

Final Development Plan

Section 6, Township 41 North, Range 31 West

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 BY SEPARATE DOCUMENT
- 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 NOTIFY THE CITY OF LEE'S SUMMIT DEVELOPMENT ENGINEERING INSPECTION AT 816.969.1200 AT LEAST 48 HOURS PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION.
- 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.

- KCP&L ~ 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

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 FIRM PANEL 29095C0417G,

DATED JANUARY 20, .

PROPERTY DESCRIPTION

Lots 1 & 2, Dahmer Development, Lots 1 - 3, a subdivision as recorded in the Office of the Recorder, Jackson County, Missouri

UPDATED
CURRENT/PROPOSED
ZONING TO CBD

Site Data Table :

Lot 1 Area: 21,376.14 Sq. Ft. (0.49 Acres)

Current Zoning: CBD
Proposed Zoning: CBD

Building 1st Floor 2,625sq. ft. (0.06 Ac.)
Building 2nd Floor 2,625 sq. ft. (0.06 Ac.)
Total: 5,250 sq. ft. (0.12 Ac.)

Impervious Area
Parking/Sidewalk 17,368 sq. ft. (0.40 Ac.)
Building 2,625 sq. ft. (0.41 Ac.)
19,993 sq. ft. (93.5% of Site)

Floor-Area-Ratio: 24.6%

Site Data Table :

Lot 2 Area: 9,576.23 Sq. Ft. (0.22 Acres)

Current Zoning: CBD
Proposed Zoning: CBD

Building 1st Floor 5,848 sq. ft. (0.13 Ac.)
Building 2nd Floor 5,848sq. ft. (0.13 Ac.)
Total: 11,696 sq. ft.(0.26 Ac.)

Impervious Area
Parking/Sidewalk 1,400 sq. ft.
Building 5,848 sq. ft.
7,248 sq. ft. (75.6% of Site)

Floor-Area-Ratio: 61%

Parking:
Provided 50 Standard (2 ADA Accessible 0 ADA Van Accessible)
Entire Site = 52 Spaces

Required 43 Standard / 2 Handicap
Entire Site = 45 Spaces

Current Zoning: CBD
Current Use: Vacant
Proposed Use: Office Building

Sanitary Sewer Service

The site will utilize a sanitary service line from the existing sanitary to the southwest. The existing sanitary will be relocated to the northeast.

Water Service

Water service will be from the existing 12" water main located on Main Street.

Storm Sewer

New Inlets and pipe system will connect to existing public main.

Storm Water Detention

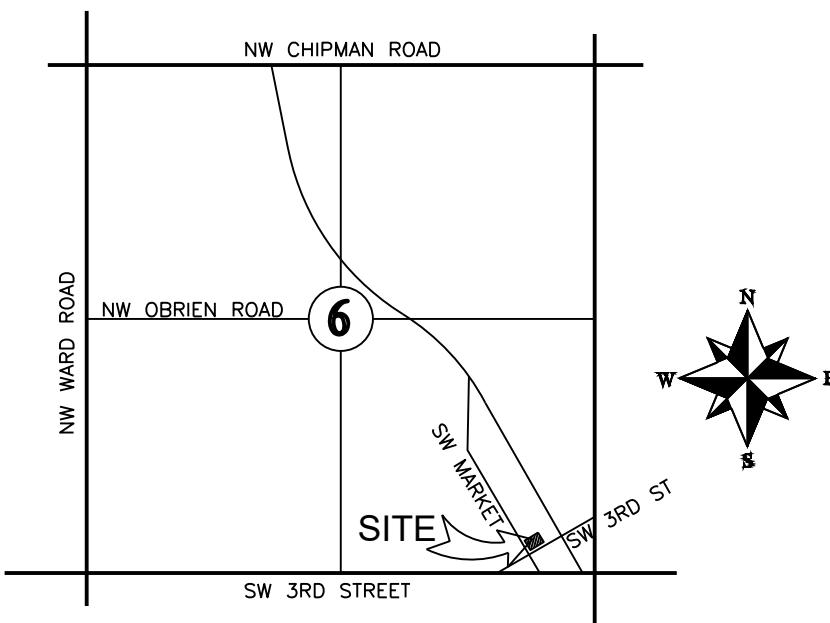
No storm water detention will be provided per APWA Section 5601.3.A.2. The site was previously a fully impervious with an existing building and associated parking area. The entire area of Lot 2 is currently a paveasphalt parking area.

Storm Water Quality Elements

No storm water quality will be provided per APWA Section 5601.3.A.2. The site was previously a fully impervious with an existing building and associated parking area. The entire area of Lot 2 is currently a pave asphalt parking area.

SW Main and SW Market Street

Both streets will be modified to include more on street parking. The developer would like to request all long term parking on SW Main Street be converted to 2 hr parking and 4 loading / unloading zones be provided for use by Amtrack.

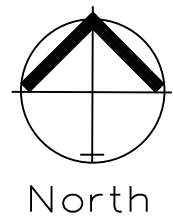


LOCATION MAP
SECTION 6-T41N-R31W

Not to Scale

OWNER:
TUSTIN LLC
Dusty Dahmer
12650 S PFLUMM RD STE 201
OLATHE KS

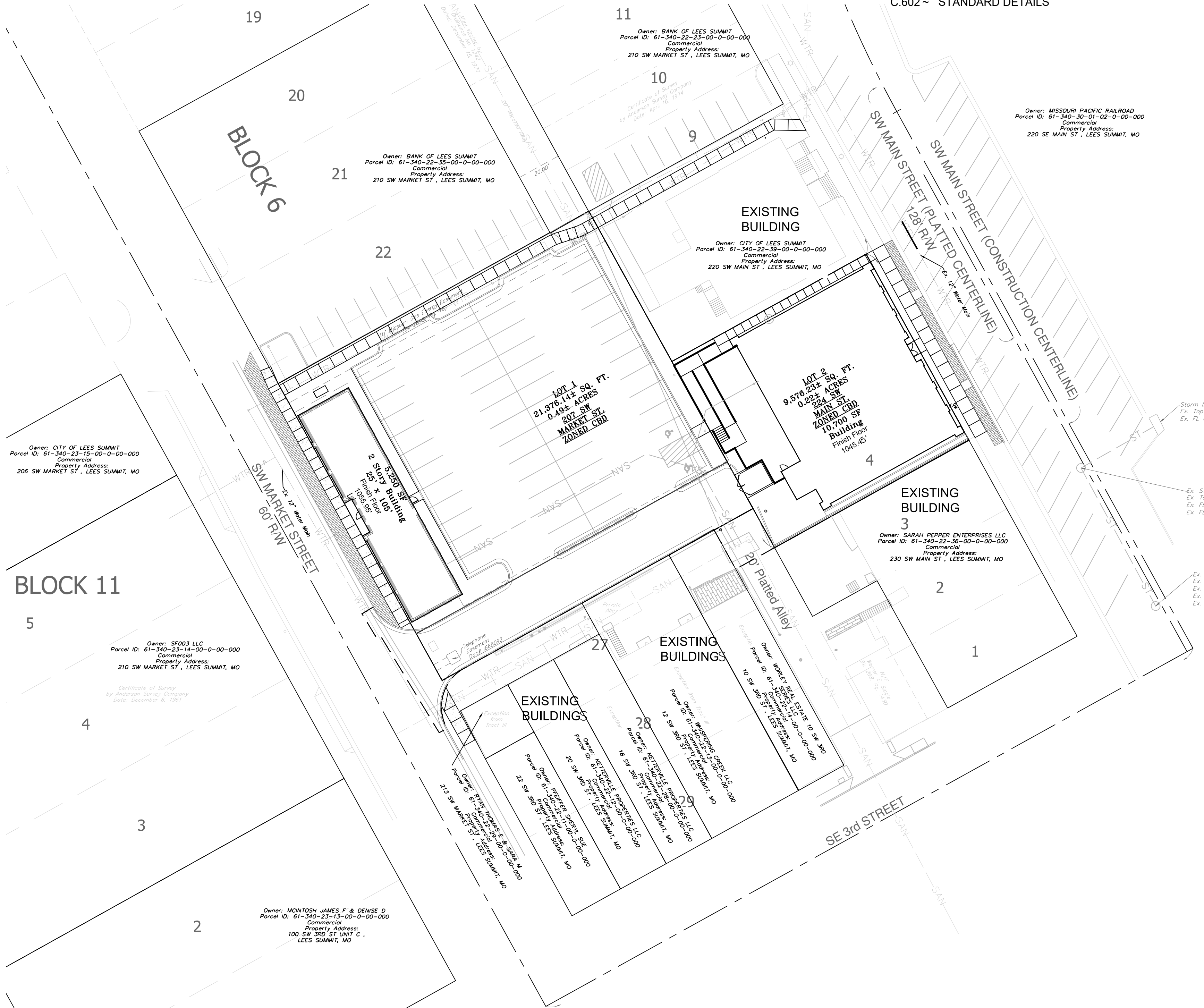
ALL PAVING ON THE PARKING LOT WILL COMPLY WITH THE UNIFIED DEVELOPMENT ORDINANCE ARTICLE 8 IN TERMS OF PAVING THICKNESS AND BASE



FINAL DEVELOPMENT PLAN
SCALE: 1" = 30'

INDEX OF SHEETS:

- C.001 ~ COVER SHEET
C.010 ~ DEMOLITION
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.100 ~ SITE PLAN
C.101 ~ DIMENSION PLAN
C.200 ~ GRADING PLAN
C.201 ~ SPOT ELEVATIONS
C.202 ~ ADA SPOT ELEVATIONS AND DETAILS
C.203 ~ DRAINAGE MAP
C.300 ~ STORM SEWER GENERAL LAYOUT
C.301 ~ STORM SEWER PLAN AND PROFILE
C.302 ~ ROOF DRAIN PLAN
C.400 ~ UTILITY PLAN
C.600 ~ STANDARD DETAILS
C.601 ~ STANDARD DETAILS
C.602 ~ STANDARD DETAILS



Professional Registration
Missouri
Engineering 2005002186-D
Surveying 2005008182-D
Kansas
Engineering E-1696
Surveying LS-218
Oklahoma
Engineering 6254
Nebraska
Engineering CA2821

Construction Plans for:
Reece Nichols
Lee's Summit, Jackson County, Missouri

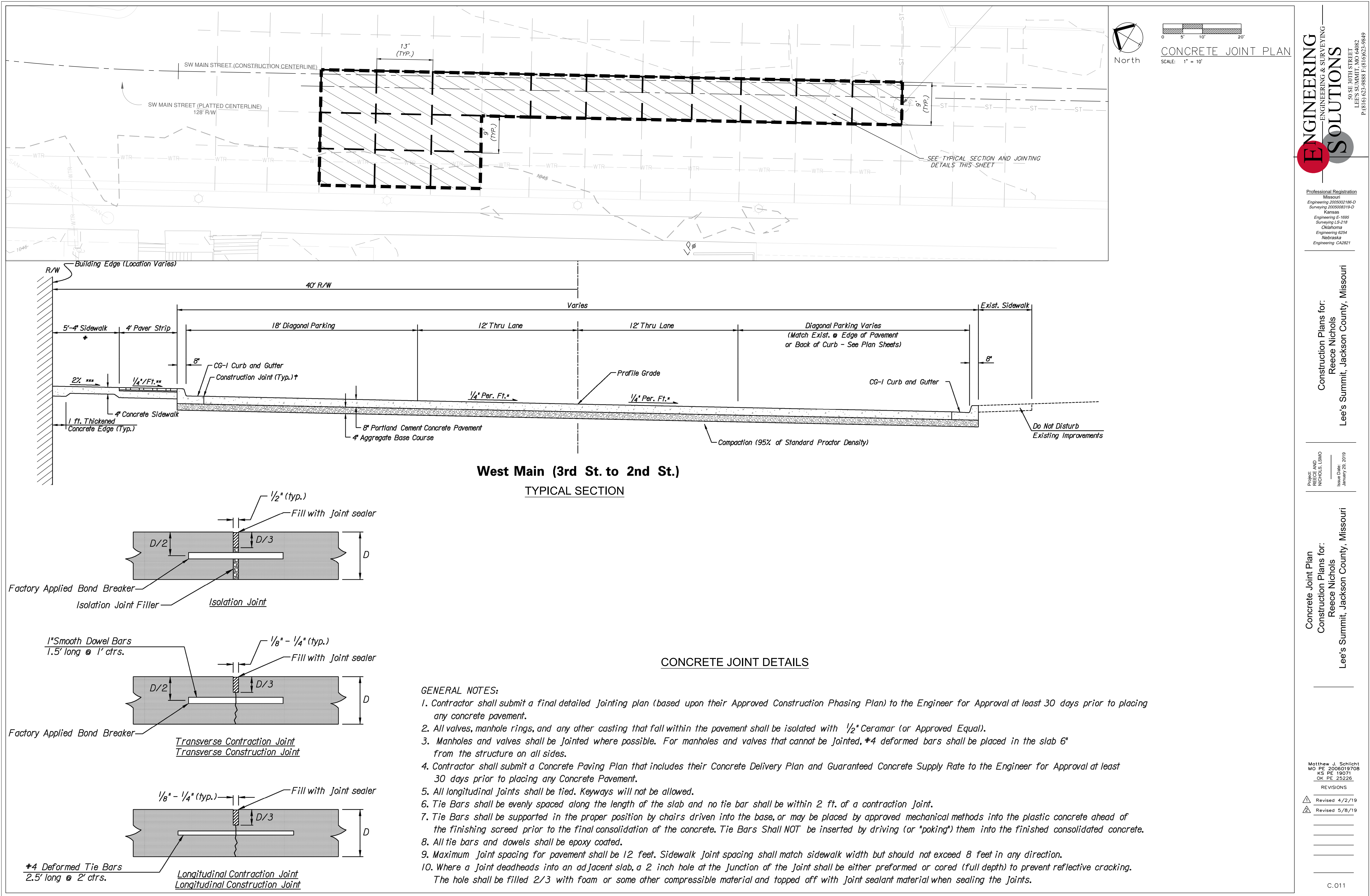
Project AND
NICHOLS, LSNM
Issue Date:
January 29, 2019

Cover Sheet
Construction Plans for:
Reece Nichols
Lee's Summit, Jackson County, Missouri

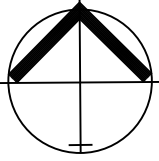
Matthew J. Schlicht
MO PE 2006019708
KS PE 19071
OK PE 25526

REVISIONS
Revised 4/2/19
Revised 5/8/19

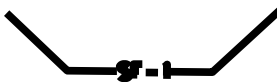
C.001







ESC PHASE 1
SCALE: 1" = 20'



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

INLET PROTECTION

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

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.

ENGINEERING
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Professional Registration

Missouri
Engineering 2005002188-D
Surveying 200500019-D

Kansas
Engineering E-1895
Surveying LS-219

Oklahoma
Engineering 6254

Nebraska
Engineering CA2821

Construction Plans for:

Reece Nichols

Lee's Summit, Jackson County, Missouri

Project AND
NICHOLS, LSWO

Issue Date
January 29, 2019

ESC PHASE 1
Construction Plans for:

Reece Nichols

Lee's Summit, Jackson County, Missouri

Matthew J. Schlicht

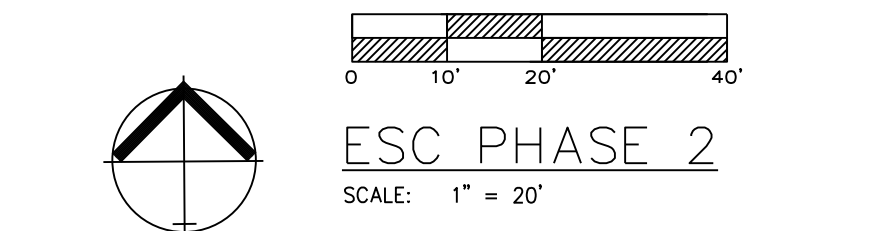
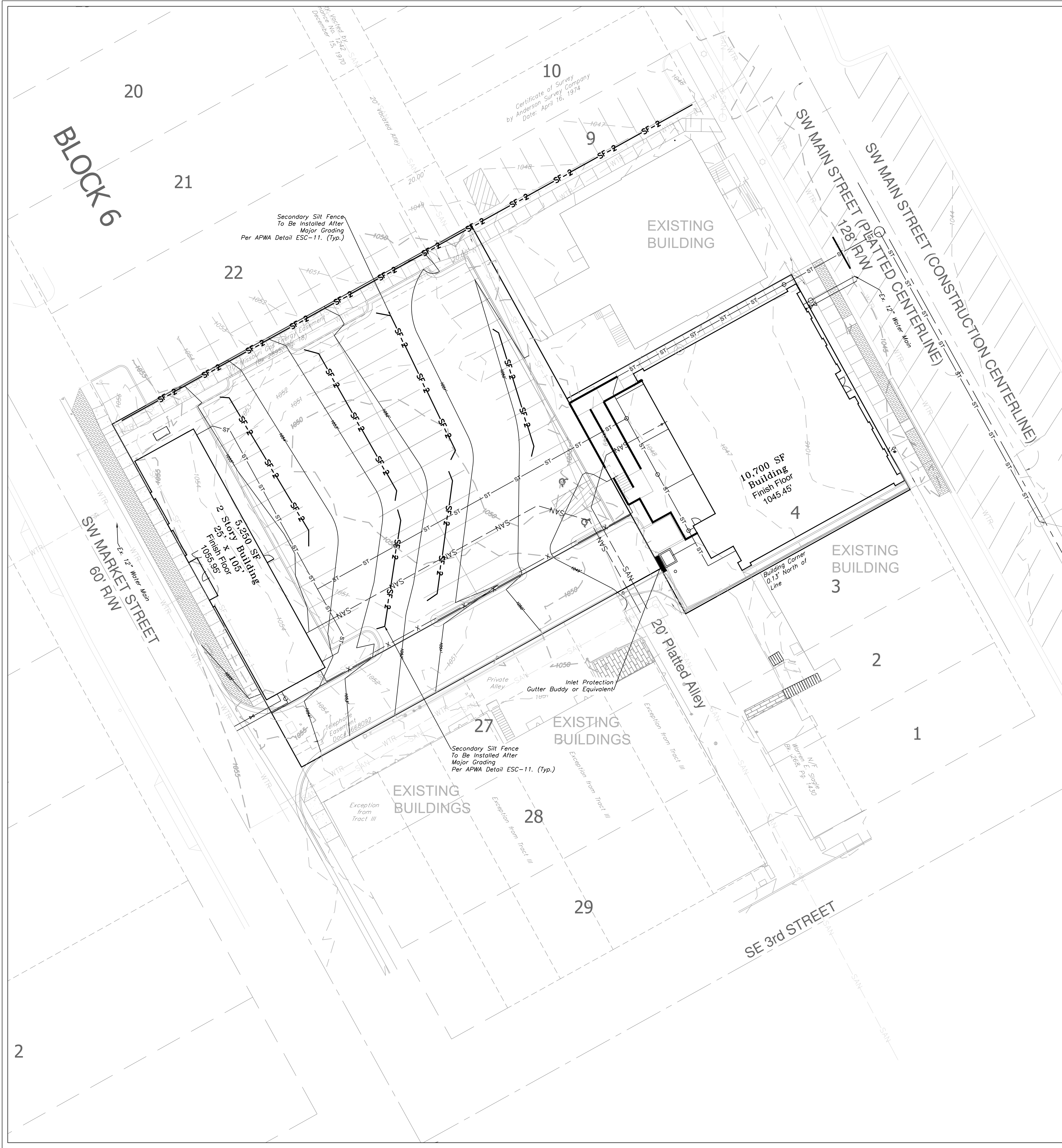
MO PE 2006019708
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REVISIONS

Revised 4/2/19

Revised 5/8/19

C.050



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

INLET PROTECTION —

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

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 THICKNESS OR ADD GEOTEXTILE FABRIC

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/RYE AT A RATE OF 1.5 POUNDS PER 1000 SQUARE FEET. PERMANENT SEEDED SHALL CONSIST OF 80% 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.

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Lee's Summit, Jackson County, Missouri

Project:
Reece Nichols
Lee's Summit, Missouri
January 29, 2019

ESC PHASE 2
Construction Plans for:
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Lee's Summit, Jackson County, Missouri

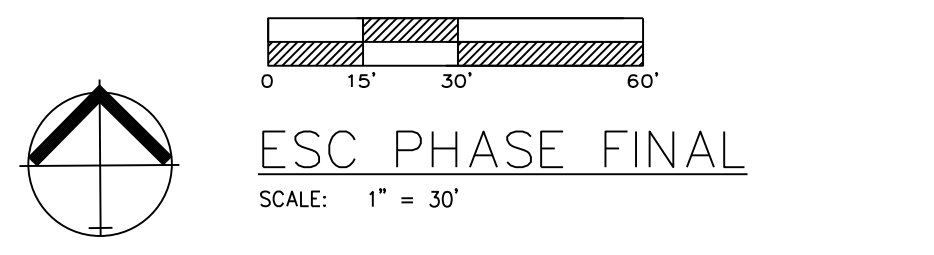
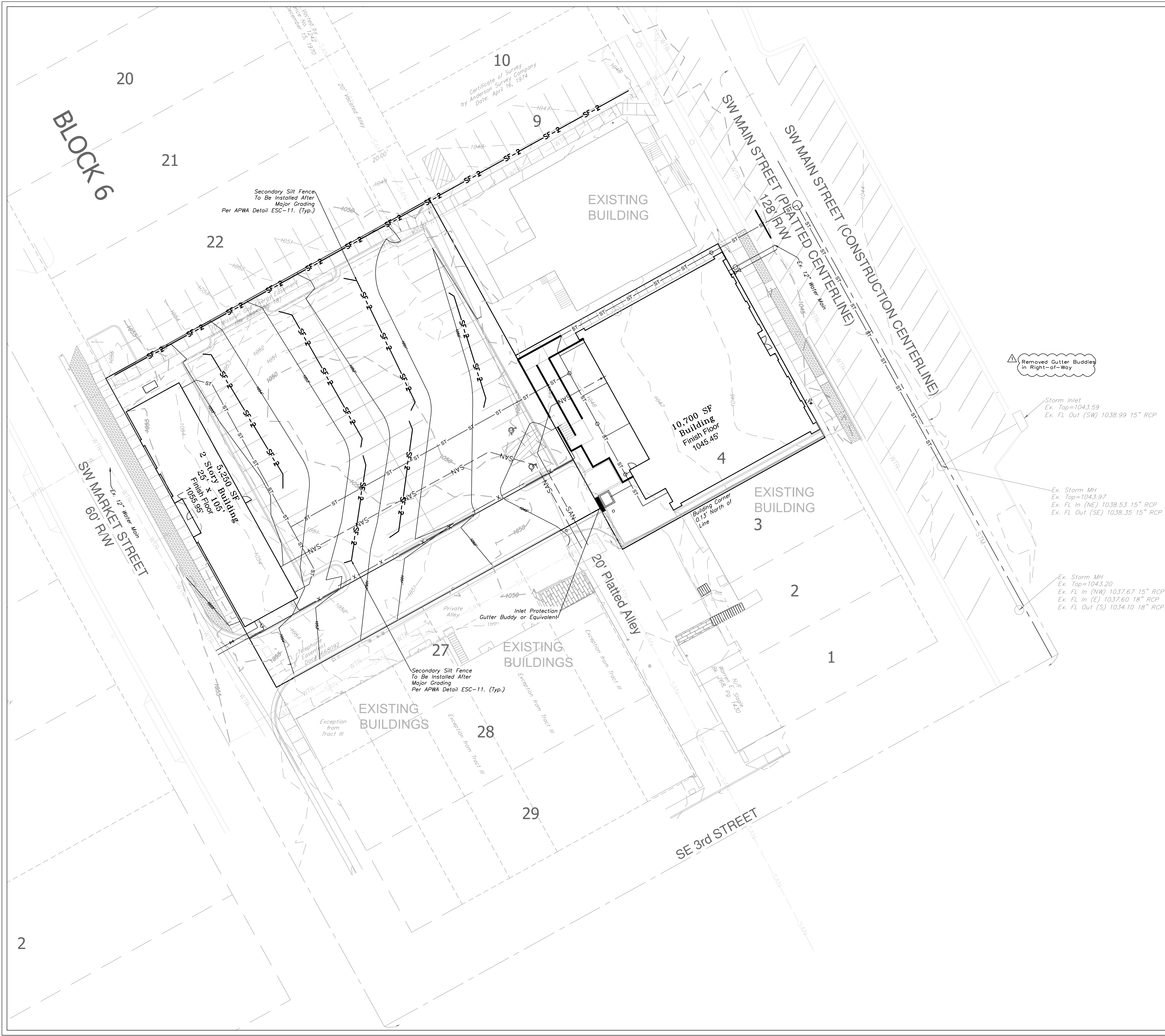
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MO PE 2006019708
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OK PE 25226

REVISIONS

Revised 4/2/19

Revised 5/8/19

C.051



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 —

INLET PROTECTION —

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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

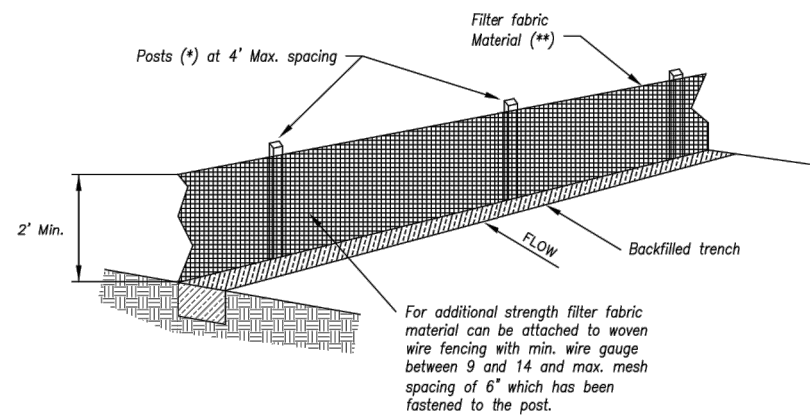
Lime -----
lbs per Acre (50 lbs. per 1000 sq. ft.) -----2000
Fertilizer -----
to 1200 lbs per Acre (25 lbs per 1000 sq. ft.)

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 fluted serrated disks spaced not more than 10 inches apart and cleaning scrapers shall be provided.

ONCE SITE IS 90% VEGETATED ALL ESC DEVICES SHALL BE REMOVED AND ANY DISTURBED AREAS SHALL BE RESTORED



- (*) EGGIS
- MAX. LENGTH 4'
 - HARDWOOD 1 3/4" x 1 3/4"
 - NO.2 SOUTHERN PINE 2 3/4" x 2 3/4"
 - STEEL 1.33 LB/FT

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

SILT FENCE DETAILS

Not to Scale

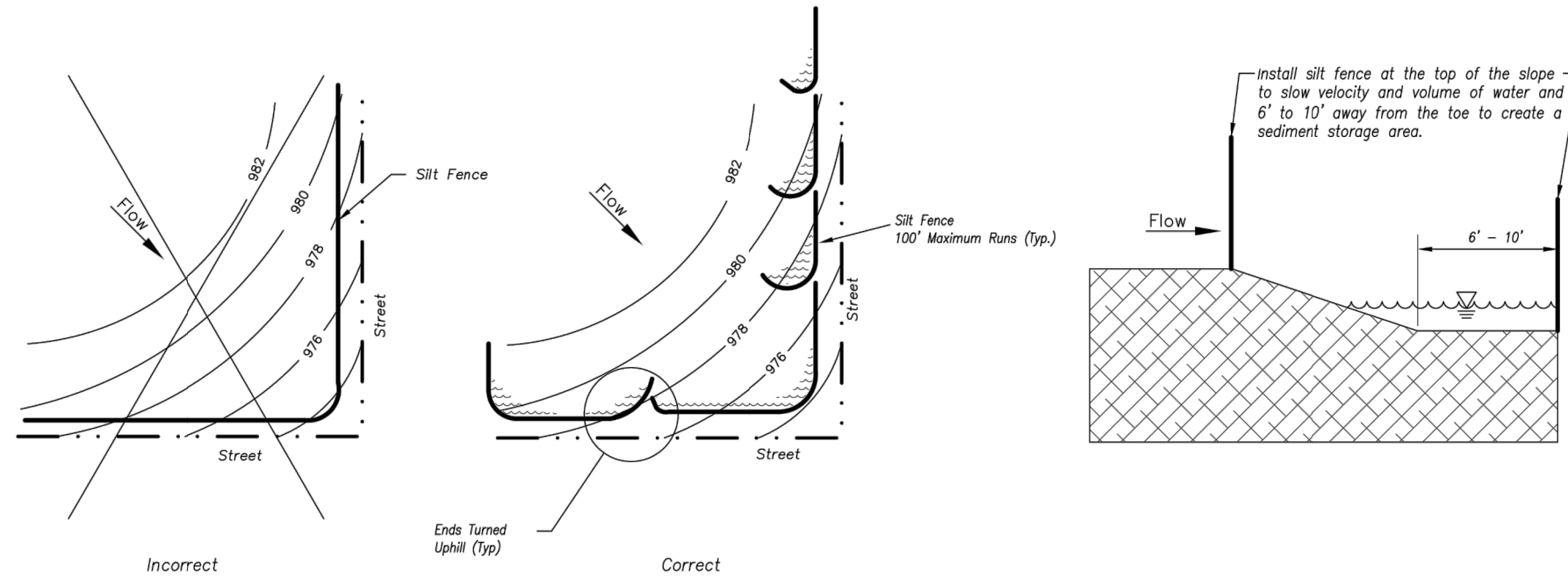


Figure A

SILT FENCE LAYOUT

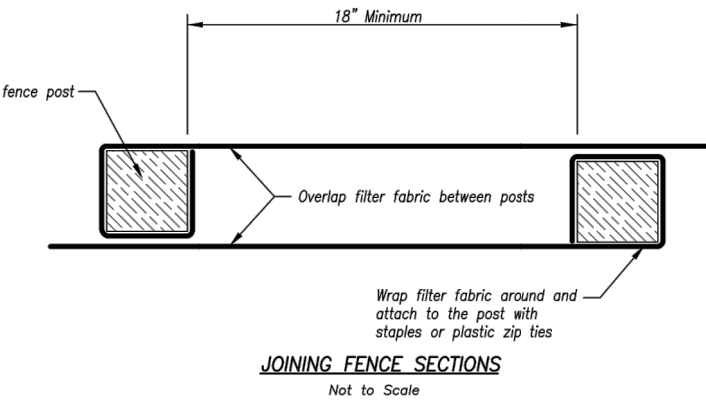
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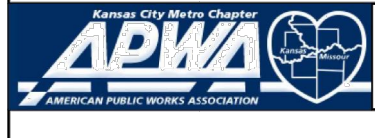
Modified from 2015 Overland Park Standard Details for Erosion and Sediment Control.

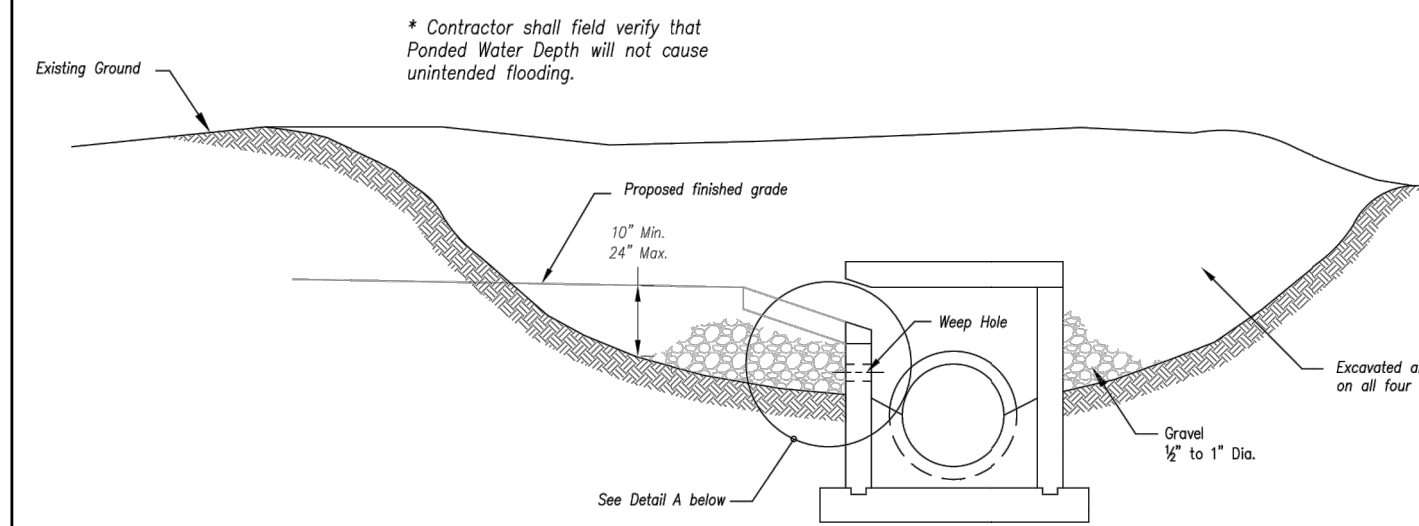
- Notes:
1. In order to contain water, the ends of the silt fence must be turned uphill (Figure A).
 2. Long perimeter runs of silt fence must be limited to 100'. Runs should be broken up into several smaller segments to minimize water concentrations (Figure A).
 3. Long slopes should be broken up with 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 1/2 the height of silt fence.
2. Repair as necessary to maintain function and structure.



AMERICAN PUBLIC WORKS ASSOCIATION	
	KANSAS CITY METRO CHAPTER
SILT FENCE	STANDARD DRAWING NUMBER ESC-03 ADOPTED 10/24/2016



Detail A

EARLY STAGE CURB INLET

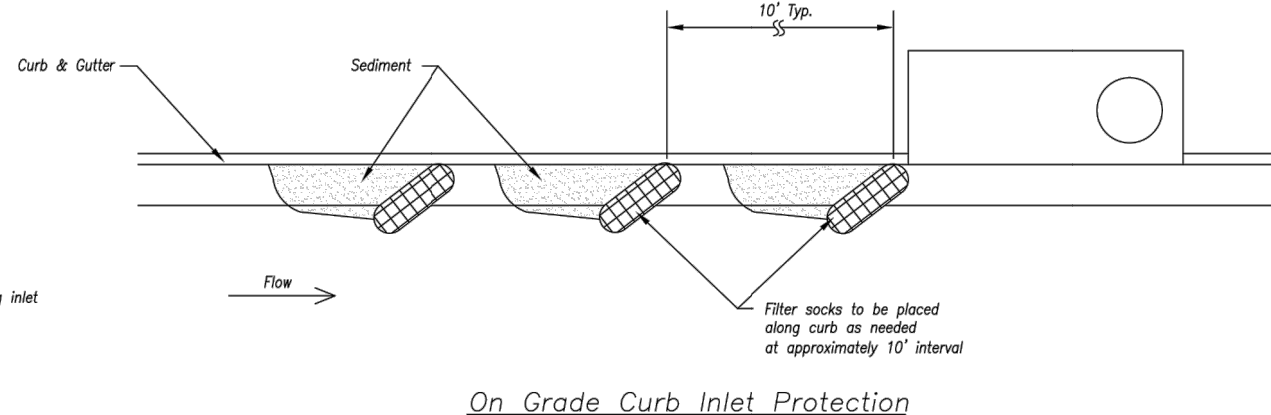
(Open Box and Prior to Pouring Curb and Inlet Throat)

- Notes:
1. Immediately following inlet construction and prior to construction of curb and inlet throat, protect inlet opening by installing 2' x 10' (min.) board wrapped in silt fence. Structures shall have excavated storage area on all four sides to slow settling of sediment (Early Stage Curb Inlet).
 2. When inlet is completed and curb poured, filter socks or approved equal should be used (Late Stage Curb Inlet). Straw wattles are not approved for curb inlet use.
 3. Contractor to field verify ponding water shall not create a traffic hazard.

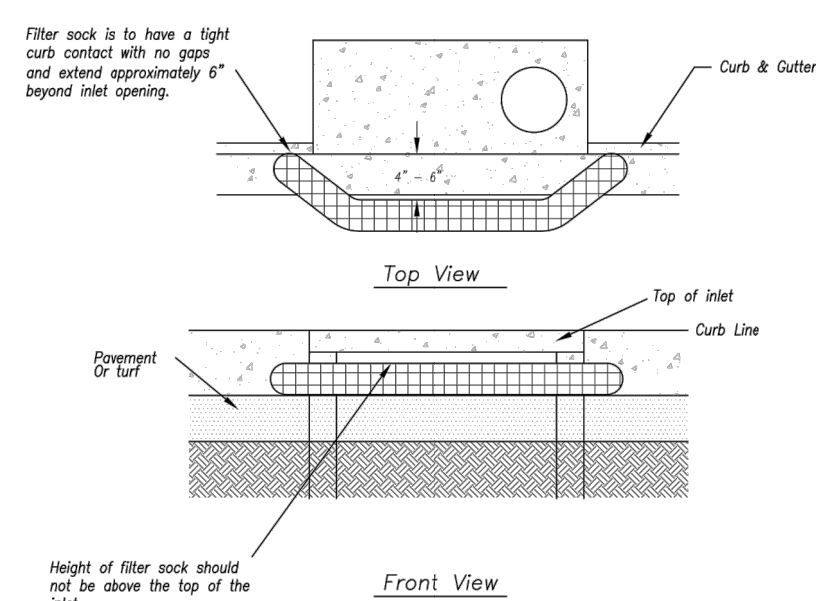
Maintenance:

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.



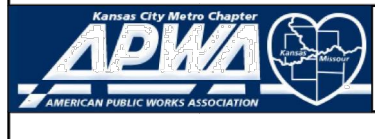
On Grade Curb Inlet Protection



Sump Inlet Sediment Filter

LATE STAGE CURB INLET

(After Pouring Curb and Inlet Throat)

AMERICAN PUBLIC WORKS ASSOCIATION	
	KANSAS CITY METRO CHAPTER
CURB INLET PROTECTION	STANDARD DRAWING NUMBER ESC-06 ADOPTED 10/24/2016

Professional Registration
Missouri
Engineering 2005002185-D
Surveying 2005000119-D
Kansas
Engineering E-1695
Surveying LS-219
Oklahoma
Engineering 6254
Nebraska
Engineering CA2821

Construction Plans for:
Reece Nichols
Lee's Summit, Jackson County, Missouri

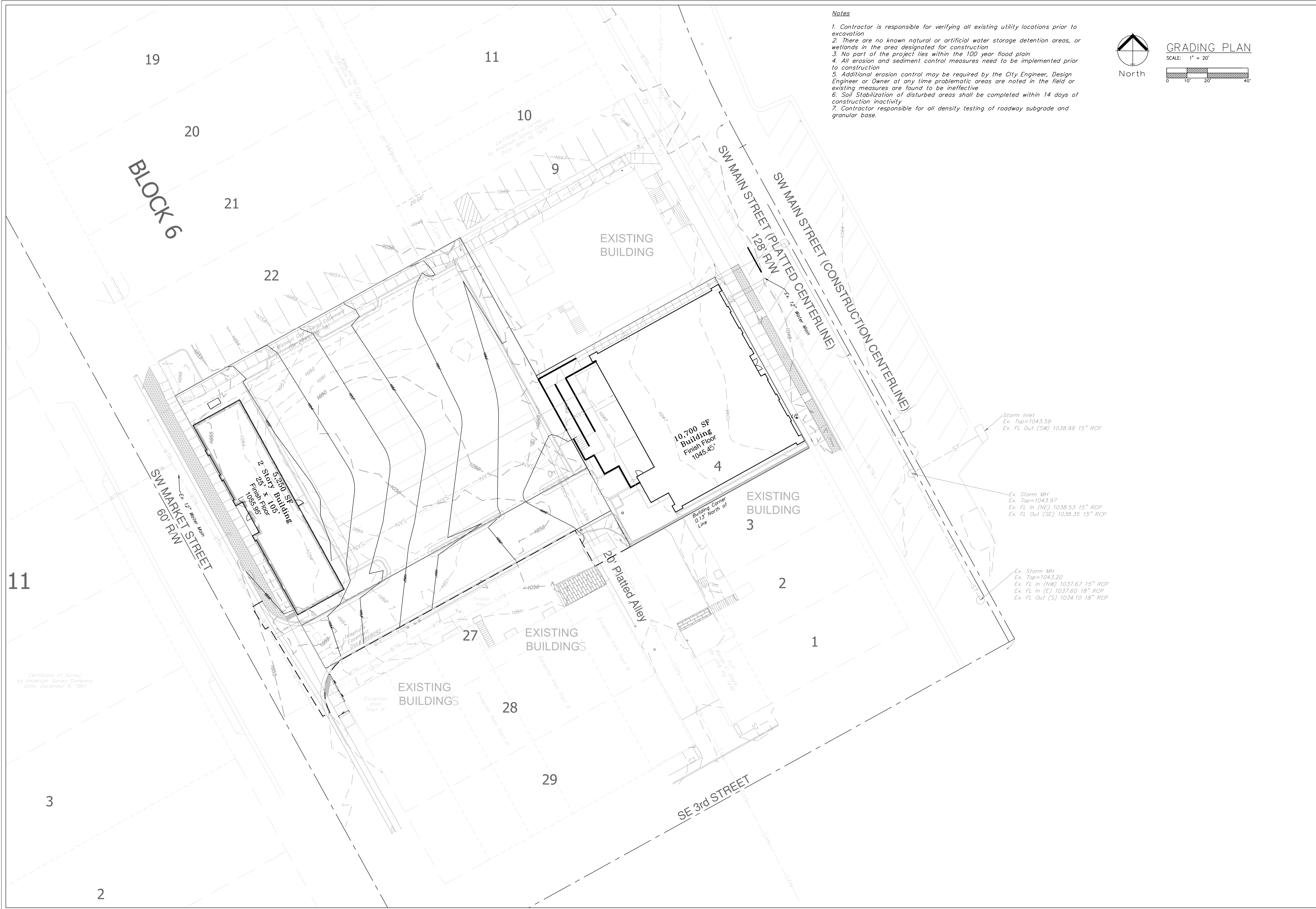
Project AND
NICHOLS, LSWO
January 2019

ESC DETAILS
Construction Plans for:
Reece Nichols
Lee's Summit, Jackson County, Missouri

Matthew J. Schlicht
MO PE 2006019708
KS PE 19071
OK PE 25526

REVISIONS
Revised 4/2/19
Revised 5/8/19





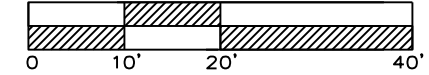
Notes

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.



GRADING PLAN

SCALE: 1" = 20'



Professional Registration
Missouri
Engineering 2005002186-D
Surveying 2005003192-D
Kansas
Engineering E-1696
Surveying LS-218
Oklahoma
Engineering 6254
Nebraska
Engineering CA2621

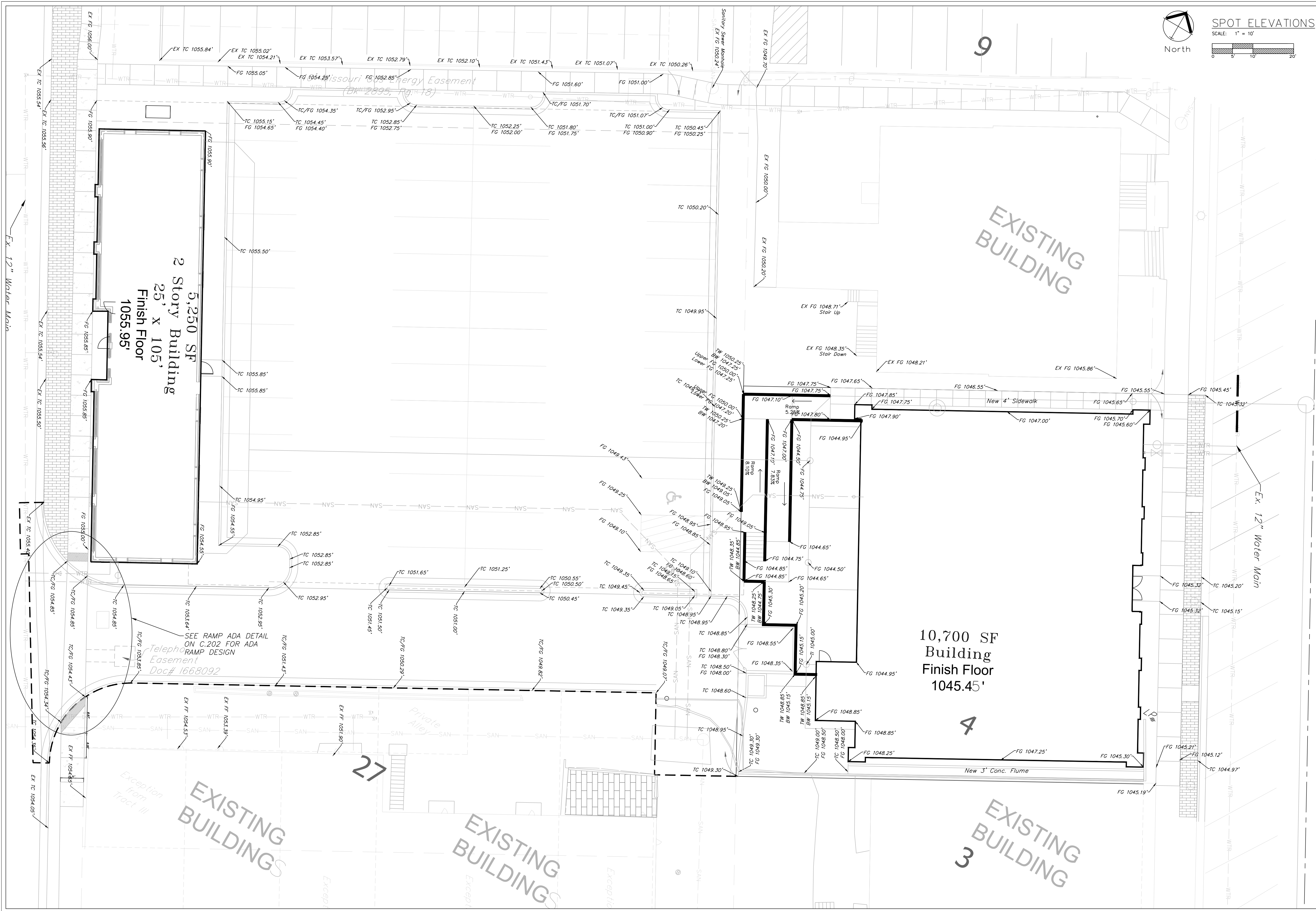
Construction Plans for:
Reece Nichols
Lee's Summit, Jackson County, Missouri

Project AND
NICHOLS, LSWO
Issue Date
January 29, 2019

GRADING PLAN
Construction Plans for:
Reece Nichols
Lee's Summit, Jackson County, Missouri

Matthew J. Schlicht
MO PE 2006019708
KS PE 19071
OK PE 25226

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Revised 4/2/19
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SPOT ELEVATIONS
SCALE: 1" = 10'



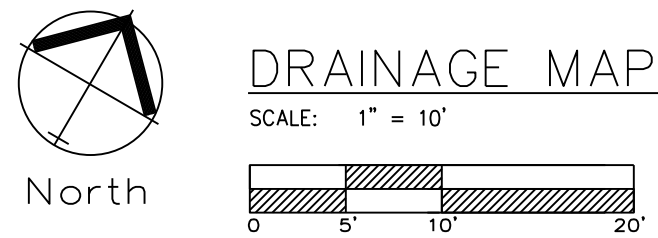
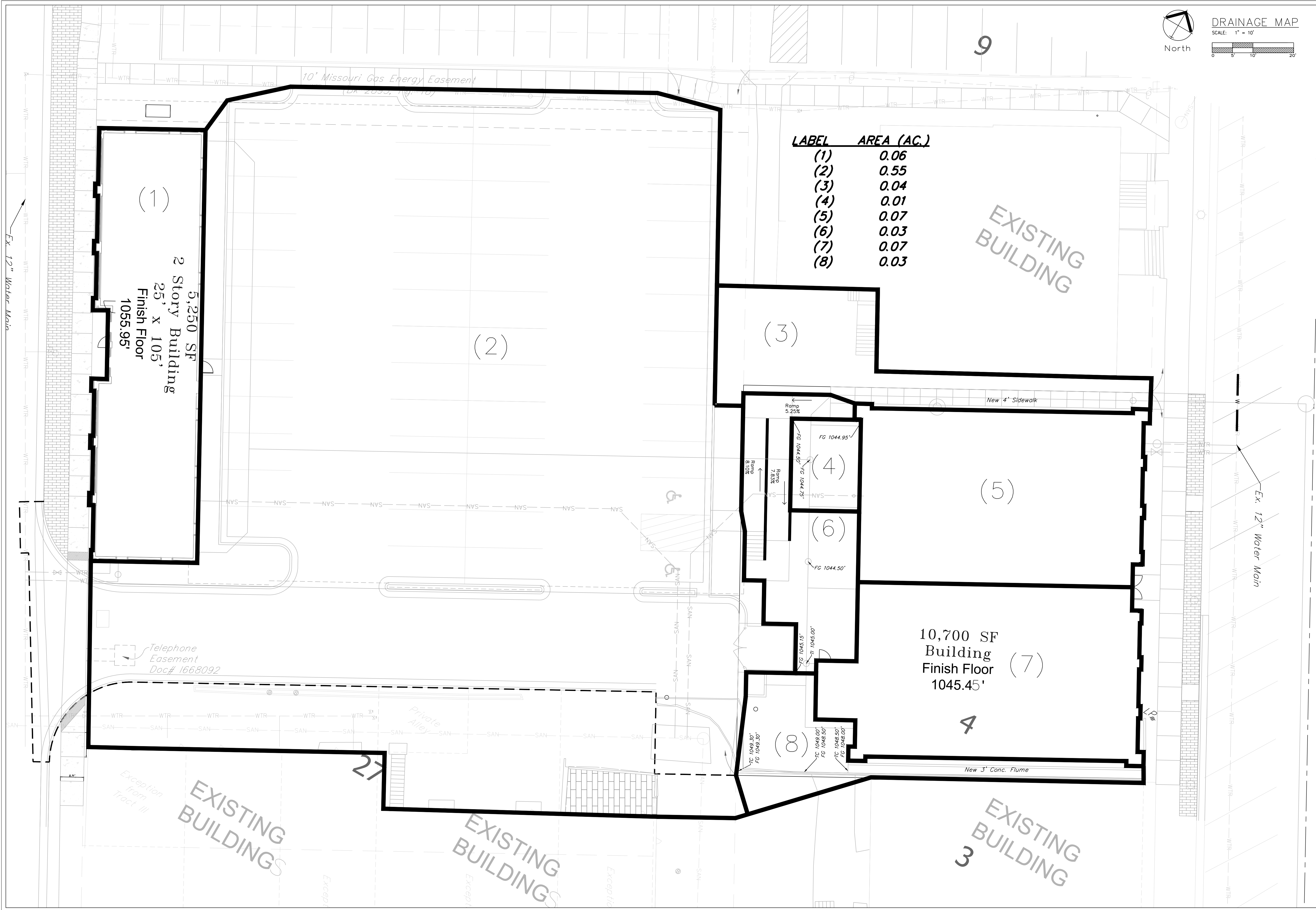
Professional Registration
Missouri
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Surveying 2005000192-D
Kansas
Engineering E-1895
Surveying LS-218
Oklahoma
Engineering 6254
Nebraska
Engineering CA2821

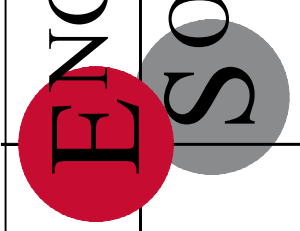
Construction Plans for:
Reece Nichols
Lee's Summit, Jackson County, Missouri

Project AND
NICHOLS, LSWO
Issue Date
January 29, 2019

SPOT ELEVATIONS
Construction Plans for:
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Surveying	2005000192-D
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Surveying	LS-218
Oklahoma	Engineering 6254
Nebraska	Engineering CA2821

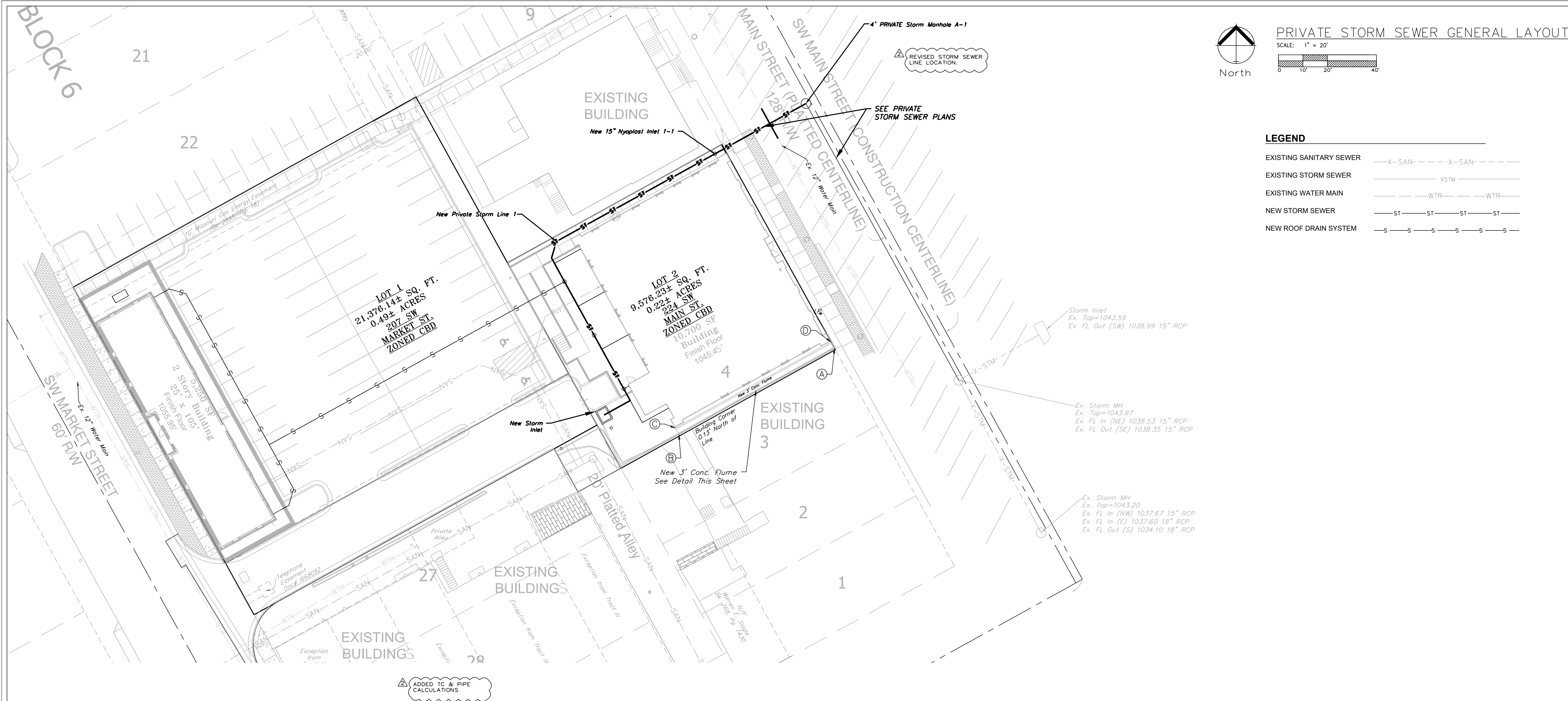
Drainage Map
Construction Plans for:
Reece Nichols
Lee's Summit, Jackson County, Missouri

Project AND
NICHOLS, LSWO
Issue Date:
January 29, 2019

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MO PE 2006019708
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C. 203



APWA STORM DRAINAGE "TC" COMPUTATIONS FOR : REECE NICHOLS																								
yellow areas are self computing overwrite if necessary					Surface types Asphalt/ConcBus/Grass Dirt Grass/Park Lake MultiFam SnglFam Undev Other																			
					SURFACE CODES A B C D E F G H I J K L M N O P Q R S T U V W X Y Z																			
					"C" Values 0.90 0.87 0.80 0.60 0.30					0.90 0.86 0.51 0.30										TC COMPUTATION				
					Override Length - DN Elev or Slope if necessary										SURFACE CODE P=Paved U=Unpaved Override Slope or Elevations if necessary									
TOTAL WATERSHED					OVERLAND FLOW - 100' MAX																			
					CHANNEL FLOW - FIRST REACH																			
					CHANNEL FLOW - DN SLOPE VELOCITY																			
					P or CHANNEL UP DN SLOPE VELOCITY																			
					L LENGTH ELEV ELEV F/S																			
					T(T) T(T) T(T) T(T) T(T) T(T)																			
					2.5 5.0 0.9 0.0 5.9																			
					2																			

TC FOR ALL OTHER AREAS EQUAL 5 MINUTES.

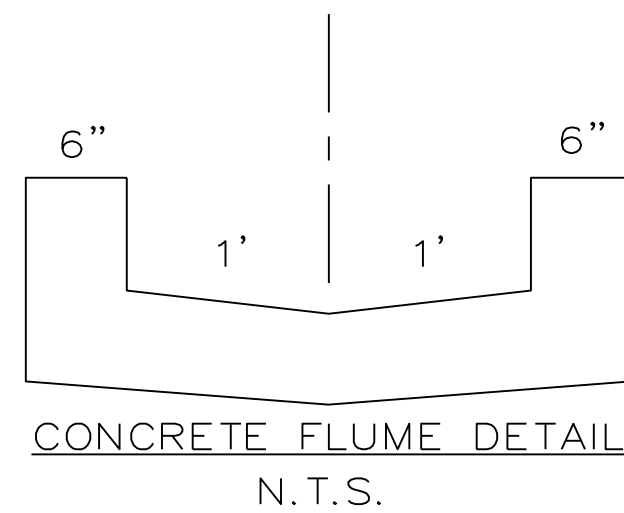
10-YR PIPE														
D.S. Str.	U.S. Str.	LineLength	Incr.Area	TotalArea	RunoffCoeff.	IncrC x A	TotalC x A	InletTime	TimeConc	RnfallInt	TotalRunoff	TotalFlow	CapacFull	Veloc
(ft)	(ac)	(ac)	(C)	(C)	(min)	(min)	(in/hr)	(cfs)	(cfs)	(cfs)	(ft/s)	(in)	(%)	(ft)
A-1	1-1	42.45	0.04	0.83	0.87	0.03	0.72	5	6.4	10.4	7.52	7.52	4.96	6.13
1-1	1-2	91.98	0.14	0.79	0.87	0.12	0.69	5	6.1	7	4.79	4.79	6.19	5.15
1-2	1-3	25	0.1	0.65	0.87	0.09	0.57	5	6	7	3.95	3.95	6.5	5.15
1-3	1-4	25	0	0.55	0	0	0.48	0	6	7	3.35	3.35	6.5	4.89
1-4	1-5	17.63	0.55	0.55	0.87	0.48	0.48	5.9	5.9	7	3.36	3.36	6.32	4.84

100-YR PIPE														
D.S. Str.	U.S. Str.	LineLength	Incr.Area	TotalArea	RunoffCoeff.	IncrC x A	TotalC x A	InletTime	TimeConc	RnfallInt	TotalRunoff	TotalFlow	CapacFull	Veloc
(ft)	(ac)	(ac)	(C)	(C)	(min)	(min)	(in/hr)	(cfs)	(cfs)	(cfs)	(ft/s)	(in)	(%)	(ft)
A-1	1-1	42.45	0.04	0.83	0.87	0.03	0.72	5	6.4	10.4	7.52	7.52	4.96	6.13
1-1	1-2	91.98	0.14	0.79	0.87	0.12	0.69	5	6.2	10.5	7.23	7.23	6.19	5.89
1-2	1-3	25	0.1	0.65	0.87	0.09	0.57	5	6.1	10.6	5.97	5.97	6.5	4.86
1-3	1-4	25	0	0.55	0	0	0.48	0	6	10.6	5.07	5.07	6.5	4.13
1-4	1-5	17.63	0.55	0.55	0.87	0.48	0.48	5.9	5.9	10.6	5.08	5.08	6.32	4.14

100 YEAR AND 10 YEAR OVERFLOW FLUME SECTIONS											
Section	Drainage Area	100 Yr. Runoff (c.f.s.)	10 Yr. Runoff (c.f.s.)	Bed Slope (%)	Base Width (ft)	Side Slope (1:V)	Normal Depth (ft)	Sectional Area	Velocity 100Yr. (f.p.s.)	Velocity 10Yr. (f.p.s.)	Hydraulic Radius (ft)
1	0.58	6.29	3.58	3.59	2	0	0.36	0.72	8.34	7.16	0.26

NOTE: Flume contains uniform cross section and constant longitudinal (Bed) slope.

ADDED FLUME DATA



Q100 = 6.29 CFS
ASSUMING INLET 5-1
100% PLUGGED
100 YR WSE = 1048.36
AT POINT B
SLOPE = 3.59%

Finish Grade Elevations of Channel	
Pt.	Elevation
A	1045.79
B	1048.50
C	1048.50
D	1045.79

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Surveying 2005003192-D
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Engineering E-1696
Surveying LS-218
Oklahoma
Engineering 6254
Nebraska
Engineering CA2821

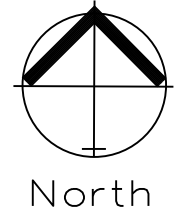
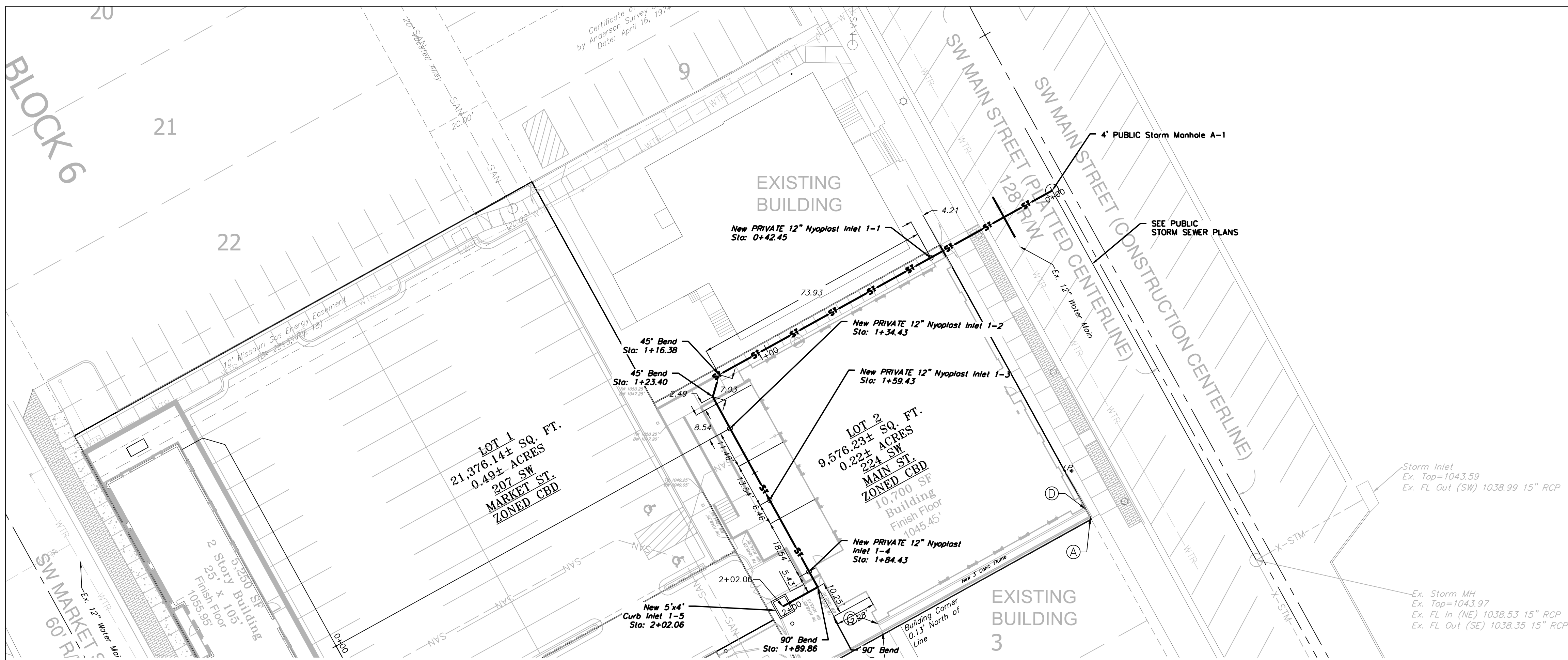
Construction Plans for:
Reece Nichols
Lee's Summit, Jackson County, Missouri

Project AND
NICHOLS, LSNMO
Issue Date:
January 29, 2019

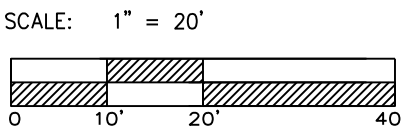
Private Storm Sewer General Layout
Construction Plans for:
Reece Nichols
Lee's Summit, Jackson County, Missouri

Matthew J. Schlicht
MO PE 2006019708
KS PE 19071
OK PE 25226
REVISIONS
Revised 4/2/19
Revised 5/8/19

C. 300



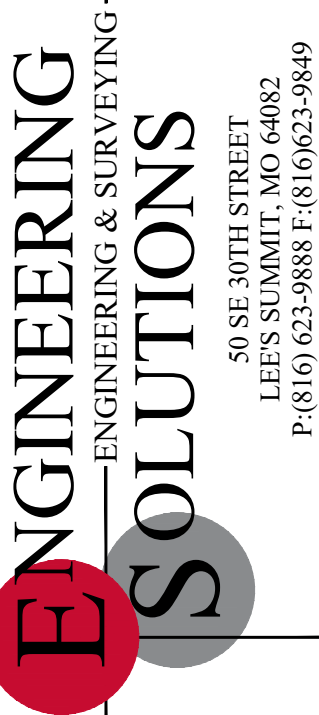
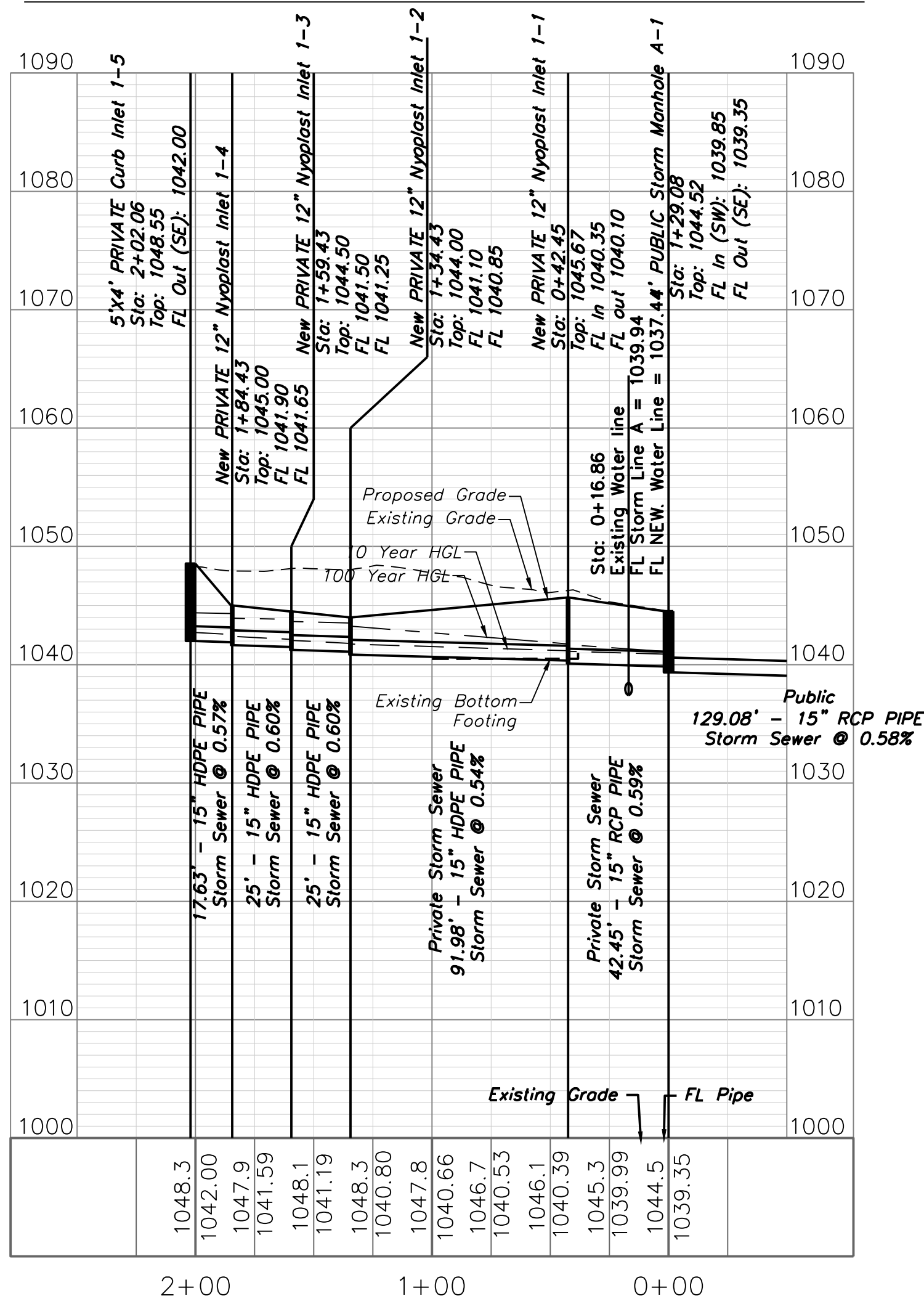
PRIVATE STORM SEWER PLAN AND PROFILE



LEGEND

- EXISTING SANITARY SEWER —X—SAN— —X—SAN— —X—SAN— —X—SAN—
- EXISTING STORM SEWER —XSTM— —XSTM— —XSTM— —XSTM—
- EXISTING WATER MAIN —WTR— —WTR— —WTR— —WTR—
- NEW STORM SEWER —ST— —ST— —ST— —ST—
- NEW ROOF DRAIN SYSTEM —S— —S— —S— —S— —S— —S—

PRIVATE STORM LINE 1



Professional Registration
Missouri
Engineering 2005002188-D
Surveying 200500319-D
Kansas
Engineering E-1895
Surveying LS-219
Oklahoma
Engineering 6254
Nebraska
Engineering CA2821

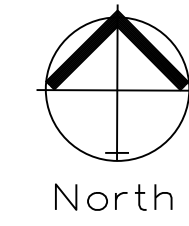
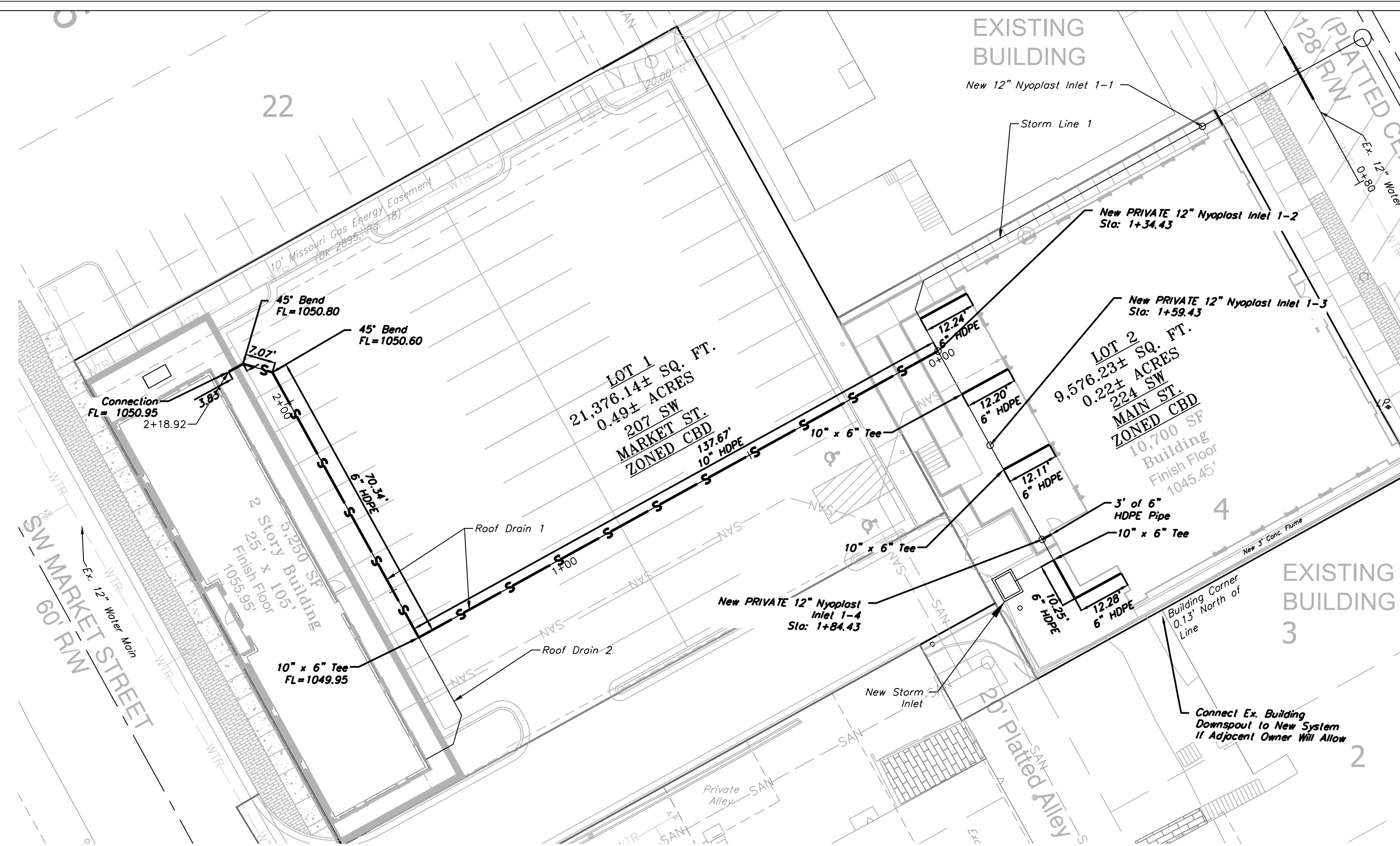
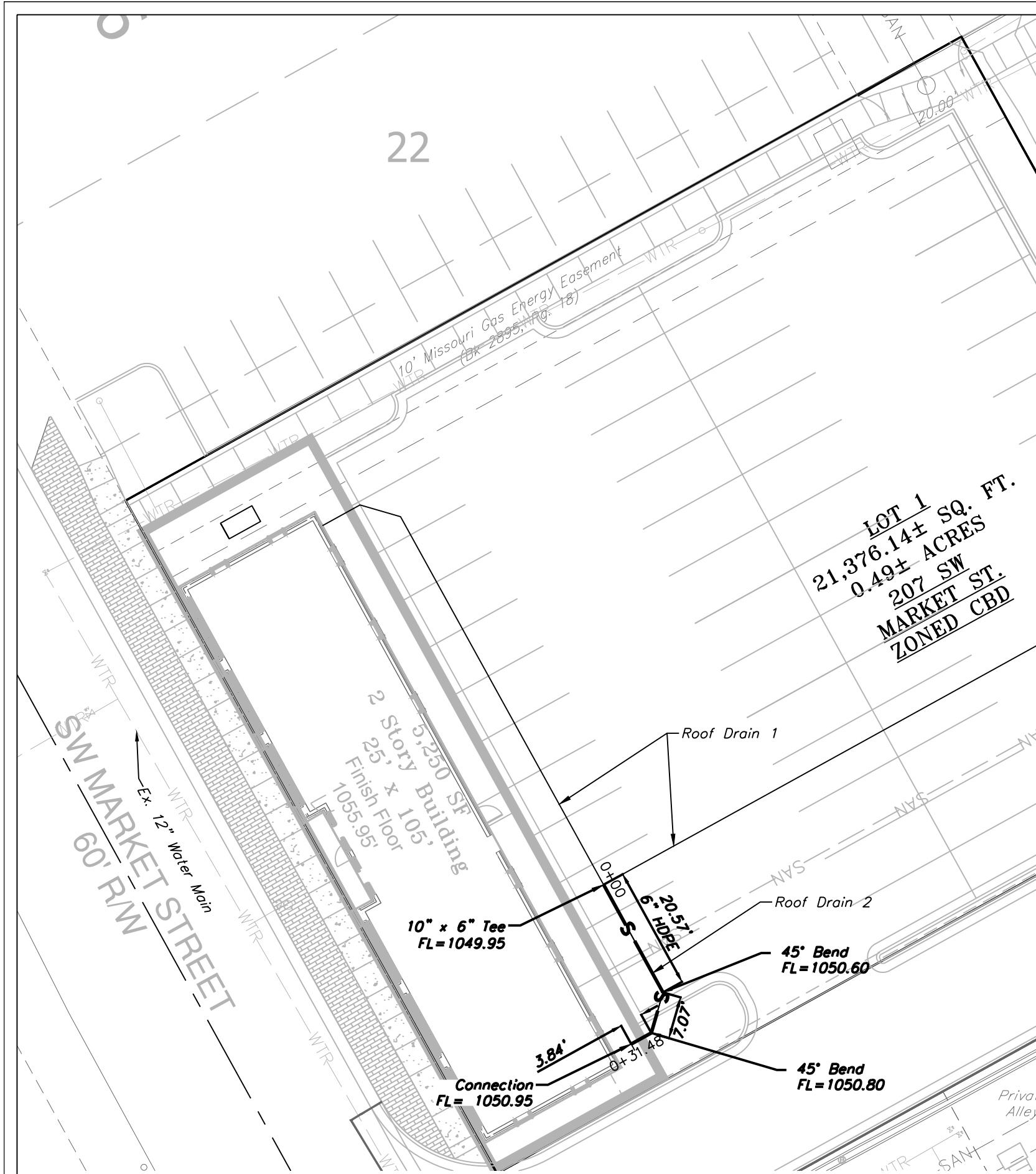
Construction Plans for:
Reece Nichols
Lee's Summit, Jackson County, Missouri

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NICHOLS, LSWO
Issue Date
January 29, 2019

Private Storm Sewer Plan and Profile
Construction Plans for:
Reece Nichols
Lee's Summit, Jackson County, Missouri

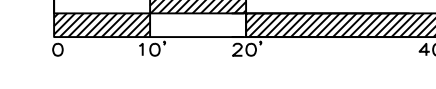
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OK PE 25226

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Revised 4/2/19
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PRIVATE ROOF DRAIN PLAN

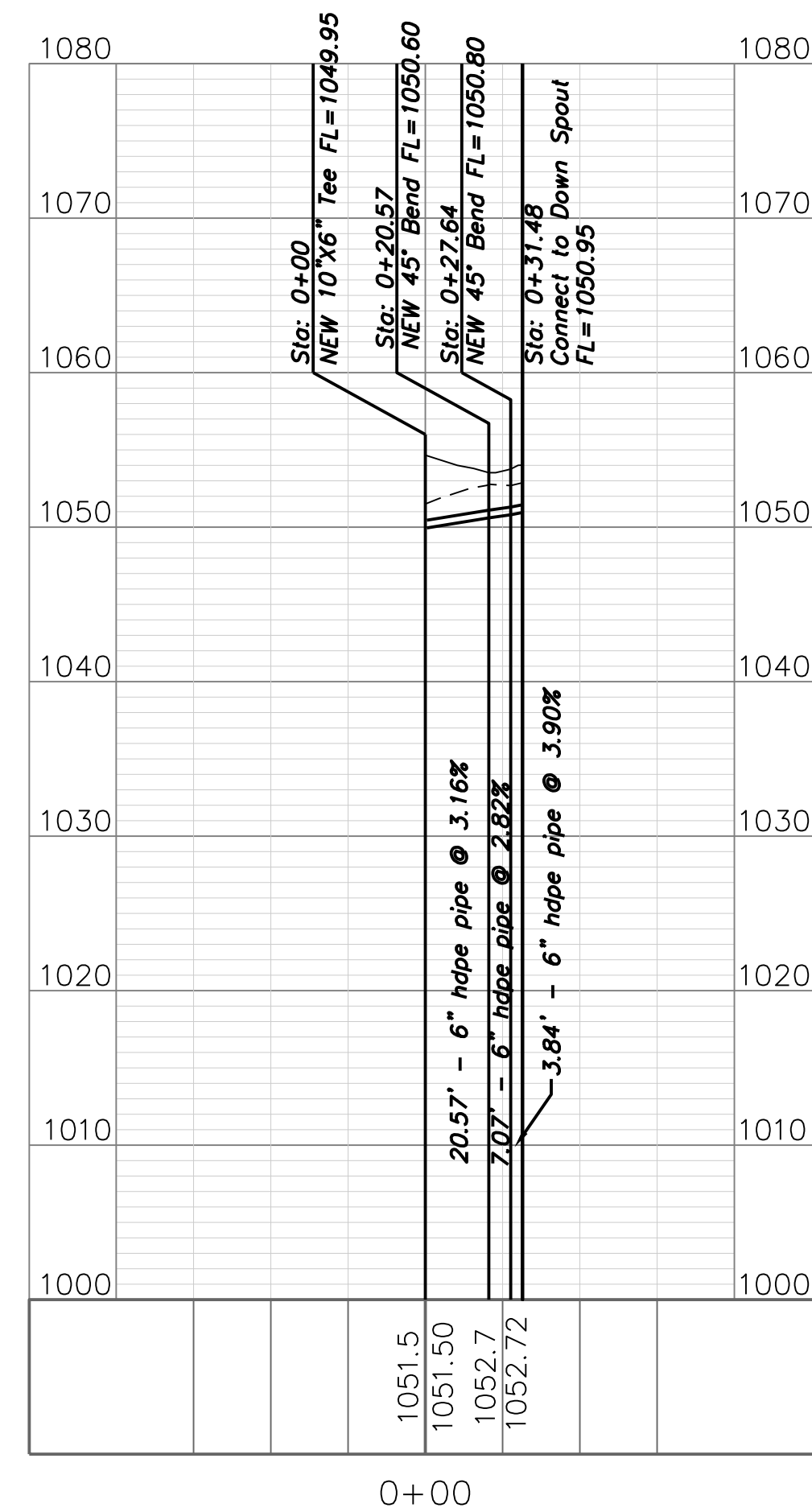
SCALE: 1" = 20'



LEGEND

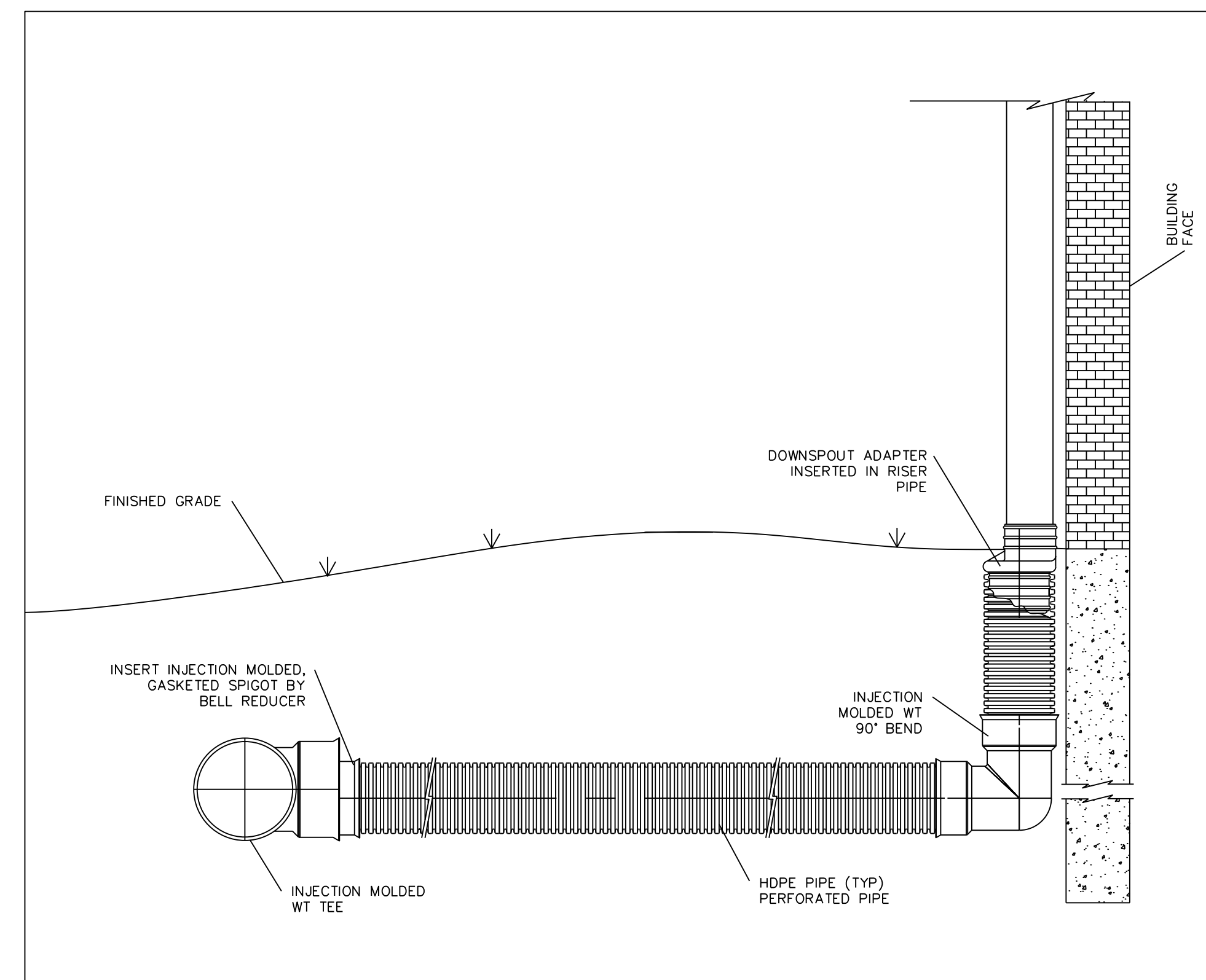
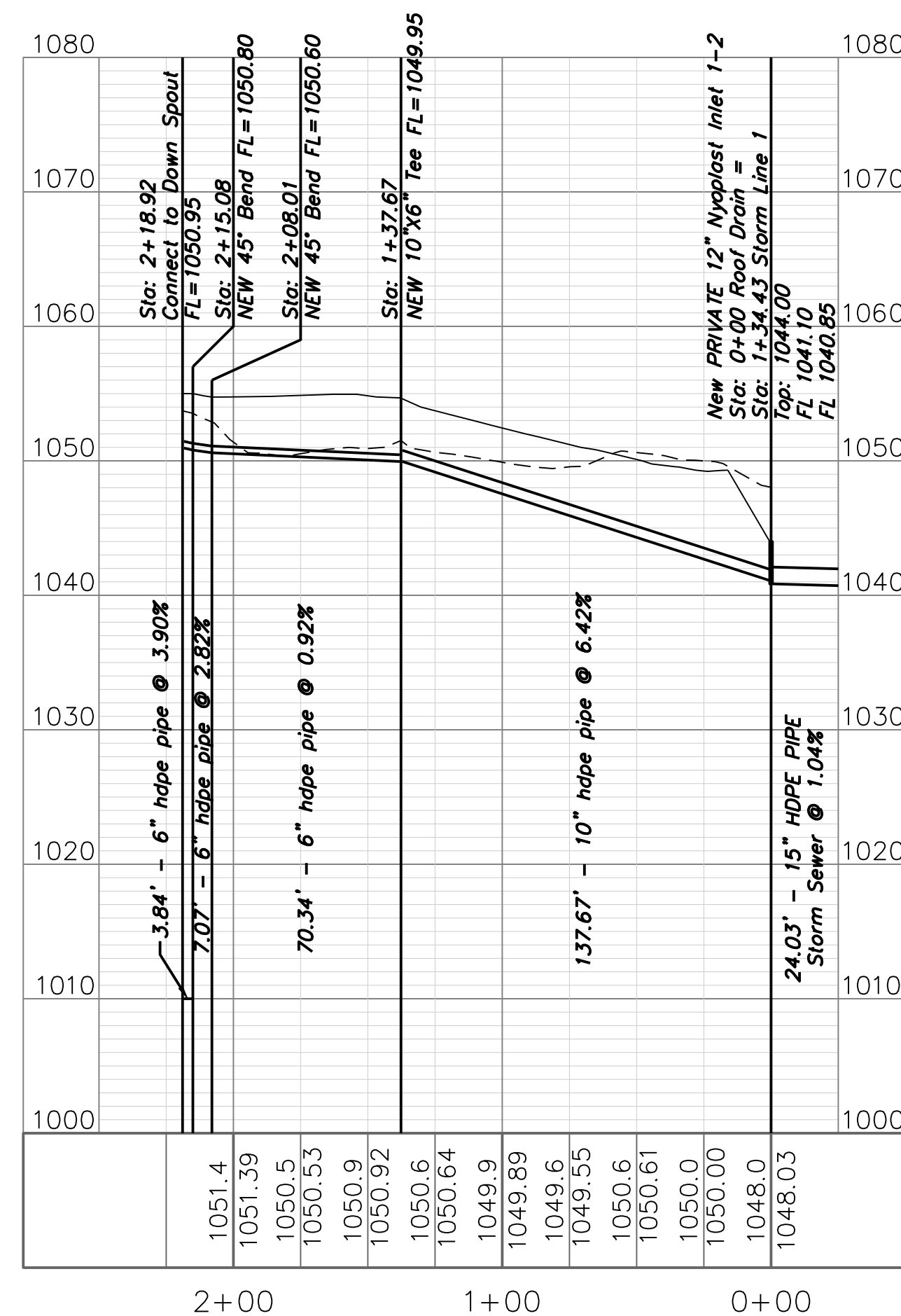
EXISTING SANITARY SEWER	X-SAN
EXISTING STORM SEWER	XSTM
EXISTING WATER MAIN	WTR
NEW STORM SEWER	ST
NEW ROOF DRAIN SYSTEM	S

ROOF DRAIN 2



ADDED STORM SEWER ROOF DRAIN PROFILES.

ROOF DRAIN



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Surveying 2005003192-D

Kansas
Engineering E-1895
Surveying LS-218

Oklahoma
Engineering 6254

Nebraska
Engineering CA2821

Private Roof Drain Plan

Construction Plans for:
Reece Nichols
Lee's Summit, Jackson County, Missouri

Project AND
NICHOLS, LSWO

Issue Date:
January 28, 2019

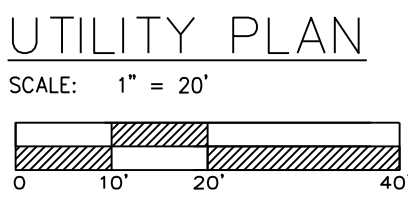
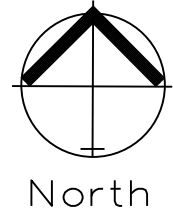
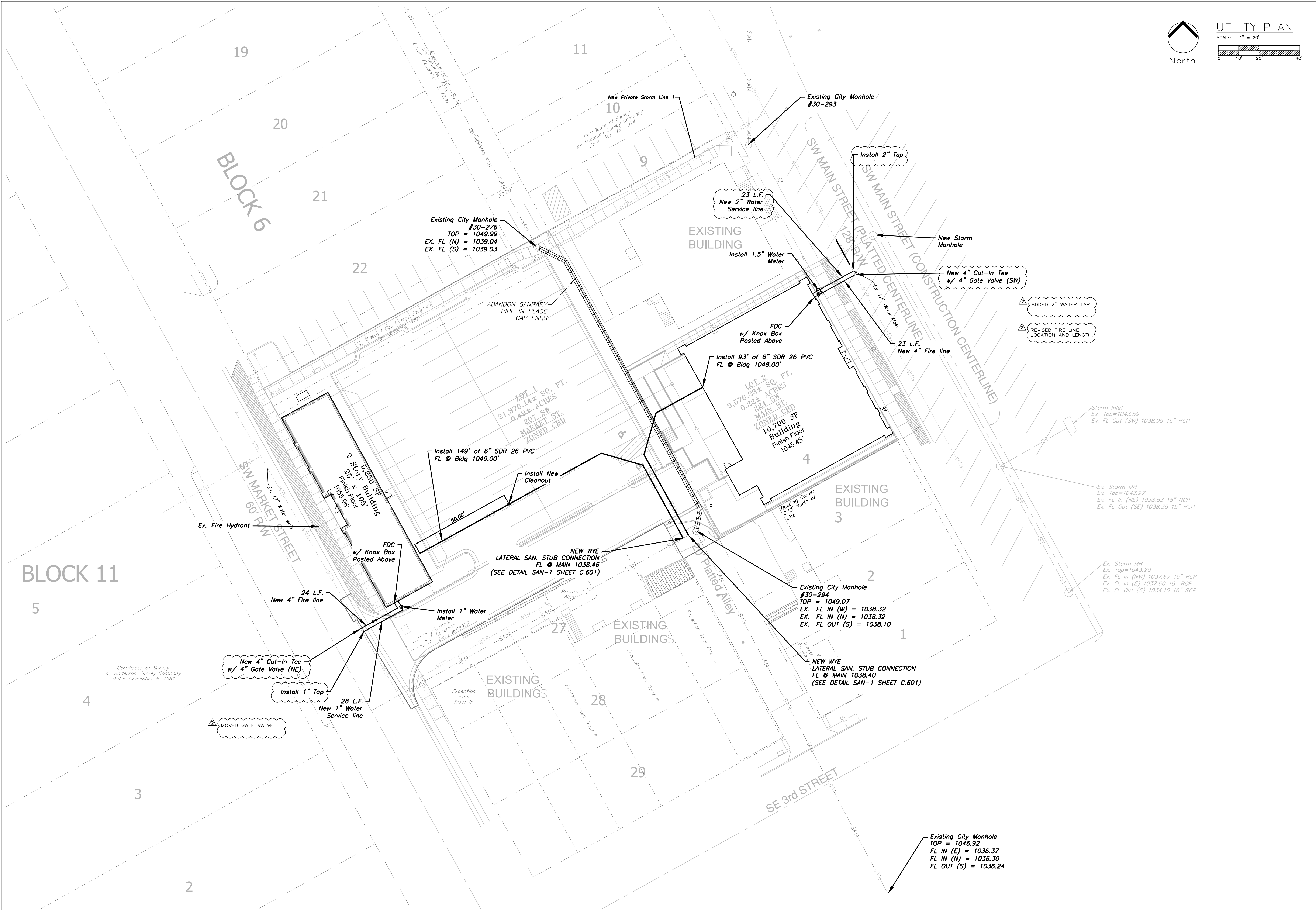
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MO PE 2006019708
KS PE 19071
OK PE 25526

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C. 302



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Oklahoma
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Nebraska
Engineering CA2821

Construction Plans for:
Reece Nichols
Lee's Summit, Jackson County, Missouri

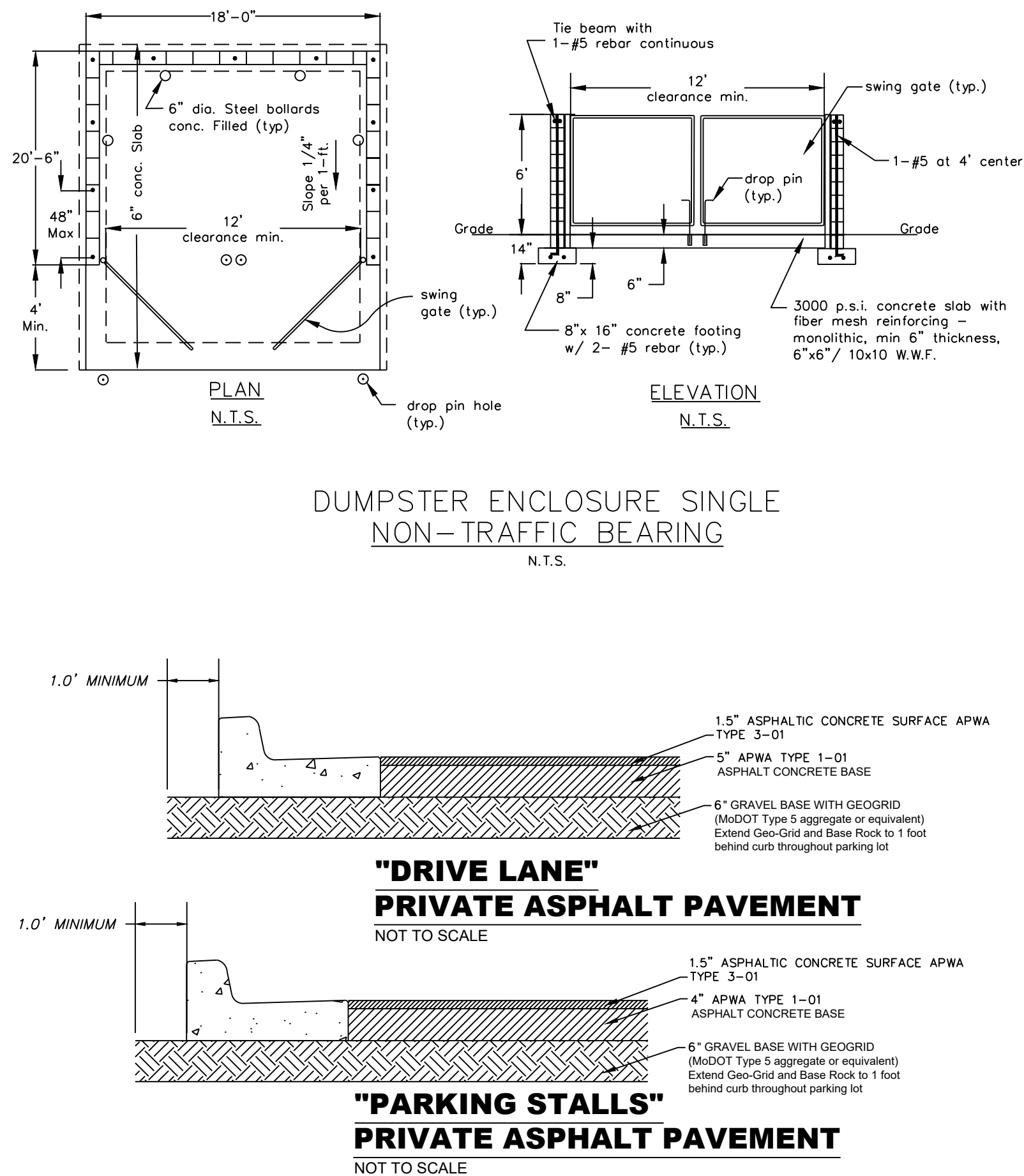
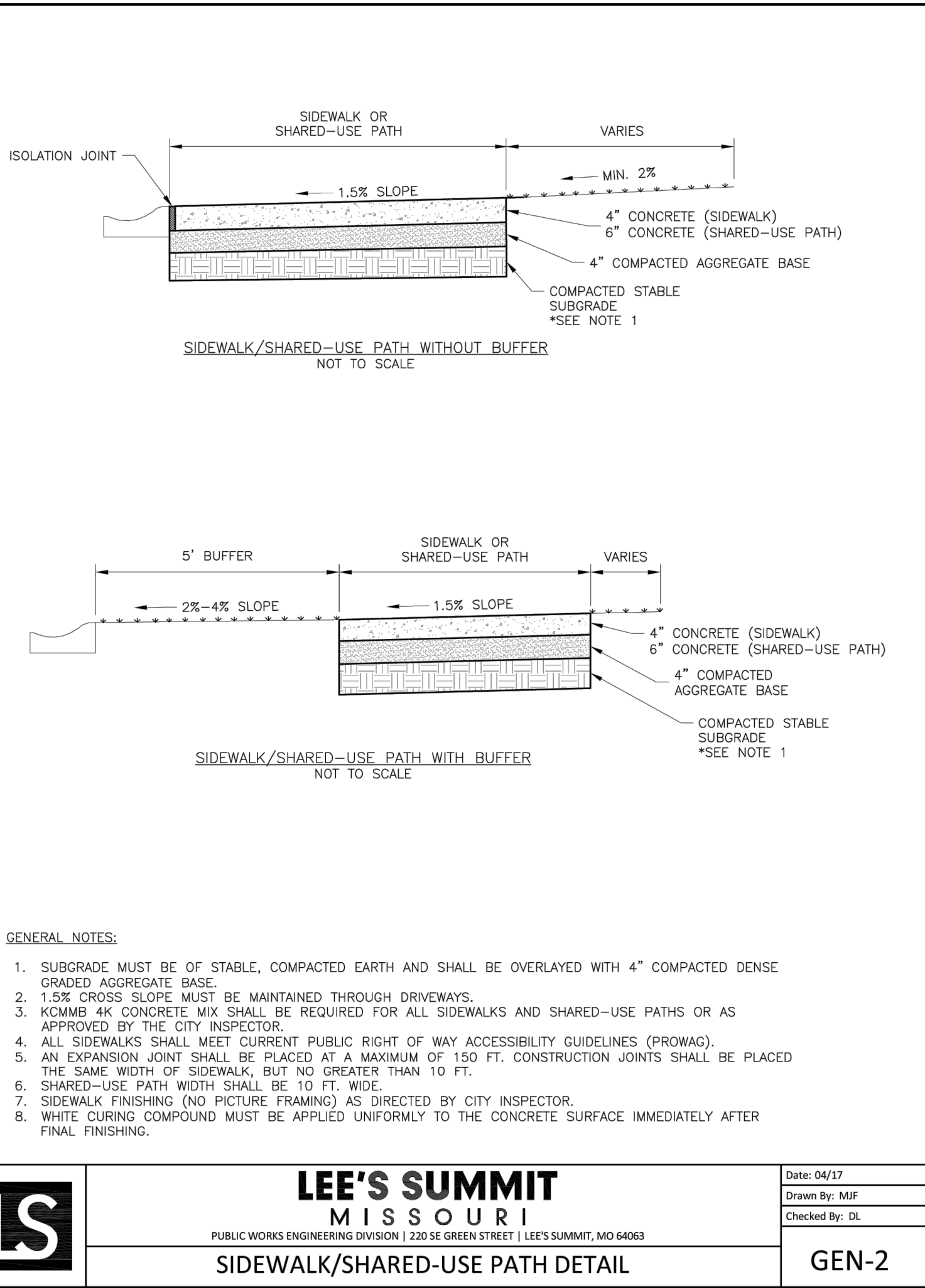
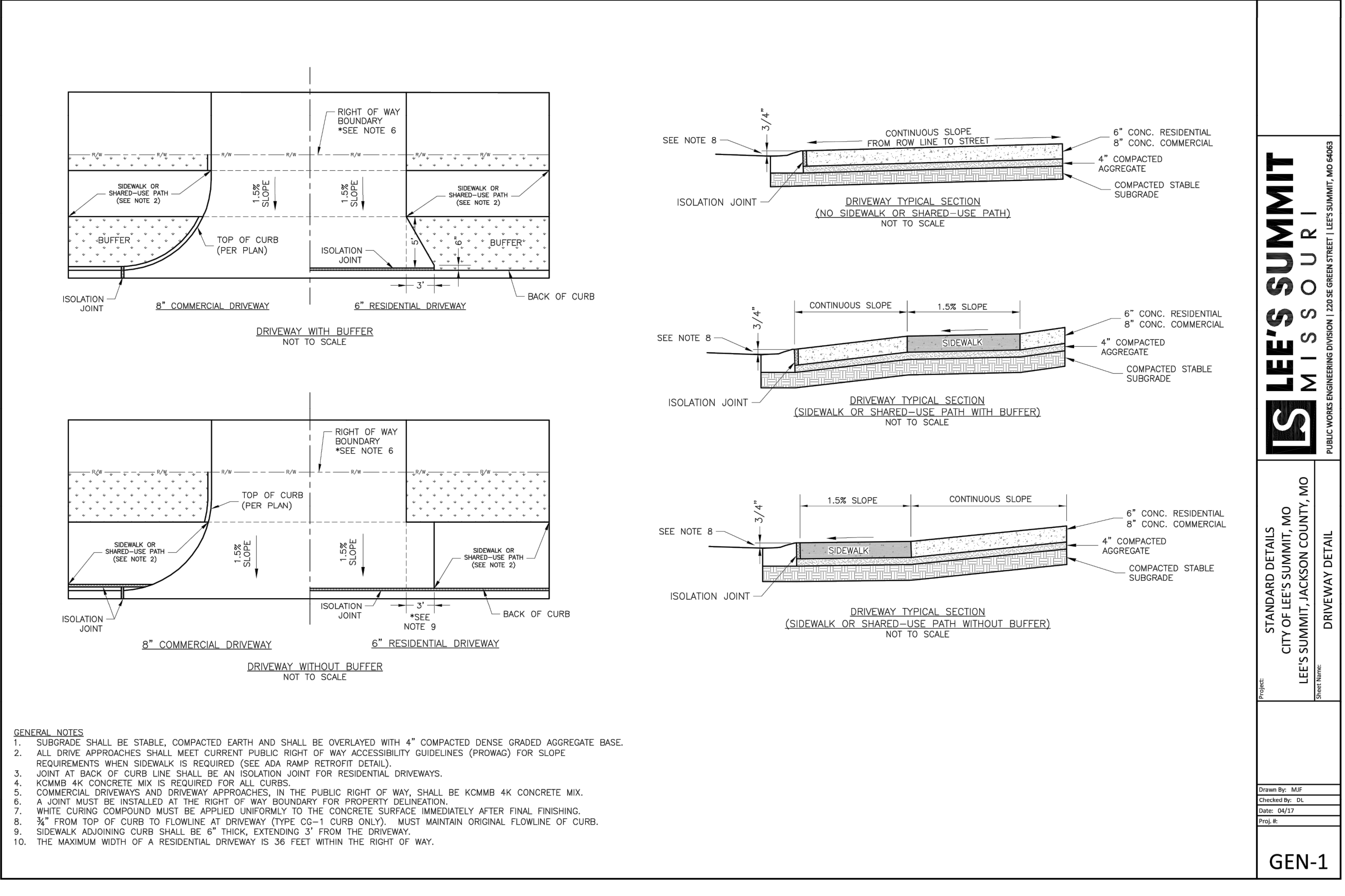
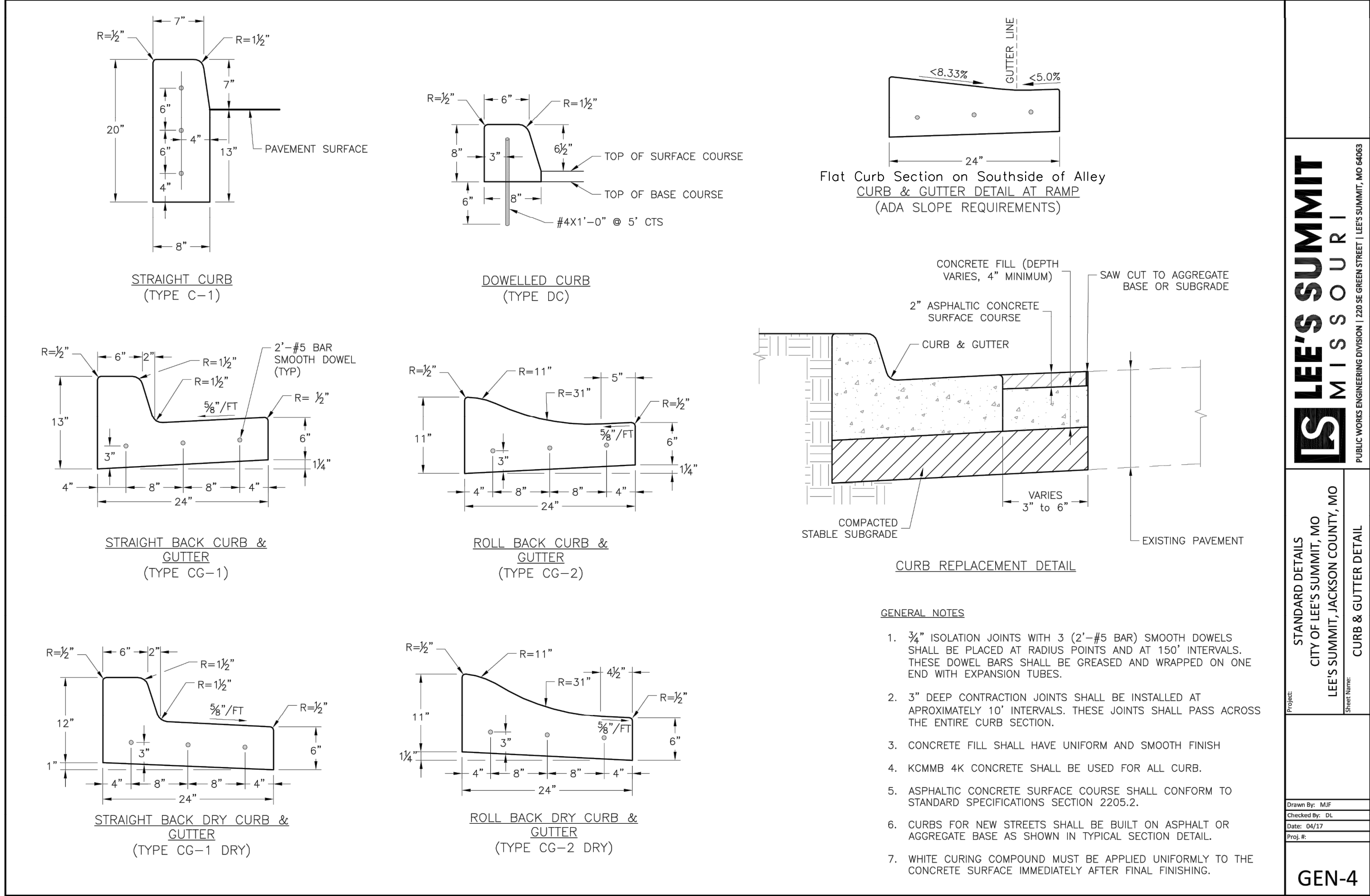
Project AND
NICHOLS, LSWO
Issue Date:
January 29, 2019

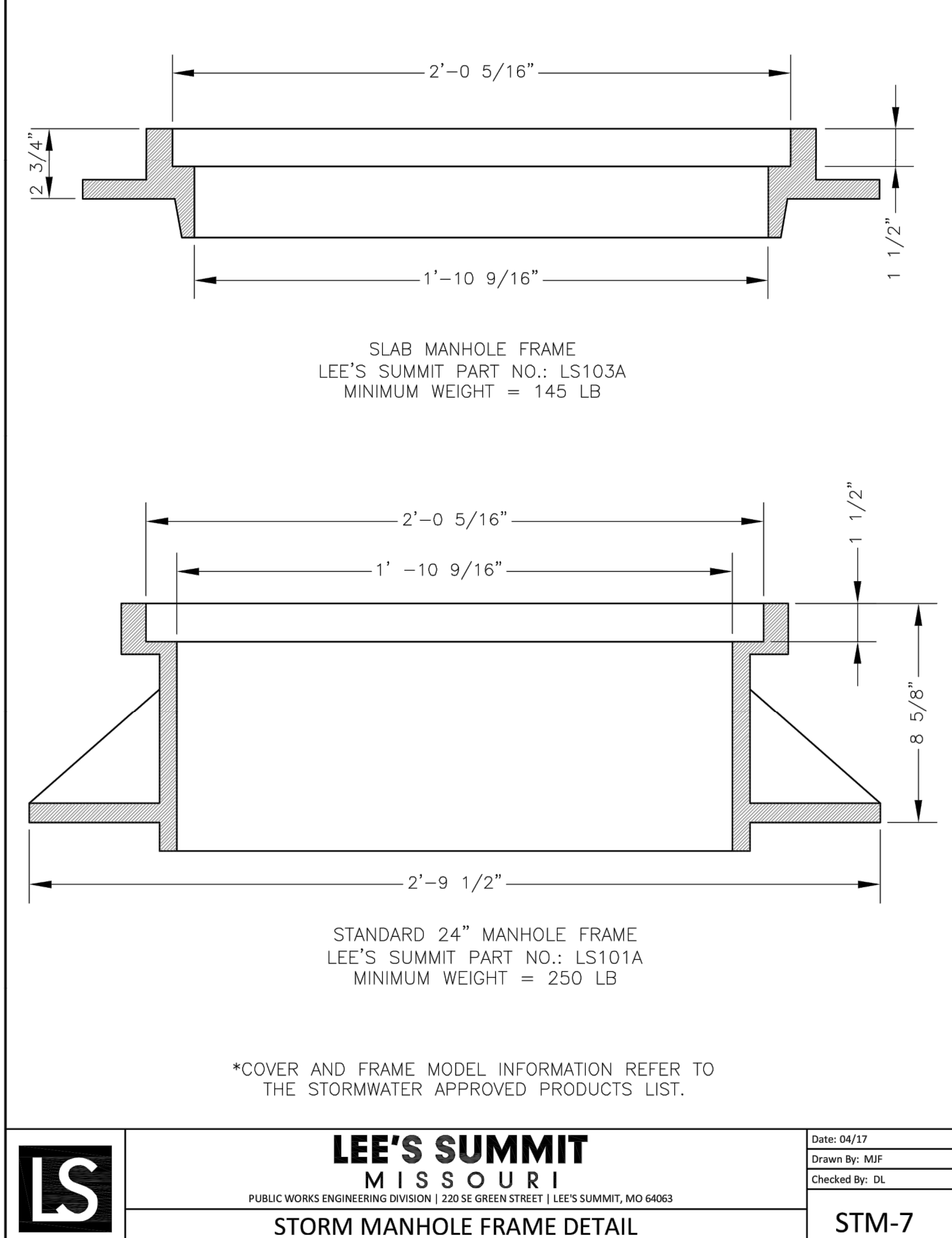
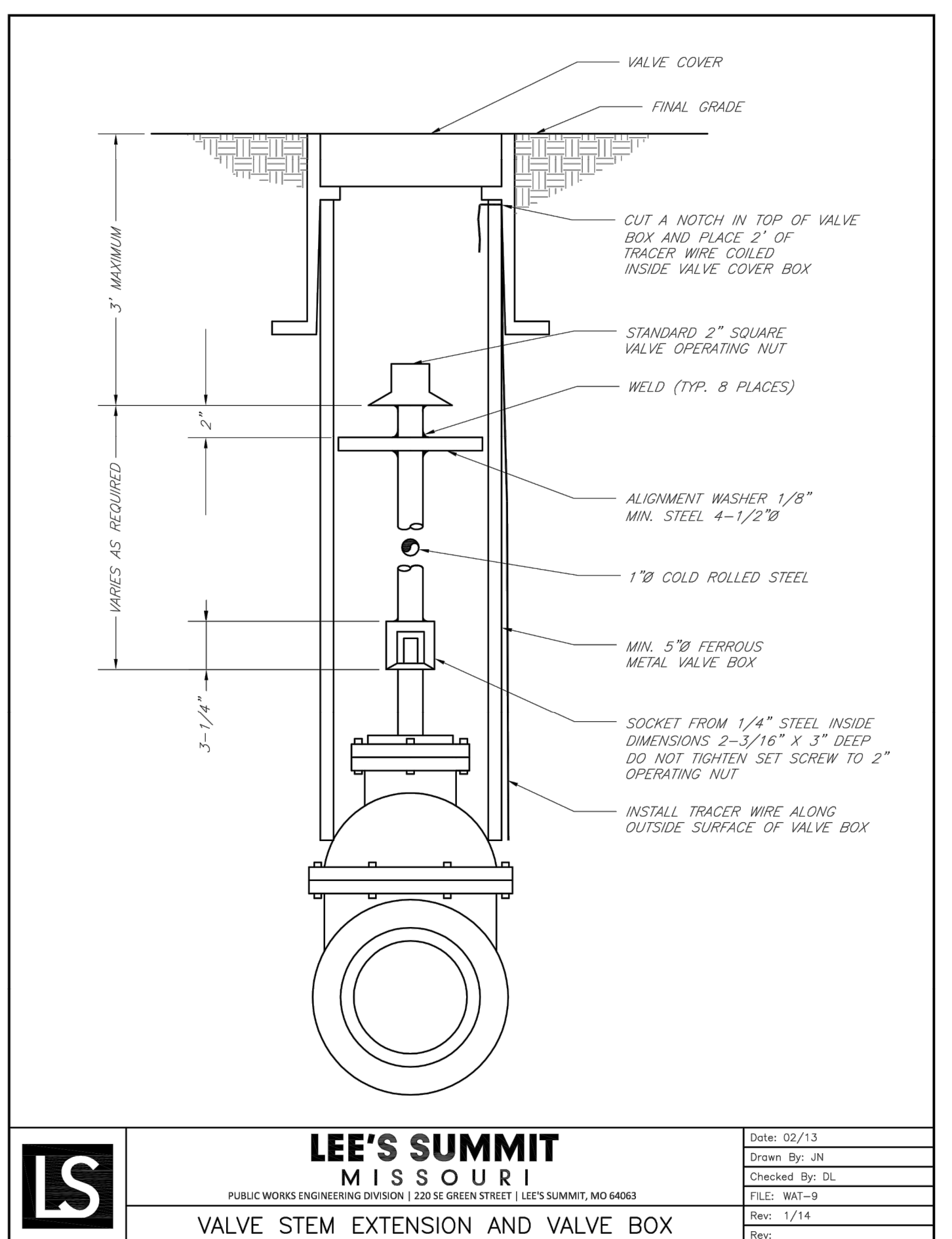
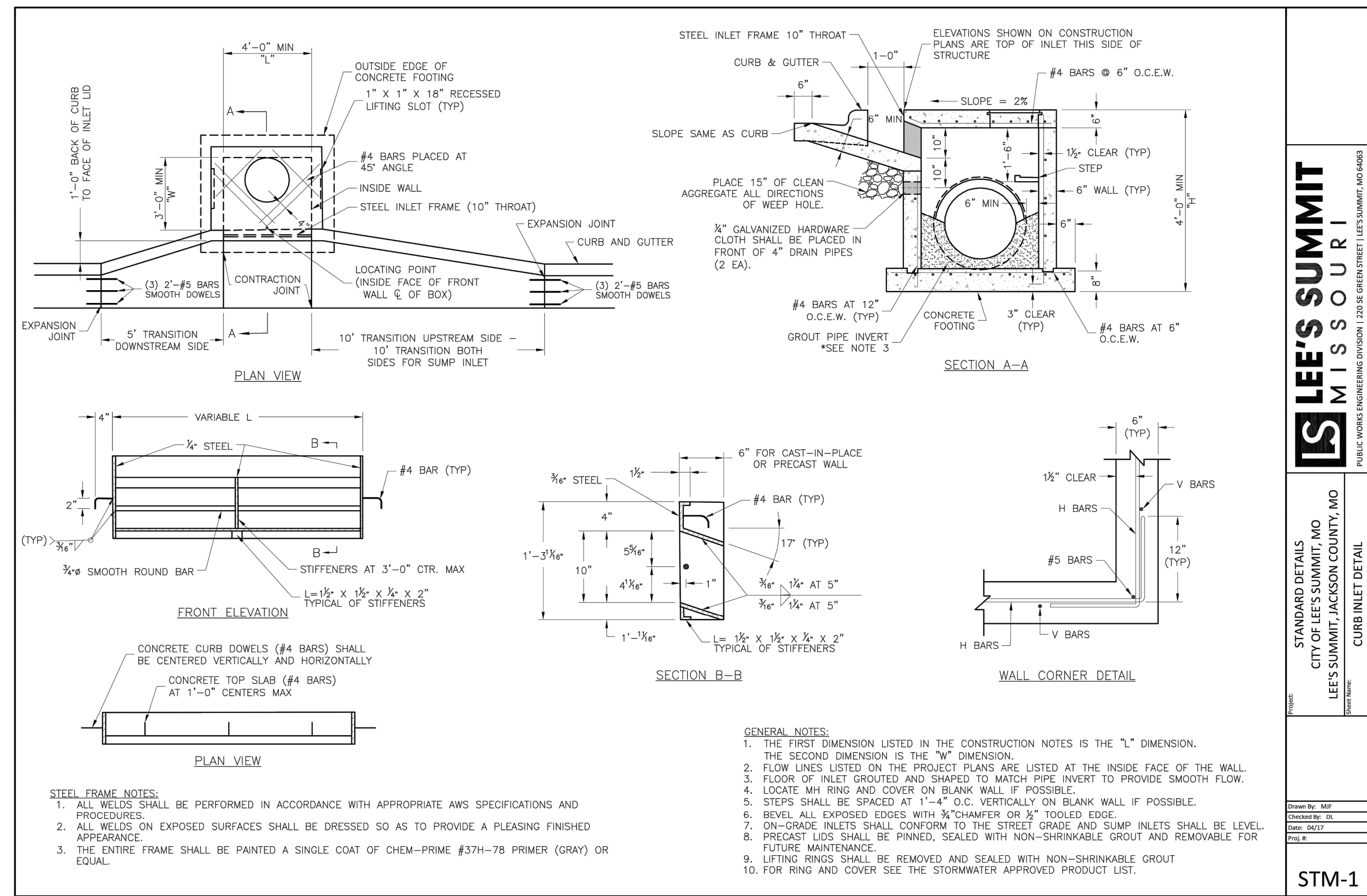
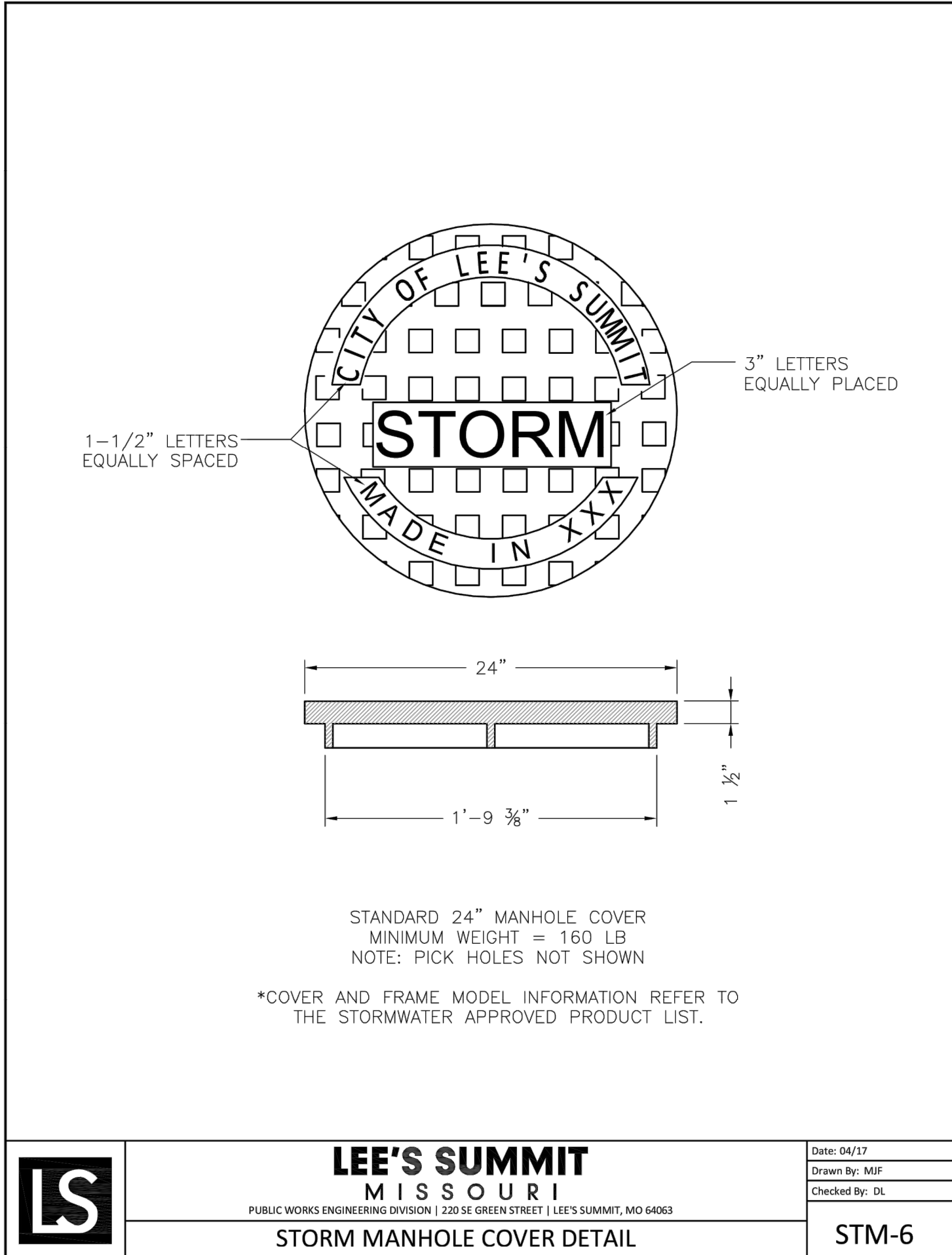
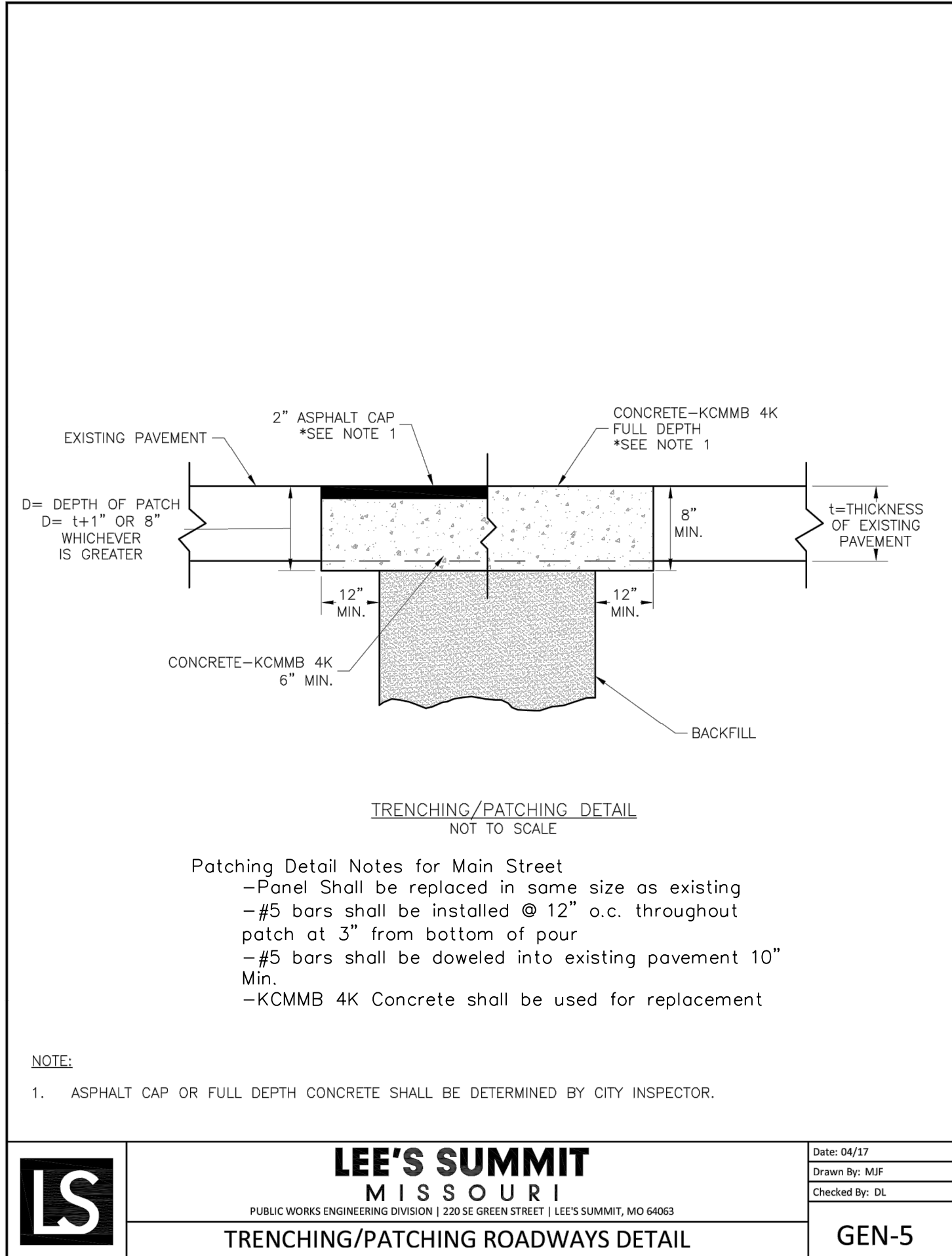
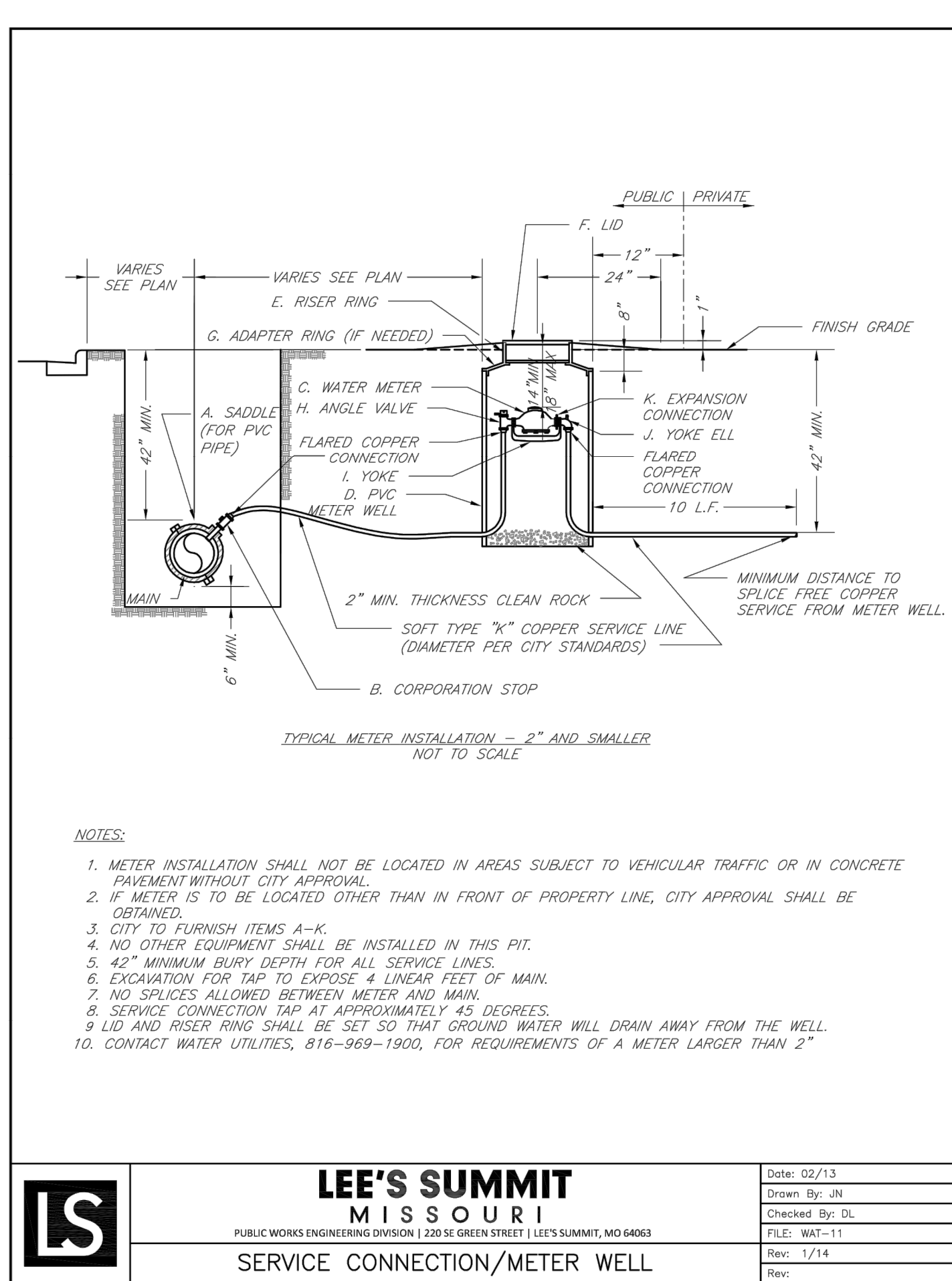
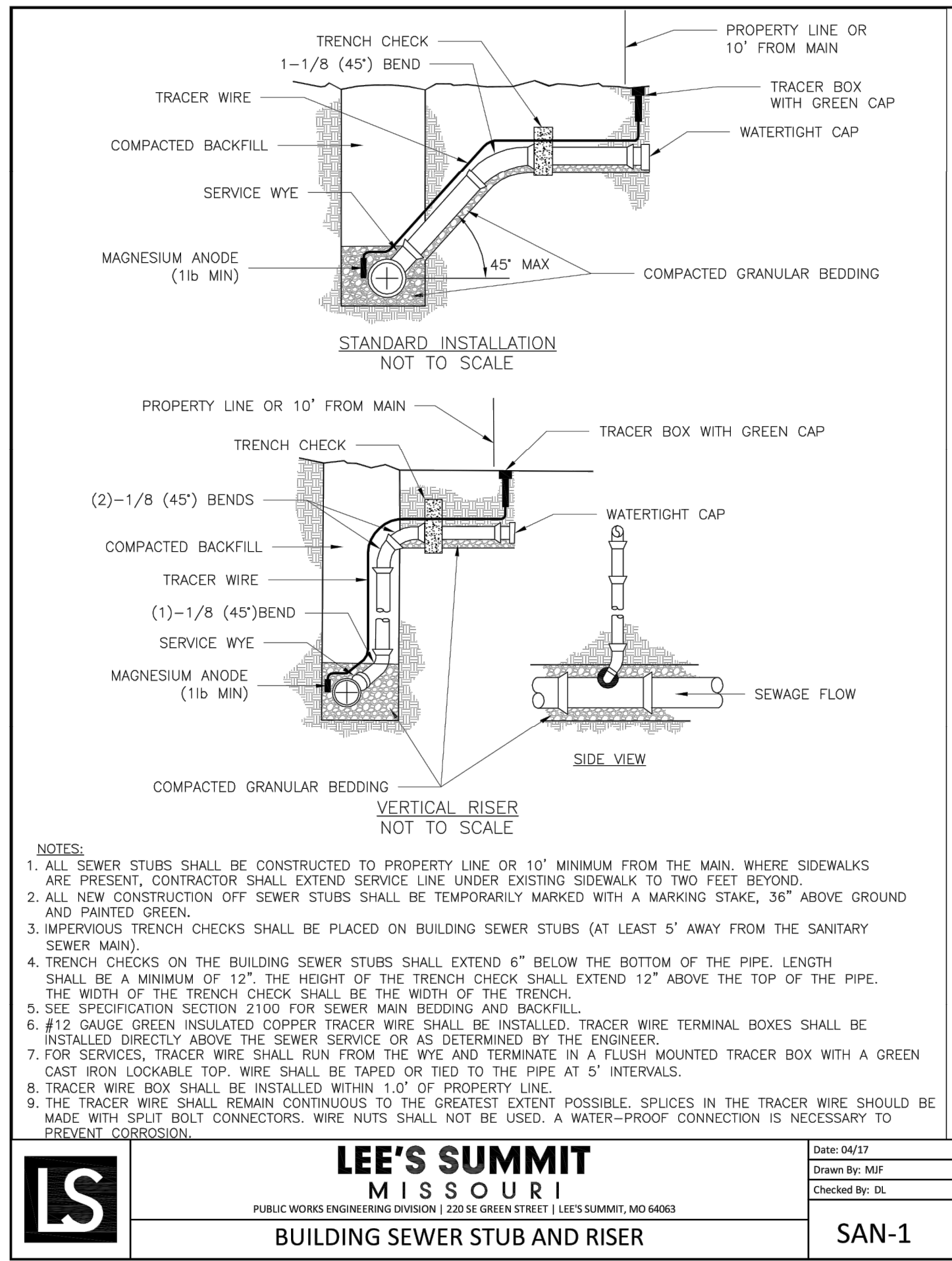
Utility Plan
Construction Plans for:
Reece Nichols
Lee's Summit, Jackson County, Missouri

Matthew J. Schlicht
MO PE 2006019708
KS PE 19071
OK PE 25226

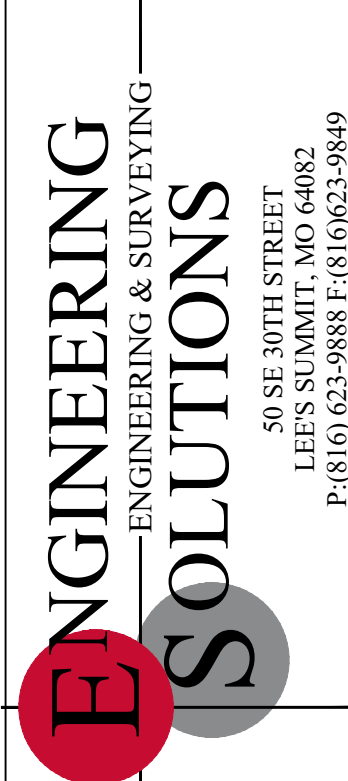
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C. 400





ADDED DETAILS



Professional Registration
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Surveying 2005008182-D
Kansas
Engineering E-1696
Surveying LS-218
Oklahoma
Engineering 6254
Nebraska
Engineering CA2821

Construction Plans for:
Reece Nichols
Lee's Summit, Jackson County, Missouri

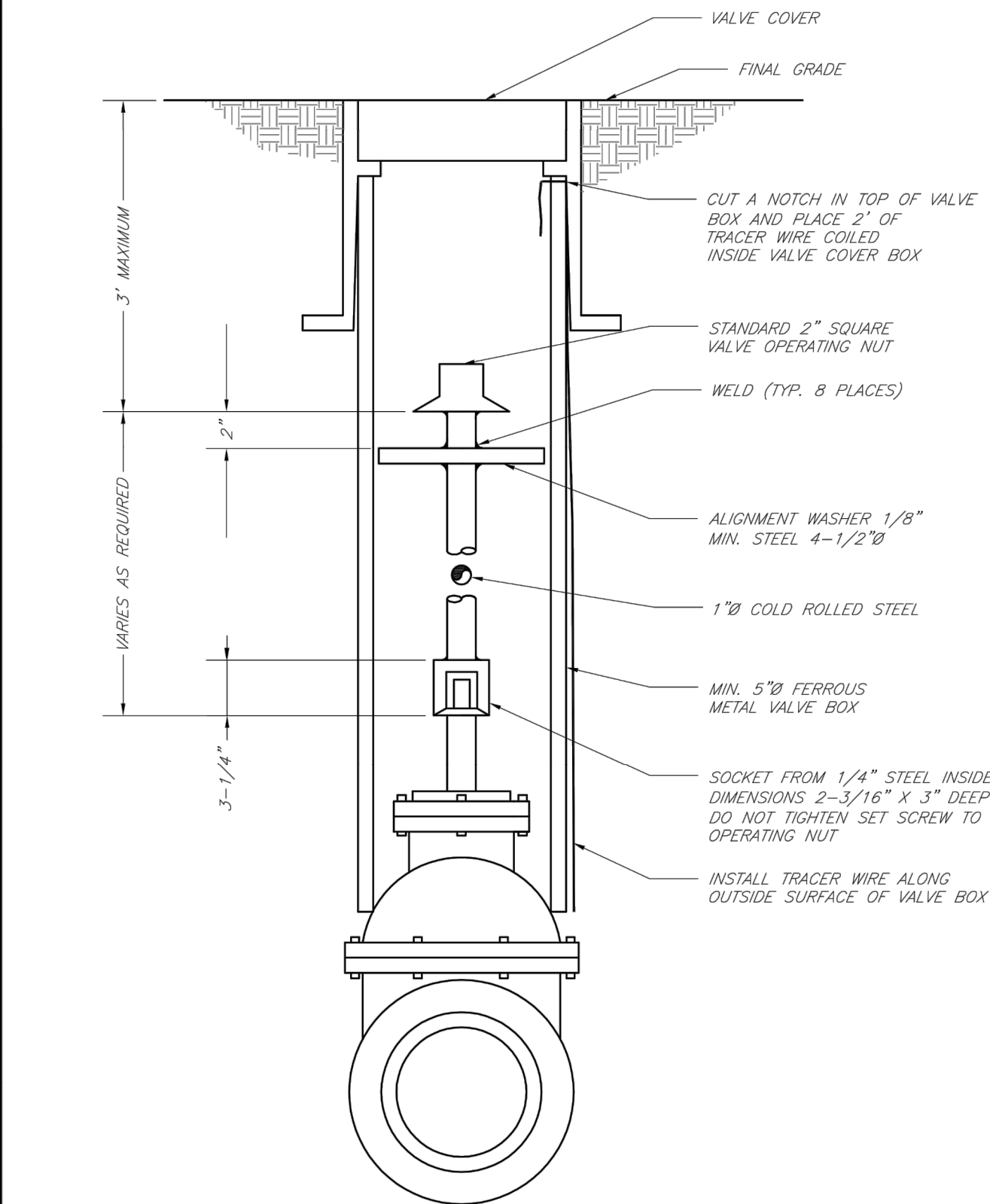
Project and
Nichols, LSHO
Issue Date
January 28, 2019

Standard Details
Construction Plans for:
Reece Nichols
Lee's Summit, Jackson County, Missouri

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Revised 4/2/19
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ADDED DETAILS



	LEE'S SUMMIT MISSOURI PUBLIC WORKS ENGINEERING DIVISION 220 SE GREEN STREET LEE'S SUMMIT, MO 64063	Date: 02/13
		Drawn By: JN
		Checked By: DL
		FILE: WAT-9
		Rev: 1/14
		Rev:
VALVE STEM EXTENSION AND VALVE BOX		

