PERNOUD PROFESSIONAL OFFICE BUILDING
IMPROVEMENT PLANS

A Tract of Land being Lot 2 of Rhodes Lake Saint Louis Subdivision as recorded in Plat Book 50 Page147, and being part of the Northeast Quarter of Fractional Section 9, Township 46 North, Range 2 East, St. Charles, Missouri

CITY OF LAKE SAINT LOUIS GENERAL NOTES

1. ALL IMPROVEMENTS CONSTRUCTED HEREIN SHALL COMPLY WITH ALL CITY ORDINANCES.
2. IF AN AREA OF GREATER THAN ONE ACRE IS DISTURBED, A LAND DISTURBANCE PERMIT IS REQUIRED PRIOR TO COMMENCING EXCAVATION OPERATION. PROVIDE COPY OF APPROVAL FROM THE DEPARTMENT OF NATURAL RESOURCES TO THE PUBLIC WORKS DEPARTMENT.
3. EROSION AND SEDIMENTATION CONTROL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. ADDITIONAL EROSION AND SEDIMENTATION CONTROL MAY BE REQUIRED AS DIRECTED BY THE CITY ENGINEER. (ORDINANCE 440.040 D.).
4. WHEN GRADING OPERATIONS ARE COMPLETED OR SUSPENDED VEGETATION IN SUFFICIENT DENSITY TO PROVIDE EFFECTIVE EROSION CONTROL MUST BE REESTABLISHED WITHIN 30 DAYS. (ORDINANCE 440.050 D.). SEED TYPE, DENSITY REQUIREMENTS, AND FERTILIZER REQUIREMENTS CAN BE FOUND IN SECTION 60.20.2 IN THE DESIGN CRITERIA FOR THE PREPARATION OF IMPROVEMENT PLANS BY SAINT CHARLES COUNTY, MO.
5. ALL MUD, MATERIAL AND DEBRIS FROM CONSTRUCTION SITE TO BE KEPT OFF OF CITY MAINTAINED STREETS. (ORDINANCE 440.060).
6. ALL WATER MAIN CONSTRUCTION INCLUDING VALVES, SLEEVES, METERS, HYDRANTS AND FITTINGS MUST CONFORM TO PUBLIC WATER SUPPLY DISTRICT #2 DESIGN STANDARDS.
7. ALL SANITARY SEWER CONSTRUCTION MUST CONFORM TO PUBLIC WATER SUPPLY DISTRICT #2 STANDARDS AND SPECIFICATIONS.
8. ALL STREET AND SIDEWALK CONSTRUCTION IS TO BE PER THE LATEST ST. LOUIS COUNTY STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, CURRENT EDITION.
9. FLOWABLE FILL BACKFILL SHALL BE USED FOR ALL BACKFILL ON SEWER TRENCHES THAT ARE UNDER CITY STREETS, FROM THE TOP OF THE BEDDING MATERIAL (8 INCHES ABOVE THE PIPE) TO THE SURFACE, OR TO WITHIN ONE FOOT OF GRADE IN LANDSCAPED AREAS.
10. EARTH BACKFILL (MEETING MSD STANDARDS) MAY BE USED OUTSIDE OF PAVED AREAS, FROM THE TOP OF THE BEDDING MATERIALS TO 6" ABOVE THE PIPE TO THE SURFACE. EARTH BACKFILL SHOULD BE PLACED IN A MAXIMUM 8-INCH LOOSE LIFTS AND SHALL BE MECHANICALLY COMPACTED TO A MINIMUM DENSITY EQUAL TO THAT OF THE ADJACENT, UNDISTURBED SOIL.
11. ALL STORM SEWER CONSTRUCTION IS TO BE PER THE METROPOLITAN ST. LOUIS SEWER DISTRICT (MSD) STANDARD CONSTRUCTION SPECIFICATIONS FOR SEWERS AND DRAINAGE FACILITIES, 2009.
12. FOR NEW SUBDIVISIONS ONLY: EXCEPT UNDER STREETS, UTILITY TRENCHES MAY BE JETTED. ALL JETTING SHALL BE PERFORMED WITH A PROBE ROUTE ON NOT GREATER THAN 7.5 FOOT CENTERS WITH THE JETTING PROBE CENTERED OVER AND PARALLEL WITH THE DIRECTION OF THE PIPE. TRENCH WIDTHS GREATER THAN 10 FEET WILL REQUIRE MULTIPLE PROBES EVERY 7.5 FOOT CENTERS. TRENCH BACKFILL DEPTHS LESS THAN 8 FEET IN DEPTH SHALL BE PROBED TO A DEPTH EXTENDING TO HALF OF THE TRENCH BACKFILL, BUT NOT LESS THAN 3 FEET. TRENCH BACKFILL GREATER THAN 8 FEET IN DEPTH SHALL BE PROBED TO HALF THE DEPTH OF THE TRENCH BACKFILL BUT NOT GREATER THAN 8 FEET. JETTING SHALL BE PERFORMED FROM THE LOW SURFACE TOPOGRAPHIC POINT AND PROCEED TOWARD THE HIGH POINT, AND FROM THE BOTTOM OF THE TRENCH BACKFILL TOWARDS THE SURFACE. THE FLOODING OF EACH JETTING PROBE SHALL BE STARTED SLOWLY ALLOWING SLOW SATURATION OF THE SOIL. WATER IS NOT TO BE ALLOWED TO FLOW AWAY FROM THE DITCH WITHOUT FIRST SATURATING THE TRENCH. CONTRACTOR SHALL IDENTIFY THE LOCATIONS OF SURFACE BRIDGING (THE TENDENCY FOR THE UPPER BACKFILL CRUST TO ARCH OVER THE TRENCH RATHER THAN COLLAPSE AND CONSOLIDATE DURING THE JETTING PROCESS). THE CONTRACTOR SHALL BREAK DOWN THE BRIDGED AREAS USING AN APPROPRIATE METHOD SUCH AS THE WHEELS OR BUCKET OF A BACKHOE. WHEN THE SURFACE CRUST IS COLLAPSED; THE VOID SHALL BE BACKFILLED WITH THE SAME MATERIAL WITHIN THE SUNKEN/JETTED AREA SHALL BE COMPACTED SUCH THAT NO FURTHER SURFACE SUBSIDENCE OCCURS.
13. ALL PIPE JOINTS AND JOINTS ON NEW STRUCTURES SHALL USE CITY APPROVED RUBBER COMPRESSION TYPE JOINTS. WATER STOPS ARE REQUIRED AT ALL POINTS OF CONNECTION NOT USING RUBBER COMPRESSION TYPE JOINTS SUCH AS CONNECTIONS TO EXISTING STRUCTURES.
14. CONCRETE COVERS ON STRUCTURES WILL NOT BE ALLOWED. ONLY CAST IRON COVERS ARE PERMITTED.
15. ALL STORM SEWER DESIGN IS TO CONFORM TO THE CITY OF LAKE SAINT LOUIS DESIGN REQUIREMENTS.
16. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR/DEVELOPER TO PROVIDE TRAFFIC CONTROL PER THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFICE CONTROL DEVICES.
17. FINISHED GRADES SHALL NOT EXCEED A 3:1 SLOPE (33%).
18. TRANSVERSE UNDERDRAINS (SHALLOW PERFORATED PIPE IN A FILTER FABRIC SLEEVE BEDDED IN CLEAN ROCK) SHALL BE PROVIDED AT AND CONNECTED TO ALL STORMSEWER STRUCTURE. UNDERDRAINS SHALL TRAVERSE THE ENTIRE PAVEMENT WIDTH AT EACH STORMSEWER STREET CROSSING.
19. PRIOR TO CONSTRUCTION OR SITE DEVELOPMENT, A MINOR PRELIMINARY PLAT COMBINING THE EXISTING LOTS INTO ONE SHALL BE APPROVED BY THE CITY AND RECORDED WITH ST. CHARLES COUNTY.
20. PRIOR TO CONSTRUCTION OR SITE DEVELOPMENT, PARCEL ID: 4-0060-0825-00-0006.0000000 SHALL BE VOLUNTARILY ANNEXED INTO THE CITY.
21. MAXIMUM ON-SITE ILLUMINATION SHALL NOT EXCEED 10 FOOT-CANDLES (SECTION 425.420.A).
22. MAXIMUM POLE HEIGHT IS 25 FEET AND THE MAXIMUM BASE HEIGHT IS 3 FEET (SECTION 425.440.A).
23. ALL LIGHT FEATURES SHALL BE FULL CUTOFF AND/OR CONSTRUCTED SO THAT NO LIGHT RAYS ARE EMITTED BY THE INSTALLED FIXTURE AT ANGLES ABOVE THE HORIZONTAL PLANE.
24. ALL POLE AND LUMINARIES SHALL BE BLACK, DARK BRONZE, GREY, OR OTHER NEUTRAL COLOR. BASES SHALL BE UNPAINTED CONCRETE (SECTION 425.440.A.3)
25. SIGNAGE REQUIRES A SEPARATE APPROVAL BY THE CITY AND MUST CONFORM TO CHAPTER 425, ARTICLE VII, SIGNS.
26. ALL ELECTRICAL, MECHANICAL AND POOL EQUIPMENT WILL BE SCREENED BY DENSE EVERGREEN VEGETATION, A DECORATIVE OPAQUE FENCE OR WALL COMPLEMENTING THE ARCHITECTURAL DETAILS AND MATERIALS OF THE BUILDING, ARCHITECTURAL FEATURES OF THE BUILDING, OR A COMBINATION OF THESE (SECTION 425.100).
27. ALL UTILITY CROSSINGS SHALL BE BORED UNDER EXISTING CITY OF LAKE SAINT LOUIS STREETS.

USGS BENCHMARK:

STATION: SC 16A
ELEVATION: 594.52

DESCRIPTION: THE STATION IS A MISSIOURI DNR GRS ALUMINUM DISK STAMPED "SC 16A 2000" AND IS SET IN A 12 INCH (30 CM) DIAMETER CONCRETE MONUMENT FLUSH WITH THE GROUND SURFACE.

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LOCATION MAP (N.T.S.)

COVERAGES	
PAVEMENT:	0.52 ACRES (22,659 SQ. FT.)
BUILDING:	0.17 ACRES (7,500 SQ. FT.)
OPEN SPACE:	0.54 AC (23,522 SQ. FT.)

CONDITIONS OF APPROVAL:

1. A SITE PLAN APPROVAL SHALL EXPIRE ONE YEAR AFTER THE DATE OF FINAL APPROVAL UNLESS THE USE OR CONSTRUCTION IS SUBSTANTIALLY UNDERWAY, AS DETERMINED BY THE COMMUNITY DEVELOPMENT DIRECTOR, OR AN EXTENSION IS GRANTED PURSUANT TO SECTION 405.080.
2. APPLICANT SHALL PROVIDE A CHANGE IN PAVING MATERIAL OR A CHANGED IN MATERIAL COLOR WHERE THE BUILDING ACCESS SIDEWALK CROSSES THE PARKING LOT NEAR THE NORTHWEST CORNER OF THE BUILDING (PAINTED CROSSWALKS DO NOT FULFILL THIS REQUIREMENT).
3. APPLICANT SHALL PROVIDE A CHANGE IN PAVING MATERIAL OF A CHANGE IN MATERIAL COLOR WHERE THE SIDEWALK ALONG LAKE SAINT LOUIS BOULEVARD CROSSES THE APRON OF THE VEHICULAR ACCESS DRIVEWAY FROM LAKE SAINT LOUIS BOULEVARD (PAINTED CROSSWALKS DO NOT FULFILL THIS REQUIREMENT).

PUBLIC WATER SUPPLY DISTRICT #2 NOTES

1. THE WATER DISTRICT REQUIRES ONE (1) WEEK NOTICE BEFORE THE START OF CONSTRUCTION.
2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN ANY CITY OR MODOT PERMITS REQUIRED TO WORK ALONG THE ROADWAYS.
3. ALL WATER SERVICE LINES, FIRE LINES, AND PRIVATE WATER MAINS MUST BE INSTALLED PER PWSD#2'S SPECIFICATIONS.
4. ALL "PRIVATE" FIRE HYDRANTS ARE TO BE PAINTED RED PER PWSD#2'S SPECIFICATIONS.
5. ALL LATERAL CONNECTIONS ARE TO BE MADE PER PWSD#2'S SPECIFICATIONS.
6. THE ENTIRE LENGTH OF THE SANITARY SEWER MUST BE INSPECTED BY PWSD#2'S PERSONNEL.
7. ALL SANITARY SEWER LATERALS ARE "PRIVATE" AND MAINTAINED BY THE PROPERTY OWNERS.
8. ALL SANITARY SEWER LATERALS ARE REQUIRED TO BE SCHEDULE 35 PVC PIPE.
9. ANY SANITARY SEWER LATERAL THAT IS INSTALLED AT A DEPTH GREATER THAN 15' DEEP IS REQUIRED TO BE SCHEDULE 40 PVC PIPE.
10. ALL SANITARY SEWER LATERALS ARE PROHIBITED FROM CONTAINING BENDS GREATER THAN A 45 DEGREE ANGLE.

Index Table

SHEET NUMBER	SHEET TITLE
C000	COVER SHEET
C100	EXISTING CONDITIONS
C200	SITE PLAN
C300	GRADING PLAN
C301	SWPPP
C400	PRE-DEVELOPED DRAINAGE AREA MAP
C401	POST-DEVELOPED DRAINAGE AREA MAP
C500	PROFILES
C501	UTILITY LINE PROFILES
C600	SIGHT DISTANCE
C700	LANDSCAPE PLAN
C800	DETAILS
C801	DETAILS
C900	EROSION CONTROL DETAILS

DEVELOPMENT NOTES

1. OWNER: RHODES PROPERTIES LC
   PO BOX 779
   CAPE GIRARDEAU, MO 63702
2. DEVELOPER: MAP REALTY HOLDINGS, LLC
   1460 LUCERNE MANOR DRIVE
   WELDON SPRING, MO 63304
3. AREA OF DEVELOPMENT: 1.23 ACRES
4. PRESENT ZONING: C-2, COMMERCIAL
5. PROPOSED USE: OFFICE BUILDING
6. SETBACK AND YARD REQUIREMENTS:
   A. FRONT - 42 FEET
   B. REAR - 20 FEET
   C. SIDE - 9 FEET
7. HEIGHT REQUIREMENTS:
   30 FEET MAXIMUM BUILDING HEIGHT
8. MINIMUM LOT AREA:
   21,780 SQUARE FEET
9. FLOOR AREA RATIO: 1.25
   PROPOSED F.A.R. = 0.14
10. SITE IS SERVED BY OR LOCATED IN THE FOLLOWING:
    WATER - PUBLIC WATER SUPPLY DISTRICT NO. 2
    SANITARY SEWERS - DUCKETT CREEK SANITARY DISTRICT
    GAS - SPIRE MISSOURI, INC. (LACLEDE GAS COMPANY)
    TELEPHONE - CENTURYLINK
    FIRE - WENTZVILLE FIRE PROTECTION DISTRICT
    ELECTRIC - CUIVRE RIVER ELECTRIC COOPERATIVE
11. NO FLOOD PLAIN EXISTS ON THIS PROPERTY PER FEMA NO. 29183C0220G, DATED JANUARY 20, 2016.
12. ALL UTILITIES WILL BE LOCATED UNDERGROUND.
13. INSTITUTE OF TRANSPORTATION ENGINEERS
    MEDICAL-DENTAL OFFICE BUILDING - 3.9 SPACES PER 1,000 SQ. FT. GROSS FLOOR AREA
    PROPOSED GROSS FLOOR AREA = 7,500 SQ. FT.
    PARKING SPACES REQUIRED = (7,500 / 1,000) * 3.9 = 29 SPACES
    PARKING SPACES PROVIDED = 53 SPACES INCLUDING 4 ADA SPACES
14. BUILDING FOUNDATION LANDSCAPING:
    1 SHRUB PER 10 FEET OF EXTERIOR FOUNDATION FRONTING PUBLIC OR PRIVATE STREET

    185 FEET OF FRONTAGE / 10 = 19 SHRUBS REQUIRED
    PROVIDED SHRUBS = 24 SHRUBS
15. PARKING LOT INTERIOR LANDSCAPING:
    1 TREE & 100 SQ. FT. LANDSCAPED AREA PER 10 PARKING SPACES

    (53 SPACES / 10) * 1 = 6 TREES REQUIRED
    (53 SPACES / 10) * 100 = 530 SQ. FT. LANDSCAPED AREA REQUIRED
    PROVIDED LANDSCAPED AREA = 1,069 SQ. FT.
    PROVIDED TREES = 6 TREES
16. STREET TREES:
    1 TREE PER 40 FEET OF PUBLIC OR PRIVATE STREET FRONTAGE

    STREET FRONTAGE = 453 FEET
    REQUIRED TREES = 453 FT * (1 TREE / 40 FT) = 11 TREES REQUIRED

WILLIAM SCHEIDT, PE
2018007869
PROFESSIONAL CIVIL ENGINEER
*HAND SIGNATURE ON FILE

REVISION RECORD

NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
3000 Little Hills Expressway · Suite 102 · St. Charles, MO 63301
314-656-4566 · 866-250-3679
www.ceinc.com

MAP REALTY HOLDINGS, LLC
1460 LUCERNE MANOR DRIVE
WELDON SPRING MO 63304

PERNOUD PROFESSIONAL OFFICE BUILDING IMPROVEMENT PLANS COVER SHEET

DATE: JANUARY 2023	DRAWN BY: WTS
DWG SCALE:	CHECKED BY: KAS
PROJECT NO:	325-112
APPROVED BY:	

DRAWING NO.: **C000**

SHEET 1 OF 14

P:\325-001\325-112\-C400\Dwg\Improvement Plans\325112-CV01-C000.dwg\C000 COVER SHEET\ LS\10/9/2023 - ssutton\ - LA 10/9/2023 11:33 AM

NORTH
SCALE IN FEET
0 20 40

6880 LAKE ST. LOUIS BLVD
N/F
LAKE ST LOUIS EXPOSITION PARK LLC
2922/1824
C-2 – COMMERCIAL
19.67 ACRES

N 83°28'10" E 205.59'

FOUND IRON ROD (HELD)

FOUND IRON ROD N16°31'43"E 0.30'

25'W ESMT PER 4895/2332

20' REAR YARD SETBACK

35'W TEMP ESMT PER 4895/2332

100'W CENTRAL ELECTRIC POWER COOPERATIVE (CEPC) ESMT PER 308/650 APPROXIMATE LOCATION SHOWN BASED ON LOCATED CENTERLINE OF OVERHEAD UTILITY

POWER POLES

EDGE OF ASPHALT ROAD

EXISTING ENTRACNCE

CONC APRON

N 00°09'10" E 202.89'

N 06°31'52" W 248.23'

8' SIDE YARD SETBACK

20' BUILDING SETBACK (NO PARKING IN FRONT)

42' BUILDING SETBACK (WITH PARKING IN FRONT)

LAKE ST. LOUIS BLVD
(VARIABLE WIDTH - A.K.A. FREMAUX LANE)

10'W T.S.C.L. ESMT PER 6734/2324

LOT 1
53,554.4 SQ.FT.
1.23 ACRES ±
(PARCEL A)
C-2 – COMMERCIAL
1.23 ACRES

LOT 1
8625 HIGHWAY N
N/A
RHODES PROPERTIES LC
P.B. 50, PG. 147
C-2 – COMMERCIAL
1.49 ACRES

CONC CURB

ASPHALT PARKING LOT

SIGN TO BE MOVED

TEMP ESMT PER 6685/1155

42' BUILDING SETBACK (WITH PARKING IN FRONT)

GRAVEL AREA (TBR)

CL 10'W ESMT PER 4875/1861

FOUND IRON ROD N30°32'34"E 0.11'

ESMT PER 6734/2331

ESMT PER 6685/1155

20' BUILDING SETBACK (NO PARKING IN FRONT)

EXISTING BLOCK WALL

10'W T.S.C.L. ESMT PER 6734/2324

10'W ESMT PER 6685/1155

S 83°28'10" W 188.03'

S 83°28'10" W 126.97'

N 6°31'50" W 10.00'

FOUND IRON ROD (DOERING) N6°5'54"E 0.14'

FOUND IRON ROD (DOERING – HELD)

FOUND IRON ROD N12°52'45"E 0.14'

CONC RAMP

EDGE OF ASPHALT ROAD

FOUND IRON ROD S2°25'38"E 0.15'

CONC CURB

MISSOURI STATE HIGHWAY "N"
(VARIABLE WIDTH)

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LEGEND

- EXISTING PROPERTY LINE
- EXISTING EASEMENT
- EXISTING RIGHT-OF-WAY
- 385 EXISTING INDEX (MAJOR) CONTOUR
- EXISTING INTERMEDIATE (MINOR) CONTOUR
- EXISTING FENCE LINE
- EXISTING ROADWAY CENTERLINE
- EXISTING CURB
- EXISTING EDGE OF PAVEMENT
- EXISTING ASPHALT PAVEMENT
- EXISTING STRUCTURE
- ST EXISTING STORM PIPE
- W EXISTING WATER LINE
- SAN EXISTING SANITARY SEWER LINE
- G EXISTING GAS LINE
- OH-E EXISTING OVERHEAD WIRE
- E EXISTING ELECTRIC LINE
- UG-E EXISTING UNDERGROUND ELECTRIC LINE

REVISION RECORD

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MAP REALTY HOLDINGS, LLC
1460 LUCERNE MANOR DRIVE
WELDON SPRING MO 63304

PERNOUD PROFESSIONAL OFFICE BUILDING
IMPROVEMENT PLANS
EXISTING CONDITIONS

DATE: JANUARY 2023	DRAWN BY: WTS
DWG SCALE: 1"=20'	CHECKED BY: KAS
PROJECT NO:	325-112
APPROVED BY:	

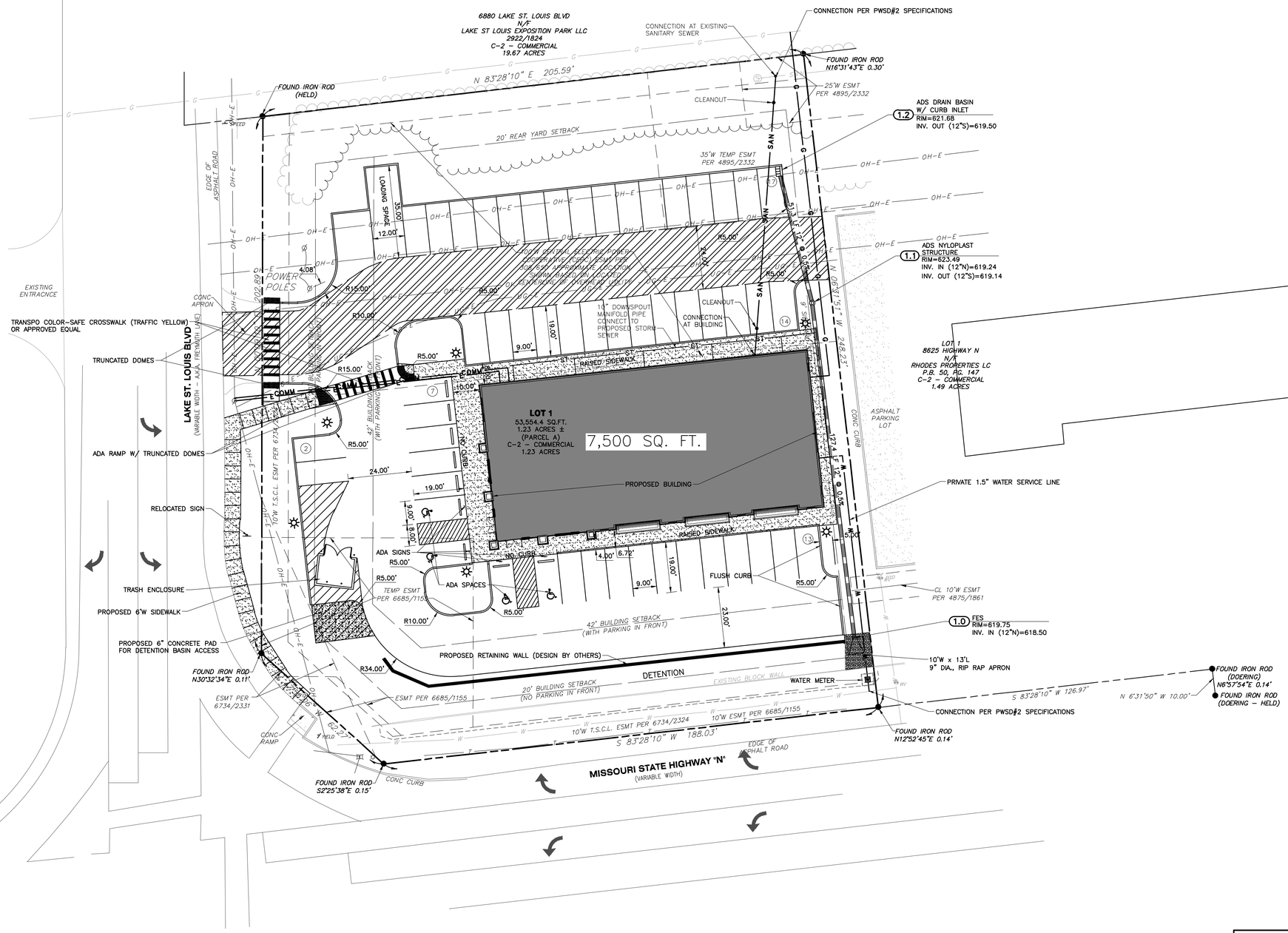
DRAWING NO.: C100

SHEET 2 OF 14

P:\320-005\325-112\-CADD\Dwg\Improvement Plans\325112-C100-C100.dwg[C100 EXISTING CONDITIONS] LS:(3/9/2023 - stuston) - LP: 3/9/2023 11:33 AM

NORTH

- PROPOSED EDGE OF PAVED DRIVE
- PROPOSED CONCRETE
- PROPOSED STRIPING
- PROPOSED ADA SIDEWALK
- PROPOSED CROSS ACCESS EASEMENT
- SUBJECT PROPERTY BOUNDARY
- PROPOSED BUILDING
- PROPOSED TREELINE
- G — PROPOSED GAS LINE
- SAN — PROPOSED SANITARY LINE
- W — PROPOSED WATERLINE
- SAN — PROPOSED SANITARY SEWER
- PROPOSED SANITARY MANHOLE
- PROPOSED SANITARY CLEANOUT
- W — PROPOSED WATER LINE
- E — PROPOSED ELECTRIC
- PROPOSED STORM PIPE
- PROPOSED 2'X2' ADS CURB INLET
- PROPOSED ADS BASIN W/ SOLID COVER
- PROPOSED LIMITS OF DETENTION POND
- (32) PROPOSED STRUCTURE LABEL



SCALE IN FEET
0 20 40

WILLIAM SCHEIDT, PE
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MAP REALTY HOLDINGS, LLC
1460 LUCERNE MANOR DRIVE
WELDON SPRING MO 63304

PERNOUD PROFESSIONAL OFFICE BUILDING IMPROVEMENT PLANS
SITE PLAN

DATE:	JANUARY 2023
DRAWN BY:	WTS
DWG SCALE:	1"=20'
CHECKED BY:	KAS
PROJECT NO:	325-112
APPROVED BY:	

DRAWING NO.: C200

SHEET 3 OF 14

P:\L20-2001\325-112\~CADD\dwg\Improvement Plans\325112-CV01-C200.dwg\C200 SITE PLAN(LS:(8/9/2023 - ssutton) - LP: 8/9/2023 11:34 AM

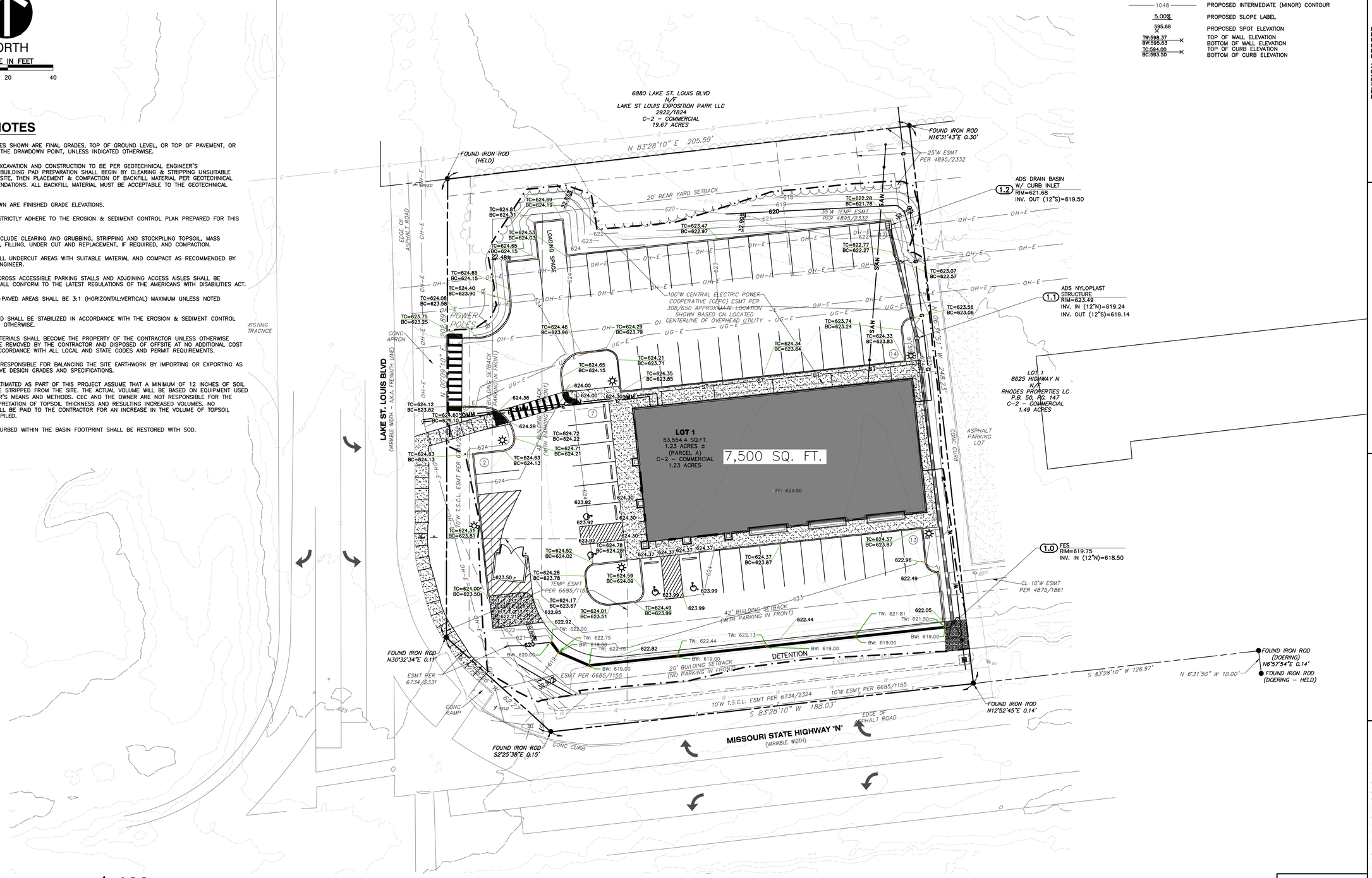
NORTH

SCALE IN FEET

0 20 40

GRADING NOTES

1. ALL PROPOSED GRADES SHOWN ARE FINAL GRADES, TOP OF GROUND LEVEL, OR TOP OF PAVEMENT, OR GRATE ELEVATION AT THE DRAWDOWN POINT, UNLESS INDICATED OTHERWISE.
2. SITE BUILDING PAD EXCAVATION AND CONSTRUCTION TO BE PER GEOTECHNICAL ENGINEER'S RECOMMENDATIONS. BUILDING PAD PREPARATION SHALL BEGIN BY CLEARING & STRIPPING UNSUITABLE MATERIAL FROM PAD SITE, THEN PLACEMENT & COMPACTION OF BACKFILL MATERIAL PER GEOTECHNICAL ENGINEER'S RECOMMENDATIONS. ALL BACKFILL MATERIAL MUST BE ACCEPTABLE TO THE GEOTECHNICAL ENGINEER.
3. ALL ELEVATIONS SHOWN ARE FINISHED GRADE ELEVATIONS.
4. CONTRACTOR SHALL STRICTLY ADHERE TO THE EROSION & SEDIMENT CONTROL PLAN PREPARED FOR THIS PROJECT.
5. EARTHWORK SHALL INCLUDE CLEARING AND GRUBBING, STRIPPING AND STOCKPILING TOPSOIL, MASS GRADING, EXCAVATION, FILLING, UNDER CUT AND REPLACEMENT, IF REQUIRED, AND COMPACTION.
6. CONTRACTOR TO REFILL UNDERCUT AREAS WITH SUITABLE MATERIAL AND COMPACT AS RECOMMENDED BY THE GEOTECHNICAL ENGINEER.
7. PAVEMENT SLOPES ACROSS ACCESSIBLE PARKING STALLS AND ADJOINING ACCESS AISLES SHALL BE MAXIMUM 2% AND SHALL CONFORM TO THE LATEST REGULATIONS OF THE AMERICANS WITH DISABILITIES ACT.
8. ALL SLOPES IN NON-PAVED AREAS SHALL BE 3:1 (HORIZONTAL:VERTICAL) MAXIMUM UNLESS NOTED OTHERWISE.
9. ALL AREAS NOT PAVED SHALL BE STABILIZED IN ACCORDANCE WITH THE EROSION & SEDIMENT CONTROL PLAN, UNLESS NOTED OTHERWISE.
10. ALL EXCESS SOIL MATERIALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR UNLESS OTHERWISE DESIGNATED SHALL BE REMOVED BY THE CONTRACTOR AND DISPOSED OF OFFSITE AT NO ADDITIONAL COST TO THE OWNER IN ACCORDANCE WITH ALL LOCAL AND STATE CODES AND PERMIT REQUIREMENTS.
11. THE CONTRACTOR IS RESPONSIBLE FOR BALANCING THE SITE EARTHWORK BY IMPORTING OR EXPORTING AS NECESSARY TO ACHIEVE DESIGN GRADES AND SPECIFICATIONS.
12. TOPSOIL VOLUMES ESTIMATED AS PART OF THIS PROJECT ASSUME THAT A MINIMUM OF 12 INCHES OF SOIL AND TOPSOIL WILL BE STRIPPED FROM THE SITE. THE ACTUAL VOLUME WILL BE BASED ON EQUIPMENT USED AND THE CONTRACTOR'S MEANS AND METHODS. CEC AND THE OWNER ARE NOT RESPONSIBLE FOR THE CONTRACTOR'S INTERPRETATION OF TOPSOIL THICKNESS AND RESULTING INCREASED VOLUMES. NO ADDITIONAL COSTS WILL BE PAID TO THE CONTRACTOR FOR AN INCREASE IN THE VOLUME OF TOPSOIL STRIPPED AND STOCKPILED.
13. ANY VEGETATION DISTURBED WITHIN THE BASIN FOOTPRINT SHALL BE RESTORED WITH SOD.



Cut/Fill Summary

Name	Cut Factor	Fill Factor	2d Area	Cut	Fill	Net
325112-V-Existing vs Proposed	**1.0000**	1.1000	40027.87 Sq. Ft.	671 Cu. Yd.	663 Cu. Yd.	8 Cu. Yd.<Cut>
Totals			40027.87 Sq. Ft.	671 Cu. Yd.	663 Cu. Yd.	8 Cu. Yd.<Cut>

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314-656-4566 · 866-250-3679
www.cecinc.com

MAP REALTY HOLDINGS, LLC
1460 LUCERNE MANOR DRIVE
WELDON SPRING MO 63304

PERNOUD PROFESSIONAL OFFICE BUILDING IMPROVEMENT PLANS GRADING PLAN

DATE: JANUARY 2023	DRAWN BY: WTS
DWG SCALE: 1"=20'	CHECKED BY: KAS
PROJECT NO: 325-112	
APPROVED BY:	

DRAWING NO.: C300

SHEET 4 OF 14

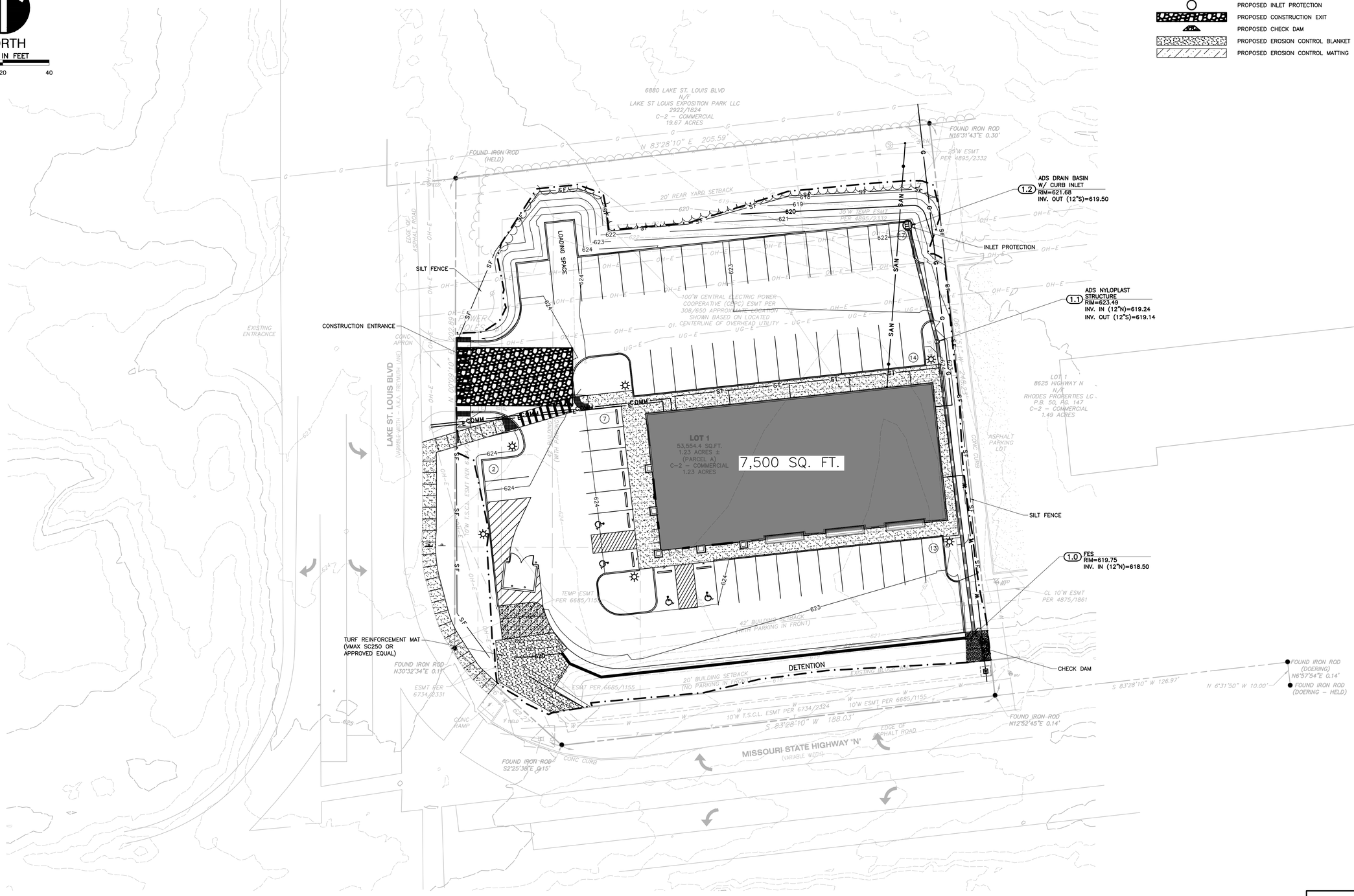
P:\325-0001\325-112\CADD\Dwg\Improvement Plans\325112-CV01-C300.dwg\C300 GRADING PLAN\ LS:(0.9)2023 - cscotton) - LA: 3/9/2023 11:34 AM

NORTH

SCALE IN FEET

0 20 40

PROPOSED LIMITS OF DISTURBANCE
PROPOSED FILTER SOCK
PROPOSED SILT FENCE
PROPOSED INLET PROTECTION
PROPOSED CONSTRUCTION EXIT
PROPOSED CHECK DAM
PROPOSED EROSION CONTROL BLANKET
PROPOSED EROSION CONTROL MATTING



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NO	DATE	DESCRIPTION

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3000 Little Hills Expressway · Suite 102 · St. Charles, MO 63301
314-656-4566 · 866-250-3679
www.cecinc.com

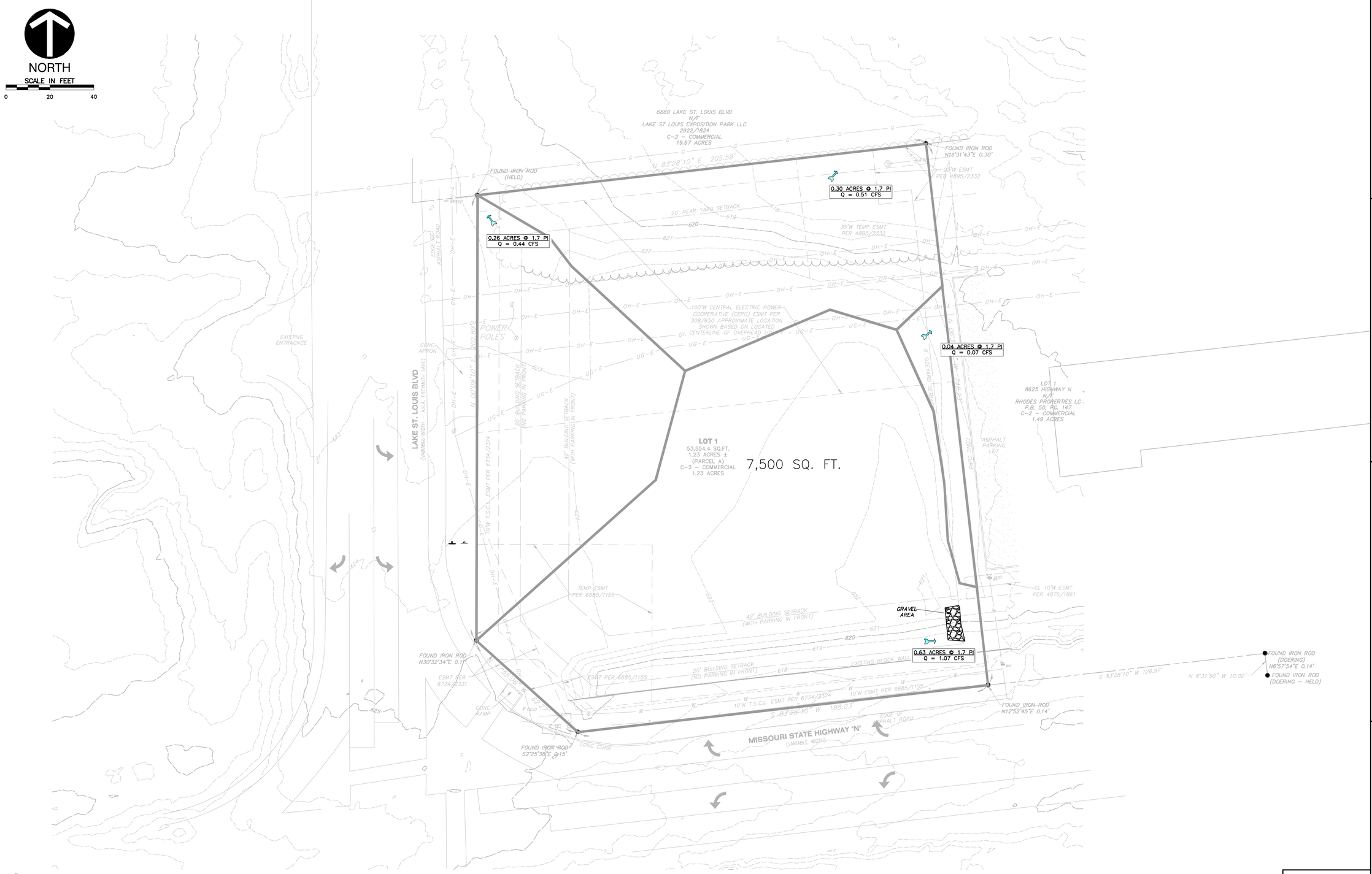
MAP REALTY HOLDINGS, LLC
1460 LUCERNE MANOR DRIVE
WELDON SPRING MO 63304

PERNOUD PROFESSIONAL OFFICE BUILDING IMPROVEMENT PLANS SWPPP

DATE:	JANUARY 2023
DRAWN BY:	WTS
DWG SCALE:	1"=20'
CHECKED BY:	KAS
PROJECT NO:	325-112
APPROVED BY:	

DRAWING NO.: C301

SHEET 5 OF 14



MISSOURI ONE CALL SYSTEM
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WILLIAM SCHEIDT, PE
2018007869
PROFESSIONAL CIVIL ENGINEER
*HAND SIGNATURE ON FILE

REVISION RECORD

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MAP REALTY HOLDINGS, LLC
1460 LUCERNE MANOR DRIVE
WELDON SPRING MO 63304

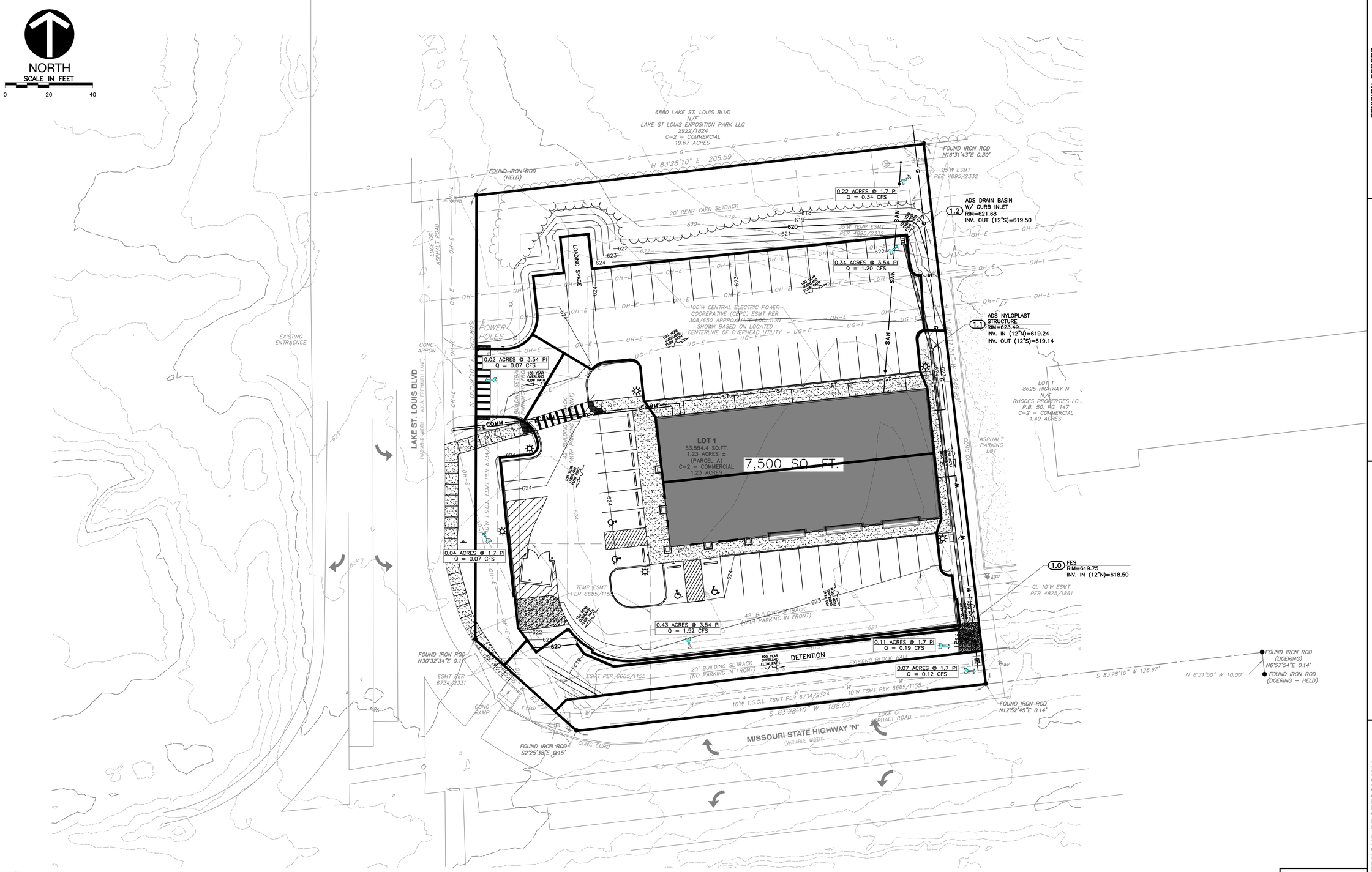
PERNOUD PROFESSIONAL OFFICE BUILDING IMPROVEMENT PLANS
PRE-DEVELOPED DRAINAGE AREA MAP

DATE:	JANUARY 2023
DRAWN BY:	WTS
DWG SCALE:	1"=20'
CHECKED BY:	KAS
PROJECT NO:	325-112
APPROVED BY:	

DRAWING NO.: **C400**

SHEET 6 OF 14

P:\325-000\325-112\-CAD\Dwg\Improvement Plans\325112-C101-C400.dwg\C400 PRE-DEVELOPED DRAINAGE AREA MAP\ LS:(0/9/2023 – stpotton) – LA: 3/9/2023 11:34 AM



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MAP REALTY HOLDINGS, LLC
1460 LUCERNE MANOR DRIVE
WELDON SPRING MO 63304

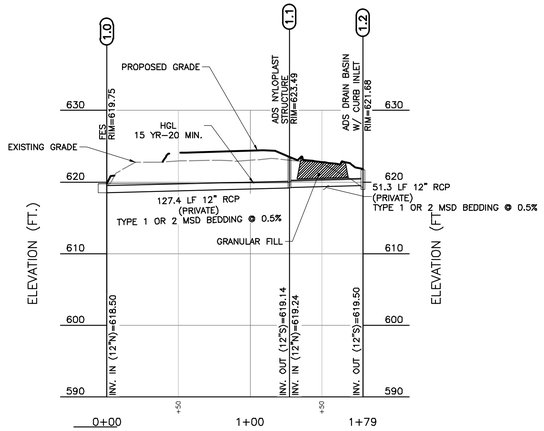
PERNOUD PROFESSIONAL OFFICE BUILDING IMPROVEMENT PLANS
POST-DEVELOPED DRAINAGE AREA MAP

DATE:	JANUARY 2023	DRAWN BY:	WTS
DWG SCALE:	1" = 20'	CHECKED BY:	KAS
PROJECT NO:			325-112
APPROVED BY:			

DRAWING NO.: **C401**

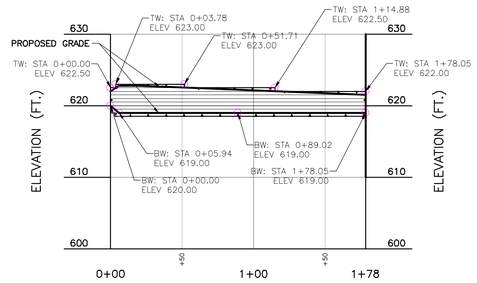
SHEET 7 OF 14

P:\320-0001\325-112\-C4D\Dwg\Improvement Plans\325112-CH01-C4D0.dwg\C401 POST-DEVELOPED DRAINAGE AREA MAPS LS:(1/9/2023 - auction) - LP: 3/9/2023 11:34 AM



325112-P-STM PROFILE

SCALE H:1"=50'; V:1"=10'



325112-P-RETAINING WALL PROFILE

SCALE H:1"=50'; V:1"=10'

Hydraulic Grade Line Computations

Page 1

Line	Size (in)	Q (cfs)	Downstream Invert elev (ft)	Downstream HGL elev (ft)	Downstream Depth (ft)	Downstream Area (sqft)	Downstream Vel (ft/s)	Downstream Vel head (ft)	Downstream EGL elev (ft)	Downstream Sf (%)	Len (ft)	Upstream Invert elev (ft)	Upstream HGL elev (ft)	Upstream Depth (ft)	Upstream Area (sqft)	Upstream Vel (ft/s)	Upstream Vel head (ft)	Upstream EGL elev (ft)	Upstream Sf (%)	Check Ave Sf (%)	Check Enrgy loss (ft)	JL coeff (K)	Minor loss (ft)
1	12	1.20	618.50	619.75	1.00	0.79	1.53	0.04	619.79	0.097	127.000	619.14	619.87	0.73	0.61	1.96	0.06	619.93	0.125	0.111	0.141	0.15	0.01
2	12	1.20	619.64	620.10	0.46*	0.35	3.36	0.18	620.28	0.499	52.000	619.90	620.36 j	0.46**	0.36	3.36	0.18	620.54	0.500	0.500	0.260	1.00	0.18

Project File: 325112-P-STM.stm | Number of lines: 2 | Run Date: 1/26/2023

Notes: * depth assumed; ** Critical depth.; j-Line contains hyd. jump ; c = cir e = ellip b = box

Storm Sewers v2022.00

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MAP REALTY HOLDINGS, LLC
1460 LUCERNE MANOR DRIVE
WELDON SPRING MO 63304

PERNOUD PROFESSIONAL
OFFICE BUILDING
IMPROVEMENT PLANS
PROFILES

DATE: JANUARY 2023
DRAWN BY: WTS
DWG SCALE:
CHECKED BY: KAS
PROJECT NO: 325-112
APPROVED BY:

DRAWING NO.: C500

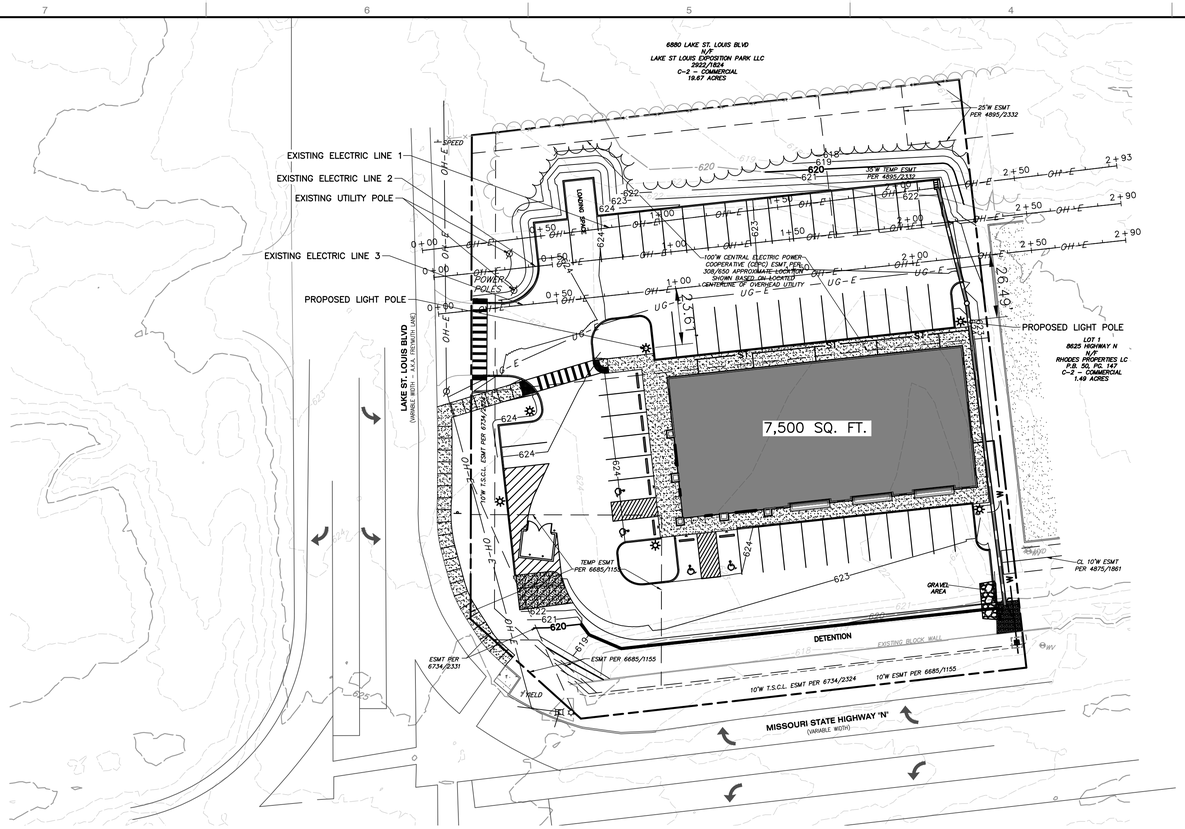
SHEET 8 OF 14

P:\320-0001\325-1121-C400\Dwg\Improvement Plans\325112-C101-C500.dwg/C500 PROFILES\ LS:(3/9/2023 - caution) - LP: 3/9/2023 11:34 AM

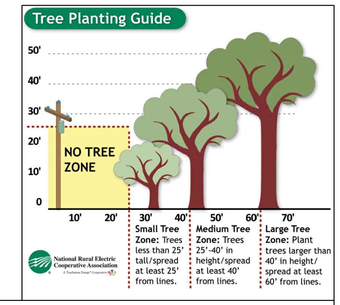
NORTH

SCALE IN FEET

0 30 60

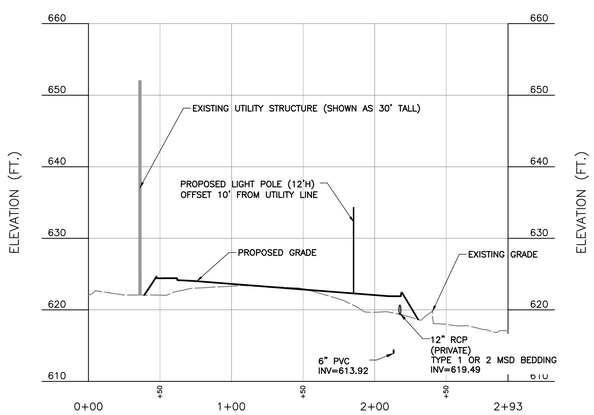


CENTRAL ELECTRIC POWER COOPERATIVE TRANSMISSION LINE EASEMENT NOTE:
GRADING AND SEWER CONTRACTORS MUST BE AWARE OF 161,000 VOLT OVERHEAD TRANSMISSION LINES WHEN GRADING ON THE EASEMENT AND TAKE ADDITIONAL PRECAUTIONS WHEN GRADING AROUND THE EXISTING TRANSMISSION STRUCTURES AND UNDER OVERHEAD LINES.



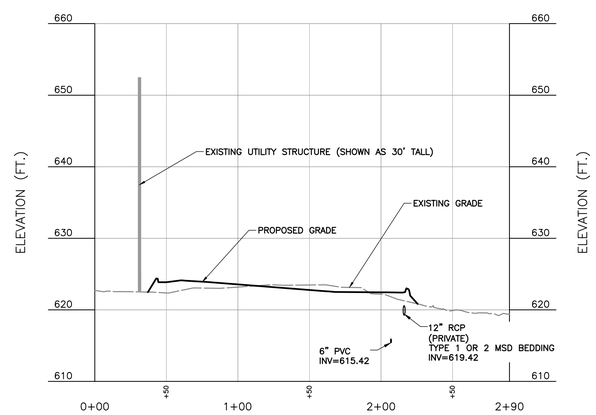
CENTRAL ELECTRIC POWER COOPERATIVE
TRANSMISSION RIGHT-OF-WAY VEGETATION NOTES:

NO TREES SHOULD EVER BE PLANTED WITHIN 15-FEET OF A POWER LINE'S CENTER ON EITHER SIDE. SMALL OR MEDIUM TREES WITH A HEIGHT/SPREAD OF 25 TO 40 FEET CAN BE PLANTED 40-FEET OR FURTHER FROM A RIGHT-OF-WAY. LARGE TREES WITH A HEIGHT/SPREAD OF 40-FEET OR MORE SHOULD ONLY BE PLANTED 50-FEET OR FARTHER FROM A RIGHT-OF-WAY.



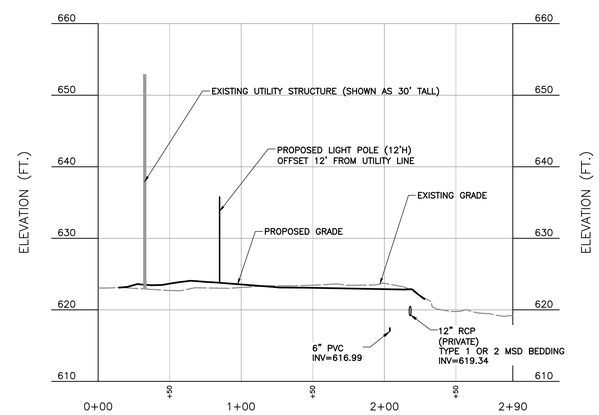
325112-X-OVERHEAD ELECTRIC LINE 1 PROFILE

SCALE H:1"=50'; V:1"=10'



325112-X-OVERHEAD ELECTRIC LINE 2 PROFILE

SCALE H:1"=50'; V:1"=10'



325112-X-OVERHEAD ELECTRIC LINE 3 PROFILE

SCALE H:1"=50'; V:1"=10'

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PROFESSIONAL CIVIL ENGINEER
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REVISION RECORD

NO	DATE	DESCRIPTION

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MAP REALTY HOLDINGS, LLC
1460 LUCERNE MANOR DRIVE
WELDON SPRING MO 63304

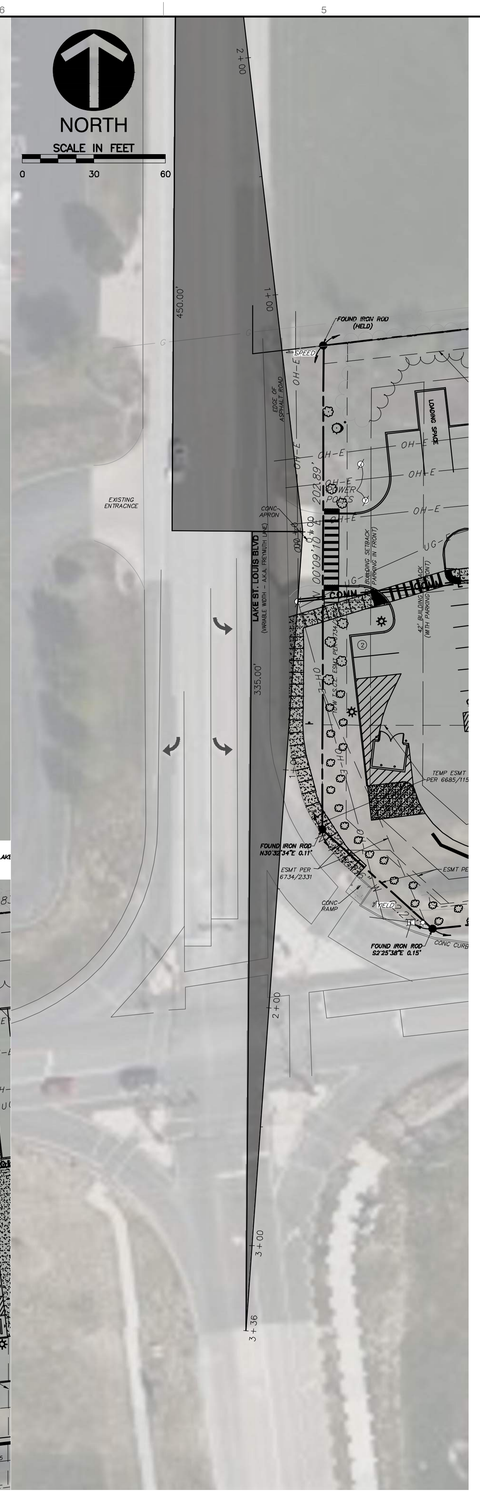
PERNOUD PROFESSIONAL OFFICE BUILDING
IMPROVEMENT PLANS
UTILITY LINE PROFILES

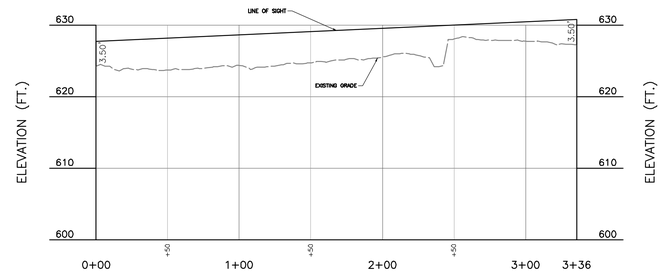
DATE: JANUARY 2023
DRAWN BY: WTS
CHECKED BY: KAS
DWG SCALE:
PROJECT NO: 325-112
APPROVED BY:

DRAWING NO.: **C501**

SHEET 9 OF 14

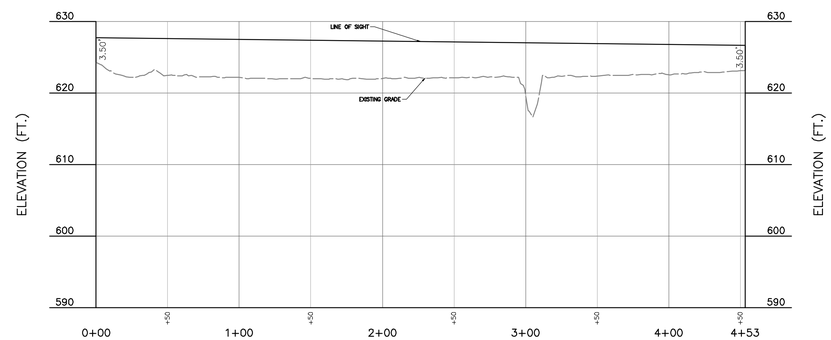
P:\325-000\325-112\-CADD\Dwg\Improvement Plans\325112-C501-C505.dwg\C501 UTILITY LINE PROFILES\ LS:(9/9/2023 - stuffen) - LP: 3/9/2023 11:34 AM





325112-P-SIGHT DISTANCE LEFT PROFILE

SCALE H:1"=30'; V:1"=6'



325112-P-SIGHT DISTANCE RIGHT PROFILE

SCALE H:1"=30'; V:1"=6'

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MAP REALTY HOLDINGS, LLC
1460 LUCERNE MANOR DRIVE
WELDON SPRING MO 63304

PERNOUD PROFESSIONAL OFFICE BUILDING IMPROVEMENT PLANS SIGHT DISTANCE

DATE: JANUARY 2023	DRAWN BY: WTS
DWG SCALE:	CHECKED BY: KAS
PROJECT NO:	325-112
APPROVED BY:	

DRAWING NO.: **C600**

SHEET 10 OF 14

P:\325-000\325-112\-CADD\Dwg\Improvement Plans\325112-CVR1-C600.dwg\C600 SIGHT DISTANCE\ LS:(3/9/2023 - gauthier) - LP: 3/9/2023 11:34 AM

NORTH

SCALE IN FEET

0 20 40

LANDSCAPE CALCULATIONS

1. BUILDING FOUNDATION LANDSCAPING:
   1 SHRUB PER 10 FEET OF EXTERIOR FOUNDATION FRONTING PUBLIC OR PRIVATE STREET

   185 FEET OF FRONTAGE / 10 = 19 SHRUBS REQUIRED
   PROVIDED SHRUBS = 24 SHRUBS

2. PARKING LOT INTERIOR LANDSCAPING:
   1 TREE & 100 SQ. FT. LANDSCAPED AREA PER 10 PARKING SPACES

   (54 SPACES / 10) * 1 = 6 TREES REQUIRED
   (54 SPACES / 10) * 100 = 580 SQ. FT. LANDSCAPED AREA REQUIRED
   PROVIDED LANDSCAPED AREA = 1,069 SQ. FT.
   PROVIDED TREES = 6 TREES

3. STREET TREES:
   1 TREE PER 40 FEET OF PUBLIC OR PRIVATE STREET FRONTAGE

   PUBLIC STREET FRONTAGE = 453 FEET
   REQUIRED TREES = 453 FT * (1 TREE / 40 FT) = 11 TREES REQUIRED
   TREES PROVIDED = 11 TREES

4. PARKING LOT PERIMETER:
   PARKING AREAS / DRIVE AISLE FRONTAGE IN SETBACK = 333 FT.

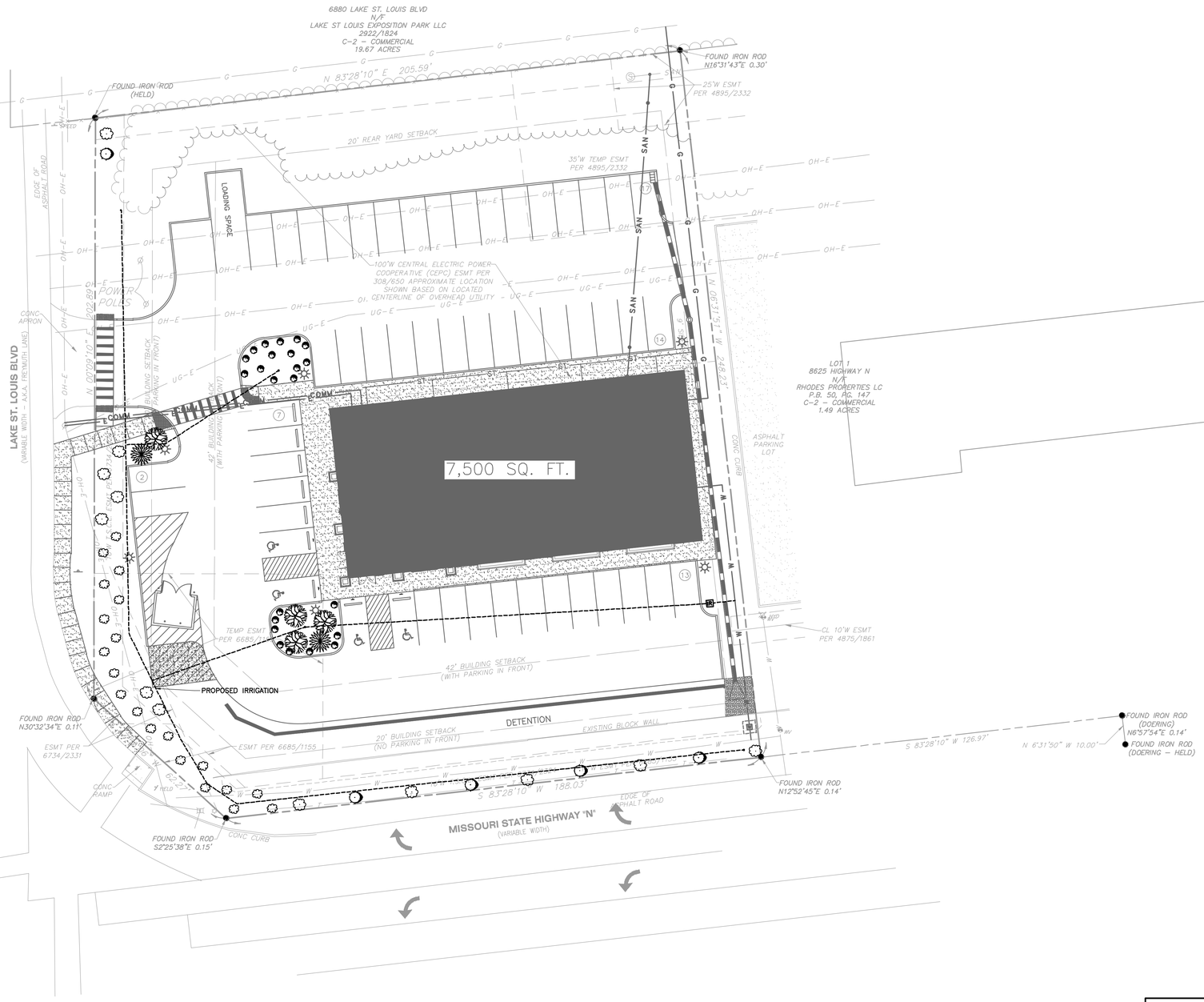
   REQUIRED TREES = 1 TREE PER 60 FT OF FRONTAGE = 333/60 = 6 TREES REQUIRED
   TREES PROVIDED = 6 TREES

INTERIOR LANDSCAPING			
	QUANTITY	SPECIES	SIZE
	24	VIBURNUM 'PRAGENSE' (PRAGUE VIBURNUM)	1' H
	2	PINUS STROBUS (EASTERN WHITE PINE)	8' H
	4	CORNUS FLORIDA (FLOWERING DOGWOOD)	3" CAL.

STREET TREES			
	QUANTITY	SPECIES	SIZE
	6	MALUS 'PRAIRIEFIRE' (PRAIRIEFIRE CRABAPPLE)	3" CAL.
	5	CARPINUS CAROLIANA (AMERICAN HORNBEAM)	3" CAL.

PARKING LOT PERIMETER			
	QUANTITY	SPECIES	SIZE
	20	HAMAMELIS VERNALIS (OZARK WITCHHAZEL)	1' H
	6	CERCIS CANADENSIS (EASTERN REDBUD)	3" CAL.

TREE PROTECTION	
EXISTING CANOPY	8,773 SQ. FT.
CANOPY TO BE REMOVED	3,624 SQ. FT.
% CANOPY REMOVED	40%



SCALE IN FEET

0 20 40

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MAP REALTY HOLDINGS, LLC
1460 LUCERNE MANOR DRIVE
WELDON SPRING MO 63304

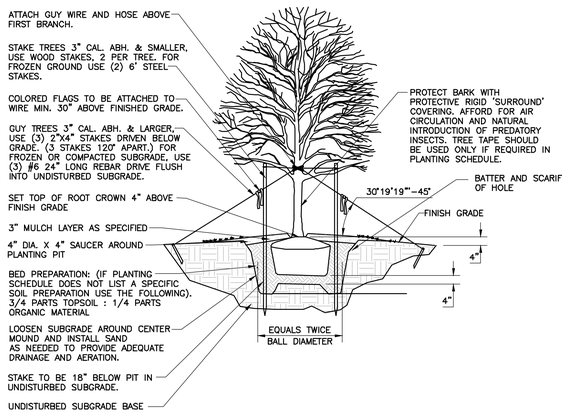
PERNOUD PROFESSIONAL OFFICE BUILDING IMPROVEMENT PLANS LANDSCAPE PLAN

DATE:	JANUARY 2023
DRAWN BY:	WTS
DWG SCALE:	1"=20'
CHECKED BY:	KAS
PROJECT NO:	325-112
APPROVED BY:	

DRAWING NO.: C700

SHEET 11 OF 14

A:\325-000\325-112\-CADD\Dwg\Improvement Plans\325112-CVR1-C700.dwg\C700 LANDSCAPE PLAN\ LS:(3/9/2023 - esulton) - LP: 3/9/2023 11:34 AM



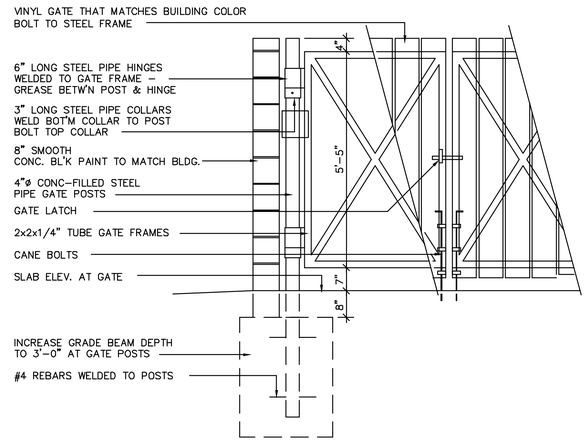
NOTES:

1. PROVIDE POSITIVE DRAINAGE UNDER ALL CIRCUMSTANCES. DRAINAGE SHOULD BE FROM CENTER OF ROOT BALL TO PERIMETER OF ROOT BALL. DO NOT ALLOW PONDING OF WATER UNDER ROOTBALL.
2. IF PLANT IS IN A LARGE PLANT BED MULCH ENTIRE BED. IF PLANT IS A SINGLE PLANTING MULCH TO DRIP LINE OF TREE. MULCH DEPTH TO BE 3".
3. IF PLANT IS CONTAINER GROWN, REMOVE CONTAINER AND USING A SHARP KNIFE MAKE 3 VERTICAL CUTS 1/4" DEEP ON OPPOSITE SIDES OF THE ROOT MASS. IF PLANT IS IN A WIRE BASKET REMOVE PRIOR TO PLANTING.
4. IF ROOTS ARE WRAPPED IN BURLAP, 1ST. PLACE BURLAPPED ROOT BALL INTO THE HOLE. THEN REMOVE BURLAP CAREFUL NOT TO DISTURB OR BREAK THE ROOT BALL.
5. SEE PLANTING SCHEDULE AND SPECIFICATIONS FOR ADDITIONAL INFORMATION/REQUIREMENTS.

TREE PLANTING DETAIL

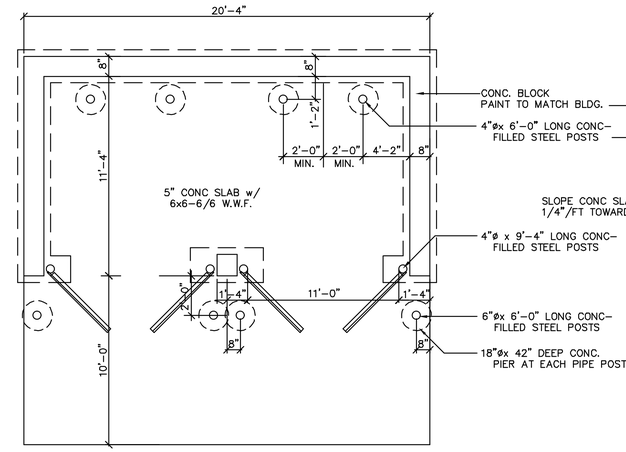
NOT TO SCALE

FOR REVIEW PURPOSES ONLY. REFER TO ARCHITECTURAL PLANS FOR ACTUAL DETAIL OF TRASH ENCLOSURE TO BE CONSTRUCTED



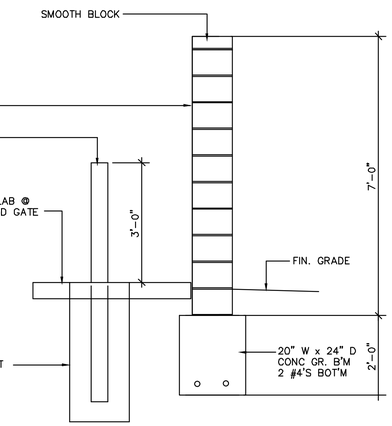
GATE ELEVATION

N.T.S.



DUMPSTER ENCLOSURE PLAN

N.T.S.



SECTION

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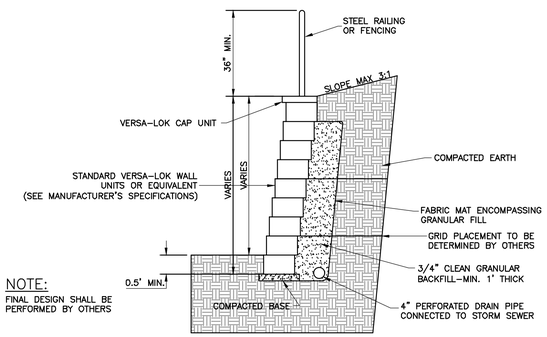
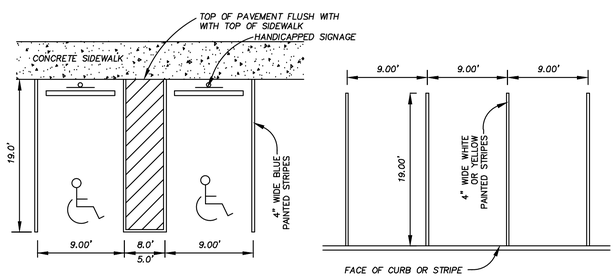


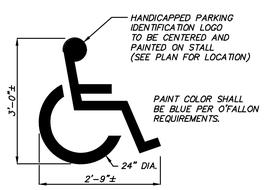
MODULAR BLOCK CONCRETE RETAINING WALL

NOT TO SCALE



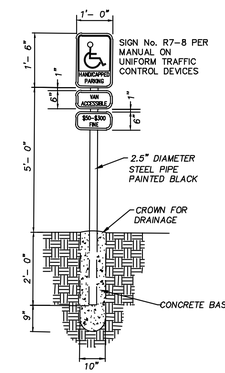
TYPICAL PARKING DIMENSION

NOT TO SCALE



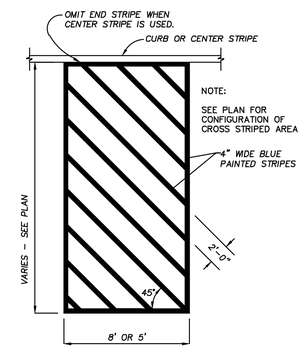
HANDICAPPED PARKING MARKING

NOT TO SCALE



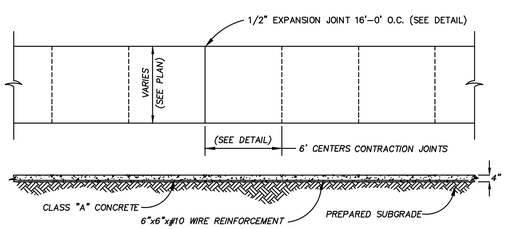
HANDICAPPED SIGN DETAIL

NOT TO SCALE



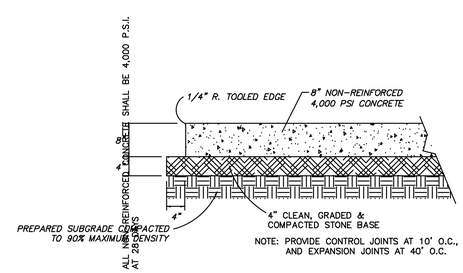
CROSS STRIPING DETAIL

NOT TO SCALE



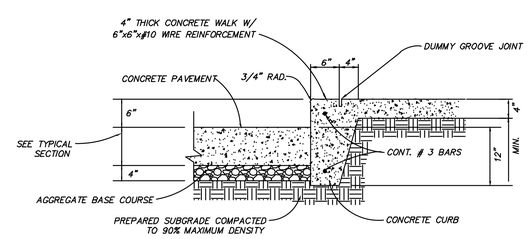
CONCRETE SIDEWALK

NOT TO SCALE



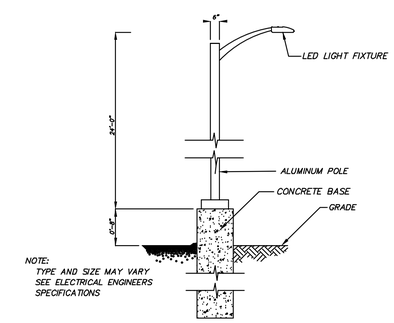
CONCRETE PAVEMENT DETAIL

NOT TO SCALE



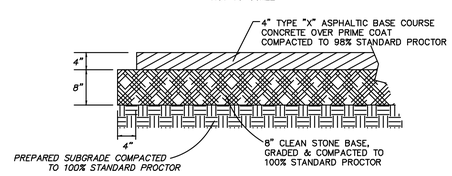
6" CONCRETE CURB W/ SIDEWALK

NOT TO SCALE



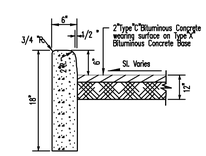
LIGHT POLE DETAIL

NOT TO SCALE



ASPHALT PAVEMENT DETAIL

NOT TO SCALE



PAVEMENT DETAIL WITH 6" VERTICAL CONCRETE CURB DETAIL

NOT TO SCALE

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WILLIAM SCHEIDT, PE
2018007869
PROFESSIONAL CIVIL ENGINEER
*HAND SIGNATURE ON FILE

REVISION RECORD

NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
3000 Little Hills Expressway · Suite 102 · St. Charles, MO 63301
314-656-4566 · 866-250-3679
www.ceinc.com

MAP REALTY HOLDINGS, LLC
1460 LUCERNE MANOR DRIVE
WELDON SPRING MO 63304

PERNOUD PROFESSIONAL OFFICE BUILDING IMPROVEMENT PLANS DETAILS

DATE: JANUARY 2023	DRAWN BY: WTS
DWG SCALE:	CHECKED BY: KAS
PROJECT NO:	325-112
APPROVED BY:	

DRAWING NO.: C800

SHEET 12 OF 14

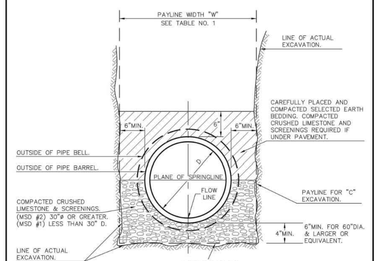
A:\325-001\325-112\-CADD\dwg\Improvement Plans\325112-CVD1-C800.dwg(C800 DETAILS) LS:(3/9/2023 - cautino) - LP: 3/9/2023 11:34 AM

ROUND PIPE				HORIZONTAL ELLIPTICAL PIPE			
INSIDE DIAMETER OF PIPE (INCHES)	"W" PAYLINE WIDTH OF TRENCH (INCHES)	"W" PAYLINE WIDTH OF TRENCH (FEET)	PAY-VOLUMES CU. FT. PER FT. CONCRETE ENCASEMENT	INSIDE DIMENSIONS OF PIPE (INCHES)	"W" PAYLINE WIDTH OF TRENCH (INCHES)	"W" PAYLINE WIDTH OF TRENCH (FEET)	PAY-VOLUMES CU. FT. PER FT. CONCRETE ENCASEMENT
4	30	2.50	3.28				
6	30	2.50	3.59				
8	30	2.50	3.87				
10	30	2.50	4.09				
12	30	2.50	4.25				
15	36	3.00	5.55				
18	36	3.00	5.77	14 x 23	41	3.42	5.94
21	39	3.25	6.61				
24	42	3.50	7.39	19 x 30	49	4.08	7.68
27	45	3.75	8.18	22 x 34	53	4.42	8.61
30	49	4.08	9.30	24 x 38	58	4.83	9.70
33	53	4.42	10.53	27 x 42	62	5.17	10.71
36	56	4.67	11.43	29 x 45	66	5.50	11.72
39	DISCONTINUED			32 x 49	71	5.92	13.14
42	63	5.25	13.38	34 x 53	75	6.25	14.05
48	70	5.83	15.67	38 x 60	83	6.92	16.18
54	77	6.42	18.15	43 x 68	92	7.67	18.81
60	84	7.00	20.73	48 x 76	101	8.42	21.59
66	91	7.58	23.45	53 x 83	109	9.08	24.35
72	98	8.17	26.37	58 x 91	118	9.83	27.45
78	105	8.75	29.39	63 x 98	126	10.50	30.50
84	112	9.33	32.57	68 x 106	135	11.25	33.91
90	119	9.92	35.90	72 x 113	143	11.92	36.99
96	126	10.50	39.37	77 x 121	152	12.67	40.69
102	133	11.08	42.99	82 x 128	160	13.33	44.45
108	140	11.67	46.75	87 x 136	168	14.00	47.79
114	147	12.25	50.66	92 x 143	176	14.67	51.70
120	154	12.83	54.72	97 x 151	185	15.42	56.01
126	161	13.42	58.92				
132	168	14.00	63.27	106 x 166	202	16.83	64.48
144	182	15.17	72.40	116 x 180	218	18.17	73.59

TABLE 1
PAYLINE WIDTHS OF TRENCH AND PAY-QUANTITIES OF CONCRETE

METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction

Dr. B.E.B. Ch. J.C.K.	2009	SHEET 1



PIPE BEDDING CLASS "C" (MODIFIED FOR REINFORCED CONCRETE PIPE)

METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction

Dr. W.S.H. Ch. J.C.K.	2009	SHEET 5

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Color-Safe®

INDUSTRIAL SAFETY MARKING

Durable, High-Definition Industrial Safety Markings

Color-Safe® is a Methyl Methacrylate (MMA) based material used at industrial sites to delineate aisles, loading docks and safety areas. Color-Safe® creates a visible and safe surface for your facility personnel.

Color-Safe® is easy to apply, fast curing, and durable even for heavy pedestrian and forklift traffic. Both chemical resistant and color stable, Color-Safe® is becoming the number one choice with plant facility managers.

Features & Advantages

- Standard & custom colors available
- Durable surface
- Excellent color retention
- Easy application
- Fast cure in a wide range of temperatures (40° - 100°F)
- Low life cycle cost
- Strong adhesion to concrete and asphalt surfaces
- Variable aggregates available for high-wear locations.

Color-Safe® enhances your safety program with high definition and increased service life.

SAFER TRANSPORTATION THROUGH INNOVATION

SAFER TRANSPORTATION THROUGH INNOVATION

Color-Safe®

Industrial Safety Marking Application Process

Surface Preparation: Surfaces receiving Color-Safe® must be thoroughly cleaned and free of all dirt. Contaminates that might interfere with the proper adhesion of the material must be removed by grinding, sandblasting or shot blasting.

Mixing: Color-Safe® application is typically made up of three components (resin, hardener, and aggregate if friction is required) that must be mixed thoroughly for uniform curing and performance.

Application: Color-Safe® can be applied manually with squeegee and roller brush, or by using spray equipment.

Refer to the technical data sheet for application details.
No special equipment is required for installation.

Applications*

Transpo's Color-Safe® can be used for interior and exterior applications with different sizes and types of aggregate as an anti-skid surface and/or for demarcation.

- Warehouse aisles
- Forklift travel way
- Loading docks
- Parking areas
- Traffic travel direction
- Crosswalks
- Parking lots & garages

*Contact us for specific examples or for more information.

Standard and Custom Colors

Transpo's Color-Safe® has many standard color options, as well as custom colors available.

- Safety Yellow
- Black
- Toll Lane Purple
- Cool Grey
- Handicap Blue
- Green
- Red
- Orange
- White
- Beige

Transpo also offers the ability to customize marking colors to meet the needs of any specific project requirements.

Check with manufacturer for most recent Technical Data Sheet before using to specify.

TRANSPO® INDUSTRIES, INC.
www.transpo.com

Need more information?

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Contact the materials experts at Transpo to find out more about the various products we offer. If you need advice on how to install the product, the professionals at Transpo will guide you through the process. Project specific questions? We can assist you in creating a cost-effective, tailored solution for your project.

Transpo Industries, Inc.
20 Jones Street
New Rochelle, NY 10801

(914) 636-1000 Phone
(800) 321-7870 Toll Free
(914) 636-1262 Fax
info@transpo.com

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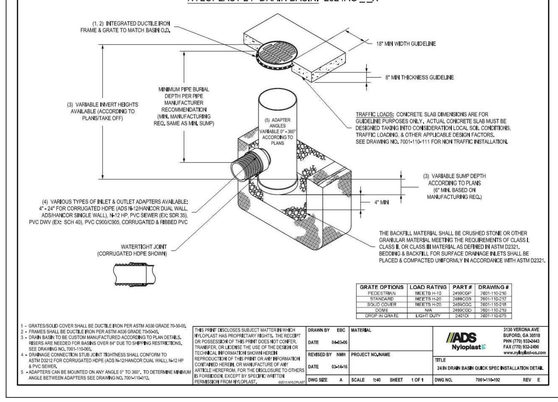

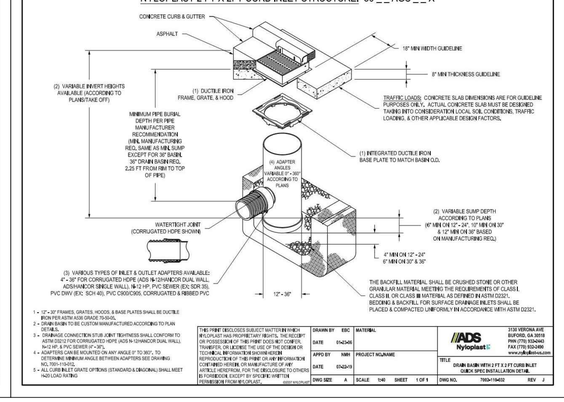

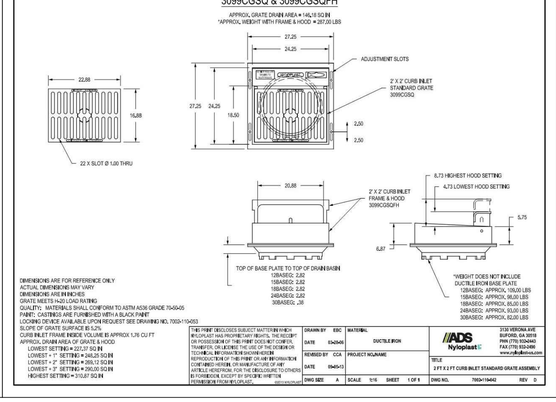

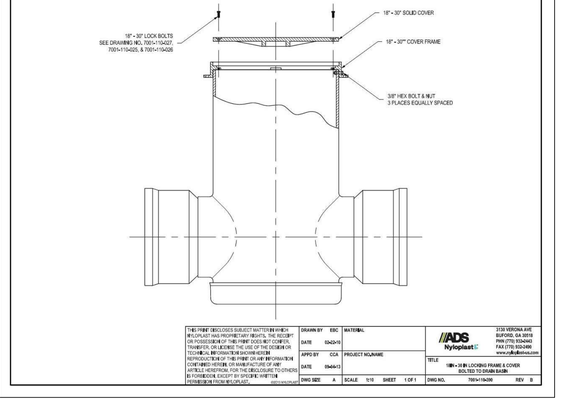

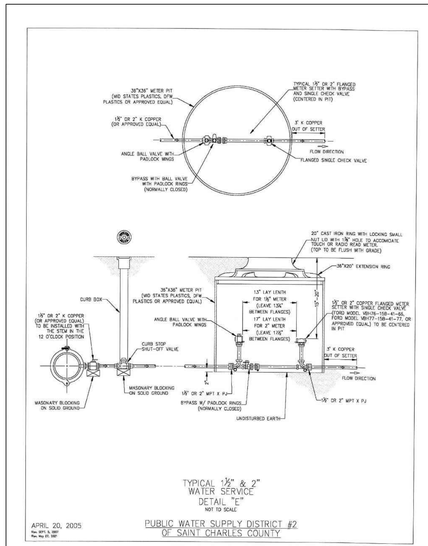

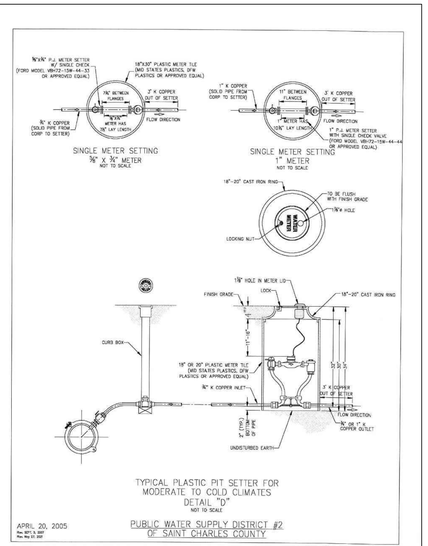

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PERNOUD PROFESSIONAL OFFICE BUILDING IMPROVEMENT PLANS DETAILS

DATE: JANUARY 2023	DRAWN BY: WTS
DWG SCALE:	CHECKED BY: KAS
PROJECT NO:	325-112
APPROVED BY:	

DRAWING NO.: C801

SHEET 13 OF 14

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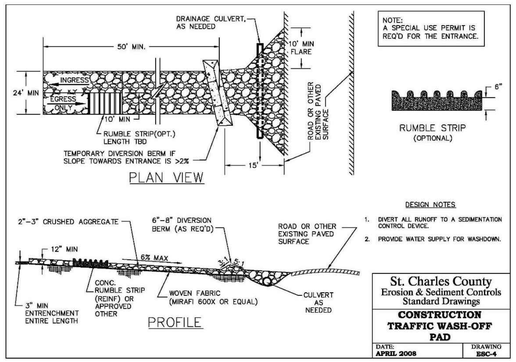
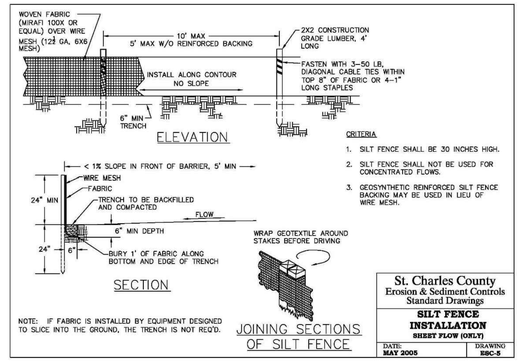


St. Charles County
Erosion & Sediment Controls
Standard Drawings

CONSTRUCTION TRAFFIC WASH-OFF PAD

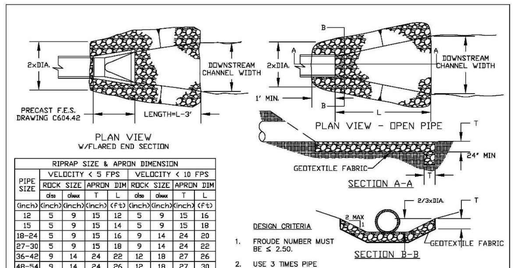
DATE:	DRAWING
APRIL 2008	ESC-4



St. Charles County
Erosion & Sediment Controls
Standard Drawings

SILT FENCE INSTALLATION
SHEET FLOW (OPLT)

DATE:	DRAWING
MAY 2005	ESC-5



RIPRAP SIZE & APRON DIMENSION								
PIPE SIZE	VELOCITY < 5 FPS				VELOCITY < 10 FPS			
	ROCK SIZE		APRON DIM		ROCK SIZE		APRON DIM	
	dia	class	T	L	dia	class	T	L
(inch)	(inch)	(inch)	(inch)	(ft)	(inch)	(inch)	(inch)	(ft)
12	5	9	15	12	5	9	15	16
15	5	9	15	14	5	9	15	18
18-24	5	9	15	16	9	14	24	20
27-30	5	9	15	18	9	14	24	22
36-42	9	14	24	22	12	18	27	26
48-54	9	14	24	26	12	18	27	30
60-66	12	18	27	34	15	24	30	38
72-84	15	24	30	42	15	24	30	46
96	18	27	30	50	18	27	30	54

dia - NOMINAL DIAMETER
class - MAXIMUM DIAMETER
T - THICKNESS
L - LENGTH

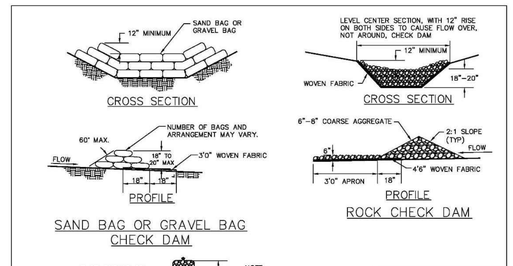
DESIGN CRITERIA

1. FROUDE NUMBER MUST BE ≤ 2.50.
2. USE 3 TIMES PIPE DIAMETER FOR DOWNSTREAM CHANNEL WIDTH IF THERE IS NO DEFINED CHANNEL.
3. BANK PROTECTION HEIGHT TO BE 2/3 TIMES PIPE DIAMETER.
4. ROCK SLOPES SHALL BE NO STEEPER THAN 2:1.

St. Charles County
Erosion & Sediment Controls
Standard Drawings

TEMPORARY OUTLET PIPE DISCHARGE PROTECTION

DATE:	DRAWING
MARCH 2008	ESC-26



St. Charles County
Erosion & Sediment Controls
Standard Drawings

CHECK DAMS

DATE:	DRAWING
APRIL 2008	ESC-11

SWPPP GENERAL NOTES

1. GAS, WATER AND OTHER UNDERGROUND UTILITIES SHALL NOT CONFLICT WITH THE DEPTH OR HORIZONTAL LOCATIONS OF EXISTING AND PROPOSED SANITARY AND STORM SEWERS, INCLUDING HOUSE LATERALS.
2. UNDERGROUND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE INFORMATION AND, THEREFORE, THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THE VERIFICATION OF THE LOCATION OF ALL UNDERGROUND UTILITIES, EITHER SHOWN OR NOT SHOWN ON THESE PLANS, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE LOCATED PRIOR TO GRADING OR CONSTRUCTION OF IMPROVEMENTS.
3. ALL FILLED PLACES UNDER BUILDINGS, PROPOSED SANITARY AND STORM SEWER LINES, AND/OR PAVED AREAS INCLUDING TRENCH BACKFILLS SHALL BE COMPACTED TO AT LEAST 90% OF MAXIMUM DRY DENSITY AS DETERMINED BY THE "MODIFIED A.A.S.H.T.O. T-180 COMPACTION TEST" (ASTM D-1557) UNLESS OTHERWISE SPECIFIED BY THE LOCAL GOVERNING AUTHORITY SPECIFICATIONS. ALL TESTS WILL BE VERIFIED BY A SOILS ENGINEER.
4. ALL FILLED PLACES IN PAVED STATE, COUNTY OR CITY ROADS (HIGHWAYS) SHALL BE COMPACTED TO AT LEAST 90% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY THE "MODIFIED A.A.S.H.T.O. T-180" COMPACTION TEST," (ASTM D-1557), UNLESS OTHERWISE SPECIFIED BY LOCAL GOVERNING AUTHORITY SPECIFICATIONS. ALL TESTS WILL BE VERIFIED BY A SOILS ENGINEER.
5. EARTH SUBGRADE FOR PAVED AREAS MUST BE COMPACTED TO 90% OF MAXIMUM DRY DENSITY AS DETERMINED BY THE "MODIFIED A.A.S.H.T.O. T-180 COMPACTION TEST," (ASTM D-1557).
6. NO SLOPE SHALL BE GREATER THAN 3:1 (UNLESS JUSTIFIED BY A GEOTECHNICAL REPORT WHICH HAS BEEN ACCEPTED/APPROVED BY THE CITY OF LAKE SAINT LOUIS AND SHALL BE EITHER SODDED OR SEEDED AND MULCHED.
7. THE DEVELOPER SHALL CONTRACT WITH A SOIL CONSULTANT FIRM REGISTERED IN THE STATE OF MISSOURI DURING THE GRADING OPERATION TO MONITOR CUT AND FILLS AND TO VERIFY PROPER COMPACTION HAS BEEN ACHIEVED. A REPORT SHALL BE PREPARED BY THE SOILS CONSULTANT AND PROVIDED TO THE ENGINEER FOR VERIFICATION OF THE GRADING OPERATION.
8. OWNER/DEVELOPER ASSUMES FULL RESPONSIBILITY AS TO THE PERFORMANCE OF THE GRADING OPERATION AND ASSURANCE THAT ALL PROPERTIES AND ROADS WILL BE ADEQUATELY PROTECTED.
9. IF SILTATION CONTROL DEVICES OR SILTATION FENCE ARE DESTROYED BY HEAVY RAINS, VANDALISM, ETC., THEY ARE TO BE REPLACED PROMPTLY BY CONTRACTOR.
10. WHERE NATURAL VEGETATION IS REMOVED DURING GRADING, VEGETATION SHALL BE RE-ESTABLISHED IN SUCH A DENSITY AS TO PREVENT EROSION. PERMANENT TYPE GRASSES SHALL BE ESTABLISHED AS SOON AS POSSIBLE OR DURING THE NEXT SEEDING PERIOD AFTER GRADING HAS BEEN COMPLETED.
11. WHEN GRADING OPERATIONS ARE COMPLETED OR SUSPENDED FOR MORE THAN 30 DAYS, PERMANENT GRASS MUST BE ESTABLISHED AT SUFFICIENT DENSITY TO PROVIDE EROSION CONTROL FROM THE SITE. BETWEEN PERMANENT GRASS SEEDING PERIODS, TEMPORARY COVER SHALL BE PROVIDED ACCORDING TO THE DESIGNATED OFFICIALS RECOMMENDATION.
12. ALL FINISHED GRADES (AREAS NOT TO BE DISTURBED BY FUTURE IMPROVEMENT) IN EXCESS OF 20% SLOPES (5:1) SHALL BE MULCHED AND TACKED IN ACCORDANCE WITH THE CITY OF LAKE SAINT LOUIS STANDARDS WHEN SEEDED.
13. TREES, ORGANIC DEBRIS, RUBBLE, FOUNDATIONS AND OTHER DELETERIOUS MATERIAL SHALL BE REMOVED FROM THE SITE AND DISPOSED IN COMPLIANCE WITH ALL APPLICABLE LAWS AND REGULATIONS. LANDFILL TICKETS FOR SUCH DISPOSAL SHALL BE MAINTAINED ON FILE BY THE DEVELOPER.
14. THE DEVELOPER AND HIS CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING THE SILTATION CONTROL AS APPROVED BY THE CITY OF LAKE SAINT LOUIS PRIOR TO THE COMMENCEMENT OF GRADING OPERATIONS.
15. SILTATION CONTROL DEVICES AND/OR SILT FENCES WILL BE INSTALLED, AS NECESSARY, IN FILL CONDITIONS, TO PREVENT ANY EROSION, SILT, OR SEDIMENT, FROM ESCAPING GRADING SITE.
16. ALL EROSION AND SEDIMENT CONTROL FACILITIES SHALL BE INSPECTED AT LEAST ONCE PER WEEK AND NO LATER THAN 48 HOURS AFTER A RAINFALL THAT CAUSES STORM WATER RUNOFF TO OCCUR ON-SITE.
17. THE SEDIMENT CONTROL PLAN MUST BE IMPLEMENTED BEFORE GRADING BEGINS. NO GRADED AREA IS TO REMAIN DISTURBED FOR MORE THAN THIRTY (30) DAYS WITHOUT BEING SEEDED AND MULCHED OR SODDED. TRANSPORTED SOIL MUST BE PREVENTED FROM DAMAGING ADJACENT PROPERTY AND BEING DEPOSITED IN THE FORM OF SILT IN STORM DRAINAGE SYSTEMS WHETHER ON-SITE OR OFF-SITE.
18. THE CITY OF LAKE SAINT LOUIS SHALL BE CONTACTED AFTER THE INSTALLATION OF THE SILTATION CONTROL DEVICES AND AT LEAST 24 HOURS PRIOR TO THE COMMENCEMENT OF ANY GRADING OPERATIONS.
19. ANY DEPOSITING OF SILTS OR MUD ONTO NEW OR EXISTING PAVEMENT OR IN NEW OR EXISTING STORM SEWERS OR SWALES SHALL BE REMOVED AFTER EACH RAIN AND AFFECTED AREAS CLEANED TO THE SATISFACTION OF THE CITY OF LAKE SAINT LOUIS.
20. THE DEVELOPER IS ADVISED THAT UTILITY COMPANIES WILL REQUIRE COMPENSATION FOR RELOCATION OF THEIR UTILITY FACILITIES WITHIN THE PUBLIC ROAD RIGHT-OF-WAY. UTILITY RELOCATION COST SHALL BE CONSIDERED THE DEVELOPER'S RESPONSIBILITY. THE DEVELOPER SHOULD ALSO BE AWARE OF EXTENSIVE DELAYS IN UTILITY COMPANY RELOCATION AND ADJUSTMENTS. SUCH DELAYS WILL NOT CONSTITUTE A CAUSE TO ALLOW OCCUPANCY PRIOR TO COMPLETION OF ROAD IMPROVEMENTS.
21. PROVIDE ADEQUATE OFF-STREET PARKING FOR CONSTRUCTION EMPLOYEES. PARKING ON NON-SURFACED AREAS SHALL BE PROHIBITED IN ORDER TO ELIMINATE THE CONDITION WHEREBY MUD FROM CONSTRUCTION AND EMPLOYEE VEHICLES IS TRACKED ONTO THE PAVEMENT CAUSING HAZARDOUS ROADWAY AND DRIVEWAY CONDITIONS.
22. INTERIM STORM WATER DRAINAGE CONTROL IN THE FORM OF SILTATION CONTROL MEASURES IS REQUIRED.
23. THE DEVELOPER IS REQUIRED TO PROVIDE ADEQUATE STORM WATER SYSTEMS IN ACCORDANCE WITH THE CITY OF LAKE SAINT LOUIS STANDARDS.
24. ALL OFFSITE AFFECTED PROPERTY OWNERS SHALL BE GIVEN NOTICE 48 HOURS IN ADVANCE OF ANY WORK.
25. ANY DISTURBED OFFSITE PROPERTY (I.E., BUSHES, FENCES, MAILBOXES, ETC.) SHALL BE REPLACED, IN KIND, AT THE DEVELOPER'S EXPENSE.
26. SOILS ENGINEER WILL VERIFY THAT ALL COMPRESSIBLE MATERIAL HAS BEEN REMOVED PRIOR TO FILL PLACEMENT AND THAT ALL FILL, UNDER SANITARY AND STORM SEWER LINES CONSTRUCTED ABOVE ORIGINAL GRADE, HAS BEEN COMPACTED TO 90% OF "MODIFIED PROCTOR". FILL IS TO BE PLACED IN A MAXIMUM OF 9-INCH LIFTS. TEST SHALL BE TAKEN AT A MAXIMUM OF 50-FOOT INTERVALS ALONG THE ROUTE OF THE PIPE; AT A MAXIMUM OF 2-FOOT VERTICALLY; AND LATERALLY ON EACH SIDE OF THE PIPE, AT A DISTANCE EQUAL TO THE DEPTH OF FILL OVER THE PIPE
27. ALL CONSTRUCTION SHALL BE PER THE MOST CURRENT DETAILS FOR THE CITY OF LAKE SAINT LOUIS
28. STORM WATER SHALL BE DISCHARGED AT AN ADEQUATE NATURAL DISCHARGE POINT. SINKHOLES ARE NOT ADEQUATE DISCHARGE POINTS.
29. ALL DISTURBED EARTH AREA WITHIN PUBLIC RIGHT-OF-WAY SHALL BE SODDED.
30. ADDITIONAL SILTATION CONTROL SHALL BE INSTALLED AS REQUIRED BY THE CITY OF LAKE SAINT LOUIS.
31. SEDIMENT SHALL BE WASHED FROM ALL VEHICLES AT WASHDOWN STATION PRIOR TO LEAVING SITE. NO TRACKING OF MUD ONTO PUBLIC ROADS SHALL BE ALLOWED.
32. THE CONTRACTOR SHALL PROVIDE, INSTALL, MAINTAIN, AND REMOVE A PUBLIC NOTIFICATION SIGN.
33. SWPPP INSPECTION MUST BE SCHEDULED AT LEAST ONCE PER WEEK AND NO LATER THAN 24 HOURS AFTER A RAINFALL THAT CAUSES STORMWATER RUNOFF TO OCCUR ONSITE.
34. ANY LAND CLEARING, CONSTRUCTION, OR DEVELOPMENT INVOLVING THE MOVEMENT OF EARTH SHALL BE IN ACCORDANCE WITH THE STORM WATER POLLUTION PLAN, AND THE PERSON ISSUED A LAND DISTURBANCE PERMIT ASSUMES AND ACKNOWLEDGES RESPONSIBILITY FOR COMPLIANCE.
35. NO TEMPORARY ON-SITE CONCRETE OR ASPHALT BATCH PLANTS ARE ANTICIPATED TO BE UTILIZED.
36. NO ENDANGERED SPECIES OR HISTORIC PROPERTIES ARE AFFECTED BY THIS DEVELOPMENT.
37. NO DEWATERING METHODS ARE ANTICIPATED TO BE NEEDED FOR THIS DEVELOPMENT.

GRADING GENERAL NOTES

1. Sediment and erosion control shall not be limited to the measures shown on the plans. the contractor, with the approval of the City inspector, shall utilize best management practices to prevent sediment from entering adjacent properties, roadways, storm sewers and drainageways.
2. All fill placed under proposed storm and sanitary sewer lines and/or paved areas including trench backfills within and off the road right-of-way shall be compacted to 90 percent of maximum density as determined by the "Modified AASHTO T-180 Compaction Test" (ASTM D-1557). All tests shall be verified by a Soils Engineer concurrent with grading and backfilling operations.
3. All filled places in proposed and existing paved areas shall be compacted from the bottom of the fill up to 90 percent of maximum density as determined by the "Modified AASHTO T-180 Compaction Test" (ASTM D-1557). Paved areas in cuts shall meet the same compaction requirements. All tests shall be verified by a Soils Engineer concurrent with grading operations.
4. All trucking operations shall follow the approved trucking haul route. Concrete trucks shall have proper washouts, as approved by the City inspector. City, county, and state roads shall be cleaned and kept clear of mud, sediment, and any other debris at all times throughout construction.
5. All on-site trash, litter, discarded building materials, other construction site wastes, and debris, either existing or from construction, must be removed and properly disposed of off-site.
6. Debris and foundation material from any existing on-site building or structure which is scheduled to be razed from this development must be properly disposed of off-site.
7. Contractor shall provided sufficient temporary toilet facilities to serve the number of workers on the site.
8. Contractor shall provide the City Inspector information concerning storage and handling of all hazardous and toxic substances brought onto the site. The Contractor will adhere to applicable federal and state regulations concerning storage and dispensers, spill prevention control, and countermeasure plans fro clean-up.
9. Any wells and/or springs which may exist on this property should be located and sealed in a manner acceptable to the City of LAKE SAINT LOUIS.
10. Soft Soils in the bottom and banks of any existing or former pond sites or tributaries or any sediment basins, traps, or other ESC measures should be removed, spread out and permitted to dry sufficiently to be used as fill. None of this material should be placed in proposed public right-of-way locations or any storm sewer location. Any other wet soils that are outside the optimum moisture range to obtain the proper compaction shall be air dried sufficiently before use as fill.
11. A Pre-Construction Conference must be scheduled with the City of LAKE SAINT LOUIS prior to the start of each construction phase of land disturbance activity. The Permitee will be responsible for notifying all contractors, utility crews, and other entities that will perform work at the site to be in attendance.
12. The Erosion Control Inspector of the City of LAKE SAINT LOUIS shall be notified a minimum of 48 hours prior to the commencement of clearing, grading, and/or prior to the commencement of construction to arrange for an inspection of the site.
13. All excavations, grading, of filling shall have a finished grade not to exceed a 3:1 slope (33.33%).
14. Temporary siltation control measures (structural) shall be maintained until vegetative cover is established at a density sufficient to provide erosion control on the site.
15. Contractor shall provided dust control, as determined by the City inspector.
16. Upon completion of the storm sewers, siltation control shall be provided around all open sewer inlets and shall remain until disturbed drainage areas have been properly stabilized.
17. Where natural vegetation is removed during grading, vegetation shall be re-established in such a density as to prevent erosion.
18. Temporary vegetation or other approved surface stabilization methods shall be established within 14 days when the soil disturbance has ceased in areas greater than 2,000 sq. ft.
19. Permanent grass must be established at a density sufficient to provide erosion control on the site within 30 days of completion or suspension or grading operations. Between permanent grass seeding periods, temporary cover shall be provided according to the recommendations of the City.

CONTAINMENT FAILURE PLAN

IN THE EVENT OF ANY LOSS OF CONTAINED SEDIMENT:

1. REPAIR ANY DAMAGED SILTATION FENCES.
2. CLEAN UP ANY NECESSARY SILTED AREAS.
3. RESTORE ANY NECESSARY SILTED AREAS.
4. PROVIDE DOCUMENTATION OF ACTIONS & MANDATORY REPORTING TO LAKE SAINT LOUIS.

BMP MAINTENANCE NOTES

INLET PROTECTION – FABRIC DROP

- INSPECT EVERY WEEK AND AFTER EVERY STORM
- REMOVE TRASH ACCUMULATION AND SEDIMENT ONCE IT REACHES DEPTH OF 6" AT INLET.
- REPLACE LOOSE, TORN OR CLOGGED FABRIC
- REPAIR ANY EROSION OR SETTLEMENT OF TEMPORARY BERM DOWNSTREAM OF INLET.
- MAINTAIN DROP IN TYPE FILTER PER MANUFACTURER SPECIFICATIONS.

SILT FENCE

- INSPECT EVERY WEEK AND AFTER EVERY STORM
- REMOVE SEDIMENT BUILDUP DEEPER THAN ½ THE FENCE HEIGHT OR 12", WHICHEVER IS LESS
- REPLACE TORN OF CLOGGED FABRIC; REPAIR LOOSE FABRIC
- REPAIR UNSTABLE OR BROKEN POSTS
- STABILIZE ANY AREAS SUSCEPTIBLE TO UNDERMINING
- EXTEND FENCE OR ADD ADDITIONAL ROW(S) OF FENCE IF NECESSARY TO PROVIDE ADEQUATE PROTECTION

CONSTRUCTION ENTRANCE

- IMMEDIATELY REMOVE ANY MUD OR DEBRIS TRACKED ONTO PAVED SURFACES
- REMOVE SEDIMENT AND CLODS OF DIRT FROM CONSTRUCTION ENTRANCE CONTINUOUSLY
- REPLACE ROCK IF NECESSARY TO MAINTAIN CLEAN SURFACE
- REPAIR SETTLED AREAS

WASHDOWN STATION

- REMOVE SEDIMENT DAILY
- REPAIR SETTLED AREAS
- REPLACE ROCK IF NECESSARY TO MAINTAIN CLEAN SURFACE

Table 60-9 Mulching Materials

Material	Rate	Requirements	Installation/Uses
Straw	1.5-2.5 tons/ac (3-4 tons, if roller punched)	Dry, unchopped, unweathered; free of weed seeds & rot.	Spread by machine 1.5-2.5 inches deep; must be tacked or tied down.
Compost Blanket	1" thick	Double the application rate for embankments	Follow manufacturer's application method.
Wood fiber, wood cellulose, paper	1-2 tons/ac	Double the application rate in critical areas	Use with power mulcher or hydroseeder; may be used to tack straw on steep slopes. Cannot be used in hot dry weather.

Table 60-7 Temporary Fall Seeding

Plant Species	Rate[1] (lb/acre)	Seeding Times
Side-Oats	40	8/16 – 9/30
Winter Rye	90	8/01 – 10/15
Winter Wheat	60	8/01 – 10/15
Orchard Grass	120	8/01 – 10/15
Perennial Ryegrass	80	8/01 – 10/15
Tall fescue, Smooth Brome	80	8/01 – 10/15
K-31 Fescue	120	9/01 – 11/15
Ladino Clover	2[2]	8/15 – 9/15
Crimson Clover	6[2]	8/15 – 9/15
Orchard Grass and Oats or Rye	15[2] 40[2]	8/15 – 9/15

[1] If using actual seeding or other broadcast method to apply seed without rolling or cultipacking, increase seeding rates by 50 percent.

[2] Pure live seed (PLS)

Table 60-8 Temporary Spring Seeding

Plant Species	Rate[1] (lb/acre)	Seeding Dates
Wheat Rye	90	3/15 – 5/15
Spring Oats	65	3/15 – 5/15
Annual Ryegrass	15	3/15 – 6/15
Sudangrass	16[2]	4/15 – 6/15
K-31 Fescue	30[2]	5/15 – 5/15
Red Clover & Oats	2[2] 30[2]	3/15 – 5/15

[1] If using actual seeding or other broadcast method to apply seed without rolling or cultipacking, increase seeding rates by 50 percent.

[2] Pure live seed (PLS)

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ALLOWABLE NON-STORM WATER DISCHARGES

THE FOLLOWING NON-STORM WATER DISCHARGES ARE AUTHORIZED PROVIDED IT HAS BEEN DETERMINED BY THE PERMITTEE THAT THEY ARE NOT SIGNIFICANT CONTRIBUTORS OF POLLUTANTS TO THE MS4. IMPLEMENTATION OF POLLUTION PREVENTION MEASURES FOR NON-STORM WATER DISCHARGES IS REQUIRED FOR SIGNIFICANT CONTRIBUTORS.

1. Water line flushing
2. Landscape irrigation
3. Diverted stream flows
4. Rising ground waters
5. Uncontaminated ground water infiltration (as defined at 40 CFR 35.2005(20))
6. Uncontaminated pumped ground water
7. Discharge from potable water sources
8. Foundation drains
9. Air conditioning condensation
10. Irrigation water, springs
11. Water from crawl space pumps
12. Footing drains
13. Lawn watering
14. Individual resident car washing
15. Flows from riparian habitats and wetlands
16. Dechlorinated swimming pool discharges
17. Street wash water
18. Residential building wash waters, without detergents.

DISCHARGES OR FLOWS FROM FIRE FIGHTING ACTIVITIES OCCUR DURING EMERGENCY SITUATIONS. THE PERMITTEE IS NOT EXPECTED TO EVALUATE FIRE FIGHTING DISCHARGES WITH REGARD TO POLLUTANT CONTRIBUTIONS. THEREFORE, THESE DISCHARGES ARE AUTHORIZED AS ALLOWABLE NON-STORM WATER DISCHARGES, UNLESS IDENTIFIED, BY EPA, AS SIGNIFICANT SOURCES OF POLLUTANTS TO WATERS OF THE U.S..

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https://www.mo1call.com

WILLIAM SCHEIDT, PE
2018007869
PROFESSIONAL CIVIL ENGINEER
*HAND SIGNATURE ON FILE

REVISION RECORD

NO	DATE	DESCRIPTION

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1460 LUCERNE MANOR DRIVE
WELDON SPRING MO 63304

PERNOUD PROFESSIONAL OFFICE BUILDING IMPROVEMENT PLANS EROSION CONTROL DETAILS

DATE:	JANUARY 2023
DRAWN BY:	WTS
CHECKED BY:	KAS
DWG SCALE:	
PROJECT NO:	325-112
APPROVED BY:	

DRAWING NO.: **C900**

SHEET 14 OF 14

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