Site Plan for Planning Commission Approval

Greenhills School

Athletic Field Improvements

Part of the W 1/2 Sect 25 & E 1/2 Sect 26

City of Ann Arbor, Washtenaw County, Michigan

PIN: 09-09-25-200-061

DESCRIPTION OF PROJECT:
THE SCOPE OF THIS PROJECT INCLUDES THE REMOVAL AND REPLACEMENT OF THE TRACK AND FIELD FACILITIES BEHIND THE MAIN CLASSROOM BUILDING TO THE EAST. THE TRACK WILL BE IMPROVED TO HAVE EIGHT LANES, RATHER THAN SIX, AND THE INFIELD WILL BE IMPROVED TO HAVE A SYNTHETIC, RATHER THAN NATURAL GRASS, SURFACE. BOTH OF THESE WILL RESULT IN AN INCREASE TO THE IMPERVIOUS AREA ON THE SITE OF APPROXIMATELY 0.53 ACRES. DUE TO THIS INCREASE IN IMPERVIOUS SURFACE A STORM WATER DETENTION SYSTEM WILL BE INCLUDED BENEATH THE SYNTHETIC TURF SURFACE AND HAS BEEN SIZED TO MEET THE WASHTENAW COUNTY WATER RESOURCE COMMISSION DESIGN CRITERIA.

SITE WORK INCLUDES THE MODIFICATIONS TO THE TRACK AND INFIELD DESCRIBE ABOVE AS WELL AS MINOR SIDEWALK REVISIONS, WHICH WILL BE GRADED TO MEET ADA STANDARDS. STORM SEWERS WILL BE CONSTRUCTED TO DRAIN THE FIELD AND DETENTION SYSTEM AND WILL CONNECT TO EXISTING OUTFALLS. NO OTHER UTILITY WORK IS ANTICIPATED WITH THE PROJECT.

AUTOMOBILE PARKING FOR THE FACILITY WILL BE MAINTAINED IN ITS CURRENT CONFIGURATION WITHOUT CHANGE. THERE ARE NO OTHER CHANGES OR MODIFICATIONS PROPOSED WITH THIS SITE PLAN. A LANDSCAPE MODIFICATION REQUEST HAS BEEN INCLUDED WITH THIS SUBMITTAL, REQUESTING TO ALLOW THE PETITIONER TO MAINTAIN EXISTING NON-CONFORMING INTERIOR LANDSCAPE PARKING ELEMENTS.

DEVELOPMENT SUMMARY AND COMPARISON CHART

	REQUIRED / PERMITTED	EXISTING	PROPOSED
SITE AREA	10,000 SF MIN.	30.49 ACRES	30.49 ACRES
LOT WIDTH	70 FT MIN.	2,037 FT	2,037 FT
ZONING	R1B	R1B	R1B
LAND USE		PRIVATE 6-12 GRADE SCHOOL	PRIVATE 6-12 GRADE SCHOOL
USABLE FLOOR AREA RATIO	N/A	9.15%	9.15%
VEHICULAR PARKING	164 SPACES REQ. (41 CLASS ROOMS)	TOTAL: 195 REG, 6 BF, 3 BFV	TOTAL: 195 REG, 6 BF, 3 BFV
BICYCLE PARKING*			
ELEMENTARY AND HIGH SCHOOL TOTAL REQUIRED	5 SPACES / CLASSROOM (100% C) = 205 SPACES*	26* CLASS C	26* CLASS C
SETBACKS	FRONT: 30 FT MIN	138 FT	138 FT
	SIDE (NORTH): 100 FT	621 FT	621 FT
	SIDE (SOUTH): 100 FT	633 FT	633 FT
	REAR (EAST): 30 FT	108 FT	108 FT
BUILDING HEIGHT	30 FT	~30 FT	~30 FT
IMPERVIOUS SURFACE	N/A	415,500 SF; 31% OF TOTAL AREA	438,575 SF; 33% OF TOTAL AREA
OPEN SPACE	N/A	26.27 AC	26.27 AC

*VARIANCE GRANTED IN 1988 FOR REDUCTION OF 220 CLASS C SPACES.

NOTES:
1. PER CHAPTER 49, SECTION 4:58 OF THE CITY CODE, 'ALL SIDEWALKS WITHIN THE CITY SHALL BE KEPT AND MAINTAINED IN GOOD REPAIR BY THE OWNER OF THE LAND, ADJACENT TO AND ABUTTING UPON THE SAME; AND IF ANY OWNER SHALL NEGLECT TO KEEP AND MAINTAIN THE SIDEWALK OR ANY WALKS AND RAMPS LEADING TO A CROSSWALK ALONG THE FRONT, REAR, SIDE OF THE LAND, OWNED BY HER OR HIM, IN GOOD REPAIR AND SAFE FOR THE USE OF THE PUBLIC, THE SAID OWNER SHALL BE LIABLE TO THE CITY FOR ANY DAMAGES RECOVERED AGAINST THE CITY SUSTAINED BY ANY PERSON BY REASON OF SAID SIDEWALK BEING UNSAFE AND OUT OF REPAIR.' PRIOR TO THE PROJECT COMPLETION, ALL EXISTING SIDEWALKS IN NEED OF REPAIR MUST BE REPAIRED IN ACCORDANCE WITH CITY STANDARDS.
2. THE CONSTRUCTION COVERED BY THESE PLANS SHALL CONFORM TO THE CITY OF ANN ARBOR PUBLIC SERVICES STANDARD SPECIFICATIONS.
3. THE OMISSION OF ANY STANDARD DETAILS DOES NOT RELIEVE THE CONTRACTORS OF THEIR OBLIGATION TO CONSTRUCT ITEMS IN COMPLETE ACCORDANCE WITH THE PUBLIC SERVICE STANDARD SPECIFICATIONS.
4. CONSTRUCTION SAFETY AND ROAD AND SITE ACCESS ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
5. EXISTING UTILITY INFORMATION IS BASED ON AVAILABLE RECORDS. NO GUARANTEE IS MADE TO THE ACCURACY OR COMPLETENESS. DUE TO THE HISTORY OF PREVIOUS ACTIVITIES ON-SITE, ENCOUNTERS WITH EXISTING UTILITIES NOT SHOWN ARE POSSIBLE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL CONDITIONS THAT MAY AFFECT OR BE IMPACTED BY THEIR ACTIVITIES.
6. THE CONTRACTOR SHALL VERIFY THE DEPTH OF ANY UTILITY PRIOR TO SAID UTILITY BEING TIED INTO OR CROSSED PER CITY OF ANN ARBOR REQUIREMENTS.
7. CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTING SIDEWALKS AND RAMPS PER CURRENT ACCESSIBLE GUIDELINES AND WILL BE RESPONSIBLE FOR THE REMOVAL AND REINSTALLATION AT NO COST TO GREENHILLS SCHOOL. CONTRACTOR TO PROVIDE THE PROJECT MANAGER WITH WRITTEN DOCUMENTATION OF ALL LOCATIONS WHERE IT IS NOT FEASIBLE TO MEET ACCESSIBLE REQUIREMENTS PRIOR TO INSTALLATION.

PROPERTY DESCRIPTION
PART OF LOT J OF "EARHART SUBDIVISION", WEST 1/2 SECTION 25 AND EAST 1/2 SECTION 26, TOWNSHIP 2 SOUTH RANGE 6 EAST, CITY OF ANN ARBOR, WASHTENAW COUNTY, MICHIGAN. LIBER 19, PAGES 20-25, W.C.R. EXCEPT THE EASTERLY 150 FEET OF THE SOUTH 970 FEET OF THE NORTH 980 FEET, LYING WEST OF AND ADJACENT TO LIMITED ACCESS U.S. 23 EXPRESSWAY.

TRAFFIC IMPACT:
THERE WILL NOT BE AN IMPACT TO TRAFFIC AS THE TRAFFIC PATTERNS WILL NOT BE CHANGING.

NATURAL FEATURES:
THE WOODLAND AREA HAS BEEN SURVEYED FOR TREES LARGER THAN SIX INCHES DBH. ADDITIONAL INFORMATION ON THE WOODLAND IS LOCATED ON THE SURVEY SHEETS. NO TREES WILL BE REMOVED AS A PART OF THE CONSTRUCTION. ALL TREES WILL BE PROTECTED DURING CONSTRUCTION. THE NORTH PART OF THE PROPERTY WAS INVESTIGATED FOR EVIDENCE OF A WETLAND AND/OR STREAM. A DETAILED ANALYSIS OF THE INVESTIGATION IS INCLUDED ON THE NATURAL FEATURES PLAN. THERE WILL BE NO IMPACTS TO ANY OTHER NATURAL FEATURES THAT MAY EXIST ON THE PROPERTY.

STORM WATER MANAGEMENT:
DUE TO AN ENLARGEMENT OF THE TRACK SURFACE AND THE USE OF A SYNTHETIC GRASS SURFACE, WHICH WILL BE CONSIDERED TO BE MORE IMPERVIOUS THAN NATURAL GRASS, THE AMOUNT OF IMPERVIOUS SURFACE ON THE SITE WILL INCREASE. AN UNDERGROUND DETENTION SYSTEM WILL BE INCLUDED BENEATH THE SYNTHETIC GRASS SURFACE AND WILL BE SIZED TO ACCOMMODATE THE VOLUME AS REQUIRED BY THE WASHTENAW COUNTY WATER RESOURCE COMMISSION.

SANITARY SEWER MITIGATION PROGRAM:
SANITARY FLOWS ARE NOT IMPACTED; THEREFORE, MITIGATION IS NOT REQUIRED.

BICYCLE PARKING:
A VARIANCE OF 220 SPACES WAS GRANTED BY ZBA IN 1988, REDUCING THE NUMBER OF SPACES REQUIRED FOR A PRIVATE, DESIGNATION LEARNING INSTITUTION. THERE ARE CURRENTLY 26 CLASS C SPACES LOCATED ON THE SITE NEAR THE MAIN ENTRANCE AND THEATER ENTRANCES, WHICH ARE IN CONFORMANCE WITH PREVIOUSLY APPROVED SITE PLANS. THERE IS SPACE ON THE SITE FOR ADDITIONAL SPACES IF THE NEED ARISES FOR THEM IN THE FUTURE.

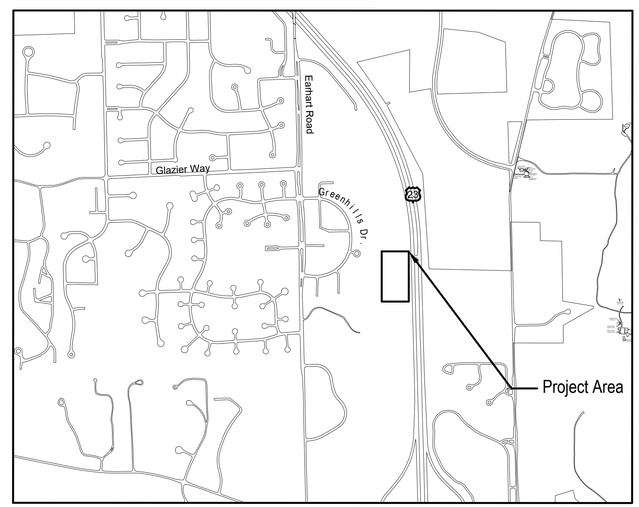
LANDSCAPING:
AS PART OF A PREVIOUS ADMINISTRATIVE AMENDMENT, A LANDSCAPE MODIFICATION REQUEST (LMR) WAS APPROVED BY THE PLANNING COMMISSION, ALLOWING THE PETITIONER TO MAINTAIN EXISTING NON-CONFORMING INTERIOR LANDSCAPE PARKING ELEMENTS. SIMILARLY, NO MODIFICATIONS TO THE PARKING LOT ARE PROPOSED AS PART OF THIS PROJECT. ANOTHER LMR APPLICATION HAS BEEN INCLUDED WITH THIS SITE PLAN APPROVAL SUBMITTAL PACKAGE.

EXISTING CONDITIONS / COMMUNITY ANALYSIS:
THE OVERALL SITE IS NOT CHANGING IN TERMS OF ITS USE OR PROGRAMMING. GREENHILLS SCHOOL SHALL REMAIN AS IT IS IN ITS EXISTING LOCATION WITH NO CHANGE TO ITS ENROLLMENT OR STAFF LEVELS DUE TO THE PROPOSED ATHLETIC FACILITY IMPROVEMENTS, WHICH ARE THE SUBJECT OF THE PROPOSED SITE PLANS. THEREFORE, NO IMPACT TO PUBLIC SCHOOLS, SURROUNDING DEVELOPMENT, SITE OR STRUCTURE IS ANTICIPATED.

THE SUBJECT PROPERTY HAS AN EXISTING DETENTION BASIN AND SEDIMENT FOREBAY NORTH OF THE SCHOOL AND IS SURROUNDED BY VEGETATION ON THE NORTH, EAST AND WEST SIDES TO THE PROPERTY LINES AND ON THE SOUTH SIDE FOR APPROXIMATELY 132 FEET BEFORE THERE IS AN EXISTING ASPHALT PARKING LOT. ADJACENT TO THE PROPERTY ON THE WEST SIDE IS AN APARTMENT COMPLEX. THERE ARE EXISTING CANOPY TREES SPORADICALLY ALONG THE WESTERN PROPERTY LINE BUFFERING THE TWO PROPERTIES. ALONG THE EASTERN PROPERTY LINE THERE IS A HEAVIER EXISTING ROW OF VEGETATION CONSISTING OF CANOPY AND UNDERSTORY DECIDUOUS TREES AND A SHRUB AND GRASS LAYER ALONG THE FLOOR OF THIS HEAVIER WOODED AREA.

THE TOPOGRAPHY IN THIS AREA OF THE SITE IS UNDULATING AND HAS SLOPES RANGING FROM 2% TO 18%. THE STEEPEST SLOPES ARE LOCATED ADJACENT TO THE SOUTH SIDE OF THE EXISTING DETENTION BASIN. SOIL TYPE IS WawadB WAWASEE LOAM.

THE EXISTING DETENTION BASIN AND SEDIMENT FOREBAY HAVE WATER LOCATED IN THEM. THAT WATER FLUCTUATES SEASONALLY AND BASED ON RAINFALL. THE BASIN'S MAIN WATER SUPPLY IS FROM STORM WATER RUNOFF FROM THE SURROUNDING AREA. THE SUBJECT AREA IS NOT LOCATED IN A FLOODPLAIN. THERE ARE NO KNOWN ENDANGERED SPECIES OR HABITAT LOCATED ON THE SUBJECT PROPERTY OR IN THE VICINITY.



Vicinity Map

0 250 500 1000
SCALE IN FEET

North

SHEET INDEX

SHEET #	DRAWING #	SHEET TITLE
1	COVER	COVER SHEET (SITE PLAN)
2	V.1.0	ALTA/NSPS LAND TITLE SURVEY
3	V.1.1	ALTA/NSPS LAND TITLE SURVEY
4	V.1.2	ALTA/NSPS LAND TITLE SURVEY
5	V.1.3	ALTA/NSPS LAND TITLE SURVEY
6	V.1.4	ALTA/NSPS LAND TITLE SURVEY
7	V.1.5	ALTA/NSPS LAND TITLE SURVEY
8	V-2.0	TREE INVENTORY
9	V-2.1	TREE INVENTORY
10	V-2.2	TREE INVENTORY
11	C-0.0	CIVIL ABBREVIATIONS AND SYMBOLS
12	C-0.5	OVERALL SITE PLAN, DIMENSIONAL LAYOUT PLAN, AND UTILITY PLAN
13	C-0.5.1	SITE PLAN, DIMENSIONAL LAYOUT PLAN, AND UTILITY PLAN - AREA 1
14	C-0.5.2	SITE PLAN, DIMENSIONAL LAYOUT PLAN, AND UTILITY PLAN - AREA 2
15	C-0.6	OVERALL NATURAL FEATURES PLAN
16	C-0.6.1	NATURAL FEATURES PLAN - AREA 1
17	C-0.6.2	NATURAL FEATURES PLAN - AREA 2
18	C-0.7	PHOTOMETRIC PLAN
19	C-0.8	OVERALL LANDSCAPE PLAN
20	C-0.8.1	LANDSCAPE PLAN - AREA 1
21	C-0.8.2	LANDSCAPE PLAN - AREA 2
22	C-1.0	SITE LOGISTICS PLAN
23	C-1.1	DEMOLITION AND SESC PLAN
24	C-1.2	SOIL BORING INFORMATION
25	C-1.3	SOIL BORING AND TEST PIT INFORMATION
26	C-2.0	LAYOUT AND MATERIALS PLAN
27	C-2.1	LAYOUT AND MATERIALS ENLARGEMENT
28	C-3.0	STORM SEWER PLAN
29	C-3.1	STORM SEWER BYPASS PIPING PROFILES
30	C-3.2	DETENTION OUTLET PIPING PROFILES
31	C-3.3	UNDER DRAIN PIPING PROFILES
32	C-3.4	SURFACE DRAINAGE PIPING PROFILES
33	C-4.0	GRADING PLAN
34	C-4.1	SITE SECTIONS
35	C-5.0	SESC AND SITE PREP DETAILS AND NOTES
36	C-5.1	MATERIAL DETAILS
37	C-5.2	TRACK EQUIPMENT DETAILS
38	C-5.3	STORM SEWER DETAILS
39	C-5.4	SYNTHETIC TURF STRIPING DETAILS
40	C-5.5	TRACK STRIPING DETAILS
41	C-6.0	WCWRC STORM SEWER CALCULATIONS

Prepared By:

SMITHGROUP

201 DEPOT STREET
SECOND FLOOR
ANN ARBOR, MI 48104
734.662.4457
www.smithgroup.com
ATTN: JOE WYWROT

Owner/Petitioner:

GREENHILLS SCHOOL
850 GREENHILLS DRIVE
ANN ARBOR, MI 48105
734.205.4059
ATTN: JOHN NICKEL

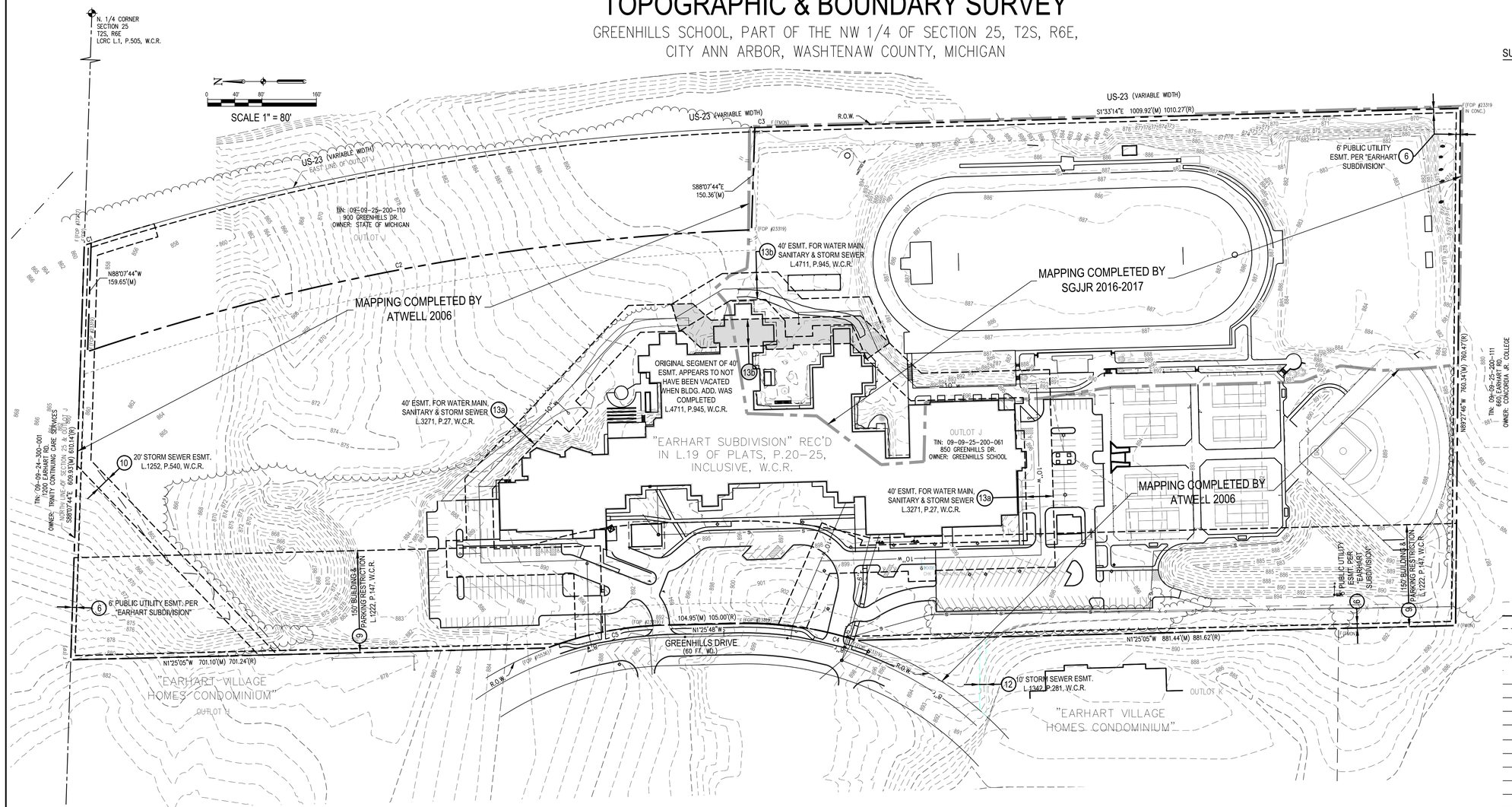
Issued For:	Date
Schematic Design	May 20, 2016
20% Design Development	July 19, 2016
100% Design Development	Sept. 16, 2016
SPA for PC Presubmittal Meeting	Sept. 16, 2019
Site Plan Approval	Oct. 24, 2019
Site Plan Approval Resubmittal	Dec. 5, 2019
Site Plan Approval Resubmittal	Feb. 11, 2020

21216.000

COVER

TOPOGRAPHIC & BOUNDARY SURVEY

GREENHILLS SCHOOL, PART OF THE NW 1/4 OF SECTION 25, T2S, R6E,
CITY ANN ARBOR, WASHTENAW COUNTY, MICHIGAN



SURVEY LEGEND

- BENCHMARK
- CONTROL POINT
- F FOUND IRON PIPE
- + 700.00 EX. SPOT ELEV.
- + TC 701.00 EX. TOP OF CURB ELEV.
- + GU 700.50 EX. GUTTER ELEV.
- + EM 700.70 EX. EDGE OF METAL
- + CC 700.70 EX. CURB CUT ELEV.
- + TW 703.00 EX. TOP OF WALL ELEV.
- + BW 702.00 EX. BOTTOM OF WALL ELEV.
- SOIL BORING
- ELECTRIC TRANSFORMER
- CABLE RISER
- UTILITY POLE
- GUY WIRE
- LIGHT POLE
- FIRE HYDRANT
- SHUT OFF VALVE
- 1221 CATCH BASIN (ROUND)
- 1221 CATCH BASIN (SQUARE)
- 1221 COMMUNICATIONS MANHOLE
- 1221 STORM MANHOLE
- 1221 SANITARY MANHOLE
- 1221 ELECTRIC MANHOLE
- 1221 GAS MANHOLE
- 1221 WATER MANHOLE
- 1221 STEAM TUNNEL MANHOLE
- AC AIR CONDITIONER
- IRRIGATION CONTROL VALVE
- FDC EX. FIRE DEPT. CONNECTION
- DS EX. DOWNSPOUT
- CO EX. CLEANOUT
- EX. BOLLARD/POST
- SIGN
- SIGN – DOUBLE POST
- EX. BIKE LOOP
- TREE – DECIDUOUS
- TREE – CONIFEROUS
- BUSH/SHRUB
- EX. TOPO CONTOUR
- BUILDING PERIMETER (TYP.)
- BUILDING/ROOF OVERHANG
- EX. BRUSH/WOODED LIMITS
- x EX. FENCE LINE
- EX. GUARD RAIL
- ctv EX. CABLE TELEVISION
- com EX. COMMUNICATION
- ue EX. UNDERGROUND ELECTRIC
- oe EX. ELECTRIC
- fiber EX. FIBER OPTIC
- g EX. NATURAL GAS
- oh EX. OVERHEAD UTILITY
- s EX. SANITARY SEWER
- r EX. STORM SEWER
- w EX. WATER MAIN
- SL EX. ELECTRIC STREET LIGHTING
- EDGE OF WATER
- PROPERTY LINE

SCHEDULE B EXCEPTIONS

(PER CHICAGO TITLE INSURANCE COMPANY, TITLE COMMITMENT NO. CM25422, REVISION NO. 1, EFFECTIVE DATE JANUARY 18, 2017)

(1)–(5) **ITEMS 1–5 ARE NOT SURVEY MATTERS**

(6) Easements as shown on the recorded plat. **(6 FOOT WIDE PUBLIC UTILITY EASEMENT SHOWN HEREON)**

(7)–(8) **ITEMS 7–8 ARE NOT SURVEY MATTERS**

(9) Building and use restrictions as recorded in Liber 1222, page 147, Washtenaw County Records, but omitting any covenant or restriction based on race, color, religion, sex, handicap, familial status, or national origin. **(150 FOOT BUILDING AND PARKING RESTRICTION SHOWN HEREON)**

(10) Right of way for storm sewer, as recorded in Liber 1252, page 540, Washtenaw County Records. **(20 FOOT WIDE STORM SEWER EASEMENT SHOWN HEREON)**

(11) Easement in favor of the City of Ann Arbor, as recorded in Liber 2622, page 229, Washtenaw County Records. **(AFFECTS SUBJECT PROPERTY, SUBSEQUENT DOCUMENT L.3356, P.250, SCH. B EXCEPTION NO. 14, APPEARS TO ABANDON THE EASEMENT DESCRIBED IN L.2622, P.229, NOT PLOTTED)**

(12) Easement in favor of Greenhills School, as recorded in Liber 1342, page 281, Washtenaw County Records. **(10 FOOT WIDE STORM EASEMENT LIES ON ADJOINING PARCEL, BENEFITS THE SUBJECT THE PROPERTY)**

(13) Grant of Easement in favor of the City of Ann Arbor, as recorded in Liber 3271, page 27 and Liber 4711, page 945, Washtenaw County Records. **(40 FOOT WIDE EASEMENT FOR WATER MAIN, SANITARY AND STORM SEWER SHOWN HEREON)**

(14) Resolution Accepting and Releasing a Utility Easement, as recorded in Liber 3356, page 250, Washtenaw County Records. **(AFFECTS SUBJECT PROPERTY, DOCUMENT APPEARS TO ABANDON THE EASEMENT DESCRIBED IN L.2622, P.229, NOT PLOTTED)**

(15) Terms and conditions contained in Greenhills School Development Agreement, as recorded in Liber 4797, page 356, Washtenaw County Records. **(AFFECTS THE SUBJECT PROPERTY, NOT PLOTTABLE)**

LEGAL DESCRIPTION

(PER CHICAGO TITLE INSURANCE COMPANY, TITLE COMMITMENT NO. CM25422, REVISION NO. 1, EFFECTIVE DATE JANUARY 18, 2017)

The land referred to in this Commitment is located in the City of Ann Arbor, County of Washtenaw, State of Michigan, and described as follows:

Outlot J, Earhart Subdivision, as recorded in Liber 19 of Plats, Pages 20 through 25, inclusive, Washtenaw County Records, EXCEPTING THEREFROM a strip of land 150 feet wide lying West of and adjacent to the limited access right of way of Highway US-23 over and across the South 970 feet of the North 980 feet of Outlot J.

CONTROL POINT TABLE

Point No.	Northing	Easting	Elevation	Description
1	286860.49	13309766.69	893.14	CP SGJJR CAP REBAR
2	286328.58	13309930.85	886.62	CP SGJJR CAP REBAR
3	286490.13	13309695.17	886.64	CP NAIL–SPIKE
4	286466.86	13309941.22	886.30	CP NAIL–SPIKE
5	286805.57	13309589.91	894.75	CP SGJJR CAP REBAR
6	286953.60	13309617.11	894.50	CP SGJJR CAP REBAR

BENCHMARKS

SITE BENCHMARK 21
SET "BENCHTIE"–BRAND SURVEY SPIKE IN NORTHWEST FACE OF 12" HONEY LOCUST NEAR SOUTHEAST CORNER OF TRACK & FIELD.

NORTHING = 286297.30
EASTING = 13309922.07
ELEVATION = 887.75 FEET (NAVD88)

SITE BENCHMARK 22
CUT SQUARE IN TOP OF NORTHEAST CORNER CONCRETE WALL, 24" HIGH, AT NORTHEAST OF ALUMINUM BLEACHERS .

NORTHING = 286584.01
EASTING = 13309651.20
ELEVATION = 889.46 FEET (NAVD88)

NOTES

1. A PORTION OF THE GREENHILLS SCHOOL PARCEL WAS MAPPED BY SMITHGROUPJJR IN MAY OF 2016 & JANUARY OF 2017. THIS AREA IS COMPRISED OF THE EXISTING TRACK AND SURROUNDING AREAS AS SHOWN HEREON. THE REMAINDER OF THE SITE MAPPING SHOWN HEREON WAS COMPLETED BY ATWELL IN 2006.

   MAPPING COMPLETED BY SMITHGROUPJJR ADHERES TO STANDARDS OUTLINED IN THE CITY OF ANN ARBOR SITE PLAN REQUIREMENTS. NOTES NO. 4, 5 AND 8 PERTAIN ONLY TO EFFORTS MADE BY SMITHGROUPJJR IN 2016–2017. THE RECORD MAPPING BY ATWELL RECEIVED VISUAL VERIFICATION IN THE FIELD AND THE SANITARY AND WATER UTILITIES SHOWN HEREON WERE CHECKED AGAINST PROVIDED RECORD MAPS. ATWELL MAPPING SHOULD BE USED ONLY FOR GENERAL GRADING AND PLANNING PURPOSES AND IS NOT SUFFICIENTLY VERIFIED TO SUPPORT DESIGN EFFORTS.

2. HORIZONTAL DATUM IS ACCORDING TO MICHIGAN STATE PLANE GRID COORDINATES, SOUTH ZONE (2113), GEOID 2012A, INTERNATIONAL FEET AS LINEAR UNIT OF MEASURE.

3. VERTICAL DATUM IS ACCORDING TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88), WITH BENCHMARKS LISTED HEREON.

4. SMITHGROUPJJR PERFORMED A TOPOGRAPHIC SURVEY UTILIZING DATA COLLECTED WITH GLOBAL POSITIONING RECEIVERS REFERENCING THE MICHIGAN CONTINUOUSLY OPERATING REFERENCE NETWORK.

5. MISS–DIG STAKING TICKET A60920228 WAS ISSUED FOR THIS PROJECT ON 4/1/2016.

6. UNDERGROUND UTILITY LOCATIONS WERE DERIVED FROM ACTUAL MEASUREMENTS ON VISIBLE UTILITIES, MISS DIG FLAGS/MARKINGS, AND/OR AVAILABLE RECORDS. THEY SHOULD NOT BE INTERPRETED TO BE EXACT LOCATIONS, NOR SHOULD THEY IT BE ASSUMED THAT THEY ARE THE ONLY UNDERGROUND UTILITIES IN THE AREA.

   THE LOCATION OF THE UNDERGROUND ELECTRIC LINE SHOWN HEREON WAS PLACED BASED ON VERBAL TESTIMONY BY THE GREENHILLS MAINTENANCE STAFF. LOCATION IS VERY APPROXIMATE AND IS ONLY SHOWN TO INDICATE THE EXISTENCE OF AN ELECTRIC UTILITY IN THE AREA. UTILITY SHOULD BE MARKED BY ELECTRICIAN PRIOR TO EXCAVATION.

7. SUBSURFACE AND ENVIRONMENTAL CONDITIONS WERE NOT EXAMINED AND ARE NOT CONSIDERED A PART OF THIS SURVEY. NO STATEMENT IS MADE CONCERNING THE EXISTENCE OF UNDERGROUND OR OVERHEAD CONTAINERS OR FACILITIES THAT MAY AFFECT THE USE AND OR DEVELOPMENT OF THIS SITE.

8. ADDITIONAL SPOT ELEVATIONS MAY BE CONTAINED IN THE PROJECT DATABASE, AND ALTHOUGH NOT APPEARING IN THE RECORD PLAN DOCUMENT DUE TO SCALE AND VISIBILITY, WERE UTILIZED IN THE DIGITAL TERRAIN MODEL FOR CREATION OF THE ONE–FOOT CONTOURS. THE ADDITIONAL SPOT ELEVATION DATA IS AVAILABLE FOR FUTURE DESIGN ANALYSIS, BEING LOCATED ON A FROZEN LAYER WITHIN THE PROJECT DATABASE.

CURVE TABLE

Curve No.	Length (M)	Length (R)	Radius	Delta	Chord Bearing	Chord Length
C1	10.62	--	3622.72	0°10'05"	S17°48'05"E	10.62
C2	996.03	--	3472.72	16°26'00"	S10°23'02"E	992.62
C3	28.17	--	3622.72	0°26'44"	S1°46'37"E	28.17
C4	177.55	177.48	520.00	19°33'46"	N8°13'39"E	176.69
C5	178.93	179.18	530.00	19°20'35"	N10°58'50"W	178.08

CERTIFICATE

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH LOCAL AND STATE JURISDICTIONAL REQUIREMENTS REGULATING MAPPING STANDARDS. THE UNDERSIGNED STATES THAT PROPER FIELD PROCEDURES, INSTRUMENTATION AND ADEQUATE STAFF WERE EMPLOYED TO ACHIEVE THE RESULTS INDICATED HEREIN.

SMITHGROUPJJR, INC.

CHARLES A. LANGOLF, PS 56210
PROFESSIONAL SURVEYOR
STATE OF MICHIGAN
charles.langolf@smithgroupjjr.com

STATE OF MICHIGAN
CHARLES A. LANGOLF
PROFESSIONAL SURVEYOR
No. 56210
LICENSED PROFESSIONAL SURVEYOR

DATE: 2/17/2017

GREENHILLS SCHOOL

850 GREENHILLS DRIVE
ANN ARBOR, MICHIGAN

Owner:
GREENHILLS SCHOOL

SMITHGROUPJJR

201 DEPOT STREET
SECOND FLOOR
ANN ARBOR, MI 48104
734.662.4457
www.smithgroupjjr.com

ISSUED FOR	REV	DATE
CLIENT ISSUE	0	5/20/2016
ADDITIONAL MAPPING	1	2/17/2017

SEALS AND SIGNATURES

NOT FOR CONSTRUCTION

KEY PLAN

DRAWING TITLE

TOPOGRAPHIC & BOUNDARY SURVEY

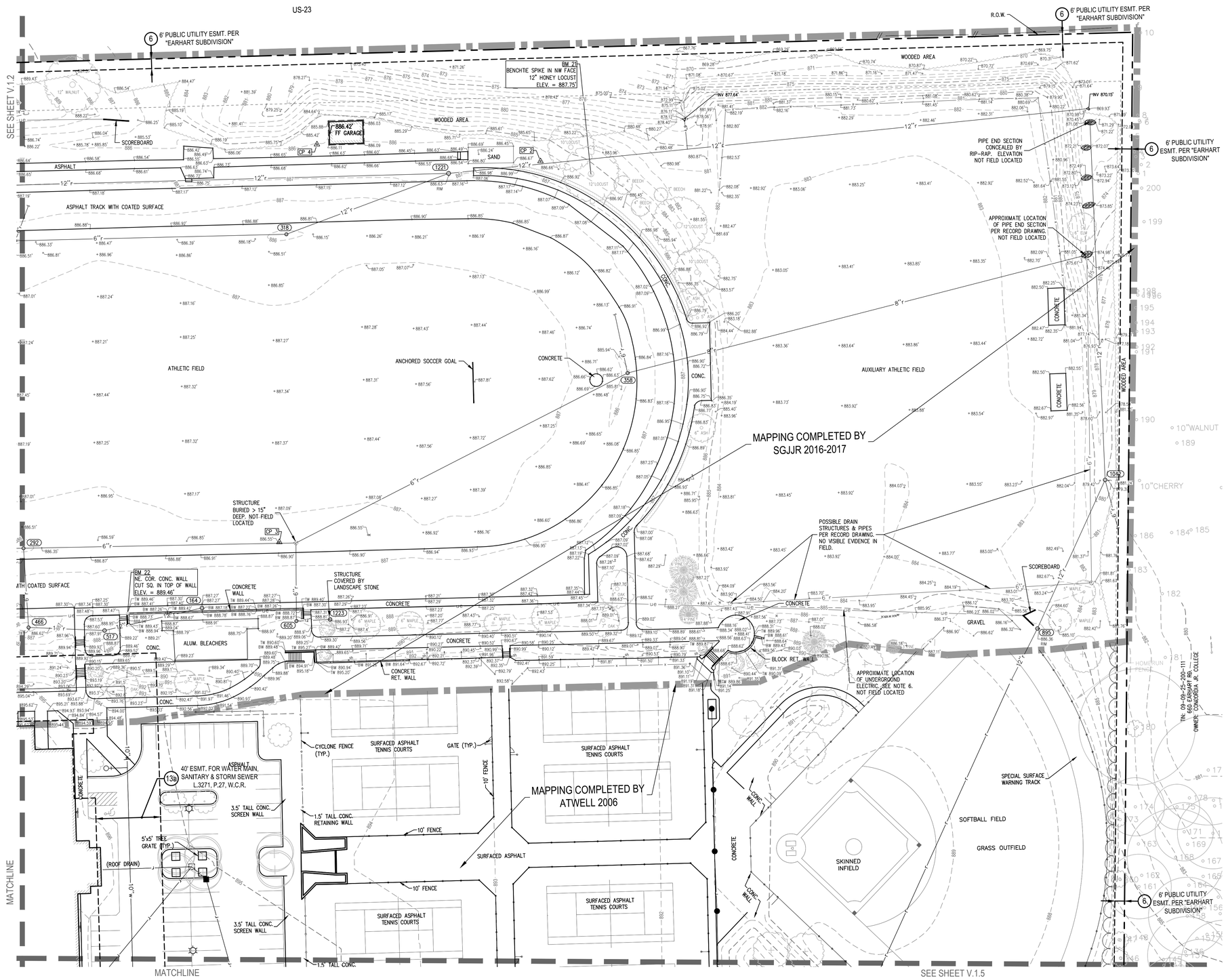
SCALE 1" = 80'

PROJECT NUMBER 21216

DRAWING NUMBER V.1.0

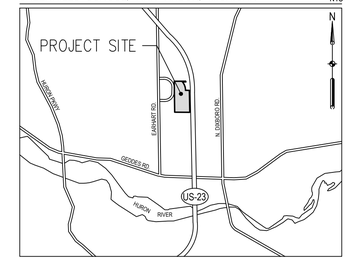
FILE:P:\21216.000\CAD\C\Model\21216 V-BASE-SPA.dwg USER:jaywest DATE:Oct 22 2019 TIME: 04:24 pm

SCALE 1" = 30'



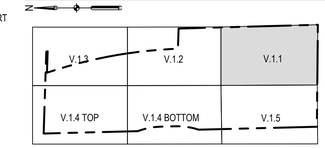
VICINITY SKETCH -
GREENHILLS SCHOOL, ANN ARBOR, MICHIGAN

NTS



KEY MAP

NTS



SURVEY LEGEND

- BENCHMARK
- CONTROL POINT
- F — FOUND IRON PIPE
- 700.00 — EX. SPOT ELEV.
- TC 701.00 — EX. TOP OF CURB ELEV.
- GU 700.50 — EX. GUTTER ELEV.
- EM 700.70 — EX. EDGE OF METAL
- CC 700.70 — EX. CURB CUT ELEV.
- TW 703.00 — EX. TOP OF WALL ELEV.
- BW 702.00 — EX. BOTTOM OF WALL ELEV.
- SOIL BORING
- ELECTRIC TRANSFORMER
- CABLE RISER
- UTILITY POLE
- GUY WIRE
- LIGHT POLE
- FIRE HYDRANT
- SHUT OFF VALVE
- 1221 — CATCH BASIN (ROUND)
- 1221 — CATCH BASIN (SQUARE)
- 1221 — COMMUNICATIONS MANHOLE
- 1221 — STORM MANHOLE
- 1221 — SANITARY MANHOLE
- 1221 — ELECTRIC MANHOLE
- 1221 — GAS MANHOLE
- 1221 — WATER MANHOLE
- 1221 — STEAM TUNNEL MANHOLE
- AC — AIR CONDITIONER
- IRRIGATION CONTROL VALVE
- FDC — EX. FIRE DEPT. CONNECTION
- DS — EX. DOWNSPOUT
- CO — EX. CLEANOUT
- EX. BOLLARD/POST
- SIGN
- SIGN – DOUBLE POST
- BL — EX. BIKE LOOP
- TREE – DECIDUOUS
- TREE – CONIFEROUS
- BUSH/SHRUB
- EX. TOPO CONTOUR
- BUILDING PERIMETER (TYP.)
- BUILDING/ROOF OVERHANG
- EX. BRUSH/WOODED LIMITS
- x — x — EX. FENCE LINE
- EX. GUARD RAIL
- ctv — EX. CABLE TELEVISION
- com — EX. COMMUNICATION
- ue — EX. UNDERGROUND ELECTRIC
- oe — EX. ELECTRIC
- fiber — EX. FIBER OPTIC
- g — EX. NATURAL GAS
- oh — EX. OVERHEAD UTILITY
- s — EX. SANITARY SEWER
- r — EX. STORM SEWER
- w — EX. WATER MAIN
- SL — EX. ELECTRIC STREET LIGHTING
- EDGE OF WATER
- PROPERTY LINE

GREENHILLS SCHOOL

850 GREENHILLS DRIVE
ANN ARBOR, MICHIGAN

Owner:

GREENHILLS SCHOOL

SMITHGROUP JJR

201 DEPOT STREET
SECOND FLOOR
ANN ARBOR, MI 48104
734.662.4457
www.smithgroupjjr.com

ISSUED FOR	REV	DATE
CLIENT ISSUE	0	5/20/2016
ADDITIONAL MAPPING	1	2/17/2017

SEALS AND SIGNATURES

NOT FOR CONSTRUCTION

KEY PLAN

DRAWING TITLE

TOPOGRAPHIC & BOUNDARY SURVEY

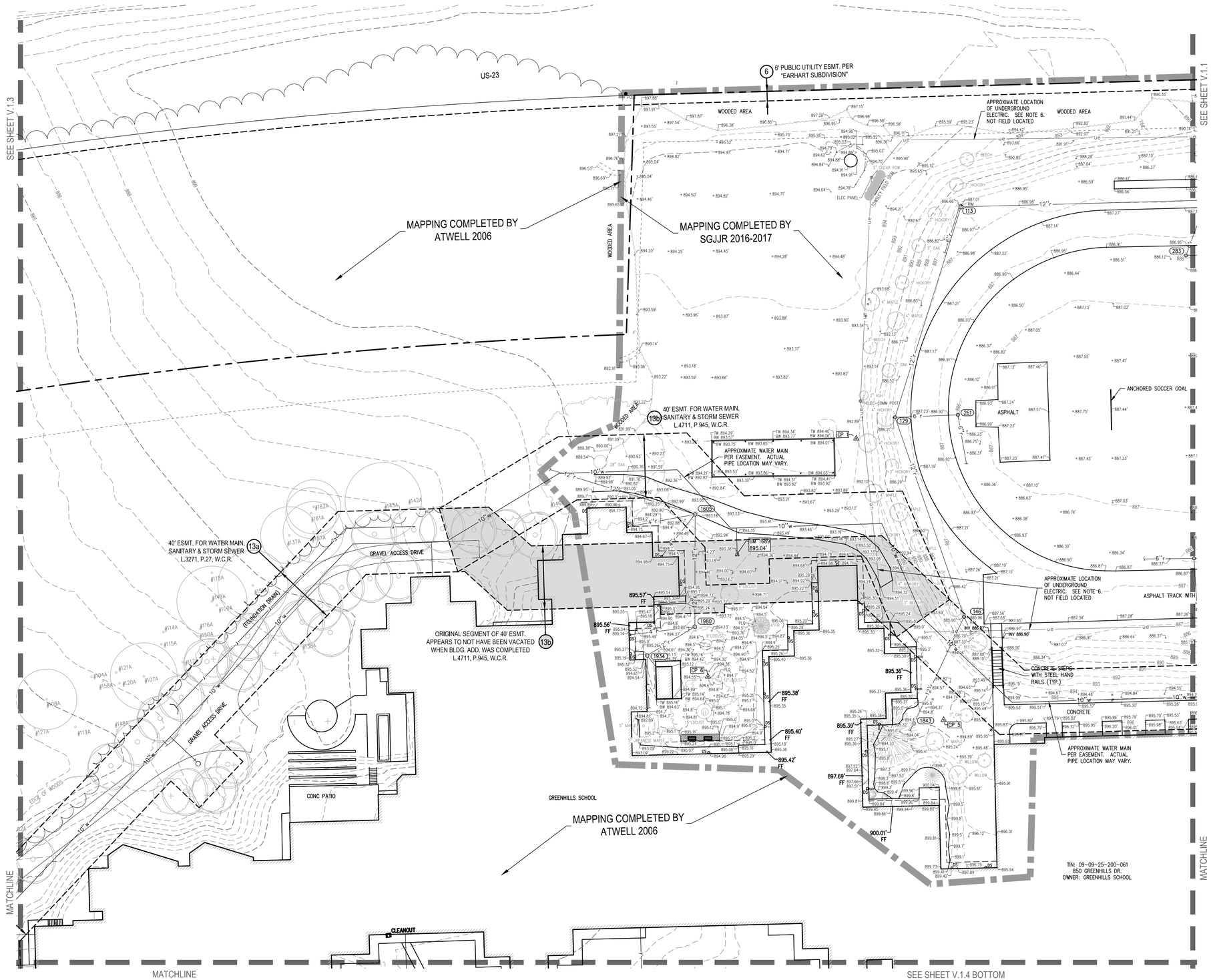
SCALE 1" = 30'

PROJECT NUMBER 21216

DRAWING NUMBER V.1.1

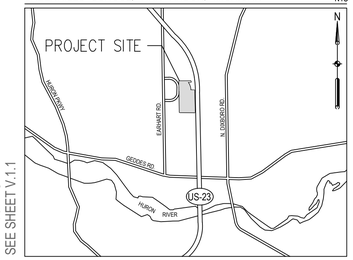
FILE:P:\21216.000\CAD\C\Model\21216_V-BASE-SPA.dwg USER:jaywest DATE:Oct. 22, 2019 TIME: 04:24 pm

SCALE 1" = 30'



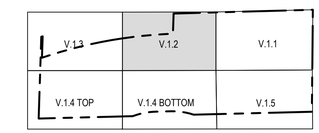
VICINITY SKETCH -
GREENHILLS SCHOOL, ANN ARBOR, MICHIGAN

NTS



KEY MAP

NTS



SURVEY LEGEND

	BENCHMARK
	CONTROL POINT
F	FOUND IRON PIPE
+ 700.00	EX. SPOT ELEV.
+ TC 701.00	EX. TOP OF CURB ELEV.
+ GU 700.50	EX. GUTTER ELEV.
+ EM 700.70	EX. EDGE OF METAL
+ CC 700.70	EX. CURB CUT ELEV.
+ TW 703.00	EX. TOP OF WALL ELEV.
+ BW 702.00	EX. BOTTOM OF WALL ELEV.
	SOIL BORING
	ELECTRIC TRANSFORMER
	CABLE RISER
	UTILITY POLE
	GUY WIRE
	LIGHT POLE
	FIRE HYDRANT
	SHUT OFF VALVE
1221	CATCH BASIN (ROUND)
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1221	COMMUNICATIONS MANHOLE
1221	STORM MANHOLE
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1221	ELECTRIC MANHOLE
1221	GAS MANHOLE
1221	WATER MANHOLE
1221	STEAM TUNNEL MANHOLE
AC	AIR CONDITIONER
	IRRIGATION CONTROL VALVE
FDC	EX. FIRE DEPT. CONNECTION
DS	EX. DOWNSPOUT
CO	EX. CLEANOUT
	EX. BOLLARD/POST
	SIGN
	SIGN – DOUBLE POST
	EX. BIKE LOOP
	TREE – DECIDUOUS
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	EX. TOPO CONTOUR
	BUILDING PERIMETER (TYP.)
	BUILDING/ROOF OVERHANG
	EX. BRUSH/WOODED LIMITS
x x	EX. FENCE LINE
	EX. GUARD RAIL
ctv	EX. CABLE TELEVISION
com	EX. COMMUNICATION
ue	EX. UNDERGROUND ELECTRIC
oe	EX. ELECTRIC
fiber	EX. FIBER OPTIC
g	EX. NATURAL GAS
oh	EX. OVERHEAD UTILITY
s	EX. SANITARY SEWER
r	EX. STORM SEWER
w	EX. WATER MAIN
SL	EX. ELECTRIC STREET LIGHTING
	EDGE OF WATER
	PROPERTY LINE

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850 GREENHILLS DRIVE
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ISSUED FOR	REV	DATE
CLIENT ISSUE	0	5/20/2016
ADDITIONAL MAPPING	1	2/17/2017

SEALS AND SIGNATURES

NOT FOR CONSTRUCTION

KEY PLAN

DRAWING TITLE

TOPOGRAPHIC & BOUNDARY SURVEY

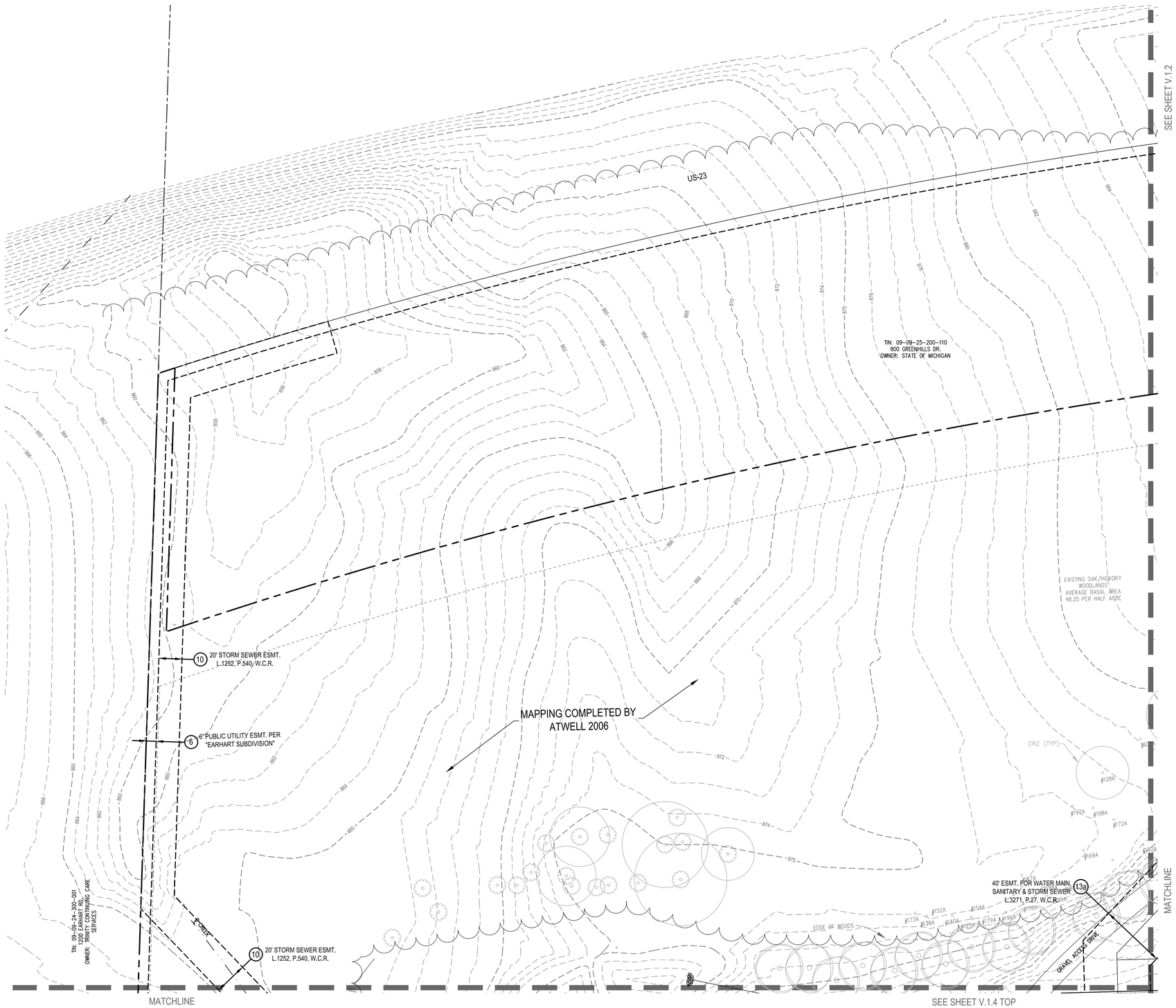
SCALE 1" = 30'

PROJECT NUMBER 21216

DRAWING NUMBER V.1.2

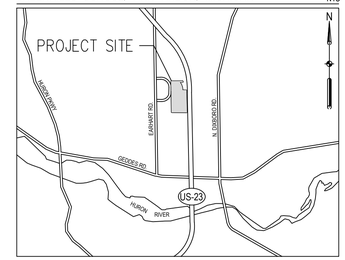
FILE:P:\21216.000\CAD\C\Model\21216 v-BASE-SPA.dwg USER:jaywest DATE:Oct 22 2019 TIME: 04:24 pm

SCALE 1" = 30'



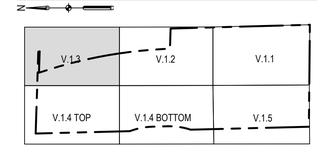
VICINITY SKETCH -
GREENHILLS SCHOOL, ANN ARBOR, MICHIGAN

NTS



KEY MAP

NTS



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+ 700.00	EX. SPOT ELEV.
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	PROPERTY LINE

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ISSUED FOR	REV	DATE
CLIENT ISSUE	0	5/20/2016
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SEALS AND SIGNATURES

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KEY PLAN

DRAWING TITLE

TOPOGRAPHIC & BOUNDARY SURVEY

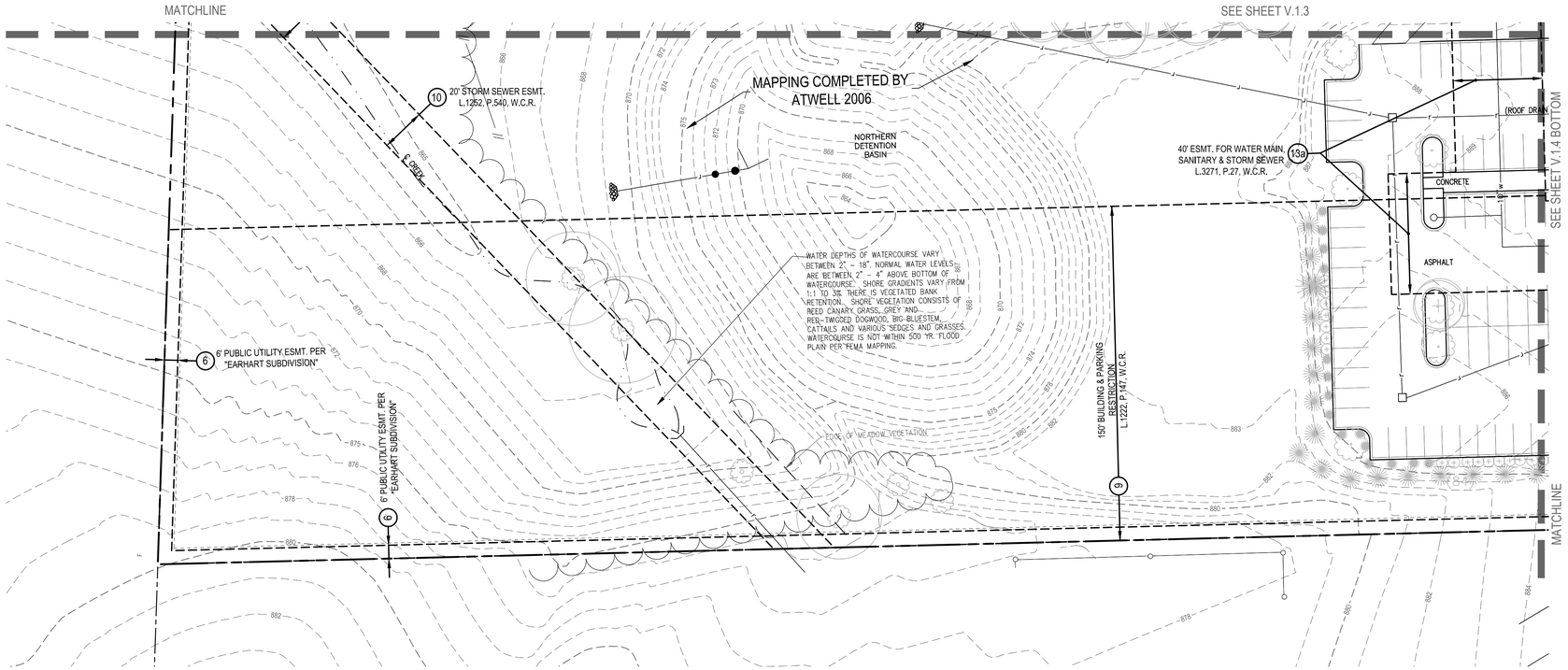
SCALE 1" = 30'

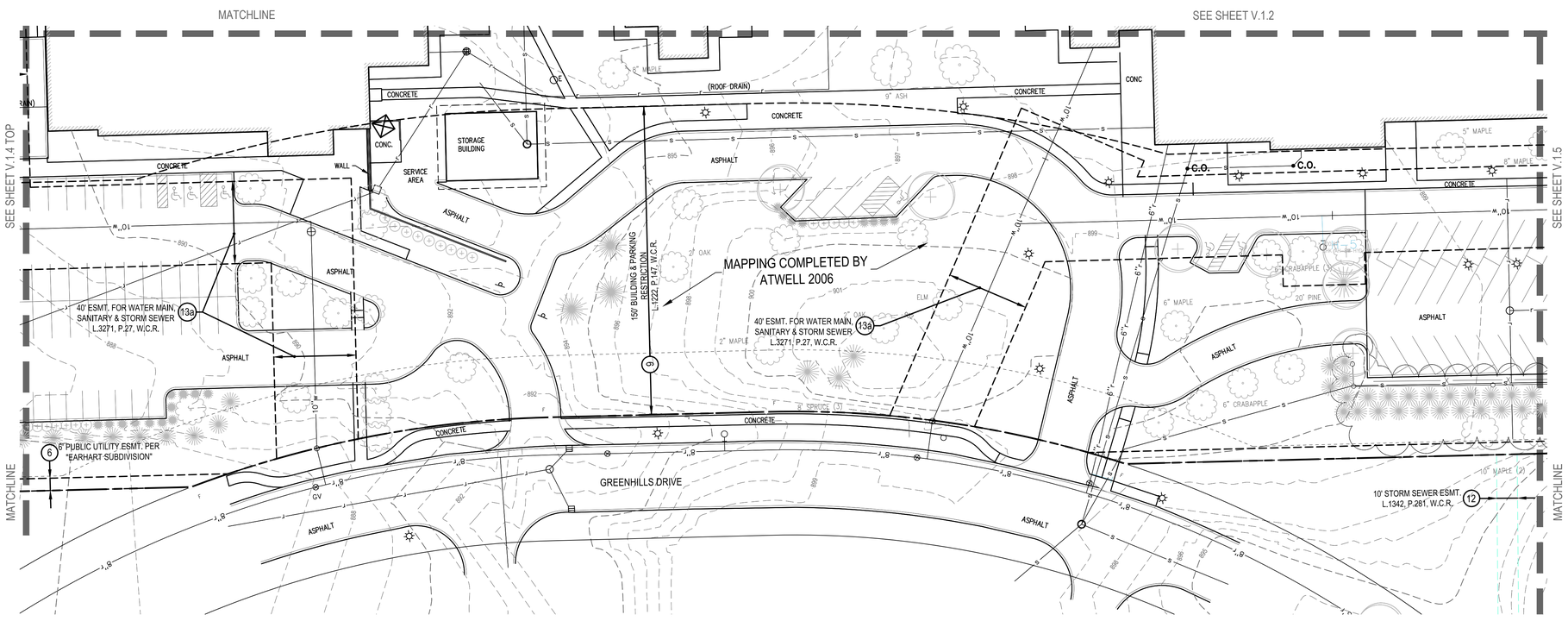
PROJECT NUMBER 21216

DRAWING NUMBER V.1.3

FILE:P:\21216.000\CAD\C\Model\21216_V-BASE-SPA.dwg USER: jrywrot DATE: Oct. 22 2019 TIME: 04:24 pm

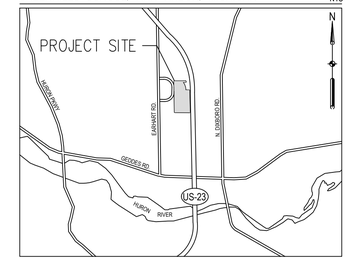
SCALE 1" = 30'





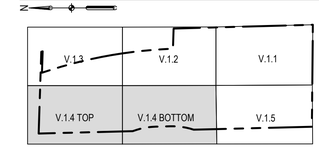
VICINITY SKETCH -
GREENHILLS SCHOOL, ANN ARBOR, MICHIGAN

NTS



KEY MAP

NTS



SURVEY LEGEND

	BENCHMARK
	CONTROL POINT
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	SIGN – DOUBLE POST
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	EDGE OF WATER
	PROPERTY LINE

GREENHILLS SCHOOL

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ANN ARBOR, MICHIGAN

Owner:

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ISSUED FOR	REV	DATE
CLIENT ISSUE	0	5/20/2016
ADDITIONAL MAPPING	1	2/17/2017

SEALS AND SIGNATURES

NOT FOR CONSTRUCTION

KEY PLAN

DRAWING TITLE

TOPOGRAPHIC & BOUNDARY SURVEY

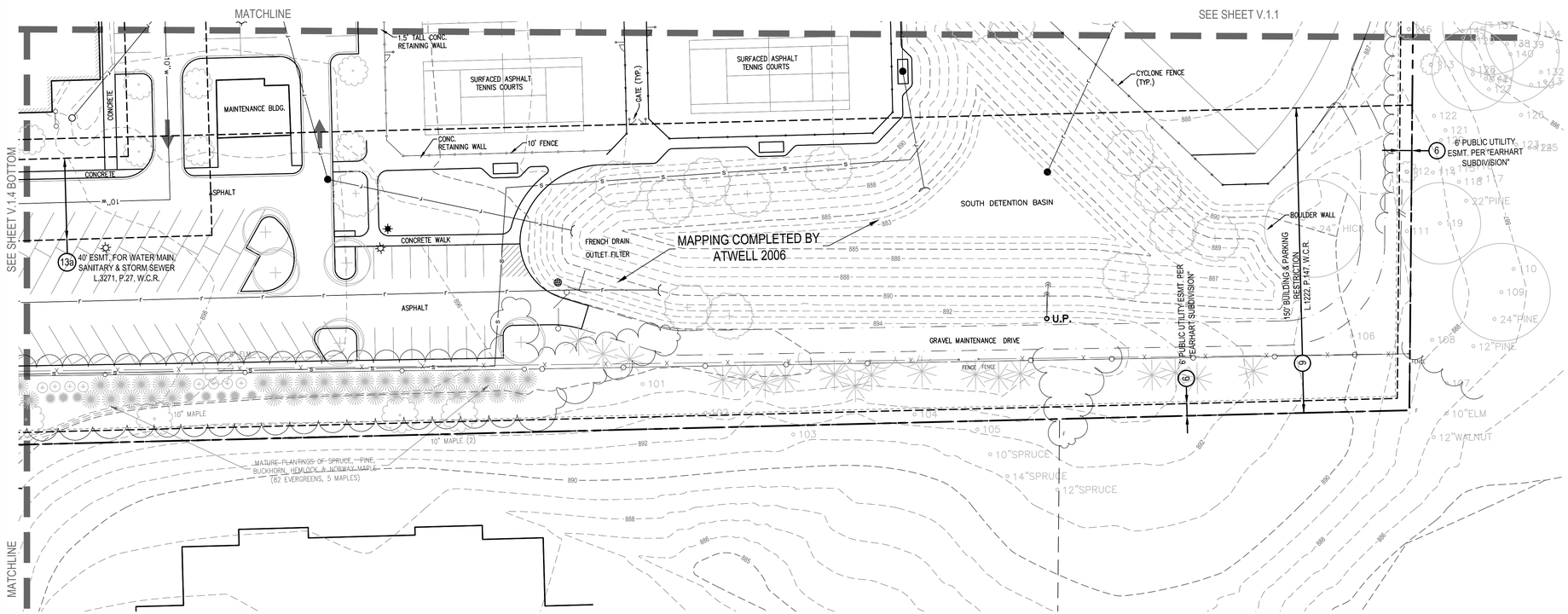
SCALE 1" = 30'

PROJECT NUMBER 21216

DRAWING NUMBER V.1.4

FILE: P:\21216.000\CAD\C\Model\21216 V-BASE-SPA.dwg USER: jaywest DATE: Oct. 22 2019 TIME: 04:24 pm

SCALE 1" = 30'

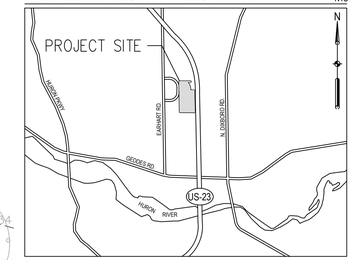


POINT	NORTHING	EASTING	RIM ELEV.	INV. ELEV.	DESCRIPTION
113	286794.71	13309912.20	887.01		CATCH BASIN - BEEHIVE 2' Ø
				882.71	SOUTH, 12" HDPE
				883.81	NORTHWEST, 6" CPP
				882.75	NORTHWEST, 12" HDPE
				882.66	SUMP
129	286836.11	13309780.00	886.35		CATCH BASIN 4' Ø
				883.05	SOUTHEAST, 12" HDPE
				883.65	SOUTH, 6" PVC
				883.60	SOUTHWEST, 12" HDPE
				882.75	SUMP
146	286792.74	13309654.74	885.96		CATCH BASIN - BEEHIVE 2' Ø
				884.26	NORTHWEST, 12" HDPE
				884.31	NORTHEAST, 12" HDPE
				884.96	SOUTHWEST, 6" CPP
				884.06	SUMP
164	286538.01	13309654.45	887.16		CATCH BASIN 2' Ø
				884.18	NORTHWEST, 12" RCP
				883.98	SUMP
261	286796.70	13309781.54	885.89		CATCH BASIN 2' Ø
				883.39	NORTH, 6" PVC
				883.39	WSW, 6" CPP
				883.29	SUMP
283	286653.47	13309881.61	885.85		CATCH BASIN 2' Ø
				882.65	SOUTH, 6" PVC
				882.75	SOUTHEAST, 6" CPP
				879.75	SUMP
292	286648.38	13309691.39	885.57		CATCH BASIN 4' Ø
				881.72	SOUTH, 6" PVC
				882.82	WEST, 6" PVC
				881.77	NORTH, 6" CPP
				880.77	SUMP
318	286485.78	13309885.65	885.72		CATCH BASIN 2' Ø
				881.38	NORTH, 6" PVC
				881.86	SOUTHEAST, 12" PVC
				881.32	SUMP
358	286274.74	13309799.79	885.80		CATCH BASIN 2' Ø
				880.87	NORTHWEST, 6" CPP
				881.00	NORTHEAST, 6" CPP
				880.84	SOUTHEAST, 8" VCP
				880.15	SUMP
466	286645.27	13309642.38	885.56		CATCH BASIN 2' Ø
				883.26	EAST, 6" PVC
				883.46	SOUTH, 12" RCP
				882.56	SUMP

POINT	NORTHING	EASTING	RIM ELEV.	INV. ELEV.	DESCRIPTION
517	286598.25	13309640.48	887.44	(Rim hi pt)	CATCH BASIN - BEEHIVE 4' Ø
				883.44	NORTH, 12" RCP
				883.54	SOUTHEAST, 12" RCP
				883.34	SUMP
605	286479.60	13309646.31	889.06		CATCH BASIN 2' Ø
				882.66	EAST, 6" CPP
				882.88	SOUTH, 12" RCP
				882.81	SUMP
895	286021.16	13309641.73	886.61	(Rim hi pt)	CATCH BASIN - BEEHIVE 4' Ø
				880.16	NORTHWEST, 12" RCP
				880.11	SOUTHEAST, 12" RCP
				-	FORMED CHANNEL - NO SUMP
1042	285979.29	13309733.69	879.55		CATCH BASIN - BEEHIVE 4' Ø
				875.40	NORTHWEST, 12" HDPE
				875.20	EAST, 12" HDPE
				877.40	SOUTHWEST, 4" PVC
				-	FORMED CHANNEL - NO SUMP
1221	286385.42	13309923.32	886.63		CATCH BASIN - BEEHIVE 4' Ø
				880.48	NORTHWEST, 12" PVC
				880.63	NORTH, 12" HDPE
				880.43	SOUTH, 12" HDPE
				-	FORMED CHANNEL - NO SUMP
1223	286458.76	13309647.38	886.86	(Rim hi pt)	CATCH BASIN - BEEHIVE 2' Ø
				883.19	NORTH, 12" RCP
				883.06	SUMP
1605	286961.65	13309719.10	892.99		STORM MANHOLE 4' Ø
				888.47	NORTHEAST, 12" RCP
				888.51	WEST, 12" RCP
				891.19	NORTH, 4" PVC
				891.39	NORTHWEST, 4" PVC
				888.19	SUMP
1843	286824.21	13309587.77	893.72	(Rim hi pt)	CATCH BASIN - BEEHIVE 4' Ø
				889.67	NORTHWEST, 12" BULKHEAD
				889.52	SOUTHEAST, 12" HDPE
				888.27	SUMP
1934	286991.82	13309630.45	894.78		STORM MANHOLE 2' Ø
				890.64	WEST, 12" PVC FILLED WITH BRICK
				890.90	SOUTHWEST, 12" PVC
				890.56	SOUTHEAST, 12" PVC
				890.41	SUMP
1980	286961.83	13309648.45	893.74	(Rim hi pt)	STORM MANHOLE 2' Ø
				889.62	NORTHWEST, 12" PVC
				-	NORTH, 4" PVC
				889.74	EAST, 12" RCP
				889.48	SUMP

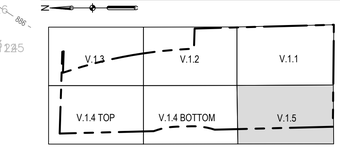
VICINITY SKETCH -
GREENHILLS SCHOOL, ANN ARBOR, MICHIGAN

NTS



KEY MAP

NTS



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- EDGE OF WATER
- PROPERTY LINE

GREENHILLS SCHOOL

850 GREENHILLS DRIVE
ANN ARBOR, MICHIGAN

Owner:

GREENHILLS SCHOOL

SMITHGROUP JJR

201 DEPOT STREET
SECOND FLOOR
ANN ARBOR, MI 48104
734.662.4457
www.smithgroupjjr.com

ISSUED FOR	REV	DATE
CLIENT ISSUE	0	5/20/2016
ADDITIONAL MAPPING	1	2/17/2017

SEALS AND SIGNATURES

NOT FOR CONSTRUCTION

KEY PLAN

DRAWING TITLE

TOPOGRAPHIC & BOUNDARY SURVEY

SCALE 1" = 30'

PROJECT NUMBER 21216

DRAWING NUMBER V.1.5

FILE:P:\21216.000\CAD\C\Model\21216_V-BASE-SPA.dwg USER:jayworcel DATE:Oct. 22, 2019 TIME: 04:24 pm

Tag	Botanical Name	Common Name	DBH (>6")
60	Quercus alba	White oak	8
61	Quercus alba	White oak	22
62	Ulmus americana	American elm	7.7
63	Carya ovata	Shagbark hickory	8.2
64	Carya ovata	Shagbark hickory	6.2
65	Carya glabra	Pignut hickory	19.5
66	Quercus alba	White oak	15.5, 14, 17.5
67	Carya glabra	Pignut hickory	19.5
68	Carya ovata	Shagbark hickory	10.5
69	Quercus alba	White oak	18, 17.2
70	Quercus alba	White oak	7.5, 8
71	Quercus alba	White oak	16
72	Ulmus americana	American elm	6.8
73	Ulmus rubra	Slippery elm	7.6
74	Quercus alba	White oak	24
75	Juglans nigra	Black walnut	21
76	Ulmus rubra	Slippery elm	7.3
77	Carya ovata	Shagbark hickory	8.2
78	Xcarya o	Shagbark hickory	11.5
79	Pinus strobus	White pine	6.1
80	Juglans nigra	Black walnut	6.2
81	Juglans nigra	Black walnut	6.8
82	Populus deltoides	Eastern cottonwood	17.5
83	Juglans nigra	Black walnut	12
84	Fraxinus americana	White ash	16.2
85	Pinus strobus	White pine	10.3
86	Juglans nigra	Black walnut	10
87	Pinus strobus	White pine	11.7
88	Pinus strobus	White pine	13.4
89	Pinus strobus	White pine	10.8
90	Pinus strobus	White pine	15.7
91	Pinus strobus	White pine	13.8
92	Picea glauca	White spruce	7.4
93	Picea glauca	White spruce	6.6
94	Picea glauca	White spruce	6.2
95	Juglans nigra	Black walnut	8.1, 10.4, 10.5
96	Pinus strobus	White pine	14.6
97	Salix nigra	Black willow	28.5, 14.5, 11.5, 11.5
98	Salix nigra	Black willow	27, 11.5
99	Acer negundo	Boxelder	8.9
100	Pinus strobus	White pine	8.7
101	Pinus strobus	White pine	8.4
102	Pinus strobus	White pine	12.4
103	Pinus strobus	White pine	6.2
104	Pinus strobus	White pine	8.7
105	Juglans nigra	Black walnut	10.3
106	Pinus strobus	White pine	10.1
107	Pinus strobus	White pine	6.3
108	Juglans nigra	Black walnut	10.3
109	Pinus strobus	White pine	6.7
110	Pinus strobus	White pine	7.1
111	Pinus strobus	White pine	7.2
112	Pinus strobus	White pine	7.5
113	Pinus strobus	White pine	8.5, 5.5
114	Pinus strobus	White pine	8.3
115	Pinus strobus	White pine	8.1
116	Pinus strobus	White pine	7.6
117	Pinus strobus	White pine	6.7
118	Pinus strobus	White pine	8.9
119	Juglans nigra	Black walnut	11.3
120	Juglans nigra	Black walnut	8.2
121	Juglans nigra	Black walnut	9.9
122	Fraxinus americana	White ash	7.7
123	Juglans nigra	Black walnut	11.4
124	Rhamnus cathartica	Common buckthorn	6.6, 5.9
125	Rhamnus cathartica	Common buckthorn	9.2
126	Pinus strobus	White pine	11.7
127	Rhamnus cathartica	Common buckthorn	6.2
128	Rhamnus cathartica	Common buckthorn	6.2
129	Rhamnus cathartica	Common buckthorn	6.1
130	Pinus strobus	White pine	6.6
131	Pinus strobus	White pine	7.1
132	Carya cordiformis	Bitternut hickory	8.2
133	Fraxinus americana	White ash	6.2, 4.9
134	Juglans nigra	Black walnut	9.8

Tag	Botanical Name	Common Name	DBH (>6")
135	Juglans nigra	Black walnut	6.1
136	Juglans nigra	Black walnut	11
137	Juglans nigra	Black walnut	11.4
138	Gleditsia triacanthos	Honeylocust	12.6
139	Rhamnus cathartica	Common buckthorn	8.4, 5.2, 10.7
140	Rhamnus cathartica	Common buckthorn	7.4, 6.1, 5.9, 4.7
141	Acer negundo	Boxelder	19
142	Juniperus virginiana	Eastern red cedar	8
143	Larix larciniana	Eastern tamarack	6.8
144	Rhamnus cathartica	Common buckthorn	7
145	Fraxinus americana	White ash	6.1
146	Ulmus americana	American elm	12
147	Juglans nigra	Black walnut	9.5
148	Juglans nigra	Black walnut	6.8
149	Ulmus americana	American elm	8.8
150	Quercus alba	White oak	24
151	Carya ovata	Shagbark hickory	15
152	Quercus alba	White oak	31
153	Carya ovata	Shagbark hickory	15
154	Carya ovata	Shagbark hickory	22
155	Ulmus rubra	Slippery elm	8.2
156	Carya ovata	Shagbark hickory	8.5
157	Carya ovata	Shagbark hickory	16.8
158	Celtis occidentalis	Northern hackberry	11
159	Rhamnus cathartica	Common buckthorn	6.4
160	Juglans nigra	Black walnut	11.4
161	Quercus rubra	Red oak	9.3
162	Prunus serotina	Black cherry	8.1
163	Ulmus rubra	Slippery elm	7.3
164	Carya ovata	Shagbark hickory	6.8
165	Carya glabra	Pignut hickory	6.6
166	Prunus serotina	Black cherry	6.3
167	Quercus rubra	Red oak	7.4
168	Carya glabra	Pignut hickory	24
169	Carya glabra	Pignut hickory	20.4
170	Carya ovata	Shagbark hickory	15.1
171	Tilia americana	American basswood	11.6
172	Quercus alba	White oak	15.3
173	Carya ovata	Shagbark hickory	13
174	Tilia americana	American basswood	13.4
175	Juglans nigra	Black walnut	32
176	Carya cordiformis	Bitternut hickory	29
177	Juglans nigra	Black walnut	33.5
178	Juglans nigra	Black walnut	23
179	Carya glabra	Pignut hickory	11.7
180	Carya cordiformis	Bitternut hickory	7.3
181	Juglans nigra	Black walnut	25.5
182	Carya cordiformis	Bitternut hickory	6.4
183	Ulmus rubra	Slippery elm	9.8
184	Carya glabra	Pignut hickory	8.3
185	Quercus alba	White oak	14
186	Quercus alba	White oak	14.5
187	Quercus alba	White oak	15.8
188	Quercus rubra	Red oak	20.5
189	Quercus alba	White oak	12.5
190	Celtis occidentalis	Northern hackberry	12.5
191	Juglans nigra	Black walnut	27
192	Juglans nigra	Black walnut	36.5
193	Carya ovata	Shagbark hickory	11.7
194	Carya ovata	Shagbark hickory	17
195	Carya ovata	Shagbark hickory	8.3
196	Carya ovata	Shagbark hickory	12.5
197	Carya ovata	Shagbark hickory	12.8
198	Quercus alba	White oak	23
199	Quercus alba	White oak	22
200	Carya glabra	Pignut hickory	11
201	Carya ovata	Shagbark hickory	10.6
202	Carya glabra	Pignut hickory	7.1
203	Carya glabra	Pignut hickory	8.6
204	Carya glabra	Pignut hickory	16.6
205	Carya ovata	Shagbark hickory	12.6
206	Carya glabra	Pignut hickory	9.2
207	Quercus alba	White oak	22
208	Quercus rubra	Red oak	15.3
209	Quercus rubra	Red oak	9.1

Tag	Botanical Name	Common Name	DBH (>6")
210	Quercus alba	White oak	24
211	Quercus alba	White oak	19
212	Quercus velutina	Black oak	19.9
213	Carya glabra	Pignut hickory	21
214	Carya ovata	Shagbark hickory	9.9
215	Carya ovata	Shagbark hickory	14.1
216	Carya ovata	Shagbark hickory	12.3
217	Ulmus americana	American elm	7.7
218	Quercus alba	White oak	10.2
219	Carya glabra	Pignut hickory	15.1
220	Quercus rubra	Red oak	14.8
221	Ostrya virginiana	Hop-hornbeam	7, 6.5
222	Ostrya virginiana	Hop-hornbeam	6
223	Quercus alba	White oak	16
224	Ostrya virginiana	Hop-hornbeam	6.8
225	Quercus rubra	Red oak	18.6
226	Quercus alba	White oak	22.8
227	Ulmus americana	American elm	6.6
228	Quercus alba	White oak	11.2
229	Prunus serotina	Black cherry	6.3
230	Quercus alba	White oak	19.3
231	Quercus alba	White oak	15.4
232	Carya glabra	Pignut hickory	12
233	Ulmus americana	American elm	6.2
234	Ulmus americana	American elm	8
235	Quercus rubra	Red oak	32
236	Ostrya virginiana	Hop-hornbeam	9.9, 10.7
237	Quercus alba	White oak	23
238	Ulmus rubra	Red oak	7.4
239	Quercus alba	White oak	32
240	Quercus alba	White oak	21
241	Quercus alba	White oak	24.5
242	Ostrya virginiana	Hop-hornbeam	7.2
243	Ostrya virginiana	Hop-hornbeam	7.8, 7.3
244	Quercus alba	White oak	20.5
245	Quercus alba	White oak	19
246	Carya glabra	Pignut hickory	11.5
247	Quercus rubra	Red oak	18.3
248	Ostrya virginiana	Hop-hornbeam	8.4, 8.3, 5.1
249	Quercus alba	White oak	21.5
250	Acer sacarum	Sugar maple	14.7
251	Carya glabra	Pignut hickory	15.8
252	Carya glabra	Pignut hickory	11.2
253	Ulmus americana	American elm	6.1
254	Quercus alba	White oak	17.4
255	Quercus alba	White oak	30
256	Juglans nigra	Black walnut	21
257	Ulmus americana	American elm	6.3
258	Carya ovata	Shagbark hickory	17.5
259	Ulmus americana	American elm	7.2
260	Ulmus americana	American elm	6.2, 6.0
261	Carya glabra	Pignut hickory	9.7
262	Ulmus americana	American elm	6.2
263	Quercus alba	White oak	28
264	Ulmus americana	American elm	6.1
265	Carya glabra	Pignut hickory	20
266	Ulmus americana	American elm	6.7
267	Quercus alba	White oak	26
268	Quercus alba	White oak	26.5
269	Quercus alba	White oak	27
270	Carya ovata	Shagbark hickory	12.5
271	Acer platanoides	Norway maple	10.6
272	Quercus alba	White oak	14.8
273	Ulmus americana	American elm	11.5
274	Ulmus americana	American elm	14.5
275	Quercus alba	White oak	24
276	Quercus alba	White oak	19.5
277	Carya glabra	Pignut hickory	8.2
278	Carya glabra	Pignut hickory	16.4
279	Acer sacarum	Sugar maple	6.8
280	Ulmus americana	American elm	6.9
281	Quercus alba	White oak	22
282	Quercus alba	White oak	18.3
283	Quercus alba	White oak	20.7
284	Quercus alba	White oak	17.9

Tag	Botanical Name	Common Name	DBH (>6")
285	Quercus alba	White oak	14.4
286	Quercus alba	White oak	16.6
287	Quercus alba	White oak	18
288	Quercus alba	White oak	11.3
289	Quercus alba	White oak	15.2
290	Quercus alba	White oak	11.2
291	Quercus alba	White oak	16
292	Quercus alba	White oak	17.4
293	Quercus alba	White oak	17.4
294	Carya glabra	Pignut hickory	12.8
295	Quercus alba	White oak	21
296	Quercus alba	White oak	17.7
297	Quercus alba	White oak	14.3
298	Quercus alba	White oak	17.5
299	Quercus alba	White oak	16.7
300	Carya glabra	Pignut hickory	10.7
301	Quercus rubra	Red oak	16.4
302	Quercus rubra	Red oak	21.3
303	Carya glabra	Pignut hickory	11
304	Juglans nigra	Black walnut	20.1
305	Pinus strobus	White pine	5.5
306	Quercus rubra	Red oak	26.1
307	Carya glabra	Pignut hickory	16.5
308	Ulmus americana	American elm	7.2
309	Carya glabra	Pignut hickory	15.2
310	Carya ovata	Shagbark hickory	10.8
311	Carya ovata	Shagbark hickory	18
312	Carya glabra	Shagbark hickory	6.4
313	Carya glabra	Shagbark hickory	8.7
314	Quercus alba	White oak	23
315	Quercus alba	White oak	17.3
316	Quercus alba	White oak	19
317	Quercus alba	White oak	17.3
318	Quercus rubra	Red oak	23.5
319	Quercus rubra	Red oak	19
320	Quercus alba	White oak	13.3
321	Quercus alba	White oak	17.6
322	Quercus alba	White oak	19.5
323	Quercus alba	White oak	19.4
324	Quercus alba	White oak	14.1
325	Quercus alba	White oak	11.7
326	Carya glabra	Pignut hickory	13
327	Carya glabra	Pignut hickory	12.4
328	Juglans nigra	Black walnut	6.3
329	Quercus alba	White oak	16.3
330	Carya glabra	Pignut hickory	12.9
331	Carya glabra	Pignut hickory	7.4
332	Quercus rubra	Red oak	27
333	Ulmus rubra	Slippery elm	6.7
334	Quercus alba	White oak	24
335	Quercus alba	White oak	19.4
336	Quercus alba	White oak	18
337	Quercus alba	White oak	19.5
338	Carya glabra	Pignut hickory	16.8
339	Carya ovata	Shagbark hickory	12.4
340	Quercus rubra	Red oak	17
341	Carya glabra	Pignut hickory	12.7
342	Carya glabra	Pignut hickory	9.7
343	Carya glabra	Pignut hickory	15.7
344	Quercus alba	White oak	22.5
345	Quercus alba	White oak	15.7
346	Quercus alba	White oak	23
347	Carya ovata	Shagbark hickory	18
348	Quercus rubra	Red oak	14.5
349	Quercus rubra	Red oak	16.6
350	Quercus rubra	Red oak	14.2
351	Quercus rubra	Red oak	7.4
352	Quercus rubra	Red oak	7.4
353	Carya ovata	Shagbark hickory	12.4
354	Carya glabra	Pignut hickory	17.9
355	Carya glabra	Pignut hickory	8.4
356	Quercus alba	White oak	26
357	Quercus alba	White oak	20
358	Quercus rubra	Red oak	14.3
359	Acer rubrum	Red maple	6.4

ATHLETIC FIELD IMPROVEMENTS

850 GREENHILLS DRIVE
ANN ARBOR, MI 48105

Owner:

GREENHILLS SCHOOL

SMITHGROUP

201 DEPOT STREET
SECOND FLOOR
ANN ARBOR, MI 48104
734.662.4457
www.smithgroupjjr.com

ISSUED FOR	REV	DATE
Site Plan Approval Resubmittal		Dec 5, 2019
Site Plan Approval		Oct 24, 2019

SEALS AND SIGNATURES

STATE OF MICHIGAN · JOSEPH B. WYWROT · ENGINEER · No. 48674 · LICENSED PROFESSIONAL ENGINEER

KEY PLAN

PROJECT NORTH

DRAWING TITLE

TREE INVENTORY

SCALE

21216.000

PROJECT NUMBER

V-2.0

DRAWING NUMBER

FILE:P:\21216.000\CAD\C\Sheet\21216 V-2.0.dwg USER:jwywrot DATE:Dec. 05 2019 TIME: 04:34 pm

Tag	Botanical Name	Common Name	DBH (>6")
360	Carya ovata	Shagbark hickory	11.5
361	Carya glabra	Pignut hickory	14.6
362	Ulmus americana	American elm	6.3
363	Carya ovata	Shagbark hickory	13.2
364	Carya ovata	Shagbark hickory	13.4
365	Quercus alba	White oak	21
366	Carya glabra	Pignut hickory	15.7
367	Carya glabra	Pignut hickory	8.8
368	Ostrya virginiana	Hop-hornbeam	7.2
369	Juniperus virginiana	Eastern red cedar	19.3
370	Carya glabra	Pignut hickory	7.2
371	Quercus rubra	Red oak	35.5
372	Quercus rubra	Red oak	8.6
373	Quercus alba	White oak	29
374	Prunus serotina	Black cherry	6.2
375	Quercus alba	White oak	28
376	Carya glabra	Pignut hickory	15.6
377	Carya glabra	Pignut hickory	6.1
378	Quercus rubra	Red oak	23
379	Quercus alba	White oak	15.7
380	Carya glabra	Pignut hickory	21.2
381	Carya ovata	Shagbark hickory	10.6
382	Ulmus americana	American elm	6
383	Carya glabra	Pignut hickory	8.7
384	Carya glabra	Pignut hickory	21.5
385	Carya ovata	Shagbark hickory	14
386	Carya ovata	Shagbark hickory	10.4
387	Quercus alba	White oak	16.4
388	Quercus rubra	Red oak	20.2
389	Ulmus americana	American elm	8.4
390	Quercus alba	White oak	14.4
391	Quercus alba	White oak	20.5
392	Carya ovata	Pignut hickory	12.1
393	Quercus alba	White oak	10.7
394	Quercus alba	White oak	18.4
395	Ulmus americana	American elm	6
396	Carya glabra	Pignut hickory	17.1
397	Quercus alba	White oak	16.7
398	Quercus alba	White oak	14.9
399	Carya glabra	Pignut hickory	13.1
400	Carya glabra	Pignut hickory	13.5
401	Quercus alba	White oak	13.6, 15.9
402	Quercus alba	White oak	20.6
403	Quercus macrocarpa	Burr oak	25.5
404	Ulmus americana	American elm	6.8
405	Carya ovata	Shagbark hickory	15
406	Carya glabra	Pignut hickory	8.4
407	Ulmus americana	American elm	6.3
408	Quercus alba	White oak	26.2
409	Ulmus americana	American elm	7.1
410	Ulmus americana	American elm	6.6
411	Ulmus americana	American elm	6.9
412	Carya ovata	Shagbark hickory	14.2
413	Juglans nigra	Black walnut	15.3
414	Juglans nigra	Black walnut	17.3
415	Ulmus americana	American elm	6.5
416	Quercus alba	White oak	22
417	Quercus rubra	Red oak	18
418	Carya glabra	Pignut hickory	13.6
419	Carya ovata	Shagbark hickory	14.3
420	Ulmus americana	American elm	6.9
421	Quercus alba	White oak	17.1
422	Quercus rubra	Red oak	17.3
423	Quercus alba	White oak	19
424	Quercus alba	White oak	14.4
425	Ulmus americana	American elm	8.3
426	Juglans nigra	Black walnut	7.7
427	Quercus alba	White oak	14.5
428	Quercus alba	White oak	12.9
429	Quercus alba	White oak	14.3
430	Quercus alba	White oak	14.4
431	Quercus alba	White oak	18.6
432	Carya glabra	Pignut hickory	12
433	Quercus alba	White oak	18.2
434	Quercus alba	White oak	22

Tag	Botanical Name	Common Name	DBH (>6")
435	Quercus alba	White oak	12.7
436	Quercus alba	White oak	15.8
437	Quercus rubra	Red oak	19.3
438	Quercus alba	White oak	16.7
439	Quercus velutina	Black oak	16
440	Carya glabra	Pignut hickory	13.6
441	Quercus alba	White oak	15.7
442	Carya glabra	Pignut hickory	10.2
443	Quercus rubra	Red oak	22.8
444	Quercus alba	White oak	13.3
445	Quercus alba	White oak	15.5
446	Quercus rubra	Red oak	23.6
447	Quercus alba	White oak	27
448	Quercus velutina	Black oak	24
449	Quercus velutina	Black oak	15.2
450	Quercus alba	White oak	18.6
451	Ulmus americana	American elm	8.3
452	Quercus alba	White oak	25
453	Juglans nigra	Black walnut	13.6
454	Carya ovata	Shagbark hickory	14.1
455	Quercus rubra	Red oak	22.5
456	Quercus rubra	Red oak	24
457	Carya glabra	Pignut hickory	14.8
458	Quercus rubra	Red oak	17
459	Ulmus americana	American elm	7.1
460	Quercus alba	White oak	24.5
461	Ulmus americana	American elm	10.6
462	Carya cordiformis	Bitternut hickory	6.8
463	Carya cordiformis	Bitternut hickory	8.3
464	Juglans nigra	Black walnut	18.6
465	Quercus alba	White oak	17.8
466	Ulmus rubra	Red oak	9.3
467	Ulmus rubra	Red oak	7.1
468	Ulmus rubra	Red oak	7.1
469	Ulmus americana	American elm	6.5
470	Quercus alba	White oak	26
471	Quercus alba	White oak	16.5
472	Ostrya virginiana	Hop-hornbeam	6.9
473	Quercus rubra	Red oak	14.5
474	Quercus alba	White oak	16.7
475	Quercus alba	White oak	23.9
476	Carya cordiformis	Bitternut hickory	16.2
477	Quercus alba	White oak	19.1
478	Quercus rubra	Red oak	19.6
479	Quercus alba	White oak	15.9
480	Ulmus americana	American elm	6.1
481	Quercus alba	White oak	20.1
482	Quercus alba	White oak	22
483	Quercus rubra	Red oak	18.9
484	Quercus alba	White oak	17.2
485	Quercus alba	White oak	16
486	Quercus rubra	Red oak	20.5
487	Ulmus rubra	Slippery elm	8.1
488	Quercus alba	White oak	16
489	Quercus alba	White oak	12.7
490	Juglans nigra	Black walnut	18.3
491	Juglans nigra	Black walnut	10.3
492	Quercus alba	White oak	17.2
493	Quercus alba	White oak	13.7
494	Quercus alba	White oak	14.5
495	Quercus alba	White oak	16.3
496	Quercus rubra	Red oak	22
497	Quercus alba	White oak	13.2
498	Juglans nigra	Black walnut	9
499	Quercus alba	White oak	12.8
500	Quercus alba	White oak	14
501	Acer negundo	Boxelder	6.5
502	Acer negundo	Boxelder	6.5, 4.2
503	Prunus avium	Sweet cherry	6
504	Acer negundo	Boxelder	6.5, 6.5
505	Quercus rubra	Red oak	9.8
506	Quercus rubra	Red oak	8.7
507	Ulmus americana	American elm	6.2
508	Ulmus americana	American elm	8.8
509	Carya ovata	Shagbark hickory	6.7

Tag	Botanical Name	Common Name	DBH (>6")
510	Carya ovata	Shagbark hickory	6.2
511	Acer negundo	Boxelder	7.4
512	Carya glabra	Pignut hickory	6.7
513	Populus deltoides	Eastern cottonwood	6.7
514	Populus deltoides	Eastern cottonwood	11.6
515	Populus deltoides	Eastern cottonwood	7.6
516	Populus deltoides	Eastern cottonwood	9.2
517	Populus deltoides	Eastern cottonwood	8.5
518	Populus deltoides	Eastern cottonwood	7.2, 10.8
519	Populus deltoides	Eastern cottonwood	9.1
520	Populus deltoides	Eastern cottonwood	8.8
521	Quercus alba	White oak	7.8
522	Salix amygdaloides	Peachleaf willow	13.6
523	Salix amygdaloides	Peachleaf willow	9.9
524	Salix amygdaloides	Peachleaf willow	12.8
525	Ulmus americana	American elm	10.6
526	Quercus alba	White oak	18
527	Ulmus americana	American elm	8.5
528	Quercus alba	White oak	20.7
529	Quercus alba	White oak	15
530	Quercus rubra	Red oak	17.5
531	Quercus alba	White oak	13.7
532	Quercus alba	White oak	18.3
533	Carya ovata	Shagbark hickory	12.8
534	Quercus alba	White oak	22.5
535	Quercus velutina	Black oak	14.1
536	Quercus alba	White oak	16
537	Quercus alba	White oak	10.2
538	Quercus alba	White oak	9
539	Quercus alba	White oak	17
540	Quercus rubra	Red oak	20.9
541	Ulmus rubra	Slippery elm	9.7
542	Quercus alba	White oak	16.8
543	Quercus rubra	Red oak	16.6
544	Quercus alba	White oak	14.7
545	Quercus alba	White oak	16.2
546	Quercus alba	White oak	12.9
547	Quercus alba	White oak	22
548	Ulmus americana	American elm	9.5
549	Juglans nigra	Black walnut	8.6
550	Juglans nigra	Black walnut	6.2
551	Salix	Willow	6.3
552	Salix	Willow	7.7
553	Populus deltoides	Eastern cottonwood	22
554	Populus deltoides	Eastern cottonwood	6.8
555	Populus deltoides	Eastern cottonwood	10.1
556	Salix	Willow	7.5
557	Salix	Willow	7.5
558	Salix	Willow	9.1, 9.1, 7.5
559	Quercus alba	White oak	19.8
560	Quercus alba	White oak	20.1
561	Quercus alba	White oak	14.5
562	Tilia americana	American basswood	16.5, 12.7, 10.4
563	Juglans nigra	Black walnut	17.9
564	Quercus alba	White oak	16.3
565	Quercus alba	White oak	15.1
566	Tilia americana	American basswood	11.8
567	Tilia americana	American basswood	6.5
568	Tilia americana	American basswood	7.7
569	Tilia americana	American basswood	6.1
570	Tilia americana	American basswood	10.5
571	Quercus alba	White oak	13.1
572	Quercus alba	White oak	12.4
573	Ulmus rubra	Slippery elm	6.1
574	Quercus alba	White oak	16.6
575	Tilia americana	American basswood	8.1
576	Quercus alba	White oak	11.2
577	Tilia americana	American basswood	8.8
578	Juglans nigra	Black walnut	18.8
579	Tilia americana	American basswood	10.8
580	Quercus alba	White oak	9.5
581	Ulmus americana	American elm	6.7
582	Ulmus americana	American elm	8.4
583	Tilia americana	American basswood	14.5
584	Populus deltoides	Eastern cottonwood	8

Tag	Botanical Name	Common Name	DBH (>6")
585	Salix	Willow	6.3
586	Populus deltoides	Eastern cottonwood	6.3
587	Juglans nigra	Black walnut	10.3
588	Juglans nigra	Black walnut	25.5
589	Populus deltoides	Eastern cottonwood	6.3
590	Populus deltoides	Eastern cottonwood	10.4
591	Quercus alba	White oak	12.7
592	Tilia americana	American basswood	14.7
593	Tilia americana	American basswood	11
594	Quercus alba	White oak	14.8
595	Quercus alba	White oak	15.4
596	Quercus alba	White oak	14.4
597	Quercus alba	White oak	17.9
598	Quercus alba	White oak	13.8
599	Quercus alba	White oak	19.3
600	Celtis occidentalis	Northern hackberry	8.9
601	Quercus alba	White oak	9.3
602	Tilia americana	American basswood	8.7
603	Quercus alba	White oak	15.1
604	Tilia americana	American basswood	11.6
605	Tilia americana	American basswood	6.6
606	Tilia americana	American basswood	7.8, 4.6
607	Quercus alba	White oak	13.5
608	Quercus alba	White oak	18.4
609	Tilia americana	American basswood	11.7
610	Quercus rubra	Red oak	16.2
611	Quercus alba	White oak	15.6
612	Carya ovata	Shagbark hickory	7.3
613	Quercus alba	White oak	16.1
614	Celtis occidentalis	Northern hackberry	9.6
615	Quercus alba	White oak	17.5
616	Tilia americana	American basswood	8.6
617	Quercus alba	White oak	23
618	Tilia americana	American basswood	7.5, 5
619	Ulmus rubra	Slippery elm	8.1
620	Quercus rubra	Red oak	28.5
621	Juglans nigra	Black walnut	29
622	Quercus alba	White oak	16
623	Quercus alba	White oak	14.4
624	Quercus alba	White oak	18.7
625	Quercus alba	White oak	15
626	Gleditsia triacanthos	Honeylocust	7.9
628	Ulmus americanus	American elm	6.5
629	Juglans nigra	Black walnut	6.1
630	Quercus alba	White oak	20.6
631	Juglans nigra	Black walnut	7.5
632	Juglans nigra	Black walnut	7.1
633	Quercus alba	White oak	19.3
634	Ulmus americanus	American elm	8.7
635	Quercus alba	White oak	21
636	Ulmus rubra	Slippery elm	6.3
637	Tilia americana	American basswood	9.3
638	Prunus avium	Sweet cherry	8.4
639	Carya glabra	Pignut hickory	11.4
640	Quercus alba	White oak	20
641	Quercus rubra	Red oak	23
642	Quercus alba	White oak	17.2
643	Quercus alba	White oak	21
644	Quercus alba	White oak	17.7
645	Carya glabra	Pignut hickory	13.9
646	Quercus alba	White oak	14.6
647	Carya ovata	Shagbark hickory	15.2
648	Carya ovata	Shagbark hickory	14.6
649	Quercus alba	White oak	24
650	Quercus alba	White oak	17.5
651	Quercus alba	White oak	23
652	Quercus alba	White oak	18.1
653	Quercus alba	White oak	28
654	Populus deltoides	Eastern cottonwood	8.7
655	Ulmus americanus	American elm	7.1
656	Carya ovata	Shagbark hickory	14.5
657	Quercus alba	White oak	20
658	Quercus alba	White oak	23
659	Quercus rubra	Red oak	34

ATHLETIC FIELD IMPROVEMENTS

850 GREENHILLS DRIVE
ANN ARBOR, MI 48105

Owner:

GREENHILLS SCHOOL

SMITHGROUP

201 DEPOT STREET
SECOND FLOOR
ANN ARBOR, MI 48104
734.662.4457
www.smithgroupjjr.com

ISSUED FOR	REV	DATE
Site Plan Approval Resubmittal		Dec 5, 2019
Site Plan Approval		Oct 24, 2019

SEALS AND SIGNATURES

STATE OF MICHIGAN
JOSEPH B. WYWROT
ENGINEER
No. 48074
LICENSED PROFESSIONAL ENGINEER

KEY PLAN

PROJECT NORTH

DRAWING TITLE
TREE INVENTORY

SCALE
21216.000

PROJECT NUMBER

V-2.1

DRAWING NUMBER

FILE:P:\21216.000\CAD\C\Sheet\21216_V-2.0.dwg USER:jwywrot DATE:Dec. 05, 2019 TIME: 04:34 pm

Tag	Botanical Name	Common Name	DBH (>6")
660	Juglans nigra	Black walnut	20.1
661	Ulmus americanus	American elm	6.8
662	Ulmus americanus	American elm	6.8
663	Quercus alba	White oak	15
664	Quercus alba	White oak	18.4
665	Quercus alba	White oak	19.9
666	Quercus alba	White oak	20.8
667	Quercus alba	White oak	25
668	Quercus alba	White oak	19.4
669	Ulmus americanus	American elm	9.9
670	Populus deltoides	Eastern cottonwood	32
671	Quercus alba	White oak	25
672	Carya glabra	Pignut hickory	14.4
673	Carya ovata	Shagbark hickory	12.8
674	Picea pungens	Colorado blue spruce	11.5
675	Pinus strobus	White pine	10.1
676	Pinus strobus	White pine	15.9
677	Pinus strobus	White pine	6.3
678	Pinus strobus	White pine	9.1
679	Pinus strobus	White pine	14.7
680	Pinus strobus	White pine	10.7
681	Pinus strobus	White pine	12.5
682	Pinus strobus	White pine	14.7
683	Pinus strobus	White pine	12.7
684	Pinus strobus	White pine	11.7
685	Pinus strobus	White pine	7
686	Ulmus americanus	American elm	10.3
687	Pinus strobus	White pine	14.7
688	Ulmus americanus	American elm	6.6
689	Ulmus americanus	American elm	6.1
690	Pinus resinosa	Red pine	9.7
691	Pinus resinosa	Red pine	8.7
692	Pinus resinosa	Red pine	11.7
693	Pinus resinosa	Red pine	12.3
694	Picea glauca	White spruce	13.5
695	Picea glauca	White spruce	8.1
696	Picea glauca	White spruce	12.7
697	Picea glauca	White spruce	9.9
698	Picea glauca	White spruce	10.5
699	Pinus strobus	White pine	7.5
700	Pinus strobus	White pine	16.6
701	Pinus strobus	White pine	11.9
702	Pinus strobus	White pine	7.5
703	Pinus strobus	White pine	9.9
704	Pinus strobus	White pine	12.5
705	Pinus strobus	White pine	6.2
706	Pinus strobus	White pine	17
707	Pinus strobus	White pine	8.3
708	Pinus strobus	White pine	12.1
709	Pinus strobus	White pine	7.1
710	Pinus strobus	White pine	11.3
711	Pinus strobus	White pine	13.7
712	Pinus strobus	White pine	6.4
713	Pinus strobus	White pine	10.9
714	Pinus strobus	White pine	6
715	Pinus strobus	White pine	9.1
716	Pinus strobus	White pine	13.1
717	Pinus strobus	White pine	9
718	Pinus strobus	White pine	6.7
719	Pinus strobus	White pine	10.9
720	Pinus strobus	White pine	15.7
721	Pinus strobus	White pine	12.8
722	Pinus strobus	White pine	12.2
723	Pinus strobus	White pine	8
724	Pinus strobus	White pine	13.8
725	Ulmus americanus	American elm	13
726	Juglans nigra	Black walnut	7
727	Juglans nigra	Black walnut	12.7
728	Pinus strobus	White pine	6.8
729	Pinus strobus	White pine	7.7
730	Juglans nigra	Black walnut	9.5
731	Juglans nigra	Black walnut	8.8
732	Tilia americana	American basswood	5.7, 9.3
733	Tilia americana	American basswood	9.8
734	Juglans nigra	Black walnut	9.7

Tag	Botanical Name	Common Name	DBH (>6")
735	Tilia americana	American basswood	23, 11.6, 8.4
736	Tilia americana	American basswood	14.7, 15.4
737	Tilia americana	American basswood	6.8, 8.6
738	Tilia americana	American basswood	20.5
739	Tilia americana	American basswood	12
740	Rhamnus cathartica	Common buckthorn	6.9
741	Carya ovata	Shagbark hickory	6.7
742	Juglans nigra	Black walnut	12.3
743	Juglans nigra	Black walnut	9
744	Juglans nigra	Black walnut	10.8
745	Juglans nigra	Black walnut	8.8
746	Tilia americana	American basswood	19.7, 21
747	Tilia americana	American basswood	15.8, 13.9, 10.5
748	Tilia americana	American basswood	11.2, 11.2, 13.7, 14.9, 5.4, 7.4, 12, 15.6
749	Tilia americana	American basswood	16, 17.9
750	Tilia americana	American basswood	13.3, 17.4
751	Tilia americana	American basswood	10, 13.5, 14.5, 13.2, 16.7, 8.9
752	Tilia americana	American basswood	12.2
753	Tilia americana	American basswood	13.2
754	Tilia americana	American basswood	13.5
755	Tilia americana	American basswood	12.5
756	Cercis canadensis	Eastern redbud	7.6, 4.5, 7.5
757	Cercis canadensis	Eastern redbud	6.7, 4.1, 4.9, 6.5
758	Salix fragilis	Crack willow	7.4, 6.2, 9.5, 7.7
759	Ulmus americanus	American elm	16
760	Carya ovata	Shagbark hickory	30.5
761	Quercus macrocarpa	Burr oak	7.4
762	Quercus macrocarpa	Burr oak	6.2
763	Robinia pseudoacacia	Black locust	8.7
764	Quercus macrocarpa	Burr oak	7.1
765	Picea abies	Norway spruce	6.3
766	Acer saccharum	Sugar maple	6.8
767	Quercus macrocarpa	Burr oak	6.4
768	Acer platanoides	Norway maple	8
769	Acer platanoides	Norway maple	7.7
770	Acer platanoides	Norway maple	6.4
771	Acer saccharinum	Silver maple	17.6
772	Quercus macrocarpa	Burr oak	18.5
773	Acer rubrum	Red maple	9.3
774	Acer rubrum	Red maple	10.2
775	Picea abies	Norway spruce	10.5
776	Picea abies	Norway spruce	11.6
777	Picea abies	Norway spruce	7
778	Pinus nigra	Black pine	11.4
779	Quercus coccinea	Scarlet oak	8.6
780	Quercus alba	White oak	6.6
781	Acer platanoides	Norway maple	13.3
782	Acer rubrum	Red maple	6.3
783	Betula nigra	River birch	6.6, 8.4, 8.5
784	Malus pumila	Apple	9.4
785	Malus spp.	Crab apple	8.8
786	Malus spp.	Crab apple	10.6
787	Acer platanoides	Norway maple	16.2
788	Acer platanoides	Norway maple	18.9
789	Acer saccharum	Sugar maple	12.1
790	Acer saccharinum	Silver maple	32
791	Acer saccharinum	Silver maple	34
792	Acer saccharinum	Silver maple	21
793	Acer platanoides	Norway maple	16.2
794	Acer saccharum	Sugar maple	15
795	Platanus occidentalis	Sycamore	10.8
796	Platanus occidentalis	Sycamore	7.4, 7.2
797	Acer rubrum	Red maple	24.5
798	Pinus resinosa	Red pine	14.2
799	Picea pungens	Colorado blue spruce	10
800	Ulmus pumila	Siberian elm	11.8
801	Acer rubrum	Red maple	6.5
802	Quercus macrocarpa	Burr oak	16.1
803	Picea pungens	Colorado blue spruce	10
804	Picea abies	Norway spruce	12.9
805	Picea abies	Norway spruce	10.6
806	Picea abies	Norway spruce	13.1
807	Picea abies	Norway spruce	13.5
808	Picea pungens	Colorado blue spruce	13.5
809	Picea abies	Norway spruce	12.5

Tag	Botanical Name	Common Name	DBH (>6")
810	Pinus sylvestris	Scotts pine	10.3
811	Acer saccharum	Sugar maple	9.6
812	Picea pungens	Colorado blue spruce	8.4
813	Picea abies	Norway spruce	12.9
814	Picea abies	Norway maple	16.3
815	Acer saccharinum	Silver maple	12
816	Cercis canadensis	Eastern redbud	6.1, 5.4, 5.6
817	Pinus strobus	White pine	6
818	Carya glabra	Pignut hickory	6.1
819	Carya glabra	Pignut hickory	7.1
820	Ostrya virginiana	Hop-hornbeam	6.3
821	Juglans nigra	Black walnut	17.5
822	Quercus alba	White oak	12.6
823	Carya glabra	Pignut hickory	12.4
824	Quercus alba	White oak	15.5
825	Quercus rubra	Red oak	19.5
826	Carya glabra	Pignut hickory	17.4
827	Carya glabra	Pignut hickory	12
828	Quercus alba	White oak	14.3
829	Rhamnus cathartica	Common buckthorn	6.4
830	Quercus alba	White oak	19.3
831	Quercus alba	White oak	20.3
832	Quercus alba	White oak	19.1
833	Carya glabra	Pignut hickory	12.7
834	Quercus alba	White oak	15.3
835	Quercus alba	White oak	14.1
836	Quercus alba	White oak	19.6
837	Quercus alba	White oak	20.2
838	Quercus alba	White oak	22.6
839	Carya glabra	Pignut hickory	10.3
840	Quercus alba	White oak	15.2
841	Quercus alba	White oak	14
842	Quercus rubra	Red oak	16.7
843	Carya glabra	Pignut hickory	13.9
844	Quercus rubra	Red oak	25
845	Ulmus americanus	American elm	6.1
846	Quercus rubra	Red oak	17.4
847	Quercus alba	White oak	14.8
848	Quercus rubra	Red oak	24.2
849	Carya glabra	Pignut hickory	6.5
850	Quercus alba	White oak	17.6
851	Quercus alba	White oak	16
852	Quercus alba	White oak	21.1
853	Quercus alba	White oak	15.6
854	Carya glabra	Pignut hickory	9.1
855	Quercus alba	White oak	19.6
856	Carya glabra	Pignut hickory	11.8
857	Quercus alba	White oak	12.5
858	Quercus alba	White oak	14.6
859	Quercus alba	White oak	20.5
860	Ulmus americanus	American elm	8.5
861	Acer platanoides	Norway maple	8.7
862	Robinia pseudoacacia	Black locust	6.2
863	Quercus alba	White oak	20
864	Quercus alba	White oak	16.9
865	Quercus alba	White oak	20.5
866	Rhamnus cathartica	Common buckthorn	9
867	Carya glabra	Pignut hickory	9
868	Acer negundo	Boxelder	7.2
869	Prunus avium	Sweet cherry	8.5
870	Liriodendron tulipifera	Tuliptree	8.5
871	Gleditsia pseudoacacia	Honey locust	10.1
872	Gleditsia pseudoacacia	Honey locust	6.5
873	Gleditsia pseudoacacia	Honey locust	6.8
874	Malus spp.	Crab apple	6.2
875	Acer rubrum	Red maple	7.3
876	Gleditsia pseudoacacia	Honey locust	20.3
877	Gleditsia pseudoacacia	Honey locust	13.4
878	Gleditsia pseudoacacia	Honey locust	12.8
879	Picea pungens	Colorado blue spruce	13.4
880	Gleditsia pseudoacacia	Honey locust	6.6
881	Acer platanoides	Norway maple	6.6
882	Quercus bicolor	Swamp white oak	9.2
883	Acer saccharum	Sugar maple	8.1
884	Acer rubrum	Red maple	7.3

Tag	Botanical Name	Common Name	DBH (>6")
885	Acer rubrum	Red maple	6.2
886	Acer rubrum	Red maple	6.6
887	Quercus macrocarpa	Burr oak	11.4
888	Quercus macrocarpa	Burr oak	8.9
889	Pinus strobus	White pine	8
890	Pinus strobus	White pine	7.6
891	Pinus strobus	White pine	6.8
892	Liriodendron tulipifera	Tuliptree	8.3
893	Pinus strobus	White pine	6.1
894	Quercus bicolor	Swamp white oak	9.9
895	Quercus bicolor	Swamp white oak	10.5
896	Quercus bicolor	Swamp white oak	6.6
897	Robinia pseudoacacia	Black locust	15
898	Cercis canadensis	Eastern redbud	7, 5.5, 4.3
899	Acer rubrum	Red maple	6.2
900	Acer rubrum	Red maple	6.2
901	Quercus coccinea	Scarlet oak	6.2
902	Picea pungens	Colorado blue spruce	8
903	Picea abies	Norway spruce	14
904	Picea abies	Norway spruce	15.4
905	Picea abies	Norway spruce	10.5
906	Cercis canadensis	Eastern redbud	11.1, 10.5, 7
907	Betula nigra	River birch	8, 4.5, 4.6
908	Acer saccharinum	Silver maple	26.5
909	Acer platanoides	Norway maple	26
910	Acer platanoides	Norway maple	6.9
911	Picea abies	Norway spruce	7, 7
912	Picea abies	Norway spruce	13.3
913	Picea abies	Norway spruce	11.5
914	Picea abies	Norway spruce	9.2
915	Picea abies	Norway spruce	14
916	Picea abies	Norway spruce	14
917	Picea abies	Norway spruce	21
918	Picea abies	Norway spruce	9.2
919	Picea abies	Norway spruce	9.1
920	Picea abies	Norway spruce	12
921	Picea abies	Norway spruce	10.1
922	Picea abies	Norway spruce	9.3
923	Picea abies	Norway spruce	9

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Site Plan Approval Resubmittal		Dec 5, 2019
Site Plan Approval		Oct 24, 2019

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STATE OF MICHIGAN
JOSEPH B. WYWROT
ENGINEER
No. 48674
LICENSED PROFESSIONAL ENGINEER

KEY PLAN

PROJECT NORTH

DRAWING TITLE

TREE INVENTORY

SCALE

21216.000

PROJECT NUMBER

V-2.2

DRAWING NUMBER

FILE:P:\21216.000\CAD\C\Sheet\21216 V-2.0.dwg USER:jwywrot DATE:Dec 05 2019 TIME: 04:34 pm