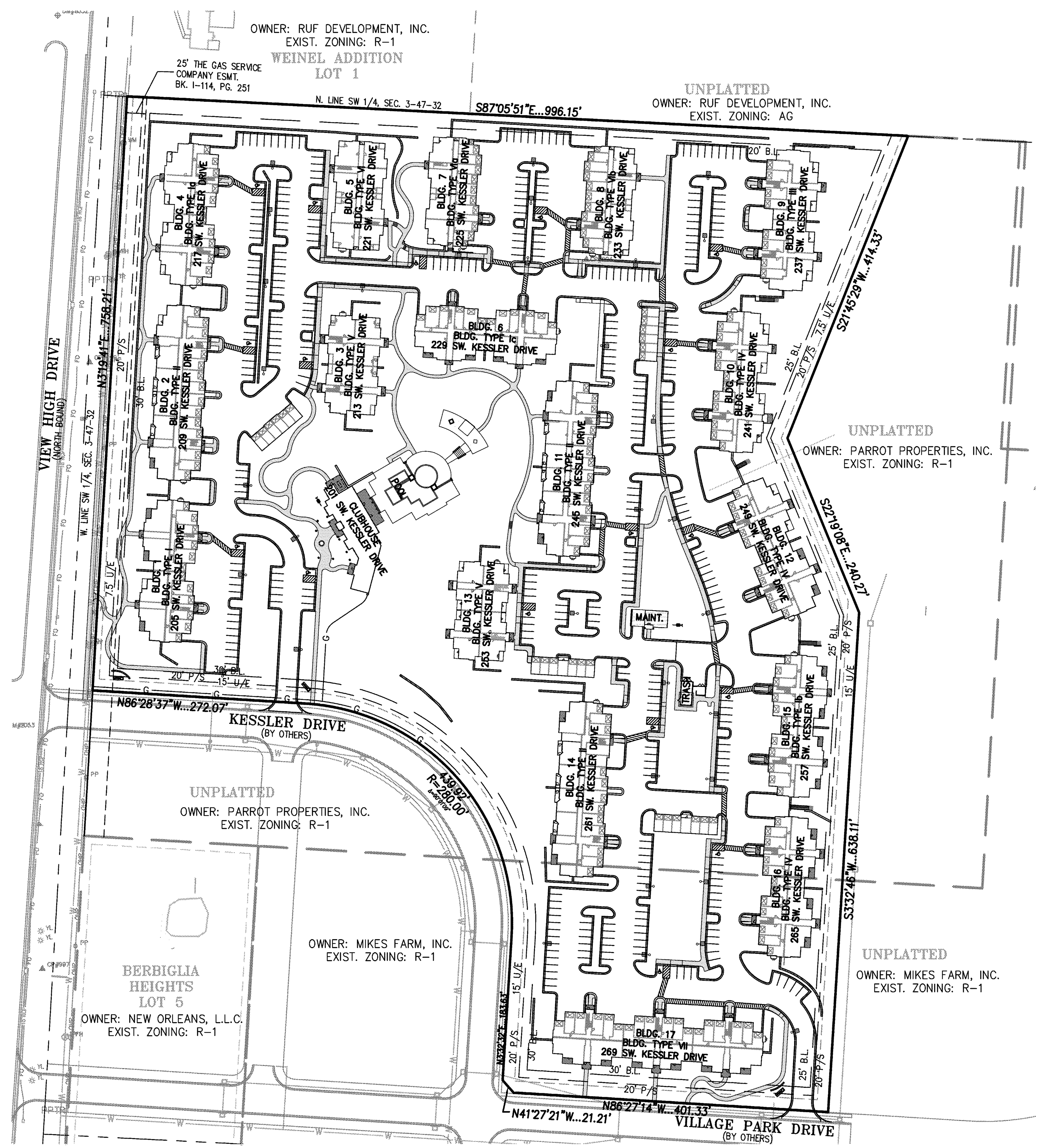
SITE DEVELOPMENT PLANS
FOR
MERIDIAN AT VIEW HIGH
IN THE CITY OF LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

LEGAL DESCRIPTION:

ALL THAT PART OF THE SOUTHWEST QUARTER OF SECTION 3, TOWNSHIP 47 NORTH, RANGE 32 WEST, IN THE CITY OF LEE'S SUMMIT, JACKSON COUNTY, MISSOURI, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHWEST CORNER OF THE SOUTHWEST QUARTER OF SAID SECTION 3; THENCE S 87°05'51" E, ALONG THE NORTH LINE OF THE SOUTHWEST QUARTER OF SAID SECTION 3, A DISTANCE OF 30.00 FEET TO A POINT ON THE EASTERLY RIGHT-OF-WAY LINE OF NW HIGH VIEW DRIVE, AS NOW ESTABLISHED, SAID POINT ALSO BEING THE POINT OF BEGINNING; THENCE CONTINUING S 87°05'51" E, ALONG THE NORTH LINE OF THE SOUTHWEST QUARTER OF SAID SECTION 3, A DISTANCE OF 996.15 FEET; THENCE S 21°45'29" W, A DISTANCE OF 414.33 FEET; THENCE S 22°19'08" E, A DISTANCE OF 240.27 FEET; THENCE S 03°32'46" W, A DISTANCE OF 638.11 FEET; THENCE N 86°27'14" W, A DISTANCE OF 401.33 FEET; THENCE N 41°27'21" W, A DISTANCE OF 21.21 FEET; THENCE N 3°32'32" E, A DISTANCE OF 183.63 FEET; THENCE NORTHWESTERLY ON A CURVE TO THE LEFT, SAID CURVE BEING TANGENT TO THE LAST DESCRIBED COURSE AND HAVING A RADIUS OF 280.00 FEET, AN ARC DISTANCE OF 439.92 FEET; THENCE N 86°28'37" W, A DISTANCE OF 272.07 FEET TO A POINT ON THE EASTERLY RIGHT-OF-WAY LINE OF SAID NW VIEW HIGH DRIVE; THENCE N 3°19'41" E, ALONG THE EASTERLY RIGHT-OF-WAY LINE OF SAID NW VIEW HIGH DRIVE, A DISTANCE OF 758.21 FEET TO THE POINT OF BEGINNING, CONTAINING 21.3401 ACRES, MORE OR LESS.



UTILITY COMPANIES:

CITY OF LEE'S SUMMIT 220 S.E. GREEN STREET LEE'S SUMMIT, MO. 64063	(816) 969-1900
JACKSON COUNTY PWSD #13 99 LAKE LOTAWANA LEE'S SUMMIT, MO. 64086	(816) 578-2249
CASS COUNTY PWSD #3 730 N. WARD ROAD RAYMORE, MO. 64083	(816) 331-1071
MISSOURI GAS ENERGY 3025 S.E. CLOVER DRIVE LEE'S SUMMIT, MO. 64082	(816) 756-5252
KANSAS CITY POWER & LIGHT 1200 MAIN STREET KANSAS CITY, MO. 64105	(888) 471-5275
TIME WARNER CABLE 188 N.W. OLDHAM PARKWAY LEE'S SUMMIT, MO. 64081	(816) 358-8833
COMCAST CABLE 3400 N.W. DUNCAN ROAD BLUE SPRINGS, MO. 64015	(816) 833-3400

INDEX

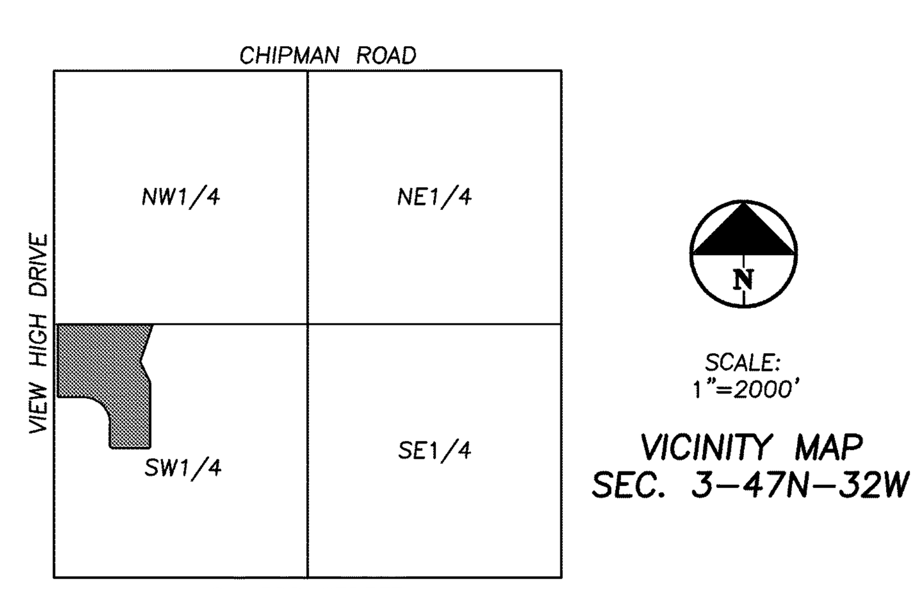
BENCHMARK: VERTICAL DATUM = NAVD88 BASED ON GPS OBSERVATION USING MODOT VRS NORTHWEST CORNER OF SOUTHWEST QUARTER OF SECTION 3-47-32 TOP 3" BRASS MONUMENT IN MONUMENT BOX. ELEVATION = 986.59

1. SET "□" CUT IN SOUTH MIDDLE NOSE OF NORTH ISLAND AT NORTHWEST CORNER OF SURVEYED PROPERTY.
   ELEVATION = 988.06
2. SET "□" CUT IN SOUTH MIDDLE CONCRETE LINE SOUTH ISLAND EAST OF GOLF COURSE ENTRANCE.
   ELEVATION = 994.22

DEVELOPER:
ATTN: JIM THOMAS
ARCHVIEW INVESTORS, LLC
8335 KEYSTONE CROSSING
SUITE 220
INDIANAPOLIS, IN 43240
(317) 574-1600
EMAIL: JTHOMAS@CITYSCAPERESIDENTIAL.COM

811
Know what's below.
Call before you dig.

UTILITY NOTES:
VISUAL INDICATIONS OF UTILITIES ARE AS SHOWN. UNDERGROUND LOCATIONS SHOWN, AS FURNISHED BY THEIR LESSORS, ARE APPROXIMATE AND SHOULD BE VERIFIED IN THE FIELD AT THE TIME OF CONSTRUCTION. FOR ACTUAL FIELD LOCATIONS OF UNDERGROUND UTILITIES.



VICINITY MAP
SEC. 3-47N-32W

N
SCALE: 1"=100'
0' 100' 200'

PREPARED & SUBMITTED BY:

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DOUGLAS EUGENE UBBEN, JR.
NUMBER PE-2011010998
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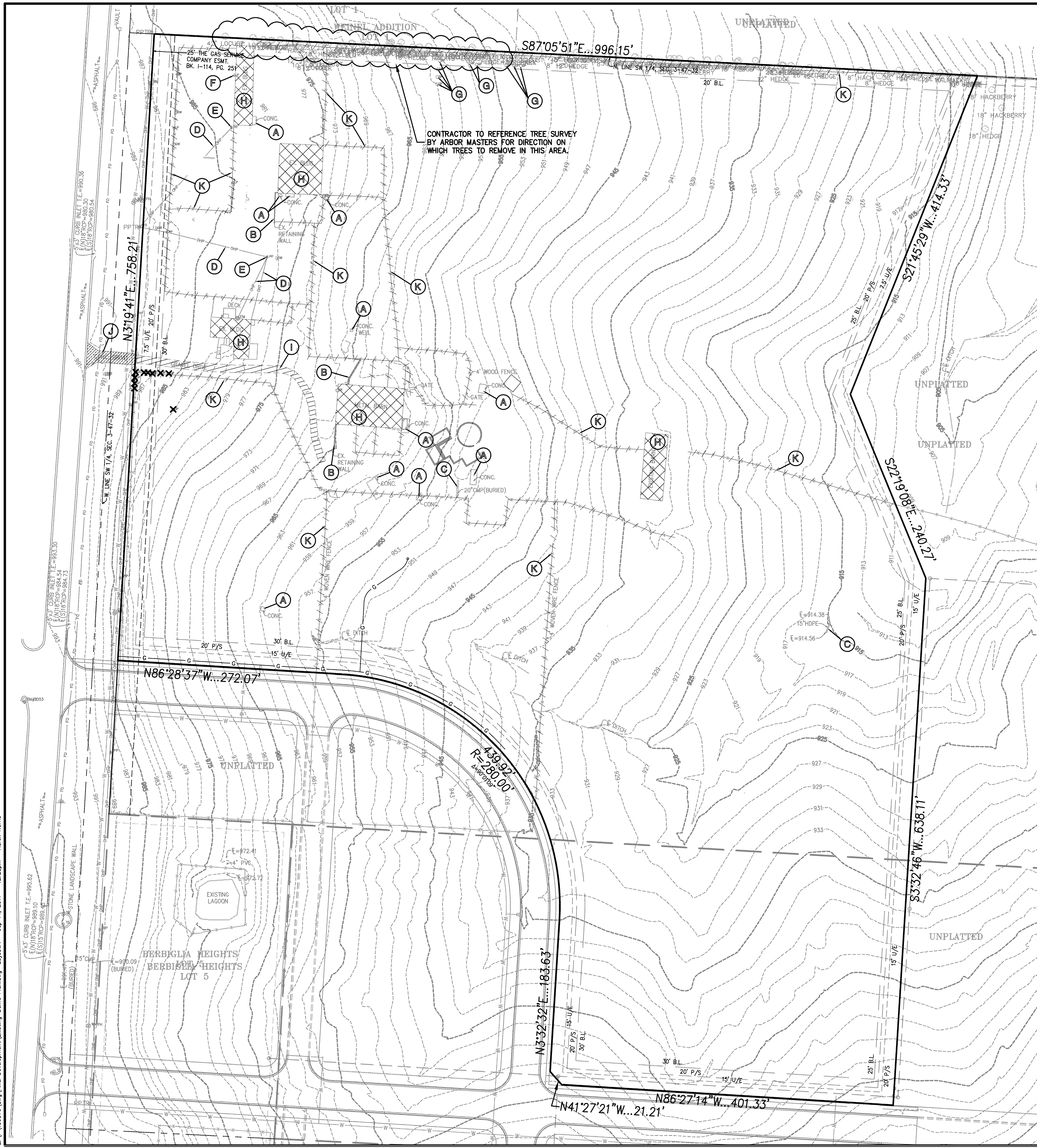
PEI

COVER SHEET
MERIDIAN AT VIEW HIGH
LEE'S SUMMIT, MISSOURI
SITE DEVELOPMENT PLANS

No.	Date	Revisions:	By	App.
1	9/11/17	REVISED SHEET INDEX	ALN	DEU

PROJECT NO. 150376
DATE: 6-27-17
DRAWN: JMO
DESIGNED: DLM
APPROVED: DEU
CERTIFICATE OF AUTHORIZATION
MISSOURI
LAND SURVEYING-2007001128
ENGINEERING-2007005058

Released for Construction



DEMOLITION NOTES:

1. THE CONTRACTOR IS RESPONSIBLE FOR THE DEMOLITION, REMOVAL, AND DISPOSAL (IN A LOCATION APPROVED BY ALL GOVERNING AUTHORITIES) ALL CURBS, PARKING, DRIVES, DRAINAGE STRUCTURES, UTILITIES, ETC., SUCH THAT THE IMPROVEMENTS SHOWN ON THE REMAINING PLANS CAN BE CONSTRUCTED. ALL FACILITIES TO BE REMOVED SHALL BE UNDERCUT TO SUITABLE MATERIAL AND BROUGHT TO GRADE WITH SUITABLE COMPACTED FILL MATERIAL.

2. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL DEBRIS FROM THE SITE AND DISPOSING THE DEBRIS IN A LAWFUL MANNER. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED FOR DEMOLITION AND DISPOSAL.

3. DAMAGE TO ALL EXISTING CONDITIONS TO REMAIN WILL BE REPLACED AT CONTRACTOR'S EXPENSE.

4. CONTRACTOR MUST COORDINATE WITH OWNER PRIOR TO ANY CONSTRUCTION TO ESTABLISH CUSTOMER ACCESS AND TRAFFIC FLOW DURING ALL PHASES

LEGEND:

- EXISTING BUILDING TO BE REMOVED
- EXISTING GRAVE DRIVE TO BE REMOVED
- EXISTING CONCRETE ENTRANCE TO BE REMOVED
- / / / / / EXISTING FENCE TO BE REMOVED
- —OHP— EXISTING OVERHEAD POWER LINE.
- EXISTING STORM SEWER
- X EXISTING GUARD POLE TO BE REMOVED

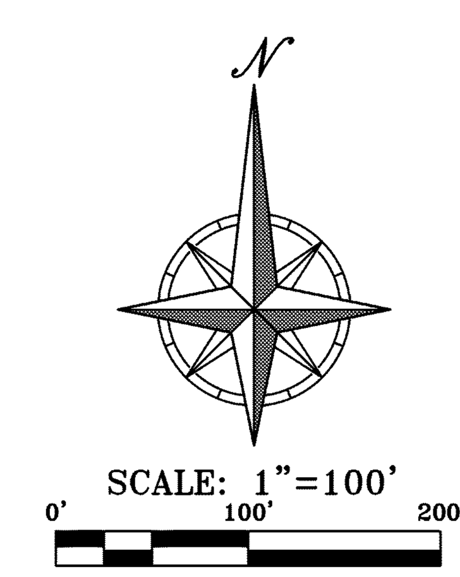
BENCHMARKS:

SET "□" CUT IN SOUTH MIDDLE NOSE OF NORTH ISLAND AT NORTHWEST CORNER OF SURVEYED PROPERTY.
ELEVATION = 988.06

SET "□" CUT IN SOUTH MIDDLE CONCRETE LINE SOUTH ISLAND EAST OF GOLF COURSE ENTRANCE.
ELEVATION = 994.22

DEMOLITION KEY NOTES:

- (A) REMOVE EXISTING CONCRETE.
- (B) REMOVE EXISTING RETAINING WALL.
- (C) REMOVE EXISTING STORM SEWER.
- (D) REMOVE EXISTING OVERHEAD POWER. CONTRACTOR TO COORDINATE WITH KCPL TO DISCONNECT ELECTRICAL SERVICE.
- (E) REMOVE EXISTING POWER POLE.
- (F) REMOVE EXISTING LIGHT POLE.
- (G) REMOVE EXISTING GUARD POST.
- (H) REMOVE EXISTING BUILDING.
- (I) REMOVE EXISTING GRAVEL DRIVE.
- (J) REMOVE EXISTING CONCRETE DRIVE.
- (K) REMOVE EXISTING FENCE.



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EXISTING CONDITIONS/DEMOLITION PLAN

MERIDIAN AT VIEW HIGH
LEE'S SUMMIT, MISSOURI
SITE DEVELOPMENT PLANS

No.	Date	Revisions:	By	App.

PROJECT NO. 150376
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SITE PLAN NOTES:

1. All construction materials and procedures on this project shall conform to the latest revision of the following governing requirements, incorporated herein by reference:
A) City ordinances & O.S.H.A. Regulations.
B) The City of Lee's Summit Technical Specifications and Municipal Code.
C) Project Technical Specifications.

2. The contractor shall have one (1) signed copy of the plans (approved by the City) and one (1) copy of the appropriate Design and Construction Standards and Specifications at the job site at all times.

3. The contractor will be responsible for securing all permits, bonds and insurance required by the contract documents, City of Lee's Summit, Missouri, and all other governing agencies (including local, county, state and federal authorities) having jurisdiction over the work proposed by these construction documents. The cost for all permits, bonds and insurance shall be the contractors responsibility and shall be included in the bid for the work.

4. The contractor is responsible for coordination of his and his sub-contractor's work. The contractor shall assume all responsibility for protecting and maintaining his work during the construction period and between the various trades/sub-contractors constructing the work.

5. The demolition and removal(or relocation) of existing pavement, curbs, structures, utilities, and all other features necessary to construct the proposed improvements, shall be performed by the contractor. All waste material removed during construction including excess soil, unsuitable materials, or other shall be disposed off the project site. The contractor shall be responsible for all permits for hauling and disposing of waste or excess material. The disposal of waste or excess material shall be in accordance with all local, state and federal regulations.

6. Contractor shall be responsible for all relocations, including but not limited to, all utilities, storm drainage, sanitary sewer services, signs, traffic signals & poles, etc. as required. All work shall be in accordance with governing authorities specifications and shall be approved by such. All cost shall be included in base bid.

7. All existing utilities indicated on the drawings are according to the best information available to the Engineer; however, all utilities actually existing may not be shown. The contractor shall be responsible for contacting all utility companies for an exact field location of each utility prior to any construction. All utilities, shown and unshown, damaged through the negligence of the contractor shall be repaired or replaced by the contractor at his expense.

8. The contractor will be responsible for all damage to existing utilities, pavement, fences, structures and other features not designated for removal. The contractor shall repair all damages at his expense.

9. The contractor shall verify the flow lines of all existing storm or sanitary sewer connections and utility crossings prior to the start of construction. Notify the engineer of any discrepancies.

10. <u>SAFETY NOTICE TO CONTRACTOR:</u> In accordance with generally accepted construction practices, the contractor shall be solely and completely responsible for conditions of the job site, including safety of all persons and property during performance of the work. This requirement will apply continuously and not be limited to normal working hours. Any construction observation by the engineer of the contractor's performance is not intended to include review of the adequacy of the contractor's safety measures, in, on or near the construction site.

11. <u>WARRANTY/DISCLAIMER:</u> The designs represented in these plans are in accordance with established practices of civil engineering for the design functions and uses intended by the owner at this time. However, neither the Engineer nor its personnel can or do warrant these designs or plans as constructed except in the specific cases where the Engineer observes the physical construction on a continual basis at the site.

12. No work is to be allowed within the public right-of-way or easements without a right of way work permit.

13. All paving construction and earthwork grading/compaction shall conform to the requirements of the geotechnical engineering report prepared for this project.

14. Within forty-eight hours prior to any asphalt or concrete paving, the subgrade shall be proof rolled with a fully loaded tandem wheeled dump truck and observed by the on-site geotechnical engineer. Areas of the subgrade with excessive rutting and or pumping shall be re-worked or removed in accordance with the project specifications. Flyash or granular material may be added by the contractor to stabilize the subgrade. See project specifications.

15. All curb shall be sloped for positive drainage. Contractor shall use "dry curb and gutter" as needed in localized paved areas that drain away from the curb and gutter. See paving details.

16. The Contractor is responsible for the protection of all property corners and section corners. Any property corners and/or section corners disturbed or damaged by construction activities shall be reset by a Registered Land Surveyor licensed in the State of Missouri, at the contractor's expense.

17. The contractor shall be responsible for the restoration of the right-of-way and for damaged improvements such as curbs, sidewalks, street light and traffic signal junction boxes, traffic signal loop lead ins, signal poles, etc. Damaged improvements shall be repaired in conformance with the latest city standards and to the City's satisfaction.

18. The contractor is responsible for providing berms, silt fences, or other means to prevent eroded materials from reaching the public right-of-way and adjacent properties. In the event the prevention measures are not effective, the contractor shall remove any debris, silt or mud and restore the right-of-way or adjacent property to original or better condition.

19. All disturbed areas are to receive 4" min. topsoil, sod, mulch and water until a healthy stand of grass is established. See the landscaping plans for requirements.

20. The contractor shall sod all disturbed areas within the public street right-of-way.

21. Contractor shall refer to the architectural building plans for exact locations and dimensions of vestibules, slope paving, sidewalks, exit porches, precise building dimensions and exact building utility entrance locations. All dimensions are to outside wall of building(s) or to back of curbs.

22. Provide "fire lane" pavement marking and signing as required by local authority.

23. Refer to building plans for site lighting electrical plan.

PAVEMENT MARKING AND SIGNAGE NOTES:

1. Parking stall marking stripes shall be four inch (4") wide white stripes. Directional arrow and handicap stall markings shall be furnished at locations shown on plans.

2. Handicap pavement markings and signs shall conform to all federal (Americans with Disabilities Act) and state laws and regulations.

3. Traffic control devices and pavement markings shall conform to the requirements of the "Manual of Uniform Traffic Control Devices".

4. Stop signs shall be provided at all locations as shown on plans and shall conform to the "Manual of Uniform Traffic Control Devices". Signs shall be 18" x 12", 18 gauge steel and shall be engineer grade reflective.

5. Traffic control and pavement markings shall be painted with a white Sherwin Williams S-W traffic marking series B-29Y2 or approved equal. The pavement marking shall be applied in accordance with manufacturers recommendations. Apply on a clean, dry surface and at a surface temperature of not less than 70°F and the ambient air temperature shall not be less than 60°F and rising. Two coats shall be applied.

SITE GRADING NOTES:

1. CONTOURS AND ELEVATIONS: Existing and proposed contours are shown on plans at one foot (1') contour intervals, unless otherwise noted, proposed contours and elevations shown represent approximate finish grade. Contractor shall hold down subgrades to allow for building slabs, pavements, and sub-base thicknesses.

2. If the contractor does not accept existing topography as shown on the plans, without exception, he shall have made at his expense, a topographic survey by a registered land surveyor and submit it to the owner for review.

3. CLEARING AND GRUBBING: Prior to beginning preparation of subgrade, all areas under pavements or building shall be stripped of all topsoil, vegetation, large rock fragments (greater than 6 inches in any dimension) and any other deleterious material. The actual stripping depth should be based on visual examination during construction and the results of proof-rolling operations. The root systems of all trees (not designated to remain) shall be removed in their entirety. Stripping materials shall not be incorporated into structural fills.

4. TOPSOIL STRIPPING: Prior to the start of site grading, the contractor shall strip all topsoil from areas to be graded and stockpile at a location on or adjacent to the site as directed by the owner. At completion of grading operations and related construction, the contractor will be responsible for redistribution of topsoil over all areas disturbed by the construction activities. Topsoil shall be placed to a minimum depth of six inches (6") and in accordance with specifications for landscaping. At that time and prior to the installation of landscaping or irrigation, all topsoil graded areas shall be visually inspected and accepted by the owner and ITL.

5. Contractor shall adjust and/or cut existing pavement as necessary to assure a smooth fit and continuous grade. Contractor shall assure positive drainage away from buildings for all natural and paved areas.

6. SUBGRADE PREPARATION: Prior to placement of new fill material, the existing subgrade shall be proofrolled and approved under the direction of the Geotechnical Engineer or his representative.

7. PROOFROLLING: Subsequent to completion of stripping and over-excavation, all building and pavement areas to receive engineered fill should be systematically proof-rolled using a tandem axle dump truck loaded to approximately 9 tons per axle. Also, any finished subgrade areas to receive paving shall be proof-rolled within 48 hours of paving. Unsuitable soils that are detected and that can not be recompacted should be over-excavated and replaced with controlled structural fill.

8. EARTHWORK:

A) GEOTECHNICAL: All earthwork shall conform to the recommendations of the Geotechnical report. Said report and its recommendations are herein incorporated into the project requirements by reference. Prior to beginning construction, the contractor shall obtain a copy of and become familiar with the geotechnical report. Unless specifically noted on the plans, the recommendations in the geotechnical report are hereby incorporated into the project requirements and specifications.

B) SURFACE WATER: Surface water shall be intercepted and diverted during the placement of fill.

C) FILLS: All fills shall be considered controlled or structural fill and shall be free of vegetation, organic matter, topsoil and debris. In areas where the thickness of the engineered fill is greater than five, feet building and pavement construction should not commence until so authorized by the on-site geotechnical engineer to allow for consolidation.

D) BUILDING SUBGRADE: Refer to geotechnical report for requirements.

E) EXISTING SLOPES: Where fill material is to be placed on existing slopes greater than 5:1 (horizontal to vertical), existing slope shall be benched providing a minimum vertical face of twelve inches (12"). The benches should be cut wide enough to accommodate the compaction equipment. Fill material shall be placed and compacted in horizontal lifts not exceeding nine inches (8") (loose lift measurement), unless otherwise approved by the Geotechnical Engineer.

F) COMPACTION REQUIREMENTS: The upper 9 inches of pavement subgrade areas shall be compacted to a minimum density of ninety five percent (95%) of the material's maximum dry density as determined by ASTM D698 (standard proctor compaction). The moisture content at the time of placement and compaction shall within a range of -2% below to +3% above optimum moisture content as defined by the standard proctor compaction procedure. The moisture contents shall be maintained within this range until completion of the work. Where compaction of earth fill by a large roller is impractical or undesirable, the earth fill shall be hand compacted with small vibrating rollers or mechanical tampers.

9. All cut or fill slopes shall be 3:1 or flatter. All asphalt parking areas shall be a minimum of 1% slope but not more than 5% slope unless otherwise noted. All pavements within ADA parking areas shall not exceed 2% total slope. All grades around building shall be held down 8" from finish floor and slope away another 6" in 10 feet. Contractor shall notify engineer prior to final subgrade construction of any areas not within this slope requirement.

10. TESTING AND INSPECTION: Owner's Independent Testing Laboratory (ITL) shall make tests of earthwork during construction and observe the placement of fills and other work performed on this project to verify that work has been completed in accordance with Geotechnical Engineering Report, Project Specifications and within industry standards. The ITL will be selected by the owner and the cost of testing will be the owner's responsibility.

11. CLASSIFICATION: All excavation shall be considered unclassified. No separate or additional payments shall be made for rock excavation.

12. RESTORATION: All areas disturbed by earthwork operations shall be fertilized, seeded or sodded and mulched, unless shown otherwise by the landscaping plan or erosion control plan.

13. LAND DISTURBANCE: The contractor shall adhere to all terms & conditions as outlined in the EPA or applicable state N.P.D.E.S. permit for storm water discharge associated with construction activities. Refer to project S.W.P.P.P. requirements.

SITE UTILITY NOTES:

1. The contractor is specifically cautioned that the location and/or elevation of existing utilities as shown on these plans is based on records of the various utility companies, and where possible, measurements taken in the field. The information is not to be relied on as being exact or complete. The contractor must call the appropriate utility companies at least 48 hours before any excavation to request exact field location of utilities. It shall be the responsibility of the contractor to coordinate with and relocate &/or remove all existing utilities which conflict with the proposed improvements shown on the plans.

2. The contractor shall field verify the exact location and elevation of the existing storm sewer lines and the existing elevation at locations where the proposed storm sewer collects or releases to existing ground. If discrepancies are encountered from the information shown on the plans, the contractor shall contact the design engineer. No pipes shall be laid until direction or confirmation is received from the design engineer.

3. It will be the contractors responsibility to field adjust the top of all manholes and boxes as necessary to match the grade of the adjacent area. Tops of existing manholes shall be raised as necessary to be flush with proposed pavement elevations, and to be 6-inches above finished ground elevations in non-paved areas. No separate or additional compensation will be made to the contractor for making final adjustments to the manholes and boxes.

4. Inlet locations, horizontal pipe information and vertical pipe information is shown to the center of the structure. Deflection angles shown for storm sewer pipes are measured from the center of curb inlets and manholes. The contractor shall adjust the horizontal location of the pipes to go to the face of the boxes. All roof drains shall be connected to storm sewer structures. Provide cleanouts on roof drain lines at 100' max. Spacing and at all bend points. Do not connect roof drains directly to storm sewer pipe.

5. The contractor shall be responsible for furnishing and installing all fire and domestic water lines, meters, backflow devices, pits, valves and all other incidentals required for a complete operable fire protection and domestic water system. All costs associated with the complete water system for the buildings shall be the responsibility of the contractor. All work shall conform to the requirements of City of Lee's Summit, Missouri.

6. The contractor shall be responsible for furnishing and installing all sanitary sewer service lines from the buildings to the public line. The contractor shall refer to the building plumbing plans for specific locations and elevations of the service lines of the building connection. All work shall conform to the requirements of the City of Lee's Summit Missouri.

7. The contractor will be responsible for securing all permits, bonds and insurance required by the contract documents, City of Lee's Summit, Missouri, and all other governing agencies (including local, county, state and federal authorities) having jurisdiction over the work proposed by these construction documents. The cost for all permits bonds and insurance shall be the contractors responsibility and shall be included in the bid for the work.

8. The Contractor shall be responsible for furnishing all materials, tools and equipment and installation of electrical power, telephone and gas service from a point of connection from the public utility lines to the building structures. This will include all conduits, service lines, meters, concrete pads and all other incidentals required for a complete and operational system as required by the owner and the public utilities. Refer to building plans for exact tie-in locations of all utilities. Contractor shall verify connection points prior to installation of utility line.

9. All fill material is to be in place, compacted, and consolidated before installation of proposed utilities. On-site geotechnical engineer shall provide written confirmation that this requirement has been met and that utilities may proceed in the fill areas. All utilities are to be placed in trench conditions.

10. Contractor shall notify the utility authorities inspectors 48 hours before connecting to any existing line.

11. Storm sewer roof drains (st) shall be as follows (unless otherwise shown on plans).
- PVC SDR 35 per ASTM D 3034, for pipes less than 12' deep.
- PVC SDR 26 per ASTM D 3034, for pipes 12' to 20' deep.
- High Density Polyethylene Pipe (HDPE) may also be used for storm sewer pipe is 24 inches in diameter or less allowed on private storm sewers. HDPE is not permitted for use within Public Right of Way.

12. Water lines shall be as follows (unless otherwise shown on plans):
for 6" and larger: PVC (C900)
between 2" and 6": copper tube Type "K" per ANSI 816.22 or ductile iron pipe per AWWA C150.
For smaller than 2": copper tube Type "K" per ANSI 816.22.

13. Minimum trench width shall be 2 feet.

14. Contractor shall maintain a minimum of 42" cover on all waterlines. All water line joints are to be mechanical joints with thrust blocking as called out in specifications and construction plans. Water mains and service lines shall be constructed in accordance to Waterone's specifications for commercial services.

15. All waterlines shall be kept ten (10') apart (parallel) from sanitary sewer lines or manholes. Or when crossing, an 2'vertical clearance (outside edge of pipe to outside edge of pipe) of the water line above the sewer line is required.

16. In the event of a vertical conflict between waterlines, sanitary lines, storm lines and gas lines (existing and proposed), the sanitary line shall be encased in concrete 10 feet on both sides of the water line. The waterline shall have mechanical joints with appropriate thrust blocking as required to provide a minimum of 24" clearance, meeting requirements of ANSI A21.10 or ANSI 21.11 (AWWA C-151) (CLASS 50).

17. All underground storm, sanitary, water and other utility lines shall be installed, inspected and approved before backfilling. Failure to have inspection approval prior to backfill will constitute rejection of work.

18. All necessary inspections and/or certifications required by codes and/or utility service companies shall be performed prior to announced building possession and the final connection of service. Contractor shall coordinate with all utility companies for installation requirements and specifications.

19. Refer to building plans for site lighting electrical plan, irrigation, parking lot security system and associated conduit requirements. Coordinate with Owner that all required conduits are in place & tested prior to paving.

20. When a building utility connection from site utilities leading up to the building cannot be made immediately, temporarily mark all such site utility terminations.

STATE OF MISSOURI
DOUGLAS EUGENE UBBEN, JR.
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PROFESSIONAL ENGINEER

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GENERAL NOTES
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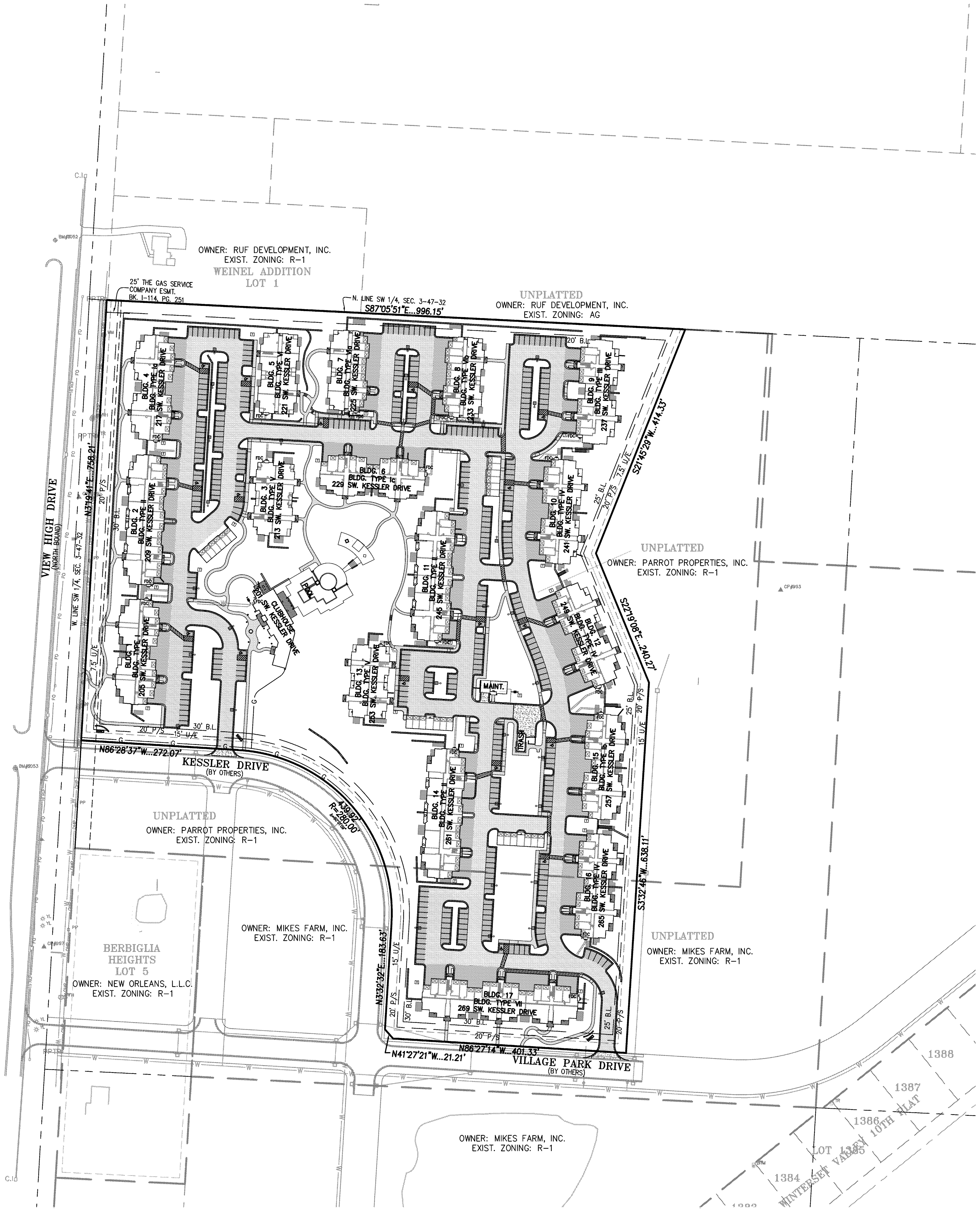
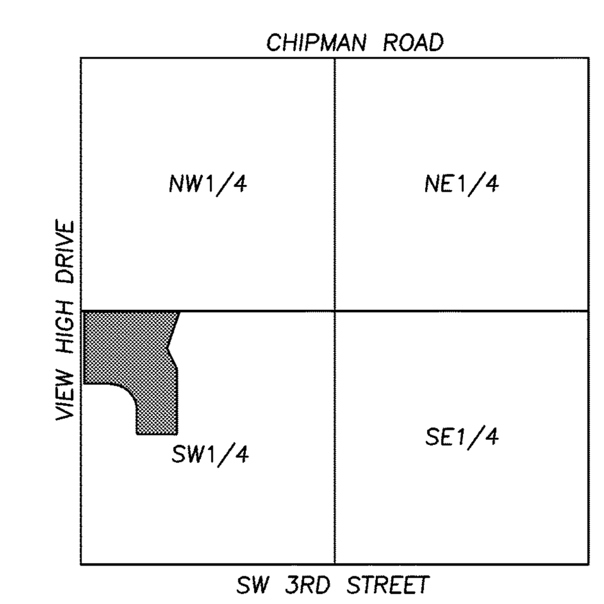


LEGAL DESCRIPTION:

ALL THAT PART OF THE SOUTHWEST QUARTER OF SECTION 3, TOWNSHIP 47 NORTH, RANGE 32 WEST, IN THE CITY OF LEE'S SUMMIT, JACKSON COUNTY, MISSOURI, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHWEST CORNER OF THE SOUTHWEST QUARTER OF SAID SECTION 3; THENCE S 87°05'51" E, ALONG THE NORTH LINE OF THE SOUTHWEST QUARTER OF SAID SECTION 3, A DISTANCE OF 30.00 FEET TO A POINT ON THE EASTERLY RIGHT-OF-WAY LINE OF NW HIGH VIEW DRIVE, AS NOW ESTABLISHED, SAID POINT ALSO BEING THE POINT OF BEGINNING; THENCE CONTINUING S 87°05'51" E, ALONG THE NORTH LINE OF THE SOUTHWEST QUARTER OF SAID SECTION 3, A DISTANCE OF 996.15 FEET; THENCE S 21°45'29" W, A DISTANCE OF 414.33 FEET; THENCE S 22°19'08" E, A DISTANCE OF 240.27 FEET; THENCE S 03°32'46" W, A DISTANCE OF 638.11 FEET; THENCE N 86°27'14" W, A DISTANCE OF 401.33 FEET; THENCE N 41°27'21" W, A DISTANCE OF 21.21 FEET; THENCE N 3°32'32" E, A DISTANCE OF 183.63 FEET; THENCE NORTHWESTERLY ON A CURVE TO THE LEFT, SAID CURVE BEING TANGENT TO THE LAST DESCRIBED COURSE AND HAVING A RADIUS OF 280.00 FEET, AN ARC DISTANCE OF 439.92 FEET; THENCE N 86°28'37" W, A DISTANCE OF 272.07 FEET TO A POINT ON THE EASTERLY RIGHT-OF-WAY LINE OF SAID NW VIEW HIGH DRIVE; THENCE N 3°19'41" E, ALONG THE EASTERLY RIGHT-OF-WAY LINE OF SAID NW VIEW HIGH DRIVE, A DISTANCE OF 758.21 FEET TO THE POINT OF BEGINNING, CONTAINING 21.3401 ACRES, MORE OR LESS.



VICINITY MAP
SEC. 3-47N-32W

FLOOD NOTE:

THIS PROPERTY LIES WITHIN ZONE X, DEFINED AS AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN, AS SHOWN ON THE FLOOD INSURANCE RATE MAP PREPARED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY FOR THE CITY OF LEE'S SUMMIT, COMMUNITY NO. 290174, JACKSON COUNTY, MISSOURI, MAP NO. 29095C0287F, AND DATED SEPTEMBER 29, 2006.

LEGEND:

B.L. BUILDING LINE

U/E UTILITY EASEMENT

P/S PARKING SETBACK

STANDARD DUTY ASPHALT

HEAVY DUTY ASPHALT

CONCRETE PAVEMENT

RETAINING WALL

BUILDING & SITE DATA

LOT AREA	21.34 AC/929,576 SQ. FT.
ZONING	PMIX
NUMBER OF UNITS	312 UNITS
DENSITY (UNITS/ACRE)	14.62 DU/AC
TOTAL BUILDING SQ. FOOTAGE	478,737 SQ. FT.
FLOOR AREA RATIO (FAR) (478,737 S.F./929,576 S.F.)	0.52
% IMPERVIOUS (515,335 S.F./929,576 S.F.)	55.4%

PARKING CALCULATIONS

PARKING CALCULATIONS (CITY STANDARDS)

REQUIRED PARKING		479 SPACES
1 BDR.	155 X 1.50 = 233	
2 BDR.	137 X 1.50 = 206	
3 BDR.	20 X 2.00 = 40	
PROVIDED PARKING		740 SPACES
STANDARD		363
HANDICAP		17
GARAGE (ATTACHED)		168
GARAGE (DETACHED)		24
DRIVE APRON (IN FRONT OF GARAGE)		168

BUILDING TYPES

1

#1 - TYPE I	(16 UNITS)	27,258 G.S.F.
#2 - TYPE II	(23 UNITS)	35,038 G.S.F.
#3 - TYPE V	(20 UNITS)	20,450 G.S.F.
#4 - TYPE Ia	(16 UNITS)	27,174 G.S.F.
#5 - TYPE VI	(20 UNITS)	21,613 G.S.F.
#6 - TYPE Ic	(12 UNITS)	21,932 G.S.F.
#7 - TYPE VIa	(16 UNITS)	21,608 G.S.F.
#8 - TYPE VIb	(16 UNITS)	21,611 G.S.F.
#9 - TYPE III	(16 UNITS)	26,714 G.S.F.
#10 - TYPE IV	(16 UNITS)	26,714 G.S.F.
#11 - TYPE II	(24 UNITS)	35,038 G.S.F.
#12 - TYPE IV	(16 UNITS)	26,714 G.S.F.
#13 - TYPE V	(20 UNITS)	20,450 G.S.F.
#14 - TYPE II	(25 UNITS)	35,038 G.S.F.
#15 - TYPE Ib	(16 UNITS)	27,266 G.S.F.
#16 - TYPE IV	(16 UNITS)	26,714 G.S.F.
#17 - TYPE VII	(24 UNITS)	39,660 G.S.F.
#18 - CLUBHOUSE		9,018 G.S.F.
#19 - GARAGE 1	(TYPE I)	1,559 G.S.F.
#20 - GARAGE 2	(TYPE I)	1,559 G.S.F.
#21 - GARAGE 3	(TYPE II)	1,843 G.S.F.
#22 - GARAGE 4	(TYPE II)	1,843 G.S.F.
#23 - MAINTENANCE		1,307 G.S.F.
#24 - TRASH		616 G.S.F.

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STATE OF MISSOURI
DOUGLAS EUGENE UBBEN, JR.
NUMBER PE-2011010998
PROFESSIONAL ENGINEER

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GENERAL LAYOUT
MERIDIAN AT VIEW HIGH
LEE'S SUMMIT, MISSOURI
SITE DEVELOPMENT PLANS

No.	Date	Revisions:	By	App.
1	9/11/17	REVISED TABLE	ALN	DEU

PROJECT NO. 150376
DATE: 6-27-17
DRAWN: JMO
DESIGNED: DLM
APPROVED: DEU

CERTIFICATE OF AUTHORIZATION
MISSOURI
LAND SURVEYING-2007001128
ENGINEERING-2007005058

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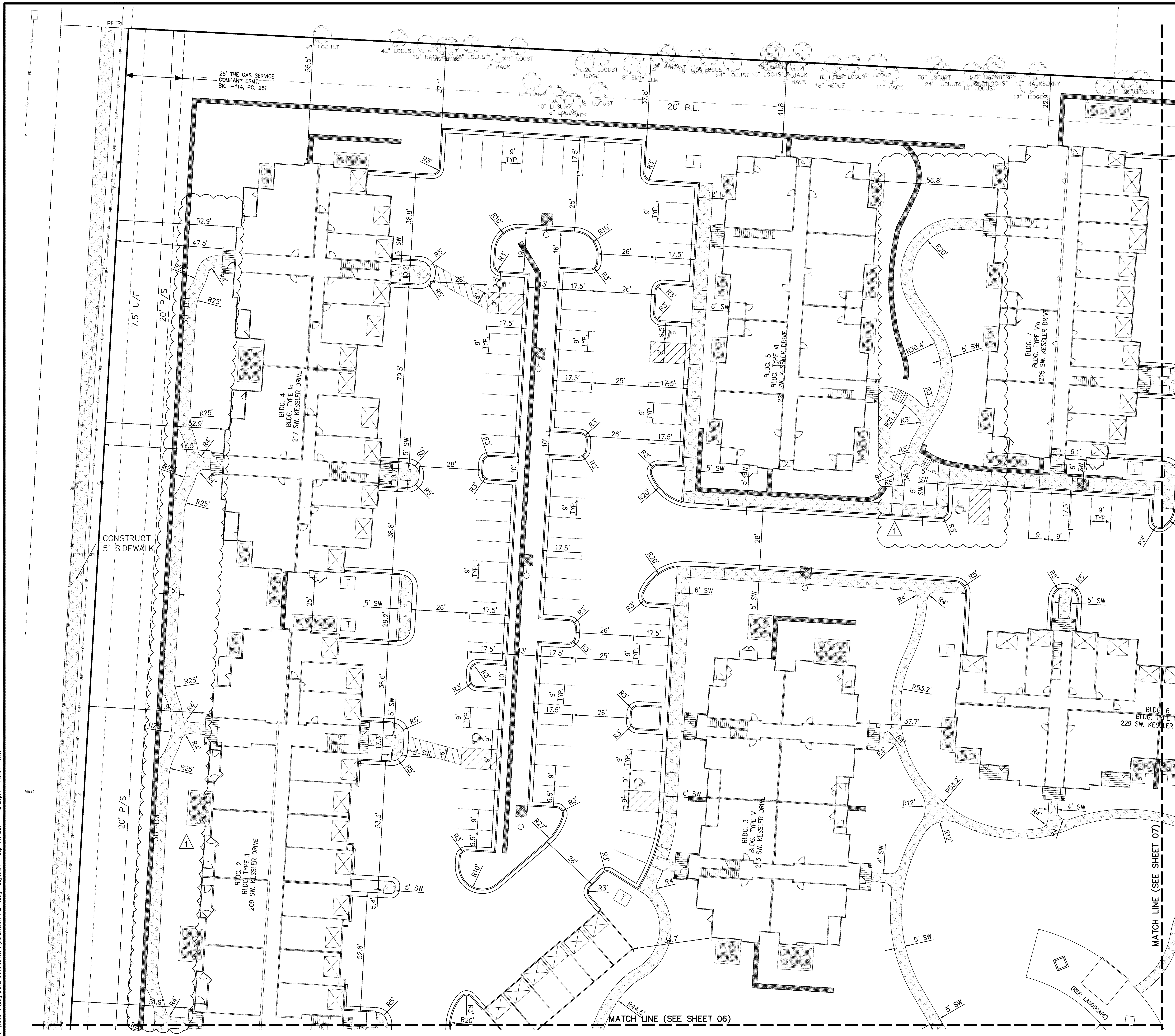

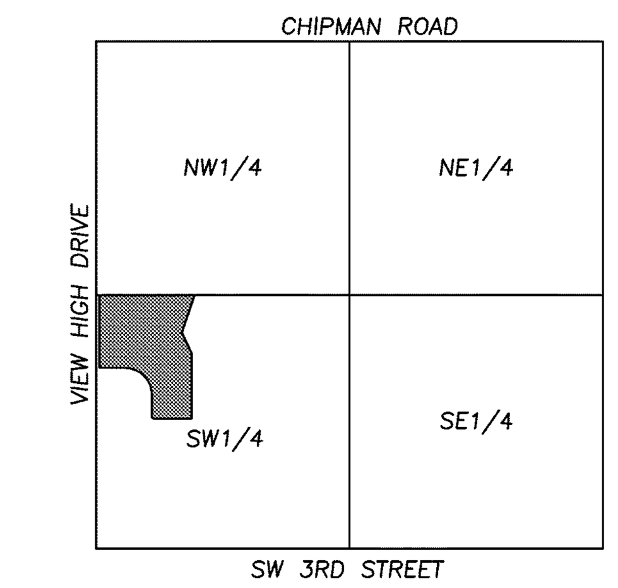

SCALE: 1"=2000'

VICINITY MAP
SEC. 3-47N-32W

FLOOD NOTE:

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SCALE: 1"=20'

0' 20' 40'

NOTE:
ALL DIMENSIONS ARE TO THE BACK OF CURB & FACE OF BUILDINGS.

LEGEND:

- B.L. BUILDING LINE
- U/E UTILITY EASEMENT
- P/S PARKING SETBACK
- RETAINING WALL
- HIGH BACK CURB & GUTTER
- ROLLOVER CURB & GUTTER
- CONCRETE SIDEWALK
- ARCHITECTURAL CONCRETE APRON (REF: BUILDING PLANS)
- A/C UNIT
- STREET LIGHT

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DIMENSION PLAN
MERIDIAN AT VIEW HIGH
LEE'S SUMMIT, MISSOURI
SITE DEVELOPMENT PLANS

No.	Date	Revisions:	By	App.
1	9/11/17	REVISED SIDEWALK	ALN	DEU

PROJECT NO. 150376
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LAND SURVEYING-2007001128
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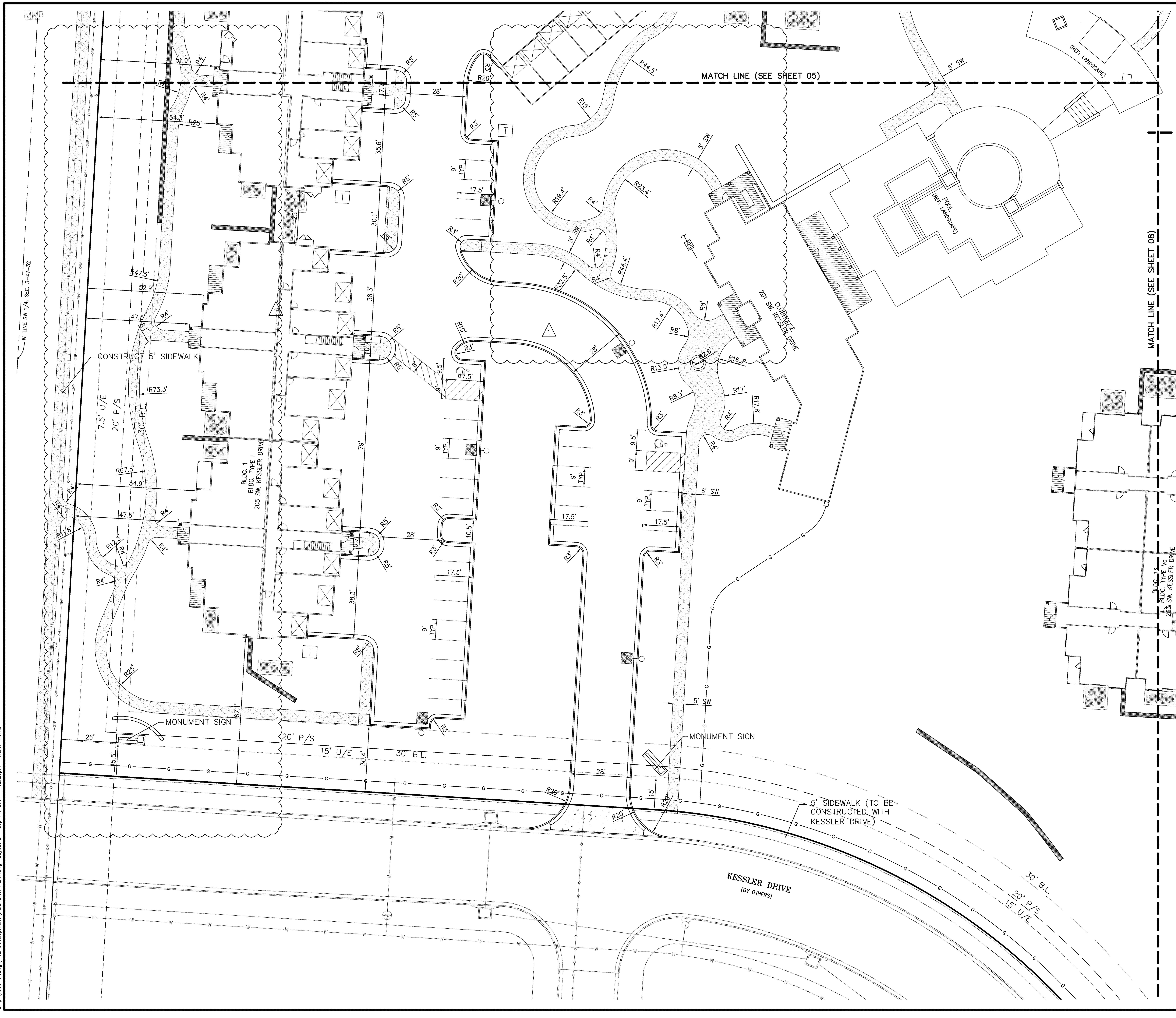

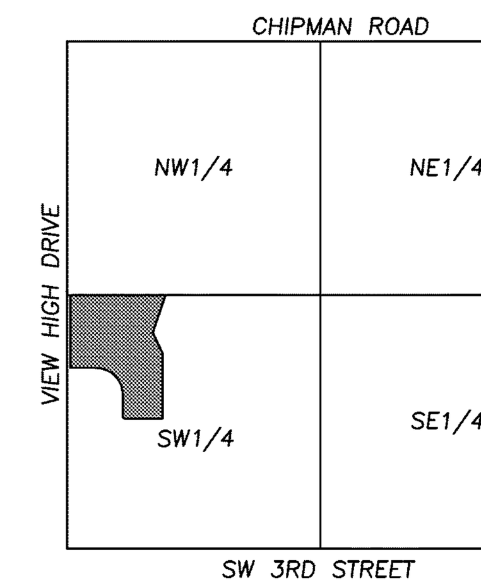

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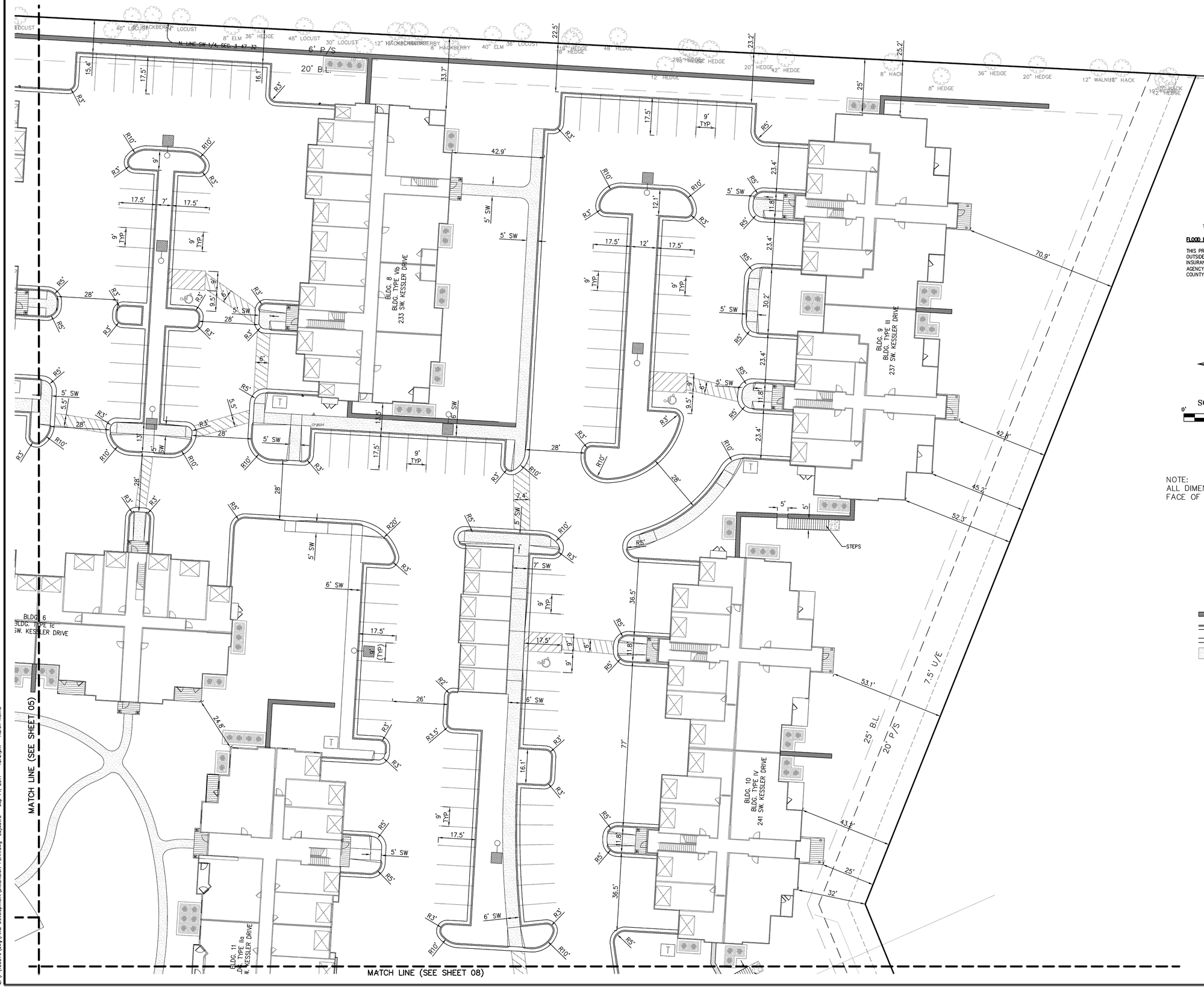

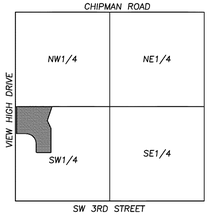

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VICINITY MAP
SEC. 3-47N-32W

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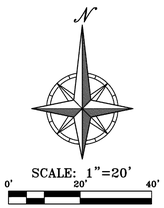

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- ARCHITECTURAL CONCRETE APRON (REF: BUILDING PLANS)
- A/C UNIT
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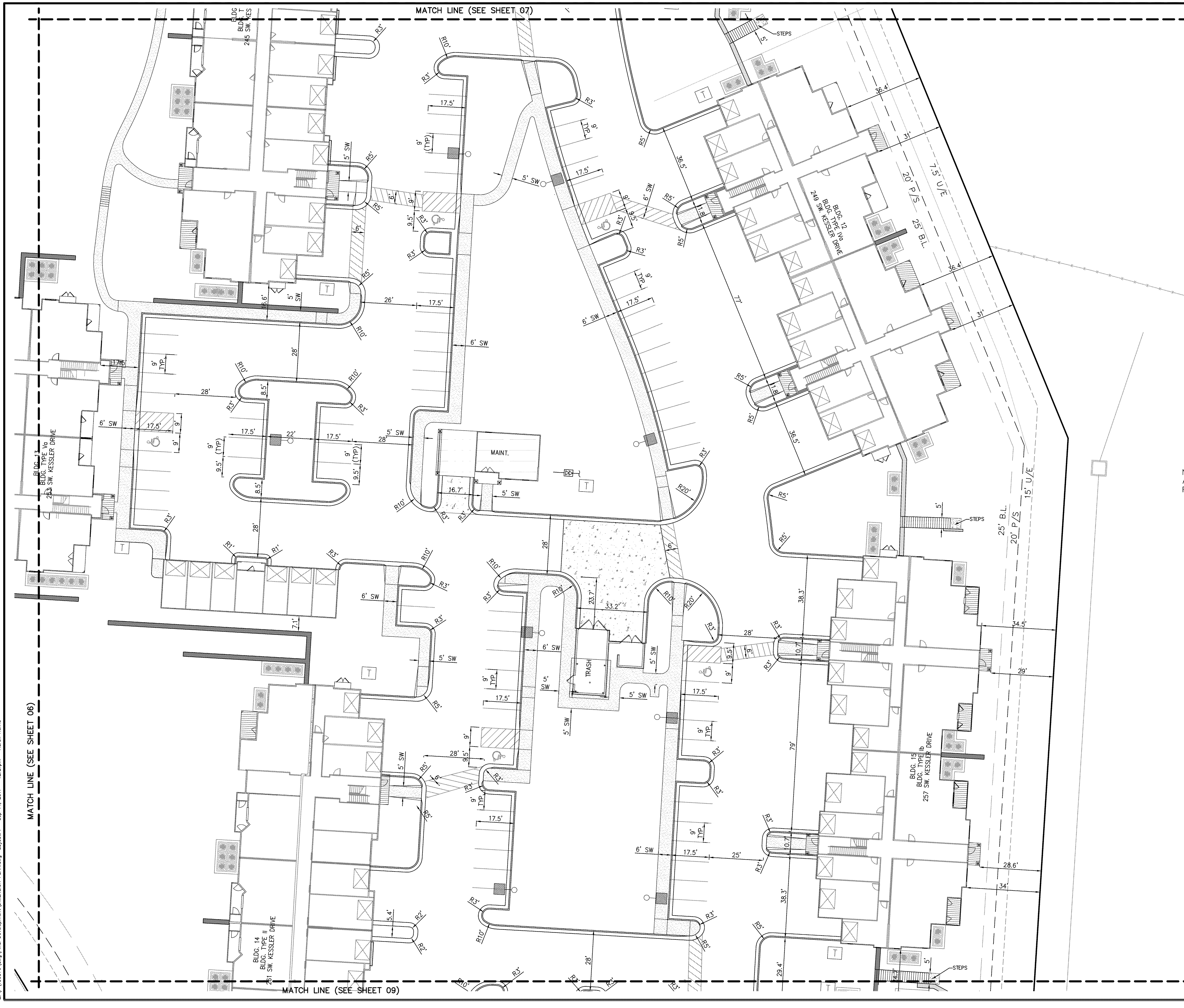
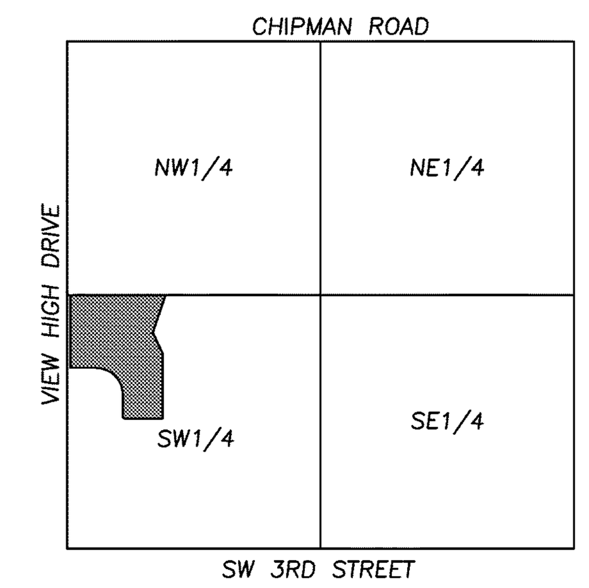
KANSAS ENGINEERING #E-2007001128

SHEET
07
OF 61





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VICINITY MAP
SEC. 3-47N-32W

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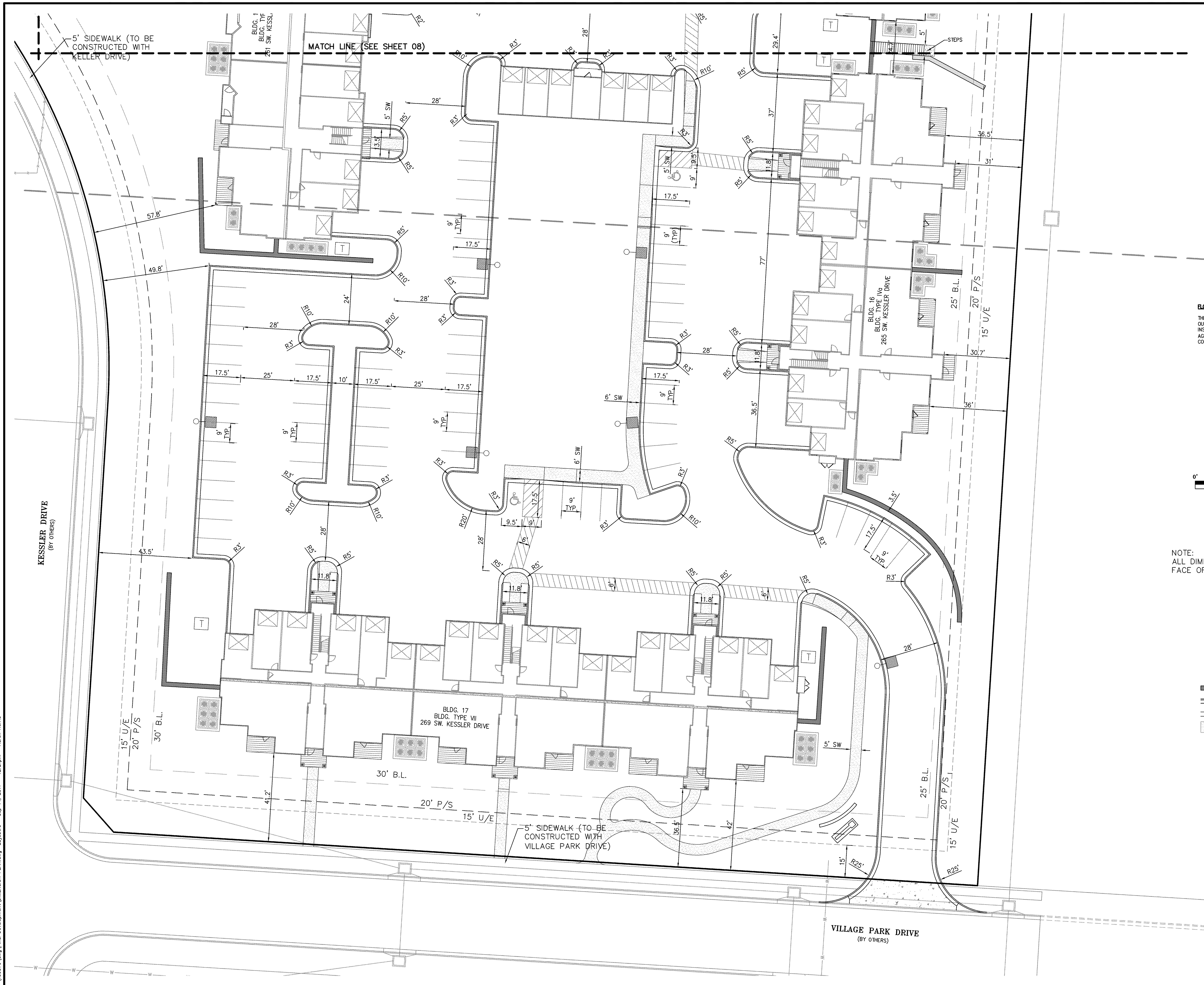

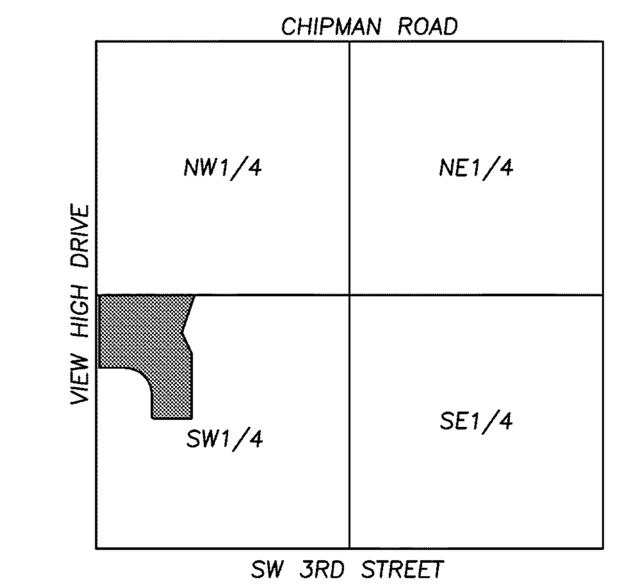

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VICINITY MAP
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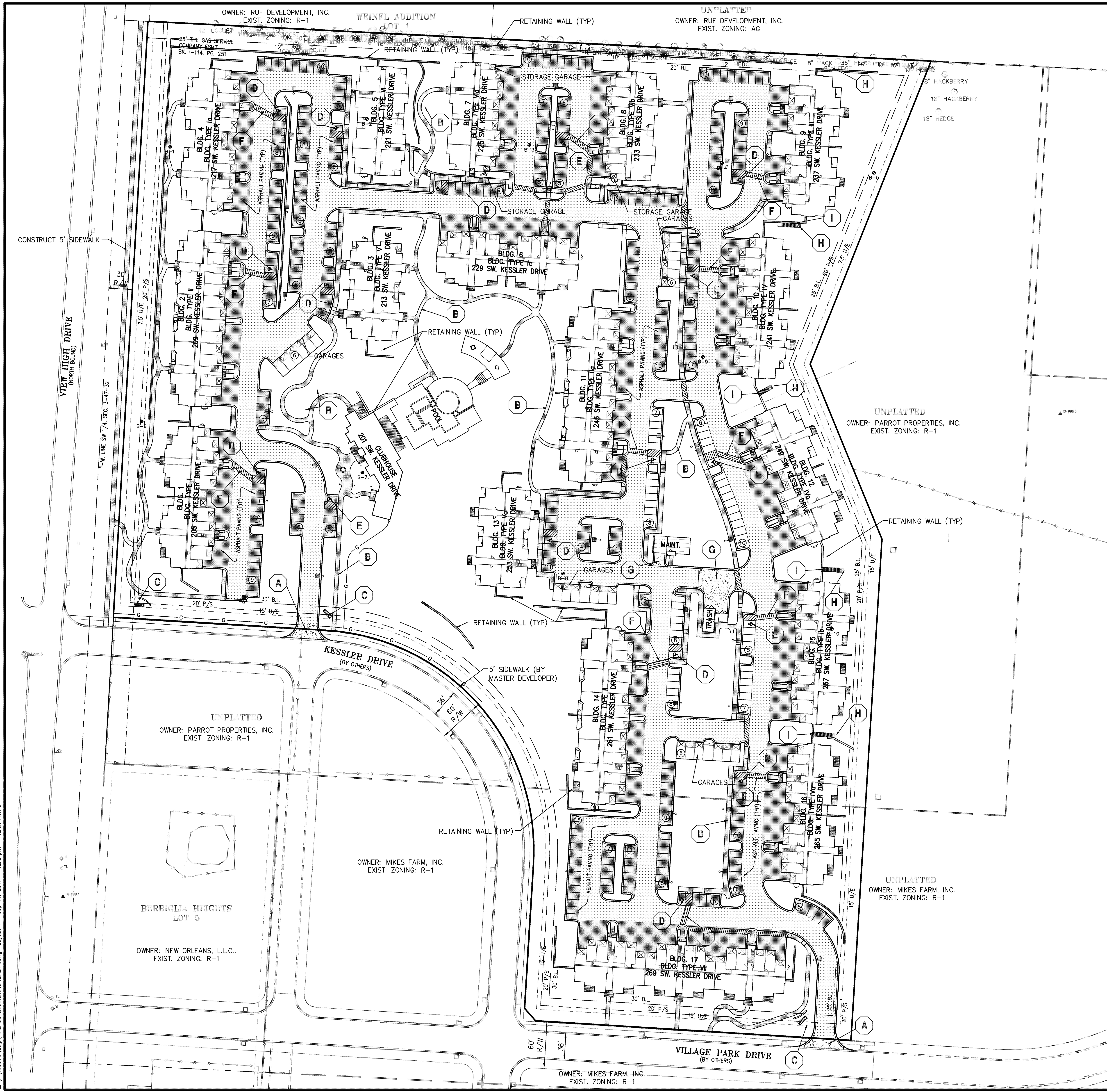

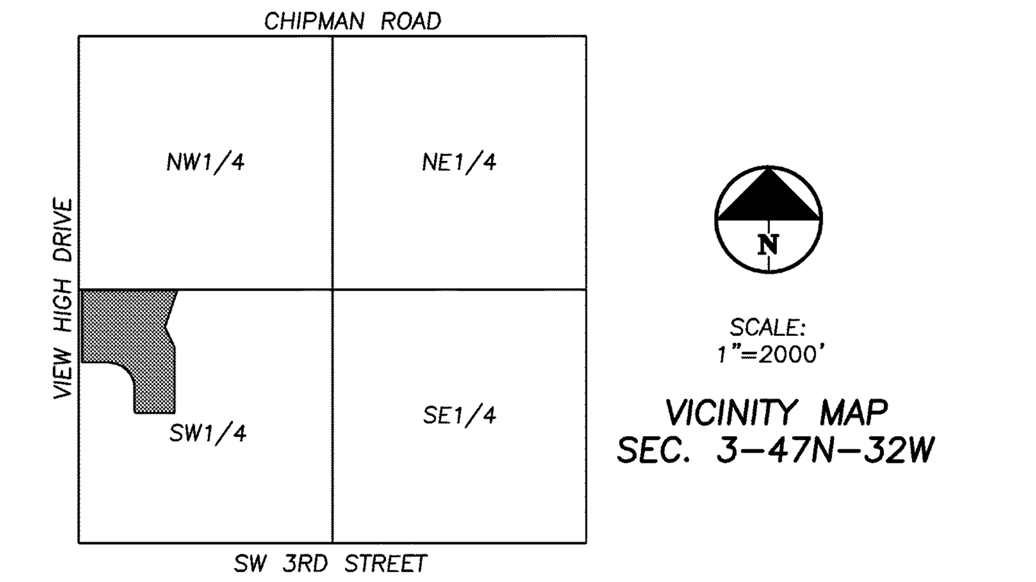

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VICINITY MAP
SEC. 3-47N-32W

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SCALE: 1"=60'

0' 60' 120'

KEY NOTES:

- A CONSTRUCT COMMERCIAL ENTRANCE.
- B CONCRETE SIDEWALK (TYP)
- C MONUMENT SIGN
- D ACCESSIBLE SIGNAGE, STRIPING AND RAMP.
- E VAN ACCESSIBLE SIGNAGE, STRIPING AND RAMP.
- F STRIPE 6' WIDE CROSSWALK.
- G CONSTRUCT CONCRETE PAVEMENT.
- H CONSTRUCT 5'x5' CONCRETE SIDEWALK STOOP AT THE BOTTOM OF THE STEPS.
- I INSTALL PRECAST STEPS.

LEGEND:

- B.L. BUILDING LINE
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- P/S PARKING SETBACK
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- ROLLOVER CURB & GUTTER
- CONCRETE SIDEWALK
- CONCRETE PAVEMENT
- STANDARD DUTY ASPHALT
- HEAVY DUTY ASPHALT
- ARCHITECTURAL CONCRETE APRON (REF: BUILDING PLANS)
- A/C UNIT
- STREET LIGHT

NOTE:
CURBING SHALL COMPLY WITH CG-1 CONCRETE TYPE AROUND ALL PARKING AREAS AND ACCESS DRIVES

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SITE PLAN

MERIDIAN AT VIEW HIGH

LEE'S SUMMIT, MISSOURI

SITE DEVELOPMENT PLANS

No.	Date	Revisions:	By	App.

PROJECT NO. 150376
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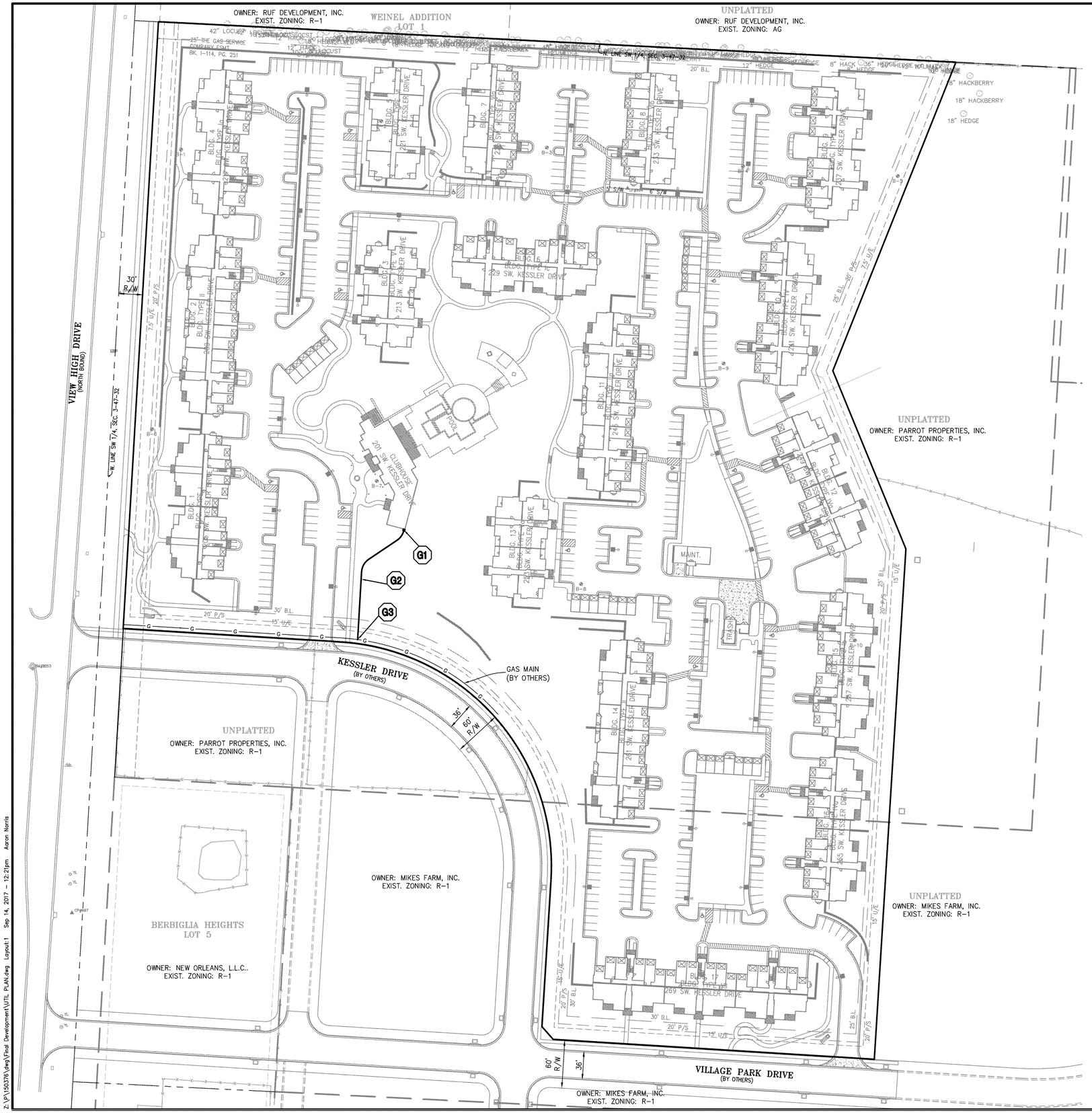

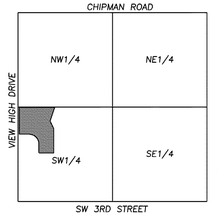

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VICINITY MAP
SEC. 3-47N-32W

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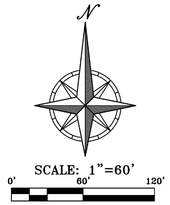

SCALE: 1"=60'

0' 60' 120'

KEY NOTES:

G1 PROPOSED GAS ENTRY WITH GAS METER LOCATED AT BUILDING WALL. CONTRACTOR SHALL COORDINATE WITH GAS COMPANY FOR THE TYING OF INDIVIDUAL METER.

G2 INSTALL GAS SERVICE LINE CONTRACTOR TO COORDINATE WITH MISSOURI GAS ENERGY FOR TYPE, SIZE AND INSTALLATION OF GAS SERVICE LINE.

G3 CONNECT GAS SERVICE TO GAS MAIN.

LEGEND:

B.L. BUILDING LINE
U/E UTILITY EASEMENT
P/S PARKING SETBACK
STREET LIGHT
PROPOSED GAS LINE
G FUTURE GAS LINE (BY OTHERS)

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IMPLEMENTATION

UTILITY PLAN
MERIDIAN AT VIEW HIGH
LEE'S SUMMIT, MISSOURI
SITE DEVELOPMENT PLANS

No.	Revisions:	Date	By	App.

PROJECT NO. 150376
DATE: 6-27-17
DRAWN: JMO
DESIGNED: DLM
APPROVED: DEU

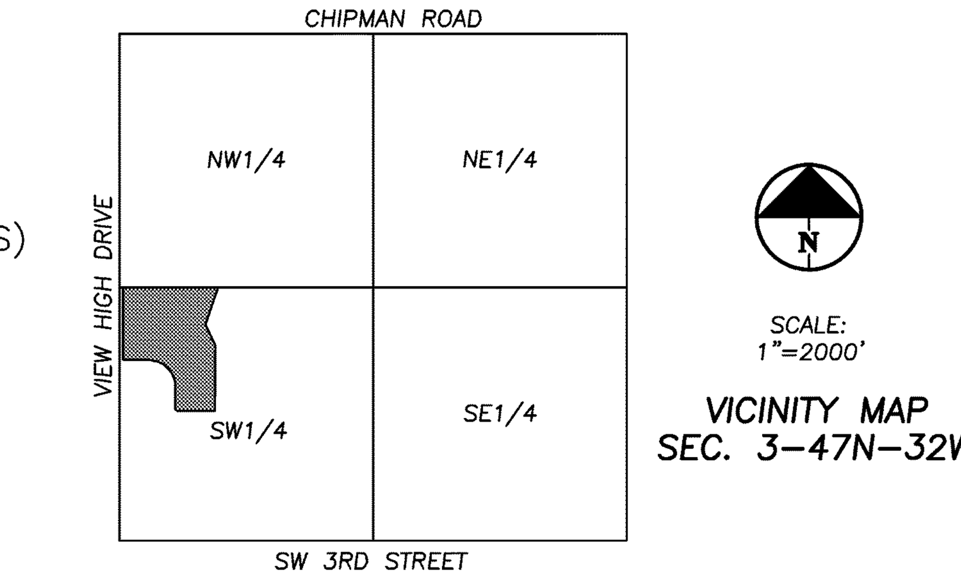
CERTIFICATE OF AUTHORIZATION
MISSOURI ENGINEERING 2007000728
EXPIRATION DATE: 12/31/2018

SHEET
10.1
OF 61

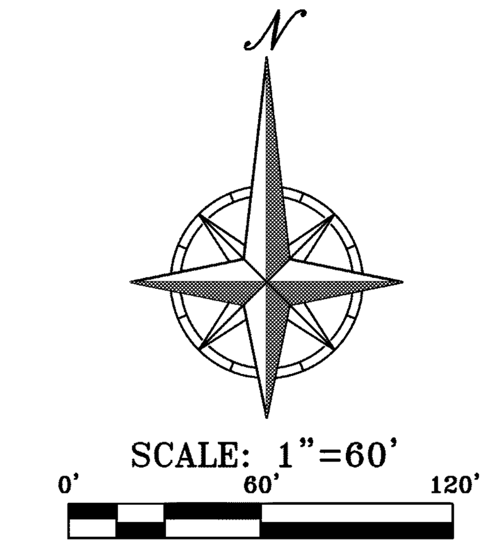
Z:\P\150376\dwg\Final Development\UTIL PLAN.dwg Layout:1 Sep 14, 2017 - 12:21pm Aaron Norris

LEGEND:

------942------	EXISTING CONTOUR
— —942— —	PROPOSED CONTOUR (BY OTHERS)
——942——	PROPOSED CONTOUR
B.L.	BUILDING LINE
U/E	UTILITY EASEMENT
P/S	PARKING SETBACK



VICINITY MAP
SEC. 3-47N-32W

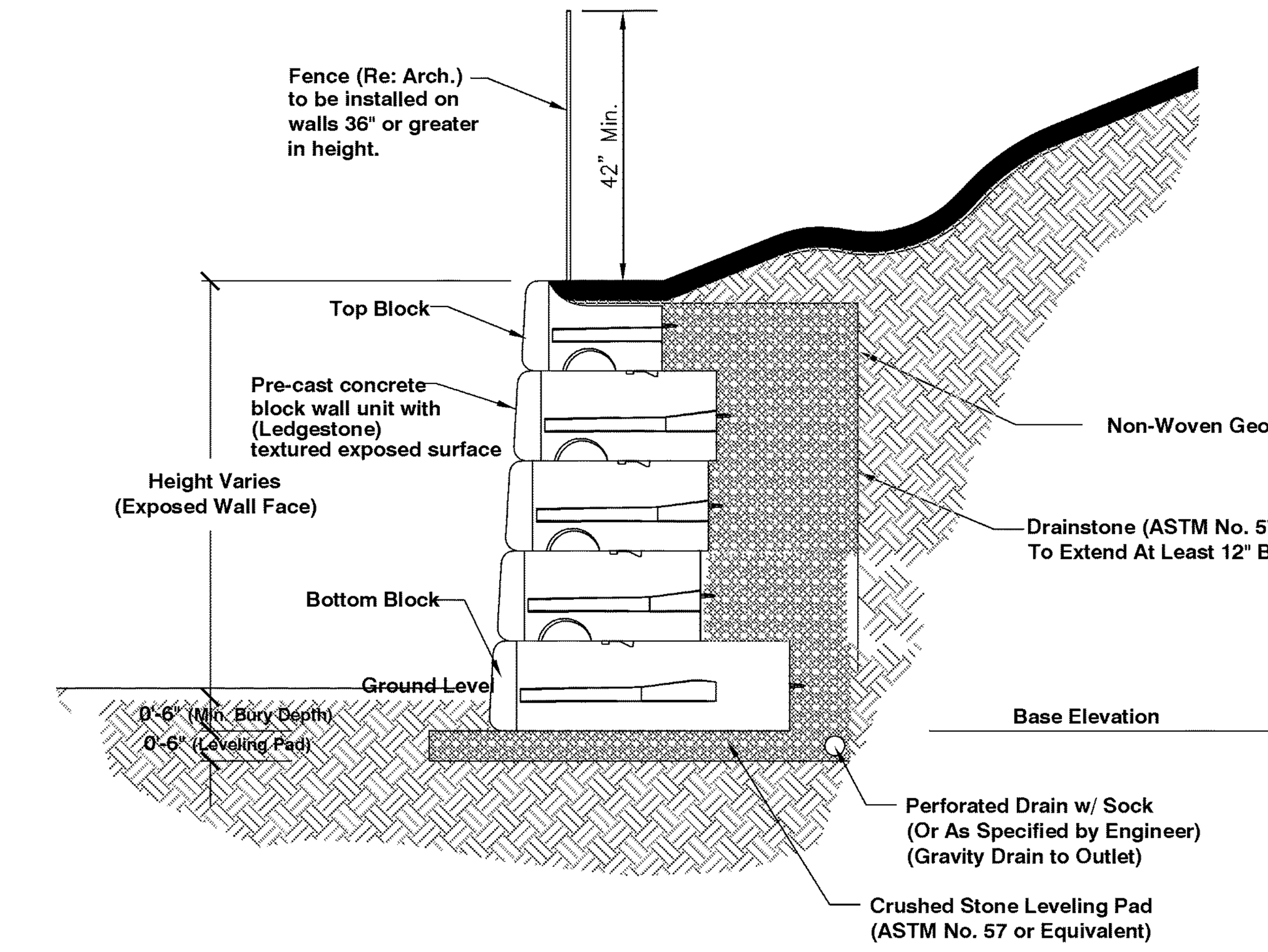


FLOOD NOTE:

THIS PROPERTY LIES WITHIN ZONE X, DEFINED AS AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN, AS SHOWN ON THE FLOOD INSURANCE RATE MAP PREPARED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY FOR THE CITY OF LEE'S SUMMIT, COMMUNITY NO. 290174, JACKSON COUNTY, MISSOURI, MAP NO. 29095C0287F, AND DATED SEPTEMBER 29, 2006.

NOTES:

1. ALL EARTHWORK SHALL BE CONSIDERED UNCLASSIFIED. NO PAYMENTS SHALL BE MADE FOR "ROCK" EXCAVATION.
2. CONTRACTOR TO HOLD GRADE DOWN 10" FROM FINISHED FLOOR FOR BUILDING FOUNDATION.
3. ALL EXCESS, WASTE, OR UNSUITABLE MATERIAL SHALL BE DISPOSED OF OFF SITE BY THE CONTRACTOR.



LARGE BLOCK GRAVITY RETAINING WALL
CROSS-SECTION A-A

CROSS SECTIONS SHOWN ARE CONCEPTUAL. SEE STRUCTURAL PLANS FOR DETAILS AND SPECIFICATIONS FOR RETAINING WALLS (BY OTHERS)

NOTE:
ALL RETAINING WALLS TO BE VERSA-LOK MSE WALLS OR ENGINEER APPROVED EQUAL

SINGLE RETAINING WALL
CROSS-SECTION

CROSS SECTIONS SHOWN ARE CONCEPTUAL. SEE STRUCTURAL PLANS FOR DETAILS AND SPECIFICATIONS FOR RETAINING WALLS (BY OTHERS)

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LARGE BLOCK SEGMENTAL GRAVITY WALL

Large Block Segmental Gravity Wall shall be provided for retaining wall systems on this project. This wall system shall be a pre-cast, interlocking concrete block system for use in gravity type retaining wall applications and have a textured concrete face. The block exposed face shall be manufactured with a custom color blend selected by the owner from the manufacturer's full range of color options. Due to space constraints, other segmental wall systems requiring the use of geogrids or other reinforced methods are not allowed. Installation of concrete block walls shall be done in accordance to the manufacturer's specifications. The following commercially available concrete block wall products will be acceptable:

1. "Redi-Rock" system as produced by a licensed manufacturer under Redi-Rock International with "Ledgestone" textured concrete face.
2. "ReCon Retaining Wall Systems" as available by Contech with "Rustic" textured concrete face.
3. Other approved equal as determined by the Owner.

Any approved equals must be submitted in writing and approved by the Owner no later than two (2) working days prior to the bid opening.

Contractor shall submit the following to the Owner for approval:

1. Manufacturer's product data and installation instructions.
2. Manufacturer's test reports and certifications of their product
3. Two sets of construction shop drawings prepared by a licensed engineer (Kansas) and design calculations based on NCMA Design Guidelines for Segmental Walls, which shall include the following:
   a) Wall layout and heights
   b) Wall Sections
   c) Drainage materials
   d) Special installation instructions
   e) Elevation (Profile) views
   f) Design calculations and assumptions. Note: The design shall be based on a gravity wall system and global stability of the wall system must be analyzed as part of the submitted documents.

Quality Assurance: Contractor shall have successfully installed at least three large block segmental retaining wall projects within the past five years. Documentation of projects including owner contact information shall be provided to the City upon request.

Released for Construction

STATE OF MISSOURI
DOUGLAS EUGENE UBBEN, JR.
NUMBER PE-2011010998
PROFESSIONAL ENGINEER

PHELPS ENGINEERING, INC
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PLANNING
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IMPLEMENTATION
PEI

GRADING PLAN
MERIDIAN AT VIEW HIGH
LEE'S SUMMIT, MISSOURI
SITE DEVELOPMENT PLANS

No.	Date	Revisions:	By	App.
1	9/11/17	REVISED SIDEWALK	ALN	DEU

PROJECT NO. 150376
DATE: 6-27-17
DRAWN: JMO
DESIGNED: DLM
APPROVED: DEU
CERTIFICATE OF AUTHORIZATION MISSOURI LAND SURVEYING-2007001128 ENGINEERING-2007005058

LEGEND:

942	EXISTING CONTOUR
942	PROPOSED CONTOUR (BY OTHERS)
942	PROPOSED CONTOUR
	PROPOSED CURB & GUTTER (DRY)
	LANDING AREA (SLOPE NOT TO EXCEED 2% IN ANY DIRECTION)

PROPOSED SPOT ELEVATION

TC 1067.33
LG 1067.00

LG	LIP OF GUTTER	P	TOP OF PAVEMENT
TC	TOP OF CURB	TE	TOP OF STRUCTURE
SW	SIDEWALK	GR	GROUND ELEVATION
ME	MATCH EXISTING	RD	ROOF DRAIN
HP	HIGH POINT	DS	DOWN SPOUT
LP	LOW POINT		

SCALE: 1"=20'
0' 20' 40'

Released for Construction

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STATE OF MISSOURI
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PEI PLANNING ENGINEERING IMPLEMENTATION

SPOT GRADING PLAN
MERIDIAN AT VIEW HIGH
LEE'S SUMMIT, MISSOURI
SITE DEVELOPMENT PLANS

No.	Date	Revisions:	By	App.
1	9/11/17	REVISED SIDEWALK	ALN	DEU

PROJECT NO. 150376
DATE: 6-27-17
DRAWN: JMO
DESIGNED: DLM
APPROVED: DEU

CERTIFICATE OF AUTHORIZATION
MISSOURI
LAND SURVEYING-2007001128
ENGINEERING-2007005058

SHEET
11.1
OF 61

STATE OF MISSOURI
DOUGLAS EUGENE UBBEN, JR.
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SPOT GRADING PLAN
MERIDIAN AT VIEW HIGH
LEE'S SUMMIT, MISSOURI
SITE DEVELOPMENT PLANS

No.	Date	Revisions	By	App.
1	9/11/17	REVISED SIDEWALK	ALN	DEU

PROJECT NO. 150376
DATE: 6-27-17
DRAWN: JMO
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APPROVED: DEU
CERTIFICATE OF AUTHORIZATION

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SHEET
11.2
OF 61

STATE OF MISSOURI
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SPOT GRADING PLAN

MERIDIAN AT VIEW HIGH

LEE'S SUMMIT, MISSOURI

SITE DEVELOPMENT PLANS

No.	Date	Revisions:	By	App.

PROJECT NO. 150376
DATE: 6-27-17
DRAWN: JMO
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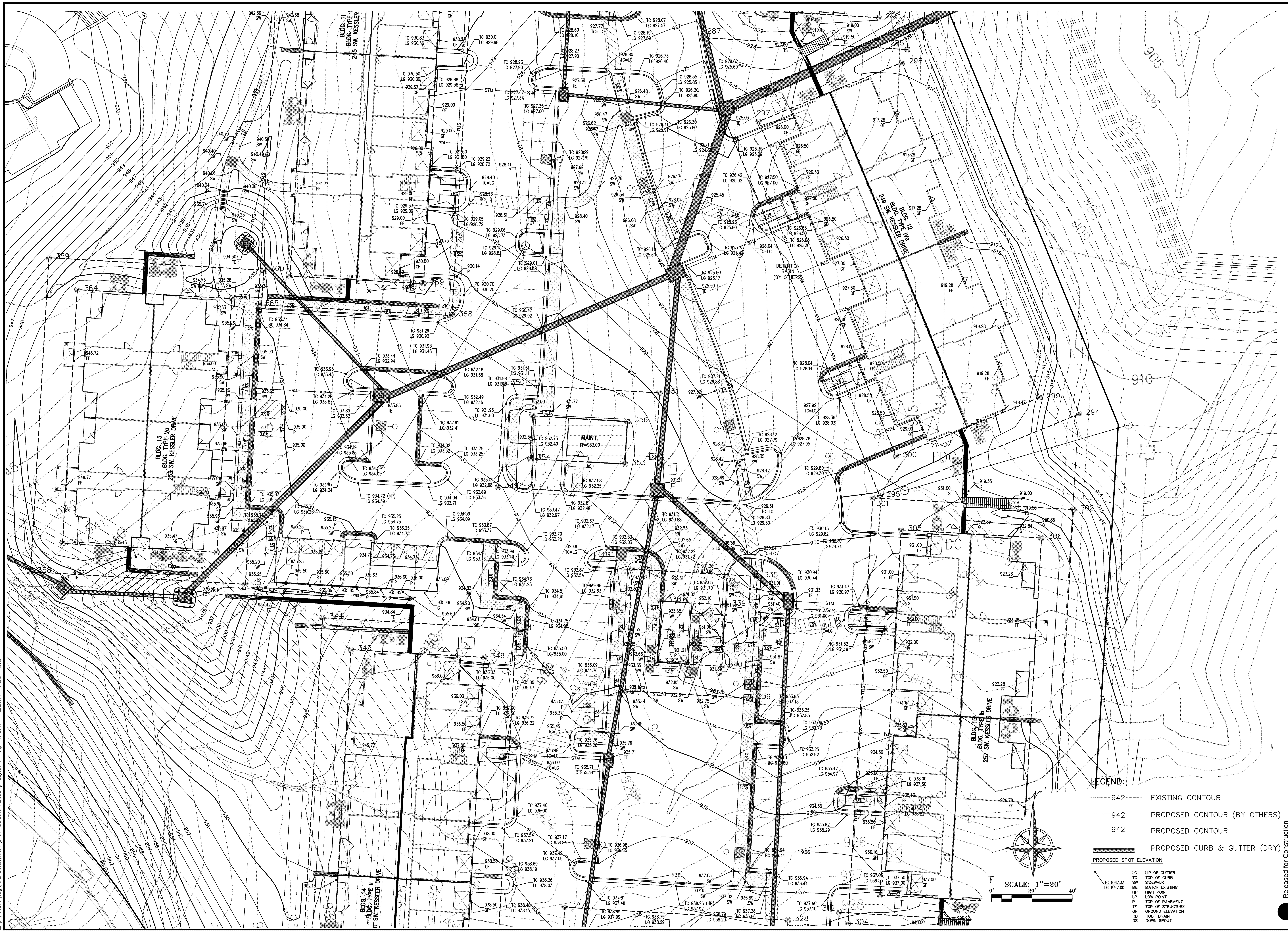
CERTIFICATE OF AUTHORIZATION
MISSOURI
LAND SURVEYING--2007001128
ENGINEERING--2007005058



LEGEND:

942 (dashed)	EXISTING CONTOUR
942 (long dash)	PROPOSED CONTOUR (BY OTHERS)
942 (solid)	PROPOSED CONTOUR
(shaded band)	PROPOSED CURB & GUTTER (DRY)

PROPOSED SPOT ELEVATION

TC 1067.33
LG 1067.00

LG	LIP OF GUTTER
TC	TOP OF CURB
SW	SIDEWALK
ME	MATCH EXISTING
HP	HIGH POINT
LP	LOW POINT
P	TOP OF PAVEMENT
TE	TOP OF STRUCTURE
GR	GROUND ELEVATION
RD	ROOF DRAIN
DS	DOWN SPOUT

Released for Construction

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SPOT GRADING PLAN

MERIDIAN AT VIEW HIGH
LEE'S SUMMIT, MISSOURI
SITE DEVELOPMENT PLANS

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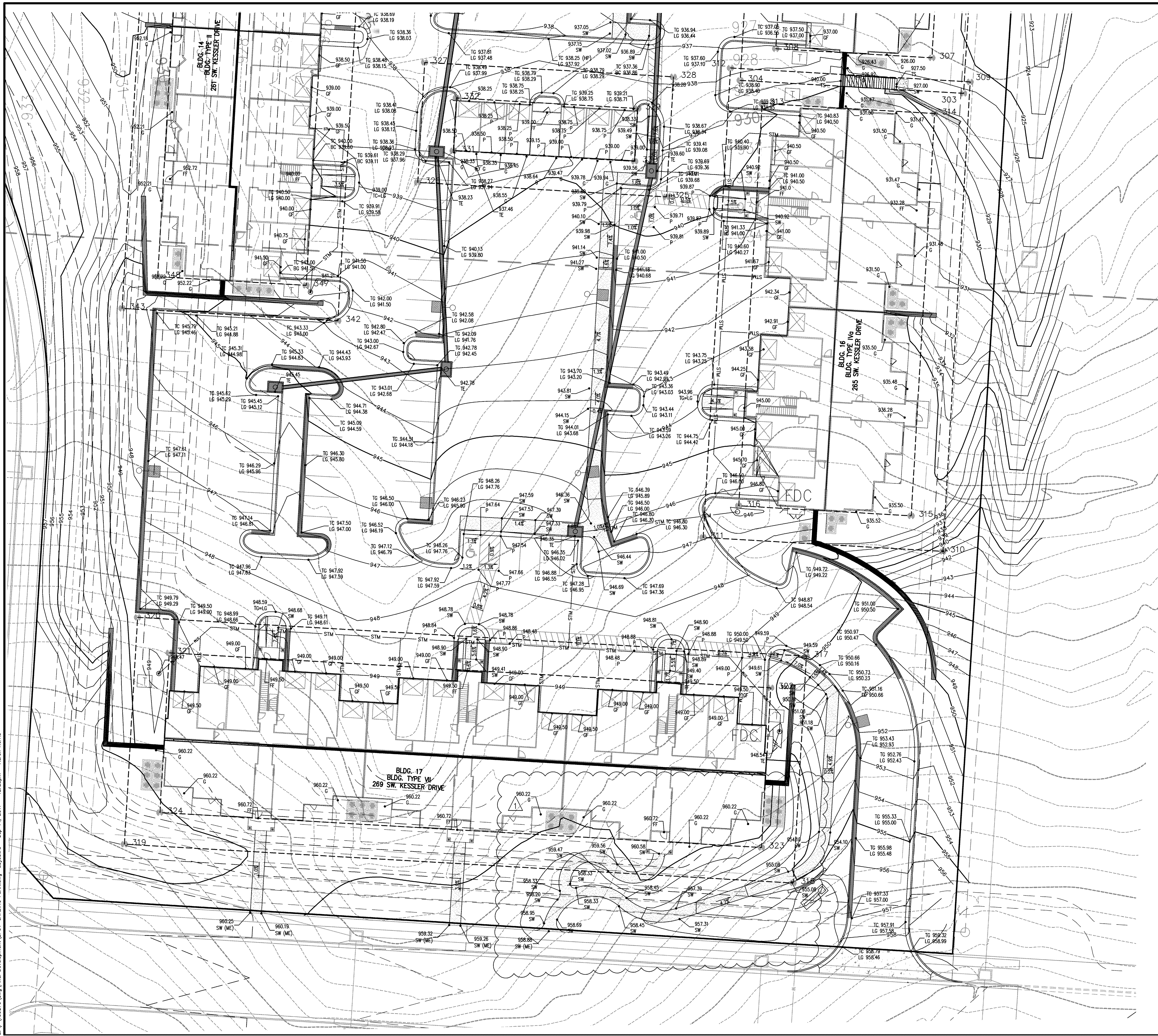

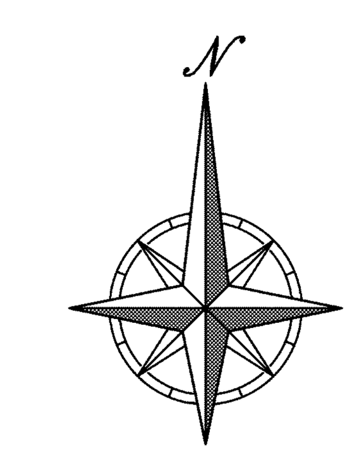

SCALE: 1"=20'
0' 20' 40'

LEGEND:

- 942 EXISTING CONTOUR
- 942 PROPOSED CONTOUR (BY OTHERS)
- 942 PROPOSED CONTOUR
- PROPOSED CURB & GUTTER (DRY)

PROPOSED SPOT ELEVATION

TC 1067.33
LG 1067.00

LG	LIP OF GUTTER
TC	TOP OF CURB
SW	SIDEWALK
ME	MATCH EXISTING
HP	HIGH POINT
LP	LOW POINT
P	TOP OF PAVEMENT
TE	TOP OF STRUCTURE
GR	GROUND ELEVATION
RD	ROOF DRAIN
DS	DOWN SPOUT

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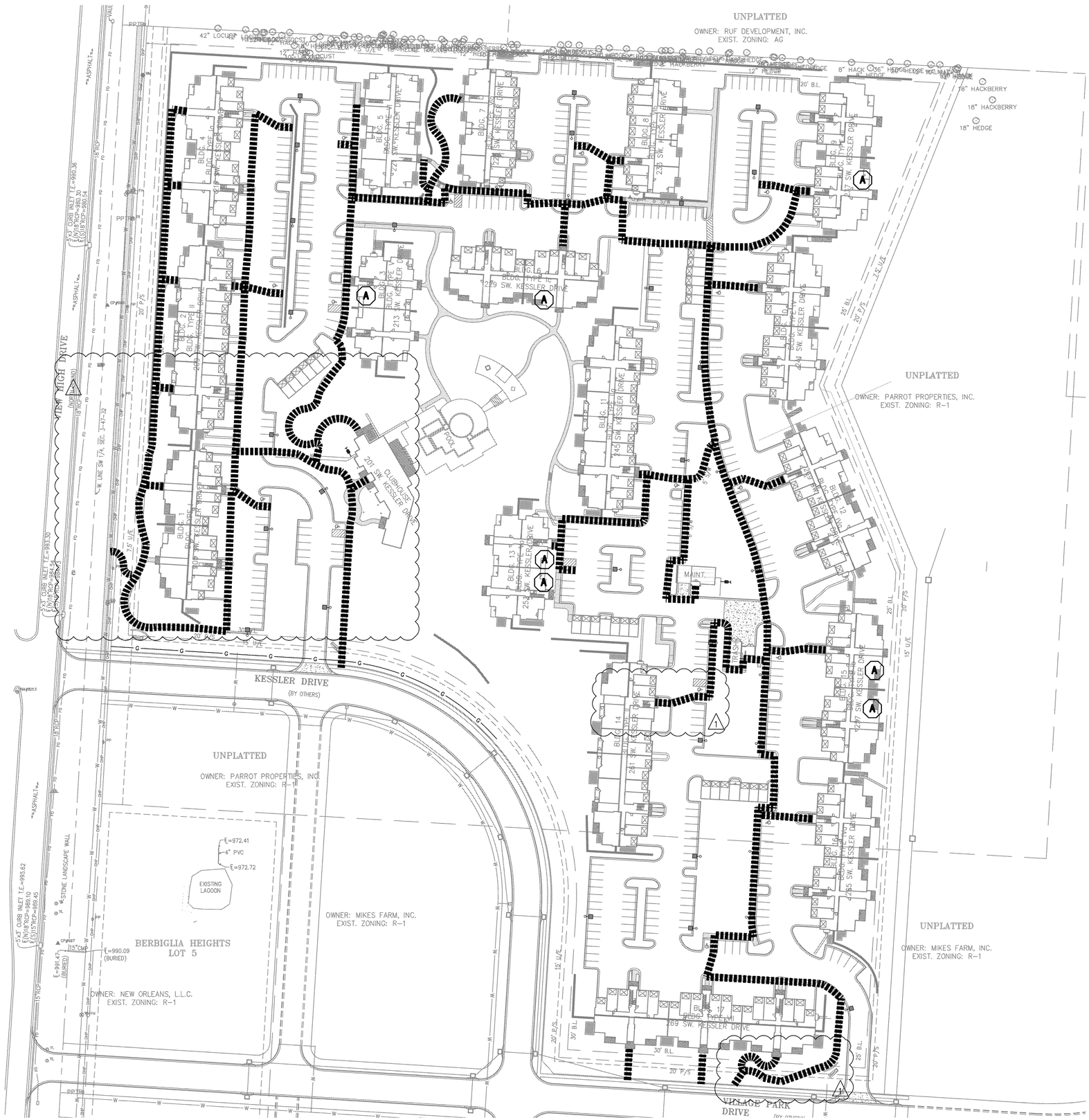
SPOT GRADING PLAN
MERIDIAN AT VIEW HIGH
LEE'S SUMMIT, MISSOURI
SITE DEVELOPMENT PLANS

No.	Date	Revisions:	By	App.
1	9/11/17	REVISED SIDEWALK	ALN	DEU

PROJECT NO. 150376
DATE: 6-27-17
DRAWN: JMO
DESIGNED: DLM
APPROVED: DEU

CERTIFICATE OF AUTHORIZATION
MISSOURI
LAND SURVEYING--2007001128
ENGINEERING--2007005058



SCALE:
1"=2000'

VICINITY MAP
SEC. 3-47N-32W

KEY NOTES:

▮▮▮▮▮▮▮▮▮▮▮▮▮▮ ADA ROUTE

ALL OTHER SIDEWALKS SHOWN THAT ARE NOT SPECIFICALLY ADA MARKED ROUTES SHOWN HEREIN SHOULD BE BUILT TO ADA GRADES IF AT ALL POSSIBLE, BUT IS NOT REQUIRED.

Ⓐ ADA UNITS IN BUILDINGS (3, 6, 9, 13 & 15)

SCALE: 1"=60'

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ADA ACCESSIBLE ROUTE
MERIDIAN AT VIEW HIGH
LEE'S SUMMIT, MISSOURI
SITE DEVELOPMENT PLANS

No.	Date	Revisions:	By	App.
1	9/11/17	REVISED SIDEWALK	ALN	DEU

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MISSOURI
LAND SURVEYING-2007001128
ENGINEERING-2007005058

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SHEET
12
OF 61

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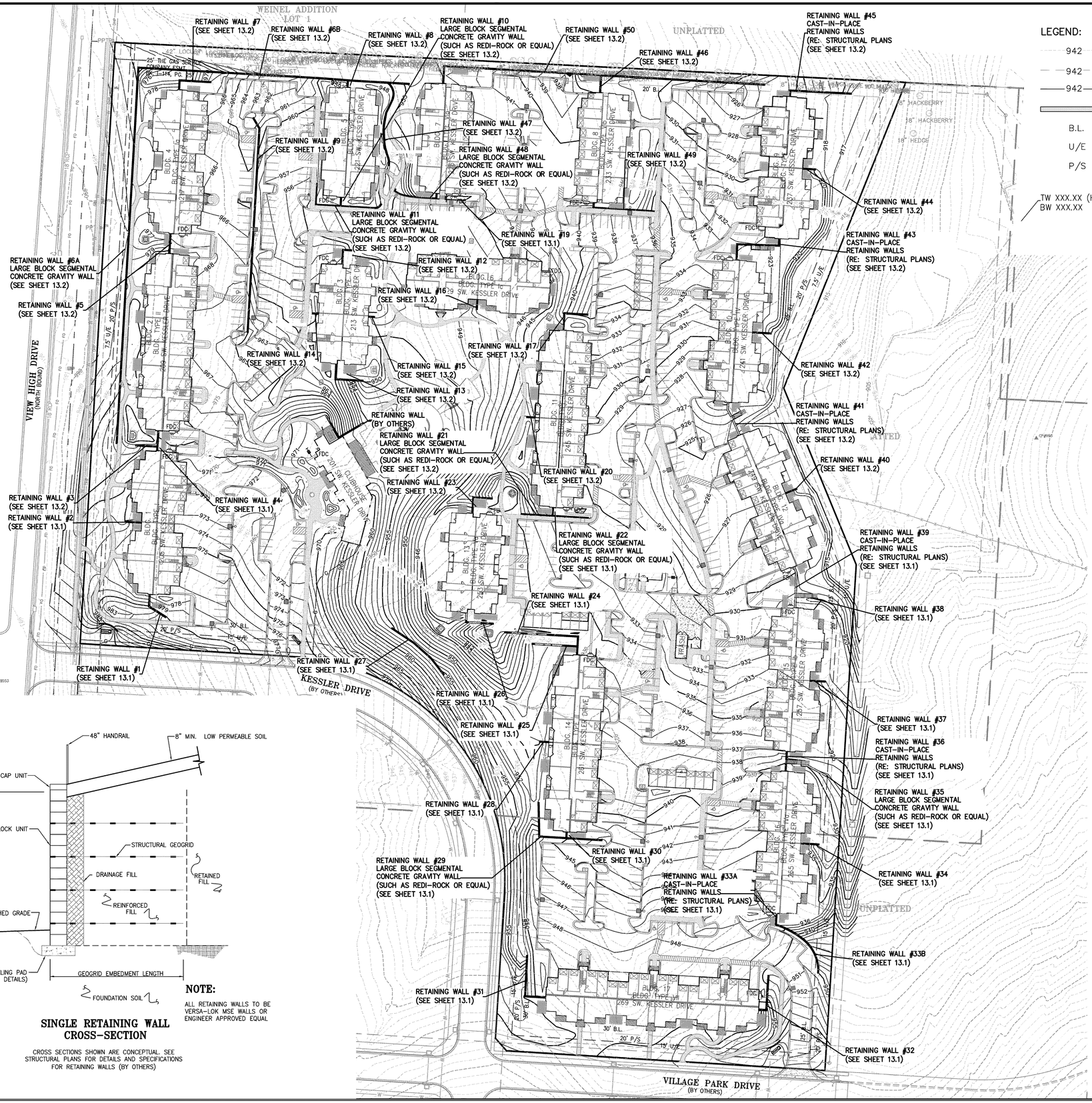


NOTE:

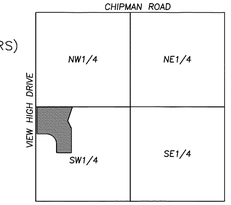
ALL RETAINING WALLS TO BE VERSA-LOK MSE WALLS OR ENGINEER APPROVED EQUAL

SINGLE RETAINING WALL CROSS-SECTION

CROSS SECTIONS SHOWN ARE CONCEPTUAL. SEE STRUCTURAL PLANS FOR DETAILS AND SPECIFICATIONS FOR RETAINING WALLS (BY OTHERS)

LEGEND:

942	EXISTING CONTOUR	
942	PROPOSED CONTOUR (BY OTHERS)	
942	PROPOSED CONTOUR	
	RETAINING WALL	
B.L.	BUILDING LINE	
U/E	UTILITY EASEMENT	
P/S	PARKING SETBACK	
TW XXX.XX (H)	TW	TOP OF WALL
BW XXX.XX	BW	BOTTOM OF WALL
	H	HEIGHT OF WALL



SCALE: 1"=2000'

VICINITY MAP
SEC. 3-47N-32W

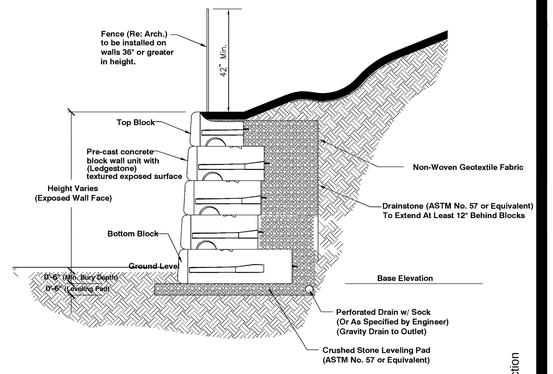
SCALE: 1"=60'
0' 60' 120'

FLOOD NOTE:

THIS PROPERTY LIES WITHIN ZONE X, DEFINED AS AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN, AS SHOWN ON THE FLOOD INSURANCE RATE MAP PREPARED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY FOR THE CITY OF LEE'S SUMMIT, COMMUNITY NO. 290174, JACKSON COUNTY, MISSOURI, MAP NO. 29095C0287F, AND DATED SEPTEMBER 29, 2006.

RETAINING WALL NOTE:

ALL RETAINING WALLS ON SITE SHALL CONSIST OF EITHER:
A. SEGMENTAL RETAINING WALL (SRW) SYSTEM WITH INTEGRALLY COLORED CONCRETE UNITS (SUCH AS KEYSTONE OR EQUAL).
B. LARGE BLOCK SEGMENTAL CONCRETE GRAVITY WALL (SUCH AS REDI-ROCK OR EQUAL).
C. RETAINING WALL #18 HAS BEEN EXCLUDED FROM THIS SET OF PLANS.
ALL WALLS ARE SEGMENTAL RETAINING WALL UNLESS NOTED OTHERWISE.



LARGE BLOCK GRAVITY RETAINING WALL CROSS-SECTION A-A

CROSS SECTIONS SHOWN ARE CONCEPTUAL. SEE STRUCTURAL PLANS FOR DETAILS AND SPECIFICATIONS FOR RETAINING WALLS (BY OTHERS)

LARGE BLOCK SEGMENTAL GRAVITY WALL

Large Block Segmental Gravity Wall shall be provided for retaining wall systems on this project. This wall system shall be a pre-cast, interlocking concrete block system for use in gravity type retaining wall applications and have a textured concrete face. The block exposed face shall be manufactured with a custom color blend selected by the owner from the manufacturer's full range of color options. Due to space constraints, other segmental wall systems requiring the use of geogrids or other reinforced methods are not allowed. Installation of concrete block walls shall be done in accordance to the manufacturer's specifications. The following commercially available concrete block wall products will be acceptable:

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   c) Drainage materials
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   e) Elevation (Profile) views
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Quality Assurance: Contractor shall have successfully installed at least three large block segmental retaining wall projects within the past five years. Documentation of projects including owner contact information shall be provided to the City upon request.

Released for Construction

STATE OF MISSOURI
DOUGLAS EUGENE UBBEN, JR.
NUMBER PE-2011010998
PROFESSIONAL ENGINEER

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PLANNING
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RETAINING WALL ELEVATION PLAN

MERIDIAN AT VIEW HIGH
LEE'S SUMMIT, MISSOURI
SITE DEVELOPMENT PLANS

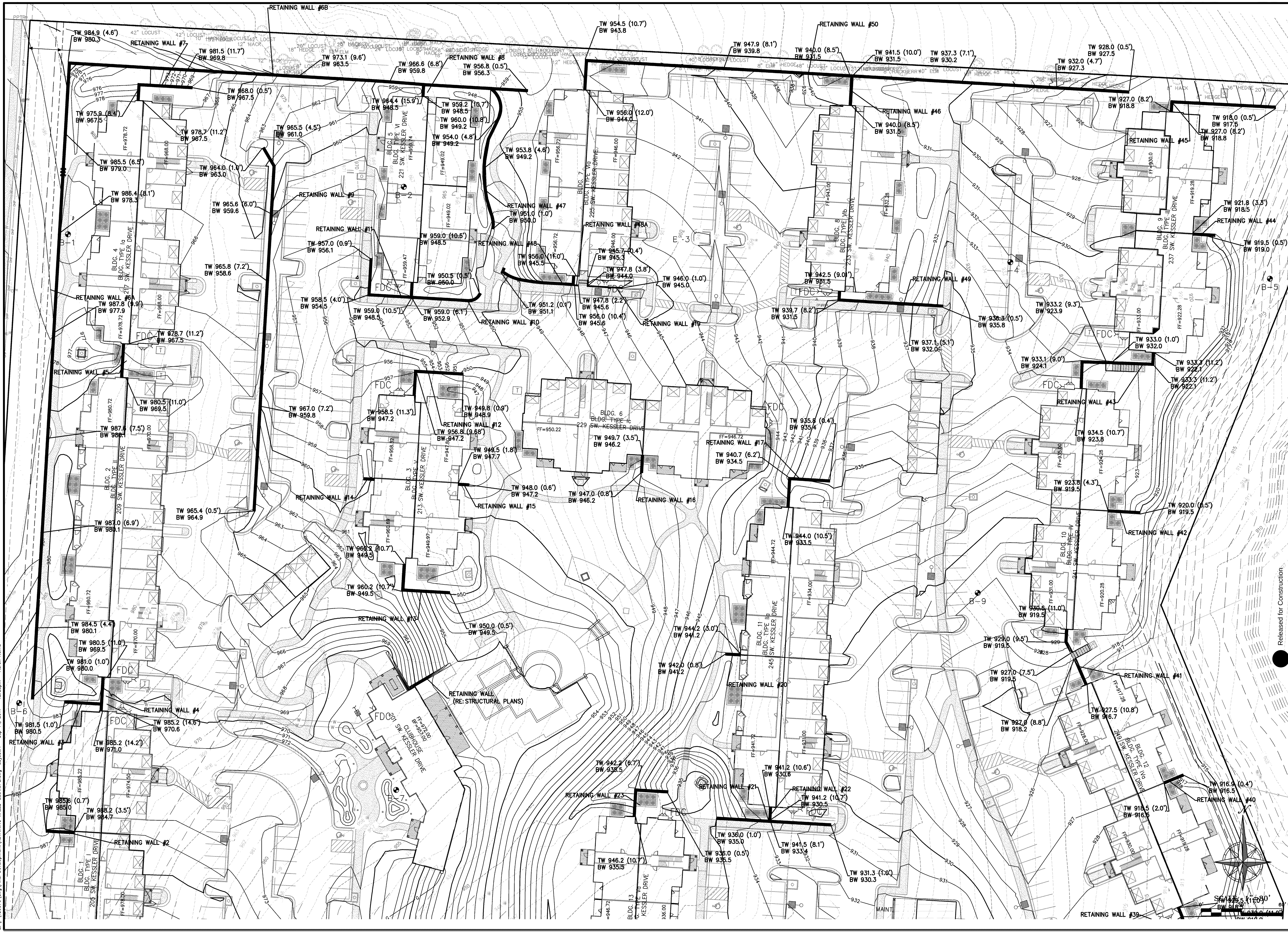
By	App.	Revisions:	Date	No.

PROJECT NO. 150376
DATE: 6-27-17
DRAWN: JMO
DESIGNED: DLM
APPROVED: DEU

CERTIFICATE OF AUTHORIZATION
MISSOURI #2007022728
KANSAS #E-2007022728

SHEET
13
OF 61

Z:\P\150376\dwg\Final Development\RETAINING WALLS.dwg Layout:1 Sep 14, 2017 - 12:24pm Aaron Norris



STATE OF MISSOURI
DOUGLAS EUGENE UBBEN, JR.
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RETAINING WALL ELEVATION PLAN

MERIDIAN AT VIEW HIGH

LEE'S SUMMIT, MISSOURI

SITE DEVELOPMENT PLANS

● Released for Construction

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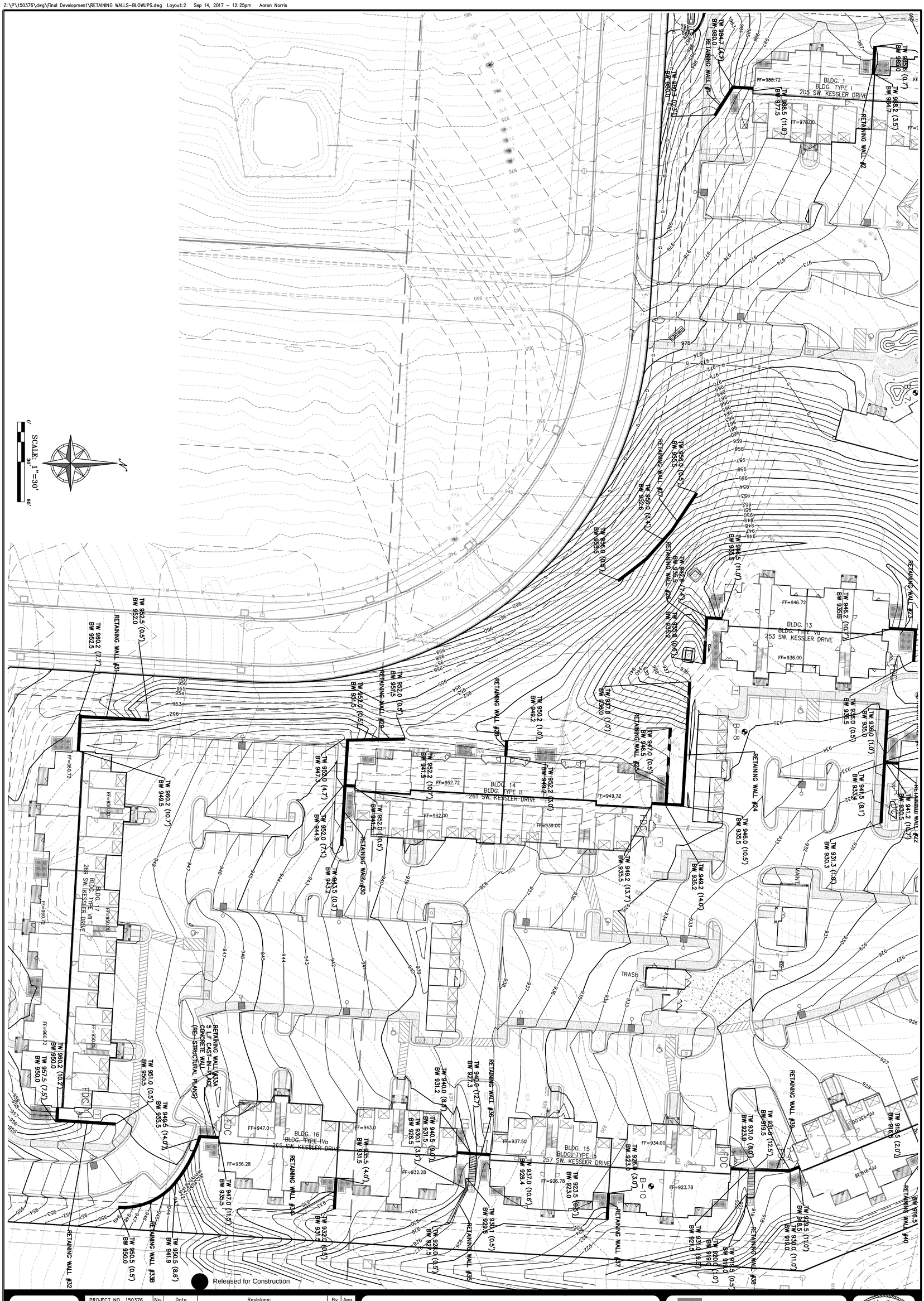
MISSOURI
LAND SURVEYING-2007001128
ENGINEERING-2007005058



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SHEET 13.2 OF 61

RETAINING WALL ELEVATION PLAN

MERIDIAN AT VIEW HIGH
LEE'S SUMMIT, MISSOURI
SITE DEVELOPMENT PLANS

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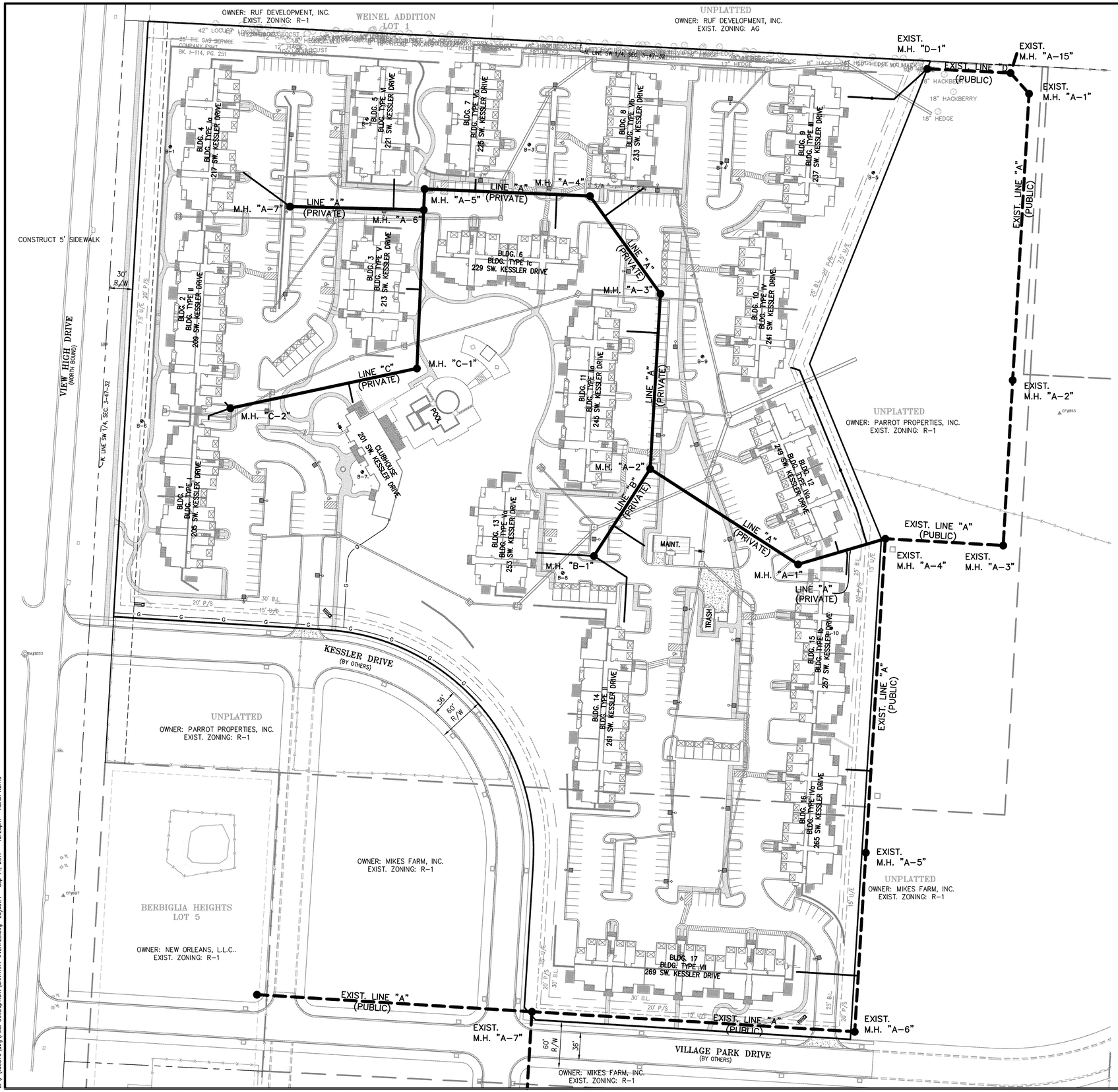
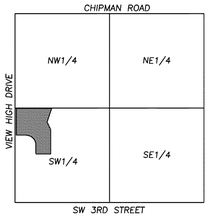
STATE OF MISSOURI
EUGENE URBEN, JR.
NUMBER PE-2011010908
PROFESSIONAL ENGINEER



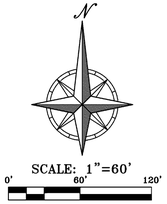


SCALE: 1"=2000'

VICINITY MAP
SEC. 3-47N-32W

FLOOD NOTE:

THIS PROPERTY LIES WITHIN ZONE X, DEFINED AS AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN, AS SHOWN ON THE FLOOD INSURANCE RATE MAP PREPARED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY FOR THE CITY OF LEE'S SUMMIT, COMMUNITY NO. 290174, JACKSON COUNTY, MISSOURI, MAP NO. 29095C0287F, AND DATED SEPTEMBER 29, 2006.



NOTE:
ALL SANITARY SEWER STRUCTURES ARE PRIVATE.

STATE OF MISSOURI
DOUGLAS EUGENE UBBEN, JR.
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PLANNING
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IMPLEMENTATION

OVERALL SANITARY SEWER PLAN

MERIDIAN AT VIEW HIGH
LEE'S SUMMIT, MISSOURI
SITE DEVELOPMENT PLANS

Revisions:	No.	Date	By	App.

PROJECT NO. 150376
DATE: 6-27-17
DRAWN: JMO
DESIGNED: DLM
APPROVED: DEU

CERTIFICATE OF AUTHORIZATION
MISSOURI ENGINEERING 2003128
LANDSCAPE ARCHITECTURE 2003128

Released for Construction

SHEET
14
OF 61

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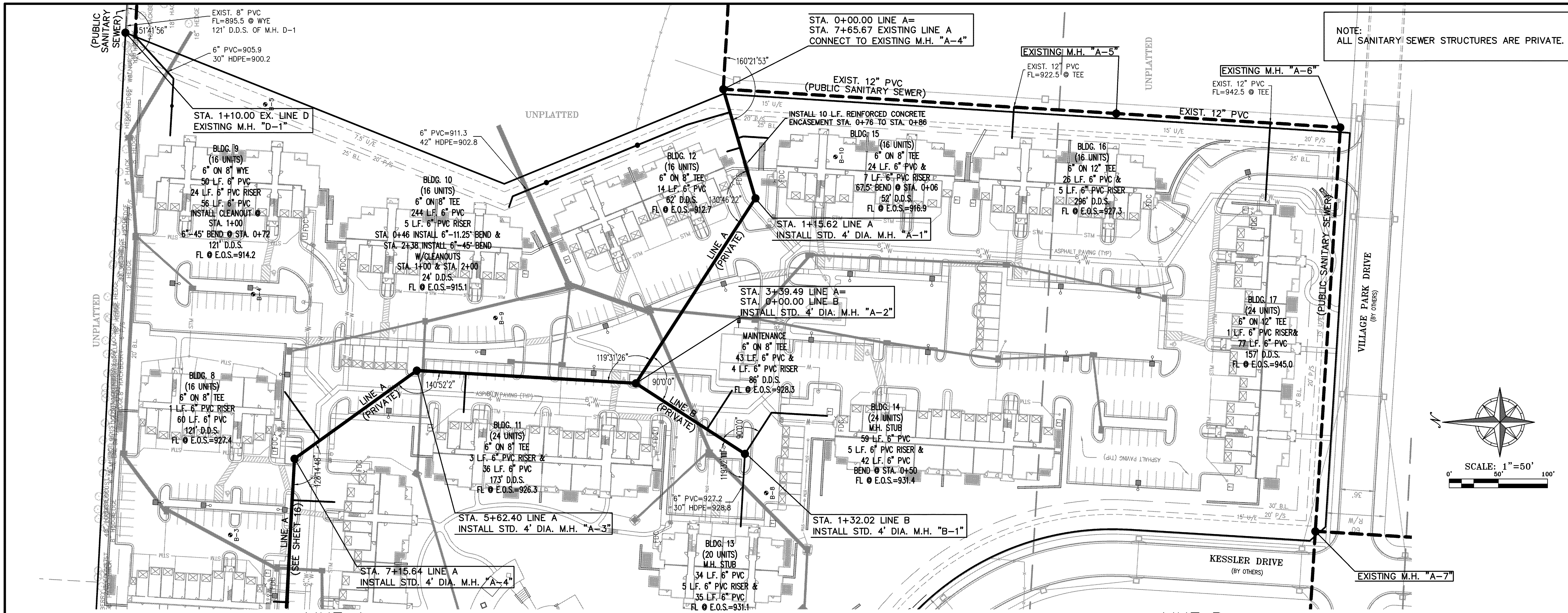

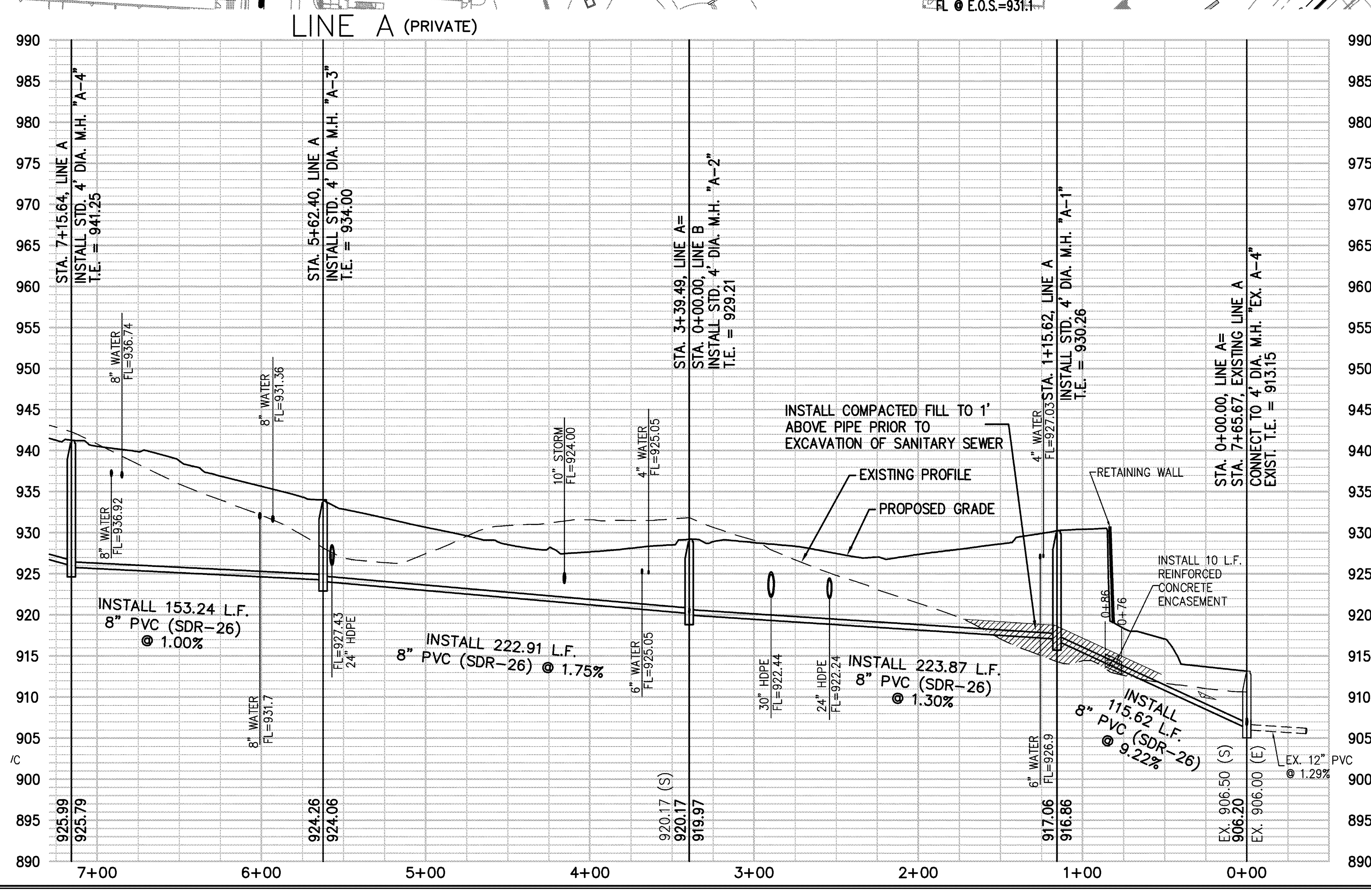

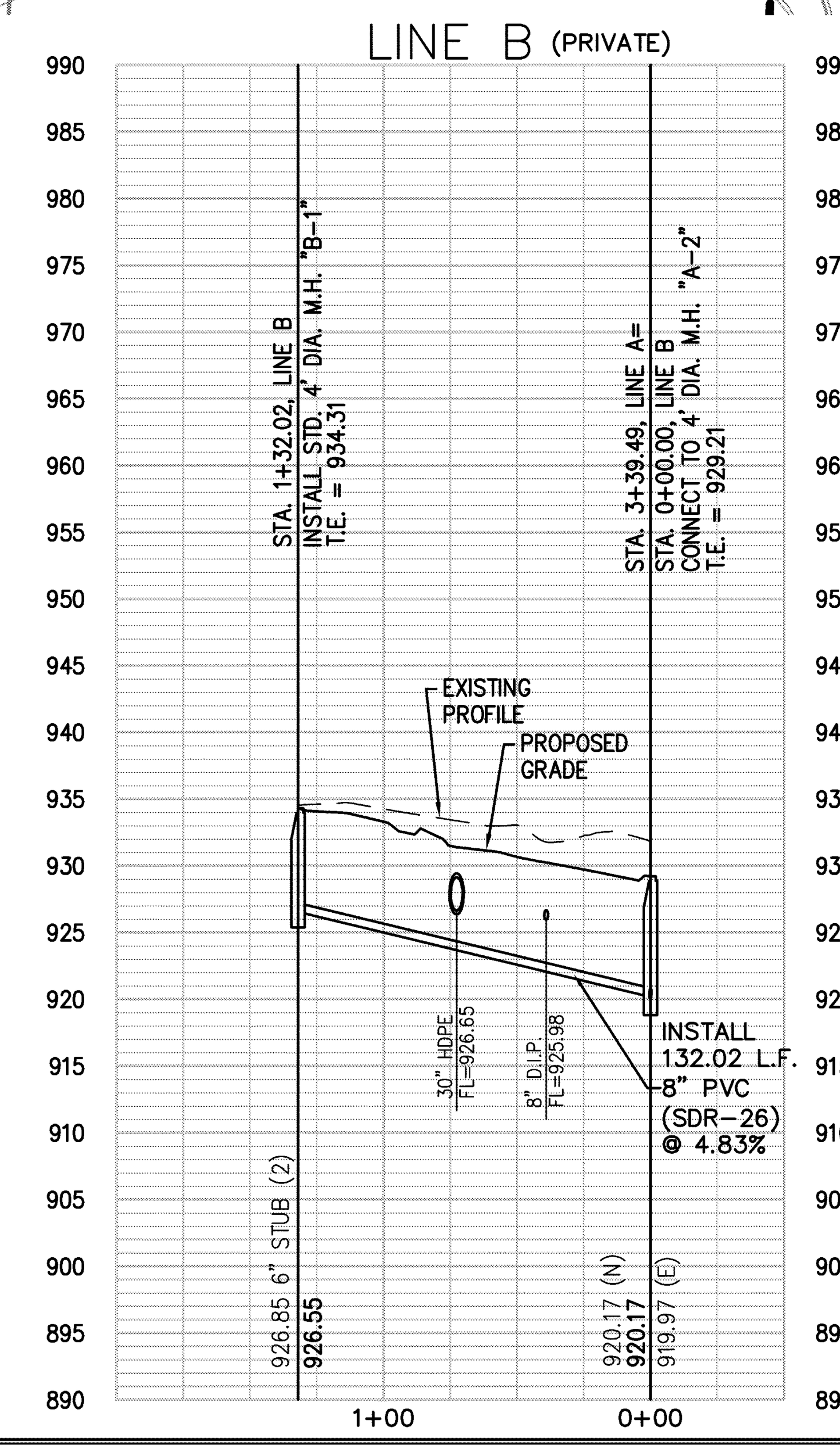

NOTES:

1. ALL SERVICE LINES SHALL BE PVC (SDR-26) AND INSTALLED AT 1.00% UNLESS OTHERWISE NOTED.
2. D.D.S. – DISTANCE TO DOWNSTREAM MANHOLE

BENCHMARK: VERTICAL DATUM = NAVD88 BASED ON GPS OBSERVATION USING MODOT VRS NORTHWEST CORNER OF SOUTHWEST QUARTER OF SECTION 3-47-32 TOP 3" BRASS MONUMENT IN MONUMENT BOX. ELEVATION = 986.59

1. SET "□" CUT IN SOUTH MIDDLE NOSE OF NORTH ISLAND AT NORTHWEST CORNER OF SURVEYED PROPERTY.
   ELEVATION = 988.06
2. SET "□" CUT IN SOUTH MIDDLE CONCRETE LINE SOUTH ISLAND EAST OF GOLF COURSE ENTRANCE.
   ELEVATION = 994.22

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STATE OF MISSOURI
DOUGLAS EUGENE UBBEN, JR.
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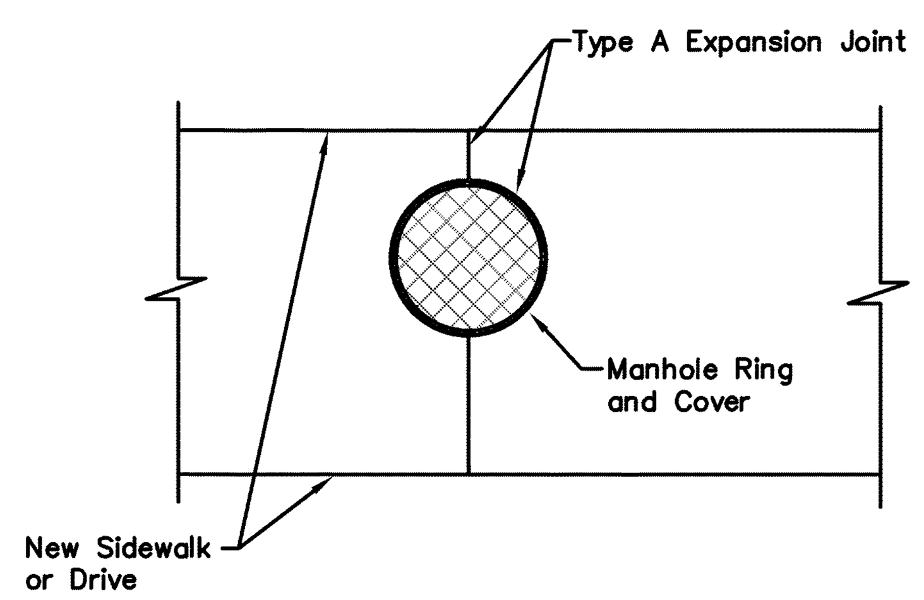
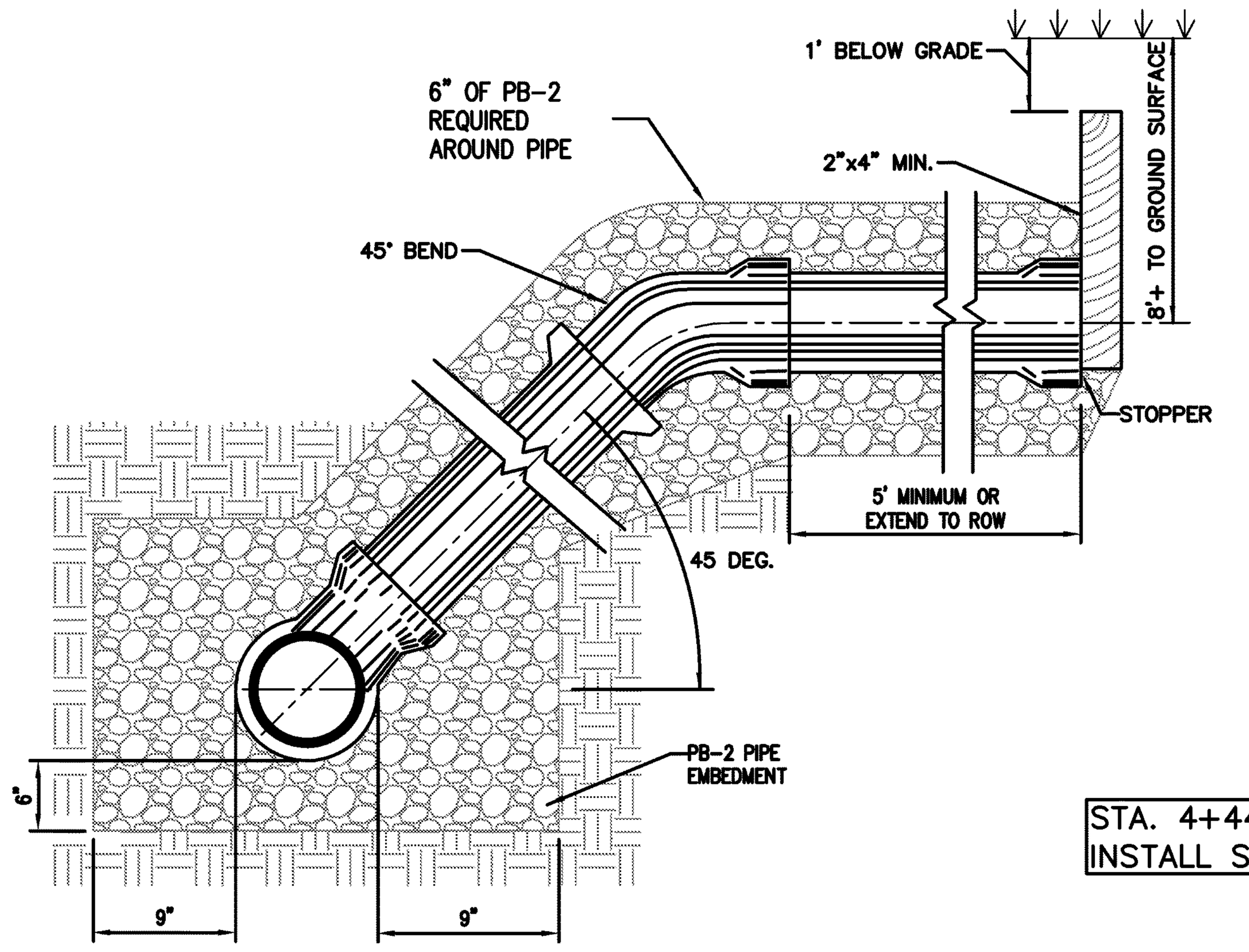
SANITARY SEWER PLAN & PROFILE
MERIDIAN AT VIEW HIGH
LEE'S SUMMIT, MISSOURI
SITE DEVELOPMENT PLANS

No.	Date	Revisions:	By	App.

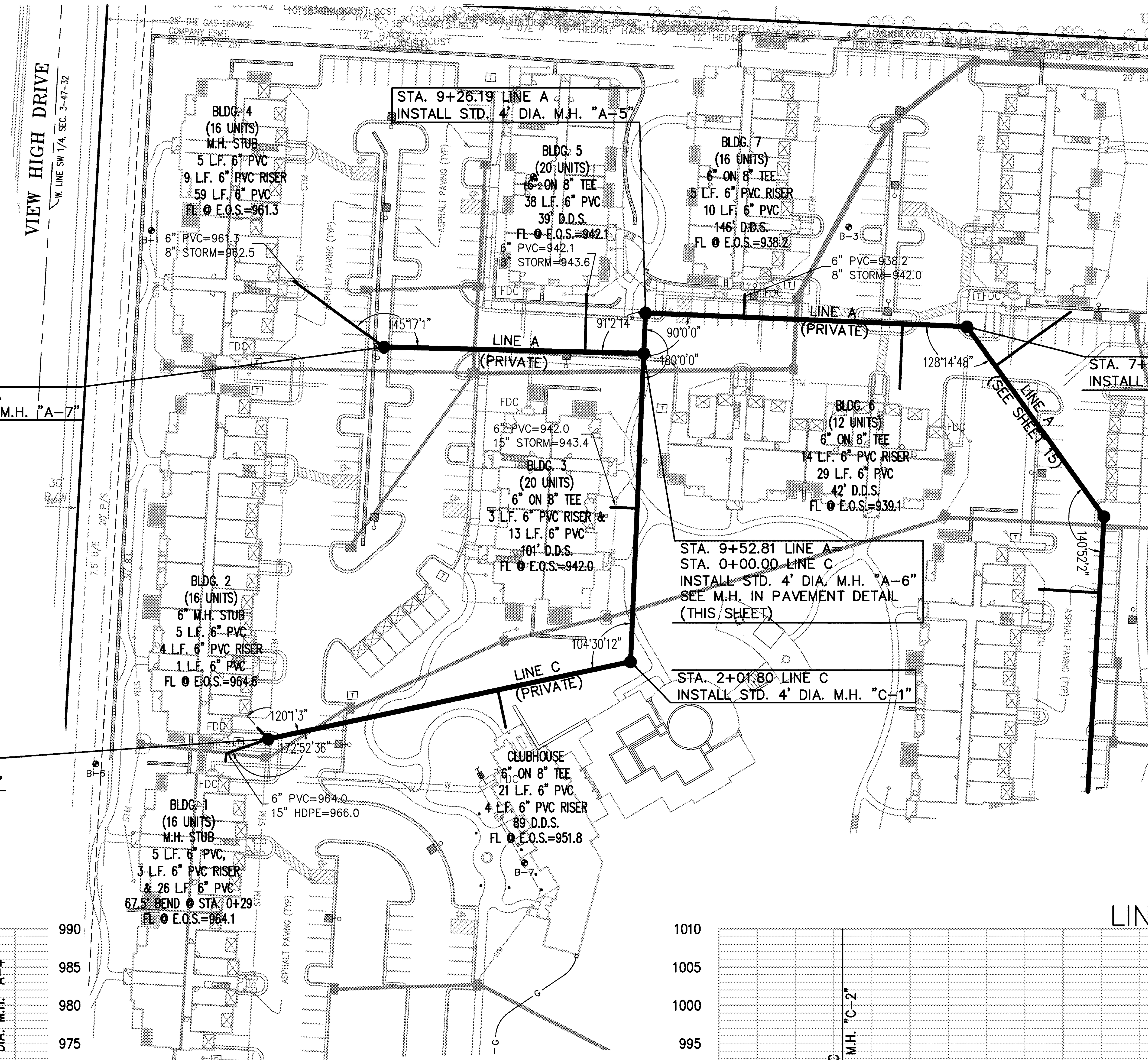
PROJECT NO. 150376
DATE: 6-27-17
DRAWN: JMO
DESIGN: DLM
APPROVED: DEU
CERTIFICATE OF AUTHORIZATION: MISSOURI LAND SURVEYING—2007000128, ENGINEERING—2007005058



JOINT DETAIL FOR DRIVES AND SIDEWALKS IN MANHOLE RING AND COVER



DEEP TRENCH SERVICE RISER



NOTES:
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2. D.D.S. – DISTANCE TO DOWNSTREAM MANHOLE

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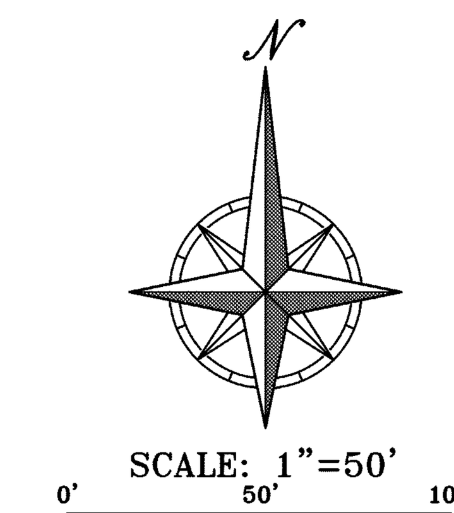
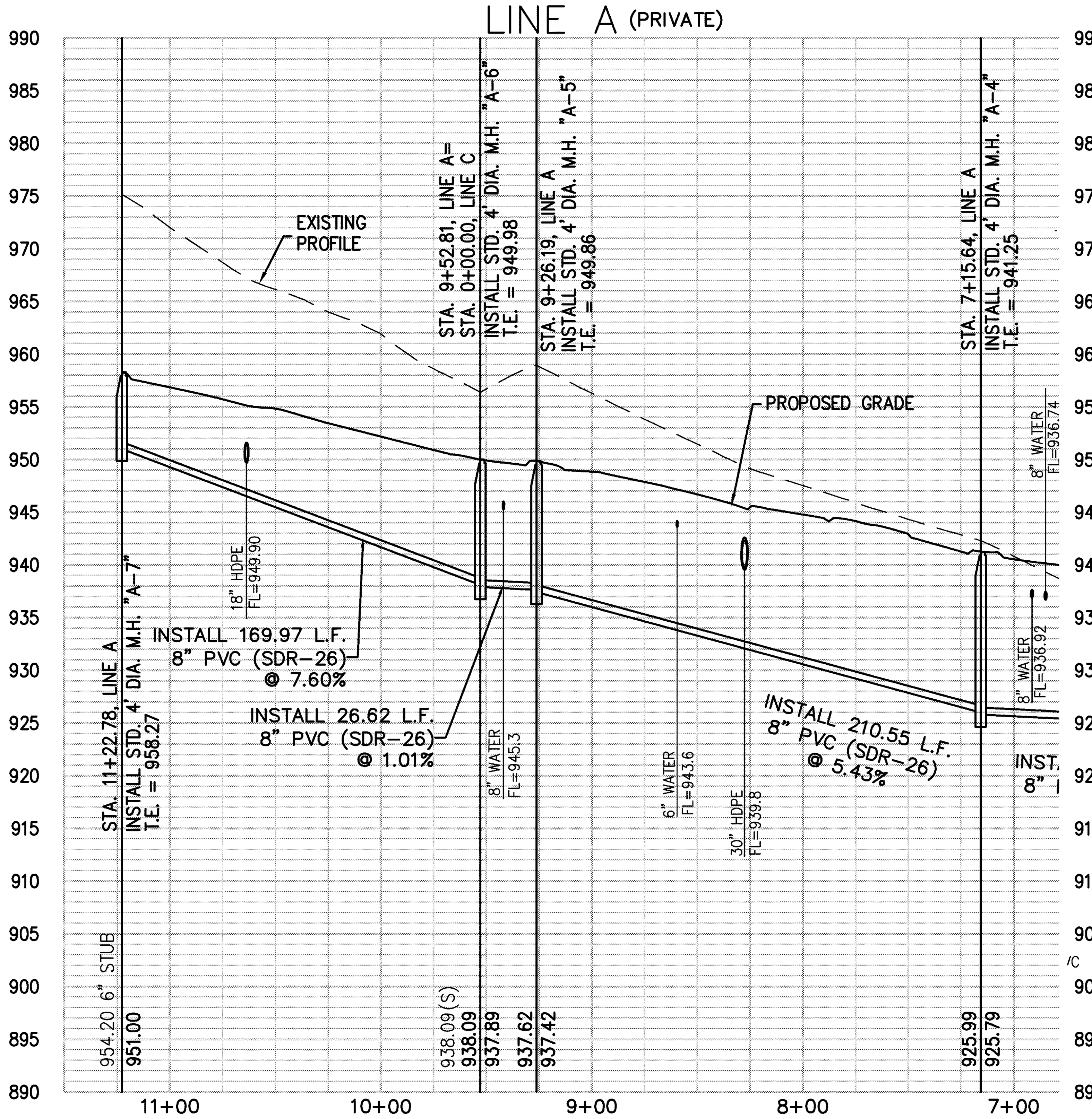
   ELEVATION = 988.06
2. SET "□" CUT IN SOUTH MIDDLE CONCRETE LINE SOUTH ISLAND EAST OF GOLF COURSE ENTRANCE.
   ELEVATION = 994.22

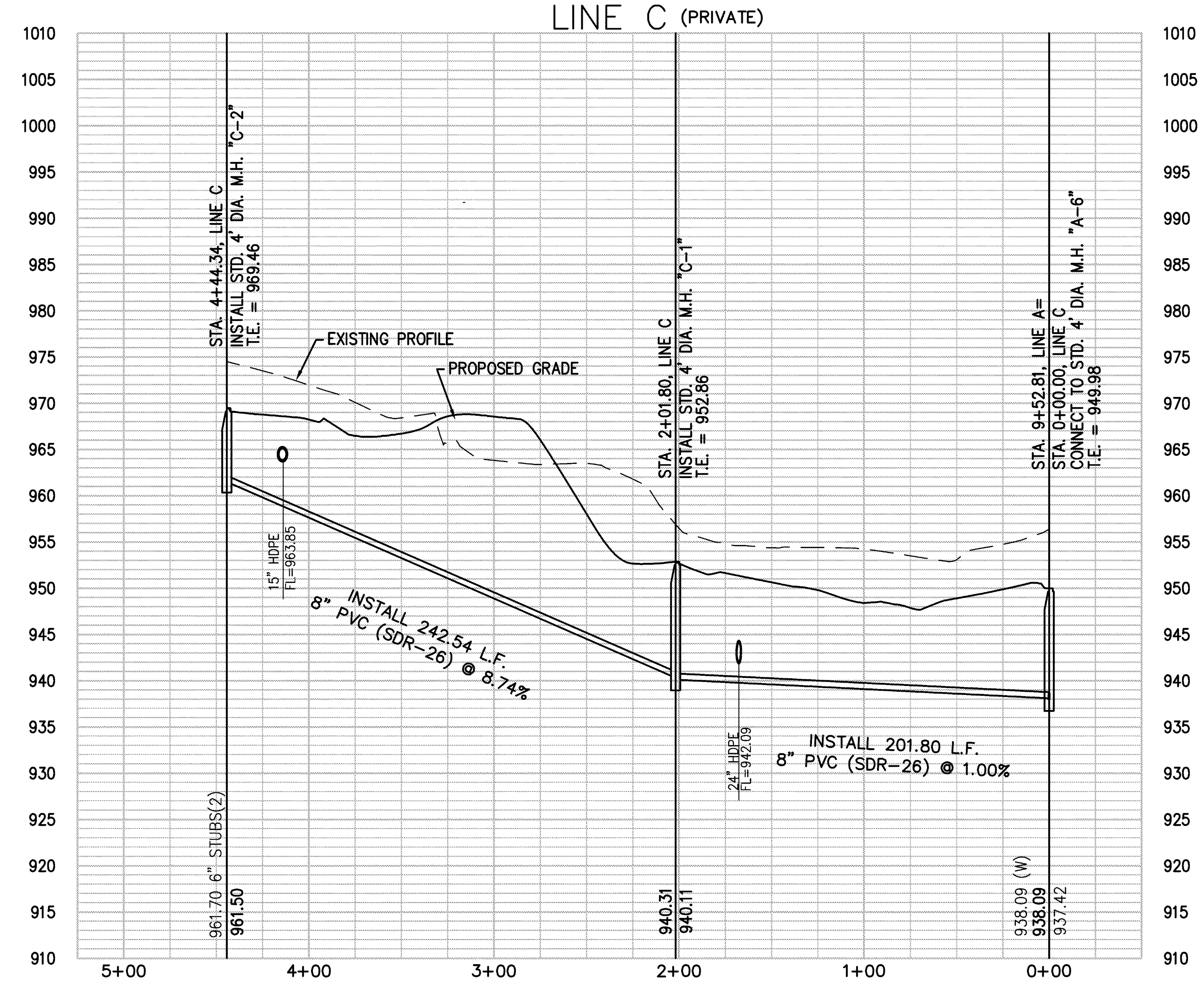
NOTE:
ALL SANITARY SEWER STRUCTURES ARE PRIVATE.



LINE A (PRIVATE)



LINE C (PRIVATE)



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SANITARY SEWER PLAN & PROFILE
MERIDIAN AT VIEW HIGH
LEE'S SUMMIT, MISSOURI
SITE DEVELOPMENT PLANS

STATE OF MISSOURI
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IMPLEMENTATION

PROJECT NO.	150376
DATE:	6-27-17
DRAWN:	JMO
DESIGNED:	DLM
APPROVED:	DEU

CERTIFICATE OF AUTHORIZATION MISSOURI LAND SURVEYING—2007000128 ENGINEERING—2007005058

No.	Date	Revisions:	By	App.

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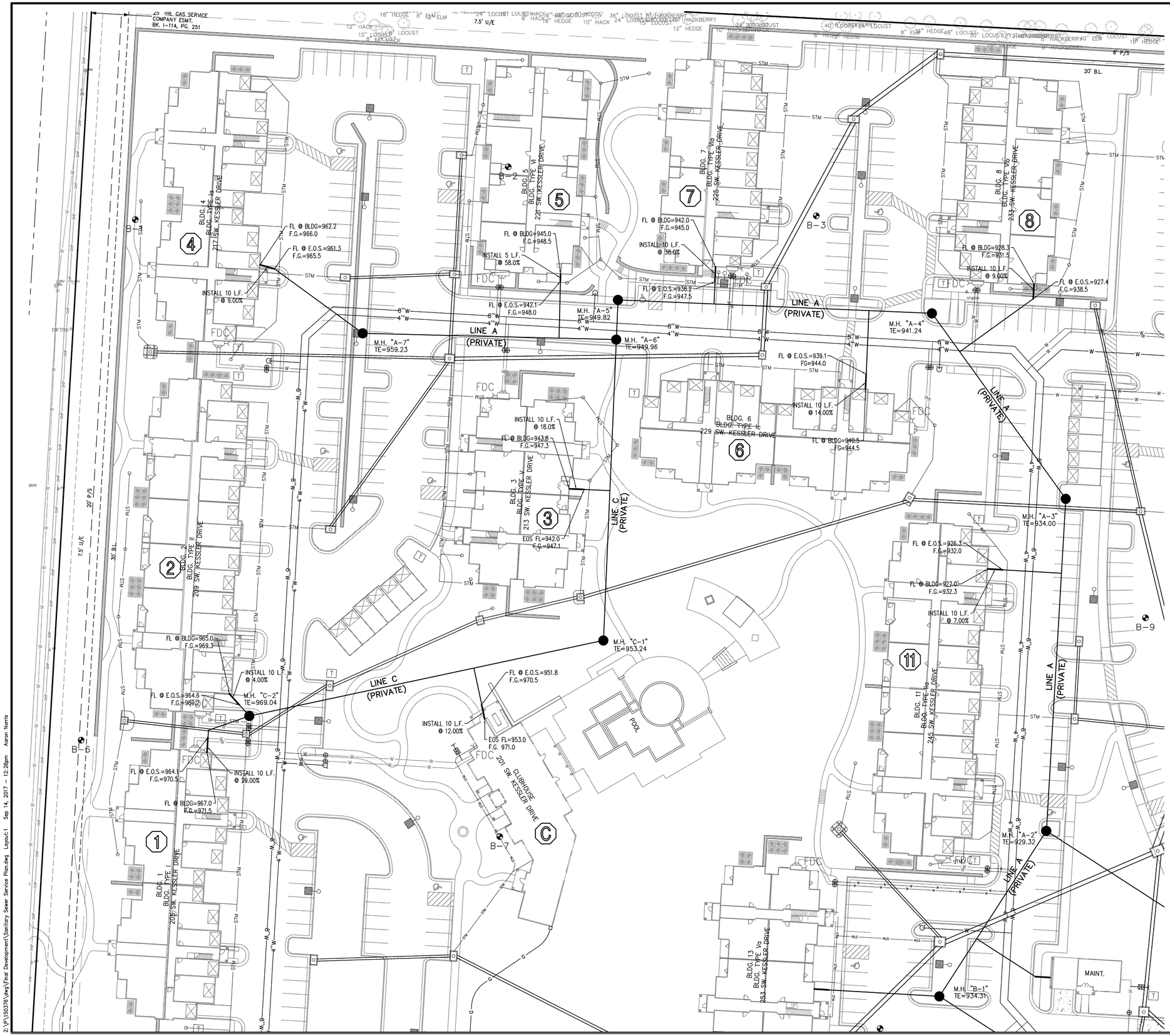

CHIPMAN ROAD

VIEW HIGH DRIVE

NW1/4 | NE1/4 | SW1/4 | SE1/4

SW 3RD STREET

N

SCALE: 1"=2000'

VICINITY MAP
SEC. 3-47N-32W

FLOOD NOTE:

THIS PROPERTY LIES WITHIN ZONE X, DEFINED AS AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN, AS SHOWN ON THE FLOOD INSURANCE RATE MAP PREPARED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY FOR THE CITY OF LEE'S SUMMIT, COMMUNITY NO. 290174, JACKSON COUNTY, MISSOURI, MAP NO. 29095C0287F, AND DATED SEPTEMBER 29, 2006.

LEGEND

- W — EXISTING WATERLINE
- G — EXISTING GAS LINE
- BE — EXISTING BURIED ELECTRICAL
- BT — EXISTING BURIED TELEPHONE
- EXISTING SANITARY SEWER
- EXISTING PROPERTY LINE
- PROPOSED PROPERTY LINE
- PROPOSED STORM SEWER LINE
- W — PROPOSED WATER LINE
- SS — PROPOSED SANITARY SEWER
- FDC — PROPOSED FIRE DEPARTMENT CONNECTION

N

SCALE: 1"=30'

0' 30' 60'

KEY NOTES:
EXISTING SERVICE LINE INFORMATION.

1. M.H. STUB, 5 L.F. 6" PVC, 3 L.F. 6" PVC RISER & 26 L.F. 6" PVC, 67.5° BEND @ STA. 0+29, FL @ E.O.S.=964.1
2. 6" M.H. STUB, 5 L.F. 6" PVC, 4 L.F. 6" PVC RISER, 1 L.F. 6" PVC, FL @ E.O.S.=964.6
3. 6" ON 8" TEE, 4 L.F. 6" PVC RISER & 13 L.F. 6" PVC, 101' D.D.S., FL @ E.O.S.=942.7
4. M.H. STUB, 5 L.F. 6" PVC, 9 L.F. 6" PVC RISER, 59 L.F. 6" PVC, FL @ E.O.S.=961.3
5. 6" ON 8" TEE, 38 L.F. 6" PVC, 39' D.D.S., FL @ E.O.S.=942.1
6. 6" ON 8" TEE, 14 L.F. 6" PVC RISER, 29 L.F. 6" PVC, 42' D.D.S., FL @ E.O.S.=939.1
7. 6" ON 8" TEE, 5 L.F. 6" PVC RISER, 10 L.F. 6" PVC, 146' D.D.S., FL @ E.O.S.=938.2
8. 6" ON 8" TEE, 1 L.F. 6" PVC RISER, 60 L.F. 6" PVC, 121' D.D.S., FL @ E.O.S.=927.4
11. 6" ON 8" TEE, 3 L.F. 6" PVC RISER & 36 L.F. 6" PVC, 173' D.D.S., FL @ E.O.S.=925.6
- C. 6" ON 8" TEE, 25 L.F. 6" PVC, 89 D.D.S., FL @ E.O.S.=949.0

811 Know what's below. Call before you dig.

UTILITY NOTES:
VISUAL INDICATIONS OF UTILITIES ARE AS SHOWN. UNDERGROUND LOCATIONS SHOWN, AS FURNISHED BY THEIR LESSORS, ARE APPROXIMATE AND SHOULD BE VERIFIED IN THE FIELD AT THE TIME OF CONSTRUCTION. FOR ACTUAL FIELD LOCATIONS OF UNDERGROUND UTILITIES.

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STATE OF MISSOURI
DOUGLAS EUGENE UBBEN, JR.
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PLANNING ENGINEERING IMPLEMENTATION

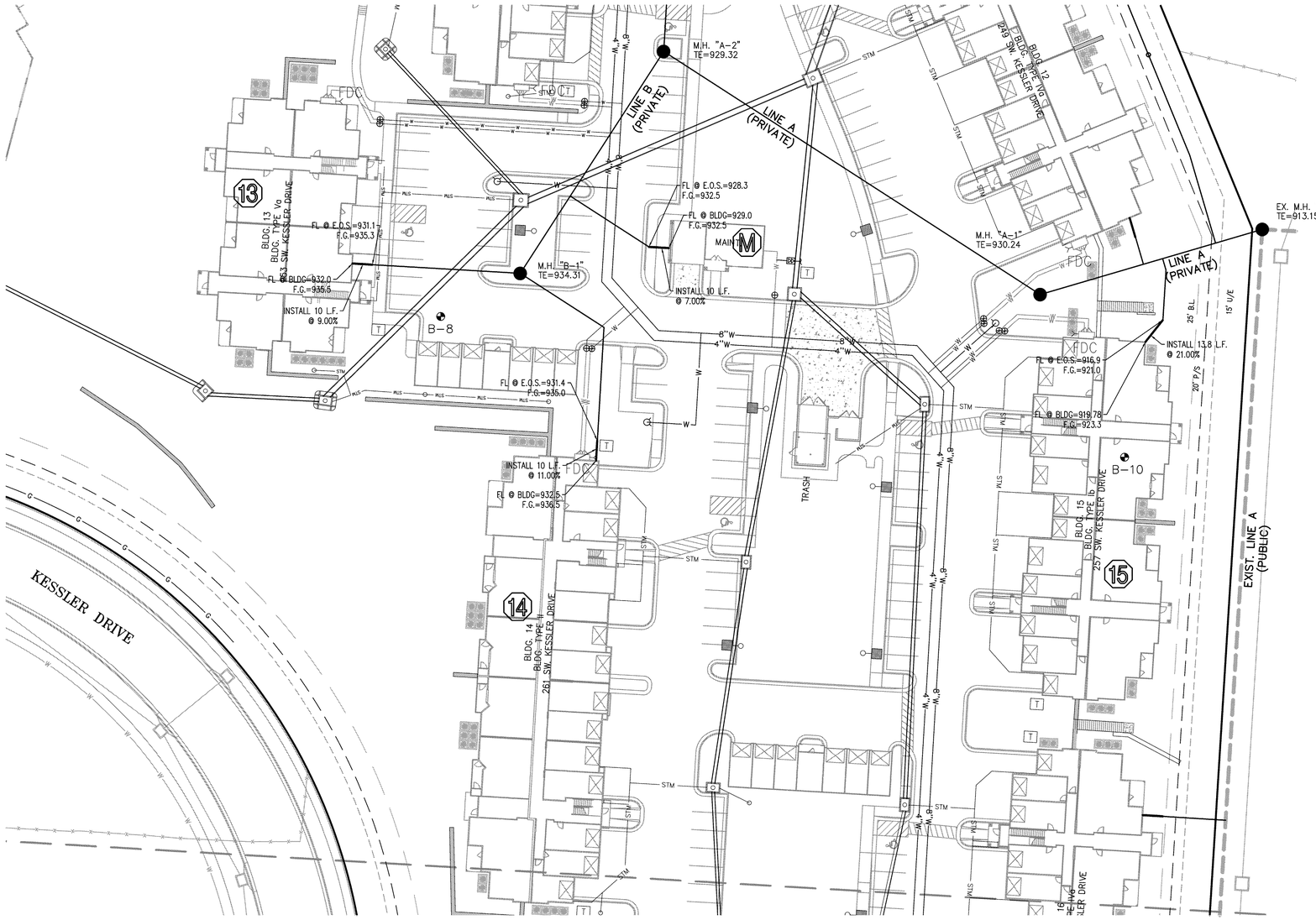
SANITARY SEWER SERVICE PLAN
MERIDIAN AT VIEW HIGH
LEE'S SUMMIT, MISSOURI
SITE DEVELOPMENT PLANS

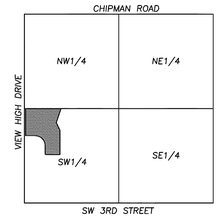
No.	Date	Revisions:	By	App.

PROJECT NO. 150376
DATE: 6-27-17
DRAWN: JMO
DESIGNED: DLM
APPROVED: DEU

CERTIFICATE OF AUTHORIZATION
MISSOURI ENGINEERING
EXPIRES: 12/31/2018

SHEET 17 OF 61





SCALE: 1"=2000'

VICINITY MAP
SEC. 3-47N-32W

FLOOD NOTE:

THIS PROPERTY LIES WITHIN ZONE X, DEFINED AS AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN, AS SHOWN ON THE FLOOD INSURANCE RATE MAP PREPARED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY FOR THE CITY OF LEE'S SUMMIT, COMMUNITY NO. 290174, JACKSON COUNTY, MISSOURI, MAP NO. 29095C0287F, AND DATED SEPTEMBER 29, 2006.

SCALE: 1"=30'
0' 30' 60'

LEGEND

W	EXISTING WATERLINE
G	EXISTING GAS LINE
BE	EXISTING BURIED ELECTRICAL
BT	EXISTING BURIED TELEPHONE
SS	EXISTING SANITARY SEWER
	EXISTING PROPERTY LINE
	PROPOSED PROPERTY LINE
STM	PROPOSED STORM SEWER LINE
W	PROPOSED WATER LINE
SS	PROPOSED SANITARY SEWER
FDC	PROPOSED FIRE DEPARTMENT CONNECTION

KEY NOTES:

EXISTING SERVICE LINE INFORMATION.

13 M.H. STUB, 34 L.F. 6" PVC, 5 L.F. 6" PVC RISER & 35 L.F. 6" PVC, FL @ E.O.S.=931.1

14 M.H. STUB, 59 L.F. 6" PVC, 5 L.F. 6" PVC RISER & 42 L.F. 6" PVC, BEND @ STA. 0+50, FL @ E.O.S.=931.4

15 6" ON 8" TEE, 21 L.F. 6" PVC & 5 L.F. 6" PVC RISER, 67.5° BEND @ STA. 0+06, 57' D.D.S., FL @ E.O.S.=915.9

M 6" ON 8" TEE, 43 L.F. 6" PVC & 4 L.F. 6" PVC RISER, 86' D.D.S., FL @ E.O.S.=928.3

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SANITARY SEWER SERVICE PLAN

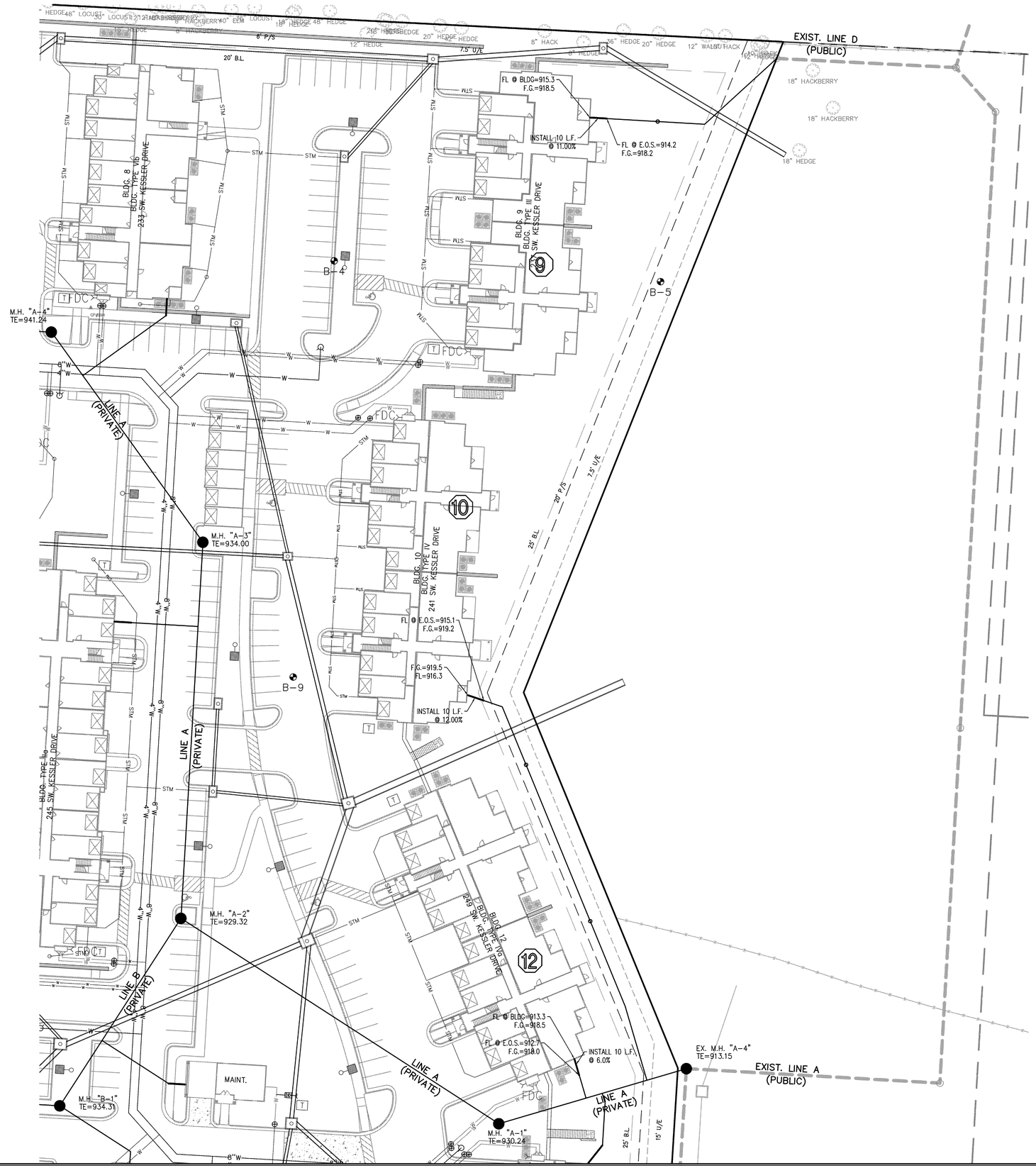
MERIDIAN AT VIEW HIGH
LEE'S SUMMIT, MISSOURI
SITE DEVELOPMENT PLANS

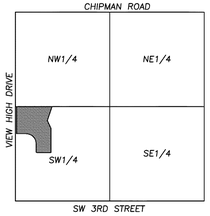
No.	Revisions:	Date	By	App.

PROJECT NO. 150376
DATE: 6-27-17
DRAWN: JMO
DESIGNED: DLM
APPROVED: DEU

CERTIFICATE OF AUTHORIZATION
MISSOURI #2007022028
KANSAS #E-2007022028

SHEET
18
OF 61





SCALE:
1"=2000'

VICINITY MAP
SEC. 3-47N-32W

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SCALE: 1"=30'
0' 30' 60'

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- PROPOSED PROPERTY LINE
- PROPOSED STORM SEWER LINE
- W — PROPOSED WATER LINE
- SS — PROPOSED SANITARY SEWER
- FDC — PROPOSED FIRE DEPARTMENT CONNECTION

KEY NOTES:

EXISTING SERVICE LINE INFORMATION.

(9) 6" ON 8" WYE, 50 L.F. 6" PVC, 24 L.F. 6" PVC RISER, 56 L.F. 6" PVC, INSTALL CLEANOUT @ STA. 1+00, 6"-45° BEND @ STA. 0+72, 121' D.D.S., FL @ E.O.S.=914.2

(10) 6" ON 8" TEE, 244 L.F. 6" PVC, 5 L.F. 6" PVC RISER, STA. 0+46 INSTALL 6"-11.25° BEND & STA. 2+38 INSTALL 6"-45° BEND W/CLEANOUTS STA. 1+00 & STA. 2+00, 24' D.D.S., FL @ E.O.S.=915.1

(12) 6" ON 8" TEE, 14 L.F. 6" PVC, 62' D.D.S., FL @ E.O.S.=912.7

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SANITARY SEWER SERVICE PLAN

MERIDIAN AT VIEW HIGH

LEE'S SUMMIT, MISSOURI

SITE DEVELOPMENT PLANS

No.	Revisions:	Date	By	App.

PROJECT NO. 150376
DATE: 6-27-17
DRAWN: JMO
DESIGNED: DLM
APPROVED: DEU

CERTIFICATE OF AUTHORIZATION
MISSOURI ENGINEERING
LAND SURVEYING 2007001228

SHEET
19
OF 61

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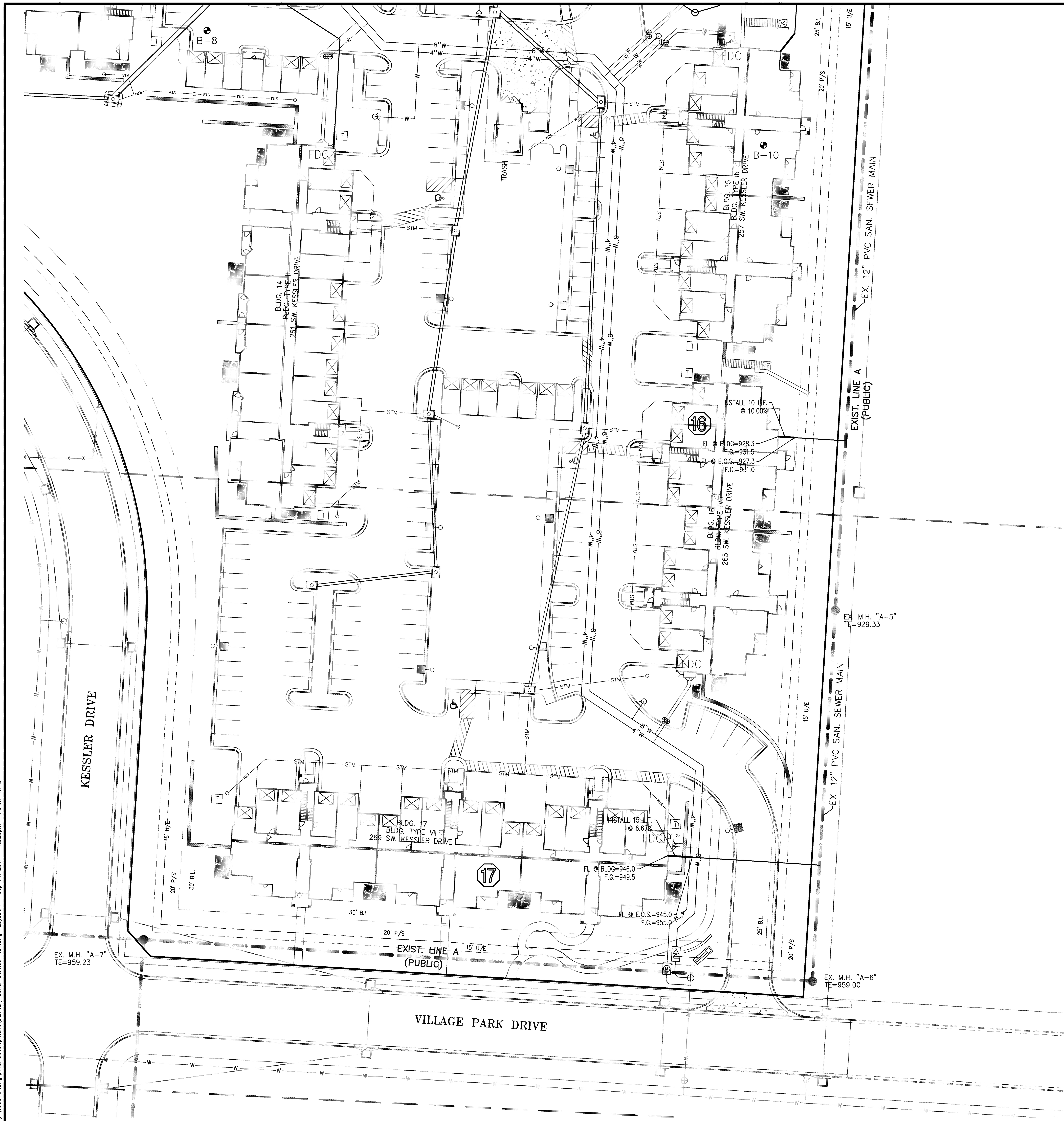
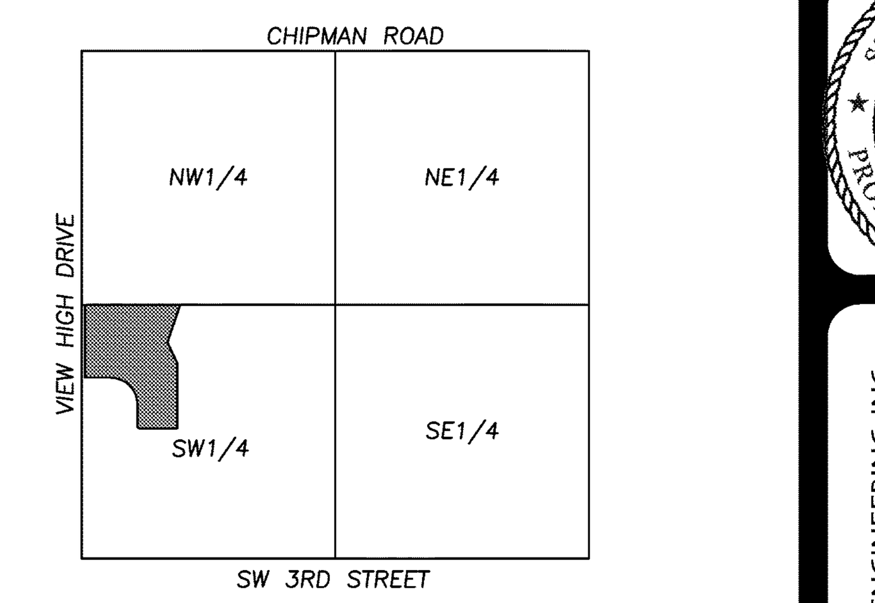


KEY NOTES: (#)

EXISTING SERVICE LINE INFORMATION.

(16) 6" ON 12" TEE, 26 L.F. 6" PVC & 5 L.F. 6" PVC RISER 296' D.D.S., FL @ E.O.S.=927.3

(17) 6" ON 12" TEE, 1 L.F. 6" PVC RISER & 77 L.F. 6" PVC, 157' D.D.S., FL @ E.O.S.=945.0



SCALE:
1"=2000'

VICINITY MAP
SEC. 3-47N-32W

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N

SCALE: 1"=30'
0' 30' 60'

LEGEND

- W — EXISTING WATERLINE
- G — EXISTING GAS LINE
- BE — EXISTING BURIED ELECTRICAL
- BT — EXISTING BURIED TELEPHONE
- EXISTING SANITARY SEWER
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- W — PROPOSED WATER LINE
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811
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Released for Construction

Z:\P\150376\dwg\Final Development\Sanitary Sewer Service Plan.dwg Layout4 Sep 14, 2017 - 12:26pm Aaron Norris

STATE OF MISSOURI
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SANITARY SEWER SERVICE PLAN

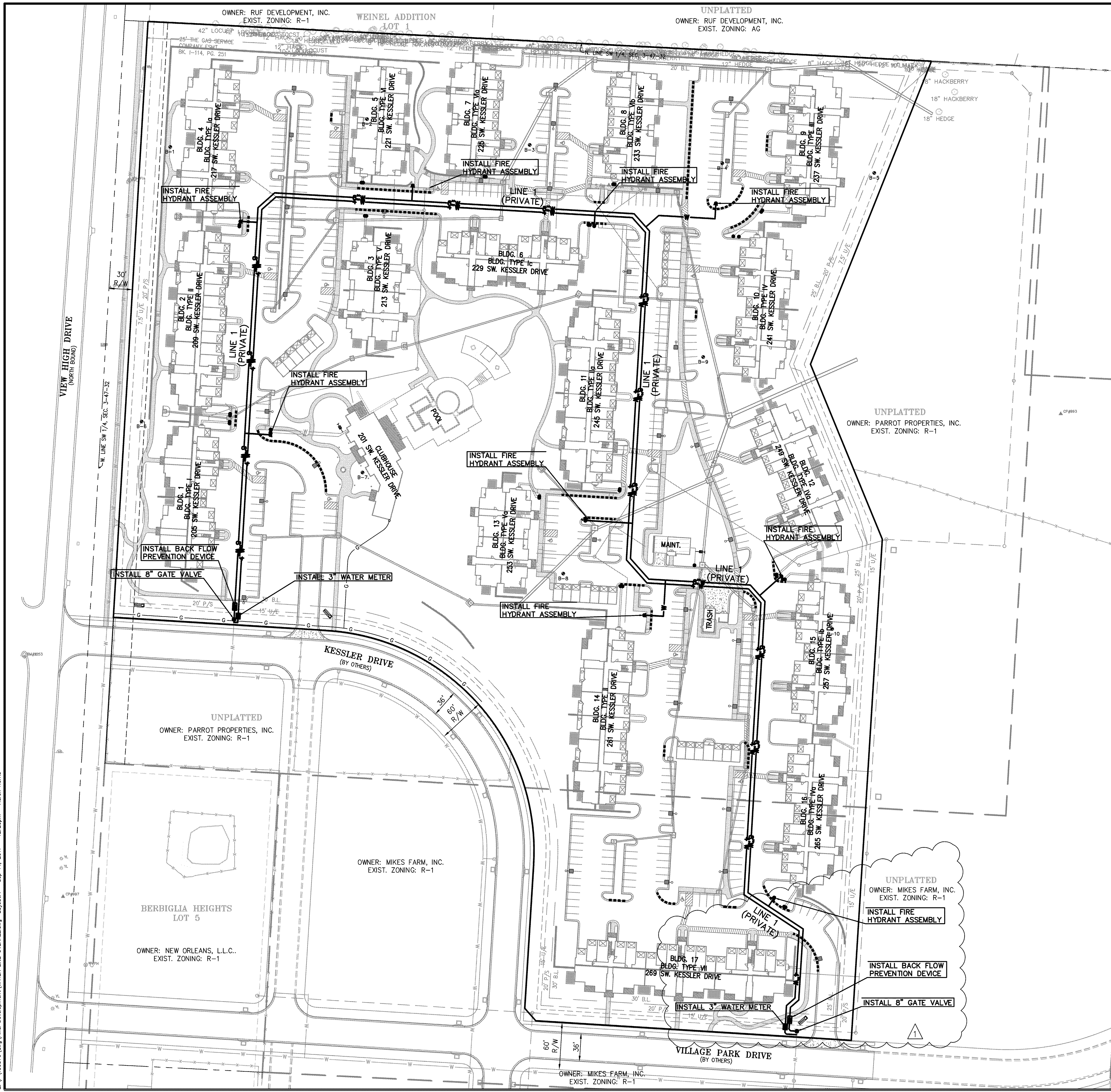
MERIDIAN AT VIEW HIGH

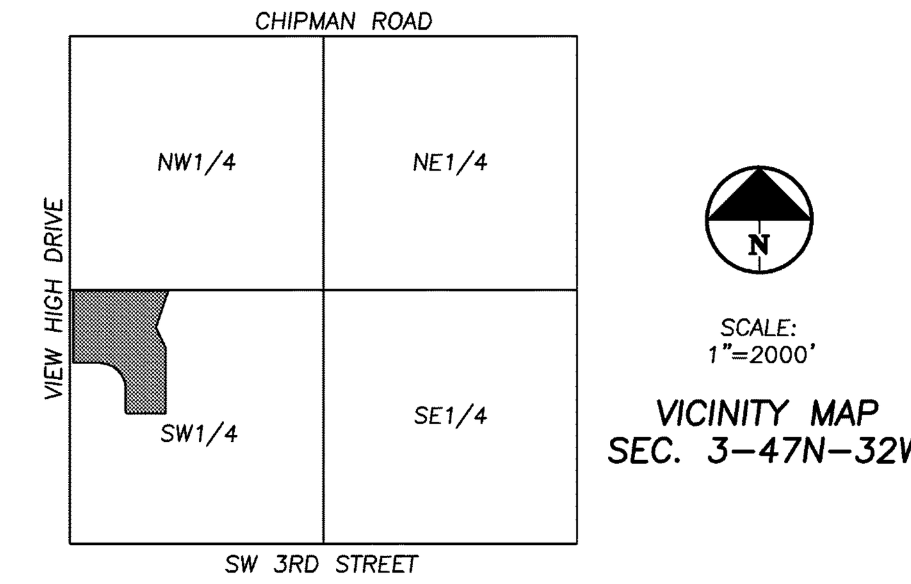
LEE'S SUMMIT, MISSOURI
SITE DEVELOPMENT PLANS

No.	Date	Revisions:	By	App.

PROJECT NO. 150376
DATE: 6-27-17
DRAWN: JMO
DESIGNED: DLM
APPROVED: DEU

CERTIFICATE OF AUTHORIZATION
MISSOURI
LAND SURVEYING—2007001128
ENGINEERING—2007005058





VICINITY MAP
SEC. 3-47N-32W

FLOOD NOTE:

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SCALE: 1"=60'
0' 60' 120'

LEGEND:

CURB TO BE PAINTED RED WITH "FIRE LANE" STENCILED IN WHITE

STATE OF MISSOURI
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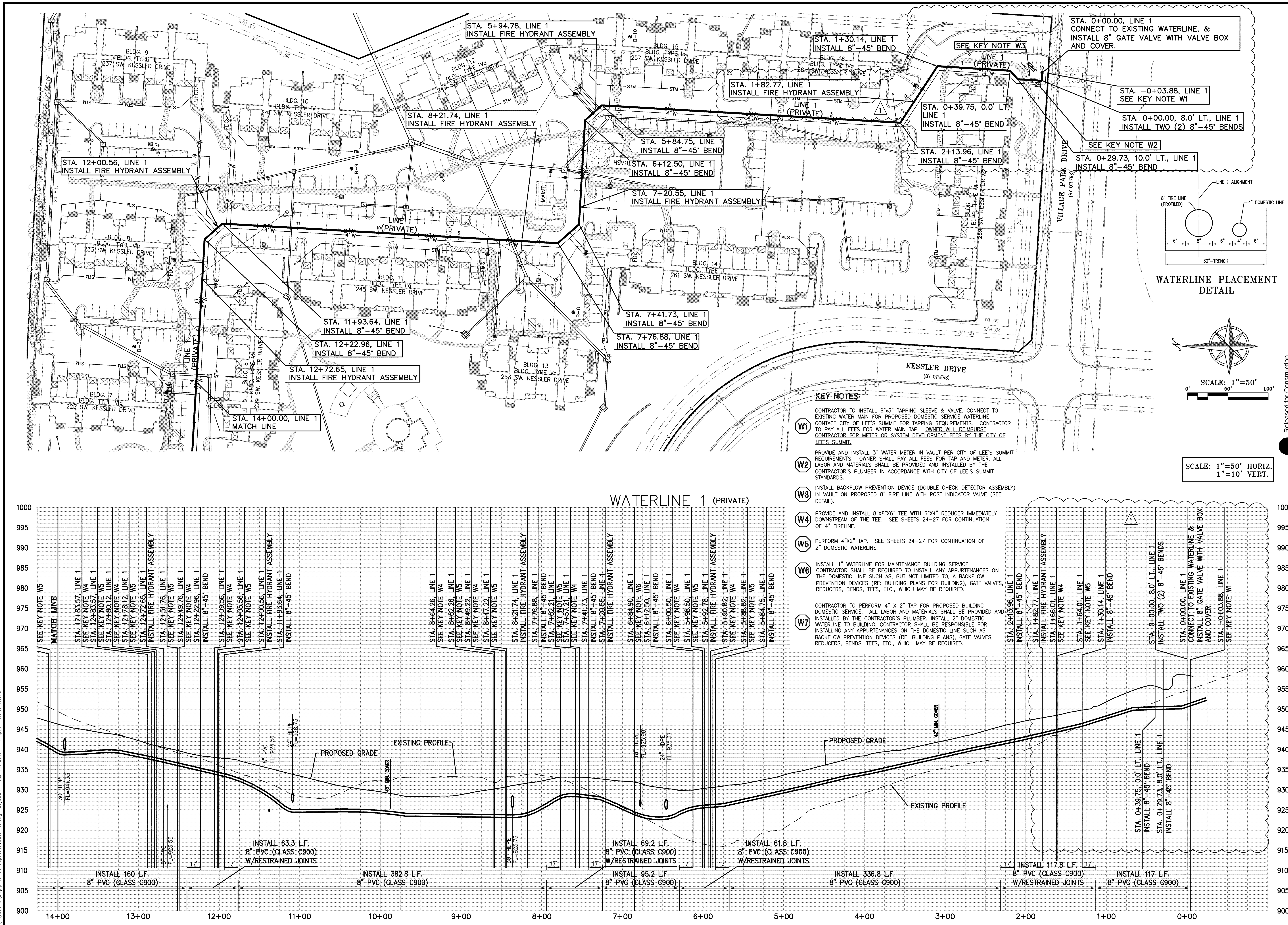
OVERALL WATER LINE PLAN
MERIDIAN AT VIEW HIGH
LEE'S SUMMIT, MISSOURI
SITE DEVELOPMENT PLANS

No.	Date	Revisions:	By	App.
1	9/11/17	REVISED WATERLINE	ALN	DEU

PROJECT NO. 150376
DATE: 6-27-17
DRAWN: JMO
DESIGNED: DLM
APPROVED: DEU

Released for Construction

SHEET
21
OF 61



KEY NOTES:

W1 CONTRACTOR TO INSTALL 8"x3" TAPPING SLEEVE & VALVE. CONNECT TO EXISTING WATER MAIN FOR PROPOSED DOMESTIC SERVICE WATERLINE. CONTACT CITY OF LEE'S SUMMIT FOR TAPPING REQUIREMENTS. CONTRACTOR TO PAY ALL FEES FOR WATER MAIN TAP. OWNER WILL REIMBURSE CONTRACTOR FOR METER OR SYSTEM DEVELOPMENT FEES BY THE CITY OF LEE'S SUMMIT.

W2 PROVIDE AND INSTALL 3" WATER METER IN VAULT PER CITY OF LEE'S SUMMIT REQUIREMENTS. OWNER SHALL PAY ALL FEES FOR TAP AND METER. ALL LABOR AND MATERIALS SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR'S PLUMBER IN ACCORDANCE WITH CITY OF LEE'S SUMMIT STANDARDS.

W3 INSTALL BACKFLOW PREVENTION DEVICE (DOUBLE CHECK DETECTOR ASSEMBLY) IN VAULT ON PROPOSED 8" FIRE LINE WITH POST INDICATOR VALVE (SEE DETAIL).

W4 PROVIDE AND INSTALL 8"X8"X6" TEE WITH 6"X4" REDUCER IMMEDIATELY DOWNSTREAM OF THE TEE. SEE SHEETS 24–27 FOR CONTINUATION OF 4" FIRELINE.

W5 PERFORM 4"X2" TAP. SEE SHEETS 24–27 FOR CONTINUATION OF 2" DOMESTIC WATERLINE.

W6 INSTALL 1" WATERLINE FOR MAINTENANCE BUILDING SERVICE. CONTRACTOR SHALL BE REQUIRED TO INSTALL ANY APPURTENANCES ON THE DOMESTIC LINE SUCH AS, BUT NOT LIMITED TO, A BACKFLOW PREVENTION DEVICES (RE: BUILDING PLANS FOR BUILDING), GATE VALVES, REDUCERS, BENDS, TEES, ETC., WHICH MAY BE REQUIRED.

W7 CONTRACTOR TO PERFORM 4" X 2" TAP FOR PROPOSED BUILDING DOMESTIC SERVICE. ALL LABOR AND MATERIALS SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR'S PLUMBER. INSTALL 2" DOMESTIC WATERLINE TO BUILDING. CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING ANY APPURTENANCES ON THE DOMESTIC LINE SUCH AS BACKFLOW PREVENTION DEVICES (RE: BUILDING PLANS), GATE VALVES, REDUCERS, BENDS, TEES, ETC., WHICH MAY BE REQUIRED.

STATE OF MISSOURI
DOUGLAS EUGENE UBBEN, JR.
NUMBER PE-2011010998
PROFESSIONAL ENGINEER

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PLANNING ENGINEERING IMPLEMENTATION

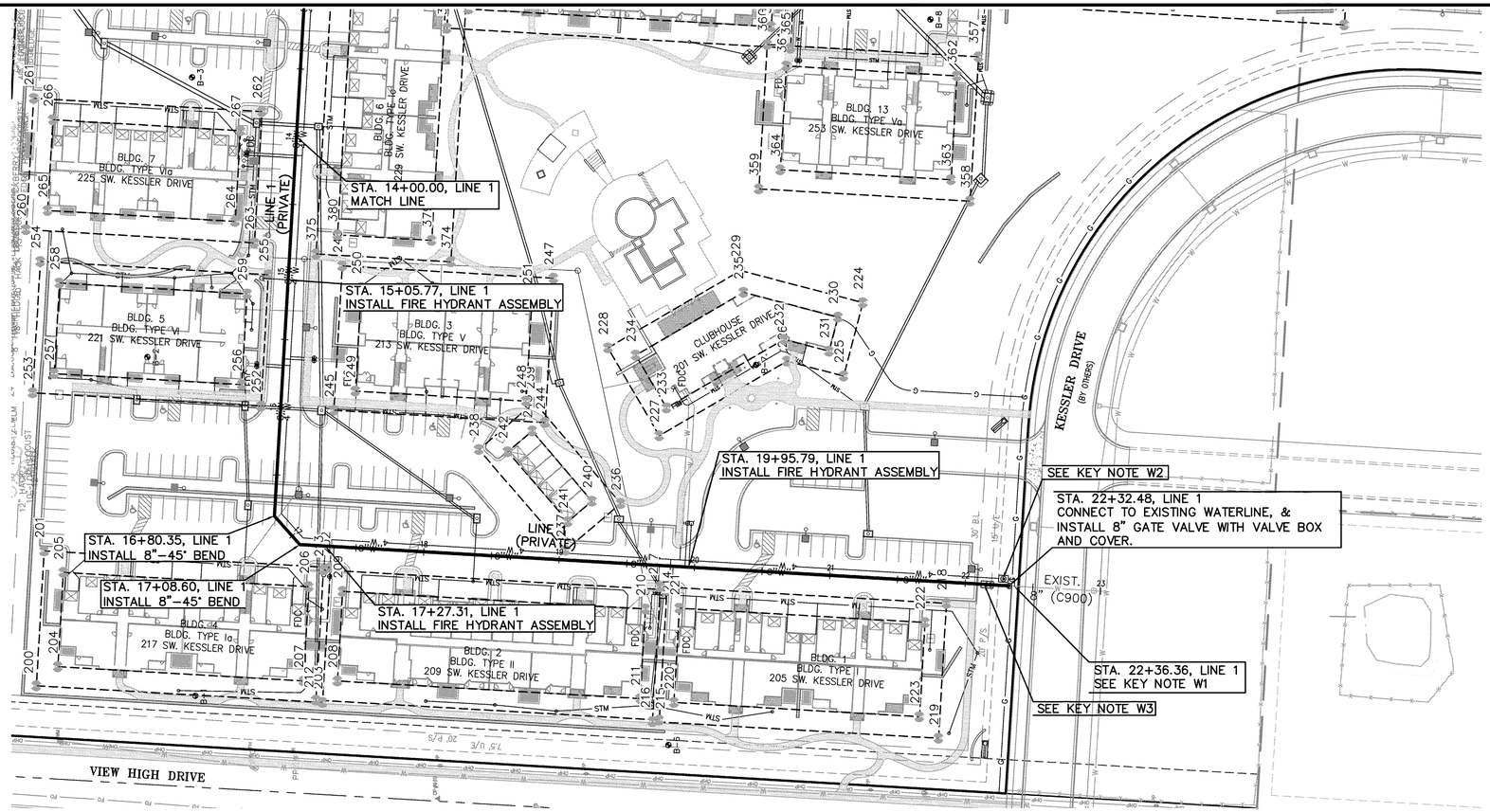
WATERLINE PLAN & PROFILE

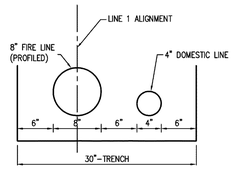
MERIDIAN AT VIEW HIGH
LEE'S SUMMIT, MISSOURI
SITE DEVELOPMENT PLANS

No.	Date	Revisions:	By	App.
1	9/11/17	REVISED WATER LINE	ALN	DEU

PROJECT NO. 150376
DATE: 6–27–17
DRAWN: JMO
DESIGNED: DLM
APPROVED: DEU

CERTIFICATE OF AUTHORIZATION MISSOURI
LAND SURVEYING–2007001128
ENGINEERING–2007005058





WATERLINE PLACEMENT DETAIL

KEY NOTES:

W1 CONTRACTOR TO INSTALL 8"x3" TAPPING SLEEVE & VALVE. CONNECT TO EXISTING WATER MAIN FOR PROPOSED DOMESTIC SERVICE WATERLINE. CONTACT CITY OF LEE'S SUMMIT FOR TAPPING REQUIREMENTS. CONTRACTOR TO PAY ALL FEES FOR WATER MAIN TAP. OWNER WILL REIMBURSE CONTRACTOR FOR METER OR SYSTEM DEVELOPMENT FEES BY THE CITY OF LEE'S SUMMIT.

W2 PROVIDE AND INSTALL 3" WATER METER IN VAULT PER CITY OF LEE'S SUMMIT REQUIREMENTS. OWNER SHALL PAY ALL FEES FOR TAP AND METER. ALL LABOR AND MATERIALS SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR'S PLUMBER IN ACCORDANCE WITH CITY OF LEE'S SUMMIT STANDARDS.

W3 INSTALL BACKFLOW PREVENTION DEVICE (DOUBLE CHECK DETECTOR ASSEMBLY) IN VAULT ON PROPOSED 8" FIRE LINE WITH POST INDICATOR VALVE (SEE DETAIL).

W4 PROVIDE AND INSTALL 8"X8"X6" TEE WITH 6"X4" REDUCER IMMEDIATELY DOWNSTREAM OF THE TEE. SEE SHEETS 24-27 FOR CONTINUATION OF 4" FIRELINE.

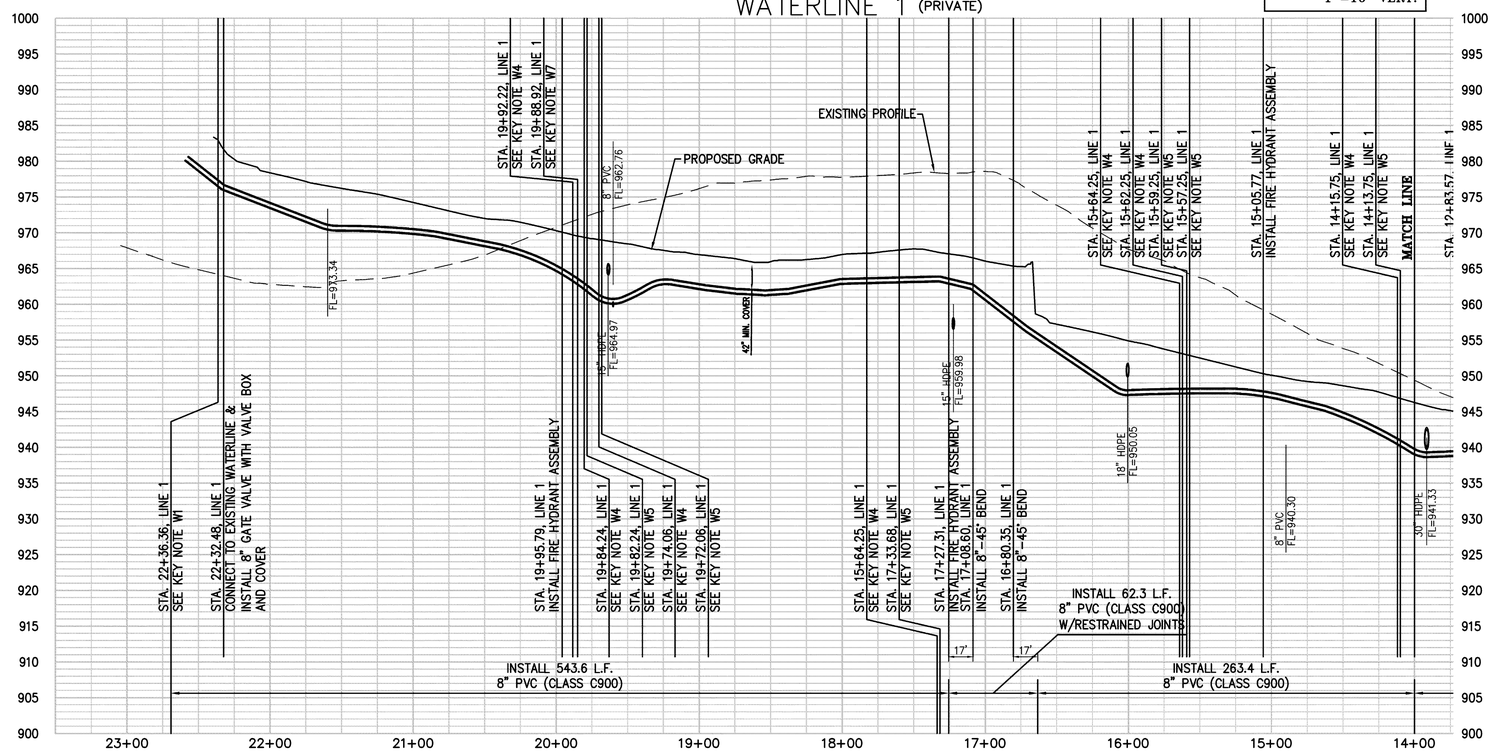
W5 PERFORM 4"X2" TAP. SEE SHEETS 24-27 FOR CONTINUATION OF 2" DOMESTIC WATERLINE.

W6 INSTALL 1" WATERLINE FOR MAINTENANCE BUILDING SERVICE. CONTRACTOR SHALL BE REQUIRED TO INSTALL ANY APPURTENANCES ON THE DOMESTIC LINE SUCH AS, BUT NOT LIMITED TO, A BACKFLOW PREVENTION DEVICES (RE: BUILDING PLANS FOR BUILDING), GATE VALVES, REDUCERS, BENDS, TEES, ETC., WHICH MAY BE REQUIRED.

W7 CONTRACTOR TO PERFORM 4" X 2" TAP FOR PROPOSED BUILDING DOMESTIC SERVICE. ALL LABOR AND MATERIALS SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR'S PLUMBER. INSTALL 2" DOMESTIC WATERLINE TO BUILDING. CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING ANY APPURTENANCES ON THE DOMESTIC LINE SUCH AS BACKFLOW PREVENTION DEVICES (RE: BUILDING PLANS), GATE VALVES, REDUCERS, BENDS, TEES, ETC., WHICH MAY BE REQUIRED.

SCALE: 1"=50'
0' 50' 100'

SCALE: 1"=50' HORIZ.
1"=10' VERT.



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WATERLINE PLAN & PROFILE

MERIDIAN AT VIEW HIGH
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Revisions:	Date	No.	By	App.

PROJECT NO. 150376
DATE: 6-27-17
DRAWN: JMO
DESIGNED: DLM
APPROVED: DEU

CERTIFICATE OF AUTHORIZATION
MISSOURI #2007000128
KANSAS #E-2007000128

SHEET
23
OF 61

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KEY NOTES:

W1 2" DOMESTIC WATERLINE ENTRY TO BUILDING. CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING ANY APPURTENANCES ON THE DOMESTIC LINE SUCH AS BACKFLOW PREVENTION DEVICES (RE: BUILDING PLANS), GATE VALVES, REDUCERS, BENDS, TEES, ETC., WHICH MAY BE REQUIRED.

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W3 4" FIRELINE ENTRY TO BUILDING. CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING ANY APPURTENANCES ON THE FIRELINE SUCH AS BACKFLOW PREVENTION DEVICES (RE: BUILDING PLANS), GATE VALVES, REDUCERS, BENDS, TEES, ETC., WHICH MAY BE REQUIRED.

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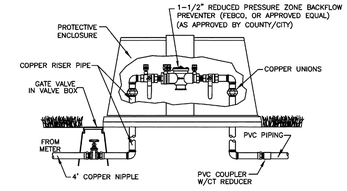
W5 CONSTRUCT FIRE HYDRANT

W6 1-1/2" IRRIGATION

W7 1-1/2" IRRIGATION BACKFLOW RPZ WITH PROTECTIVE ENCLOSURE. OWNER TO APPROVE LOCATION PRIOR TO INSTALLATION.



IRRIGATION BACKFLOW PREVENTOR
N.T.S.

BENCHMARKS:

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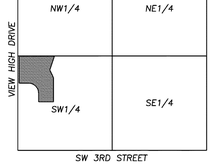

SCALE: 1"=2000'

VICINITY MAP
SEC. 3-47N-32W

FLOOD NOTE:

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LEGEND

- W — EXISTING WATERLINE
- G — EXISTING GAS LINE
- BE — EXISTING BURIED ELECTRICAL
- BT — EXISTING BURIED TELEPHONE
- EXISTING SANITARY SEWER
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- PROPOSED PROPERTY LINE
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- W — PROPOSED WATER LINE
- SS — PROPOSED SANITARY SEWER
- FDC — PROPOSED FIRE DEPARTMENT CONNECTION

SCALE: 1"=30'
0' 30' 60'

811 Know what's **below.** **Call** before you dig.

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WATERLINE SERVICE PLAN

MERIDIAN AT VIEW HIGH
LEE'S SUMMIT, MISSOURI
SITE DEVELOPMENT PLANS

No.	Date	Revisions:	By	App.

PROJECT NO. 150376
DATE: 6-27-17
DRAWN: JMO
DESIGNED: DLM
APPROVED: DEU

CERTIFICATE OF AUTHORIZATION MISSOURI ENGINEERING 2007000128 LANDSURVEYING 2007000128

SHEET
24
OF 61

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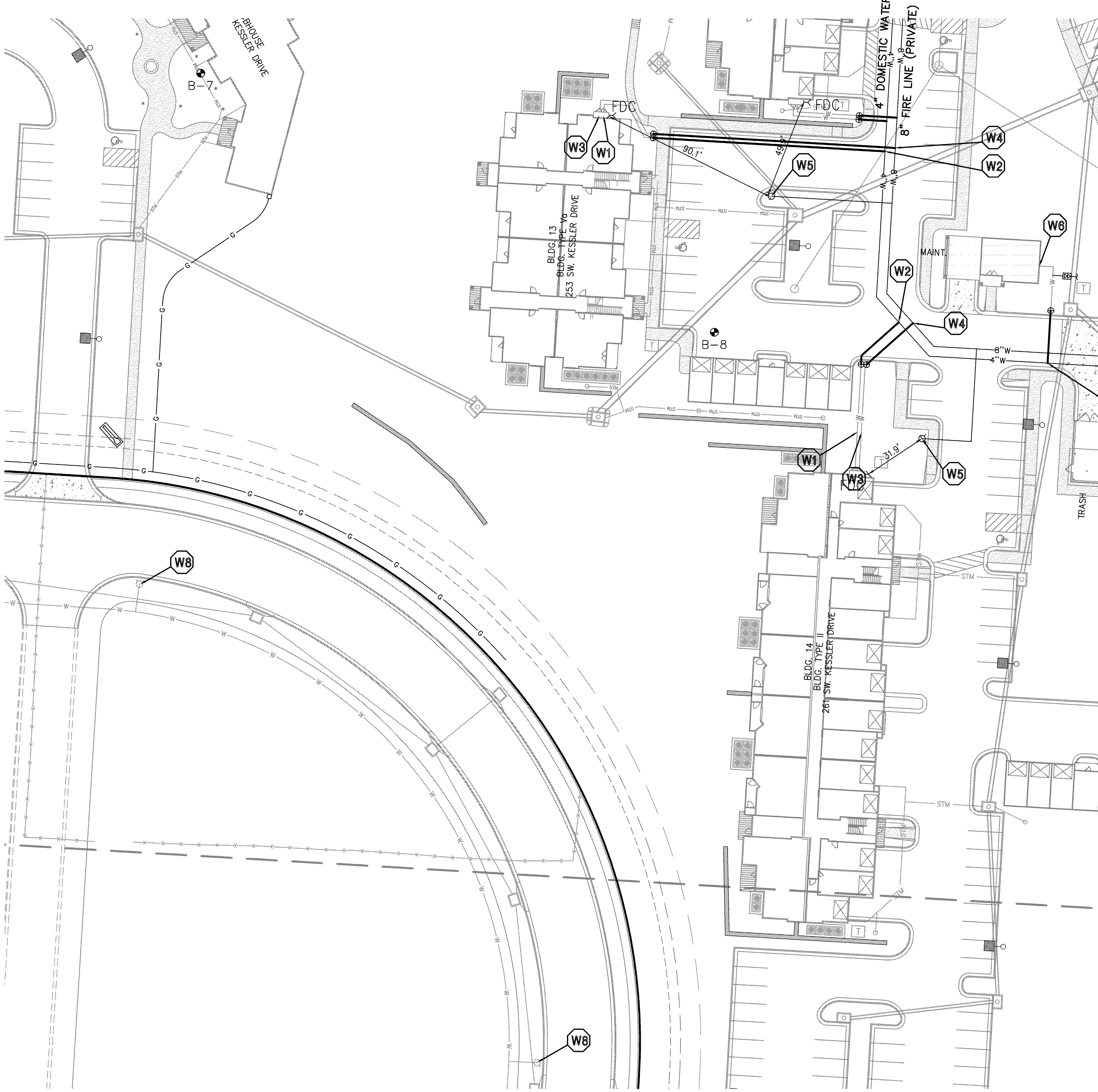

KEY NOTES:

W1 — 2" DOMESTIC WATERLINE ENTRY TO BUILDING. CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING ANY APPURTENANCES ON THE DOMESTIC LINE SUCH AS BACKFLOW PREVENTION DEVICES (RE: BUILDING PLANS), GATE VALVES, REDUCERS, BENDS, TEES, ETC., WHICH MAY BE REQUIRED.

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W5 — CONSTRUCT FIRE HYDRANT

W6 — 1-1/2" IRRIGATION

W7 — 1-1/2" IRRIGATION BACKFLOW RPZ WITH PROTECTIVE ENCLOSURE. OWNER TO APPROVE LOCATION PRIOR TO INSTALLATION.

W8 — FIRE HYDRANT (BY OTHERS)

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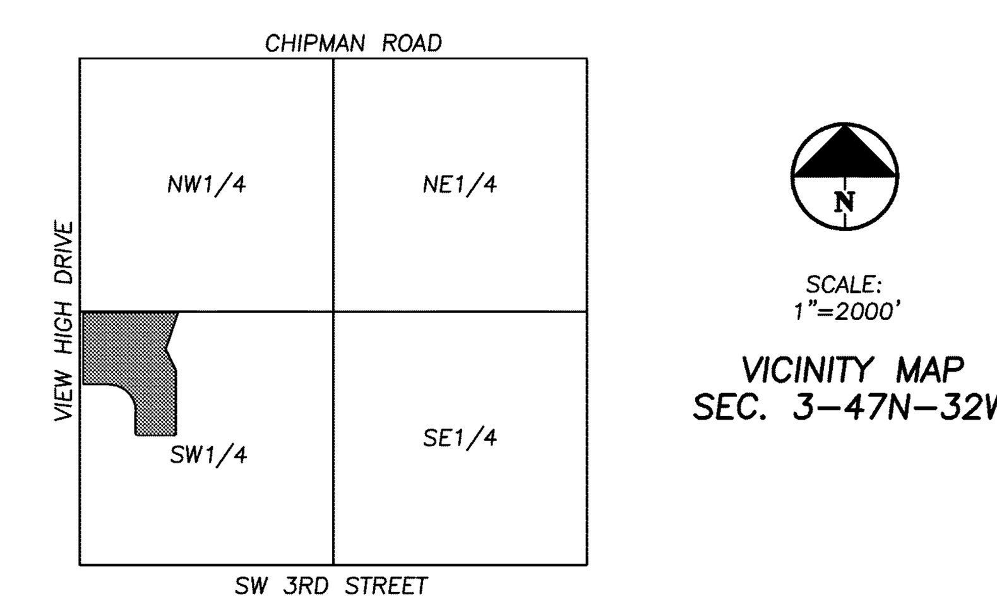

VICINITY MAP
SEC. 3-47N-32W

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N

SCALE: 1"=30'
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WATERLINE SERVICE PLAN

MERIDIAN AT VIEW HIGH
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PEI — PLANNING ENGINEERING IMPLEMENTATION

PROJECT NO. 150376
DATE: 6-27-17
DRAWN: JMO
DESIGNED: DLM
APPROVED: DEU

CERTIFICATE OF AUTHORIZATION
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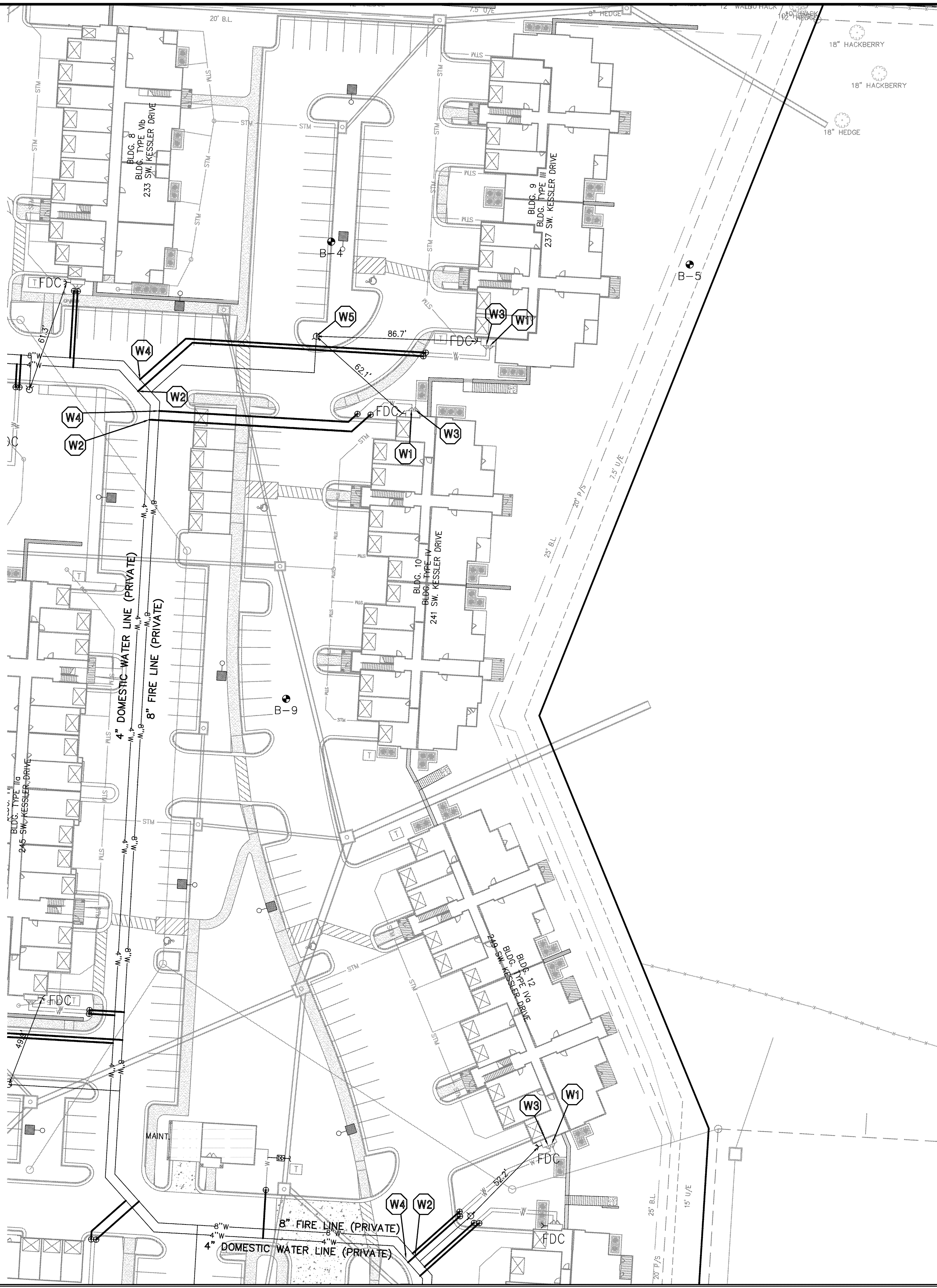

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W7 1-1/2" IRRIGATION BACKFLOW RPZ WITH PROTECTIVE ENCLOSURE. OWNER TO APPROVE LOCATION PRIOR TO INSTALLATION.

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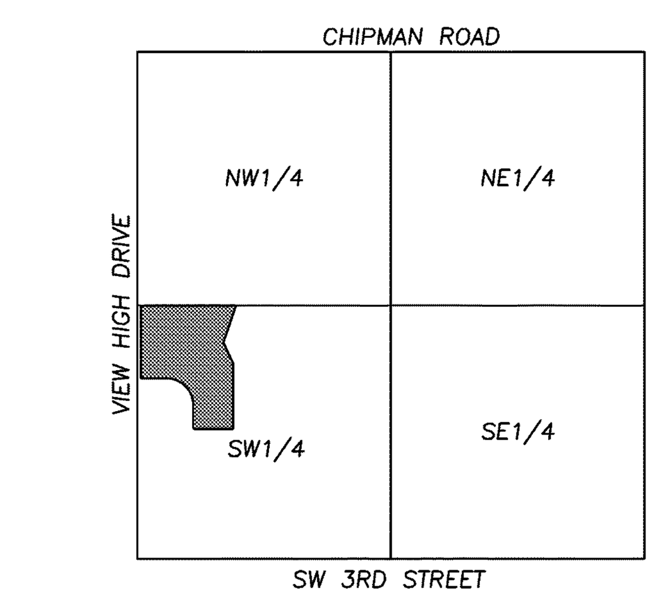

VICINITY MAP
SEC. 3-47N-32W

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LEGEND

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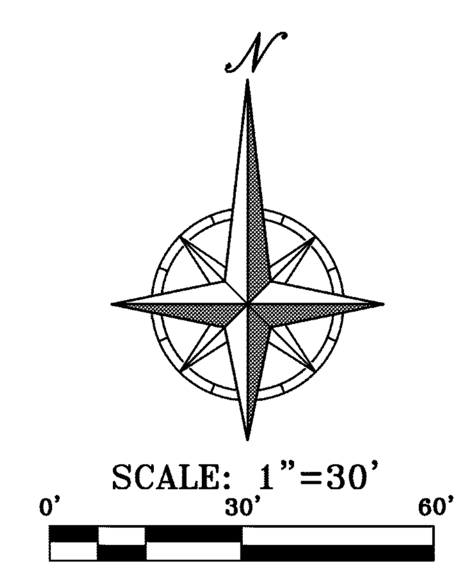

SCALE: 1"=30'

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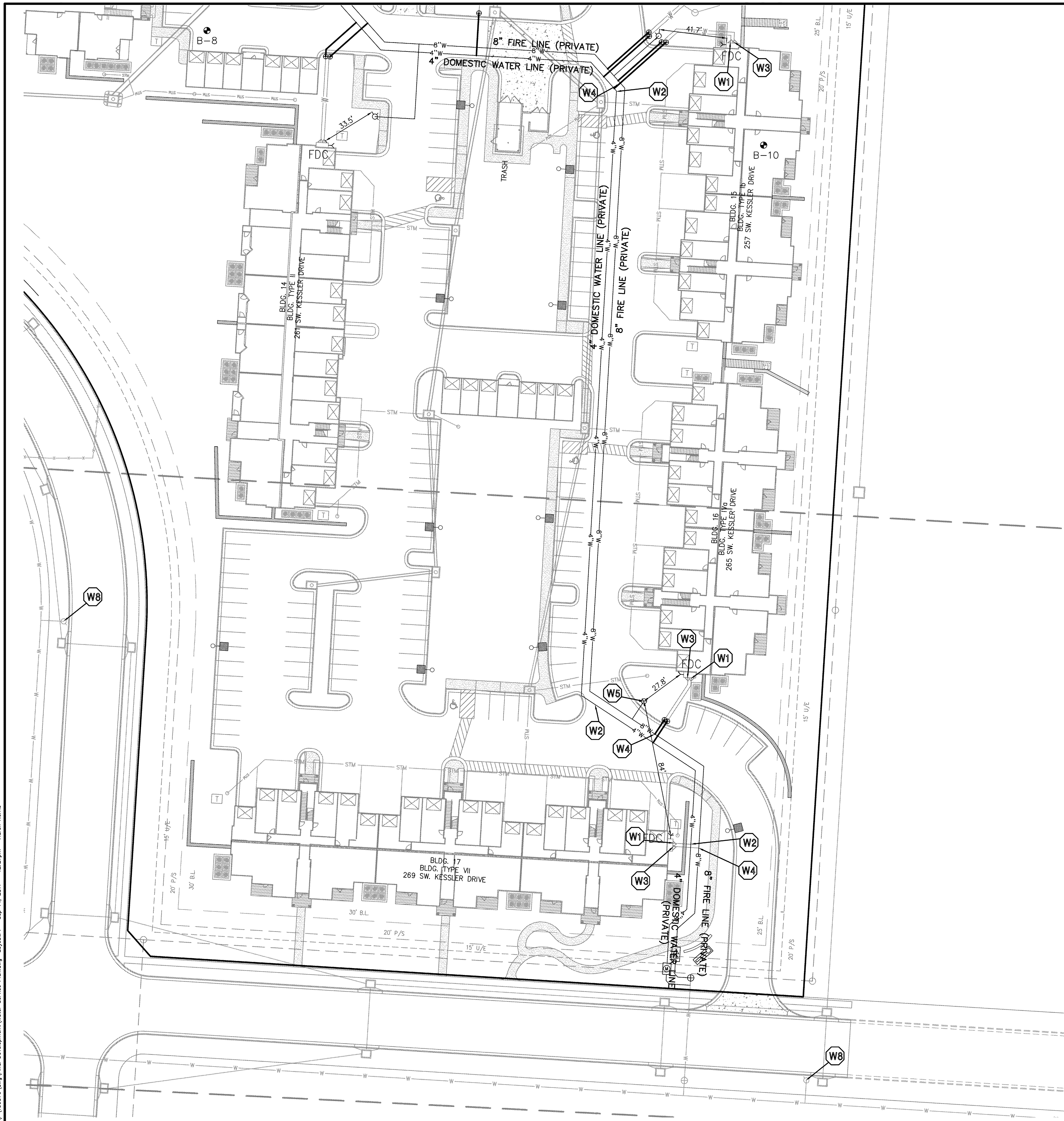

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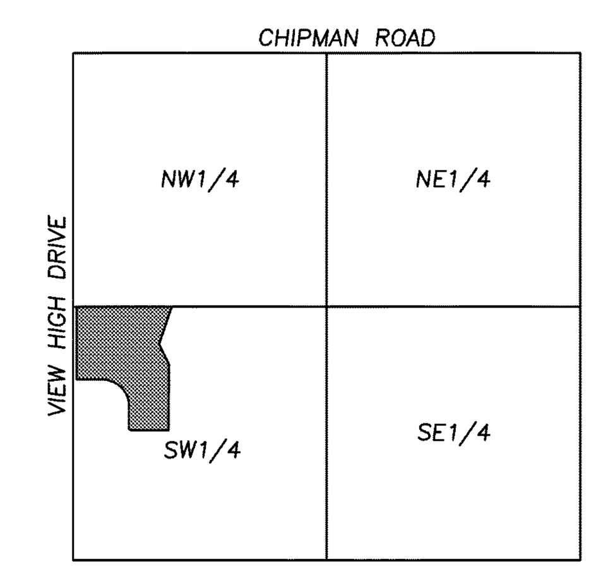

SCALE:
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NUMBER PE-2011010998
PROFESSIONAL ENGINEER

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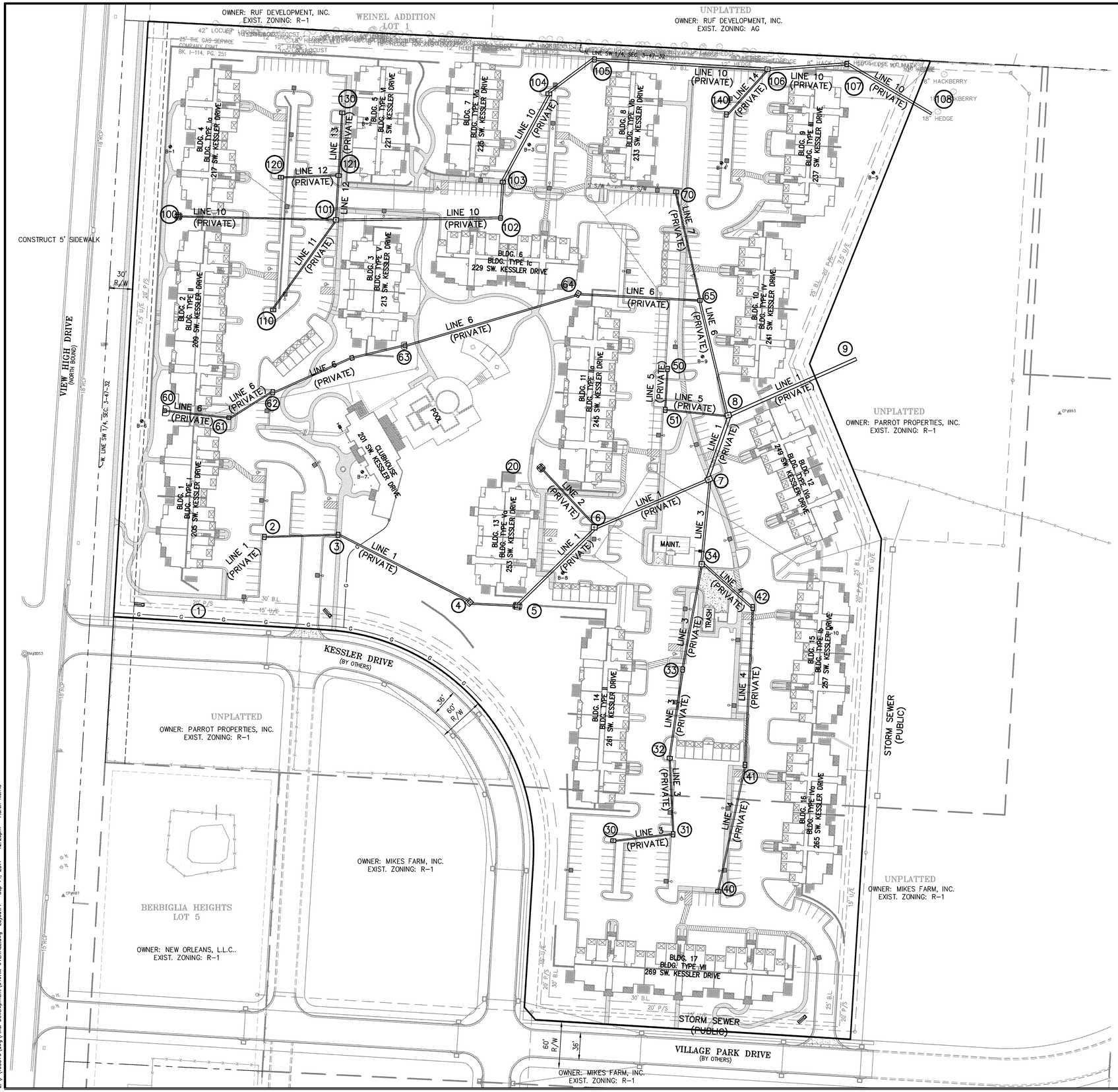
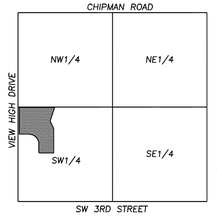
WATERLINE SERVICE PLAN
MERIDIAN AT VIEW HIGH
LEE'S SUMMIT, MISSOURI
SITE DEVELOPMENT PLANS

No.	Date	Revisions:	By	App.

PROJECT NO. 150376
DATE: 6-27-17
DRAWN: JMO
DESIGNED: DLM
APPROVED: DEU
CERTIFICATE OF AUTHORIZATION MISSOURI
LAND SURVEYING–2007001128
ENGINEERING–2007005058

Z:\P\150376\dwg\Final Development\Water Service Plan.dwg Layout:4 Sep 14, 2017 – 12:27pm Aaron Norris



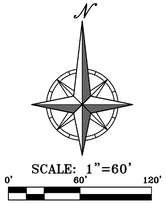


SCALE: 1"=2000'

VICINITY MAP
SEC. 3-47N-32W

FLOOD NOTE:

THIS PROPERTY LIES WITHIN ZONE X, DEFINED AS AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN, AS SHOWN ON THE FLOOD INSURANCE RATE MAP PREPARED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY FOR THE CITY OF LEE'S SUMMIT, COMMUNITY NO. 290174, JACKSON COUNTY, MISSOURI, MAP NO. 29095C0287F, AND DATED SEPTEMBER 29, 2006.



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OVERALL STORM SEWER PLAN

MERIDIAN AT VIEW HIGH

LEE'S SUMMIT, MISSOURI

SITE DEVELOPMENT PLANS

	No.	Date	Revisions:	By	App.

PROJECT NO. 150376
DATE: 6-27-17
DRAWN: JMO
DESIGNED: DLM
APPROVED: DEU

CERTIFICATE OF AUTHORIZATION
MISSOURI ENGINEERING #2007001728
EXPIRATION DATE: 12/31/2018

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28
OF 61

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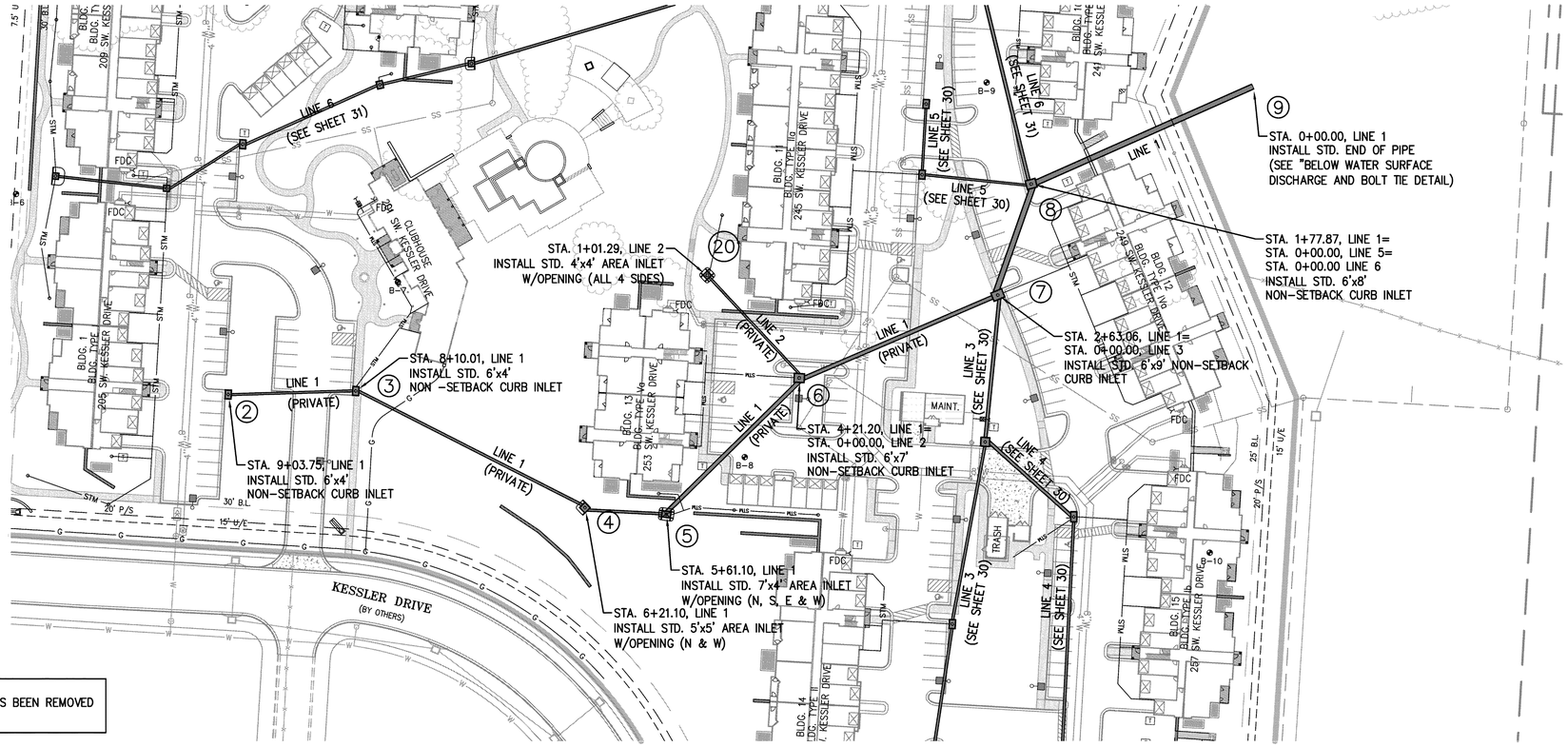

NOTES:

1. HDPE PIPE MAY BE SUBSTITUTED WITH RCP.
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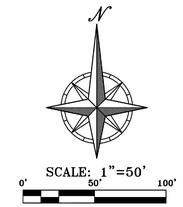
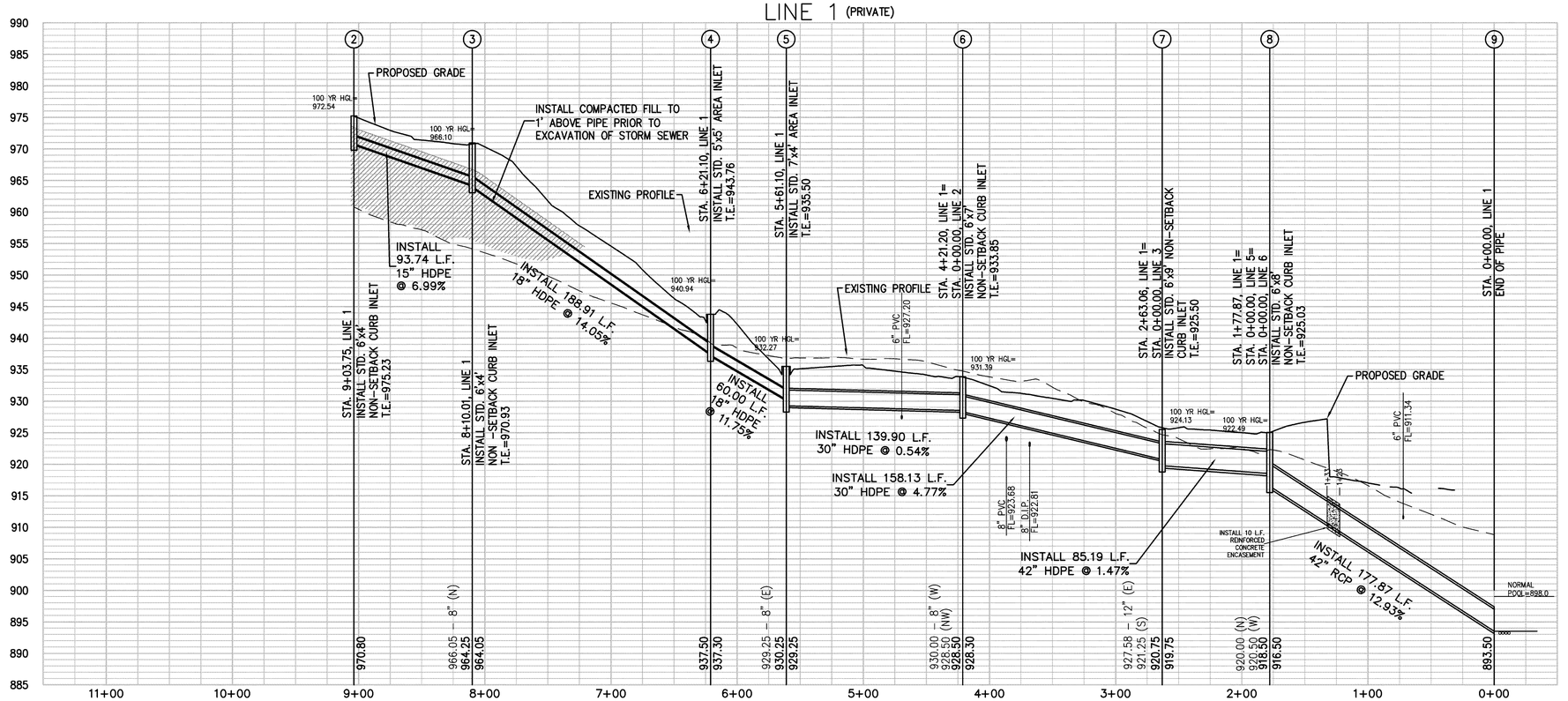
3. ALL RCP SHALL BE CLASS III.

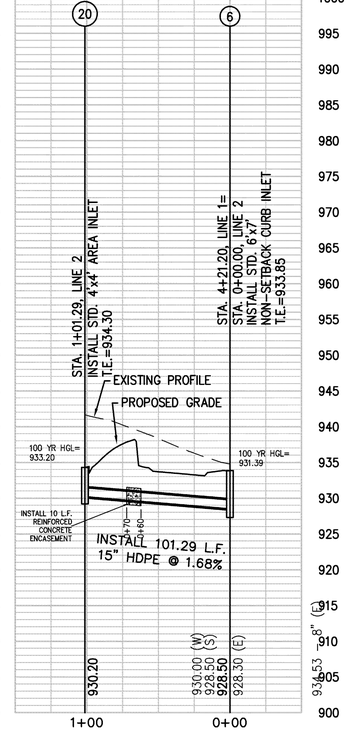
NOTE:
STORM STRUCTURE #1 HAS BEEN REMOVED FROM THIS PLANSET.



LINES 1 & 2

SCALE: 1"=50' HORIZ.
1"=10' VERT.





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STORM SEWER PLAN & PROFILE

MERIDIAN AT VIEW HIGH
LEE'S SUMMIT, MISSOURI
SITE DEVELOPMENT PLANS

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DATE: 6-27-17
DRAWN: JMO
DESIGNED: DLM
APPROVED: DEU

CERTIFICATE OF AUTHORIZATION
MISSOURI ENGINEERING #2007000128
KANSAS ENGINEERING #E-2007000128

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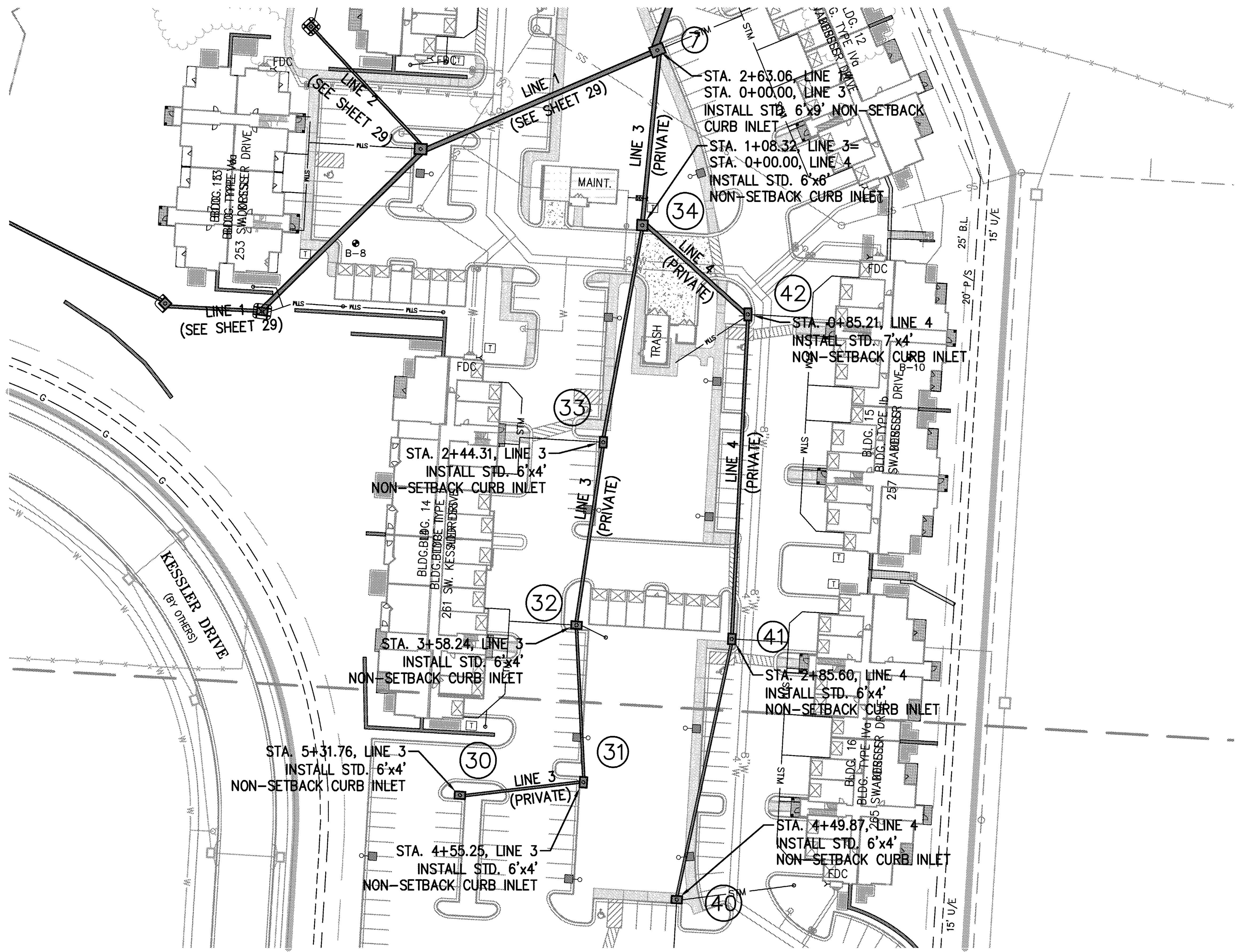
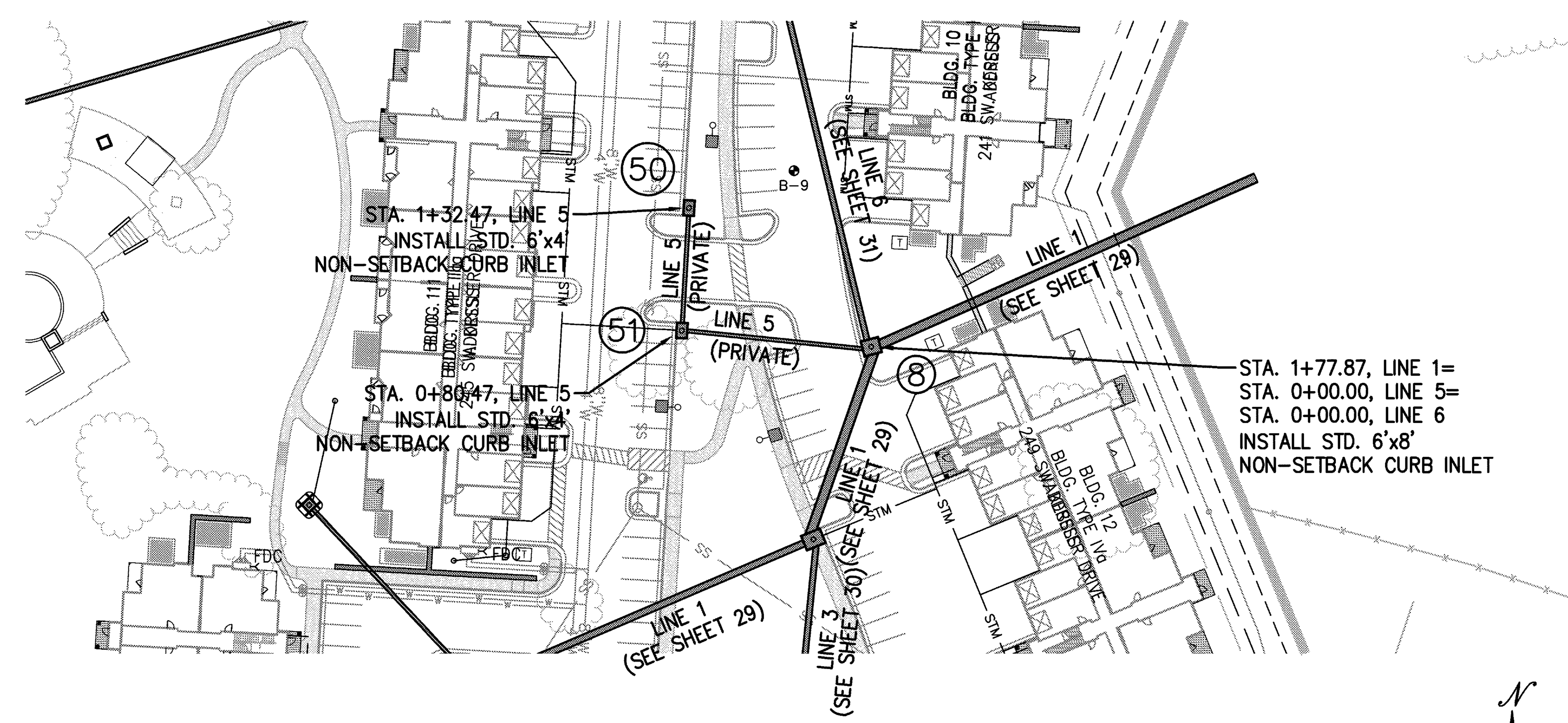
29
OF 61





SCALE: 1"=50'

LINES 3, 4 & 5

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SCALE: 1"=50' HORIZ.
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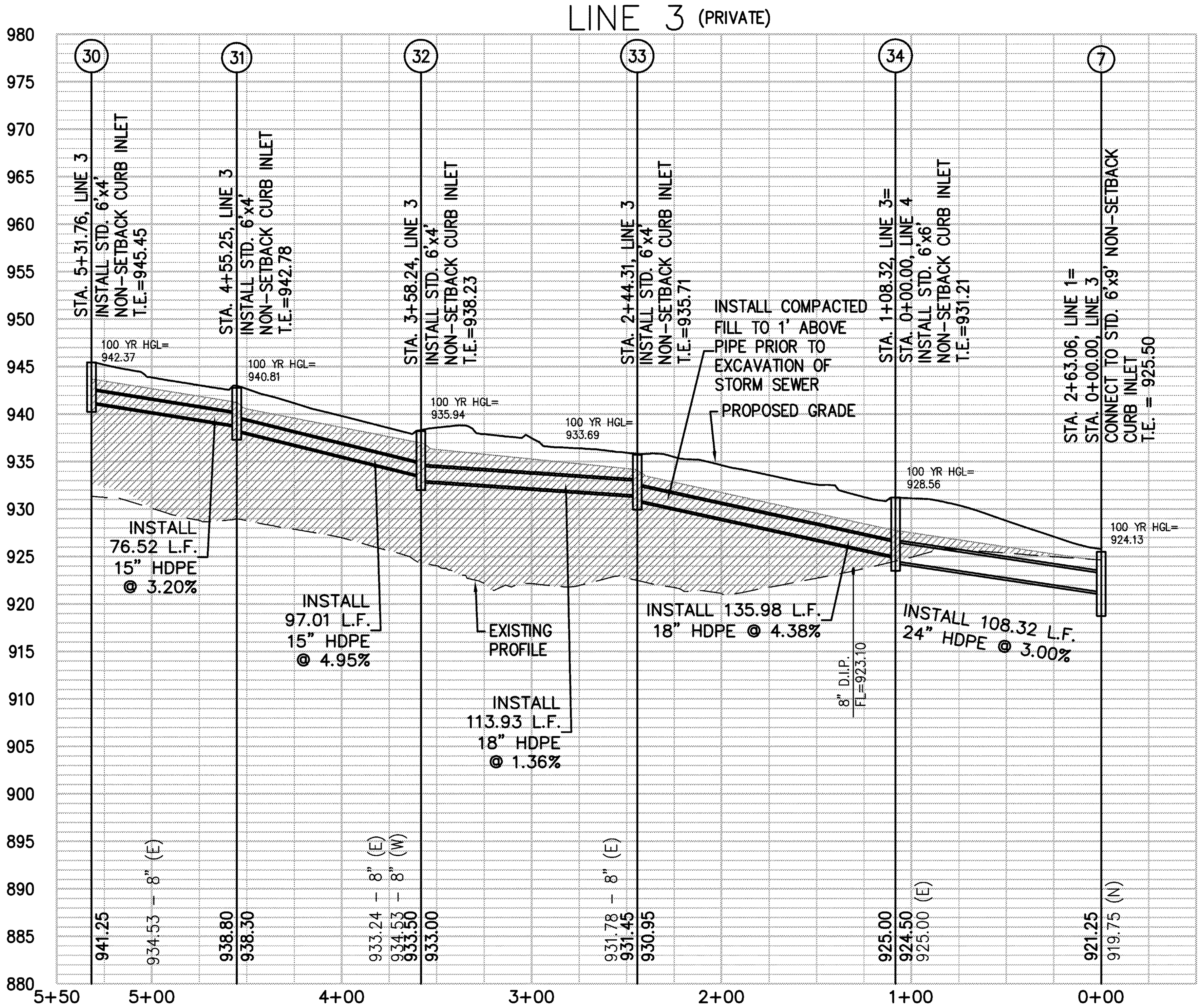
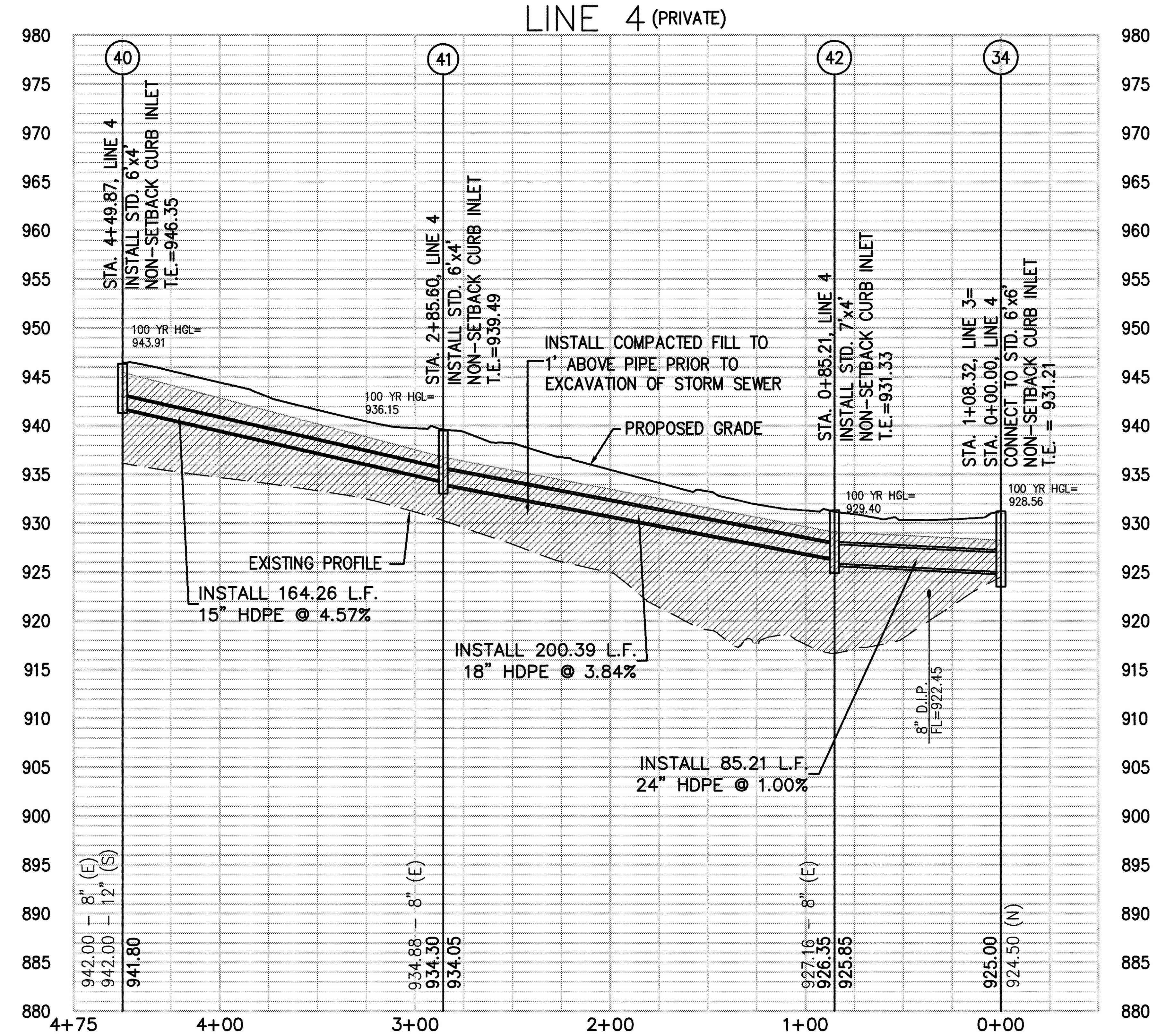
LINE 3 (PRIVATE)



LINE 4 (PRIVATE)



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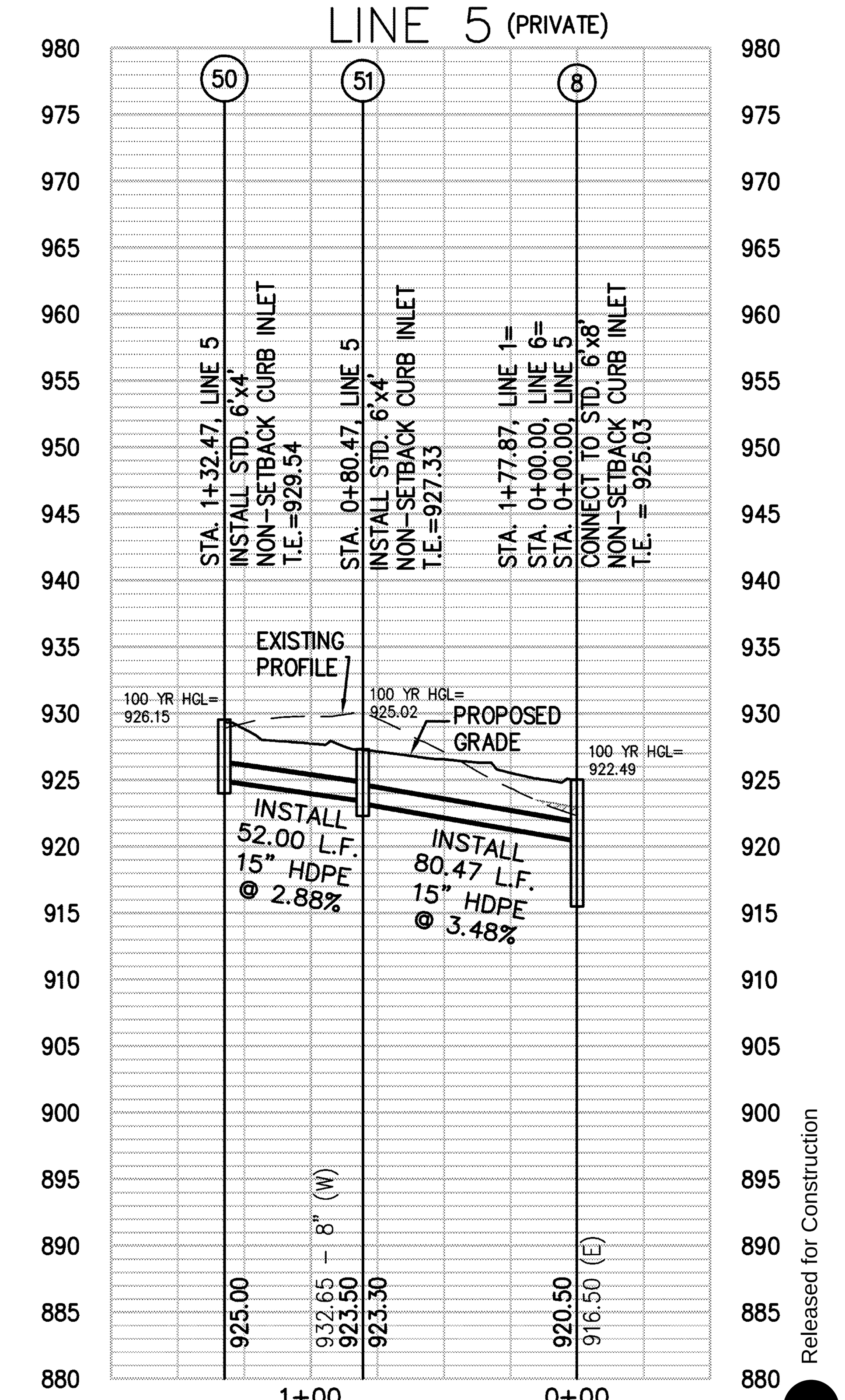

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STORM SEWER PLAN & PROFILE

MERIDIAN AT VIEW HIGH
LEE'S SUMMIT, MISSOURI
SITE DEVELOPMENT PLANS

PROJECT NO.	150376
DATE:	6-27-17
DRAWN:	JMO
DESIGNED:	DLM
APPROVED:	DEU

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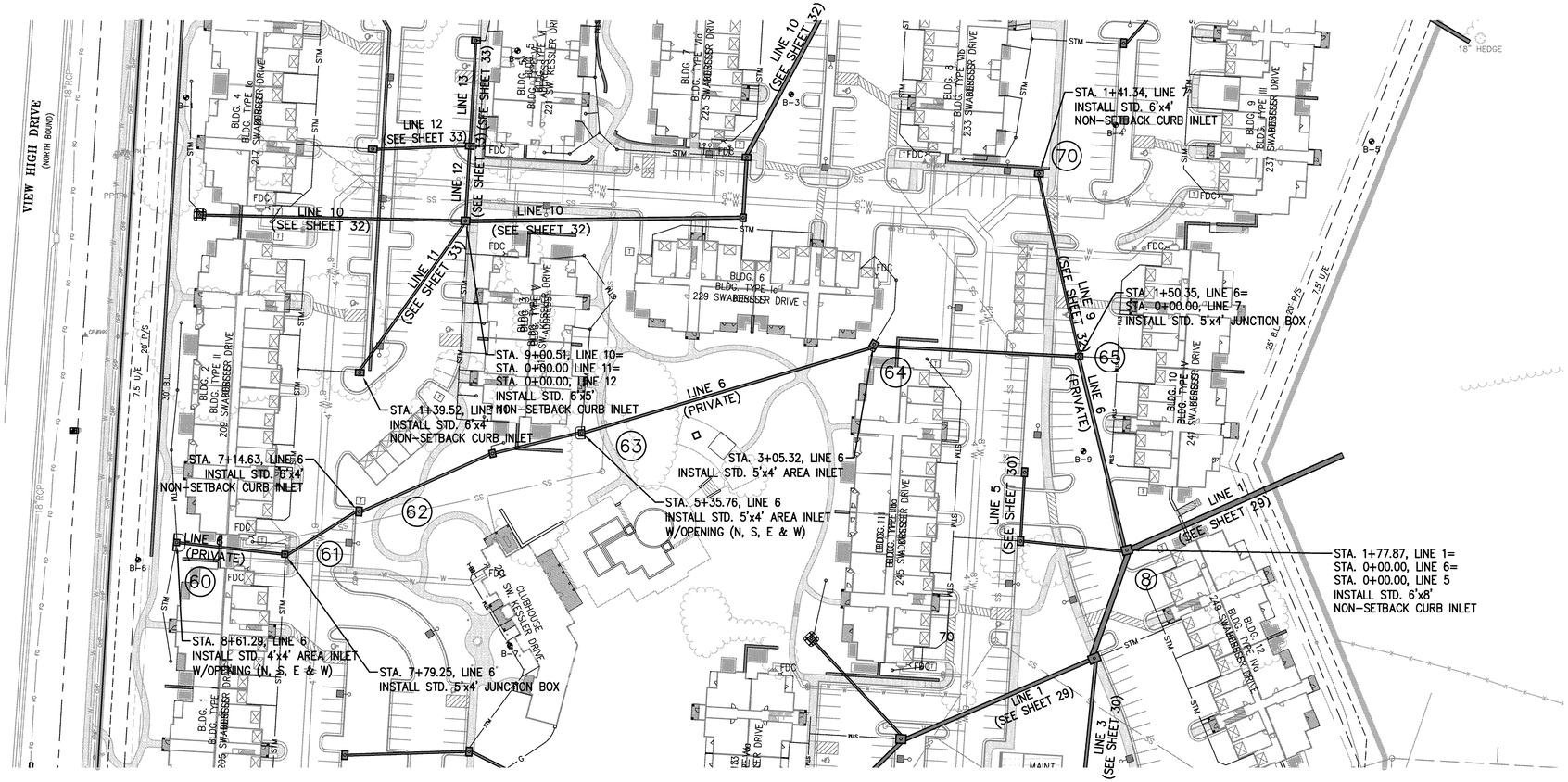

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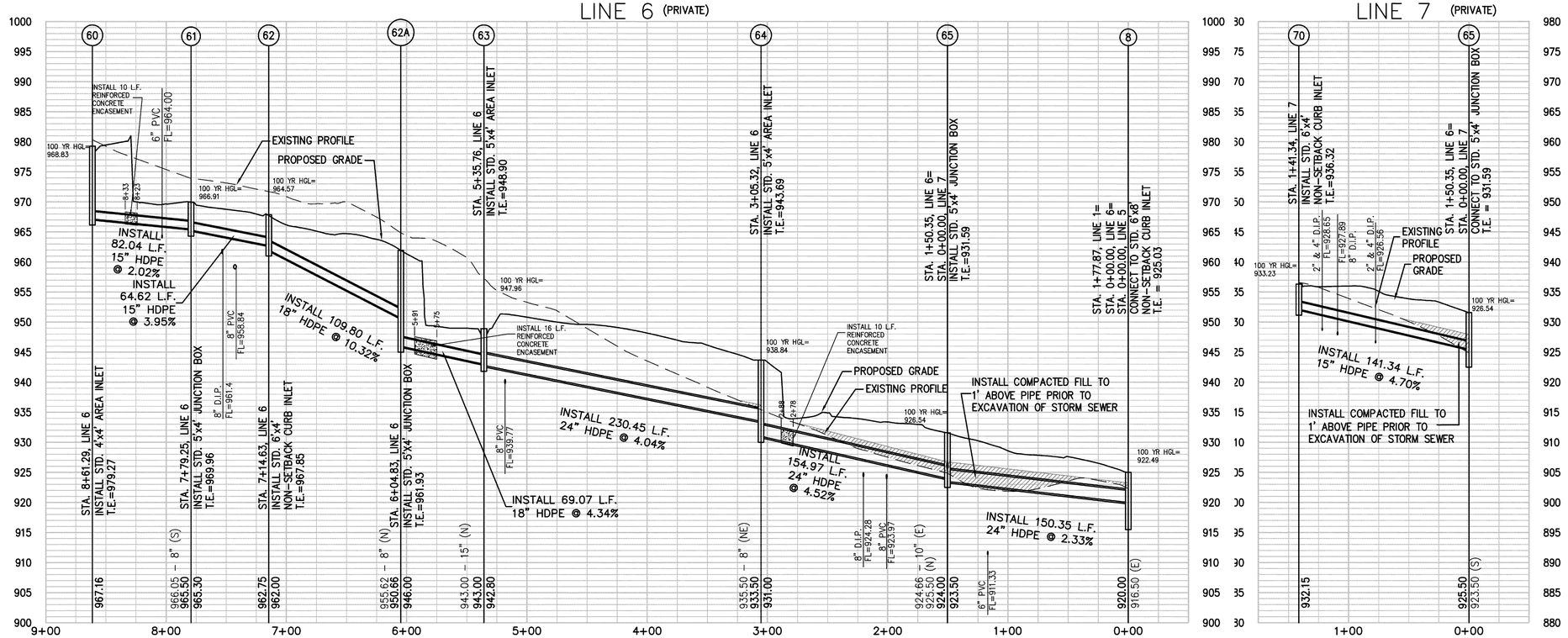
SCALE: 1"=50'
0' 50' 100'

LINES 6 & 7

SCALE: 1"=50' HORIZ.
1"=10' VERT.



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STORM SEWER PLAN & PROFILE

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LEE'S SUMMIT, MISSOURI
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PROJECT NO. 150376
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DRAWN: JMO
DESIGNED: DLM
APPROVED: DEU

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31
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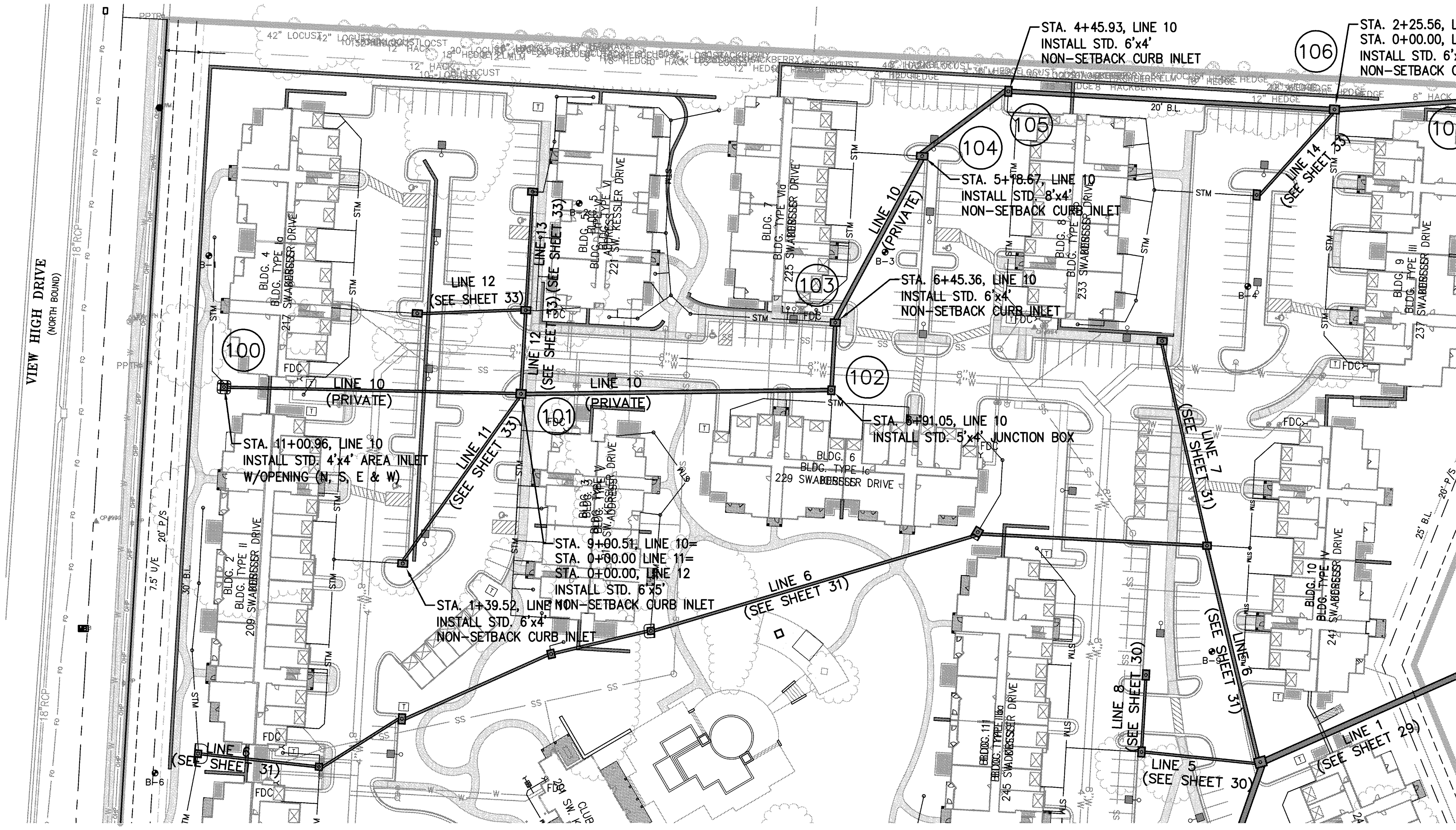

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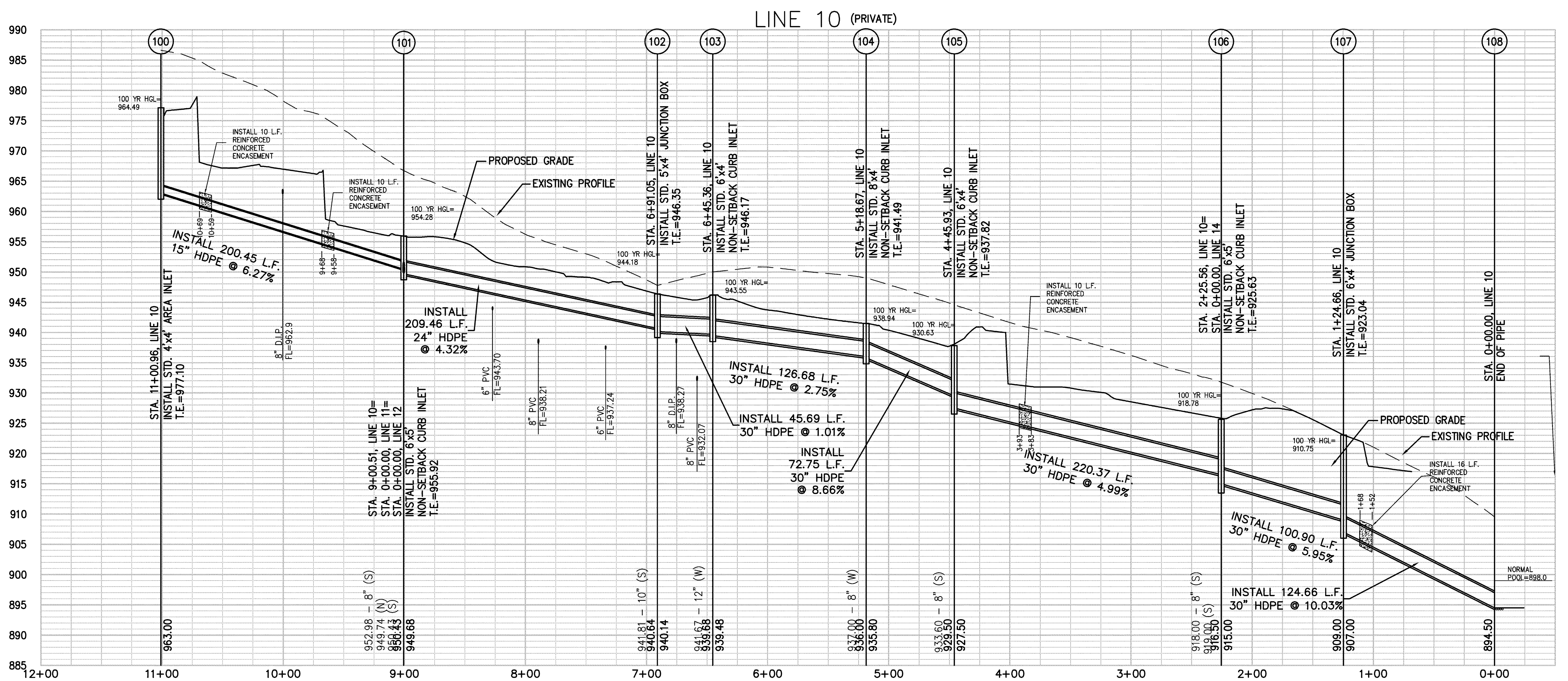
SCALE: 1"=50'

0' 50' 100'

LINE 10

SCALE: 1"=50' HORIZ.
1"=10' VERT.



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LEE'S SUMMIT, MISSOURI
SITE DEVELOPMENT PLANS

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LAND SURVEYING-2007005128
ENGINEERING-2007005058

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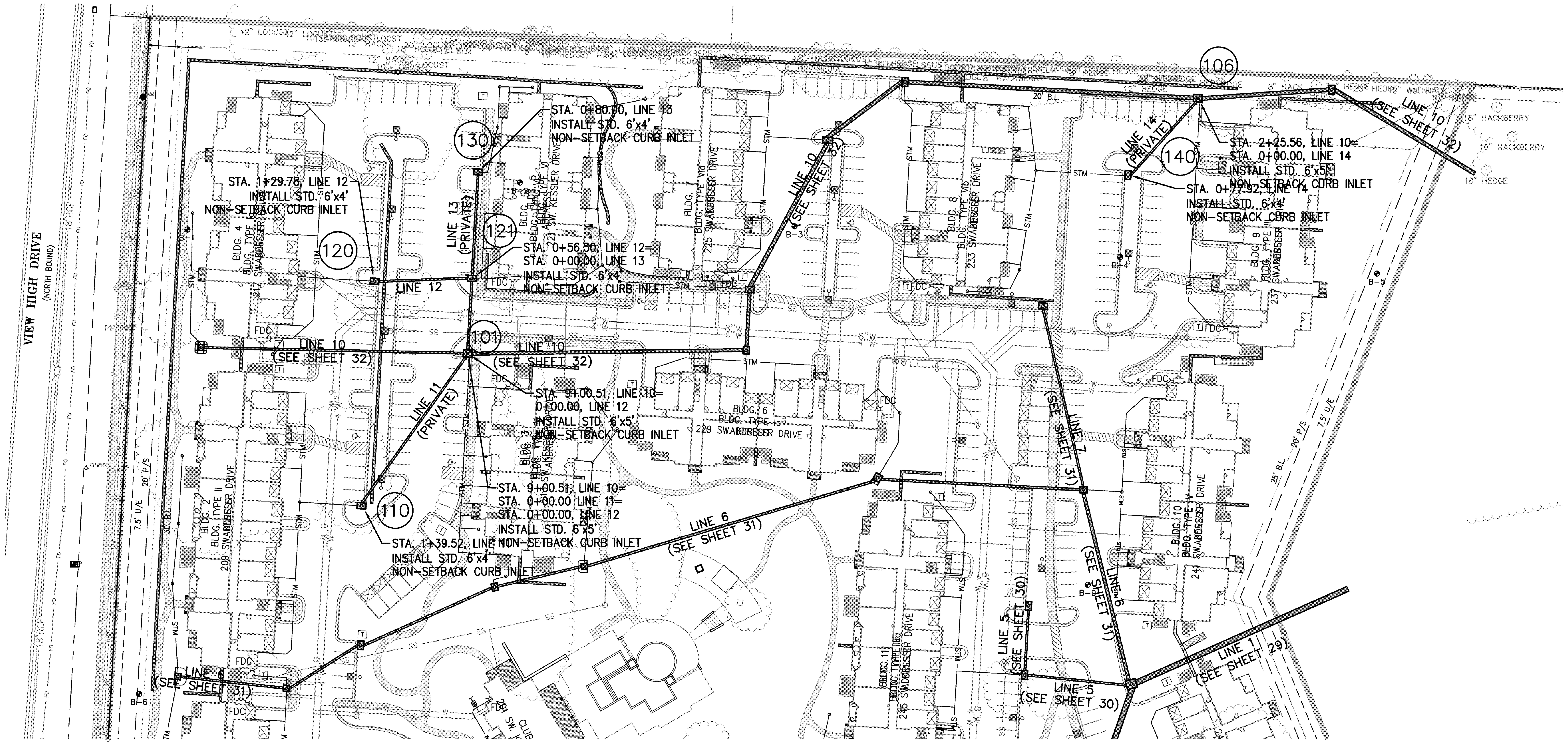
32
OF 61



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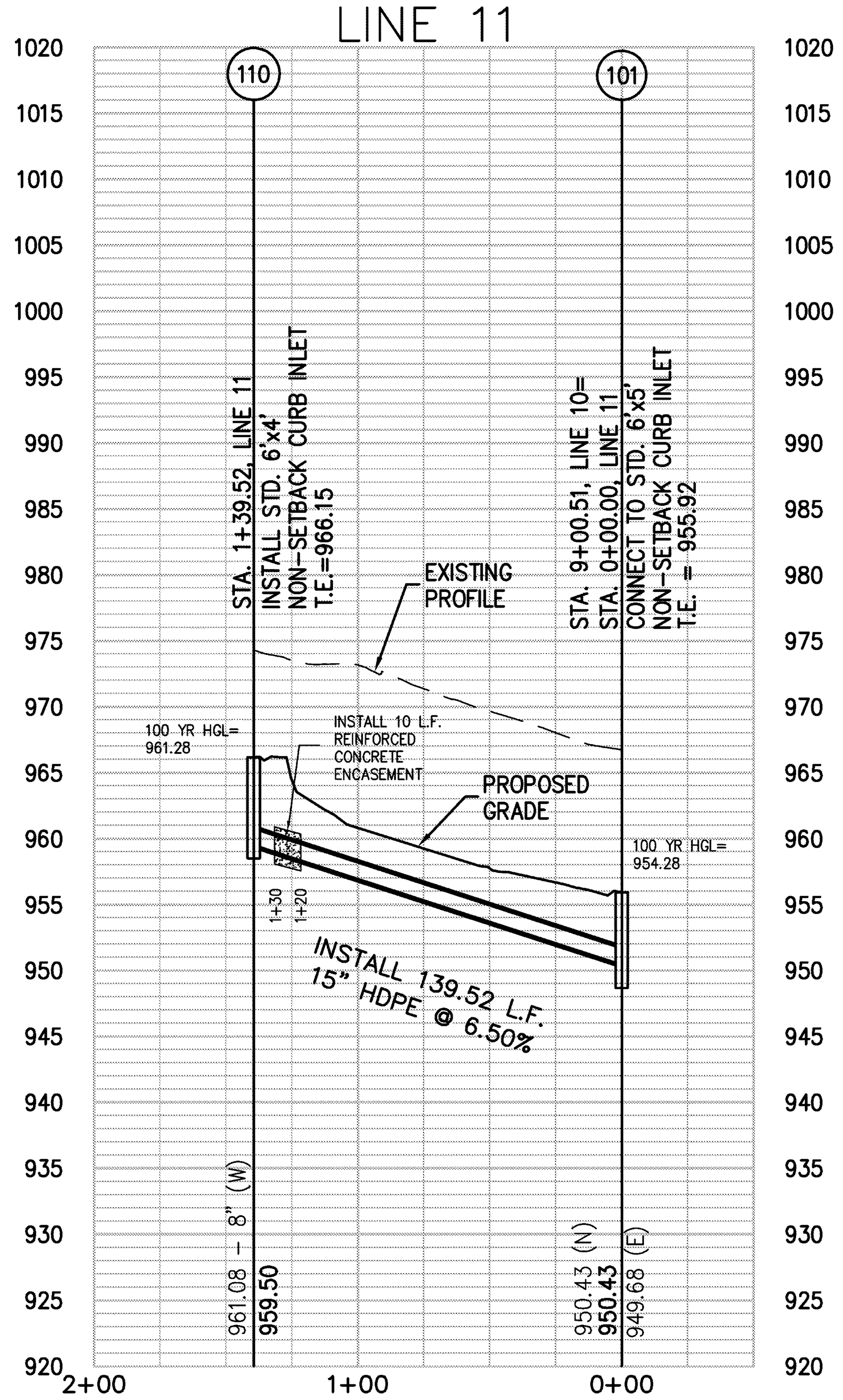
0' 50' 100'

LINES 11, 12, 13 & 14

SCALE: 1"=50' HORIZ.
1"=10' VERT.

LINE 11



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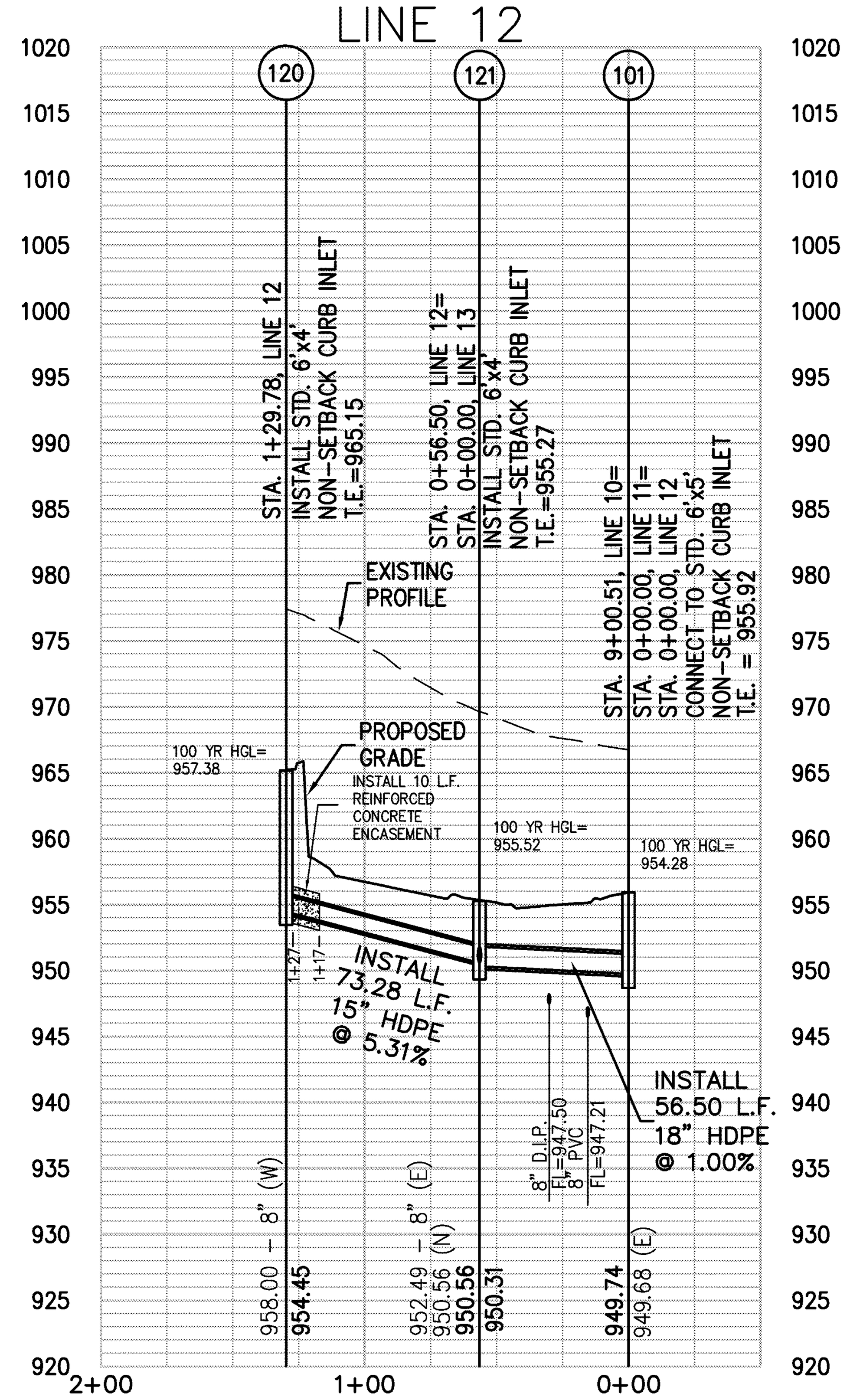

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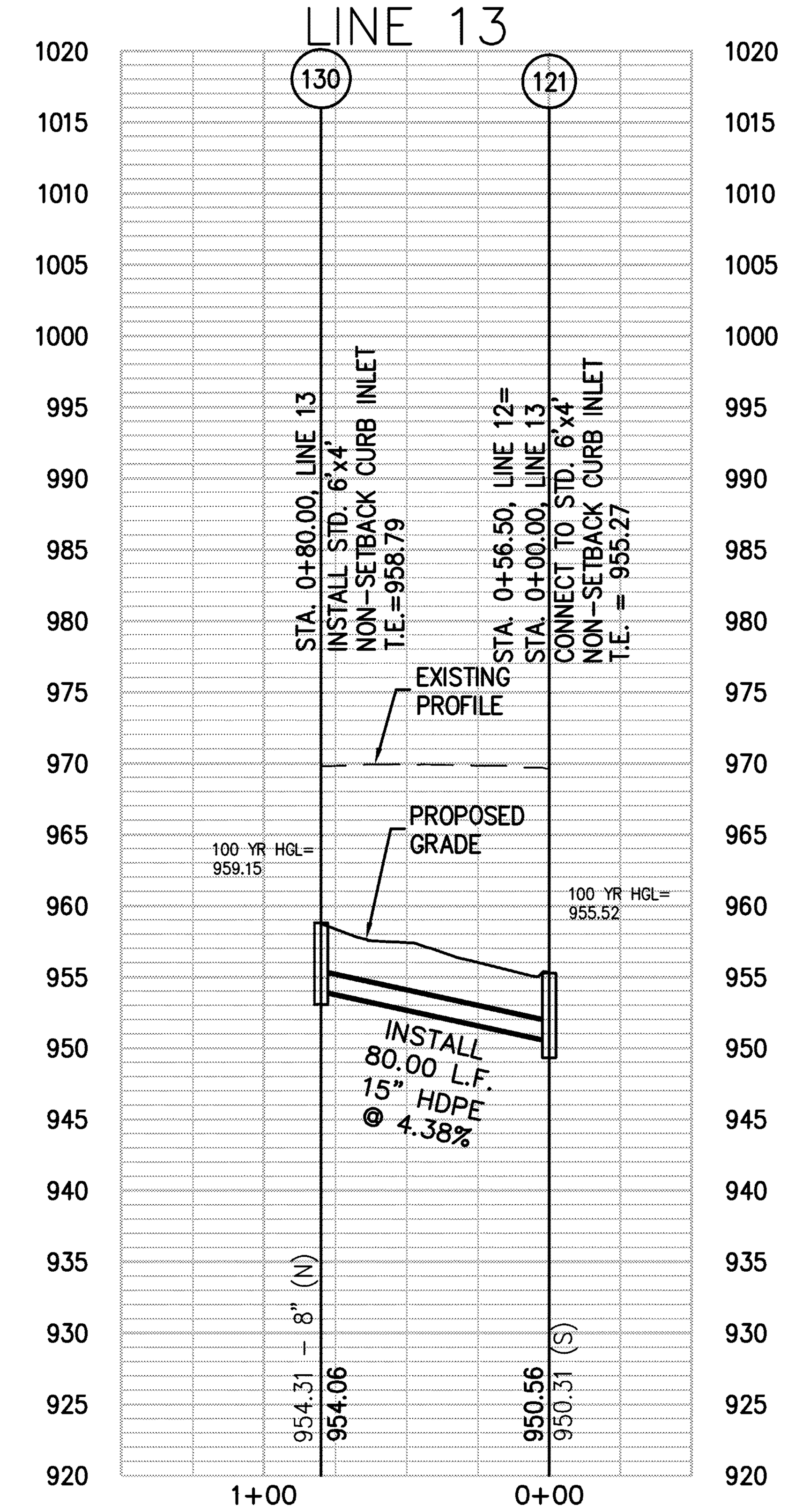

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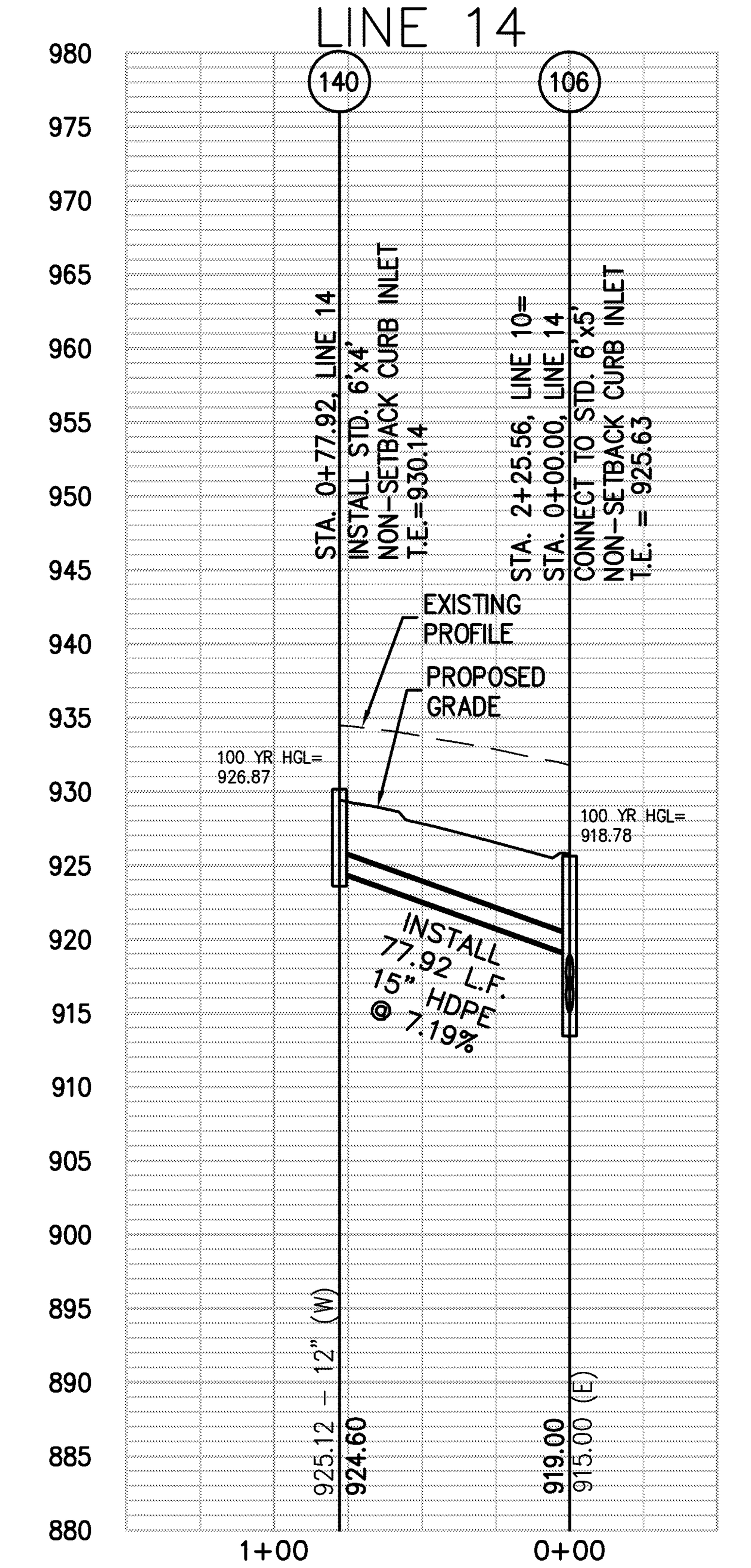

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STORM SEWER PLAN & PROFILE

MERIDIAN AT VIEW HIGH

LEE'S SUMMIT, MISSOURI

SITE DEVELOPMENT PLANS

No.	Date	Revisions:	By	App.

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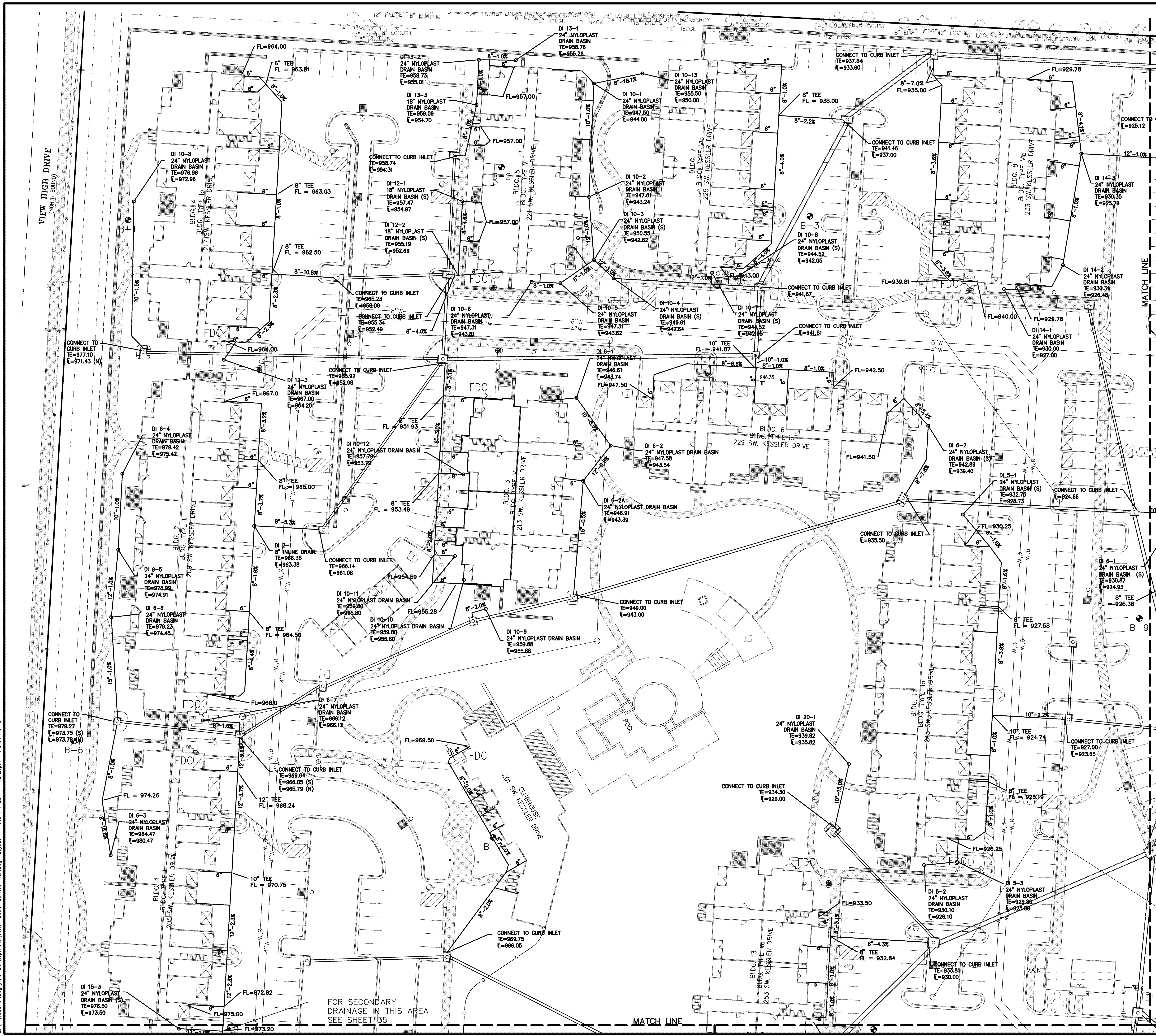

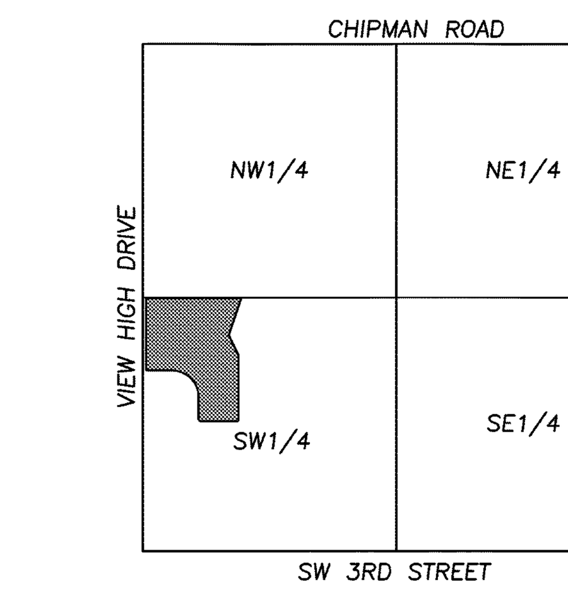

SCALE:
1"=2000'

VICINITY MAP
SEC. 3-47N-32W

FLOOD NOTE:

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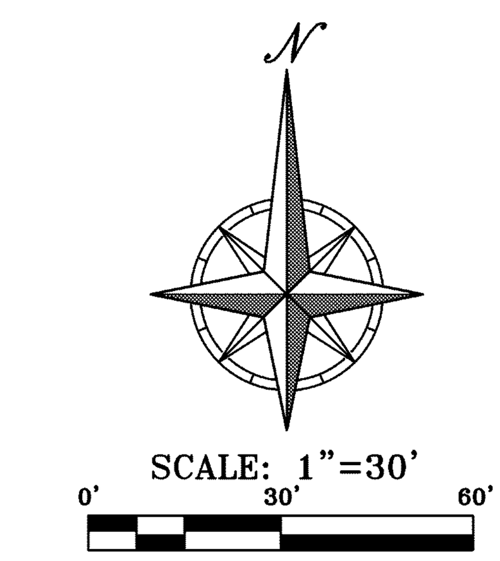

SCALE: 1"=30'

LEGEND

- W — EXISTING WATERLINE
- G — EXISTING GAS LINE
- BE — EXISTING BURIED ELECTRICAL
- BT — EXISTING BURIED TELEPHONE
- EXISTING SANITARY SEWER
- EXISTING PROPERTY LINE
- PROPOSED PROPERTY LINE
- STM — PROPOSED STORM SEWER LINE
- W — PROPOSED WATER LINE
- SS — PROPOSED SANITARY SEWER
- FDC — PROPOSED FIRE DEPARTMENT CONNECTION

GENERAL NOTES:

1. CONTRACTOR TO INSTALL ALL STORM SEWER PIPE @ 1% MINIMUM UNLESS OTHERWISE NOTED.
2. ALL NYLOPLAST DRAIN BASINS AND INLINE DRAINS TO HAVE STANDARD GRATE EXCEPT WHERE NOTED.
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4. ALL PIPE SHALL BE HDPE FOR STORM SEWER PIPES LESS THAN 24" UNLESS OTHERWISE NOTED.
5. ALL 90° BENDS SHALL BE MADE WITH 2-45° BENDS.

LEGEND

XX" PROPOSED STORM SEWER INSIDE DIAMETER

STORM SEWER PIPE

(S) SOLID GRATE TOP

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STORM SEWER SERVICE PLAN
MERIDIAN AT VIEW HIGH
LEE'S SUMMIT, MISSOURI
SITE DEVELOPMENT PLANS

No.	Date	Revisions:	By	App.

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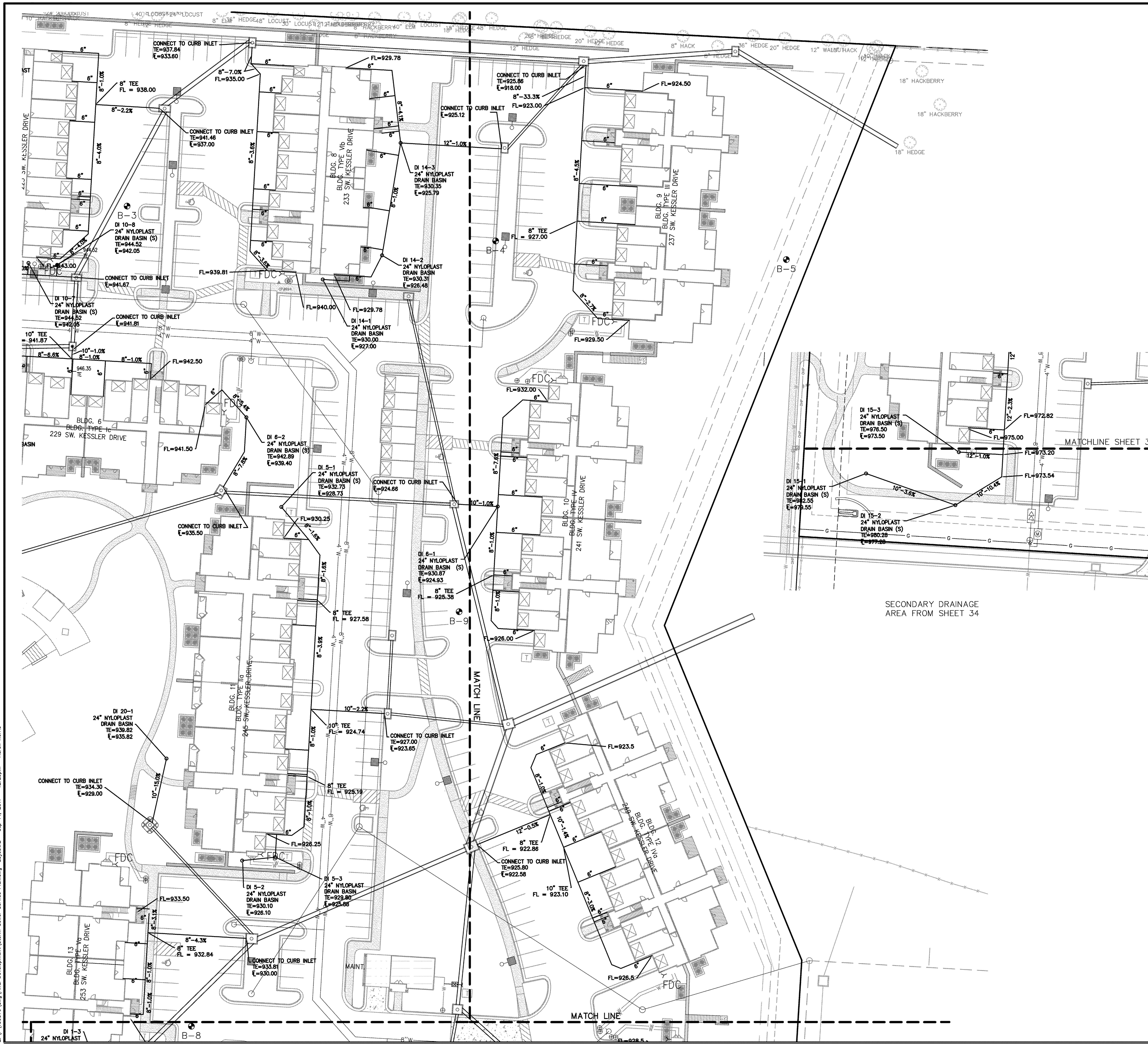

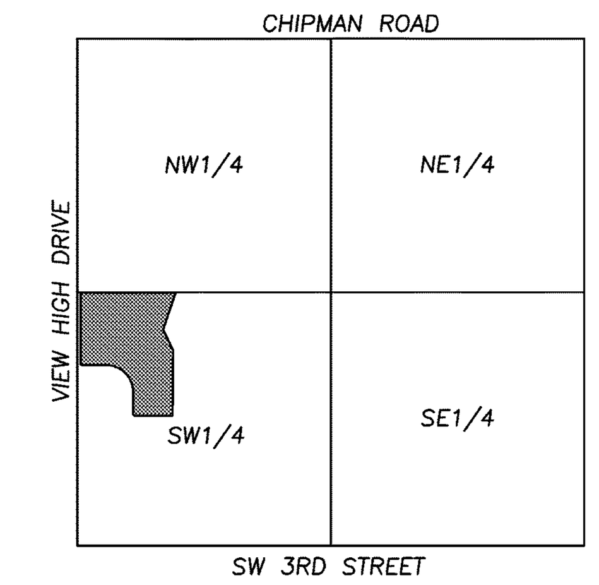

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SCALE: 1"=30'
0' 30' 60'

LEGEND

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G	EXISTING GAS LINE
BE	EXISTING BURIED ELECTRICAL
BT	EXISTING BURIED TELEPHONE
— — —	EXISTING SANITARY SEWER
	EXISTING PROPERTY LINE
	PROPOSED PROPERTY LINE
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STORM SEWER PIPE

(S) SOLID GRATE TOP

811

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SITE DEVELOPMENT PLANS

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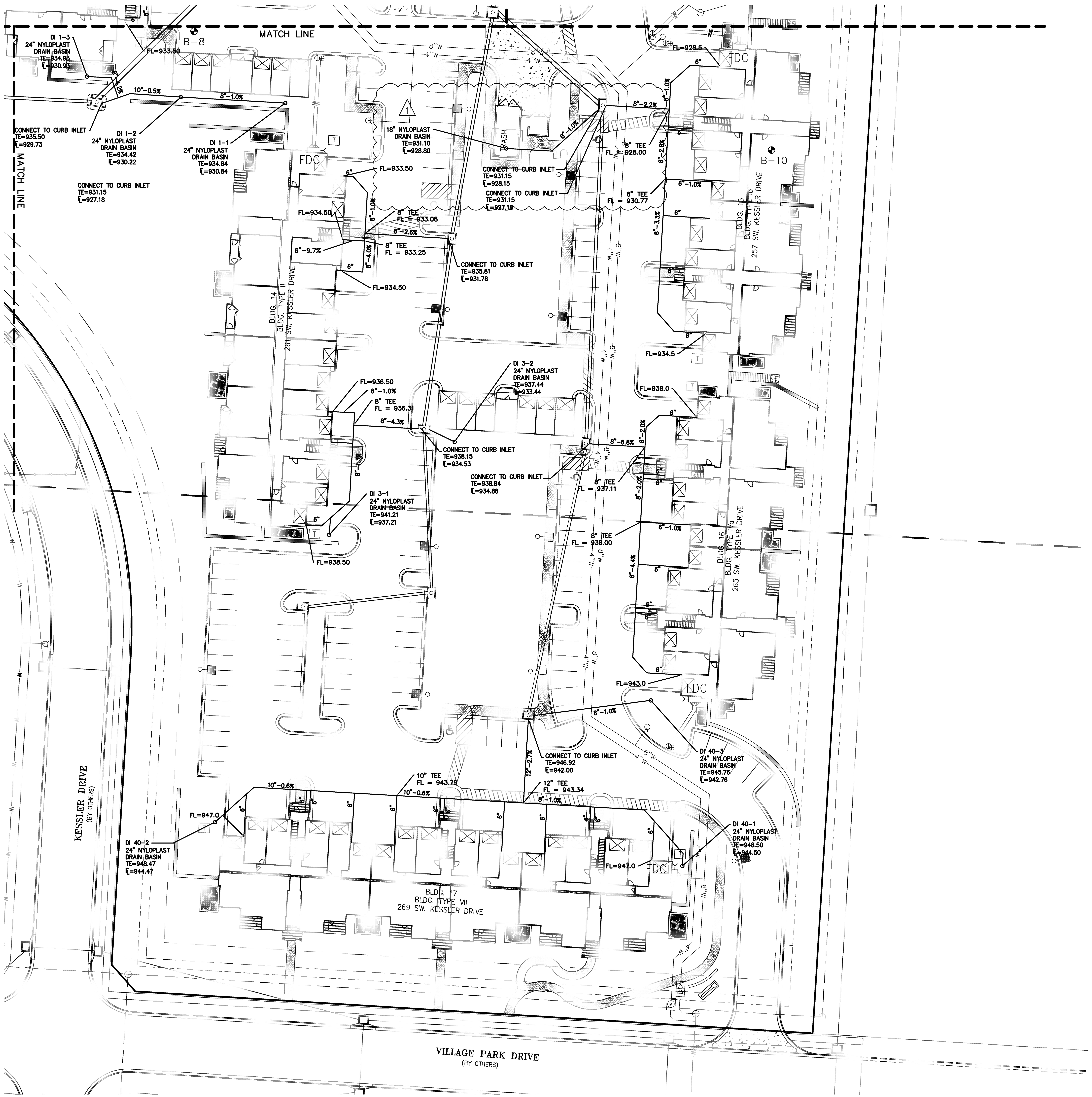

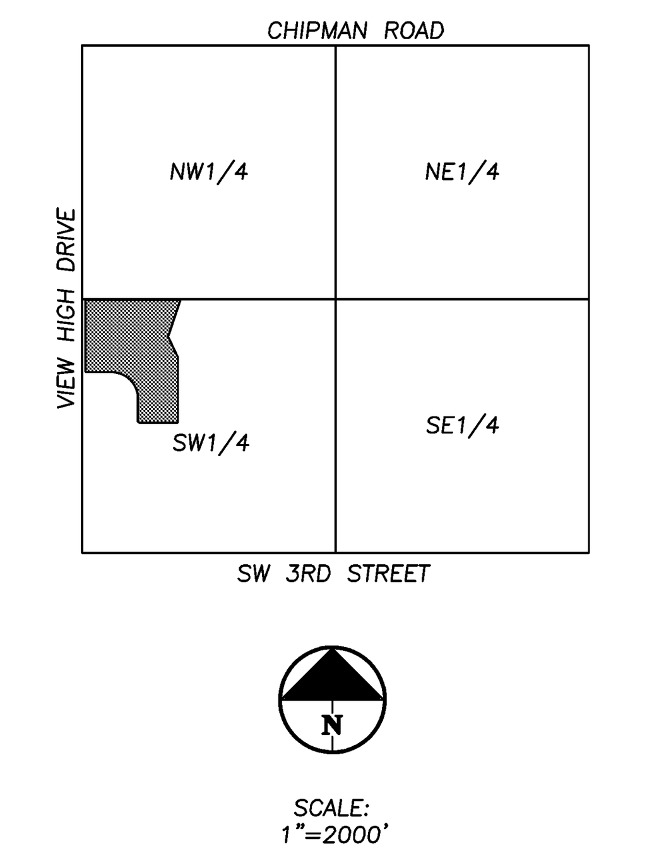

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LEGEND

XX" PROPOSED STORM SEWER INSIDE DIAMETER

STORM SEWER PIPE

(S) SOLID GRATE TOP

811 Know what's below. Call before you dig.

UTILITY NOTES:
VISUAL INDICATIONS OF UTILITIES ARE AS SHOWN. UNDERGROUND LOCATIONS SHOWN, AS FURNISHED BY THEIR LESSORS, ARE APPROXIMATE AND SHOULD BE VERIFIED IN THE FIELD AT THE TIME OF CONSTRUCTION. FOR ACTUAL FIELD LOCATIONS OF UNDERGROUND UTILITIES.

STATE OF MISSOURI
DOUGLAS EUGENE UBBEN, JR.
NUMBER PE-2011010998
PROFESSIONAL ENGINEER

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Olathe, Kansas 66061
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STORM SEWER SERVICE PLAN

MERIDIAN AT VIEW HIGH
LEE'S SUMMIT, MISSOURI
SITE DEVELOPMENT PLANS

No.	Date	Revisions:	By	App.
1	9/11/17	REVISED STORM IN TRASH ENCLOSURE	ALN	DEU

PROJECT NO. 150376
DATE: 6-27-17
DRAWN: JMO
DESIGNED: DLM
APPROVED: DEU
CERTIFICATE OF AUTHORIZATION MISSOURI
LAND SURVEYING-2007000128
ENGINEERING-2007005058

VICINITY MAP
SEC. 3-47N-32W

FLOOD NOTE:

THIS PROPERTY LIES WITHIN ZONE X, DEFINED AS AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN, AS SHOWN ON THE FLOOD INSURANCE RATE MAP PREPARED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY FOR THE CITY OF LEE'S SUMMIT, COMMUNITY NO. 290174, JACKSON COUNTY, MISSOURI, MAP NO. 29095C0287F, AND DATED SEPTEMBER 29, 2006.

LEGEND:

----942----	EXISTING CONTOUR
— —942— —	FUTURE EXISTING CONTOUR
——942——	PROPOSED CONTOUR
▬ ▬ ▬	DRAINAGE BOUNDARY
B.L.	BUILDING LINE
U/E	UTILITY EASEMENT
P/S	PARKING SETBACK

DRAINAGE CALCULATIONS

100 YR. STORM DESIGN, MANNING'S N=0.013 K10=1.0, K100=1.25

*HIGHLIGHTED CAPACITIES DENOTE INLET CONTROL

POINT	DISTANCE (FT)	GRADE (%)	SIZE (IN)	CAP (CFS)	VEL (FPS)	C	A (ACRES)	AC	ACCUM AC	Tc (MINUTES)	10-YR I (IN/HR)	100-YR I (IN/HR)	10-YR RUNOFF (CFS)	100-YR RUNOFF (CFS)	TT (MINUTES)	10 YEAR HGL
2	93.74	6.99	15	9.3	13.1	0.66	0.18	0.12	0.12	5.0	7.35	10.32	0.9	1.5	0.1	
3	188.91	14.05	18	16.8	18.8	0.66	0.44	0.29	0.41	5.1	7.32	10.28	3.0	5.3	0.2	
4	60.00	11.75	18	22.5	18.5	0.66	0.91	0.60	1.01	5.3	7.26	10.20	7.3	12.9	0.1	
5	139.90	0.54	30	30.1	8.8	0.66	0.89	0.59	1.60	5.4	7.23	10.16	11.6	20.3	0.3	
6	158.13	4.77	30	41.5	16.7	0.66	0.20	0.00	2.17	5.7	7.14	10.04	15.5	27.2	0.2	
7	85.19	1.47	42	122.0	13.2	0.66	0.76	0.50	5.18	5.9	7.09	9.96	36.7	64.5	0.1	
8	177.87	12.93	42	115.1	33.8	0.66	0.87	0.57	8.58	6.0	7.06	9.92	60.6	106.4	0.1	
9																
20	101.29	1.68	15	8.4	8.6	0.66	0.87	0.57	0.57	5.0	7.35	10.32	4.2	7.4	0.2	
6																
30	76.52	3.20	15	8.2	8.1	0.66	0.40	0.26	0.26	5.0	7.35	10.32	1.9	3.4	0.2	
31	97.01	4.95	15	9.4	10.8	0.66	0.28	0.18	0.44	5.2	7.29	10.24	3.2	5.6	0.1	
32	113.93	1.36	18	12.3	9.4	0.66	0.69	0.46	0.90	5.3	7.26	10.20	6.5	11.5	0.2	
33	135.98	4.38	18	15.7	13.5	0.66	0.32	0.21	1.11	5.5	7.20	10.12	8.0	14.0	0.2	
34	108.32	3.10	24	31.2	13.5	0.66	0.23	0.15	2.51	5.7	7.14	10.04	17.9	31.5	0.1	
7																
40	164.26	4.57	15	8.2	10.1	0.66	0.27	0.18	0.18	4.0	7.68	10.76	1.4	2.4	0.3	
41	200.39	3.84	18	16.4	11.1	0.66	0.97	0.64	0.82	5.0	7.35	10.32	6.0	10.6	0.3	
42	85.21	1.00	24	21.5	7.6	0.66	0.65	0.43	1.25	5.3	7.26	10.20	9.1	15.9	0.2	
34																
50	52.00	2.88	15	9.0	8.0	0.66	0.43	0.28	0.28	5.0	7.35	10.32	2.1	3.6	0.1	
51	80.47	3.48	15	8.7	10.0	0.66	0.77	0.51	0.51	5.1	7.32	10.28	3.7	6.6	0.1	
8																
60	84.06	2.02	15	9.2	11.3	0.66	0.71	0.47	0.47	5.0	7.35	10.32	3.5	6.1	0.1	
61	64.62	3.95	15	12.3	9.6	0.66	0.61	0.40	0.87	5.1	7.32	10.28	6.4	11.2	0.1	
62	109.80	10.32	18	15.8	15.8	0.66	0.52	0.34	1.21	5.2	7.29	10.24	8.8	15.5	0.1	
62A	69.07	4.34	18	21.9	15.8	0.66	0.00	0.00	1.21	5.3	7.26	10.20	8.8	15.4	0.3	
63	230.45	4.04	24	30.5	14.0	0.66	0.68	0.45	1.66	5.6	7.17	10.08	11.9	20.9	0.3	
64	154.97	4.52	24	48.1	16.7	0.66	0.52	0.34	2.00	5.9	7.09	9.96	14.2	24.9	0.2	
65	150.35	2.33	24	34.5	11.9	0.66	0.10	0.07	2.32	6.1	7.03	9.88	16.3	28.7	0.2	
8																
70	141.34	4.70	15	8.2	9.9	0.66	0.38	0.25	0.25	5.0	7.35	10.32	1.8	3.2	0.2	
65																
100	200.45	6.27	15	16.2	13.0	0.66	0.64	0.42	0.42	5.0	7.35	10.32	3.1	5.4	0.3	
101	209.46	4.32	24	28.9	15.2	0.66	0.81	0.53	1.88	5.3	7.26	10.20	13.6	24.0	0.2	
102	45.69	1.01	30	41.2	8.6	0.66	0.10	0.07	1.95	5.5	7.20	10.12	14.0	24.7	0.1	
103	126.68	2.75	30	41.1	14.8	0.66	0.83	0.55	2.50	5.6	7.17	10.08	17.9	31.5	0.1	
104	72.75	8.66	30	38.4	19.5	0.66	0.17	0.11	2.61	5.7	7.14	10.04	18.6	32.8	0.1	
105	220.37	4.99	30	66.1	16.7	0.66	0.65	0.00	2.61	5.8	7.11	10.00	18.6	32.6	0.2	
106	100.90	5.95	30	68.7	19.3	0.66	0.73	0.48	3.38	6.0	7.06	9.92	23.9	41.9	0.1	
107	124.66	10.03	30	72.5	25.7	0.66	0.00	0.00	3.38	6.1	7.03	9.88	23.8	41.7	0.1	
108																
110	139.52	6.50	15	10.0	8.8	0.66	0.21	0.14	0.14	5.0	7.35	10.32	1.0	1.8	0.3	
101																
120	73.28	5.31	15	14.9	7.9	0.66	0.29	0.19	0.19	5.0	7.35	10.32	1.4	2.5	0.2	
121	56.50	1.00	18	10.5	10.7	0.66	0.18	0.12	0.79	5.2	7.29	10.24	5.8	10.1	0.1	
101																
130	80.00	4.38	15	9.2	10.8	0.66	0.73	0.48	0.48	5.0	7.35	10.32	3.5	6.2	0.1	
121																
140	77.92	7.19	15	8.2	13.80	0.66	0.44	0.29	0.29	5.0	7.35	10.32	2.1	3.7	0.1	
106																

Released for Construction

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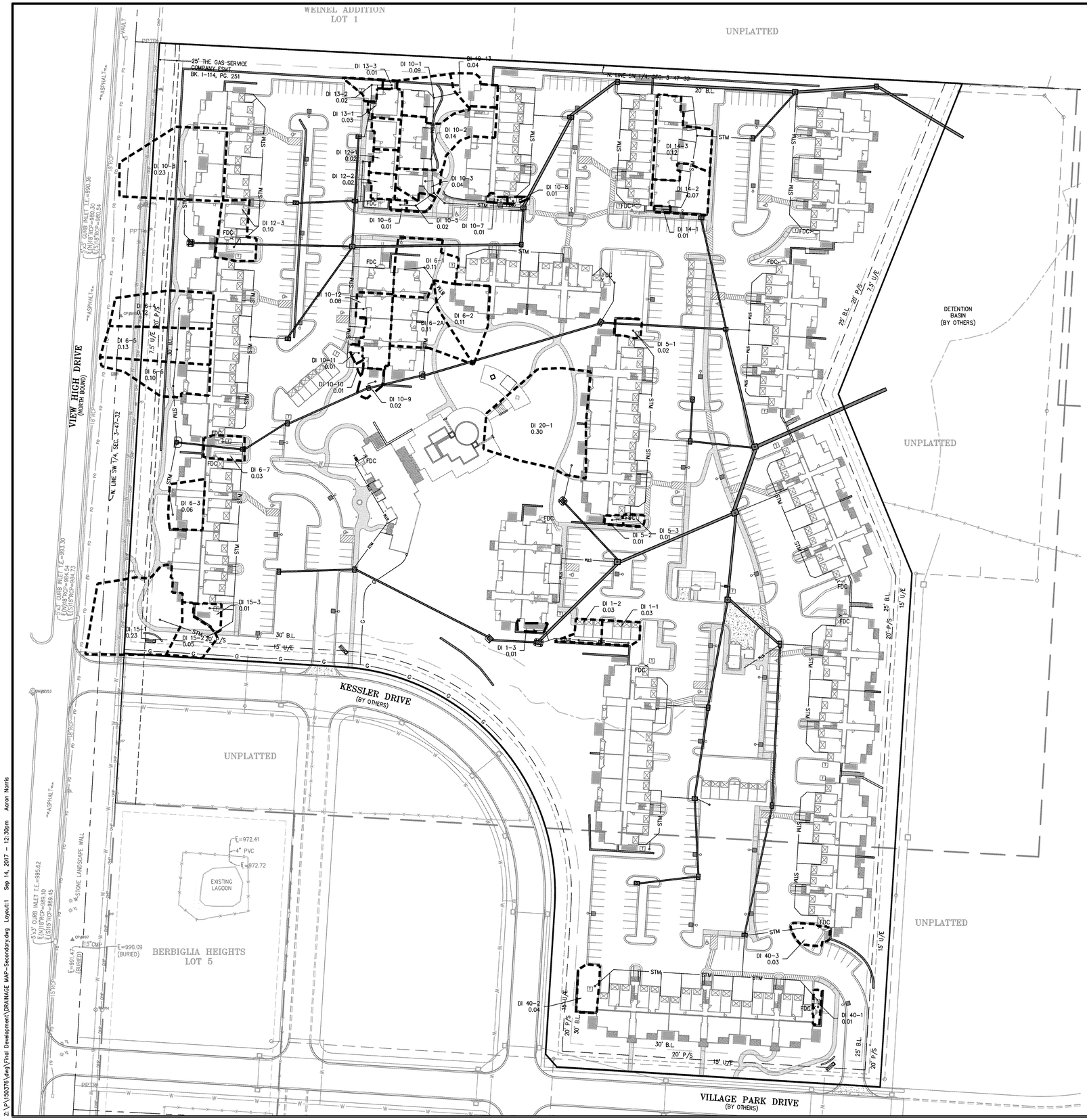
DRAINAGE MAP
MERIDIAN AT VIEW HIGH
LEE'S SUMMIT, MISSOURI
SITE DEVELOPMENT PLANS

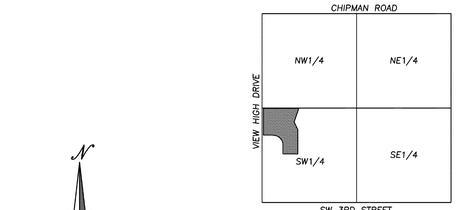
No.	Date	Revisions:	By	App.

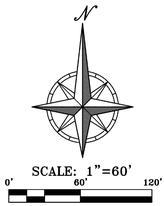
PROJECT NO. 150376
DATE: 6-27-17
DRAWN: JMO
DESIGNED: DLM
APPROVED: DEU

CERTIFICATE OF AUTHORIZATION
MISSOURI
LAND SURVEYING-2007001128
ENGINEERING-2007005058

SHEET
37
OF 61







FLOOD NOTE:

THIS PROPERTY LIES WITHIN ZONE X, DEFINED AS AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN, AS SHOWN ON THE FLOOD INSURANCE RATE MAP PREPARED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY FOR THE CITY OF LEE'S SUMMIT, COMMUNITY NO. 290174, JACKSON COUNTY, MISSOURI, MAP NO. 29095C0287F, AND DATED SEPTEMBER 29, 2006.

LEGEND:

942	EXISTING CONTOUR
942	FUTURE EXISTING CONTOUR
942	PROPOSED CONTOUR
	DRAINAGE BOUNDARY
B.L.	BUILDING LINE
U/E	UTILITY EASEMENT
P/S	PARKING SETBACK

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SECONDARY DRAINAGE MAP

MERIDIAN AT VIEW HIGH
LEE'S SUMMIT, MISSOURI
SITE DEVELOPMENT PLANS

Revisions:	No.	Date	By	App.

PROJECT NO. 150376
DATE: 6-27-17
DRAWN: JMO
DESIGNED: DLM
APPROVED: DEU

CERTIFICATE OF AUTHORIZATION
MISSOURI ENGINEERING #2007001128
KANSAS ENGINEERING #E-2008

Released for Construction

SHEET
37.1
OF 61

Z:\P\150376\dwg\Final Development\DRAINAGE MAP-Secondary.dwg Layout:1 Sep 14, 2017 - 12:30pm Aaron Norris

DRAINAGE CALCULATIONS

100 YR. STORM DESIGN, MANNING'S N=0.013 K25=1.1, K100=1.25

Point	Distance (ft)	Grade (%)	Size (in.)	Mannings "n"	Cap (cfs)	Vel (fps)	Trav. Time	C	A (Acres)	AC	Accum AC	Tc	25-YR Storm (K=1.1) I (in/hr)	25-YR Storm (K=1.1) Runoff (cfs)	100-YR STORM (K=1.25) I (in/hr)	100-YR STORM (K=1.25) Runoff (cfs)
DI 1-1	61.81	1.00%	8	0.013	1.2	2.1	0.5	0.75	0.03	0.02	0.02	5.0	8.53	0.2	10.32	0.3
DI 1-2	97.61	0.50%	10	0.013	1.5	2.1	0.8	0.75	0.03	0.02	0.05	5.8	8.25	0.5	10.00	0.6
5																
DI 1-3	26.79	4.20%	8	0.013	2.5	2.1	0.2	0.75	0.01	0.01	0.01	5.0	8.53	0.1	10.32	0.1
DI 1-2																
DI 3-1	26.79	4.20%	8	0.013	2.5	2.1	0.2	0.75	0.01	0.01	0.01	5.0	8.53	0.1	10.32	0.1
32																
DI 5-1	70.72	1.60%	8	0.013	1.5	3.9	0.3	0.75	0.02	0.02	0.02	5.0	8.53	0.2	10.32	0.3
51																
DI 5-2	22.12	1.00%	10	0.013	2.2	3.9	0.1	0.75	0.01	0.01	0.01	5.0	8.53	0.1	10.32	0.1
DI 5-3	113.29	1.00%	10	0.013	2.2	3.9	0.5	0.75	0.01	0.01	0.02	5.5	8.35	0.2	10.12	0.3
51																
DI 6-1	39.31	0.50%	10	0.013	1.5	3.9	0.2	0.75	0.11	0.08	0.08	5.0	8.53	0.8	10.32	1.0
DI 6-2	29.92	0.50%	12	0.013	2.5	5.4	0.1	0.75	0.10	0.08	0.16	5.1	8.49	1.5	10.28	2.1
DI 6-2A	78.49	0.50%	15	0.013	4.6	5.4	0.2	0.75	0.11	0.08	0.24	5.3	8.42	2.2	10.20	3.1
63																
DI 6-3	88.91	1.00%	8	0.013	1.2	3.9	0.4	0.75	0.06	0.05	0.05	5.0	8.53	0.5	10.32	0.6
60																
DI 6-4	50.91	1.00%	10	0.013	2.2	3.9	0.2	0.75	0.12	0.09	0.09	5.0	8.53	0.8	10.32	1.2
DI 6-5	45.52	1.00%	12	0.013	3.6	3.9	0.2	0.75	0.13	0.10	0.19	5.2	8.46	1.8	10.24	2.4
DI 6-6	67.03	1.00%	15	0.013	6.5	3.9	0.3	0.75	0.10	0.08	0.27	5.5	8.35	2.5	10.12	3.4
60																
DI 6-7	32.73	1.00%	8	0.013	1.2	3.9	0.1	0.75	0.03	0.02	0.02	5.0	8.53	0.2	10.32	0.3
61																
DI 10-1	76.08	1.00%	10	0.013	2.2	4.2	0.3	0.75	0.13	0.10	0.10	5.0	8.53	0.9	10.32	1.3
DI 10-2	42.20	1.00%	12	0.013	3.6	5.0	0.1	0.75	0.14	0.11	0.21	5.1	8.49	2.0	10.28	2.7
DI 10-3	33.20	1.00%	12	0.013	3.6	5.1	0.1	0.75	0.05	0.04	0.25	5.2	8.46	2.3	10.24	3.2
DI 10-4	80.57	1.00%	12	0.013	3.6	5.1	0.3	0.75	0.00	0.00	0.25	5.5	8.35	2.3	10.12	3.2
103																
DI 10-5	19.19	1.00%	8	0.013	1.2	3.7	0.1	0.75	0.01	0.01	0.01	5.0	8.53	0.1	10.32	0.1
DI 10-6	27.42	2.00%	10	0.013	3.1	3.7	0.1	0.75	0.02	0.02	0.03	5.1	8.49	0.3	10.28	0.4
DI 10-3																
DI 10-7	90.45	4.90%	8	0.013	2.7	6.7	0.2	0.75	0.08	0.06	0.06	5.0	8.53	0.6	10.32	0.8
101																
DI 10-8	101.68	1.50%	10	0.013	2.7	6.7	0.3	0.75	0.23	0.17	0.17	5.0	8.53	1.6	10.32	2.2
100																
DI 12-1	49.56	4.60%	8	0.013	2.6	5.0	0.2	0.75	0.02	0.02	0.02	5.0	8.53	0.2	10.32	0.3
DI 12-2	7.01	4.00%	8	0.013	2.4	5.5	0.0	0.75	0.02	0.02	0.04	5.0	8.53	0.4	10.32	0.5
121																
DI 12-3	73.94	2.30%	8	0.013	1.8	5.0	0.2	0.75	0.10	0.08	0.08	5.0	8.53	0.8	10.32	1.0
120																
DI 13-1	55.80	1.00%	8	0.013	1.2	2.1	0.4	0.75	0.01	0.01	0.01	5.0	8.53	0.1	10.32	0.1
DI 13-2	78.49	1.00%	8	0.013	1.2	3.1	0.4	0.75	0.02	0.02	0.03	5.4	8.39	0.3	10.16	0.4
DI 13-3	78.49	1.00%	8	0.013	1.2	3.5	0.4	0.75	0.03	0.02	0.05	5.8	8.25	0.5	10.00	0.6
130																
DI 14-1	75.59	1.00%	8	0.013	1.2	2.1	0.6	0.75	0.08	0.06	0.06	5.0	8.53	0.6	10.32	0.8
DI 14-2	69.15	1.00%	12	0.013	3.6	3.1	0.4	0.75	0.12	0.09	0.15	5.4	8.39	1.4	10.16	1.9
104																
DI 15-1	62.91	3.61%	10	0.013	4.2	2.1	0.5	0.75	0.23	0.17	0.17	5.0	8.53	1.6	10.32	2.2
DI 15-2	35.98	10.40%	10	0.013	7.1	3.1	0.2	0.75	0.05	0.04	0.21	5.2	8.46	2.0	10.24	2.7
DI 15-3																
DI 15-3	29.35	1.00%	12	0.013	3.6	2.1	0.2	0.75	0.02	0.02	0.02	5.0	8.53	0.2	10.32	0.3
61																
DI 20-1	45.47	15.00%	10	0.013	8.5	2.1	0.4	0.75	0.30	0.23	0.23	5.0	8.53	2.2	10.32	3.0
20																
DI 40-1	165.51	1.00%	8	0.013	1.2	2.1	1.3	0.75	0.08	0.06	0.06	5.0	8.53	0.6	10.32	0.8
40																
DI 40-2	190.64	0.60%	10	0.013	1.7	2.1	1.5	0.75	0.08	0.06	0.06	5.0	8.53	0.6	10.32	0.8
40																
DI 40-3	72.70	1.00%	8	0.013	1.2	2.1	0.6	0.75	0.03	0.02	0.02	5.0	8.53	0.2	10.32	0.3
40																

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PEI
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SECONDARY DRAINAGE MAP

MERIDIAN AT VIEW HIGH

LEE'S SUMMIT, MISSOURI

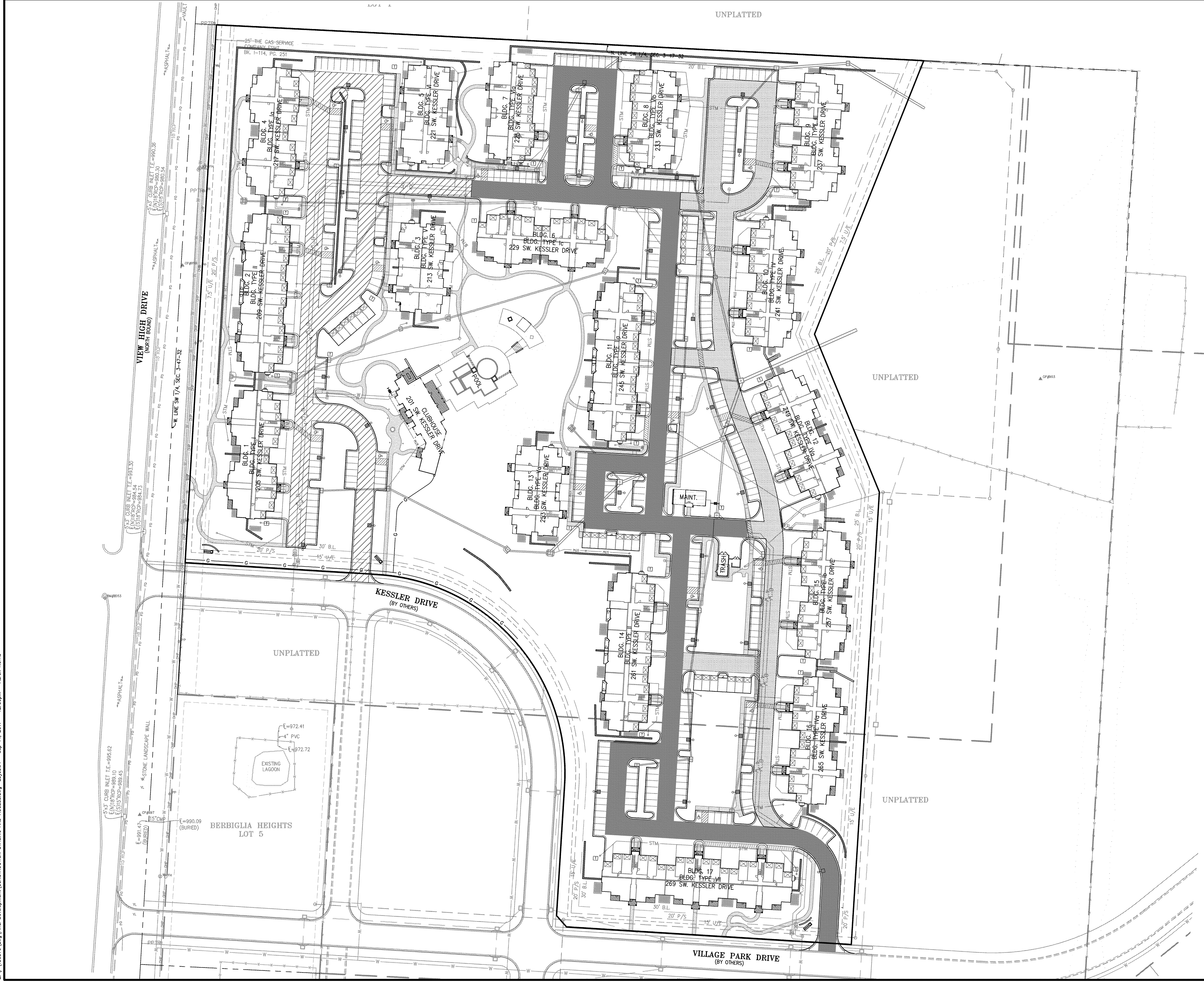
SITE DEVELOPMENT PLANS

No.	Date	Revisions:	By	App.

PROJECT NO. 150376
DATE: 6-27-17
DRAWN: JMO
DESIGNED: DLM
APPROVED: DEU

CERTIFICATE OF AUTHORIZATION
MISSOURI
LAND SURVEYING-2007001128
ENGINEERING-2007005058

Released for Construction



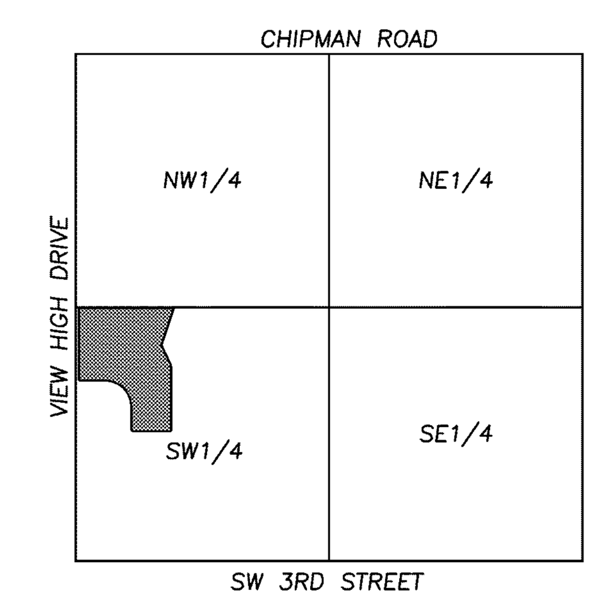
Building Construction	
Phase Number	Building Number
1	1
1	2
1	3
1	4
1	5
2	6
2	7
2	8
3	9
3	10
2	11
3	12
2	13
2	14
3	15
3	16
2	17
1	Clubhouse

NOTE:

1. THE BASE ASPHALT MUST BE IN PLACE BEFORE GOING VERTICAL ON THE BUILDING STRUCTURES

LEGEND:

- STABILIZED ASPHALT AREA (PHASE 1)
- STABILIZED ASPHALT AREA (PHASE 2)
- STABILIZED ASPHALT AREA (PHASE 3)



SCALE: 1"=2000'

VICINITY MAP
SEC. 3-47N-32W

SCALE: 1"=60'

Released for Construction

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ENGINEERING
IMPLEMENTATION

CONSTRUCTION STAGING & ACCESS PLAN

MERIDIAN AT VIEW HIGH
LEE'S SUMMIT, MISSOURI
SITE DEVELOPMENT PLANS

No.	Date	Revisions:	By	App.

PROJECT NO. 150376
DATE: 6-27-17
DRAWN: JMO
DESIGNED: DLM
APPROVED: DEU
CERTIFICATE OF AUTHORIZATION MISSOURI
LAND SURVEYING-2007001128
ENGINEERING-2007005058

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SOIL EROSION/SEDIMENTATION CONTROL OPERATION TIME SCHEDULE

NOTE: GENERAL CONTRACTOR TO COMPLETE TABLE WITH THEIR SPECIFIC PROJECT SCHEDULE

CONSTRUCTION SEQUENCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN
ROUGH GRADE / SEDIMENT CONTROL																		
TEMPORARY CONTROL MEASURES																		
STRIP & STOCKPILE TOPSOIL																		
STORM FACILITIES																		
TEMPORARY CONSTRUCTION ROADS																		
FOUNDATION / BUILDING CONSTRUCTION																		
SITE CONSTRUCTION																		
PERMANENT CONTROL STRUCTURES																		
FINISH GRADING																		
LANDSCAPING/SEED/FINAL STABILIZATION																		

Project Description:

The proposed project is a 21.34 acre tract of land that is going to be developed into an apartment complex. The site is in the SW 1/4, Sec. 37, Township 47, Range 32, Lee's Summit, Jackson County, Missouri. The site drains to the Northeast by overland flow and enclosed storm sewer and ultimately discharges into an existing detention basin.

Disturbed Area – 20.9 acres

NOTE:
A Storm Water Pollution Prevention Plan (SWPPP) has been prepared for this project and is incorporated herein by reference into the project requirements. The Contractor shall keep a copy of the SWPPP, these Erosion Control Plans, the Notice of Intent (NOI) and inspection book on the job site at all times.

MAINTENANCE:

ALL MEASURES STATED ON THIS EROSION AND SEDIMENT CONTROL PLAN, AND IN THE STORM WATER POLLUTION PREVENTION PLANATION, SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL NO LONGER REQUIRED FOR A COMPLETED PHASE OF WORK OR FINAL STABILIZATION OF THE SITE. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CHECKED BY A QUALIFIED PERSON IN ACCORDANCE WITH THE CONTRACT DOCUMENTS OR THE APPLICABLE PERMIT, WHICHEVER IS MORE STRINGENT, AND REPAIRED IN ACCORDANCE WITH THE FOLLOWING:

1. INLET PROTECTION DEVICES AND BARRIERS SHALL BE REPAIRED OR REPLACED IF THEY SHOW SIGNS OF UNDERMINING, OR DETERIORATION.

2. ALL SEEDED AREAS SHALL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED, WATERED, AND RESEEDED AS NEEDED.

3. SILT FENCES SHALL BE REPAIRED TO THEIR ORIGINAL CONDITIONS IF DAMAGED. SEDIMENT SHALL BE REMOVED FROM THE SILT FENCES WHEN IT REACHES ONE-THIRD THE HEIGHT OF THE SILT FENCE.

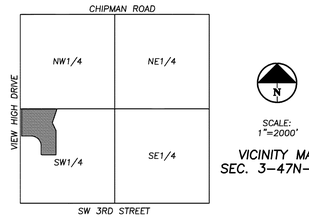
4. THE CONSTRUCTION ENTRANCES SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE CONSTRUCTION ENTRANCES AS CONDITIONS DEMAND.

5. THE TEMPORARY PARKING AND STORAGE AREA SHALL BE KEPT IN GOOD CONDITION (SUITABLE FOR PARKING AND STORAGE). THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE TEMPORARY PARKING AS CONDITIONS DEMAND.

6. OUTLET STRUCTURES IN THE SEDIMENTATION BASINS SHALL BE MAINTAINED IN OPERATIONAL CONDITIONS AT ALL TIMES. SEDIMENT SHALL BE REMOVED FROM SEDIMENT BASINS OR TRAPS WHEN THE DESIGN CAPACITY HAS BEEN REDUCED BY 20%

N

SCALE: 1"=60'
0' 60' 120'



VICINITY MAP
SEC. 3-47N-32W

LEGEND

- Stabilized Rock Entrance
- Silt Fence
- Inlet Protection
- Limits of Disturbed Area
- Flow Arrow
- Temporary Diversion Dike
- Rock Check Dam
- Erosion Control Blanket
- Concrete Washout Area

STAGING CHART

	Project Stage	BMP Plan Ref No.	BMP Description	Remove after Stage:	Notes:
PHASE I	A. Prior to Land Disturbance/ Utility Installation	①	Sediment Fence	E	Place downstream project site perimeter.
		②	Rock Check Dam	C	Install Rock Check Dam in existing drainage ways. Remove when natural drainage way is filled in & storm sewer is installed
		③	Const. Entrance & Staging Area	D	
		④	Concrete Washout Area	E	
PHASE II	B. Mass Grading	⑤	Sediment Fence	E	Install / maintain sediment fence during mass grading.
	C. Utility Installation	⑥	Curb Inlet Protection	D	Install Curb Inlet Protection
		⑦	Area Inlet / Junction Box Protection	D	Install Area Inlet Protection
		⑧	End Section Protection		Install 7 S.Y. (10'x6') stone rip-rap (D50=6" min.) after pipe construction. Remove rip-rap when Bioretention Basin is constructed.
PHASE III	D. After Paving	⑨	Sediment Fence	F	Install Sediment Fence behind curb as needed adjacent to pavement until vegetation is established.
		⑩	Curb Inlet Protection	F	Install Curb Inlet Protection
		⑪	Area Inlet Protection	F	Install Area Inlet Protection
	E. During Building Construction until closure of Land Disturbance Permit	⑫	Sod/Landscape	N/A	Sod disturbed Right-of-Way and other disturbed areas.

Released for Construction

STATE OF MISSOURI
DOUGLAS EUGENE UBBEN, JR.
NUMBER PE-2011010998
PROFESSIONAL ENGINEER

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PLANNING
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EROSION CONTROL–PHASE I

MERIDIAN AT VIEW HIGH
LEE'S SUMMIT, MISSOURI
SITE DEVELOPMENT PLANS

No.	Revisions:	Date	By	App.

PROJECT NO. 150376
DATE: 6-27-17
DRAWN: JMO
DESIGNED: DLM
APPROVED: DEU

CERTIFICATE OF AUTHORIZATION
MISSOURI ENGINEERING #2007028
KANSAS ENGINEERING #E-2008

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OF 61

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SOIL EROSION/SEDIMENTATION CONTROL OPERATION TIME SCHEDULE																		
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0' 60' 120'

SCALE:
1"=2000'

VICINITY MAP
SEC. 3–47N–32W

LEGEND

Stabilized Rock Entrance	Flow Arrow
Silt Fence	Temporary Diversion Dike
Inlet Protection	Rock Check Dam
Limits of Disturbed Area	Erosion Control Blanket
	Concrete Washout Area

STAGING CHART

	Project Stage	BMP Plan Ref No.	BMP Description	Remove after Stage:	Notes:
PHASE I	A. Prior to Land Disturbance/ Utility Installation	1	Sediment Fence	E	Place downstream project site perimeter.
		2	Rock Check Dam	C	Install Rock Check Dam in existing drainage ways. Remove when natural drainge way is filled in & storm sewer is installed.
		3	Const. Entrance & Staging Area	D	
		4	Concrete Washout Area	E	
PHASE II	B. Mass Grading	5	Sediment Fence	E	Install / maintain sediment fence during mass grading.
	C. Utility Installation	6	Curb Inlet Protection	D	Install Curb Inlet Protection
		7	Area Inlet / Junction Box Protection	D	Install Area Inlet Protection
		8	End Section Protection		Install 7 S.Y. (10'x6') stone rip–rap (D50=6" min.) after pipe construction. Remove rip–rap when Bioretention Basin is constructed.
PHASE III	D. After Paving	9	Sediment Fence	F	Install Sediment Fence behind curb as needed adjacent to pavement until vegetation is established.
		10	Curb Inlet Protection	F	Install Curb Inlet Protection
		11	Area Inlet Protection	F	Install Area Inlet Protection
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Released for Construction

DOUGLAS
EUGENE
UBBEN, JR.
NUMBER
PE-2011010998

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EROSION CONTROL–PHASE II
MERIDIAN AT VIEW HIGH
LEE'S SUMMIT, MISSOURI
SITE DEVELOPMENT PLANS

No.	Date	Revisions:	By	App.

PROJECT NO. 150376
DATE: 6–27–17
DRAWN: JMO
DESIGNED: DLM
APPROVED: DEU
CERTIFICATE OF AUTHORIZATION
MISSOURI
LAND SURVEYING–2007000128
ENGINEERING–2007005058

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OF 61

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VICINITY MAP
SEC. 3-47N-32W

LEGEND

- Stabilized Rock Entrance
- ‒ ‒ ‒ Silt Fence
- ○ Inlet Protection
- ••••••• Limits of Disturbed Area
- ← Flow Arrow
- ⟵ Temporary Diversion Dike
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- ▓ Erosion Control Blanket
- ▨ Concrete Washout Area

STAGING CHART

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DOUGLAS EUGENE UBBEN, JR.
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EROSION CONTROL-PHASE III
MERIDIAN AT VIEW HIGH
LEE'S SUMMIT, MISSOURI
SITE DEVELOPMENT PLANS

No.	Date	Revisions:	By	App.

PROJECT NO. 150376
DATE: 6-27-17
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LAND SURVEYING-2007001128
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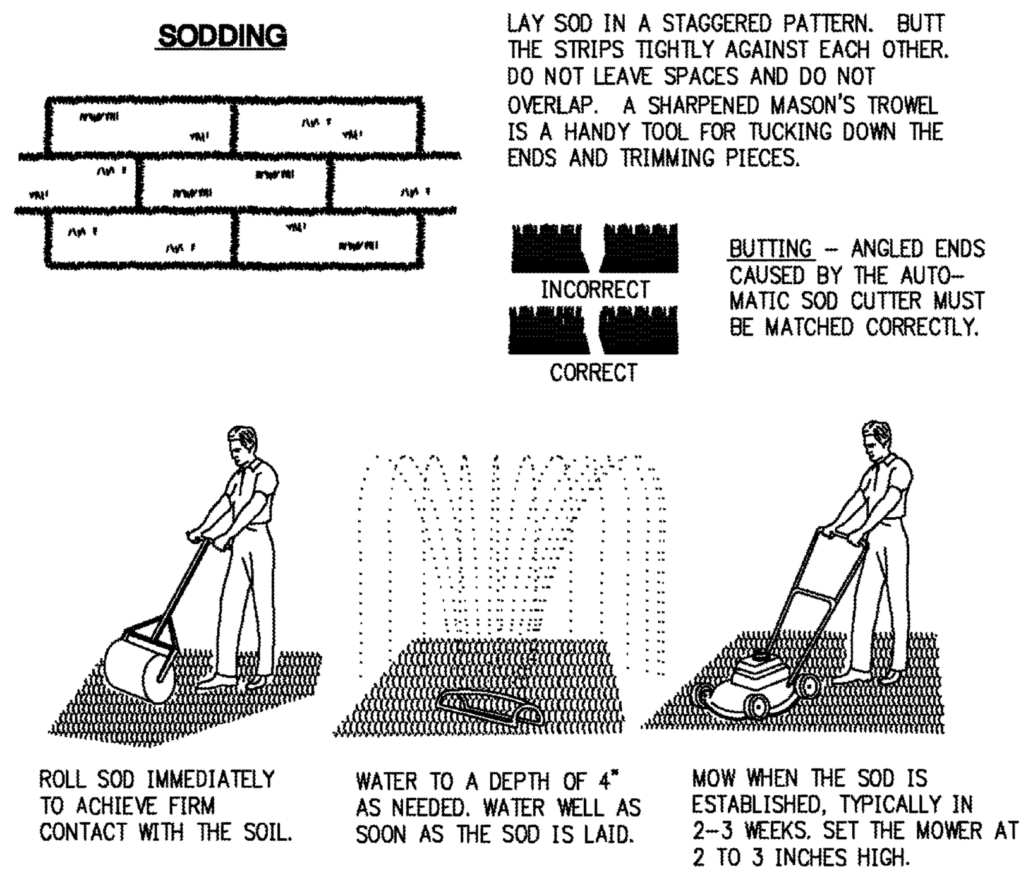
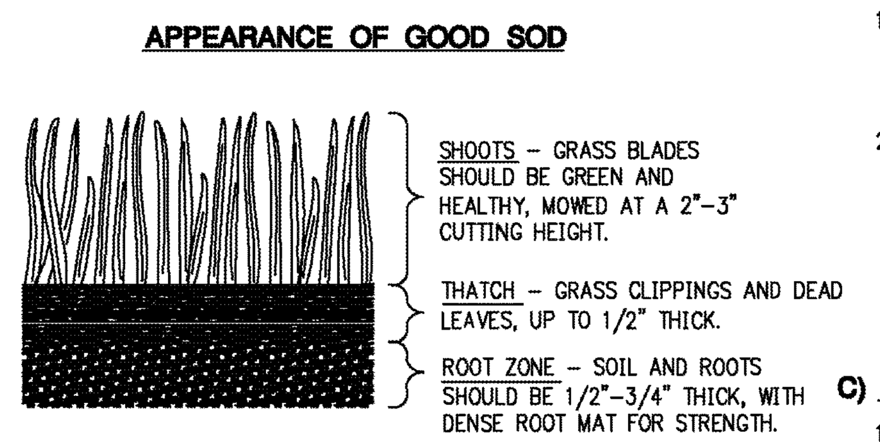




SODDING NOTES:

A) SODDING:

1. THE SOD SHALL BE DENSELY ROOTED, NURSERY GROWN, AND A PERENNIAL GRASS. THE SOD SHALL CONTAIN A GROWTH OF NOT MORE THAN 10 PERCENT OF OTHER GRASSES, SHALL BE FREE FROM ALL PROHIBITED AND NOXIOUS WEEDS, AND SHALL BE CUT IN STRIPS OF UNIFORM THICKNESS. THE RANGE OF ACCEPTABLE THICKNESS SHALL BE 1/2 TO 1 1/2 INCH, WITH EACH STRIP CONTAINING AT LEAST ONE (1) SQUARE YARD. SOD SHALL BE CUT IN STRIPS NOT LESS THAN 12 INCHES WIDE.
2. FERTILIZER SHALL BE INORGANIC 12–12–12 OR 13–13–13 GRADE, UNIFORM IN COMPOSITION, FREE FLOWING, SUITABLE FOR APPLICATION WITH APPROVED EQUIPMENT, AND DELIVERED TO THE SITE IN CONVENIENT CONTAINERS, EACH FULLY LABELED. LABELS SHALL CONFORM TO APPLICABLE STATE FERTILIZER LAWS AND BEARING THE NAME, TRADE NAME OR TRADEMARK, AND WARRANTY OF THE PRODUCER.
3. BEFORE TILLING OPERATIONS, FERTILIZER SHALL BE SPREAD UNIFORMLY AT THE RATE OF 300 POUNDS PER ACRE. FERTILIZING RATE IS EQUIVALENT TO 3.5 POUND PER 500 SQUARE FEET.
4. THE SOD BED SHALL HAVE A UNIFORM SURFACE FREE FROM WASHES AND DEPRESSIONS. IT SHALL CONFORM TO THE FINISHED GRADE PROFILE AND CROSS SECTION SHOWN ON THE PLANS. THE SOIL, EXCEPT WHERE FRESH TOP SOIL HAS BEEN APPLIED AND COMPACTED, SHALL BE THOROUGHLY TILLED TO A DEPTH OF 2 INCHES.
5. FRESHLY GRADED AREAS WHICH HAVE SET LONG ENOUGH TO BECOME DRY AND CRUSTED OVER SHALL BE TILLED, AS SPECIFIED ABOVE, BEFORE PLACING THE SOD.
6. SOD SHALL NOT BE PLACED DURING A DROUGHT NOR ON FROZEN GROUND UNLESS AUTHORIZED BY THE ENGINEER.
7. SOD SHALL BE MOIST WHEN IT IS PLACED. SOD STRIPS SHALL BE LAID ALONG CONTOUR LINES, COMMENCING AT THE LOWEST POINT OF THE AREA AND WORKING UPWARD. THE TRANSVERSE JOINTS OF SOD STRIPS SHALL BE STAGGERED AND THE SOD CAREFULLY PLACED TO PRODUCE TIGHT JOINTS. THE SOD SHALL BE FIRMED AND WATERED IMMEDIATELY AFTER IT IS PLACED. THE FIRMING SHALL BE ACCOMPLISHED BY APPLICATION OF A ROLLER WEIGHING BETWEEN 60 AND 90 POUNDS PER LINEAL FOOT OF ROLLER.
8. ON 2H:1V SLOPES OR STEEPER THE SOD SHALL BE ANCHORED WITH 1/2-INCH SQUARE BY 8-INCH LONG WOODEN PEGS DRIVEN INTO THE GROUND, 3 PEGS TO THE SQUARE YARD OR OTHER APPROVED CONFIGURATION. PEGGING SHALL BE DONE IMMEDIATELY AFTER SOD IS FIRMED. THE AREA SHALL THEN BE CLEARED OF LOOSE SOD, EXCESS OR BROKEN ANCHORS, EXCESSIVE SOIL, AND OTHER FOREIGN MATERIALS.

B) TROUBLESHOOTING:

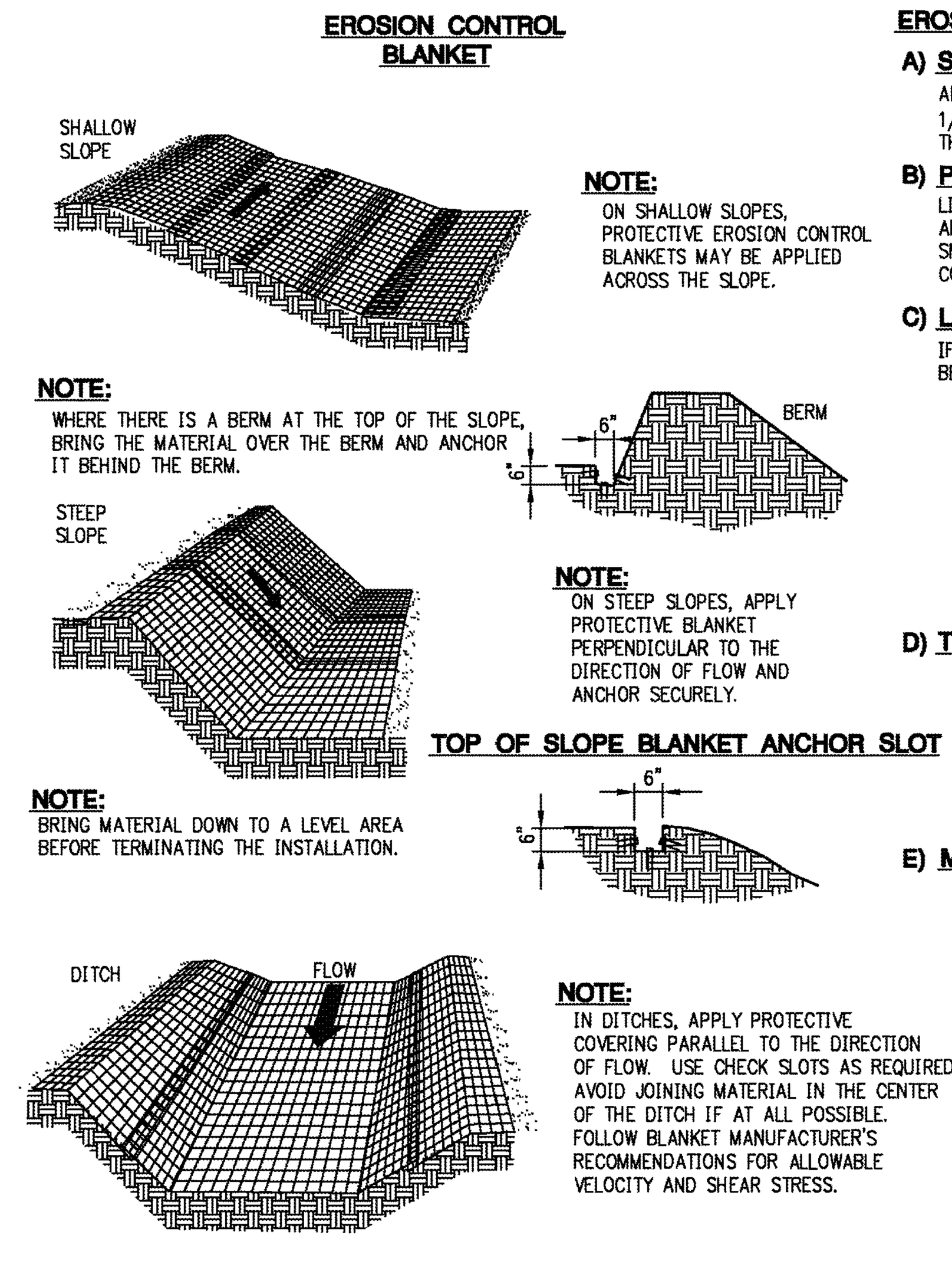
1. CONSULT WITH A QUALIFIED DESIGN PROFESSIONAL IF ANY OF THE FOLLOWING OCCUR:
   a. VARIATION IN TOPOGRAPHY ON SITE INDICATE THE SODDING MATERIALS WILL NOT FUNCTION AS INTENDED; CHANGES IN PLAN MAY BE NEEDED.
   b. DESIGN SPECIFICATIONS FOR SOD VARIETY CANNOT BE MET OR IRRIGATION IS NOT POSSIBLE; SUBSTITUTION OR SEEDING MAY BE REQUIRED. UNAPPROVED SUBSTITUTIONS COULD RESULT IN EROSION OR SODDING FAILURE.
2. COMMON PROBLEMS:
   a. SOD LAID ON POORLY PREPARED SOIL OR UNSUITABLE SURFACE DIES BECAUSE IT IS UNABLE TO ROOT – REMOVE DEAD SOD, PREPARE SURFACE, AND RESOD.
   b. SOD NOT ADEQUATELY IRRIGATED AFTER INSTALLATION CAUSES ROOT DIEBACK, GRASS TO NOT ROOT RAPIDLY, AND DRYING OUT – IRRIGATE SOD AND UNDERLYING SOIL TO THE DEPTH OF 4 INCHES AND KEEP MOIST UNTIL ROOTS ARE ESTABLISHED.
   c. SOD NOT ANCHORED PROPERLY IS LOOSENED BY RUNOFF – REPLACE DAMAGED AREAS AND ANCHOR SOD.
   d. SLOW GROWTH DUE TO LACK OF NITROGEN CAUSES YELLOWING OF LEAF BLADES – REFERTILIZE SOD, BUT AVOID FERTILIZING COOL SEASON GRASSES FROM LATE MAY THROUGH JULY.

C) MAINTENANCE AND INSPECTION:

1. THE SODDED AREA SHALL BE THOROUGHLY WATERED DAILY FOR A PERIOD OF FIFTEEN DAYS AFTER PLACING EXCEPT WHEN THOROUGHLY WETTED BY RAIN. ANY PORTION OF THE SOD THAT IS NOT IN GOOD GROWING CONDITION FOLLOWING THE FIRST FULL GROWING SEASON (SPRING TO FALL), SHALL BE REPLACED WITH FRESH LIVE SOD.

SOURCE: MODIFIED FROM VA. DCR, 1992

AMERICAN PUBLIC WORKS ASSOCIATION	
APWA	KANSAS CITY METROPOLITAN CHAPTER
SODDING	STANDARD DRAWING NUMBER ESC-02 ADOPTED:



EROSION CONTROL BLANKET NOTES (1 OF 2):

A) SITE PREPARATION:

AFTER SITE HAS BEEN SHAPED AND GRADED, PREPARE A FRIABLE SEEDBED RELATIVELY FREE FROM CLODS AND ROCKS MORE THAN 1 1/2 INCHES IN DIAMETER AND ANY FOREIGN MATERIAL THAT WILL PREVENT UNIFORM CONTACT OF THE PROTECTIVE COVERING WITH THE SOIL SURFACE.

B) PLANTING:

LIME, FERTILIZE, AND SEED IN ACCORDANCE WITH SEEDING OR PLANTING PLAN. WHEN USING JUTE MESH ON A SEEDED AREA, APPLY APPROXIMATELY ONE HALF THE SEED AFTER LAYING THE MAT. THE PROTECTIVE COVERING CAN BE LAID OVER SPRIGGED AREAS WHERE SMALL GRASS PLANTS HAVE BEEN INSERTED INTO THE SOIL. WHERE GROUND COVERS ARE TO BE PLANTED, LAY THE PROTECTIVE COVERING FIRST AND THEN PLANT THROUGH THE MATERIAL AS PER PLANTING PLAN.

C) LAYING AND STAPLING:

IF INSTRUCTIONS HAVE BEEN FOLLOWED, ALL NEEDED CHECK SLOTS WILL HAVE BEEN INSTALLED, AND THE PROTECTIVE COVERING WILL BE LAID ON A FRIABLE SEEDBED FREE FROM CLODS, ROCKS, ROOTS, ETC. THAT MIGHT IMPEDE GOOD CONTACT.

1. START LAYING THE PROTECTIVE COVERING FROM THE TOP OF THE CHANNEL OR SLOPE AND UNROLL DOWN-GRADE. ALLOW TO LAY LOOSELY ON SOIL; DO NOT STRETCH.
2. UPSLOPE ENDS OF THE BLANKET SHOULD BE BURIED IN AN ANCHOR SLOT NO LESS THAN 6-INCHES DEEP. TAMP EARTH
3. FIRMLY OVER THE MATERIAL. WHEN TOP IS RELATIVELY FLAT, EXTEND BLANKET ABOUT 4D INCHES AWAY FROM SLOPE. STAPLE THE MATERIAL AT A MINIMUM OF EVERY 12 INCHES ACROSS THE TOP END.
4. EDGES OF THE MATERIAL SHALL BE STAPLED EVERY 3 FEET. WHERE MULTIPLE WIDTHS ARE LAID SIDE BY SIDE, THE ADJACENT EDGES SHALL BE OVERLAPPED A MINIMUM OF 6 INCHES AND STAPLED TOGETHER.
5. STAPLES SHALL BE PLACED DOWN THE CENTER, STAGGERED WITH THE EDGES AT 3-FOOT INTERVALS.

D) TROUBLESHOOTING:

CONSULT WITH A QUALIFIED DESIGN PROFESSIONAL, IF ANY OF THE FOLLOWING OCCUR:

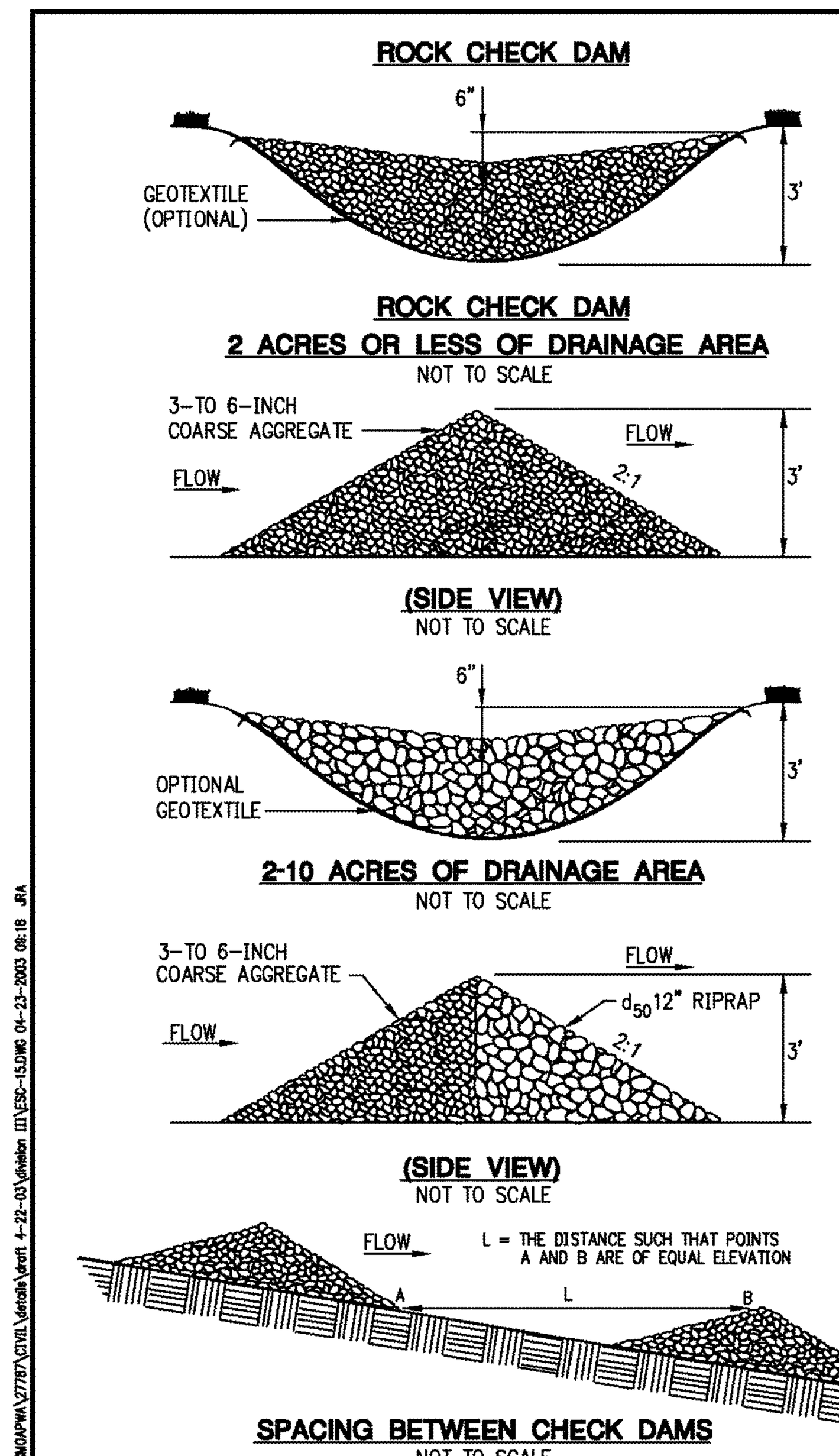
1. MOVEMENT OF THE BLANKET OR EROSION UNDER THE BLANKET IS OBSERVED.
2. VARIATIONS IN TOPOGRAPHY ON SITE INDICATE EROSION CONTROL MAT WILL NOT FUNCTION AS INTENDED; CHANGES IN PLAN MAY BE NEEDED, OR A BLANKET WITH A SHORTER OR LONGER LIFE MAY BE NEEDED.
3. DESIGN SPECIFICATIONS FOR SEED VARIETY, SEEDING DATES, OR EROSION CONTROL MATERIALS CANNOT BE MET; SUBSTITUTION MAY BE REQUIRED. UNAPPROVED SUBSTITUTIONS COULD RESULT IN FAILURE TO ESTABLISH VEGETATION.

E) MAINTENANCE & INSPECTION

INSPECT CONTROLS AFTER EACH RAIN EVENT OF 1/2 INCH OR GREATER, AND EVERY 7 DAYS UNTIL VEGETATION IS ESTABLISHED, FOR EROSION OR UNDERMINING BENEATH THE NETTING, BLANKETS, OR MATS. IF ANY AREA SHOWS EROSION, PULL BACK THAT PORTION OF THE MATERIAL, ADD SOIL, TAMP DOWN, AND RESEED; RESECURE THE MATERIAL IN PLACE. IF NETTING, BLANKETS OR MATS BECOME DISLOCATED OR DAMAGED, REPAIR OR REPLACE AND RESECURE IMMEDIATELY.

SOURCE: MODIFIED FROM VA. DCR, 1992

AMERICAN PUBLIC WORKS ASSOCIATION	
APWA	KANSAS CITY METROPOLITAN CHAPTER
EROSION CONTROL BLANKET SHEET 1 OF 2	STANDARD DRAWING NUMBER ESC-04 ADOPTED:



ROCK CHECK DAM NOTES:

A) CONSTRUCTION SPECIFICATIONS & INSTALLATION:

1. THE DRAINAGE AREA OF THE DITCH OR SWALE BEING PROTECTED SHALL NOT EXCEED 2 ACRES WHEN A COARSE AGGREGATE IS USED ALONE AND SHALL NOT EXCEED 10 ACRES WHEN A COMBINATION OF CLASS I RIPRAP AND COARSE AGGREGATE IS USED. AN EFFORT SHOULD BE MADE TO EXTEND THE STONE TO THE TOP OF CHANNEL BANKS.
2. THE MAXIMUM HEIGHT OF THE DAM SHALL BE 3 FEET. THE CENTER OF THE CHECK DAM IS AT THE SAME ELEVATION AS THE TOP OF THE OUTER EDGES.
3. FOR ADDED STABILITY, THE BASE OF THE CHECK DAM CAN BE KEYED INTO THE SOIL APPROXIMATELY 6 INCHES.
4. THE MAXIMUM SPACING BETWEEN THE DAMS SHOULD BE SUCH THAT THE TOE OF THE UPSTREAM DAM IS AT THE SAME ELEVATION AS THE TOP OF THE DOWNSTREAM DAM.
5. STONE SHOULD BE PLACED ACCORDING TO THE CONFIGURATION TO THE LEFT. HAND OR MECHANICAL PLACEMENT WILL BE NECESSARY TO ACHIEVE COMPLETE COVERAGE OF THE DITCH OR SWALE AND TO INSURE THAT THE CENTER OF THE DAM IS LOWER THAN THE EDGES.
6. GEOTEXTILE MAY BE USED UNDER THE STONE TO PROVIDE A STABLE FOUNDATION AND TO FACILITATE REMOVAL OF THE STONE.

C) INSPECTION AND MAINTENANCE:

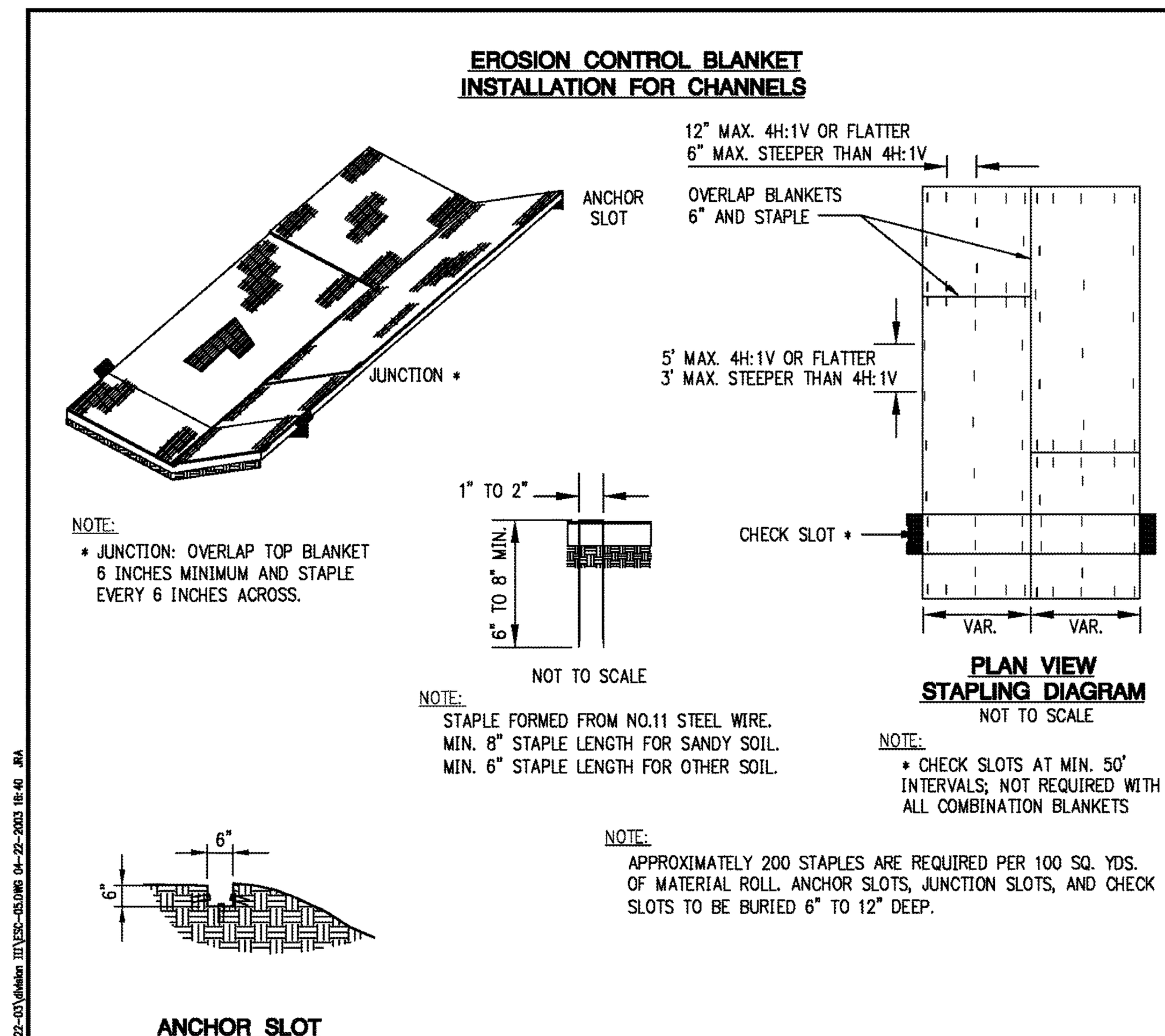
1. CHECK DAMS SHOULD BE CHECKED FOR SEDIMENT ACCUMULATION AFTER EACH STORM EVENT OF 1/2-INCH OR GREATER. SEDIMENT SHOULD BE REMOVED WHEN IT REACHES ONE HALF OF THE ORIGINAL HEIGHT OF THE DAM.
2. REGULAR INSPECTIONS SHOULD BE MADE TO ENSURE THAT THE CENTER OF THE DAM IS LOWER THAN THE EDGES. EROSION CAUSED BY HIGH FLOWS AROUND THE EDGES OF THE DAM SHOULD BE CORRECTED

D) REMOVAL OF PRACTICE:

UNLESS THEY ARE TO BE PERMINENT, CHECK DAMS MUST BE REMOVED WHEN THEIR USEFUL LIFE HAS BEEN COMPLETED. IN TEMPORARY DITCHES AND SWALES, CHECK DAMS SHOULD BE REMOVED AND THE DITCH FILLED WHEN THEY ARE NO LONGER NEEDED. IN PERMANENT STRUCTURES, CHECK DAMS SHOULD BE REMOVED WHEN A PERMANENT LINING CAN BE INSTALLED. IN THE CASE OF GRASS-LINED DITCHES, CHECK DAMS SHOULD BE REMOVED WHEN THE GRASS HAS MATURED SUFFICIENTLY TO PROTECT THE DITCH OR SWALE. THE AREA BENEATH THE CHECK DAMS SHOULD BE SEEDED AND MULCHED IMMEDIATELY AFTER THEY ARE REMOVED. THE USE OF FILTER CLOTH UNDERNEATH THE STONE WILL MAKE REMOVAL OF THE STONE EASIER.

SOURCE: MODIFIED FROM VA. DCR, 1992

AMERICAN PUBLIC WORKS ASSOCIATION	
APWA	KANSAS CITY METROPOLITAN CHAPTER
ROCK CHECK DAM	STANDARD DRAWING NUMBER ESC-15 ADOPTED:



EROSION CONTROL BLANKET NOTES (2 OF 2):

F) STAPLES:

STAPLES FOR ANCHORING BLANKET SHALL BE NO. 11-GAUGE WIRE OR HEAVIER. THEIR LENGTH SHALL BE A MINIMUM OF 6 INCHES. A LARGER STAPLE WITH A LENGTH OF UP TO 12 INCHES SHALL BE USED ON LOOSE, SANDY, OR UNSTABLE SOILS.

G) JOINING PREOTECTIVE COVERINGS:

OVERLAP THE END OF THE PREVIOUS ROLL A MINIMUM OF 6 INCHES AND STAPLE. STAPLE ACROSS THE END OF THE ROLL JUST BELOW THE ANCHOR SLOT AND ACROSS THE MATERIAL EVERY 6 INCHES.

H) TERMINAL END:

AT THE POINT AT WHICH THE MATERIAL IS DISCONTINUED, OR WHERE THE PROTECTIVE COVERING MEETS A STRUCTURE OF SOME TYPE, STAPLE A MINIMUM OF EVERY 12 INCHES.

I) FINAL CHECK:

THESE INSTALLATION CRITERIA MUST BE ADHERED TO:
1. ALL DISTURBED AREAS ARE SEEDED.
2. PROTECTIVE BLANKET IS IN UNIFORM CONTACT WITH THE SOIL.
3. ALL LAP JOINTS ARE SECURE.
4. ALL STAPLES ARE DRIVEN FLUSH WITH THE GROUND.

SOURCE: MODIFIED FROM VA. DCR, 1992

AMERICAN PUBLIC WORKS ASSOCIATION	
APWA	KANSAS CITY METROPOLITAN CHAPTER
EROSION CONTROL BLANKET SHEET 2 OF 2	STANDARD DRAWING NUMBER ESC-05 ADOPTED:

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PLANNING
ENGINEERING
IMPLEMENTATION

EROSION CONTROL DETAILS

MERIDIAN AT VIEW HIGH

LEE'S SUMMIT, MISSOURI

SITE DEVELOPMENT PLANS

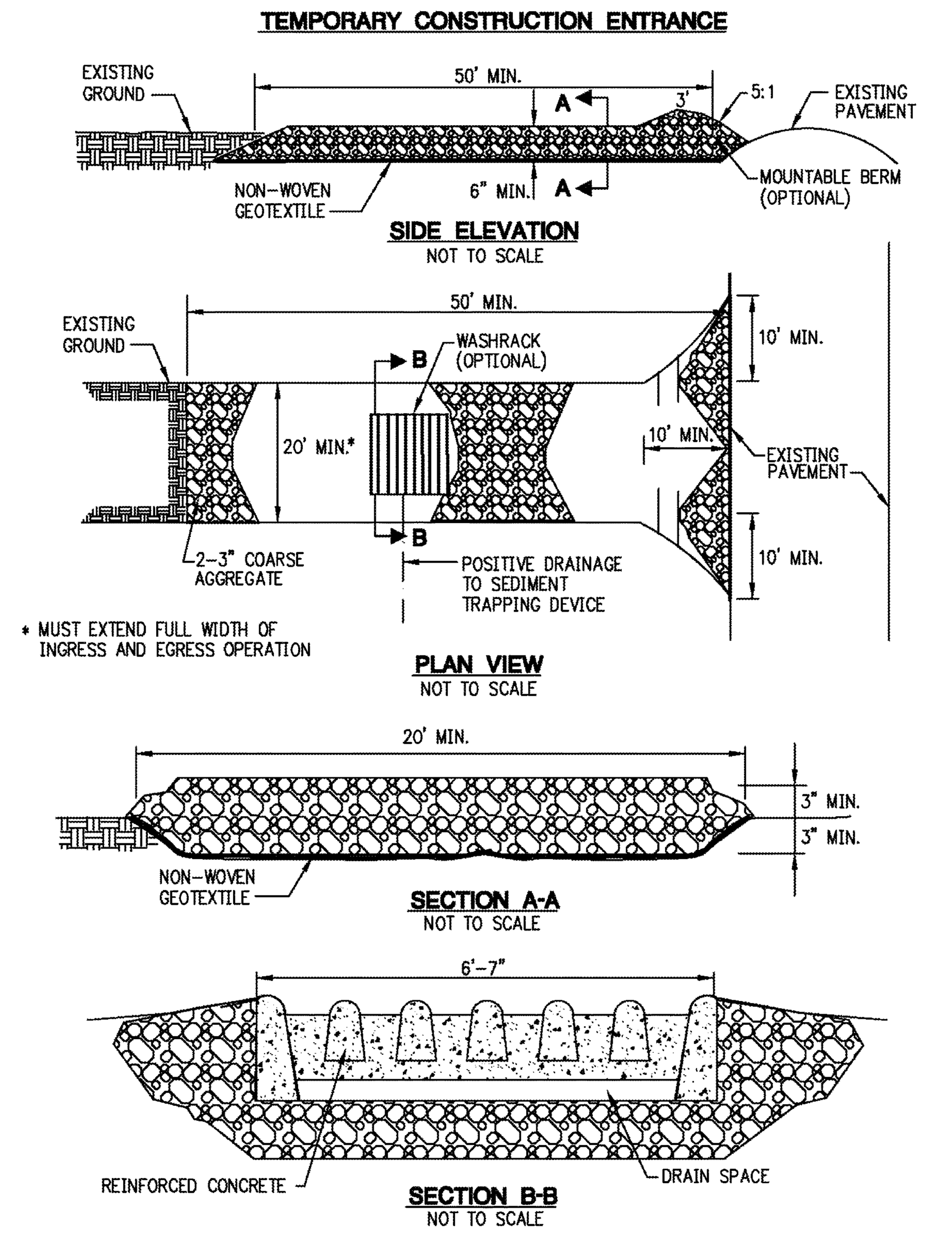
No.	Date	Revisions:	By	App.

PROJECT NO. 150376
DATE: 6-27-17
DRAWN: JMO
DESIGNED: DLM
APPROVED: DEU
CERTIFICATE OF AUTHORIZATION MISSOURI
LAND SURVEYING–2007001128
ENGINEERING–2007005058

Released for Construction

EROSION CONTROL DETAILS

TEMPORARY CONSTRUCTION ENTRANCE



TEMPORARY CONSTRCUTION ENTRANCE PAD NOTES:

A) INSTALLATION:

1. AVOID LOCATING ON STEEP SLOPES OR AT CURVES ON PUBLIC ROADS. IF POSSIBLE, LOCATE WHERE PERMANENT ROADS WILL EVENTUALLY BE CONSTRUCTED.
2. REMOVE ALL VEGETATION AND OTHER UNSUITABLE MATERIAL FROM THE FOUNDATION AREA, GRADE, AND CROWN FOR POSITIVE DRAINAGE.
3. IF SLOPE TOWARDS THE PUBLIC ROAD EXCEEDS 2%, CONSTRUCT A 6-TO 8-INCH HIGH RIDGE WITH 3H:1V SIDE SLOPES ACROSS THE FOUNDATION APPROXIMATELY 15 FEET FROM THE EDGE OF THE PUBLIC ROAD TO DIVERT RUNOFF AWAY FROM IT.
4. INSTALL PIPE UNDER THE ENTRANCE IF NEEDED TO MAINTAIN DRAINAGE DITCHES ALONG PUBLIC ROADS.
5. PLACE STONE TO DIMENSIONS AND GRADE AS SHOWN ON PLANS. LEAVE SURFACE SMOOTH AND SLOPED FOR DRAINAGE.
6. DIVERT ALL SURFACE RUNOFF AND DRAINAGE FROM THE ENTRANCE TO A SEDIMENT CONTROL DEVICE.
7. IF WET CONDITIONS ARE ANTICIPATED, PLACE GEOTEXTILE FABRIC ON THE GRADED FOUNDATION TO IMPROVE STABILITY.

B) TROUBLESHOOTING:

1. CONSULT WITH A QUALIFIED DESIGN PROFESSIONAL IF ANY OF THE FOLLOWING OCCUR:
   a. INADEQUATE RUNOFF CONTROL TO THE EXTENT THAT SEDIMENT WASHES ONTO PUBLIC ROAD – INSTALL DIVERSIONS OR OTHER RUNOFF CONTROL MEASURES.
   b. SMALL STONE, THIN PAD, OR ABSENCE OF GEOTEXTILE FABRIC RESULTS IN RUTS AND MUDDY CONDITIONS AS STONE IS PRESSED INTO SOIL – INCREASE STONE SIZE OR PAD THICKNESS OR ADD GEOTEXTILE FABRIC.
   c. PAD TOO SHORT FOR HEAVY CONSTRUCTION TRAFFIC – EXTEND PAD BEYOND THE MINIMUM 50-FOOT LENGTH AS NECESSARY.

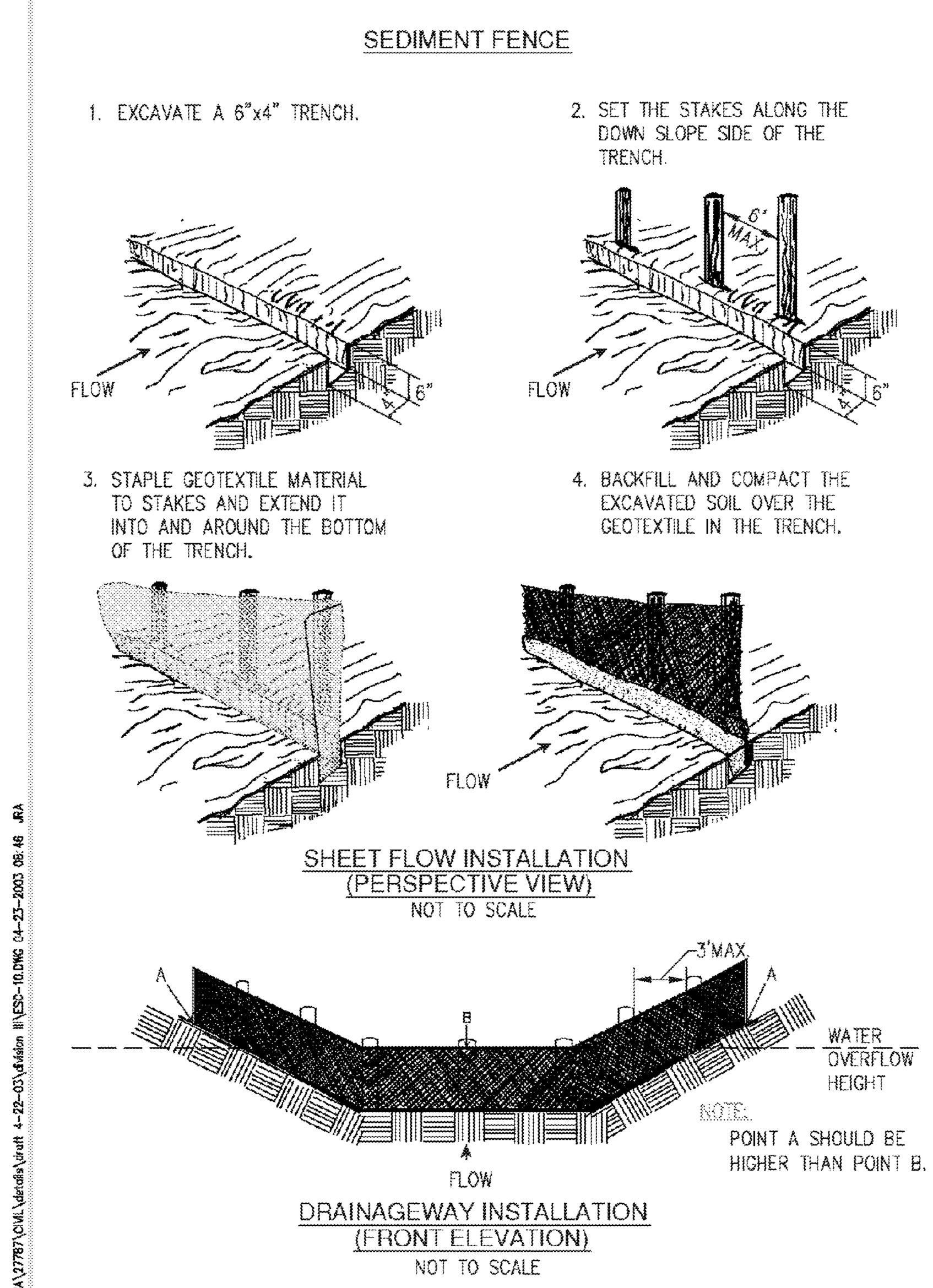
C) INSPECTION AND MAINTENANCE:

1. INSPECT STONE PAD AND SEDIMENT DISPOSAL AREA WEEKLY AND AFTER 1/2-INCH OR GREATER STORM EVENTS.
2. RESHAPE PAD AS NEEDED FOR PROPER DRAINAGE AND RUNOFF CONTROL.
3. TOPDRESS WITH CLEAN 2-AND 3-INCH STONE AS NEEDED.
4. IMMEDIATELY REMOVE MUD OR SEDIMENT TRACKED OR WASHED ONTO PUBLIC ROAD. REPAIR ANY BROKEN ROAD PAVEMENT IMMEDIATELY.
5. REMOVE ALL TEMPORARY ROAD MATERIALS FROM AREAS WHERE PERMANENT VEGETATION WILL BE ESTABLISHED.

SOURCE: MODIFIED FROM VA. DCR, 1992

AMERICAN PUBLIC WORKS ASSOCIATION	
APWA	KANSAS CITY METROPOLITAN CHAPTER
TEMPORARY CONSTRUCTION ENTRANCE	STANDARD DRAWING NUMBER ESC-01 ADOPTED:

SEDIMENT FENCE



SEDIMENT FENCE NOTES:

A) INSTALLATION:

1. THE HEIGHT OF SEDIMENT FENCE SHALL BE A MINIMUM OF 16 INCHES ABOVE THE ORIGINAL GROUND SURFACE AND SHALL NOT EXCEED 34 INCHES ABOVE THE GROUND SURFACE.
2. THE FABRIC SHALL BE PURCHASED IN A CONTINUOUS ROLL CUT TO THE LENGTH OF THE BARRIER TO AVOID THE USE OF JOINTS. WHEN JOINTS ARE UNAVOIDABLE, FILTER CLOTH SHALL BE SECURELY SPLICED TOGETHER ONLY AT SUPPORT POSTS, WITH A MAX 6-INCH OVERLAP.
3. DIG A TRENCH AT LEAST 6 INCHES DEEP AND 4 INCHES WIDE ALONG THE FENCE ALIGNMENT.
4. DRIVE POSTS AT LEAST 24 INCHES INTO THE GROUND ON THE DOWNSLOPE SIDE OF THE TRENCH. SPACE POSTS A MAXIMUM OF 6 FEET APART.
5. EXTRA-STRENGTH SEDIMENT FENCE FABRIC SHALL BE USED. POSTS FOR THIS TYPE OF FABRIC SHALL BE PLACED A MAXIMUM OF 6 FEET APART. THE SEDIMENT FABRIC SHALL BE FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS USING A MINIMUM OF ONE INCH LONG, HEAVY-DUTY WIRE STAPLES OR TIE-WIRES, AND EIGHT INCHES OF THE FABRIC SHALL BE EXTENDED INTO THE TRENCH. THE FABRIC SHALL NOT BE STAPLED TO EXISTING TREES.
6. PLACE THE BOTTOM 1 FOOT OF FABRIC IN THE MINIMUM-OF-6-INCH DEEP TRENCH, LAPPING TOWARD THE UPSLOPE SIDE. BACKFILL WITH COMPACTED EARTH OR GRAVEL.
7. IF A SEDIMENT FENCE IS TO BE CONSTRUCTED ACROSS A DITCH LINE OR SWALE, IT MUST BE OF SUFFICIENT LENGTH TO ELIMINATE ENDFLOW, AND THE PLAN CONFIGURATION SHALL RESEMBLE AN ARC OR HORSESHOE, PLACED ON A CONTOUR, WITH THE ENDS ORIENTED UPSLOPE. EXTRA-STRENGTH SEDIMENT FABRIC SHALL BE USED WITH A MAXIMUM 3-FOOT SPACING OF POSTS.
8. TO REDUCE MAINTENANCE, EXCAVATE A SHALLOW SEDIMENT STORAGE AREA IN THE UPSLOPE SIDE OF THE FENCE. PROVIDE GOOD ACCESS IN AREAS OF HEAVY SEDIMENTATION FOR CLEAN OUT AND MAINTENANCE.
9. SEDIMENT FENCES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UPSLOPE AREA HAS BEEN PERMANENTLY STABILIZED.

B) TROUBLESHOOTING:

1. DETERMINE THE EXACT LOCATION OF UNDERGROUND UTILITIES, BEFORE FENCE INSTALLATION SO UTILITIES ARE NOT DISTURBED.
2. GRADE ALIGNMENT OF FENCE AS NEEDED TO PROVIDE A BROAD, NEARLY LEVEL AREA UPSTREAM OF FENCE TO ALLOW SEDIMENT COLLECTION AREA.

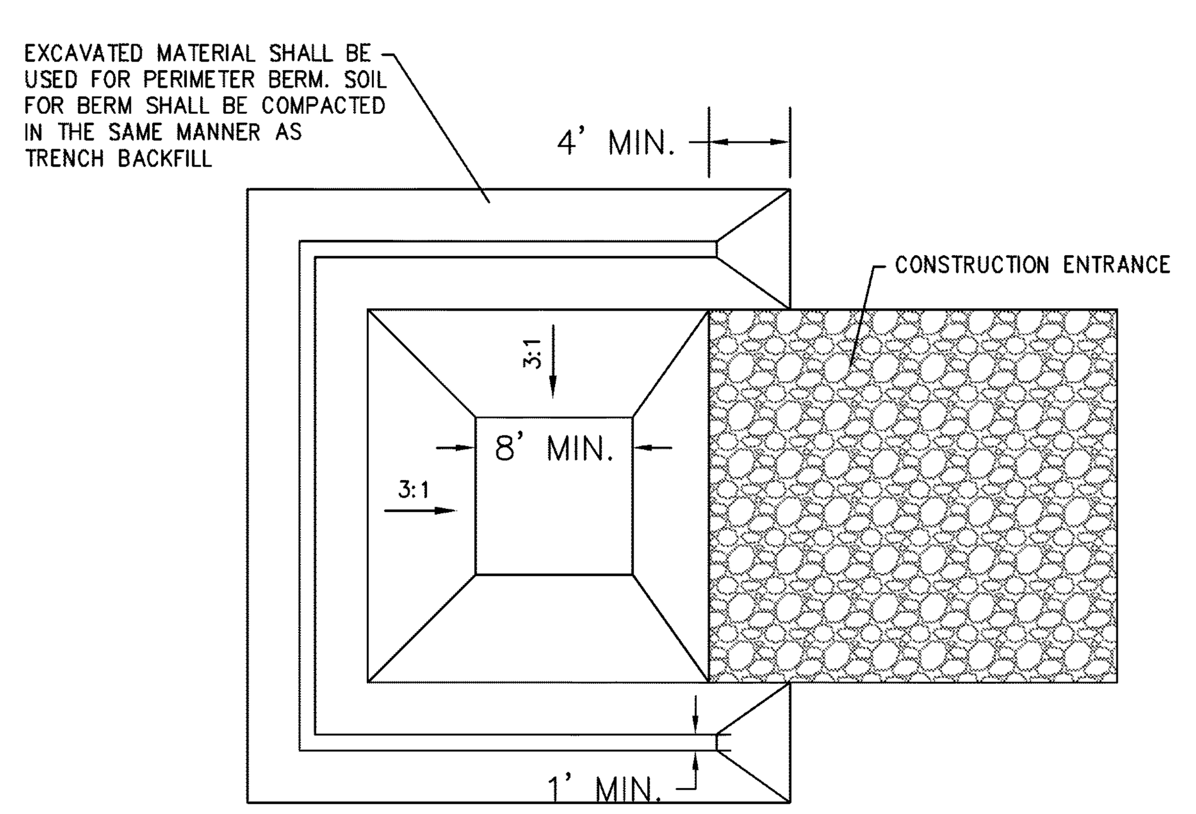
C) INSPECTION MAINTENANCE:

1. INSPECT SEDIMENT FENCES AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL. MAKE ANY REQUIRED REPAIRS IMMEDIATELY.
2. SHOULD THE FABRIC OF A SEDIMENT FENCE COLLAPSE, TEAR, DECOMPOSE, OR BECOME INEFFECTIVE, REPLACE IT PROMPTLY.
3. REMOVE SEDIMENT DEPOSITS AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN AND TO REDUCE PRESSURE ON THE FENCE. AVOID DAMAGING OR UNDERMINING THE FENCE DURING CLEANOUT. SEDIMENT ACCUMULATION SHOULD NOT EXCEED 1/2 THE HEIGHT OF THE FENCE.
4. REMOVE ALL FENCING MATERIALS AND UNSTABLE SEDIMENT DEPOSITS, AND BRING THE AREA TO GRADE AND STABILIZE IT AFTER THE CONTRIBUTING DRAINAGE AREA HAS BEEN PROPERLY AND COMPLETELY STABILIZED.

SOURCE: MODIFIED FROM VA. DCR, 1992

AMERICAN PUBLIC WORKS ASSOCIATION	
APWA	KANSAS CITY METROPOLITAN CHAPTER
SEDIMENT FENCE	STANDARD DRAWING NUMBER ESC-10 ADOPTED:

CONCRETE WASHOUT AREA



CONCRETE WASHOUT AREA

INSTALLATION NOTES:

1. CONCRETE WASHOUT AREAS SHALL BE INSTALLED PRIOR TO ANY CONCRETE PLACEMENT ON SITE. PLACEMENT SHALL BE A MINIMUM OF 50' FROM DRAINAGEWAYS, BODIES OF WATER AND INLET.
2. CONCRETE WASHOUT AREA SHALL INCLUDE A FLAT SUBSURFACE PIT THAT IS A LEAST 8'X8'. THE SLOPES LEADING OUT OF THE PIT SHALL BE 3:1. THE DEPTH OF THE PIT SHALL BE AT LEAST 3'. THE BERM SURROUNDING THE SIDES AND BACK OF THE CONCRETE WASHOUT AREA SHALL HAVE A HEIGHT OF 1'. THE VEHICLE AGGREGATE PAD SHALL BE SLOPED AWAY FROM THE CONCRETE WASHOUT AREA.
3. HIGHLY VISIBLE SIGNS SHALL BE PLACED AT THE CONSTRUCTION SITE ENTRANCE, WASHOUT ARE AND ELSEWHERE AS NECESSARY TO CLEARLY INDICATE THE LOCATION(S) OF THE CONCRETE WASHOUT AREA(S) TO OPERATORS OF CONCRETE TRUCKS AND PUMP RIGS.

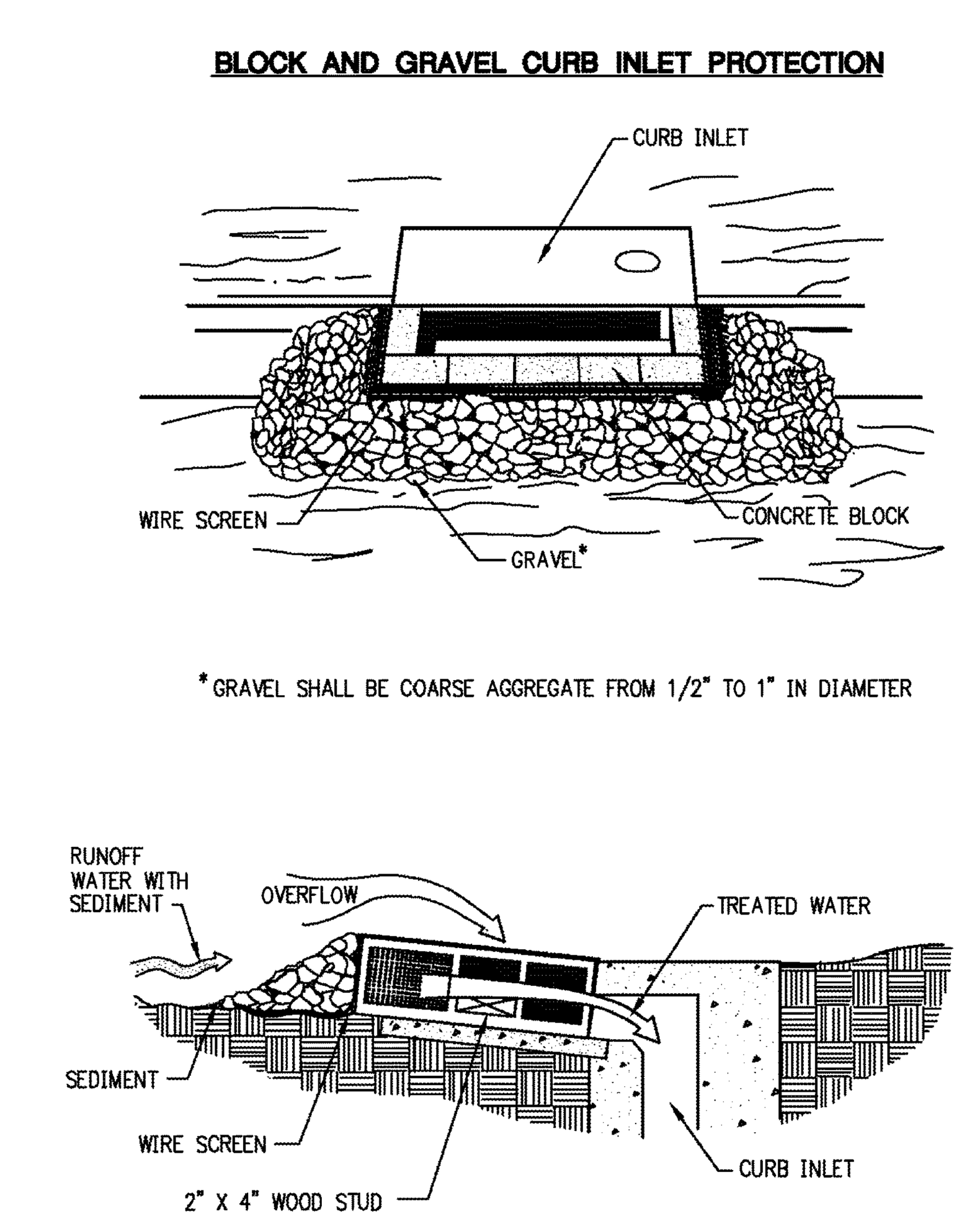
MAINTENANCE NOTES:

1. THE EROSION CONTROL SUPERVISOR SHALL INSPECT THE CONCRETE WASHOUT AREA AT THE FOLLOWING INTERVALS:

- AFTER INITIAL INSTALLATION
- AT LEAST WEEKLY WHILE THE CONCRETE WASHOUT AREA IS PRESENT ON SITE
- AFTER ANY STORM EVENT.

2. CONCRETE WASHOUT MATERIALS SHALL BE REMOVED ONCE THE MATERIALS IS WITHIN 1' OF THE TOP OF THE PIT.
3. CONCRETE WASHOUT AREAS SHALL BE ENLARGED AS NECESSARY TO MAINTAIN CAPACITY FOR WASTED CONCRETE.
4. CONCRETE WASHOUT AREAS SHALL REMAIN IN PLACE UNTIL ALL CONCRETE FOR THE PROJECT IS PLACED.
5. WHEN CONCRETE WASHOUT AREAS ARE REMOVED. EXCAVATIONS SHALL BE FILLED WITH SUITABLE COMPACTED BACKFILL AND TOPSOIL, ANY DISTURBED AREAS ASSOCIATED WITH THE INSTALLATION, MAINTENANCE AND/OR REMOVAL OF THE CONCRETE WASHOUT AREAS SHALL BE ROUGHENED, SEEDED, MULCHED PER THE CITY'S SPECS.

BLOCK AND GRAVEL CURB INLET PROTECTION



BLOCK AND GRAVEL CURB INLET PROTECTION NOTES:

A) GENERAL NOTES:

1. TWO CONCRETE BLOCKS SHALL BE PLACED ON THEIR SIDES ABUTTING THE CURB AT EITHER SIDE OF THE INLET OPENING.
2. A 2 X 4 STUD SHALL BE CUT AND PLACED THROUGH THE OUTER HOLES OF EACH SPACER BLOCK TO HELP KEEP THE FRONT BLOCKS IN PLACE.
3. CONCRETE BLOCKS SHALL BE PLACED ON THEIR SIDES ACROSS THE FRONT OF THE INLET AND ABUTTING THE SPACER BLOCKS.
4. WIRE MESH WEBBING SHALL BE PLACED OVER THE OUTSIDE VERTICAL FACE OF THE CONCRETE BLOCKS TO PREVENT STONE FROM BEING WASHED THROUGH THE HOLES IN THE BLOCKS. WIRE MESH WITH 1/2-INCH OPENINGS SHALL BE USED.
5. COARSE AGGREGATE SHALL BE PILED AGAINST THE WIRE TO THE TOP OF THE BARRIER.
6. IF THE STONE BECOMES CLOGGED WITH SEDIMENT SO THAT IT NO LONGER ADEQUATELY PERFORMS ITS FUNCTION, THE STONE MUST BE PULLED AWAY FROM THE BLOCKS AND CLEANED OR REPLACED.

B) INSPECTION AND MAINTENANCE:

1. THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN EVENT OF 1/2-INCH OR GREATER, AND REPAIRS SHALL BE MADE AS NEEDED.
2. SEDIMENT SHALL BE REMOVED AND THE TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO ONE HALF THE DESIGN DEPTH OF THE TRAP. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA SO THAT IT WILL NOT ERODE.
3. STRUCTURES SHALL BE REMOVED AND THE AREA STABILIZED WHEN THE REMAINING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.

SOURCE: MODIFIED FROM VA. DCR, 1992

AMERICAN PUBLIC WORKS ASSOCIATION	
APWA	KANSAS CITY METROPOLITAN CHAPTER
BLOCK AND GRAVEL CURB INLET PROTECTION	STANDARD DRAWING NUMBER ESC-26 ADOPTED:

Z:\P\150376\dwg\Final Development\Details.dwg Layout: EROSION (2) Sep 14, 2017 - 12:31pm Aaron Norris

STATE OF MISSOURI
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PLANNING
ENGINEERING
IMPLEMENTATION

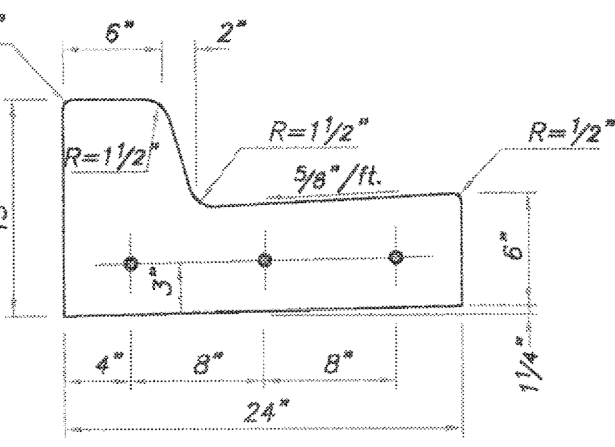
EROSION CONTROL DETAILS
MERIDIAN AT VIEW HIGH
LEE'S SUMMIT, MISSOURI
SITE DEVELOPMENT PLANS

No.	Date	Revisions:	By	App.

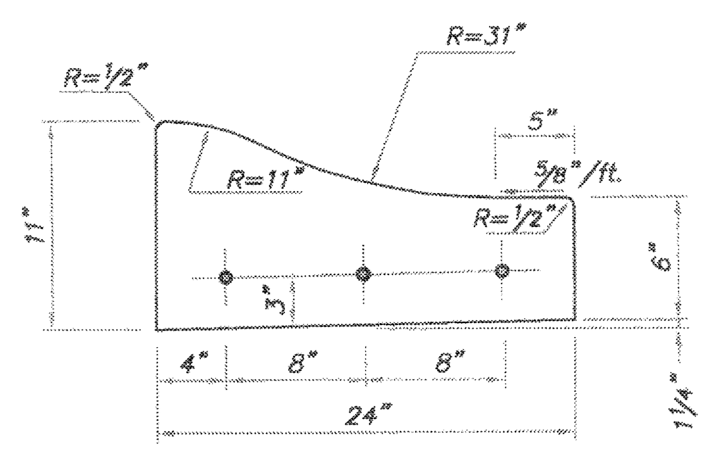
PROJECT NO. 150376
DATE: 6-27-17
DRAWN: JMO
DESIGNED: DLM
APPROVED: DEU

CERTIFICATE OF AUTHORIZATION
MISSOURI
LAND SURVEYING-2007001128
ENGINEERING-2007005058

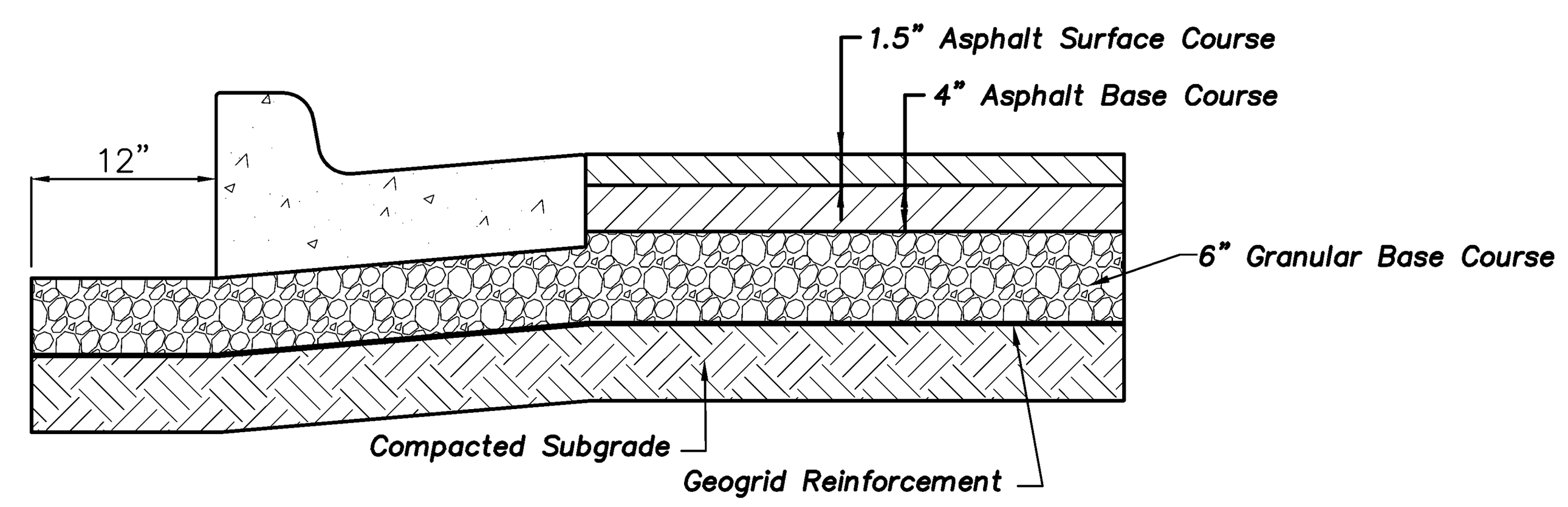
Released for Construction



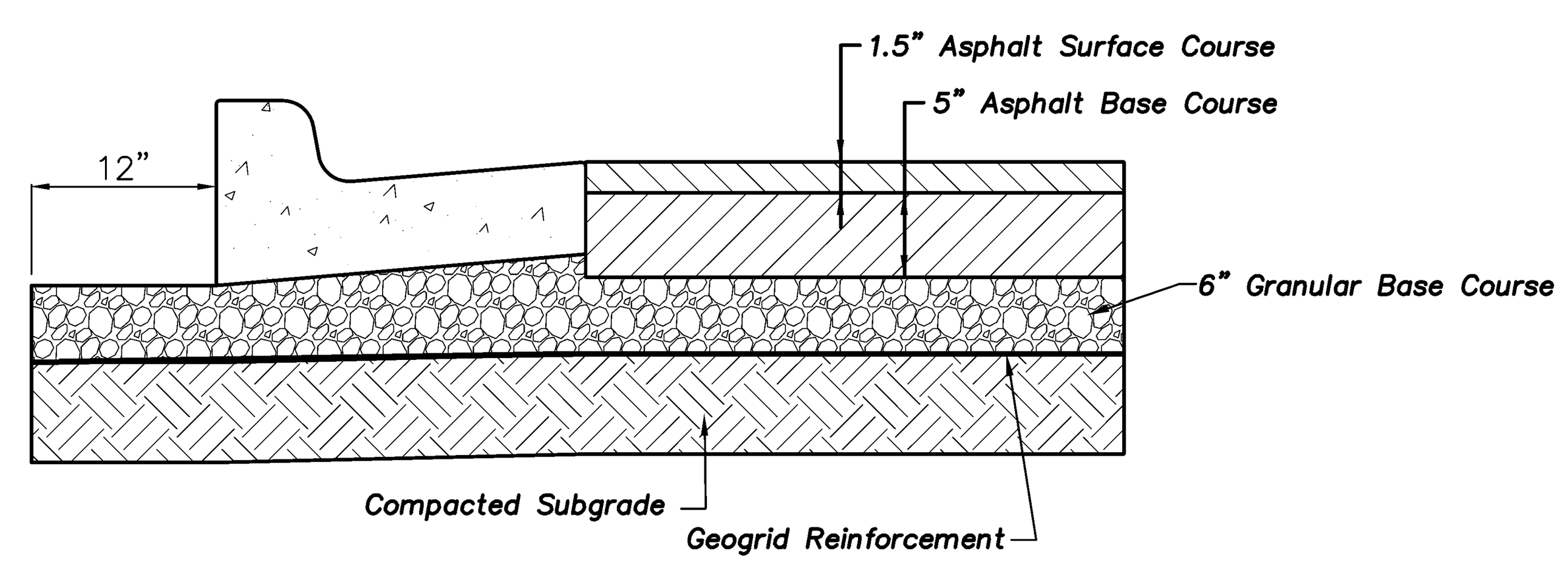
STRAIGHT BACK CURB & GUTTER
(TYPE CG-1)



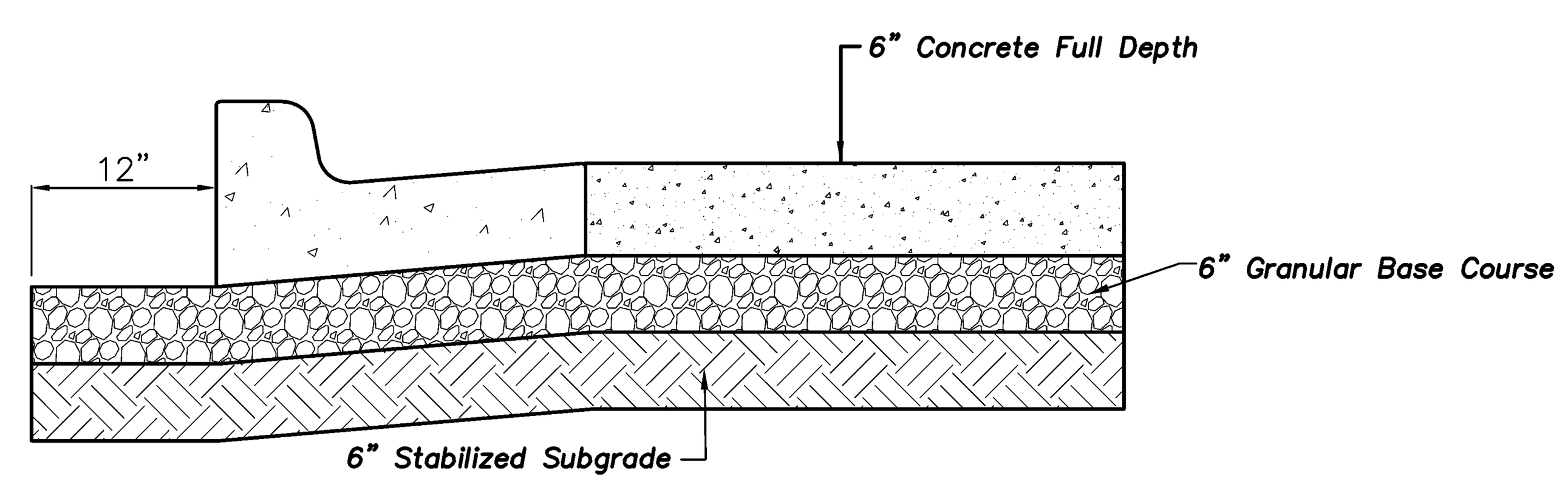
ROLL BACK CURB & GUTTER
(TYPE CG-2)



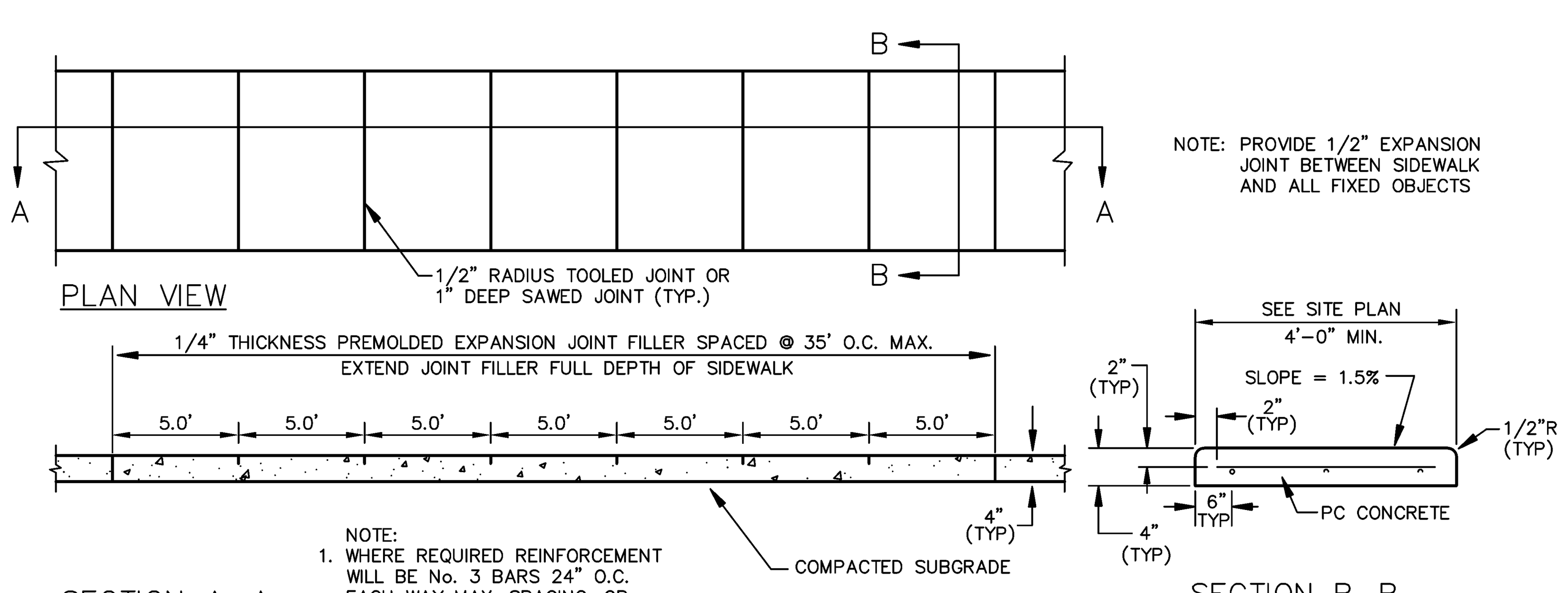
ASPHALT PAVING – STANDARD DUTY (DRIVE AISLE AREAS)



ASPHALT PAVING – HEAVY DUTY (EMERGENCY ACCESS)



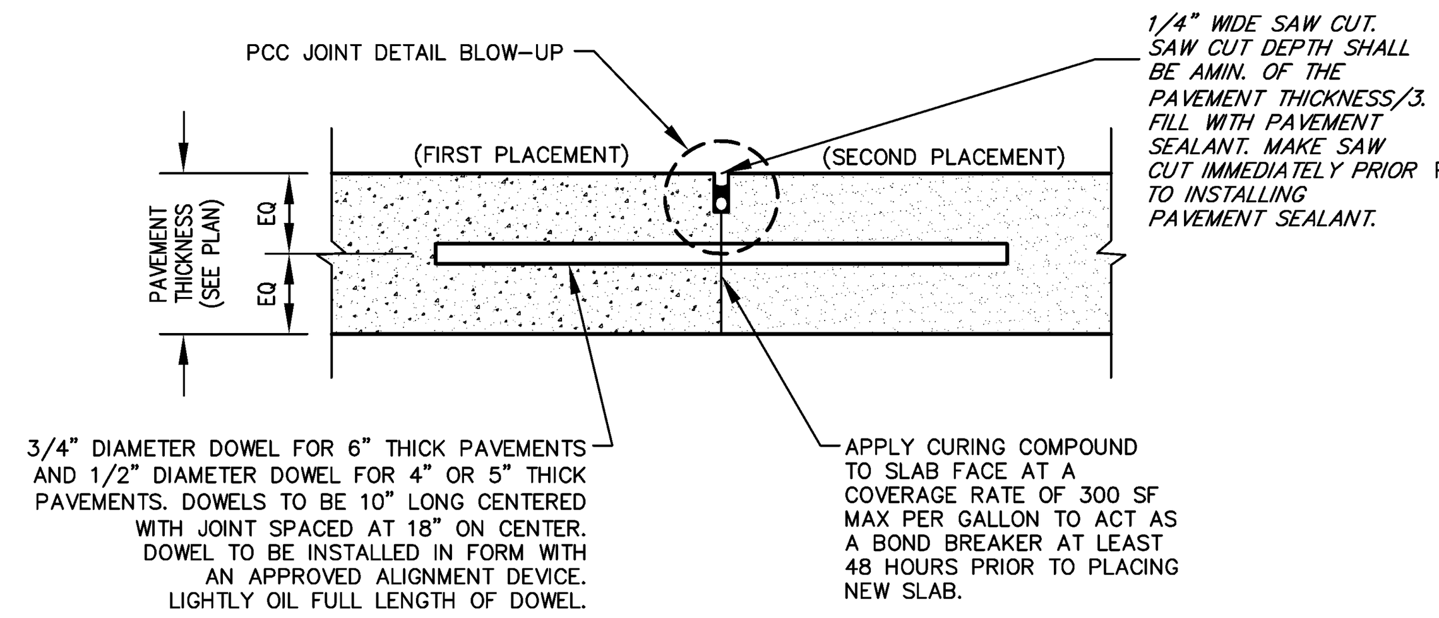
CONCRETE PAVING



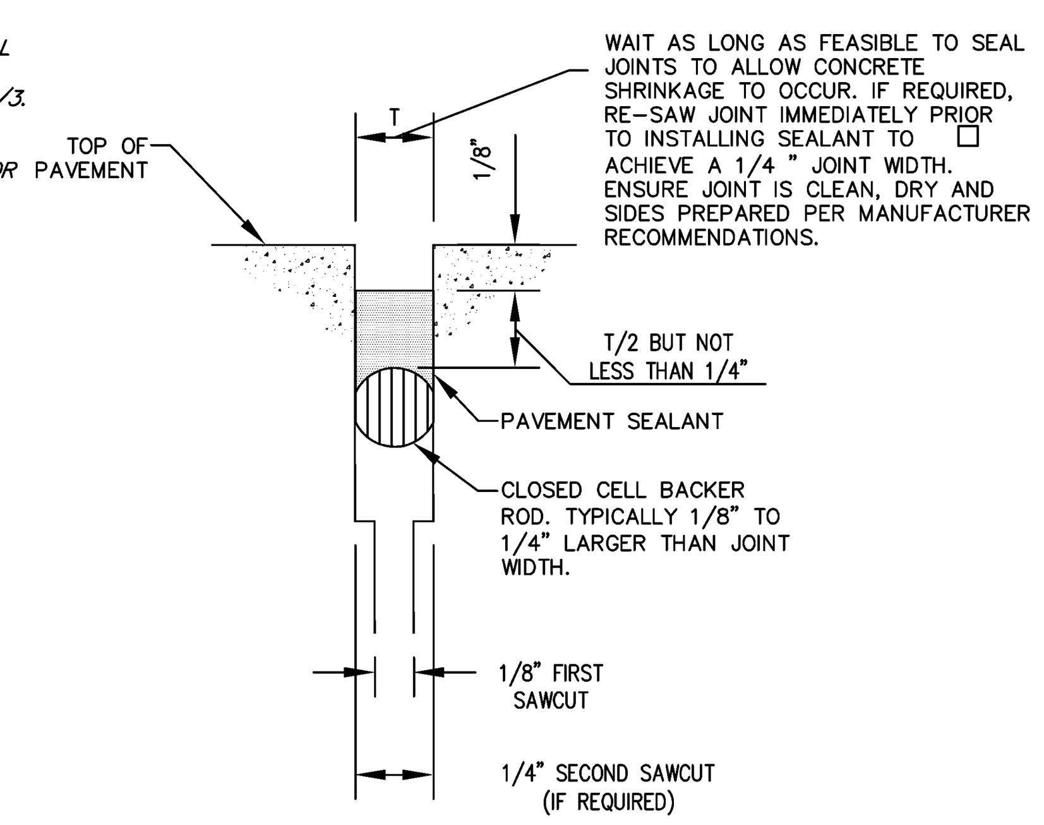
NOTE: PROVIDE 1/2" EXPANSION JOINT BETWEEN SIDEWALK AND ALL FIXED OBJECTS

NOTE:
1. WHERE REQUIRED REINFORCEMENT WILL BE No. 3 BARS 24" O.C. EACH WAY MAX. SPACING, OR 6 x 6 – W1.4 X W1.4 WWF
2. USE KCMMB 4,000 PSI APPROVED CONCRETE THROUGHOUT

CONCRETE SIDEWALK
(PRIVATE)

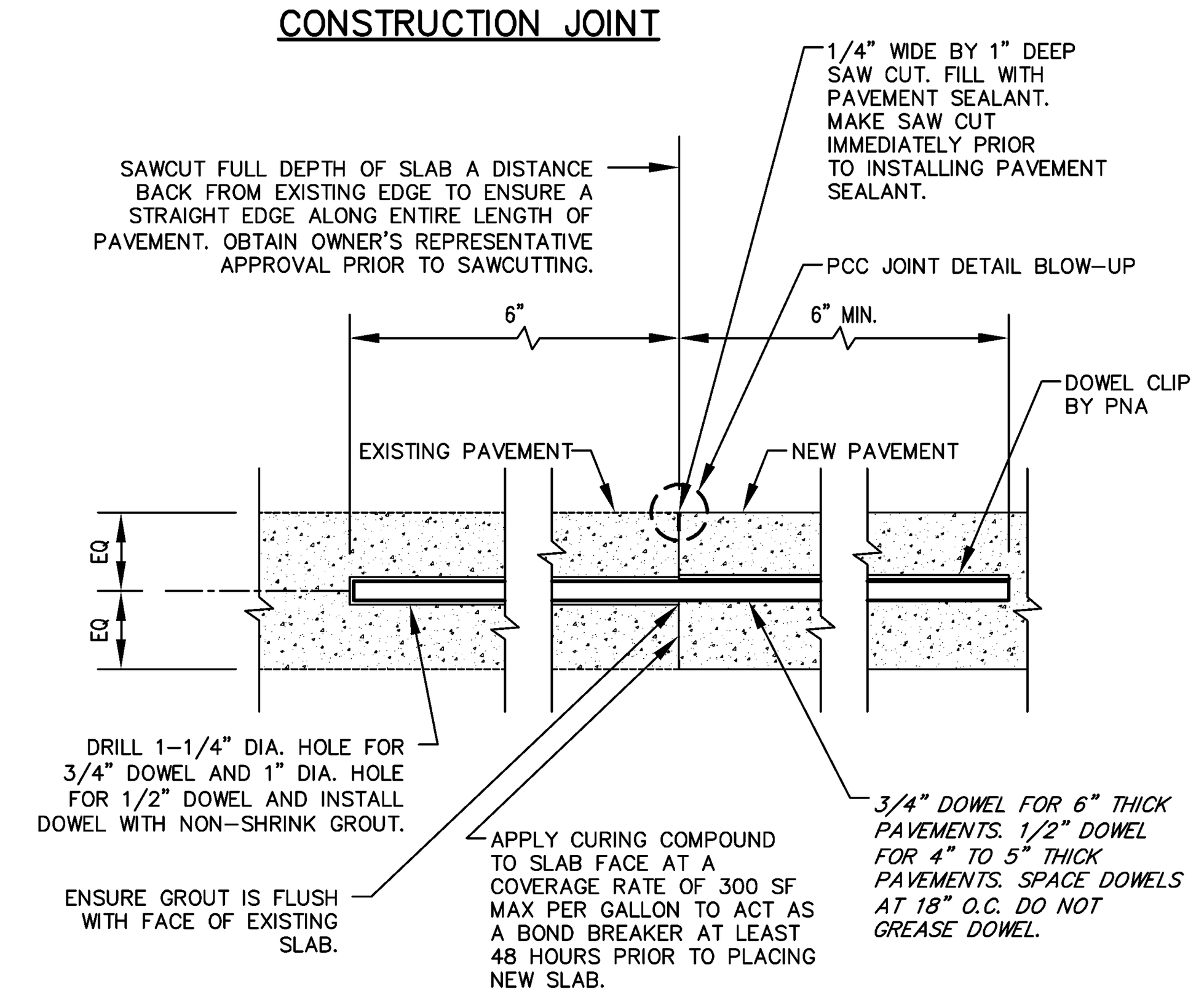


CONSTRUCTION JOINT

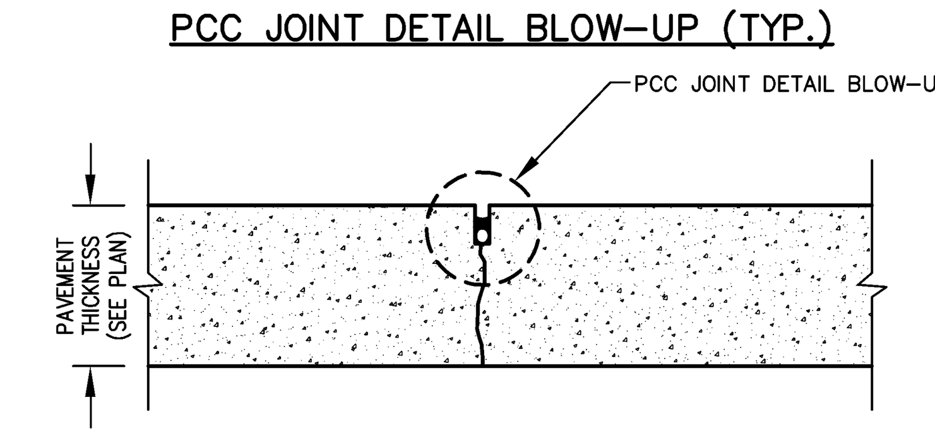


NOTES:
1. ENSURE JOINTS ARE CLEAN AND DRY PRIOR TO THE APPLICATION OF THE JOINT SEALANT.
2. INSTALL CLOSED CELL BACKER ROD AFTER JOINTS HAVE BEEN CLEANED AND DRIED IN ACCORDANCE WITH SEALANT MANUFACTURER'S REQUIREMENTS.
3. INSTALL BACKER TOD AT CONSISTENT AND UNIFORM DEPTH.
4. JOINT SEALANT APPLICATION SHALL BE IN STRICT COMPLIANCE WITH SEALANT MANUFACTURER'S REQUIREMENTS.

PCC JOINT DETAIL BLOW-UP (TYP.)



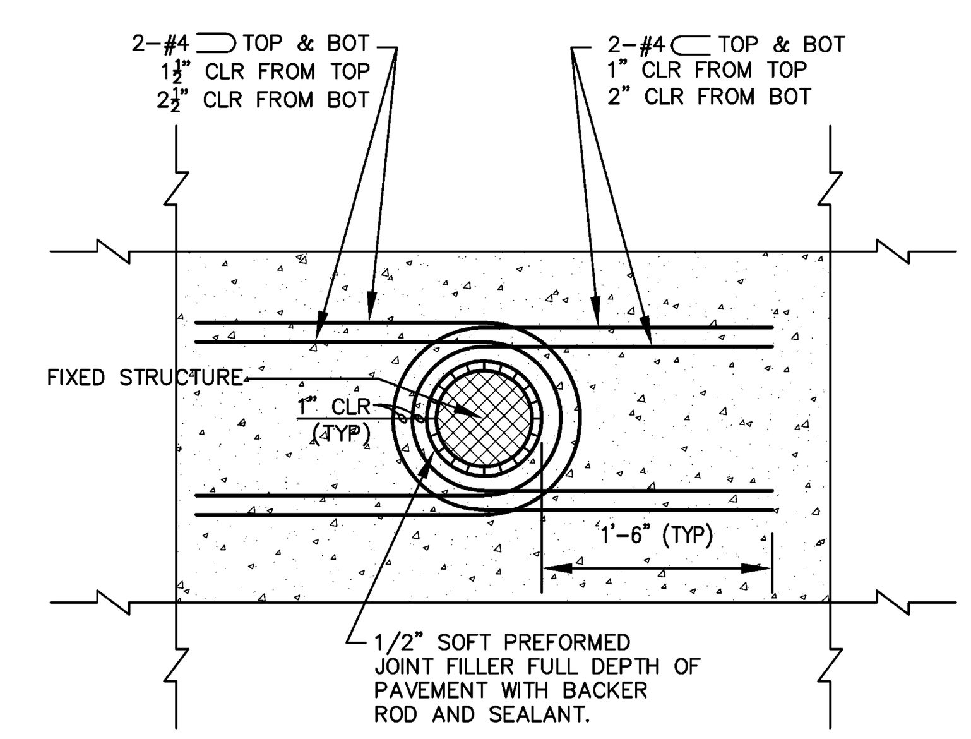
CONSTRUCTION JOINT TO EXISTING PAVEMENT



NOTE:
1. SEE PLAN FOR JOINT SPACING.

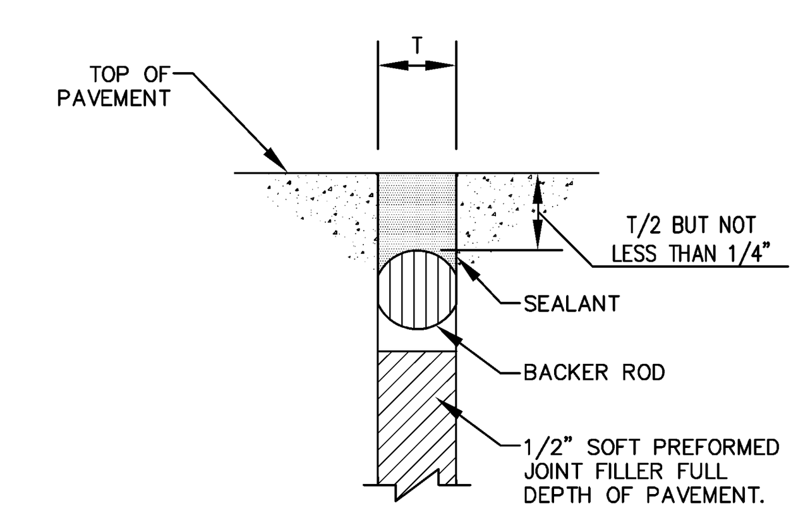
CONTRACTION JOINT

CONCRETE JOINT DETAILS

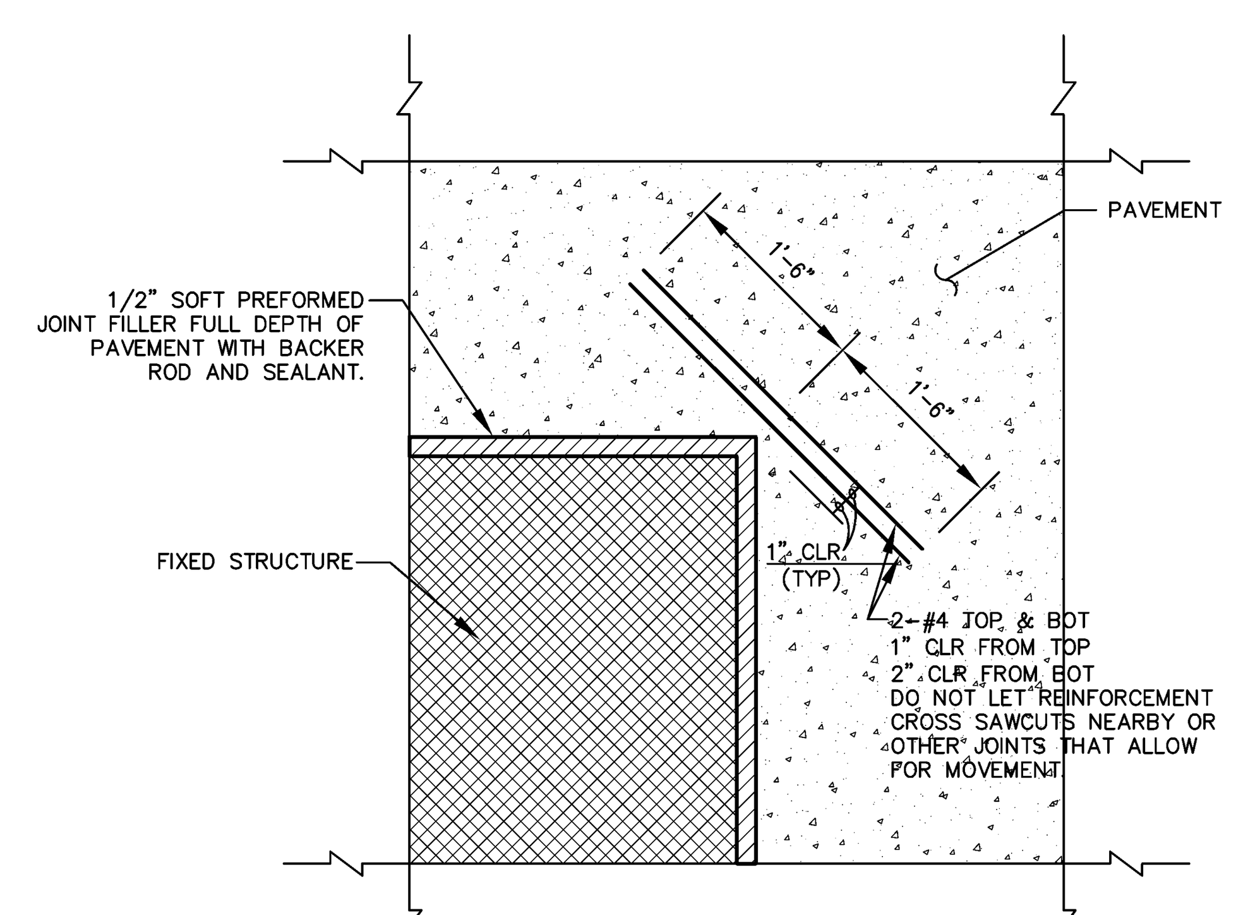


TYPICAL ROUND FIXED STRUCTURE PLAN DETAIL

USES: MANHOLES, LIGHT POLE BASES AND BOLLARDS

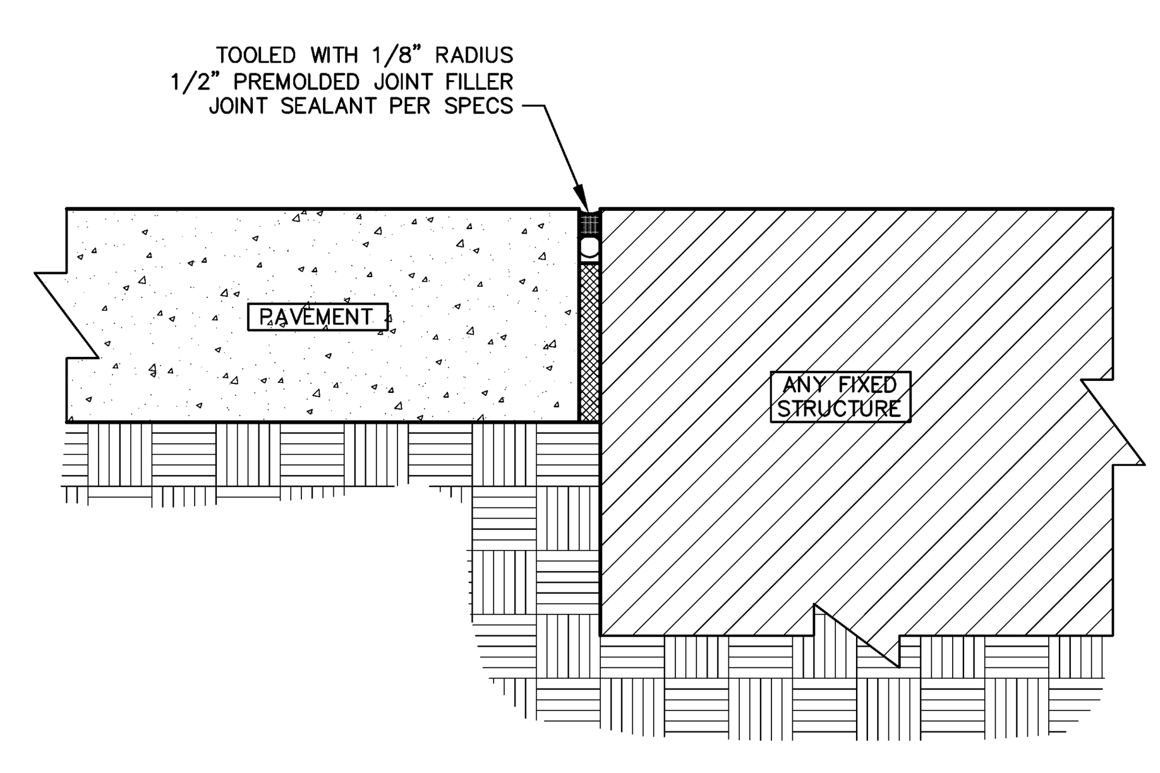


BACKER ROD AND SEALANT SECTION AT FIXED STRUCTURE



TYPICAL RECTANGULAR FIXED STRUCTURE PLAN DETAIL

USES: BUILDINGS, RETAINING WALLS/DOCK WALLS AND DROP INLETS



ISOLATION JOINT

NOTES:

ISOLATION JOINT TO BE USED FOR FIXED STRUCTURES SUCH AS BUILDINGS, RETAINING WALLS/DOCK WALLS, DROP INLETS, MANHOLES, LIGHT POLE BASES AND BOLLARDS.

PAVEMENT IS NOT CONSIDERED A FIXED STRUCTURE.

ISOLATION JOINT DETAILS

Released for Construction

STATE OF MISSOURI
DOUGLAS EUGENE UBBEN, JR.
1-22-18
NUMBER PE-2011010998
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PEI
PLANNING
ENGINEERING
IMPLEMENTATION

STANDARD DETAILS
MERIDIAN AT VIEW HIGH
LEE'S SUMMIT, MISSOURI
SITE DEVELOPMENT PLANS

No.	Date	Revisions:	By	App.
1	1-22-18	ESI #1	JMO	DEU

PROJECT NO. 150376
DATE: 6-27-17
DRAWN: JMO
DESIGNED: DLM
APPROVED: DEU

CERTIFICATE OF AUTHORIZATION
MISSOURI
LAND SURVEYING–2007001128
ENGINEERING–2007005058

GENERAL NOTES

1. ALL PAVEMENT MARKINGS SHALL BE APPLIED BY A QUALIFIED CONTRACTOR HAVING A MINIMUM 3 YEARS EXPERIENCE IN TRAFFIC GRADE PAVEMENT MARKING APPLICATIONS.

2. A. PRIVATE DRIVE, TEMPORARY PARKING AREA, AND OTHER PRIVATE AREAS STRIPING REQUIREMENTS:

   PAINT SHALL BE A NON-BLEEDING, QUICK-DRYING, ALKYD PETROLEUM BASE PAINT SUITABLE FOR TRAFFIC-BEARING SURFACE AND SHALL MEET FS TTP-85E AND MIXED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS BEFORE APPLICATION.

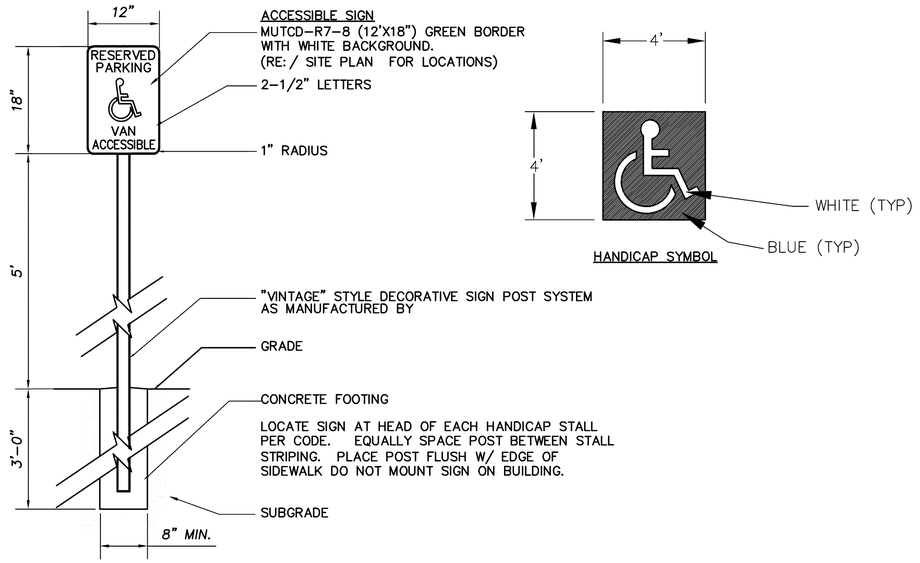
   B. ALL PAVEMENT MARKINGS WITHIN PUBLIC RIGHT-OF-WAY:

   THERMOPLASTIC OR PRE-FORMED THERMOPLASTIC ON ASPHALT SURFACES

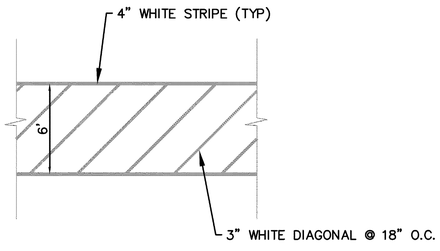
3. SWEEP AND CLEAN SURFACE TO ELIMINATE LOOSE MATERIAL AND DUST.

4. APPLY TWO (2) COATS OF PAINT AT MANUFACTURER RECOMMENDED RATE WITHOUT THE ADDITION OF THINNER, WITH A MAXIMUM OF 100 SQUARE FEET PER GALLON. APPLY WITH MECHANICAL EQUIPMENT TO PRODUCE UNIFORM STRAIGHT EDGES. AT SIDEWALK, CURBS, AND CROSSWALKS USE A STRAIGHTEDGE TO ENSURE A UNIFORM, CLEAN, AND STRAIGHT STRIPE.

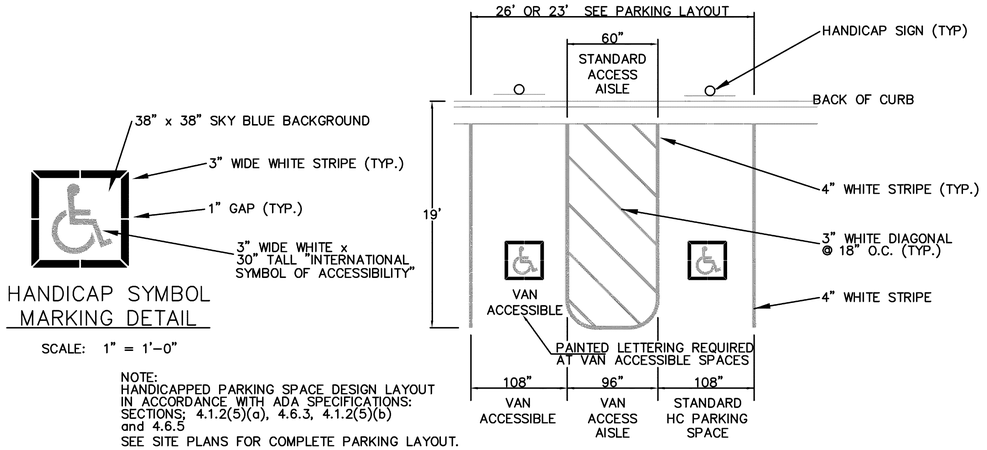
5. THE FOLLOWING ITEMS SHALL BE PAINTED WITH THE COLORS NOTED BELOW:
   A. HANDICAP SYMBOLS: SEE DETAIL THIS SHEET.
   B. PARKING STALL STRIPING: WHITE.



HANDICAPPED SIGNAGE & PAVEMENT MARKING DETAIL



STRIPED CROSSWALK DETAIL



NOTE:
HANDICAPPED PARKING SPACE DESIGN LAYOUT IN ACCORDANCE WITH ADA SPECIFICATIONS: SECTIONS; 4.1.2(5)(a), 4.6.3, 4.1.2(5)(b) and 4.6.5
SEE SITE PLANS FOR COMPLETE PARKING LAYOUT.

HANDICAPPED PARKING SPACE DETAIL

Released for Construction

STATE OF MISSOURI
DOUGLAS EUGENE UBBEN, JR.
NUMBER PE-2011010998
PROFESSIONAL ENGINEER

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STANDARD DETAILS

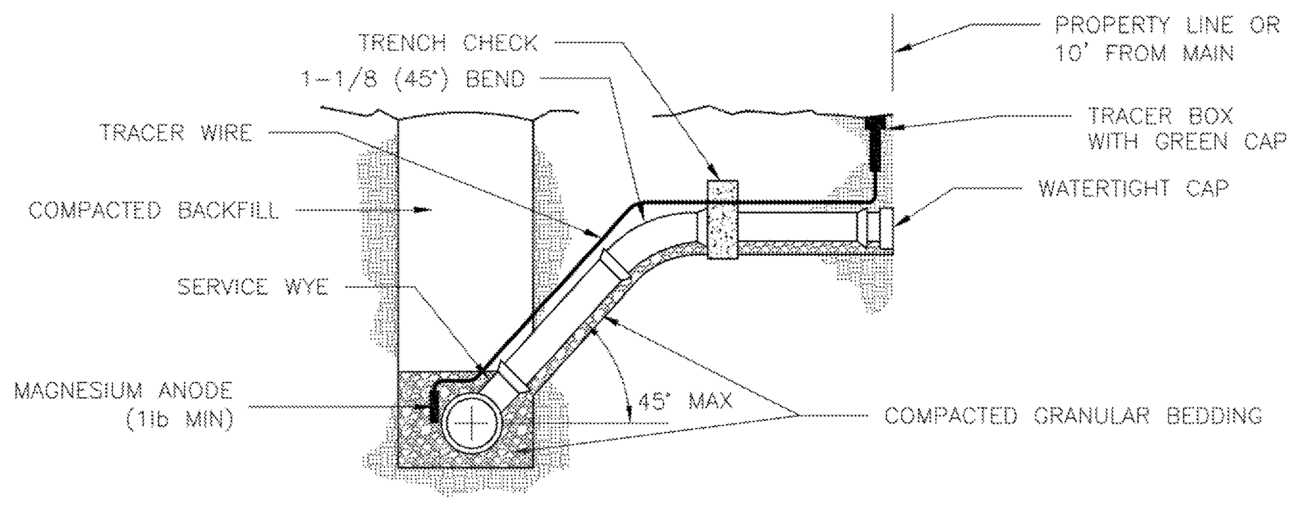
MERIDIAN AT VIEW HIGH
LEE'S SUMMIT, MISSOURI
SITE DEVELOPMENT PLANS

No.	Revisions:	Date	By	App.

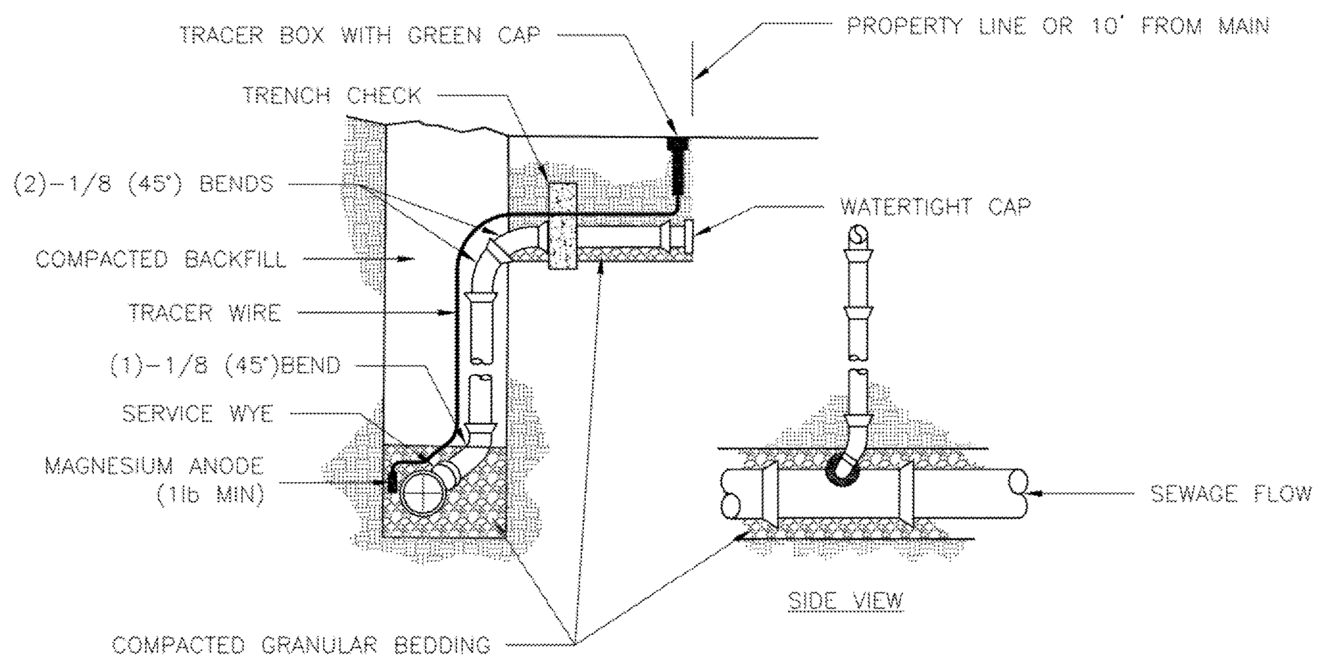
PROJECT NO. 150376
DATE: 8-27-17
DRAWN: JMO
DESIGNED: DLM
APPROVED: DEU

CERTIFICATE OF AUTHORIZATION
MISSOURI ENGINEERING #2007030128
KANSAS ENGINEERING #E-2007030128

SHEET
44.1
OF 61



STANDARD INSTALLATION
NOT TO SCALE



VERTICAL RISER
NOT TO SCALE

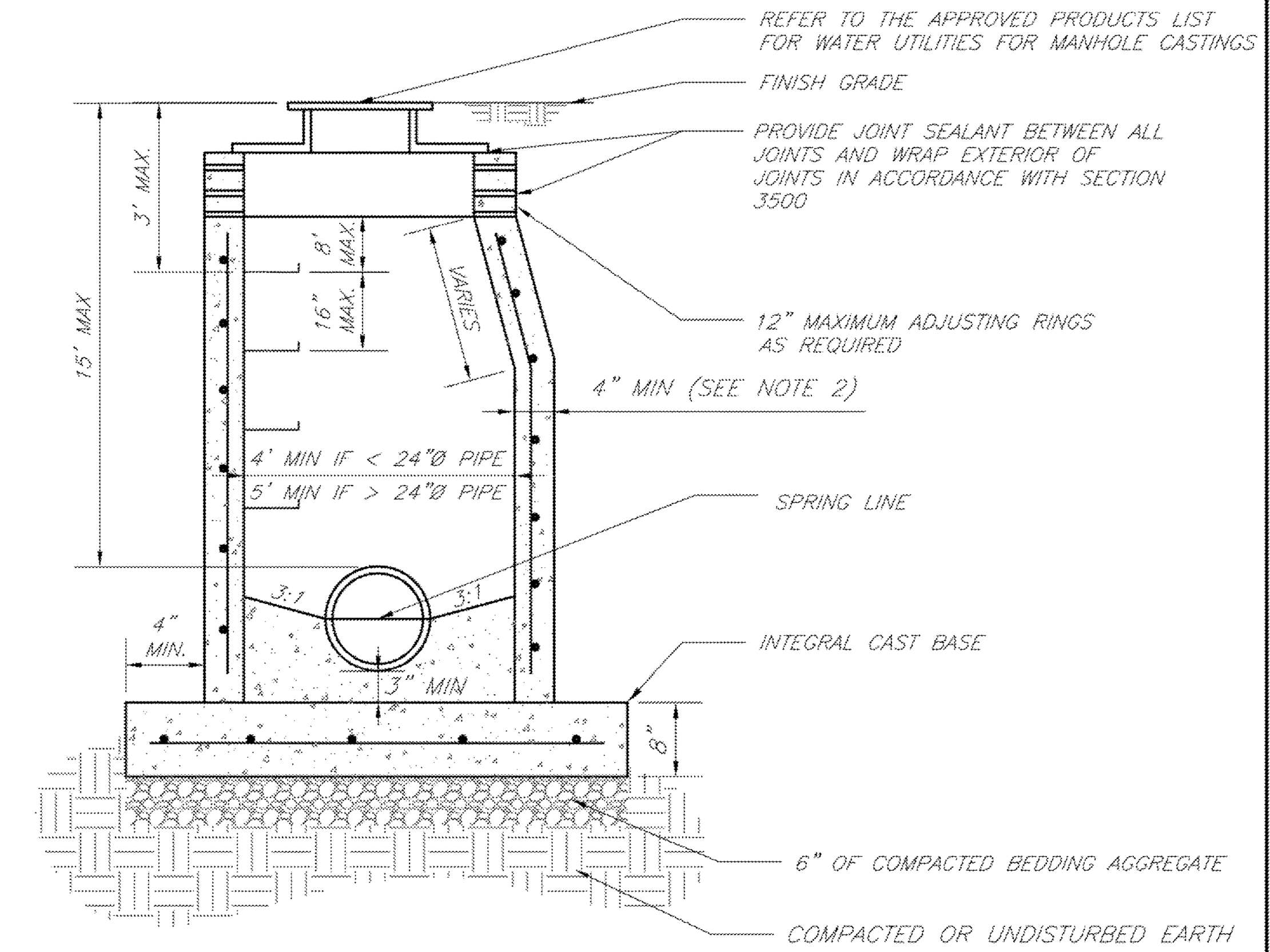
NOTES:

1. ALL SEWER STUBS SHALL BE CONSTRUCTED TO PROPERTY LINE OR 10' MINIMUM FROM THE MAIN. WHERE SIDEWALKS ARE PRESENT, CONTRACTOR SHALL EXTEND SERVICE LINE UNDER EXISTING SIDEWALK TO TWO FEET BEYOND.
2. IMPERVIOUS TRENCH CHECKS SHALL BE PLACED ON BUILDING SEWER STUBS (AT LEAST 5' AWAY FROM THE SANITARY SEWER MAIN).
3. TRENCH CHECKS ON THE BUILDING SEWER STUBS SHALL EXTEND 6" BELOW THE BOTTOM OF THE PIPE. LENGTH SHALL BE A MINIMUM OF 12". THE HEIGHT OF THE TRENCH CHECK SHALL EXTEND 12" ABOVE THE TOP OF THE PIPE. THE WIDTH OF THE TRENCH CHECK SHALL BE THE WIDTH OF THE TRENCH.
4. SEE SPECIFICATION SECTION 2100 FOR SEWER MAIN BEDDING AND BACKFILL.
5. #12 GAUGE GREEN INSULATED COPPER TRACER WIRE SHALL BE INSTALLED. TRACER WIRE TERMINAL BOXES SHALL BE INSTALLED DIRECTLY ABOVE THE SEWER SERVICE OR AS DETERMINED BY THE ENGINEER.
6. FOR SERVICES, TRACER WIRE SHALL RUN FROM THE WYE AND TERMINATE IN A FLUSH MOUNTED TRACER BOX WITH A GREEN CAST IRON LOCKABLE TOP. WIRE SHALL BE TAPED OR TIED TO THE PIPE AT 5' INTERVALS.
7. TRACER WIRE BOX SHALL BE INSTALLED WITHIN 1.0' OF PROPERTY LINE.
8. THE TRACER WIRE SHALL REMAIN CONTINUOUS TO THE GREATEST EXTENT POSSIBLE. SPLICES IN THE TRACER WIRE SHOULD BE MADE WITH SPLIT BOLT CONNECTORS. WIRE NUTS SHALL NOT BE USED. A WATER-PROOF CONNECTION IS NECESSARY TO PREVENT CORROSION.

LEE'S SUMMIT
MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

BUILDING SEWER STUB AND RISER

Date: 12/13
Drawn By: SC
Checked By: DL
FILE: SAN-1
Rev: 10/15
Rev: 12/15



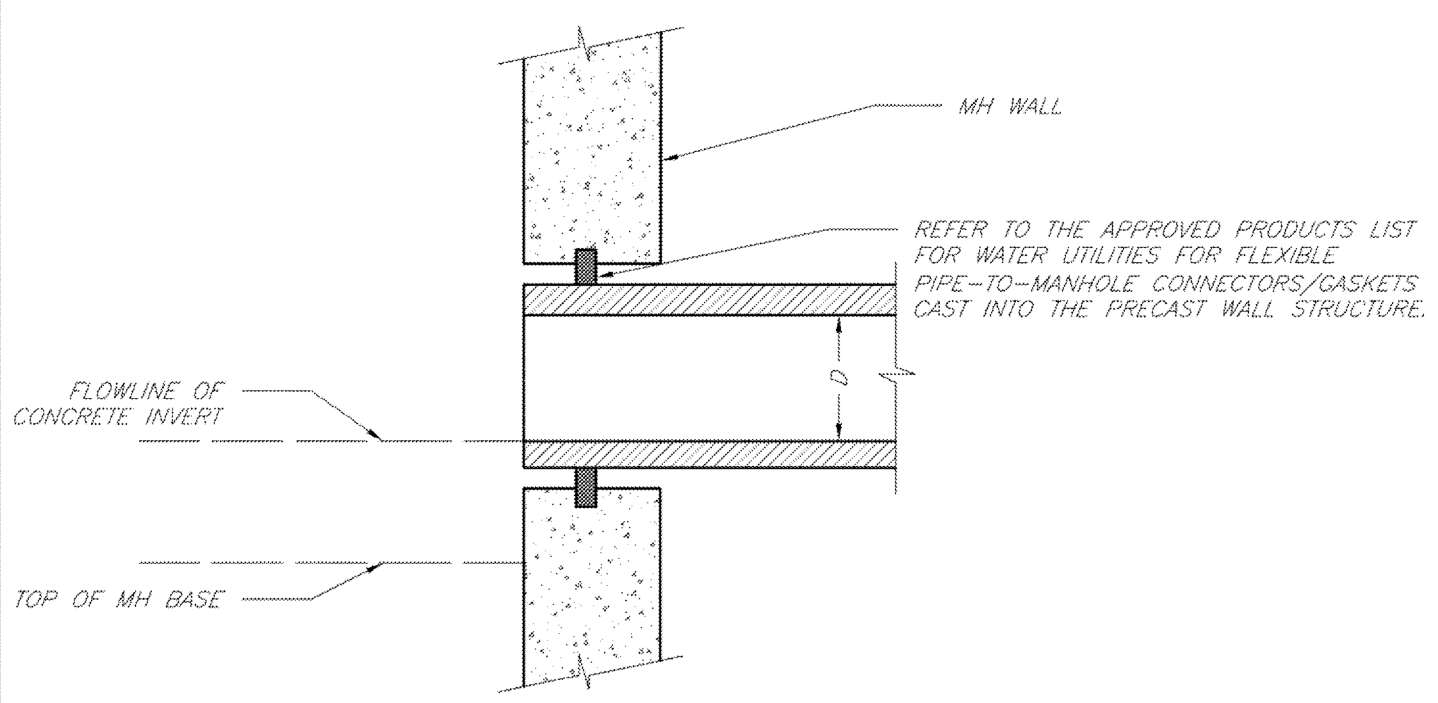
NOTES:

1. PRECAST CONCRETE MANHOLES SHALL CONFORM TO ASTM C478 EXCEPT AS MODIFIED BY THE SPECIFICATIONS.
2. A WALL THICKNESS NOT LESS THAN ONE-TWELFTH (1/12) OF THE INSIDE DIAMETER OR 4", WHICHEVER IS GREATER, SHALL BE USED WHEN THE MANHOLE DEPTH IS LESS THEN 15'.
3. WATERPROOFING SHALL BE REQUIRED ON THE OUTSIDE OF MANHOLES. THE WATERPROOFING SHALL CONSIST OF A TOTAL DRY FILM THICKNESS OF NOT LESS THAN 14 MILS OF BITUMINOUS COATING.
4. ONLY ECCENTRIC MANHOLE CONES WILL BE ALLOWED UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.
5. THE FILL CONCRETE FLOW CHANNEL FOR SIDE BRANCHES SHALL BE PLACED TO PROVIDE A SMOOTH TRANSITION INTO THE FLOW LINE.
6. REFER TO THE APPROVED PRODUCTS LIST FOR WATER UTILITIES FOR APPROVED MANHOLE GASKET MODELS.
7. REFER TO THE APPROVED PRODUCTS LIST FOR APPROVED STEPS.

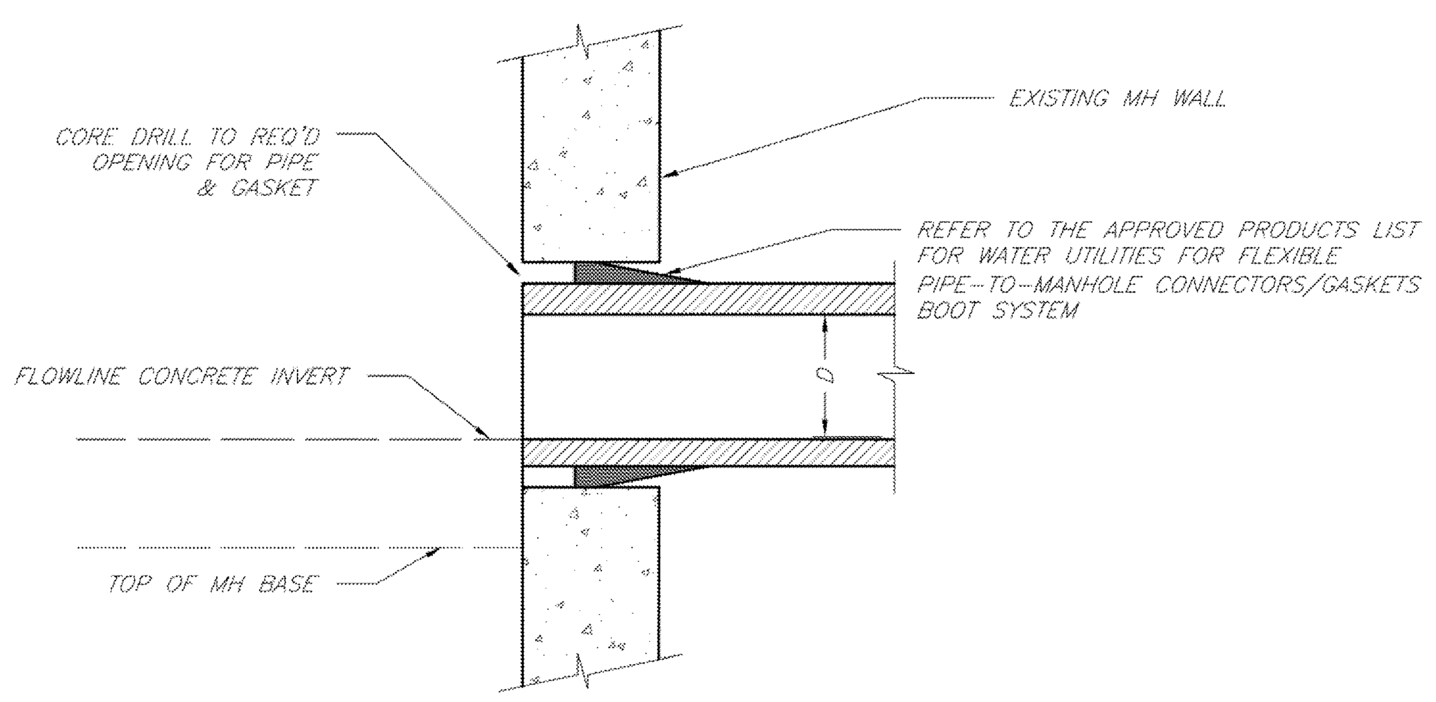
LEE'S SUMMIT
MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

STANDARD PRECAST MANHOLE – SANITARY SEWER

Date: 02/13
Drawn By: JN
Checked By: DL
FILE: SAN-2
Rev: 1/14
Rev:



NEW MANHOLE



EXISTING MANHOLE

LEE'S SUMMIT
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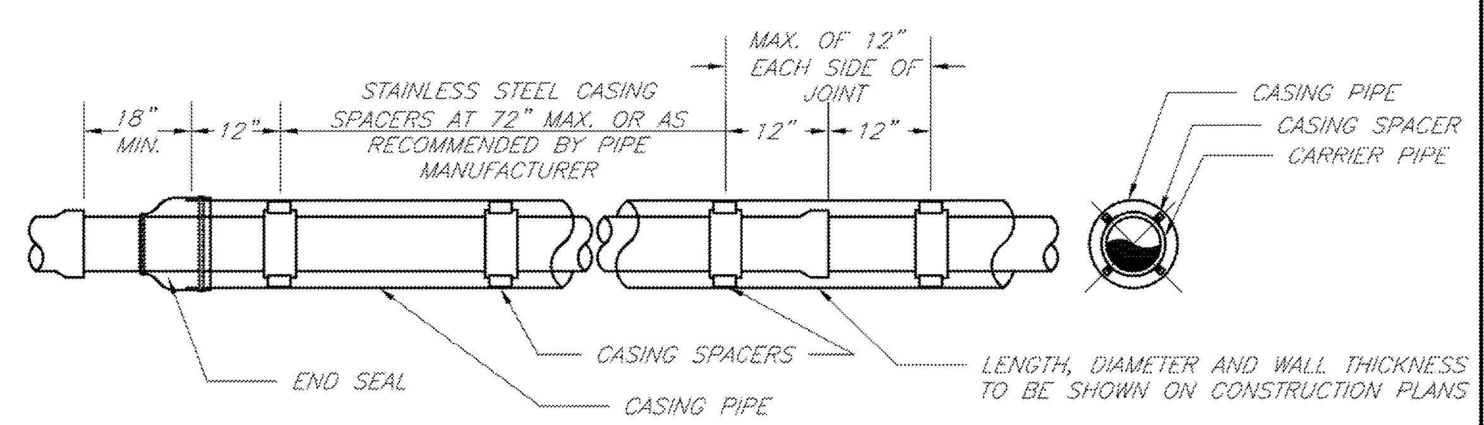
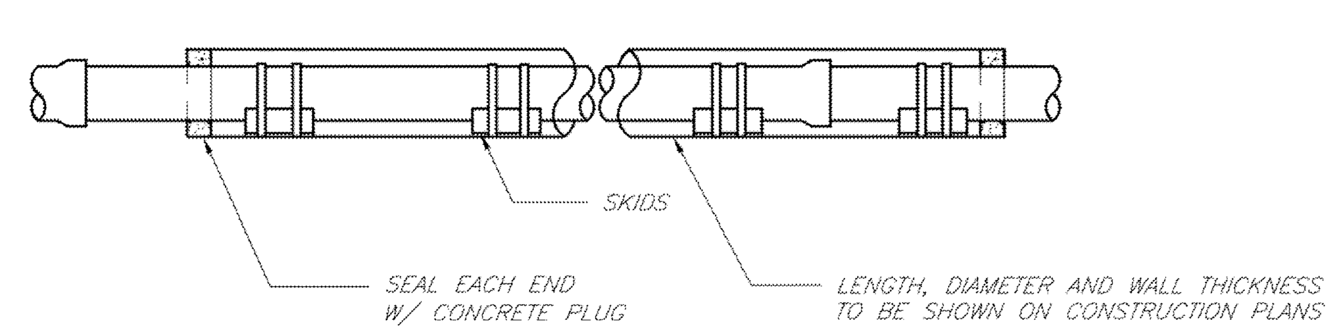
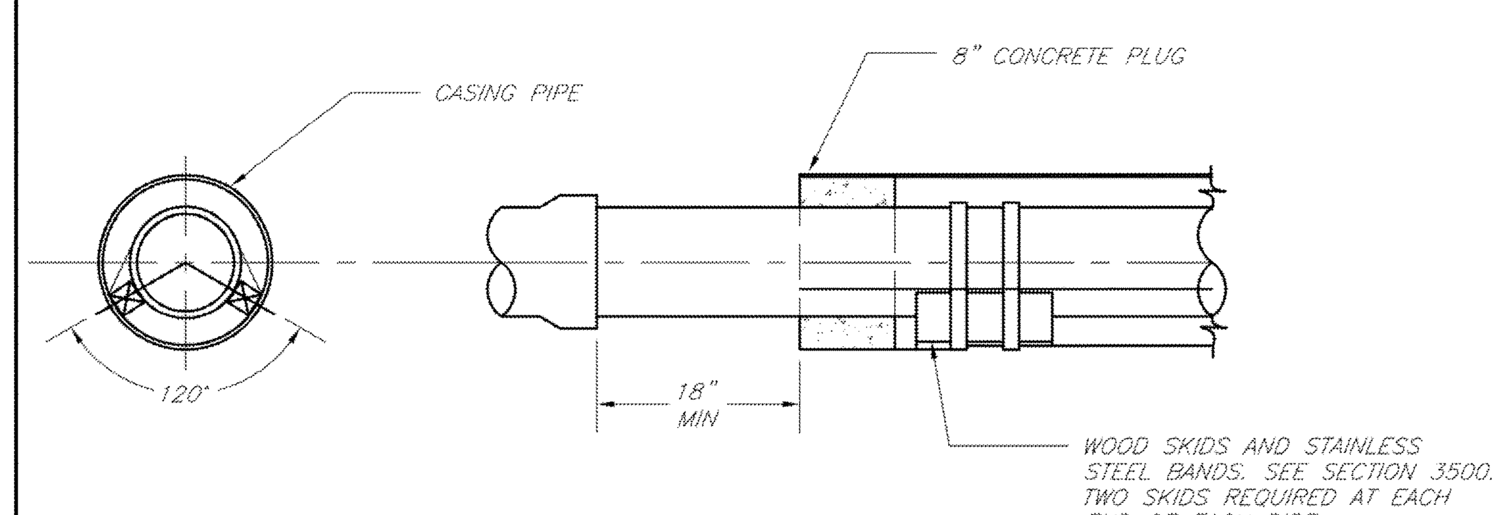
MANHOLE WALL CONNECTIONS

Date: 02/13
Drawn By: JN
Checked By: DL
FILE: SAN-5
Rev: 1/14
Rev:



STAINLESS STEEL SPACERS





WOOD SKIDS

NOTE:
IF WOOD SKIDS ARE USED, ANNULAR SPACE BETWEEN CASING PIPE AND CARRIER PIPE SHALL BE FILLED WITH SAND.

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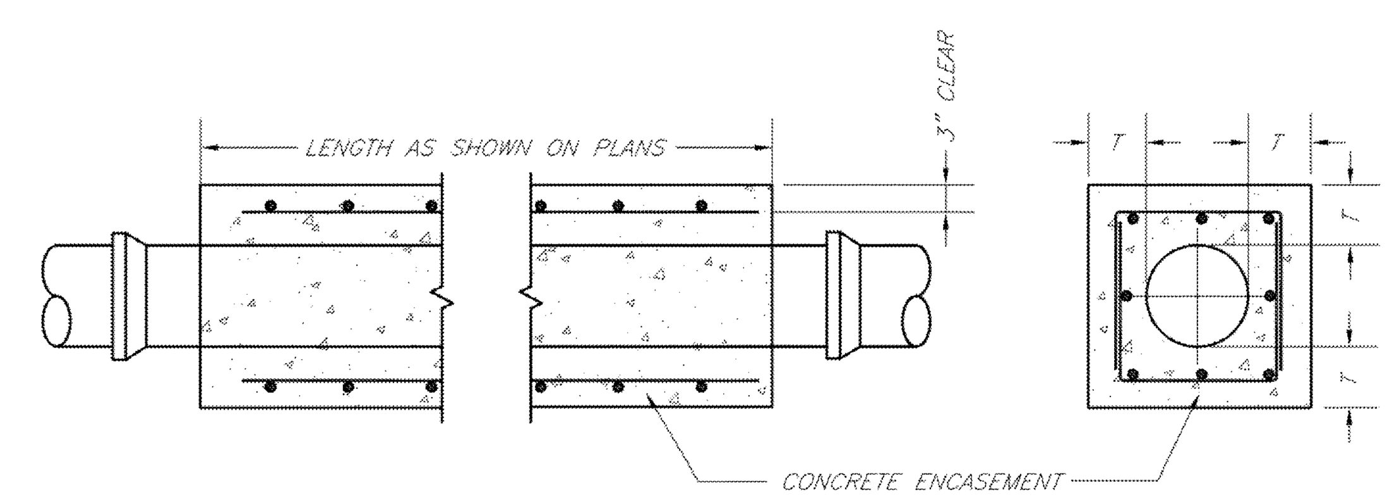
CASING PIPE DETAIL

Date: 02/13
Drawn By: JN
Checked By: DL
FILE: SAN-6
Rev: 1/14
Rev:



NOTES:

1. FOR PIPES LESS THAN 15", T = 6" MIN.
2. FOR PIPES 15" THRU 36", T = 8" MIN.
3. INTERMEDIATE BELLS SHALL BE ENCASED.
4. REINFORCING STEEL SHALL BE #4 @ 12" O.C. EACH WAY WITH A MINIMUM REBAR LAP OF 12".

LEE'S SUMMIT
MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

SANITARY PIPE ENCASEMENT

Date: 02/13
Drawn By: JN
Checked By: DL
FILE: SAN-7
Rev: 1/14
Rev:

STATE OF MISSOURI
DOUGLAS EUGENE UBBEN, JR.
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STANDARD DETAILS
MERIDIAN AT VIEW HIGH
LEE'S SUMMIT, MISSOURI
SITE DEVELOPMENT PLANS

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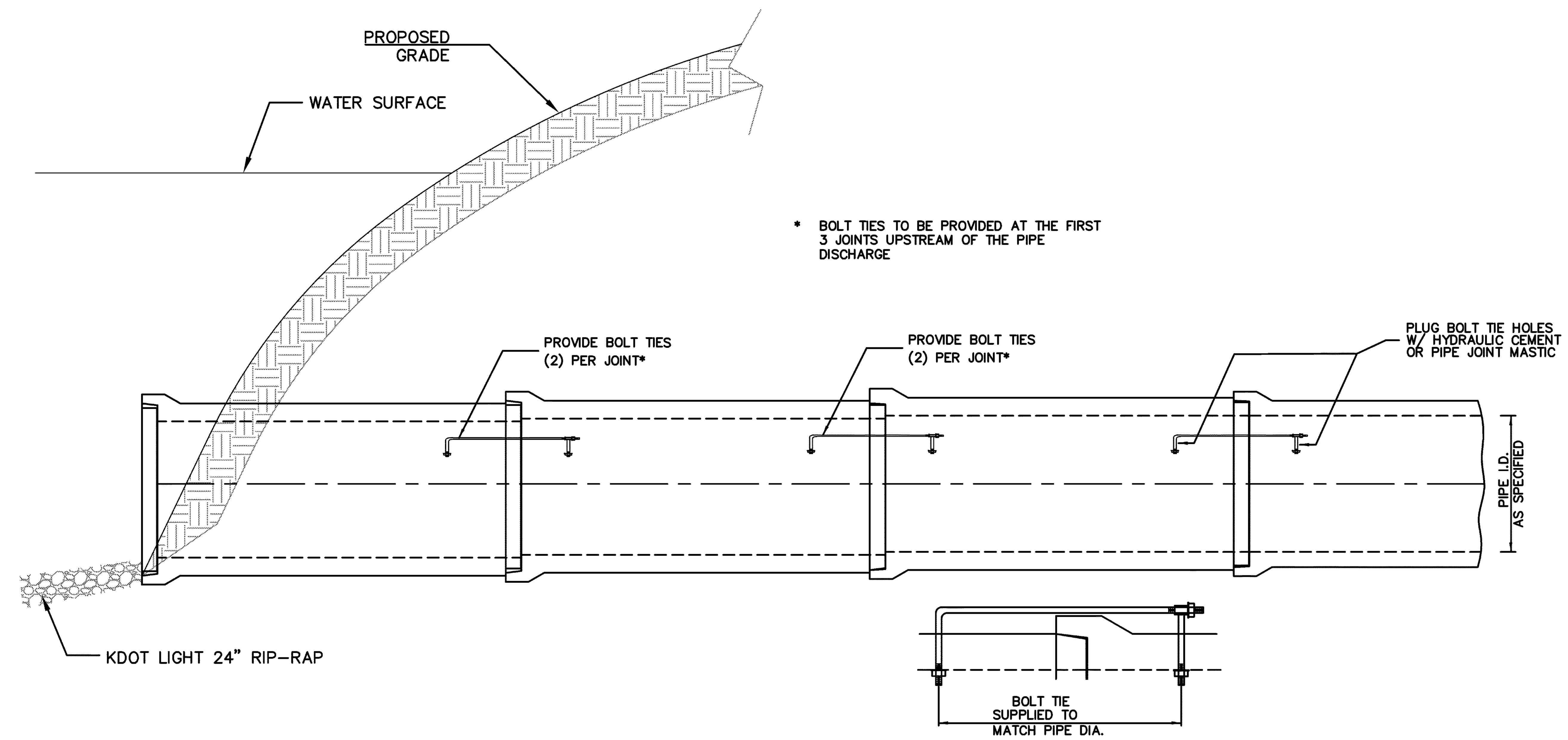
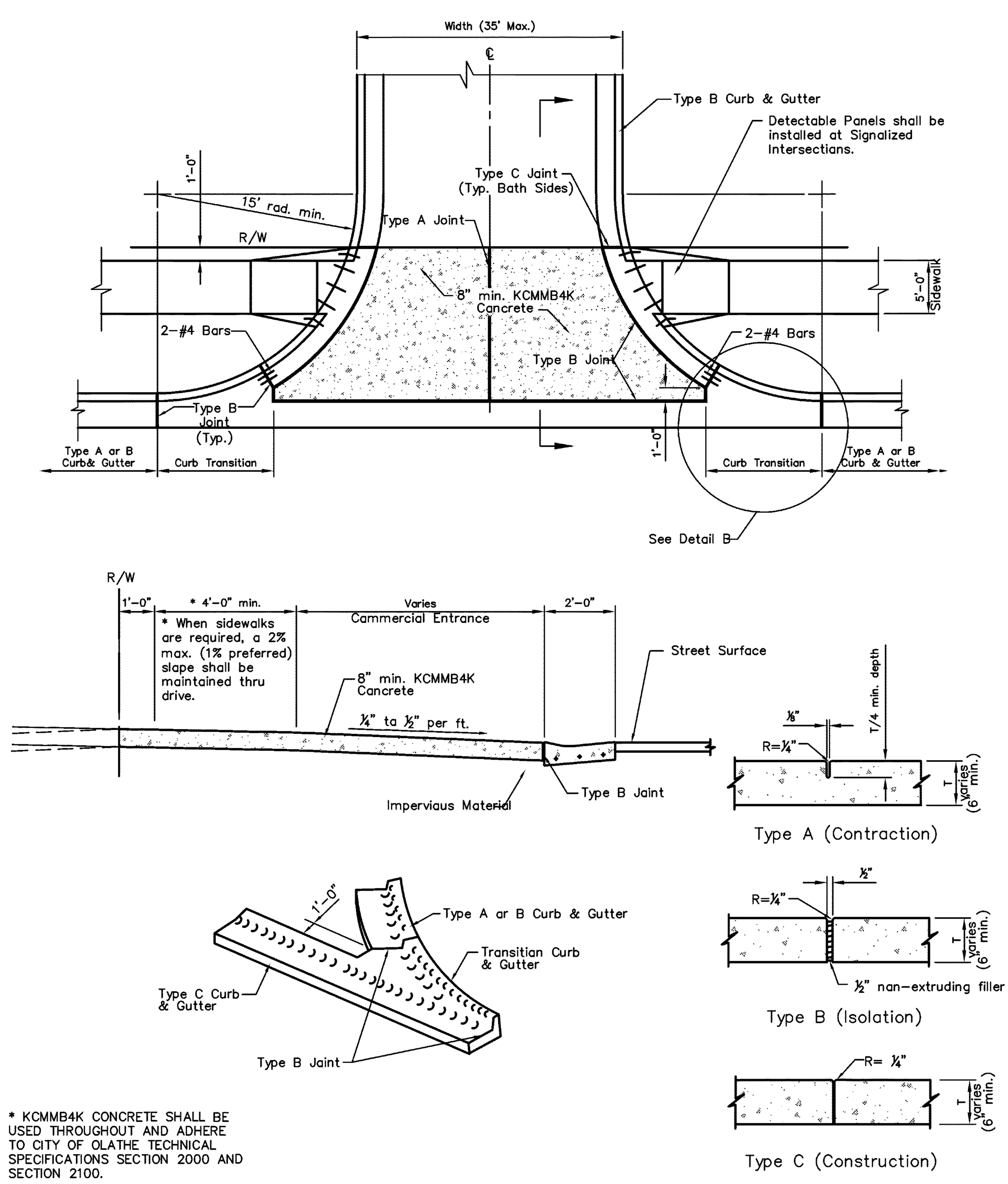
APPROVED: DEU
CERTIFICATE OF AUTHORIZATION MISSOURI
LAND SURVEYING-2007005128
ENGINEERING-2007005058

Released for Construction



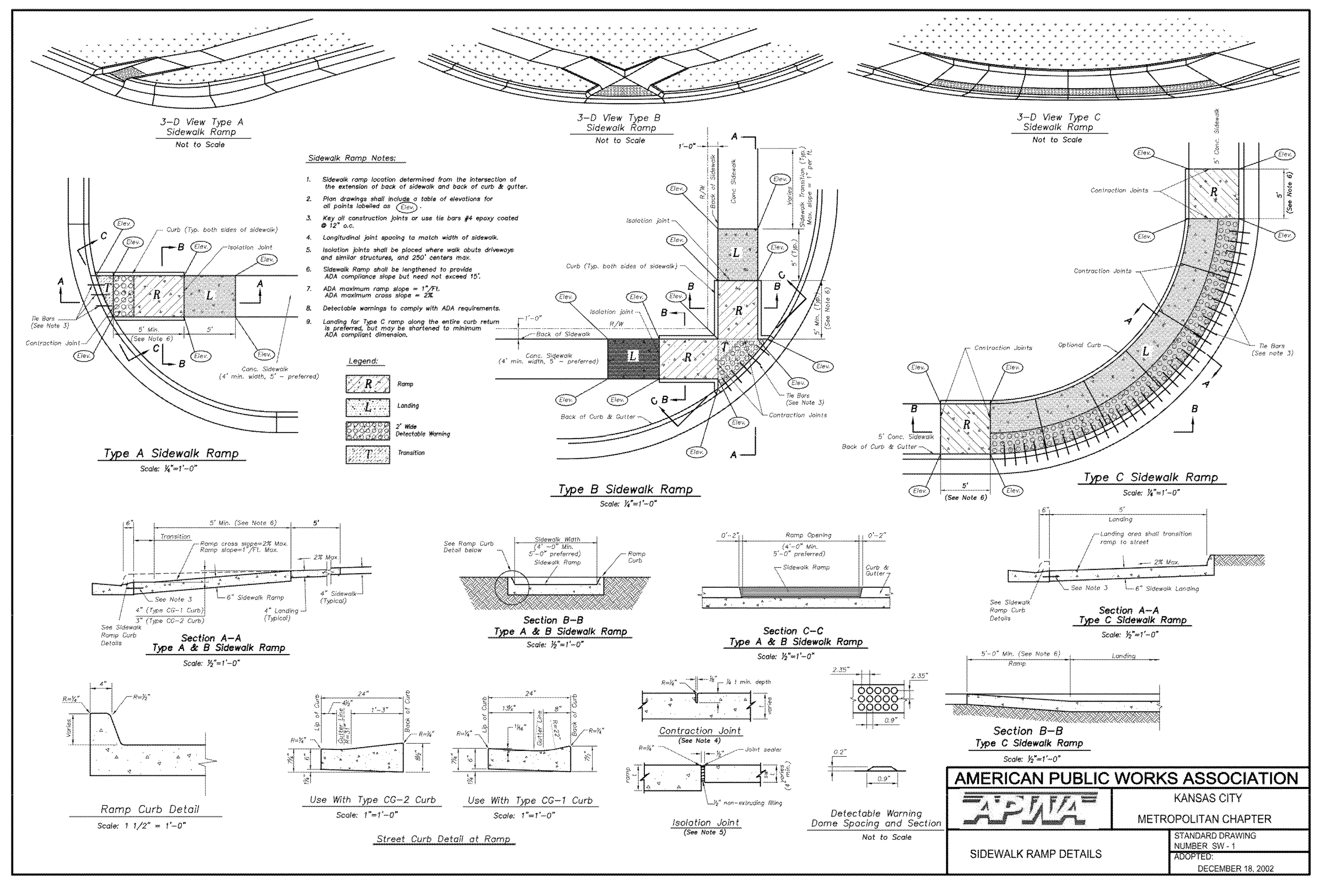
BELOW WATER SURFACE PIPE DISCHARGE AND BOLT TIE DETAIL

NOT TO SCALE



COMMERCIAL ENTRANCE

NOT TO SCALE



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STATE OF MISSOURI
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APPROVED: DEU

SHEET 46 OF 61

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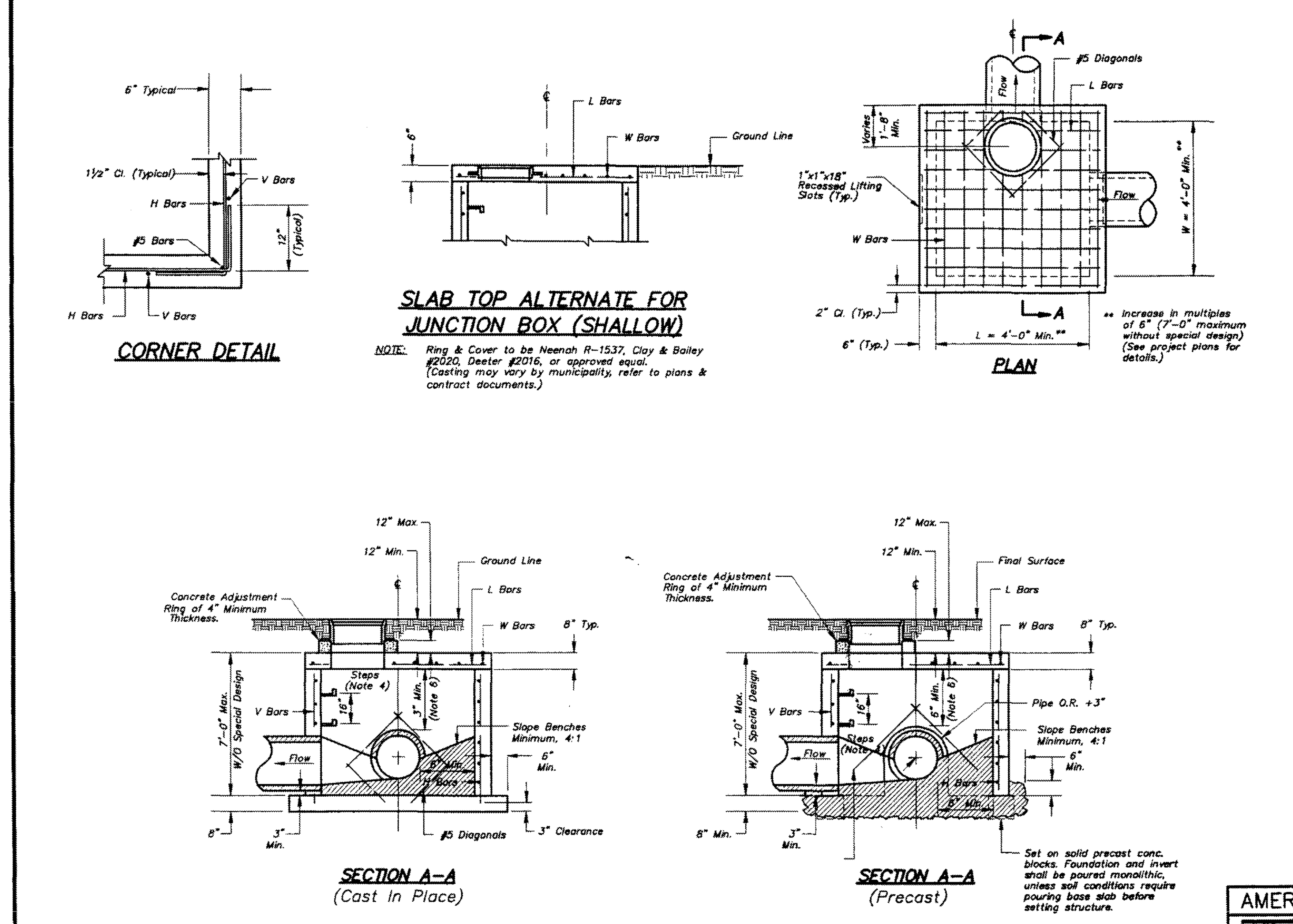


GENERAL NOTES:

1. Locate ring and cover over outlet.
2. All work and materials shall conform to Section 2600 APWA.
3. Use ¾" Chamfer strip or ½" R edger tool on all exposed concrete corners.
4. Steps required at 16" O.C. when depth from top of casting to invert exceeds 4'.
5. Boxouts will not be allowed to project through the Corners of the structure and the minimum distance between boxouts is 6" with 1 corner bar.
6. The minimum reinforcing shall be 1 H–Bar over a cast–in place pipe and 2 H–Bars over a precast boxout.
7. Limit opening height to 6" with No. 5 galvanized bars extending to corner rebars.
8. Show field inlet orientation on plans plus number and size of openings locating point at center of structure.
9. O.R. = one half outside pipe diameter (O.D.).
10. Reinforcing of covers in streets require special design.
11. Ring & Cover to be Neenah R–1736, Clay & Bailey #2008, Deeter #1315, or approved equal. (Casting may vary by municipality, refer to plans & contract documents.)

REINFORCING

BARS	BAR SIZE	SPACING (IN.)
H	4	12
V	4	12
L	5	6
W	5	6

AMERICAN PUBLIC WORKS ASSOCIATION
APWA
KANSAS CITY METROPOLITAN CHAPTER
JUNCTION BOX DETAILS
STANDARD DRAWING NUMBER JB – 1
ADOPTED: APRIL 17, 1996

Non–Setback Curb Inlet Notes

General

1. All storm sewer structures shall be pre–cast or poured in place. If pre–cast structures are used for publicly financed, maintained or administered construction, the tops shall be poured in place and the wall steel shall be left exposed to a height 2" below the finish top elevation, or as directed by the City Engineer.
2. Do not scale these drawings for dimensions or clearances. Any questions regarding dimensions shall be brought to the attention of the City Engineer prior to construction.
3. The first dimension listed in the construction notes is the "L" dimension. The second dimension is the "W" dimension. The concrete thickness and reinforcement shown is for boxes with ("L"+"H") and ("W"+"H") less then or equal to 20. For boxes with either of these calculations greater than 20, a special design is required.

Concrete

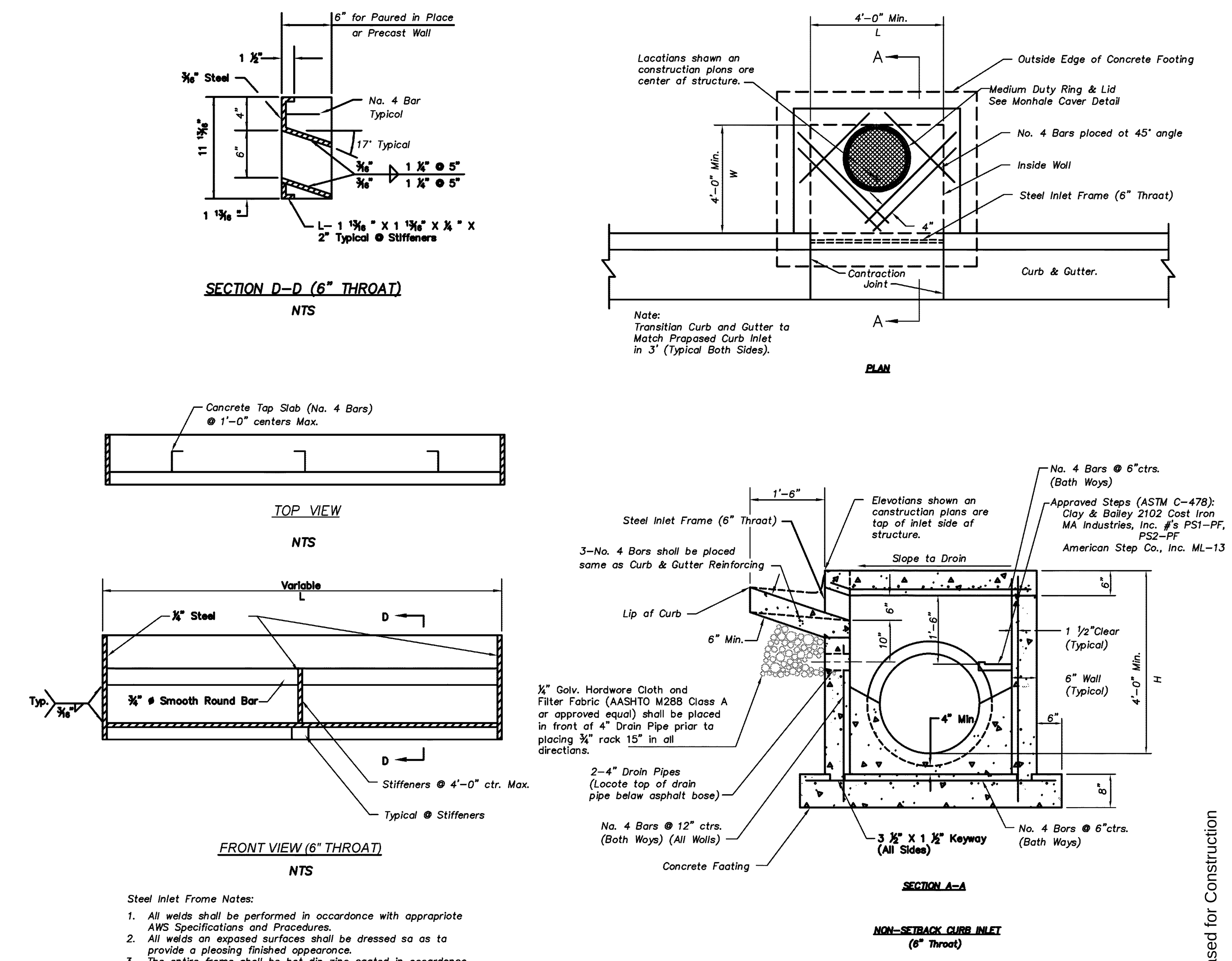
4. Concrete used in this work shall be KCMMB4K, as approved by the Kansas City Metropolitan Materials Board.
5. Concrete construction shall meet the applicable requirements of Standard Specifications for State Road and Bridge Construction, Kansas Department of Transportation.
6. Inlet floors shall be shaped with non–reinforced concrete inverts to provide smooth flow.
7. Bevel all exposed edges with ¾" triangular molding.

Reinforcing Steel

8. Reinforcing steel shall be new billet, minimum Grade 40 as per ASTM A615, and shall be bent cold.
9. All dimensions relative to reinforcing steel are to centerline of bars. 2" clearance shall be provided throughout unless noted otherwise. Tolerance of +/– ⅛" shall be permitted.
10. All lap splices not shown shall be a minimum of 40 bar diameters in length.
11. All reinforcing steel shall be supported on fabricated steel bar supports @ 3'–0" maximum spacing.
12. All dowels shall be accurately placed and securely tied in place prior to placement of bottom slab concrete. Sticking of dowels into fresh or partially hardened concrete will not be acceptable.

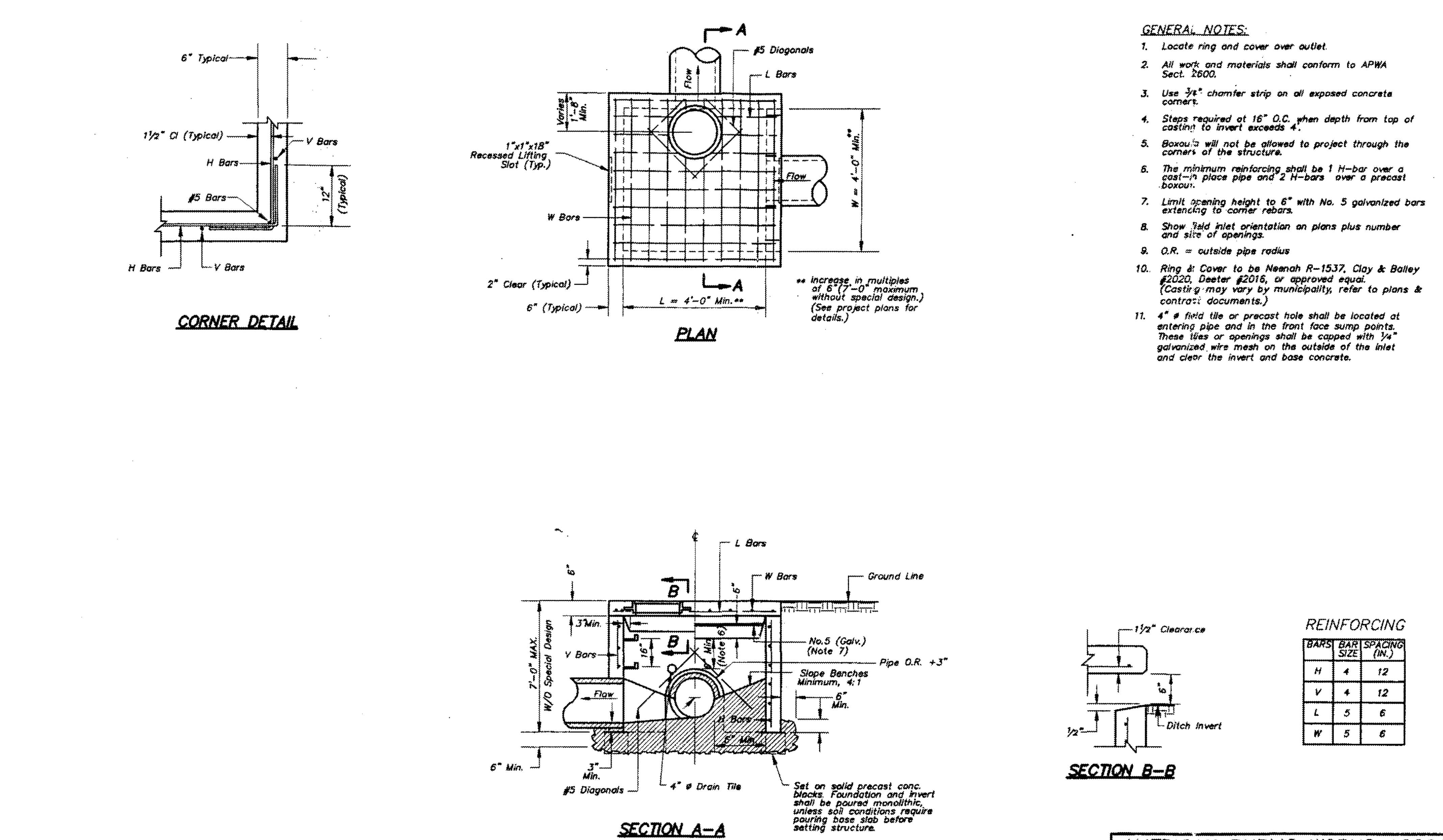
Construction

13. The bottom slab shall be at least 24 hours old before placing sidewall concrete. All sidewall forms shall remain in place a minimum of 24 hours after sidewalls are poured before removal, and after removal shall be immediately treated with membrane curing compound.
14. Pipe connections to pre–cast structures shall have a minimum of 6" of concrete around the entire pipe within 2' of the structure.



Steel Inlet Frame Notes:

1. All welds shall be performed in accordance with appropriate AWS Specifications and Procedures.
2. All welds on exposed surfaces shall be dressed so as to provide a pleasing finished appearance.
3. The entire frame shall be hot dip zinc coated in accordance with ASTM A–123.



GENERAL NOTES:

1. Locate ring and cover over outlet.
2. All work and materials shall conform to APWA Sect. 2600.
3. Use ¾" chamfer strip on all exposed concrete corners.
4. Steps required at 16" O.C. when depth from top of casting to invert exceeds 4'.
5. Boxouts will not be allowed to project through the corners of the structure.
6. The minimum reinforcing shall be 1 H–bar over a cast–in place pipe and 2 H–bars over a precast boxout.
7. Limit opening height to 6" with No. 5 galvanized bars extending to corner rebars.
8. Show field inlet orientation on plans plus number and size of openings.
9. O.R. = outside pipe radius
10. Ring & Cover to be Neenah R–1537, Clay & Bailey #2020, Deeter #2016, or approved equal. (Casting may vary by municipality, refer to plans & contract documents.)
11. 4" ø field tile or precast hole shall be located at entering pipe and in the front face sump points. These tiles or openings shall be capped with ¼" galvanized wire mesh on the outside of the inlet and clear the invert and base concrete.

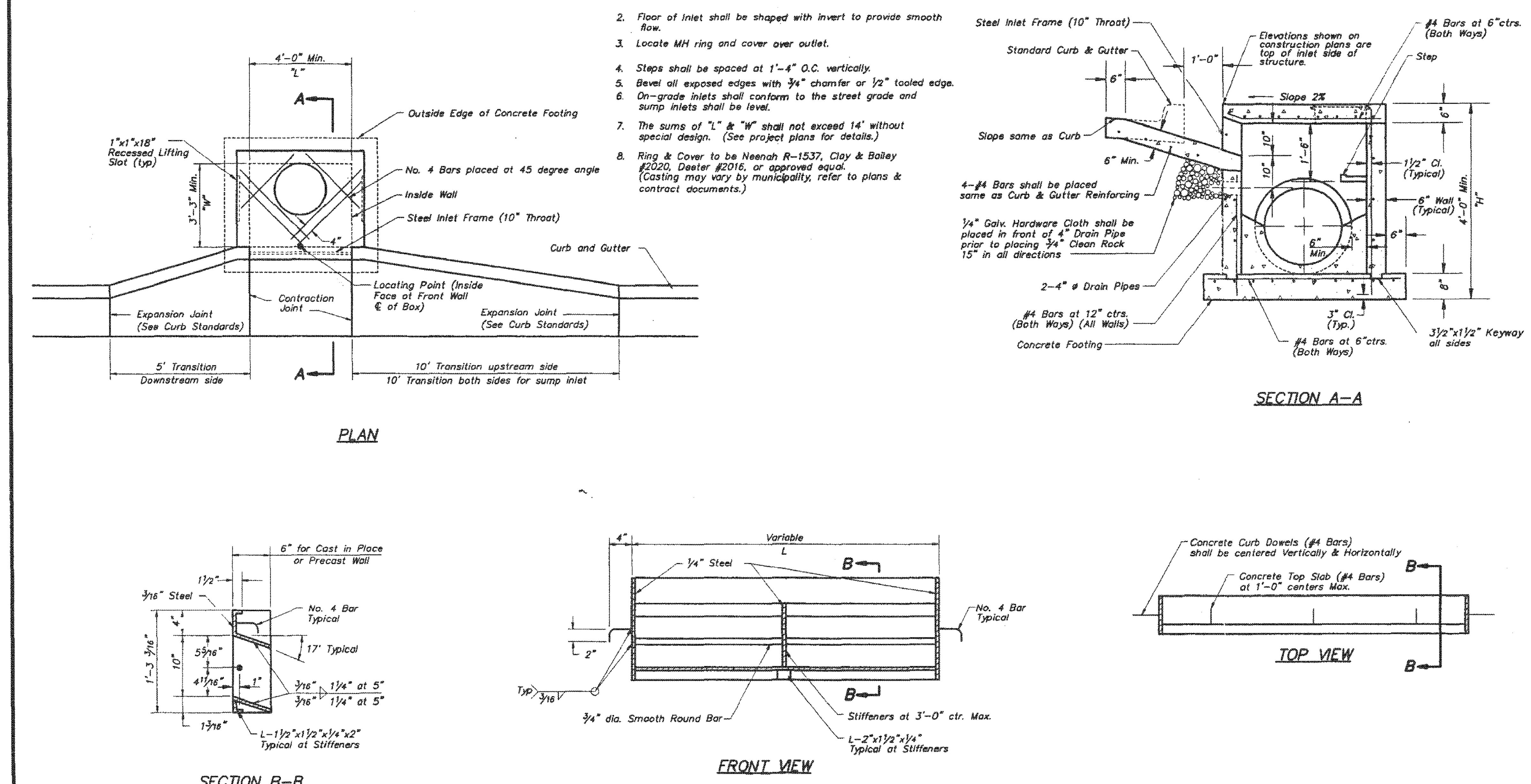
REINFORCING

BARS	BAR SIZE	SPACING (IN.)
H	4	12
V	4	12
L	5	6
W	5	6

AMERICAN PUBLIC WORKS ASSOCIATION
APWA
KANSAS CITY METROPOLITAN CHAPTER
FIELD INLET DETAILS
STANDARD DRAWING NUMBER FI – 1
ADOPTED: APRIL 17, 1996

GENERAL NOTES:

1. The first dimension listed in the Construction Notes is the "L" dimension. The second dimension is the "W" dimension. ℄'s listed on the project plans are listed at the inside face of the wall.
2. Floor of inlet shall be shaped with invert to provide smooth flow.
3. Locate MH ring and cover over outlet.
4. Steps shall be spaced at 1'–4" O.C. vertically.
5. Bevel all exposed edges with ¾" chamfer or ½" tooled edge.
6. On–grade inlets shall conform to the street grade and sump inlets shall be level.
7. The sums of "L" & "W" shall not exceed 14' without special design. (See project plans for details.)
8. Ring & Cover to be Neenah R–1537, Clay & Bailey #2020, Deeter #2016, or approved equal. (Casting may vary by municipality, refer to plans & contract documents.)



Notes:

1. All welds shall be preformed in accordance with appropriate AWS Specifications & Procedures.
2. All welds on exposed surfaces shall be dressed so as to provide a pleasing finished appearance.
3. The entire frame shall be painted a single coat of CHEM–PRIME #37–77 primer (Red) or equal.

AMERICAN PUBLIC WORKS ASSOCIATION
APWA
KANSAS CITY METROPOLITAN CHAPTER
CURB INLET – TYPE 2 DETAILS
STANDARD DRAWING NUMBER CI – 2
ADOPTED: APRIL 17, 1996

Released for Construction

STATE OF MISSOURI
DOUGLAS EUGENE UBBEN, JR.
NUMBER PE-2011010998
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LAND SURVEYING–2007001128
ENGINEERING–2007005058

SHEET 47 OF 61

Z:\P\150376\dwg\Final Development\Details.dwg Layout: STORM Sep 14, 2017 – 12:32pm Aaron Norris

Back Flow Preventer Notes

General

1. Structures shall be pre-cast or poured in place.
2. Pre-cast shop drawings are to be approved by the Engineer
3. Do not scale these drawings for dimensions or clearances. Any questions regarding dimensions shall be brought to the attention of the Engineer prior to construction.

Concrete

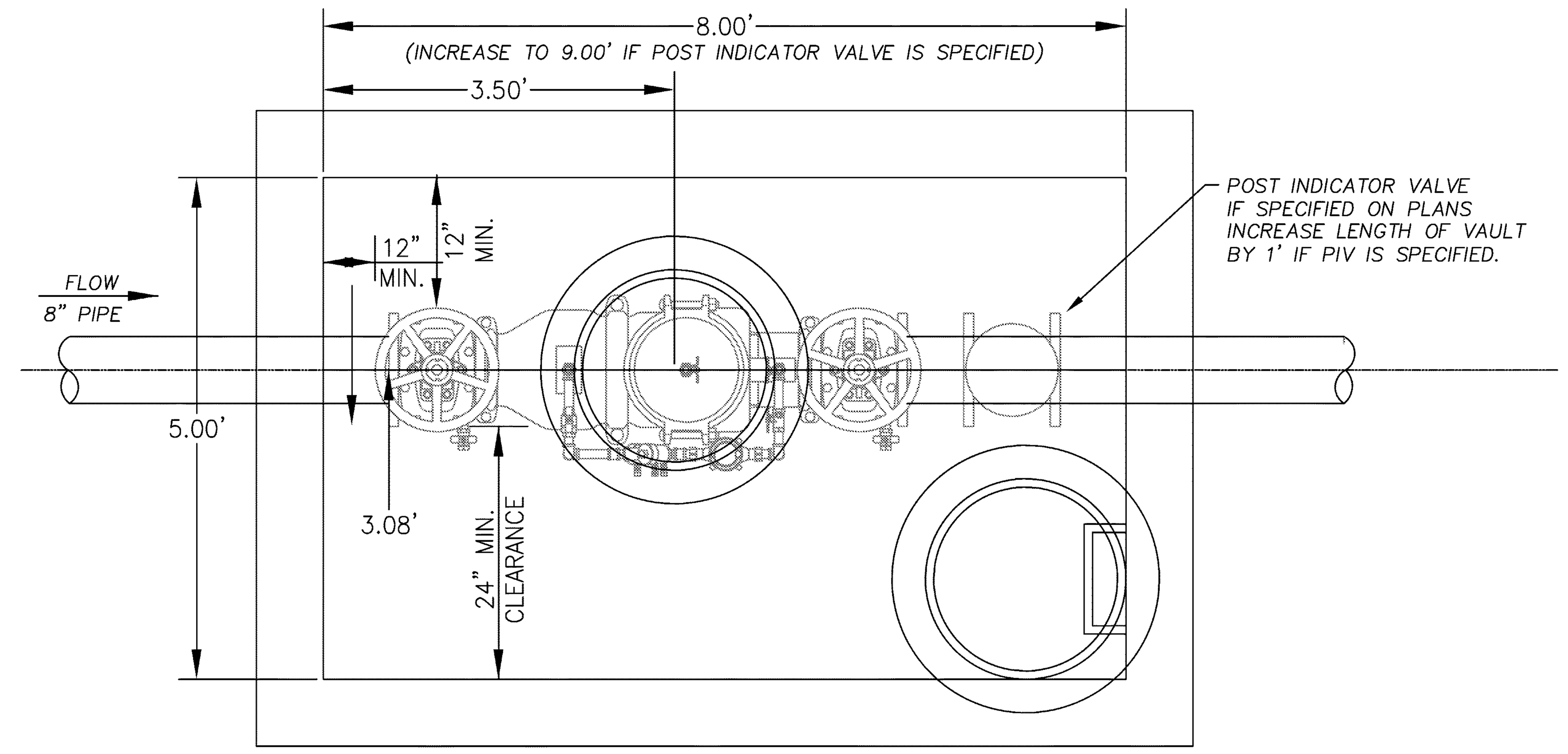
4. Concrete used in this work shall be KCMMB4K.
5. Concrete construction shall meet the applicable requirements of Standard Specifications for State Road and Bridge Construction, Kansas Department of Transportation, latest edition.
6. Bevel all exposed edges with ¾" triangular molding.

Reinforcing Steel

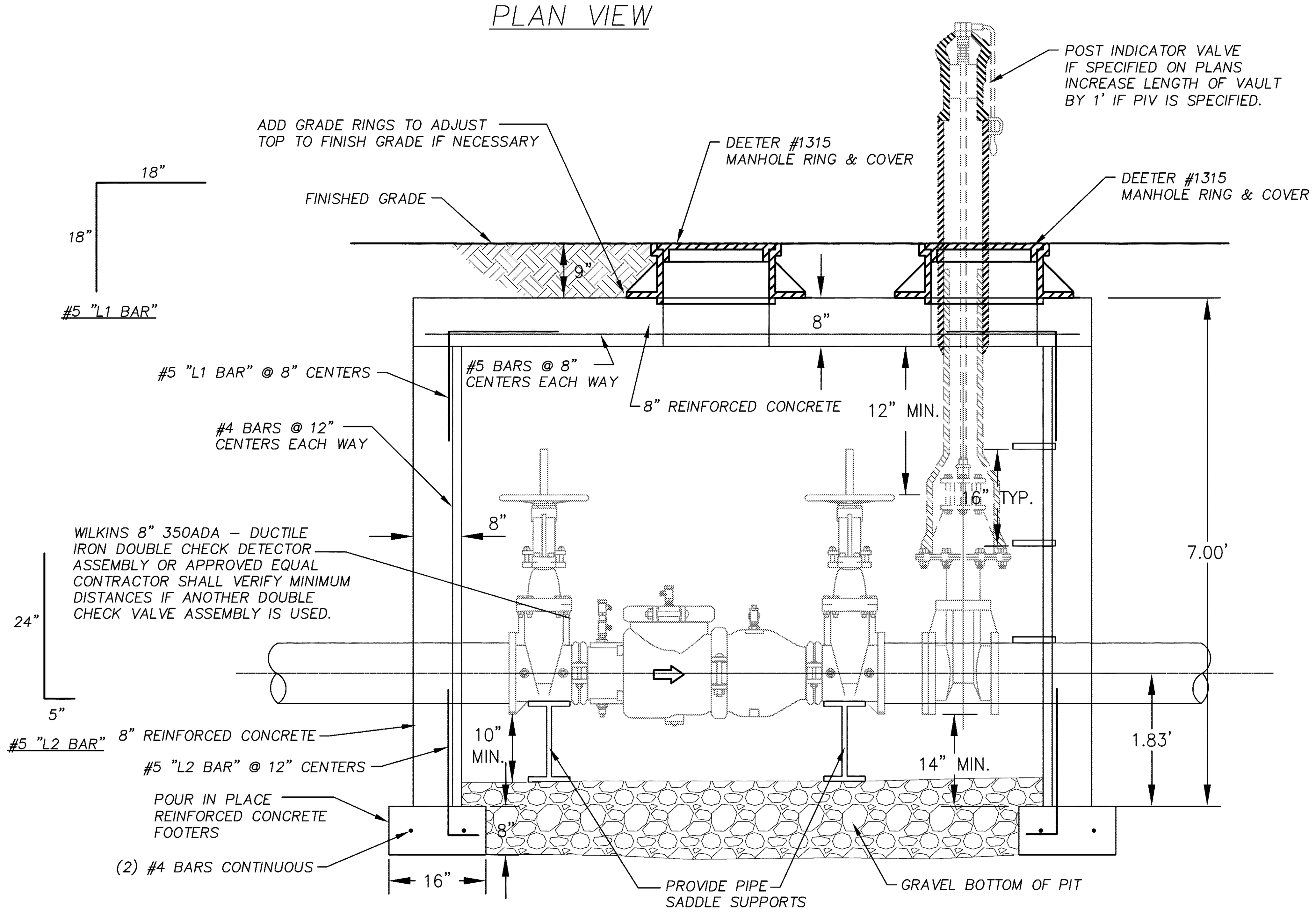
7. Reinforcing steel shall be new billet, minimum Grade 60 as per ASTM A615M, and shall be bent cold.
8. All dimensions relative to reinforcing steel are to centerline of bars. 2" clearance shall be provided throughout unless noted otherwise. Tolerance of +/- ⅛" shall be permitted.
9. All lap splices not shown shall be a minimum of 40 bar diameters in length.
10. All reinforcing steel shall be supported on fabricated steel bar supports @ 3'-0" maximum spacing.
11. All dowels shall be accurately placed and securely tied in place prior to placement of bottom slab concrete. Sticking of dowels into fresh or partially hardened concrete will not be acceptable.

Construction

12. The bottom footing shall be at least 24 hours old before placing sidewall concrete. All sidewall forms shall remain in place a minimum of 24 hours after sidewalls are poured before removal, and after removal shall be immediately treated with membrane curing compound.

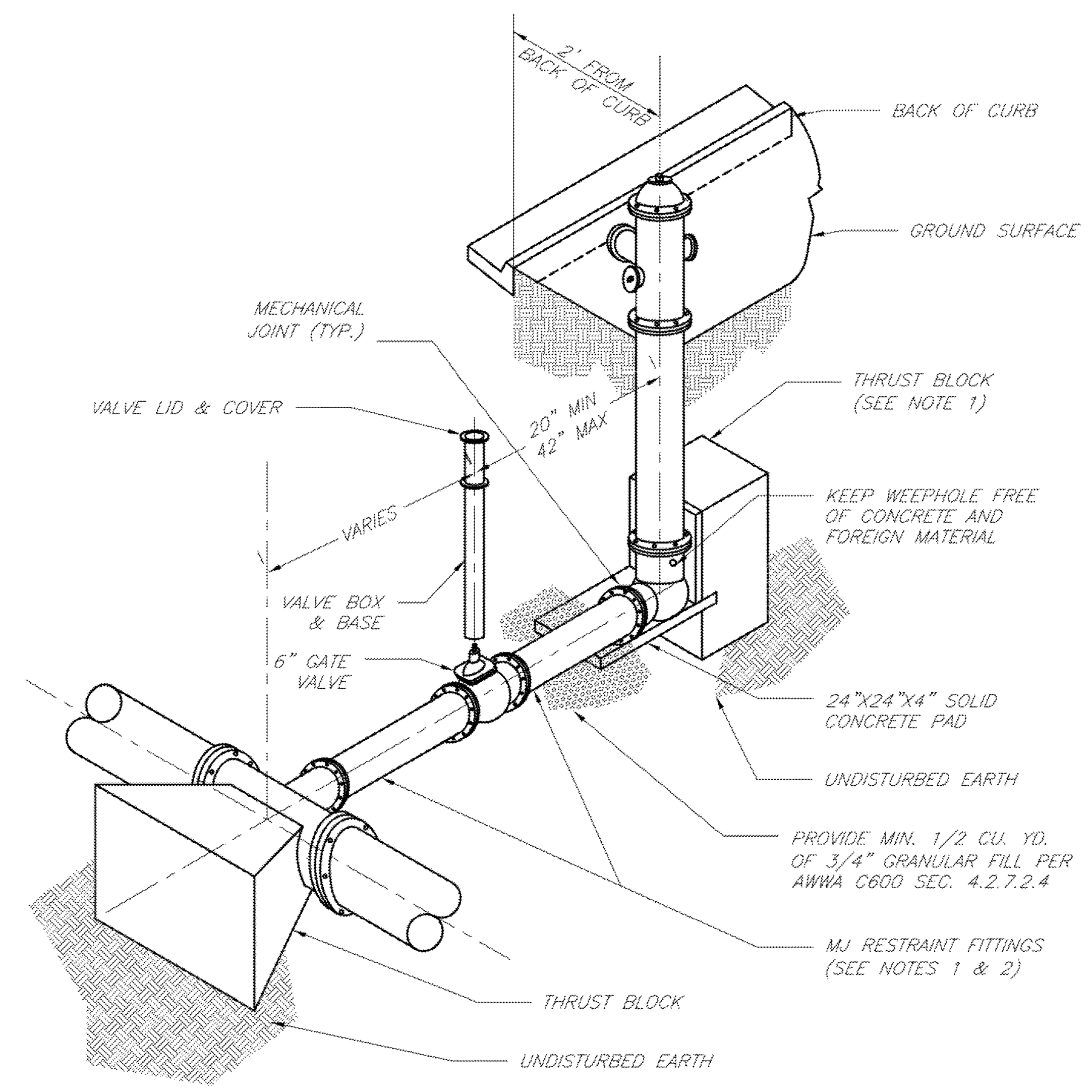


PLAN VIEW



SECTION VIEW

BACKFLOW PREVENTOR 8" FIRE LINE



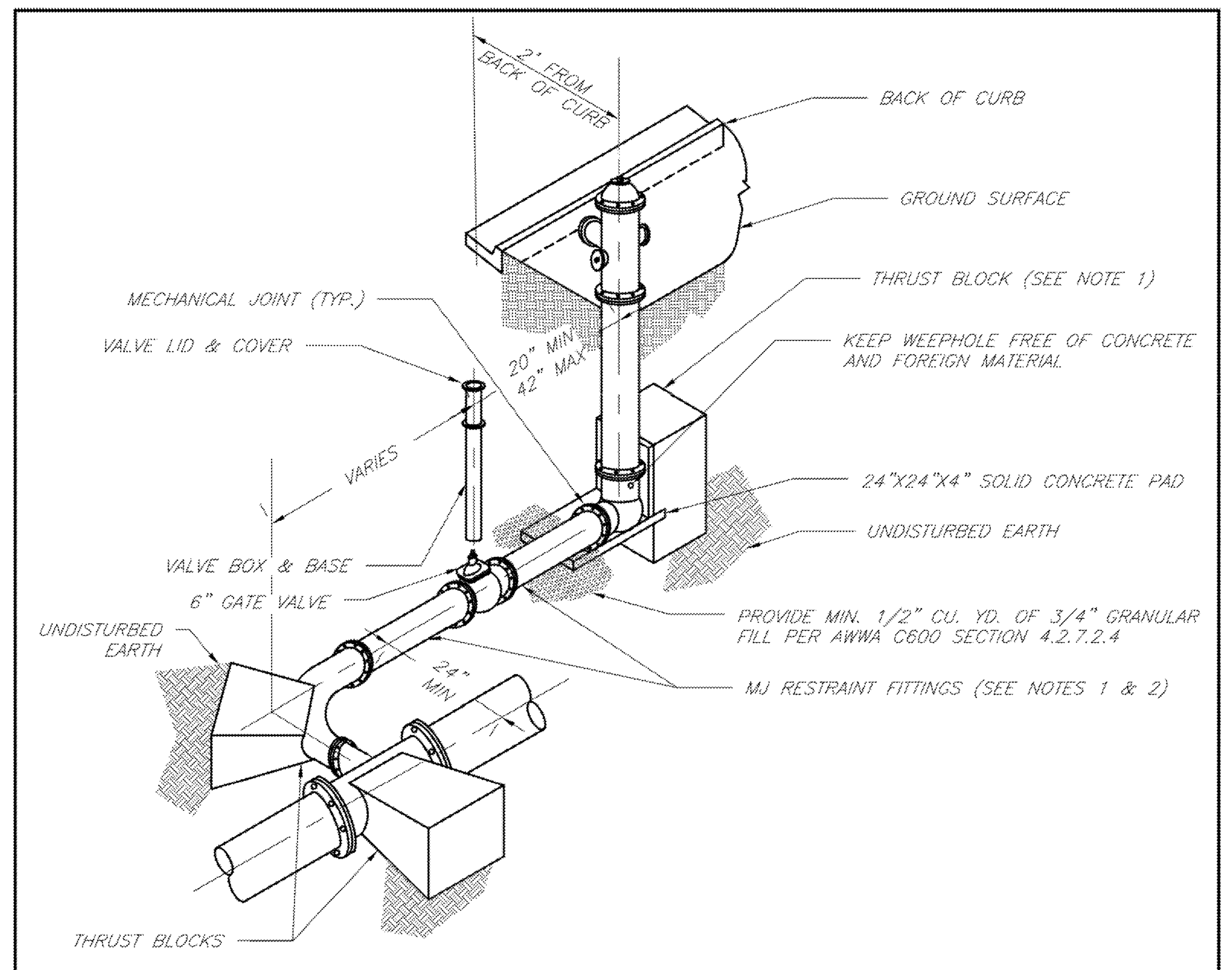
NOTES:

1. WHEN RETAINER GLANDS ARE USED IN LIEU OF MECHANICAL JOINT (MJ) RESTRAINT FITTINGS, HORIZONTAL THRUST BLOCKS ARE REQUIRED.
2. GATE VALVE MAY BE BOLTED DIRECTLY TO MJ RESTRAINT TEE.
3. SEE APPROVED PRODUCTS LIST FOR WATER UTILITIES FOR FIRE HYDRANT, VALVES, VALVE BOX LID, AND COVER.
4. BOTTOM HYDRANT FLANGE SHALL BE 2" TO 6" ABOVE FINISHED GRADE.
5. FOR STREETS WITHOUT CURBS FIRE HYDRANTS SHALL BE PLACED WITHIN 1 FOOT OF THE R/W LINE, BUT NOT MORE THAN 10' FROM EDGE OF PAVEMENT. FIRE HYDRANT SHALL NOT BE PLACED IN BOTTOM OF DITCH.
6. HYDRANT SHALL BE ROTATED AS DIRECTED BY INSPECTOR.

LEE'S SUMMIT
MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

HYDRANT INSTALLATION – STRAIGHT SET

Date: 02/13
Drawn By: JN
Checked By: DL
FILE: WAT-7
Rev: 1/14
Rev:



NOTES:

1. WHEN RETAINER GLANDS ARE USED IN LIEU OF MECHANICAL JOINT (MJ) RESTRAINT FITTINGS, HORIZONTAL THRUST BLOCKS ARE REQUIRED.
2. GATE VALVE MAY BE BOLTED DIRECTLY TO MJ RESTRAINT TEE.
3. SEE APPROVED PRODUCTS LIST FOR WATER UTILITIES FOR FIRE HYDRANT, VALVES, VALVE BOX LID, AND COVER.
4. BOTTOM HYDRANT FLANGE SHALL BE 2" TO 6" ABOVE FINISHED GRADE.
5. FOR STREETS WITHOUT CURBS FIRE HYDRANTS SHALL BE PLACED WITHIN 1 FOOT OF THE R/W LINE, BUT NOT MORE THAN 10' FROM EDGE OF PAVEMENT. FIRE HYDRANT SHALL NOT BE PLACED IN BOTTOM OF DITCH.
6. HYDRANT SHALL BE ROTATED AS DIRECTED BY INSPECTOR.

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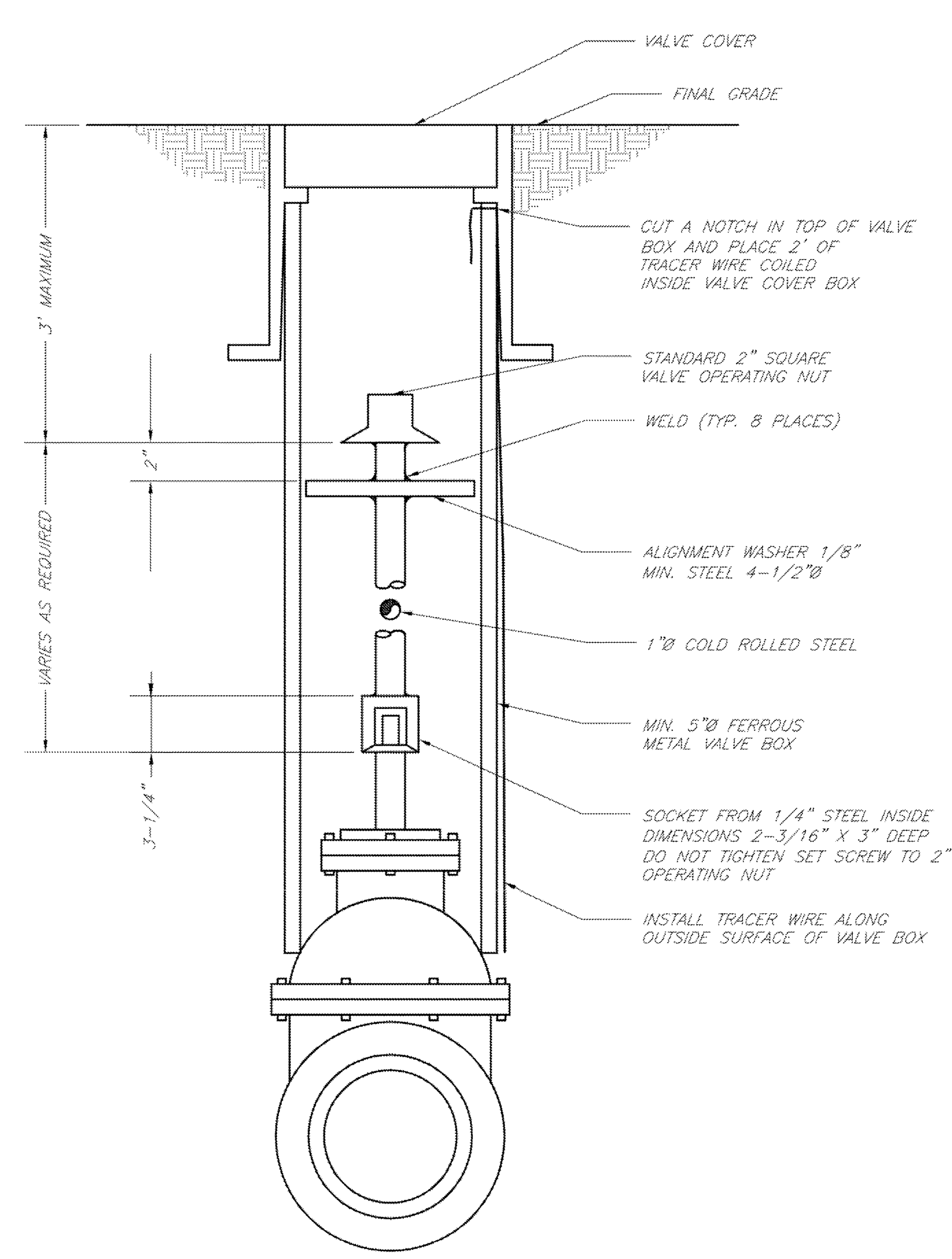
HYDRANT WITH 90 DEGREE BEND

Date: 02/13
Drawn By: JN
Checked By: DL
FILE: WAT-8
Rev: 1/14
Rev:



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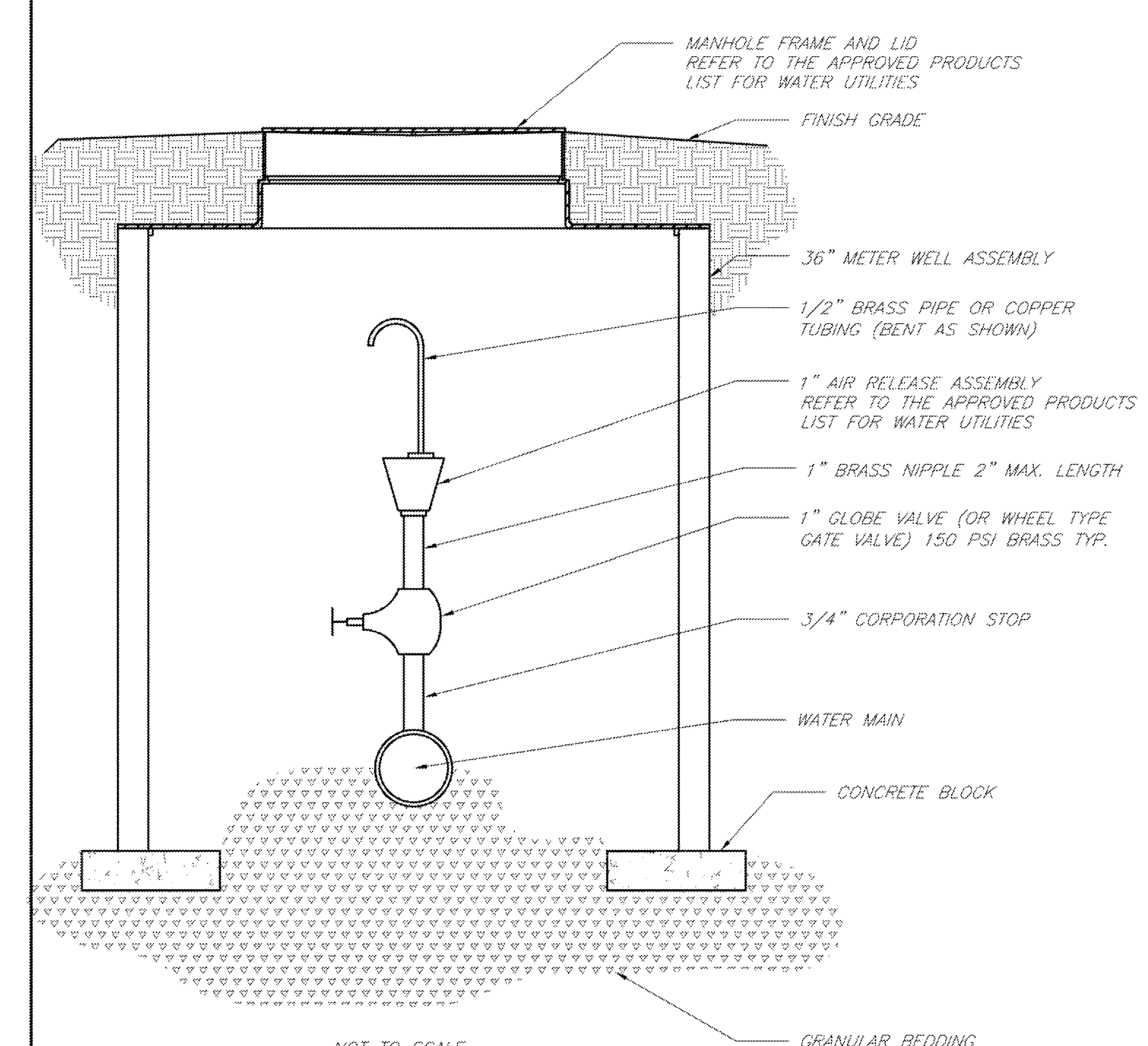
VALVE STEM EXTENSION AND VALVE BOX

Date: 02/13
Drawn By: JN
Checked By: DL
FILE: WAT-9
Rev: 1/14
Rev:



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AIR RELEASE ASSEMBLY

Date: 02/13
Drawn By: JN
Checked By: DL
FILE: WAT-10
Rev: 1/14
Rev:

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STATE OF MISSOURI
DOUGLAS EUGENE UBBEN, JR.
NUMBER PE-2011010998
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STANDARD DETAILS
MERIDIAN AT VIEW HIGH
LEE'S SUMMIT, MISSOURI
SITE DEVELOPMENT PLANS

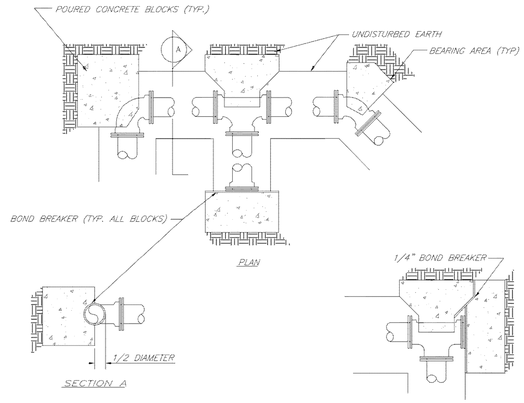
No.	Date	Revisions:	By	App.

PROJECT NO. 150376
DATE: 6-27-17
DRAWN: JMO
DESIGNED: DLM
APPROVED: DEU
CERTIFICATE OF AUTHORIZATION
MISSOURI LAND SURVEYING–2007000128
ENGINEERING–2007005058

REQUIRED CONCRETE BEARING AREA (SQUARE FEET – SF)

NOM. DIA. (INCHES)	180 TEE, PLUG	90 BEND	45 BEND	22.5 BEND	11.25 BEND
6	4.7	6.7	4.0	4.0	4.0
8	8.4	11.8	6.4	4.0	4.0
10	13.1	18.5	10.0	5.1	4.0
12	18.8	26.7	14.4	7.4	4.0
14	25.7	36.3	19.6	10.0	5.0
16	33.5	47.4	25.6	13.1	6.6
18	42.4	REST. JT.	32.5	16.5	8.3
20	REST. JT.	REST. JT.	40.1	20.4	10.3
24	REST. JT.	REST. JT.	REST. JT.	29.4	14.8

NOTES:
1. ALL BENDS WITHOUT RESTRAINED JOINTS SHALL HAVE CONCRETE THRUST BLOCKS INSTALLED FOR RESTRAINT.
2. MEGA LUGS MAY BE USED ONLY IN CONJUNCTION WITH CONCRETE THRUST BLOCKING.
3. BEARING AREA MUST BE AGAINST UNDISTURBED SOIL.
4. DO NOT COVER JOINTS OR BOLTS (WHERE APPLICABLE) WITH CONCRETE.



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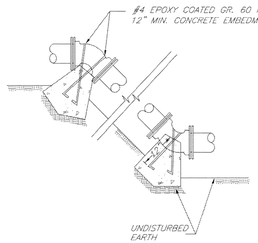
HORIZONTAL THRUST BLOCKS

Date: 02/13
Drawn By: JN
Checked By: DL
FILE: WAT-1
Rev: 1/14
Rev:

REQUIRED CONCRETE VOLUME (CUBIC FEET – CF)

NOM. DIA. (INCHES)	180 TEE, PLUG	90 BEND	45 BEND	22.5 BEND	11.25 BEND
6	50.5	71.4	38.6	19.7	9.9
8	89.8	126.9	68.7	35.0	17.6
10	140.2	198.3	107.3	54.7	27.5
12	202.0	REST. JT.	154.6	78.8	39.6
14	REST. JT.	REST. JT.	210.4	107.3	53.9
16	REST. JT.	REST. JT.	REST. JT.	140.1	70.4
18	REST. JT.	REST. JT.	REST. JT.	177.3	89.1
20	REST. JT.	REST. JT.	REST. JT.	REST. JT.	110.0
24	REST. JT.	REST. JT.	REST. JT.	REST. JT.	158.4

NOTES:
1. ALL BENDS WITHOUT RESTRAINED JOINTS SHALL HAVE CONCRETE THRUST BLOCKS INSTALLED FOR RESTRAINT.
2. MEGA LUGS MAY BE USED ONLY IN CONJUNCTION WITH CONCRETE THRUST BLOCKING.
3. BEARING MUST BE AGAINST UNDISTURBED SOIL.
4. DO NOT COVER JOINTS OR BOLTS (WHERE APPLICABLE) WITH CONCRETE.



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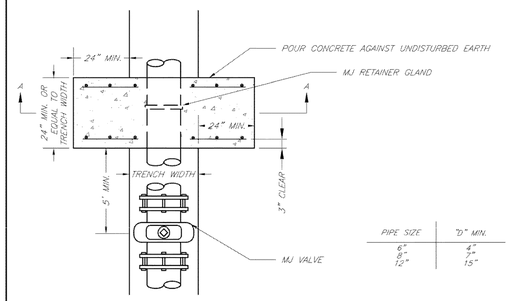
VERTICAL THRUST BLOCKS

Date: 02/13
Drawn By: JN
Checked By: DL
FILE: WAT-2
Rev: 1/14
Rev:



NOTE:
THIS DETAIL NOT TO BE USED FOR PIPE GREATER THAN 12"

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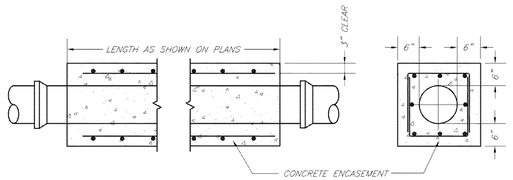
STRADDLE BLOCK

Date: 02/13
Drawn By: JN
Checked By: DL
FILE: WAT-3
Rev: 1/14
Rev:



NOTES:
1. INTERMEDIATE BELLS SHALL BE ENCASED.
2. REINFORCING STEEL SHALL BE #4 @ 12" O.C. EACH WAY WITH A MINIMUM REBAR LAP OF 12".
3. THIS DETAIL IS FOR PIPES 12" AND SMALLER.

LEE'S SUMMIT
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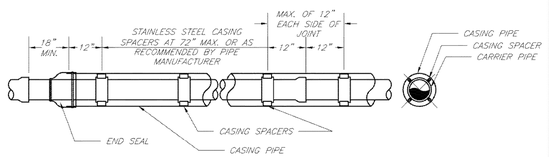
WATER PIPE ENCASEMENT

Date: 02/13
Drawn By: JN
Checked By: DL
FILE: WAT-4
Rev: 1/14
Rev:



NOT TO SCALE

NOTES:
1. REFER TO SPECIFICATION SECTION 3900 FOR ADDITIONAL INFORMATION.
2. LENGTH, DIAMETER, AND WALL THICKNESS TO BE SHOWN ON CONSTRUCTION PLANS.

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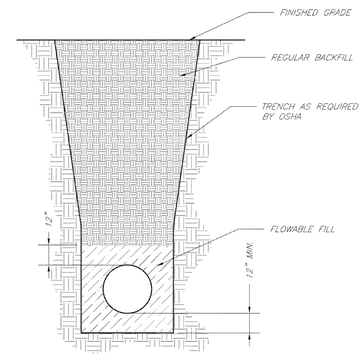
WATER CASING PIPE DETAIL

Date: 02/13
Drawn By: JN
Checked By: DL
FILE: WAT-5
Rev: 1/14
Rev:



NOT TO SCALE

NOTES:
1. FLOWABLE FILL SHALL MEET THE REQUIREMENTS OF THE CITY OF LEE'S SUMMIT DESIGN AND CONSTRUCTION MANUAL.
2. REGULAR BACKFILL ABOVE THE TRENCH CHECK SHALL BE FREE OF DEBRIS, ORGANIC MATTER, AND STONES > 6" IN ANY DIMENSION.
3. TOP OF FLOWABLE BACKFILL SHALL EXTEND 12" ABOVE THE TOP OF THE PIPE.
4. LENGTH OF TRENCH CHECK SHALL BE A MINIMUM OF 12".

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TRENCH CHECK

Date: 02/13
Drawn By: JN
Checked By: DL
FILE: WAT-6
Rev: 1/14
Rev:

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SITE DEVELOPMENT PLANS

Revisions:

No.	Date	By	App.

PROJECT NO. 150376
DATE: 6-27-17
DRAWN: JMO
DESIGNED: DLM
APPROVED: DEU

CERTIFICATE OF AUTHORIZATION
MISSOURI 2007000128
KANSAS E-2007000128

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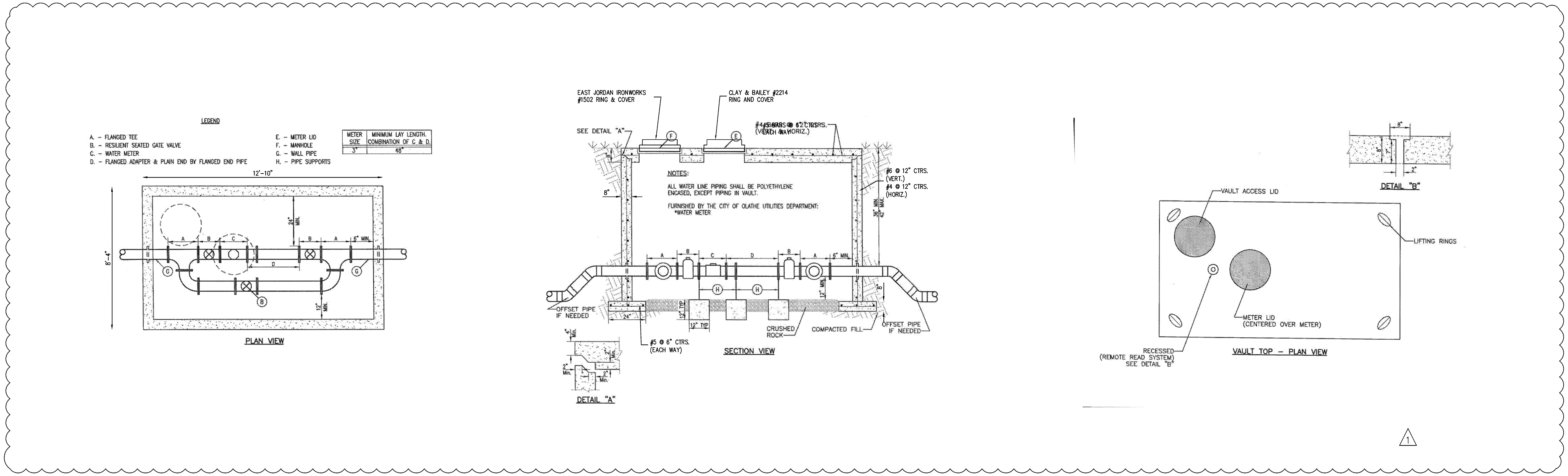
49
OF 61



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SITE DEVELOPMENT PLANS

No.	Date	Revisions:	By	App.
1	9/11/17	ADDED WATER VAULT DETAIL	ALN	DEU

PROJECT NO. 150376
DATE: 6-27-17
DRAWN: JMO
DESIGNED: DLM
APPROVED: DEU

CERTIFICATE OF AUTHORIZATION
MISSOURI
LAND SURVEYING-2007001128
ENGINEERING-2007005058

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