PANERA BREAD BAKERY - CAFE

OAKVIEW - LOT 2 FINAL DEVELOPMENT PLANS

1410 NE DOUGLAS ST.

LEE'S SUMMIT, JACKSON COUNTY, MISSOURI 64086 NE 1/4 OF SEC. 31-48-31

LEGAL DESCRIPTION

LOT 2 OF THE FINAL PLAT OF OAKVIEW -LOTS 1-5, A REPLAT OF LOT 2, "MINOR PLAT, POLYTAINERS ADDITION, LOTS 1 AND 2" AND PART OF NE DOUGLAS STREET ALL IN THE NE 1/4 OF SEC. 31-48-31 IN THE CITY OF LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

FLOOD NOTE

THIS PROPERTY DOES NOT LIE WITHIN A FLOOD ZONE AS SHOWN ON THE FLOOD INSURANCE RATE MAP 29095C0409G AND 29095C0417G. **DATED 1/20/2017**

OIL AND GAS WELL NOTE

THERE WAS NO OIL OR GAS WELLS LOCATED ON PROPERTY PER MISSOURI DEPARTMENT OF NATURAL RESOURCES OIL AND GAS PERMITS WEBSITE.

BENCHMARK AND HORIZONTAL DATA

REFERENCE SHEET 4 FOR VERTICAL AND HORIZONTAL CONTROL POINTS IN THE PRIVATE DRIVE IMMEDIATELY WEST OF THE SITE.

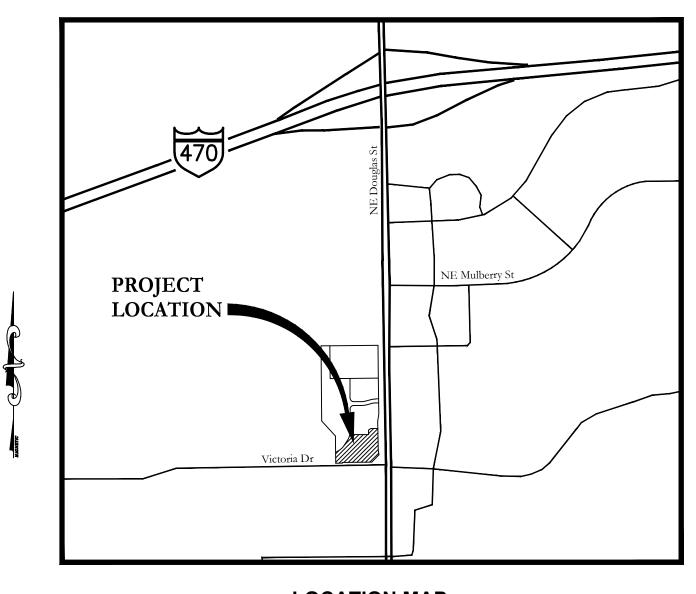
UTILITIES AND PUBLIC AGENCIES

CITY OF LEE'S SUMMIT PUBLIC WORKS		(816) 969-1800
WATER UTILITIES	Mark Schaufler	(816) 969-1900
ELECTRIC EVERGY	Ron Dejarnette	(816) 347-4316
GAS SPIRE	Brent Jones	(816) 399-9633
TELEPHONE AT&T	Marty Loper Mark Manion	(816) 275-1550 (816) 325-6516
<u>CABLE</u> COMCAST	Barbara Brown	(816) 795-2255



NOTE:

Contractor shall be responsible for determining the exact locations of all underground utilities or appurtenances prior to commencing construction. Existing underground utilities shown on the drawings are for reference only, and their accuracy and completeness are not guaranteed. Contractor shall be responsible for repair or replacement of all underground utilities damaged during construction.



LOCATION MAP NOT TO SCALE

CONTACTS

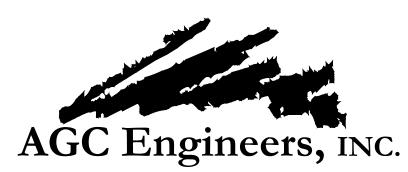
ENGINEERING

Engineering Primary Ronald L. Cowger, PE

Engineering Alternate Art Akin, PE

DEVELOPER

STAR DEVELOPMENT, INC. TIM HARRIS, PRESIDENT 244 W. MILL STREET, SUITE 101 LIBERTY, MISSOURI, 64068 (816) 781.3322



405 S. Leonard St., Suite D Liberty, Missouri 64068 www.agcengineers.com **816.781.4200** ■ fax 792.3666

BY	REVISION	DATE
RC/ACA	UPDATED SHEETS 7, 11 AND 16 DUE TO MEP / ARCH COORDINATION	0.000
RC/ACA	FOR REVIEW PER CITY COMMENTS	9-6-22 8-8-22
RC/ACA	FOR REVIEW PER CITY COMMENTS	7-25-22
RC/ACA	FOR REVIEW PER CITY COMMENTS DATED 6-5-2020 & PROJECT PLACED ON HOLD DUE TO COVID	6-29-22
RC/ACA	FOR REVIEW	5-21-20

STATUS

FOR PERMIT

FOR CONSTRUCTION

PLANS CONFORMING TO

CONSTRUCTION RECORDS

SHEET LIST TABLE		
SHEET NUMBER	SHEET TITLE	
1	COVER	
2	GENERAL NOTES & LEGEND	
3	EXISTING CONDITIONS	
3A	FINAL PLAT	
4	SITE PLAN	
5	GRADING & EROSION CONTROL PLAN	
6	GRADING PLAN - CUT & FILL	
7	UTILITY PLAN	
8	SPOT ELEVATION PLAN	
9	SPOT ELEVATION PLAN	
10	DRAINAGE AREA MAP & CALCULATIONS	
11	UTILITY PLAN & PROFILES	
12	DETAILS	
13	DETAILS	
14	DETAILS	
15	DETAILS	
16	DETAILS	
L100	LANDSCAPE PLAN	

SEE ADDITIONAL PLANS PREPARED BY LK ARCHITECTS (WICHITA, KS.)

McLAUGHLIN MUELLER, INC. HAS SOLE RESPONSIBILITY FOR SHEET 3 AND VSR DESIGN HAS SOLE RESPONSIBILITY FOR SHEET

ENGINEER'S CERTIFICATION:

I hereby certify that this project has been designed, and these plans prepared, to meet or exceed the design criteria of City of Lee's Summit, Missouri, in current usage, except as indicated below.

DATE:

8-8-22

9-6-22

South parking stalls encroach 4' within the 20' parking setback - 2020 PDP approval included Allow curb & gutter for parking to encroach into the 20' setback along NW Douglas Street by no more than 2 feet and along NW Victoria Drive by no more than 6 feet.

I have not been retained to coordinate as-built drawings for this project.



Ronald L. Cowger, PE AGC Engineers, Inc.

Date

- 2. The Contractor shall reference the City of Lee's Summit Design Criteria, Standard Specifications, Standard Details, Approved Products Lists found at the following website https://cityofls.net/development-services/design/design-criteria/design-construction -manual-infrastructure
- 3. This Project shall be constructed in accordance with these Plans, City of Lee's Summit criteria and specifications (listed above), and their absence the Kansas City Metro Chapter of American Public Works Association (most current version) "APWA".
- 4. All work required to complete the project and that is not specifically itemized in the Contractor's proposal shall be considered subsidiary to other work itemized in the proposal.
- 5. All materials and workmanship associated with this project shall be subject to inspection by the City of Lee's Summit and the Owner. The City and/or Owner reserves the right to accept or reject any such materials and workmanship that does not conform to the Standards and Technical Specifications.
- 6. RESERVED
- 7 The Contractor shall notify the Engineer immediately of any discrepancies in the Plans.
- 8. By use of these Plans the Contractor agrees that he shall be solely responsible for the safety and protection of the construction workers and the public.
- 9. Contractor is to obtain the necessary permits for all construction activities.
- 10. Contractor shall be responsible for determining the exact locations of all underground utilities or appurtenances prior to commencing construction. Existing underground utilities shown on the drawings are for reference only, and their accuracy and completeness are not guaranteed. Contractor shall be responsible for repair or replacement of all underground utilities damaged during construction.
- 11. RESERVED
- 12. It shall be the responsibility of the Contractor to control erosion and siltation during all phases of construction.
- 13. Any sidewalk, curb & gutter or pavement disturbed, damaged or destroyed during construction shall be replaced by Contractor at no additional cost to Owner.
- 14. Modified curb shall be used at all locations where pavement drains away from curb.
- 15. The Contractor shall contact the City's Development Services Engineeringing Inspection to schedulea pre-construction meeting with a field engineering inspector prior to any land disturbance work at (816) 969-1200.
- 16. Contractor shall be responsible to install pavement joints on all concrete pavement, slabs, and / or sidewalk. At a minimum, an expansion joint shall
 - be provided along all interfaces of
 - 1. Building to sidewalk
 - 2. Building to concrete pavement 3. Sidewalk to concrete pavement
- Contractor shall submit a joint plan to the Engineer for review.

GRADING NOTES:

- 1. Erosion protection shall be in place prior to any land disturbance.
- Contours shown are to finished grade
- The construction area shall be cleared, grubbed, and stripped of topsoil and organic matter from all areas. Excess topsoil shall be stockpiled separately from compactable material. Stripping existing topsoil and organic matter shall be to a minimum depth of six (6) inches.
- 4. Areas to receive fill shall be striped of top soil and other organic material, scarified, and the top eight (8) inch depth compacted to 98% standard proctor density prior to the placement of any fill material. Any unsuitable areas shall be undercut and replaced with suitable material before any fill material can be placed.
- 5. Fill material shall be made in lifts not to exceed nine (9) inches depth compacted to 98% standard proctor density (per ASTM D-698) with a moisture content -3% and +2% optimum moisture. Contractor shall provide (at his/her sole cost) an independent geotechnical report certifying compaction at a sample interval of one (1) sample per 5000 square feet per lift or more frequent if required/recommended by the geotechnical firm. Geotechnical firm shall be approved by Owner prior to beginning fill operations. Fill material may include rock from on-site excavation if carefully placed so that large stones are well disturbed and voids are completely filled with smaller stones, earth, sand or gravel to furnish a solid embankment. No rock larger than three (3) inches in any dimension nor any shale shall be placed in the top 12 inches of embankment.
- 6. In all areas of excavation, if unsuitable soil conditions are encountered, a qualified Geotechnical engineer shall recommend to the Owner on the methods of undercutting and replacement of property compacted, approved fill material.
- 7. All slopes are to be 3:1 or flatter unless otherwise indicated.
- 8. All slopes and areas disturbed by construction shall be graded smooth and a minimum four (4) inches of topsoil applied. If adequate topsoil is not available on-site, the Contractor shall provide topsoil, approved by the Owner, as needed. Any areas disturbed for any reason shall be corrected by the Contractor at no additional cost to the Owner prior to final acceptance of the project.
- 9. All disturbed areas shall be seeded, fertilized and mulched or sodded in accordance with the standards and specifications adopted by the reviewing governing agency and good engineering practices.

EROSION CONTROL NOTES:

- 1. Control of sediment is a very dynamic (ever changing) process. These plans are provided as a basis of anticipated erosion control measures. The Contractor shall modified add or delete with the Owner's permission the erosion control measure shown to prevent the migration of sediment off of the Owner's property and/or into jurisdictional waters/waterways.
- 2. Any sediment deposited on public streets shall be removed immediately by Contractor at his sole expense.
- 3. Stockpile excavation materials away from existing channels and grade to drain to adequate erosion control
- 4. Remove silt build up in temporary sediment basins (if applicable), inlet protection devices and/or silt fence until site is completely stabilized. Verify grade prior to final seeding, lining or rip-rap installation.
- 5. All disturbed areas shall be seeded, fertilized and mulched, or sodded, in accordance with the Kansas City Metro Chapter of American Public Works Association. Seeding/Sodding shall be completed within 14 days after completing the work, in any area. If this is outside of the recommended seeding period, erosion control measures or other similarly effective measure shall remain and be maintained by Contractor until such time that the areas can be seeded and a stand of grass established per Missouri DNR or MoDOT Section 805.4
- When sediment deposits reach approximately one-half the height of the BMP, the sediment shall be removed or a second BMP shall be installed. All costs associated with this work, including related incidents, shall be the Contractor's responsibility and shall be included in the bid for the proposed work.
- 7. Contractor shall perform BMP inspection once a week and after each rainfall event, and provide Owner a copy of report within 48 hrs. Faulty or inadequate erosion control measures shall be remediated or modified the same day of inspection so as to minimize the risk of sediment discharge from the Owner's property or jurisdictional waters/waterways.
- 8. Contractor shall protect and maintain erosion control measures until a complete stand of grass as defined by Missouri DNR has been established.
- 9. Concrete Washout Areas will be determined onsite by the Job Superintendent.
- 10. At a minimum the following permits/approvals shall be posted on site or as required by the permit terms and
 - City of Lee's Summit Land Disturbance Permit.
- 11. Permanent fertilizing, seeding (Type "A") and mulch shall be in accordance with Kansas City Metro Chapter of American Public Works Association. Final acceptance per MoDOT Sections 805.4
- 12. The Contractor shall install Erosion Control Blanket (ECB) on all slopes with 3:1 slope or greater. ECB shall be Landlok CS2 or approved equal.
- 13. Provide temporary silt fencing at all pipe entrances until all site seeding and sodding has been established.
- 14. Immediately remove sediments or other materials tracked onto public roadways.
- 15. Provide and maintain stabilized roadway construction entrance (or entrances as may be required).
- 16. Coordinate site grading with existing and proposed utilities.
- 17. Stock pile waste excavation materials away from existing channels and grade to drain.
- 18. Remove silt build up in basin and verify grade prior to final seeding, lining or rip-rap installation and clean up.
- 19. All disturbed areas shall be seeded, fertilized and mulched, or sodded, in accordance with the Standards and Specifications adopted by the City of Lee's Summit, MoDOT, MoDNR or other governing agency and good engineering practices.
- 20. Silt fences, whether straw bales or filter fabric, require maintenance to preserve their effectiveness. All silt fences shall be inspected immediately after each heavy rainstorm and at least daily during prolonged rainfall. Any required repairs shall be made immediately. When sediment deposits reach approximately one-half the height of the silt fence, the sediment shall be removed or a second silt fence shall be installed. All costs associated with this work, including related incidentals, shall be the contractor's responsibility and shall be included in the bid for the proposed work.

WATER NOTES:

- 1. Reference MEP Plans to confirm fire protection main size (if required), domestic water and meter sizes. If a discrepancy exists between the Plans contact the Engineer prior to
- 2. Domestic water shall be 2-inch "k" copper conforming to the latest federal specifications or cross-linked polyethylene (PEX) meeting current City Code.
- 3. Minimum cover for water lines shall be 42 inches.
- 4. Install fittings as required maximum pipe deflection per manufacturers recommendations.
- 5. Install 2-inch water meter at property line (on private property side).
- 6. All water service installation, including back-flow devices, are subject to field verification and approval by City inspector.

REFERENCE DOCUMENTS & DRAWINGS:

- Contractor shall reference the following documents prior to beginning Work
- 1. SWPPP and Missouri DNR Land Disturbance Permit
- 2. Architectural Plans (including but not limited to MEP and Structural Plans) 3. Standard drawings and work details supplied by Panera
- 4. Landlord Work Order list from Star Development Corp

STORM NOTES:

- 1. All HDPE pipe shall be Water-Tight
- 2. All High Density Polyethylene (HDPE) pipe shall conform to AASHTO M294 Type S. Acceptable pipe must come from a Plastic Pipe Institute (PPI) certified manufacturer and have passed the PPI 3rd Party Certification testing. Each individual section of pipe shall be marked in accordance with AASHTO M294 and shall be affixed with the PPI Certification label. HDPE pipe shall be joined with water tight joints meeting the requirements of AASHTO M294 Paragraph 7.9.3.
- 3. Pipe lengths are from inside face to inside face.
- 4. End sections for HDPE pipe shall be metal with concrete toe wall unless noted otherwise.

ELECTRIC:

- 1. Contractor to coordinate with Evergy Electric for electrical service.
- 2. Contractor to coordinate with Evergy Electric for location of transformer pad and transformer if required.

GAS:

Contractor to coordinate with Spire for gas service, and location of meter.

TELEPHONE:

1. Site contractor to install PVC conduit(s) for use by telephone company. Site contractor to coordinate with telephone company for installation of service and location of proposed pedestals, etc. Telephone conduit shall have a minimum cover of 30". Site contractor shall coordinate location with telephone company representative and locate PVC crossings as necessary. See building plans for entrance locations.

SANITARY NOTES:

- 1. All sanitary stub lines shall be laid on 2.00% grade unless approved otherwise.
- 2. The Contractor shall install and properly maintain a mechanical plug at all connection points with existing lines until such time that the new line is tested and approved.
- 3. Where sanitary sewer lines are to be installed over and across water lines, a minimum of 24 inches of clearance shall be provided. Where clearance is not provided, construct sanitary sewer line of ductile iron pipe for a distance of at least 10 feet in each direction from crossing, with no joint within 6 feet of crossing.
- 4. Performance testing in accordance with APWA Section 2508. Witness and acceptance by City is required before placing in service.
- 5. All service lines shall be PVC (SDR 26) conforming to ASTM D 1764 and F1336 and having a cell classification of 12454B or 12364B as defined in ASTM D 1784 with Push-On joints.
- 6. All pre-cast manholes shall meet or exceed standards and specifications as set forth in ASTM C-478.
- 7. All PVC pipe shall meet or exceed standards and specifications as set forth in ASTM
- 8. All proposed and existing street crossings shall be tamped granular backfill (Type 3) from the bottom of the trench to a point that is 15" below the finished grade of the street. All existing street crossings shall be filled with flowable fill per detail STR-011.
- 9. Mandrel testing is required and shall be performed in accordance with APWA 2508.5, at a minimum of 30 days after installation.
- 10. All inspection of sanitary sewer construction shall be performed by the City of Lee's
- 11. It is the responsibility of the contractor to have sanitary sewer lines air tested and sanitary sewer manholes vacuum tested for new construction and modifications to existing. Contractor shall provide city with test results upon completion of construction.
- 12. Areas with less than three (3) feet of depth from existing grade to proposed top of pipe shall be filled to an elevation of three (3) feet above the proposed top of pipe, compacted to 95% density +/-2% prior to trenching or laying of any pipe.
- 13. Sanitary sewer piping material shall be as follows:

0 to 15' depth; SDR-35 PVC 15' to 22' depth; SDR-26 PVC 22' to 30' depth; SDR-21 PVC greater than 30' depth: D.I.P. 6" service laterals; SDR-35 PVC at 2.0% minimum

City approval and City observation of installation.

14. All manholes, catch basins, utility valves, and meter pits shall be adjusted or rebuilt to grade as required.

16. Insert Tee's or Saddles for service lines are not allowed except in special cases with prior

15. Service lines shall be extended a minimum of 1 foot past the house side of all utility

LEGEND

	<u>EXISTING</u>	
	SET MONUMENT AS NOTED STAMPED LS 1999141096	
	FOUND 1/2" REBAR LS 1989	SAN -
	FOUND MONUMENT AS NOTED	SAN
)	MEASURED DISTANCE	

MEASURED DISTANCE CONTROL POINT DOWN GUY

FIRE HYDRANT LIGHT POLE POWER POLE

POST MANHOLE WATER VALVE

BUILDING LINE DRAINAGE EASEMENT

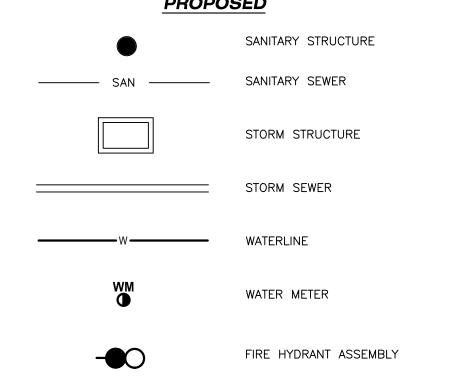
AERIAL UTILITY SANITARY SEWER EASEMENT

UTILITY EASEMENT UNDERGROUND GAS

UNDERGROUND TELEPHONE -UGW- UNDERGROUND WATER

UNDERGROUND POWER

PROPOSED



CLEANOUT

GAS LINE

PARKING COUNT

-

LIGHT POLE (SITE PARKING)

BY	REVISION	DATE
C/ACA	FOR REVIEW PER CITY COMMENTS	8-8-22
C/ACA	FOR REVIEW PER CITY COMMENTS	7-25-22
RC/ACA	FOR REVIEW PER CITY COMMENTS DATED 6-5-2020 & PROJECT PLACED ON HOLD DUE TO COVID	6-29-22
RC/ACA	FOR REVIEW	5-21-20

405 S. Leonard St., Suite D Liberty, Missouri 64068

816.781.4200 fax 792.3666

www.agcengineers.com



PANERA BREAD BAKERY - CAFE LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

D/E DRAINAGE EASEMENT

U/E

S/W or SW

GAS METER

MANHOLE

SIDEWALK

WATER METER

ELECTRIC EASEMENT

BUILDING LINE SETBACK

RADIUS OR RAMP (as it relates to sidewalks)

LANDING (as it relates to sidewalks)

MECHANICAL, ELECTRICAL & PLUMBING

WATER SERVICES DEPARTMENT

UTILITY EASEMENT

AIR CONDITIONER

DOWN SPOUT

TOP OF CURB

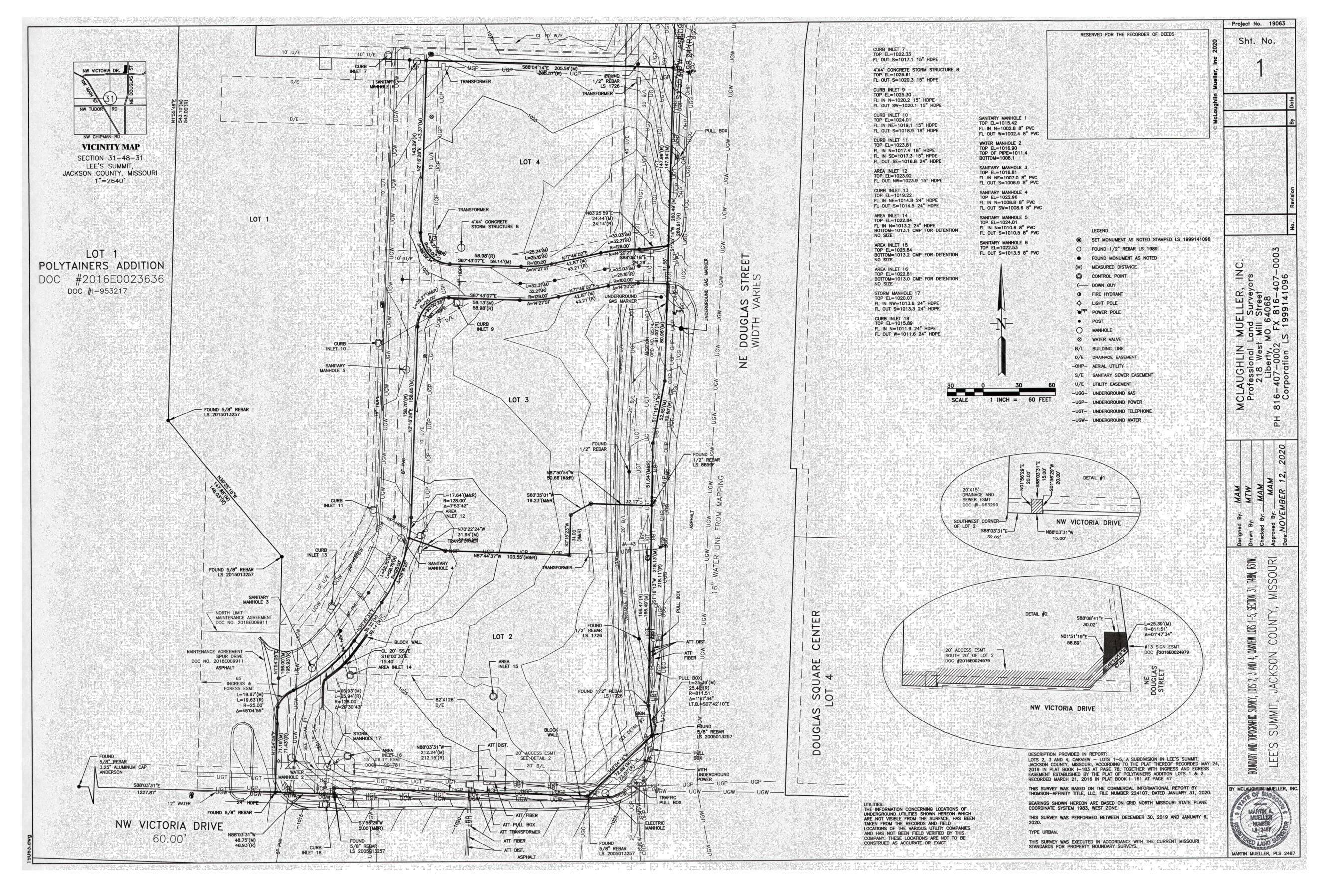
GROUND

PAVEMENT

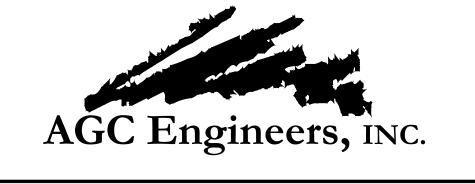
LOW POINT

HIGH POINT

SITE DEVELOPMENT PLANS **GENERAL NOTES & LEGEND**



BY	REVISION	DATE
RC/ACA	FOR REVIEW PER CITY COMMENTS	8-8-22
RC/ACA	FOR REVIEW PER CITY COMMENTS	7-25-22
RC/ACA	FOR REVIEW PER CITY COMMENTS DATED 6-5-2020 & PROJECT PLACED ON HOLD DUE TO COVID	6-29-22
RC/ACA	FOR REVIEW	5-21-20



405 S. Leonard St., Suite D Liberty, Missouri 64068

816.781.4200 **a** fax 792.3666

www.agcengineers.com

PANERA BREAD BAKERY - CAFE
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

SITE DEVELOPMENT PLANS **EXISTING CONDITIONS**

www.agcengineers.com

6-29-22

5-21-20

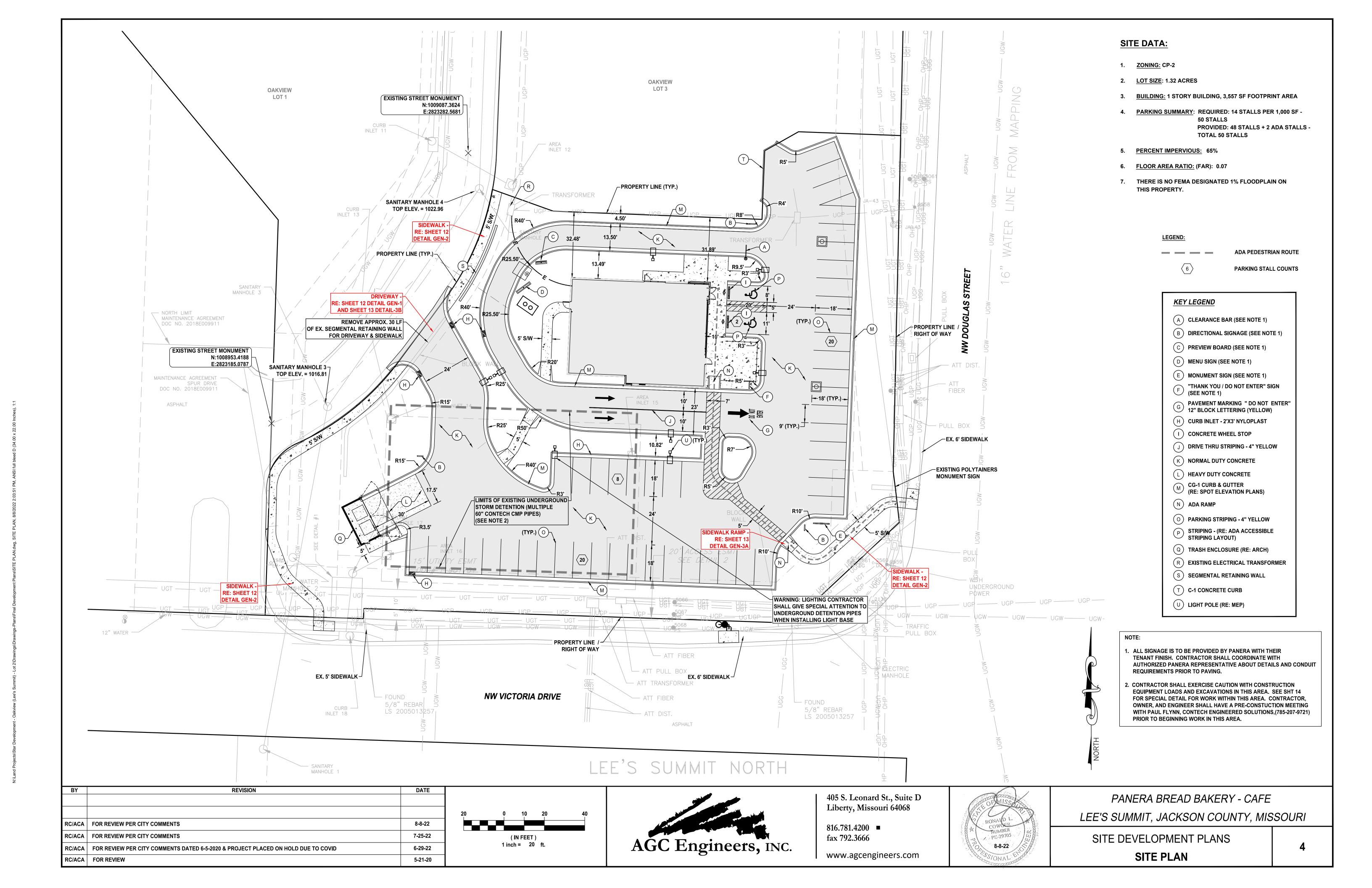
RC/ACA | FOR REVIEW PER CITY COMMENTS DATED 6-5-2020 & PROJECT PLACED ON HOLD DUE TO COVID

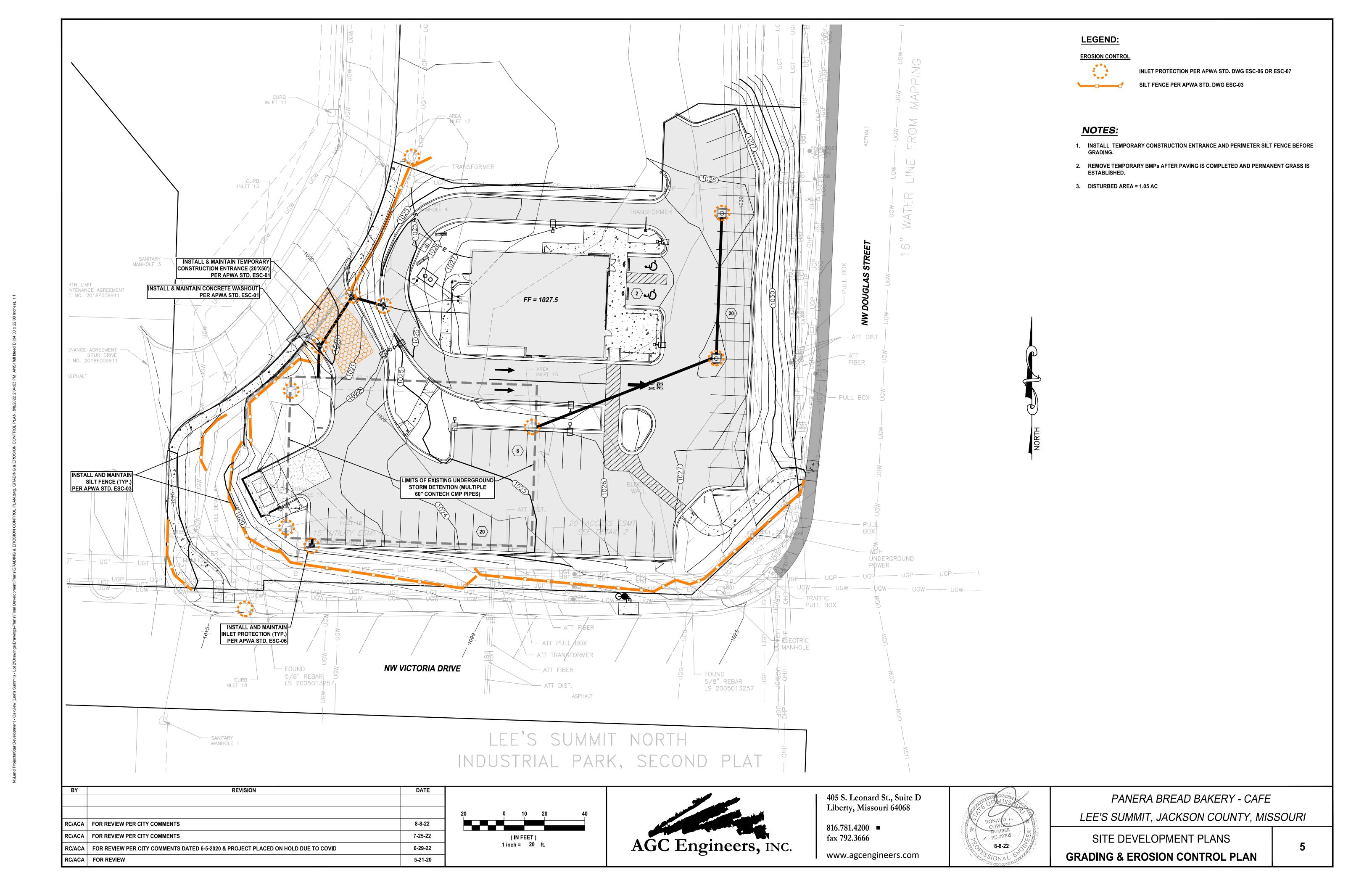
RC/ACA | FOR REVIEW

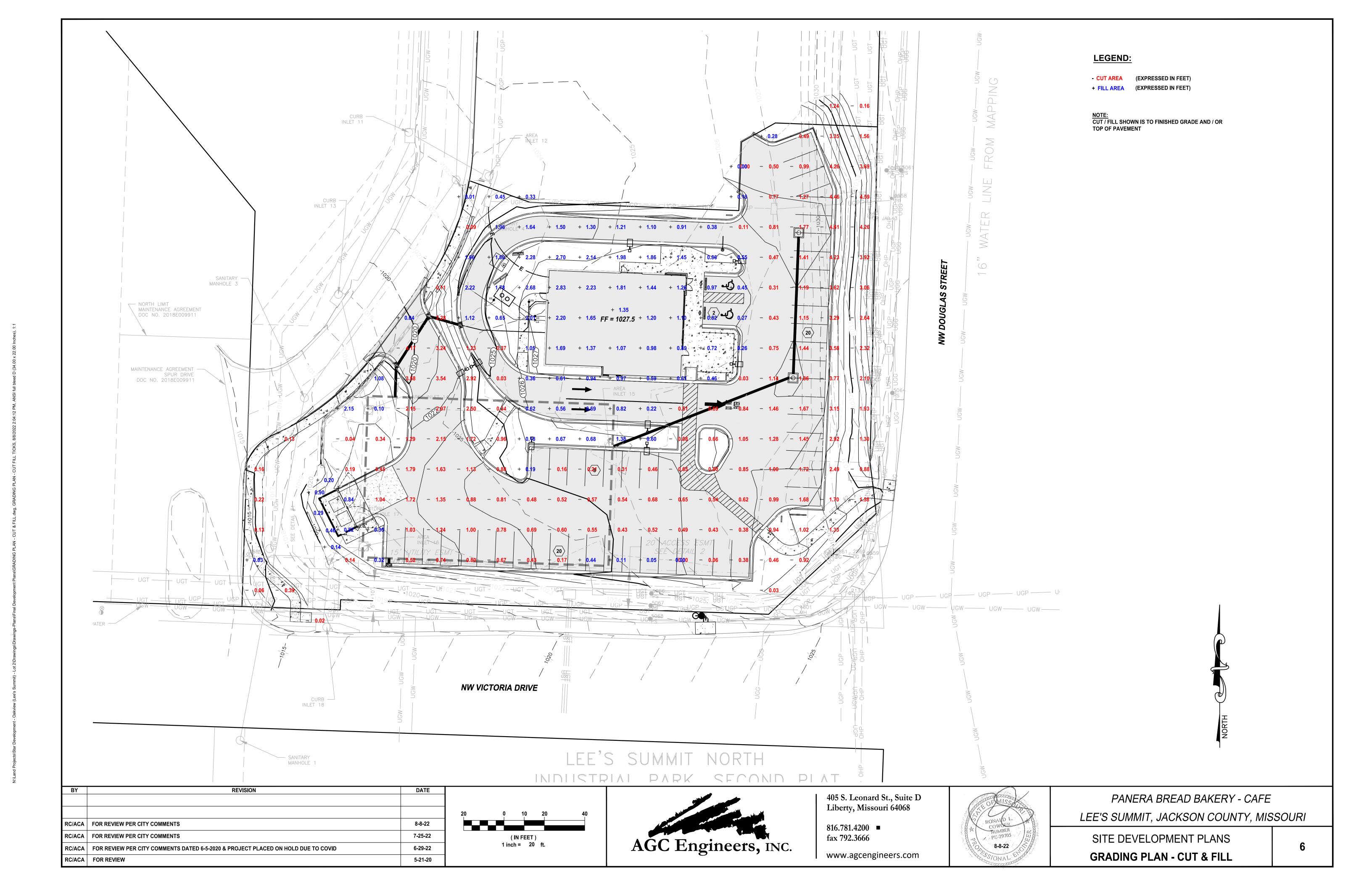
3A

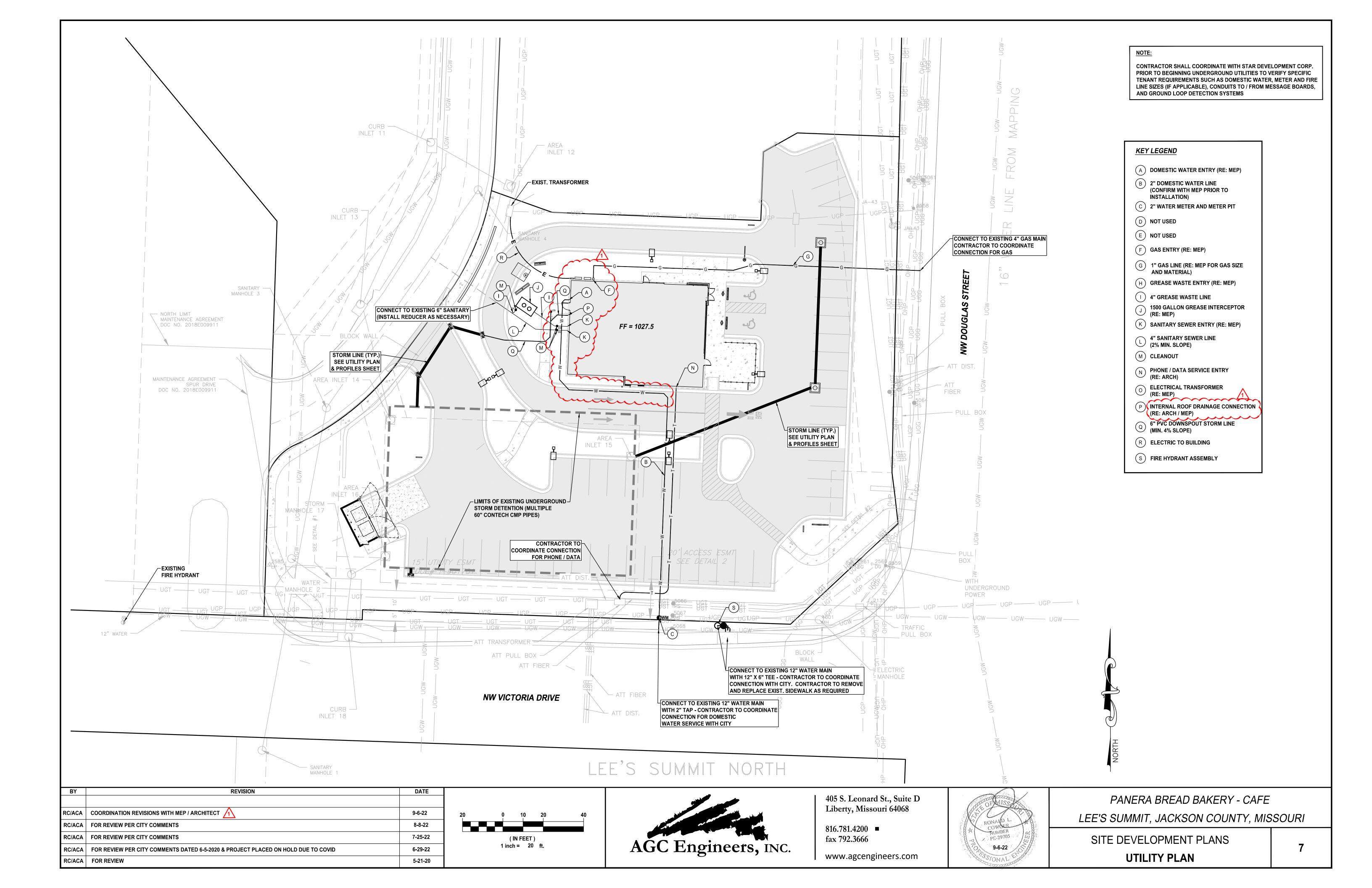
FINAL PLAT

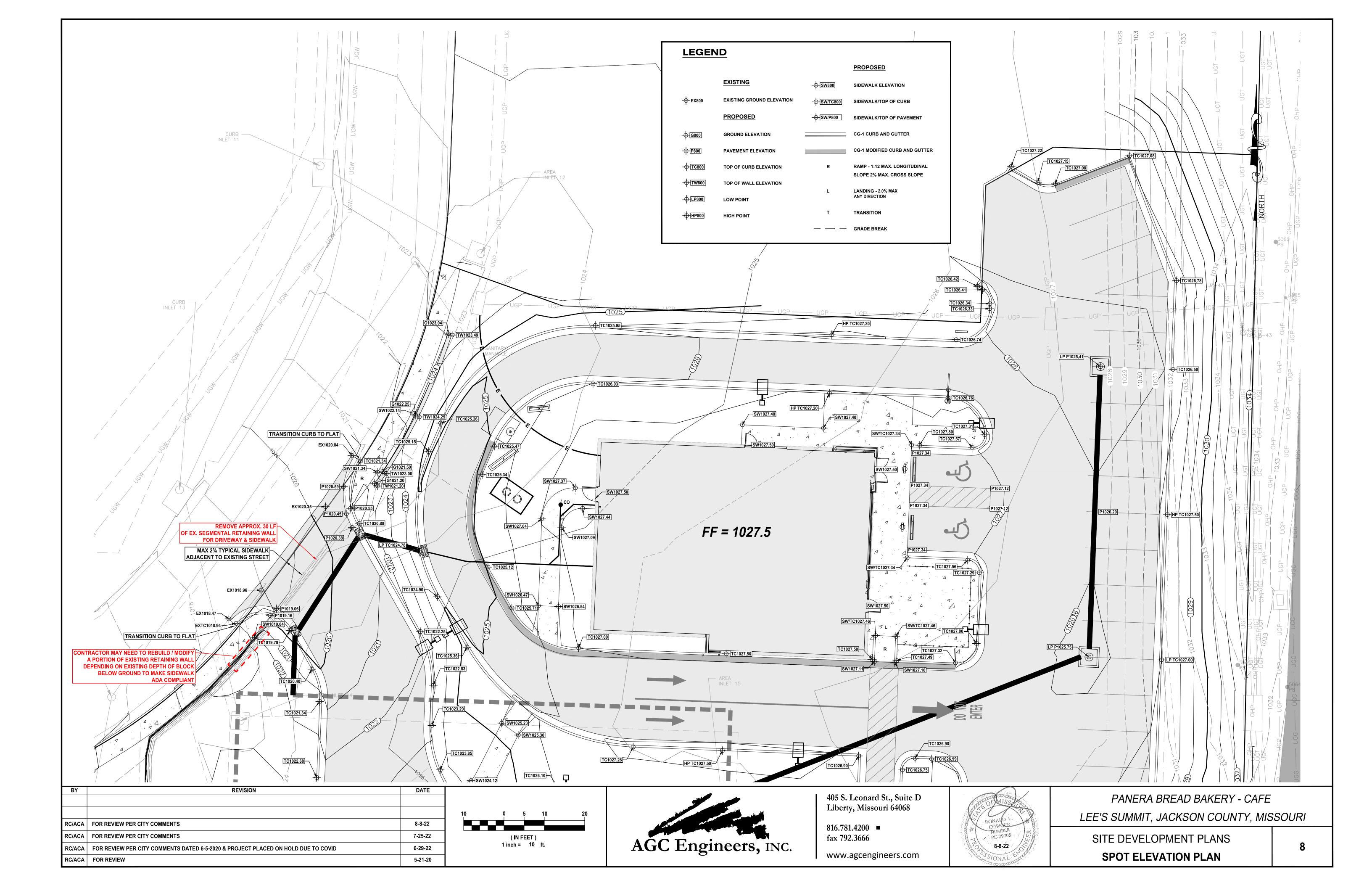
VOLVE AND TOTAL PROPERTY OF THE PROPERTY OF TH

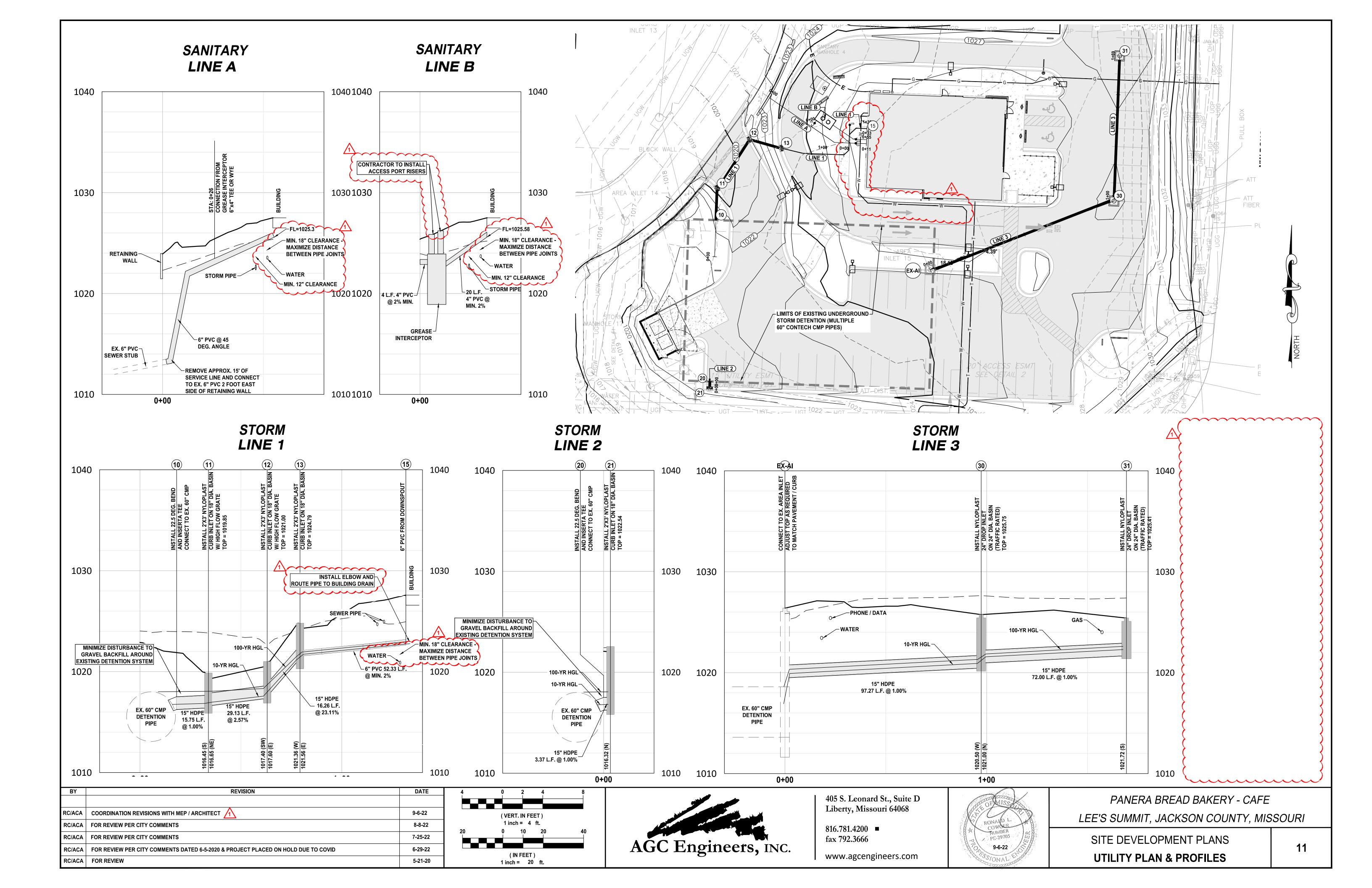












1/2" EXPANSION – JOINT MATERIAL

SEE JOINT SEALING

DETAIL

BY

TYPE A

ISOLATION/EXPANSION JOINT

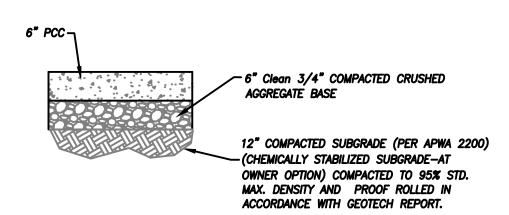
TYPE B

CONTRACTION (SAW CUT) JOINT

RC/ACA | FOR REVIEW PER CITY COMMENTS

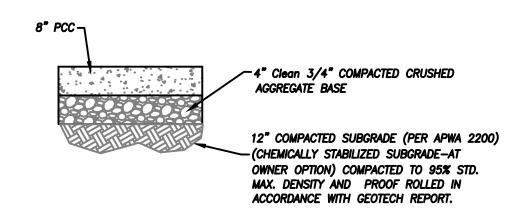
RC/ACA | FOR REVIEW PER CITY COMMENTS

RC/ACA | FOR REVIEW



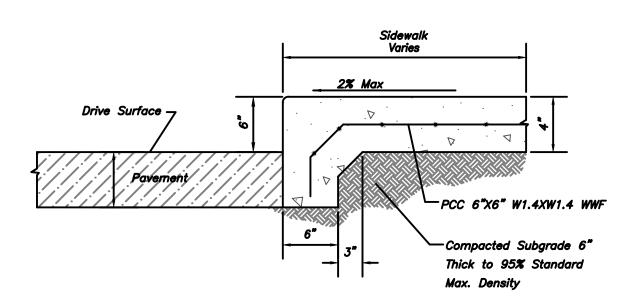
NORMAL DUTY CONCRETE SECTION

NOT TO SCALE



HEAVY DUTY CONCRETE SECTION

NOT TO SCALE



INTEGRAL SIDEWALK / CURB DETAIL

LUBRICATE ONE END

MIN 18" LONG

• 16" CTRS.

LUBRICATE ONE END

#5 SMOOTH DOWEL,

- MIN 18" LONG

• 16" CTRS.

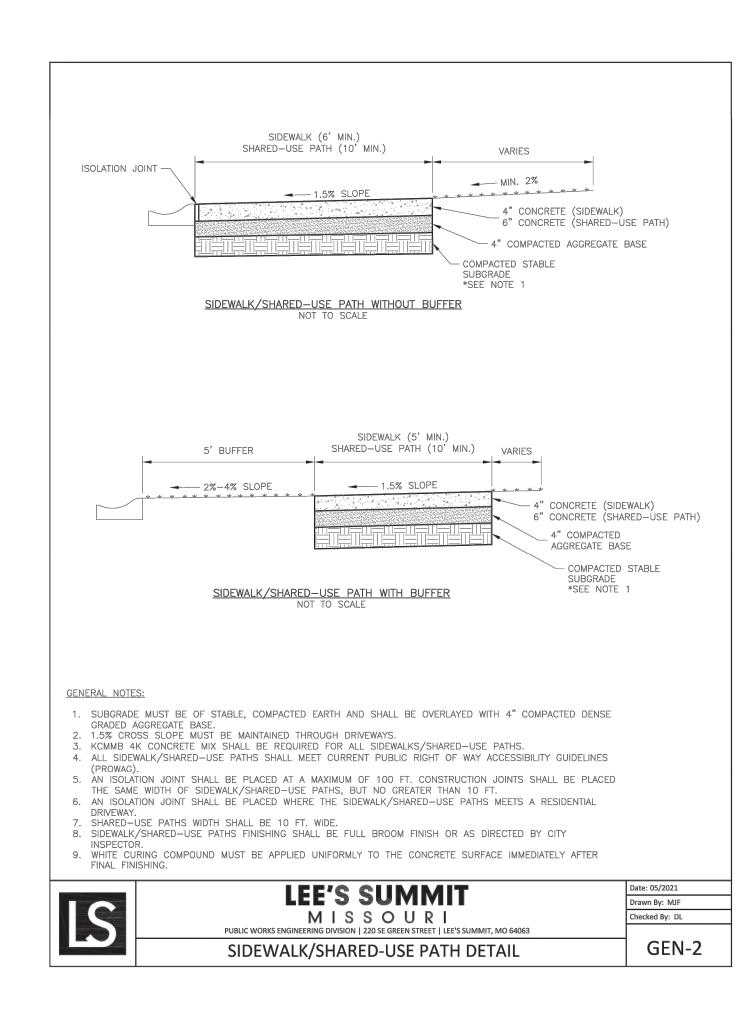
NOT TO SCALE

TYPE A-1

ISOLATION/EXPANSION JOINT (DOWELLED)

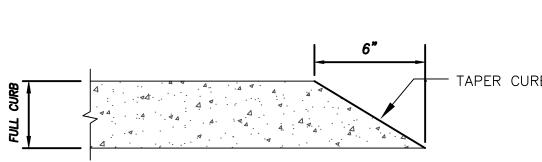
TYPE C

CONSTRUCTION JOINT (DOWELLED)



CURB & GUTTER BASE SECTION

NOT TO SCALE



CURB TERMINATION DETAIL

NOT TO SCALE

RC/ACA | FOR REVIEW PER CITY COMMENTS DATED 6-5-2020 & PROJECT PLACED ON HOLD DUE TO COVID

CONCRETE JOINT DETAILS

1/2" EXPANSION JOINT MATERIAL

SEE JOINT SEALING -

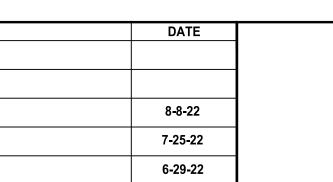
REVISION

DETAIL

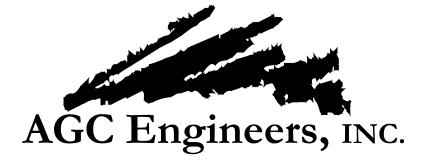
BUTT JOINT

FORMED

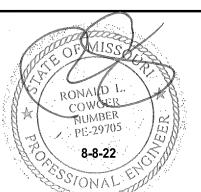
BULK HEAD



5-21-20



www.agcengineers.com



R=1/2" — R=1/2"

DOWELLED CURB

(TYPE DC)

 $\sim R = 11"$

4" - 8" - 8" - 4" -

24"

ROLL BACK CURB &

(TYPE CG-2)

4" + 8" - 8" - 4" +

ROLL BACK DRY CURB &

(TYPE CG-2 DRY)

BACK OF CURB

BACK OF CURB

SEE NOTE 9 -

ISOLATION JOINT

ISOLATION JOINT -

- TOP OF SURFACE COURSE

- TOP OF BASE COURSE

CURB & GUTTER DETAIL AT RAMP

(ADA SLOPE REQUIREMENTS)

2" ASPHALTIC CONCRETE SURFACE COURSE

CURB REPLACEMENT DETAIL

END WITH EXPANSION TUBES.

ACROSS THE ENTIRE CURB SECTION.

GENERAL NOTES

(NO SIDEWALK OR SHARED-USE PATH)

NOT TO SCALE

CONTINUOUS SLOPE 1.5% SLOPE

DRIVEWAY TYPICAL SECTION
(SIDEWALK OR SHARED-USE PATH WITH BUFFER)
NOT TO SCALE

DRIVEWAY TYPICAL SECTION
(SIDEWALK OR SHARED—USE PATH WITHOUT BUFFER)
NOT TO SCALE

- CURB & GUTTER

COMPACTED

STABLE SUBGRADE

CONCRETE FILL (DEPTH

VARIES, 4" MINIMUM)

VARIES

1. 34" ISOLATION JOINTS WITH 3 (2'-#5 BAR) SMOOTH DOWELS SHALL BE PLACED AT RADIUS POINTS AND AT 150' INTERVALS.

2. 3" DEEP CONTRACTION JOINTS SHALL BE INSTALLED AT

4. KCMMB 4K CONCRETE SHALL BE USED FOR ALL CURB. 5. ASPHALTIC CONCRETE SURFACE COURSE SHALL CONFORM TO

STANDARD SPECIFICATIONS SECTION 2205.2.

8. ALL DOWELS & TIE BARS SHALL BE EPOXY COATED.

3. CONCRETE FILL SHALL HAVE UNIFORM AND SMOOTH FINISH

6. CURBS FOR NEW STREETS SHALL BE BUILT ON ASPHALT OR

AGGREGATE BASE AS SHOWN IN TYPICAL SECTION DETAIL.

CONCRETE SURFACE IMMEDIATELY AFTER FINAL FINISHING.

7. WHITE CURING COMPOUND MUST BE APPLIED UNIFORMLY TO THE

THESE DOWEL BARS SHALL BE GREASED AND WRAPPED ON ONE

APPROXIMATELY 10' INTERVALS. THESE JOINTS SHALL PASS

SAW CUT TO AGGREGATE
BASE OR SUBGRADE

EXISTING PAVEMENT

8" CONC. COMMERCIAL

COMPACTED STABLE SUBGRADE

8" CONC. COMMERCIAL

8" CONC. COMMERCIAL

— COMPACTED STABLE SUBGRADE

PAVEMENT SURFACE

(TYPE C-1)

STRAIGHT BACK CURB &

(TYPE CG-1)

4" + 8" - 8" - 4" + "

STRAIGHT BACK DRY CURB &

(TYPE CG-1 DRY)

__ R/W ___ _ _ R/W ___

ISOLATION — JOINT

ISOLATION —V JOINT

1.5% SLOPE

DRIVEWAY WITH BUFFER NOT TO SCALE

DRIVEWAY WITHOUT BUFFER
NOT TO SCALE

GENERAL NOTES
1. 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 GEN-3B, SIDEWALK/SHARED USE PATH RAMP AT

6" RESIDENTIAL DRIVEWAY

6" RESIDENTIAL DRIVEWAY

1.5% SLOPE

TOP OF CURB (PER PLAN)

TOP OF CURB

8" COMMERCIAL DRIVEWAY

8" COMMERCIAL DRIVEWAY

PANERA BREAD BAKERY - CAFE LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

SITE DEVELOPMENT PLANS

DETAILS

. WW □

600

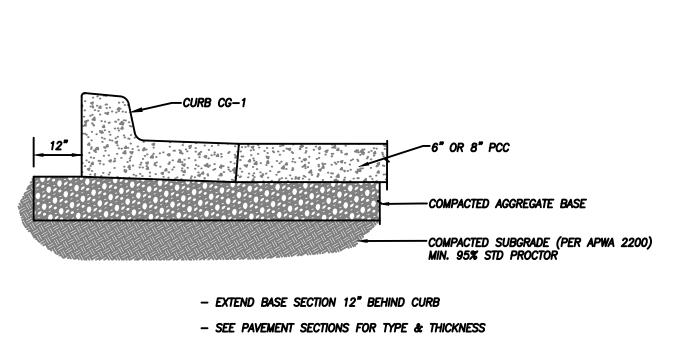
GEN-4

SUMIN

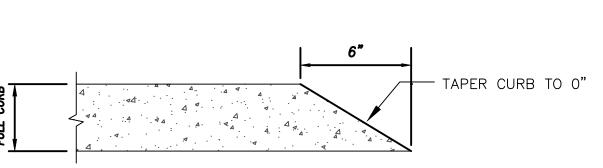
SO

ا 🛍 🔊 🏲

GEN-1







REQUIREMENTS WHEN SIDEWALK IS REQUIRED (SEE ADA RAMP RETROFT DETAIL GEN-3B, SIDEWALKY SHARED USE PATH RAMP AT DRIVEWAY DETAIL).

JOINT AT BACK OF CURB LINE SHALL BE AN ISOLATION JOINT FOR RESIDENTIAL DRIVEWAYS.

KCMMB 4K CONCRETE MIX IS REQUIRED FOR ALL CURBS.

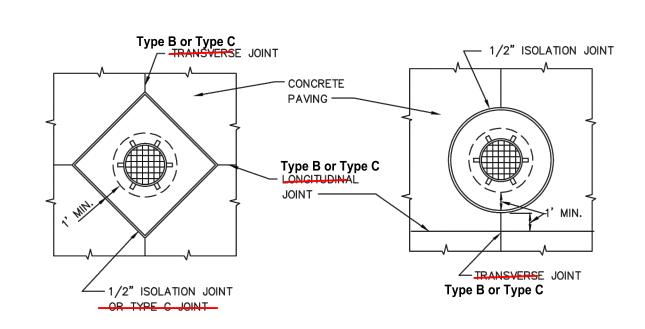
COMMERCIAL DRIVEWAYS, IN THE PUBLIC RIGHT OF WAY, SHALL BE KCMMB 4K CONCRETE MIX.

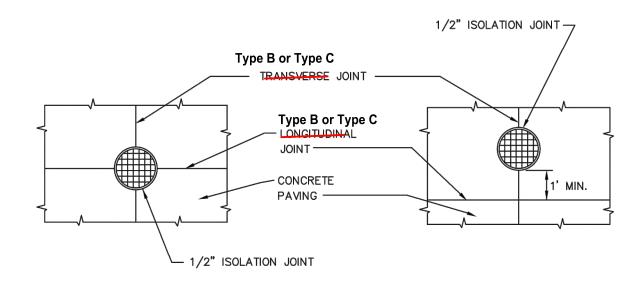
RESIDENTIAL DRIVEWAYS, IN THE PUBLIC RIGHT OF WAY, KCMMB 4K CONCRETE MIX IS RECOMMENDED. OTHER CONCRETE MIXES NEED TO BE APPROVED BY CITY INSPECTOR.

A JOINT MUST BE INSTALLED AT THE RIGHT OF WAY BOUNDARY FOR PROPERTY DELINEATION.

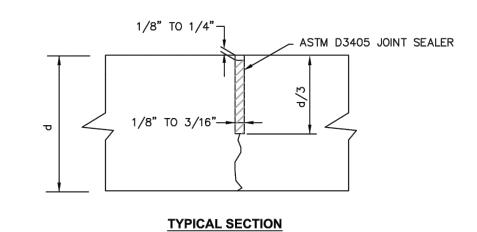
WHITE CURING COMPONING MIST BE APPLIED LINEOPHLY TO THE CONCRETE SUPERIOR IMMEDIATELY AFTER FINAL FINISHING. MUST BOUND MOST BE INSTALLED AT THE RIGHT OF WAY BOUNDARY FOR PROPERTY DELINEATION.
WHITE CURING COMPOUND MUST BE APPLIED UNIFORMLY TO THE CONCRETE SURFACE IMMEDIATELY AFTER FINAL FINISHING.
¾" FROM TOP OF CURB TO FLOWLINE AT DRIVEWAY (TYPE CG-1 CURB ONLY). MUST MAINTAIN ORIGINAL FLOWLINE OF CURB.
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. NOT TO SCALE

405 S. Leonard St., Suite D Liberty, Missouri 64068 816.781.4200 fax 792.3666





CONCRETE PAVING ISOLATION JOINTS

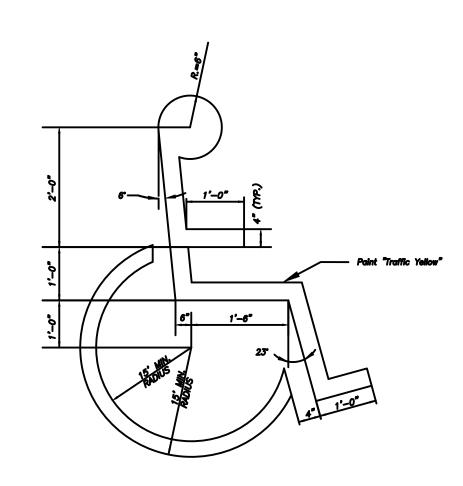


NOTES:

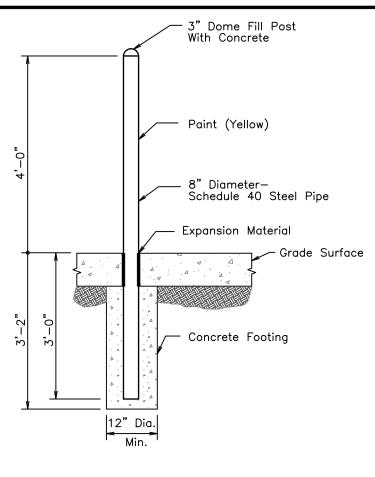
1. JOINT SEALING MATERIAL SHALL CONFORM TO ASTM D3405 AND SHALL BE APPLIED IN ACCORDANCE WITH MATERIAL MANUFACTURER'S RECOMMENDATIONS.

2. d = DEPTH OF SLAB

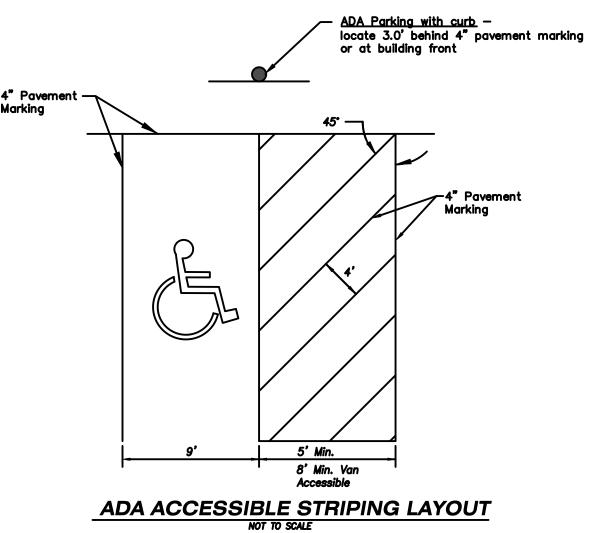
CONCRETE PAVING JOINT SEALING

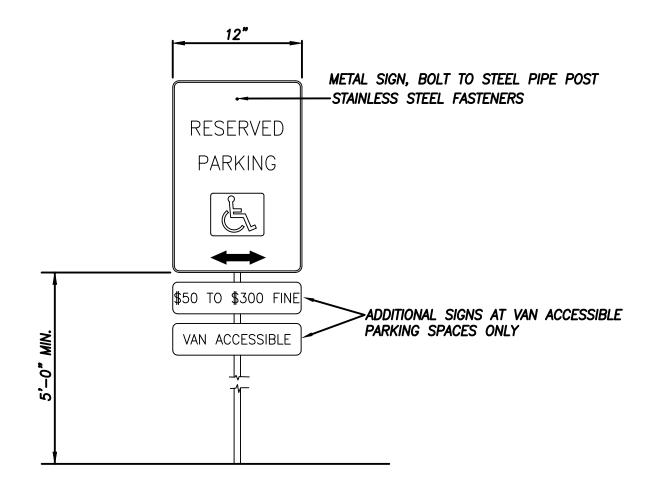


ACCESSIBLE PARKING SYMBOL
NOT TO SCALE



BOLLARD NOT TO SCALE





1. ACCESSIBLE PARKING SIGNS SHALL MEET THE REQUIREMENTS SET FORTH IN THE US DEPARTMENT OF JUSTICE 2010 [ADA] STANDARDS: Titles II and III.

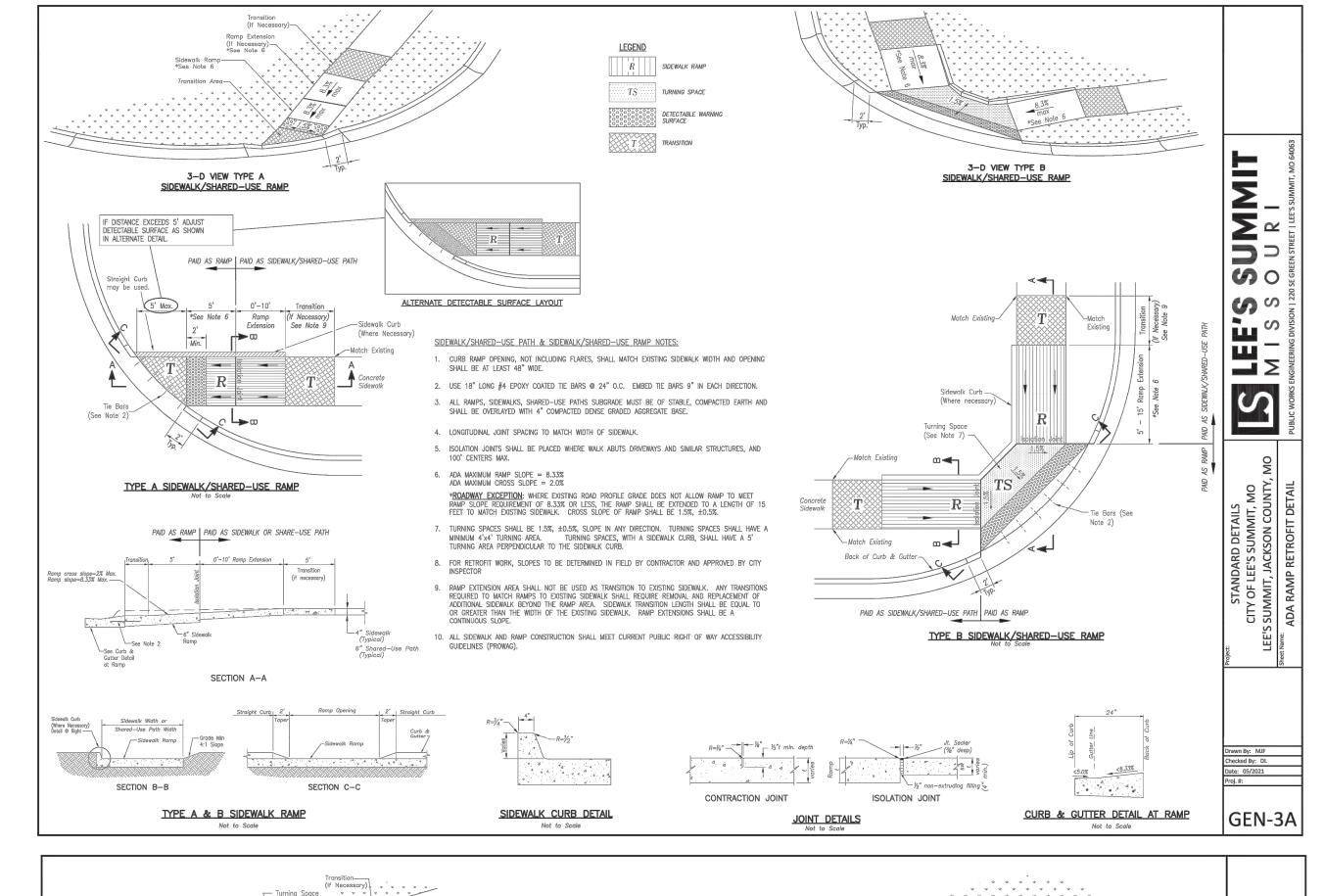
HANDICAP SIGN

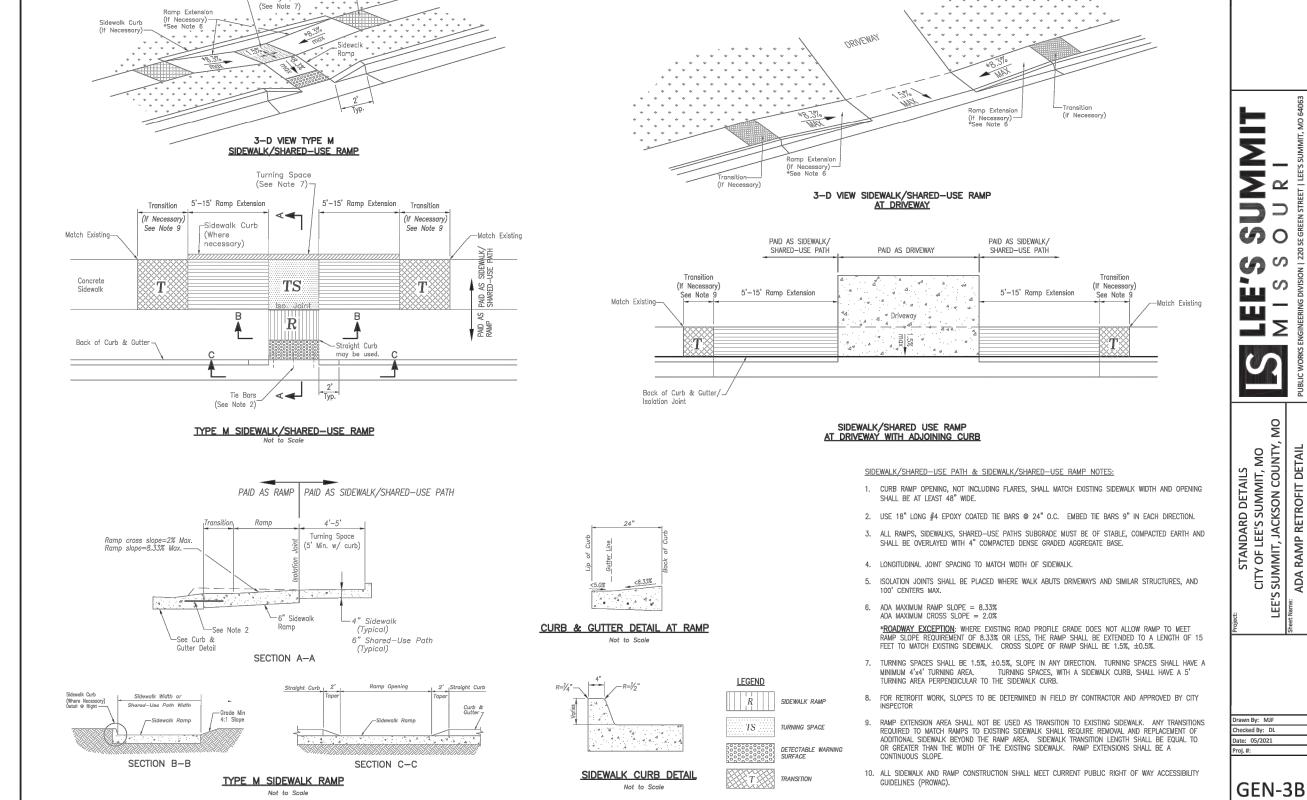
NOT TO SCALE

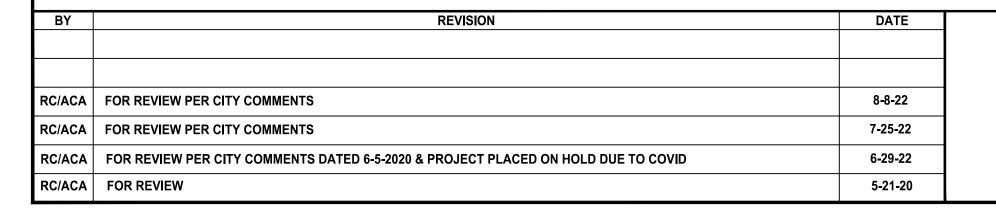
2. PROVIDE SIGN AT THE HEAD OF EACH

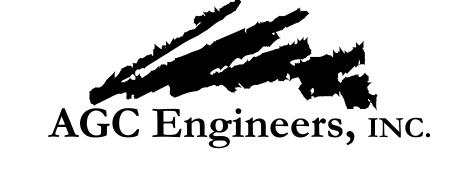
HANDICAPPED ACCESSIBLE PARKING STALL.

NOTE:









405 S. Leonard St., Suite D Liberty, Missouri 64068

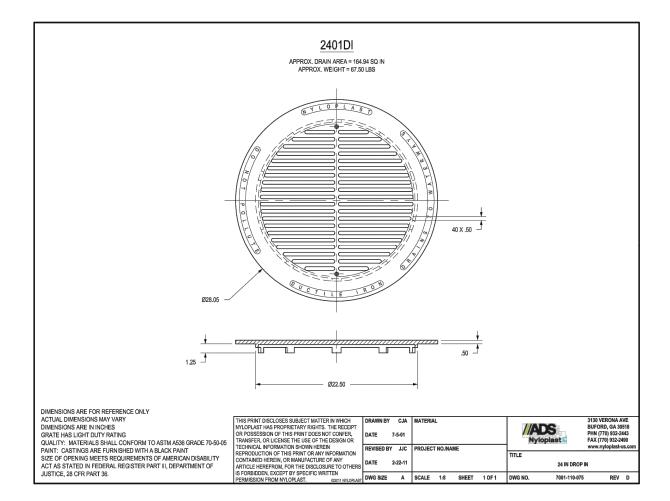
www.agcengineers.com

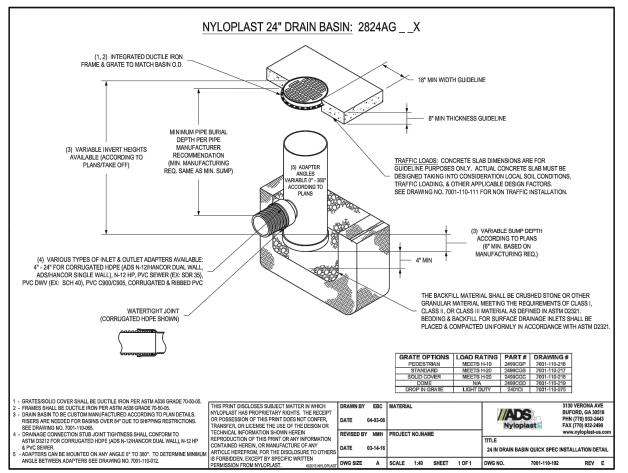
816.781.4200 **a** fax 792.3666

RONAID L.
COWGER
FIUMBER
PE-29705
8-8-22

PANERA BREAD BAKERY - CAFE
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

SITE DEVELOPMENT PLANS **DETAILS**





(taken from Contech Engineered Solutions CMP Detention and Infiltration Installation Guide)

Final Cover Placement and Construction Loading

Construction loads often exceed design highway loading. During construction, keep heavy construction equipment that exceeds legt highway loads off the pipe. Light construction equipment on tracks such as a D-3 dozer for lighter weight may cross over the pipe when a minimum of 12° of compacted backfill is over pipe. When construction equipment that exceeds legal highway loads to put cross over pipe, an additional thickness of compacted fill, beyond that required for planned cover is required. Since construction equipment varies from job to job, it is best to address equipment varies from job to job, it is best to address equipment varies.

AT PRELIMINARY ---THIS WILL BE IN SIDEWALK / PAVEMENT -UTILITY INSPECTION NEEDS TO BE FLUSH FOR ADA PEDESTRIAN TO BE LOWERED TO TRAFFIC, USE CAST IRON LID DETAIL FINAL GRADE AT TIME OF PLUMBER'S TIE-IN NON-PAVED AREAS 18" x 18" x 6" CONCRETE COLLAR; (2) #4 BARS CONTINUOUS AND (4) #4 NEENAH R-1970 -BARS DIAGONAL RING AND COVER OR APPROVED EQUAL - ¾" EXPANSION JOINT AROUND CAP IN PAVED AREAS FLUSH WITH SLAB SEWER BRANCH WYE 6" SANITARY LATERAL **→** FLOW - MINIMUM SLOPE

Portland Cement Concrete Pavement per

Special Note —this detail)

COMPACTED PARKING LOT SUBGRADE (See Special Note - this detail)

CONTRACTOR SHALL ADD COMPACTED STONE (AS

REQUIRED) TO ACHIEVE MIN. 12" COMPACTED STONE OVER EXISTING UNDERGROUND DETENTION PIPES. (See

EX COMPACTED STONE FOR Under Ground Detention BACKFILL (to remain undisturbed)

CLEAN-OUT DETAIL

NOT TO SCALE

TRENCH BACKFILL:
MoDOT TYPE 1 ROCK 4' BACK-OF-CURB TO 4' BACK-OF-CURB. MIN 15"-MAX 24" PLUS O.D. OF PIPE **UNDER PAVEMENT**

TRENCH BACKFILL: JOB EXCAVATED MATERIAL COMPACTED TO 95% OF MAX. MIN 15"-MAX 24" PLUS O.D. OF PIPE **OUTSIDE PAVEMENT**

EMBEDMENT AND BACKFILL FOR SANITARY SEWERS

NOT TO SCALE

COMPACTED TRENCH -BACKFILL 95% OF STANDARD PROCTOR. UNDER PAVEMENT OR FUTURE PAVEMENT USE COMPACTED GRANULAR BACKFILL — UNDISTURBED TRENCH WALL (TYP.) BEDDING & BACKFILL MINIMUM RECOMMENDED

COVER
12" (24" FOR 60" PIPE)* SURFACE LIVE LOADING CONDITION H25 (FLEXIBLE PAVEMENT) 12" (24" FOR 60" PIPÉ) H25 (RIGID PAVEMENT) E80 RAILWAY HEAVY CONSTRUCTION 48" 5. <u>MINIMUM COVER</u>: MINIMUM RECOMMENDED DEPTHS OF COVER FOR VARIOUS LIVE LOADING CONDITIONS
ARE SUMMARIZED IN THE FOLLOWING TABLE. UNLESS OTHERWISE NOTED, ALL DIMENSIONS ARE TAKEN FROM
*TOP OF PIPE TO BOTTOM OF BITUMINOUS PAVEMENT SECTION THE TOP OF THE PIPE TO THE GROUND SURFACE.

1. <u>FOUNDATION</u>: WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH A FOUNDATION OF CLASS I OR II MATERIAL AS DEFINED IN ASTM D2321, "STANDARD PRACTICE FOR INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY—FLOW APPLICATIONS," LATEST EDITION: AS AN ALTERNATIVE AND AT THE DISCRETION OF THE ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING WOVEN

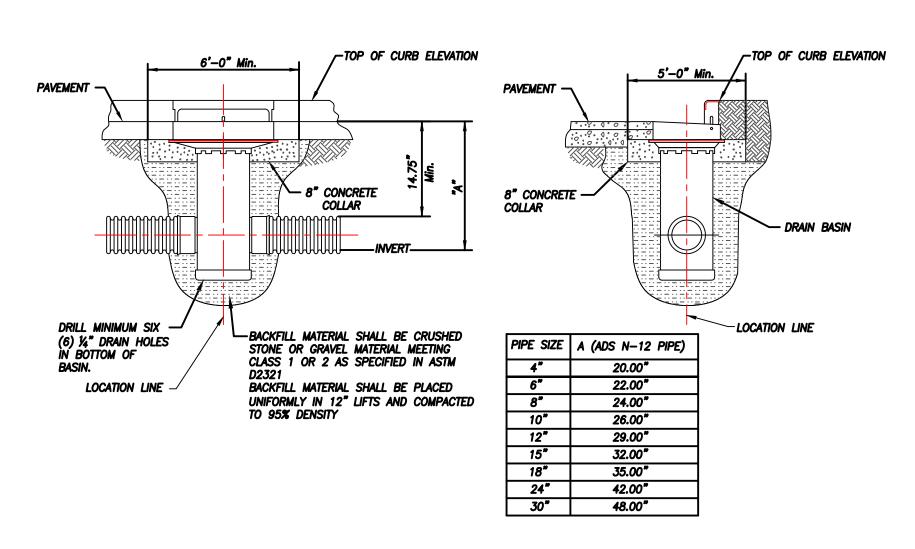
2. <u>BEDDING</u>: SUITABLE MATERIAL SHALL BE CLASS I, II OR III AND INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION. UNLESS OTHERWISE SPECIFIED BY THE ENGINEER, MINIMUM BEDDING THICKNESS SHALL BE 4"; FOR 4"-24" DIA. HDPE; 6" FOR 30"-60" DIA. HDPE.

3. <u>Haunching and Initial Backfill</u>: Suitable Material Shall be class I, II or III and Installed as required in ASTM D2321, latest edition.

4. UNLESS OTHERWISE SPECIFIED BY THE ENGINEER, MINIMUM TRENCH WIDTHS SHALL BE AS FOLLOWS: MIN. RECOMMENDED <u>TRENCH WIDTH</u>

HDPE (HIGH DENSITY POLYETHYLENE) PIPE INSTALLATION DETAIL

NOT TO SCALE



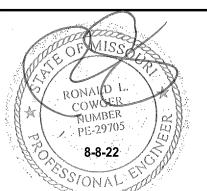
NYLOPLAST DRAIN BASIN - TYPICAL INSTALLATION

BY REVISION DATE 8-8-22 RC/ACA | FOR REVIEW PER CITY COMMENTS 7-25-22 RC/ACA | FOR REVIEW PER CITY COMMENTS 6-29-22 RC/ACA FOR REVIEW PER CITY COMMENTS DATED 6-5-2020 & PROJECT PLACED ON HOLD DUE TO COVID RC/ACA | FOR REVIEW 5-21-20

405 S. Leonard St., Suite D Liberty, Missouri 64068

816.781.4200 fax 792.3666

www.agcengineers.com



PANERA BREAD BAKERY - CAFE LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

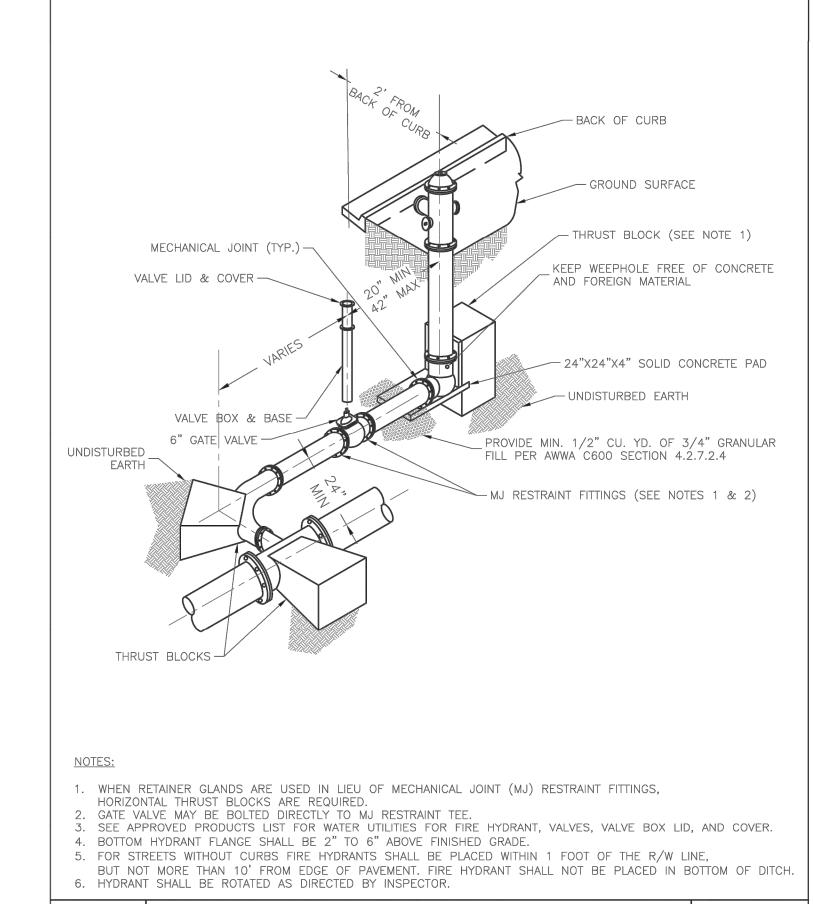
SITE DEVELOPMENT PLANS **DETAILS**

-Ex Under Ground Detention Pipes (60" Diameter) Special Note - CONTRACTOR SHALL USE BELT CONVEYOR OR SPREAD COMPACTED STONE/ROCK WITH TRACKED EQUIPMENT WITH LESS THAN 10 PSI GROUND PRESSURE. REFERENCE CONTECH ENGINEERED SOLUTIONS "CMP DETENTION AND INFILTRATION INSTALLATION GUIDE" [Excerpt to the left] FOR NON-TRACKED EQUIPMENT LOADING/COVER REQUIREMENTS. ntact Paul Flynn, Contech Engineered Solutions at 785–207–9721 prior to beginning work. SPECIAL DETAIL FOR WORK OVER UNDERGROUND DETENTION AREA

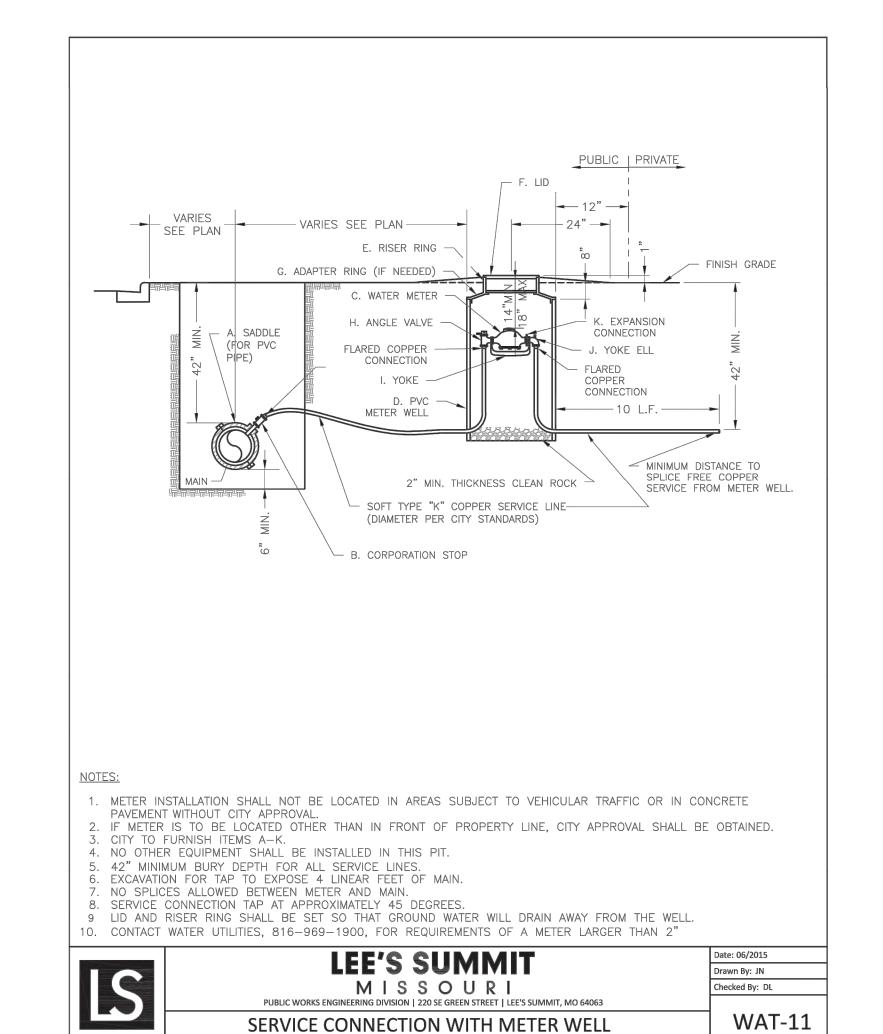
ORIGINAL CONSTRUCTION DETAIL (WHEN UNDERGROUND DETENTION PIPES WERE

INSTALLED) SHOWED 6" OF STONE OVER PIPES

RC/ACA FOR REVIEW

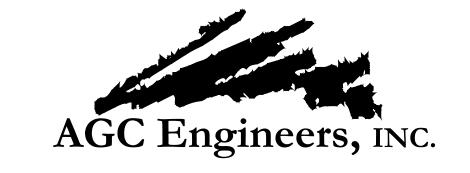


PUBLIC WORKS ENGINEERING DIVISION 220 SE GREEN STREET LEE'S SUMMIT, MO 64063 HYDRANT WITH 90 DEGREE BEND WAT-8	10	LEE'S SUMMIT	Date: 01/2016 Drawn By: JN Checked By: DL
HYDRANT WITH 90 DEGREE BEND WAT-8			
		HYDRANT WITH 90 DEGREE BEND	WAT-8



BY	REVISION	DATE
RC/ACA	FOR REVIEW PER CITY COMMENTS	8-8-22
RC/ACA	FOR REVIEW PER CITY COMMENTS	7-25-22
RC/ACA	FOR REVIEW PER CITY COMMENTS DATED 6-5-2020 & PROJECT PLACED ON HOLD DUE TO COVID	6-29-22

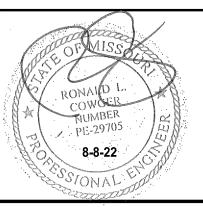
5-21-20



405 S. Leonard St., Suite D Liberty, Missouri 64068

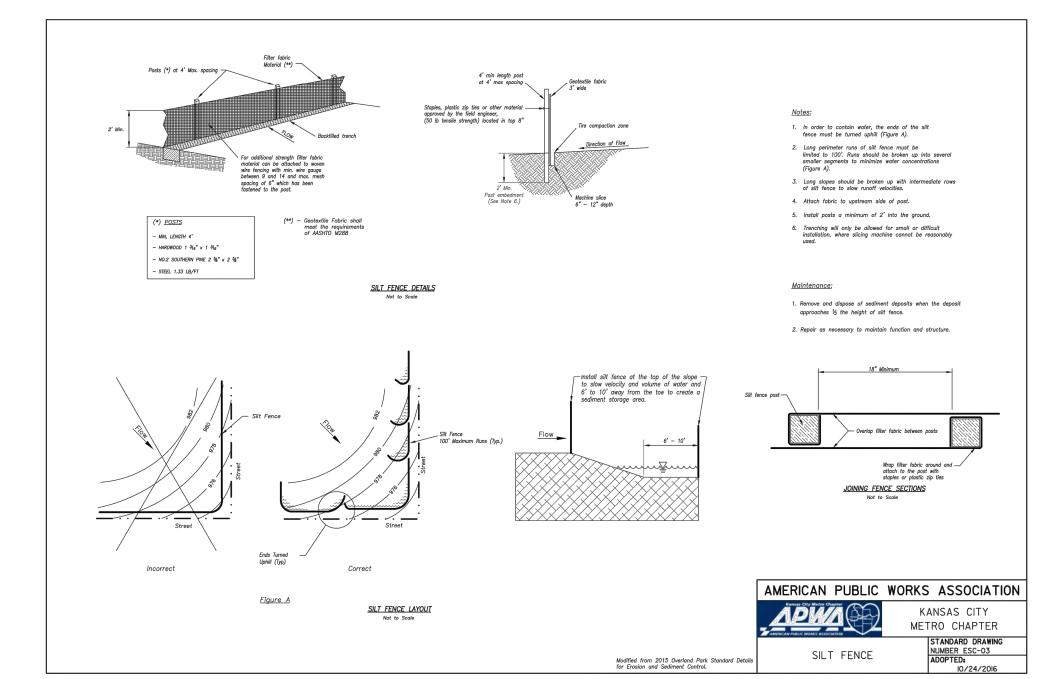
816.781.4200 **a** fax 792.3666

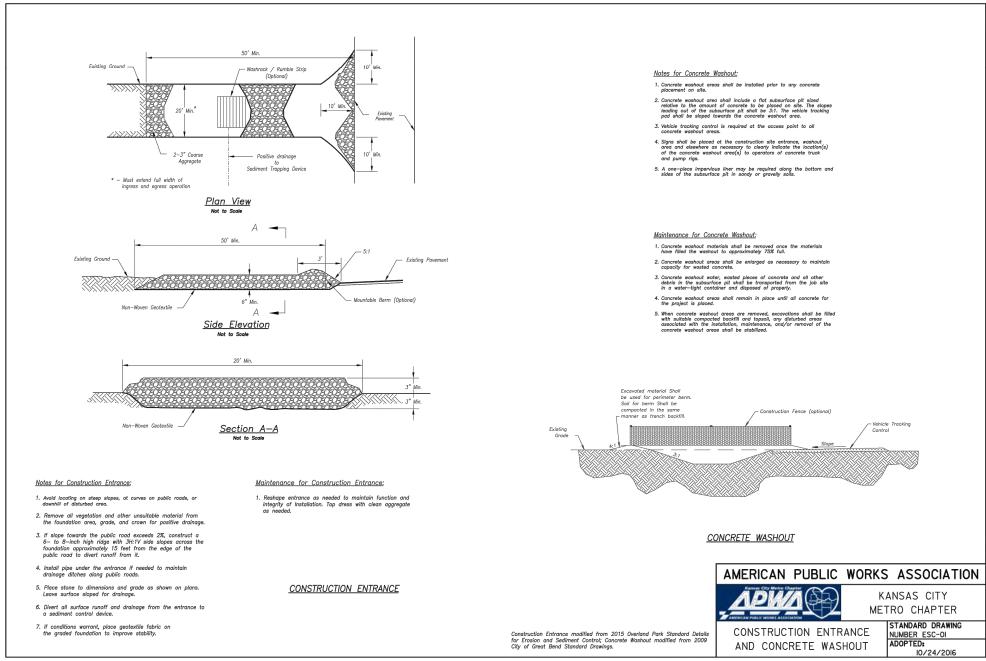
www.agcengineers.com

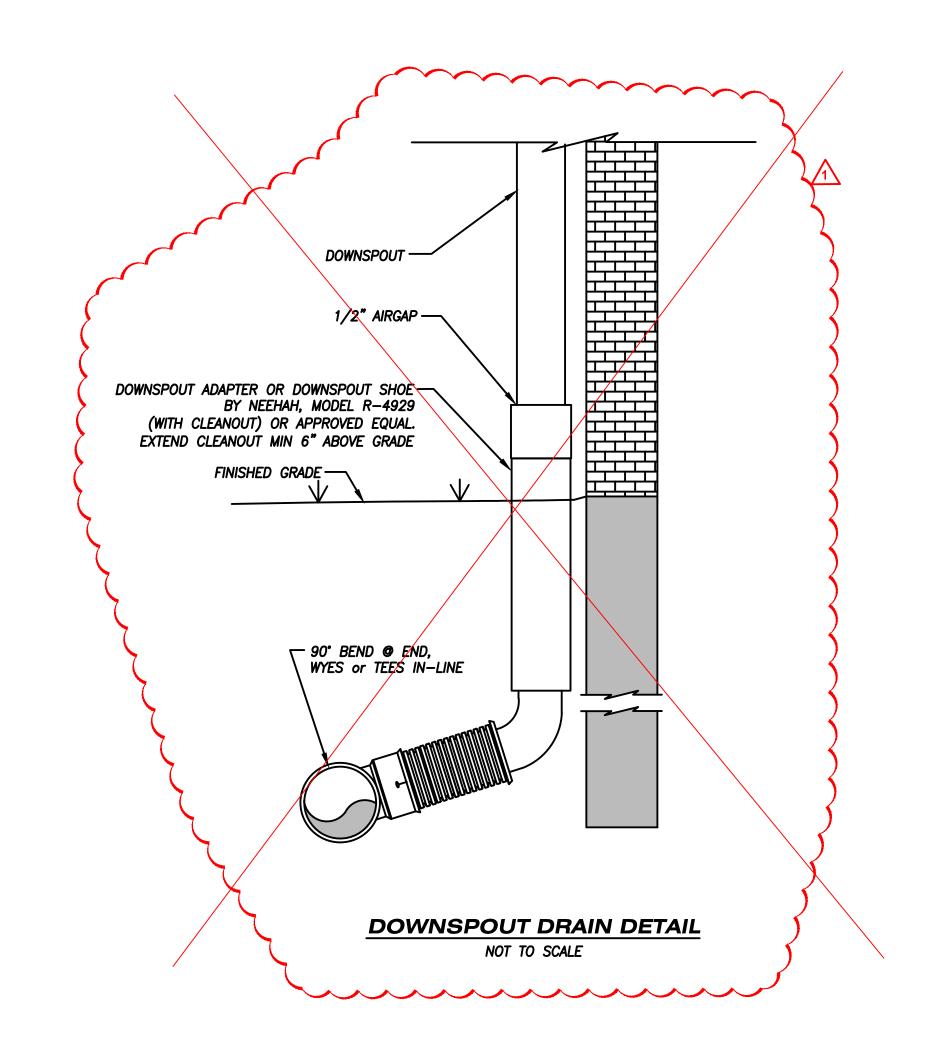


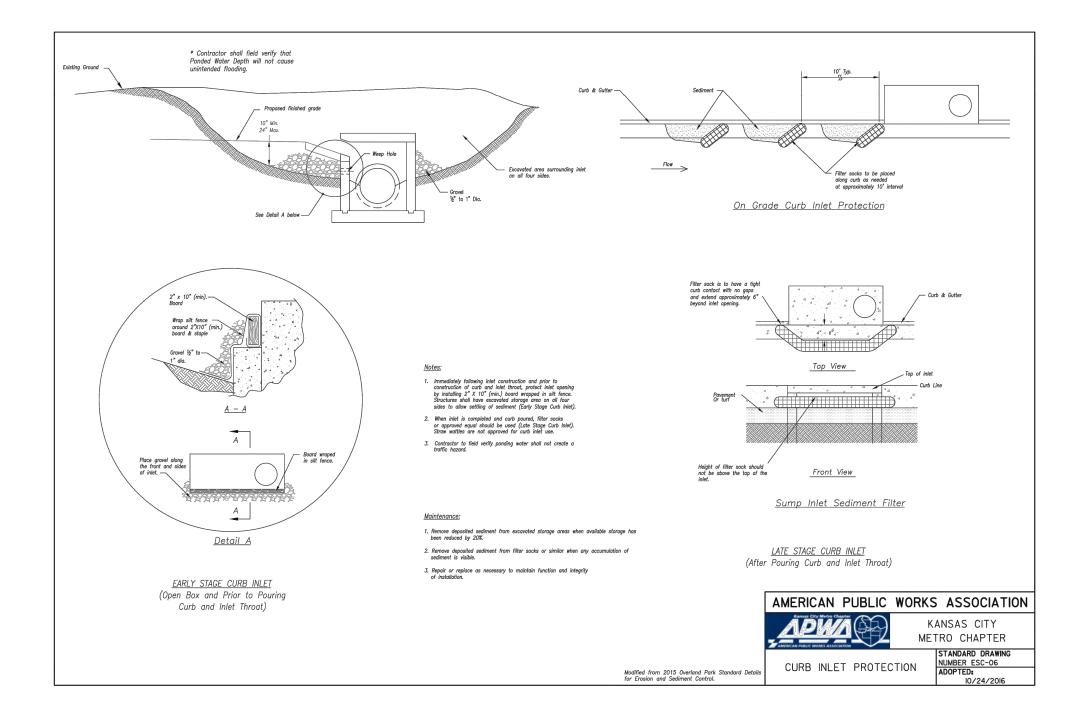
PANERA BREAD BAKERY - CAFE
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

SITE DEVELOPMENT PLANS **DETAILS**

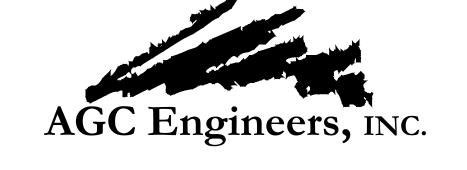






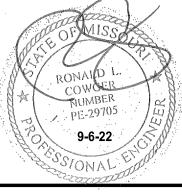


BY	REVISION	DATE
RC/ACA	COORDINATION REVISIONS WITH MEP / ARCHITECT	9-6-22
RC/ACA	FOR REVIEW PER CITY COMMENTS	8-8-22
RC/ACA	FOR REVIEW PER CITY COMMENTS	7-25-22
RC/ACA	FOR REVIEW PER CITY COMMENTS DATED 6-5-2020 & PROJECT PLACED ON HOLD DUE TO COVID	6-29-22
RC/ACA	FOR REVIEW	5-21-20



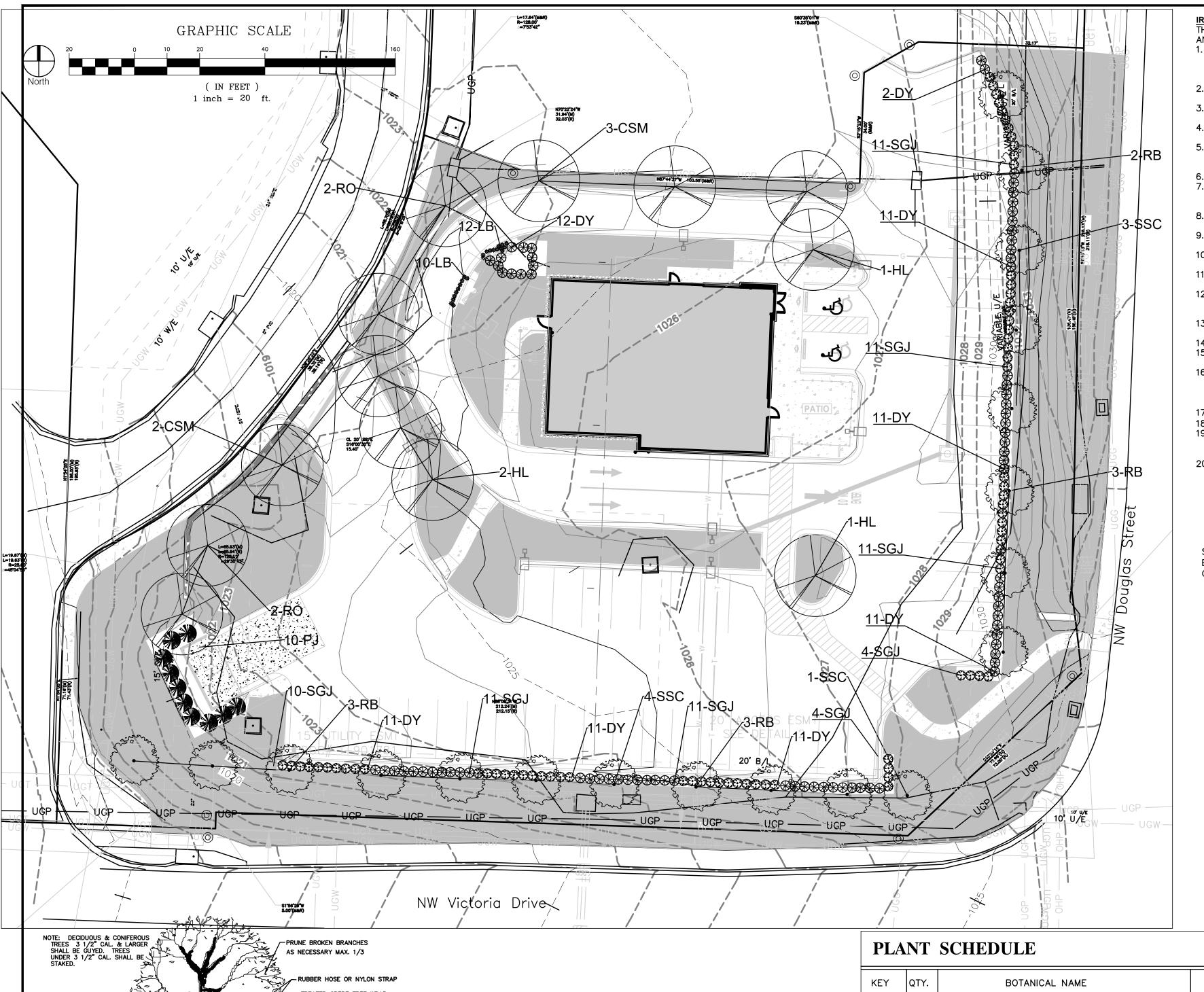
405 S. Leonard St., Suite D Liberty, Missouri 64068

816.781.4200 ■ fax 792.3666 www.agcengineers.com



PANERA BREAD BAKERY - CAFE
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

SITE DEVELOPMENT PLANS **DETAILS**



-STEEL FENCE POSTS OR 2"x2" WOOD STAKES (3) REQ'D. PER TREE

PLACE IN UNDISTURBED SOIL

OR 1"-2" ABOVE FINISHED GRADE.

TOP 1/3 OF ROOT BALL AND REMOVE ALL WIRE.

REVISION

TRUNK FLARE MUST BE VISIBLE. DO NOT PLACE SOIL ON TOP OF BALL

HARDWOOD MULCH (SETTLED DEPTH)
——SOIL MIX
1/2 EXISTING SOIL, 1/2 TOPSOIL

IF SHRUB IS B&B, REMOVE BURLAP AND ROPE FROM TOP 1/3 OF BALL ALL OF STEEL BASKET.

SHRUB PLANTING
NOT TO SCALE

--

8.8.2022

7.22.2022

6.29.2022

12 GA. GALV. TIE WIRE W/-FLUORESCENT FLAGGING 3" GALV. TURNBUCKLE

4" EARTH SAUCER-

FINISHED GRADE

PLACE ROOTBALL ON UNEXCAVATED OR— COMPACTED SETTING BED. EXCAVATE DEEPER AROUND PERIMETER.

CITY COMMENTS

CITY COMMENTS

2 to 3 x ROOT BALL

TREE PLANTING
NOT TO SCALE

FINAL DEVELOPMENT PLAN FOR CITY REVIEW

SCARIFY SOIL ON SIDES-

OUCKBILL DEADMAN OR — ACCEPTABLE EQUIVALENT

& BOTTOM OF PIT -

VSR

IRRIGATION PERFORMANCE SPECIFICATION:

THE FOLLOWING CRITERIA SHALL BE CONSIDERED MINIMUM STANDARDS FOR DESIGN

- AND INSTALLATION OF LANDSCAPE IRRIGATION SYSTEM:

 1. GENERAL IRRIGATION SYSTEM TO INCLUDE DRIP IRRIGATION OF SHRUB BEDS ADJACENT TO BUILDINGS, SPRAY HEADS IN THE PARKING ISLANDS, AND ROTORS AROUND THE PERIMETER OF THE PARKING LOTS. HEADS SHALL THROW AWAY FROM BUILDING AND AVOID SPRAYING OVER SIDEWALKS.
- 2. IRRIGATION SYSTEM SHALL CONFORM TO ALL INDUSTRY STANDARDS AND ALL FEDERAL, STATE AND LOCAL LAWS GOVERNING DESIGN AND INSTALLATION.
- 5. WATER LINE TYPE, SIZE LOCATION, PRESSURE AND FLOW SHALL BE FIELD
 VERIFIED PRIOR TO SYSTEM DESIGN AND INSTALLATION
- VERIFIED PRIOR TO SYSTEM DESIGN AND INSTALLATION.

 I. ALL MATERIALS SHALL BE FROM NEW STOCK FREE OF DEFECTS AND CARRY A MINIMUM ONE YEAR WARRANTY FROM THE DATE OF SUBSTANTIAL COMPLETION.
- 5. THE IRRIGATION SYSTEM SHALL BE DESIGNED AND INSTALLED IN SUCH A WAY THAT ALL SYSTEM COMPONENTS OPERATE WITHIN THE GUIDELINES ESTABLISHED BY THE MANUFACTURER.
- 6. LAWN AREA AND SHRUB BEDS SHALL BE ON SEPARATE CIRCUITS.
 7. PROVIDE WATER TAP, METER SET, METER VAULT AND ALL OTHER OPERATIONS NECESSARY TO PROVIDE WATER FOR IRRIGATION SHALL CONFORM TO LOCAL WATER GOVERNING AUTHORITY GUIDELINES AND STANDARDS.
- BACKFLOW PREVENTION SHALL BE PROVIDED IN ACCORDANCE WITH STATE AND LOCAL REGULATIONS.

 IRRIGATION CONTROLLER TO BE LOCATED IN UTILITY ROOM INSIDE BUILDING, AS
- IDENTIFIED BY OWNER.

 10. IRRIGATION CONTROLLER STATIONS SHALL BE LABELED TO CORRESPOND WITH
- THE CIRCUIT IT CONTROLS.

 CONTRACTOR SHALL PROVIDE TO THE OWNER WRITTEN OPERATION INFORMATION
- FOR ALL SYSTEM COMPONENTS.

 12. CONTRACTOR SHALL PROVIDE TO THE OWNER ALL KEYS, ACCESS TOOLS, WRENCHES AND ADJUSTING TOOLS NECESSARY TO GAIN ACCESS, ADJUST AND
- CONTROL THE SYSTEM.

 13. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS TO THE OWNER FOR REVIEW AND
- APPROVAL PRIOR TO INSTALLATION.

 14. AN AUTOMATIC RAIN SHUT-OFF OR MOISTURE DEVICE SHALL BE INSTALLED.
- INSTALL SCHEDULE 40 PVC SLEEVES UNDER ALL CURBS, PAVING AND SIDEWALKS. SLEEVES TO BE TWICE THE SIZE OF THE LINE IT HOUSES.
 INSTALL MANUAL DRAIN VALVES AT LOWEST POSSIBLE ELEVATION ON IRRIGATION MAIN TO ALLOW GRAVITY DRAINING OF MAIN DURING WINTER MONTHS. PROVIDE

QUICK COUPLERS AT MULTIPLE LOCATIONS TO ALLOW FOR EASY "BLOWING OUT"

- 17. ZONES OR NOZZLES SHALL BE DESIGNED WITH MATCHED PRECIPITATION RATES.
 18. MINIMUM LATERAL DEPTH IS 15" AND MAIN DEPTH IS 18".
- 19. SUBMIT DESIGN DRAWING WITH BID TO ALLOW OWNER TO EVALUATE SYSTEM.
 INCLUDE CUT SHEETS OF ALL COMPONENTS AND ZONE TABLE ILLUSTRATING
 FLOWS AND ANTICIPATED PRESSURE AT FURTHEST HEAD.
- 20. AN "AS-BUILT" SCALED DRAWING SHALL BE PROVIDED TO THE OWNER BY THE CONTRACTOR AND SHALL INCLUDE BUT NOT BE LIMITED TO THE FOLLOWING:

 AS CONSTRUCTED LOCATION OF ALL COMPONENTS
- COMPONENT NAME, MANUFACTURER, MODEL INFORMATION, SIZE AND
- PIPE SIZE AND QUANTITY

OF LATERAL AND MAIN LINES.

- INDICATION OF SPRINKLER HEAD SPRAY PATTERN
- CIRCUIT IDENTIFICATION SYSTEMDETAILED METHOD OF WINTERIZING SYSTEM

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

SIZE/REMARKS

2" CAL. B&B

6' HT. B&B

2 GAL. min. 18" HT.

2 GAL. min. 18" HT.

1 GAL

LANDSCAPING NOTES:

- 1. LOCATE ALL UTILITIES BEFORE LANDSCAPE CONSTRUCTION BEGINS.
- NOTIFY OWNER REPRESENTATIVE OF ANY LAYOUT DISCREPANCIES.
 ALL EXTERIOR GROUND WITHIN THE LIMITS OF THE CONTRACT, EXCEPT FOR SURFACES OCCUPIED BY BUILDINGS, STRUCTURES, PAVING, AND AS DIRECTED ON THE DRAWINGS AS UNDISTURBED, SHALL BE FILLED WITH SIX INCHES (6") OF TOPSOIL
- 4. ALL DISTURBED AREAS NOT DESIGNATED FOR OTHER PLANTING SHALL BE SODDED. SOD SHALL CONSIST OF 90% TURF TYPE TALL FESCUE 10% BLUEGRASS.
- 5. WEED MAT SHALL BE USED UNDER ALL PLANTING AREAS NOT TO BE SODDED OR AS DIRECTED ON THE DRAWINGS. THE MAT SHALL BE COVERED WITH MULCH AND SECURED IN-PLACE BY A SOIL ANCHOR.
- 6. QUANTITIES INDICATED IN PLANT LIST ARE FOR CONVENIENCE ONLY.
 CONTRACTOR IS RESPONSIBLE FOR PLANT QUANTITIES AS ILLUSTRATED
 ON THE PLAN.
- 7. SHREDDED HARDWOOD MULCH SHALL BE USED AS THREE INCH (3") TOP DRESSING IN ALL PLANT BEDS AND AROUND ALL TREES. SINGLE TREES OR SHRUBS SHALL BE MULCHED TO THE OUTSIDE EDGE OF SAUCER OR LANDSCAPE ISLAND (SEE PLANTING DETAILS).
- 8. PROVIDE STEEL EDGING AROUND ALL SHRUB AND GROUNDCOVER BEDS.

 STEEL EDGING SHALL BE 1/8" x 4" WITH CLIPS AND REBAR STAKES FIVE FEET(5') ON CENTER.
- 9. FERTILIZE ALL PLANTS AT THE TIME OF PLANTING WITH TIME—RELEASE FERTILIZER(3-4 SLOW—RELEASE TABLETS/PELLETS).
- 10. IF LEANING OCCURS WITHIN ONE YEAR, TREES SHALL BE RE-STAKED (SEE PLANTING DETAILS).
- 11. CONTRACTOR SHALL STAKE ALL PLANT MATERIALS PRIOR TO INSTALLATION FOR THE PURPOSE OF DETERMINING CONFLICTS WITH ROCK, UTILITIES, ETC. NO PLANTS CAN BE PLANTED DIRECTLY ON ROCK OR UTILITIES. NOTIFY ARCHITECT/ENGINEER/OWNER AT ONCE IF ANY CONFLICTS OCCUR. CONTRACTOR WILL BE REQUIRED TO ADJUST PLANT LOCATIONS AT NO
- ADDITIONAL COST.

 12. CONTRACTOR IS RESPONSIBLE FOR WATERING ALL SOD UNTIL ROOTS HAVE KNOTTED INTO SOIL AND OWNER HAS OCCUPIED THE BUILDING.
- 13. PROVIDE "GATOR" BAGS ON ALL TREES. REFILL AS NECESSARY UNTIL OWNER OCCUPIES THE BUILDING.
- 14. PROVIDE ROLLED EROSION CONTROL MAT, NORTH AMERICAN GREEN SC150BN OR APPROVED EQUAL OVER ALL NATIVE GRASS SEEDED AREAS.
- 15. 12" GRAVEL MOW STRIP PROVIDE AND INSTALL: ¼" x 5" STEEL EDGING (SURE-LOC OR EQ.). ANCHOR IN PLACE WITH STAKES PER MANUFACTURER. PROVIDE AND INSTALL HEAVY DUTY WEED BARRIER FABRIC UNDER GRAVEL. PROVIDE AND INSTALL 3" DEPTH OF 1"-2" MULTI-COLORED WASHED RIVER GRAVEL, SUBMIT COLOR SAMPLE TO OWNER FOR APPROVAL.

LANDSCAPE WORKSHEET

	ORDINANCE REQUIRMENT	REQUIRED FOR THIS SITE	PROPOSED (EXISTING AND NEW LANDSCAPE)
8.720.A.1 Street Frontage Trees (NW Douglas)	1 tree per 30 feet of street frontage	229 ft. of street frontage /30= 8 trees required	8 trees
8.720.A.2 Street Frontage Green Strip (NW Douglas)	20 feet	20 feet	20 feet
8.720.A.3 Street Frontage Shrubs (NW Douglas)	1 shrub per 20 feet of street frontage	229 ft. of street frontage /20= 12 shrubs required	16 shrubs
8.720.A.1 Street Frontage Trees (NW Victoria)	1 tree per 30 feet of street frontage	297 ft. of street frontage /30= 10 trees required	10 new trees *
8.720.A.2 Street Frontage Green Strip (NW Victoria)	20 feet	20 feet	20 feet
8.720.A.3 Street Frontage Shrubs (NW Victoria)	1 shrub per 20 feet of street frontage	297 ft. of street frontage/20= 15 shrubs required	15 shrubs
8.790.B.1 Open Yard Shrubs	2 shrubs per 5000 sq. ft. of total lot area excluding building footprint.	23,300 sq. ft./5000 x 2=10 shrubs.	12 shrubs
8.790.B.2 Open Groundcover	Open area not covered with other materials shall be covered with sod.		Sod
8.790.B.3 Open Yard Trees	1 tree per 5000 sq. ft. of total lot area excluding building and parking.	23,300 sq. ft./5000=5 trees.	5
8.810.A Parking Lot Landscape Islands	5% of entire parking area (spaces, aisles & drives); 1 island at end of every parking bay, min. 9' wide	25,153 sq.ft. of parking area x .05 = 1,257 sq.ft. of landscape parking lot islands required	1,714 sq.ft.
8.820 Screening of Parking Lot, NW Douglas	12 shrubs per 40 linear feet (must be 2.5 feet tall; berms may be combined with shrubs)	229 linear feet/40 x 12 69 shrubs required	69 shrubs
8.820 Screening of Parking Lot, NW Victoria.	12 shrubs per 40 linear feet (must be 2.5 feet tall; berms may be combined with shrubs)	240 linear feet/40 x 12 72 shrubs required	72 shrubs
* CITY ONLY ALLOWS ORNAME	ENTAL TREES IN PUBLIC EASEMENTS.	ALL TREES TO SATISFY STREET F	RONTAGE REQUIREMENT

* CITY ONLY ALLOWS ORNAMENTAL TREES IN PUBLIC EASEMENTS. ALL TREES TO SATISFY STREET FRONTAGE REQUIREMENT

AGC Engineers, INC.

ACER SACHARUM 'AUTUMN SPLENDOR

GLEDITISA TRIACANTHOS 'SKYLINE'

CERCIS CANADENSIS 'OKLAHOMA'

JUNIPEROUS CHINENSIS 'PERFECTA'

JUNIPEROUS CHINENSIS 'SEA GREEN'

22 | PENNISETUM ALOPECURIODES 'LITTLE BUNNY'

TAXUS x MEDIA 'DENSIFORMIS'

MALUS SP. 'SPRING SNOW'

QUERCUS RUBRA

SHRUBS/GRASSES/GROUNDCOVER

CSM

HL

RO

RB

SSC

405 S. Leonard St., Suite D Liberty, Missouri 64068

816.781.4200 **a** fax 792.3666

COMMON NAME

CADDO SUGAR MAPLE

SKYLINE HONEYLOCUST

OKLAHOMA REDBUD

PERFECTA JUNIPER

SEA GREEN JUNIPER

DENSIFORMIS YEW

SPRING SNOW CRABAPPLE

LITTLE BUNNY FOUNTAIN GRASS

RED OAK

www.agcengineers.com

VANCES RZEPKA NOMBER LA-000144

PANERA BREAD BAKERY - CAFE

LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

FINAL DEVELOPMENT PLANS
LANDSCAPE PLAN

L100