

Tailormade Landing

Final Development Plan Phase 2

SEC-17 TWP-47 RNG-31 SE 1/4 NE 1/4
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

GENERAL NOTES:

- 1 ~ ALL CONSTRUCTION SHALL CONFORM TO THE CITY OF LEE'S SUMMIT DESIGN AND CONSTRUCTION MANUAL AS ADOPTED BY ORDINANCE 5813.
- 2 ~ ALL REQUIRED EASEMENTS WITHIN THE BOUNDARY OF THIS PROJECT SHALL BE PROVIDED FOR ON THE FINAL PLAT.
- 3 ~ ANY REQUIRED EASEMENT LOCATED OUTSIDE OF THE BOUNDARY OF THIS PROJECT SHALL BE PROVIDED FOR BY SEPARATE INSTRUMENT PRIOR TO ISSUANCE OF CONSTRUCTION PERMITS.
- 4 ~ THE CONTRACTOR SHALL CONTACT THE CITY'S DEVELOPMENT SERVICES ENGINEERING INSPECTION TO SCHEDULE A PRE-CONSTRUCTION MEETING WITH A FIELD ENGINEERING INSPECTOR PRIOR TO ANY LAND DISTURBANCE WORK AT (816) 969-1200.
- 5 ~ THE CONTRACTOR SHALL NOTIFY ENGINEERING SOLUTIONS AT 816.623.9888 OF ANY CONFLICT WITH THE IMPROVEMENTS PROPOSED BY THESE PLANS AND SITE CONDITIONS.
- 6 ~ THE CONTRACTOR SHALL NOTIFY THE CITY ENGINEER AND OBTAIN THE APPROPRIATE BLASTING PERMITS FOR A REQUIRED BLASTING. IF BLASTING IS ALLOWED, ALL BLASTING SHALL CONFORM TO STATE REGULATIONS AND LOCAL ORDINANCES.

UTILITY COMPANIES:

THE FOLLOWING LIST OF UTILITY COMPANIES IS PROVIDED FOR INFORMATION ONLY. WE DO NOT OFFER ANY GUARANTEE OR WARRANTY THAT THIS LIST IS COMPLETE OR ACCURATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING ALL UTILITY COMPANIES THAT MAY BE AFFECTED BY THE PROPOSED CONSTRUCTION AND VERIFYING THE ACTUAL LOCATION OF EACH UTILITY LINE. THE CONTRACTOR SHALL NOTIFY ENGINEERING SOLUTIONS AT 816.623.9888 OF ANY CONFLICT WITH PROPOSED IMPROVEMENTS.

EVERGY ~ 298-1196
MISSOURI GAS ENERGY ~ 756-5261
SOUTHWESTERN BELL TELEPHONE ~ 761-5011
COMCAST CABLE ~ 795-1100
WILLIAMS PIPELINE ~ 422-6300
CITY OF LEE'S SUMMIT PUBLIC WORKS ~ 969-1800
CITY OF LEE'S SUMMIT DEVELOPMENT ENGINEERING INSPECTION AT 816.969.1200
CITY OF LEE'S SUMMIT WATER UTILITIES ~ 969-1900
MISSOURI ONE CALL (DIG RITE) ~ 1-800-344-7483

NOTE :

ALL CONSTRUCTION SHALL FOLLOW THE CITY OF LEE'S SUMMIT DESIGN AND CONSTRUCTION MANUAL AS ADOPTED BY ORDINANCE 5813. WHERE DISCREPANCIES EXIST BETWEEN THESE PLANS AND THE DESIGN AND CONSTRUCTION MANUAL, THE DESIGN AND CONSTRUCTION MANUAL SHALL PREVAIL.

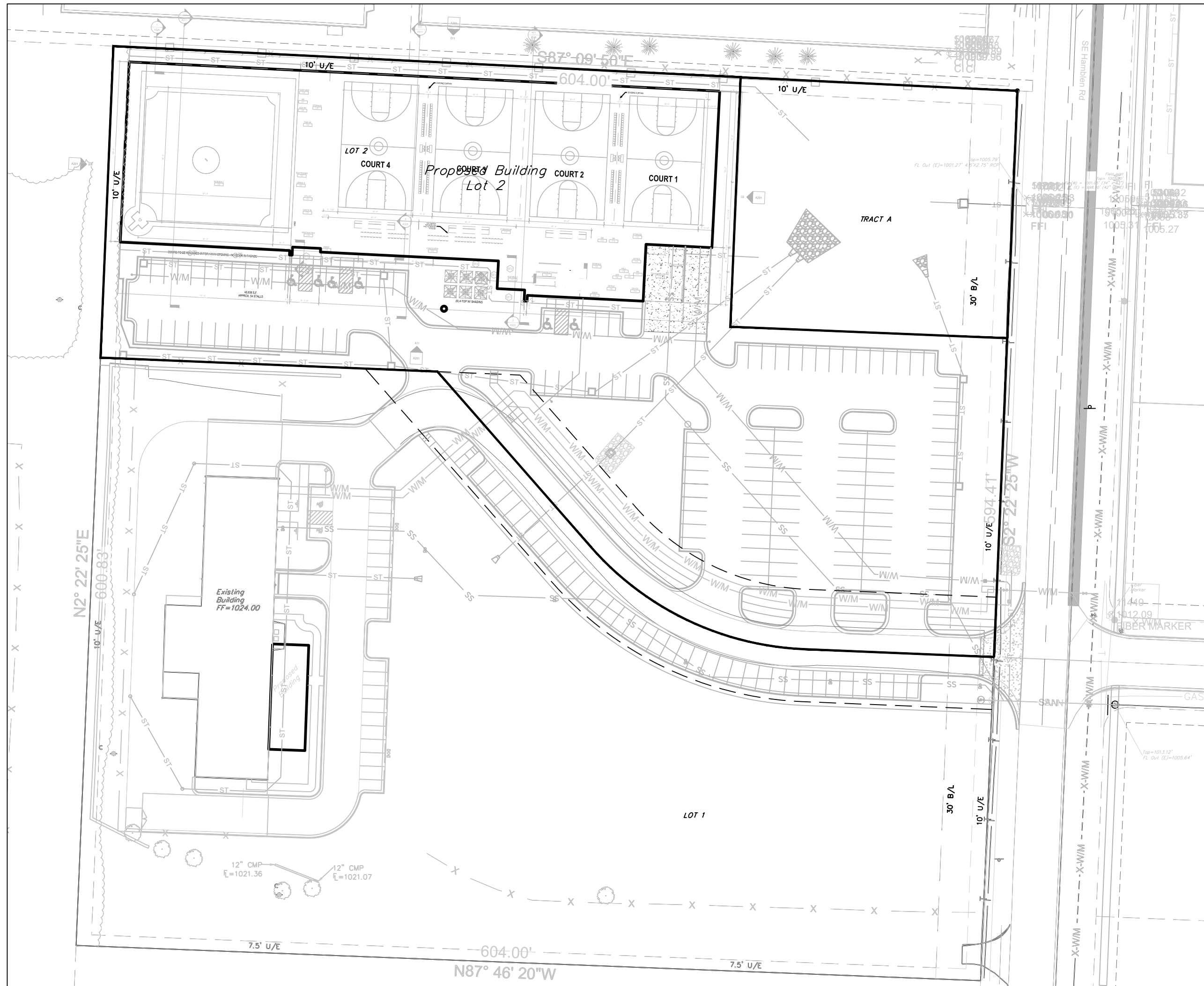
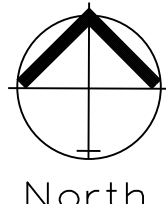
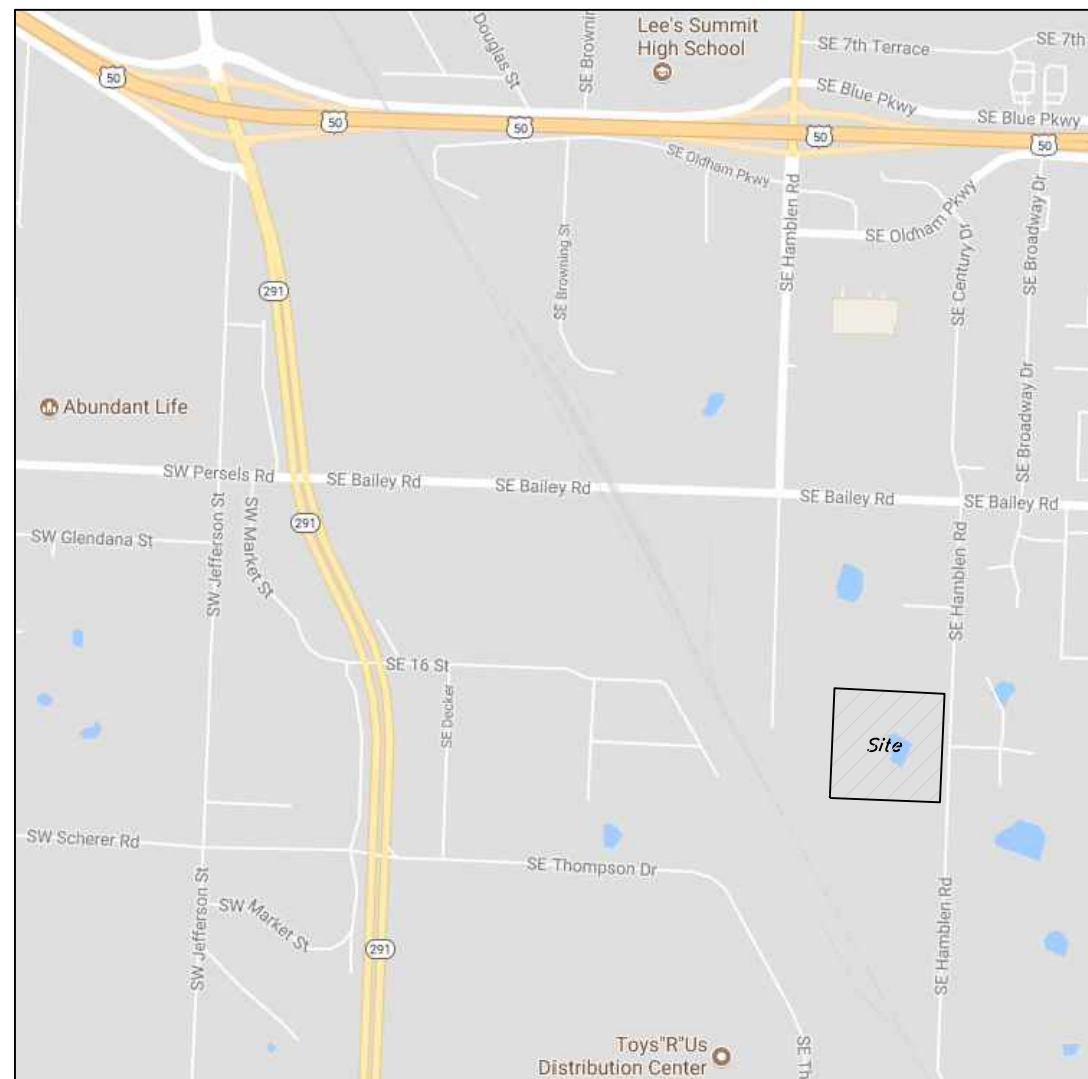
ALL PAVING ON THE PARKING LOT WILL COMPLY WITH THE UNIFIED DEVELOPMENT ORDINANCE ARTICLE 8 IN TERMS OF PAVING THICKNESS AND BASE.

OIL - GAS WELLS

ACCORDING TO EDWARD ALTON MAY JR'S ENVIRONMENTAL IMPACT STUDY OF ABANDONED OIL AND GAS WELLS IN LEE'S SUMMIT, MISSOURI IN 1995, THERE ARE NOT OIL AND GAS WELLS WITHIN 185 FEET OF THE PROPERTY AS SURVEYED HEREON.

FLOOD INFORMATION:

SITE IS LOCATED ON MAP NUMBER 29095C0438G, PANEL 438G, DATED JANUARY 20, 2017 AS INDICATED WITH THE THIS MAP NO PORTION OF THE SITE IS LOCATED WITHIN THE FLOOD ZONE.



SITE LOCATION MAP

SCALE" 1"=60'

Site Impervious Area

Total Area Lot 2 3.31 acres (144,332.01 sq. ft.)

Floor/Area Ratio 33.87%
Building 48,885 sq. ft.
Parking/Sidewalk 51,977 sq. ft.
Impervious Area 100,862 sq. ft (70% of Site)
Parking Spaces 174 Standard / 2 Handicap

Parking Required Calculations

The Facility has four (5) training areas (4 Basketball / Volleyball Courts & 1 Baseball Infield) and 2,000 sf of Office
-Assumption that 12 Coaches and Players will use each field per hour which generates 60 cars
-Peak time will be at the transition of the teams so double the cars to 120 cars
-Office will require 8 parking spaces

Total Required 128 Parking Spaces

Site Improvement Notes

Sanitary Sewer Improvements

-The site will require a sanitary service from the existing sanitary to the east.

Water Main Improvements

-The existing 8" water main locate to the east of Hamblen Road.

Storm Sewer

-Enclosed pipe systems and inlets will collected and convey the onsite storm water runoff and direct it toward the new detention facility located at the northeast corner of the site. The storm sewer shall be designed to convey the 10 year storm event and the building runoff will be collected and directed into the enclosed pipe system.

Storm Water Detention

-The site will be designed to control the storm water runoff per the current standards as set forth in APWA Section 5600. The system will be an open aired basin and release into the existing storm of Hamblen Road.

Storm Water Quality Elements

-The detention system will incorporate an infiltration system into the bottom of the basin to provide the opportunity for infiltration back into the existing ground. The system will be designed to handle and control the 2 year storm flows and will consist of a gravel base and filter fabric located on the eastern side of the site will be converted into a infiltration system to control the storm.

Hamblen Road

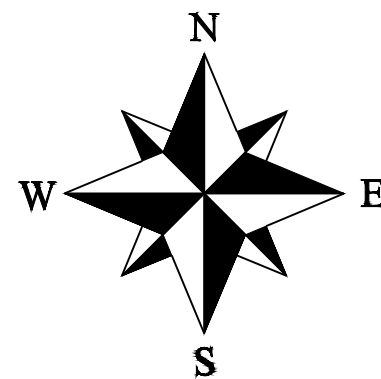
-No improvements are anticipated for Hamblen Road

Detention Basin design is for entire site full build out.

All future lots and tracts to be completed with another application. Shown for reference only.

LEGEND:

- B/L - BUILDING SET-BACK
- C/A - COMMON AREA
- D/E - DRAINAGE EASEMENT
- FND. - FOUND
- L/E - LANDSCAPE EASEMENT
- L.N.A. - LIMITS OF NO ACCESS
- R/W - RIGHT OF WAY
- SAN - SANITARY SEWER LINE
- S/W - SIDEWALK
- U/E - UTILITY EASEMENT
- W - WATER LINE
- ST - STORM SEWER LINE



INDEX OF SHEETS:

- C.001 ~ COVER SHEET
- C.050 ~ ESC PHASE 1 - PRE CLEARING PLAN
- C.051 ~ ESC PHASE 2 - INACTIVE AREA STABILIZATION PLAN
- C.052 ~ ESC PHASE 3 - FINAL RESTORATION PLAN
- C.053 ~ ESC - STANDARD DETAILS
- C.100 ~ SITE PLAN
- C.102 ~ DIMENSION PLAN
- C.200 ~ GRADING PLAN
- C.201 ~ OFFSITE DRAINAGE MAP
- C.202 ~ DRAINAGE AREA MAP
- C.203 ~ ADA RAMP DETAILS
- C.300 ~ STORM SEWER GENERAL PLAN
- C.301 ~ STORM SEWER PLAN AND PROFILE
- C.302 ~ STORM SEWER PLAN AND PROFILE
- C.303 ~ ROOF DRAIN PLAN
- C.304 ~ STORM SEWER DETAILS
- C.400 ~ SANITARY SERVICE PLAN
- C.500 ~ WATER LINE PLAN
- C.600 ~ STANDARD DETAILS
- C.601 ~ STANDARD DETAILS
- C.602 ~ STANDARD DETAILS
- L.100 ~ LANDSCAPE PLAN
- L.101 ~ LANDSCAPE PLAN DETAILS

PROPERTY DESCRIPTION

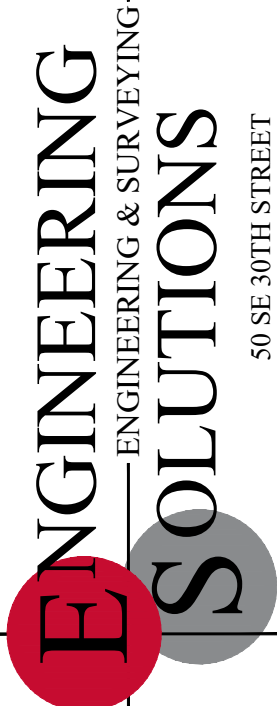
Williams Crossing Lot 2

ENGINEER'S CERTIFICATION:

I HEREBY CERTIFY THAT THIS PROJECT HAS BEEN DESIGNED AND THESE PLANS PREPARED IN ACCORDANCE WITH THE CURRENT DESIGN CRITERIA OF THE CITY OF LEE'S SUMMIT, MISSOURI AND THE STATE OF MISSOURI. I FURTHER CERTIFY THAT THESE PLANS WERE DESIGNED IN ACCORDANCE TO AASHTO STANDARDS.

Current Zoning: PI
Proposed Zoning:

ITEM AND DESCRIPTION	UNIT	ESTIMATED QUANTITY
ASPHALT PAVING	S.Y.	5,207.00
CONCRETE PAVING	S.Y.	275.00
PRIVATE SIDEWALK	S.F.	4,380.00
GEOGRID	S.Y.	6,710.00
MoDOT Type 5 Base	S.Y.	6,710.00
CURBING	FT	2,680.00
ADA SIDEWALK RAMP	UNIT	9
SANITARY 8" PVC SDR 26 Service Line	FT	427.23
TRACER WIRE AND EQUIPMENT	FT	427.23
4" DIA Manhole	EA	1.00
STORM		
48" HDPE	FT	430.16
36" HDPE	FT	178.82
15" HDPE	FT	365.08
36" HDPE END SECTION / TOE WALL	LS	1
5' x 5' STORM GRATE INLET	EA	2
5' x 4' STORM CURB INLET	EA	3
CONNECTION TO EXISTING STORM SEWER	LS	1
5' x 5' STORM FIELD INLET	EA	3
2" Type K Soft Copper Water Service Line	FT	368.00
WATER METER	UNIT	1
6" C900 PVC CLASS 200	FT	480.00
THRUST BLOCKS	UNIT	4
FIRE HYDRANT ASSEMBLY	UNIT	2
6" GATE VALVE/ VALVE BOX & COVER	UNIT	4
TEES, BENDS, CROSSES	LS	5



Professional Registration
Missouri
Engineering 2005002186-D
Surveying 2005008319-D
Kansas
Engineering E-1695
Surveying LS-218
Oklahoma
Engineering 6254
Nebraska
Engineering CA2821

1600 Hamblen Road
Lee's Summit, Jackson County, Missouri

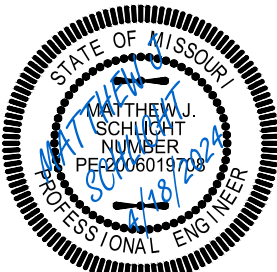
Project:
1600 SE HAMBLEN
RD LEE'S
SUMMIT, MO
December 11, 2023

COVER SHEET

Construction Plans for:
Tailormade Landing Phase 2

1600 Hamblen Road

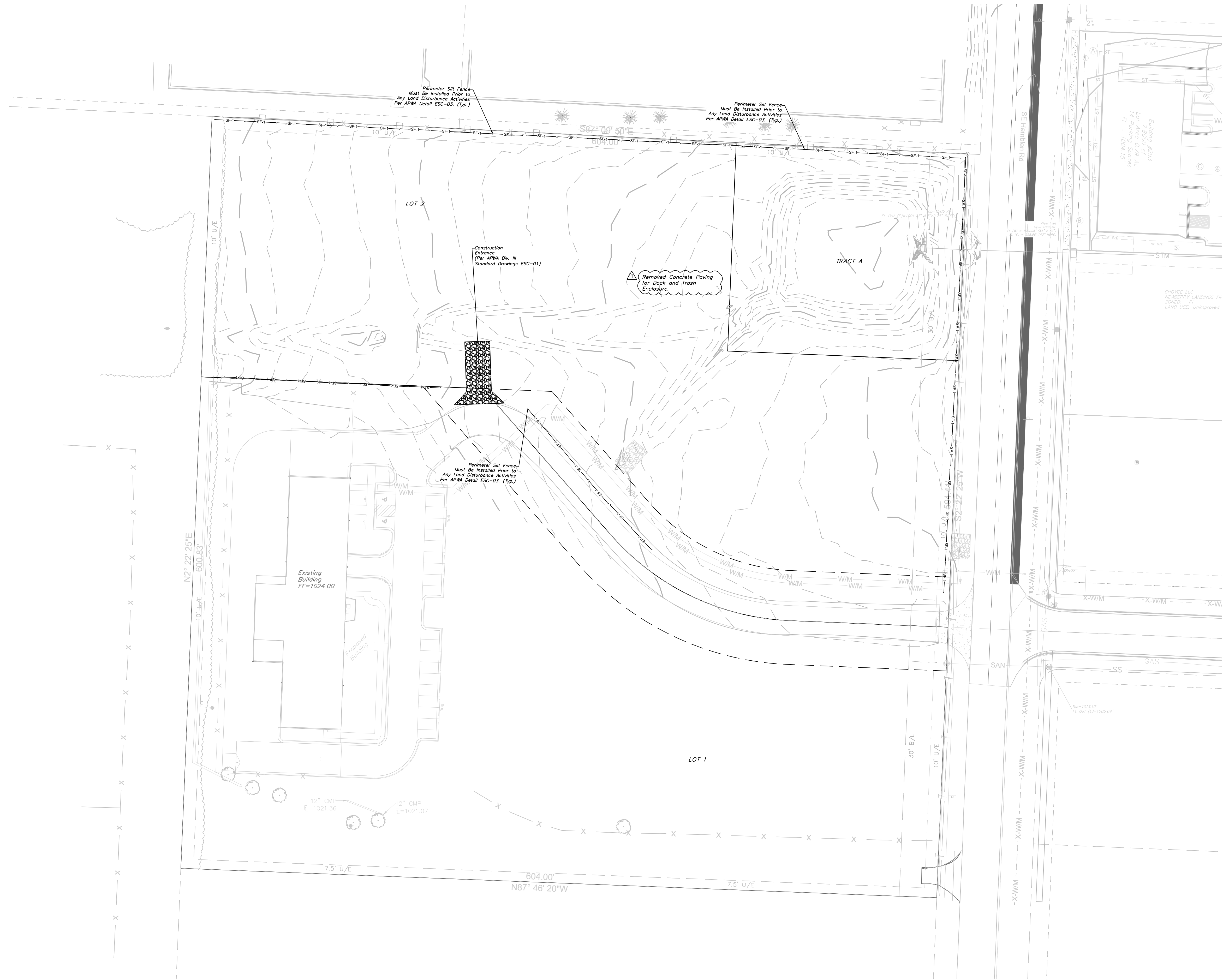
Lee's Summit, Jackson County, Missouri

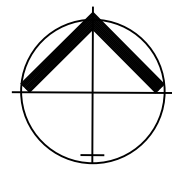


Matthew J. Schlicht
MO PE 2006019708
KS PE 19071
OK PE 25226
NE PE E-14335

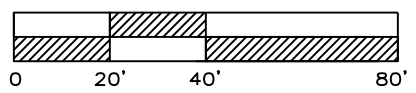
REVISIONS

- REV. 3/1/2024
- REV. 4/10/2024
- REV. 4/18/2024





North

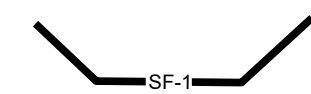


0 20' 40' 80'

PRE-CLEARING PLAN

SCALE: 1" = 40'

NOTES: The Land Disturbance Plans indicates the Final placement of erosion control devices. The contractor(s) may proceed with construction prior to the final placement of these devices by providing additional devices to control erosion on their items of work. These devices shall be maintained until the final devices are in place.



SILT FENCE PROTECTION
TO BE MAINTAINED BY CONTRACTOR

LEGEND

PHASE 1 SILT FENCE — SF-1 — SF-1 —

PHASE 2 SILT FENCE — SF-2 — SF-2 —

DURING ALL PHASES OF CONSTRUCTION, INACTIVE AREA STABILIZATION METHODS AS DESCRIBED IN APWA SECTION 5111.3 SHALL BE USED TO CONTROL EROSION AND SILTATION.

ENGINEERING SOLUTIONS

ENGINEERING & SURVEYING

50 SE 30TH STREET
LEE'S SUMMIT, MO 64082
P: (816) 623-9888 F: (816) 623-9849

Professional Registration

Missouri
Engineering 2005002186-D
Surveying 2005008319-D

Kansas
Engineering E-1695
Surveying LS-218

Oklahoma
Engineering 6254

Nebraska
Engineering CA2821

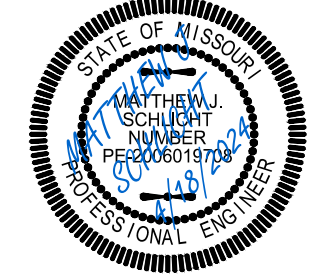
Project:

1600 SE HAMBLEN RD, LEE'S SUMMIT, MO 64082

December 11, 2023

Pre-Clearing Plan
Construction Plans for:
Tailormade Landing Phase 2
1600 Hambleen Road
Lee's Summit, Jackson County, Missouri

1600 Hambleen Road
Lee's Summit, Jackson County, Missouri



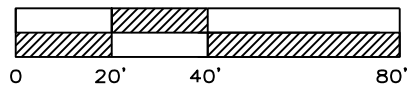
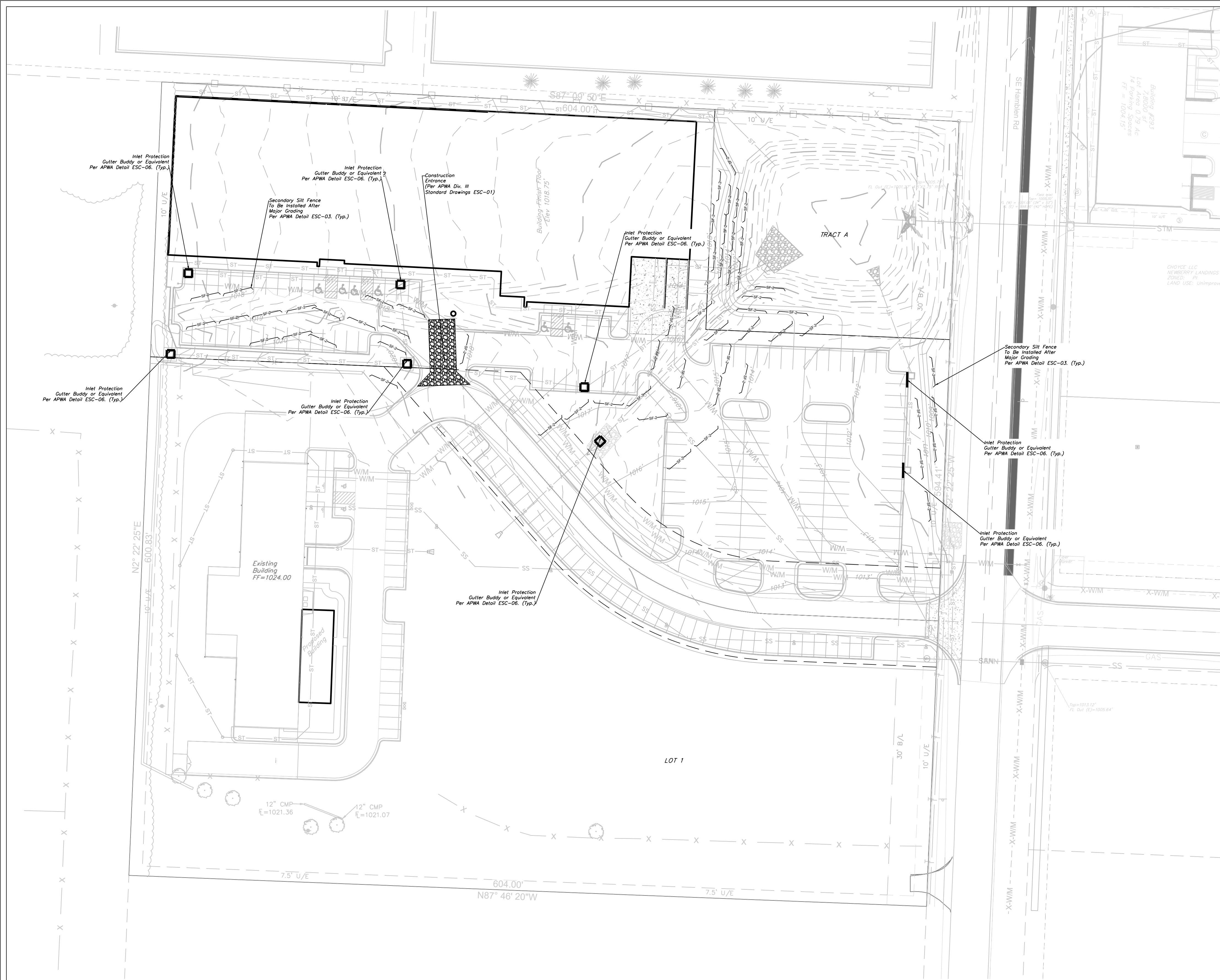
Matthew J. Schlicht
MO PE 2006019708
KS PE 19071
OK PE 25226
NE PE E-14335

REVISIONS

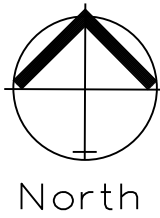
REV. 3/1/2024

REV. 4/10/2024

REV. 4/18/2024



SCALE: 1" = 40'



NOTES: The Land Disturbance Plans indicates the Final placement of erosion control devices. The contractor(s) may proceed with construction prior to the final placement of these devices by providing additional devices to control erosion on their items of work. These devices shall be maintained until the final devices are in place.

EROSION CONTROL DESCRIPTION:

- 1.) SILT FENCE SHALL BE PLACED AT THE PERIMETER OF THE GRADING AND AT INTERMEDIATE AREAS THROUGHOUT THE SITE AS SHOWN ON THE PLAN. INLET SEDIMENT TRAPS SHALL BE PLACED SURROUNDING ALL STORM INLETS
- 2.) INSTALL TEMPORARY CONSTRUCTION ENTRANCE AS SHOWN ON PLAN

EROSION CONTROL PROCEDURE:

- 1.) SILT FENCE AND TEMPORARY CONSTRUCTION ENTRANCE SHALL BE INSTALLED AT THE PERIMETER OF THE GRADED AREAS PRIOR TO BEGINNING OF CLEARING OR DEMOLITION OPERATIONS. THE CONTRACTOR SHALL INSTALL SILT FENCE AS SHOWN ON PLANS AS GRADING PROGRESSES.

TEMPORARY CONSTRUCTION ENTRANCE NOTES:

- A.) INSTALLATION
- 1.) AVOID LOCATING ON STEEP SLOPES OR AT CURVES ON PUBLIC STREETS. IF POSSIBLE, LOCATE WHERE PERMANENT ROADS WILL EVENTUALLY BE CONSTRUCTED
 - 2.) REMOVE ALL VEGETATION AND OTHER UNSUITABLE MATERIAL FROM THE FOUNDATION AREA, GRADE AND CROWN FOR POSITIVE DRAINAGE.
 - 3.) IF SLOPE TOWARDS THE PUBLIC ROAD EXCEED 2% CONSTRUCT A 6 TO 8 INCH HIGH RIDGE WITH 3H : 1V SIDE SLOPES ACROSS THE FOUNDATION APPROXIMATELY 15 FEET FROM THE EDGE OF THE PUBLIC ROAD TO DIVERT RUNOFF AWAY FROM IT.
 - 4.) INSTALL PIPE UNDER THE ENTRANCE IF NEEDED TO MAINTAIN DRAINAGE DITCHES ALONG PUBLIC ROADS
 - 5.) PLACE STONE TO DIMENSIONS AND GRADES AS SHOWN ON PLANS. LEAVE SURFACE SMOOTH AND SLOPED FOR DRAINAGE
 - 6.) DIVERT ALL SURFACE RUNOFF AND DRAINAGE FROM THE ENTRANCE TO A SEDIMENT CONTROL DEVICE
 - 7.) IF WET CONDITIONS ARE ANTICIPATED PLACE GEOTEXTILE FABRIC ON THE GRADED FOUNDATION TO IMPROVE STABILITY
- B.) TROUBLESHOOTING
- 1.) CONSULT WITH A QUALIFIED DESIGN PROFESSIONAL IF ANY OF THE FOLLOWING OCCUR:
 - INADEQUATE RUNOFF CONTROLS TO THE EXTENT THAT SEDIMENT WASHES ONTO PUBLIC ROADS
 - INSTALL DIVERSIONS OR OTHER RUNOFF CONTROL MEASURES
 - SMALL STONE, THIN PAD, OR ABSENCE OF GEOTEXTILE FABRIC RESULTS IN RUTS AND MUDDY CONDITIONS AS STONE IS PRESSED INTO SOIL - INCREASE STONE SIZE OR PAD
 - PAD TOO SHORT FOR HEAVY CONSTRUCTION TRAFFIC - EXTEND PAD BEYOND THE MINIMUM 50 FOOT LENGTH AS NECESSARY

C.) INSPECTION AND MAINTENANCE

- 1.) INSPECT STONE PAD AND SEDIMENT DISPOSAL AREA WEEKLY AND AFTER ANY RAIN EVENT
- 2.) RESHAPE PAD AS NEEDED FOR PROPER DRAINAGE AND RUNOFF CONTROL
- 3.) TOP DRESS WITH CLEAN 2 AND 3 INCH STONE AS NEEDED
- 4.) IMMEDIATELY REMOVE MUD OR SEDIMENT TRACKED OR WASHED ONTO PUBLIC ROADWAY. REPAIR ANY BROKEN ROAD PAVEMENT IMMEDIATELY
- 5.) REMOVE ALL TEMPORARY ROAD MATERIALS FROM AREAS WHERE PERMANENT VEGETATION WILL BE ESTABLISHED

MAINTENANCE:

TO MAINTAIN THE EROSION AND SEDIMENT CONTROLS, THE FOLLOWING PROCEDURES WILL BE PERFORMED:
SEDIMENT CAPTURE DEVICES: SEDIMENT WILL BE REMOVED FROM THE UPSTREAM OR UPSLOPE SIDE OF THE FILTER FABRIC FENCES. WHEN THE DEPTH OF ACCUMULATED SEDIMENT REACHES ABOUT ONE-THIRD THE HEIGHT OF THE STRUCTURE
STORM SEWER INLETS: ANY SEDIMENT IN THE STORM SEWER INLETS WILL BE REMOVED AND DISPOSED OF PROPERLY.
TEMPORARY CONTROLS: ALL TEMPORARY CONTROLS WILL BE REMOVED AFTER THE DISTURBED AREAS HAVE BEEN STABILIZED.

INSPECTION PROCEDURES:

INSPECTIONS WILL BE DONE BY THE RESPONSIBLE PERSON(S) AT LEAST ONCE EVERY WEEK AND WITHIN 24 HOURS EACH STORM EVENT PRODUCING ANY AMOUNT OF RAINFALL. AREAS THAT HAVE BEEN RESEEDED WILL BE INSPECTED REGULARLY AFTER SEED GERMINATION TO ENSURE COMPLETE COVERAGE OF EXPOSED AREAS. DISTURBED AREAS THAT HAVE NOT BEEN FINALLY STABILIZED SHALL HAVE ALL POLLUTION CONTROL MEASURES INSPECTED FOR PROPER INSTALLATION, OPERATION AND MAINTENANCE. LOCATIONS WHERE STORM WATER LEAVES THE SITE SHALL BE INSPECTED FOR EVIDENCE OF EROSION OR SEDIMENT DEPOSITION. ANY DEFICIENCIES SHALL BE NOTED IN A REPORT OF THE INSPECTION AND CORRECTED WITHIN SEVEN CALENDAR DAYS OF THE INSPECTION. THE PERMITTEE SHALL PROMPTLY NOTIFY THE SITE CONTRACTORS RESPONSIBLE FOR OPERATION AND MAINTENANCE OF POLLUTION CONTROL DEVICES OF DEFICIENCIES.

IF THE EXISTING GROUND COVER IS NATURAL GRASS, DISTURBED AREAS SHALL BE TEMPORARILY SEEDED WITH WHEAT/TRYE AT A RATE OF 1.5 POUNDS PER 1000 SQUARE FEET. PERMANENT SEEING SHALL CONSIST OF 90% IN THREE EQUAL PARTS OF THIN BLADE, TURF-TYPE, TALL FESCUE AND 10% BLUEGRASS SEED AT A RATE OF 10 POUNDS PER 1000 SQUARE FEET. BOTH TEMPORARY AND PERMANENT SEEDED AREAS SHALL BE MULCHED AND WATERED TO MAINTAIN THE PROPER MOISTURE LEVEL OF THE SOIL TO ESTABLISH GRASS. NEW GRASS SHALL BE WATERED AND MAINTAINED UNTIL IT REACHES A HEIGHT OF 3 INCHES. ANY BARE AREAS SHALL BE RESEEDDED.

ALL EROSION CONTROL DEVICES SHALL BE REMOVED BY GENERAL CONTRACTOR AFTER SITE STABILIZATION IS COMPLETE AND APPROVED BY ENGINEER.

THE DEVELOPER WILL DESIGNATE A QUALIFIED PERSON OR PERSONS TO PERFORM THE FOLLOWING INSPECTIONS:

STABILIZATION MEASURES: DISTURBED AREAS AND AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION WILL BE INSPECTED FOR EVIDENCE OF, OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE DRAINAGE SYSTEM. AFTER A PORTION OF THE SITE IS FINALLY STABILIZED, INSPECTIONS WILL BE CONDUCTED AT LEAST ONCE EVERY MONTH THROUGHOUT THE LIFE OF THE PROJECT. CONTRACTOR CAN CONTACT ENGINEERING SOLUTIONS FOR COPIES OF THE INSPECTION FORM TO BE USED FOR STABILIZATION MEASURES.

STRUCTURAL CONTROLS: FILTER FABRIC FENCES AND ALL OTHER EROSION AND SEDIMENT CONTROL MEASURES IDENTIFIED IN THE PLAN WILL BE INSPECTED REGULARLY FOR PROPER POSITIONING, ANCHORING, AND EFFECTIVENESS IN TRAPPING SEDIMENTS. SEDIMENT WILL BE REMOVED FROM THE UPSTREAM OR UPSLOPE SIDE OF THE FILTER FABRIC. CONTRACTOR CAN CONTACT ENGINEERING SOLUTIONS FOR COPIES OF THE INSPECTION FORM TO BE USED FOR STABILIZATION MEASURES.

DISCHARGE POINTS: DISCHARGE POINTS OR LOCATIONS WILL BE INSPECTED TO DETERMINE WHETHER EROSION CONTROL MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT AMOUNTS OF POLLUTANTS FROM ENTERING RECEIVING WATERS.

CONSTRUCTION ENTRANCE: LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE WILL BE INSPECTED FOR EVIDENCE OF OFF-SITE SEDIMENT TRACKING.

A LOG OF EACH INSPECTION SHALL BE KEPT. THE INSPECTION REPORT IS TO INCLUDE THE FOLLOWING MINIMUM INFORMATION: INSPECTOR'S NAME, DATE OF INSPECTION, OBSERVATIONS RELATIVE TO THE EFFECTIVENESS OF THE POLLUTION CONTROL DEVICES, ACTIONS TAKEN OR NECESSARY TO CORRECT DEFICIENCIES, AND LISTING OF AREAS WHERE LAND DISTURBANCE OPERATIONS HAVE PERMANENTLY OR TEMPORARILY STOPPED. THE INSPECTION REPORT SHALL BE SIGNED BY THE PERMITTEE OR BY THE PERSON PERFORMING THE INSPECTION IF DULY AUTHORIZED TO DO SO.

SILT FENCE PROTECTION
TO BE MAINTAINED BY CONTRACTOR

LEGEND

PHASE 1 SILT FENCE

— SF-1 — SF-1 —

PHASE 2 SILT FENCE

— SF-2 — SF-2 —

DURING ALL PHASES OF CONSTRUCTION, INACTIVE AREA STABILIZATION METHODS AS DESCRIBED IN APWA SECTION 5111.3 SHALL BE USED TO CONTROL EROSION AND SILTATION.

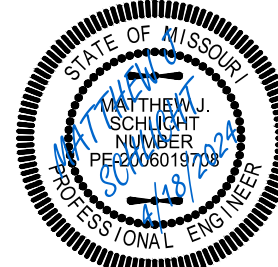


Professional Registration
Missouri
Engineering 2005002186-D
Surveying 2005008319-D
Kansas
Engineering E-1695
Surveying LS-218
Oklahoma
Engineering 6254
Nebraska
Engineering CA2821

1600 Hamblen Road
Lee's Summit, Jackson County, Missouri

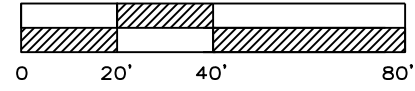
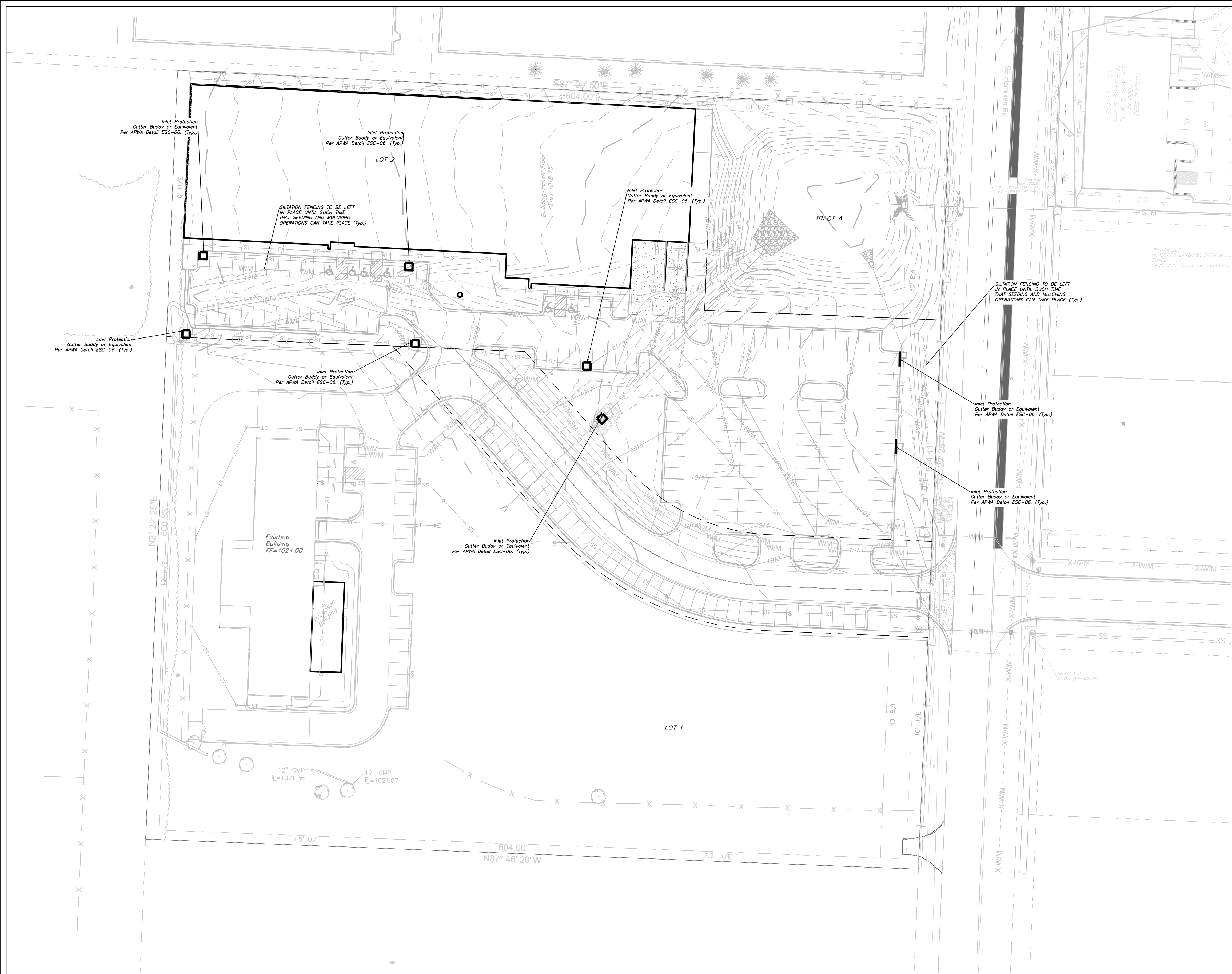
Project:
1600 SE HAMBLEN
RD, LEE'S
SUMMIT, MO
December 11, 2023

Inactive Area Stabilization Plan
Construction Plans for:
Tailormade Landing Phase 2
1600 Hamblen Road
Lee's Summit, Jackson County, Missouri



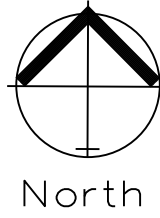
Matthew J. Schlacht
MO PE 2006019708
KS PE 19071
OK PE 25226
NE PE E-14335

REVISIONS
REV. 3/1/2024
REV. 4/10/2024
REV. 4/18/2024



FINAL RESTORATION PLAN

SCALE: 1" = 40'



NOTES: The Land Disturbance Plans indicates the Final placement of erosion control devices. The contractor(s) may proceed with construction prior to the final placement of these devices by providing additional devices to control erosion on their items of work. These devices shall be maintained until the final devices are in place.

SEED AND MULCH NOTES:

All areas disturbed by construction activities shall be seeded and mulched. Seeding shall be done before the proposed seedbed becomes eroded, crusted over, or dried out and shall not be done when the ground is frozen, or covered with snow. The seed shall comply with the requirements of the Missouri Seed Law and the Federal Seed Act. Also, it shall contain no seed of any plant on the Federal Noxious Weed List. Other weed seeds shall not exceed one percent by weight of mix

Seed and Fertilizer Rate:
Mix I - Rye Grass / Blue Grass ----- 100 lbs. per Acre
Mix II - Tall Fescue / Blue Grass ----- 195 lbs. per Acre
Lime ----- 2000 lbs per Acre (50 lbs. per 1000 sq. ft.)
Fertilizer ----- 800 to 1200 lbs per Acre (25 lbs per 1000 sq. ft.)

During the dates December 15th through May 31 ALL lime fertilizer, seed and mulch shall be applied to finished slopes of disturbed areas. During the months of June, July, October and November, 1st through December 15th, lime fertilizer, seed and mulch shall be applied at the following rates:

Lime - 100% of specified quantity
Fertilizer - 75% of the specified quantity
Seed - 50% of the specified quantity
Mulch - 100% of the specified quantity

Mulch shall be Vegetative type, cereal straw from stalks of oats, rye, or barley, or approved equal. The straw shall be free of prohibited weed seed and relatively free of all other noxious and undesirable seed. Mulch shall be applied at the rate of 2 tons per acre, (70 to 90 lbs per 1000 sq. ft.). Mulch shall be embedded by a mulch anchoring tool or disk type roller having flat serrated disks spaced not more than 10 inches apart and cleaning scrapers shall be provided.

8 inches minimum of topsoil shall be provided for final restoration of disturbed areas throughout the project area.

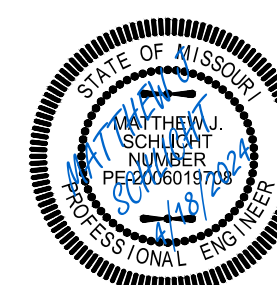


Professional Registration
Missouri
Engineering 2005002186-D
Surveying 2005008319-D
Kansas
Engineering E-1695
Surveying LS-218
Oklahoma
Engineering 6254
Nebraska
Engineering CA2821

1600 Hamblen Road
Lee's Summit, Jackson County, Missouri

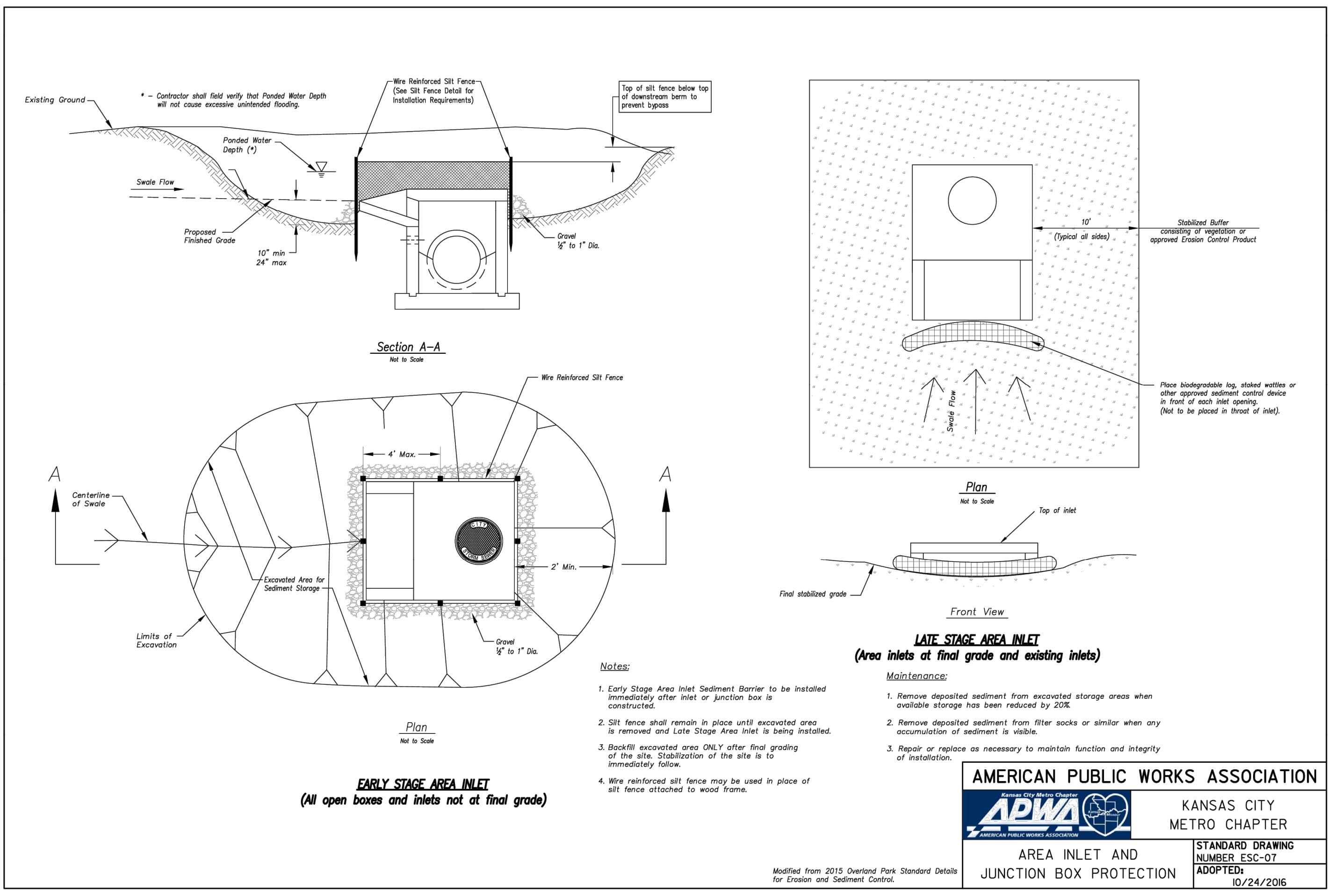
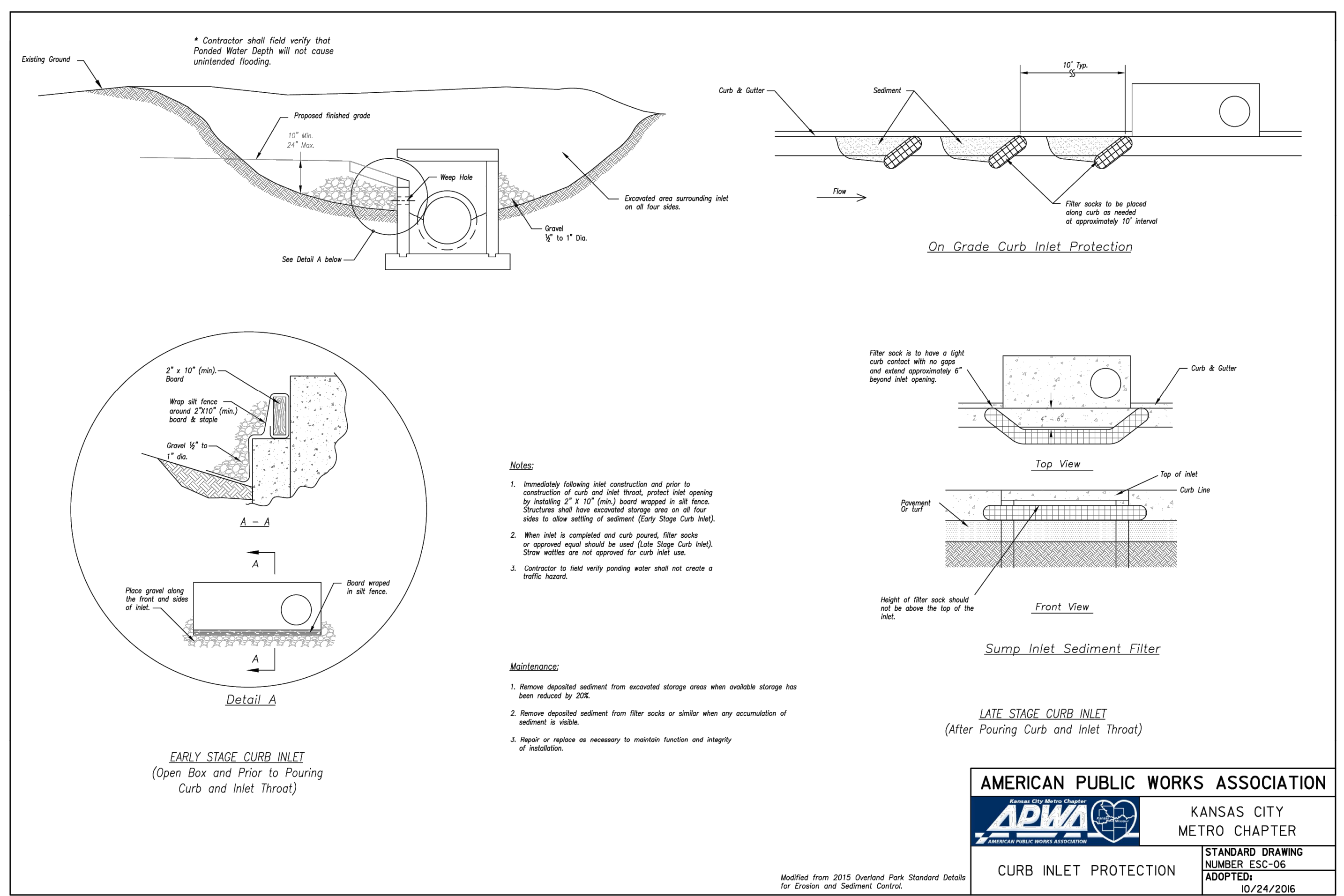
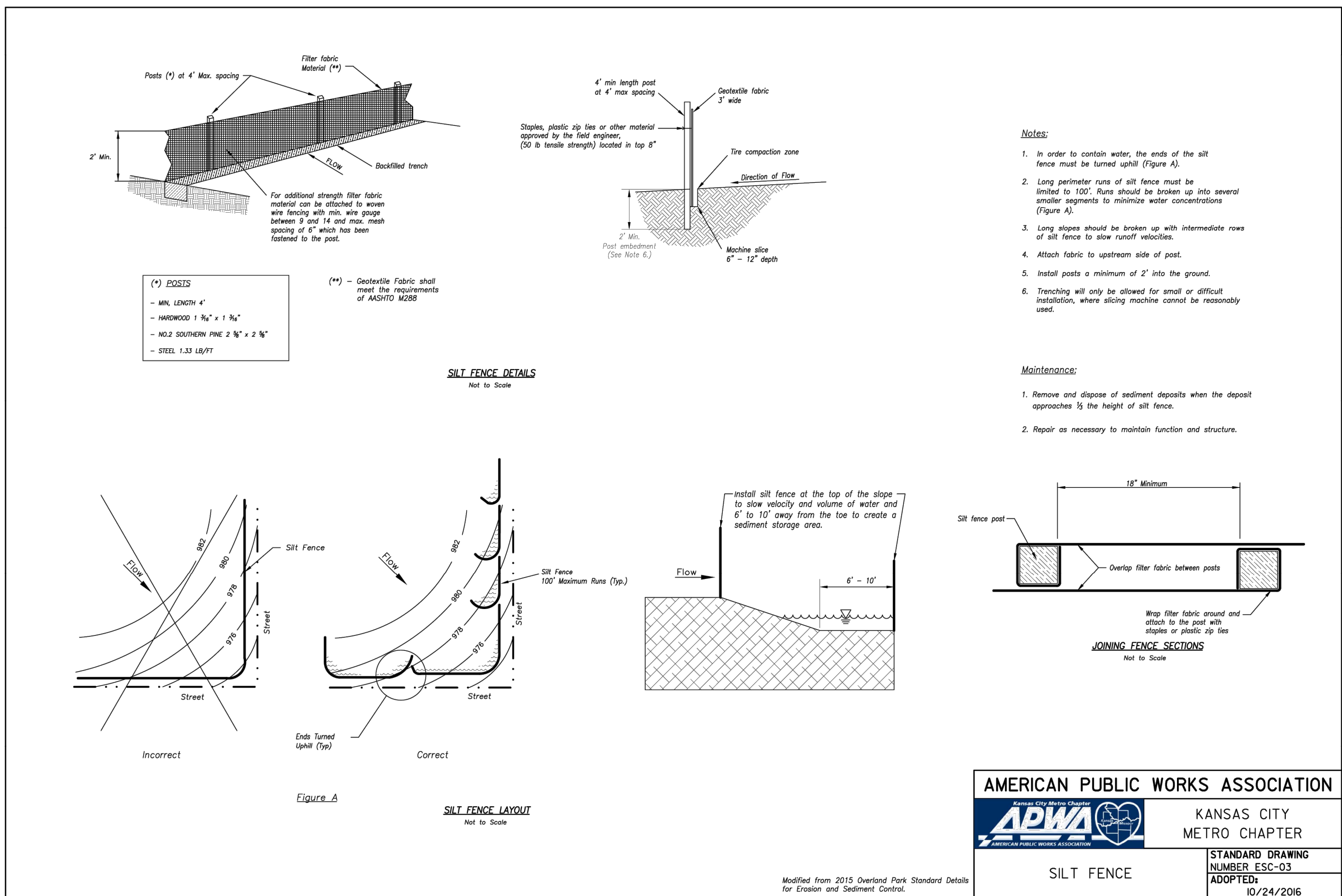
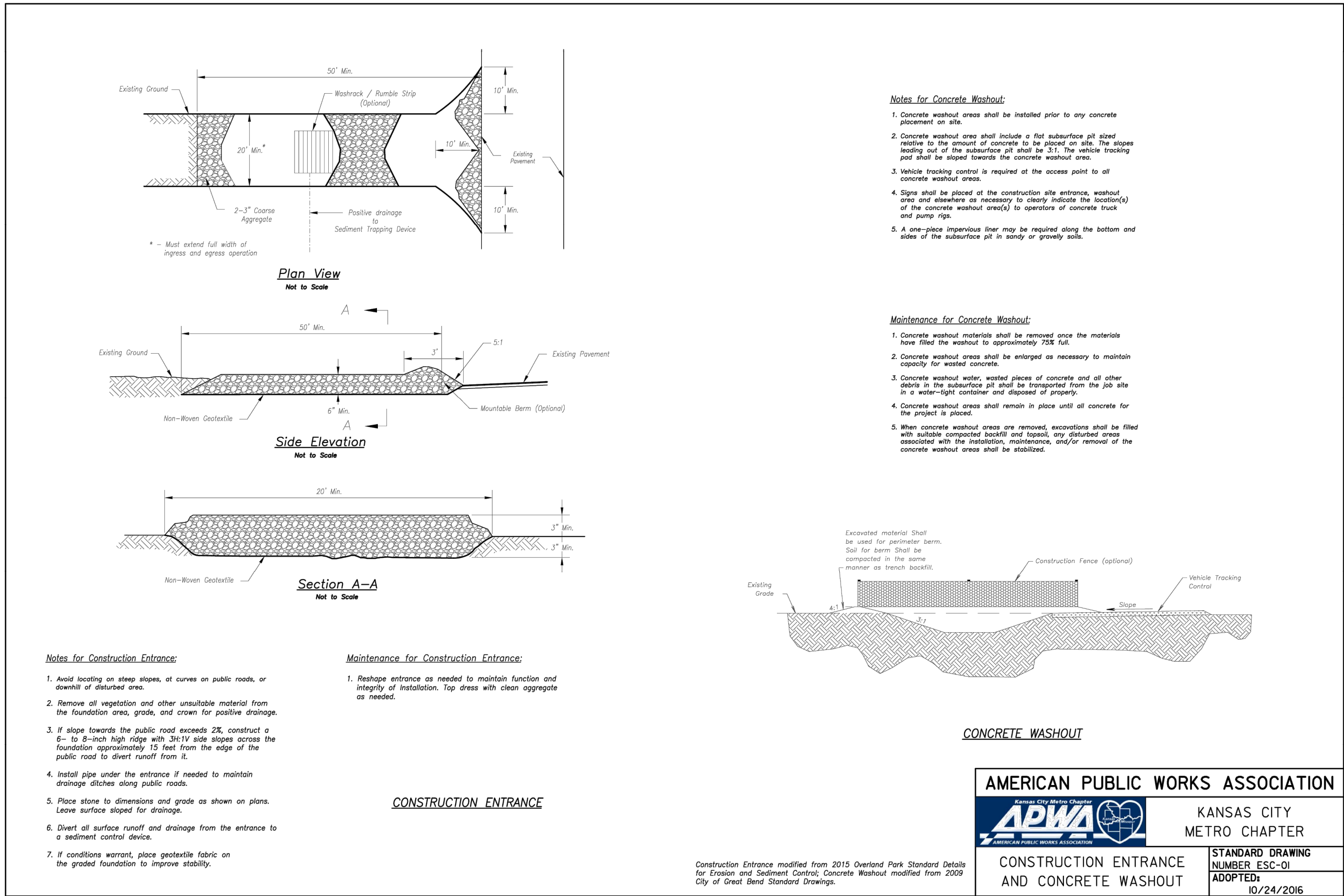
Project:
1600 SE HAMBLEN
RD, LEE'S
SUMMIT, MO
December 11, 2023

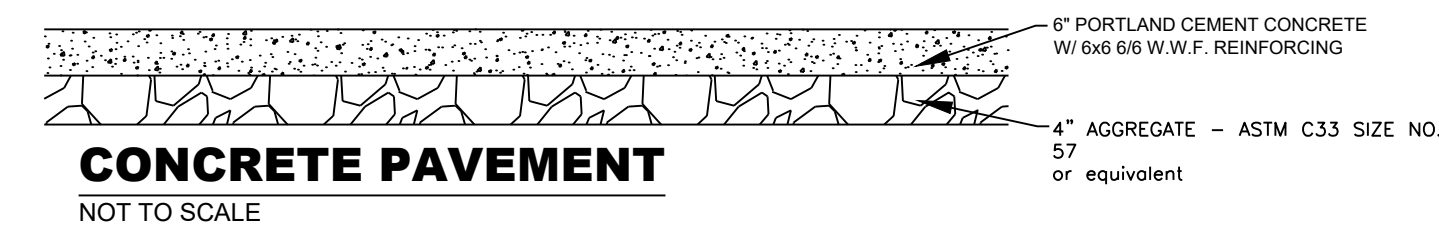
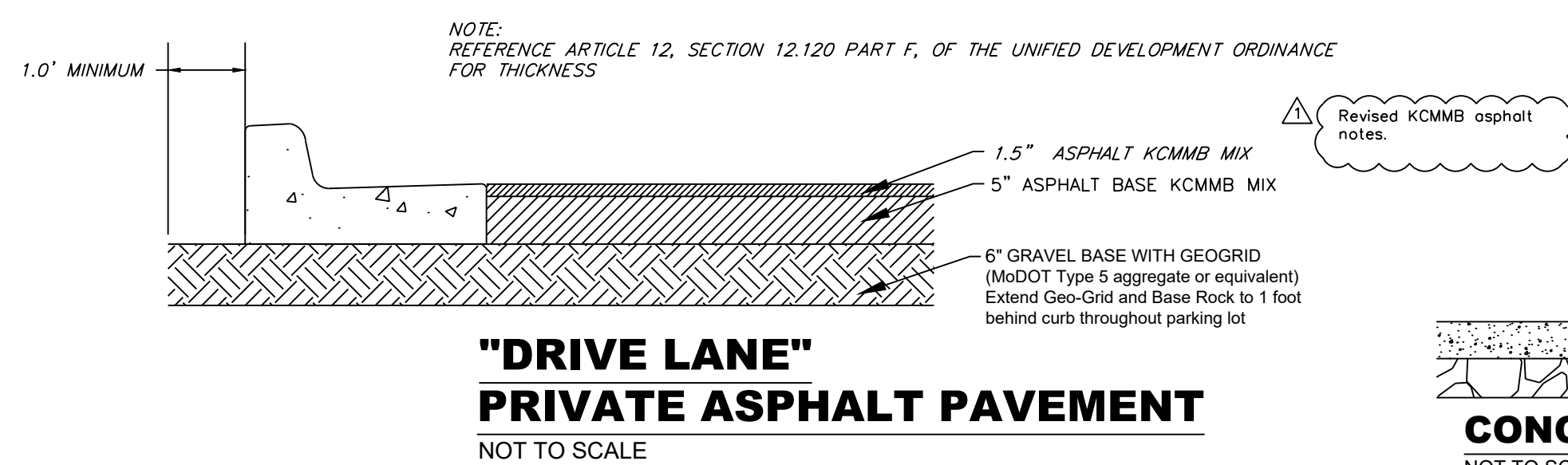
Final Restoration Plan
Construction Plans for:
Tailormade Landing Phase 2
1600 Hamblen Road
Lee's Summit, Jackson County, Missouri



Matthew J. Schlicht
MO PE 2006019708
KS PE 19071
OK PE 25226
NE PE E-14335

REVISIONS	
REV. 3/1/2024	
REV. 4/10/2024	
REV. 4/18/2024	





The diagram shows a horizontal bar representing a 100-minute class period, divided into four segments of 20 minutes each. The segments are labeled 0, 20', 40', and 80' at the bottom. The segments are shaded as follows: the first segment (0-20') is white, the second (20'-40') is hatched with diagonal lines, the third (40'-60') is white, and the fourth (60'-80') is hatched with diagonal lines.

Site Plan

SCALE: 1" = 40'

OWNER:
TAILORMADE EXTERIORS
RICK MULLIN
317 NW OLIVE STREET
LEE'S SUMMIT, MO
816-322-2444

ALL PAVING ON THE PARKING LOT WILL COMPLY WITH THE
UNIFIED DEVELOPMENT ORDINANCE ARTICLE 12 IN TERMS
OF PAVING THICKNESS AND BASE

OIL - GAS WELLS
ACCORDING TO EDWARD ALTON'S ENVIRONMENTAL IMPACT STUDY OF ABANDONED
OIL AND GAS WELLS IN LEE'S SUMMIT, MISSOURI IN 1995, THERE ARE NOT OIL
AND GAS WELLS WITHIN 185 FEET OF THE PROPERTY AS SURVEYED HEREON.

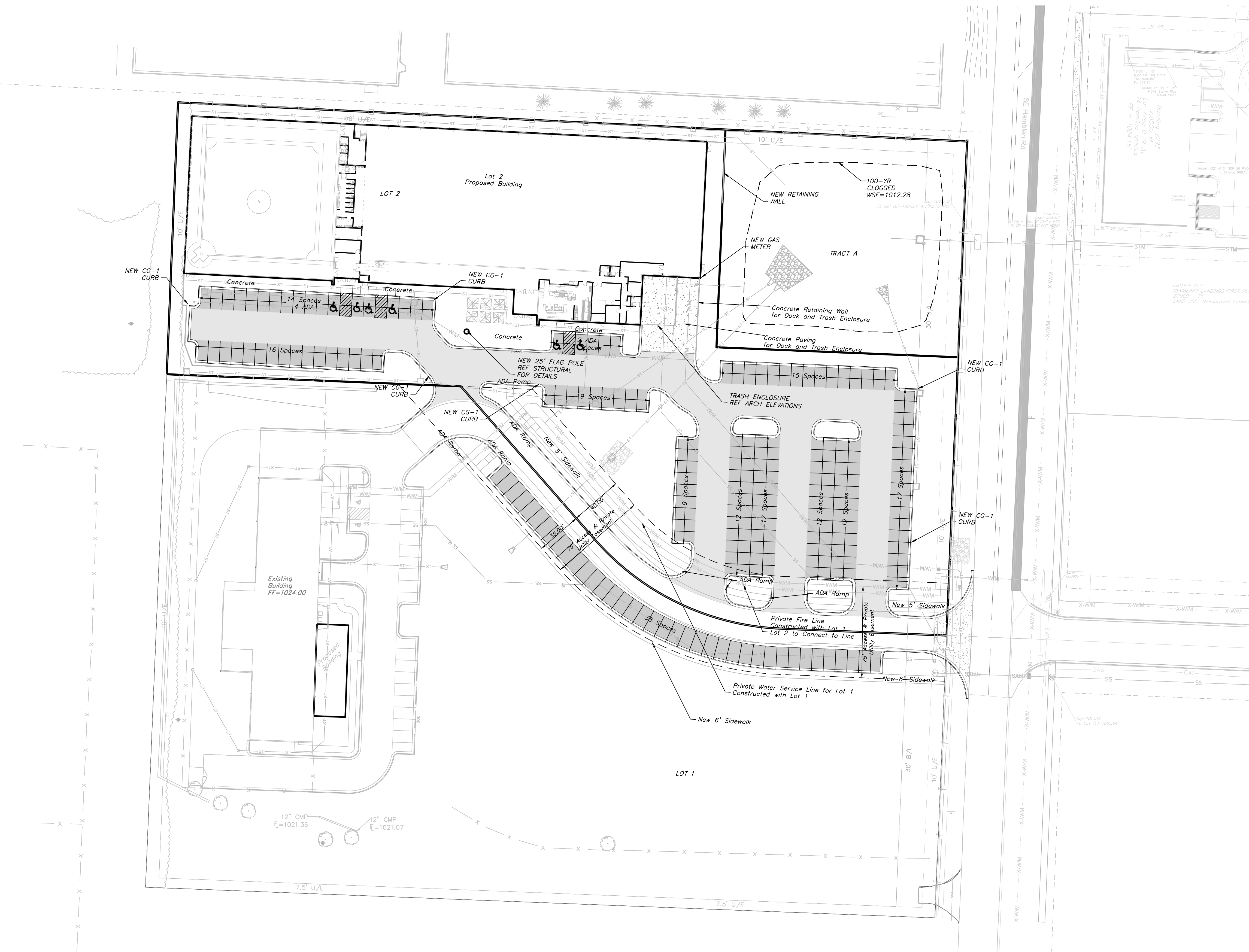
PROPERTY DESCRIPTION

WILLIAMS CROSSING LOT 2

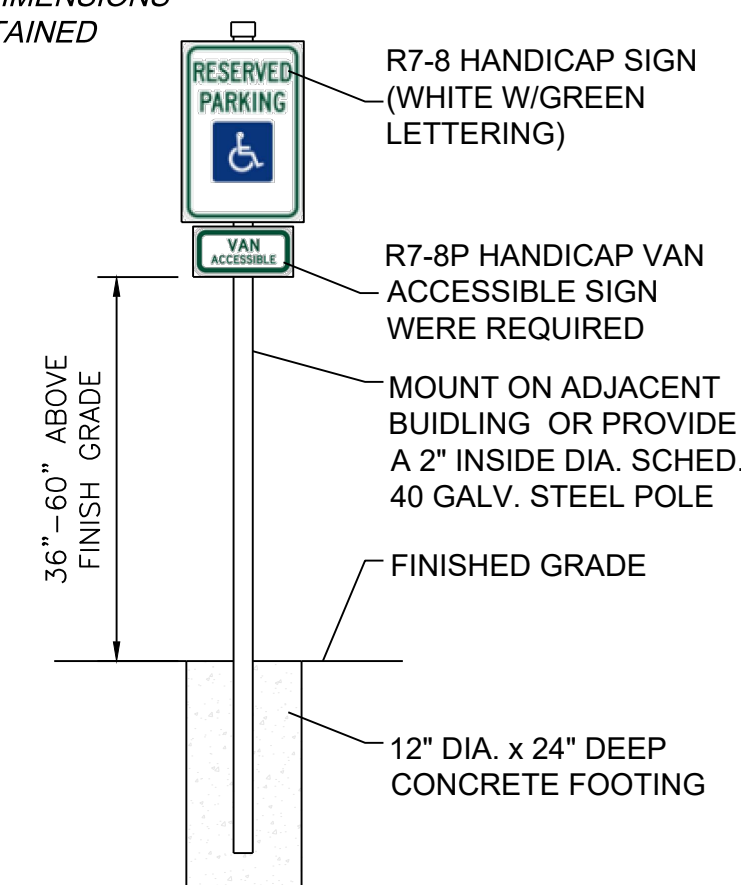
 Indicates Drive Lane

 Indicates Parking Stalls

 Indicates New Grave Placement



SIGN MAY BE WALL
MOUNTED DIRECTLY
TO BUILDING. DIMENSIONS
MUST BE MAINTAINED



HANDICAP SIGN DETAIL

NOT TO SCALE

GENERAL NOTES:

- 1 - ALL CONSTRUCTION SHALL CONFORM TO THE CITY OF LEE'S SUMMIT DESIGN AND CONSTRUCTION MANUAL AS ADOPTED BY ORDINANCE 8813.
- 2 - ALL REQUIRED EASEMENTS WITHIN THE BOUNDARY OF THIS PROJECT SHALL BE PROVIDED BY SEPARATE DOCUMENT.
- 3 - ALL REQUIRED EASEMENT LOCATED OUTSIDE OF THE BOUNDARY OF THIS PROJECT SHALL BE PROVIDED FOR BY SEPARATE INSTRUMENT PRIOR TO ISSUANCE OF CONSTRUCTION PERMITS.
- 4 - THE CONTRACTOR SHALL NOTIFY THE CITY OF LEE'S SUMMIT PUBLIC WORKS INSPECTION AT 1-869-1800 AT LEAST 72 HOURS PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION OF ANY CONFLICT WITH THE IMPROVEMENTS PROPOSED BY THESE PLANS AND SITE CONDITIONS.
- 5 - THE CONTRACTOR SHALL NOTIFY ENGINEERING SOLUTIONS AT 816-623-9888 OF ANY CONFLICT WITH THE IMPROVEMENTS PROPOSED BY THESE PLANS AND SITE CONDITIONS.
- 6 - THE CONTRACTOR SHALL NOTIFY THE CITY ENGINEER AND OBTAIN THE APPROPRIATE BLASTING PERMITS FOR A REQUIRED BLASTING. IF BLASTING IS ALLOWED, ALL BLASTING SHALL CONFORM TO STATE REGULATIONS AND LOCAL ORDINANCES.

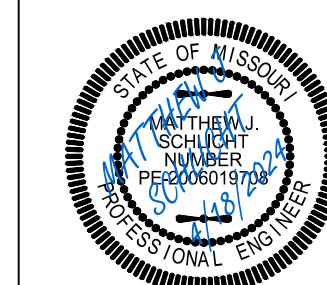
Professional Registration
Missouri
Engineering 2005002186-D
Surveying 2005008319-D
Kansas
Engineering E-1695
Surveying LS-218
Oklahoma
Engineering 6254
Nebraska
Engineering CA2821

1600 Hamblen Road
Lee's Summit, Jackson County, Missouri

Project: 1600 SE HAMBLEN RD LEES SUMMIT, MO
Issue Date: December 11, 2023

SITE PLAN

Construction Plans for:
Tailormade Landing Phase 2
1600 Hamblen Road
Lee's Summit, Jackson County, Missouri



Matthew J. Schlich
MO PE 2006019708
KS PE 19071
OK PE 25226
NE PE E-14335

REVISIONS

REV 3/1/2024

REV. 3/1/2024

REV. 4/10/2024

REV. 4/10/2024

3 REV. 4/18/2024

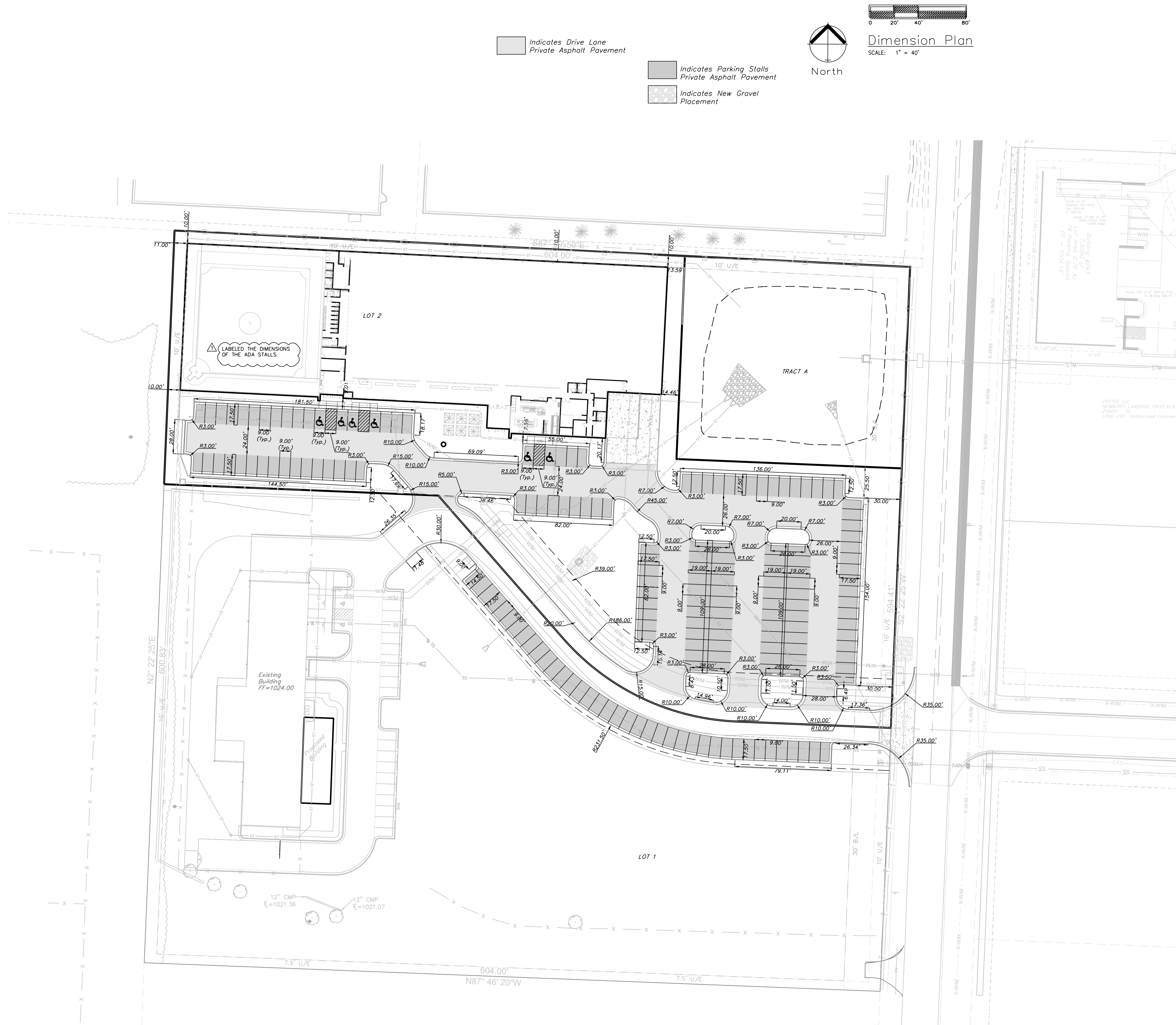
1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 2679, 26

C 100

01/03

Masonry Wall to Match Building Materials

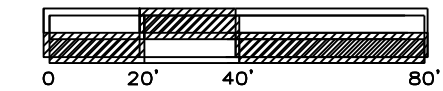
Masonry Wall to Match Building Materials



Indicates Drive Lane
Private Asphalt Pavement

Indicates Parking Stalls
Private Asphalt Pavement

Indicates New Gravel
Placement



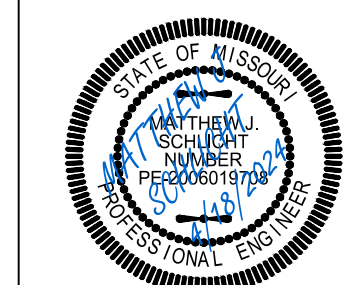
Dimension Plan
SCALE: 1" = 40'

Professional Registration
Missouri
Engineering 2005002186-D
Surveying 2005008319-D
Kansas
Engineering E-1695
Surveying LS-218
Oklahoma
Engineering 6254
Nebraska
Engineering CA2821

Project:
1600 SE HAMBLEN
RD, LEE'S
SUMMIT, MO
December 11, 2023

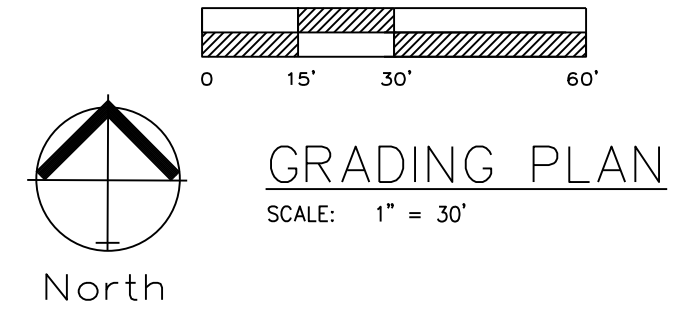
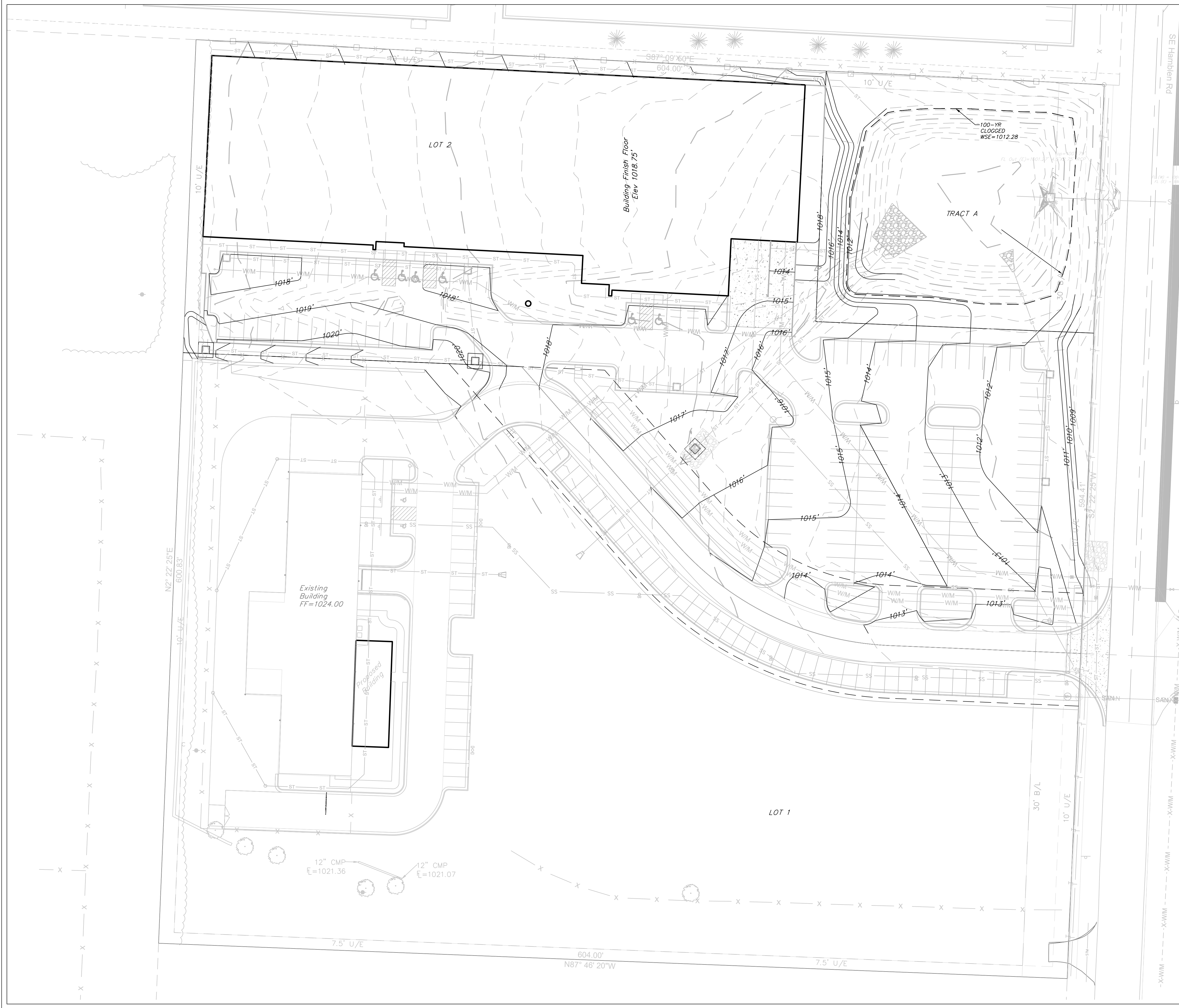
1600 Hamblen Road
Lee's Summit, Jackson County, Missouri

DIMENSION PLAN
Construction Plans for:
Tallormade Landing Phase 2
1600 Hamblen Road
Lee's Summit, Jackson County, Missouri



Matthew J. Schlicht
MO PE 2006019708
KS PE 19071
OK PE 25226
NE PE E-14335

REVISIONS
REV. 3/1/2024
REV. 4/10/2024
REV. 4/18/2024



Estimated Cut / Fill Quantities	
Site Area	8.29 Acres
Cut Volume (Unadjusted)	4,097 c.y.
Fill Volume (Unadjusted)	15,901 c.y.
Building and Sidewalk (Cut)	986 c.y.
Net Import Required	10,818 c.y. (Unadjusted)

- Notes**
1. Contractor is responsible for verifying all existing utility locations prior to excavation
 2. There are no known natural or artificial water storage detention areas, or wetlands in the area designated for construction
 3. No part of the project lies within the 100 year flood plain
 4. All erosion and sediment control measures need to be implemented prior to construction
 5. Additional erosion control may be required by the City Engineer, Design Engineer or Owner at any time problematic areas are noted in the field or existing measures are found to be ineffective
 6. Soil Stabilization of disturbed areas shall be completed within 14 days of construction inactivity
 7. Contractor responsible for all density testing of roadway subgrade and granular base.
 8. Contractor responsible to provide Engineering Solutions an Asbuil topographic survey of the site to verify grades.

Legend

← Drainage Arrows

ENGINEERING SOLUTIONS

ENGINEERING & SURVEYING
50 SE 30TH STREET
LEE'S SUMMIT, MO 64082
P: (816) 623-9888 F: (816) 623-9849

Professional Registration
Missouri
Engineering 2005002186-D
Surveying 2005008319-D
Kansas
Engineering E-1695
Surveying LS-218
Oklahoma
Engineering 6254
Nebraska
Engineering CA2821

GRADING PLAN
Construction Plans for:
Tailormade Landing Phase 2
1600 Hamblen Road
Lee's Summit, Jackson County, Missouri

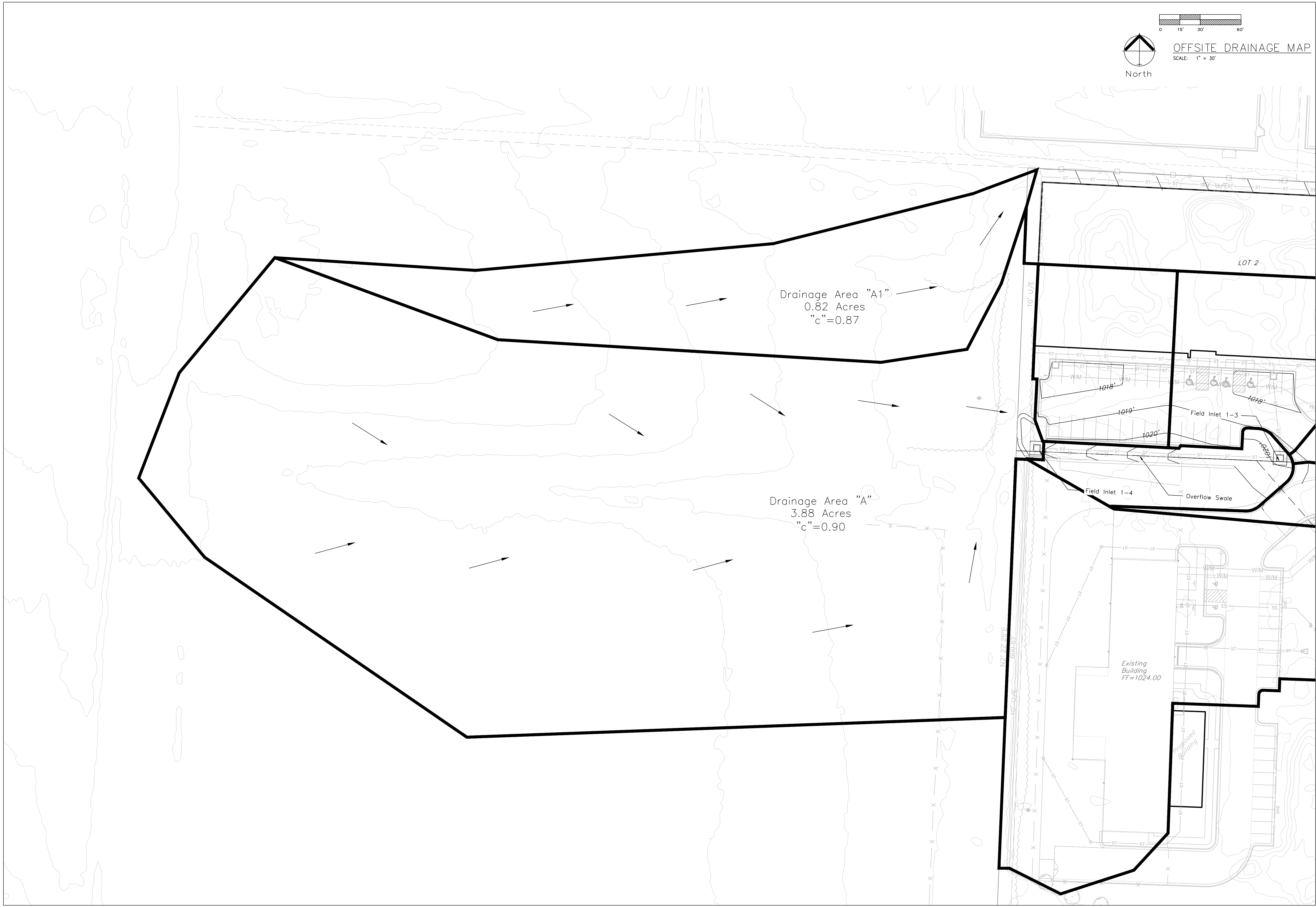
Project:
1600 SE HAMBLEN RD, LEE'S SUMMIT, MO
SUNDAY, December 11, 2023

Matthew J. Schlicht
MO PE 2006019708
KS PE 19071
OK PE 25226
NE PE E-14335

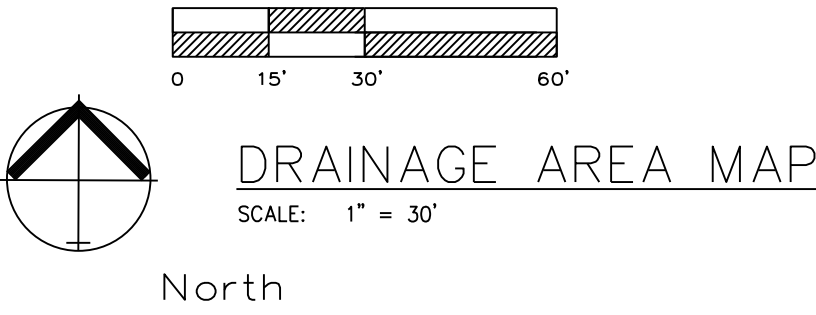
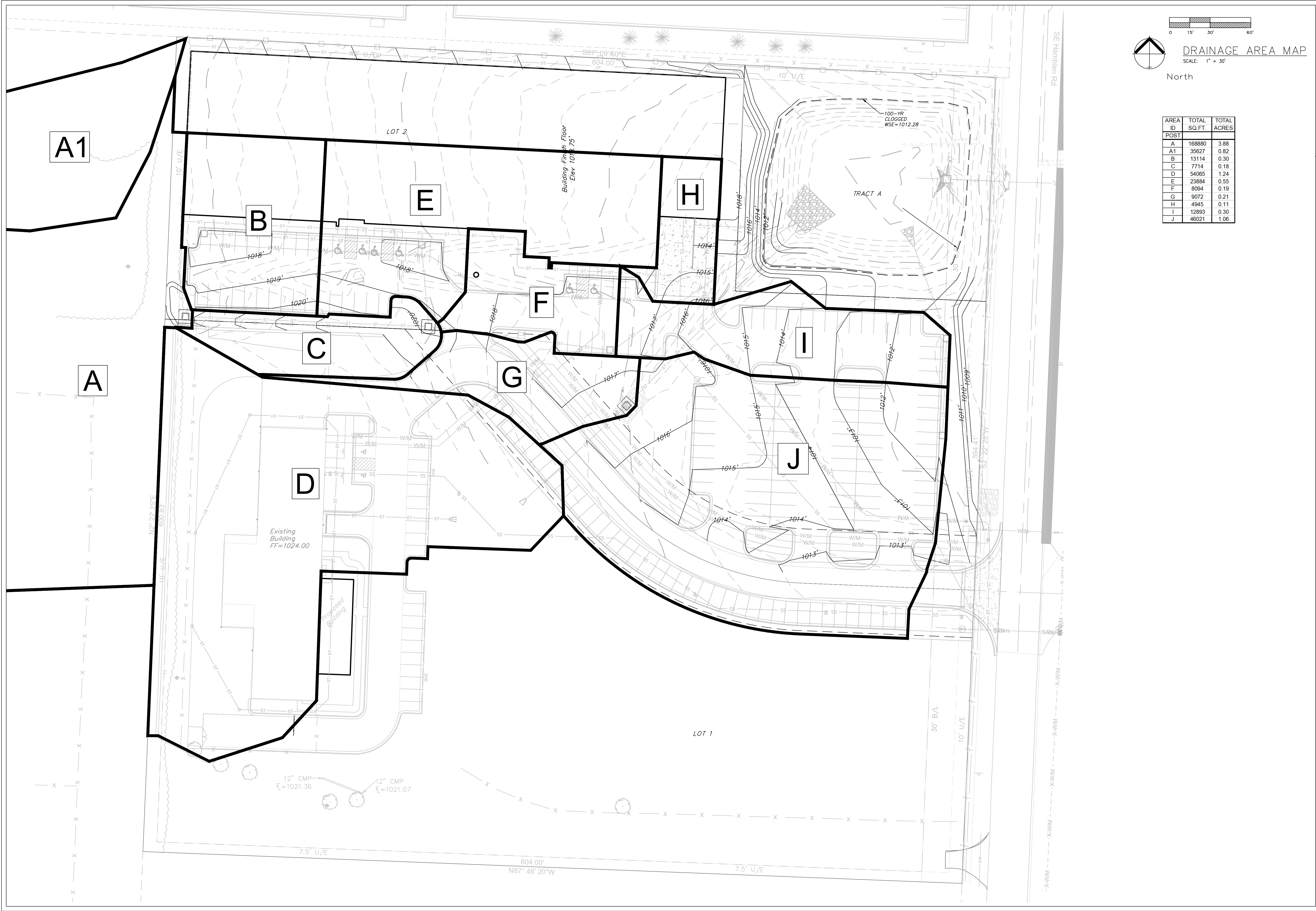
REVISIONS
REV. 3/1/2024
REV. 4/10/2024
REV. 4/18/2024

C.200





C.201



AREA ID	TOTAL SQ. FT.	TOTAL ACRES
A	168880	3.88
A1	35627	0.82
B	13114	0.30
C	7714	0.18
D	54065	1.24
E	23884	0.55
F	8084	0.19
G	9072	0.21
H	4945	0.11
I	12893	0.30
J	46021	1.06

ENGINEERING SOLUTIONS
 ENGINEERING & SURVEYING
 50 SE 30TH STREET
 LEE'S SUMMIT, MO 64082
 P: (816) 623-9888 F: (816) 623-9849

Professional Registration

Missouri
 Engineering 2005002186-D
 Surveying 2005008319-D

Kansas
 Engineering E-1685
 Surveying LS-218

Oklaoma
 Engineering 6254

Nebraska
 Engineering CA2821

Project:

1600 SE HAMBLEN RD, LEE'S SUMMIT, MO
 SURVEILLANCE
 December 11, 2023

DRAINAGE AREA MAP

Construction Plans for:
 Tailormade Landing Phase 2
 1600 Hamblen Road
 Lee's Summit, Jackson County, Missouri

Matthew J. Schlicht
 MO PE 2006019708
 KS PE 19071
 OK PE 25226
 NE PE E-14335

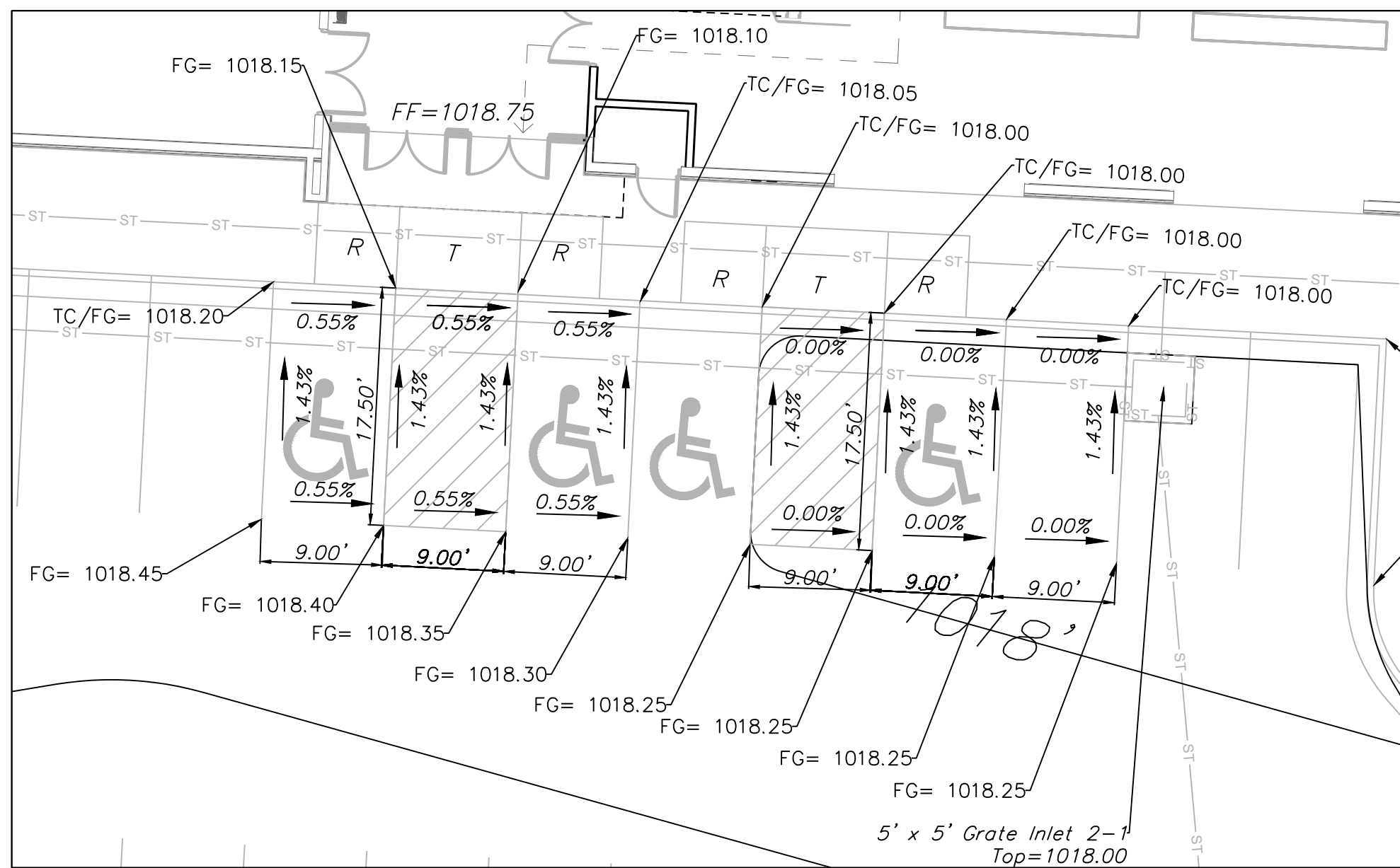
REVISIONS

REV. 3/1/2024

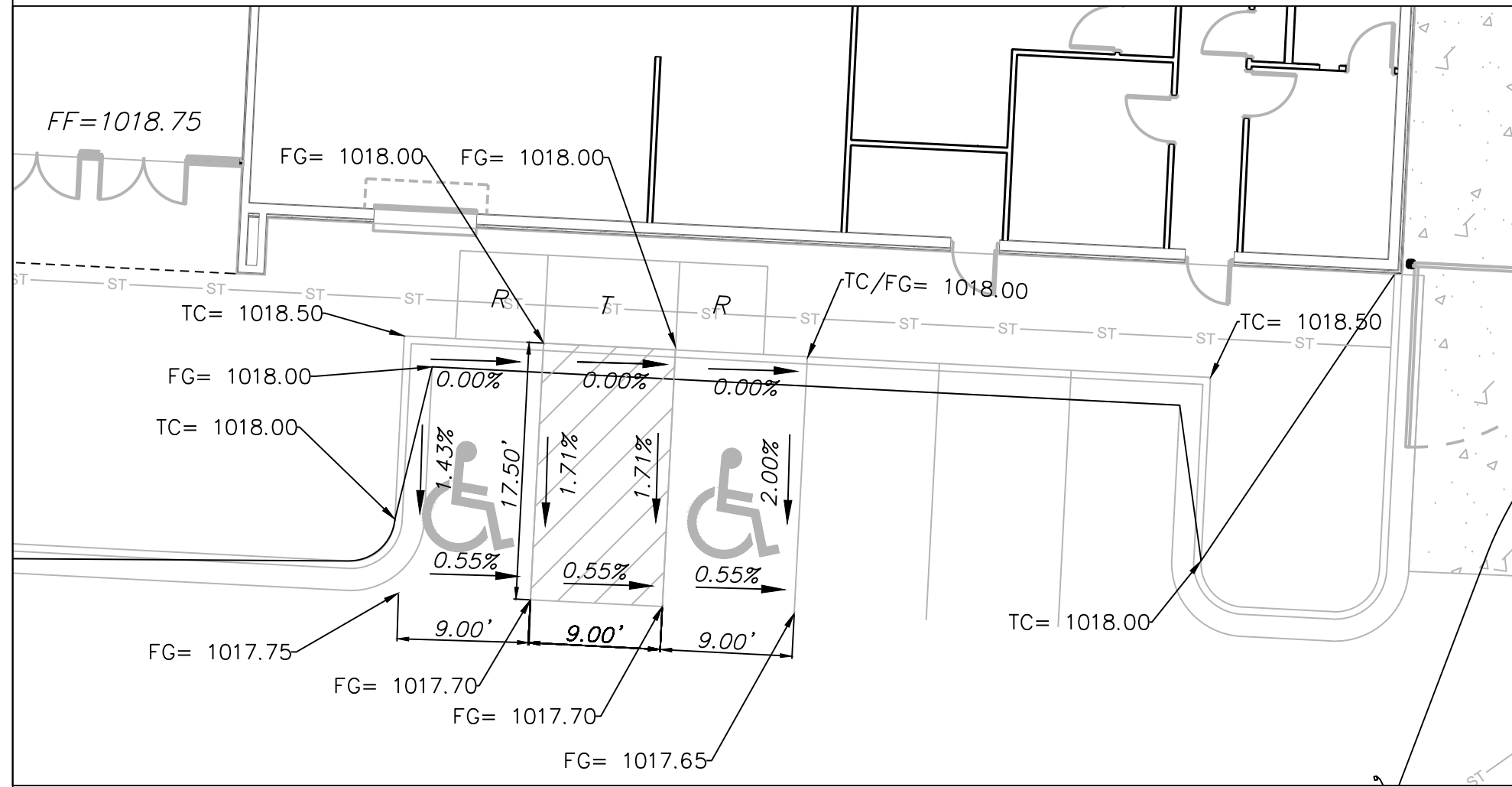
REV. 4/10/2024

REV. 4/18/2024

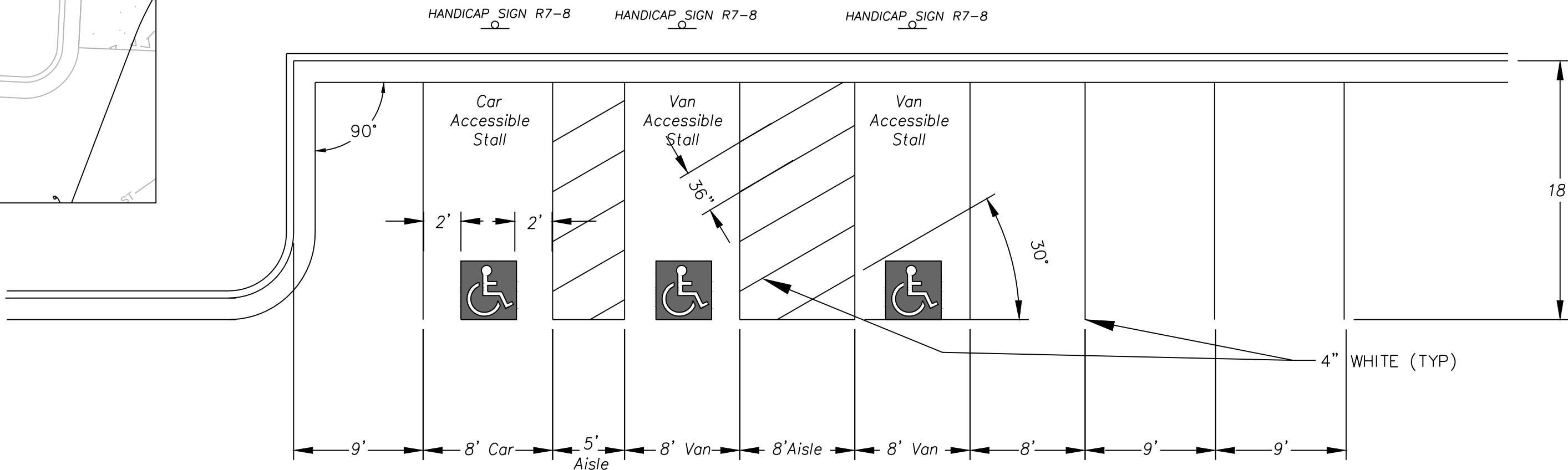
C.202



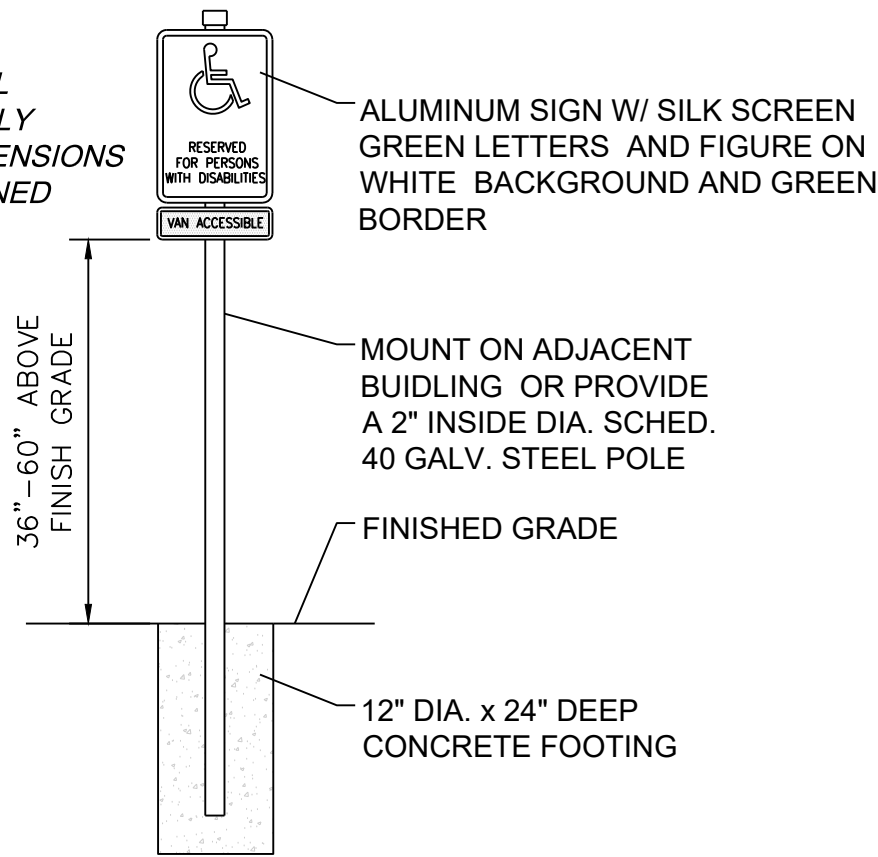
ADA RAMP DETAIL 1
SCALE: 1"=10'



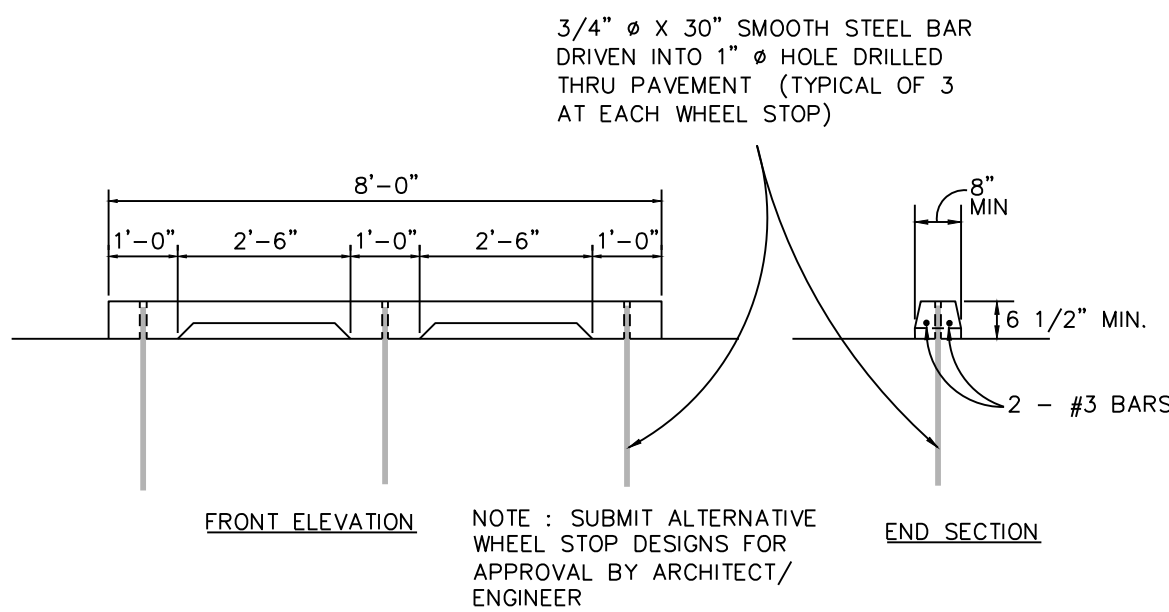
ADA RAMP DETAIL 2
SCALE: 1"=10'



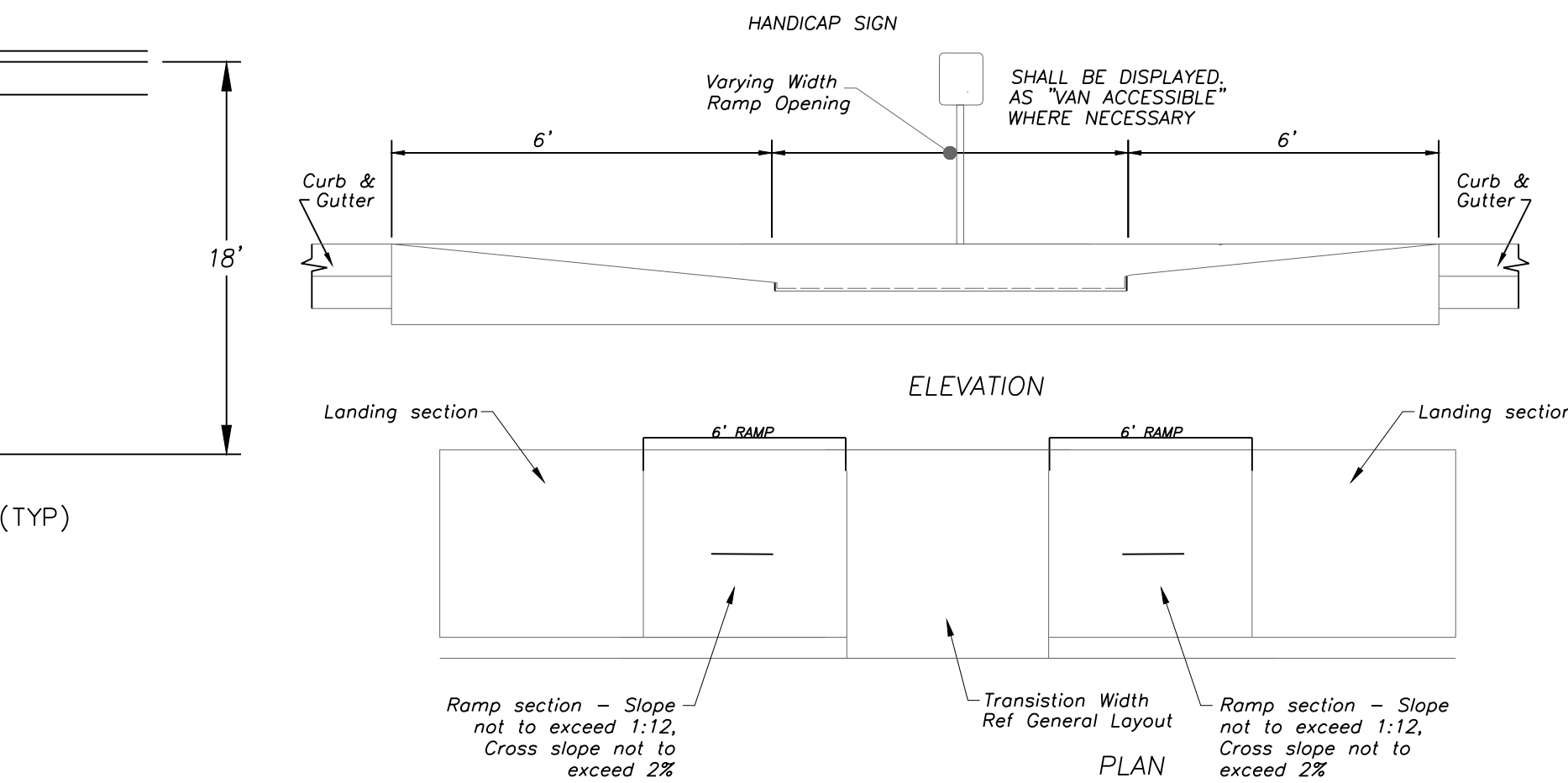
SIGN MAY BE WALL MOUNTED DIRECTLY TO BUILDING. DIMENSIONS MUST BE MAINTAINED



HANDICAP SIGN DETAIL
NOT TO SCALE

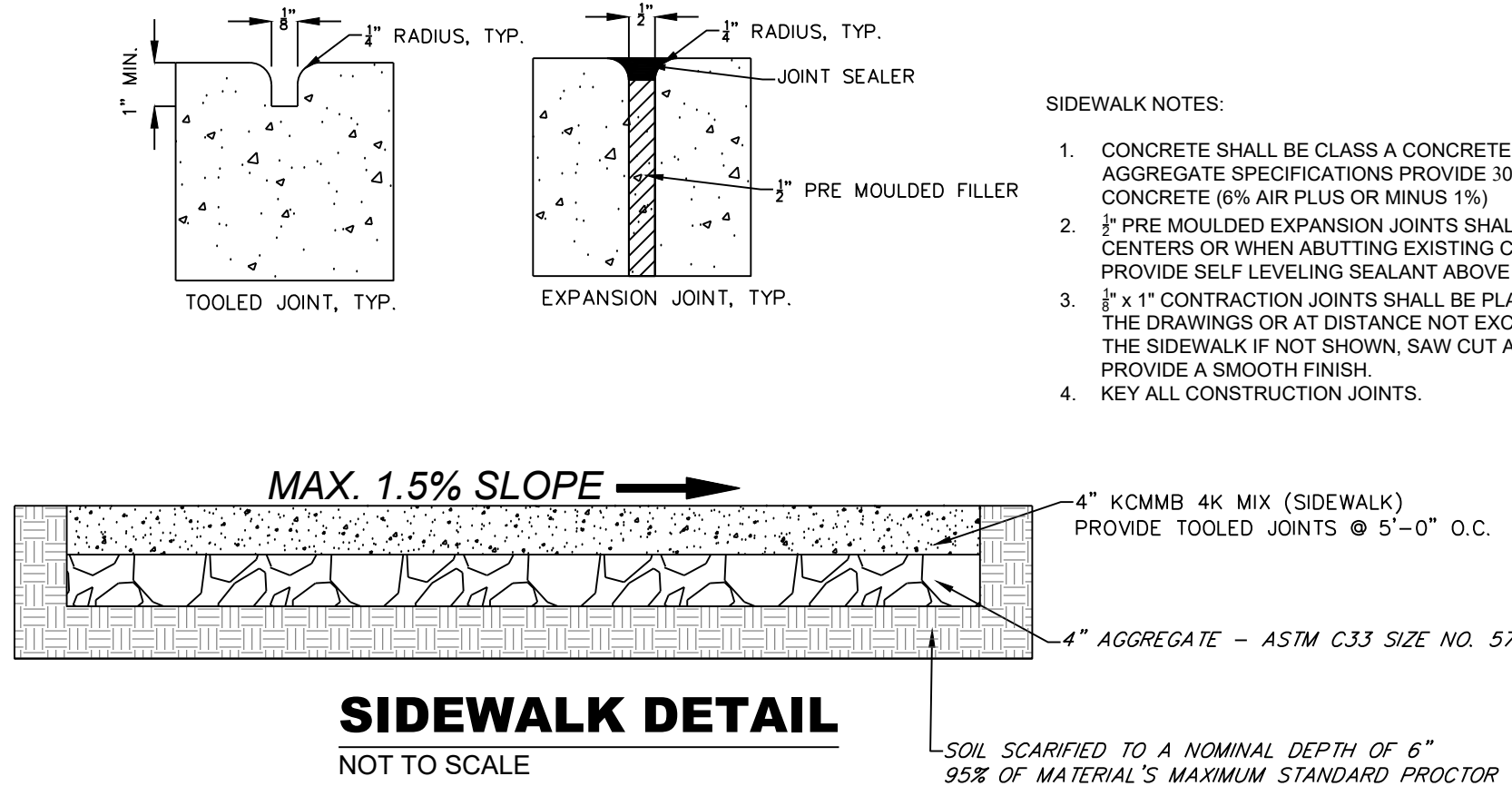


CONCRETE WHEEL STOP
N.T.S.

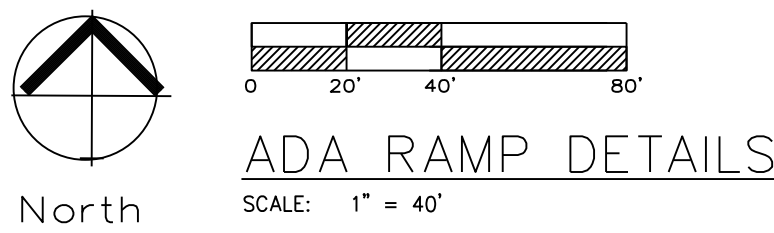
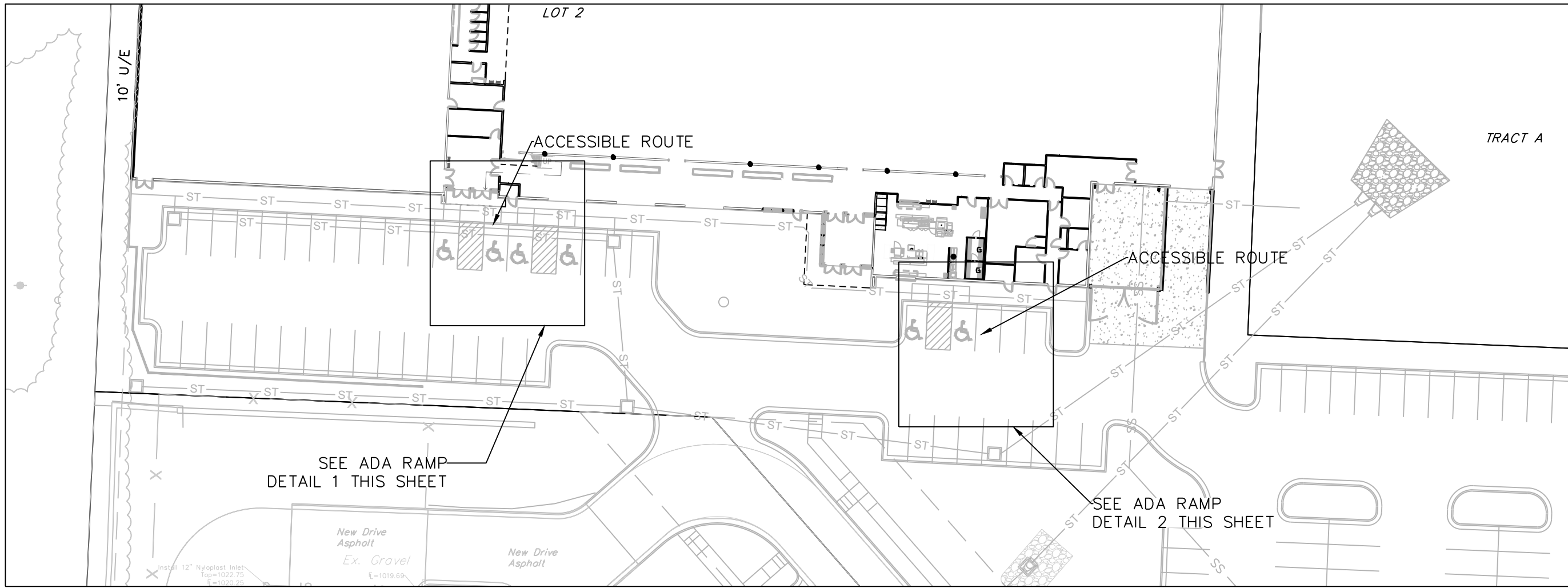


ACCESSIBLE RAMP DETAILS

NOT TO SCALE
Ramp and ramp landings shall be constructed per ANSI 117.1-03 407.7



SIDEWALK DETAIL
NOT TO SCALE

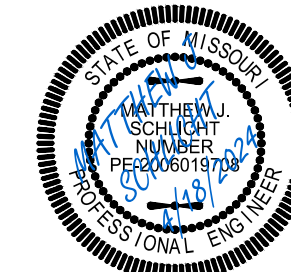


Professional Registration
Missouri
Engineering 2005002186-D
Surveying 2005008319-D
Kansas
Engineering E-1695
Surveying LS-218
Oklahoma
Engineering 6254
Nebraska
Engineering CA2821

1600 Hamblen Road
Lee's Summit, Jackson County, Missouri

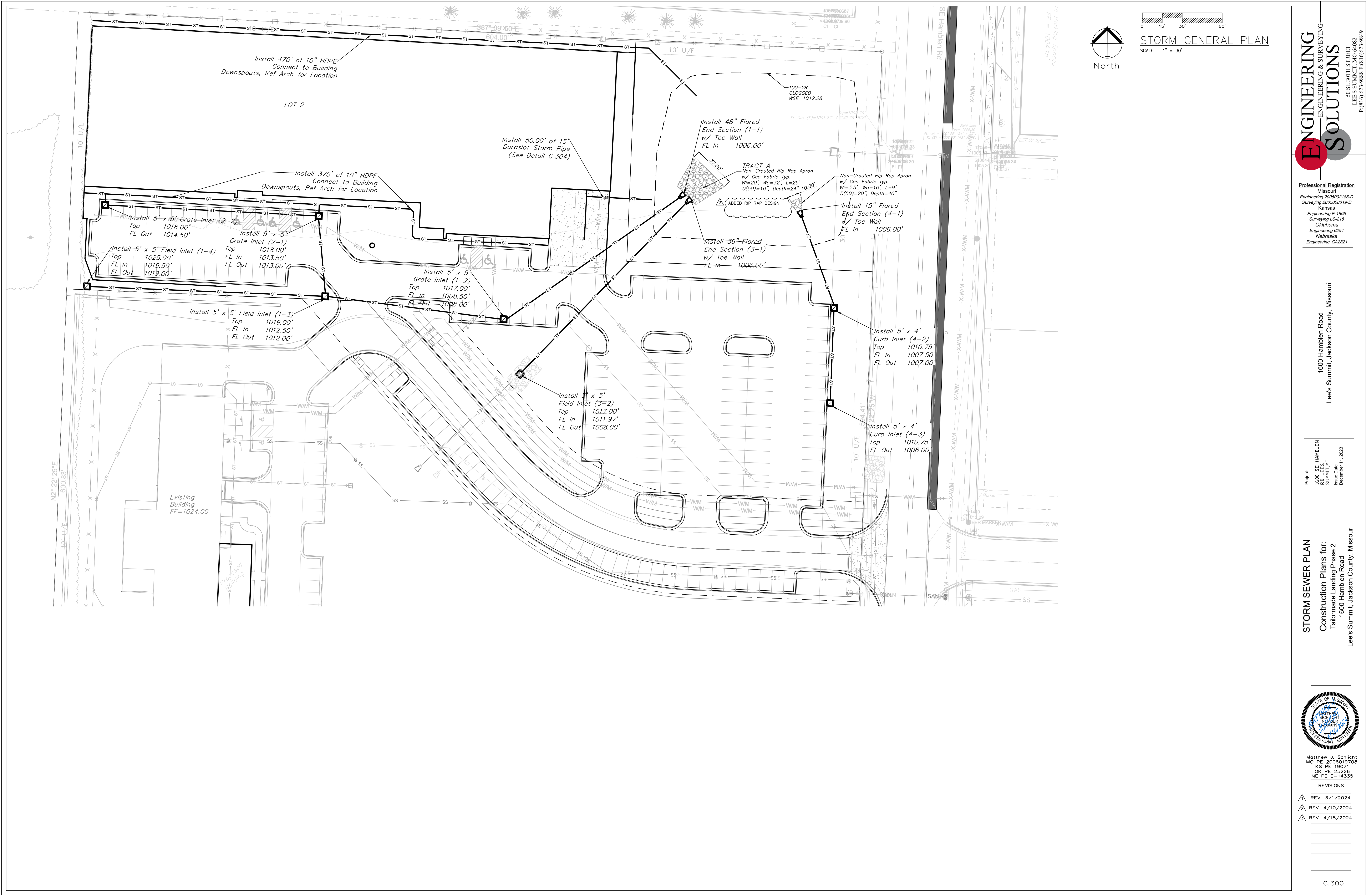
Project:
1600 SE HAMBLEN RD LEE'S SUMMIT, MO
SUNDAY, December 11, 2023

ADA RAMP DETAILS
Construction Plans for:
Tailormade Landing Phase 2
1600 Hamblen Road
Lee's Summit, Jackson County, Missouri



Matthew J. Schlicht
MO PE 2006019708
KS PE 19071
OK PE 25226
NE PE E-14335

REVISIONS
REV. 3/1/2024
REV. 4/10/2024
REV. 4/18/2024



ENGINEERING SOLUTIONS
ENGINEERING & SURVEYING
50 SE 30TH STREET
LEE'S SUMMIT, MO 64082
P: (816) 623-9888 F: (816) 623-9849

Professional Registration
Missouri
Engineering 2005002186-D
Surveying 2005008319-D
Kansas
Engineering E-1695
Surveying LS-218
Oklahoma
Engineering 6254
Nebraska
Engineering CA2821

Project:
1600 SE HAMBLEN RD, LEE'S SUMMIT, MO
SUNDLUND
December 11, 2023

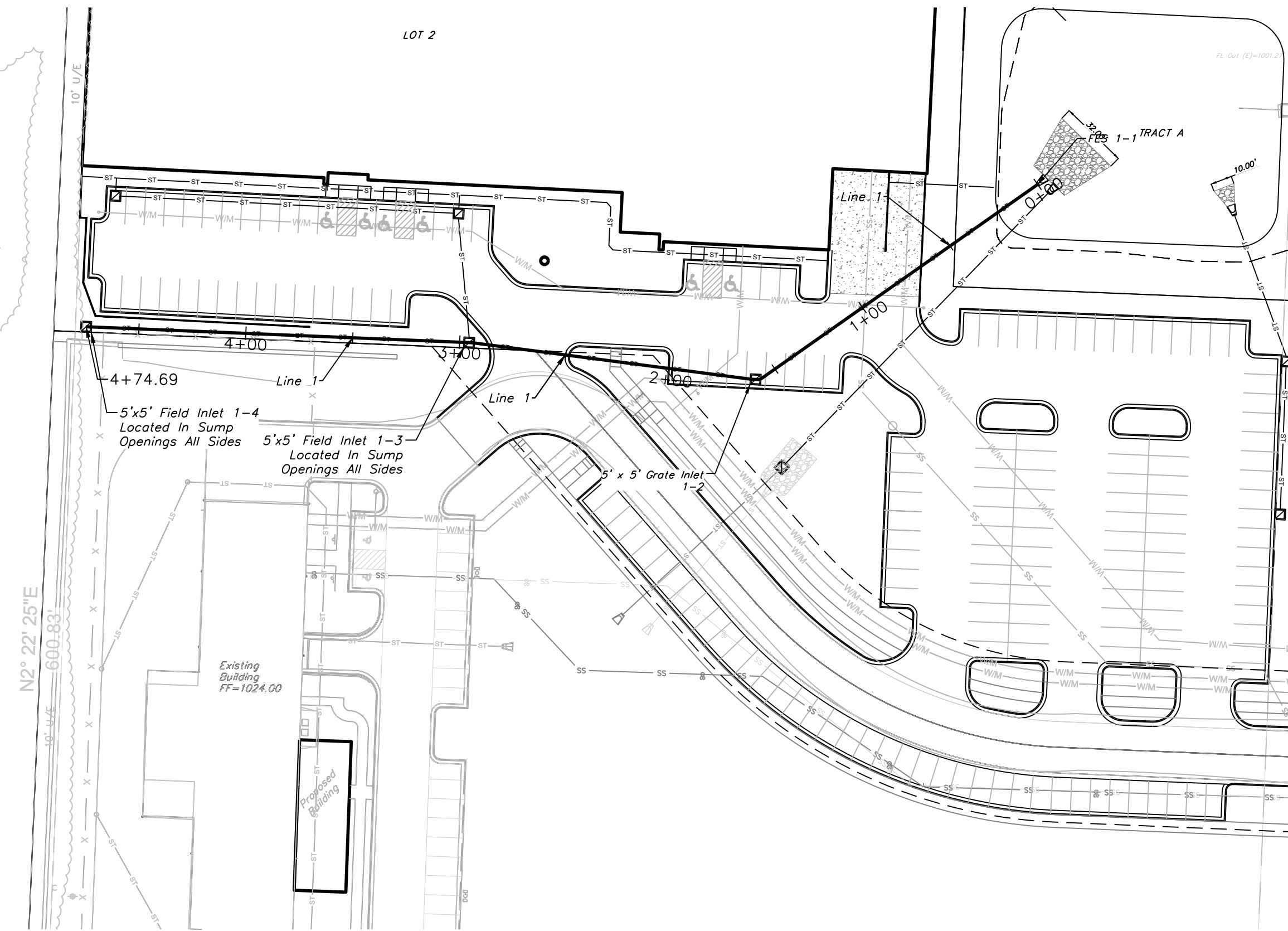
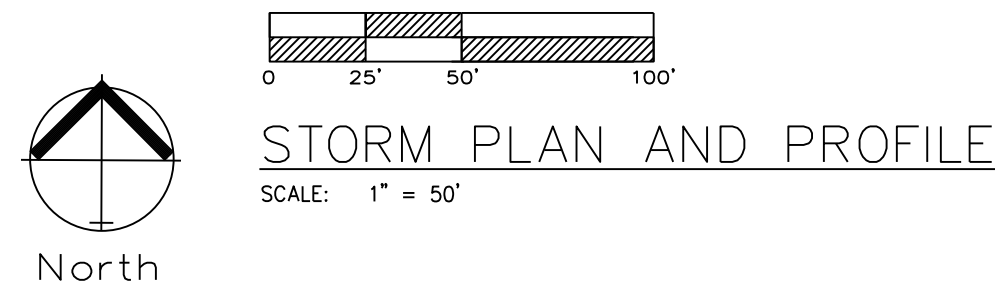
STORM SEWER PLAN
Construction Plans for:
Tailormade Landing Phase 2
1600 Hamblen Road
Lee's Summit, Jackson County, Missouri

1600 Hamblen Road
Lee's Summit, Jackson County, Missouri

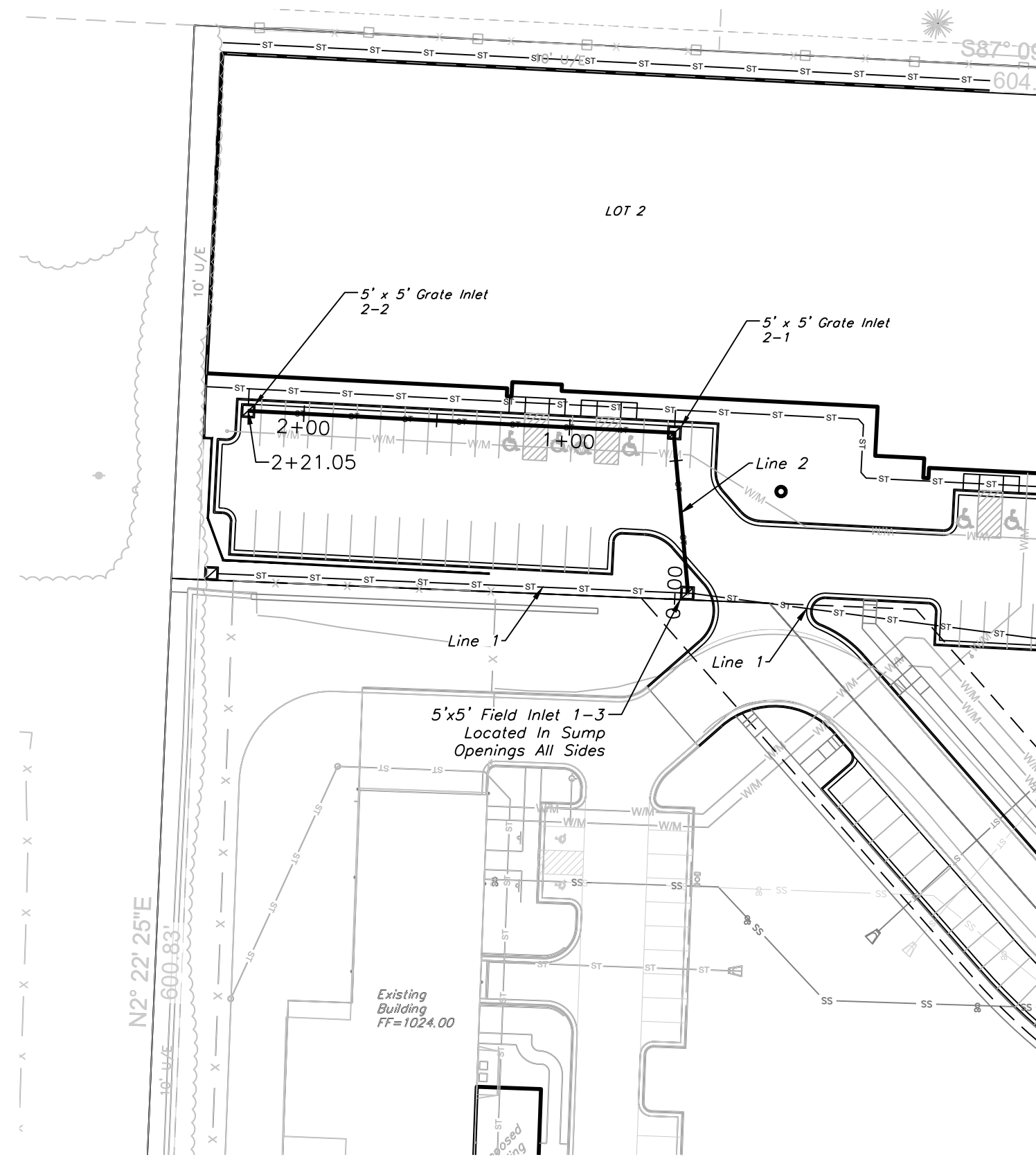
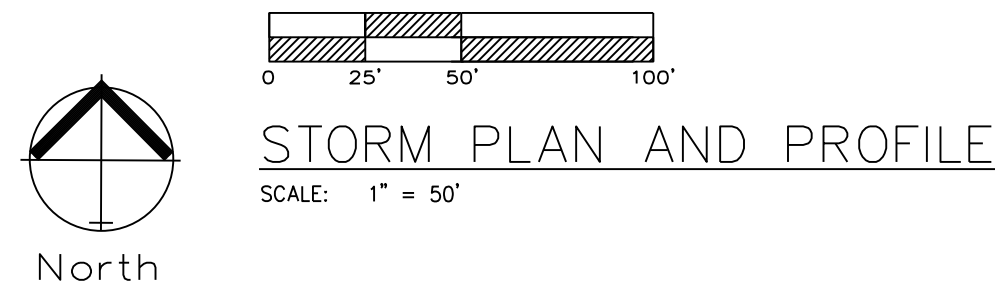
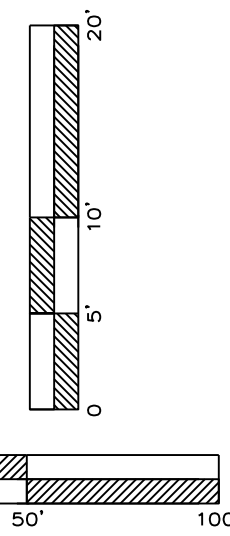
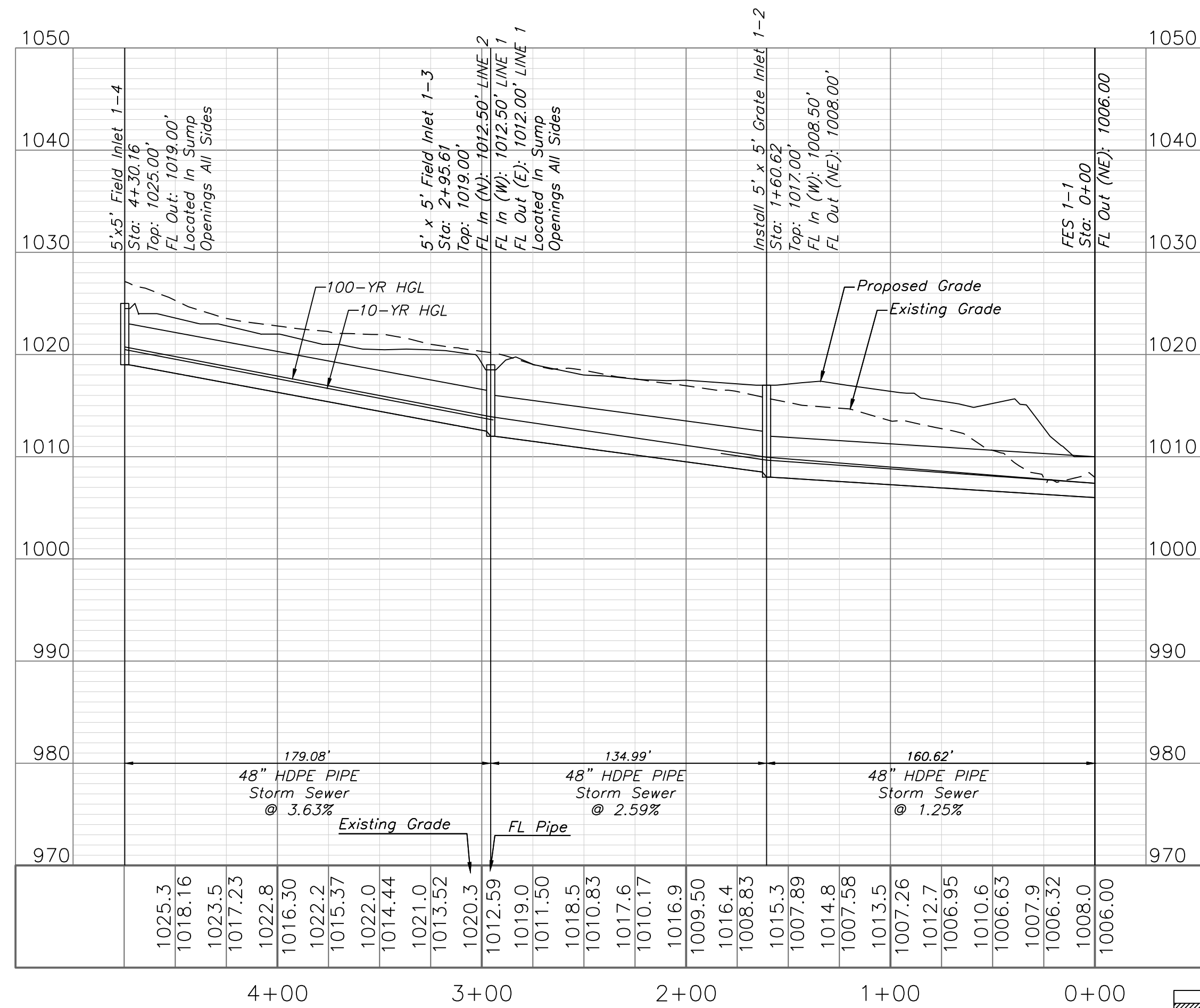
Matthew J. Schlicht
MO PE 2006019708
KS PE 19071
OK PE 25226
NE PE E-14335

REVISIONS

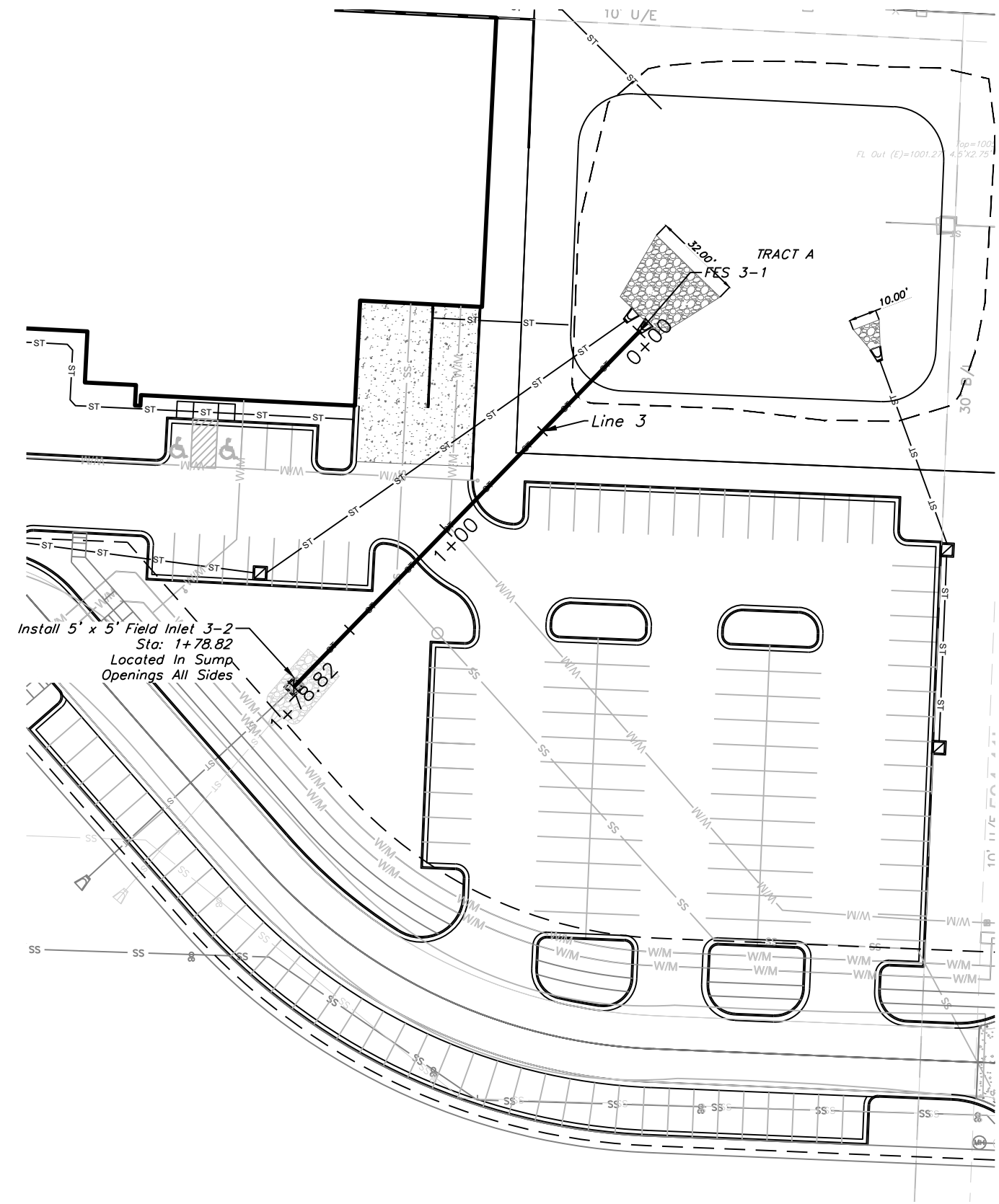
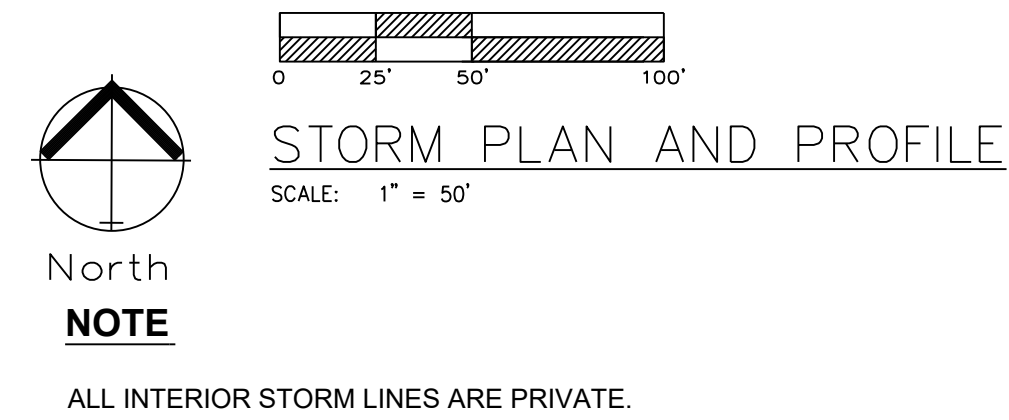
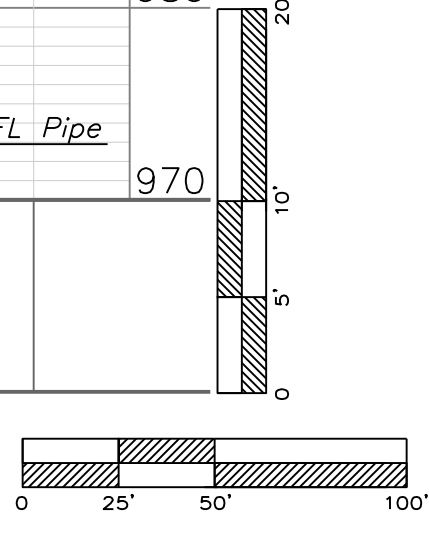
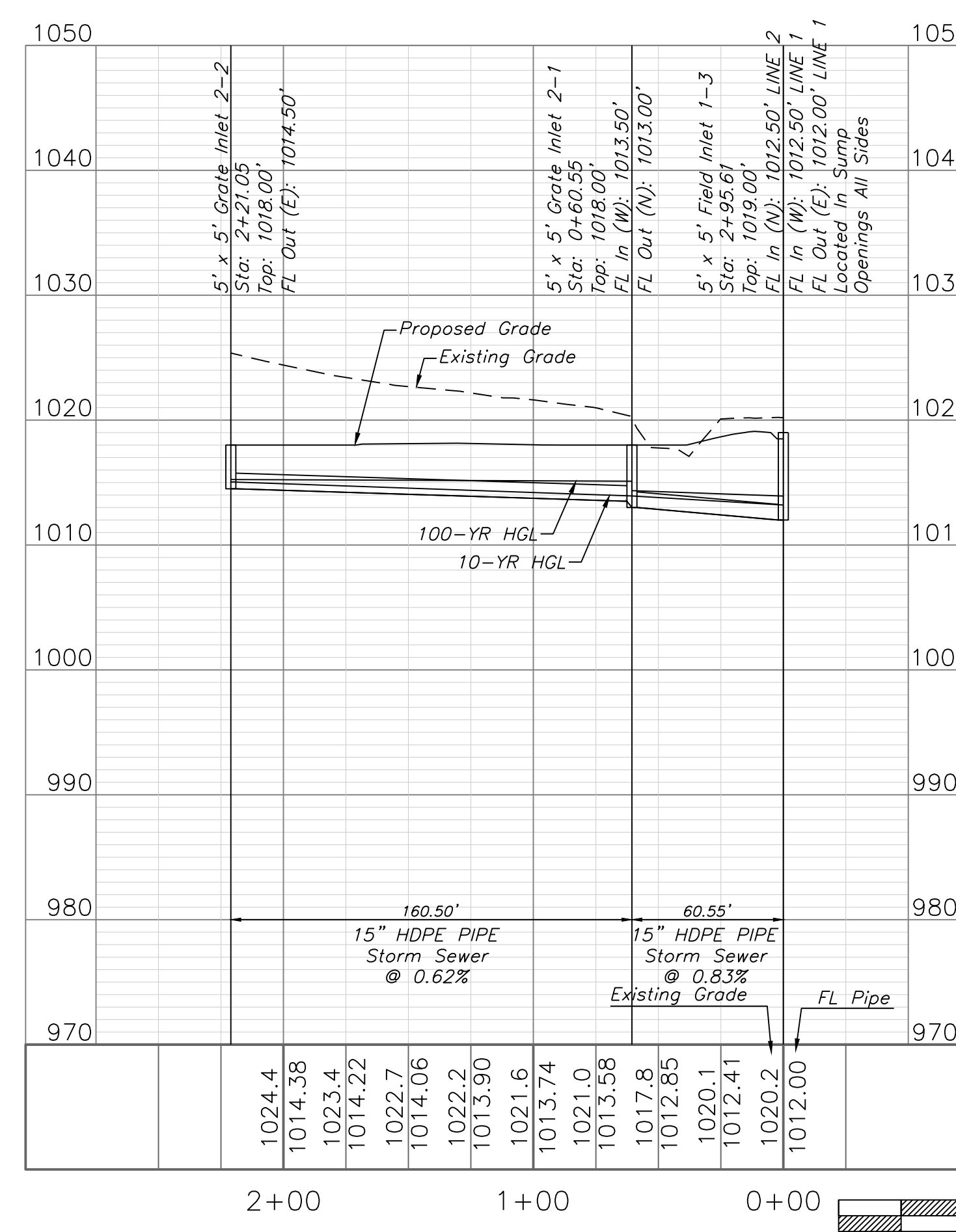
REV.	DATE	DESCRIPTION
1	3/1/2024	REV. 3/1/2024
2	4/10/2024	REV. 4/10/2024
3	4/18/2024	REV. 4/18/2024



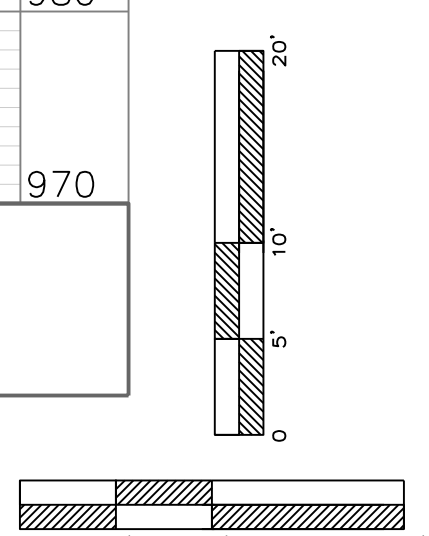
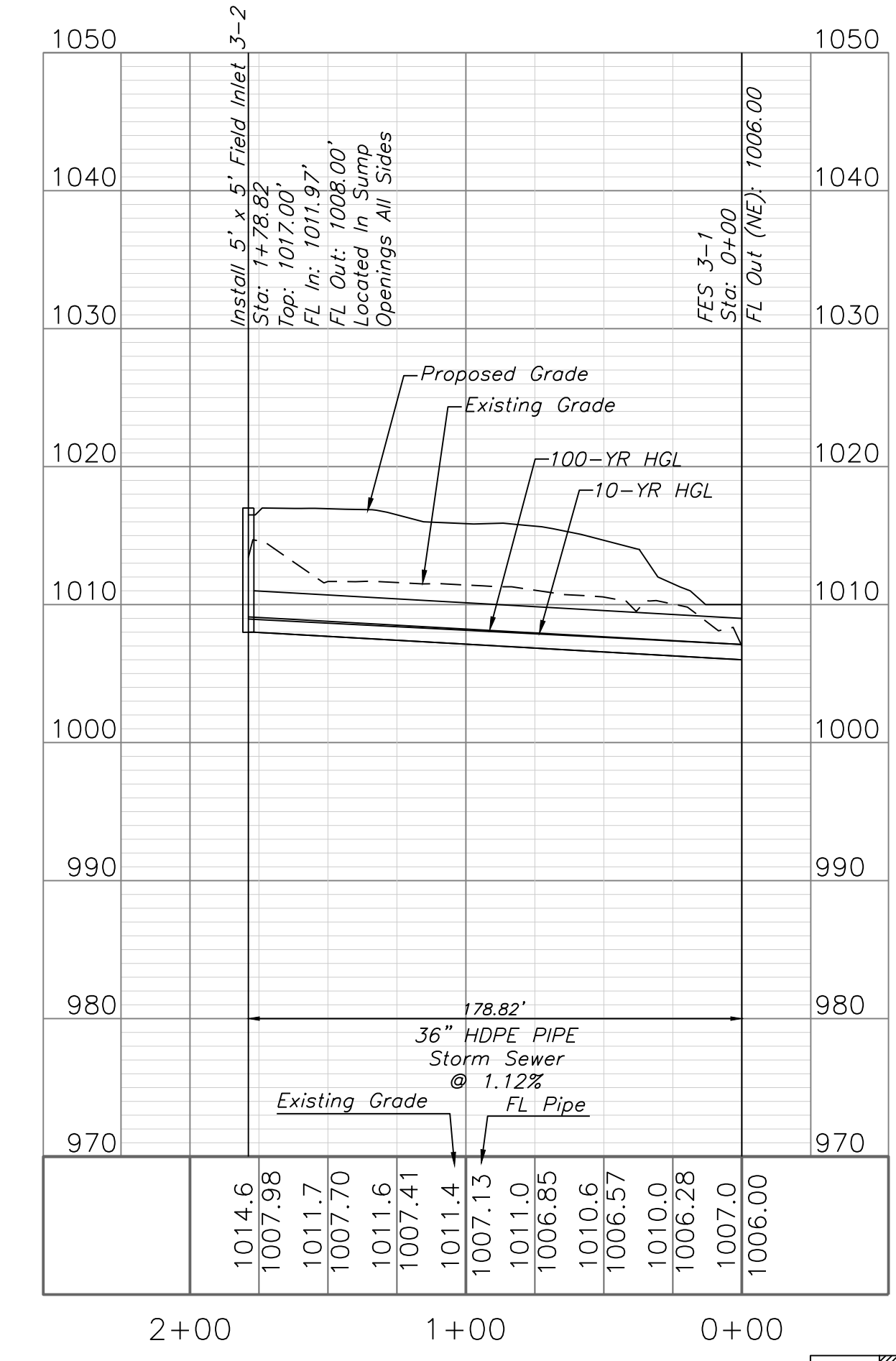
STORM LINE 1

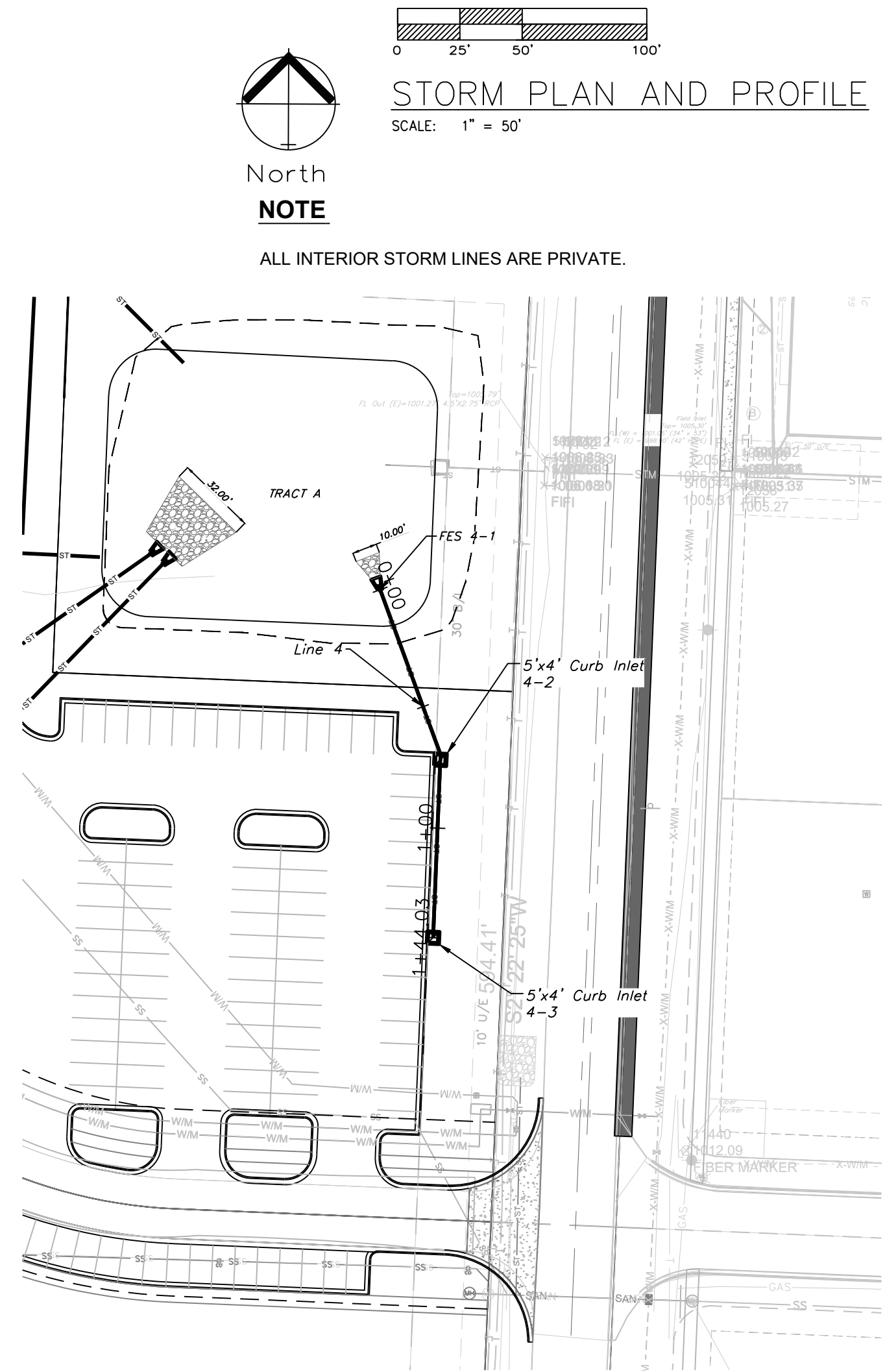


STORM LINE 2

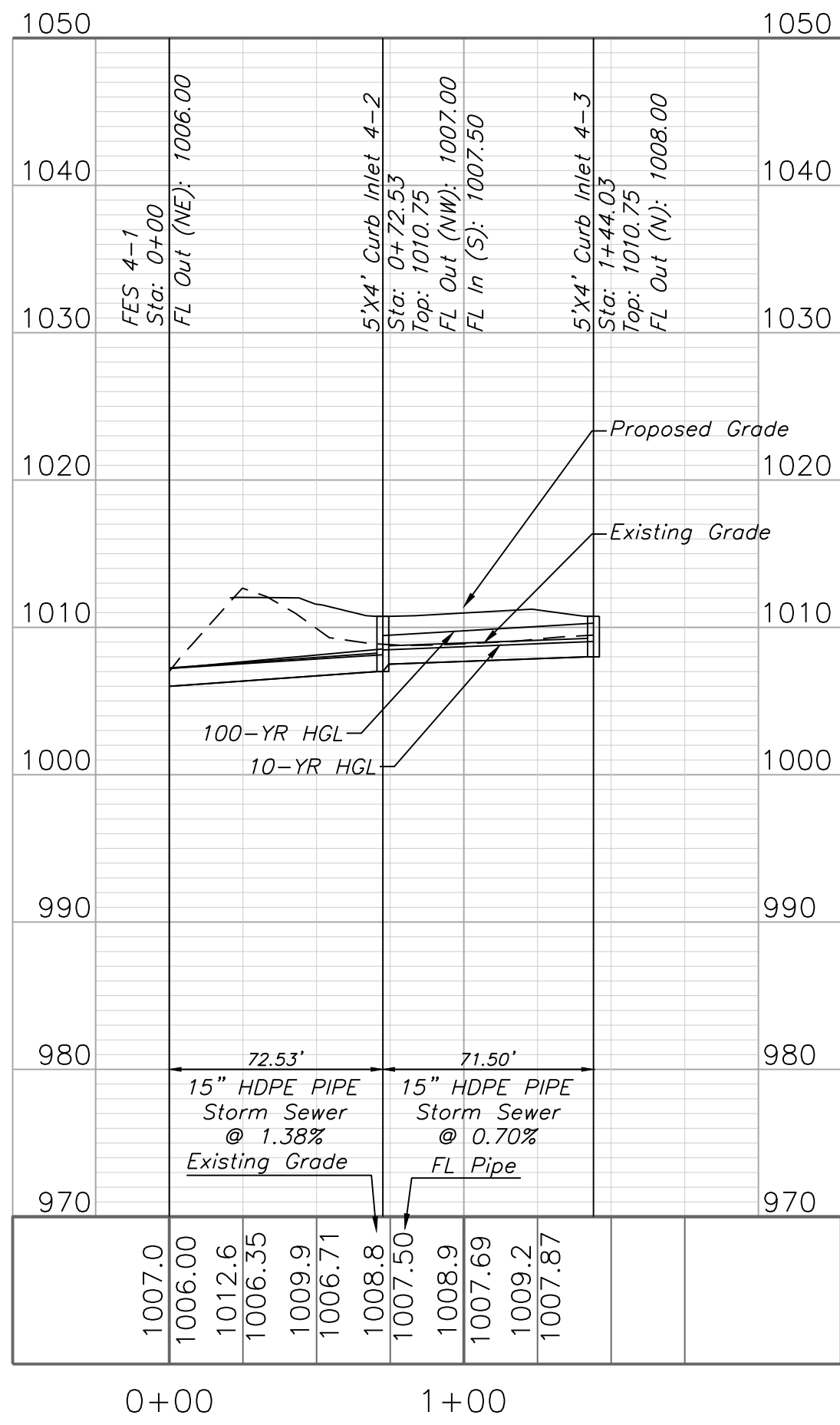


STORM LINE 3





STORM LINE 4



Professional Registration
Missouri
Engineering 2005002186-D
Surveying 2005008319-D
Kansas
Engineering E-1685
Surveying LS-218
Oklahoma
Engineering 6254
Nebraska
Engineering CA2821

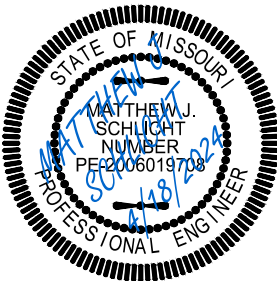
1600 Hamblen Road
Lee's Summit, Jackson County, Missouri

Project:
1600 SE HAMBLEN
RD, LEE'S
SUMMIT, MO
December 11, 2023

STORM PLAN AND PROFILE

Construction Plans for:
Tailormade Landing Phase 2
1600 Hamblen Road

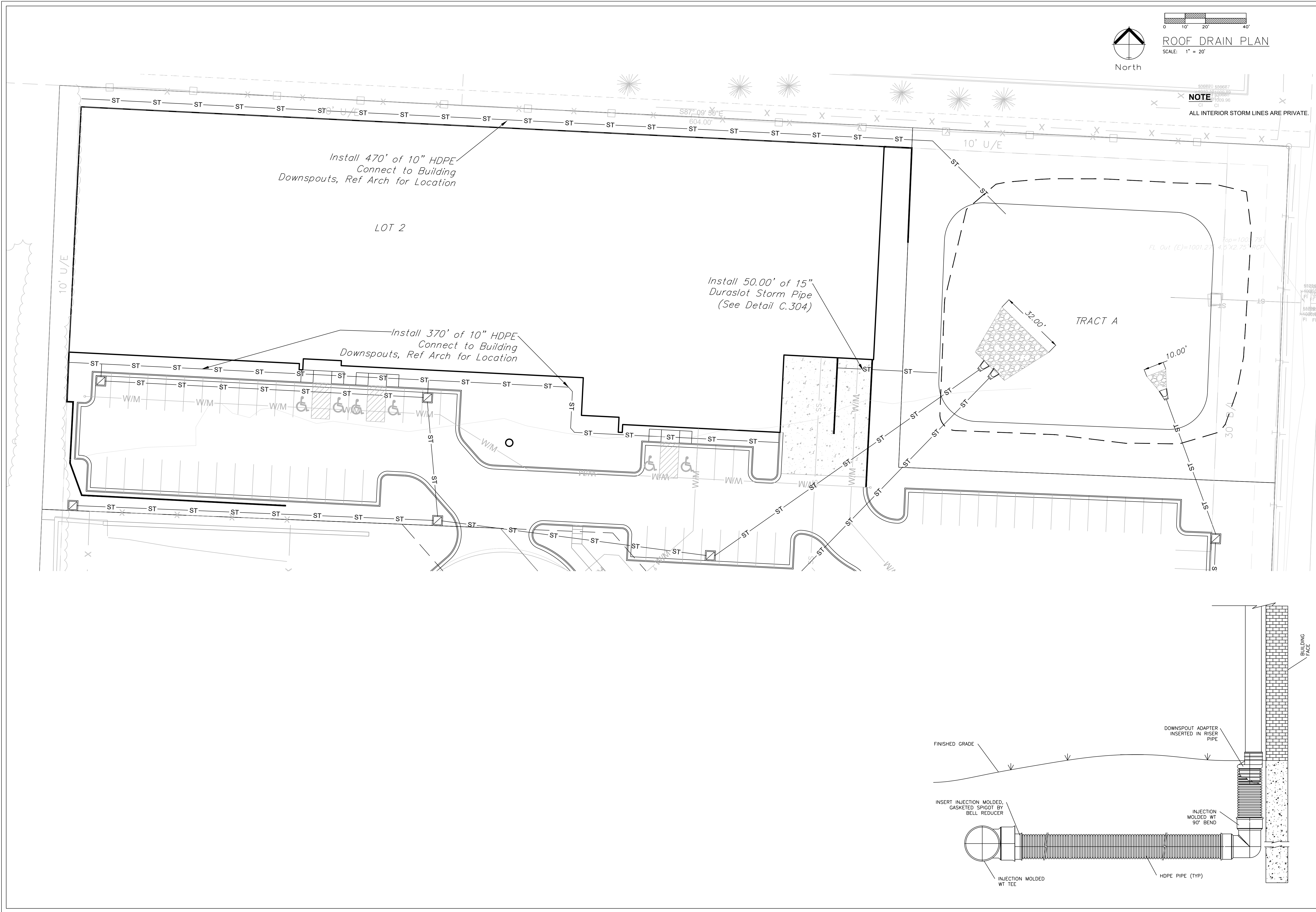
Lee's Summit, Jackson County, Missouri



Matthew J. Schlicht
MO PE 2006019708
KS PE 19071
OK PE 25226
NE PE E-14335

REVISIONS

- REV. 3/1/2024
REV. 4/10/2024
REV. 4/18/2024



ENGINEERING SOLUTIONS
ENGINEERING & SURVEYING
50 SE 30TH STREET
LEE'S SUMMIT, MO 64082
P: (816) 623-9888 F: (816) 623-9849

Professional Registration
Missouri
Engineering 2005002186-D
Surveying 2005008319-D
Kansas
Engineering E-1685
Surveying LS-218
Oklahoma
Engineering 6254
Nebraska
Engineering CA28271

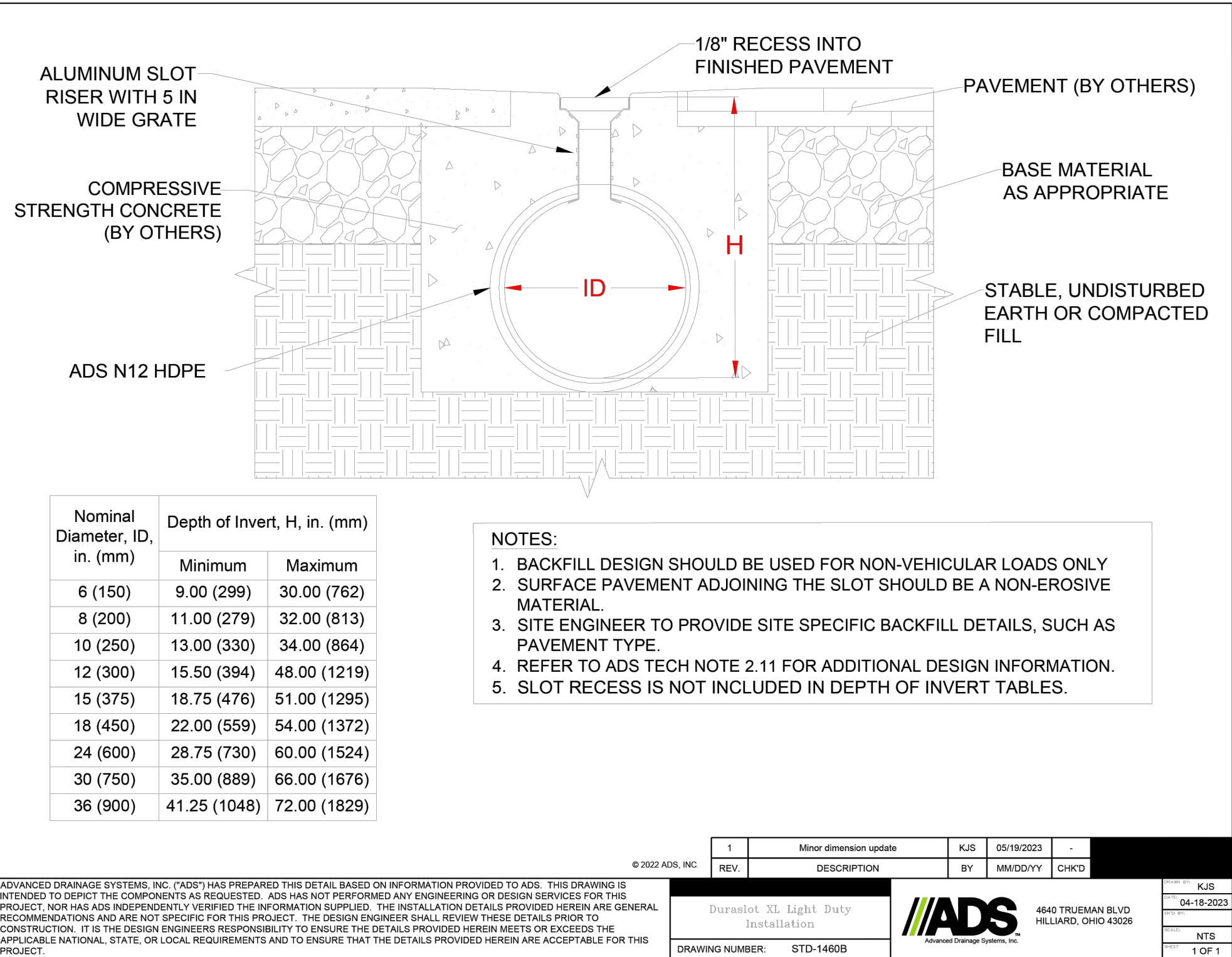
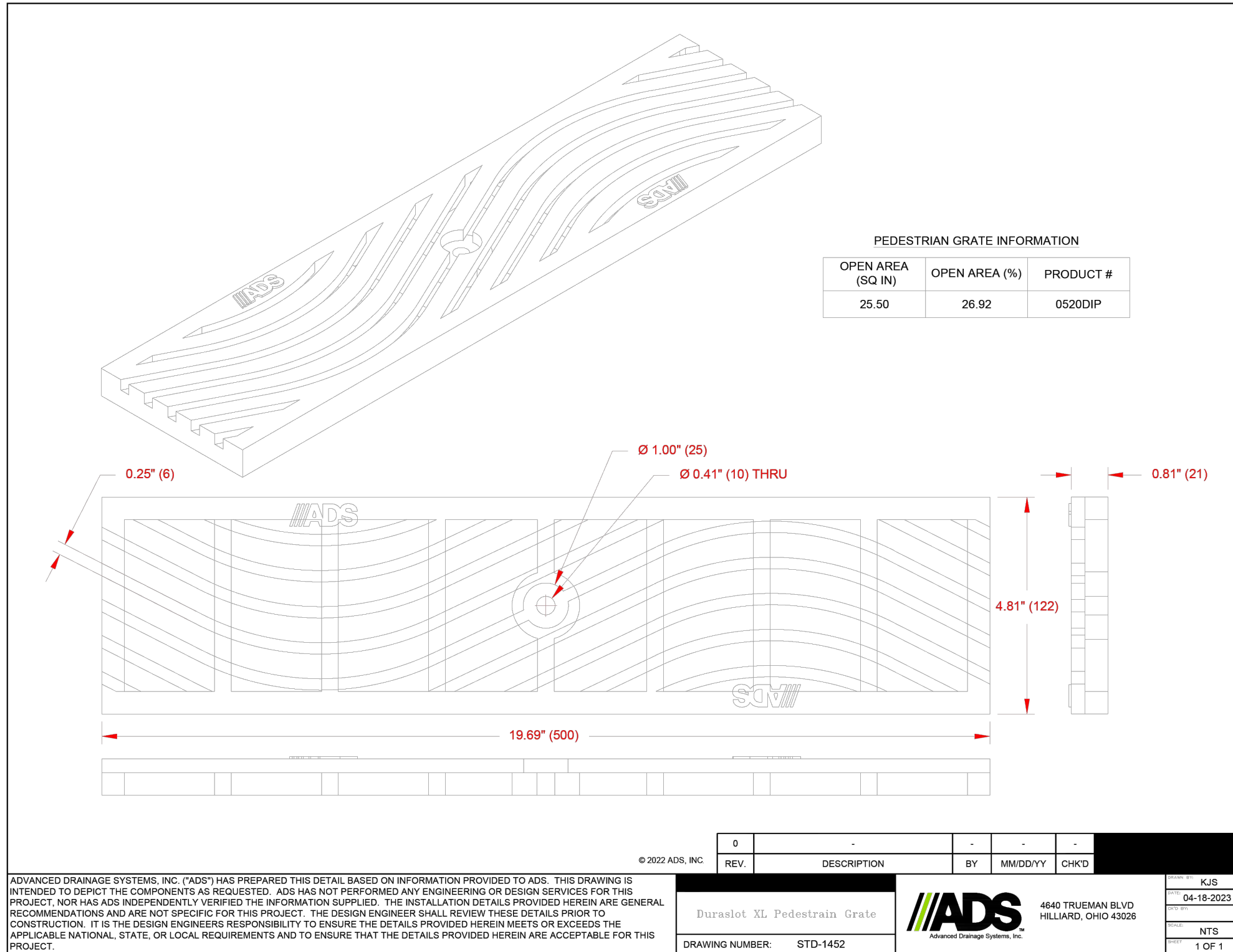
Project:
1600 SE HAMBLEN RD, LEE'S SUMMIT, MO
December 11, 2023

ROOF DRAIN PLAN
Construction Plans for:
Tailormade Landing Phase 2
1600 Hamblen Road
Lee's Summit, Jackson County, Missouri

STATE OF MISSOURI
MATTHEW J. SCHLICHT
REGISTERED PROFESSIONAL ENGINEER
Matthew J. Schlicht
MO PE 2006019708
KS PE 19071
OK PE 25226
NE PE E-14335

REVISIONS
REV. 3/1/2024
REV. 4/10/2024
REV. 4/18/2024

C. 303



10-YEAR INLET																			
D.S. Str.	Str. No.	Area (ac)	InletTime (min)	Int. (in/hr)	RunoffCoeff. (C)	Q=CIA (cfs)	Q Carry-over (cfs)	QCaptured (cfs)	JunctType	CurbHeight (in)	CurbLength (ft)	GrateArea (sqft)	GrateLength (ft)	GrateWidth (ft)	GutterSlope (ft/ft)	GutterWidth (ft)	CrossSlope, Sw (ft/ft)	CrossSlope, Sx (ft/ft)	LocalDepr. (in)
1-1	1-2	0.19	5	7.24	0.87	1.2	0	1.2	Dp-Grate	....	....	2	2	1	Sag	2	0.2	0.2	....
1-2	1-3	0.18	5	7.24	0.87	1.13	0	1.13	Dp-Curb	6	20	....	....	....	Sag	....	0.2	0.2	....
1-3	1-4	3.88	5	7.24	0.9	25.28	0	25.28	Dp-Curb	6	20	....	....	....	Sag	....	0.2	0.2	....
1-3	2-1	0.55	5	7.24	0.87	3.46	0	3.46	Dp-Grate	....	....	2	2	1	Sag	2	0.02	0.02	....
2-1	2-2	0.3	5	7.24	0.87	1.89	0	1.89	Dp-Grate	....	....	2	2	1	Sag	2	0.02	0.02	....
3-1	3-2	0.21	5	7.24	0.87	1.32	0	1.32	Dp-Curb	6	20	....	....	....	Sag	....	0.02	0.02	....
3-2	3-3	1.24	5	7.24	0.87	7.81	0	7.81	Hdwall	....	....	....	....	....	....	....	....	....	....
4-1	4-2	0.3	5	7.24	0.87	1.89	0	1.89	Curb	4	5	....	....	....	Sag	2	0.05	0.02	0
4-2	4-3	1.06	5	7.24	0.87	6.67	0	6.67	Curb	4	5	....	....	....	Sag	2	0.05	0.02	0

10-YEAR PIPE																			
D.S. Str.	U.S. Str.	LineLength (ft)	Incr.Area (ac)	TotalArea (ac)	RunoffCoeff. (C)	IncrCx A (cfs)	TotalC x A (cfs)	InletTime (min)	TimeConc (min)	RnfallInt (in/hr)	TotalRunoff (cfs)	TotalFlow (cfs)	CapacFull (cfs)	Veloc (ft/s)	PipeSize (in)	PipeSlope (%)	Inv ElevDn (ft)	Inv ElevUp (ft)	HGLDn (ft)
1-1	1-2	160.62	0.19	5.1	0.87	0.17	4.55	5	6.1	6.9	31.53	31.53	208.38	7.21	48	1.25	1006.00	1008.00	1007.4
1-2	1-3	134.99	0.18	4.91	0.87	0.16	4.39	5	5.8	7	30.71	30.71	300.69	8.2	48	2.59	1008.50	1012.00	1009.67
1-3	1-4	179.08	3.88	3.88	0.9	3.49	3.49	5	5	7.2	25.28	25.28	355.77	7.24	48	3.63	1012.50	1013.64	1010.48
1-3	2-1	60.55	0.55	0.85	0.87	0.48	0.74	5	5.6	7.1	5.22	5.22	7.63	4.9	15	0.83	1012.50	1013.00	1013.64
2-1	2-2	160.5	0.30	0.3	0.87	0.26	0.26	5	5	7.2	1.89	1.89	6.63	4.16	15	0.62	1013.50	1014.50	1013.96
3-1	3-2	178.82	0.21	1.45	0.87	0.18	1.26	5	5.3	7.1	9.02	9.02	91.69	4.25	36	1.12	1006.00	1008.00	1007.11
3-2	3-3	99.02	1.24	1.24	0.87	1.08	1.08	5	5	7.2	7.81	7.81	64.03	5.32	36	0.55	1011.97	1012.51	1012.68
4-1	4-2	72.53	0.30	1.36	0.87	0.26	1.18	5	5.2	7.2	8.5	8.5	9.86	7.12	15	1.38	1006.00	1007.00	1007.21
4-2	4-3	71.5	1.06	1.06	0.87	0.92	0.92	5	5	7.2	6.67	6.67	7.02	6.32	15	0.7	1007.50	1008.00	1008.47

100-YEAR INLET																			
D.S. Str.	Str. No.	Area (ac)	InletTime (min)	Int. (in/hr)	RunoffCoeff. (C)	Q=CIA (cfs)	Q Carry-over (cfs)	QCaptured (cfs)	JunctType	CurbHeight (in)	CurbLength (ft)	GrateArea (sqft)	GrateLength (ft)	GrateWidth (ft)	GutterSlope (ft/ft)	GutterWidth (ft)	CrossSlope, Sw (ft/ft)	CrossSlope, Sx (ft/ft)	LocalDepr. (in)
1-1	1-2	0.19	5	9.83	0.87	1.63	0	1.63	Dp-Grate	....	....	2	2	1	Sag	2	0.2	0.2	....
1-2	1-3	0.18	5	9.83	0.87	1.54	0	1.54	Dp-Curb	6	20	....	....	....	Sag	....	0.2	0.2	....
1-3	1-4	3.88	5	9.83	0.9	34.34	0	34.34	Dp-Curb	6	20	....	....	....	Sag	....	0.2	0.2	....
1-3	2-1	0.55	5	9.83	0.87	4.71	0	4.71	Dp-Grate	....	....	2	2	1	Sag	2	0.02	0.02	....
2-1	2-2	0.3	5	9.83	0.87	2.57	0	2.57	Dp-Grate	....	....	2	2	1	Sag	2	0.02	0.02	....
3-1	3-2	0.21	5	9.83	0.87	1.8	0	1.8	Dp-Curb	6	20	....	....	....	Sag	....	0.02	0.02	....
3-2	3-3	1.24	5	9.83	0.87	10.61	0	10.61	Hdwall	....	....	....	....	....	....	....	....	....	....
4-1	4-2	0.3	5	9.83	0.87	2.57	0	2.57	Curb	4	5	....	....	....	Sag	2	0.05	0.02	0
4-2	4-3	1.06	5	9.83	0.87	9.07	0	9.07	Curb	4	5	....	....	....	Sag	2	0.05	0.02	0

100-YEAR PIPE																			
D.S. Str.	U.S. Str.	LineLength (ft)	Incr.Area (ac)	TotalArea (ac)	RunoffCoeff. (C)	IncrCx A (cfs)	TotalC x A (cfs)	InletTime (min)	TimeConc (min)	RnfallInt (in/hr)	TotalRunoff (cfs)	TotalFlow (cfs)	CapacFull (cfs)	Veloc (ft/s)	PipeSize (in)	PipeSlope (%)	Inv ElevDn (ft)	Inv ElevUp (ft)	HGLDn (ft)
1-1	1-2	160.62	0.19	5.1	0.87	0.17	4.55	5	6.4	9.4	42.62	42.62	208.38	8.94	48	1.25	1006.00	1008.00	1007.4
1-2	1-3	134.99	0.18	4.91	0.87	0.16	4.39	5	6.2	9.4	41.44	41.44	300.69	8.51	48	2.59	1008.50	1012.00	1009.95
1-3	1-4	179.08	3.88	3.88	0.9	3.49	3.49	5	5	9.8	34.34	34.34	355.77	7.56	48	3.63	1012.50	1013.92	1010.74
1-3	2-1	60.55	0.55	0.85	0.87	0.48	0.74	5	6	9.5	7.03	7.03	7.63	5.73	15	0.83	1012.50	1013.00	1013.92
2-1	2-2	160.5	0.30	0.3	0.87	0.26	0.26	5	5	9.8	2.57	2.57	6.63	2.74	15	0.62	1013.50	1014.50	1015.11
3-1	3-2	178.82	0.21	1.45	0.87	0.18	1.26	5	5.3	9.7	12.28	12.28	91.69	5.16	36	1.12	1006.00	1008.00	1007.11
3-2	3-3	99.02	1.24	1.24	0.87	1.08	1.08	5	5	9.8	10.61	10.61	64.03	5.82	36	0.55	1011.97	1012.51	1012.8
4-1	4-2	72.53	0.30	1.36	0.87	0.26	1.18	5	5.2	9.8	11.57	11.57	9.86	9.47	15	1.38	1006.00	1007.00	1007.21
4-2	4-3	71.5	1.06	1.06	0.87	0.92	0.92	5	5	9.8	9.07	9.07	7.02	7.39	15	0.7	1007.50	1008.00	1009.44

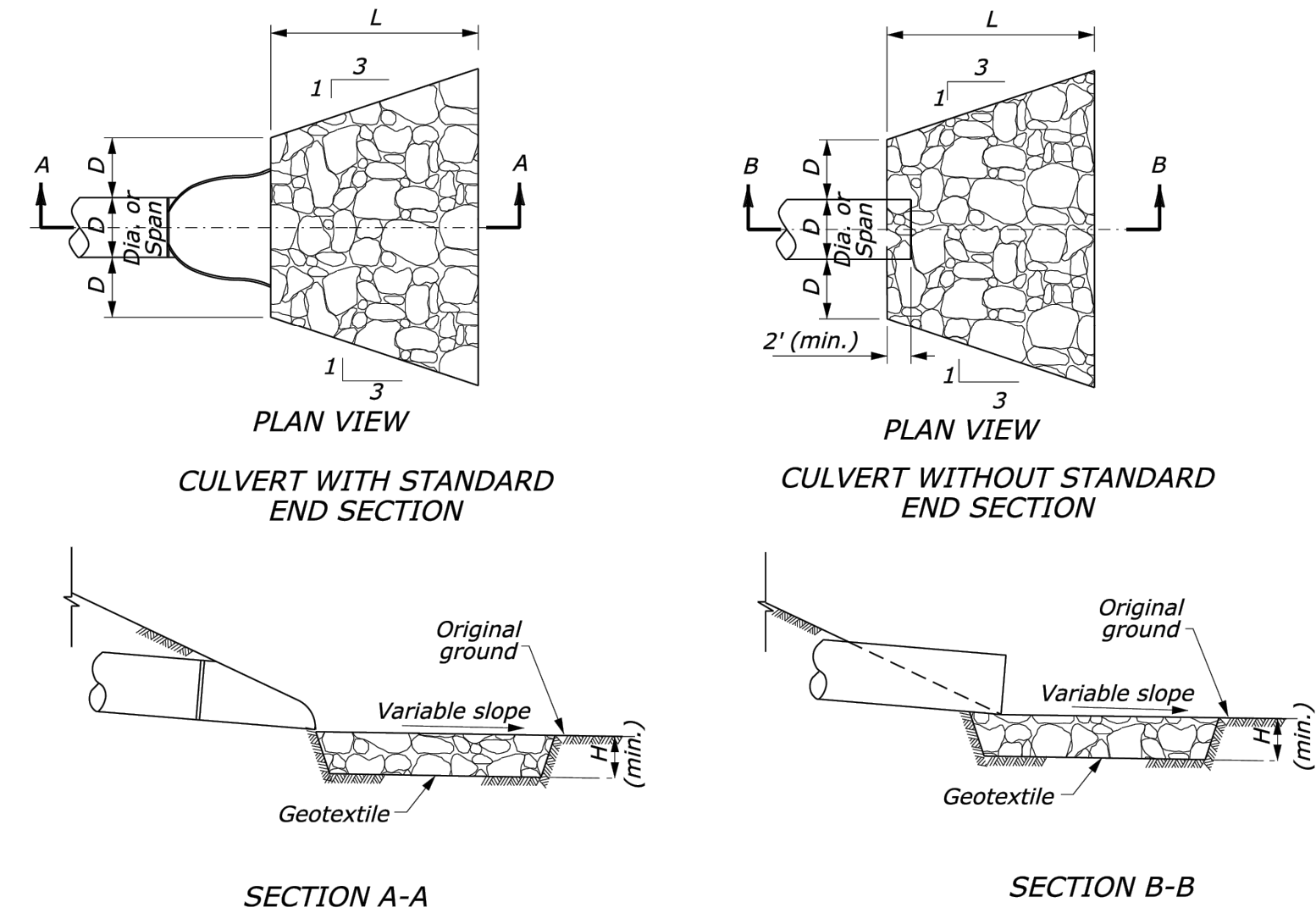
EXAMPLE RIPRAP APRON CALCULATIONS

Field End Section #	4-1	
Q =	11.57 cfs	D ₅₀ = riprap size, m(ft)
D =	1.25 ft	Q = design discharge, m^3/s (ft^3/s)
Tw =	0.5 ft	D = culvert diameter (circular), m(ft)
g =	32.2 ft/s^2	Tw = tailwater depth, m(ft), if unknown use 0.4*D
D ₅₀ =	9.22 inches	g = acceleration due to gravity, 9.81 m/s^2 (32.2 ft/s^2)
S =	0.33 ft/ft	Subcritical Flow
n =	0.01	S = pipe slope, m/m(ft/ft)
Qcap =	48.03 ft^3/s	n = manning's roughness coefficient, unitless
d/D =	0.33	Qcap = full pipe capacity, m^3/s(ft^3/s)
Vcap =	39.16 ft^2/s	Q/Qcap = design discharge/full pipe capacity, unitless
V/Vcap =	0.8172	d/D = water depth/pipe diameter, unitless
V =	32.00 ft/s	d = depth of flow, m(ft)
Fr =	8.78	Velocity Full m^2/s(ft^2/s)
Flow =	Supercritical	V/Vcap = design velocity/full pipe velocity, unitless
		V = velocity of flow segment, m^2/s(ft^2/s)
		Fr > 1 Supercritical, Fr = 1 Critical, Fr < 1 Subcritical
		If flow is Supercritical adjust culvert diameter
D' =	0.83 ft	D' = culvert diameter adjustment, m(ft)
yn =	0.41 ft	yn = normal (supercritical) depth in culvert, m(ft)
D ₅₀ =	15.88 inches	
Classify	15.88 inches	

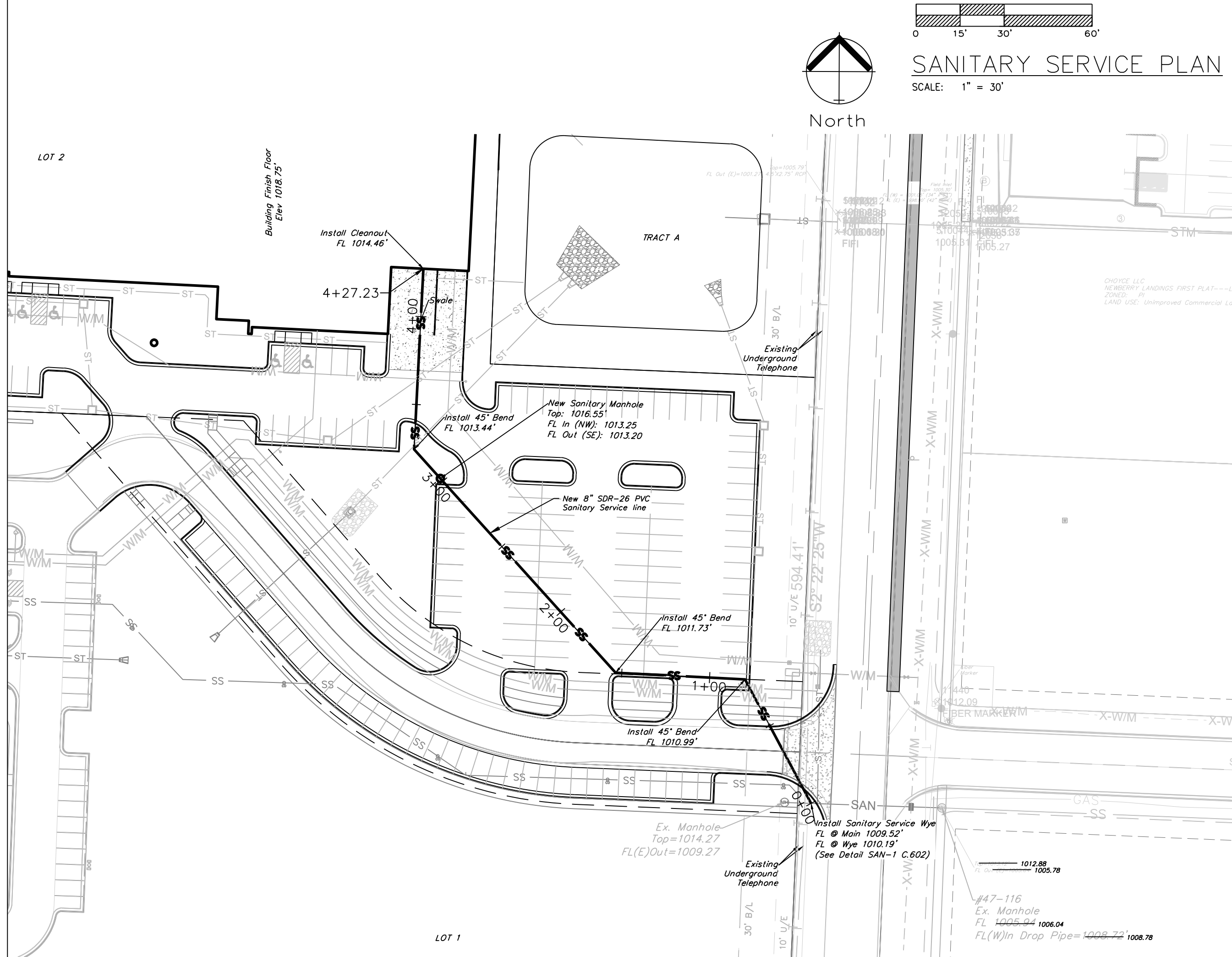
Class 5		Use D ₅₀ = 20	
Apron Length =	7 * D	8.75 ft	Use 9.00 ft
Apron Depth =	2 * D ₅₀	40.00 inches	Use 40.00 inches
Apron Width =	3*D+(2/3)L	9.58 ft	Use 10.00 ft

RipRap Apron		Area (ac.)		Q100 (cfs)		Dia. (ft)		Class		D ₅₀ (in)		Length (ft)		Depth (in)		Width (ft)	
1-1 & 3-1	6.55	54.9	5	3	10	25	24	32									
4-1	1.36	11.57	1.25	5	20	9	40	10									

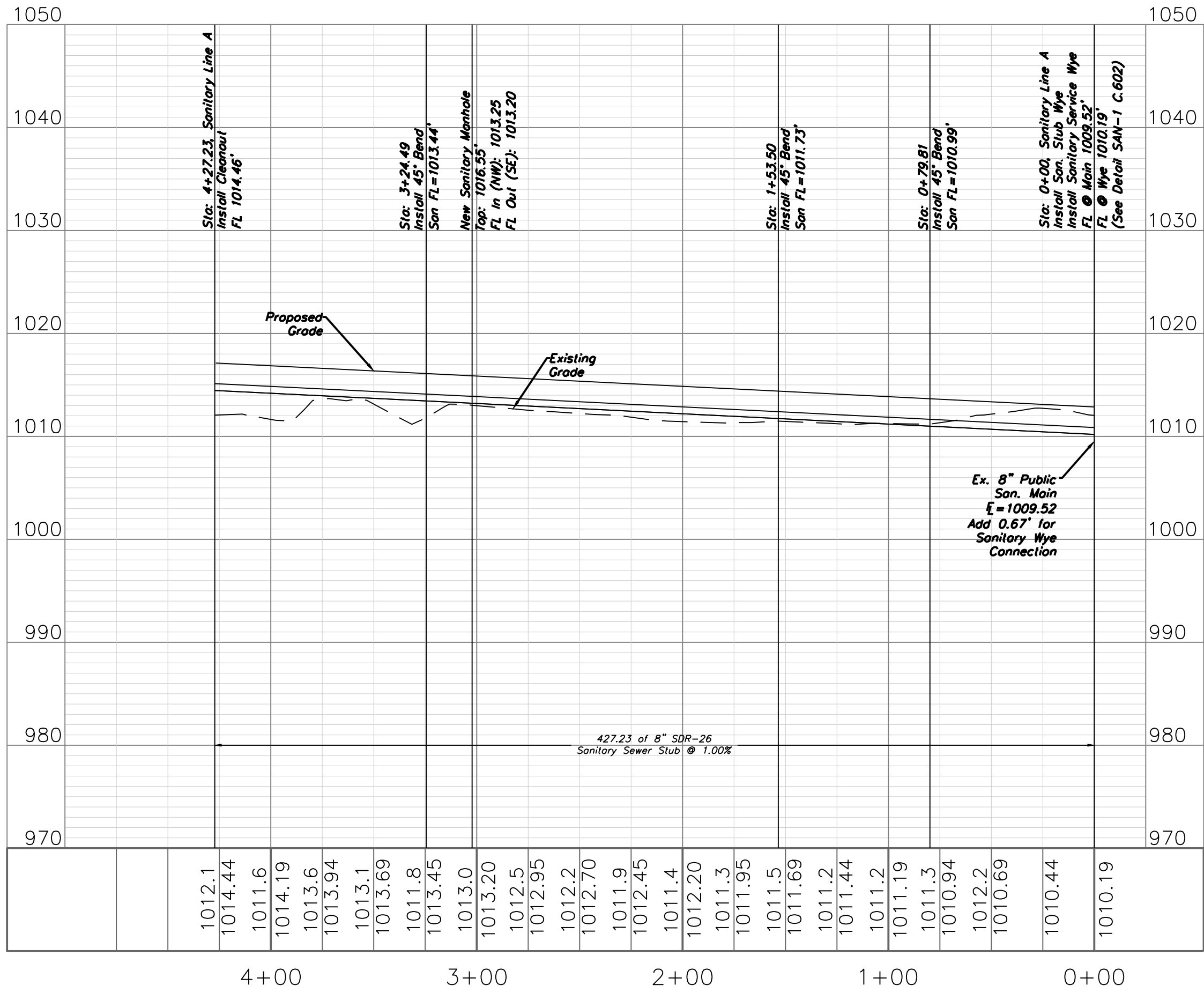
STANDARD RIPRAP APRON DETAIL



- NOTES:
- ALL RIPRAP APRONS SHALL CONFORM TO THE STANDARD CONFIGURATION SHOWN IN THE STANDARD DETAIL ABOVE UNLESS OTHERWISE NOTED. PLAN VIEW DIMENSIONS SHOWN SHALL BE MET OR EXCEEDED INCLUDING AREAS OF LONGITUDINAL AND/OR TRANSVERSE SLOPE.
 - DIMENSIONS FOR EACH RIPRAP APRON AND ASSOCIATED RIPRAP ARE DETAILED IN THE PLAN SET.
 - GEOTEXTILE SHALL BE "GEI WORKS 4 OUNCE" NON-WOVEN FILTER FABRIC DESIGNED FOR FILTRATION, STABILIZATION AND SEPARATION WRAPPED CONTINUOUSLY ALONG THE SIDEWALLS AND BOTTOM OF THE PREPARED AREA OR SLOPE, UNLESS NOTED OTHERWISE IN THE PLAN SET.
- WATER FLOW = 120 GPM/SF
 - GRAB STRENGTH (MIN) = 400 N
 - PUNCTURE STRENGTH (MIN) = 178 N
 - TRAPEZOIDAL TEAR (MIN) = 133 N
 - ELONGATION (MIN) = 15%



PRIVATE SANITARY LINE A



△ REVISED SHEET NUMBER.

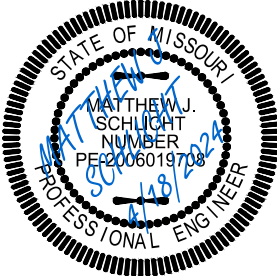


Professional Registration
Missouri
Engineering 2005002186-D
Surveying 2005008319-D
Kansas
Engineering E-1685
Surveying LS-218
Oklahoma
Engineering 6254
Nebraska
Engineering CA2821

1600 Hamblen Road
Lee's Summit, Jackson County, Missouri

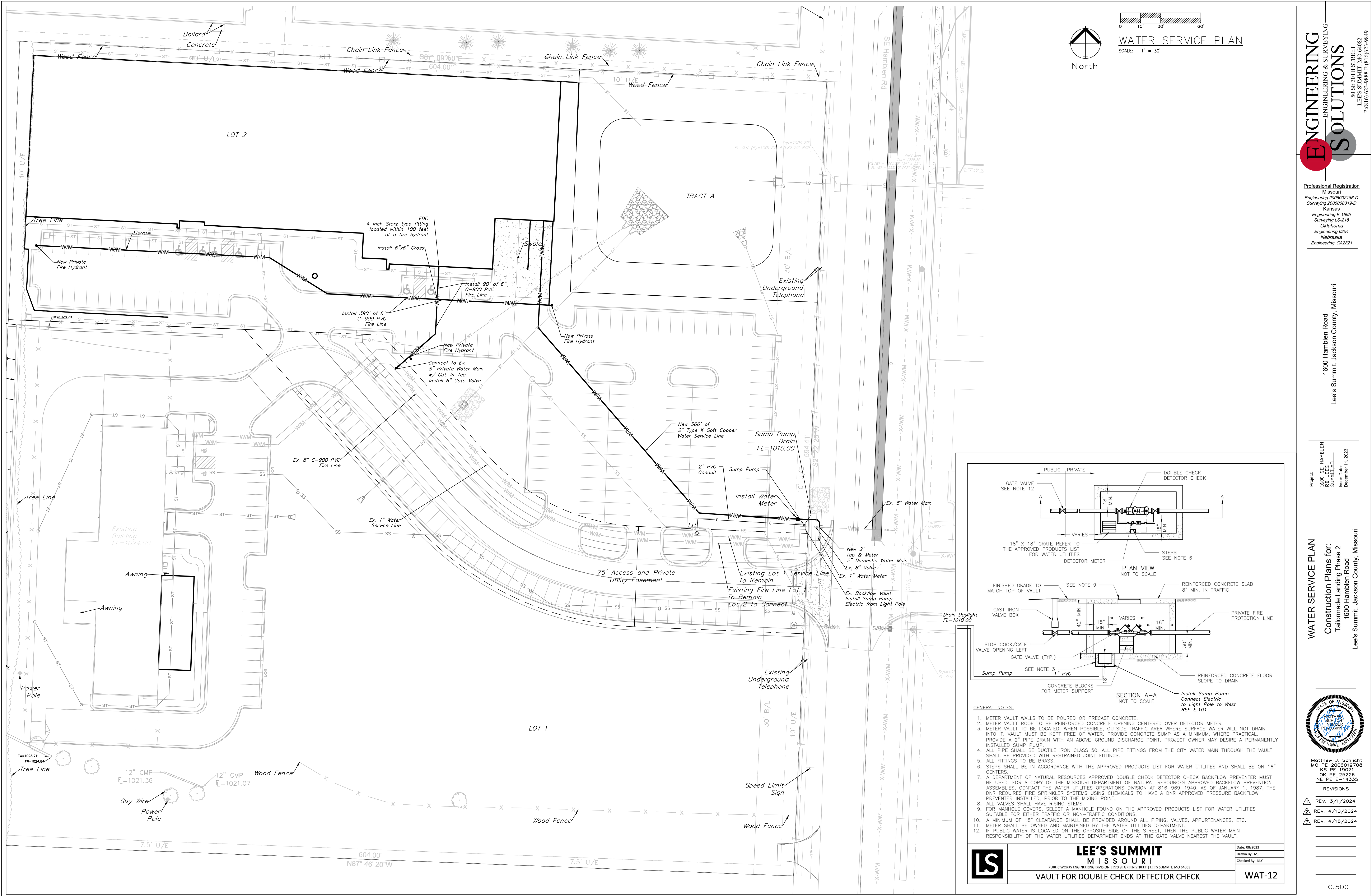
Project:
1600 SE HAMBLEN
RD, LEE'S
SUMMIT, MO
December 11, 2023

SANITARY SERVICE PLAN
Construction Plans for:
Tailormade Landing Phase 2
1600 Hamblen Road
Lee's Summit, Jackson County, Missouri



Matthew J. Schlicht
MO PE 2006019708
KS PE 19071
OK PE 25226
NE PE E-14335

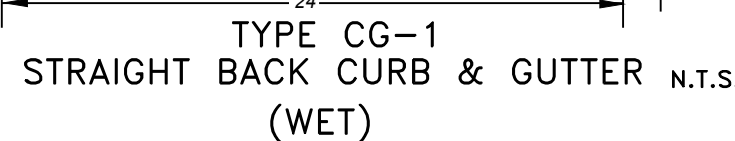
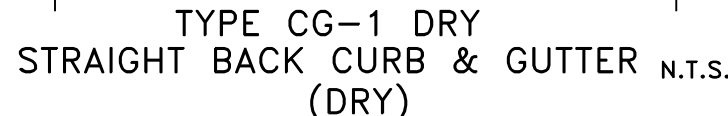
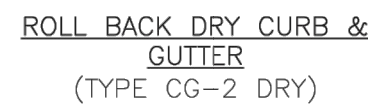
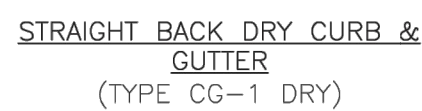
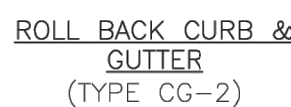
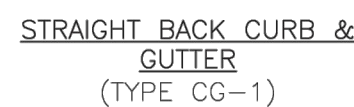
REVISIONS
△ REV. 3/1/2024
△ REV. 4/10/2024
△ REV. 4/18/2024





- ### GENERAL NOTES

1. 3/4" OSTEAL JOINTS WITH 3" (2" - 45 BAR) SMOOTH DOWELS SHALL BE PLACED AT RADIIUS POINTS AND AT 150' INTERVALS. THESE DOWEL BARS SHALL BE GREASED AND WRAPPED ON ONE END WITH EXPANSION TUBES.
2. 3" DEEP CONTRACTION JOINTS SHALL BE INSTALLED AT APPROXIMATELY 10' INTERVALS. THESE JOINTS SHALL PASS ACROSS THE ENTIRE CURB SURFACE.
3. CONCRETE FILL SHALL HAVE UNIFORM AND SMOOTH FINISH
4. KOWMB 400 CONCRETE SHALL BE USED FOR ALL CURB.
5. ASPHALTIC CONCRETE SURFACE COURSE SHALL CONFORM TO STANDARD SPECIFICATIONS SECTION 2205.2.
6. CURBS FOR NEW STREETS SHALL BE BUILT ON ASPHALT OR AGGREGATE BASE AS SHOWN IN TYPICAL SECTION DETAIL.
7. WHITE CURING COMPOUND SHALL BE APPLIED UNIFORMLY TO THE CONCRETE SURFACE IMMEDIATELY AFTER FINAL FINISHING.
8. ALL DOWELS & THE BARS SHALL BE EPOXY COATED.



NOTE:
REFERENCE
THICKNESS

"DRIVE LANE" PRIVATE ASPHALT PAVEMENT

"PARKING STALLS"

PRIVATE ASPHALT PAVEMENT
NOT TO SCALE



SIDEWALK NOTES:

1. CONCRETE SHALL BE CLASS A CONCRETE AIR ENTRAINED AGGREGATE SPECIFICATIONS PROVIDE 3000LB AIR ENTRAINED CONCRETE (6% AIR PLUS OR MINUS 1%)
2. $\frac{3}{8}$ " PRE MOLDDED EXPANSION JOINTS SHALL BE PLACED AT 30'-0" CENTERS OR WHEN ABUTTING EXISTING CONCRETE/BRICK. PROVIDE SELF LEVELING SEALANT ABOVE JOINT
3. $\frac{3}{8}$ " x 1" CONTRACTION JOINTS SHALL BE PLACED AS SHOWN ON THE DRAWINGS OR AT DISTANCE NOT EXCEEDING THE WIDTH OF THE SIDEWALK IF NOT SHOWN, SAW CUT ALL JOINTS AND PROVIDE A SMOOTH FINISH.
4. KEY ALL CONSTRUCTION JOINTS.



NOT TO SCALE

GENERAL NOTE:

1 ~ ALL CONSTRUCTION SHALL CONFORM TO THE CITY OF LEE'S
SUMMIT DESIGN AND CONSTRUCTION MANUAL AS ADOPTED BY
ORDINANCE 5813.

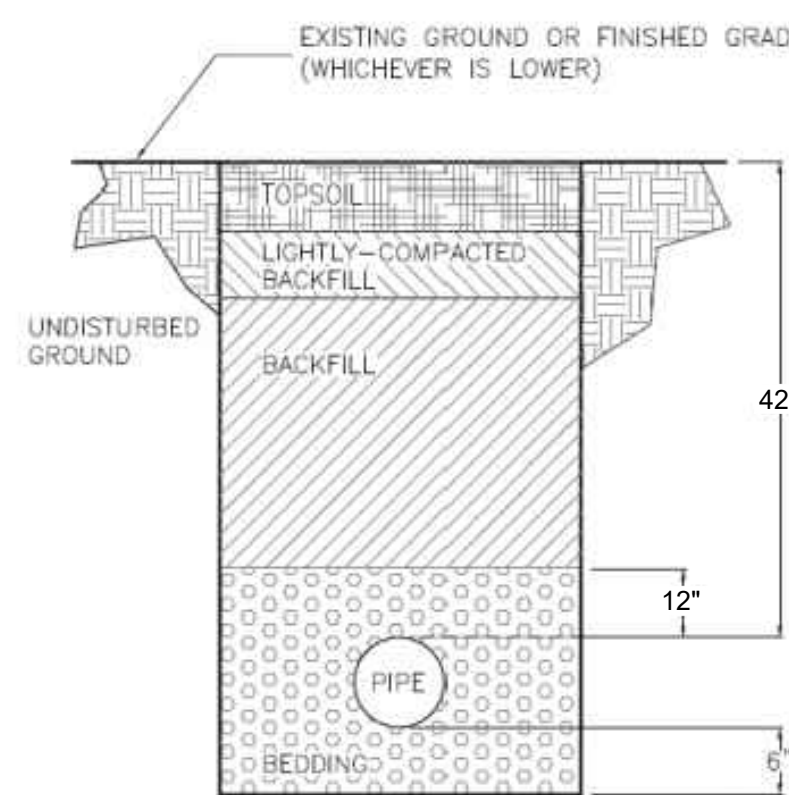
Construction Plans for: Tailormade Landing Phase 2

1600 Hamblen Road
Lee's Summit, Jackson County, Missouri

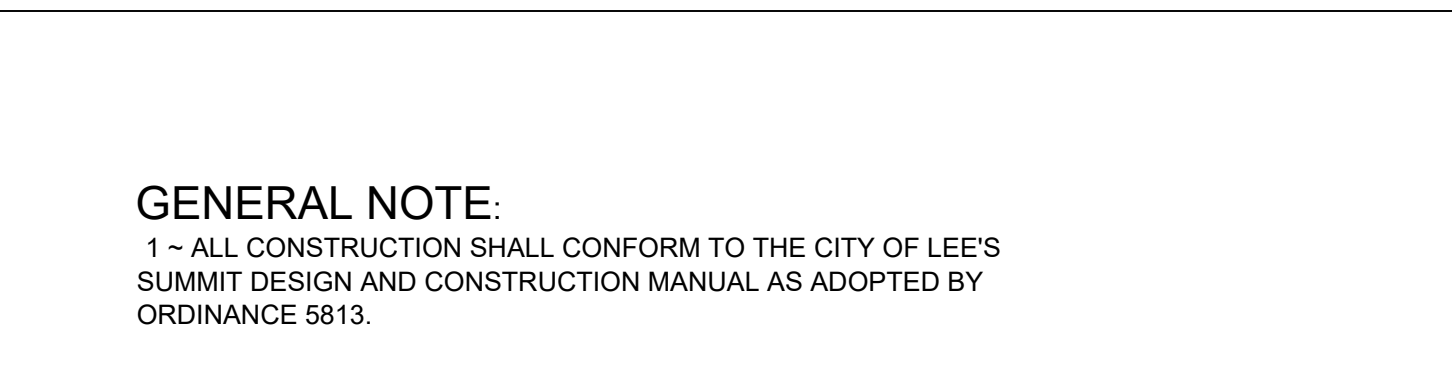
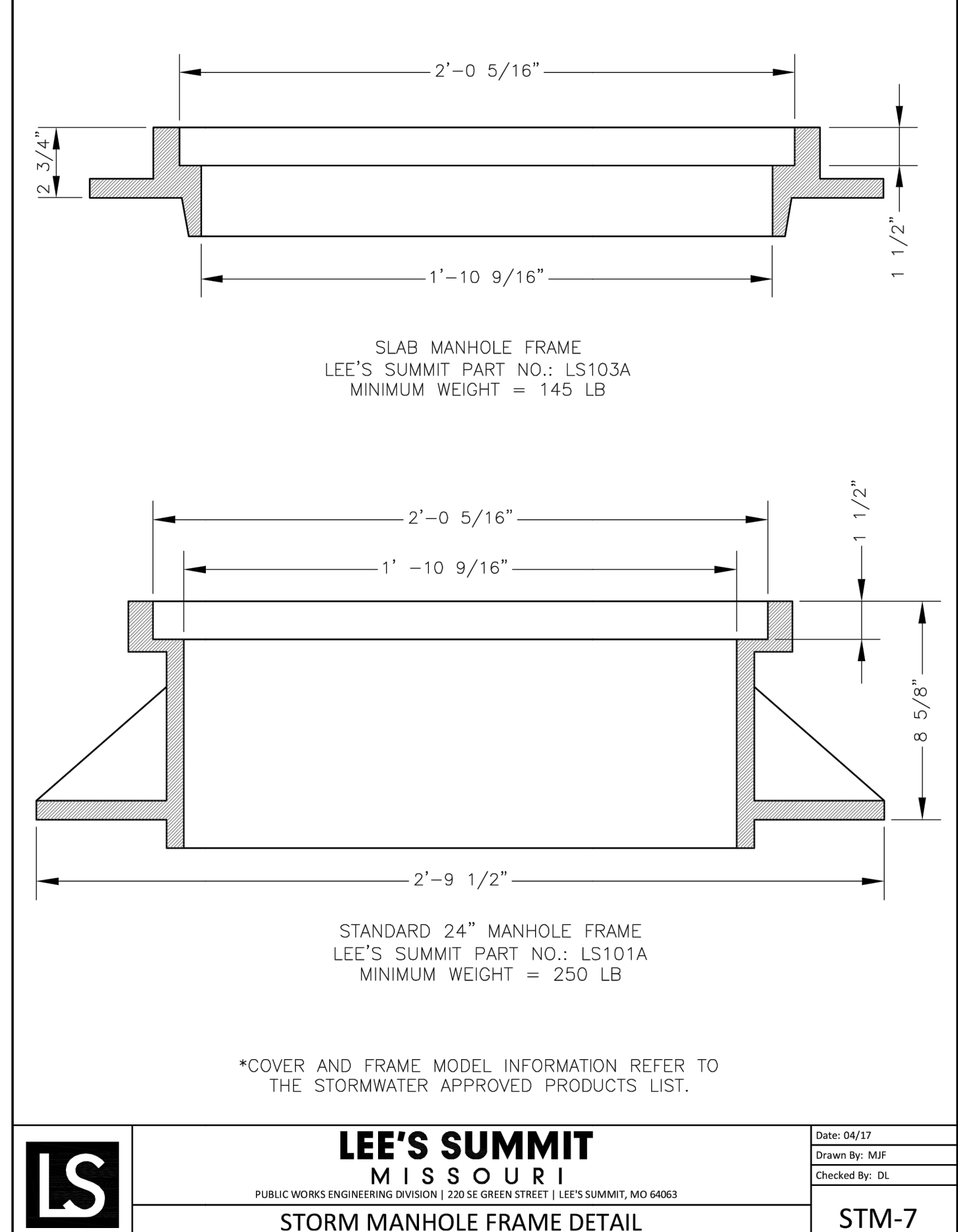
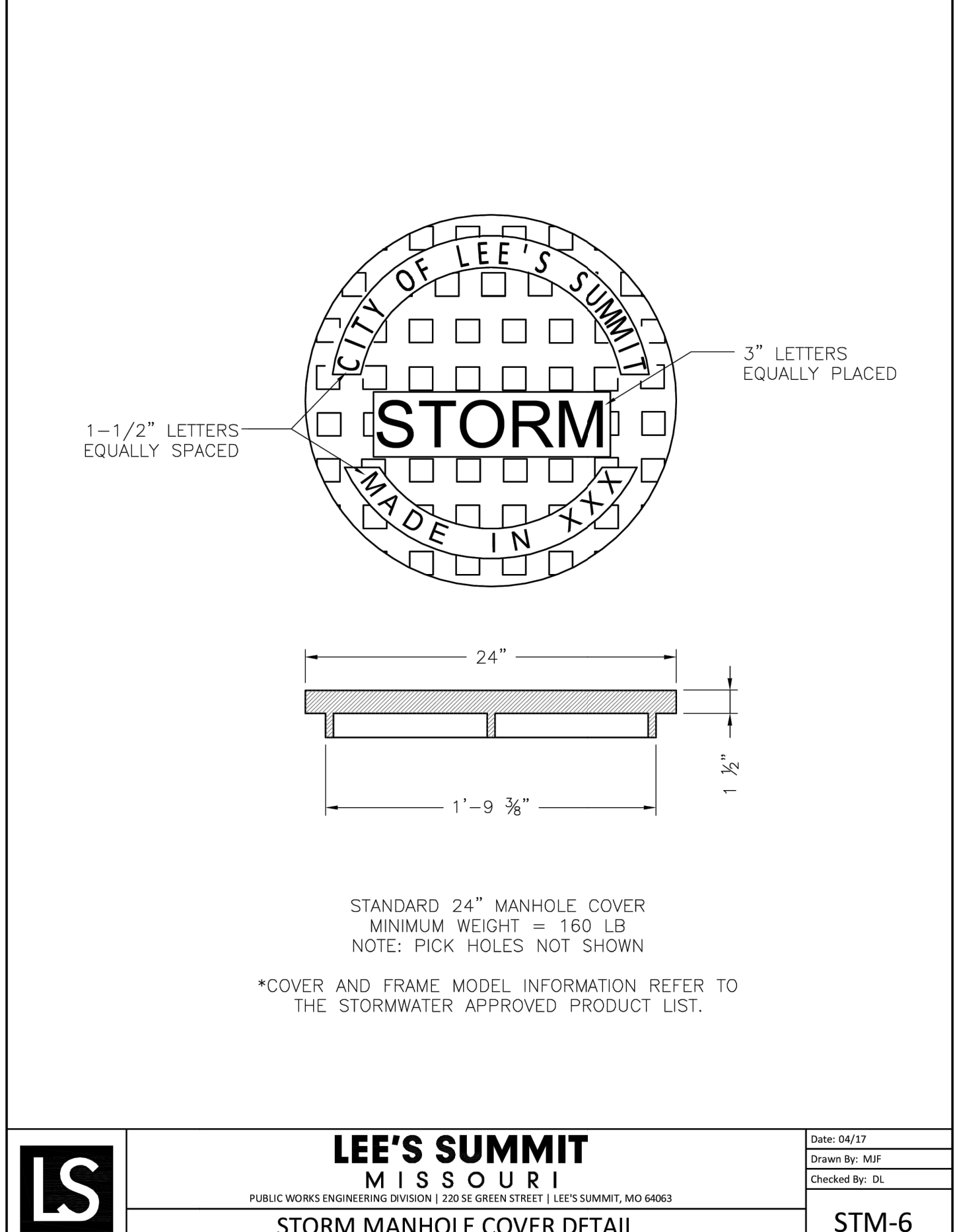
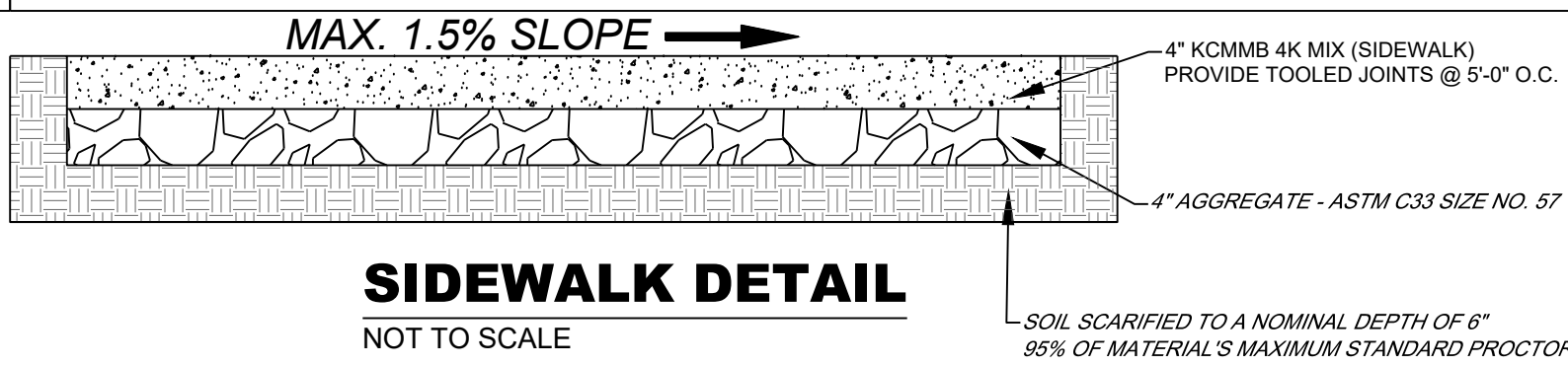
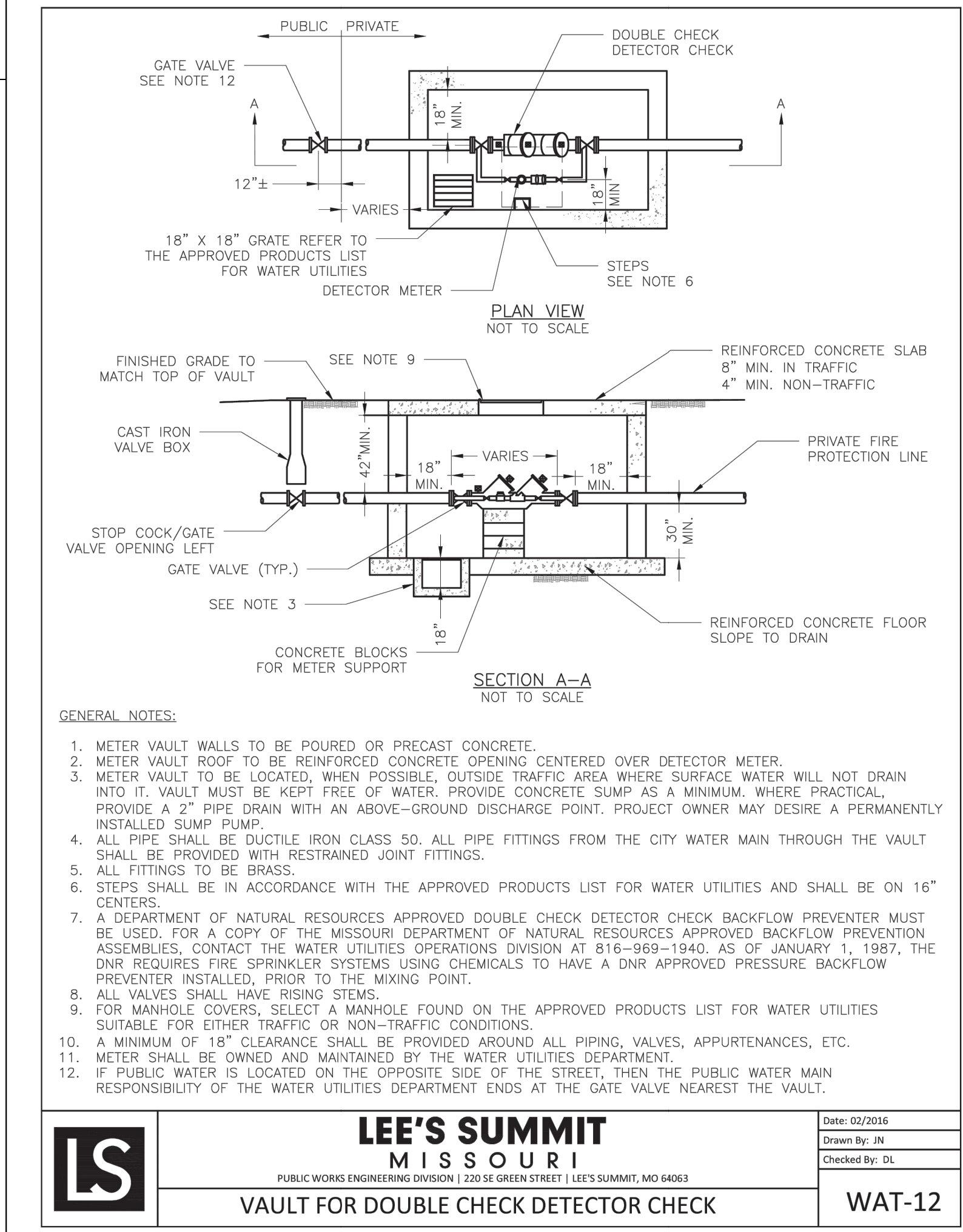
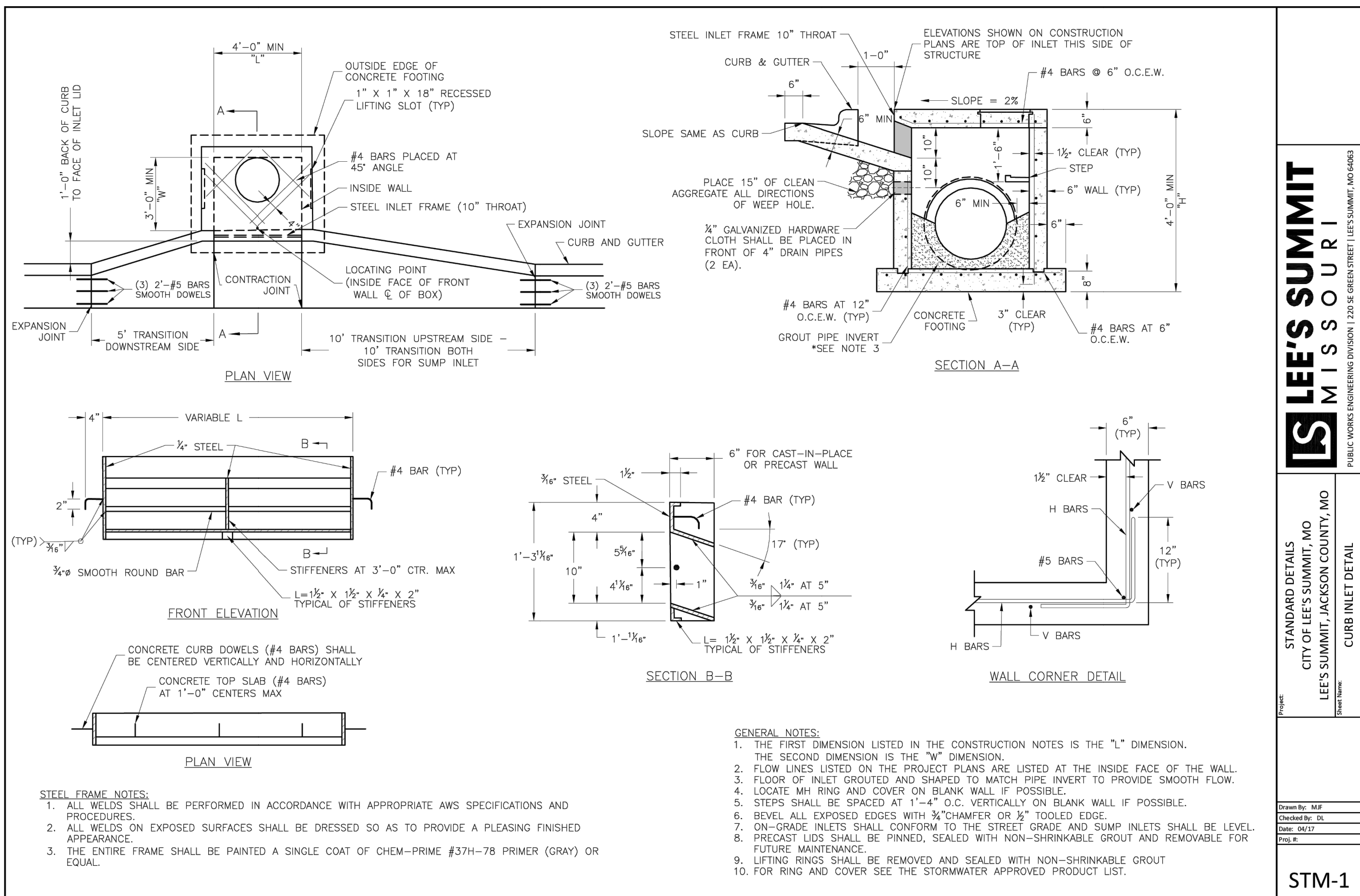
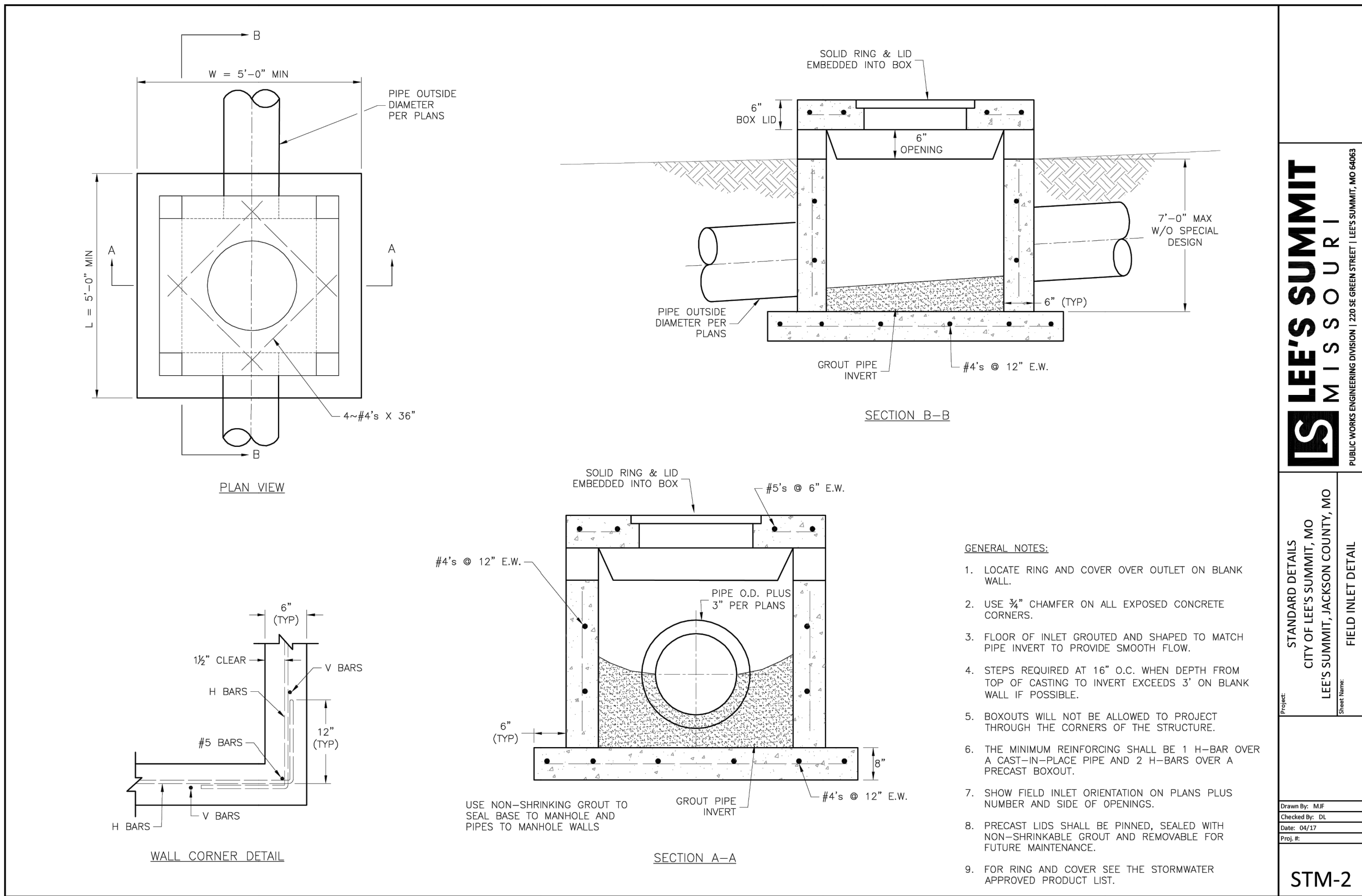
Project: 1600 SE HAMBLEN
RD LEES
SUMMIT, MO
Issue Date: December 11, 2023

1600 Hamblen Road
Lee's Summit, Jackson County, Missouri

Professional Registration
Missouri
Engineering 2005002186-D
Surveying 2005008319-D
Kansas
Engineering E-1695
Surveying LS-218
Oklahoma
Engineering 6254
Nebraska
Engineering CA2821



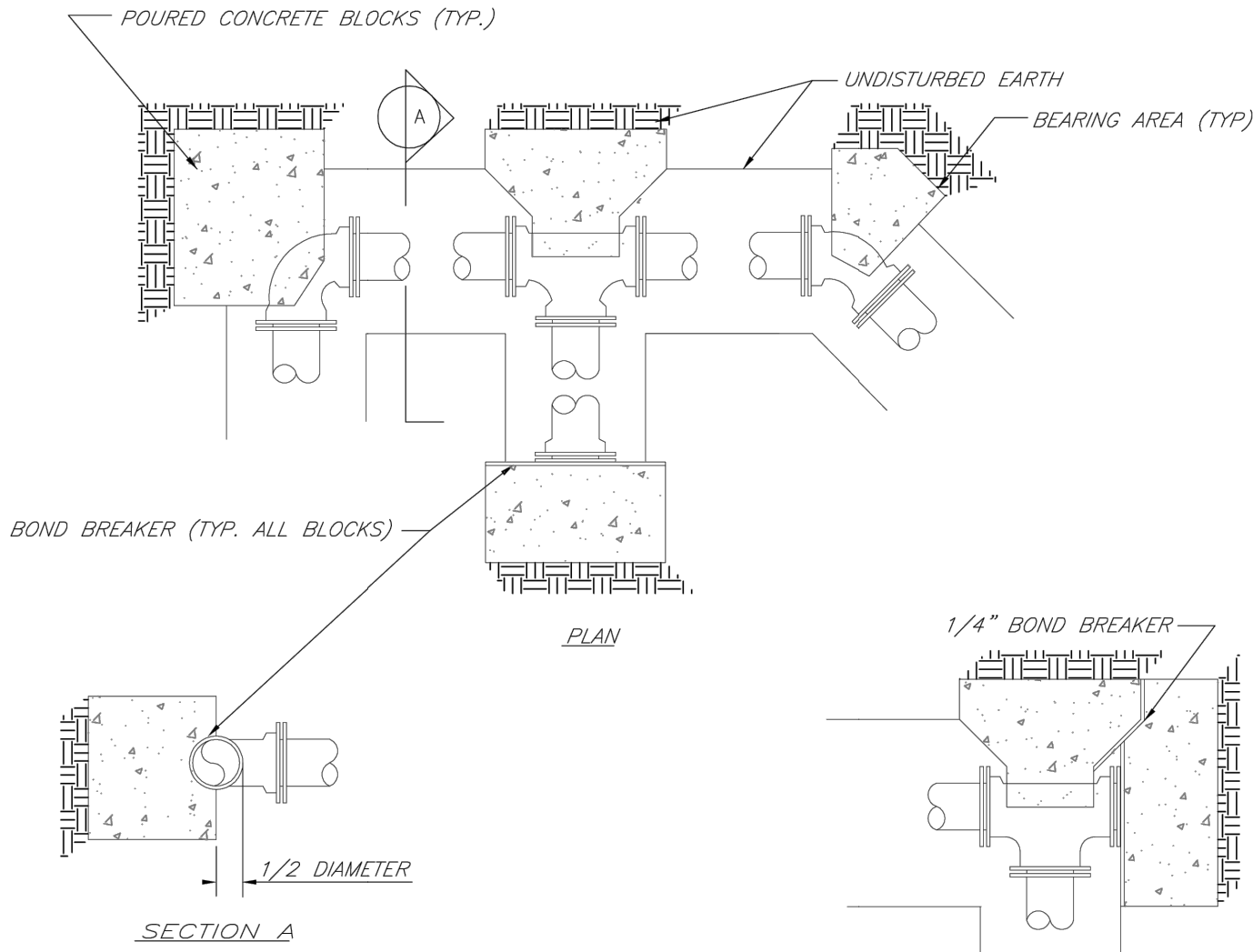
TRENCH AND BACKFILL DETAIL
N.T.S.



REQUIRED CONCRETE BEARING AREA (SQUARE FEET - SF)					
NOM. DIA. (INCHES)	TEE, PLUG	BEND	BEND	22.5	11.25
6	4.7	6.7	4.0	4.0	4.0
8	8.4	11.8	6.4	4.0	4.0
10	13.1	18.5	10.0	5.1	4.0
12	18.8	26.7	14.4	7.4	4.0
14	25.7	36.3	19.6	10.0	5.0
16	33.5	47.4	25.6	13.1	6.6
18	42.4	REST. JT.	32.5	16.5	8.3
20	REST. JT.	REST. JT.	40.1	20.4	10.3
24	REST. JT.	REST. JT.	REST. JT.	29.4	14.8

NOTES:

1. ALL BENDS WITHOUT RESTRAINED JOINTS SHALL HAVE CONCRETE THRUST BLOCKS INSTALLED FOR RESTRAINT.
2. MEGA LUGS MAY BE USED ONLY IN CONJUNCTION WITH CONCRETE THRUST BLOCKING.
3. BEARING AREA MUST BE AGAINST UNDISTURBED SOIL.
4. DO NOT COVER JOINTS OR BOLTS (WHERE APPLICABLE) WITH CONCRETE.



**LEE'S SUMMIT
MISSOURI**

PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

HORIZONTAL THRUST BLOCKS

Date: 02/13

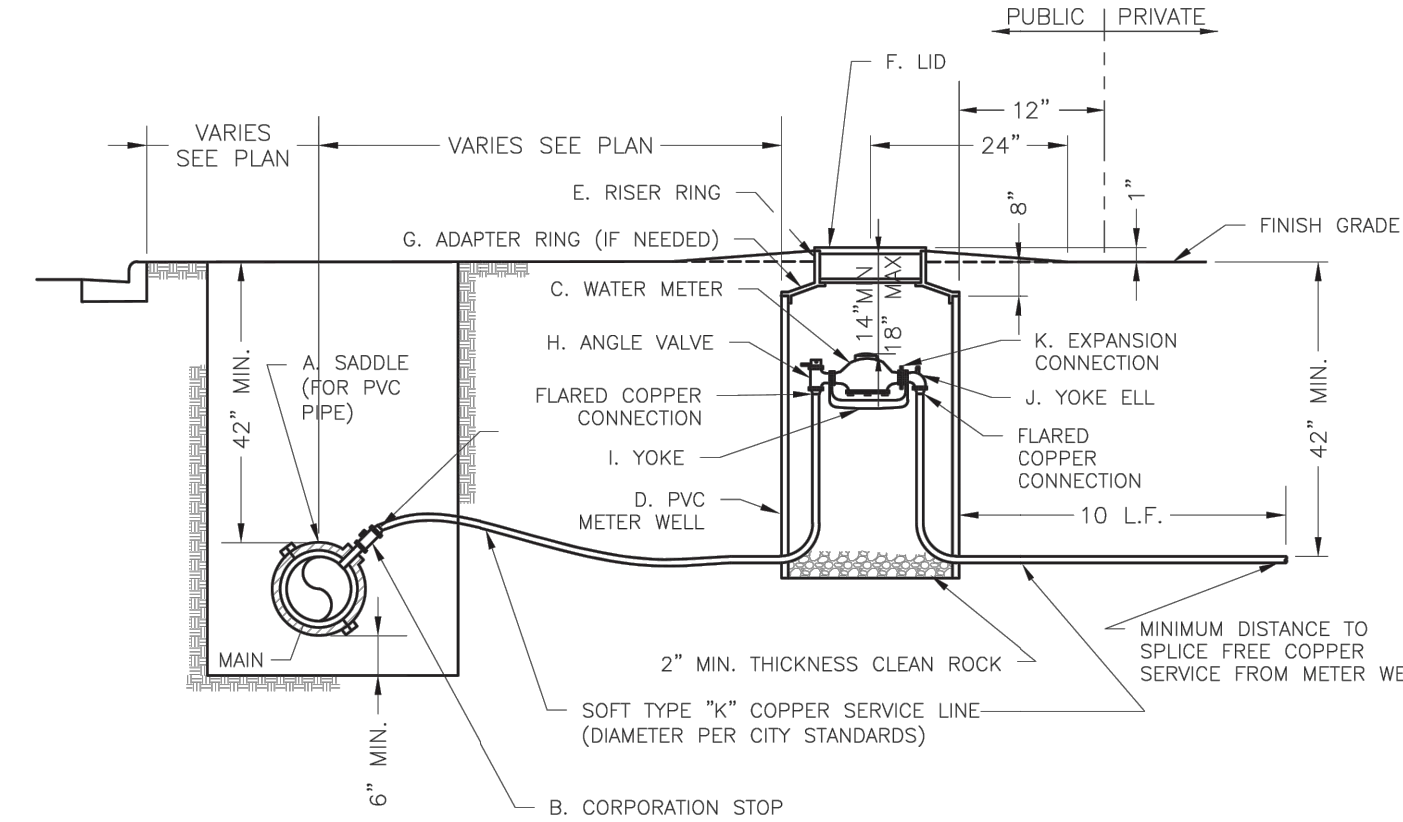
Drawn By: JN

Checked By: DL

FILE: WAT-1

Rev: 1/14

Rev:



NOTES:

1. METER INSTALLATION SHALL NOT BE LOCATED IN AREAS SUBJECT TO VEHICULAR TRAFFIC OR IN CONCRETE PAVEMENT WITHOUT CITY APPROVAL.
2. IF METER IS TO BE LOCATED OTHER THAN IN FRONT OF PROPERTY LINE, CITY APPROVAL SHALL BE OBTAINED.
3. CITY TO FURNISH ITEMS A-K.
4. NO OTHER EQUIPMENT SHALL BE INSTALLED IN THIS PIT.
5. 42" MINIMUM BURY DEPTH FOR ALL SERVICE LINES.
6. EXCAVATION FOR TAP TO EXPOSE 4 LINEAR FEET OF MAIN.
7. NO SPLICES ALLOWED BETWEEN METER AND MAIN.
8. SERVICE CONNECTION TAP AT APPROXIMATELY 45 DEGREES.
9. LID AND RISER RING SHALL BE SET SO THAT GROUND WATER WILL DRAIN AWAY FROM THE WELL.
10. CONTACT WATER UTILITIES, 816-969-1900, FOR REQUIREMENTS OF A METER LARGER THAN 2"



**LEE'S SUMMIT
MISSOURI**

PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

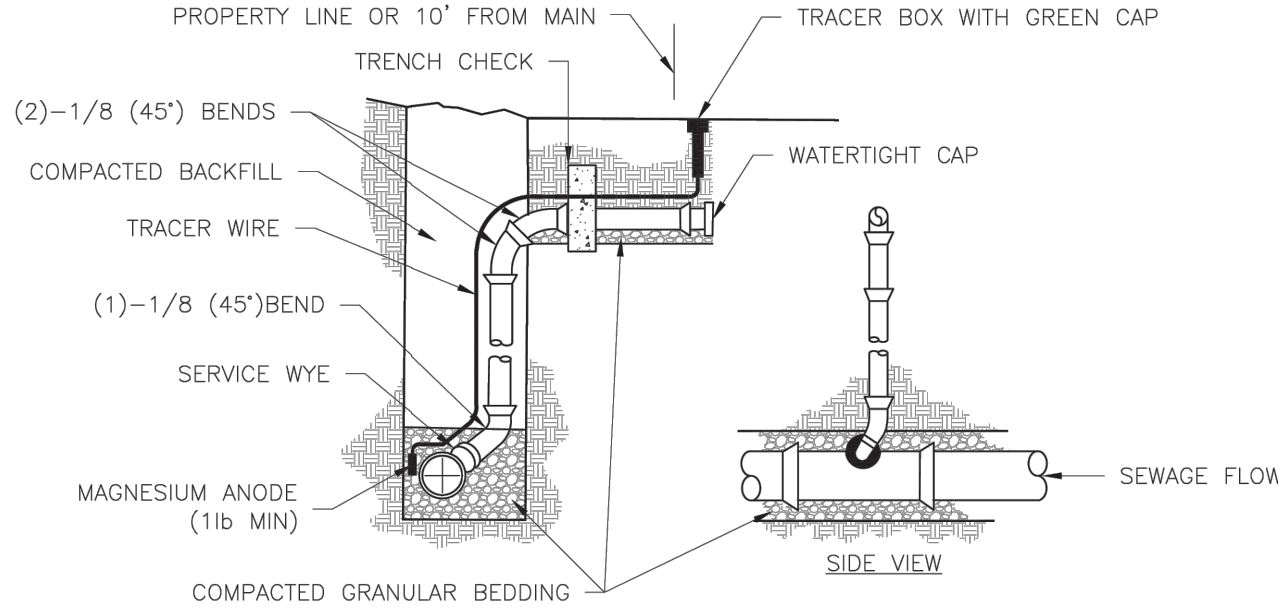
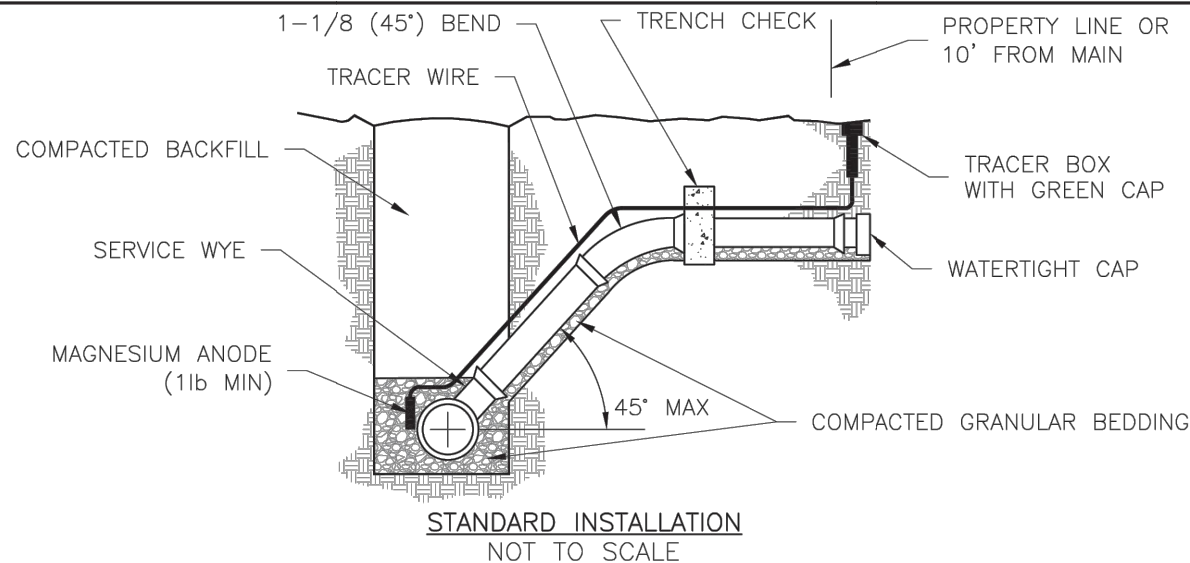
SERVICE CONNECTION WITH METER WELL

Date: 06/2015

Drawn By: JN

Checked By: DL

WAT-11



NOTES:

1. ALL SEWER STUBS SHALL BE CONSTRUCTED TO PROPERTY LINE OR 10' MINIMUM FROM THE MAIN, WHICHEVER IS GREATER. WHERE SIDEWALKS ARE PRESENT, CONTRACTOR SHALL EXTEND SERVICE LINE UNDER EXISTING SIDEWALK TO TWO FEET BEYOND.
2. IMPERVIOUS TRENCH CHECKS SHALL BE PLACED ON BUILDING SEWER STUBS (AT LEAST 5' AWAY FROM THE SANITARY SEWER MAIN).
3. TRENCH CHECKS ON THE BUILDING SEWER STUBS SHALL EXTEND 6" BELOW THE BOTTOM OF THE PIPE. LENGTH SHALL BE A MINIMUM OF 12". THE HEIGHT OF THE TRENCH CHECK SHALL EXTEND 12" ABOVE THE TOP OF THE PIPE. THE WIDTH OF THE TRENCH CHECK SHALL BE THE WIDTH OF THE TRENCH.
4. SEE SPECIFICATION SECTION 2100 FOR SEWER MAIN BEDDING AND BACKFILL.
5. #12 GAUGE GREEN INSULATED COPPER TRACER WIRE SHALL BE INSTALLED. TRACER WIRE TERMINAL BOXES SHALL BE INSTALLED DIRECTLY ABOVE THE SEWER SERVICE OR AS DETERMINED BY THE ENGINEER.
6. FOR SERVICES, TRACER WIRE SHALL RUN FROM THE WYE AND TERMINATE IN A FLUSH MOUNTED TRACER BOX WITH A GREEN CAST IRON LOCKABLE TOP. WIRE SHALL BE TAPED OR TIED TO THE PIPE AT 5' INTERVALS.
7. TRACER WIRE BOX SHALL BE INSTALLED WITHIN 1.0' OF PROPERTY LINE.
8. THE TRACER WIRE SHALL REMAIN CONTINUOUS TO THE GREATEST EXTENT POSSIBLE. SPLICES IN THE TRACER WIRE SHOULD BE MADE WITH SPLIT BOLT CONNECTORS. WIRE NUTS SHALL NOT BE USED. A WATER-PROOF CONNECTION IS NECESSARY TO PREVENT CORROSION.



**LEE'S SUMMIT
MISSOURI**

PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

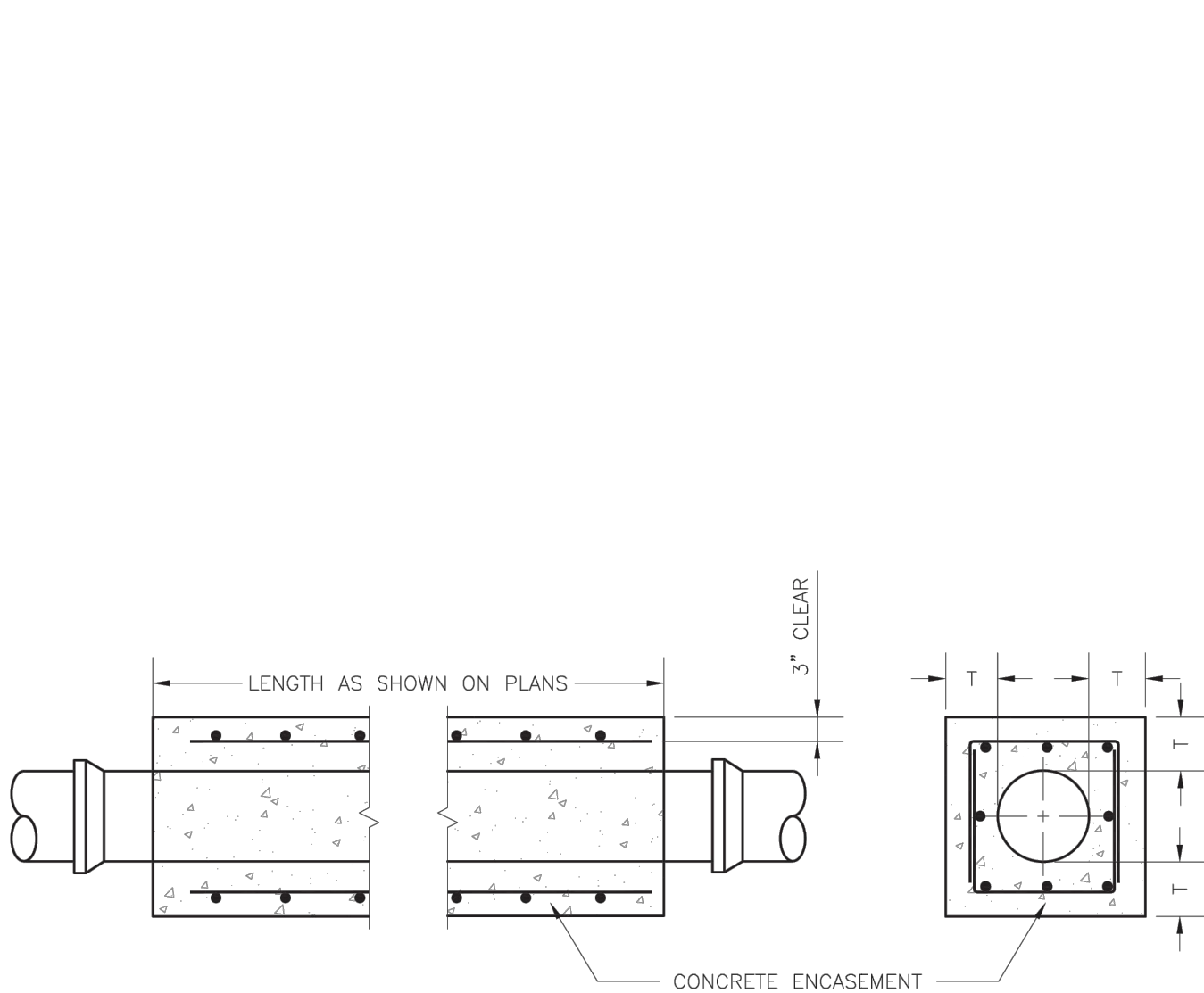
SANITARY SEWER STUB DETAIL

Date: 12/2015

Drawn By: JN

Checked By: DL

SAN-1



NOTES:

1. FOR PIPES LESS THAN 15", T = 6" MIN.
2. FOR PIPES 15" THRU 36", T = 8" MIN.
3. INTERMEDIATE BELLS SHALL BE ENCASED.
4. REINFORCING STEEL SHALL BE #4 @ 12" O.C. EACH WAY WITH A MINIMUM REBAR LAP OF 12".



**LEE'S SUMMIT
MISSOURI**

PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

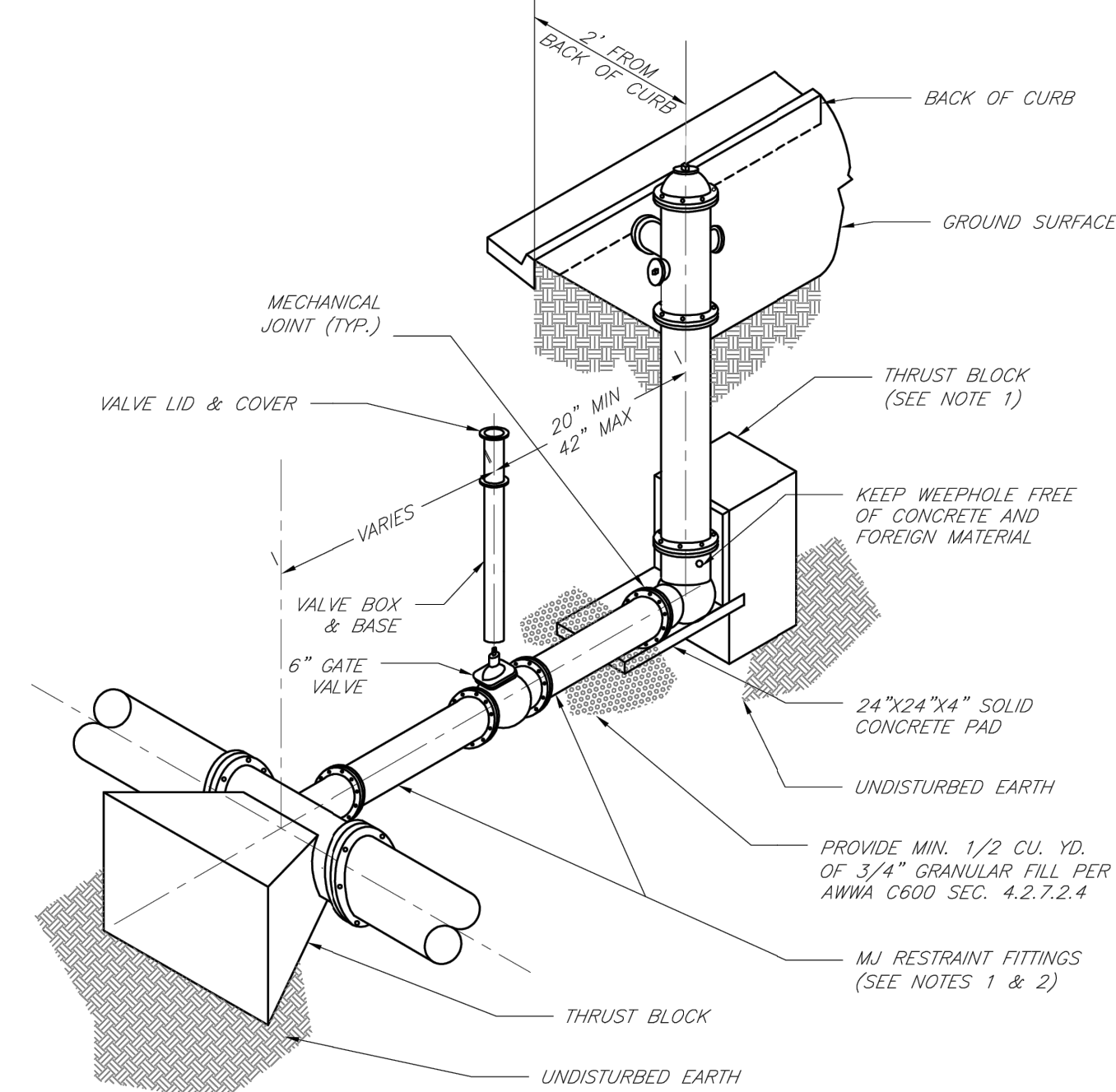
PIPE ENCASEMENT DETAIL

Date: 01/2016

Drawn By: JN

Checked By: DL

SAN-7



NOTES:

1. WHEN RETAINER GLANDS ARE USED IN LIEU OF MECHANICAL JOINT (MJ) RESTRAINT FITTINGS, HORIZONTAL THRUST BLOCKS ARE REQUIRED.
2. GATE VALVE MAY BE BOLTED DIRECTLY TO MJ RESTRAINT TEE.
3. SEE APPROVED PRODUCTS LIST FOR WATER UTILITIES FOR FIRE HYDRANT, VALVES, VALVE BOX LID, AND COVER.
4. BOTTOM HYDRANT FLANGE SHALL BE 2" TO 6" ABOVE FINISHED GRADE.
5. FOR STREETS WITHOUT CURBS FIRE HYDRANTS SHALL BE PLACED WITHIN 1 FOOT OF THE R/W LINE, BUT NOT MORE THAN 10' FROM EDGE OF PAVEMENT. FIRE HYDRANT SHALL NOT BE PLACED IN BOTTOM OF DITCH.
6. HYDRANT SHALL BE ROTATED AS DIRECTED BY INSPECTOR.



**LEE'S SUMMIT
MISSOURI**

PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

HYDRANT INSTALLATION - STRAIGHT SET

Date: 02/13

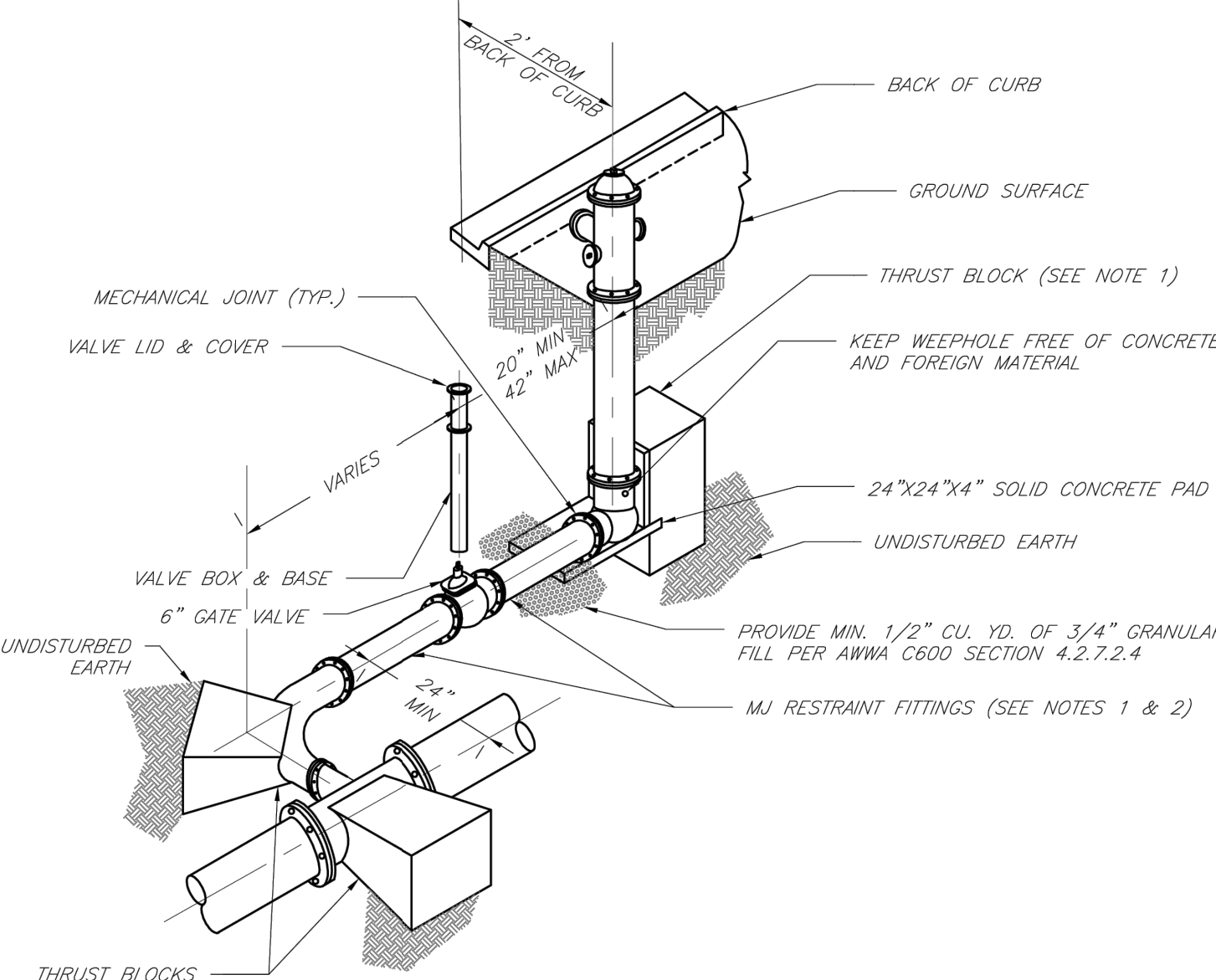
Drawn By: JN

Checked By: DL

FILE: WAT-7

Rev: 1/14

Rev:



NOTES:

1. WHEN RETAINER GLANDS ARE USED IN LIEU OF MECHANICAL JOINT (MJ) RESTRAINT FITTINGS, HORIZONTAL THRUST BLOCKS ARE REQUIRED.
2. GATE VALVE MAY BE BOLTED DIRECTLY TO MJ RESTRAINT TEE.
3. SEE APPROVED PRODUCTS LIST FOR WATER UTILITIES FOR FIRE HYDRANT, VALVES, VALVE BOX LID, AND COVER.
4. BOTTOM HYDRANT FLANGE SHALL BE 2" TO 6" ABOVE FINISHED GRADE.
5. FOR STREETS WITHOUT CURBS FIRE HYDRANTS SHALL BE PLACED WITHIN 1 FOOT OF THE R/W LINE, BUT NOT MORE THAN 10' FROM EDGE OF PAVEMENT. FIRE HYDRANT SHALL NOT BE PLACED IN BOTTOM OF DITCH.
6. HYDRANT SHALL BE ROTATED AS DIRECTED BY INSPECTOR.



**LEE'S SUMMIT
MISSOURI**

PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

HYDRANT WITH 90 DEGREE BEND

Date: 02/13

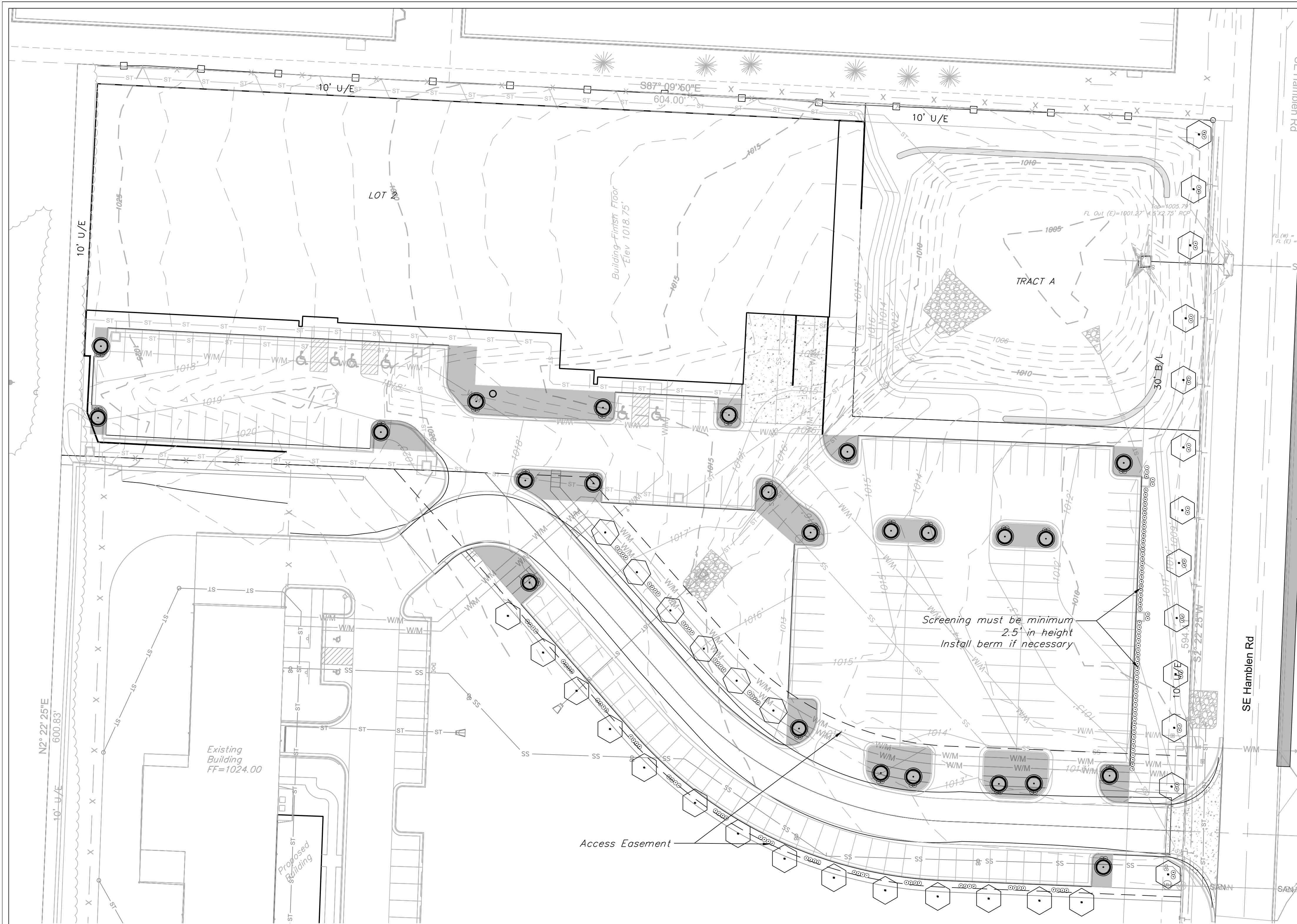
Drawn By: JN

Checked By: DL

FILE: WAT-8

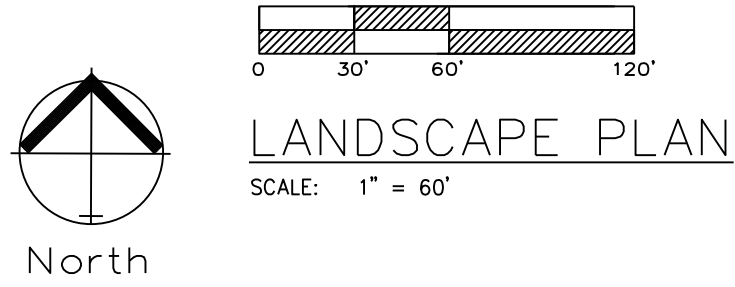
Rev: 1/14

Rev:



NOTE:
BUFFER/SCREEN REQUIRED BETWEEN LAND USES

Proposed use PMIX
Adjoining use PL
Medium impact screening. A 70 percent semi-opaque screen between land uses which are dissimilar in character. Semi-opaque screening should partially block views from adjoining land uses and create a separation between the adjoining land uses. For medium impact screening either a landscape screen or fencing is required.



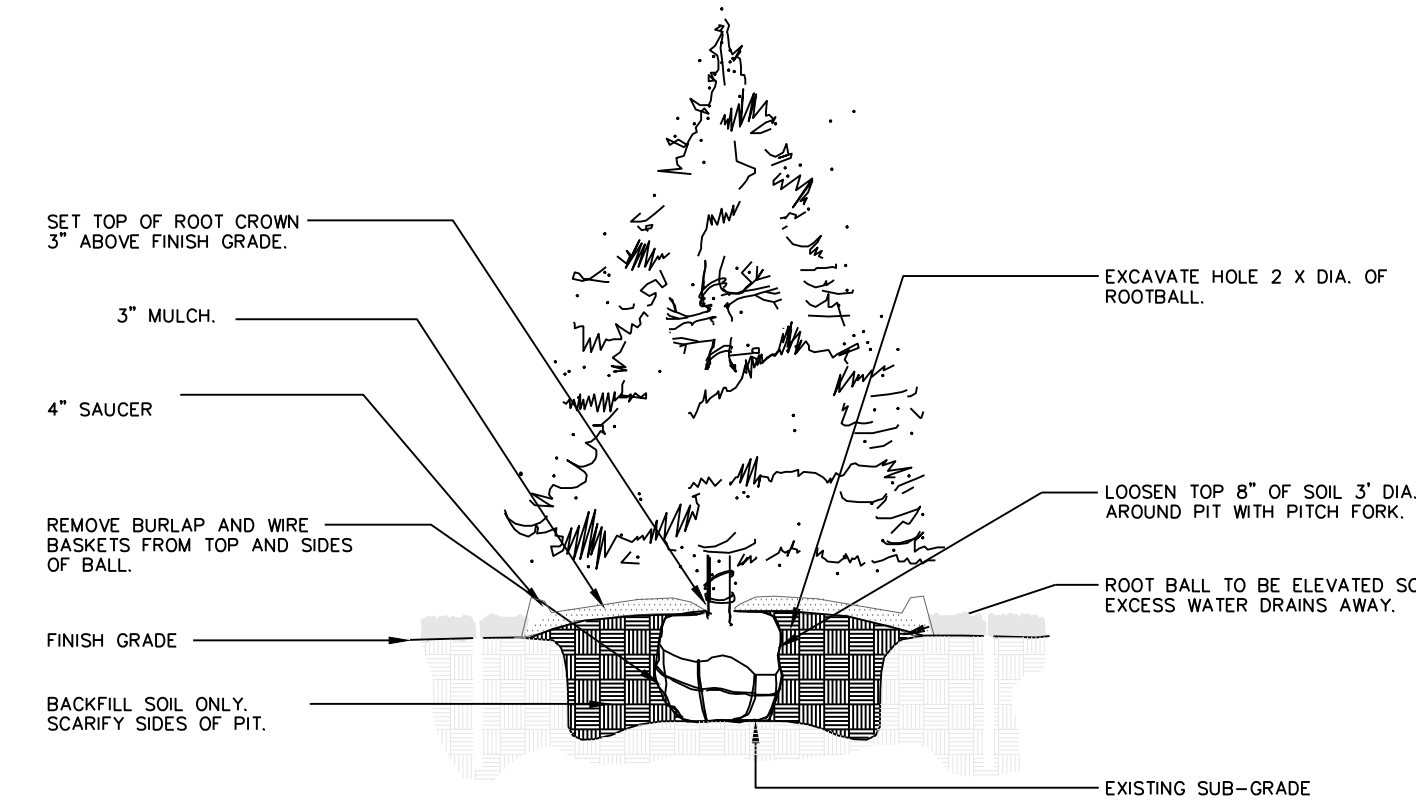
LANDSCAPE WORKSHEET			
	ORDINANCE REQUIREMENT	REQUIRED FOR THIS SITE	PROPOSED LANDSCAPE
14.090.A.1 Street Frontage Trees (SE Hamblen Rd)	1 tree per 30 feet of street frontage	386 ft. of street frontage /30= 13 trees required	13 Trees Provided
14.090.A.3 Street Frontage Shrubs (SE Hamblen Rd)	1 shrub per 20 feet of street frontage	386 ft. of street frontage /20= 19 shrubs required	26 shrubs provided
14.090.B.1 Open Yard Shrubs	2 shrubs per 5000 sq. ft. of total lot area excluding buildings.	144,332 sq. ft. of total lot area minus 48,885 sq.ft. of bldg. = 95,447 sq.ft. /5,000 x 2 = 38 shrubs	48 shrubs
14.090.B.3 Open Yard Trees	1 tree per 5000 sq. ft. of total lot area excluding buildings.	144,332 sq. ft. of total lot area minus 48,885 sq. ft. of bldg. = 95,447 sq. ft./5,000 = 19 trees	24 Provided
14.110. Parking Lot Landscape	5% of entire parking area (spaces, aisles & drives); 1 island at end of every parking bay, min. 9' wide	51,977 sq. ft. of parking area x .05 = 2,599 sq. ft. of landscape parking lot islands required	7,904 sq. ft.
14.120 Screening of Parking Lot, Road	12 shrubs per 40 linear feet (must be 2.5 feet tall; berms may be combined with shrubs)	224 linear feet/40 x 12 67 shrubs required.	67 shrubs provided
*STREET SHRUBS ARE SATISFIED WITH PARKING LOT SCREENING REQUIREMENTS.			

Open areas not covered with planting material shall be covered with sod

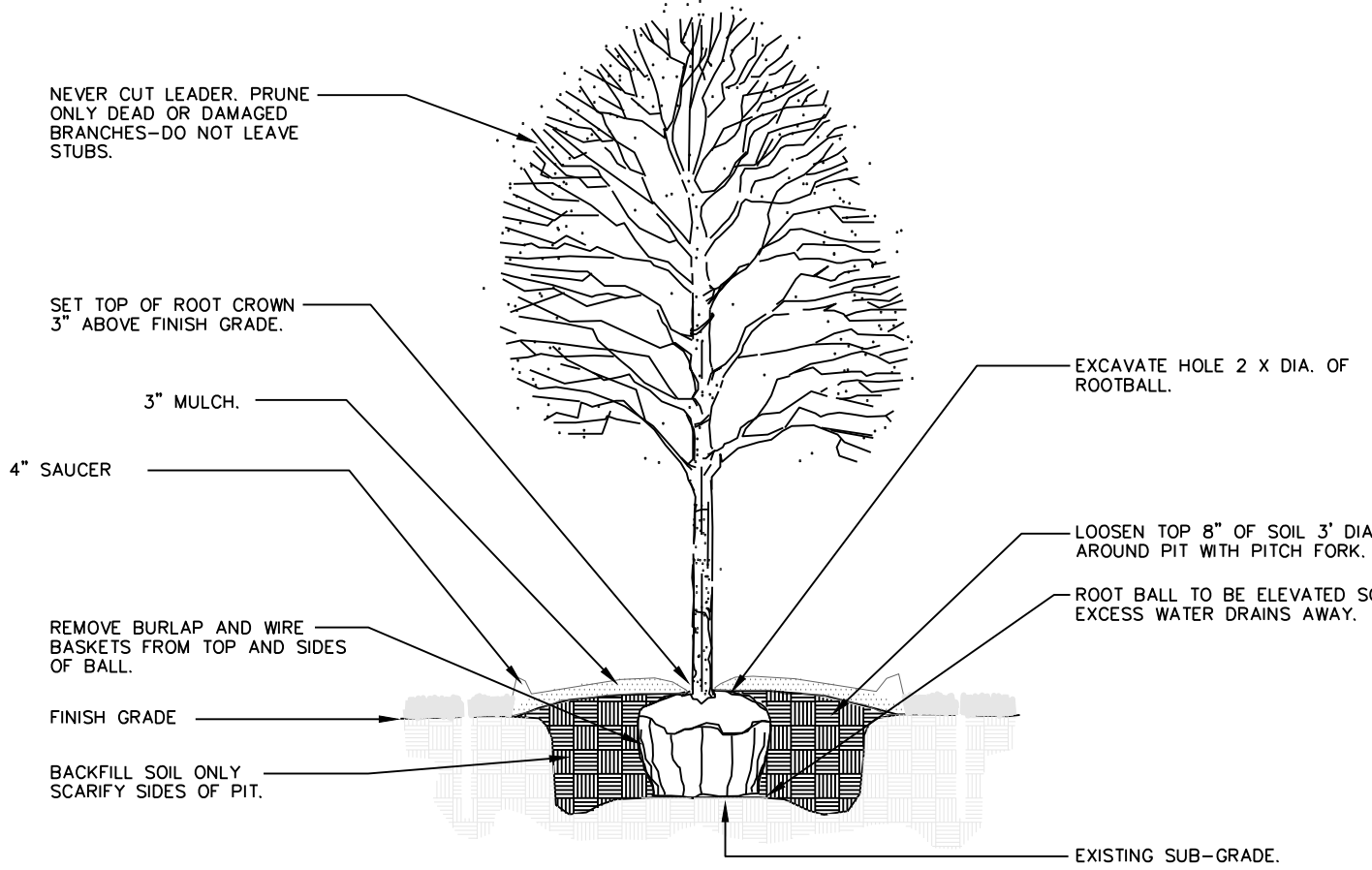
PLANTING SCHEDULE:

IS FOR PHASE 1 ONLY. AT FULL BUILD THE UNIFIED DEVELOPMENT ORDINANCE REQUIREMENTS SHALL BE MET.

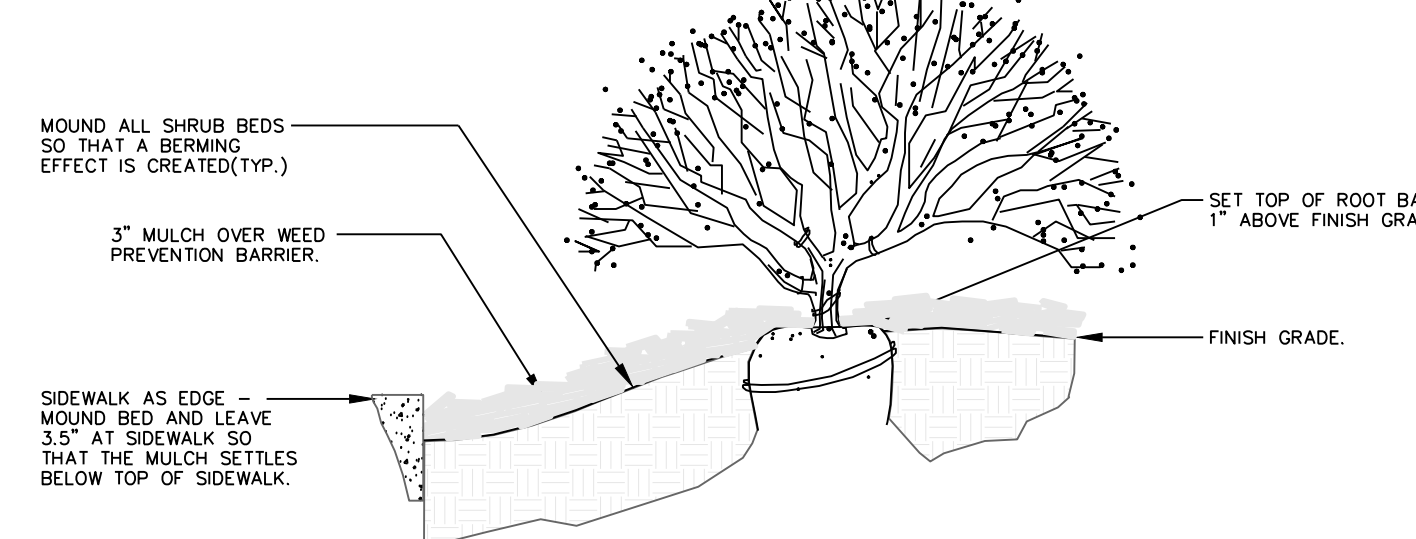
SYMBOL	QUANT.	KEY	NAME	SIZE
tree	68	TA	AMERICAN BASSWOOD LINDEN TILIA AMERICANA	3.0" CAL
evergreen	39	SR	SKYROCKET JUNIPER JUNIPERUS SCOPULORUM "SKYROCKET"	8' HL
tree	48	RB	OKLAHOMA REDBUD CERCIS RENIFORMIS "OKLAHOMA"	3.0" CAL
shrub	234	BB	BURNING BUSH EUONYMUS ALATA "COMPACTUS"	2 Gallon Pot



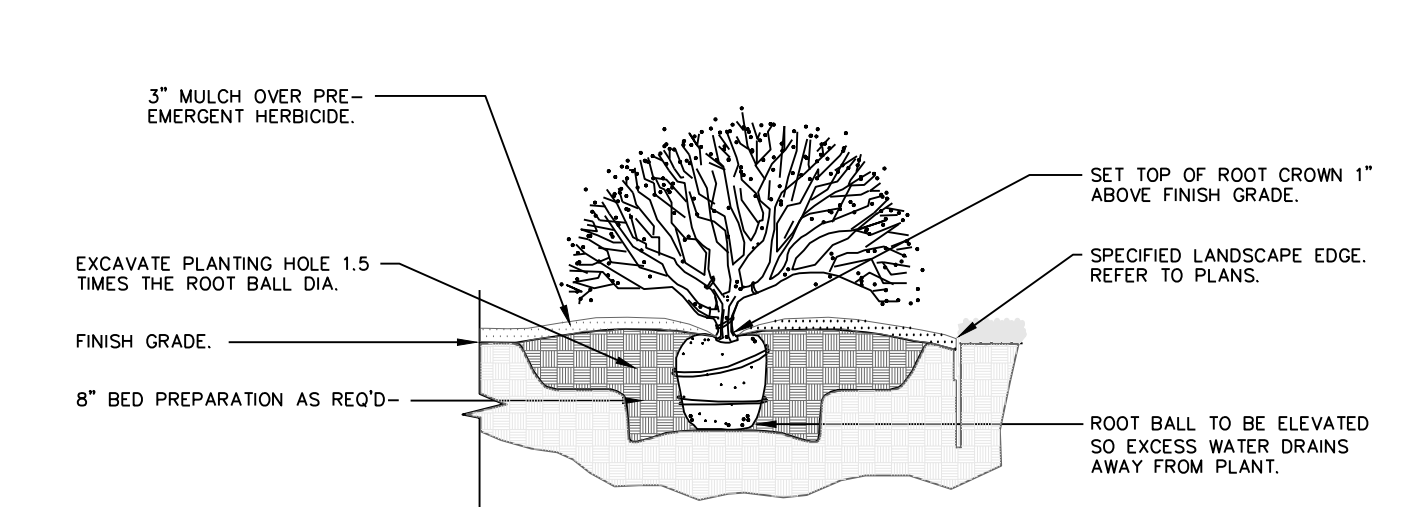
1 **EVERGREEN TREE PLANTING** NTS



2 **DECIDUOUS TREE PLANTING** NTS



3 **SIDEWALK EDGE AT PLANT BED** NTS



4 **SHRUB PLANTING** NTS

GENERAL LANDSCAPE NOTES: PLANT MATERIAL

- ALL PLANT MATERIAL SHALL BE FIRST CLASS REPRESENTATIVES OF SPECIFIED SPECIES, VARIETY OR CULTIVAR, IN HEALTHY CONDITION WITH NORMAL WELL DEVELOPED BRANCHES AND ROOT PATTERNS. PLANT MATERIAL MUST BE FREE OF OBJECTIONABLE FEATURES. PLANTS SHALL COMPLY IN ALL APPLICABLE RESPECTS WITH PROPER STANDARDS AS SET FORTH IN THE AMERICAN ASSOCIATION OF NURSERYMEN'S "AMERICAN STANDARD OF NURSERY STOCK", ANSI Z601-2004.
- SHRUBS SHALL BE CONTAINER GROWN AND WILL BE FREE OF DISEASE AND PESTS. NO BARE ROOT, ALL PLANT BEDS TO BE MULCHED TO A DEPTH OF 3" WITH DARK BROWN, HARDWOOD MULCH. PLANTING BEDS ARE TO BE FREE OF WEEDS AND GRASS. TREAT BEDS WITH A PRE-EMERGENT HERBICIDE PRIOR TO PLANTING AND MULCH PLACEMENT. APPLY IN ACCORDANCE WITH STANDARD TRADE PRACTICE.
- HOLE AREA FOR TREE TO BE TWICE (2x) THE DIAMETER OF THE ROOT BALL AND ROOT BALL SHALL BE SLIGHTLY MOUNDED FOR WATER RUN-OFF.
- ALL PLANT MATERIALS SHALL BE PROTECTED FROM THE DRYING ACTION OF THE SUN AND WIND AFTER BEING DUG, WHILE BEING TRANSPORTED, AND WHILE AWAITING PLANTING. BALLS OF PLANTS WHICH CANNOT BE PLANTED IMMEDIATELY SHALL BE PROTECTED FROM DRYING ACTION BY COVERING THEM WITH MOST MULCH. PERIODICALLY, APPLY WATER TO MULCH-COVERED BALLS TO KEEP MOIST. IF PLANTING SHOULD OCCUR DURING GROWING SEASON, APPLY ANTI-DESICCANT TO LEAVES BEFORE TRANSPORT TO REDUCE THE LIKELIHOOD OF WINDBURN. REAPPLY ANTI-DESICCANT AFTER PLANTING TO REDUCE TRANSPIRATION. REMOVE TWINE AND BURLAP FROM ROOT BALLS. SOIL ON TOP OF CONTAINERIZED OR BALLED PLANTS IS TO BE REMOVED UNTIL ALL PLANTS' ROOT FLARES ARE EXPOSED. THIS IS THE NATIVE SOIL LINE AT WHICH PLANTING DEPTHS SHOULD BE MEASURED.
- AFTER PLANTING IS COMPLETED, PRUNE MINIMALLY TO REMOVE DEAD OR INJURED TWIGS AND BRANCHES. PRUNE IN SUCH A MANNER AS NOT TO CHANGE THE NATURAL HABIT OR SHAPE OF THE PLANT. MAKE CUTS BACK TO BRANCH COLLAR, NOT FLUSH. DO NOT PAINT ANY CUTS WITH TREE PAINT. CENTRAL LEADERS SHALL NOT BE REMOVED.
- GUARANTEE TREES, SHRUBS, GROUND COVER PLANTS FOR ONE CALENDAR YEAR FOLLOWING PROVISIONAL ACCEPTANCE OF THE OVERALL PROJECT. DURING THE GUARANTEE PERIOD, PLANTS THAT DIE DUE TO NATURAL CAUSES OR THAT ARE UNHEALTHY OR UNSIGHTLY IN CONDITION, SHALL BE REPLACED BY THE CONTRACTOR.

LAWN AND TURF AREAS

- ALL LAWN AREAS TO BE SODDED OR SEEDED AS SHOWN ON PLANS. SOD SHALL COMPLY WITH US DEPT. OF AGRICULTURE RULES AND REGULATIONS UNDER THE FEDERAL SEED ACT AND EQUAL IN QUALITY TO STANDARDS FOR CERTIFIED SEED. SOD SHALL BE HEALTHY, THICK TURF HAVING UNDERGONE A PROGRAM OF REGULAR FERTILIZING, MOWING AND WEED CONTROL. SEED AND SOD SHALL BE A TURF-TYPE TALL FESCUE (3 WAY) BLEND. SEED BLEND SHALL CONSIST OF THE FOLLOWING:

TURF-TYPE TALL FESCUE	90%
KENTUCKY BLUEGRASS	10%

- ALL SEEDED AREAS ARE TO BE MULCHED WITH STRAW OR HYDROMULCH AT TIME OF INSTALLATION UNTIL SEED HAS ESTABLISHED.

INSTALLATION

- THE INSTALLATION OF ALL PLANT MATERIALS SHALL BE IN COMPLIANCE WITH THE REQUIREMENTS OF THE CITY OF LEE'S SUMMIT, MO. AND LANDSCAPE INDUSTRY STANDARDS.
- ALL LANDSCAPE AREAS TO BE FREE OF ALL BUILDING DEBRIS AND TRASH, BACK FILLED WITH CLEAN FILL SOIL AND TOP DRESSED WITH 4" OF TOPSOIL. TOPSOIL SHALL HAVE A pH RANGE OF 5.5 TO 7 AND A 4% ORGANIC MATERIAL MINIMUM, ASTM D5085.
- PLANT BEDS TO BE "MOUNDED". ALL PLANT MATERIAL, PLANT BEDS, MULCH AND DUG EDGE ARE TO BE INSTALLED PER LANDSCAPE PLANS, DETAILS, AND MANUFACTURER'S RECOMMENDATIONS.
- REESTABLISH FINISH GRADES TO WITHIN ALLOWABLE TOLERANCES ALLOWING 3/4" FOR SOD AND 3" FOR MULCH IN PLANT BEDS. HAND RAKE ALL AREAS TO SMOOTH EVEN SURFACES FREE OF DEBRIS, CLODS, ROCKS, AND VEGETATIVE MATTER GREATER THAN 1".
- ALL PLANT BEDS, SHRUBS AND TREES SHALL BE MULCHED WITH 3" OF DARK BROWN, HARDWOOD MULCH, EXCEPT IF NOTED AS ROCK. DARK BROWN, HARDWOOD MULCH SHALL BE INSTALLED OVER DEWITT PRO 5 WEED CONTROL FABRIC IN PLANT BEDS ONLY.
- CONTRACTOR IS RESPONSIBLE FOR INITIAL WATERING UPON INSTALLATION.
- DUG EDGES ARE TO BE DUG WHERE MULCH BEDS ARE ADJACENT TO TURF AREAS. NO EDGING IS REQUIRED ADJACENT TO PAVEMENT OR CURB.
- THE EXACT LOCATION OF ALL UTILITIES, STRUCTURES, AND UNDERGROUND UTILITIES SHALL BE DETERMINED AND VERIFIED ON SITE BY THE LANDSCAPE CONTRACTOR PRIOR TO INSTALLATION OF THE MATERIALS. DAMAGE TO EXISTING UTILITIES AND/OR STRUCTURES SHALL BE REPLACED TO THEIR ORIGINAL CONDITION BY THE LANDSCAPE CONTRACTOR AT NO COST TO THE OWNER.
- LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR OBTAINING NECESSARY PERMITS AND APPROVALS AND RECD INSPECTIONS BY LEGAL AUTHORITIES.
- PROVISIONS SHALL BE MADE FOR READILY ACCESSIBLE IRRIGATION WITHIN 100' MAX. OF ALL LANDSCAPED AREAS INCLUDING ALL PLANT BEDS, INDIVIDUAL TREES, AND TURF AREAS. ALL LAWN AREAS (AS SHOWN ON PLANS) WILL BE IRRIGATED BY AN AUTOMATIC SPRINKLER SYSTEM. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN AND INSTALLATION OF ALL IRRIGATION COMPONENTS, SLEEVING, PIPE, AND CONTROL. DESIGN DRAWINGS OF IRRIGATION SYSTEM SHALL BE SUBMITTED TO THE LANDSCAPE ARCHITECT AND OWNER FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION.
- ANY SUBSTITUTIONS OR DEVIATIONS SHALL BE REQUESTED IN WRITING BY THE CONTRACTOR FOR APPROVAL BY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION OF PLANT MATERIALS. ALL PLANTS ARE TO BE LOCATED AS SPECIFIED ON DRAWINGS.

MAINTENANCE BY OWNER

- ALL SHRUBS ARE TO BE MAINTAINED IN THEIR NATURAL SHAPE TO ALLOW EVENTUAL GROWTH INTO A HEDGE.
- MAINTAIN NATURAL HABIT OF ALL SPECIFIED PLANT MATERIAL.
- NEW SOD TO BE THOROUGHLY WATERED UNTIL ROOTS "TAKE HOLD" OF SOD BED. CONTINUE WATERING AS REQUIRED, UNTIL COMPLETELY ESTABLISHED.

IRRIGATION PERFORMANCE SPECIFICATION:

THE FOLLOWING CRITERIA SHALL BE CONSIDERED MINIMUM STANDARDS FOR DESIGN AND INSTALLATION OF LANDSCAPE IRRIGATION SYSTEM:

- GENERAL - IRRIGATION SYSTEM TO INCLUDE DRIP IRRIGATION OF SHRUB BEDS ADJACENT TO BUILDINGS, SPRAY HEADS IN THE PARKING ISLANDS, AND ROTORS AROUND THE PERIMETER OF THE PARKING LOTS. HEADS SHALL THROW AWAY FROM BUILDING AND ACID SPRAYING OVER SIDEWALKS.
- IRRIGATION SYSTEM SHALL CONFORM TO ALL INDUSTRY STANDARDS AND ALL FEDERAL, STATE AND LOCAL LAWS GOVERNING DESIGN AND INSTALLATION.
- WATERLINE TYPW, SIZE LOCATION, PRESSURE AND FLOW SHALL BE FIELD VERIFIED PRIOR TO SYSTEM DESIGN AND INSTALLATION.
- ALL MATERIALS SHALL BE FROM NEW STOCK FREE OF DEFECTS AND CARRY A MINIMUM ONE YEAR WARRANTY FROM THE DATE OF SUBSTANTIAL COMPLETION.
- THE IRRIGATION SYSTEM SHALL BE DESIGNED AND INSTALLED IN SUCH A WAY THAT ALL SYSTEM COMPONENTS OPERATE WITHIN THE GUIDELINES ESTABLISHED BY THE MANUFACTURER.
- LAWN AREA AND SHRUB BEDS SHALL BE ON SEPARATE CIRCUITS.
- WATER TAP, METER SET, METER VAULT AND ALL OTHER OPERATIONS NECESSARY TO PROVIDE WATER FOR IRRIGATION SHALL CONFORM TO LOCAL WATER GOVERNING AUTHORITY GUIDELINES AND STANDARDS.
- BACKFLOW PREVENTION SHALL BE PROVIDED IN ACCORDANCE WITH STATE AND LOCAL REGULATIONS.
- IRRIGATION CONTROLLER TO BE LOCATED IN UTILITY ROOM INSIDE BUILDING, AS IDENTIFIED BY OWNER.
- IRRIGATION CONTROLLER STATIONS SHALL BE LABELED TO CORRESPOND WITH THE CIRCUIT IT CONTROLS.
- CONTRACTOR SHALL PROVIDE TO THE OWNER WRITTEN OPERATION INFORMATION FOR ALL SYSTEM COMPONENTS.
- CONTRACTOR SHALL PROVIDE TO THE OWNER ALL KEYS, ACCESS TOOLS, WRENCHES AND ADJUSTING TOOLS NECESSARY TO GAIN ACCESS, ADJUST AND CONTROL THE SYSTEM.
- CONTRACTOR SHALL PROVIDE SHOP DRAWINGS TO THE OWNER FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION.
- AN AUTOMATIC RAIN SHUT-OFF OR MOISTURE DEVICE SHALL BE INSTALLED.
- INSTALL SCHEDULE 40 PVC SLEEVES UNDER ALL CURBS, PAVING AND SIDEWALKS. SLEEVES TO BE TWICE THE SIZE OF THE LINE IT HOUSES.
- INSTALL MANUAL DRAIN VALVES AT LOWEST POSSIBLE ELEVATION ON IRRIGATION MAIN TO ALLOW GRAVITY DRAINING OF MAIN DURING WINTER MONTHS. PROVIDE QUICK COUPLERS AT MULTIPLE LOCATIONS TO ALLOW FOR EASY "BLOWING OUT" OF LATERAL AND MAIN LINES.
- ZONES OR NOZZLES SHALL BE DESIGNED WITH MATCHED PRECIPITATION RATES.
- MINIMUM LATERAL DEPTH IS 15" AND MAIN DEPTH IS 18".
- SUBMIT DESIGN DRAWING WITH BID TO ALLOW OWNER TO EVALUATE SYSTEM. INCLUDE CUT SHEETS OF ALL COMPONENTS AND ZONE TABLE ILLUSTRATING FLOWS AND ANTICIPATED PRESSURE AT FURTHEST HEAD.
- AN "AS-BUILT" SCALED DRAWING SHALL BE PROVIDED TO THE OWNER BY THE CONTRACTOR AND SHALL INCLUDE UT NOT BE LIMITED TO THE FOLLOWING:
 - AS CONSTRUCTED LOCATION OF ALL COMPONENTS
 - COMPONENT NAME, MANUFACTURER, MODEL INFORMATION, SIZE AND QUANTITY
 - PIPE SIZE AND QUANTITY
 - INDICATION OF SPRINKLER HEAD SPRAY PATTERN
 - CIRCUIT IDENTIFICATION SYSTEM
 - DETAILED METHOD OF WINTERIZED SYSTEM

SUBMIT AS-BUILT DRAWING IN FULL SIZE DRAWING FORM AS WELL AS PDF ELECTRONIC FORMAT. (SCANNING FULL SIZE COPY OF PLAN IS ACCEPTABLE IF IT CAN BE PRINTED TO SCALE.

ENGINEERING
ENGINEERING & SURVEYING
SOLUTIONS

50 SE 30TH STREET
LEE'S SUMMIT, MO 64082
P: (816) 623-9888 F: (816) 623-9849

Professional Registration
Missouri
Engineering 2005002186-D
Surveying 2005008319-D
Kansas
Engineering E-1695
Surveying LS-218
Oklahoma
Engineering 6254
Nebraska
Engineering CA2821

1600 Hamblen Road
Lee's Summit, Jackson County, Missouri

Project:
1600 SE HAMBLEN RD, LEE'S SUMMIT, MO 64082
December 11, 2023

LANDSCAPE PLAN DETAILS
Construction Plans for:
Tailormade Landing Phase 2
1600 Hamblen Road
Lee's Summit, Jackson County, Missouri

STATE OF MISSOURI
MATTHEW J. SCHLICHT
LICENSED PROFESSIONAL ENGINEER
NUMBER 0000000000

Matthew J. Schlicht
MO PE 2006019708
KS PE 19071
OK PE 25226
NE PE E-14335

REVISIONS
REV. 3/1/2024
REV. 4/10/2024
REV. 4/18/2024

L 101