LANGWORTHY FIELD IMPROVEMENT PLAN - PHASE 1

BID DOCUMENTS

HOPKINTON · RI

MAY 24, 2017

PREPARED FOR

TOWN OF HOPKINTON, RI

PREPARED BY

FUSS & O'NEILL

146 Hartford Road
Manchester, CT 06040
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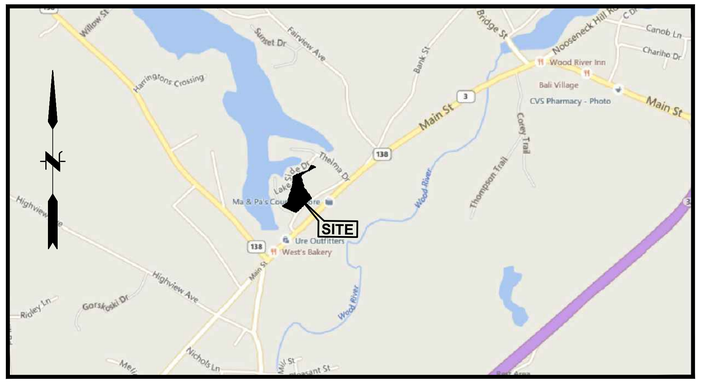


LOCATION MAP

SCALE: 1" = 1000'

SHAWN M. MARTIN
No. 17437
5/24/17
REGISTERED PROFESSIONAL ENGINEER (CIVIL)

PROJ. No.: 20140073.A10
DATE: 05/24/2017

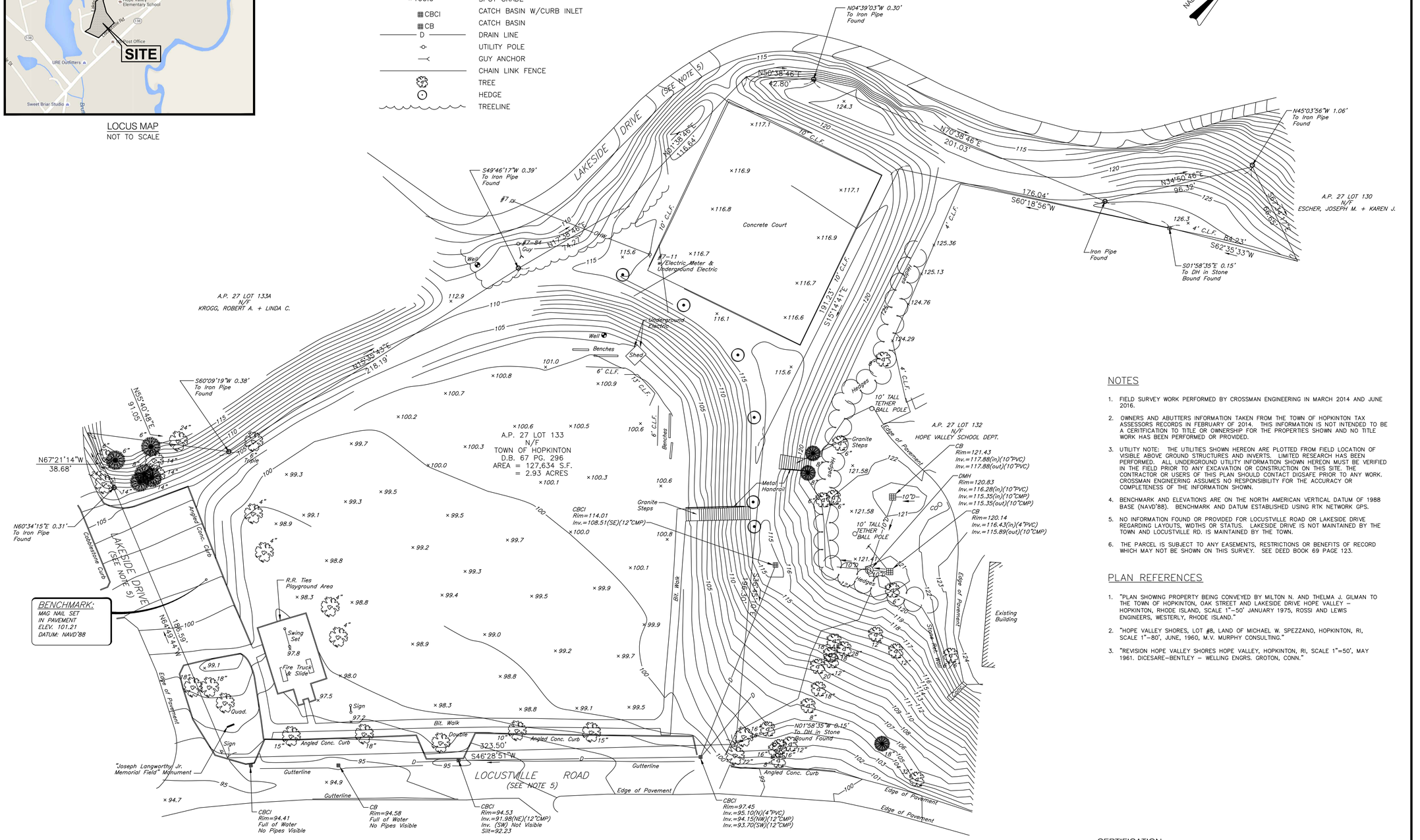
GI-001

File Path: J:\DWG\P2014\0073\A10\Civil\Plan\20140073_COV01.dwg, Layout: COVER SHEET - 24X36, Plotted: Tuesday, May 23, 2017, User: jallard Plotter: DWG TO PDF.PC3 CTB File: FO.STB

LOCUS MAP
NOT TO SCALE

LEGEND

———	PROPERTY LINE
A.P.	ASSESSORS PLAT
N/F	NOW OR FORMERLY
D.B., PG.	DEED BOOK, PAGE
——100——	CONTOUR LINE
× 100.0	SPOT GRADE
▦ CBCI	CATCH BASIN W/CURB INLET
▦ CB	CATCH BASIN
——— D ———	DRAIN LINE
○	UTILITY POLE
⟋	GUY ANCHOR
———	CHAIN LINK FENCE
✿	TREE
⊙	HEDGE
∿∿∿	TREELINE



NOTES

1. FIELD SURVEY WORK PERFORMED BY CROSSMAN ENGINEERING IN MARCH 2014 AND JUNE 2016.
2. OWNERS AND ABUTTERS INFORMATION TAKEN FROM THE TOWN OF HOPKINTON TAX ASSESSORS RECORDS IN FEBRUARY OF 2014. THIS INFORMATION IS NOT INTENDED TO BE A CERITFICATION TO TITLE OR OWNERSHIP FOR THE PROPERTIES SHOWN AND NO TITLE WORK HAS BEEN PERFORMED OR PROVIDED.
3. UTILITY NOTE: THE UTILITIES SHOWN HEREON ARE PLOTTED FROM FIELD LOCATION OF VISIBLE ABOVE GROUND STRUCTURES AND INVERTS. LIMITED RESEARCH HAS BEEN PERFORMED. ALL UNDERGROUND UTILITY INFORMATION SHOWN HEREON MUST BE VERIFIED IN THE FIELD PRIOR TO ANY EXCAVATION OR CONSTRUCTION ON THIS SITE. THE CONTRACTOR OR USERS OF THIS PLAN SHOULD CONTACT DIGSAFE PRIOR TO ANY WORK. CROSSMAN ENGINEERING ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OR COMPLETENESS OF THE INFORMATION SHOWN.
4. BENCHMARK AND ELEVATIONS ARE ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 BASE (NAVD'88). BENCHMARK AND DATUM ESTABLISHED USING RTK NETWORK GPS.
5. NO INFORMATION FOUND OR PROVIDED FOR LOCUSTVILLE ROAD OR LAKESIDE DRIVE REGARDING LAYOUTS, WIDTHS OR STATUS. LAKESIDE DRIVE IS NOT MAINTAINED BY THE TOWN AND LOCUSTVILLE RD. IS MAINTAINED BY THE TOWN.
6. THE PARCEL IS SUBJECT TO ANY EASEMENTS, RESTRICTIONS OR BENEFITS OF RECORD WHICH MAY NOT BE SHOWN ON THIS SURVEY. SEE DEED BOOK 69 PAGE 123.

PLAN REFERENCES

1. "PLAN SHOWING PROPERTY BEING CONVEYED BY MILTON N. AND THELMA J. GILMAN TO THE TOWN OF HOPKINTON, OAK STREET AND LAKESIDE DRIVE HOPE VALLEY – HOPKINTON, RHODE ISLAND, SCALE 1"=50' JANUARY 1975, ROSSI AND LEWIS ENGINEERS, WESTERLY, RHODE ISLAND."
2. "HOPE VALLEY SHORES, LOT #8, LAND OF MICHAEL W. SPEZZANO, HOPKINTON, RI, SCALE 1"=80', JUNE, 1960, M.V. MURPHY CONSULTING."
3. "REVISION HOPE VALLEY SHORES HOPE VALLEY, HOPKINTON, RI, SCALE 1"=50', MAY 1961. DICESARE-BENTLEY – WELLING ENGRS. GROTON, CONN."

CERTIFICATION:

THIS SURVEY AND PLAN SUBSTANTIALLY CONFORM TO THE FOLLOWING STANDARDS AS ADOPTED BY THE RHODE ISLAND BOARD OF REGISTRATION FOR PROFESSIONAL LAND SURVEYORS, EFFECTIVE APRIL 1, 1994.

BOUNDARY SURVEY	CLASS 1
TOPOGRAPHICAL SURVEY	CLASS 3

PROFESSIONAL LAND SURVEYOR REG. NO. DATE

• Civil
• Transportation
• Environmental
• Site Planning
• Land

CROSSMAN ENGINEERING
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Email: cei@crossmaneng.com

REVIEW COPY 6/21/16

PROJECT TITLE:

PLAT MAP 27
LOT 133

LOCUSTVILLE ROAD
& LAKESIDE DRIVE
HOPKINTON, RHODE ISLAND

PREPARED FOR:

TOWN OF HOPKINTON

ONE TOWN HOUSE ROAD
HOPKINTON, RI
02833

DRAWING TITLE:

EXISTING CONDITIONS PLAN

DATE:	*SCALE:*
APRIL 8, 2014	1" = 30'

DWG. NAME: 1992-EXCN-REV-1-email-6-21-16.dwg

NO.	*DATE*	*REVISION*
1	6-9-16	ADDITIONAL TOPOGRAPHY

DRAWING NUMBER

C-1

SHEET: 1 *OF:* 1

NOT FOR CONSTRUCTION

GENERAL NOTES

GENERAL

1. SYMBOLS AND LEGENDS OF PROJECT FEATURES ARE GRAPHIC REPRESENTATIONS AND ARE NOT NECESSARILY SHOWN ON THE DRAWINGS TO SCALE OR TO THEIR ACTUAL DIMENSION OR LOCATION. COORDINATE DETAIL SHEET DIMENSIONS, MANUFACTURERS' LITERATURE, SHOP DRAWINGS AND FIELD MEASUREMENTS OF SUPPLIED PRODUCTS FOR LAYOUT OF THE PROJECT FEATURES.
2. DO NOT RELY SOLELY ON ELECTRONIC VERSIONS OF DRAWINGS, SPECIFICATIONS, AND DATA FILES THAT ARE PROVIDED BY THE ENGINEER. FIELD VERIFY LOCATION OF PROJECT FEATURES.
3. PERFORM NECESSARY CONSTRUCTION NOTIFICATIONS, APPLY FOR AND OBTAIN NECESSARY PERMITS, PAY FEES, AND POST BONDS ASSOCIATED WITH THE WORK AS REQUIRED BY THE CONTRACT DOCUMENTS.
4. BASE PLAN: THE PROPERTY LINES SHOWN WERE DETERMINED BY AN ACTUAL FIELD SURVEY CONDUCTED BY CROSSMAN ENGINEERING, AND FROM PLANS OF RECORD. THE TOPOGRAPHY AND PHYSICAL FEATURES ARE BASED ON AN ACTUAL FIELD SURVEY PERFORMED ON THE GROUND BY CROSSMAN ENGINEERING.
5. TOPOGRAPHIC ELEVATIONS ARE BASED ON (NAVD 88) DATUM.

WORK RESTRICTIONS

1. DO NOT CLOSE OR OBSTRUCT ROADWAYS, SIDEWALKS, FIRE HYDRANTS, AND UTILITIES WITHOUT APPROPRIATE PERMITS.
2. ALL ACCESS TO THE SITE THROUGH HOPE VALLEY ELEMENTARY SCHOOL PARKING LOT WILL BE PROHIBITED DURING SCHOOL HOURS. THE PARKING LOT WILL BE PROTECTED TO GUARD AGAINST ANY POTENTIAL CONSTRUCTION DAMAGE IN A MANNER SUFFICIENT TO PROTECT THE CURRENT CONDITION.
3. CONSTRUCTION OF SITE STAIRS SHALL BE COMPLETED PRIOR TO JANUARY 01, 2018.

REGULATORY REQUIREMENTS

1. WITHIN LOCAL RIGHTS-OF-WAY, PERFORM THE WORK IN ACCORDANCE WITH LOCAL MUNICIPAL STANDARDS.
2. WITHIN STATE RIGHTS-OF-WAY, PERFORM THE WORK IN ACCORDANCE WITH THE LATEST EDITION OF THE DEPARTMENT OF TRANSPORTATION'S STANDARD SPECIFICATIONS AND ISSUED REVISIONS/SUPPLEMENTS.
3. PROVIDE TRAFFIC SIGNAGE AND PAVEMENT MARKINGS IN CONFORMANCE WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
4. BE RESPONSIBLE FOR SITE SECURITY AND JOB SAFETY. PERFORM CONSTRUCTION ACTIVITIES IN ACCORDANCE WITH OSHA STANDARDS AND LOCAL REQUIREMENTS.
5. DISPOSE OF DEMOLITION DEBRIS IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS, ORDINANCES AND STATUTES.

EROSION AND SEDIMENT CONTROL

1. DISTURBANCE OF SOIL SURFACES IS REGULATED BY STATE LAW AND LOCAL ORDINANCE. ALL WORK SHALL COMPLY WITH THE FOLLOWING CRITERIA TO PREVENT OR MINIMIZE SOIL EROSION.
2. THE INSTALLATION AND MAINTENANCE OF EROSION CONTROL DEVICES IS THE RESPONSIBILITY OF THE CONTRACTOR. PRIOR TO THE COMMENCEMENT OF CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL INSTALL ALL EROSION AND SEDIMENT CONTROL DEVICES AS SHOWN ON THE PLAN, OR AS DIRECTED BY THE RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT AND THE TOWN OF HOPKINTON. ALL EROSION CONTROL DEVICES SHALL BE MAINTAINED IN EFFECTIVE CONDITION DURING CONSTRUCTION.
3. THE CONTRACTOR SHALL USE THE LATEST EDITION OF THE "STATE OF RHODE ISLAND SOIL EROSION AND SEDIMENT CONTROL HANDBOOK" IN CONSTRUCTING THE EROSION AND SEDIMENT CONTROLS INDICATED ON THE PLANS. ALL EROSION AND SEDIMENT CONTROL MEASURES OR WORKS AND REHABILITATION MEASURES MUST CONFORM TO OR EXCEED THE SPECIFICATIONS OR STANDARDS SET OUT IN THIS HANDBOOK.
4. THE CONTRACTOR IS RESPONSIBLE FOR THE TIMELY INSTALLATION, INSPECTION, MAINTENANCE, AND/OR REPLACEMENT OF ALL TEMPORARY AND PERMANENT EROSION CONTROL DEVICES TO ENSURE PROPER OPERATION THROUGHOUT THE LIFE OF THE PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE OF PERMANENT MEASURES UNTIL CONSTRUCTION OF THE PROJECT IS COMPLETED OR UNTIL IT IS ACCEPTED BY THE OWNER. THE OWNER IS RESPONSIBLE THEREAFTER.
5. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CLEAN ROADS AND PARKING LOTS, CONTROL DUST, AND TAKE ALL NECESSARY MEASURES TO ENSURE THAT THE SITE AND ALL ROADS BE MAINTAINED IN A MUD- AND DUST-FREE CONDITION AT ALL TIMES THROUGHOUT THE LIFE OF THE CONTRACT. DUST CONTROL SHALL INCLUDE, BUT IS NOT LIMITED TO, WATER AND/OR CRUSHED STONE OR COARSE GRAVEL, SUBJECT TO THE APPROVAL OF THE ENGINEER.
6. THE CONTRACTOR SHALL INSTALL ALL PERIMETER SEDIMENT CONTROL BARRIERS AS SHOWN ON THE SITE PLANS OR AS MAY BE REQUIRED TO PREVENT SEDIMENT FLOW TO STORM DRAINS OR SURFACE WATERS. A ROW OF STAKED HAYBALES OR A SILT FENCE SHALL ALSO BE INSTALLED AROUND ANY SOIL STOCKPILE AREAS. CLEANOUT OF ACCULATED SEDIMENT BEHIND PERIMETER SEDIMENT CONTROL BARRIER IS NECESSARY IF ONE-HALF THE ORIGINAL HEIGHT OF THE BARRIER BECOMES FILLED WITH SEDIMENT. REPLACE BARRIER IMMEDIATELY IF BARRIER DECOMPOSED OR BECOMES INEFFECTIVE.
7. TEMPORARY VEGETATIVE COVER SHALL BE APPLIED TO ANY DISTURBED AREAS (INCLUDING SOIL STOCKPILE AREAS) THAT HAVE NOT YET REACHED FINISHED GRADE AS SOON AS POSSIBLE, BUT NOT MORE THAN FOURTEEN (14) DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT AREA HAS TEMPORARILY CEASED, UNLESS THE ACTIVITY IS TO RESUME WITHIN TWENTY-ONE (21) DAYS. TEMPORARY SEEDING MAY BE APPLIED ANYTIME BETWEEN MARCH 1 THROUGH JUNE 15 AND AUGUST 15 THROUGH OCTOBER 1.
8. THIS TEMPORARY VEGETATIVE COVER SHALL CONSIST OF 60% OF ANNUAL OR PERENNIAL RYEGRASS AND 40% OF MILLET OR SUDANGRASS OR 100% OF WINTER RYE. ANNUAL OR PERENNIAL RYEGRASS SHALL BE PLANTED AT A RATE OF 1.5 POUNDS PER 1,000 SQUARE FEET, WINTER RYE SHALL BE PLANTED AT A RATE OF 2.5 POUNDS PER 1,000 SQUARE FEET, AND MILLET OR SUDANGRASS SHALL BE PLANTED AT A RATE OF 1.0 POUND PER 1,000 SQUARE FEET.
9. LIMESTONE AND FERTILIZER SHALL BE APPLIED ACCORDING TO SOIL TEST RECOMMENDATIONS OFFERED BY THE UNIVERSITY OF MASSACHUSETTS SOIL TESTING LABORATORY. IF SOIL TESTING IS NOT FEASIBLE ON SMALL OR VARIABLE SITES, OR WHERE TIMING IS CRITICAL, FERTILIZER MAY BE APPLIED AT THE RATE OF 300 POUNDS PER ACRE OR 7.5 POUNDS PER 1,000 SQUARE FEET OF 10-10-10 OR EQUIVALENT. APPLY LIMESTONE (EQUIVALENT TO 50 PERCENT CALCIUM PLUS MAGNESIUM OXIDE) AS FOLLOWS: (1) 3 TONS PER ACRE (OR 135 POUNDS PER 1,000 SQUARE FEET) FOR CLAY, CLAY LOAM AND HIGH ORGANIC SOIL, (2) 2 TONS PER ACRE (OR 90 POUNDS PER 1,000 SQUARE FEET) FOR SANDY LOAM, LOAM, OR SILT LOAM, AND (3) 1 TON PER ACRE (OR 45 POUNDS PER 1,000 SQUARE FEET) LOAMY SAND OR SAND. TEMPORARY VEGETATIVE COVER SHALL BE INSTALLED AS OUTLINED IN THE RHODE ISLAND SOIL EROSION AND SEDIMENT CONTROL HANDBOOK.
10. PERMANENT VEGETATIVE COVER SHALL BE APPLIED TO ALL DISTURBED AREAS THAT HAVE REACHED FINISHED GRADE AS SOON AS POSSIBLE, BUT NOT MORE THAN FOURTEEN (14) DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT AREA HAS PERMANENTLY CEASED. THE RECOMMENDED PERMANENT SEEDING DATES ARE APRIL 1 TO JUNE 15 AND AUGUST 15 TO SEPTEMBER 30. PERMANENT VEGETATIVE COVER SHALL BE SEEDED AS SPECIFIED ON THE LANDSCAPE PLANS.
11. LIMESTONE AND FERTILIZER SHALL BE APPLIED ACCORDING TO SOIL TEST RECOMMENDATIONS OFFERED BY THE UNIVERSITY OF MASSACHUSETTS SOIL TESTING LABORATORY. IF SOIL TESTING IS NOT FEASIBLE ON SMALL OR VARIABLE SITES, OR WHERE TIMING IS CRITICAL, FERTILIZER MAY BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE OR 11.5 POUNDS PER 1,000 SQUARE FEET OF 10-20-20 OR EQUIVALENT. APPLY LIMESTONE (EQUIVALENT TO 50 PERCENT CALCIUM PLUS MAGNESIUM OXIDE) AS FOLLOWS: 4 TONS PER ACRE (OR 180 POUNDS PER 1,000 SQUARE FEET) FOR CLAY, CLAY LOAM AND HIGH ORGANIC SOIL; 3 TONS PER ACRE (OR 135 POUNDS PER 1,000 SQUARE FEET) FOR SANDY LOAM, LOAM, OR SILT LOAM; AND 2 TONS PER ACRE (OR 90 POUNDS PER 1,000 SQUARE FEET) LOAMY SAND OR SAND.
12. AREAS WHICH HAVE BEEN TEMPORARILY OR PERMANENTLY SEEDED SHALL BE MULCHED IMMEDIATELY FOLLOWING SEEDING IN ADDITION TO AREAS WHICH CANNOT BE SEEDED WITHIN THE RECOMMENDED SEEDING DATES AND ANY SOIL STOCKPILE AREAS. TEMPORARY MULCHING SHOULD BE PERFORMED AS SOON AS POSSIBLE, BUT NOT MORE THAN FOURTEEN (14) DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT AREA HAS TEMPORARILY CEASED UNLESS THE ACTIVITY IS TO RESUME WITHIN TWENTY-ONE (21) DAYS.
13. ALL MULCHES MUST BE INSPECTED PERIODICALLY, IN PARTICULAR AFTER RAINSTORMS, TO CHECK FOR RILL EROSION. WHERE EROSION IS OBSERVED, ADDITIONAL MULCH MUST BE APPLIED. IF NETTING IS USED, THE NET SHALL BE INSPECTED AFTER RAINSTORMS FOR DISLOCATION OR FAILURE. IF WASHOUTS OR BREAKAGE OCCUR, THE NET MUST BE REINSTALLED AS NECESSARY AFTER REPAIRING DAMAGE TO SLOPE. INSPECTIONS SHALL TAKE PLACE UNTIL GRASSES ARE FIRMLY ESTABLISHED. GRASS IS CONSIDERED TO BE FIRMLY ESTABLISHED AT A MINIMUM HEIGHT OF THREE (3) INCHES.
14. STRAW OR HAY MULCH, WOOD FIBER MULCH, AND HYDROMULCH ARE RECOMMENDED. STRAW OR HAY MULCH SHOULD BE APPLIED AT A RATE OF 2 TONS PER ACRE, WOOD FIBER MULCH SHOULD BE APPLIED AT A RATE OF 1,500-2,000 POUNDS PER ACRE, OR HYDROMULCH APPLIED AT A RATE OF 1,500 POUNDS PER ACRE. WOOD FIBER MULCH SHOULD NOT BE USED ALONE IN THE WINTER OR DURING HOT, DRY WEATHER. STRAW OR HAY MULCH MUST BE ANCHORED IMMEDIATELY AFTER SPREADING TO PREVENT WINDBLOWING. MULCH ANCHORING SHOULD ALSO BE USED ON SLOPES GREATER THAN THREE (3) PERCENT AND CONCENTRATED FLOW AREAS SUCH AS DIVERSION AND WATERWAY CHANNELS.
15. IF PERMANENT OR TEMPORARY SEEDING CANNOT BE COMPLETED IMMEDIATELY OR WITHIN THE RECOMMENDED SEEDING DATES, USE THE TEMPORARY MULCHING MEASURE TO PROTECT THE SITE AND DELAY SEEDING UNTIL THE NEXT RECOMMENDED SEEDING PERIOD.
16. ANY EXISTING OR PROPOSED STORMWATER DRAINAGE STRUCTURES THAT MAY BE SUBJECT TO SEDIMENTATION SHALL BE PROTECTED WITH STAKED HAYBALES, SILT FENCE, SILT SACKS, OR OTHER APPROVED MEASURES THROUGHOUT THE ENTIRE CONSTRUCTION PERIOD.
17. ALL EXCESS EXCAVATED MATERIALS, EXCESS FILL, EXCESS CONSTRUCTION MATERIALS, AND DEBRIS SHALL BE REMOVED FROM THE SITE AND SHALL BE DISPOSED OF IN ACCORDANCE WITH APPLICABLE LAWS.
18. WASTE DISPOSAL: MATERIALS WHICH COULD BE A POTENTIAL SOURCE OF STORMWATER POLLUTION SUCH AS GASOLINE, DIESEL FUEL, HYDRAULIC OIL, ETC., SHALL BE STORED AT THE END OF EACH DAY IN A STORAGE TRAILER OR COVERED LOCATION AND TAKEN OFF-SITE AND PROPERLY DISPOSED OF. ALL TYPES OF WASTE GENERATED AT THIS SITE SHALL BE DISPOSED OF IN A MANNER CONSISTENT WITH STATE LAW AND/OR REGULATIONS.
19. CONTROL OF ALLOWABLE NON-STORMWATER DISCHARGES: IF ALLOWABLE NON-STORM WATER DISCHARGES ARE OCCURRING AT THE SITE, SUCH DISCHARGES SHALL BE VISUALLY OBSERVED AND RECORDED AS OUTLINED BELOW AND IN ACCORDANCE WITH PART II OF THE RIPDES GENERAL PERMIT. THE LIST OF EXPECTED SOURCES OF ALLOWABLE NON-STORM WATER DISCHARGES FOR THIS PROJECT ARE AS FOLLOWS: (1) DISCHARGE FROM VEHICLE WASHDOWN WHERE NO DETERGENTS ARE USED, (2) EXTERNAL BUILDING WASHDOWN WHERE NO DETERGENTS ARE USED, (3) THE USE OF WATER TO CONTROL DUST, (4) FIRE HYDRANT FLUSHINGS, (5) LAWN WATERING, (6) POTABLE WATER SOURCES INCLUDING WATERLINE FLUSHINGS, (8) IRRIGATION DRAINAGE, (9) PAVEMENT WASHWATERS WHERE SPILLS OR LEAKS OF TOXIC OR HAZARDOUS MATERIALS HAVE NOT OCCURRED (UNLESS ALL SPILLED MATERIALS HAVE BEEN REMOVED) AND WHERE NO DETERGENTS ARE USED, AND (10) FOUNDATION OR FOOTING DRAINS WHERE FLOWS ARE NOT CONTAMINATED WITH PROCESS SUCH AS SOLVENTS OR CONTAMINATED BY CONTACT WITH SOILS WHERE SPILLS OR LEAKS OF TOXIC OR HAZARDOUS MATERIALS HAS OCCURRED.
20. GOOD HOUSEKEEPING: THE PROJECT SITE SHALL PROVIDE FOR THE MINIMIZATION OF EXPOSURE OF CONSTRUCTION DEBRIS (INCLUDING, BUT NOT LIMITED TO, INSULATION, WIRING, PAINTS AND PAINT CANS, SOLVENTS, WALL BOARD, ETC.) TO PRECIPITATION BY MEANS OF DISPOSAL AND/OR PROPER SHELTER OR COVER. CONSTRUCTION WASTE MUST BE PROPERLY DISPOSED OF IN ORDER TO AVOID EXPOSURE TO PRECIPITATION AT THE END OF EACH WORKING DAY.

DEMOLITION

1. THE DEMOLITION PLAN IS PROVIDED FOR INFORMATION ONLY AND MAY NOT INDICATE ALL ITEMS REQUIRED TO BE DEMOLISHED. PERFORM A PRE-BID SITE INSPECTION. COORDINATE DEMOLITION OF UNIDENTIFIED UTILITIES OR STRUCTURES WITH OWNER. DEMOLISH STRUCTURES, SITE IMPROVEMENTS, UTILITIES, ETC. AS REQUIRED TO CONSTRUCT PROPOSED TO CONSTRUCT PROPOSED FACILITY AND UTILITY SERVICES.

CONSTRUCTION LAYOUT

1. PROVIDE PROPER TRANSITIONS BETWEEN EXISTING AND PROPOSED SITE IMPROVEMENTS. FIELD VERIFY EXISTING PAVEMENT AND GROUND ELEVATIONS AT THE INTERFACE WITH PROPOSED PAVEMENTS AND DRAINAGE STRUCTURES BEFORE START OF CONSTRUCTION.
2. PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION, FIELD VERIFY PROPOSED UTILITY ROUTES AND IDENTIFY ANY INTERFERENCES OR OBSTRUCTIONS WITH EXISTING UTILITIES OR PUBLIC RIGHTS-OF-WAY.
3. IMMEDIATELY INFORM THE ENGINEER IN WRITING IF EXISTING UTILITY CONDITIONS CONFLICT OR DIFFER FROM THAT INDICATED AND IF THE WORK CANNOT BE COMPLETED AS INDICATED.
4. DIMENSIONS ARE FROM FACE OF CURB, FACE OF BUILDING, FACE OF WALL, AND CENTER LINE OF PAVEMENT MARKINGS, UNLESS NOTED OTHERWISE.
5. BOUNDS OR MONUMENTATION DISTURBED DURING CONSTRUCTION SHALL BE SET OR RESET BY A PROFESSIONAL LICENSED SURVEYOR.

EARTHWORK

1. NOTIFY UTILITY LOCATOR SERVICE AT LEAST 72 HOURS BEFORE STARTING EXCAVATION.
   "DIG SAFE" AT 1-888-344-7233.
2. STOP WORK IN THE VICINITY OF SUSPECTED CONTAMINATED SOIL, GROUNDWATER OR OTHER MEDIA. IMMEDIATELY NOTIFY THE OWNER SO THAT APPROPRIATE TESTING AND SUBSEQUENT ACTION CAN BE TAKEN. RESUME WORK IN THE IMMEDIATE VICINITY ONLY UPON DIRECTION BY THE OWNER.

PAVEMENT

1. AT A MINIMUM, CONSTRUCT ACCESSIBLE ROUTES, PARKING SPACES, RAMPS, SIDEWALKS AND WALKWAYS IN CONFORMANCE WITH THE FEDERAL AMERICANS WITH DISABILITIES ACT AND WITH STATE AND LOCAL LAWS AND REGULATIONS (WHICHEVER ARE MORE STRINGENT).
2. CEMENT CONCRETE SIDEWALKS:
   ALL PORTLAND CEMENT CONCRETE USED IN THE CONSTRUCTION OF THE CEMENT CONCRETE SIDEWALKS SHALL BE CLASS A(AE) AND CONFORM TO THE REQUIREMENTS AS SET FORTH IN SUBSECTIONS 601.01.1 AND 601.03.1 OF THE LATEST EDITION OF THE RHODE ISLAND DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

SITE RESTORATION

1. PROVIDE 6 INCHES OF TOPSOIL AND SEED TO AREAS DISTURBED DURING CONSTRUCTION AND NOT DESIGNATED TO BE RESTORED WITH IMPERVIOUS SURFACES (BUILDINGS, PAVEMENTS, WALKS, ETC.) UNLESS OTHERWISE NOTED.
2. REPAIR DAMAGES RESULTING FROM CONSTRUCTION LOADS, AT NO ADDITIONAL COST TO OWNER.
3. RESTORE AREAS DISTURBED BY CONSTRUCTION OPERATIONS TO THEIR ORIGINAL CONDITION OR BETTER, AT NO ADDITIONAL COST TO OWNER.

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER

SHAWN M. MARTIN
No. 4857
REGISTERED PROFESSIONAL ENGINEER (CIVIL)
5/24/17

SCALE: HORZ.: 1" = 30'
VERT.:
DATUM: HORZ.:
VERT.:
30 15 0 30
GRAPHIC SCALE

FUSS & O'NEILL
146 HARTFORD ROAD
MANCHESTER, CONNECTICUT 06040
860.646.2469
www.fando.com

TOWN OF HOPKINTON
CONSTRUCTION NOTES
LANGWORTHY FIELD IMPROVEMENT PLAN
PHASE 1
HOPKINTON RHODE ISLAND

PROJ. No.: 20140073.A10
DATE: 05/24/2017

CN-101

File Path: J:\DW\GIP\20140073\A10\Civil\Plan\20140073A10_STP01.dwg Layout: CN-101 Plotted: Tue, May 23, 2017 - 11:49 AM User: jallard
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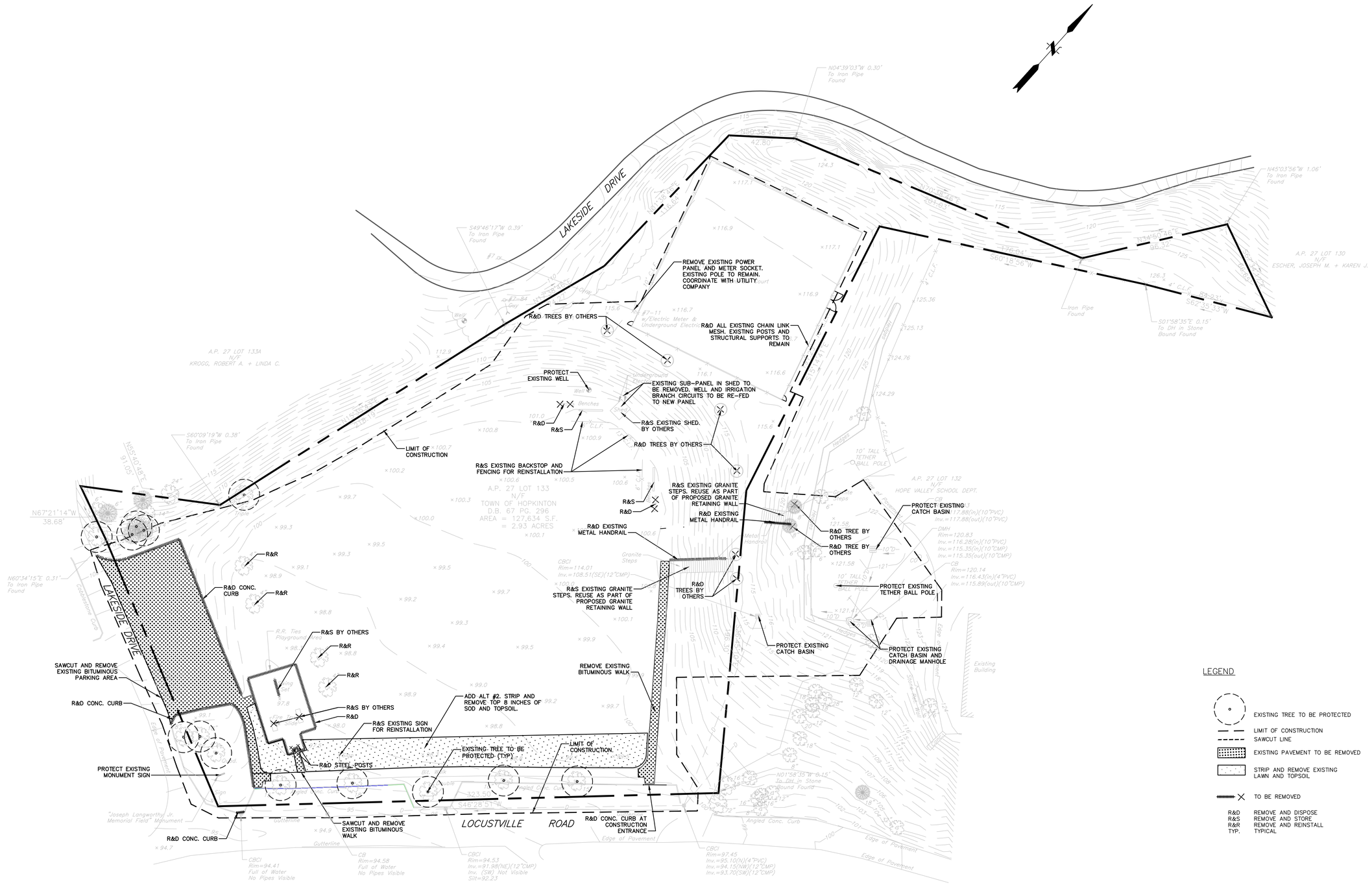

LEGEND

- EXISTING TREE TO BE PROTECTED
- LIMIT OF CONSTRUCTION
- SAWCUT LINE
- EXISTING PAVEMENT TO BE REMOVED
- STRIP AND REMOVE EXISTING LAWN AND TOPSOIL
- TO BE REMOVED

R&D REMOVE AND DISPOSE
R&S REMOVE AND STORE
R&R REMOVE AND REINSTALL
TYP. TYPICAL

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
1.				

SHAWN M. MARTIN
No. 9,24,17
REGISTERED PROFESSIONAL ENGINEER (CIVIL)

SCALE:
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TOWN OF HOPKINTON
DEMOLITION PLAN
LANGWORTHY FIELD IMPROVEMENT PLAN
PHASE 1
HOPKINTON RHODE ISLAND

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CP-101

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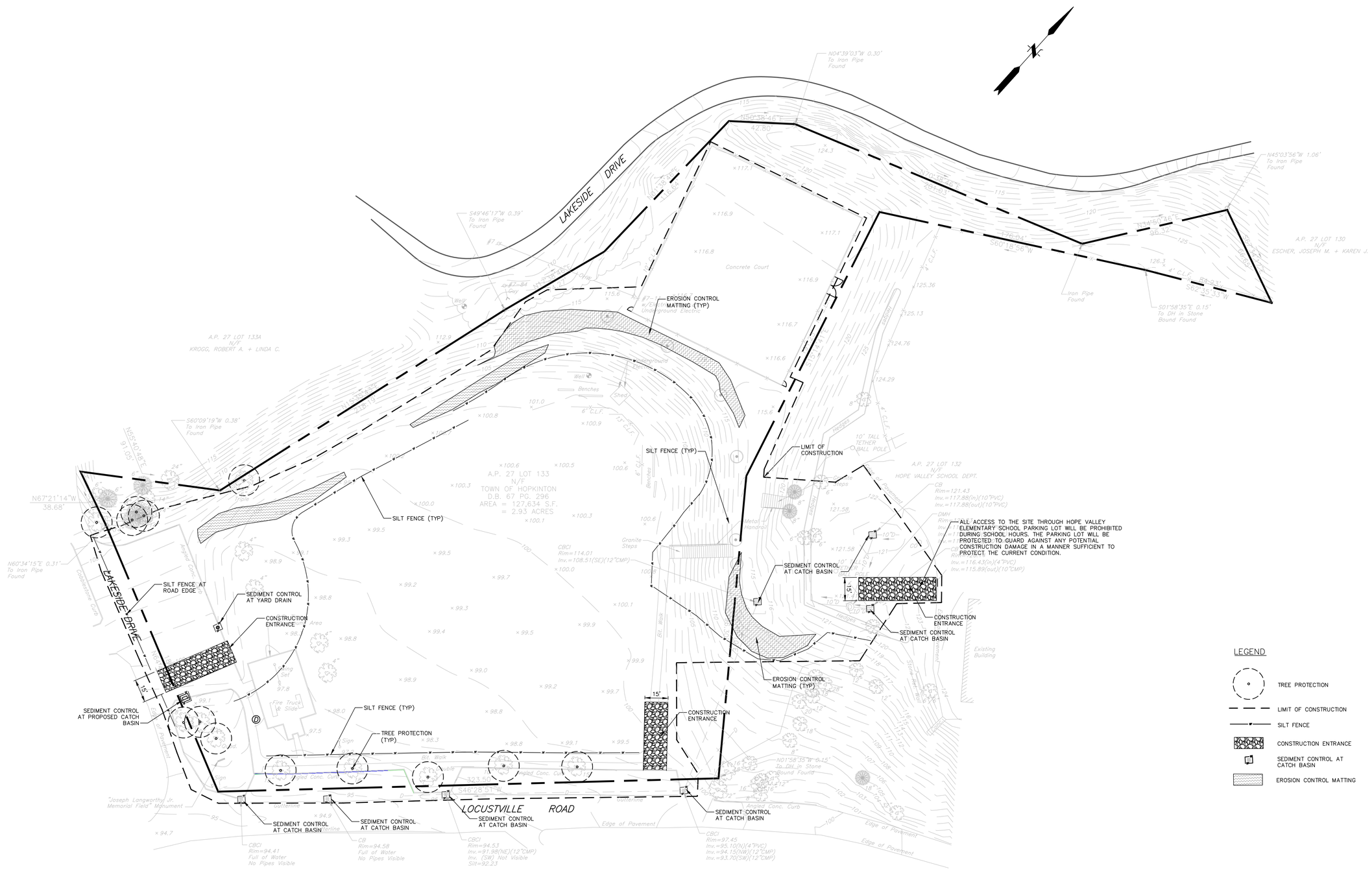

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SHAWN M. MARTIN
No. 14437
REGISTERED PROFESSIONAL ENGINEER (CIVIL)
5/24/17

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TOWN OF HOPKINTON
EROSION AND SEDIMENTATION CONTROL PLAN
LANGWORTHY FIELD IMPROVEMENT PLAN
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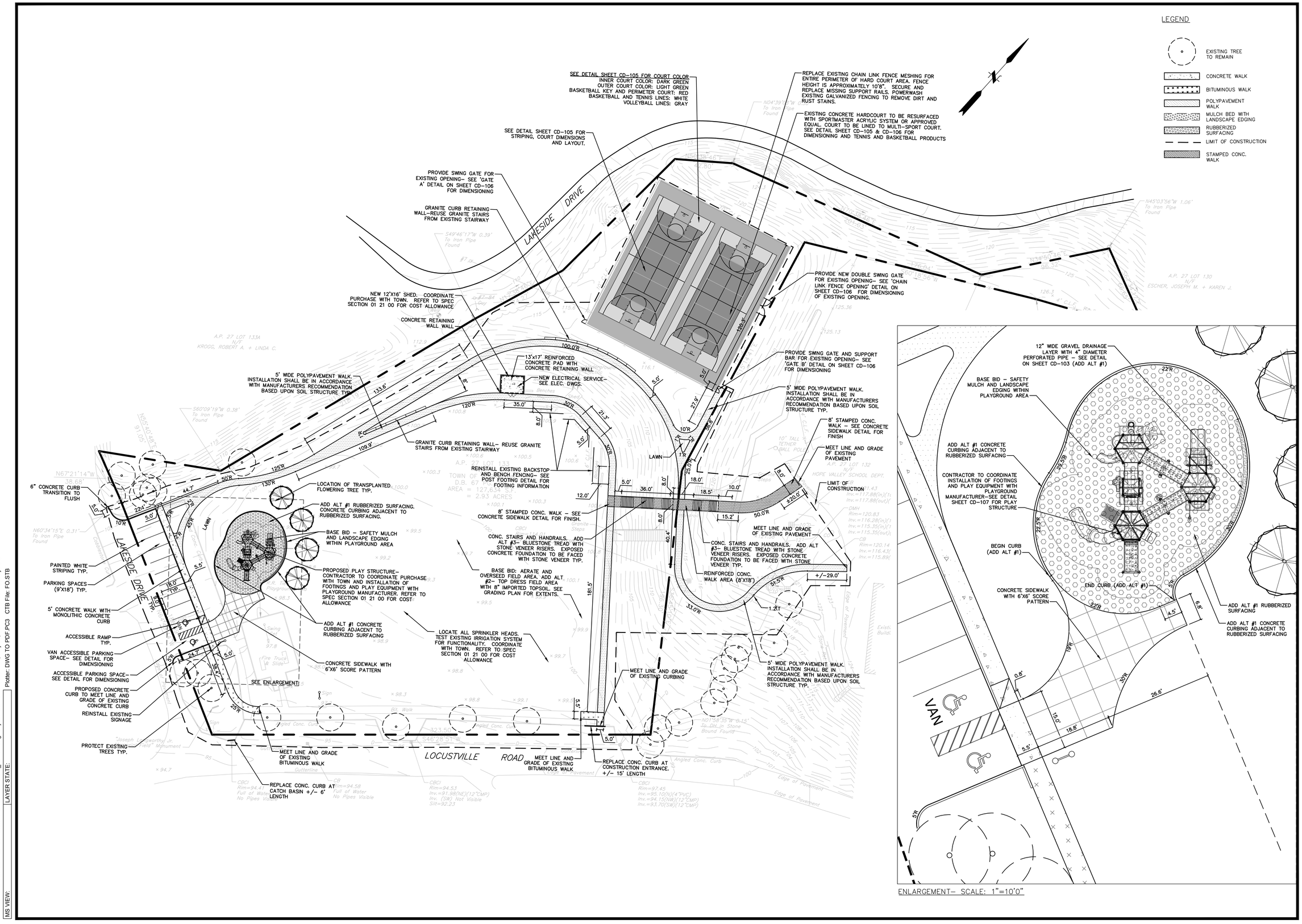
DATE: 05/24/2017

CE-101

File Path: J:\DWG\P20140073A10\Civil\Plan\20140073A10_GRA01.dwg Layout: CE-101 Plotted: Tue, May 23, 2017 - 11:49 AM User: jallard
MS VIEW: LAYER STATE: Plotter: DWG TO PDF.PC3 CTB File: FO.STB



No.	DATE	DESCRIPTION	DESIGNER REVIEWER
1.			

SHAWN M. MARTIN
No. 7457
REGISTERED PROFESSIONAL ENGINEER (CIVIL)

SCALE: HORZ.: 1" = 30' VERT.:
DATUM: HORZ.: VERT.:
30 15 0 30 GRAPHIC SCALE

FUSS & O'NEILL
146 HARTFORD ROAD
MANCHESTER, CONNECTICUT 06040
860.646.2469
www.fando.com

TOWN OF HOPKINTON
SITE LAYOUT PLAN
LANGWORTHY FIELD IMPROVEMENT PLAN
PHASE 1
HOPKINTON RHODE ISLAND

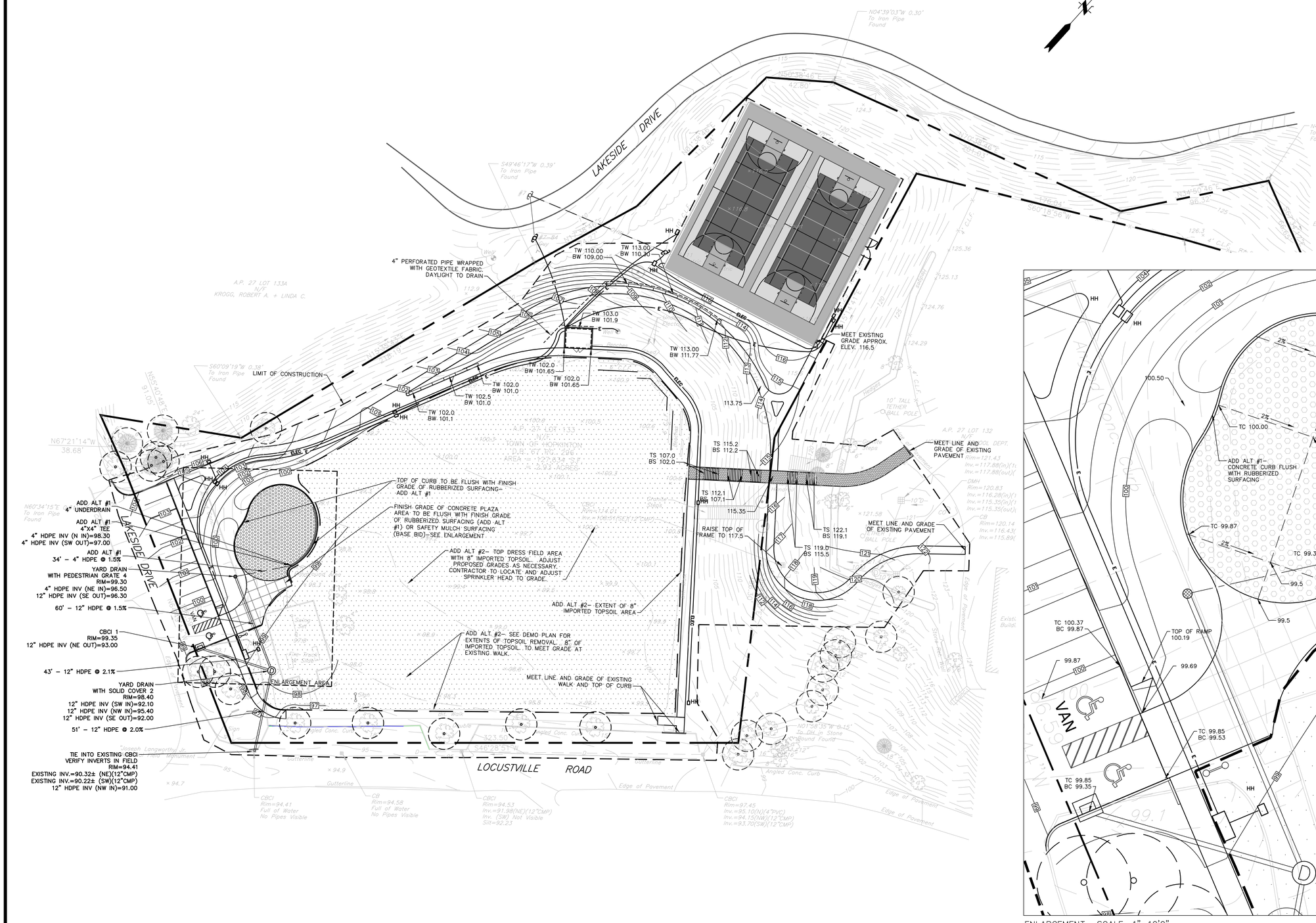
PROJ. No.: 20140073.A10
DATE: 05/24/2017

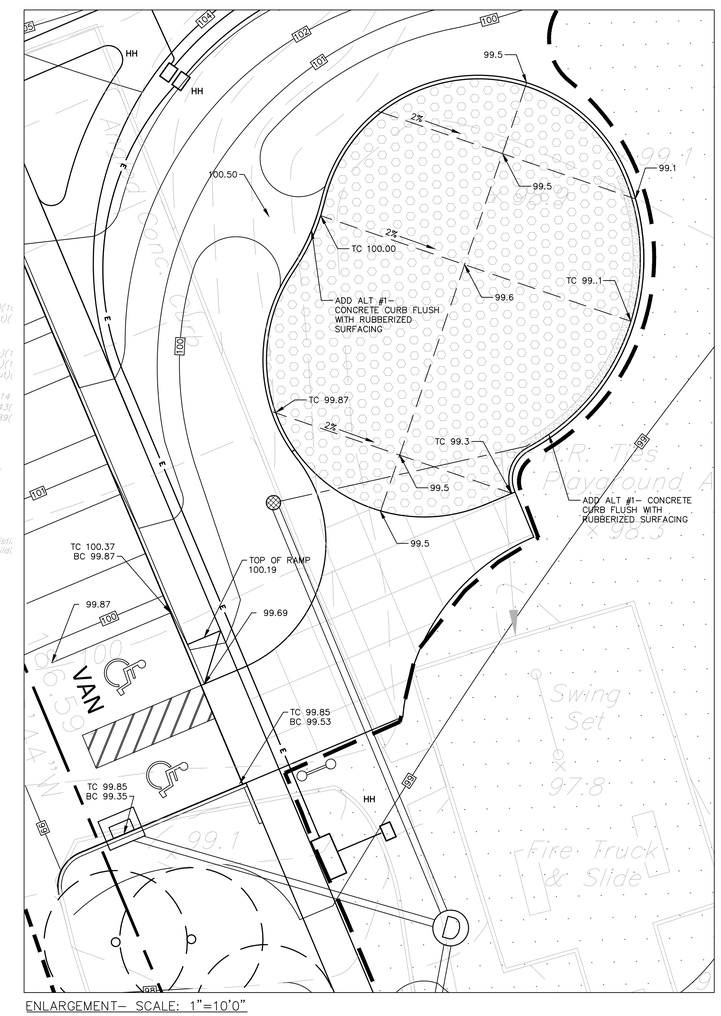
CS-101

File Path: J:\DWG\P20140073\A10\Civil\Plan\20140073A10_STP01.dwg Layout: CS-101 Plotted: Tue, May 23, 2017 - 11:49 AM User: jallard
MS VIEW: Plotter: DWG TO PDF.PC3 CTB File: FO.STB
LAYER STATE:

LEGEND

- TREE PROTECTION
- CONCRETE WALK
- BITUMINOUS WALK
- POLYPAVEMENT WALK
- MULCH BED WITH LANDSCAPE EDGING
- RUBBERIZED SURFACING
- LIMIT OF CONSTRUCTION
- PROPOSED CONTOUR LINE
- TW TOP OF WALL
- BW BOTTOM OF WALL
- TC TOP OF CURB
- BC BOTTOM OF CURB
- 8" IMPORTED TOPSOIL ADD ALT #2





ENLARGEMENT– SCALE: 1"=10'0"

No.	DATE	DESCRIPTION	DESIGNER REVIEWER
1.			

SHAWN M. MARTIN No. 6911 REGISTERED PROFESSIONAL ENGINEER (CIVIL)

SCALE: HORZ.: 1" = 30' VERT.:
DATUM: HORZ.: VERT.:
30 15 0 30 GRAPHIC SCALE

FUSS & O'NEILL
146 HARTFORD ROAD
MANCHESTER, CONNECTICUT 06040
860.646.2469
www.fando.com

TOWN OF HOPKINTON

SITE GRADING AND UTILITY PLAN

LANGWORTHY FIELD IMPROVEMENT PLAN
PHASE 1

HOPKINTON RHODE ISLAND

PROJ. No.: 20140073.A10
DATE: 05/24/2017

CG-101

File Path: J:\DWG\P2014\0073A10\Civil\Plan\20140073A10_GRA01.dwg Layout: CG-101 Plotted: Tue, May 23, 2017 - 11:49 AM User: jallard
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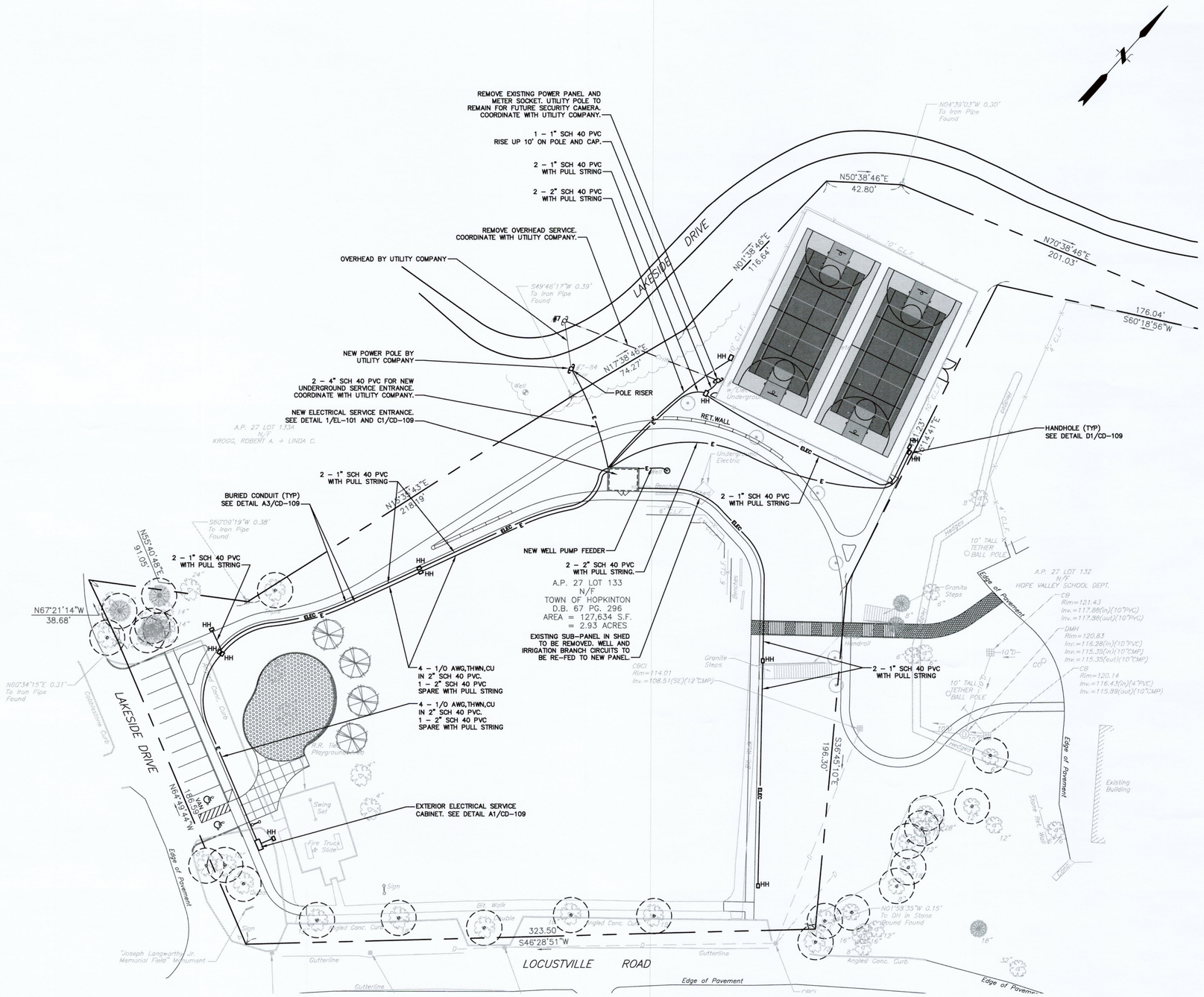
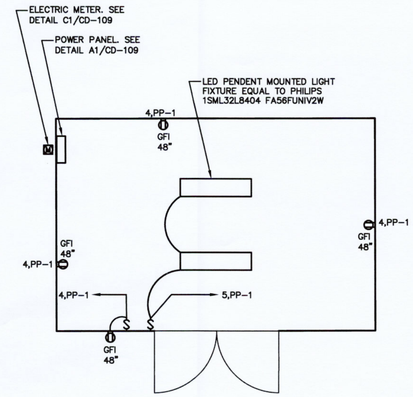
LAYER STATE:
MS VIEW:





1 SHED ELECTRICAL LAYOUT
SCALE: 1/4" = 1'-0"

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
1.				

JOHN MICHAEL CALLAHAN
No. 6646
REGISTERED PROFESSIONAL ENGINEER ELECTRICAL

SCALE:
HORZ: 1" = 30'
VERT:
DATUM:
HORZ:
VERT:
30 15 0 30
GRAPHIC SCALE

FUSS & O'NEILL
146 HARTFORD ROAD
MANCHESTER, CONNECTICUT 06040
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TOWN OF HOPKINTON
SITE ELECTRICAL
LANGWORTHY FIELD IMPROVEMENT PLAN
PHASE 1
HOPKINTON RHODE ISLAND

PROJ. No.: 20140073.A10
DATE: 05/24/2017

EL-101

File Path: J:\DWG\P2014\0073\A10\Civil\Plan\20140073A10_ELE01.dwg Layout: EL-101 Plotted: Tue, May 23, 2017 - 11:49 AM User: jallard
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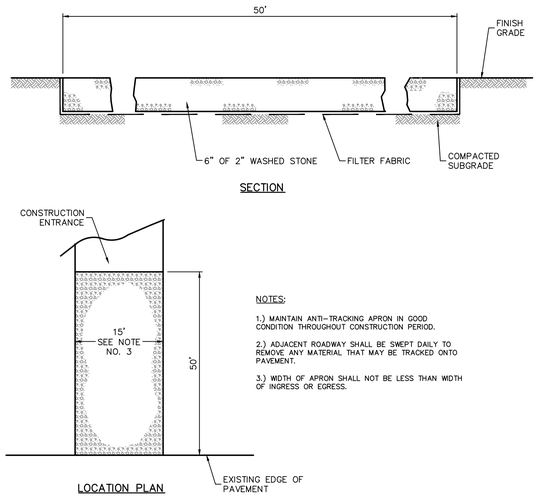
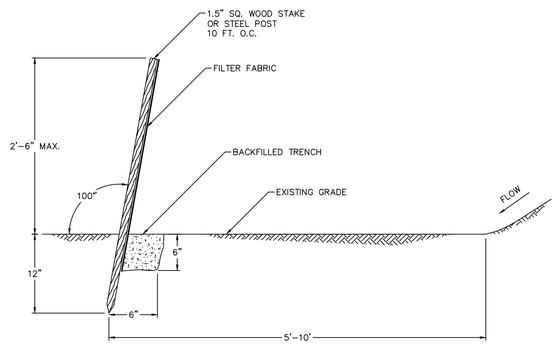


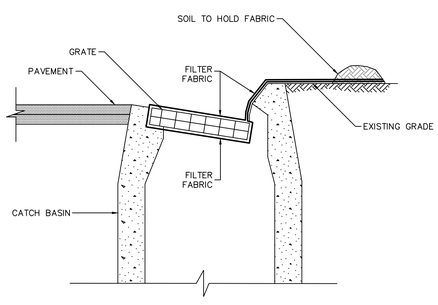
CONSTRUCTION ENTRANCE

SCALE: N.T.S.



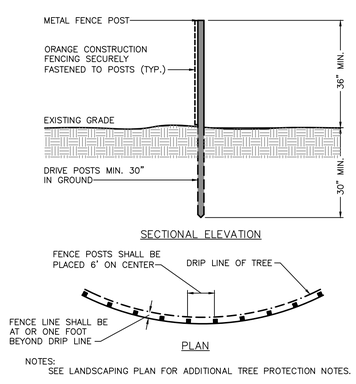
SILT FENCE

NOT TO SCALE



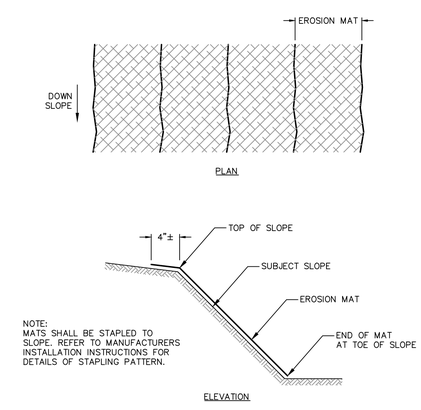
SEDIMENT CONTROL AT CATCH BASIN/YARD DRAIN

NOT TO SCALE



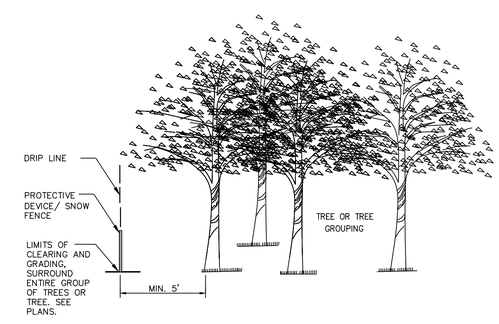
TREE PROTECTION FENCING

NOT TO SCALE



EROSION CONTROL MAT

SCALE: N.T.S.



TREE PROTECTION

SCALE: N.T.S.

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
1.				

SHAWN M. MARTIN
No. 6941
REGISTERED PROFESSIONAL ENGINEER (CIVIL)

SCALE:
HORZ.:
VERT.:
DATUM:
HORZ.:
VERT.:

FUSS & O'NEILL
146 HARTFORD ROAD
MANCHESTER, CONNECTICUT 06040
860.646.2469
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TOWN OF HOPKINTON
SITE DETAILS
LANGWORTHY FIELD IMPROVEMENT PLAN
PHASE 1
HOPKINTON RHODE ISLAND

PROJ. No.: 20140073.A10
DATE: 05/24/2017

CD-101

File Path: J:\DWG\P20140073\A10\Civil\Details\20140073_DET01.dwg Layout: CD-101 Plotted: Tue, May 23, 2017 - 11:49 AM User: jallard
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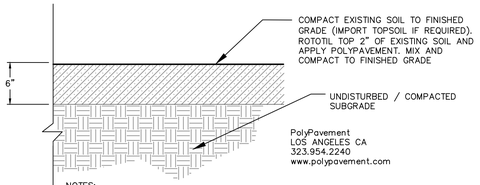
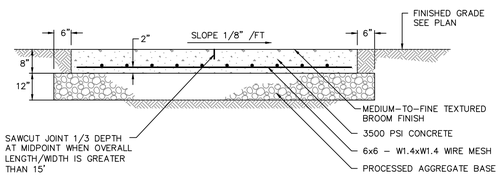
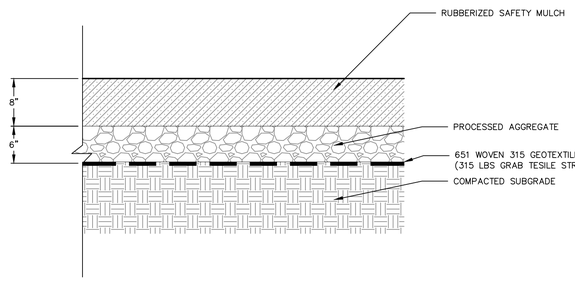


NOTES:
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS. PROVIDE MANUFACTURER WITH SOIL SAMPLE TO DETERMINE CURING FEASIBILITY.
2. FOR DILUTION RATIOS AND SPREAD RATES CONTACT POLYPAVEMENT TECHNICAL DEPARTMENT FOR PRECISE APPLICATION PROCESS.
3. POLYPAVEMENT TO BE APPLIED UNDER DRY CONDITIONS. TEMPERATURE TO REMAIN ABOVE 45°F FOR A SUBSTANCIAL PERIOD OF TIME TO ALLOW SUFFICIENT DRYING AND CURING.
4. GRADE, CONTOUR, COMPACT AND BRING TO FINAL ELEVATIONS THE AREA TO BE TREATED PRIOR TO APPLICATION.

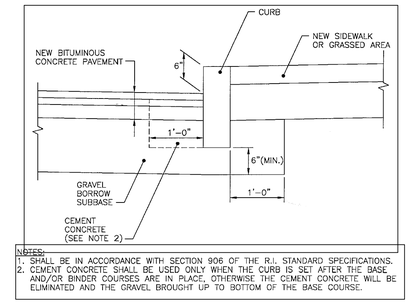
POLYPAVEMENT WALK
SCALE: N.T.S



REINFORCED CONCRETE WALK
NOT TO SCALE

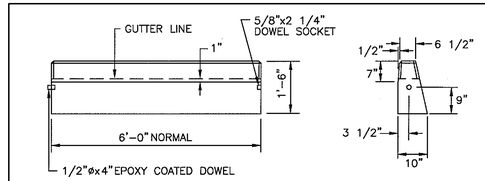


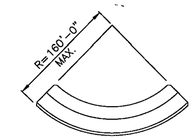
SAFETY MULCH (BASE BID)
SCALE: N.T.S



NOTES:
1. SHALL BE IN ACCORDANCE WITH SECTION 906 OF THE R.I. STANDARD SPECIFICATIONS.
2. CEMENT CONCRETE SHALL BE USED ONLY WHEN THE CURB IS SET AFTER THE BASE AND/OR BINDER COURSES ARE IN PLACE, OTHERWISE THE CEMENT CONCRETE WILL BE ELIMINATED AND THE GRAVEL BROUGHT UP TO BOTTOM OF THE BASE COURSE.

CURB SETTING DETAIL (R.I. STD. 7.6.0)
NOT TO SCALE

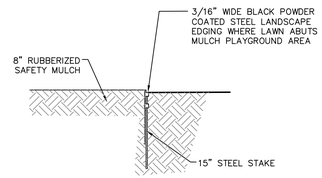




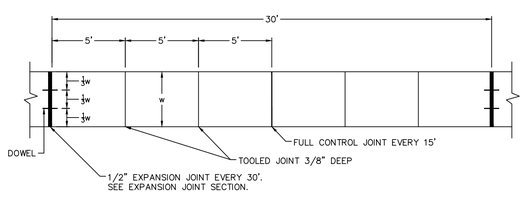
CIRCULAR CURB

NOTES:
1. SHALL BE IN ACCORDANCE WITH SECTION 906 OF THE R.I. STANDARD SPECIFICATIONS.
2. MINIMUM LENGTH OF STRAIGHT OR CIRCULAR FILLER PIECES TO BE 3'-0".
3. EXPOSED SURFACES TO HAVE A SPONGE FLOAT FINISH.
4. CIRCULAR CURB IS REQUIRED ON CURVES WITH RADII OF 160'-0" OR LESS. STRAIGHT CURB TO BE USED ON CURVES OF MORE THAN 160'-0"RADIUS.
5. EXPOSED EDGES TO HAVE A 3/4" CHAMFER.

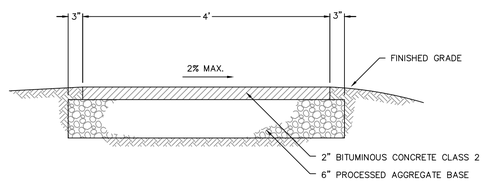
CONCRETE CURB (RI STD. 7.1.0)
NOT TO SCALE



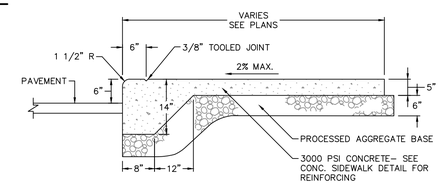
STEEL LANDSCAPE EDGING AT PLAYGROUND (BASE BID)
SCALE: N.T.S.



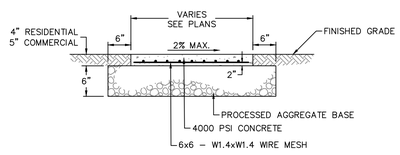
PLAN



BITUMINOUS CONCRETE WALK
NOT TO SCALE



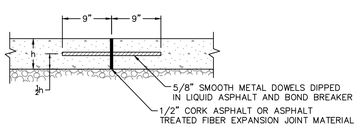
MONOLITHIC CONCRETE CURB AND WALK
NOT TO SCALE



SIDEWALK SECTION

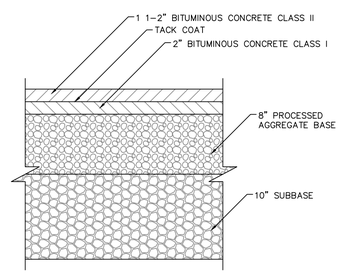
STAMPED CONCRETE

MANUFACTURER: SCOFIELD SYSTEMS
PRODUCT: HERRINGBONE PATTERN. ORDER #2050
COLOR: A-26 BRICK RED WITH 4910 SLATE GRAY ANTIQUING RELEASE.
SEAL WITH SCOFIELD CURESEAL- W SEMI GLOSS

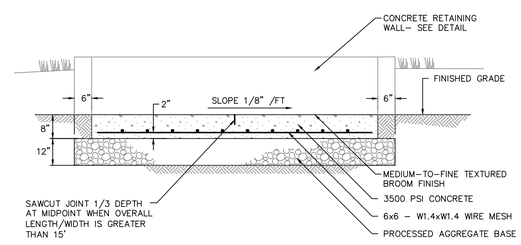


EXPANSION JOINT SECTION

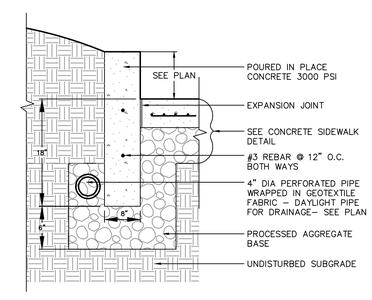
CONCRETE SIDEWALK
NOT TO SCALE



BITUMINOUS CONCRETE PAVEMENT (PARKING AREA)
SCALE: N.T.S.



CONCRETE PAD (FOR PROPOSED SHED)
NOT TO SCALE



CONCRETE RETAINING WALL
NOT TO SCALE

No.	DATE	DESCRIPTION	DESIGNER REVIEWER
1.			

SHAWN M. MARTIN
No. 4457
REGISTERED PROFESSIONAL ENGINEER (CIVIL)

SCALE: HORZ.: VERT.:
DATUM: HORZ.: VERT.:

FUSS & O'NEILL
146 HARTFORD ROAD
MANCHESTER, CONNECTICUT 06040
860.646.2469
www.fando.com

TOWN OF HOPKINTON
SITE DETAILS
LANGWORTHY FIELD IMPROVEMENT PLAN
PHASE 1
HOPKINTON RHODE ISLAND

PROJ. No.: 20140073.A10
DATE: 05/24/2017

CD-102

File Path: J:\DWG\P20140073\A10\Civil\Details\20140073_DET01.dwg Layout: CD-102 Plotted: Tue, May 23, 2017 - 11:49 AM User: jallard
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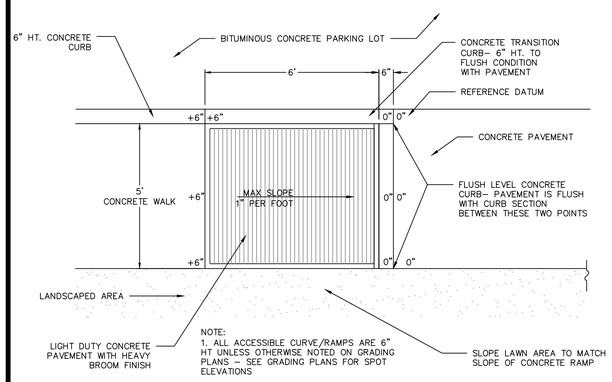
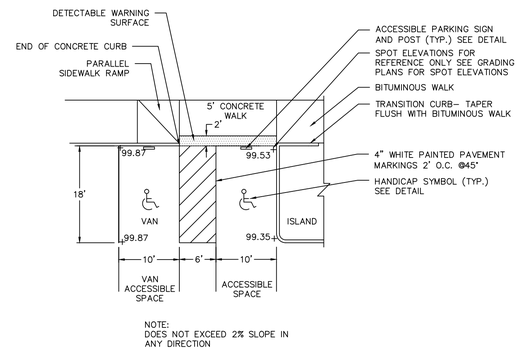
LAYER STATE:



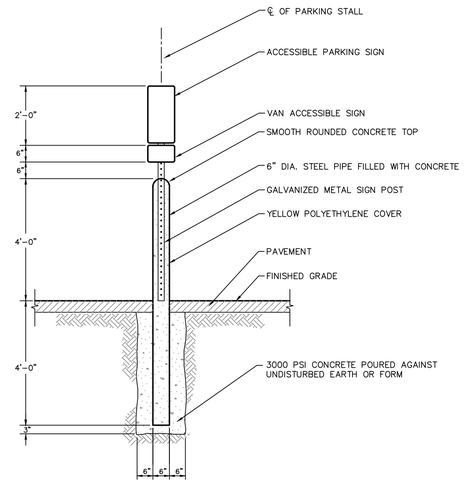
ACCESSIBLE CURB / RAMP

SCALE: N.T.S.



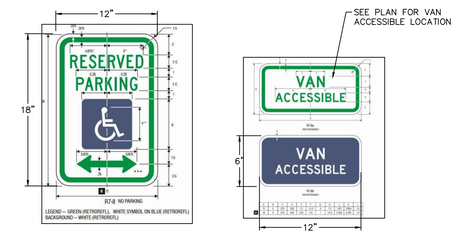
ACCESSIBLE PARKING SPACES ALONG WALK

SCALE: N.T.S.



ACCESSIBLE PARKING SIGN POST

NOT TO SCALE

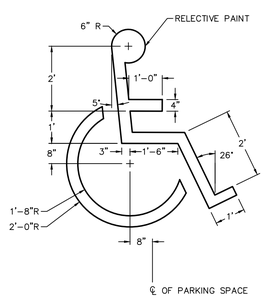


NOTES
ALUMINUM THICKNESS: .080"
BACKGROUND: WHITE
LEGEND: GREEN
SYMBOL: WHITE SYMBOL ON BLUE BACKGROUND
POSTS: SEE "ACCESSIBLE PARKING SIGN AND POST" DETAIL

NOTES
ALUMINUM THICKNESS: .080"
BACKGROUND: WHITE
LEGEND: GREEN

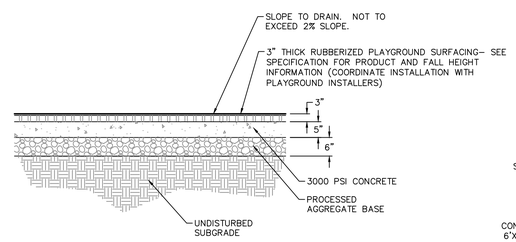
ACCESSIBLE PARKING SIGN

NOT TO SCALE



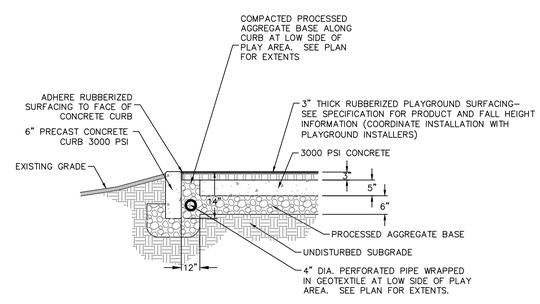
HANDICAP SYMBOL

NOT TO SCALE



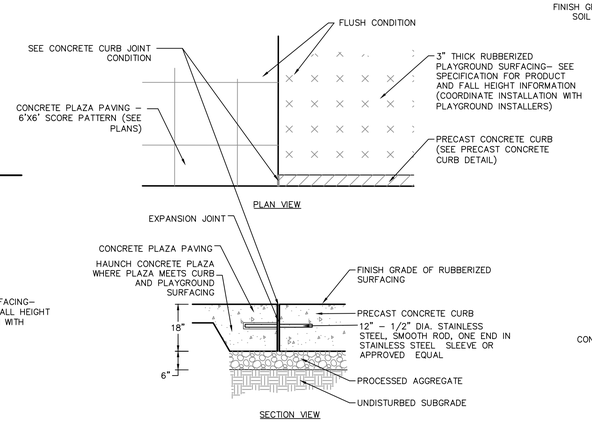
RUBBERIZED SURFACING DETAIL (ADD ALT#1)

SCALE: NOT TO SCALE



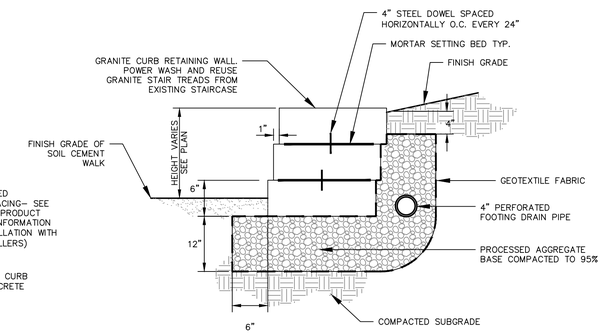
PRECAST CONCRETE CURB (ABUTTING RUBBERIZED SURFACING) (ADD ALT#1)

SCALE: NOT TO SCALE



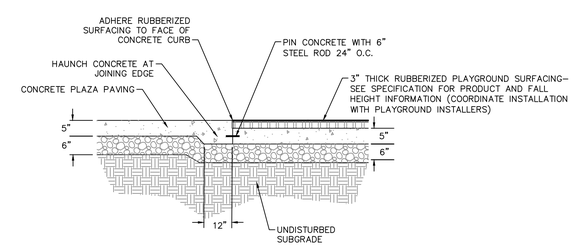
CONCRETE CURB JOINT CONDITION (ADD ALT #1)

SCALE: NOT TO SCALE



GRANITE CURB RETAINING WALL

SCALE: N.T.S.



RUBBERIZED SURFACING JOINT DETAIL (ADD ALT #1)

SCALE: NOT TO SCALE

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
1.				

SHAWN M. MARTIN
No. 4457
REGISTERED PROFESSIONAL ENGINEER (CIVIL)
5/24/17

SCALE:
HORZ.:
VERT.:
DATUM:
HORZ.:
VERT.:

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TOWN OF HOPKINTON
SITE DETAILS
LANGWORTHY FIELD IMPROVEMENT PLAN
PHASE 1
HOPKINTON RHODE ISLAND

PROJ. No.: 20140073.A10
DATE: 05/24/2017

CD-103

File Path: J:\DWG\P20140073\A10\Civil\Details\20140073_DET01.dwg Layout: CD-103 Plotted: Tue, May 23, 2017 - 11:49 AM User: jallard
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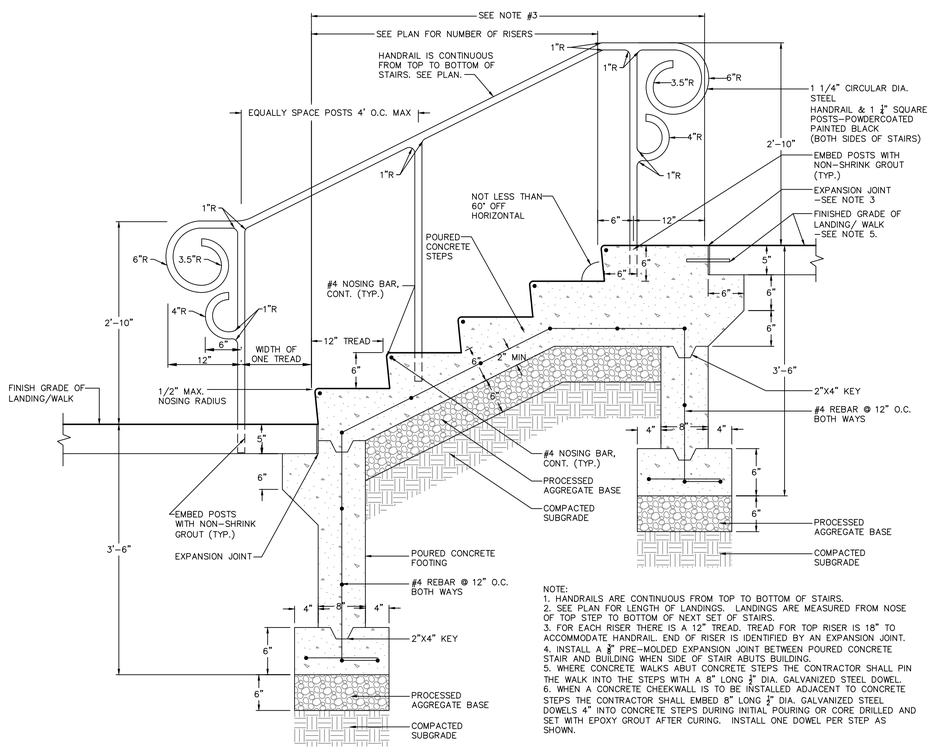
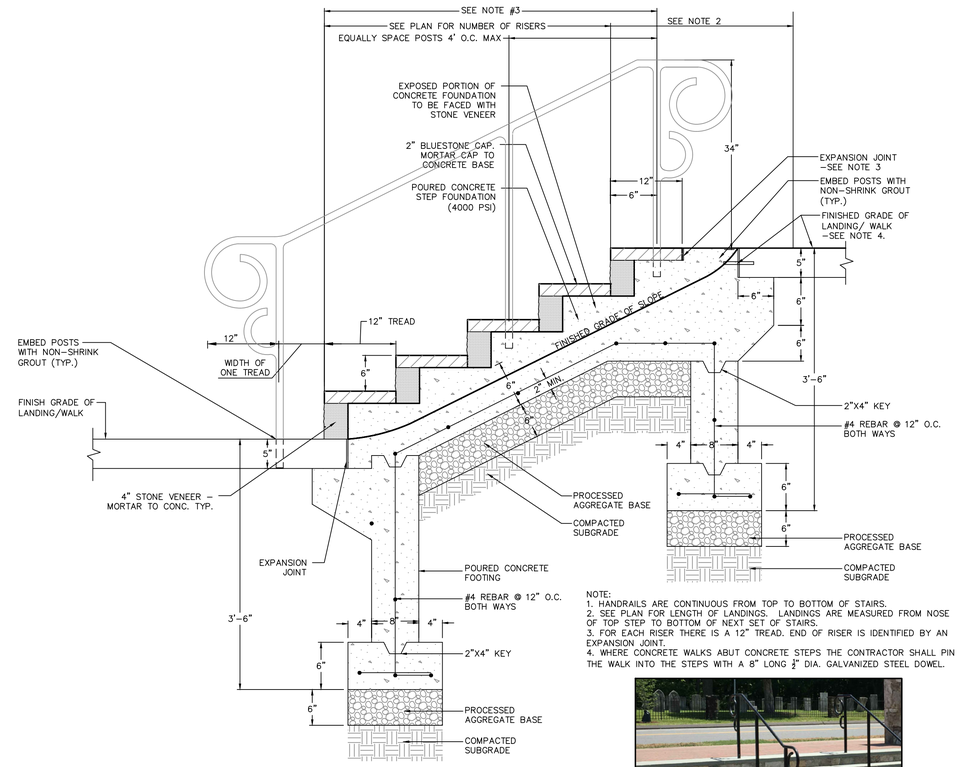


NOTE:
1. HANDRAILS ARE CONTINUOUS FROM TOP TO BOTTOM OF STAIRS.
2. SEE PLAN FOR LENGTH OF LANDINGS. LANDINGS ARE MEASURED FROM NOSE OF TOP STEP TO BOTTOM OF NEXT SET OF STAIRS.
3. FOR EACH RISER THERE IS A 12" TREAD. TREAD FOR TOP RISER IS 18" TO ACCOMMODATE HANDRAIL. END OF RISER IS IDENTIFIED BY AN EXPANSION JOINT.
4. INSTALL A ¾" PRE–MOLDED EXPANSION JOINT BETWEEN POURED CONCRETE STAIR AND BUILDING WHEN SIDE OF STAIR ABUTS BUILDING.
5. WHERE CONCRETE WALKS ABUT CONCRETE STEPS THE CONTRACTOR SHALL PIN THE WALK INTO THE STEPS WITH A 8" LONG ½" DIA. GALVANIZED STEEL DOWEL.
6. WHEN A CONCRETE CHEEKWALL IS TO BE INSTALLED ADJACENT TO CONCRETE STEPS THE CONTRACTOR SHALL EMBED 8" LONG ½" DIA. GALVANIZED STEEL DOWELS 4" INTO CONCRETE STEPS DURING INITIAL POURING OR CORE DRILLED AND SET WITH EPOXY GROUT AFTER CURING. INSTALL ONE DOWEL PER STEP AS SHOWN.

CONCRETE STEPS (12" TREAD) WITH HANDRAIL – BASE BID

SCALE: N.T.S.



NOTE:
1. HANDRAILS ARE CONTINUOUS FROM TOP TO BOTTOM OF STAIRS.
2. SEE PLAN FOR LENGTH OF LANDINGS. LANDINGS ARE MEASURED FROM NOSE OF TOP STEP TO BOTTOM OF NEXT SET OF STAIRS.
3. FOR EACH RISER THERE IS A 12" TREAD. END OF RISER IS IDENTIFIED BY AN EXPANSION JOINT.
4. WHERE CONCRETE WALKS ABUT CONCRETE STEPS THE CONTRACTOR SHALL PIN THE WALK INTO THE STEPS WITH A 8" LONG ½" DIA. GALVANIZED STEEL DOWEL.

–2" BLUESTONE TREAD
–4" THICK STONE VENEER 1"–8" CONNECTICUT WHITE LINE WALL STONE VENEER.
COLOR: TAN/BROWN.
SHAPE: MOSAIC

SUBMIT SHOP DRAWING

BLUESTONE STEPS WITH HANDRAIL – ADD ALT #3

SCALE: N.T.S.

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
1.				

SHAWN M. MARTIN
No. 4857
REGISTERED PROFESSIONAL ENGINEER (CIVIL)

SCALE: HORZ.: VERT.:
DATUM: HORZ.: VERT.:

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TOWN OF HOPKINTON
SITE DETAILS
LANGWORTHY FIELD IMPROVEMENT PLAN
PHASE 1
HOPKINTON RHODE ISLAND

PROJ. No.: 20140073.A10
DATE: 05/24/2017

CD-104

File Path: J:\DWG\P20140073\A10\Civil\Details\20140073_DET01.dwg Layout: CD-104 Plotted: Tue, May 23, 2017 - 11:49 AM User: jallard
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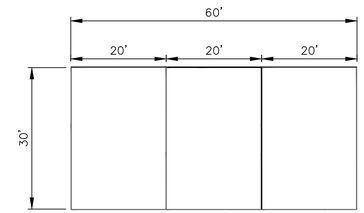
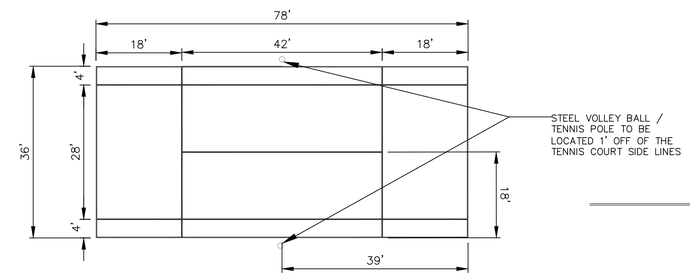
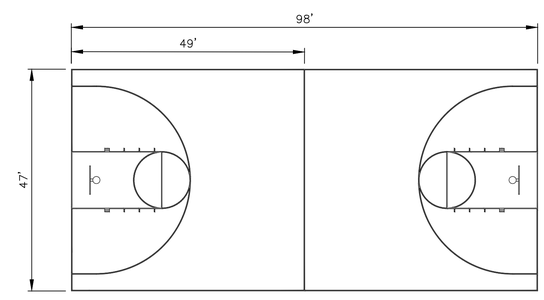
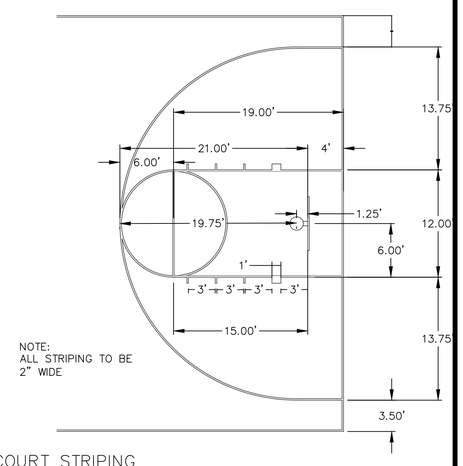


VOLLEYBALL COURT STRIPING



TENNIS COURT STRIPING

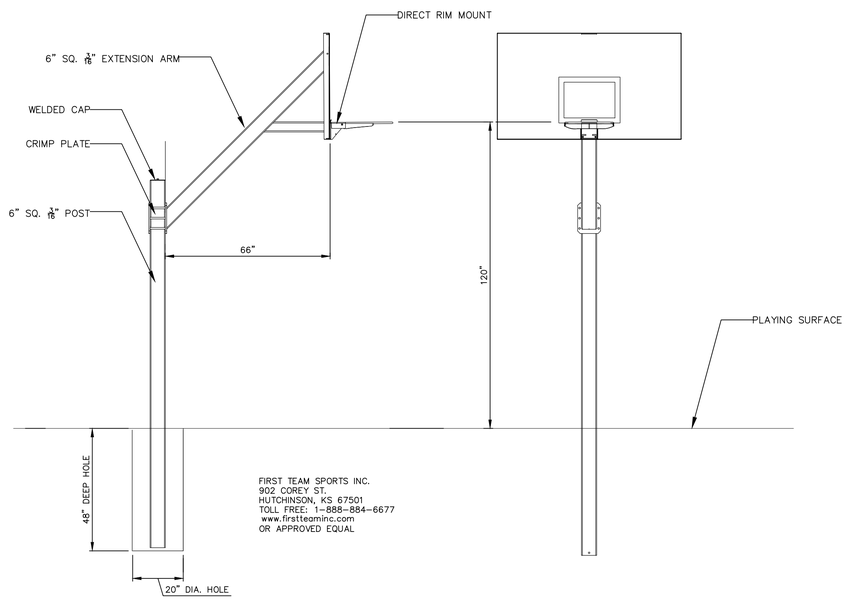




NOTE:
ALL STRIPING TO BE 2" WIDE

BASKETBALL COURT STRIPING

LEGEND PLAYGROUND SERIES



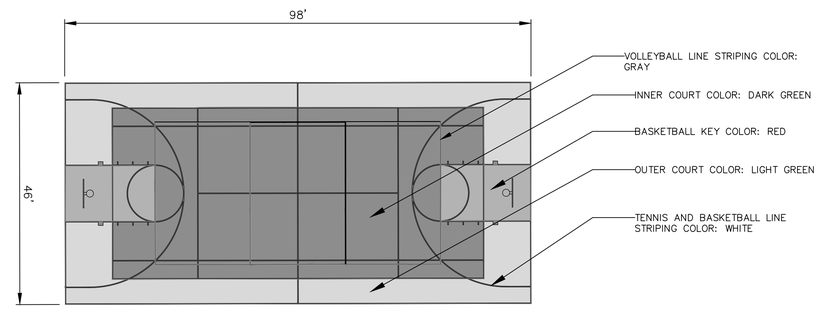
SIDE VIEW

FRONT VIEW

FIXED HEIGHT BASKETBALL GOALS

SCALE: N.T.S.

NOTES:
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. SEE MANUFACTURER'S RECOMMENDATION FOR CONCRETE FOOTING INSTALLATION
2. DO NOT SCALE DRAWING.



MULTI-COURT STRIPING – SUBMIT SHOP DRAWINGS

SCALE: N.T.S.

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
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SHAWN M. MARTIN
No. 7437
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5/24/17

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TOWN OF HOPKINTON
SITE DETAILS
LANGWORTHY FIELD IMPROVEMENT PLAN
PHASE 1
HOPKINTON RHODE ISLAND

PROJ. No.: 20140073.A10
DATE: 05/24/2017

CD-105

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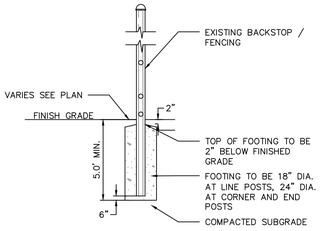
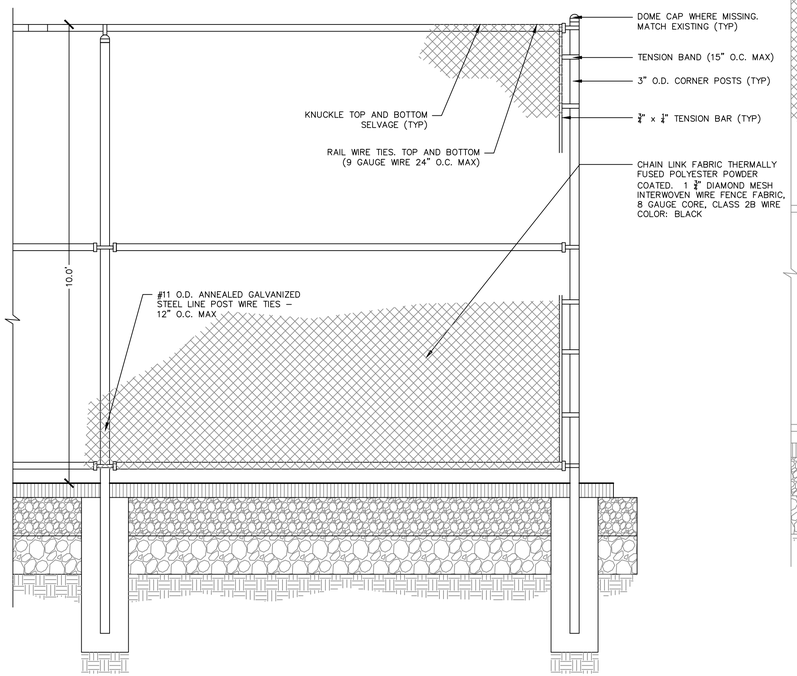


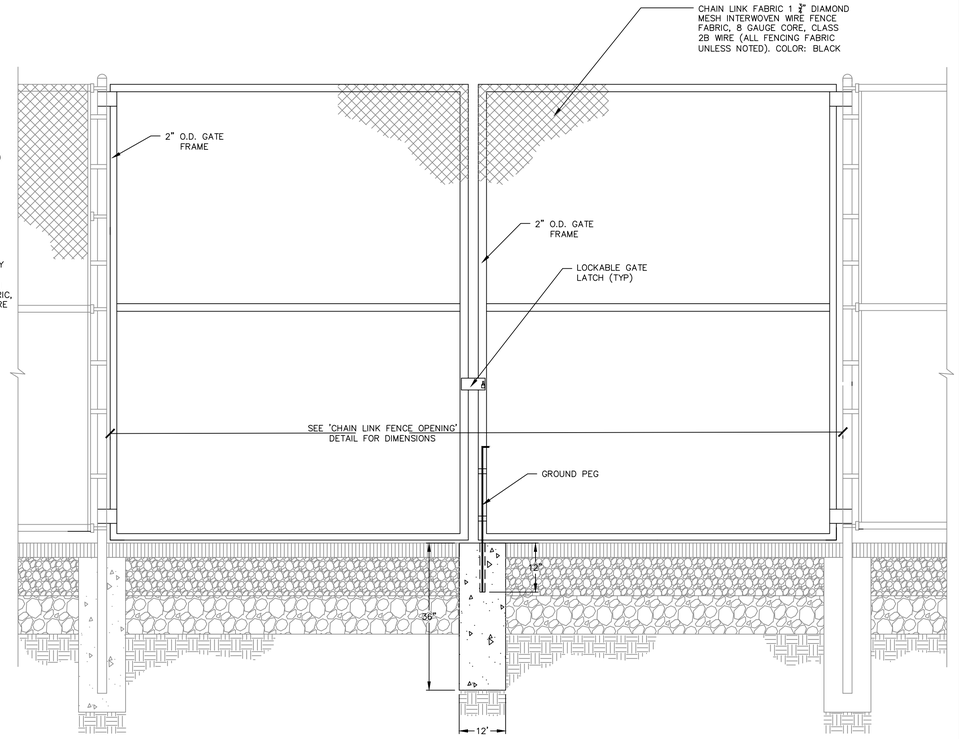
POST FOOTING DETAIL – BACKSTOP FENCING

SCALE: N.T.S.



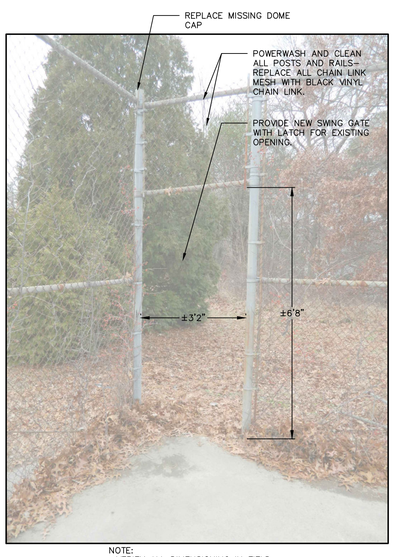
CHAIN LINK FENCE MESHING

SCALE: N.T.S.



CHAIN LINK FENCE DOUBLE LEAF SWING GATE

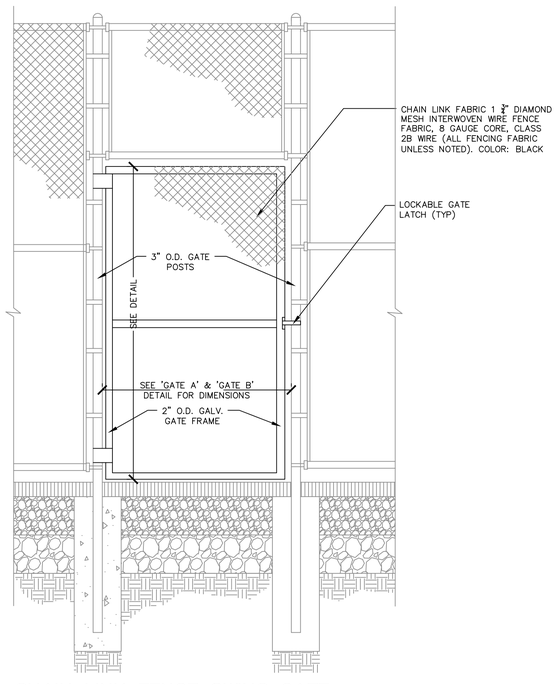
SCALE: N.T.S.



NOTE:
–VERIFY ALL DIMENSIONING IN FIELD
–SWING GATE HEIGHT 72 INCHES.
–SWING GATE WIDTH 36 INCHES.

GATE A

SCALE: N.T.S.



CHAIN LINK FENCE SWING GATE

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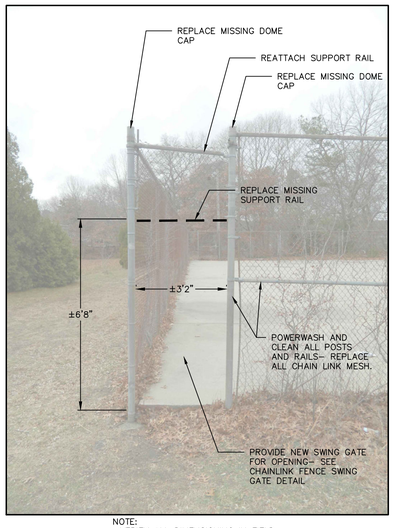
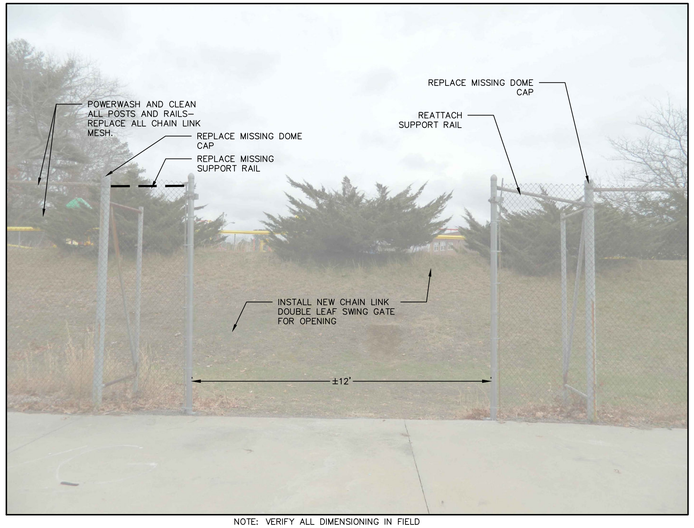


NOTE:
–VERIFY ALL DIMENSIONING IN FIELD
–SWING GATE HEIGHT 72 INCHES.
–SWING GATE WIDTH 36 INCHES.

GATE B

SCALE: N.T.S.



NOTE: VERIFY ALL DIMENSIONING IN FIELD

CHAIN LINK FENCE OPENING

SCALE: N.T.S.

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
1.				

SHAWN M. MARTIN
No. 9244
REGISTERED PROFESSIONAL ENGINEER (CIVIL)
5/24/17

SCALE: HORZ.: VERT.:
DATUM: HORZ.: VERT.:

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TOWN OF HOPKINTON
SITE DETAILS
LANGWORTHY FIELD IMPROVEMENT PLAN
PHASE 1
HOPKINTON RHODE ISLAND

PROJ. No.: 20140073.A10
DATE: 05/24/2017

CD-106

File Path: J:\DWG\P2014\0073\A10\Civil\Details\20140073_DET01.dwg Layout: CD-106 Plotted: Tue, May 23, 2017 - 11:49 AM User: jallard
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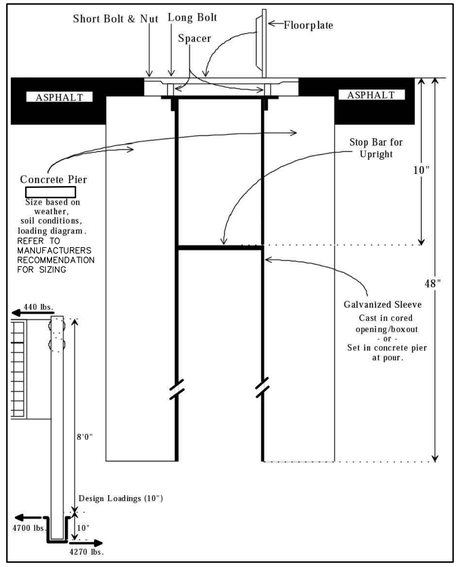
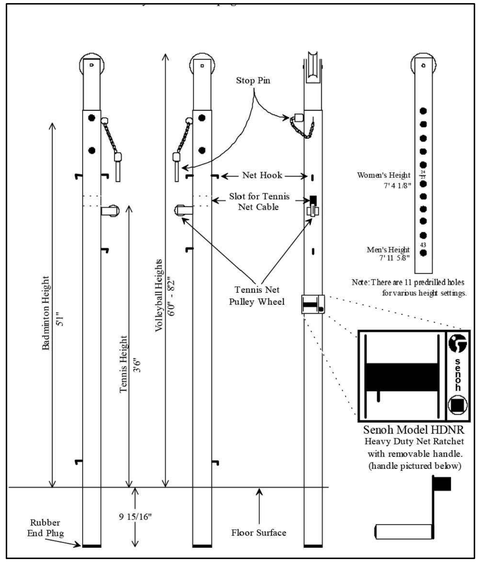




VOLLEYBALL / TENNIS POLE FOOTING

SCALE: N.T.S.

NOTE:
- INSTALL PER MANUFACTURERS RECOMMENDATIONS
- STEEL VOLLEY BALL / TENNIS POLE TO BE LOCATED 1' OFF OF THE TENNIS COURT SIDE LINES

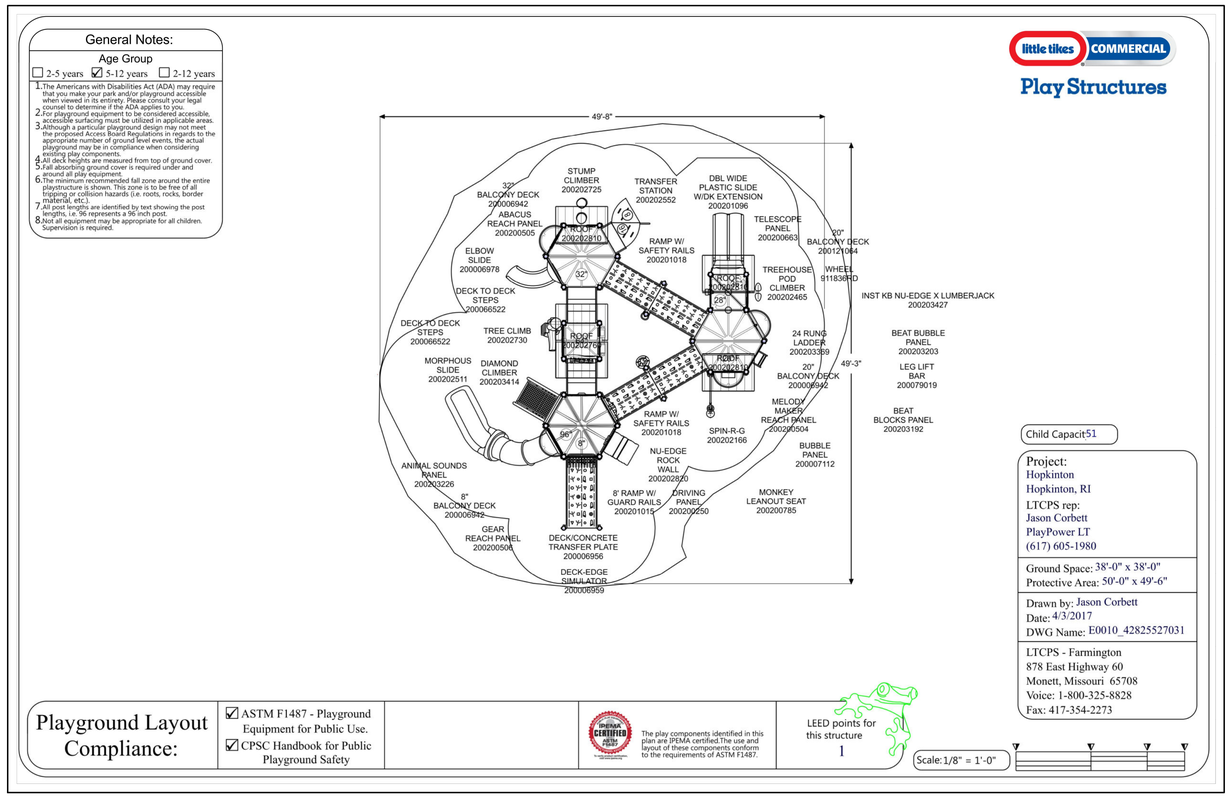
DE60: STEEL VOLLEYBALL / TENNIS POLE

SPORTS IMPORTS
4000 PARKWAY LANE
HILLIARD OH 43026
800.556.3198
OR APPROVED EQUAL

VOLLEYBALL / TENNIS POLE

SCALE: N.T.S.

NOTE:
- INSTALL PER MANUFACTURERS RECOMMENDATIONS
- STEEL VOLLEY BALL / TENNIS POLE TO BE LOCATED 1' OFF OF THE TENNIS COURT SIDE LINES



PROPOSED PLAY STRUCTURE

SCALE: N.T.S.

NOTE:
- INSTALL PER MANUFACTURERS RECOMMENDATIONS

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
1.				

SHAWN M. MARTIN
REGISTERED PROFESSIONAL ENGINEER (CIVIL)
No. 9241

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DATUM: HORZ.: VERT.:

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TOWN OF HOPKINTON
SITE DETAILS
LANGWORTHY FIELD IMPROVEMENT PLAN
PHASE 1
HOPKINTON RHODE ISLAND

PROJ. No.: 20140073.A10
DATE: 05/24/2017

CD-107

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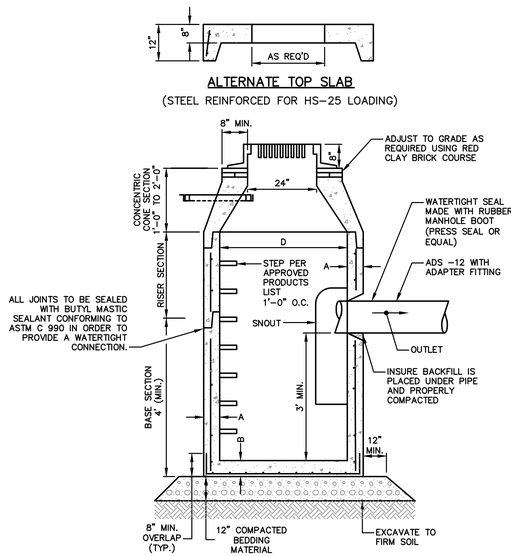


CATCH BASIN

NOT TO SCALE

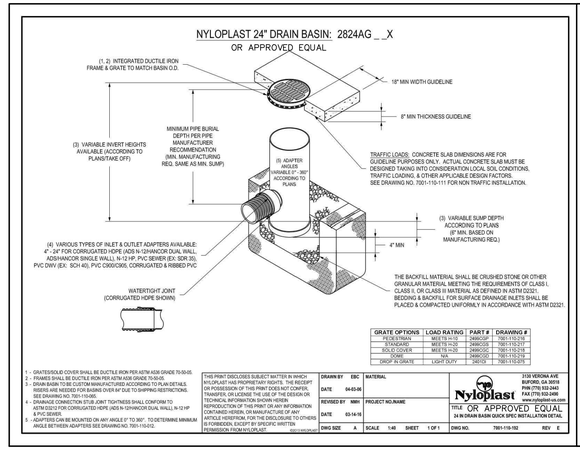
GENERAL NOTES:

1. FRAME & GRATE TO R.I. STD. 6.3.0 OR APPROVED EQUAL.
2. SHALL BE IN ACCORDANCE WITH SECTION 702 OF THE R.I. STANDARD SPECIFICATIONS.
3. SEE TABLE 1 FOR STEEL REINFORCEMENT REQUIREMENTS.
4. STEEL REINFORCEMENT FOR BASE SECTION BOTTOM SHALL BE A MINIMUM OF 0.12 SQ.IN./LIN.FT. (BOTH WAYS) FOR 4' DIA. BASINS, 0.15 SQ.IN./LIN.FT. (BOTH WAYS) FOR 5' DIA. BASINS, AND 0.18 SQ.IN./LIN.FT. (BOTH WAYS) FOR 6' DIA. BASINS.
5. CONCRETE SHALL BE COMPRESSIVE STRENGTH 4000 PSI TYPE II CEMENT.
6. CATCH BASIN DESIGN SHALL CONFORM TO ASTM C-478 FOR "PRECAST REINFORCED CONCRETE MANHOLE SECTIONS."
7. PROVIDE "V" KNOCKOUTS FOR PIPES WITH 2" MAX. CLEARANCE TO OUTSIDE OF PIPE. MORTAR ALL PIPE CONNECTIONS.
8. ONE POUR MONOLITHIC BASE SECTION. 9. STEPS SHALL CONFORM TO R.I. STD. 5.3.0 AND SHALL BE INSTALLED AT CASTING PLANT.

TABLE 1

CATCH BASIN DIAMETER (D)	A	B	CIRCUMFERENTIAL STEEL REINFORCEMENT REQUIRED*
4'-0"	5"	6"	.12 SQ.IN. / LIN.FT.
5'-0"	6"	7"	.15 SQ.IN. / LIN.FT.
6'-0"	7"	8"	.18 SQ.IN. / LIN.FT.

* FOR LONGITUDINAL (VERTICAL STANDING) REINFORCEMENT REFER TO ASTM C478, ITEM 8.1.2



GRATE OPTIONS	LOAD RATING	PART #	DRAWING #
PEDESTRIAN	MEETS H-10	2499CGP	7001-110-218
STANDARD	MEETS H-20	2499CGS	7001-110-217
SOLID COVER	MEETS H-20	2499CGC	7001-110-216
DOME	N/A	2499CGD	7001-110-219
DROP IN GRATE	LIGHT DUTY	2462GI	7001-110-215

1 - GRATES/SOLID COVER SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
2 - FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
3 - DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. RISERS ARE NEEDED FOR BASINS OVER 64" DUE TO SHIPPING RESTRICTIONS. SEE DRAWING NO. 7001-110-085.
4 - DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS N-12/HANCOR DUAL WALL), N-12 HP & PVC SEWER.
5 - ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°. TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001-110-012.

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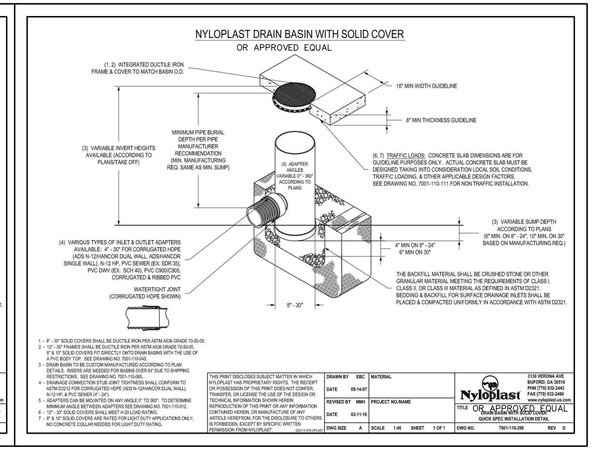
DRAWN BY EBC DATE 04-05-06 REVISED BY MWH DATE 03-14-16 DWG SIZE A SCALE 1:40 SHEET 1 OF 1 MATERIAL PROJECT NO./NAME DWG NO. 7001-110-192 REV E

Nyloplast 3126 VERONA AVE BUFORD, GA 30518 PHN (770) 932-2443 FAX (770) 932-2446 www.nyloplast-us.com

TITLE OR APPROVED EQUAL 24 IN DRAIN BASIN QUICK SPEC INSTALLATION DETAIL

YARD DRAIN WITH PEDESTRIAN GRATE

SCALE: N.T.S.



1 - 6" - 30" SOLID COVERS SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
2 - 12" - 30" FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
8" & 10" SOLID COVERS FIT DIRECTLY ONTO DRAIN BASINS WITH THE USE OF A PVC BODY TOP. SEE DRAWING NO. 7001-110-045.
3 - DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. RISERS ARE NEEDED FOR BASINS OVER 64" DUE TO SHIPPING RESTRICTIONS. SEE DRAWING NO. 7001-110-085.
4 - DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS N-12/HANCOR DUAL WALL), N-12 HP & PVC SEWER (4" - 24").
5 - ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°. TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001-110-012.
6 - 12" - 30" SOLID COVERS SHALL MEET H-20 LOAD RATING.
7 - 8" & 10" SOLID COVERS ARE RATED FOR LIGHT DUTY APPLICATIONS ONLY; NO CONCRETE COLLAR NEEDED FOR LIGHT DUTY RATING.

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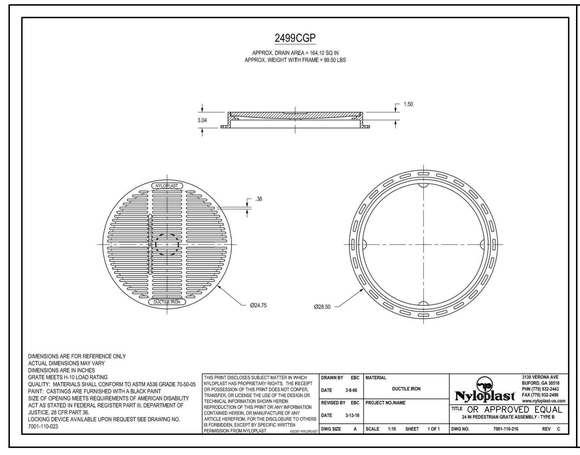
TITLE OR APPROVED EQUAL DRAIN BASIN WITH SOLID COVER QUICK SPEC INSTALLATION DETAIL

YARD DRAIN WITH SOLID COVER

SCALE: N.T.S.



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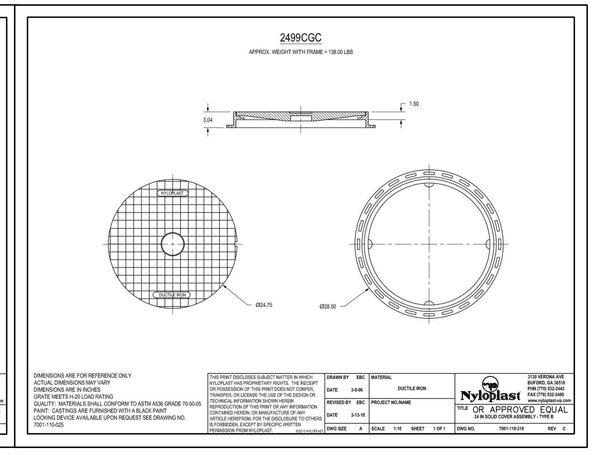
TITLE OR APPROVED EQUAL 24 IN PEDESTRIAN GRATE ASSEMBLY - TYPE B

PEDESTRIAN GRATE FOR YARD DRAIN

SCALE: N.T.S.



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DRAWN BY EBC DATE 3-8-06 REVISED BY EBC DATE 3-13-16 DWG SIZE A SCALE 1:10 SHEET 1 OF 1 MATERIAL DUCTILE IRON PROJECT NO./NAME DWG NO. 7001-110-216 REV C

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TITLE OR APPROVED EQUAL 24 IN SOLID COVER ASSEMBLY - TYPE B

SOLID COVER FOR YARD DRAIN

SCALE: N.T.S.

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
1.				

SHAWN M. MARTIN No. 9411 REGISTERED PROFESSIONAL ENGINEER (CIVIL)

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DATUM: HORZ.: VERT.:

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TOWN OF HOPKINTON

SITE DETAILS

LANGWORTHY FIELD IMPROVEMENT PLAN
PHASE 1

HOPKINTON RHODE ISLAND

PROJ. No.: 20140073.A10
DATE: 05/24/2017

CD-108

File Path: J:\DWG\P20140073\A10\Civil\Details\20140073_DET01.dwg Layout: CD-108 Plotted: Tue, May 23, 2017 - 11:49 AM User: jallard
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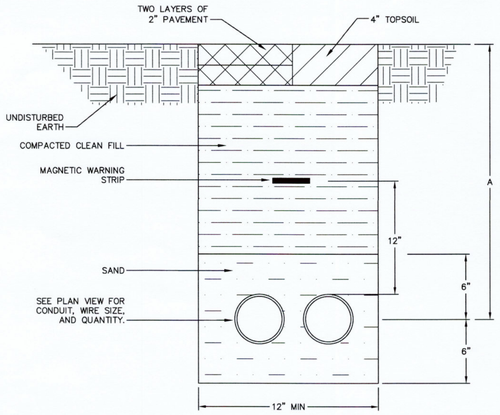


CONDUIT DEPTHS	
SERVICE	DIM "A"
SERVICE	24"
FEEDER	24"

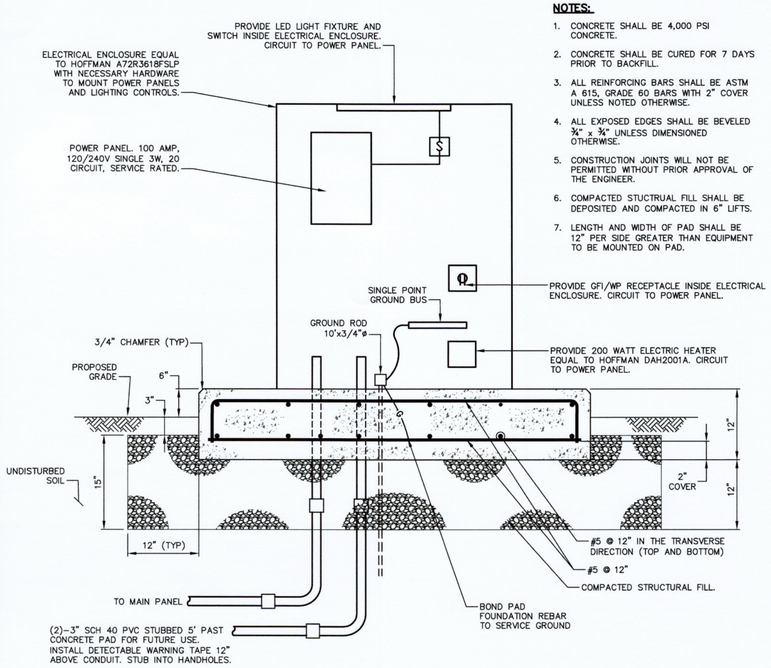
NOTE:
WHEN MULTIPLE CONDUITS ARE BURIED TOGETHER THERE SHALL BE A MINIMUM OF 2" CLEARANCE BETWEEN CONDUITS.

A3 BURIED CONDUIT DETAIL
SCALE: N.T.S.

SCHEDULE FOR PANEL PP-1 LOCATED IN SHED									
Panel Designation: PP-1			Frame Size: 200				Volts:		240/120
Mounting: SURFACE			MLO/MCB (Amps): 200 MCB				Phase:		1
TVSS Type: INTEGRAL			A.I.C.: 44 KAIC				Wire:		3
CKT	DESCRIPTION	VA	VOLTS	PH	WIRE	CONDUIT	AMPS	POLES	REMARKS
1	EXISTING WELL PUMP	3,840	240		#12 AWG	3/4" EMT	20	2	
2	EXISTING IRRIGATION SYSTEM	500	120		#12 AWG	3/4" EMT	20	1	
3	PAVILION PANEL (PP-2)	25,000	240		#6 AWG	1" EMT	60	2	
4	RECEPTACLES	720	120		#12 AWG	3/4" EMT	20	1	
5	LIGHTS	100	120		#12 AWG	3/4" EMT	20	1	
6	SPARE C/B'S							6	6 SINGLE POLE C/B'S
7	SPARE SPACES							11	

SCHEDULE FOR PANEL PP-2 LOCATED IN ELECTRICAL SERVICE CABINET									
Panel Designation: PP-2			Frame Size: 100				Volts:		240/120
Mounting: SURFACE			MLO/MCB (Amps): 60A MCB				Phase:		1
TVSS Type: N/A			A.I.C.: 10 KAIC				Wire:		3
CKT	DESCRIPTION	VA	VOLTS	PH	WIRE	CONDUIT	AMPS	POLES	REMARKS
1	ENCLOSURE LIGHT	100	120	1	#12 AWG	3/4" EMT	20	1	
2	ENCLOSURE RECEPTACLE	180	120	1	#12 AWG	3/4" EMT	20	1	
3	ENCLOSURE HEATER	200	120	1	#12 AWG	3/4" EMT	20	1	
4	SPARE C/B'S		120	1	#12 AWG	3/4" EMT	20	6	6 SINGLE POLE C/B'S
5	SPARE C/B'S		240	2	#12 AWG	3/4" EMT	20	6	3 - TWO POLE C/B'S
6	SPARE SPACES							9	

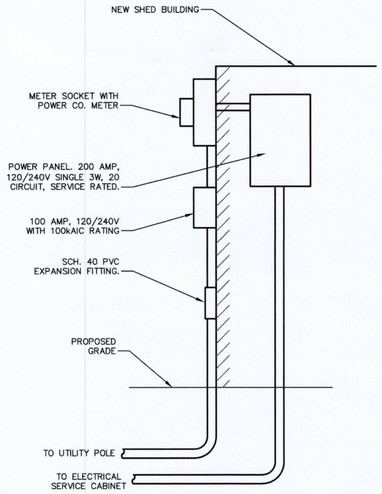
D3 POWER PANEL SCHEDULE
SCALE:



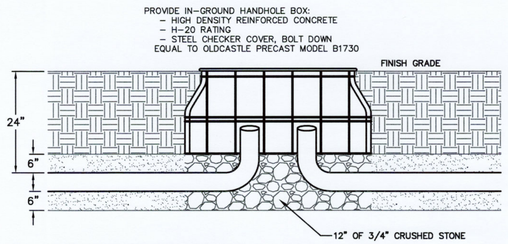
NOTES:

1. CONCRETE SHALL BE 4,000 PSI CONCRETE.
2. CONCRETE SHALL BE CURED FOR 7 DAYS PRIOR TO BACKFILL.
3. ALL REINFORCING BARS SHALL BE ASTM A 615, GRADE 60 BARS WITH 2" COVER UNLESS NOTED OTHERWISE.
4. ALL EXPOSED EDGES SHALL BE BEVELED ¾" x ¾" UNLESS DIMENSIONED OTHERWISE.
5. CONSTRUCTION JOINTS WILL NOT BE PERMITTED WITHOUT PRIOR APPROVAL OF THE ENGINEER.
6. COMPACTED STUCTRUAL FILL SHALL BE DEPOSITED AND COMPACTED IN 6" LIFTS.
7. LENGTH AND WIDTH OF PAD SHALL BE 12" PER SIDE GREATER THAN EQUIPMENT TO BE MOUNTED ON PAD.

A1 EXTERIOR ELECTRICAL SERVICE CABINET DETAIL
SCALE: N.T.S.



C1 ELECTRICAL SERVICE ENTRANCE DETAIL
SCALE: N.T.S.



D1 HANDHOLE DETAIL
SCALE: N.T.S.

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
1.				

JOHN MICHAEL CALLAHAN No. 6546 REGISTERED PROFESSIONAL ENGINEER ELECTRICAL

SCALE: AS NOTED
HORZ.:
VERT.:
DATUM:
HORZ.:
VERT.:
0
GRAPHIC SCALE

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TOWN OF HOPKINTON
ELECTRICAL DETAILS
LANGWORTHY FIELD IMPROVEMENT PLAN
PHASE 1
HOPKINTON RHODE ISLAND

PROJ. No.: 20140073.A10
DATE: 05/24/2017

CD-109

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