

ABBREVIATIONS	
A	<p>ABD ABANDONED</p> <p>ABS ACRYLONITRILE BUTADIENE STYRENE</p> <p>AC ACRES</p> <p>ADA AMERICANS WITH DISABILITIES ACT</p> <p>APPROX APPROXIMATE</p> <p>ARCH ARCHITECT(URAL)</p> <p>ANSI AMERICAN NATIONAL STANDARDS INSTITUTE</p> <p>ASTM AMERICAN SOCIETY FOR TESTING AND MATERIALS</p> <p>B</p> <p>B.M. BENCHMARK</p> <p>BIT BITUMINOUS</p> <p>BLDG BUILDING</p> <p>B/F BOTTOM OF FOOTING</p> <p>B/S BOTTOM OF SWALE</p> <p>BVCE BEGINNING OF VERTICAL CURVE ELEVATION</p> <p>BVCS BEGINNING OF VERTICAL CURVE STATION</p> <p>B/W BOTTOM OF WALL (FINISH GRADE)</p> <p>C</p> <p>CB CATCH BASIN</p> <p>CI CURB INLET</p> <p>CIP CAST IRON PIPE</p> <p>CL CLASS</p> <p>CMP CORRUGATED METAL PIPE</p> <p>CON CONDENSATE</p> <p>CO CLEANOUT</p> <p>CONC CONCRETE</p> <p>CONTR CONTRACTOR</p> <p>CU FT CUBIC FOOT</p> <p>CURV CURVATURE</p> <p>CU YD CUBIC YARD</p> <p>CWR CHILLED WATER RETURN</p> <p>CWS CHILLED WATER SUPPLY</p> <p>D</p> <p>DEMO DEMOLISH</p> <p>DEPT DEPARTMENT</p> <p>DIA DIAMETER</p> <p>DIP DUCTILE IRON PIPE</p> <p>DWG DRAWING</p> <p>E</p> <p>EA EAST, EASTING COORDINATE</p> <p>EA EACH</p> <p>EG EXISTING GRADE</p> <p>ELEV ELEVATION</p> <p>E/M EDGE OF METAL (EDGE OF GUTTER)</p> <p>EQ EQUAL</p> <p>ESVCP EXTRA STRENGTH VITRIFIED CLAY PIPE</p> <p>EVCE END OF VERTICAL CURVE ELEVATION</p> <p>EVCS END OF VERTICAL CURVE STATION</p> <p>EX EXISTING</p> <p>F</p> <p>FF: FINISH FLOOR ELEVATION</p> <p>FG FINISH GRADE</p> <p>FHWA FEDERAL HIGHWAY ADMINISTRATION</p> <p>FLASH FLASHING</p> <p>FM FORCE MAIN</p> <p>FT FOOT, FEET</p> <p>FURN FURNISHING</p> <p>G</p> <p>GALV GALVANIZED</p> <p>GAS NATURAL GAS</p> <p>G/C: GUTTER OF CURB (FLOWLINE)</p> <p>GVL GRAVEL</p> <p>H</p> <p>H HIGH</p> <p>HB HOSE BIBB</p> <p>HCAP ADA HANDICAP</p> <p>HDPE HIGH-DENSITY POLYETHYLENE</p> <p>HMA HOT MIX ASPHALT</p> <p>HORZ HORIZONTAL</p> <p>HP HIGH POINT</p> <p>HT HEIGHT</p> <p>I</p> <p>I.D. INNER DIAMETER</p> <p>IN INCH, INCHES</p> <p>INCL INCLUDE, INCLUDING</p> <p>INL INLET</p> <p>INV: PIPE INVERT ELEVATION</p> <p>IRR IRRIGATION</p> <p>K</p> <p>K K VALUE</p> <p>J</p> <p>JT JOINT</p> <p>L</p> <p>L LENGTH</p> <p>LF LINEAR FEET</p> <p>LPT LOW POINT</p> <p>LN LANE</p> <p>LT LIGHT</p> <p>LTG LIGHTING</p> <p>LVC LENGTH OF VERTICAL CURVE</p> <p>M</p> <p>MAS MASONRY</p> <p>MATL MATERIAL</p>
	<p>MAX MAXIMUM</p> <p>M.E. MATCH EXISTING</p> <p>MED MEDIUM</p> <p>MFR MANUFACTURER</p> <p>MH MANHOLE</p> <p>MIN MINIMUM</p> <p>MISC MISCELLANEOUS</p> <p>MOD MODIFIED</p> <p>N</p> <p>N NORTH, NORTHING COORDINATE</p> <p>NA NOT APPLICABLE</p> <p>NIC NOT IN CONTRACT</p> <p>N.T.S. NOT TO SCALE</p> <p>O</p> <p>O.C. ON CENTER</p> <p>O.D. OUTER DIAMETER</p> <p>OFF OFFSET</p> <p>OPT OPTIONAL</p> <p>P</p> <p>PC POINT OF CURVATURE (POC)</p> <p>PED PEDESTRIAN</p> <p>PERF PERFORATED</p> <p>PERP PERPENDICULAR</p> <p>PLMB PLUMBING</p> <p>PREFAB PREFABRICATED</p> <p>PREP PREPARATION</p> <p>PROJ PROJECTED</p> <p>PROP PROPOSED</p> <p>PSF POUNDS PER SQUARE FOOT</p> <p>PSI POUNDS PER SQUARE INCH</p> <p>PT POINT, POINT OF TANGENCY (POT)</p> <p>PVC POINT OF VERTICAL CURVATURE, POLYVINYL CHLORIDE</p> <p>PVI POINT OF VERTICAL INTERSECTION</p> <p>PVMT PAVEMENT</p> <p>PWR POWER</p> <p>Q</p> <p>QTY QUANTITY</p> <p>R</p> <p>RAD RADIUS</p> <p>RCP REINFORCED CONCRETE PIPE</p> <p>RCPT RECEPTACLE</p> <p>RD ROAD</p> <p>REF REFERENCE</p> <p>REINF REINFORCED, REINFORCEMENT</p> <p>REM REMOVE</p> <p>REQD REQUIRED</p> <p>RIM: RIM ELEVATION</p> <p>ROW RIGHT OF WAY</p> <p>S</p> <p>S SOUTH</p> <p>SAN SANITARY SEWER</p> <p>SCH SCHEDULE</p> <p>SECT SECTION</p> <p>SEC SOIL EROSION AND SEDIMENTATION CONTROL</p> <p>SIM SIMILAR</p> <p>SP SPACE, SPACED, SPACING</p> <p>SQ FT SQUARE FEET</p> <p>SQ YD SQUARE YARD</p> <p>ST STREET</p> <p>ST LT STREET LIGHT</p> <p>STA STATION</p> <p>STAG STAGGER, STAGGERED</p> <p>STD STANDARD</p> <p>STL STEEL</p> <p>SSL STAINLESS STEEL</p> <p>STM STORM SEWER</p> <p>STRUCT STRUCTURAL</p> <p>SUBCONTR SUBCONTRACTOR</p> <p>SWPPP STORMWATER POLLUTION PREVENTION PLAN</p> <p>T</p> <p>T TELECOM</p> <p>T/C TOP OF CURB</p> <p>TEMP TEMPORARY</p> <p>T/F TOP OF FOOTING</p> <p>T/S TOP OF SWALE</p> <p>TW TOP OF WALL</p> <p>TYP. TYPICAL</p> <p>U</p> <p>UD UNDERDRAIN</p> <p>UTIL UTILITY</p> <p>V</p> <p>V/B: VALVE BOX</p> <p>VERT VERTICAL</p> <p>W</p> <p>W WEST</p> <p>WM WATER MAIN</p> <p>W/O WITHOUT</p> <p>WWF WELDED WIRE FABRIC</p> <p>Y</p> <p>YD YARD DRAIN</p> <p>SYMBOL</p> <p>Ø DIAMETER</p> <p>± PLUS/MINUS</p> <p>Δ DELTA</p>

SITE DEMOLITION SYMBOLS	
---	PROPERTY LINE
---	SETBACK LINE
---	WETLAND BOUNDARY
---	EDGE OF WATER
---	SOIL TYPE BOUNDARY
⊕	SOIL BORING
---	LIMITS OF CONSTRUCTION
	FULL DEPTH PAVEMENT REMOVAL
	PARTIAL DEPTH PAVEMENT REMOVAL
	BUILDING REMOVAL
	CLEARING AND GRUBBING
	TOPSOIL STRIPPING
⊗	TREE REMOVAL
⊙	TREE PROTECTION FENCE
⊗	REMOVE
⊙	SALVAGE
⊗	RELOCATE
· x · x · x · x · x ·	UTILITY REMOVAL
— —	CAP UTILITY
	CURB REMOVAL
	FENCE REMOVAL
	WALL REMOVAL
---	SAWCUT PAVEMENT
---	CONSTRUCTION FENCE
---	CONSTRUCTION ENTRANCE
==	JERSEY BARRIER

SWPPP/SESC SYMBOLS	
---	SILT FENCE
⊕	INLET PROTECTION
⊕	CULVERT PROTECTION
---	SEDIMENT CONTROL TUBE
	STONE CHECK DAM
	STABILIZED CONSTRUCTION ENTRANCE
	TEMPORARY SEDIMENT FOREBAY
	EROSION CONTROL BLANKET

UTILITY SYMBOLS	
⊕	GATE VALVE BOX
⊕	GATE VALVE VAULT
⊕	TAPPING SLEEVE
⊕	FIRE HYDRANT ASSEMBLY
⊕	FIRE DEPARTMENT CONNECTION
⊕	SANITARY MANHOLE
⊕	CLEANOUT
⊕	LIFT STATION
⊕	COMBINED SEWER MANHOLE
⊕	STORM STRUCTURE
⊕	INLET
⊕	YARD DRAIN
⊕	WATER QUALITY STRUCTURE
⊕	FLARED END SECTION
⊕	ELECTRICAL MANHOLE
⊕	ELECTRICAL VAULT
⊕	HANDHOLE
⊕	TELECOMMUNICATION MANHOLE
⊕	TELECOMMUNICATION VAULT
---	WATER MAIN
---	PIPE SLEEVE
---	SANITARY SEWER
---	FORCE MAIN
---	STORM SEWER
---	COMBINED SEWER
---	UNDERDRAIN
---	NATURAL GAS LINE
---	E(OH) ELECTRICAL LINE OVERHEAD
---	E ELECTRICAL LINE UNDERGROUND
---	T(OH) TELECOM LINE OVERHEAD
---	T TELECOM LINE UNDERGROUND
---	CWS CHILLED WATER SUPPLY PIPE
---	CWR CHILLED WATER RETURN PIPE
---	STE STEAM PIPE
---	CON CONDENSATE RETURN


MATERIAL SYMBOLS	
	ASPHALT PAVEMENT
	HEAVY DUTY CONCRETE PAVEMENT
	CONCRETE PAVEMENT
	SPECIAL PAVING
	POROUS PAVEMENT
	FROST SLAB
	AGGREGATE PATH
	RIPRAP
	WET/DRY POND
	STANDARD CURB AND GUTTER
	SPILLOUT CURB AND GUTTER
	CURB TRANSITION
	FLUSH CURB AND GUTTER
	CURB RAMP
	SPILLWAY - INTERMEDIATE
	SPILLWAY - TERMINAL
	CONTROL JOINT
	ISOLATION (EXPANSION) JOINT
	RETAINING WALL
	SITE WALL
⊕	LIGHT POLE
⊕	VEHICULAR LIGHT POLE
⊕	WHEEL STOP
⊕	BOLLARD
⊕	TRASH RECEPTACLE
⊕	RECYCLING CONTAINERS
⊕	DUMPSTER
⊕	FENCE
⊕	SWING GATE
⊕	ROLLING/CANTILEVER GATE
⊕	BENCH
⊕	DETECTABLE WARNING STRIP
⊕	TREE GRATE/WELL
⊕	GENERATOR
⊕	CONCRETE CRYPT

SIGNING AND STRIPING	
---	DASHED PAVEMENT MARKING
---	SOLID PAVEMENT MARKING
---	DOUBLE YELLOW PAVEMENT MARKING
---	FIRE LANE MARKING
---	STOP BAR PAVEMENT MARKING
	CROSSWALK PAVEMENT MARKING
	HANDICAP PAVEMENT MARKING
⊕	SINGLE POST SIGN
⊕	DOUBLE POST SIGN
⊕	POLE MOUNTED SIGN
⊕	DIRECTIONAL ARROW PAVEMENT MARKING
⊕	MESSAGE PAVEMENT MARKING
⊕	BIKE LANE PAVEMENT MARKING
⊕	SHARROW PAVEMENT MARKING

GRADING SYMBOLS	
---	EXISTING MAJOR CONTOUR
---	EXISTING MINOR CONTOUR
---	EXISTING SPOT ELEVATION
---	PROPOSED MAJOR CONTOUR
---	PROPOSED MINOR CONTOUR
---	GRADING LIMITS
---	GRADE BREAK LINE
---	PROFILE - EXISTING GRADE
---	PROFILE - FINISH GRADE
---	LIMITS OF CONSTRUCTION/DISTURBANCE
---	DRAINAGE SLOPE
---	DRAINAGE SWALE
861.50	PROPOSED SPOT ELEVATION
861.50 M.E.	APPROX. SPOT ELEVATION: MATCH EXISTING GRADE
861.50 M.R.	APPROX. SPOT ELEVATION: MATCH EXISTING GRADE & CROSS SLOPE OF ROADWAY
RIM 861.50	STRUCTURE RIM ELEVATION
T/C 861.50	TOP OF CURB ELEVATION
G/C 861.50	GUTTER OF CURB ELEVATION
E/M 861.50	EDGE OF METAL ELEVATION
T/F 861.50	TOP OF FOOTING ELEVATION
B/F 861.50	BOTTOM OF FOOTING ELEVATION
T/S 861.50	TOP OF SWALE ELEVATION
B/S 861.50	BOTTOM OF SWALE ELEVATION
T/W 861.50	TOP OF WALL ELEVATION
B/W 861.50	BOTTOM OF WALL ELEVATION

REFERENCE SYMBOLS	
<p>SITE SECTION</p> <p>SECTION NUMBER</p> <p>C-1</p> <p>SHEET WHERE DRAWN, HYPHEN INDICATES DETAIL ON SAME SHEET</p>	<p>MATCHLINE REFERENCE</p> <p>SHEET MATCHLINE</p> <p>MATCHLINE: SEE SHEET C-0.0</p> <p>SHEET CALLOUT</p>
<p>KEYED NOTE MARK</p> <p>1</p> <p>TYP.</p> <p>SEE CORRESPONDING NUMBERED KEY NOTE ON SHEET WHERE REFERENCE OCCURS</p> <p>DESIGNATION FOR TYPICAL</p>	<p>ALIGNMENT AND STATIONING</p> <p>STATION</p> <p>ALIGNMENT</p> <p>10+00</p> <p>11+00</p>
<p>PLAN DETAIL REFERENCE</p> <p>DETAIL NUMBER</p> <p>C-1</p> <p>SHEET WHERE DRAWN, HYPHEN INDICATES DETAIL ON SAME SHEET</p>	<p>DRAWING TITLE SYMBOLS</p> <p>DRAWING NUMBER</p> <p>1</p> <p>VIEW TITLE</p> <p>SCALE: 1" = 1'</p>
<p>DESCRIPTIVE KEYED NOTE MARK</p> <p>1</p> <p>SEE CORRESPONDING NUMBERED KEY NOTE ON SHEET WHERE REFERENCE OCCURS</p>	<p>NORTH ARROW</p> <p>N</p>
<p>REVISION NUMBER AND EXTENT</p> <p>1</p> <p>REVISION NUMBER - SEE REVISION HISTORY ON THE TITLE BLOCK OF EACH SHEET</p> <p>EXTENT OF CURRENT REVISION</p>	<p>GRAPHICAL SCALE</p> <p>PLAN SCALE</p> <p>0' 10' 20' 40'</p> <p>PROFILE SCALE</p> <p>HORIZ: 0' 10' 20' 40'</p> <p>VERT: 0' 10' 20' 40'</p>

GENERAL NOTES	
1.	PRIOR TO START OF PROJECT WORK, VERIFY ALL SITE CONDITIONS AND SUBMIT A PROJECT WORK PLAN TO THE ARCHITECT FOR REVIEW AND COMMENT. PRESENT THE WORK PLAN AT THE OWNER'S PRE-CONSTRUCTION MEETING. DO NOT BEGIN PRIOR TO THE 'PRE-CONSTRUCTION MEETING' AND WRITTEN AUTHORIZATION TO PROCEED IS ISSUED BY THE OWNER.
2.	NOTIFY THE ARCHITECT IN WRITING OF ANY IDENTIFIED DISCREPANCIES WITHIN THE CONSTRUCTION DOCUMENTS PRIOR TO THE START OF WORK. DURING PERFORMANCE OF THE WORK, VERIFY ALL DIMENSIONS AND CONDITIONS AT THE JOB SITE AND CROSS-CHECK DETAILS AND DIMENSION SHOWN ON THE DRAWINGS WITH RELATED REQUIREMENTS ON THE ARCHITECTURAL, MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS. CONTRACTOR SHALL VERIFY ALL SITE CONDITIONS PRIOR TO STARTING WORK. IN ALL CASES WHERE A CONFLICT MAY OCCUR, THE ARCHITECT SHALL BE NOTIFIED AND WILL INTERPRET THE INTENT OF THE CONTRACT DOCUMENTS.
3.	PRIOR TO THE COMMENCEMENT OF WORK, VERIFY LOCATIONS AND DEPTHS OF ALL UNDERGROUND UTILITIES THAT MAY BE AFFECTED BY CONSTRUCTION AND TAKE RESPONSIBILITY FOR DAMAGES TO SUCH UTILITIES CAUSED AS A RESULT OF CONSTRUCTION.
4.	TAKE ALL NECESSARY PRECAUTIONARY MEASURES TO PROTECT THE PUBLIC AND ADJACENT PROPERTIES FROM DAMAGE THROUGHOUT CONSTRUCTION, INCLUDING DAMAGES TO UTILITIES, WALKS, WALLS, DRIVES, CURBS, ETC.
5.	SECURE ALL NECESSARY PERMITS AND NOTIFY ALL UTILITY COMPANIES WITH UTILITIES ON THE SITE PRIOR TO THE CONSTRUCTION OF THE PROJECT. ADHERE TO ALL APPLICABLE LOCAL, STATE AND FEDERAL LAWS OR REGULATIONS PERTAINING TO THE PROJECT.
6.	ESTABLISH AND MAINTAIN SITE SECURITY UNTIL PROJECT ACCEPTANCE.
7.	USE DIMENSIONS SHOWN ON DRAWINGS FOR LAYOUT OF THE WORK. DO NOT USE SCALE DIMENSIONS FROM PLANS, SECTIONS OR DETAILS ON THE DRAWINGS.
8.	REFER TO THE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS NOT SHOWN ON DRAWINGS.
9.	DETAILS NOTED AS TYPICAL SHALL APPLY IN ALL CASES UNLESS SPECIFICALLY SHOWN OR NOTED OTHERWISE. WHERE NO SPECIFIC DETAIL IS SHOWN, THE CONSTRUCTION SHALL BE IDENTICAL OR SIMILAR TO THAT INDICATED FOR LIKE CASES OF CONSTRUCTION ON THIS PROJECT.
10.	TAKE NOTE OF ALL GRADING AND DRAINAGE WAYS AND MAINTAIN THESE DRAIN WAYS FLOWS FREE OF OBSTRUCTIONS.
11.	COORDINATE CONSTRUCTION OF PENETRATIONS, SLEEVES, VARIATIONS IN THE SLAB ELEVATIONS, DEPRESSED AREAS AND ALL OTHER ARCHITECTURAL, MECHANICAL, ELECTRICAL AND PLUMBING REQUIREMENTS.
12.	DISPOSE ALL ELEMENTS DESIGNATED FOR REMOVAL IN A LEGAL MANNER. PROVIDE RECEIPTS AND LETTERS FROM DISPOSAL SITES TO OWNER AS REQUIRED BY THE OWNER.
13.	PREPARE ALL SUBGRADES IN ACCORDANCE WITH RECOMMENDATIONS OF GEOTECHNICAL ENGINEER. PROVIDE PROOF OF ALL REQUIRED SOIL COMPACTION TO THE OWNER.
14.	ALL CONSTRUCTION SHALL CONFORM TO ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES.
15.	COORDINATE WORK OF SUBCONTRACTORS AND ALL OTHER CONTRACTORS TO ENSURE ORDERLY AND EFFICIENT COMPLETIONS OF ALL WORK.



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.smithgroupjir.com

ISSUED FOR	REV	DATE
Permits		Jan 28, 2020
Site Plan Approval Resubmittal		Dec 5, 2019
Site Plan Approval		Oct 24, 2019
WCWRC Review		Aug 8, 2019
Bids		Jan 9, 2017
95% Construction Documents		Dec 9, 2016
100% Design Development		Sept 16, 2016
20% Design Development		July 19, 2016
Schematic Design		May 20, 2016

SEALS AND SIGNATURES



KEY PLAN

DRAWING TITLE

CIVIL ABBREVIATIONS AND SYMBOLS

SCALE	PROJECT NUMBER	DRAWING NUMBER
	21216.000	C-0.0

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VEHICLE PARKING
210 SPACES
9 ACCESSIBLE SPACES (3 VAN)
219 SPACES TOTAL

SEVEN (7) ACCESSIBLE SPACES REQUIRED FOR TOTAL PARKING SPACES BETWEEN 201 - 300

BICYCLE PARKING
26 SPACES TOTAL: CLASS C - MAIN ENTRANCE AND THEATER

REQUIRED:
41 DEDICATED CLASSROOMS WITH 16 STUDENTS PER CLASS, GRADES 6-8, AND 14 STUDENTS PER CLASS, GRADES 9-12. APPROXIMATELY HALF THE NUMBER OF PUBLIC SCHOOL STUDENTS PER CLASS ROOM.

41 CLASSROOMS x 5 SPACES = 205 SPACES

A VARIANCE FOR A REDUCTION OF 220 SPACES WAS GRANTED IN 1988

FIRE NOTES:
FIRE HYDRANTS TO REMAIN IN SERVICE DURING CONSTRUCTION.

THERE ARE NO 2015 MICHIGAN BUILDING CODE DEFINED FIRE WALLS (709) IN GREENHILLS SCHOOL. INSTEAD, THERE ARE FIRE BARRIERS (707) WITH ONE OR TWO HOUR FIRE-RESISTANCE RATINGS SEPARATING AREAS OF THE BUILDING WITH CODE-COMPLIANT CONSTRUCTION FOR THE ERA IN WHICH THEY WERE CONSTRUCTED.

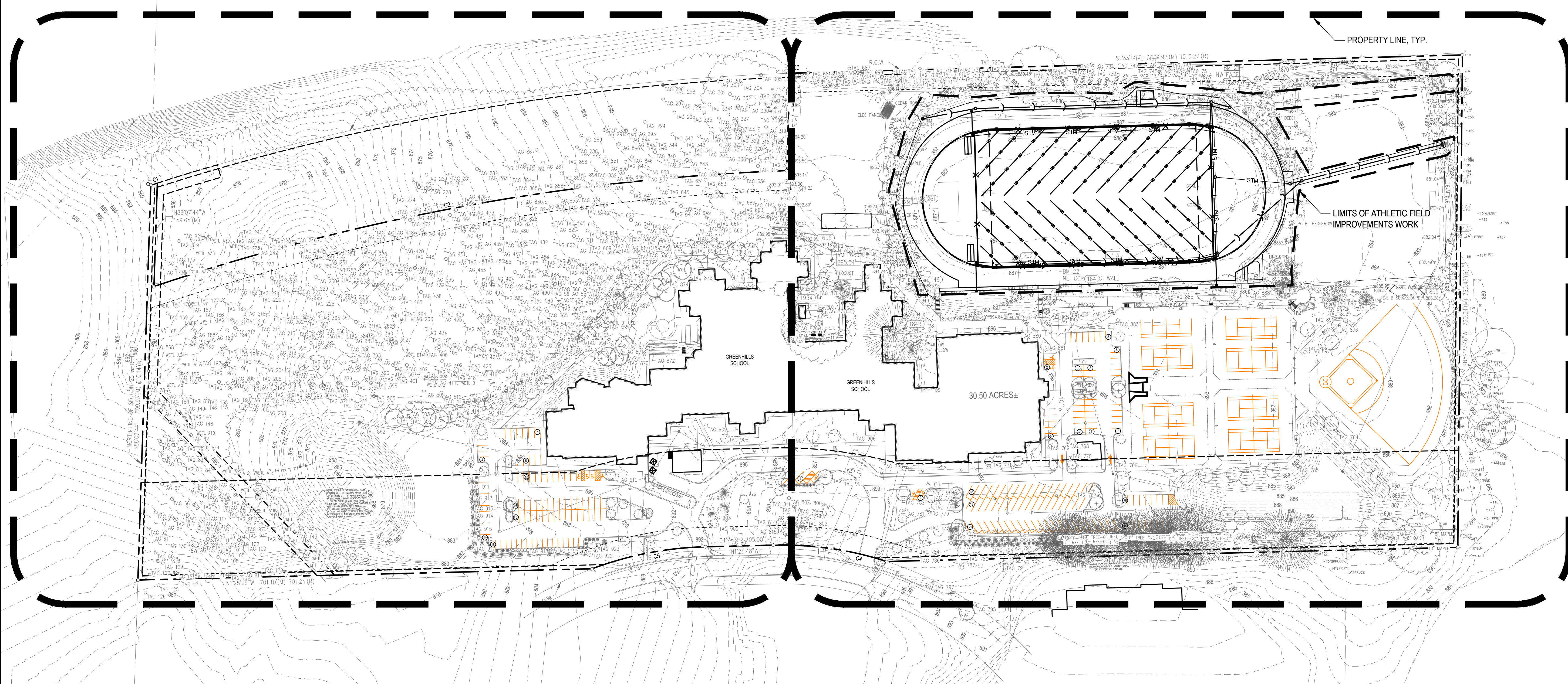
GENERAL NOTE:
CONSTRUCTION IS LIMITED TO THE AREA INDICATED ON THE PLAN. WATER, FIRE PROTECTION, AND SANITARY SEWER WILL NOT BE AFFECTED BY THE WORK. EXISTING LANDSCAPE/TREES/ NATURAL FEATURES WILL NOT BE AFFECTED BY THE WORK

LEGEND

- PROPERTY LINE
- - - EASEMENT
- - - SETBACK LINES
- ▬ BUILDING FOOTPRINT

AREA 1

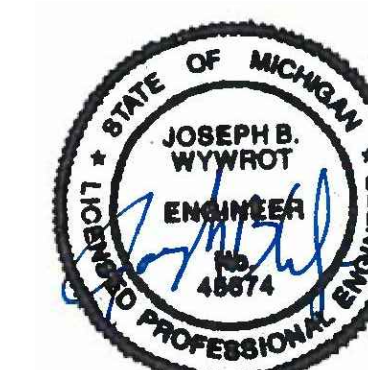
AREA 2



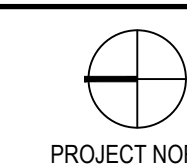
ISSUED FOR _____ REV _____ DATE _____

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

SEALS AND SIGNATURES



KEY PLAN



DRAWING TITLE
**OVERALL SITE PLAN,
DIMENSIONAL LAYOUT PLAN,
AND UTILITY PLAN**

SCALE
1" = 100'

SCALE
PROJECT NUMBER
21216.000

DRAWING NUMBER
C-0.5

LEGEND

- PROPERTY LINE
- - - EASEMENT
- · - · - SETBACK LINES
- ▬ BUILDING FOOTPRINT



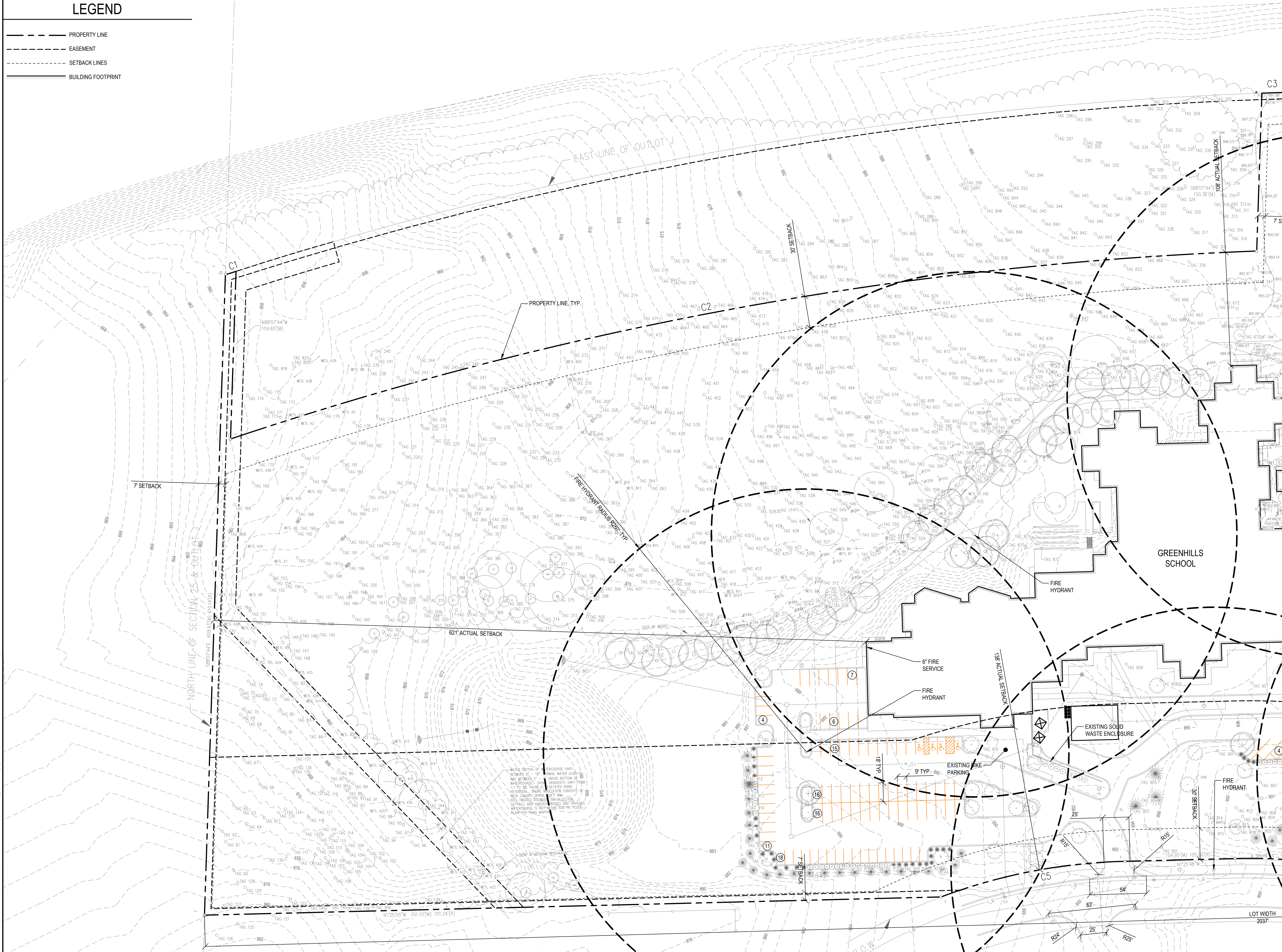
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Site Plan Approval		Oct 24, 2019

SEALS AND SIGNATURES

KEY PLAN

DRAWING TITLE
SITE PLAN, DIMENSIONAL LAYOUT PLAN, AND UTILITY PLAN - AREA 1

SCALE
SCALE 1" = 40'

PROJECT NUMBER
21216.000

DRAWING NUMBER
C-0.5.1

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Owner:
GREENHILLS SCHOOL

SMITHGROUP

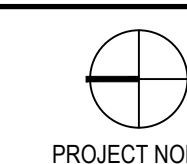
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KEY PLAN

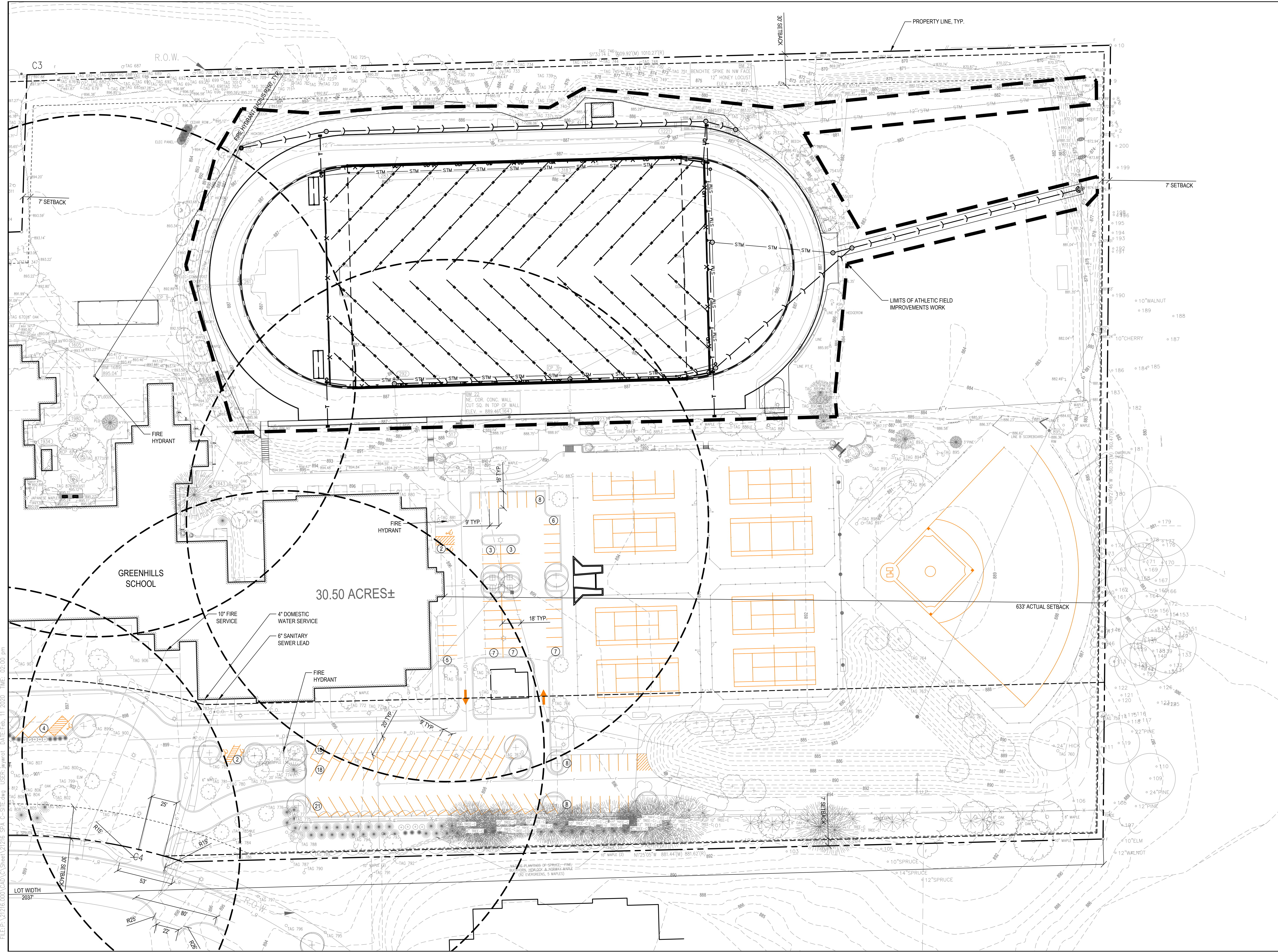


DRAWING TITLE
SITE PLAN, DIMENSIONAL
LAYOUT PLAN, AND UTILITY
PLAN - AREA 2

SCALE
SCALE 1" = 40'

PROJECT NUMBER
21216.000

DRAWING NUMBER
C-0.5.2



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NATURAL FEATURES SURVEY:

SMITHGROUP SURVEYED THE NORTHERN PORTION OF THE WOODLOT NORTH OF THE GREENHILLS SCHOOL FACILITY ON OCTOBER 7, 2019. THE WASHTENAW COUNTY GIS MAPPING INDICATES A WETLAND IN THIS LOCATION, HOWEVER, THAT IS NOT SUPPORTED BY THE IGLLE WETLANDS MAP VIEWER NOR THE USDA WEB SOIL SURVEY. THE SOIL SURVEY MAPPING FOR THIS AREA INDICATES THE PRESENCE OF WAWASEE LOAM, 2 TO 6 PERCENT SLOPES WHICH IS A WELL-DRAINED SOIL FORMED ON MORAINES AND TILL PLAINS. THIS SOIL SERIES DOES INCLUDE POTENTIAL OCCURRENCES OF BROOKSTON LOAM, WHICH IS CONSIDERED A HYDRIC SOIL, ALONG DRAINAGEWAYS.

A MAJORITY OF THE OVERSTORY IN THIS LOCATION WAS DOMINATED BY 24"-36" DBH WHITE OAK, SHAGBARK HICKORY AND BLACK WALNUT ALONG WITH SMALLER SHAGBARK HICKORY AND OCCASIONAL HACKBERRY, BITTERNUT HICKORY, BLACK OAK, SLIPPERY ELM AND BLACK CHERRY (SEE SURVEY SHEETS FOR MORE SPECIFIC TREE INFORMATION). THE UNDERSTORY WAS DOMINATED BY TARTARIAN HONEYSUCKLE, COMMON BUCKTHORN AND CHOKECHERRY. GROUND COVER INCLUDED BLACK RASPBERRY, WHITE AVENS, VIRGINIA CREEPER, POISON IVY AND JUMPSEED.

AN INCISED STREAM WAS OBSERVED EXTENDING ALONG ALMOST THE ENTIRE LENGTH OF THE NORTH PROPERTY LINE. THIS STREAM WAS THREE TO FIVE FEET BELOW GRADE WITH STEEP BANKS IN MANY LOCATIONS AND EVIDENCE OF FLASHY CONDITIONS. AT THE WESTERN EXTENT, IT BEGINS IN WHAT APPEARED TO BE A STORM OUTFLOW ALTHOUGH MOST OF THE STRUCTURE WAS UNDER WATER. THE STREAM FLOWED OFFSITE TO THE EAST THROUGH A LARGE CULVERT UNDER US-23. IN SOME LOCATIONS, A NARROW FORESTED WETLAND WAS OBSERVED ADJACENT TO THE STREAM. THE STREAM BANK ALONG WITH THESE FORESTED WETLAND AREAS WAS FLAGGED WITH ORANGE J/R RIBBON AND IS IDENTIFIED ON THE SURVEY SHEETS. AN INTERMITTENT STREAM WAS OBSERVED IN THE CENTRAL PART OF THE WOODLOT THAT RECEIVES STORMWATER DISCHARGE FROM THE SCHOOL PROPERTY. THIS STREAM JOINS THE ONE NOTED ABOVE, JUST WEST OF THE US-23 CULVERT AND WAS ALSO FLAGGED WITH ORANGE J/R RIBBON. THE JURISDICTIONAL NATURE OF THESE TWO STREAMS IS UNDETERMINED AT THIS TIME HOWEVER IT APPEARS THAT THEY BOTH ARE ASSOCIATED WITH STORMWATER DISCHARGES.

AS INDICATED IN THE ADJACENT CHART, THE OBSERVED PLANTS IN THIS WOODLOT RESULT IN A WETNESS COEFFICIENT OF 1.9 AND ARE NOT INDICATIVE OF WETLAND CONDITIONS. IN ADDITION, OUTSIDE OF THE LIMITS OF THE DESCRIBED STREAMS, THERE WERE NO SIGNS OF HYDRIC INDICATORS IN THE OBSERVED SOIL AND NO EVIDENCE OF WETLAND HYDROLOGY IN THESE WOODS.

Scientific Name	Family	Native?	C	W	WIC	Physiognomy	Common Name
<i>Carya cordiformis</i>	Juglandaceae	native	5	0	FAC	tree	bitter-nut hickory
<i>Carya ovata</i>	Juglandaceae	native	5	3	FACU	tree	shag-bark hickory
<i>Celtis occidentalis</i>	Ulmaceae	native	2	0	FAC	tree	common hackberry
<i>Geum canadense</i>	Rosaceae	native	1	0	FAC	forb	white avens
<i>Juglans nigra</i>	Juglandaceae	native	3	3	FACU	tree	black walnut
<i>Lonicera tatarica</i>	Caprifoliaceae	non-native	0	3	FACU	shrub	twinsisters
<i>Parthenocissus quinquefolia</i>	Vitaceae	native	4	3	FACU	vine	virginia-creeper
<i>Persicaria virginiana</i>	Polygonaceae	native	4	0	FAC	forb	jumpseed
<i>Prunus serotina</i>	Rosaceae	native	0	3	FACU	shrub	black cherry
<i>Prunus virginiana</i>	Rosaceae	native	3	3	FACU	shrub	choke cherry
<i>Quercus alba</i>	Fagaceae	native	5	3	FACU	tree	northern white oak
<i>Quercus velutina</i>	Fagaceae	native	5	5	UPL	tree	black oak
<i>Rhamnus cathartica</i>	Rhamnaceae	non-native	0	0	FAC	shrub	europaean buckthorn
<i>Rubus occidentalis</i>	Rosaceae	native	0	5	UPL	shrub	black raspberry
<i>Toxicodendron radicans</i>	Anacardiaceae	native	2	0	FAC	vine	eastern poison-ivy
<i>Ulmus rubra</i>	Ulmaceae	native	4	0	FAC	tree	slippery elm

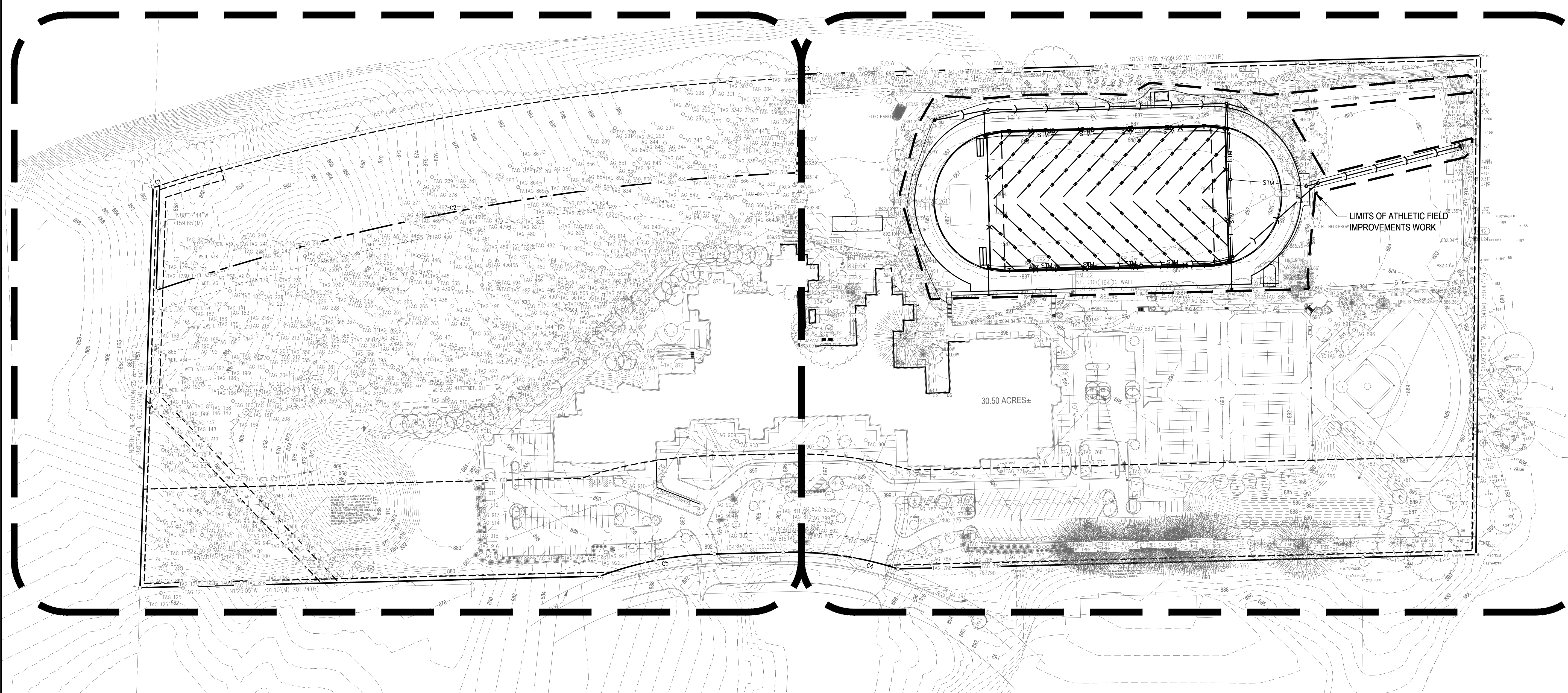
C = Coefficient of Conservatism
W = Coefficient of Wetness
WIC = Wetland Indicator Category

NOTES:

- CONSTRUCTION IS LIMITED TO THE AREA INDICATED ON THE PLAN. WATER, FIRE PROTECTION AND SANITARY SEWER WILL NOT BE AFFECTED BY THE WORK. EXISTING LANDSCAPE TREES/NATURAL FEATURES WILL NOT BE AFFECTED BY THE WORK. SEE SHEETS V-2.0 - TREE INVENTORY, V-2.1 - TREE INVENTORY, AND V-2.2 - TREE INVENTORY FOR INFORMATION ON INDIVIDUALLY TAGGED TREES.

AREA 1

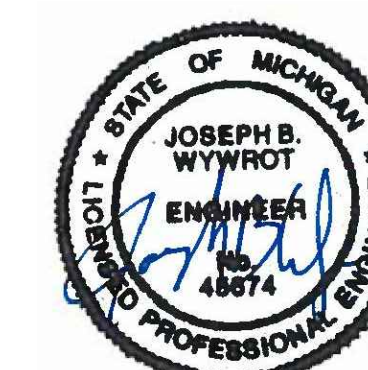
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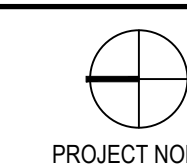
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Site Plan Approval Resubmittal _____ Dec 5, 2019
Site Plan Approval _____ Oct 24, 2019

SEALS AND SIGNATURES



KEY PLAN

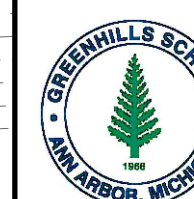


DRAWING TITLE
OVERALL NATURAL FEATURES PLAN

SCALE
SCALE 1" = 100'

PROJECT NUMBER
21216.000

DRAWING NUMBER
C-0.6



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.smithgroupjr.com

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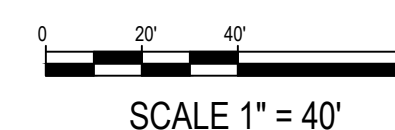
SEALS AND SIGNATURES



KEY PLAN



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NATURAL FEATURES PLAN - AREA 1

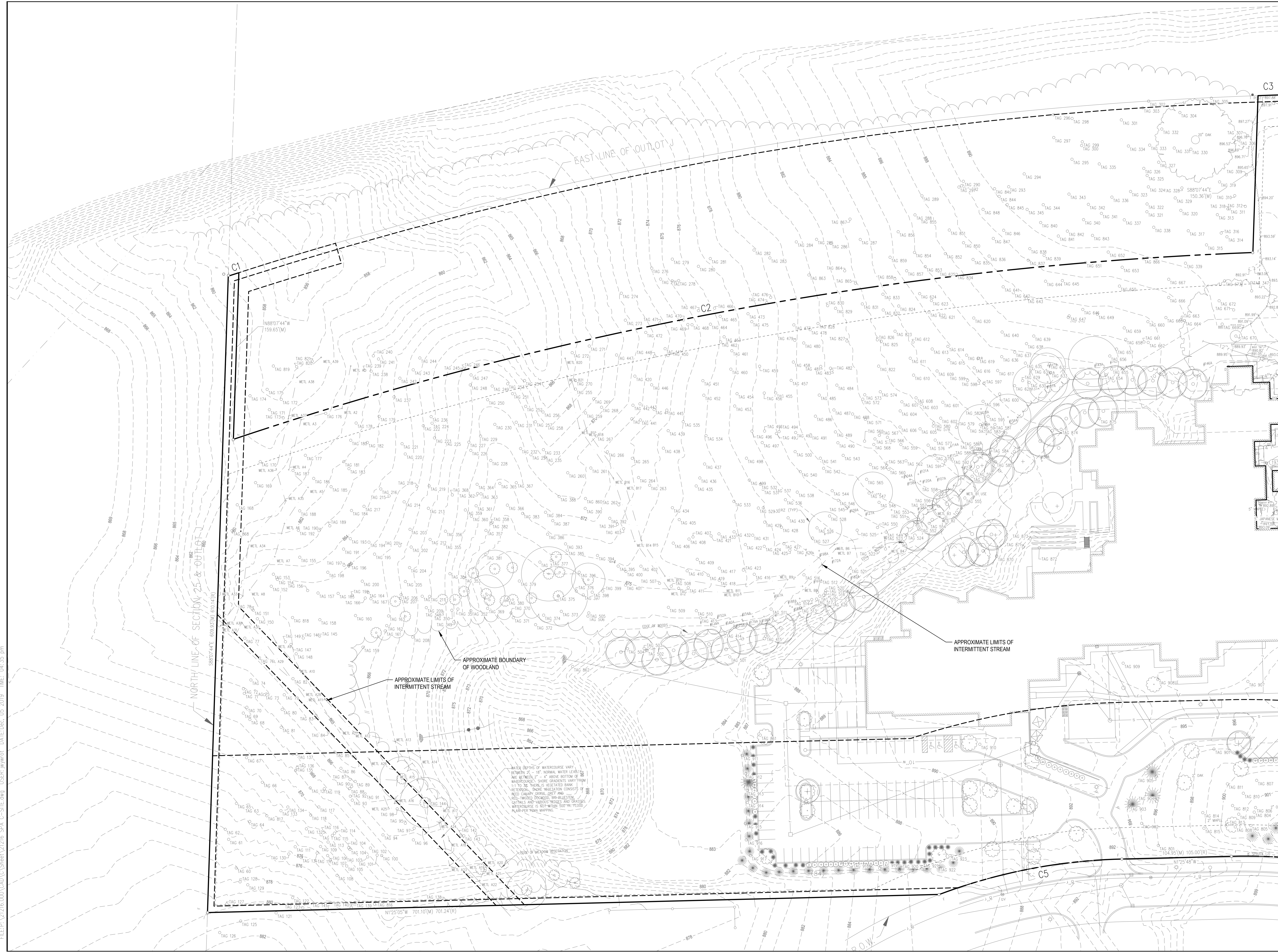


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ATHLETIC FIELD IMPROVEMENTS

850 GREENHILLS DRIVE
ANN ARBOR, MI 48105

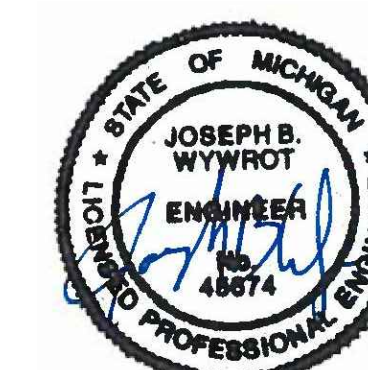
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SMITHGROUP

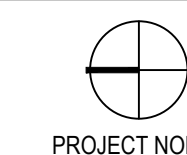
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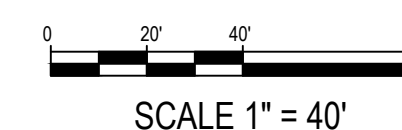
SEALS AND SIGNATURES



KEY PLAN



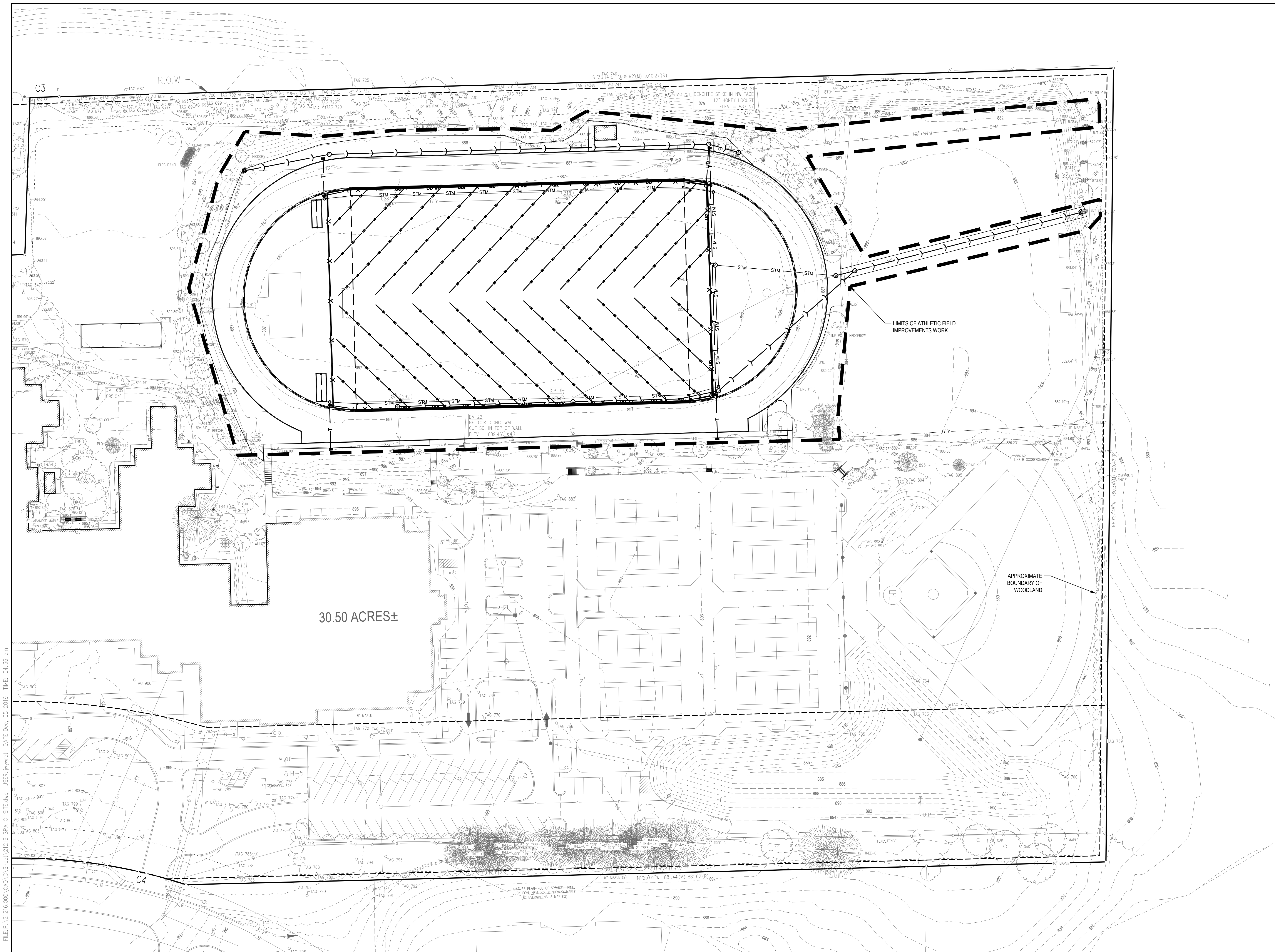
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NATURAL FEATURES PLAN -
AREA 2



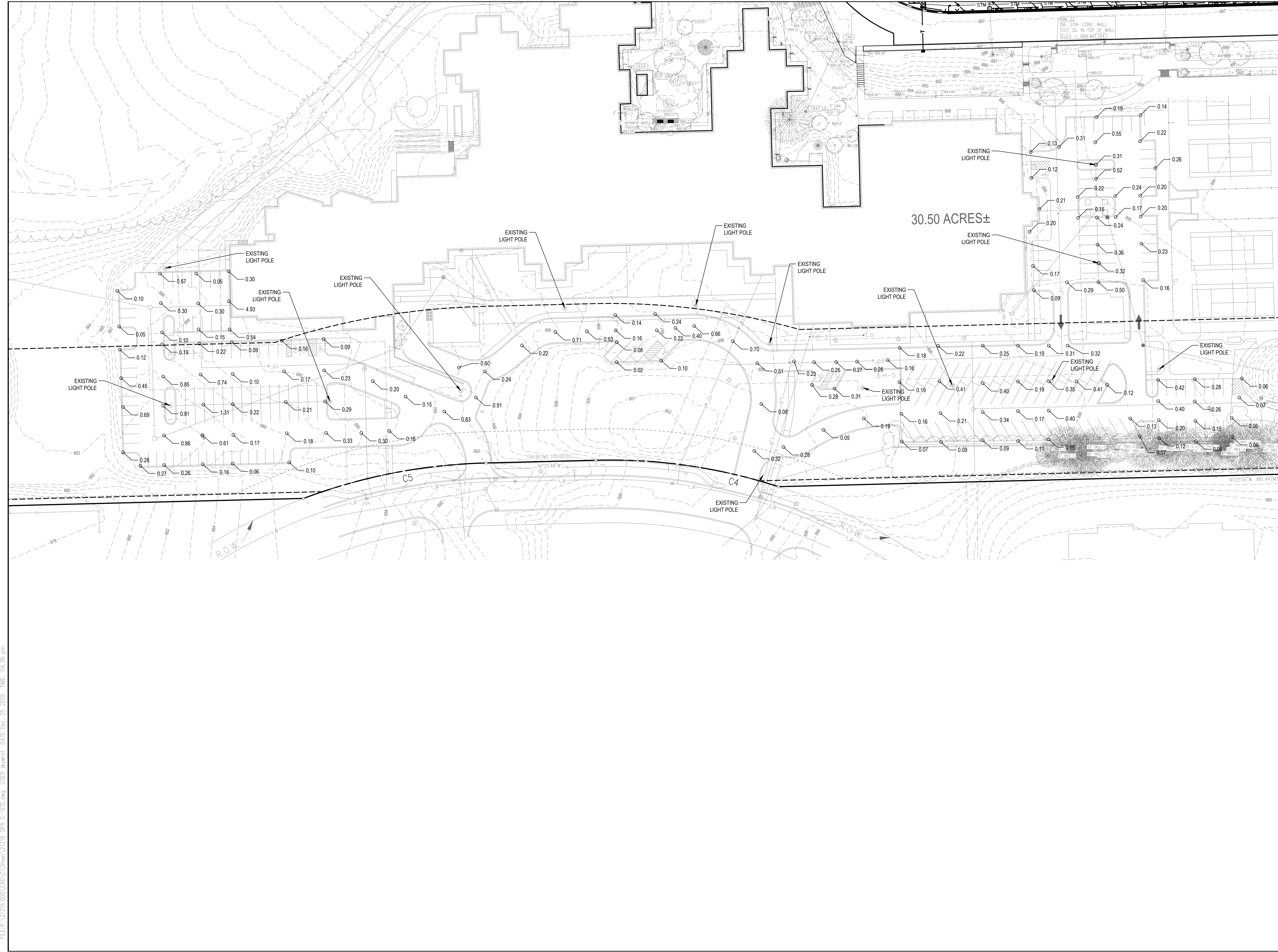
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PROJECT NUMBER 21216.000

DRAWING NUMBER C-0.6.2



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ATHLETIC FIELD IMPROVEMENTS

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ANN ARBOR, MI 48105

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SMITHGROUP

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SEALS AND SIGNATURES



KEY PLAN  PROJECT NORTH

DRAWING TITLE
PHOTOMETRIC PLAN



SCALE 121216.000
PROJECT NUMBER
C-0.7
DRAWING NUMBER

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LANDSCAPE DATA			
	REQUIRED / PERMITTED	EXISTING	PROPOSED
VEHICULAR USE AREA			
NORTH PARKING LOT			
VEHICULAR USE AREA	N/A	37,481 sf	37,481 sf
INTERIOR ISLAND AREA	5% (1:20)	2,086 sf (5.6%)	2,086 sf (5.6%)
SOUTH PARKING LOT			
VEHICULAR USE AREA	N/A	29,861 sf	29,861 sf
INTERIOR ISLAND AREA	5% (1:20)	1,536 sf (5.1%)	1,536 sf (5.1%)
TENNIS PARKING LOT			
VEHICULAR USE AREA	N/A	17,047 sf	17,047 sf
INTERIOR ISLAND AREA	5% (1:20)	850 sf (5.0%)	850 sf (5.0%)
BIORETENTION			
TOTAL VEHICULAR USE AREA	N/A	84,389 sf	84,389 sf
MINIMUM REQUIRED INTERIOR ISLAND AREA	5% (1:20)	4,220 sf	4,220 sf
BIORETENTION AREA	2,110 SF (50% OF MINIMUM REQUIRED INTERIOR ISLAND AREA)	0 sf	0 sf

INTERIOR TREES			
INTERIOR TREES: 1 TREE EVERY 250 SF ISLAND	19 REQUIRED: (4,615/250 = 18.5)	19	19
RIGHT-OF-WAY SCREENING			
BUFFER WIDTH	10'	24' MIN.	24' MIN.
TREES: 1 TREE EVERY 30'	16 REQUIRED: (462'/30 = 15.4)	16	16
A COMBINATION OF PLANTS AND GRADE CHANGE ARE PROVIDE A CONTINUOUS SCREEN.			
CONFLICTING LAND USE BUFFER			
NORTH PARKING LOT			
BUFFER WIDTH	15'	34' MIN.	34' MIN.
TREES: 1 TREE EVERY 15'	12 REQUIRED: (172'/15 = 11.5)	12	12
A HEDGE PROVIDES A CONTINUOUS SCREEN. OVER 50% OF THE HEDGE IS EVERGREEN.			
SOUTH PARKING LOT			
BUFFER WIDTH	15'	37'	37'
TREES: 1 TREE EVERY 15'	23 REQUIRED: (339'/15 = 22.6)	31	31
OPENINGS IN SCREENING IS FILLED WITH EVERGREEN HEDGE			



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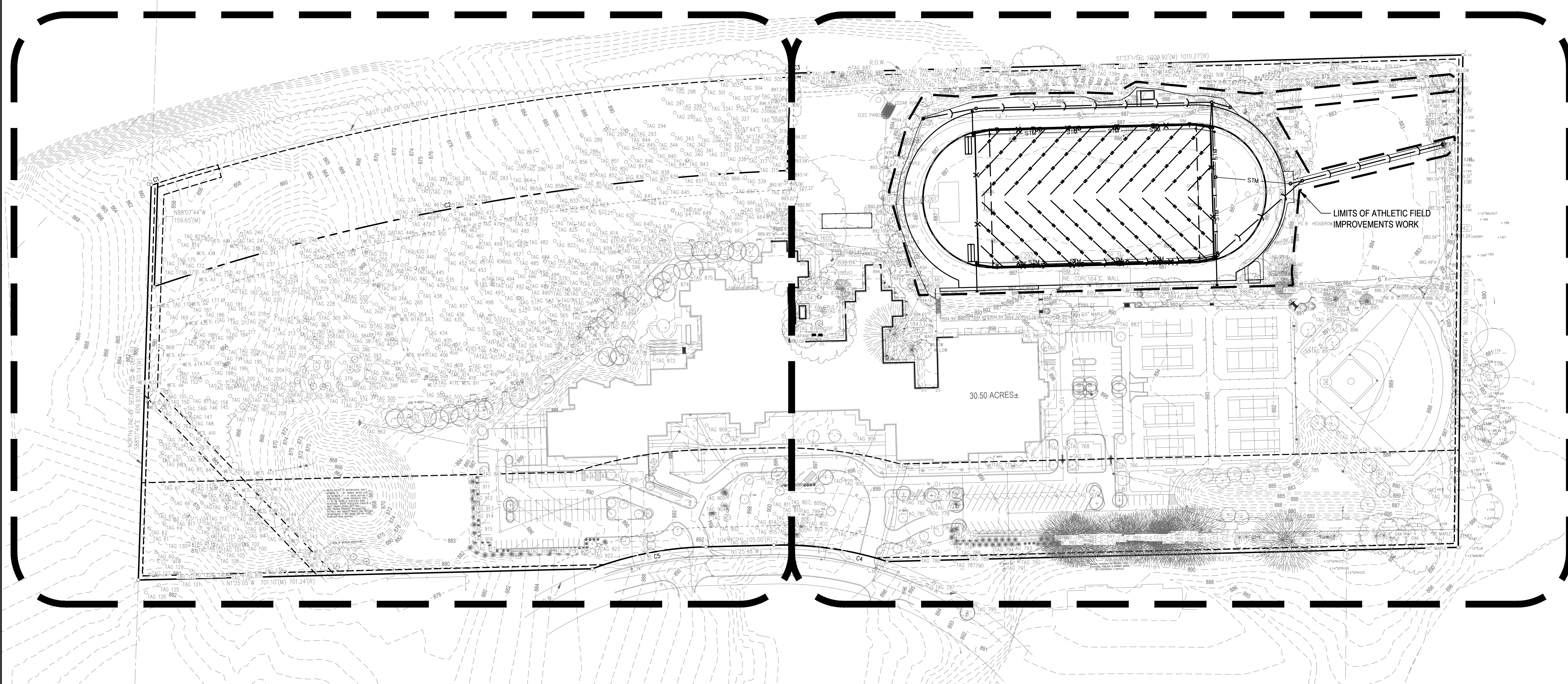
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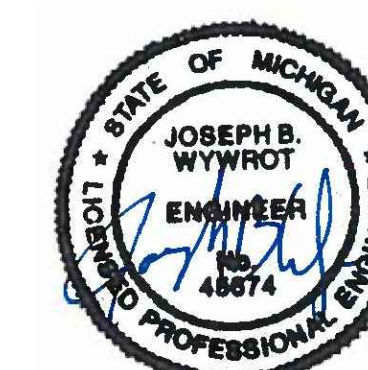
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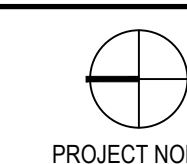
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Site Plan Approval Add Info Nov 6, 2019
Site Plan Approval Oct 24, 2019

SEALS AND SIGNATURES



KEY PLAN



DRAWING TITLE
OVERALL LANDSCAPE PLAN

SCALE
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DRAWING NUMBER
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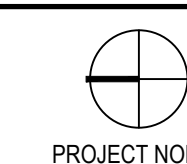
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SEALS AND SIGNATURES



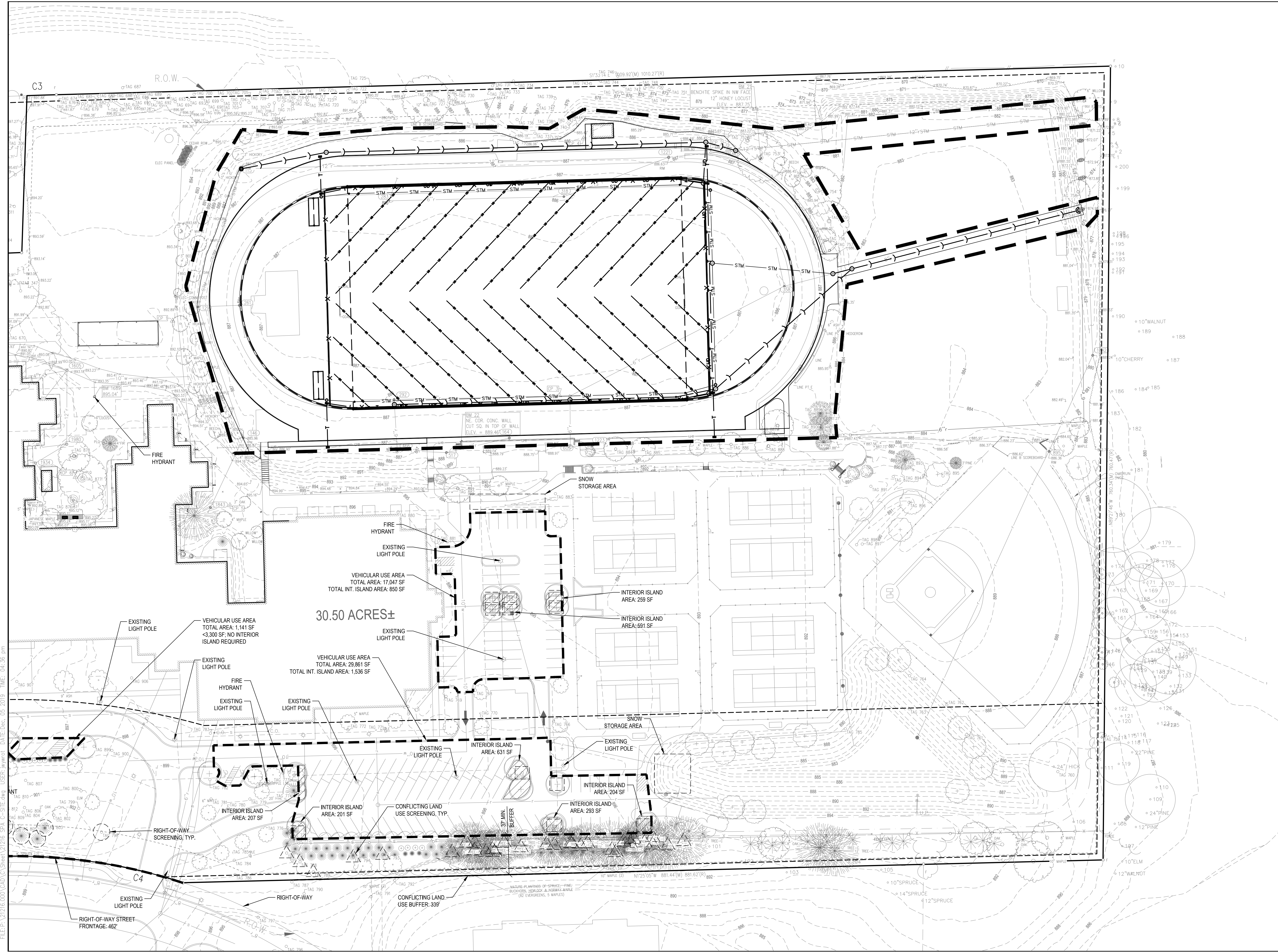
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LANDSCAPE PLAN - AREA 2



SCALE 21216.000
PROJECT NUMBER C-0.8.2
DRAWING NUMBER



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