

UTILITIES  
Electric Service  
EVERGY  
Nathan Michael  
913-347-4310  
Nathan.michael@evergy.com

Gas Service  
Spire  
Katie Darnell  
816-969-2247  
Katie.darnell@spireenergy.com

Water/Sanitary Sewer  
Water Utilities Department  
1200 SE Hamblen Road  
Lee's Summit, Mo 64081  
Jeff Thorn  
816-969-1900  
jeff.thorn@cityofls.net

Communication Service  
AT&T Carrie Cilke  
816-703-4386  
cc3527@att.com

Time Warner Cable  
Steve Baxter  
913-643-1928  
steve.baxter@charter.com

Comcast  
Ryan Alkire  
816-795-2218  
ryan.alkire@cable.comcast.com

Google Fiber  
Becky Davis  
913-725-8745  
rebeccadavis@google.com



UTILITY STATEMENT:

THE UNDERGROUND UTILITIES SHOWN HEREON ARE FROM FIELD SURVEY INFORMATION OF ONE-CALL LOCATED UTILITIES, FIELD SURVEY INFORMATION OF ABOVE GROUND OBSERVABLE EVIDENCE, AND/OR THE SCALING AND PLOTTING OF EXISTING UTILITY MAPS AND DRAWINGS AVAILABLE TO THE SURVEYOR AT THE TIME OF SURVEY. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. FURTHERMORE, THE SURVEYOR DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES BY EXCAVATION UNLESS OTHERWISE NOTED ON THIS SURVEY.

SAFETY NOTICE TO CONTRACTOR

IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICE, THE CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.

WARRANTY/DISCLAIMER

THE DESIGNS REPRESENTED IN THESE PLANS ARE IN ACCORDANCE WITH ESTABLISHED PRACTICES OF CIVIL ENGINEERING FOR THE DESIGN FUNCTIONS AND USES INTENEDED BY THE OWNER AT THIS TIME. HOWEVER, NEITHER SM ENGINEERING NOR ITS PERSONNEL CAN OR DO WARRANTY THESE DESIGNS OR PLANS AS CONSTRUCTED, EXCEPT IN THE SPECIFIC CASES WHERE SM ENGINEERING PERSONNEL INSPECT AND CONTROL THE PHYSICAL CONSTRUCTION ON A CONTEMPORARY BASIS AT THE SITE.

CAUTION- NOTICE TO CONTRACTOR

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH PROPOSED IMPROVEMENTS SHOWN ON THE PLANS. THE CONTRACTOR SHALL EXPOSE EXISTING UTILITIES AT LOCATIONS OF POSSIBLE CONFLICTS PRIOR TO ANY CONSTRUCTION.

# DOUGLAS STREET PUBLIC STREET AND STORM PLANS FOR WHATABURGER LEE'S SUMMIT



LOCATION MAP

**Accepted  
Record Drawings**

**These plans have been reviewed for  
accuracy and are accepted for basic  
conformance to the approved  
construction drawings.**

FLOOD NOTE

THIS PROPERTY DOES NOT LIE WITHIN A FLOOD ZONE AS SHOWN ON FIRM MAP 29095C0409G, DATED 1-20-17

RECORD DRAWING

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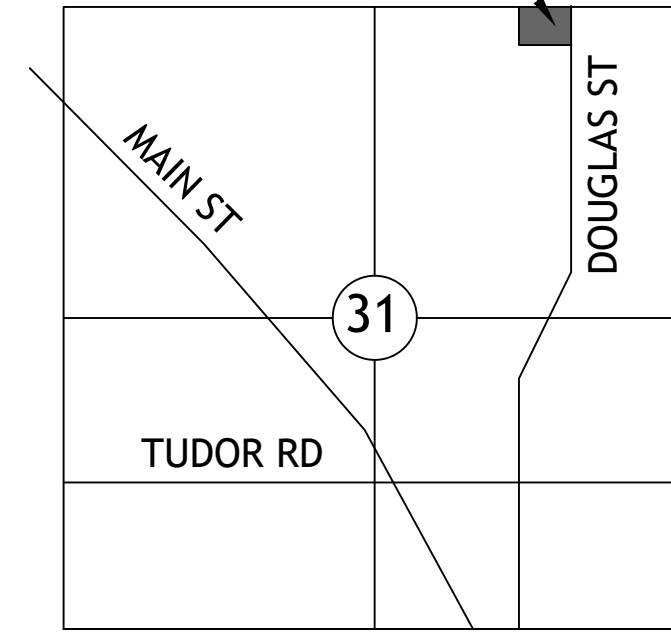
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Date: 6-14-22  
Certified by: Samuel D. Malinowsky  
Title: Owner  
Firm: SM Engineering

REVISED GRADES AT ENTRANCE  
ON SHEET C6.0 DUE TO EXISTING  
CONDITIONS.  
10-5-21

## AS-BUILT

PROJECT LOCATION



SECTION MAP

SEC. 31 TW. 48 RNG. 31

INDEX OF SHEETS

- C-1 COVER SHEET
- C-2 EXISTING CONDITIONS
- C-3 SITE PLAN
- C-4 DEMOLITION PLAN
- C-5 LAYOUT PLAN
- C-6 GRADING PLAN
- C-7 STORM LINE A PROFILE
- C-8 EROSION CONTROL PLAN
- C-9 EROSION CONTROL DETAILS
- C-10 DETAILS
- C-11 DETAILS
- C-12 TRAFFIC CONTROL
- C-13 TRAFFIC CONTROL DETAILS

DEVELOPER

RECOR PROPERTIES  
MATT GIBBS  
5925 BEVERLY AVE  
MISSION KS 66202  
913-948-9950

ENGINEER

SM ENGINEERING  
SAM MALINOWSKY  
8807 HIGH MEADOW CR  
MANHATTAN KS 66503  
785-341-9747



SAMUEL D. MALINOWSKY  
PROFESSIONAL ENGINEER

SM Engineering



919 W. Stewart Road  
Columbia, Missouri 65203  
smcivilengr@gmail.com  
785.341.9747

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Revisions

2-4-21 CITY COMMENTS  
10-4-21 ADA RAMP  
6-13-22 AS-BUILTS

DOUGLAS ST  
IMPROVEMENTS

LEE'S SUMMIT, MISSOURI

s h e e t

C1.0

Civil  
COVER SHEET

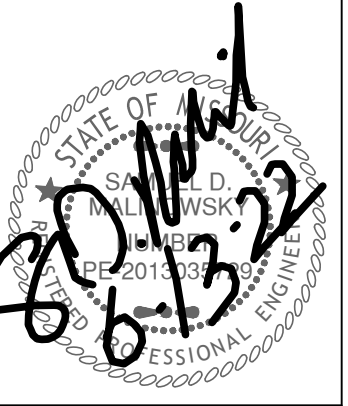
per mit  
16 DECEMBER 2020







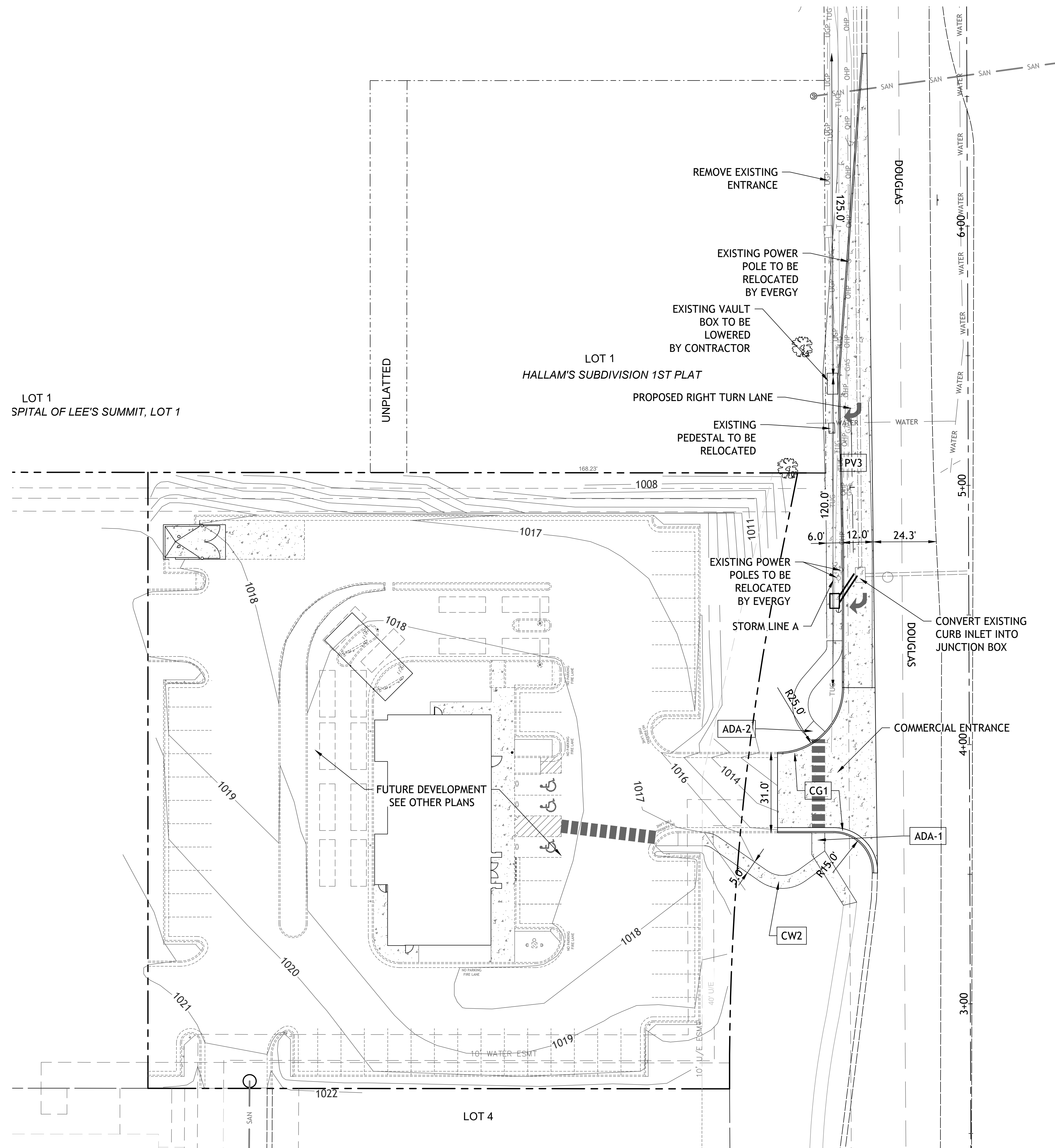
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Revisions  
4-21 CITY COMMENTS  
10-4-21 ADA RAMP  
11-13-22 AS-BUILTS

DOUGLAS ST  
IMPROVEMENTS  
LEES SUMMIT, MISSOURI

sheet  
C3.0  
Civil  
SITE PLAN  
permit  
16 DECEMBER 2020



1. COORDINATE START-UP AND ALL CONSTRUCTION ACTIVITIES WITH OWNER.
2. CONSTRUCTION METHODS AND MATERIALS NOT SPECIFIED IN THESE PLANS ARE TO MEET OR EXCEED THE STANDARD SPECIFICATIONS.
3. ALL CONSTRUCTION WORK 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.
4. PUBLIC CONVENIENCE AND SAFETY: THE CONTRACTOR SHALL CONDUCT THE WORK IN A MANNER THAT WILL INSURE, AS FAR AS PRACTICABLE, THE LEAST OBSTRUCTION TO TRAFFIC, AND SHALL PROVIDE FOR THE CONVENIENCE AND SAFETY OF THE GENERAL PUBLIC AND RESIDENTS ALONG AND ADJACENT TO STREETS IN THE CONSTRUCTION AREA.
5. ALL DIMENSIONS SHOWN ARE TO THE BACK OF CURB UNLESS OTHERWISE NOTED.

SEE DETAIL SHEET FOR THE FOLLOWING DETAILS:  
CG-1 TYPE B CURB AND GUTTER  
PV3 HEAVY DUTY CONCRETE PAVEMENT  
CW2 SIDEWALK  
ADA-1,2 HANDICAP RAMP SEE GEN-3A DETAIL

THERE ARE OIL AND GAS WELLS PER ALTA COMMITMENT  
FOR TITLE INSURANCE COMMITMENT NO. 200866  
PREPARED BY CHICAGO TITLE INSURANCE COMPANY.

## AS-BUILT

RECORD DRAWING

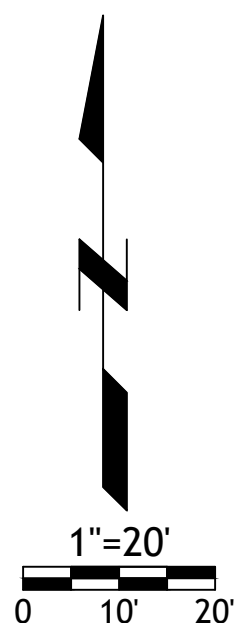
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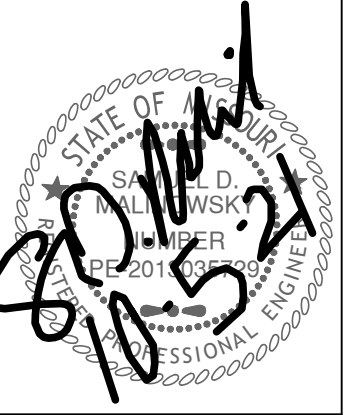
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4-21 CITY COMMENTS  
10-4-21 ADA RAMP

DOUGLAS ST  
IMPROVEMENTS  
LEE'S SUMMIT, MISSOURI

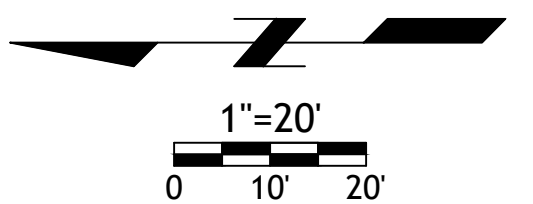
DECEMBER 2020



1. ALL ONSITE STRUCTURES WITHIN THE LIMITS OF REMOVAL, LIGHT POLE BASES, PAVEMENT, CURB AND GUTTER AND ALL SITE IMPROVEMENTS SHALL BE REMOVED UNLESS SPECIFICALLY NOTED TO REMAIN IN ACCORDANCE WITH THE SPECIFICATIONS OF THE CITY OF LEES SUMMIT AND STATE REGULATIONS
2. CONTRACTOR RESPONSIBLE FOR VERIFYING THAT ALL UTILITIES HAVE BEEN DISCONNECTED PER THE INDIVIDUAL UTILITY COMPANY'S CRITERIA.
3. ALL ONSITE DEMOLISHED MATERIAL SHALL BE REMOVED AND DISPOSED OF PER STATE AND LOCAL REQUIREMENTS.

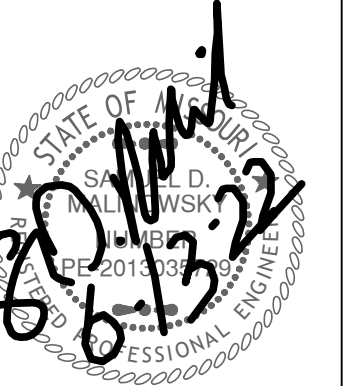
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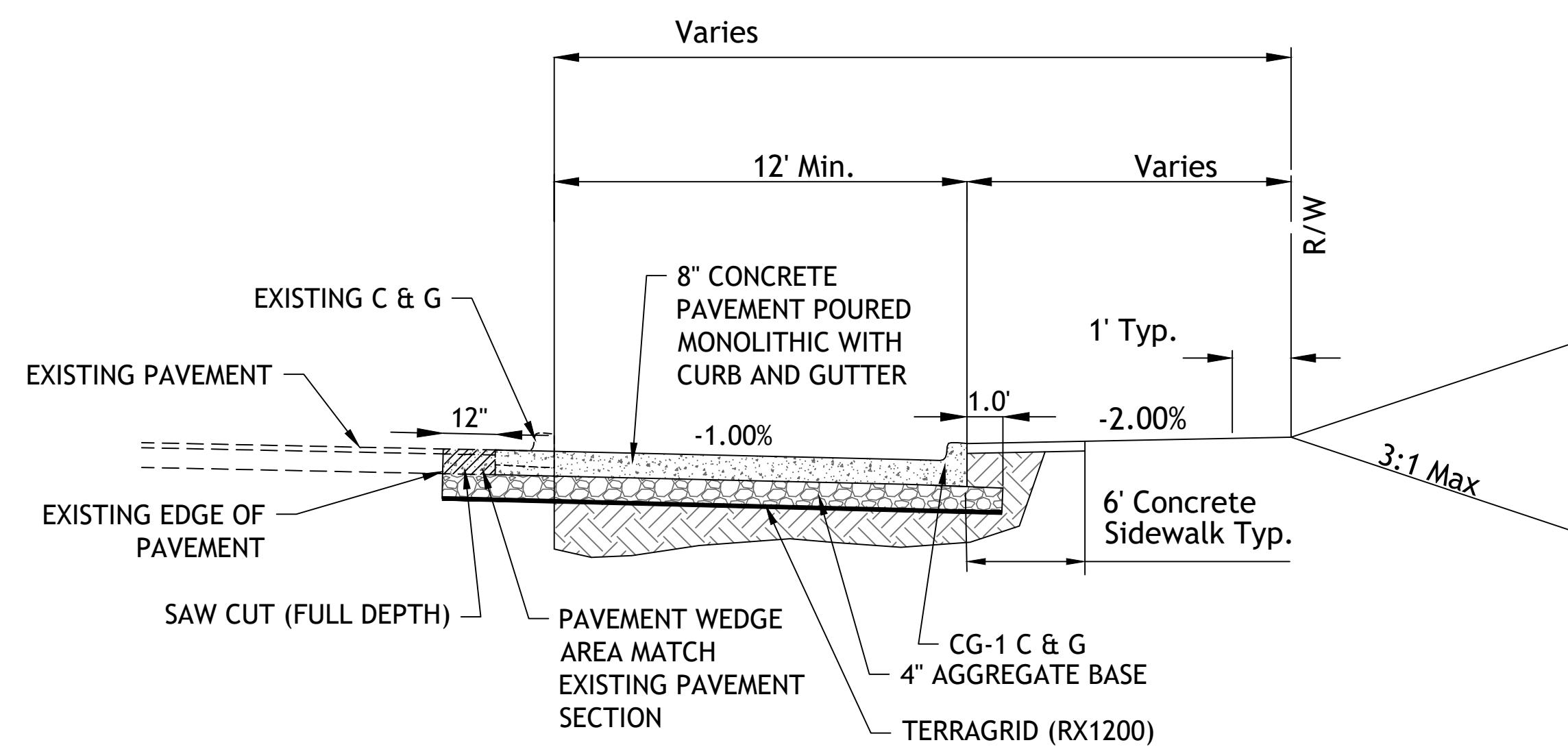
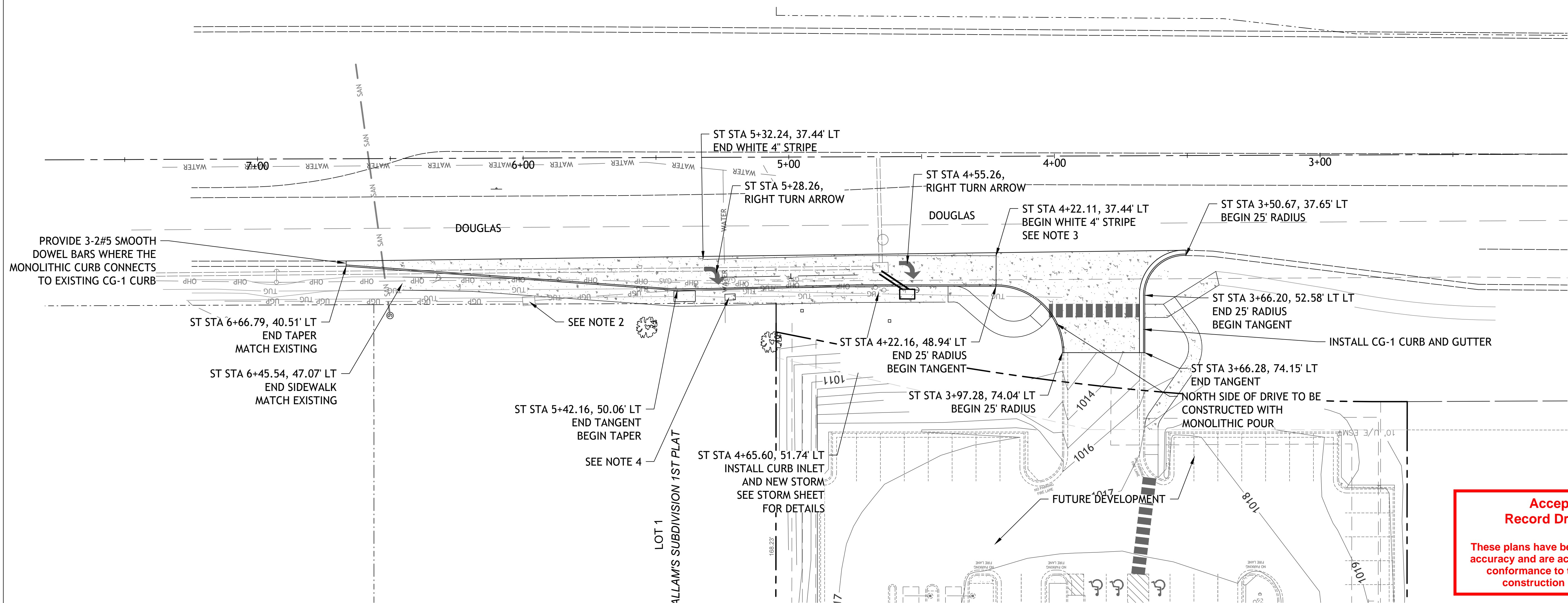
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11-13-22 AS-BUILTS

DOUGLAS ST  
IMPROVEMENTS  
LEE'S SUMMIT, MISSOURI

sheet  
C5.0  
Civil  
LAYOUT PLAN  
permit  
16 DECEMBER 2020



**TYPICAL SECTION**  
**DOUGLAS STREET**  
**(LOOKING SOUTH)**

1. TURN ARROWS SHALL BE PRE-FORMED THERMOPLASTIC PER CITY SPECIFICATIONS
- NOTE
2. CONTRACTOR RESPONSIBLE FOR ADJUSTING VAULT COVER TO MATCH SIDEWALK
3. LONGITUDINAL STRIPING MATERIAL SHALL BE HIGH BUILD PAINT PER CITY OF LEE'S SUMMIT SPECIFICATIONS
4. CONTRACTOR RESPONSIBLE FOR RELOCATING EXISTING UTILITY BOX.

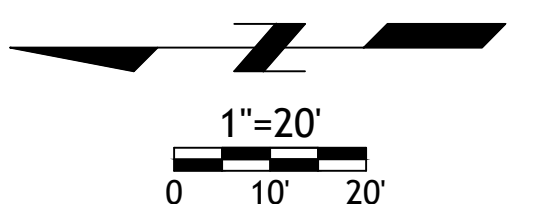
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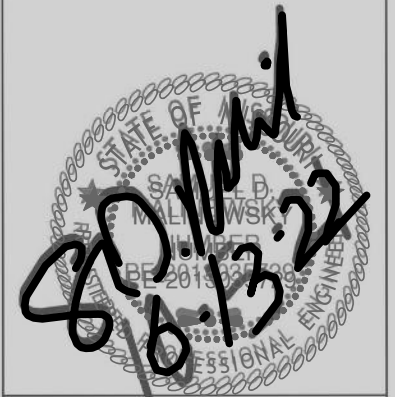
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## AS-BUILT







### Revisions

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## AS-BUILT

LEGEND	
TC	TOP OF CURB ELEVATION
SW	TOP OF SIDEWALK ELEVATION
TS	TURNING SPACE (MUST BE LESS THAN 1.5% IN ALL DIRECTIONS)
R	RAMP

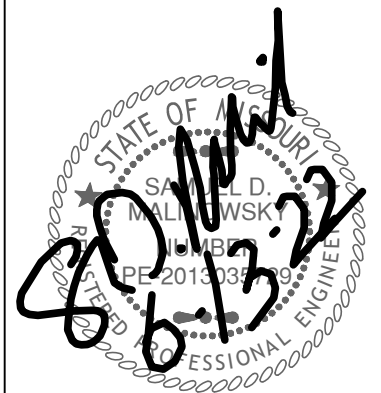
REVISED GRADES AT ENTRANCE  
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CONDITIONS.  
10-5-21

DOUGLAS ST  
IMPROVEMENTS  
LEES SUMMIT, MISSOURI

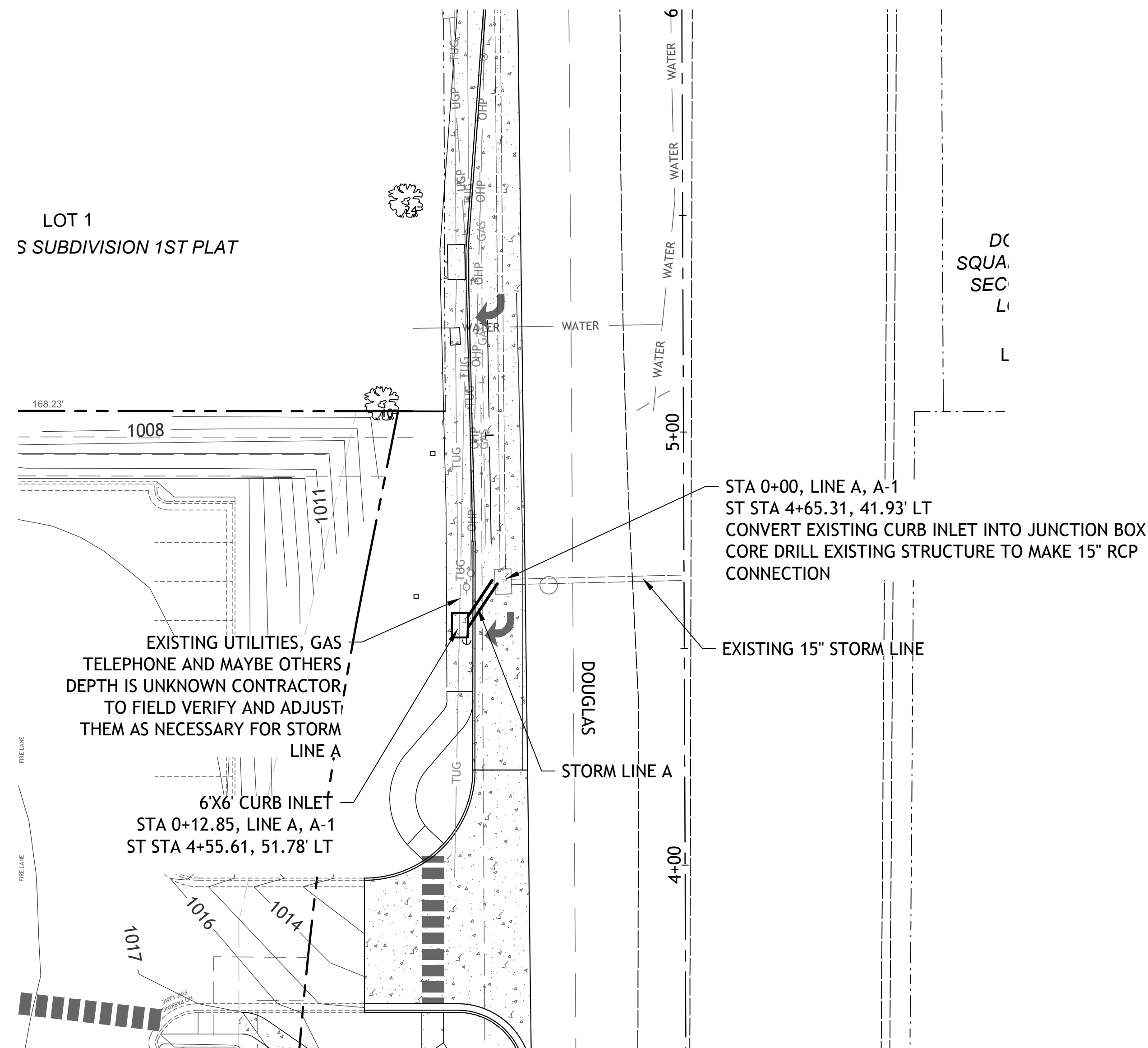
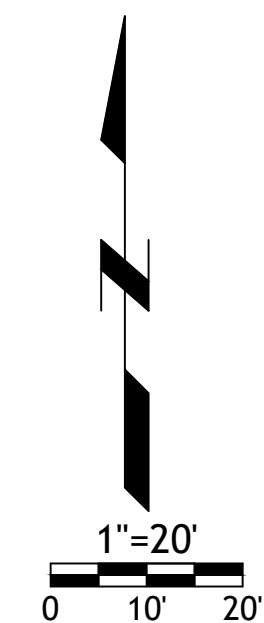
sheet  
C6.0  
Civil  
GRADING PLAN  
permit  
16 DECEMBER 2020



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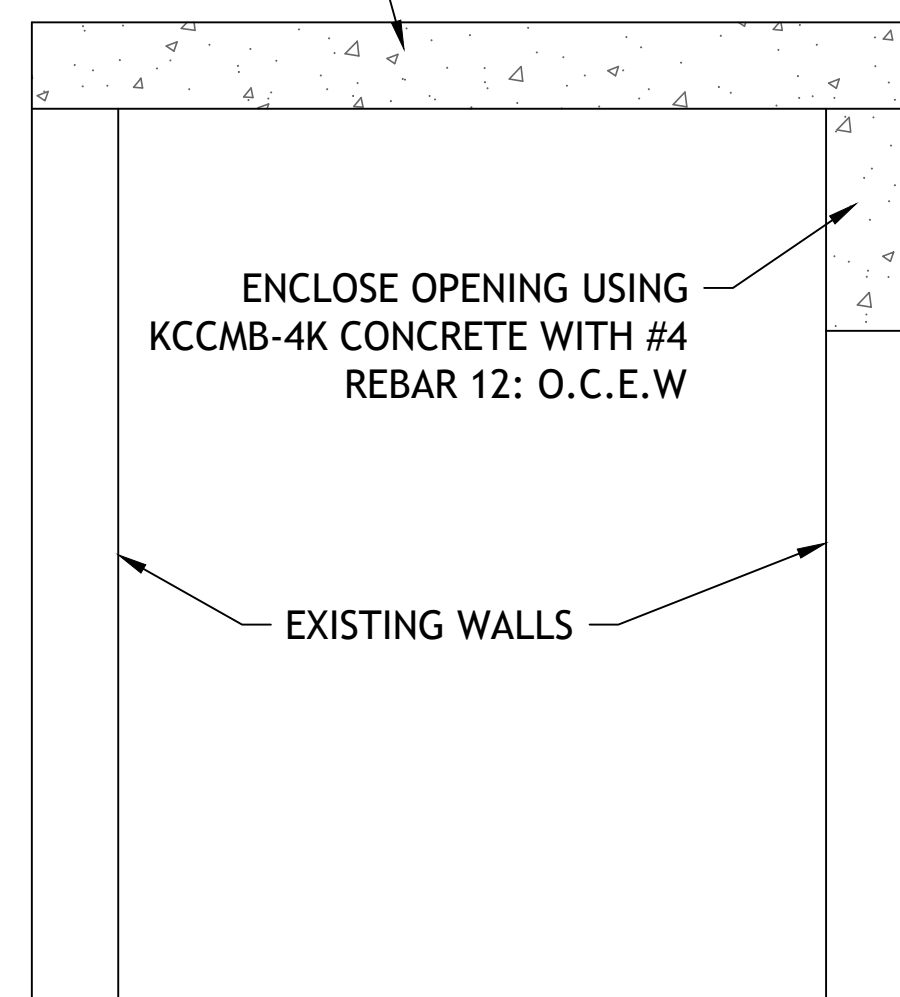


Revisions  
2-4-21 CITY COMMENTS  
10-4-21 ADA RAMP  
6-13-22 AS-BUILTS

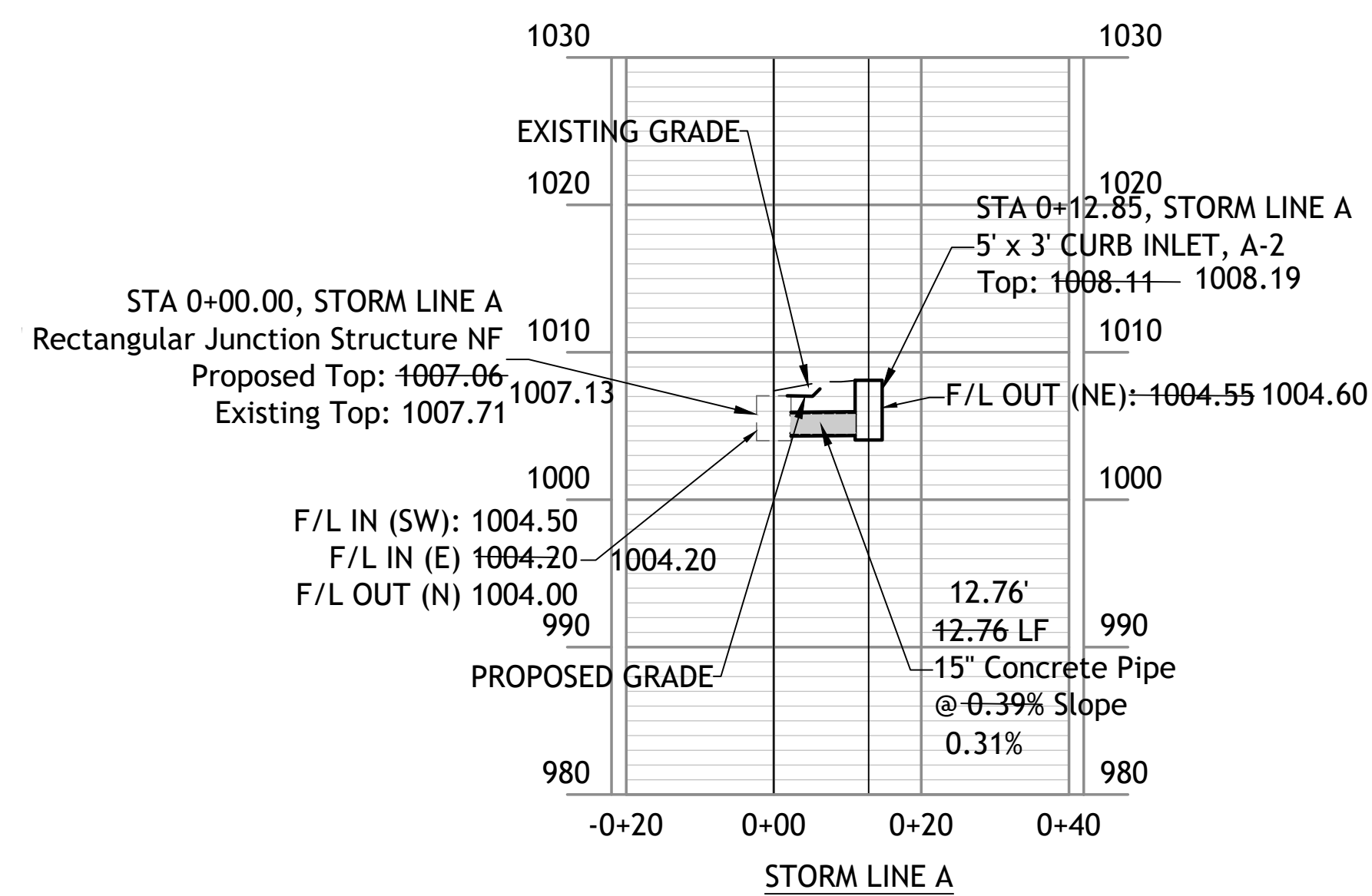


PROVIDE PRECAST TOP WITH SOLID RING & LID AND SEAL WITH NON SHRINK GROUT

NOTE  
SAWCUT AND REMOVE EXISTING CURB INLET TOP



CURB INLET CONVERSION



AS-BUILT

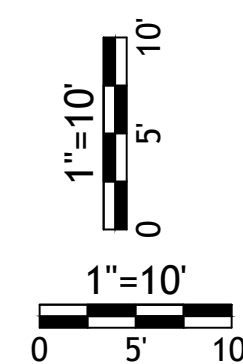
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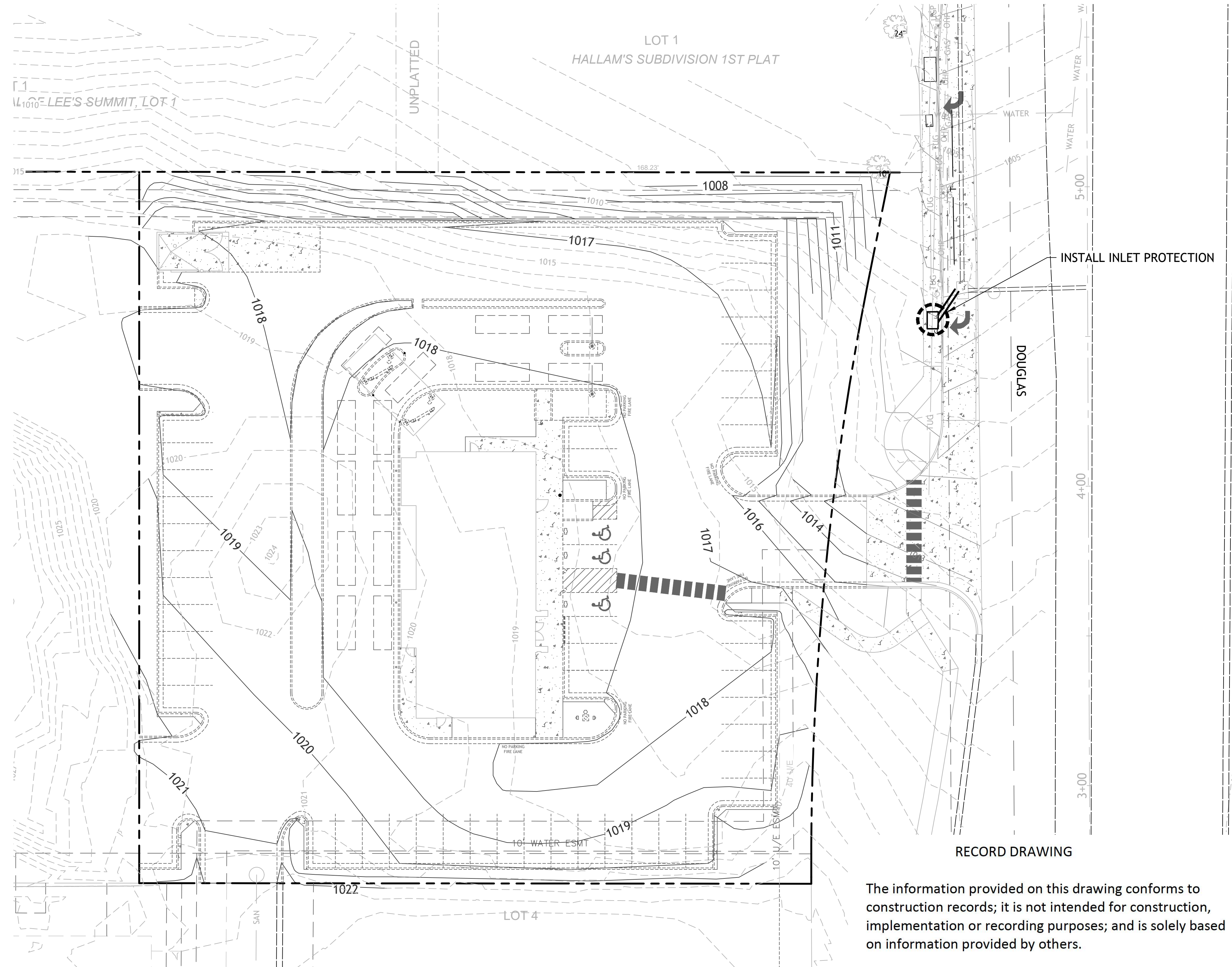
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DOUGLAS ST  
IMPROVEMENTS  
LEE'S SUMMIT, MISSOURI





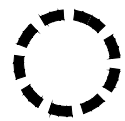
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- NOTES:
- Prior to Land Disturbance activities, the following shall occur:
    - Identify the limits of construction on the ground with easily recognizable indications such as construction staking, construction fencing and placement of physical barriers or other means acceptable to the City Inspector and in conformance with the erosion and pollution control plan;
    - Construct a stabilized entrance/parking/staging area;
    - Install perimeter controls and protect any existing stormwater inlets;
    - Request an initial inspection of the installed Phase I pollution control measures designated on the approved erosion and pollution control plan. Land disturbance work shall not proceed until there is a passed inspection
  - The site shall comply with all requirements of the MoDNR general requirements
    - Immediate initiation of temporary stabilization BMPs on disturbed areas where construction activities have temporarily ceased on that portion of the project site if construction activities will not resume for a period exceeding 14 calendar days. Temporary stabilization may include establishment of vegetation, geotextiles, mulches or other techniques to reduce or eliminate erosion until either final stabilization can be achieved or until further construction activities take place to re-disturb the area. This stabilization must be completed within 14 calendar days;
    - Inspection of erosion and sediment control measures shall be performed to meet or exceed the minimum inspection frequency in the MoDNR General Permit. At a minimum, inspections shall be performed during all phases of construction at least once every 14 days and within 24 hours of each precipitation event.
    - An inspection log shall be maintained and shall be available for review by the regulatory authority;
    - The erosion and pollution control plan shall be routinely updated to show all modifications and amendments to the original plan. A copy of the erosion and pollution control plan shall be kept on site and made available for review by the regulatory authority.
  - Temporary seeding shall only be used for periods not to exceed 12 months. For final stabilization, temporary seeding shall only be used to establish vegetation outside the permanent seeding or sodding dates as specified in the Standard Specifications. Final stabilization requires a uniform perennial vegetative cover with a density of 70% over 100% of disturbed area.
  - Erosion and pollution control shall be provided for the duration of a project. All installed erosion and pollution control BMPs shall be maintained in a manner that preserves their effectiveness. If the City determines that the BMPs in place do not provide adequate erosion and pollution control at any time during the project, additional or alternate measures that provide effective control shall be required.
  - Concrete wash or rinse water from concrete mixing equipment, Tools and/or ready-mix trucks, etc. may not be discharged into or be allowed to run to any existing water body or portion of the storm water system. One or more locations for concrete washout will be designated on site, such that discharges during concrete washout will be contained in a small area where waste concrete can solidify in place. Proper signage will be installed to direct users to the concrete washout. Concrete washouts must be handled prior to pouring any concrete.
  - Silt fences and sediment control BMPs which are shown along the back of curb must be installed within two weeks of curb backfill and prior to placement of base asphalt. Exact locations of these erosion control methods may be field adjusted to minimize conflicts with utility construction. However, anticipated disturbance by utility construction shall not delay installation.
  - Required sediment basins and traps shall be installed as early as possible during mass grading. Sediment basins and traps shall be cleaned out when the sediment capacity has been reduced by 20% of its original design volume.
  - All manufactured BMPs such as erosion control blankets, TRMs, biodegradable logs, filter socks, synthetic sediment barriers and hydraulic erosion control shall be installed as directed by the manufacturer.
  - The above requirements are the responsibility of the permittee for the site. Responsibility may be transferred to another party by the permittee, but the permittee shall remain liable by the City of Lee's Summit if any of the above conditions are not met.

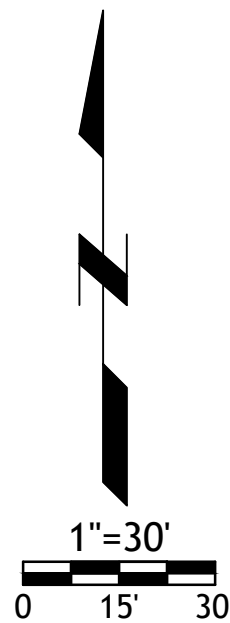
#### LEGEND



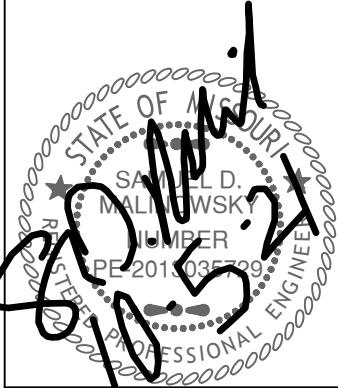
INLET PROTECTION

Accepted  
Record Drawings

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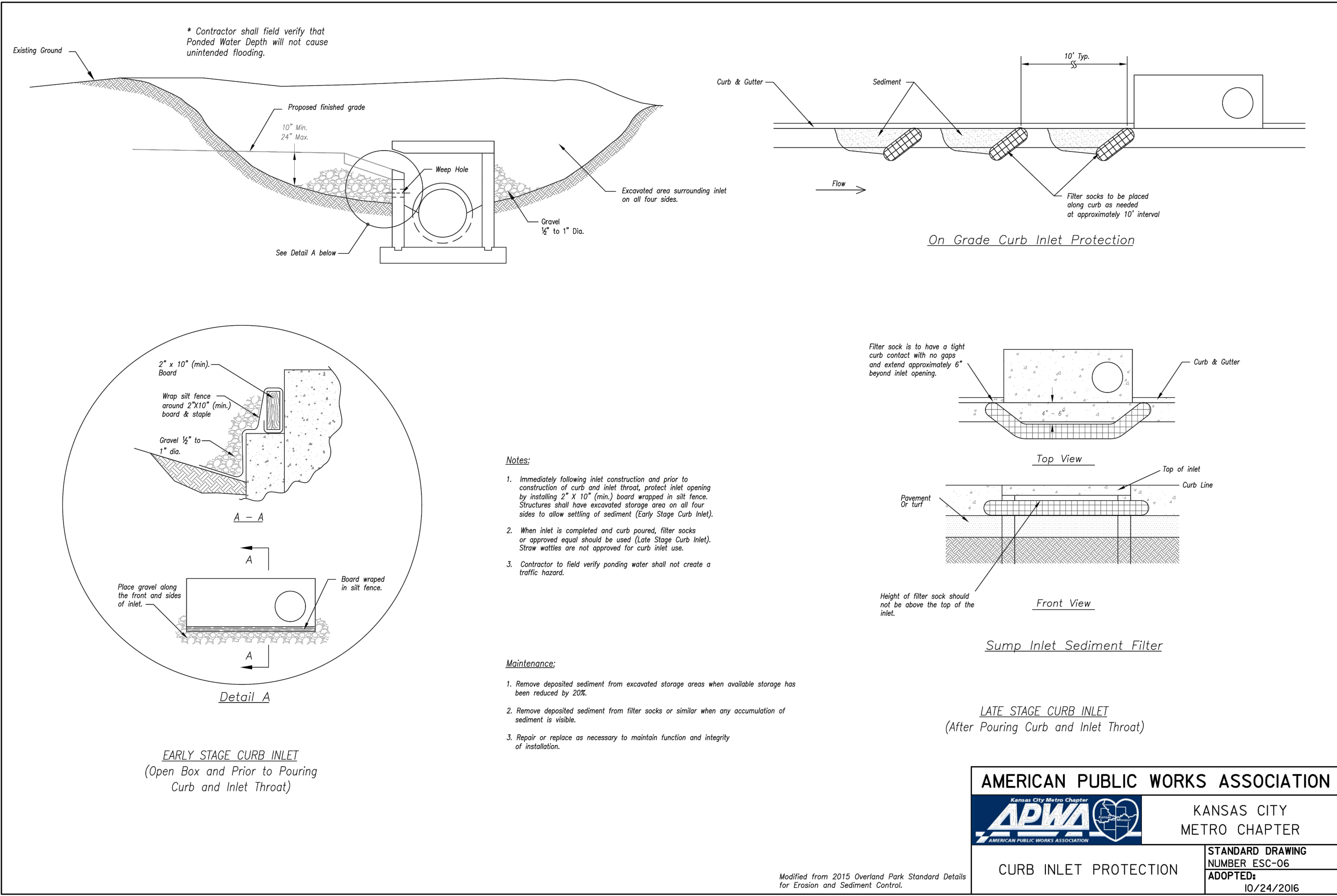


Revisions  
2-4-21 CITY COMMENTS  
10-4-21 ADA RAMP

# DOUGLAS ST IMPROVEMENTS

LEE'S SUMMIT, MISSOURI





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smcivilengr@gmail.com  
785.341.9747

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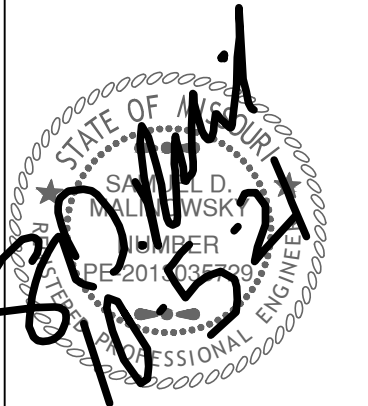
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DOUGLAS ST  
IMPROVEMENTS  
LEES SUMMIT, MISSOURI

s h e e t  
C9.0  
Civil  
EROSION CONTROL  
DETAILS  
p e r m i t  
16 DECEMBER 2020



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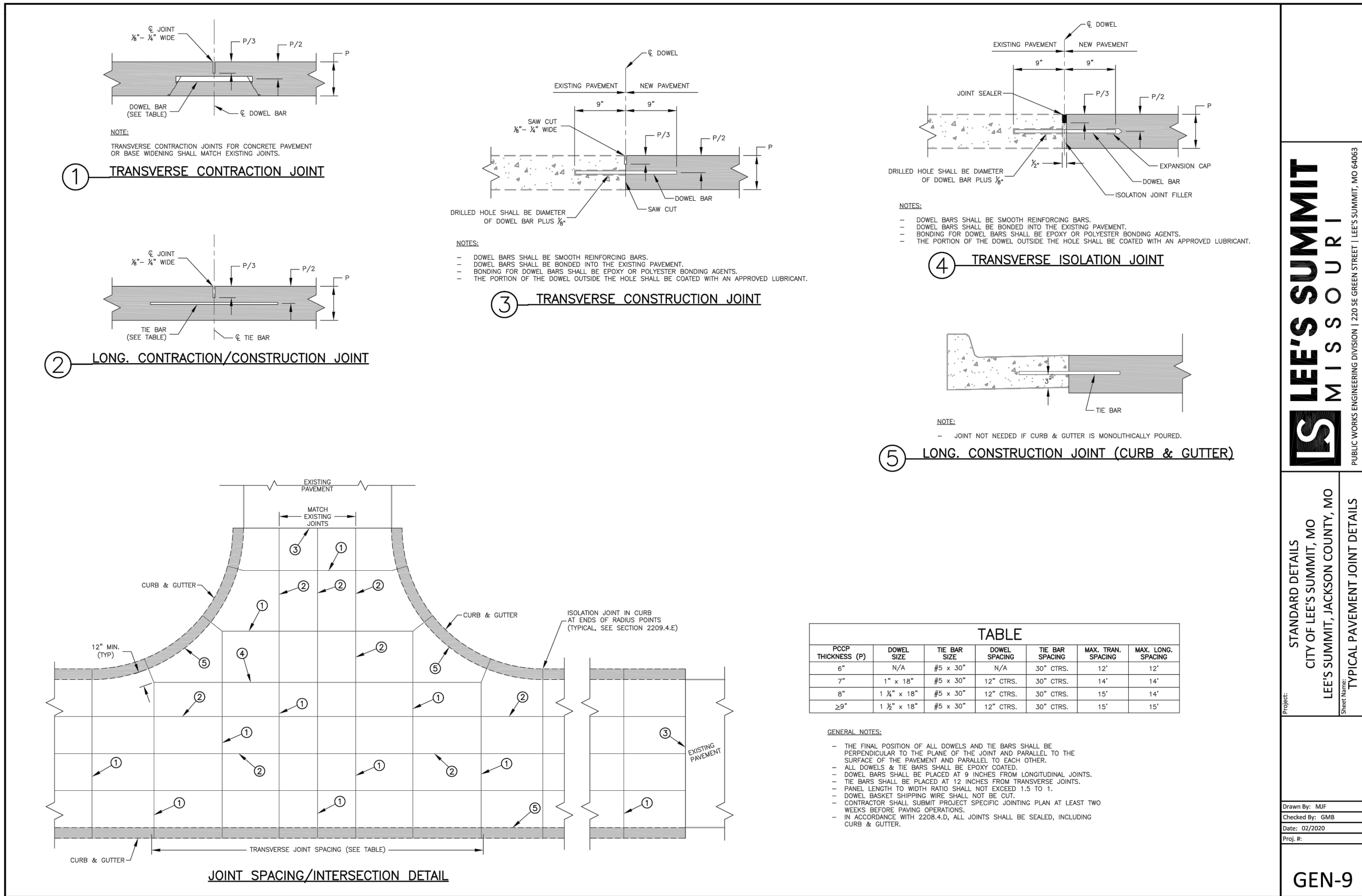
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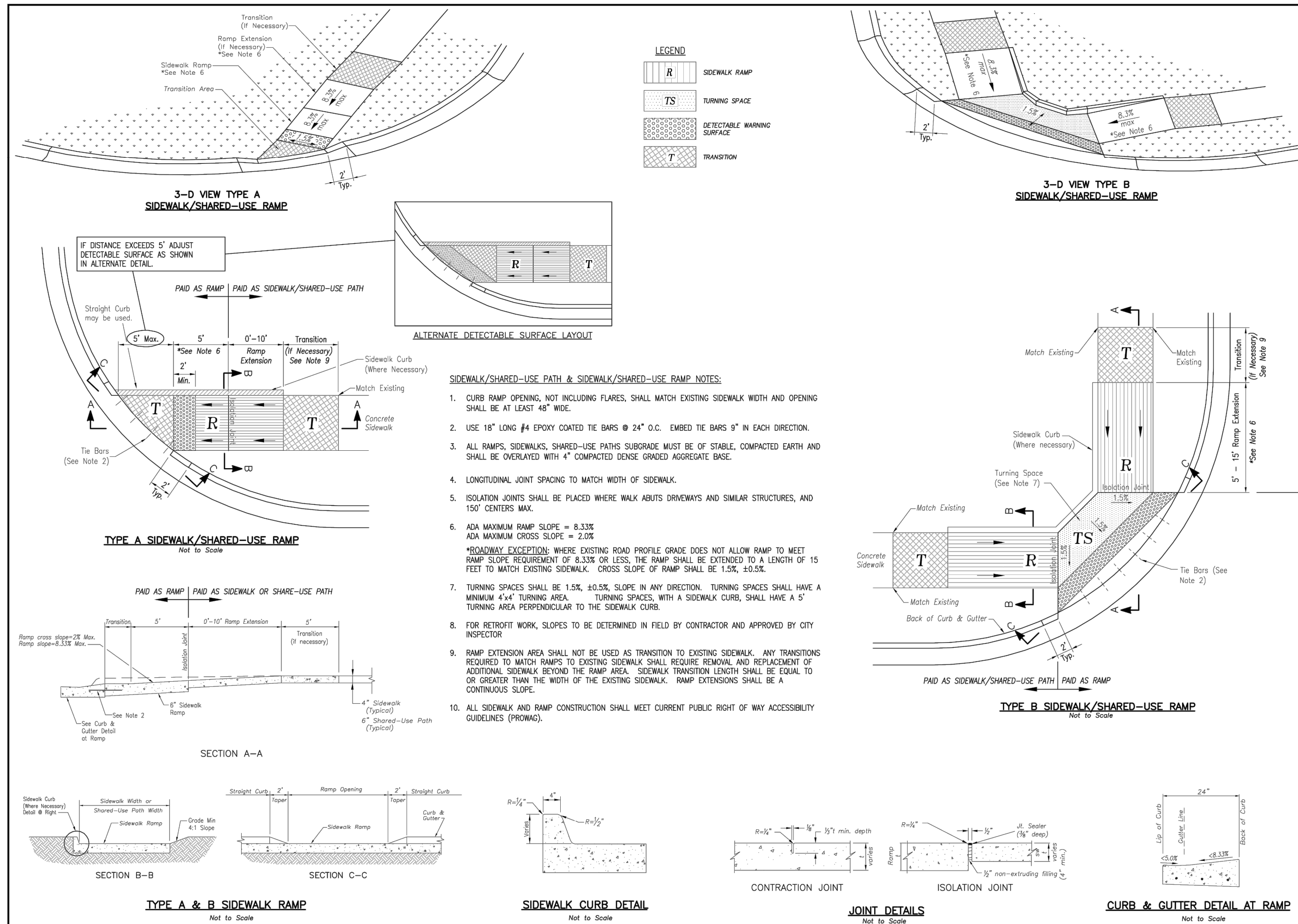
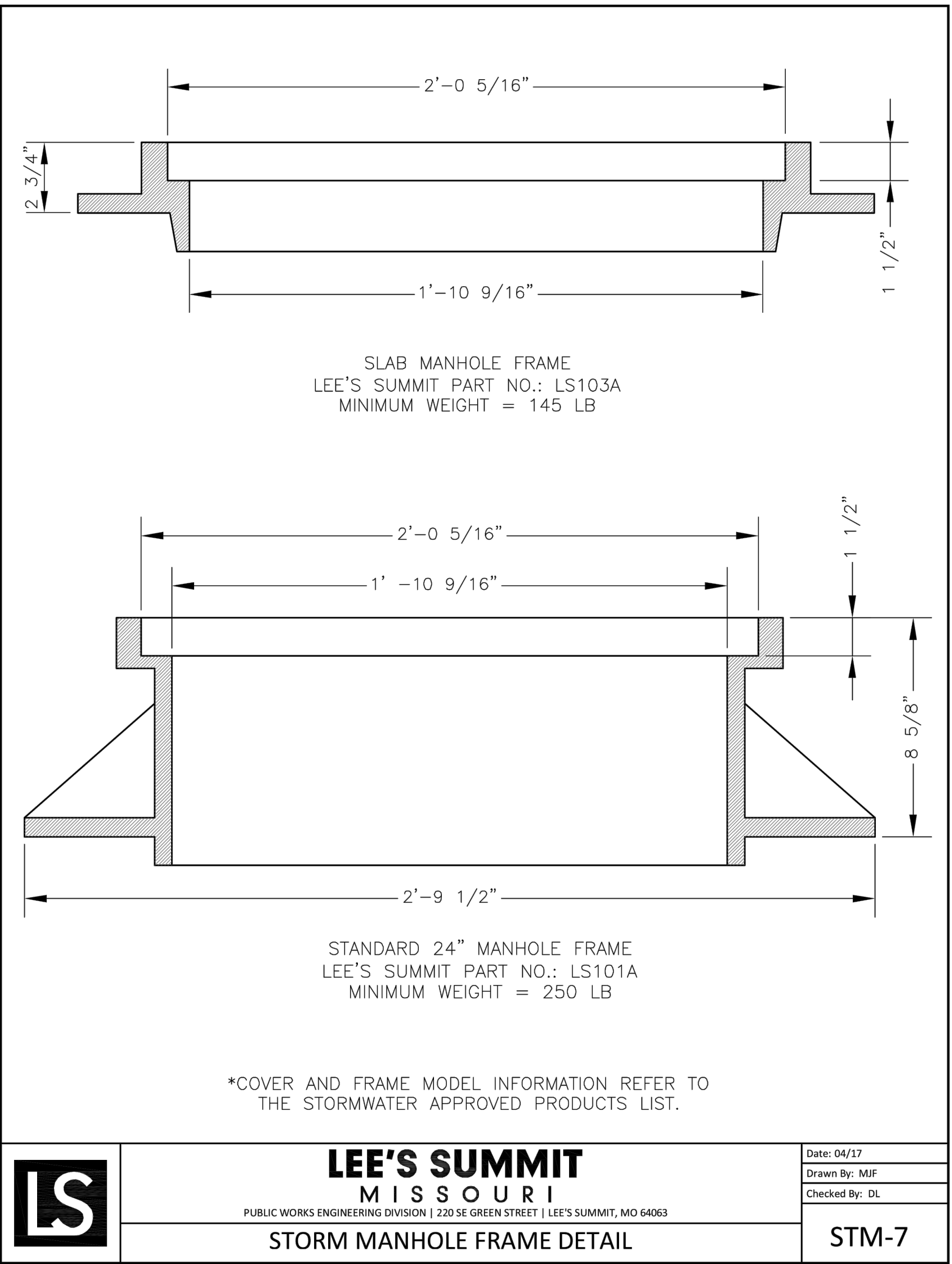
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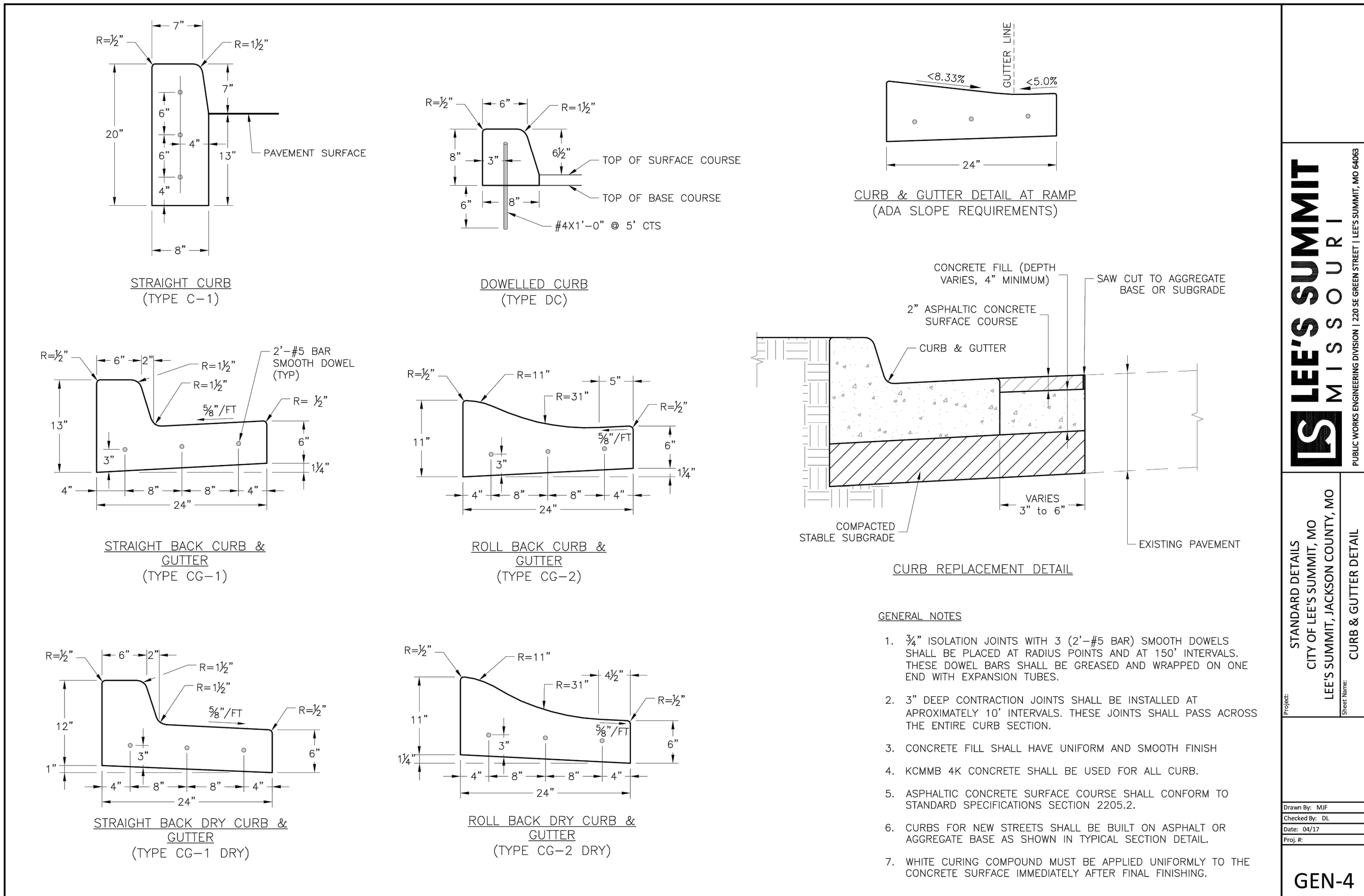
DOUGLAS ST  
IMPROVEMENTS  
LEES SUMMIT, MISSOURI



STANDARD DETAILS  
CITY OF LEE'S SUMMIT, MO  
LEE'S SUMMIT, JACKSON COUNTY, MO  
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063  
TYPICAL PAVEMENT JOINT DETAILS  
GEN-9



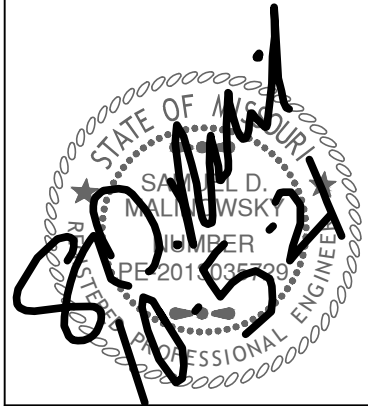
STANDARD DETAILS  
CITY OF LEE'S SUMMIT, MO  
LEE'S SUMMIT, JACKSON COUNTY, MO  
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063  
ADA RAMP RETROFIT DETAIL  
GEN-3A



STANDARD DETAILS  
CITY OF LEE'S SUMMIT, MO  
LEE'S SUMMIT, JACKSON COUNTY, MO  
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063  
CURB & GUTTER DETAIL  
GEN-4



Drawings and/or Specifications are original proprietary work and property of the Engineer and intended specifically for this project. Use of items contained herein without consent of the Engineer is prohibited. Drawings illustrate best information available to the Engineer. Field verification of actual elements, conditions, and dimensions is required.



Revisions  
2-4-21 CITY COMMENTS  
10-4-21 ADA RAMP

## RECORD DRAWING

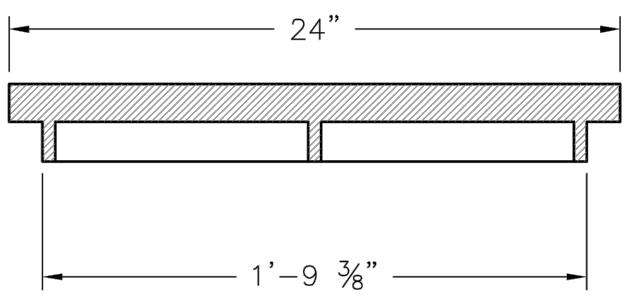
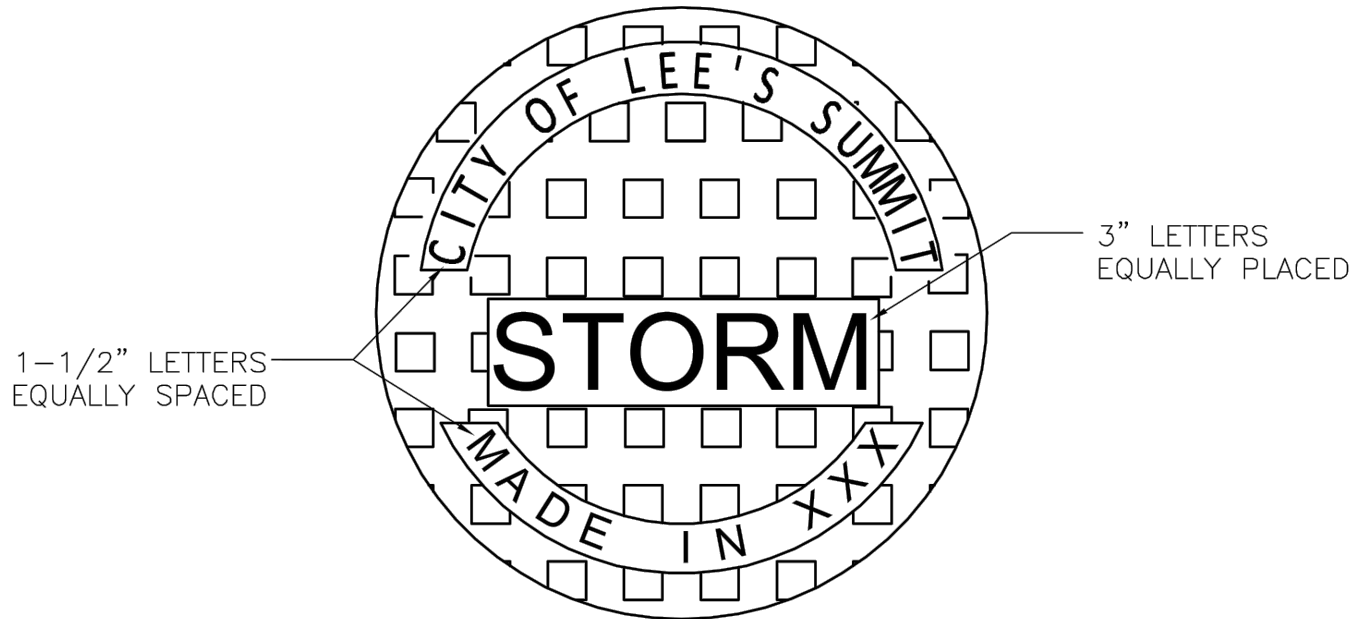
The information provided on this drawing conforms to construction records; it is not intended for construction, implementation or recording purposes; and is solely based on information provided by others.

~~“100.00 100.10”, “1.00% 1.15% slope”, “8-inch HDPE PVC pipe”~~ or text that is blue in color are all typical examples of revisions that indicate that design data has been replaced with “as-built” information. All other data is as designed and has not been field verified.

Date: 6-14-22  
Certified by: Samuel D. Malinowsky  
Title: Owner  
Firm: SM Engineering

Accepted  
Record Drawings

These plans have been reviewed for  
accuracy and are accepted for basic  
conformance to the approved  
construction drawings.



STANDARD 24" MANHOLE COVER  
MINIMUM WEIGHT = 160 LB  
NOTE: PICK HOLES NOT SHOWN

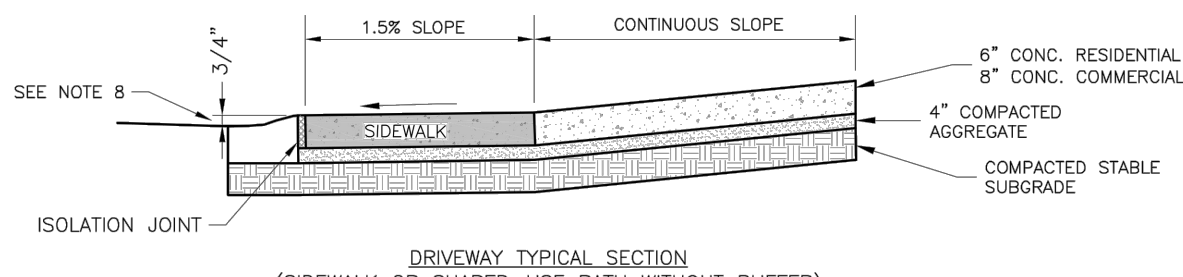
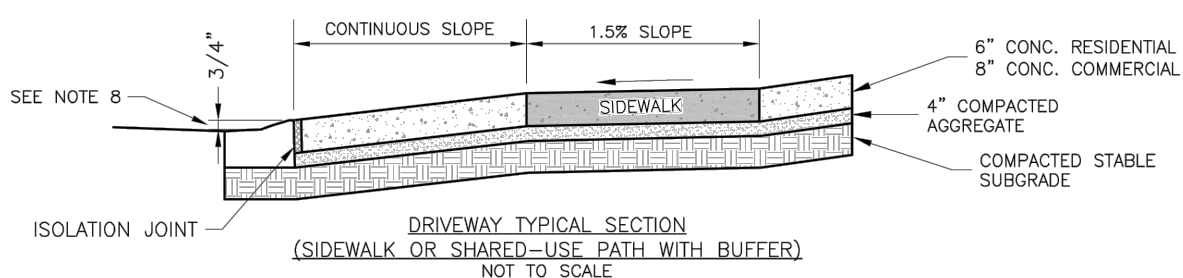
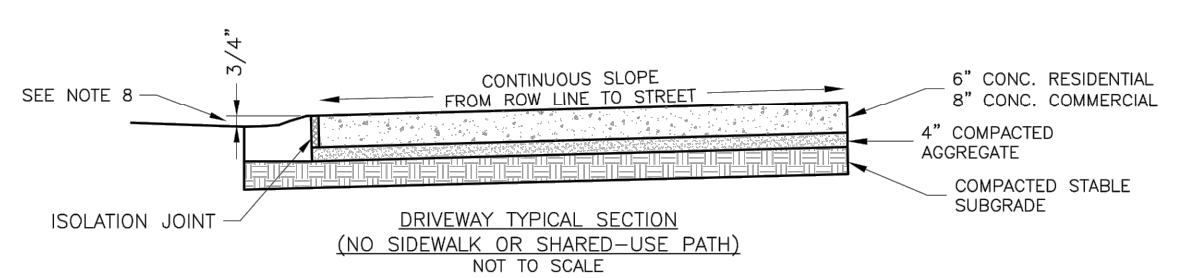
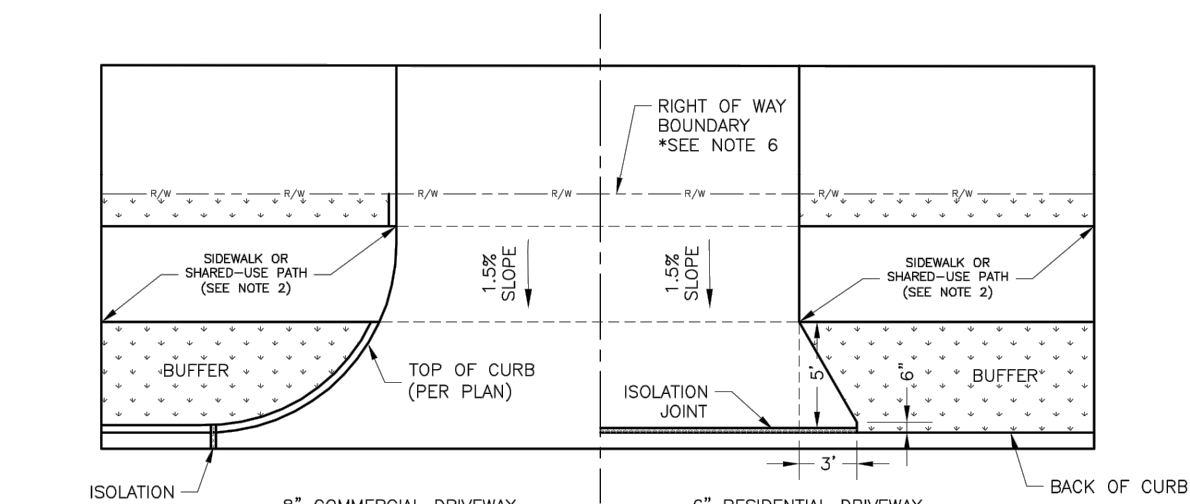
\*COVER AND FRAME MODEL INFORMATION REFER TO  
THE STORMWATER APPROVED PRODUCT LIST.



**LEE'S SUMMIT**  
**MISSOURI**  
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063  
**STORM MANHOLE COVER DETAIL**

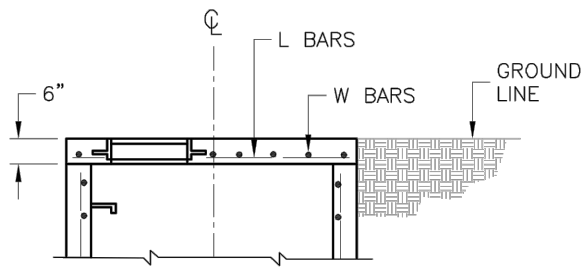
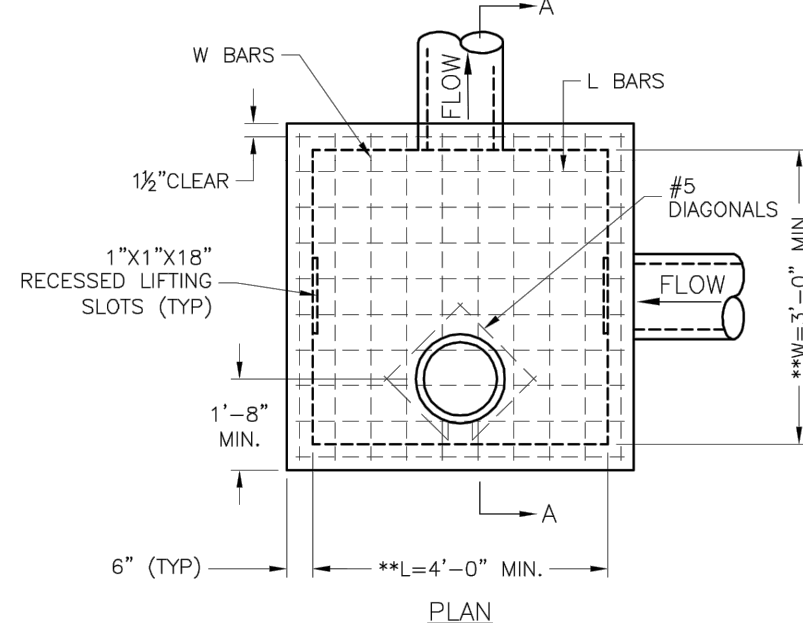
Date: 04/17  
Drawn By: MfF  
Checked By: DL  
Date: 04/17  
Drawn By: MfF  
Checked By: DL

STM-6



- GENERAL NOTES
- SUBGRADE SHALL BE STABLE, COMPACTED EARTH AND SHALL BE OVERLAYED WITH 4" COMPACTED DENSE GRADED AGGREGATE BASE.
  - ALL DRIVE APPROACHES SHALL MEET CURRENT PUBLIC RIGHT OF WAY ACCESSIBILITY GUIDELINES (PROWAG) FOR SLOPE REQUIREMENTS WHEN SIDEWALK IS REQUIRED (SEE ADA RAMP RETROFIT DETAIL).
  - JOINT AT BACK OF CURB LINE SHALL BE AN ISOLATION JOINT FOR RESIDENTIAL DRIVEWAYS.
  - KOMMB 4K CONCRETE MIX IS REQUIRED FOR ALL CURBS.
  - COMMERCIAL DRIVEWAYS AND DRIVEWAY APPROACHES, IN THE PUBLIC RIGHT OF WAY, SHALL BE KOMMB 4K CONCRETE MIX.
  - A JOINT MUST BE INSTALLED AT THE RIGHT OF WAY BOUNDARY FOR PROPERTY DELINEATION.
  - WHITE CURING COMPOUND MUST BE APPLIED UNIFORMLY TO THE CONCRETE SURFACE IMMEDIATELY AFTER FINAL FINISHING.
  - 3\"/>
  - SIDEWALK ADJOINING CURB SHALL BE 6" THICK, EXTENDING 3' FROM THE DRIVEWAY.
  - THE MAXIMUM WIDTH OF A RESIDENTIAL DRIVEWAY IS 36 FEET WITHIN THE RIGHT OF WAY.

GEN-1

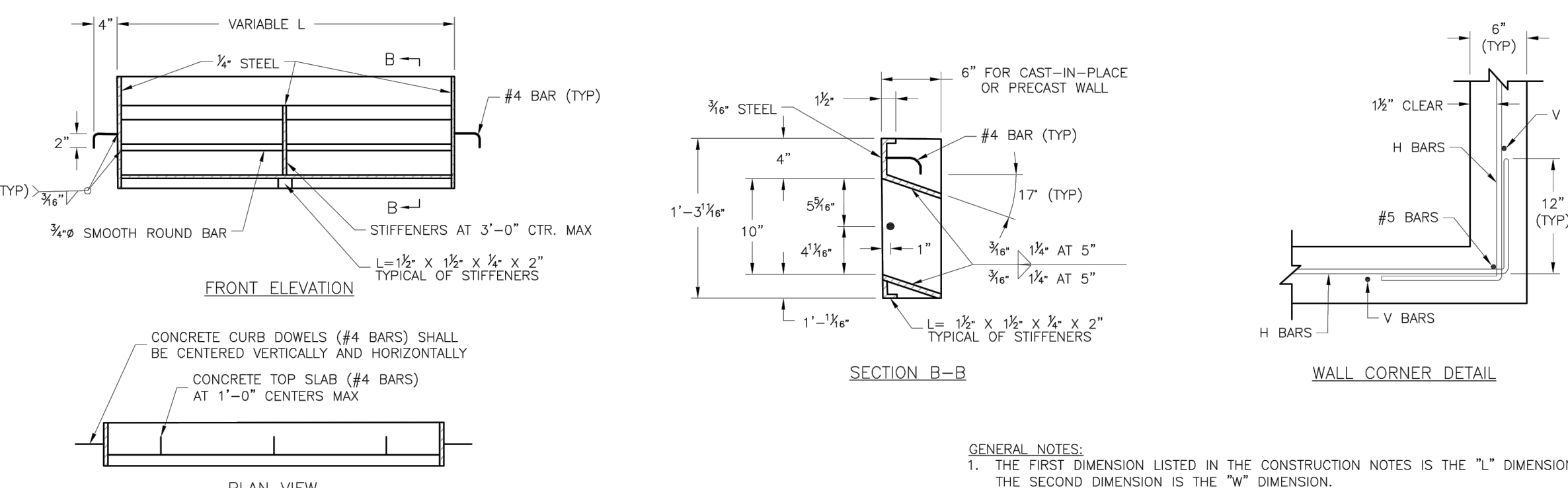
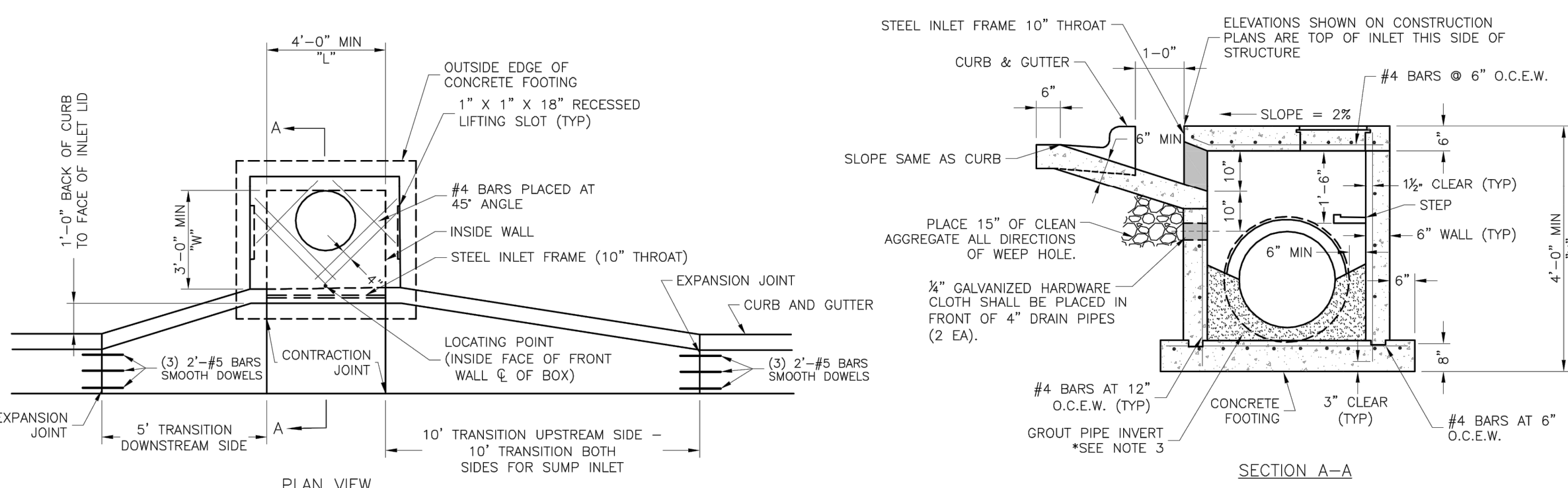


\*\*INCREASE IN MULTIPLES OF 6" (7'-0") MAX WITHOUT SPECIAL DESIGN. (SEE PROJECT PLANS FOR DETAILS)

REINFORCING		
BAR	BAR SIZE	SPACING (IN.)
H	4	12
V	4	12
L	5	6
W	5	6

- GENERAL NOTES:
- LOCATE RING AND COVER ON BLANK WALL.
  - USE 3/4" CHAMFER STRIP OR 1/2" R EDGER TOOL ON ALL EXPOSED CONCRETE CORNERS.
  - STEPS REQUIRED AT 16" O.C. WHEN DEPTH FROM TOP OF CASTING TO INVERT EXCEEDS 4' ON BLANK WALL IF POSSIBLE.
  - BOXOUTS WILL NOT BE ALLOWED TO PROJECT THROUGH THE CORNERS OF THE STRUCTURE, AND THE MINIMUM DISTANCE BETWEEN BOXOUTS IS 6".
  - THE MINIMUM REINFORCING SHALL BE 1 H-BAR OVER A CAST-IN-IN-PLACE PIPE AND 2 H-BARS OVER A PRECAST BOXOUT.
  - PRECAST LIDS SHALL BE PINNED, SEALED WITH NON-SHRINKABLE GROUT AND REMOVABLE FOR FUTURE MAINTENANCE.
  - REINFORCING OF COVERS IN STREETS REQUIRE SPECIAL DESIGN.
  - FOR RING AND COVER SEE THE STORMWATER APPROVED PRODUCT LIST.

STM-3



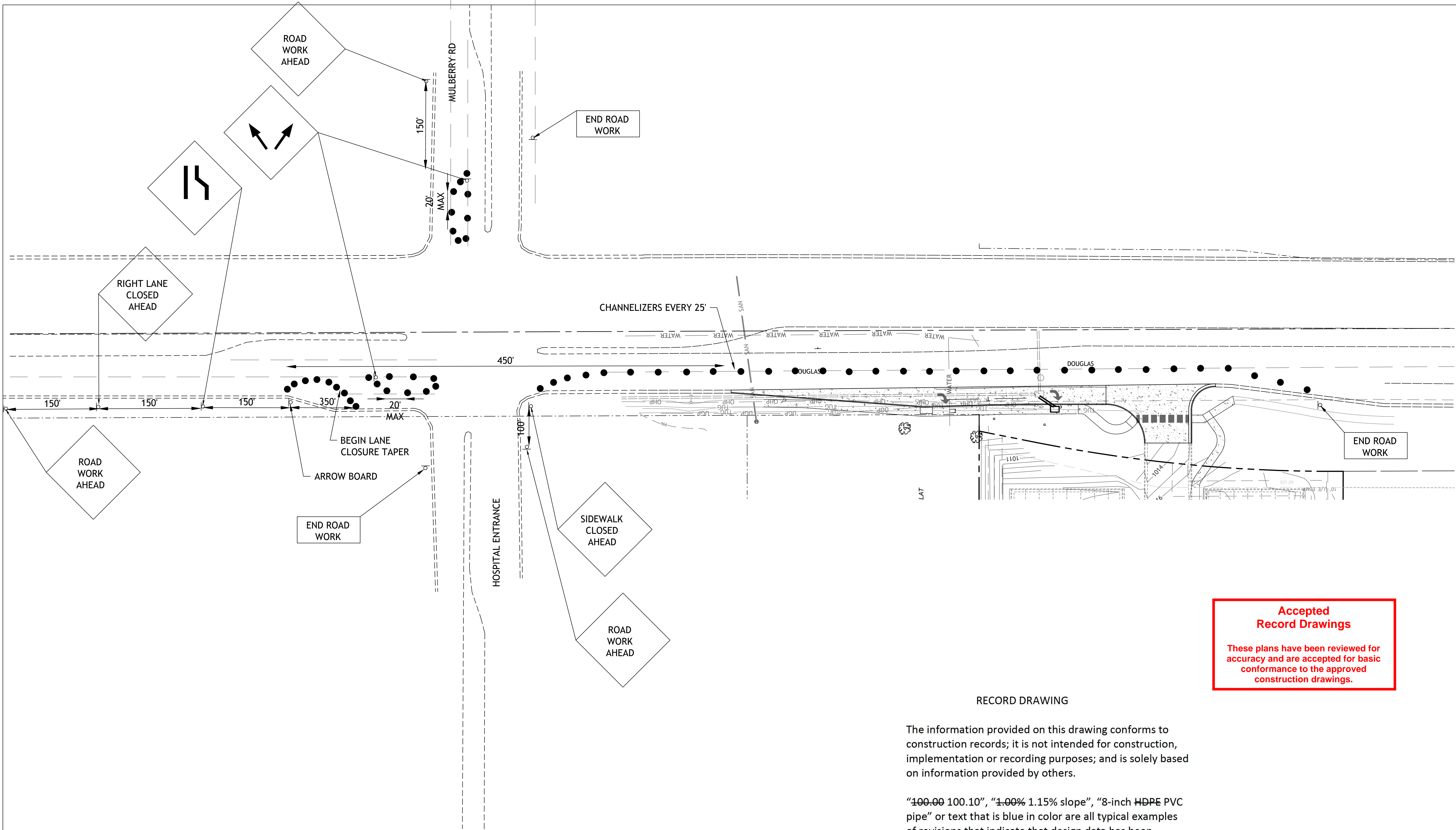
- GENERAL NOTES:
- THE FIRST DIMENSION LISTED IN THE CONSTRUCTION NOTES IS THE "L" DIMENSION. THE SECOND DIMENSION IS THE "W" DIMENSION.
  - FLOW LINES LISTED ON THE PROJECT PLANS ARE LISTED AT THE INSIDE FACE OF THE WALL.
  - FLOOR OF INLET GROUDED AND SHAPED TO MATCH PIPE INVERT TO PROVIDE SMOOTH FLOW.
  - LOCATE MH RING AND COVER ON BLANK WALL IF POSSIBLE.
  - STEPS SHALL BE SPACED AT 1'-4" O.C. VERTICALLY ON BLANK WALL IF POSSIBLE.
  - BEVEL ALL EXPOSED EDGES WITH 3/4" CHAMFER OR 1/2" TOOLED EDGE.
  - ON-GRADE INLETS SHALL CONFORM TO THE STREET GRADE AND SUMP INLETS SHALL BE LEVEL.
  - PRECAST LIDS SHALL BE PINNED, SEALED WITH NON-SHRINKABLE GROUT AND REMOVABLE FOR FUTURE MAINTENANCE.
  - LIFTING RINGS SHALL BE REMOVED AND SEALED WITH NON-SHRINKABLE GROUT
  - FOR RING AND COVER SEE THE STORMWATER APPROVED PRODUCT LIST.

STM-1

DOUGLAS ST  
IMPROVEMENTS  
LEE'S SUMMIT, MISSOURI

sheet  
C11.0  
Civil  
DETAILS  
permit  
16 DECEMBER 2020





**Accepted  
Record Drawings**

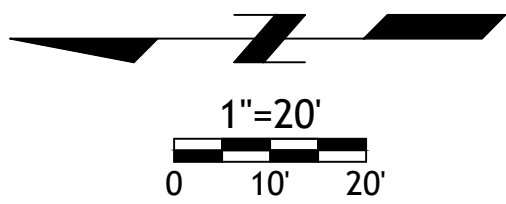
These plans have been reviewed for accuracy and are accepted for basic conformance to the approved construction drawings.

RECORD DRAWING

The information provided on this drawing conforms to construction records; it is not intended for construction, implementation or recording purposes; and is solely based on information provided by others.

~~"100.00 100.10", "1.00% 1.15% slope", "8-inch HDPE PVC pipe"~~ or text that is blue in color are all typical examples of revisions that indicate that design data has been replaced with "as-built" information. All other data is as designed and has not been field verified.

Date: 6-14-22  
Certified by: Samuel D. Malinowsky  
Title: Owner  
Firm: SM Engineering



SM Engineering  
*SM Engineering*  
919 W. Stewart Road  
Columbia, Missouri 65203  
smcivilengr@gmail.com  
785.341.9747

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Revisions  
2-4-21 CITY COMMENTS  
10-4-21 ADA RAMP

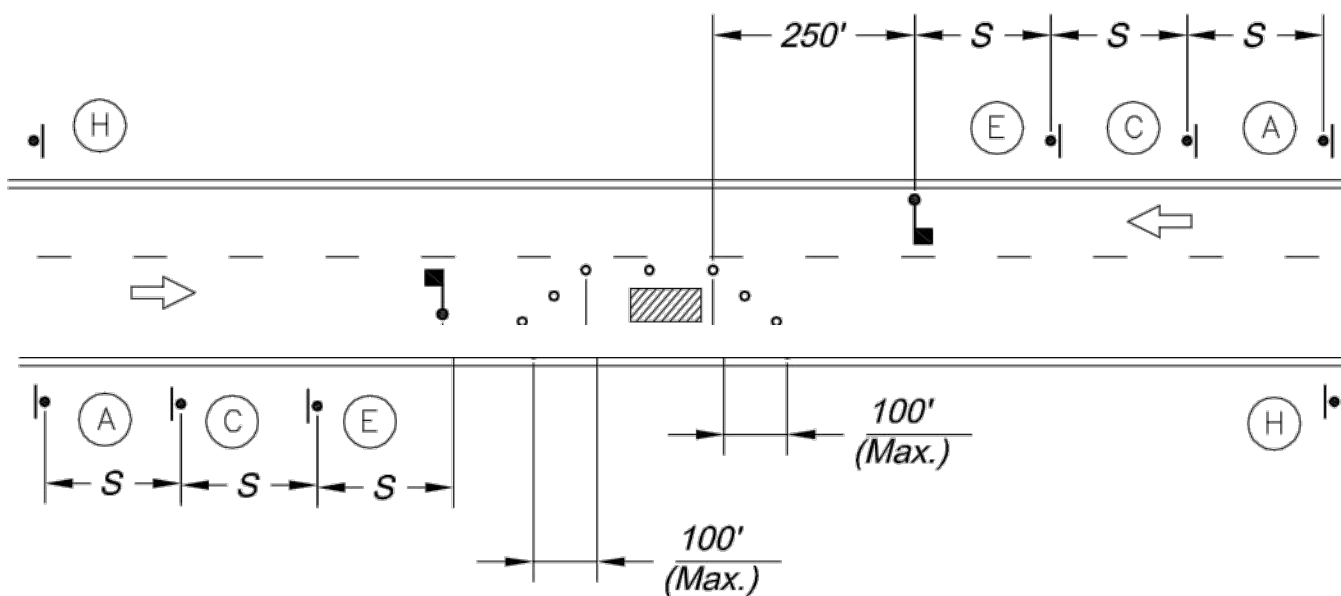
DOUGLAS ST  
IMPROVEMENTS  
LEE'S SUMMIT, MISSOURI

sheet  
C12.0  
Civil  
TRAFFIC CONTROL  
permit  
16 DECEMBER 2020

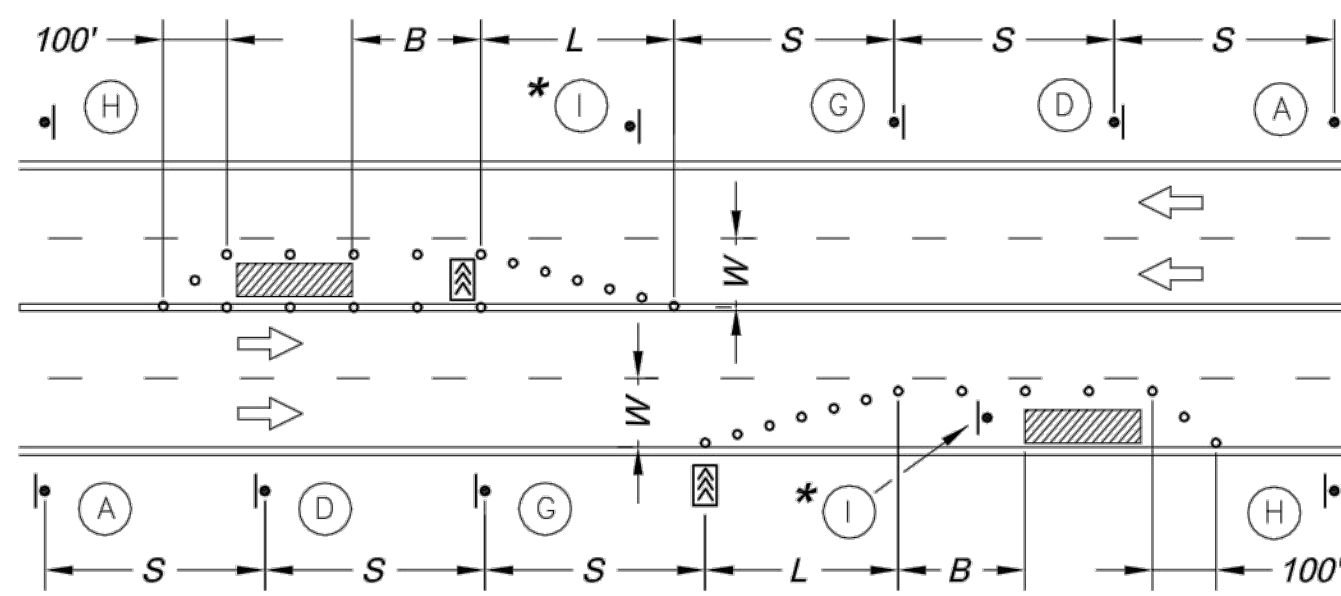


### SYMBOL LEGEND

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

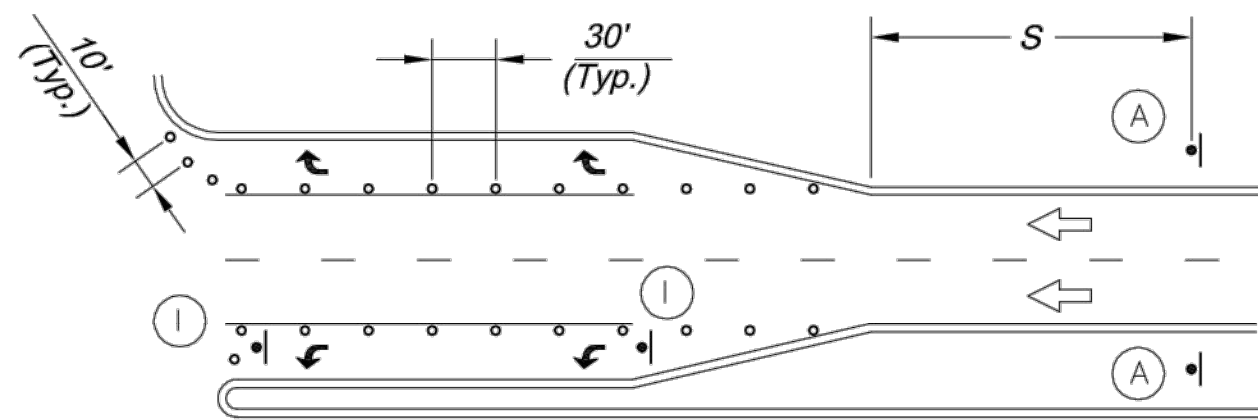


LANE CLOSURE - TWO LANE STREET



LANE CLOSURE - FOUR LANE STREET

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



TURN LANE CLOSURE

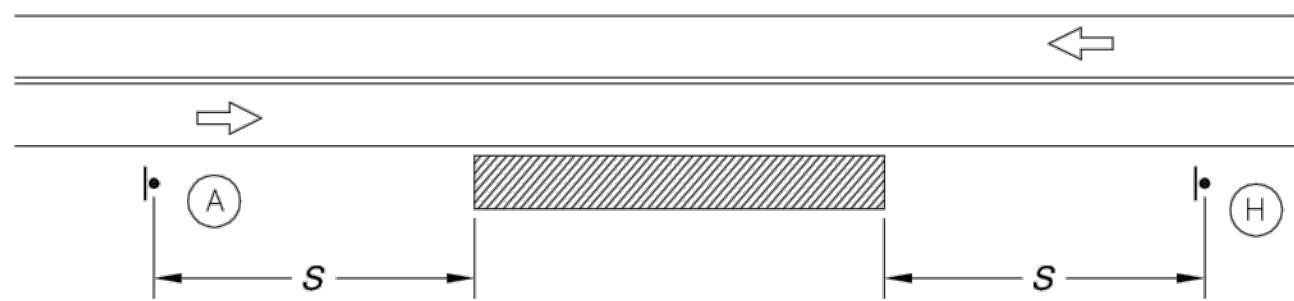
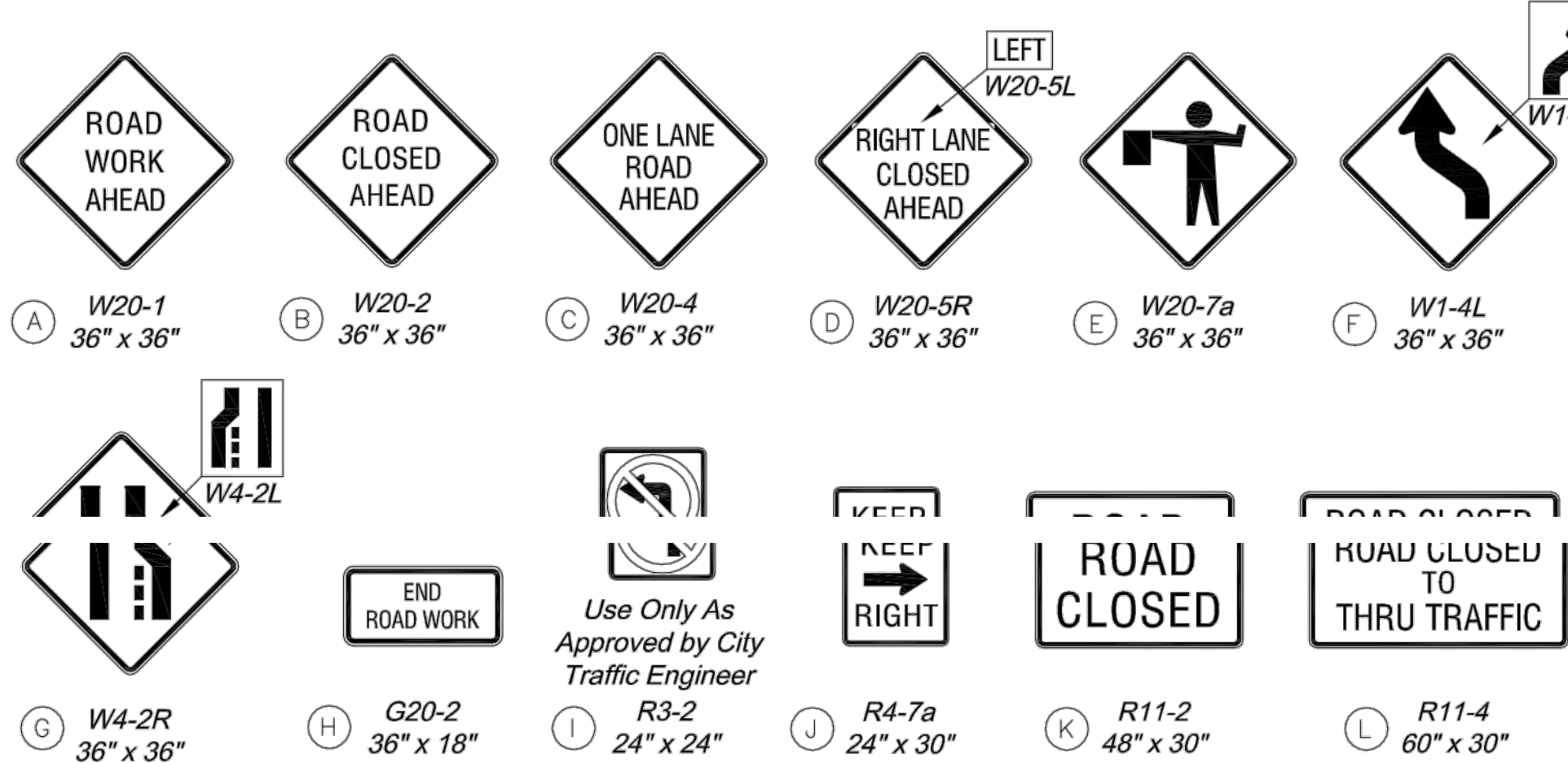
Sign Spacing "S"	
Speed Limit (mph)	Spacing (Feet)
25	100
30 - 35	250
≥ 40	350

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

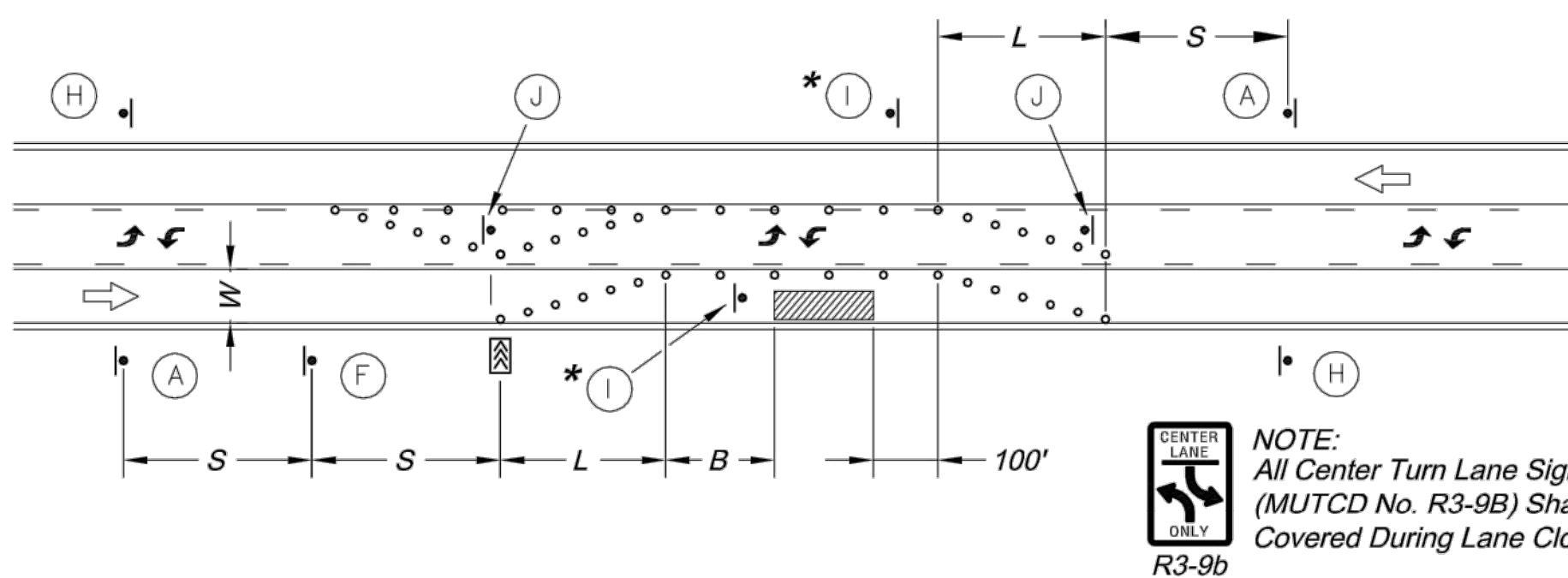
Guidelines for Length of Longitudinal Buffer Space "B"	
Speed Limit (mph)	Length (Feet)
25	35
30	55
35	85
40	120
45	170

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

### SIGN LEGEND

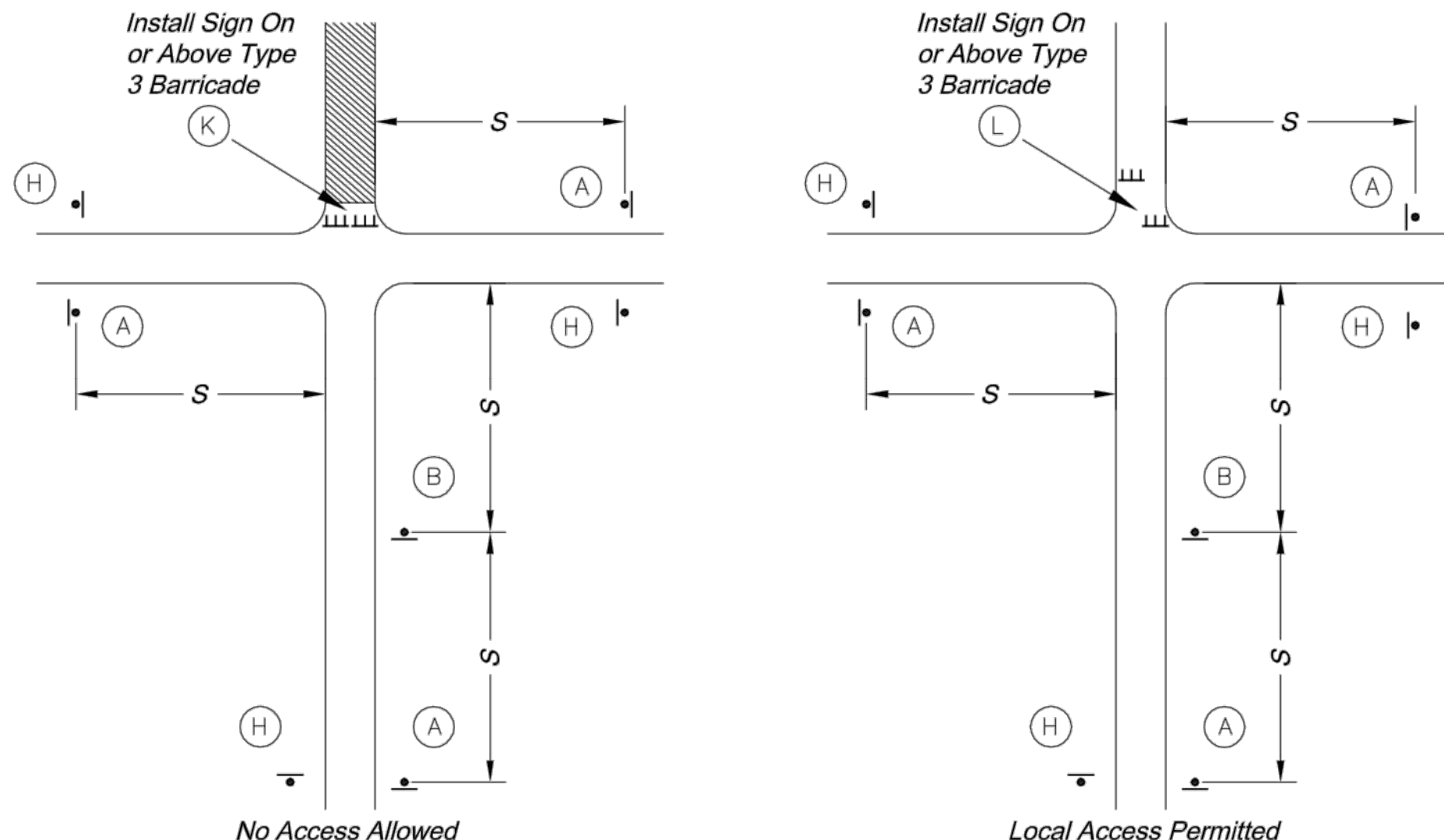


TYPICAL SIGNING FOR WORK ADJACENT TO THE STREET



LANE CLOSURE - THREE LANE STREET

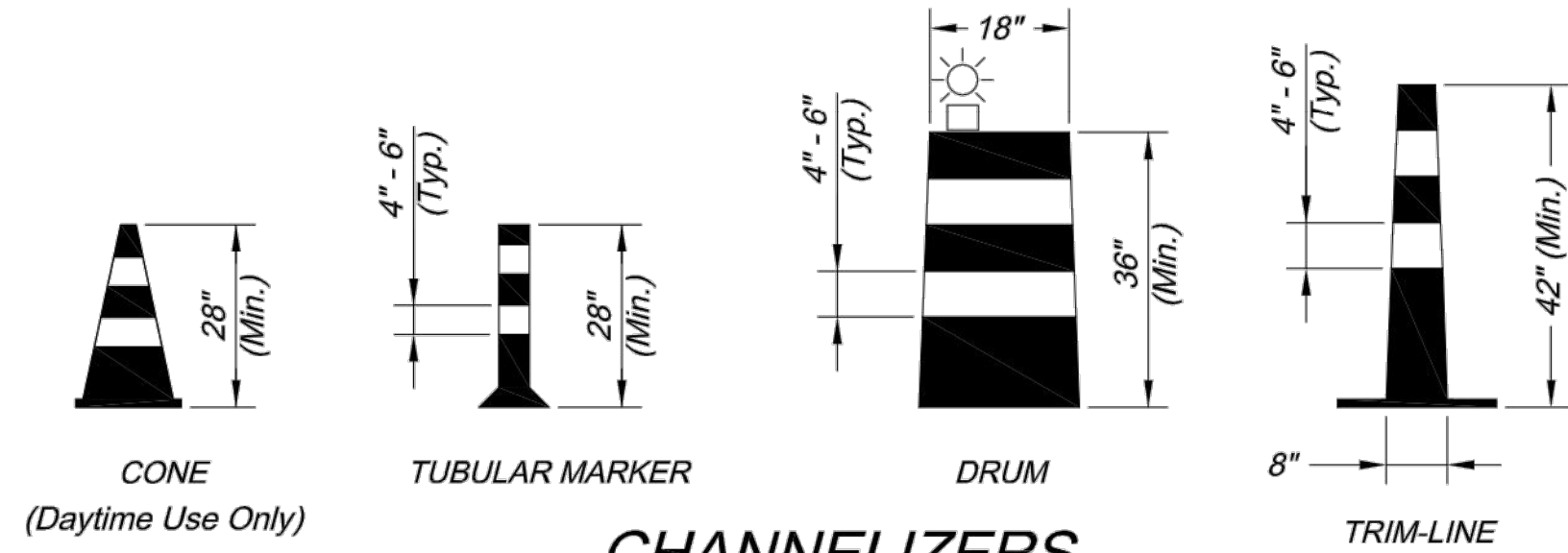
\* Install Signs Every 200 Feet Throughout the Closed Lane or As Needed



TYPICAL STREET CLOSURE

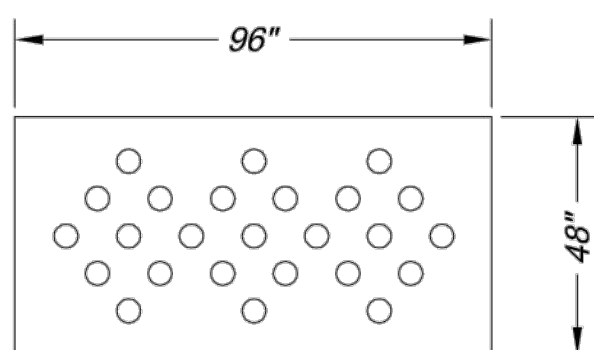
### GENERAL NOTES:

- 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).
- 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.
- 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.
- 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.
- Trim-lines are the City's preferred channelizing device. Cones may not be used at nighttime.
- Traffic control devices not in use or not applicable shall be either covered or removed from the work area.
- 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.
- Access shall be maintained to all driveways and side streets unless noted otherwise on the plans.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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).
- 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.
- No traffic signal shall be altered or modified in any way without a plan approved by the City Traffic Engineer.
- 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.
- 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.
- 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.

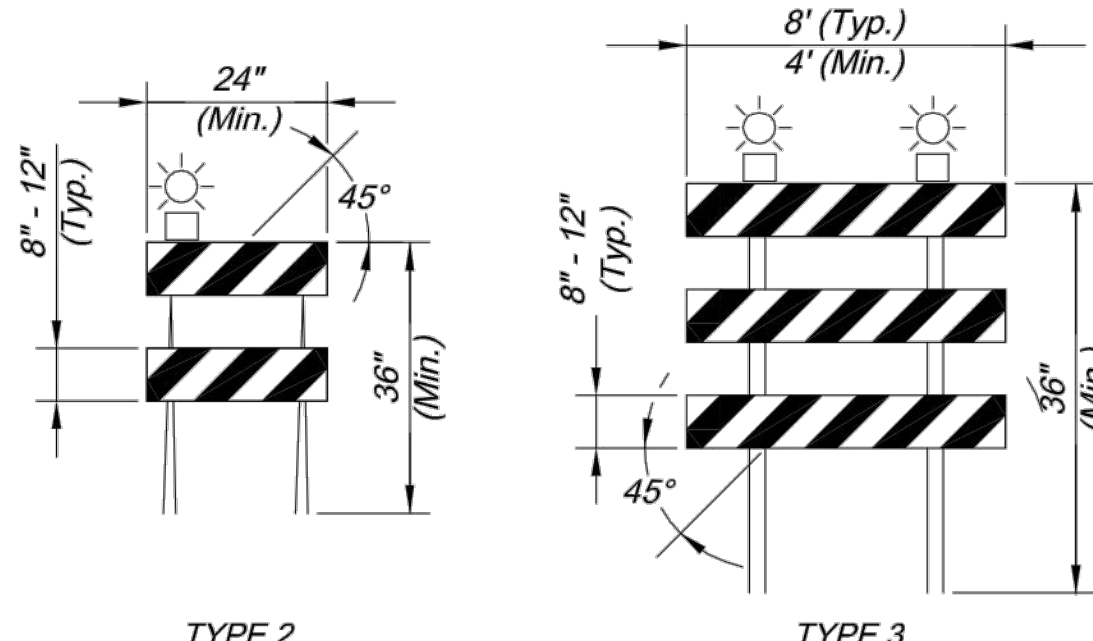


CHANNELIZERS

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



ARROW PANEL



BARRICADES

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



Project: **DOUGLAS ST IMPROVEMENTS**  
Sheet Name: **STANDARD DRAWING TC-1**

Drawn By: JJW  
Checked By: MP  
Date: 12-10-2008  
Project No.: X

x OF x

**X**