

# GENERAL REQUIREMENTS

- 1. ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH THE 2004 EDITION STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION," WASHINGTON STATE DEPARTMENT OF TRANSPORTATION; AND THE CITY OF ARLINGTON CONSTRUCTION STANDARDS AND SPECIFICATIONS. ADDITIONALLY ALL SITE WORK MUST COMPLY WITH THE
- 2. AN APPROVED COPY OF CONSTRUCTION PLANS MUST BE ON SITE WHENEVER CONSTRUCTION IS IN PROGRESS.
- 3. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN STREET USE AND ANY OTHER RELATED PERMITS PRIOR TO ANY CONSTRUCTION ACTIVITY IN THE CITY RIGHT—OF—WAY.
- 4. PRIOR TO ANY CONSTRUCTION ACTIVITY, THE CITY OF ARLINGTON PUBLIC WORKS DEPARTMENT (360)403-3500 MUST BE CONTACTED FOR A PRE-CONSTRUCTION MEETING.
- 5. ALL LOCATIONS OF EXISTING UTILITIES HAVE BEEN ESTABLISHED BY FIELD SURVEY OR OBTAINED FROM AVAILABLE RECORDS AND SHOULD THEREFORE BE CONSIDERED APPROXIMATE ONLY AND NOT NECESSARILY COMPLETE. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO INDEPENDENTLY VERIFY THE ACCURACY OF ALL UTILITY LOCATIONS, AND TO FURTHER DISCOVER AND AVOID ANY OTHER UTILITIES WHICH MAY BE AFFECTED BY HIS WORK. THE CONTRACTOR SHALL CONTACT THE UTILITIES UNDERGROUND LOCATION SERVICE (1-800-424-5555) PRIOR TO CONSTRUCTION. THE OWNER OR HIS REPRESENTATIVE SHALL BE IMMEDIATELY CONTACTED IF A UTILITY CONFLICT EXISTS. A FEE OF \$35.00 WILL BE CHARGED FOR EACH RE-LOCATE REQUEST.
- 6. ALL MATERIALS SHALL BE NEW AND UNDAMAGED, OF AN APPROVED BRAND, WITH REPLACEMENT AND REPAIR PARTS READILY AVAILABLE FROM THE GENERAL ARLINGTON/EVERETT/SEATTLE AREA.
- 7. ALL MATERIALS SHALL BE APPROVED BY THE CITY PRIOR TO INSTALLATION.
- 8. ALL PUBLIC WATER, SEWER, AND STORM DRAINAGE PIPING NOT IN PUBLIC RIGHT-OF-WAY REQUIRES 10 FOOT WIDE PERMANENT EASEMENTS GRANTED TO THE CITY.
- 9. AS-BUILT PLANS SHALL BE SUBMITTED FOR ALL DEVELOPMENTS, SHORT PLATS, SUBDIVISIONS, AND ANY OTHER CONSTRUCTION RELATING TO THE CITY OF ARLINGTON STREETS, DRAINAGE, AND UTILITY SYSTEMS. A REGISTERED LAND SURVEYOR OR PROFESSIONAL ENGINEER SHALL VERIFY THAT INSTALLATION OF ROADS AND UTILITIES WAS IN ACCORDANCE WITH THE APPROVED CONSTRUCTION PLANS AND VARIANCE TO THE PLAN AND PROFILE SHEETS SHALL BE SO NOTED ON THE PLANS AND THE WORD "AS-BUILT" WITH THE CURRENT DATE SHALL BE WRITTEN OR STAMPED ON THE PLANS. AN ELECTRONIC COPY SHALL ALSO BE SUBMITTED ON A CD.
- 10. AT THE PUBLIC WORKS DIRECTOR DISCRETION, PRIOR TO COMMENCING ANY CONSTRUCTION. PHOTOGRAPHS DEPICTING PRE—EXISTING ROADWAY CONDITIONS WILL BE REQUIRED EVERY 50 FEET IN PAVED AREAS OR ANY OTHER LOCATION AS SPECIFIED BY THE PUBLIC WORKS DIRECTOR. A DIGITAL CAMERA SHALL BE USED AND COLOR PICTURES PROVIDED AS 5" X 7" PRINTS, CONTAINED IN ALBUMS, CATALOGUED AND CROSS—REFERENCED, TOGETHER WITH A COMPUTER DISC CONTAINING THE PHOTO IMAGES.
- 11. SIGNING, FLAGGING AND TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE MOST CURRENT EDITION OF THESE STANDARDS, (SEE STANDARD TRAFFIC CONTROL PLANS IN SECTION 4) THE WSDOT TRAFFIC MANUAL, AND THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
- 12. ONE LANE OF TRAFFIC SHALL REMAIN OPEN AT ALL TIMES, ATTENDED BY FLAGGERS AND APPROPRIATE CONSTRUCTION SIGNING PROVIDED. THE ROAD SHALL BE RESTORED TO TWO-WAY TRAFFIC AT THE END OF EACH WORKING DAY. APPLICATION FOR TOTAL ROAD CLOSURES MUST BE FILED WITH THE CITY PUBLIC WORKS DEPARTMENT AT LEAST 5 DAYS PRIOR TO THE ANTICIPATED CLOSURE.
- 13. EXISTING DRAINAGE DITCHES, CULVERTS, ETC., SHALL BE KEPT CLEAN AT ALL TIMES. TEMPORARY DIVERSION OF ANY DRAINAGE SYSTEM WILL NOT BE PERMITTED WITHOUT THE CONSENT OF THE PUBLIC WORKS DIRECTOR. ANY DRAINAGE CULVERT, CATCH BASIN, MANHOLE OR OTHER DRAINAGE STRUCTURE DISTURBED BY EXCAVATION SHALL BE REPLACED WITH NEW MATERIAL OR REPAIRED TO THE SATISFACTION OF THE PUBLIC WORKS DIRECTOR. TEMPORARY EROSION/SEDIMENTATION CONTROL MEASURES SHALL BE EMPLOYED TO PROTECT ADJACENT PROPERTY AND STORM DRAIN FACILITIES.
- 14. GRAVEL SHOULDERS DISTURBED BY EXCAVATION SHALL BE SHAPED TO CITY STANDARDS AND PROVIDED WITH A MINIMUM OF 2 INCHES COMPACTED CRUSHED SURFACING TOP COURSE GRAVEL.
- 15. IF IN THE OPINION OF THE CITY ENGINEER, WEATHER CONDITIONS
  DETERIORATE TO THE POINT WHERE THE TRAVELED ROADWAYS ARE UNSAFE
  FOR THE PUBLIC OR DETRIMENTAL TO THE RESTORATION OF THE ROADWAY,
  EXCAVATION SHALL CEASE IMMEDIATELY AND CLEANUP SHALL BE
  PROMPTLY ACCOMPLISHED.
- 16. ALL PIPE OR OTHER MATERIAL STORED ALONG CITY RIGHT-OF-WAY MUST BE PLACED AT A SAFE DISTANCE FROM THE TRAVELED ROADWAY IN SUCH A MANNER AS TO AVOID FALLING ONTO THE ROADWAY.
- 17. NO EXCESS OR UNSUITABLE MATERIAL SHALL BE WASTED ON CITY RIGHT-OF-WAY. ANY SUCH MATERIAL DUMPED ON PRIVATE PROPERTY MAY REQUIRE A GRADING PERMIT. VERIFICATION WITH CITY OF ARLINGTON COMMUNITY DEVELOPMENT DEPARTMENT IS REQUIRED.
- 18. STREET SURFACES SHALL BE CLEANED AT THE END OF EACH DAY'S OPERATION WITH A POWER BROOM OR OTHER APPROVED MEANS. NO OPEN CUT CROSSING OF CITY ROADS OR STREETS SHALL BE MADE WITHOUT THE PRIOR APPROVAL OF THE CITY ENGINEER.
- 19. MAXIMUM AMOUNT OF OPEN TRENCH ON STREETS SHALL BE 400 LINEAL FEET. AT THE END OF EACH DAY, ALL DITCHES MUST BE BACKFILLED OR COVERED WITH STEEL PLATES AND BARRICADED WITH FLASHING WARNING LIGHTS TO PREVENT PEOPLE OR ANIMALS FROM FALLING INTO THE TRENCH,
- 20. FINAL CLEANUP INCLUDING COMPLETE RESTORATION OR SHOULDERS, CLEANING OF DITCHES, CULVERTS AND CATCH BASINS, AND REMOVAL OF LOOSE MATERIAL FROM BACK SLOPES OF DITCHES SHALL NOT EXCEED 1500 LF. BEHIND EXCAVATING OPERATIONS AS REQUIRED BY THE CITY ENGINEER.
- 21. THE PERMITTEE WILL BE RESPONSIBLE TO COORDINATE WITH THE STATE DEPARTMENT OF NATURAL RESOURCES FOR ANY CONFLICT BETWEEN PERMIT WORK AND EXISTING MONUMENTATION.
- 22. TRENCH BACKFILL OF NEW UTILITIES SHALL BE COMPACT TO 95% RELATIVE COMPACTION UNDER PAVED AREAS AND 90% RELATIVE COMPACTION OF UNPAVED AREAS, PER COMPACTION TESTING AS SPECIFIED IN STANDARD SPECIFICATIONS.
- 23. STOCKPILES ARE TO BE LOCATED IN SAFE AREAS AND ADEQUATELY PROTECTED BY TEMPORARY SEEDING AND MULCHING. HYDRO-SEED PREFERRED.
- 24. IMMEDIATELY FOLLOWING FINISH GRADING, PERMANENT VEGETATION
  (CONSISTING OF RAPID, PERSISTENT AND LEGUME) WILL BE APPLIED.
  (MINIMUM 12# PER 1000 SQ. FT.). THE FOLLOWING MIX SHALL BE USED AND IS TO BE 98% PURE:
  10% COLONIAL BENTGRASS
  - 10% COLONIAL BENTGRASS
    40% PERENNIAL RYE
    40% CREEPING RED FESCUE
    10% WHITE DUTCH CLOVER
    HYDRO-SEED PREFERRED
- 25. IN ANY WORK AREA WHICH HAS BEEN STRIPPED OF VEGETATION AND WHERE NO FURTHER WORK IS ANTICIPATED FOR A PERIOD OF 30 DAYS OR MORE OR IF DETERMINED BY THE CITY ENGINEER TO HAVE THE POTENTIAL OF SEVERE EROSION OR SEDIMENTATION, DISTURBED AREAS MUST BE IMMEDIATELY STABILIZED BY MULCHING, HYDROSEEDING, OR OTHER APPROVED EROSION CONTROL MEASURE APPLICABLE TO THE TIME OF YEAR.

## GENERAL NOTES CONT.

- 26. A 10-FOOT HORIZONTAL SEPARATION MUST BE MAINTAINED BETWEEN ALL SANITARY SEWER LINES AND WATER LINES. A 5-FOOT MINIMUM HORIZONTAL SEPARATION SHALL BE MAINTAINED BETWEEN ALL WATER FACILITIES AND UNDERGROUND POWER AND TELEPHONE FACILITIES, UNLESS OTHERWISE APPROVED.
- 27. THE DEVELOPER/CONTRACTOR IS RESPONSIBLE FOR WATER QUALITY.
- 28. NON-COMPLIANCE WITH THE EROSION CONTROL REQUIREMENTS, WATER QUALITY REQUIREMENTS AND CLEARING LIMITS VIOLATIONS MAY RESULT IN REVOCATION OF PROJECT PERMITS, PLAN APPROVAL AND BOND FORECLOSURES.
- 29. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING AND/OR REPAIRING ASPHALT AND GRAVEL SURFACES DISTURBED AS A RESULT OF THIS CONSTRUCTION UNTIL THEY ARE ACCEPTED BY THE CITY.
- 30. ALL PIPE SHALL BE PLACED ON STABLE EARTH, OR IF IN THE OPINION OF THE CITY ENGINEER THE EXISTING FOUNDATION IS UNSATISFACTORY, THEN IT SHALL BE EXCAVATED BELOW GRADE AND BACKFILLED TO GRADE WITH SAND—GRAVEL, CRUSHED ROCK OR OTHER SUITABLE MATERIAL. NEVER INSTALL PIPE ON SOD, FROZEN EARTH, LARGE BOULDERS OR ROCK.
- 31. THE BACKFILL SHALL BE PLACED EQUALLY ON BOTH SIDES OF THE PIPE OR PIPE—ARCH IN LAYERS WITH A LOOSE AVERAGE DEPTH OF 6", MAXIMUM DEPTH 8", THOROUGHLY TAMPING EACH LAYER. THESE COMPACTED LAYERS MUST EXTEND FOR ONE DIAMETER ON EACH SIDE OF THE PIPE OR TO THE SIDE OF THE TRENCH. MATERIALS TO COMPLETE THE FILL OVER PIPE SHALL BE THE SAME AS DESCRIBED. (REFER TO WSDOT STD. SPEC).
- 32. ALL FILLS SHALL BE COMPACTED TO A MINIMUM OF 95% OF MAXIMUM DENSITY BY MODIFIED PROCTOR TEST.
- 33. EXISTING ASPHALT SURFACES DAMAGED AS A RESULT OF SITE WORK, SHALL BE SAW CUT AT LEAST 6" BEYOND EDGE AT DAMAGE & REPAIRED TO A CONDITION MATCHING OR EXCEEDING THE PRE-EXISTING CONDITION.
- 34. BECAUSE THE SITE IS LOCATED IN THE AIRPORT WITHIN THE VICINITY OF BOTH OF THE RUNWAYS THE CONTRACTOR IS REQUIRED AT THE TIME OF CONSTRUCTION TO SUPPLY MARKINGS FOR ANY TALL CONSTRUCTION EQUIPMENT SUCH AS CRANES THAT MAY BE USED. THE MARKINGS SUPPLIED SHOULD BE FLAGS, MINIMUM SIZE 3' X 3' IN DIMENSION WITH AN INTERNATIONAL ORANGE AND WHITE CHECKERBOARD PATTERN UTILIZING 1' X 1' SQUARES. THE FLAGS NEED TO BE PLACED ON THE HIGHEST PART OF THE EQUIPMENT TO SERVE AS A VISUAL WARNING TO PILOTS. ANY EQUIPMENT SUCH AS CRANES NEEDS TO BE LOWERED AT NIGHT.

## GRADING AND/OR BUILDING PERMIT NOTES

- 1. PRIOR TO ISSUANCE OF A BUILDING PERMIT AND IN CONJUNCTION WITH A BUILDING PERMIT APPLICATION, THE FINAL SITE PLAN SHALL COMPLY WITH ALL REQUIREMENTS OF THE LAND USE CODE, INTERNATIONAL BUILDING CODE, INTERNATIONAL FIRE CODE, AND THE PUBLIC WORKS CONSTRUCTION STANDARDS AND SPECIFICATIONS.
- 2. PRIOR TO ISSUANCE OF A GRADING OR BUILDING PERMIT, THE DEVELOPER SHALL SUBMIT PAYMENT OF THE ESTIMATED CITY OF ARLINGTON IMPACT FEES (BASED ON 62,400 SQ.FT. OF AVIATION RELATED USES). ACTUAL IMPACT FEES DUE ARE THOSE AS SET BY RESOLUTION AT THE TIME THE FEES ARE PAID.
- 3. PRIOR TO ISSUANCE OF A BUILDING PERMIT, THE DEVELOPER SHALL PAY TRANSPORTATION IMPACT FEES TO WSDOT AND SNOHOMISH COUNTY FOR THIS PROJECT'S PROPORTIONATE SHARE OF AVERAGE DAILY TRIPS. THE DEVELOPER SHALL SUBMIT TO THE CITY OF ARLINGTON PROOF OF PAYMENT OF THE REQUIRED FEES.
- 4. AS PART OF THE DEVELOPMENT, CONDUIT FOR FUTURE UTILITIES (E.G. GAS, ELECTRIC) MUST BE EXTENDED /INSTALLED TO THE NORTHWEST PROPERTY LINE OF LOT 402.
- 5. PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY, THE DEVELOPER SHALL COMPLETE ALL REQUIRED OR VOLUNTARY IMPROVEMENTS UNLESS OTHERWISE SECURED BY THE DEVELOPER AND AUTHORIZED BY THE CITY ENGINEER.

## MISC. NOTES

- 1. THE DEVELOPER SHALL HAVE THE PROPERTY CORNERS SURVEYED AND MARKED PRIOR TO THE REVIEW OF ANY SUBMITTED CONSTRUCTION PLANS.
- 2. THE PROPOSED DEVELOPMENT OF THIS SITE MUST COMPLY WITH THE PERFORMANCE OR OPERATION STANDARDS FOR NOISE, VIBRATION, ODORS, SMOKE AND AIR POLLUTION, DISPOSAL OF LIQUID AND HAZARDOUS WASTES, WATER CONSUMPTION, ELECTRICAL DISTURBANCE AND/OR INTERFERENCE, LIGHTING, AND SITE AND BUILDING MAINTENCE.
- 3. ANY EXISTING UTILITY (GAS, WATER, POWER, ETC.) LINES TO BE REMOVED AND/OR RELOCATED AS NEEDED SHALL BE AT DEVELOPERS EXPENSE. ALL NEW UTILITIES SHALL BE PLACED UNDER GROUND.
- 4. ANY STREET LAMPS OR LIGHT POLES LOCATED ON SITE SHALL BE DOWN-SHIELDED TO AVOID INTERFERING WITH FLIGHT OPERATIONS.
- 5. DURING THE DRYER SEASON, THE CONTRACTOR SHALL BE RESPONSIBLE FOR DUST CONTROL MEASURES, MAKING SURE THAT DUST DOES NOT INTERFERE WITH AIRPORT OPERATIONS.

## ROAD & STORM SYSTEM NOTES

- COMPACTION TESTS ON SUBGRADE AND SURFACING SHALL BE REQUIRED. THE NUMBER OF TESTS SHALL BE AT THE DISCRETION OF THE CITY INSPECTOR. ALL TESTING SHALL BE THROUGH A LICENSED TESTING LABORATORY. THE MINIMUM COMPACTION SHALL BE 95% OF MAXIMUM DENSITY ON BOTH SUBGRADE AND SURFACING.
- 2. ADJUSTMENT OF CATCHBASIN LIDS OR GRATES, MONUMENT CASES, VALVE BOXES, ETC. SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR (RAISED OR CUT IN).
- OTHER THAN WHERE STORM PIPE MATERIAL IS SPECIFICALLY CALLED FOR ON THE PLAN SET, STORM PIPE MAY BE HDPE OR PVC. PVC PIPE SHALL NOT BE USED WHERE COVER IS LESS THAN 30 INCHES, HDPE PIPE SHALL NOT BE USED WHERE COVER IS LESS THAN 12". ANY OTHER SUBSTITUTIONS MUST BE APPROVED BY THE CITY ENGINEER, AND THE DESIGN ENGINEER.
- 4. STORM PIPE RUNS WITH LESS THAN 24" COVER SHALL BE C-900 OR DUCTILE IRON.
- 5. ALL TRENCHES WITHIN THE RIGHT-OF-WAY SHALL BE BACKFILLED WITH CDF.
- ACCESS TO TAXIWAY SHOULD NOT BE USED AND SHOULD BE BLOCKED OFF. USE
   CONSTRUCTION ENTRANCE ONLY.
   A RIGHT-OF-WAY PERMIT IS REQUIRED PRIOR TO PERFORMING ANY WORK WITHIN THE PERFORMING AND WORK WITHIN THE PERFORMING A
- RIGHT-OF-WAY, PLEASE CONTACT TIM CROSS, PUBLIC WORKS INSPECTOR AT 360.403.3537.
- 8. CLEAN OUTS ARE TO BE INSTALLED AT ALL BENDS AND TURNS (TYPICAL).

## LIST OF APPLICABLE CITY OF ARLINGTON STANDARD DETAILS:

- R-6 CEMENT CONCRETE SIDEWALK
- SD-8 OIL/WATER SEPARATOR
- SD-14 YAF
- S-1 PRE CAST MANHOLE
- I-1 FIRE HYDRANT ASSEMBLY
- W-2 DOMESTIC WATER SERVICE
  W-3 CONCRETE BLOCKING
- W-13 DOUBLE CHECK VALVE ASSEMBLY (DCVA)
- 16 REDUCED PRESSURE BACKFLOW ASSEMBLY (RPBA)
- S-10 OUTSIDE DROP MANHOLE

# IN THE CITY OF ARLINGTON, WA PROPOSED SITE PLAN FOR LOT 402 FILE NO. Z-04-032 SEC. 21, T. 31 N., R. 05 E., W.M.

#### WATER SYSTEM NOTES

#### 1. WATER PIPE

- A. DUCTILE IRON PIPE SHALL BE NEW, CLASS 52, CEMENT-LINED, CONFORMING TO ANSI STANDARD A21.51 (AWWA C-151).
- B. DUCTILE IRON PIPE SHALL BE PUSH-ON JOINT (TYTON JOINT ONLY) OR MECHANICAL JOINT. PIPE WITH PUSH-ON JOINTS SHALL BE FURNISHED WITH A SINGLE RUBBER GASKET. ALL GASKETS, INCLUDING MJ SHALL BE LUBRICATED TO AFFECT THE SEAL. PIPE WITH MECHANICAL JOINTS SHALL BE FURNISHED WITH A MECHANICAL JOINT OF THE STUFFING BOX TYPE, INCLUDING RUBBER GASKET, CAST-IRON GLAND, AND TEE-HEAD BOLTS AND NUTS TO EFFECT SEAL. ALL JOINTS SHALL CONFORM TO ANSI STANDARD A21.11 (AWWA C-111).
- C. FLANGED JOINTS SHALL CONFORM TO ANSI STANDARD B16.1.
- D. INTERNALLY LOCKED JOINTS SHALL BE IN ACCORDANCE WITH ANSI A21.11 AND EQUAL TO U.S. PIPE TR FLEX OR GRIFFIN "SNAP-LOK".
- E. BELL AND SOCKET JOINTS SHALL BE IN ACCORDANCE WITH ANSI A21.10 AND EQUAL TO U.S. PIPE "UNIFLEX".
- F. STANDARD THICKNESS CEMENT MORTAR LINING SHALL BE IN ACCORDANCE WITH ANSI STANDARD A21.4. (AWWA C-104).
- G. THE CONTRACTOR SHALL FURNISH CERTIFICATION FROM THE MANUFACTURER OF THE PIPE AND GASKET BEING SUPPLIED THAT THE INSPECTION AND ALL OF THE SPECIFIED TEST HAVE BEEN MADE AND THE RESULTS THEREOF COMPLY WITH THE REQUIREMENTS OF THIS STANDARD.

#### 2. WATER SERVICE PIPE

- A. DRISCOPIPE CTS CL 200 HI MOL POLY PIPE ALL DIAMETER 1" 2".
- B. LARGE DIAMETER WATER SERVICE PIPE SHALL BE DRISCOPIPE CTS CL 200 HI MOL POLY PIPE (200psi). DRISCOPIPE SHALL CONFORM TO ASTM D-2737-SDR9 (PE3408). CTS 110 SS LINERS FOR POLYPIPE SHALL BE USED.
- C. WATER SERVICES 1 1/2" TO 4" IN SIZE REQUIRE A MAINLINE SIZE TEE WITH 6" FLANGE AND 6" R.S.G.V. WITH ADAPTER TO SERVICE SIZE.

## 3. DUCTILE IRON FITTINGS

- A. DUCTILE IRON FITTINGS SHALL BE SHORT BODY FOR PRESSURE RATING OF 150 PSI, UNLESS OTHERWISE NOTED, METAL THICKNESS AND MANUFACTURING PROCESS SHALL CONFORM TO APPLICABLE PORTIONS OF ANSI STANDARD A21.10, A21.11, A21.53, B16.2, AND B16.4.
- B. STANDARD CEMENT MORTAR LINING IN ACCORDANCE WITH ANSI STANDARD A21.4 (AWWA C-104).
- C. RUBBER GASKETS FOR PUSH-ON JOINT (TYTON) OR MECHANICAL JOINT (MJ) IN ACCORDANCE WITH USA STANDARD A21.11 (AWWA C-111).
- WHERE RESTRAINED JOINTS ARE REQUIRED FITTINGS MAY BE MANUFACTURED WITH U.S. PIPE TR FLEX; GRIFFIN "SNAP-LOK" OF PACIFIC STATES RESTRAINED JOINT. MEGA-LUG RETAINER GLANDS MAY BE USED.

#### 4. GATE VALVES, RESILIENT SEAT

A. VALVES 12" AND SMALLER SHALL CONFORM TO REQUIREMENTS OF AWWA STANDARD SPECIFICATIONS FOR GATE VALVES FOR ORDINARY WATER WORKS SERVICE NO. C-509, EXCEPT AS SUPERSEDED BY THE FOLLOWING: THEY SHALL BE IRON BODY WITH EPOXY COATING INSIDE, RESILIENT SEAL RUBBER VULCANIZED TO GATE, OR S.S. SEAT RING ATTACHED WITH S.S. SCREWS. THE VALVES SHALL BE NON-RISING STEM, OPEN TO THE LEFT, AND SHALL BE EQUIPPED WITH STANDSRD 2" SQUARE OPERATING NUTS. VALVES SHALL BE EQUIPPED WITH "O-RING" PACKING. VALVES TO BE EQUAL TO AMERICAN-80 "CRS", WATEROUS SERIES 500 OR MUELLER A-2370.

#### 5. BUTTERFLY VALVES

- A. BUTTERFLY VALVES 14" AND LARGER SHALL BE CLASS 150 OR BETTER, SIMILAR AND EQUAL TO DRESSER "450" OR PRATT "GROUNDHOG" AND SHALL MEET OR EXCEED ALL STRENGTH REQUIREMENTS OF AWWA C-504-70. EXCEPT THAT CERTAIN DEVIATIONS IN THE CONSTRUCTION DETAILS OF VALVE SEATS AND SHAFT SEALS WILL BE CONSIDERED BY THE CITY.
- B. VALVE SHAFTS SHALL MEET OR EXCEED THE STRENGTH REQUIREMENTS OF AWWA, C-504-70 AND BE ONE-PIECE. PACKING SHALL BE "O-RING" EXCEPT THE CITY MAY REVIEW OTHER TYPES OF PACKING.
- C. BUTTERFLY VALVES TO BE INSTALLED UNDERGROUND SHALL HAVE SEALED MECHANICAL OPERATORS AND 2" STANDARD SQUARE OPENING NUTS.
- D. THE VALVE OPENING NUT SHALL NOT EXCEED 4 FEET IN DEPTH. AN EXTENSION SHALL BE PROVIDED AS REQUIRED.

  E. COMPLETE MANUFACTURER'S SPECIFICATIONS FOR THE VALVES PROPOSED FOR USE SHALL BE SUBMITTED TO THE

# F. NO VALVES SHALL BE USED WHICH HAVE NOT BEEN APPROVED BY THE CITY.

A. VALVE BOXES SHALL BE TWO-PIECE, CAST IRON VALVE BOX WITH ADJUSTABLE SECTIONS EQUAL TO OLYMPIC FOUNDRY PART #VB1 W / DEEP SKIRT LIDS.

## 7. METER BOXES

A. METER BOXES SHALL BE MID STATES PLASTIC W / DUCTILE IRON LIDS AND 1-3/4" HOLE IN LID FOR "TOUCH READ" MOUNT. ALL METER BOXES SHALL BE A MINIMUM OF 3 FEET FROM CURB CUT. FOR 5/8 & 1" METERS USE THE MSBCF 1324-12, FOR 1-1/2" & 2" METERS USE THE MSBCF 1730-18.

## 8. FIRE HYDRANT

- A. FIRE HYDRANTS SHALL BE MACH 929 RELIANT W / 5 1/2" MVO OR MUELLER SUPER CENTURION 250 W / 5 1/2" MVO ONLY. INSTALL AS PER FIRE HYDRANT ASSEMBLY STANDARD DETAIL W-1.
- B. FIRE HYDRANTS SHALL BE FITTED WITH AN APPROVED 5" STORZ TO 4 1/2" NST FEMALE ADAPTER.
- C. HYDRANT RUNS FROM 6" VALVE SHALL NOT BE LESS THAN 24" BUT NOT TO EXCEED 18' IF THE HYDRANT RUN IS TO EXCEED THE MAXIMUM IT WILL BE REQUIRED TO INSTALL A RESTRAINT SYSTEM. (GRINNELL 595 SHACKLE CLAMP).
- D. ALL FIRE HYDRANTS MUST BE A MINIMUM OF SIX FEET FROM THE OUTSIDE EDGE OF ANY
- E. FIRE HYDRANTS SHALL BE FITTED WITH BOTH ALL THREAD ROD AND MEGA LUGS, RESTRAINTS SHALL BE USED ON VALVE AND AT THE HYDRANT. (EYE BOLTS TO BE USED ON ALL THREAD ROD BOTH HYDRANT AND VALVE).
- , HYDRANTS ARE TO BE PAINTED BEFORE FINAL INSPECTION (EQUIPMENT YELLOW / CAT YELLOW) NO SPRAY CANS.
- G. ALL FIRE HYDRANTS THAT ARE INSTALLED DURING CONSTRUCTION SHALL BE BAGGED INDICATING IT TO BE OUT OF SERVICE UNTIL FINAL APPROVAL BY C.O.A.
- H. HYDRANT GUARDS TO BE INSTALLED ON ALL UNPROTECTED HYDRANTS AT THE DISCRETION OF THE CITY OF ARLINGTON. (I.E. TRAFFIC AREAS, NARROW PLANTERS, PARKING STALLS ETC).

  I. THE DISTANCE BETWEEN THE NEAREST POINT OF THE HYDRANT AND THE TRAFFIC OR FACE OF THE CURB SHALL BE A MINIMUM OF 24".

## J. INSTALL BLUE PAVEMENT MARKER IF HYDRANT IS IN RIGHT-OF-WAY.

- A. IF AN IRRIGATION SYSTEM IS TO BE INSTALLED, A SEPARATE METERED WATER SERVICE IS REQUIRED AND A DOUBLE CHECK VALVE ASSEMBLY (DCVA) SHALL BE INSTALLED AFTER THE METER BEFORE ANY BRANCH CONNECTION.
- B. ALL ASSEMBLIES SHALL APPEAR ON THE STATE OF WASHINGTON DEPARTMENT OF HEALTH LIST OF APPROVED ASSEMBLIES.
- C. ALL ASSEMBLIES SHALL BE TESTED BY A STATE OF WASHINGTON AND CITY OF ARLINGTON APPROVED, CERTIFIED BACKFLOW ASSEMBLY TESTER, AT OWNER'S EXPENSE.
- D. THE CITY OF ARLINGTON SHALL INSPECT THE ASSEMBLY PRIOR TO BEING TESTED. A COPY OF THE TEST REPORT SHALL BE PROVIDED TO THE CITY OF ARLINGTON UTILITIES DIVISION BEFORE FINAL INSPECTION.

## SEWER SYSTEM NOTES

- 1. PVC PIPE AND FITTINGS SHALL BE INTEGRAL WALL BELL AND SPIGOT, RUBBER GASKET JOINT, PVC CONFORMING TO ASTM 3034 SDR 35.
- 2. ALL PVC SEWER PIPE AND FITTINGS MANUFACTURE AND INSTALLATION SHALL BE IN ACCORDANCE WITH THE ASTM RECOMMENDED SPECIFICATIONS D3034-73, CURRENT REVISIONS, AND ALL INSTALLATION SHALL BE IN STRICT COMPLIANCE WITH THE MANUFACTURER'S DIRECTIONS. ALL PIPE SHALL BE CLEARLY MARKED WITH DATE OF MANUFACTURE. THERE SHALL BE NO REDUCTION IN PIPE WALL THICKNESS AT THE BELL AS A RESULT OF BELL FORMATION. ALL PIPE SHALL BE PROVIDED WITH A REFERENCE MARK FOR PROPER SPIGOT INSERTION. JOINT GASKETS SHALL BE FABRICATED FROM A COMPOUND OF WHICH THE BASIC POLYMER SHALL BE A SYNTHETIC RUBBER CONSISTING OF STYRENE, BUTADINE, POLYISOPRENE, OR ANY COMBINATION THEREOF AND SHALL MEET THE REQUIREMENTS OF ASTM F477, LATEST REVISIONS.
- 3. CONNECTIONS FOR SIDE SEWER STUBS SHALL BE 6 INCHES INSIDE DIAMETER TEE FITTINGS FABRICATED IN THE MANUFACTURER'S PLANT. WYE BRANCHES SHALL BE USED WHERE MAIN SIZE IS LESS THAN 8 INCHES INSIDE DIAMETER. NO FIELD CUT-IN TEES OR WYES WILL BE ALLOWED UNDER THESE SPECIFICATIONS WITHOUT WRITTEN APPROVAL BY THE CITY OF ARLINGTON.
- 4. MANHOLES SHALL BE OF THE OFFSET TYPE AND SHALL BE PRECAST CONCRETE SECTIONS WITH EITHER A CAST IN PLACE BASE OR A PRECAST BASE MADE FROM A 3,000-PSI STRUCTURAL CONCRETE, JOINTS BETWEEN PRECAST WALL SECTIONS SHALL BE CONFINED 0-RING OR AS OTHERWISE SPECIFIED. THEY SHALL BE CONSTRUCTED IN FULL COMPLIANCE WITH ASTM C478 AND THE DETAILS SHOWN ON STANDARD SPECIFICATIONS PRECAST MANHOLE AND AS FURTHER SPECIFIED HEREIN.
- 5. MANHOLE SECTIONS SHALL BE PLACED AND ALIGNED SO AS TO PROVIDE VERTICAL SIDES AND VERTICAL ALIGNMENT OF THE LADDER STEPS. THE COMPLETED MANHOLE SHALL BE RIGID, TRUE TO DIMENSION AND BE WATERTIGHT. ROUGH UNEVEN SURFACES WILL NOT BE PERMITTED. ALL MANHOLE AND CLEANOUT COVERS SHALL HAVE THE WORD SEWER CAST INTO THEM AND BE LOCKING.
- SHALL BE PROVIDED BETWEEN THE TOP OF THE CONE OR SLAB AND THE TOP OF THE MANHOLE FRAME.

FIRMLY GROUTED INTO PLACE AT THE PROPER ELEVATION. ALLOWANCES SHALL BE MADE FOR A MINIMUM

- 7. CHANNELS SHALL BE MADE TO CONFORM ACCURATELY TO THE SEWER GRADE AND SHALL BE BROUGHT TOGETHER SMOOTHLY WITH WELL—ROUNDED JUNCTIONS, SATISFACTORY TO THE CITY ENGINEER.
   8. THE CHANNELS SHALL BE FIELD POURED AFTER THE INLET AND OUTLET PIPES HAVE BEEN INSTALLED AND
- 9. BACKFILLING AND SURFACE RESTORATION SHALL CLOSELY FOLLOW INSTALLATION AND TESTING OF THE PIPE SO THAT NO MORE THAN 100 FEET OF PIPE IS LEFT EXPOSED WITH OUT EXPRESS APPROVAL OF THE ENGINEER. CARE SHALL BE TAKEN TO ENSURE THAT THE PIPE AND ITS PROTECTIVE COATINGS ARE NOT DAMAGED. NO ROCKS, STONE OR DEBRIS SHALL BE PERMITTED WITHIN 12 INCHES OF THE PIPE.

OF 1 / 10 FOOT (0.1') DROP IN ELEVATION ACROSS THE MANHOLE IN THE DIRECTION OF FLOW.

- 10. WHEN REQUIRED IN AREAS OF UNSUITABLE TRENCH BOTTOM, FOUNDATION GRAVEL SHALL CONSIST OF CLEAN, GRANULAR MATERIAL FREE FROM OBJECTIONABLE MATERIALS SUCH AS VEGETABLE MATTER OR OTHER DELETERIOUS SUBSTANCES WITH AT LEAST 90 PERCENT COARSE MATERIAL RANGING FROM 1 INCH IN DIAMETER TO 3 INCHES IN DIAMETER AND 100% 3 INCHES IN DIAMETER OR LESS.
- 11. 3/8 INCH CLEAN MANUFACTURED PEA GRAVEL BEDDING SHALL BE REQUIRED.
- 12. BEDDING MATERIAL SHALL BE CAREFULLY PLACED AND FIRMLY COMPACTED TO PROVIDE A FIRM, UNIFORM CRADLE FOR THE PIPE. THE MINIMUM THICKNESS OF THE LAYER OF BEDDING MATERIAL REQUIRED SHALL BE 4 INCHES UNDER THE BELL FOR ALL PIPE SIZES OF 27 INCHES DIAMETER AND SMALLER. 6 INCHES FOR ALL PIPE SIZES 30 INCHES DIAMETER AND LARGER. 6 INCHES IS REQUIRED UNDER THE BELL OF THE PIPE FOR ALL DIAMETER PIPES WHERE ROCK IS EXCAVATED. TO PROVIDE THIS FIRM, CONTINUOUS SUPPORT FOR THE PIPE, IT IS NECESSARY TO HAND TAMP OR "SLICE" BEDDING MATERIAL SOLIDLY UNDER THE PIPE.
- 13. AFTER THE PIPE LAYING OPERATION, ADDITIONAL BEDDING MATERIAL SHALL BE PLACED AND COMPACTED BY HAND TOOLS FOR THE FULL WIDTH OF THE TRENCH TO A HEIGHT OF 12 INCHES ABOVE THE TOP OF THE
- 14. IT IS ASSUMED THAT EXCAVATED MATERIAL IS SUITABLE FOR TRENCH BACKFILL. WHERE EXCAVATED MATERIAL IS NOT APPROVED FOR BACKFILL, GRAVELBASE, CLASS B, CONFORMING TO THE REQUIREMENTS OF SECTION 9-03.10 OF THE STATE OF WASHINGTON STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION, OR GRANULAR MATERIAL COMMONLY KNOWN AS BANK RUN GRAVEL, SHALL BE USED AS DIRECTED BY THE ENGINEER
- 15. ALL JOINTS SHALL BE MADE UP IN STRICT COMPLIANCE WITH THE MANUFACTURER'S DIRECTIONS AND ALL SEWER PIPE MANUFACTURE AND HANDLING SHALL MEET OR EXCEED THE ASTM AND CPAW RECOMMENDED SPECIFICATIONS, CURRENT REVISIONS.
- 16. FURTHER, ALL 8 INCH OR LARGER PVC PIPE LAID SHALL BE DEFLECTION TESTED IN ACCORDANCE WITH SECTION 7-17-3 OF THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD, AND MUNICIPAL CONSTRUCTION FOR ACCEPTANCE, PVC PIPE SHALL NOT HAVE ANY DIAMETER DECREASED BY 5 PERCENT OR MORE
- 17. THE SEWER PIPE, UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER, SHALL BE INSTALLED UPGRADE FROM POINT OF CONNECTION ON THE EXISTING SEWER OR FROM A DESIGNATED STARTING POINT TO LINE AND GRADE PER APPROVED PLANS. THE SEWER PIPE SHALL BE INSTALLED WITH THE BELL END FORWARD OR UPGRADE. WHEN PIPE LAYING IS NOT IN PROGRESS, THE FORWARD END OF THE PIPE SHALL BE KEPT TIGHTLY CLOSED WITH AN APPROVED TEMPORARY PLUG. WHEREVER MOVABLE SHORING (STEEL BOX) IS USED IN THE DITCH, CARE SHALL BE TAKEN SO THAT THE PIPE AND/OR JOINTS DO NOT MOVE WHEN THE SHORING OR BOX IS MOVED. ANY INDICATION THAT JOINTS ARE NOT BEING ADEQUATELY HELD SHALL BE SUFFICIENT REASON FOR THE CITY ENGINEER TO REQUIRE RESTRAINTS, WHETHER OR NOT MOVABLE
- 18. AT THE TIME OF BUILDING PERMIT, INDIVIDUAL PROPERTY OWNERS MAY BE REQUIRED TO INSTALL MONITORING MANHOLES AS REQUIRED BY THE CITY.
- MONITORING MANHOLES AS REQUIRED BY THE CITY.

  19. ALL MANHOLE STRUCTURES SHALL BE INSPECTED AND SIGNED OFF PRIOR TO BACKFILL BEING ADDED TO
- 20. 3 INCHES OF GROUTING IS REQUIRED ABOVE AND BELOW ALL MANHOLE JOINTS INCLUDING THE ADJUST-MENT RISERS AND ALL RISERS SHALL BE WET STACKED.
- 21. ALL GROUTING IS REQUIRED TO BE A MINIMUM OF 1/2 INCH THICK.
- 22. GROUTING MATERIAL SHALL CONSIST OF1 PART SAND WITH 2 PARTS CEMENT. CURING ADDITIVES ARE NOT ALLOWED WITHOUT PRIOR APPROVAL.
- 23. ALL EXTERNAL GROUTING SHALL BE CURED PRIOR TO APPROVAL FOR BACKFILL
- 24. ADDITIONAL WATERPROOFING METHODS MAY BE REQUIRED FOR MANHOLE STRUCTURES AT THE TIME OF CONSTRUCTION SUCH AS EXTERNAL JOINT RUBBER GASKETS OR MASTIC.
- 25. ACCESS SHALL BE PROVIDED TO THE CONSTRUCTION SITE AT ALL TIMES FOR INSPECTION PURPOSES.
- 2 TO 4 FEET ABOVE THE PIPE BEDDING.

  27. INSTALL SIDE SEWER STUBS TO ONE SIDE OR THE OTHER OF CEMENT / ASPHALT DRIVEWAYS WHEN POSSIBLE.

2 INCH SEWER TRACER TAPE IS REQUIRED OVER ALL SEWER PIPE INSTALLATIONS AND SHALL BE PLACED

- 28. SIDE SEWER STUBS ARE TO BE CAPPED AND MARKED BY A 2 x 4 POST LABELED SANITARY SEWER. THE STUB MARKER MUST INCLUDE THE LOT NUMBER AND DEPTH OF THE STUB INVERT. ALL MARKERS SHALL BE ALIGNED AND UNIFORM. (SEE SERVICE CONNECTION DETAIL, S-8)
- 29. SEWER BACKFILL WITHIN THE CITY RIGHT-OF-WAY TO BE COMPACTED TO 95%, WITH TESTING RESULTS TO THE CITY OR CDF BACKFILL REQUIRED.

  30. ALL SANITARY SEWER MANHOLES OUTSIDE OF PAVED OR CONCRETE AREAS MUST HAVE A 6' x 6' x 8" REINFORCED

DATE:

- CONCRETE PAD SET TO FINISHED GRADE.
- 31. ALL SANITARY SIDE SEWERS ARE TO BE DIMENSIONED FROM CENTER OF THE NEAREST DOWNSTREAM MANHOLE.

  32. WYES ARE NOT ALLOWED ON LINES 8 INCHES AND LARGER, TEES ARE REQUIRED.
- 33. SIDE SEWER STUBS MUST EXTEND A MINIMUM OF 10 FEET BEYOND THE PROPERTY LINE AND A MINIMUM OF

CALL 48 HOURS
BEFORE YOU DIG
1-800-424-5555

5 FEET BEYOND THE EASEMENT.

CITY OF ARLINGTON

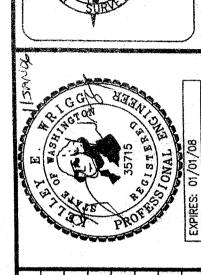
CONSTRUCTION

THIS SHEET HAS BEEN APPROVED PER THE CONDITIONS ON THE COVER SHEET.

CITY ENGINEER

# 1565 I: /LNDPRJ/15665/DWG/15665GENERAL.DWG. (NOTES) 15665GENERAL.DWG. (NOTES)

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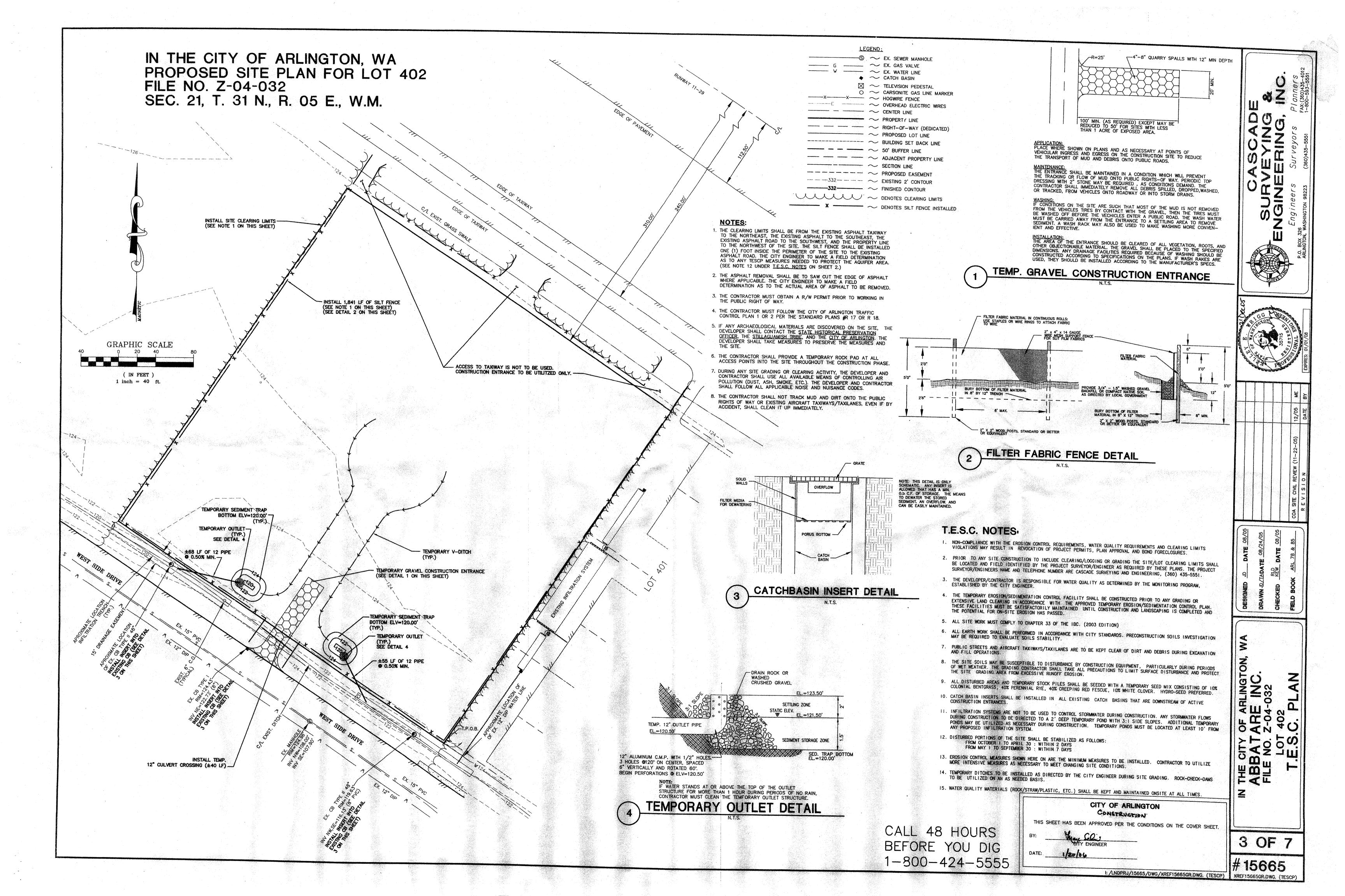
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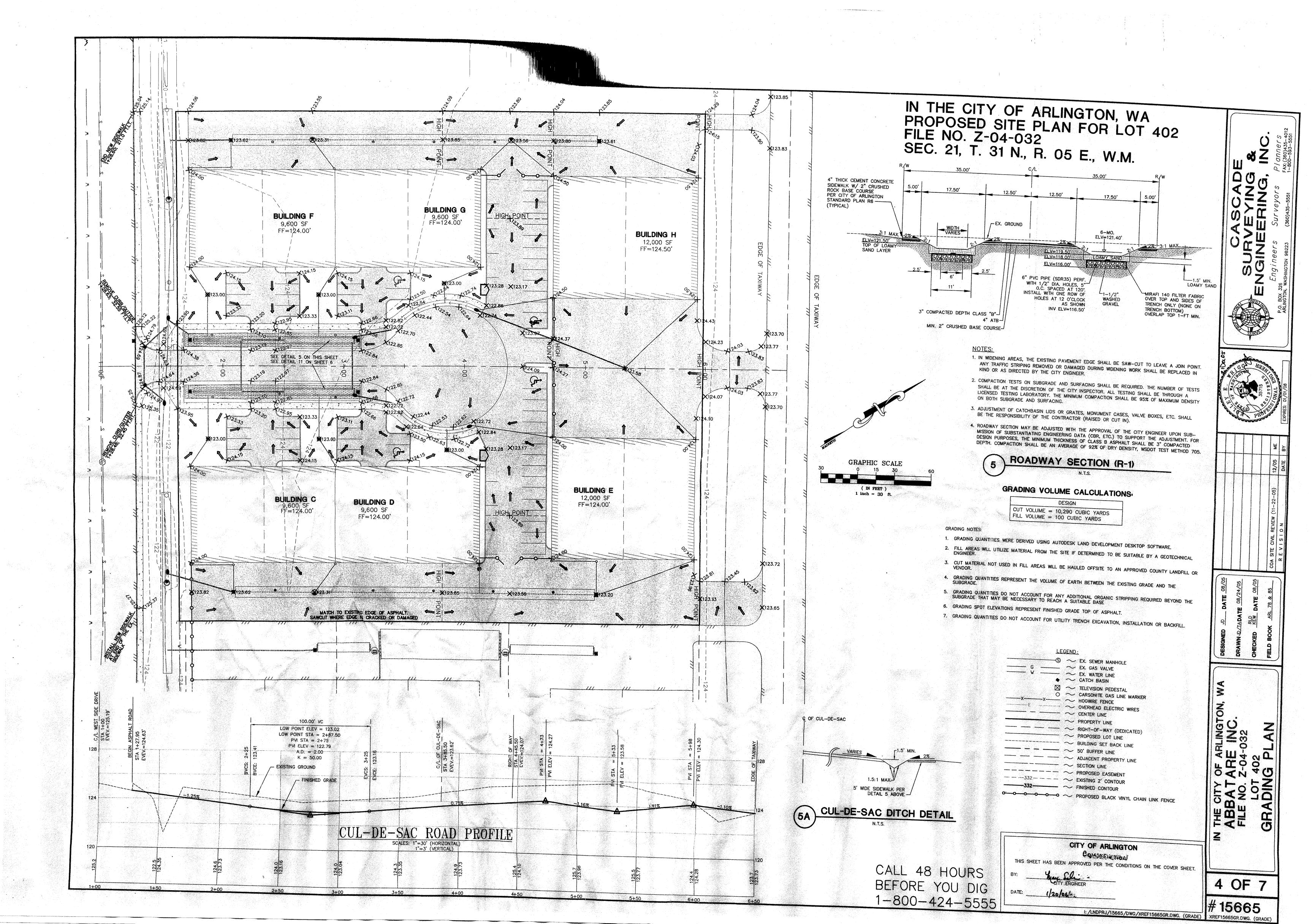
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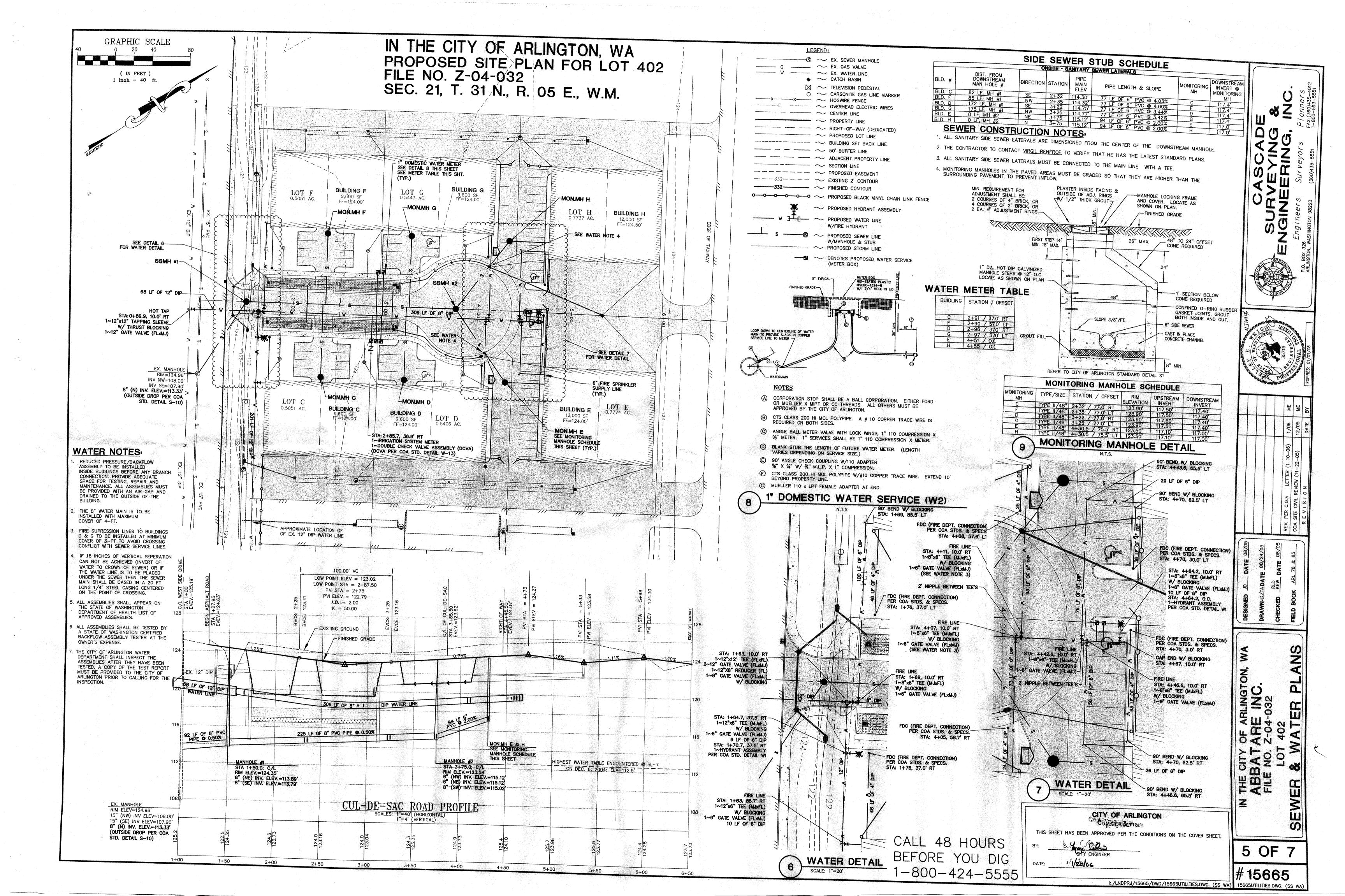
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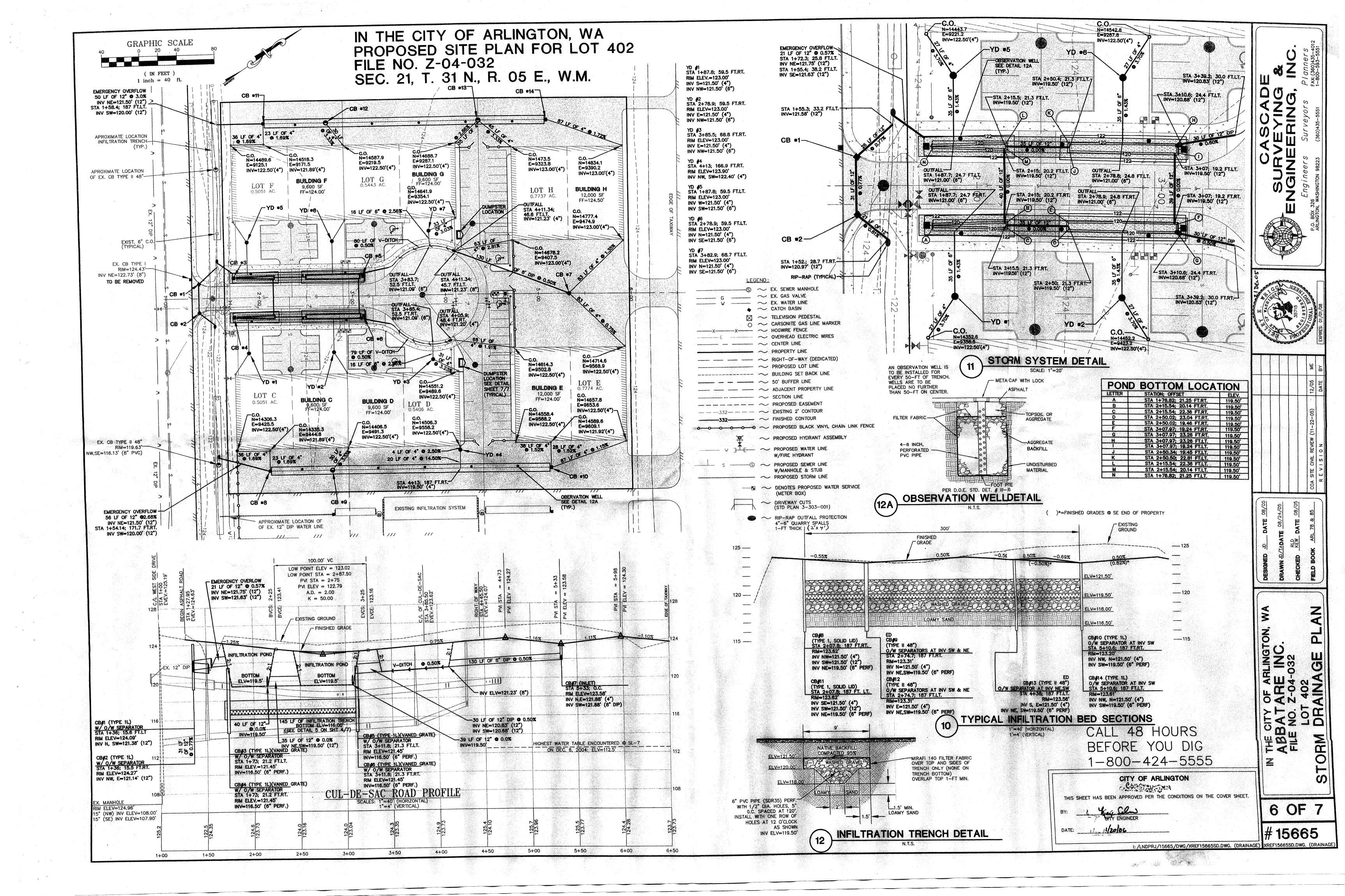
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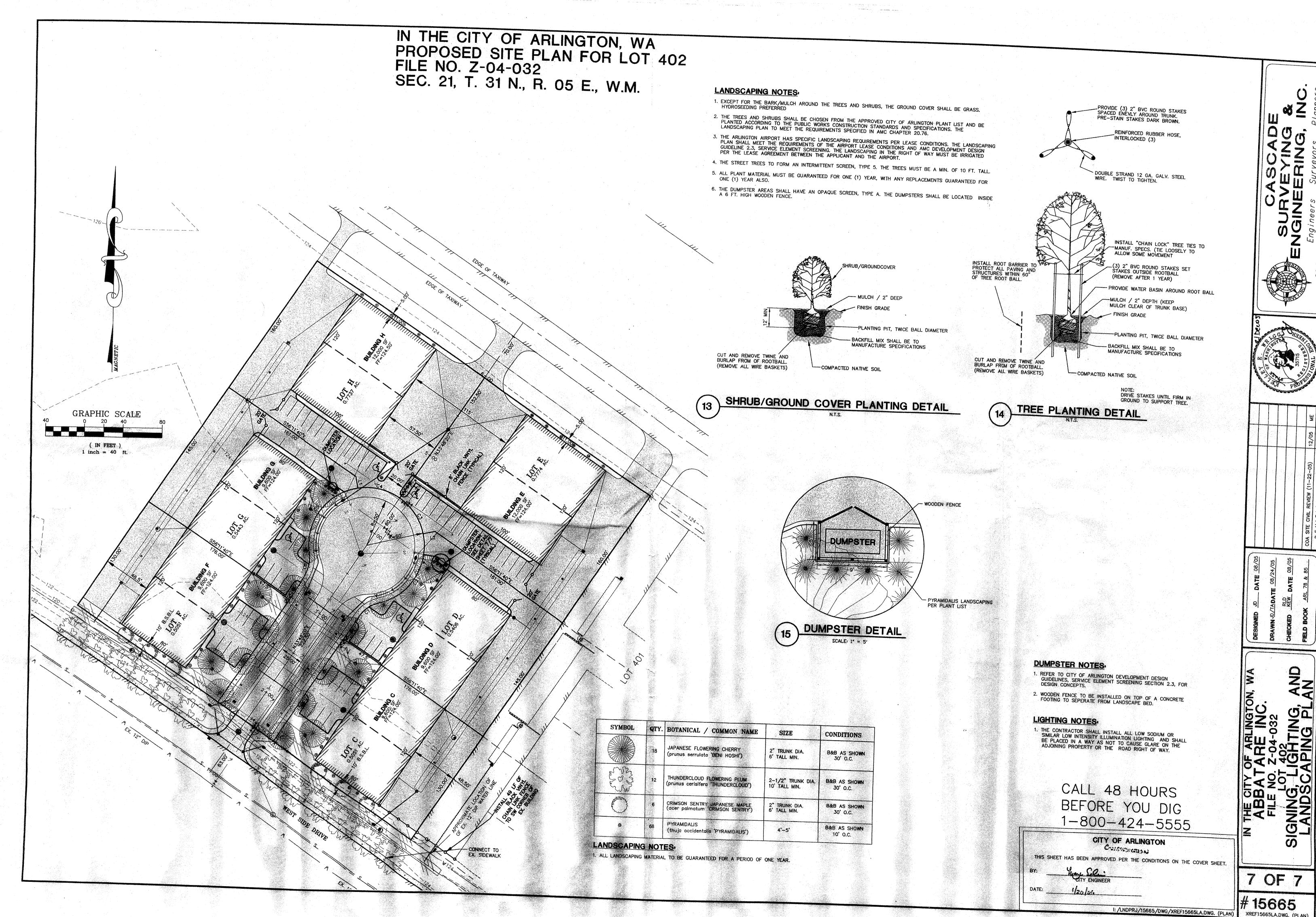
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XREF15665LA.DWG. (PLAN)