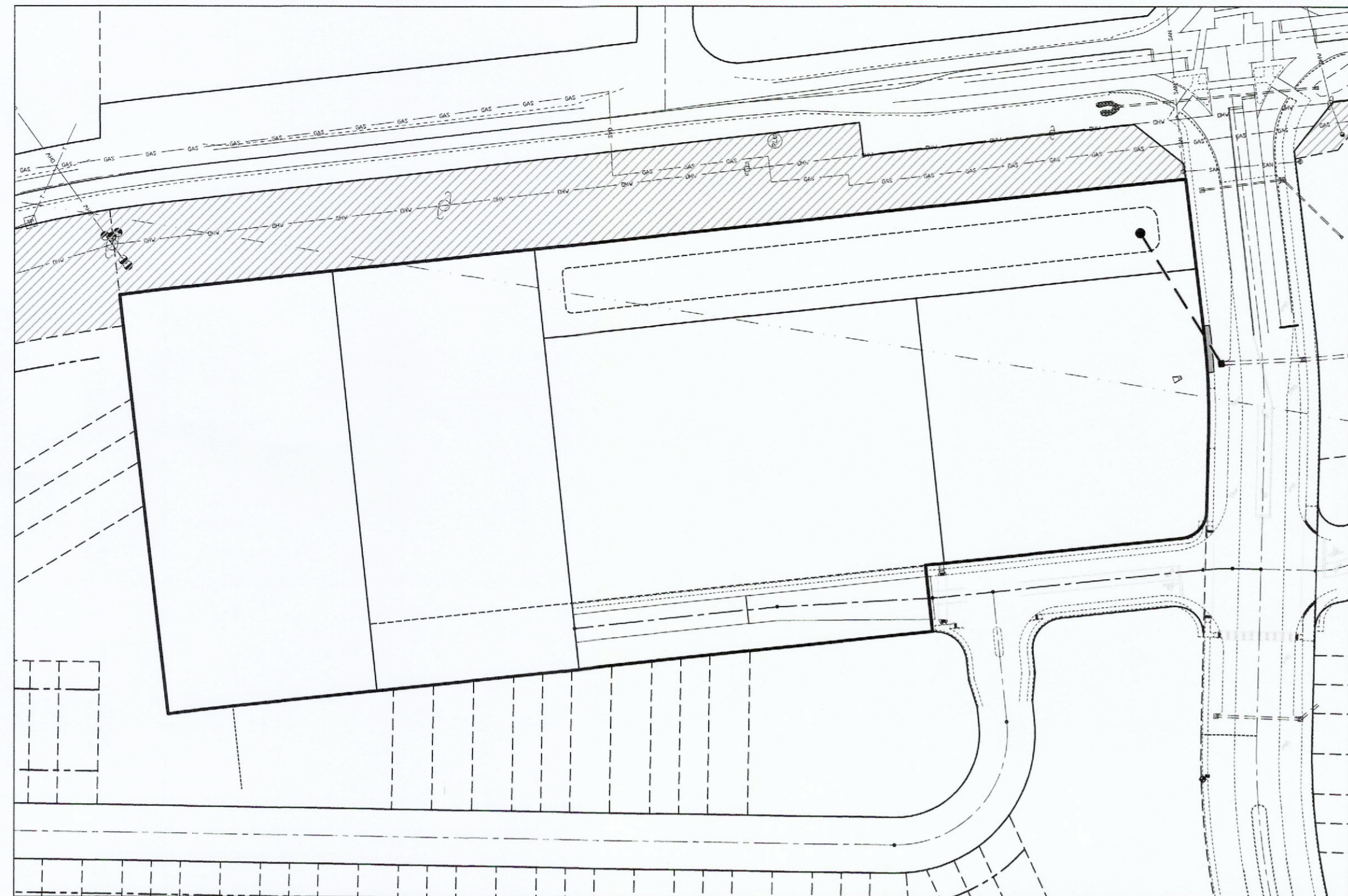
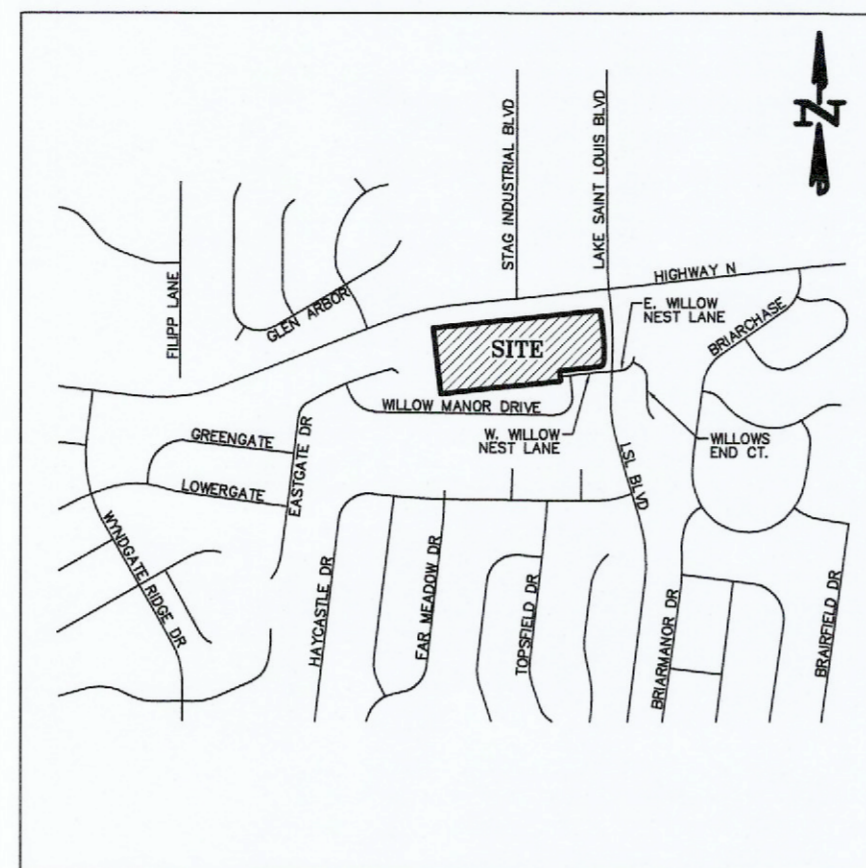


# A SET OF AS-BUILT PLANS FOR SHADY CREEK COMMERCIAL

A TRACT OF LAND BEING PART OF U.S. SURVEY 931 AND PART OF THE EAST HALF OF SECTION 9 TOWNSHIP 46 NORTH, RANGE 2 EAST OF THE FIFTH PRINCIPAL MERIDIAN, CITY OF O'FALLON, ST. CHARLES COUNTY, MISSOURI



Plan View



Locator Map

## Legend

600.00	EXISTING LABELS	EXIST. SINGLE CURB INLET
600.00	PROPOSED LABELS	EXIST. AREA INLET
CI	SINGLE CURB INLET	PROPOSED SINGLE CURB INLET
DCI	DOUBLE CURB INLET	PROPOSED AREA INLET
AI	AREA INLET	PROPOSED GRATE INLET
DAI	DOUBLE AREA INLET	EXIST. SANITARY MANHOLE
GI	GRATE INLET	EXIST. STORM MANHOLE
DGI	DOUBLE GRATE INLET	PROPOSED MANHOLE
MH	MANHOLE	POWER POLE
FE	FLARED END SECTION	GUY WIRE
EP	END PIPE	LIGHT STANDARD
CP	CONCRETE PIPE	FIRE HYDRANT
RCP	REINFORCED CONCRETE PIPE	WATER METER
CMP	CORRUGATED METAL PIPE	WATER VALVE
CPP	CORRUGATED PLASTIC PIPE	GAS VALVE
PVC	POLY VINYL CHLORIDE (PLASTIC)	TELEPHONE PEDESTAL
CO	CLEAN OUT	SIGN
.....	SLOPE LIMITS	TREE
— STM —	DRAINAGE SWALE	
— SAN —	EXISTING STORM SEWER	
— W —	EXISTING SANITARY SEWER	
— FO —	EXISTING WATER LINE	
— GAS —	EXISTING FIBER OPTIC LINE	
— UGE —	EXISTING GAS LINE	
— OHW —	EXISTING UNDERGROUND ELECTRIC	
— CTV —	EXISTING OVERHEAD ELECTRIC	
— T —	EXISTING CABLE TV LINE	
— X — X —	EXISTING TELEPHONE LINE	
	PROPOSED STORM SEWER	
	PROPOSED SANITARY SEWER	
	FENCE LINE	
	SAWCUT LINE	

## AS-BUILT LEGEND

●	AS-BUILT STORM MANHOLE
■	AS-BUILT CURB INLET
▲	AS-BUILT STORM FLARED END
●	AS-BUILT SANITARY MANHOLE
●	AS-BUILT FIRE HYDRANT
●	AS-BUILT WATER VALVE
●	AS-BUILT CLEANOUT
●	AS-BUILT SPOT GRADE

## AS-BUILT PUBLIC UTILITY FINAL MEASUREMENTS

THE FOLLOWING UTILITIES HAVE BEEN LOCATED AND MEASURED AND THE RESULTS OF THOSE MEASUREMENTS ARE SHOWN ON THIS SET OF FINAL MEASUREMENT PLANS:

- STORM SEWERS, STORM SEWER LENGTHS, STORM SEWER PIPE SIZES, STORM SEWER FLOWLINES AND DEPTHS OF STORM SEWER STRUCTURES.
- TOPOGRAPHY AND SPOT ELEVATIONS OF RETENTION BASIN AND CROSS SECTIONS OF RETENTION BASIN.
- SANITARY SEWERS, SANITARY SEWER LENGTHS, SANITARY SEWER PIPE SIZES, SANITARY SEWER FLOWLINES AND DEPTHS OF SANITARY SEWER STRUCTURES.
- FIRE HYDRANTS
- WATER VALVES

ALL PUBLIC UTILITIES SHOWN HEREON AS BEING AS-BUILT ARE LOCATED WITHIN DESIGNATED EXISTING OR PROPOSED EASEMENTS

BAX ENGINEERING COMPANY, INC.  
MARK E. COLLINS  
MISSOURI PROFESSIONAL LAND SURVEYOR #2006000173

## DEVELOPMENT NOTES:

- Total Area of Tract: 7.98 Acres
- Existing Zoning: C-2, General Business District (City of O'Fallon)
- Property Owners: Joanne Griffith & Gary E. Kopadt Revocable Trust  
8780 Highway N  
Lake Saint Louis, MO 63367
- Per Flood Insurance Rate Map Panel Number 29183C0220G Dated January 20, 2016. This site is Zoned 'X', described as areas outside the 500-year floodplain.
- Boundary information is per survey as compiled by Bax Engineering during April, 2022.
- Grading to begin as soon as possible.
- The Contractor shall also notify the City of O'Fallon Division of Engineering Department 48 hours prior to the commencement of grading. A pre-construction meeting will be required to be held before any land disturbance activities may commence.
- A sediment control plan that includes monitored and maintained sediment control basins and/or straw bales should be implemented as soon as possible. No graded area is to be allowed to remain bare over 14 days without being seeded and mulched. Care should be exercised to prevent soil from damaging adjacent property and silting up existing downstream storm drainage system.
- Site preparation includes the clearance of all stumps, trees, bushes, shrubs, and weeds; the grubbing and removal of roots and other surface obstructions from the site; and the demolition and removal of any man-made structures. The unsuitable material shall be properly disposed of off-site.
- All siltation control devices shall be inspected by the contractor after any rain of 1/4" or more with any appreciable accumulation of mud to be removed and siltation measures repaired where necessary.
- No slope shall be steeper than 3(Horizontal):1(Vertical).
- Any contaminated soil encountered during excavation shall be hauled and placed as directed by the owners environmental engineering representative.
- Underground utilities have been plotted from available information and there-fare locations shall be considered approximate only. The verifications 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 any grading or construction improvements.
- All operations shall conform to the current standards of the City of O'Fallon.
- The contractor is responsible for following the City of O'Fallon Ordinance for the installation of sediment and erosion control devices.
- Sediment and erosion control shall not be limited to the measures shown on the plans. The contractor, with the approval of the County Inspector, shall utilize best management practices to prevent sediment from entering adjacent properties, roadways, storm sewers, and drainage ways.
- All trash and debris on-site, either existing or from construction, must be removed and properly disposed of off-site.
- Temporary siltation control measures (structural) shall be maintained until vegetative cover is established at a sufficient density to provide erosion control on the site.
- Where natural vegetation is removed during operations, vegetation shall be reestablished in such a density as to prevent erosion.
- When mechanized land clearing activities are completed or suspended for more than 14 days; either temporary vegetation must be established or temporary siltation control measures must be put in place with the review and approval of the City of O'Fallon.
- When operations are completed or suspended for more than 14 days, permanent grass must be established at sufficient density to provide erosion control on the site. Between permanent grass seeding periods, temporary cover shall be provided according to the recommendation of the City of O'Fallon. All finished grades (areas not to be disturbed by future improvement) in excess of 20% slopes (5:1) shall be mulched and tacked at the rate of 100 lbs per 1,000 sq.ft. when seeded.
- Any existing wells and/or springs which may exist on the property must be sealed in a manner acceptable to the City of O'Fallon Construction Inspection Department and following Missouri Department of Natural Resources standards and specifications.
- This plan will provide detention for the future commercial sites. Each individual site developer shall be responsible for providing facilities for long term post construction BMP's and treatment and protection of water quality. Such means shall be determined by each site developer and submitted with their construction plans.

## Conditions of Approval From Planning and Zoning:

- Depending on the future commercial developments that would have access to the private portion of West Willow Nest Lane, the private portion may need to be expanded to be 39' wide.

## Utility Contacts

**Sanitary Sewers**  
Public Water Supply District No. 2  
P.O. Box 967  
O'Fallon, MO. 63366  
636-561-3737

**Water**  
Public Water Supply District No. 2  
P.O. Box 967  
O'Fallon, MO. 63366  
636-561-3737

**Storm Sewer**  
City of O'Fallon  
100 N. Main St.  
O'Fallon, MO. 63366  
636-240-2000

**Electric**  
Cuivre River Electric Co.  
P.O. Box 160  
Troy, MO. 63379-0160  
1-800-392-3709

**Gas**  
Spire Gas  
6400 Graham Road  
St. Louis, MO. 63134  
314-522-2297

**Telephone**  
CenturyLink  
1151 Century Tel Dr.  
Wentzville, MO. 63385  
636-332-7261

**Fire District**  
Wentzville Fire District  
502 Luetkenhaus Blvd.  
Wentzville, MO. 63385  
636-332-9869

## Drawing Index

- COVER SHEET
- NOTES
- SITE PLAN
- GRADING PLAN/SWPPP
- SANITARY SEWER PROFILE AND BASIN SECTIONS
- SANITARY SEWER DETAILS
- STORM SEWER PROFILE AND DETAILS
- CI 16 JUNCTION BOX

## Benchmarks Project

REFERENCE BENCHMARK: THE OBSERVED VERTICAL CHECK STATION UTILIZED IS LISTED ON WWW.NGS.NOAA.GOV AS DESIGNATION "C-149" WITH A PID OF JC0544 AND A PUBLISHED ELEVATION OF 545.45 (NAVD88). DESCRIBED AS FOLLOWS: 1.8 MILES EAST FROM GILMORE, 1.8 MILES EAST ALONG THE WABASH RAILROAD FROM THE STATION AT "GILMORE, ST. CHARLES COUNTY, 80 FEET WEST OF A TOWNSHIP ROAD CROSSING, 48 FEET NORTH OF THE CENTERLINE OF THE TRACK, 12 FEET WEST OF THE RIGHT-OF-WAY FENCE CORNER, AND 2 FEET SOUTH OF THE RIGHT-OF-WAY FENCE. A STANDARD DISK, STAMPED C 149 1935 AND SET IN THE TOP OF A CONCRETE POST PROJECTING 6 INCHES ABOVE GROUND.

## Site

SITE BENCHMARK: ELEV. 637.38.  
'X' IN CONCRETE SIDEWALK LOCATED ALONG THE WEST RIGHT-OF-WAY LINE OF LAKE SAINT LOUIS BOULEVARD APPROXIMATELY 57.5 FEET SOUTHWEST OF AN AREA INLET.

## VEGETATION ESTABLISHMENT For Urban Development Sites APPENDIX A

<b>SEEDING RATES:</b>	
<b>PERMANENT:</b>	
Tall Fescue	150 lbs./ac.
Smooth Brome	100 lbs./ac.
Combined	Fescue @ 75 lbs./ac. AND Brome @ 50 lbs./ac.
<b>TEMPORARY:</b>	
Wheat or Rye	150 lbs./ac. (3.5 lbs. per 1,000 s.f.)
Oats	120 lbs./ac. (2.75 lbs. per 1,000 s.f.)
<b>SEEDING PERIODS:</b>	
Fescue or Brome	March 1 to June 1
	August 1 to October 1
Wheat or Rye	March 15 to November 1
Oats	March 15 to September 15
<b>MULCH RATES:</b>	
	100 lbs. per 1000 sq. ft. (4,356 lbs. per ac.)
<b>FERTILIZER RATES:</b>	
Nitrogen	30 lbs./ac.
Phosphate	30 lbs./ac.
Potassium	30 lbs./ac.
Lime	600 lbs./ac. ENM*
* ENM = effective neutralizing material as per State evaluation of quarried rock.	

City approval of any construction site plan does not mean that any building can be constructed on the lots without meeting the building setbacks as required by the zoning codes.

All installations and construction shall conform to the approved engineering drawings. However, if the developer chooses to make minor modifications in design and/or specifications during construction, they shall make such changes at their own risk, without any assurance that the City Engineer will approve the completed installation or construction. It shall be the responsibility of the developer to notify the City Engineer of any changes from the approved drawings. The developer may be required to correct the installed improvements so as to conform to the approved engineering drawings. The developer may request a letter from the Construction Inspection Division regarding any field changes approved by the City Inspector.

Lighting values will be reviewed on site prior to the final occupancy inspection.

\* City of O'Fallon Construction work hours per City Ordinance 3429 as shown in Section 500.420 of the Municipal Code of the City of O'Fallon are as follows:

**October 1 through May 31**  
7:00 A.M. To 7:00 P.M. Monday Through Sunday  
**June 1 Through September 30**  
6:00 A.M. To 8:00 P.M. Monday Through Friday  
7:00 A.M. to 8:00 P.M. Saturday and Sunday

\* The area of this phase of development is 7.98 Acres  
The area of land disturbance is 4.85 Acres  
Building setback information.

Front: Not less than twenty-five (25) feet, excluding all signs, pump islands, and canopies of gasoline service stations.

Side: No side yard is required except that where a side line of a lot in this district abuts the side line of a lot in any residential or office district, a side yard shall then be provided the same as required in the district it abuts. A side yard of not less than twenty-five (25) feet shall be provided on the street side of a corner lot.

Rear: No rear yard is required except that where a rear line of a lot in this district abuts lots zoned residential or office a rear yard of not less than ten (10) feet shall be provided.

\* Tree Preservation requirements:  
NO Existing Trees

PROJECT TITLE:  
**AS-BUILT PLANS SHADY CREEK COMMERCIAL**

ENGINEERING PLANNING SURVEYING  
221 Point West Blvd.  
St. Charles, MO 63301  
636-988-6662  
FAX 636-988-1718



DISCLAIMER OF RESPONSIBILITY  
I hereby specify that the documents intended to be authenticated by my seal are limited to this sheet, and I hereby disclaim any responsibility for all other drawings, specifications, estimates, reports or other documents or instruments relating to or intended to be used for any part or parts of the architectural or engineering project or survey.

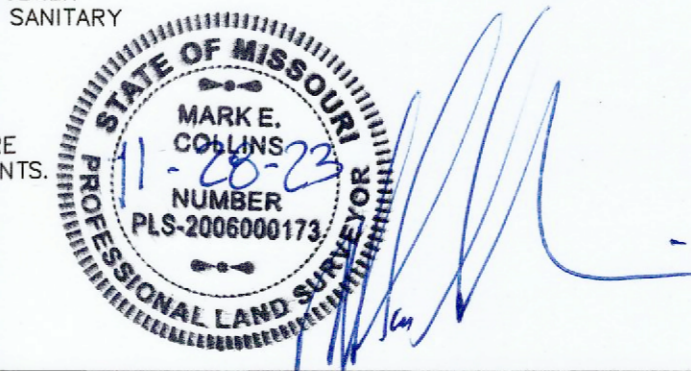
REVISIONS	
11/02/23	CITY COMMENT REVS.
11/27/23	CITY COMMENT REVS.

Developer / Owner:  
**JoAnn Griffith and Gary Kopadt**  
8780 Highway N  
Lake Saint Louis, MO 63367  
636-544-2128

P+Z No. 22-004236  
Approval Date: 10/07/2022  
City No. CSP22-000027

Page No. 1 of 8

CITY OF O'FALLON  
ENGINEERING DEPARTMENT  
ACCEPTED FOR CONSTRUCTION  
BY: Hart Ebert DATE 11/30/2023  
PROFESSIONAL ENGINEER'S SEAL  
INDICATES RESPONSIBILITY FOR DESIGN



Bax Project # 20-181544 Issue Date: 08/22/2023

COVER SHEET

GENERAL NOTES

- 1. Driveway locations shall not interfere with the sidewalk handicap ramps, or curb inlet sumps
2. Sidewalks, curb ramps, ramps and accessible parking spaces shall be constructed in accordance with the current approved "American with Disabilities Act Accessibility Guidelines" (ADAAG) along with the required grades, construction materials, specifications and signage. If any conflict occurs between the above information and the plans, the ADAAG guidelines shall take precedence and construction shall notify the Project Engineer.
2.1. Truncated domes for curb ramps located in public right of way shall meet PROWAG requirements and shall be constructed using red pre-cast truncated domes per pavement details.
3. Any proposed pavilions or playground areas will need a separate permit from the Building Division.
4. The Contractor is responsible to call Missouri One Call and The City of O'Fallon for the location of utilities. Contact the City of O'Fallon (636) 379-3614 for the location of City maintained cable for street lights and traffic signals, all other utilities call Missouri One Call 1-800-DIG-RITE. 1-800-344-7483.
5. All proposed utilities and/or utility relocations shall be located underground.
6. All proposed fencing requires a separate permit through the Building Safety Division.
7. All construction operations and work zone traffic control within the right of way will follow MoDOT or M.U.T.C.D. standards whichever is more stringent.
8. (INTENTIONALLY OMITTED)
9. All subdivision identification or directional sign(s) must have the locations and sizes approved and permitted separately through the Planning and Development Division.
10. Materials such as trees, organic debris, rubble, foundations, and other deleterious material shall be removed from the site and disposed of in compliance with all applicable laws and regulations. If the material listed previously are reused, a letter from a soil Engineer must clarify amount, location, depth, etc. and be approved with the construction plans. Landfill tickets for such disposal shall be maintained on file by the developer. Burning on site shall be allowed only by permit from the local fire district. If a burn pit is proposed the location and mitigation shall be shown on the grading plan and documented by the soils engineer.
11. Twenty-four (24) hours prior to starting any of the work covered by the above plans and after approval thereof, the developer shall make arrangements with the Construction Inspection Office to provide for inspection of the work, sufficient in the opinion of the City Engineer, to assure compliance with the plans and specifications as approved.
12. The City Engineer or their duly authorized representative shall make all necessary inspections of City infrastructure, escrow items or infrastructure located on the approved plans.
13. All installations and construction shall conform to the approved engineering drawings. However, if the developer chooses to make minor modifications in design and/or specifications during construction, he/she shall make such changes at his/her own risk, without any assurance that the City Engineer will approve the completed installation or construction. It shall be the responsibility of the developer to notify the City Engineer of any changes from the approved drawings. The developer may be required to correct the installed improvements so as to conform to the approved engineering drawings. The developer may request a letter from the Construction Inspection Division regarding any field changes approved by the City inspectors.
14. City approval of the construction site plans does not mean that any building can be constructed on the lots without meeting the building setbacks as required by the zoning code.

Grading Notes

- 1. Developer must supply City Construction Inspectors with an Engineer's soil reports prior to and during site grading. The soil report will be required to contain the following information on soil test curves (Proctor reports) for projects within the City:
1.1. Maximum dry density
1.2. Optimum moisture content
1.3. Maximum and minimum allowable moisture content
1.4. Curve must be plotted to show density from a minimum of 90% Compaction and above as determined by the "Modified AASHTO T-180 Compaction Test" (A.S.T.M.-D-1157) or from a minimum of 95% as determined by the "Standard Proctor Test ASHTO T-99, Method C" (A.S.T.M.-D-698). Proctor type must be designated on document.
1.5. Curve must have at least 5 density points with moisture content and sample locations listed on document
1.6. Specific gravity
1.7. Natural moisture content
1.8. Liquid limit
1.9. Plastic limit
Be advised that if this information is not provided to the City's Construction Inspector the City will not allow grading or construction activities to proceed on any project site.
2. All fill placed in areas other than proposed storm sewers, sanitary sewers, proposed roads, and paved areas shall be compacted from the bottom of the fill up in 8" lifts and compacted to 90% maximum density as determined by Modified AASHTO T-180 compaction test or 95% of maximum density as determined by the Standard Proctor Test ASHTO T-99. Ensure the moisture content of the soil in fill areas corresponds to the compactive effort as defined by the Standard or Modified Proctor Test. Optimum moisture content shall be determined using the same test that was used for compaction. Soil compaction curves shall be submitted to the City of O'Fallon prior to the placement of fill.
3. The surface of the fill shall be finished so it will not impound water. If at the end of a days work it would appear that there may be rain prior to the next working day, the surface shall be finished smooth. If the surface has been finished smooth for any reason, it shall be scarified before proceeding with the placement of succeeding lifts. 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 freeze.
4. All sediment and detention basins are to be constructed during the initial phase of the grading operation or in accordance with the approved SWPPP.
5. When grading operations are complete or suspended for more than 14 days, permanent grass must be established at sufficient density to provide erosion control on site. Between permanent grass seeding periods, temporary cover shall be provided according to Missouri Department of Natural Resources Protecting Water Quality - a field guide to erosion, sediment and stormwater best management practices for development sites in Missouri and Kansas.All finished grades (areas not to be disturbed by improvements) in excess of 20% slopes (5:1) shall be mulched and tacked at a rate of 100 pounds per 1000 square feet with approved SWPPP.
6. No slopes shall exceed 3 (horizontal): 1 (vertical) unless otherwise approved by the soils report and specifically located on the plans and approved by the City Engineer.
7. All low places whether on site or off shall be graded to provide drainage with temporary ditches.
8. Any existing wells and/or springs which may exist on the property must be sealed in a manner acceptable to the City of O'Fallon Construction Inspection Department and following Missouri Department of Natural Resources standards and specifications.
9. (INTENTIONALLY OMITTED)
10. All trench back fills under paved areas shall be granular back fill, and compacted mechanically. All other trench back fills may be earth material (free of large clods, or stones) and compacted using either mechanical tamping or water jetting. Granular material and earth material associated with new construction outside of pavements may be jetted, taking care to avoid damage to newly laid sewers. The jetting shall be performed with a probe roe 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.
10.1. Depth. Trench back fills less than 8 feet deep shall be probed to a depth extending half the depth of the trench back fill, but not less than 3 feet. Trench back fill greater than 8 feet in depth shall be probed to half the depth of the trench back fill but not greater than 8 feet.
10.2. Equipment. The jetting probe shall be a metal pipe with an interior diameter of 1.5 to 2 inches.
10.3. Method. Jetting shall be performed from the lowest surface topographic point and proceed toward the highest point, and from the bottom of the trench back fill toward the surface. The flooding of each jetting probe shall be started slowly allowing slow saturation of the soil. Water is not allowed to flow away from the trench without first saturating the trench.
10.4. Surface Bridging. The contractor shall identify the locations of the surface bridging (the tendency for the upper surface to crust and 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 wheels or bucket of a backhoe. When surface crust is collapsed, the void shall be back filled with the same material used as trench back fill and re-jetted. Compaction of the materials within the sunken/jetted area shall be compacted such that no further surface subsidence occurs.
11. Site grading.
11.1. Within City right-of-way. Material is to be placed in eight (8) inch to twelve (12) inch loose lifts and compacted per the approved compaction requirements. One (1) compaction test will be performed every two hundred fifty (250) feet along the centerline for each lift.
11.2. Outside of City right-of-way. Material is to be placed in eight (8) inch to twelve (12) inch loose lifts and compacted per the approved compaction requirements. One (1) compaction test will be performed at two (2) foot vertical intervals and approximately every one thousand (1,000) cubic yards.
12. Access to the site from any other location other than the proposed construction entrance is strictly prohibited.

Erosion Control Notes

- 1. The Permittee shall assume complete responsibility for controlling all siltation and erosion of the project area. The Permittee shall use whatever means necessary to control erosion and siltation including, but not limited to, staked straw bales and/or siltation fabric fences (possible methods of control are detailed in the plan). Control shall commence with the clearing operations and be maintained throughout the project until acceptance of the work by City of O'Fallon and as needed by MoDOT. The Permittee's responsibilities include all design and implementation as required to prevent erosion and the depositing of silt. The City of O'Fallon and as required by MoDOT may at their option direct the Permittee in his methods as deemed fit to protect property and improvements. Any depositing of silt or mud on new or existing pavement shall be removed immediately. Any depositing of silts or mud in new or existing storm sewers and/or swales shall be removed after each rain and affected areas cleaned to the satisfaction of the City of O'Fallon and as required by MoDOT."
2. All erosion control systems are to be inspected and corrected weekly, especially within 48 hours of any rain storm resulting in one-quarter inch of rain or more. Any silt or debris leaving the site and affecting public right of way or storm water drainage facilities shall be cleaned up within 24 hours after the end of the storm.
3. Erosion control devices (silt fence, sediment basin, etc.) shall be in accordance with Missouri Department of Natural Resources Protecting Water Quality - a field guide to erosion, sediment and stormwater best management practices for development sites in Missouri and Kansas.
4. This development is required to provide long term post construction BMP's such as; low impact design, source control and treatment devices (possible methods of control are detailed in the plan) to maximum extent practical in compliance with Phase II Illicit Storm Water Discharge Guidelines. (Ord. 5082, section 405.245)
5. Graded areas shall be seeded and mulched (strawed) within 14 days of stopping land disturbance activities. Unless it can be shown to the City Engineer that weather conditions are not favorable, vegetative growth is to be established within 6 weeks of stopping grading work on the project. The vegetative growth established shall be sufficient to prevent erosion and the standard shall be as required by EPA and DNR. (70% coverage per square foot) Ord. 6496, Section 405.095

Storm Sewer Notes

- 1. All Storm Sewer installation is to be in accordance with M.S.D. standards and specifications except as modified by the City of O'Fallon ordinances.
2. Brick shall not be used in the construction of storm sewer structures. Pre cast concrete structures are to be used unless otherwise approved by the City of O'Fallon.
3. A 5/8" trash bar shall be installed horizontally in the center of the opening(s) in all curb inlets and area inlets.
4. (INTENTIONALLY OMITTED)
5. Encase with concrete both sanitary and storm sewer at crossing when storm sewer is within 18 inches above sanitary sewer. Add concrete cradle to only RCP storm sewer and encase flexible storm sewer when it is more than 18 inches above sanitary line. Show on profile sheet.
6. The storm sewers should run diagonally through the side yards to minimize any additional utility easements required.
7. All concrete pipes will be installed with O-ring rubber type gaskets.
8. Connections at all storm structures are to be made with A-lock joint or equal.
9. Pre cast concrete inlet covers are not to be used.
10. The swale in the detention basins shall have a minimum 2% longitudinal slope and be lined with a permanent erosion control blanket that will allow infiltration of storm water.
11. All structures and flared end sections must be concrete. H.D.P.E. pipe will not be allowed for detention basin outflows, final pipe run to detention basins, creek discharge or other approved means.
12. (INTENTIONALLY OMITTED)
13. Rip rap shown at flared end sections will be evaluated in the field by the Engineer, Contractor, and City Inspectors after installation for effectiveness and field modified, if necessary to reduce erosion on and off site.
14. Add 1" minus rock back fill to all storm sewer that lie within the 1:1 shear plane of the road.
15. (INTENTIONALLY OMITTED)

Flood plain Information

- 1. Refer to Section 415 for Floodplain Development Information

Retaining Walls: Terraced and Vertical

- 1. A permit is required for all retaining walls that are 48 inches or taller in height, measured from the top of the footing to the top of the wall or for walls that support a surcharge load or that alters the channelized drainage of any lot or drainage area.
2. Retaining walls will not be allowed in public right-of-way without written approval from the City Engineer.
3. Any retaining wall more than thirty (30) inches tall which supports a walking surface that is within two (2) feet of the wall will require a guard on the retaining wall.
4. Retaining walls that alter the channeled drainage of any lot or drainage area shall not be constructed without prior approval and permitting from the City of O'Fallon Engineering Department regardless of the height of the wall.
5. See section 405.275 of the City code for additional design requirements.

Roadway Notes

- 1. All paving (public and private) to be in accordance with St. Louis County Standards and Specifications except as modified by the City of O'Fallon ordinances.
2. If the intersecting road does not have a curb, then the curb on the new entrance shall begin 10' from the edge of the existing road.
3. Provide 6" of concrete over 5" of aggregate base rock or asphalt equivalent for minor residential streets per City Code 405.370.
3.1. Rock to meet the all the requirements of MoDOT type 5 rock with a tighter restriction on the fines being that no more than ten percent (10%) fines shall pass a no. 200 sieve. (City Code 405.210.B.1) The gradation of this rock needs to be submitted to the City for approval. Any deliveries made without the proper delivery ticket, including signature, will not be accepted. The delivery ticket must list the project name or jobsite location. A separate certification sheet may be provided attached to the delivery ticket with a signature of the company's quality control manager. The quality control certification must be current and dated within 4 weeks of the delivery. (City Code 405.210.A.2.k)
4. Multi-use trail (when required) Shall have a minimum of 3" Type "C" Asphalt over 4" aggregate base per City requirements.
5. Type C (BP-1) Compaction requirements shall be 98% minimum density according to St. Louis Co. Standard Specifications.
6. Provide pavement striping at any point where the multi-use trail crosses existing or proposed pavement
7. All street stub-outs over 250' in length will require a temporary turnaround.
8. All sub grade in cut or fill will need to conform to the City of O'Fallon Compaction requirements
9. Material Testing And Frequency. Materials for construction shall be tested and inspected per the appropriate ASTM code or at the City Engineer's discretion. The developer's engineer shall perform quality control guidelines, in accordance with St. Louis County requirements 501.3.1.
10. Approval Of Sub grade And Base (Sub base). The City Engineer or representative shall approve the sub grade before any base is placed thereon and shall approve the base before concrete or surface course is placed. The sub grade and base shall be so constructed that it will be uniform in density throughout.
11. In all fill areas in the roadway, soil tests shall be submitted and approved by the City Engineer for each foot of fill and at least one (1) test and an average of one (1) test within every two hundred fifty (250) feet.
12. No traffic will be allowed on new concrete pavement until it has cured for seven (7) days and it reaches three thousand five hundred (3,500) psi within 28 days.
12.1. Concrete pavements shall not be approved unless it reaches a strength of four thousand (4,000) psi. Cylinders/compressive strength. One (1) set of four (5) cylinders within the first fifty (50) cubic yards and one (1) set per one hundred (100) cubic yards thereafter. One (1) cylinder must be tested at seven (7) days, three (3) at twenty-eight (28) days, and one (1) held in reserve.
13. Prior to placement of aggregate base material on sub grade and prior to placement of pavement on base material, the sub grade and base must be proof-rolled with a fully loaded (ten (10) ton load) tandem truck or equivalent tire vehicle with one (1) pass down each driving lane no faster than three (3) miles per hour. If soft spots are detected, or pumping, rutting or heaving occurs greater than one (1) inch at the sub grade, the roadbed shall be considered unsatisfactory and the soil in these areas shall be remediated to the depth indicated by the contractor's testing firm and approved by a representative of the City Engineer.
14. Sub grade and base beneath pavements shall be compacted to St. Louis County Highway Department specifications. The moisture range shall be determined by the Standard or Modified Proctor Density Method AASHTO T-99 and within -2/+4 percentage points of the optimum moisture content.
15. The entire width and length will conform to line, grade and cross section shown on the plans or as established by the engineer. If any settling or washing occurs, or where hauling results in ruts or other objectionable irregularities, the contractor shall improve the sub grade or base to the satisfaction of the City before the pavement is placed. Additional rolling or methods to verify compaction shall be at the discretion of the City Engineer. Tolerance allowed on all lines, grades and cross sections shall be plus or minus four-hundredths (+0.04) feet.
16. Utility Work Prior To Base Construction. No base course work may proceed on any street until all utility excavations (storm and sanitary sewers, gas, electric, etc.) have been properly back filled with granular material, crushed stone or gravel mechanically tamped in ten (10) inch lifts. Utilities installed after sub grade preparation shall be bored. Compaction requirements shall follow St. Louis County standards.
17. Equipment calibration. The developer's contractors and subcontractors must have their equipment calibrated by the following minimum standards.
17.1. Air meter---weekly.
17.2. Cylinder compression---annually by independent calibration service.
17.3. Batch scales---monthly.
17.4. Nuclear testing devices---every six (6) months.
17.5. Proctor equipment---every six (6) months.
17.6. Slump cone---monthly.
18. All permanent traffic control will be per M.U.T.C.D. or MoDot standards. S1-1 from the M.U.T.C.D. manual will be used at all crosswalk locations accompanied with either w16-9p or w16-7p signs.
19. All traffic signals, street signs, sign post, backs and bracket arms shall be painted black using Corboline Rust Bond Penetrating Sealer SG and Corboline 133 HB paint (or equivalent as approved by City of O'Fallon and MoDOT)
20. If the excavations are made in the improved portion of the right-of-way, twelve inches of granular backfill will be placed over exposed facilities and controlled low strength material (CLSM) aka flowable fill will fill the hole with eight inches of the finished surface for concrete pavement. There will be a plastic membrane placed between the rock base and the CLSM to prevent the material from bleeding into the rock base. The remaining eight inches will be restored by placing a 28 day, 4,000 psi concrete mix.

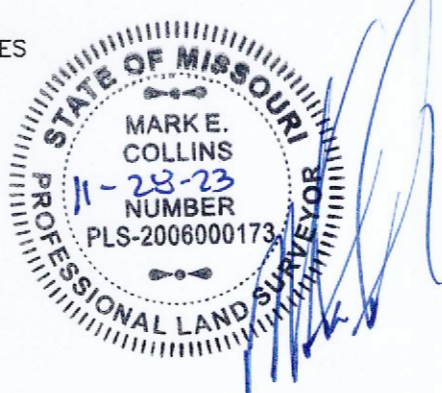
AS-BUILT PUBLIC UTILITY FINAL MEASUREMENTS

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• TOPOGRAPHY AND SPOT ELEVATIONS OF RETENTION BASIN AND CROSS SECTIONS OF RETENTION BASIN,
• SANITARY SEWERS, SANITARY SEWER LENGTHS, SANITARY SEWER PIPE SIZES, SANITARY SEWER FLOWLINES AND DEPTHS OF SANITARY SEWER STRUCTURES.
• FIRE HYDRANTS
• WATER VALVES

ALL PUBLIC UTILITIES SHOWN HEREON AS BEING AS-BUILT ARE LOCATED WITHIN DESIGNATED EXISTING OR PROPOSED EASEMENTS.

BAX ENGINEERING COMPANY, INC.
MARK E. COLLINS
MISSOURI PROFESSIONAL LAND SURVEYOR #206000173



SWPPP NOTES:

A. PURPOSE:

The purpose of the Storm Water Pollution Prevention Plan (SWPPP) shall meet the following objectives:

- Prevent erosion where construction activities shall occur.
• Prevent pollutants from mixing with storm water.
• Prevent pollutants from being discharged by trapping them on-site, before they can affect the receiving waters.

B. PROJECT DESCRIPTION:

The project is located in the Dardene Creek watershed in St. Charles County, Missouri. This project area is approximately 7.98 Acres, with 4.85 Acres being disturbed.

The project activities consist of grading for a residential subdivision along with the grading and installation of the proposed detention basins. The site will be protected with the various erosion protection measures listed below:

- 1. Perimeter Silt Control: The portion of the project perimeter that has the potential for storm water runoff will have silt control installed. These silt controls shall be composed of straw bales, silt fence, silt sock or a wood chip barrier. These devices shall be built in accordance with the details as listed in the MDNR Stormwater Quality Guide.
2. Sediment Basins: At all locations where storm water is being directed to a collection point a sediment basin will be constructed. The sediment basins will be designed to filter the pollutants from the water prior to leaving the site. When the site work and grading commences the proposed detention basins will be over dug 2'-4' as needed for sediment storage. Each basin will have a control post set with a mark at the cleanout elevation, at which time the basin will be cleaned out to the original grades by the contractor.
3. Revegetation: The site will consist of varying ground slopes upon completion of the grading activities and the slope areas prone to erosion will be seeded and strawed to stabilize the slope and prevent erosion. All finish grades (areas not to be disturbed by future improvements) in excess of twenty (20) percent slopes (5 horizontal to 1 vertical) shall be mulched and tacked as required in the Grading Ordinance.
4. Storm Inlet Protection: All storm water inlet structures shall be protected with silt control. These controls will be constructed in accordance with the latest details from the Wentzville Grading Ordinance.

C. MAINTENANCE AND INSPECTION:

Regular Maintenance. Weekly inspections of the project will be required and made available to the City of O'Fallon upon request.

Periodic Inspections. Following each rain of more than one quarter inch within 24 hours, the site will be inspected and any necessary repairs will be made. An inspection report is required to be completed also.

The field inspections will be conducted in a systematic manner to minimize the possibility of any significant feature being overlooked. Particular attention will be given to detecting evidence of erosion, slope instability, undue settlement, displacement, and filling. The field inspection will include appropriate features and items, including potential hazards to human life or property.

The condition of the slopes and vegetative cover will be evaluated and examined for erosion. The sediment basins will be examined for excessive sedimentation and increase in sediment loads, which would reduce the sediment basins capacity.

Measures will be taken to promote the growth of vegetation and repair of damage caused by erosion and sedimentation. The inspection will also provide any recommendations for measures that need to be undertaken immediately, based on the experience and judgment of the inspector. Necessary follow up inspections will be necessary to verify that any maintenance, alteration, or repair measures are accomplished by methods acceptable by standard engineering practice.

STORM WATER POLLUTION PREVENTION PLAN SITE NOTES:

- 1. A Pre-Construction conference will be scheduled with the City prior to the start of construction activities, including installation of the temporary construction entrance. The permittee will be responsible for notifying all contractors and other entities including utility crews that will perform work at the site to be in attendance.
2. The contractor shall install perimeter siltation control (silt fencing) and install the construction entrance.
3. Site then shall be cleared and stripped.
4. Contractor shall install additional silt fencing and any other sediment control measures as needed in order to control siltation on site.
5. Contractor shall maintain all siltation control devices and provide inspection reports as outlined.
6. Contractor shall finish grade all areas as soon as practical and establish permanent vegetative cover and/or install erosion control matting as shown.
7. During construction of site, the contractor shall maintain all drainage and erosion control structures as needed.
8. Contractor shall finish grade and install any final erosion control measures as project is completed as well as all permanent landscaping.
9. Contractor to notify City 2 days prior to start of any site work.
10. Refer to SWPPP Report for sediment controls construction, maintenance and inspection requirements.

Table 60-5 Soil Stabilization Schedule. Table with 2 columns: Soil Disturbance Activity or Condition, Required Stabilization Time. Rows include: Soil disturbance has ceased in areas greater than 2,000 square feet (14 days), After construction of dikes, swales, diversions, and other concentrated flow areas (5 days), When slopes are steeper than 3 horizontal to 1 vertical (7 days), When slopes are greater than 3% and longer than 150 feet (14 days), Perimeter control around soil stockpiles (End of work/day), Stabilization or covering of inactive stockpiles (30 days), When land disturbance is completed, permanent soil stabilization must be installed (30 days).

SPILL AND SITE POLLUTION:

Should an accidental spill occur refer to material safety data sheets. Any spills of hazardous materials in quantities in excess of reportable quantities as defined by EPA or the state agency regulations, shall be immediately reported to the EPA National Response Center (800-424-8802) and Missouri Department of Natural Resources (573-634-2436). Reportable spills for petroleum products is greater than 50 gallons. All other reportable hazardous materials and their quantities may be found on the web site at http://www.dnr.mo.gov on the local number is 573-849-9750. Federal law requires the responsible party to report any release of oil if it reaches or threatens a sewer, lake, creek, stream, river, groundwater, wetlands, or area like a road ditch, that drains into the above.

An emergency spill kit is required to be onsite for all potential spills.

PROJECT TITLE: AS-BUILT PLANS SHADY CREEK COMMERCIAL. Bax Project # 20-16154A Issue Date: 06/22/2023

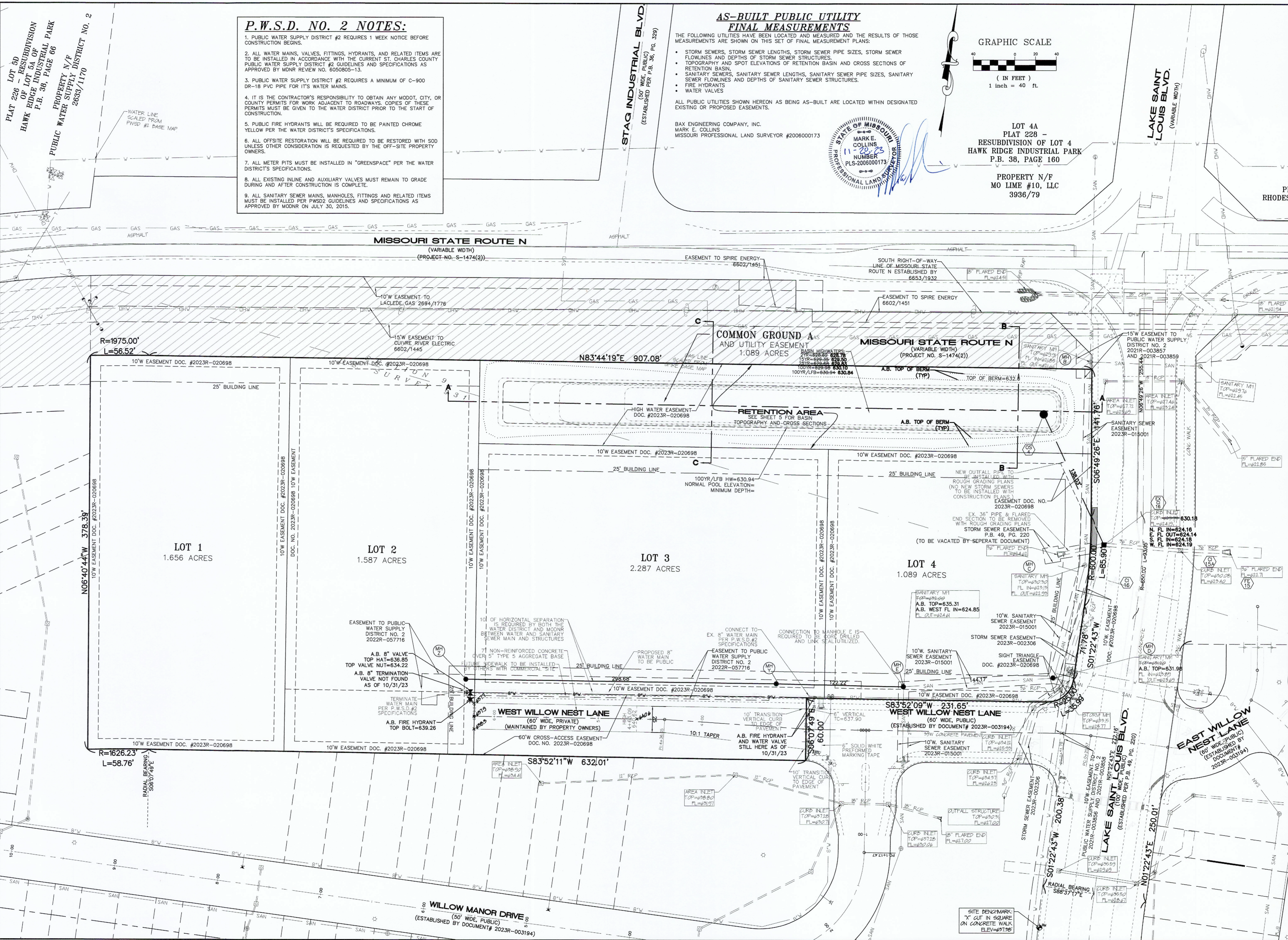
ENGINEERING PLANNING SURVEYING logo. 221 Park West Blvd. St. Charles, MO 63301. 636-928-5662 FAX 636-478-1718

DISCLAIMER OF RESPONSIBILITY: I hereby specify that the documents intended to be authenticated by my seal are limited to this sheet, and I hereby disclaim any responsibility for all other Drawings, Specifications, Estimates, Reports or other documents or instruments relating to or intended to be used for any part or parts of the architectural or engineering project or survey.

REVISIONS table with columns: Date, City Comment, Revisions. Rows: 11/02/23 CITY COMMENT REVS, 11/27/23 CITY COMMENT REVS.

Developer / Owner: JoAnn Griffith and Gary Kopack 8780 Highway N Lake Saint Louis, MO 63367 636-544-2128. CONSTRUCTION NOTES

P-HZ No. 22-004236 Approval Date: 10/07/2022 City No. CSP22-000027 Page No. 2 of 8



**P.W.S.D. NO. 2 NOTES:**

- PUBLIC WATER SUPPLY DISTRICT #2 REQUIRES 1 WEEK NOTICE BEFORE CONSTRUCTION BEGINS.
- ALL WATER MAINS, VALVES, FITTINGS, HYDRANTS, AND RELATED ITEMS ARE TO BE INSTALLED IN ACCORDANCE WITH THE CURRENT ST. CHARLES COUNTY PUBLIC WATER SUPPLY DISTRICT #2 GUIDELINES AND SPECIFICATIONS AS APPROVED BY MODNR REVIEW NO. 6050805-13.
- PUBLIC WATER SUPPLY DISTRICT #2 REQUIRES A MINIMUM OF C-900 DR-18 PVC PIPE FOR ITS WATER MAINS.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN ANY MODOT, CITY, OR COUNTY PERMITS FOR WORK ADJACENT TO ROADWAYS. COPIES OF THESE PERMITS MUST BE GIVEN TO THE WATER DISTRICT PRIOR TO THE START OF CONSTRUCTION.
- PUBLIC FIRE HYDRANTS WILL BE REQUIRED TO BE PAINTED CHROME YELLOW PER THE WATER DISTRICT'S SPECIFICATIONS.
- ALL OFFSITE RESTORATION WILL BE REQUIRED TO BE RESTORED WITH SOO UNLESS OTHER CONSIDERATION IS REQUESTED BY THE OFF-SITE PROPERTY OWNERS.
- ALL METER PITS MUST BE INSTALLED IN "GREENSPACE" PER THE WATER DISTRICT'S SPECIFICATIONS.
- ALL EXISTING INLINE AND AUXILIARY VALVES MUST REMAIN TO GRADE DURING AND AFTER CONSTRUCTION IS COMPLETE.
- ALL SANITARY SEWER MAINS, MANHOLES, FITTINGS AND RELATED ITEMS MUST BE INSTALLED PER PWSO2 GUIDELINES AND SPECIFICATIONS AS APPROVED BY MODNR ON JULY 30, 2015.

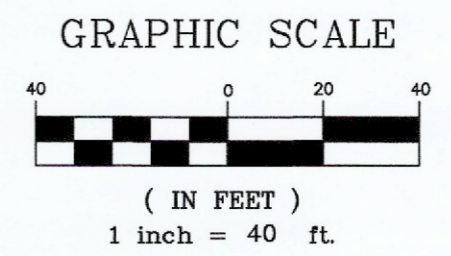
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BAX ENGINEERING COMPANY, INC.  
 MARK E. COLLINS  
 MISSOURI PROFESSIONAL LAND SURVEYOR #2008000173



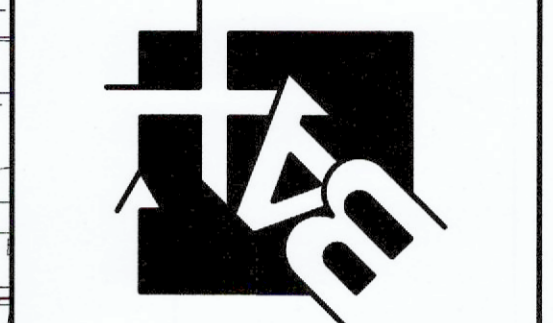
LOT 4A  
 PLAT 228 -  
 RESUBDIVISION OF LOT 4  
 HAWK RIDGE INDUSTRIAL PARK  
 P.B. 38, PAGE 160

PROPERTY N/F  
 MO LIME #10, LLC  
 3936/79

**PROJECT TITLE:**  
**AS-BUILT PLANS**  
**SHADY CREEK**  
**COMMERCIAL**

**ENGINEERING**  
**PLANNING**  
**SURVEYING**

221 Point West Blvd.  
 St. Charles, MO 63301  
 636-938-6562  
 FAX 636-938-1716



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**REVISIONS**

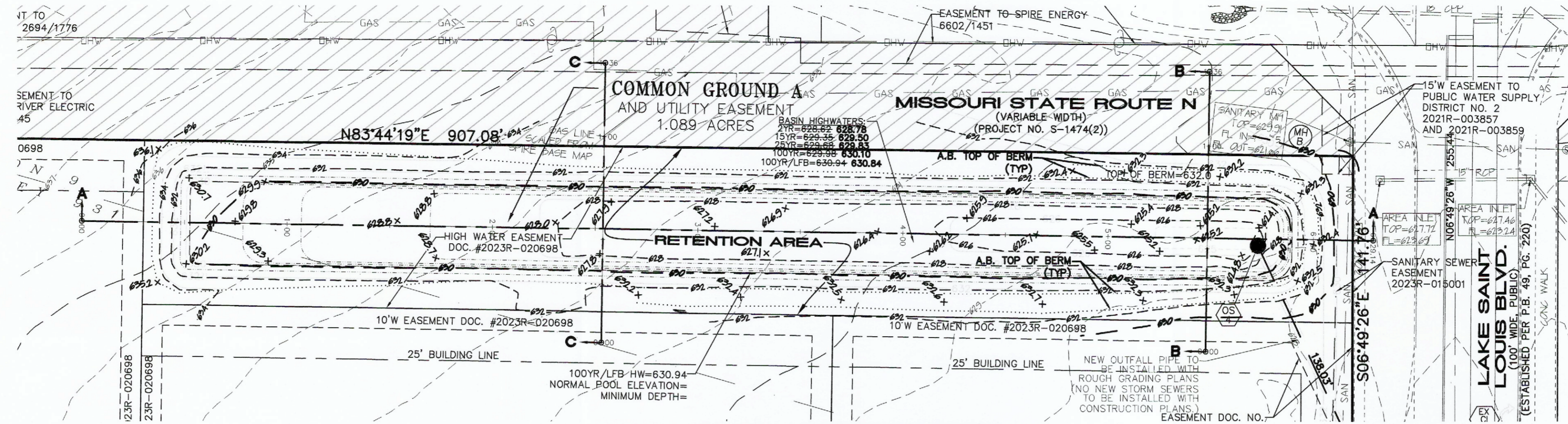
11/02/23	CITY COMMENT REV.
11/27/23	CITY COMMENT REV.

**Developer / Owner:**  
 JoAnn Griffith and Gary Kopadt  
 8780 Highway N  
 Lake Saint Louis, MO 63367  
 636-544-2128

**SITE PLAN**

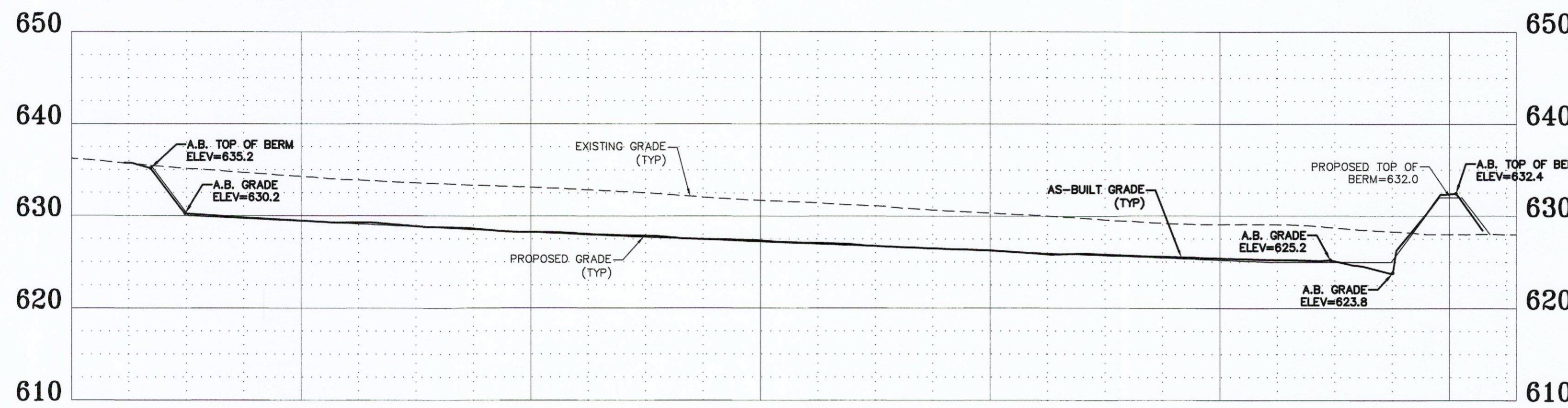
**P+Z No.** 22-004236  
**Approval Date:** 10/07/2022  
**City No.** CSP22-000027  
**Page No.** 3 of 8

Box Project # 20-8654A Issue Date: 08/25/2023



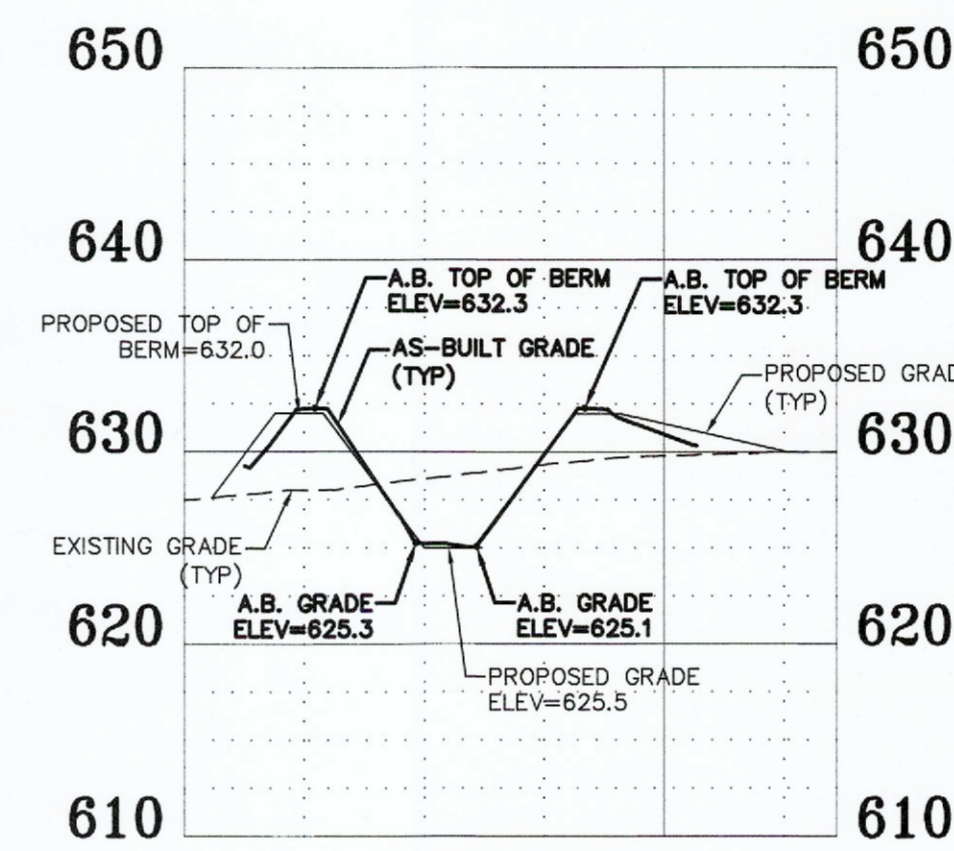
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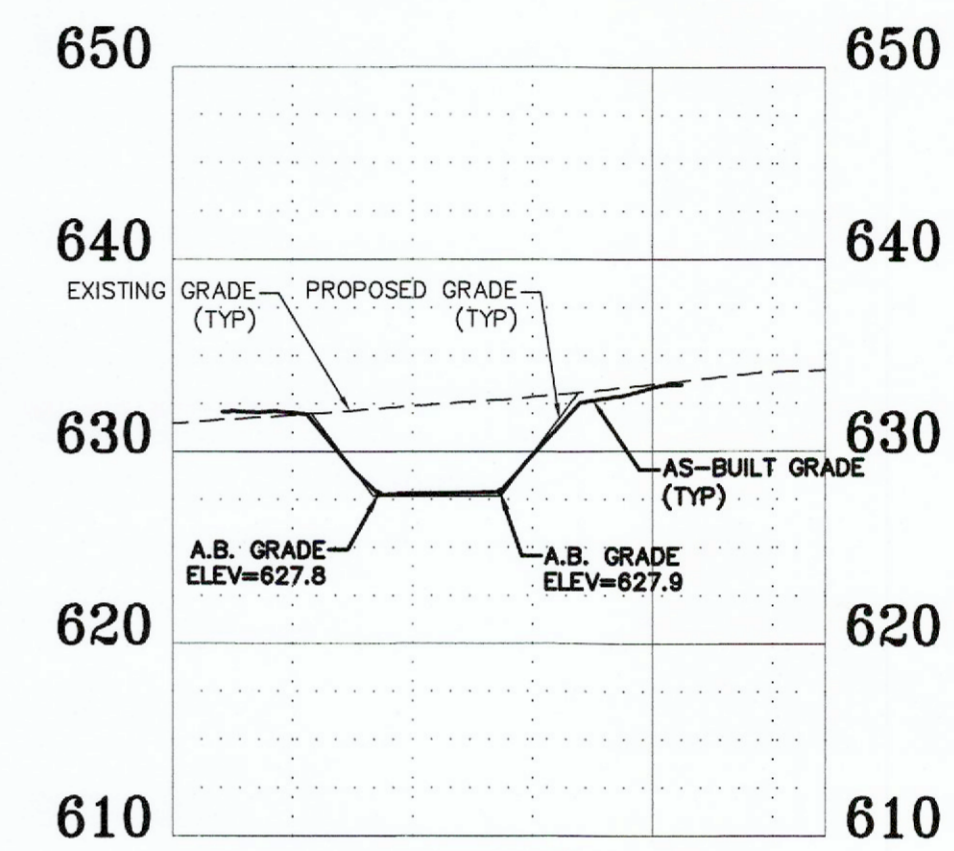
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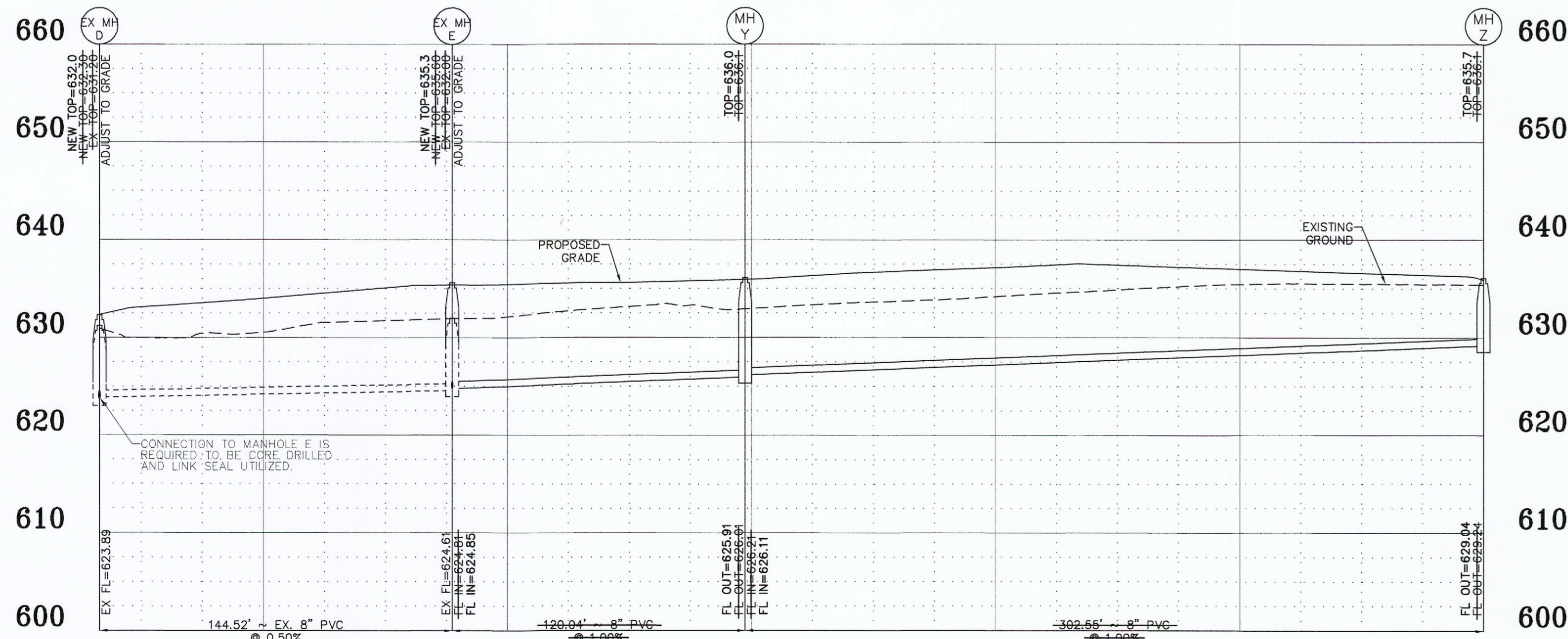
**BASIN SECTION B-B**

SCALE:  
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VERT. 1"=10'



**BASIN SECTION C-C**

SCALE:  
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VERT. 1"=10'



**SANITARY SEWER PROFILE**

SCALE:  
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VERT. 1"=10'

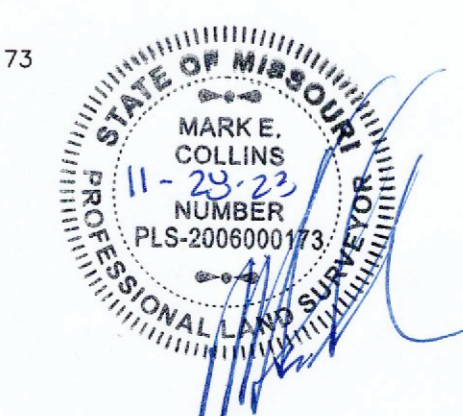
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BAX ENGINEERING COMPANY, INC.  
MARK E. COLLINS  
MISSOURI PROFESSIONAL LAND SURVEYOR #200600173



**PROJECT TITLE:**  
**AS-BUILT PLANS**  
**SHADY CREEK**  
**COMMERCIAL**

**ENGINEERING PLANNING SURVEYING**  
221 Point West Blvd.  
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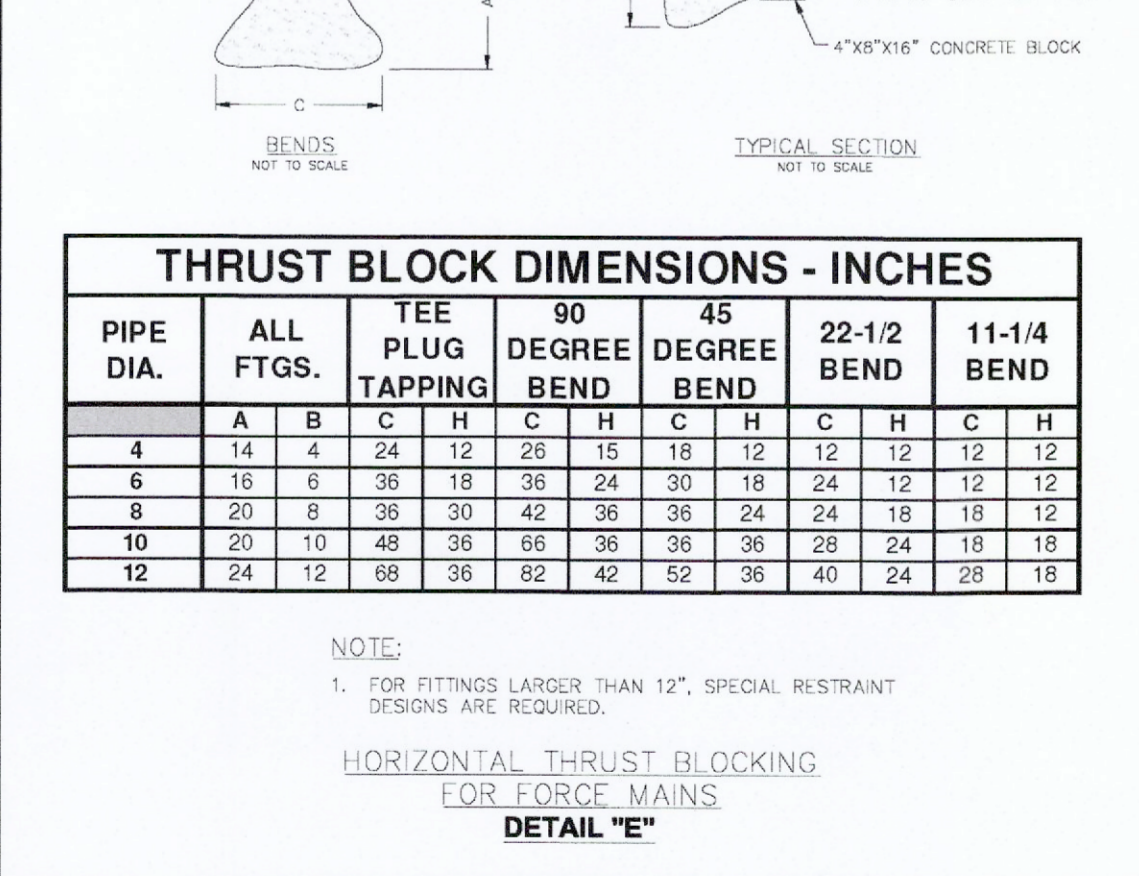
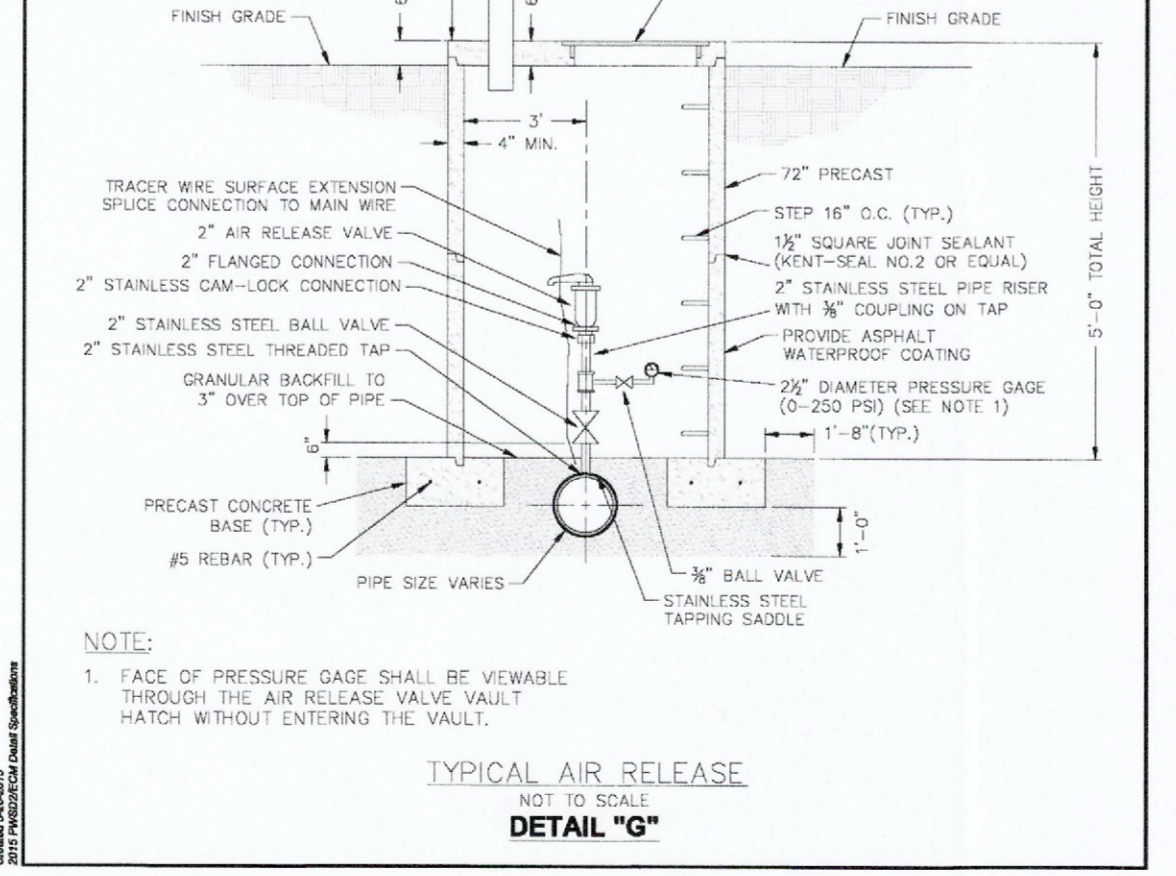
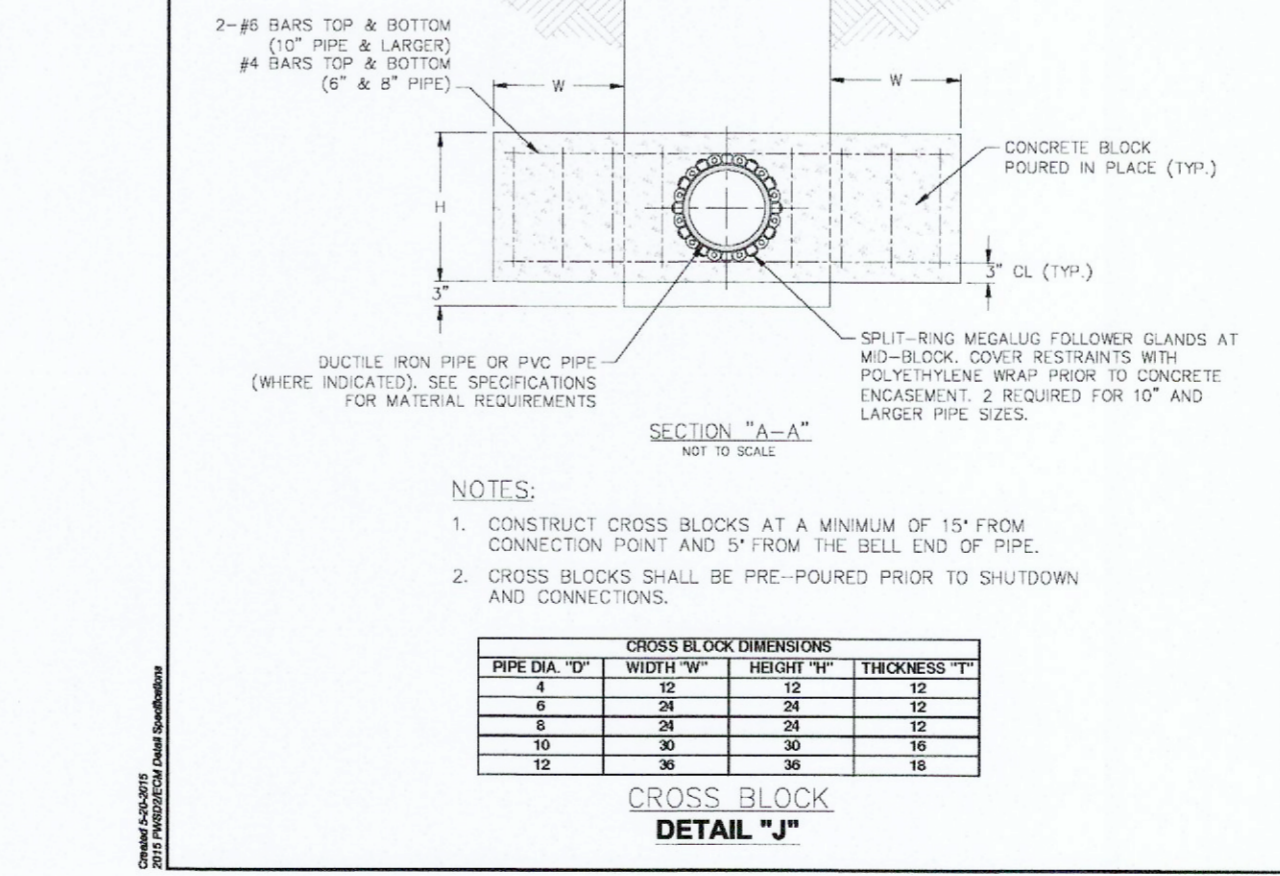
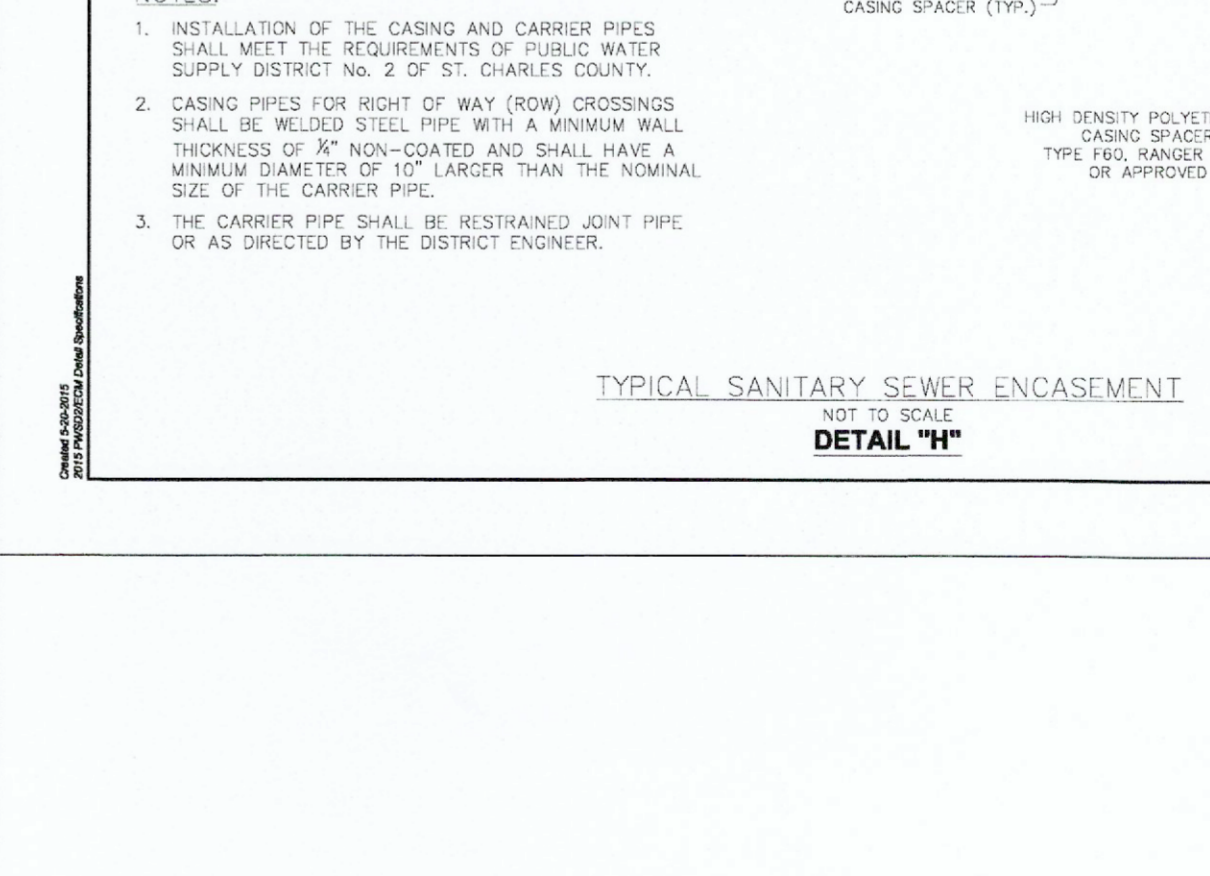
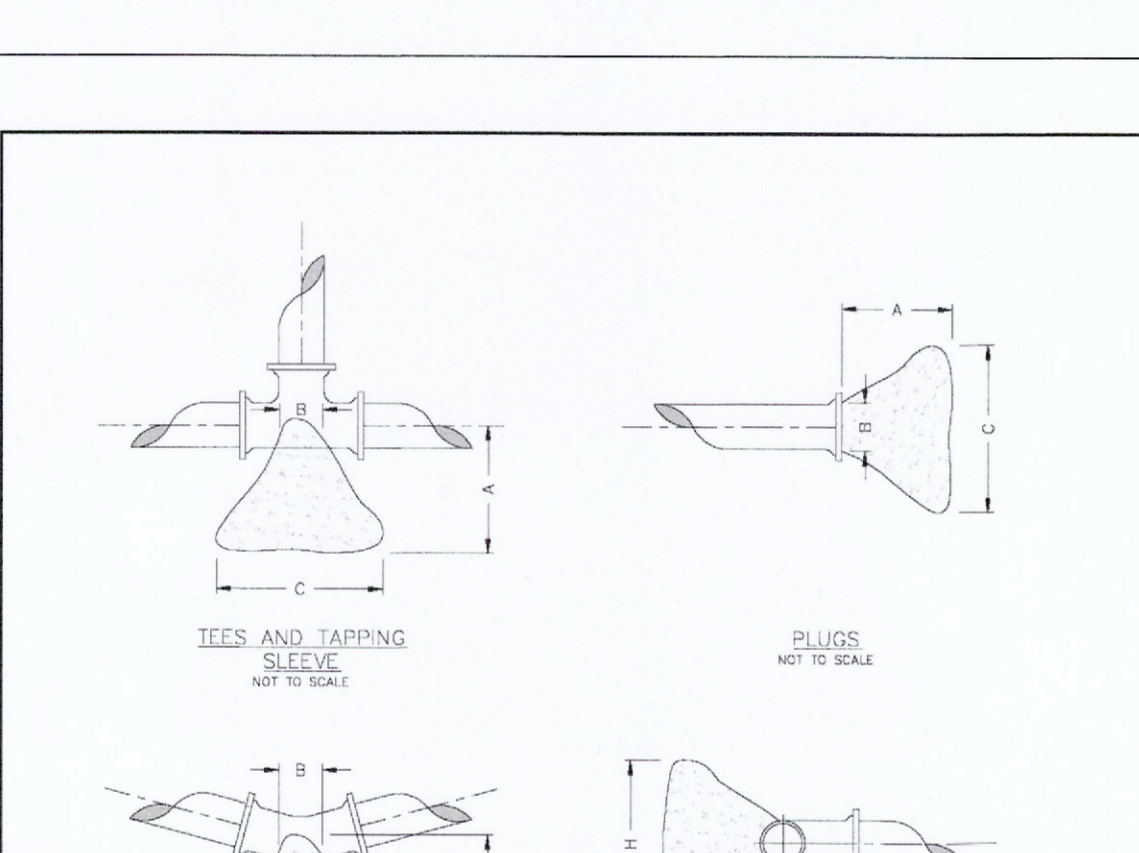
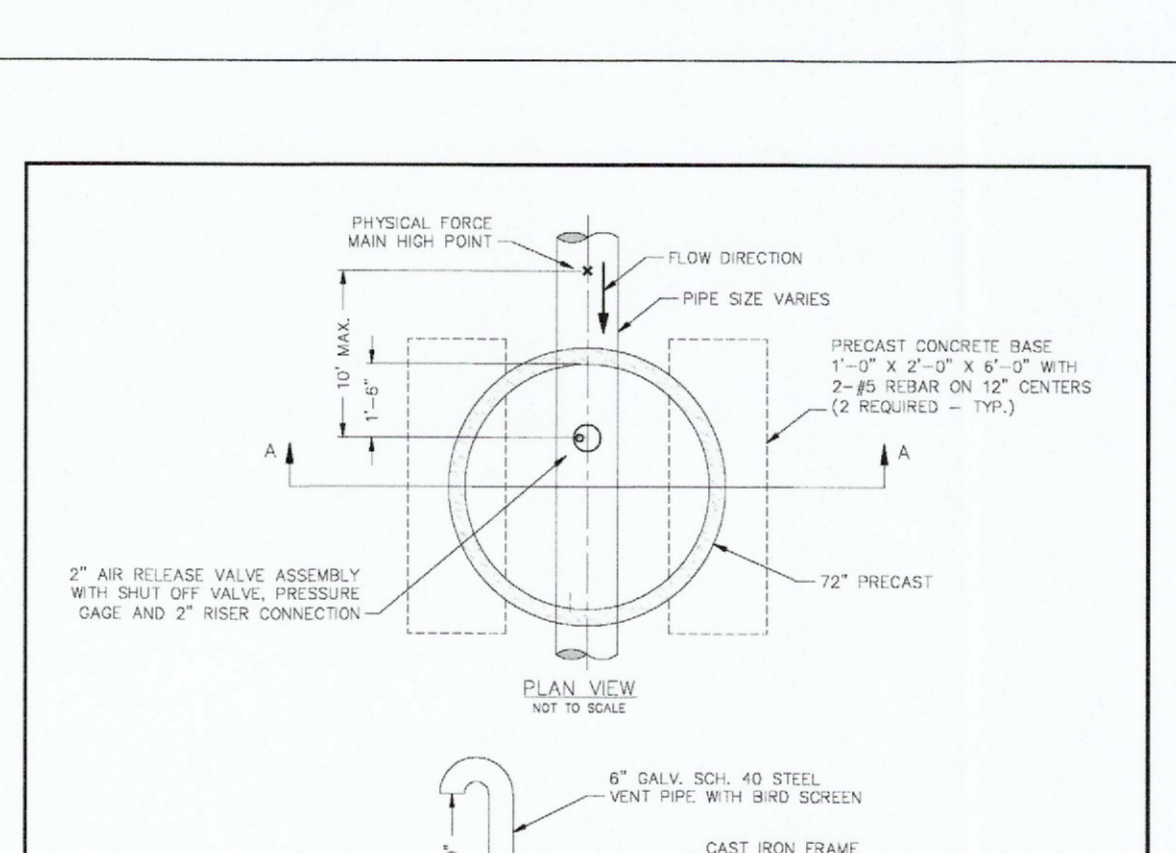
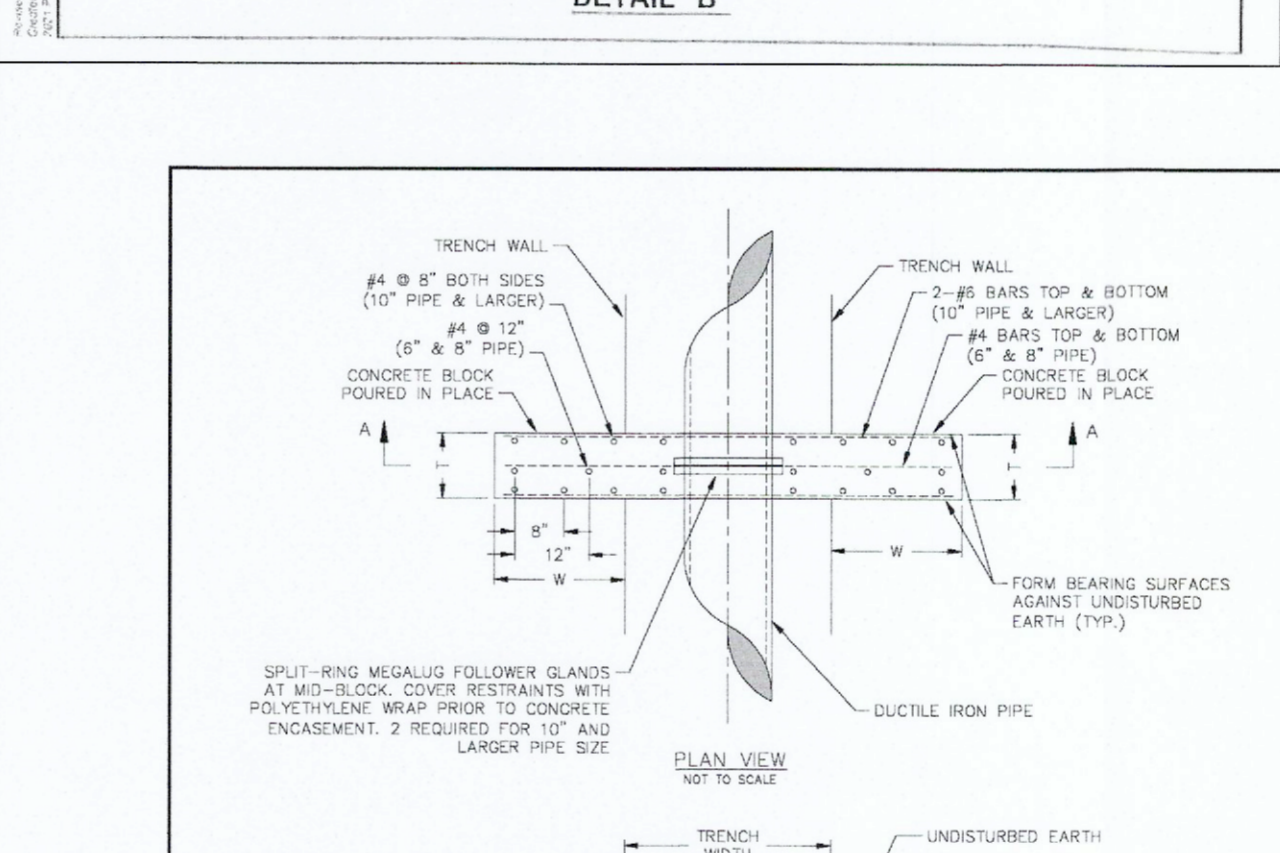
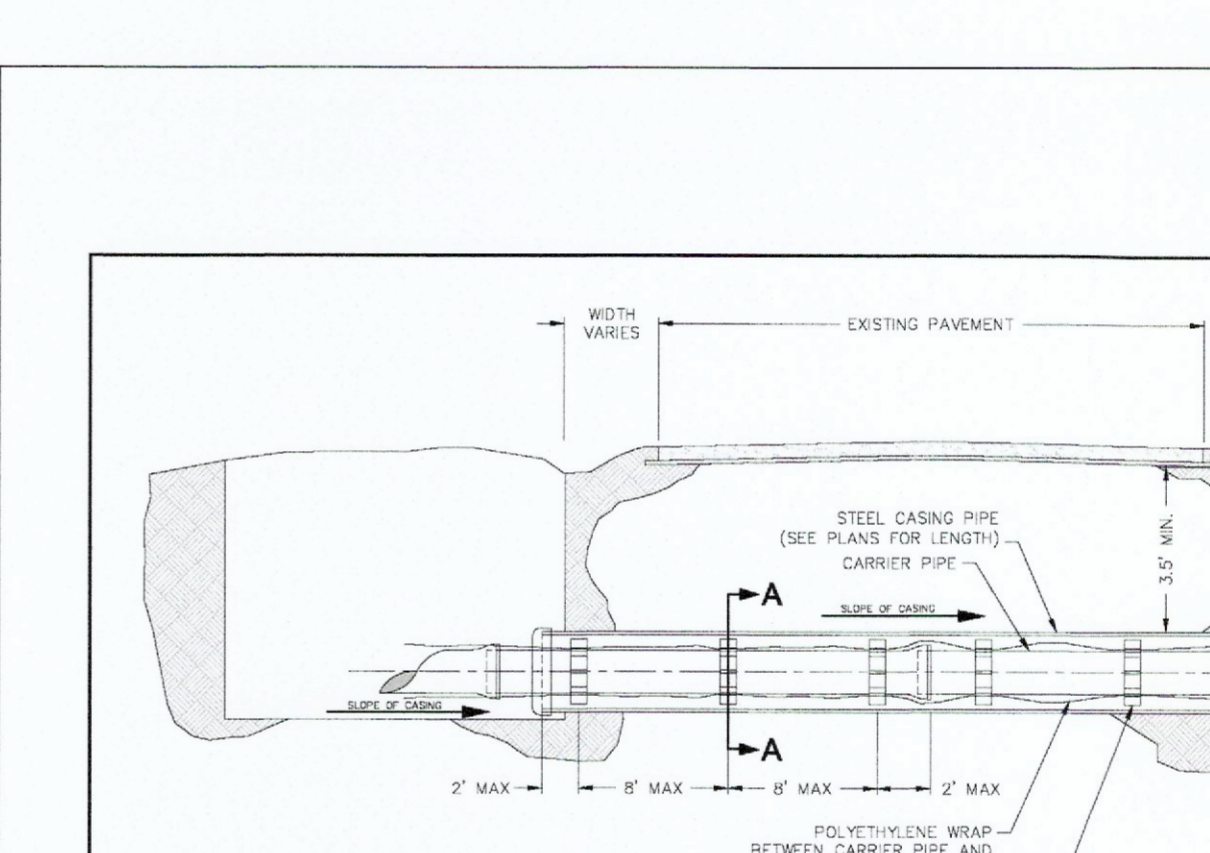
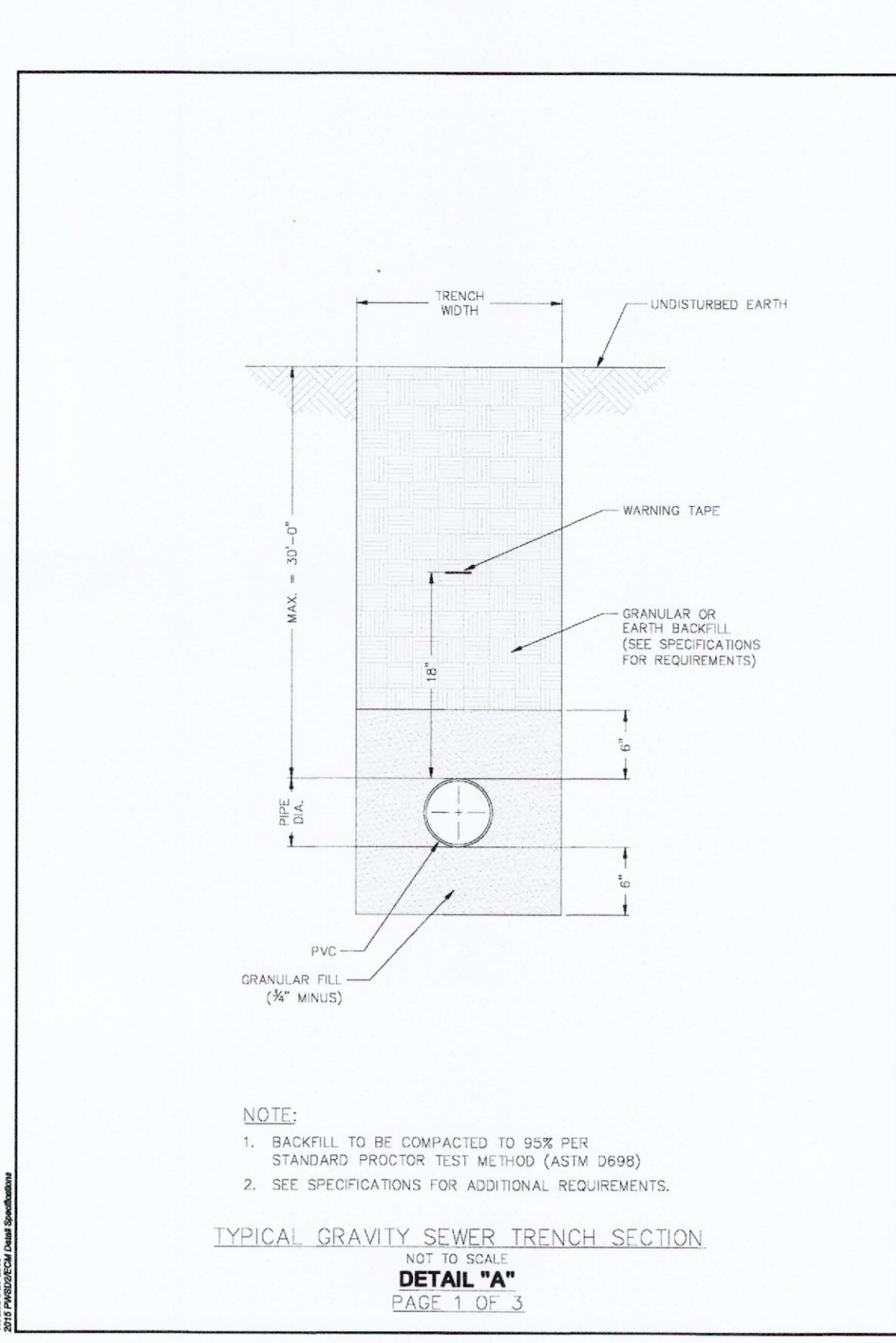
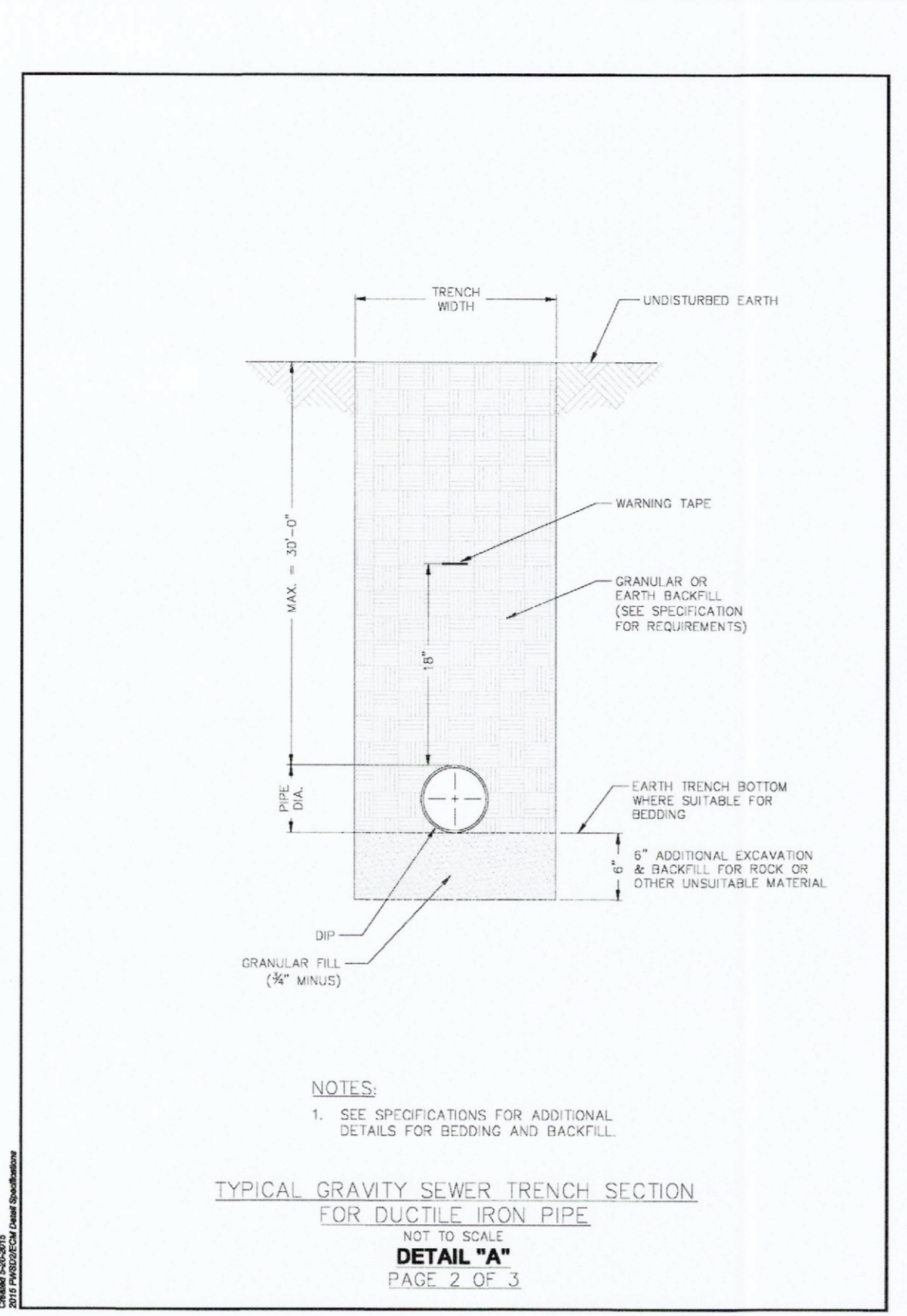
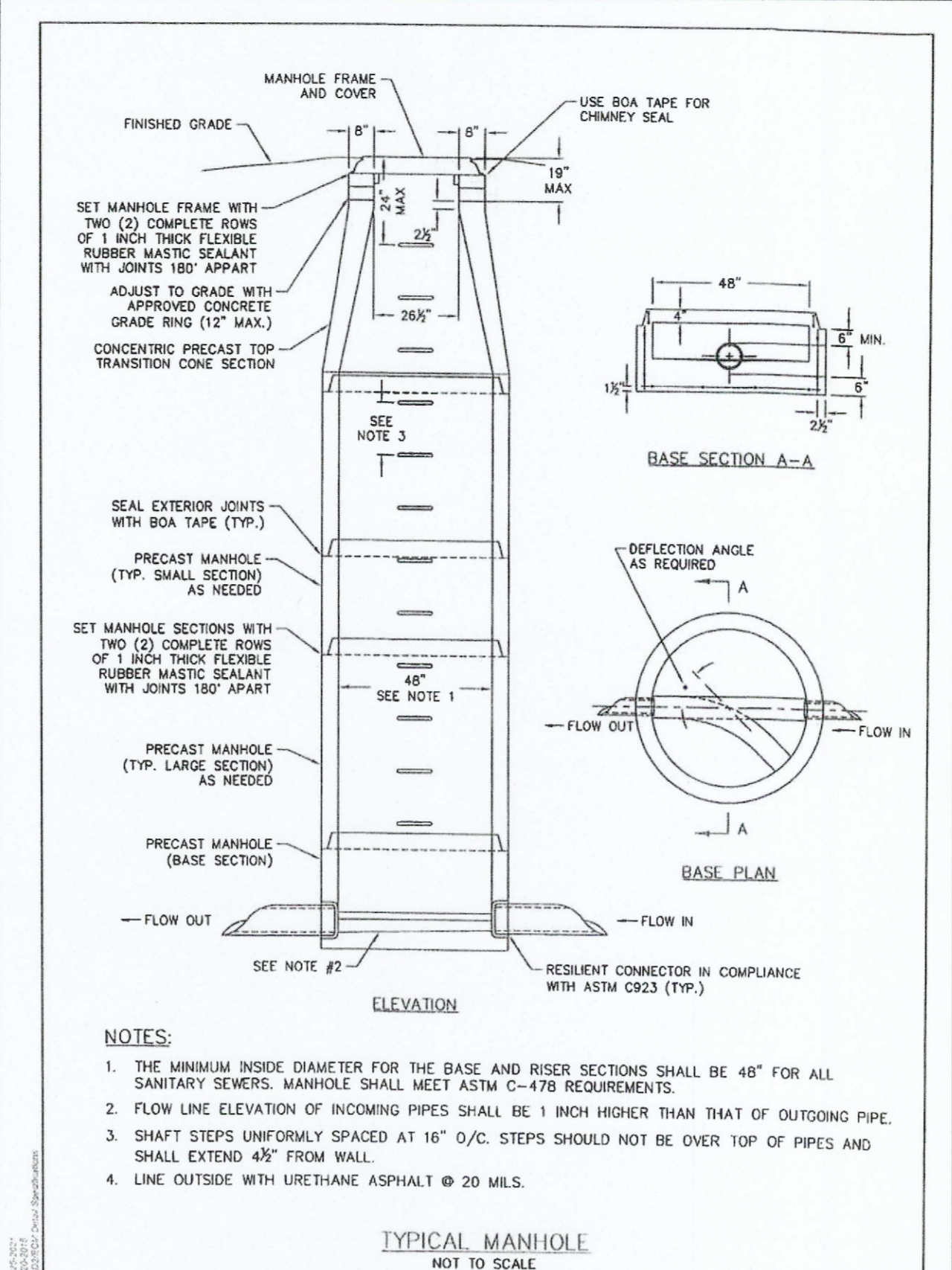
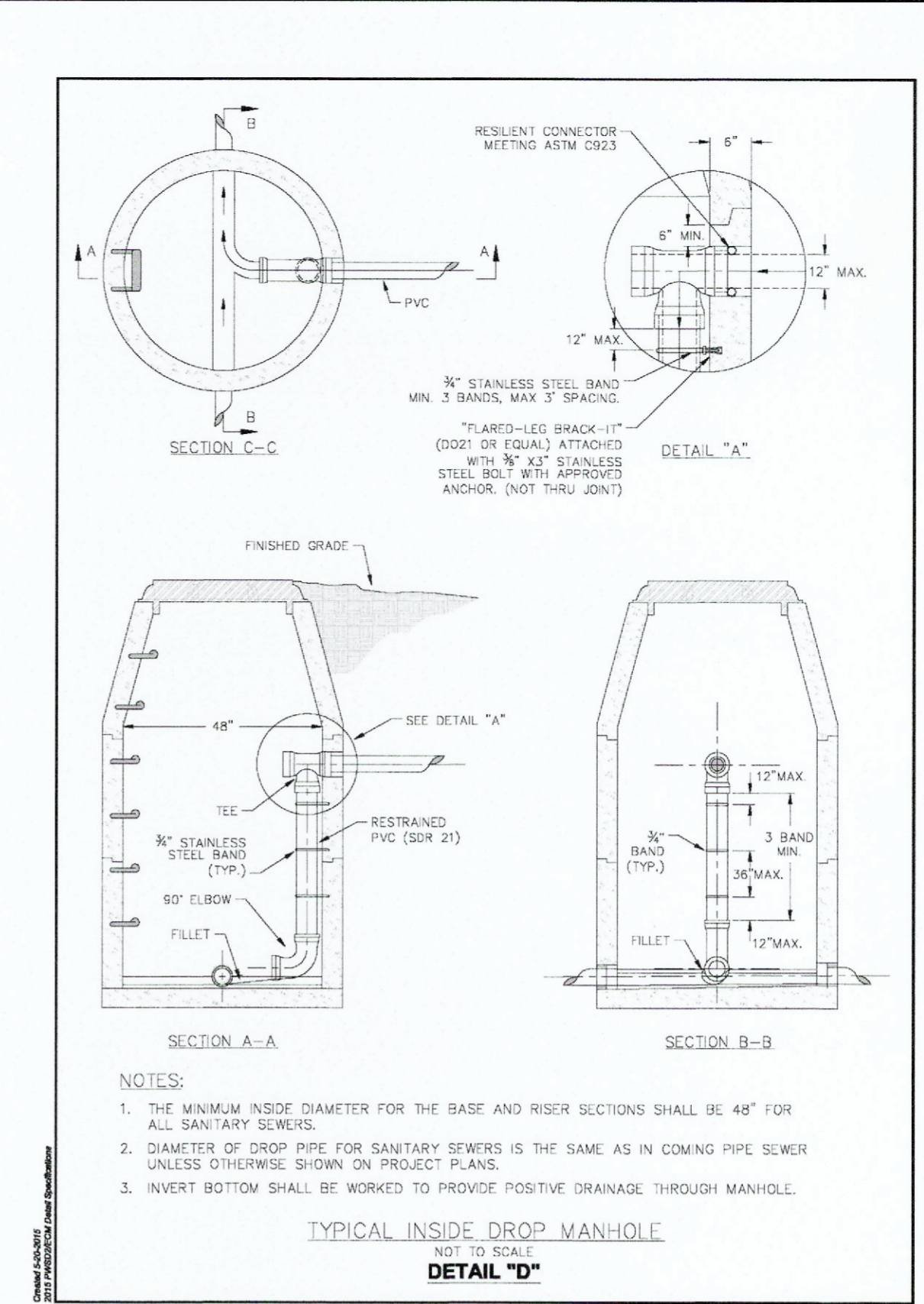
**Developer / Owner:**  
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636-544-2128

**SANITARY SEWER PROFILE  
AND BASIN SECTIONS**

**P+Z No.** 22-004236  
**Approval Date:** 10/07/2022  
**City No.** CSP22-000027

**Page No.**  
5 of 8

Issue Date: 08/22/2023

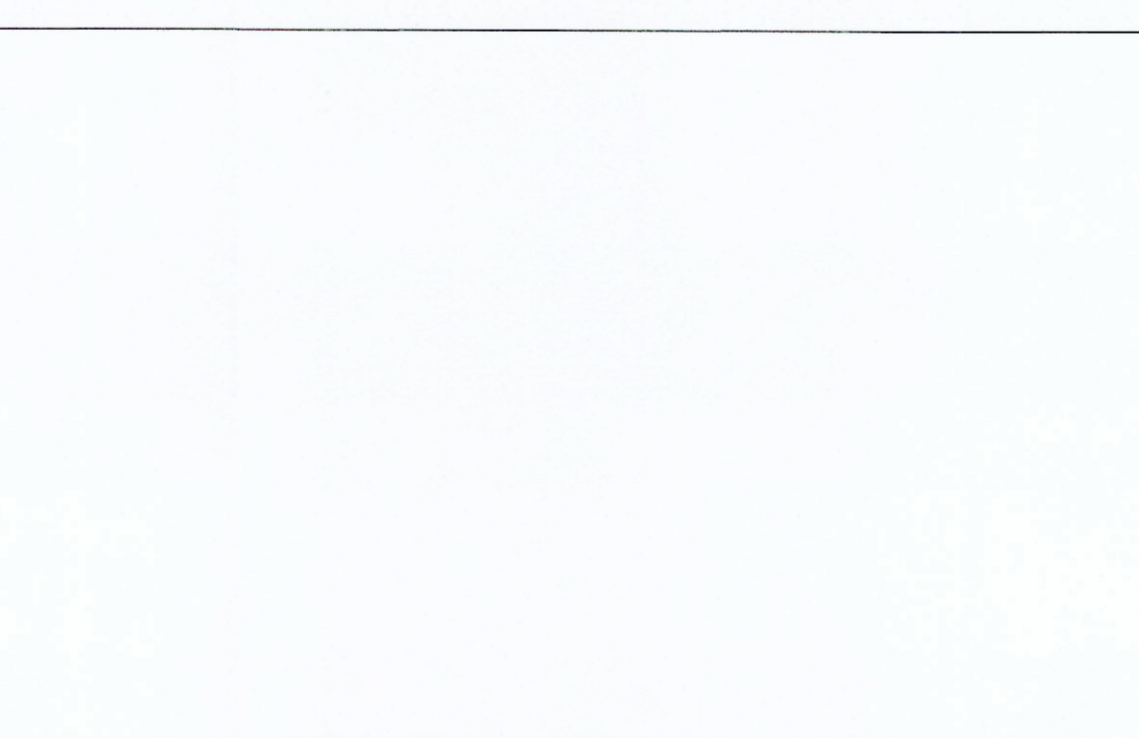
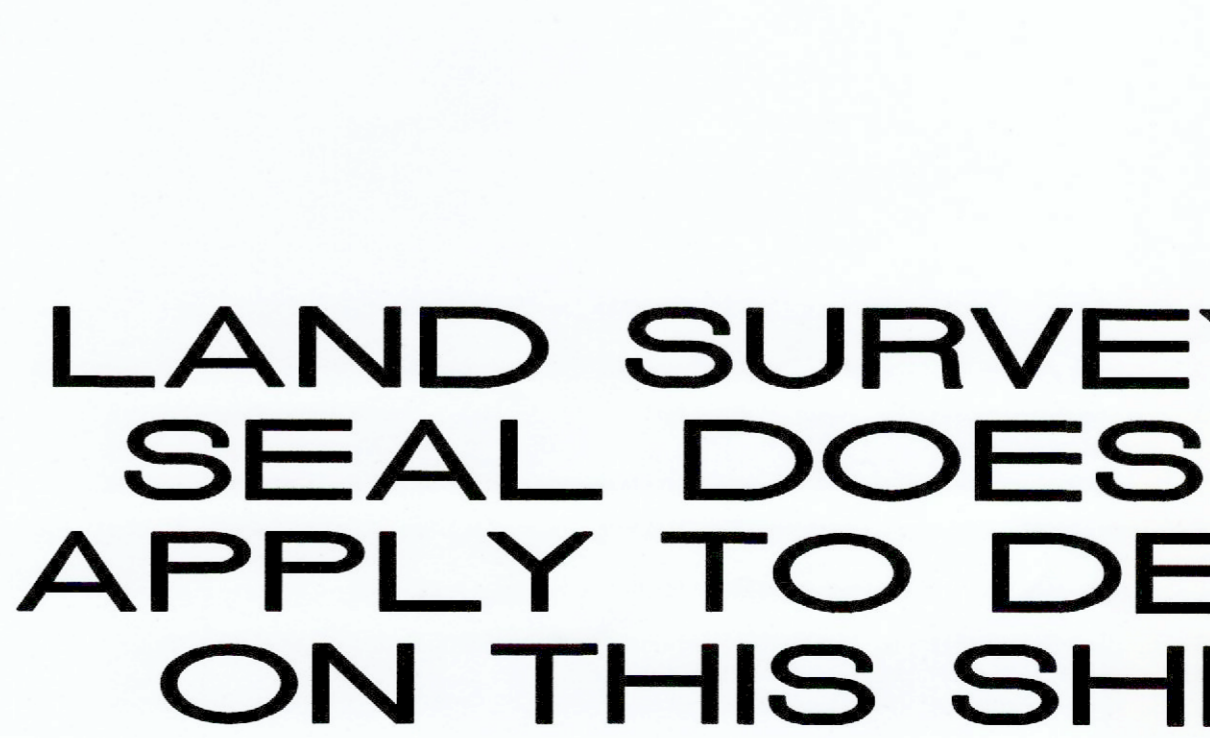
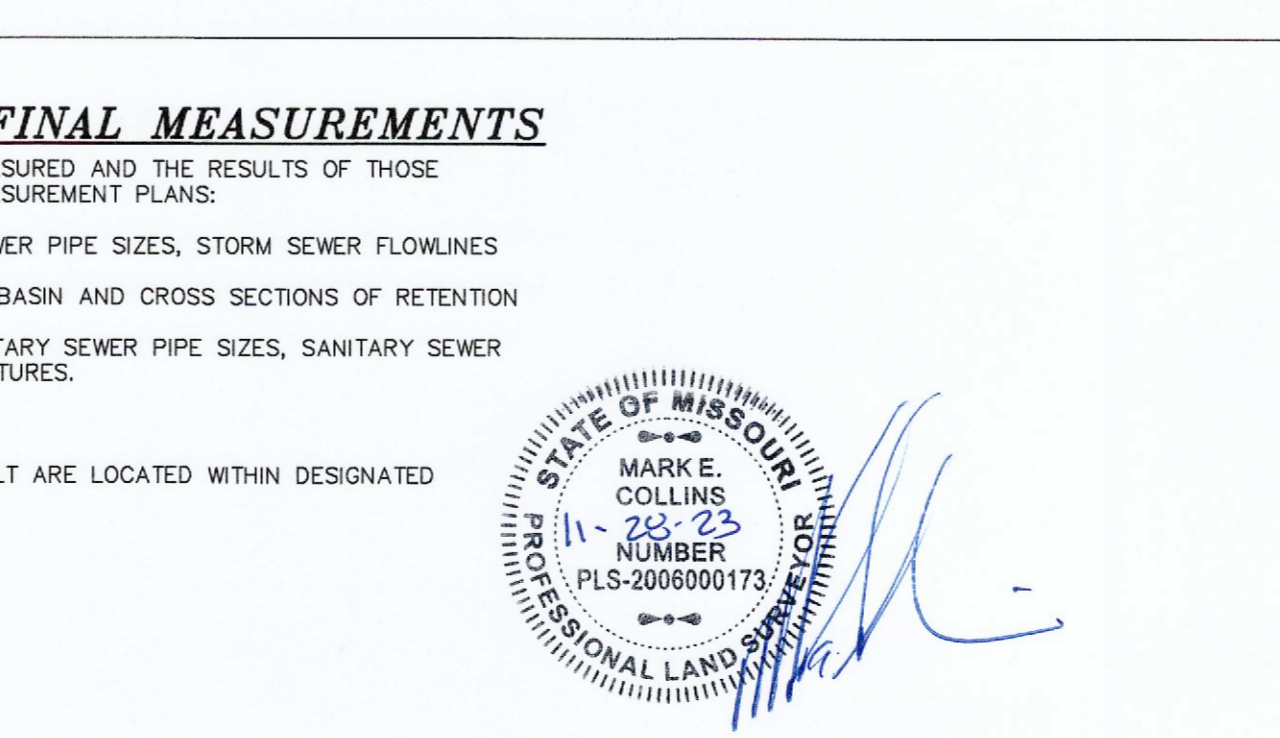
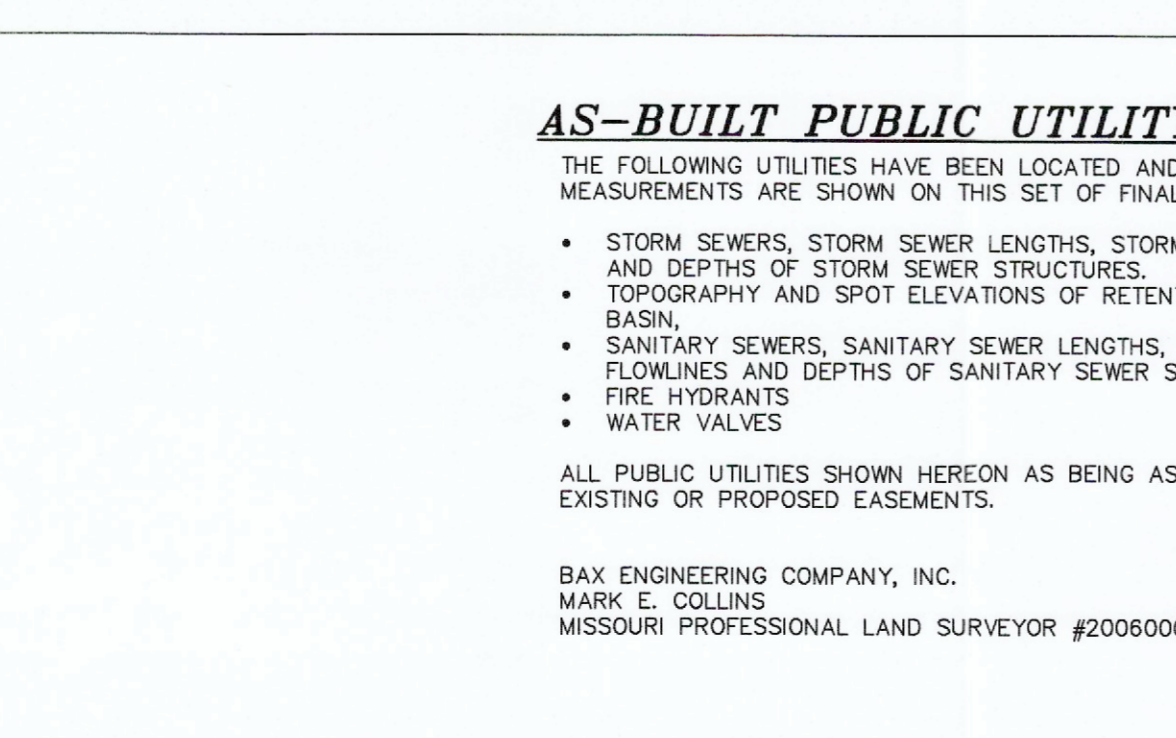


**THRUST BLOCK DIMENSIONS - INCHES**

PIPE DIA.	ALL FTGS.		TEE PLUG TAPPING		90 DEGREE BEND		45 DEGREE BEND		22-1/2 BEND		11-1/4 BEND	
	A	B	C	H	C	H	C	H	C	H	C	H
4	14	4	24	12	26	15	18	12	12	12	12	12
6	16	6	36	18	36	24	30	18	24	12	12	12
8	20	8	36	30	42	36	36	24	24	18	18	12
10	20	10	48	36	66	36	36	28	24	18	18	18
12	24	12	68	36	82	42	52	36	40	24	28	18

**NOTE:**  
 1. FOR FITTINGS LARGER THAN 12", SPECIAL RESTRAINT DESIGNS ARE REQUIRED.

**HORIZONTAL THRUST BLOCKING FOR FORCE MAINS**  
 DETAIL "E"



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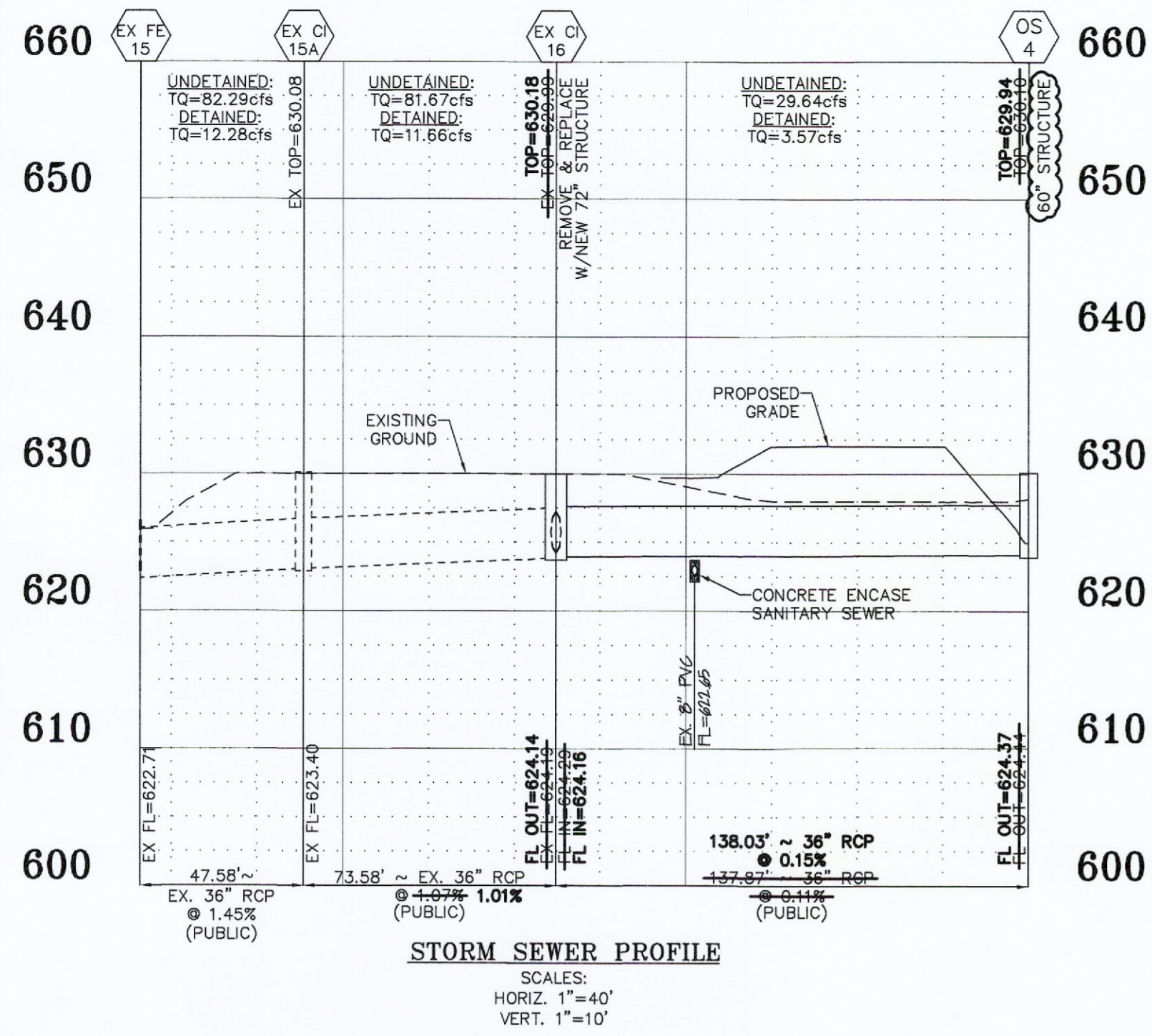
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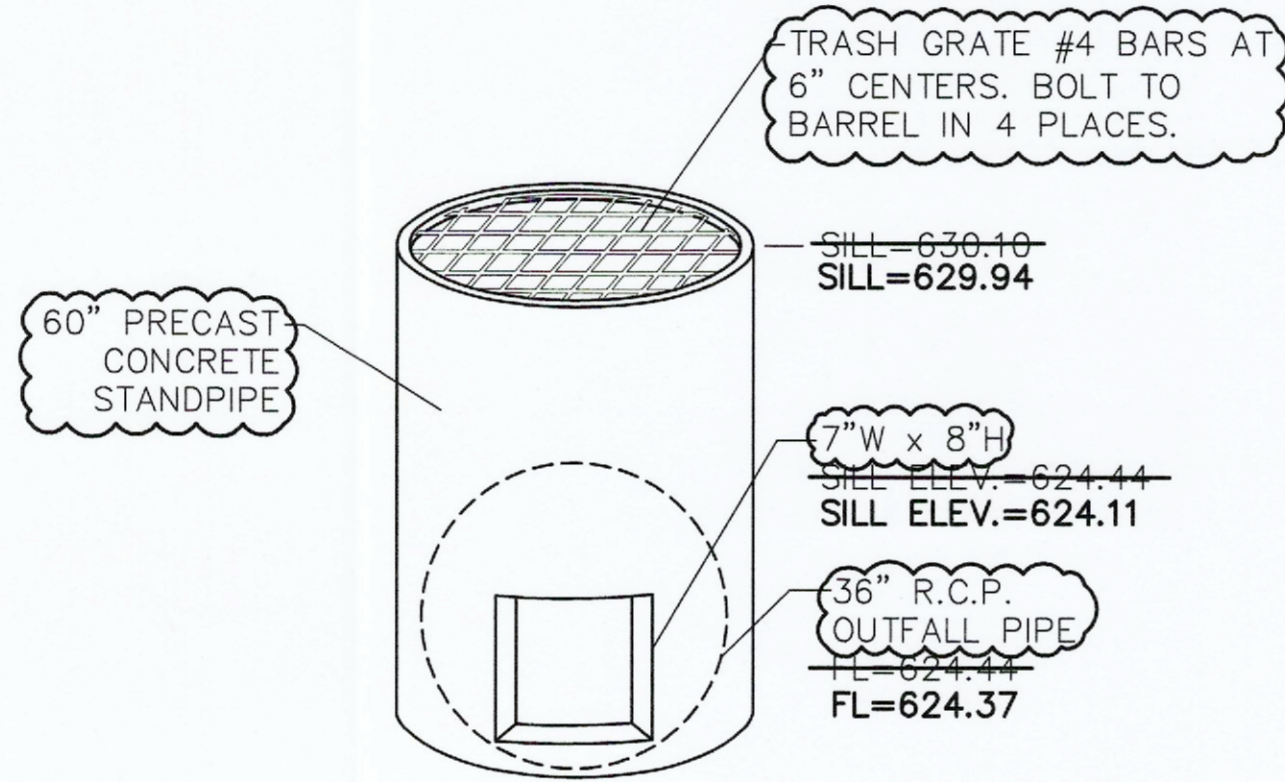
BAX ENGINEERING COMPANY, INC.  
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 MISSOURI PROFESSIONAL LAND SURVEYOR #2006000173



**LAND SURVEYOR'S SEAL DOES NOT APPLY TO DETAILS ON THIS SHEET**

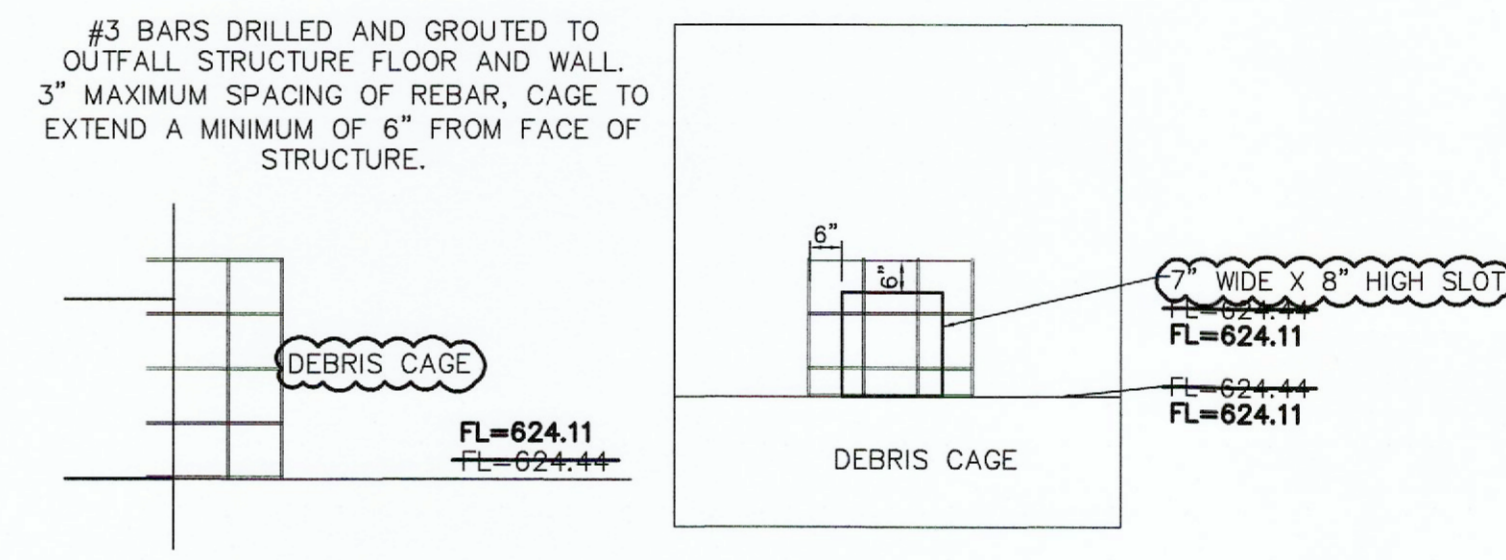


**STORM SEWER PROFILE**  
 SCALES:  
 HORIZ. 1"=40'  
 VERT. 1"=10'

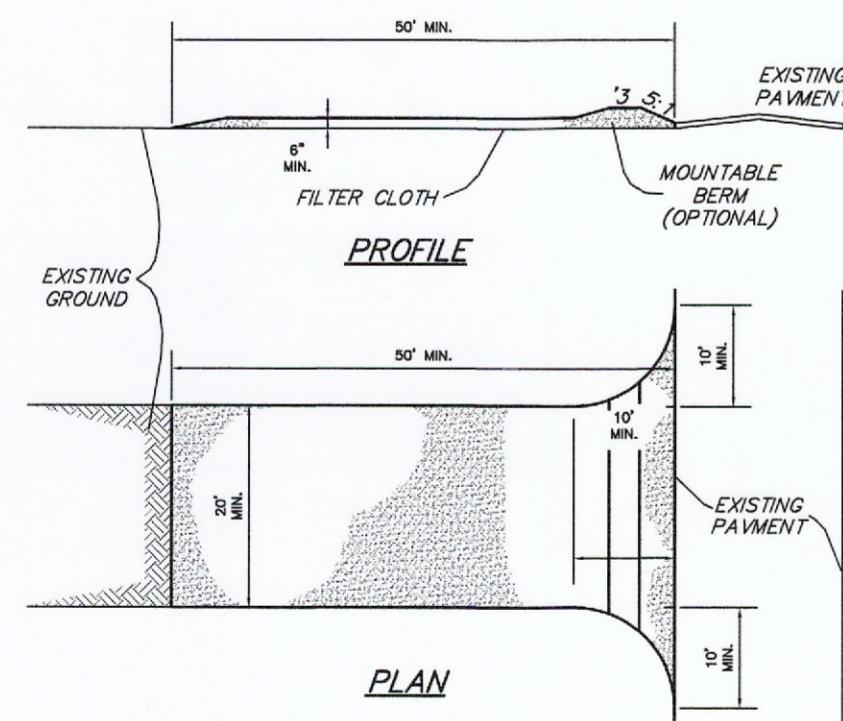


**DRY BASIN OVERFLOW STRUCTURE 4 DETAIL**  
 NOT TO SCALE

2 YEAR 20 MINUTE HIGHWATER = ~~628.62~~ 628.78  
 15 YEAR 20 MINUTE HIGHWATER = ~~629.36~~ 629.50  
 25 YEAR 20 MINUTE HIGHWATER = ~~629.68~~ 629.83  
 100 YEAR 20 MINUTE HIGHWATER = ~~629.98~~ 630.10  
 100 YEAR 20 MINUTE LFB HIGHWATER = ~~630.94~~ 630.84

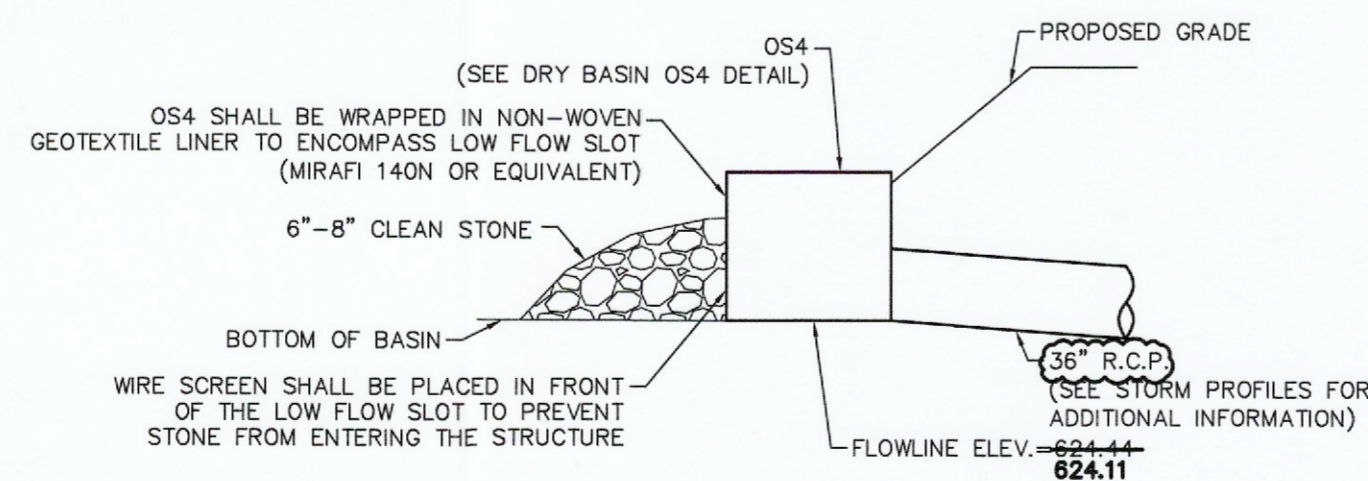


**DEBRIS CAGE OS 4 LOWER SLOT**  
 NOT TO SCALE



- CONSTRUCTION SPECIFICATIONS**
1. Stone Size - Use 2" stone, or reclaimed or recycled concrete equivalent.
  2. Length - As required, but not less than 50 feet (except on a single residence lot where a 30 foot minimum length would apply).
  3. Thickness - Not less than six (6) inches.
  4. Width - Twenty (20) foot minimum, but not less than the full width at points where ingress or egress occurs.
  5. Filter Cloth - Will be placed over the entire area prior to placing of stone. Filter will not be required on a single family residence lot.
  6. Surface Water - All surface water flowing or diverted toward construction entrances shall be piped across the entrance. If piping is impractical, a mountable berm with 5:1 slopes will be permitted.
  7. Maintenance - The entrance shall be maintained in a condition which will prevent tracking or flowing of sediment onto public rights-of-way. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanout of any measures used to trap sediment. All sediment spilled, dropped, washed or tracked onto public rights-of-way must be removed immediately.
  8. Washing - Wheels shall be cleaned to remove sediment prior to entrance onto public rights-of-way. When washing is required, it shall be done on an area stabilized with stone and which drains into an approved sediment trapping device.
  9. Periodic inspection and needed maintenance shall be provided after each rain.

**STABILIZED CONSTRUCTION ENTRANCE/WASHDOWN AREA**  
 NOT TO SCALE



**OS4 SEDIMENT CONTROL**  
 NOT TO SCALE

- NOTE:
1. OS4 SEDIMENT CONTROL SHALL BE PUT INTO PLACE IMMEDIATELY AFTER THE CONSTRUCTION OF OS4.
  2. OS4 SEDIMENT CONTROL SHALL BE IN PLACE UNTIL THE ENTIRE COMPLETION OF ALL PROPOSED DEVELOPMENTS AT SHADY CREEK.
  3. AFTER COMPLETION OF ALL PROPOSED DEVELOPMENTS AT SHADY CREEK, OS4 SEDIMENT CONTROL MEASURES SHALL BE DEMOLISHED.
  4. DEBRIS CAGE AS DISPLAYED IN DEBRIS CAGE OS4 LOWER SLOT DETAIL SHALL BE CONSTRUCTED AFTER THE DEMOLITION OF OS4 SEDIMENT CONTROL MEASURES.

**AS-BUILT PUBLIC UTILITY  
 FINAL MEASUREMENTS**

THE FOLLOWING UTILITIES HAVE BEEN LOCATED AND MEASURED AND THE RESULTS OF THOSE MEASUREMENTS ARE SHOWN ON THIS SET OF FINAL MEASUREMENT PLANS:

- STORM SEWERS, STORM SEWER LENGTHS, STORM SEWER PIPE SIZES, STORM SEWER FLOWLINES AND DEPTHS OF STORM SEWER STRUCTURES.
- SANITARY SEWERS, SANITARY SEWER LENGTHS, SANITARY SEWER PIPE SIZES, SANITARY SEWER FLOWLINES AND DEPTHS OF SANITARY SEWER STRUCTURES.
- FIRE HYDRANTS.
- WATER VALVES
- TOPOGRAPHY OF THE RETENTION BASIN

ALL PUBLIC UTILITIES SHOWN HEREON AS BEING AS-BUILT ARE LOCATED WITHIN DESIGNATED EXISTING OR PROPOSED EASEMENTS.

BAX ENGINEERING COMPANY, INC.  
 MARK E. COLLINS  
 MISSOURI PROFESSIONAL LAND SURVEYOR #2006000173



**PROJECT TITLE:**  
**AS-BUILT PLANS  
 SHADY CREEK  
 COMMERCIAL**

**ENGINEERING  
 SURVEYING**  
 221 Point West Blvd.  
 St. Charles, MO 63301  
 636-625-6562  
 FAX 636-625-1718



**DISCLAIMER OF RESPONSIBILITY**  
 I hereby specify that the documents intended to be authorized by my seal are limited to this sheet, and I hereby disclaim any responsibility for all other drawings, specifications, estimates, reports or other documents or instruments relating to or intended to be used for any part or parts of the architectural or engineering project or survey.

**REVISIONS**

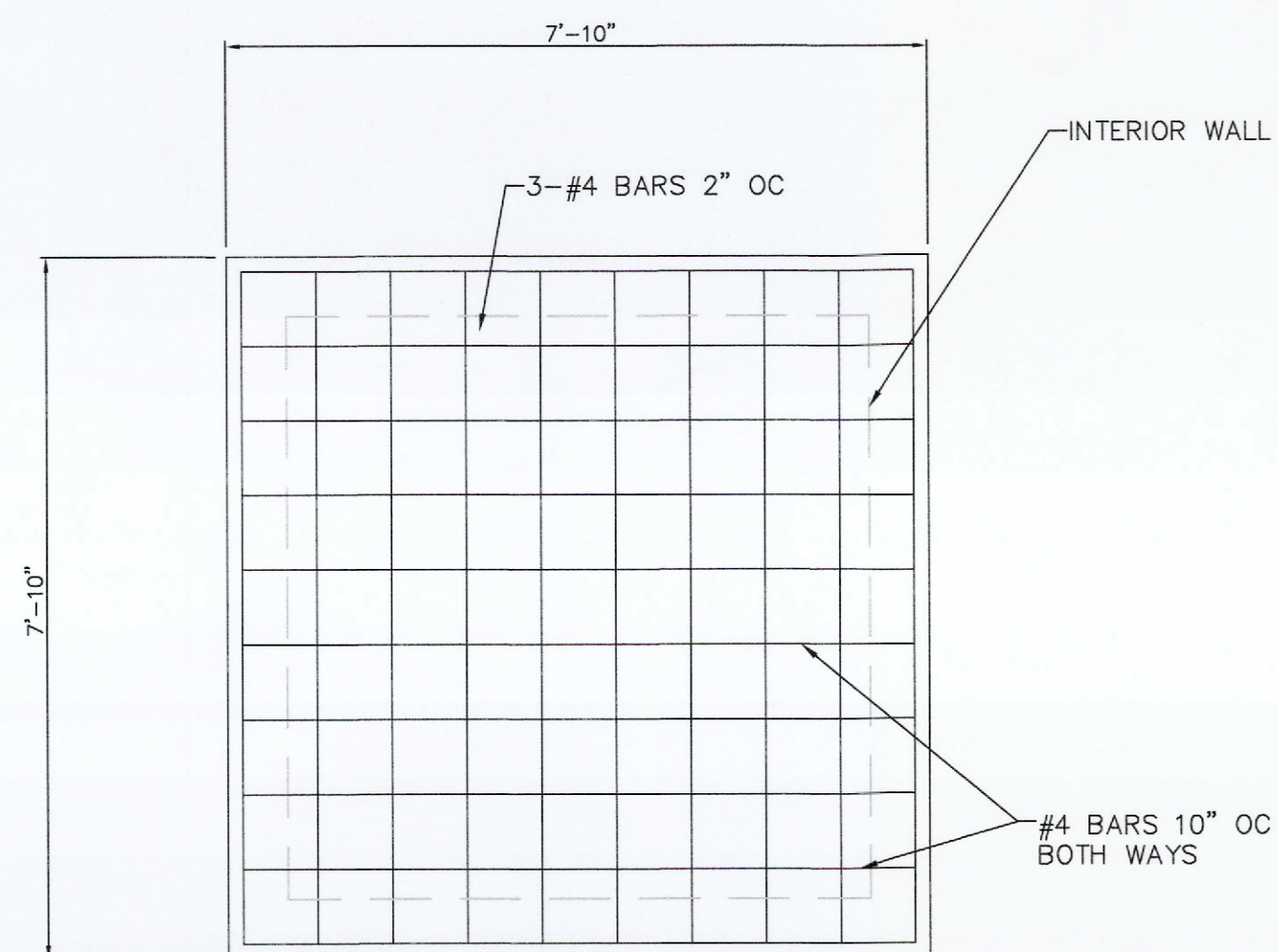
DATE	REVISION
11/02/23	CITY COMMENT REVS.
11/27/23	CITY COMMENT REVS.

**Developer / Owner:**  
 JoAnn Griffith and Gary Kopack  
 8780 Highway N  
 Lake Saint Louis, MO 63367  
 636-544-2128

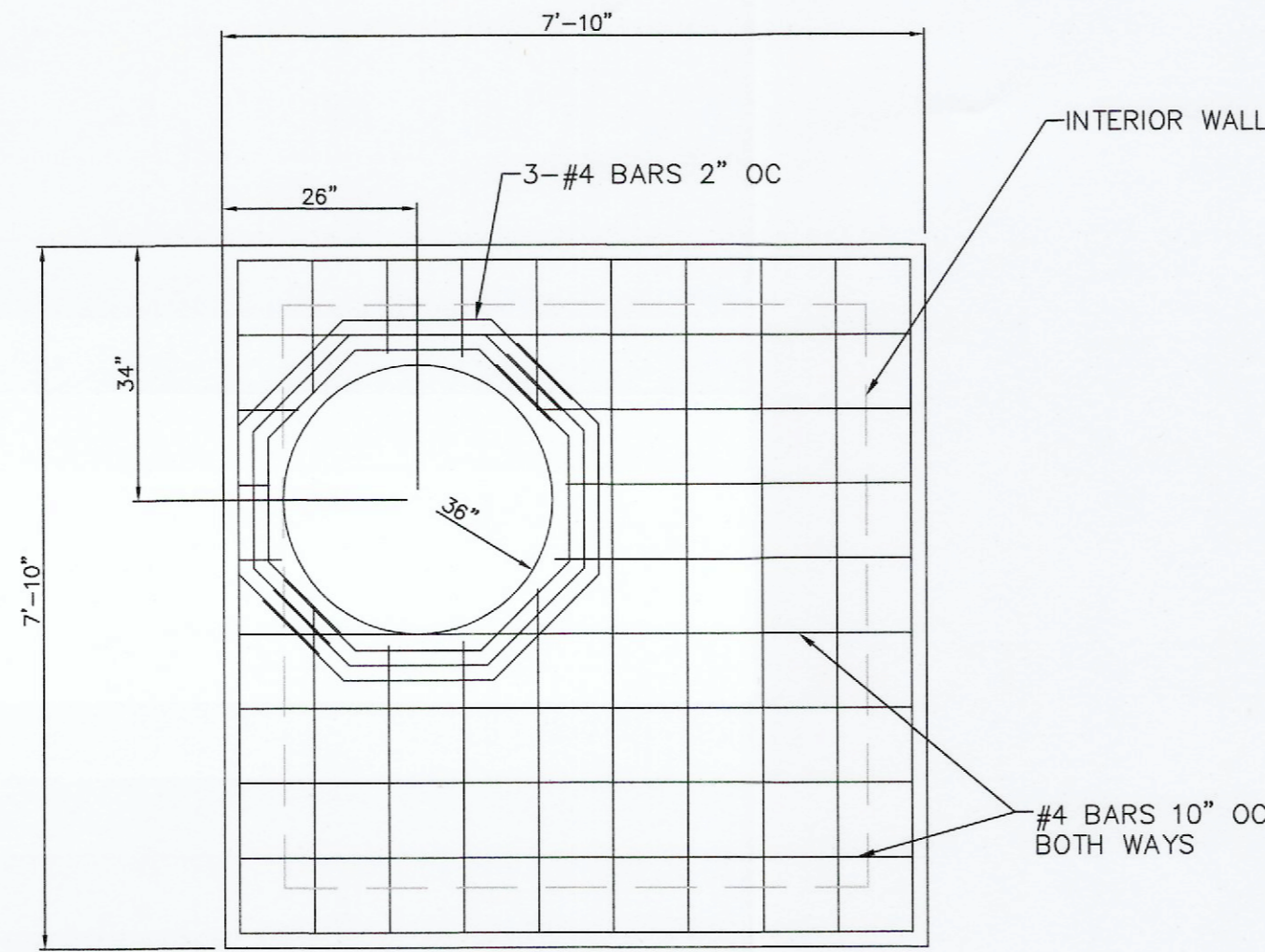
**STORM SEWER PROFILE AND DETAILS**

**P+Z No.** \_\_\_\_\_  
**Approval Date:** \_\_\_\_\_  
**City No.** GR22-00008

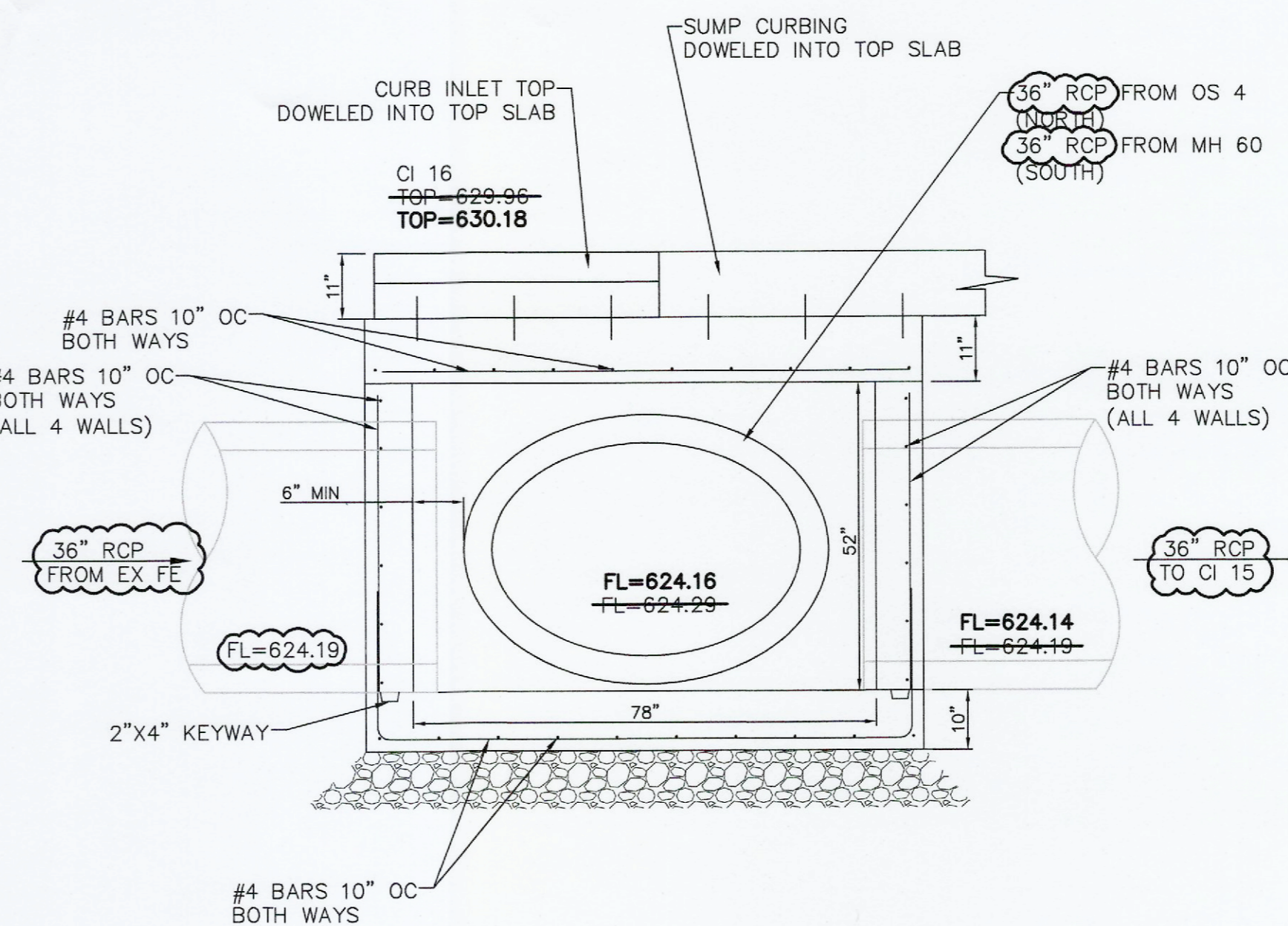
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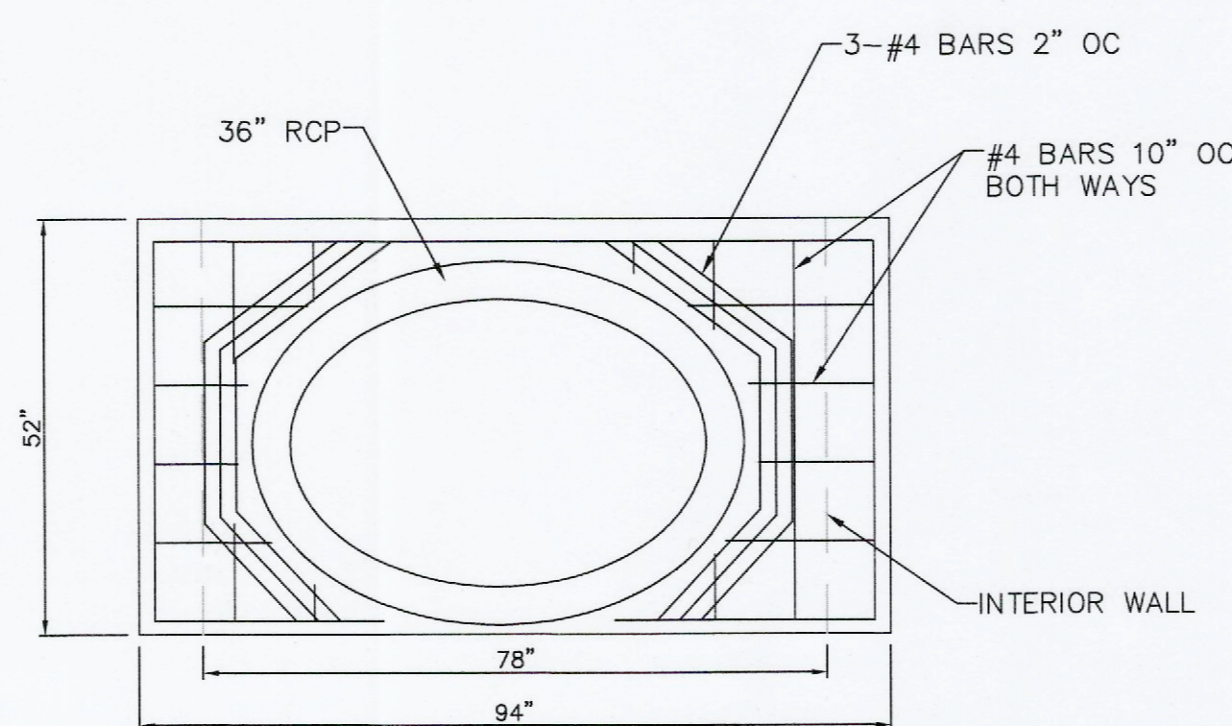
10" THICK BOTTOM SLAB  
NTS



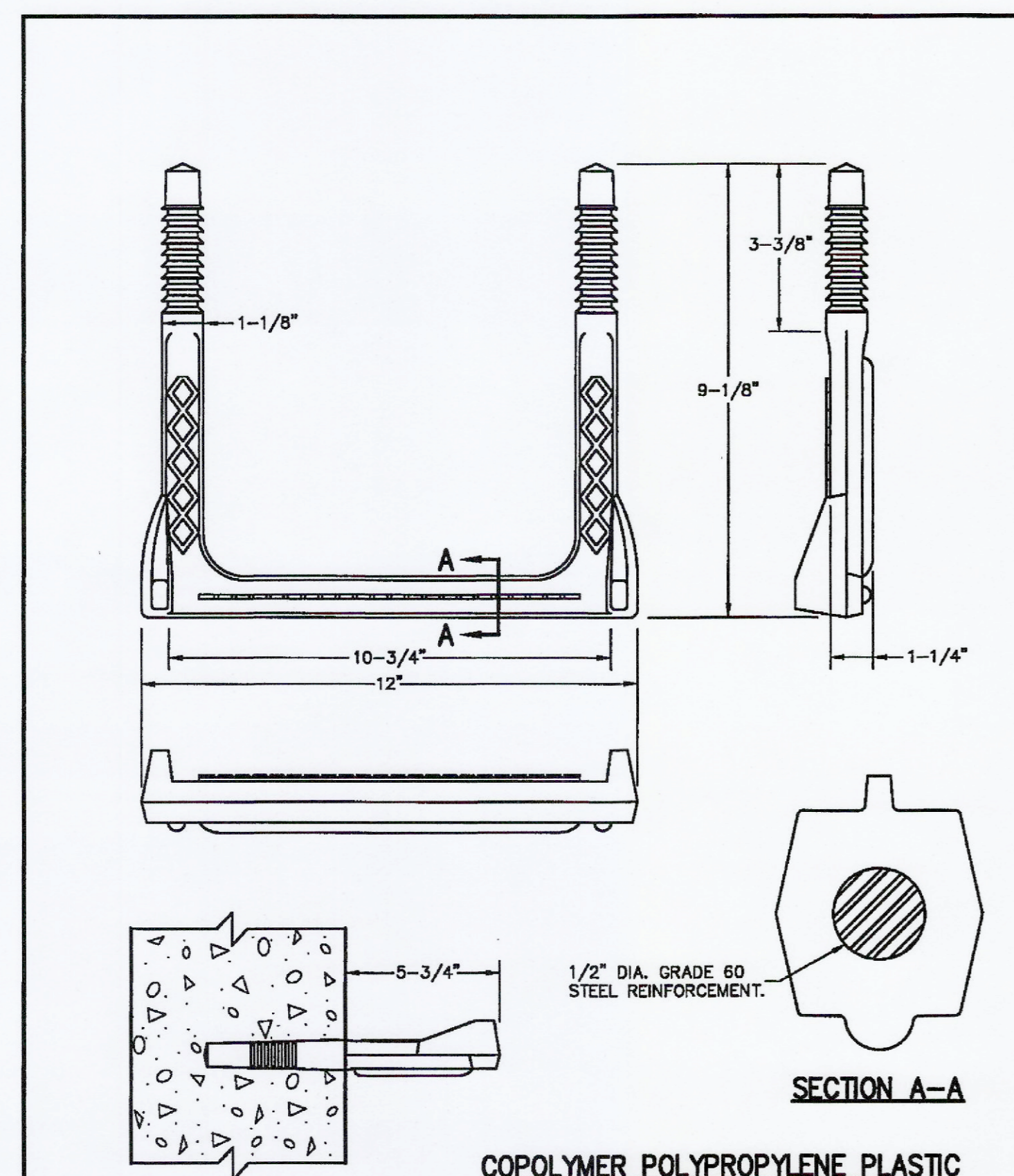
11" THICK TOP SLAB  
NTS



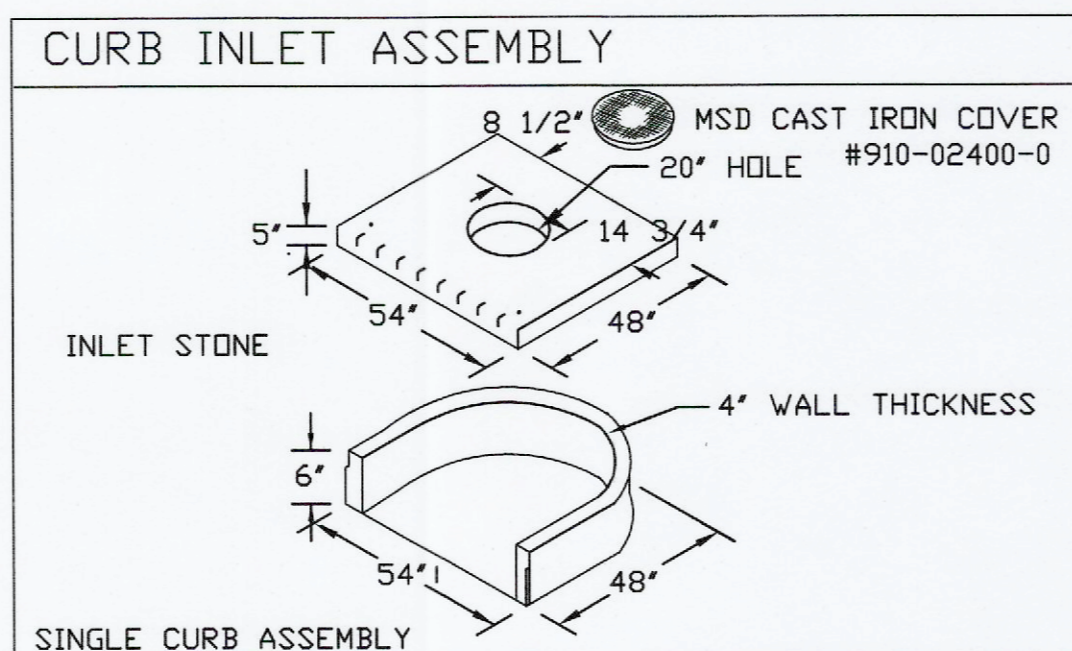
SIDE VIEW  
NTS



TYPICAL REINFORCEMENT AT PIPE OPENINGS  
NTS

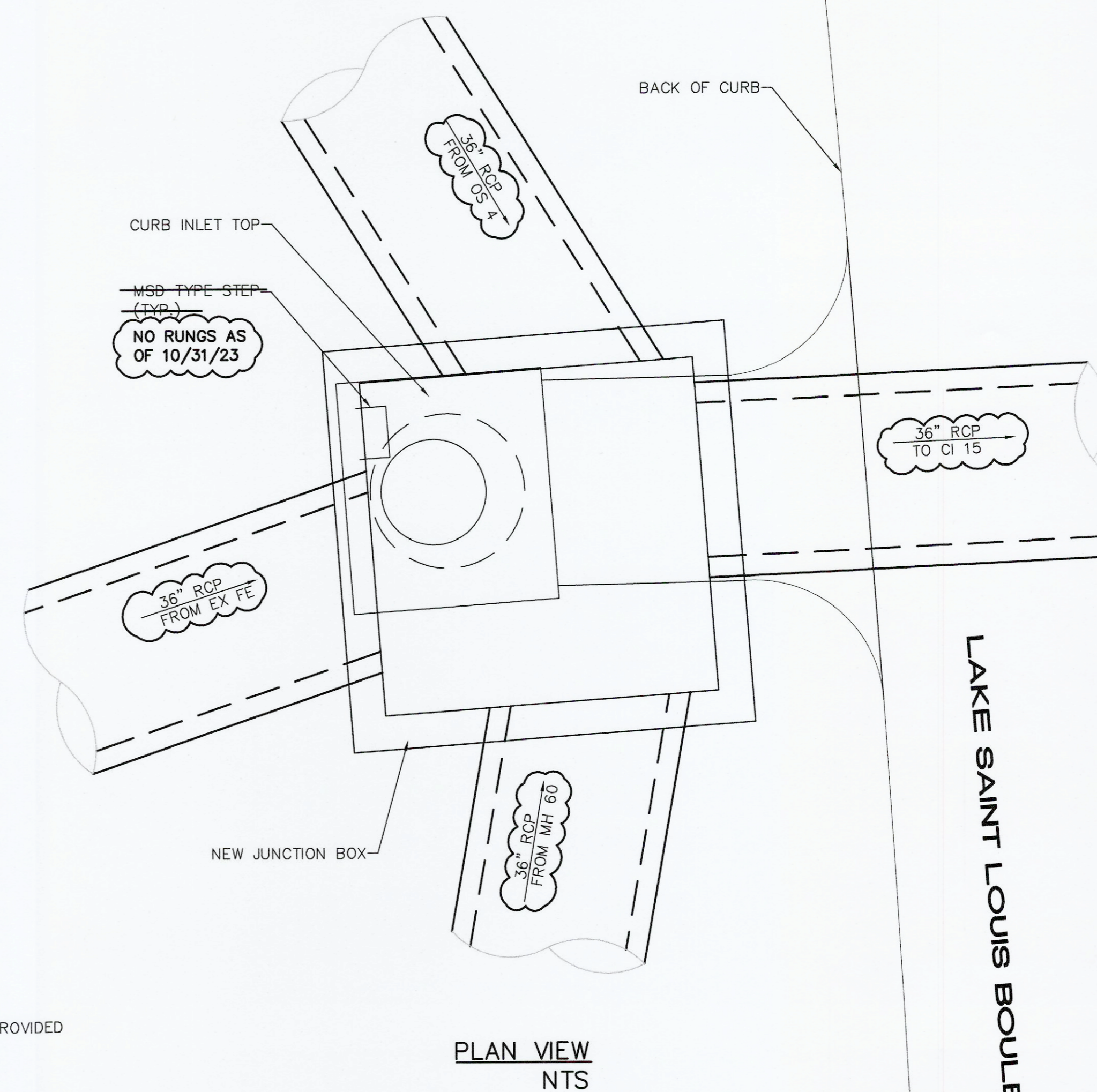


SECTION A-A  
COPOLYMER POLYPROPYLENE PLASTIC



GENERAL NOTES

- 6.5' X 6.5' INTERIOR DIMENSIONS
- 8" WALL THICKNESS
- 11" THICK BOTTOM SLAB
- 10" THICK TOP SLAB
- CONCRETE F'C 3000 PSI
- REINFORCING STEEL GRADE 60
- WHEN WALL AND BOTTOM SLAB ARE POURED SEPARATELY A 2"x4" KEYED CONSTRUCTION JOINT SHALL BE PROVIDED AT THE CONNECTION.
- MINIMUM CLEARANCE TO REINFORCING STEEL SHALL BE 2 INCHES UNLESS OTHERWISE SHOWN.
- LAP ALL LONGITUDINAL BAR SPLICES A MINIMUM OF 12 INCHES.
- BACKFILL TO BE COMPACTED TO 90% OF MAXIMUM DENSITY AS DETERMINED BY THE "MODIFIED AASHTO T-180 COMPACTION TEST."
- UNDERGROUND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE INFORMATION AND THEREFORE THEIR LOCATIONS SHALL 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 ANY GRADING OR CONSTRUCTION OF THE IMPROVEMENTS.

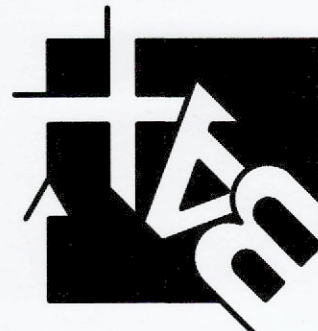


PLAN VIEW  
NTS

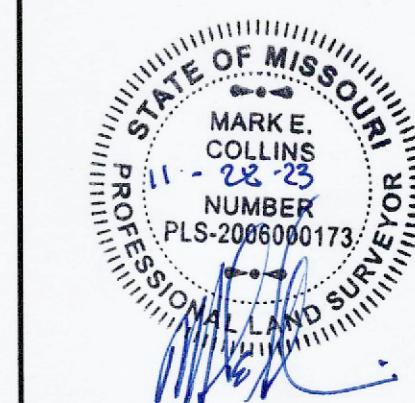
LAKE SAINT LOUIS BOULEVARD

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8 of 8

STORM SEWER PROFILE AND DETAILS