LHS Baseball & Softball Upgrades

Liberty Public Schools 53

200 Blue Jay Drive
Liberty, MO 64068
CONSTRUCTION DOCUMET SET

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SCOPE OF WORK - SUMMARY

THE SCOPE OF THIS PROJECT IS TO CONVERT EXISTING BASEBALL, SOFTBALL AND MULTI-PURPOSE PLAYING FIELDS FROM NATURAL GRASS TO SYNTHETIC TURF. THE MULTI-PURPOSE FILE SHALL ONLY CONVERT THE INFIELD TO SYNTHETIC TURF, WHEREAS THE OUTFIELD SHALL BE REGRADED AND BE REPLANTED AS NATURAL GRASS. RELATED TO THE CONVERSION WILL BE NEW PERIMETER FENCING AND BACKSTOP NETTING.

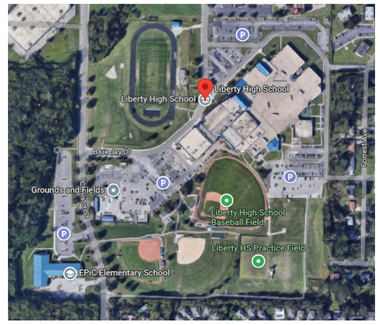
DUGOUT STRUCTURES AT SOFTBALL FIELD AND MULTIPURPOSE FIELD SHALL BE DEMOLISHED. NEW DUGOUT STRUCTURES WILL BE CONSTRUCTED AT THE SOFTBALL FIELD AND REPRESENT THE ONLY VERTICAL CONSTRUCTION TO TAKE PLACE ON THIS SITE. PRE-MANUFACTURED DUGOUT UNITS WILL BE PLACED AT THE MULTI-PURPOSE FIELD. THERE ARE A FEW VERTICAL ELEMENTS (POLES) WHICH WILL BE SET AS PART OF THIS WORK.

NO SPECTATOR SEATING CAPACITY WILL BE AFFECTED AS PART OF THIS WORK.

ALTERNATES

ALTERNATE No. 1 (23023.00 LHS) - ADD COVERED SCORER'S BOX AT SOUTH END OF HOME DUGOUT
ALTERNATE No. 2 (23047.00 LNHS) - RETROFIT SCORER'S BOX INTO VISITING BASEBALL AND SOFTBALL DUGOUT
ALTERNATE No. 3 (23047.00 LNHS) - CONVERT MULTI-PURPOSE FIELD'S INFIELD TO SYNTHETIC TURF AND INSTALL BACKSTOP NETTING AND ASSOCIATED FOOTINGS
ALTERNATE No. 4 (23047.00 LNHS) - ADD CHAMPIONWALL AND ASSOCIATED FOOTINGS AT BASEBALL FIELD IN LIEU OF 8'-0" BLACK PVC FENCE
ALTERNATE No. 5 (23023.00 LHS) - CONVERT MULTI-PURPOSE FIELD'S INFIELD TO SYNTHETIC TURF AND INSTALL BACKSTOP NETTING AND ASSOCIATED FOOTINGS

VICINITY MAP



DESIGN TEAM

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CONTACT: Lilly Riehl
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CONSTRUCTION DOCUMENTS

LHS Baseball & Softball Upgrades
Liberty Public Schools 53
200 Blue Jay Drive
Liberty, MO 64068

REVISIONS:

#	Description	Date

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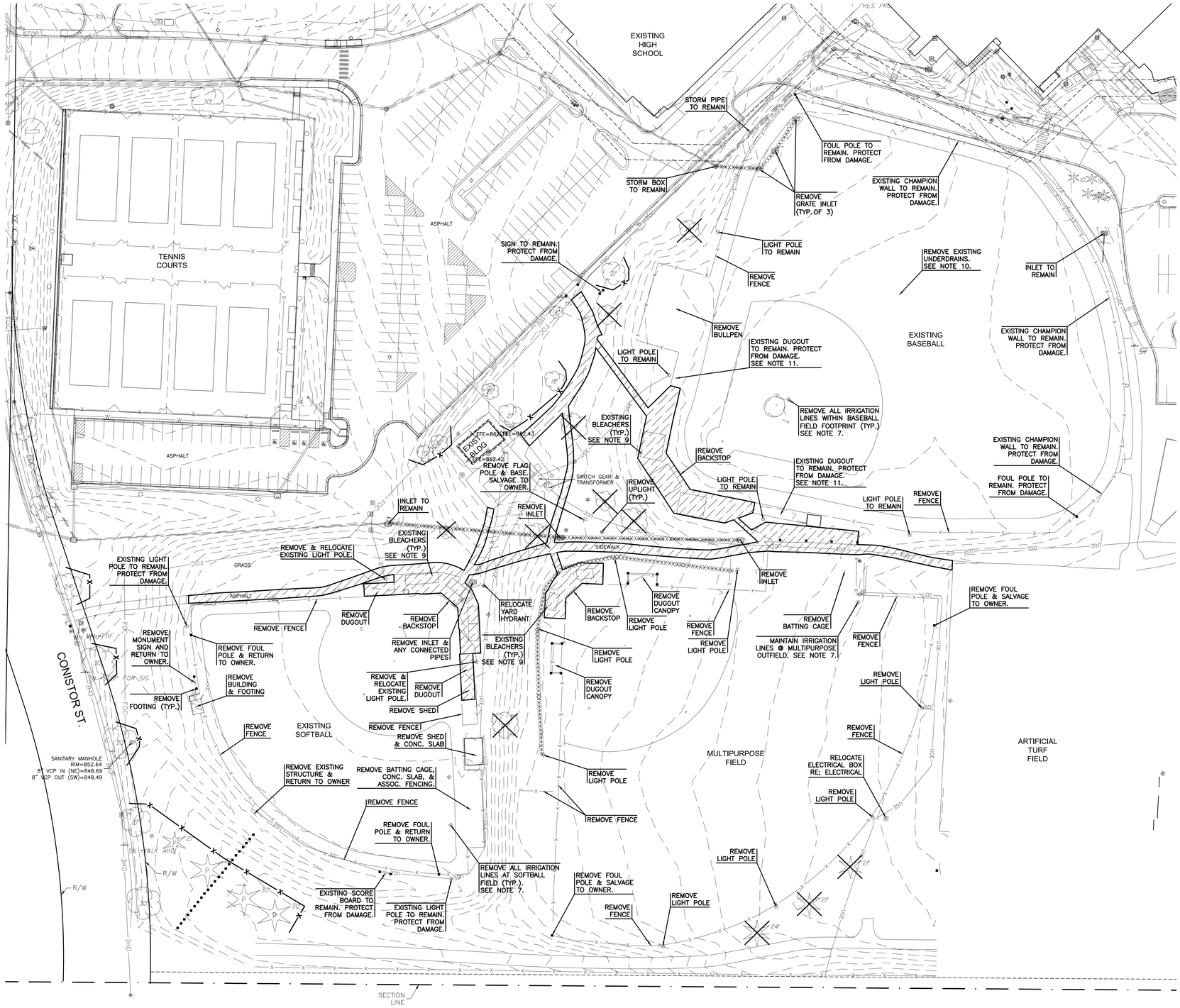
A-2019015618
ARCHITECT
STATE OF MISSOURI
JULY 12, 2023

JOB NO: 23023
DRAWN BY: Author
CHECKED BY: Checker
DATE: 07.12.23

G000

COVER SHEET

7/12/2023 5:58:42 PM



DEMOLITION NOTES:

1. CONTRACTOR SHALL BE RESPONSIBLE TO REPAIR AND REPLACE EXISTING CONCRETE SIDEWALKS, CURB & GUTTER, AND ANY EXISTING PAVEMENT DAMAGED DURING CONSTRUCTION.
2. EXCAVATED MATERIAL THAT IS NOT IMMEDIATELY LOADED AND HAULED OFF SITE SHALL BE STOCKPILED ON SITE. CONTRACTOR SHALL PROVIDE AND MAINTAIN THE APPROPRIATE BMP (COMPOST SOCK, GRAVEL FILTER BAGS, WADDLES, SILT FENCE, ETC.) AROUND STOCKPILE AREA TO PROTECT ADJACENT INLETS OR AREAS, ETC., UNTIL SUCH TIME THAT STOCKPILE IS REMOVED.
3. CONTRACTOR SHALL OBTAIN ALL PERMITS NECESSARY PRIOR TO THE START OF CONSTRUCTION, INCLUDING BUT NOT LIMITED TO, RIGHT-OF-WAY, HAULING, AND LAND DISTURBANCE PERMITS WITH THE APPROPRIATE LOCAL JURISDICTION.
4. CONTRACTOR SHALL DISPOSE OF ALL DEMOLITION ITEMS APPROPRIATELY PER LOCAL AND STATE REQUIREMENTS.
5. ALL LIGHT POLES NOTED ON THIS PLAN TO BE REMOVED OR RELOCATED, CONTRACTOR SHALL REMOVE LIGHT POLE FOOTING AND BACKFILL WITH COMPACTED BACKFILL PER GEOTECHNICAL ENGINEER.
6. CONTRACTOR TO RELOCATE AND LOWER EXISTING ELECTRICAL LINES AS NECESSARY TO MAINTAIN SERVICE TO EXISTING OR RELOCATED LIGHT POLES.
7. CONTRACTOR TO LOCATE ALL EXISTING IRRIGATION HEADS, VALVES, PIPING, BOXES, ETC. IDENTIFY IRRIGATION COMPONENTS TO BE IMPACTED FOR PROPOSED IMPROVEMENTS. CONTRACTOR SHALL REMOVE AND/OR RELOCATE ALL EXISTING IRRIGATION COMPONENTS AS NECESSARY IN CONFLICT WITH PROPOSED IMPROVEMENTS. CONTRACTOR SHALL VERIFY INSTALL AND SYSTEM IN WORKING ORDER PRIOR TO INSTALLATION OF ANY PROPOSED PAVEMENT OR ARTIFICIAL TURF SURFACING.
8. SEE ELECTRICAL PLANS FOR FINAL LOCATION OF RELOCATED FIELD LIGHT POLES.
9. EXISTING BLEACHERS IMPACTED BY PROPOSED IMPROVEMENTS SHALL BE SALVAGED AND RETURNED TO THE OWNER FOR PROPOSED LOCATION.
10. REMOVE ALL EXISTING BASEBALL FIELD UNDERDRAINS. BACKFILL TRENCHES WITH COMPACTED BACKFILL PER GEOTECHNICAL ENGINEER.
11. EXISTING DRAINS IN BOTTOM OF DUGOUTS TO REMAIN. CONTRACTOR TO LOCATE STORM PIPE FROM DRAIN JUST OUTSIDE THE DUGOUT AND DEMOLISH PIPE FROM DUGOUT TO THE STORM TRUNK LINE CONNECTION. SEE UTILITY PLAN FOR NEW STORM CONNECTIONS TO DUGOUT. ENSURE REMAINING PIPE UNDER DUGOUT (BOTH HORIZONTAL AND VERTICAL PORTIONS) ARE FREE FROM DEBRIS AND CLOGS).
12. BACKFILL ALL FENCE AND BACKSTOP POLE REMOVAL HOLES WITH COMPACTED FILL PER GEOTECHNICAL ENGINEER.

DEMOLITION LEGEND

- PAVEMENT REMOVAL
- TREE REMOVAL
- UTILITY REMOVAL
- TREE PROTECTION

N

SCALE: 1"=40'
0 40 80

CIVIL DEMOLITION PLAN

Please consider the environment before printing this.

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Landscape No. 2006027139
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Liberty Public Schools 53
200 Blue Jay Drive
Liberty, MO 64068

CONSTRUCTION DOCUMENTS

REVISIONS:

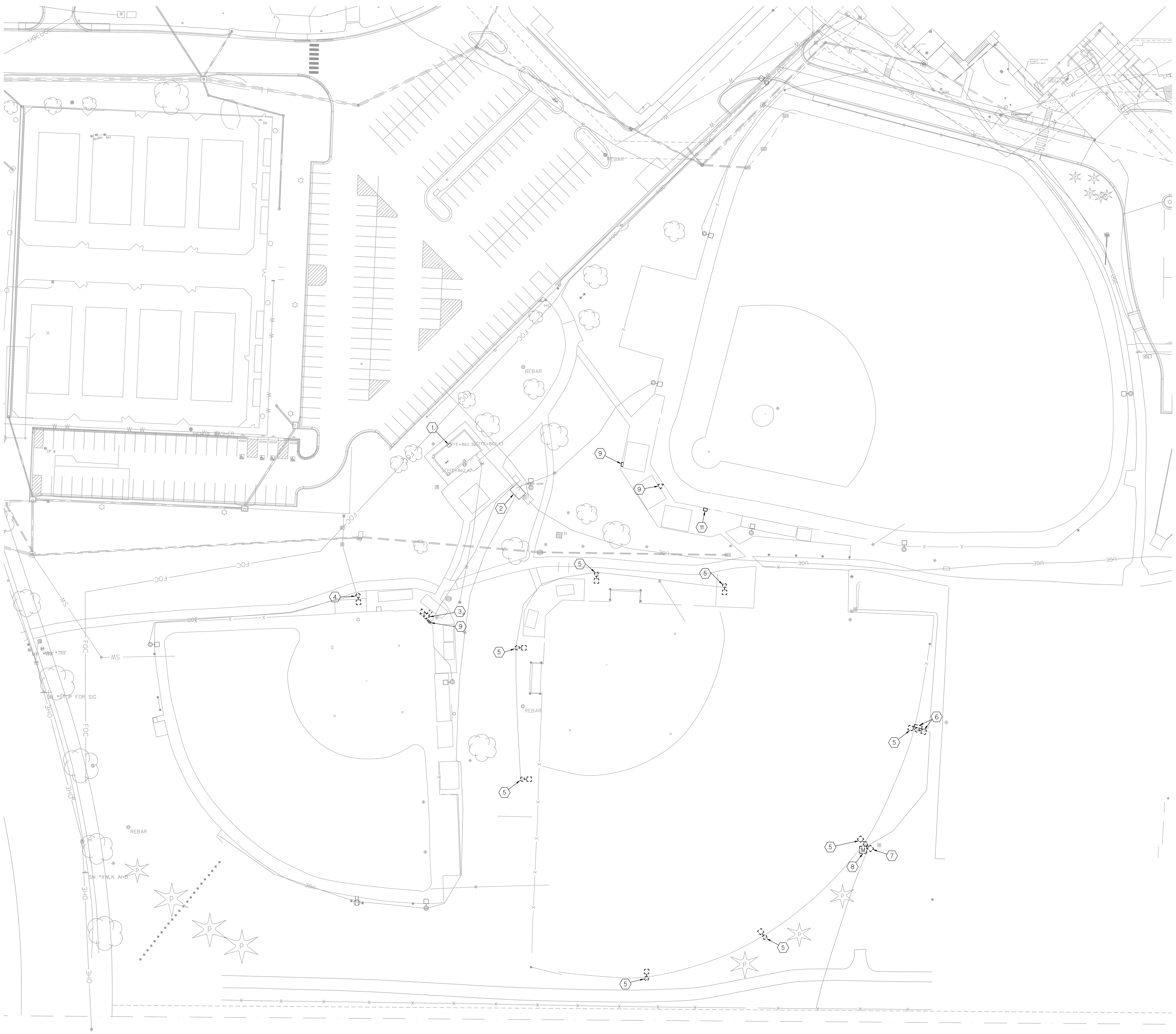
#	Description	Date

STATE OF MISSOURI
BRADEN L TAYLOR
NUMBER PE-2021001896
7.12.23
PROFESSIONAL ENGINEER

BRADEN L. TAYLOR
LIC# 2021001896

JOB NO: 23023
DRAWN BY: MKB
CHECKED BY: BLT
DATE: 07-12-23

DC101



DEMOLITION ELECTRICAL - SITE PLAN

SCALE: 1"=40'-0"

GENERAL DEMOLITION NOTES:

1. UNLESS OTHERWISE NOTED, SERVICES AND EQUIPMENT SHOWN WITH BOLD DASHED LINES ARE TO BE DEMOLISHED. SERVICES AND EQUIPMENT SHOWN WITH SOLID HALF TONE LINE WEIGHT ARE TO REMAIN IN PLACE.
2. THE EXISTING CONDITIONS INDICATED ON THE DRAWINGS ARE TAKEN FROM THE BEST INFORMATION AVAILABLE AND FROM VISUAL SITE INSPECTION AND ARE NOT TO BE CONSIDERED "AS BUILT" CONDITIONS. THE INFORMATION SHOWN IS TO ESTABLISH THE EXTENT OF THE SCOPE OF WORK. VERIFY ALL ACTUAL EXISTING CONDITIONS AT THE PROJECT SITE AND PERFORM WORK AS REQUIRED TO MEET THE EXISTING CONDITIONS AND THE EXTENT OF THE WORK INDICATED.
3. DISCONNECT AND REMOVE ALL WIRING, AND CONDUIT THAT BECOMES UNNECESSARY AS A RESULT OF THE REMOVAL OF EQUIPMENT INDICATED TO BE REMOVED.
4. PROVIDE FOR THE CONTINUITY OF ALL REMAINING SERVICES, SYSTEMS, AND CIRCUITS. RELOCATE AND RECONNECT ANY ELECTRICAL FACILITIES THAT MUST BE RELOCATED IN ORDER TO ACCOMPLISH THE REMODELING SHOWN IN THE DRAWINGS OR INDICATED IN THE SPECIFICATIONS.
5. ALL WIRE AND CABLING ASSOCIATED WITH IRRIGATION SYSTEMS SCHEDULED TO BE REMOVED SHALL BE REMOVED BACK TO THE PANEL AND THE CIRCUIT BREAKERS SHALL BE MARKED AS SPARE. CUT AND CAP CONDUIT FLUSH WITH GRADE. RE: CIVIL DRAWINGS.

DEMOLITION PLAN NOTES:

(1) EXISTING IT RACK LOCATED IN CHASE OF CONCESSIONS BUILDING.

(2) LOCATION OF EXISTING ELECTRICAL GEAR AND MUSCO CABINET.

(3) EXISTING RECEPTACLE, DATA AND IRRIGATION PUMP TO BE REMOVED. EXISTING CONDUIT, WIRE AND CABLING ASSOCIATED WITH DEVICES TO BE RETAINED FOR REUSE DURING NEW WORK.

(4) EXISTING MUSCO SPORTS LIGHTING POLE AND LIGHT FIXTURE TO BE REMOVED AND RETAINED FOR REUSE IN NEW WORK.

(5) EXISTING LIGHT FIXTURE AND POLE TO BE REMOVED. EXISTING CONDUIT TO BE RETAINED FOR REUSE IN NEW WORK.

(6) EXISTING POLE MOUNTED MUSCO CABINET AND LIGHT FIXTURES INTENDED FOR FOOTBALL FIELD TO BE REMOVED AND RETAINED FOR REUSE IN NEW WORK.

(7) EXISTING LIGHT FIXTURES AND CONTROLS FOR ADJACENT FOOTBALL FIELD TO BE RETAINED FOR REUSE IN NEW WORK.

(8) EXISTING EVERGY POLE MOUNTED METER TO BE DISCONNECTED AND RELOCATED IN NEW WORK. EXISTING CONDUCTORS TO BE REMOVED BACK TO SUBMETER IN SUBDIVISION AND RETAINED FOR REUSE IN NEW WORK. EXISTING CONDUIT TO BE ABANDONDED IN PLACE AND CAPPED AT GRADE, REFER TO NEW WORK FOR ADDITIONAL INFORMATION. COORDINATE WITH EVERGY FOR DISCONNECTING.

(9) EXISTING IRRIGATION PUMP TO BE REMOVED. EXISTING CIRCUIT TO BE REMOVED BACK TO PANEL. CAP AND SEAL EXISTING CONDUIT.

(10) EXISTING SOUND DATA PORT TO BE REMOVED. EXISTING CONDUIT AND CABLING TO BE RETAINED FOR NEW WORK.

(11) EXISTING RECEPTACLE ENCLOSURE TO BE REMOVED. EXISTING CIRCUIT AND CONDUIT TO BE RETAINED FOR REUSE IN NEW WORK.

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CONSTRUCTION DOCUMENTS

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200 Blue Jay Drive
Liberty, MO 64068

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#	Description	Date

STATE OF MISSOURI — RYAN JEROD DIEDIKER — NUMBER PE-2015006511 — PROFESSIONAL ENGINEER

7/12/23

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DRAWN BY: SBI
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phone 913.345.2127 fax 913.345.0617
project number 2314709

DME201

DEMOLITION ELEC. - SITE PLAN

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Landscape No. 2006027139
Surveying No. 2006027138

LEGEND

Symbol	Description
6IN	TREE AND DIAMETER
3IN	TREE AND DIAMETER
18"	TREE STUMP AND DIAMETER
SN	SIGN
	BUSH
	MAIL BOX
	POLE
	GATE
	POST / BOLLARD
	FLAG POLE
—X—X—	FENCE
	EDGE OF TREES
	TELEPHONE RISER
UGT	UNDERGROUND TELEPHONE LINE
OHT	OVERHEAD TELEPHONE LINE
	CABLE TV RISER
FO	FIBER OPTICS INDICATOR SIGN
TV	UNDERGROUND CABLE TV LINE
FOC	UNDERGROUND FIBER OPTIC CABLE
	POWER POLE AND DEADMAN
	LIGHT POLE
	ELECTRIC TRANSFORMER
	SCHOOL ZONE SIGNAL LIGHT
	TRAFFIC CONTROL BOX
	TRAFFIC SIGNAL LIGHT POLE
UGE	UNDERGROUND ELECTRIC LINE
OHE	OVERHEAD ELECTRIC LINE
	GAS METER
GV	GAS VALVE
G	GAS LINE
	SANITARY SEWER MANHOLE
	CLEANOUT
SS	SANITARY SEWER LINE
	INLET
	STORM WATER MANHOLE
	ROOF DRAIN
	GRATE INLET
	EXISTING STORM SEWER PIPE
	PROPOSED STORM SEWER PIPE
SW	ROOF DRAIN LINE
PD	PERFORATE DRAIN PIPE
	FIRE HYDRANT
WV	WATER VALVE
	WATER METER
	MONITORING WELL
	WATER METER VAULT
	WATER SPIGOT
W	WATER LINE
FP	FIRE PROTECTION LINE
	IRRIGATION CONTROL VALVE
100	EXISTING MAJOR CONTOUR
101	EXISTING MINOR CONTOUR

GENERAL NOTES:

1. THE CONTRACTOR, **PRIOR TO** ANY EXCAVATION OR NEW CONSTRUCTION, SHALL HAVE UTILITIES FIELD LOCATED BY THE APPROPRIATE UTILITY COMPANY AND/OR CITY/COUNTY DEPARTMENT.
2. EXISTING UTILITIES AND THEIR LOCATION, AS SHOWN ON THESE PLANS, REPRESENTS THE BEST INFORMATION AVAILABLE TO THE ENGINEER. LOCATION INFORMATION HAS BEEN OBTAINED FROM THE VARIOUS UTILITY COMPANIES AND IS EITHER FROM COMPANY RECORD DRAWINGS OR COMPANY PROVIDED FIELD LOCATIONS. HOWEVER, ALL UTILITIES ACTUALLY EXISTING MAY NOT BE SHOWN. THE CONTRACTOR IS RESPONSIBLE FOR FIELD LOCATING ALL UTILITIES WHETHER THESE UTILITIES ARE SHOWN ON THE PLANS, NOT SHOWN ON THE PLANS, OR SHOWN INCORRECTLY. UTILITIES DAMAGED THROUGH THE FAILURE OF THE CONTRACTOR TO OBTAIN THE LOCATION OF THOSE UTILITIES SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AT HIS EXPENSE. THE CONTRACTOR SHALL, PRIOR TO ANY EXCAVATION OR NEW CONSTRUCTION, HAVE ALL UTILITIES FIELD LOCATED BY THE APPROPRIATE UTILITY COMPANY, CITY OR COUNTY DEPARTMENT, OR ONE-CALL SERVICE.
3. THE SITE PLAN IS BASED ON A SURVEY OF THE SITE. CONDITIONS OF THE SITE AT THE TIME OF CONSTRUCTION MAY VARY FROM THE SURVEYED CONDITIONS. CONTRACTOR TO VERIFY EXISTING SITE CONDITIONS PRIOR TO CONSTRUCTION.
4. ALL MANHOLES, CATCH BASINS, UTILITY VALVES AND METER PITS SHALL BE ADJUSTED OR REBUILT TO GRADE AS REQUIRED.
5. NO CHANGES TO THE APPROVED CONSTRUCTION PLANS WILL BE PERMITTED WITHOUT PRIOR APPROVAL OF THE DESIGN ENGINEER.
6. IF BLASTING IS REQUIRED DURING CONSTRUCTION, THE CONTRACTOR SHALL CONTACT THE APPROPRIATE AGENCIES TO OBTAIN THE REQUIRED PERMITS. IF BLASTING IS ALLOWED, THE CONTRACTOR SHALL PERFORM BLASTING OPERATIONS ACCORDING TO STATE REGULATIONS AND LOCAL ORDINANCES.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PRESERVING PROPERTY PINS. THE CONTRACTOR WILL BE REQUIRED TO RE-ESTABLISH ANY PROPERTY PINS WHICH ARE DAMAGED OR DESTROYED BY HIS CONSTRUCTION OPERATIONS. SUCH PINS SHALL BE RE-ESTABLISHED BY A LICENSED LAND SURVEYOR IN ACCORDANCE WITH STATE LAWS.
8. CONTRACTOR TO HAVE REGISTERED LAND SURVEYOR RESET SECTION CORNER MONUMENT IF DISTURBED DURING CONSTRUCTION.
9. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL QUANTITIES, DIMENSIONS, AND PLAN SCALES AND SHALL IMMEDIATELY NOTIFY THE OWNER/ENGINEER/ARCHITECT OF ANY SUCH DISCREPANCIES. ALL QUANTITIES, DIMENSIONS, AND PLAN SCALES PROVIDED ARE FOR GENERAL INFORMATION PURPOSES ONLY. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING ALL QUANTITIES NECESSARY FOR THE COMPLETION OF THE WORK AS DESCRIBED IN THE CONSTRUCTION DOCUMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE THE WORK DESCRIBED IN THE CONSTRUCTION DOCUMENTS IRRESPECTIVE OF THE QUANTITIES, DIMENSIONS, AND PLAN SCALES NOTED, NOT NOTED, OR NOTED INCORRECTLY.
10. ANY CURB, GUTTER, SIDEWALKS, AND PAVING THAT IS DAMAGED IN EXCESS OF THE CONSTRUCTION SHOWN IN THIS PLAN SET SHALL BE REPLACED AT THE CONTRACTORS EXPENSE.
11. ALL REMOVALS SHALL BE REMOVED FROM THE SITE AND DISPOSED OF PER APPLICABLE STANDARDS (UNLESS OTHERWISE NOTED).
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING TRAFFIC CONTROL WHEN WORKING WITHIN THE PUBLIC RIGHT-OF-WAY. ALL SUCH TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL" AND/OR LOCAL JURISDICTION SPECIFICATIONS. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL TRAFFIC CONTROL DEVICES. THE CONTRACTOR SHALL ENSURE ALL TRAFFIC CONTROL DEVICES ARE CLEAN, PROPERLY VISIBLE, OPERATING CORRECTLY, AND LOCATED PROPERLY. THE CONTRACTOR SHALL IMMEDIATELY REPLACE ANY DAMAGED, DEFACED, OR INOPERABLE, OR MISSING TRAFFIC CONTROL DEVICES.
13. THE CONTRACTOR IS TO PROVIDE PERMANENT SEEDING, FERTILIZING, MULCHING OR SODDING OF ALL DISTURBED AREAS. THIS WORK TO BE DONE IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
14. ALL SITE WORK FOR THIS PROJECT IS CONSIDERED "UNCLASSIFIED." THE TERM "UNCLASSIFIED" EXCAVATION SHALL BE DEFINED AS MEANING THE SITE CONTRACTOR BEARS THE ENTIRE RISK OF THE SOIL QUANTITIES AND/OR TYPES (E.G. ROCK, CLAY, PEAT, SILT, SHALE, ETC.) ENCOUNTERED ABOVE THE BOTTOM OF REQUIRED EXCAVATIONS AND OVER-EXCAVATED / TREATED SOILS AREAS. ABOVE THE BOTTOM OF REQUIRED EXCAVATIONS, THE SITE CONTRACTOR SHALL BEAR THE ENTIRE COST OF SUCH ADDITIONAL WORK IN THE EVENT IT BECOMES NECESSARY FOR UNSUITABLE SOILS TO BE HANDLED, REMOVED FROM THE SITE, OR FOR SUITABLE FILL MATERIAL TO BE IMPORTED TO THE SITE. THIS DEFINITION OF "UNCLASSIFIED" SUPERSEDES ANY CONTRARY DEFINITIONS OR STATEMENTS WHICH MAY BE CONTAINED IN THE SPECIFICATIONS, PLANS, OR OTHER CONTRACT DOCUMENTS. THE UNCLASSIFIED SITE SHALL INCLUDE ALL WORK ABOVE THE BOTTOM OF REQUIRED EXCAVATIONS AND/OR REQUIRED SOIL REMEDIATION/REPLACEMENT.
15. RETAINING WALLS SHOWN ON THE PLANS SHALL BE MODULAR BLOCK UNLESS OTHERWISE NOTED. THE ENGINEER WHOSE SEAL APPEARS ON THESE PLANS IS NOT RESPONSIBLE FOR THE DESIGN, STRUCTURAL INTEGRITY, OR SUITABILITY OF ANY RETAINING WALLS. THE BOTTOM OF WALL ELEVATIONS LISTED ON THESE PLANS ARE FINISHED GRADES AT THE WALL. ANY AMOUNT OF WALL AND FOOTINGS BELOW FINISHED GRADE REQUIRED BY THE RETAINING WALL DESIGN SHALL BE INSTALLED. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN OF ALL RETAINING WALLS AND SHALL SUBMIT CONSTRUCTION PLANS, SHOP DRAWINGS, AND DETAILS TO THE ARCHITECT/OWNER FOR REVIEW AND APPROVAL. THE WALL DESIGN SHALL INCLUDE A GLOBAL STABILITY ANALYSIS. WALL LOADING SHALL INCLUDE A MINIMUM SURCHARGE LOAD OF TWICE THE SOIL UNIT WEIGHT PER SQUARE FOOT OR APPLICABLE AASHTO VEHICLE LOADING, WHICH EVER IS APPLICABLE OR GREATER.
16. REFER TO ARCHITECTURAL PLANS FOR ALL BUILDING DIMENSIONS AND LAYOUT. BUILDING SHALL NOT BE STAKED FROM CIVIL DRAWINGS.
17. PROPOSED CONTOURS SHOWN ON THESE PLANS ARE FINAL SURFACE CONTOURS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING ADJUSTMENTS FOR PAVEMENT THICKNESS, SUBGRADE THICKNESS, TOPSOIL, REMOVALS, ETC.

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STATE OF MISSOURI
BRADEN L. TAYLOR
NUMBER
PE-2021001896
PROFESSIONAL ENGINEER
7.12.23

BRADEN L. TAYLOR
LICS# 2021001896

JOB NO: 23023
DRAWN BY: MKB
CHECKED BY: BLT
DATE: 07-12-23

C100

CIVIL INFORMATION SHEET

CONTROL POINTS & BENCHMARKS

CP #502 5/8" REBAR W/ MKEC DESIGN CAP IN PARKING ISLAND
N=1118987.449, E=2803041.788,
ELEV.=862.82

CP #504 5/8" REBAR W/ MKEC DESIGN CAP
N=1118800.631, E=2802969.592,
ELEV.=864.26

CP #505 5/8" REBAR W/ MKEC DESIGN CAP
N=1118501.488, E=2802969.270, ELEV.=865.11

BM #1 CHISELED SQUARE. TOP OF CURB NEAR SW CORNER BUILDING
N=1119010.375, E=2803064.611, ELEV=863.09

DATUM:
THE HORIZONTAL DATUM IS BASED ON THE MISSOURI COORDINATE SYSTEM OF 1983, NAD83(2011), WEST ZONE. COORDINATES SHOWN ARE STATE PLANE VALUES IN US FEET.

ALL ELEVATIONS SHOWN ARE BASED ON THE NAVD 88 VERTICAL DATUM, GEOID 18 IN US FEET.

NOTE:
ALL CONTROL POINTS SHOWN HAVE ELEVATIONS ESTABLISHED USING STANDARD SURVEYING PROCEDURES AND CAN BE USED AS TEMPORARY BENCHMARKS. WHEN USING A CONTROL POINT AS A TEMPORARY BENCHMARK, IT IS RECOMMENDED THAT CROSS-CHECKS BE MADE TO OTHER CONTROL POINTS OR BENCHMARKS TO CONFIRM ELEVATIONS PRIOR TO USE.

SEE PLAN FOR LOCATIONS.

N

SCALE: 1"=40'
0 40 80

EXISTING CONDITIONS PLAN

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Structure # 2006031333

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Liberty Public Schools 53
200 Blue Jay Drive
Liberty, MO 64068

CONSTRUCTION DOCUMENTS

REVISIONS:

#	Description	Date

STATE OF MISSOURI
BRADEN L. TAYLOR
NUMBER PE-2021001896
7.12.23
PROFESSIONAL ENGINEER

BRADEN L. TAYLOR
LIC\# 2021001896

JOB NO: 23023
DRAWN BY: MKB
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DATE: 07-12-23

C101

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P:\PROJECTS\2023\23023\02PD_LIBERTY HS ATHLETICS\07 23023PD_LIBERTY_HS ATHLETICS.VP 23023PD CAD\SHTS\05 CIVIL\C05\23023PD-05-0400-CD.DWG

UTILITY NOTES:

1. SEE SHEET C200 FOR UTILITY DETAILS.
2. SEE SHEETS C103–C105 FOR DETAILED UTILITY NOTES.
3. CONTRACTOR TO VERIFY THE LOCATION AND SIZE OF EXISTING WATER MAIN PRIOR TO CONSTRUCTION. COORDINATE WITH THE CITY PRIOR TO EXCAVATION AND TAP FOR TAP REQUIREMENTS AND INSPECTIONS.
4. WATER LINES SHALL HAVE A MINIMUM OF 42" OF COVER TO TOP OF PIPE. WATER LINES SMALLER THAN 4" SHALL BE PVC–ASTM D2241, IPS CLASS 160 (SDR 26). WATER LINES 4" AND LARGER SHALL BE C900, DR18 PVC. FITTINGS SHALL BE MECHANICAL JOINT, DUCTILE IRON, AWWA C110. BOLTS SHALL COMPLY WITH AWWA C111.
5. INSTALL VERTICAL BENDS AS NECESSARY ON PROPOSED WATER MAINS AT UTILITY CROSSINGS TO MAINTAIN A MINIMUM OF TWO FEET OF VERTICAL CLEARANCE BETWEEN THE WATER MAIN AND OTHER UTILITIES.
6. HDPE STORM PIPE SHALL BE CORRUGATED DUAL WALL HDPE WITH SMOOTH INTERIOR AND SOIL–TIGHT JOINTS. RCP STORM PIPE SHALL BE CLASS III, WALL B WITH GASKETED JOINTS CONFORMING TO ASTM C76. O–RING GASKETS SHALL CONFORM TO ASTM C361 AND ASTM C443.
7. SANITARY SEWER PIPE SHALL BE ASTM D3034, SDR 26 PVC PIPE WITH BELL ENDS AND GASKETED JOINTS. GASKETS SHALL COMPLY WITH ASTM F477.
8. ROOF DRAINS/DOWNSPOUTS SHALL BE CONNECTED TO STORM TRUNK LINE WITH PRE–MANUFACTURED WYE MATCHING PIPE MATERIAL AND JOINT TYPE. IN LIEU OF WYE, AN INSERTA–TEE CONNECTION CAN BE USED WITH HDPE PIPE.
9. CONTRACTOR TO RELOCATE AND LOWER EXISTING ELECTRICAL LINES AS NECESSARY TO MAINTAIN SERVICE TO EXISTING OR RELOCATED LIGHT POLES.
10. SEE ELECTRICAL PLANS FOR FINAL LOCATION OF RELOCATED FIELD LIGHT POLES.
11. **ALTERNATE #5: CONVERT MULTI–PURPOSE FIELD'S INFIELD TO SYNTHETIC TURF WITH UNDERDRAINS, AND INSTALL BACK STOP NETTING (ADD ALTERNATE).**

    BASE BID: DIRT INFIELD AND CHAINLINK FENCE BACKSTOP.

N

SCALE: 1"=40'
0 40 80

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C102

OVERALL UTILITY PLAN

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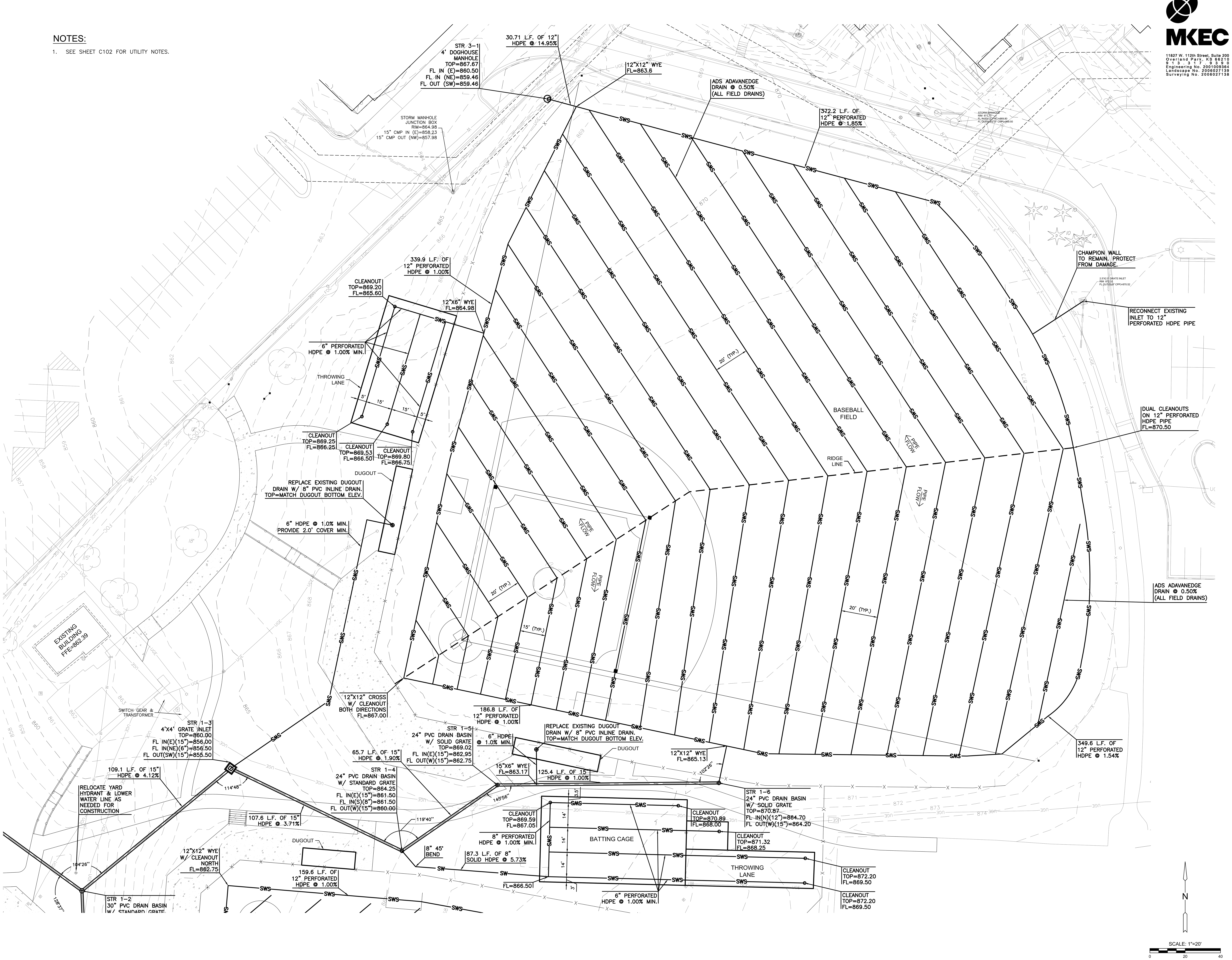
NOTES:

1. SEE SHEET C102 FOR UTILITY NOTES.


STR 3-1
4' DOGHOUSE MANHOLE
TOP=867.67
FL IN (E)=860.50
FL IN (NE)=859.46
FL OUT (SW)=859.46
30.71 L.F. OF 12" HDPE @ 14.95%
12"X12" WYE FL=863.6
ADS ADAVANEDGE DRAIN @ 0.50% (ALL FIELD DRAINS)
372.2 L.F. OF 12" PERFORATED HDPE @ 1.85%
STORM MANHOLE JUNCTION BOX RIM=864.98 15" CMP IN (E)=858.23 15" CMP OUT (NW)=857.98
CHAMPION WALL TO REMAIN. PROTECT FROM DAMAGE.
RECONNECT EXISTING INLET TO 12" PERFORATED HDPE PIPE
339.9 L.F. OF 12" PERFORATED HDPE @ 1.00%
CLEANOUT TOP=869.20 FL=865.60
12"X6" WYE FL=864.98
6" PERFORATED HDPE @ 1.00% MIN.
THROWING LANE
20' (TYP.)
BASEBALL FIELD
PIPE FLOW
RIDGE LINE
DUAL CLEANOUTS ON 12" PERFORATED HDPE PIPE FL=870.50
CLEANOUT TOP=869.25 FL=866.25
CLEANOUT TOP=869.53 FL=866.50
CLEANOUT TOP=869.80 FL=866.75
DUGOUT
REPLACE EXISTING DUGOUT DRAIN W/ 8" PVC INLINE DRAIN. TOP=MATCH DUGOUT BOTTOM ELEV.
6" HDPE @ 1.0% MIN. PROVIDE 2.0' COVER MIN.
15' (TYP.)
ADS ADAVANEDGE DRAIN @ 0.50% (ALL FIELD DRAINS)
EXISTING BUILDING FFE=862.39
12"X12" CROSS W/ CLEANOUT BOTH DIRECTIONS FL=867.00
186.8 L.F. OF 12" PERFORATED HDPE @ 1.00%
SWITCH GEAR & TRANSFORMER
STR 1-3
4'X4' GRATE INLET
TOP=860.00
FL IN(E)(15")=856.00
FL IN(NE)(6")=856.50
FL OUT(SW)(15")=855.50
STR 1-5
24" PVC DRAIN BASIN W/ SOLID GRATE
TOP=869.02
FL IN(E)(15")=862.95
FL OUT(W)(15")=862.75
6" HDPE @ 1.0% MIN.
REPLACE EXISTING DUGOUT DRAIN W/ 8" PVC INLINE DRAIN. TOP=MATCH DUGOUT BOTTOM ELEV.
DUGOUT
12"X12" WYE FL=865.13
349.6 L.F. OF 12" PERFORATED HDPE @ 1.54%
109.1 L.F. OF 15" HDPE @ 4.12%
65.7 L.F. OF 15" HDPE @ 1.90%
15"X6" WYE FL=863.17
125.4 L.F. OF 15" HDPE @ 1.00%
RELOCATE YARD HYDRANT & LOWER WATER LINE AS NEEDED FOR CONSTRUCTION
STR 1-4
24" PVC DRAIN BASIN W/ STANDARD GRATE
TOP=864.25
FL IN(E)(15")=861.50
FL IN(S)(8")=861.50
FL OUT(W)(15")=860.00
114°46'
145°56'
119°40'
107.6 L.F. OF 15" HDPE @ 3.71%
CLEANOUT TOP=869.59 FL=867.05
8" PERFORATED HDPE @ 1.00% MIN.
CLEANOUT TOP=870.89 FL=868.00
STR 1-6
24" PVC DRAIN BASIN W/ SOLID GRATE
TOP=870.87
FL IN(N)(12")=864.70
FL OUT(W)(15")=864.20
CLEANOUT TOP=871.32 FL=868.25
BATTING CAGE
THROWING LANE
DUGOUT
8" 45° BEND
87.3 L.F. OF 8" SOLID HDPE @ 5.73%
12"X12" WYE W/ CLEANOUT NORTH FL=862.75
159.6 L.F. OF 12" PERFORATED HDPE @ 1.00%
FL=866.50
6" PERFORATED HDPE @ 1.00% MIN.
CLEANOUT TOP=872.20 FL=869.50
CLEANOUT TOP=872.20 FL=869.50
104°26'
STR 1-2
30" PVC DRAIN BASIN W/ STANDARD GRATE
SWS
N
SCALE: 1"=20'
0 20 40

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CONSTRUCTION DOCUMENTS

LHS Baseball & Softball Upgrades

Liberty Public Schools 53

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Liberty, MO 64068

REVISIONS:

#	Description	Date

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NUMBER PE-2021001896
7.12.23
PROFESSIONAL ENGINEER

BRADEN L. TAYLOR
LIC# 2021001896

JOB NO: 23023
DRAWN BY: MKB
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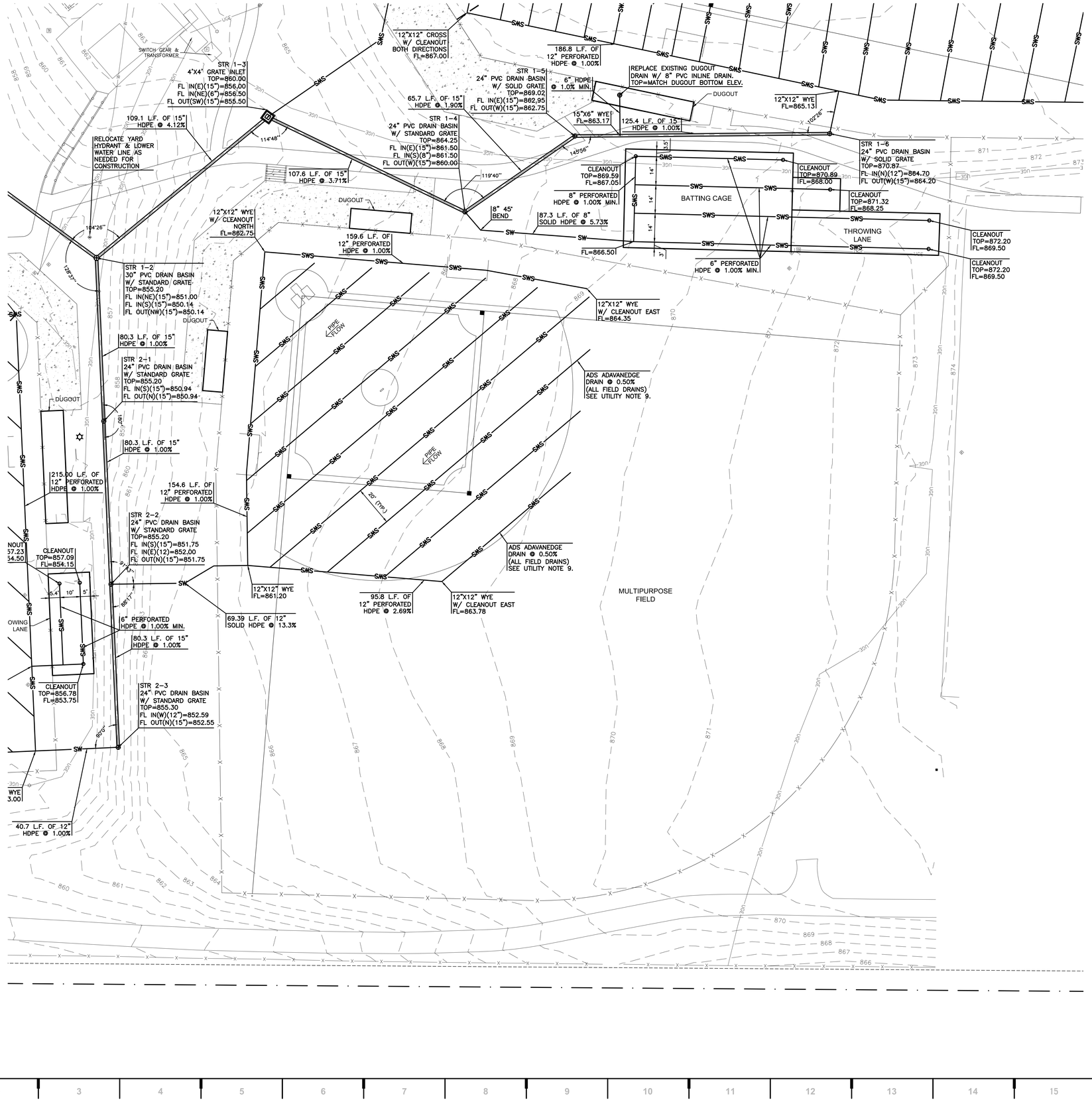
DATE: 07-12-23

C103

UTILITY PLAN (BASEBALL)



NOTES:

1. SEE SHEET C102 FOR UTILITY NOTES.

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CONSTRUCTION DOCUMENTS

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BRADEN L. TAYLOR
LIC\# 2021001896

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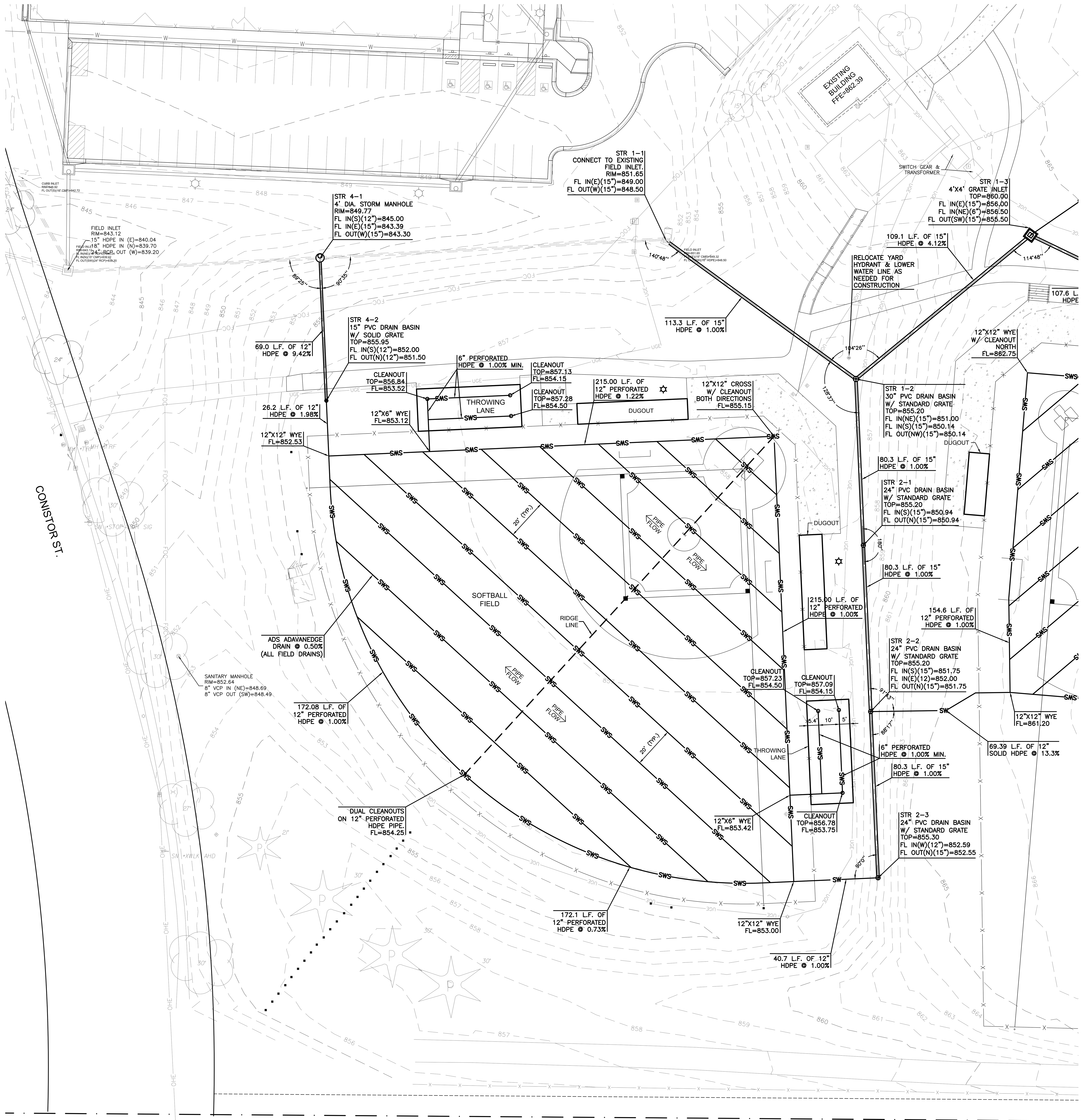
C104

N

SCALE: 1"=20'
0 20 40

UTILITY PLAN (MULTIPURPOSE)

P:\PROJECTS\2023\23023070290_LIBERTY HS ATHLETICS\09 230290 CAD\SHTS\05 CIVIL\C05\23023070290-C05-2210-C03.DWG



NOTES:

1. SEE SHEET C102 FOR UTILITY NOTES.

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BRADEN L. TAYLOR
NUMBER PE-2021001896
7.12.23
PROFESSIONAL ENGINEER

BRADEN L. TAYLOR
LIC# 2021001896

JOB NO: 23023
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C105

UTILITY PLAN (SOFTBALL)

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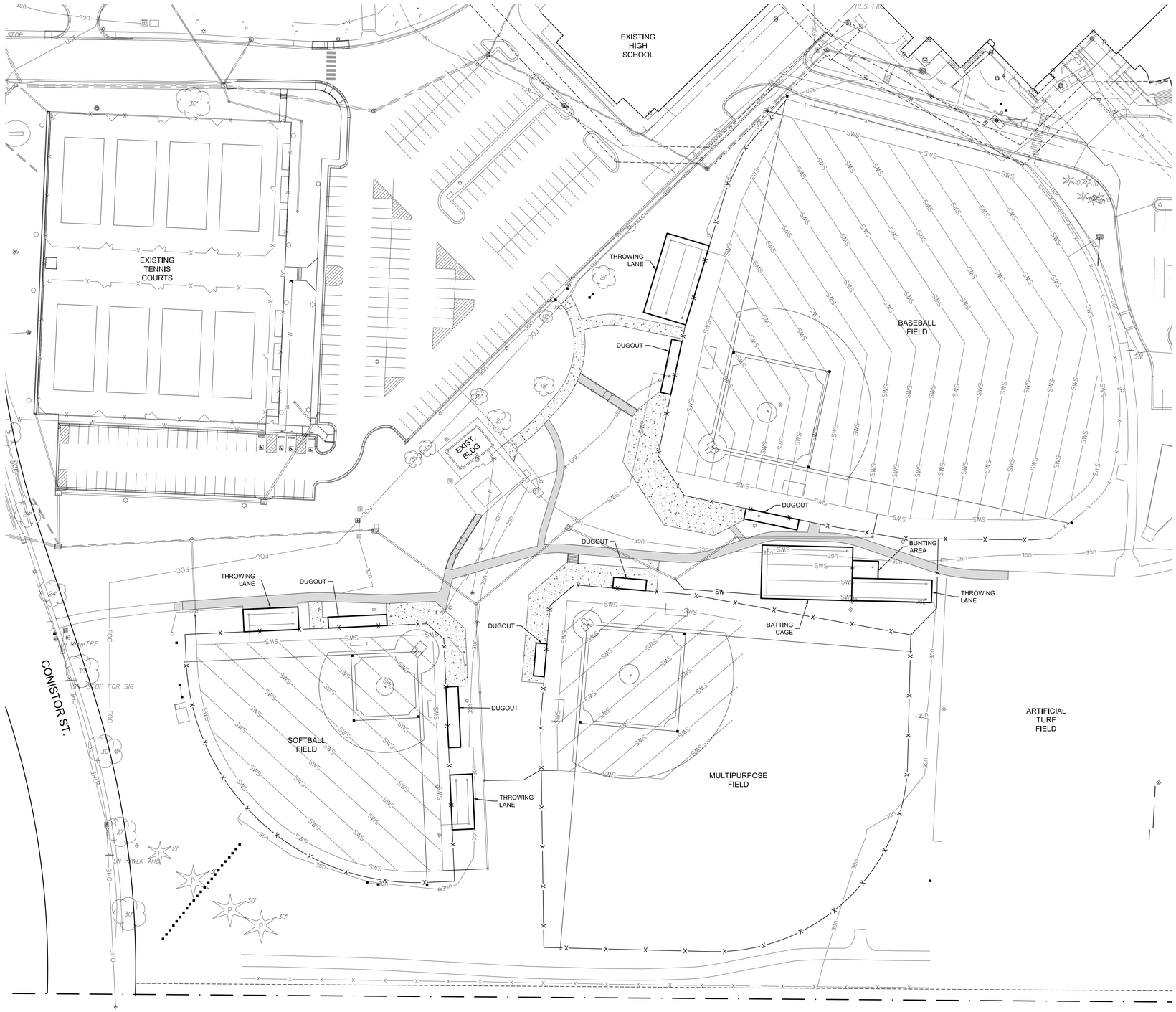

PAVING NOTES:

1. SEE SHEET C201 FOR PAVEMENT DETAILS.
2. ALL DIMENSIONS ARE TO BACK OF CURB.
3. PORTLAND CEMENT CONCRETE SHALL CONFORM WITH THE KANSAS CITY METRO MATERIALS BOARD MINIMUM 4000 PSI GRANITE MIX (KCMMB 4K).
4. ALL SIDEWALKS SHALL BE 4" UN-REINFORCED CONCRETE.
5. SIDEWALK RAMPS ON PRIVATE PROPERTY DO NOT REQUIRE 2' WIDE DETECTABLE WARNING STRIPS (TRUNCATED DOMES).
6. COMPACTED SUBGRADE AND AGGREGATE BASE UNDER PAVEMENTS SHALL EXTEND A MINIMUM OF 2' BEYOND THE EDGE OF PAVEMENT OR BACK OF CURB, WHICHEVER IS APPLICABLE.
7. 5' WIDE SIDEWALKS SHALL HAVE A MAXIMUM OF 5' CONTRACTION JOINT SPACING. 6' WIDE SIDEWALKS SHALL HAVE A MAXIMUM CONTRACTION JOINT SPACING OF 6'. 8' WIDE SIDEWALKS SHALL HAVE A MAXIMUM 4' CONTRACTION JOINT SPACING WITH A LONGITUDINAL CONTRACTION JOINT DOWN THE MIDDLE OF THE SIDEWALK.
8. CONTRACTOR SHALL BE RESPONSIBLE FOR REQUIRED TRAFFIC CONTROL NECESSARY ON SURROUNDING STREETS FOR CONSTRUCTION. TRAFFIC CONTROL SHALL COMPLY WITH THE LATEST EDITION OF MUTCD AND CITY SPECIFICATIONS.
9. COORDINATE INSTALLATION OF PVC SLEEVES AND GRANULAR TRENCH BACKFILL FOR IRRIGATION PRIOR TO PAVEMENT INSTALLATION.

PAVING LEGEND

- 4" CONCRETE SIDEWALK
- 6" CONCRETE SIDEWALK
- R – RAMP
- L – LANDING

N

SCALE: 1"=40'
0 40 80

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CONSTRUCTION DOCUMENTS

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BRADEN L. TAYLOR
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C106

OVERALL PAVING PLAN

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NOTES:

1. SEE PAVING NOTES ON SHEET C106.

PAVING LEGEND

- 4" CONCRETE SIDEWALK
- 6" CONCRETE SIDEWALK
- R – RAMP
- L – LANDING

EXISTING FOUL POLE

CONNECT PROPOSED FENCE TO EXISTING CHAMPION WALL.

THROWING LANE RE: ARCHITECT

CONNECT TO EXISTING SIDEWALK

SIDEWALK

RAMP WITH HANDRAILS ON BOTH SIDES

EXISTING DUGOUT

DUGOUT

EXISTING BUILDING FFE=862.39

6 STAIRS, 14" TREADS, 6" RISERS, WITH HANDRAILS ON BOTH SIDES

BASEBALL FIELD

BUNTING AREA RE: ARCHITECT

BATTING CAGE RE: ARCHITECT

DUGOUT RE: ARCHITECT

BATTING CAGE

BUNTING

THROWING LANE

CONNECT TO EXISTING SIDEWALK

THROWING LANE RE: ARCHITECT

CONNECT PROPOSED FENCE TO EXISTING CHAMPION WALL.

SCALE: 1"=20'

0 20 40

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NUMBER PE-2021001896
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PROFESSIONAL ENGINEER

BRADEN L. TAYLOR
LIC№ 2021001896

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C107

PAVING PLAN (BASEBALL)

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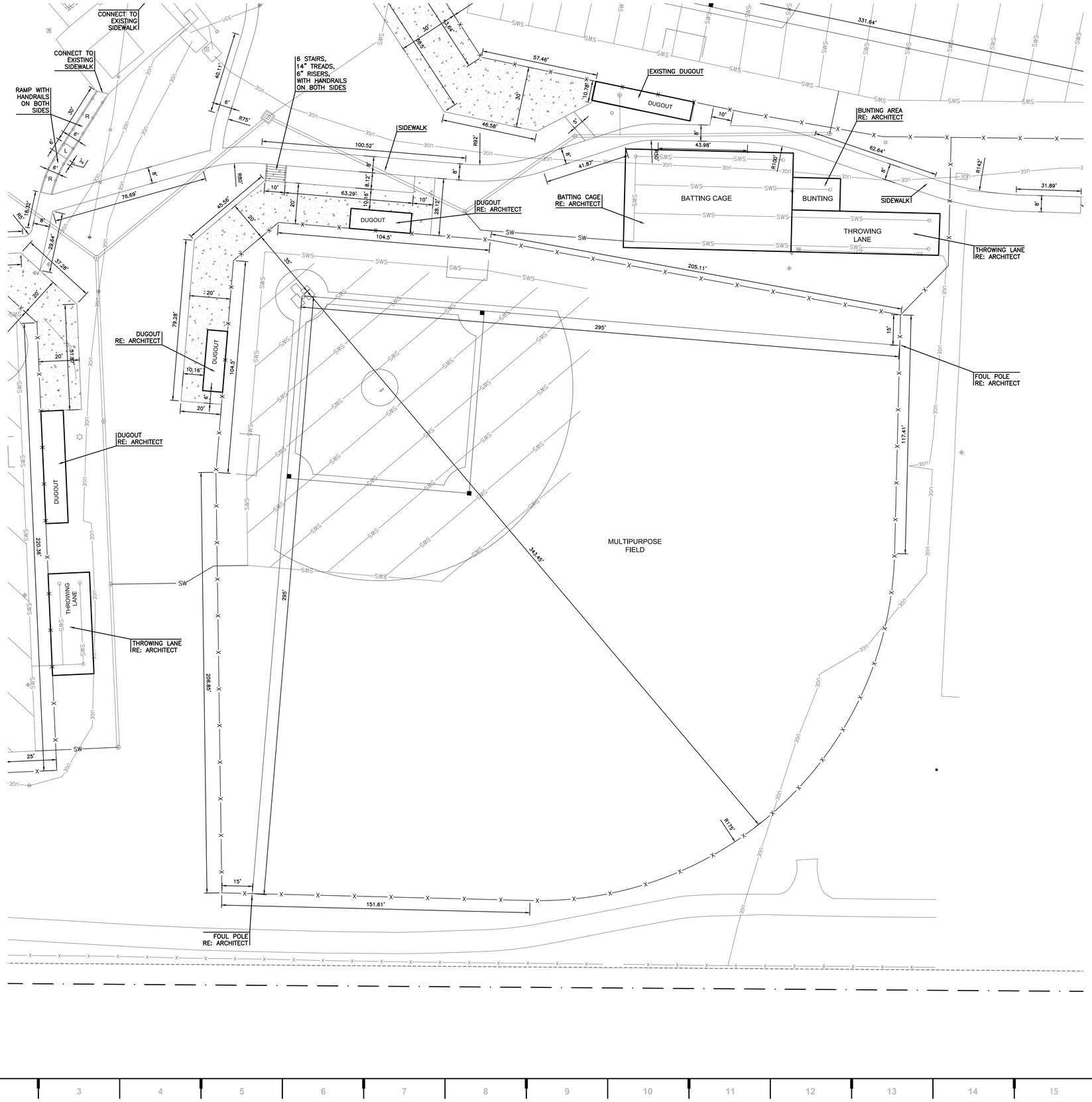

NOTES:

1. SEE PAVING NOTES ON SHEET C106.

PAVING LEGEND

- 4" CONCRETE SIDEWALK
- 6" CONCRETE SIDEWALK
- R – RAMP
- L – LANDING

N

SCALE: 1"=20'
0 20 40

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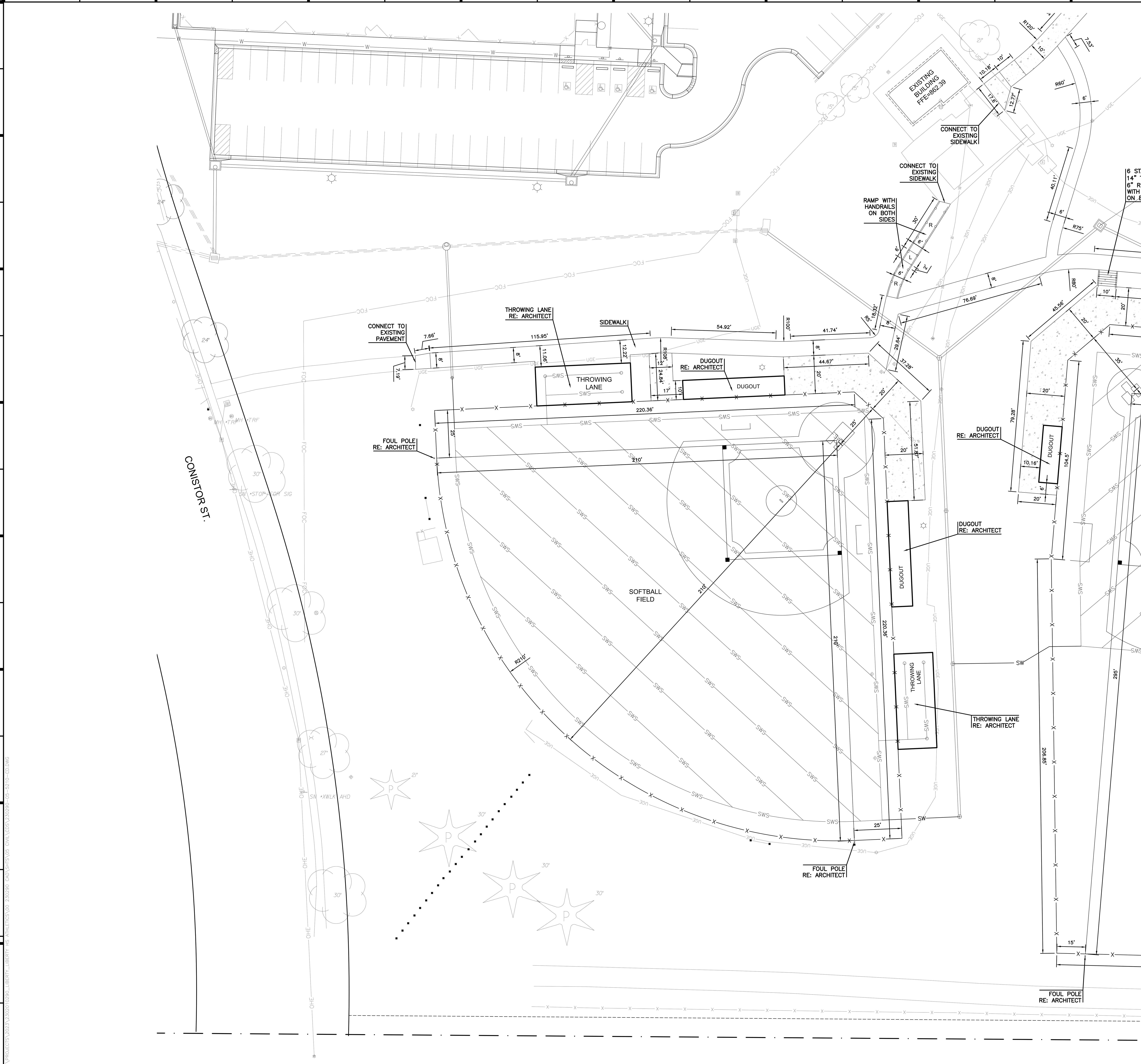
C108

PAVING PLAN (MULTIPURPOSE)



NOTES:

1. SEE PAVING NOTES ON SHEET C106.

PAVING LEGEND

	– 4" CONCRETE SIDEWALK
	–6" CONCRETE SIDEWALK
R	– RAMP
L	– LANDING

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CONSTRUCTION DOCUMENTS

LHS Baseball & Softball Upgrades
Liberty Public Schools 53
200 Blue Jay Drive
Liberty, MO 64068

REVISIONS:

#	Description	Date

BRADEN L. TAYLOR
LICS# 2021001896

JOB NO: 23023
DRAWN BY: MKB
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DATE: 07-12-23

C109

PAVING PLAN (SOFTBALL)

GRADING NOTES:

1. ALL SPOT ELEVATIONS REPRESENT FINISHED GRADE.
2. ALL CURB SPOT ELEVATIONS ARE TOP OF CURB UNLESS OTHERWISE NOTED.
3. SATISFACTORY SOIL AND FILL MATERIAL SHALL BE PROVIDED PER THE SPECIFICATIONS. SEE SPECIFICATIONS FOR MAXIMUM FILL LIFT THICKNESS.
4. CLEAR AND GRUB IMPROVEMENT AREA. REMOVE ALL ORGANIC AND TOPSOIL MATERIAL REGARDLESS OF SIZE AND DEPTH. ALL CLEARED AND EXCESS MATERIAL SHALL BECOME CONTRACTORS PROPERTY AND SHALL BE REMOVED FROM THE PROJECT SITE.
5. THE CONTRACTOR SHALL BE RESPONSIBLE TO DETERMINE EARTHWORK QUANTITIES. ALL IMPORT AND EXPORT OF SOIL MATERIAL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AT HIS EXPENSE.
6. NOTIFY TESTING AGENCY WHEN EXCAVATIONS HAVE REACHED REQUIRED SUBGRADE. SUBGRADE SHALL BE PREPARED AND COMPACTED PER THE SPECIFICATIONS.
7. IF GEOTECHNICAL ENGINEER DETERMINES THAT UNSATISFACTORY SOIL IS PRESENT, CONTINUE EXCAVATION AND REPLACE WITH COMPACTED BACKFILL OR FILL MATERIAL AS DIRECTED.
8. SEE EARTH WORK SPECIFICATIONS FOR COMPACTION & PROOF-ROLLING REQUIREMENTS.
9. RECONSTRUCT SUBGRADES DAMAGED BY FREEZING TEMPERATURE, FROST, RAIN, ACCUMULATED WATER, OR CONSTRUCTION ACTIVITIES, WITHOUT ADDITIONAL COMPENSATION.
10. COMPACTED SUBGRADE AND AGGREGATE BASE UNDER PAVEMENTS SHALL EXTEND A MINIMUM OF 2' BEYOND THE EDGE OF PAVEMENT OR BACK OF CURB, WHICHEVER IS APPLICABLE.
11. ALL EXCESS SOIL AND WASTE MATERIAL SHALL BECOME THE CONTRACTORS PROPERTY AND SHALL BE REMOVED FROM THE SITE.

N

SCALE: 1"=40'
0 40 80

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REVISIONS:

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STATE OF MISSOURI
BRADEN L TAYLOR
NUMBER PE-2021001896
7.12.23
PROFESSIONAL ENGINEER

BRADEN L. TAYLOR
LIC# 2021001896

JOB NO: 23023
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C110

OVERALL GRADING PLAN

NOTES:

1. SEE SHEET C110 FOR GRADING NOTES.

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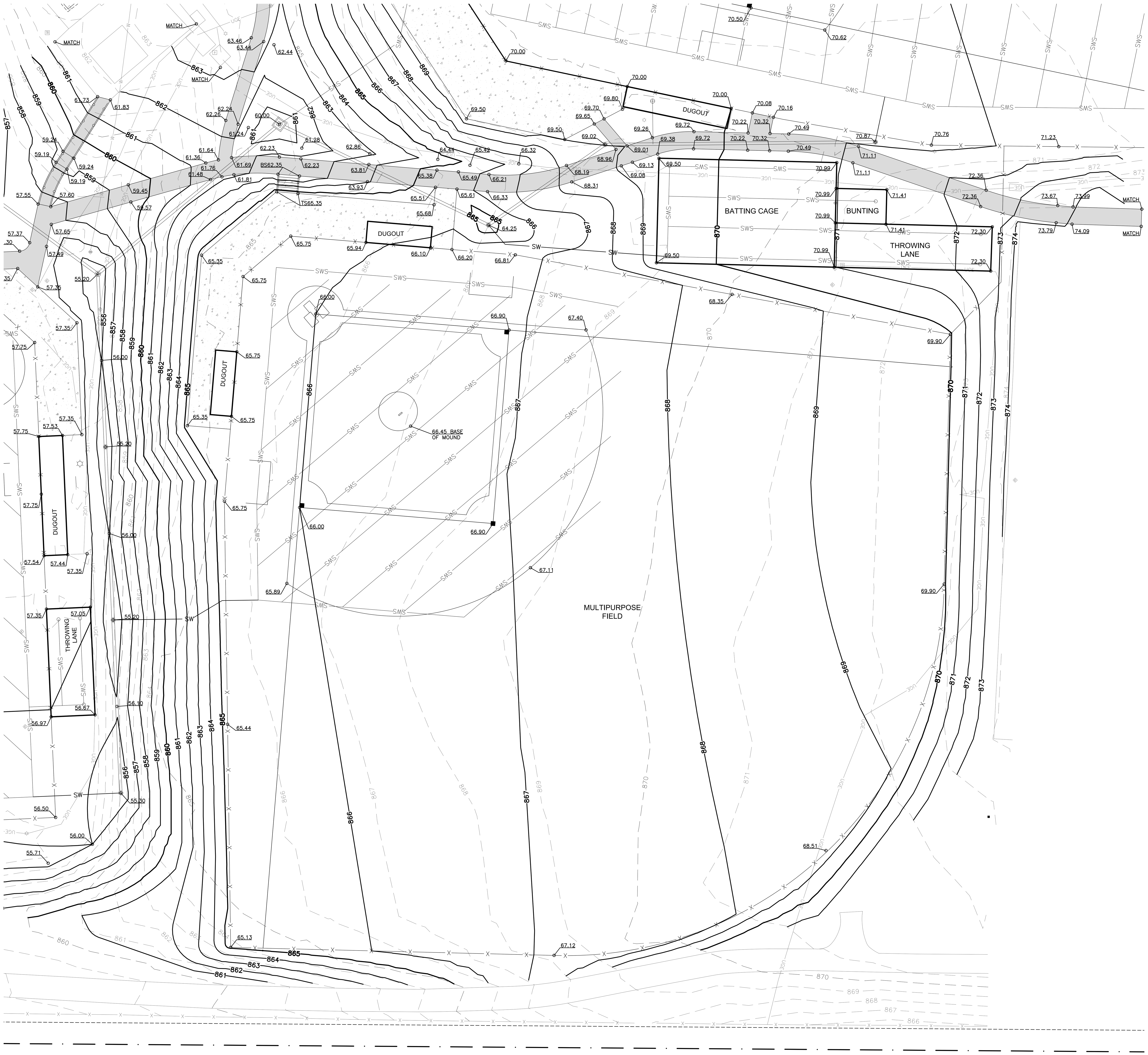
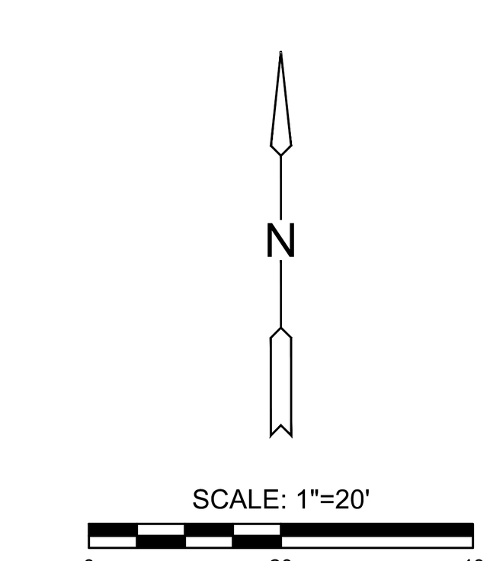
C111

GRADING PLAN (BASEBALL)



NOTES:

1. SEE SHEET C110 FOR GRADING NOTES.



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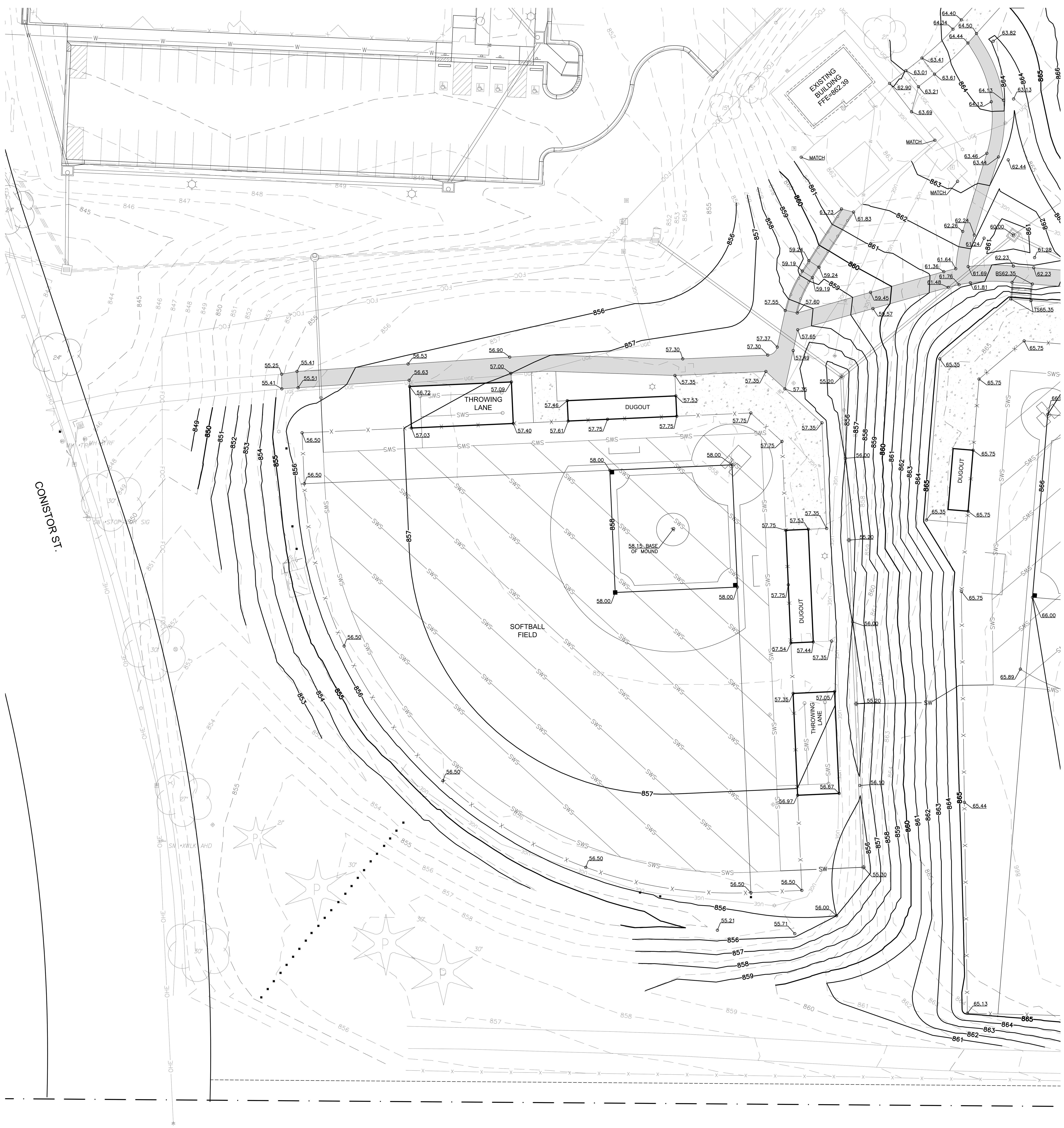
C112

GRADING PLAN (MULTIPURPOSE)

Please consider the environment before printing this.



NOTES:

1. SEE SHEET C110 FOR GRADING NOTES.

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C113

GRADING PLAN (SOFTBALL)

EROSION CONTROL LEGEND

- INLET PROTECTION
- SILT FENCE
- TREE PROTECTION
- NORTH AMERICAN GREEN S75 TURF REINFORCEMENT MAT

FESCUE TURF NOTES:

1. INSTALL FESCUE TURF SOD PER NOTES BELOW.
2. SUBMITTALS SHALL INCLUDE: PRODUCT DATA: FOR EACH TYPE OF PRODUCT INDICATED, CERTIFICATION OF SOD AS KANSAS STATE FESCUE TRIAL MIX, PRODUCT CERTIFICATES: FOR SOIL AMENDMENTS AND FERTILIZERS, SIGNED BY PRODUCT MANUFACTURER, MATERIAL TEST REPORTS: FOR EXISTING SURFACE SOIL AND IMPORTED TOPSOIL, AND PLANTING SCHEDULE: INDICATING ANTICIPATED PLANTING DATES FOR SOD INSTALLATION.
3. INSTALLER QUALIFICATIONS: A QUALIFIED LANDSCAPE INSTALLER WHOSE WORK HAS RESULTED IN SUCCESSFUL LAWN ESTABLISHMENT.
4. INSTALLER'S FIELD SUPERVISION: REQUIRE INSTALLER TO MAINTAIN AN EXPERIENCED FULL–TIME SUPERVISOR ON PROJECT SITE WHEN PLANTING IS IN PROGRESS.
5. REPORT SUITABILITY OF TOPSOIL FOR LAWN GROWTH. STATE RECOMMENDED QUANTITIES OF NITROGEN, PHOSPHORUS, AND POTASH NUTRIENTS AND SOIL AMENDMENTS TO BE ADDED TO PRODUCE SATISFACTORY TOPSOIL.
6. DELIVERY, STORAGE, AND HANDLING FOR SOD: HARVEST, DELIVER, STORE, AND HANDLE SOD ACCORDING TO REQUIREMENTS IN TPI'S "SPECIFICATIONS FOR TURFGRASS SOD MATERIALS" AND "SPECIFICATIONS FOR TURFGRASS SOD TRANSPLANTING AND INSTALLATION" IN ITS "GUIDELINE SPECIFICATIONS TO TURFGRASS SODDING."
7. LAWN MAINTENANCE: BEGIN MAINTENANCE IMMEDIATELY AFTER EACH AREA IS PLANTED AND CONTINUE UNTIL ACCEPTABLE LAWN IS ESTABLISHED, BUT FOR NOT LESS THAN 60 DAYS FROM DATE OF SUBSTANTIAL COMPLETION. MAINTAIN AND ESTABLISH LAWN BY WATERING, FERTILIZING, WEEDING, MOWING, TRIMMING, REPLANTING, AND OTHER OPERATIONS. ROLL, REGRADE, AND REPLANT BARE OR ERODED AREAS TO PRODUCE A UNIFORMLY SMOOTH LAWN. WATERING: PROVIDE AND MAINTAIN TEMPORARY IRRIGATION SYSTEM TO CONVEY WATER FROM SOURCES AND TO KEEP LAWN UNIFORMLY MOIST TO A DEPTH OF 4 INCHES.
8. WATER LAWN AT A MINIMUM RATE OF 1 INCH PER WEEK OR AS NECESSARY TO PROVIDE A HEALTHY GREEN APPEARANCE. A DEEP ROOT SYSTEM IS DESIRED THEREFORE DO NOT WATER LAWNS AFTER ESTABLISHMENT MORE THAN EVERY OTHER DAY.
9. MOW LAWN AS SOON AS TOP GROWTH IS TALL ENOUGH TO CUT. REPEAT MOWING TO MAINTAIN SPECIFIED HEIGHT WITHOUT CUTTING MORE THAN 33 PERCENT OF GRASS HEIGHT. REMOVE NO MORE THAN 33 PERCENT OF GRASS–LEAF GROWTH IN INITIAL OR SUBSEQUENT MOWINGS. DO NOT DELAY MOWING UNTIL GRASS BLADES BEND OVER AND BECOME MATTED. DO NOT MOW WHEN GRASS IS WET. SCHEDULE INITIAL AND SUBSEQUENT MOWINGS TO MAINTAIN THE FOLLOWING GRASS HEIGHT: MOW GRASS 2 INCHES HIGH IN SPRING AND FALL AND 2 ½ INCHES HIGH IN THE SUMMER. TRIM AND EDGE ALONG WALKS, WALLS, ETC.
10. LAWN POSTFERTILIZATION: APPLY FERTILIZER AFTER INITIAL MOWING AND WHEN GRASS IS DRY.
11. APPLY FERTILIZER 5 TIMES PER SEASON, SPRING: FERTILIZER PLUS WEED CONTROL FOR CRABGRASS, LATE SPRING: FERTILIZER PLUS WEED CONTROL FOR BROADLEAF WEEDS, SUMMER: FERTILIZER, EARLY FALL: FERTILIZER PLUS WEED CONTROL, LATE FALL: WINTERIZER.
12. AERATE LAWN A MINIMUM OF ONCE PER YEAR.
13. TURFGRASS SPECIES: GRASS SPECIES, BOTH SOD AND SEED, AS FOLLOWS, WITH NOT LESS THAN 95 PERCENT GERMINATION, NOT LESS THAN 85 PERCENT PURE SEED, AND NOT MORE THAN 0.5 PERCENT WEED SEED: MOST CURRENT AVAILABLE KANSAS STATE FESCUE TRIAL MIX, RATED IN TOP 1/3 OF VARIETIES TESTED FOR VISUAL APPEARANCE AVERAGE THROUGHOUT THE YEAR OR APPROVED EQUAL.
14. TOPSOIL: ASTM D 5268, PH RANGE OF 5.5 TO 7, A MINIMUM OF 4 PERCENT ORGANIC MATERIAL CONTENT; FREE OF STONES 1 INCH OR LARGER IN ANY DIMENSION AND OTHER EXTRANEOUS MATERIALS HARMFUL TO PLANT GROWTH.
15. TOPSOIL SOURCE: REUSE SURFACE SOIL STOCKPILED ON–SITE. VERIFY SUITABILITY OF STOCKPILED SURFACE SOIL TO PRODUCE TOPSOIL. CLEAN SURFACE SOIL OF ROOTS, PLANTS, SOD, STONES, CLAY LUMPS, AND OTHER EXTRANEOUS MATERIALS HARMFUL TO PLANT GROWTH. SUPPLEMENT WITH IMPORTED OR MANUFACTURED TOPSOIL FROM OFF–SITE SOURCES WHEN QUANTITIES ARE INSUFFICIENT. OBTAIN TOPSOIL DISPLACED FROM NATURALLY WELL–DRAINED CONSTRUCTION OR MINING SITES WHERE TOPSOIL OCCURS AT LEAST 4 INCHES DEEP; DO NOT OBTAIN FROM BOGS OR MARSHES. TOPSOIL TO BE PLACED IN AN 8" LIFT IN ALL PLANTING BED AREAS.
16. AMEND SOIL AS NECESSARY TO MEET TOPSOIL REQUIREMENTS OF ASTM D 5268.
17. EXAMINE AREAS TO RECEIVE LAWNS AND GRASS FOR COMPLIANCE WITH REQUIREMENTS AND OTHER CONDITIONS AFFECTING PERFORMANCE. PROCEED WITH INSTALLATION ONLY AFTER UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED.
18. PROTECT STRUCTURES, UTILITIES, SIDEWALKS, PAVEMENTS, AND OTHER FACILITIES, TREES, SHRUBS, AND PLANTINGS FROM DAMAGE CAUSED BY PLANTING OPERATIONS. PROVIDE EROSION–CONTROL MEASURES TO PREVENT EROSION OR DISPLACEMENT OF SOILS AND DISCHARGE OF SOIL–BEARING WATER RUNOFF OR AIRBORNE DUST TO ADJACENT PROPERTIES AND WALKWAYS. ELIMINATE COMPETING GRASS VEGETATION IN ALL AREAS TO BE IMPROVED WITH "ROUNDUP" OR AN APPROVED EQUAL ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS. SEVERAL APPLICATIONS MAY BE NECESSARY. WORK TO REMOVE COMPETING VEGETATION, SHALL BEGIN SEVERAL MONTHS BEFORE SODDING OPERATIONS COMMENCE.
19. LIMIT SOD SUBGRADE PREPARATION TO AREAS TO BE PLANTED THE SAME OR FOLLOWING DAY. NEWLY GRADED AREAS: LOOSEN SUBGRADE TO A MINIMUM DEPTH OF 6 INCHES. REMOVE STONES LARGER THAN 1 INCH IN ANY DIMENSION AND STICKS, ROOTS, RUBBISH, AND OTHER EXTRANEOUS MATTER AND LEGALLY DISPOSE OF THEM OFF OWNER'S PROPERTY.APPLY FERTILIZER DIRECTLY TO SUBGRADE BEFORE LOOSENING. SPREAD TOPSOIL IF NECESSARY, APPLY SOIL AMENDMENTS AND FERTILIZER ON SURFACE, AND THOROUGHLY BLEND.
20. LEGALLY DISPOSE OF WASTE MATERIAL, INCLUDING GRASS, VEGETATION AND TURF OFF OWNER'S PROPERTY.
21. PRIOR TO LAYING SOD THE CONTRACTOR SHALL DEMONSTRATE TO THE OWNER AND OWNER'S REPRESENTATIVE THAT WATER IS AVAILABLE AND IN A WORKING ORDER TO ADEQUATELY COVER ALL SODDED AREAS. THE LANDSCAPE CONTRACTOR MUST COORDINATE WITH THE GENERAL CONTRACTOR AND OWNER, TO CONNECT TO BUILDING HOSE BIBS OR OTHER MEANS PRIOR TO SOD INSTALLATION. LAY SOD WITHIN 24 HOURS OF HARVESTING. DO NOT LAY SOD IF DORMANT OR IF GROUND IS FROZEN OR MUDDY.
22. LAY SOD TO FORM A SOLID MASS WITH TIGHTLY FITTED JOINTS. BUTT ENDS AND SIDES OF SOD; DO NOT STRETCH OR OVERLAP. STAGGER SOD STRIPS OR PADS TO OFFSET JOINTS IN ADJACENT COURSES. AVOID DAMAGE TO SUBGRADE OR SOD DURING INSTALLATION. TAMP AND ROLL LIGHTLY TO ENSURE CONTACT WITH SUBGRADE, ELIMINATE AIR POCKETS, AND FORM A SMOOTH SURFACE. WORK SIFTED SOIL OR FINE SAND INTO MINOR CRACKS BETWEEN PIECES OF SOD; REMOVE EXCESS TO AVOID SMOTHERING SOD AND ADJACENT GRASS. DO NOT ALLOW EDGES OF SOD TO TURN UP WHEN INSTALLING.LAY SOD ACROSS ANGLE OF SLOPES EXCEEDING 1:3. ANCHOR SOD ON SLOPES EXCEEDING 1:6 WITH WOOD PEGS OR STEEL STAPLES SPACED AS RECOMMENDED BY SOD MANUFACTURER BUT NOT LESS THAN 2 ANCHORS PER SOD STRIP TO PREVENT SLIPPAGE.SATURATE SOD WITH FINE WATER SPRAY WITHIN TWO HOURS OF PLANTING. DURING FIRST WEEK, WATER DAILY OR MORE FREQUENTLY AS NECESSARY TO MAINTAIN MOIST SOIL TO A MINIMUM DEPTH OF 1–1/2 INCHES BELOW SOD. SATISFACTORY SODDED LAWN: WITHIN 60 DAYS AND AT END OF MAINTENANCE PERIOD, A HEALTHY, WELL–ROOTED, EVEN–COLORED, VIABLE LAWN HAS BEEN ESTABLISHED, FREE OF WEEDS, OPEN JOINTS, BARE AREAS, AND SURFACE IRREGULARITIES.
23. REESTABLISH LAWNS THAT DO NOT COMPLY WITH REQUIREMENTS AND CONTINUE MAINTENANCE UNTIL LAWNS ARE SATISFACTORY. SATISFACTORY SODDED OR SEEDED LAWN: WITHIN 60 DAYS AND AT END OF MAINTENANCE PERIOD, A HEALTHY, UNIFORM, CLOSE STAND OF GRASS HAS BEEN ESTABLISHED, FREE OF WEEDS AND SURFACE IRREGULARITIES, WITH COVERAGE EXCEEDING (90 PERCENT OVER ANY 10 SQ. FT. AND BARE SPOTS NOT EXCEEDING 5 BY 5 INCHES). CONTRACTOR SHALL BE RESPONSIBLE FOR IRRIGATION AND ESTABLISHMENT OF TURF GRASS UNTIL WRITTEN ACCEPTANCE IS RECEIVED FOLLOWING APPROVAL BY THE SCHOOL DISTRICT.
24. PROMPTLY REMOVE SOIL AND DEBRIS CREATED BY LAWN WORK FROM PAVED AREAS. CLEAN WHEELS OF VEHICLES BEFORE LEAVING SITE TO AVOID TRACKING SOIL ONTO ROADS, WALKS, OR OTHER PAVED AREAS. ERECT BARRICADES AND WARNING SIGNS AS REQUIRED TO PROTECT NEWLY PLANTED AREAS FROM TRAFFIC. MAINTAIN BARRICADES THROUGHOUT MAINTENANCE PERIOD AND REMOVE AFTER LAWN IS ESTABLISHED. REMOVE EROSION CONTROL MEASURES AFTER GRASS ESTABLISHMENT PERIOD.

EROSION CONTROL NOTES:

1. THE CONTRACTOR SHALL SEED, MULCH, OR OTHERWISE STABILIZE ANY DISTURBED AREA WHERE THE LAND DISTURBANCE ACTIVITY HAS CEASED FOR MORE THAN 14 DAYS. INITIAL STABILIZATION ACTIVITIES SHALL BE COMPLETED WITHIN 14 DAYS AFTER SOIL DISTURBING ACTIVITIES HAVE CEASED. ALL SEEDING ACTIVITY SHALL INCLUDE MULCHING OR EQUIVALENT SOIL STABILIZING BMP MEASURE OF THE DISTURBED AREA. THE CONTRACTOR SHALL PERFORM INSPECTIONS OF EROSION AND SEDIMENT CONTROL MEASURES AT LEAST ONCE PER WEEK AND WHENEVER A RAINFALL TOTAL OF 0.5 INCHES OR GREATER IS OBSERVED BASED ON A SINGLE MONITORING EVENT; OR BASED ON THE CUMULATIVE TOTAL OF TWO CONSECUTIVE MONITORING EVENTS WHEN THE RAINFALL TOTAL OF THE FIRST MONITORING EVENT IS LESS THAN 0.5 INCHES. THE CONTRACTOR SHALL MAINTAIN AN INSPECTION LOG INCLUDING THE INSPECTOR'S NAME, DATE OF INSPECTION, OBSERVATIONS AS TO THE EFFECTIVENESS OF THE EROSION AND SEDIMENT CONTROL MEASURES, ACTIONS NECESSARY TO CORRECT DEFICIENCIES, WHEN DEFICIENCIES ARE CORRECTED, AND THE SIGNATURE OF THE PERSON PERFORMING THE INSPECTION. CONTRACTOR SHALL ADD EROSION CONTROL MEASURES AS NECESSARY TO CONTROL SEDIMENT RUNOFF FROM THE SITE, ADDITIONAL MEASURES SHALL BE AT THE CONTRACTORS EXPENSE.
2. CONTRACTOR TO HAVE A COPY OF THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) ON SITE AT ALL TIMES. INSPECTION LOGS AND ANY CHANGES TO EROSION CONTROL MEASURES SHALL BE ADDED TO THE SWPPP.
3. CONCRETE WASH OR RINSE WATER FROM CONCRETE MIXING EQUIPMENT, TOOLS AND/OR READY–MIX TRUCKS, TOOLS, ETC. MAY NOT BE DISCHARGED INTO OR BE ALLOWED TO RUN DIRECTLY INTO ANY EXISTING WATER BODY OR STORM INLET. ONE OR MORE LOCATIONS FOR CONCRETE WASH OUT WILL BE DESIGNATED ON SITE, SUCH THAT DISCHARGES DURING CONCRETE WASHOUT WILL BE CONTAINED IN A SMALL AREA WHERE WASTE CONCRETE CAN SOLIDIFY IN PLACE AND EXCESS WATER EVAPORATED OR INFILTRATED INTO THE GROUND.
4. CHEMICALS OR MATERIALS CAPABLE OF CAUSING POLLUTION MAY ONLY BE STORED ONSITE IN THEIR ORIGINAL CONTAINER. MATERIALS STORED OUTSIDE MUST BE IN CLOSED AND SEALED WATER–PROOF CONTAINERS AND LOCATED OUTSIDE OF DRAINAGE WAYS OR AREAS SUBJECT TO FLOODING. LOCKS AND OTHER MEANS TO PREVENT OR REDUCE VANDALISM SHALL BE USED. SPILLS WILL BE REPORTED AS REQUIRED BY LAW AND IMMEDIATE ACTIONS TAKEN TO CONTAIN THEM.
5. SEE SHEET C202 FOR EROSION CONTROL DETAILS.
6. CONTRACTOR TO KEEP ALL SEDIMENT FROM EXISTING OR PROPOSED PAVEMENT.
7. CONTRACTOR TO COMPLY WITH ALL APPLICABLE REQUIREMENTS OF CITY, STATE, AND FEDERAL REGULATIONS FOR EROSION CONTROL.
8. ALL DISTURBED AREAS SHALL BE PERMANENTLY SOD UPON COMPLETION OF PROJECT. REFER TO FESCUE TURF SOD NOTES FOR INSTALLATION INSTRUCTIONS. REMOVE S75 TRM FOR SOD PLACEMENT AS NEEDED.
9. REMOVE SEDIMENT AND DEBRIS FROM ALL STORM SEWER SYSTEM STRUCTURES AND PIPES ON–SITE, INCLUDING PERFORATED UNDERDRAINS PRIOR TO FINAL COMPLETION.

N

SCALE: 1"=40'
0 40 80

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C114

EROSION CONTROL PLAN

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Missouri State Certificate of Authority
Architecture # 0000161
Structure # 2006031333

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Civil Engineering / Landscape Architecture
State Certificate of Authority #:
Engineering: 2001009364
Landscaping: 2006027139
Surveying: 2006027138
11827 W. 112th St, Ste 200
Overland Park, Johnson County, KS 66210
913.317.9390 phone

Smith & Boucher Engineers
Mechanical, Electrical, Plumbing Engineers
State Certificate of Authority #EGC000178
25618 W 103rd St
Olathe, Johnson County, KS 66061
913.345.2127 phone

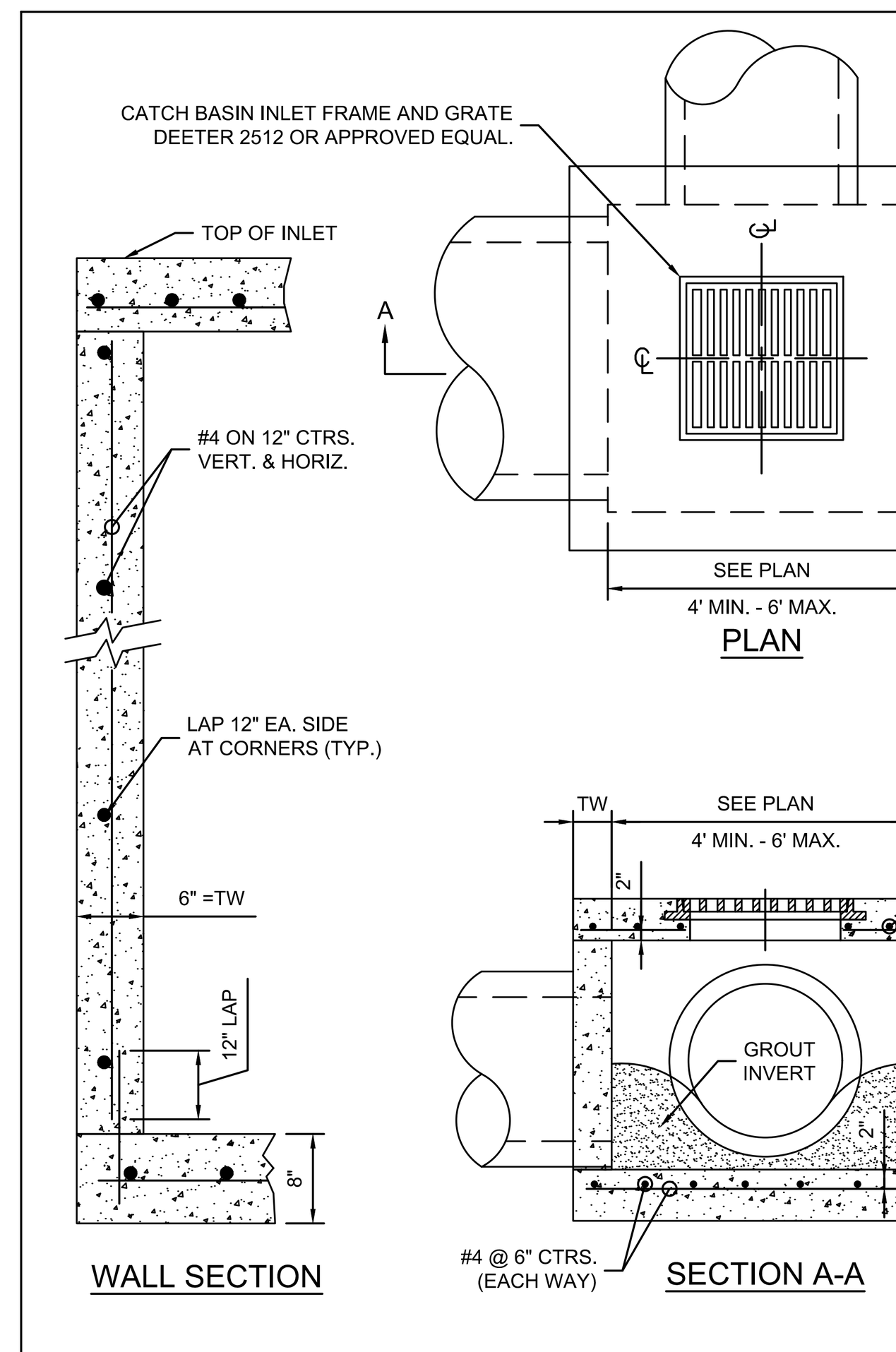
CONSTRUCTION DOCUMENTS

LHS Baseball & Softball Upgrades
Liberty Public Schools 53
200 Blue Jay Drive
Liberty, MO 64068

REVISIONS:

#	Description	Date

GRATE INLET DETAIL



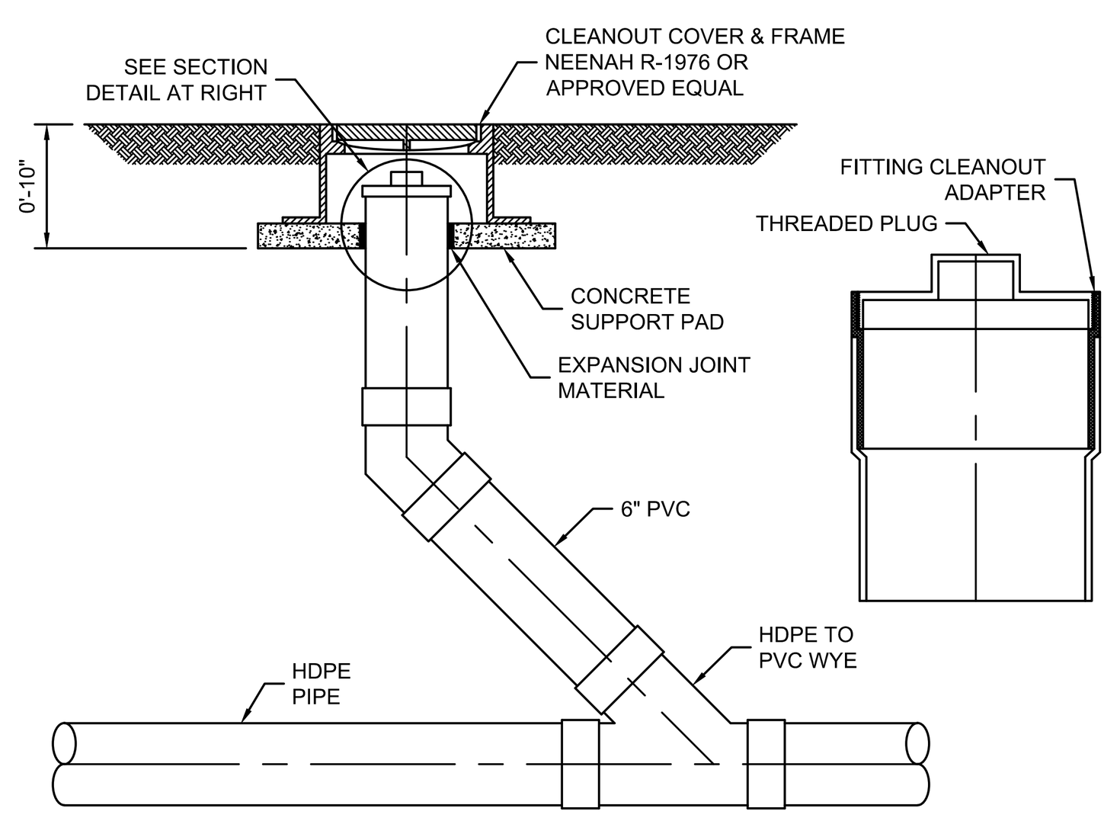
NOTE:
IF LIFTING LOOPS ARE LOCATED ON THE TOP OF THE PRECAST INLET TOPS, A MINIMUM 2" COVER IS REQUIRED OVER THE LIFTING LOOPS.

NOTE:
FOR "TW" SEE WALL SECTION DETAIL

SCALE: NTS

STORM SEWER CLEANOUT DETAIL

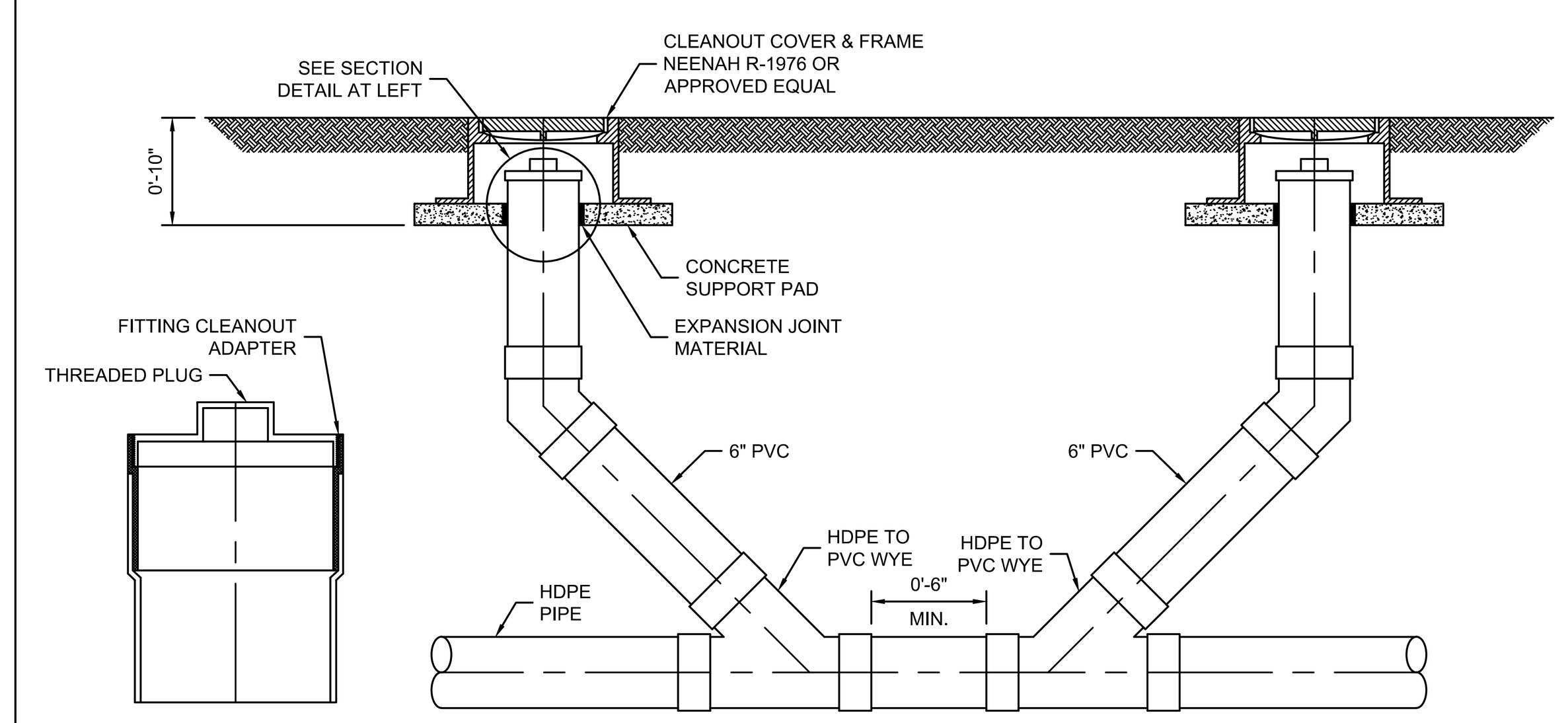
NOTES:
1. SET CLEANOUT FRAMES AND COVERS IN PAVEMENT AREAS IN A CAST-IN-PLACE-CONCRETE BLOCK, 18 BY 18 BY 12 INCHES DEEP WITH 12 INCHES OF TREATED 95% COMPACTED SUBGRADE BELOW CONCRETE. SET WITH TOP FLUSH WITH SURROUNDING PAVEMENT.
2. WHEN CLEANOUT IS INSTALLED IN CONJUNCTION WITH BENDS, THE CLEANOUT SHALL BE INSTALLED UPSTREAM OF THE BENDS.



SCALE: NTS

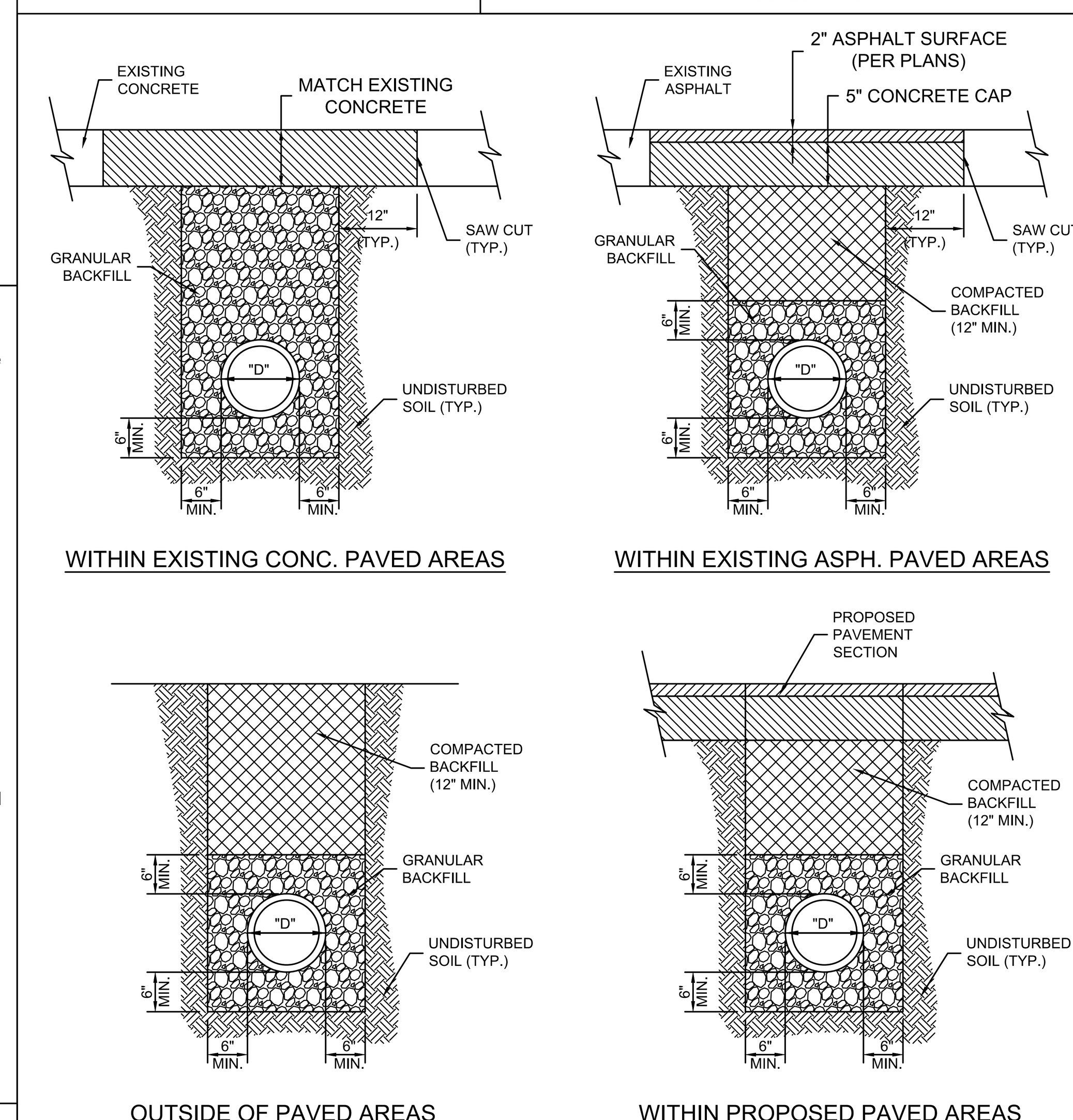
STORM SEWER DUAL CLEANOUTS DETAIL

NOTES:
1. SET CLEANOUT FRAMES AND COVERS IN PAVEMENT AREAS IN A CAST-IN-PLACE-CONCRETE BLOCK, 18 BY 18 BY 12 INCHES DEEP WITH 12 INCHES OF TREATED 95% COMPACTED SUBGRADE BELOW CONCRETE. SET WITH TOP FLUSH WITH SURROUNDING PAVEMENT.



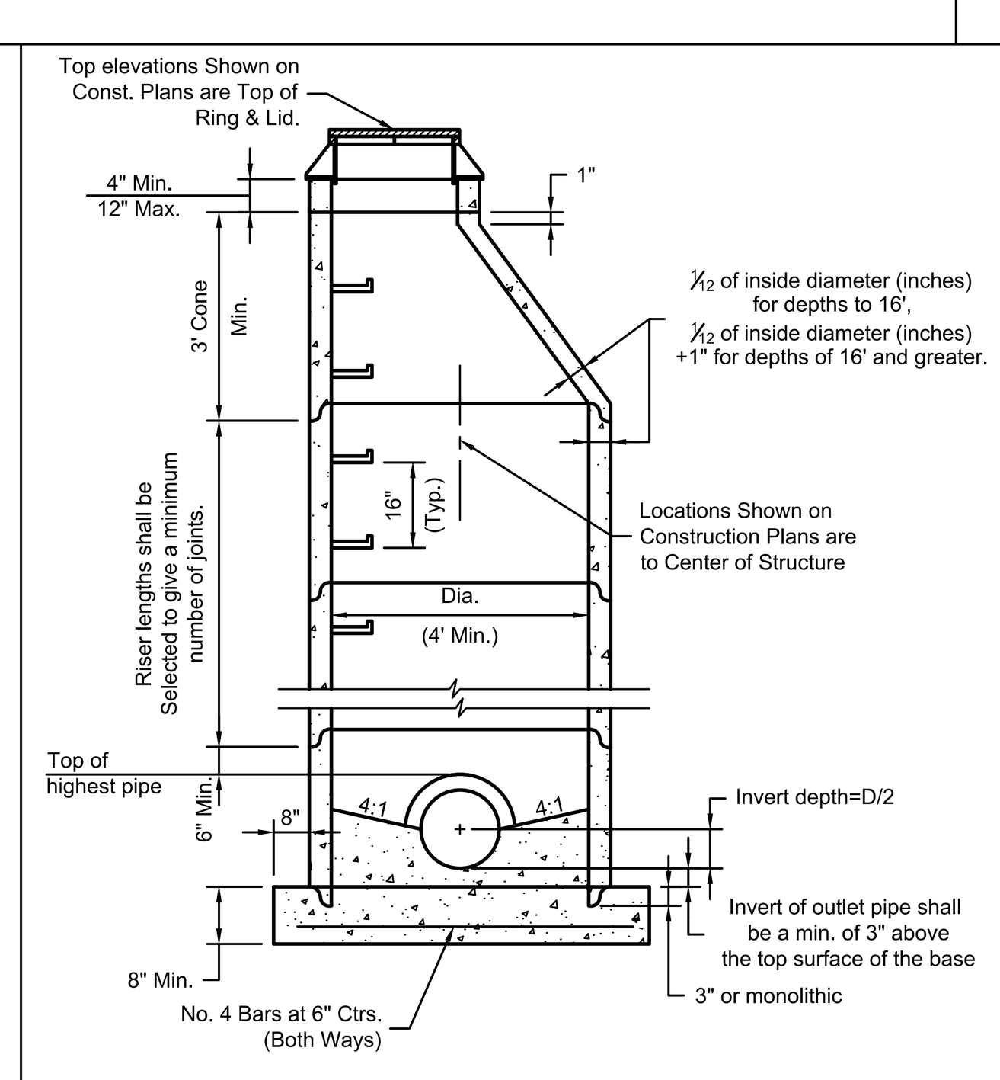
SCALE: NTS

TRENCHING DETAILS

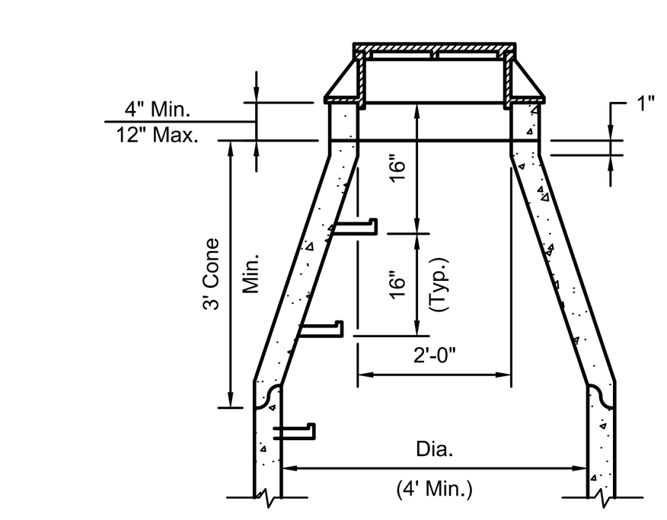


NOTES:
1. ALL PIPE SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS", LATEST ADDITION.
2. GRANULAR FILL SHALL BE 1/2" CLEAN ROCK, PLACED IN 6" LIFTS AND COMPACTED BY SLICING WITH A SHOVEL.
3. FILL SHALL BE FINELY DIVIDED, JOB EXCAVATED MATERIAL FREE OF DEBRIS, ORGANIC MATERIAL, AND STONES, AND COMPACTED.
4. BACKFILL TO BE COMPACTED TO 90% OF STANDARD DENSITY OUTSIDE OF PAVED AREAS.

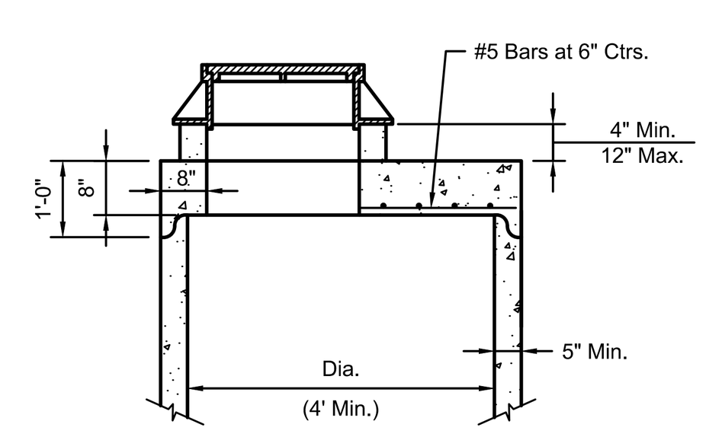
SCALE: NTS



STANDARD PRECAST MANHOLE
(ECCENTRIC CONE)



STANDARD PRECAST MANHOLE
(CONCENTRIC CONE)
(See Eccentric Cone For Other Details)



STANDARD PRECAST MANHOLE
(SHALLOW TYPE)
(See Eccentric Cone For Other Details)

GENERAL NOTES:
1. All manholes are to be precast concrete and of Eccentric Cone type unless otherwise specified.
2. Manhole top adjustments shall be accomplished by the use of concrete adjustment rings.
3. Top of manhole casting shall be set flush and on same slope as finished surface or as directed by the Engineer.
4. Reinforcement in all section shall equal or exceed A.S.T.M. C-478 specifications.
5. The engineer shall designate modifications for manholes with special designs.
6. The inside diameter of the manhole shall be 4'-0" for pipe diameters from 12" thru 24", 5'-0" for pipe diameters from 27" thru 36", and 6'-0" for pipe diameters 42" thru 48".
7. Clearance Tolerance of Pipe Openings: The Maximum Allowable Pipe Opening on the Horizontal Axis Shall be the Outside Diameter of the Pipe Plus 12". The Maximum Allowable Pipe Opening on Vertical Axis Shall be the Outside Diameter Plus 8". The Minimum Clearance Between the Outside Surface of an Installed pipe and the Concrete of the Manhole Shall be 2".
8. Installation of Pipe Openings: All Required pipe openings shall be plant cast in manhole units. Field alterations of openings will be permitted provided walls are scored with a masonry saw to a depth sufficient to sever reinforcing steel. A chipping hammer may then be used to remove the concrete. Minimum distance between any two adjacent pipes shall be 4".
9. No direct payment for shaping floor or connection pipes as shown on plans.
10. Ring & Cover to be Neenah R-1736, Clay & Bailey #2008, Deeter #1316, or approved equal. (Casting may vary by municipality, refer to plans & contract documents.)
11. Sanitary Sewers shall be coated and conform to Section 2600.

AMERICAN PUBLIC WORKS ASSOCIATION (APWA) KANSAS CITY METROPOLITAN CHAPTER	
MANHOLE DETAILS	STANDARD DRAWING NUMBER MH - 1
	ADOPTED: APRIL 17, 1996

BRADEN L. TAYLOR
NUMBER PE-2021001896
7.12.23
PROFESSIONAL ENGINEER

BRADEN L. TAYLOR
LICS# 2021001896

JOB NO: 23023
DRAWN BY: MKB
CHECKED BY: BLT
DATE: 07-12-23

C200

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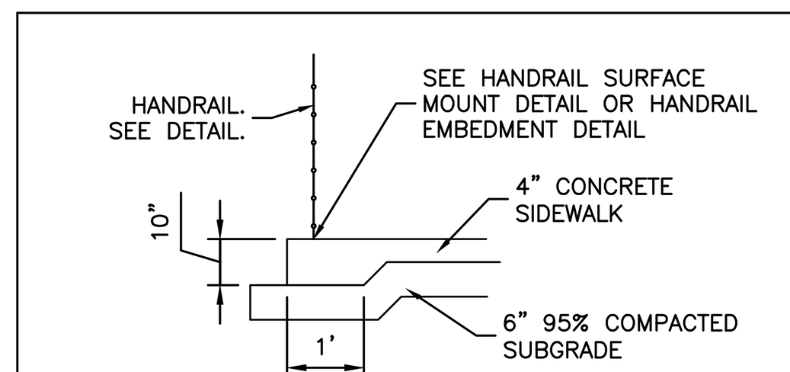
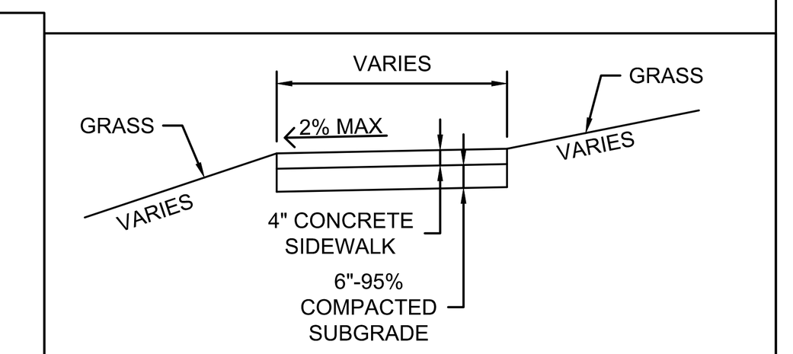


THICKENED SIDEWALK EDGE FOR HANDRAIL

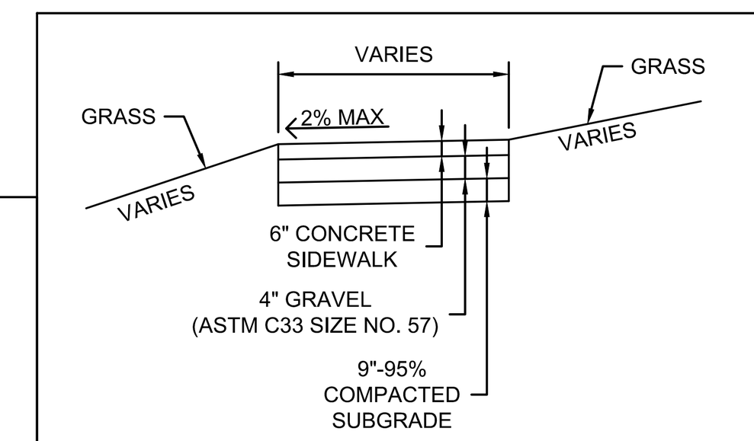
SCALE: NTS



NOTES:
1. ½" PREMOLDED EXPANSION JOINT MATERIAL SHALL BE PLACED AT POINTS OF CURVATURE, CURB RETURNS, CURB INLETS, AND AT 250' CENTERS.

4" SIDEWALK DETAIL

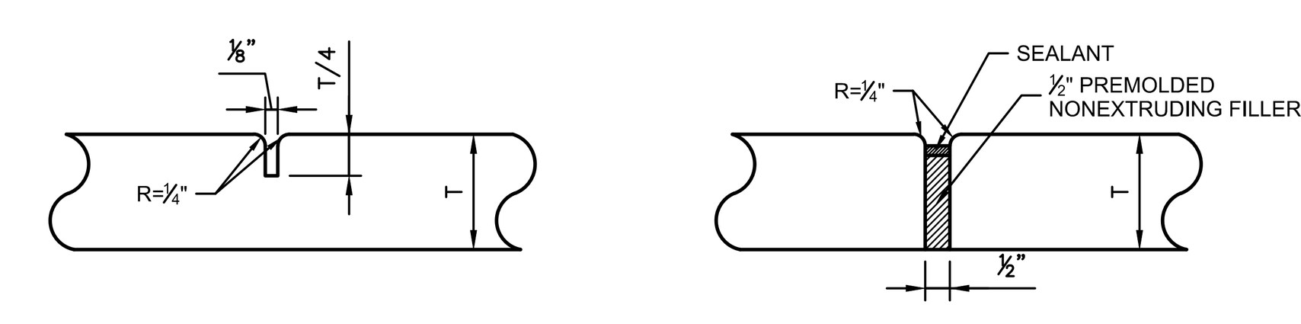
SCALE: NTS



NOTES:
1. ½" PREMOLDED EXPANSION JOINT MATERIAL SHALL BE PLACED AT POINTS OF CURVATURE, CURB RETURNS, CURB INLETS, AND AT 250' CENTERS.

6" SIDEWALK DETAIL

SCALE: NTS

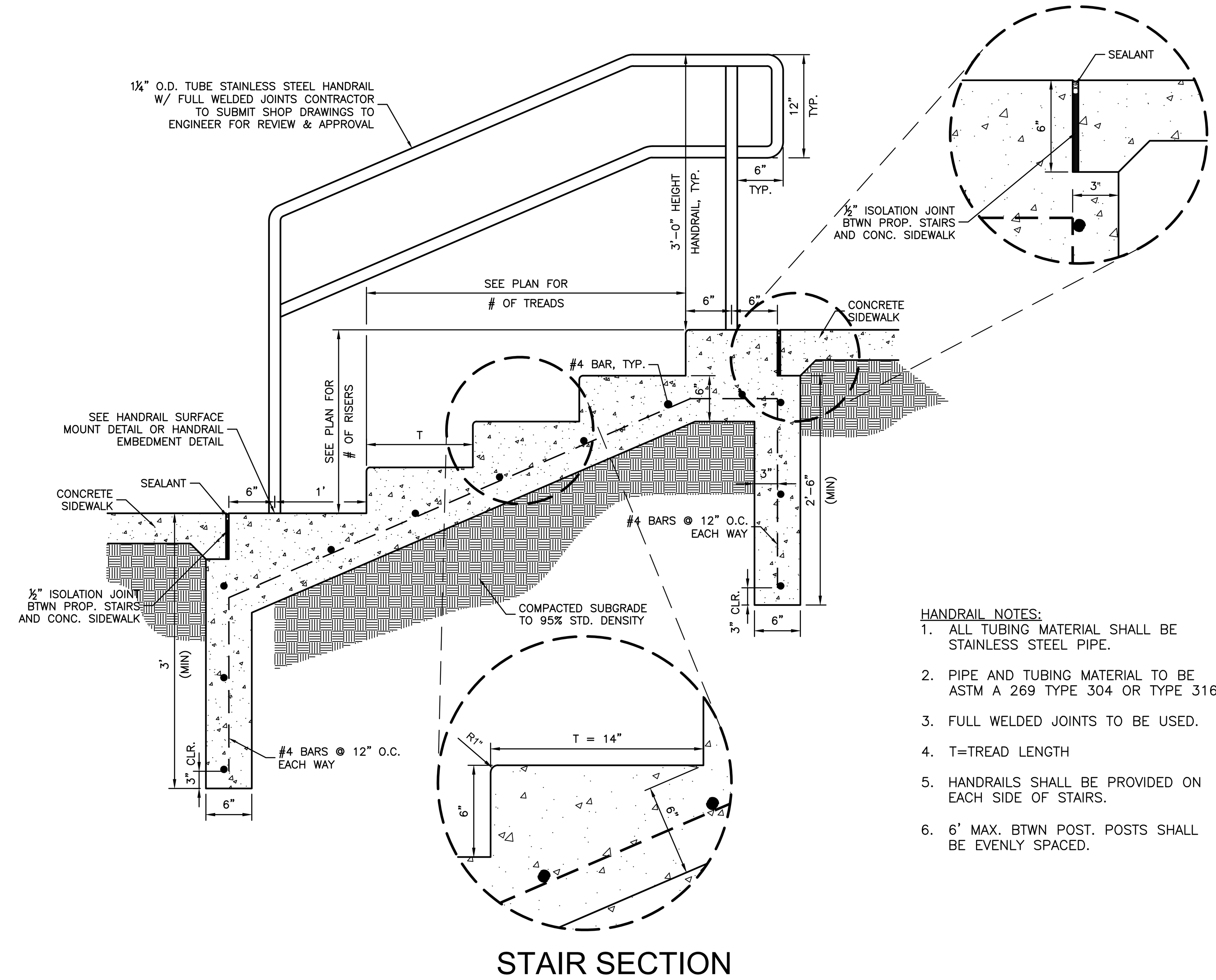


NOTES:
1. CONTRACTION JOINTS SHALL BE CONSTRUCTED WITH A GROOVING TOOL (HAND TOOLED).

NOTE:
1. ISOLATION JOINTS JOINTS SHALL BE PLACED WHERE NEW CONCRETE ABUTS EXISTING CONCRETE AND IN AREAS WHERE CONCRETE ABUTS BUILDINGS.

JOINT DETAILS

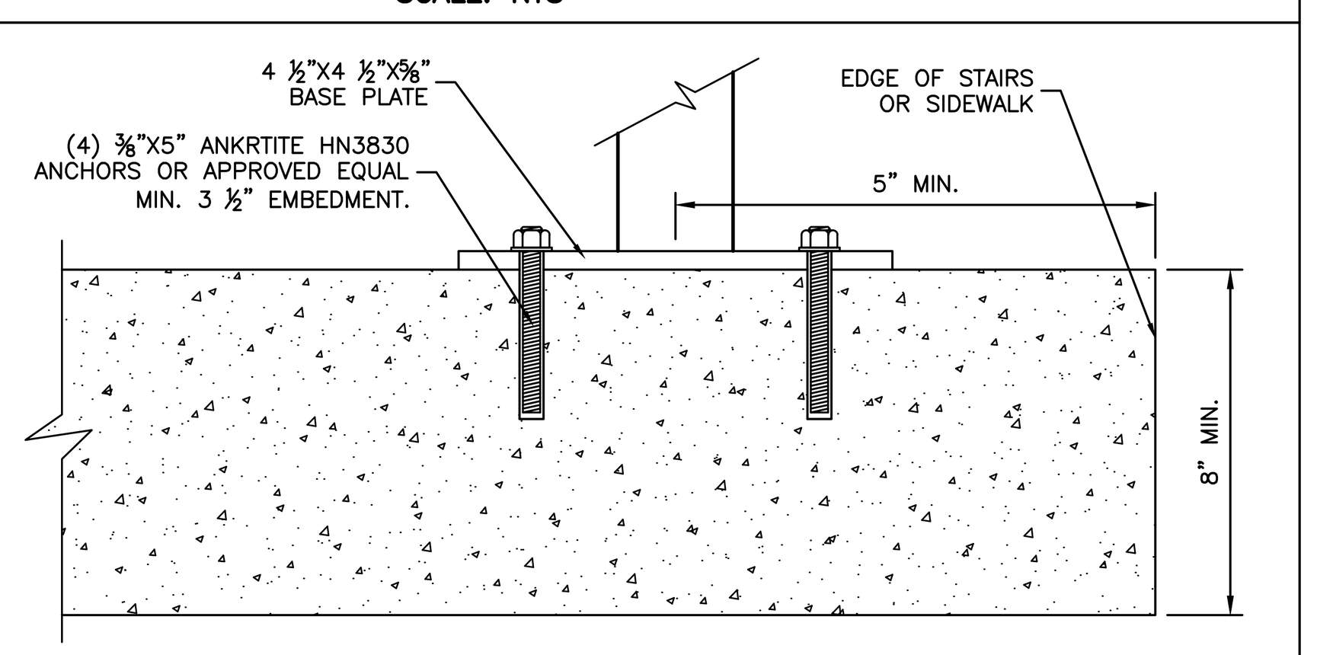
SCALE: NTS



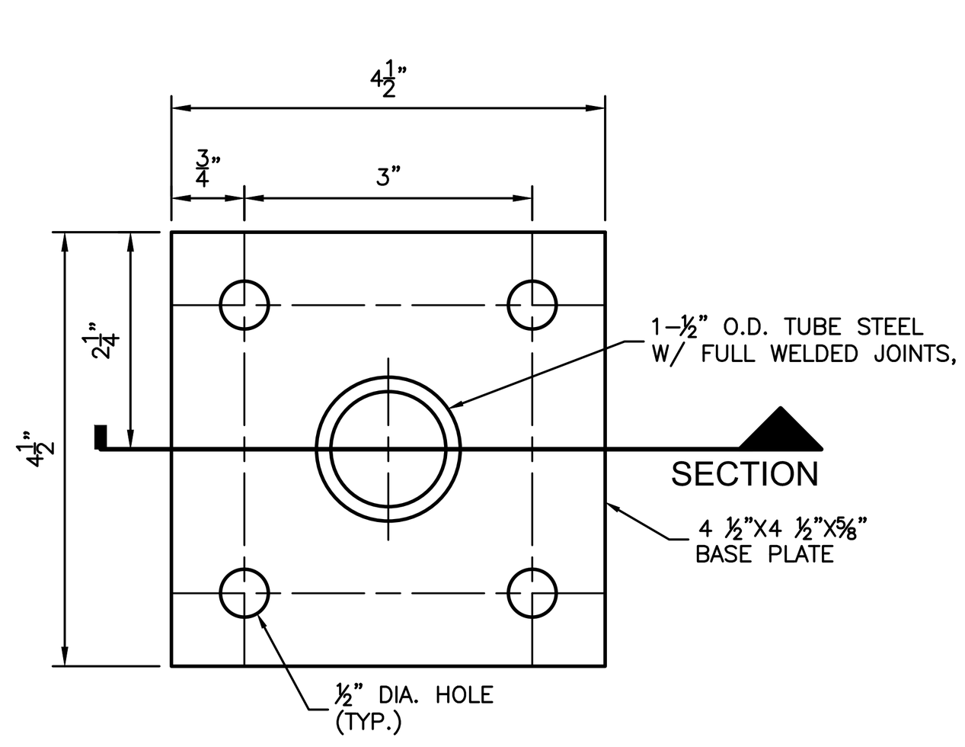
HANDRAIL NOTES:
1. ALL TUBING MATERIAL SHALL BE STAINLESS STEEL PIPE.
2. PIPE AND TUBING MATERIAL TO BE ASTM A 269 TYPE 304 OR TYPE 316.
3. FULL WELDED JOINTS TO BE USED.
4. T=TREAD LENGTH
5. HANDRAILS SHALL BE PROVIDED ON EACH SIDE OF STAIRS.
6. 6' MAX. BTWN POST. POSTS SHALL BE EVENLY SPACED.

STAIR SECTION

SCALE: NTS



SECTION



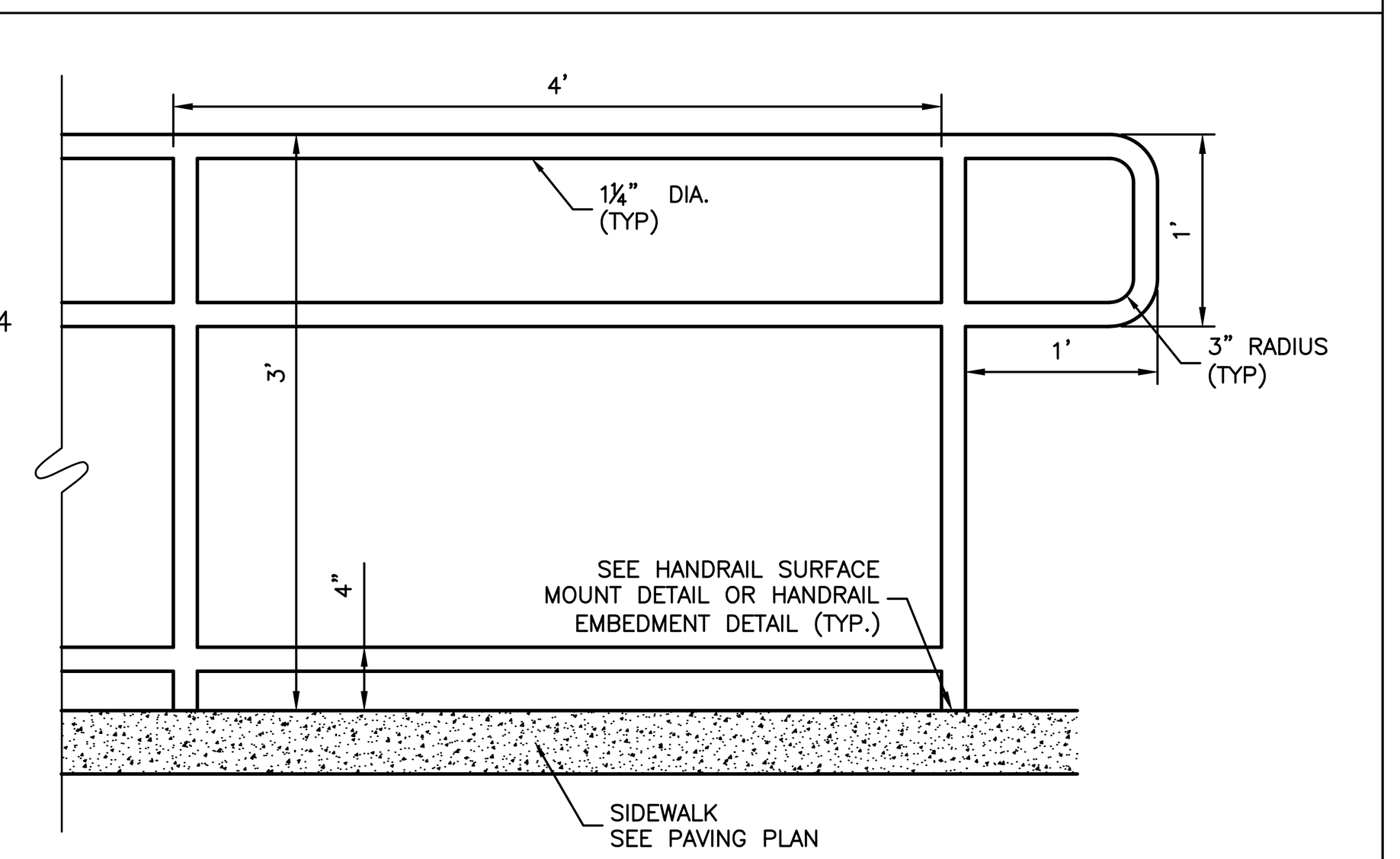
HANDRAIL BASE PLATE PLAN

HANDRAIL NOTES:
1. ALL TUBING MATERIAL TO BE HOT DIPPED GALVANIZED AFTER FABRICATION.
2. PIPE TO BE ASTM A53 (Fy=35 KSI), TYPE F OR S, SCHEDULE 40.
3. FULL WELDED JOINTS TO BE USED.
4. PLATES SHALL BE ASTM A36 AND SHALL BE HOT DIPPED GALVANIZED.

HANDRAIL SURFACE MOUNT

SCALE: NTS

HANDRAIL NOTES:
1. ALL TUBING MATERIAL TO BE STAINLESS STEEL PIPE.
2. PIPE AND TUBING MATERIAL TO BE ASTM A 269 TYPE 304 OR TYPE 316.
3. FULL WELDED JOINTS TO BE USED.
4. PLATES SHALL BE ASTM A36 AND SHALL BE HOT DIPPED GALVANIZED.
5. EXPANSION JOINTS SHLL BE PLACED AT 50' CENTERS AND IN BOTH RAILS.



PEDESTRIAN HANDRAIL

SCALE: NTS

STATE OF MISSOURI
BRADEN L. TAYLOR
NUMBER PE-2021001896
PROFESSIONAL ENGINEER
7.12.23

BRADEN L. TAYLOR
LICS# 2021001896

The Professional Engineers seal affixed to this sheet applies only to the material and items shown on this sheet. All drawings, instruments or other documents not exhibiting this seal shall not be considered prepared by this engineer, and this engineer expressly disclaims any and all responsibility for such plan, drawings, or documents not exhibiting this seal.

JOB NO: 23023
DRAWN BY: MKB
CHECKED BY: BLT
DATE: 07-12-23

C201

PAVING DETAILS

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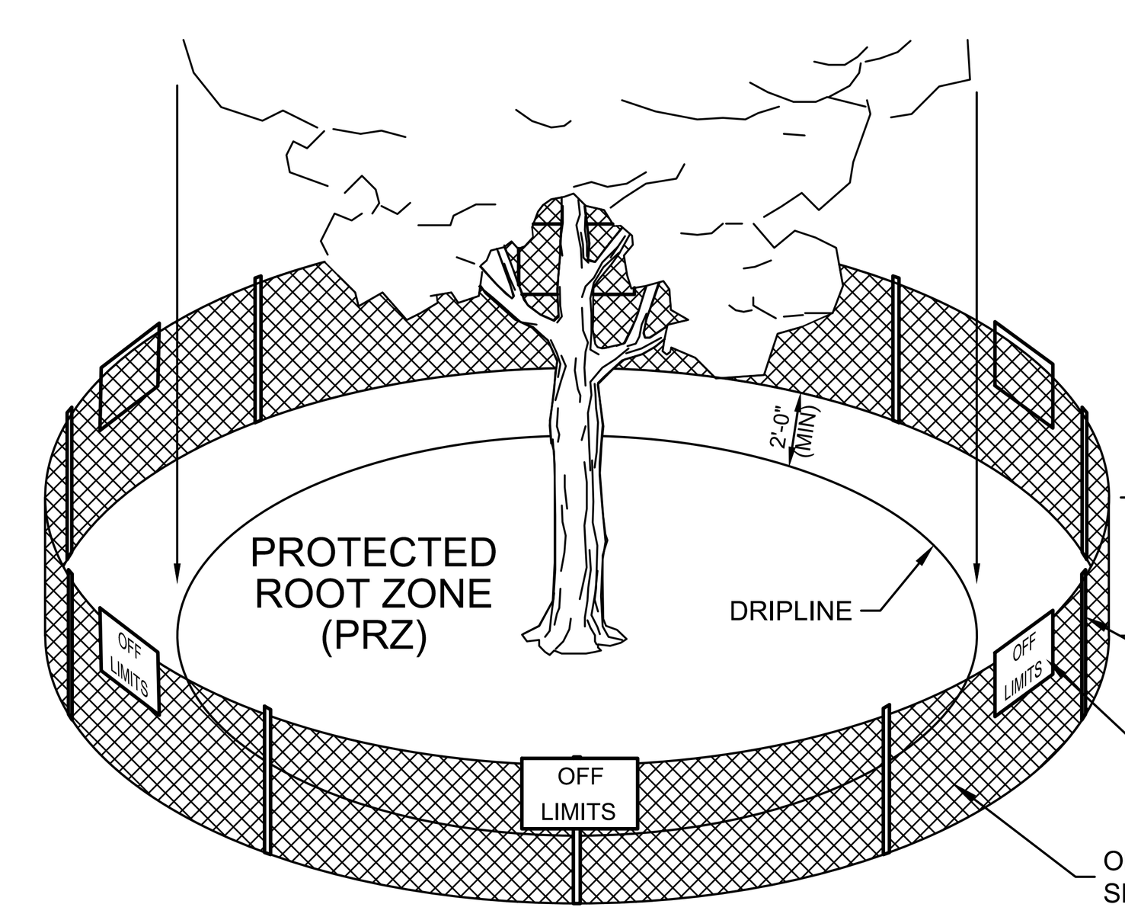
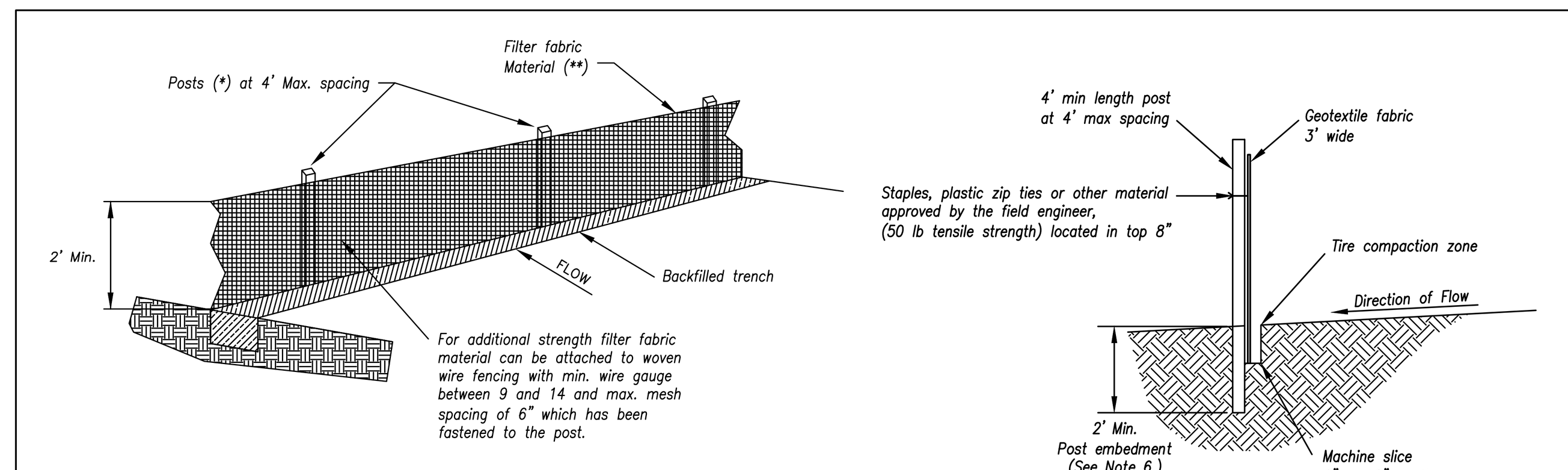


NOTES:

THE TEMPORARY FENCE IS TO BE CONSTRUCTED AROUND SPECIFIED AREAS/TREES PRIOR TO ANY CONSTRUCTION AND SHALL REMAIN UNTIL ALL CONSTRUCTION IS COMPLETE. CONSTRUCTION EQUIPMENT AND MATERIALS ARE NOT PERMITTED WITHIN THE (PRZ). THE FENCE PLACEMENT AROUND THE (PRZ) MAY ONLY BE ADJUSTED WITH PERMISSION FROM THE OWNER'S REPRESENTATIVE.

TREE PROTECTION DETAIL

SCALE: NTS



(*) POSTS
- MIN. LENGTH 4'
- HARDWOOD 1 3/16" x 1 3/16"
- NO.2 SOUTHERN PINE 2 5/8" x 2 5/8"
- STEEL 1.33 LB/FT

(**) – Geotextile Fabric shall meet the requirements of AASHTO M288

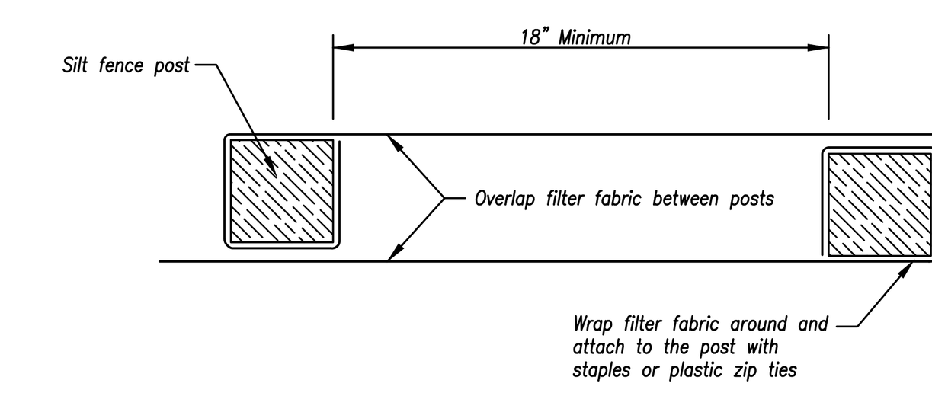
SILT FENCE DETAILS
Not to Scale

Notes:

1. In order to contain water, the ends of the silt fence must be turned uphill (Figure A).
2. Long perimeter runs of silt fence must be limited to 100'. Runs should be broken up into several smaller segments to minimize water concentrations (Figure A).
3. Long slopes should be broken up with intermediate rows of silt fence to slow runoff velocities.
4. Attach fabric to upstream side of post.
5. Install posts a minimum of 2' into the ground.
6. Trenching will only be allowed for small or difficult installation, where slicing machine cannot be reasonably used.

Maintenance:

1. Remove and dispose of sediment deposits when the deposit approaches ⅓ the height of silt fence.
2. Repair as necessary to maintain function and structure.



JOINING FENCE SECTIONS
Not to Scale

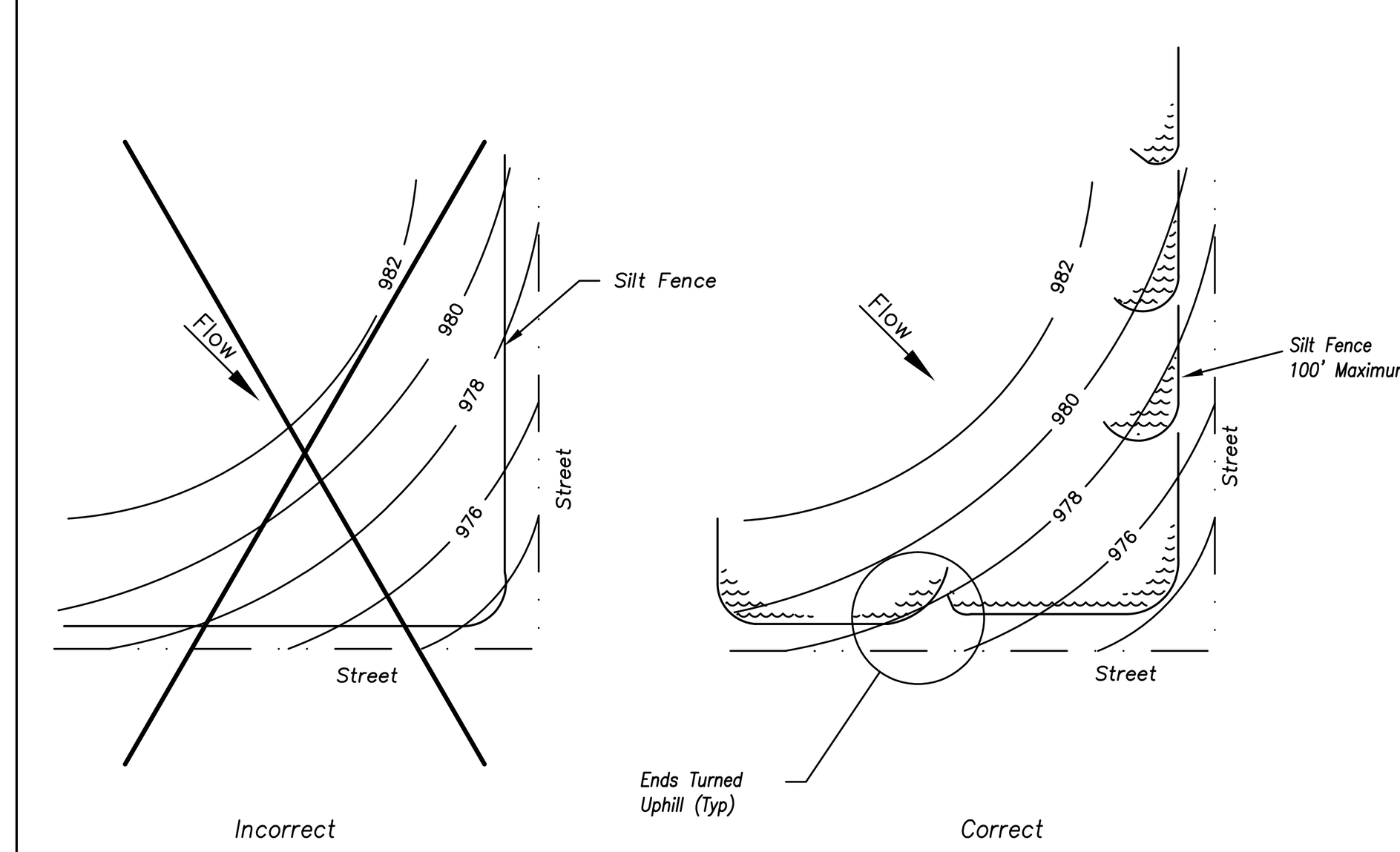
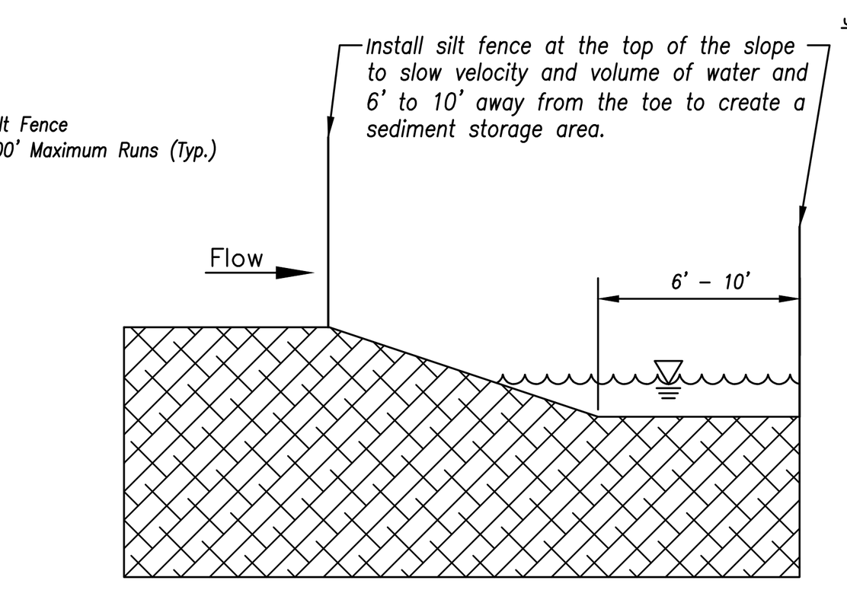


Figure A

SILT FENCE LAYOUT
Not to Scale

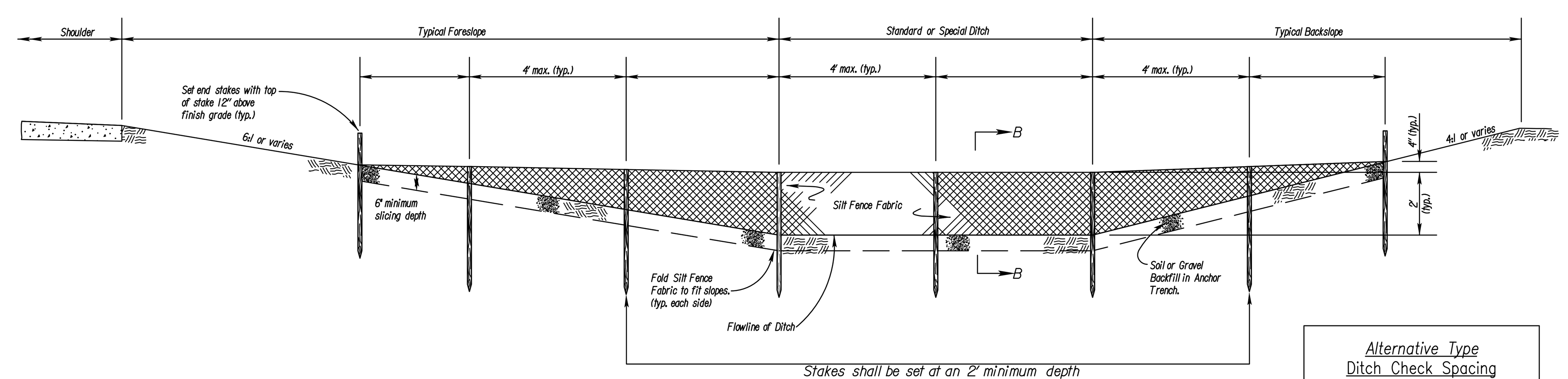


Modified from 2015 Overland Park Standard Details for Erosion and Sediment Control.

AMERICAN PUBLIC WORKS ASSOCIATION	
APWA Kansas City Metro Chapter	KANSAS CITY METRO CHAPTER
SILT FENCE	STANDARD DRAWING NUMBER ESC-03 ADOPTED: 10/24/2016

Notes for Silt Fence Ditch Check:

1. Stakes shall be 4' (min.) long and one of the following materials:
   a. Hardwood – 1 3/16" x 1 3/16";
   b. Southern Pine (No. 2) – 2 5/8" x 2 5/8";
   c. Steel U, T, L, or C Section – .95 lbs. per 1'–0";
   d. Synthetic – same strength as wood stakes.
2. Cross pieces shall be of same material as stakes.
3. Attach fence fabric securely on 6" centers (max.).
4. Use of high flow material is acceptable.
5. Refer to plan sheets to estimate the length of silt fence required.
6. Use support fencing when tributary area is greater than 2.4 acres or when ditch gradient is greater than 2 percent.
7. Silt fence sliced in to a 6" minimum depth.
8. Elevation at tie in points shall be a minimum of 4" higher than the center.



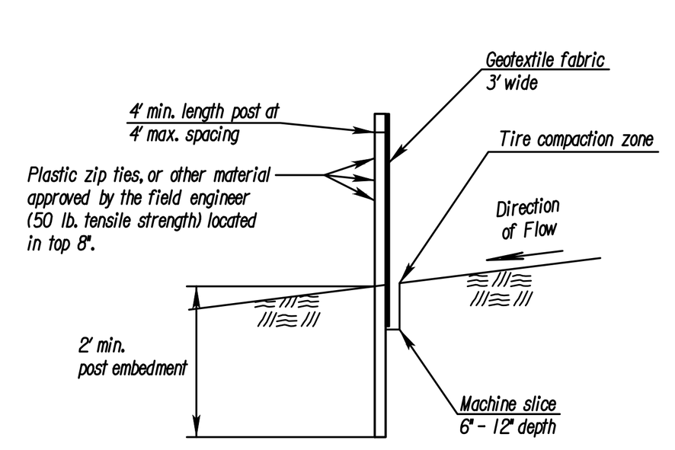
Stakes shall be set at an 2' minimum depth

TYPICAL ELEVATION

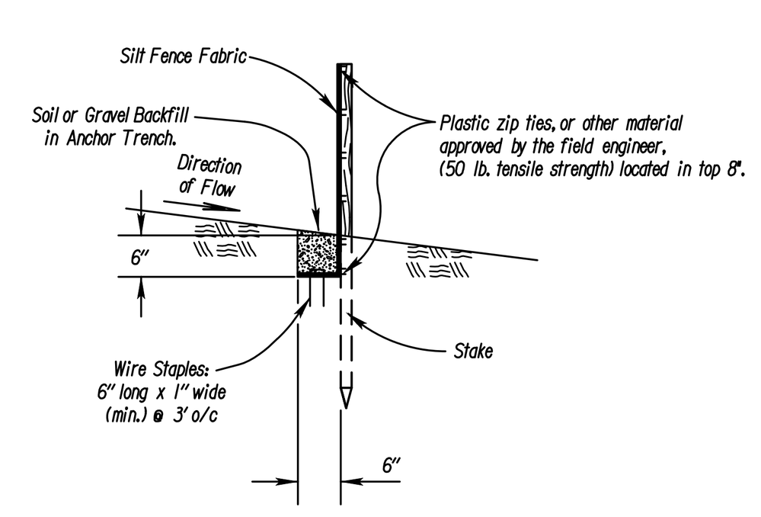
Alternative Type Ditch Check Spacing

Ditch Centerline Slope (%)	Spacing Interval (Feet)
1.0	200
2.0	100
3.0	65
4.0	50
5.0	40
6.0	33

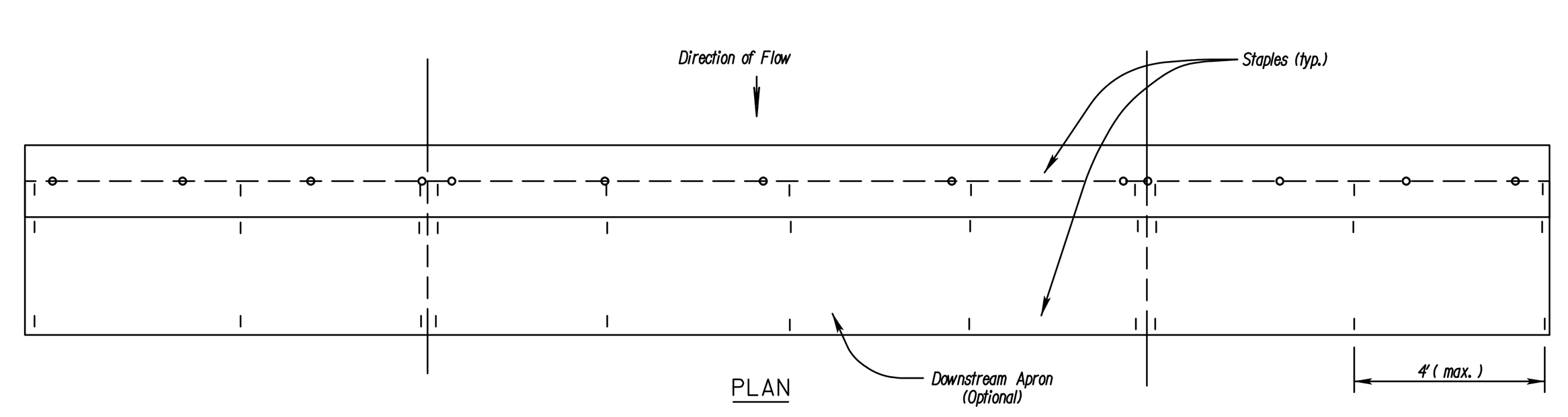
Note: Use this spacing for all except Rock Ditch Checks.



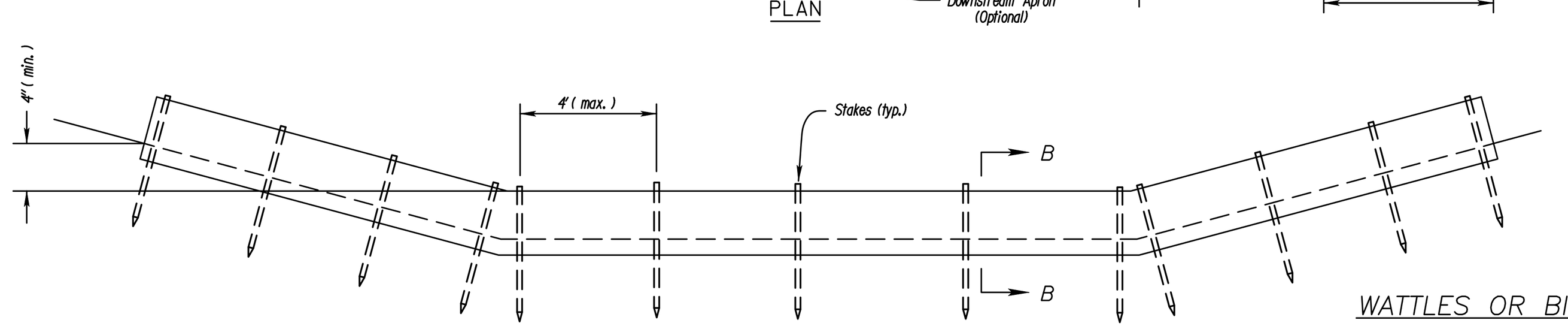
SECTION B-B



SILT FENCE DITCH CHECK
NO SCALE



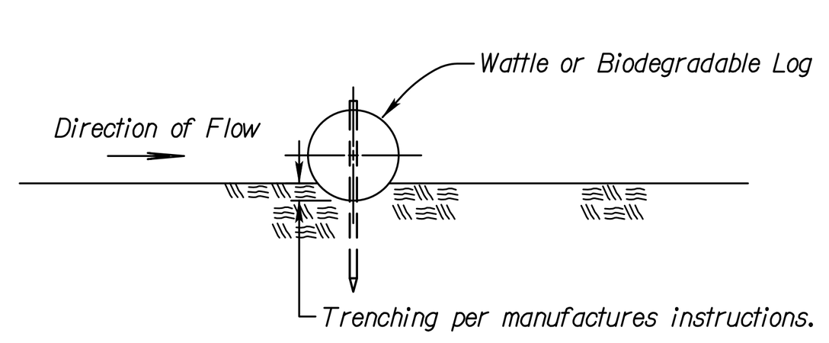
PLAN



TYPICAL ELEVATION

Notes for Wattles and Biodegradable Log Ditch Check:

1. Use as many biodegradable log sections as necessary to ensure water does not flow around end of ditch check.
2. Overlap sections a minimum of 18"
3. Stakes shall be per manufacturer's instructions. Length of stakes shall be a minimum of 2 times the diameter of the log or 24" minimum.
4. Use Erosion Control (Class 1) (Type C) as the downstream apron when directed by the Engineer.
5. Use 9" diameter logs when used with Erosion Control (Class 2) (Any Type) channel lining. Smaller diameter logs may be used with Erosion Control (Class 2) (Any Type) channel lining as directed by the Engineer.

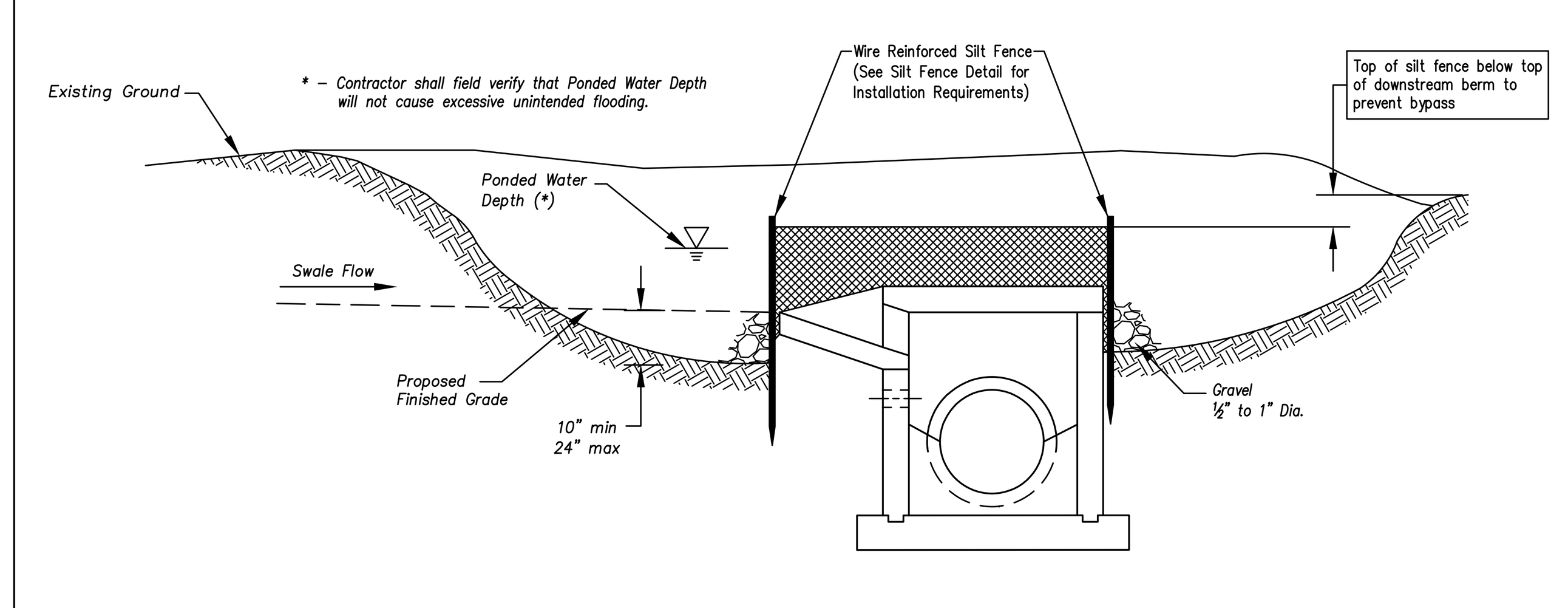


SECTION B - B

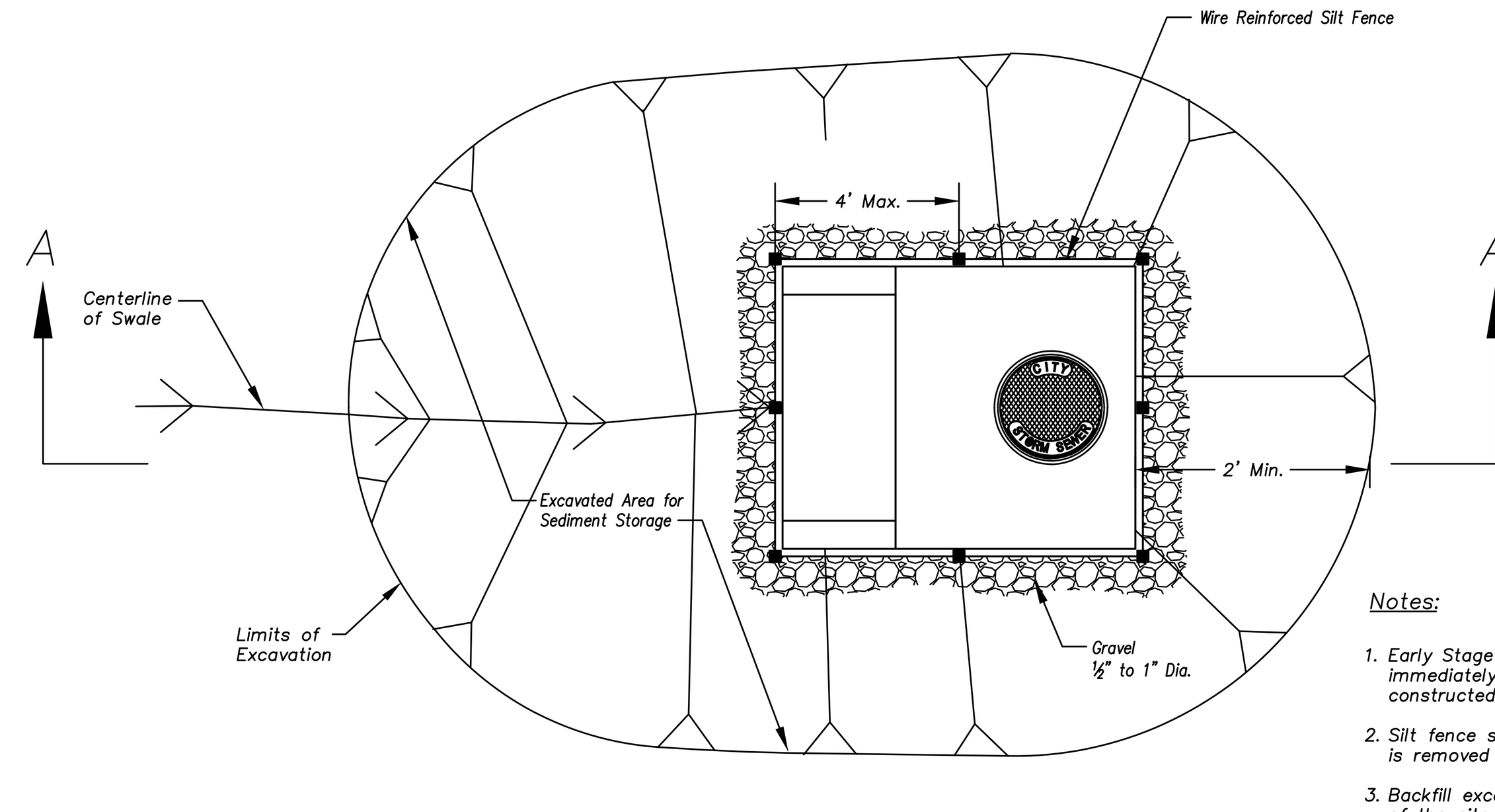
WATTLES OR BIODEGRADABLE LOG DITCH CHECKS
OR Filter Sock Ditch Check
NO SCALE

Modified from Kansas Department of Transportation Standard Details for Erosion Control and Sediment Control.

AMERICAN PUBLIC WORKS ASSOCIATION	
APWA Kansas City Metro Chapter	KANSAS CITY METRO CHAPTER
SILT FENCE AND WATTLE/ BIODEGRADABLE LOG DITCH CHECKS	STANDARD DRAWING NUMBER ESC-09 ADOPTED: 10/24/2016



Section A-A
Not to Scale

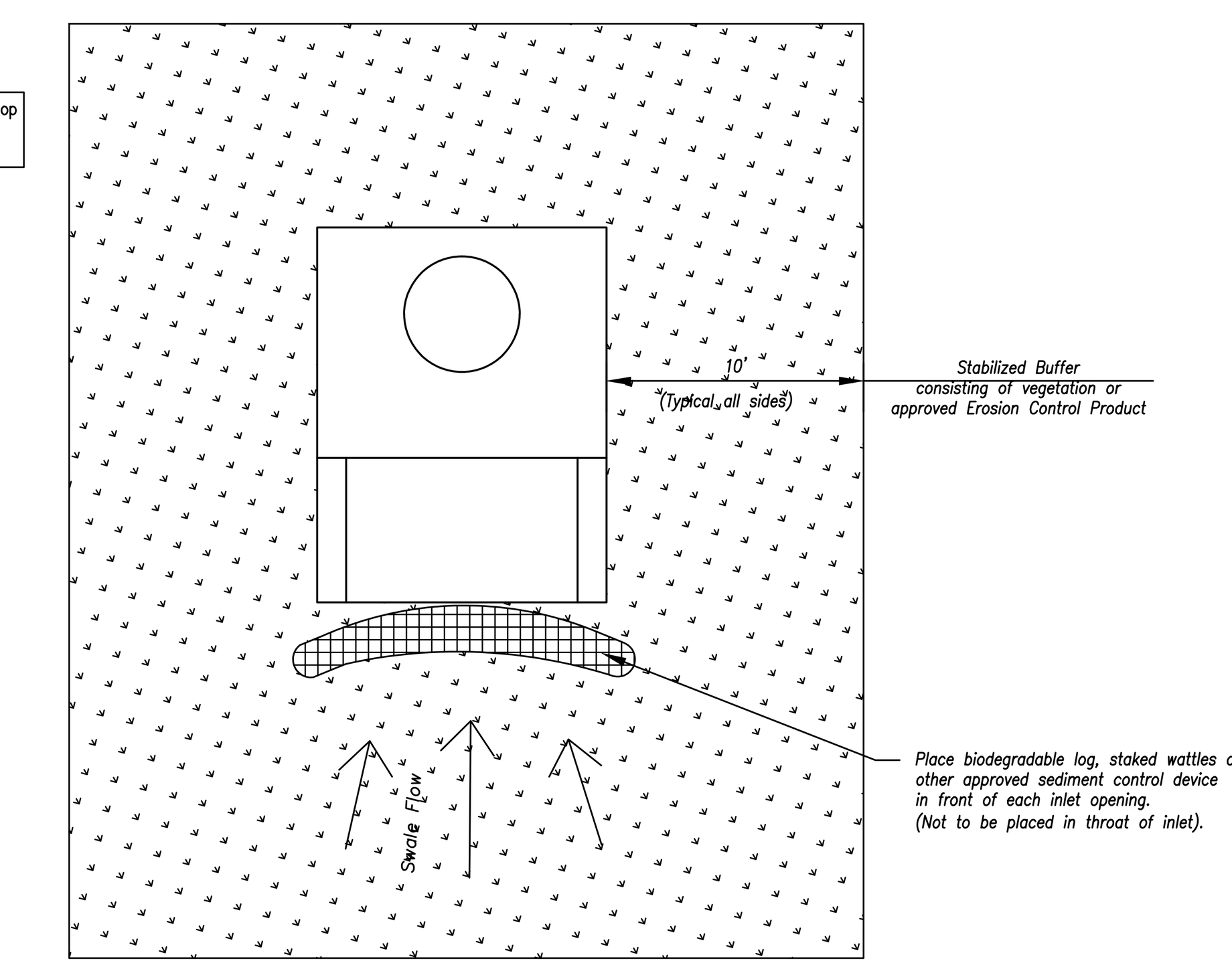


Plan
Not to Scale

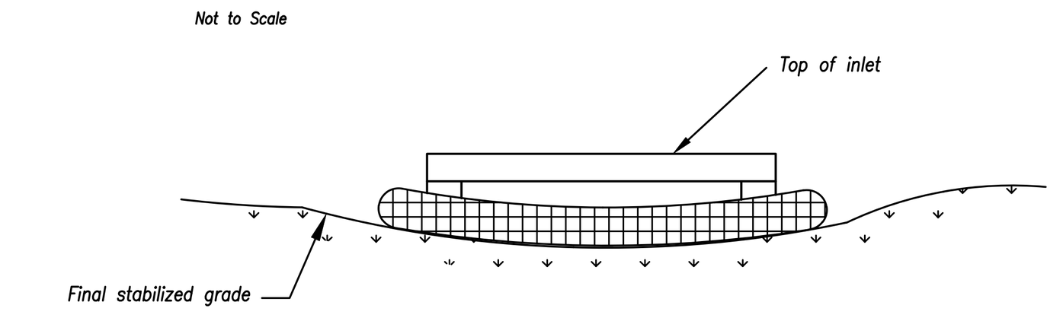
EARLY STAGE AREA INLET
(All open boxes and inlets not at final grade)

Notes:

1. Early Stage Area Inlet Sediment Barrier to be installed immediately after inlet or junction box is constructed.
2. Silt fence shall remain in place until excavated area is removed and Late Stage Area Inlet is being installed.
3. Backfill excavated area ONLY after final grading of the site. Stabilization of the site is to immediately follow.
4. Wire reinforced silt fence may be used in place of silt fence attached to wood frame.



Plan
Not to Scale



Front View

LATE STAGE AREA INLET
(Area inlets at final grade and existing inlets)

Maintenance:

1. Remove deposited sediment from excavated storage areas when available storage has been reduced by 20%.
2. Remove deposited sediment from filter socks or similar when any accumulation of sediment is visible.
3. Repair or replace as necessary to maintain function and integrity of installation.

Modified from 2015 Overland Park Standard Details for Erosion and Sediment Control.

AMERICAN PUBLIC WORKS ASSOCIATION	
APWA Kansas City Metro Chapter	KANSAS CITY METRO CHAPTER
AREA INLET AND JUNCTION BOX PROTECTION	STANDARD DRAWING NUMBER ESC-07 ADOPTED: 10/24/2016

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EROSION CONTROL DETAILS

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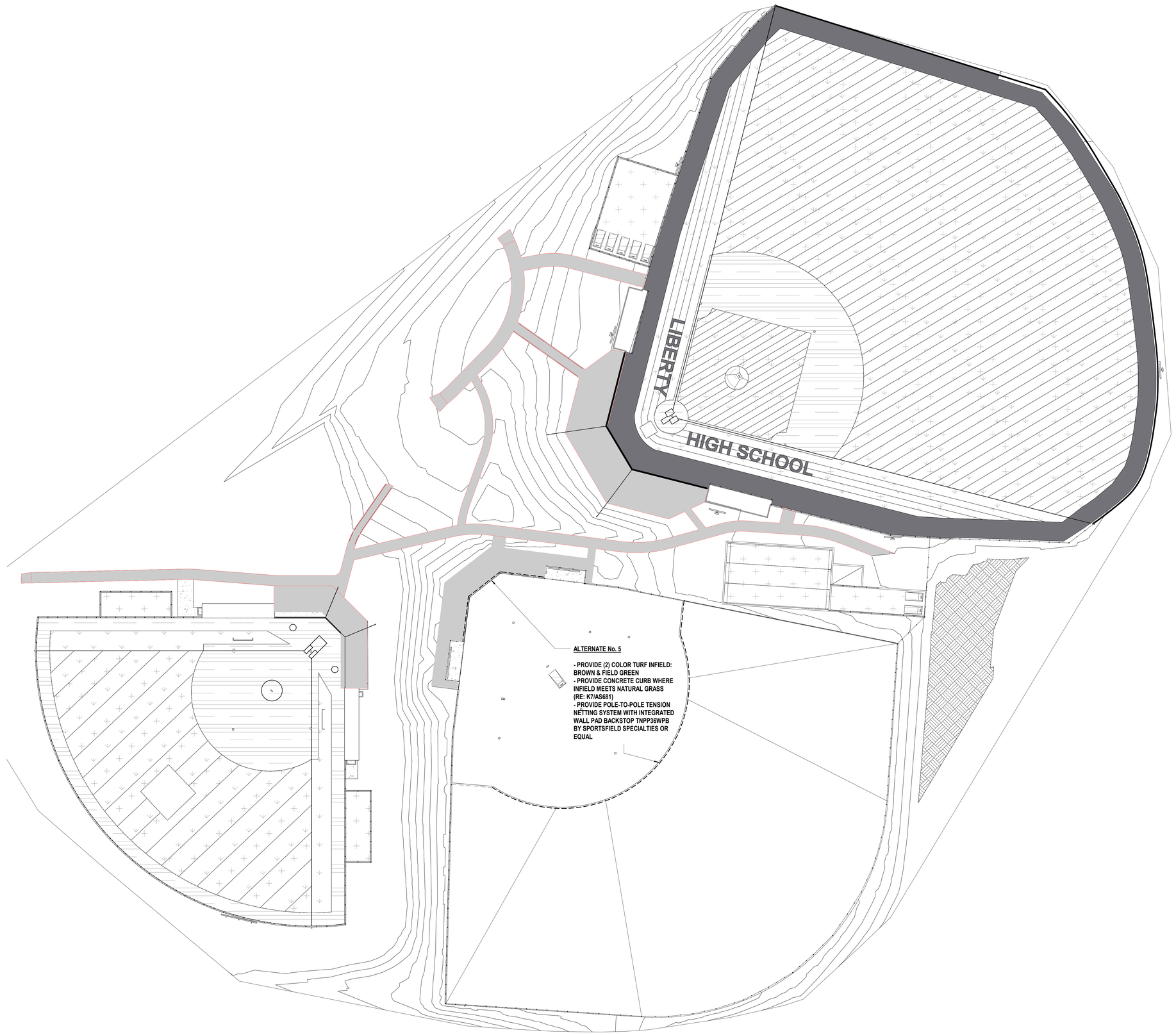

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CONSTRUCTION DOCUMENTS

LHS Baseball & Softball Upgrades

Liberty Public Schools 53

200 Blue Jay Drive
Liberty, MO 64068

REVISIONS:

#	Description	Date

STATE OF MISSOURI
KEVIN E. NELSON
A-2019015618
ARCHITECT
JULY 12, 2023

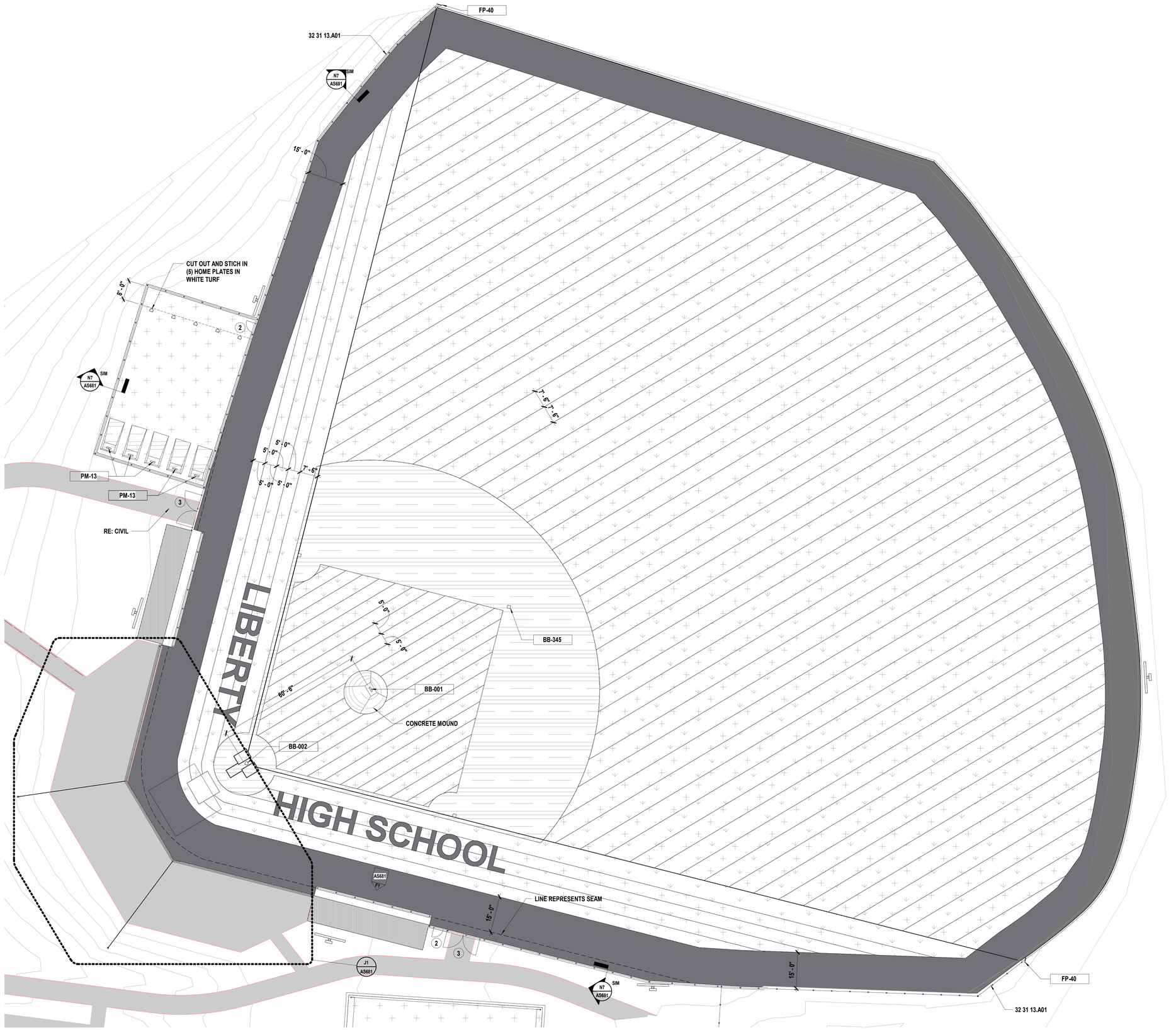
JOB NO: 23023
DRAWN BY: GT
CHECKED BY: Checker
DATE: 07.12.23

AS101

A1 | Scale 1" = 30'-0" | Overall Site

ARCHITECTURAL SITE PLAN - OVERALL

7/12/2023 5:37:01 PM



SHEET KEYNOTE LEGEND

SITE - GENERAL NOTES

1. REFER TO SHEET AS681 FOR EQUIPMENT SCHEDULE.
2. ALL CHAINLINK FENCE TO BE 8'-0" IN HEIGHT UNLESS NOTED OTHERWISE.
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5. INSTALLER RESPONSIBLE FOR MEETING ALL FIELD OF PLAY GUIDELINES AS ADOPTED BY MSHSAA AND NFHS

SITE - KEYED NOTES

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(2) 4'-0" PASS THROUGH GATE

(3) 14'-0" ACCESS GATE

TURF COLOR LEGEND

FIELD GREEN

LIME GREEN

BROWN

FLORIDA BLUE

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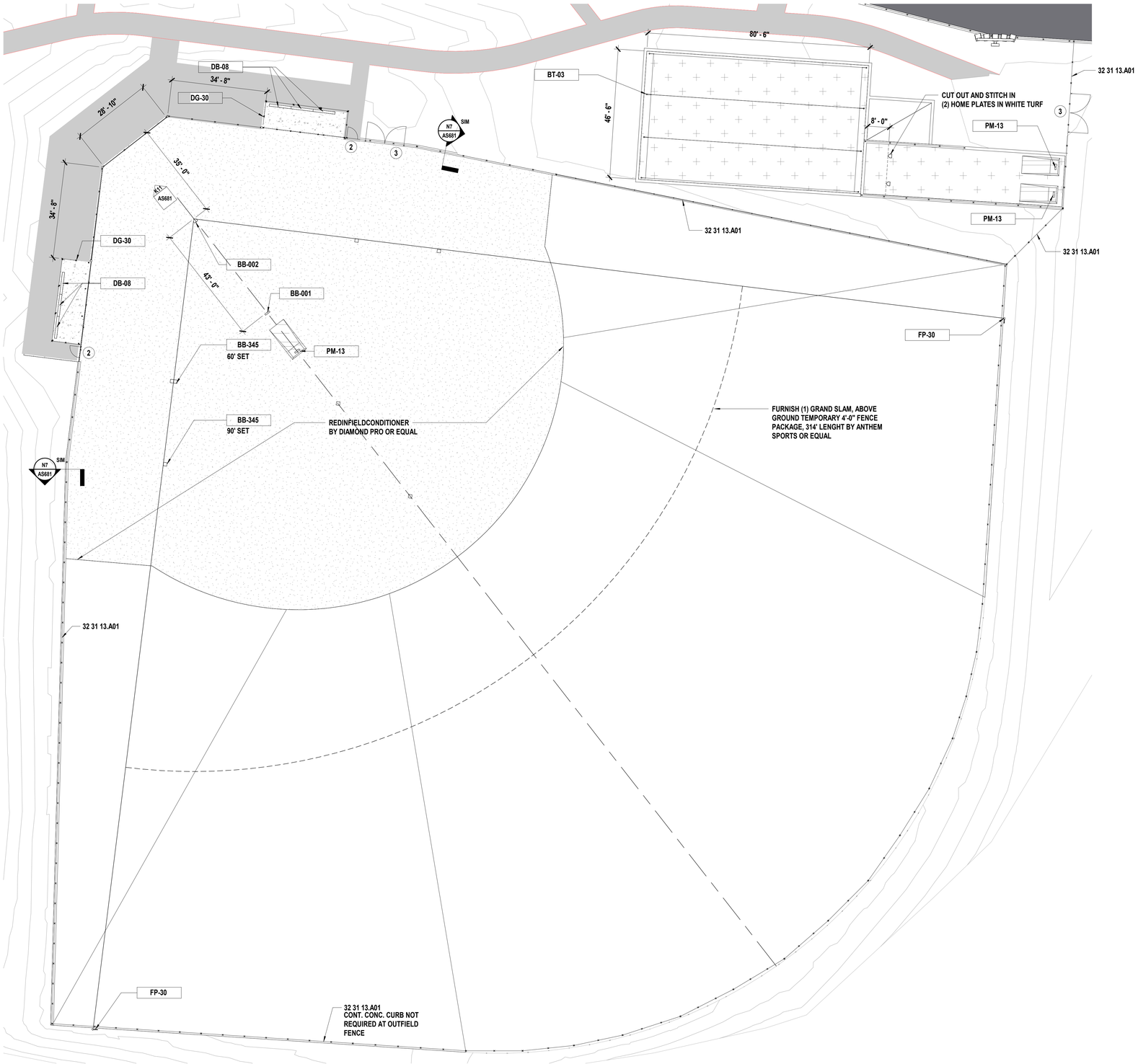
AS111

SITE PLAN - BASEBALL FIELD

A1 | Scale 1/16" = 1'-0" | Varsity Baseball

7/12/2023 5:46:34 PM



SHEET KEYNOTE LEGEND

32 31 13.A01	CHAIN LINK FENCING

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SITE - KEYED NOTES

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3. 14'-0" ACCESS GATE

TURF COLOR LEGEND

FIELD GREEN

LIME GREEN

BROWN

FLORIDA BLUE

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DRAWN BY: Author
CHECKED BY: Checker
DATE: 07.12.23

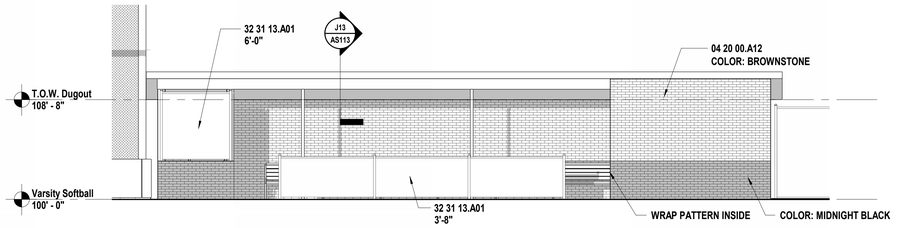
AS112

A1 | Scale 1/16" = 1'-0" | Multi-purpose Field

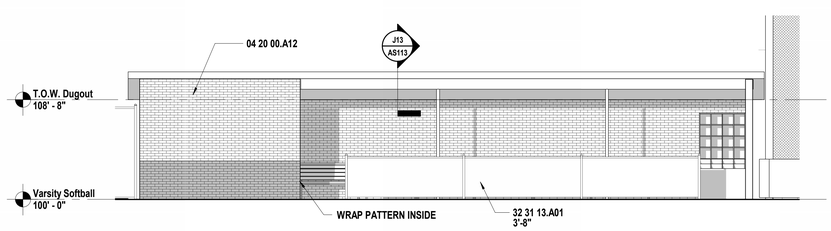
SITE PLAN - MULTI-PUROPOSE FIELD

7/12/2023 6:00:55 PM

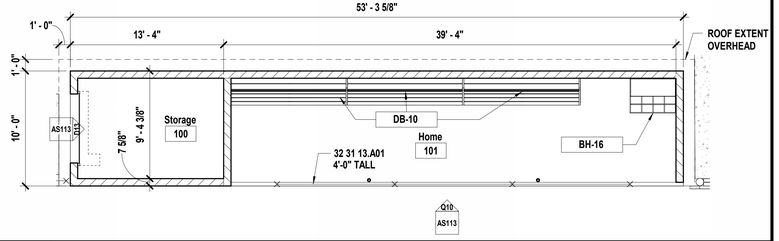
Please consider the environment before printing this.



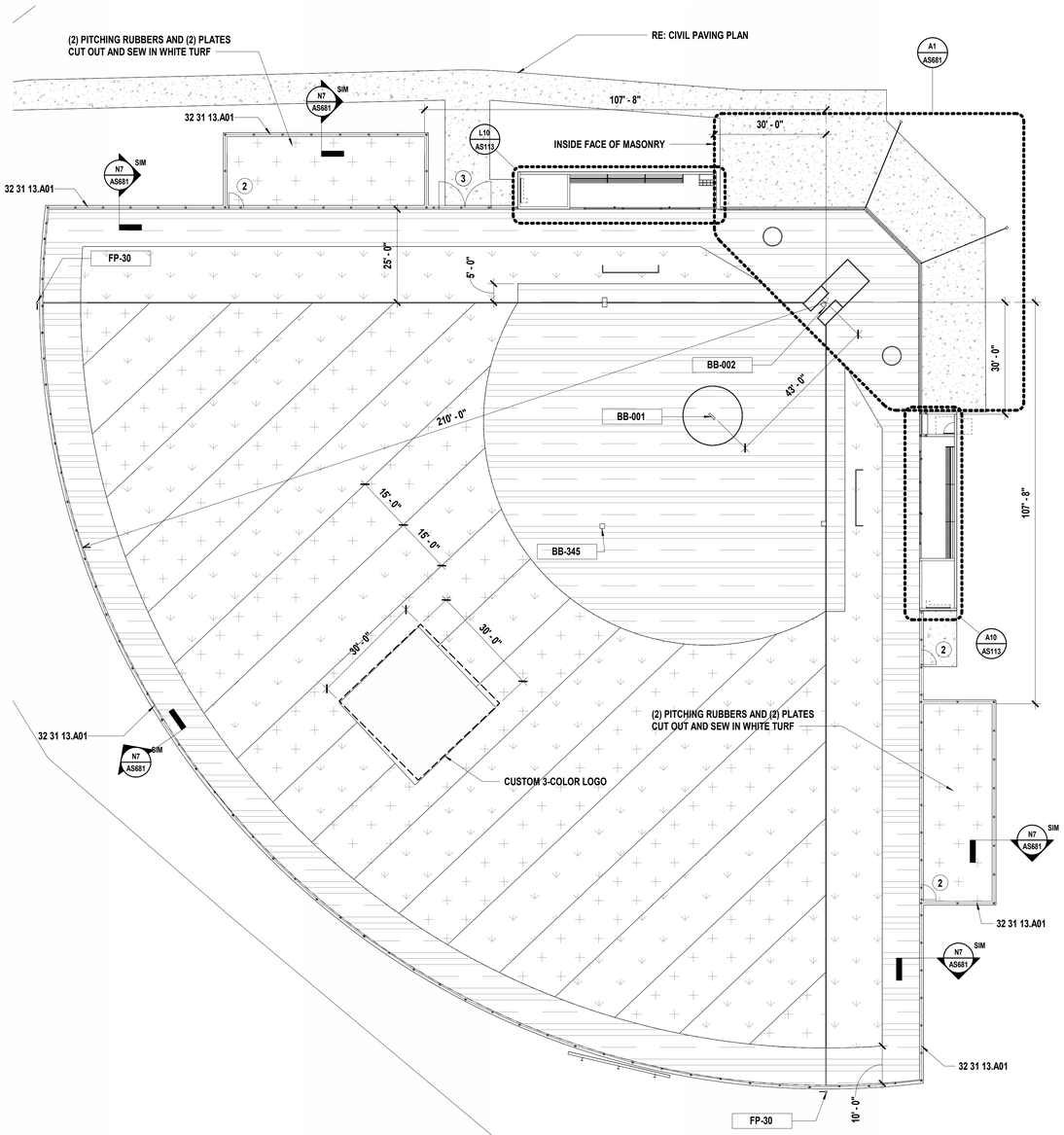
P1 Scale 3/16" = 1'-0" — Front Elevation - Away Dugout



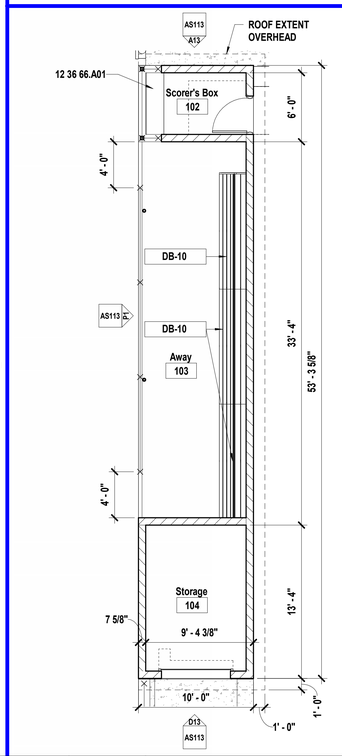
Q10 Scale 3/16" = 1'-0" — Front Elevation - Home Dugout



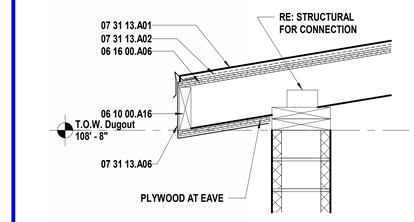
L10 Scale 3/16" = 1'-0" — Enlarged Dugout Plan - Home



A1 Scale 1/16" = 1'-0" — Varsity Softball

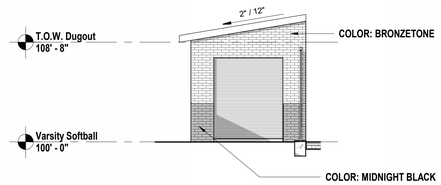


A10 Scale 3/16" = 1'-0" — Enlarged Dugout Plan - Away

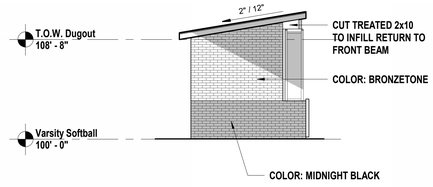


NOTE: SHEET METAL FASCIA TO WRAP ALL FOUR SIDES OF DUGOUT ROOF

J13 Scale 1 1/2" = 1'-0" — Roof Composition @ Dugout



D13 Scale 3/16" = 1'-0" — Typical Storage End Elevation



A13 Scale 3/16" = 1'-0" — Scorer's Box Elevation - Away Dugout

SHEET KEYNOTE LEGEND

04 20 00.A12	FACE BRICK
06 10 00.A16	FIRE-RETARDANT TREATED WOOD BLOCKING & NAILERS
06 16 00.A06	ROOF SHEATHING
07 31 13.A01	ASPHALT SHINGLES
07 31 13.A02	FELT UNDERLAYMENT
07 31 13.A06	METAL FLASHING/TRIM
12 36 66.A01	SOLID SURFACE COUNTERTOP
32 31 13.A01	CHAIN LINK FENCING

SITE - GENERAL NOTES

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3. 14'-0" ACCESS GATE

TURF COLOR LEGEND

FIELD GREEN

LIME GREEN

BROWN

FLORIDA BLUE

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AS113

SITE PLAN - SOFTBALL

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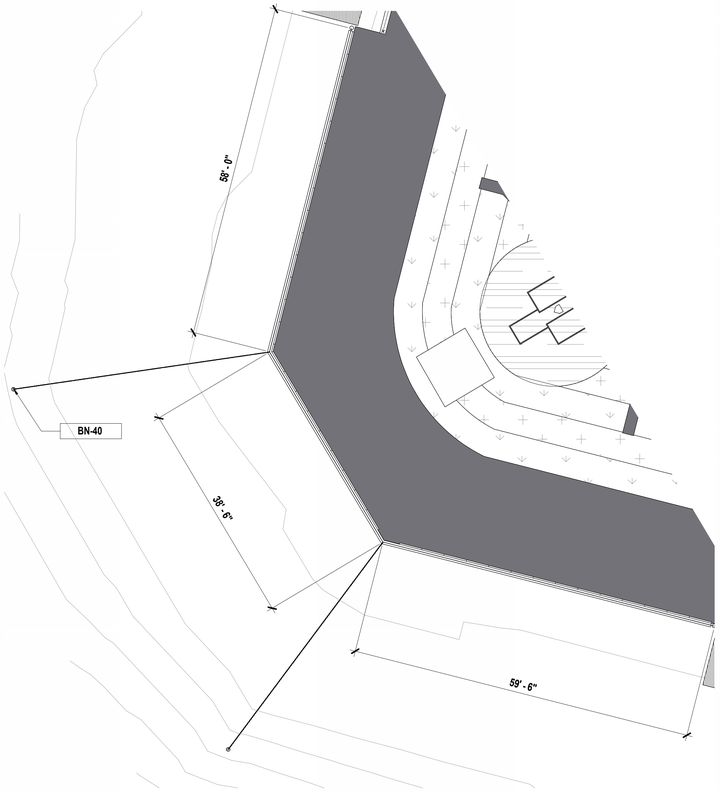
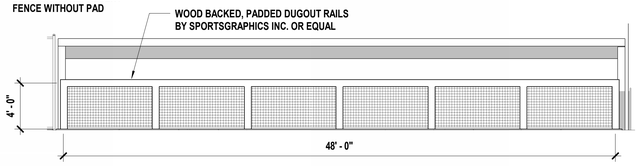
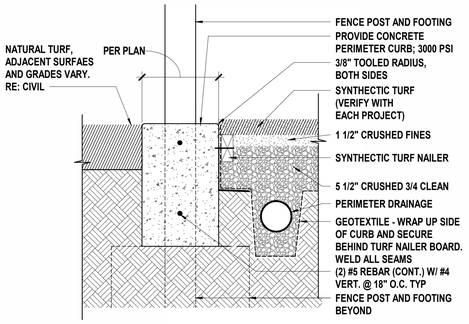


J1 Scale 3/32" = 1'-0" — Enlarged Plan - 40' Netted Backstop @ Baseball

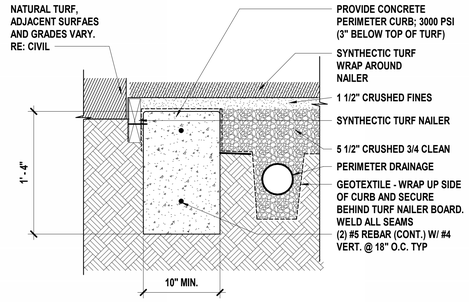
DIMENSIONS REPRESENT FENCE WITHOUT PAD



F1 Scale 3/16" = 1'-0" — Elevation - Padded Fence at Dugout

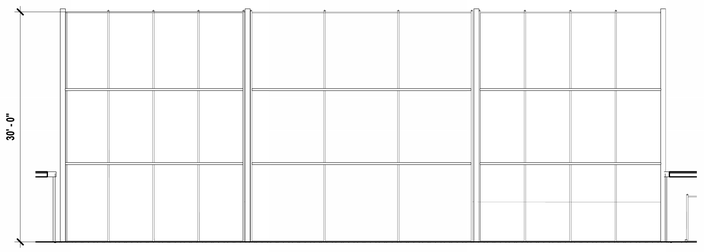


N7 Scale 1 1/2" = 1'-0" — Typical Perimeter Turf Curb with Fence

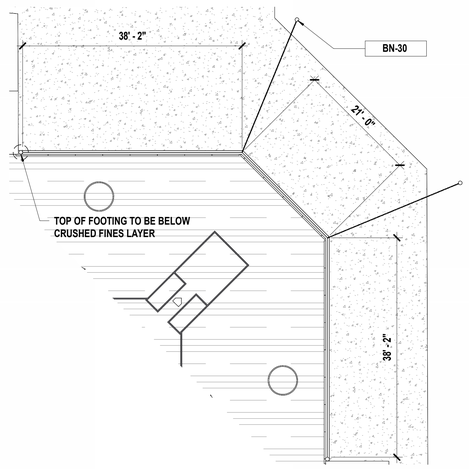


K7 Scale 1 1/2" = 1'-0" — Turf to Natural Grass Transition (Alternate #5)

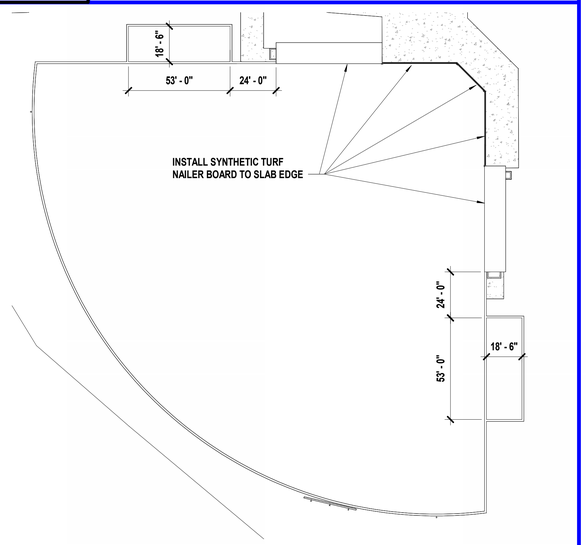
Specialty Equipment Schedule				
Mark	Keynote	Description	Manufacturer	Model
BB-001	11 66 73	Pitching Rubber	Sportsfield Specialties	TBPR
BB-002	11 66 73	Home Plate	Sportsfield Specialties	TBHP
BB-345	11 66 73	1st, 2nd, 3rd base set	Sportsfield Specialties	TBS
BH-16	11 66 73	Stand-up cubby with 16-helmet, 8 bat-bin and side storage	Sportsfield Specialties	SUAHCBBSS
BN-30	11 66 73	Custom tie-back tension softball backstop netting system with integrated wall pad and #36 nylon netting - 30'H x 120'L	Sportsfield Specialties	TNTB36WPB
BN-40	11 66 73	Custom tie-back tension baseball backtop netting system with integrated wall pad back stop and #36 nylon net - 40'H x 120'L	Sportsfield Specialties	TNTB36WPB
BT-03	11 66 73	Triple Tension baseball batting tunnel	Sportsfield Specialties	BTTBT
DB-08	11 66 73	Single-tier aluminum team bench, portable - 8' length	Sportsfield Specialties	ATBNBPT
DB-10	11 66 73	Two-Tier Aluminum Dugout Bench, 10'-0" length	Sportsfield Specialties	ATBTTBM10
DG-30	11 66 73	30'-0" x 10'-0" Modular Dugout	Sportsfield Specialties	GameShade
FP-30	11 66 73	Foul Pole with mesh wing, ground sleeve inserted - 30'H	Sportsfield Specialties	FPW630
FP-40	11 66 73	Foul Pole with mesh wing, ground sleeve inserted - 40'H	Sportsfield Specialties	FPW640
PM-13	11 66 73	Synthetic Portable Pitcher's bull Pen Mound	Sportsfield Specialties	PPBPBIT



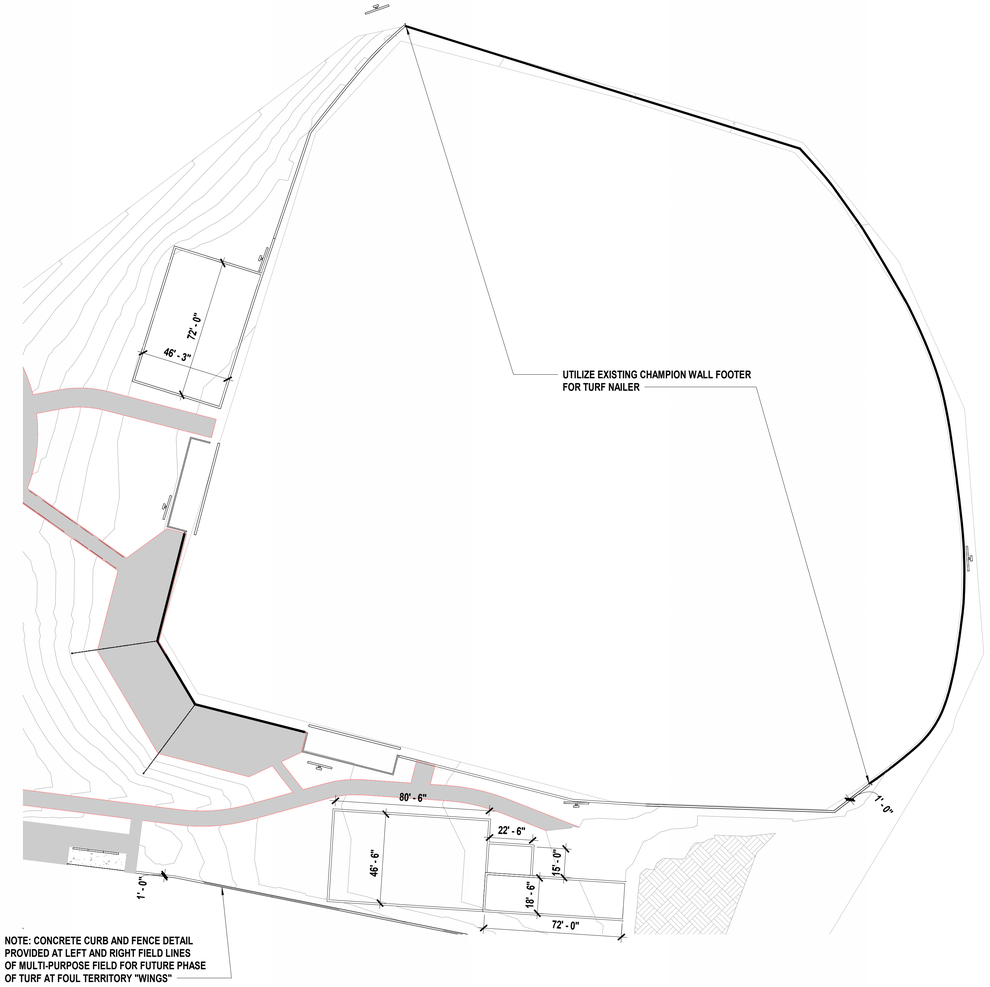
K11 Scale 1/8" = 1'-0" — Elevation - Chainlink Backstop



A1 Scale 3/32" = 1'-0" — Enlarged Plan - 30' Netted Backstop @ Softball



A6 Scale 1/32" = 1'-0" — Perimeter Concrete Turf Curb @ Softball



NOTE: CONCRETE CURB AND FENCE DETAIL PROVIDED AT LEFT AND RIGHT FIELD LINES OF MULTI-PURPOSE FIELD FOR FUTURE PHASE OF TURF AT FOUL TERRITORY "WINGS"

A11 Scale 1/32" = 1'-0" — Perimeter Concrete Turf Curb @ Baseball

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AS681

SCHEDULES AND MANUFACTURER'S FOOTING DETAILS

7/12/2023 5:54:13 PM

A. **Building Code**

1. The design and construction shall conform to the 2018 International Building Code (IBC) as amended by the City of Liberty, Missouri.

B. **Design Loads**

1. This project is designed to resist the most critical loads resulting from the basic load combinations outlined in section 1605 of the code.

2. Dead Loads
   a. The roof mounted equipment weights used for design are indicated on the contract documents. The Contractor shall submit actual weights for all roof mounted equipment for review by the Engineer.
   b. Total service roof dead load: 25 psf (Includes 10 psf collateral load)

3. Live Loads
   a. Code Loads
      1. Roof 30 psf
   b. Live load reduction has not been utilized.

4. Snow - The snow load is in accordance with ASCE 7 with the following criteria:
   a. Ground snow load p_g = 20 psf,
   b. Exposure Factor C_e = 1.00
   c. Importance Factor I_s = 1.00
   d. Thermal Factor C_t = 1.10
   e. Roof Slope Factor C_s = 1.0
   f. Flat Roof Snow Load p_f = 15.4 psf
   g. Minimum Snow Load p_m = 22 psf

5. Wind - The wind load is in accordance with ASCE 7 with the following criteria:
   a. Basic wind speed V = 110 mph
   b. Allowable Stress Design Wind Speed V_{asd} = 86 mph
   c. Risk Category II
   d. Exposure Catergory C
   e. Internal Pressure Coefficient ± 0.55
   f. Components & Cladding Force per code

6. Seismic - The seismic design is in accordance with the general building code with the following criteria:
   a. Importance Factor I_E = 1.00
   b. Risk Category II
   c. 0.2 sec Spectral Response Acceleration S_S = 9.4%
   d. 1.0 sec Spectral Response Acceleration S_1 = 6.9%
   e. Soil Site Class D (Assumed)
   f. Design 0.2sec Spectral Response Acceleration S_{DS} = 10.1%
   g. Design 1.0sec Spectral Response Acceleration S_{D1} = 11.0%
   h. Seismic Design Category B
   i. Basic Seismic Force Resisting System Ordinary reinforced masonry shear walls

7. Rain - The rain load is in accordance with the general building code and ASCE 7 with the following criteria:
   a. Rainfall Intensity (15 minute) 7.59 in./hr
   b. Rainfall Intensity (60 minute) 3.66 in./hr

C. **Foundations**

1. Geotechnical Report
   a. A Geotechnical Engineering Report was not provided for this project.

2. Spread Footings, Trench Footing and Grade Beams
   a. All shallow foundations have been designed to bear on undisturbed soil or engineered fill for a net allowable bearing pressure of 1500 psf based on presumptive values per IBC table 1806.2.

D. **Concrete**

1. All concrete and reinforcing details shall conform to ACI 318 and CRSI "Manual of Standard Practice".

2. Strength - The following areas shall have a minimum 28 day compressive strength:
   a. Interior flatwork concrete: 4000 psi
   b. Exterior flatwork concrete: 4000 psi
   c. Footing and grade beams: 4000 psi

3. No water may be added to the concrete mix on the job site unless specifically withheld at the batch plant. The workability should be attained through the use of water-reducing agents and/or super-plasticizing chemical admixtures.

4. Reinforcing
   a. Grade
      1. Typical reinforcing ASTM A615, Grade 60
      2. Welded reinforcing ASTM A706
   b. Lap splices and development lengths in reinforcement shall be per the Typical Reinforcing Splice Length Table (J1/S530) unless indicated elsewhere in the drawings and specifications. Lap welded wire reinforcing one full mesh space plus 2 inches.
   c. Welded Wire Reinforcing ASTM A1064
      1. All welded wire reinforcing for slab on grade shall be supported on metal chairs specifically designed for soil bearing conditions. Pulling reinforcing up during concrete placement is not allowed.
      2. All welded wire for metal deck supported slab shall be supported by metal chairs with a maximum spacing of 4'-0" OC. Pulling reinforcing up during concrete placement is not allowed.
   d. All concrete shall be reinforced unless specifically identified on the drawings as unreinforced. Reinforce sections with similar conditions located elsewhere on the project.
   e. All synthetic and steel fiber reinforcement shall be considered secondary reinforcing only.

5. Concrete cover shall be the following:
   a. Concrete cast against and exposed to earth 3"
   b. Concrete exposed to earth or weather #5 and smaller 1 ½"
   c. Concrete exposed to earth or weather #6 and larger 2"

6. All openings in slabs, walls, foundations, etc. shall have an additional (2) #5's on each side, in each corner of the opening and each face of the member. Extend reinforcing 2'-6" beyond edge of opening.

7. The Contractor shall provide an additional (10) #4 x 20'-0" and (10) #5 x 20'-0" of reinforcing to be used at the direction of the Structural engineer. The Contractor shall include all costs associated with material, field fabrication, and placing.

8. Aluminum items shall not be embedded in concrete.

F. **Masonry**

1. **General:**

   a. Engineered masonry is designed in accordance with "Building Code Requirements for Masonry Structures" (TMS 402/602, Latest Edition).

   b. Materials:
      Atlas Hollow Brick, ASTM C-652
      Minimum Compressive Strength = 9000 PSI
      Mortar: Type S (for reinforced masonry)
      Grout: ASTM C476, Minimum Compressive strength = 3000 PSI
      Reinforcing steel: ASTM A615, Grade 60

   c. All walls shall be running bond type construction UNO.

   d. All Clay Masonry cells with reinforcing or anchors shall be filled with grout.

   e. All vertical Clay Masonry wall reinforcing shall have full contact lap splices with dowels from foundation.

   f. All Clay Masonry lintels shall be U-shape blocks. Do not use knockout type for lintels.

   g. Inserting dowels into fresh or partially hardened concrete or grout is prohibited. Bars shall be secured per CRSI in-place prior to concrete or grout pour.

   h. All Clay Masonry bond beams shall be knockout type. Portions of bond beam that are knocked out shall be removed prior to reinforcing and grout installation.

   i. Vertical Clay Masonry reinforcement shall be continuous through lintels and shall extend the entire height of the wall.

   k. Bond beam located at first course above and below bearing elevations and at top of walls are structural bond beams and shall have reinforcement continuous through control joints.

   l. Joint reinforcing and intermediate bond beam (those not included in Note 1.j above) reinforcing shall be discontinuous at control joints.

   m. Reinforcing lap splice lengths (UNO) per schedule on S54# series of sheets.

2. **Vertical Reinforcement:**

   a. Refer to masonry wall elevations for individual structures for vertical reinforcement, unless otherwise indicated, provide (1) #5 vertical centered in the wall at the following spacing: 48" OC.

   b. Provide an additional vertical reinforcement at each side of control joints, at intersection of exterior walls, and at each side of all masonry openings greater than 10" in width. In openings wider than 24" provide additional vertical reinforcement in two adjacent cells on each side of the opening. Added vertical reinforcement shall be continuous for the full height of wall UNO. See add bar detail on this drawing. Provide foundation dowel same size and location as vertical bars in all above. Dowel bars shall be located at each vertical wall reinforcement and shall extend a minimum of 18" into the concrete foundation wall.

   c. Extend all vertical bars from the bottom course through the top most bond beam.

3. **Horizontal Reinforcement:**

   a. Construct bond beams using (1) #5 horizontal in 8" Clay Masonry.

   b. Locate bond beams at the bottom-most course and the top-most.

   c. Provide bond beam below all masonry openings and extend a minimum of 16" beyond each side of opening.

   d. Discontinue bond beam reinforcement at all wall control joints except at elevated floor and roof levels and as indicated in note 1.k of these notes and S54# series of sheets.

   e. Provide horizontal joint reinforcement at every other course or a maximum 16" spacing. Begin joint reinforcing at the top of second block course above floor slab

4. **Control Joint:**

   a. Use premolded control joint key inserts with sash block; use corrugated metal separator at bond beam locations.

   b. Locate control joint where indicated on the floor plans; or when not indicated as listed below:
      1. Locate approximately 1/2 the wall height from wall intersections. Locate at spacing not greater than 24'-0" in interior walls; 15'-0" in exterior walls UNO.
      2. Avoid creating slip planes at door or window locations.
      3. Locate above expansion and control joints in supporting concrete floor, beams or walls.
      4. Do not provide intermediate control joints in parapet walls unless so indicated on the architectural drawings

   c. Expansion/Contraction Joints:
      1. Provide continuous compressible filler or fire safing insulation as required (full width and full length) of the same thickness as the joint.

5. **Lintels:**

   a. Provide masonry lintels above openings in masonry walls as required. See A13/S541.

6. **Grout:**

   a. Grout shall be consolidated by means of mechanical vibration unless self-consolidating grout is used.
   b. Grout solid all units below finished floor elevation.

G. **Structural Steel**

1. All steel fabrication and erection shall be in accordance with the requirements and recommendations of the American Institute of Steel Construction (AISC) Code of Standard Practice for Steel Buildings and Bridges, Latest Edition.
   a. Steel design shall be per Allowable Stress Design as outlined by AISC.

2. Grade
   a. Channels, angles and plates ASTM A36
   b. Square hollow structural shapes ASTM A500, Grade C (50 ksi)
   c. Round hollow structural shapes ASTM A500, Grade C (46 ksi)
   d. Connection material ASTM A36

3. Anchor Rods
   a. Anchor rods shall conform to ASTM F1554, Grade 55.

   b. Steel or plywood templates shall be used for all anchor rod placement in concrete and masonry. Provide a nut above and below the template to control vertical alignment.

4. Thermal cutting is not allowed in the field.

5. The contractor shall supply all miscellaneous steel as required by the contract documents. Miscellaneous steel shall include, but is not limited to, shelf angle, glass support, lintels, catwalks and other steel required for stabilization of architectural elements.

6. The Contractor shall provide an additional allowance of 2% of the steel bid (includes specification sections 051200, 052100, 053100, 055000) for steel material, fabrication and erection to be used at the direction of the Structural Engineer. Any unused portion of the allowance shall be returned to the owner.

H. **Post Installed Anchors**

1. All post installed anchors shall be designed assuming cracked concrete at the anchorage.
2. All post installed anchors shall be installed per the manufacturers recommendations.
   a. Install expansion anchors per the manufacturers recommended standard embedment unless otherwise noted in the contract documents.
   b. The embedment of all post installed anchors shall be defined as the distance from the surface of the loaded material and the deepest part of the anchor after the anchor is placed but not expanded.

3. All expansion anchors shall perform to a minimum load capacity of the Hilti Kwik Bolt 3 or approved equal.

4. All adhesive anchors embedded in concrete shall perform to a minimum load capacity of the Hilti Hit HY-200-R V3 Adhesive Anchors.

5. All anchors shall be stainless steel at exterior exposed conditions.

I. **Wood**

1. All wood framing shall be designed and erected in accordance with the recommendations of the latest edition of the National Design Specification (NDS) For Wood Construction Manuals.

2. All wood framing shall be Douglas Fir-Larch #2 or better with 19% maximum moisture content at the time of manufacture.

3. Plywood
   a. Stagger panel ends of roof sheathing.
   b. H-Clips shall be used for all roof sheathing.

4. All Engineered LVL Lumber shall have the following minimum material properties.
   a. Fb = 2600 psi
   b. Fv = 285 psi
   c. E = 1,900,000 psi
   d. Fcll = 2510 psi
   e. Fc⊥ = 750 psi
   f. G = 125,000 psi

5. Reference IBC Table 2304.10.1 for minimum fastening requirements.

6. Any wood member that rests on or is in contact with concrete, earth or masonry shall be exterior preservative pressure treated.

7. All metal wood connectors shall perform to a minimum load capacity of the Simpson Strong Tie products. All connectors shall be capable of resisting the corrosive effects of the exterior preservative pressure treatment and shall be completely installed prior to loading the connections.

8. Roof sheathing shall be OSB panels 7/16" minimum nominal thickness, exterior rated sheathing, exposure 1. Run panels perpendicular to the supports, stagger panel ends 1/2 panel length. Attach with 8D common or deformed shank nails (1 3/8" minimum penetration) 2" on center along building perimeter and continuous panel edges, 2" on center at panel edges and 12" on center at intermediate supports. Space nails at 2" on center within 3'-0" of building corners and edges. Provide 2x blocking at all plywood boundaries. Maximum diaphragm shear (service level) = 700 LB/FT.

J. **Miscellaneous**

1. Periodic site observation by field representatives of Hollis and Miller Architects, if provided, is solely for the purpose of determining if the work of the contractor is proceeding in general accordance with the structural contract documents. This limited site observation should not be construed as exhaustive or continuous to check the quality or quantity of the work, but rather periodic in an effort to guard the owner against defects or deficiencies in the work of the contractor. Observations by the engineer shall not be considered inspections, and in no way relieves the contractor of any requirements of the contract documents.

2. The building is designed to function as a unit upon completion and is not structurally stable until all connections, framing, shearwalls, permanent bracing, metal decking, and exterior load bearing walls (where applicable) are complete and have achieved their design strength. Contractor is solely responsible for maintaining structural stability during erection and construction and is responsible for furnishing all temporary bracing and/or support that may be required as the result of the contractor's construction methods and/or sequences. Temporary bracing plans should include installation and removal sequencing as applicable. Temporary bracing systems are not to be removed until structural work is complete.

3. The contractor shall not alter or modify work shown on the structural drawings without receiving written approval from the engineer. When conflicts occur between the drawings and specifications, the strictest interpretation shall govern.

4. The contract structural drawings and specifications represent the finished structure, and except where specifically shown, do not indicate the method or means of construction. The contractor shall supervise and direct the work and shall be solely responsible for all construction means, methods, procedures, techniques, sequence, and safety precautions and programs. The engineer will not be responsible for the acts or omission of the contractor, subcontractor, or any other persons performing any of the work, or for the failure of any of them to carry out the work in accordance with the contract documents.

5. See architectural, mechanical, electrical, and civil drawings for other pertinent information related to the structural work and coordinate as required. These structural drawings are intended to be utilized as a complete set of documents that represent the building's structural systems. No single sheet or series of sheets is intended to "stand alone". Typical details may or may not be cut at specific locations throughout the drawings, but are to be applied where required. These structural drawings are intended to be included in a complete set of construction documents, including but not limited to, architectural drawings, civil drawings, and mechanical/electrical/plumbing drawings. Contractor shall verify coordination of these drawings with contents of above sets specified and only proceed with bidding and construction after such has taken place.

6. All existing field and building conditions shall be verified by the Contractor before any other work shall begin. Coordinate with Engineer of Record regarding any discrepancy with existing building dimensions.

7. Submittals
   a. Submittals are to be based upon the latest submitted contract documents. This includes all addendums, Architectural Supplemental Instructions (ASIs), Structural Supplemental Drawings (SSD's), and Requests for Information (RFI's).
   b. Submittals shall be original documents. Shop drawings shall not be a duplication, in any way,of the contract documents. This includes, but is not limited to, photocopies, electronic drawing copying or electronic scanning. Any submitted shop drawing that is not original will be rejected and returned without review.
   c. Prior to submission of the submittals to the Architect, the Contractor shall review the shop drawings for conformance to the means, methods, techniques, sequences, and operations of construction. The submittal shall be coordinated with all other trades and shall include responses to all Contractor directed questions. After all aspects of the Contractor's review are complete, the Contractor's review stamp shall be affixed to the shop drawings and those shop drawings forwarded to the Architect or Structural Engineer for review. Shop drawings not bearing the Contractor's review stamp will be returned without review.
   d. Submittals - Provide the following submittals for review:
      1. Concrete Mix Design and Materials
      2. Concrete Reinforcing
      3. Embedded Items (plates, angles, etc.)
      4. Masonry Products and Materials
      5. Masonry Reinforcing
      6. Structural Steel
      7. Miscellaneous Steel including lintels, stairs, etc.
   e. Substitutions are allowed prior to bid only. Reference the specifications for timing of submission

K. **Special Inspections (based on 2018 IBC, Chapter 17)**

1. Special inspection reports shall be submitted to the Building Official, Owner, Architect, Engineer, Contractor, Sub-Contractor and any other pertinent entity in a timely manner.

2. All discrepancies found by the special inspector shall immediately be brought to the attention of the general contractor and corrected. If the contractor is unable to correct the discrepancy, the special inspector shall notify the Architect and Engineer.

3. Upon completion of the project, the special inspector shall submit a final report delineating that the work was, to the best of the inspector's knowledge, completed in conformance with the approved contract documents and applicable building code.

4. The Owner shall retain special inspection services for the items listed below. The Contractor shall provide light general labor as required to assist with special inspections.

5. Foundations
   a. See Schedule of Special Inspections Table on Sheet S002.

6. Concrete
   a. See Schedule of Special Inspections Table on Sheet S002.

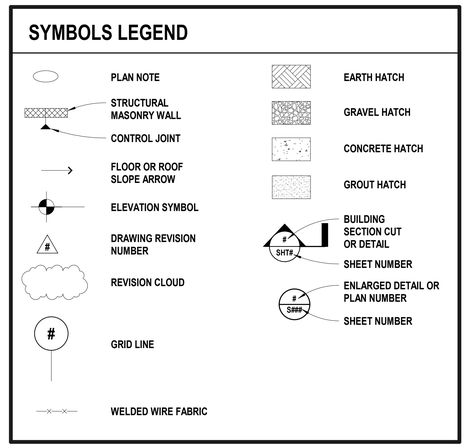
7. Masonry
   a. See Schedule of Special Inspections Table on Sheet S002.

8. Steel (includes structural steel, deck and anchor rod placement)
   a. See Schedule of Special Inspections Table on Sheet S002.

9. Wood
   a. See Schedule of Special Inspections Table on Sheet S002.

10. Post installed Anchors

SYMBOLS LEGEND



Symbols
&	And
@	At

A
A	Axial Load
ADDL	Additional
AFF	Above Finished Floor
AHU	Air Handling Unit
ALT	Alternate
ALUM	Aluminum
APPROX	Approximate
AR	Anchor Rod
ARCH	Architect/Architectural Drawings
ATS	Anchor Tie-Down System

B
BAL	Balance
BL	Brick Ledge
BLDG	Building
BLKG	Blocking
BM	Beam
BO	Bottom of
BOD	Bottom of Deck
BOS	Bottom of Steel
BOT	Bottom
BRG	Bearing
BS	Both Sides
BTWN	Between

C
C	Compression
CANT	Cantilever
CFSF	Cold-Formed Steel Framing
CIP	Cast-in-Place
CJ	Control Joint
CJP	Complete Joint Penetration
CL	Center Line
CLR	Clear
CMU	Concrete Masonry Unit
COL	Column
CONC	Concrete
CONN	Connection
CONST	Construction
CONT	Continuous/Continue
COORD	Coordinate
CSJ	Construction Joint
CTRD	Centered

D
D	Dead Load
d	Penny
DBA	Deformed Bar Anchor
DIA or Ø	Diameter
DIM	Dimension
DN	Down
DT	Precast Double Tee
DTL	Detail
DWG	Drawing
DWL	Dowel

E
E	Seismic Load
EA	Each
EF	Each Face
EJ	Expansion Joint
EL	Elevation
ELEV	Elevator
EMBED	Embedment/Embedded
ENGR	Engineer
EOD	Edge of Deck
EOR	Engineer of Record
EOS	Edge of Slab
EQ	Equal
EQUIP	Equipment
EQUIV	Equivalent
ES	Each Side
EW	Each Way
EXIST or (E)	Existing
EXT	Exterior

F
FAB	Fabricate
f'c	28-day Concrete Strength
FD	Floor Drain
FFE	Finished Floor Elevations
FIN	Finish/Finished
FLR	Floor
f'm	28-day Masonry Strength
FND	Foundation
FO	Face of
FRAM	Framing
FS	Far Side
FT	Foot/Feet
FUT OR (F)	Future
FV	Field Verify
Fy	Yield Strength

G
GA	Gauge/Gage
GALV	Galvanize/Galvanized
GEN	General
GR	Grade
H	Horizontal Shear

H
HSA	Headed Stud Anchor
HD	Headed/Hold Down
HGR	Hanger
HK	Hook
HORIZ	Horizontal
HT	Height

I
ID	Inside Diameter
IF	Inside Face
IN	Inch
INT	Interior

J
JST	Joist
JT	Joint

K
K	Kip (1000 lbs)
KSF	Kips per Square Foot
KSI	Kips per Square Inch

L
L	Live Load
LBS	Pounds
LG	Length
LLBB	Long Leg Back to Back
LLH	Long Leg Horizontal
LLV	Long Leg Vertical
LOC	Location
LONG	Longitudinal
LR	Roof Live Load
LSH	Long Side Horizontal
LSV	Long Side Vertical
LWC	Light-Weight Concrete
LWT	Light-Weight

M
MAS	Masonry
MAX	Maximum
MCJ	Masonry Control Joint
MECH	Mechanical
MEP	Mechanical/Electrical/Plumbing
MEZZ	Mezzanine
MFR	Manufacturer
MIN	Minimum
MIR	Mirror
MISC	Miscellaneous
MO	Masonry Opening
MTL	Metal
MX	Strong Axis Moment
MY	Weak Axis Moment

N
NIC	Not in Contract
NM	Non-Metallic
NO or #	Number
NS	Near Side/Non-Shrink
NTS	Not to Scale
NWC	Normal-Weight Concrete
NWT	Normal-Weight

O
OC	On Center
OD	Outside Diameter
OF	Outside Face
OH	Opposite Hand
OPNG	Opening
OPP	Opposite

P
PAF	Powder Actuated Fastener
PAR	Parallel
PC	Precast Concrete
PCF	Pounds per Cubic Foot
PERP	Perpendicular
PL	Plate
PLF	Pounds per Linear Foot
PREFAB	Prefabricated
PRELIM	Preliminary
PSF	Pounds per Square Foot
PSI	Pounds per Square Inch
PT	Point or Post-Tensioned

Q
QTY	Quantity

R
R	Radius
REF	Reference/Refer to
REINF	Reinforcing/Reinforced/Reinforcement
REQD	Required
REQT	Requirement
RET	Return
REV	Revision
RO	Rough Opening
RTU	Roof Top Unit

S
S	Snow Load
SCHED	Schedule/Scheduled
SC	Slip Critical
SDS	Self-Drilling Screw
SECT	Section
SF	Square Foot
SHT	Sheet
SIM	Similar
SLBB	Short Leg Back to Back
SOG	Slab-on-Grade
SP	Spacing
SPEC	Specification
SQ	Square
SS	Stainless Steel
STD	Standard
STIF	Stiffener
STL	Steel
STR	Structure/Structural
SW	Shear Wall
SYM	Symmetrical

T
T	Tension
T&B	Top and Bottom
THK	Thickness
THRD	Threaded Rod
TO	Top of
TOC	Top of Concrete
TOF	Top of Foundation
TOM	Top of Masonry
TOS	Top of Steel/Top of Slab
TOW	Top of Wall
TRANS	Transverse
TYP	Typical

U
UNO	Unless Noted Otherwise

V
V	Vertical Shear
VAR	Varies
VERT	Vertical

W
W	Wind Load
W/	With
W/O	Without
WF	Wide Flange
WP	Work Point/Waterproofing
WS	Waterstop
WT	Weight
WWR	Welded Wire Reinforcing

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CONSTRUCTION DOCUMENTS

LHS Baseball & Softball Upgrades
Liberty Public Schools 53
200 Blue Jay Drive
Liberty, MO 64068

REVISIONS:

#	Description	Date

STATE OF MISSOURI
DAVID A. KRELL
NUMBER PE-2021014172
PROFESSIONAL ENGINEER
07/12/2023
David A. Krell - Engineer
MO# PE-2021014172

JOB NO: 23023.00
DRAWN BY: JCH
CHECKED BY: LJR
DATE: 07.12.2023

S001

7/12/2023 2:47:07 PM

GENERAL NOTES, LEGENDS, & ABBREVIATIONS

Special Inspection Prior to Welding - Table N5.4-1

Req'd	Inspection Task	Continuous	Periodic
Yes	1. Welding procedure specifications (WPSs) available	X	
Yes	2. Manufacturer certifications for welding consumables available	X	
Yes	3. Material identification (type/grade)		X
Yes	4. Welder identification system		X
Yes	5. Fit-up of groove welds (including joint geometry)		
Yes	5.a. Joint preparation		X
Yes	5.b. Dimensions (alignment, root opening, root face, bevel)		X
Yes	5.c. Cleanliness (condition of steel surfaces)		X
Yes	5.d. Tacking (tack weld quality and location)		X
Yes	5.e. Backing type and fit (if applicable)		X
Yes	6. Configuration and finish of access holes		X
Yes	7. Fit-up of fillet welds		
Yes	7.a. Dimensions (alignment, gaps at root)		X
Yes	7.b. Cleanliness (condition of steel surfaces)		X
Yes	7.c. Tacking (tack weld quality and location)		X
Yes	8. Check welding equipment		X

Special Inspection During Welding - Table N5.4-2

Req'd	Inspection Task	Continuous	Periodic
Yes	1. Use of qualified welders		X
Yes	2. Control and handling of welding consumables		
Yes	2.a. Packaging		X
Yes	2.b. Exposure control		X
Yes	3. No welding over cracked tack welds		X
Yes	4. Environmental conditions		
Yes	4.a. Wind speed within limits		X
Yes	4.b. Precipitation and temperature		X
Yes	5. WPS followed		X
Yes	5.a. Settings on welding equipment		X
Yes	5.b. Travel speed		X
Yes	5.c. Selected welding materials		
Yes	5.d. Shielding gas type/flow rate		X
Yes	5.e. Preheat applied		X
Yes	5.f. Interpass temperature maintained (min. /max.)		X
Yes	5.g. Proper position (F, V, H, OH)		X
No	5.h. Intermix of filler metals avoided unless approved...		
Yes	6. Welding techniques		
Yes	6.a. Interpass and final cleaning		X
Yes	6.b. Each pass within profile limitations		X
Yes	6.c. Each pass meets quality requirements		X

Special Inspection After Welding - Table N5.4-3

Req'd	Inspection Task	Continuous	Periodic
Yes	1. Welds cleaned		X
Yes	2. Size, length and location of welds	X	
Yes	3. Welds meet visual acceptance criteria		
Yes	3.a. Crack prohibition	X	
Yes	3.b. Weld/base-metal fusion	X	
Yes	3.c. Crater cross section	X	
Yes	3.d. Weld profiles	X	
Yes	3.e. Weld size	X	
Yes	3.f. Undercut	X	
Yes	3.g. Porosity	X	
Yes	4. Arc strikes	X	
Yes	5. k-area	X	
Yes	6. Backing removed and weld tabs removed (if required)	X	
Yes	7. Repair activities	X	
Yes	8. Document acceptance or rejection of welded joint or member	X	
No	9. Placement of reinforcing or contouring fillet welds (if required) (ref: AISC 341-10)		
No	10. Backing removed, weld tabs removed and finished, and fillet welds added (if required) (ref: AISC 341-10)		

Special Inspection of Galvanized Structural Steel Main Members - Section N5.7

Req'd	Inspection Task	Continuous	Periodic
Yes	Visually inspect exposed cut surfaces of galvanized structural steel main members and exposed corners of rectangular HSS for cracks subsequent to galvanizing.		X

Other Inspection Task - Section N5.8

Req'd	Inspection Task	Continuous	Periodic
Yes	1. Verify compliance of fabricated steel with the details shown on the approved shop drawings.		X
Yes	2. Verify compliance of the erected steel frame with the details shown on the approved erection drawings, including braces, stiffeners, member locations and joint details.		X
Yes	3. Anchor rods and other embedments support structural steel		
Yes	3.a. Verify the diameter, grade, type and length of the anchor rod or embedded item.		X
Yes	3.b. Verify the extent or depth of embedment into the concrete.		X
No	4. RBS requirements, if applicable (ref: AISC 341-10)		
No	4.a. Contour and finish		
No	4.b. Dimensional tolerances		
No	5. Protected zone—no holes and unapproved attachments made by fabricator or erector, as applicable (ref: AISC 341-10)		
No	6. H-piles - Protected zone—no holes and unapproved attachments made by the responsible contractor, as applicable (ref: AISC 341-10)		

Special Inspection of Concrete Construction - Table 1705.3

Req'd	Inspection Task	Continuous	Periodic
Yes	1. Inspect reinforcing steel, including prestressing tendons, and...		X
Yes	2. Inspection of reinforcing steel welding in accordance with Steel Construction section above.		X
Yes	3. Inspection of anchors cast in concrete.		X
Yes	4. Inspection of anchors post-installed in hardened concrete members.	X	
Yes	5. Verify use of approved design mix.		X
Yes	6. Prior to placement fabricate specimens for strength tests, perform slump and air content tests, and determine the temperature of the concrete.	X	
Yes	7. Inspect concrete and shotcrete placement for proper application techniques.	X	
Yes	8. Inspect for maintenance of specified curing temperature and techniques.		X
No	9. Inspection of prestressed concrete:		
No	9.a. Application of prestressing forces	X	
No	9.b. Grouting of bonded prestressing tendons in the...	X	
No	10. Erection of precast structural members		X
No	11. Verification of in-situ concrete strength, prior to...		X
Yes	12. Inspection formwork for shape, location and...		X

Special Inspection of Masonry Construction - Table 1705.4

Req'd	Inspection Task	Continuous	Periodic
Yes	1. Inspect masonry construction in accordance with IBC-15 Section 1705.4 and TMS 602-16 Article 1.6.		

Special Inspection of Wood Construction - Table 1705.5

Req'd	Inspection Task	Continuous	Periodic
Yes	1. Inspect prefabricated wood structural elements in accordance with Section 1704.2.5		X
No	2. High load diaphragms:		
No	2.a. Verify sheathing grade and thickness.		X
No	2.b. Verify nominal size of framing members at adjoining panel edges.		X
No	2.c. Verify nail or staple diameter and length.		X
No	2.d. Verify number of fastener lines.		X
No	2.e. Verify spacing between fasteners in each line and at panel edges.		X
No	3. Shearwalls:		
No	3.a. Verify sheathing grade and thickness.		X
No	3.b. Verify nominal size of framing members at adjoining panel edges.		X
No	3.c. Verify nail or staple diameter and length.		X
No	3.d. Verify number of fastener lines.		X
No	3.e. Verify spacing between fasteners in each line and at panel...		X
No	3.f. Location and size of holdowns.		X
Yes	4. Verify nailing, bolting, anchoring and fastening of:		
No	4.a. Drag struts and collectors.		X
No	4.b. Braces.		X
Yes	4c. Hold-downs.		X
No	5. Metal-plate-connected wood trusses spanning 60 feet or greater:		
No	5.a. Verify temporary installation restraint/bracing installed in accordance with the approved shop drawings.		X
No	5.b. Verify permanent individual truss member restraint/bracing installed in accordance with the approved shop drawings.		X

Special Inspection of Soils - Table 1705.6

Req'd	Inspection Task	Continuous	Periodic
Yes	1. Verify materials below shallow foundations are adequate to achieve the required bearing capacity.		X
Yes	2. Verify excavations are extended to proper depth and have reached proper material.		X
Yes	3. Perform classification and testing of compacted fill materials.		X
Yes	4. Verify use of proper materials, densities and lift thicknesses during placement and compaction of compacted fill.	X	
Yes	5. Prior to placement of controlled fill, observe subgrade and verify that site has been prepared properly.		X

Special Inspection of Masonry Construction - Table 1705.4

Req'd	Inspection Task	Continuous	Periodic
Yes	Level 2 Quality Assurance		
Yes	Tests:		
Yes	1. Verify slump flow and Visual Stability Index (VSI) as delivered to the project site in accordance with TMS 602-16 Specification Article 1.5B.1.b.3 for self-consolidating grout.		X
Yes	2. Verify f'm and f'aac in accordance with TMS 602-16 Specification Article 1.4B prior to construction, except where specifically exempted.		X
	Insepection:		
Yes	1. Verify compliance with the approved submittals and project specifications.		X
Yes	2. At the start of masonry construction, verify:		
Yes	2.a. Proportions of site-prepared mortar.		X
Yes	2.b. Construction of mortar joints.		X
No	2.c. Grade and size of prestressing tendons and anchorages.		
No	2.d. Location of reinforcement, connectors, prestressing tendons and anchorages.		
No	2.e. Prestressing technique.		
No	2.f. Properties of thin-bed mortar for AAC masonry.(Continuous inspection is required for the first 5000 square feet of AAC masonry. Periodic inspection is required after the first 5000 square feet of AAC masonry.)		
Yes	3. Prior to grouting, verify:		
Yes	3.a. Grout space is clean.		X
Yes	3.b. Grade, type and size of reinforcement and anchor bolts, and prestressing tendons and anchorages.		X
Yes	3.c. Placement of reinforcing and connectors, and prestressing tendons and anchorages.		X
Yes	3.d. Proportions of site-prepared grout and prestressing grout for bonded tendons.		X
Yes	3.e. Construction of mortar joints.		X
Yes	4. During masonry construction, verify:		
Yes	4.a. Size and location of structural members.		X
Yes	4.b. Type, size and location of anchors, including other details of anchorage of masonry to structural members, frames, or other construction.		X
Yes	4.c. Welding of reinforcement.	X	
Yes	4.d. Preparation, construction, and protection of masonry during cold weather (temperature below 40°F) or hot weather (temperature above 90°F).		X
No	4.e. Application and measurement of prestressing force.		
No	4.f. Placement of grout and prestressing grout for bonded tendons is in compliance.		
No	4.g. Placement of AAC masonry units and construction of thin-bed mortar joints. (Continuous inspection is required for the first 5000 square feet of AAC masonry. Periodic inspection is required after the first 5000 square feet of AAC masonry.)		
Yes	5. Observe preparation of grout specimens, mortar specimens and/or prisms.		X

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CONSTRUCTION DOCUMENTS

LHS Baseball & Softball Upgrades
Liberty Public Schools 53
200 Blue Jay Drive
Liberty, MO 64068

REVISIONS:

#	Description	Date

STATE OF MISSOURI
DAVID A. KRELL
NUMBER PE-2021014172
PROFESSIONAL ENGINEER

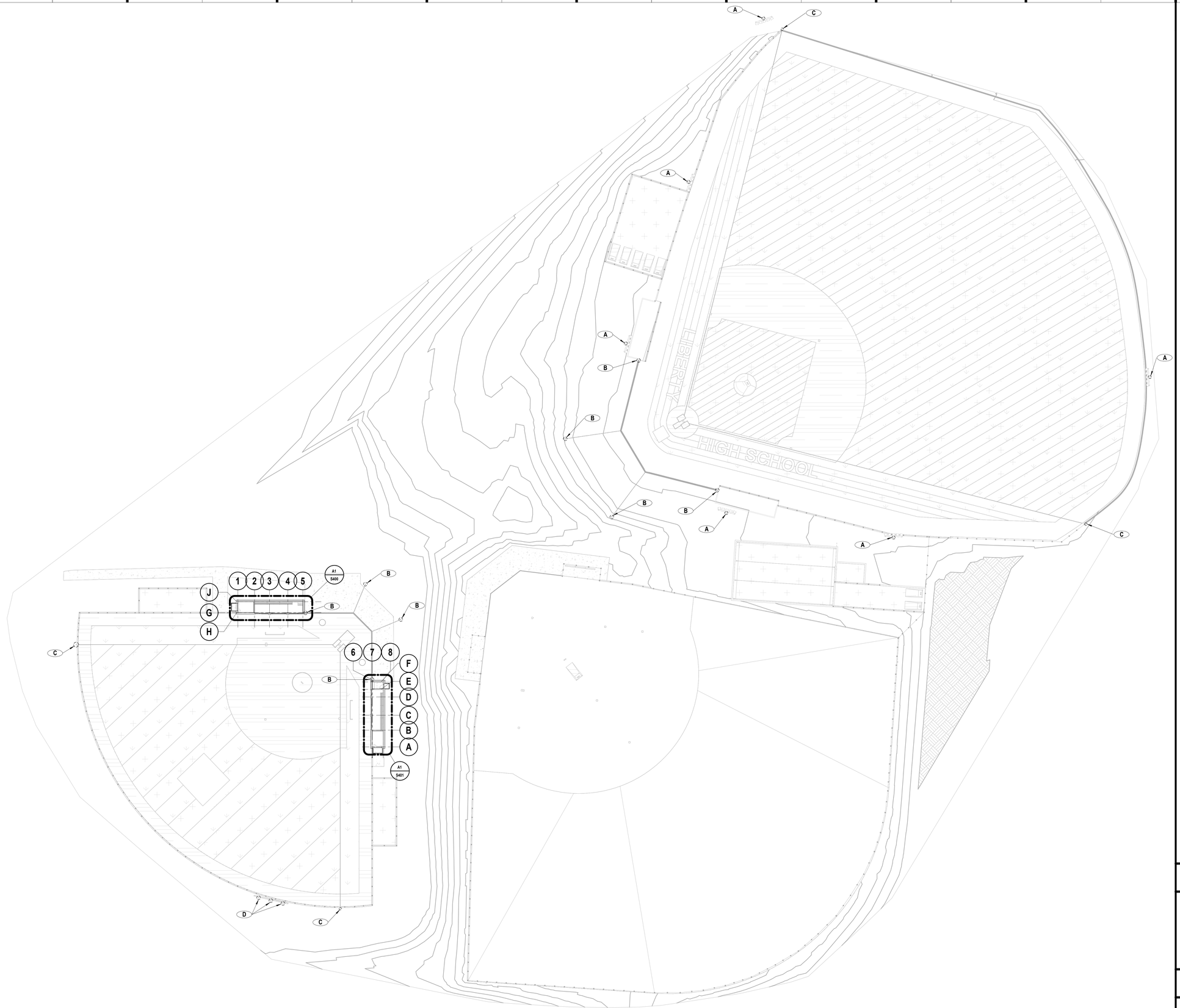
07/18/2023
David A. Krell - Engineer
MO# PE-2021014172

JOB NO: 23023.00
DRAWN BY: JCH
CHECKED BY: LJR
DATE: 07.12.2023

S002

SPECIAL INSPECTIONS

7/12/2023 2:47:09 PM



PLAN REFERENCE NOTES

- (A) 70' MUSCO LIGHT POLE FOOTING PER LIGHT POLE MFR. REF: N5/S530.
- (B) TENSION BACKSTOP NETTING FOOTING PER N9/S530.
- (C) FOUL POLE FOOTING PER N13/S530.
- (D) BATTER'S EYE FOOTING PER J5/S530.

FOUNDATION NOTES

1. TOP OF SITE POLE FOOTINGS ELEVATION = FINISHED GRADE UNO. REF CIVIL FOR GRADE ELEVATION.
2. REFERENCE ARCHITECTURAL FOR LOCATION AND QUANTITY OF SITE POLE FOOTINGS.

A1 | Scale 1" = 30'-0" | Foundation Plan - Overall

NORTH

FOUNDATION PLAN - OVERALL

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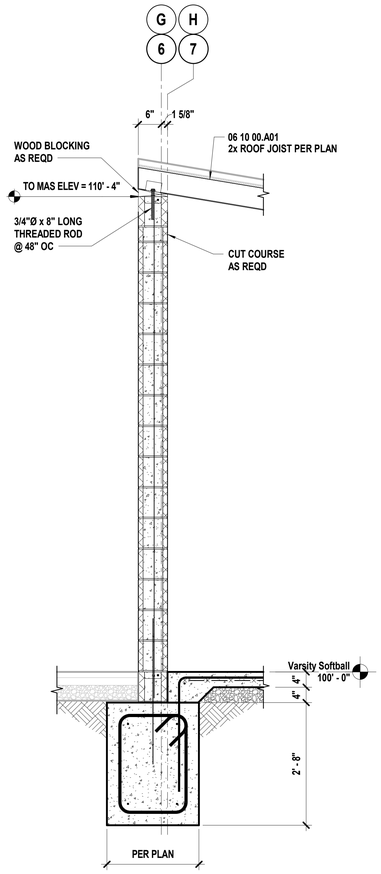
S101

7/12/2023 2:47:10 PM

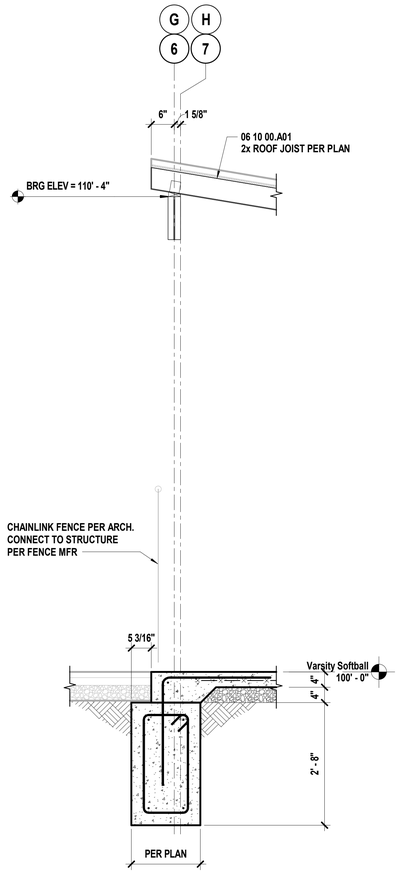
SHEET KEYNOTE LEGEND

03 30 00.A01	CAST-IN-PLACE CONCRETE
03 30 00.A06	REINFORCING BARS
03 30 00.A09	WELDED WIRE REINFORCEMENT
04 20 00.A11	MASONRY BOND BEAM
04 20 00.A14	STRUCTURAL CLAY MASONRY UNITS
05 12 00.A06	HSS SHAPE
06 10 00.A01	DIMENSION LUMBER FRAMING
06 15 00.A01	WOOD ROOF DECKING



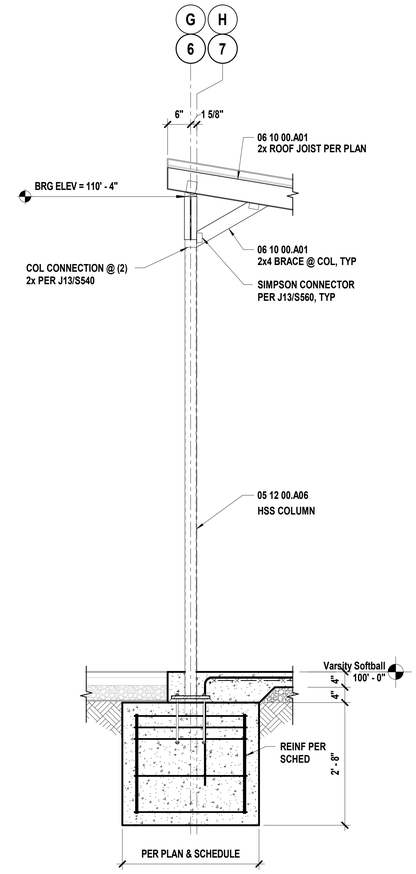
RE: A13/S310
FOR INFORMATION NOT SHOWN

A1 Scale 3/4" = 1'-0" Wall Section



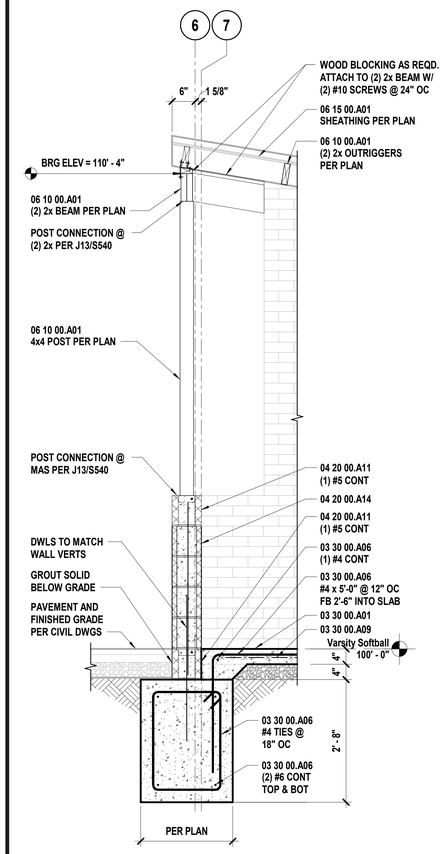
RE: A13/S310
FOR INFORMATION NOT SHOWN

A5 Scale 3/4" = 1'-0" Wall Section



RE: A13/S310
FOR INFORMATION NOT SHOWN

A9 Scale 3/4" = 1'-0" Wall Section



A13 Scale 3/4" = 1'-0" Wall Section

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S310

WALL SECTIONS

7/12/2023 2:47:10 PM

SHEET KEYNOTE LEGEND

03 30 00.A01	CAST-IN-PLACE CONCRETE
03 30 00.A06	REINFORCING BARS
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04 20 00.A11	MASONRY BOND BEAM
04 20 00.A14	STRUCTURAL CLAY MASONRY UNITS
05 12 00.A06	HSS SHAPE
06 10 00.A01	DIMENSION LUMBER FRAMING
06 15 00.A01	WOOD ROOF DECKING

NOTE: ROOF JOIST SIZE AT SECTIONAL DOOR CONNECTIONS SHALL BE VERIFIED UPON RECEIPT OF SECTIONAL DOOR SHOP DRAWINGS

5/F

RE: A13/S311
FOR INFORMATION NOT SHOWN

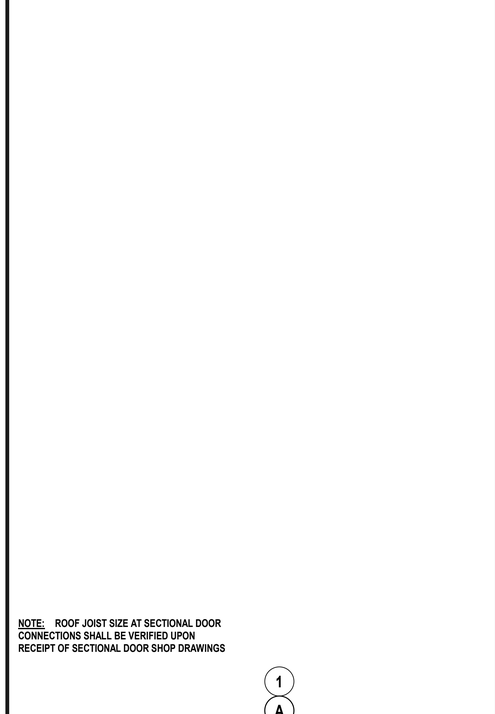
2/B/E

RE: A13/S311
FOR INFORMATION NOT SHOWN

J/8

RE: A13/S311
FOR INFORMATION NOT SHOWN

1/A



RE: A13/S311
FOR INFORMATION NOT SHOWN

A1	Scale 3/4" = 1'-0"	Wall Section	
A5	Scale 3/4" = 1'-0"	Wall Section	
A9	Scale 3/4" = 1'-0"	Wall Section	
A13	Scale 3/4" = 1'-0"	Wall Section	

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S311

WALL SECTIONS

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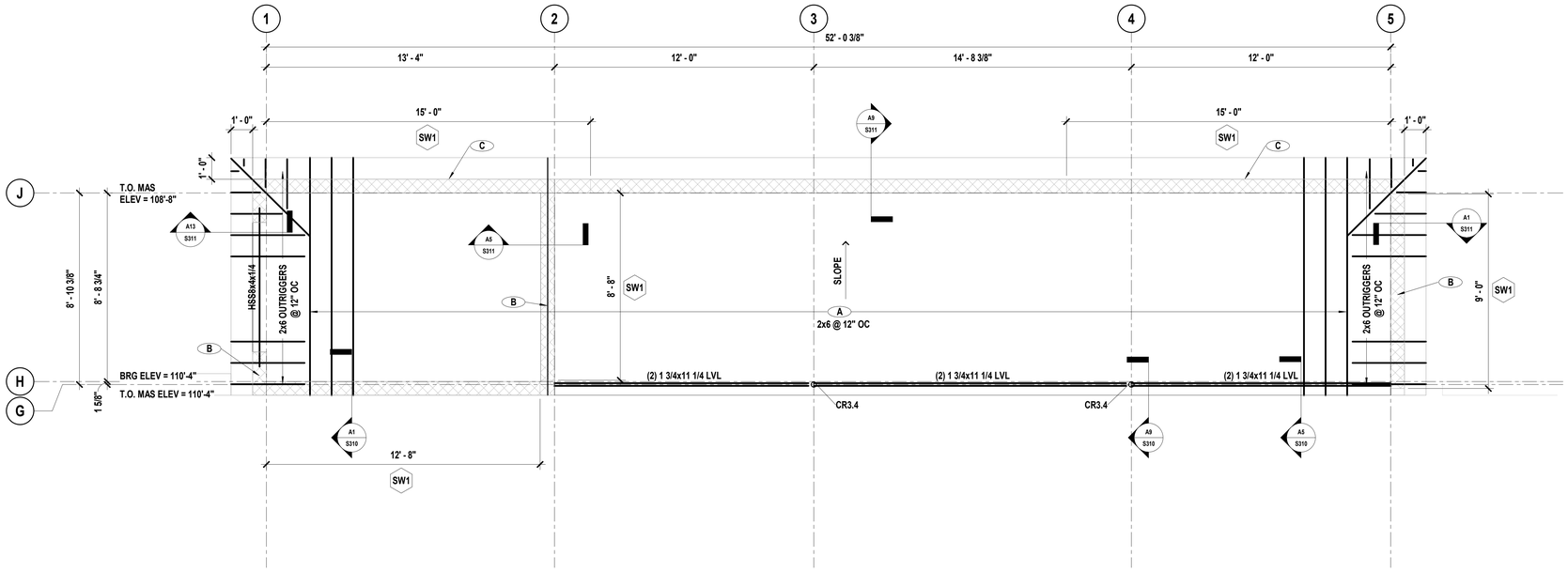
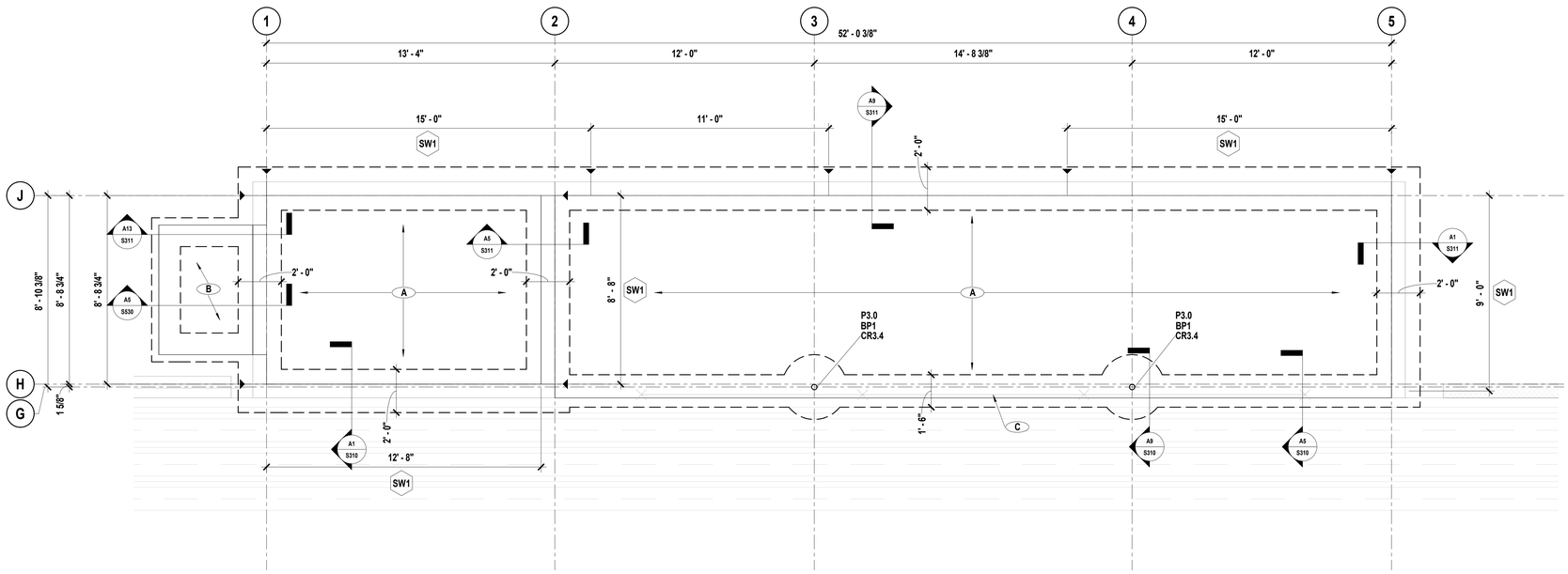


J1 | Scale 3/8" = 1'-0" | North Dugout Roof Framing Plan

NORTH



A1 | Scale 3/8" = 1'-0" | North Dugout Foundation Plan

NORTH

ROOF FRAMING PLAN REFERENCE NOTES

- (A) ALL ROOF SHEATHING SHALL BE OSB PANELS 7/16" MIN NOMINAL THICKNESS, EXTERIOR RATED SHEATHING WITH 40/20 SPAN RATING, ATTACH PER NOTES ON S001.
- (B) PROVIDE CONT BRG PL @ TOP OF MASONRY PER TYP DET ON S54# SERIES OF SHEETS.
- (C) PROVIDE 2X BLOCKING BTWN ROOF JOISTS @ SHEARWALLS PER TYP DET ON S56# SERIES OF SHEETS.

ROOF FRAMING PLAN NOTES

1. ALL LINTELS IN MASONRY WALLS NOTED ON PLANS PER S54# SERIES OF SHEETS UNO.
2. PROVIDE 3/8"x7"x7" WITH (4) 1/2"ø x 4" HSA AT ALL BEAM BEARING LOCATIONS.

Structural Drilled Pier Schedule

Type	Size	Reinforcement	
		Size	Placement
P3.0	3'-0"Ø x 2'-8"	(12) #6	#3 @ 12" OC

Structural Base Plate Schedule

Type	Plate Size	Anchor Rods	Edge Distance
BP1	3/4X10X0'-10"	AR-1	1 1/2"

Structural Column Schedule

Type	Size
CR3.4	HSS3x1/4

FOUNDATION PLAN REFERENCE NOTES

- (A) 4" CONCRETE SLAB ON GRADE WITH 15 MIL VAPOR RETARDER AND 4" CRUSHED ROCK DRAINAGE FILL PER SPECIFICATION. REINFORCE PER TYPICAL DETAILS. TOP OF CONCRETE ELEVATION = 100'-0" UNO.
- (B) 6" CONCRETE SLAB ON VOID WITH 4" CRUSHED ROCK DRAINAGE FILL PER SPECIFICATION. REINFORCE PER TYPICAL DETAILS. TOP OF CONCRETE ELEVATION = 100'-0" UNO.
- (C) CHAINLINK FENCE PER ARCH. CONNECT TO HSS COLS PER FENCE MFR.
- SW# INDICATES MASONRY SHEAR WALL, PER SCHEDULE ON S54# SERIES OF SHEET. MASONRY SHEAR WALLS ARE NOT DESIGNED AS PERFORATED SHEAR WALLS AND SHALL NOT ACCOMMODATE FUTURE OPENINGS UNLESS NOTED OTHERWISE.
- INDICATES SHEAR WALL CONTROL JOINT PER SPECIFICATIONS AND S54# SERIES OF SHEETS. INTERIOR 8" MASONRY WALL CONTROL JOINTS TO BE PLACED PER S001.

FOUNDATION NOTES

1. TOP OF FOOTING ELEVATION = 99'-4" UNO.
2. PROVIDE SLAB BLOCK OUT AROUND COLUMNS AT CONTRACTORS OPTION PER S53# SERIES OF SHEETS.
3. GRIDS INDICATE INSIDE FACE OF MASONRY WALL = CENTERLINE OF STEEL.
4. ALL TRENCH FOOTINGS ARE CENTERED ON MASONRY WALLS UNO.
5. PROVIDE CONSTRUCTION JOINT IN TRENCH FOOTING AS REQUIRED FOR ELECTRICAL CONDUIT.
6. ALL 8" MASONRY WALLS SHALL BE REINFORCED W/ (1) #5 VERT @ 48" OC IN FULLY GROUTED CELLS UNO PER TYP DET ON S54# SERIES OF SHEETS.

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S400

ENLARGED FOUNDATION & ROOF FRAMING PLANS

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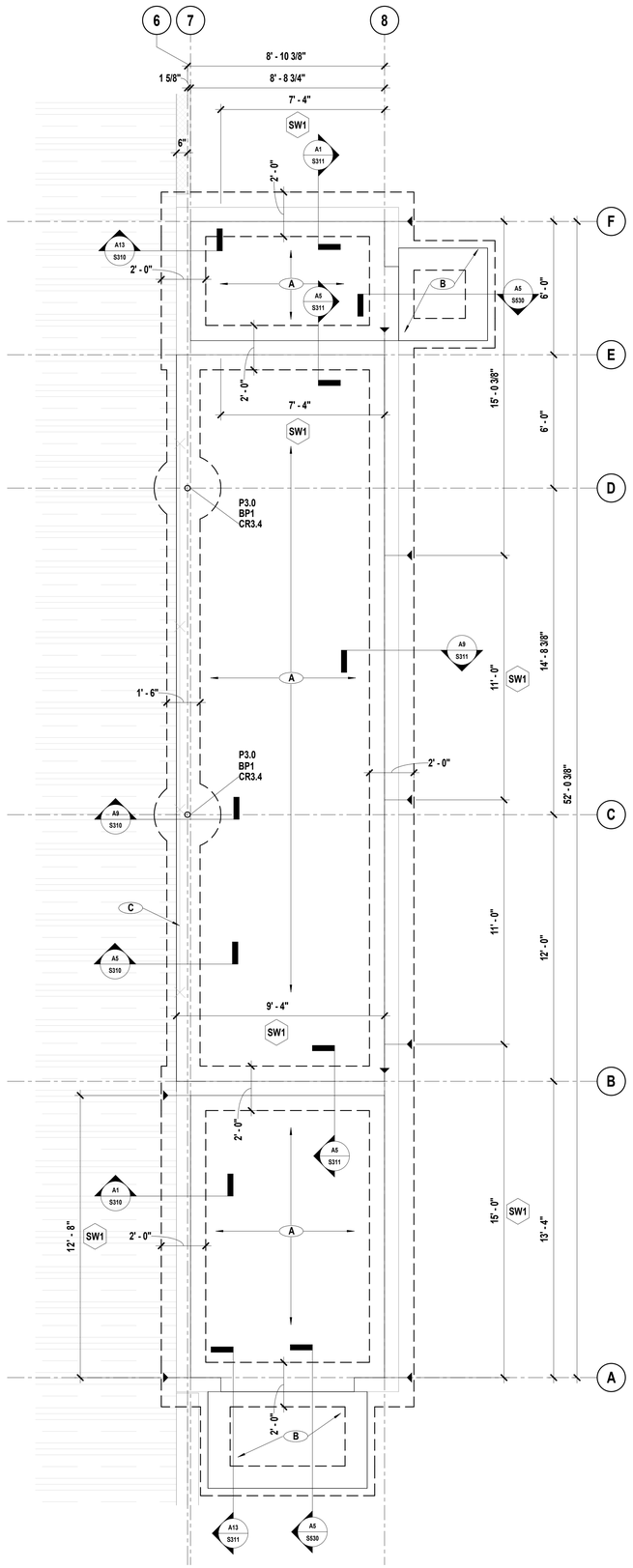

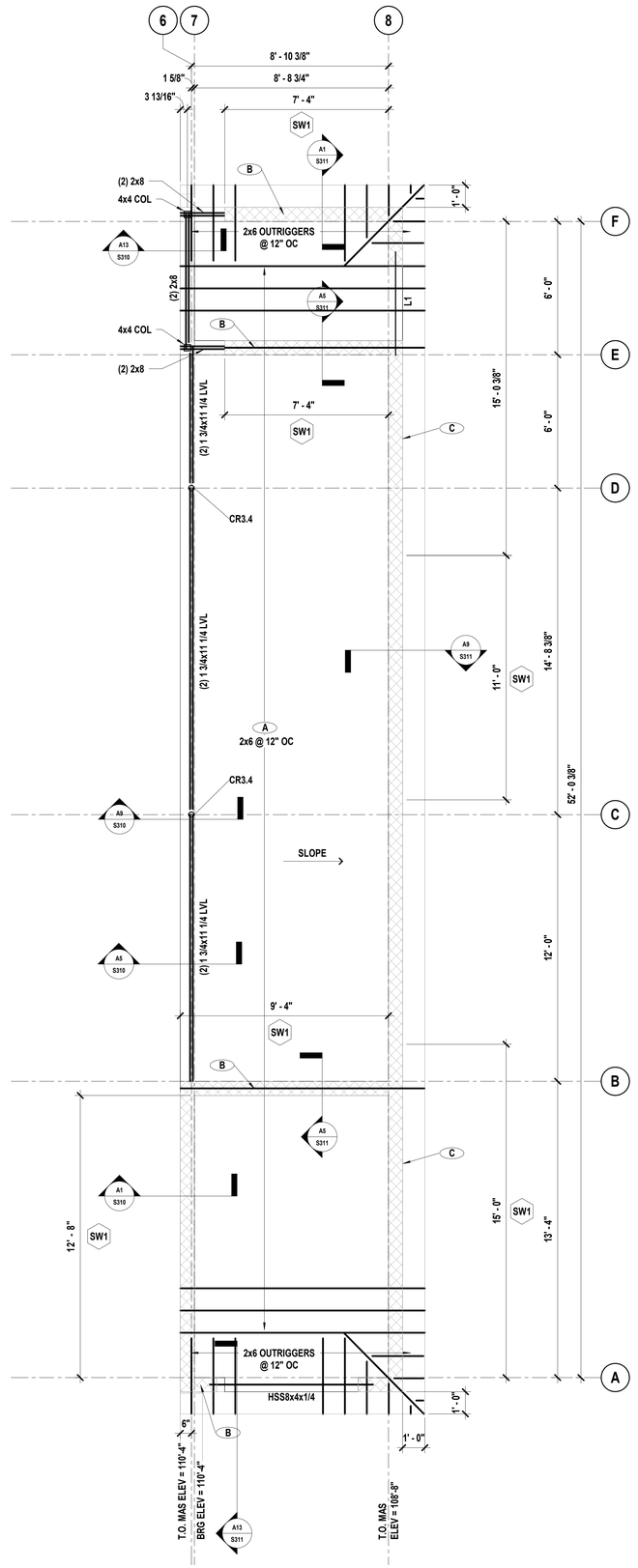

ROOF FRAMING PLAN REFERENCE NOTES

- (A) ALL ROOF SHEATHING SHALL BE OSB PANELS 7/16" MIN NOMINAL THICKNESS, EXTERIOR RATED SHEATHING WITH 40/20 SPAN RATING, ATTACH PER NOTES ON S001.
- (B) PROVIDE CONT BRG PL @ TOP OF MASONRY PER TYP DET ON S54# SERIES OF SHEETS.
- (C) PROVIDE 2X BLOCKING BTWN ROOF JOISTS @ SHEARWALLS PER TYP DET ON S56# SERIES OF SHEETS.

ROOF FRAMING PLAN NOTES

1. ALL LINTELS IN MASONRY WALLS NOTED ON PLANS PER S54# SERIES OF SHEETS UNO.
2. PROVIDE 3/8"x7"x7" WITH (4) 1/2"ø x 4" HSA AT ALL BEAM BEARING LOCATIONS.

Structural Drilled Pier Schedule

Type	Size	Reinforcement	
		Size	Placement
P3.0	3'-0"Ø x 2'-8"	(12) #6	#3 @ 12" OC

Structural Base Plate Schedule

Type	Plate Size	Anchor Rods	Edge Distance
BP1	3/4X10X0'-10"	AR-1	1 1/2"

Structural Column Schedule

Type	Size
CR3.4	HSS3x1/4

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- (A) 4" CONCRETE SLAB ON GRADE WITH 15 MIL VAPOR RETARDER AND 4" CRUSHED ROCK DRAINAGE FILL PER SPECIFICATION. REINFORCE PER TYPICAL DETAILS. TOP OF CONCRETE ELEVATION = 100'-0" UNO.
- (B) 6" CONCRETE SLAB ON VOID WITH 4" CRUSHED ROCK DRAINAGE FILL PER SPECIFICATION. REINFORCE PER TYPICAL DETAILS. TOP OF CONCRETE ELEVATION = 100'-0" UNO.
- (C) CHAINLINK FENCE PER ARCH. CONNECT TO HSS COLS PER FENCE MFR.

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INDICATES SHEAR WALL CONTROL JOINT PER SPECIFICATIONS AND S54# SERIES OF SHEETS. INTERIOR 8" MASONRY WALL CONTROL JOINTS TO BE PLACED PER S001.

FOUNDATION NOTES

1. TOP OF FOOTING ELEVATION = 99'-4" UNO.
2. PROVIDE SLAB BLOCK OUT AROUND COLUMNS AT CONTRACTORS OPTION PER S530.
3. GRIDS INDICATE INSIDE FACE OF MASONRY WALL = CENTERLINE OF STEEL.
4. ALL TRENCH FOOTINGS ARE CENTERED ON MASONRY WALLS UNO.
5. PROVIDE CONSTRUCTION JOINT IN TRENCH FOOTING AS REQUIRED FOR ELECTRICAL CONDUIT.
6. ALL 8" MASONRY WALLS SHALL BE REINFORCED W/ (1) #5 VERT @ 48" OC IN FULLY GROUTED CELLS UNO PER TYP DET ON S54# SERIES OF SHEETS.

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A1 Scale 3/8" = 1'-0" East Dugout Foundation Plan NORTH

A9 Scale 3/8" = 1'-0" East Dugout Roof Framing Plan NORTH

ENLARGED FOUNDATION & ROOF FRAMING PLANS

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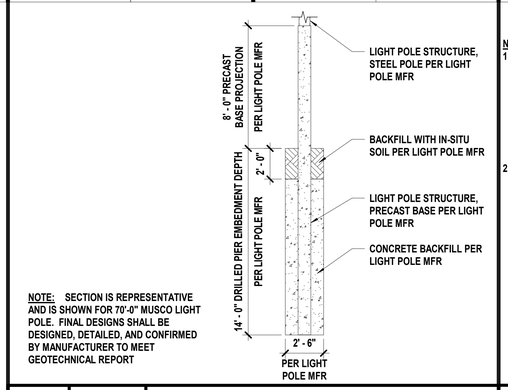
CONCRETE TENSION DEVELOPMENT AND LAP SPLICE LENGTHS

GRADE 60 REINFORCEMENT, NORMALWEIGHT CONCRETE

BAR SIZE	LAP CLASS	f'c = 3000 PSI		f'c = 4000 PSI		f'c = 5000 PSI	
		BOTTOM BARS	OTHER BARS	BOTTOM BARS	OTHER BARS	BOTTOM BARS	OTHER BARS
#3	A	12	13	12	12	12	12
	B	16	17	16	16	16	16
#4	A	17	22	15	19	13	17
	B	23	29	20	25	17	23
#5	A	25	32	21	28	19	25
	B	33	42	28	37	25	33
#6	A	33	43	29	37	26	34
	B	43	56	38	49	34	45
#7	A	53	69	46	60	42	54
	B	69	90	60	78	55	71
#8	A	66	86	57	74	51	67
	B	86	112	75	97	67	88
#9	A	80	104	69	90	62	81
	B	104	136	90	117	81	106
#10	A	96	125	83	108	75	97
	B	125	163	108	141	98	127
#11	A	113	146	98	127	87	114
	B	147	190	128	166	114	149

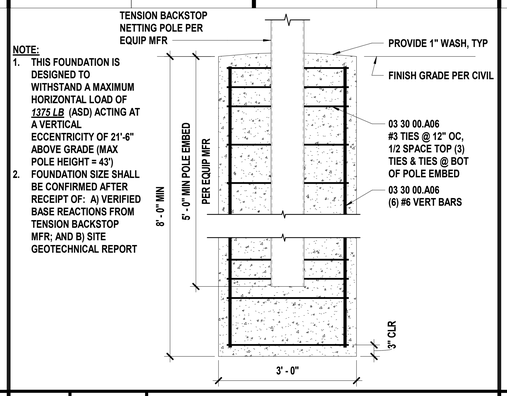
NOTES:
1. ALL SPLICE LENGTHS ARE IN INCHES.
2. THIS TABLE SHALL BE USED FOR CONCRETE ONLY. REFER TO OTHER DEVELOPMENT LENGTH TABLES FOR OTHER MEMBERS.
3. THE TENSION DEVELOPMENT LENGTH (Ld) IS EQUAL TO THE SCHEDULED "CLASS A" LAP SPLICE LENGTH.
4. A BOTTOM BAR IS DEFINED AS ANY BAR THAT DOES NOT HAVE MORE THAN 12" OF FRESH CONCRETE BELOW THE BAR.
5. OTHER BARS INCLUDE TOP BARS AND ALL OTHER BARS THAT HAVE MORE THAN 12" OF FRESH CONCRETE BELOW THE BAR. FOR TOP REINFORCEMENT IN SLABS THAT ARE 12" THICK OR LESS, TABULATED SPLICE LENGTHS FOR BOTTOM BARS SHALL BE USED.
6. FOR EPOXY-COATED BARS, MULTIPLY THE TABULATED SPLICE LENGTHS OF BOTTOM BARS BY 1.5 AND THE TABULATED SPLICE LENGTHS OF OTHER BARS BY 1.3.
7. WHEN LAP SPLICING BARS OF DIFFERENT SIZES, THE LAP LENGTH IS DETERMINED BY THE SMALLER BAR BUT MAY NOT BE LESS THAN THE "CLASS A" SPLICE LENGTH OF THE LARGER BAR.
8. FOR CONCRETE STRENGTHS IN BETWEEN THOSE TABULATED HERE, USE DEVELOPMENT AND LAP SPLICE LENGTHS OF LOWER CONCRETE STRENGTH.

J1 Scale 12" = 1'-0" — Typical Reinforcing Splice Length Table



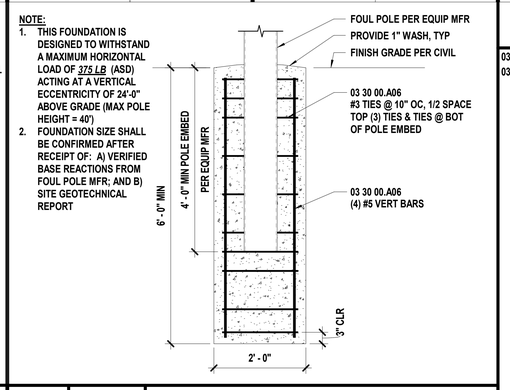
NOTE: SECTION IS REPRESENTATIVE AND IS SHOWN FOR 70'-0" MUSCO LIGHT POLE. FINAL DESIGNS SHALL BE DESIGNED, DETAILED, AND CONFIRMED BY MANUFACTURER TO MEET GEOTECHNICAL REPORT

N5 Scale 1/4" = 1'-0" — Typical 70' Musco Light Pole Footing



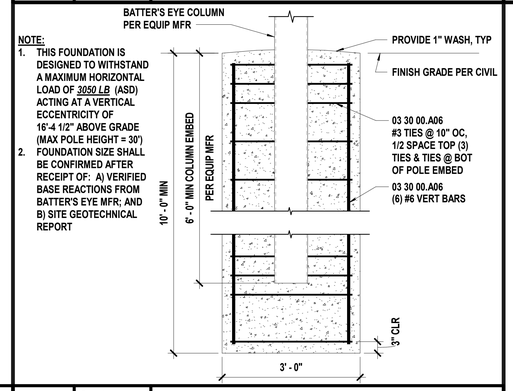
NOTE:
1. THIS FOUNDATION IS DESIGNED TO WITHSTAND A MAXIMUM HORIZONTAL LOAD OF *1375 LB* (ASD) ACTING AT A VERTICAL ECCENTRICITY OF 21'-6" ABOVE GRADE (MAX POLE HEIGHT = 43')
2. FOUNDATION SIZE SHALL BE CONFIRMED AFTER RECEIPT OF: A) VERIFIED BASE REACTIONS FROM TENSION BACKSTOP MFR; AND B) SITE GEOTECHNICAL REPORT

N9 Scale 3/4" = 1'-0" — Typical Tension Backstop Netting Footing



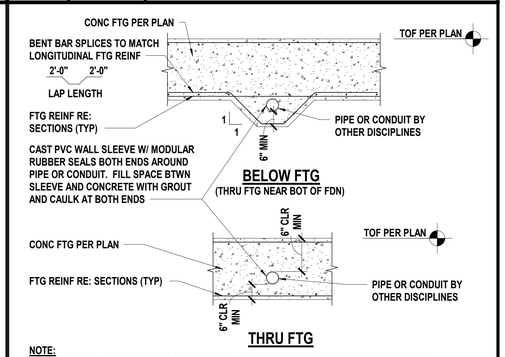
NOTE:
1. THIS FOUNDATION IS DESIGNED TO WITHSTAND A MAXIMUM HORIZONTAL LOAD OF *375 LB* (ASD) ACTING AT A VERTICAL ECCENTRICITY OF 24'-0" ABOVE GRADE (MAX POLE HEIGHT = 40')
2. FOUNDATION SIZE SHALL BE CONFIRMED AFTER RECEIPT OF: A) VERIFIED BASE REACTIONS FROM FOUL POLE MFR; AND B) SITE GEOTECHNICAL REPORT

N13 Scale NTS — Typical Foul Pole Footing



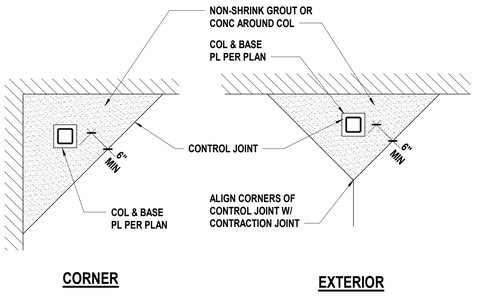
NOTE:
1. THIS FOUNDATION IS DESIGNED TO WITHSTAND A MAXIMUM HORIZONTAL LOAD OF *3050 LB* (ASD) ACTING AT A VERTICAL ECCENTRICITY OF 16'-4 1/2" ABOVE GRADE (MAX POLE HEIGHT = 30')
2. FOUNDATION SIZE SHALL BE CONFIRMED AFTER RECEIPT OF: A) VERIFIED BASE REACTIONS FROM BATTER'S EYE MFR; AND B) SITE GEOTECHNICAL REPORT

J5 Scale 3/4" = 1'-0" — Typical Batter's Eye Footing

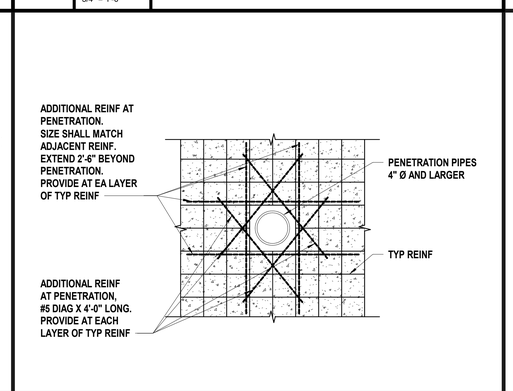


NOTE:
1. BELOW FOOTING PIPE AND CONDUIT ENCASEMENT ONLY REQUIRED WHEN WITHIN 6" OF FOOTING BEARING ELEVATION

J13 Scale 1/2" = 1'-0" — Typical Conduit/Pipe Penetration at Footing Detail

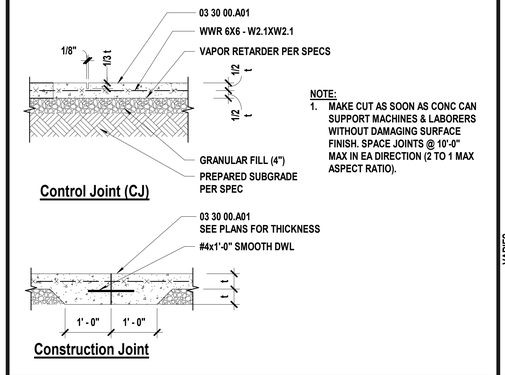


A1 Scale NTS — Typical Slab Blockout Details



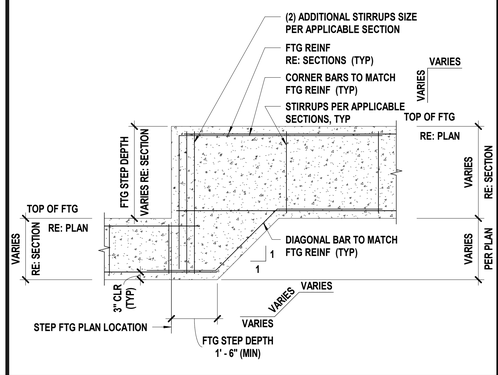
E1 Scale 1/4" = 1'-0" — Typical Concrete Slab & Wall Sawcut Detail

E5 Scale 3/4" = 1'-0" — Concrete Penetration Reinforcing

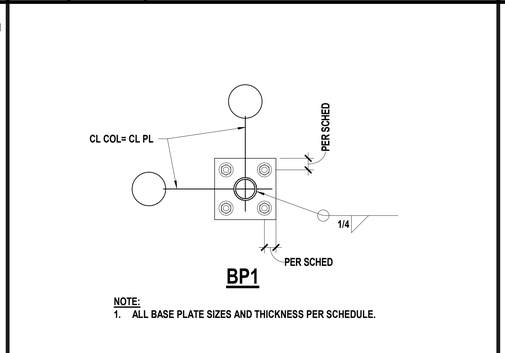


NOTE:
1. MAKE CUT AS SOON AS CONC CAN SUPPORT MACHINES & LABORERS WITHOUT DAMAGING SURFACE FINISH. SPACE JOINTS @ 10'-0" MAX IN EA DIRECTION (2 TO 1 MAX ASPECT RATIO).

E9 Scale 3/4" = 1'-0" — Typical Slab on Grade Details



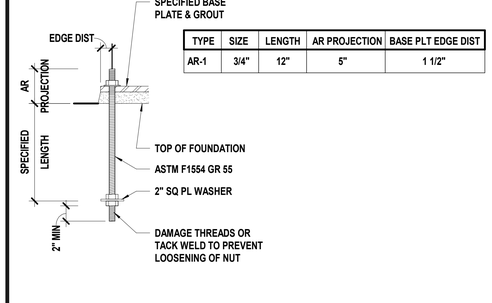
E13 Scale NTS — Typical Footing Step



A5 Scale NTS — Typical Concrete Stoop

NOTE:
1. ALL BASE PLATE SIZES AND THICKNESS PER SCHEDULE.

A9 Scale 1 1/2" = 1'-0" — Typical Base Plate Layout



TYPE	SIZE	LENGTH	AR PROJECTION	BASE PLT EDGE DIST
AR-1	3/4"	12"	5"	1 1/2"

A13 Scale NTS — Anchor Rod Schedule

SHEET KEYNOTE LEGEND

03 30 00.A01	CAST-IN-PLACE CONCRETE
03 30 00.A06	REINFORCING BARS

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REVISIONS:

#	Description	Date

STATE OF MISSOURI
DAVID A. KRELL
NUMBER PE-2021014172
PROFESSIONAL ENGINEER

07/12/2023
David A. Krell - Engineer
MO# PE-2021014172

JOB NO: 23023.00
DRAWN BY: JCH
CHECKED BY: LJR
DATE: 07.12.2023

S530

TYPICAL CONCRETE DETAILS

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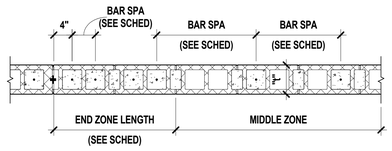
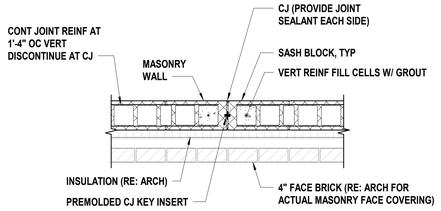


SHEAR WALL SCHEDULE

MARK	MAS SIZE "t"	WALL LENGTH	END ZONE			MIDDLE ZONE		NOTES
			LENGTH	REINF	SPACING	REINF	SPACING	
SW-1	8"	PER PLAN	8"	(1) #5 VERT	8" OC	PER PLAN	PER PLAN	1
SW-2	8"	PER PLAN	16"	(1) #5 VERT	8" OC	PER PLAN	PER PLAN	1

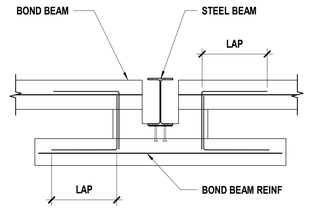
Note:
1. CELLS WITH REINF SHALL BE GROUTED FULL HEIGHT OF WALL PER GENERAL NOTES.

J1 Scale 3/4" = 1'-0" — Typical Masonry Shear Wall Schedule



NOTES:
1. CONTROL JOINTS IN MASONRY MAY BE OFFSET FROM THE EXPANSION JOINTS IN THE 4" WIDE BRICK DUE TO STANDARD BLOCK COURSING.

J5 Scale NTS — Typical Masonry Control Joint Detail



NOTE:
1. LOWER BOND BEAM MUST BE AN ENTIRE FULL COURSE HEIGHT. ANY DISCREPANCY SHALL BE REPORTED TO ENGINEER FOR REVIEW.

J9 Scale NTS — Typical Bond Beam Reinforcing Step Detail

MASONRY WALL, PILASTER, AND COLUMN VERTICAL BAR TENSION DEVELOPMENT AND LAP SPLICE LENGTHS

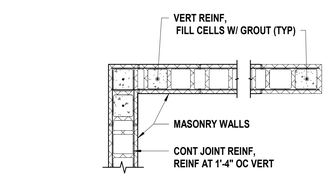
GRADE 60 REINFORCEMENT, STANDARD BLOCK (fm = 2500 PSI)

BAR SIZE	4" MAS	6" MAS		8" MAS		10" MAS		12" MAS	
	1 BAR /CELL	1 BAR /CELL	2 BARS /CELL	1 BAR /CELL	2 BARS /CELL	1 BAR /CELL	2 BARS /CELL	1 BAR /CELL	2 BARS /CELL
#3	14	12	NP	12	12	12	12	12	12
#4	25	16	NP	12	22	12	16	12	17
#5	NP	25	NP	18	35	14	25	12	27
#6	NP	47	NP	34	NP	26	47	21	51
#7	NP	NP	NP	47	NP	36	NP	29	NP
#8	NP	NP	NP	NP	NP	NP	NP	45	NP
#9	NP	NP	NP	NP	NP	NP	NP	NP	NP
#10	NP	NP	NP	NP	NP	NP	NP	NP	NP
#11	NP	NP	NP	NP	NP	NP	NP	NP	NP

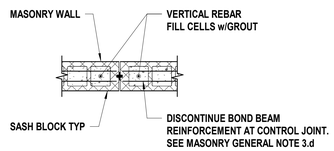
NP - NOT PERMITTED

NOTES:
1. ALL DEVELOPMENT AND LAP SPLICE LENGTHS ARE IN INCHES.
2. THIS TABLE SHALL BE USED FOR ALL REINFORCED MASONRY WALLS, PILASTERS, AND COLUMNS UNLESS NOTED OTHERWISE IN DETAILS.
3. INCREASE TABULATED VALUES BY 50% FOR EPOXY COATED REINFORCEMENT.
4. WITH APPROVAL BY THE ENGINEER, WELDED SPLICES AND MECHANICAL SPLICES DEVELOPING AT LEAST 125% OF THE YIELD STRENGTH, Fy OF THE BAR MAY BE SUBSTITUTED IN SOME LOCATIONS.
5. WHEN LAP SPLICING BARS OF DIFFERENT SIZES, THE LAP LENGTH IS DETERMINED BY THE SMALLER BAR.
6. REFER TO DETAIL A1 ON THIS SHEET FOR BAR POSITIONING IN CELLS.

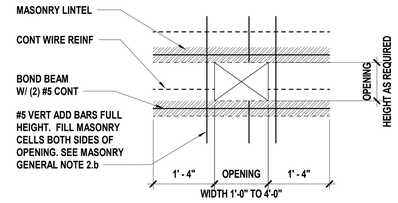
J13 Scale NTS — Typical Masonry Vertical Reinforcing Splice Length Table



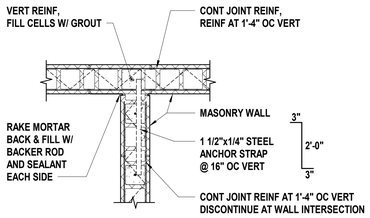
E1 Scale NTS — Typical Masonry Wall End & Corner Reinforcing Detail



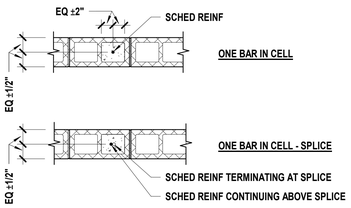
E5 Scale NTS — Typical Control Joint Detail at Bond Beams



E9 Scale NTS — Additional Reinforcing at Masonry Wall Opening Detail

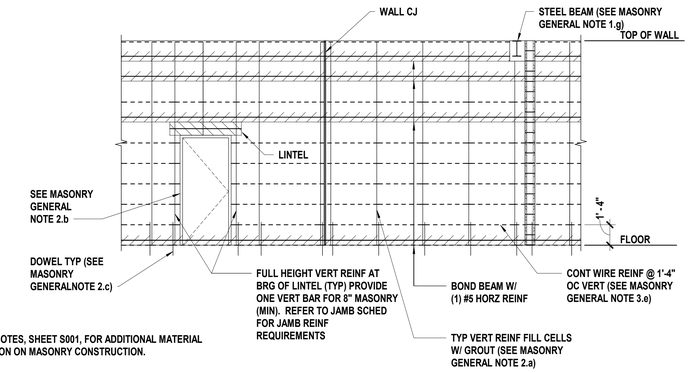


E13 Scale NTS — Typical Masonry Wall Intersection Reinforcing Detail



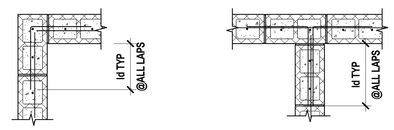
NOTES:
1. REINFORCEMENT MUST BE PLACED USING REINFORCING BAR POSITIONERS THAT LOCATE THE BAR AS SPECIFIED AND PREVENT MOVEMENT OF THE BAR DURING CONSTRUCTION.
2. SPLICED REINFORCEMENT MUST BE A CONTACT LAP SPLICE WITH SPICED BARS ALIGNED PARALLEL TO THE WALL AS SHOWN.
3. THE ENGINEER MUST BE NOTIFIED PRIOR TO PLACEMENT OF REINFORCEMENT THAT IS REQUIRED TO BE PLACED OUTSIDE OF THE TOLERANCES OF THIS DETAIL SUCH AS TO AVOID INTERFERENCE WITH OTHER REINFORCEMENT, CONDUITS, OR EMBEDDED ITEMS.

A1 Scale NTS — Typical Masonry Vertical Reinforcing Bar Placement Detail



NOTES:
1. SEE GENERAL NOTES, SHEET S001, FOR ADDITIONAL MATERIAL AND INFORMATION ON MASONRY CONSTRUCTION.

A5 Scale NTS — Typical Masonry Wall Elevation



Corner Intersection — T-Intersection

NOTES:
1. APPLIES TO ALL MASONRY BOND BEAMS.
2. CORNER BARS TO MATCH SIZE & SPACING OF HORIZONTAL REINFORCING.

A13 Scale NTS — Typical Bond Beam Reinforcing @ 8" Masonry Wall Intersection

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07/12/2023
David A. Krell - Engineer
MO# PE-2021014172

JOB NO: 23023.00
DRAWN BY: JCH
CHECKED BY: LJR
DATE: 07.12.2023

S540

TYPICAL MASONRY DETAILS

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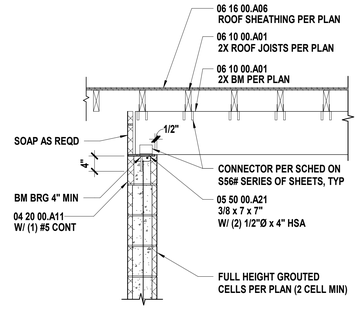
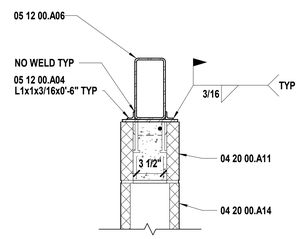
SHEET KEYNOTE LEGEND

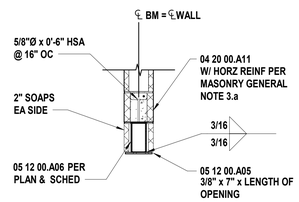
03 30 00.A06	REINFORCING BARS
04 20 00.A11	MASONRY BOND BEAM
04 20 00.A14	STRUCTURAL CLAY MASONRY UNITS
05 12 00.A02	W SHAPE
05 12 00.A04	ANGLE
05 12 00.A05	PLATE AND BAR
05 12 00.A06	HSS SHAPE
05 50 00.A21	LOOSE BEARING/LEVELING PLATES
06 10 00.A01	DIMENSION LUMBER FRAMING
06 16 00.A06	ROOF SHEATHING



J13 Scale 3/4" = 1'-0" — Typical Wood Beam Bearing Perpendicular to Masonry Wall

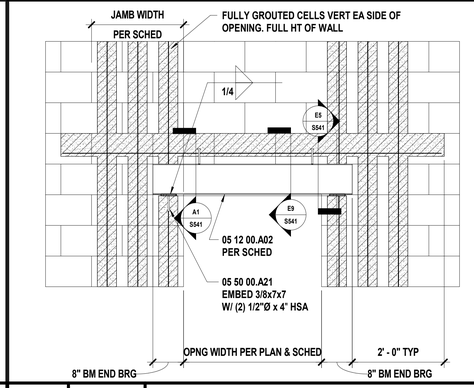


E5 Scale NTS — Typical Steel Lintel Bearing

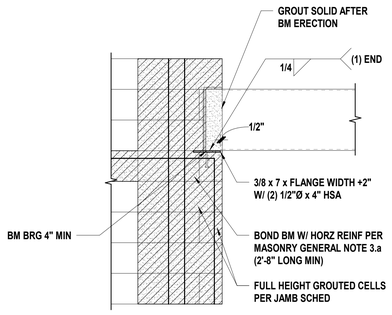


NOTES:
1. ALL EXTERIOR LINTELS SHALL BE HOT DIPPED GALV WHERE UNSUPPORTED WALL HEIGHT DOES NOT EXCEED 15'-0".
2. APPLIES TO LOAD BEARING WALL LINTELS AS INDICATED ON PLANS.

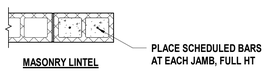
E9 Scale NTS — Typical Steel Beam Lintel Section Exterior



E13 Scale NTS — Typical Steel Beam Lintel Partial Elevation Exterior

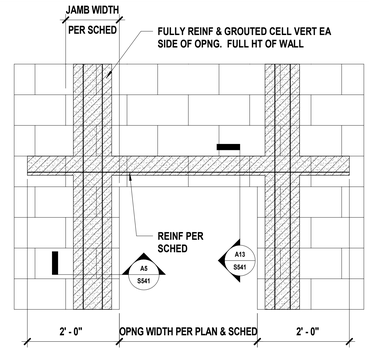


A1 Scale 3/4" = 1'-0" — Typical Beam Bearing Parallel to Masonry Wall



MASONRY WALL JAMB SCHEDULE		
LINTEL CLEAR SPAN, L	REINF FULL HT WALL - 8" OR 10" MASONRY	JAMB WIDTH
L ≤ 4'-0"	(1) #5	8"
4'-0" < L ≤ 8'-0"	(1) #5 EA CELL	16"
8'-0" < L ≤ 12'-0"	(1) #5 EA CELL	24"

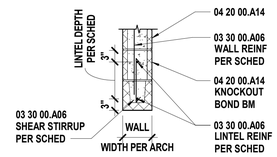
A5 Scale 3/4" = 1'-0" — Typical Masonry Wall Jamb Schedule



A9 Scale 3/4" = 1'-0" — Typical Lintel Partial Elevation

Lintel Mark	Opening Rough Width "W"	8" MASONRY		
		Lintel Depth	Reinf	Shear Stirrup
L1	W < 4'-0"	8"	(1) #5 BOT	"NA"

NOTES:
1. APPLIES TO LOAD BEARING WALL LINTELS AS INDICATED ON PLANS.



A13 Scale 3/4" = 1'-0" — Typical Lintel Section

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TYPICAL MASONRY DETAILS

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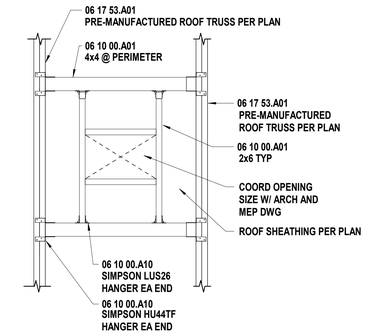
SHEET KEYNOTE LEGEND

04 20 00.A14	STRUCTURAL CLAY MASONRY UNITS
06 10 00.A01	DIMENSION LUMBER FRAMING
06 10 00.A10	METAL FRAMING ANCHORS
06 17 53.A01	WOOD ROOF TRUSSES

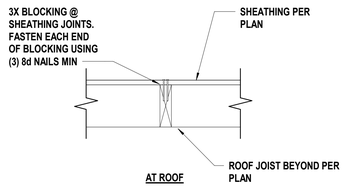
MEMBER	CONNECTION TO	SIMPSON CONNECTOR
4x4 POST	MASONRY WALL	ABU46Z W/ HIT-HY 270 HAS-E-55 5/8"x8" A.R.
(2) 2x8	4x4 POST	ECCLR 3 1/4-4 ECCLL 3 1/4-4
(2) 1 3/4 x 11 1/4 LVL	CR3.4 COLUMN (2) 2x8	CCQ44-SDS2.5** HWP 3.5 H = 11.25
2x6 JOIST	(2) 1 3/4 x 11 1/4 LVL	H2.5A
2x4 BRACE	(2) 1 3/4 x 11 1/4 LVL (2) 2x6 JOIST	A23 A23
WOOD BLOCKING	(2) 2x8 EMBED PLATES*	A21 LSTA9 (2) A23** LSTA18
OUTRIGGER	MASONRY EMBED PLATE (2) 2x8	(2) A23** (2) A23

NOTES:
1. ALL HANGERS MUST BE ATTACHED WITH ALL MANUFACTURER'S SPECIFIED ATTACHMENTS.
2. ALL HANGERS SHALL HAVE ADEQUATE CORROSION RESISTANCE IF EXTERIOR EXPOSED CONDITION.
3. CONTRACTOR MAY PROVIDE SHIMS AS REQ'D AT BEAMS TO FIT CONNECTIONS.
4. *(3) 10d TOENAILS EACH SIDE TO ROOF JOISTS.
5. **3/16" WELD TO EMBED PLATE OR HSS COLUMN.

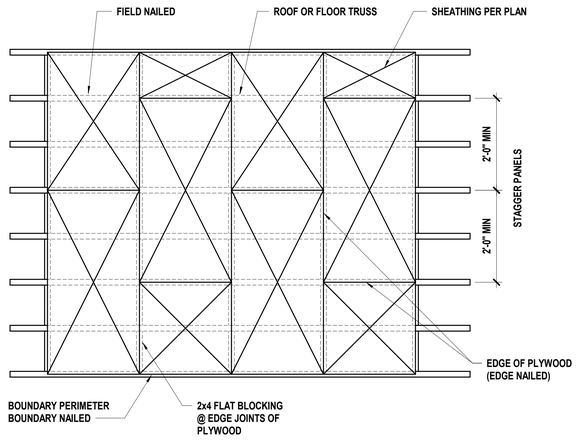
J13 Scale: 3/4" = 1'-0" — Wood Connector Schedule



E5 Scale: NTS — Wood Typical Roof Opening

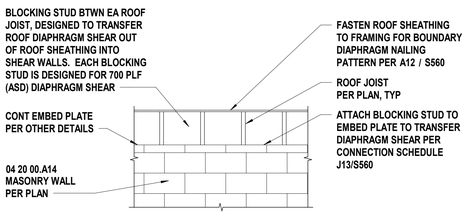


E9 Scale: 1 1/2" = 1'-0" — Wood Blocking Detail



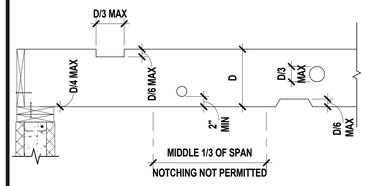
NOTES:
1. RUN LONG DIMENSION OF PLYWOOD PANELS PERPENDICULAR TO JOIST OR RAFTER.
2. STAGGER END JOINTS 2'-0" MIN AS SHOWN.
3. NAILING SIZE AND SPACING AS NOTED ON PLANS AND S001.
4. NAILS SHALL HAVE A MIN 3/8" EDGE DISTANCE.
5. ANY OPENINGS SHALL BE FULLY BLOCKED AND NAILED TO MATCH BOUNDARY CONDITION.

ROOF DIAPHRAGM ATTACHMENT IS DESIGNED FOR A SERVICE LEVEL SHEAR LOAD OF ***700 LB/FT***.



ROOF

A5 Scale: 1/2" = 1'-0" — Roof Diaphragm Chord Detail



BMS & JOISTS

WWPA AND NDS PRESCRIPTIVE RECOMMENDATIONS

A9 Scale: NTS — Notches and Penetrations in Solid Sawn Joists

A12 Scale: NTS — Diaphragm Attachment Detail

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CONSTRUCTION DOCUMENTS

LHS Baseball & Softball Upgrades
Liberty Public Schools 53
200 Blue Jay Drive
Liberty, MO 64068

REVISIONS:

#	Description	Date

STATE OF MISSOURI
DAVID A. KRELL
NUMBER PE-2021014172
PROFESSIONAL ENGINEER

07/12/2023
David A. Krell - Engineer
MO# PE-2021014172

JOB NO: 23023.00
DRAWN BY: JCH
CHECKED BY: LJR
DATE: 07.12.2023

S560

TYPICAL WOOD FRAMING DETAILS

7/12/2023 2:47:16 PM

ELECTRICAL SYMBOLS AND ABBREVIATIONS

"SOME SYMBOLS AND ABBREVIATIONS ON THIS LEGEND MAY NOT BE USED. REFER TO FLOOR PLANS FOR ALL SYMBOLS AND ABBREVIATIONS."

CONDUIT AND WIRE

- ARROWS INDICATE CONDUIT AND WIRE HOME RUN(S) TO PANEL WITH 2-#12 AWG CONDUCTORS UNLESS NOTED OR OTHERWISE REQUIRED.
- CONDUIT RUN CONCEALED IN WALL OR ABOVE CEILING.
- CONDUIT RUN UNDERGROUND OR CONCEALED IN FLOOR SLAB.
- T — TELEPHONE CONDUIT
- LV — LOW VOLTAGE CONDUIT AND WIRING

LIGHTING

- BATTERY OPERATED EMERGENCY LIGHT (WALL MOUNTED)
- BATTERY OPERATED EMERGENCY LIGHT (CEILING MOUNTED)
- SURFACE/RECESSED LIGHT FIXTURE
- FLUORESCENT LIGHT FIXTURE
- FLUORESCENT STRIP FIXTURE
- SHADING DENOTES EMERGENCY FIXTURE
- POLE MOUNTED LIGHT FIXTURE
- EXIT LIGHT - DOUBLE FACE - ARROWS AS SHOWN
- EXIT LIGHT - SINGLE FACE - ARROWS AS SHOWN
- $ $3 $4 $K $LV — LIGHTING SWITCHES-SINGLE POLE, 3-WAY, 4-WAY, KEY, LOW VOLTAGE, PILOT LIGHT
- $D — DIMMER WITH SINGLE POLE SWITCH
- $D3 — DIMMER WITH THREE WAY SWITCH (WATTAGE NOTED)
- $M — WALL MOUNTED MOTION SENSOR
- (A) — CEILING MOUNTED MOTION SENSOR (LETTER DENOTES TYPE)
- SWITCH AND DUPLEX RECEPTACLE
- DENOTES A WALL MOUNTED FIXTURE

WIRING DEVICES

- DUPLEX RECEPTACLE.
- LINE THRU DEVICE INDICATES ABOVE COUNTER
- DUPLEX RECEPTACLE WITH ISOLATED GROUND (SINGLE AND FOURPLEX SIMILAR)
- DUPLEX RECEPTACLE - TOP HALF SWITCHED - BOTTOM HALF TO HAVE POWER AT ALL TIMES
- EM — DUPLEX RECEPTACLE ON EMERGENCY POWER (SINGLE AND FOURPLEX SIMILAR)
- FOURPLEX RECEPTACLE
- SINGLE RECEPTACLE
- CEILING MOUNTED RECEPTACLE
- MULTI-SERVICE FLOOR BOX
- DIVIDED POWER POLE
- FLOOR BOX W/DUPLEX RECEPTACLE
- SPECIAL RECEPTACLE W/NEMA CONFIGURATION AS NOTED
- CLOCK RECEPTACLE
- MULTI-OUTLET ASSEMBLY

COMMUNICATIONS

- TELEPHONE OUTLET
- LINE THRU DEVICE INDICATES ABOVE COUNTER
- DATA OUTLET
- TELEPHONE/DATA OUTLET
- FLOOR BOX WITH COMMUNICATIONS OUTLET
- TELEVISION ANTENNA OUTLET
- TELEPHONE CABINET OR PLYWOOD BOARD

SECURITY

- CLOSED CIRCUIT TV CAMERA
- CR — CARD READER
- DL — DOOR LOCK
- M — SECURITY MONITOR
- WT — WATCH TOUR
- EDL — ELECTRIC DOOR LOCK
- S — MOTION SENSOR - SECURITY
- S — MOTION SENSOR (WALL MOUNTED) - SECURITY

PUBLIC ADDRESS

- M — MICROPHONE OUTLET
- H — SPEAKER. ('H' DENOTES HORN TYPE)
- V — SPEAKER VOLUME CONTROL
- SPEAKER CONDUIT AND WIRING
- PA — PUBLIC ADDRESS AMPLIFIER AND CABINET
- BUZZER
- BELL
- I — INTERCOM OUTLET
- IM — INTERCOM OUTLET - MASTER
- D — CLOCK SYSTEM RECEPTACLE WITH SINGLE FACE ('D' DENOTES DOUBLE FACE)

POWER DEVICE AND CONTROLS

- T — THERMOSTAT
- DISCONNECT SWITCH. 30A-3P, NON-FUSED EXCEPT AS NOTED
- MANUAL MOTOR STARTER
- MAGNETIC MOTOR STARTER
- COMBINATION MOTOR STARTER AND DISCONNECT SWITCH
- MOTOR
- PANELBOARD (SEE ONE-LINE)
- DISTRIBUTION PANELBOARD
- CONTACTOR
- AUTOMATIC TRANSFER SWITCH
- PC — PHOTOCELL
- J — JUNCTION BOX
- PUSHBUTTON
- T — TRANSFORMER

ABBREVIATIONS

A	AMPS, AIR (COMPRESSED)
A/C	AIR CONDITIONING
AD	AREA DRAIN, ACCESS DOOR
AFC	ABOVE FINISH CEILING
AFG	ABOVE FINISH GRADE
AHU	AIR HANDLING UNIT
AFF	ABOVE FINISHED FLOOR
BD	BACKDRAFT DAMPER, BLOWDOWN
BFP	BACKFLOW PREVENTER
BKR	BREAKER
BOD	BOTTOM OF DUCT
BOP	BOTTOM OF PIPE
BOS	BOTTOM OF STRUCTURE
BTU	BRITISH THERMAL UNIT
C	CONDUIT
CATV	CABLE TELEVISION SYSTEM
CB	CIRCUIT BREAKER
CCTV	CLOSED CIRCUIT TELEVISION
CFM	CUBIC FEET PER MINUTE
CHWR	CHILLED/HOT WATER RETURN
CHWS	CHILLED/HOT WATER SUPPLY
CKT	CIRCUIT
CO	CLEANOUT, CARBON MONOXIDE
CO2	CARBON DIOXIDE
CTR	COOLING TOWER RETURN
CTS	COOLING TOWER SUPPLY
CU	COPPER, CONDENSING UNIT
CUH	CABINET UNIT HEATER
CW	DOMESTIC COLD WATER
CWR	CHILLED WATER RETURN
CWS	CHILLED WATER SUPPLY
DDC	DIRECT DIGITAL CONTROL
DD	DECK DRAIN
DN	DOWN

DX	DIRECT EXPANSION
EA	EXHAUST AIR
EAT	ENTERING AIR TEMPERATURE
EC	ELECTRICAL CONTRACTOR, EMPTY CONDUIT
EF	EXHAUST FAN
EM	INDICATES EMERGENCY CIRCUIT
EPO	EMERGENCY POWER OFF
ER	EXHAUST REGISTER
ETR	EXISTING TO REMAIN
EWB	ENTERING WET BULB
EWC	ELECTRIC WATER COOLER
EWH	ELECTRIC WATER HEATER, ELEC. WALL HTR.
EXH	EXHAUST
F/S	COMBINATION FIRE AND SMOKE DAMPER
FACP	FIRE ALARM CONTROL PANEL
FAACP	FIRE ALARM ANNUNCIATOR CONTROL PANEL
FCO	FLOOR CLEANOUT
FCU	FAN COIL UNIT
FD	FIRE DAMPER, FLOOR DRAIN
FLA	FULL LOAD AMPS
FLR	FLOOR
FOR	FUEL OIL RETURN
FOS	FUEL OIL SUPPLY
FP	FIRE PROTECTION
FPB	FAN POWERED TERMINAL UNIT
FPVAV	FAN POWERED TERMINAL UNIT
FS	FLOOR SINK
G	GAS (NATURAL), GROUND
GCO	GRADE CLEANOUT
GFI/GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GND	GROUND
GPM	GALLONS PER MINUTE
HB	HOSE BIBB
HOA	HAND OFF AUTOMATIC

HTG	HEATING
HTR	HEATER
HVU	HEATING AND VENTILATING UNIT
HW	DOMESTIC HOT WATER
HWR	HOT WATER RETURN
HWS	HOT WATER SUPPLY
IE	INVERT ELEVATION
IG	ISOLATED GROUND
KCMIL	1000 CIRCULAR MILS
KV	KILOVOLT
KVA	KILOVOLT AMPS
KW	KILOWATT
KWH	KILOWATT HOUR
LAT	LEAVING AIR TEMPERATURE
LDB	LEAVING DRY BULB
LP	LIQUIFIED PETROLEUM
LRA	LOCKED ROTOR AMPS
LV	LOW VOLTAGE
LWB	LEAVING WET BULB
LWT	LEAVING WATER TEMPERATURE
MA	MEDICAL AIR
MAU	MAKE UP AIR UNIT
MBH	1000 BTU PER HOUR
MC	MECHANICAL CONTRACTOR
MCA	MINIMUM CIRCUIT AMPACITY
MCC	MOTOR CONTROL CENTER
MD	MOTORIZED DAMPER
MDP	MAIN DISTRIBUTION PANEL
MFR	MANUFACTURER
MH	MANHOLE
MLO	MAIN LUGS ONLY
MTD	MOUNTED
MU	MAKE UP

MUAF	MAKE UP AIR FAN
MV	MIXING VALVE
N	NITROGEN
N/A	NOT APPLICABLE
N/C	NORMALLY CLOSED
N/O	NORMALLY OPEN
NF	INDICATES NON-FUSED DEVICE
NIC	NOT IN CONTRACT
NL	NIGHT LIGHT
NO	NITROUS OXIDE
OA	OUTSIDE AIR
ORD	OVERFLOW ROOF DRAIN
OX	OXYGEN
PD	PUMP DISCHARGE
PH	PHASE
PIV	POST INDICATOR VALVE
PNL	PANEL
PRV	PRESSURE REDUCING VALVE
QTY	QUANTITY
RA	RETURN AIR
RD	ROOF DRAIN
REV	REVISION
RG	RETURN GRILLE
RH	RELATIVE HUMIDITY
RHW	DOMESTIC RECIRCULATION HOT WATER
RL	REFRIGERANT LIQUID
RLA	RUNNING LOAD AMPS
RPM	REVOLUTIONS PER MINUTE
RS	REFRIGERANT SUCTION
RTN	LOW PRESSURE CONDENSATE RETURN
RTU	ROOF TOP UNIT
SA	SUPPLY AIR
SAN	SANITARY

SD	SUPPLY DIFFUSER, SMOKE DAMPER
SDCW	SOFT DOMESTIC COLD WATER
SDHW	SOFT DOMESTIC HOT WATER
SDRHW	SOFT DOMESTIC RECIRCULATION HOT WATER
SF	SQUARE FEET
SP	STATIC PRESSURE
SR	SUPPLY REGISTER
ST	STORM
ST/O	STORM OVERFLOW
STM	LOW PRESSURE STEAM
SWBD	SWITCHBOARD
TSTAT	THERMOSTAT
TU	TERMINAL UNIT
TW	TEMPERED WATER
UH	UNIT HEATER
UL	UNDERWRITERS LABORATORIES INC.
UNO	UNLESS NOTED OTHERWISE
UPS	UNINTERRUPTIBLE POWER SUPPLY
V	VENT PIPE
VAC	MEDICAL VACUUM
VAV	VARIABLE AIR VOLUME
VD	VOLUME DAMPER
VTR	VENT THROUGH ROOF
W	WIRE, WATT(S)
W/	WITH
W/O	WITHOUT
WB	WET BULB
WCO	WALL CLEANOUT
WH	WALL HYDRANT
WP	WEATHERPROOF
XFMR	TRANSFORMER
XP	EXPLOSION PROOF

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STATE OF MISSOURI
RYAN JEROD DIEDIKER
NUMBER PE-2015006511
REGISTERED PROFESSIONAL ENGINEER
7/12/23

JOB NO: 23023
DRAWN BY: SBI
CHECKED BY: RJD
DATE: 07.12.2023

ME101

SYMBOLS & ABBREVIATION - ELEC.

ELECTRICAL - SITE PLAN

SCALE:1"=40'-0"

GENERAL NOTES:

1. ALL BRANCH CIRCUITS TO BE PROVIDED WITH #10 AWG UNLESS NOTED OTHERWISE.
2. PRIOR TO CONSTRUCTION CONTRACTOR SHALL LOCATE ALL UTILITIES. (PRIVATE AND PUBLIC) IF "HIT" CONTRACTOR IS RESPONSIBLE FOR REBUILD TO WORKING CONDITION. ALL REPAIRS SHALL BE APPROVED BY OWNER.
3. RESTORATION/REPAIR OF SITE:
   a. BACKFILL AND COMPACT EACH REMOVED LOCATION USING CS-1 MATERIALS (PEA GRAVEL IS ACCEPTABLE, BUT NOT SAND). COMPACT VIA POWER TAMPERS IN 6-INCH (MAXIMUM) LAYERS.
   b. ALL TRENCHING SHALL BE BACKFILLED/COMPACTED LOCATION USING CS-1 MATERIALS (PEA GRAVEL IS ACCEPTABLE, BUT NOT SAND). COMPACT VIA POWER TAMPERS IN 6-INCH (MAXIMUM) LAYERS. REFER TO TRENCH DETAIL FOR ADDITIONAL INFORMATION.
   c. REPAIR ALL ASPHALT/CONCRETE TO MATCH EXISTING. PROVIDE 6" ASPHALT (4" BASE & 2" BM2 TOP COURSE). OVERCUT ASPHALT BY 12" ON EACH SIDE OF TRENCH. REMOVE 6" P.C. CONCRETE. FIELD VERIFY PRIOR TO BID ALL WORK REQUIRED.
   d. REPAIR/RESTORE ALL DIRT WORK BACK TO ORIGINAL GRADE. PROVIDE GRASS SEED/SOD AS REQUIRED.
   e. ALL REPAIRS/PATCHING SHALL BE DONE BY A LICENSED
4. CONTRACTOR FROM THAT FIELD OF WORK. COORDINATE ALL LOCATIONS OF REQUIRED JUNCTION BOXES WITH OWNER PRIOR TO CONSTRUCTION. REFER TO IN-GRADE ELECTRICAL JUNCTION/PULL BOX DETAIL FOR ADDITIONAL INFORMATION.
5. PRIOR TO CONSTRUCTION VERIFY ACTUAL LOCATIONS OF NEW POLES WITH SPORTS LIGHTING MANUFACTURER. IF THERE IS EXISTING CIRCUMSTANCES THAT DO NOT ALLOW POLE TO BE INSTALLED AT THAT LOCATION REVISE POLE LOCATIONS AND COORDINATE WITH SPORTS LIGHTING MANUFACTURER.
6. ALL ELECTRICAL SPLICES/CONNECTIONS OUTSIDE SHALL USE ILSCO NIMBUS PRE-INSULATED CONNECTORS OR APPROVED EQUAL. IDENTIFICATION SHALL BE PROVIDED ON THE ENDS OF ALL CONDUCTORS INDICATING THE PANEL AND CIRCUIT NUMBER IN WHICH IT IS FED FROM.
7. ALL UNATTENDED HOLES/TRENCHES MUST BE FENCED OFF.
8. COORDINATE STAGING AREAS WITH OWNER IF REQUIRED.
9. ALL WORK SHOWN THIN LINE (HALF TONE) IS EXISTING, ALL WORK SHOWN THICK LINE (BOLD) IS NEW.

ELECTRICAL PLAN NOTES:

1. PROVIDE DIVIDED ASSEMBLY QUAZITE BOX SERIES PG17302611 OR EQUAL. MOUNT FLUSH AT GRADE AT LOCATION SHOWN FOR FUTURE POWER AND DATA CONNECTIONS. COORDINATE EXACT LOCATION OF QUAZITE BOX WITH LHS FACILITIES PRIOR TO INSTALLATION. STUB UP (2) 2" CONDUITS, ONE FROM LOW VOLTAGE SIDE AND ONE FROM THE LINE VOLTAGE SIDE OF THE QUAZITE BOX, INTO AN ABOVE GROUND CABLING PEDESTAL.
2. STUB UP CONDUIT IN EXISTING CHASE TO EXISTING IT RACK.
3. EXISTING POLE MOUNTED MUSCO CABINET TO BE REINSTALLED AT NEW POLE LOCATION. EXISTING WIRE AND CONDUIT TO BE REROUTED TO NEW LOCATION. EXTEND/MODIFY CONDUIT AND WIRE AS NECESSARY FOR COMPLETE INSTALLATION.
4. EXISTING FOOTBALL FIELD LIGHTING RETAINED DURING DEMOLITION TO BE PLACED ON NEW POLE. EXISTING CONDUIT AND WIRE TO BE INTERCEPTED AND SPLICED AT LOCATION OUTSIDE OF NEW MULTIPURPOSE FIELD FENCE LINE AND EXTENDED/MODIFIED AS NECESSARY TO NEW LOCATION. RE-AIM FIXTURES AS NECESSARY.
5. NEW LOCATION OF EXISTING ELECTRICAL METER. PROVIDE CONDUIT FROM NEW METER LOCATION TO EXISTING SUBMETER IN SUBDIVISION. EXISTING CONDUCTORS TO BE REUSED. COORDINATE WITH EVERGY FOR RESETTING EXISTING METER.
6. EXISTING RECEPTACLE CIRCUIT AND SOUND ENCLOSURE RETAINED FROM FIELD DURING DEMOLITION TO BE REROUTED TO NEW SOUND BOX. SURFACE MOUNT RECEPTACLE AND SOUND ENCLOSURE UNDERCOUNTER. EXTEND MODIFY ALL WIRE, CABLING, AND CONDUIT AS NECESSARY FOR COMPLETE INSTALLATION.
7. SURFACE MOUNT RECEPTACLE ON INSIDE OF DUGOUT WALL.
8. PROVIDE ROUGH-IN FOR FUTURE LIGHT POLES AT LOCATION SHOWN. STUB UP (1) 2" CONDUIT AND CAP AT GRADE FOR FUTURE LIGHT POLE POWER.
9. EXISTING MUSCO LIGHT FIXTURE AND POLE RETAINED DURING DEMOLITION TO BE PLACED IN APPROXIMATE LOCATION SHOWN. PROVIDE NEW POLE BASE FOR EXISTING POLE. EXTEND/MODIFY EXISTING CONDUIT AND CONDUCTORS TO NEW POLE LOCATION AS NECESSARY.
10. EXISTING SPORTS LIGHTING CONDUIT TO BE CAPPED AT GRADE.
11. INTERCEPT EXISTING CONDUIT AND CONDUCTORS FOR FOOTBALL FIELD SPORTS LIGHTING AND EXTEND TO NEW POLE LOCATION.
12. EXISTING RECEPTACLE CIRCUIT AND SOUND ENCLOSURE RETAINED FROM FIELD DURING DEMOLITION TO BE REROUTED TO LOCATION SHOWN.
13. PROVIDE NEMA L6-50 RECEPTACLE IN WEATHERPROOF ENCLOSURE. SURFACE MOUNT RECEPTACLE ON UNISTRUCT OF LOCKABLE ENCLOSURE. CIRCUIT WITH 2#8,#10G, 3/4"C.
14. PROVIDE 24" X 24" X 8" LOCKABLE WALL MOUNT ENCLOSURE, HOFFMAN SERIES ECL606020 OR EQUAL. MOUNT ENCLOSURE TO UNISTRUT NEXT TO QUAZITE BOX. STUB UP (1) 2" CONDUIT FROM LOW VOLTAGE SIDE OF QUAZITE BOX INTO BOTTOM OF ENCLOSURE.
15. PROVIDE 12" X 12" X6" LOCKABLE WALL MOUNT ENCLOSURE, HOFFMAN SERIES ECL303015 OR EQUAL. STUB UP (1) 2" CONDUIT FROM LOW VOLTAGE SIDE OF QUAZITE BOX INTO BOTTOM OF ENCLOSURE. MOUNT TO SIDE OF BUILDING.
16. PROVIDE 12" X 12" X6" LOCKABLE WALL MOUNT ENCLOSURE, HOFFMAN SERIES ECL303015 OR EQUAL. PROVIDE UNISTRUT FOR MOUNTING. STUB UP (1) 2" CONDUIT FROM LOW VOLTAGE SIDE OF QUAZITE BOX INTO BOTTOM OF ENCLOSURE.
17. MOUNT RECEPTACLE ON UNISTRUT OF WALL MOUNT ENCLOSURE.
18. LOCATION OF EXISTING PANEL 'NLAB'.

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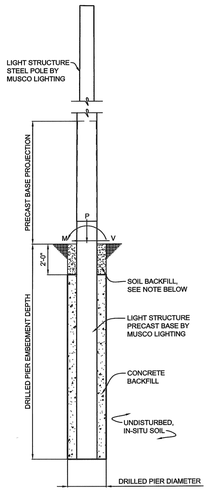
ME201

ELEC. - SITE PLAN

2314709 Liberty, SD 2023 - LHS Field Replacements
K:\KCP\2314\2314709\Drawings\2314709_ME201.dwg
Kevin Diedker Wednesday, July 12, 2023, 8:54:00 AM
Booty Centres Wednesday, July 12, 2023, 10:14:45 AM
PROJECT NAME: ◆ PATH: K:\...\ ◆ NAME:
LAST CORRECTION BY: ◆ DATE: ◆ TIME:
PLOTTED BY: ◆ DATE: ◆ TIME:



POLE FOUNDATION ELEV.

SCALE: NOT TO SCALE

SOIL BACKFILL NOTE:
THE TOP TWO FEET OF ANNULUS SHALL BE BACKFILLED WITH SOIL, WITH A CLASSIFICATION OF CLASS 5 (TABLE 1806.2) OR BETTER. COMPACTION, 95% FOR COHESIVE SOIL AND 98% FOR A COHESIONLESS SOIL BASED UPON STANDARD PROCTOR TESTING (ASTM D698).

DESIGN NOTES

DESIGN PARAMETERS:
WIND: V_{ult} = 110 MPH, V_{asd} = 85 MPH (EXPOSURE C, RISK CATEGORY II) PER INTERNATIONAL BUILDING CODE, 2018 EDITION (ASCE 7-16). DESIGN WIND PARAMETERS ARE AS NOTED. ACTUAL EXPOSURE MUST BE VERIFIED FOR THE SITE BY THE PROPER GOVERNING OFFICAL.

GEOTECHNICAL PARAMETERS:
ALLOWABLE END BEARING SOIL PRESSURE: 3,000 PSF
ALLOWABLE LATERAL SOIL BEARING PRESSURE:
F1: 0 PSF/FT (GRADE TO -2'-0"); 75 PSF/FT (-2'-0" TO -6'-0"); 150 PSF/FT (BELOW -6'-0")
F2 = F4: 0 PSF/FT (GRADE TO -2'-0"); 150 PSF/FT (BELOW -2'-0")
IN ACCORDANCE WITH THE 2018 EDITION OF THE INTERNATIONAL BUILDING CODE, CHAPTER 18.

DESIGN SOIL PARAMETERS ARE AS NOTED. ACTUAL ALLOWABLE SOIL PARAMETERS MUST BE VERIFIED ON SITE. REFERENCE SOILS AND FOUNDATION REPORT, NO. 81235, PREPARED BY KLEINFELDER; LENEXA, KS.

A GEOTECHNICAL ENGINEER OR REPRESENTATIVE OF IS RECOMMENDED (NOT REQUIRED) TO BE AVAILABLE AT THE TIME OF THE FOUNDATION INSTALLATION TO VERIFY THE SOIL DESIGN PARAMETERS AND TO PROVIDE ASSISTANCE IF ANY PROBLEMS ARISE IN FOUNDATION INSTALLATION.

ENCOUNTERING SOIL FORMATIONS THAT WILL REQUIRE SPECIAL DESIGN CONSIDERATIONS OR EXCAVATION PROCEDURES MAY OCCUR. POLE FOUNDATIONS WILL NEED TO BE ANALYZED ACCORDING TO THE SOIL CONDITIONS THAT EXIST. IF ANY DISCREPANCIES OR INCONSISTENCIES ARISE, NOTIFY THE ENGINEER OF SUCH DISCREPANCIES. FOUNDATIONS WILL THEN BE REVISED ACCORDINGLY. REVISIONS WILL BE ANALYZED PER RECOMMENDATIONS DIRECTED BY A REGISTERED ENGINEER.

ALL EXCAVATIONS MUST BE FREE OF LOOSE SOIL AND DEBRIS PRIOR TO FOUNDATION INSTALLATION AND CONCRETE BACKFILL PLACEMENT. TEMPORARY CASINGS OR DRILLERS SLURRY MAY BE USED TO STABILIZE THE EXCAVATION DURING INSTALLATION. CASINGS MUST BE REMOVED DURING CONCRETE BACKFILL PLACEMENT. CONCRETE BACKFILL MUST BE PLACED WITH A TREMIE WHEN SLURRY OR WATER IS PRESENT WITHIN THE EXCAVATION.

CONTRACTOR MUST BE FAMILIAR WITH THE COMPLETE SOIL INVESTIGATION REPORT AND BORINGS, AND CONTACT THE GEOTECHNICAL FIRM (IF NECESSARY) TO UNDERSTAND THE SOIL CONDITIONS AND THE POSSIBILITY OF GROUND WATER PUMPING AND EXCAVATION STABILIZATION OR BRACING DURING PRECAST BASE INSTALLATION AND PLACEMENT OF CONCRETE BACKFILL.

CONCRETE:
CONCRETE SHALL BE AIR-ENTRAINED AND HAVE A MINIMUM COMPRESSIVE DESIGN STRENGTH AT 28 DAYS OF 3,000 PSI. 3,000 PSI CONCRETE SPECIFIED FOR EARLY POLE ERECTION, ACTUAL REQUIRED MINIMUM ALLOWABLE CONCRETE STRENGTH IS 1,000 PSI. ALL PIERS AND CONCRETE BACKFILL MUST BEAR ON AND AGAINST FIRM UNDISTURBED SOIL.

GENERAL NOTES:
FIXTURES MUST BE LOCATED TO MAINTAIN 10'-0" MINIMUM HORIZONTAL CLEARANCE FROM ANY OBSTRUCTION. ENGINEER MUST BE NOTIFIED IF FOUNDATIONS ARE NEAR ANY RETAINING WALLS OR WITHIN / NEAR ANY SLOPES STEEPER THAN 3H : 1V. POLES, FIXTURES, PRECAST BASES, ELECTRICAL ITEMS AND INSTALLATION PER MUSCO LIGHTING.

PANEL CDP (ETR)

MAIN BUS AMPS:	60 A	AIC:	65,000 A		
MAIN BREAKER:	60 A	SECTIONS:	1-24 SPACE		EQUIPMENT GROUND BUS
VOLTAGE:	240/120 V	MOUNTING:	SURFACE		
PHASES/WIRES:	1 PH / 3 W	ENCLOSURE TYPE:	NEMA 1		SERVICE ENTRANCE

CIRCUIT DESCRIPTION	POLES	AMPS	CKT NO	CKT NO	AMPS	POLES	CIRCUIT DESCRIPTION
EXISTING LOAD	1	20	1	2	20	1	EXISTING LOAD
	2	20	3	4	20	1	EXISTING LOAD
			5	6	20	1	EXISTING LOAD
EXISTING LOAD	1	20	7	8	20 (NOTE 1)	1	**REC - SOFTBALL / DOCK POWER**
EXISTING LOAD	1	20	9	10	20 (NOTE 1)	1	**REC - MULTIPURPOSE / BASEBALL**
EXISTING LOAD	2	20	11	12	30	2	EXISTING LOAD
			13	14			
EXISTING LOAD	2	20	15	16	30	2	EXISTING LOAD
			17	18			
EXISTING LOAD	1	20	19	20			
EXISTING LOAD	2	30	21	22	40	2	EXISTING LOAD
			23	24			

NOTES:
1. IRRIGATION POWER TO BE REMOVED FROM PANEL PER SCOPE, RE:CIVIL. CONTRACTOR TO VERIFY LOAD ON CIRCUIT BREAKERS POST DEMOLITION PRIOR TO INSTALLATION OF NEW LOADS AS SHOWN.

PANEL NLAB (ETR)

MAIN BUS AMPS:	100 A	AIC:	65,000 A		
MAIN BREAKER:	100 A	SECTIONS:	1 - 42 SPACE		EQUIPMENT GROUND BUS
VOLTAGE:	208Y/120 V	MOUNTING:	SURFACE		
PHASES/WIRES:	3 PH / 4 W	ENCLOSURE TYPE:	NEMA 1		SERVICE ENTRANCE

CIRCUIT DESCRIPTION	POLES	AMPS	CKT NO	CKT NO	AMPS	POLES	CIRCUIT DESCRIPTION
EXISTING LOAD	1	20	1	2	20	1	EXISTING LOAD
EXISTING LOAD	1	20	3	4	20	1	EXISTING LOAD
EXISTING LOAD	1	20	5	6	20	1	EXISTING LOAD
EXISTING LOAD	1	20	7	8	20	1	EXISTING LOAD
EXISTING LOAD	1	20	9	10	20	1	EXISTING LOAD
EXISTING LOAD	1	20	11	12	20	1	EXISTING LOAD
EXISTING LOAD	1	20	13	14	20	1	EXISTING LOAD
EXISTING LOAD	1	20	15	16	20	1	EXISTING LOAD
EXISTING LOAD	1	20	17	18	40	2	EXISTING LOAD
EXISTING LOAD	1	20	19	20			
EXISTING LOAD	2	30	21	22	40	2	EXISTING LOAD
			23	24			
EXISTING LOAD	2	30	25	26	30	2	EXISTING LOAD
			27	28			
EXISTING LOAD	2	30	29	30	20	1	EXISTING LOAD
			31	32	20	1	EXISTING LOAD
DOCK SPECIAL RECEPT.	**2**	**50**	33	34	20	2	EXISTING LOAD
			35	36			
SPACE	1		37	38	100	3	MAIN BREAKER
SPACE	1		39	40			
SPACE	1		41	42			

PROPOSED SPORTS LIGHTING POLE SCHEDULE - TENNIS COURTS

POLE	*CIRCUIT NAME*	*# FIXTURES/POLE*	*LUMINAIRE TYPE*	*POLE TYPE*	*POLE HEIGHT*	*MOUNTING HEIGHT*
P1	FOOTBALL FIELD	3	EXISTING	ROUND STEEL TAPERED	60'-0" (NOTE 1)	60'-0" (NOTE 2)
P2	FOOTBALL FIELD	3	EXISTING	ROUND STEEL TAPERED	60'-0" (NOTE 1)	60'-0" (NOTE 2)

NOTES:
1. PROVIDE POLE AND POLE BASE PER MANUFACTUER'S RECOMMENDATIONS.
2. MOUNT EXISTING LIGHTS RETAINED DURING DEMOLITION ON NEW POLE AT EXISTING HEIGHT. RE-AIM FIXTURES AS NECESSARY.

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CONSTRUCTION DOCUMENTS

LHS Baseball & Softball Upgrades
Liberty Public Schools 53
200 Blue Jay Drive
Liberty, MO 64068

REVISIONS:

#	Description	Date

STATE OF MISSOURI
RYAN JEROD DIEDIKER
NUMBER PE-2010006511
REGISTERED PROFESSIONAL ENGINEER
7/12/23

JOB NO: 23023
DRAWN BY: SBI
CHECKED BY: RJD
DATE: 07.12.2023

ME301

smith & boucher engineers
25618 west 103rd St olathe, ks 66061
phone 913.345.2127 fax 913.345.0617
project number 2314709

SCHEDULES AND DETAILS - ELEC.