

Colbern Road Improvements

CONSTRUCTION PLANS

Part of the NE 1/4 Section 29, Township 48 N, Range 31 W
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

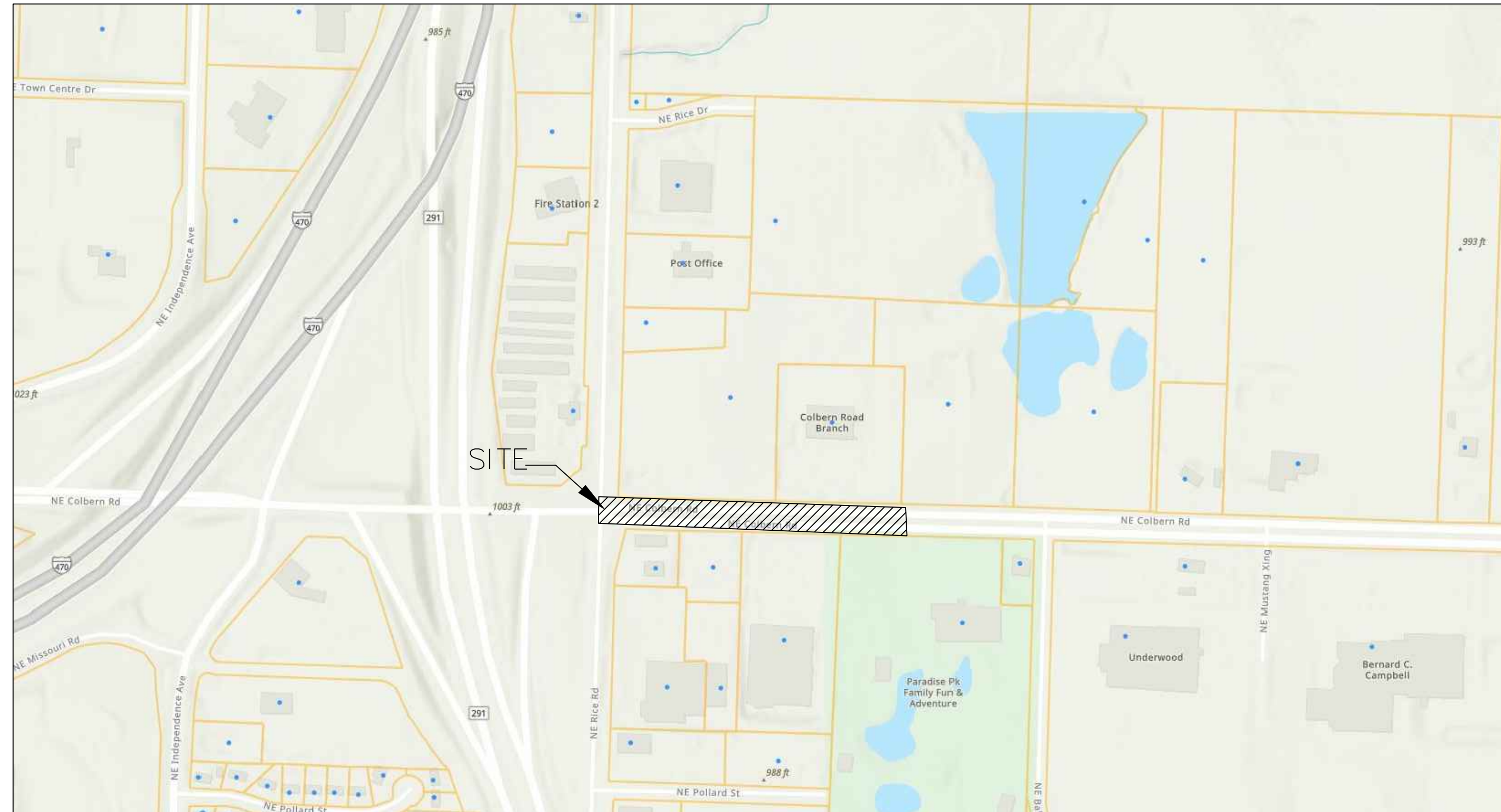
LEGEND:

Existing Underground Power	—UGP—UGP—UGP—
Existing Conc. Curb & Gutter	=====
Existing Fence	—X—X—X—
Existing Gas Main	—G—G—G—
Existing Water Main	—X-W/M—X-W/M—X-W/M—
Existing Storm Sewer	—X-STM—X-STM—X-STM—
Existing Sanitary Sewer	—X-SAN—X-SAN—X-SAN—
Existing Underground Telephone	—UGT—UGT—UGT—
Existing Overhead Power	—OHE—
Existing Fiber Optic Cable	—FOC—
Proposed Storm Sewer	—ST—ST—ST—
Proposed Sanitary Sewer	—SS—SS—SS—
Proposed Water	—W—W—W—

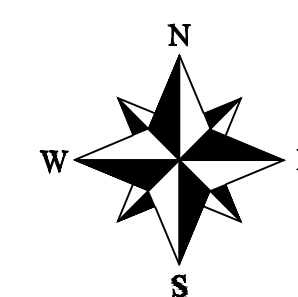
UTILITY COMPANIES:

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



SITE LOCATION MAP



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

BENCHMARK:

CENTER OF SANITARY SEWER
MANHOLE LOCATED IN THE SE
CORNER OF THE LOT 123, FOXWOOD
EAST 5TH PLAT.

ELEVATION 945.69

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.

CITY OF LEE'S SUMMIT, MISSOURI

APPROVED: _____ DATE: _____

BY: _____
CITY ENGINEER

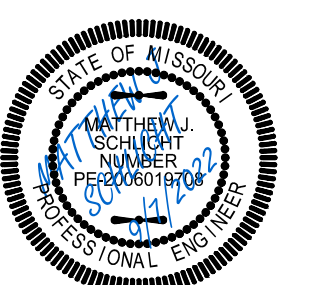


Professional Registration
Missouri
Engineering 2005002186-D
Surveying 2005008319-D
Kansas
Engineering E-1685
Surveying LS-218
Oklahoma
Engineering 6254
Nebraska
Engineering CA2821

Colbern Road Investments
Lee's Summit, Jackson County, Missouri

Project: COLBERN ROAD
INVESTMENTS L&MO
Issue Date:
September 7, 2022

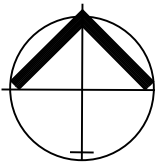
Cover Sheet
Construction Plans for:
Colbern Road Investments
Lee's Summit, Jackson County, Missouri



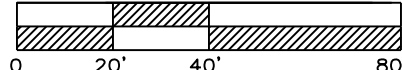
Matthew J. Schlicht
MO PE 2006019708
KS PE 19071
OK PE 25226
NE PE E-14335

REVISIONS

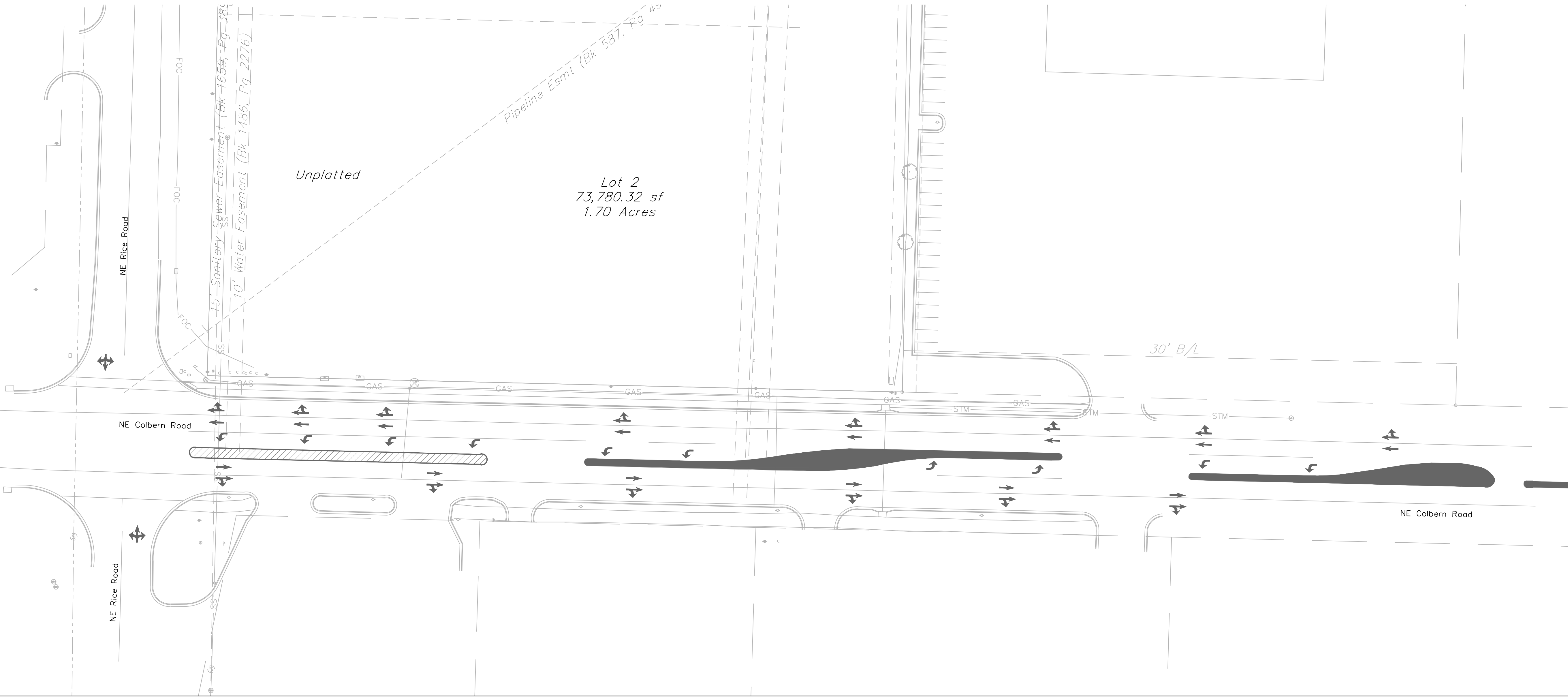
NOTE:
SEE TRAFFIC CONTROL DETAIL SHEET, C.206 FOR SIGNS, LANE CLOSURE, CHANNELIZERS AND OTHER TRAFFIC CONTROL DEVICES.

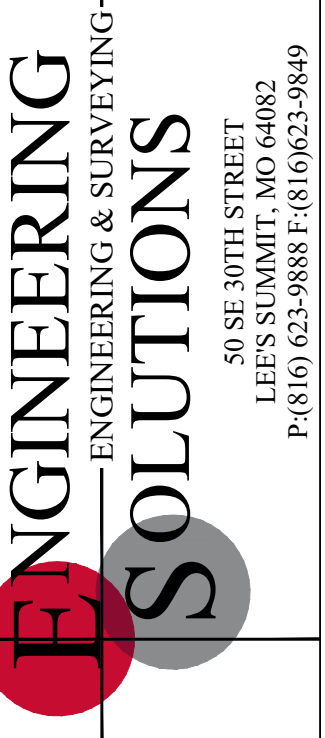


North



EXISTING PLAN
SCALE: 1" = 40'





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

Professional Registration

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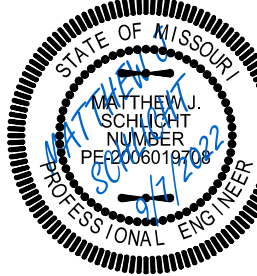
Project: COLBERN ROAD INVESTMENTS L&MO

Issue Date: September 7, 2022

Colbern Road Investments

Lee's Summit, Jackson County, Missouri

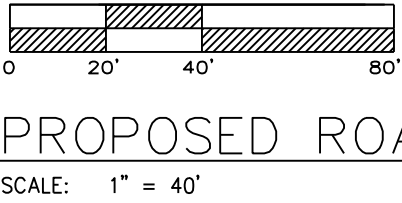
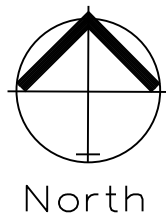
Existing Site Conditions
Construction Plans for:
Colbern Road Investments
Lee's Summit, Jackson County, Missouri



Matthew J. Schlicht
MO PE 0006019708
KS PE 19071
OK PE 25226
NE PE E-14335

REVISIONS

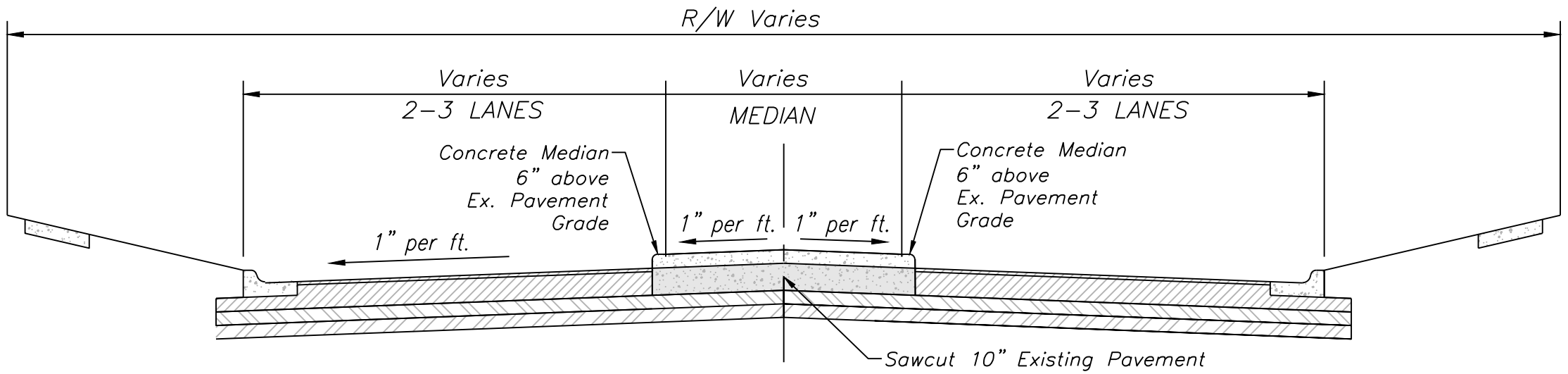
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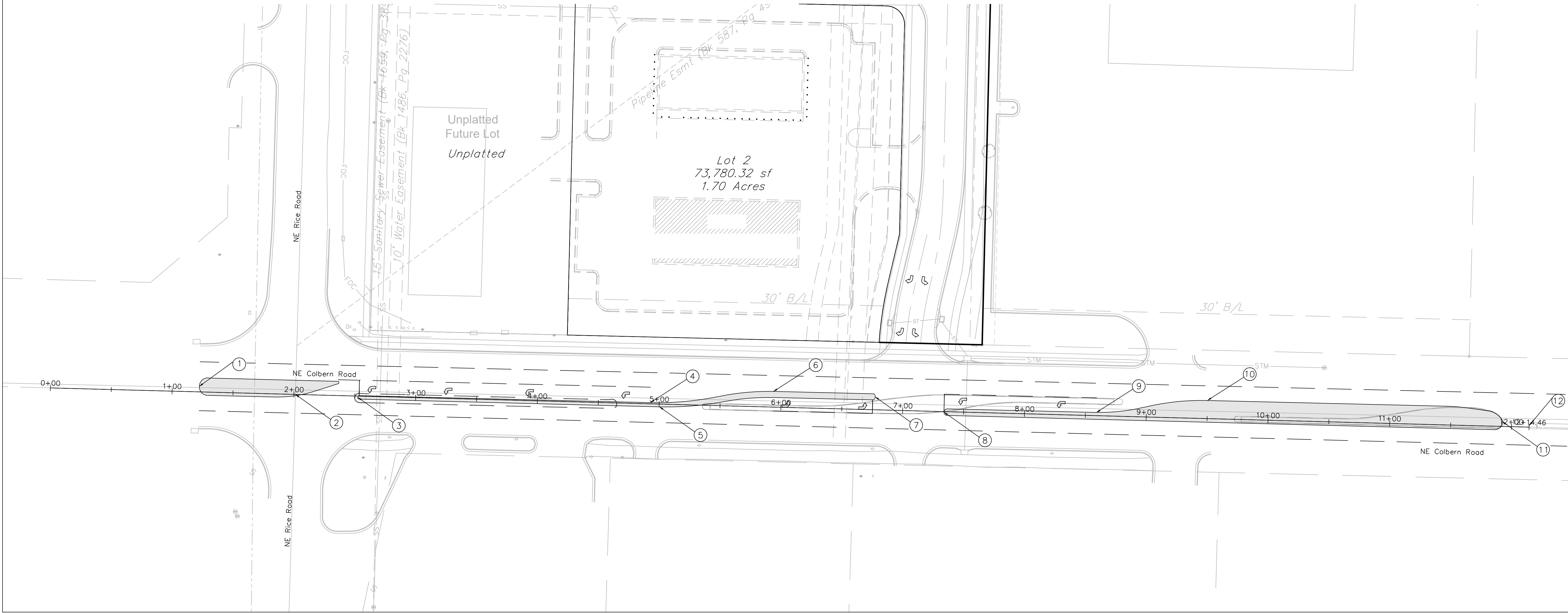
PROPOSED ROAD IMPROVEMENTS

Notes:

1. New Arrows Shall Be Preformed Thermoplastic.
2. New Paint Stripes Shall Be High Build Paint In Accordance With City Standards and Specifications.



TYPICAL MEDIAN SECTION FOR
NE COLBERN ROAD



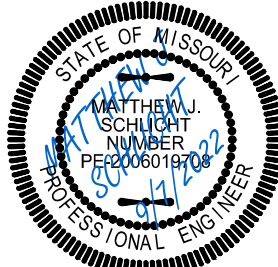
ENGINEERING SOLUTIONS
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Colbern Road Investments
Lee's Summit, Jackson County, Missouri

Project: COLBERN ROAD INVESTMENTS LIMO
Issue Date: September 7, 2022

Proposed Road Improvements
Construction Plans for:
Colbern Road Investments
Lee's Summit, Jackson County, Missouri

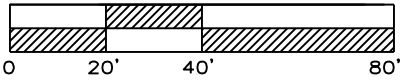
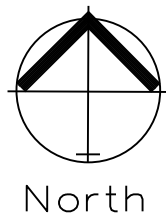


Matthew J. Schlicht
MO PE 2006019708
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REVISIONS

.253

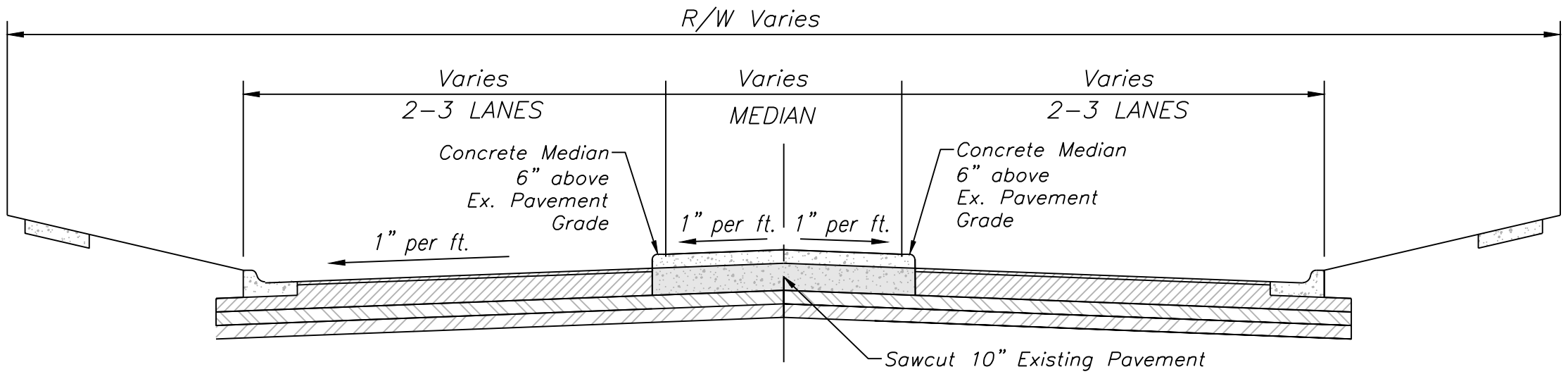
NOTE:
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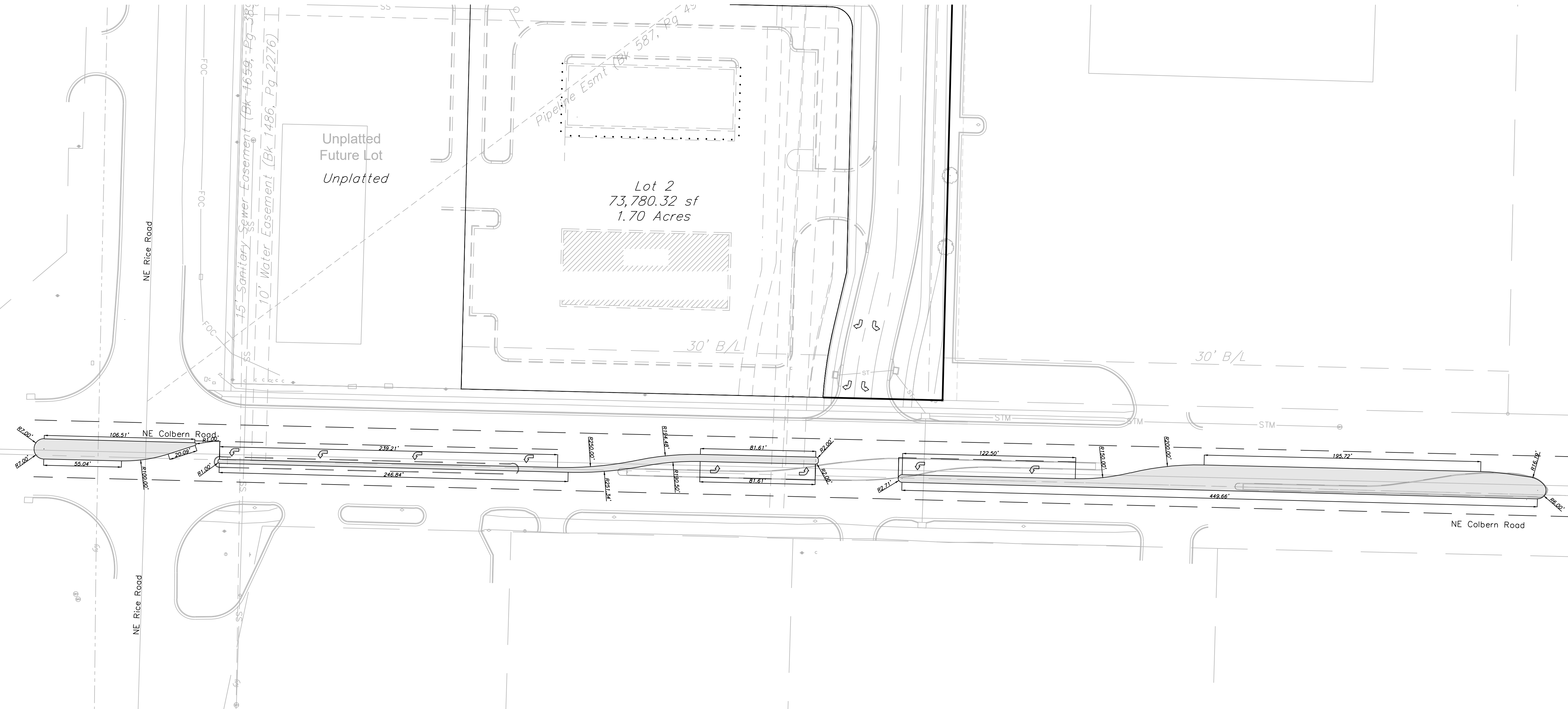
Island Dimension Plans
SCALE: 1" = 40'

Notes:

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TYPICAL MEDIAN SECTION FOR
NE COLBERN ROAD



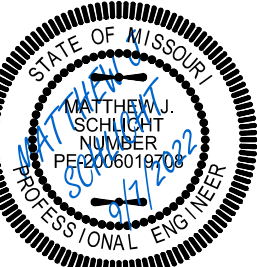
ENGINEERING SOLUTIONS
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Colbern Road Investments
Lee's Summit, Jackson County, Missouri

Project: COLBERN ROAD INVESTMENTS L&MO
Issue Date: September 7, 2022

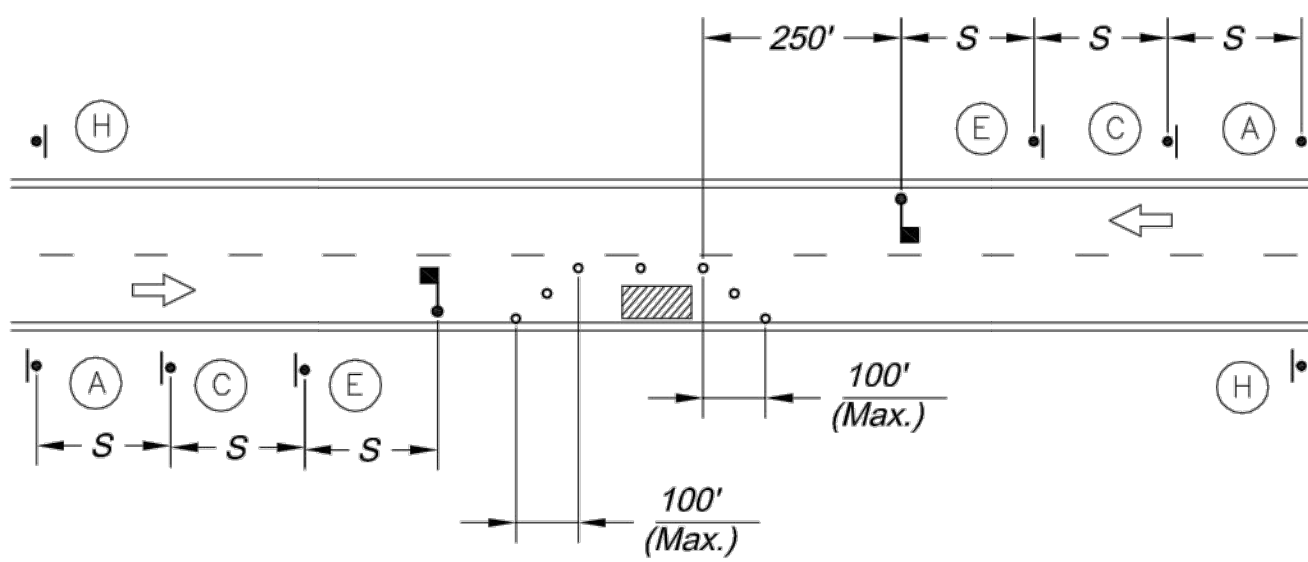
Island Dimension Plans
Construction Plans for:
Colbern Road Investments
Lee's Summit, Jackson County, Missouri



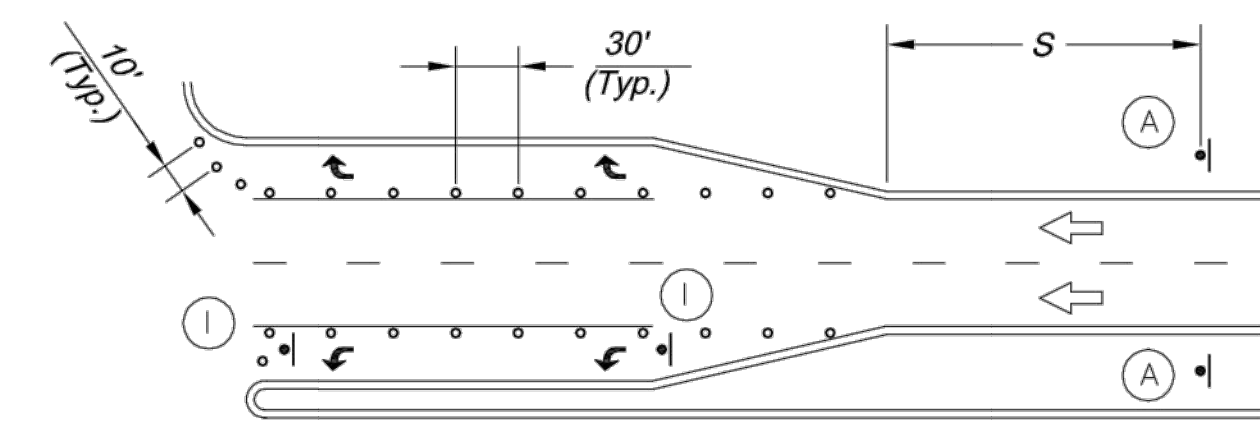
Matthew J. Schlicht
MO PE 2006019708
KS PE 19071
OK PE 25226
NE PE E-14335

REVISIONS

	- Work Area		- Channelizer
	- Sign		- Arrow Panel
	- Barricade		- Flagger
	- Direction of Travel		



*** Install Signs Every 200 Feet Throughout the Closed Lane or As Needed**



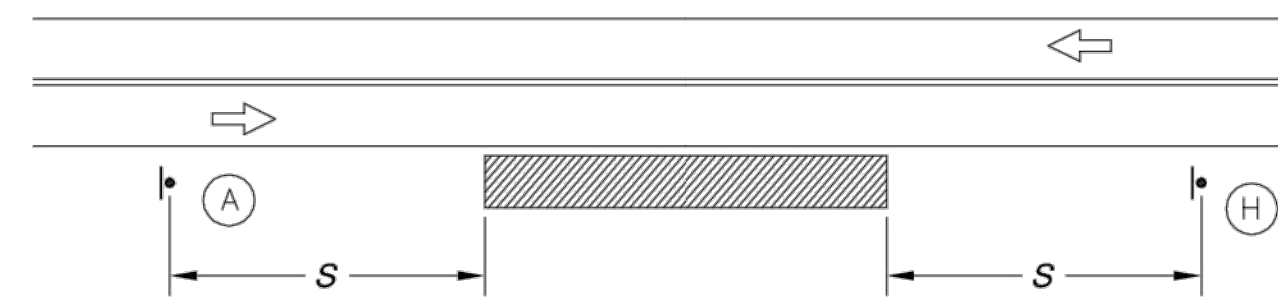
Sign Spacing "S"	
Speed Limit (mph)	Spacing (Feet)
25	100
30 - 35	250
≥ 40	350

Taper Dimensions (Feet)				
Speed Limit (mph)	Minimum Taper Length "L", per Lane Width "W"			Minimum Number of Channelizers
	10	11	12	
25	105	115	125	6
30	150	165	180	7
35	205	225	245	8
40	270	295	320	9
45	450	495	540	13

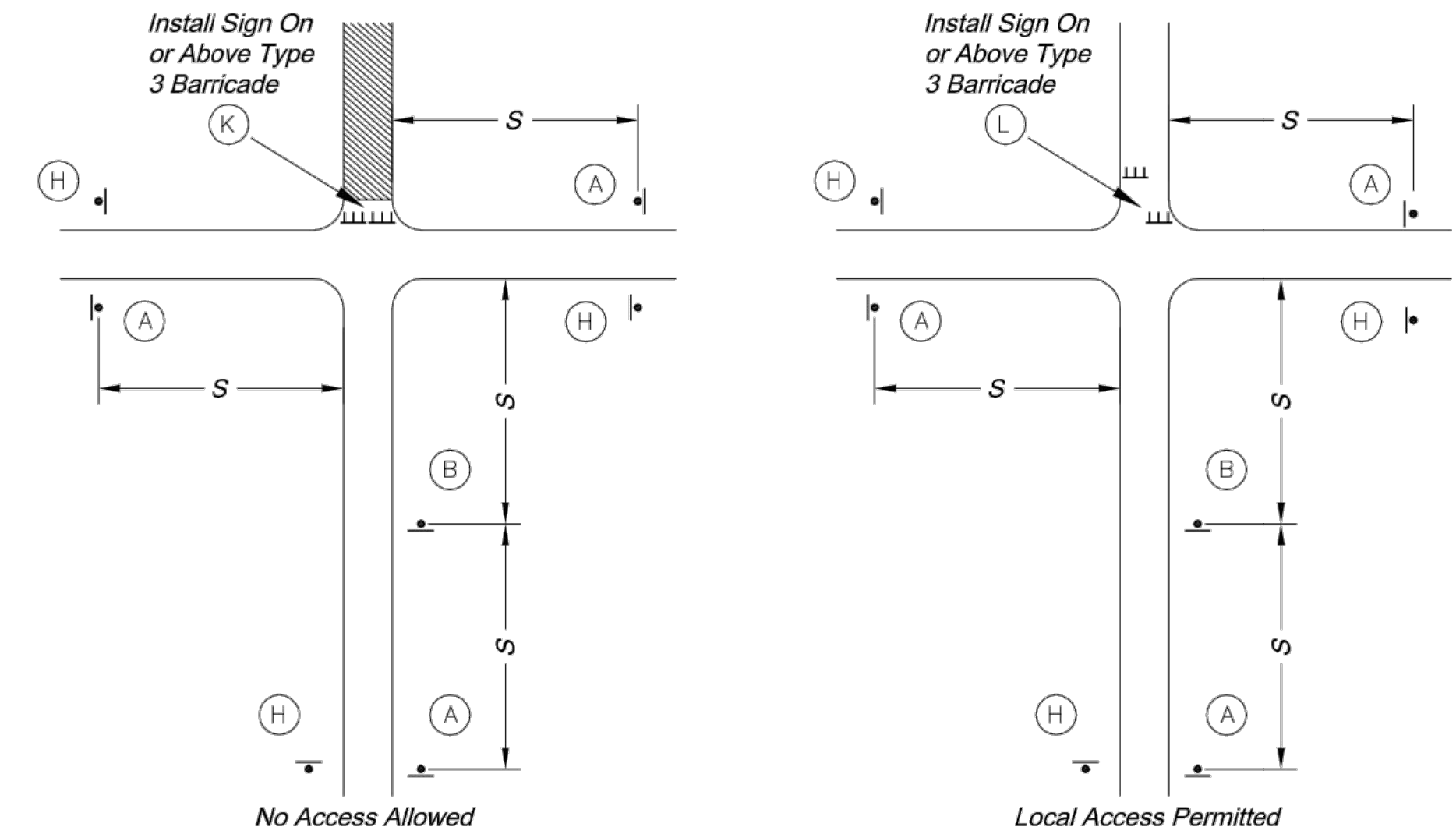
Guidelines for Length of Longitudinal Buffer Space "B"	
Speed Limit (mph)	Length (Feet)
25	35
30	55
35	85
40	120
45	170

Maximum Channelizer Spacing		
Speed Limit (mph)	Within Taper (Feet)	Outside Taper (Feet)
25	25	50
30	30	60
35	35	70
40	40	80
45	45	90

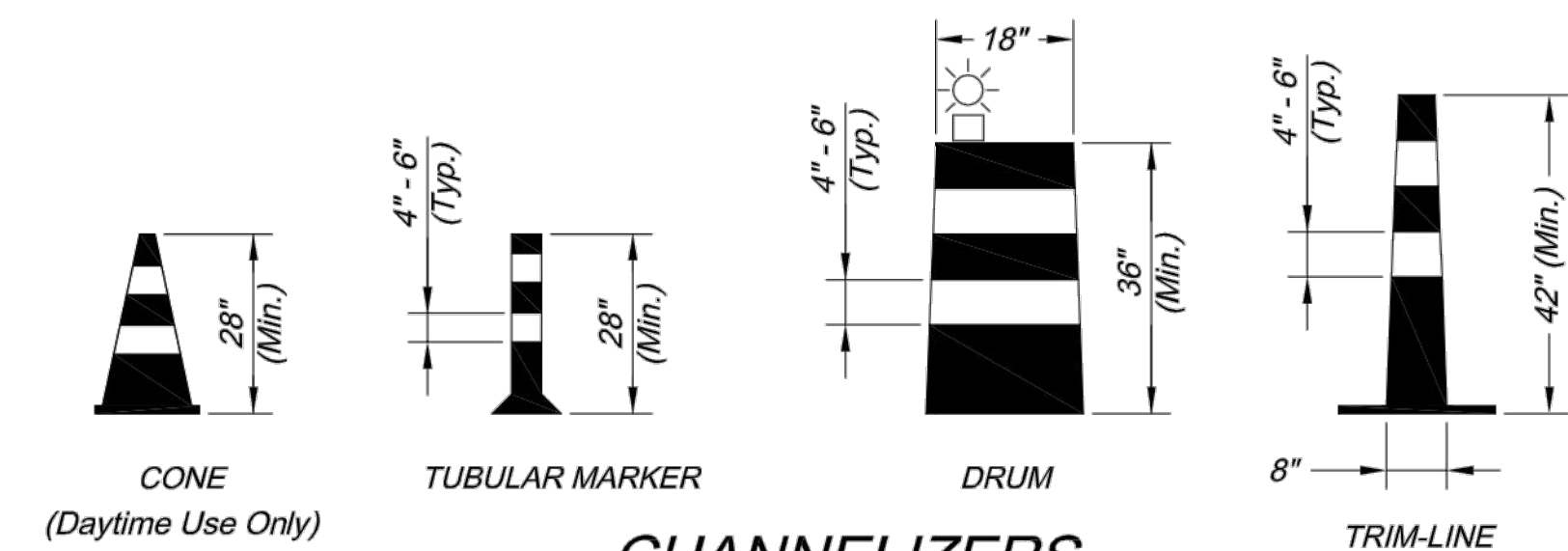
A diamond-shaped sign with the text "ROAD WORK AHEAD".	A diamond-shaped sign with the text "ROAD CLOSED AHEAD".	A diamond-shaped sign with the text "ONE LANE ROAD AHEAD".	A diamond-shaped sign with the text "RIGHT LANE CLOSED AHEAD". An arrow points to the word "LEFT" above the sign.	A diamond-shaped sign showing a silhouette of a person carrying a large load on their back.	A diamond-shaped sign showing a black arrow curving to the left, then right, then left again.
(A) W20-1 36" x 36"	(B) W20-2 36" x 36"	(C) W20-4 36" x 36"	(D) W20-5R 36" x 36"	(E) W20-7a 36" x 36"	(F) W1-4L 36" x 36"
A diamond-shaped sign showing a silhouette of a narrow road.	A rectangular sign with the text "END ROAD WORK".	A circular sign with a red border and a black arrow pointing left with a red slash through it.	A rectangular sign with the text "KEEP RIGHT" and a black arrow pointing right.	A rectangular sign with the text "ROAD CLOSED".	A rectangular sign with the text "ROAD CLOSED TO THRU TRAFFIC".
(G) W4-2R 36" x 36"	(H) G20-2 36" x 18"	(I) R3-2 24" x 24"	(J) R4-7a 24" x 30"	(K) R11-2 48" x 30"	(L) R11-4 60" x 30"



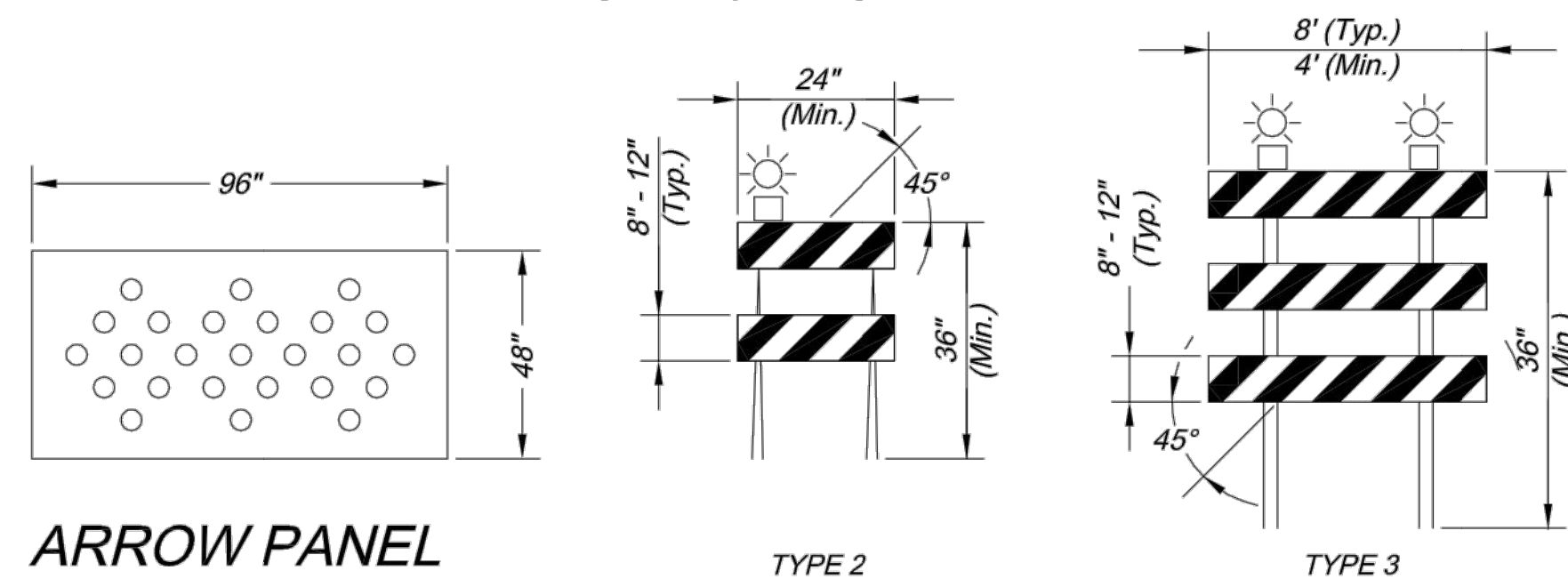
** Install Signs Every 200 Feet Throughout the Closed Lane or As Needed*



1. All signs, barricades, channelizers, markings and other traffic control devices shall conform to the latest edition of the *Manual on Uniform Traffic Control Devices (MUTCD)*.
2. All traffic control devices shall be standard in size, shape, color, and message, in good condition, and retro-reflectorized. All signs shall be securely mounted with height and lateral location as described in the *MUTCD*.
3. Warning lights shall be used on barricades in place at night and on warning signs which alert drivers about a change in alignment, traffic control, lane closure, or road closure.
4. Flaggers shall be used where indicated on the plans, where construction vehicles interact with normal traffic, or where construction activities impose a restriction on traffic, as directed by the City Traffic Engineer. Where flaggers are used, advance signing shall be erected as shown in the details or as specified in the *MUTCD*. Flaggers shall meet the requirements in the *MUTCD* in regard to character, training, attire, and behavior.
5. Trim-lines are the City's preferred channelizing device. Cones may not be used at nighttime.
6. Traffic control devices not in use or not applicable shall be either covered or removed from the work area.
7. The Contractor shall use barricades, street plates, or fencing as needed to effectively shield pedestrian and vehicular traffic from exposed objects, excavations, and construction activities.
8. Access shall be maintained to all driveways and side streets unless noted otherwise on the plans.
9. No street shall be closed without the approval of the City Traffic Engineer. The Contractor shall notify the City Traffic Engineer at least 7 days in advance of any street closure. If a detour route around the closure is to be provided, all detour signing shall be as shown on a plan approved by the City Traffic Engineer.
10. Construction vehicles parked along streets shall be located within the work area (traffic control) or where otherwise normally permitted. Construction materials, including traffic control and vehicles shall not restrict sight distance for vehicles exiting at streets or drives.
11. Construction materials shall be kept off of sidewalks, consolidated in one location within City right-of-way, and removed daily unless otherwise approved by the Inspector. Dirt, mud, and other construction debris on streets and sidewalks shall be removed immediately.
12. The Contractor shall not perform any work that will restrict vehicular traffic in any way between the hours of 7:00 a.m. and 9:00 a.m. or 4:00 p.m. and 6:00 p.m. Monday through Friday unless otherwise indicated in the specifications.
13. All travel lanes should be at least 11 feet wide unless otherwise authorized by the City Traffic Engineer. A "Narrow Lanes" sign shall be installed in advance of a lane width reduction to less than 11 feet.
14. All edge drop-offs of more than 2 inches and less than 4 inches should be protected by a wedge or barrier and all edge drop-offs greater than 4 inches shall have edge protection (see Traffic Control Specifications for edge treatment requirements).
15. The "Workers" symbolic sign (*MUTCD* No. W21-1a) may be used instead of the "Road Work Ahead" sign for work with a duration of 12 hours or less. The "End Road Work" sign is not required to be installed after the "Workers" sign.
16. No traffic signal shall be altered or modified in any way without a plan approved by the City Traffic Engineer.
17. The Contractor shall be responsible for maintaining all traffic control devices on an around-the-clock basis, whether or not work is actively being pursued and any deficiencies noted shall be corrected immediately.
18. The traffic control requirements shown on these plans are minimum requirements only and do not attempt to address in depth the variety of situations that may occur once construction has started. In no way do the requirements shown on these plans relieve the Contractor of his responsibility for selecting the proper traffic control devices and implementation procedures that will assure the safety of drivers, pedestrians, and workers at all times.
19. Should the contractor fail to enforce the traffic control plan or fail to clean, replace or otherwise maintain the traffic control devices when directed to do so by the City Traffic Engineer or representative, the City may take one or more of the following actions:
 - A) Employ another agency to correct deficiencies in traffic control devices and deduct the cost from the Contractor's pay estimate,
 - B) Stop the work until deficiencies are corrected,
 - C) Suspend all pay estimates until deficiencies are corrected, or
 - D) Place the Contractor in default.



NOTE: White Bands On Barricades and Channelizers Shall Be Made From High Intensity Sheeting Material.



BARRICADES

Project:

TRAFFIC CONTROL DETAILS

STANDARD DRAWING TC-1

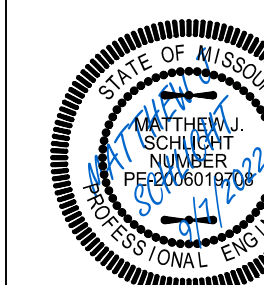
CITY OF LEE'S SUMMIT
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION
220 SE GREEN STREET
LEE'S SUMMIT, MISSOURI 64063
PHONE: (816) 969-1800 FAX: (816) 969-1801

LEE'S SUMMIT, MISSOURI 64063
PHONE: (816) 969-1800 FAX: (816) 969-1809

x OF x

X

TRAFFIC CONTROL STANDARD DETAILS
Construction Plans for:
Colbern Road Investments
Lee's Summit, Jackson County, Missouri



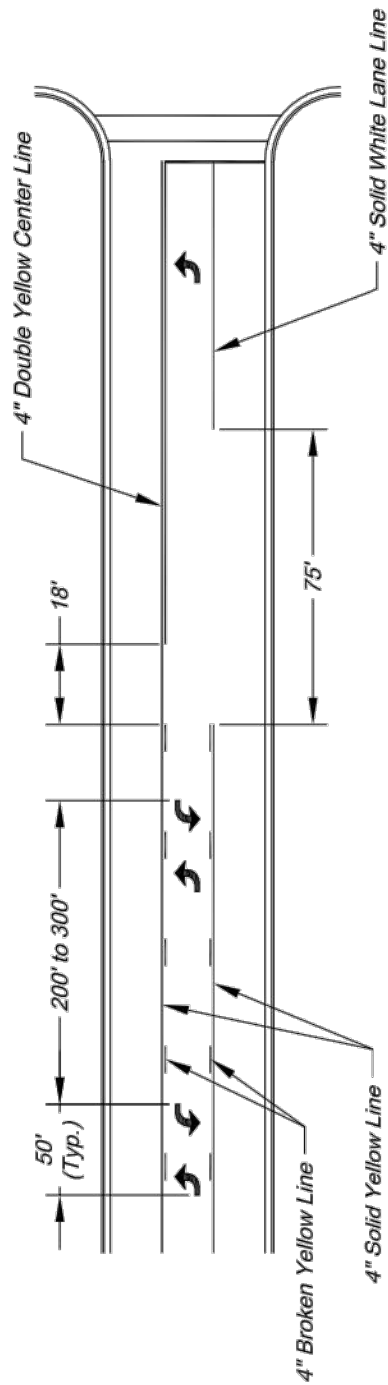
Matthew J. Sch...
MO PE 200601...
KS PE 1907...
OK PE 2522...
NE PE E-143...

REVISIONS

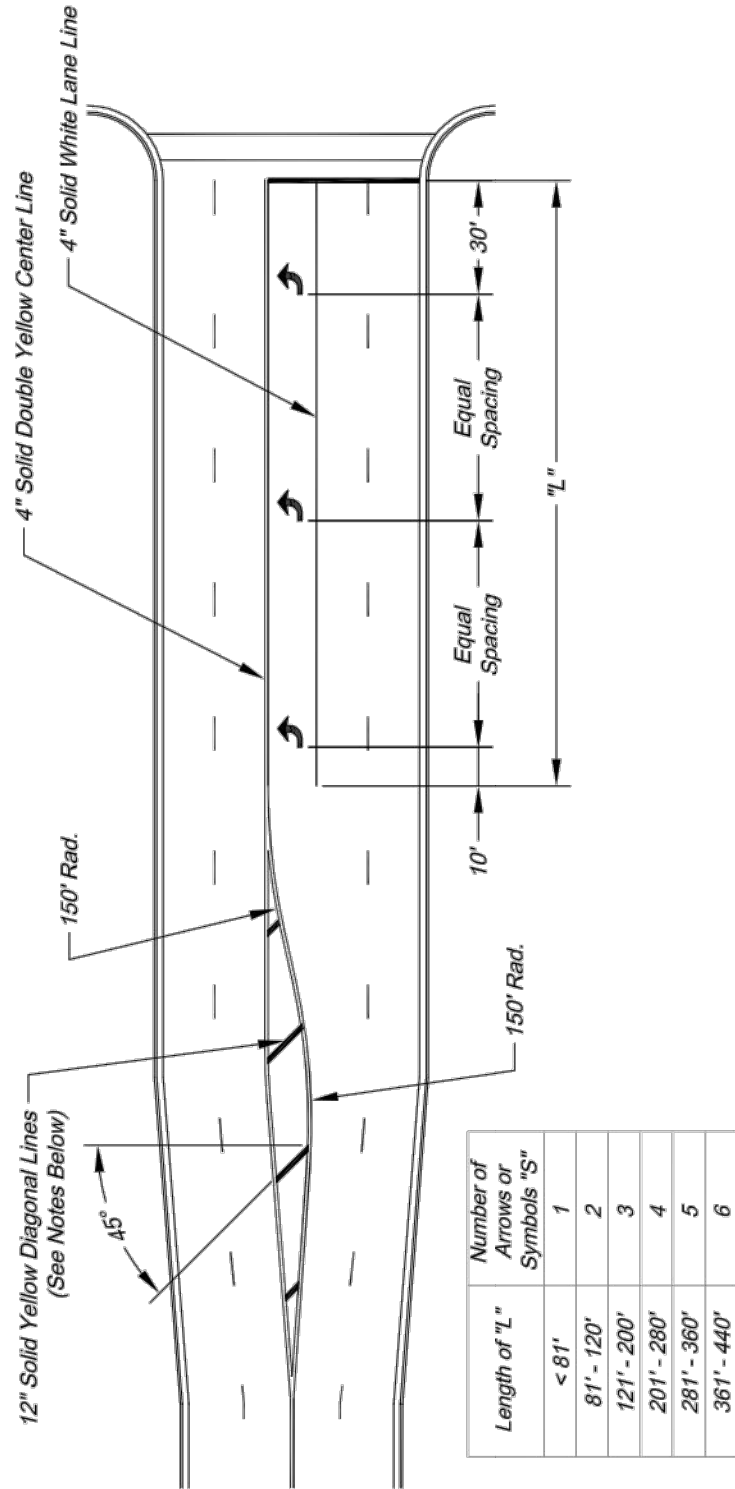
C.256

Professional Registrations
Missouri
Engineering 200500218
Surveying 200500831
Kansas
Engineering E-1695
Surveying LS-218
Oklahoma
Engineering 6254
Nebraska
Engineering CA282

Colbern Road Investments
Lee's Summit - Jackson County, Missouri

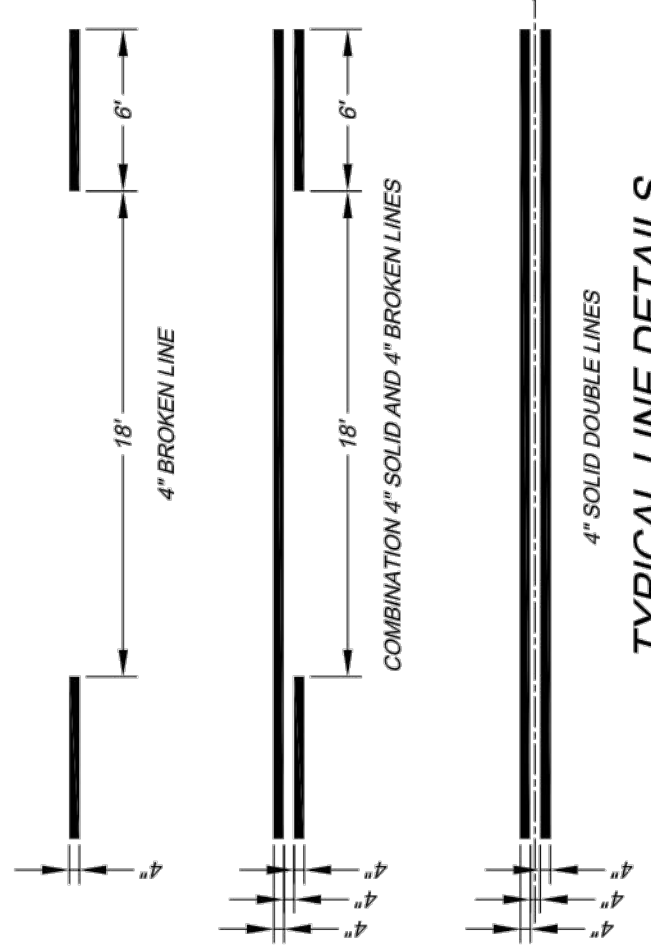


TYPICAL MARKINGS FOR TWO-WAY LEFT-TURN LANE



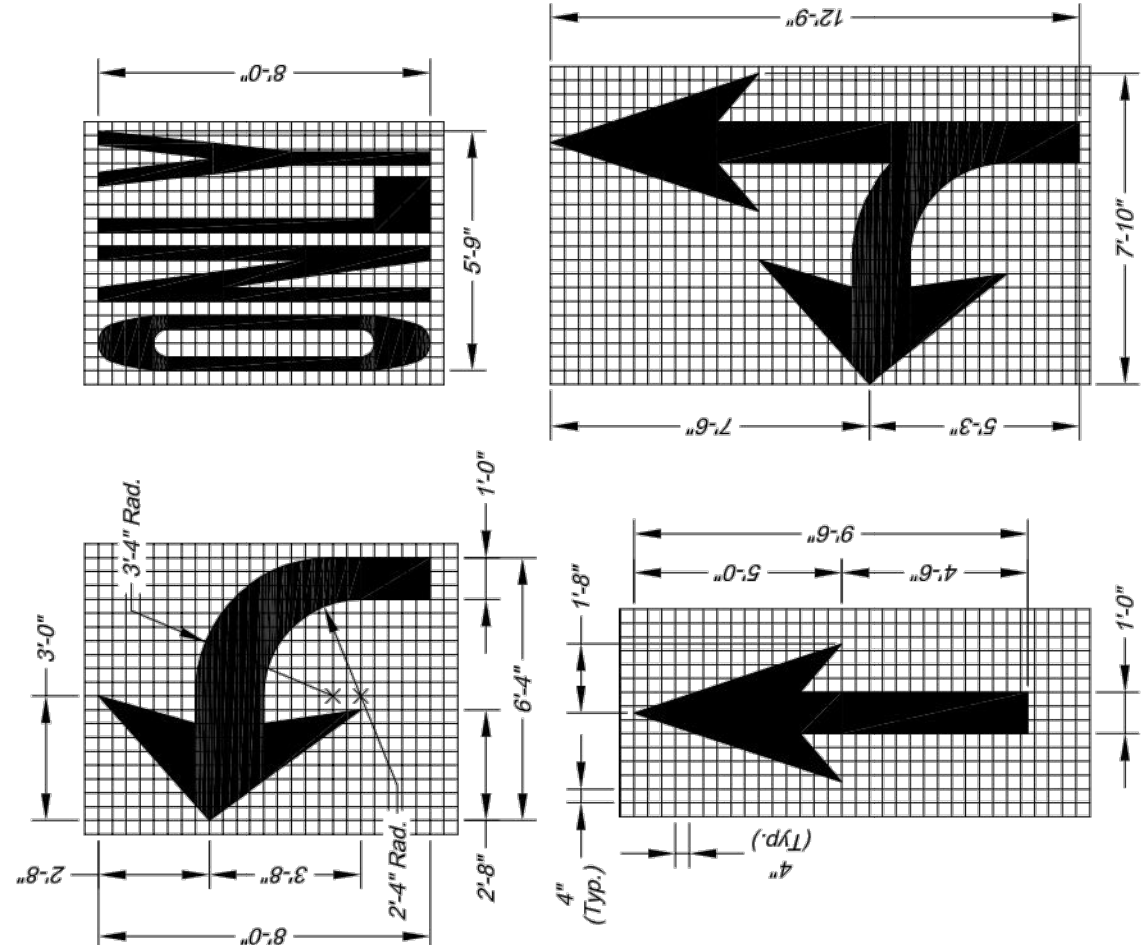
TYPICAL TURN LANE MARKINGS

- NOTES:
- Diagonal lines are required between centerlines if the width of the area between the center lines is greater than 100 feet. The width of the area between the center lines is greater than 100 feet.
 - Diagonal lines should be spaced at 5' increments, equal to the posted speed limit.
 - Equal Spacing is calculated as $(L - 40) / (S - 1)$.
 - When a through lane of traffic terminates as a mandatory turn lane, Arrow and "ONLY" symbols should be marked in the turn lane, in alternating order. The first and last symbols should be Arrows.



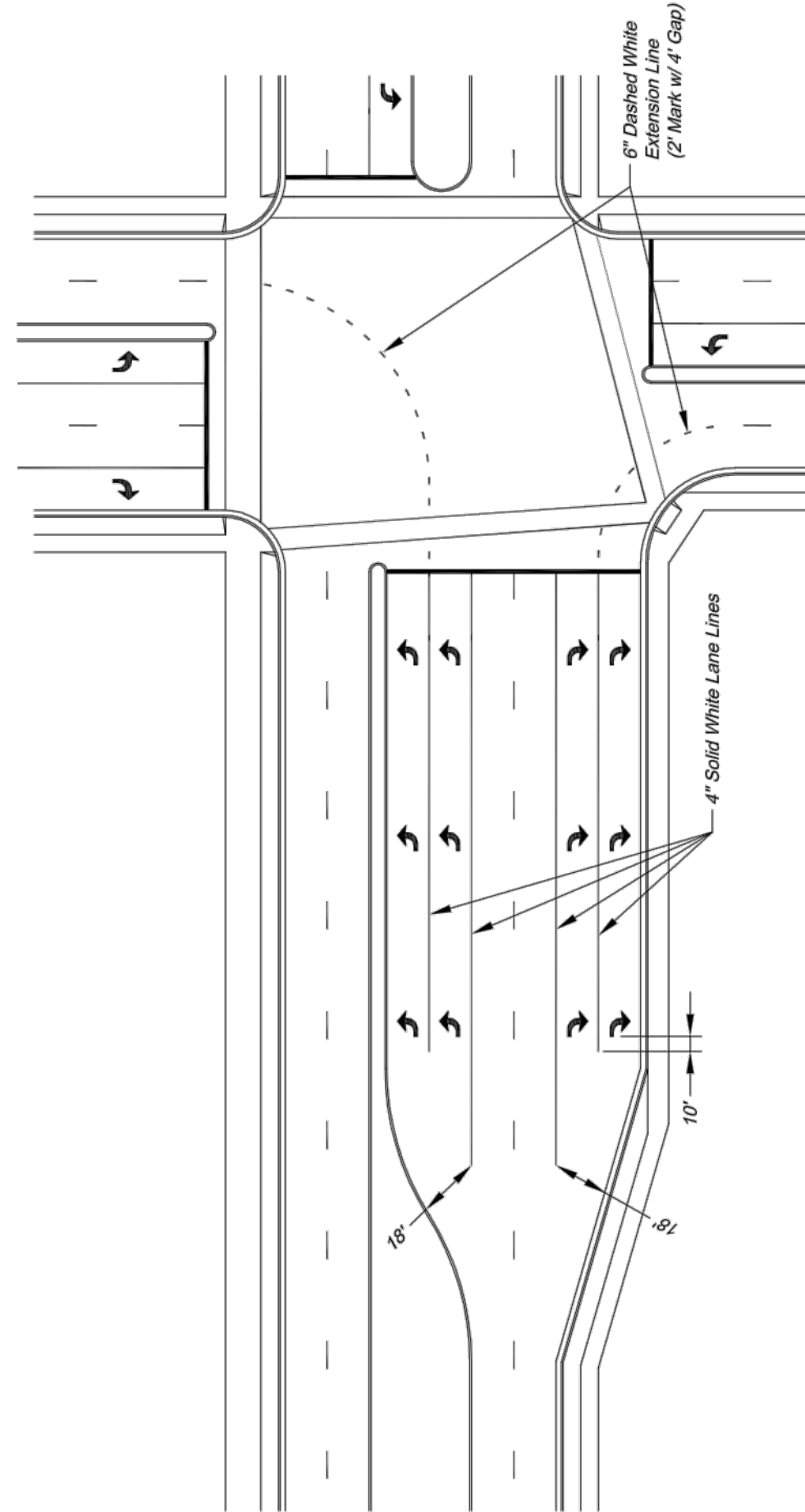
TYPICAL LINE DETAILS

- NOTES:
- Edge line, center line, and lane line pavement markings shall be 4" wide unless otherwise noted.
 - Edge lines shall be continuous solid white or yellow lines. Right side edge lines shall be solid white. Median or left side edge lines on divided roadways are to be solid yellow. Edge lines and center lines shall be continuous across driveways.



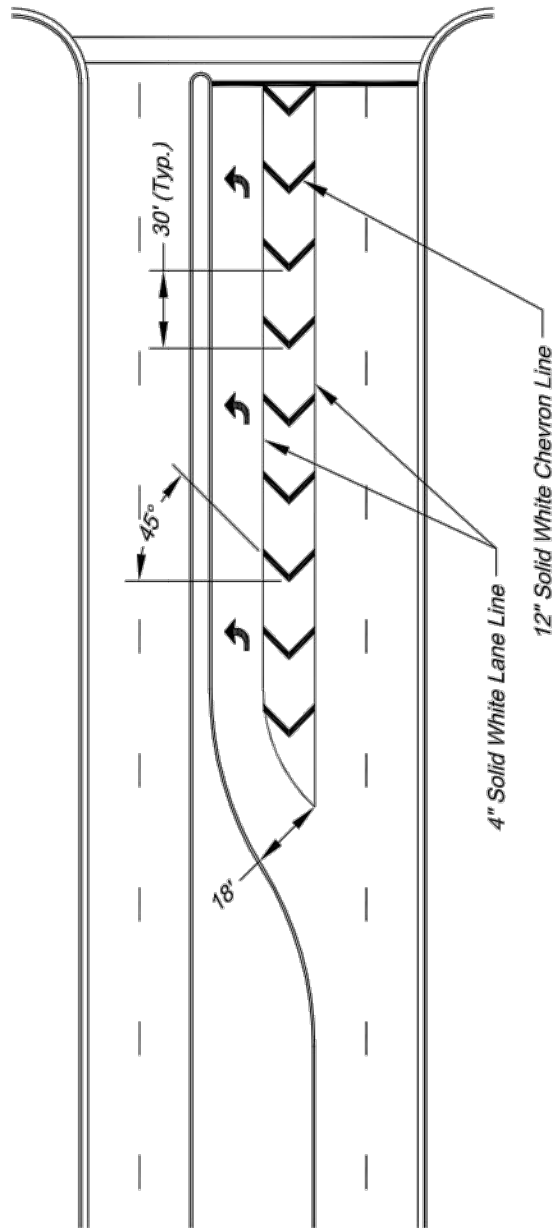
ARROW AND SYMBOL DETAILS

- NOTES:
- All arrow and symbol markings shall be white, and shall be centered in their respective traffic lanes.
 - Right-turn and combination right-turn/straight arrows are reverse of arrows shown.



TYPICAL DUAL TURN LANE MARKINGS

- NOTE:
- Dashed extension lines shall not extend through crosswalks.



TYPICAL STRIPED OUT TURN LANE MARKINGS

Project: 2 OF 2

Drawn By: AS

Checked By: JW

Date: 09/09/2009

Project: 2 OF 2

Sheet Name: INTERSECTION MARKING DETAILS

STANDARD DRAWING PM-2



CITY OF LEE'S SUMMIT

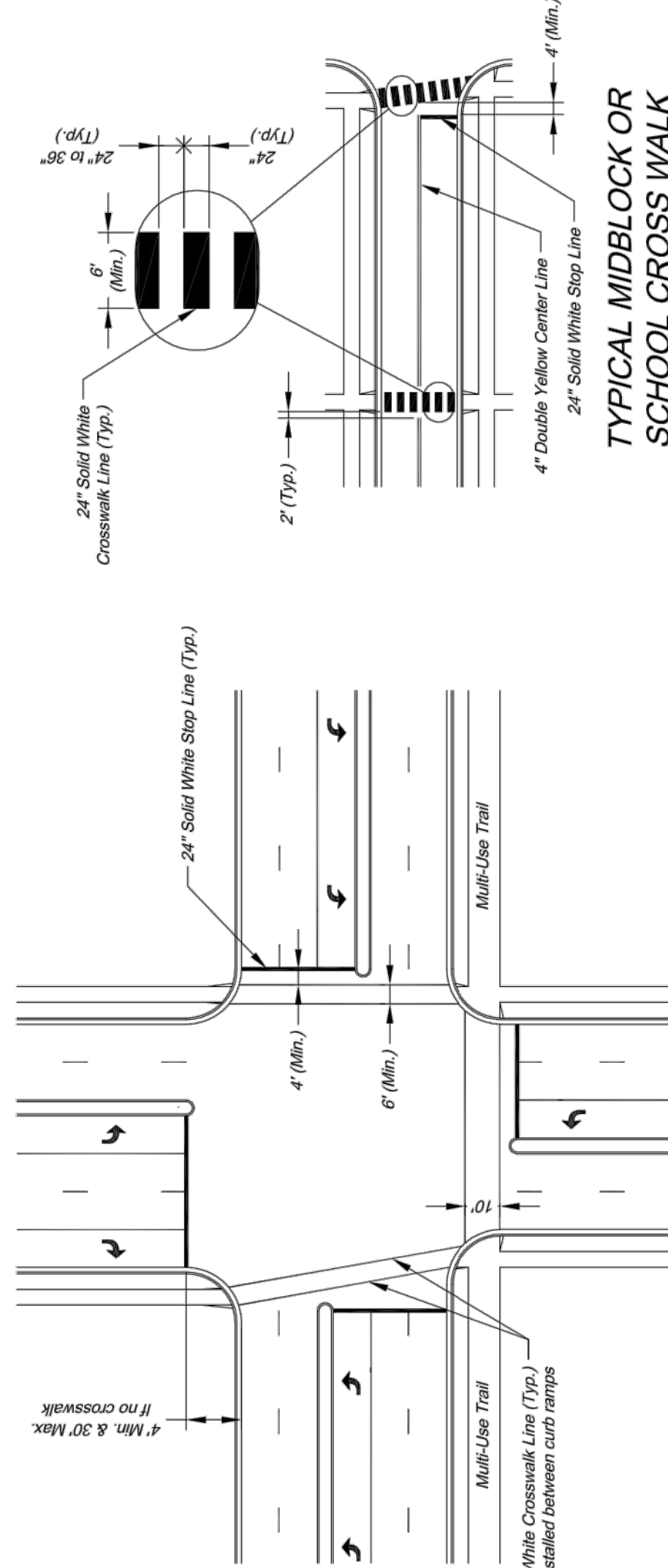
PUBLIC WORKS DEPARTMENT

ENGINEERING DIVISION

220 SE GREEN STREET

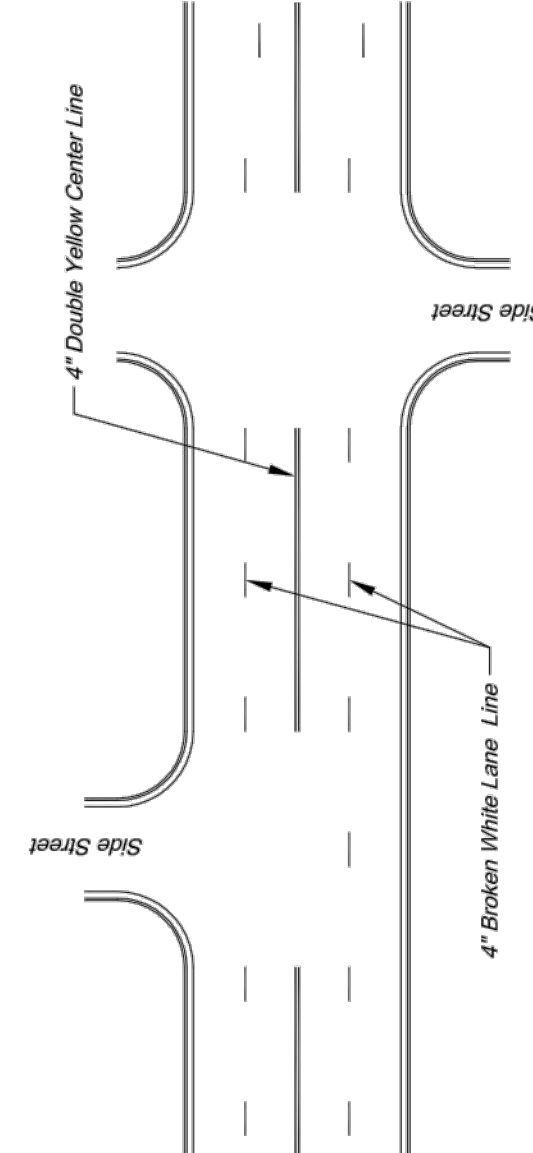
LEE'S SUMMIT, MISSOURI 64063

PHONE: (816) 969-1800 FAX: (816) 969-1809

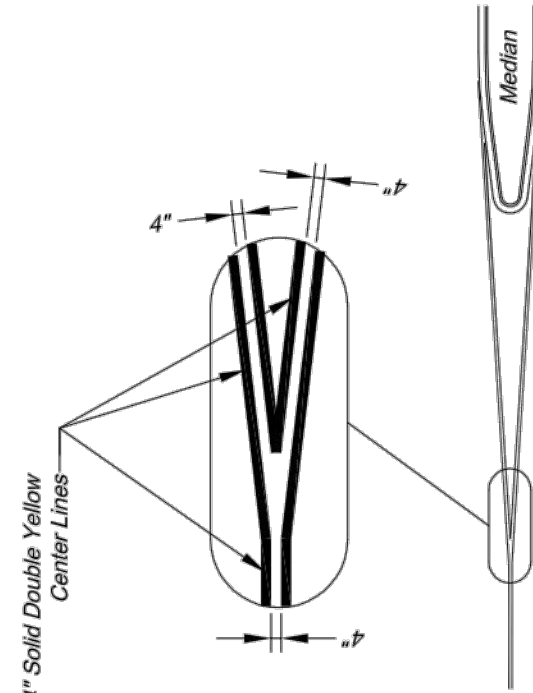


TYPICAL INTERSECTION MARKINGS

- NOTES:
- Transverse crosswalk lines shall be installed such that the distance between lines is at least 6 or 10 feet.
 - Stop lines are required at signalized intersections, on multi-lane stop controlled approaches, or at front of crosswalks at controlled intersections.



TYPICAL MARKINGS FOR FOUR-LANE UNDIVIDED ROADWAY



TYPICAL MEDIAN NOSE CENTER LINE DETAIL

- PAVEMENT MARKING GENERAL NOTES:
- All markings shall be in accordance with the latest edition of the Manual on Uniform Traffic Control Devices (MUTCD).
 - All words and symbols shall conform to the latest edition of Standard Alphabets for Highway Signs and Pavement Markings printed by the U.S. Department of Transportation, Federal Highway Administration.
 - Pavement markings, either temporary or permanent are required at all times if the roadway is open to traffic.
 - Any markings that are damaged or faded shall be repaired or replaced. Any markings that are damaged or faded shall be repaired or replaced. Any markings that are damaged or faded shall be repaired or replaced.
 - Contractor's expense.
 - The proposed pavement markings shall be laid out by the Contractor in advance of the marking installation. Markings shall not be installed until the pavement is fully cured. Markings shall be installed on all undivided arterial streets, and any other undivided street with more than two lanes and/or a speed limit of 30 mph or more.
 - Edge lines shall be marked on all non-curbed streets.

Project: ROADWAY MARKING DETAILS

STANDARD DRAWING PM-1



CITY OF LEE'S SUMMIT

PUBLIC WORKS DEPARTMENT

ENGINEERING DIVISION

220 SE GREEN STREET

LEE'S SUMMIT, MISSOURI 64063

PHONE: (816) 969-1800 FAX: (816) 969-1809

Sheet Name: ROADWAY MARKING DETAILS

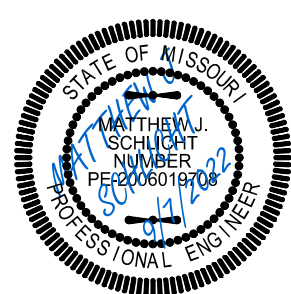
STANDARD DRAWING PM-1

Drawn By: AS

Checked By: JW

Date: 09/09/2009

Project: 1 OF 2



Matthew J. Schlicht

MO PE 2006019708

KS PE 19071

OK PE 25226

NE PE E-14335

REVISIONS

PAVEMENT MARKING DETAILS

Construction Plans for:

Colbern Road Investments

Lee's Summit, Jackson County, Missouri

Project: COLBERN ROAD INVESTMENTS L&M

Issue Date: September 7, 2022

Colbern Road Investments

Lee's Summit, Jackson County, Missouri

Professional Registration

Missouri

Engineering 2005002186-D

Surveying 2005008319-D

Kansas

Engineering E-1695

Surveying LS-218

Oklahoma

Engineering S284

Nebraska

Engineering CA2821

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