

# MIDDLESEX SCHOOL

IMPROVEMENTS TO PLAYING FIELDS  
1400 LOWELL ROAD, CONCORD, MA 01742

NOI SUBMISSION  
-NOT FOR CONSTRUCTION-

SEPTEMBER 23, 2020



MIDDLESEX SCHOOL



**OWNER**  
MIDDLESEX SCHOOL  
1400 LOWELL ROAD  
CONCORD, MA 01742

**OWNER'S REPRESENTATIVE**  
COMMERCIAL CONSTRUCTION CONSULTING, INC.  
310 CONGRESS STREET  
BOSTON, MA 02210

**LANDSCAPE ARCHITECT/ CIVIL ENGINEER**  
WESTON & SAMPSON ENGINEERS, INC.  
85 DEVONSHIRE ST. 3RD FLOOR, BOSTON, MA. 02119

**LAND SURVEYOR**  
WELCH ASSOCIATES LAND SURVEYORS, INC.  
218 NORTH MAIN STREET  
WEST BRIDGEWATER, MA 02379

## SHEET INDEX

L001	SITE INDEX PLAN
L002	GENERAL NOTES
L100	EXISTING CONDITIONS PLAN
L110	SITE DEMOLITION AND PREPARATION PLAN
L120-L121	MATERIALS PLAN
L130-L131	LAYOUT PLAN
L140-L141	GRADING, DRAINAGE, AND UTILITIES PLAN
L150	PLANTING PLAN
L160	IRRIGATION PLAN
L500-L505	SITE DETAILS

## Locus Map



MIDDLESEX SCHOOL VICINITY MAP  
1400 LOWELL ROAD, CONCORD, MA 01742

Prepared By

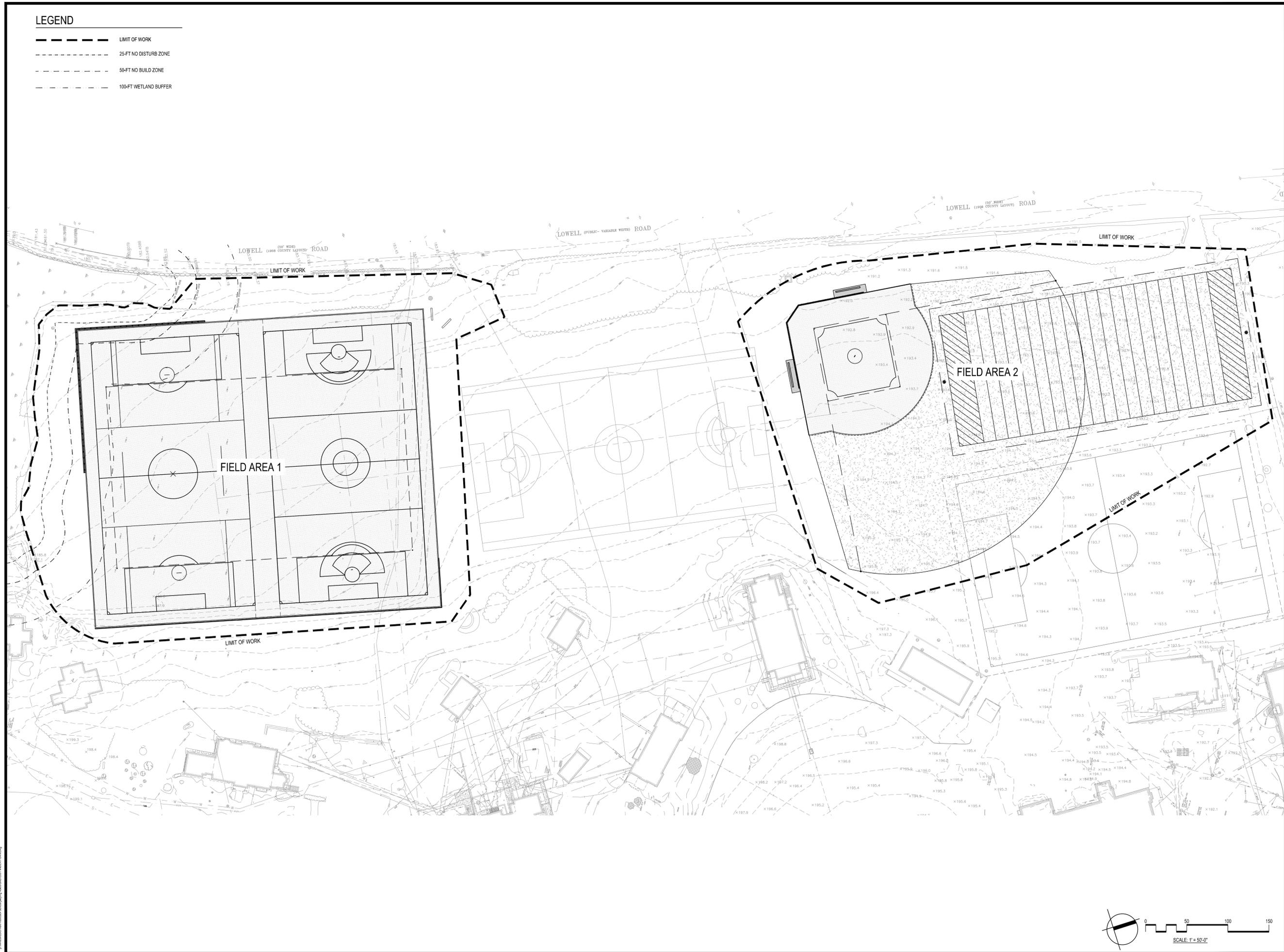
Weston & Sampson<sup>SM</sup>  
design studio

Weston & Sampson Engineers, inc.  
85 Devonshire St., 3rd Floor,  
Boston, MA 02109  
(617) 412-4480  
www.westonandsampson.com



**LEGEND**

	LIMIT OF WORK
	25-FT NO DISTURB ZONE
	50-FT NO BUILD ZONE
	100-FT WETLAND BUFFER



Project:  
**MIDDLESEX SCHOOL**  
  
 PLAYING FIELDS  
 CONSTRUCTION PROJECT  
 1400 LOWELL RD.  
 CONCORD, MA. 01742

**Weston & Sampson**  
 WESTON & SAMPSON ENGINEERS, INC.  
 85 DEVONSHIRE STREET, 3RD FLOOR  
 BOSTON, MA 02109  
 617-412-4480  
 www.westonandsampson.com

Consultants:

Revisions:

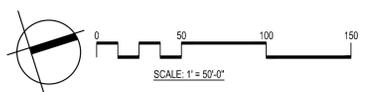
No.	Date	Description

Seal:  


Issued For:  
**NOI  
 SUBMISSION**

Scale: AS SHOWN  
 Date: 09/23/2020  
 Drawn By: SG, JC, CC  
 Reviewed By: RC  
 Approved By: CR  
 W&S Project No.: ENG20-0474  
 W&S File No.:

Drawing Title:  
**SITE INDEX PLAN**  
 Sheet Number:  
**L001**



2019/09/23/2020 10:24:03 AM

Rev: 1.0 Date: 10/24/2019

## GENERAL NOTES

- PROPERTY LINES, SITE SURVEY AND TOPOGRAPHICAL INFORMATION BASED FROM ON THE GROUND SURVEYS PERFORMED BY WELCH ASSOCIATES LAND SURVEYORS, INC.
- CONTOURS AND ELEVATIONS SHOWN ON NAVD83 VERTICAL DATUM BASED ON GPS OBSERVATIONS.
- NORTH ORIENTATION IS TRUE NORTH BASED ON GPS OBSERVATIONS TAKEN AT THE TIME OF THE FIELD SURVEY. MAPPING PREPARED ON NAVD83 STATE PLANE COORDINATE SYSTEM MASSACHUSETTS MAINLAND ZONE.
- FOR DETAILED NOTES REGARDING TEST PITS AND BORINGS, REFER TO MEMO TITLED "GEOTECHNICAL ENGINEERING REPORT" IN THE SPECIFICATIONS.
- REFER TO GENERAL SYMBOLS FOR SURVEY LEGEND. ALL BIDDERS ARE REQUIRED TO INSPECT THE PROJECT SITE IN ITS ENTIRETY PRIOR TO SUBMITTING THEIR BID, AND BECOME FAMILIAR WITH ALL CONDITIONS AS THEY MAY AFFECT THEIR BID. CONTRACTOR AND SUB-CONTRACTOR SHALL BE FAMILIAR WITH ALL DRAWINGS AND SPECIFICATIONS PRIOR TO COMMENCING THE CONSTRUCTION.
- LOCATIONS OF ANY UTILITIES SHOWN ON THESE PLANS ARE APPROXIMATE ONLY. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION OF SUCH UTILITIES, PROTECTING ALL EXISTING UTILITIES AND REPAIRING ANY DAMAGE DONE DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ON-SITE COORDINATION WITH UTILITY COMPANIES AND PUBLIC AGENCIES AND FOR OBTAINING ALL REQUIRED PERMITS AND PAYING ALL REQUIRED FEES. IN ACCORDANCE WITH M.G.L. CHAPTER 82, SECTION 40, INCLUDING AMENDMENTS, CONTRACTORS SHALL NOTIFY ALL UTILITY COMPANIES AND GOVERNMENT AGENCIES IN WRITING PRIOR TO EXCAVATION. CONTRACTOR SHALL ALSO CALL "DIG SAFE" AT (888) 344-7233 NO LESS THAN 72 HOURS (EXCLUSIVE OF WEEKENDS AND HOLIDAYS), PRIOR TO SUCH EXCAVATION. DOCUMENTATION OF REQUESTS SHALL BE PROVIDED TO OWNERS REPRESENTATIVE PRIOR TO EXCAVATION WORK.
- WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, THE LOCATION, ELEVATION AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR AND THE INFORMATION FURNISHED TO THE OWNER'S REPRESENTATIVE FOR RESOLUTION OF THE CONFLICT.
- THE CONTRACTOR SHALL MAKE ALL ARRANGEMENTS FOR THE ALTERATION AND ADJUSTMENT OF GAS, ELECTRIC, TELEPHONE AND ANY OTHER PRIVATE UTILITIES BY THE UTILITY OWNER AT NO ADDITIONAL COST TO THE OWNER.
- CONTRACTOR SHALL BE RESPONSIBLE FOR REVIEWING ALL DRAWINGS AND SPECIFICATIONS TO DETERMINE THE EXTENT OF EXCAVATION AND DEMOLITION REQUIRED TO RECEIVE SITE IMPROVEMENTS.
- ANY DISCREPANCIES OR CONFLICTS BETWEEN THE DRAWINGS AND EXISTING CONDITIONS, EXISTING CONDITIONS TO REMAIN, TEMPORARY CONSTRUCTION, PERMANENT CONSTRUCTION AND WORK OF ADJACENT CONTRACTS SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE BEFORE PROCEEDING. ITEMS ENCOUNTERED IN AREAS OF EXCAVATION THAT ARE NOT INDICATED ON THE DRAWINGS, BUT ARE VISIBLE ON SURFACE, SHALL BE THE CONTRACTOR'S RESPONSIBILITY AND SHALL BE REMOVED AT NO ADDITIONAL COST TO THE OWNER.
- ANY ALTERATIONS TO THESE DRAWINGS MADE IN THE FIELD DURING CONSTRUCTION SHALL BE RECORDED BY THE GENERAL CONTRACTOR ON "AS BUILT" DRAWINGS.
- ALL AREAS DISTURBED BY THE CONTRACTOR'S OPERATIONS OUTSIDE THE PROJECT LIMITS, SHALL BE RESTORED TO THE ORIGINAL CONDITION BY THE CONTRACTOR AT NO ADDITIONAL COST AND TO THE SATISFACTION OF THE OWNER.
- ALL WORK SHOWN ON THE PLANS AS BOLD SHALL REPRESENT PROPOSED WORK. THE TERM "PROPOSED (PROP)" INDICATES WORK TO BE CONSTRUCTED USING NEW MATERIALS OR, WHERE APPLICABLE, RE-USING EXISTING MATERIALS IDENTIFIED AS "REMOVE AND RESET" (R&R) OR "REMOVE AND SALVAGE" (R&S).

## DEMOLITION & SITE PREPARATION NOTES

- THE CONTRACTOR SHALL INCLUDE IN THE BID THE COST OF REMOVING ANY EXISTING SITE FEATURES AND APPURTENANCES NECESSARY TO ACCOMPLISH THE CONSTRUCTION OF THE PROPOSED SITE IMPROVEMENTS. THE CONTRACTOR SHALL ALSO INCLUDE IN THE BID THE COST NECESSARY TO RESTORE SUCH ITEMS IF THEY ARE SCHEDULED TO REMAIN AS PART OF THE FINAL SITE IMPROVEMENTS. REFER TO PLANS TO DETERMINE EXCAVATION AND DEMOLITION REQUIREMENTS AND TO DETERMINE THE LOCATION OF THE PROPOSED SITE IMPROVEMENTS.
- THE OWNER RESERVES THE RIGHT TO REVIEW ALL MATERIALS DESIGNATED FOR REMOVAL AND TO RETAIN OWNERSHIP OF SUCH MATERIALS. IF THE OWNER RETAINS ANY MATERIAL THE CONTRACTOR SHALL MAKE ARRANGEMENTS WITH THE OWNER TO HAVE THOSE MATERIALS REMOVED OFF SITE TO A DESIGNATED MUNICIPAL PROPERTY AT NO ADDITIONAL COST. ALL GEOTECHNICALLY OR UNSUITABLE UNCONTAMINATED EXCESS SOIL FROM CONSTRUCTION ACTIVITIES SHALL BE DISPOSED OF BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. REMOVAL ACTIVITIES SHALL BE ACCORDANCE WITH STATE AND LOCAL REGULATIONS AT NO ADDITIONAL COST TO THE OWNER.
- UNLESS SPECIFICALLY NOTED TO BE REMOVED AND STOCKPILED (R&S) OR REUSED AND RELOCATED (R&R), ALL SITE FEATURES CALLED TO BE REMOVED AND DEMOLISHED (R&D) SHALL BE REMOVED COMPLETELY WITH THEIR FOOTINGS, ATTACHMENTS, BASE MATERIAL, ETC. TRANSPORTED FROM THE SITE TO BE DISPOSED OF IN A LAWFUL MANNER AT AN ACCEPTABLE DISPOSAL SITE AND AT NO ADDITIONAL COST TO THE OWNER.
- ALL EXISTING SITE FEATURES TO REMAIN SHALL BE PROTECTED THROUGHOUT THE CONSTRUCTION PERIOD. ANY FEATURES DAMAGED DURING CONSTRUCTION OPERATIONS SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE OWNER AND/OR OWNER'S REPRESENTATIVE AT NO ADDITIONAL COST.
- DURING EARTHWORK OPERATIONS, CONTRACTOR SHALL TAKE CARE TO NOT DISTURB EXISTING MATERIALS TO REMAIN, OUTSIDE THE LIMITS OF EXCAVATION AND BACKFILL AND SHALL TAKE WHATEVER MEASURES NECESSARY, AT THE CONTRACTOR'S EXPENSE, TO PREVENT ANY EXCAVATED MATERIAL FROM COLLAPSING. ALL BACKFILL MATERIALS SHALL BE PLACED AND COMPACTED AS SPECIFIED TO THE SUBGRADE REQUIRED FOR THE INSTALLATION OF THE REMAINDER OF THE CONTRACT WORK.
- STRIP & STOCKPILE EXISTING TOPSOIL FOR LATER REUSE AS REQUIRED. STOCKPILE SHALL HAVE APPROPRIATE EROSION AND SEDIMENT CONTROLS. THE CONTRACTOR SHALL CONFIRM THAT THE TOPSOIL IS SUITABLE FOR REUSE AND IT MEETS THE REQUIREMENTS OF THE SPECIFICATIONS FOR TOPSOIL LOAM BORROW.
- CLEAR AND GRUB VEGETATION SHALL INCLUDE REMOVAL OF ALL UNDERBRUSH, REMOVAL OF ROOTS, AND ROUGH GRADING, INSTALLATION OF LOAM (IF APPLICABLE), FINE GRADING, SEEDING AND TURF OR VEGETATION ESTABLISHMENT BY THE CONTRACTOR.
- THE CONTRACTOR SHALL PROTECT EXISTING TREES TO REMAIN. CONTRACTOR SHALL INSTALL TREE PROTECTION BARRIERS AT LIMITS OF WORK OR AT LOCATIONS WHERE TREES ARE IDENTIFIED TO REMAIN, AFTER CLEARING.
- THE STORAGE OF MATERIALS AND EQUIPMENT WILL BE PERMITTED AT LOCATIONS DESIGNATED BY OWNER OR OWNER'S REPRESENTATIVE. PROTECTION OF STORED MATERIALS AND EQUIPMENT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

- ALL KNOWN EXISTING STATE, COUNTY AND TOWN LOCATION LINES AND PRIVATE PROPERTY LINES HAVE BEEN ESTABLISHED FROM AVAILABLE INFORMATION AND ARE INDICATED ON THE PLANS.
- THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT HIS EMPLOYEES, AS WELL AS PUBLIC USERS FROM INJURY DURING THE ENTIRE CONSTRUCTION PERIOD USING ALL NECESSARY SAFEGUARDS, INCLUDING BUT NOT LIMITED TO, THE ERECTION OF TEMPORARY WALKS, STRUCTURES, PROTECTIVE BARRIERS, COVERING, OR FENCES AS NEEDED.
- THE CONTRACTOR SHALL SUPPLY THE OWNER WITH THE NAME OF THE OSHA "COMPETENT PERSON" PRIOR TO CONSTRUCTION.
- FILLING OF EXCAVATED AREAS SHALL NOT TAKE PLACE WITHOUT THE PRESENCE OR PERMISSION OF OWNER OR OWNER'S REPRESENTATIVE.
- EXISTING TREES TO REMAIN SHALL BE PROTECTED FROM CONSTRUCTION ACTIVITIES. NO STOCKPILING OF MATERIAL, EQUIPMENT OR VEHICULAR TRAFFIC SHALL BE ALLOWED WITHIN THE DRIP LINE OF TREES TO REMAIN. NO GUYS SHALL BE ATTACHED TO ANY TREE TO REMAIN. WHEN NECESSARY OR AS DIRECTED BY THE OWNER'S REPRESENTATIVE, THE CONTRACTOR SHALL ERECT TEMPORARY BARRIERS FOR THE PROTECTION OF EXISTING TREES DURING CONSTRUCTION.
- TREES AND SHRUBS WITHIN THE LIMITS OF WORK SHALL BE REMOVED ONLY UPON THE APPROVAL OF THE OWNER'S REPRESENTATIVE OR AS NOTED ON THE PLANS.
- NO FILLING SHALL OCCUR AROUND EXISTING TREES TO REMAIN WITHOUT THE APPROVAL OF THE OWNER OR OWNER REPRESENTATIVE.
- THE CONTRACTOR SHALL REMOVE ALL SURFACE VEGETATION PRIOR TO GRADING THE SITE. TREES AND STUMPS SHALL BE REMOVED AND DISPOSED COMPLETE BY CONTRACTOR. TEMPORARY EROSION CONTROL MEASURES SHOWN ON THE DRAWINGS (INCLUDING SILT FENCE, STRAW WATTLES, OR SILT SOCKS) SHALL BE INSTALLED BY THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THESE TEMPORARY EROSION CONTROL MEASURES THROUGHOUT THE PROJECT WHICH COST SHALL BE INCIDENTAL TO THE PROJECT.
- ALL UNSUITABLE UNCONTAMINATED EXCESS SOIL FROM CONSTRUCTION ACTIVITIES SHALL BE DISPOSED OF BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE TOWN. REMOVAL ACTIVITIES SHALL BE ACCORDANCE WITH STATE AND LOCAL REGULATIONS AT NO ADDITIONAL COST TO THE TOWN. SUITABLE SOIL EXCAVATION AS PART OF THE PROJECT MUST MEET ONE OR MORE OF THE MATERIAL REQUIREMENTS SPECIFIED IN 31 00 00 EARTHWORK. IF THE CONTRACTOR PROPOSES TO USE THE EXISTING FILL ON SITE BELOW PAVEMENT AREAS, THEY MUST DEMONSTRATE THAT THE FILL MEETS THE REQUIREMENTS PER THE SPECIFICATIONS. ALL EXCAVATED FILL MATERIAL WHICH DOES NOT MEET THE REQUIREMENTS OF THE CONTRACT DOCUMENTS SHALL BE REMOVED AND DISPOSED OF OFF-SITE AT NO ADDITIONAL COST.
- CONTRACTOR IS RESPONSIBLE FOR STAKING CONSTRUCTION BASELINES IN FIELD WITH A MA. REGISTERED PROFESSIONAL LAND SURVEYOR. NO CONSTRUCTION WILL BE PERFORMED WITHOUT THE PROPOSED BASELINES AND LAYOUTS APPROVED BY THE ENGINEER.
- NO FILL SHALL CONTAIN HAZARDOUS MATERIALS.
- CONTRACTOR SHALL PROVIDE TEMPORARY CONSTRUCTION FENCING TO THE LIMITS DESIGNATED ON THE PLANS. FENCE SHALL NOT IMPEDE TRAVEL WAYS.
- ANY QUANTITIES SHOWN ON PLANS ARE FOR COMPARATIVE BIDDING PURPOSES ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VISIT THE PROJECT SITE TO VERIFY ALL QUANTITIES AND CONDITIONS PRIOR TO SUBMITTING BID.
- ALL EXISTING DRAINAGE FACILITIES OFFSITE SHALL BE MAINTAINED FREE OF DEBRIS, SOIL, SEDIMENT, AND FOREIGN MATERIAL AND OPERATIONAL THROUGHOUT THE LIFE OF THE CONTRACT. REMOVE ALL SOIL, SEDIMENT, DEBRIS AND FOREIGN MATERIAL FROM ALL DRAINAGE STRUCTURES, INCLUDING BUT NOT LIMITED TO, DRAINAGE INLETS, MANHOLES, BASINS AND DRAINAGE STRUCTURES OUTSIDE THE LIMIT OF WORK THAT ARE IMPACTED BY THE WORK FOR THE ENTIRE DURATION OF CONSTRUCTION.

## EROSION AND SEDIMENT CONTROL NOTES

- ALL SEDIMENT AND EROSION CONTROL DEVICES SHALL BE PUT INTO PLACE PRIOR TO BEGINNING ANY CONSTRUCTION OR DEMOLITION. REFER TO PLANS FOR APPROXIMATE LOCATION OF EROSION AND SEDIMENT CONTROL. REFER TO SPECS AND DETAILS FOR TYPE OF EROSION AND SEDIMENT CONTROL.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTINUAL MAINTENANCE OF ALL CONTROL DEVICES THROUGHOUT THE DURATION OF THE PROJECT.
- CONTRACTOR SHALL MEET ALL OF THE STATE OF MASSACHUSETTS AND THE TOWN OF CONCORD WETLAND ORDINANCE REGULATIONS FOR SEDIMENT AND EROSION CONTROL.
- EXCAVATED MATERIAL STOCKPILED ON THE SITE SHALL BE SURROUNDED BY A RING OF UNBROKEN SEDIMENT AND EROSION CONTROL FENCE. THE LIMITS OF ALL GRADING AND DISTURBANCE SHALL BE KEPT TO A MINIMUM WITHIN THE APPROVED AREA OF CONSTRUCTION. ALL AREAS OUTSIDE OF THE LIMIT OF CONTRACT SHALL REMAIN TOTALLY UNDISTURBED UNLESS OTHERWISE APPROVED BY OWNERS REPRESENTATIVE.
- EROSION CONTROL BARRIERS TO BE INSTALLED AT THE TOE OF SLOPES. SEE GRADING & DRAINAGE PLANS, NOTES, DETAILS AND SPECIFICATIONS.
- THE CONTRACTOR SHALL PROVIDE DUST CONTROL FOR CONSTRUCTION OPERATIONS AS APPROVED BY THE OWNER'S REPRESENTATIVE AND MASSACHUSETTS D.E.P. REQUIREMENTS.
- ALL POINTS OF CONSTRUCTION EGRESS OR INGRESS SHALL BE MAINTAINED TO PREVENT TRACKING OR FLOWING OF SEDIMENT ON TO PUBLIC/Private ROADS.
- ALL MATERIAL HAULING VEHICLES SHALL BE COMPLETELY COVERED PRIOR TO LEAVING THE SITE.
- CONTRACTOR SHALL BE RESPONSIBLE FOR WHEEL CLEANING OF ALL CONSTRUCTION VEHICLES PRIOR TO EXITING THE SITE. CONTRACTOR SHALL ENSURE THAT MATERIAL HAULING VEHICLES REMAIN ON PAVED SURFACES AS MUCH AS POSSIBLE.

- CONTRACTOR'S STAGING AREA MUST BE WITHIN THE CONTRACT LIMIT LINE AND IN AREAS APPROVED BY OWNER. ANY OTHER AREAS THAT THE CONTRACTOR MAY WISH TO USE FOR STAGING MUST BE COORDINATED WITH THE OWNER.
- THE CONTRACTOR SHALL KEEP ALL STREETS, PARKING LOTS AND WALKS THAT ARE NOT RESTRICTED FROM PUBLIC USE DURING CONSTRUCTION BROOM CLEAN AT ALL TIMES. THE CONTRACTOR SHALL USE ACCEPTABLE METHODS AND MATERIALS TO MAINTAIN ADEQUATE DUST CONTROL THROUGHOUT CONSTRUCTION.
- CONTRACTOR SHALL COORDINATE ALL WORK WITH THE OWNER.
- THE LIMIT OF WORK SHALL BE DELINEATED IN THE FIELD PRIOR TO THE START OF SITE CLEARING OR CONSTRUCTION AND AGREED UPON WITH THE OWNER'S REPRESENTATIVE.
- DEEP SLUMP CATCH BASINS AND STORMWATER BASINS SHALL BE CLEANED FOLLOWING CONSTRUCTION AND SHALL FOLLOW THE OPERATION AND MAINTENANCE PLAN THEREAFTER.
- HAULING OF EARTH MATERIALS TO AND FROM THE SITE SHALL BE RESTRICTED TO THE HOURS OF 7 AM TO 5 PM.
- ANY BOULDERS 3 CY OR SMALLER SHALL BE CONSIDERED UNDOCUMENTED FILL AND SHALL BE DISPOSED OF AT NO ADDITIONAL COST TO THE OWNER.
- WORK ON WEEKENDS SHALL ONLY BE CONDUCTED IF PRIOR WRITTEN PERMISSION IS PROVIDED BY THE SCHOOL.
- NO TRUCKS LEFT IDLING ON TOWN STREETS DURING CONSTRUCTION. CONSTRUCTION TRAFFIC AT NO TIME SHALL IMPEDE FLOW OF RESIDENT TRAFFIC.

## LAYOUT NOTES

- COORDINATE ALL LAYOUT ACTIVITIES WITH THE SCOPE OF WORK CALLED FOR BY DEMOLITION, MATERIALS, GRADING AND UTILITIES OPERATIONS ENCOMPASSED BY THIS CONTRACT. SET, PROTECT AND REPLACE REFERENCE STAKES AS NECESSARY OR AS REQUIRED BY THE OWNER'S REPRESENTATIVE.
- THE LAYOUT OF SITE AMENITIES AND FENCES MUST BE APPROVED BY THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.
- ALL PROPOSED SITE FEATURES SHALL BE LAID OUT AND STAKED FOR REVIEW AND APPROVAL BY THE OWNER'S REPRESENTATIVE PRIOR TO COMMENCEMENT OF INSTALLATION. ANY REQUIRED ADJUSTMENTS TO THE LAYOUT SHALL BE UNDERTAKEN AS DIRECTED, AT NO ADDITIONAL COST TO THE OWNER.
- ALL PROPOSED PAVEMENTS SHALL MEET THE LINE AND GRADE OF EXISTING ADJACENT PAVEMENT SURFACES AND SHALL BE TREATED WITH AN RS-1 TACK COAT AT POINT OF CONNECTION. ALL PATHWAY WIDTHS SHALL BE AS NOTED ON THE LAYOUT AND MATERIALS PLAN.
- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND GRADES ON THE GROUND AND REPORT ANY DISCREPANCIES IMMEDIATELY TO THE OWNER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD MEASUREMENTS OF ALL PROPOSED FENCES AND GATES.

## GRADING, DRAINAGE & UTILITY NOTES

- ALL WORK RELATING TO INSTALLATION, RENOVATION OR MODIFICATION OF DRAINAGE SYSTEMS SHALL BE PERFORMED IN ACCORDANCE WITH THE STANDARDS OF THE MIDDLESEX SCHOOL.
- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, GRADES AND INVERT ELEVATIONS IN THE FIELD AND REPORT ANY DISCREPANCIES IMMEDIATELY TO THE OWNER AND OWNER'S REPRESENTATIVE.
- ALL NEW WALKWAYS MUST CONFORM TO CURRENT AMERICANS WITH DISABILITIES ACT (ADA) REGULATIONS. WALKWAYS SHALL MAINTAIN A CROSS PITCH OF NOT MORE THAN ONE AND A HALF (1.5%) PERCENT MAXIMUM AND THE RUNNING SLOPE (PARALLEL TO THE DIRECTION OF TRAVEL) OF 4.5% MAXIMUM.
- MINIMUM SLOPE ON ALL WALKWAYS WILL BE 1:100 OR 1% TO PROVIDE POSITIVE DRAINAGE. ANY DISCREPANCIES NOT ALLOWING THIS TO OCCUR SHALL BE REPORTED TO THE OWNER'S REPRESENTATIVE PRIOR TO CONTINUING WORK.
- ALL UTILITY GRATES, COVERS OR OTHER SURFACE ELEMENTS INTENDED TO BE EXPOSED AT GRADE SHALL BE FLUSH WITH THE ADJACENT FINISHED GRADE AND ADJUSTED TO PROVIDE A SMOOTH TRANSITION AT ALL EDGES.
- THE CONTRACTOR SHALL SET SUBGRADE ELEVATIONS TO ALLOW FOR POSITIVE DRAINAGE AND PROVIDE EROSION CONTROL DEVICES, STRUCTURES, MATERIALS AND CONSTRUCTION METHODS TO DIRECT SILT MIGRATION AWAY FROM DRAINAGE AND OTHER UTILITY SYSTEMS, PUBLIC/Private STREETS AND WORK AREAS, CLEAN BASINS REGULARLY AND AT THE END OF THE PROJECT.
- CONTRACTOR SHALL ENSURE ALL AREAS ARE PROPERLY PITCHED TO DRAIN, WITH NO SURFACE WATER PONDING OR PUDDLING.
- EXCAVATION REQUIRED WITHIN PROXIMITY OF KNOWN EXISTING UTILITY LINES SHALL BE DONE BY HAND. CONTRACTOR SHALL REPAIR ANY DAMAGE TO EXISTING UTILITY LINES OR STRUCTURES INCURRED DURING CONSTRUCTION OPERATIONS AT NO COST TO THE OWNER.
- WHERE NEW EARTHWORK MEETS EXISTING EARTHWORK, CONTRACTOR SHALL BLEND NEW EARTHWORK SMOOTHLY INTO EXISTING, PROVIDING VERTICAL CURVES OR ROUNDS AT ALL TOP AND BOTTOM OF SLOPES.
- WHERE A SPECIFIC LIMIT OF WORK LINE IS NOT OBVIOUS OR IMPLIED, BLEND GRADES TO EXISTING CONDITIONS WITHIN 5 FEET OF PROPOSED CONTOURS.
- RESTORE ALL DISTURBED AREAS AND LIMITS OF ALL REMOVALS TO LOAM AND CONSERVATION SEED MIX UNLESS OTHERWISE NOTED.
- WHERE NEW IMPROVEMENTS MEET EXISTING CONDITIONS, MEET LINE AND GRADE OF EXISTING ADJACENT PAVEMENTS, TYPICAL.

## ABBREVIATIONS

PROP	PROPOSED
ADJ	ADJUST
BIT. CONC.	BITUMINOUS CONCRETE
CEM. CONC.	CEMENT CONCRETE
B	BASELINE
N.T.S.	NOT TO SCALE
BVCL	BLACK VINYL CHAIN LINK
B.M.	BENCH MARK
ABAND	ABANDON
MB	MAIL BOX
GRAN. CURB	GRANITE CURB
EXIST. (OR EX.)	EXISTING
FDN	FOUNDATION
F.L. (OR F.)	FLOW LINE
P	PROPERTY LINE
P.W.M.	PAVEMENT
RC	PAVED WATERWAY
M.H.B.	REINFORCED CONCRETE
REM	REMOVE
REMOD	REMODEL
RET	RETAIN
R.O.W.	RIGHT-OF-WAY
R&S	REMOVE AND SALVAGE
R&RS	REMOVE, RELOCATED AND SALVAGE
R&S	REMOVE AND STAK
R&D	REMOVE AND DISPOSE
SB	STONE BOUND
NIC	NOT IN CONTRACT
H.C.	HANDICAP
WCR	WHEEL CHAIR RAMP
FF	FINISHED FLOOR
HMA	HOT MIX ASPHALT
G.C.	GENERAL CONTRACTOR
E.C.	ELECTRICAL CONTRACTOR
P.C.	PLUMBING CONTRACTOR
SWEL	SOLID WHITE EDGE LINE
BWLL	BROKEN WHITE LANE LINE
SYEL	SOLID YELLOW EDGE LINE
SB/DH	STONE BOUND/ DRILL HOLE
CLF	CHAIN LINK FENCE
TEMP.	TEMPORARY
TYP.	TYPICAL
EQ	EQUIPMENT
H.C.	HANDICAP
EOP	EDGE OF PAVEMENT
PROT	PROTECT
CTE	CONNECT TO EXISTING
RL	ROOF LEADER
L.O.W.	LIMIT OF WORK
VIF	VERIFY IN FIELD
B/W	BORDERING VEGETATED WETLAND

## UTILITIES

GCI	GUTTER INLET W/ CURB INLET
CBCI	CATCH BASIN W/ CURB INLET
CB	CATCH BASIN
C.I.T.	CHANGE IN TYPE
F&G	FRAME AND GRATE
F&C	FRAME AND COVER
CI	CURB INLET
CIP	CAST IRON PIPE
CMP	CORRUGATED METAL PIPE
DI	DUCTILE IRON PIPE
GJ	GUTTER INLET
ACCM PIPE	ASPHALT COATED CORRUGATED METAL PIPE
HYD	HYDRANT
INV. ELEV.	INVERT ELEVATION
UP	UTILITY POLE
SMH	SEWER MANHOLE
WS	WATER GATE
DS	DOWN SPOUT
HDPE	HIGH DENSITY POLYETHYLENE PIPE
PVC	POLYVINYL CHLORIDE
RCP	REINFORCED CONCRETE PIPE
DMH	DRAIN MANHOLE
LB	LEACHING BASIN
LG	LEACHING GALLEY
CI	CAST IRON
OCS	OUTLET CONTROL STRUCTURE
OGT	OIL AND GRIT TRAP
VC	VITRIFIED CLAY PIPE
LP	LIGHT POLE
OHW	OVERHEAD WIRE
UPLP	UTILITY POLE WITH LIGHT
SWTU	STORM WATER TREATMENT UNIT
HH	HANDHOLE
GW	GARAGE WASTE
CO	CLEANOUT
LC	LEACHING CHAMBER
GV	GATE VALVE
CJ	CONNECTION UNKNOWN
AD	AREA DRAIN
PE	POLYETHYLENE PIPE-(NOT USED)

## ALIGNMENT/GRADING

BW	BOTTOM OF WALL
BC	BOTTOM OF CURB
PI	POINT OF INTERSECTION
PC	POINT OF CURVATURE
PT	POINT OF TANGENCY
PRC	POINT OF REVERSE CURVATURE
PCC	POINT OF COMPOUND CURVATURE
PVI	POINT OF VERTICAL INTERSECTION
PVC	POINT OF VERTICAL CURVATURE
PVT	POINT OF VERTICAL TANGENCY
ELEV	ELEVATION
CC	CENTER OF CURVE
H.P.	HIGH POINT
L.P.	LOW POINT
R	RADIUS OF CURVATURE
STA	STATION
S.S.D.	STOPPING SIGHT DISTANCE
TC	TOP OF CURB
TW	TOP OF WALL
CL	CENTER LINE

Project:

MIDDLESEX SCHOOL



PLAYING FIELDS  
CONSTRUCTION PROJECT

1400 LOWELL RD.  
CONCORD, MA. 01742

Weston & Sampson

WESTON & SAMPSON ENGINEERS, INC.  
85 DEVONSHIRE STREET, 3RD FLOOR  
BOSTON, MA 02109  
617-412-4480

www.westonandsampson.com

Consultants:

Revisions:

No.	Date	Description

Seal:



Issued For:

**NOI  
SUBMISSION**

Scale:

Date: 09/23/2020

Drawn By: SG, JC, CC

Reviewed By: CR

Approved By: CR

W&S Project No.: ENG20-0474

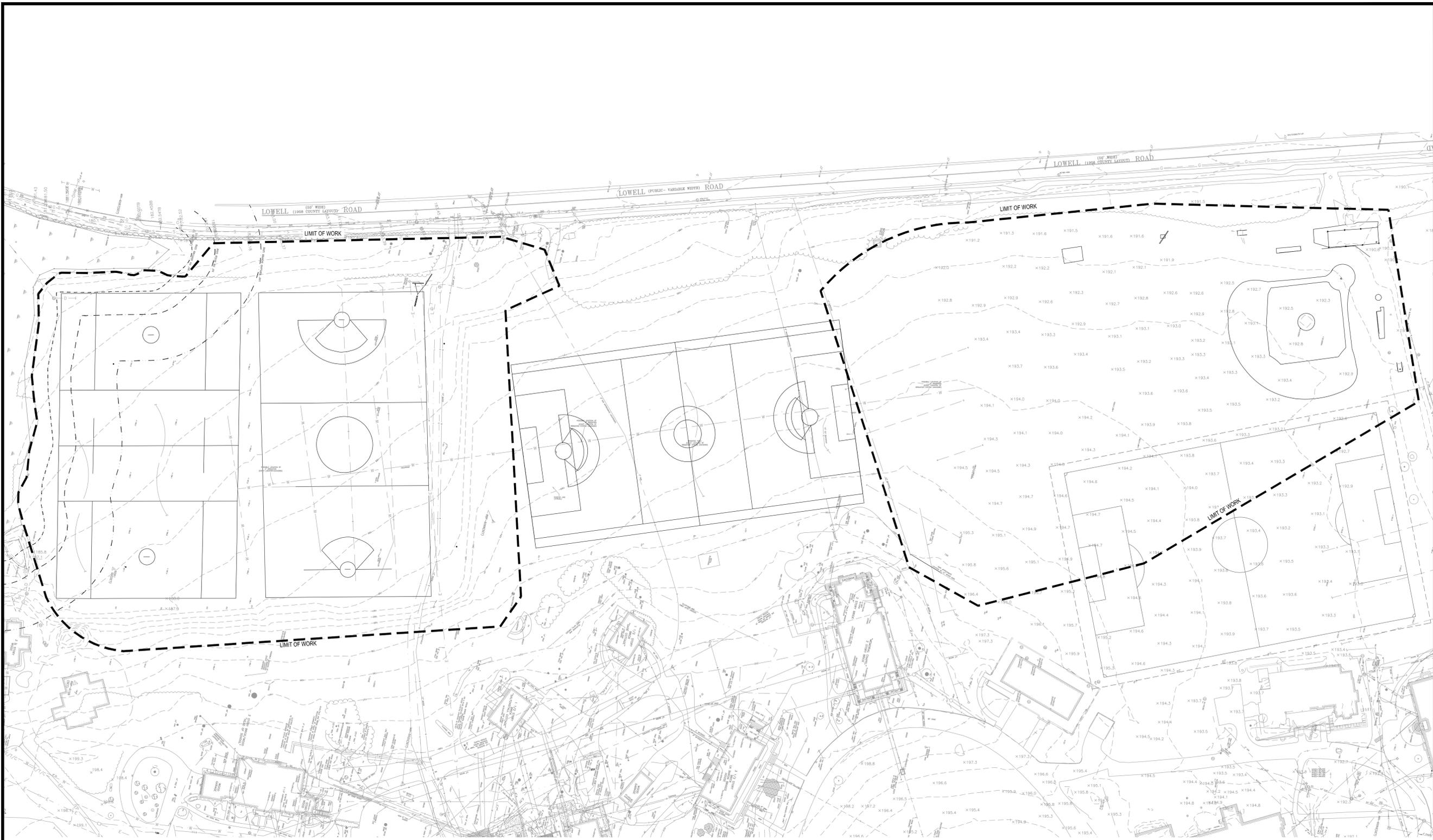
W&S File No.:

Drawing Title:

**GENERAL NOTES**

Sheet Number:

**L002**

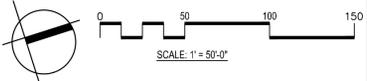


**LEGEND**

	LIMIT OF WORK
	25-FT NO DISTURB ZONE
	50-FT NO BUILD ZONE
	100-FT WETLAND BUFFER

**SURVEY NOTES:**  
 RECORD OWNERS: Town of Concord  
 RECORD DEEDS:  
 Book 6402 Page 424 (Parcel 3268) Book 5990 Page 214 (Parcel 3269)  
 Book 12654 Page 272 (Parcel 3270) Book 5646 Page 32 (Parcel 3271)  
 Book 8115 Page 220 (Parcel 3272)  
 RECORD PLANS:  
 Plan 589 of 2012 Plan 379 of 2011 Plan 853 of 1931 Plan Book 371  
 Plan 28 1931 County Layout of Powder Mill Road 1938 County Layout  
 of Plainfield Road 1948 County Layout of Right of Way to White Pond  
 ZONING DISTRICTS:  
 Residence A  
 Groundwater Conservancy District  
 Wetlands Conservancy District

**BASIS OF ELEVATIONS:**  
 Town of Concord GPS Disk C-5, located on the south side of Powder  
 Mill Road, approximately 60 feet west of the intersection with Plainfield  
 Road, a brass disk set in concrete. Disk elevation = 199.92 feet (NAVD  
 1988).  
 All elevations on this plan are NAVD 1988.  
**UNDERGROUND UTILITIES:**  
 Underground utilities shown on this plan may be from record information  
 or from Dig Safe markings or may be shown in an estimated location.  
 They were not field verified by Perley Engineering LLC and are not  
 guaranteed to be complete or correct; actual location may vary  
 significantly from that shown on this plan. OTHER UTILITIES MAY  
 EXIST. Anyone digging on this site must contact Dig Safe at  
 1-888-344-7233 at least 3 days before starting work.



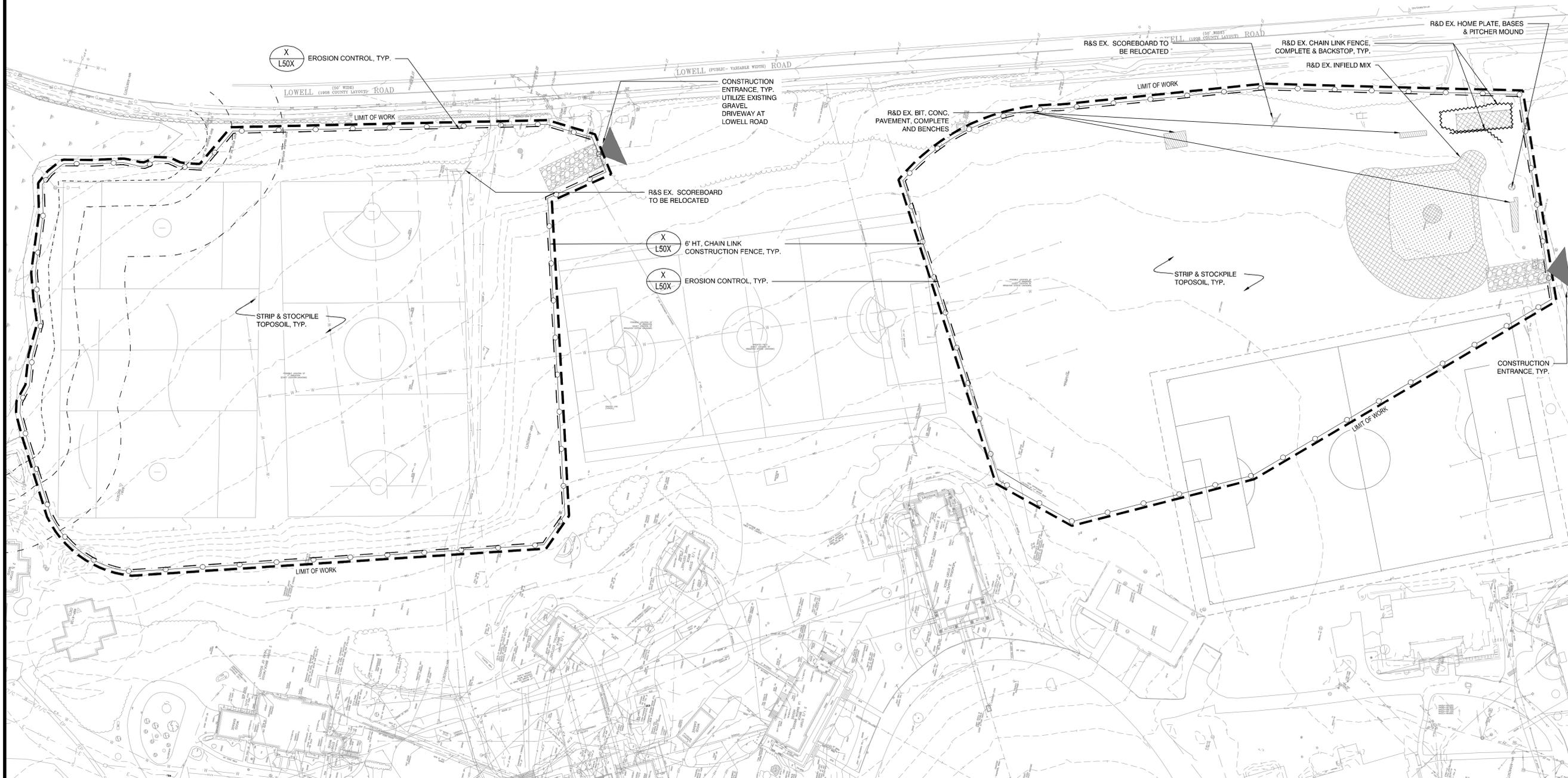
2019/09/23 10:24:03 AM \\server\shared\mfr\mfr\playingfields\EXISTING CONDITIONS.dwg

**LEGEND**

- LIMIT OF WORK
- 6' HT. CHAIN LINK CONSTRUCTION FENCE, TYP.
- EROSION CONTROL, TYP.
- ~ R&D EX. FENCE, COMPLETE
- R&D EX. BIT. CONC. PAVEMENT, COMPLETE
- R&D EX. INFIELD MIX
- CONSTRUCTION ENTRANCE, TYP.
- INLET SEDIMENT CONTROL
- PROTECT EX. SITE ELEMENT
- TYP. EX. REMOVE AND DISPOSE
- R&D REMOVE AND DISPOSE
- R&R REMOVE AND RESET
- R&S REMOVE AND STORE
- LIMIT OF WORK
- 25-FT NO DISTURB ZONE
- 50-FT NO BUILD ZONE
- 100-FT WETLAND BUFFER

**NOTES:**

1. ROOT ZONE PREP AREA:
  - CONTRACTOR SHALL SKIM AND DISPOSE 2" OF EX. TURF LAYER.
  - STRIP, SCREEN, AND STOCKPILE REMAINING TOPSOIL (APPROX. 5" DEPTH)
  - ESTABLISH SUBGRADE OF ROOT ZONE (APPROX. 15" FROM FINISHED GRADE)
  - CONTRACTOR TO R&D EXCESS MATERIAL.
2. SITE WORK PREP AREA:
  - CONTRACTOR SHALL SKIM AND DISPOSE 2" OF EX. TURF LAYER.
  - STRIP, SCREEN & STOCKPILE REMAINING TOPSOIL FOR REUSE ON SITE.
  - ESTABLISH SUBGRADE OF PAVEMENTS AND LOAM & SEED AREAS.
3. SELECTIVE CLEARING OF INVASIVE TREES PRUNING AT OVERHANGING TREE CANOPY ALONG PERIMETER FENCE.



Project:  
**MIDDLESEX SCHOOL**  
  
 PLAYING FIELDS  
 CONSTRUCTION PROJECT  
 1400 LOWELL RD.  
 CONCORD, MA. 01742

**Weston & Sampson**  
 WESTON & SAMPSON ENGINEERS, INC.  
 85 DEVONSHIRE STREET, 3RD FLOOR  
 BOSTON, MA 02109  
 617-412-4480  
 www.westonandsampson.com

Consultants:  
 \_\_\_\_\_  
 \_\_\_\_\_

Revisions:

No.	Date	Description

Seal:

Issued For:  
**NOI  
 SUBMISSION**

Scale: AS SHOWN  
 Date: 09/23/2020  
 Drawn By: SG, JC, CC  
 Reviewed By: RC  
 Approved By: CR  
 W&S Project No.: ENG20-0474  
 W&S File No.:

Drawing Title:  
**SITE DEMOLITION  
 AND PREPARATION  
 PLAN**

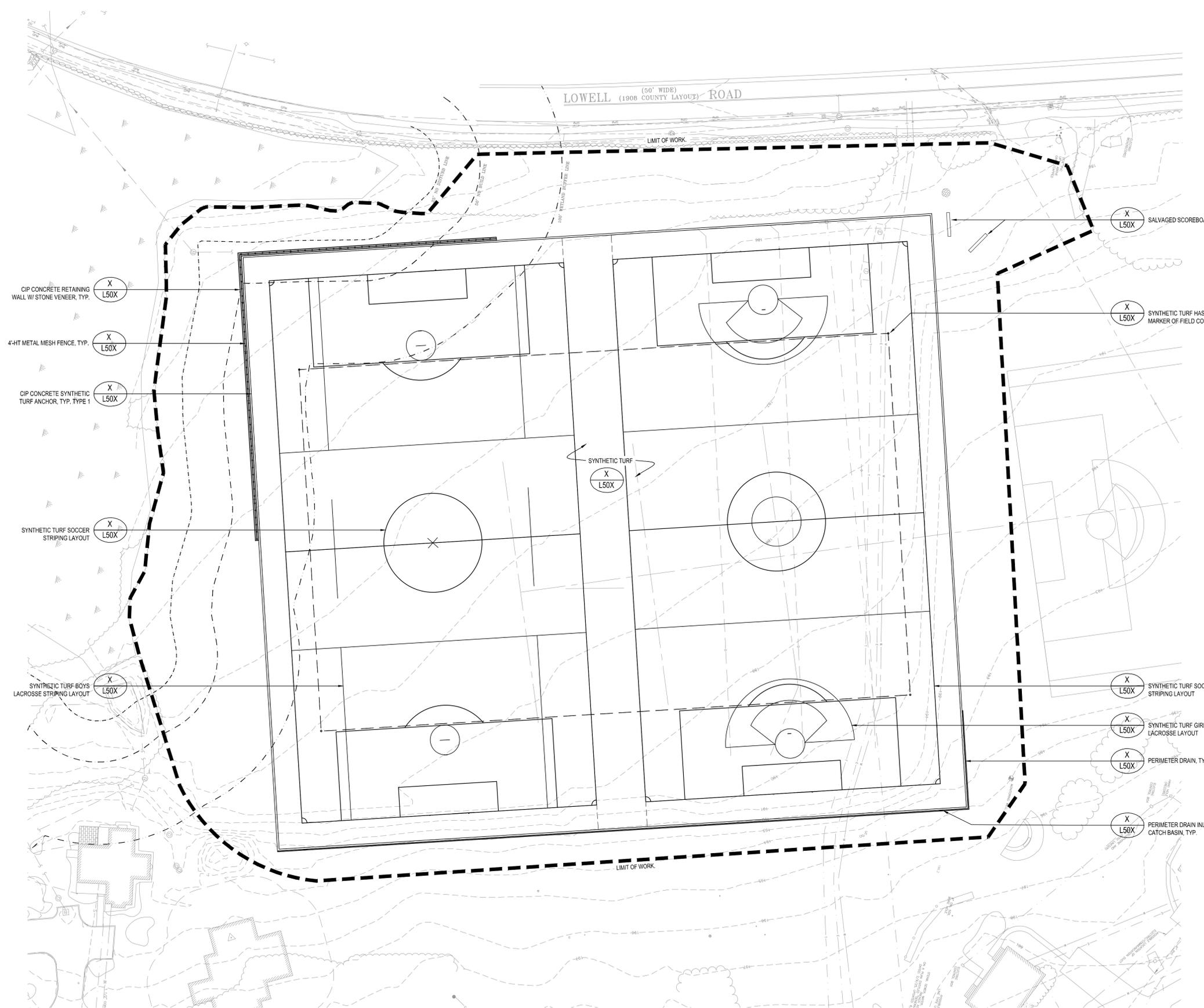
Sheet Number:  
**L110**

P:\Projects\2020\1110\1110.dwg

Rev: 1.0 Date: 10/24/2019

**LEGEND**

- LIMIT CENTER OF WORK
- - - - 25-FT NO DISTURB ZONE
- - - - 50-FT NO BUILD ZONE
- - - - 100-FT WETLAND BUFFER
- - - - 100 CONTOUR LINE
- - - - TREE LINE (WOODS)
- 6' HT. BVCL FENCE, TYP.



Project:  
**MIDDLESEX SCHOOL**  
  
 PLAYING FIELDS  
 CONSTRUCTION PROJECT  
 1400 LOWELL RD.  
 CONCORD, MA. 01742

**Weston & Sampson**  
 WESTON & SAMPSON ENGINEERS, INC.  
 85 DEVONSHIRE STREET, 3RD FLOOR  
 BOSTON, MA 02109  
 617-412-4480  
 www.westonandsampson.com

Consultants:

--	--

Revisions:

No.	Date	Description

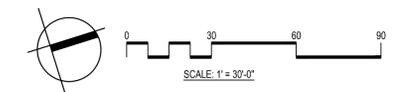
Seal:  


Issued For:  
**NOI  
 SUBMISSION**

Scale:	AS SHOWN
Date:	09/23/2020
Drawn By:	SG, JC, CC
Reviewed By:	RC
Approved By:	CR
W&S Project No.:	ENG20-0474
W&S File No.:	

Drawing Title:  
**MATERIALS PLAN  
 FIELD AREA 1**

Sheet Number:  
**L120**



2019/09/23 10:24:09 AM

REV: 1.0 Date: 10/24/2019

**LEGEND**

- LIMIT OF WORK (L.O.W.)
- - - 25-FT NO DISTURB ZONE
- - - 50-FT NO BUILD ZONE
- - - 100-FT WETLAND BUFFER
- - - CONTOUR LINE
- - - TREE LINE (WOODS)
- - - 6' HT. BVCL FENCE, TYP.

Project:  
**MIDDLESEX SCHOOL**  
  
**PLAYING FIELDS  
 CONSTRUCTION PROJECT**  
 1400 LOWELL RD.  
 CONCORD, MA. 01742

**Weston & Sampson**  
 WESTON & SAMPSON ENGINEERS, INC.  
 85 DEVONSHIRE STREET, 3RD FLOOR  
 BOSTON, MA 02109  
 617-412-4480  
 www.westonandsampson.com

Consultants:

--	--

Revisions:

No.	Date	Description

Seal:  


Issued For:  
**NOI  
 SUBMISSION**

Scale: AS SHOWN  
 Date: 09/23/2020  
 Drawn By: SG, JC, CC  
 Reviewed By: RC  
 Approved By: CR

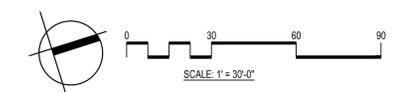
W&S Project No.: ENG20-0474  
 W&S File No.:

Drawing Title:  
**MATERIALS PLAN  
 FIELD AREA 2**

Sheet Number:  
**L121**



- (X L50X) PITCHING RUBBER, HOME PLATE, AND BASES
- (X L50X) 30'-HT BVCL BACKSTOP, SEE STRUCTURAL DRAWINGS
- (X L50X) CIP CONCRETE SYNTHETIC TURF ANCHOR, TYPE 1, TYP.
- (X L50X) FIELD GOAL POST AND FOOTING, TYPE 2
- (X L50X) DUGOUT LAYOUT WITH TEAM BENCH
- (X L50X) 8'-HT BVCL FENCE WITH CONCRETE MOW STRIP, TYP.
- (X L50X) CIP CONCRETE SYNTHETIC TURF ANCHOR, TYPE 2, TYP.
- (X L50X) FOUL POLE, TYP.



2019/09/23/2020 10:24:09 AM

REV: 1.0 Date: 10/24/2019

Revisions:

No.	Date	Description

Seal:



Issued For:  
**NOI SUBMISSION**

Scale: AS SHOWN  
 Date: 09/23/2020  
 Drawn By: SG, JC, CC  
 Reviewed By: RC  
 Approved By: CR

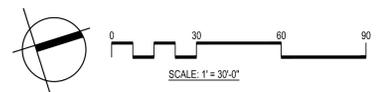
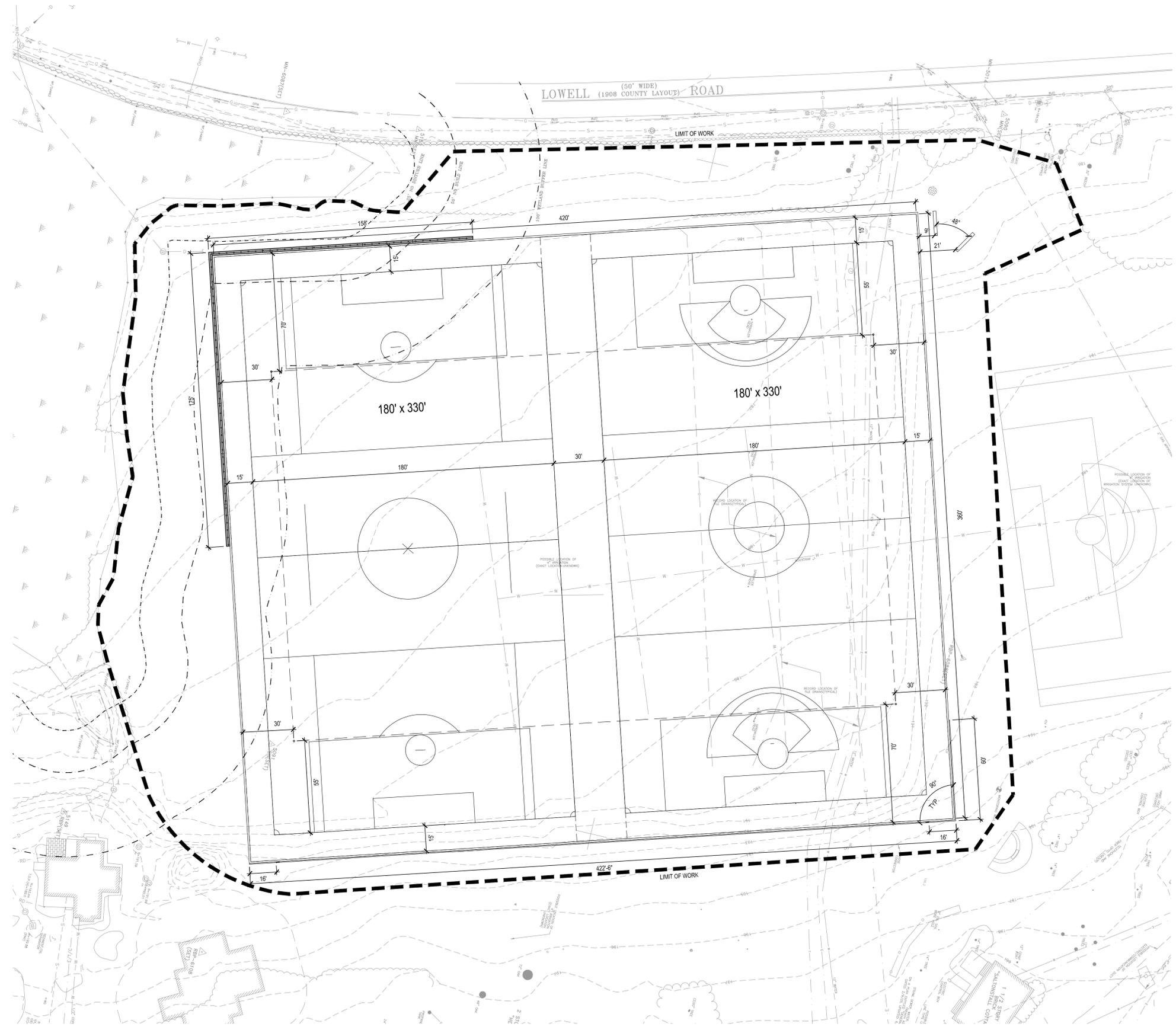
W&S Project No.: ENG20-0474  
 W&S File No.:

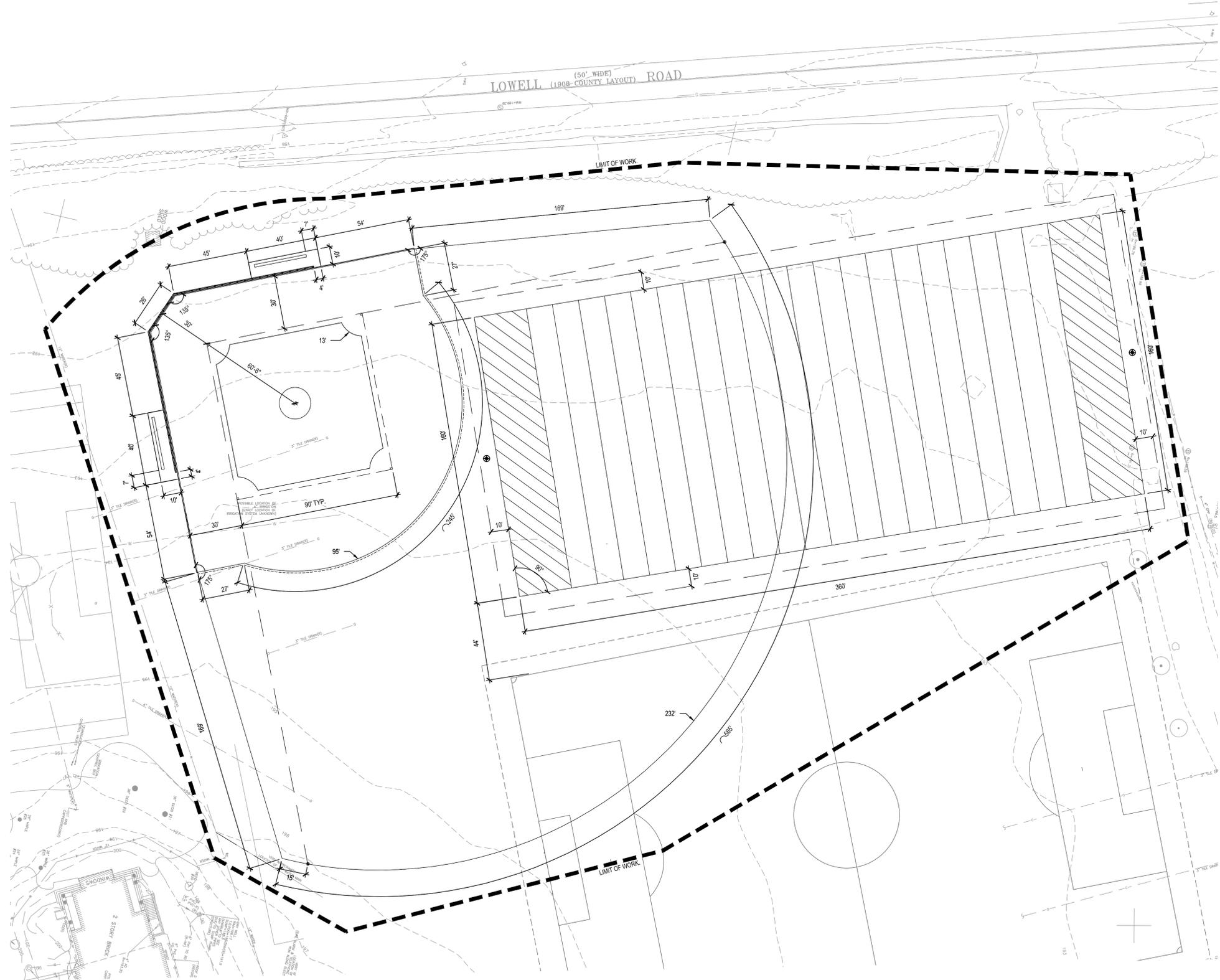
Drawing Title:  
**LAYOUT PLAN**

Sheet Number:  
**L130**

**LEGEND**

	LIMIT OF WORK (L.O.W.)
	25-FT NO DISTURB ZONE
	50-FT NO BUILD ZONE
	100-FT WETLAND BUFFER
	LINEAR DIMENSION
	RADIUS DIMENSION
	ARC LENGTH DIMENSION
	ANGLE





**LEGEND**

	LIMIT OF WORK (L.O.W.)
	25-FT NO DISTURB ZONE
	50-FT NO BUILD ZONE
	100-FT WETLAND BUFFER
	LINEAR DIMENSION
	RADIUS DIMENSION
	ARC LENGTH DIMENSION
	ANGLE

Project:  
**MIDDLESEX SCHOOL**  
  
 PLAYING FIELDS  
 CONSTRUCTION PROJECT  
 1400 LOWELL RD.  
 CONCORD, MA. 01742

**Weston & Sampson**  
 WESTON & SAMPSON ENGINEERS, INC.  
 85 DEVONSHIRE STREET, 3RD FLOOR  
 BOSTON, MA 02109  
 617-412-4480  
 www.westonandsampson.com

Consultants:

Revisions:

No.	Date	Description

Seal:

Issued For:  
**NOI  
 SUBMISSION**

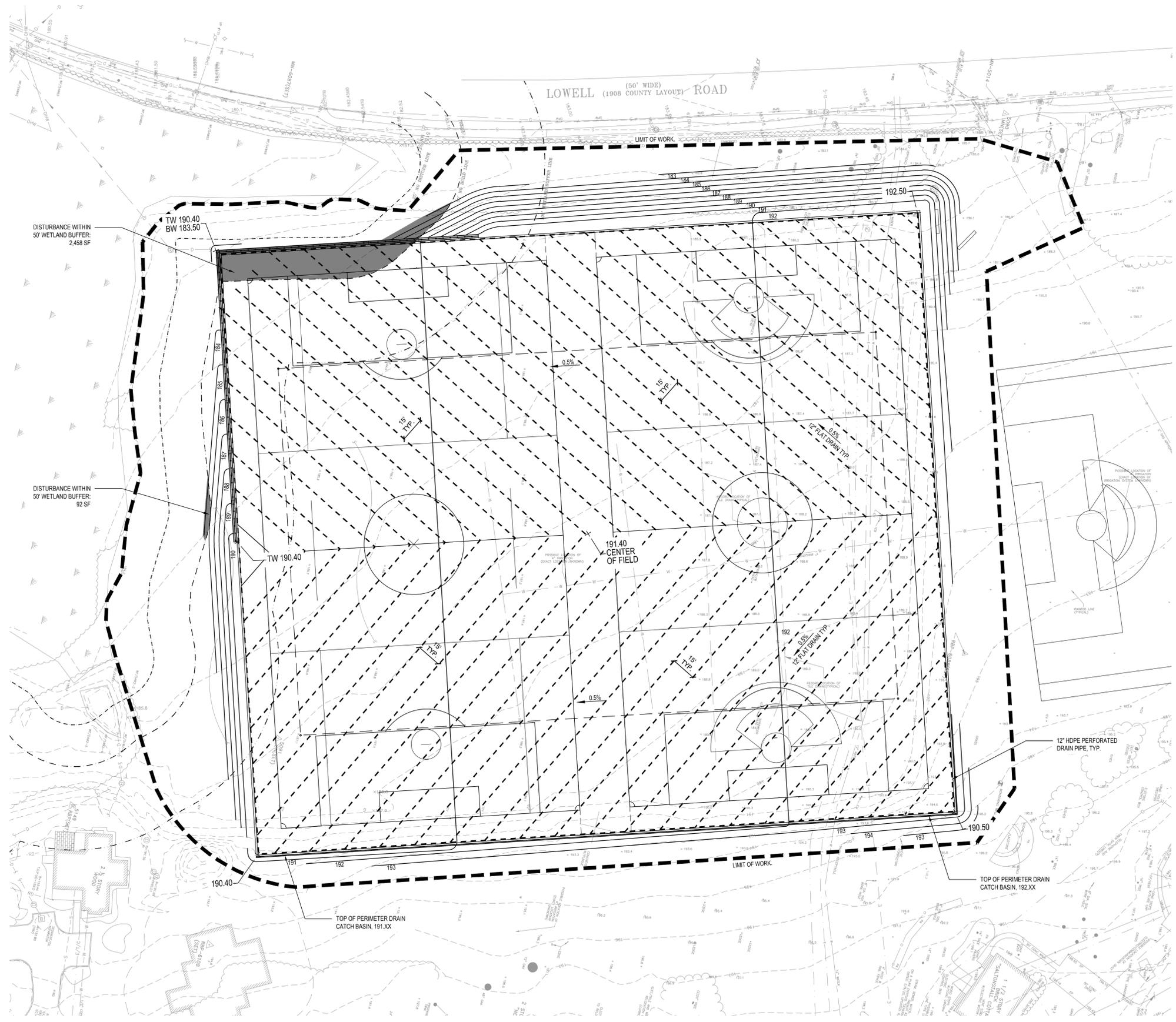
Scale: AS SHOWN  
 Date: 09/23/2020  
 Drawn By: SG, JC, CC  
 Reviewed By: RC  
 Approved By: CR  
 W&S Project No.: ENG20-0474  
 W&S File No.:

Drawing Title:  
**LAYOUT PLAN**

Sheet Number:  
**L131**

2019/09/23/2020 10:24:20 AM \\server\projects\middlesex\playing\fields\layout.dwg

REV: 1.0 Date: 10/24/2019



**LEGEND**

- — — — — LIMIT OF WORK (L.O.W.)
- - - - - 25-FT NO DISTURB ZONE
- - - - - 50-FT NO BUILD ZONE
- - - - - 100-FT WETLAND BUFFER
- ⊕ EXISTING DRAINAGE STRUCTURE. SEE UTILITIES PLAN
- 191 — EXISTING CONTOURS
- + 184.7 EXISTING SPOT ELEVATION
- 14 PROPOSED CONTOURS, 1'
- 15 PROPOSED CONTOURS, 5'
- 1.5% PROPOSED SLOPE
- X 192.50 PROPOSED SPOT GRADE
- CATCH BASIN
- ⊕ AREA DRAIN
- CO CLEAN OUT
- CO DRAINAGE MAN HOLE
- S SEWER MAN HOLE
- MONITORING WELL
- - - - - GRADE BREAK
- HP HIGH POINT
- LP LOW POINT
- TW TOP OF WALL
- BW BOTTOM OF WALL
- TS TOP OF STEP
- BS BOTTOM OF STEP
- SUB SUBGRADE
- TC TOP OF CURB
- BC BOTTOM OF CURB
- INV INVERT
- (VIF) VERIFY IN FIELD

**NOTES**

AREA OF DISTURBANCE WITHIN THE 50' NO BUILD LINE = 2,550 SF  
 10:1 COMPENSATION AREA = 25,500 SF  
 AREA OF COMPENSATION PROVIDED = 25,600 SF (SEE LANDSCAPE PLAN)

Project:  
**MIDDLESEX SCHOOL**  
  
**PLAYING FIELDS CONSTRUCTION PROJECT**  
 1400 LOWELL RD.  
 CONCORD, MA. 01742

**Weston & Sampson**  
 WESTON & SAMPSON ENGINEERS, INC.  
 85 DEVONSHIRE STREET, 3RD FLOOR  
 BOSTON, MA 02109  
 617-412-4480  
 www.westonandsampson.com

Consultants:

No.	Date	Description

Revisions:

No.	Date	Description

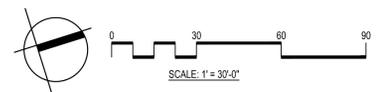
Seal:  


Issued For:  
**NOI SUBMISSION**

Scale: AS SHOWN  
 Date: 09/23/2020  
 Drawn By: SG, JC, CC  
 Reviewed By: RC  
 Approved By: CR  
 W&S Project No.: ENG20-0474  
 W&S File No.:

Drawing Title:  
**GRADING, DRAINAGE, AND UTILITIES PLAN**

Sheet Number:  
**L140**



2019 Microsoft software from which playing fields logo and other graphics were derived.

Rev. 1.0 Date: 10/24/2019



**LEGEND**

- LIMIT OF WORK (L.O.W.)
- - - 25-FT NO DISTURB ZONE
- - - 50-FT NO BUILD ZONE
- - - 100-FT WETLAND BUFFER
- ⊕ EXISTING DRAINAGE STRUCTURE. SEE UTILITIES PLAN
- EXISTING CONTOURS
- +192.7 EXISTING SPOT ELEVATION
- 14 PROPOSED CONTOURS, 1'
- 15 PROPOSED CONTOURS, 5'
- 1.5% PROPOSED SLOPE
- X192.50 PROPOSED SPOT GRADE
- CATCH BASIN
- ⊕ AREA DRAIN
- CLEAN OUT
- DRAINAGE MAN HOLE
- SEWER MAN HOLE
- MONITORING WELL
- - - GRADE BREAK
- HP HIGH POINT
- LP LOW POINT
- TW TOP OF WALL
- BW BOTTOM OF WALL
- TS TOP OF STEP
- BS BOTTOM OF STEP
- SUB SUBGRADE
- TC TOP OF CURB
- BC BOTTOM OF CURB
- INV INVERT
- (VIF) VERIFY IN FIELD

Project:  
**MIDDLESEX SCHOOL**  
  
**PLAYING FIELDS CONSTRUCTION PROJECT**  
 1400 LOWELL RD.  
 CONCORD, MA. 01742

**Weston & Sampson**  
 WESTON & SAMPSON ENGINEERS, INC.  
 85 DEVONSHIRE STREET, 3RD FLOOR  
 BOSTON, MA 02109  
 617-412-4480  
 www.westonandsampson.com

Consultants:

No.	Date	Description

Revisions:

No.	Date	Description

Seal:  


Issued For:

**NOI SUBMISSION**

Scale: AS SHOWN

Date: 09/23/2020  
 Drawn By: SG, JC, CC  
 Reviewed By: RC  
 Approved By: CR

W&S Project No.: ENG20-0474  
 W&S File No.:

Drawing Title:

**GRADING, DRAINAGE, AND UTILITIES PLAN**

Sheet Number:

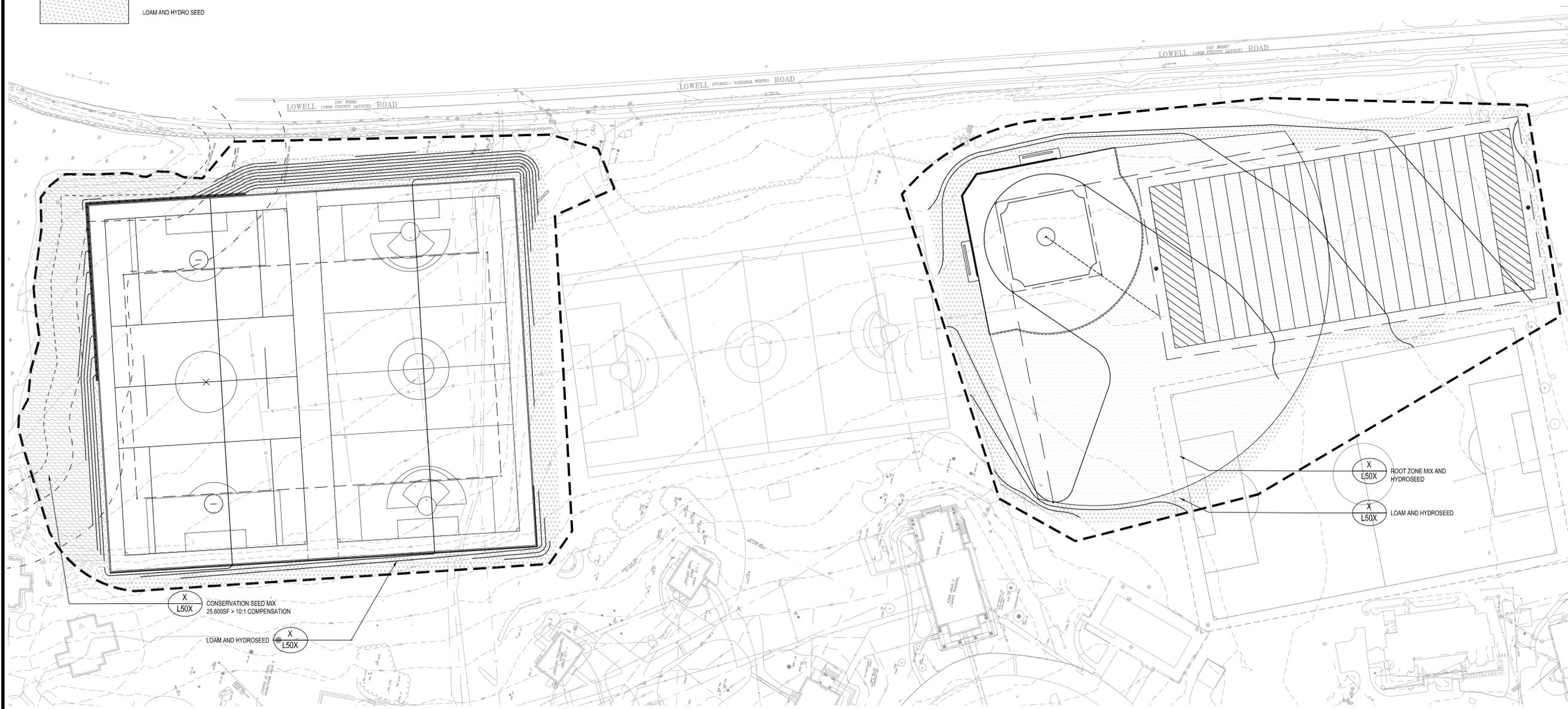
**L141**

D:\Microsoft\Drawings\middlesex\playingfields\CONSTRUCTION\UTILITIES.dwg

Rev: 1.0 Date: 10/24/2019

**LEGEND**

- LIMIT OF WORK
- - - 25-FT NO DISTURB ZONE
- - - 50-FT NO BUILD ZONE
- - - 100-FT WETLAND BUFFER
- [Pattern Box] ROOT ZONE MIX AND HYDROSEED
- [Pattern Box] CONSERVATION SEED MIX
- [Pattern Box] LOAM AND HYDRO SEED



Project:  
**MIDDLESEX SCHOOL**  
 PLAYING FIELDS  
 CONSTRUCTION PROJECT  
 1400 LOWELL RD.  
 CONCORD, MA. 01742

**Weston & Sampson**  
 WESTON & SAMPSON ENGINEERS, INC.  
 85 DEVONSHIRE STREET, 3RD FLOOR  
 BOSTON, MA 02109  
 617-412-4480  
 www.westonandsampson.com

Consultants:

Revisions:

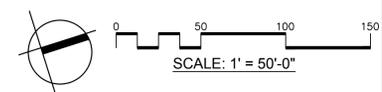
No.	Date	Description

Seal:

Issued For:  
**NOI  
 SUBMISSION**

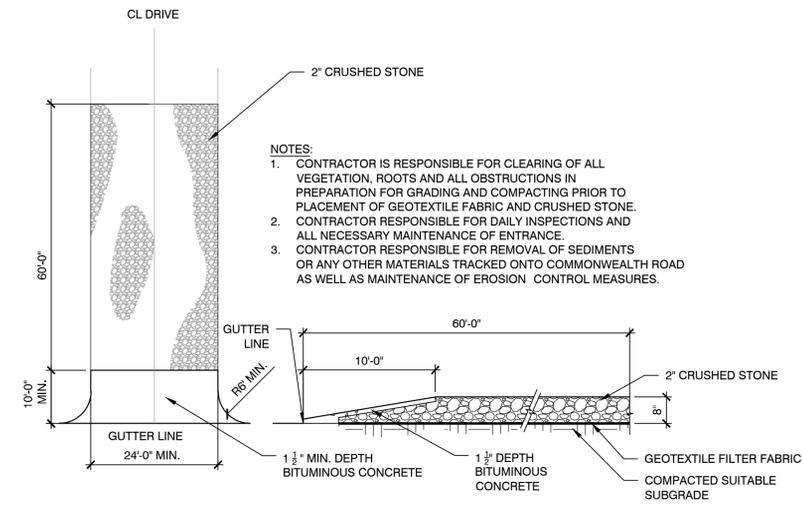
Scale: AS SHOWN  
 Date: 09/23/2020  
 Drawn By: SG, JC, CC  
 Reviewed By: RC  
 Approved By: CR  
 W&S Project No.: ENG20-0474  
 W&S File No.:

Drawing Title:  
**PLANTING PLAN**  
 Sheet Number:  
**L150**



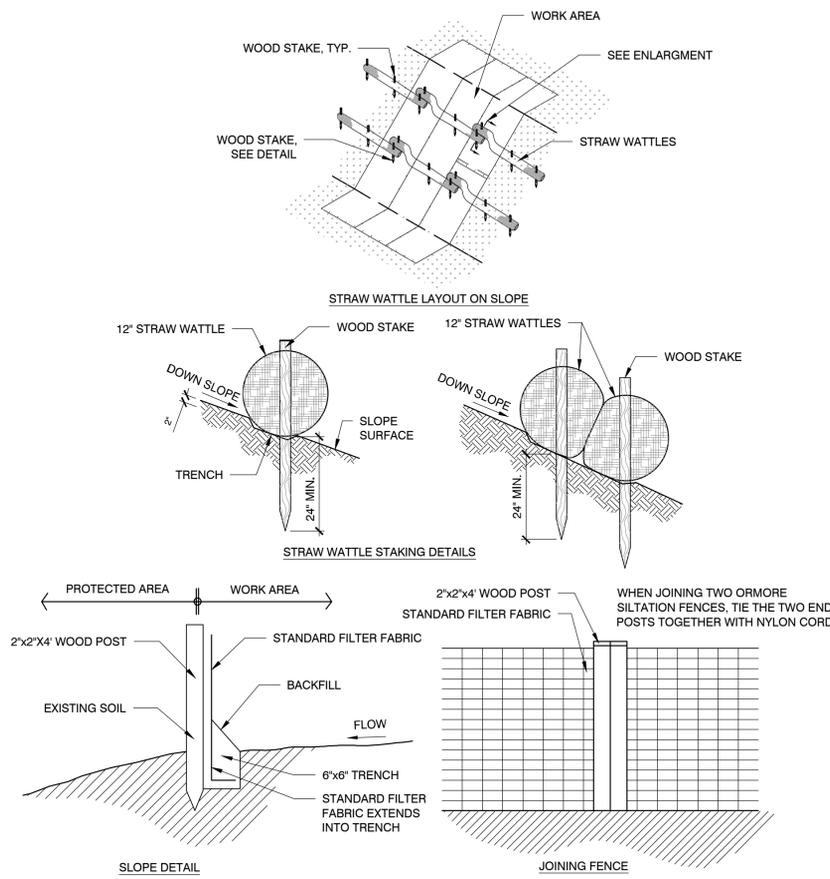
2019/09/23/2020 10:24:03 AM

Rev: 1.0 Date: 10/24/2019

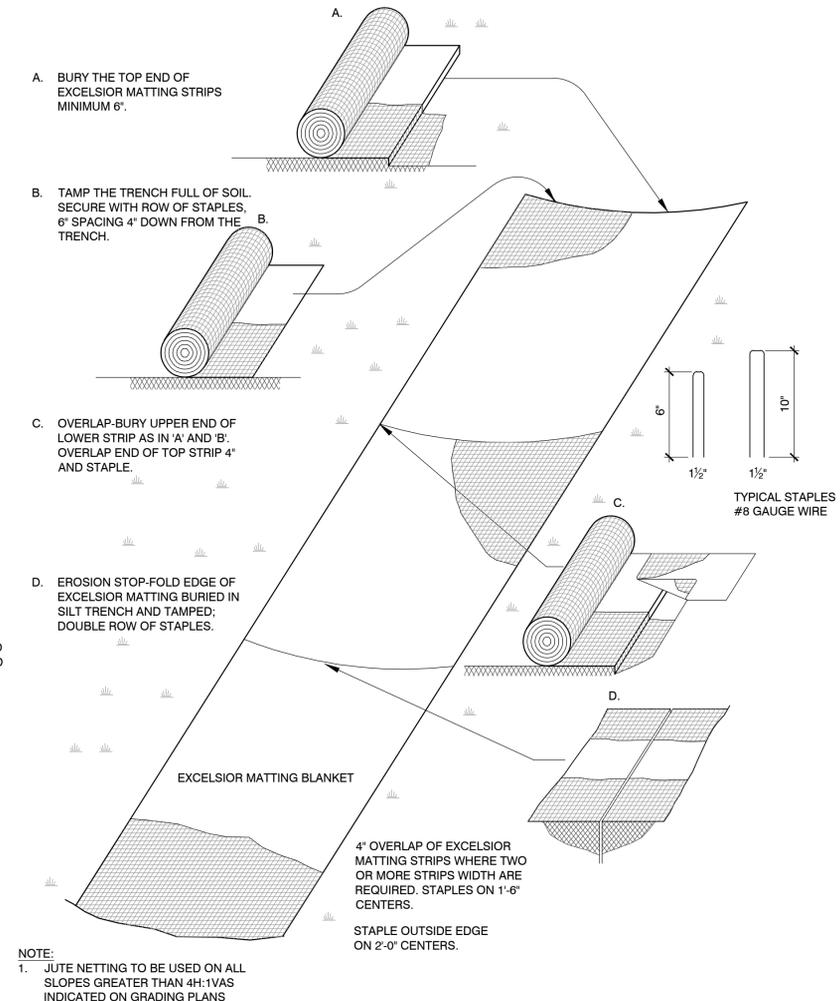


- NOTES:
1. CONTRACTOR IS RESPONSIBLE FOR CLEARING OF ALL VEGETATION, ROOTS AND ALL OBSTRUCTIONS IN PREPARATION FOR GRADING AND COMPACTING PRIOR TO PLACEMENT OF GEOTEXTILE FABRIC AND CRUSHED STONE.
  2. CONTRACTOR RESPONSIBLE FOR DAILY INSPECTIONS AND ALL NECESSARY MAINTENANCE OF ENTRANCE.
  3. CONTRACTOR RESPONSIBLE FOR REMOVAL OF SEDIMENTS OR ANY OTHER MATERIALS TRACKED ONTO COMMONWEALTH ROAD AS WELL AS MAINTENANCE OF EROSION CONTROL MEASURES.

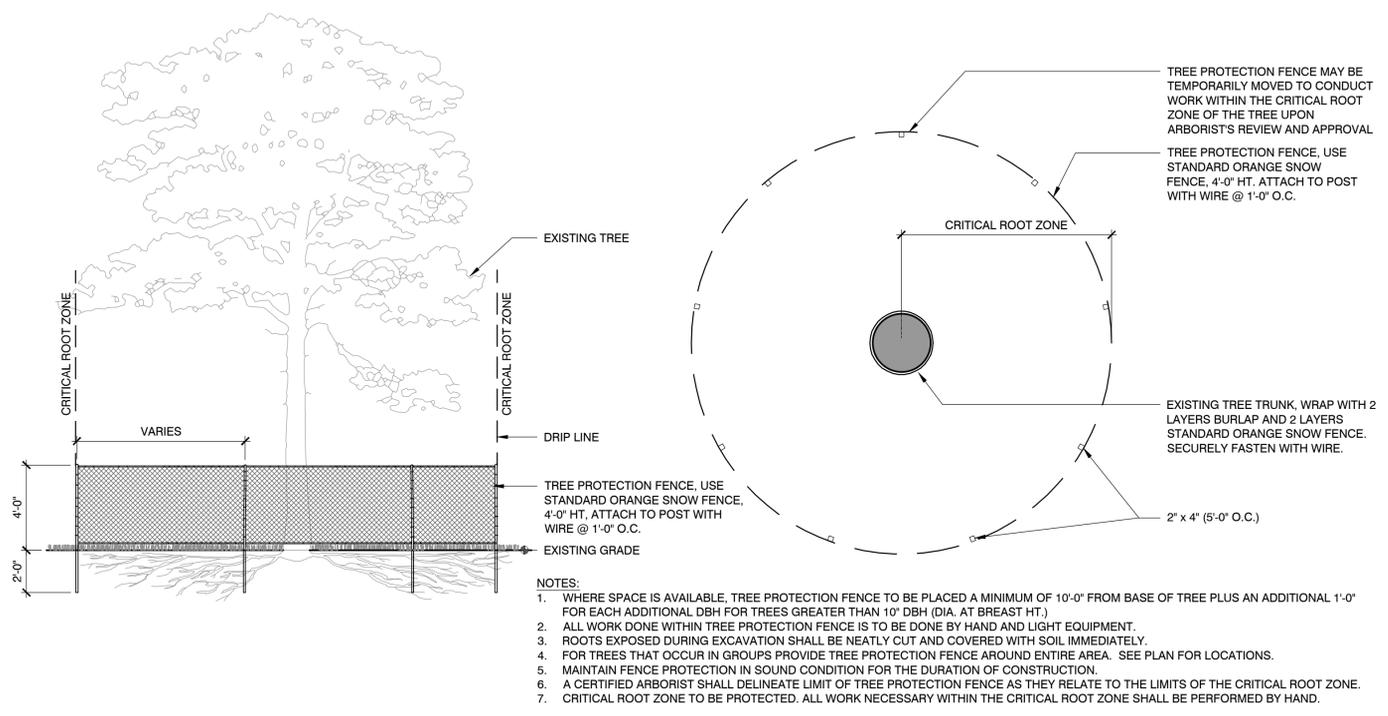
1 CONSTRUCTION ENTRANCE  
SCALE: NTS



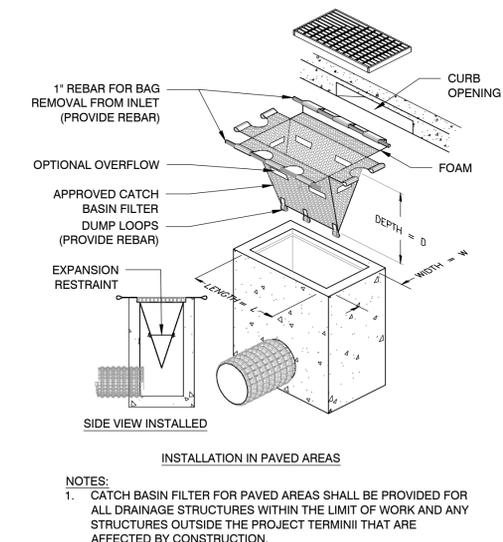
3 EROSION CONTROLS  
SCALE: NTS



4 EROSION CONTROL BLANKET  
SCALE: NTS



2 TREE PROTECTION  
SCALE: NTS



5 INLET SEDIMENT CONTROL  
SCALE: NTS

Consultants:

Revisions:

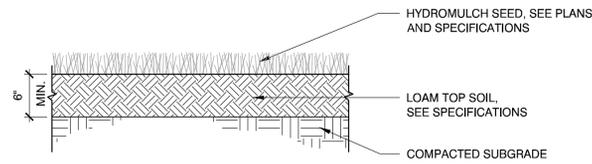
No.	Date	Description

Seal:  
MASSACHUSETTS  
REGISTERED LANDSCAPE ARCHITECT  
W.D. 1220

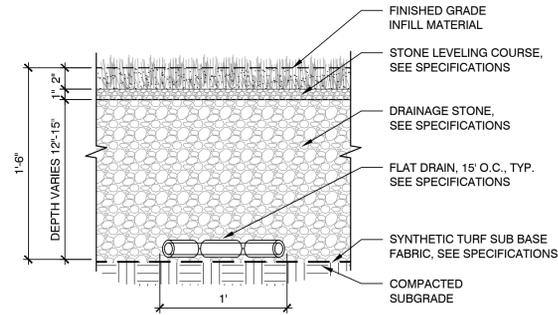
Issued For:  
**NOI SUBMISSION**  
Scale: AS SHOWN  
Date: 09/23/2020  
Drawn By: SG, JC, CC  
Reviewed By: RC  
Approved By: CR  
W&S Project No.: ENG20-0474  
W&S File No.:

Drawing Title:  
**CONSTRUCTION DETAILS**

Sheet Number:  
**L500**

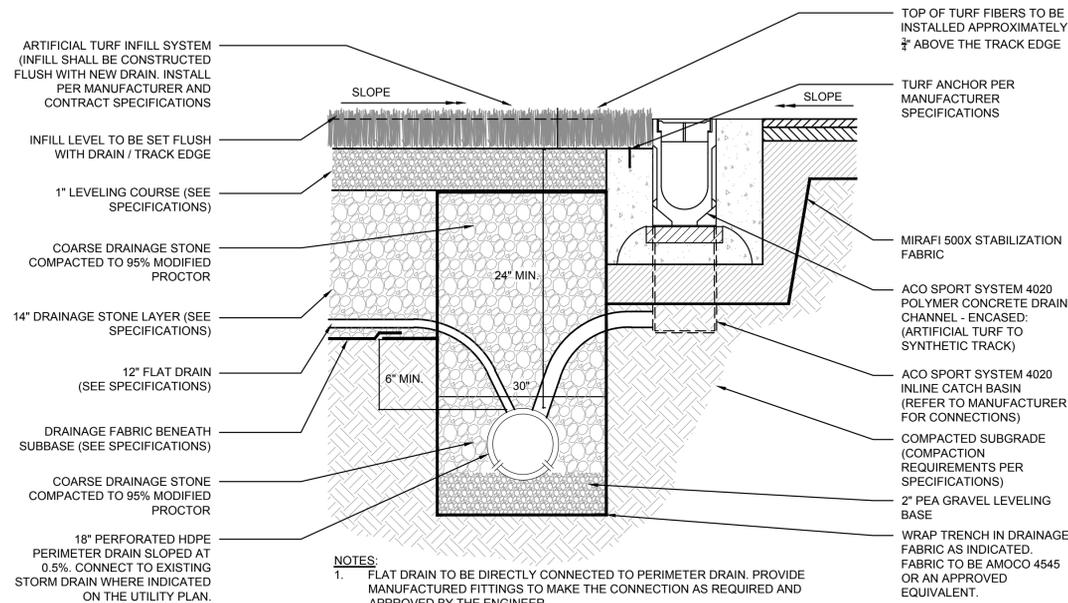


**1** LOAM AND SEED  
SCALE: NTS



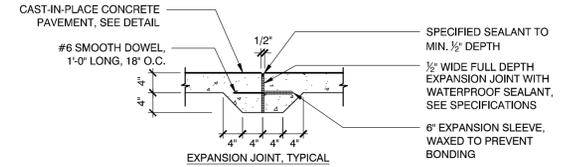
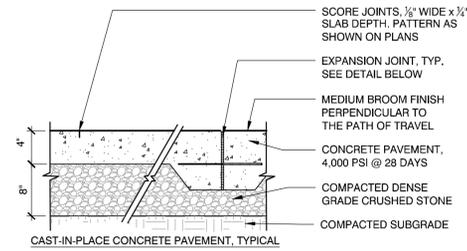
- NOTES:**
- SUBGRADE ELEVATIONS TO FOLLOW SAME SLOPE AS FINISHED SURFACE ELEVATIONS WITHIN TURF LIMITS.
  - ABSOLUTELY NO SUBSTITUTIONS SHALL BE ALLOWED FOR BOTH THE STONE LEVELING COURSE AND DRAINAGE STONE WITHOUT A WRITTEN AND SIGNED DOCUMENT DIRECTLY FROM THE TURF MANUFACTURER. DOCUMENT SHALL STATE: THE MATERIAL IS AN ACCEPTABLE MATERIAL TO BE USED DIRECTLY UNDER THEIR TURF FIELD FABRIC AND THAT THE SUBSTITUTION MATERIAL PROVIDES THE SAME CHARACTERISTICS (DRAINAGE, STRUCTURAL INTEGRITY, PLAYABILITY, ETC.) AS THE MATERIALS SPECIFIED. FAILURE TO PROVIDE SUCH A DOCUMENT SHALL BE AT THE RISK AND COST OF THE CONTRACTOR.

**2** SYNTHETIC TURF  
SCALE: NTS



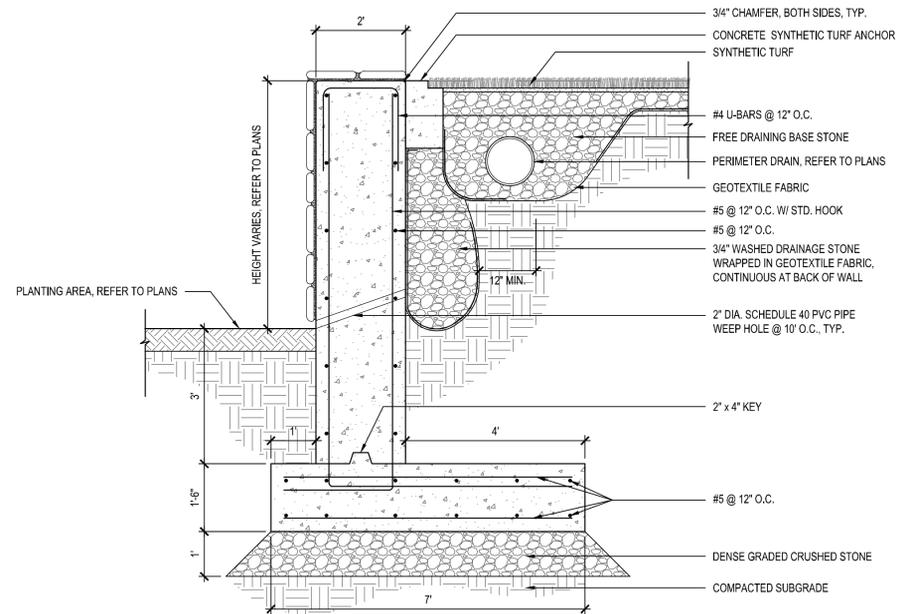
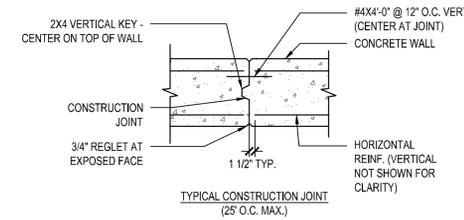
- NOTES:**
- FLAT DRAIN TO BE DIRECTLY CONNECTED TO PERIMETER DRAIN. PROVIDE MANUFACTURED FITTINGS TO MAKE THE CONNECTION AS REQUIRED AND APPROVED BY THE ENGINEER.
  - CONCRETE TO BE 4,500 PSI AT 28 DAYS (AIR CONTENT 6% +/- 1%) (COARSE AGGREGATE ASTM C-33 SIZE #57)

**3** PERIMETER DRAINAGE TRENCH AT SYNTHETIC TURF, TYPE 1  
SCALE: NTS



- NOTES:**
- DOWEL IS TYPICAL AT ALL EXPANSION JOINTS (18" O.C.) WITHIN CONCRETE PAVING AND BETWEEN NEW CONCRETE PAVING AND EXISTING CONCRETE PAVING TO REMAIN. SEE PLANS FOR LOCATIONS.
  - DELETE EXPANSION SLEEVE AND DOWEL WHERE JOINT ABUTS WALL, CURBS, OR OTHER VERTICAL SURFACES, UNLESS OTHERWISE NOTED.
  - EXPANSION JOINTS MAX. 25'-0" O.C. UNLESS SHOWN OTHERWISE.
  - EXPANSION JOINTS SHALL BE PLACED WHERE NEW CONCRETE PAVEMENT MEETS EXISTING CONCRETE PAVEMENT.
  - ALL SCORE JOINTS SHALL BE SAW CUT.

**4** CIP CONC PVMT AND EXP JOINT  
SCALE: NTS



**5** RETAINING WALL AT SYNTHETIC TURF FIELD  
SCALE: NTS

Consultants:

Revisions:

No.	Date	Description

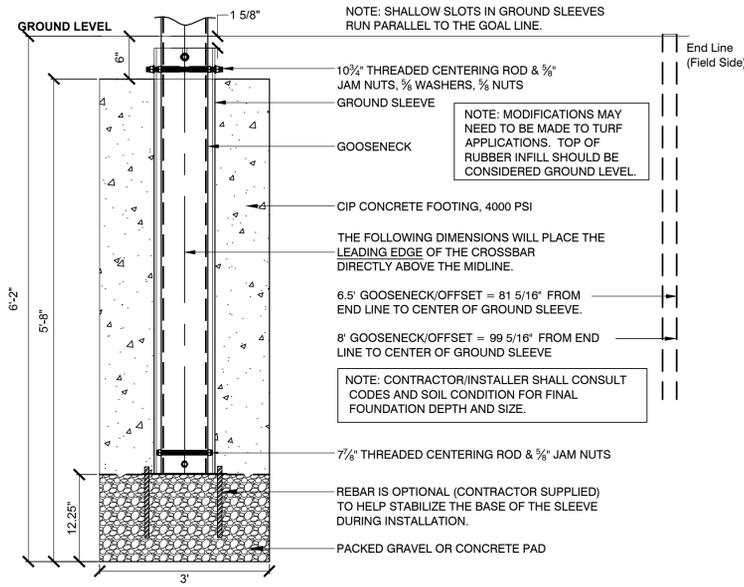


Issued For:  
**NOI SUBMISSION**

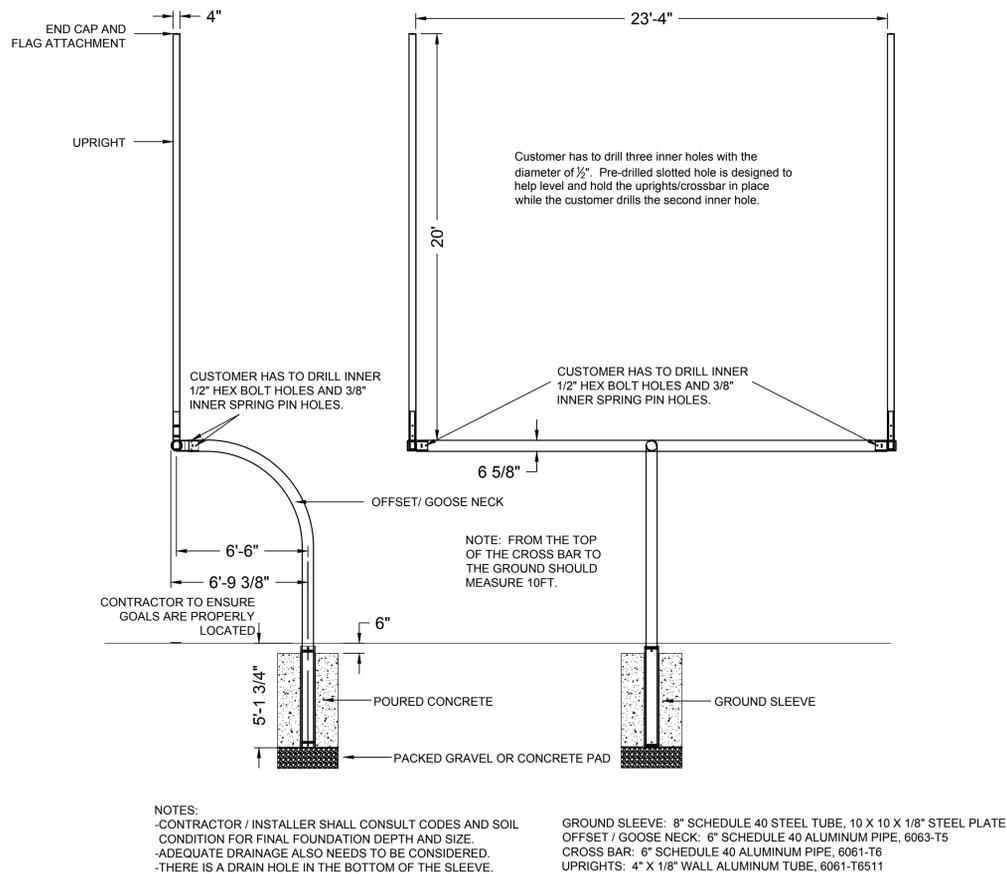
Scale: AS SHOWN  
Date: 09/23/2020  
Drawn By: SG, JC, CC  
Reviewed By: RC  
Approved By: CR  
W&S Project No.: ENG20-0474  
W&S File No.:

Drawing Title:  
**CONSTRUCTION DETAILS**  
Sheet Number:  
**L501**

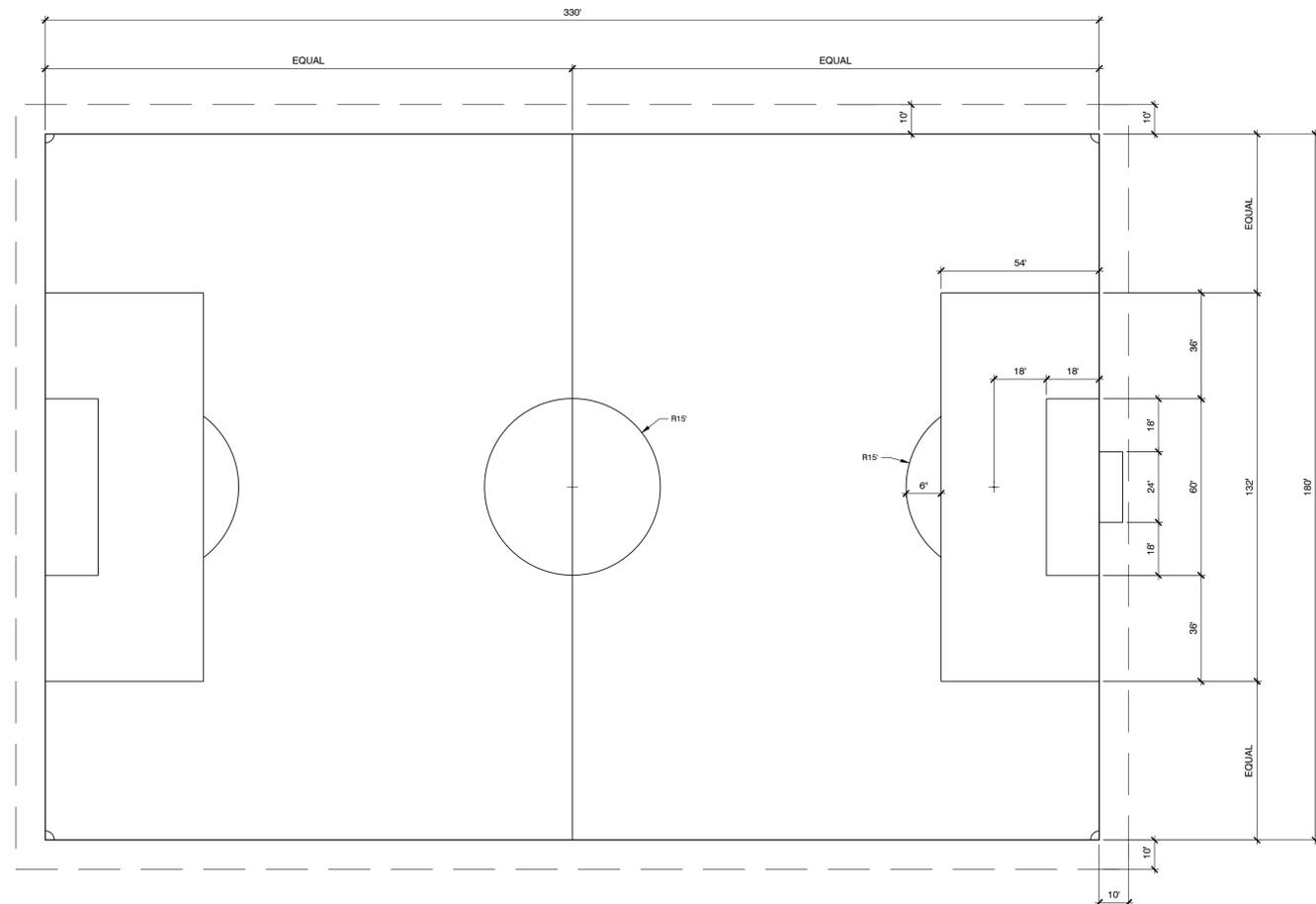




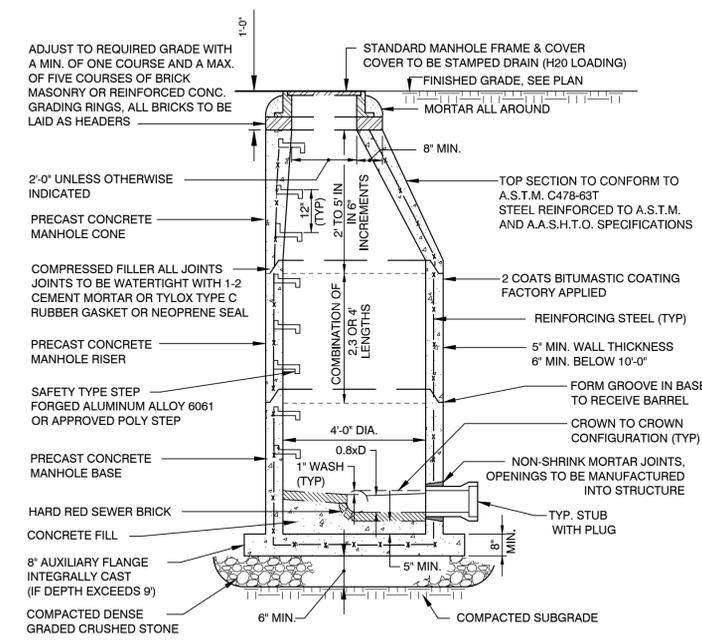
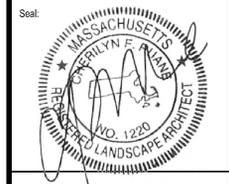
**1** FOOTBALL GOAL POST FOOTING, TYPE 1  
SCALE: NTS



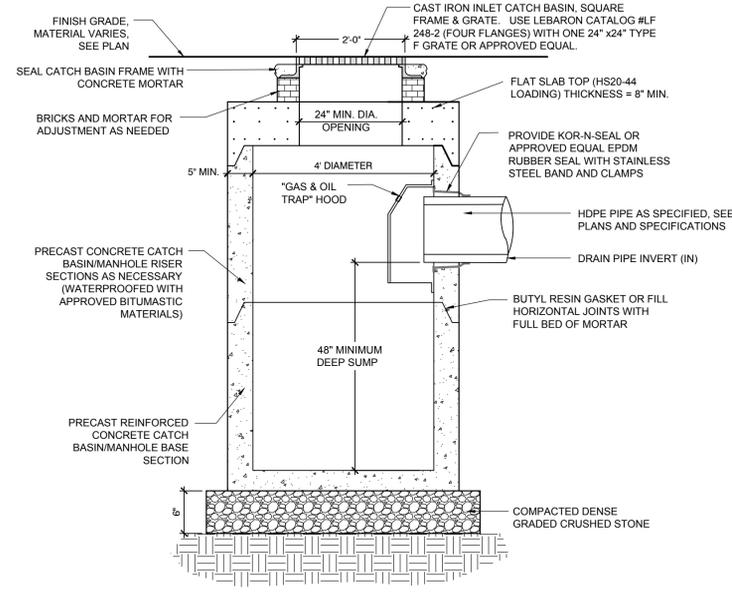
**2** FOOTBALL GOAL POST, TYPE 1  
SCALE: NTS



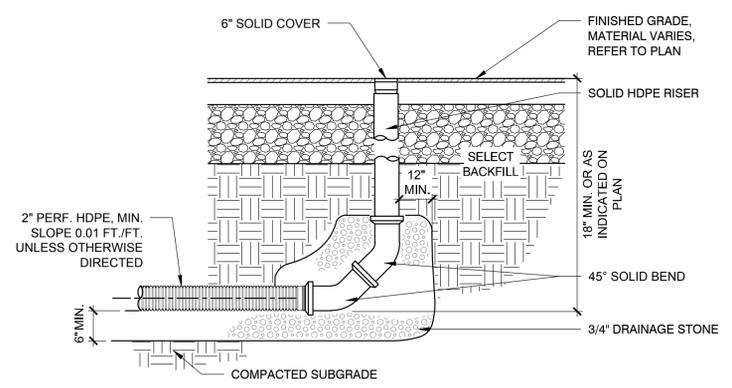
**3** SOCCER FIELD LAYOUT  
SCALE: NTS



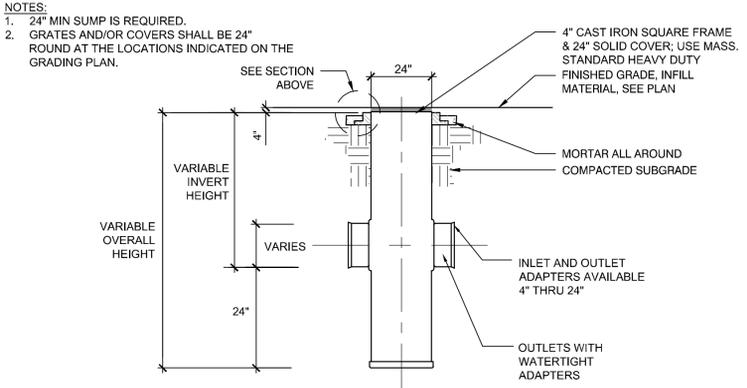
5 DRAIN MANHOLE  
SCALE: NTS



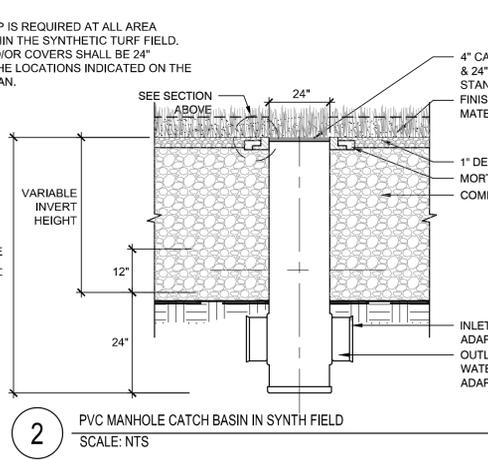
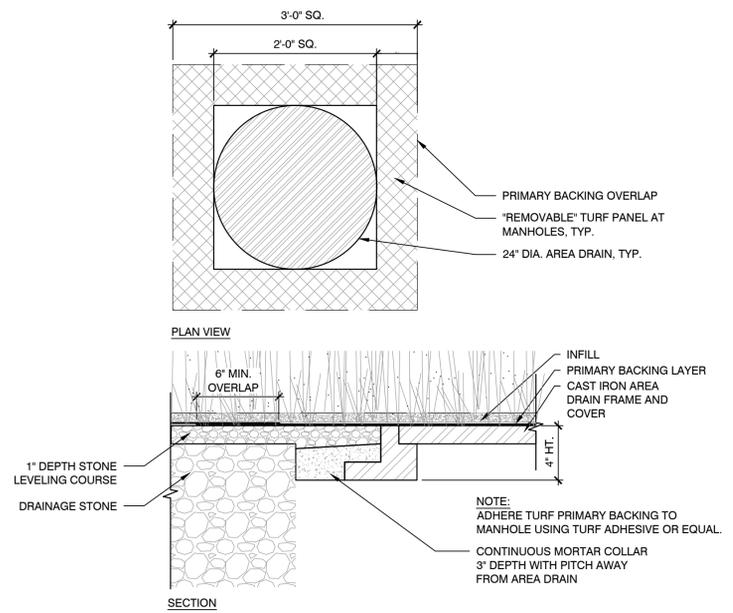
3 CATCH BASIN STANDARD  
SCALE: NTS



4 CLEANOUT  
SCALE: NTS



1 PVC MANHOLE CATCH BASIN  
SCALE: NTS



2 PVC MANHOLE CATCH BASIN IN SYNTH FIELD  
SCALE: NTS