIR QUALITY STANDARDS DURING THE DEMOLITION AND REMOVAL OF SITE DEBRIS AND THE NEW CONSTRUCTION.
23. CONTRACTOR SHALL SANGUT EXISTING PAVING TO MINIMIZE DAMAGE TO EXISTING PAVING REMAINING.
24. CONTRACTOR SHALL REMOVE EXISTING CURBS & CONCRETE WALKS TO THE NEAREST JOINT. NO PATCHING WILL BE PERMITTED.
25. EXISTING UTILITIES SHALL BE REMOVED IN THEIR ENTIRETY, WITH APPROVAL OF THE ENGINEER. IF ABANDONED IN PLACE, UTILITIES SHALL BE BACKFILLED WITH FLOWABLE FILL.
26. THE DEMOLITION INFORMATION SHOWN ON THIS DRAWING IS FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. IT IS THE CONTRACTORS RESPONSIBILITY TO DETERMINE THE EXACT LIMITS OF DEMOLITION AND REMOVAL OF AFFECTED SITE ITEMS.
27. CONTRACTOR SHALL PROVIDE 6' HIGH TEMPORARY CONSTRUCTION FENCE AROUND THE LIMITS OF DISTURBANCE.
28. EXISTING TREES AND OTHER PLANTINGS ARE TO BE REMOVED AS INDICATED ON THE CONSTRUCTION DOCUMENTS AS WELL AS ADDITIONAL TREES AND OTHER PLANTINGS THAT MAY BE REQUIRED FOR THE CONTRACTOR TO PERFORM HIS/HER WORK AT THE CONTRACTORS EXPENSE.
29. CONTRACTOR SHALL REMOVE ALL EXISTING SIGNS AND BOLLARDS WITHIN LOD UNLESS OTHERWISE NOTED.
30. CONTRACTOR TO COORDINATE LIMITS OF STORM DRAIN REMOVAL WITH RELOCATION OF STORM DRAIN AND CONNECTION TO EXISTING STORM DRAIN.

## LEGEND

---	EX. INDEX CONTOUR
---	EX. INTERMEDIATE CONTOUR
---	PROPERTY LINE
---	ADJACENT PROPERTY LINE
---	EX. EASEMENT LINE
---	OVERALL LIMIT OF DISTURBANCE
---	EX. CURB AND GUTTER
---	EX. STORM DRAIN
---	EX. 12" RCP
---	EX. 8" VCP
---	EX. 6" WATER
---	EX. WATER
---	EX. GAS
---	EX. UNDERGROUND ELECTRIC
---	EX. OVERHEAD ELECTRIC
---	EX. UNDERGROUND FIBER OPTIC
---	EX. GAS VALVE
---	EX. SIGN
---	EX. WATER VALVE
---	EX. MANHOLE
---	EX. CLEANOUT
---	EX. FIRE HYDRANT
---	EX. LIGHT POLE
---	EX. INLET
---	EX. POWER POLE
---	EX. TREE
---	EX. WATER METER
---	EX. FENCE

X	EX. TREE TO BE REMOVED
---	EX. UTILITIES TO BE REMOVED
---	EX. FENCE TO BE REMOVED
---	APPROXIMATE LIMITS OF EX. SIDEWALK, CURB & GUTTER, CONCRETE RAMPS, STAIRS, RAILINGS, ASPHALT AND MISC. STRUCTURES TO BE REMOVED
---	APPROXIMATE LIMITS OF EX. BUILDING TO BE REMOVED
---	APPROXIMATE LIMITS OF FOREST IMPACT AREA
---	CRZ
---	SPECIMEN TREE



## EXISTING CONDITIONS/DEMOLITION PLAN

SCALE: 1" = 50'



ENGINEERS  
PLANNERS  
SCIENTISTS  
CONSTRUCTION MANAGERS

038 Reisterstown Road  
Suite 200  
Baltimore, Maryland 21204  
Telephone: (410) 316-7800  
Fax: (410) 316-7818

**KCI**  
TECHNOLOGIES

PROFESSIONAL CERTIFICATION  
I HEREBY CERTIFY THAT THESE  
DRAWINGS WERE PREPARED OR  
APPROVED BY ME AND THAT I AM  
A FULLY LICENSED PROFESSIONAL  
ENGINEER UNDER THE LAWS OF  
THE STATE OF MARYLAND  
LICENSE NO. 5486  
EXPIRATION DATE 07/10/17

11.10.16

11720 Beltsville Drive  
Suite 600  
Cavertown, MD 20705  
Tel 301.595.1000  
www.grimmandparker.com

**GRIMM AND PARKER**

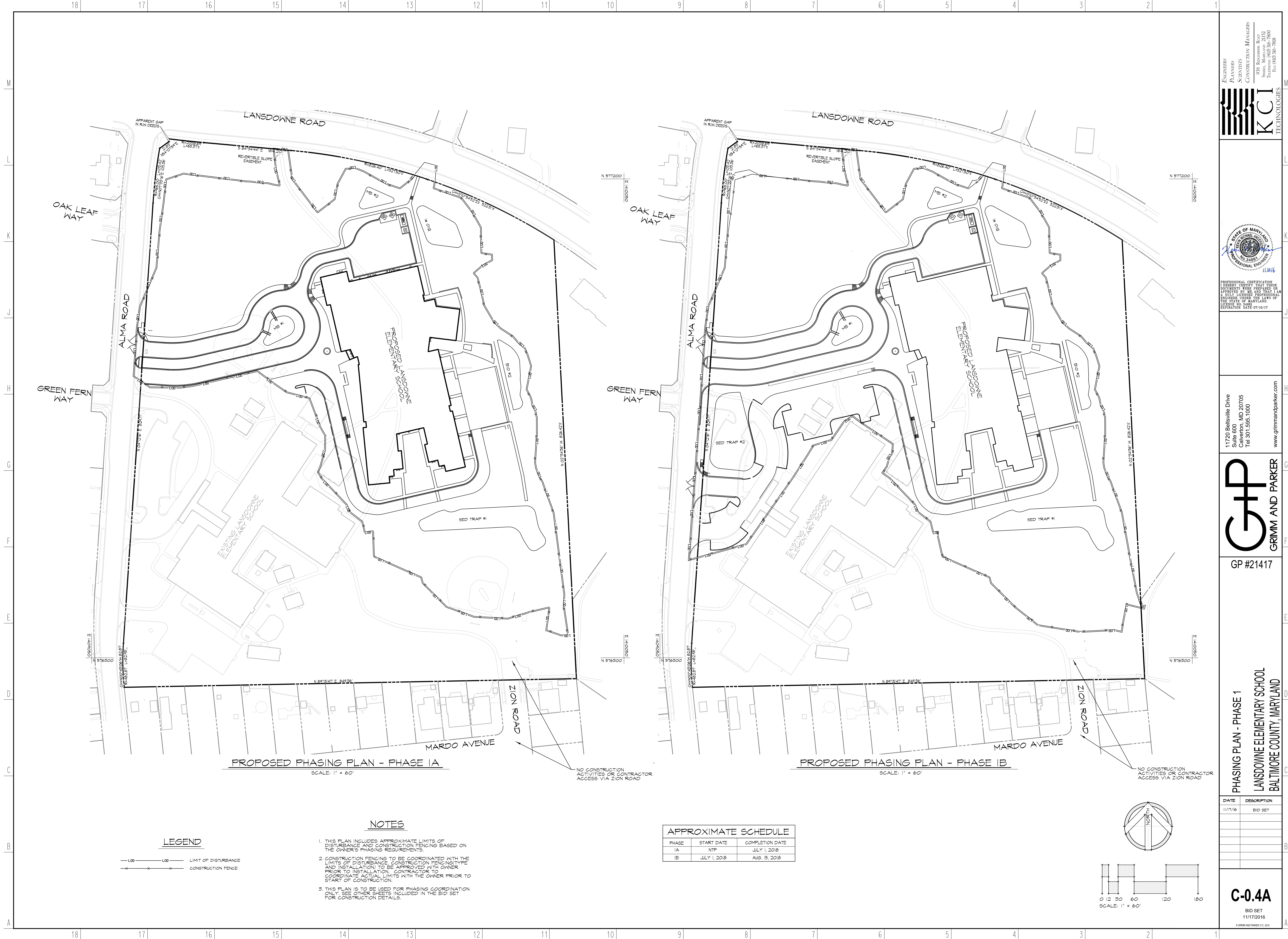
GP #21417

EXISTING CONDITIONS/DEMOLITION PLAN - PHASE 1  
LANSDOWNE ELEMENTARY SCHOOL  
BALTIMORE COUNTY, MARYLAND

DATE	DESCRIPTION
11/17/16	BID SET

**C-0.3A**  
BID SET  
11/17/2016  
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LEGEND

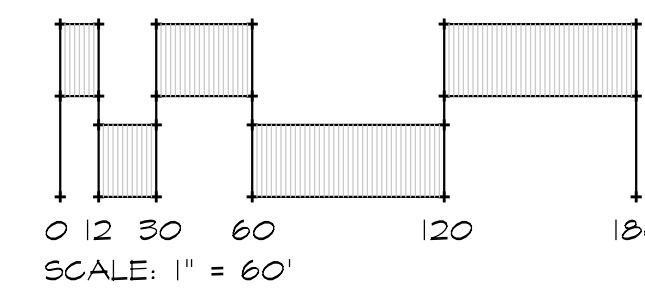
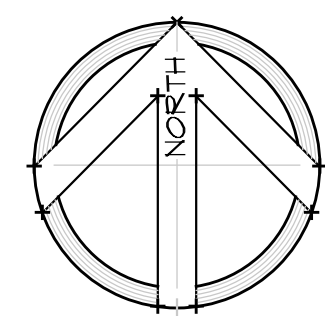
- L&D — LIMIT OF DISTURBANCE
- - - - - CONSTRUCTION FENCE

NOTES

1. THIS PLAN INCLUDES APPROXIMATE LIMITS OF DISTURBANCE AND CONSTRUCTION FENCING BASED ON THE OWNER'S PHASING REQUIREMENTS.
2. CONSTRUCTION FENCING TO BE COORDINATED WITH THE LIMITS OF DISTURBANCE. CONSTRUCTION FENCING TYPE AND INSTALLATION TO BE APPROVED WITH OWNER PRIOR TO INSTALLATION. CONTRACTOR TO COORDINATE ACTUAL LIMITS WITH THE OWNER PRIOR TO START OF CONSTRUCTION.
3. THIS PLAN IS TO BE USED FOR PHASING COORDINATION ONLY. SEE OTHER SHEETS INCLUDED IN THE BID SET FOR CONSTRUCTION DETAILS.

APPROXIMATE SCHEDULE

PHASE	START DATE	COMPLETION DATE
1A	NTP	JULY 1, 2018
1B	JULY 1, 2018	AUG. 15, 2018



PHASING PLAN - PHASE 1  
LANSDOWNE ELEMENTARY SCHOOL  
BALTIMORE COUNTY, MARYLAND

DATE	DESCRIPTION
11/17/16	BID SET

C-0.4A

BID SET

11/17/2016

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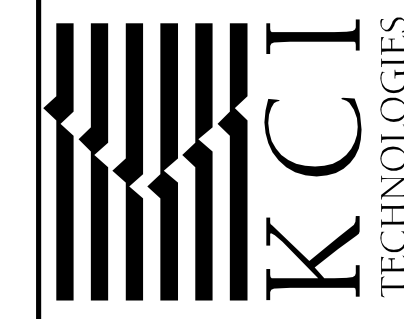
GP #21417

11720 Beltsville Drive  
Suite 600  
Calverton, MD 20705  
Tel 301.595.1000  
www.grimmandparker.com



PROFESSIONAL CERTIFICATION  
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ENGINEER UNDER THE LAWS OF  
THE STATE OF MARYLAND  
LICENSE NO. 5468  
EXPIRATION DATE 07/10/17

ENGINEERS  
PLANNERS  
SCIENTISTS  
CONSTRUCTION MANAGERS  
0348 Beltsville Road  
Suite 600  
Calverton, Maryland 20705  
Telephone: (410) 316-7800  
Fax: (410) 316-7818





**LEGEND**

- LDD — LIMIT OF DISTURBANCE
- x-x-x- CONSTRUCTION FENCE

**NOTES**

1. THIS PLAN INCLUDES APPROXIMATE LIMITS OF DISTURBANCE AND CONSTRUCTION FENCING BASED ON THE OWNER'S PHASING REQUIREMENTS.
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3. THIS PLAN IS TO BE USED FOR PHASING COORDINATION ONLY. SEE OTHER SHEETS INCLUDED IN THE BID SET FOR CONSTRUCTION DETAILS.

**APPROXIMATE SCHEDULE**

PHASE	START DATE	COMPLETION DATE
2A	SEPT. 15, 2018	AUG. 15, 2019
2B	JUNE 2019	AUG. 15, 2019

ENGINEERS  
PLANNERS  
SCIENTISTS  
CONSTRUCTION MANAGERS

034 Beltsville Pike  
Suite 600  
Calverton, Maryland 21032  
Telephone: (410) 316-7800  
Fax: (410) 316-7818

**KCI**  
TECHNOLOGIES

STATE OF MARYLAND  
PROFESSIONAL ENGINEER  
No. 34863  
11/16/16

PROFESSIONAL CERTIFICATION  
I HEREBY CERTIFY THAT THESE  
DOCUMENTS WERE PREPARED OR  
APPROVED BY ME AND THAT I AM  
A FULLY LICENSED PROFESSIONAL  
ENGINEER UNDER THE LAWS OF  
THE STATE OF MARYLAND  
LICENSE NO. 34863  
EXPIRATION DATE 07/10/17

11720 Beltsville Drive  
Suite 600  
Calverton, MD 20705  
Tel 301.595.1000  
www.grimmandparker.com

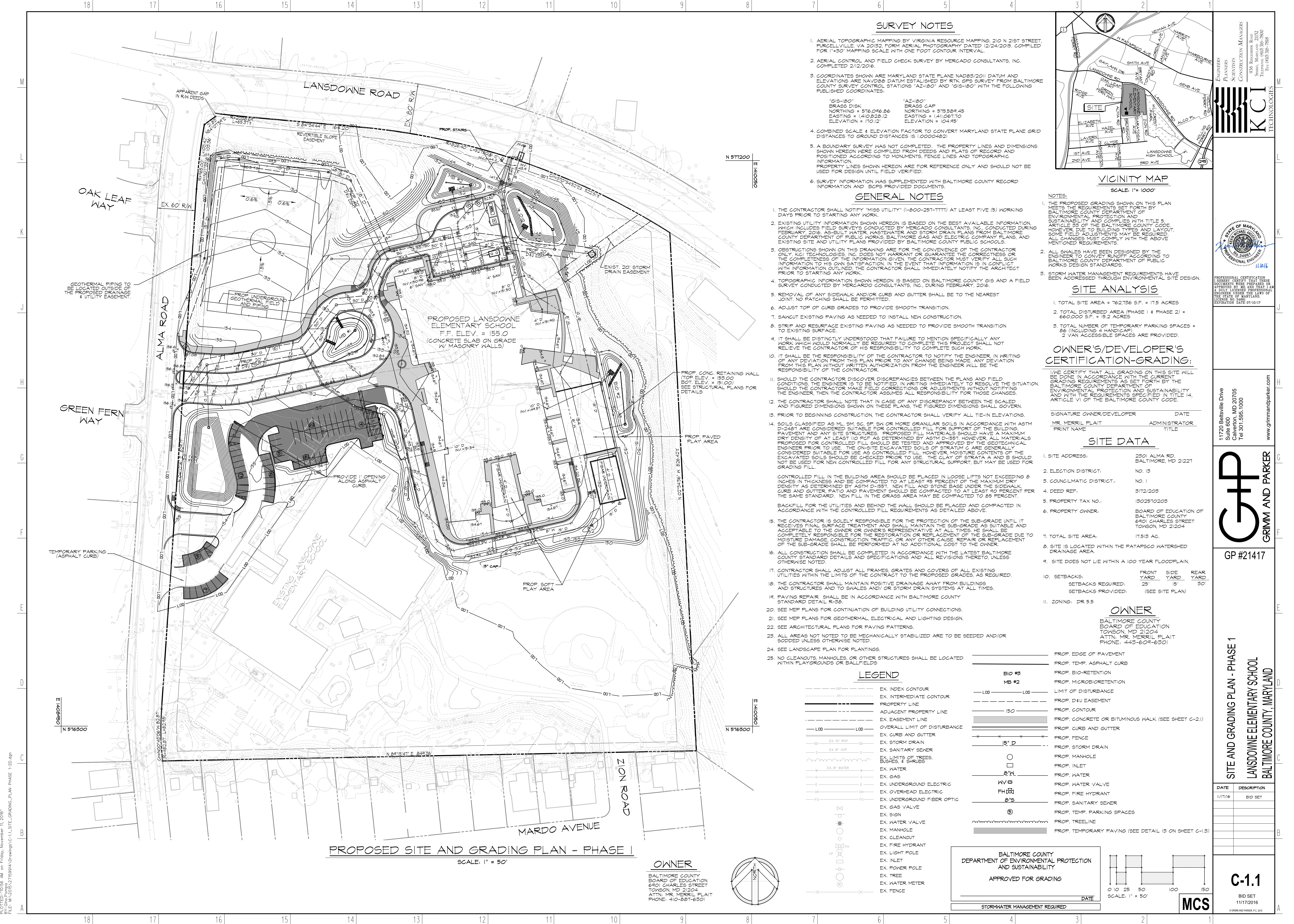
**GP**  
GRIMM AND PARKER

GP #21417

PHASING PLAN - PHASE 2  
LANSDOWNE ELEMENTARY SCHOOL  
BALTIMORE COUNTY, MARYLAND

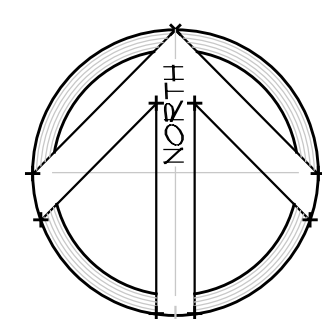
DATE	DESCRIPTION
11/17/16	BID SET

**C-0.4B**  
BID SET  
11/17/2016  
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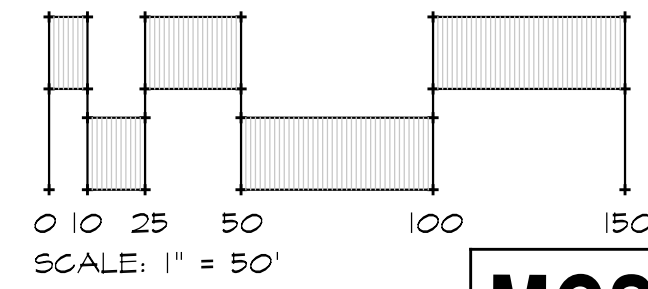
PROPOSED SITE AND GRADING PLAN - PHASE I  
SCALE: 1" = 50'

**OWNER**  
BALTIMORE COUNTY  
BOARD OF EDUCATION  
6401 CHARLES STREET  
TOWSON, MD 21204  
ATTN: MR. MERRILL PLAIT  
PHONE: 410-287-6501



LEGEND	
---	EX. INDEX CONTOUR
---	EX. INTERMEDIATE CONTOUR
---	PROPERTY LINE
---	ADJACENT PROPERTY LINE
---	EX. EASEMENT LINE
---	OVERALL LIMIT OF DISTURBANCE
---	EX. CURB AND GUTTER
---	EX. STORM DRAIN
---	EX. SANITARY SEWER
---	EX. LIMITS OF TREES, SHRUBS & TREES
---	EX. WATER
---	EX. GAS
---	EX. UNDERGROUND ELECTRIC
---	EX. OVERHEAD ELECTRIC
---	EX. UNDERGROUND FIBER OPTIC
---	EX. GAS VALVE
---	EX. SIGN
---	EX. WATER VALVE
---	EX. MANHOLE
---	EX. CLEANOUT
---	EX. FIRE HYDRANT
---	EX. LIGHT POLE
---	EX. INLET
---	EX. POWER POLE
---	EX. TREE
---	EX. WATER METER
---	EX. FENCE

BALTIMORE COUNTY  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
AND SUSTAINABILITY  
APPROVED FOR GRADING  
DATE  
STORMWATER MANAGEMENT REQUIRED



MCS

**SURVEY NOTES**

- AERIAL TOPOGRAPHIC MAPPING BY VIRGINIA RESOURCE MAPPING, 210 N 21ST STREET, PURCELLVILLE, VA 20132, FROM AERIAL PHOTOGRAPHY DATED 12/24/2015, COMPILED FOR 1"=50' MAPPING SCALE WITH ONE FOOT CONTOUR INTERVAL.
- AERIAL CONTROL AND FIELD CHECK SURVEY BY MERCADO CONSULTANTS, INC. COMPLETED 2/12/2016.
- COORDINATES SHOWN ARE MARYLAND STATE PLANE NAD83/2011 DATUM AND ELEVATIONS ARE NAVD83 DATUM ESTABLISHED BY RTK GPS SURVEY FROM BALTIMORE COUNTY SURVEY CONTROL STATIONS "AZ-180" AND "G15-180" WITH THE FOLLOWING PUBLISHED COORDINATES:  

"G15-180"	"AZ-180"
BRASS DISK	BRASS CAP
NORTHING = 576,096.86	NORTHING = 575,584.45
EASTING = 1410,828.12	EASTING = 1411,067.70
ELEVATION = 170.12'	ELEVATION = 104.45'
- COMBINED SCALE & ELEVATION FACTOR TO CONVERT MARYLAND STATE PLANE GRID DISTANCES TO GROUND DISTANCES IS 1.00004821
- A BOUNDARY SURVEY WAS NOT COMPLETED. THE PROPERTY LINES AND DIMENSIONS SHOWN HEREON WERE COMPILED FROM DEEDS AND PLATS OF RECORD AND POSITIONED ACCORDING TO MONUMENTS, FENCE LINES AND TOPOGRAPHIC INFORMATION. PROPERTY LINES SHOWN HEREON ARE FOR REFERENCE ONLY AND SHOULD NOT BE USED FOR DESIGN UNTIL FIELD VERIFIED.
- SURVEY INFORMATION WAS SUPPLEMENTED WITH BALTIMORE COUNTY RECORD INFORMATION AND BCPS PROVIDED DOCUMENTS.

**GENERAL NOTES**

- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" (1-800-251-7777) AT LEAST FIVE (5) WORKING DAYS PRIOR TO STARTING ANY WORK.
- EXISTING UTILITY INFORMATION SHOWN HEREON IS BASED ON THE BEST AVAILABLE INFORMATION, WHICH INCLUDES FIELD SURVEYS CONDUCTED BY MERCADO CONSULTANTS, INC. CONDUCTED DURING FEBRUARY 2016. AS-BUILT WATER, WASTEWATER AND STORM DRAIN PLANS FROM BALTIMORE COUNTY DEPARTMENT OF PUBLIC WORKS, BALTIMORE GAS AND ELECTRIC COMPANY PLANS, AND EXISTING SITE AND UTILITY PLANS PROVIDED BY BALTIMORE COUNTY PUBLIC SCHOOLS.
- OBSTRUCTIONS SHOWN ON THIS DRAWING ARE FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. THE CONTRACTOR DOES NOT WARRANT OR GUARANTEE THE CORRECTNESS OR THE COMPLETENESS OF THE INFORMATION GIVEN. THE CONTRACTOR MUST VERIFY ALL SUCH INFORMATION TO HIS OWN SATISFACTION. IN THE EVENT THAT INFORMATION IS IN CONFLICT WITH INFORMATION OBTAINED FROM THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT PRIOR TO STARTING ANY WORK.
- TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED ON BALTIMORE COUNTY G15 AND A FIELD SURVEY CONDUCTED BY MERCADO CONSULTANTS, INC. DURING FEBRUARY 2016.
- REMOVAL OF ANY SIDEWALK AND/OR CURB AND GUTTER SHALL BE TO THE NEAREST JOINT. NO PATCHING SHALL BE PERMITTED.
- ADJUST TOP OF CURB GRADES TO PROVIDE SMOOTH TRANSITION.
- SAKUT EXISTING PAVING AS NEEDED TO INSTALL NEW CONSTRUCTION.
- STRIP AND RESURFACE EXISTING PAVING AS NEEDED TO PROVIDE SMOOTH TRANSITION TO EXISTING SURFACE.
- IT SHALL BE DISTINCTLY UNDERSTOOD THAT FAILURE TO MENTION SPECIFICALLY ANY WORK WHICH WOULD NORMALLY BE REQUIRED TO COMPLETE THIS PROJECT SHALL NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY TO COMPLETE SUCH WORK.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE ENGINEER IN WRITING OF ANY PROBLEM FROM THIS PLAN PRIOR TO ANY CHANGE BEING MADE. ANY DEVIATION FROM THIS PLAN WITHOUT WRITTEN AUTHORIZATION FROM THE ENGINEER WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- IF THE CONTRACTOR DISCOVERS DISCREPANCIES BETWEEN THE PLANS AND FIELD CONDITIONS, HE SHALL STOP WORK IMMEDIATELY AND NOTIFY THE ENGINEER. THE ENGINEER SHALL THEN THE CONTRACTOR MAKE FIELD CORRECTIONS OR ADJUSTMENTS WITHOUT NOTIFYING THE ENGINEER, THEN THE CONTRACTOR ASSUMES ALL RESPONSIBILITY FOR THOSE CHANGES.
- THE CONTRACTOR SHALL NOTE THAT IN CASE OF ANY DISCREPANCY BETWEEN THE SCALED AND FIGURED DIMENSIONS SHOWN ON THESE PLANS, THE FIGURED DIMENSIONS SHALL GOVERN.
- PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL VERIFY ALL TIE-IN ELEVATIONS.
- SOILS CLASSIFIED AS M, SM, SC, SP, SN OR MORE GRANULAR SOILS IN ACCORDANCE WITH ASTM D-2487 ARE CONSIDERED SUITABLE FOR CONTROLLED FILL FOR SUPPORT OF THE BUILDING. PAVEMENT AND SHOULDER MATERIALS SHOULD BE COMPACTED TO AT LEAST 90 PERCENT DRY DENSITY OF AT LEAST 10 PCF AS DETERMINED BY ASTM D-1557. HOWEVER, ALL MATERIALS PROPOSED FOR CONTROLLED FILL SHOULD BE TESTED AND APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO USE. THE ONLY SOILS EXCAVATED SOILS OF STRATUM C ARE GENERALLY CONSIDERED SUITABLE FOR USE AS CONTROLLED FILL. HOWEVER, MOISTURE CONTENTS OF THE EXCAVATED SOILS SHOULD BE CHECKED PRIOR TO USE. THE CLAY OF STRATA A AND B SHOULD NOT BE USED FOR NEW CONTROLLED FILL FOR ANY STRUCTURAL SUPPORT, BUT MAY BE USED FOR GRADING FILL.
- CONTROLLED FILL IN THE BUILDING AREA SHOULD BE PLACED IN LOOSE LIFTS NOT EXCEEDING 8 INCHES IN THICKNESS AND BE COMPACTED TO AT LEAST 95 PERCENT OF THE MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D-1557. NEW FILL AND STONE BASE UNDER THE SIDEWALK, CURB AND GUTTER, PATIO AND PAVEMENT SHOULD BE COMPACTED TO AT LEAST 90 PERCENT PER THE SAME STANDARD. NEW FILL IN THE GRASS AREA MAY BE COMPACTED TO 85 PERCENT.
- BACKFILL FOR THE UTILITIES AND BEHIND THE WALL SHOULD BE PLACED AND COMPACTED IN ACCORDANCE WITH THE CONTROLLED FILL REQUIREMENTS AS DETAILED ABOVE.
- THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE PROTECTION OF THE SUB-GRADE UNTIL IT RECEIVES FINAL SIGNATURE. THE CONTRACTOR SHALL MAINTAIN THE SUB-GRADE AS SUITABLE AND ACCEPTABLE TO THE OWNER OR OWNER'S REPRESENTATIVE AT ALL TIMES. HE SHALL BE COMPLETELY RESPONSIBLE FOR THE RESTORATION OR REPLACEMENT OF THE SUB-GRADE DUE TO MOISTURE DAMAGE, CONSTRUCTION TRAFFIC, OR ANY OTHER CAUSE. REPAIR OR REPLACEMENT OF THE SUB-GRADE SHALL BE PERFORMED AT NO ADDITIONAL COST TO THE OWNER.
- ALL CONSTRUCTION SHALL BE COMPLETED IN ACCORDANCE WITH THE LATEST BALTIMORE COUNTY STANDARD DETAILS AND SPECIFICATIONS AND ALL REVISIONS THERETO, UNLESS OTHERWISE NOTED.
- CONTRACTOR SHALL ADJUST ALL FRAMES, GRATES AND COVERS OF ALL EXISTING UTILITIES WITHIN THE LIMITS OF THE CONTRACT TO THE PROPOSED GRADES REQUIRED.
- THE CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE AWAY FROM BUILDINGS AND STRUCTURES AND TO SNALES AND/OR STORM DRAIN SYSTEMS AT ALL TIMES.
- PAVING REPAIR SHALL BE IN ACCORDANCE WITH BALTIMORE COUNTY STANDARD DETAIL R-3B.
- SEE MEP PLANS FOR CONTINUATION OF BUILDING UTILITY CONNECTIONS.
- SEE MEP PLANS FOR GEOTHERMAL, ELECTRICAL AND LIGHTING DESIGN.
- SEE ARCHITECTURAL PLANS FOR PAVING PATTERNS.
- ALL AREAS NOT NOTED TO BE MECHANICALLY STABILIZED ARE TO BE SEEDED AND/OR SODDED UNLESS OTHERWISE NOTED.
- SEE LANDSCAPE PLAN FOR PLANTINGS.
- NO CLEANOUTS, MANHOLES, OR OTHER STRUCTURES SHALL BE LOCATED WITHIN PLAYGROUNDS OR BALLFIELDS.

**NOTES:**

- THE PROPOSED GRADING SHOWN ON THIS PLAN MEETS THE REQUIREMENTS SET FORTH BY BALTIMORE COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION AND SUSTAINABILITY AND COMPLETES WITH TITLE 5, ARTICLE 10B, SUBARTICLE 10B-02. HOWEVER, DUE TO BUILDING TYPES AND LAYOUT, SOME ADJUSTMENTS MAY BE REQUIRED. ALL CHANGES MUST COMPLY WITH THE ABOVE MENTIONED REQUIREMENTS.
- ALL SNALES HAVE BEEN DESIGNED BY THE ENGINEER TO CONVEY RAINFALL ACCORDING TO BALTIMORE COUNTY DEPARTMENT OF PUBLIC WORKS DESIGN STANDARDS.
- STORM WATER MANAGEMENT REQUIREMENTS HAVE BEEN ADDRESSED THROUGH ENVIRONMENTAL SITE DESIGN.

**SITE ANALYSIS**

- TOTAL SITE AREA = 762,756 S.F. = 17.5 ACRES
- TOTAL DISTURBED AREA (PHASE 1 & PHASE 2) = 660,000 S.F. = 15.2 ACRES
- TOTAL NUMBER OF TEMPORARY PARKING SPACES = 86 (INCLUDING 4 HANDICAP)  
2 VAN ACCESSIBLE SPACES ARE PROVIDED.

**OWNER'S/DEVELOPER'S CERTIFICATION-GRADING:**

I/WE CERTIFY THAT ALL GRADING ON THIS SITE WILL BE DONE IN ACCORDANCE WITH THE CURRENT GRADING REQUIREMENTS AS SET FORTH BY THE BALTIMORE COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION AND SUSTAINABILITY AND WITH THE REQUIREMENTS SPECIFIED IN TITLE 14, ARTICLE VI OF THE BALTIMORE COUNTY CODE.

SIGNATURE OWNER/DEVELOPER DATE  
MR. MERRILL PLAIT ADMINISTRATOR  
PRINT NAME TITLE

**SITE DATA**

- SITE ADDRESS: 2301 ALMA RD. BALTIMORE, MD 21227
- ELECTION DISTRICT: NO. 13
- COUNCILMANIC DISTRICT: NO. 1
- DEED REF: 3/12/2003
- PROPERTY TAX NO: 1302570203
- PROPERTY OWNER: BOARD OF EDUCATION OF BALTIMORE COUNTY  
6401 CHARLES STREET  
TOWSON, MD 21204
- TOTAL SITE AREA: 17513 AC.
- SITE IS LOCATED WITHIN THE PATAPSCO WATERSHED DRAINAGE AREA.
- SITE DOES NOT LIE WITHIN A 100 YEAR FLOODPLAIN.
- SETBACKS:  
SETBACKS REQUIRED: FRONT YARD 25' SIDE YARD 15' REAR YARD 30'  
SETBACKS PROVIDED: (SEE SITE PLAN)

**OWNER**

BALTIMORE COUNTY  
BOARD OF EDUCATION  
TOWSON, MD 21204  
ATTN: MR. MERRILL PLAIT  
PHONE: 443-604-6501

- PROP. EDGE OF PAVEMENT
- PROP. TEMP. ASPHALT CURB
- PROP. BIO-RETENTION
- PROP. MICROBIORETENTION
- LIMIT OF DISTURBANCE
- PROP. D4U EASEMENT
- PROP. CONTOUR
- PROP. CONCRETE OR BITUMINOUS WALK (SEE SHEET C-2.1)
- PROP. CURB AND GUTTER
- PROP. FENCE
- PROP. STORM DRAIN
- PROP. MANHOLE
- PROP. INLET
- PROP. WATER
- PROP. WATER VALVE
- PROP. FIRE HYDRANT
- PROP. SANITARY SEWER
- PROP. TEMP. PARKING SPACES
- PROP. TREELINE
- PROP. TEMPORARY PAVING (SEE DETAIL 13 ON SHEET C-1.3)

SITE AND GRADING PLAN - PHASE 1  
LANSLOWNE ELEMENTARY SCHOOL  
BALTIMORE COUNTY, MARYLAND

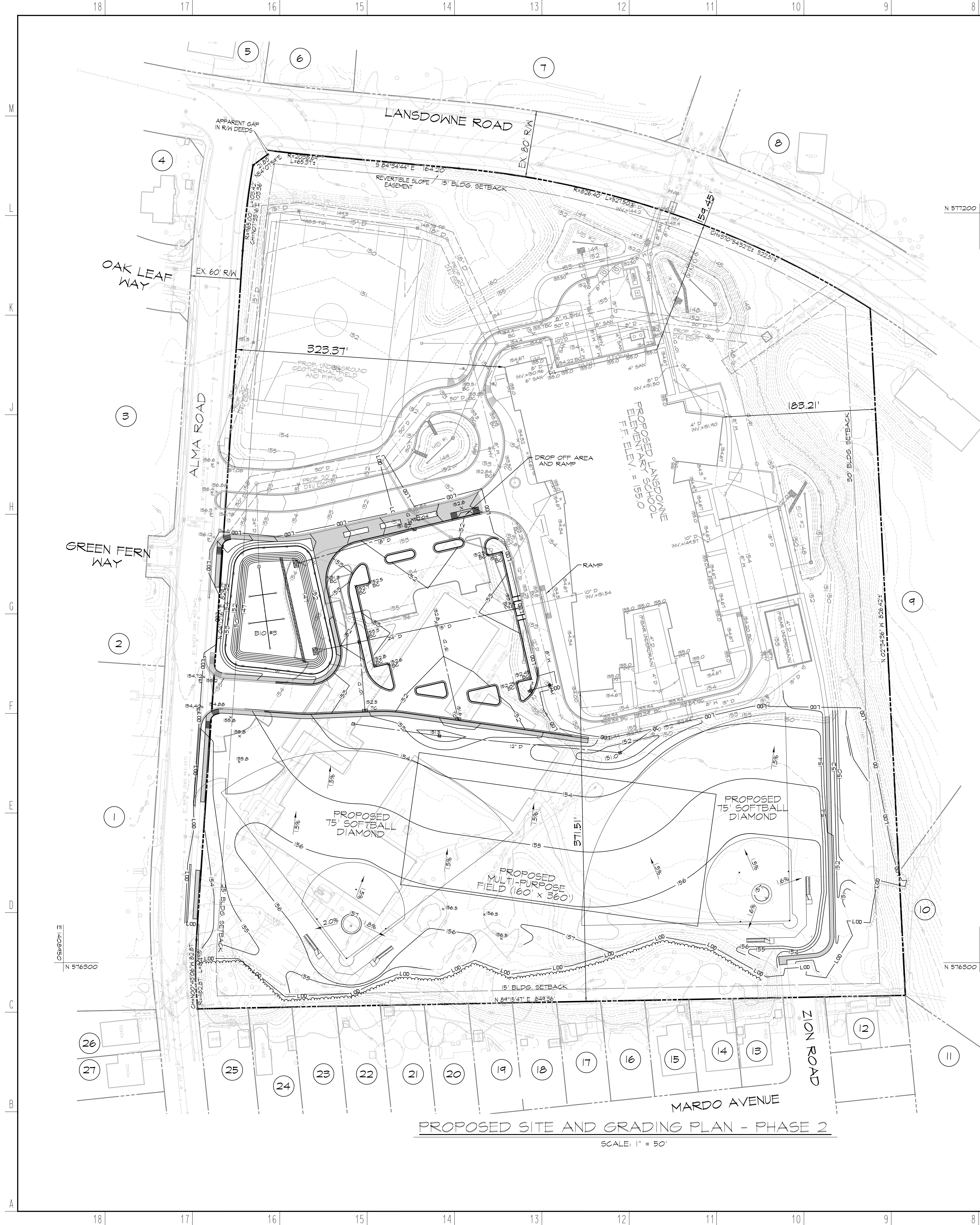
DATE	DESCRIPTION
11/17/16	BID SET

C-1.1

BID SET  
11/17/2016

MCS

PLOTTED: 11/15/16 10:58 AM on Friday, November 11, 2016  
 BY: Gino Pappalardo  
 FILE: M:\2015\2715914 Drawings\C-1.2 SITE GRADING PLAN PHASE 2 20.dgn



PROPOSED SITE AND GRADING PLAN - PHASE 2  
 SCALE: 1" = 50'

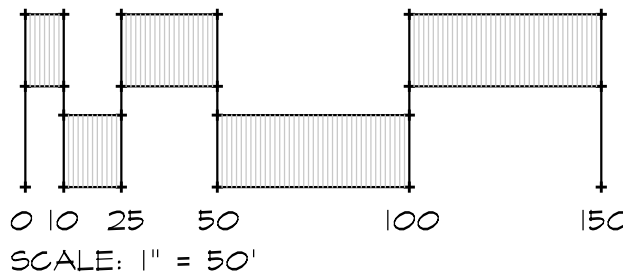
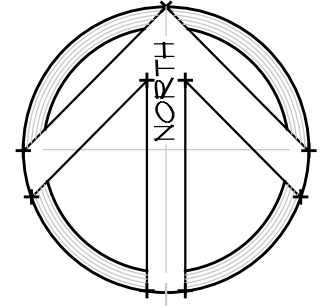
PROPERTY OWNER INFORMATION			
REF NO.	DESCRIPTION	REF NO.	DESCRIPTION
1	PARCEL NO.: 126 OWNER: FIRST BAPTIST CHURCH OF LANSDOWNE ADDRESS: 2320 ALMA RD. BALTIMORE, MD 21221 TAX ACCOUNT: 13-1306200280 USE: EXEMPT LIBER/FOLIO: 05243/00786	14	PARCEL NO.: 358 OWNER: MC CARTY SANDRA L ADDRESS: 322 MARDO AVE BALTIMORE, MD 21221 TAX ACCOUNT: 13-1305510201 USE: RESIDENTIAL LIBER/FOLIO: 36185/00206
2	PARCEL NO.: 164 OWNER: HERITAGE HOMES- WOODSHIRE LIMITED PARTNERSHIP ADDRESS: 8080 OLD MONTGOMERY RD ELLICOTT CITY, MD 21043 TAX ACCOUNT: 13-13020007862 USE: RESIDENTIAL LIBER/FOLIO: 06135/00651	15	PARCEL NO.: 358 OWNER: TAYLOR GLENN D ADDRESS: 320 MARDO AVE BALTIMORE, MD 21221 TAX ACCOUNT: 13-1304350230 USE: RESIDENTIAL LIBER/FOLIO: 06135/00651
3	PARCEL NO.: 164 OWNER: HERITAGE HOMES- WOODSHIRE LIMITED PARTNERSHIP ADDRESS: 8080 OLD MONTGOMERY RD ELLICOTT CITY, MD 21043 TAX ACCOUNT: 13-13020007863 USE: RESIDENTIAL LIBER/FOLIO: 06135/00651	16	PARCEL NO.: 358 OWNER: BRADFORD ALYSON M ADDRESS: 8436 DOGWOOD RD BALTIMORE, MD 21244 TAX ACCOUNT: 13-1302200830 USE: RESIDENTIAL LIBER/FOLIO: 36408/00319
4	PARCEL NO.: 164 OWNER: WEBSTER MARGARETT T ADDRESS: 240 OAK LEAF WAY BALTIMORE, MD 21221 TAX ACCOUNT: 13-2200007273 USE: RESIDENTIAL LIBER/FOLIO: 04730/00030	17	PARCEL NO.: 358 OWNER: MARNEY MICHAEL T ADDRESS: 316 MARDO AVE BALTIMORE, MD 21221 TAX ACCOUNT: 13-1305510440 USE: RESIDENTIAL LIBER/FOLIO: 04643/00251
5	PARCEL NO.: 180 OWNER: SCHMIDT MICHAEL A ADDRESS: 2118 LANSDOWNE RD BALTIMORE, MD 21221 TAX ACCOUNT: 13-2200004634 USE: RESIDENTIAL LIBER/FOLIO: 22444/00022	18	PARCEL NO.: 358 OWNER: BURFORD WILLIAM W JR ADDRESS: 314 MARDO AVE BALTIMORE, MD 21221 TAX ACCOUNT: 13-1305510580 USE: RESIDENTIAL LIBER/FOLIO: 21271/00141
6	PARCEL NO.: 170 OWNER: BLOOMFIELD BRANCH OF THE CHRISTIAN & ALLIANCE PARTNERSHIP ADDRESS: 2212 LANSDOWNE RD BALTIMORE, MD 21221 TAX ACCOUNT: 13-1304710082 USE: EXEMPT LIBER/FOLIO: 05050/00335	19	PARCEL NO.: 358 OWNER: ALKER ANNA F ADDRESS: 312 MARDO AVE BALTIMORE, MD 21221 TAX ACCOUNT: 13-1305510160 USE: RESIDENTIAL LIBER/FOLIO: 31645/00483
7	PARCEL NO.: 138 OWNER: BLOOMFIELD BRANCH OF THE CHRISTIAN & ALLIANCE PARTNERSHIP ADDRESS: 2212 LANSDOWNE RD BALTIMORE, MD 21221 TAX ACCOUNT: 13-1304710081 USE: EXEMPT COMMERCIAL LIBER/FOLIO: 05050/00335	20	PARCEL NO.: 358 OWNER: GAINMARO TINA ADDRESS: 2151 KEATHERSTONE DR ELLICOTT CITY, MD 21042 TAX ACCOUNT: 13-1316701060 USE: RESIDENTIAL LIBER/FOLIO: 34655/00157
8	PARCEL NO.: 48 OWNER: MCADAMS JAMES V ADDRESS: 3211 BRYANT AVE BALTIMORE, MD 21221 TAX ACCOUNT: 13-1302002250 USE: RESIDENTIAL LIBER/FOLIO: 13464/00001	21	PARCEL NO.: 358 OWNER: DYER GINA M ADDRESS: 306 MARDO AVE BALTIMORE, MD 21221 TAX ACCOUNT: 13-1314000140 USE: RESIDENTIAL LIBER/FOLIO: 22194/00324
9	PARCEL NO.: 146 OWNER: AHC LIMITED PARTNERSHIP-8 ADDRESS: 2230 FAIRFAX DR #100 ARLINGTON, VA 22201 TAX ACCOUNT: 13-1302002342 USE: APARTMENTS LIBER/FOLIO: 20614/00330	22	PARCEL NO.: 358 OWNER: WHITCOMB JENNIFER N ADDRESS: 306 MARDO AVE BALTIMORE, MD 21221 TAX ACCOUNT: 13-1304200780 USE: RESIDENTIAL LIBER/FOLIO: 30622/00050
10	PARCEL NO.: 90 OWNER: BOARD OF EDUCATION OF BALTIMORE COUNTY ADDRESS: AIGBURTH RD BALTIMORE, MD 21204 TAX ACCOUNT: 13-1302510228 USE: EXEMPT LIBER/FOLIO: 04455/00305	23	PARCEL NO.: 358 OWNER: FRUNKL WILLIAM JR ADDRESS: 304 MARDO AVE BALTIMORE, MD 21221 TAX ACCOUNT: 13-1302550510 USE: RESIDENTIAL LIBER/FOLIO: 15872/00115
11	PARCEL NO.: 130 OWNER: BOARD OF EDUCATION OF BALTIMORE COUNTY ADDRESS: 9610 FULASKI PARK DR BALTIMORE, MD 21220 TAX ACCOUNT: 13-1302510204 USE: EXEMPT LIBER/FOLIO: 0317/00464	24	PARCEL NO.: 358 OWNER: LAUGHERY RICHARD D SR ADDRESS: 302 MARDO AVE BALTIMORE, MD 21221 TAX ACCOUNT: 13-1313500000 USE: RESIDENTIAL LIBER/FOLIO: 25191/00197
12	PARCEL NO.: 358 OWNER: JONES LILLIAN A ADDRESS: 2401 ZION RD BALTIMORE, MD 21221 TAX ACCOUNT: 13-1323001901 USE: RESIDENTIAL LIBER/FOLIO: 18304/00240	25	PARCEL NO.: 358 OWNER: COLBERT VICTORIA L ADDRESS: 300 MARDO AVE BALTIMORE, MD 21221 TAX ACCOUNT: 13-1304200350 USE: RESIDENTIAL LIBER/FOLIO: 12041/00184
13	PARCEL NO.: 358 OWNER: SITES JOHN ADDRESS: 324 MARDO AVE BALTIMORE, MD 21221 TAX ACCOUNT: 13-1312200400 USE: RESIDENTIAL LIBER/FOLIO: 22556/00064	26	PARCEL NO.: 358 OWNER: LEISHER GILBERT E JR ADDRESS: 2400 ALMA RD BALTIMORE, MD 21221 TAX ACCOUNT: 13-1314301080 USE: RESIDENTIAL LIBER/FOLIO: 13456/00216
		27	PARCEL NO.: 358 OWNER: HARTER THURMAN L ADDRESS: 2402 ALMA RD BALTIMORE, MD 21221 TAX ACCOUNT: 13-1306350090 USE: RESIDENTIAL LIBER/FOLIO: 25150/00278

LEGEND

- |        |   |
|--------|---|
| BIO #3 | PROP. BIO-RETENTION                               |
| ---    | LIMIT OF DISTURBANCE                              |
| ---    | PROP. CONTOUR                                     |
| ---    | PROP. CONCRETE OR BITUMINOUS WALK (SEE SHEET 2.1) |
| ---    | PROP. CURB AND GUTTER                             |
| ---    | PROP. FENCE                                       |
| ---    | PROP. STORM DRAIN                                 |
| ---    | PROP. MANHOLE                                     |
| ---    | PROP. INLET                                       |
| ---    | PROP. WATER                                       |
| ---    | PROP. WATER VALVE                                 |
| ---    | PROP. FIRE HYDRANT                                |

SITE ANALYSIS

- TOTAL SITE AREA = 162,756 S.F. = 3.73 ACRES
- TOTAL DISTURBED AREA (PHASE 1 & PHASE 2) = 680,000 S.F. = 15.2 ACRES
- TOTAL NUMBER OF PERMANENT PARKING SPACES AT PARKING LOT = 48 (INCLUDING 4 HANDICAP) VAN ACCESSIBLE SPACES IS PROVIDED
- TOTAL NUMBER OF PARALLEL PARKING SPACES AT BUS LOOP = 17



ENGINEERS  
 PLANNERS  
 SCIENTISTS  
 CONSTRUCTION MANAGERS  
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 Suite 600  
 Gaithersburg, Maryland 20878  
 Telephone: (410) 316-7800  
 Fax: (410) 316-7818

THIS PLAN IS SEALED & CERTIFIED AS BEING IN ACCORDANCE WITH THE APPROVED DEVELOPMENT PLAN.

PROFESSIONAL CERTIFICATION  
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.  
 LICENSE NO. 5883  
 EXPIRATION DATE 07/10/17

11720 Beltsville Drive  
 Suite 600  
 Calverton, MD 20705  
 Tel 301.595.1000  
 www.grimmparker.com

GP #21417

SITE AND GRADING PLAN - PHASE 2  
 LANSDOWNE ELEMENTARY SCHOOL  
 BALTIMORE COUNTY, MARYLAND

DATE	DESCRIPTION
11/17/16	BID SET

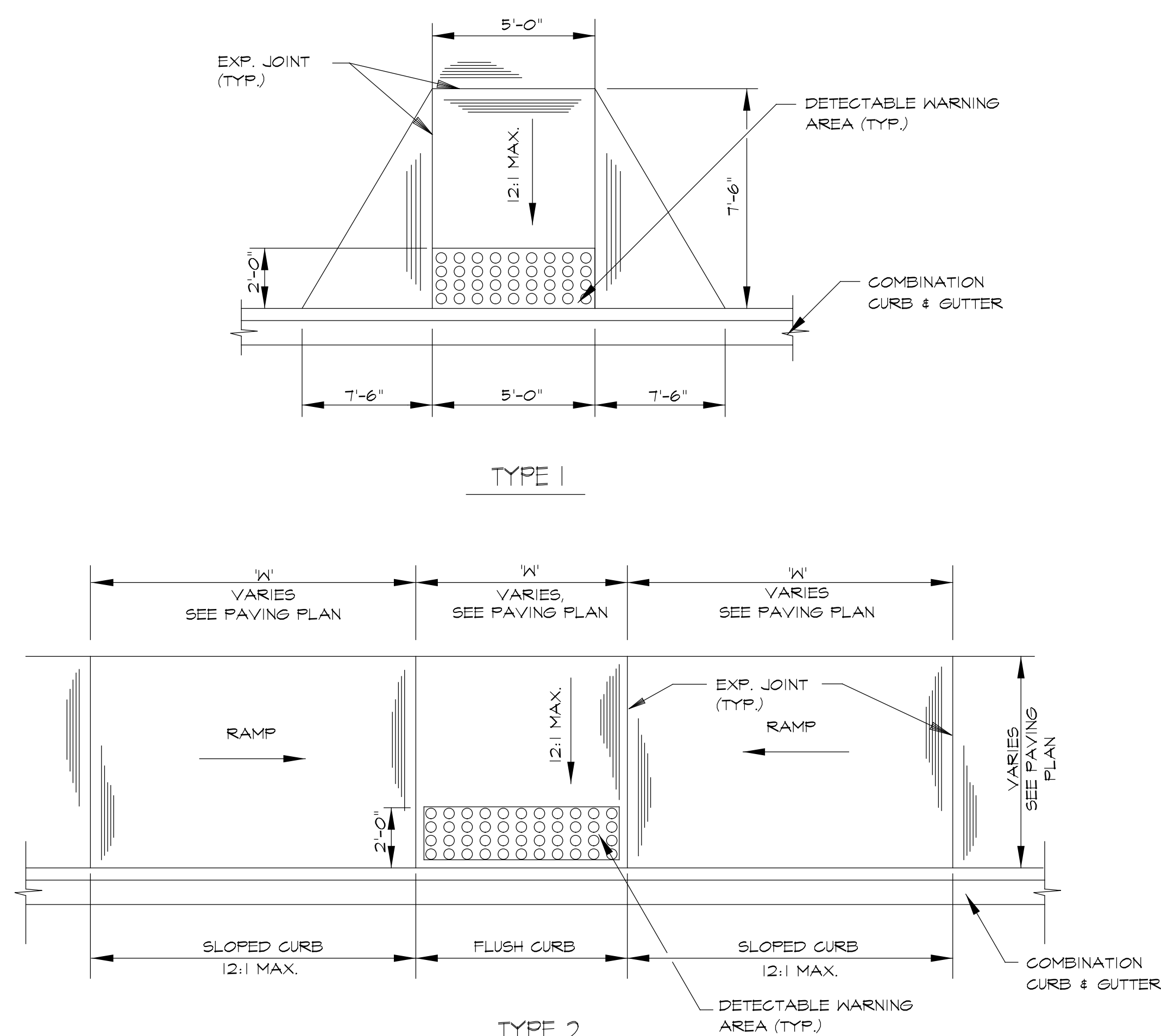
C-1.2

BID SET

11/17/2016

MCS

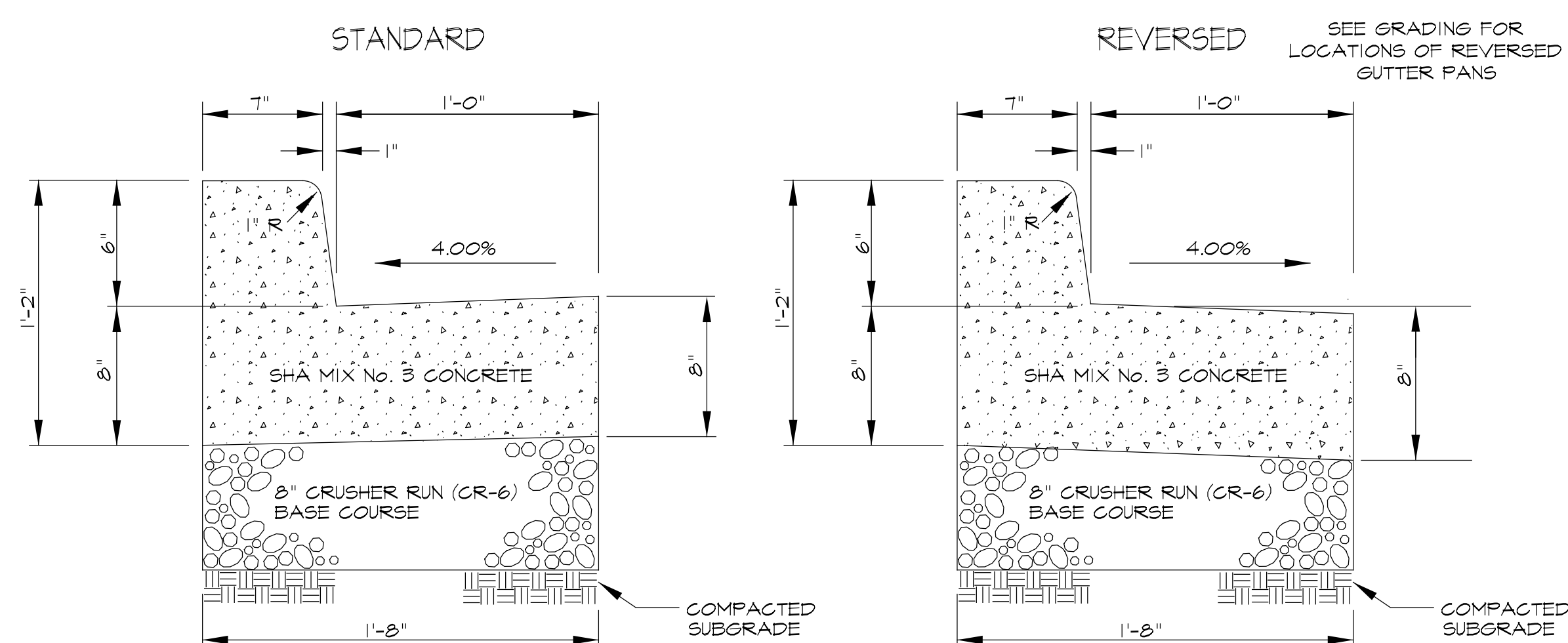
© GRIMM AND PARKER, P.C. 2015



- NOTES:
1. SURFACE TEXTURE OF RAMPS SHALL BE COARSE BROOMING OR NON SKID SURFACE.
  2. SEE BALTIMORE COUNTY STANDARD DETAIL R-36A FOR ADDITIONAL INFORMATION.
  3. DETECTABLE WARNING AREAS SHALL BE SQUARE PATTERN RED MASONRY UNITS. PARALLEL ALIGNMENT. SEE BALTIMORE COUNTY STANDARD DETAIL R-36G FOR ADDITIONAL INFORMATION.
  4. SEE DEPRESSED CURB AND GUTTER AT PEDESTRIAN RAMP DETAIL, SHEET C-14.

① PEDESTRIAN RAMP

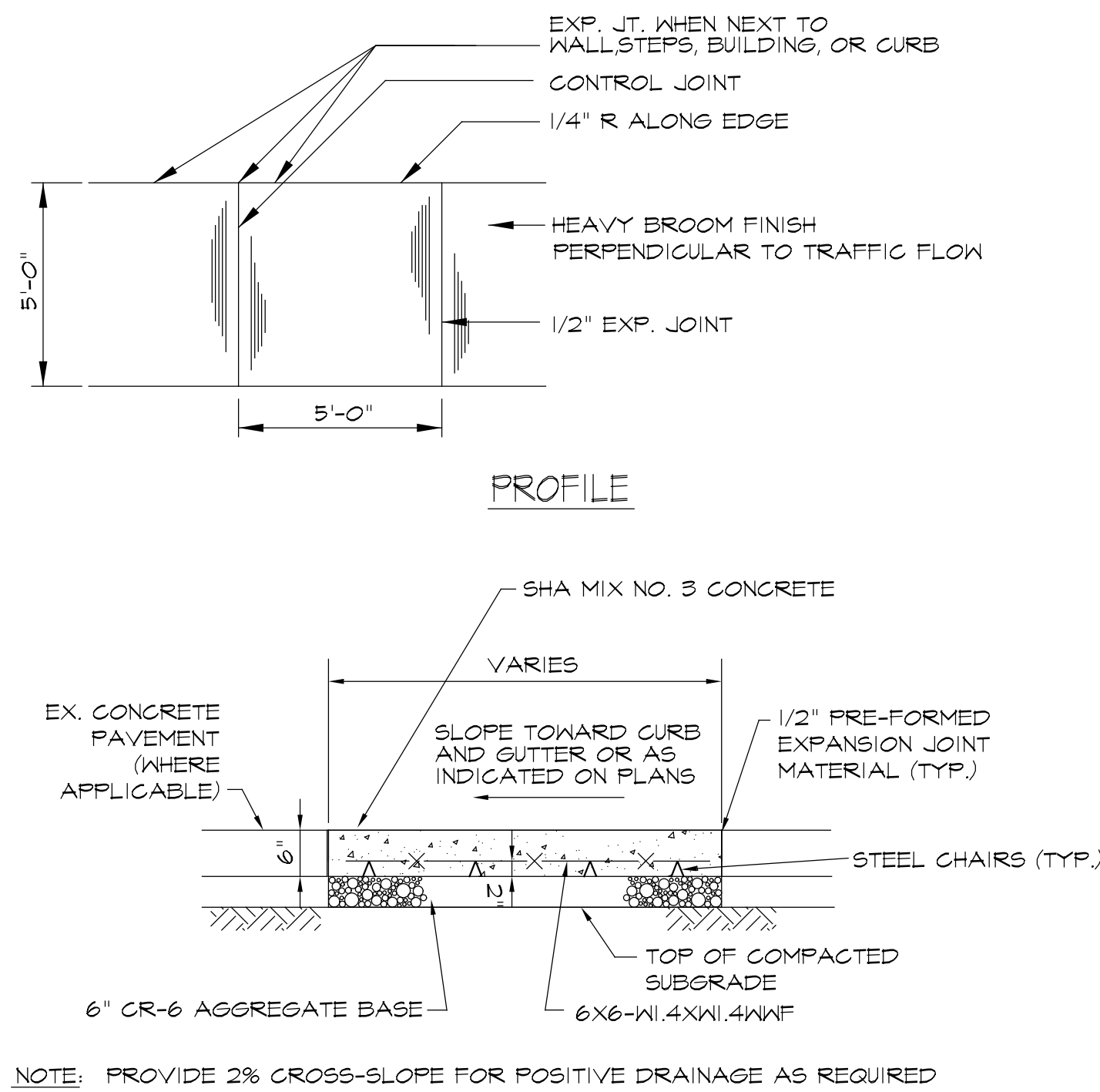
SCALE: N.T.S.



- NOTES:
1. PROVIDE EXPANSION JOINTS EVERY 20' (MAX.).
  2. PROVIDE CONTROL JOINTS EVERY 10' (MAX.). JOINTS ARE TO ALIGN WITH THE PROPOSED SIDEWALK JOINTS (TYPICAL).
  3. SEE CONCRETE SIDEWALK DETAIL THIS SHEET REGARDING SCORING OF SIDEWALK.
  4. SEE BALTIMORE COUNTY STANDARD DETAIL R-21 FOR ADDITIONAL INFORMATION.

⑥ COMBINATION CURB AND GUTTER

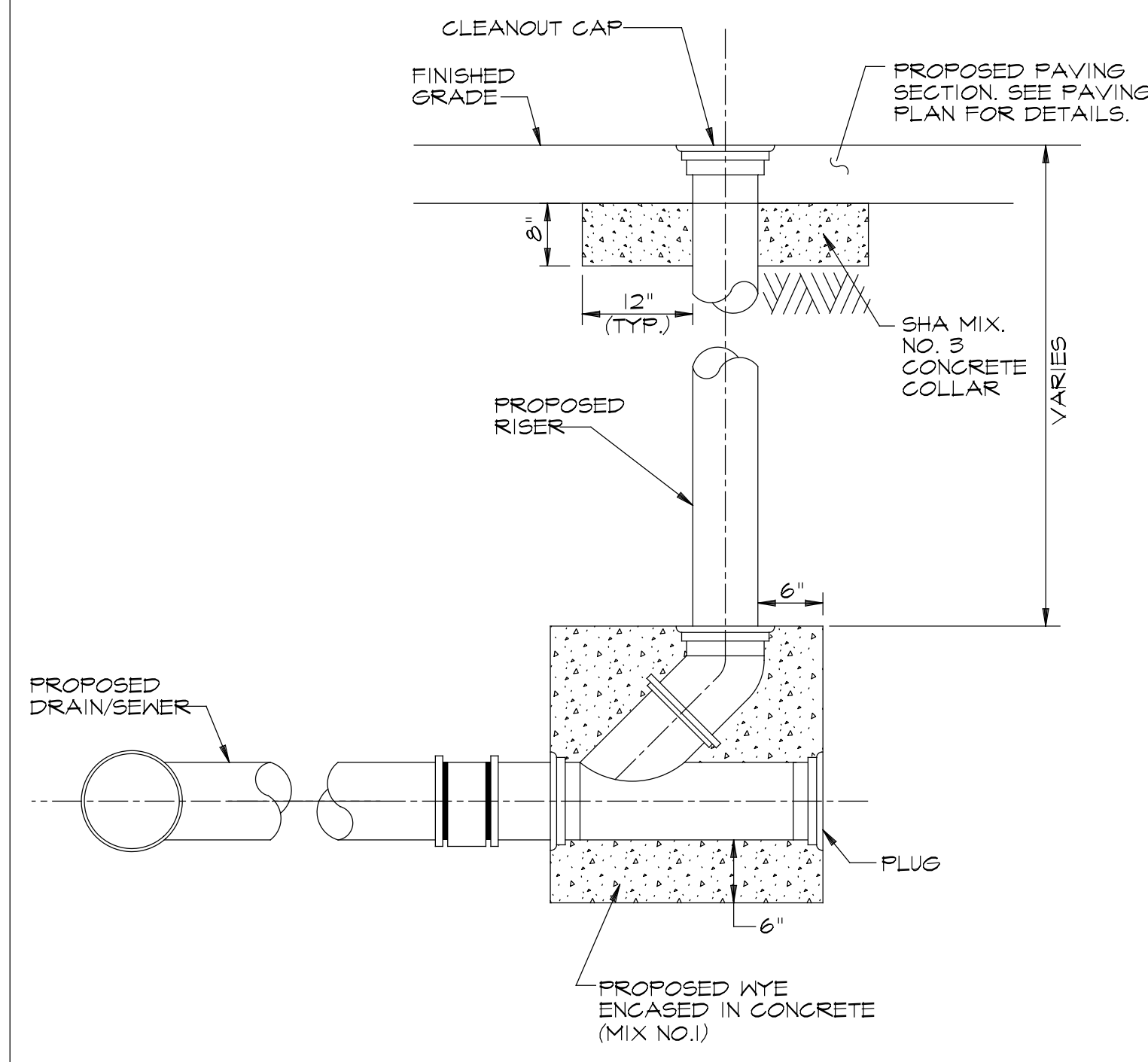
SCALE: N.T.S.



1. PROVIDE EXPANSION JOINTS 20' C.C. MAX. AND SCORE JOINTS 5' C.C. (UNLESS OTHERWISE NOTED). EXPANSION JOINTS SHALL BE 1/2" FRESHLOVED BITUMINOUS JOINT MATERIAL IN ACCORDANCE WITH BALTIMORE COUNTY SPECIFICATION.
2. WHEN SIDEWALK ADJUTS CURB, STEPS, BUILDING, WALLS, OR SIDEWALK SHALL BE 1/4" ABOVE CURB WITH 1/2" FRESHLOVED BITUMINOUS JOINT MATERIAL.
3. SEE BALTIMORE COUNTY STANDARD DETAIL R-19 FOR ADDITIONAL INFORMATION.

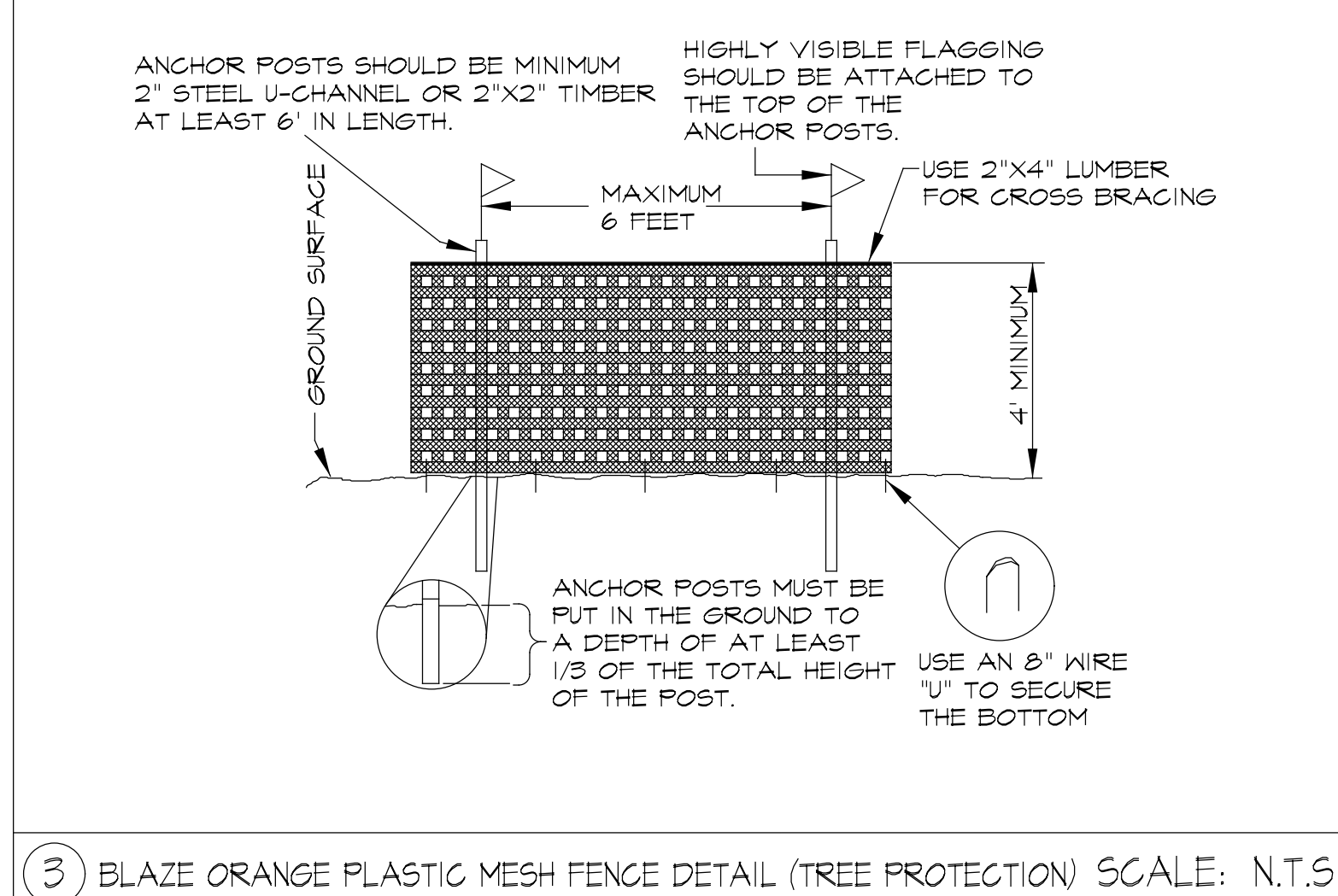
② CONCRETE SIDEWALK

SCALE: N.T.S.

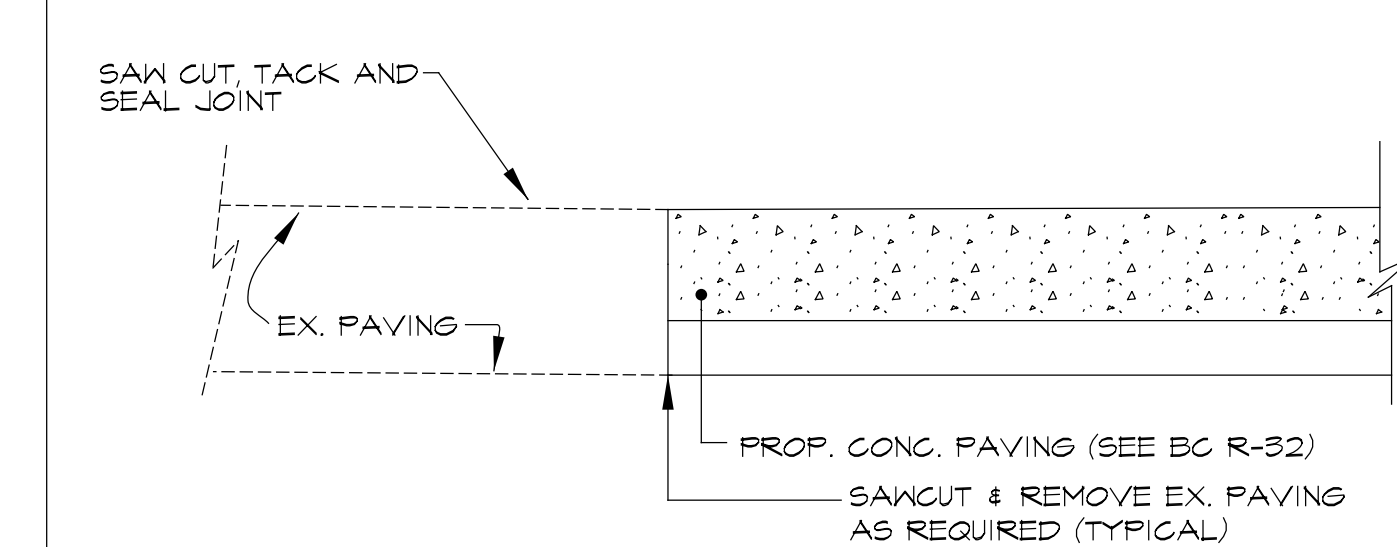


⑦ CLEANOUT DETAIL (IMPERVIOUS AREA)

SCALE: N.T.S.

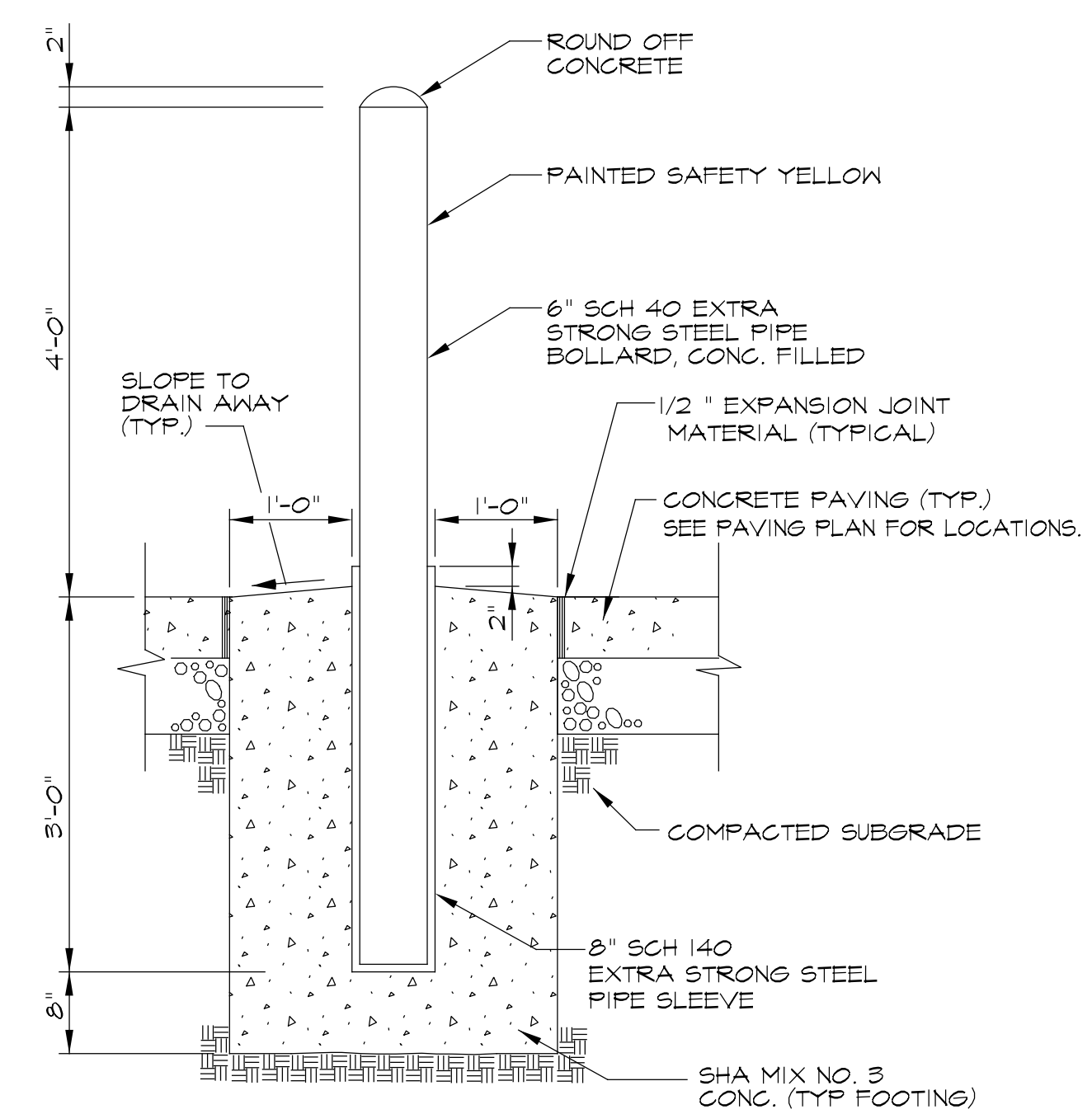


③ BLAZE ORANGE PLASTIC MESH FENCE DETAIL (TREE PROTECTION) SCALE: N.T.S.



④ CONCRETE PAVING TIE-IN DETAIL

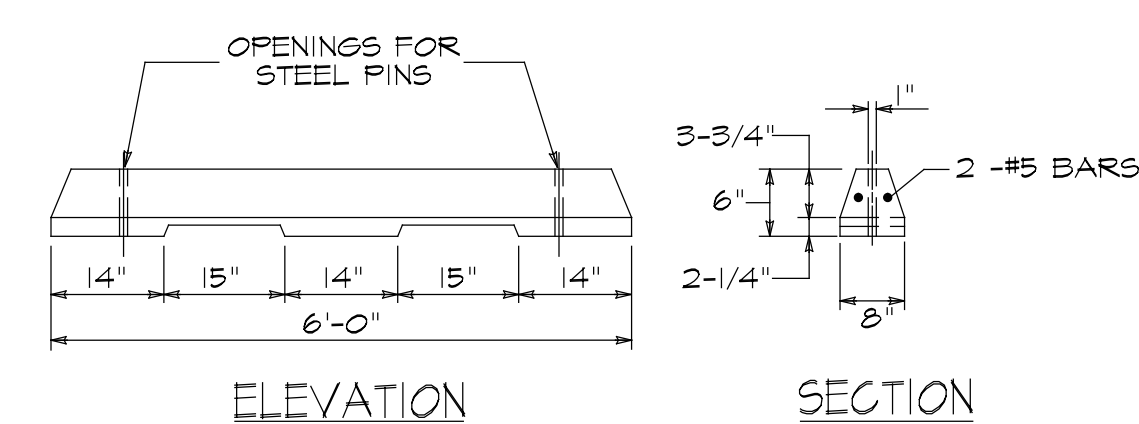
SCALE: N.T.S.



- NOTE:  
1. PIPE BOLLARDS TO BE PRIMED AND PAINTED WITH EXTERIOR ENAMEL PAINT IN ACCORDANCE WITH BALTIMORE COUNTY STANDARD DETAIL G-10. COLOR TO BE PER ARCHITECT.

(5) PIPE BOLLARD - DUMPSTERS

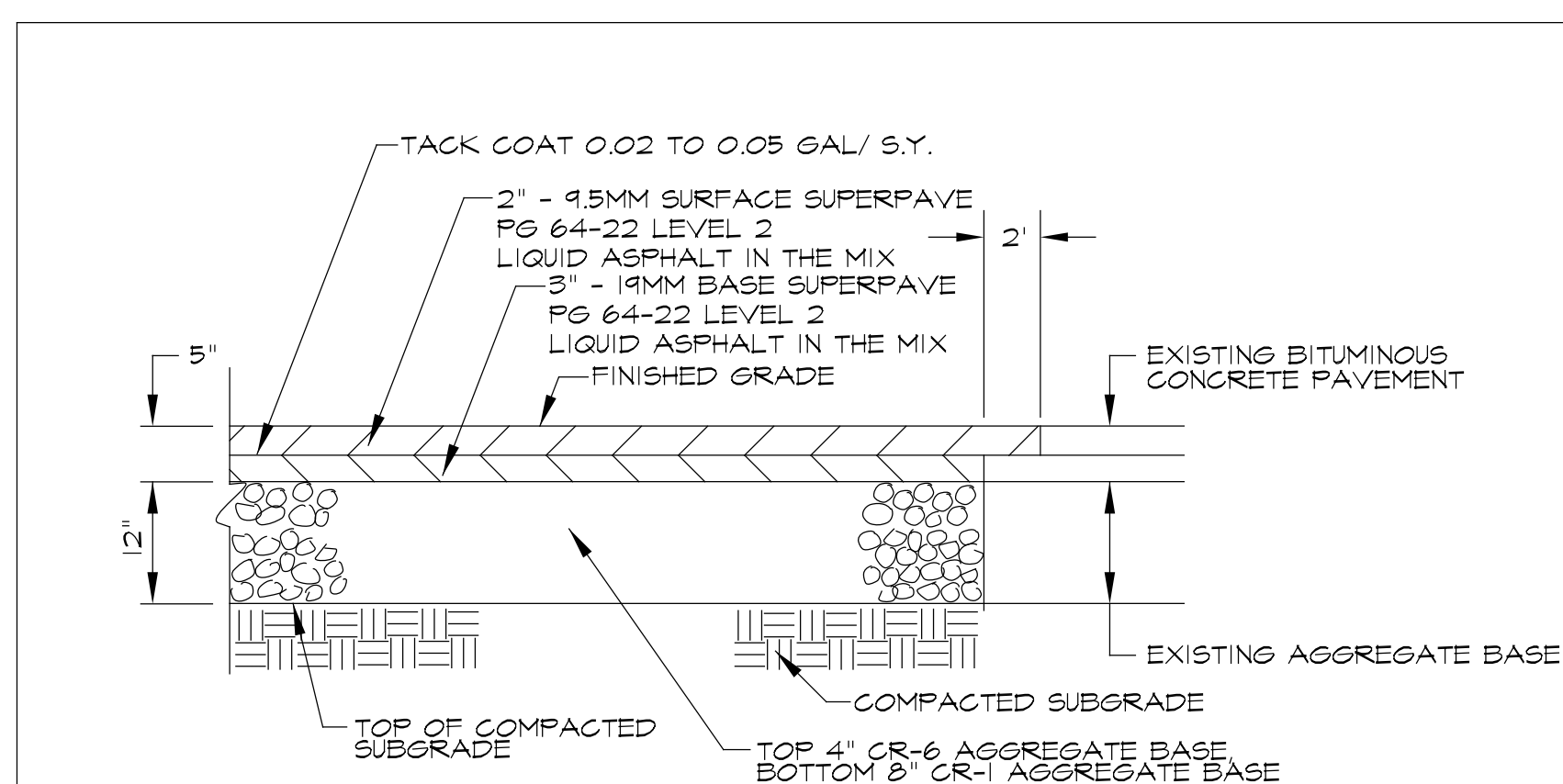
SCALE: N.T.S.



- NOTE:  
CONTRACTOR TO PROVIDE TWO (2) NO.8 REBARS, 16" LONG  
FOR EACH WHEEL STOP.

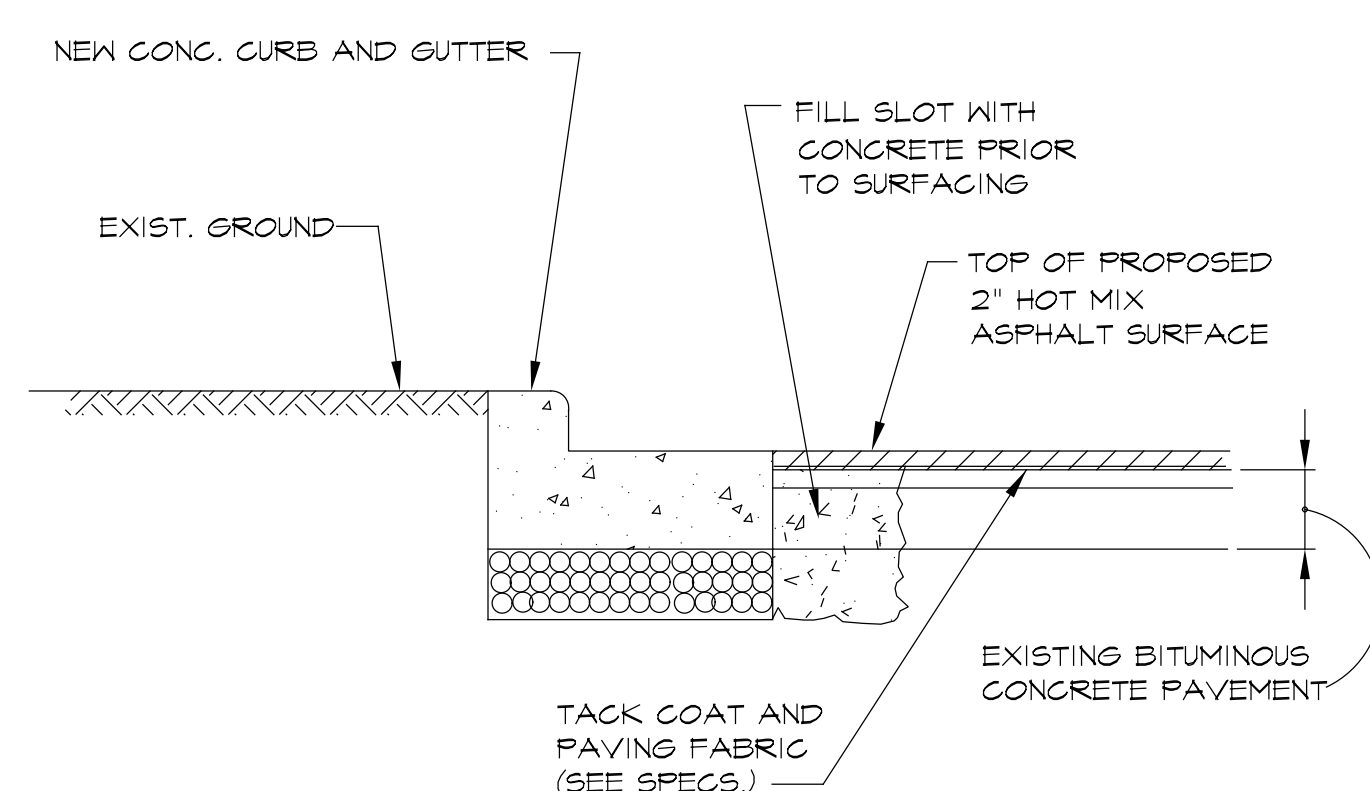
⑨ PRECAST CONCRETE WHEEL STOP

SCALE: N.T.S.



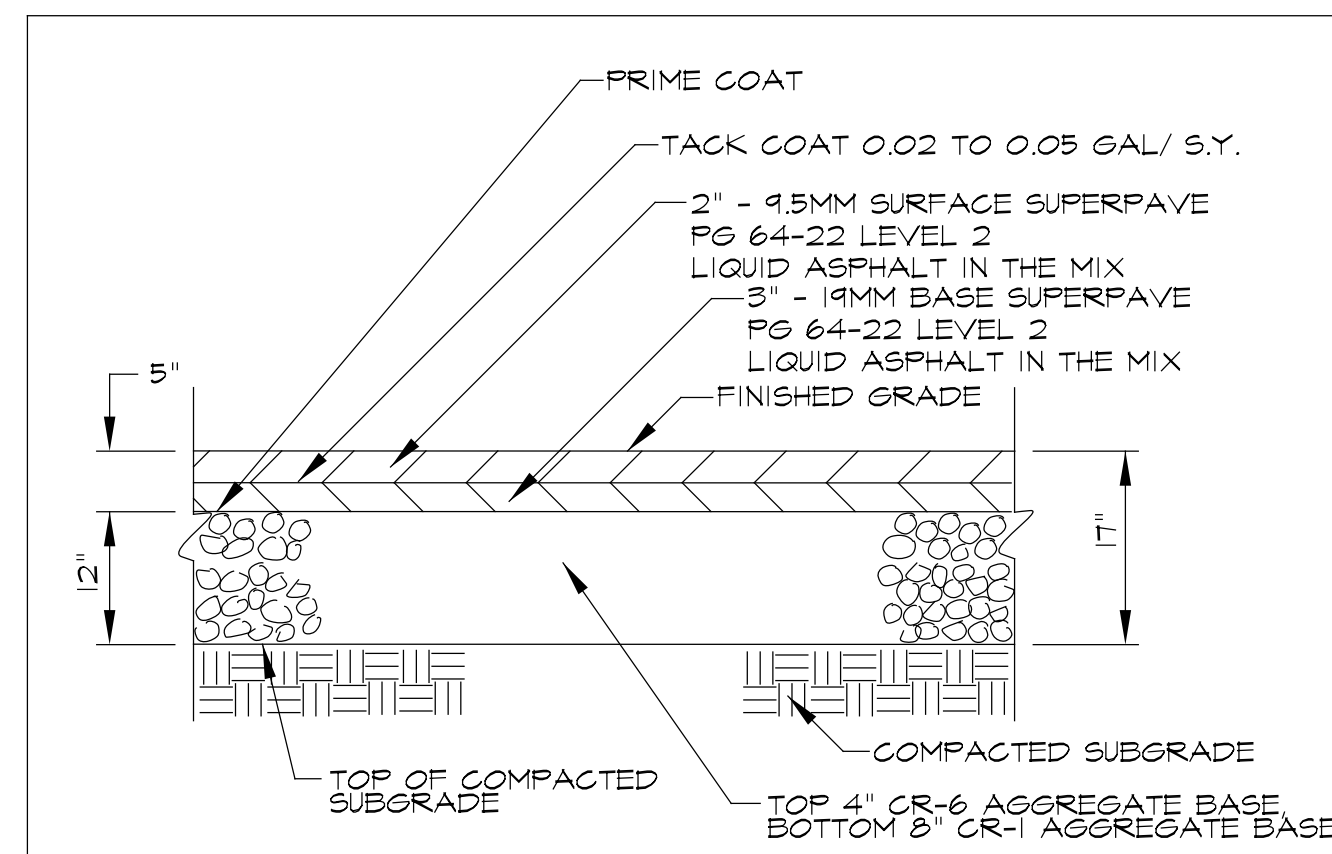
(10) NEW PAVEMENT ADJOINING EXISTING PAVEMENT

SCALE: N.T.S.



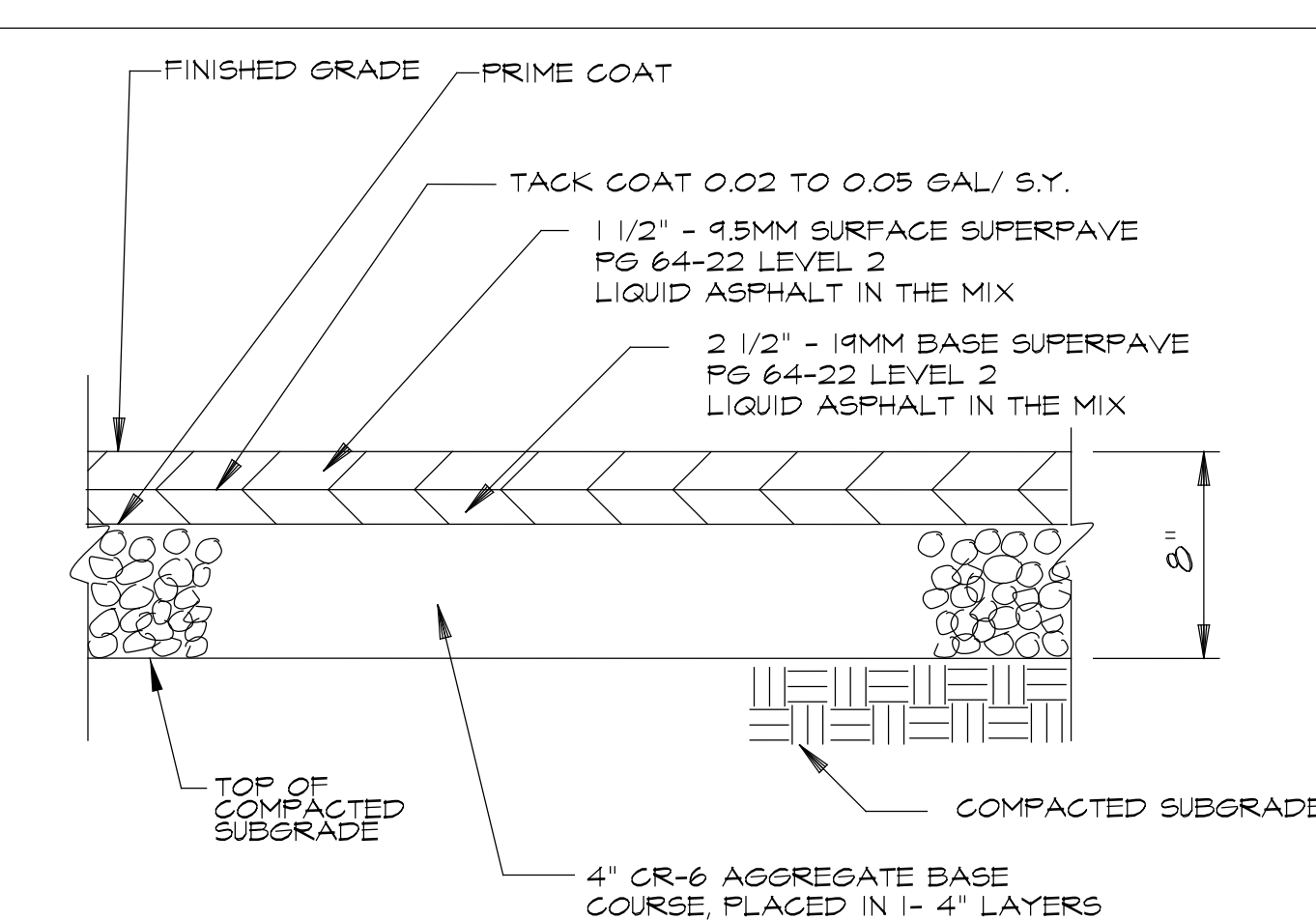
(II) EXISTING PAVEMENT OVERLAY AT NEW CONCRETE CURB

SCALE: N.T.S.



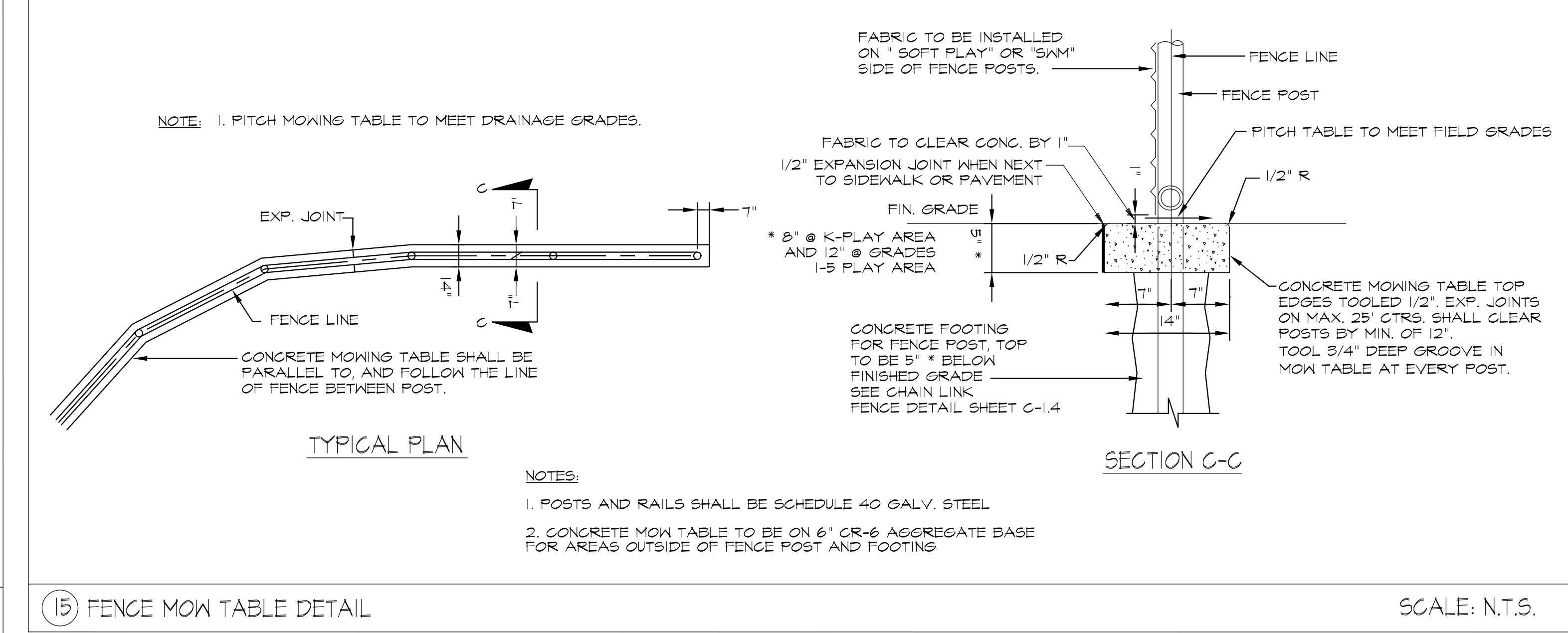
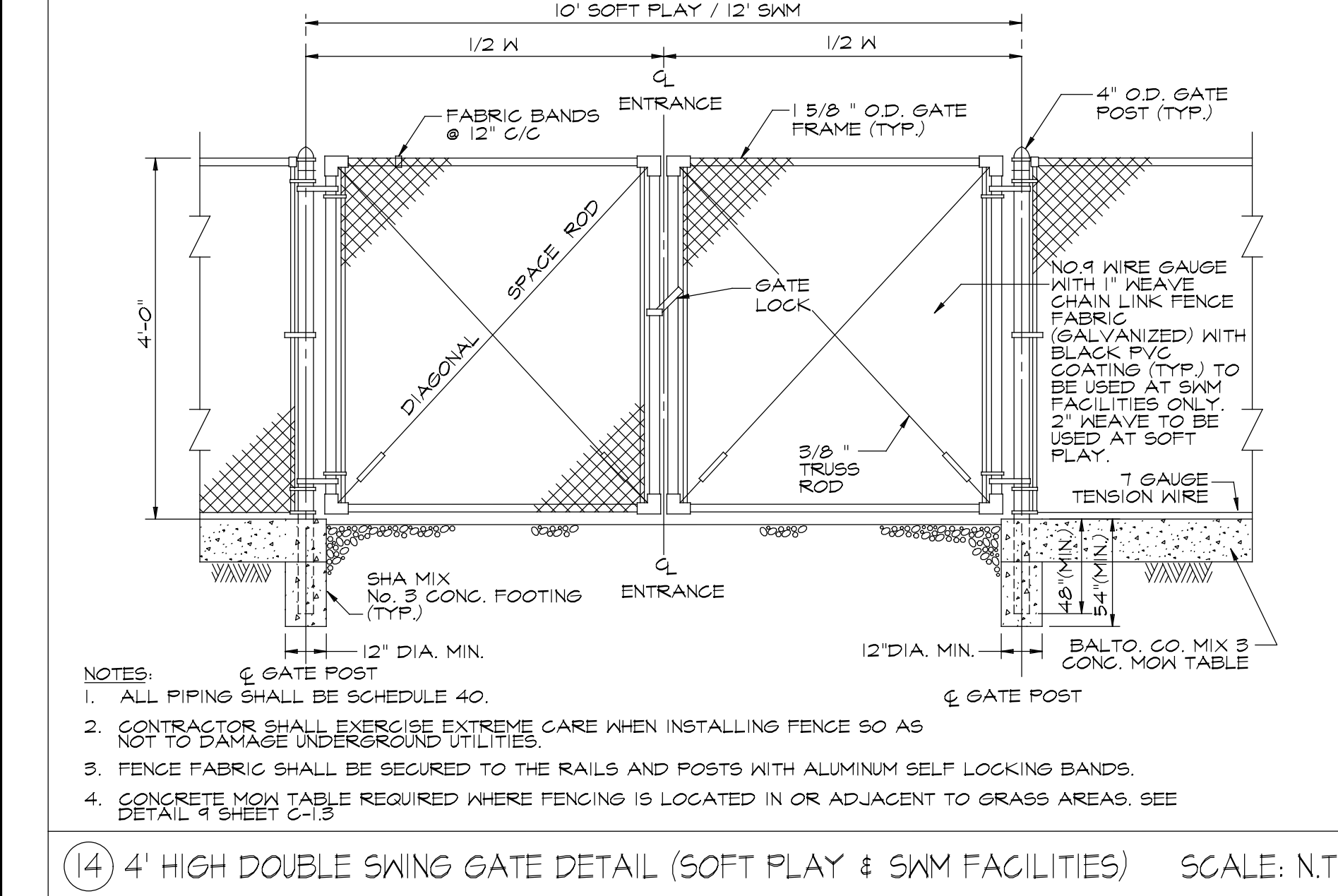
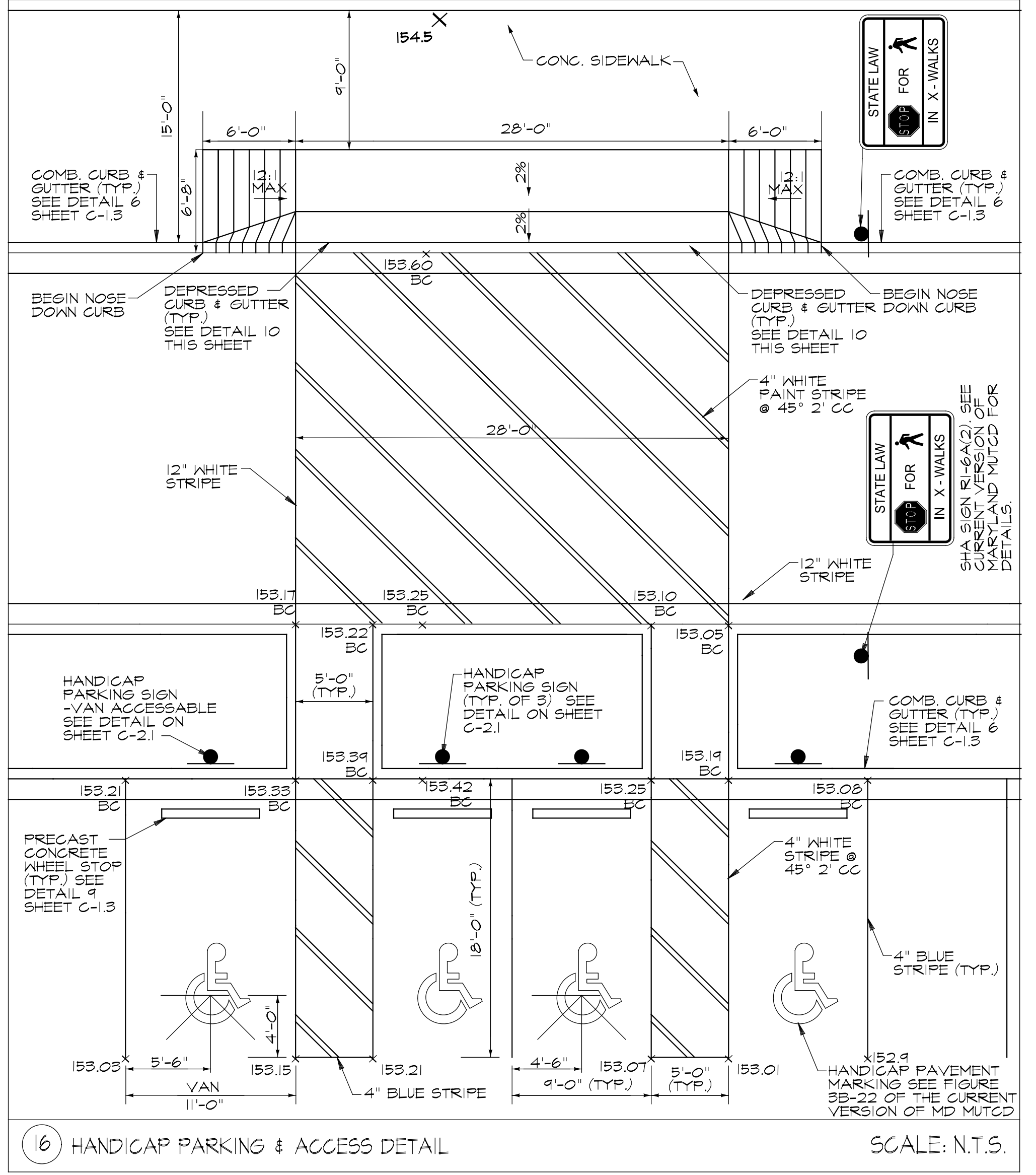
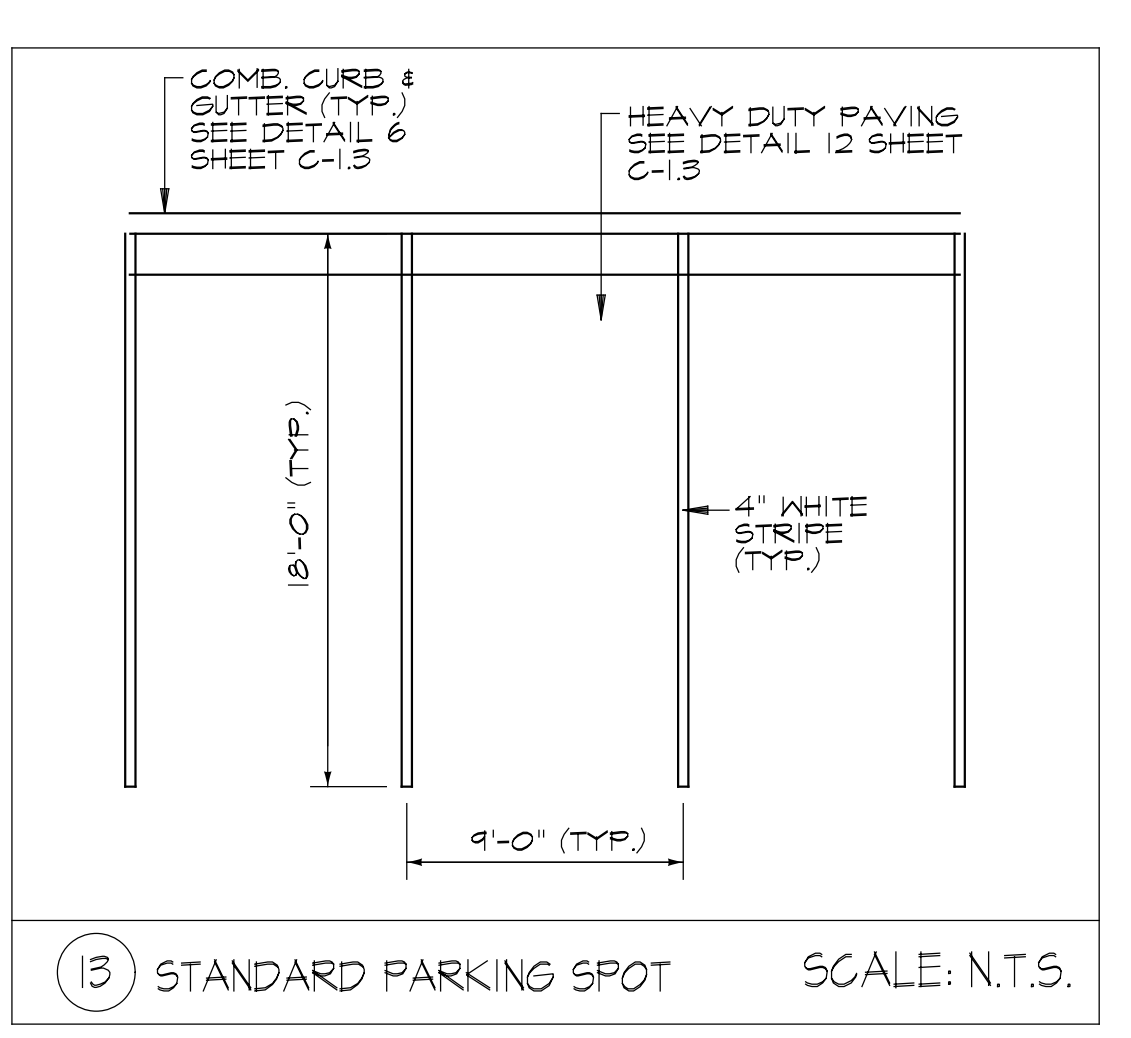
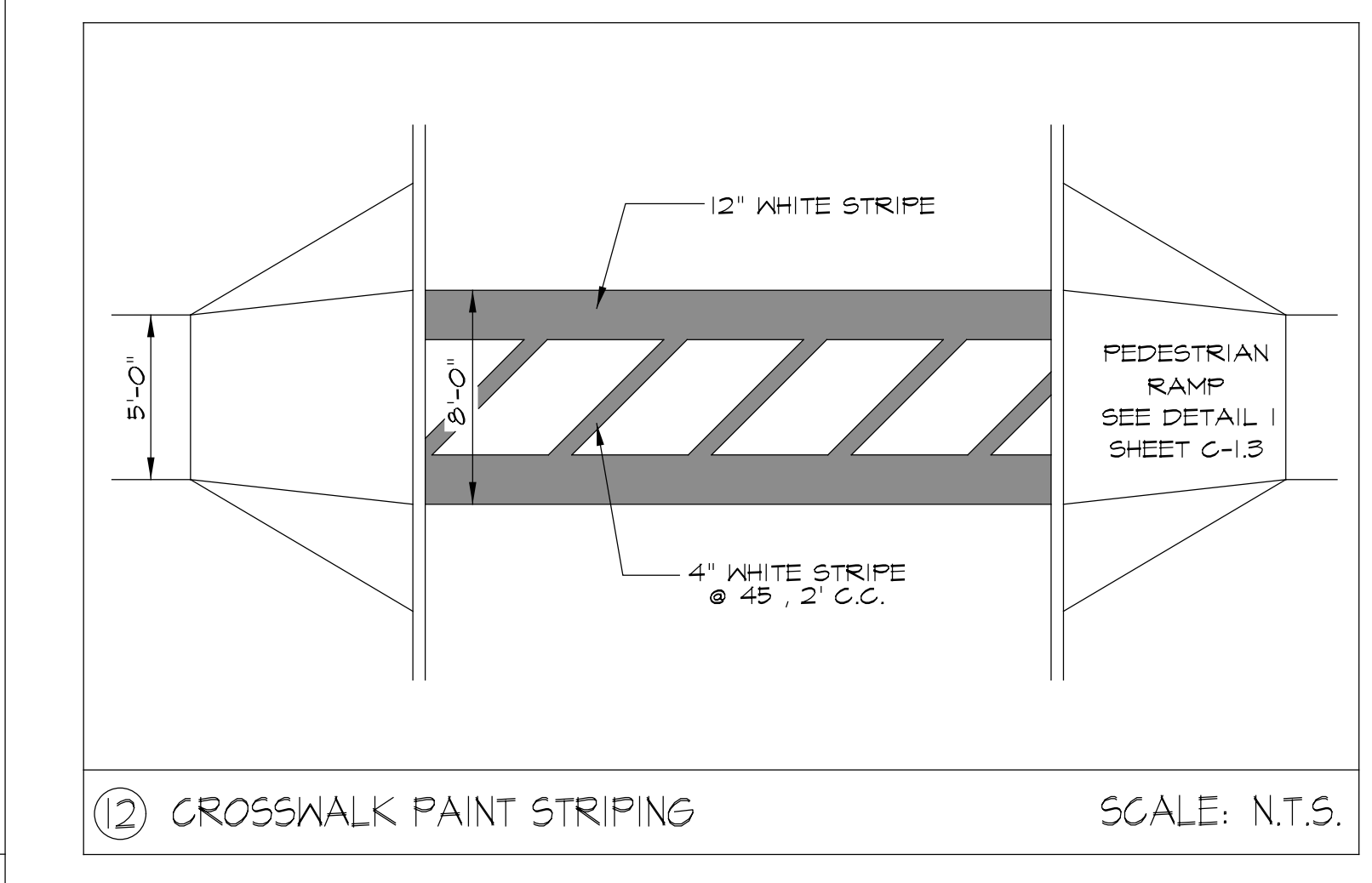
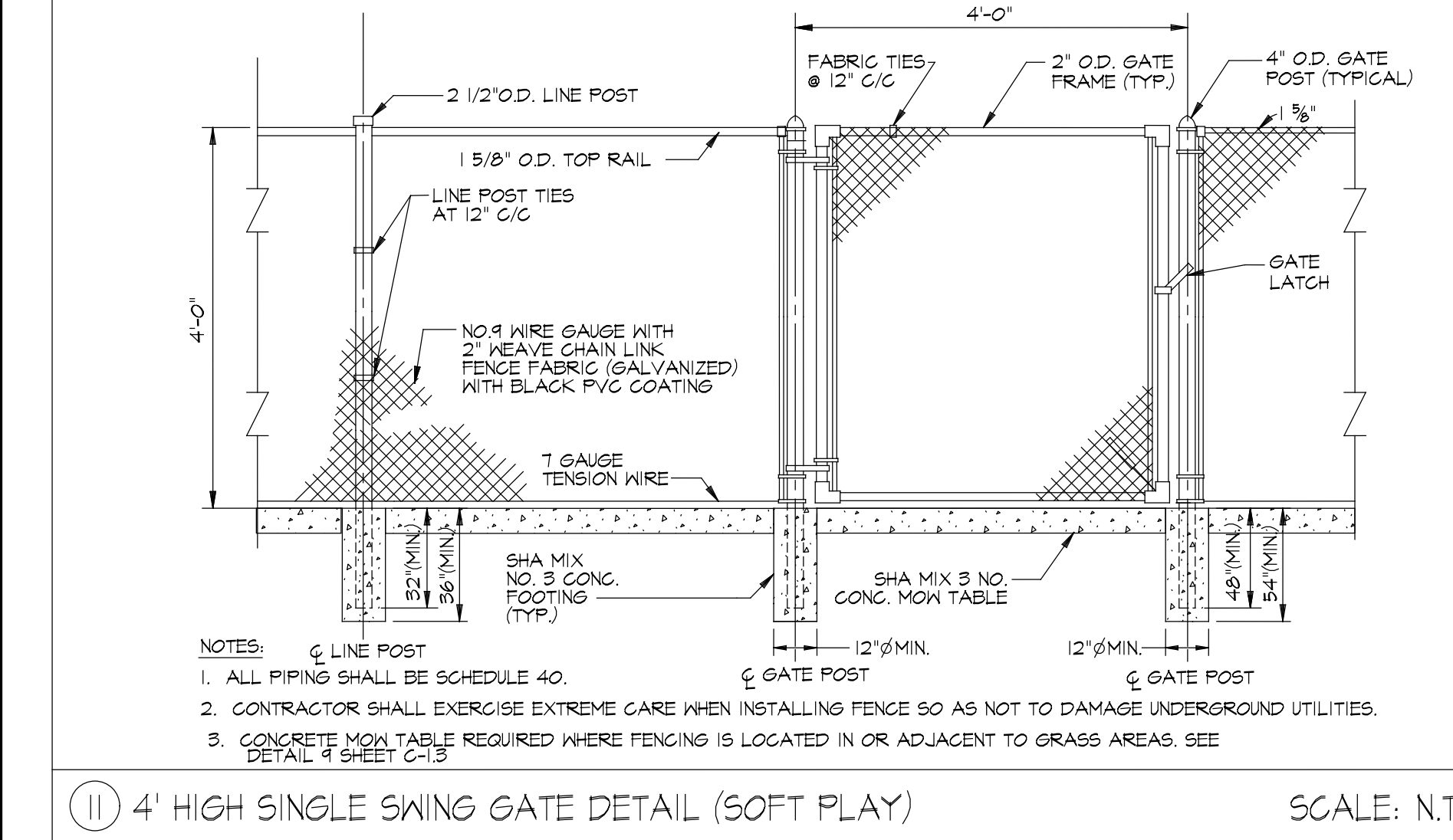
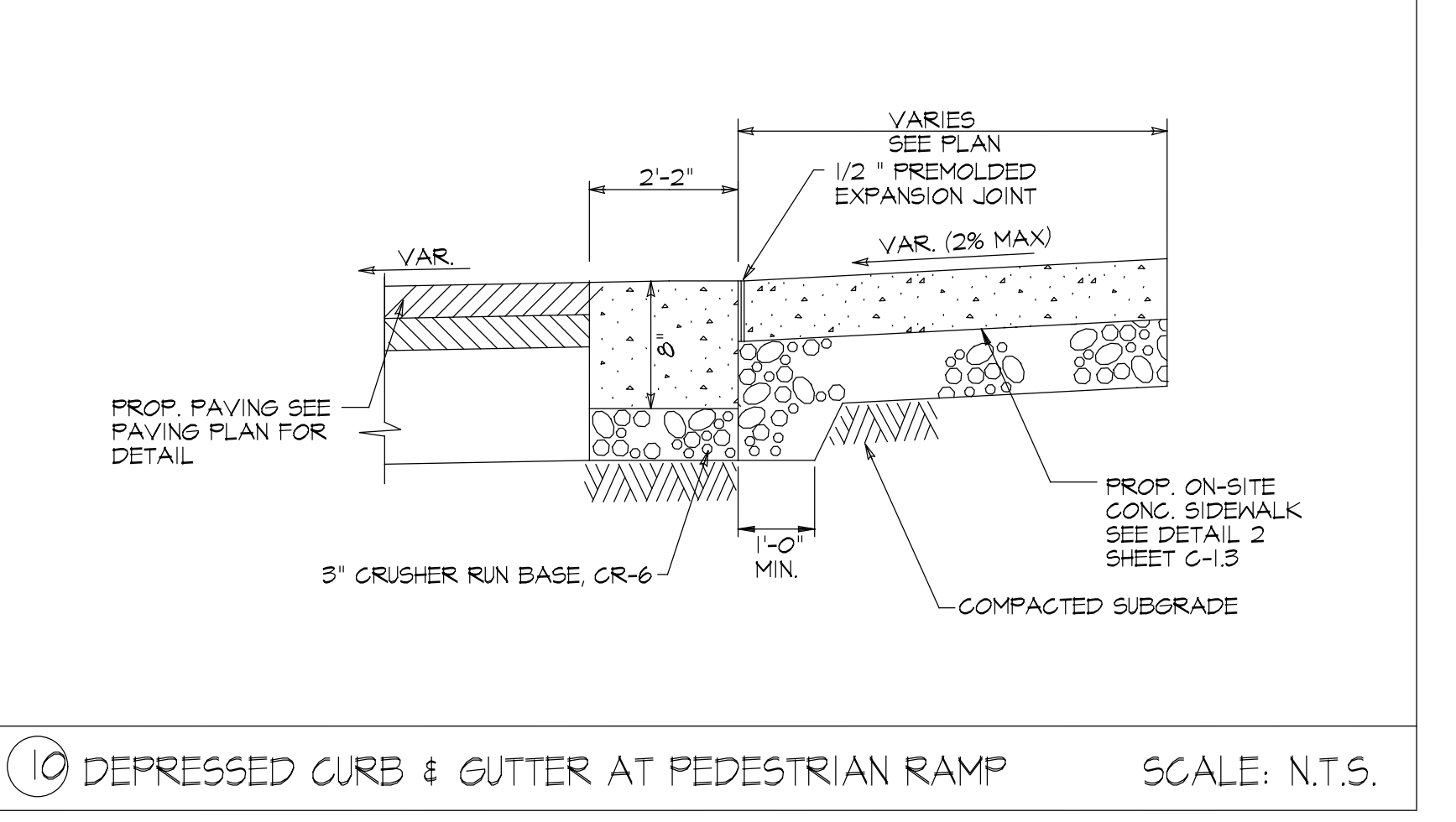
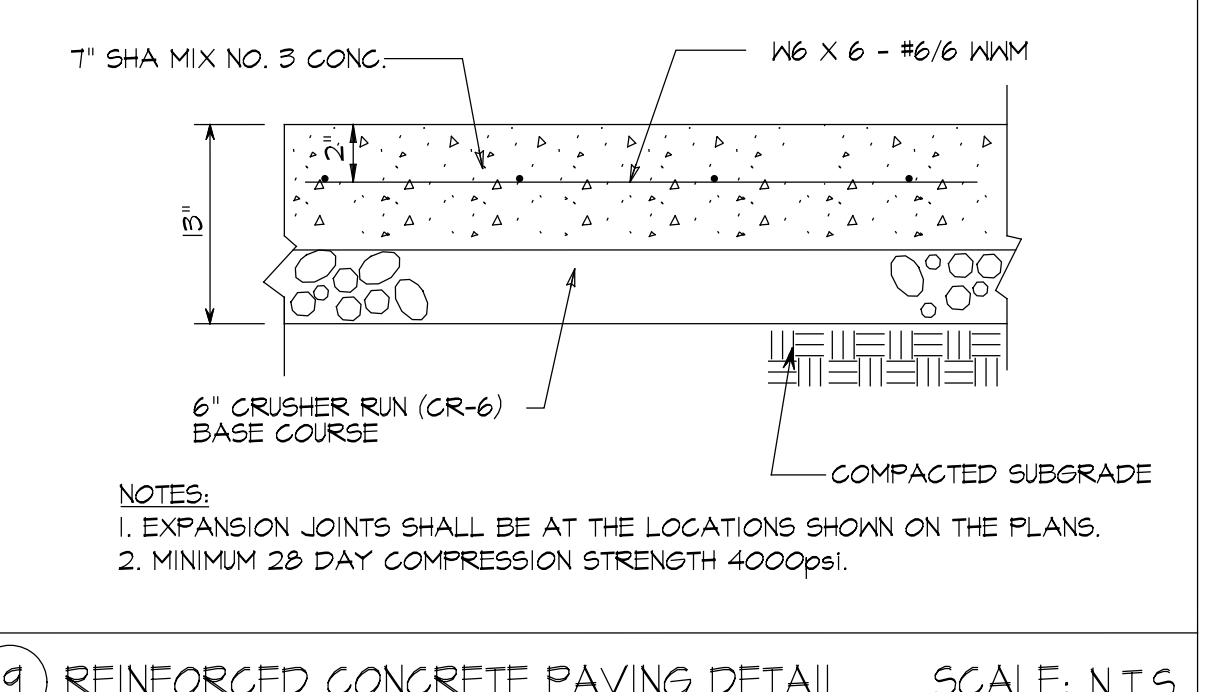
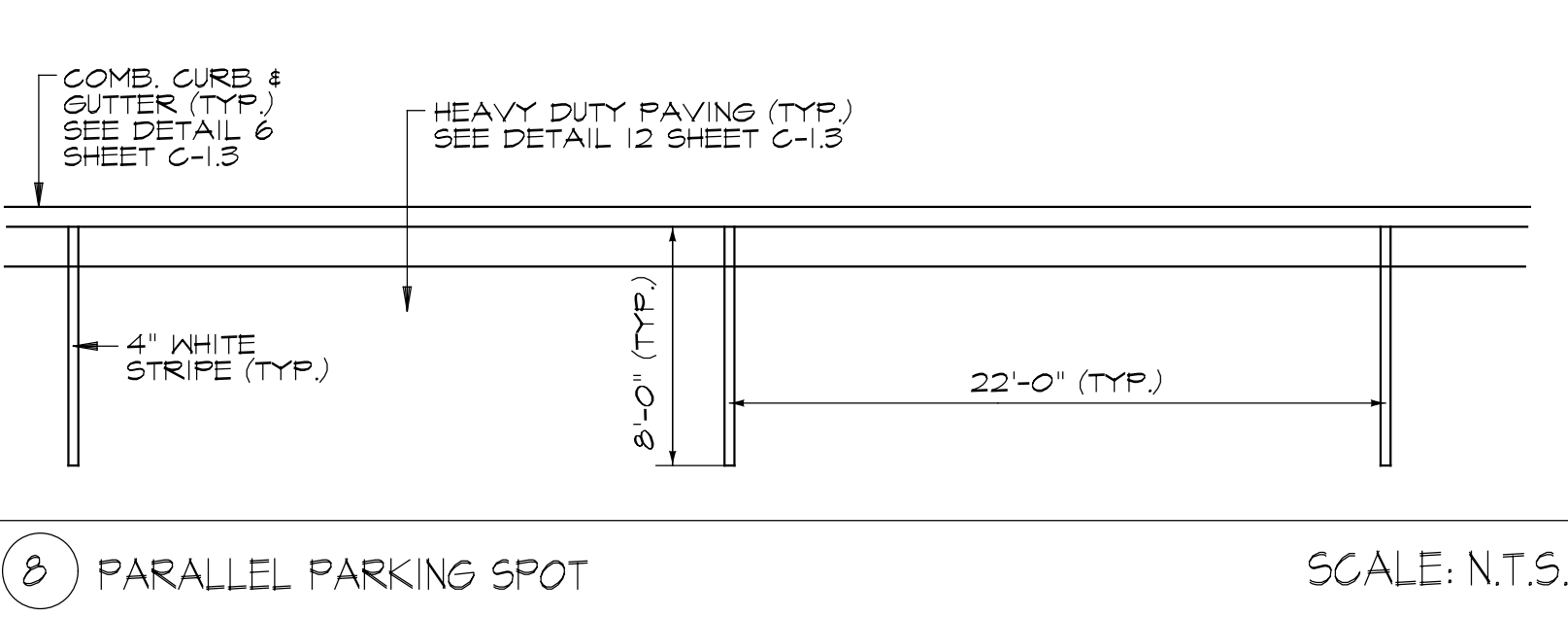
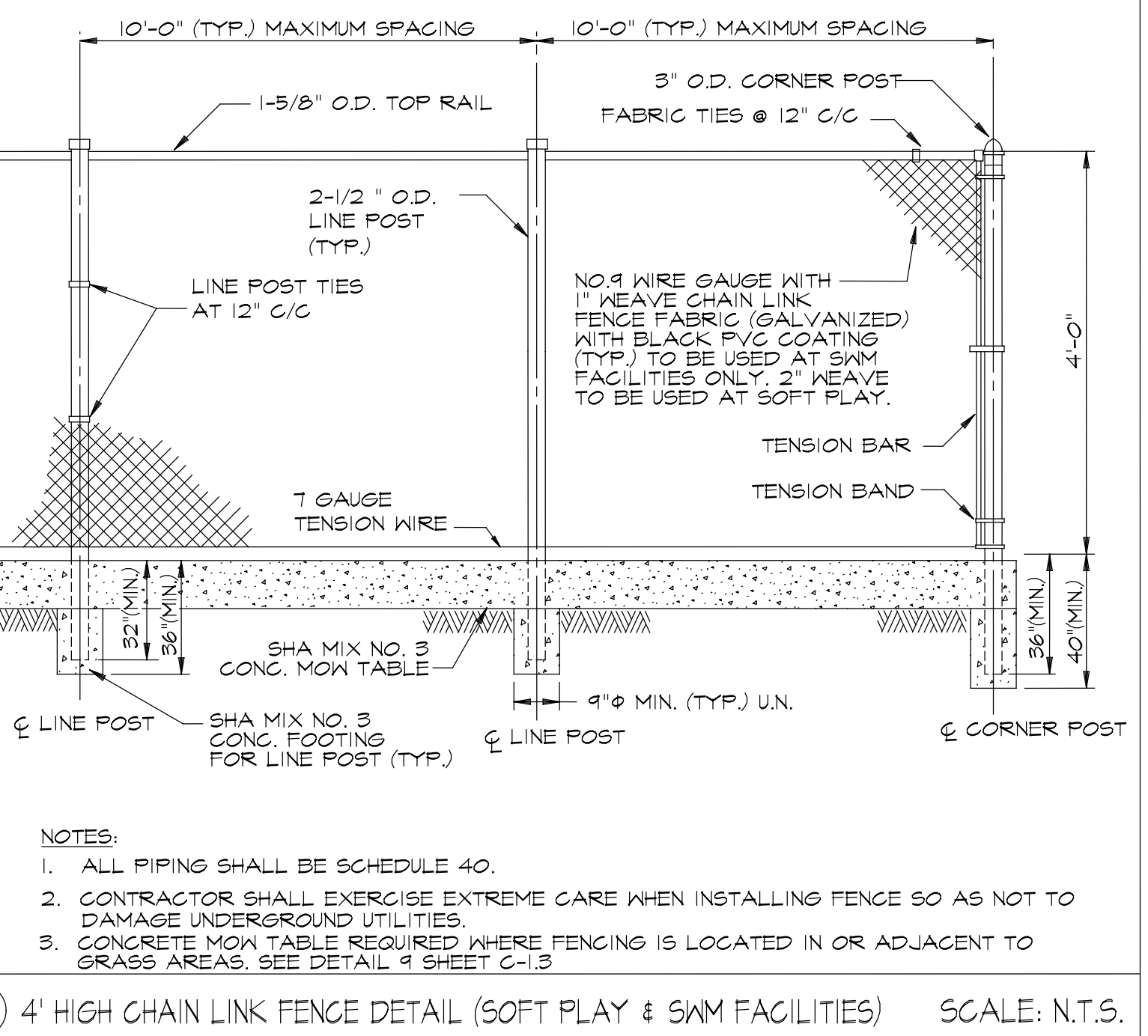
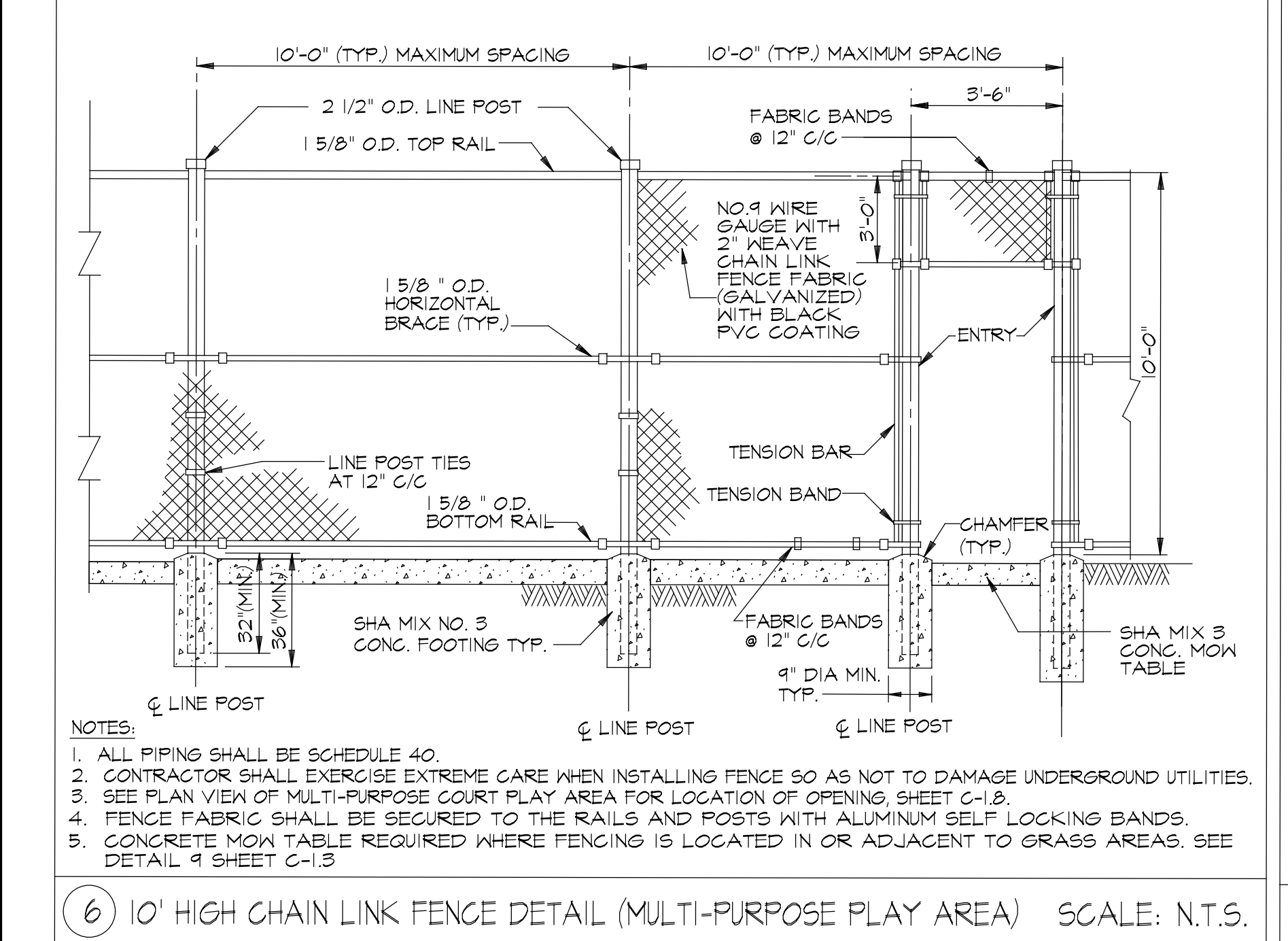
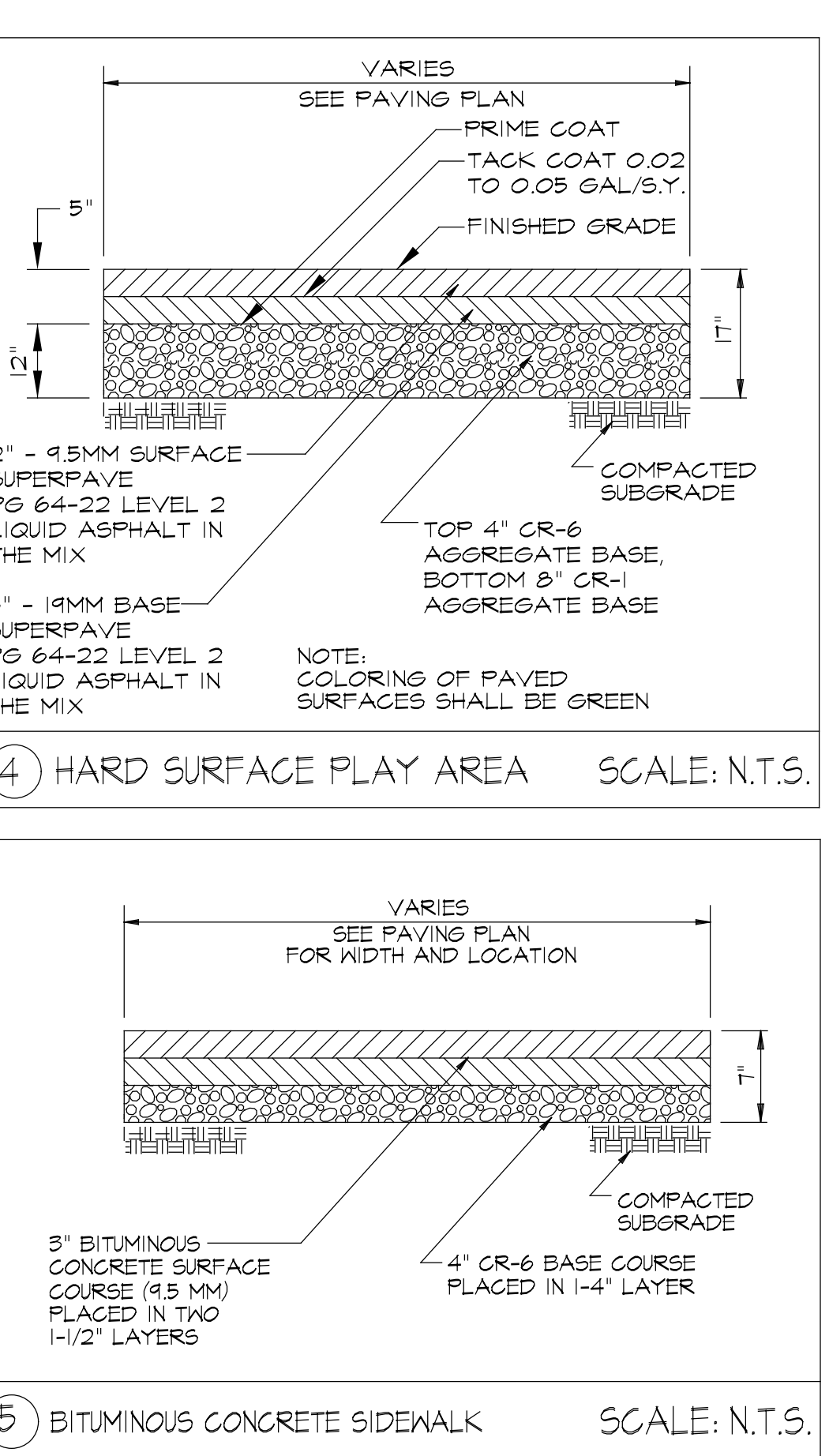
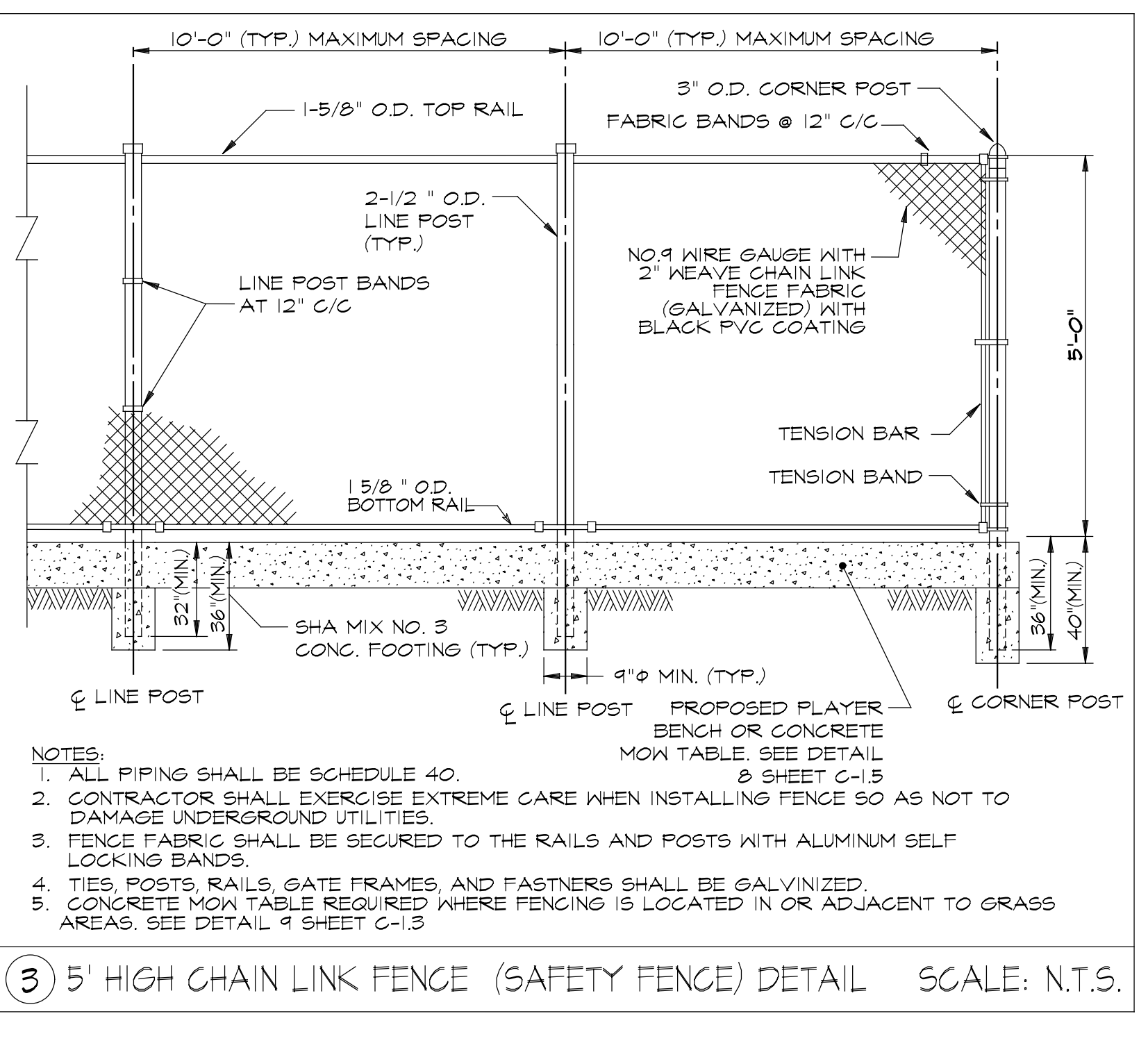
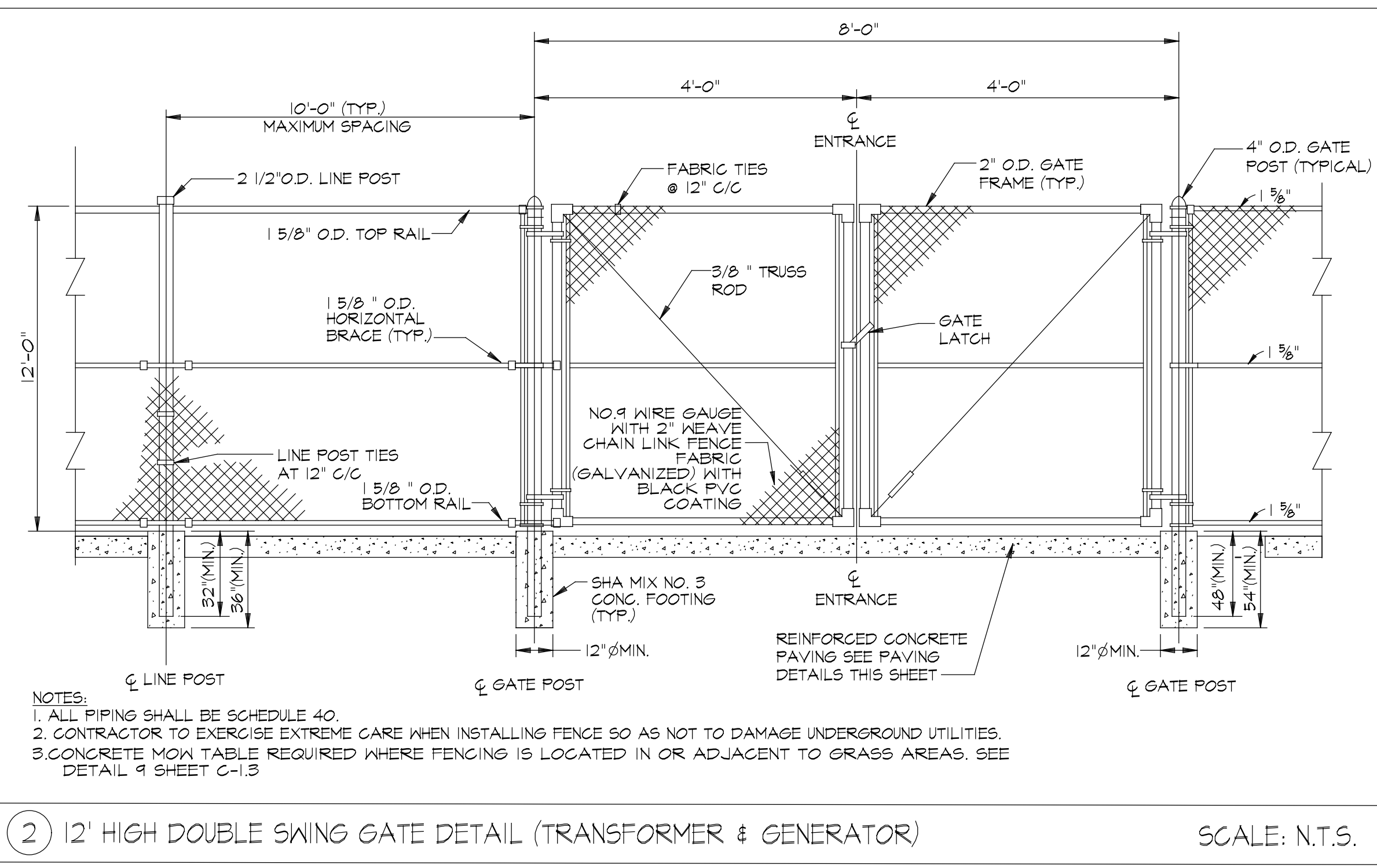
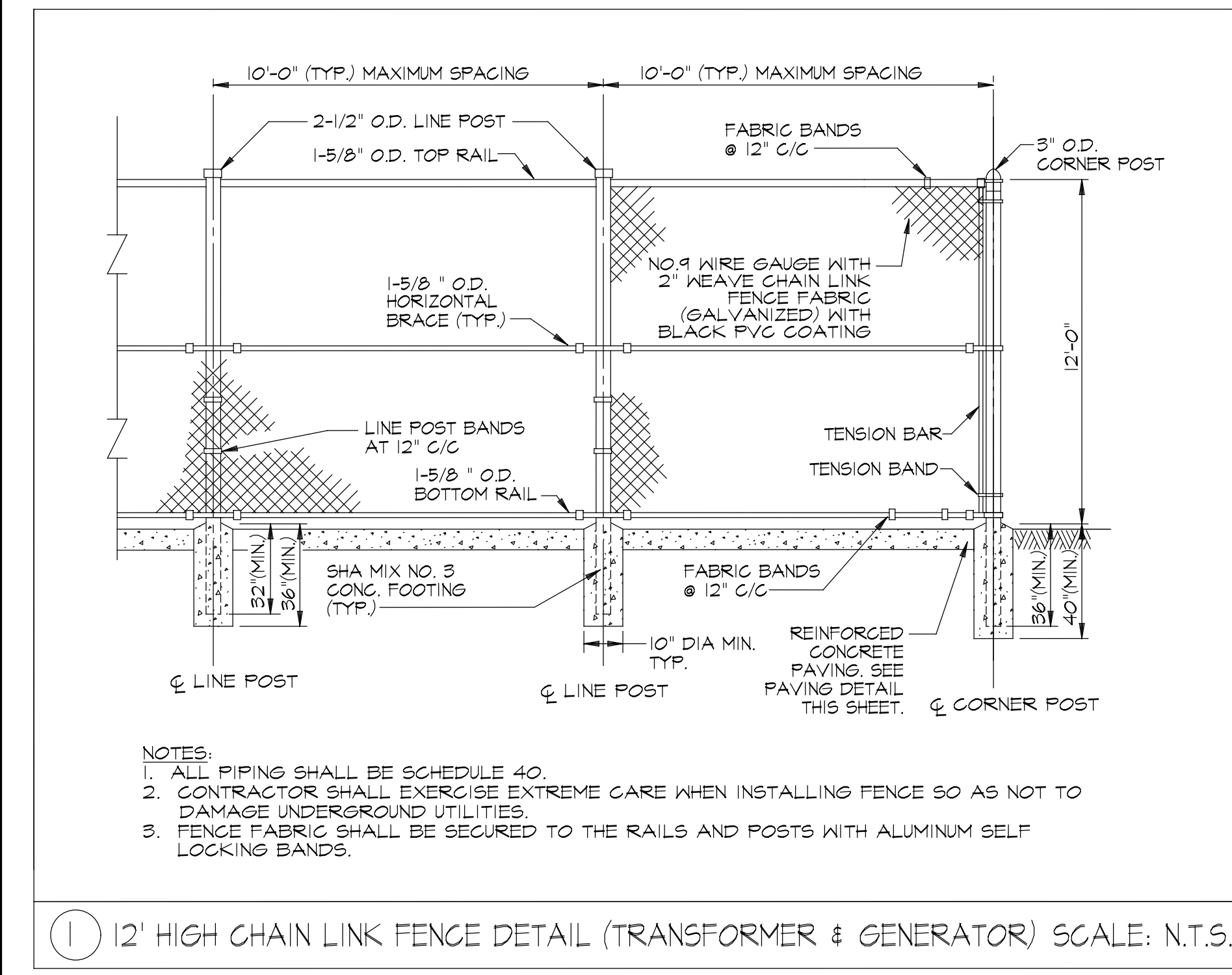
⑫ HEAVY DUTY PAVING DETAIL

SCALE: N.T.S.



(13) TEMPORARY PAVING DETAIL

SCALE: N.T.S.



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CONSTRUCTION MANAGERS

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I HEREBY CERTIFY THAT THESE  
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LICENSE NO. 5486  
EXPIRATION DATE 07/10/17

11/16

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Tel 301.595.1000  
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GP #21417

SITE DETAILS

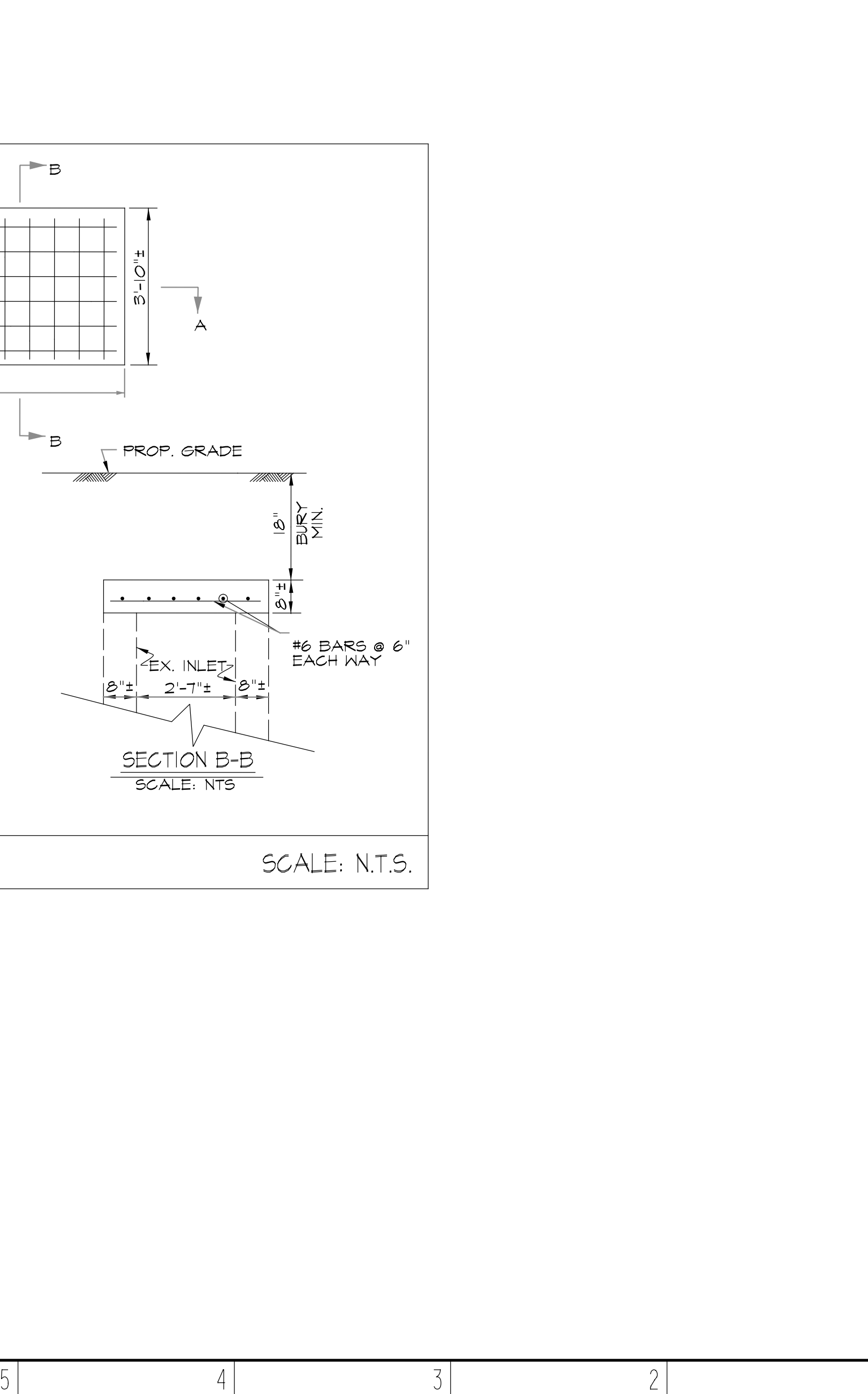
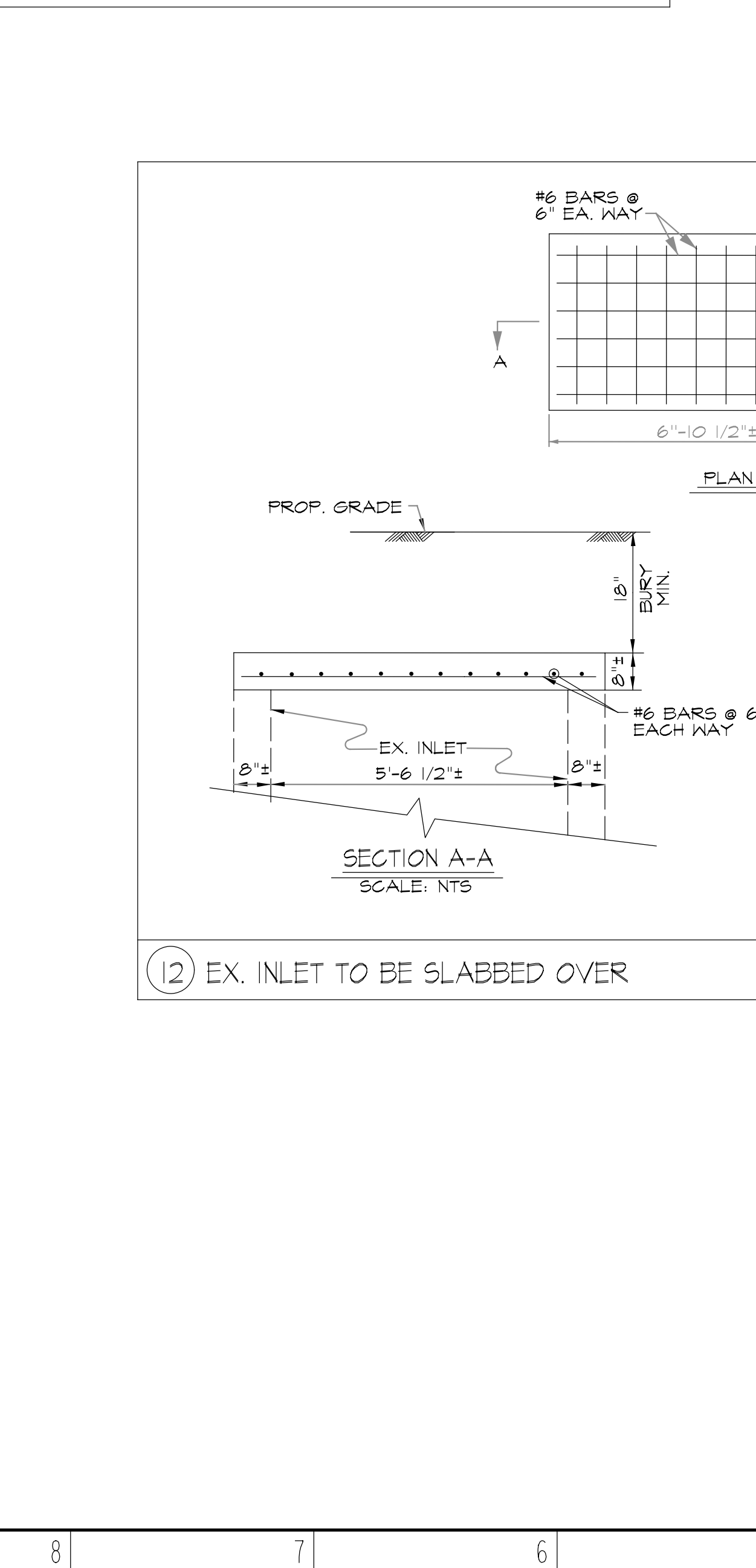
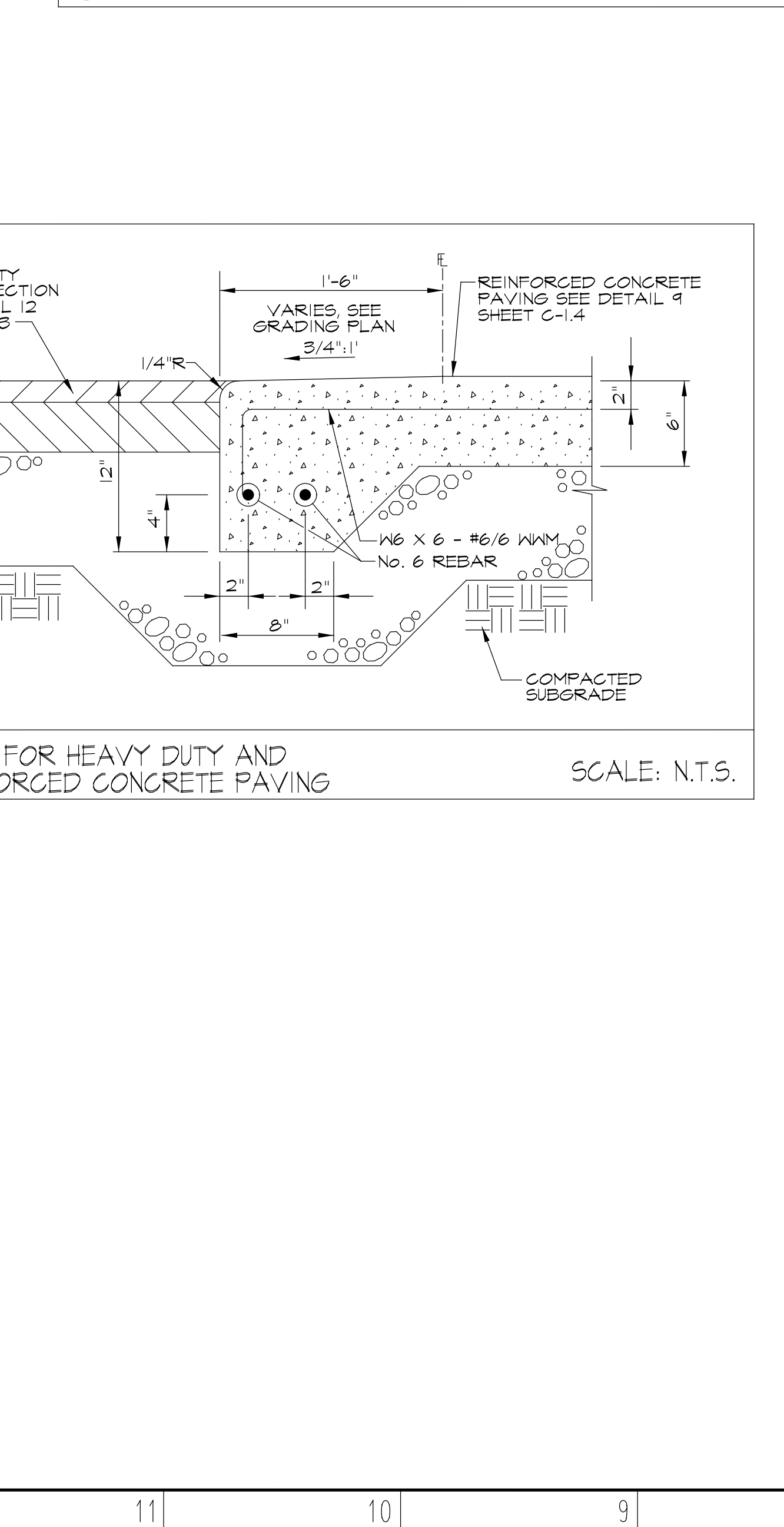
LAUSDOWNE ELEMENTARY SCHOOL  
BALTIMORE COUNTY, MARYLAND

DATE	DESCRIPTION
11/17/16	BID SET

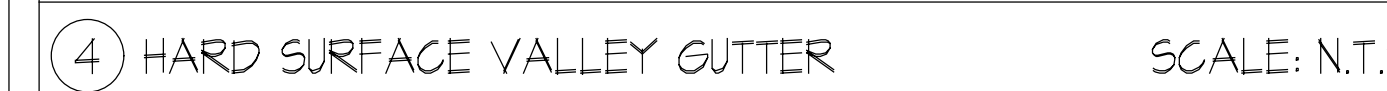
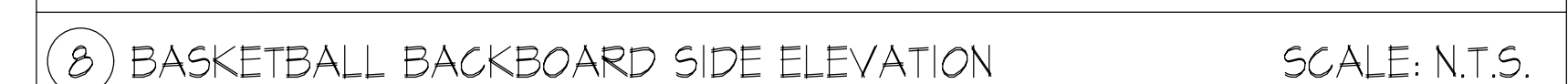
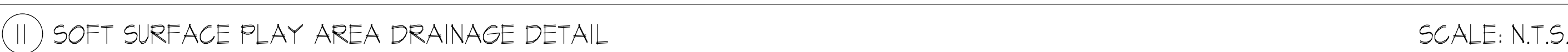
C-1.4

BID SET  
11/17/2016

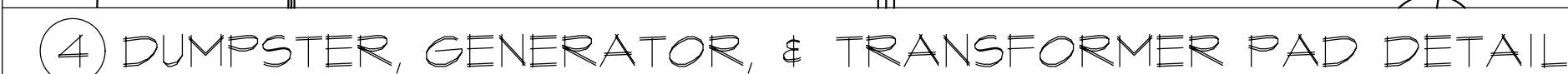
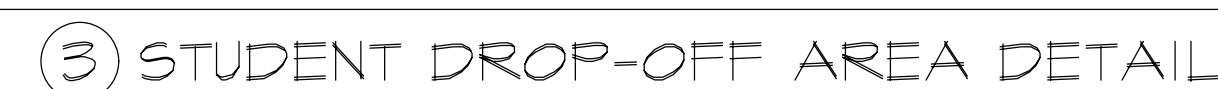
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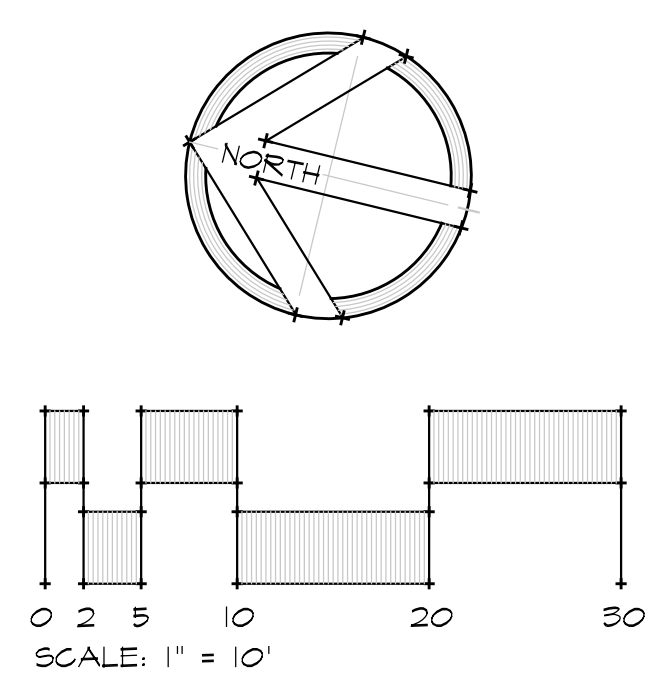
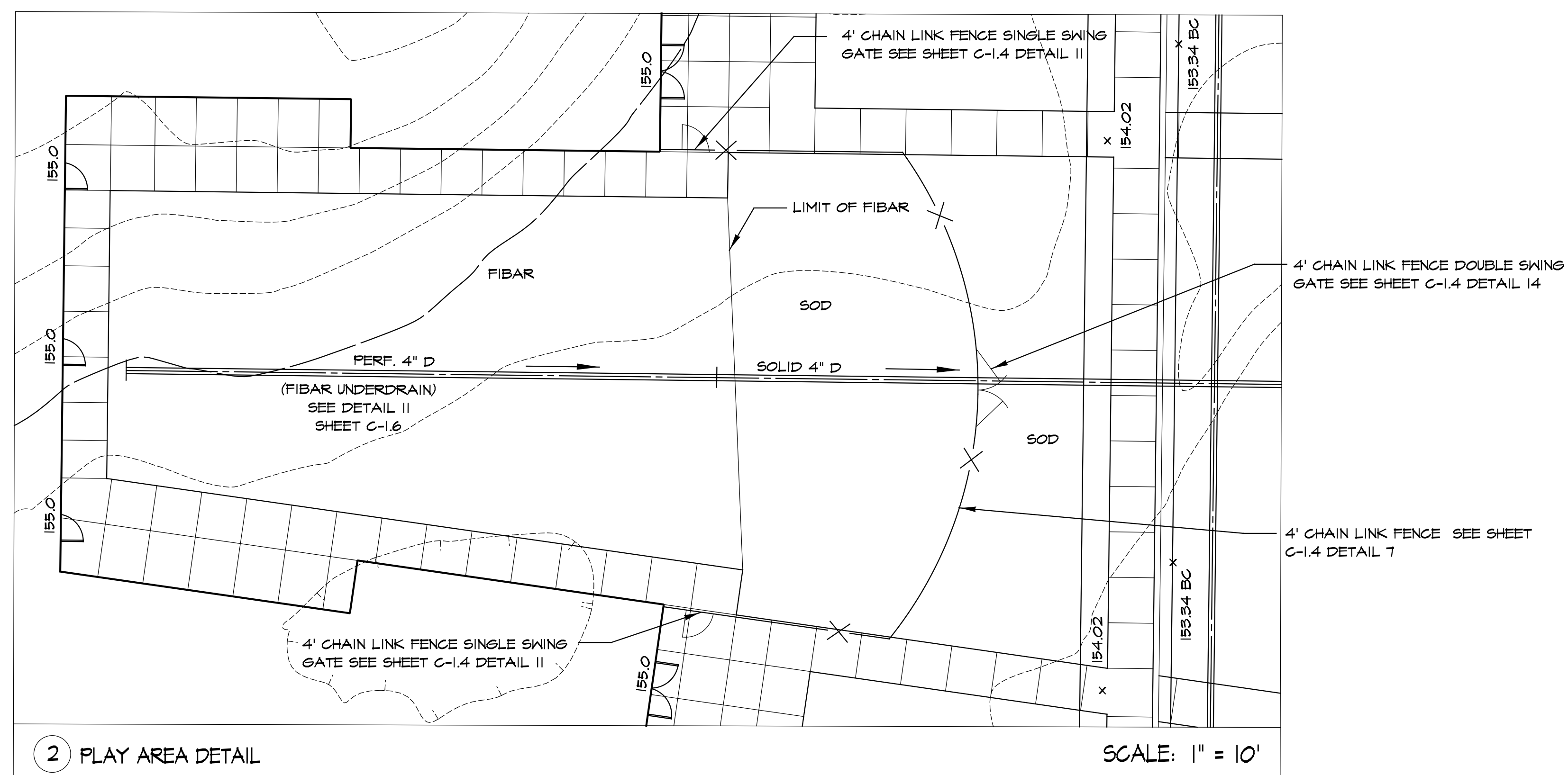
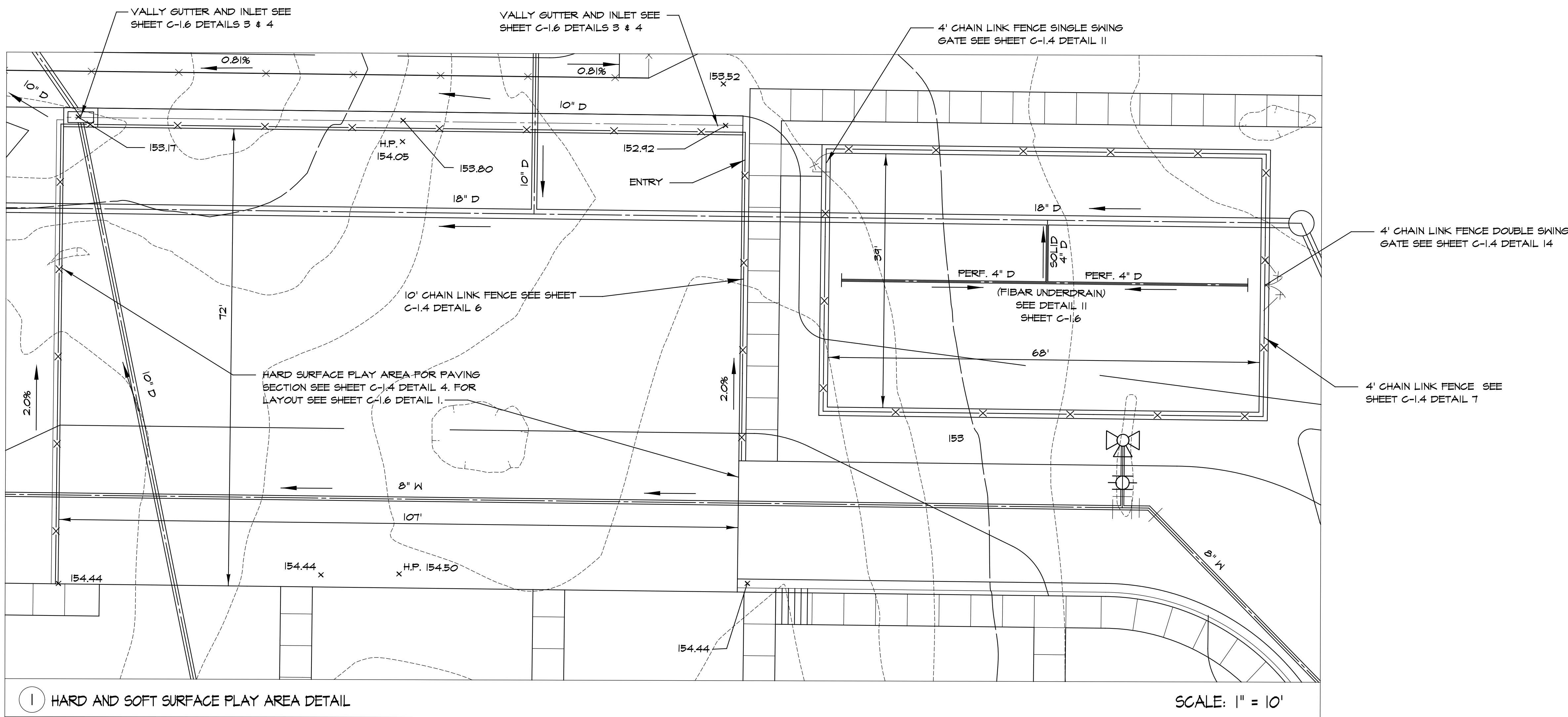
<p><b>ENGINEERS</b> <b>PLANNERS</b> <b>SCIENTISTS</b> <b>CONSTRUCTION MANAGERS</b></p>	<p>936 ROUTEMARK ROAD SUITE 200 TOWSON, MD 21204-7800 TEL (410) 366-7800 FAX (410) 366-7818</p>	<p><b>KCI</b> TECHNOLOGIES</p>	<p>M</p>	<p>L</p>	<p>K</p>	<p>J</p>	<p>H</p>	<p>G</p>	<p>F</p>	<p><b>PROFESSIONAL CERTIFICATION</b> DOBBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND EXPIRATION DATE 07/10/17</p>		<p>11/16/16</p>	<p>www.grimmandparker.com</p>	<p>11720 Beltsville Drive Suite 600 Calverton, MD 20705 Tel 301.595.1000</p>	<p><b>GRIMM AND PARKER</b></p>	<p>GP #21417</p>	<p><b>SITE DETAILS</b></p>	<p><b>LANSDOWNE ELEMENTARY SCHOOL</b> <b>BALTIMORE COUNTY, MARYLAND</b></p>	<p>D</p>	<p><b>C-1.5</b></p>	<p>BID SET 11/17/2016</p>	<p>1. OWNER: BALTIMORE COUNTY, MD</p>	<p>B</p>	<p>C</p>	<p>D</p>	<p>E</p>	<p>F</p>	<p>G</p>	<p>H</p>
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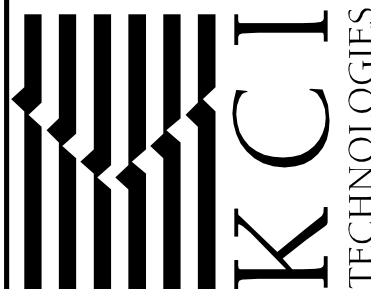
① BALTIMORE COUNTY STD. DETAIL G-9




PLOTTED: 11/17/16 AM on Friday, November 11, 2016  
BY: GeoParker  
FILE: M:\2015\2715914 Drawings\C-1.8 SITE DETAILS.dgn

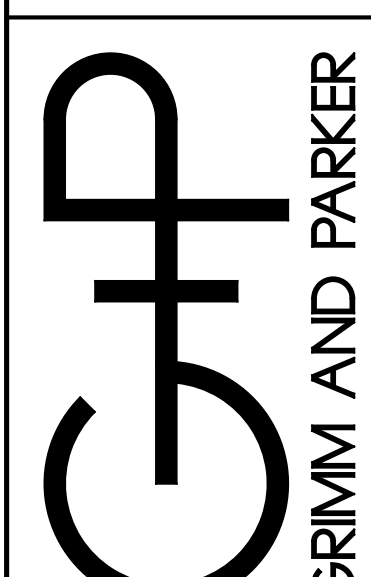


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EXPIRATION DATE 07/10/17

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Tel 301.595.1000  
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**GRIMM AND PARKER**

GP #21417

SITE DETAILS

LAUSDOWNE ELEMENTARY SCHOOL  
BALTIMORE COUNTY, MARYLAND

DATE	DESCRIPTION
11/17/16	BID SET

**C-1.8**  
BID SET  
11/17/2016  
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NOTE: SIGNS (AND THEIR LOCATIONS) SHALL BE IN ACCORDANCE WITH THE CURRENT VERSION OF BALTIMORE COUNTY'S MANUAL OF UNIFORM TRAFFIC DEVICES FOR STREETS AND HIGHWAYS.

2" SQUARE STEEL POST

7'-0"

9"  $\phi$  SHA CONC. MIX NO. 3

HANDICAP SIGN MOUNTING DETAIL

NOT TO SCALE

2" SQUARE STEEL POST

7'-0"

9"  $\phi$  SHA CONC. MIX NO. 3

STANDARD SIGN MOUNTING DETAIL

NOT TO SCALE

NOTE:  
SIGN TO BE MOUNTED ON POST WITH  
"FIRE LANE" SIGN AS INDICATED

"DROP OFF" DETAIL

NOT TO SCALE

NOTES:

1. SIGN MATERIAL AND LETTERING SHALL BE ENGINEERING/GRADE REFLECTIVE.
2. GRAPHICS AND BORDER SHALL BE RED ON WHITE BACKGROUND.
3. FONT SHALL BE HIGHWAY-STYLE B OR C AS INDICATED.
4. SIGN SHALL BE INSTALLED AT 7' ABOVE GRADE.
5. ARROWS ON THE ENDS SHOULD POINT IN THE DIRECTION TOWARD THE FIRE LANE. SIGNAGE WITHIN THE FIRE LANE SHOULD SHOW ARROWS POINTING 3/4"
6. NO PARKING FIRE LANE SIGNS SHALL BE PROVIDED AT THE ENDS OF FIRE LANES WITH ADDITIONAL SIGNS PROVIDED AS NECESSARY TO ENFORCE ONE-WAY TRAFFIC AND TO ENFORCE ONE-WAY SPACING SIGNS SHALL BE IN ACCORDANCE WITH THE BALTIMORE COUNTY FIRE DEPARTMENT'S SIGN AND STANDARD DETAIL ON THIS SHEET.

FIRE LANE SIGNAGE DETAIL

SCALE: NOT TO SCALE

STANDARD SIGN  
MOUNTING ON SIDEWALK DETAIL

---


NOT TO SCALE

1. ALTERNATE NO. 7:  
PROVIDE CONCRETE SIDEWALK IN LIEU OF  
BITUMINOUS SIDEWALK BETWEEN PROPOSED  
HARD SURFACE PLAY AREA AND ZION ROAD.  
BASE BID: INSTALLATION OF BITUMINOUS  
SIDEWALK AS SHOWN IN THE BID DOCUMENTS

**TOBACCO FREE  
ZONE**

**Use of Tobacco  
Products is  
Prohibited at  
ALL Times**

**BALTIMORE COUNTY PUBLIC SCHOOLS**



NOTE:  
SIGN TO BE MOUNTED ON EXISTING  
SIGN POST OR ON A PROP. POST  
FACING THE ENTRANCE TO THE  
SCHOOL PROPERTY AS INDICATED.


NOTE:  
SIGN TO BE MOUNTED ON POST WITH  
"TOBACCO FREE ZONE" SIGN AS  
INDICATED.

"TOBACCO FREE  
ZONE" DETAIL


---

NOT TO SCALE

"WALK YOUR BIKE"  
DETAIL  
NOT TO SCALE



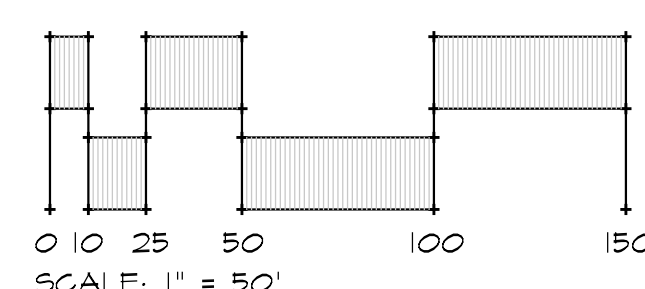
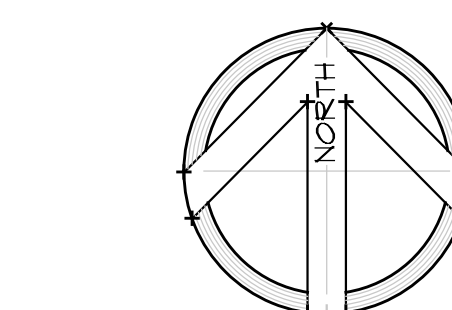
STATE LAW

STOP FOR 

IN X - WALKS

NOTE:  
SEE CURRENT VERSION OF  
MARYLAND'S "MANUAL ON UNIFORM  
TRAFFIC CONTROL DEVICES FOR  
STREET AND HIGHWAYS (MUTCD)  
FOR DETAILS."

SHA SIGN  
RI-6A(2)  
NOT TO SCALE



**KCI**  
TECHNOLOGIES

ENGINEERS  
PLANNERS  
SCIENTISTS  
CONSTRUCTION MANAGERS

936 RIDGEBARK ROAD  
SOWERS, MARYLAND 21152  
TELEPHONE: (410) 316-7800  
FAX: (410) 316-7818

STATE OF MARYLAND  
SEIN MICHELANGELO  
No. 34661  
PROFESSIONAL ENGINEER

11.10.16

PROFESSIONAL CERTIFICATION  
I HEREBY CERTIFY THAT THESE  
DOCUMENTS WERE PREPARED OR  
APPROVED BY ME AND THAT I AM  
A DULY LICENSED PROFESSIONAL  
ENGINEER UNDER THE LAWS OF  
THE STATE OF MARYLAND.  
LICENSE NO. 34661  
EXPIRATION DATE: 07/10/17

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Tel 301.595.1000  
[www.grimmandparker.com](http://www.grimmandparker.com)

**Gf**  
GRIMM AND PARKER

GP #21417

PAVING, STRIPING AND SIGNAGE PLAN  
LANSDOWNE ELEMENTARY SCHOOL  
BALTIMORE COUNTY, MARYLAND

DATE	DESCRIPTION
11/17/16	B/D SET

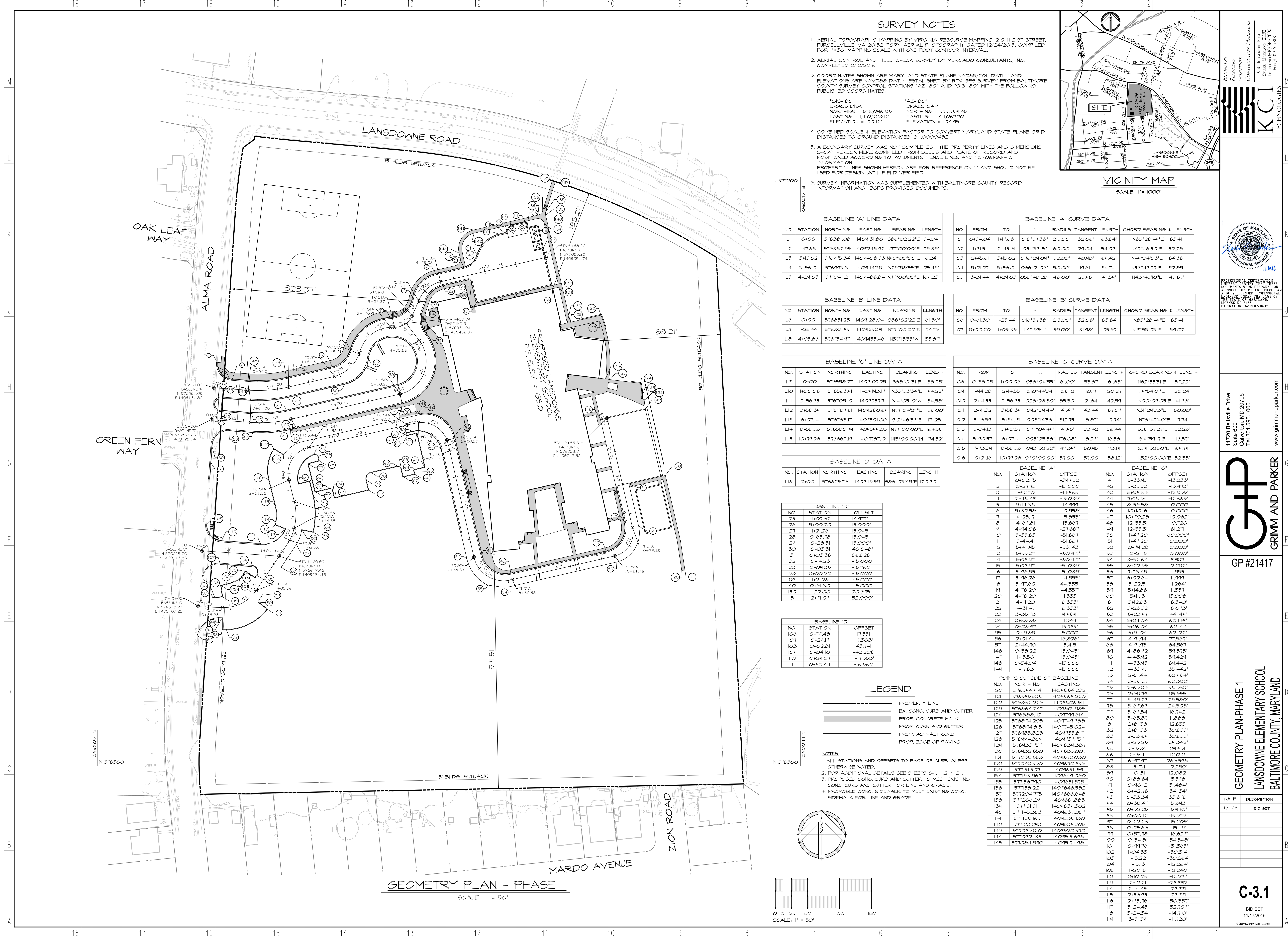
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BID SET  
11/17/2016

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BY: victoria.feris  
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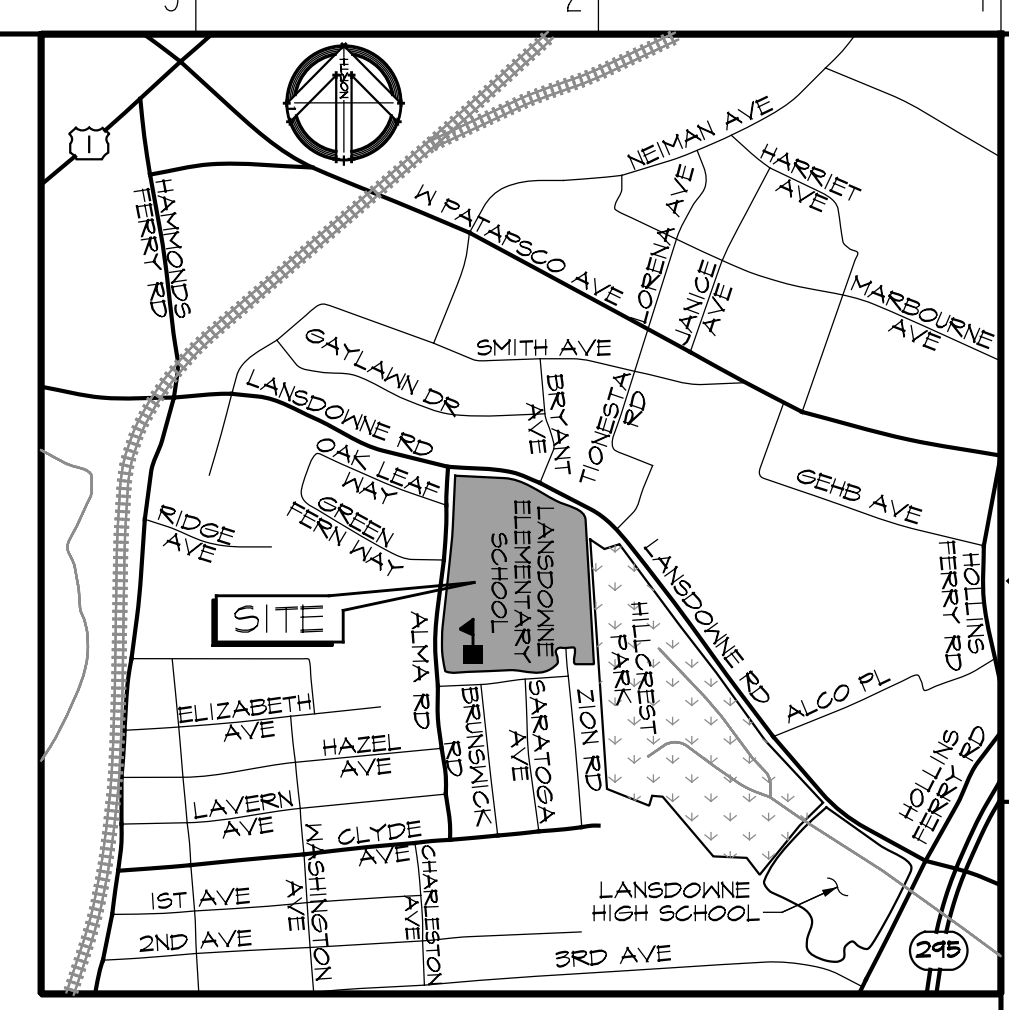
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BY: jclark@terracore.com  
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**SURVEY NOTES**

1. AERIAL TOPOGRAPHIC MAPPING BY VIRGINIA RESOURCE MAPPING, 210 N 21ST STREET, PURCELLVILLE, VA 20132, FROM AERIAL PHOTOGRAPHY DATED 12/24/2015, COMPILED FOR 1"=50' MAPPING SCALE WITH ONE FOOT CONTOUR INTERVAL.
2. AERIAL CONTROL AND FIELD CHECK SURVEY BY MERCADO CONSULTANTS, INC. COMPLETED 2/12/2016.
3. COORDINATES SHOWN ARE MARYLAND STATE PLANE NAD83/2011 DATUM AND ELEVATIONS ARE NAVD83 DATUM ESTABLISHED BY RTK GPS SURVEY FROM BALTIMORE COUNTY SURVEY CONTROL STATIONS 'AZ-180' AND 'G15-180' WITH THE FOLLOWING PUBLISHED COORDINATES:  

G15-180 BRASS DISK NORTHING = 576,096.86 EASTING = 141,022.12 ELEVATION = 170.12	AZ-180 BRASS CAP NORTHING = 575,529.45 EASTING = 141,067.70 ELEVATION = 104.95
--	--
4. COMBINED SCALE & ELEVATION FACTOR TO CONVERT MARYLAND STATE PLANE GRID DISTANCES TO GROUND DISTANCES IS 1.00004821
5. A BOUNDARY SURVEY WAS NOT COMPLETED. THE PROPERTY LINES AND DIMENSIONS SHOWN HEREON WERE COMPILED FROM DEEDS AND PLATS OF RECORD AND POSITIONED ACCORDING TO MONUMENTS, FENCE LINES AND TOPOGRAPHIC INFORMATION. PROPERTY LINES SHOWN HEREON ARE FOR REFERENCE ONLY AND SHOULD NOT BE USED FOR DESIGN UNTIL FIELD VERIFIED.
6. SURVEY INFORMATION WAS SUPPLEMENTED WITH BALTIMORE COUNTY RECORD INFORMATION AND BCPS PROVIDED DOCUMENTS.



**VICINITY MAP**  
SCALE: 1" = 1000'

BASELINE 'A' LINE DATA				
NO.	STATION	NORTHING	EASTING	BEARING
L1	0+00	576881.08	1409131.80	S86°02'22"E
L2	1+17.68	576882.35	1409248.92	NT1°00'00"E
L3	3+15.02	576915.84	1409408.59	N90°00'00"E
L4	3+56.01	576949.81	1409442.51	N25°35'58"E
L5	4+24.03	577047.21	1409486.84	NT1°00'00"E

BASELINE 'A' CURVE DATA							
NO.	FROM	TO	Δ	RADIUS	TANGENT	LENGTH	CHORD BEARING & LENGTH
C1	0+54.04	1+17.68	016°57'58"	215.00'	32.06'	63.64'	N85°28'44"E 63.41'
C2	1+41.51	2+45.61	051°59'15"	60.00'	24.04'	54.01'	N47°46'50"E 52.28'
C3	2+45.61	3+15.02	076°29'09"	52.00'	40.98'	64.42'	N49°34'09"E 64.58'
C4	3+21.27	3+56.01	066°21'06"	50.00'	19.61'	34.74'	N56°48'27"E 32.83'
C5	3+81.44	4+24.03	036°48'28"	48.00'	25.96'	47.59'	N48°45'10"E 45.67'

BASELINE 'B' LINE DATA				
NO.	STATION	NORTHING	EASTING	BEARING
L6	0+00	576881.23	1409128.04	S86°02'22"E
L7	1+25.44	576883.95	1409252.91	NT1°00'00"E
L8	4+05.86	576954.47	1409453.46	N87°15'55"W

BASELINE 'B' CURVE DATA							
NO.	FROM	TO	Δ	RADIUS	TANGENT	LENGTH	CHORD BEARING & LENGTH
C6	0+61.80	1+25.44	016°57'58"	215.00'	32.06'	63.64'	N85°28'44"E 63.41'
C7	3+00.20	4+05.86	114°13'54"	53.00'	81.98'	105.67'	N19°53'03"E 84.02'

BASELINE 'C' LINE DATA				
NO.	STATION	NORTHING	EASTING	BEARING
L9	0+00	576558.27	1409107.23	S86°01'51"E
L10	1+00.06	576563.91	1409198.17	N33°53'54"E
L11	2+56.95	576703.10	1409257.71	N14°05'10"W
L12	3+56.39	576787.61	1409280.69	NT1°04'27"E
L13	6+07.14	576783.17	1409501.00	S12°46'39"E
L14	8+56.58	576580.74	1409589.93	NT1°00'00"E
L15	10+17.28	576662.19	1409787.12	N15°00'00"W

BASELINE 'C' CURVE DATA							
NO.	FROM	TO	Δ	RADIUS	TANGENT	LENGTH	CHORD BEARING & LENGTH
C8	0+38.23	1+00.06	058°04'35"	61.00'	53.87'	61.83'	N62°55'51"E 59.22'
C9	1+44.28	2+14.55	010°44'34"	108.12'	10.17'	20.27'	N19°54'01"E 20.24'
C10	2+14.55	2+56.95	028°28'30"	85.30'	21.64'	42.39'	N00°04'05"E 41.96'
C11	2+41.32	3+56.39	092°59'44"	41.47'	43.44'	67.07'	N51°29'38"E 60.00'
C12	5+16.39	5+54.13	003°14'58"	912.75'	8.87'	17.74'	N78°47'40"E 17.74'
C13	5+34.13	5+40.57	077°04'49"	41.95'	33.42'	56.44'	S58°37'27"E 52.28'
C14	5+40.57	6+07.14	005°23'38"	176.80'	8.28'	16.58'	S14°59'17"E 16.57'
C15	7+78.39	8+56.58	043°52'22"	47.84'	50.95'	78.19'	S54°32'50"E 69.79'
C16	10+21.16	10+17.28	090°00'00"	57.00'	57.00'	58.12'	N52°00'00"E 52.33'

BASELINE 'D' DATA				
NO.	STATION	NORTHING	EASTING	BEARING
L16	0+00	576625.76	1409115.53	S86°03'43"E
L17	1+00.00	576625.76	1409115.53	S86°03'43"E

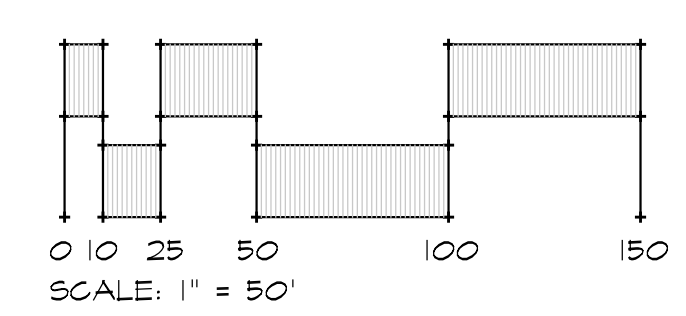
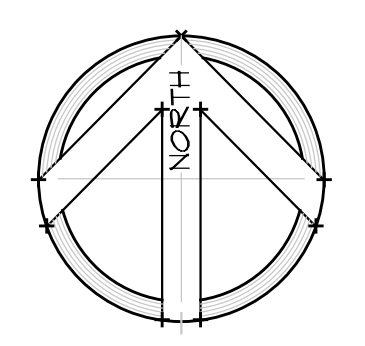
BASELINE 'B'		
NO.	STATION	OFFSET
25	4+07.62	14.47'
26	5+00.20	15.000'
27	1+21.26	15.043'
28	0+85.98	15.043'
29	0+28.31	15.000'
30	0+03.31	42.048'
31	0+03.56	66.626'
32	0+14.23	-15.000'
33	0+04.36	-15.760'
34	3+00.20	-15.000'
35	1+21.26	-15.000'
40	0+61.80	-15.000'
150	1+22.00	20.695'
151	2+41.04	32.000'

BASELINE 'D'		
NO.	STATION	OFFSET
106	0+74.48	17.351'
107	0+24.17	17.308'
108	0+02.81	43.741'
109	0+04.10	-42.208'
110	0+24.07	-17.358'
111	0+40.44	-16.660'

**LEGEND**

- PROPERTY LINE
- EX. CONC. CURB AND GUTTER
- PROP. CONCRETE WALK
- PROP. CURB AND GUTTER
- PROP. ASPHALT PAVING
- PROP. EDGE OF PAVING

- NOTES:
1. ALL STATIONS AND OFFSETS TO FACE OF CURB UNLESS OTHERWISE NOTED.
  2. FOR ADDITIONAL DETAILS SEE SHEETS C-1, 1.2, & 2.1.
  3. PROPOSED CONC. CURB AND GUTTER TO MEET EXISTING CONC. CURB AND GUTTER FOR LINE AND GRADE.
  4. PROPOSED CONC. SIDEWALK TO MEET EXISTING CONC. SIDEWALK FOR LINE AND GRADE.



**GEOMETRY PLAN - PHASE I**  
SCALE: 1" = 50'

**ENGINEERS**  
**PLANNERS**  
**SCIENTISTS**  
**CONSTRUCTION MANAGERS**

**KCI TECHNOLOGIES**

1356 Kensington Blvd.  
Suite 200  
Baltimore, MD 21202  
Telephone: (410) 366-7800  
Fax: (410) 366-7888

PROFESSIONAL CERTIFICATION  
I HEREBY CERTIFY THAT THESE  
DOCUMENTS WERE PREPARED OR  
APPROVED BY ME AND THAT I AM  
A FULLY LICENSED PROFESSIONAL  
ENGINEER UNDER THE LAWS OF  
THE STATE OF MARYLAND  
EXPIRATION DATE: 07/10/17

11/16

11720 Beltsville Drive  
Suite 600  
Calverton, MD 20705  
Tel: 301.595.1000  
www.grimmanparker.com

**GRIMM AND PARKER**

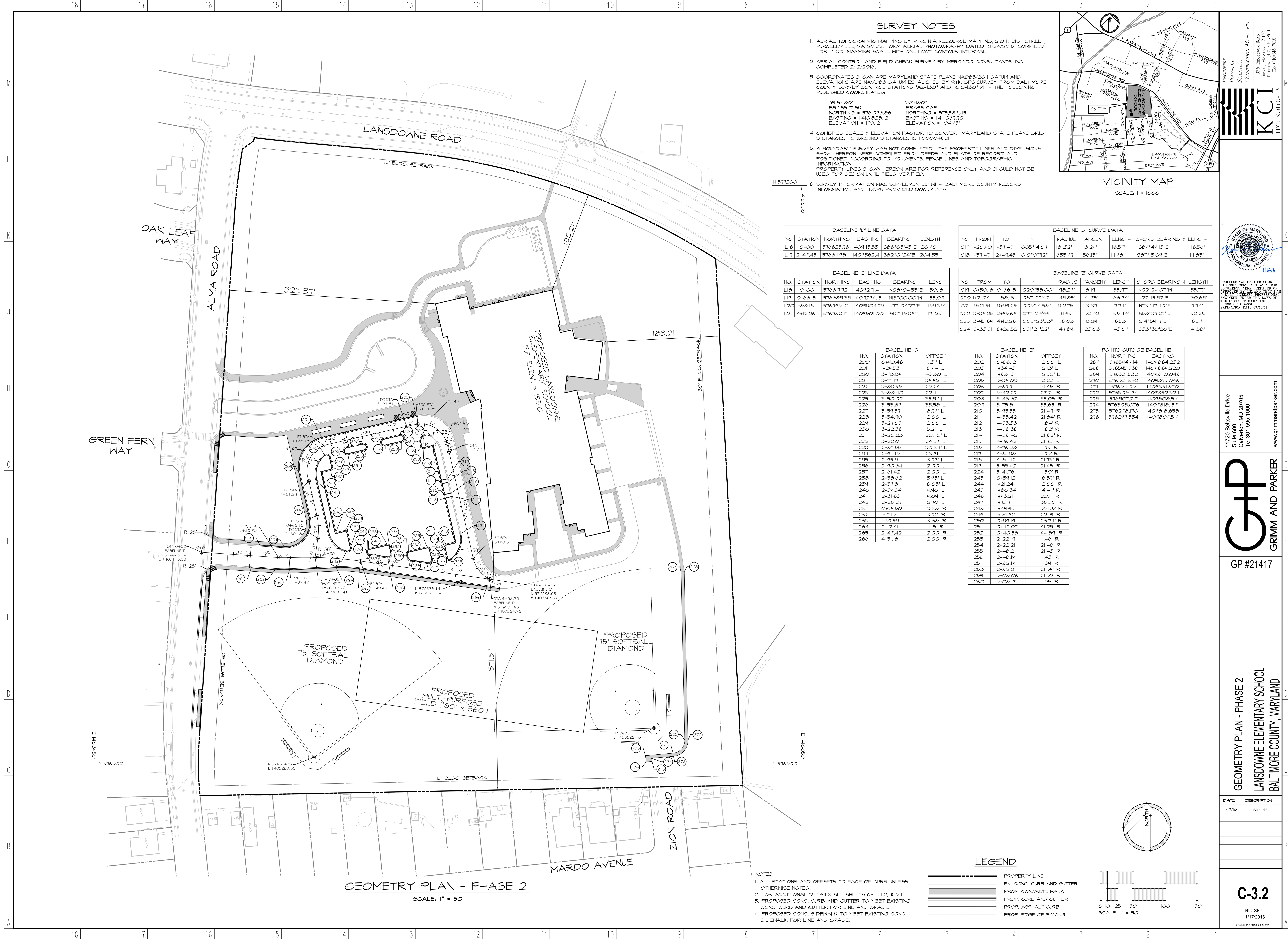
GP #21417

**GEOMETRY PLAN-PHASE 1**  
**LANSDOWNE ELEMENTARY SCHOOL**  
**BALTIMORE COUNTY, MARYLAND**

DATE	DESCRIPTION
11/17/16	BID SET

**C-3.1**  
BID SET  
11/17/2016  
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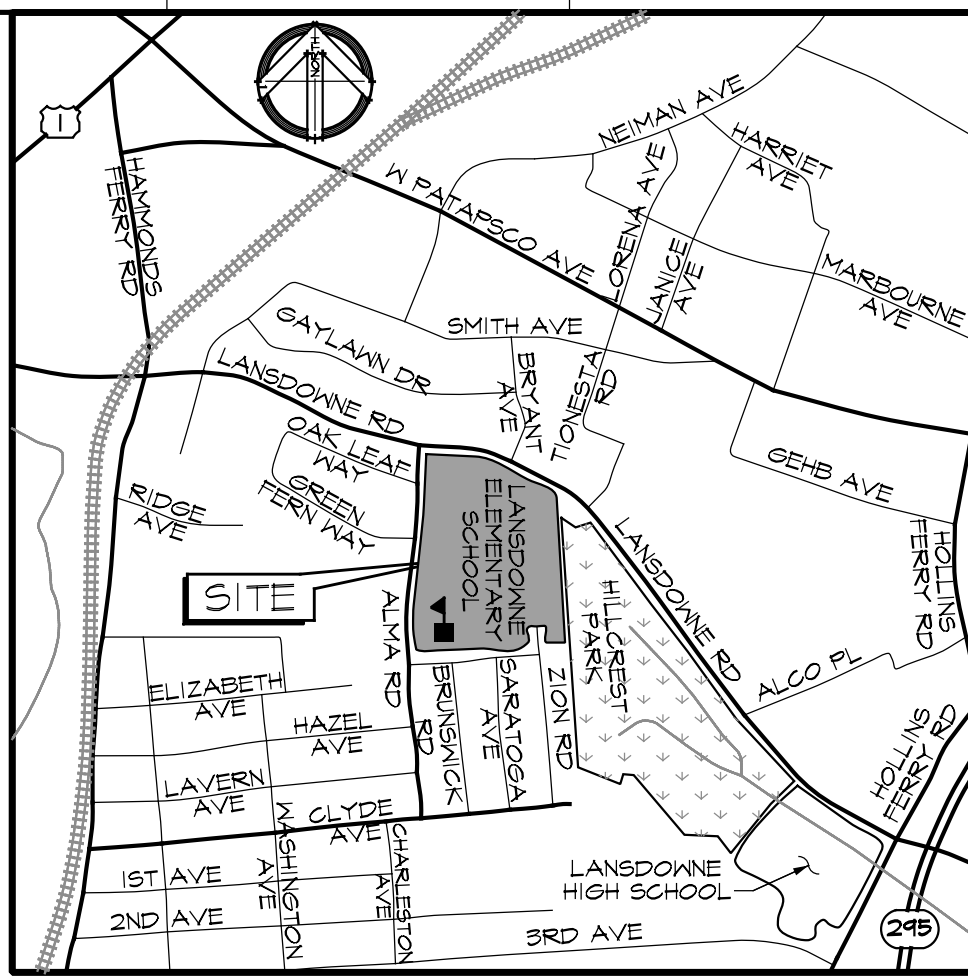
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BY: mcfarlane  
FILE: M:\2015\275994 Drawings\C-3.2 GEOMETRY PLAN - PHASE 2.dgn



### SURVEY NOTES

1. AERIAL TOPOGRAPHIC MAPPING BY VIRGINIA RESOURCE MAPPING, 210 N 21ST STREET, PURCELLVILLE, VA 20132, FROM AERIAL PHOTOGRAPHY DATED 12/24/2015, COMPILED FOR 1"=50' MAPPING SCALE WITH ONE FOOT CONTOUR INTERVAL.
2. AERIAL CONTROL AND FIELD CHECK SURVEY BY MERCADO CONSULTANTS, INC. COMPLETED 2/12/2016.
3. COORDINATES SHOWN ARE MARYLAND STATE PLANE NAD83/2011 DATUM AND ELEVATIONS ARE NAVD83 DATUM ESTABLISHED BY RTK GPS SURVEY FROM BALTIMORE COUNTY SURVEY CONTROL STATIONS "AZ-180" AND "G15-180" WITH THE FOLLOWING PUBLISHED COORDINATES:  

	"G15-180"	"AZ-180"
BRASS DISK	BRASS DISK	BRASS CAP
NORTHING = 576,096.86	NORTHING = 575,589.45	NORTHING = 575,589.45
EASTING = 141,028.12	EASTING = 141,067.70	EASTING = 141,067.70
ELEVATION = 170.12'	ELEVATION = 104.45'	ELEVATION = 104.45'
4. COMBINED SCALE & ELEVATION FACTOR TO CONVERT MARYLAND STATE PLANE GRID DISTANCES TO GROUND DISTANCES IS 1.00004821
5. A BOUNDARY SURVEY HAS NOT COMPLETED. THE PROPERTY LINES AND DIMENSIONS SHOWN HEREON WERE COMPILED FROM DEEDS AND PLATS OF RECORD AND POSITIONED ACCORDING TO MONUMENTS, FENCE LINES AND TOPOGRAPHIC INFORMATION. PROPERTY LINES SHOWN HEREON ARE FOR REFERENCE ONLY AND SHOULD NOT BE USED FOR DESIGN UNTIL FIELD VERIFIED.
6. SURVEY INFORMATION WAS SUPPLEMENTED WITH BALTIMORE COUNTY RECORD INFORMATION AND BCPS PROVIDED DOCUMENTS.



**VICINITY MAP**  
SCALE: 1" = 1000'

BASELINE D' LINE DATA					
NO.	STATION	NORTHING	EASTING	BEARING	LENGTH
L16	0+00	576625.76	1409113.53	S86°03'43"E	120.90'
L17	2+49.45	576611.98	1409362.41	S82°01'24"E	204.33'

BASELINE D' CURVE DATA							
NO.	FROM	TO	Δ	RADIUS	TANGENT	LENGTH	CHORD BEARING & LENGTH
C17	1+20.90	1+37.47	005°14'07"	181.32'	8.29'	16.57'	S89°44'13"E 16.56'
C18	1+37.47	2+49.45	010°07'12"	633.91'	56.13'	111.93'	S87°13'09"E 111.83'

BASELINE E' LINE DATA				
NO.	STATION	NORTHING	EASTING	LENGTH
L18	0+00	576617.12	1409291.41	N08°04'53"E 30.18'
L19	0+66.15	576683.33	1409244.15	N15°00'00"W 55.09'
L20	1+88.18	576793.12	1409304.73	NTT°04'21"E 153.33'
L21	4+12.26	576783.17	1409501.00	S12°46'39"E 171.25'

BASELINE E' CURVE DATA							
NO.	FROM	TO	Δ	RADIUS	TANGENT	LENGTH	CHORD BEARING & LENGTH
C19	0+30.18	0+66.15	020°58'00"	98.29'	18.19'	35.97'	N02°24'07"W 35.77'
C20	1+21.24	1+88.18	087°27'42"	43.85'	41.95'	66.94'	N22°15'32"E 60.63'
C21	3+21.51	3+34.25	003°14'58"	312.75'	8.87'	17.74'	N78°47'40"E 17.74'
C22	3+34.25	3+45.69	077°04'44"	41.95'	33.42'	56.44'	S58°31'21"E 52.28'
C23	3+45.69	4+12.26	005°23'38"	176.08'	8.29'	16.57'	S14°59'17"E 16.57'
C24	5+83.51	6+26.52	051°27'22"	47.89'	23.08'	43.01'	S58°30'20"E 41.58'

BASELINE D'		
NO.	STATION	OFFSET
200	0+40.46	17.51' L
201	1+24.53	16.94' L
220	3+78.89	43.80' L
221	3+77.17	39.42' L
222	3+83.56	23.24' L
223	3+88.40	22.11' L
225	3+50.02	35.31' L
226	3+53.29	33.38' L
227	3+49.27	19.79' L
228	3+54.40	12.00' L
229	3+27.05	12.00' L
230	3+22.38	15.21' L
231	3+20.28	20.70' L
232	3+22.01	24.57' L
235	2+81.55	30.64' L
234	2+91.43	28.91' L
235	2+95.31	18.79' L
236	2+90.64	12.00' L
237	2+61.42	12.00' L
238	2+58.62	5.93' L
239	2+57.81	6.03' L
240	2+59.54	19.90' L
241	2+51.63	19.09' L
242	2+26.27	12.70' L
261	0+79.50	18.68' R
262	1+71.13	18.72' R
265	1+57.53	18.68' R
264	2+12.41	14.15' R
265	2+49.42	12.00' R
266	4+51.18	12.00' R

BASELINE E'		
NO.	STATION	OFFSET
202	0+66.12	12.00' L
203	1+34.43	12.18' L
204	1+88.13	12.50' L
205	3+39.08	13.23' L
206	3+67.71	14.45' R
207	3+42.27	29.21' R
208	3+48.62	35.05' R
209	3+75.81	35.65' R
210	3+45.55	21.49' R
211	4+53.42	21.84' R
212	4+53.38	11.84' R
213	4+58.38	11.82' R
214	4+58.42	21.82' R
215	4+76.42	21.75' R
216	4+76.38	11.75' R
217	4+81.38	11.73' R
218	4+81.42	21.73' R
219	5+53.42	21.45' R
224	5+41.76	11.50' R
243	0+39.12	16.57' R
244	1+21.24	12.00' R
245	1+80.34	14.47' R
246	1+49.21	20.11' R
247	1+75.71	36.50' R
248	1+49.95	36.56' R
249	1+34.92	22.19' R
250	0+39.19	26.74' R
251	0+42.07	41.23' R
252	0+40.58	44.89' R
253	2+22.19	11.46' R
254	2+22.21	21.46' R
255	2+48.21	21.43' R
256	2+48.19	11.43' R
257	2+82.14	11.39' R
258	2+82.21	21.39' R
259	3+08.06	21.32' R
260	3+08.19	11.35' R

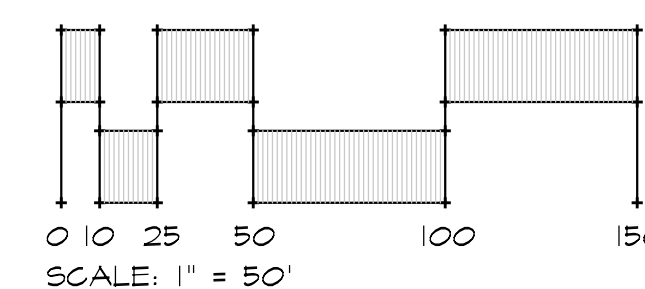
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NO.	NORTHING	EASTING
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268	576545.358	1409869.220
269	576531.552	1409870.048
270	576531.642	1409875.046
271	576531.173	1409851.870
272	576506.194	1409852.324
273	576307.217	1409808.514
274	576505.076	1409818.591
275	576248.170	1409818.638
276	576297.334	1409809.519

### NOTES:

1. ALL STATIONS AND OFFSETS TO FACE OF CURB UNLESS OTHERWISE NOTED.
2. FOR ADDITIONAL DETAILS SEE SHEETS C-1, 12, & 21.
3. PROPOSED CONC. CURB AND GUTTER TO MEET EXISTING CONC. CURB AND GUTTER FOR LINE AND GRADE.
4. PROPOSED CONC. SIDEWALK TO MEET EXISTING CONC. SIDEWALK FOR LINE AND GRADE.

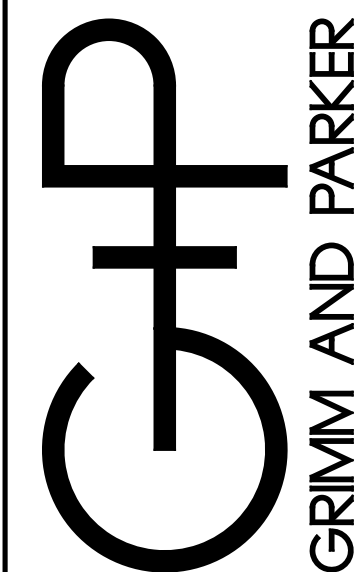
### LEGEND

- PROPERTY LINE
- EX. CONC. CURB AND GUTTER
- PROP. CONCRETE WALK
- PROP. CURB AND GUTTER
- PROP. ASPHALT CURB
- PROP. EDGE OF PAVING



PROFESSIONAL CERTIFICATION  
HEREBY CERTIFY THAT THESE  
DOCUMENTS WERE PREPARED OR  
APPROVED BY ME AND THAT I AM  
A FULLY LICENSED PROFESSIONAL  
ENGINEER UNDER THE LAWS OF  
THE STATE OF MARYLAND.  
LICENSE NO. 5466  
EXPIRATION DATE 07/10/17

11720 Beltsville Drive  
Suite 600  
Calverton, MD 20705  
Tel 301.595.1000  
www.grimmandparker.com



GP #21417

GEOMETRY PLAN - PHASE 2  
LANSDOWNE ELEMENTARY SCHOOL  
BALTIMORE COUNTY, MARYLAND

DATE	DESCRIPTION
11/17/16	BID SET

**C-3.2**  
BID SET  
11/17/2016  
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# SURVEY NOTES

1. AERIAL TOPOGRAPHIC MAPPING BY VIRGINIA RESOURCE MAPPING, 210 N 21ST STREET, PURCELLVILLE, VA 20132, FORM AERIAL PHOTOGRAPHY DATED 12/24/2015, COMPILED FOR 1"=30' MAPPING SCALE WITH ONE FOOT CONTOUR INTERVAL.
2. AERIAL CONTROL AND FIELD CHECK SURVEY BY MERCADO CONSULTANTS, INC. COMPLETED 2/12/2016.
3. COORDINATES SHOWN ARE MARYLAND STATE PLANE NAD83/2011 DATUM AND ELEVATIONS ARE NAVD83 DATUM ESTABLISHED BY RTK GPS SURVEY FROM BALTIMORE COUNTY SURVEY CONTROL STATIONS "AZ-180" AND "G15-180" WITH THE FOLLOWING PUBLISHED COORDINATES:  

STATION	NORTHING	EASTING	ELEVATION
"G15-180"	576,096.86	141,028.12	170.12
"AZ-180"	575,584.45	141,067.70	104.45
4. COMBINED SCALE & ELEVATION FACTOR TO CONVERT MARYLAND STATE PLANE GRID DISTANCES TO GROUND DISTANCES IS 1.00004821.
5. A BOUNDARY SURVEY HAS NOT BEEN COMPLETED. THE PROPERTY LINES AND DIMENSIONS SHOWN HEREON WERE COMPILED FROM DEEDS AND PLATS OF RECORD AND POSITIONED ACCORDING TO MONUMENTS, FENCE LINES AND TOPOGRAPHIC INFORMATION. PROPERTY LINES SHOWN HEREON ARE FOR REFERENCE ONLY AND SHOULD NOT BE USED FOR DESIGN UNTIL FIELD VERIFIED.
6. SURVEY INFORMATION HAS BEEN SUPPLEMENTED WITH BALTIMORE COUNTY RECORD INFORMATION AND BCPS PROVIDED DOCUMENTS.

# GENERAL NOTES

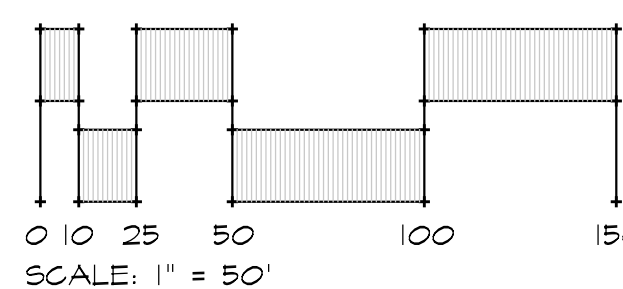
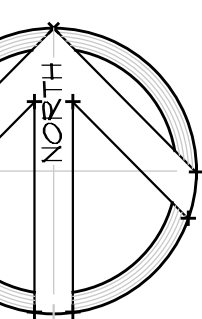
1. OBSTRUCTIONS SHOWN ON THIS DRAWING ARE FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. KCI TECHNOLOGIES, INC. DOES NOT WARRANT OR GUARANTEE THE CORRECTNESS OR THE COMPLETENESS OF THE INFORMATION GIVEN. THE CONTRACTOR MUST VERIFY ALL INFORMATION TO HIS OWN SATISFACTION.
2. CONTRACTOR SHALL CALL "MISS UTILITY" (800-251-7771) AT LEAST FIVE (5) WORKING DAYS PRIOR TO STARTING WORK.
3. CONSTRUCTION OF THE PROPOSED UTILITIES WILL BE IN ACCORDANCE WITH THE BALTIMORE COUNTY PLUMBING CODE AND BY A QUALIFIED CONTRACTOR.
4. NO WORK IS TO COMMENCE UNTIL ALL PERMITS HAVE BEEN OBTAINED.
5. CONTRACTOR SHALL TEST PIT FOR LOCATION OF EXISTING UTILITIES PRIOR TO STARTING CONSTRUCTION.
6. EXISTING CURBS AND GUTTER & CONCRETE SIDEWALK SHALL BE REMOVED TO THE NEAREST JOINT, NO PATCHING SHALL BE PERMITTED.
7. SHOULD THE CONTRACTOR DISCOVER DISCREPANCIES BETWEEN THE PLANS AND FIELD CONDITIONS THE ENGINEER IS TO BE NOTIFIED IMMEDIATELY TO RESOLVE THE SITUATION.
8. ALL CLEANOUTS LOCATED IN PAVED AREAS SHALL HAVE COUNTERSUNK LIDS.
9. CONTRACTOR SHALL COORDINATE THE LOCATION OF THE UNDERGROUND ELECTRIC SERVICE AND THE UNDERGROUND GAS SERVICE WITH THE BALTIMORE COUNTY PLUMBING CODE AND ALL STATE AND LOCAL REQUIREMENTS.
10. CONTRACTOR SHALL ADJUST TOP OF EXISTING UTILITIES, I.E. MANHOLE FRAME AND COVER, INLET GRATES, ETC. TO FINISHED GRADE.
11. SANITARY SEWER LINES OUTSIDE OF THE BUILDING WILL BE PVC CLASS SDR 26.
12. TRENCH REPAIR ON DELVALE AVENUE SHALL BE PER BALTIMORE COUNTY STD. DETAIL R-38.
13. ALL WATER PIPING, TUBING, FITTINGS AND JOINING METHODS SHALL BE ACCORDING TO THE FOLLOWING APPLICATIONS:  
 4" INCHES (DN 100) 8 INCHES (DN 200) 8 INCHES (DN 200), CLASS "D" OR CLASS 250, DUCTILE IRON PIPE, DUCTILE IRON COMPACT FITTINGS AND RECORDING JOINTS WITH RESTRAINING GLANDS.  
 14. SEE PLUMBING PLANS FOR CONTINUATION OF UTILITY CONNECTIONS TO THE BUILDING.  
 15. SEE ELECTRICAL PLANS FOR SITE LIGHTING AND CONDUIT LOCATIONS.  
 16. STORM DRAIN PIPE AND FITTINGS SHALL BE HANGOR BLUE SEAL WATER-TIGHT CORRUGATED POLYETHYLENE PIPE (HDPE) OR APPROVED EQUAL (UNLESS NOTED OTHERWISE), AS MANUFACTURED BY:  
 ADVANCED DRAINAGE SYSTEMS, INC.  
 17. ALL ON SITE FIRE HYDRANTS ARE TO BE PAINTED RED AND FIRE HYDRANTS STREAMER NOZZLE TO FACE.  
 18. ALL EXCAVATION SHALL BE BACKFILLED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS. IN THE EVENT THAT A PORTION OF A UTILITY IS TO BE REMOVED, THE CONTRACTOR SHALL TERMINATE AND CAP TO THE LIMITS.  
 19. THE CONTRACTOR IS RESPONSIBLE FOR PERFORMING ALL WORK SHOWN ON THESE DRAWINGS UNLESS OTHERWISE NOTED.  
 20. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE ENGINEER OF ANY DEVIATION FROM THE PLANS PRIOR TO ANY CHANGE BEING MADE. ANY DEVIATION FROM THIS PLAN WITHOUT WRITTEN AUTHORIZATION FROM THE ENGINEER WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.  
 21. PRIOR TO BEGINNING ANY UTILITY CONSTRUCTION THE CONTRACTOR SHALL VERIFY THAT ALL EXISTING UTILITIES WILL TIE IN WITH PROPOSED UTILITIES AS SHOWN.  
 22. SEE MECHANICAL / ELECTRICAL / PLUMBING PLANS FOR GEOTHERMAL SYSTEM INFORMATION.  
 23. SEE PUBLIC WATER DRAWING, DWG. NO. 2016-183 (SHEET C-10.1 IN THIS SET) FOR PROPOSED WATER METER AND FOR THE ABANDONMENT OF THE EXISTING WATER SERVICE.  
 24. ALL VALVES SHALL BE IN STANDARD CONCRETE VAULTS IN ACCORDANCE WITH BALTIMORE COUNTY STANDARD DETAILS. RESPECTIVELY FOR PROPOSED DRAIN AND SEWER DRAINING DWG. NO. 2016-184 AND 2016-185 (SHEETS C-10.2 - C-10.3 IN THIS SET).  
 25. GEOTHERMAL PIPING TO BE INSTALLED OUTSIDE OF LIMITS OF PROPOSED STORM/RAIN EASEMENTS.

# LEGEND

---	EX. INDEX CONTOUR
---	EX. INTERMEDIATE CONTOUR
---	PROPERTY LINE
---	ADJACENT PROPERTY LINE
---	EX. EASEMENT LINE
---	OVERALL LIMIT OF DISTURBANCE
---	EX. CURB AND GUTTER
---	EX. STORM DRAIN
---	EX. SANITARY SEWER
---	EX. LIMITS OF TREES, BUSHES, & SHRUBS
---	EX. WATER
---	EX. GAS
---	EX. UNDERGROUND ELECTRIC
---	EX. OVERHEAD ELECTRIC
---	EX. UNDERGROUND FIBER OPTIC
---	EX. GAS VALVE
---	EX. SIGN
---	EX. WATER VALVE
---	EX. MANHOLE
---	EX. CLEANOUT
---	EX. FIRE HYDRANT
---	EX. LIGHT POLE
---	EX. INLET
---	EX. POWER POLE
---	EX. TREE
---	EX. WATER METER
---	EX. FENCE
---	PROP. STORM DRAIN
---	PROP. 30" STORM DRAIN
---	PROP. MANHOLE
---	PROP. INLET
---	PROP. WATER
---	PROP. WATER VALVE
---	PROP. PRIVATE FIRE HYDRANT
---	PROP. SANITARY SEWER
---	PROP. STREET LIGHT- SEE MEP PLANS
---	PROP. EASEMENT
---	PROP. ELECTRICAL- SEE MEP PLANS
---	PROP. TELECOM- SEE MEP PLANS

NO.	TYPE	NORTHING	EASTING	REMARKS	TOP EL.	INV. OUT
MH-1	PRECAST DROP MH	576,826.95	140,445.51	SEE PLATE BC STD. D-3.01A	56.68	149.00
MH-2	PRECAST TYPE C MH	576,850.08	140,448.45	SEE PLATE BC STD. D-3.02A	55.63	141.90
MH-3	PRECAST TYPE C MH	576,901.65	140,352.26	SEE PLATE BC STD. D-3.02A	51.60	140.88
MH-4	PRECAST TYPE C MH	576,910.45	140,351.18	SEE PLATE BC STD. D-3.02A	52.41	140.25
MH-5	PRECAST TYPE C MH	577,043.21	140,444.33	SEE PLATE BC STD. D-3.02A	54.30	134.31
MH-6	OMITTED					
MH-7	OMITTED					
MH-8	PRECAST TYPE C MH	577,075.35	140,408.74	SEE PLATE BC STD. D-3.02A	55.45	138.40
MH-9	PRECAST TYPE C MH	577,081.11	140,415.09	SEE PLATE BC STD. D-3.02A	52.19	131.50
MH-10	STD. JUNCTION BOX	577,091.28	140,414.28	SEE SH-1 STD. NO. MD 386.11	142.00	91.04
MH-11	PRECAST TYPE A MH	576,704.67	140,456.04	SEE PLATE BC STD. D-3.01	52.60	147.64
MH-12	PRECAST TYPE B MANHOLE	576,725.64	140,446.11	SEE PLATE BC STD. D-3.05	52.86	148.70
MH-13	PRECAST TYPE A MH	577,020.33	140,434.15	SEE PLATE BC STD. D-3.01	148.44	137.60
MH-14	PRECAST TYPE A MH	576,848.74	140,482.14	SEE PLATE BC STD. D-3.01	55.00	134.50
MH-15	OMITTED					
MH-16	PRECAST TYPE A MH	576,854.45	140,455.61	SEE PLATE BC STD. D-3.01	55.14	142.00
MH-17	PRECAST TYPE A MH	576,842.31	140,467.20	SEE PLATE BC STD. D-3.01	55.02	144.00
MH-18	PRECAST TYPE A MH	577,036.36	140,455.08	SEE PLATE BC STD. D-3.01	54.21	50.60
MH-19	PRECAST TYPE A MH	576,747.14	140,455.08	SEE PLATE BC STD. D-3.01	55.50	55.48
I-1	DOUBLE 'S' INLET	576,759.34	140,484.81	SEE PLATE BC STD. D-3.1A	149.00	142.15
I-2	SINGLE 'S' INLET	576,824.90	140,411.58	SEE PLATE BC STD. D-3.1A	50.00	145.25
I-3	DOUBLE 'S' INLET	577,011.91	140,375.20	SEE PLATE BC STD. D-3.1A	147.00	145.50
I-4	DOUBLE 'S' INLET	577,043.46	140,380.06	SEE PLATE BC STD. D-3.1A	57.40	140.90
I-5	DOUBLE 'S' INLET	577,022.26	140,392.14	SEE PLATE BC STD. D-3.1A	147.50	143.10
I-6	DOUBLE 'S' INLET	577,044.55	140,374.04	SEE PLATE BC STD. D-3.1A	51.50	148.50
I-7	SINGLE 'S' INLET	577,011.01	140,460.51	SEE PLATE BC STD. D-3.1A	50.00	145.25
I-8	SINGLE 'S' INLET	577,085.15	140,355.66	SEE PLATE BC STD. D-3.1A	144.00	142.25
I-9	DOUBLE 'S' COMBINATION	576,802.50	140,352.10	SEE PLATE BC STD. D-3.20	52.41	144.00
I-10	DOUBLE 'S' COMBINATION	576,804.80	140,355.02	SEE PLATE BC STD. D-3.20	51.61	147.14
I-11	DOUBLE 'S' COMBINATION	576,802.20	140,371.34	SEE PLATE BC STD. D-3.20	50.05	147.60
I-12	DOUBLE 'S' COMBINATION	576,845.64	140,365.96	SEE PLATE BC STD. D-3.20	51.05	148.70
I-13	DOUBLE 'S' COMBINATION	576,842.05	140,424.05	SEE PLATE BC STD. D-3.20	51.14	148.40
I-14	DOUBLE 'S' COMBINATION	576,762.86	140,444.96	SEE PLATE BC STD. D-3.20	52.73	147.15
I-15	DOUBLE 'S' COMBINATION	576,741.25	140,353.86	SEE PLATE BC STD. D-3.20	52.73	144.75
I-16	DOUBLE 'S' INLET	576,752.25	140,401.51	SEE PLATE BC STD. D-3.1A	51.50	147.10
I-17	DOUBLE 'S' INLET	576,841.44	140,474.04	SEE PLATE BC STD. D-3.1A	51.70	142.70
I-18	DOUBLE 'S' INLET	576,697.58	140,460.22	SEE PLATE BC STD. D-3.1A	54.75	50.60
I-19	DOUBLE 'S' INLET	576,591.46	140,418.14	SEE PLATE BC STD. D-3.1A	50.00	144.80
I-20	DOUBLE 'S' INLET	576,544.18	140,405.84	SEE PLATE BC STD. D-3.1A	52.42	148.60
I-21	OMITTED					
I-22	DOUBLE 'S' COMBINATION	577,011.14	140,374.64	SEE PLATE BC STD. D-3.20	55.00	149.50
I-23	DOUBLE 'S' COMBINATION	576,815.39	140,361.59	SEE PLATE BC STD. D-3.20	56.14	142.00
ES-1	END SECTION	576,751.53	140,288.21	SEE PLATE BC STD. D-1.0	147.00	
ES-2	END SECTION	577,041.30	140,465.45	SEE PLATE BC STD. D-1.0	148.00	
ES-3	END SECTION	576,714.84	140,325.29	SEE PLATE BC STD. D-1.0	147.00	
ES-4	END SECTION	576,846.85	140,380.67	SEE PLATE BC STD. D-1.0	148.20	
ES-5	END SECTION	577,044.26	140,372.85	SEE PLATE BC STD. D-1.0	144.20	
CO A	CLEANOUT	576,740.64	140,360.46	SEE DETAIL SHEET C-1.3	54.62	51.34
CO B	CLEANOUT	577,005.58	140,425.65	SEE DETAIL SHEET C-1.3	54.50	149.51
CO C	CLEANOUT	577,075.21	140,457.85	SEE DETAIL SHEET C-1.3	53.35	148.45
CO D	CLEANOUT	577,040.32	140,393.97	SEE DETAIL SHEET C-1.3	54.56	50.34
CO E	CLEANOUT	576,465.24	140,175.20	SEE DETAIL SHEET C-1.3	54.21	51.40

NO.	TYPE	NORTHING	EASTING	REMARKS	TOP EL.	INV. OUT
SMH-1	PRECAST TYPE A-2 MH	577,024.26	140,461.50	SEE PLATE BC STD. S-4	52.42	140.26
SMH-2	PRECAST TYPE A-2 MH	577,075.35	140,481.20	SEE PLATE BC STD. S-4	53.72	142.45
SMH-3	PRECAST TYPE A-2 MH	577,056.28	140,456.68	SEE PLATE BC STD. S-4	54.34	142.45
SMH-4	PRECAST TYPE A-2 MH	577,050.75	140,655.05	SEE PLATE BC STD. S-4	52.21	136.45
CO-1	CLEANOUT	577,044.15	140,555.36	SEE DETAIL SHEET C-1.3	54.67	
CO-2	CLEANOUT	577,048.28	140,646.70	SEE DETAIL SHEET C-1.3	54.02	142.80
CO-3	CLEANOUT	577,045.50	140,646.84	SEE DETAIL SHEET C-1.3	54.14	51.41
CO-4	CLEANOUT	577,041.55	140,646.55	SEE DETAIL SHEET C-1.3	54.12	51.34
CO-5	CLEANOUT	577,062.42	140,646.55	SEE DETAIL SHEET C-1.3	54.24	50.48
CO-6	CLEANOUT	577,044.14	140,627.11	SEE DETAIL SHEET C-1.3	54.28	50.45



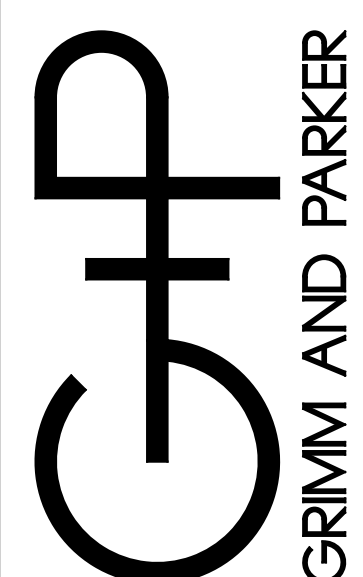
C-4.1

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EXPIRATION DATE 07/10/17

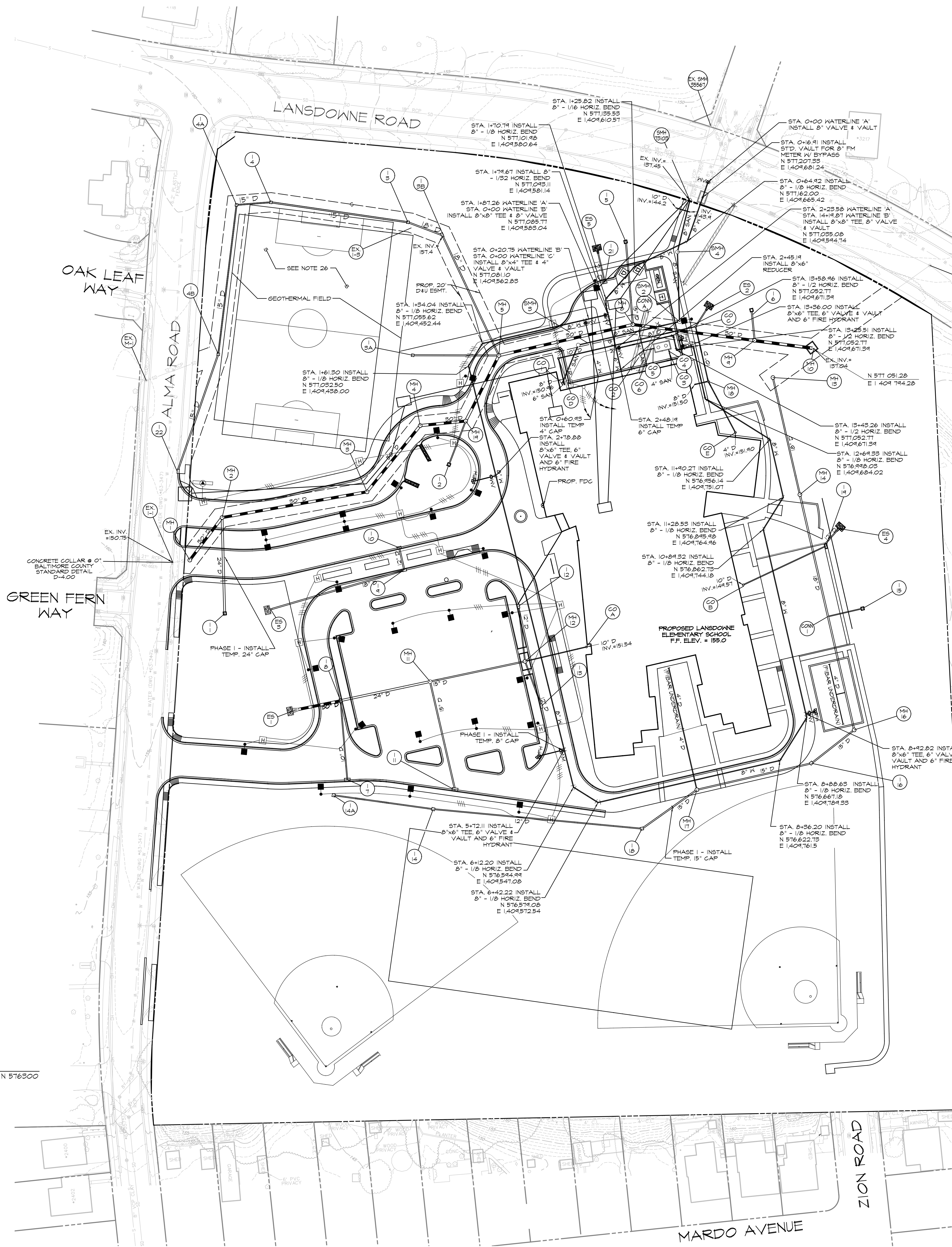
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GP #21417

UTILITY PLAN  
LAUSDOWNE ELEMENTARY SCHOOL  
BALTIMORE COUNTY, MARYLAND

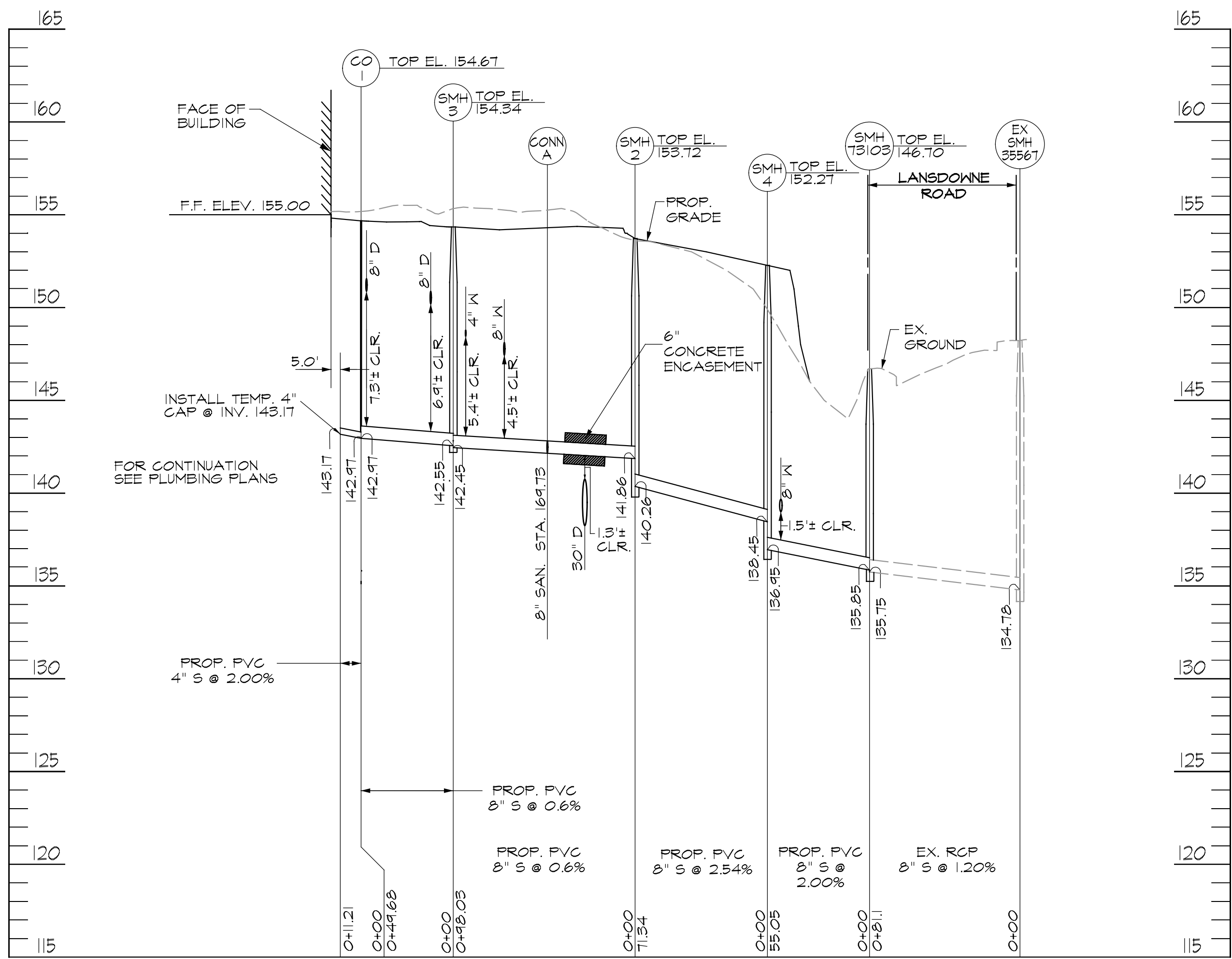
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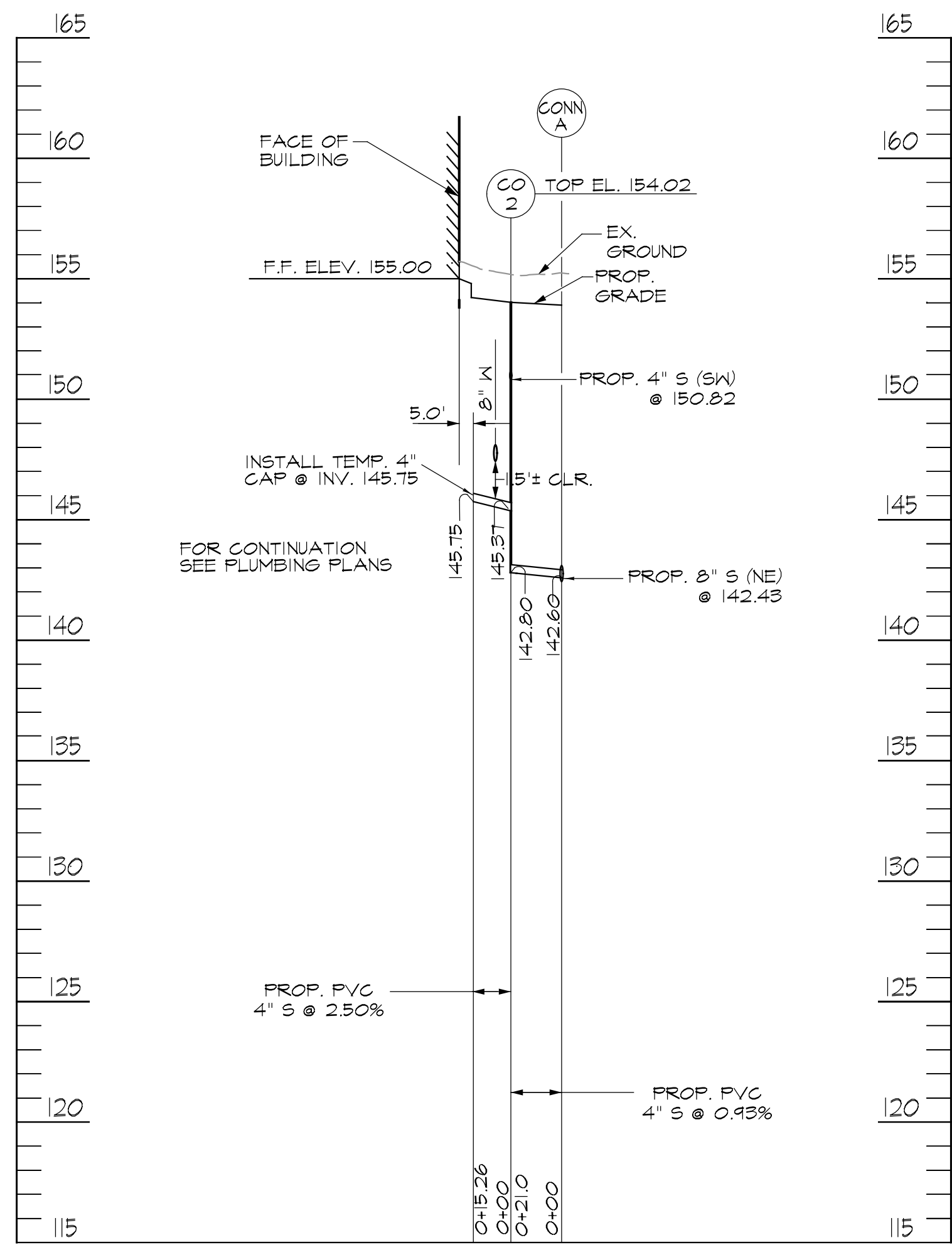
# UTILITY PLAN

SCALE: 1" = 50'

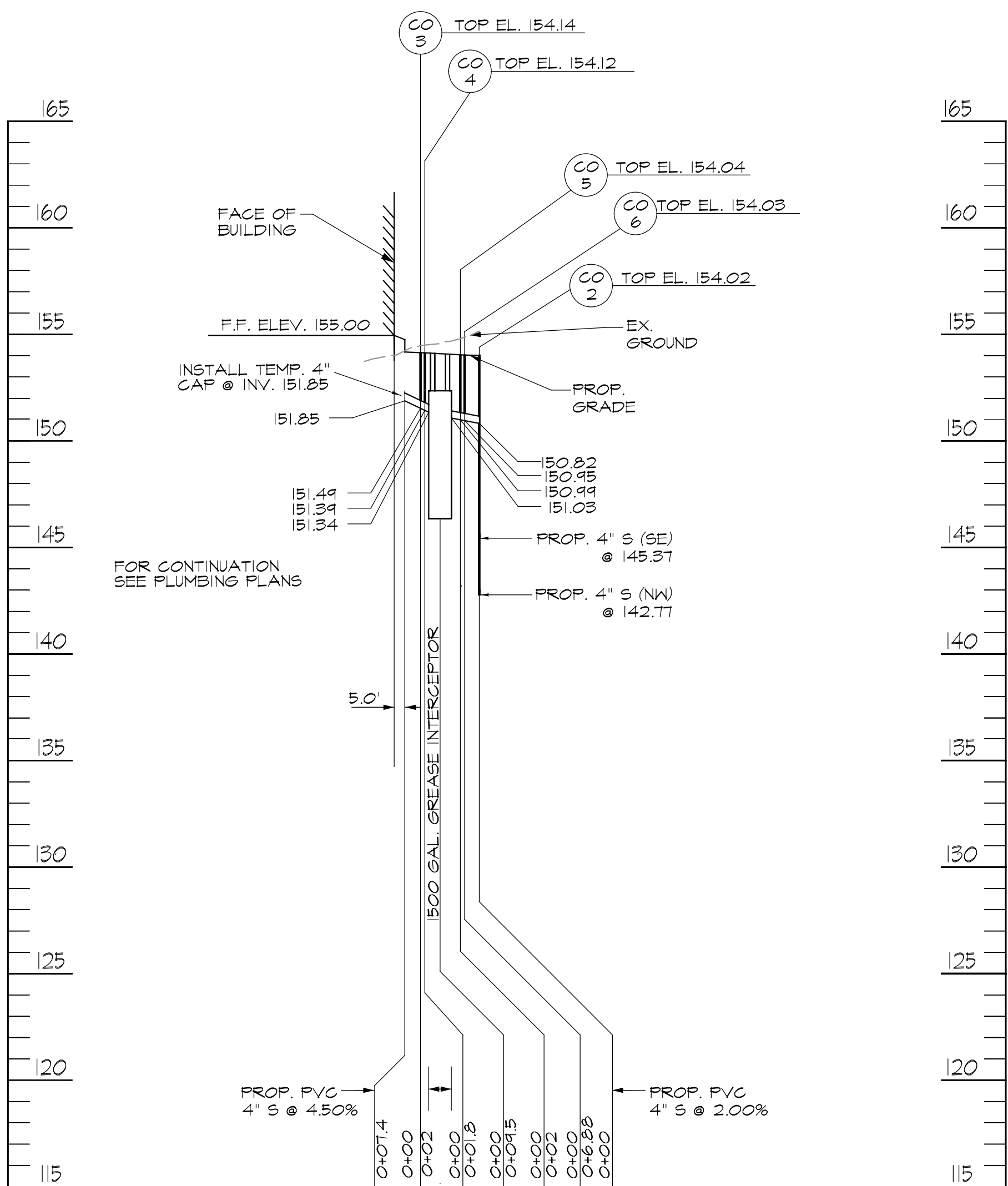




SANITARY SEWER PROFILES  
SCALE: HORIZ. 1"=50'  
VERT. 1"=5'



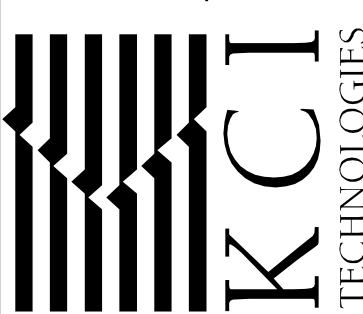
SANITARY SEWER PROFILES  
SCALE: HORIZ. 1"=50'  
VERT. 1"=5'



SANITARY SEWER PROFILES  
SCALE: HORIZ. 1"=50'  
VERT. 1"=5'

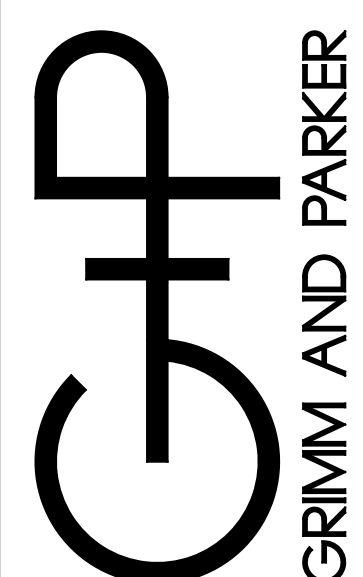
NOTES:  
1. SANITARY SEWER PIPING TO BE  
INSTALLED AT ELEVATIONS NOTED  
ON THE PROFILES. SLOPES SHOWN  
ARE APPROXIMATE.

ENGINEERS  
PLANNERS  
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CONSTRUCTION MANAGERS  
9345 Beltsville Road  
Suite 600  
Calverton, Maryland 20705  
Telephone: (410) 367-7800  
Fax: (410) 367-7818



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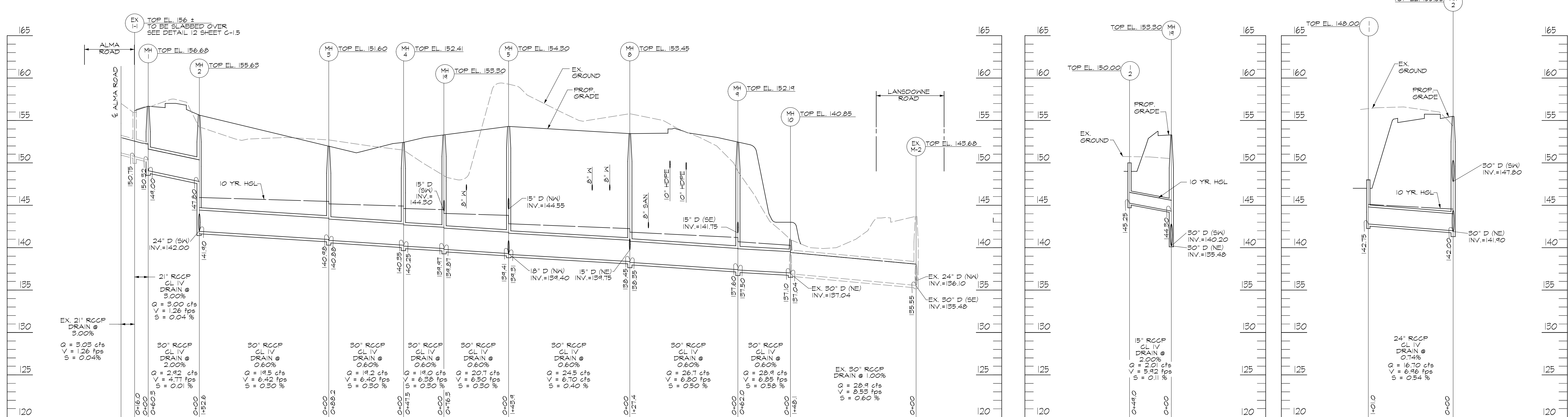
GP #21417

UTILITY PROFILES  
LANSDOWNE ELEMENTARY SCHOOL  
BALTIMORE COUNTY, MARYLAND

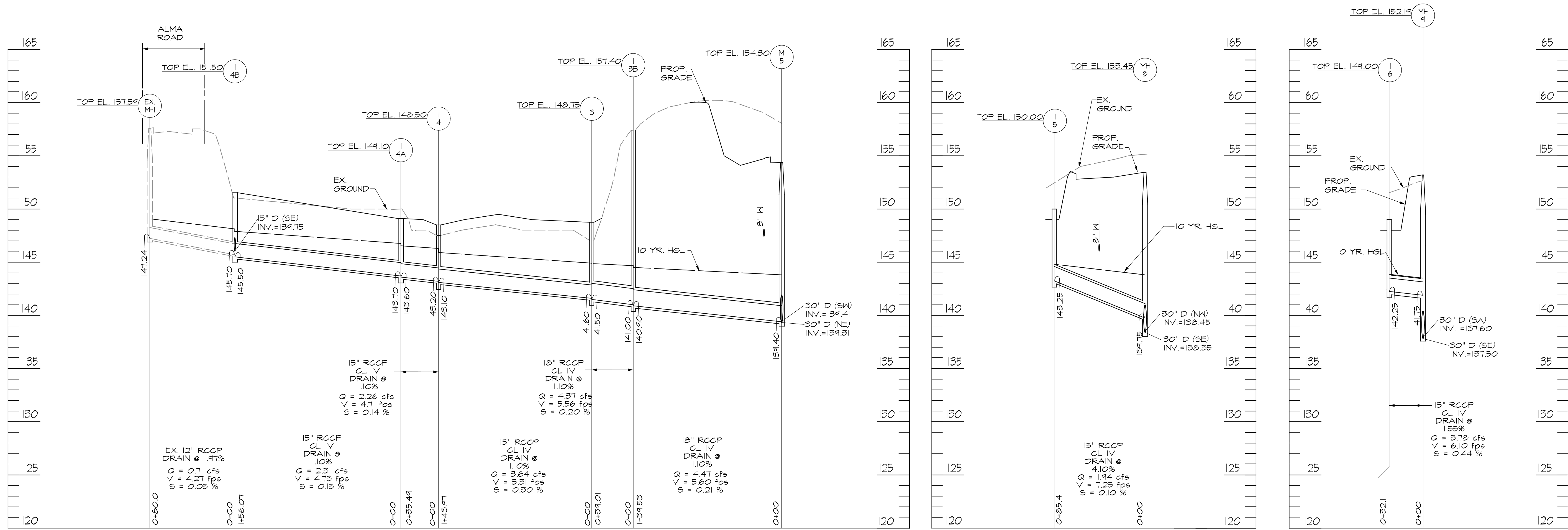
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11/17/2016 11:08:45 AM on Friday, November 11, 2016  
BY: ERMING GENESE  
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STORM DRAIN PROFILES  
SCALE: HORIZ. 1"=50'  
VERT. 1"=5'



STORM DRAIN PROFILES  
SCALE: HORIZ. 1"=50'  
VERT. 1"=5'

ALTERNATE NOTE:  
1. ALTERNATE NO. 2: PROVIDE REINFORCED CONCRETE STORM DRAIN PIPING IN LIEU OF HDPE PIPING IN ALL NON-PAVED AREAS AS SHOWN ON THE BID DOCUMENT. BASE BID: HDPE STORM DRAIN INCLUDES PIPING IN ALL NON-PAVED AREAS WITHIN THE PRIVATE STORM DRAIN SYSTEM.

NOTES:  
1. STORM DRAIN PIPING TO BE INSTALLED AT ELEVATIONS NOTED ON THE PROFILES AND AT A MINIMUM OF 0.50% SLOPE. SLOPES SHOWN ARE APPROXIMATE.

ENGINEERS  
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Suite 600  
Calverton, Maryland 20705  
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Fax: (410) 367-7818

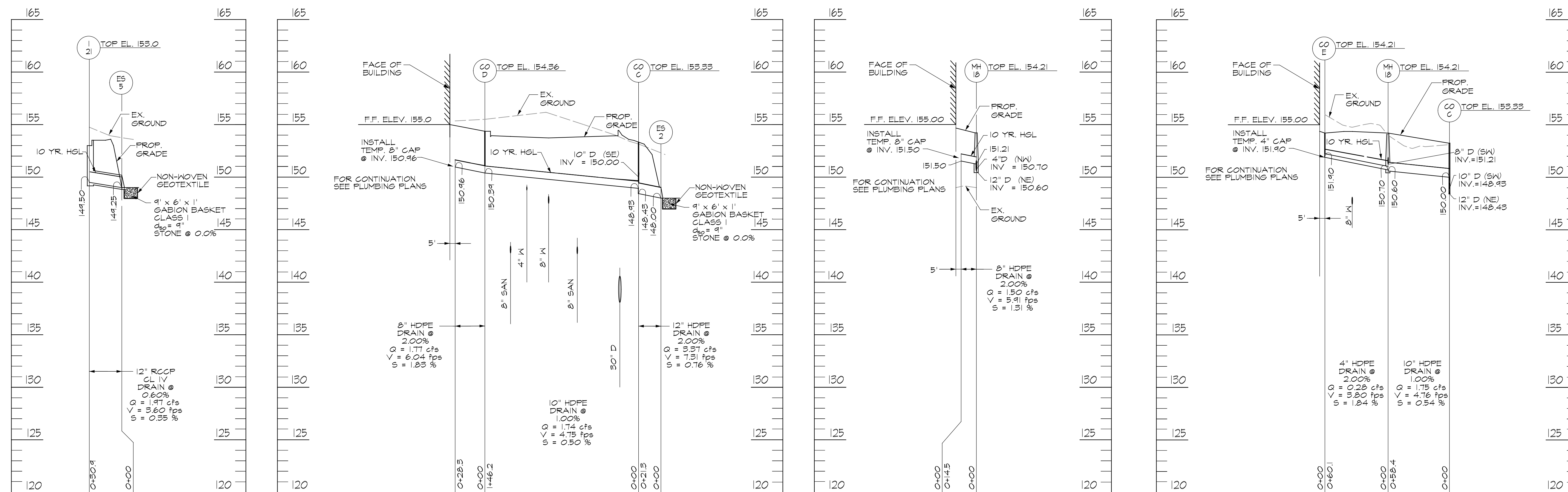
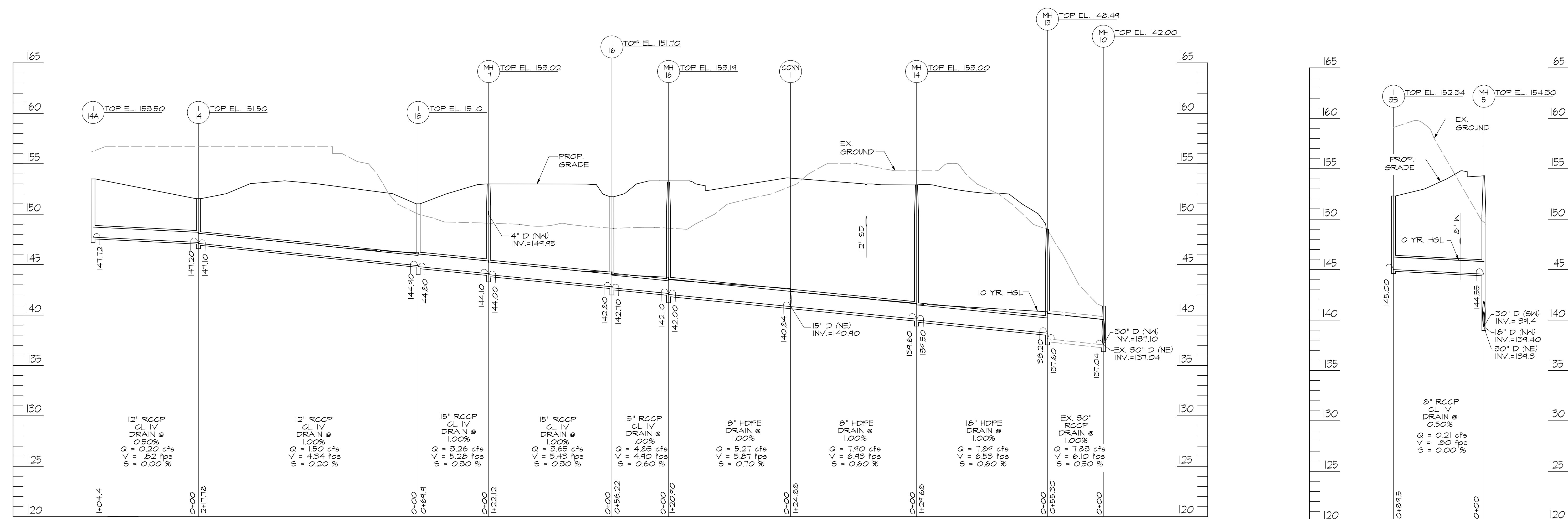
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EXPIRATION DATE 07/10/17

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UTILITY PROFILES  
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DATE	DESCRIPTION
11/17/16	BID SET

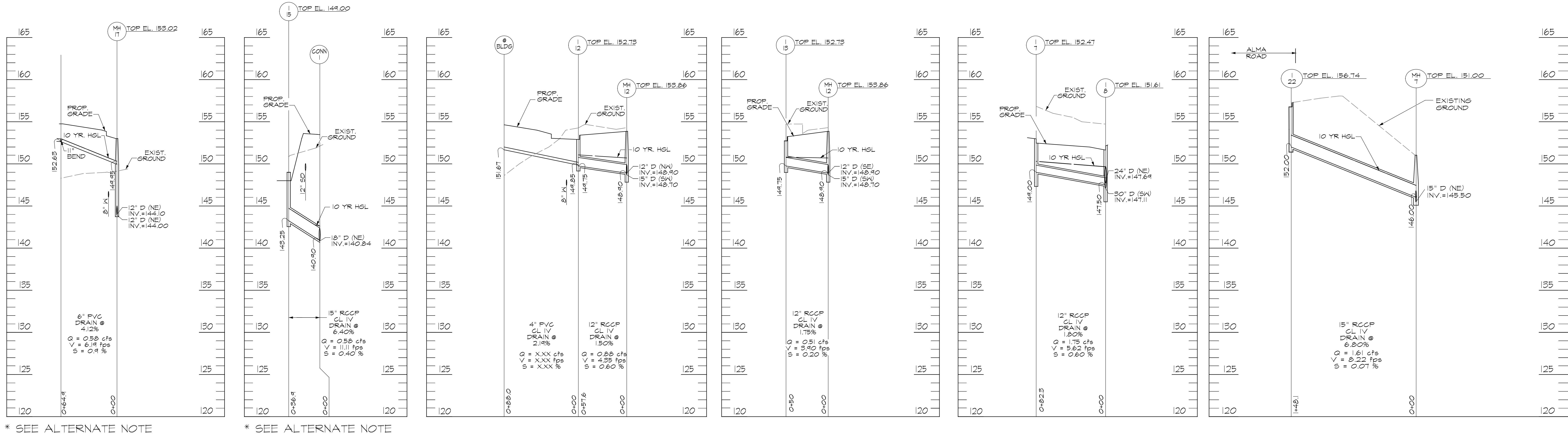
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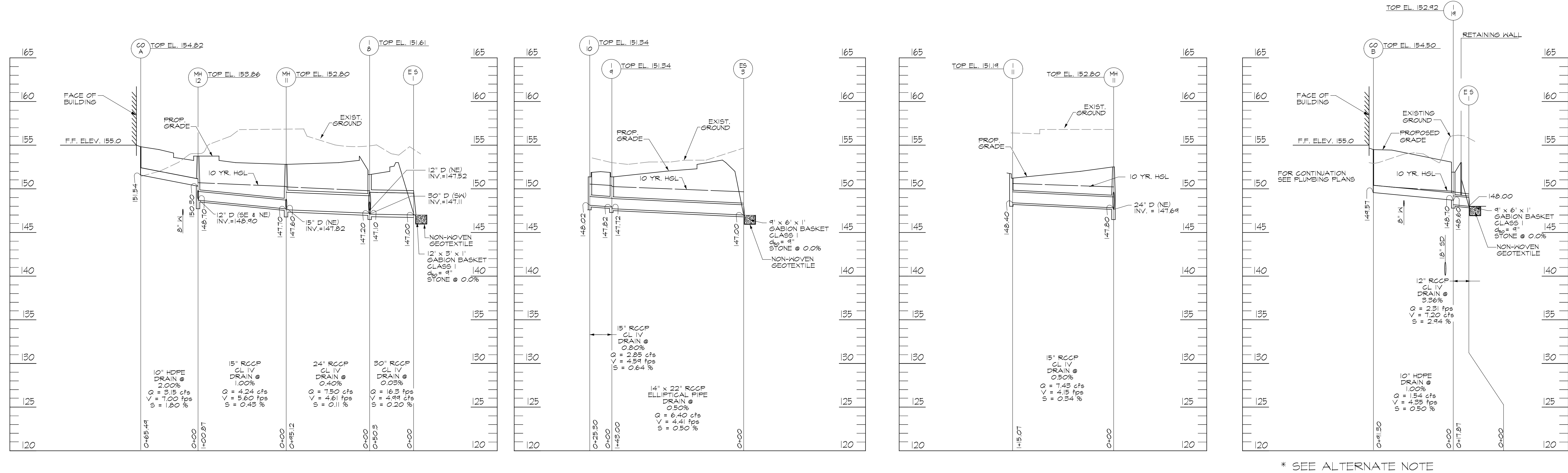
ALTERNATE NOTE:

NOTES:

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 BY: ERMINGHOUSE  
 FILE: M:\2015\275994 Drawings\1-C-4.6-UTILITY\_PROFILES.dgn



STORM DRAIN PROFILES  
 SCALE: HORIZ. 1" = 50'  
 VERT. 1" = 5'



ALTERNATE NOTE:  
 1. ALTERNATE NO. II: PROVIDE REINFORCED CONCRETE STORM DRAIN PIPING IN LIEU OF HDPE PIPING IN ALL NON-PAVED AREAS AS SHOWN ON THE BID DOCUMENT. BASE BID: HDPE STORM DRAIN INCLUDES PIPING IN ALL NON-PAVED AREAS WITHIN THE PRIVATE STORM DRAIN SYSTEM.

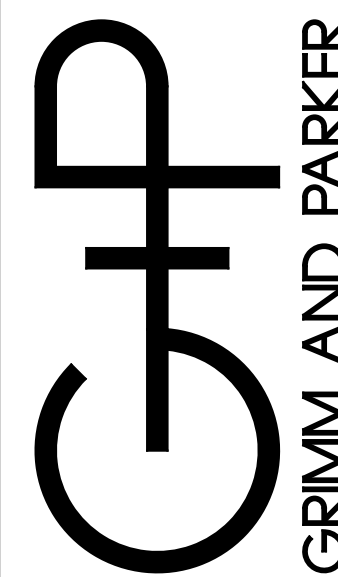
NOTES:  
 1. STORM DRAIN PIPING TO BE INSTALLED AT ELEVATIONS NOTED ON THE PROFILES AND AT A MINIMUM OF 0.50% SLOPE. SLOPES SHOWN ARE APPROXIMATE.

STORM DRAIN PROFILES  
 SCALE: HORIZ. 1" = 50'  
 VERT. 1" = 5'

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UTILITY PROFILES  
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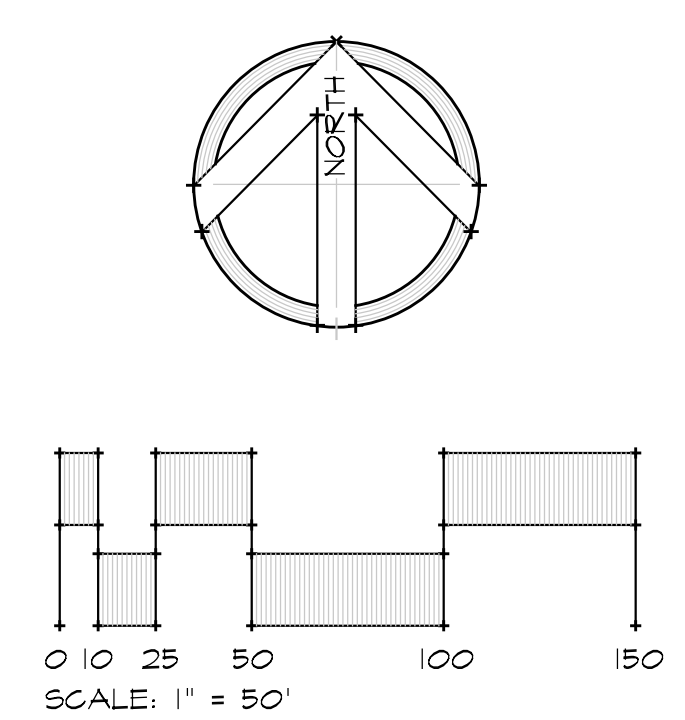


STORM DRAIN DRAINAGE AREA MAP  
SCALE: 1" = 50'

STORM DRAIN				DESIGN DATA													
LOCATION		"AREA"	ACRES	"C"	"CA"	Σ CA	TIME INLET	CONC. DRAIN	MIN. TOTAL	"I"	"O" (c.f.s.)	PIPE SIZE	N+0.014 SLOPE	10 YEAR DESIGN UNLESS NOTED	REMARKS		
FROM	TO		SUB TOTAL											VEL. FTH			
ROOF	M-15	A	0.55		0.85	0.47	5.0	-	5.0	6.7	3.15	10"	2.0	7.00	64.5'	n=0.012 0.2	
	M-12	B	0.20		0.54	0.13	5.0	-	5.0	7.5	0.88	12"	1.5	4.12	57.6'	20 YR. 0.2	
	M-12	C	0.35		0.67	0.07	5.0	-	5.0	7.5	0.51	12"	1.75	3.90	49.5'	20 YR. 0.2	
	M-12	M-11	A-C	0.86		0.66	5.0	0.2	5.2	6.64	4.24	15"	1.0	5.60	101'	0.3	
	M-11	D	0.64		0.80	0.51	5.0	-	5.0	7.5	3.74	15"	0.5	4.15	135.1'	20 YR. 0.2	
	M-11	M-10	A-D	1.5		1.22	5.0	0.5	5.7	6.49	7.50	24"	0.40	4.61	93.1'	0.3	
	M-10	E	0.46		0.85	0.34	5.0	-	5.0	7.5	2.85	12"	0.80	4.59	24.2'	20 YR. 0.1	
	M-9	F	0.62		0.80	0.50	5.0	-	5.0	7.5	3.65					20 YR.	
	M-9	E+F		1.08		0.96	5.0	0.1	5.1	6.67	6.4	18"	0.44	4.47	50.8'	0.6	
	M-7	G	0.47		0.5	0.24	5.0	-	5.0	7.5	1.75	10"	1.80	5.62	82.3'	20 YR. 0.2	
	M-6	H	0.14		0.66	0.09	5.0	-	5.0	7.5	0.66					20 YR.	
	M-5	A-H	3.19		2.54	0.7	5.0	0.3	6.0	6.4	16.3	30"	0.3	4.99	50.5'	0.1	
	BIO-3	I	0.41		0.20	0.08	5.0	-	5.0	6.7	0.55						
	M-2	A-I	3.6		2.62	0.1	6.1	6.37	16.7	24"	0.74	6.96	101'		0.2		
EX. I-1A	EX. I-1	I	0.53		0.85	0.45	5.0	-	5.0	6.7	3.03					FD 80-0876	
EX. I-1	M-1	I	0.53		0.85	0.45	5.0	0.5	5.5	6.55	2.94	21"	3.00	1.26	16.0'	0.2	
	M-2	I	0.53		0.85	0.45	5.5	0.2	5.7	6.44	2.92	30"	2.00	5.55	60.3'	0.2	
	M-2	M-3	A-I	4.13		3.07			6.13	6.36	19.5	30"	0.60	6.42	153'	0.4	
	M-3	M-4	A-I	4.13		3.07	6.13	0.4	6.53	6.24	19.2	30"	0.60	6.40	88.2'	0.2	
	M-4	M-19	A-I	4.13		3.07	6.53	0.2	6.73	6.18	19.0	30"	0.60	6.38	47.5'	0.12	
	M-2	M-19	J	0.46		0.65	5.0	-	5.0	6.7	2.01	15"	2.00	5.66	49'	0.14	
	M-19	M-5	A-J	4.59		3.37	6.73	0.12	6.85	6.15	20.7	30"	0.60	6.50	76.3'	0.2	
	M-7	3	0.28		0.85	0.24	5.0	-	5.0	6.7	1.61	15"	6.80	8.22	148'	0.3	
EX. M-1	M-7	2	0.53		0.20	0.11	5.0	-	5.0	6.7	0.71	12"	1.97	4.3	80'	FD 92-0027	
	M-7	M-6	2-3	0.81		0.35	5.0	0.3	5.3	6.61	2.31	15"	1.10	4.73	156.1'	0.5	
	M-6	M-4	2-3	0.81		0.35	5.3	0.5	5.8	6.46	2.26	15"	1.10	4.71	35.5'	0.13	
	M-4	K	0.87		0.2	0.17	6.67	-	6.67	7.0	6.7	1.19				20 YR.	
	M-4	2-K	1.68		0.52	0.67	-	6.67	6.7	3.64	15"	1.10	5.54	144'	0.4		
	M-3	L	1.00		0.2	0.20	5.0	-	5.0	7.5	1.46					20 YR.	
	EX. I-2	2-L	2.68		0.72	0.67	0.5	7.17	6.07	4.37	18"	1.10	5.56	39.2'	0.12		
EX. I-2	M	0.09		0.2	0.02	0.02	5.0	-	5.0	7.5	0.15					20 YR.	
EX. I-2	M-5	2-M	2.77		0.74	7.17	0.12	7.29	6.04	4.47	18"	1.10	5.60	140'	0.4		
	M-5	M-8	A-M	7.56		4.11	7.29	0.4	7.69	5.96	24.5	30"	0.60	6.70	144'	0.4	
	M-2	N	0.32		0.85	0.27	5.0	-	5.0	7.5	1.97	12"	0.60	3.60	31'	20 YR. 0.14	
	M-2	O	0.12		0.2	0.024	5.0	-	5.0	6.7	0.16						
	M-8	N-O	0.44		0.29	5.14	0.14	5.14	6.68	1.94	15"	4.1	7.25	85.4'	0.2		
	M-8	M-9	A-O	7.80		4.40	7.69	0.4	8.09	6.07	26.7	30"	0.60	6.80	127.4'	0.3	
ROOF	CO-D	P	0.31		0.85	0.26	5.0	-	5.0	6.7	1.77	8"	2.0	6.04	28.3'	n=0.012 0.08	
CO-D	CO-C	P	0.31		0.26	5.0	0.08	5.08	6.69	1.74	10"	1.00	4.75	146'	n=0.012 0.06		
CO-E	M-10	R	0.05		0.85	0.45	5.0	-	5.0	6.7	0.28	4"	2.0	3.80	60'	n=0.012 0.26	
ROOF	M-10	Q	0.26		0.85	0.22	5.0	-	5.0	6.7	1.50	8"	2.0	5.91	14.5'	n=0.012 0.08	
M-10	CO-C	R-Q	0.31		0.26	5.0	0.3	5.3	6.58	1.75	10"	1.00	4.76	58.4'	n=0.012 0.6		
CO-C	BIO-1	P-Q	0.62		0.33	5.3	0.6	5.9	6.38	3.37	12"	2.00	7.31	21.3'	n=0.012 0.1		
	BIO-1	S	0.24		0.27	0.07	5.0	-	5.0	6.7	0.50						
	M-9	P-S	0.86		0.59	5.9	0.1	6.0	6.4	3.78	15"	1.55	6.10	32.1'	0.1		
	M-9	M-10	A-S	8.66		5.0	8.09	0.31	8.40	5.78	28.9	30"	0.60	6.85	62.0'	0.15	
	M-10	T	1.48		0.2	0.3	14.5	-	14.5	5.0	4.6	150	12"	1.0	4.54	218'	20 YR. 0.8
	M-10	U	1.72		0.2	0.43	9.8	-	9.8	5.9	5.4	251	12"	1.0	5.28	69.9'	20 YR.
	M-17	T-U	3.2		0.73	14.5	0.8	15.3	4.47	3.26	15"	1.0	5.28	69.9'	0.2		
	M-17	V	0.09		0.2	0.08	5.0	-	5.0	7.5	0.58	10"	2.5	4.72	66.5'	20 YR. 0.2	
	M-17	T-V	3.29		0.82	15.3	0.2	15.5	4.45	3.65	15"	1.0	5.43	122.1'	0.4		
	M-16	K	0.72		0.23	0.17	12.1	-	12.1	5.4	5.0	0.91				20 YR.	
	M-16	T-N	4.01		1.01	15.3	0.4	15.9	4.81	4.85	15"	1.0	4.90	69.8'	0.2		
	M-16	CONN-1	4.01		1.01	15.9	0.2	16.1	4.79	5.27	18"	1.0	5.87	96.8'	0.2		
	M-20	M-15	X	0.18		0.79	0.14	5.0	-	5.0	6.7	0.95	10"	0.8	3.57	173'	0.8
ROOF	M-15	Y	0.27		0.85	0.23	5.0	-	5.0	6.7	1.54	10"	1.0	4.55	91.3'	0.4	
	M-15	Z	0.17		0.72	0.12	5.0	-	5.0	6.7	0.82						
	M-15	Y+Z	0.44		0.35	5.0	0.4	5.4	6.6	2.31	12"	1.0	4.83	19.4'	0.4		
	M-15	ES-4	X-Z	0.62		0.49	5.4	0.4	5.8	6.46	3.17	12"	1.0	5.13	5.3'		
	BIO-2	AA	0.28		0.33	0.27	5.0	-	5.0	6.7	1.00						
	M-15	CONN-1	X-AA	0.9		0.64	5.8	-	5.8	6.46	4.13	15"	6.4	11.11	36.9'	0.1	
CONN-1	M-14	T-AA	4.91		1.65	16.1	-	16.1	4.79	7.90	18"	1.0	6.53	125'	0.1		
	M-14	M-13	T-AA	4.91		1.65	16.1	0.1	16.2	4.78	7.89	18"	1.0	6.53	130'	0.3	
	M-13	M-10	T-AA	4.91		1.65	16.2	0.3	16.5	4.75	7.83	30"	1.0	6.52	55.3'	0.1	
M-10	EX M-2	A-AA	13.60		6.65	16.5	0.1	16.6	4.34	28.9	30"	1.00	8.55	48.1'			

LEGEND

- DRAINAGE AREA
- DRAINAGE AREA DELINEATION LINE
- EX. EASEMENT
- PROP. EASEMENT



ENGINEERS  
PLANNERS  
SCIENTISTS  
CONSTRUCTION MANAGERS

KCI  
TECHNOLOGIES

038 Beltsville Road  
Suite 600  
Calverton, Maryland 20705  
Tel: 410.316.7800  
Fax: 410.316.7818

STATE OF MARYLAND  
PROFESSIONAL ENGINEER  
11/16

PROFESSIONAL CERTIFICATION  
I HEREBY CERTIFY THAT THESE  
DRAWINGS WERE PREPARED OR  
APPROVED BY ME AND THAT I AM  
A FULLY LICENSED PROFESSIONAL  
ENGINEER UNDER THE LAWS OF  
THE STATE OF MARYLAND  
LICENSE NO. 5486  
EXPIRATION DATE 07/10/17

11720 Beltsville Drive  
Suite 600  
Calverton, MD 20705  
Tel 301.595.1000  
www.grimmparker.com

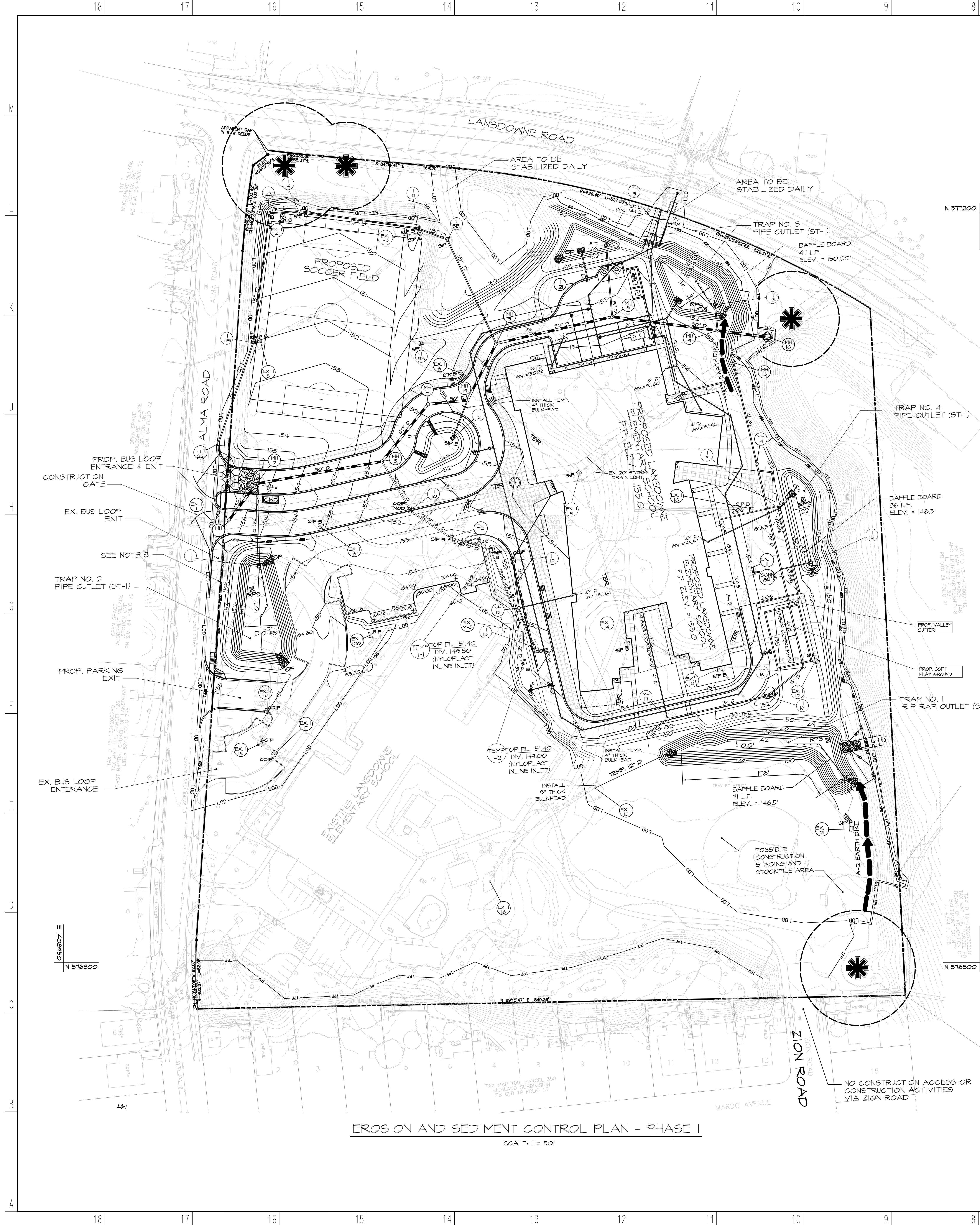
GRIMM AND PARKER

GP #21417

STORM DRAIN DRAINAGE AREA MAP  
LANSDOWNE ELEMENTARY SCHOOL  
BALTIMORE COUNTY, MARYLAND

DATE DESCRIPTION  
11/17/16 BID SET

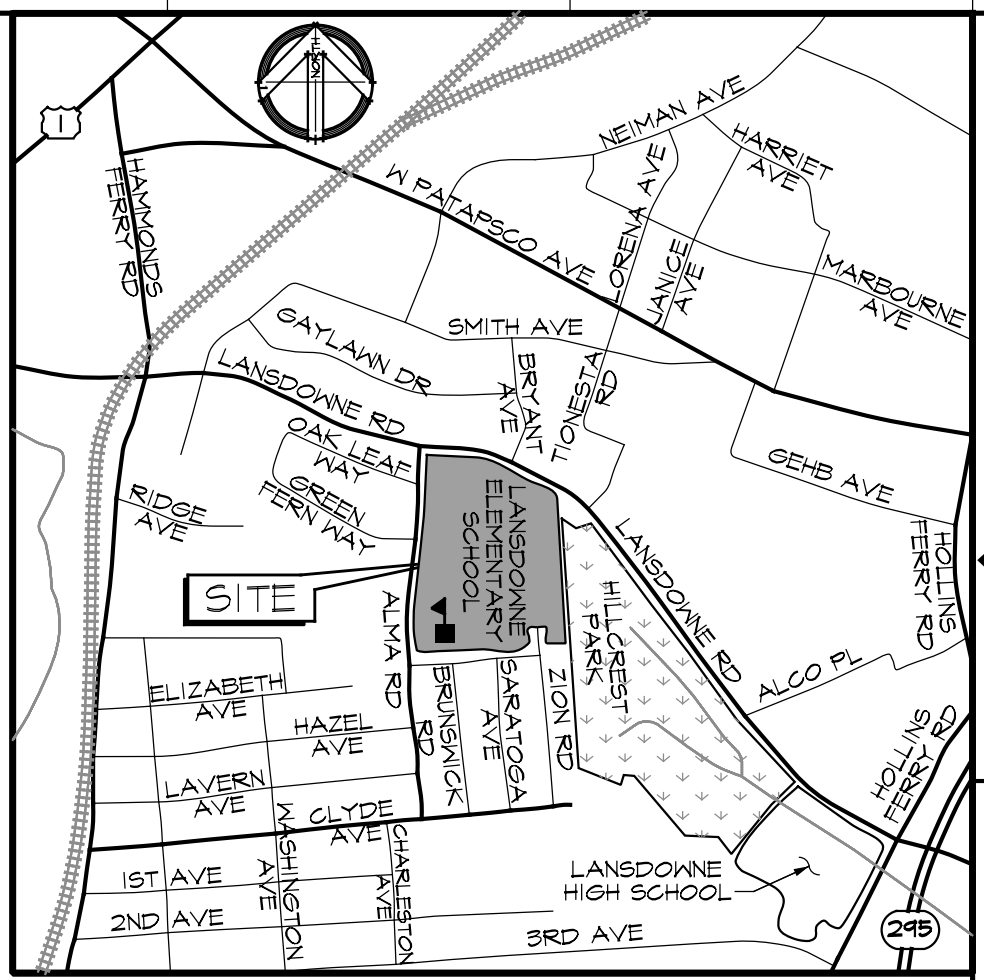
C-5.1  
BID SET  
11/17/2016  
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SURVEY NOTES

1. AERIAL TOPOGRAPHIC MAPPING BY VIRGINIA RESOURCE MAPPING, 210 N 21ST STREET, PURCELLVILLE, VA 20322. FORM AERIAL PHOTOGRAPHY DATED 12/24/2015. COMPILED FOR 1"=50' MAPPING SCALE WITH ONE FOOT CONTOUR INTERVAL.
2. AERIAL CONTOUR AND FIELD CHECK SURVEY BY MERCADO CONSULTANTS, INC. COMPLETED 2/12/2016.
3. COORDINATES ARE MARYLAND STATE PLANE NAD83/2011 DATUM AND ELEVATIONS ARE MARYLAND DATUM ESTABLISHED BY RTK GPS SURVEY FROM BALTIMORE COUNTY SURVEY CONTROL STATIONS "AZ-180" AND "GIS-180" WITH THE FOLLOWING PUBLISHED COORDINATES:

<div>"GIS-180" BRASS DISK NORTHING = 576,096.26 EASTING = 141,028.32 ELEVATION = 110.12</div>	<div>"AZ-180" BRASS CAP NORTHING = 575,584.45 EASTING = 141,067.10 ELEVATION = 104.45</div>
---	---
4. COMBINED SCALE & ELEVATION FACTOR TO CORRECT MARYLAND STATE PLANE GRID DISTANCES TO GROUND DISTANCES IS 1.00004821
5. A BOUNDARY SURVEY WAS NOT COMPLETED. THE PROPERTY LINES AND DIMENSIONS THEREON WERE COMPILED FROM RECORDS AND PLATS OF RECORD AND POSITIONED ACCORDING TO MONUMENTS, FENCE LINES AND TOPOGRAPHIC INFORMATION.  
PROPERTY LINES SHOWN HEREON ARE FOR REFERENCE ONLY AND SHOULD NOT BE USED FOR DESIGN UNTIL FIELD VERIFIED.
6. SURVEY INFORMATION WAS SUPPLEMENTED WITH BALTIMORE COUNTY RECORD INFORMATION AND BCPS PROVIDED DOCUMENTS.



VICINITY MAP

SCALE: 1" = 1000'

## SITE DATA

TOTAL DISTURBED AREA = 660,000 +/- S.F. = 15.2 ACRES

SOIL DATA			
SOIL SYMBOL	SOILS NAME	HYDROLOGIC SOILS GROUP	TOTAL AREA
RUB	RUSSETT URBAN LAND COMPLEX; 0% TO 15% SLOPES	C	17.5 AC.

## UTILITY NOTES

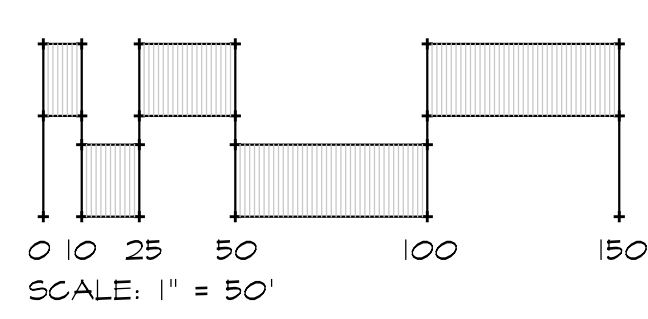
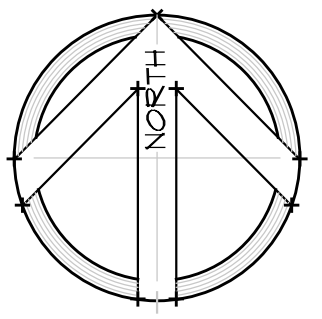
1. CONTRACTOR SHOULD OPEN ONLY THAT SECTION OF TRENCH THAT CAN BE BACKFILLED AND STABILIZED EACH DAY. IF TRENCH MUST REMAIN OPEN LONGER THAN ONE DAY, SILT FENCE SHALL BE PLACED BELOW (DOWNSLOPE OF) THE TRENCH.
2. PLACE ALL EXCAVATED MATERIAL ON UPHILL SIDE OF THE TRENCH.
3. ANY SEDIMENT CONTROLS DISTURBED BY UTILITY CONSTRUCTION ARE TO BE REPAIRED IMMEDIATELY.

## GENERAL NOTES

1. EARTHKIDES TO MAINTAIN POSITIVE FLOW AT ALL TIMES
2. CONTRACTOR SHALL INSTALL CHAIN LINK CONSTRUCTION FENCING ALONG LIMITS OF ROAD. CONSTRUCTION FENCING TO BE COORDINATED WITH THE LIMITS OF DISTURBANCE CONSTRUCTION FENCING(TYPE AND INSTALLATION) TO BEAPPROVED WITH OWNER PRIOR TO INSTALLATION. CONTRACTOR TO COORDINATE ACTUAL LIMITS WITH THE OWNER PRIOR TO START OF CONSTRUCTION.
3. SUPER SILT FENCE ALONG WEST SIDE OF SITE TO BE INSTALLED AFTER EXISTING BUS LOOP IS CLOSED AND PRIOR TO EXCAVATION OF TRAP NO. 2.

LEGEND

	EX. 15' STORM DRAIN		PROP. 30' STORM DRAIN
	EX. 18' STORM DRAIN		PROP. 15' D
	EX. PROPERTY LINE		PROP. MANHOLE
	EX. EASEMENT LINE		PROP. INLET
	EX. CURB AND GUTTER		PROP. WATER VALVE
	EX. STORM DRAIN		PROP. FIRE HYDRANT
	EX. SANITARY SEWER		PROP. SANITARY SEWER
	EX. LIMITS OF TREES, BUSHES, & SHRUBS		PROP. SIGN
	EX. WATER		PROP. STREET LIGHT
	EX. GAS		SILT FENCE DIVERSION
	EX. UNDERGROUND ELECTRIC		SUPER SILT FENCE
	EX. GAS VALVE		A-Z EARTH DIKE
	EX. SIGN		STANDARD INLET PROTECTION
	EX. WATER VALVE		COMBINATION INLET PROTECTION
	EX. MANHOLE		GABION INLET PROTECTION
	EX. CLEANOUT		AT-GRADE INLET PROTECTION
	EX. FIRE HYDRANT		REMOVABLE PUMPING STATION
	EX. LIGHT POLE		STABILIZED CONSTRUCTION ENTRANCE W/ BERM
	EX. INLET		GABION INFLOW PROTECTION
	EX. POWER POLE		TEMPORARY GABION OUTLET STRUCTURE
	EX. TREE		BAFFLE BOARD
	EX. WATER METER		MOUNTABLE BERM
	EX. FENCE		CRITICAL ROOT ZONE
	EX. UTILITY TO BE REMOVED		SPECIMEN TREE TO BE SAVED
	LIMIT OF DISTURBANCE		TREE PROTECTION FENCE
	PROP. CONTOUR		TEMPORARY DRAWDOWN DEVICE
	PROP. SIDEWALK		
	PROP. CURB AND GUTTER		
	TEMPORARY ASPHALT BERM		



EROSION AND SEDIMENT CONTROL PLAN - PHASE I

**GP #21417**

**EROSION AND SEDIMENT CONTROL PLAN -  
PHASE 1  
LANSOWINE ELEMENTARY SCHOOL  
BALTIMORE COUNTY, MARYLAND**

**GRIMM AND PARKER**

DATE	DESCRIPTION
11/17/16	BID SET
11/17/2016	

C-6.1

BID SET  
11/17/2016

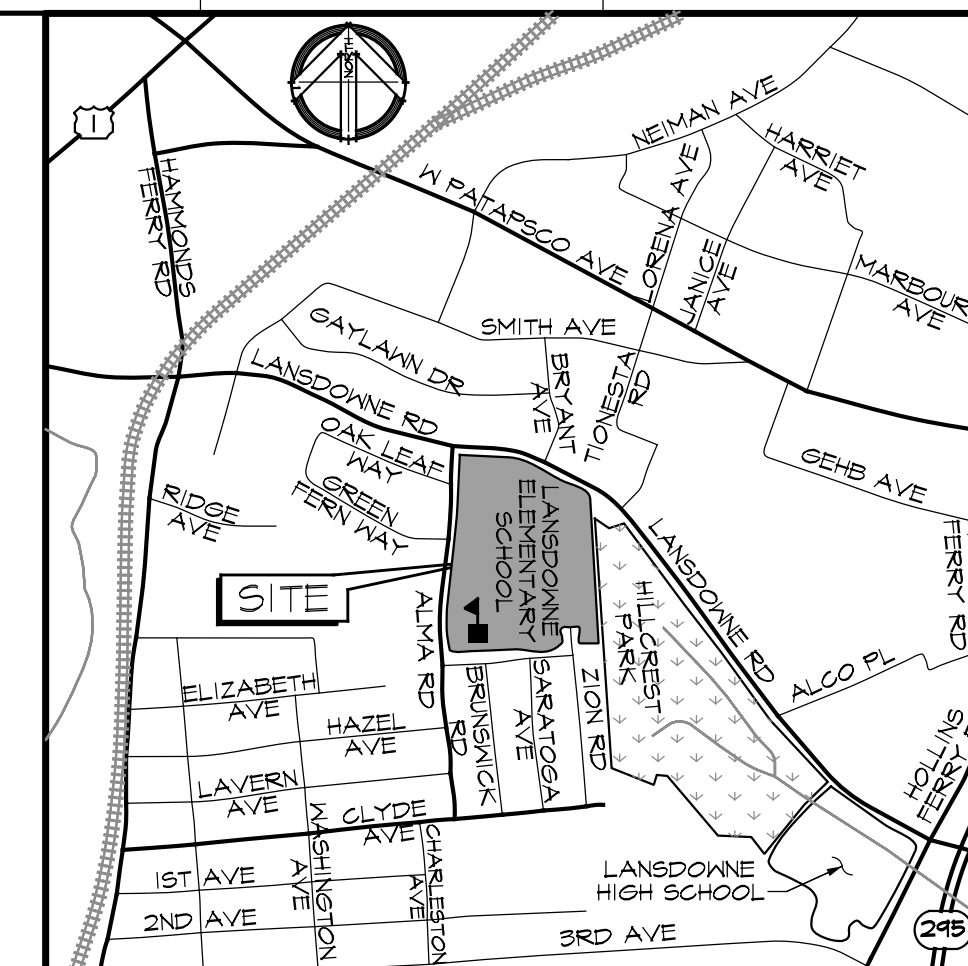
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PLOTTED: "11:47 AM on Friday, November 11, 2016"  
BY: Erminio.Gencese  
FILE: M:\2015\27159914\Drawings\C-6.1\_ESC\_PLAN 2D.dgn

# SURVEY NOTES

1. AERIAL TOPOGRAPHIC MAPPING BY VIRGINIA RESOURCE MAPPING, 210 N 21ST STREET, PURCELLVILLE, VA 20132, FORM AERIAL PHOTOGRAPHY DATED 12/24/2015, COMPILED FOR 1"=30' MAPPING SCALE WITH ONE FOOT CONTOUR INTERVAL.
2. AERIAL CONTROL AND FIELD CHECK SURVEY BY MERCADO CONSULTANTS, INC. COMPLETED 2/12/2016.
3. COORDINATES SHOWN ARE MARYLAND STATE PLANE NAD83/2011 DATUM AND ELEVATIONS ARE NAVD83 DATUM ESTABLISHED BY RTK GPS SURVEY FROM BALTIMORE COUNTY SURVEY CONTROL STATIONS "AZ-180" AND "G15-180" WITH THE FOLLOWING PUBLISHED COORDINATES:  

STATION	BRASS DISK	BRASS CAP
"G15-180"	NORTHING = 576,096.86 EASTING = 1410,828.12 ELEVATION = 170.12'	NORTHING = 575,584.45 EASTING = 1411,067.70 ELEVATION = 104.45'
4. COMBINED SCALE & ELEVATION FACTOR TO CONVERT MARYLAND STATE PLANE GRID DISTANCES TO GROUND DISTANCES IS 1.00004821
5. A BOUNDARY SURVEY HAS NOT COMPLETED. THE PROPERTY LINES AND DIMENSIONS SHOWN HEREON WERE COMPILED FROM DEEDS AND PLATS OF RECORD AND POSITIONED ACCORDING TO MONUMENTS, FENCE LINES AND TOPOGRAPHIC INFORMATION. PROPERTY LINES SHOWN HEREON ARE FOR REFERENCE ONLY AND SHOULD NOT BE USED FOR DESIGN UNTIL FIELD VERIFIED.
6. SURVEY INFORMATION HAS SUPPLEMENTED WITH BALTIMORE COUNTY RECORD INFORMATION AND BCPS PROVIDED DOCUMENTS.



VICINITY MAP  
SCALE: 1" = 1000'

# SITE ANALYSIS

TOTAL DISTURBED AREA = 660,000 +/- S.F. = 15.2 ACRES

SOIL DATA			
SOIL SYMBOL	SOILS NAME	HYDROLOGIC SOILS GROUP	TOTAL AREA
RUB	RUSSETT URBAN LAND COMPLEX, 0% TO 15% SLOPES	C	17.5 AC.

# UTILITY NOTES

1. CONTRACTOR SHOULD OPEN ONLY THAT SECTION OF TRENCH THAT CAN BE BACKFILLED AND STABILIZED EACH DAY. IF TRENCH MUST REMAIN OPEN LONGER THAN ONE DAY, SILT FENCE SHALL BE PLACED BELOW (DOWNSLOPE OF) THE TRENCH.
2. PLACE ALL EXCAVATED MATERIAL ON UPHILL SIDE OF THE TRENCH.
3. ANY SEDIMENT CONTROLS DISTURBED BY UTILITY CONSTRUCTION ARE TO BE REPAIRED IMMEDIATELY.

# TRAP/BASIN FLOW DIVERSION NOTE

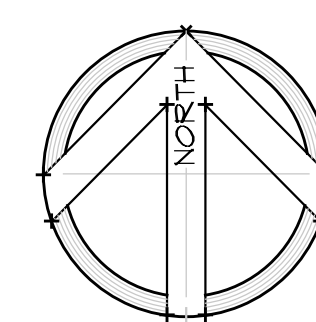
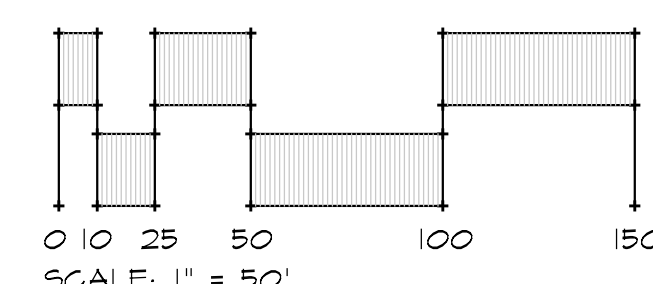
"TO PREVENT SLOPE EROSION WITHIN SEDIMENT TRAPPING DEVICES, ADEQUATELY SIZED AND STABILIZED FLOW DIVERSION MEASURES (I.E. EARTH DIKE, TEMPORARY SHALE, PERIMETER DIKE/SHALE, SUPER FENCE DIVERSION, ETC.) SHALL BE INSTALLED AT THE UPSLOPE EXTENT OF TRAP AND BASIN STORAGE AREAS TO DIVERT ALL FLOWS TO APPROPRIATE INFLOW PROTECTION DEVICES. THESE MEASURES WILL BE LOCATED BY THE CONTRACTOR AND THEREFORE NOT SHOWN ON THE PLAN VIEW."

# GENERAL NOTES

1. EARTHDIKES TO MAINTAIN POSITIVE FLOW AT ALL TIMES
2. CONTRACTOR SHALL INSTALL CHAIN LINK CONSTRUCTION FENCING ALONG LIMITS OF LOD. CONSTRUCTION FENCING TO BE COORDINATED WITH THE LIMITS OF DISTURBANCE. CONSTRUCTION FENCING (TYPE AND INSTALLATION) TO BE APPROVED WITH OWNER PRIOR TO INSTALLATION. CONTRACTOR TO COORDINATE ACTUAL LIMITS WITH THE OWNER PRIOR TO START OF CONSTRUCTION.

# LEGEND

--- 150 ---	EX. INDEX CONTOUR	PROP. 15" D	PROP. STORM DRAIN
--- 151 ---	EX. INTERMEDIATE CONTOUR	PROP. 30" D	PROP. 30" STORM DRAIN
---	PROPERTY LINE	○	PROP. MANHOLE
---	EX. EASEMENT LINE	□	PROP. INLET
---	EX. CURB AND GUTTER	PROP. 2" W	PROP. WATER VALVE
---	EX. STORM DRAIN	IN/EX	PROP. FIRE HYDRANT
---	EX. SANITARY SEWER	FH	PROP. SANITARY SEWER
---	EX. LIMITS OF TREES, BUSHES, & SHRUBS	PROP. 2" S	PROP. SIGN
---	EX. WATER	LP	PROP. STREET LIGHT
---	EX. GAS	SSF	SUPER SILT FENCE
---	EX. UNDERGROUND ELECTRIC	SFD	SILT FENCE DIVERSION
---	EX. OVERHEAD ELECTRIC	A-2 EARTH DIKE	EARTH DIKE
---	EX. GAS VALVE	GIP	STANDARD INLET PROTECTION
---	EX. SIGN	COIP	COMBINATION INLET PROTECTION
---	EX. WATER VALVE	GIP	GABION INLET PROTECTION
---	EX. CLEANOUT	RPS	REMOVABLE PUMPING STATION
---	EX. FIRE HYDRANT	SCE	STABILIZED CONSTRUCTION ENTRANCE W/ MOUNTABLE BERM
---	EX. LIGHT POLE	GP	GABION INFLOW PROTECTION
---	EX. INLET	GP	TEMPORARY GABION OUTLET STRUCTURE
---	EX. POWER POLE	GP	BAFFLE BOARD
---	EX. TREE	GP	MOUNTABLE BERM
---	EX. WATER METER	GP	CRITICAL ROOT ZONE
---	EX. FENCE	GP	SPECIMEN TREE TO BE SAVED
---	EX. UTILITY TO BE REMOVED	GP	TREE PROTECTION FENCE
---	LOD	GP	TEMPORARY DRAINAGE DEVICE
---	PROP. CONTOUR	GP	
---	PROP. SIDEWALK	GP	
---	PROP. CURB AND GUTTER	GP	
---	TEMPORARY ASPHALT BERM	GP	



BALTIMORE COUNTY SOIL CONSERVATION DISTRICT  
APPROVED FOR SEDIMENT CONTROL

DATE

EROSION AND SEDIMENT CONTROL PLAN -  
PHASE 2  
LANSDOWNE ELEMENTARY SCHOOL  
BALTIMORE COUNTY, MARYLAND

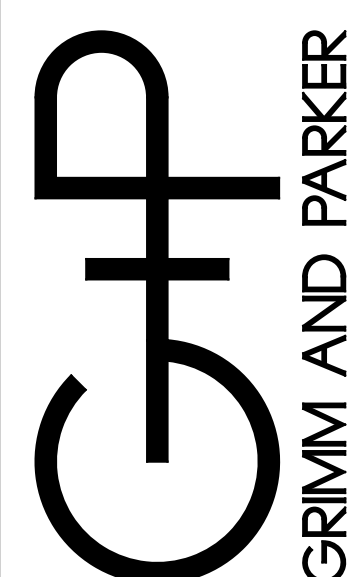
DATE	DESCRIPTION
11/17/16	BID SET

C-6.2

BID SET  
11/17/2016

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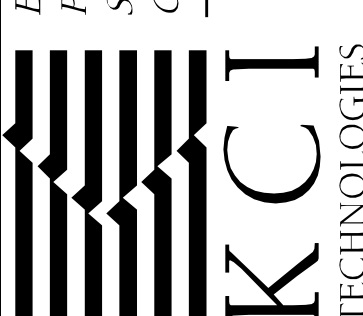


GP #21417



PROFESSIONAL CERTIFICATION  
I HEREBY CERTIFY THAT THESE  
DOCUMENTS WERE PREPARED OR  
APPROVED BY ME AND THAT I AM  
A FULLY LICENSED PROFESSIONAL  
ENGINEER UNDER THE LAWS OF  
THE STATE OF MARYLAND  
LICENSE NO. 38833  
EXPIRATION DATE 07/10/17

ENGINEERS  
PLANNERS  
SCIENTISTS  
CONSTRUCTION MANAGERS  
1038 Beltsville Road  
Suite 200  
Calverton, Maryland 20705  
Telephone: (410) 316-7800  
Fax: (410) 316-7818

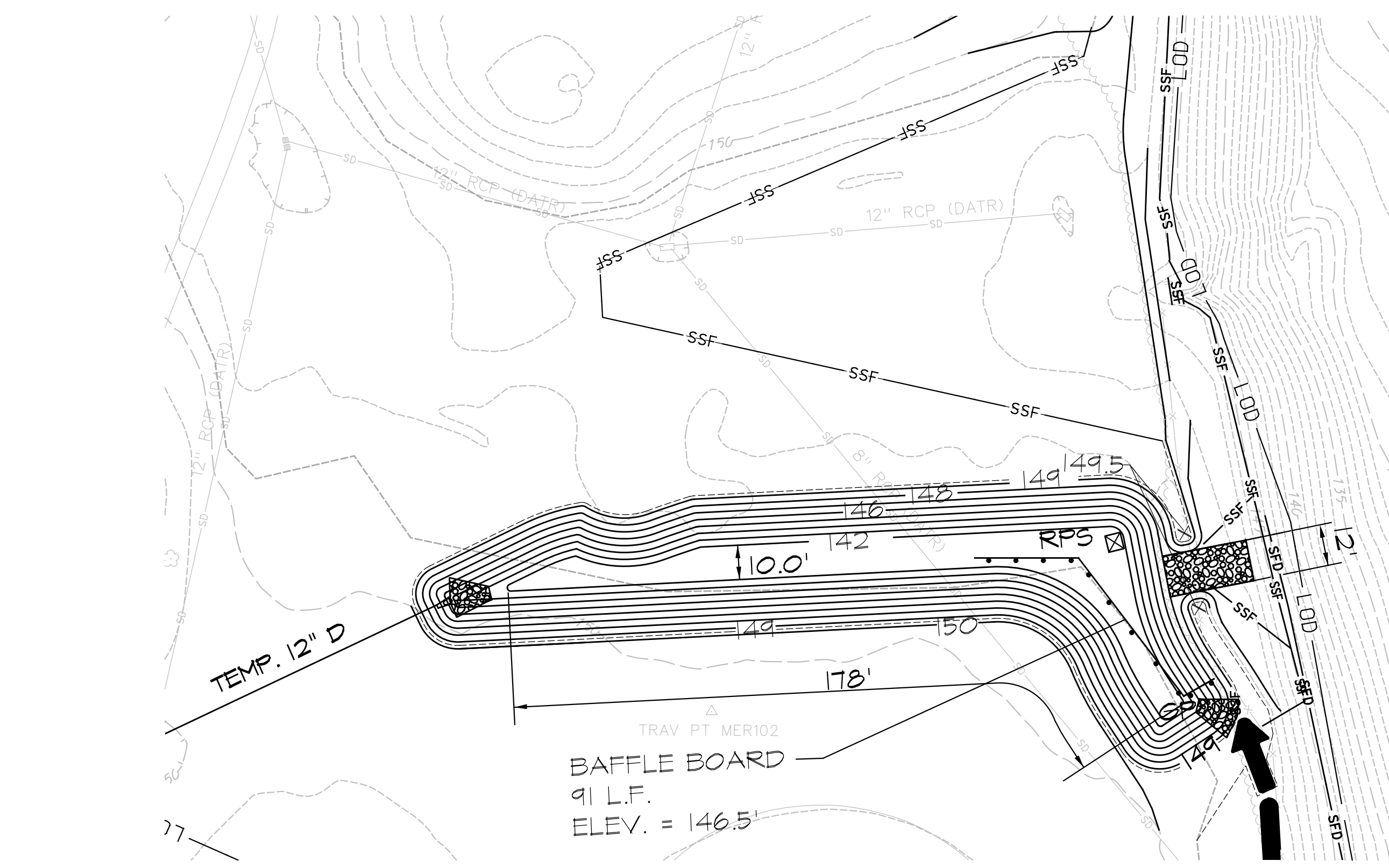


# EROSION AND SEDIMENT CONTROL PLAN - PHASE 2

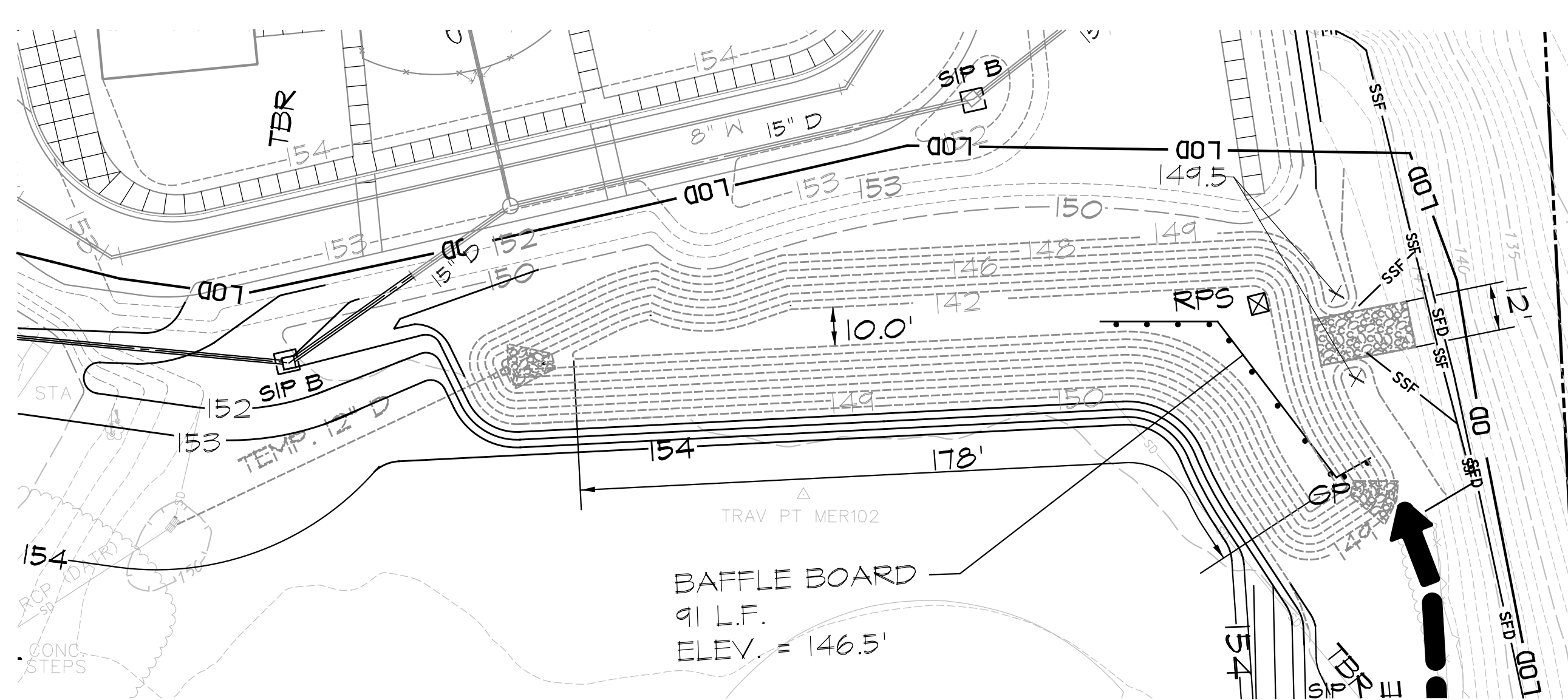
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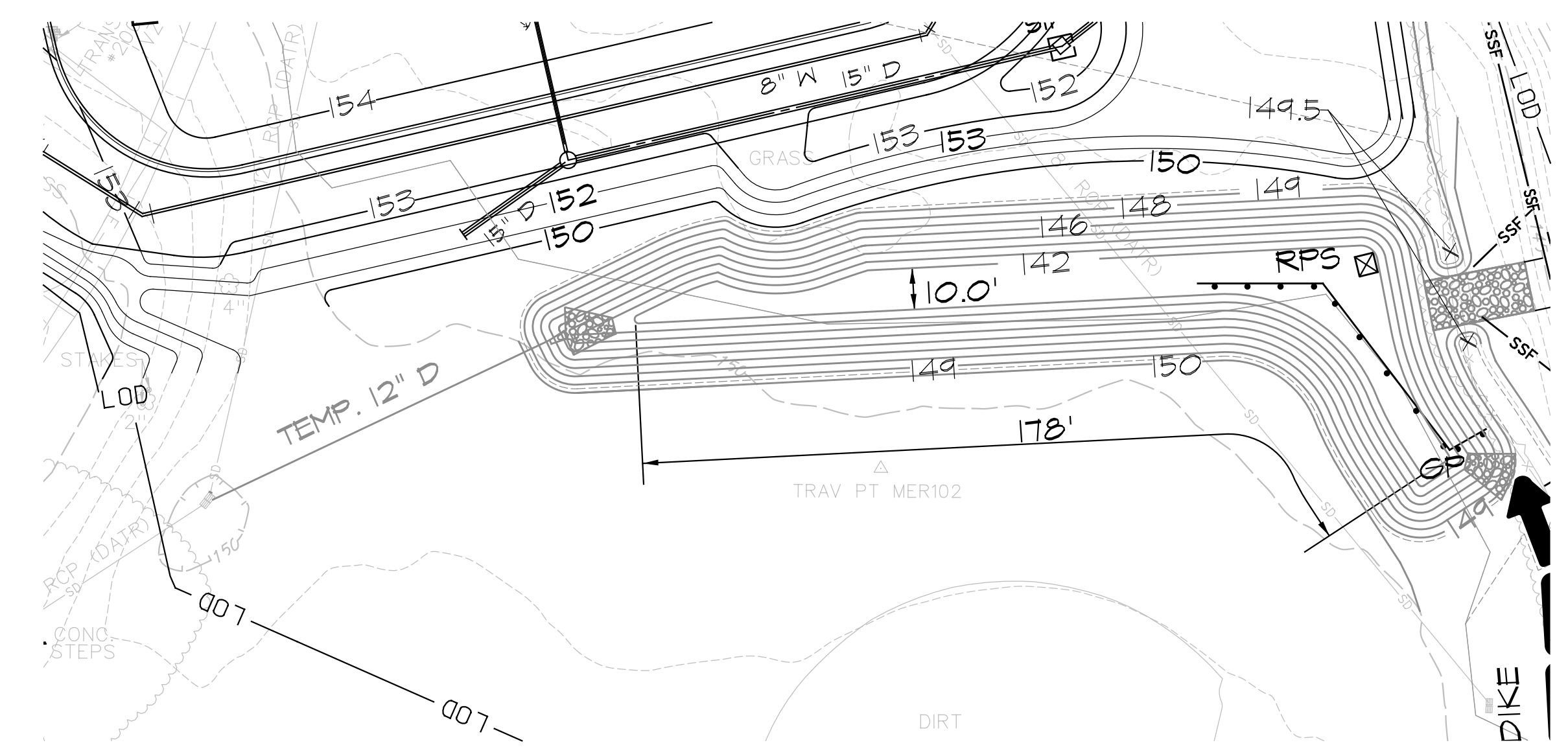
M  
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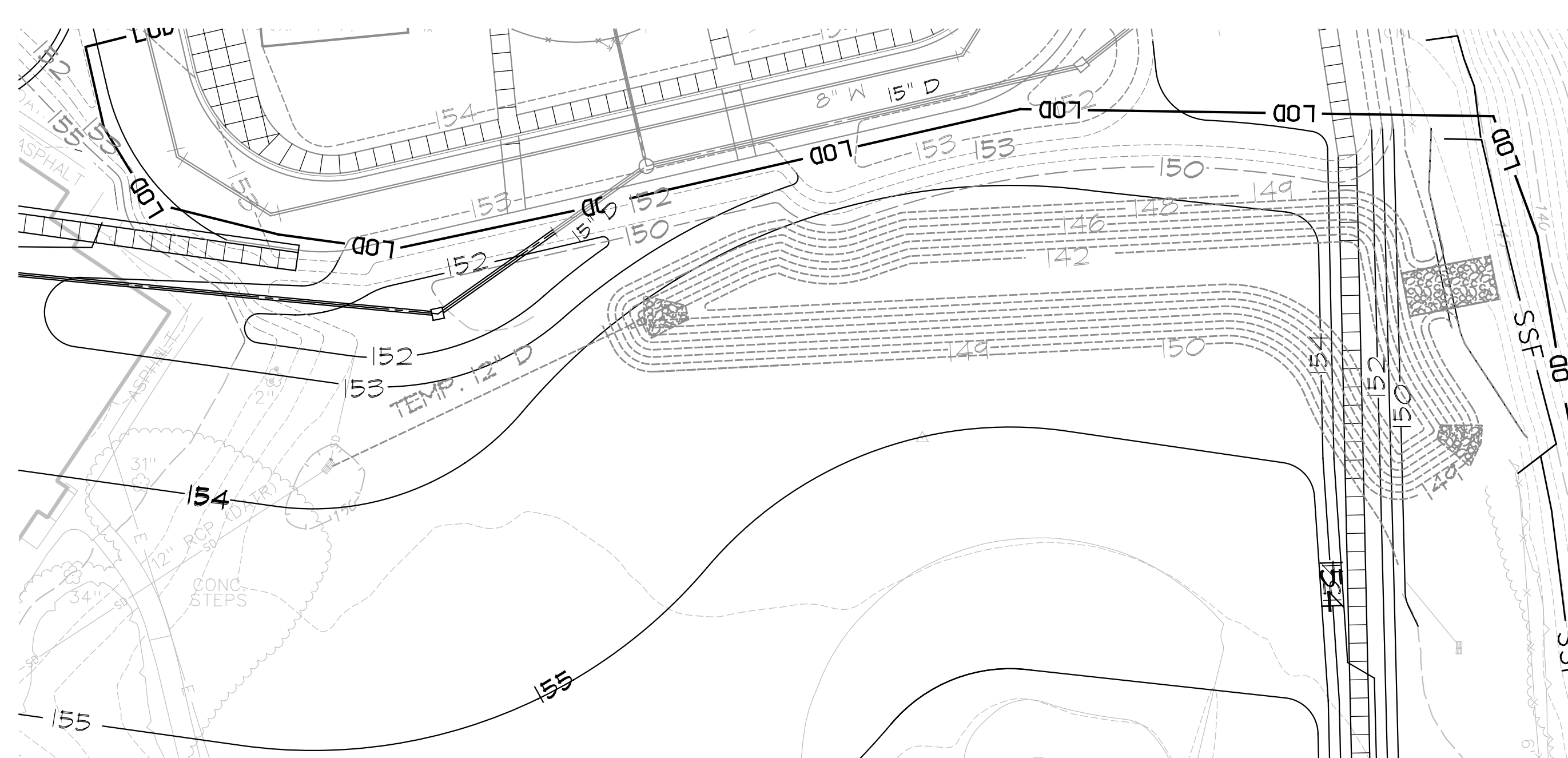
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SCALE: 1" = 30'



SEDIMENT TRAP-I PHASE 2 INTERIM CONDITION  
SCALE: 1" = 30'



SEDIMENT TRAP-I PHASE I FINAL CONDITION  
SCALE: 1" = 30'



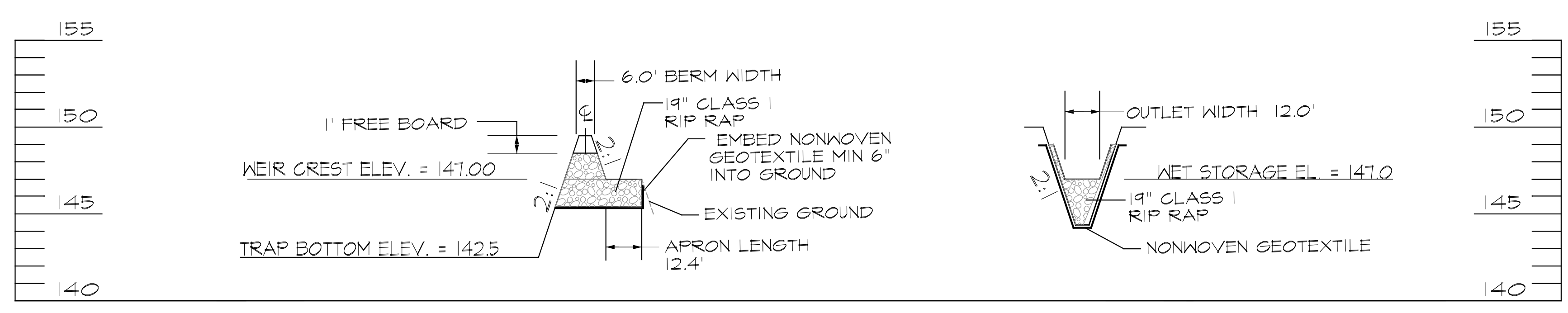
SEDIMENT TRAP-I PHASE 2 FINAL CONDITION  
SCALE: 1" = 30'

\* RIPRAP OUTLET SEDIMENT TRAP ST -III, TRAP NO. 1

INITIAL D.A. PHASE I = 3.56 AC. INTERIM D.A. PHASE I = 4.25 AC. FINAL D.A. PHASE I = 3.83 AC. INITIAL D.A. PHASE 2 = 4.22 AC. INTERIM D.A. PHASE 2 = 2.69 AC. FINAL D.A. PHASE 2 = 2.98 AC. WET STORAGE REQUIRED = 22,950 C.F. WET STORAGE PROVIDED = 23,281 C.F. EXISTING GROUND ELEV. @ OUTLET = 149.10 TRAP BOTTOM ELEV. = 142.00 TRAP BOTTOM DIM. 10' x 178' DEPTH OF OUTLET = 1.5' BOTTOM WIDTH OF OUTLET = 12.0'	CLEANOUT = EL. 143.25 WEIR CREST (WET STORAGE EL) = 147.0 EMBANKMENT TOP WIDTH = 4'. TOP OF EMBANKMENT HEIGHT ELEVATION = 149.5 SIDE SLOPE = 2:1 OUTLET PROTECTION LENGTH = 25 FT± OUTLET PROTECTION DEPTH = 19 IN.
--	---

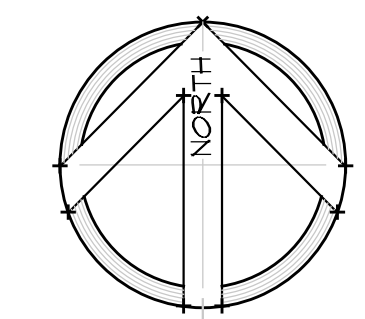
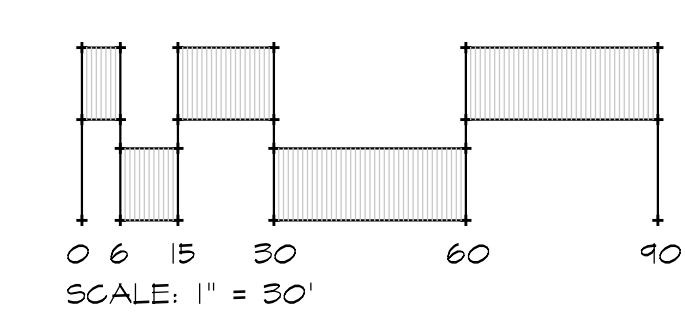
STORAGE VS. ELEVATION CHART						
ELEV.	AREA S.F.	STOR. C.F.	DEPTH	STORAGE	CUM. STOR.	CUM. DEPTH
142	2,161					
143	3,120	2,641	1.0	2,641	2,641	1.0
144	4,117	3,618	1.0	3,618	6,259	2.0
145	5,140	4,629	1.0	4,629	10,888	3.0
146	6,190	5,665	1.0	5,665	16,553	4.0
147	7,266	6,728	1.0	6,728	23,281	5.0
				TOTAL STOR. = 23,281 C.F.		

\* Dewater trap following every storm event



SEDIMENT TRAP-I SPILLWAY PROFILES

HORIZONTAL SCALE: 1" = 30'  
VERTICAL SCALE: 1" = 5'



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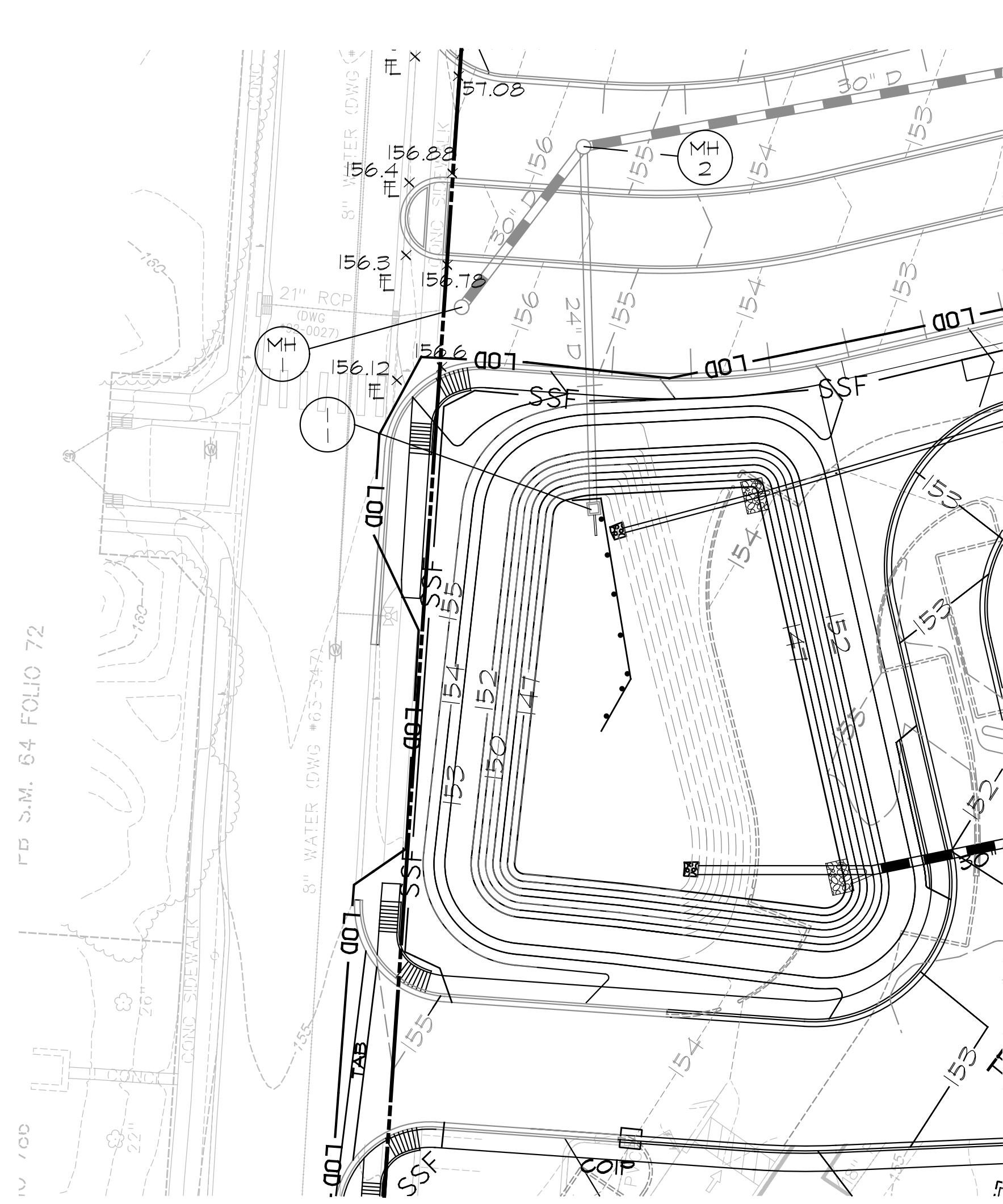
SEDIMENT AND EROSION CONTROL  
TRAP NO. 1 INSET PLAN  
LAUSDOWNE ELEMENTARY SCHOOL  
BALTIMORE COUNTY, MARYLAND

DATE	DESCRIPTION
11/17/16	BID SET

C-6.3

BID SET  
11/17/2016  
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PLOTTED: 11/17/16 on Thursday, November 10, 2016  
BY: erminio.gonzalez  
FILE: M:\2015\27159914 Drawings\6-6.3 INSET PLAN.ST-1.dgn



\* BAFFLE BOARD IS 74 LINEAR FEET, TOP OF BOARD ELEVATION = 148.25.

SEDIMENT TRAP-2 PHASE 2 INTERIM CONDITION

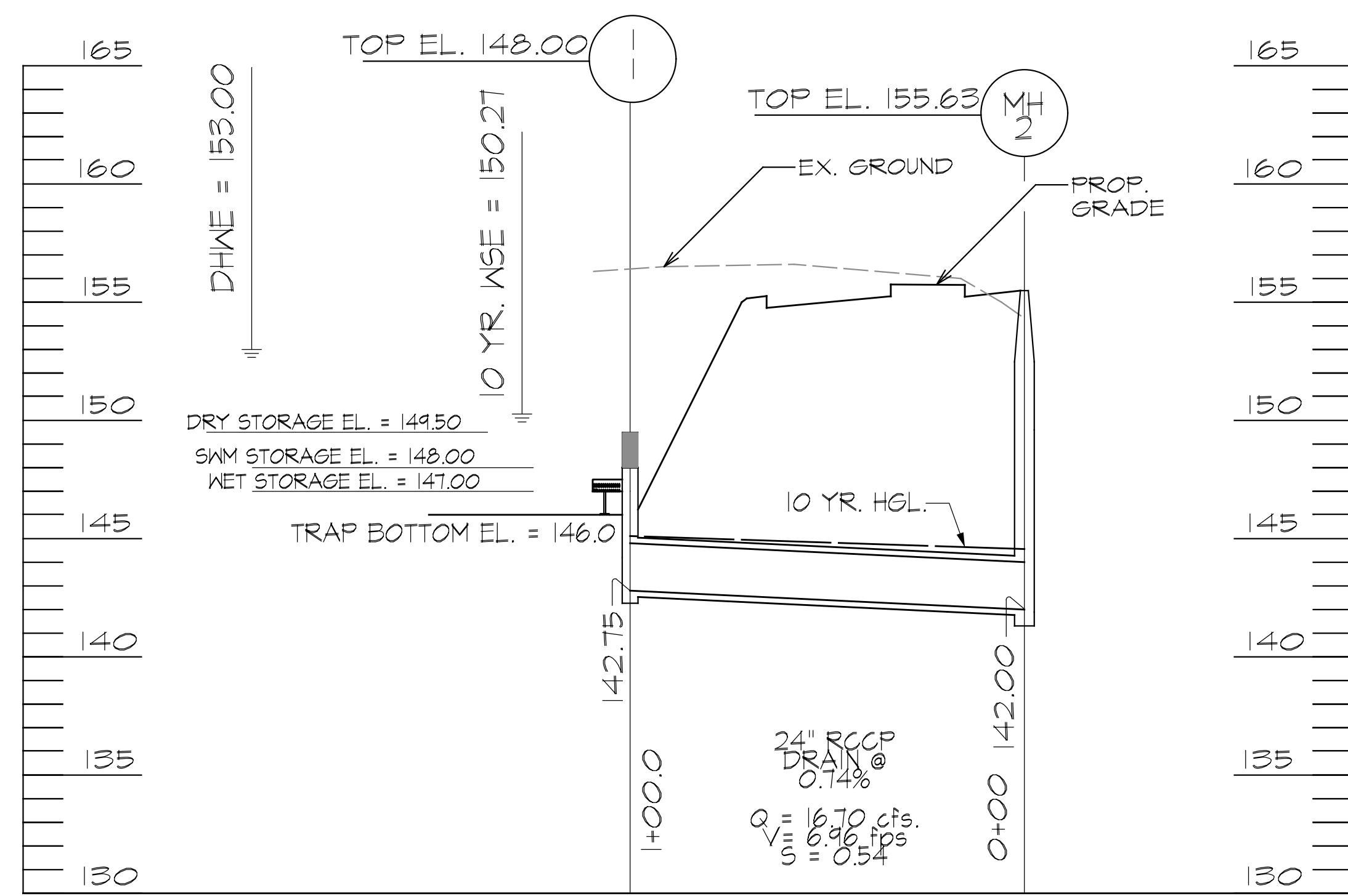
FINAL CONDITION FOR SWM BIO #3

\* PIPE OUTLET SEDIMENT TRAP ST -1, TRAP NO. 2

INITIAL D.A. PHASE 1 = NA  
INTERIM D.A. PHASE 1 = 1.06 AC.  
FINAL D.A. PHASE 1 = 1.06 AC.  
INITIAL D.A. PHASE 2 = 1.22 AC.  
INTERIM D.A. PHASE 2 = 0.41 AC.  
FINAL D.A. PHASE 2 = 3.62 AC.  
STORAGE REQUIRED = 13,032 C.F.  
STORAGE PROVIDED = 32,961 C.F.  
WET STORAGE REQUIRED = 6,516 C.F.  
WET STORAGE PROVIDED = 8,428 C.F.  
WET STORAGE ELEV. = 141.00  
DRY STORAGE REQUIRED = 6,516 C.F.  
DRY STORAGE PROVIDED = 24,533 C.F.  
RISER CREST (DRY STORAGE) EL. = 149.50  
TRAP BOTTOM EL. = 146.0  
TRAP BOTTOM DIM. 101' x 75'  
EMBANKMENT TOP WIDTH = 4'  
TOP OF EMBANKMENT EL. = 153.0  
CLEANOUT EL. = 146.5  
SIDE SLOPE = 2:1  
BARREL = 24"  
RISER DIAMETER = 2.5' X 2.5'  
TRASH RACK DIAMETER = SEE SHEET C-6.8  
OUTLET PROTECTION NA

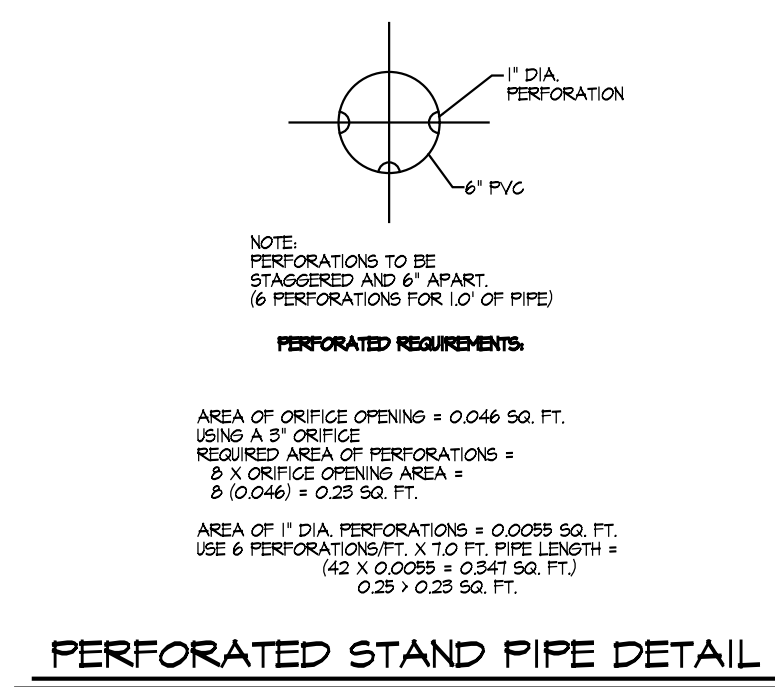
STORAGE VS. ELEVATION CHART						
ELEV.	AREA S.F.	STOR. C.F.	DEPTH	STORAGE	CUM. STOR.	CUM. DEPTH
146	8,012					
		8,427	1.0	8,427	8,427	1.0
147	8,843					
		9,226	1.0	9,226	17,653	2.0
148	9,609					
		10,005	1.0	10,005	27,658	3.0
149	10,400					
		5,405	0.50	5,405	33,063	3.5
149.50	10,809					
					TOTAL STOR. = 33,063 C.F.	

\* DEWATER TRAP FOLLOWING EVERY STORM EVENT

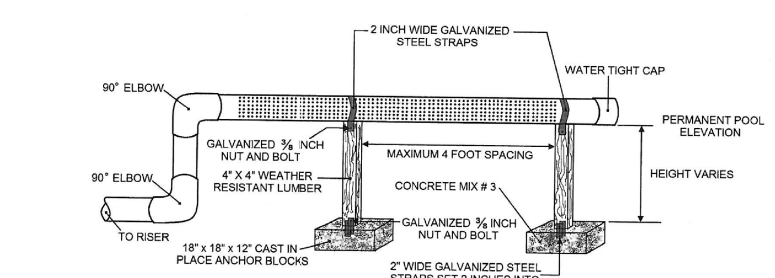


SEDIMENT TRAP No. 2 OUTFALL PROFILE

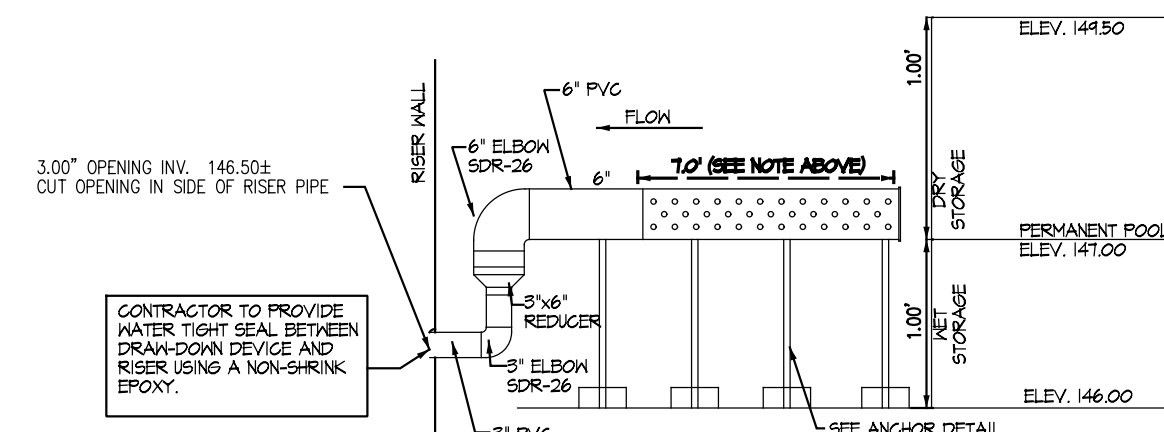
SCALE: HORIZ. 1" = 30'  
VERT. 1" = 5'



PERFORATED STAND PIPE DETAIL



### HORIZONTAL DRAW-DOWN DEVICE ANCHOR DETAIL

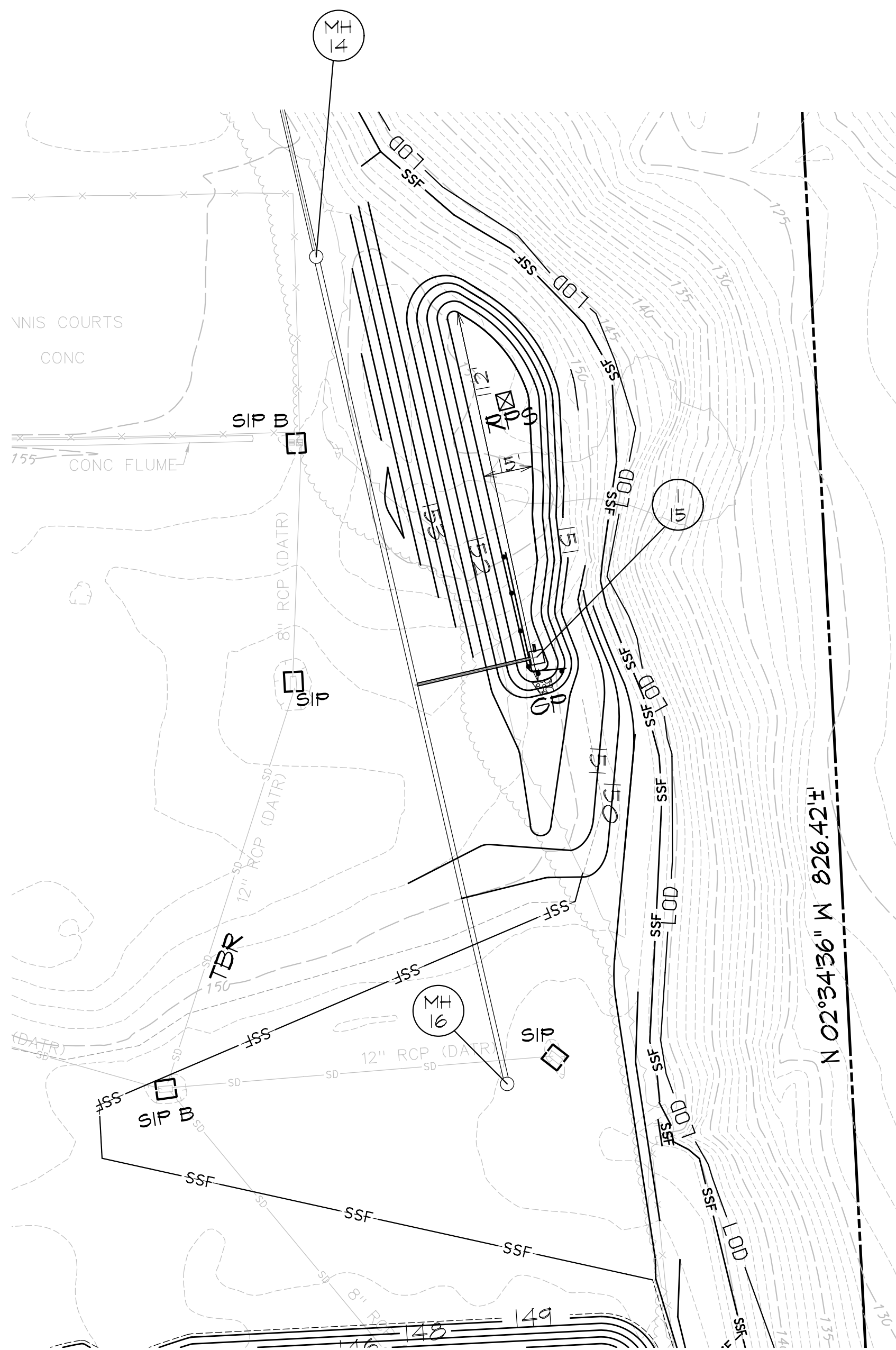


SEDIMENT TRAP No. 2 DRAW-DOWN DEVICE

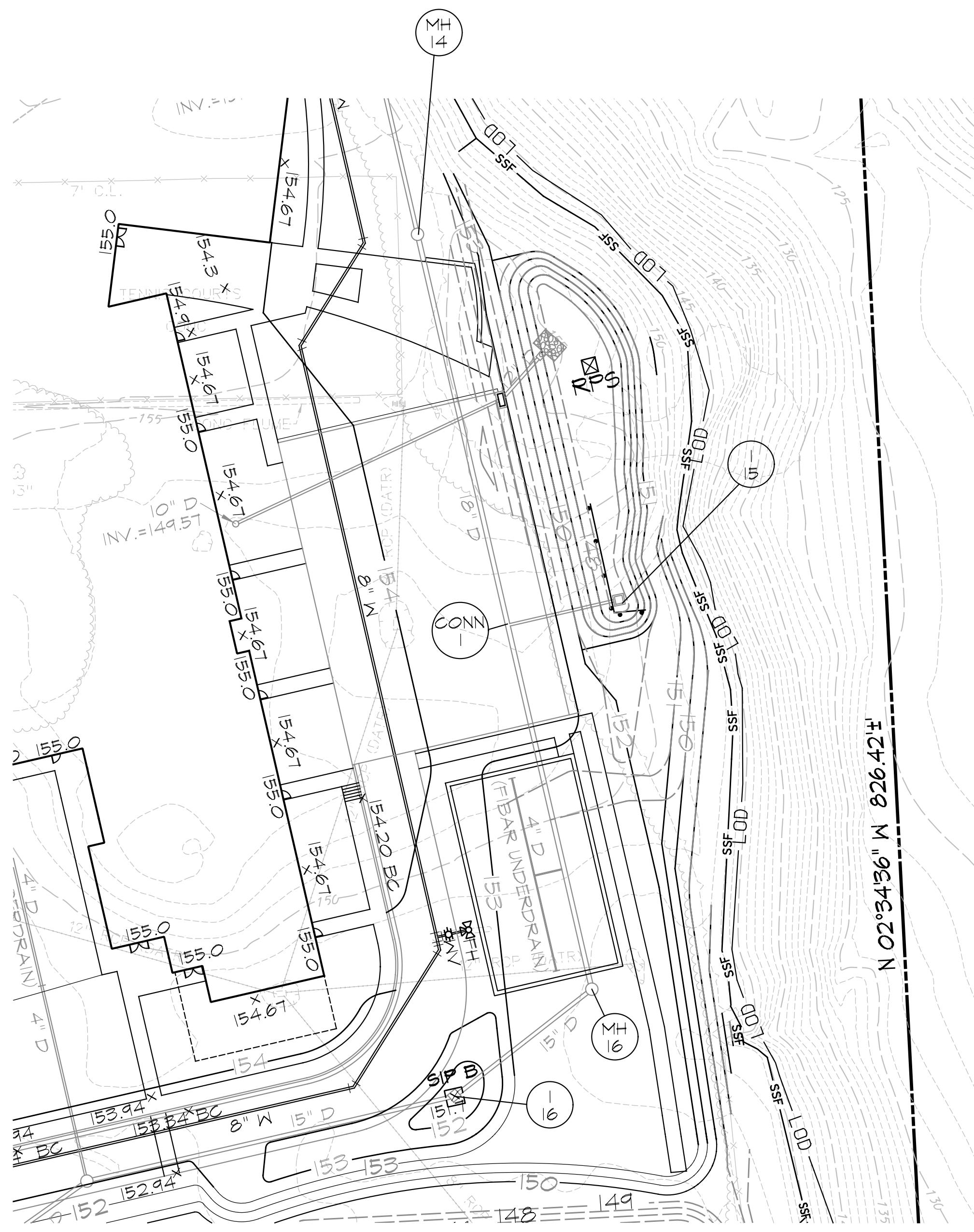
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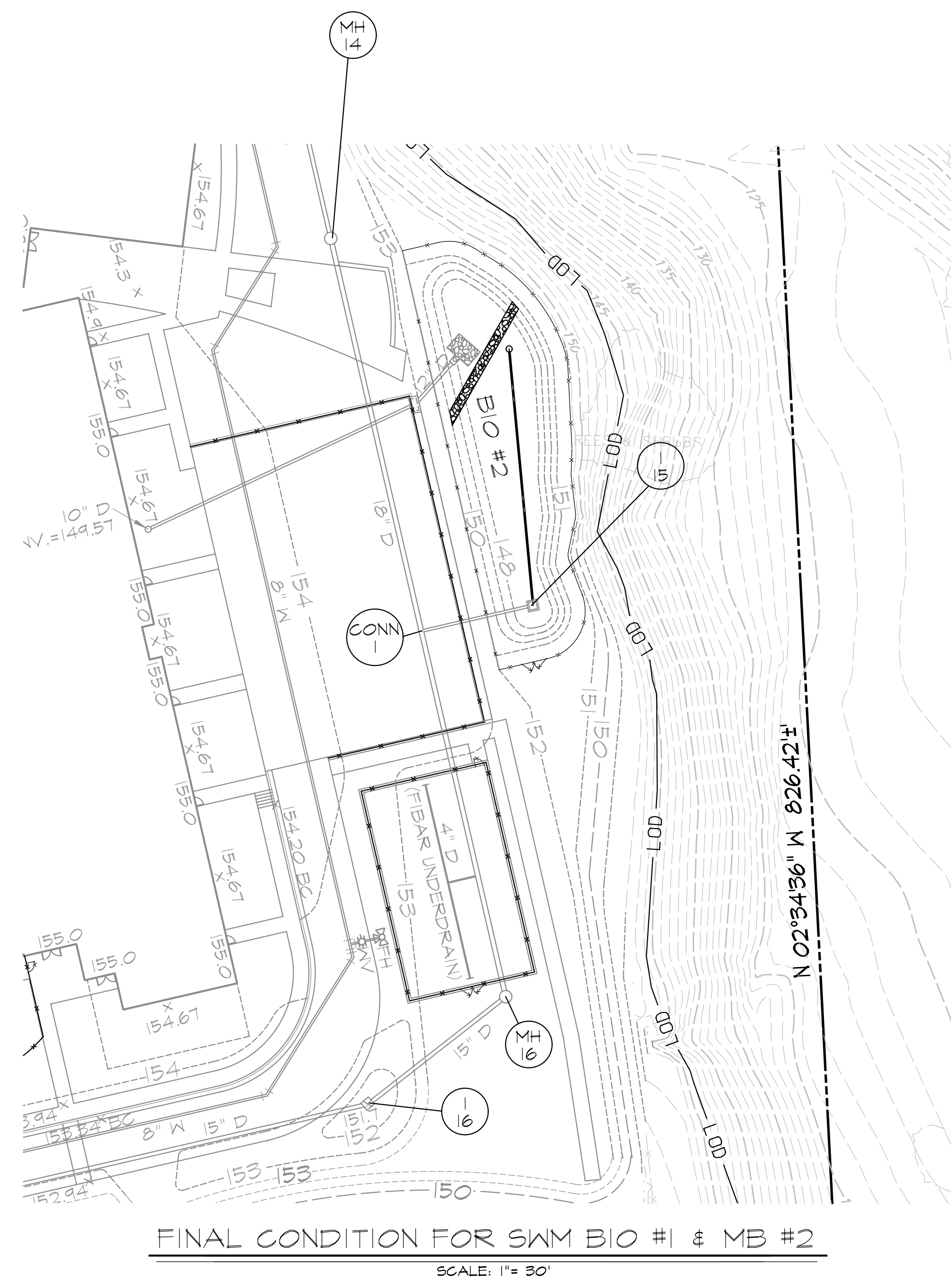




SEDIMENT TRAP-4 PHASE I INSTALLATION  
SCALE: 1" = 30'



SEDIMENT TRAP-4 PHASE I INTERIM CONDITION  
SCALE: 1" = 30'



FINAL CONDITION FOR SWM BIO #1 & MB #2  
SCALE: 1" = 30'

\* 36 LINEAR FOOT BAFFLE BOARD, TOP ELEV. = 148.00

\* PIPE OUTLET SEDIMENT TRAP ST -I, TRAP NO. 4

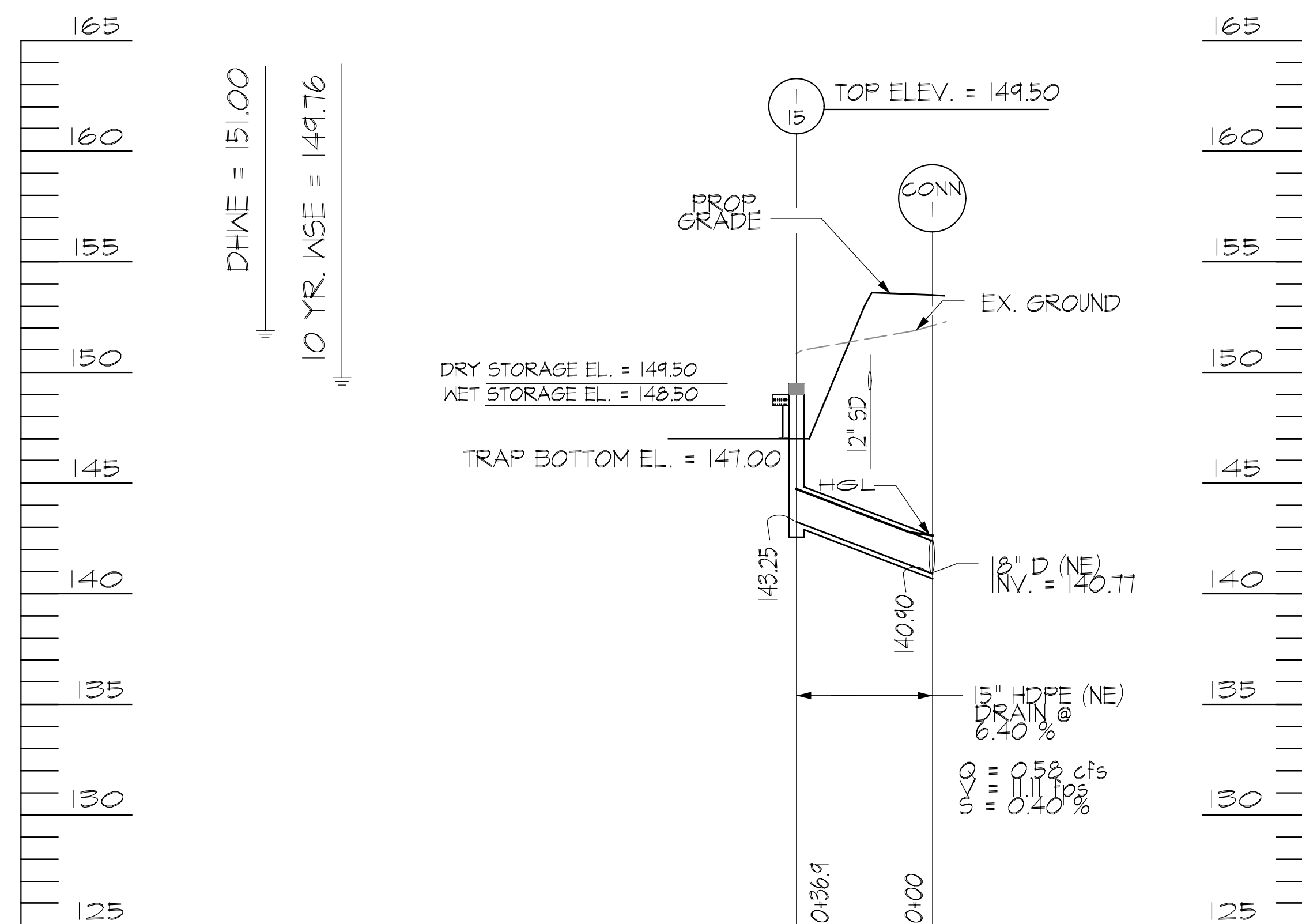
INITIAL D.A. = 0.84 AC.  
INTERIM D.A. = 0.99 AC.  
FINAL D.A. = 0.99 AC.  
STORAGE REQUIRED = 3564 C.F.  
STORAGE PROVIDED = 4,752 C.F.  
WET STORAGE REQUIRED = 1,782 C.F.  
WET STORAGE PROVIDED = 2,636 C.F.  
WET STORAGE ELEV. = 148.50  
DRY STORAGE REQUIRED = 1,782 C.F.  
DRY STORAGE PROVIDED = 2,394 C.F.  
RISER CREST (DRY STORAGE) = EL. 149.50

TRAP BOTTOM EL. = 147.0  
TRAP BOTTOM DIM. 112' x 15'  
EMBANKMENT TOP WIDTH = 5'  
CLEANOUT EL. = 147.75  
SIDE SLOPE = 2:1  
BARREL = 15'  
RISER DIAMETER = 2.5' x 2.5'  
TRASH RACK DIAMETER = SEE SHEET C-6.8  
OUTLET PROTECTION NA

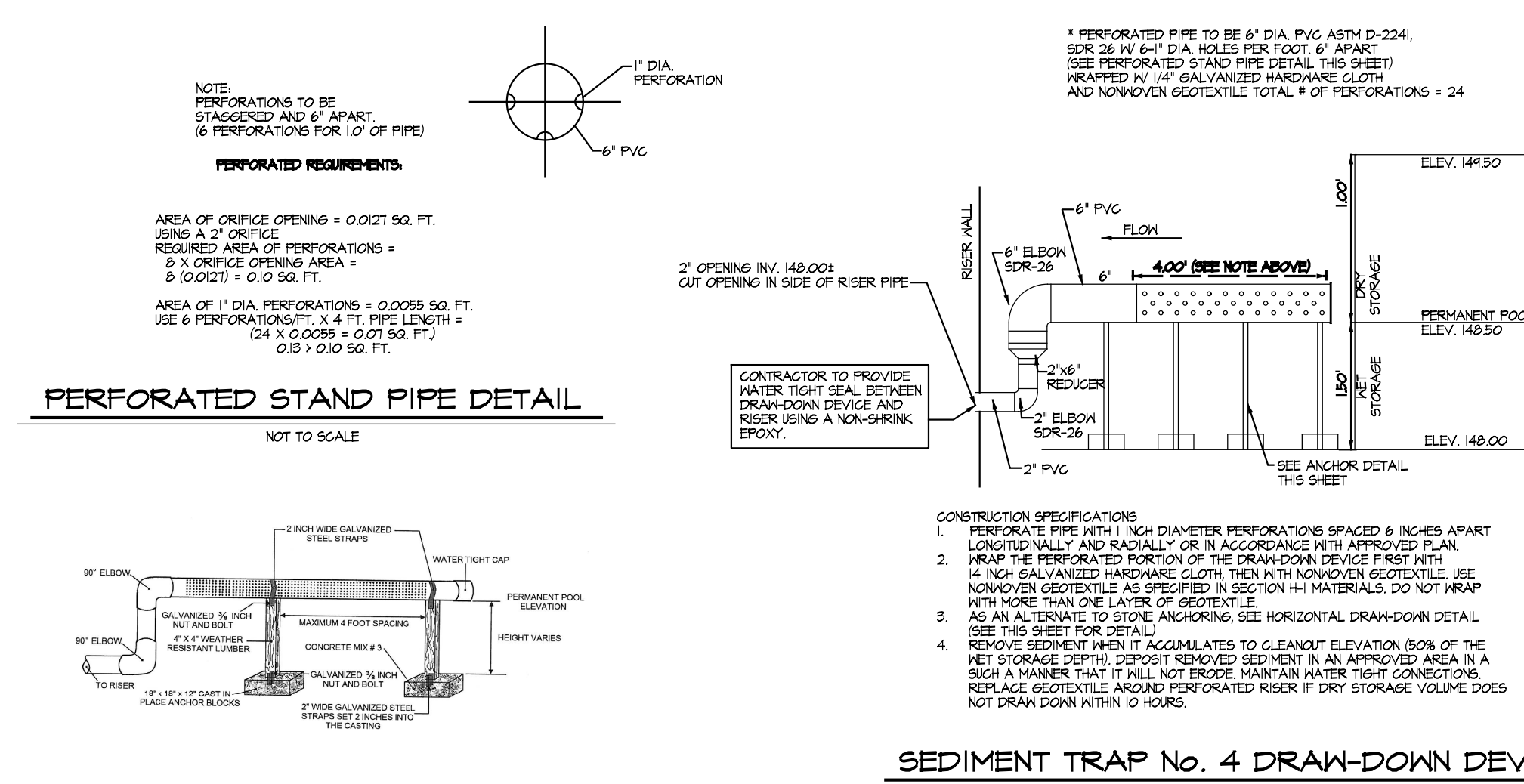
STORAGE VS. ELEVATION CHART

ELEV.	AREA S.F.	STOR. C.F.	DEPTH	STORAGE	CUM. STOR.	CUM. DEPTH
147	1,238	1,599	1.0	1,599	1,599	1.0
148	1,960	1,037	0.5	1,037	2,636	1.5
148.50	2,186	1,150	0.5	1,150	3,786	2.0
149	2,412	1,244	0.5	1,244	5,030	2.5
149.50	2,566					
					TOTAL STOR. = 5,030 C.F.	

\* DEWATER TRAP FOLLOWING EVERY STORM EVENT

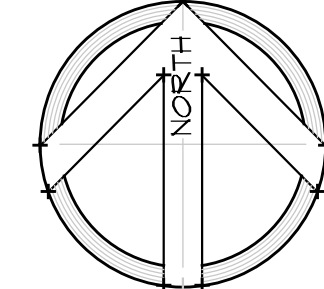
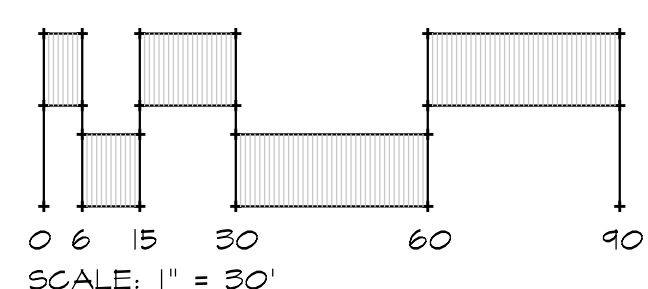


SEDIMENT TRAP No. 4 OUTFALL PROFILE  
SCALE: HORIZ. 1" = 30'  
VERT. 1" = 5'



HORIZONTAL DRAW-DOWN DEVICE ANCHOR DETAIL  
NOT TO SCALE

SEDIMENT TRAP No. 4 DRAW-DOWN DEVICE  
NOT TO SCALE



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SEDIMENT AND EROSION CONTROL  
TRAP NO. 4 INSET PLAN  
LAUSDOWNE ELEMENTARY SCHOOL  
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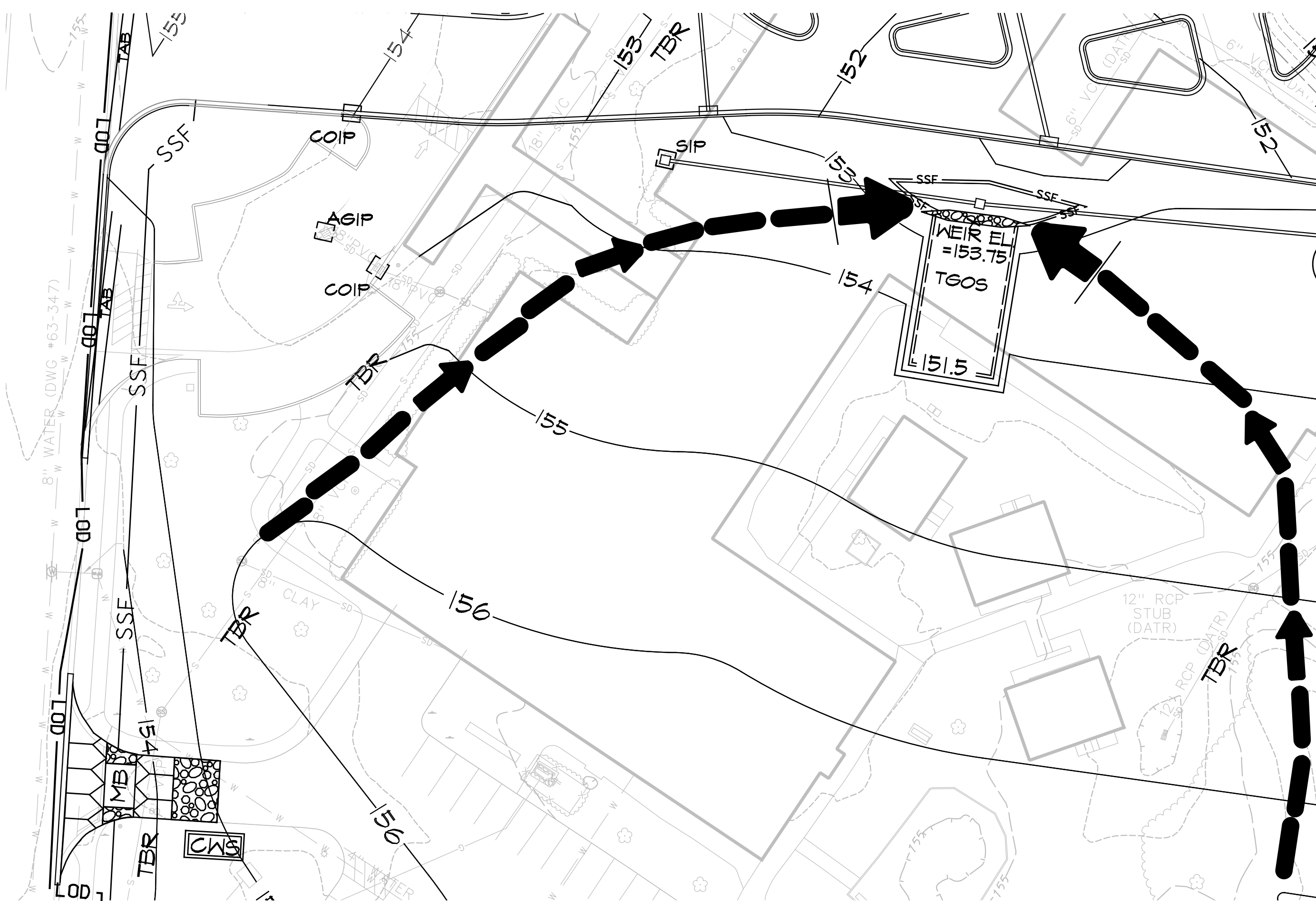
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PROFESSIONAL ENGINEER  
No. 38883  
11.16.16

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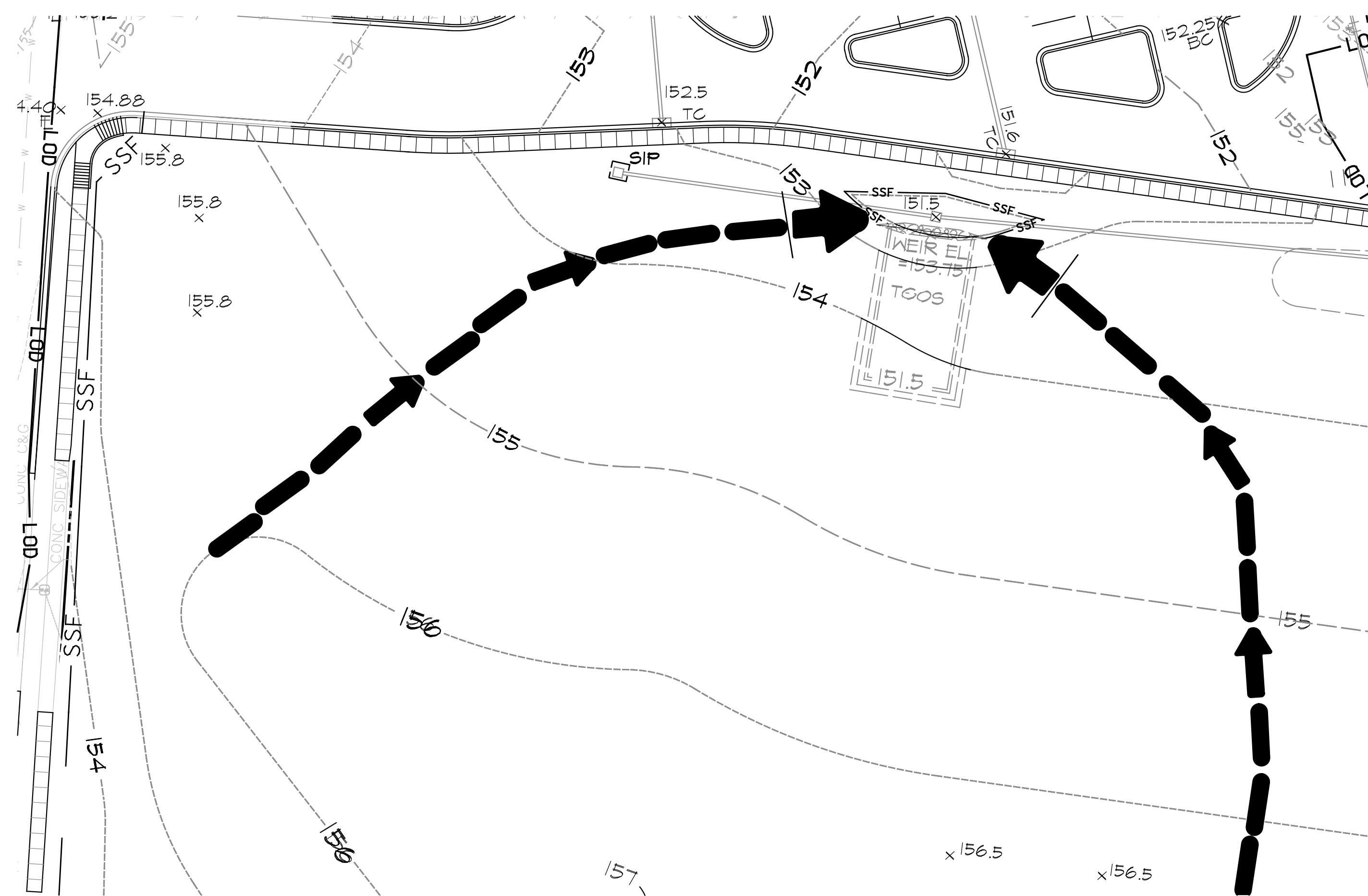
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TEMPORARY GABION OUTLET STRUCTURE  
PHASE 2 - INTERIM CONDITION

SCALE: 1" = 30'



TEMPORARY GABION OUTLET STRUCTURE  
PHASE 2 - FINAL CONDITION

SCALE: 1" = 30'

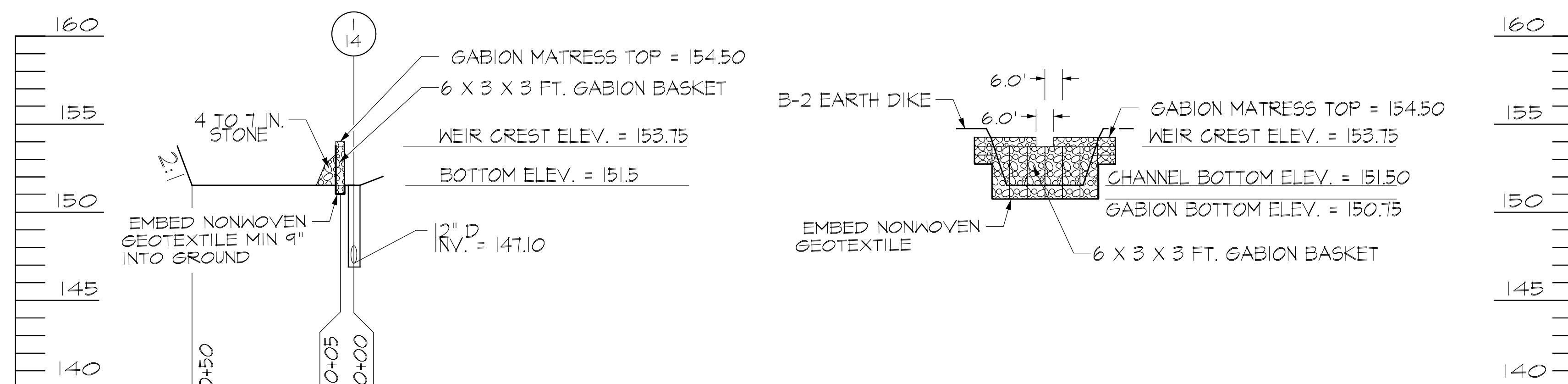
\* TEMPORARY GABION OUTLET STRUCTURE

INITIAL D.A. = 1.40 AC.  
FINAL D.A. = 1.40 AC.  
STORAGE REQUIRED = 2,520 C.F.  
STORAGE PROVIDED = 4,357 C.F.  
EXISTING GROUND ELEV. = 156.69  
( @ OUTLET )

WEIR CREST ELEV. = 153.75  
TRAP BOTTOM ELEV. = 151.50  
TRAP BOTTOM DIM. 26' x 49'  
GABION MATTRESS TOP = 154.50  
SIDE SLOPE = 2:1  
MIN. HEIGHT OF BERM = 154.33

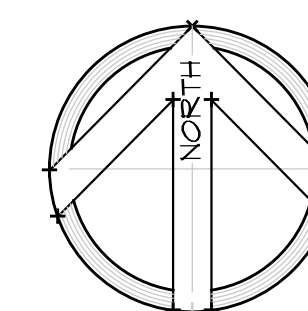
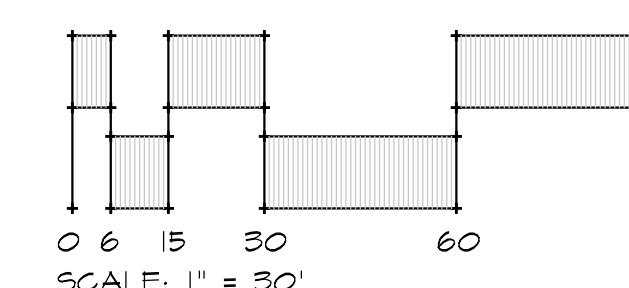
STORAGE VS. ELEVATION CHART

ELEV.	AREA S.F.	STOR. C.F.	DEPTH	STORAGE	CUM. STOR.	CUM. DEPTH
151.5	1,266					
152	1,391	664	0.5	664	664	0.5
153	1,787	1,589	1.0	1,589	2,253	1.5
153.75	3,823	2,104	1.0	2,104	4,357	2.5
				TOTAL STOR. = 4,357 C.F.		



TEMPORARY GABION OUTLET STRUCTURE PROFILES

SCALE: HORIZ. 1" = 30'  
VERT. 1" = 5'



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TEMPORARY GABION OUTLET STRUCTURE  
INSET PLAN  
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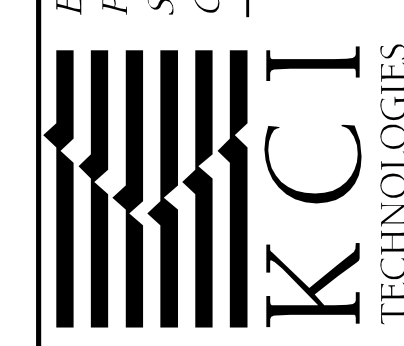


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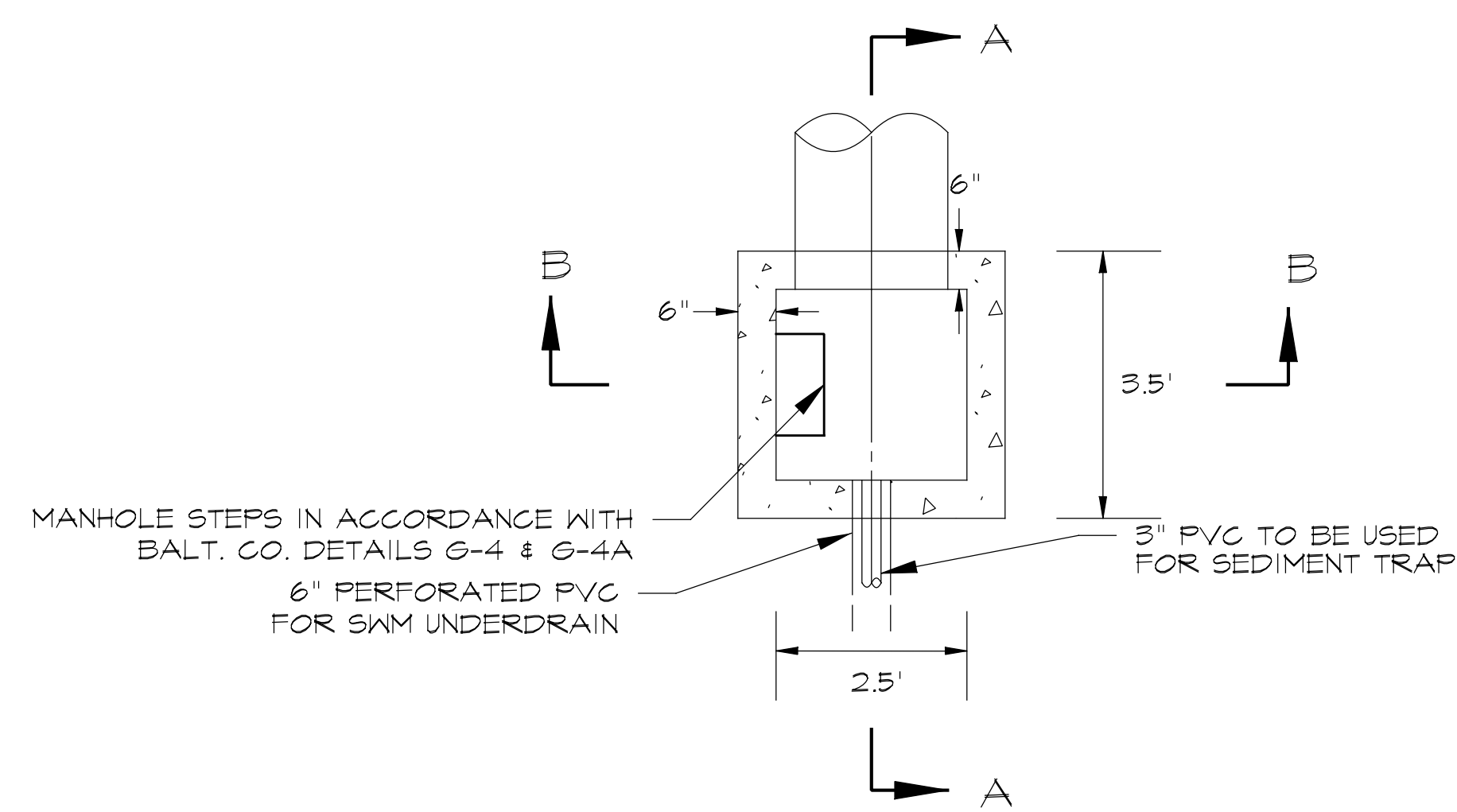
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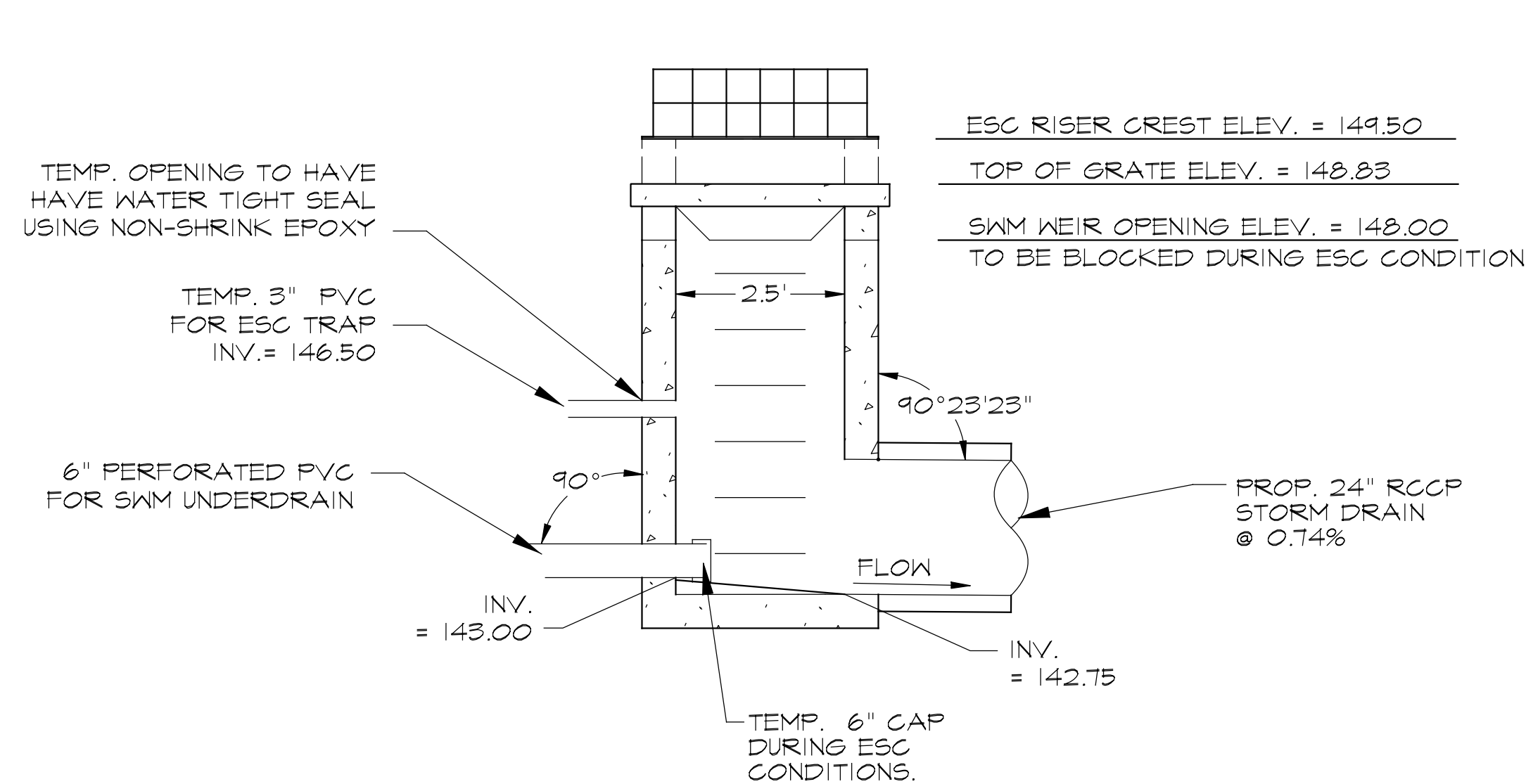
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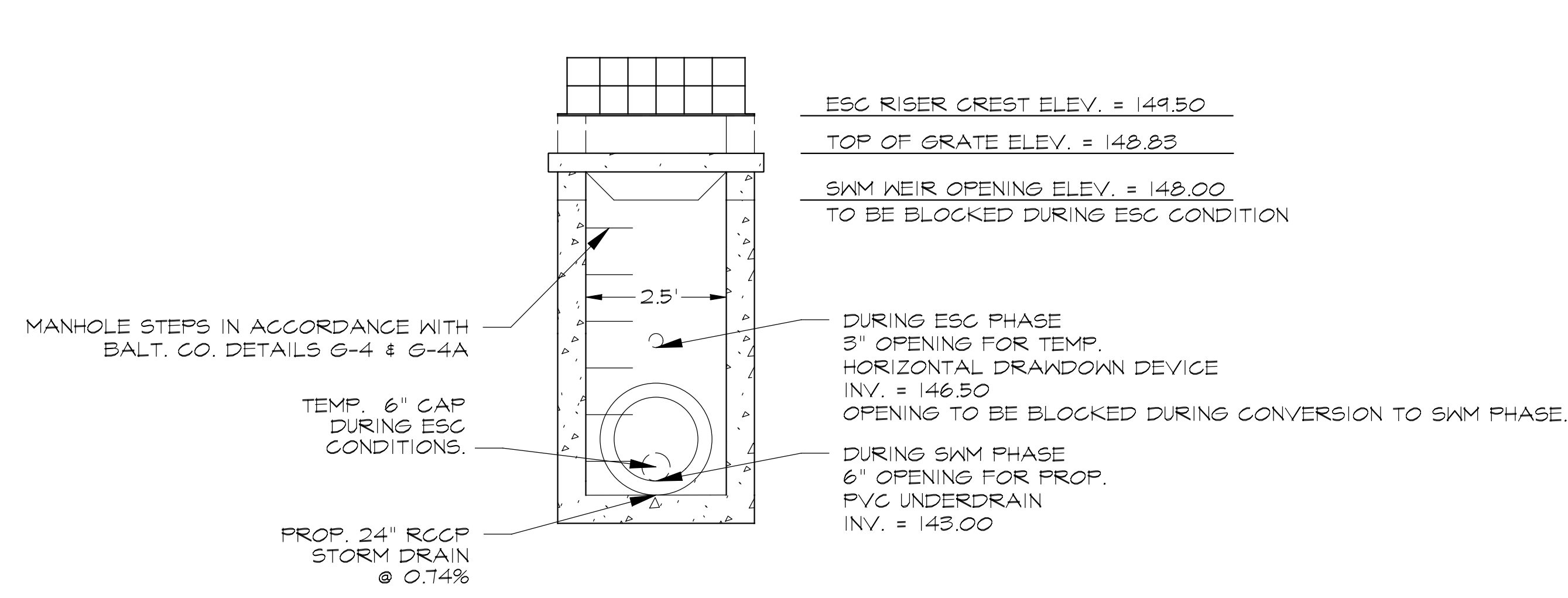
I-1 PLAN VIEW

SCALE: 1" = 2'



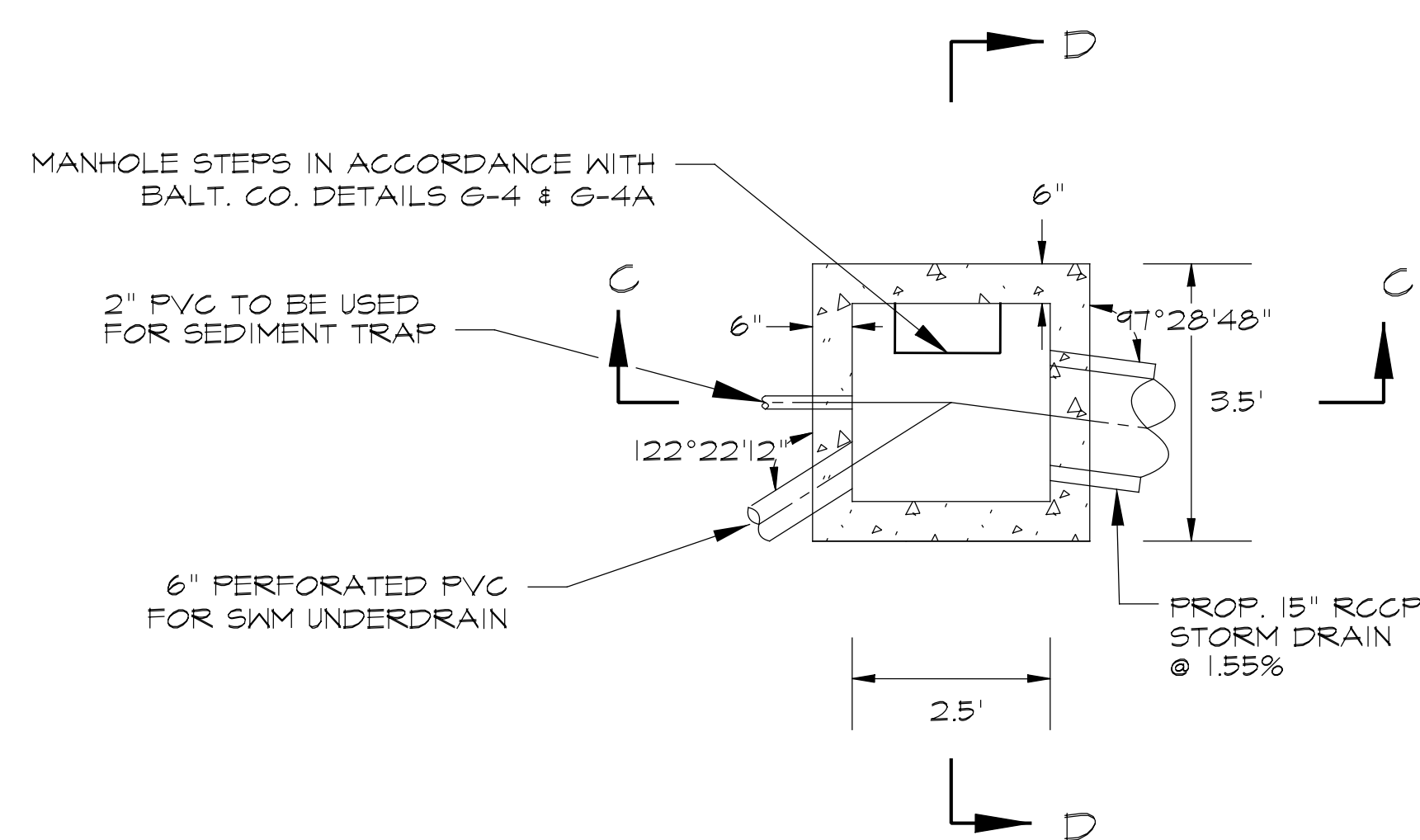
SECTION A - A

SCALE: 1" = 2'



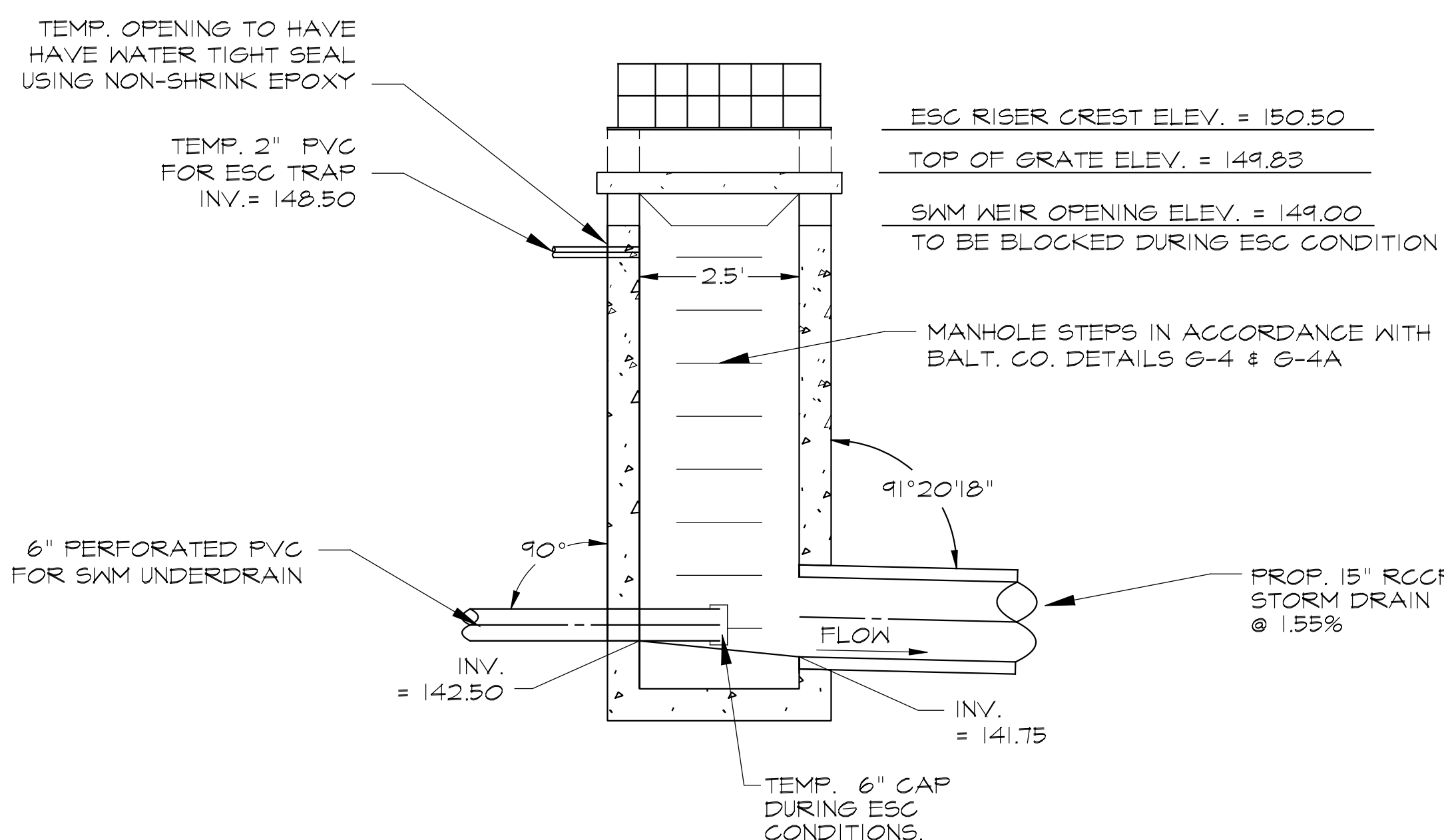
SECTION B - B

SCALE: 1" = 2'



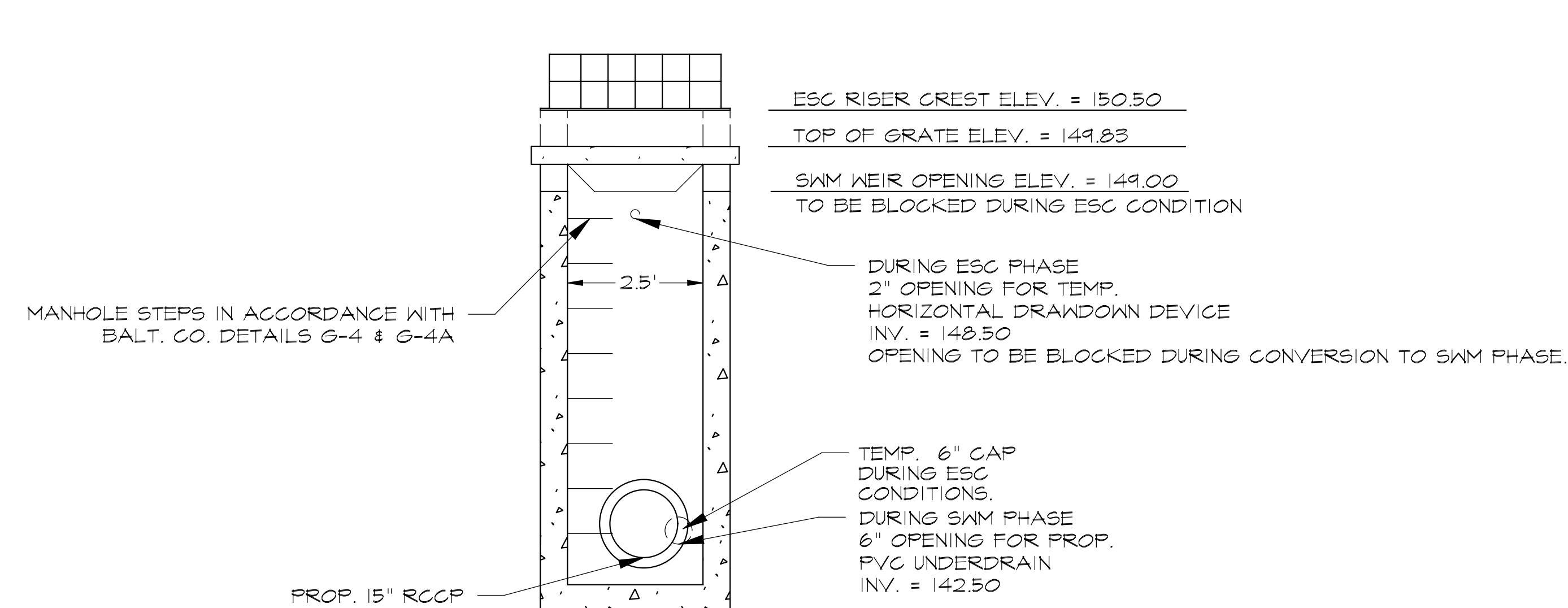
I-6 PLAN VIEW

SCALE: 1" = 2'



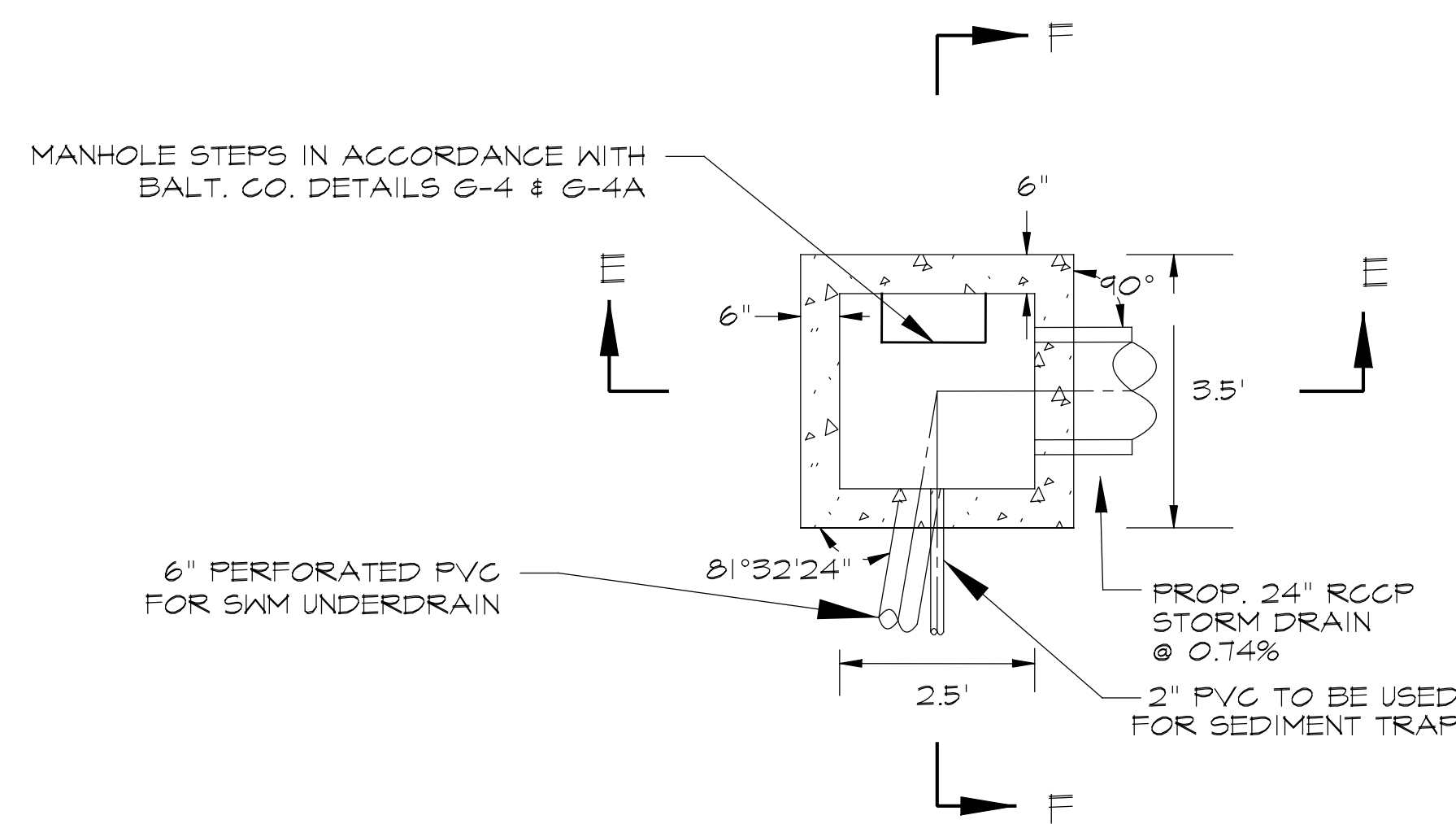
SECTION C - C

SCALE: 1" = 2'



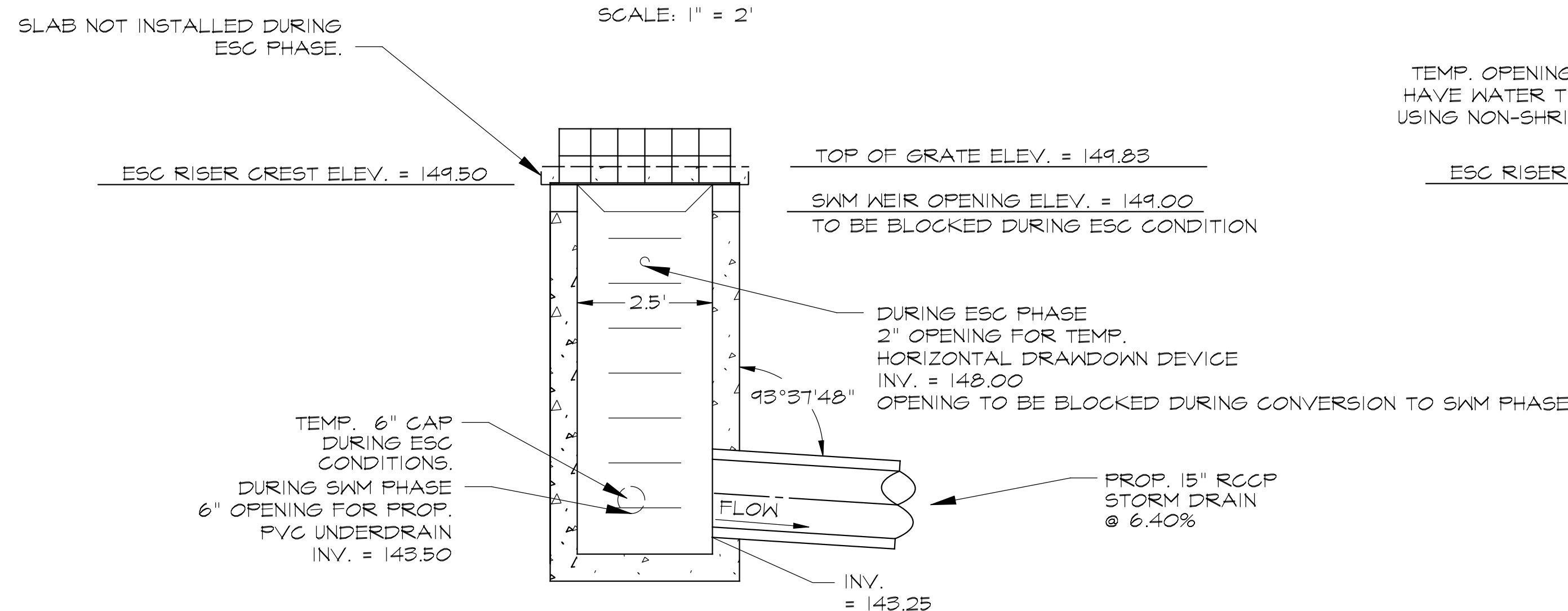
SECTION D - D

SCALE: 1" = 2'



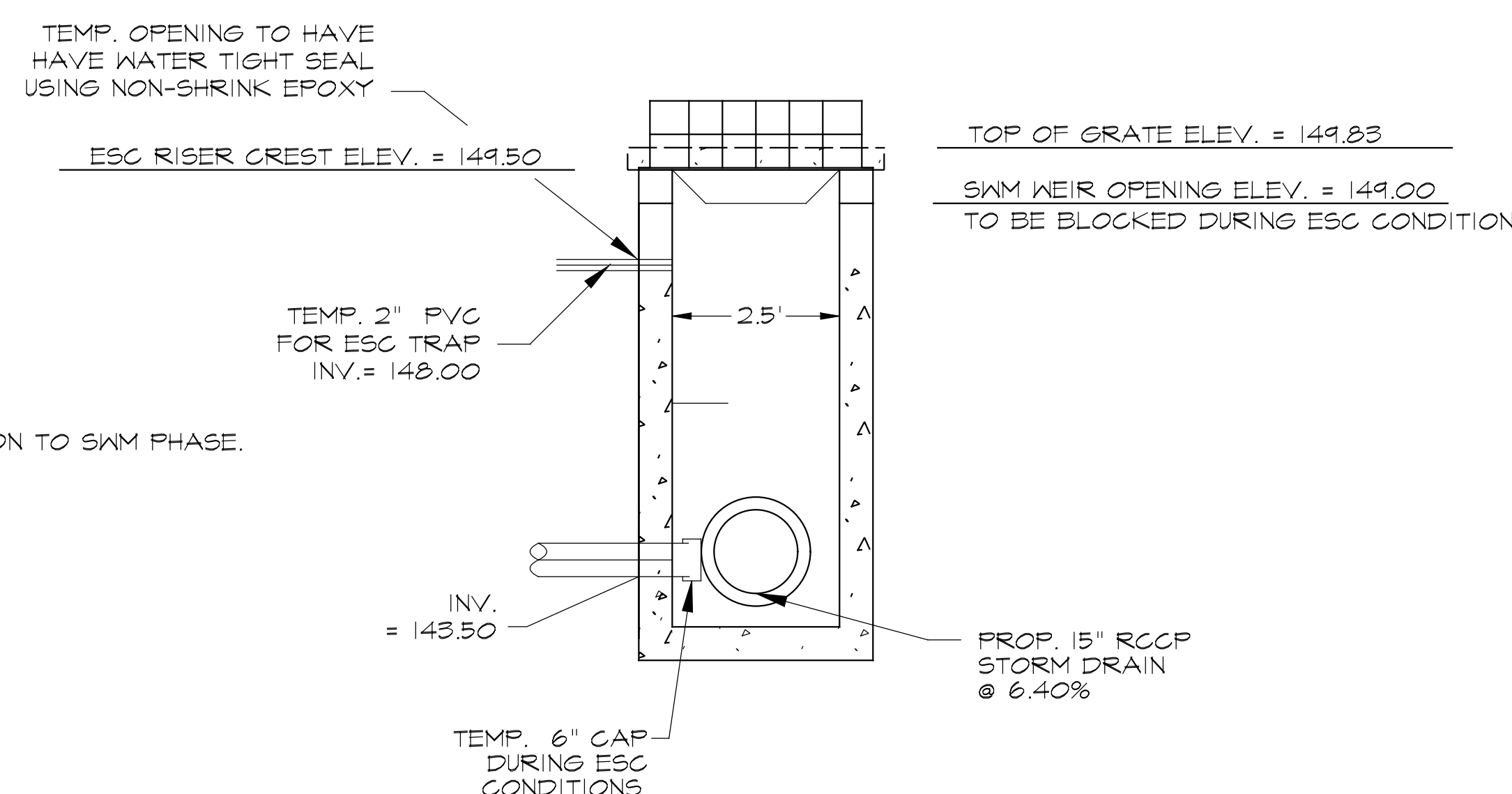
I-15 PLAN VIEW

SCALE: 1" = 2'



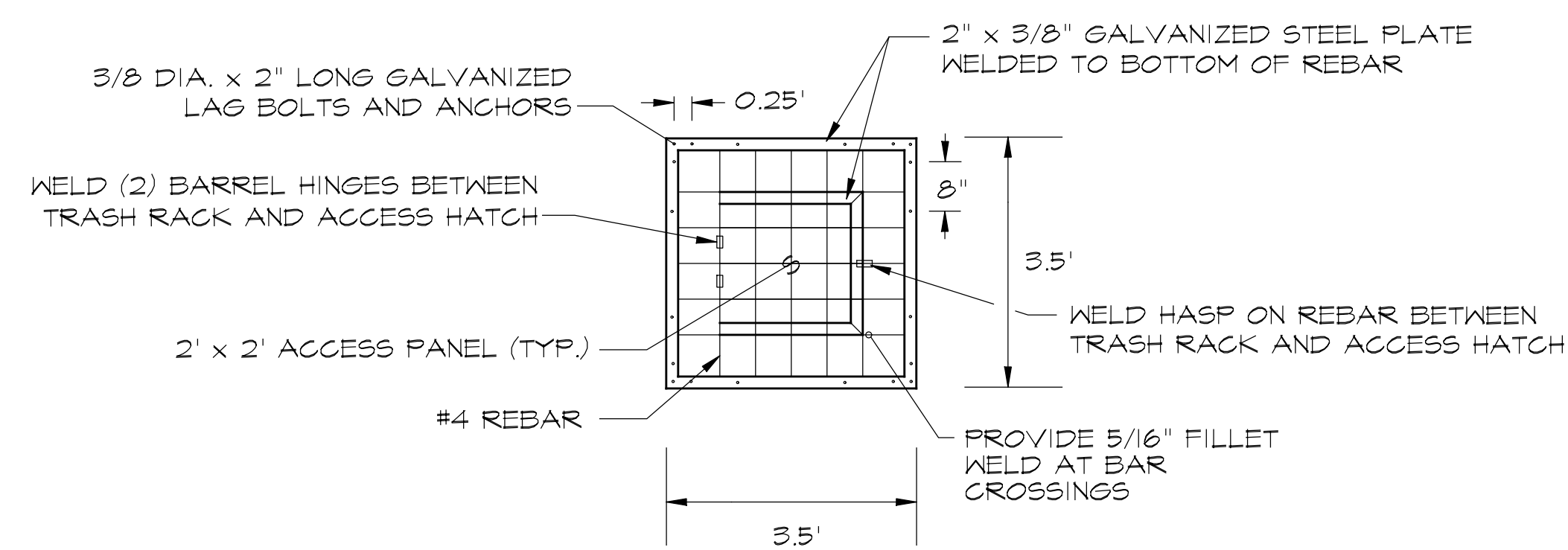
SECTION E - E

SCALE: 1" = 2'



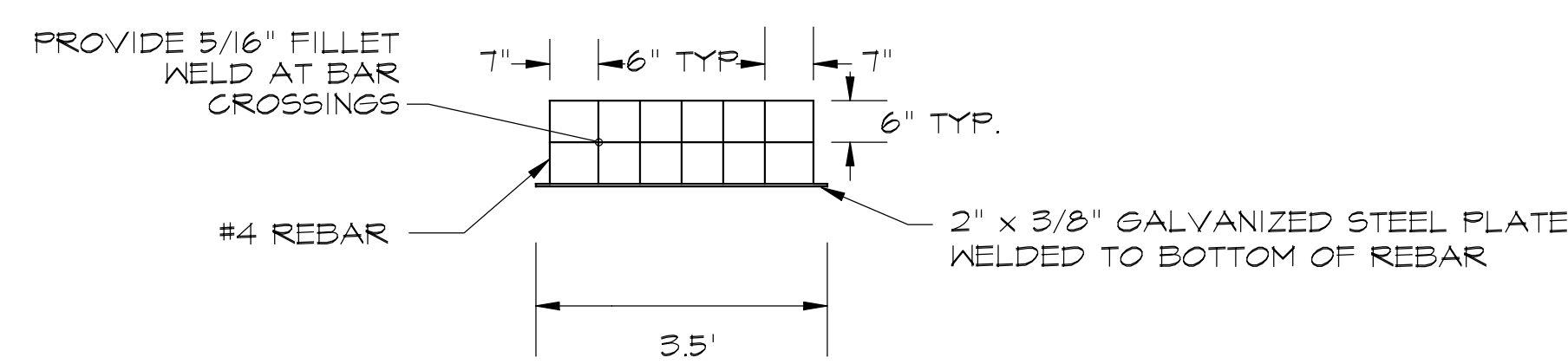
SECTION F - F

SCALE: 1" = 2'



TRASH RACK PLAN VIEW

SCALE: 1" = 2'



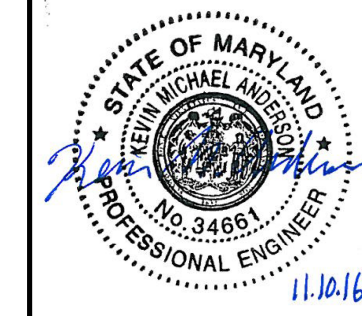
TRASH RACK SECTION

SCALE: 1" = 2'

TRASH RACK TO BE SHOP FABRICATED AND HOT DIPPED GALVANIZED

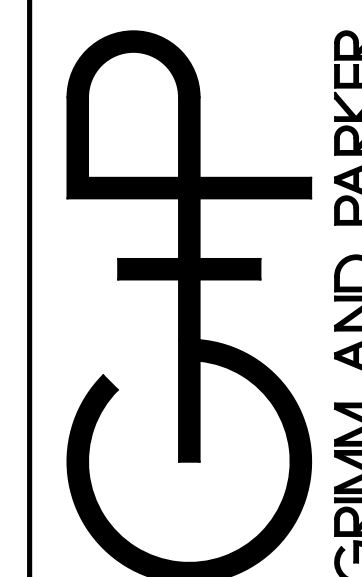
# NOTES:

1. SWM INLETS ARE TO BE TYPE Y-1 INLETS. SEE BALT. CO. DETAIL D - 2.22A. DURING ESC INLETS ARE TO BE MODIFIED AS SPECIFIED FOR SEDIMENT TRAP USE.
2. DURING SWM CONSTRUCTION TEMPORARY NOTCHES / OPENINGS SHALL BE REPAIRED WITH CONCRETE. THE STRUCTURE SHALL BE INSTALLED AND EXPOSED IN THE TEMPORARY NOTCH / OPENING AND A KEYWAY IN THE CREST AT THE TIME OF CONVERSION. THE REBAR SHOULD BE CLEANED WITH MURATIC ACID AND NEW CONCRETE POURED TO SWM WEIR ELEVATION.



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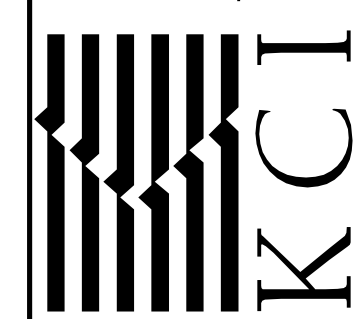
GP #21417

EROSION AND SEDIMENT CONTROL DETAILS  
LAUSDOWNE ELEMENTARY SCHOOL  
BALTIMORE COUNTY, MARYLAND

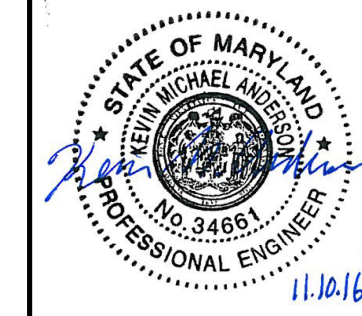
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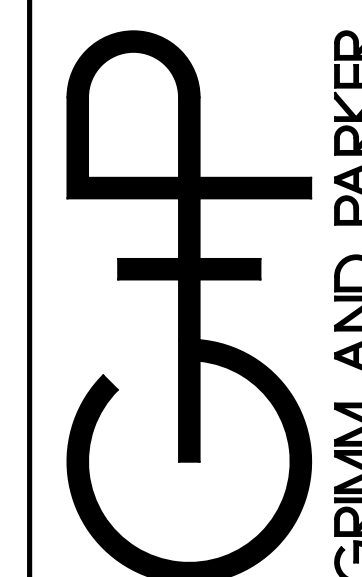


DURING ESC PHASE  
3" OPENING FOR TEMP.  
HORIZONTAL DRAWDOWN DEVICE  
INV. = 146.50  
OPENING TO BE BLOCKED DURING CONVERSION TO SWM PHASE.  
DURING SWM PHASE  
6" OPENING FOR PROP.  
PVC UNDERDRAIN  
INV. = 143.00



PROFESSIONAL CERTIFICATION  
I HEREBY CERTIFY THAT THESE  
DOCUMENTS WERE PREPARED OR  
APPROVED BY ME AND THAT I AM  
A FULLY LICENSED PROFESSIONAL  
ENGINEER UNDER THE LAWS OF  
THE STATE OF MARYLAND  
LICENSE NO. 34865  
EXPIRATION DATE 07/10/17

11720 Beltsville Drive  
Suite 600  
Calverton, MD 20705  
Tel 301.595.1000  
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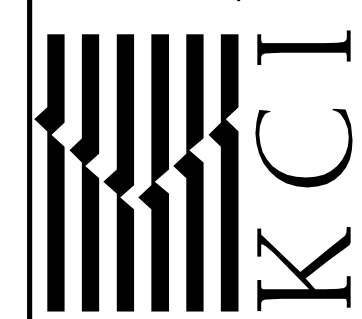
GP #21417

EROSION AND SEDIMENT CONTROL DETAILS  
LAUSDOWNE ELEMENTARY SCHOOL  
BALTIMORE COUNTY, MARYLAND

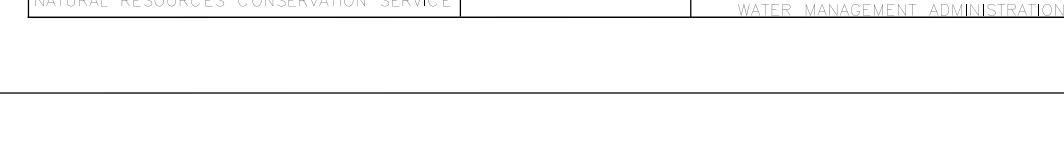
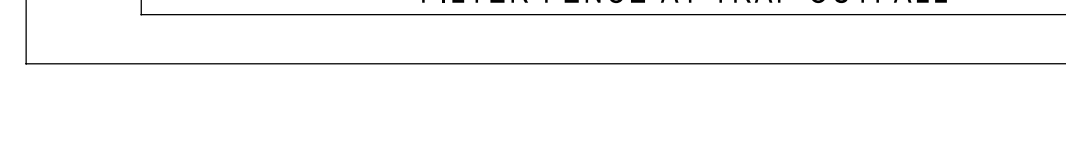
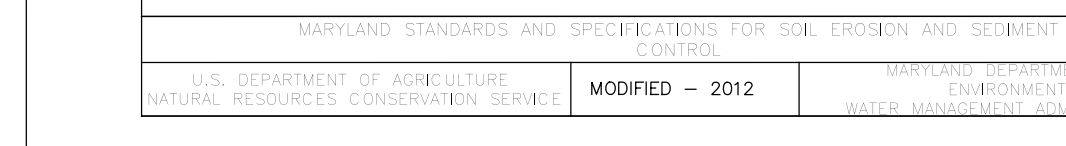
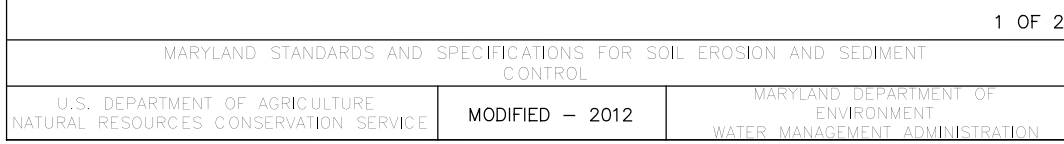
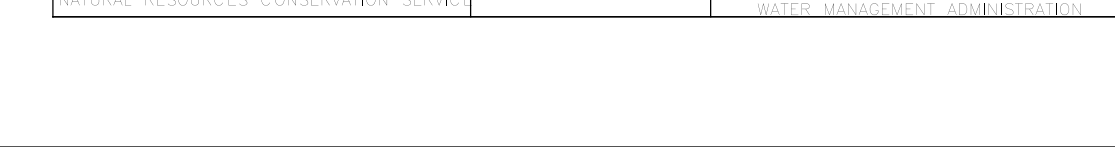
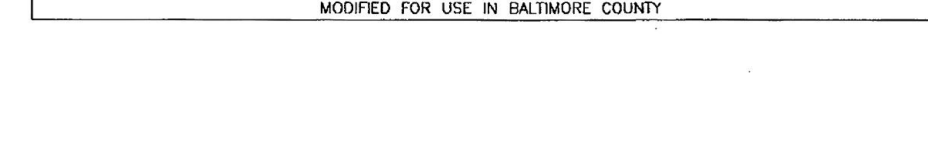
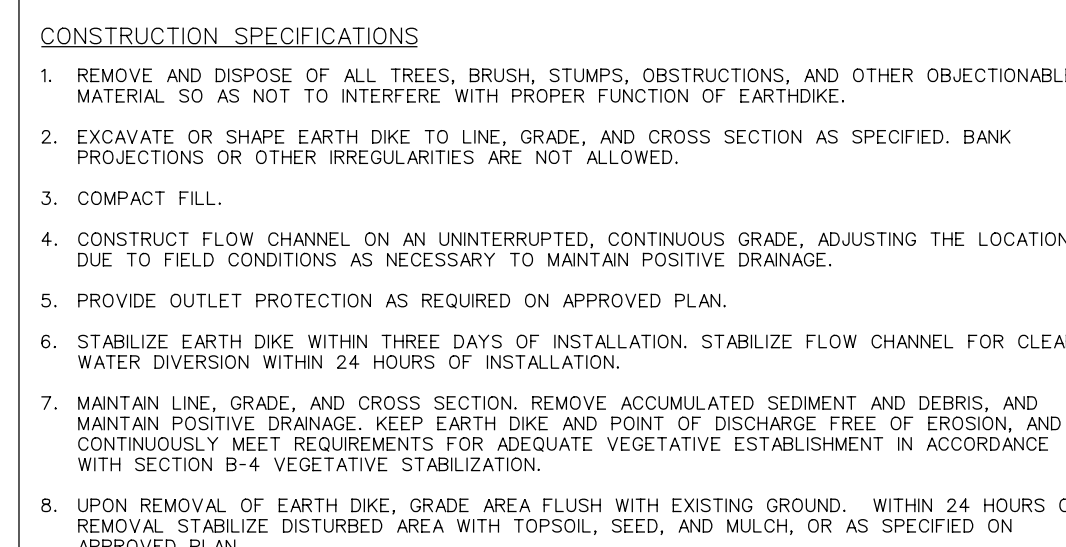
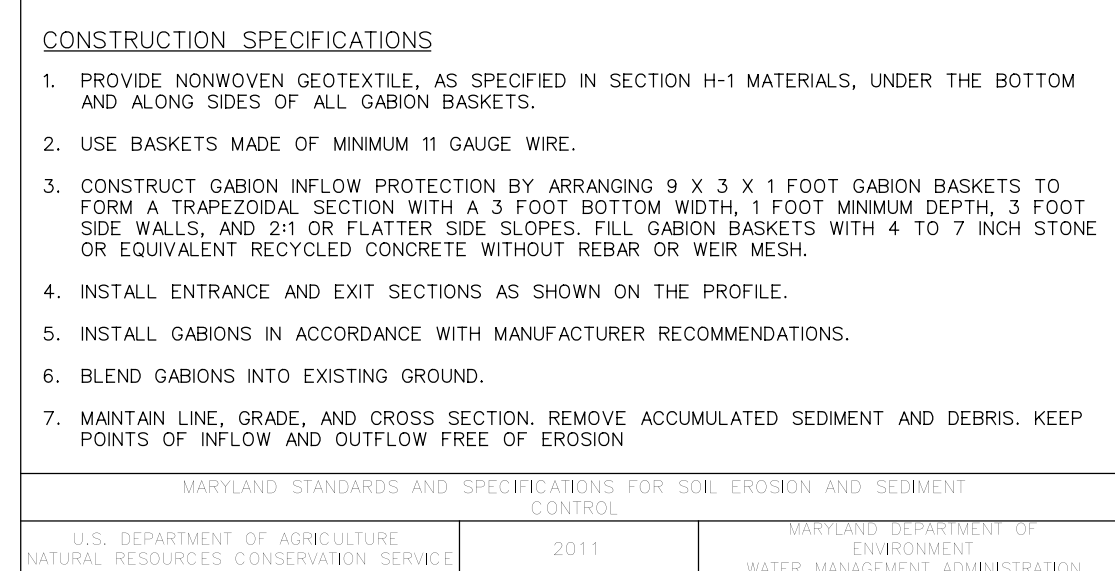
DATE	DESCRIPTION
11/17/16	BID SET

**C-6.8**  
BID SET  
11/17/2016  
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ENGINEERS  
PLANNERS  
SCIENTISTS  
CONSTRUCTION MANAGERS  
9348 Reisterstown Road  
Suite 200  
Pikesville, Maryland 21113  
Telephone: (410) 386-7800  
Fax: (410) 386-7818



DURING ESC PHASE  
3" OPENING FOR TEMP.  
HORIZONTAL DRAWDOWN DEVICE  
INV. = 146.50  
OPENING TO BE BLOCKED DURING CONVERSION TO SWM PHASE.  
DURING SWM PHASE  
6" OPENING FOR PROP.  
PVC UNDERDRAIN  
INV. = 143.00



BALTIMORE COUNTY SOIL CONSERVATION DISTRICT  
APPROVED FOR SEDIMENT CONTROL

DATE:

[illegible]



PHASE 1  
SEQUENCE OF CONSTRUCTION

1. NOTIFY BALTIMORE COUNTY DEPARTMENT OF PERMITS, APPROVALS AND INSPECTIONS, SEDIMENT CONTROL, (410-887-8226) AT LEAST 48 HOURS PRIOR TO BEGINNING WORK. NOTIFY THE CERTIFYING ENGINEER KCI TECHNOLOGIES, INC. (410-516-1800) AT LEAST 12 HOURS PRIOR TO BEGINNING AS BUILT INSPECTIONS.
2. INSTALL ORANGE HIGH VISIBILITY TREE PROTECTION FENCE FENCE SHALL BE MANUALLY INSTALLED 2 FEET OUTSIDE THE LIMIT OF DISTURBANCE AS SHOWN ON PLAN. ORANGE HIGH VISIBILITY FENCE SHALL BE INSTALLED ALONGS 1' AROUND ALL TREES TO BE SAVED. THIS WORK SHALL BE COMPLETED PRIOR TO AND INSPECTED AT THE PRECONSTRUCTION MEETING. SEE C-1.3 DETAIL 6.
3. CONTACT MISS UTILITY AT (1-800-251-7777) AT LEAST (3) DAYS IN ADVANCE OF STARTING WORK ON PLANS.
4. CONTRACTOR SHALL CLEAR AND GRUB FOR SEDIMENT AND EROSION CONTROL MEASURES OR DEVICES ONLY. INSTALL ALL PERIMETER SUPER SILT FENCE, SUPER FENCE DIVERSION, EXISTING INLET PROTECTION, AND STABILIZED CONSTRUCTION ENTRANCE WITH MOUNTABLE BERM AS SHOWN ON SHEET C-6.1.
5. NOTIFY BALTIMORE COUNTY DEPARTMENT OF PERMITS, APPROVALS AND INSPECTIONS, SEDIMENT CONTROL, UPON COMPLETION OF SAID INSTALLATION.
6. WITH THE APPROVAL OF BALTIMORE COUNTY DEPARTMENT OF PERMITS, APPROVALS AND INSPECTIONS, SEDIMENT CONTROL AND THE SEDIMENT CONTROL INSPECTOR, CLEAR AND GRUB REMAINDER OF SITE.
7. INSTALL PROPOSED 30" STORM DRAIN FROM MH-10 TO MH-8, AS WELL THE PROPOSED 18" STORM DRAIN FROM MH-13 TO MH-16 PER THE UTILITY NOTE.
8. ONCE ABOVE MENTIONED STORM DRAIN IS COMPLETED, INSTALL SEDIMENT TRAP NO. 1, TRAP NO. 3, AND TRAP NO. 4. INSTALL TRAPS #5 AND #4 PER THE APPROVED SWM PLANS WITH THE EXCEPTION OF SPECIFIC MODIFICATIONS SHOWN ON THESE SEDIMENT CONTROL PLANS WHICH WILL ENABLE THEM TO FUNCTION AS A TRAPPING DEVICE. SEE INITIAL GRADING INSETS ON SHEETS C-6.3, 6.5, AND 6.6. UPON COMPLETION OF TRAP CONSTRUCTION, CONTRACTOR SHALL INSTALL ALL ASSOCIATED EARTH DIKE, GABION INFLOW PROTECTIONS, BATTERIES, AND REMOVABLE PUMPING STATION.

FOR SEDIMENT TRAP NO. 1, TRAP NO. 3, AND TRAP NO. 4:

- a. EXCAVATE POOL AREA, EXCAVATED MATERIAL NOT IMMEDIATELY RE-USED FOR CONSTRUCTION TO BE PLACED IN A DESIGNATED STOCK PILE AREA. INSTALL SILT FENCE BELOW THE STOCK PILE AREA BEFORE TRANSPORT OF MATERIAL.
  - b. INSTALL PRINCIPLE SPILLWAY. INSTALL 24" FLEXIBLE HDPE IN TRAP #3
  - c. SHAPE POOL AREA TO DESIGN CONFIGURATION AS SHOWN ON INITIAL GRADING INSETS.
  - d. INSTALL REMOVABLE PUMPING STATION (RPS) AND Baffle BOARD IN POOL AREA AS SHOWN ON INSETS. RPS TO BE USED TO DEWATER TRAPPING DEVICES FOR MAINTENANCE PURPOSES SUCH AS CLEANOUT OPERATIONS AND AT THE TIME OF REMOVAL OR CONVERSION. AFTER EACH RAINFALL EVENT TRAP NO. 1 TO BE PUMPED DOWN TO BOTTOM OF FACILITY WITH IN THREE CALENDAR DAYS.
  - e. STABILIZE THE TRAP PER TEMPORARY SEEDING SPECIFICATIONS AS SHOWN ON SHEET C-6.11. STABILIZE STEEP SLOPE WITH TEMPORARY SEED AND SOIL STABILIZATION MATTING. AFTER TRAP #1 IS COMPLETED AND FUNCTIONAL, INSTALL TEMPORARY 12" DRAIN AND ASSOCIATED GABION INFLOW PROTECTION. ONCE COMPLETED REMOVE EXISTING DRAIN FROM EXISTING I-15 TO EXISTING I-14.
9. CONTRACTOR SHALL CONCURRENTLY INSTALL REMAINING TRUCK STORM DRAIN FROM MH-8 TO MH-1, MH-5 TO I-15A, MH-5 TO I-22 AND MH-5 TO TEMPORARY CLEANOUT T AND TEMPORARY 12" CAP. INSTALL INLET PROTECTION AND TEMPORARY BULKHEAD WHERE SHOWN ON THE PLAN.

NOTE: INSTALL STORM DRAIN PER UTILITY NOTE ON SHEET C-5.1

10. NOTIFY BALTIMORE COUNTY DPAI-SC UPON COMPLETION OF SAID INSTALLATIONS.
11. WITH THE APPROVAL OF BALTIMORE COUNTY DEPARTMENT OF PERMITS, APPROVALS AND INSPECTIONS, SEDIMENT CONTROL, AND SEDIMENT CONTROL INSPECTOR, CONTRACTOR BEGIN DEMOLITION OF EXISTING IMPROVEMENTS, SUCH AS EXISTING PAVEMENT, WALKS AND STORMDRAINS, BEGIN ROUGH GRADING OF SITE, STOCKPILE EXCESS MATERIALS WHERE NOTED ON PLAN, WHERE POSSIBLE BRING AREAS TO FINAL GRADE AS SOON AS POSSIBLE AND IMMEDIATELY STABILIZED PER PERMANENT STABILIZATION (FOR AREAS OF DISTURBANCE OUTSIDE OF THE SEDIMENT CONTROL EMPLOY DAILY STABILIZATION)

NOTE: ALL MATERIALS REMOVED FROM SITE SHALL BE TAKEN TO A SITE WITH AN OPEN GRADING PERMIT AND APPROVED EROSION AND SEDIMENT CONTROL PLAN.

12. EXISTING INLET I-14 AND ASSOCIATED STORMDRAIN TO REMAIN AS LONG AS REASONABLY POSSIBLE PRIOR TO DEMOLITION OF EXISTING STORMDRAIN AND TEMPORARY INLETS ARE INSTALLED AND FULLY FUNCTIONAL, AND APPROVAL FROM BALTIMORE COUNTY IS RECEIVED.

13. AS SUBGRADES ARE REACHED INSTALL WATER AND SEWER LINES AND STORM DRAINS. PROVIDE INLET PROTECTION FOR ALL PROPOSED INLETS AS CALLED OUT IN SHEET C-6.1. SIMULTANEOUSLY SHUT OUT STORM DRAINS FOR FUTURE EXTENSION PER PLAN C-6.1.

NOTES:

- a. IF STORM DRAINS SHALL BE USED TO CONVEY SEDIMENT LADEN WATER TO SEDIMENT TRAPS, DRAINS SHALL BE FLUSHED AND TRAPS CLEANED OUT AFTER EVERY STORM AND UPON COMPLETION AND PERMANENT STABILIZATION OF SITE.
- b. ALL UTILITIES INSTALLED OUTSIDE OF PERIMETER SEDIMENT CONTROLS SHALL BE STABILIZED AT THE END OF EACH DAY PER UTILITY NOTE ON SHEET C-6.11.

14. BEGIN CONSTRUCTION OF BUILDING, BUS LOOP, AND SOCCER FIELD. TEMPORARY PARKING LOT IS TO BE THE LAST AREA CONSTRUCTED. CONCURRENTLY INSTALL CURB AND GUTTER, SIDEWALK, AND STONE BASE COURSE FOR PAVED AREAS. PRIOR TO CONSTRUCTION OF SOUTH EAST CORNER OF BUILDING, INSTALL PIPE FROM I-19 TO BIO #2 RETAINING WALL IN POND AND CONVERT POND TO ITS INTERIM CONDITION PER INSET ON SHEET C-6.4.
15. ONCE SOCCER FIELD, BUS LOOP, AND BUILDING ARE CONSTRUCTED DEMOLITION AND CONSTRUCTION OF TEMPORARY PARKING LOT MAY BEGIN.

- a. CONSTRUCT TEMPORARY PARKING LOT FROM PROPOSED FIRE LOOP TO EXISTING BUS LOOP.
- b. CONSTRUCT PROPOSED PARKING EXIT.
- c. ONCE TEMPORARY LOOP IS COMPLETED, DEMOLITION OF EXISTING LOOP EXIT MAY BEGIN AND PROPOSED BUS LOOP MAY BE COMPLETED.

16. CONTRACTOR SHALL CONSTRUCT SEDIMENT TRAP NO. 2, UPON COMPLETION OF TEMPORARY LOOP CONSTRUCTION PER THE APPROVED SWM PLANS WITH THE EXCEPTION OF SPECIFIC MODIFICATIONS SHOWN ON THESE SEDIMENT CONTROL PLANS WHICH WILL ENABLE THEM TO FUNCTION AS A TRAPPING DEVICE. UPON COMPLETION OF TRAP CONSTRUCTION, CONTRACTOR SHALL INSTALL ALL ASSOCIATED EARTH DIKE, GABION PROTECTION, AND REMOVABLE PUMPING STATION.

FOR SEDIMENT TRAP NO. 2:

- a. EXCAVATE POOL AREA, EXCAVATED MATERIAL NOT IMMEDIATELY RE-USED FOR CONSTRUCTION TO BE PLACED IN A DESIGNATED STOCK PILE AREA. INSTALL SILT FENCE BELOW THE STOCK PILE AREA BEFORE TRANSPORT OF MATERIAL.
- b. INSTALL PRINCIPLE SPILLWAY.
- c. SHAPE POOL AREA TO DESIGN CONFIGURATION AS SHOWN 'PHASE 1' INSTALLATION AT INTERIM CONDITION' INSET ON SHEET C-6.4.
- d. INSTALL REMOVABLE PUMPING STATION (RPS) AND BATTLE BOARD IN POOL AREA AS SHOWN. RPS TO BE USED TO DEWATER TRAPPING DEVICES FOR MAINTENANCE PURPOSES SUCH AS CLEANOUT OPERATIONS AND AT THE TIME OF REMOVAL.
- e. STABILIZE THE TRAP PER TEMPORARY SEEDING SPECIFICATIONS AS SHOWN ON SHEET C-6.11.

17. UPON COMPLETION OF BUILDING, SIDEWALKS, CURBING, UTILITIES AND PAVED AREAS, FINE GRADE AND PERMANENTLY STABILIZE REMAINING AREAS PER SEEDING SPECIFICATIONS. STEEP SLOPES AND SNALES TO BE STABILIZED WITH PERMANENT SEED AND SOIL STABILIZATION MATTING.

18. NOTIFY BALTIMORE COUNTY DPAI-SC UPON COMPLETION OF SAID INSTALLATIONS.

19. ONCE CONTRIBUTING DRAINAGE AREAS ARE STABILIZED AND WITH THE APPROVAL OF THE BALTIMORE COUNTY PERMITS, APPROVALS AND INSPECTIONS SEDIMENT CONTROL AND THE SEDIMENT CONTROL INSPECTOR, FLUSH STORM DRAINS, PERFORM FINAL CLEANOUT OF SEDIMENT TRAPS AND CONVERT SEDIMENT TRAPS NO. 3 AND NO. 4 TO THEIR FINAL STORMWATER MANAGEMENT CONDITIONS PER THE APPROVED STORMWATER MANAGEMENT PLANS (SEE SHEETS C-6.3 & C-6.5 FOR FINAL GRADING INSETS) AND STABILIZE PER DAILY STABILIZATION NOTES ON SHEET C-6.11.

NOTES:

- a. ALL FINAL DREDGE SPOILS MATERIALS REMOVED FROM THE FINAL CLEANOUT OF THE SEDIMENT TRAP SHALL BE TAKEN TO A SITE WITH AN OPEN GRADING PERMIT AND APPROVED EROSION AND SEDIMENT CONTROL PLAN.
- b. STORMWATER MANAGEMENT AREAS ARE NOT TO BE COMPACTED PRIOR TO FACILITY CONSTRUCTION.

20. CONTRACTOR SHALL PERFORM FINAL PAVING AND PERMANENT STABILIZATION.

21. UPON COMPLETION OF PHASE 1 SITE WORK AND STABILIZATION INCLUDING ESTABLISHED VEGETATION AND WITH THE APPROVAL OF THE BALTIMORE COUNTY DEPARTMENT OF PERMITS, APPROVALS AND INSPECTIONS SEDIMENT CONTROL AND THE SEDIMENT CONTROL INSPECTOR, BEGIN REMOVAL OF PERIMETER SEDIMENT CONTROL DEVICES EXCEPT FOR TRAPS #1 AND #2 AND ASSOCIATED SEDIMENT CONTROL DEVICES SUCH AS SUPER SILT FENCE, SUPER FENCE DIVERSION, AND INLET PROTECTION. STABILIZE THOSE AREAS DISTURBED BY THE SEDIMENT CONTROL DEVICE REMOVAL. SUBMIT AS-BUILT STORMWATER MANAGEMENT PLANS FOR MICRO-BIORETENTION NO. 1 AND 2 TO THE DEPARTMENT OF ENVIRONMENTAL PROTECTION AND SUSTAINABILITY WITHIN 30 DAYS OF CONVERSION.

NOTE: PRIOR TO SWM CONVERSION EARTHDIKES MUST BE REMOVED FIRST.

PHASE 2  
SEQUENCE OF CONSTRUCTION

1. NOTIFY BALTIMORE COUNTY DEPARTMENT OF PERMITS, APPROVALS AND INSPECTIONS, SEDIMENT CONTROL, (410-887-8226) AT LEAST 48 HOURS PRIOR TO BEGINNING WORK. NOTIFY THE CERTIFYING ENGINEER KCI TECHNOLOGIES, INC. (410-516-1800) AT LEAST 12 HOURS PRIOR TO BEGINNING AS BUILT INSPECTIONS.
2. VERIFY AND REPAIR AS NEEDED HIGH VISIBILITY TREE PROTECTION FENCING ALONG LIMIT OF DISTURBANCE. THIS WORK SHALL BE COMPLETED PRIOR TO AND INSPECTED AT THE PRECONSTRUCTION MEETING. SEE C-1.3 DETAIL 6.
3. CONTACT MISS UTILITY AT (1-800-251-7777) AT LEAST (3) DAYS IN ADVANCE OF STARTING WORK ON PLANS.
4. CONTRACTOR SHALL CLEAR AND GRUB FOR AND INSTALL ALL STABILIZED CONSTRUCTION ENTRANCE, PERIMETER SUPER SILT FENCE, AND INLET PROTECTION ON EXISTING INLETS AS SHOWN ON C-6.2. PROVIDE MAINTENANCE TO EXISTING PHASE 1 SEDIMENT CONTROL MEASURES AS NEEDED.
5. NOTIFY BALTIMORE COUNTY DEPARTMENT OF PERMITS, APPROVALS AND INSPECTIONS, SEDIMENT CONTROL, UPON COMPLETION OF SAID DEVICES.
6. WITH THE APPROVAL OF BALTIMORE COUNTY DEPARTMENT OF PERMITS, APPROVALS AND INSPECTIONS AND SEDIMENT CONTROL INSPECTOR, CONTRACTOR BEGIN PHASE 2 DEMOLITION BEGINNING WITH EXISTING BUILDING. ONCE COMPLETED BEGIN DEMOLITION ON THE REST OF THE EXISTING IMPROVEMENTS SUCH AS EXISTING PAVEMENT, WALKS AND STORM DRAINS. BEGIN ROUGH GRADING OF SITE, STOCKPILE EXCESS MATERIALS WHERE NOTED ON PLAN. WHERE POSSIBLE BRING AREAS TO FINAL GRADE AS SOON AS POSSIBLE FOR GABION OUTLET STRUCTURE.

NOTE: ALL MATERIALS REMOVED FROM SITE SHALL BE TAKEN TO A SITE WITH AN OPEN GRADING PERMIT AND APPROVED EROSION AND SEDIMENT CONTROL PLAN.

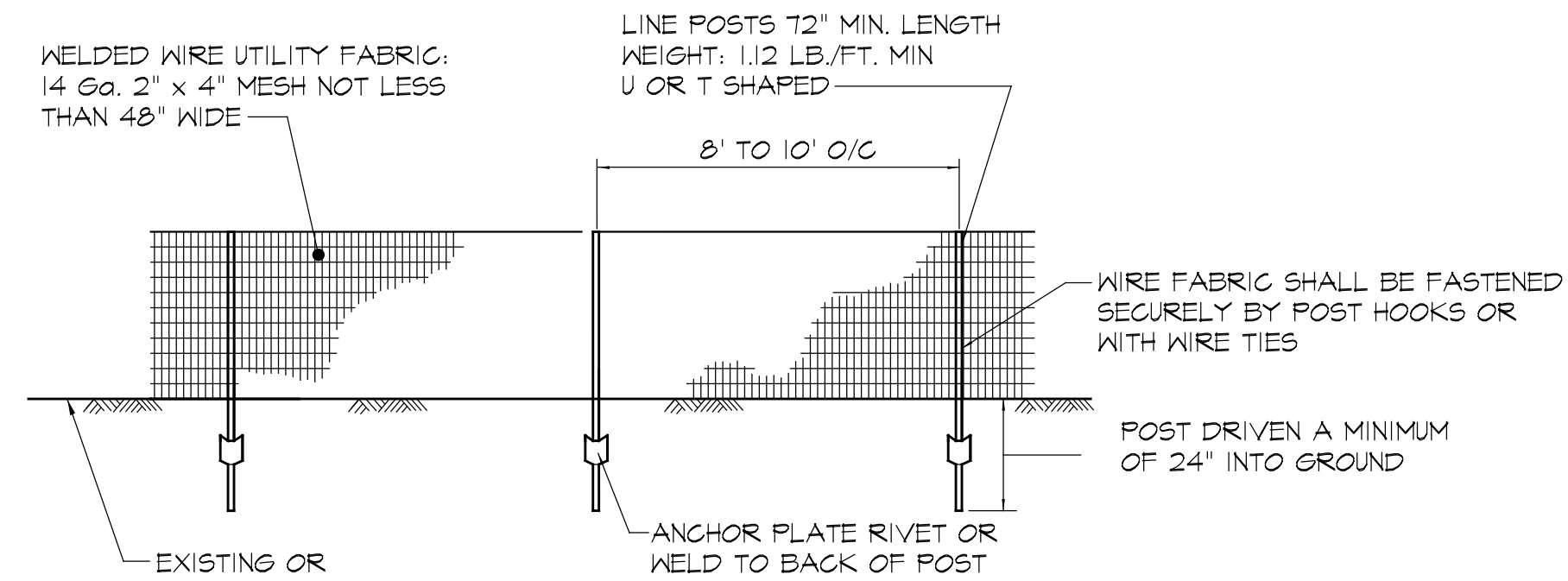
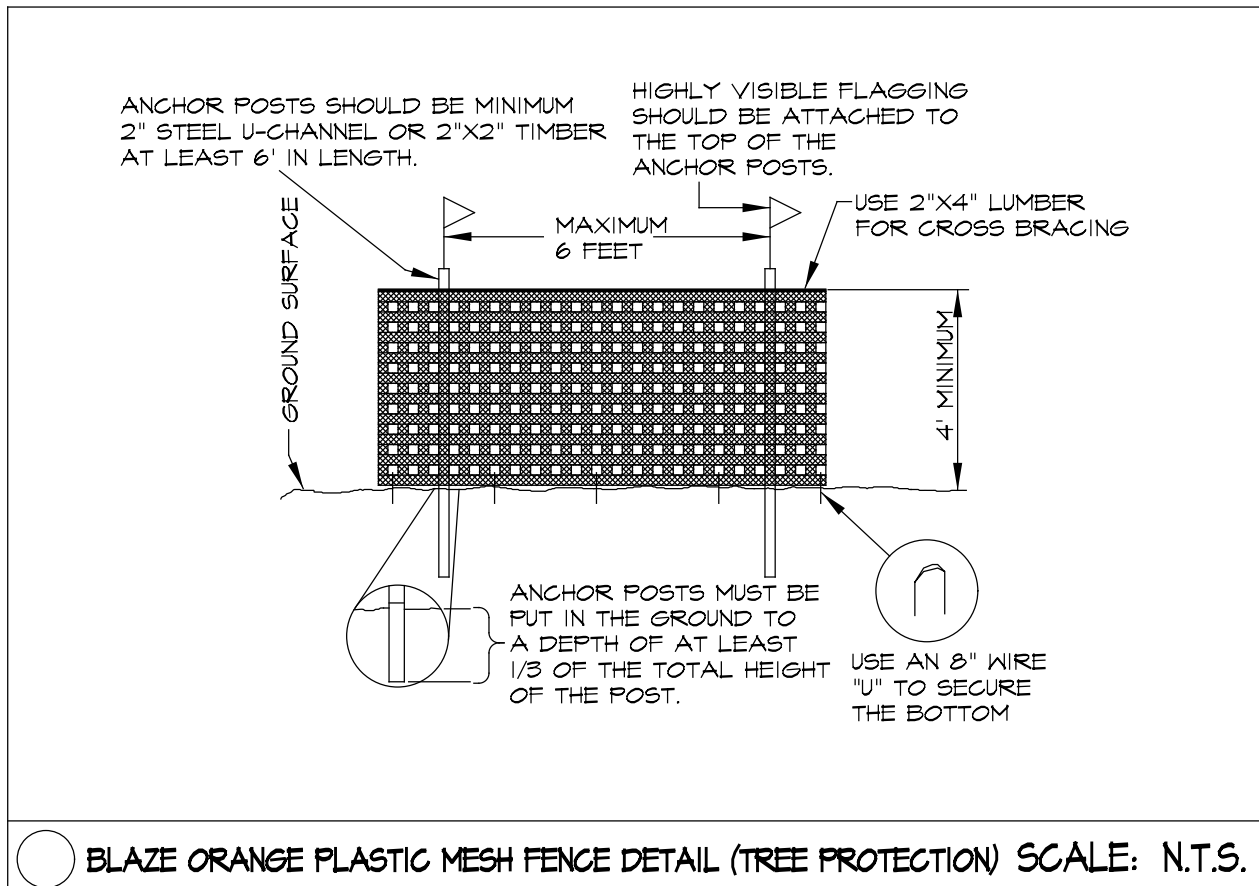
7. CONTRACTOR SHALL INSTALL ES-1 TO MH-12, ES-3 TO I-19 (PROVIDE 8" THICK BULKHEAD WHERE SHOWN ON THE PLAN) I-14 AND I-18 AS WELL AS ASSOCIATED STORMDRAIN PIPES. CONCURRENT WITH THE INSTALLATION OF I-14 THE CONTRACTOR SHALL DIG AND CONSTRUCT THE TEMPORARY GABION OUTLET STRUCTURE AS SHOWN ON SHEET C-6.2. THE ASSOCIATED SUPER SILT FENCE AND STABILIZATION MATTING SHALL BE INSTALLED FOLLOWED BY ASSOCIATED EARTHDIKES FOR GABION OUTLET STRUCTURE.
8. CONCURRENT WITH INSTALLATION OF I-18, INSTALL INLET PROTECTIONS AND PERFORM TEMPORARY GRADING AROUND I-18 SHALL BE DONE AS SHOWN ON SHEET C-6.4 SO THAT ALL WATER TO I-18 BE DIVERTED TO SEDIMENT TRAP NO. 1.
9. NOTIFY BALTIMORE COUNTY DPAI-SC UPON COMPLETION OF SAID INSTALLATIONS.
10. WITH APPROVAL OF BALTIMORE COUNTY DPAI-SC AND THE SEDIMENT CONTROL INSPECTOR, BEGIN CONSTRUCTION OF PROPOSED PARKING LOT SOUTH OF TEMPORARY PARKING LOT. INSTALL ASSOCIATED CURB AND GUTTER, SIDEWALK, AND STONE BASE COURSE FOR PAVED AREAS. CONTRACTOR MAY REMOVE TEMPORARY PIPE AS NEEDED.
11. CONTRACTOR MAY BEGIN DEMOLITION OF THE TEMPORARY PARKING LOT. CONTRACTOR SHALL DIG, GRADE, AND STABILIZE SEDIMENT TRAP NO. 2 TO ITS PROPOSED CONDITION AS SHOWN ON SHEET 6.4. CONTRACTOR MAY REMOVE AND ABANDON TEMPORARY STORM DRAIN AS NEEDED.
12. NOTIFY BALTIMORE COUNTY DPAI-SC UPON COMPLETION OF SAID INSTALLATIONS.
13. WITH APPROVAL OF BALTIMORE COUNTY DPAI-SC AND THE SEDIMENT CONTROL INSPECTOR, AS SUBGRADES ARE REACHED INSTALL WATER AND REMAINING STORM DRAINS. PROVIDE INLET PROTECTION FOR ALL PROPOSED INLETS AS CALLED OUT IN SHEET C-6.2.

NOTES:

- a. STORM DRAINS SHALL BE USED TO CONVEY SEDIMENT LADEN WATER TO SEDIMENT TRAP. DRAINS SHALL BE FLUSHED AND TRAP CLEANED OUT AFTER EVERY STORM AND UPON COMPLETION AND PERMANENT STABILIZATION OF SITE.
  - b. ALL UTILITIES INSTALLED OUTSIDE OF PERIMETER SEDIMENT CONTROLS SHALL BE STABILIZED AT THE END OF EACH DAY PER UTILITY NOTE ON SHEET C-6.11.
14. CONTRACTOR MAY BEGIN CONSTRUCTION ON NORTH SIDE OF PROPOSED PARKING LOT, CONCURRENTLY INSTALL CURB AND GUTTER, SIDEWALK AND STONE BASE COURSE FOR PAVED AREAS.
15. UPON COMPLETION OF SIDEWALKS, CURBING, UTILITIES AND PAVED AREAS FINAL PAVING, FINE GRADING AND PERMANENT STABILIZATION OF REMAINING AREAS PER SEEDING SPECIFICATIONS MAY BE COMPLETED. STEEP SLOPES AND SNALES TO BE STABILIZED WITH PERMANENT SEED AND SOIL STABILIZATION MATTING.
16. ONCE CONTRIBUTING DRAINAGE AREAS ARE STABILIZED AND WITH THE APPROVAL OF THE BALTIMORE COUNTY DPAI-SC AND THE SEDIMENT CONTROL INSPECTOR, FLUSH STORM DRAINS, PERFORM FINAL CLEANOUT OF SEDIMENT TRAP 2 AND BEGIN CONVERSION TO BIORETENTION #3 SWM FACILITY PER THE APPROVED STORMWATER MANAGEMENT PLANS (SEE SHEET C-6.4 FOR FINAL GRADING INSET) AND STABILIZE PER DAILY STABILIZATION NOTES ON SHEET C-6.11.

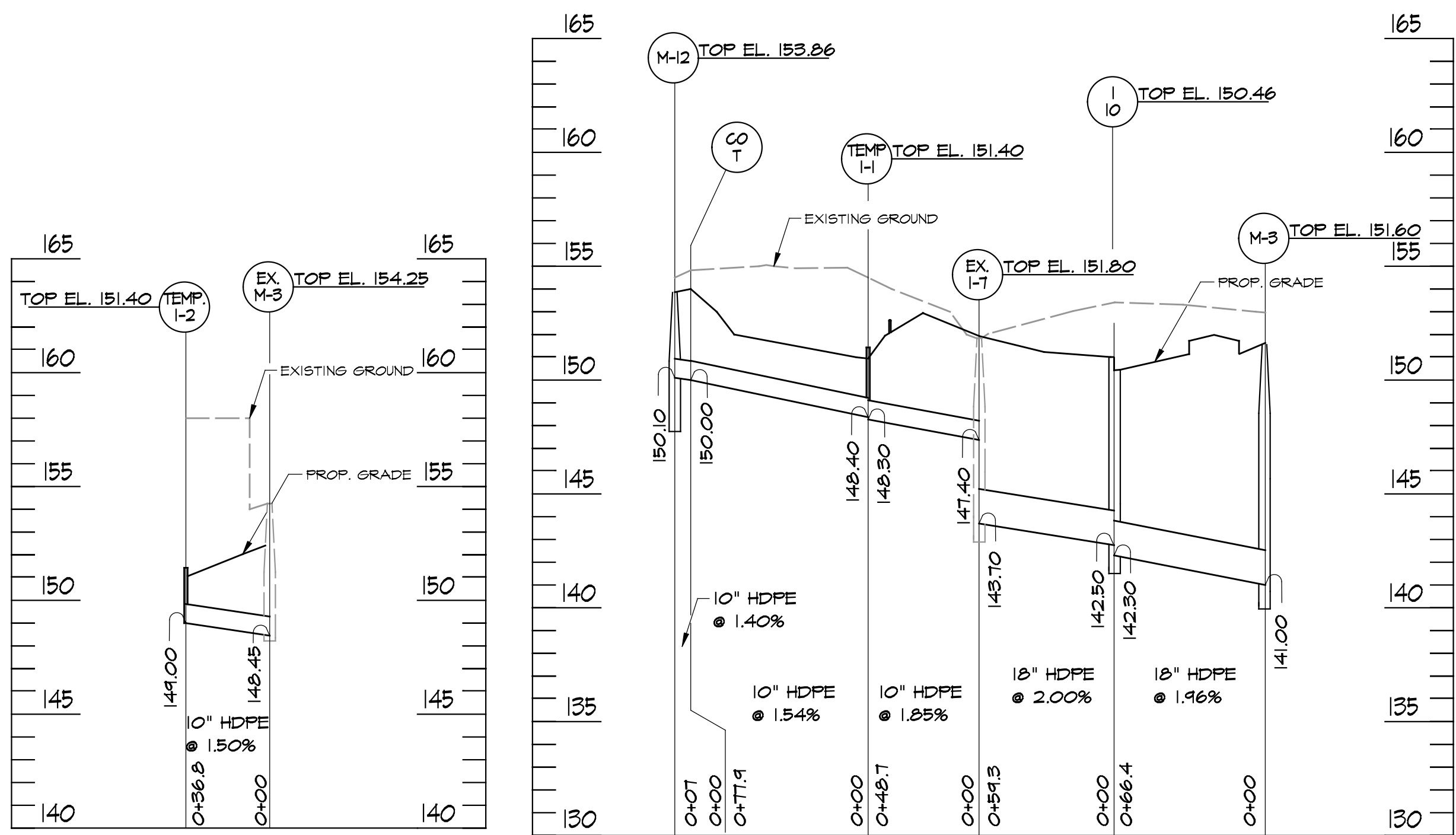
NOTES:

- a. ALL FINAL DREDGE SPOILS MATERIALS REMOVED FROM THE FINAL CLEANOUT OF THE SEDIMENT TRAP SHALL BE TAKEN TO A SITE WITH AN OPEN GRADING PERMIT AND APPROVED EROSION AND SEDIMENT CONTROL PLAN.
  - b. STORMWATER MANAGEMENT AREA IS NOT TO BE COMPACTED PRIOR TO FACILITY CONSTRUCTION.
17. CONCURRENTLY AND WITH THE APPROVAL OF BALTIMORE COUNTY DEPARTMENT OF PERMITS, APPROVALS AND INSPECTIONS, AND SEDIMENT CONTROL, BEGIN REMOVAL OF TRAP #1 STARTING WITH REMOVAL OF ASSOCIATED EARTH DIKE, CONVERT AREA TO ITS FINAL GRADING CONDITION PER INSET ON SHEET C-6.3.
18. UPON COMPLETION OF SITE WORK AND STABILIZATION OF THE SITE WITH ESTABLISHED VEGETATION AND WITH THE APPROVAL OF THE BALTIMORE COUNTY DEPARTMENT OF PERMITS, APPROVALS AND INSPECTIONS SEDIMENT CONTROL AND THE SEDIMENT CONTROL INSPECTOR, REMOVE SEDIMENT CONTROL DEVICES AND STABILIZE THOSE AREAS DISTURBED BY THE SEDIMENT CONTROL DEVICE REMOVAL. SUBMIT AS-BUILT STORMWATER MANAGEMENT PLANS TO THE DEPARTMENT OF ENVIRONMENTAL PROTECTION AND SUSTAINABILITY WITHIN 30 DAYS OF CONVERSION.



TEMPORARY SAFETY FENCE  
FOR SEDIMENT TRAPPING DEVICES  
NOT TO SCALE

TEMPORARY STRUCTURE SCHEDULE			
NO.	DESCRIPTION	DATE	REMARKS
TEMP-1	NYLOFAST	5/16/16	10' DRAIN BASIN
TEMP-2	NYLOFAST	5/16/16	10' DRAIN BASIN



\* CONNECTION BETWEEN TEMPORARY AND PERMANENT STRUCTURES MUST HAVE WATER TIGHT CONNECTION USING NON-SHRINK EPOXY CEMENT.

TEMPORARY STORM DRAIN PROFILES

HORIZONTAL SCALE: 1" = 50'  
VERTICAL SCALE: 1" = 5'

ENGINEERS  
PLANNERS  
SCIENTISTS  
CONSTRUCTION MANAGERS

11720 Beltsville Drive  
Suite 600  
Caverton, MD 20705  
Tel 301.595.1000

www.grimmandparker.com

PROFESSIONAL CERTIFICATION  
I HEREBY CERTIFY THAT THESE  
DRAWINGS WERE PREPARED OR  
APPROVED BY ME AND THAT I AM  
A LICENSED PROFESSIONAL  
ENGINEER UNDER THE LAWS OF  
THE STATE OF MARYLAND  
LICENSE NO. 5466  
EXPIRATION DATE 07/10/17

11720 Beltsville Drive  
Suite 600  
Caverton, MD 20705  
Tel 301.595.1000

www.grimmandparker.com

GRIMM AND PARKER

GP #21417

EROSION AND SEDIMENT CONTROL DETAILS  
LAUSDOWNE ELEMENTARY SCHOOL  
BALTIMORE COUNTY, MARYLAND

DATE	DESCRIPTION
11/17/16	BID SET

C-6.11

BID SET  
11/17/2016

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1. THE DISTRICT APPROVAL FOR THIS SEDIMENT CONTROL PLAN IS GOOD FOR 2 YEARS. AT THE END OF 2 YEARS, IF CONSTRUCTION OF THE PLAN HAS NOT STARTED, THE PLAN WILL NEED TO BE RE-SUBMITTED TO THE SOIL CONSERVATION DISTRICT FOR REVIEW AND RE-APPROVAL. ANY PLANS THAT ARE CURRENTLY UNDER CONSTRUCTION AFTER 2 YEARS MAY BE REQUIRED TO BE RE-SUBMITTED TO THE SOIL CONSERVATION DISTRICT BY THE SEDIMENT CONTROL INSPECTOR.
2. REFER TO "2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL" FOR STANDARD DETAILS AND DETAILED SPECIFICATIONS OF EACH PRACTICE SPECIFIED HEREIN.
3. WITH THE APPROVAL OF THE SEDIMENT CONTROL INSPECTOR, MINOR FIELD ADJUSTMENTS CAN AND WILL BE MADE TO INSURE THE CONTROL OF ANY SEDIMENT. CHANGES IN THE SEDIMENT CONTROL PRACTICES REQUIRE PRIOR APPROVAL OF THE SEDIMENT CONTROL INSPECTOR AND THE BALTIMORE COUNTY SOIL CONSERVATION DISTRICT.
4. AT THE END OF EACH WORKING DAY, ALL SEDIMENT CONTROL PRACTICES WILL BE INSPECTED AND LEFT IN OPERATIONAL CONDITION.
5. FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: (A) THREE CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER CONTROLS, DIKES, SHALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES STEEPER THAN THREE HORIZONTAL TO ONE VERTICAL (3:1); AND (B) SEVEN CALENDAR DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE NOT UNDER ACTIVE GRADING.
6. ANY CHANGE TO THE GRADING PROPOSED ON THIS PLAN REQUIRES RE-SUBMISSION TO BALTIMORE COUNTY SOIL CONSERVATION DISTRICT FOR APPROVAL.
7. DUST CONTROL WILL BE PROVIDED FOR ALL DISTURBED AREAS. REFER TO "2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL" H-22 FOR ACCEPTABLE METHODS AND SPECIFICATIONS FOR DUST CONTROL.
8. ANY VARIATIONS FROM THE SEQUENCE OF OPERATIONS STATED ON THIS PLAN REQUIRES THE APPROVAL OF THE SEDIMENT CONTROL INSPECTOR AND THE BALTIMORE COUNTY SOIL CONSERVATION DISTRICT PRIOR TO INITIATION OF THE CHANGE.
9. EXCESS CUT OR BORROW MATERIAL SHALL GO TO, OR COME FROM, RESPECTIVELY, A SITE WITH AN APPROVED SEDIMENT CONTROL PLAN AND OPEN GRADING PERMIT.
10. THE FOLLOWING ITEM MAY BE USED AS APPLICABLE. REFER TO "MARYLAND GUIDELINES TO WATERWAY CONSTRUCTION" BY THE WATER MANAGEMENT ADMINISTRATION OF THE MARYLAND DEPT. OF THE ENVIRONMENT, REVISED NOVEMBER, 2000 FOR STANDARD DETAILS AND DETAILED SPECIFICATIONS OF EACH PRACTICE SPECIFIED HEREIN FOR WATERWAY CONSTRUCTION.
11. PUMPING SEDIMENT LADEN WATER INTO THE WATERS OF THE STATE IS STRICTLY PROHIBITED. ANY PORTABLE DEWATERING DEVICE MUST BE LOCATED WITHIN THE LIMIT OF DISTURBANCE.
12. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL SEDIMENT AND EROSION CONTROL MEASURES UNTIL THE DISTURBED AREAS ARE PERMANENTLY STABILIZED WITH ESTABLISHED VEGETATION.
13. NO PROPOSED SLOPE SHALL BE GREATER THAN 2:1.
14. ON AREAS WHERE THE SLOPE IS 3:1 OR STEEPER AND THE HEIGHT IS 8' OR GREATER CONTRACTOR SHALL TRACK THE SLOPE USING CLEATED DOZER PRIOR TO PLACING LIQUID BINDER. DOZER SHALL RUN UP- AND DOWN SO THAT CLEAT MARKS ARE HORIZONTAL. WHERE TRACKING IS REQUIRED, IT SHALL BE DONE FROM EXISTING GRADE LEVEL TO FINISHED GRADE LEVEL WITHIN THE LIMITS ESTABLISHED BY THE 8' HEIGHT CRITERIA.
15. MULCH ALONE MAY BE APPLIED BETWEEN THE FALL AND SPRING DATES ONLY IF THE GROUND IS FROZEN. THE APPROPRIATE SEED MIXTURE MUST BE APPLIED WHEN THE GROUND THAW.
16. TEMPORARY STOCKPILES  
A. TEMPORARY STOCKPILES SHALL BE:  
A. LOCATED WITHIN THE LIMIT OF DISTURBANCE (LOD).  
B. DRAIN TO A FUNCTIONING SEDIMENT CONTROL DEVICE.  
C. POSITIONED TO NOT IMPEDE UPON, OR IMPAIR THE FUNCTION OF SAID DEVICE.  
D. POSITIONED TO NOT ALTER DRAINAGE DIVIDES.
17. ALL SHALES HAVE BEEN DESIGNED BY THE ENGINEER TO CONVEY RUNOFF ACCORDING TO BALTIMORE COUNTY DEPARTMENT OF PUBLIC WORKS DESIGN STANDARDS.
18. OBSTRUCTIONS SHOWN ON THIS DRAWING ARE FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. KCI TECHNOLOGIES, INC. DOES NOT WARRANT OR GUARANTEE THE CORRECTNESS OR THE COMPLETENESS OF THE INFORMATION GIVEN. THE CONTRACTOR MUST VERIFY ALL SUCH INFORMATION TO HIS OWN SATISFACTION.
19. SHOULD THE CONTRACTOR DISCOVER DISCREPANCIES BETWEEN THE PLANS AND FIELD CONDITIONS, THE ENGINEER IS TO BE NOTIFIED IMMEDIATELY TO RESOLVE THE SITUATION. SHOULD THE CONTRACTOR MAKE FIELD CORRECTIONS OR ADJUSTMENTS WITHOUT WRITTEN PERMISSION OF THE ENGINEER, THEN THE CONTRACTOR ASSUMES ALL RESPONSIBILITY FOR THOSE CHANGES.
20. SEDIMENT CONTROL TRAFFIC NOTE:  
ANY TRAVEL LANE CLOSED BEFORE 9:00 A.M. OR AFTER 3:30 P.M. MUST BE APPROVED BY BALTIMORE COUNTY DIVISION OF TRAFFIC ENGINEERING AT 410-287-3554.
21. TOPSOIL STOCKPILE AREA SHOWN ON THE PLAN IS BASED ON THE ESTIMATED VOLUME OF TOPSOIL TO BE STRIPPED. THE AREA SHOWN ASSUMES A HEIGHT OF 15 FEET WITH 3:1 SIDE SLOPES. THE STOCKPILE IS CENTERED ON THE NO CUT/NO FILL LINE. HOWEVER THE CONTRACTOR MAY ELECT TO GRADE THE AREA TO PROPOSED SUBGRADE PRIOR TO STOCKPILE PLACEMENT.

## B-4-2 STANDARDS AND SPECIFICATIONS FOR SOIL PREPERATION, TOPSOILING, AND SOIL AMENDMENTS

**DEFINITION**  
THE PROCESS OF PREPARING THE SOILS TO SUSTAIN ADEQUATE VEGETATIVE STABILIZATION.

PURPOSE	
TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH.	

CONDITIONS WHERE PRACTICE APPLIES

WHERE VEGETATIVE STABILIZATION IS TO BE ESTABLISHED.

### A. SOIL PREPARATION

- TEMPORARY STABILIZATION
- A. SEEDED PREPARATION CONSISTS OF LOOSENING SOIL TO A DEPTH OF 3 TO 5 INCHES BY MEANS OF SUITABLE AGRICULTURAL OR CONSTRUCTION EQUIPMENT, SUCH AS DISC HARROWS OR CHISEL PLOWS OR RIPPERS MOUNTED ON CONSTRUCTION EQUIPMENT. AFTER THE SOIL IS LOOSENED, IT MUST NOT BE ROLLED OR DRAGGED SMOOTH BUT LEFT IN THE ROUGHENED CONDITION. SLOPES 3:1 OR FLATTER ARE TO BE TRACKED WITH RIDGES RUNNING PARALLEL TO THE CONTOUR OF THE SLOPE.
  - B. APPLY FERTILIZER AND LIME AS PRESCRIBED ON THE PLANS.
  - C. INCORPORATE LIME AND FERTILIZER INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS.
- PERMANENT STABILIZATION
- A. A SOIL TEST IS REQUIRED FOR ANY EARTH DISTURBANCE OF 5 ACRES OR MORE. THE MINIMUM SOIL CONDITIONS REQUIRED FOR PERMANENT VEGETATIVE ESTABLISHMENT ARE:
    - I. SOIL PH BETWEEN 6.0 AND 7.0.
    - II. SOLUBLE SALTS LESS THAN 500 PARTS PER MILLION (PPM).
    - III. SOIL CONTAINS LESS THAN 40 PERCENT CLAY BUT ENOUGH FINE GRAINED MATERIAL (GREATER THAN 80 PERCENT SILT PLUS CLAY) TO PROVIDE THE CAPACITY TO HOLD A MODERATE AMOUNT OF ORGANIC MATTER. IF LOYESS, LESS WILL BE FINISHED, THEN A SANDY SOIL (LESS THAN 80 PERCENT SILT PLUS CLAY) WOULD BE ACCEPTABLE.
    - IV. SOIL CONTAINS 1.5 PERCENT MINIMUM ORGANIC MATTER BY WEIGHT.
    - V. SOIL CONTAINS SUFFICIENT PORE SPACE TO PERMIT ADEQUATE ROOT PENETRATION.

- B. APPLICATION OF AMENDMENTS OR TOPSOIL IS REQUIRED IF ON-SITE SOILS DO NOT MEET THE ABOVE CONDITIONS.
  - C. GRADED AREAS MUST BE MAINTAINED IN A TRUE AND EVEN GRADE AS SPECIFIED ON THE APPROVED PLAN, THEN SCARIFIED OR OTHERWISE LOOSENED TO A DEPTH OF 3 TO 5 INCHES.
  - D. APPLY SOIL AMENDMENTS AS SPECIFIED ON THE APPROVED PLAN OR AS INDICATED BY THE RESULTS OF A SOIL TEST.
  - E. MIX SOIL AMENDMENTS INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS. RAKE LAWN AREAS TO SMOOTH THE SURFACE. REMOVE LARGE OBJECTS LIKE STONES AND BRANCHES, AND READY THE AREA FOR SEED APPLICATION. LOOSEN SURFACE SOIL BY DRAGGING WITH A HEAVY CHAIN OR OTHER EQUIPMENT TO ROUGHEN THE SURFACE WHERE SITE CONDITIONS WILL NOT PERMIT NORMAL SEEDBED PREPARATION. TRACK SLOPES 3:1 OR FLATTER WITH TRACKED EQUIPMENT LEAVING THE SOIL IN AN IRREGULAR CONDITION WITH RIDGES RUNNING PARALLEL TO THE CONTOUR OF THE SLOPE. LEAVE THE TOP 1 TO 3 INCHES OF SOIL LOOSE AND FRIABLE. SEEDBED LOOSENING MAY BE UNNECESSARY ON NEWLY DISTURBED AREAS.
- B. TOPSOILING
1. TOPSOIL IS PLACED OVER PREPARED SUBSOIL PRIOR TO ESTABLISHMENT OF PERMANENT VEGETATION. THE PURPOSE IS TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH. SOILS OF CONCERN HAVE A MODERATE TO HIGH NUTRIENT LEVELS, LOW PH, MATERIALS TOXIC TO PLANTS, AND/OR UNACCEPTABLE SOIL GRADATION.
  2. TOPSOIL SALVAGED FROM AN EXISTING SITE MAY BE USED PROVIDED IT MEETS THE STANDARDS AS SET FORTH IN THESE SPECIFICATIONS. TYPICALLY, THE DEPTH OF TOPSOIL TO BE SALVAGED FOR A GIVEN SOIL TYPE CAN BE FOUND IN THE REPRESENTATIVE SOIL PROFILE SECTION IN THE SOIL SURVEY PUBLISHED BY USDA-NRCS.
  3. TOPSOILING IS LIMITED TO AREAS HAVING 2:1 OR FLATTER SLOPES WHERE:
    - A. THE TEXTURE OF THE EXPOSED SUBSOIL/PARENT MATERIAL IS NOT ADEQUATE TO PRODUCE VEGETATIVE GROWTH.
    - B. THE SOIL MATERIAL IS SO SHALLOW THAT THE ROOTING ZONE IS NOT DEEP ENOUGH TO SUPPORT PLANTS OR FURNISH CONTINUING SUPPLIES OF MOISTURE AND PLANT NUTRIENTS.
    - C. THE ORIGINAL SOIL TO BE VEGETATED CONTAINS MATERIAL TOXIC TO PLANT GROWTH.
    - D. THE SOIL IS SO ACIDIC THAT TREATMENT WITH LIMESTONE IS NOT FEASIBLE.
  4. AREAS HAVING SLOPES STEEPER THAN 2:1 REQUIRE SPECIAL CONSIDERATION AND DESIGN.
  5. TOPSOIL SPECIFICATIONS: SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING CRITERIA:
    - A. TOPSOIL MUST BE A LOAM, SANDY LOAM, CLAY LOAM, SILT LOAM, SANDY CLAY LOAM, OR LOAMY SAND. OTHER SOILS MAY BE USED IF RECOMMENDED BY AN AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE ADOPTING AGENCY OR THE AUTHORITY. TOPSOIL MUST NOT BE A MIXTURE OF CONTRASTING TEXTURED SUBSOILS AND MUST CONTAIN LESS THAN 5 PERCENT BY VOLUME OF CINDERS, STONES, SLAG, COARSE FRAGMENTS, GRAVEL, STICKS, ROOTS, TRASH OR OTHER MATERIALS LARGER THAN 1+1/2 INCHES IN DIAMETER.
    - B. TOPSOIL MUST BE FREE OF NOXIOUS PLANTS OR PLANT PARTS SUCH AS BERMUDA GRASS, QUACK GRASS, JOHNSON GRASS, NET SEDGE, POISON IVY, THISTLE, OR OTHERS AS SPECIFIED.
    - C. TOPSOIL SUBSTITUTES OR AMENDMENTS, AS RECOMMENDED BY A QUALIFIED AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY, MAY BE USED IN LIEU OF NATURAL TOPSOIL.
  6. TOPSOIL APPLICATION
    - A. EROSION AND SEDIMENT CONTROL PRACTICES MUST BE MAINTAINED WHEN APPLYING TOPSOIL.
    - B. UNIFORMLY DISTRIBUTE TOPSOIL IN A 5 TO 8 INCH LAYER AND LIGHTLY COMPACT TO A MINIMUM THICKNESS OF 4 INCHES. SEEDING IS TO BE COMPLETED PRIOR TO ANY AMENDING OR ADDING OR SEEDING CAN PROCEED WITH A MINIMUM OF ADDITIONAL SOIL PREPARATION AND TILLAGE. ANY IRREGULARITIES IN THE SURFACE RESULTING FROM TOPSOILING OR OTHER OPERATIONS MUST BE CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR WATER POCKETS.
    - C. TOPSOIL MUST NOT BE PLACED IF THE TOPSOIL OR SUBSOIL IS IN A FROZEN OR MUDDY CONDITION, WHEN THE SUBSOIL IS EXCESSIVELY WET OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING AND SEEDBED PREPARATION.
- C. SOIL AMENDMENTS (FERTILIZER AND LIME SPECIFICATIONS)
1. SOIL TESTS MUST BE PERFORMED TO DETERMINE THE EXACT RATIOS AND APPLICATION RATES FOR BOTH LIME AND FERTILIZER ON SITES HAVING DISTURBED AREAS OF 5 ACRES OR MORE. SOIL ANALYSIS MAY BE PERFORMED BY THE ADOPTING AGENCY OR THE ADOPTING AGENCY'S LABORATORY. SOIL SAMPLES TAKEN FOR ENGINEERING PURPOSES MAY ALSO BE USED FOR CHEMICAL ANALYSES.
  2. FERTILIZERS MUST BE UNIFORM IN COMPOSITION, FREE FLOWING AND SUITABLE FOR ACCURATE APPLICATION BY APPROPRIATE EQUIPMENT. MANURE MAY BE SUBSTITUTED FOR FERTILIZER WITH PRIOR APPROVAL FROM THE APPROPRIATE APPROVAL AUTHORITY. FERTILIZERS MUST ALL BE DELIVERED TO THE SITE FULLY LABELED ACCORDING TO THE APPLICABLE LAWS AND MUST BEAR THE NAME, TRADE NAME OR TRADEMARK AND WARRANTY OF THE PRODUCER.
  3. LIME MATERIALS MUST BE GROUND LIMESTONE (HYDRATED OR BURNT LIME MAY BE SUBSTITUTED EXCEPT WHEN HYDROSEEDING) WHICH CONTAINS AT LEAST 90 PERCENT TOTAL OXIDES (CALCIUM OXIDE PLUS MAGNESIUM OXIDE). LIMESTONE MUST BE GROUND TO SUCH FINENESS THAT AT LEAST 90 PERCENT WILL PASS THROUGH A #100 MESH SIEVE AND 98 TO 100 PERCENT WILL PASS THROUGH A #20 MESH SIEVE.
  4. LIME AND FERTILIZER ARE TO BE EVENLY DISTRIBUTED AND INCORPORATED INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS.
  5. WHERE THE SUBSOIL IS EITHER HIGHLY ACIDIC OR COMPOSED OF HEAVY CLAYS, SPREAD GROUND LIMESTONE AT THE RATE OF 4 TO 5 TONS/ACRE (200-400 POUNDS PER 1,000 SQUARE FEET) PRIOR TO THE PLACEMENT OF TOPSOIL.

### B-4-3 STANDARDS AND SPECIFICATIONS FOR SEEDING AND MULCHING

### DEFINITION

#### THE APPLICATION OF SEED AND MULCH TO ESTABLISH VEGETATIVE COVER.

## PURPOSE

TO PROTECT DISTURBED SOILS FROM EROSION DURING AND AT THE END OF CONSTRUCTION.

## CONDITIONS WHERE PRACTICE APPLIES

TO THE SURFACE OF ALL PERIMETER CONTROLS, SLOPES, AND ANY DISTURBED AREA NOT UNDER ACTIVE GRADING

### CRITERIA

1. SEEDING
- I. SPECIFICATIONS
- A. ALL SEED MUST MEET THE REQUIREMENTS OF THE MARYLAND STATE SEED LAW. ALL SEED MUST BE SUBJECT TO RE-TESTING BY A RECOGNIZED SEED LABORATORY. ALL SEED USED MUST HAVE BEEN TESTED WITHIN THE 6 MONTHS IMMEDIATELY PRECEDING THE DATE OF SOWING SUCH MATERIAL ON THE PROJECT. THE QUALITY OF THE SEED AND THE SEEDING TASS MUST BE AVAILABLE UPON REQUEST TO THE INSPECTOR TO VERIFY TYPE OF SEED AND SEEDING RATE.
- B. MULCH ALONE MAY BE APPLIED BETWEEN THE FALL AND SPRING SEEDING DATES ONLY IF THE GROUND IS FROZEN. THE APPROPRIATE SEEDING MIXTURE MUST BE APPLIED WHEN THE GROUND THAWES.

- C. INOCULANTS: THE INOCULANT FOR TREATING LEGUME SEEDS IN THE SEED MIXTURES MUST BE A PURE CULTURE OF NITROGEN FIXING BACTERIA PREPARED SPECIFICALLY FOR THE SPECIES. INOCULANTS MUST NOT BE USED LATER THAN THE DATE INDICATED ON THE CONTAINER. ADD FRESH INOCULANTS AS DIRECTED ON THE PACKAGE. USE FOUR TIMES THE RECOMMENDED RATE WHEN HYDROSEEDING. NOTE: IT IS VERY IMPORTANT TO KEEP INOCULANT AS COOL AS POSSIBLE UNTIL USED. TEMPERATURES ABOVE 75 TO 80 DEGREES FAHRENHEIT CAN WEAKEN BACTERIA AND MAKE THE INOCULANT LESS EFFECTIVE.
  - D. SOD OR SEED MUST NOT BE PLACED ON SOIL WHICH HAS BEEN TREATED WITH SOIL STERILANTS OR CHEMICALS USED FOR WEED CONTROL UNTIL SUFFICIENT TIME HAS ELAPSED (14 DAYS MIN.) TO PERMIT DISSIPATION OF PHYTO-TOXIC MATERIALS.
2. APPLICATION
- A. DRY SEEDING: THIS INCLUDES USE OF CONVENTIONAL DROP OR BROADCAST SPREADERS.
    - I. INCORPORATE SEED INTO THE SUBSOIL AT THE RATES PRESCRIBED ON TEMPORARY SEEDING TABLE B.1, PERMANENT SEEDING TABLE B.3, OR SITE-SPECIFIC SEEDING SUMMARIES.
    - II. APPLY SEED IN TWO DIRECTIONS, PERPENDICULAR TO EACH OTHER, APPLY HALF THE SEEDING RATE IN EACH DIRECTION, LEVEL THE SEEDING AREA WITH A WEIGHTED ROLLER TO PROVIDE GOOD SEED TO SOIL CONTACT.
  - B. DRILL OR CULTIPACKER SEEDING: MECHANIZED SEEDERS THAT APPLY AND COVER SEED WITH SOIL.
    - I. CULTIPACKING SEEDERS ARE REQUIRED TO BURY THE SEED IN SUCH A FASHION AS TO PROVIDE AT LEAST 1/4 INCH OF SOIL COVERING. SEEDBED MUST BE FIRM AFTER PLANTING.
    - II. APPLY SEED IN TWO DIRECTIONS, PERPENDICULAR TO EACH OTHER, APPLY HALF THE SEEDING RATE IN EACH DIRECTION.
  - C. HYDROSEEDING: APPLY SEED UNIFORMLY WITH HYDROSEEDER (SLURRY INCLUDES SEED AND FERTILIZER).
    - I. IF FERTILIZER IS BEING APPLIED AT THE TIME OF SEEDING, THE APPLICATION RATES SHOULD NOT EXCEED THE FOLLOWING: NITROGEN, 100 POUNDS PER ACRE TOTAL OF SOLUBLE NITROGEN, P205 (PHOSPHOROUS), 200 POUNDS PER ACRE, K2O (POTASSIUM), 200 POUNDS PER ACRE.
    - II. LIME: USE ONLY GRADE AGRICULTURAL LIMESTONE (1 TO 3 TONS PER ACRE MAY BE APPLIED BY HYDROSEEDING). NORMALLY, NOT MORE THAN 2 TONS ARE APPLIED BY HYDROSEEDING AT ANY ONE TIME. DO NOT USE BURNT OR HYDRATED LIME WHEN HYDROSEEDING.
    - III. MIX SEED AND FERTILIZER ON SITE AND SEED IMMEDIATELY AND WITHOUT INTERRUPTION.
    - IV. WHEN HYDROSEEDING DO NOT INCORPORATE SEED INTO THE SOIL.
- MULCHING
- I. MULCH MATERIALS (IN ORDER OF PREFERENCE)
    - A. STRAW CONSISTING OF THOROUGHLY THRESHED WHEAT, RYE, OAT, OR BARLEY AND REASONABLY BRIGHT IN COLOR. STRAW IS TO BE FREE OF NOXIOUS WEED SEEDS AS SPECIFIED IN THE MARYLAND SEED LAW AND NOT MUSTY, MOIST, CAKED, DEGRADED, OR EXCESSIVELY DUSTY. NOTE: USE ONLY STERILE STRAW MULCH IN AREAS WHERE ONE SPECIES OF GRASS IS DESIRED.
    - B. WOOD CELLULOSE FIBER MULCH (WCFM) CONSISTING OF SPECIALLY PREPARED WOOD CELLULOSE PROCESSED INTO A UNIFORM FIBROUS PHYSICAL STATE.
      - I. WCFM IS TO BE DYED GREEN OR CONTAIN A GREEN DYE IN THE PACKAGE THAT WILL PROVIDE AN APPROPRIATE COLOR TO FACILITATE VISUAL INSPECTION OF THE UNIFORMLY SPREAD SLURRY.
      - II. WCFM, INCLUDING DYE, MUST CONTAIN NO GERMINATION OR GROWTH INHIBITING FACTORS.
      - III. WCFM MATERIALS ARE TO BE MANUFACTURED AND PROCESSED IN SUCH A MANNER THAT THE WOOD CELLULOSE FIBER MULCH WILL REMAIN IN UNIFORM SUSPENSION IN WATER UNDER AGITATION AND WILL BLEND WITH SEED, FERTILIZER, AND OTHER ADDITIVES TO FORM A HOMOGENEOUS SLURRY. THE MULCH MATERIAL MUST FORM A BLOTTER-LIKE GROUND COVER, ON APPLICATION, HAVING MOISTURE ABSORPTION AND PERCOLATION PROPERTIES AND MUST COVER AND HOLD GRASS SEED IN CONTACT WITH THE SOIL WITHOUT INHIBITING THE GROWTH OF THE GRASS SEEDLING.
      - IV. WCFM MATERIAL MUST NOT CONTAIN ELEMENTS OR COMPOUNDS AT CONCENTRATION LEVELS THAT WILL BE PHYTO-TOXIC.
      - V. WCFM MUST CONFORM TO THE FOLLOWING PHYSICAL REQUIREMENTS: FIBER LENGTH OF APPROXIMATELY 10 MILLIMETER APPROXIMATELY 10 MILLIMETER PER METER PH RANGE OF 4.0 TO 8.5, ASH CONTENT OF 16 PERCENT MAXIMUM AND WATER HOLDING CAPACITY OF 40 PERCENT MINIMUM.
  2. APPLICATION
    - A. APPLY MULCH TO ALL SEEDED AREAS IMMEDIATELY AFTER SEEDING.
    - B. WHEN STRAW MULCH IS USED, SPREAD IT OVER ALL SEEDED AREAS AT THE RATE OF 2 TONS PER ACRE TO A UNIFORM LOOSE DEPTH OF 1 TO 2 INCHES. APPLY MULCH TO ACHIEVE A UNIFORM DISTRIBUTION AND DEPTH SO THAT THE SOIL SURFACE IS NOT EXPOSED. WHEN USING A MULCH ANCHORING TOOL, INCREASE THE APPLICATION RATE TO 2.5 TONS PER ACRE.
    - C. WOOD CELLULOSE FIBER USED AS MULCH MUST BE APPLIED AT A NET DRY WEIGHT OF 1500 POUNDS PER ACRE. MIX THE MULCH WITH WATER TO FLATTER SLOPES WHERE EQUIPMENT CAN OPERATE SAFELY. 50 POUNDS OF WOOD CELLULOSE FIBER PER 100 GALLONS OF WATER.
  3. ANCHORING
    - A. PERFORM MULCH ANCHORING IMMEDIATELY FOLLOWING APPLICATION OF MULCH TO MINIMIZE LOSS BY WIND OR WATER. THIS MAY BE DONE BY ONE OF THE FOLLOWING METHODS (LISTED BY PREFERENCE), DEPENDING UPON THE SIZE OF THE AREA AND EROSION HAZARD:
      - I. A MULCH ANCHORING TOOL IS A TRACTOR DRAWN IMPLEMENT DESIGNED TO PUNCH AND ANCHOR MULCH INTO THE SOIL SURFACE A MINIMUM OF 2 INCHES. THIS PRACTICE IS MOST EFFECTIVE ON LARGE AREAS BUT IS LIMITED TO FLATTER SLOPES WHERE EQUIPMENT CAN OPERATE SAFELY. IF USED ON SLOPING LAND, THIS PRACTICE SHOULD FOLLOW THE CONTOUR.
      - II. WOOD CELLULOSE FIBER MAY BE USED FOR ANCHORING STRAW. APPLY THE FIBER BINDER AT A NET DRY WEIGHT OF 150 POUNDS PER ACRE. MIX THE WOOD CELLULOSE FIBER WITH WATER AT A MAXIMUM OF 50 POUNDS OF WOOD CELLULOSE FIBER PER 100 GALLONS OF WATER.
      - III. SYNTHETIC BINDERS SUCH AS ACRYLIC DLR (AGRO-TACK), DCA-TO PETROSEAL, TERRA TAX II, TERRA TACK, OR AN OTHER APPROVED EQUAL MAY BE USED. FOLLOW APPLICATION RATES AS SPECIFIED BY THE MANUFACTURER. APPLICATION OF LIQUID BINDERS NEEDS TO BE HEAVIER AT THE EDGES WHERE WIND CATCHES BUT NOT AS MUCH AS IN VALLEYS AND ON CRESTS OF BANKS. USE OF ASPHALT BINDERS IS STRICTLY PROHIBITED.
      - IV. LIGHTWEIGHT PLASTIC NETTING MAY BE STAPLED OVER THE MULCH ACCORDING TO MANUFACTURER RECOMMENDATIONS. NETTING IS USUALLY AVAILABLE IN ROLLS 4 TO 15 FEET WIDE AND 500 TO 3000 FEET LONG.



PLOTTED: 11/11 AM on Friday, November 11, 2016  
BY: Geo Pappas  
FILE: M:\2015\27159914 Drawings\C-7.1 FINAL SWM PLAN.dgn

PROFESSIONAL CERTIFICATION:  
I HEREBY CERTIFY THAT THESE  
DOCUMENTS WERE PREPARED OR  
APPROVED BY ME AND THAT  
I AM A DULY LICENSED  
PROFESSIONAL ENGINEER UNDER  
THE LAWS OF THE STATE OF  
MARYLAND, LICENSE NO. 34601  
EXPIRATION DATE: 7/10/2017

SEAL

- INDEX OF SHEETS**
- C-7.1 FINAL SWM PLAN
  - C-7.1.1 FINAL SWM EX. D.A. MAP
  - C-7.1.2 FINAL SWM PROP. D.A. MAP
  - C-7.3 FINAL SWM DETAILS
  - C-7.4 FINAL SWM DETAILS
  - C-7.5 FINAL SWM DETAILS
  - C-7.6 FINAL SWM NOTES
  - C-7.7 FINAL SWM NOTES AND CERTS
  - C-7.8 FINAL SWM BORING LOGS

UNLESS OTHERWISE NOTED, ALL CONSTRUCTION AND  
WORKMANSHIP SHALL BE IN ACCORDANCE WITH  
BALTIMORE COUNTY DEPARTMENT OF PUBLIC WORKS  
STANDARD SPECIFICATIONS FOR CONSTRUCTION  
MATERIALS, DECEMBER 2007, ERRATA & ADDENDA

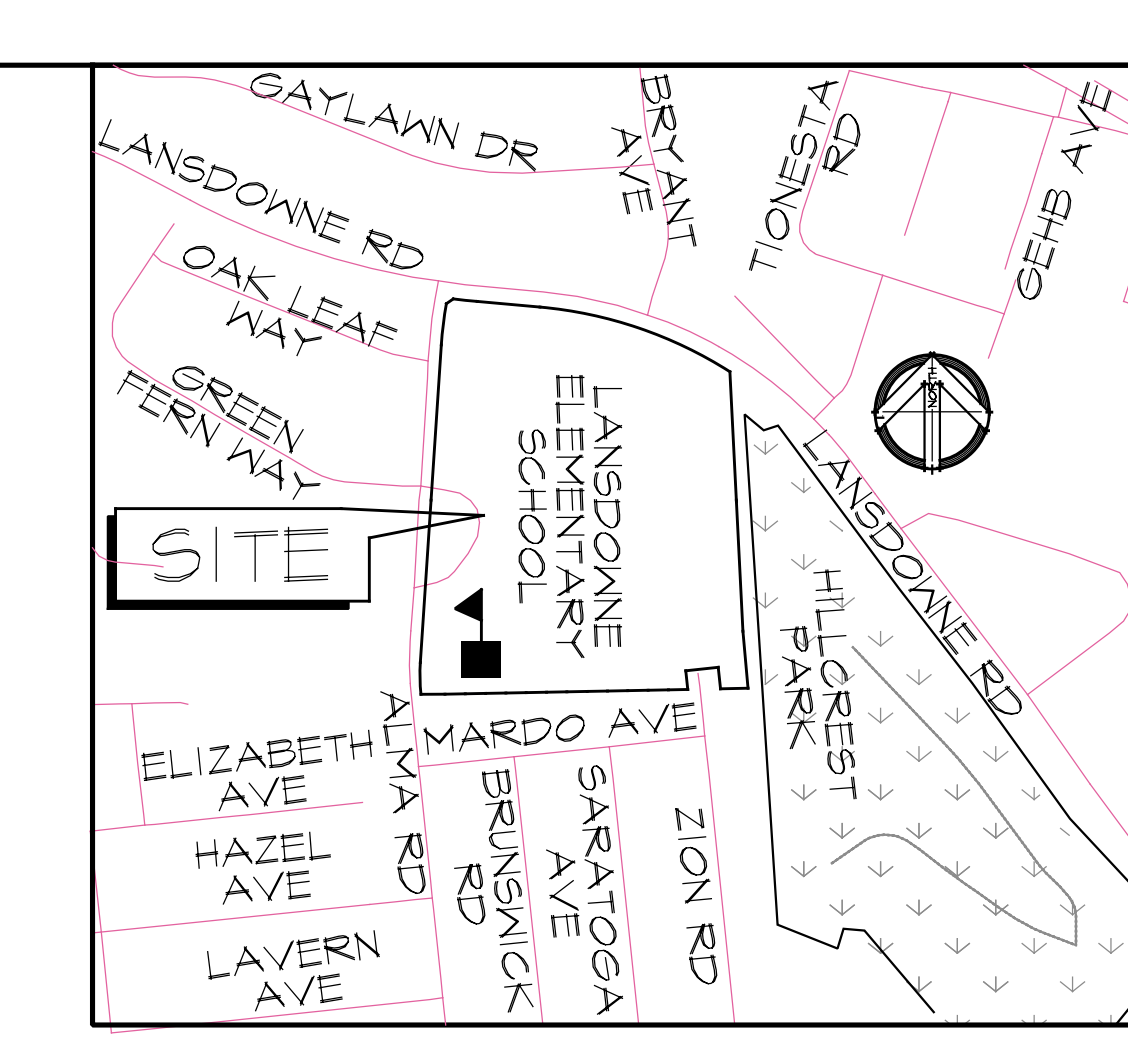
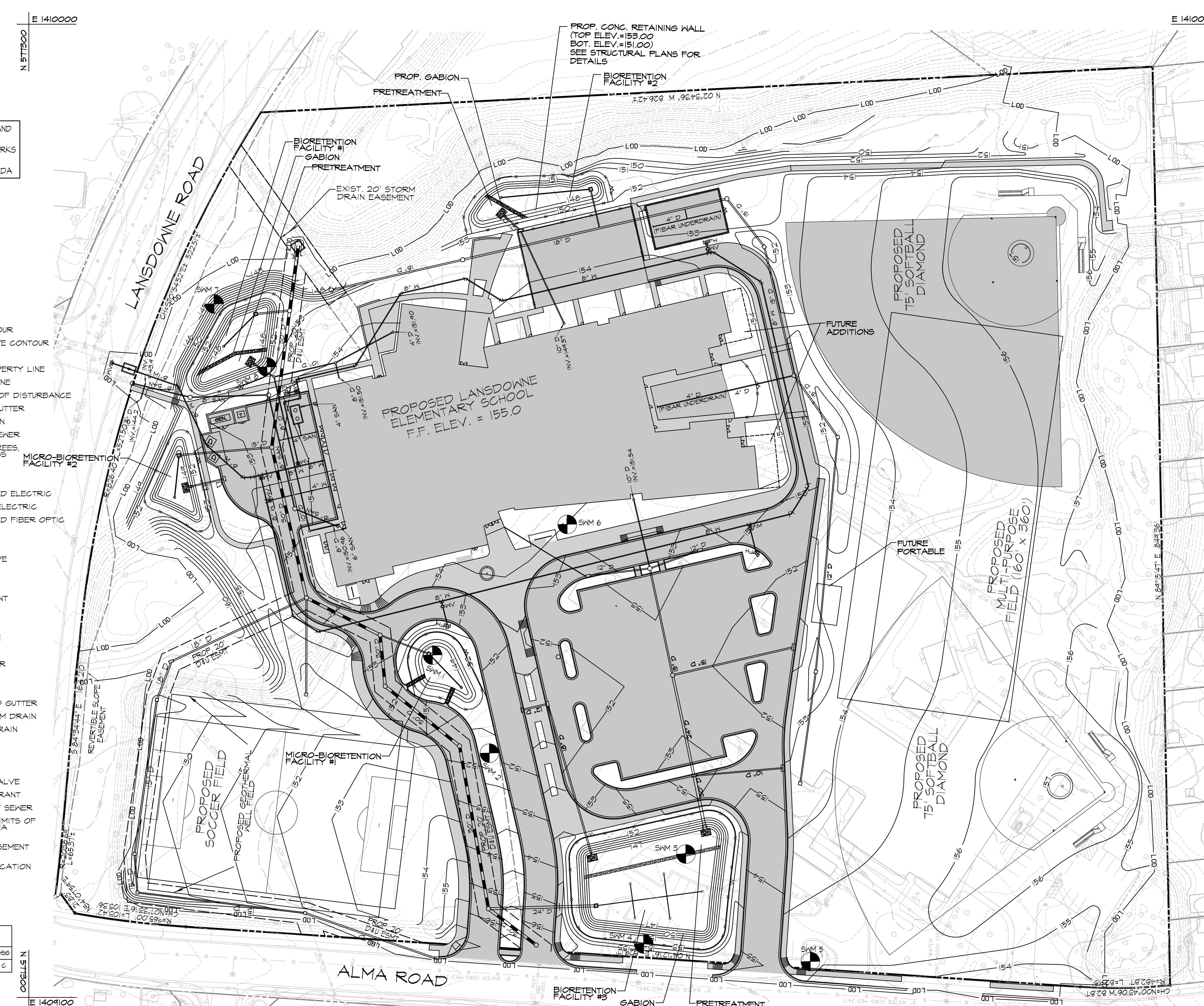
THE NATURAL RESOURCE SHOWN ON  
THIS PLAN HAVE BEEN FIELD VERIFIED  
BY KCI TECHNOLOGIES, INC. DURING  
NOVEMBER 2015 & MARCH 2016

NOTE:  
STORMWATER MANAGEMENT  
APPROVED UNDER BILL NO. 53-01

- LEGEND**
- EX. INDEX CONTOUR
  - EX. INTERMEDIATE CONTOUR
  - PROPERTY LINE
  - ADJACENT PROPERTY LINE
  - EX. EASEMENT LINE
  - OVERALL LIMIT OF DISTURBANCE
  - EX. CURB AND GUTTER
  - EX. STORM DRAIN
  - EX. SANITARY SEWER
  - EX. LIMITS OF TREES
  - EX. WATER
  - EX. GAS
  - EX. UNDERGROUND ELECTRIC
  - EX. OVERHEAD ELECTRIC
  - EX. UNDERGROUND FIBER OPTIC
  - EX. GAS VALVE
  - EX. SIGN
  - EX. WATER VALVE
  - EX. MANHOLE
  - EX. CLEANOUT
  - EX. FIRE HYDRANT
  - EX. LIGHT POLE
  - EX. INLET
  - EX. POWER POLE
  - EX. TREE
  - EX. WATER METER
  - EX. FENCE
  - PROP. CONTOUR
  - PROP. CURB AND GUTTER
  - PROP. 30" STORM DRAIN
  - PROP. STORM DRAIN
  - PROP. MANHOLE
  - PROP. INLET
  - PROP. WATER
  - PROP. WATER VALVE
  - PROP. FIRE HYDRANT
  - PROP. SANITARY SEWER
  - APPROXIMATE LIMITS OF INTERFERING AREA
  - PROP. D & U EASEMENT
  - SOIL BORING LOCATION

**SOILS TABLE**

SOIL TYPE	PERCENT
RUB. RUSSET-URBAN LAND COMPLEX 0 TO 5 PERCENT SLOPES	100



**VICINITY MAP**

SCALE: 1" = 500'

**BENCHMARK DATA**

COORDINATES SHOWN ARE MARYLAND STATE PLANE  
NAD83(2011) DATUM AND ELEVATIONS ARE NAVD83  
DATUM ESTABLISHED BY RTK GPS SURVEY FROM  
BALTIMORE COUNTY SURVEY CONTROL STATION  
"AZ-180" AND "SIS-180" WITH THE FOLLOWING  
PUBLISHED COORDINATES:

"SIS-180"	NORTHING = 576,096.86	EASTING = 141,028.12	ELEVATION = 170.12'
"AZ-180"	NORTHING = 575,589.45	EASTING = 141,067.10	ELEVATION = 104.45'

**SITE DATA**

1. SITE ADDRESS: 2301 ALMA RD, BALTIMORE, MD 21227
2. ELECTION DISTRICT: NO. 15
3. COUNCILMATIC DISTRICT: NO. 1
4. DEED REF: N/A
5. PROPERTY TAX NO.: 1502570205
6. PROPERTY OWNER: BOARD OF EDUCATION OF BALTIMORE COUNTY, 6401 CHARLES STREET, COWESON, MD 21204
7. TOTAL SITE AREA: 17,513 AC.
8. SITE IS LOCATED WITHIN THE PATAPSCO WATERSHED DRAINAGE AREA.
9. SITE DOES NOT LIE WITHIN A 100' YEAR FLOODPLAIN.
10. SETBACKS: FRONT YARD 25', SIDE YARD 15', REAR YARD 30'. SETBACKS REQUIRED: (SEE SITE PLAN). SETBACKS PROVIDED: (SEE SITE PLAN).
11. ZONING: DR 5.5

**HYDROLOGIC CRITERIA & FACILITY SUMMARY  
TABLE FOR ESD FACILITIES**

WATERSHED	PATAPSCO RIVER
STRUCTURE TYPE	ESD FACILITIES AND TECHNIQUES
WATER QUALITY TYPE	FILTERING
STRUCTURE CLASSIFICATION	N/A
DRAINAGE AREA TO FACILITY	SEE "DRAINAGE AREA TO ESD FACILITY" CHART PROVIDED ON SHEET C-7.1.2
LEVEL OF MANAGEMENT REQUIRED	ESD (NO, REV, GPV)
LEVEL OF MANAGEMENT PROVIDED	ESD (NO, REV, GPV)

**BALTIMORE COUNTY SOIL CONSERVATION DISTRICT  
APPROVED FOR STORMWATER MANAGEMENT**

DISTRICT OFFICIAL \_\_\_\_\_ DATE \_\_\_\_\_ PLAN NO. \_\_\_\_\_  
TECHNICAL REVIEW FOR THE DISTRICT \_\_\_\_\_

BY: BALTIMORE CO. DEPT. OF ENVIRONMENTAL PROTECTION AND SUSTAINABILITY DATE \_\_\_\_\_

APPROVED \_\_\_\_\_ CHIEF  
STORMWATER ENGINEERING  
BALTIMORE CO. DEPT. OF  
ENVIRONMENTAL PROTECTION  
AND SUSTAINABILITY

THESE PLANS ARE  
ON THE MARYLAND  
COORDINATE SYSTEM  
NAD-83

CONTRACT NO.
JOB ORDER NO.

**SITE ANALYSIS**  
TOTAL DISTURBED AREA = 660,000 S.F. = 15.20 ACRES

**FINAL STORMWATER MANAGEMENT PLAN**  
SCALE: 1" = 50'

- NOTE:
1. SEE DETAIL 9 ON SHEET C-1.5 FOR 4' HIGH FENCE DETAIL.
  2. SEE DETAIL 9 ON SHEET C-1.3 FOR FENCE MONITOR DETAIL.
  3. SEE DETAIL 11 ON SHEET C-1.5 FOR DOUBLE SWING GATE DETAIL.
  4. SEE DETAIL 15 ON SHEET C-1.5 FOR VERSA-LOK RETAINING WALL DETAIL.
  5. SEE DETAIL 5 ON SHEET C-1.6 FOR VERSA-LOK RETAINING WALL W/ PIPE PENETRATION DETAIL.

ROAD PERMIT AND GRADES	REVISED AS PER RECORD PRINT	DATE	REVISION	BY
PERMIT REQUESTED	DRAFTSMAN	DATE		
PERMIT NUMBER				
GRADE ESTABLISHED				
PROFILE NUMBER				
KCI TECHNOLOGIES, INC.	DESIGNED: VF / EG	BUREAU OF ENGINEERING AND CONSTRUCTION	HIGHWAYS	STRUCTURES
ENGINEER: KEVIN ANDERSON	DRAWN: VF	REVIEWED	STORM DRAINS	SEWER
DATE: 10/12/16 LIC. NO. 34601	CHECKED: KA	DATR		WATER
				FIELD ENGINEER
				BUR. OF ENGINEERING & CONSTRUCTION
				DEPARTMENT OF PUBLIC WORKS
				P.W.A. DIR. NO.
				KEY SHEET
				SCALE
				BALTIMORE COUNTY DEPARTMENT OF PUBLIC WORKS BUREAU OF ENGINEERING & CONSTRUCTION
				FINAL STORMWATER MANAGEMENT PLAN
				LANSOWNE ELEMENTARY SCHOOL
				SUBDIVISION: LANSOWNE ELEMENTARY SCHOOL 2301 ALMA ROAD
				EL. DISTRICT NO. 13, C1
				FILE: 27-159914

APPROVED _____ CHIEF	APPROVED _____ DIRECTOR
DATE _____	DATE _____
RIGHT OF WAY	POSITION SHEET
173W 8.8	185W 8.8
PROFILES: HOR. VERT.	

ENGINEERS  
PLANNERS  
SCIENTISTS  
CONSTRUCTION MANAGERS

938 Reisterstown Road  
Suite 200  
Baltimore, Maryland 21206  
Telephone: (410) 367-7800  
Fax: (410) 367-7818

**KCI**  
TECHNOLOGIES

PROFESSIONAL CERTIFICATION  
I HEREBY CERTIFY THAT THESE  
DOCUMENTS WERE PREPARED OR  
APPROVED BY ME AND THAT I AM  
A DULY LICENSED PROFESSIONAL  
ENGINEER UNDER THE LAWS OF  
THE STATE OF MARYLAND  
LICENSE NO. 34601  
EXPIRATION DATE: 7/10/17

11720 Beltsville Drive  
Suite 600  
Calverton, MD 20705  
Tel 301.595.1000  
www.grimmandparker.com

**GRIMM AND PARKER**

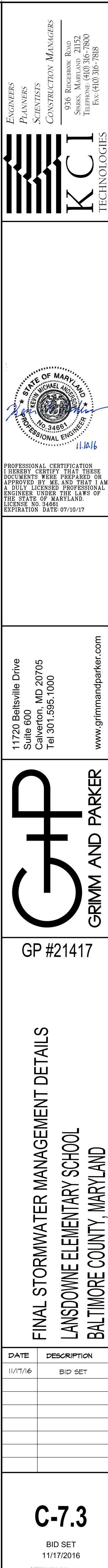
**FINAL STORMWATER MANAGEMENT PLAN**  
**LANSOWNE ELEMENTARY SCHOOL**  
**BALTIMORE COUNTY, MARYLAND**

GP #21417

DATE: 11/17/16  
DESCRIPTION: BID SET

**C-7.1**  
BID SET  
11/17/2016













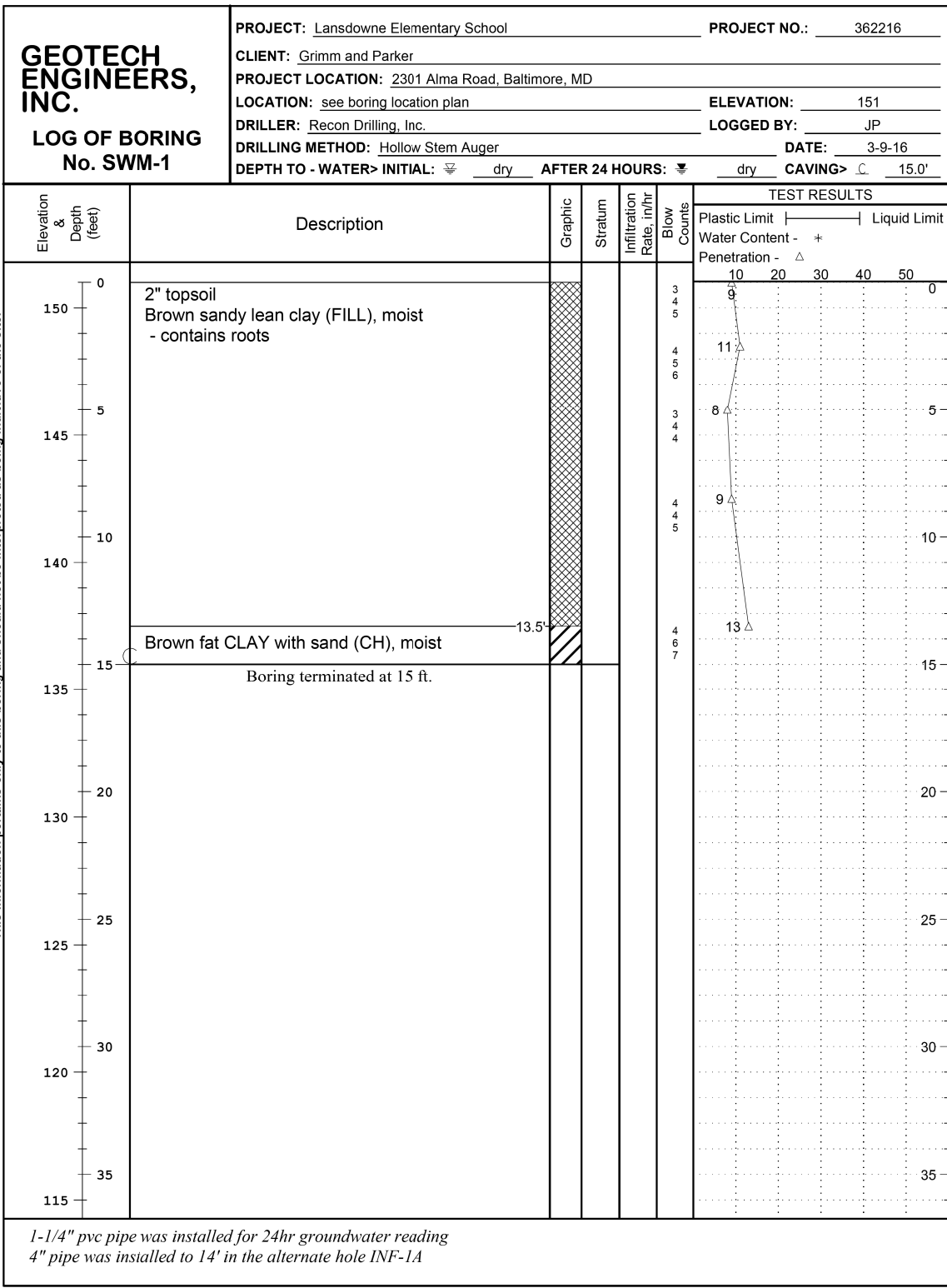


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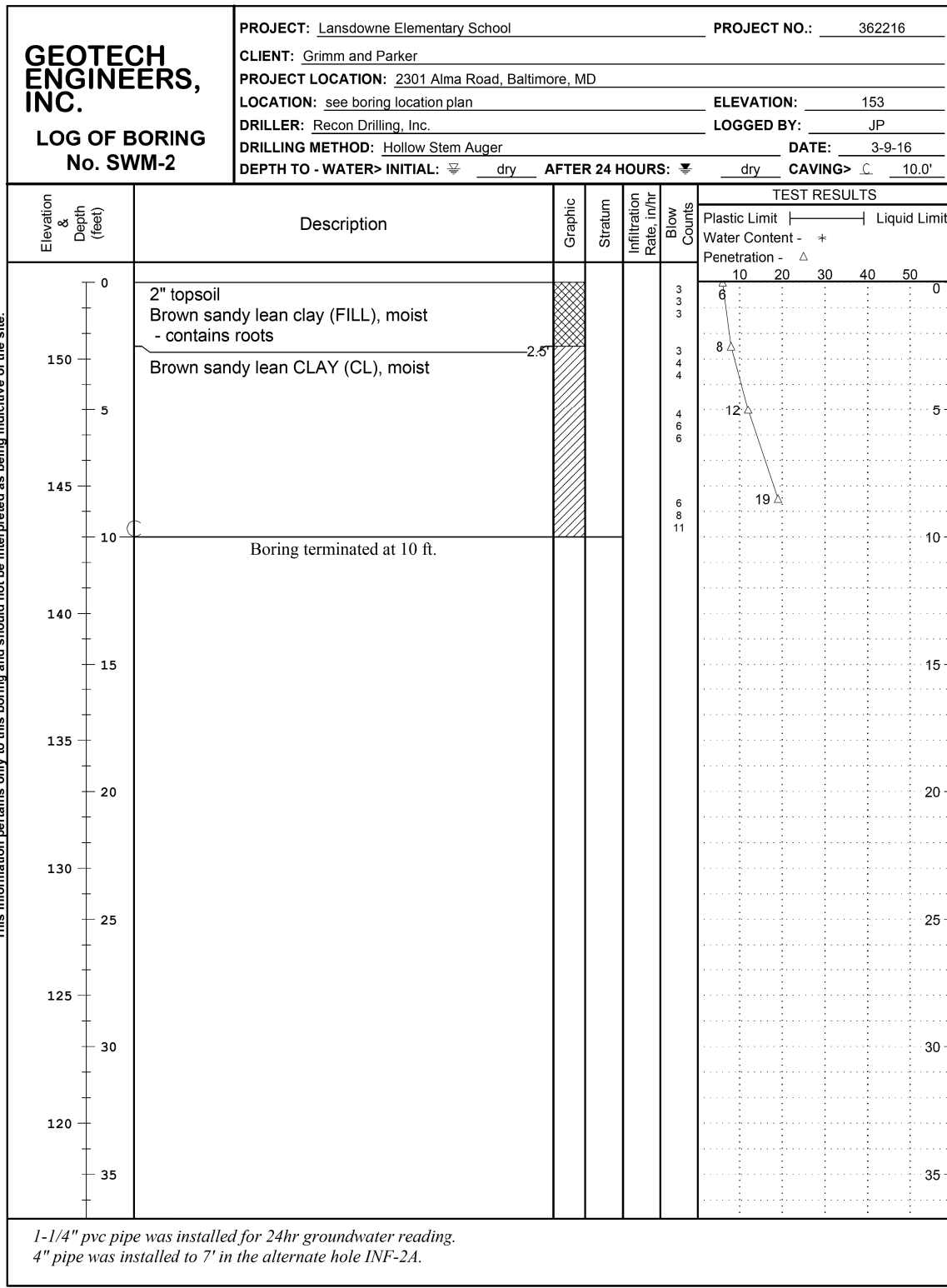


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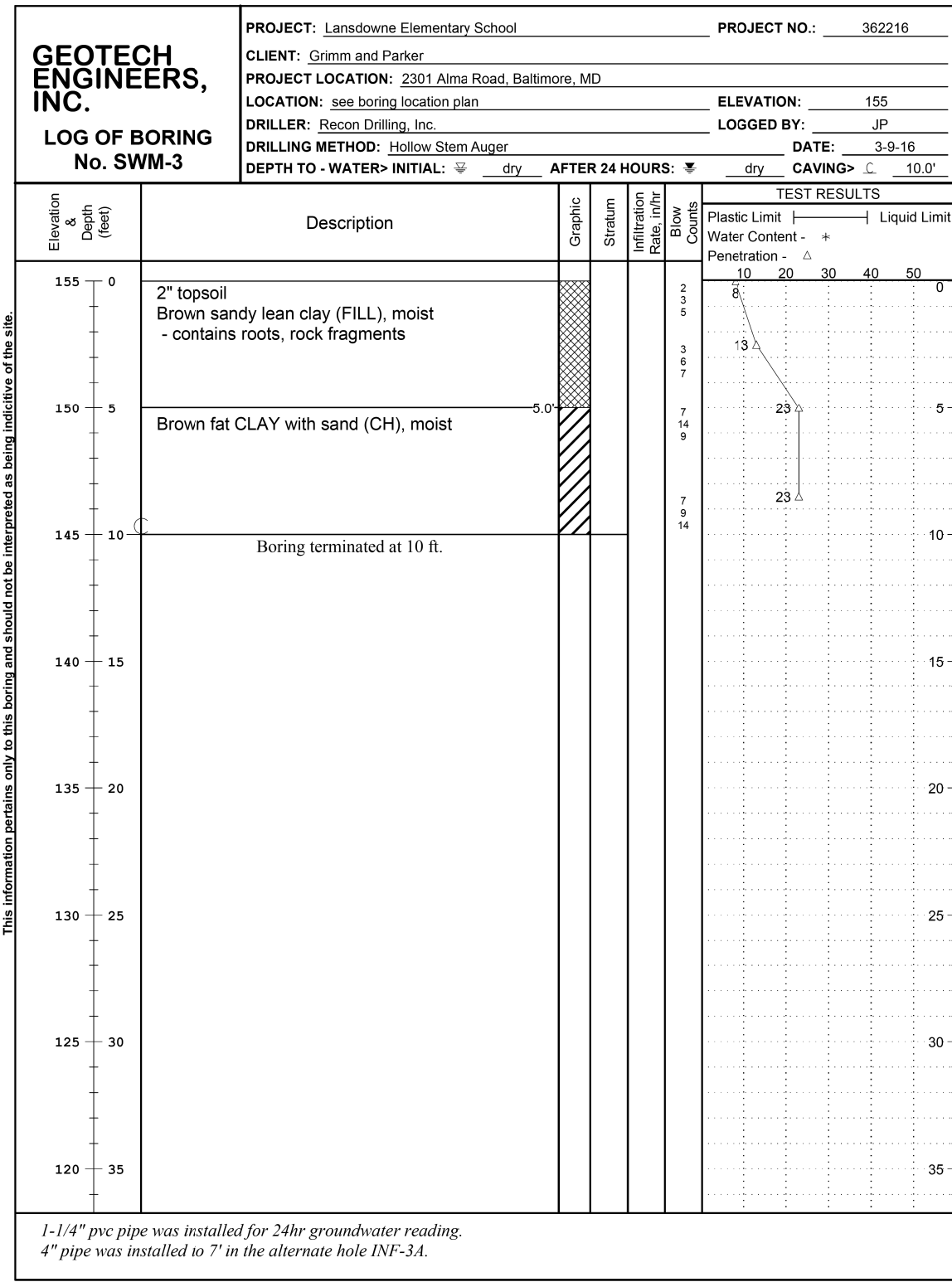


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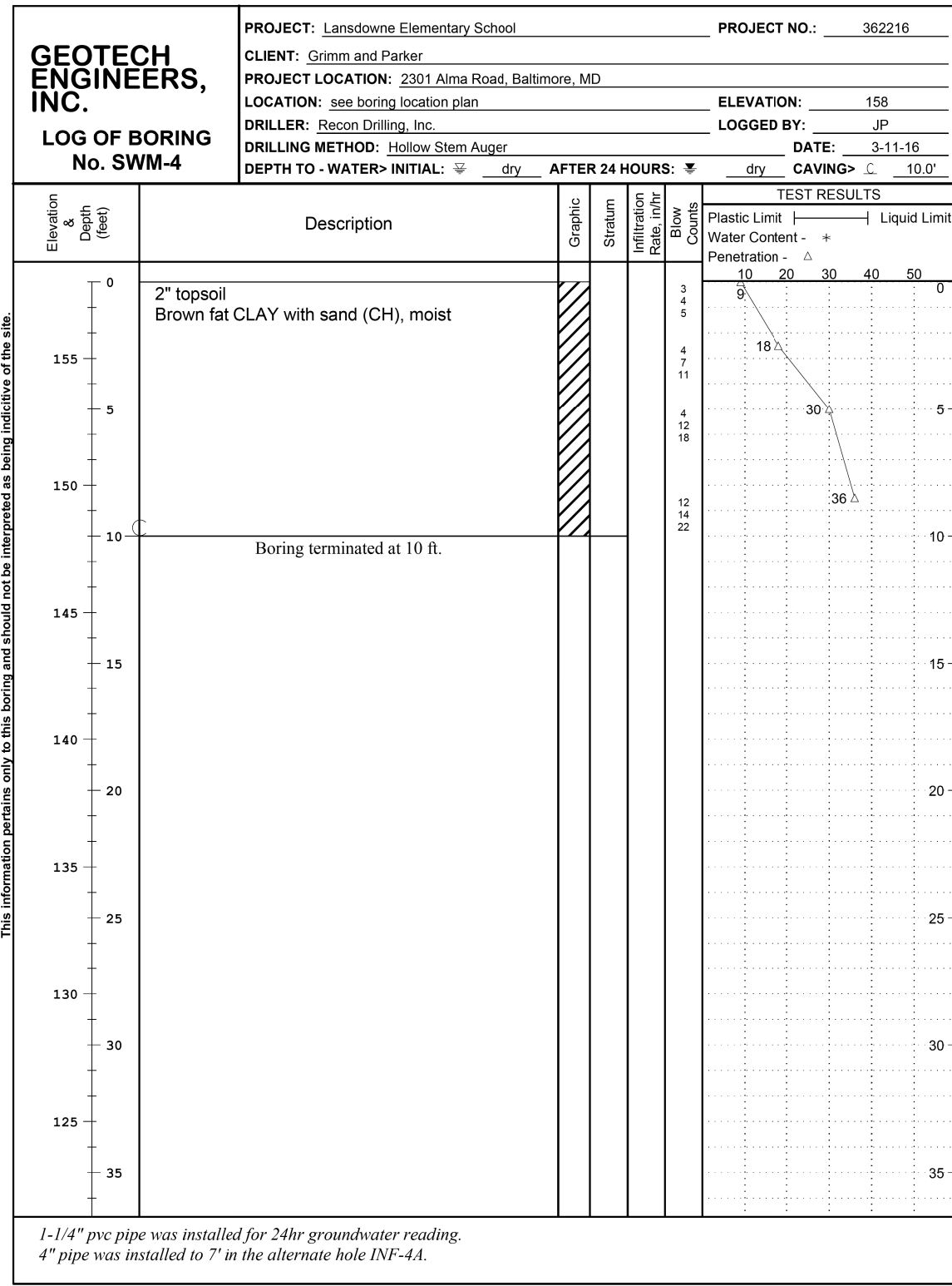


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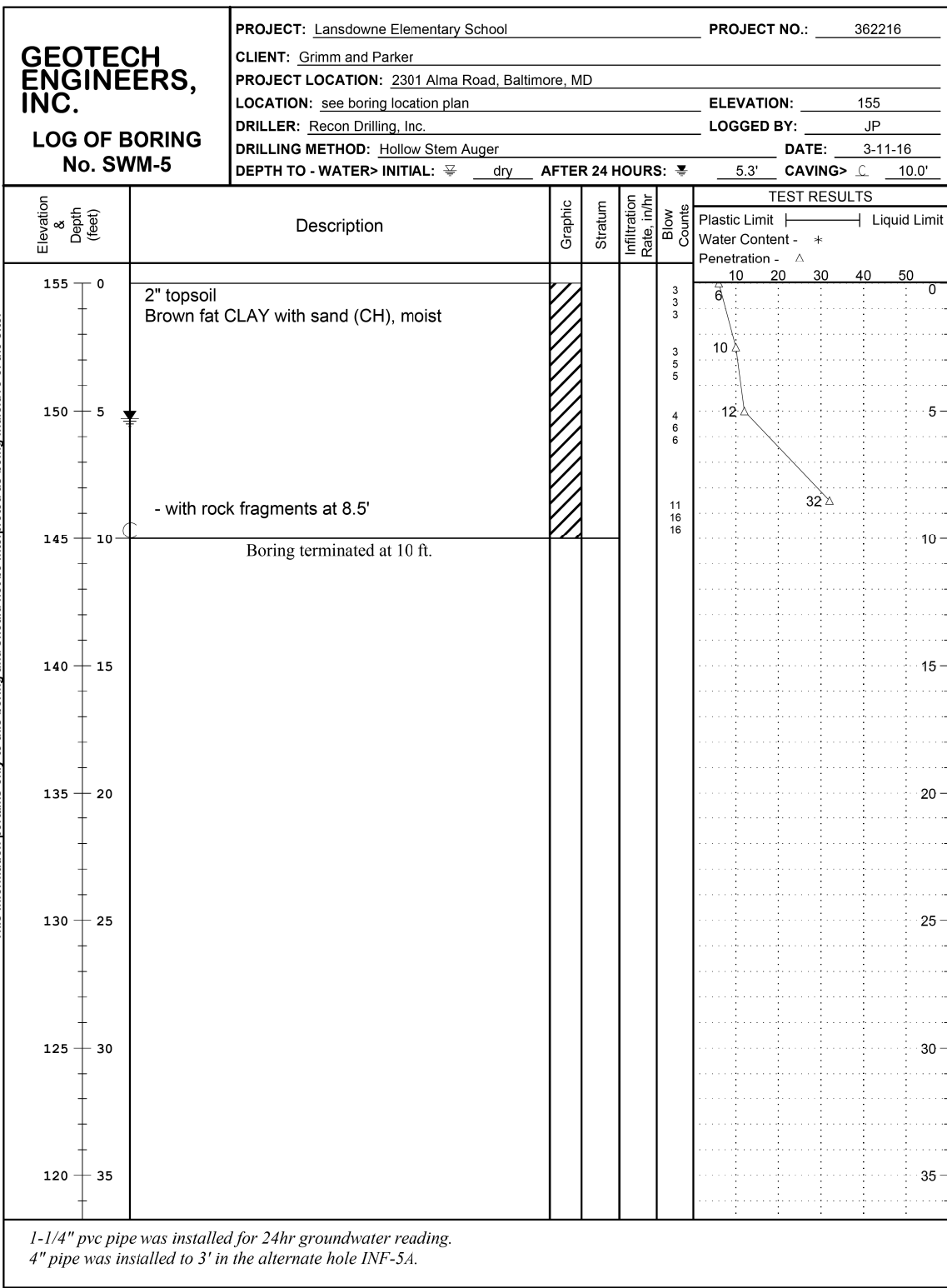


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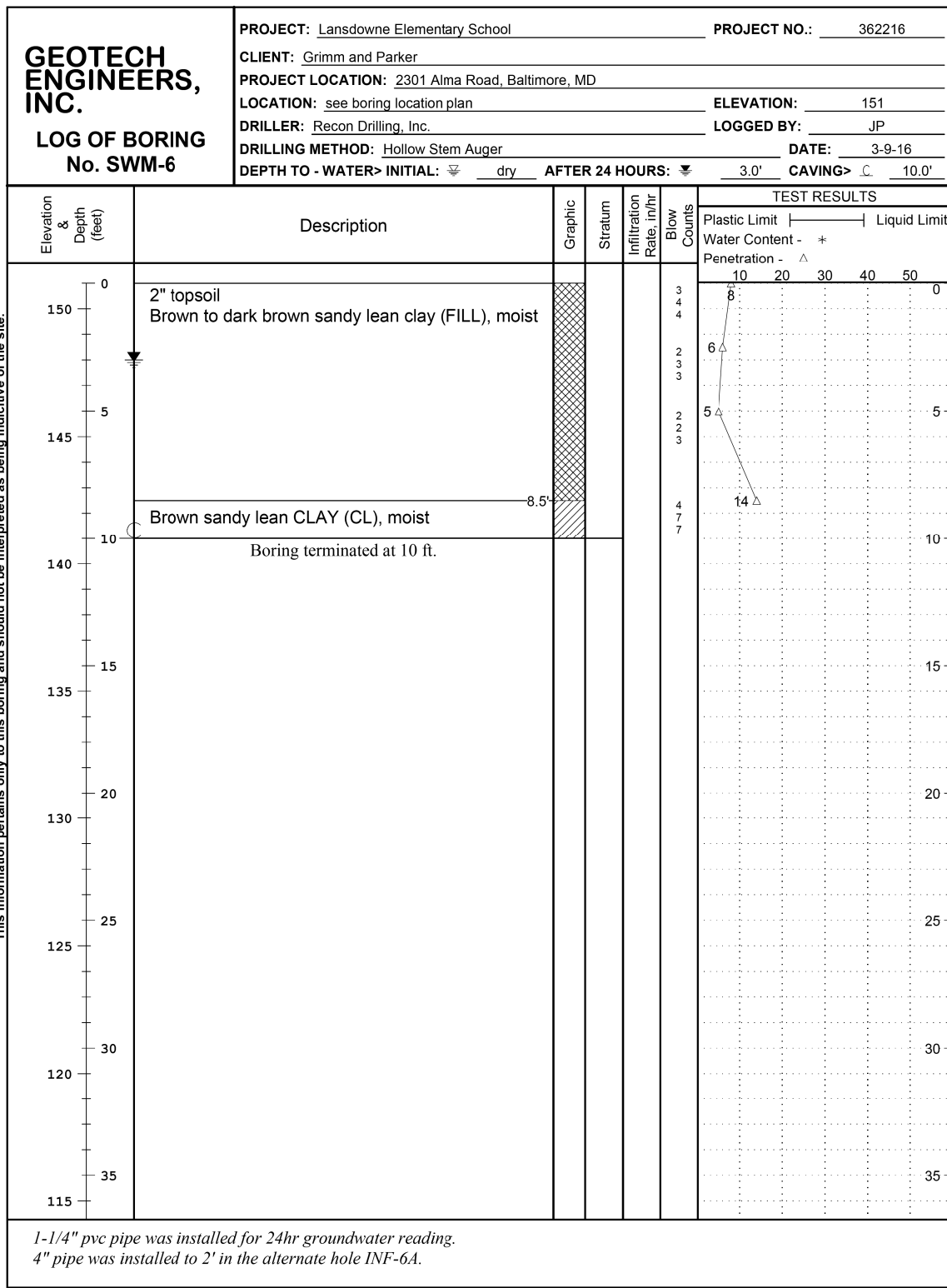


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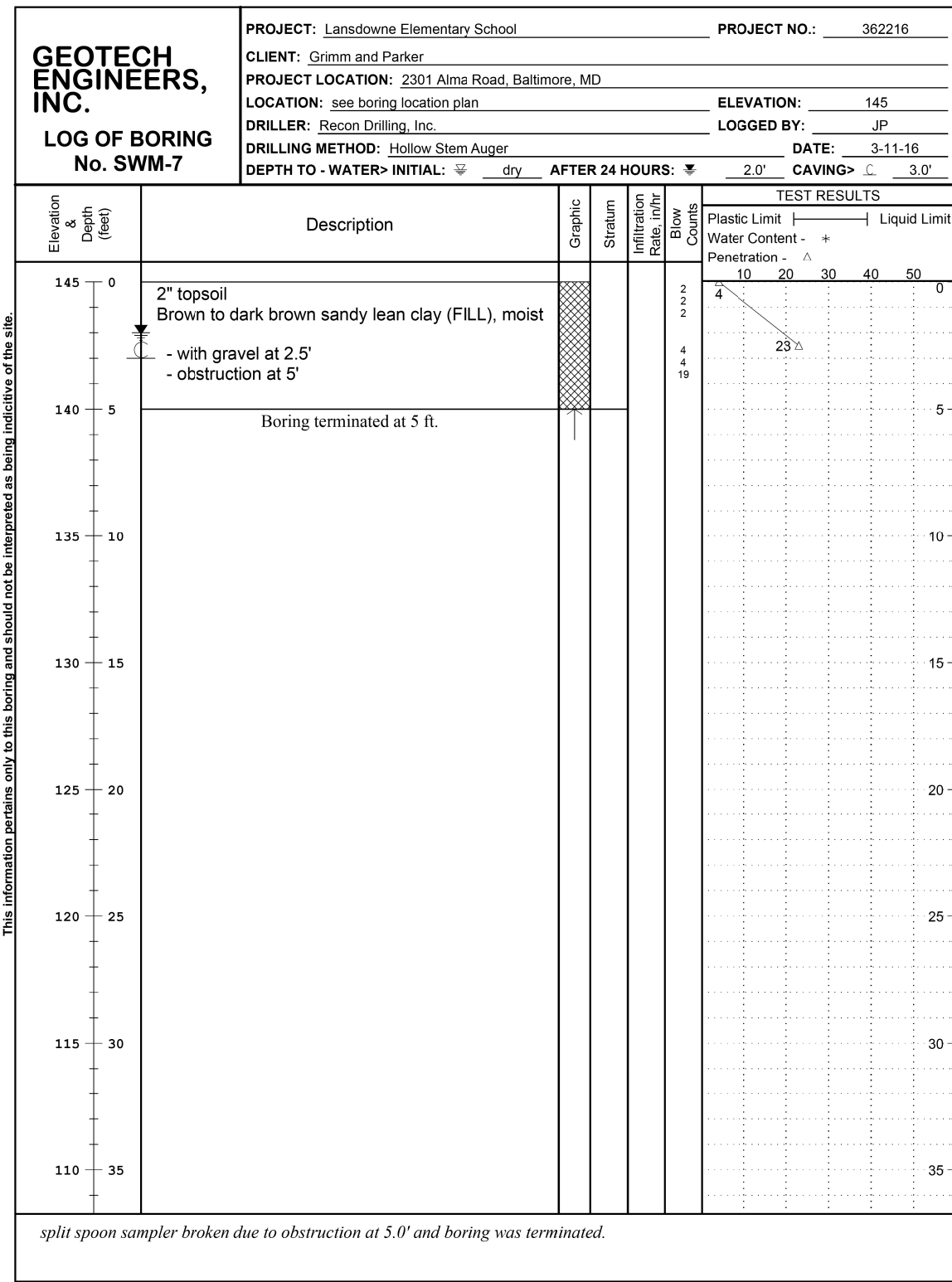


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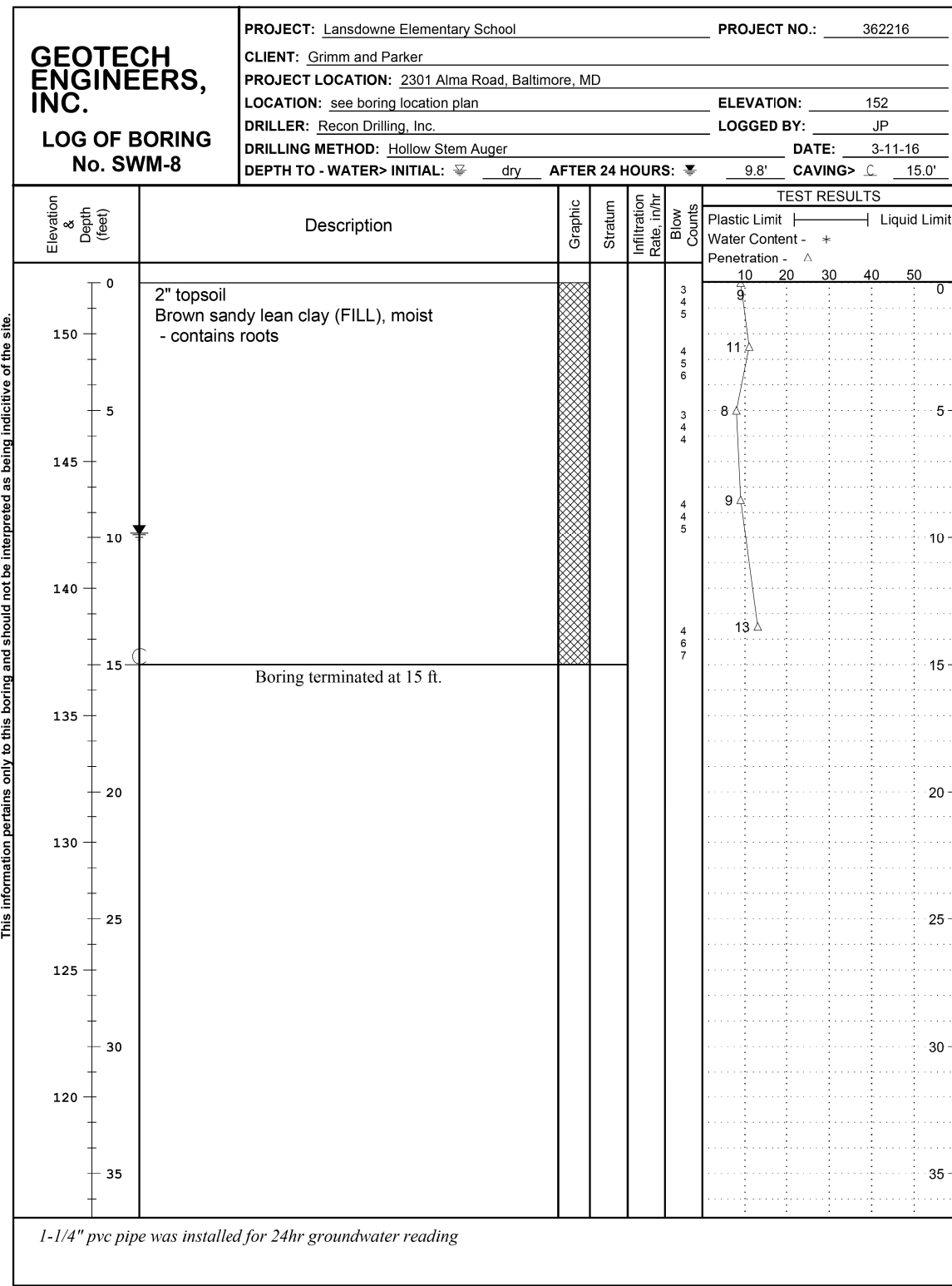


Figure PAGE 1 of 1

PLOTTED: 11:19 AM on Friday, November 11, 2016  
BY: Geo-Parker  
FILE: M:\2015\27159914 Drawings\C-7.8 FINAL SWM BORING LOGS.dgn

PROFESSIONAL CERTIFICATION.  
I HEREBY CERTIFY THAT THESE  
DOCUMENTS WERE PREPARED OR  
APPROVED BY ME AND THAT  
I AM A DULY LICENSED  
PROFESSIONAL ENGINEER UNDER  
THE LAWS OF THE STATE OF  
MARYLAND, LICENSE NO. 34661  
EXPIRATION DATE: 7/10/2017

ROAD PERMIT AND GRADES	REVISED AS PER RECORD PRINT	DATE	REVISION	BY
PERMIT REQUESTED	DRAFTSMAN	DATE		
PERMIT NUMBER				
GRADE ESTABLISHED				
PROFILE NUMBER				
KCI TECHNOLOGIES, INC.	DESIGNED: YF / ED	BUREAU OF ENGINEERING AND CONSTRUCTION	HIGHWAYS	STRUCTURES
ENGINEER: KEVIN ANDERSON	DRAWN: YF	REVIEWED		
DATE 10/12/16 LIC. NO. 34661	CHECKED: KA	DATE		

SEWER	WATER	FIELD ENGINEER	BUR. OF ENGINEERING & CONSTRUCTION	DEPARTMENT OF PUBLIC WORKS	P.W.A. DIR. NO.	KEY SHEET	SCALE	BALTIMORE COUNTY DEPARTMENT OF PUBLIC WORKS BUREAU OF ENGINEERING & CONSTRUCTION	SHEET 10 OF 10
			APPROVED	APPROVED	RIGHT OF WAY	POSITION SHEET	PLAN	FINAL STORMWATER MANAGEMENT BORING LOGS	DWG. NO.
			DATE	DATE		17SW 8.9	HOR.	LANSDOWNE ELEMENTARY SCHOOL	C-7.8
						18SW 8.9	PROFILE	2301 ALMA ROAD	FILE: 27-159914

APPROVED	CHIEF
STORMWATER ENGINEERING BALTIMORE CO DEPT. OF ENVIRONMENTAL PROTECTION AND SUSTAINABILITY	CONTRACT NO.
THESE PLANS ARE ON THE MARYLAND COORDINATE SYSTEM NAD-83	JOB ORDER NO.

DATE	DESCRIPTION
11/17/16	BID SET

C-7.8

BID SET  
11/17/2016

11720 Beltsville Drive  
Suite 600  
Caverton, MD 20705  
Tel 301.595.1000  
www.grimmandparker.com

GRIMM AND PARKER

GP #21417

FINAL STORMWATER MANAGEMENT BORING LOGS  
LANSDOWNE ELEMENTARY SCHOOL  
BALTIMORE COUNTY, MARYLAND

ENGINEERS  
PLANNERS  
SCIENTISTS  
CONSTRUCTION MANAGERS  
0348 Reisterstown Road  
Suite 200  
Baltimore, Maryland 21215  
Telephone: (410) 316-7800  
Fax: (410) 316-7818

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ENGINEER UNDER THE LAWS OF  
THE STATE OF MARYLAND  
LICENSE NO. 34661  
EXPIRATION DATE: 07/10/17



**BASIC METHOD**

12 GAUGE GALVANIZED WIRE TWISTED FOR SUPPORT

2 STRANDS OF

2' - 6"

1/2" RUBBER HOSE

BURLAP AND ROPE CUT AWAY FROM TOP 1/3 OF ROOT BALL

5" MULCH

1/8" DEPTH OF ROOT BALL

UNDISTURBED SUBGRADE

UPRIGHT STAKES EXTENDED TO FIRM BEARING

2' X 4" DEPTH OF

BACKFILL MIX SUBSIDIARY TOWARDS ORIGINAL SOIL

PLACE STAKES PARALLEL TO WALKS AND BUILDINGS

5" SAUCER

1/2 WIDTH OF ROOT BALL

8' X 2" X 2' UPRIGHT STAKES

5' X 2" X 2' UPRIGHT STAKES

2' X 4" DEPTH OF

BACKFILL MIX SUBSIDIARY TOWARDS ORIGINAL SOIL

PLACE STAKES PARALLEL TO WALKS AND BUILDINGS

5" SAUCER

1/2 WIDTH OF ROOT BALL

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UPRIGHT STAKES EXTENDED TO FIRM BEARING

2' X 4" DEPTH OF

BACKFILL MIX SUBSIDIARY TOWARDS ORIGINAL SOIL

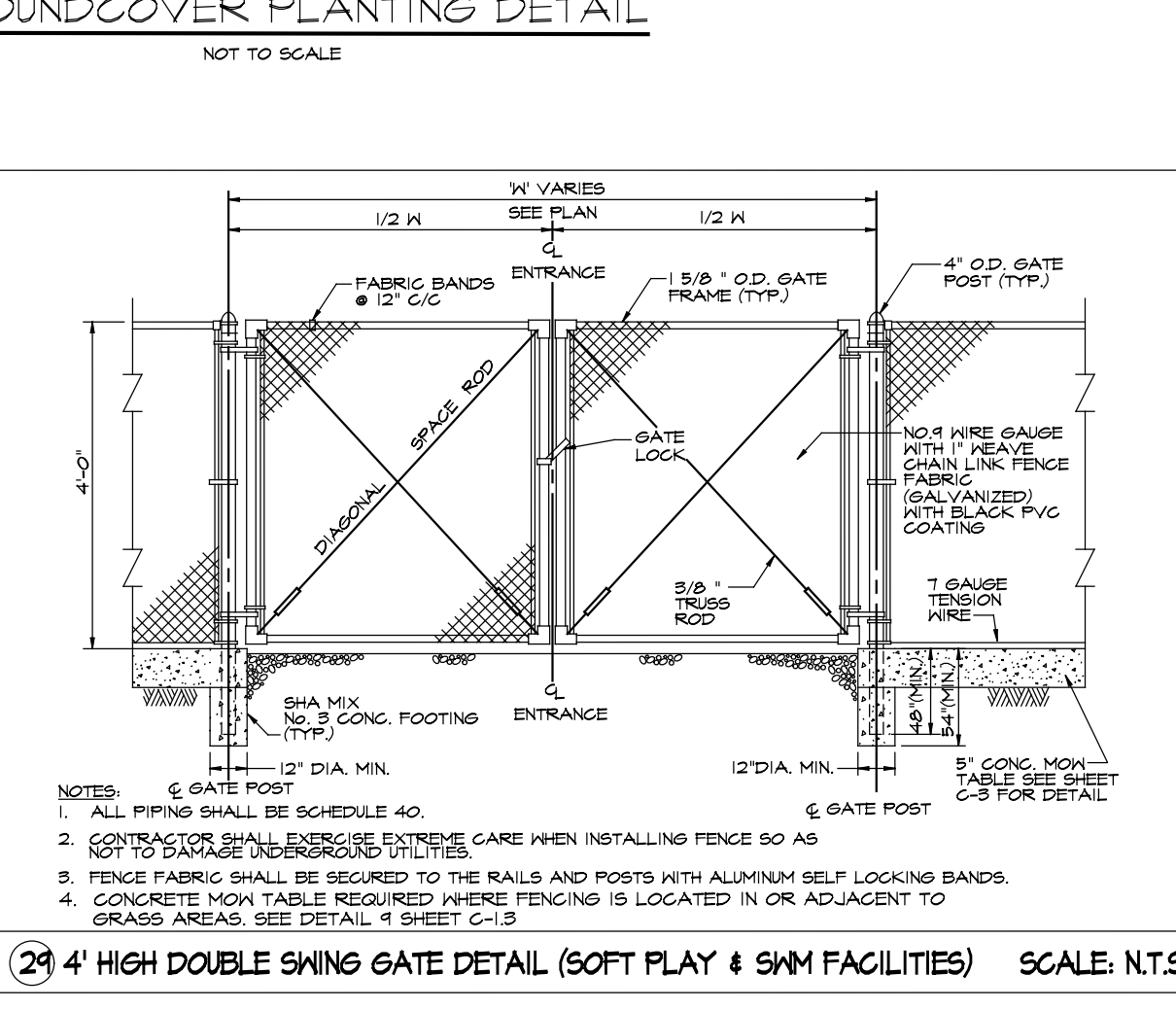
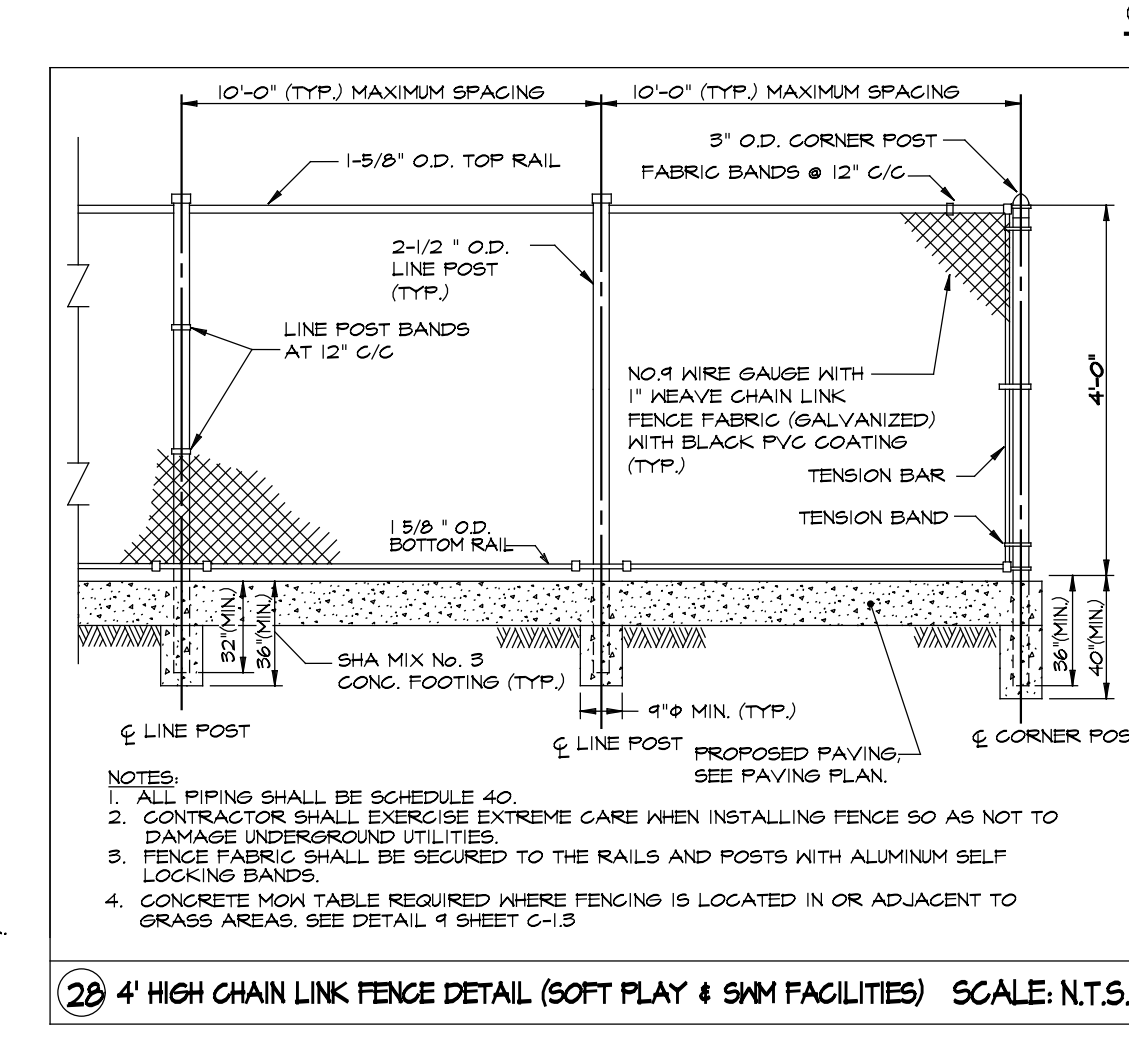
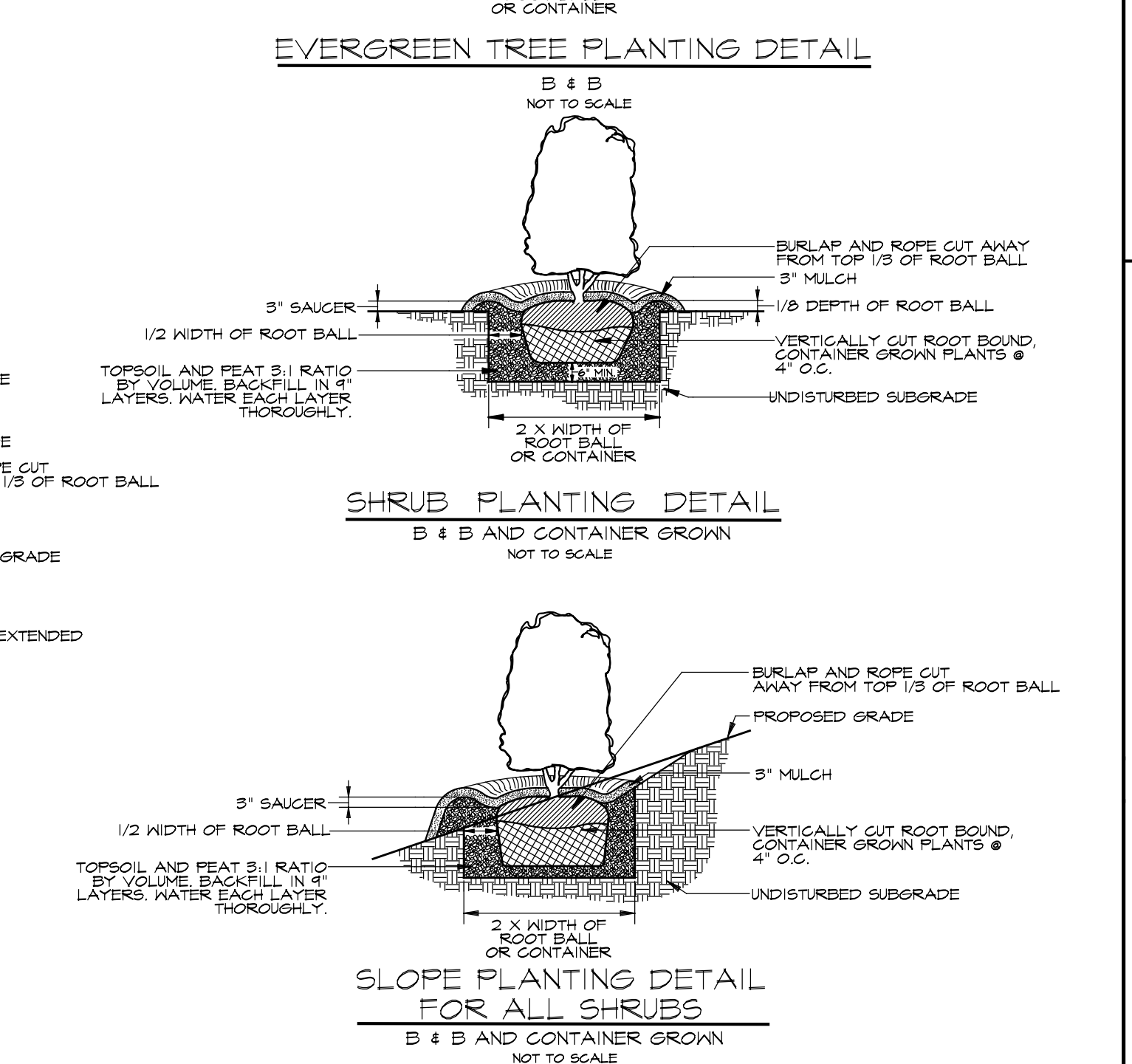
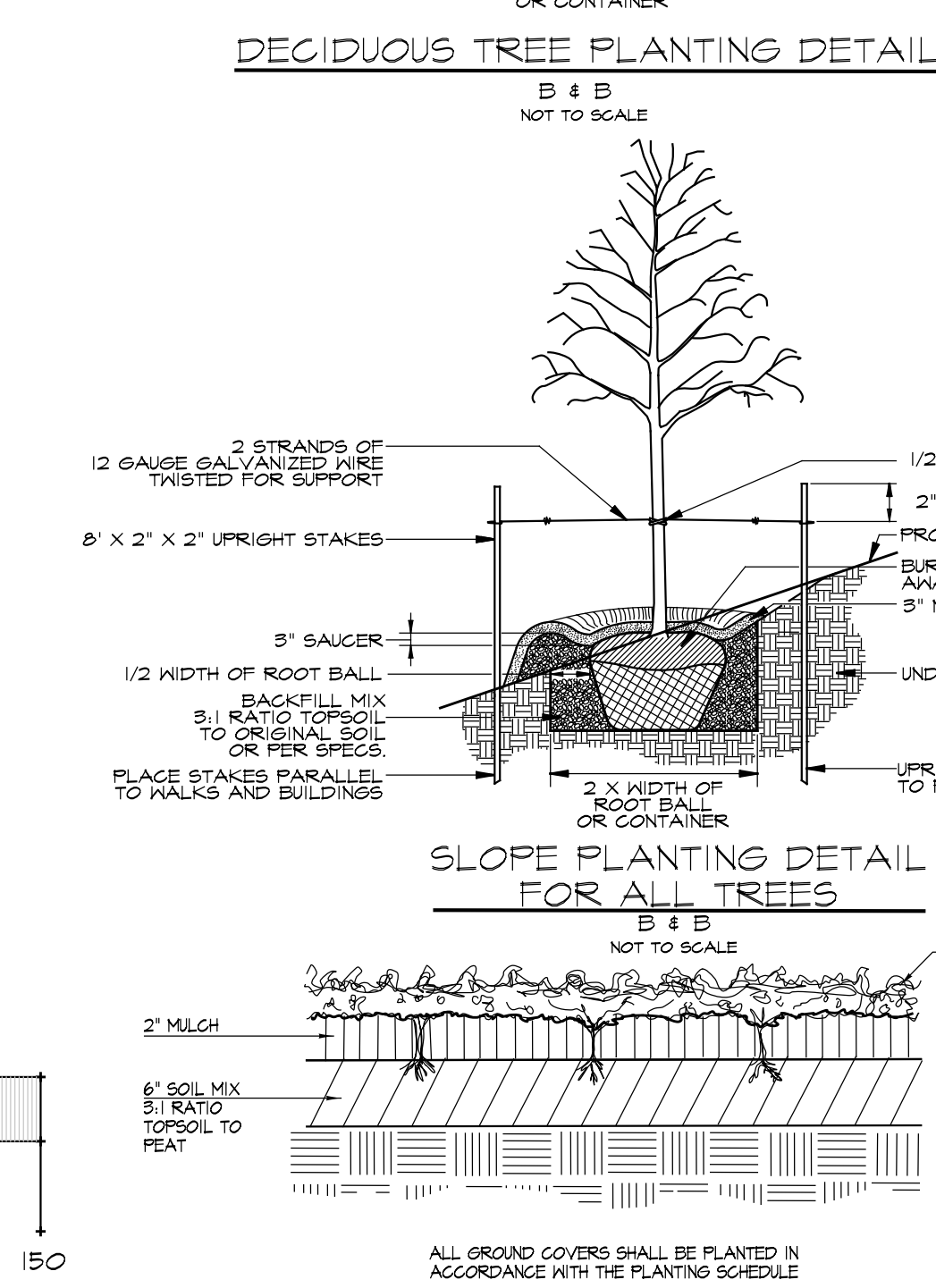
PLACE STAKES PARALLEL TO WALKS AND BUILDINGS

5" SAUCER

1/2 WIDTH OF ROOT BALL

8' X 2" X 2' UPRIGHT STAKES

5' X 2" X 2' UPRIGHT STAKES



Final Landscape Plan  
Landscape Architect Certification Form

It is certified that this landscape plan is in compliance with all plans previously approved by Baltimore County and the Baltimore County comments attendant thereto.

*Andrea E. Lake*

Signature \_\_\_\_\_

ANDREA E. LAKE  
Print Name \_\_\_\_\_

LANDSCAPE ARCHITECT  
License #2857

6/16

ANNE ARUNDEL  
COUNTY, MARYLAND  
JUL 16 2016

10-5-16 \_\_\_\_\_  
Date

OWNER \_\_\_\_\_

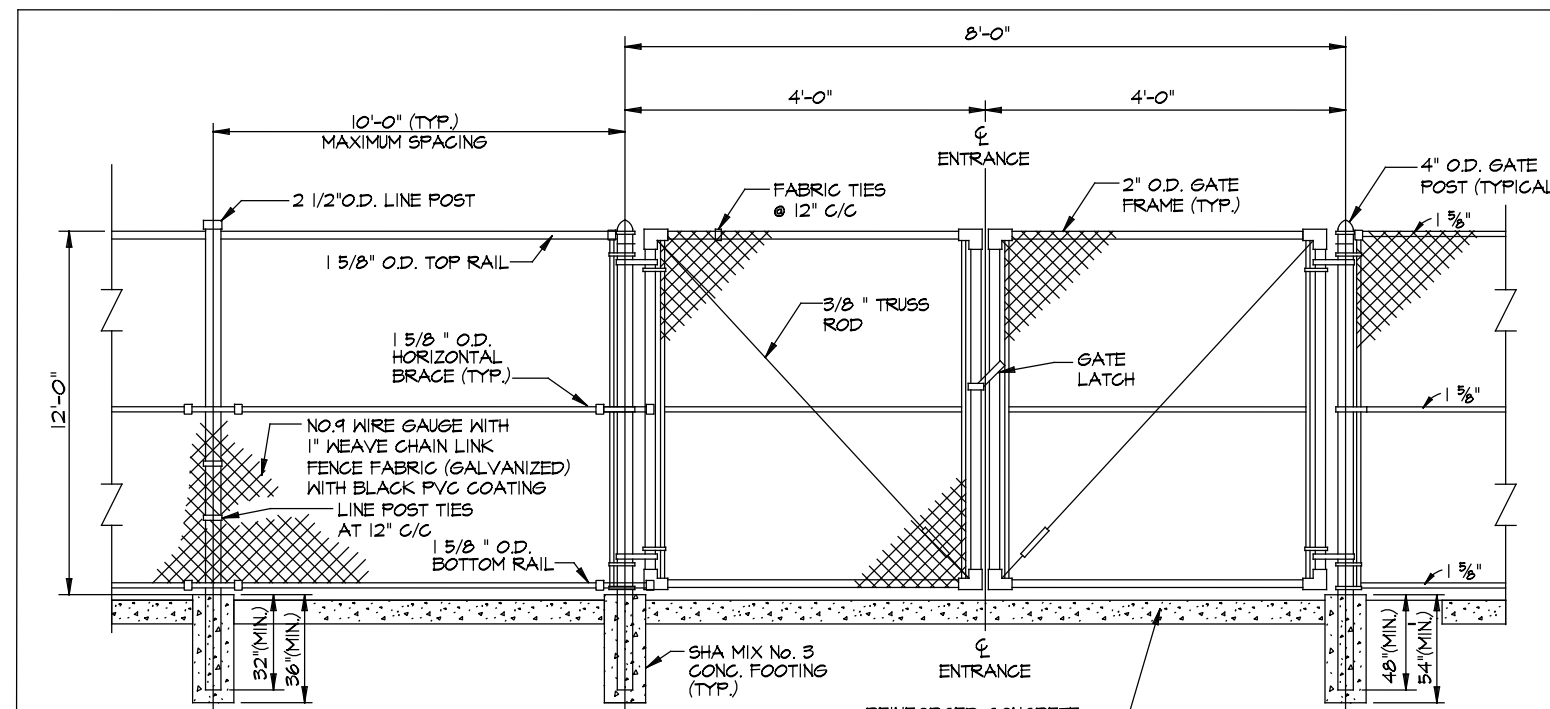
BALTIMORE COUNTY  
BOARD OF EDUCATION  
6801 CHARLES STREET  
TOWSON, MD 21204  
PHONE: (410) 801-6801

LANDSCAPE PLAN		LANDSOWNE ELEMENTARY SCHOOL BALTIMORE COUNTY, MARYLAND	
DATE	DESCRIPTION		
11/17/16	BID SET		
4/24/16	BID SET		

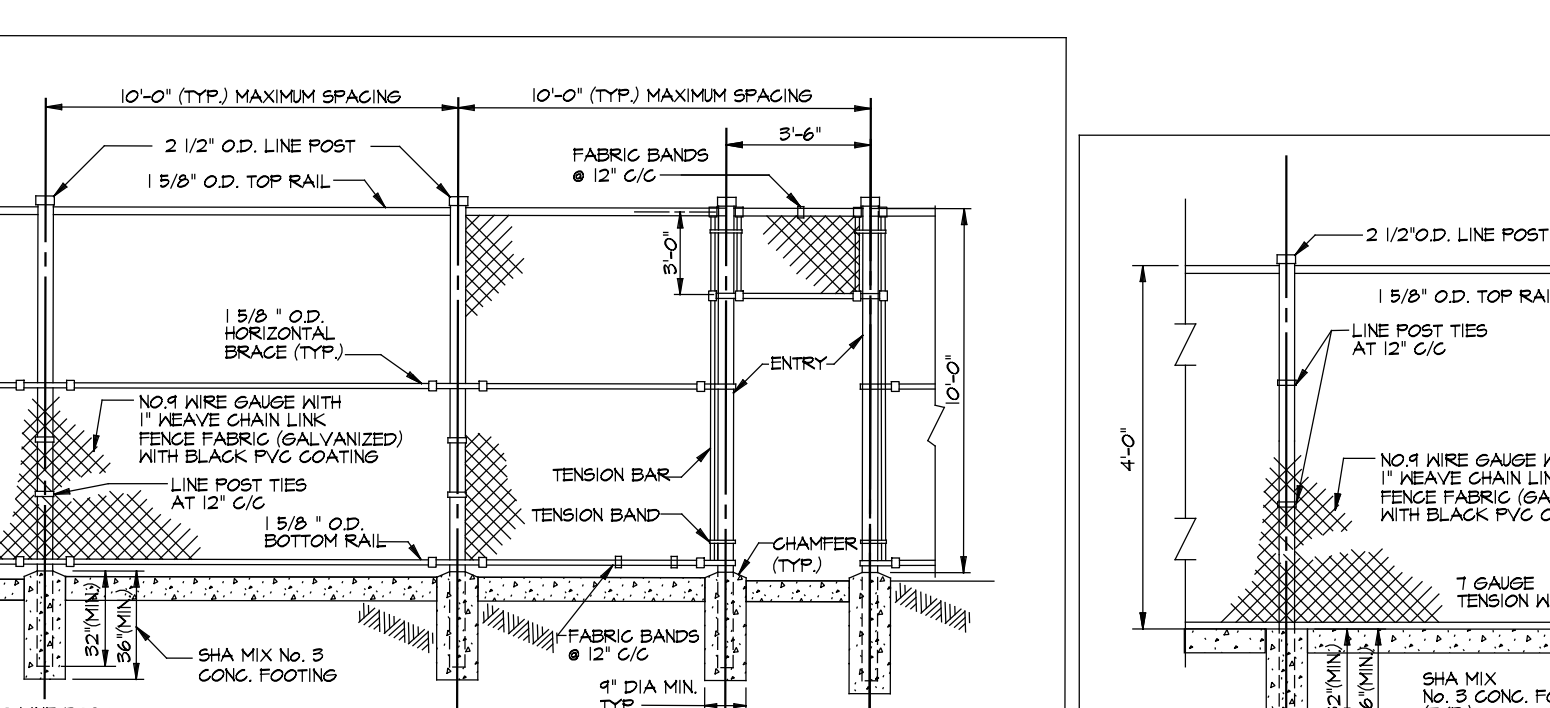
**C-8.1**

BID SET  
11/17/2016

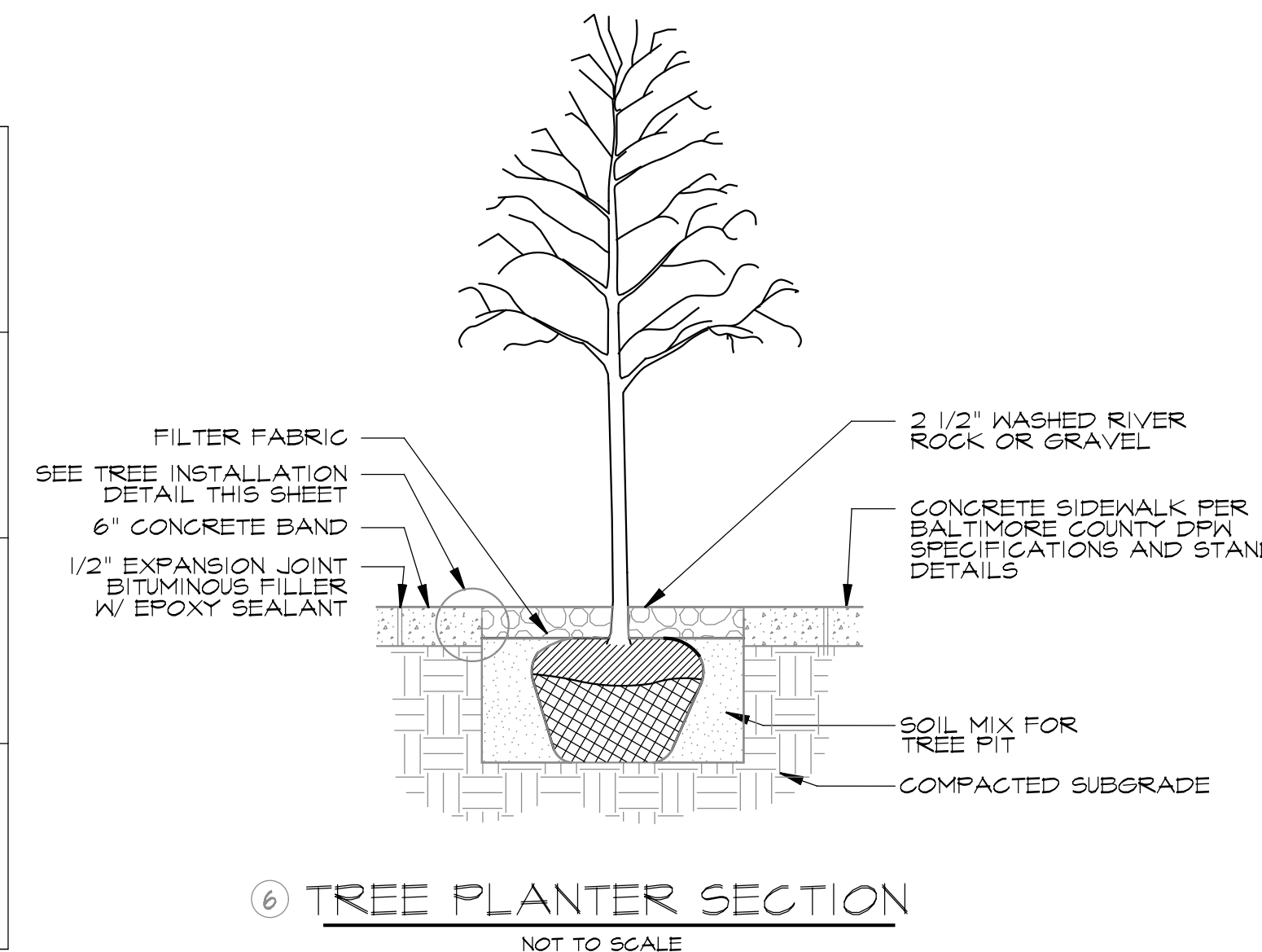
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 BY: Gino.Pompa  
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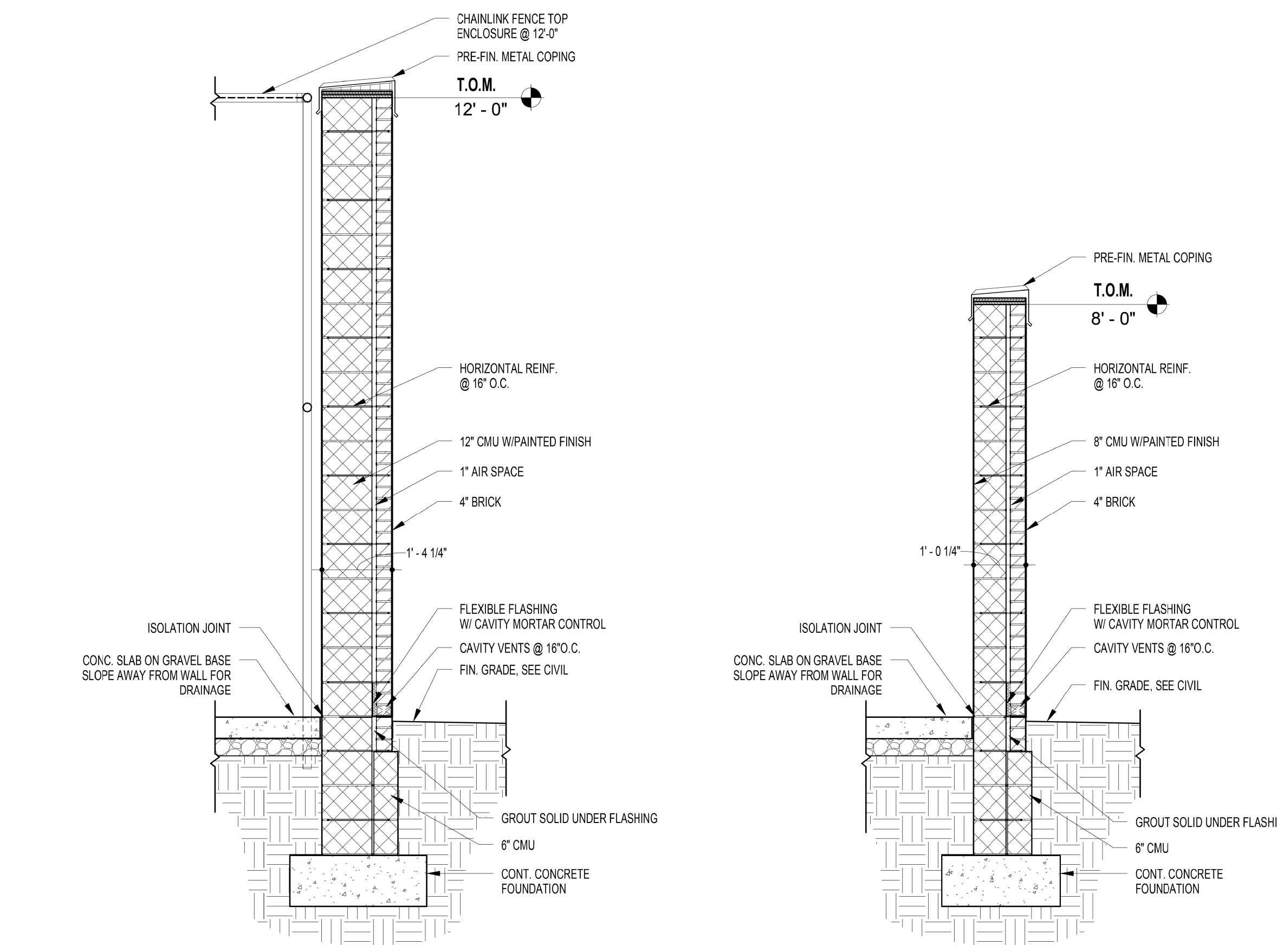
2 12' HIGH DOUBLE SWING GATE DETAIL (TRANSFORMER & GENERATOR) SCALE: N.T.S.



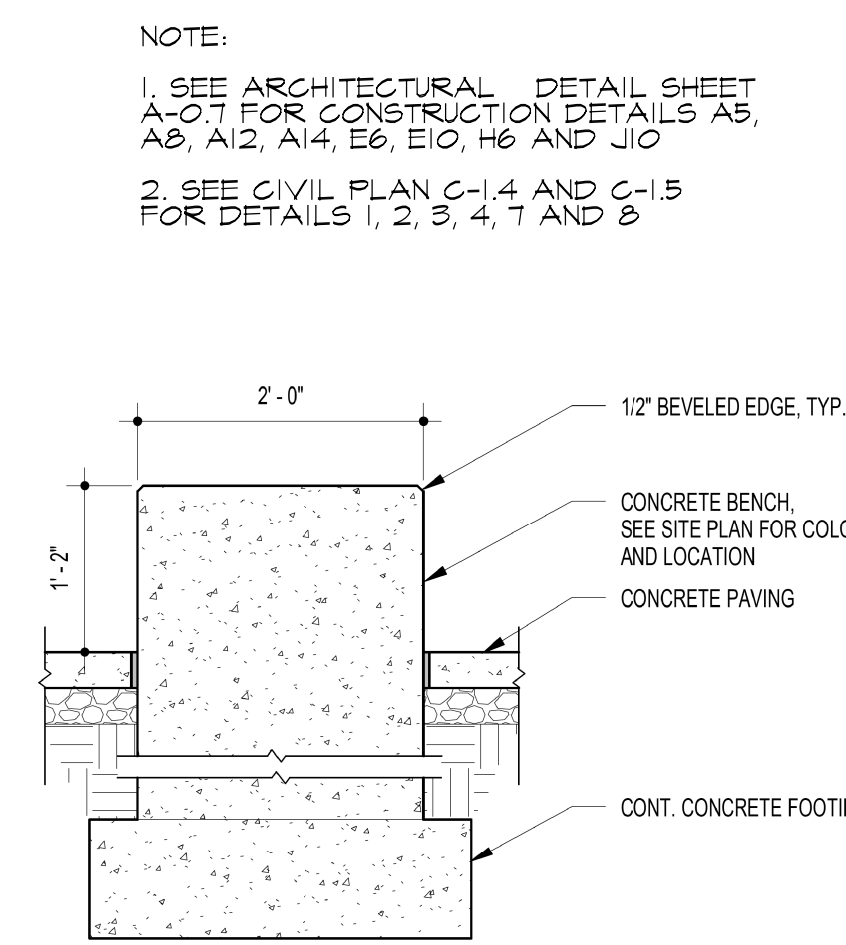
4' HIGH CHAIN LINK FENCE DETAIL (MULTI-PURPOSE PLAY AREA) SCALE: N.T.S. 8 4' HIGH SINGLE SWING GAT



### ⑥ TREE PLANTER SECTION



A5 PLAN - MASONRY SCREENWALL  
 1/8" = 1'-0"



RECESSED LIGHT FIXTURE, TYP.

CONCRETE MOW STRIP

WALL BELOW

CAST STONE CAP

8"

1'-3 1/2"

9'-4"

CAST STONE CAP

4" BRICK

5" ALUM. LETTERS, TOP TWO ROWS ON BOTH SIDE

4" ALUM. LETTERS, BOTTOM TWO ROWS ON BOTH SIDE

RECESSED LIGHT FIXTURE

[illegible][illegible]

**A5** **PLAN - MASONRY SCREENWALL** BORN BRESCIA  
BOARD OF EDUCATION  
6901 CHARLES STREET  
TOWSON, MD 21204  
PHONE: (443) 809-6301

LAND USE: RESIDENTIAL  
 ZONING: DR 5.5

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FOREST CONSERVATION NOTES

1. THERE IS A REFORESTATION REQUIREMENT FOR THIS PROJECT OF 3.5 ACRES. PLEASE SEE THE FOREST CONSERVATION WORKSHEET ON THIS SHEET FOR CALCULATIONS. MITIGATION WILL BE ACCOMPLISHED VIA A PAYMENT OF FEE-IN-LIEU TO THE FOREST CONSERVATION FUND.
2. FOR ADDITIONAL INFORMATION ON EXISTING FOREST CONDITIONS, REFER TO THE FOREST STAND DELINEATION REPORT PREPARED BY KCI TECHNOLOGIES, INC. ON DECEMBER 18, 2015.
3. A VARIANCE WAS REQUESTED TO REMOVE NINE (9) SPECIMEN TREES ON SITE DURING CONSTRUCTION. THE VARIANCE WAS APPROVED ON 9/26/16. MITIGATION FOR THE REMOVAL OF NINE (9) SPECIMEN TREES SHALL BE SATISFIED BY A FEE-IN-LIEU OF \$4,183.00. IN ADDITION TO THE SPECIMEN TREE MITIGATION FEE, A REFORESTATION MITIGATION FEE-IN-LIEU OF \$16,250.00 WILL BE REQUIRED FOR THE 3.5 ACRES OF REFORESTATION THAT CANNOT BE MET ON SITE.
4. PROJECT CONSTRUCTION TIMETABLE:
- A. INSTALL TEMPORARY FOREST PROTECTION FENCING AS NEEDED (HIGH VISIBILITY ORANGE FENCING) AROUND THE FOREST AND TREE AREAS TO BE PROTECTED, AS INDICATED ON THE FOREST CONSERVATION PLAN. CONTACT THE MARYLAND DEPARTMENT OF NATURAL RESOURCES (DNR) QUALIFIED PROFESSIONAL WHO PREPARED THIS PLAN TO SET THE FENCE LOCATION IN THE FIELD.
- B. NOTIFY THE OWNER'S ENGINEER AND EPS FOR A PRE-CONSTRUCTION MEETING TO INSPECT THE PROTECTIVE FENCING PRIOR TO BEGINNING CONSTRUCTION ACTIVITIES.
- C. INSTALL SEDIMENT CONTROL DEVICES AND PROCEED WITH CLEARING AND GRADING ACTIVITIES.
- D. WHEN ALL CONSTRUCTION IS COMPLETED, CONTACT EPS FOR INSPECTION OF TREE PROTECTION MEASURES.

FOREST PROTECTION NOTES

- A. PLANNING AND DESIGN OF PROTECTION DEVICES:
- FOR ALL RETAINED AREAS, INCLUDING BOTH FORESTED AND ISOLATED SPECIMEN TREES:
1. ALL RETENTION AREAS AND ISOLATED SPECIMEN TREES SHALL BE PROTECTED BY HIGHLY VISIBLE, WELL-ANCHORED TEMPORARY PROTECTION DEVICES.
2. IF THERE IS MORE THAN 50' OF EXISTING WOODLAND BETWEEN THE FOREST RETENTION AREA AND THE LIMITS OF DISTURBANCE, TEMPORARY PROTECTION DEVICES WILL NOT BE REQUIRED.
3. ALL PROTECTION DEVICES SHALL BE IN PLACE PRIOR TO ANY GRADING OR LAND CLEARING.
4. ALL PROTECTION DEVICES SHALL REMAIN IN PLACE UNTIL ALL CONSTRUCTION HAS CEASED IN THE IMMEDIATE VICINITY.
5. DEVICES SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION.
6. ATTACHMENT OF SIGNS OR ANY OTHER OBJECTS TO TREES IS PROHIBITED.
7. NO EQUIPMENT, MACHINERY, VEHICLES, MATERIALS, OR EXCESSIVE PEDESTRIAN TRAFFIC SHALL BE ALLOWED WITHIN THE PROTECTED AREA.
- B. PRE-CONSTRUCTION MEETING:
- AFTER THE BOUNDARIES OF THE RETENTION AREAS HAVE BEEN STAKED AND FLAGGED AND BEFORE ANY DISTURBANCE HAS TAKEN PLACE ON SITE, A PRE-CONSTRUCTION MEETING AT THE CONSTRUCTION SITE SHALL TAKE PLACE. THE DEVELOPER, CONTRACTOR OR PROJECT MANAGER, AND BALTIMORE COUNTY INSPECTORS SHALL ATTEND.
- C. ON-SITE DECISIONS:
- ANY SIGNIFICANT CHANGES MADE TO THE FOREST CONSERVATION PLAN DUE TO ON-SITE CONDITIONS SHALL BE MADE WITH THE PRIOR CONSENT OF EPS.
- D. POST-CONSTRUCTION PHASE:
- THE FOLLOWING MEASURES SHALL BE TAKEN:
1. CORRECTIVE MEASURES IF DAMAGES OCCURRED DUE TO NEGLIGENCE:
- a. STRESS REDUCTION
- b. REMOVAL OF DEAD OR DYING TREES. THIS MAY BE DONE ONLY IF TREES POSE AN IMMEDIATE SAFETY HAZARD.
2. REMOVAL OF TEMPORARY STRUCTURES:
- a. NO BURIAL OF DISCARDED MATERIALS WILL OCCUR ON-SITE WITHIN THE CONSERVATION AREA
- b. NO OPEN BURNING WITHIN 100' OF A WOODED AREA
- c. ALL TEMPORARY FOREST PROTECTION STRUCTURES WILL BE REMOVED AFTER CONSTRUCTION.

PENALTY FOR VIOLATION

FOLLOWING THE COMPLETION OF CONSTRUCTION, PRIOR TO USE, THE COUNTY INSPECTOR SHALL INSPECT THE ENTIRE SITE. IF TREES IN THE RETENTION AREAS ARE FOUND SEVERELY DAMAGED OR DEAD DUE TO MECHANICAL INTRUSION, THE AREA MAY BE CONSIDERED TO BE IN VIOLATION OF THE FOREST CONSERVATION PLAN AND FEES MAY BE ASSESSED ACCORDINGLY AT \$1.20 PER SQUARE FOOT OF THE AFFECTED AREA. OTHER PENALTIES MAY APPLY.

SPECIMEN TREES

TREE #	DBH	BOTANICAL/ COMMON NAME	CRZ RADIUS	CRZ AREA	EXISTING CONDITION	PROPOSED CONDITION
1	50"	QUERCUS ALBA/ WHITE OAK	75.0'	0.41 ACRES	FAIR	RETAIN
2	35"	QUERCUS FALCATA/ SOUTHERN RED OAK	52.5'	0.20 ACRES	GOOD	RETAIN
3	30.5"	QUERCUS FALCATA/ SOUTHERN RED OAK	51.8'	0.24 ACRES	GOOD	REMOVE
4	33"	QUERCUS VELUTINA/ BLACK OAK	44.5'	0.18 ACRES	FAIR	REMOVE
5	30"	QUERCUS ALBA/ WHITE OAK	45.0'	0.15 ACRES	GOOD	REMOVE
6	43"	QUERCUS ALBA/ WHITE OAK	64.5'	0.30 ACRES	POOR	REMOVE
7	32"	QUERCUS FALCATA/ SOUTHERN RED OAK	48.0'	0.11 ACRES	GOOD	REMOVE
8	38"	QUERCUS ALBA/ WHITE OAK	57.0'	0.25 ACRES	GOOD	RETAIN
9	31"	QUERCUS PALUSTRIS/ PIN OAK	46.5'	0.16 ACRES	FAIR	REMOVE
10	36"	QUERCUS FALCATA/ SOUTHERN RED OAK	54.0'	0.21 ACRES	FAIR	REMOVE
11	33"	QUERCUS RUBRA/ NORTHERN RED OAK	44.5'	0.18 ACRES	VERY POOR	REMOVE***
12	46"	QUERCUS RUBRA/ NORTHERN RED OAK	64.0'	0.34 ACRES	FAIR	RETAIN
13	31"	QUERCUS ALBA/ WHITE OAK	46.5'	0.16 ACRES	FAIR	RETAIN

\*\*\* NOTE: SPECIMEN TREE #11 HAS BEEN REMOVED SINCE THE KCI SITE INVESTIGATION ON DECEMBER 18, 2015

FOREST CONSERVATION WORKSHEET

FOREST CONSERVATION WORKSHEET FOR BALTIMORE COUNTY

PROJECT NAME/PROPERTY OWNER: LANSDOWNE ELEMENTARY SCHOOL DATE: 9/19/16  
LOCATION: LANSDOWNE, MD 21227 REVISION: \_\_\_\_\_  
REVIEWED BY: \_\_\_\_\_ APPROVAL DATE: \_\_\_\_\_

1. BASIC SITE DATA	ACRES (0.1 acre)
GROSS SITE AREA	17.5
AREA WITHIN 100 YEAR FLOODPLAIN	1.2
AREA WITHIN AGRICULTURAL USE OR PRESERVATION PARCEL (if applicable)	0.0
AREA IN OVERHEAD TRANSMISSION LINE EXPOSURE (if applicable)	0.0
NET TRACT AREA	16.3
LAND USE CATEGORY (see p.31 of Manual or Baltimore County Code, Section 14-4108)	DM-5.5

11. INFORMATION FOR CALCULATIONS	ACRES
A. NET TRACT AREA	17.5
B. FOREST CONSERVATION THRESHOLD ( $20 \sqrt{S \times A}$ )	1.2
C. AFFORESTATION THRESHOLD ( $15 \sqrt{S \times A}$ )	0.9
D. EXISTING FOREST ON NET TRACT AREA	0.0
E. EXISTING FOREST ABOVE FOREST CONSERVATION THRESHOLD	0.0
F. BREAK-EVEN POINT (the amount of forest to be retained for no mitigation) ( $(E \times 0.2) + B$ )	0.0
G. FOREST TO BE CLEARED	16.3
H. FOREST TO BE RETAINED	0.0

11. APPLICABILITY OF AFFORESTATION AND REFORESTATION TO SITE
- A. Afforestation Only
- If existing forest areas are below the Afforestation Threshold (if D is less than C), and no forest clearing is proposed, afforestation requirements apply.
- GO TO SECTION IV

- B. Combined Afforestation and Reforestation
- If existing forest areas are below the Afforestation Threshold (if D is less than C) AND clearing of forest is proposed, both afforestation and reforestation are required.
- GO TO SECTION IV

GO TO SECTION IV	ACRES (0.1 acre)
D-5	

3. Reforestation Only
- a) If existing forest areas are at or above the Afforestation Threshold (if D is equal to or greater than C) and no clearing of existing forest resources is proposed, no reforestation is required. STOP. No further calculations are needed.
- b) If existing forest areas are retained at or above the Afforestation Threshold (if D is equal to or greater than C), and clearing of forest areas is proposed, reforestation requirements may apply.
- c) If existing forest areas are at or above the Afforestation Threshold (if D is equal to or greater than C), and clearing of forest areas is proposed, reforestation requirements may apply.
- GO TO SECTION V

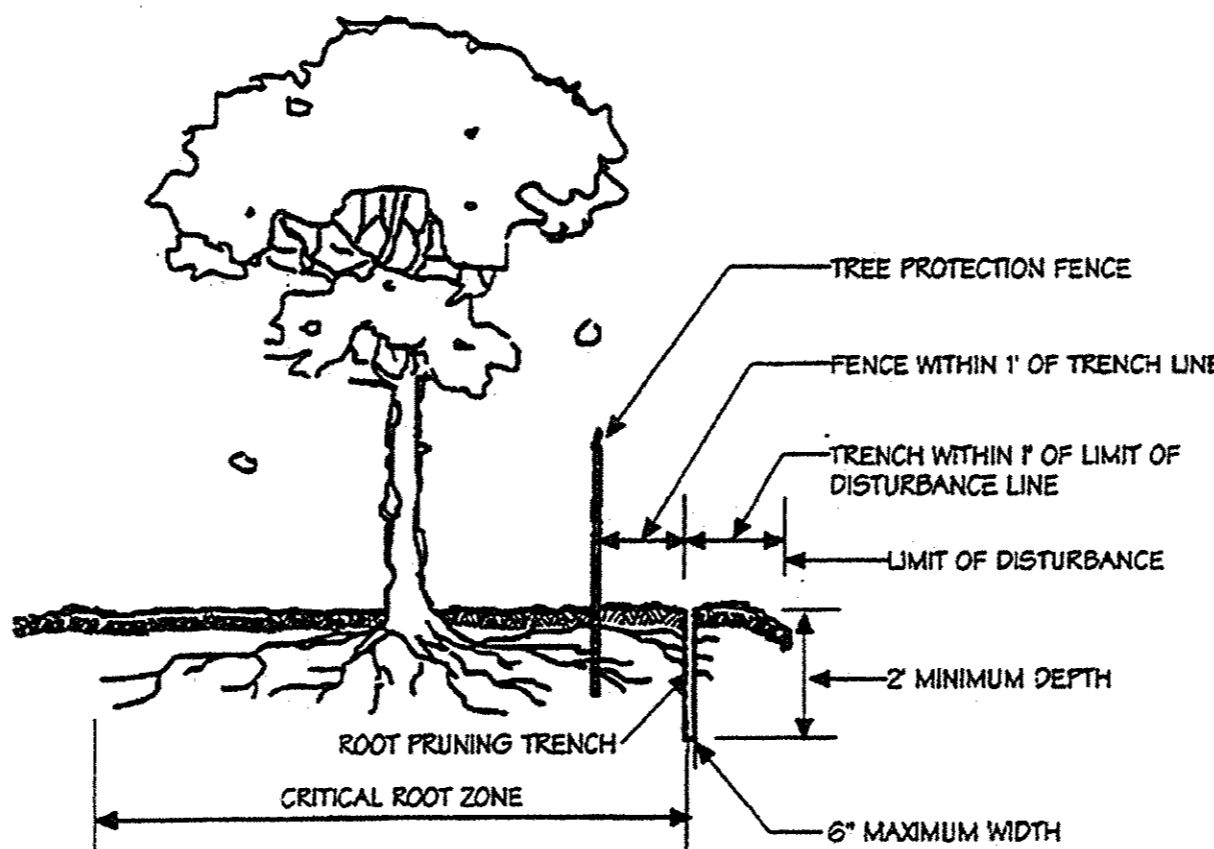
IV. AFFORESTATION CALCULATIONS	ACRES (0.1 acre)
A. NET TRACT AREA	N/A
B. FOREST CONSERVATION THRESHOLD ( $20 \sqrt{S \times A}$ )	
C. EXISTING FOREST ON NET TRACT AREA	
D. EXISTING FOREST ABOVE FOREST CONSERVATION THRESHOLD	
E. FOREST AREAS TO BE CLEARED	
F. FOREST AREAS TO BE RETAINED	

- Select the alternative that applies:
1. No clearing:
- If existing forest areas are below the Afforestation Threshold (if D is less than C) and no clearing is proposed, the following calculations apply:
- TOTAL AFFORESTATION REQUIRED C - D N/A
- Afforestation must make the forest area equal to the minimum required by the Afforestation Threshold.
2. Clearing:
- If existing forest areas are below the Afforestation Threshold (if D is less than C) and clearing is proposed, the following calculations apply:
- AFFORESTATION FOR UNFORESTED AREAS BELOW AFFORESTATION THRESHOLD C - D N/A
- REFORESTATION FOR CLEARING BELOW AFFORESTATION THRESHOLD  $6 \times 2$
- TOTAL PLANTING REQUIRED (C - D) + (6 x 2)
- The afforestation planting brings the site up to the minimum forest required (the Afforestation Threshold). The reforestation component compensates for clearing.
- STOP
- D-6

V. REFORESTATION CALCULATIONS	ACRES (0.1 acre)
A. NET TRACT AREA	17.5
B. FOREST CONSERVATION THRESHOLD ( $20 \sqrt{S \times A}$ )	1.2
C. EXISTING FOREST ON NET TRACT AREA	0.0
D. EXISTING FOREST ABOVE FOREST CONSERVATION THRESHOLD	0.0
E. FOREST AREAS TO BE CLEARED	0.0
F. FOREST AREAS TO BE RETAINED	0.0
1. FOREST AREAS CLEARED ABOVE FOREST CONSERVATION THRESHOLD (if H is equal to or greater than B, Alternate 1. If H is less than B, Alternate 2.)	0.0
2. FOREST AREAS CLEARED BELOW FOREST CONSERVATION THRESHOLD (H-B, if applicable)	1.7
K. FOREST AREAS RETAINED ABOVE FOREST CONSERVATION THRESHOLD (H-B, Retention Credit, if applicable)	N/A

- Select the alternative that applies:
1. Clearing Above the Forest Conservation Threshold Only
- If forest areas to be retained are at or above the Forest Conservation Threshold (if H is equal to or greater than B), the following calculations apply:
- REFORESTATION FOR CLEARING ABOVE THRESHOLD  $1 \times 1$  N/A
- CREDIT FOR FOREST AREAS RETAINED ABOVE THRESHOLD  $E \times$  Retention Credit
- TOTAL REFORESTATION REQUIRED  $(1 \times 1) - K$
- If the total reforestation requirement is equal to or less than 0, no reforestation is required.
2. Clearing Below the Forest Conservation Threshold
- If forest areas to be retained are below the Forest Conservation Threshold (if H is less than B), the following calculations apply:
- REFORESTATION FOR CLEARING ABOVE THRESHOLD  $1 \times 1$  0.1
- REFORESTATION FOR CLEARING BELOW THRESHOLD  $3 \times 2$  6.0
- TOTAL REFORESTATION REQUIRED  $(1 \times 1) + (3 \times 2)$  6.1
- STOP
- D-7

WORKSHEET/DEPRN/EXTPRG/REV. 2-11-94

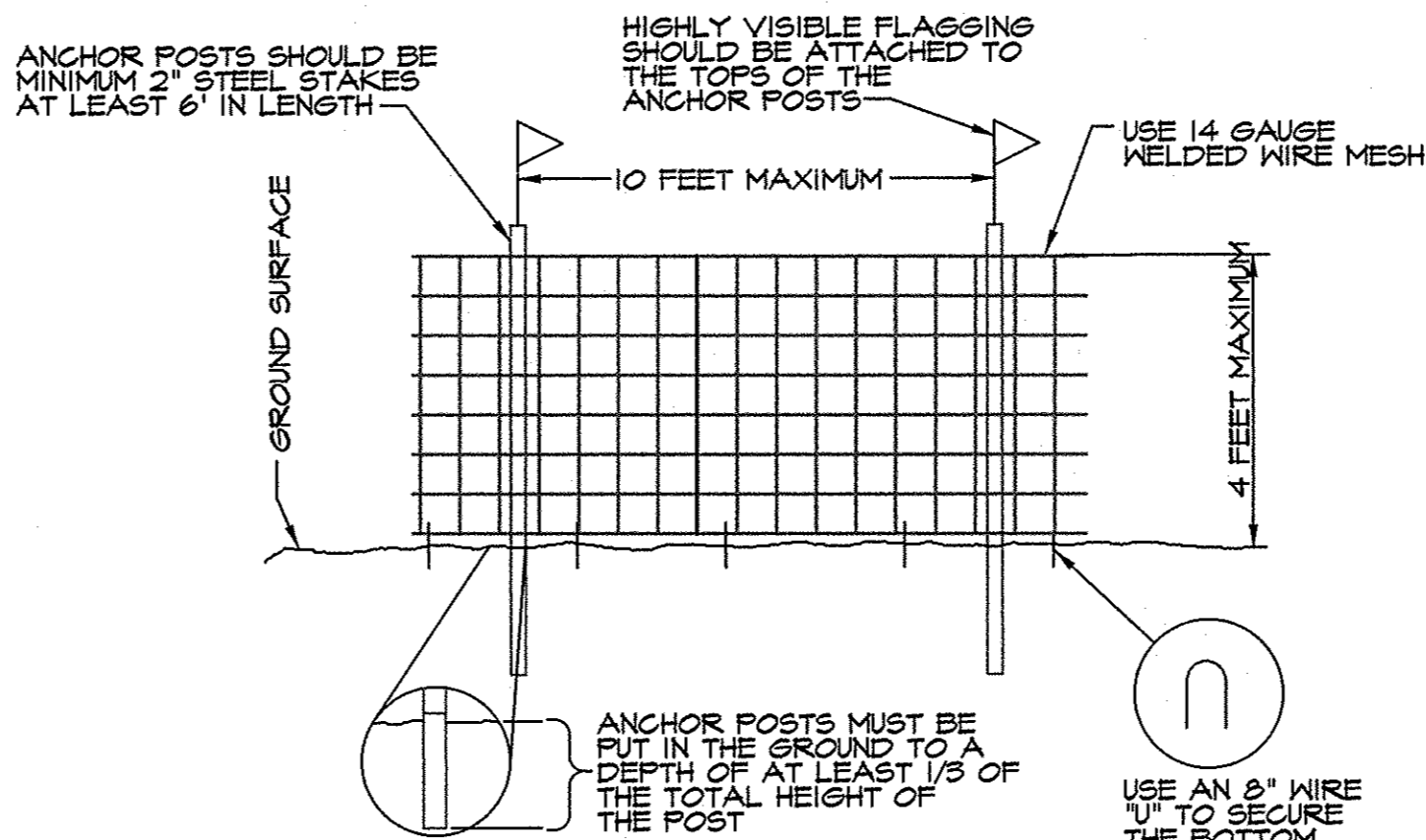


- Notes:
1. Retention Areas to be established as part of the forest conservation plan review process.
2. Boundaries of Retention Areas to be staked, flagged and/or fenced prior to trenching.
3. Exact location of trench should be identified.
4. Trench should be immediately backfilled with soil removed or organic soil.
5. Roots should be cleanly cut using vibratory knife or other acceptable equipment.

Source: Adapted from Steve Clark & Associates/ACRT, Inc. and Forest Conservation Manual, 1991

ROOT PRUNING DETAIL

NOT TO SCALE

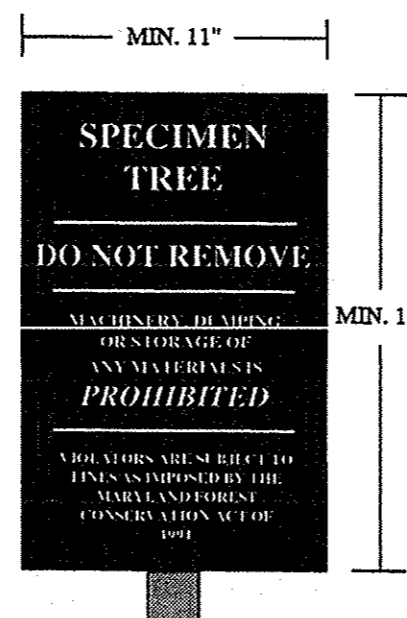


TREE PROTECTION FENCE

NOT TO SCALE

PLACEMENT OF TREE PROTECTION FENCE:

1. TREE PROTECTION FENCE SHALL BE MANUALLY INSTALLED AS NOTED ON C-9.1. ANY QUESTIONS REGARDING PLACEMENT OF TREE PROTECTION FENCE SHALL BE ADDRESSED BY THE MARYLAND QUALIFIED PROFESSIONAL THAT PREPARED THE PLANS OR BALTIMORE COUNTY.
2. THIS SHALL BE COMPLETED AND THE LOCATION OF THE FENCE APPROVED BY BALTIMORE COUNTY PRIOR TO ANY PERMIT APPROVALS, OR AT THE TIME OF A PRE-CONSTRUCTION MEETING. IF ANY PROBLEMS ARISE REGARDING THE FENCE LOCATION, UNNECESSARY EQUIPMENT CLEARING, ETC., NO PERMIT WILL BE ISSUED UNTIL THE REQUIRED CORRECTIONS ARE COMPLETED TO THE SATISFACTION OF BALTIMORE COUNTY.



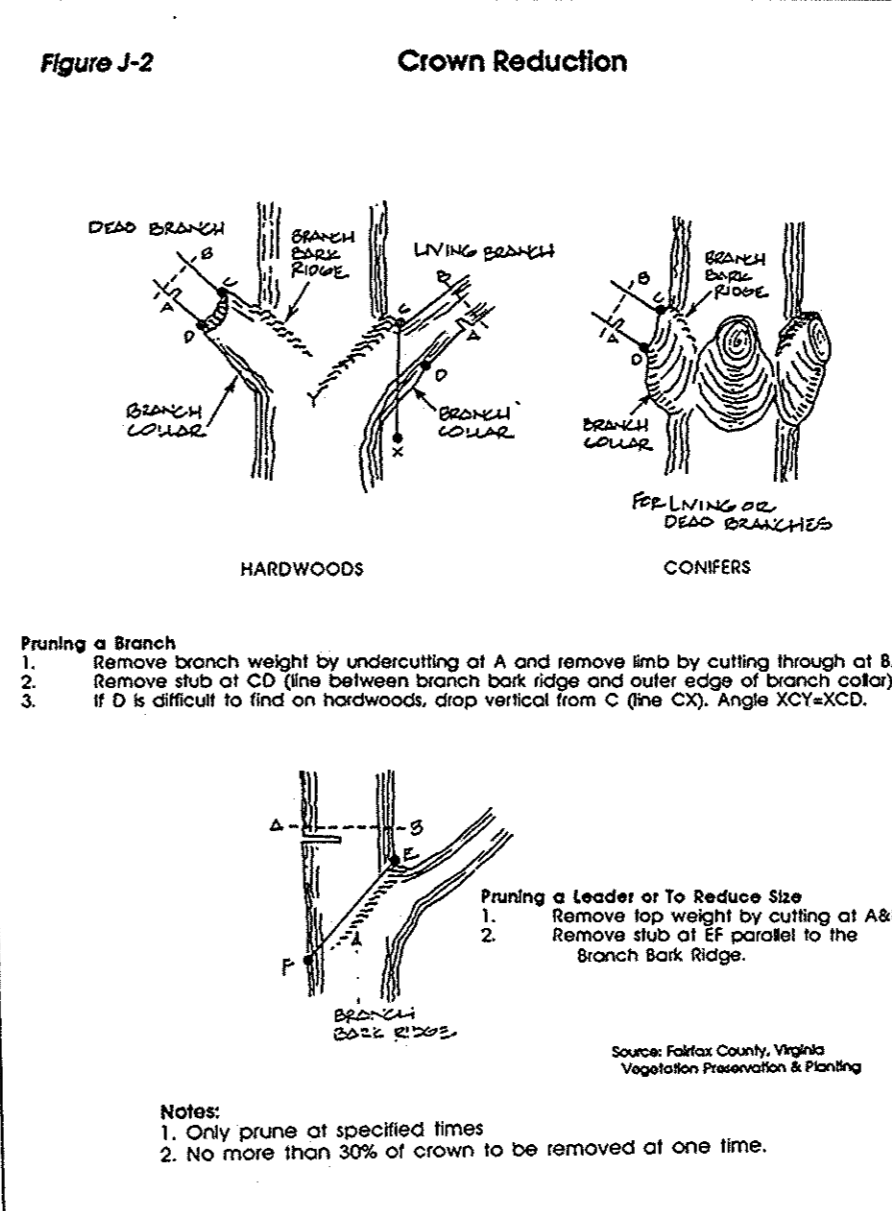
SIGN SPECIFICATIONS ARE AS FOLLOWS:

- GREEN ON WHITE BACKGROUND
- CENTER HOLE TOP AND BOTTOM
- SIGNS SHALL BE POSITIONED APPROXIMATELY 4 FEET OFF THE GROUND ON METAL BOLTS
- AFFIX SIGNS USING METAL BOLTS

SPECIMEN TREE SIGNAGE

NOT TO SCALE

- NOTES:
1. BOTTOM OF SIGN TO BE HIGHER THAN HIGH VISIBILITY ORANGE FENCE.
2. ATTACHMENT OF SIGNS TO TREES IS PROHIBITED.
3. ALL SIGNAGE MUST REMAIN DURING THE MAINTENANCE PERIOD.
4. THE SIGNS NOTIFY CONSTRUCTION WORKERS AND FUTURE RESIDENTS OF THE EXISTING TREES, IMPROVING THE TREES' SURVIVAL RATES.



J-2

CROWN REDUCTION DETAIL

NOT TO SCALE

STRESS REDUCTION MEASURES FOR RETAINING EX. FOREST & SPECIMEN TREES:

1. After the limits of disturbance (LOD) have been located in the field, orange high visibility fence shall be manually installed along the LOD at or within the critical root zone (CRZ) of the trees shown on the plan to remain. Tree protection signs shall be installed as shown on the plan. Notify Baltimore County Department of Environmental Protection & Sustainability-Environmental Impact Review at 410 887-3980 to schedule an inspection of signs and protective fence location. EPS-EIR must approve sign/fence location prior to grading permit approval.
2. At the time of the preconstruction meeting for the project, tree protection measures shall be in place, and any required stress reduction measures techniques (root pruning, crown reduction, root aeration, matting, etc.) will be discussed. The stress reduction measures shall be performed prior to commencement of work in the affected area. Stress reduction measures shall be performed under the supervision of a professional qualified in the care of trees, and must be documented.
3. During construction, tree protection devices shall be maintained, and a professional qualified in the care of trees shall conduct periodic inspections to determine the health of the trees, and any additional measures that must be taken as it relates to the survivability of the trees. Any changes to the plans, or additional problems concerning the trees, must be brought to the attention of Baltimore County EPS-EIR at 410 887-3980 prior to implementation of any of the changes.
4. At the completion of the construction, Baltimore County EPS-EIR shall be contacted at 410 887-3980 so that an inspection of the trees can be conducted. Additional stress reduction measures or mitigation may be required. The orange high visibility fence and any other tree protection devices can be removed when approved by the EPS-EIR.

ENGINEERS  
PLANNERS  
SCIENTISTS  
CONSTRUCTION MANAGERS  
KCI TECHNOLOGIES  
936 Rosemont Road  
Sunnyvale, Maryland 21222  
TAMMONT: (410) 362-7800  
FAX: (410) 362-7805

LANDSCAPE ARCHITECT  
LANDSCAPE ARCHITECT  
STATE OF MARYLAND  
11720 Beltsville Drive  
Suite 800  
Calverton, MD 20705  
Tel 301.595.1000  
www.grimmadparker.com

GRIMM AND PARKER  
GP #21417

FOREST CONSERVATION NOTES AND DETAILS  
LANSDOWNE ELEMENTARY SCHOOL  
BALTIMORE COUNTY, MARYLAND

DATE	DESCRIPTION
9/24/16	BID SET
10/07/16	ADDENDUM #1
10/12/16	FINAL REVISION

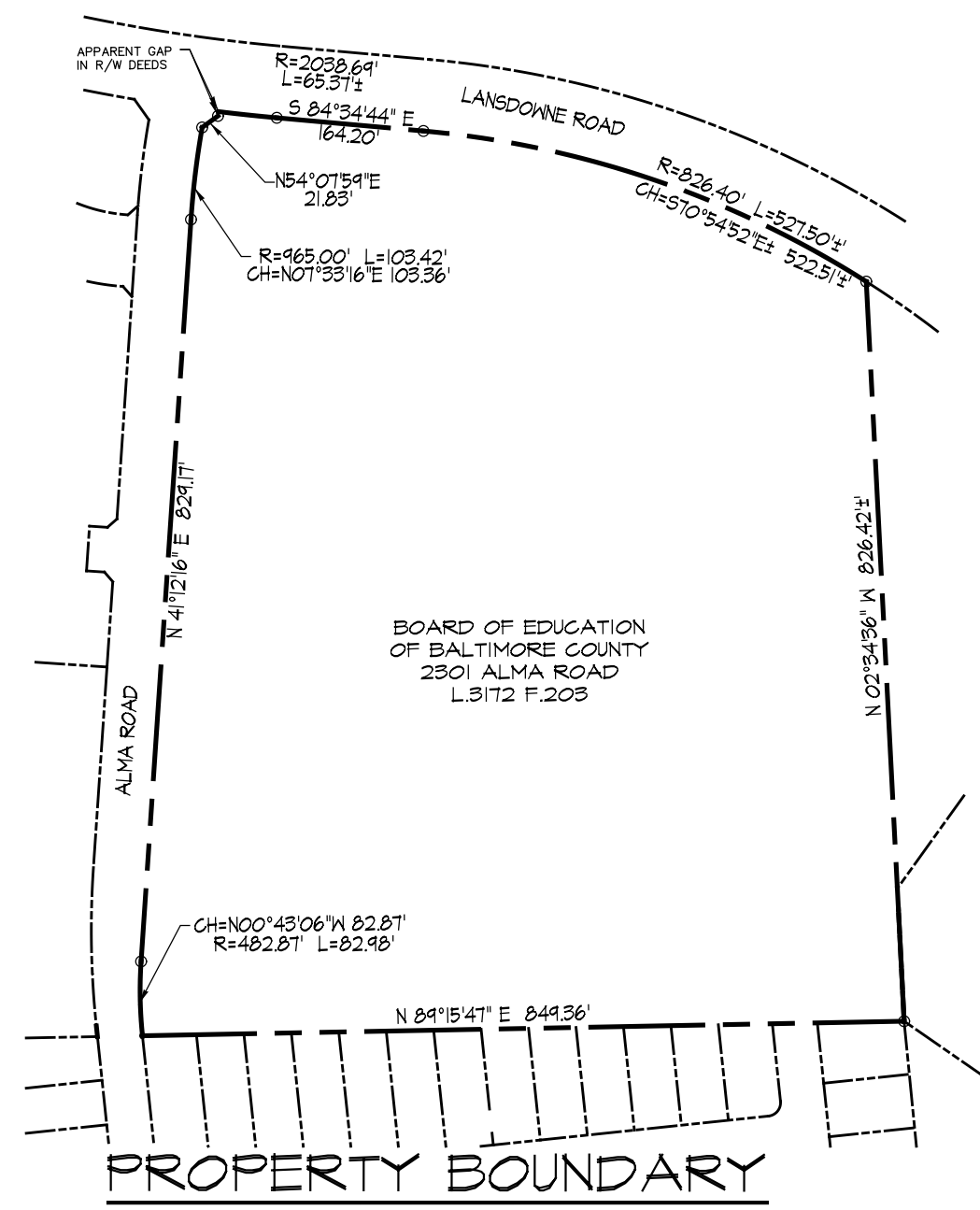
BALTIMORE COUNTY  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
AND SUSTAINABILITY  
FOREST CONSERVATION PLAN APPROVAL  
Approved by: \_\_\_\_\_ Date: \_\_\_\_\_  
Environmental Impact Review, DNR approved qualified professional  
Forest Conservation Plan # \_\_\_\_\_

C-9.2

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## PROFESSIONAL CERTIFICATION

- HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, KEVIN ANDERSON, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 34866, EXPIRATION DATE: 07/10/17.
- CITY OF BALTIMORE
- |   |                                      |
|---|--------------------------------------|
| CHIEF, WATER & WASTEWATER ENG. DIV.<br>BUREAU OF WATER AND WASTEWATER | HEAD, BUREAU OF WATER AND WASTEWATER |
|---|--------------------------------------|
- |   |                    |          |
|---|--------------------|----------|
| AS-BUILT PER RECORD PRINT   | REVISION           | D.       |
| DRAFTSMAN   | DATE               |          |
|   |                    |          |
|   |                    |          |
| <div style="display: flex; justify-content: space-between; align-items: center;"> <div style="flex: 1;"> <b>KCT TECHNOLOGIES</b> </div> <div style="flex: 1; text-align: right;">           BUREAU OF ENGINEER<br/>AND CONSTRUCTION         </div> </div> |                    |          |
| ENGINEER: <u>KEVIN ANDERSON</u>   | DSGN BY: <u>VF</u> | REVIEWED |
| DATE: <u>10/12/16</u> LIC. NO. <u>34866</u>   | DWN BY: <u>DS</u>  | DATE     |
|   | CHKD BY: <u>PK</u> |          |



## RIGHT-OF-WAY CERTIFICATION

IN MY PROFESSIONAL OPINION, THIS PLAN IS SEALED AND CERTIFIED THAT THE RIGHT(S) OF WAY AND EASEMENT(S) SHOWN HEREON CONFORM ALL MATERIAL RESPECTS TO THE RIGHT(S) OF WAY AND EASEMENT(S) SHOWN ON THE RECORD PLAT OF LANSDALE ELEMENTARY SCHOOL (L 5712-2-03), ALMA ROAD (HRN 63-164-1, 63-164-2), AND LANSDALE ROAD (HRN 64-334-4, 64-334-5) RECORDED IN THE LAND RECORDS OF BALTIMORE COUNTY, WHICH PLAT WAS PREPARED IN COMPLIANCE WITH BALTIMORE COUNTY DEPARTMENT OF PERMITS, APPROVALS AND INSPECTIONS, REAL ESTATE COMPLIANCE DRAFTING SECTION MANUAL DATED JANUARY, 1997.)

NORMAL OPERATING PRESSURE \_\_\_\_\_ P.S.I.  
TEST PRESSURE \_\_\_\_\_ P.S.I.  
WATER FLAT \_\_\_\_\_  
ZONE \_\_\_\_\_

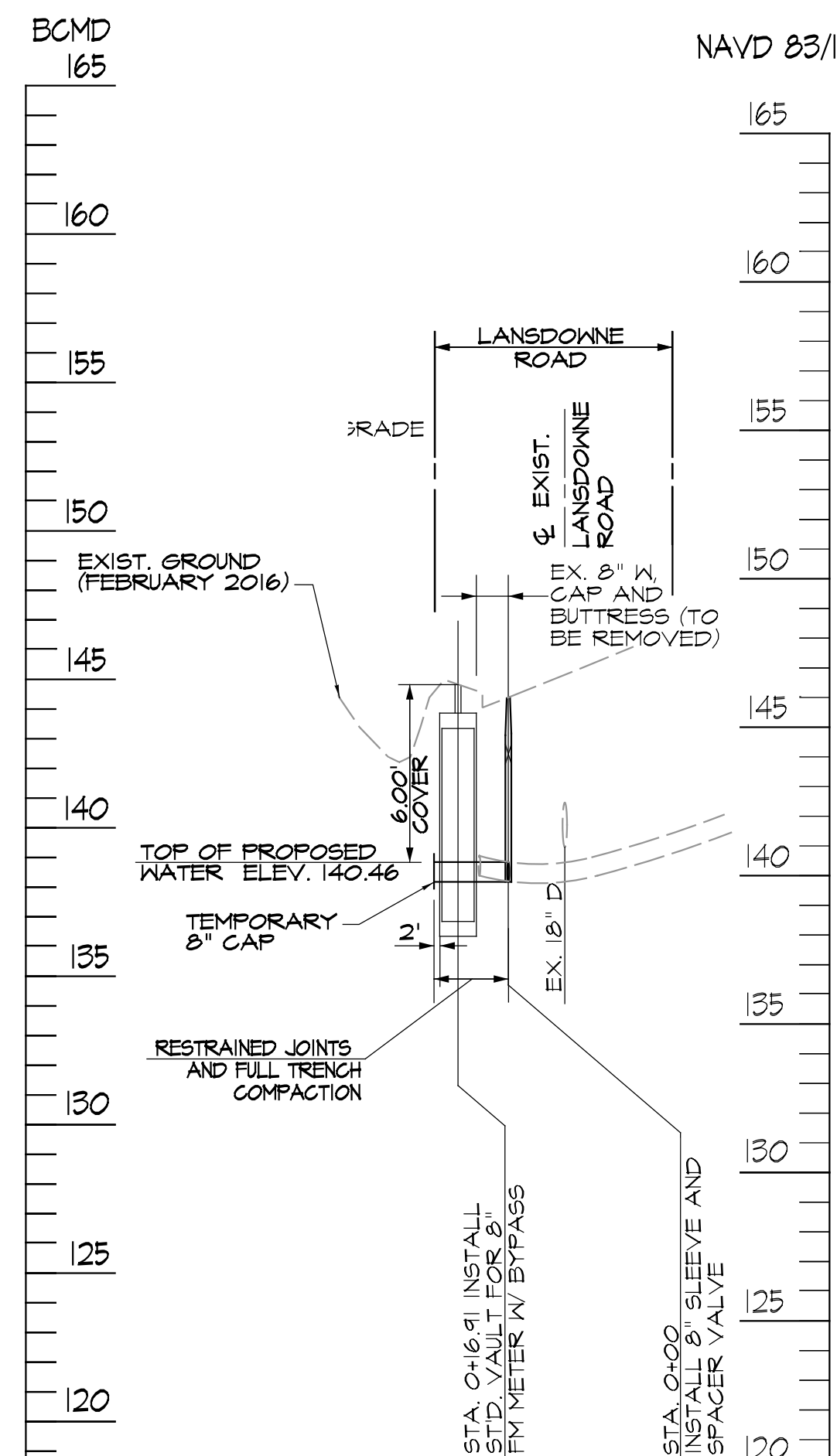
### REFERENCE DRAWINGS

EXISTING 8" WATER - LANSDOWNE RD. - DWS. #66-21, #65-869  
EXISTING 8" WATER - ALMA ROAD - DWS #63-347, #2001-1591  
EXISTING 8" SANITARY SEWER - LANSDOWNE ROAD - DWS. #65-0780  
EXISTING 8" SANITARY SEWER - ALMA ROAD - DWS #61-0575  
EXISTING 24" STORM DRAIN - LANSDOWNE ROAD - DWS #60-702  
EXISTING 21" STORM DRAIN - DWS. #63-348  
  
PROPOSED SANITARY SEWER - DWS. #2016-1432  
PROPOSED ENTRANCE - DWS. #2016-1432  
PROPOSED STORM DRAIN - DWS. #2016-1433, 1434, 1435

DESIGN AND DRAWING BASED ON MARYLAND  
COORDINATE SYSTEM NAD 83/2011 HORIZONTAL  
AND NAVD 1988 VERTICAL DATUM.

## ABANDON EX. 6" WATER SERVICE PLAN

- 




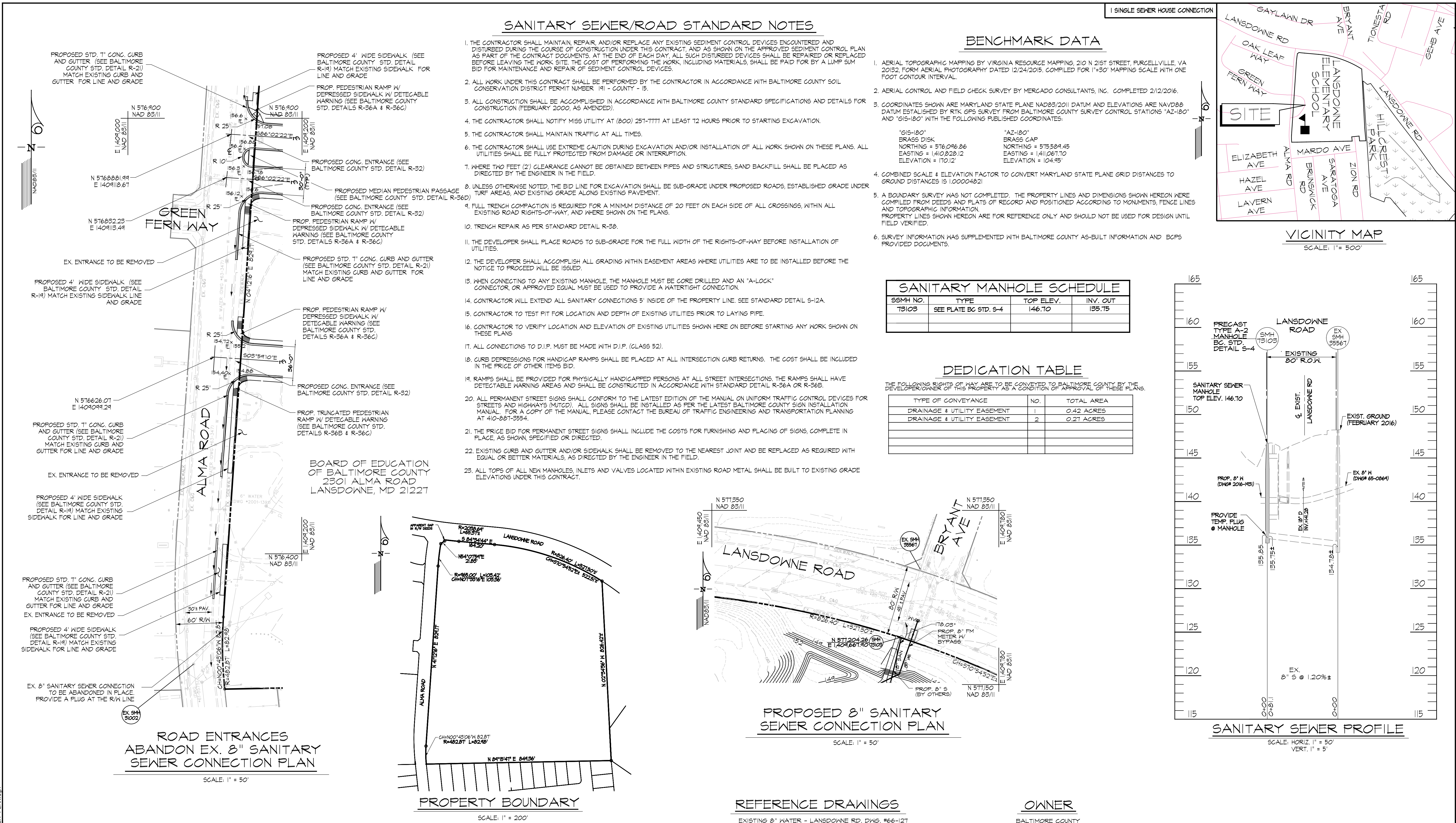
## METER PROFILE

- NOTE:  
CONTRACTOR SHALL TEST PIT FOR DEPTH AND LOCATION OF EXISTING UTILITIES PRIOR  
TO BEGINNING CONSTRUCTION. ELEVATIONS SHOWN ABOVE ARE BASED ON THE BEST  
AVAILABLE INFORMATION. CONTRACTOR SHALL MAKE FIELD ADJUSTMENTS AS REQUIRED.

GRAPHIC SCALE

(IN FEET)  
1 INCH = 50 FT.

SHEET DESIGNATION	CONTRACT NO.
	JOB ORDER NO.
	210-203-5890
	SHEET 1 OF 1
	DRAWING NO.
	2016 - 1931
	FILE NO. 3



PROFESSIONAL CERTIFICATION									
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 94661, EXPIRATION DATE: 07/10/17									
AS-BUILT PER RECORD PRINT	REVISION	DATE	BY	P. W. A. NO.	KEY SHEETS	POSITION SHEETS	DRAWING SCALE	DEPARTMENT OF PUBLIC WORKS	
DEPTSMAN	DATE			N / A				APPROVED	DIRECTOR
					RIGHT OF WAY			DATE	
KCI TECHNOLOGIES					DISCN BY	CT	REVIEWED	DATE	
ENGINEER: KEVIN M. ANDERSON					OWN BY	BS	DATE		
DATE: 10-12-16, LIC. NO. 94661					CHRD BY	KA	DATE		

RIGHT-OF-WAY CERTIFICATION	IN MY PROFESSIONAL OPINION, THIS PLAN IS SEALED AND CERTIFIED THAT THE RIGHTS OF WAY AND EASEMENTS SHOWN HEREON CONFORM TO ALL MATERIAL RESPECTS TO THE RIGHTS OF WAY AND EASEMENTS SHOWN ON THE RECORD PLAT OF LANDSOWNE ELEMENTARY SCHOOL (L 2112 F 203), ALMA ROAD (HRA 63-164-1, 63-164-2), AND LANDSOWNE ROAD (HRA 64-354-1, 64-354-2) RECORDED IN THE LAND RECORDS OF BALTIMORE COUNTY, WHICH PLATS WERE PREPARED IN COMPLIANCE WITH BALTIMORE COUNTY DEPARTMENT OF PERMITS, APPROVALS AND INSPECTIONS, REAL ESTATE COMPLIANCE, DRAFTING SECTION MANUAL DATED JANUARY, 1997.
----------------------------	--

**REFERENCE DRAWINGS**

- EXISTING 8" WATER - LANDSOWNE RD. DWS. #66-121
- EXISTING 8" WATER - BRYANT AVE. DWS. #65-869
- EXISTING 8" WATER - ALMA ROAD. DWS.#63-347
- EXISTING 6" WATER - ALMA ROAD. DWS#2001-1391
- EXISTING 8" SANITARY SEWER - LANDSOWNE ROAD. DWS. #65-120
- EXISTING 8" SANITARY SEWER - ALMA ROAD. DWS. #61-0575
- EXISTING 21" STORM DRAIN - DWS. #63-348
- PROPOSED STORM DRAIN - DWS. #2016-1933, 1934, 1935
- PROPOSED 8" WATER - DWS. #2016-1931

**OWNER**

BALTIMORE COUNTY  
BOARD OF EDUCATION  
6401 CHARLES STREET  
TOWSON, MD 21204  
ATTN: MR. MERILL PLATT  
PHONE: 443-804-6301

**BALTIMORE COUNTY DEPARTMENT OF PUBLIC WORKS BUREAU OF ENGINEERING & CONSTRUCTION**

**ROAD ENTRANCES, ABANDON EX. 8" SANITARY SEWER CONNECTION**  
**ALMA ROAD**  
FROM 425'± TO 475'± SOUTH OF LANDSOWNE ROAD

**PROPOSED 8" SANITARY SEWER CONNECTION**  
**LANDSOWNE ROAD**  
532± EAST OF ALMA ROAD

SUBDIVISION: LANDSOWNE ELEMENTARY SCHOOL, ELECT. DISTRICT NO. 13c1

**GRAPHIC SCALE**  
50 0 25 50 100  
(IN FEET)  
1 INCH = 50 FT.

**DESIGN AND DRAWING BASED ON MARYLAND COORDINATE SYSTEM NAD 83/2011 HORIZONTAL AND NAVD 1988 VERTICAL DATUM.**

SHEET DESIGNATION	CONTRACT NO.
1010-201-5890	
210-201-5890	
SHEET 1 OF 1	
DRAWING NO.	
2016 - 1932	
FILE NO. 1	

**ENGINEERS**  
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**CONSTRUCTION MANAGERS**

**KCI TECHNOLOGIES**

096 Business Plaza  
Suite 2000  
Silver Spring, MD 20910  
Tel: 410-367-7800  
Fax: 410-367-7818

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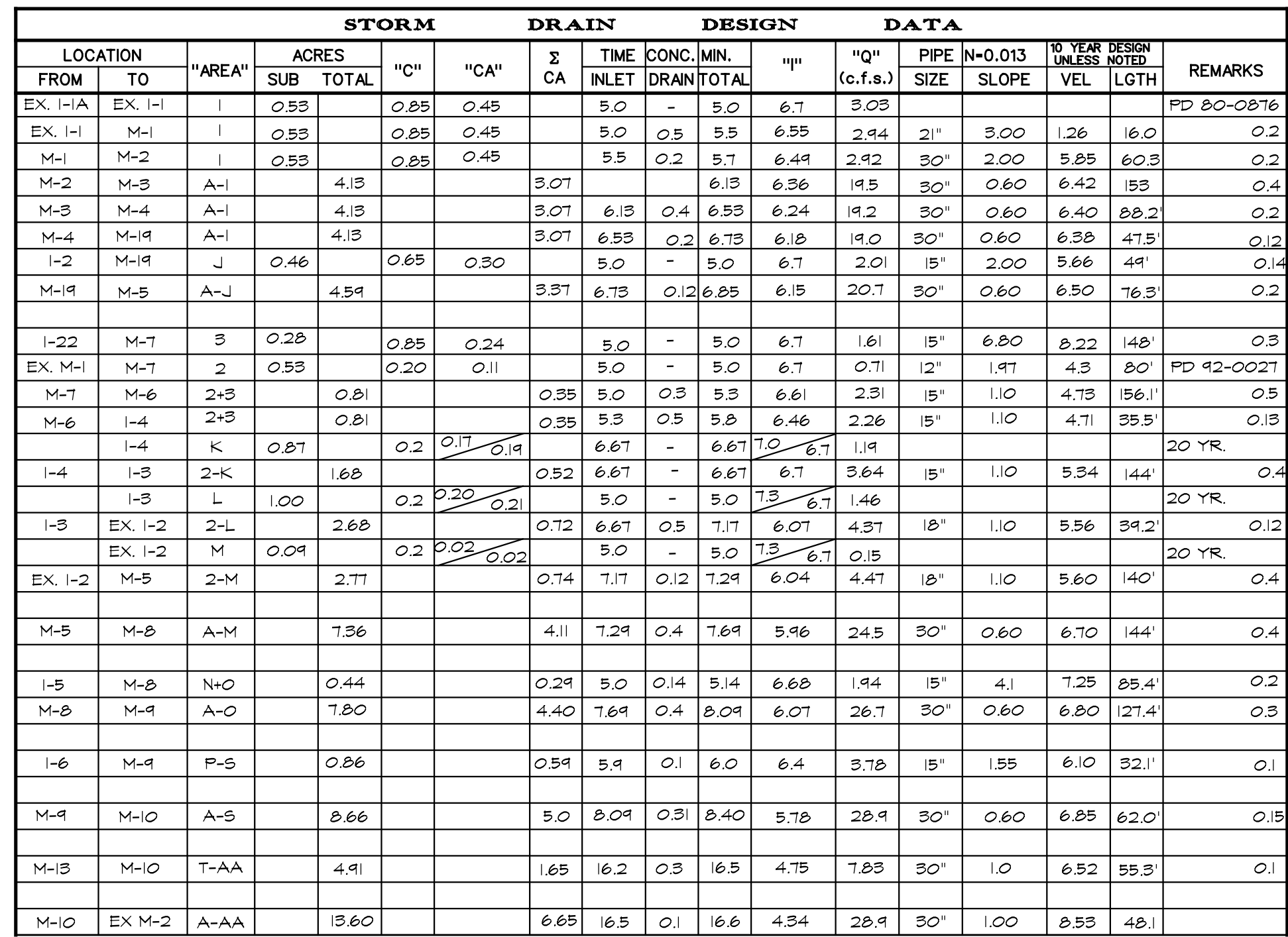
**GRIMM AND PARKER**


GP #21417

**PUBLIC SANITARY SEWER AND RIGHT-OF-WAY PLAN**  
**LANDSOWNE ELEMENTARY SCHOOL**  
**BALTIMORE COUNTY, MARYLAND**

DATE	DESCRIPTION
11/17/16	BID SET

**C-10.2**  
BID SET  
11/17/2016  
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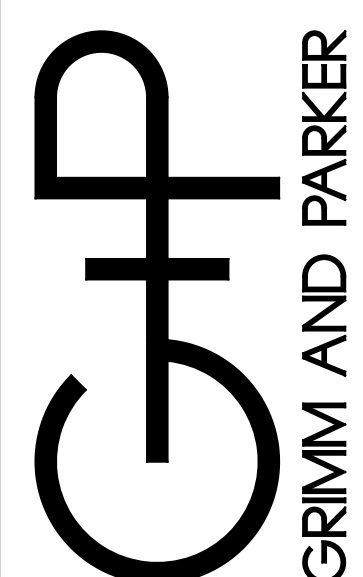


SHEET DESIGNATION	CONTRACT NO.
	JOB ORDER NO.
	210-204-5890
	SHEET 1 OF 3
	DRAWING NO.
	2016-1933
	FILE NO. 4

PROFESSIONAL CERTIFICATION  
I HEREBY CERTIFY THAT THESE  
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THE STATE OF MARYLAND.  
LICENSE NO. 34661  
EXPIRATION DATE: 07/10/17



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Tel 301.595.1000  
[www.grimmandparker.com](http://www.grimmandparker.com)



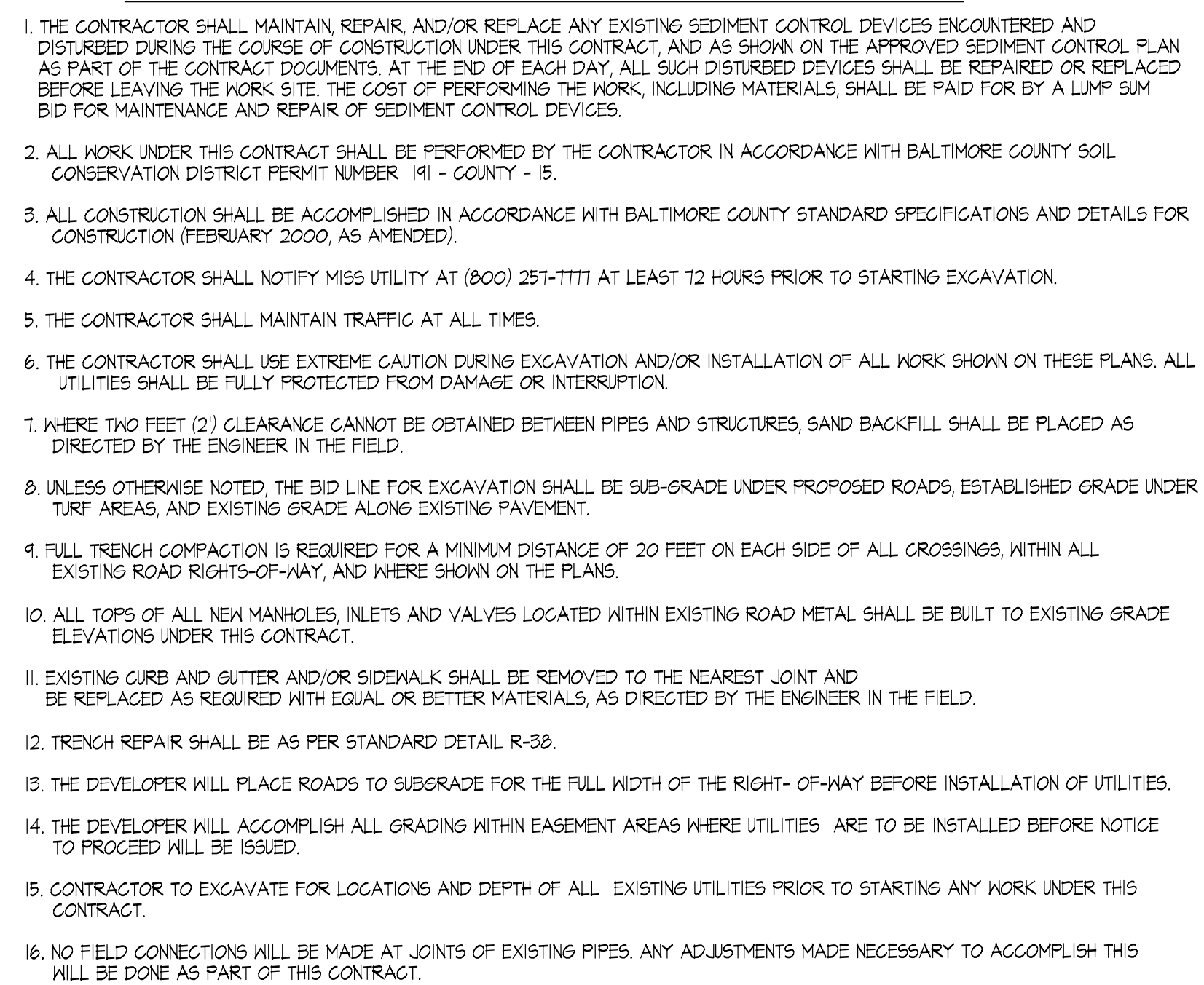
GP #21417

PUBLIC STORM DRAIN PLAN - 1  
 LANSOWNE ELEMENTARY SCHOOL  
 BALTIMORE COUNTY, MARYLAND

DATE	DESCRIPTION
11/17/16	BID SET

**C-10.3**  
BID SET  
11/17/2016



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