

AS-BUILTS ADDED FEBRUARY 2005

# A SET OF AS BUILT PLANS FOR AVONDALE HEIGHTS PHASE TEN

## GRADING NOTES

- A Geotechnical Engineer shall be employed by the owner and be on site during grading operations. All soils tests shall be verified by the Geotechnical Engineer concurrent with the grading and backfilling operations.
- The grading contractor shall perform a complete grading and compaction operation as shown on the plans, stated in these notes, or reasonably implied there from, all in accordance with the plans and notes as interpreted by the Geotechnical Engineer.
- The Contractor shall notify the Soils Engineer at least two days in advance of the start of the grading operation.
- All areas shall be allowed to drain. All low points shall be provided with temporary ditches.
- 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 without being seeded and mulched. Care should be exercised to prevent soil from damaging adjacent property and silting up existing downstream storm drainage system.
- Debris and foundation material from any existing on-site building or structure which is scheduled to be razed for this development must be disposed of off-site.
- All trash and debris on site, either existing or from construction, must be removed and properly disposed of off-site.
- Soft soil in the bottom and banks of any existing or former pond sites or tributaries or on any sediment basins or traps 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 on any storm sewer locations.
- 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 material shall be properly disposed of off-site. Topsoil and grass in the fill areas shall be thoroughly disced prior to the placement of any fill. The Soils Engineer shall approve the discing operation.
- Compaction equipment shall consist of tamping rollers, pneumatic-tired rollers, vibratory roller, or high speed impact type drum rollers acceptable to the Soils Engineer. The roller shall be designed so as to avoid the creation of a layered fill without proper blending of successive fill layers.
- The Soils Engineer shall observe and test the placement of the fill to verify that specifications are met. A series of fill density tests will be determined on each lift of fill. Interim reports showing fill quality will be made to the Owner at regular intervals.
- The Soils Engineer shall notify the Contractor of rejection of a lift of fill or portion thereof. The Contractor shall rework the rejected portion of fill and obtain notification from the Soils Engineer of its acceptance prior to the placement of additional fill.
- All areas to receive fill shall be scarified to a depth of not less than 6 inches and then compacted in accordance with the specifications given below. Natural slopes steeper than 1 vertical to 5 horizontal to receive fill shall have horizontal benches, cut into the slopes before the placement of any fill. The width and height to be determined by the Soils Engineer. The fill shall be loosely placed in horizontal layers not exceeding 8 inches in thickness and compacted in accordance with the specifications given below. The Soils Engineer shall be responsible for determining the acceptability of soils placed. Any unacceptable soils placed shall be removed at the Contractor's expense.
- The sequence of operation in the fill areas will be fill, compact, verify acceptable soil density, and repetition of the sequence. The acceptable moisture contents during the filling operation are those at which satisfactory dry densities can be obtained. The acceptable moisture contents during the filling operation in the remaining areas are from 2 to 8 percent above the optimum moisture control.
- The surface of the fill shall be finished so that it will not impound water. If at the end of a day's 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.
- Fill and backfill should be compacted to the criteria specified in the following table:

CATEGORY	MINIMUM PERCENT COMPACTION
Fill in building areas below footings	90%
Fill under slabs, walks, and pavement	90%
Fill other than building areas	88%
Natural subgrade	88%
Pavement subgrade	90%
Pavement base course	90%

Measured as a percent of the maximum dry density as determined by modified Proctor Test (ASTM-D-1557).

Moisture content must be within 2 percent below or 4 percent above optimum moisture content if fill is deeper than 10 feet.

## GENERAL NOTES

- 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, or and shall be located prior to any grading or construction of the improvements.
- All manhole tops & flowlines built without elevations furnished by the Engineer will be the responsibility of the sewer contractor.
- 8" P.V.C. sanitary sewer pipe shall meet the following standards. A.S.T.M.-D-3034 SDR-35, with wall thickness compression joint A.S.T.M.-D-3212. An appropriate rubber seal watertop as approved by the sewer district shall be installed between P.V.C. pipe and masonry structures.
- All filled places, including trench backfills, under buildings, proposed storm and sanitary sewer lines proposed right-of-way and/or paved areas, shall be compacted to 90% of maximum density as determine by the "Modified AASHTO T-180 Compaction Test," (A.S.T.M.-D1557), or 95% maximum density as determined by the Standard Proctor Test AASHTO T-99. All filled places within public roadways shall be compacted from the bottom of the fill up to 90% maximum density as determined by the Modified AASHTO T-180 Compaction Test or 95% of maximum density as determined by the Standard Proctor Test AASHTO T-99, Method "C" (A.S.T.M.-D-698). All test shall be verified by a soils engineer concurrent with grading and backfilling operations. Ensure the moisture content of the soil in fill areas is to correspond 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 to the placement of fill. Proof rolling may be required to verify soil stability at the discretion of the City of O'Fallon.
- All trench backfills under paved areas shall be granular backfill, and shall be compacted to 90% of the maximum density as determined by the "Modified AASHTO T-180 Compaction Test." (A.S.T.M.-D-1557). All other trench backfills may be earth material (free of large clods or stones). All trench backfills shall be water jetted.
- All sanitary house connections have been designed so that the minimum vertical distance from the low point of the basement to the flow line of a sanitary sewer at the corresponding house connection is not less than the diameter of the pipe plus the vertical distance of 2 1/2 feet.
- No area shall be cleared without the permission of the Project Engineer.
- All P.V.C. sanitary sewer is to be SDR-35 or equal with clean granular stone bedding uniformly graded. This bedding shall extend from 4" below the pipe to the springline of the pipe. Immediate backfill over pipe shall consist of same size "clean" or minus stone from springline of pipe to 6" above the top of pipe.
- All soils test shall be verified by a Soils Engineer concurrent with the grading and backfilling operations.
- Easements shall be provided for sanitary sewers, and all utilities on the Record Plat. See Record Plat for location and size of easements.
- Maintenance and upkeep of the common ground area shall be the responsibility of the developer and/or successors.
- A 25' building line shall be established along all Public Rights-Of-Way.
- All water lines shall be laid at least 10 feet horizontally, from any sanitary sewer, storm sewer, or manhole. 18" vertical clearance from outside of pipe to outside of pipe wherever water lines must cross sanitary sewers, laterals, or storm drains. The water line shall be laid at such an elevation that the bottom of the water line is above the top of the drain or sewer. A full length of water pipe shall be centered over the sewer line to be crossed so that the joints will be equally distant from the sewer and as remote therefrom as possible. This vertical separation shall be maintained for that portion of the water line located within 10 feet horizontally, of any sewer or drain it crosses.
- All flared end sections and inlet structures will be concrete.
- All storm sewer pipe installed in the Public Right-of-Way shall be Reinforced concrete Class III pipe.
- All concrete pipe or ADS N-12 pipe shall be installed with "O-Ring" Rubber type gaskets per M.S.D. standard construction specifications or manufacturer.
- All PVC water pipe shall conform to A.S.T.M.-D-2241, SDR 21 Standard Specification for P.V.C. Pressure Pipe, 200 P.S.I. working pressure for water, with approved joint.
- Water lines, valves, sleeves, meters, and fittings shall meet all specifications and installation requirements of Public Water Supply District No. 2 of St. Charles County.
- All Water hydrants and valves shall be ductile iron and installed in accordance with the plans and details. All ductile iron pipe for water mains and service coated in accordance with A.W.W.A. Specification C-151 and be cement lined and seal coated in accordance with A.W.W.A. Specification C-104. All joints for water ductile iron pressure pipe shall be made on type with rubber gasket conforming to A.W.W.A. Specification C-111 and fittings shall be ductile iron, Class 350, conforming to A.W.W.A. Specification C-153.
- All sanitary manholes shall be waterproofed on the exterior in accordance with Missouri Department of Natural Resources specifications 10 CSR-8120 (7E).
- Brick will not be used in the construction of sanitary sewer manholes.
- All pipes shall have positive drainage through manholes. No flat base structures are allowed.
- The City of O'Fallon and Duckett Creek Sanitary District shall be notified 48 hours prior to construction for coordination and inspection.
- All storm inlets must be installed with a 5/8" trash bar.
- City approval of the construction site plans does not mean that single family and two family dwellings units can be constructed on the lots without meeting the building setbacks as required by the Zoning Code.
- All existing site improvements disturbed, damaged or destroyed shall be repaired or replaced to closely match pre-construction conditions.
- The contractor shall prevent all storm, surface water, mud and construction debris from entering the existing sanitary sewer system.
- All construction and materials shall conform to the current construction standards of the City of O'Fallon and Duckett Creek Sanitary District.
- All sanitary and storm sewer trench backfills shall be water jetted. Granular backfill will be used on pavement areas.
- All sanitary sewer laterals shall be a minimum of 4" in diameter per City of O'Fallon.
- No flushing hydrants or water meters shall be located in driveways and/or walkways.
- Concrete pipe for storm sewers shall be Class III, A.S.T.M. C-76 with a minimum diameter of 12" except in the R.O.W. it shall be 15".
- Contractor shall assume complete responsibility for controlling all siltation and erosion of the project area. The contractor 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 grading and be maintained throughout the project until acceptance of the work by the owner and/or the City of O'Fallon. The contractors responsibilities include all design and implementation as required to prevent erosion and the depositing of silt. The Owner and/or the City of O'Fallon may at their option direct the contractor in his methods as deemed fit to protect property and improvements. Any depositing of silt or mud on 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 Owner and/or City of O'Fallon.
- Contractor shall provide for the protection of all existing trees and shrubs. All trees and shrubs shall be protected from damage by the contractor during construction. The contractor shall not remove any trees or shrubs without written permission from the City of O'Fallon.
- VEGETATIVE ESTABLISHMENT For Urban Development Sites
- Seeding Rates:

  - Permanent: Tall Fescue - 30 lbs./ac.
  - Smooth Brome - 20 lbs./ac.
  - Combined Fescue @ 15 lbs./ac. and Brome @ 10 lbs./ac.

- Temporary: Wheat or Rye - 150 lbs./ac. (3.5 lbs. per square foot)
- Oats - 120 lbs./ac. (2.75 lbs. per square foot)
- Seeding Periods:

  - 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

- Mulch Rates: 100 lbs. per 1,000 sq. feet (4,356 lbs. per acre)
- Fertilizer Rates: 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.

## REFERENCE BENCHMARK

R.M. #74 - ELEV=493.07 (U.S.G.S. DATUM)  
CHISELED SQUARE ON TOP OF EAST CONCRETE HEADWALL  
OF BIRDIE HILLS ROAD BRIDGE OVER TRIBUTARY NO. 2  
(APPROXIMATELY 500 FEET SOUTH OF EISENHOWER DRIVE)

## SITE BENCHMARK

ELEV=507.68 (U.S.G.S. DATUM)  
OLD CROSS CL-CL CHRISTINA MARIE DRIVE AND JACQUELINE CIRCLE  
KENSINGTON PLACE SUBDIVISION

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## DEVELOPMENT NOTES

- Area of plat: 98.44 Acres (Total Site)  
14.70 Acres (Plot Seven)  
22.25 Acres (Plot Eight)  
23.81 Acres (Plot Nine)  
37.68 Acres (Phase Ten)  
R-1 (City of O'Fallon)  
Single Family Homes  
29 Lots (Plot Seven)  
43 Lots (Plot Eight)  
61 Lots (Plot Nine)  
84 Lots (Phase Ten)
- Proposed Zoning:
- Proposed Use:
- Number of Lots Proposed:
- The proposed height and lot setbacks are as follows:  
Minimum Front Yard: 25 feet  
Minimum Side Yard: 6 feet  
Minimum Rear Yard: 25 feet  
Minimum Lot Area: 10,000 square feet
- Maximum Height of Building: 2 1/2 stories or 35 feet
- Current Owner & Developer of Property:  
TJC Development, Inc.  
42 Chaunton Court  
St. Peters, MO 63376
- Site is served by:  
Duckett Creek Sanitary District  
AmerenUE  
St. Charles Gas Company  
St. Charles County Public Water District No. 2  
Verizon Telephone Company  
Fort Zumwalt School District  
O'Fallon Fire Protection District
- Flood Plain exists on this site per F.I.R.M. #29183 C 0239E, dated Aug. 2, 1996. See plan for limits of the 100 Year Flood Plain and the 100 Year Floodway.
- Topographic information is per aerial topography by Walker & Associates and field topography by Box Engineering Co. Inc.
- Boundary information is per Box Engineering during June, 1999.
- All local streets will be constructed to City of O'Fallon standards. Streets will consist of 26 foot wide concrete pavement with integral rolled curb centered in a 50 foot right-of-way. Minimum radius shall be 150 feet.
- All cul-de-sacs and bobbles will have pavement radii of 42 feet with right-of-way radii of 54 feet. Street intersections shall have a minimum rounding radius of 25 feet with pavement radii of 37 feet.
- Minimum street grades shall be 1%.
- A 4 foot wide concrete sidewalk shall be constructed on one side of streets where indicated.
- All homes shall have a minimum of 2 off-street parking places with 2-car garages.
- All utilities must be located underground. Except for 3 phase electric which will be overhead.
- The developer realizes that they will comply with current Tree Preservation Ordinance Number 1689 and provide landscaping as set forth in Article 23 of the City of O'Fallon Zoning Ordinances.
- Additional lighting may be required by the City of O'Fallon.
- All paving to be in accordance with St. Charles County standards and specifications except as modified by the City of O'Fallon ordinances.
- The following lots are susceptible to street movement: 547, 548, 549, 550, 556, 558, 557, 558, 559, 560, 561, 562, 563, 564, 565, 568, 569, 570, 571, 572, 573, 575, 576, 580, 581, 582, 583, 584, 585, 586, 587, 722, 723, 724, 725, 726, 727, 728, 733, 734, 736, 737, 738, 742, 743, 744, 745, 747, 752, 753, 754, 755, 756, 757, 758, 759.
- Calculations in accordance to the Tree Preservation Ordinance:  
(For Entire Development)  
Existing trees 15.92 acres  
x 20% 3.18 acres  
Saved trees 2.92 acres  
Trees removed 13.15 acres  
Trees Replaced - 0.26 acres x 15 Trees/acre=4 Trees  
(Street Tree Requirements for 84 Lots)  
1 Tree per lot & 2 per corner lot = 100 Trees
- Detention for this development to be provided by Retention Basin "B".
- All proposed fencing requires a separate permit through the Planning Division. Fencing is not proposed in these plans.
- All proposed signs must be approved separately through the Planning Division.
- All existing creeks and streams will have an associated storm water easement that will be provided on the Record Plat.
- sidewalks, curb 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 ADAAG guidelines shall take precedence and the contractor prior to any construction shall notify the Project Engineer.
- Written verification of compliance with the construction plans shall be required by the Developer per section 405.120 of City of O'Fallon Code.
- Street trees to have a minimum of 2" caliper per O'Fallon standards. Species to be selected by homebuilder from O'Fallon Tree Planting Guide. Street trees to be maintained by the Home Owner's Association per subdivision C.C. & R's.
- Where ground is disturbed within the 60' wide drainage easement permanent hardscape vegetation shall be established.

## SEWER MEASUREMENTS

THE EXISTING SEWER LENGTHS, SIZES, FLOWLINES, DEPTHS OF STRUCTURES AND SEWERS AND LOCATIONS, WHETHER EXISTING OR PROPOSED EASEMENTS HAVE BEEN MEASURED. THE RESULTS OF THOSE MEASUREMENTS ARE SHOWN ON THIS SET OF FINAL MEASUREMENT PLANS.

ALL PUBLIC SEWERS ARE LOCATED WITHIN DESIGNATED EXISTING OR PROPOSED EASEMENTS EXCEPT AS FOLLOWS:

DATES

FILE NAME

MCN

DRAWN

MCG

DESIGNED CHECKED

PREPARED FOR: TJC DEVELOPMENT, INC.  
42 CHAUNTON COURT  
ST. PETERS, MISSOURI  
(636) 978-9200



ENGINEERING  
PLANNING  
SURVEYING

1052 South Cleverleaf Drive  
St. Peters, MO. 63376-6445  
636-928-5552  
FAX 636-928-1718

02-24-05  
DATE  
95-72305  
PROJECT NUMBER  
1 OF 8  
SHEET OF  
7230SASB10.DWG  
FILE NAME  
MCN  
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MCG  
DESIGNED CHECKED  
AS-BUILTS

Avondale Heights Ph 10 Apr 11/05 AB  
AS-BUILTS

AS-BUILTS



63376

AVONDALE HEIGHTS-PHASE TEN

PREPARED FOR: TJC DEVELOPMENT, INC.  
42 CHAUNSTON COURT  
ST. PETERS, MISSOURI  
(636) 978-9200

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I hereby specify that the documents intended  
to be used for construction purposes are limited to  
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Estimates, Reports or other documents or  
information may be used as intended to be used  
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REVISIONS

11-03-05	REVISED ASBUILTS ON SHS. 6 AND 8



ENGINEERING  
PLANNING  
SURVEYING

1052 South Cloverleaf Drive  
St. Peters, MO 63376-8445  
636-928-5552  
FAX 636-1716

02-24-05

DATE

95-82305

PROJECT NUMBER

3 OF 8

SHEET OF

7230SASB10.DWG

FILE NAME

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DRAWN

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DESIGNED CHECKED

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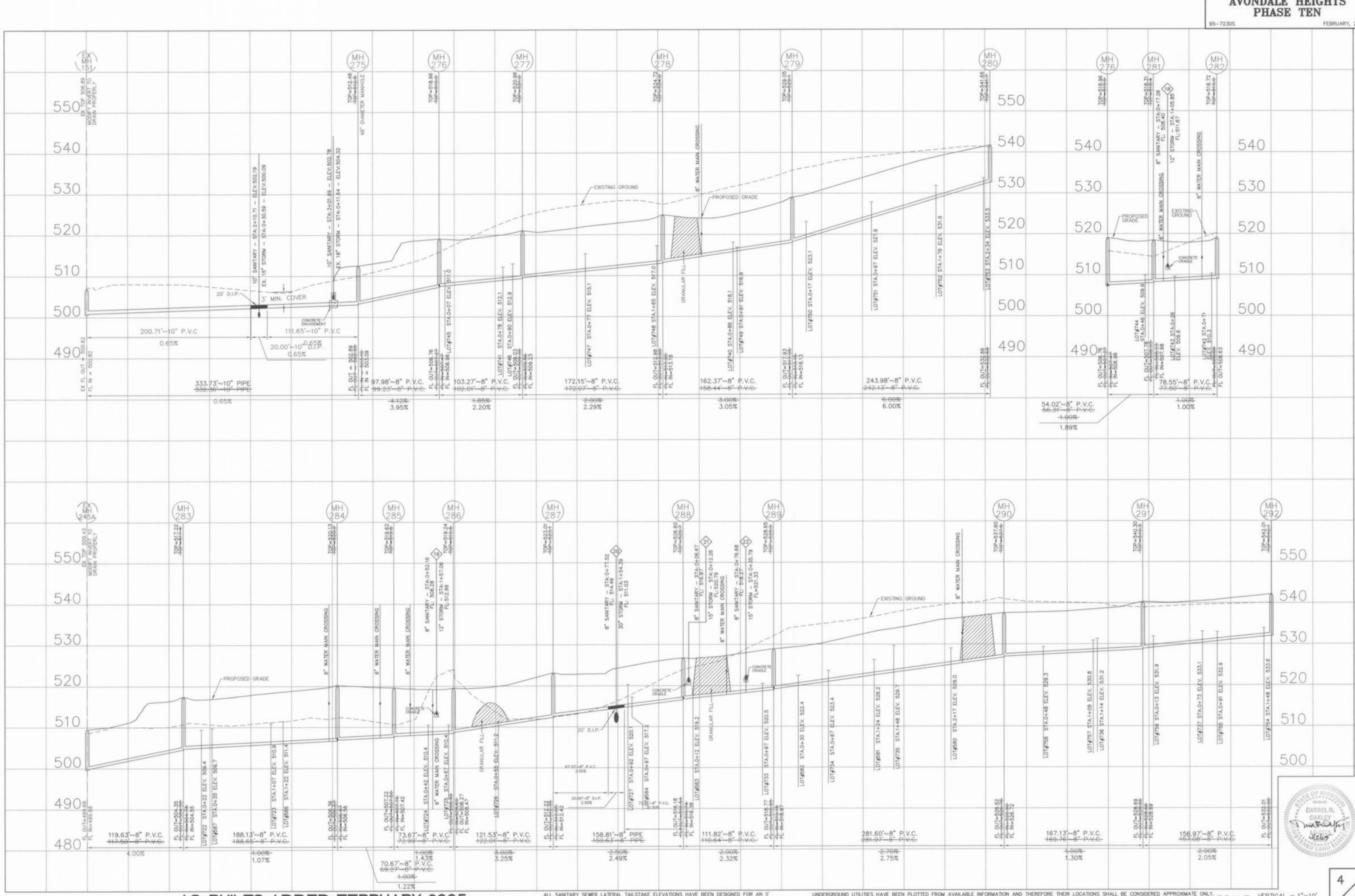
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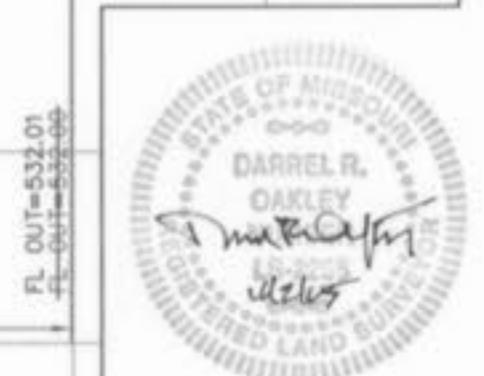
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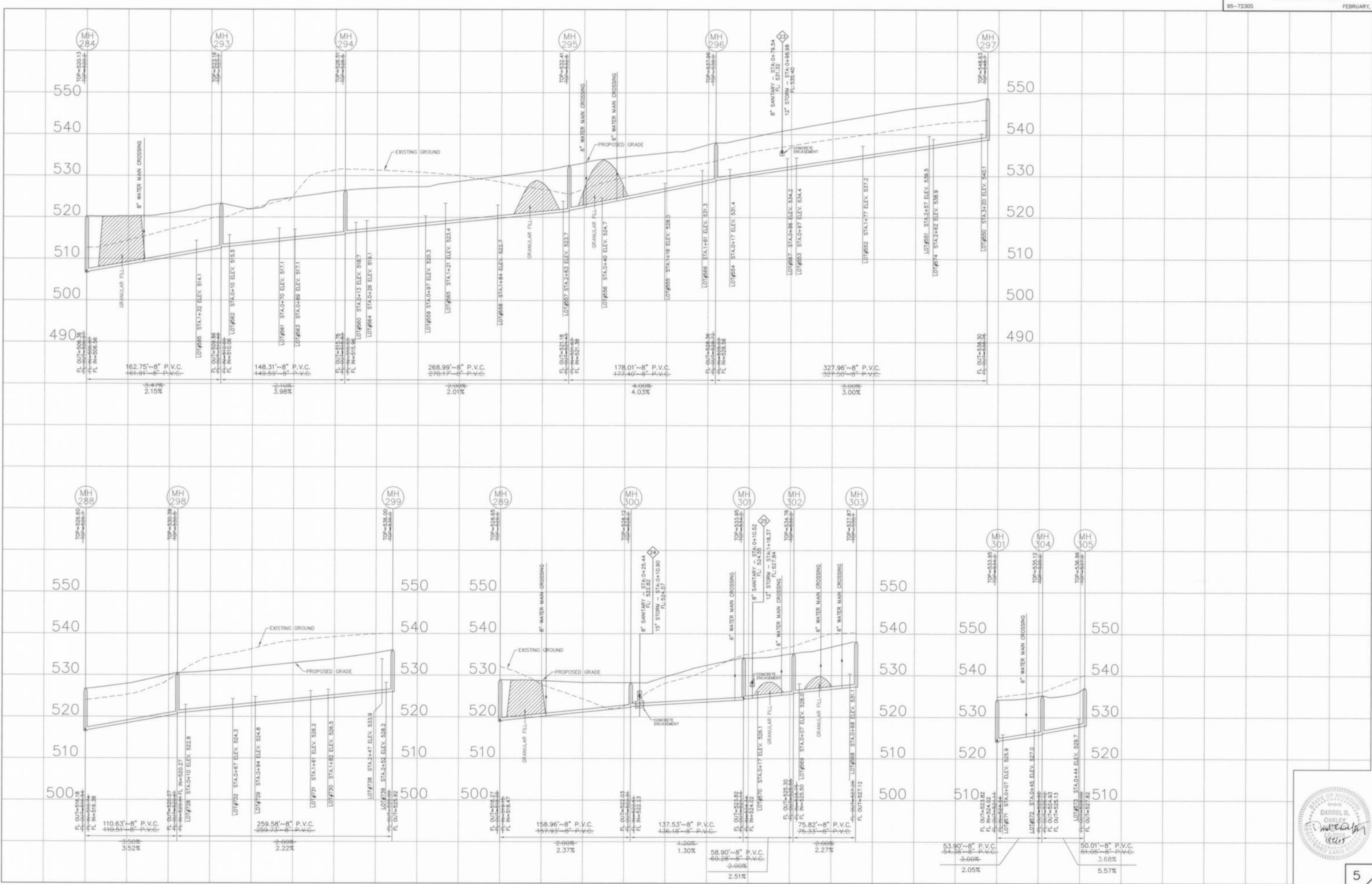
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Avondale Heights Ph 10 App 11/15/05  
DARREL R.  
OAKLEY  
DIRECTOR  
DIVISION OF WATER RESOURCES



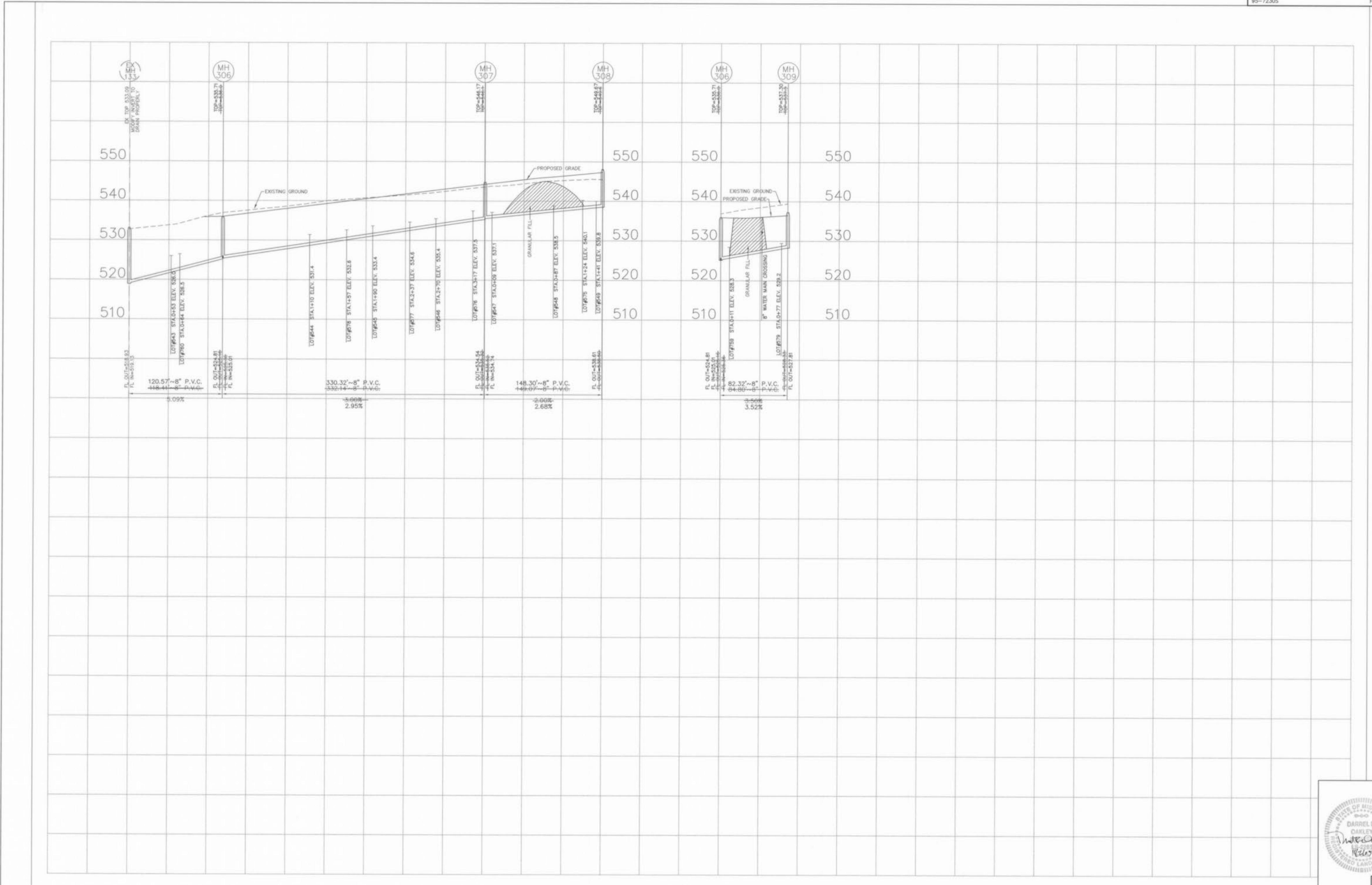
AS-BUILTS ADDED FEBRUARY 2005

ALL SANITARY SEWER LATERAL TAILSTAKE ELEVATIONS HAVE BEEN DESIGNED FOR AN 9" BASEMENT POUR IN HOMES WITH THE TOP OF FOUNDATION ELEVATION BEING SET A MINIMUM OF 2.5' ABOVE THE TOP OF CURB ELEVATION AT THE DRIVEWAY.

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.

SCALE: VERTICAL = 1"=10'  
HORIZONTAL = 1'=50'





AS-BUILTS ADDED FEBRUARY 200

ALL SANITARY SEWER LATERAL TAILSTAKE ELEVATIONS HAVE BEEN DESIGNED FOR AN 9' BASEMENT POUR IN HOMES WITH THE TOP OF FOUNDATION ELEVATION BEING SET A MINIMUM OF 2.5' ABOVE THE TOP OF CURB ELEVATION AT THE DRIVEWAY.

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