CIVIL ENGINEER
PREMIER DESIGN GROUP
100 MIDLAND PARK DRIVE
WENTZVILLE, MO 63385
314-925-7444
CONTACT: MATT FOGARTY

MUNICIPALITY
CITY OF LEE'S SUMMIT
200 SE GREEN
LEE'S SUMMIT, MO 64063
(816) 969-1200
CONTACT: DEVELOPMENT
SERVICES DEPARTMENT

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—2"V	v —	2" WATER MAIN										



- 6"W - 6" WATER MAIN
- 8"W - 8" WATER MAIN
- X" GAS - GAS LINE
- 507 - CONTOUR LINE

UNDERGROUND UTILITIES AND OSHA SAFETY NOTE:

Underground utilities and structures have been plotted from available information and therefore, their location must be considered approximate only. It is the responsibility of the individual contractors to notify the utility companies before actual construction. All O.S.H.A rules and regulations established for the type of construction required by these plans shall be strictly followed (ie. trenching, blasting, etc.)

UTILITY PROVIDERS

WATER

CITY OF LEE'S SUMMIT WATER 1200 SE HAMBLEN RD LEE'S SUMMIT, MO 64081 (816) 969 1900 CONTACT: T.B.D.

ELECTRIC
EVERGY ELECTRIC
1351 NW WARD RD
LEE'S SUMMIT, MO 64086
(888) 471-5275
CONTACT: T.B.D.

GAS
SPIRE GAS
1117 S. PLEASANT ST
INDEPENDENCE, MO 64050
(800) 582-1234
CONTACT: T.B.D.

<u>TELEPHONE</u>

AT&T BUSINESS COMMUNICATION SERVICES (618) 346-6400 CONTACT: T.B.D.

FIRE DEPARTMENT
CITY OF LEE'S SUMMIT FIRE PROTECTION
207 E. DOUGLAS BLVD
LEE'S SUMMIT, MO 64063
(816) 969-1313
CONTACT: MIKE SNIDER - FIRE CHIEF

SANITARY SEWER
CITY OF LEE'S SUMMIT SEWER
1200 SE HAMBLEN ROAD
LEE'S SUMMIT, MO 64081
(816) 969 1900
CONTACT: T.B.D.

CABLE
SPECTRUM
188 NW OLDHAM PKWY
LEE'S SUMMIT, MO 64081
(874) 874 2389
CONTACT: T.B.D.

FINAL DEVELOPMENT PLAN FOR



250 NW MCNARY CT.

ALL OF LOT 3B, SUMMIT TEC ANNEX-LOTS 3A, 3B, AND 3C, A SUBDIVISION IN LEE'S SUMMIT, JACKSON COUNTY, MISSOURI, ACCORDING TO THE RECORDED PLAT THEREOF, BEING A REPLAT OF LOT I AND TRACT A OF BLOCK 3 OF SUMMIT TEC INDUSTRIAL PARK, A SUBDIVISION IN LEE'S SUMMIT, JACKSON COUNTY, MISSOURI.



LOCATION MAP

1" = 250'

DISTURBED AREA = 1.63 ACRES

DATUM BENCHMARK

JA-43: KC METRO ALUM GRS DISK SET IN CONCRETE: KC METRO ALUM GRS DISK SET IN CONCRETE ABOUT 0.5 MILES SOUTH OF THE I-470 INTERSECTION WITH DOUGLAS ROAD AND NEAR THE INTERSECTION WITH NW VICTORIA

SITE BENCHMARKS

BM#1 CHISELED SQUARE CUT INTO THE MIDDLE FRONT OF THE : CHISELED SQUARE CUT INTO THE MIDDLE FRONT OF THE WEST CURB INLET AT THE END OF CUL-DE-SAC ELEV= 999.04

BM#2 - CHISELED CROSS AT THE NORTHERN END OF INLET AT END OF CUL-DE-SAC ELEV:999.16

BM#3 - CHISELED CROSS AT THE SOUTHEAST CORNER OF THE SOUTHWESTERN CURB INLET LOCATED PRIOR TO THE CUL-DE-SAC ROUNDING. ELEV: 1006.12

MBOE - (MINIMUM BUILDING OPENING ELEVATION) ELEV = 1001.00



SHEET INDEX

C-000 COVER SHEET C-001 GENERAL NOTES C-100 SITE PLAN GRADING PLAN C-200 UTILITY PLAN INITIAL EROSION CONTROL PLAN INTERMEDIATE EROSION CONTROL PLAN FINAL EROSION CONTROL PLAN EROSION CONTROL DETAILS EXISTING DRAINAGE AREA MAP STORMWATER MANAGEMENT PLAN STORM SEWER PROFILES OUTFALL STRUCTURE DETAIL BASIN DETAILS CONSTRUCTION DETAILS ada detail C-800 UTILITY DETAILS UTILITY DETAILS LANDSCAPE PLAN

PROPERTY DATA

 OVERALL SITE ACREAGE
 ±2.11 ACRES - 92,014 S.F.

 ADDRESS
 250 NW MCNARY CT.

 PARCEL ID#
 52-900-03-42-00-0-000

 EXISTING ZONING
 CP-2

CURRENT LAND USE VACANT COMMERCIAL PROPERTY
PROPOSED LAND USE PET SERVICES AND VETERINARY CLINIC

LEGAL DESCRIPTION:

ALL OF LOT 3B, SUMMIT TEC ANNEX-LOTS 3A, 3B, AND 3C, A SUBDIVISION IN LEE'S SUMMIT, JACKSON COUNTY, MISSOURI, ACCORDING TO THE RECORDED PLAT THEREOF, BEING A REPLAT OF LOT I AND TRACT A OF BLOCK 3 OF SUMMIT TEC INDUSTRIAL PARK, A SUBDIVISION IN LEE'S SUMMIT, JACKSON COUNTY, MISSOURI.

SITE COVERAGE CALCULATIONS

SITE AREA = 2.11 ACRES FLOOR TO AREA RATIO 14,100/92,014 = 0.15 FAR

EXISTING IMPERVIOUS AREA PARKING LOT AND BUILDING 0.00 ACRES OF PAVEMENT

0.00 ACRES OF PAVEMENT 0.00 ACRES OF BUILDING EXISTING GREEN SPACE 2.11 ACRES

EXISTING PERCENT OF IMPERVIOUS AREA COVERAGE = 0%

PROPOSED IMPERVIOUS AREA PARKING LOT AND BUILDING
0.67 ACRES OF PAVEMENT
0.32 ACRES OF BUILDING

PROPOSED GREEN SPACE

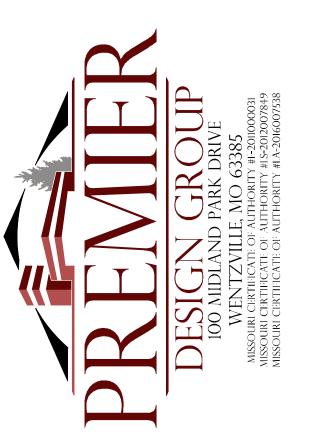
1.12 ACRES OF GREEN SPACE

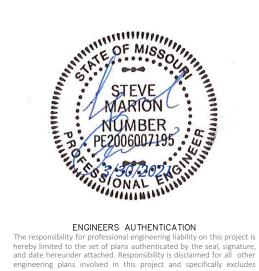
PROPOSED PERCENT OF IMPERVIOUS AREA COVERAGE = 46.9%

ELECTRONIC DRAWING NOTE:

ELECTRONIC MEDIA OR DIGITAL DRAWINGS ARE INSTRUMENT OF PROFESSIONAL SERVICES. OWNERSHIP OF SUCH WILL BE RETAINED BY THE CIVIL ENGINEER AND MAY NOT BE RELEASED TO CONTRACTORS.

CONTRACTORS ARE ADVISED TO CREATE BIDS BASED ON THE USE OF PAPER COPIES OF THE PLANS.





STEVEN D. MARION P.E.
PROFESSIONAL ENGINEER
PE 2006007195

EE'S SUMMIT, MO
O NW MCNARY CT.
E'S SUMMIT, MO 64086

I CROWLEY
IT PENNSYLVANIA PARKWAY SUITE 160

| Sevision Date | Description of Changes | 3-10-2021 | REVISED C-100 THROUGH C-401, C-601 THROUGH L-100 | 3-22-2021 | REVISED C-000 THROUGH C-100, C-300 THROUGH C-402, C-700 THROUGH C-800 | 3-29-2021 | REVISED C-300 ADDED STRUCTURE SIZES | S-29-2021 | REVISED C-300 ADDED STRUCTURE SIZES | S-29-2

C-000

 Project No.
 2008920

 Drawn By
 Z. KUNTZ/A. JONES

 Checked By
 M.FOGARTY

PAVING, GRADING, AND DRAINAGE NOTES

- 1. ALL PAVING, CONSTRUCTION MATERIALS, AND WORKMANSHIP WITHIN CITY RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH THE CITY OF LEE'S SUMMIT.
- 2. ALL AREAS IN EXISTING RIGHTS-OF-WAY DISTURBED BY SITE CONSTRUCTION SHALL BE RE-GRADED AND LANDSCAPED OR PAVED, (WHATEVER WAS THERE BEFORE DISTURBANCE). ALL DISTURBED AREAS SHALL BE REPAIRED TO THE PREVIOUS CONDITION OR BETTER THAN BEFORE AREA WAS DISTURBED
- TRAFFIC CONTROL ON ALL STATE, CITY AND COUNTY RIGHTS-OF-WAY SHALL MEET THE REQUIREMENTS OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (U.S. DOT/FHA) AND THE REQUIREMENTS OF THE STATE AND ANY LOCAL AGENCY HAVING JURISDICTION. IN THE EVENT THAT THE CONTRACT DOCUMENTS AND THE JURISDICTIONAL AGENCY REQUIREMENTS ARE NOT IN AGREEMENT, THE MOST STRINGENT SHALL GOVERN.
- THE CONTRACTOR SHALL GRADE THE SITE TO THE ELEVATIONS INDICATED AND SHALL RE-GRADE ANY WASHOUTS WHERE THEY OCCUR AFTER EVERY RAINFALL EVENT UNTIL SOIL IS STABILIZED.
- ALL AREAS INDICATED AS PAVEMENT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE TYPICAL PAVEMENT SECTIONS AS INDICATED ON THE DRAWINGS AND THE PROJECT SPECIFICATIONS.
- WHERE EXISTING PAVEMENT IS INDICATED TO BE REMOVED AND REPLACED, THE CONTRACTOR SHALL SAW CUT TO FULL DEPTH OF EXISTING PAVEMENT. CONTRACTOR SHALL PREPARE A SMOOTH, SOUND, VERTICAL FACE AND MATCH THE EXISTING PAVEMENT ELEVATION UNLESS OTHERWISE NOTED. CONTRACTOR SHALL INSTALL LONGITUDINAL BUTT JOINTS WHEN CONNECTING
- 7. THE CONTRACTOR SHALL ENSURE THAT ALL PLANTING AREAS ARE NOT OVERLY COMPACTED AND DO NOT CONTAIN LIMEROCK. THE CONTRACTOR SHALL EXCAVATE AND REMOVE ALL UNDESIRABLE MATERIAL FROM ALL AREAS ON THE SITE TO BE PLANTED.
- 8. ALL DRAINAGE STRUCTURES SHALL BE DE-SILTED AS REQUIRED DURING AND AT THE END OF CONSTRUCTION TO PROVIDE POSITIVE DRAINAGE FLOWS.
- 9. STRIP TOPSOIL AND ORGANIC MATTER AND PAVING MATERIAL FROM ALL AREAS UNDER BUILDING. TOPSOIL MAY BE STOCKPILED ON SITE FOR REPLACEMENT IN GREEN AREAS
- 10. FIELD DENSITY TESTS SHALL BE TAKEN AT A FREQUENCY AS REQUIRED IN THE PROJECT SPECIFICATIONS.
- 11. BEFORE PLACING PAVEMENT, CONTRACTOR SHALL VERIFY THAT SUITABLE HANDICAPPED ROUTES (PER A.D.A. REQUIREMENTS) EXIST TO AND FROM EVERY ACCESSIBLE DOOR. IN NO CASE HALL HANDICAP RAMP SLOPES EXCEED 1 VERTICAL TO 12 HORIZONTAL. IN NO CASE SHALL SIDEWALK CROSS SLOPES EXCEED 2.0 PERCENT. IN NO CASE SHALL LONGITUDINAL SIDEWALK SLOPES EXCEED 5.0 PERCENT. CONTRACTOR SHALL CONTACT ARCHITECT AND CIVIL ENGINEER PRIOR TO PAVING IF ANY EXCESSIVE SLOPES ARE ENCOUNTERED. NO CONTRACTOR CHANGE ORDERS WILL BE ACCEPTED FOR A.D.A. COMPLIANCE ISSUES.
- 12. CONTRACTOR ADJUSTMENT TO SPOT GRADES TO MAINTAIN POSITIVE DRAINAGE IS ALLOWED, ONLY WITH THE PRIOR APPROVAL OF THE CIVIL ENGINEER. CONTRACTOR SHALL CONTACT THE CIVIL ENGINEER PRIOR TO PAVING IF ANY AREAS OF POOR DRAINAGE ARE ENCOUNTERED.
- 13. SPOT ELEVATIONS SHOWN ARE TO TOP OF PAVING SURFACE OR FINISHED EARTH GRADE UNLESS NOTED OTHERWISE. WHERE APPLICABLE, ADD 0.50 FEET TO SPOT GRADES SHOWN FOR TOP OF
- 14. THE CONTRACTOR TAKE ALL MEASURES NECESSARY TO CONTROL TURBIDITY, INCLUDING BUT NOT LIMITED TO, THE INSTALLATION OF BMP'S AT ALL LOCATIONS WHERE THE POSSIBILITY OF TRANSFERRING SUSPENDED SOLIDS INTO THE RECEIVING WATER BODY EXISTS DUE TO THE PROPOSED WORK. BMP'S MUST BE MAINTAINED IN EFFECTIVE CONDITION AT ALL LOCATIONS UNTIL CONSTRUCTION IS COMPLETED AND DISTURBED SOIL AREAS ARE STABILIZED. THEREAFTER, THE CONTRACTOR MUST REMOVE THE TEMPORARY BARRIERS, AT NO TIME SHALL THERE BE ANY OFF-SITE DISCHARGE WHICH VIOLATES LOCAL, STATE, OR FEDERAL WATER QUALITY STANDARDS
- 15. THE CONTRACTOR MUST REVIEW AND MAINTAIN A COPY OF THE STORM WATER PERMIT COMPLETE WITH ALL CONDITIONS, ATTACHMENTS, EXHIBITS, AND PERMIT MODIFICATIONS, IN GOOD CONDITION, AT THE CONSTRUCTION SITE. THE COMPLETE PERMIT MUST BE AVAILABLE FOR REVIEW UPON REQUEST BY JURISDICTIONAL AGENCIES.
- 16. IF ANY EXISTING STRUCTURES, FACILITIES, OR IMPROVEMENTS (PUBLIC OR PRIVATE) TO REMAIN ARE DAMAGED DURING CONSTRUCTION, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REPAIR AND/OR REPLACE THE EXISTING STRUCTURE, FACILITY, OR IMPROVEMENT AS NECESSARY TO RETURN IT TO EXISTING CONDITIONS OR BETTER.
- REFERENCE THE SWPPP INCLUDED IN THIS PLAN SET AND IN THE PROJECT SPECIFICATIONS FOR THIS PROJECT.
- 18. CONTRACTOR SHALL REFERENCE ARCHITECT AND ELECTRICAL PLANS AND PROVIDE CONDUIT NEEDED FOR LOT LIGHTING AND SIGNAGE PRIOR TO SITE PAVING
- 19. PAVING LINE AND GRADE SHALL "FLUSHOUT" ALONG ALL CONNECTIONS TO EXISTING PAVING.
- 20. ALL BENDS LESS THAN 42" DIAMETER MUST BE FACTORY MANUFACTURED BENDS
- 21. ALL WORK SHALL BE DONE IN COMPLIANCE WITH THE PROJECT GEOTECHNICAL SERVICE REPORT FOR THIS SITE.
- 22. PAVING CONTRACTOR IS RESPONSIBLE FOR ALL LAY DOWN CURBS AT INTERSECTIONS WHERE BARRIER FREE RAMPS ARE TO BE CONSTRUCTED.
- 23. REFERENCE DETAIL SHEETS FOR PAVEMENT JOINT SPACING AND REQUIREMENTS. ALL SAWCUT AND JOINT LOCATIONS WILL BE AS REQUIRED BY THE CITY OF LEE'S SUMMIT INSPECTOR.
- 24. PRIVATE STORM PIPE MATERIAL SHALL BE PER CITY OF LEE'S SUMMIT SPECIFICATIONS.
- 25. ALL ELEVATIONS SHOWN ON THE GRADING PLAN ARE TO TOP OF PAVEMENT OR FINISHED GROUND UNLESS NOTED OTHERWISE. ELEVATIONS TO POINTS OTHER THAN THE TOP OF PAVEMENT ARE NOTED AS FOLLOWS:

TP=TOP OF PAVEMENT TC=TOP OF CURB

TW=TOP OF WALL BW=FINISHED GROUND AT FACE OF WALL

GRND=FINISHED GROUND AT YARD DRAINS, TOP OF FINISHED GRADE IN NON-PAVEMENT AREAS

GRADING PLAN NOTES:

- 1. THE CONTRACTOR SHALL RESTORE OFFSITE CONSTRUCTION AREAS TO AN EQUAL OR BETTER CONDITION THAN EXISTED PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- 2. ALL GRADES SHALL BE WITHIN 0.1 FEET MORE OR LESS OF THOSE SHOWN ON THE GRADING PLAN.
- 3. NO SLOPE SHALL BE GREATER THAN 3:1 AND SHALL BE EITHER SODDED OR SEEDED AND MULCHED UNLESS OTHERWISE NOTED OR DETAILED.
- 4. THE CONTRACTOR SHALL FIELD INVESTIGATE THE ENTIRE SITE PRIOR TO HIS BID SUBMITTAL NOTING THE EXISTING VEGETATION, PAVEMENT AREAS, BUILDING MATERIALS, BUILDING MATERIAL TYPES, PARKING LIGHTING, UTILITIES AND TREES. THE REMOVAL AND DISPOSAL OF ALL ITEMS SHALL BE INCLUDED IN THE BID.
- 5. NO AREA SHALL BE CLEARED WITHOUT PERMISSION OF THE OWNER/DEVELOPER. SILTATION CONTROL WILL BE PROVIDED AS REQUIRED TO PREVENT RUN-OFF. REFER TO THE EROSION CONTROL PLAN(S)
- 6. ALL TRASH, DEBRIS, ORGANIC MATERIAL, REFUSE, FROZEN EARTH, ETC., SHALL BE REMOVED FROM FILL AREAS PRIOR TO THE PLACEMENT OF CONTROLLED FILL. ALL FILLS AND BACKFILLS SHALL BE MADE OF SELECTED EARTH MATERIALS, FREE FROM BROKEN MASONRY, ROCK, FROZEN EARTH, RUBBISH, ORGANIC MATERIAL AND DEBRIS.
- THE CONTRACTOR SHALL PROVIDE EROSION CONTROL PER THE EROSION CONTROL PLAN(S) AND MAY BE REQUIRED TO PROVIDE ADDITIONAL MEASURES AS REQUESTED BY THE CITY OF LEE'S SUMMIT, SHOULD THE EROSION CONTROL PLAN AND DETAILS PROVE TO BE INSUFFICIENT DUE TO UNFORESEEN CIRCUMSTANCES.
- 8. CARE SHALL BE EXERCISED IN COMPACTION OF BACKFILL MATERIALS OVER THE TOP OF STRUCTURES OR PIPES IN ORDER TO PREVENT DAMAGE TO THE WATERPROOFING MEMBRANES, JOINTS, SEALS AND/OR THE PIPES AND STRUCTURES THEMSELVES, COMPACTION AND PLACING OF BACKFILL AND FILL MATERIALS SHALL BE PERFORMED UNDER THE CONTINUOUS SUPERVISION OF AN APPROVED TESTING LABORATORY. FILL SHALL NOT BE PLACED ON FROZEN GROUND, NOR SHALL FILLING OPERATIONS CONTINUE WHEN THE TEMPERATURE IS SUCH AS TO PERMIT THE LAYER UNDER PLACEMENT TO
- 9. ALL CITY, COUNTY, AND STATE ROADS SHALL BE KEPT FREE OF DIRT DAILY.
- 10. FINAL GRADES SHALL MATCH EXISTING ELEVATIONS AT THE LAND DISTURBANCE LIMITS UNLESS OTHERWISE SHOWN.
- 11. THE DEVELOPER IS REQUIRED TO PROVIDE ADEQUATE STORM WATER SYSTEMS IN ACCORDANCE WITH THE CITY OF LEE'S SUMMIT AND EPA STANDARDS.
- 12. ALL GRADING AND DRAINAGE TO BE IN CONFORMANCE WITH THE CITY OF LEE'S SUMMIT AND EPA STANDARDS.
- 13. INTERIM STORM WATER DRAINAGE CONTROL IN THE FORM OF SILTATION CONTROL MEASURES ARE REQUIRED
- 14. ANY LAND DISTURBANCE ACTIVITY INVOLVING ONE (1) ACRE OR MORE OF LAND IS A MAJOR LAND DISTURBANCE (MLD) AND A LAND DISTURBANCE FOR THE MLD MUST BE OBTAINED FROM THE DEPARTMENT OF PUBLIC WORKS. ANY LAND DISTURBANCE ACTIVITY INVOLVING LESS THAN ONE (1) ACRE IS AN ORDINARY LAND DISTURBANCE AND THE APPROPRIATE PERMIT(S) MUST BE OBTAINED FROM THE DEPARTMENT OF PUBLIC WORKS.
- 15. G.C. TO BE AWARE THAT A LAND DISTURBANCE PERMIT WILL BE REQUIRED. SITE PLAN/PLAT APPROVAL IS NOT TO BE CONSTRUED AS APPROVAL OF A LAND DISTURBANCE PERMIT.
- 16. ALL WORK SHALL BE IN COMPLIANCE WITH THE PROJECT GEOTECHNICAL SERVICES REPORT FOR THIS PROJECT.
- 17. ANY DISTURBED SIDEWALK OR CONCRETE PAVEMENT AREAS SHALL BE REPAIRED BY FULL SLAB REPLACEMENT UNLESS SPECIFICALLY AUTHORIZED BY THE DEVELOPER OR MUNICIPALITY HAVING JURISDICTION.
- 18. ALL UTILITY SPOILS SHALL BE INCLUDED IN THE GENERAL CONTRACTOR'S BID. GENERAL CONTRACTOR SHALL COORDINATE WITH THE EXCAVATOR AND UTILITY INSTALLER

ADA COMPLIANCE NOTES:

- 1. CONTRACTOR SHALL CONFIRM ALL EXISTING SLOPES FOR ACCESSIBLE ROUTES AS WELL AS THE ACCESSIBLE PARKING STALLS AND ACCESSIBLE AISLES WITH A SLOPE METER TO CONFIRM MAXIMUM SLOPES ARE NOT EXCEEDED.
- 2. CONTRACTOR IS REQUIRED TO PROVIDE AS-BUILT SPOT ELEVATIONS ALONG THE ACCESSIBLE ROUTES SHOWN ON THIS PLAN EVERY 10 FEET IN ORDER TO CONFIRM MAXIMUM (2%) CROSS-SLOPE AND MAXIMUM (5%) SLOPES IN THE DIRECTION OF TRAVEL. IN ADDITION, SPOT ELEVATIONS ARE REQUIRED ON ALL CORNERS AND MIDPOINTS OF ACCESSIBLE PARKING STALLS AND ACCESSIBLE AISLES TO CONFIRM MAXIMUM 2% SLOPES ARE NOT EXCEEDED IN ALL DIRECTIONS. THIS INFORMATION SHALL BE PROVIDED, A MINIMUM OF 2 WEEKS BEFORE STORE TURNOVER
- 3. THE GENERAL AND CONCRETE CONTRACTOR SHALL FIELD VERIFY ADA SLOPES DURING CONCRETE POUR. A 2' SMART LEVEL WITH AN ACCURACY TO .029 PERCENT SHALL BE USED FOR VERIFYING SLOPES. ANY SLOPES IN THE ADA AREAS THAT EXCEED A 2% CROSS SLOPE ALONG THE BUILDING, ADA STALLS AND/OR SIDEWALK, 5% RUNNING SLOPE FOR SIDEWALKS AWAY FROM THE PROPOSED PETSUITES BUILDING, AND EXCEED 8.3% ON RAMPS SHALL BE REMOVED AND REPLACED AT THE CONCRETE CONTRACTOR'S EXPENSE. THE SURVEYOR FOR STAKING CAN PROVIDE A REFERENCE FOR ELEVATION HOWEVER CONFIRMATION IS REQUIRED BY SLOPE LEVEL DURING CONSTRUCTION.

ABBREVIATIONS:

- AREA INLET (OPEN 4 SIDES UNLESS NOTED OTHERWISE) DAI...... DOUBLE AREA INLET (OPEN 6 SIDES UNLESS NOTED OTHERWISE.)
- MH..... MANHOLE CURB INLET
- DCI..... DOUBLE CURB INLE
- GSI....... GRATE INLET WITH SIDE INTAKE. (ELEVATION OF INLET TOP IS TO THE TOP OF GRATE, ADD 0.50' FOR TOP OF SIDE INTAKE.) 2GSI....... 2 GRATE INLET WITH SIDE INTAKE. (ELEVATION OF INLET TOP IS TO THE TOP OF GRATE, ADD 0.50' FOR TOP OF SIDE INTAKE.)
- END OF PIPI
- FLARED END SECTION INTERCEPTOR MANHOLE
- TRENCH DRAIN
- ATG...... ADJUST TO GRADE DENOTES HYDRAULIC GRADE JUMP
- TBR...... TO BE REMOVED TBR&R..... TO BE REMOVED & REPLACED

GENERAL NOTES:

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CITY OF LEE'S SUMMIT SPECIFICATIONS, CITY OF LEE'S SUMMIT "STANDARD DETAILS", LATEST EDITION, THE PROJECT SPECIFICATIONS BOOK, AND THESE CONSTRUCTION PLANS. IN CASE OF CONFLICTING SPECIFICATIONS FOR DETAILS, THE CIVIL ENGINEER SHALL BE CONTACTED PRIOR TO CONSTRUCTION, GENERALLY, THE MOST STRINGENT SPECIFICATION SHALL APPLY.
- during the construction of these improvements, any interpretation of the standard specifications, and any matter which requires the approval of the owner, must be APPROVED BY THE CITY OF LEE'S SUMMIT DEVELOPMENT ENGINEER BEFORE ANY CONSTRUCTION INVOLVING THAT DECISION COMMENCES. ASSUMPTIONS ABOUT WHAT THESE DECISIONS MIGHT BE WHICH ARE MADE DURING THE BIDDING PHASE WILL HAVE NO BEARING ON THE DECISION.
- 3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING ALL MATERIAL AND LABOR TO CONSTRUCT THE FACILITY AS SHOWN AND DESCRIBED IN THE CONSTRUCTION DOCUMENTS IN ACCORDANCE WITH THE APPROPRIATE APPROVING AUTHORITIES, SPECIFICATIONS AND REQUIREMENTS. CONTRACTOR SHALL VISIT THE SITE PRIOR TO BIDDING TO DETERMINE EXISTING
- ALL EXISTING UTILITIES SHOWN ARE LOCATED ACCORDING TO THE INFORMATION AVAILABLE TO THE ENGINEER AT THE TIME THE DRAWINGS WERE PREPARED AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR THE ENGINEER. GUARANTEE IS NOT MADE THAT ALL EXISTING UNDERGROUND UTILITIES ARE SHOWN OR THAT THE LOCATION OF THOSE SHOWN ARE ACCURATE. THE LOCATIONS SHOWN ARE FOR BIDDING PURPOSES ONLY. FINDING THE ACTUAL LOCATION OF ANY EXISTING UTILITIES IS THE CONTRACTOR'S RESPONSIBILITY AND SHALL BE DONE BEFORE HE COMMENCES ANY WORK (INCLUDING ORDERING OF MATERIALS) IN THE VICINITY. FURTHERMORE, THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES DUE TO THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES. THE OWNER OR CEC WILL ASSUME NO LIABILITY FOR ANY DAMAGES SUSTAINED OR COST INCURRED BECAUSE OF THE OPERATIONS IN THE VICINITY OF EXISTING UTILITIES OR STRUCTURES, NOR FOR TEMPORARY BRACING AND SHORING OF SAME. IF IT IS NECESSARY TO SHORE, BRACE, SWING OR RELOCATE A UTILITY, THE UTILITY COMPANY OR DEPARTMENT AFFECTED SHALL BE CONTACTED BY THE CONTRACTOR AND THEIR PERMISSION OBTAINED REGARDING THE METHOD TO USE FOR SUCH WORK.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE VARIOUS UTILITY COMPANIES WHICH MAY HAVE BURIED OR AERIAL UTILITIES WITHIN OR NEAR THE CONSTRUCTION AREA BEFORE COMMENCING WORK. THE CONTRACTOR SHALL PROVIDE 72 HOURS MINIMUM NOTICE TO ALL UTILITY COMPANIES PRIOR TO BEGINNING CONSTRUCTION. A LIST OF THE UTILITY COMPANIES WHICH THE CONTRACTOR MUST CALL BEFORE COMMENCING WORK IS PROVIDED ON THE COVER SHEET OF THESE CONSTRUCTION PLANS. THIS LIST SERVES AS A GUIDE ONLY AND IS NOT INTENDED TO LIMIT THE UTILITY COMPANIES WHICH THE CONTRACTOR MAY WISH TO NOTIFY.
- 6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED CONSTRUCTION PERMITS, 3-WAY CONTRACTS, AND BONDS PRIOR TO CONSTRUCTIONS.
- THE CONTRACTOR SHALL HAVE AVAILABLE AT THE JOB SITE AT ALL TIMES ONE COPY OF THE CONTRACT DOCUMENTS INCLUDING PLANS, SPECIFICATIONS AND SPECIAL CONDITIONS, COPIES OF ANY REQUIRED CONSTRUCTION PERMITS, AND EROSION CONTROL PLANS AND INSPECTION REPORTS (SWPPP).
- ANY DISCREPANCIES ON THE DRAWINGS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER & CIVIL ENGINEER BEFORE COMMENCING WORK. NO FIELD CHANGES OR DEVIATIONS FROM DESIGN ARE TO BE MADE WITHOUT PRIOR APPROVAL TO THE OWNER AND NOTIFICATION TO THE ENGINEER. NO CONSIDERATION WILL BE GIVEN TO CHANGE ORDERS FOR WHICH THE OWNER AND CIVIL ENGINEER WERE NOT CONTACTED PRIOR TO CONSTRUCTION OF THE AFFECTED ITEM.
- ALL COPIES OF COMPACTION, CONCRETE AND OTHER REQUIRED TEST RESULTS ARE TO BE SENT TO THE CIVIL ENGINEER OF RECORD AND THE CITY OF LEE'S SUMMIT DEVELOPMENT ENGINEER DIRECTLY FROM THE TESTING AGENCY. 10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING TO THE CIVIL ENGINEER AND TO CITY A CERTIFIED RECORD SURVEY SIGNED AND SEALED BY A PROFESSIONAL LAND SURVEYOR
- REGISTERED IN THE STATE OF MISSOURI DEPICTING THE ACTUAL FILED LOCATION OF ALL CONSTRUCTED IMPROVEMENTS THAT ARE REQUIRED BY THE JURISDICTIONAL AGENCIES FOR THE CERTIFICATION PROCESS. ALL SURVEY COSTS WILL BE THE CONTRACTORS RESPONSIBILITY.
- ALL NECESSARY INSPECTIONS AND/OR CERTIFICATIONS REQUIRED BY CODES, JURISDICTIONAL AGENCIES AND/OR UTILITY SERVICE COMPANIES SHALL BE PERFORMED PRIOR TO ANNOUNCED BUILDING POSSESSION AND THE FINAL CONNECTION OF SERVICES.
- 12. CONTRACTORS SHALL VERIFY BENCHMARKS AND DATUMS PRIOR TO COMMENCING CONSTRUCTION OR STAKING OF IMPROVEMENTS. 13. CONTRACTOR SHALL THOROUGHLY CHECK COORDINATION OF CIVIL, LANDSCAPE, MEP, ARCHITECTURAL, AND OTHER PLANS PRIOR TO COMMENCING CONSTRUCTION. OWNER AND CIVIL
- ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCY PRIOR TO COMMENCING WITH CONSTRUCTION 14. CONTRACTOR SHALL REFER TO THE ARCHITECTURAL PLANS FOR EXACT LOCATIONS AND DIMENSIONS OF VESTIBULES, SLOPE PAVING, SIDEWALKS, EXIT PORCHES, TRUCK DOCKS, PRECISE BUILDING DIMENSIONS, AND EXACT BUILDING UTILITY ENTRANCE LOCATIONS.
- 15. ALL DIMENSIONS GIVEN ARE TO FACE OF CURB AND/OR BUILDING. DIMENSIONS FOR PIPES AND STRUCTURES ARE TO THE CENTERLINE, UNLESS OTHERWISE NOTED ON PLANS.
- 16. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING RELOCATIONS AND INSTALLATIONS OF FRANCHISE UTILITIES NECESSARY FOR ON- AND OFF-SITE CONSTRUCTION.
- ON-SITE AND PERIMETER TRUCK ROUTE AND OTHER DIRECTIONAL SIGNAGE SHALL BE LOCATED OUT OF THE PEDESTRIAN, AUTOMOBILE, AND TRUCK ROUTES AND SHALL BE LOCATED BETWEEN THREE TO FIVE FEET BEHIND THE NEAREST BACK OF CURB UNLESS INDICATED OTHERWISE ON PLANS. SIGN HEIGHT, LOCATION, AND STRUCTURE SHALL BE SUCH THAT THE SIGNS POSE NO THREAT
- 18. ON-SITE AND PERIMETER TRUCK ROUTE AND OTHER DIRECTIONAL SIGNS SHALL BE ORIENTED SO THEY ARE READILY VISIBLE TO THE ONCOMING TRAFFIC FOR WHICH THEY ARE INTENDED. FIELD ADJUSTMENTS OF LOCATION AND ORIENTATION OF THE SIGNS ARE TO BE MADE TO ACCOMPLISH THIS
- 19. CONTRACTOR SHALL REPLACE ANY FENCING, CURBING, ETC. THAT IS DESTROYED OR DAMAGED DUE TO THE CONSTRUCTION ACTIVITIES.
- 20. CONTRACTOR IS RESPONSIBLE FOR TRAFFIC CONTROL DEVICES AND PLANS FOR ANY STREET WORK
- 21. ALL CONTRACTORS MUST CONFINE THEIR ACTIVITIES TO THE WORK AREA. NO ENCROACHMENTS ONTO DEVELOPED OR UNDEVELOPED AREAS WILL BE ALLOWED. ANY DAMAGE RESULTING THEREFROM SHALL BE CONTRACTOR'S RESPONSIBILITY TO REPAIR.
- 22. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING A TRENCH SAFETY PLAN TO THE DEVELOPER AT THE TIME OF THE PRE-CONSTRUCTION MEETING, OR PRIOR TO BEGINNING CONSTRUCTION OF THESE IMPROVEMENTS. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING TRENCH SAFETY REQUIREMENTS IN ACCORDANCE WITH MISSOURI STATE LAW AND O.S.H.A. STANDARDS FOR ALL EXCAVATION IN EXCESS OF FIVE FEET IN DEPTH. NO OPEN TRENCHES WILL BE ALLOWED OVERNIGHT. ONSITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- 23. LIGHT POLES AND SIGNS SHALL NOT BE PLACED IN ADA ACCESSIBLE ROUTES, ACCESSIBLE ACCESS AISLES, AND/OR REINFORCED ZONES BEHIND RETAINING WALLS.
- 24. TO THE MAXIMUM EXTENT PRACTICAL, CONSTRUCTION STAGING, WORKER PARKING, AND ANY OTHER POTENTIALLY NOISY OR OFFENSIVE CONSTRUCTION ACTIVITY SHOULD BE LOCATED AS FAR FROM THE RESIDENTIAL NEIGHBORS AS POSSIBLE.
- 25. CONTRACTOR SHALL KEEP THE CONSTRUCTION SITE SECURE FROM TRESPASSERS AT ALL TIMES. CONTRACTOR SHALL CONTACT CITY BUILDING OFFICIAL TO LEARN OF ANY UNUSUAL CONSTRUCTION SEQUENCING REQUIREMENTS THAT THE CITY MAY REQUIRE. THE CONTRACTOR IS CAUTIONED THAT THIS AND PERHAPS OTHER SUCH REQUIREMENTS MAY EXIST AND IT IS THE CONTRACTOR'S RESPONSIBILITY TO INVESTIGATE AND COMPLY WITH THEM.
- 27. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ANY NECESSARY FENCE OR WALL PERMITS FROM THE CITY

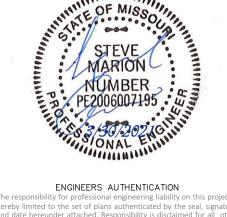
28. CONTRACTOR IS RESPONSIBLE FOR PROVIDING ADEQUATE TRAFFIC CONTROL PER CITY OF LEE'S SUMMIT STANDARDS.

29. CONTRACTOR SHALL INCLUDE ALL ITEMS THAT ARE LISTED FROM THE EXHIBIT B WORK LETTER BETWEEN THE DEVELOPER AND PETSUITES IN THEIR BID. ANY DEVIATIONS FROM THE WORK LETTER WILL REQUIRE DEVELOPER APPROVAL FOR EACH ITEM.

UTILITY PLAN NOTES:

- 1. ALL FILL MATERIAL SHALL BE IN PLACE AND COMPACTED BEFORE INSTALLATION OF PROPOSED UTILITIES.
- 2. CONTRACTOR SHALL NOTIFY THE UTILITY AUTHORITIES INSPECTORS 72 HOURS BEFORE CONNECTING TO ANY EXISTING LINE
- 3. CONTRACTOR SHALL MAINTAIN A MINIMUM OF 3'-6' COVER ON ALL WATERLINES AND 3'-6' ON ALL SANITARY SEWER LINES.
- 4. CONNECTION FROM THE METER TO SITE UTILITY LINES SHALL BE MADE BY BUILDING CONTRACTOR
- 5. EXISTING UTILITIES SHALL BE VERIFIED IN FIELD PRIOR TO INSTALLATION OF ANY NEW LINES.
- REFER TO MECHANICAL, ELECTRIC AND PLUMBING DRAWINGS FOR ACTUAL TIE-IN LOCATIONS FOR UTILITIES.
- 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 COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
- 8. ALL NECESSARY INSPECTIONS AND/OR CERTIFICATIONS REQUIRED BY CODES AND/OR UTILITY SERVICE COMPANIES SHALL BE PERFORMED PRIOR TO THE FINAL CONNECTION OF SERVICE.
- 9. ALL UTILITY SEWER TRENCH BACKFILL SHALL HAVE GRANULAR BACKFILL AND BE MECHANICALLY COMPACTED.
- 10. THE CONTRACTOR SHALL VERIFY THE LOCATION, CONDITION AND ELEVATION OF ALL PROPOSED SEWER CONNECTION POINTS PRIOR TO THE START OF CONSTRUCTION. ANY DISCREPANCIES THAT WOULD INTERFERE WITH THE PROPOSED SEWER DESIGN SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE ENGINEER.
- 11. ALL PERMIT FEES AND COSTS ASSOCIATED WITH BRINGING UTILITY, SEWER AND WATER SERVICES TO THE BUILDING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. ALL FEES AND COSTS SHALL BE
- 12. G.C. IS TO PROVIDE TRENCH, WIRE, AND CONDUIT FOR TELEPHONE AND ELECTRICAL SERVICES, BACKFILL AND GRADE SMOOTH FOR A COMPLETE TELEPHONE AND ELECTRIC INSTALLATION.
- 13. G.C. SHALL BE RESPONSIBLE FOR ANY TAPS TO BE MADE UNDER THE SUPERVISION OF THE CITY WATER DIVISION.
- 14. ANY DISTURBED SIDEWALK SHALL BE FULL SLAB REPLACEMENT.
- 15. EXISTING SANITARY SEWER AND WATER SERVICE SHALL NOT BE INTERRUPTED
- 16. THE CONTRACTOR SHALL INCLUDE THE COST ESTIMATE PROVIDED BY EVERGY IN HIS/HER BID FOR THE RELOCATION/REMOVAL OF ANY OVERHEAD ELECTRIC OR GUY WIRES. 17. THE REMOVAL AND REPLACEMENT, OR REHABILITATION OF THE EXISTING STRUCTURE(S) WILL BE DETERMINED BY THE CITY OF LEE'S SUMMIT DEVELOPMENT ENGINEER FIELD INSPECTOR. IF THE
- STRUCTURE IS DETERMINED TO REMAIN IN PLACE, THEN THE TOP SHALL BE ADJUSTED TO GRADE, IF NEEDED.
- 18. ALL STORM SEWER CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CITY OF LEE'S SUMMIT STANDARD SPECIFICATIONS AND CONSTRUCTION DETAILS.
- 19. ALL LATERAL SEWER CONSTRUCTION METHODS TO CONFORM TO LATEST STANDARDS AND SPECIFICATIONS FOR THE CITY OF LEE'S SUMMIT SEWER STANDARD SPECIFICATIONS AND CONSTRUCTION
- 20. ALL CONNECTIONS TO PUBLIC WATER SHALL BE AS REQUIRED BY THE CITY OF LEE'S SUMMIT WATER UTILITIES.
- 21. CONNECTION TO PUBLIC SEWER MAINS SHALL BE AS REQUIRED BY THE CITY OF LEE'S SUMMIT SEWER SANITARY. CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE PROVIDER PRIOR TO
- 22. ALL TRENCHES UNDER AREAS TO BE PAVED AND UNDER EXISTING PAVING SHALL BE GRANULARLY FILLED WITH 3/4" MINUS CRUSHED LIMESTONE ONLY. BACKFILL SHALL BE PLACED IN ACCORDANCE WITH CITY OF LEE'S SUMMIT STANDARDS.
- 23. TYPE "C" BEDDING PER CITY OF LEE"S SUMMIT STANDARDS REQUIRED FOR PIPES IN ROCK.
- 24. ALL TRENCH BACKFILLS UNDER PAVEMENT WITHIN PUBLIC RIGHT-OF-WAY SHALL BE GRANULAR BACKFILLED. TRENCH BACKFILLS UNDER PAVED AREAS, OUTSIDE OF PUBLIC RIGHT-OF-WAY SHALL BE GRANULAR BACKFILL IN LIEU OF THE EARTH BACKFILL COMPACTED TO 90 PERCENT OF THE STANDARD AASHTO T-180 COMPACTION TEST A.S.T.M. D-1557.
- 25. ALL CONCRETE PIPE SHALL BE REINFORCED, AND CONFORM TO A.S.T.M. DESIGNATION C76-80 CLASS III UNLESS OTHERWISE NOTED.
- 26. ALL DIMENSIONS ARE TO THE CENTERLINE OF STRUCTURE EXCEPT FOR END OF PIPES OR FLARED ENDS. FLARED END DIMENSIONS VARY. CONTRACTOR SHALL VERIFY LENGTHS FOR FLARED END SECTIONS PER PROPOSED TYPE OF FLARED END SUBMITTED. REFER TO THE CORRESPONDING SEWER PROFILE SHEET FOR EXACT DIMENSIONS IF APPLICABLE.
- 27. PLUMBING CONTRACTOR AND SURVEYOR SHALL CONFIRM STRUCTURES PROPOSED ON THESE PLANS MATCH THE PROPOSED STRUCTURES THAT ARE ONSITE. DUE TO CHANGE OF ELEVATIONS, AND LOCATIONS DEPENDING ON THE STRUCTURE AND TYPE, THE PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR ANY ISSUES FOR PROPOSING A DIFFERENT TYPE OF STRUCTURE OR PIPE THAN WHAT IS ON THESE PLANS. GENERAL CONTRACTOR SHALL REIMBURSE CIVIL ENGINEER FOR ANY TIME AND MATERIALS TO ADDRESS CHANGES TO STRUCTURES OR DESIGN FROM WHAT HAS BEEN APPROVED TO REDUCE OVERALL CONSTRUCTION COSTS.
- 28. STANDARDS AND DETAILS FROMCITY OF LEE'S SUMMIT STANDARDS PLANS SHALL SUPERCEDE THESE REQUIREMENTS





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PROFESSIONAL ENGINEER

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Z. KUNTZ/A. JONES M.FOGARTY Checked By

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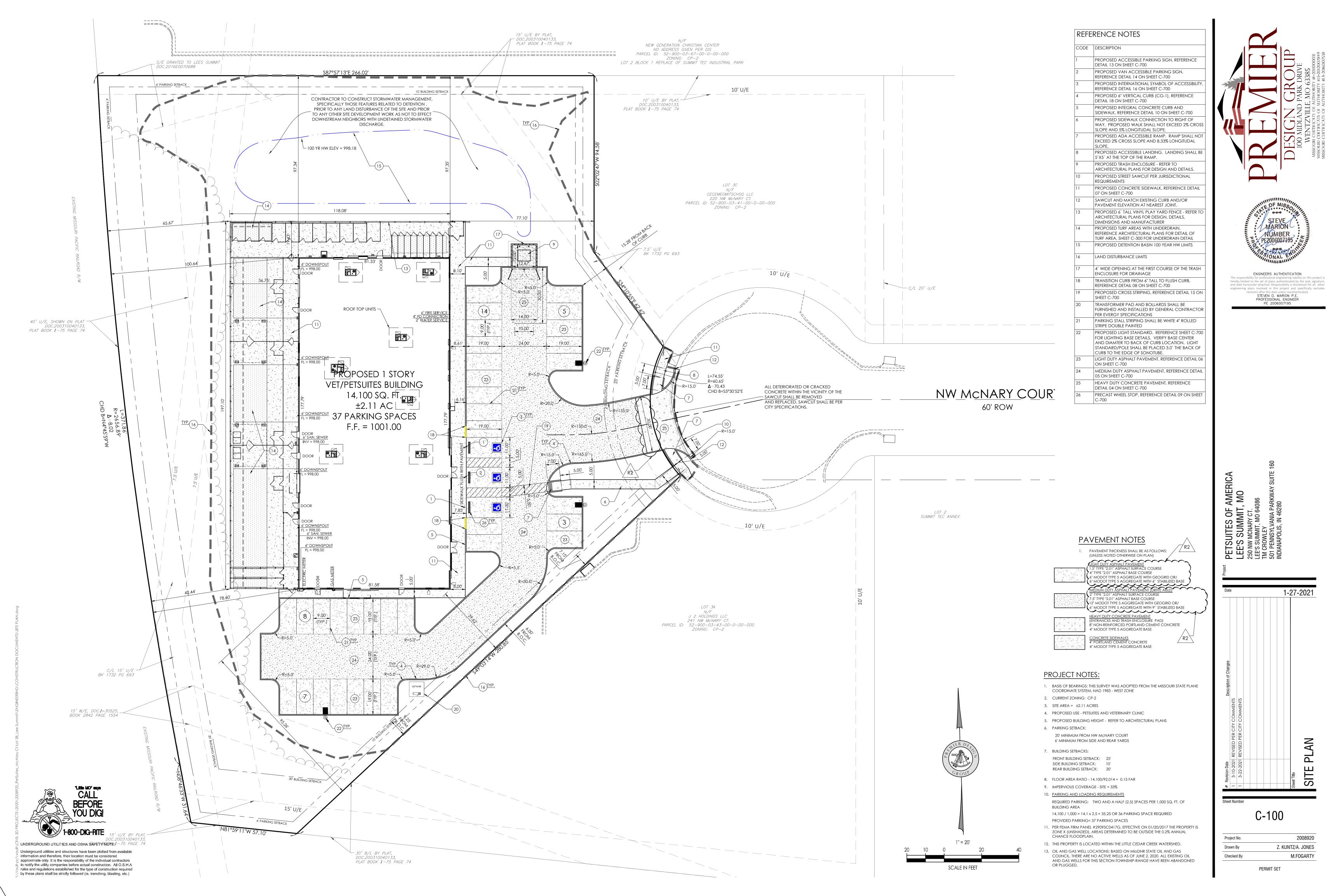


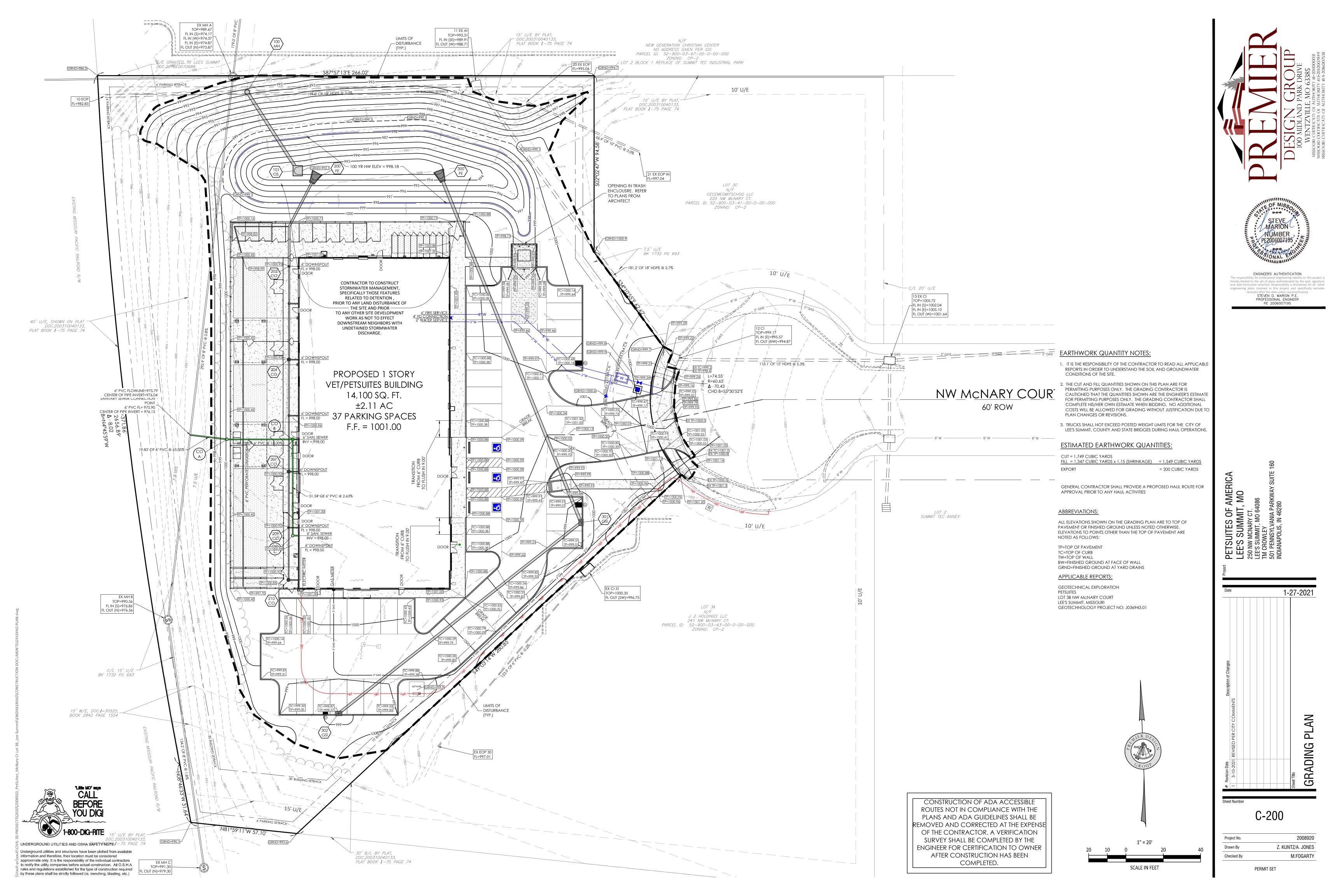
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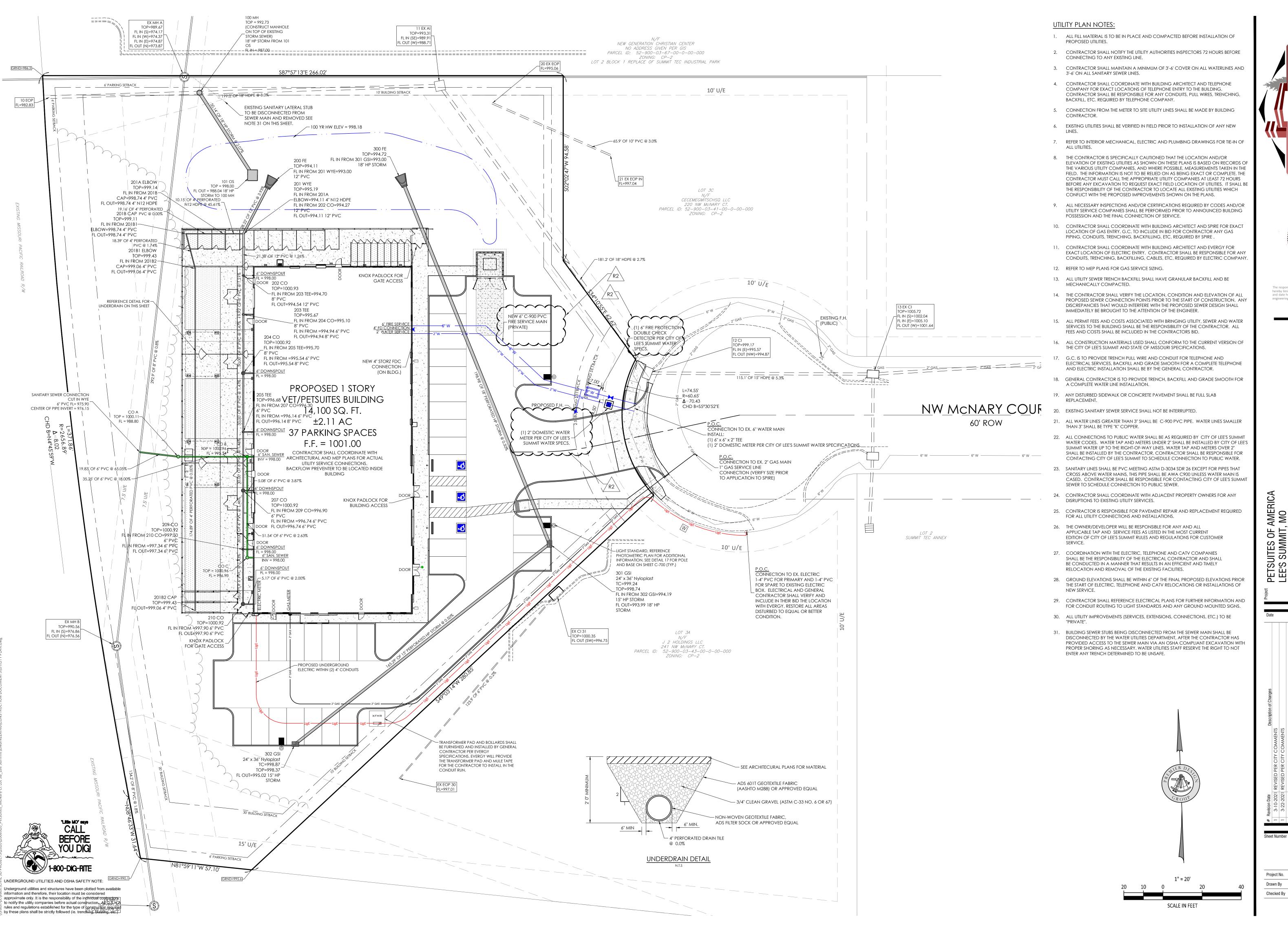
approximate only. It is the responsibility of the individual contractors to notify the utility companies before actual construction. All O.S.H.A

rules and regulations established for the type of construction required by these plans shall be strictly followed (ie. trenching, blasting, etc.)

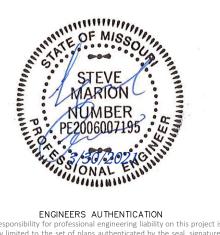
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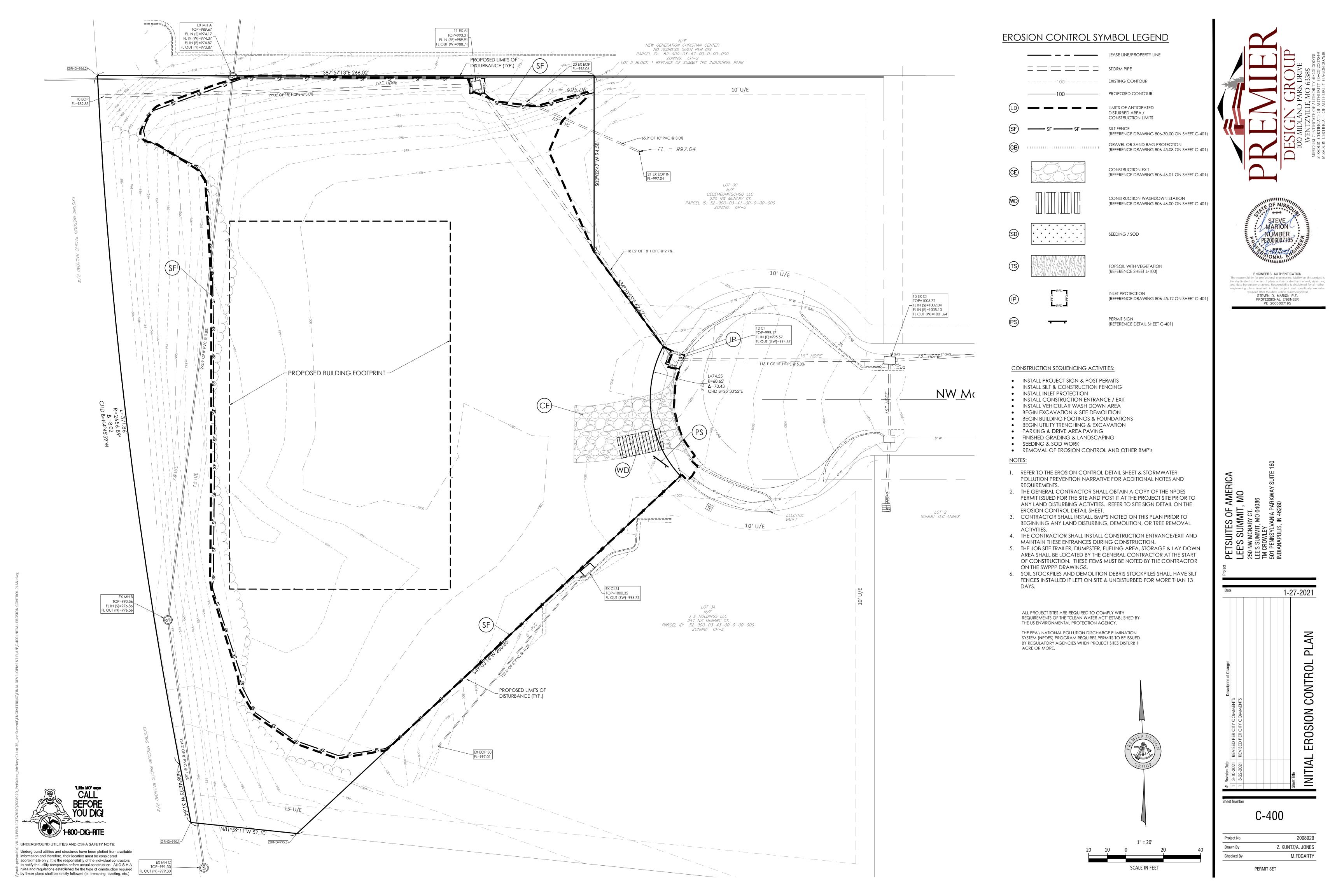
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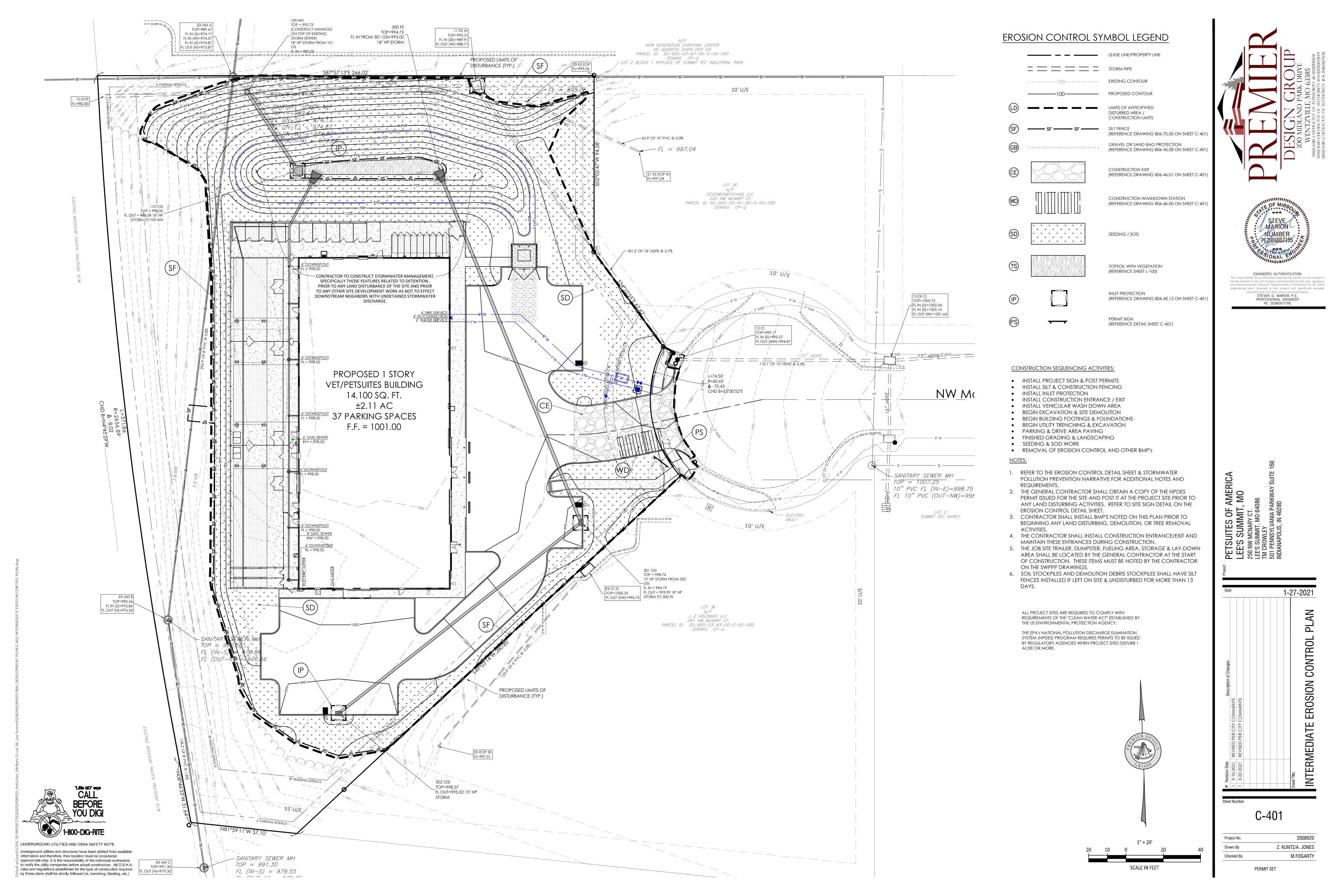
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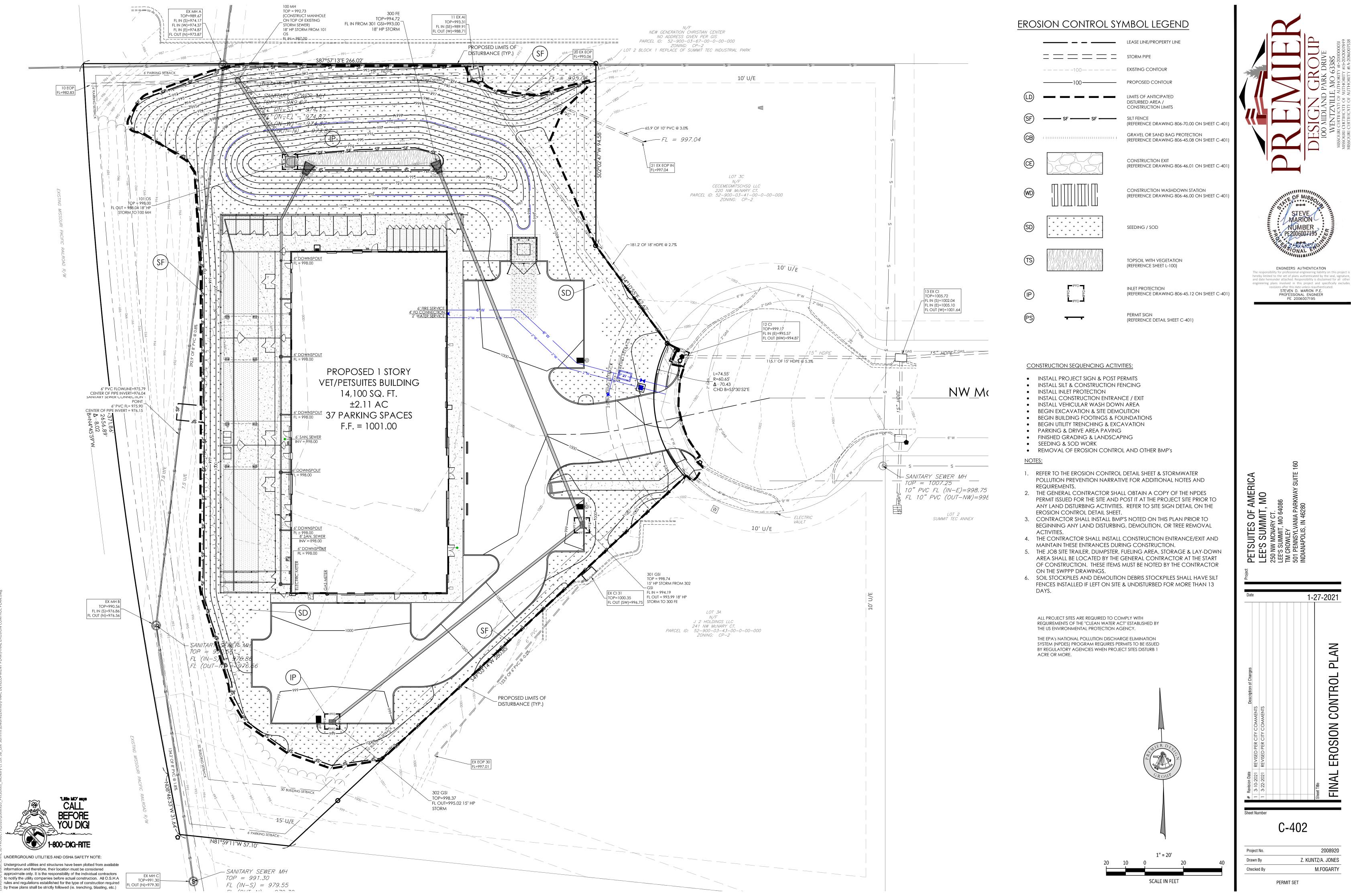
LEE'S SUMMIT, MO
250 NW MCNARY CT.
LEE'S SUMMIT, MO 64086
TM CROWLEY
501 PENNSYLVANIA PARKWAY SUITE 160
INDIANAPOLIS. IN 46280

2008920 Z. KUNTZ/A. JONES

M.FOGARTY









GENERAL EROSION AND SEDIMENTATION CONTROL NOTES:

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- 1. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING A COPY OF THE LAND DISTURBANCE PERMIT FOR THIS SITE PRIOR TO THE START OF CONSTRUCTION. A LAND DISTURBANCE PERMIT FROM THE MISSOURI DEPARTMENT OF NATURAL RESOURCES WILL BE REQUIRED. A GRADING PERMIT FROM THE CITY OF CITY OF LEE'S SUMMIT WILL BE
- 2. THE CONTRACTOR SHALL KEEP & MAINTAIN A COPY OF THE LAND DISTURBANCE PERMIT(S), EROSION CONTROL PLANS, AND STORMWATER POLLUTION PREVENTION PLAN (SWPPP) AT THE PROJECT SITE DURING CONSTRUCTION.
- 3. ALL EROSION CONTROL MEASURES MUST MEET LOCAL REQUIREMENTS AND THE "PROTECTING WATER QUALITY, A FIELD GUIDE TO EROSION, SEDIMENT AND STORM WATER BEST MANAGEMENT PRACTICES FOR DEVELOPMENT SITES IN MISSOURI AND KANSAS". THE DOCUMENT IS AVAILABLE FROM THE MISSOURI DEPARTMENT OF NATURAL RESOURCES AND CAN BE DOWNLOADED FROM THE DNR WEBSITE AT
- 4. PRIOR TO THE START OF ANY LAND DISTURBING ACTIVITIES, EROSION AND SEDIMENT CONTROL MEASURES AND APPLICABLE BMPS SHALL BE INSTALLED.
- 5. THE CONTRACTOR SHALL NOTIFY THE CITY ENGINEER A MINIMUM OF 48 HOURS PRIOR TO THE START OF GRADING SO THAT SITE BMPS CAN BE VERIFIED.
- 6. THE GENERAL CONTRACTOR SHALL HAVE ULTIMATE CONTROL OF THE SITE AND REQUIRE THAT ALL SUBCONTRACTORS, UTILITY COMPANIES, AND ANY PERSON PERFORMING LAND DISTURBING ACTIVITIES CONFORM TO THE REQUIREMENTS OF THE PERMITS ISSUED FOR THE SITE. THIS INCLUDES CONFORMANCE TO THE STORM WATER POLLUTION PLAN PREPARED & MAINTAINED FOR THE SITE.
- 7. THE CONTRACTOR IS RESPONSIBLE FOR MANAGING STORM WATER RUNOFF AND EROSION THROUGHOUT CONSTRUCTION.
- 8. THIS EROSION CONTROL PLAN HAS BEEN PREPARED AS A BEGINNING POINT AND SHOULD EVOLVE AS SITE CONDITIONS WARRANT. THE GENERAL CONTRACTOR SHALL IMPLEMENT ADDITIONAL BMPS AS DEEMED NECESSARY TO ADEQUATELY RETAIN SEDIMENT ON-SITE.
- 9. THE CONTRACTOR SHALL MAINTAIN AND PROTECT EXISTING TREES AND VEGETATION.
- 10. CONSTRUCTION MATERIAL STORAGE AND LAY-DOWN AREAS ARE TO BE AWAY FROM DRAINAGE COURSES AND
- 11. PROVIDE CONTAINERS FOR THE DISPOSAL OF WASTE PAINTS, SOLVENTS, CLEANING COMPOUNDS, ETC.
- 12. PROVIDE TRASH CONTAINERS ONSITE AND PERFORM REGULAR SITE CLEAN UP FOR PROPER DISPOSAL OF SOLID WASTE. SOLID WASTE SHALL INCLUDE, BUT NOT BE LIMITED TO, SCRAP BUILDING MATERIALS, PRODUCT/MATERIAL PACKAGING, FOOD AND DRINK CONTAINERS.
- 13. THE CONTRACTOR SHALL INSTALL CONTAINMENT BERMS & DRIP PANS AT PETROLEUM PRODUCT & LIQUID STORAGE TANK AREAS.
- 14. THE CONTRACTOR SHALL PROVIDE CONCRETE WASH OUT AREAS. CONCRETE TRUCKS SHALL NOT DISCHARGE SURPLUS CONCRETE OR WASH WATER ON THE GROUND OR INTO DITCHES. CONCRETE WASH-OUT AREAS SHALL BE DESIGNED TO ENSURE CONCRETE PARTICLES WILL NOT BE RELEASED FROM THE CONSTRUCTION SITE.
- 15. THE CONTRACTOR SHALL IMPLEMENT DUST CONTROL MEASURES IF CONDITIONS WARRANT. DUST CONTROL MAY INCLUDE WATERING/IRRIGATION, WIND BARRIERS, SPRAY ON ADHESIVES, TILLING, OR CHEMICAL TREATMENT. ANY CLEANUP TO ADJACENT PROPERTIES DUE TO INADEQUATE DUST CONTROL WILL BE THE CONTRACTOR'S RESPONSIBILITY.
- 16. THE CONTRACTOR SHALL PROVIDE FOR SOLID WASTE/TRASH COLLECTION. THE CONSTRUCTION SITE SHALL BE KEPT CLEAN AND ORDERLY.
- 17. THE CONTRACTOR SHALL PROVIDE FOR SANITARY WASTE COLLECTION DURING CONSTRUCTION. PORTA POTTIES SHALL BE LOCATED BY THE CONTRACTOR AND NOTED ON THE DRAWINGS.

- 1. THE CONTRACTOR SHALL DEVELOP A CONSTRUCTION SWPPP LOG AT THE START OF CONSTRUCTION. THE CONSTRUCTION SWPPP LOG SHALL INCLUDE INSTALLATION DATES OF BMP'S, MAINTENANCE RECORDS, RAINFALL RECORDS, AND ANY ITEM THAT ADDRESSES THE MANAGEMENT OF STORM WATER POLLUTION PREVENTION
- 2. REFER TO THE SWPPP DOCUMENT/NARRATIVE FOR FORMS AND OTHER DETAILED INFORMATION REGARDING STORM WATER POLLUTION PREVENTION PRACTICES.
- 3. THE SWPPP LOG SHALL BE KEPT ON THE JOB SITE AND SHALL BE MADE AVAILABLE FOR REVIEW AT THE REQUEST OF APPLICABLE GOVERNING AUTHORITIES.
- 4. BMP's SHALL BE INSPECTED ONCE A WEEK AND WITHIN 24 HRS OF RAIN EVENTS OF 1/2" OR GREATER. INSPECTIONS ARE TO BE DOCUMENTED IN THE SWPPP LOG. REPAIR AND MAINTENANCE TO BMP'S SHALL BE DONE IMMEDIATELY
- 5. THE CONTRACTOR SHALL SUBMIT AN INSPECTION REPORT WITHIN 72 HOURS AFTER EVERY STORM EVENT TO THE CITY ENGINEER.
- 6. THE CONTRACTOR SHALL ENSURE THE SITE CONFORMS TO THE REQUIREMENTS OF THE LAND DISTURBANCE PERMIT AND INSTALL ADDITIONAL BMP'S SHOULD SITE CONDITIONS WARRANT.
- 7. AFTER CONSTRUCTION, THE CONSTRUCTION SWPPP LOG SHALL BE RETAINED BY THE CONTRACTOR FOR A MINIMUM OF 3 YEARS.

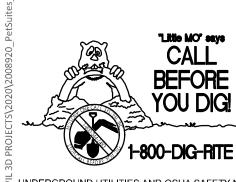
- 1. ONCE GRADED AREAS ARE CONSTRUCTED TO FINAL GRADES, PERMANENT STABILIZATION SHALL BE ESTABLISHED.
- 2. THE CONTRACTOR SHALL RESTORE OFF-SITE AREAS DAMAGED BY CONSTRUCTION TO A CONDITION, EQUAL TO, OR BETTER THAN THE CONDITION PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
- 3. ALL EROSION CONTROL BMP'S SHALL REMAIN IN PLACE UNTIL THE SITE HAS BEEN PERMANENTLY STABILIZED.
- 4. ONCE THE SITE HAS REACH FINAL STABILIZATION, THE CONTRACTOR IS TO CLEAN AND REMOVE DEBRIS FROM BMP'S AND STORM WATER COLLECTION AREAS. BMP'S ARE THEN TO BE REMOVED.

POTENTIAL POLLUTANTS THAT MAY BE FOUND ON SITE DURING CONSTRUCTION:

Material Trade Name	Chemical Physical Description	Scorm Water Pollutamis
Erosion	Solid Particles	Soil, sediment
Pertilizer	Liquid or solid grains	Nitrogen, phosphorus
Pesticides (insecticides, fungicides, herbicides, rodenticides)	Various colored to colorless liquid, powder, pellets, or grains	Chlorinated hydrocarbons, organophosphates, carbonates, arsenic
Asphalt	Black solid	Oil, petroleum distillates
Concrete	White solid	Limestone, sand
Plaster	White granules or powder	Calcium Sulphate, calcium carbonate, sulfuric acid
Glue, adhesives	White or yellow liquid	Polymers, epoxies
Pairas	Various refered liquid	Metal oxides, Stoddsrd solvent, tale calcium carbonate, arsenic
Chring compounds	Creamy white liquid	Naphtha
Wood preservatives	Clear amber or dark brown liquid	Stoddard solvent, petroleum distillates, arsenie, copper, chromium.
Hydraulic oil/fluids	Brown oily petroleum hydrocarbon	Mineral oil
Gasoline	Colorless, pale brown or pink petroleum hydrocarbon	Benzene, ethyl benzene, toluene, sylene, MTBE
Diesel Fuel	Clear, blue-green to yellow liquid	Petroleum distillate, oil & grease, naphthalone, xylones
Antifreeze/coolant	Clear green/yellow liquid	Ethylene glycol, propylene glycol, heavy metals (copper, lead, zinc)

MATERIALS STORED ON SITE:

- 1. ALL MATERIALS STORED ON-SITE SHALL BE STORED IN A NEAT, ORDERLY MANNER IN THEIR APPROPRIATE CONTAINERS. IF POSSIBLE, MATERIALS SHALL BE STORED UNDER A ROOF OR OTHER ENCLOSURE.
- 2. PRODUCTS SHALL BE KEPT IN THEIR ORIGINAL CONTAINERS WITH THE MANUFACTURER'S LABEL. SUBSTANCES SHALL NOT BE MIXED WITH ONE ANOTHER UNLESS RECOMMENDED BY THE MANUFACTURER. WHENEVER POSSIBLE, ALL OF THE PRODUCT SHALL BE USED UP BEFORE DISPOSING OF THE CONTAINER. THE MANUFACTURER'S RECOMMENDATIONS FOR THE PROPER USE AND DISPOSAL OF THEIR PRODUCTS SHALL BE FOLLOWED. THE CONSTRUCTION MANGER SHALL INSPECT THE ON-SITE MATERIALS DAILY TO ENSURE THE PROPER USE AND DISPOSAL.
- 3. HAZARDOUS PRODUCTS SHALL BE KEPT IN RESEALABLE CONTAINERS. ORIGINAL LABELS AND MATERIAL SAFETY DATA SHALL BE RETAINED. ALL FEDERAL, STATE AND CITY REGULATIONS SHALL BE FOLLOWED WHEN DISPOSING OF ANY HAZARDOUS WASTE.



UNDERGROUND UTILITIES AND OSHA SAFETY NOTE: Inderground utilities and structures have been plotted from available information and therefore, their location must be considered approximate only. It is the responsibility of the individual contractors to notify the utility companies before actual construction. All O.S.H.A rules and regulations established for the type of construction required by these plans shall be strictly followed (ie. trenching, blasting, etc.)

MAINTENANCE OF EROSION AND SEDIMENTATION CONTROLS:

- 1. SILT FENCING SHALL BE INSPECTED DAILY DURING PERIODS OF RAINFALL, IMMEDIATELY AFTER EACH SIGNIFICANT RAINFALL EVENT, AND WEEKLY DURING PERIODS OF NO RAINFALL, REPAIRS TO SILT FENCES SHALL BE DONE IMMEDIATELY, SEDIMENT SHALL BE REMOVED FROM THE SILT FENCES WHEN THE SEDIMENT REACHES ONE-HALF THE HEIGHT OF THE SILT FENCE.
- 2. THE STABILIZED CONSTRUCTION ENTRANCE SHALL BE INSPECTED REGULARLY, AFTER EVERY RAINFALL EVENT, AND DURING HIGH VOLUMES OF TRAFFIC. REPAIRS TO THE CONSTRUCTION ENTRANCE SHALL BE MADE IMMEDIATELY. ALL SEDIMENTS, AND ALL OTHER MATERIALS, TRACKED ONTO PUBLIC ROADWAYS SHALL BE REMOVED
- 3. SELECT STOCKPILE LOCATION TO AVOID SLOPES AND NATURAL DRAINAGE WAYS, AVOIDING TRAFFIC ROUTES. ON LARGE SITES, RE-SPREADING IS EASIER AND MORE ECONOMICAL WHERE TOPSOIL IS STOCKPILED IN SMALL PILES LOCATED NEAR AREAS
- 4. INSPECT AND MAINTAIN ALL BMPS LOCATED DOWN HILL OF AREA BEING GRADED, AS INDICATED. ADDITIONAL BMPS SHOULD BE CONSTRUCTED IF IT IS OBSERVED THAT THE

BARRIERS WHERE NECESSARY TO RETAIN SEDIMENT

TYPICAL BMPS THAT MIGHT BE UTILIZED INCLUDE, BUT ARE NOT LIMITED TO: SEDIMENT BARRIERS - USE SILT FENCES, STRAW BALE SEDIMENT TRAPS OR OTHER

PROPOSED BMPS ARE NOT EFFECTIVELY LIMITING SEDIMENT TRANSPORT FROM THE SITE.

- TEMPORARY SEEDING PROTECT TOPSOIL STOCKPILES BY TEMPORARILY SEEDING AS SOON AS POSSIBLE, NO MORE THAN 14 CALENDAR DAYS AFTER THE FORMATION OF
- PERMANENT VEGETATION IF STOCKPILES WILL NOT BE USED WITHIN 12 MONTHS, THEY MUST BE STABILIZED WITH PERMANENT VEGETATION TO CONTROL EROSION AND WEED

SPILL CONTROL OF POLLUTANTS:

- 1. ALL ON-SITE VEHICLES SHALL BE MONITORED FOR LEAKS AND SHALL RECEIVE REGULAR PREVENTATIVE MAINTENANCE TO REDUCE THE CHANCE OF LEAKAGE.
- 2. CONCRETE TRUCKS SHALL ONLY WASH-OUT OR DISCHARGE SURPLUS CONCRETE, OR DRUM-WASH WATER, AT DEDICATED CONCRETE TRUCK WASH-OUT AREAS. NO EXCESS CONCRETE OR DRUM WASH WATER SHALL BE RELEASED FROM THE SITE.
- 3. PETROLEUM PRODUCTS SHALL BE STORED IN TIGHTLY SEALED CONTAINERS WHICH ARE
- 4. ALL ASPHALTIC SUBSTANCES USED ON-SITE SHALL BE APPLIED ACCORDING TO THE MANUFACTURERS RECOMMENDATIONS.
- 5. FERTILIZERS SHALL BE APPLIED ONLY IN THE MINIMUM AMOUNTS RECOMMENDED BY THE MANUFACTURER. ONCE APPLIED, FERTILIZER SHALL BE WORKED INTO THE SOIL TO LIMIT EXPOSURE TO STORM WATER. THE CONTENTS OF ANY PARTIALLY USED BAGS OF FERTILIZER SHALL BE TRANSFERRED TO A SEALABLE PLASTIC CONTAINER TO AVOID SPILLS.
- 6. ALL SPILLS SHALL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY. THE MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEANUP SHALL BE RELAYED TO SITE PERSONNEL AND THEY SHALL BE MADE AWARE OF THE LOCATION OF THE CLEANUP SUPPLIES. MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEANUP SHALL BE STORED ON-SITE IN CASE OF A SPILL. THE SPILL AREA SHALL BE KEPT WELL VENTILATED AND CLEANUP PERSONNEL SHALL WEAR THE APPROPRIATE CLOTHING TO PREVENT INJURY FROM CONTACT WITH THE HAZARDOUS SUBSTANCE. SPILLS OF TOXIC AND HAZARDOUS MATERIAL, REGARDLESS OF THE SIZE OF THE SPILL, SHALL BE REPORTED TO THE APPROPRIATE STATE AND LOCAL GOVERNMENT AGENCIES IMMEDIATELY AFTER DISCOVERY.

CONSTRUCTION ENTRANCE (CE)

- 1 THE LOCATION OF A CONSTRUCTION ENTRANCE/EXIT HAS BEEN SHOWN ON THE EROSION CONTROL PLAN(S). THE CONTRACTOR SHALL INSTALL OR ESTABLISH A DESIGNATED CONSTRUCTION ENTRANCE/EXIT AT THE START OF CONSTRUCTION. IN THE EVENT THE ENTRANCE IS LOCATED IN A DIFFERENT LOCATION, THE CONTRACTOR SHALL UPDATE THE EROSION CONTROL PLAN.
- 2. A PERMIT SIGN SHALL BE INSTALLED AT OR NEAR THE CONSTRUCTION ENTRANCE FOR POSTING RELEVANT CONSTRUCTION PERMITS FOR THE PROJECT.
- 3. AS PART OF THE CONSTRUCTION ENTRANCE, THE CONTRACTOR SHALL INSTALL A VEHICLE WASH DOWN AREA. THE WASH DOWN AREA IS TO PREVENT THE TRACKING OF MUD AND DEBRIS FROM
- 4. TRACKING IS NOT PERMISSIBLE. ANY TRACKING OF MUD AND/OR DEBRIS ONTO OFF-SITE ROADS
- 5. LOCATION AND FINAL DIMENSIONS OF THE CONSTRUCTION ENTRANCE, WASH DOWN AREA AND STAGING AREAS SHALL BE ESTABLISHED BY THE GENERAL CONTRACTOR.
- 6. ALL CONSTRUCTION TRAFFIC LEAVING THE PROJECT SITE SHALL UTILIZE THE CONSTRUCTION ENTRANCE/EXIT.

SILT FENCE (SF)

- 7. SILT FENCE TO BE ADJUSTED AS NECESSARY FOR CONSTRUCTION ACTIVITY.
- 8. UNLESS NOTED OTHERWISE, SILT FENCE SHALL BE A WOVEN GEOTEXTILE FABRIC SUCH AS MIRAFI 100X
- 9. REFER TO THE SILT FENCE DETAIL FOR INSTALLATION REQUIREMENTS.
- 10. SILT FENCES SHALL ONLY BE USED FOR STORM WATER SHEET FLOW CONDITIONS.
- 11. SILT FENCES SHALL FOLLOW CONTOURS AND UTILIZE "J" HOOKS TO HELP TRAP SEDIMENT.
- 12. SILT FENCES SHALL BE INSPECTED REGULARLY FOR RIPS, TEARS, OR DETERIORATION. DAMAGED FENCE SHALL BE REPLACED.
- 13. WHEN SEDIMENT BUILDS UP TO ONE HALF THE HEIGHT OF THE FENCE, IT SHALL BE CLEANED AND

INLET PROTECTION (IP)

- 1. REFER TO THE INLET PROTECTION DETAILS FOR VARIOUS TYPES OF INLET PROTECTION. THE CONTRACTOR SHALL HAVE THE OPTION OF UTILIZING ANY TYPES SHOWN OR ACCEPTABLE
- 2. INLET PROTECTION DEVICES SHALL BE INSTALLED IMMEDIATELY AROUND EACH INLET ONCE INLET CONSTRUCTION IS COMPLETED. INLET PROTECTION SHALL REMAIN IN PLACE AND BE MAINTAINED UNTIL THE SITE HAS BEEN CONSIDERED STABLE.

SOD OR SEEDING, MULCHING AND FERTILIZING (SD) (SM)

- 1. ALL DISTURBED AREAS WHICH REMAIN UNWORKED FOR 14 DAYS, SHALL BE TEMPORARILY STABILIZED.
- 2. ALL TEMPORARY DIVERSION BERMS, DIVERSION DITCHES AND SOIL STOCKPILE AREAS SHALL BE SEEDED AND MULCHED IMMEDIATELY AFTER GRADING.
- 3. ALL AREAS DISTURBED DURING CONSTRUCTION, WHICH WILL NOT BE PAVED, SHALL HAVE A MINIMUM OF 4" OF TOPSOIL INSTALLED.
- 4. GRASSED AREAS SHALL BE EITHER SODDED OR SEEDED AND MULCHED. REFER TO THE SITE AND
- LANDSCAPING PLANS FOR LOCATIONS OF EACH. 5. ALL RIGHT-OF-WAYS SHALL HAVE SOD INSTALLED. SOD SHALL MEET THE REQUIREMENTS OF THE
- 6. SOD SHALL BE DROUGHT RESISTANT FESCUE.
- 7. TEMPORARY IRRIGATION MAY BE REQUIRED TO HELP ESTABLISH SODDED/SEEDED AREAS.
- 8. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING SODDED AND SEEDED AREAS UNTIL A HEALTHY STAND OF GRASS IS ESTABLISHED.
- 9. FINAL STABILIZATION MUST MEET THE LAND DISTURBANCE PERMIT REQUIREMENTS.

LOCAL JURISDICTION AND/OR THE DEPARTMENT OF TRANSPORTATION.

4' (MINIMUM) ~ RAIN GAUGE RIGID MATERIAL, SUCH AS PLYWOOD OR OUTDOOR SIGN BOARD. SIGN MUST BE CONSTRUCTED IN A MANNER TO PROTECT DOCUMENTS FROM DAMAGE DUE TO WEATHER (WIND, SUN, MOISTURE, ETC.).

1. THE SWPPP INFORMATION SIGN MUST BE LOCATED NEAR THE CONSTRUCTION EXIT OF THE SITE, SUCH THAT IT IS ACCESSIBLE AND VIEWABLE BY THE GENERAL PUBLIC, BUT NOT OBSTRUCTING VIEWS AS

ALL POSTED DOCUMENTS MUST BE MAINTAINED IN A CLEARLY READABLE CONDITION AT ALL TIMES THROUGHOUT CONSTRUCTION AND UNTIL THE PERMIT HAS BEEN TERMINATED.

TO CAUSE A SAFETY HAZARD.

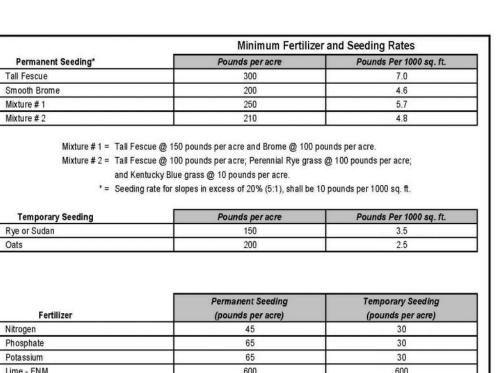
- CONTRACTOR SHALL POST OTHER STORMWATER AND/OR EROSION AND SEDIMENT CONTROL RELATED PERMITS ON THE SIGN AS REQUIRED BY THE GOVERNING AGENCY.
- 4. SIGN SHALL BE LOCATED OUTSIDE OF PUBLIC RIGHT-OF-WAY AND EASEMENTS UNLESS APPROVED BY THE GOVERNING AGENCY.
- 5. CONTRACTOR IS RESPONSIBLE FOR ENSURING STABILITY OF THE SWPPP INFORMATION SIGN.

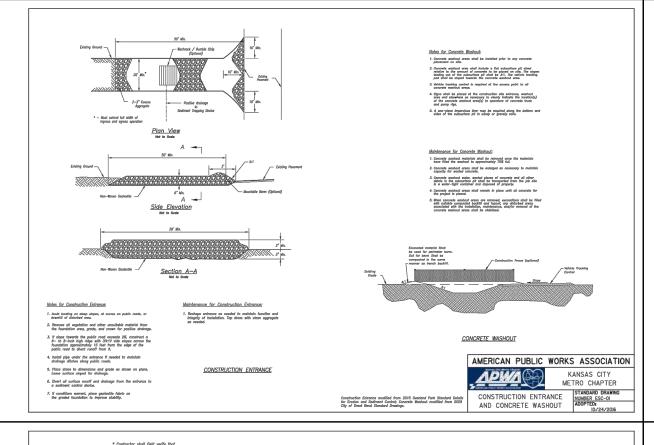
PERMIT SIGN DETAIL

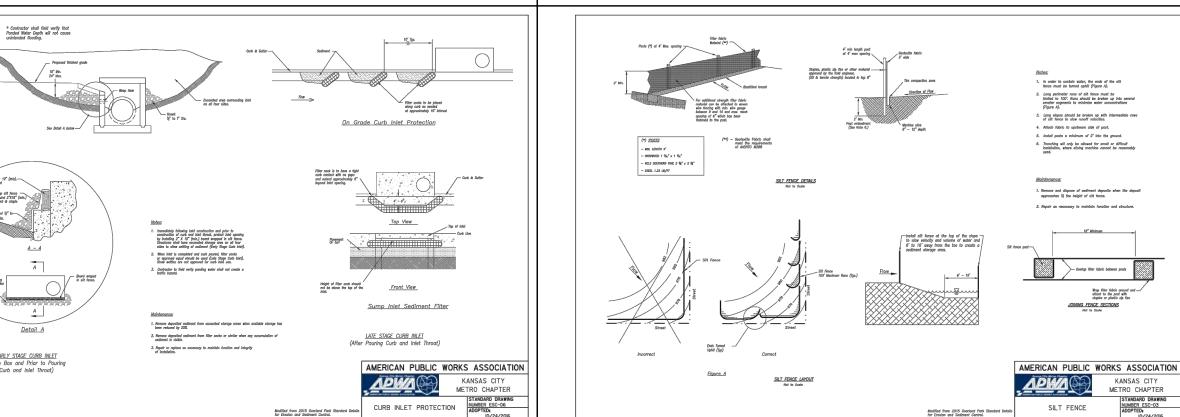
SEEDING REQUIREMENTS

	Dates for Seeding													
Permanent Seeding	Jan	Feb	March	April	May	June	July	Aug	Sep	Oct	Nov	Dec		
Tall Fescue			0	0	0			0	0					
Smooth Brome			0	0	0			0	0					
Fescue & Brome			0	0	0	0		0	0					
Fescue, Rye & Bluegrass	Α	Α	0	0	0	Р	Р	0	0	Р	Р	Α		
Temporary Seeding Rye or Sudan	Jan A	Feb A	March	April 0	May O	June O	July O	Aug O	Sep O	Oct	Nov A	Dec		
			-		-		-			100000	10.00	-		
Oats O=	Optimu	A m seedi	O ng dates	0	0	0	0	0	0					
A =	Accepta	able see	ding date	S										
P =	Permitte and 759		ng dates ilizer. Res											

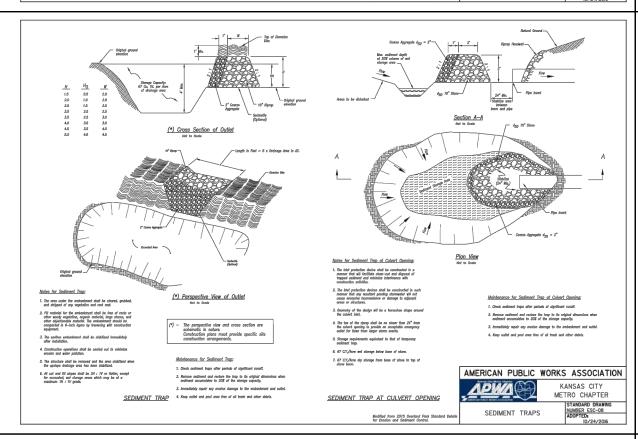
	Pounds per acre	Pounds Per 1000 sq. ft.
Tall Fescue	300	7.0
Smooth Brome	200	4.6
Mixture # 1	250	5.7
Mixture # 2	210	4.8
and Ke	scue @ 100 pounds per acre; Perennial Rye grass ntucky Blue grass @ 10 pounds per acre. g rate for slopes in excess of 20% (5:1), shall be 1	
Temporary Seeding	Pounds per acre	Pounds Per 1000 sq. ft.
Temporary Seeding Rye or Sudan	Pounds per acre 150	Pounds Per 1000 sq. ft. 3.5
Rye or Sudan Oats Fertilizer	Permanent Seeding (pounds per acre)	3.5 2.5 Temporary Seeding (pounds per acre)
Rye or Sudan Dats Fertilizer Vitrogen	Permanent Seeding (pounds per acre) 45	3.5 2.5 Temporary Seeding (pounds per acre) 30
Rye or Sudan Dats Fertilizer Phosphate	Permanent Seeding (pounds per acre) 45 65	3.5 2.5 Temporary Seeding (pounds per acre) 30 30
Rye or Sudan Dats Fertilizer	Permanent Seeding (pounds per acre) 45	3.5 2.5 Temporary Seeding (pounds per acre) 30

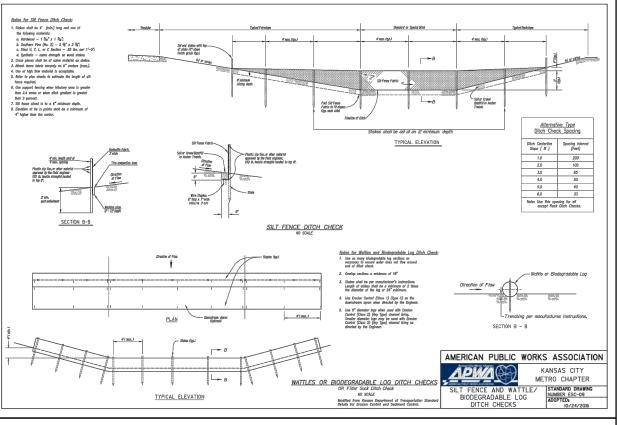






Partial Box Culvert Plan Not to Scale





APINA Specifications 2150 and Design Guidance 5100 shalf referenced to select type of blanket or mot to be used.

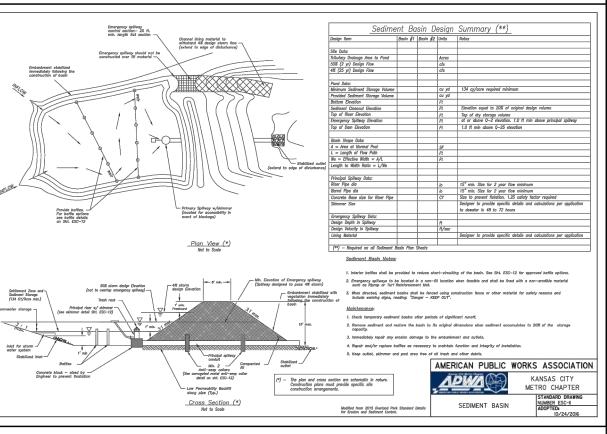
LONGITUDINAL SEAMS: The edges of the blooket or met should overlop each other a monimum of 6 inches, with anchors catching the edges of both blookets.

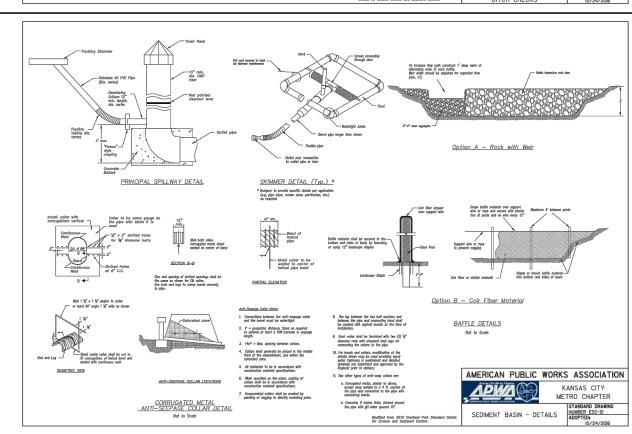
Form or degraded product shall be repaired or replaced, unless such degradation is within the functional languity specified by the monufacturer.

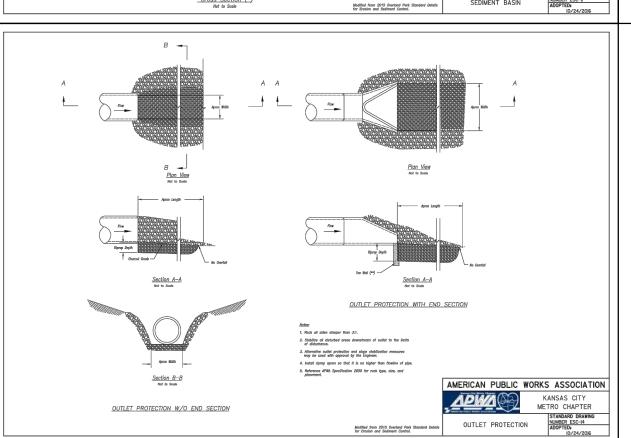
Erosion Control Blankets and TRMs shall be told in the direction of the slope. In order for blanket to be in control with the soil, by blanket loosely, avoiding stretching.

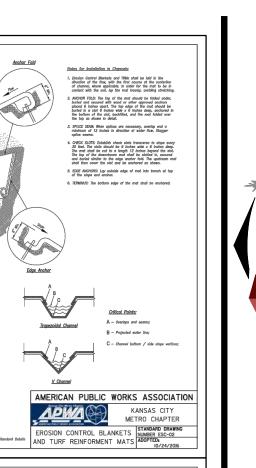
SPLICE SEMI: When splices are necessary, overlap and a minimum of 8 inches in direction of water flow. Stagger splice

TERBRIAL FOLD: The bottom edge of the blanket shall be furned under a minimum of 4 inches, then anchored in place with anchore 9 inches opert.



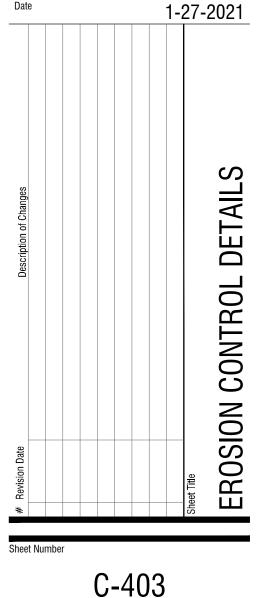




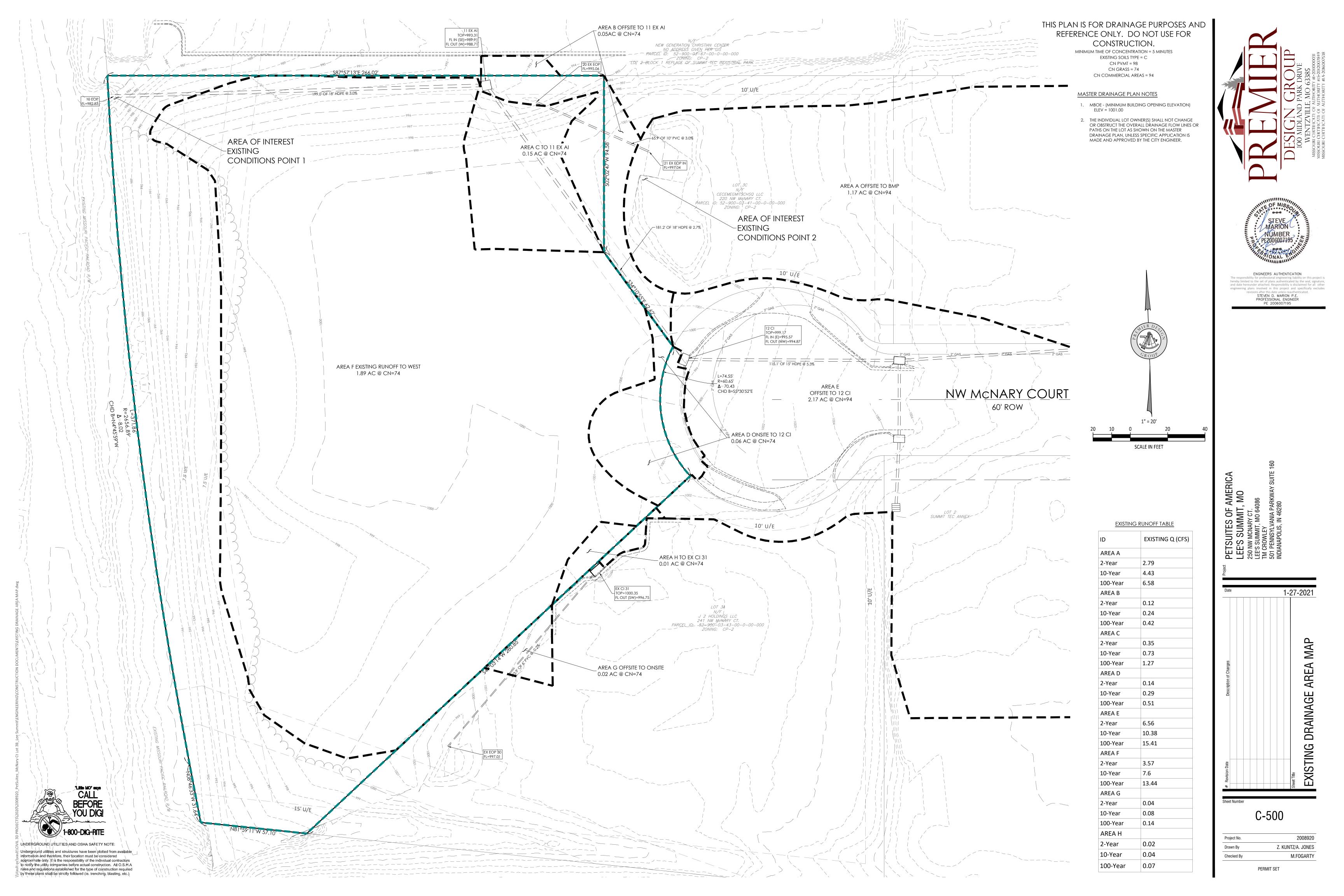


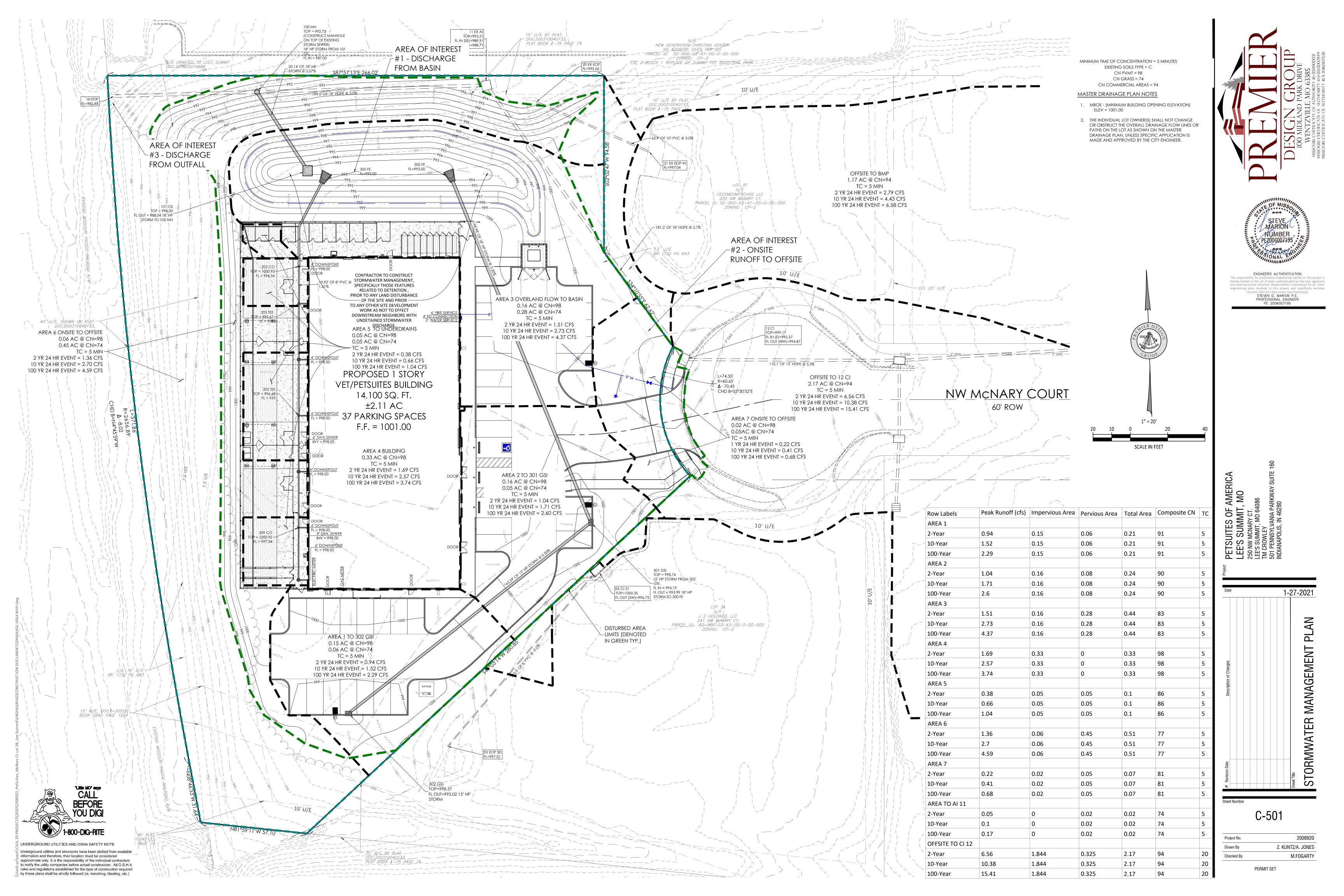


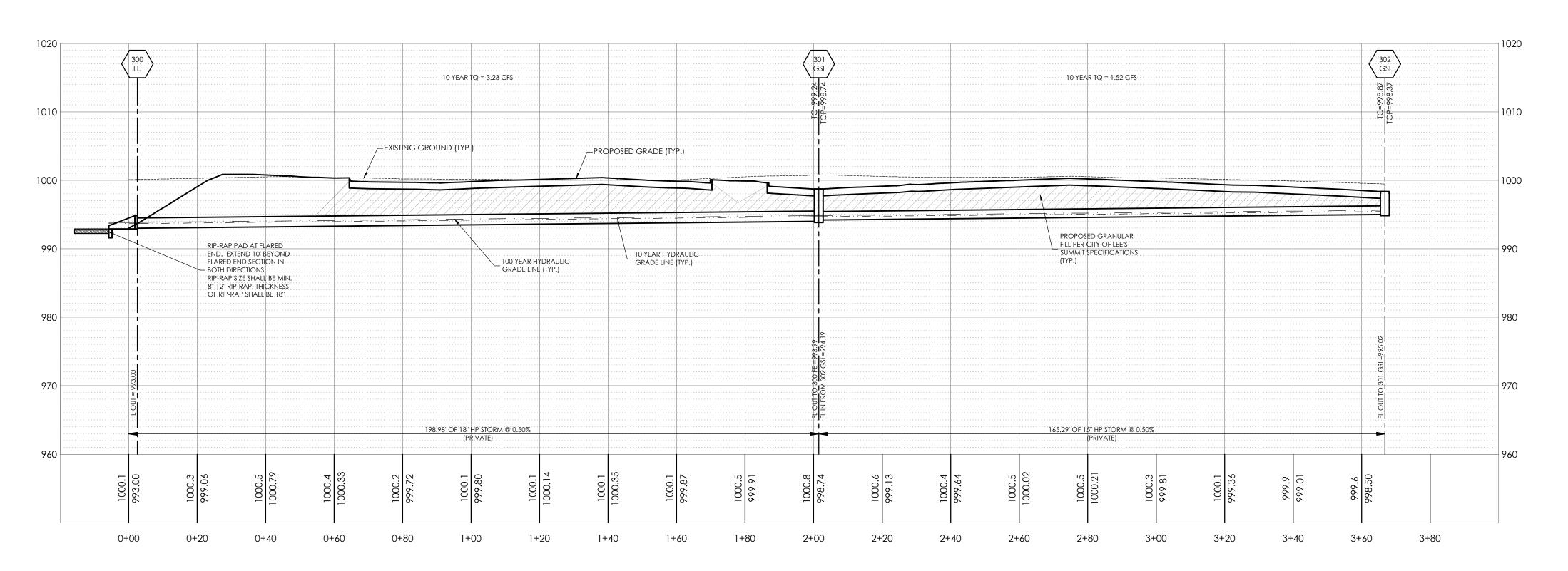
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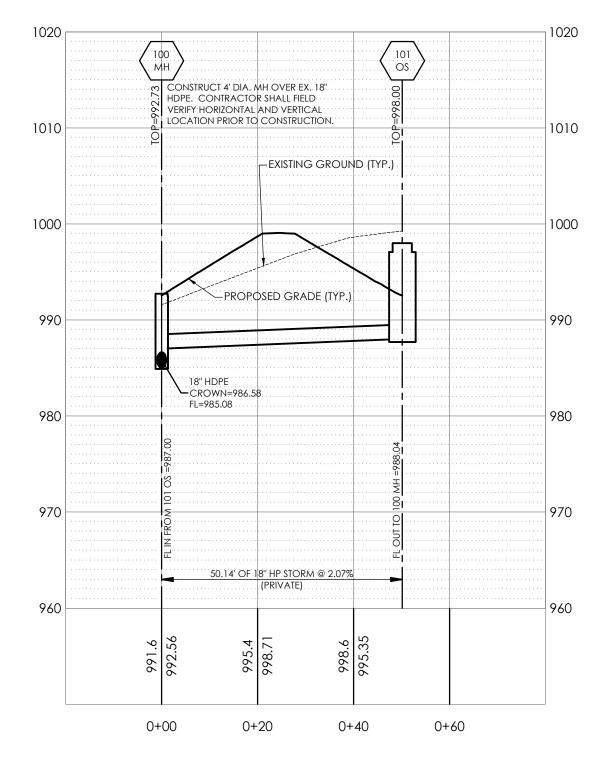


2008920 Z. KUNTZ/A. JONES Drawn By M.FOGARTY Checked By PERMIT SET









STORM SEWER PROFILE 100 MH TO 101 OS

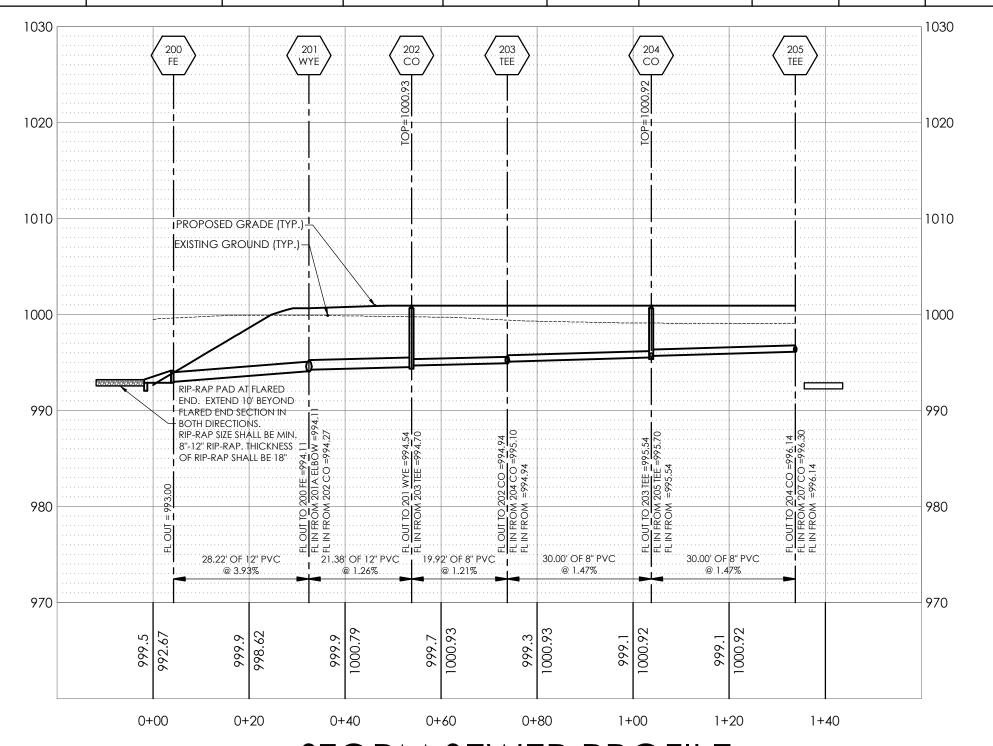
1"=10' VERTICAL

STORM SEWER PROFILE 300 EOP TO 302 GSI

1"=10' VERTICAL

	10 YEAR	STORM H	HYDRAULI	ICS																									
LineNo.	LineI	D Inle	letID	LineLength	n-valuePipe	LineSize	InvertUp	InvertDn	LineSlope	Grnd/RimElev Up	Grnd/RimElev Dn	DepthUp	HGLUp	HGLDn	Rim-Hw	Defl.Angle	VelDn	VelHd Dn	J-LossCoeff	EnergyLoss	MinorLoss	FlowRate	CapacityFull	Тс	QCaptured	InletEff	IncrQ	DrainageArea	RunoffCoeff
				(ft)		(in)	(ft)	(ft)	(%)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(Deg)	(ft/s)	(ft)		(ft)	(ft)	(cfs)	(cfs)	(min)	(cfs)	(%)	(cfs)	(ac)	(C)
2	302-30	01 302	2 GSI	165.286	0.012	15	994.94	994.11	0.50	998.37	998.74	0.49**	995.43 j	994.69	2.94	73.821	2.71	0.18	1.00 z	0.000	n/a	1.52	4.95	0.0	1.52	100	1.52	0.00	0.00
1	301-30	00 301	1 GSI	201.508	0.012	18	994.01	993.00	0.50	998.74	994.43	0.68**	994.69	993.68	4.05	69.997	4.11	0.26	1.45 z	0.000	n/a	3.23	8.13	0.9	1.71	100	1.71	0.00	0.00

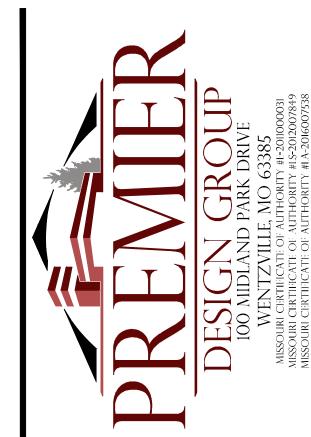
	100 YEAR STO	ORM HYDRA	ULICS																									
LineNo.	LineID	InletID	LineLength	n-valuePipe	LineSize	InvertUp	InvertDn	LineSlope	Grnd/RimElev Up	Grnd/RimElev Dn	DepthUp	HGLUp	HGLDn	Rim-Hw	Defl.Angle	VelDn	VelHd Dn	J-LossCoeff	EnergyLoss	MinorLoss	FlowRate	CapacityFull	Tc	QCaptured	InletEff	IncrQ	DrainageAre a	RunoffCoeff
			(ft)		(in)	(ft)	(ft)	(%)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(Deg)	(ft/s)	(ft)		(ft)	(ft)	(cfs)	(cfs)	(min)	(cfs)	(%)	(cfs)	(ac)	(C)
2	302-301	302 GSI	165.000	0.012	15	995.02	994.19	0.50	998.37	998.74	0.60**	995.62	994.84	2.75	73.821	3.55	0.24	1.00 z	0.000	0.24	2.29	4.96	0.0	2.29	100	2.29	0.00	0.00
1	301-300	301 GSI	198.980	0.012	18	993.99	993.00	0.50	998.74	994.43	0.85**	994.84	993.85	3.90	69.997	4.73	0.35	1.45 z	0.000	0.51	4.89	8.02	0.7	2.60	100	2.60	0.00	0.00

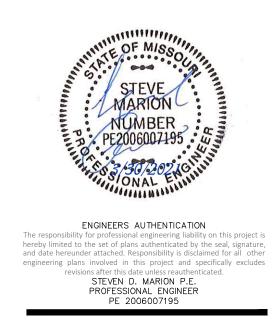


UNDERGROUND UTILITIES AND OSHA SAFETY NOTE: Underground utilities and structures have been plotted from available information and therefore, their location must be considered approximate only. It is the responsibility of the individual contractors rules and regulations established for the type of construction required by these plans shall be strictly followed (ie. trenching, blasting, etc.)

STORM SEWER PROFILE 205 CO TO 200 EOP

1"=20' HORIZONTAL 1"=10' VERTICAL

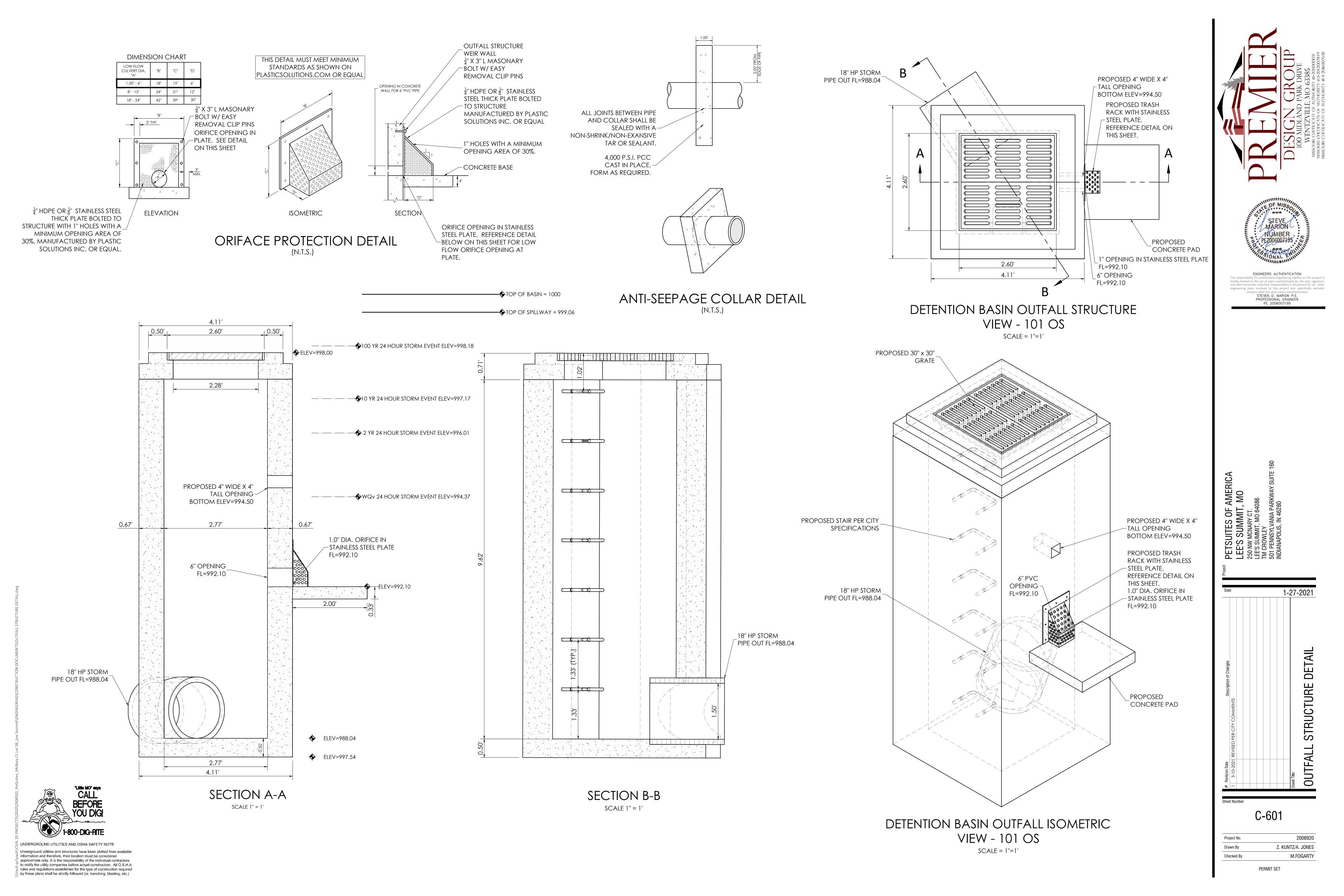


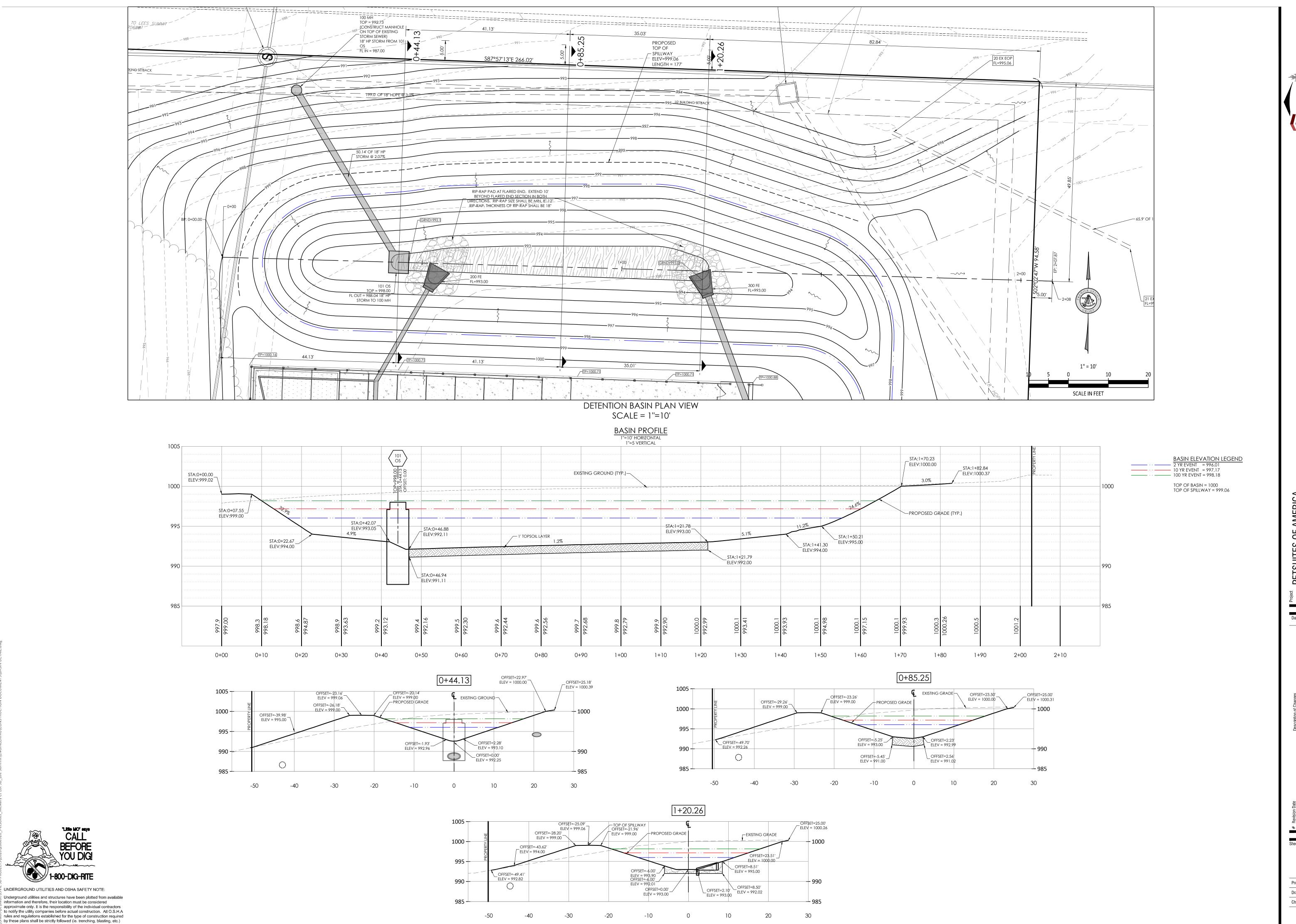


1-27-2021 **PROFILES**

C-600 2008920 Project No. Z. KUNTZ/A. JONES M.FOGARTY

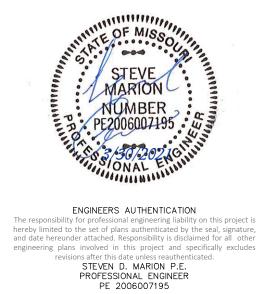
Drawn By Checked By PERMIT SET





UNDERGROUND UTILITIES AND OSHA SAFETY NOTE:

information and therefore, their location must be considered

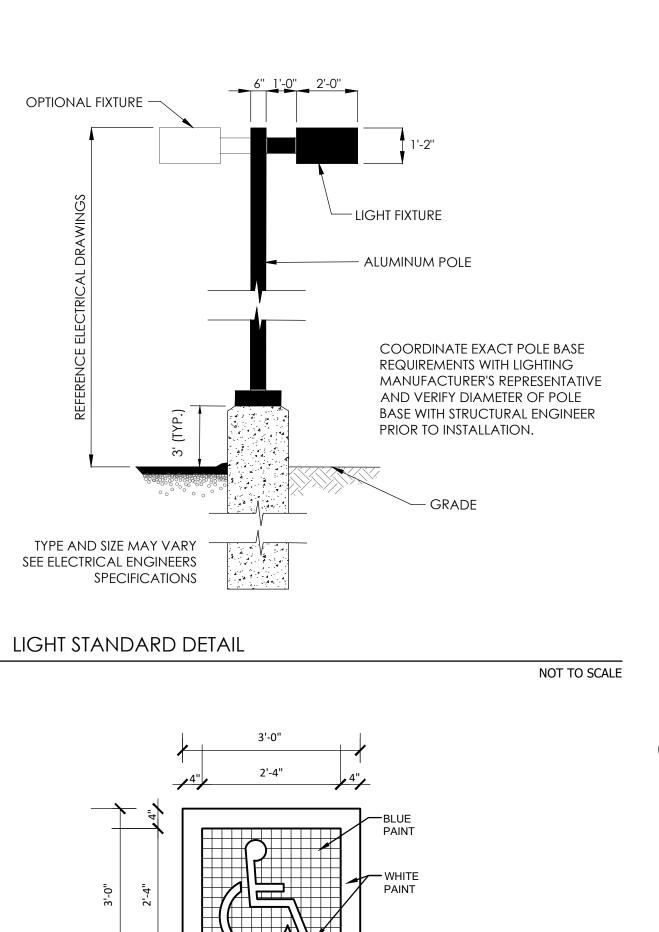


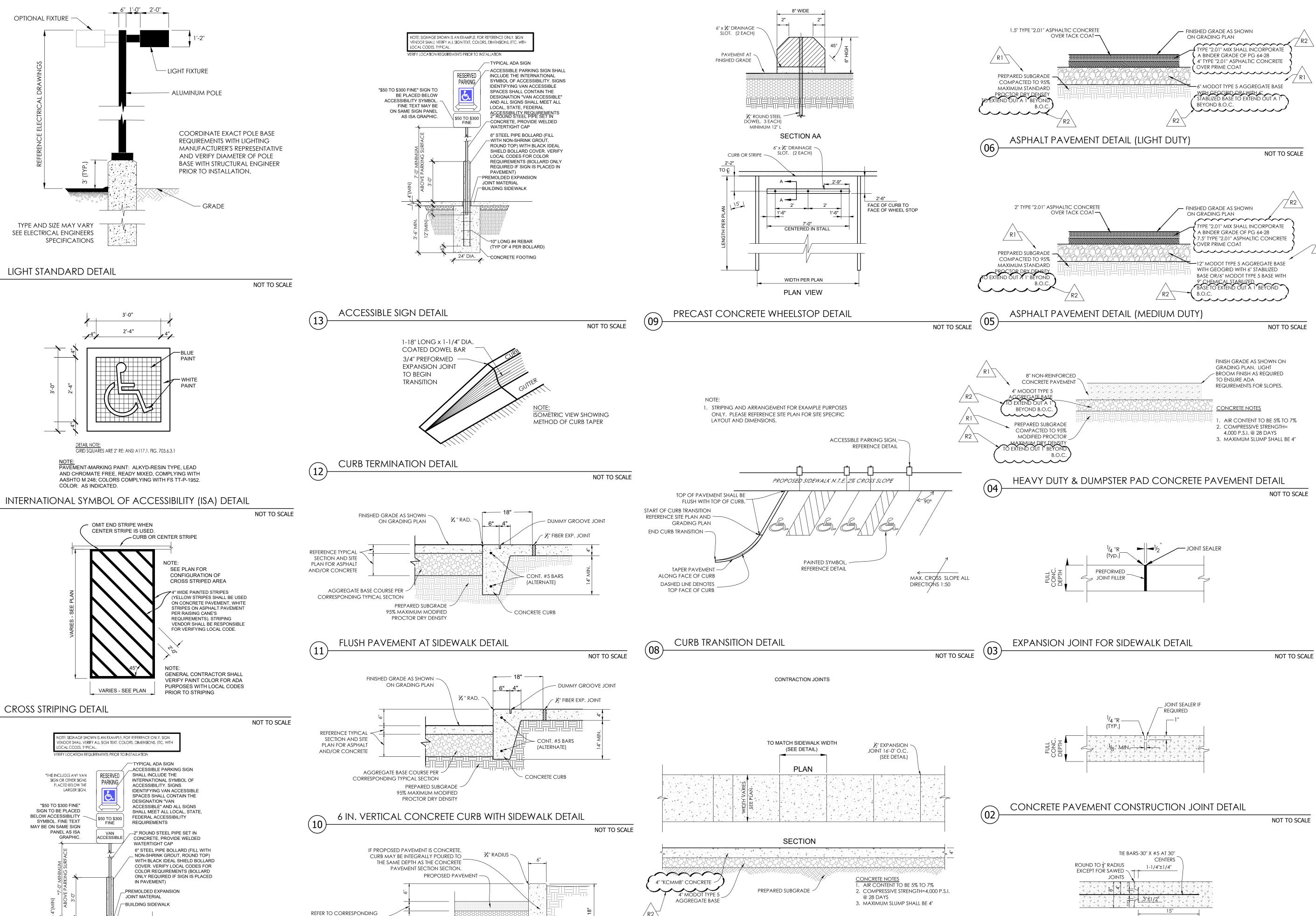
PETSUITES OF AMER LEE'S SUMMIT, MO
250 NW MCNARY CT.
LEE'S SUMMIT, MO 64086
TM CROWLEY
501 PENNSYLVANIA DADIAMANANA

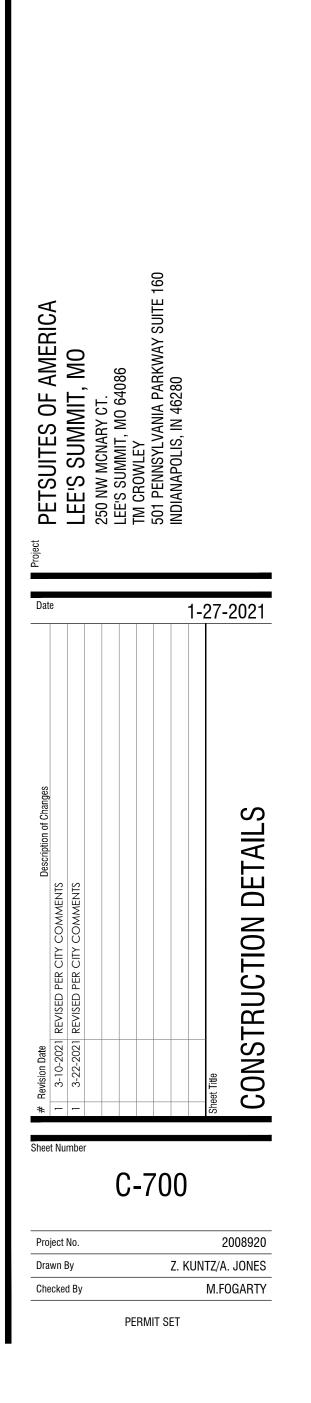
1-27-2021 DETAIL

C-602

2008920 Z. KUNTZ/A. JONES Drawn By Checked By M.FOGARTY PERMIT SET







NOT TO SCALE

KEYWAY FOR CONCRETE PAVEMENT DETAIL

NOT TO SCALE

The responsibility for professional engineering liability on this project is hereby limited to the set of plans authenticated by the seal, signature, and date hereunder attached. Responsibility is disclaimed for all other

engineering plans involved in this project and specifically excludes STEVEN D. MARION P.E. PROFESSIONAL ENGINEER PE 2006007195

10" LONG #4 REBAR (TYP OF 4 PER BOLLARD) PREPARED SUBGRADE -CONCRETE FOOTING 6 IN. VERTICAL CURB DETAIL VAN ACCESSIBLE SIGN DETAIL NOT TO SCALE

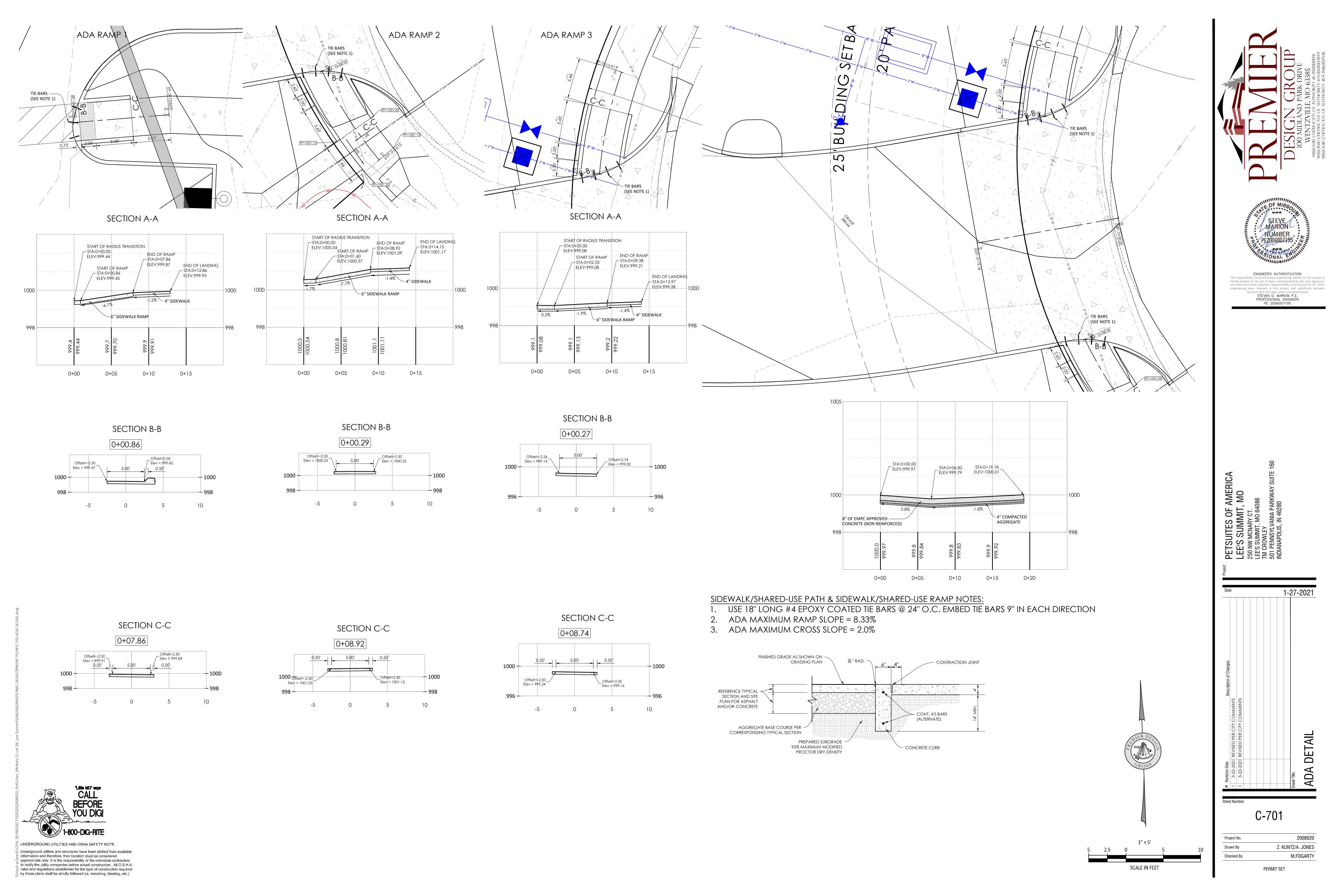
PAVEMENT SECTIONS

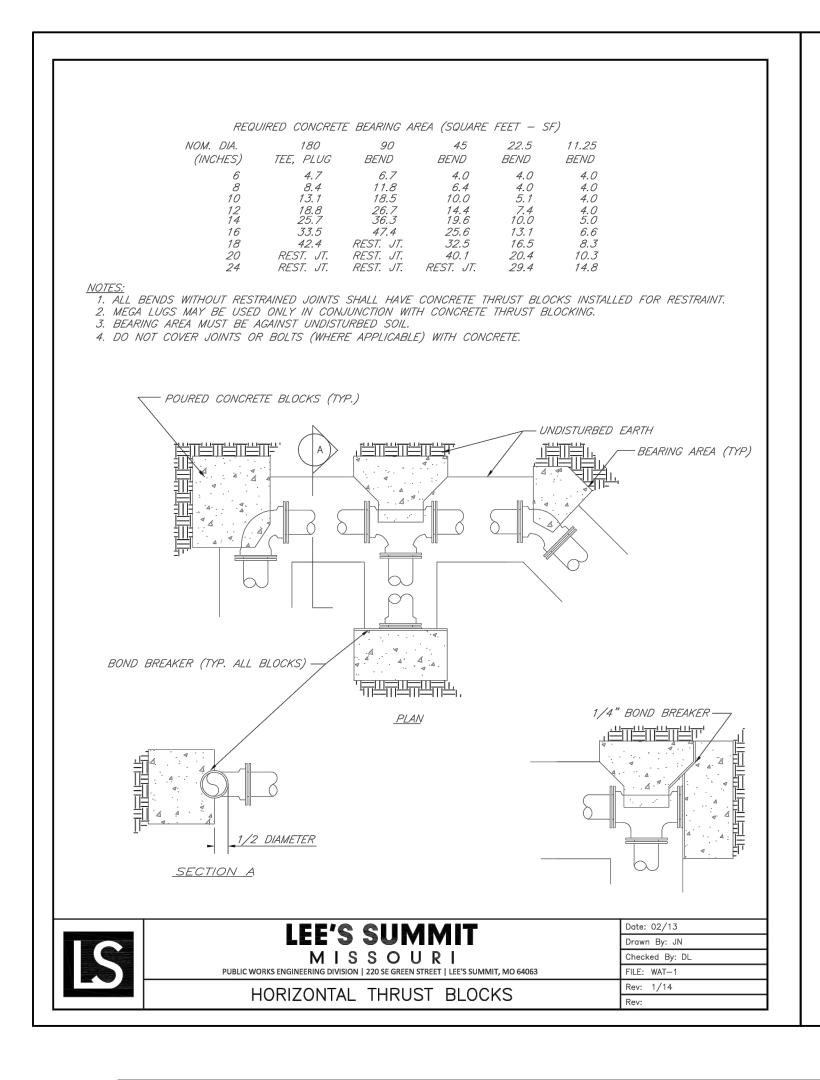
AGGREGATE BASE -

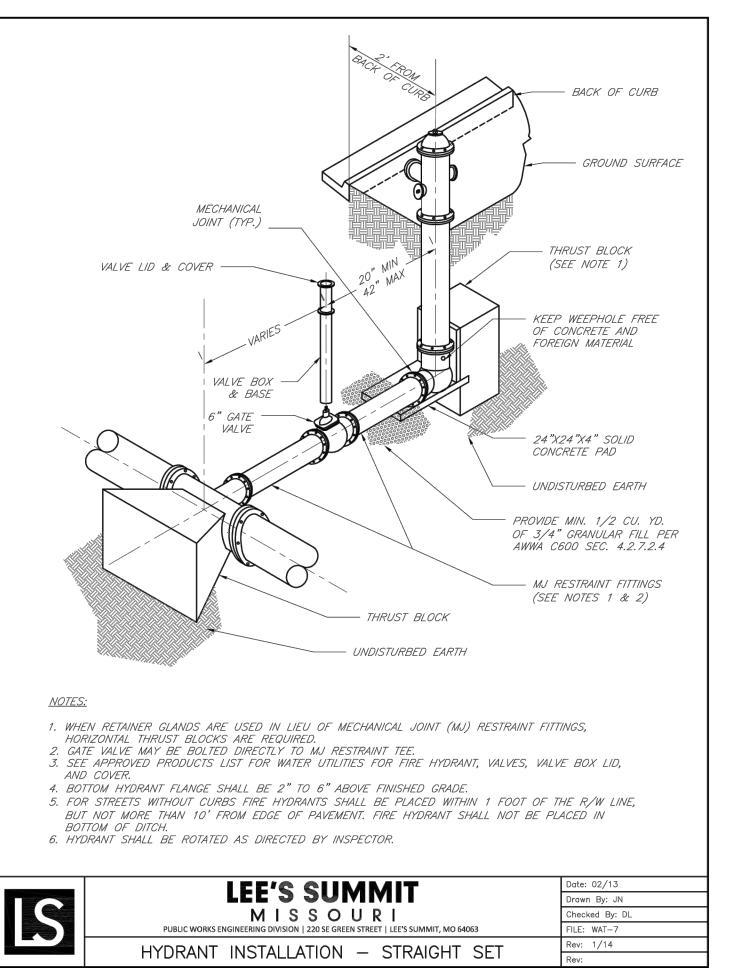
NOT TO SCALE

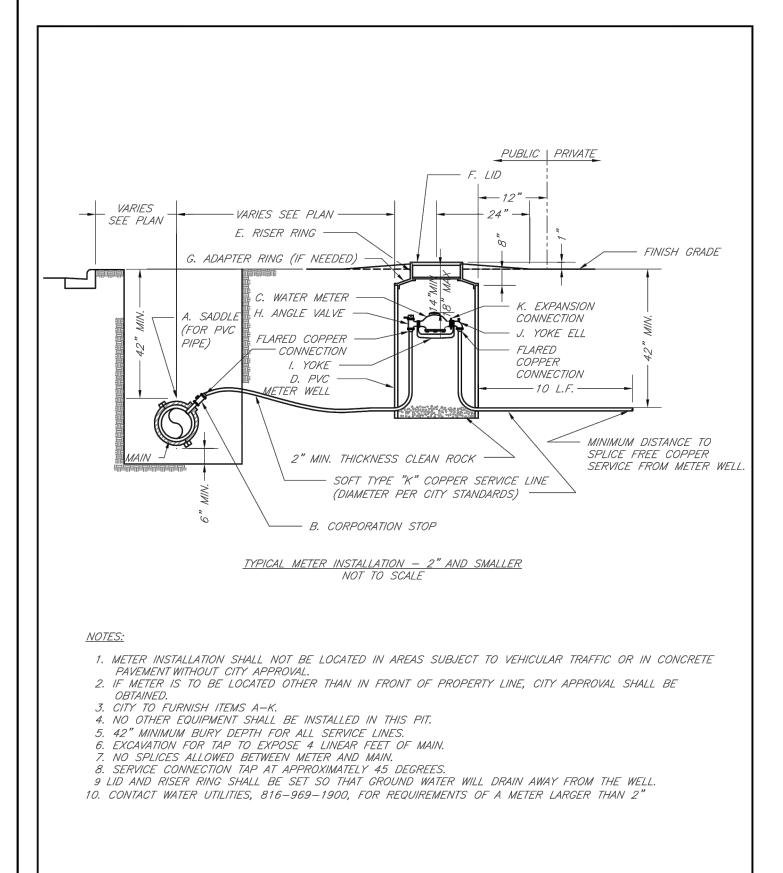
— CONCRETE CURB

CONCRETE SIDEWALK DETAIL

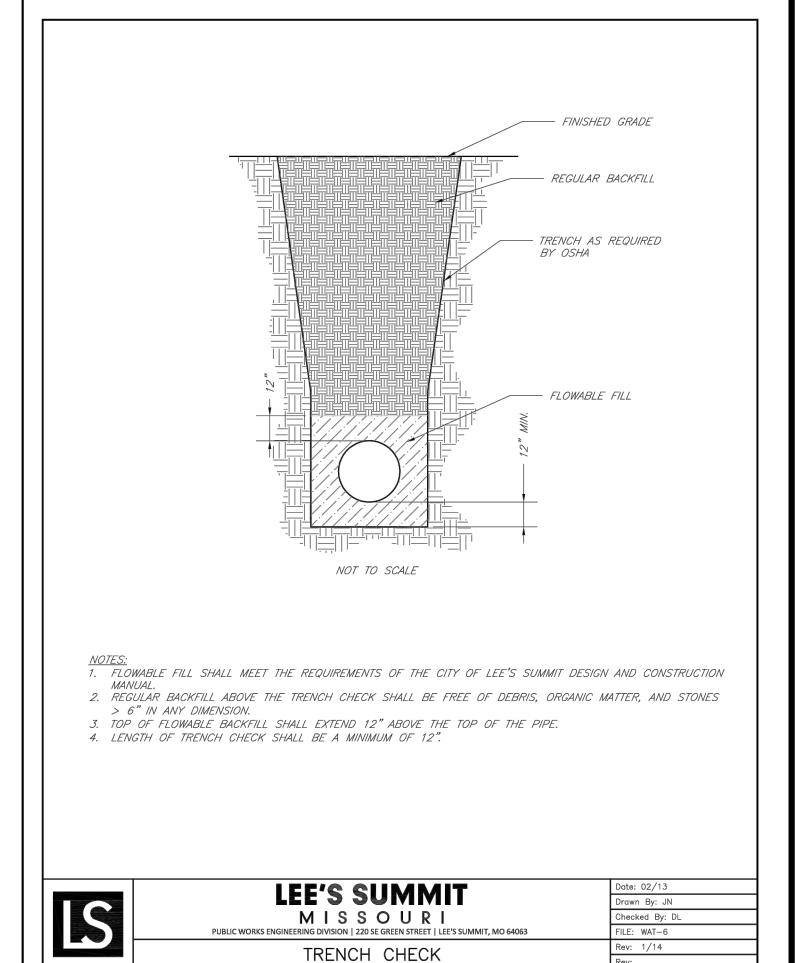


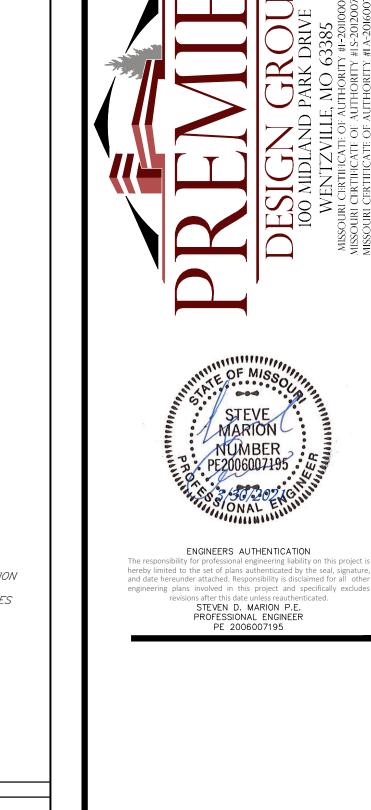


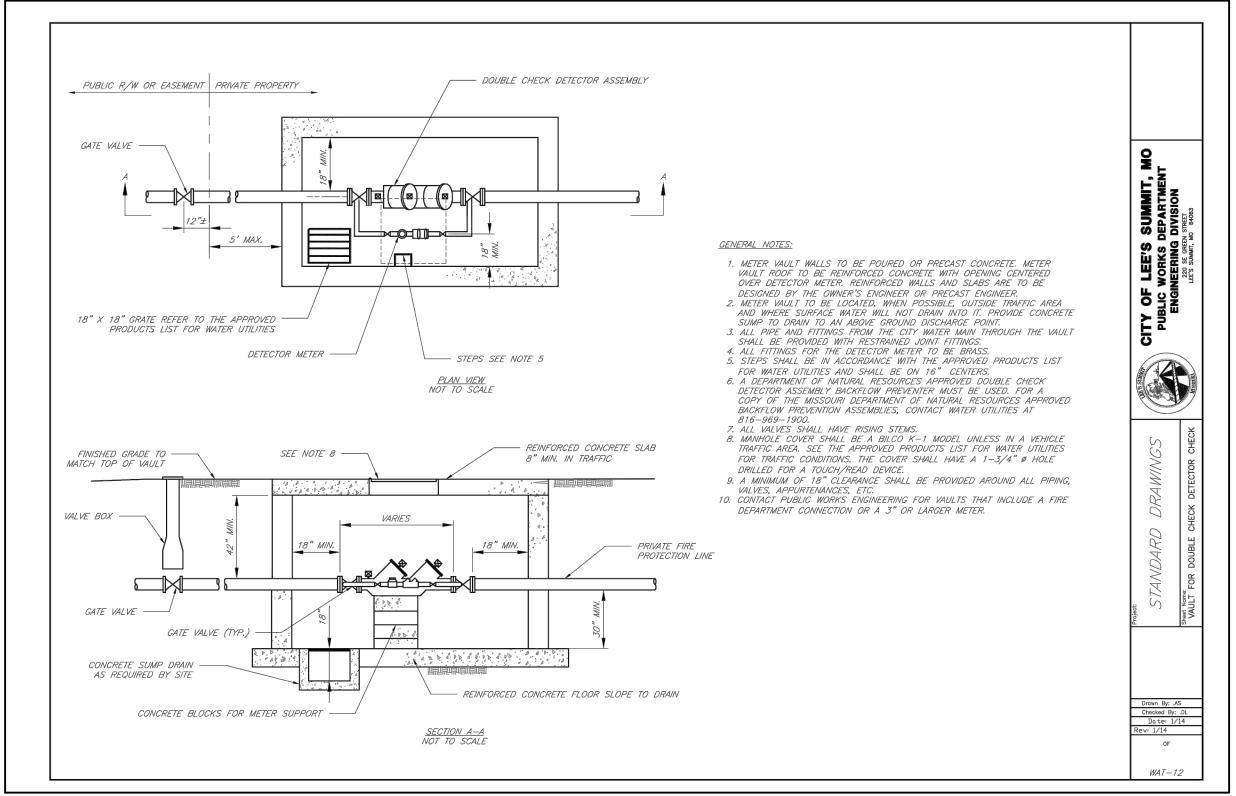


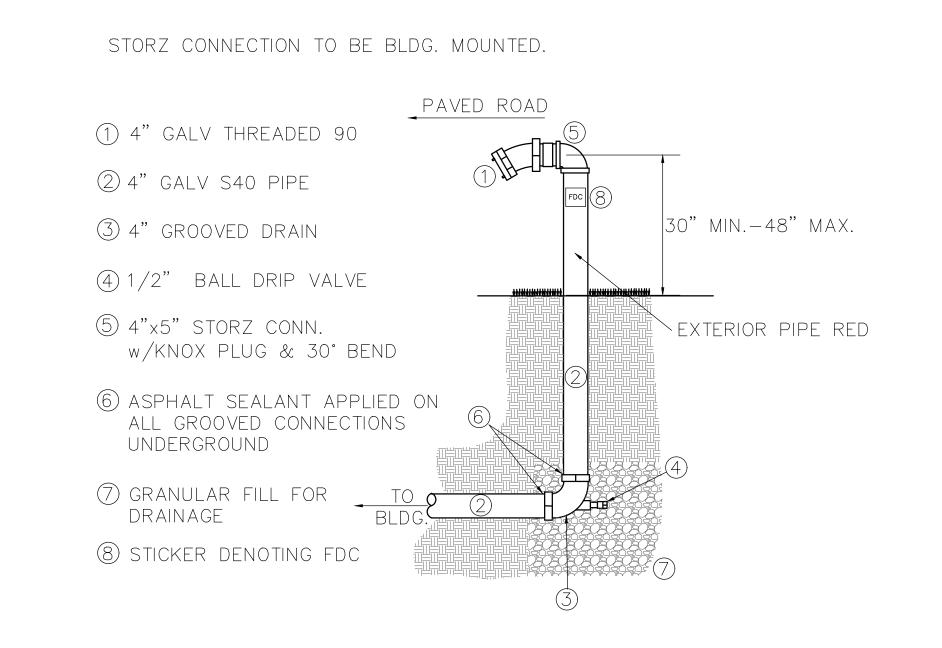






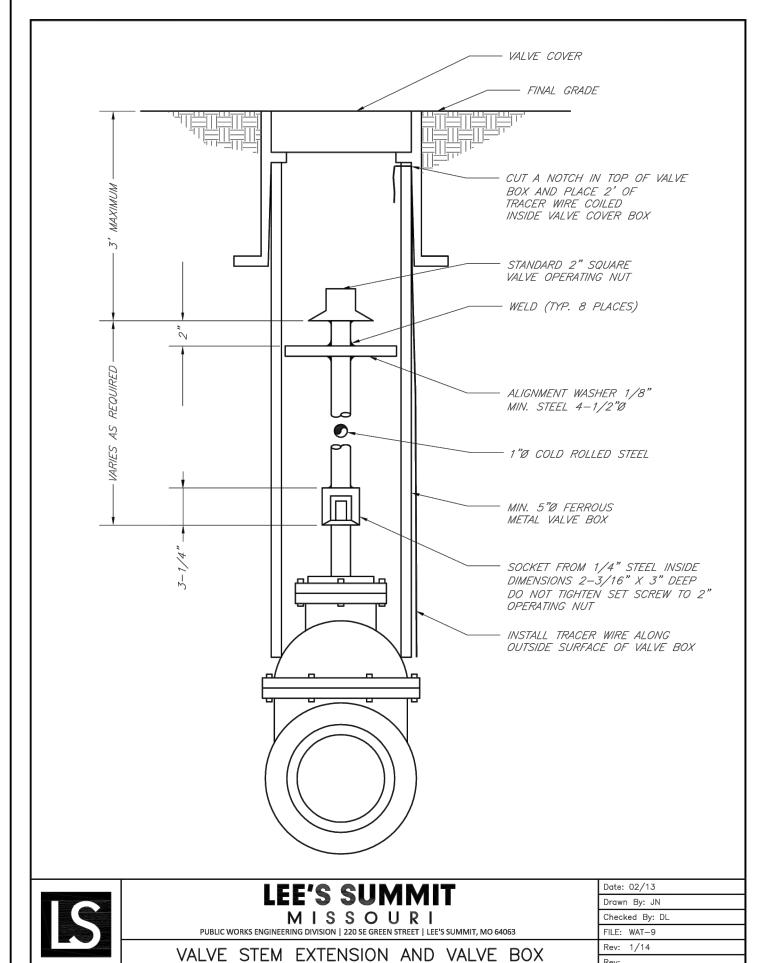


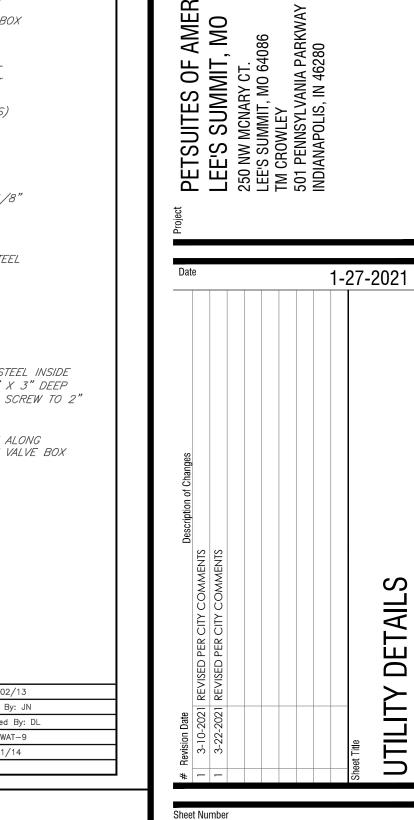




NOT TO SCALE

STORZ FDC CONNECTION DETAIL





Project No.

Drawn By

C-800 2008920 Z. KUNTZ/A. JONES M.FOGARTY Checked By

Section 2723

Engineered Surface Drainage Products

PVC surface drainage inlets shall be of the curb inlet structure type as indicated on the contract drawings and referenced within the contract specifications. The ductile iron frame, grate and hood for each of these structures are to be considered an integral part of the surface drainage inlet and shall be furnished by the same manufacturer. The curb inlet structure shall be as manufactured by Nyloplast a division of Advanced Drainage Systems, Inc. or prior approved equal.

MATERIALS

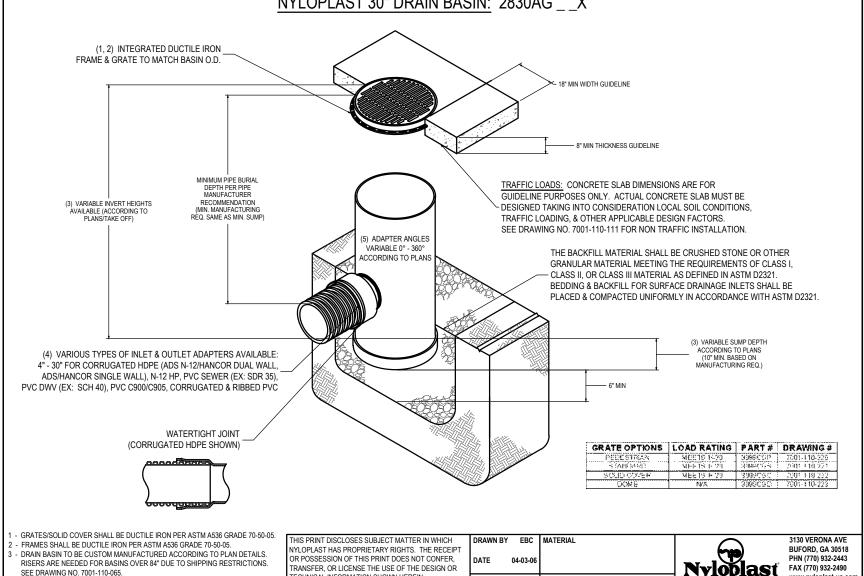
The curb inlet structure required for this contract shall be manufactured from PVC pipe stock, utilizing a thermo-molding process to reform the pipe stock to the specified configuration. The drainage pipe connection stubs shall be manufactured form PVC pipe stock and formed to provide a watertight connection with the specified pipe system. This joint tightness shall conform to ASTM D3212 for joints for drain and sewer plastic pipe using flexible elastomeric seals. The flexible elastomeric seals shall conform to ASTM F477. The pipe bell spigot shall be joined to the main body of the structure. The raw material used to manufacture the pipe stock that is used to manufacture the main body and pipe stubs of the surface drainage inlets shall conform to ASTM D1784 cell class 12454.

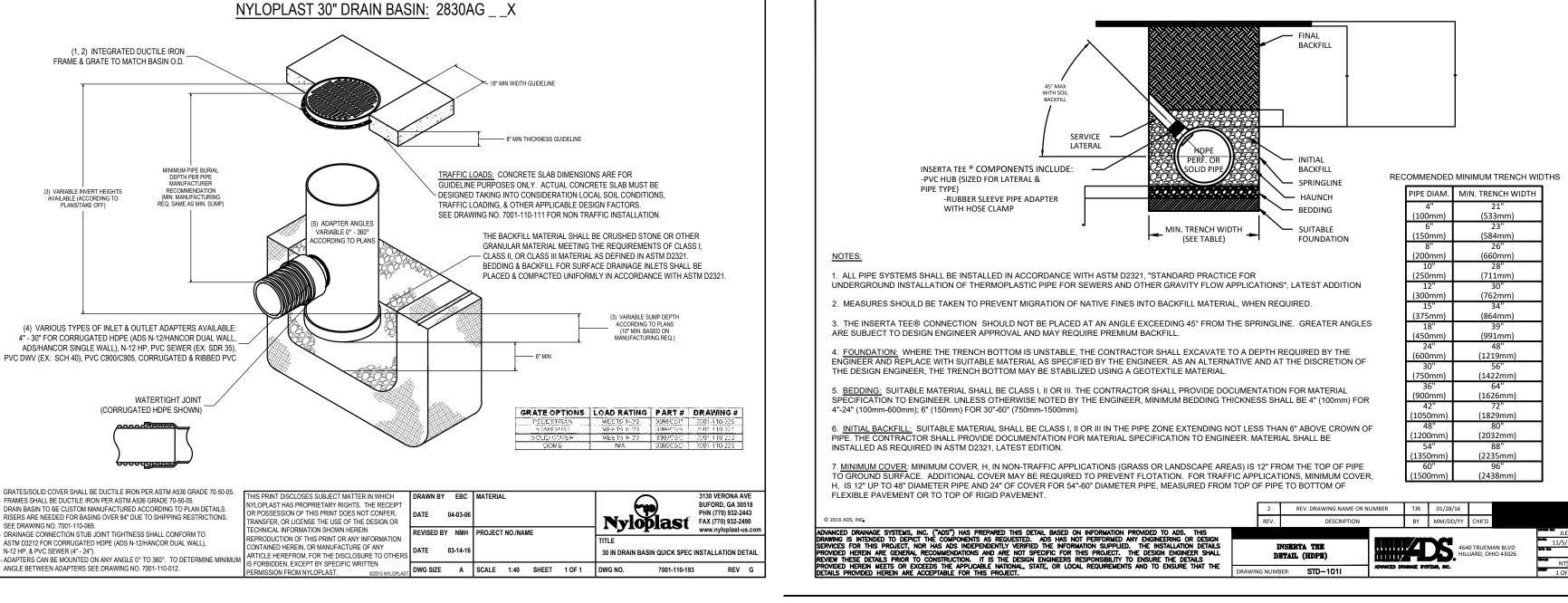
The grate, frame and hood for all curb inlet structures shall be ductile iron and shall be made specifically for each so as to provide a round bottom flange that closely matches the diameter of the PVC structure body. The grate, frame and hood shall be capable of supporting H-20 wheel loading for traffic areas. The hood section will have a solid back and be adjustable by use of three (3) locking hex head bolts. The metal used in the manufacture of the castings shall conform to ASTM A536 grade 70-50-05 for ductile iron.

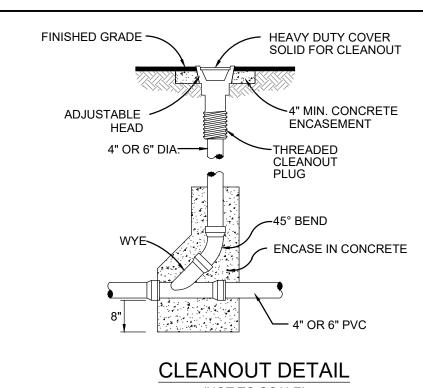
INSTALLATION

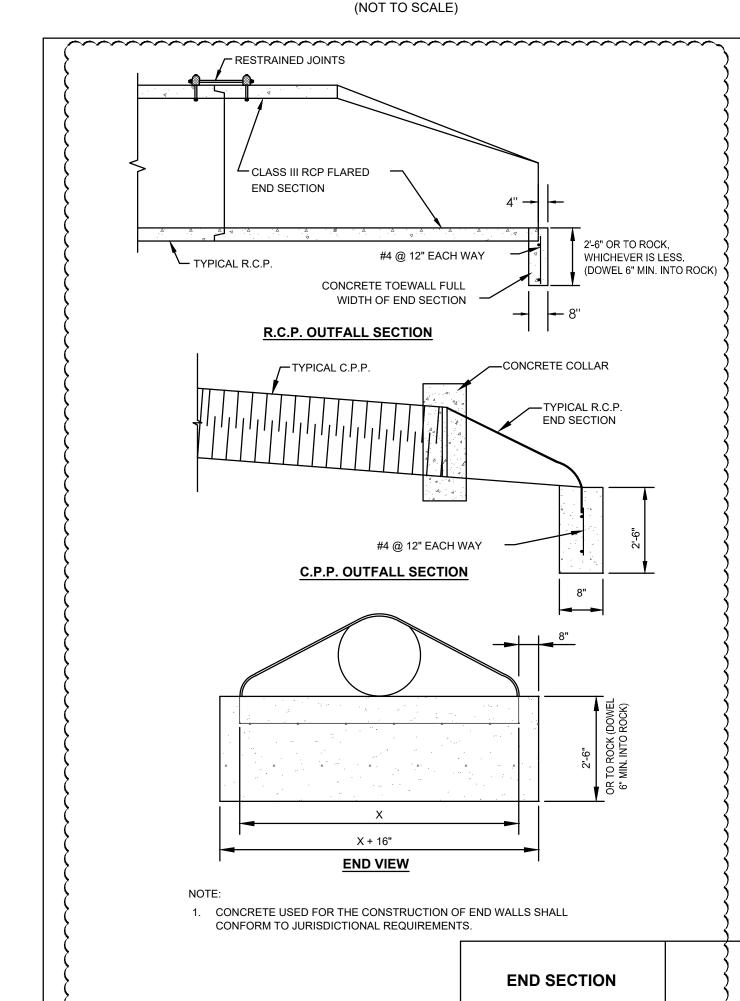
The specified PVC surface drainage inlet shall be installed using conventional flexible pipe backfill materials and procedures. The backfill material shall be crushed stone or other granular material meeting the requirements of class 1, class 2, or class 3 material as defined in ASTM D2321. Bedding and backfill for the curb inlet structure shall be placed and compacted uniformly in accordance with ASTM D2321. The curb inlet structure body will be cut at the time of the final grade. No brick, stone or concrete block will be required to set the grate to the final grade height. For H-20 load rated installations, a concrete ring will be poured under the frame, grate, and hood. The concrete slab must be designed taking into consideration local soil conditions, traffic loading, and other applicable design factors. For other installation considerations such as migration of fines, ground water, and soft foundations refer to ASTM D2321 guidelines.

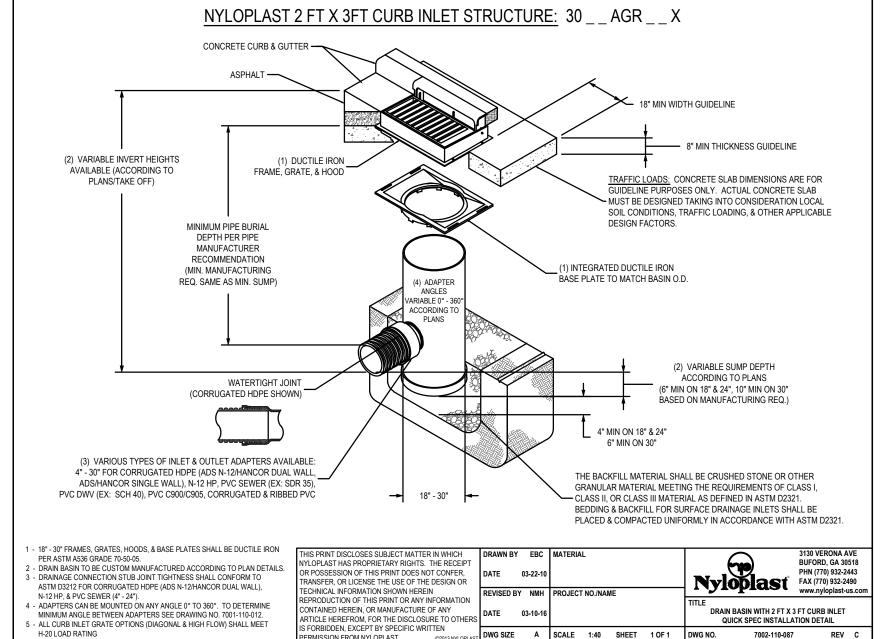
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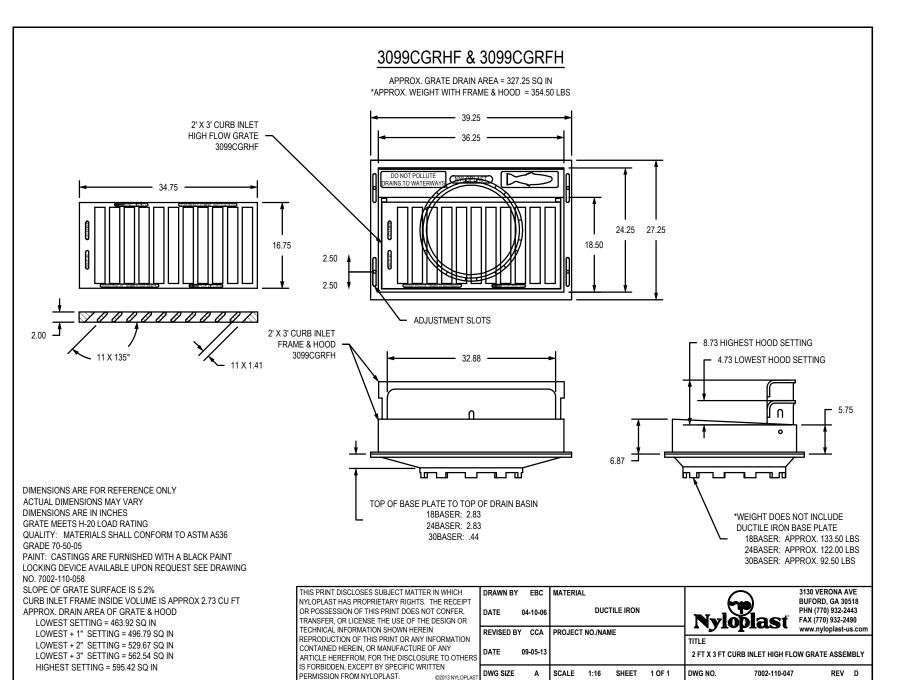


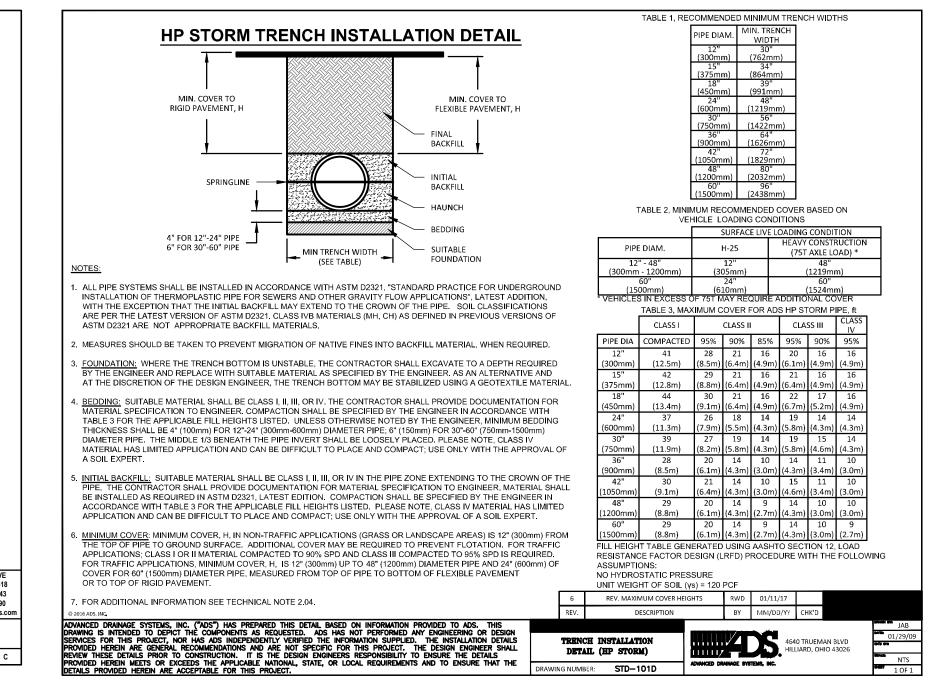


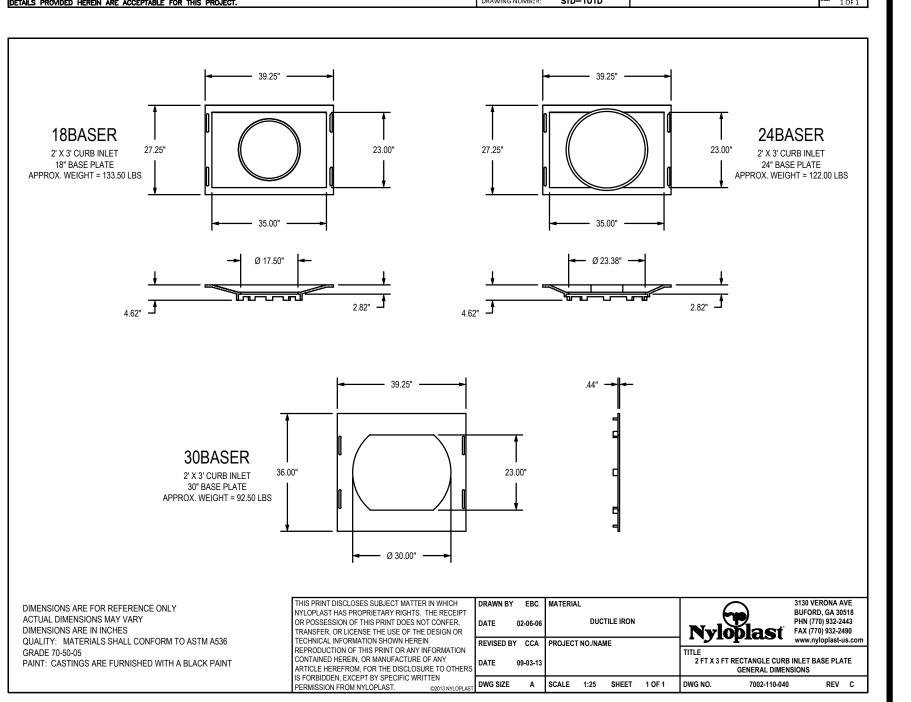










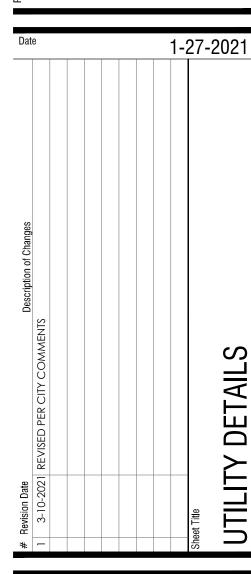






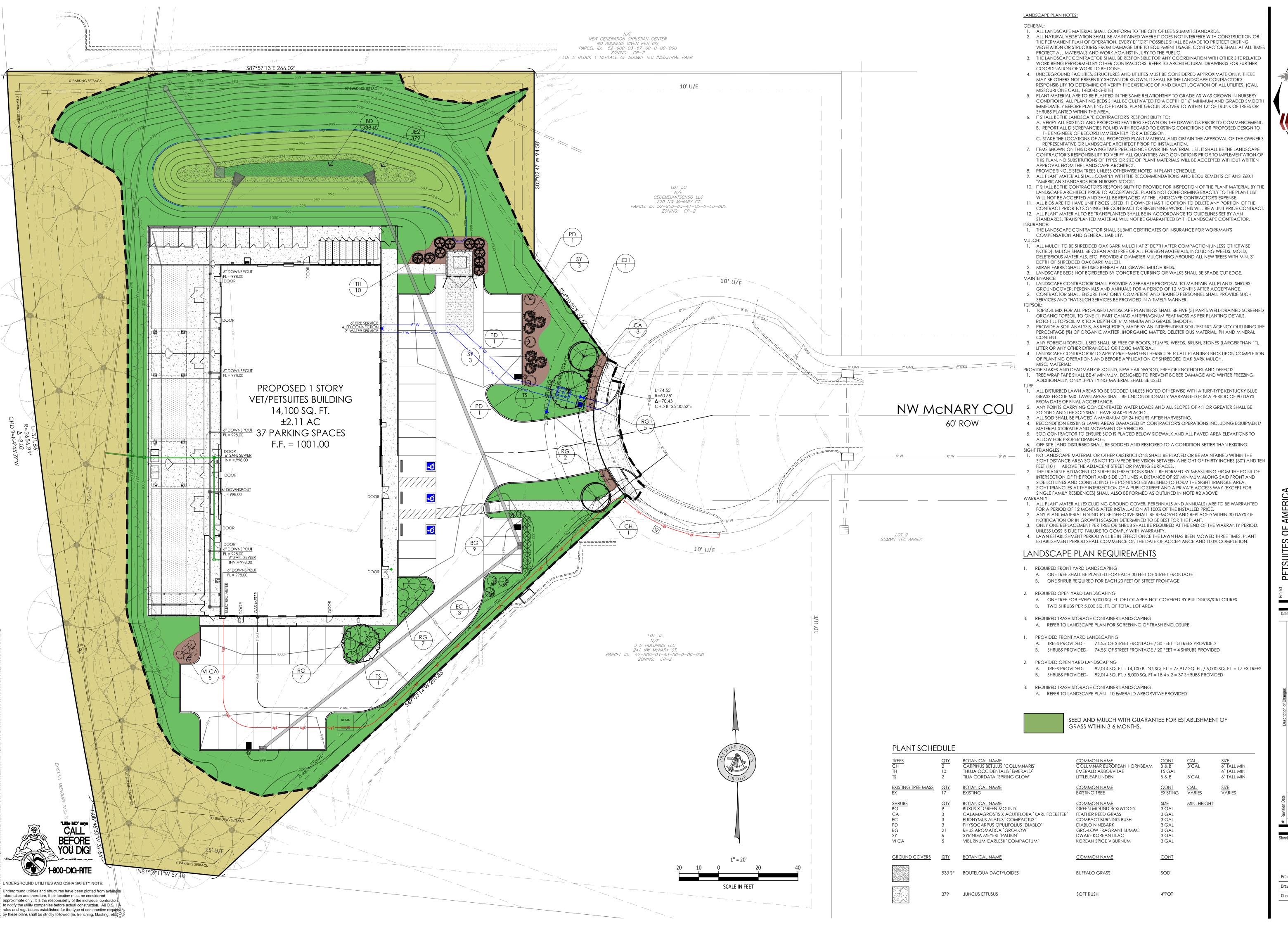
engineering plans involved in this project and specifically excludes PROFESSIONAL ENGINEER PE 2006007195

TSUITES OF A E'S SUMMIT, I



C-801

2008920 Z. KUNTZ/A. JONES Drawn By M.FOGARTY Checked By







STEVEN D. MARION P.E. PROFESSIONAL ENGINEER PE 2006007195

VIII, IVIU CT. 0 64086

LEE'S SUMMIT, 250 NW MCNARY CT. LEE'S SUMMIT, MO 640 TM CROWLEY 501 PENNSYLVANIA PA

3-10-2021 REVISED PER CITY COMMENTS

3-10-2021 REVISED PER CITY COMMENTS

ANDSCAPE PLAN

L-100

 Drawn By
 Z. KUNTZ/A. JONES

 Checked By
 M.FOGARTY