

14137 S 108TH AVE.
ORLAND PARK, IL 60467
JOB NO. W24323.00
PRELIMINARY ENGINEERING

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<p>ZONING DISTRICT:</p> <p>EXISTING: E-1 ESTATE RESIDENTIAL</p> <p>PROPOSED: R-3 RESIDENTIAL</p>
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**BRIDLEWOOD
SUBDIVISION**

DRAWN BY : KF
 CHECKED BY : NAV
 DESCRIPTION: 14137 S 108TH AVE, OKLA
 07-30-2025 KF PER VILLAGE COMMENTS
 07-30-2025 IF PER VILLAGE COMMENTS
 C:\PROJECTS\RT-MGR, LLC\W4323.00 14137 S 108th Ave Grand Park Birdwood\CAUD\SHEET\W4323.00 SITE DEVELOPMENT\W4323.00 SHEET Prelim Engineering.dwg

SITE BENCHMARK #1:
WEST SOUTHWEST FLANGE BOLT ON FIRE HYDRANT
LOCATED ON THE WEST SIDE OF 108TH AVENUE AT
APPROXIMATELY NORTH PROPERTY LINE OF SUBJECT
SITE EXTENDED.

ELEV: 736.43 (NAVD 88)

SITE BENCHMARK #2:
WEST SOUTHWEST FLANGE BOLT ON FIRE HYDRANT
LOCATED ON THE WEST SIDE OF 108TH AVENUE
NEAR NORTHEAST CORNER OF PROPERTY AT 10801 W
142ND ST.

ELEV: 722.40 (NAVD 88)

Jon P. Green, P.E.
IL. P.E. NO. 062-052108
Expires November 30, 2025

PROFESSIONAL DESIGN FIRM NUMBER: 184.001186


C-1.0
SHEET

GENERAL NOTES:		16. THE OWNER SHALL PROVIDE A FULL AND COMPLETE CIVIL ENGINEERING RECORD DRAWING PLAN SET IN HARD COPY AND AUTOCAD AT THE COMPLETION OF THE PROJECT. THE RECORD DRAWINGS SHALL INCLUDE ANY CHANGES FROM THE ORIGINAL CIVIL ENGINEERING PLANS. CURRENT ELEVATIONS SHALL BE SHOWN FOR THE FOLLOWING, AT A MINIMUM: 1) ALL RIM AND INVERTS 2) GRADE INFLECTION POINTS WITH PERIODIC GRADES SHOTS IN LEVEL AREAS 3) DETENTION POND GRADES WITH VOLUME CALCULATION. ADD NOTE COMPARING ACTUAL TO REQUIRED POND VOLUME.		5. NO MORE THAN TWO PRECAST ADJUSTING RINGS WITH A MAXIMUM HEIGHT ADJUSTMENT OF 8 INCHES SHALL BE ALLOWED.		13. WHEN CONNECTING TO AN EXISTING SEWER MAIN BY MEANS OTHER THAN AN EXISTING WYE, TEE, OR AN EXISTING MANHOLE, ONE OF THE FOLLOWING METHODS SHOULD BE USED: A.) CIRCULAR SAWCUT OF SEWER MAIN BY PROPER TOOLS ("SEWER-TAP" MACHINE OR SIMILAR) AND PROPER INSTALLATION OF HUB-WYE SADDLE OR HUB-TEE SADDLE. B.) REMOVE AN ENTIRE SECTION OF PIPE (BREAKING ONLY THE TOP OF ONE BELL) AND REPLACE WITH A WYE OR TEE BRANCH SECTION. C.) WITH PIPE CUTTER, NEATLY AND ACCURATELY CUT OUT DESIRED LENGTH OF PIPE FOR INSERTION OF PROPER FITTING, USING "BAND-SEAL" OR SIMILAR COUPLINGS TO HOLE IT FIRMLY IN PLACE.		12. ANY SEDIMENT REACHING A PUBLIC OR PRIVATE ROAD SHALL BE REMOVED BY SHOVELING OR STREET CLEANING (NOT FLUSHING) BEFORE THE END OF EACH WORKDAY AND TRANSPORTED TO A CONTROLLED SEDIMENT DISPOSAL.	
1. AT LEAST TWO WORKING DAYS PRIOR TO THE COMMENCEMENT OF ALL PHASES OF WORK, THE CONTRACTOR SHALL NOTIFY THE FOLLOWING: <div>ENGINEERING RESOURCE ASSOCIATES: (630) 393-3060 VILLAGE OF ORLAND PARK DEVELOPMENT SERVICES:(708) 403-5300 VILLAGE OF ORLAND PARK PUBLIC WORKS: (708) 403-6350</div>		17. DUST CONTROL WILL BE IN ACCORDANCE WITH IDOT "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION IN THE STATE OF ILLINOIS", LATEST EDITION, SECTION 107.36.		6. INLETS SHALL BE TWENTY-FOUR (24) INCH DIAMETER PRECAST REINFORCED CONCRETE CONFORMING TO ASTM C-478.		14. MANHOLE FRAMES SHALL BE NEENAH NO. R-1710 / WATERTIGHT LID OR EAST JORDAN IRON WORKS 1020AGS. ALL CLOSED LIDS SHALL HAVE A CONCEALED PICK HOLE. WATER AND SANITARY LIDS SHALL BE WATER TIGHT AND SELF-SEALING. LIDS SHALL BE EMBOSSED WITH "SANITARY SEWER" AND "VILLAGE OF ORLAND PARK", UNLESS OTHERWISE NOTED.		14. DISTURBED AREAS SHALL BE STABILIZED WITH TEMPORARY OR PERMANENT MEASURES WITHIN 7 CALENDAR DAYS FOLLOWING THE END OF ACTIVE DISTURBANCE OR REDISTURBANCE"	
2. UTILITY INFORMATION IS BASED UPON FIELD MEASUREMENTS AND BEST AVAILABLE RECORDS. FIELD DATA IS LIMITED TO THAT WHICH IS VISIBLE AND CAN BE MEASURED. THIS DOES NOT PRECLUDE THE EXISTENCE OF OTHER UNDERGROUND UTILITIES.		18. ANY DEWATERING NECESSARY FOR THE INSTALLATION OF THE IMPROVEMENTS AS SHOWN ON THE PLANS SHALL BE THE CONTRACTORS RESPONSIBILITY. THE COST FOR DEWATERING SHALL BE INCLUDED IN THE INSTALLATION OF THE IMPROVEMENTS.		7. FOUR INCHES OF CA-7 CRUSHED GRAVEL OR CRUSHED STONE AGGREGATE SHALL BE USED AS BEDDING UNDER THE PIPE. THE BEDDING STONE SHALL BE GRADED ALONG THE ENTIRE LENGTH OF PIPE TO PROVIDE FULL BEARING. THE BEDDING STONE SHALL EXTEND TO THE SPRINGLINE OF THE PIPE.		15. ALL FLOOR DRAINS SHALL DISCHARGE TO THE SANITARY SEWER.		15. DISTURBED AREA ON SITE SHALL BE RESTORED WITH 4" OF TOPSOIL AND HYDROSEED. DISTURBED AREAS IN THE DEDICATED R.O.W. SHALL BE RESTORED WITH 6" OF TOPSOIL AND SEED AND STRAW BLANKET.	
3. THE CONTRACTOR SHALL NOTIFY J.U.L.I.E. (800) 892-0123, 48 HOURS PRIOR TO ANY EXCAVATION WORK TO DETERMINE THE EXACT LOCATION OF EXISTING UTILITIES.		19. ANY POOR SOILS ENCOUNTERED UNDER AREAS TO BE PAVED SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER.		8. ANY PIPES OR MANHOLES CONTAINING SEDIMENT SHALL BE CLEANED OUT PRIOR TO FINAL ACCEPTANCE.		16. ALL SANITARY SEWER PIPES SHALL BE TESTED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS OF WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS, AS A MINIMUM, AND WITH THE VILLAGE OF ORLAND PARK SANITARY CODE REQUIREMENTS, INCLUDING VISUAL, TELEVIEWED, INFILTRATION, EXFILTRATION, AIR TESTS, LEAKAGE TESTS AND DEFLECTION TESTS.		16. IF DEWATERING DEVICES ARE USED, DISCHARGE LOCATIONS SHALL BE PROTECTED FROM EROSION. ALL PUMPED DISCHARGES SHALL BE ROUTED THROUGH APPROPRIATELY DESIGNED SEDIMENT TRAPS OR BASINS.	
4. EXCEPT WHERE MODIFIED BY THE CONTRACT DOCUMENTS, ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE FOLLOWING DOCUMENTS: <div>a. IDOT "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION IN THE STATE OF ILLINOIS", LATEST EDITION. b. "STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS" c. MWRDGC "WATERSHED MANAGEMENT ORDINANCE" d. ILLINOIS URBAN MANUAL, LATEST EDITION</div>		20. THE CONTRACTOR SHALL TAKE CARE TO PROTECT ADJACENT LAND TO THE PROJECT BY NOT DISTURBING THE SOIL BY DRIVING VEHICLES ON IT.		9. STORM SEWER MANHOLE JOINTS SHALL BE SEALED WITH "O-RING" GASKETS OR MASTIC MATERIAL.		17. THE SEWER SHALL MEET THE REQUIREMENTS OF EXFILTRATION OR AIR UNDER PRESSURE AND TELEVISION INSPECTION. ALL TEST MUST BE CONDUCTED IN THE PRESENCE OF AN EMPLOYEE OF THE VILLAGE AND THE ENGINEER'S REPRESENTATIVES.		SITE GRADING: <div>1. EXCAVATION OF TOPSOIL AND OTHER STRUCTURALLY UNSUITABLE MATERIALS MAY REQUIRE EARTH EXCAVATION AND COMPACTED EARTH FILL MATERIAL IN ORDER TO ACHIEVE THE PLAN SUBGRADE ELEVATIONS. 2. PLACEMENT OF THE EXCAVATED MATERIAL SHALL BE IN AREAS DESIGNATED BY THE OWNER FOR FUTURE USE, WITHIN AREAS TO BE LANDSCAPED, AND THOSE ARES NOT REQUIRING STRUCTURAL FILL MATERIAL. 3. COMPACTION OF THE EXCAVATED MATERIAL PLACED IN AREAS NOT REQUIRING STRUCTURAL FILL SHALL BE MODERATE. 4. EXCESS MATERIALS, IF NOT UTILIZED AS FILL OR STOCKPILED FOR FUTURE LANDSCAPING, SHALL BE COMPLETELY REMOVED FROM THE CONSTRUCTION SITE AND DISPOSED OF BY THE CONTRACTOR. 5. EXCAVATION OF EARTH AND OTHER MATERIALS WHICH ARE SUITABLE FOR USE AS STRUCTURAL FILL: THE EXCAVATION SHALL BE TO WITHIN A TOLERANCE OF 0.3' +/- OF THE PLAN SUBGRADE ELEVATIONS. THE TOLERANCE WITHIN PAVEMENT AREAS SHALL BE SUCH THAT THE EARTH MATERIAL SHALL BALANCE AS PART OF THE FINE GRADING OPERATION. 6. PLACEMENT AND COMPACTION OF MATERIALS SHALL CONFORM TO I.D.O.T SPECIFICATIONS. 7. THE CONTRACTOR SHALL MAINTAIN PROPER SITE DRAINAGE AT ALL TIMES DURING THE COURSE OF CONSTRUCTION AND PREVENT STORM WATER FROM RUNNING INTO OR STANDING IN EXCAVATED AREAS. 8. PAYMENT FOR THE REMOVAL OF UNSUITABLE MATERIAL (EXCLUDING TOPSOIL EXCAVATION) SHALL BE BASED ON THE QUANTITIES AS FIELD MEASURED BY THE ENGINEER. THE CONTRACTOR SHALL PROVIDE AS PART OF HIS BID A UNIT PRICE PER CUBIC YARD FOR THE REMOVAL OF UNSUITABLE MATERIALS. SAID UNIT PRICE SHALL INCLUDE THE COMPLETE REMOVAL OF THE MATERIAL, REPLACEMENT WITH SUITABLE MATERIAL OBTAINED BY THE CONTRACTOR FROM A BORROW SOURCE, AND COMPACTION TO THE REQUIRED SPECIFICATIONS OF THE ENGINEER. 9. ALL DISTURBED AREAS SHALL BE RESTORED W/4" TOPSOIL AND SEED AND BLANKET UNLESS OTHERWISE INDICATED. 10. PRIOR TO CONSTRUCTION, AREAS NOTED AS RESERVED FOR SEPTIC FIELDS SHALL BE STAKED AND ROPEd OFF WITH SURVEYOR TAPE. NO DISTURBANCE IS ALLOWED IN FUTURE SEPTIC FIELD AREA. 11. IT IS THE RESPONSIBILITY OF THE DEVELOPER TO MAINTAIN ALLTHE SEDIMENTATION CONTROL MEASURES. INSPECTIONS SHALL BE CONDUCTED AFTER A RAIN EVENT, AND IF MAINTENANCE OF THE STRUCTURES IS NECESSARY, INCLUDING REPAIR OF DAMAGE AND REMOVAL OF DEPOSITS OR SEDIMENT FROM VEGETATIVE FILTERS, IT SHALL BE DONE BY THE DEVELOPER.</div>	
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ADEQUATE SIGNS AND WARNING DEVICES TO INFORM AND PROTECT THE PUBLIC. "THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS", AS ADOPTED BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION, LATEST EDITION, SHALL BE CONSULTED. APPROPRIATE CONTROL METHODS SHOULD BE APPLIED TO THE SPECIFIC SITUATIONS AND TYPES OF CONSTRUCTION OPERATIONS BEING PERFORMED.		21. CONTRACTOR SHALL BE HELD RESPONSIBLE FOR DAMAGE TO PLANT MATERIAL OR SOILS OUTSIDE THE CONSTRUCTION LIMITS.		10. EXPANSION JOINTS SHALL BE PLACED, AS A MINIMUM AT ALL CONSTRUCTION JOINTS IN THE CURB. EXPANSION JOINTS SHALL BE DOWELED AND SPACED NO MORE THAN SIXTY (60) FEE ON CENTER.		18. MANHOLES SHALL BE TESTED PER ASTM C1244.		DATE OF CONSTRUCTION: IT IS ANTICIPATED THAT CONSTRUCTION WILL BEGIN IN SUMMER 2025, AND THAT EARTHWORK AND UTILITY OPERATIONS WILL BE COMPLETED BY SPRING 2026.	
6. THE CONTRACTOR SHALL ESTABLISH THE NECESSARY PERFORMANCE BONDS REQUIRED. PERMITS SHALL BE OBTAINED FROM ALL OUTSIDE GOVERNMENTAL AGENCIES HAVING JURISDICTION PRIOR TO INITIATION OF CONSTRUCTION ACTIVITIES.		22. ANY REMOVAL ITEMS SHALL BE PROPERLY DISPOSED OF IN ACCORDANCE WITH THE SPECIFICATIONS		11. PRIOR TO PLACING ANY PAVEMENT MATERIAL, THE CONTRACTOR IS RESPONSIBLE FOR PROPERLY PREPARING AND COMPACTING THE SUBGRADE. THE PAVEMENT BASE COURSE SHALL BE PROOF-ROLLED WITH A FULLY LOADED DUMP TRUCK. THE ENGINEER SHALL BE NOTIFIED AT LEAST 24 HOURS BEFORE PROOF-ROLLING. ADDITIONAL PROOF-ROLLS MAY BE NECESSARY TO VERIFY THAT ANY UNSTABLE AREAS HAVE BE REPAIRED. NO PAVEMENT MATERIAL IS TO BE PAVED ON A WET OR SOFT SUBGRADE.		19. ALL SANITARY SEWER AND SERVICES TO BE WATERMAIN QUALITY SEWER.		• PERFORM TREE REMOVAL • INSTALL TEMPORARY EROSION CONTROL MEASURES. • MASS GRADE SITE AND EXCAVATE DETENTION FACILITIES. • CONSTRUCT UTILITIES • CONSTRUCT ROADWAY • PERFORM RESTORATION, STABILIZATION, AND REMOVAL OF TEMPORARY EROSION CONTROL MEASURES.	
7. THE CONTRACTOR IS RESPONSIBLE FOR HAVING THE MOST RECENT SET OF "APPROVED" FINAL ENGINEERING PLANS WITH THE LATEST REVISION DATE ON THE JOB SITE PRIOR TO THE START OF CONSTRUCTION.		23. FIRE HYDRANTS SHALL BE REQUIRED AND IN SERVICE PRIOR TO VERTICAL CONSTRUCTION WITH A MINIMUM FIRE FLOW 1000 GPM FOR 2 HOURS. HYDRANTS SHALL BE NO FURTHER THAN 250' FROM ANY HOME WITH AN AVERAGE SPACING BETWEEN HYDRANTS OF 500'.		12. ALL EXISTING PAVEMENT OR CONCRETE TO BE REMOVED SHALL BE SAWCUT TO A NEAT EDGE ALONG LIMITS OF PROPOSED REMOVAL BEFORE REMOVAL OPERATIONS BEGIN.		20. ALL TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROL PRACTICES MUST BE MAINTAINED AND REPAIRED AS NEEDED TO ASSURE EFFECTIVE PERFORMANCE OF THEIR INTENDED FUNCTION.			
8. THE CONTRACTOR IS TO VERIFY THE LOCATION OF ALL EXISTING UTILITIES PRIOR TO THE START OF CONSTRUCTION AND WILL BE RESPONSIBLE FOR ANY DAMAGE TO THE SAME.		24. DURING CONSTRUCTION, ALL ROADS SHALL BE HARD SURFACED (TEMPORARY OR PERMANENT) AND IN PLACE, CAPABLE OF SUPPORTING VEHICLE LOADING UNDER ALL WEATHER CONDITIONS, PURSUANT TO THE 2015 INTERNATIONAL FIRE CODE, CHAPTER 5, CHAPTER 33, AND APPENDIX D. THE BINDER COAT SHALL BE AN ACCEPTABLE MATERIAL. ACCESS FOR FIRE DEPARTMENT VEHICLES SHALL BE MAINTAINED AT ALL TIMES.		13. ALL EXISTING PAVEMENT OR CONCRETE TO BE REMOVED SHALL BE SAWCUT TO A NEAT EDGE ALONG LIMITS OF PROPOSED REMOVAL BEFORE REMOVAL OPERATIONS BEGIN.		11. THE ENGINEER SHALL BE NOTIFIED OF MAJOR AMENDMENTS OF THE SITE DEVELOPMENT OR EROSION AND SEDIMENTATION CONTROL PLANS, WHICH WILL BE APPROVED IN THE SAME MANNER AS THE ORIGINAL PLANS.			
9. CONTRACTOR SHALL RESTORE OFF-SITE SURFACES TO ORIGINAL CONDITION IF DAMAGED BY CONSTRUCTION.		STORM SEWER: <div>1. STORM SEWER PIPE RCP SHALL CONFORM TO CLASS B MATERIALS FROM SECTION 550 OF THE IDOT STANDARDS SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION. 2. SEWER PIPE JOINTS SHALL BE SEALED WITH "O-RING" GASKETS. WATERMAIN QUALITY PIPE JOINTS SHALL BE "O-RING" TYPE, ASTM C-443 3. VERTICAL SEPARATION: 3.1. A WATERMAIN SHALL BE SEPARATED FROM A SEWER SO THAT ITS INVERT IS A MINIMUM OF 18 INCHES ABOVE THE CROWN OF THE DRAIN OR SEWER WHENEVER WATERMAINS CROSS STORM SEWERS, SANITARY SEWERS OR SEWER SERVICE CONNECTIONS. THE VERTICAL SEPARATION SHALL BE MAINTAINED FOR THAT PORTION OF THE WATERMAIN LOCATED WITHIN TEN (10) FEET HORIZONTALLY OF ANY SEWER OR DRAIN CROSSED. A LENGTH OF WATERMAIN PIPE SHALL BE CENTERED OVER THE SEWER TO BE CROSSED WITH JOINTS EQUIDISTANT FROM THE SEWER OR DRAIN 3.2. BOTH THE WATERMAIN AND SEWER SHALL BE CONSTRUCTED OF SLIP-ON OR MECHANICAL JOINT CAST OR DUCTILE IRON PIPE, PRE-STRESSED CONCRETE PIPE, OR PVC PIPE EQUIVALENT TO WATERMAIN STANDARDS OF CONSTRUCTION WHEN: 3.2.1. IT IS IMPOSSIBLE TO OBTAIN THE PROPER VERTICAL SEPARATION AS DESCRIBED ABOVE, OR: 3.2.2. THE WATERMAIN PASSES UNDER A SEWER OR DRAIN.</div>		SANITARY SEWER: <div>1. EMBEDMENT MATERIALS FOR BEDDING, HAUNCHING AND INITIAL BACKFILL TO AT LEAST TWELVE INCHES OVER THE TOP OF THE PIPE WITH CA-7. PROCESSED MATERIAL PRODUCED FOR HIGHWAY CONSTRUCTION USED IN THE PROJECT CLASSIFIED ACCORDING TO PARTICLE SIZE, SHAPE AND GRADATION IN ACCORDANCE WITH ASTM D-2321-89, SECTION 9, TABLE 1. 2. ALL RIGID GRAVITY SEWER PIPE TO BE INSTALLED IN ACCORDANCE WITH ASTM C-12 AND BEDDING MATERIAL CA-7. 3. A CURRENT COLOR VIDEO RECORD AND A TYPE WRITTEN TRANSCRIPTION OF THE INTERNAL INSPECTION OF THE NEWLY CONSTRUCTED SEWER SYSTEM SHALL BE SUBMITTED PRIOR TO REFUNDING OF SITE IMPROVEMENT ESCROW RETENTION MONIES BY THE VILLAGE OF ORLAND PARK. ALL PUBLIC MAINS SHALL BE VIDEOTAPEd. THE CONTRACTOR MUST ROTATE THE LENS OF THE CAMERA TO LOOK AT ALL SERVICES. THE SERVICE CONNECTIONS MUST BE NOTED IN THE TELEVISION REPORT. WHEN THE PROPOSED SANITARY SEWER SYSTEM IS TO CONNECT TO AN EXISTING SANITARY SEWER SYSTEM ABUTTING THE PROPERTY, THE EXISTING CONTIGUOUS SEWERS WITH THE VILLAGE OF ORLAND PARK. ALL LINES SHALL BE FLUSHED AND CLEANED PRIOR TO VIDEOTAPING. 4. THE MINIMUM BUILDING SANITARY SEWER SERVICE SIZE SHALL BE SIX (6) INCHES IN DIAMETER. THE SERVICE LATERAL SHALL SLOPE TOWARD THE MAIN AT THE MINIMUM RATE OF ONE (1) PERCENT. 5. MANHOLES SHALL BE PRECAST REINFORCED CONCRETE- ASTM C-478 WITH TONGUE AND GROOVE JOINTS SEALED WITH GASKETS CONFORMING TO ASTM C-443 OR BITUMINOUS JOINTING MATERIAL. 6. NO MORE THAN TWO PRECAST ADJUSTING RINGS WITH A MAXIMUM HEIGHT ADJUSTMENT OF SIX INCHES SHALL BE ALLOWED. 7. ALL PIPE CONNECTION OPENINGS SHALL BE PRECAST WITH RESILIENT RUBBER WATER-TIGHT PIPE TO MANHOLE SLEEVES OR SEALS, PER ASTM C-923. 8. MANHOLES SHALL INCLUDE EXTERNAL CHIMNEY SEALS.</div>		3. INLET PROTECTORS SHALL BE USED IN ALL STORM GRATES DURING CONSTRUCTION AND SHALL REMAIN IN PLACE UNTIL THE RESTORATION IS SUFFICIENTLY ESTABLISHED. THE INLET PROTECTORS SHALL BE MAINTAINED BY THE CONTRACTOR. THE CONTRACTOR SHALL KEEP A MAINTENANCE LOG. THE COUNTY ENGINEER CAN DETERMINE IF ADDITIONAL PRACTICES ARE NEEDED FOR BETTER SOIL EROSION AND SEDIMENT CONTROL. 4. SILT FENCING SHALL REMAIN IN PLACE THROUGH THE CONSTRUCTION OF HOUSE/BUILDINGS TO SERVE AS EROSION CONTROL FOR THAT CONSTRUCTION. 5. TO PREVENT SOIL FROM LEAVING THE SITE ON CONSTRUCTION VEHICLE WHEELS, WORK ENTRANCES SHALL BE CONSTRUCTED OF GRAVEL AND SHALL EXTEND AT LEAST 50 FEET INTO THE JOB SITE. THE EXISTING PAVEMENT SURFACES SHALL BE INSPECTED DAILY FOR SOIL DEBRIS AND SHALL BE CLEANED WHEN NECESSARY. 6. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROPERLY DISPOSE OF ANY EXCESS EXCAVATED MATERIAL. 7. DISPOSAL OF DEBRIS EXCAVATION AND PAVEMENT REMOVAL SHALL BE THE CONTRACTOR'S RESPONSIBILITY AND CONSIDERED AS AN INCIDENTAL EXPENSE. 8. ANY TOPSOIL THAT WILL BE STOCKPILED ON SITE SHALL BE MANAGED IN ACCORDANCE WITH THE CURRENT NPDES REGULATIONS. IF THE STOCKPILE WILL REMAIN ON SITE FOR AN EXTENDED PERIOD, IT SHALL BE STABILIZED WITH GRASS AND/OR OTHER VEGETATION AND DOUBLE ROW OF SILT FENCING SHALL BE PLACED AROUND THE STOCKPILE. 9. ALL ACCESS TO AND FROM THE CONSTRUCTION SITE IS TO BE RESTRICTED TO THE CONSTRUCTION ENTRANCE. 10. ALL TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROL PRACTICES MUST BE MAINTAINED AND REPAIRED AS NEEDED TO ASSURE EFFECTIVE PERFORMANCE OF THEIR INTENDED FUNCTION.			
10. THE CONTRACTOR IS TO PROVIDE THE VILLAGE ENGINEER WITH RECORD DRAWINGS OF ALL UTILITIES SHOWING LOCATIONS OF ALL SEWER PIPE, MAINS, SERVICE STUBS, & STRUCTURES.		3.1. A WATERMAIN SHALL BE SEPARATED FROM A SEWER SO THAT ITS INVERT IS A MINIMUM OF 18 INCHES ABOVE THE CROWN OF THE DRAIN OR SEWER WHENEVER WATERMAINS CROSS STORM SEWERS, SANITARY SEWERS OR SEWER SERVICE CONNECTIONS. THE VERTICAL SEPARATION SHALL BE MAINTAINED FOR THAT PORTION OF THE WATERMAIN LOCATED WITHIN TEN (10) FEET HORIZONTALLY OF ANY SEWER OR DRAIN CROSSED. A LENGTH OF WATERMAIN PIPE SHALL BE CENTERED OVER THE SEWER TO BE CROSSED WITH JOINTS EQUIDISTANT FROM THE SEWER OR DRAIN		3.2.1. IT IS IMPOSSIBLE TO OBTAIN THE PROPER VERTICAL SEPARATION AS DESCRIBED ABOVE, OR:		3.2.2. THE WATERMAIN PASSES UNDER A SEWER OR DRAIN.			
11. THE ENGINEER WILL NOT BE RESPONSIBLE FOR THE CONTRACTOR'S MEANS, METHODS, TECHNIQUES, SEQUENCES, OR PROCEDURES OF CONSTRUCTION. THE ENGINEER WILL NOT BE RESPONSIBLE FOR THE CONTRACTOR'S FAILURE TO PERFORM OR FURNISH THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.		3.2. BOTH THE WATERMAIN AND SEWER SHALL BE CONSTRUCTED OF SLIP-ON OR MECHANICAL JOINT CAST OR DUCTILE IRON PIPE, PRE-STRESSED CONCRETE PIPE, OR PVC PIPE EQUIVALENT TO WATERMAIN STANDARDS OF CONSTRUCTION WHEN:		3.2.1. IT IS IMPOSSIBLE TO OBTAIN THE PROPER VERTICAL SEPARATION AS DESCRIBED ABOVE, OR:		3.2.2. THE WATERMAIN PASSES UNDER A SEWER OR DRAIN.			
12. THE ENGINEER WARRANTS THE DESIGN, RECOMMENDATIONS, AND SPECIFICATIONS TO HAVE BEEN PROMULGATED ON CONDITIONS GENERALLY ENCOUNTERED WITHIN THE INDUSTRY. THE ENGINEER ASSUMES NO RESPONSIBILITY WHATSOEVER, WITH RESPECT TO THE DESIGN RECOMMENDATIONS AND SPECIFICATIONS, FOR COMPLEX OR UNUSUAL SOIL CONDITIONS ENCOUNTERED ON THE PROJECT. IT SHALL BE THE OWNERS/BIDDER'S RESPONSIBILITY TO ASCERTAIN THE EXACT NATURE OF SUBSURFACE CONDITIONS PRIOR TO THE CONSTRUCTION OF THE IMPROVEMENT.		3.3. A VERTICAL SEPARATION OF 18" BETWEEN THE INVERT OF THE SEWER OR DRAIN AND THE CROWN OF THE WATERMAIN SHALL BE MAINTAINED WHERE A WATERMAIN CROSSES UNDER A SEWER, SUPPORT THE SEWER OR DRAIN LINES TO PREVENT SETTLLING AND BREAKING THE WATERMAIN, AS SHOWN ON THE PLANS OR APPROVED BY THE ENGINEER.		3.4. CONSTRUCTION SHALL EXTEND ON EACH SIDE OF THE CROSSING UNTIL THE PERPENDICULAR DISTANCE FROM THE WATERMAIN TO THE SEWER OR DRAIN LINE IS AT LEAST 10 FEET.		4. MANHOLES AND CATCH BASINS SHALL BE PRECAST REINFORCED CONCRETE - ASTM C-478 AND ASTM C-443 CONFORMING TO THE FOLLOWING MINIMUM SIZE CRITERIA UNLESS SPECIFIED OTHERWISE: A.) FOR SEWER EIGHTEEN (18) INCH DIAMETER OR LESS, MANHOLE SHALL HAVE A FORTY-EIGHT (48) INCH INSIDE DIAMETER. B.) FOR SEWER TWENTY-ONE (21) INCH TO THIRTY-SIX (36) INCH IN DIAMETER, MANHOLE SHALL HAVE A SIXTY (60) INCH INSIDE DIAMETER. C.) FOR SEWER GREATER THAN THIRTY-SIX (36) INCH DIAMETER, MANHOLE SHALL HAVE AN OFFSET RISER PIPE OF FORTY-EIGHT (48) INCH INSIDE DIAMETER.			
13. ALL TRENCHES CAUSED BY THE CONSTRUCTION OF SEWERS, WATERMAINS, WATER SERVICE PIPES AND IN EXCAVATIONS AROUND CATCH BASINS, MANHOLES, INLETS AND OTHER APPURTENANCES WHICH OCCUR WITHIN TWO FEET OF THE LIMITS OF EXISTING AND PROPOSED PAVEMENT IMPROVEMENTS, SIDEWALKS, AND CURB AND GUTTERS SHALL BE BACKFILLED WITH TRENCH BACKFILL (AS DEFINED IN SECTION 208 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND SPECIAL PROVISIONS).		14. AT LEAST 2 WORKING DAYS BEFORE COMMENCEMENT OF ANY WORK ACTIVITIES, THE CONTRACTOR WILL BE REQUIRED TO ATTEND AN ON-SITE PRECONSTRUCTION CONFERENCE. AT THIS CONFERENCE, THE CONTRACTOR WILL BE REQUIRED TO FURNISH AND DISCUSS INCLUDING BUT NOT LIMITED TO THE FOLLOWING: 1) WRITTEN PROGRESS SCHEDULE AND BEGINNING OF WORK 2) NAMES OF PROJECT MANAGER, FIELD SUPERINTENDENT AND THE NAME AND PHONE NUMBER OF A RESPONSIBLE INDIVIDUAL WHO CAN BE REACHED 24 HOURS A DAY.		15. THE CONTRACTOR SHALL NOT BE PERMITTED TO OPERATE EXISTING WATER VALVES OR HYDRANTS WITHOUT PERMISSION FROM THE WATER DEPARTMENT. THE CONTRACTOR SHALL CALL THE WATER DEPARTMENT 24 HOURS PRIOR TO THE NEED TO OPERATE THE VALVES OR HYDRANTS.					

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DATE : 03-11-2025 PROJECT # : W24323.00 DESIGNED BY : KF DRAWN BY : KF CHECKED BY : NAV		09-08-2025 (F PER VILLAGE COMMENTS) 02-20-2025 (F PER VILLAGE COMMENTS)	
GENERAL NOTES			
C-2.0		SHEET	

PROFESSIONAL DESIGN FIRM NUMBER: 184.001186

ENGINEERING
RESOURCE ASSOCIATES



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BRIDLEWOOD
SUBDIVISION

14137 S 108TH AVE, ORLAND PARK, IL

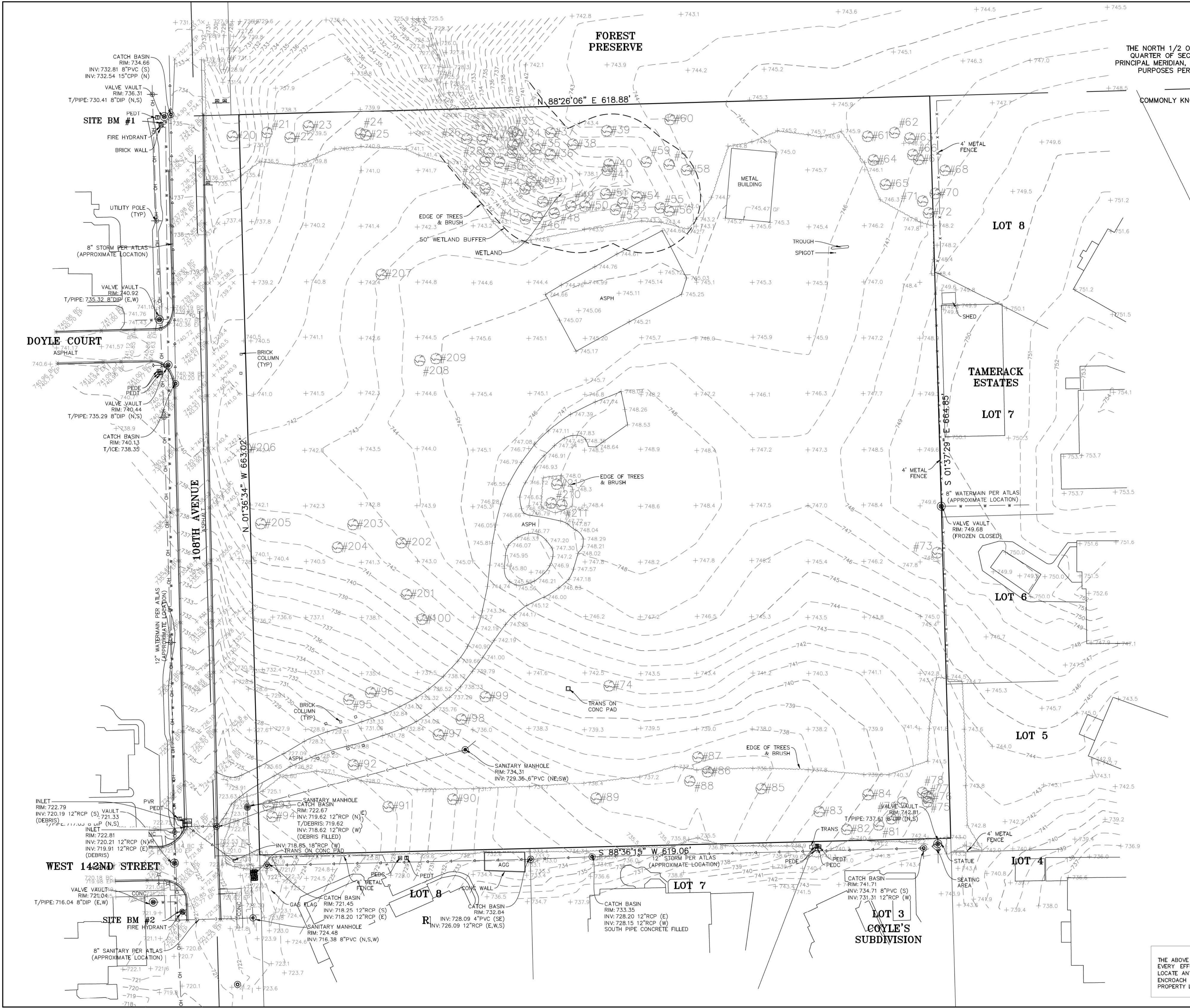
DATE	: 03-11-2025
PROJECT #	: W242323.00
DESIGNED BY	: KF
DRAWN BY	: KF
CHECKED BY	: NAV

09-08-2025 (F PER VILLAGE COMMENTS)
07-30-2025 (F PER VILLAGE COMMENTS)

GENERAL NOTES

C-2.0
SHEET

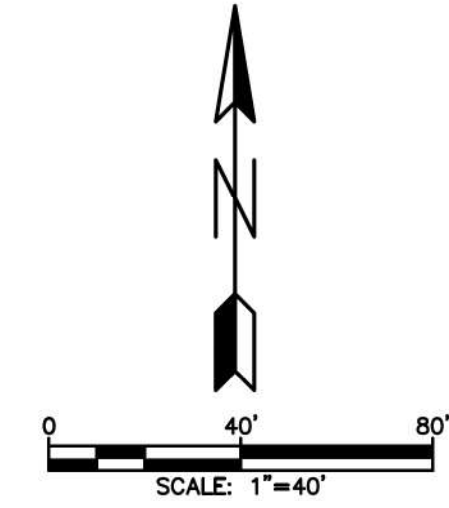
GENERAL WATERMAIN CONSTRUCTION NOTES:			
1) A MINIMUM OF 48 HOURS PRIOR TO ANY WATER USAGES (I.E. FLUSHES, FILLS, ETC.), THE CONTRACTOR MUST CALL THE VILLAGE OF ORLAND PARK'S PUBLIC WORKS DEPARTMENT AT (708) 403-6350 TO GET APPROVAL OF SAID USAGE. ANY UNAUTHORIZED USAGES WILL RESULT IN PENALTIES.		4) HYDRANT LEADS: ALL HYDRANT LEADS MUST BE CONSTRUCTED OF DIWM CL 52 WITH A MINIMUM DIAMETER OF 6". WHERE HYDRANT LEADS ARE LONGER THAN 100', 8" DIAMETER DIWM WILL BE REQUIRED.	
2) ALL WATERMAINS NEAR SEWER WILL BE PROTECTED IN ACCORDANCE WITH IEPA REQUIREMENTS.		5) HYDRANT SPACING: HYDRANTS MUST BE PLACED AT A MINIMUM OF 350-FOOT INTERVALS, AND MAY NOT BE LESS THAN FIVE (5) FEET FROM THE BACK OF CURB. NO BUILDABLE AREA SHALL BE FARTHER THAN 300' FROM A FIRE 21 HYDRANT, AND A MINIMUM OF ONE HYDRANT SHALL BE LOCATED AT EACH INTERSECTION. FOR LARGER PROJECTS, HYDRANTS SHALL BE PROPOSED AT HIGH POINTS FOR AIR RELEASE. ALL HYDRANT LOCATIONS SHALL BE COORDINATED WITH THE VILLAGE OF ORLAND PARK'S FIRE DEPARTMENT AND APPROPRIATE ENGINEERING DIVISION.	
3) SHUT-DOWN OF ANY WATERMAIN WILL NEED TO BE COORDINATED WITH THE VILLAGE OF ORLAND PARK'S PUBLIC WORKS DEPARTMENT.		6) HORIZONTAL AND VERTICAL SEPARATION: - WATERMAINS AND SEWER HORIZONTAL AND VERTICAL SEPARATIONS SHALL CONFORM TO THE LATEST VERSION OF THE "STANDARD SPECIFICATIONS FOR WATER & SEWER CONSTRUCTION IN ILLINOIS. REFERENCE TO THESE STANDARD AND SPECIFICATION SHOULD BE MADE WHEN IT IS IMPOSSIBLE TO MEET SEPARATION REQUIREMENTS FOR CASING PIPE REQUIREMENTS (REFER TO STANDARD CASING PIPE DETAIL).	
4) ALL WATER APPURTENANCE (VALVES, INSERTION VALVES, VALVE VAULTS, ETC.) SHALL BE SUBMITTED TO THE VILLAGE OF ORLAND PARK'S PUBLIC WORKS DEPARTMENT FOR APPROVAL PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES. THE CITY PUBLIC WORKS DEPARTMENT WILL HAVE THE FINAL SAY ON THE MANUFACTURER OF ALL WATER APPURTENANCE.		7) ABANDONING AND REPLACING EXISTING SERVICES: ALL EXISTING SERVICES SHALL BE ABANDONED AT THE CORPORATION STOP (CLOSE CORPORATION STOP, CUT SERVICES, AND INSTALL COPPER DISK). EXISTING SERVICES SHOULD BE REPLACED FROM THE NEW MAIN TO THE B-BOX IF SERVICE IS LEAD. IF SERVICE IS COPPER, IT SHOULD BE CUT AND TAPPED INTO THE NEW MAIN. APPROVED TRENCH BACKFILL MATERIAL IS TO BE PLACED WHERE ANY TRENCH LIES WITHIN (3) FEET OF THE EDGE OF PAVEMENT, CURB, OR SIDEWALK. IT IS ASSUMED ALL LINES ARE LEAD AND MUST BE REPLACED TO B-BOX.	
5) SEE CONSTRUCTION DETAILS FOR ALL CIVIL DETAILS.		8) INTERRUPTION OF WATER USAGE: WATER SERVICES MAY ONLY BE INTERRUPTED WHEN THE TRANSFER OF SERVICES TO THE NEW MAIN TAKES PLACE. SERVICES SHALL BE TRANSFERRED SUBSEQUENT TO TESTING AND CHLORINATION OF THE PROPOSED MAIN. THE CONTRACTOR SHALL CONTACT THE VILLAGE OF ORLAND PARK'S PUBLIC WORKS DEPARTMENT AT (708) 403-6350 PRIOR TO TRANSFER OF SERVICE. RESIDENTS AND BUSINESSES MUST BE INFORMED A MINIMUM OF 24 HOURS IN ADVANCE OF ANY INTERRUPTION BY THE CITY OF ST. CHARLES WATER DIVISION STAFF.	
BEDDING, HAUNCHING & INITIAL BACKFILL		9) SERVICES, DOMESTIC: DOMESTIC WATER SERVICES SHALL BE PROVIDED TO EACH LOT. THE MINIMUM SIZE FOR DOMESTIC SERVICES IS ONE AND A HALF INCHES (1.5"). ONCE INSTALLED ALL SERVICES EXTENDING TO THE CITY RIGHT-OF-WAY LIMITS SHALL BE LOCATED UTILIZING A 2" X 4" WOODEN STAKE PAINTED BLUE.	
1) ALL WATER MAIN ON THIS PROJECT SHALL BE BEDDED, HAUNCHED AND INITIAL BACKFILL PLACED IN ACCORDANCE WITH ASTM SPECIFICATION D-2321 AND THE APPLICABLE PARTS OF DIVISION II SECTION 20-4.05 AND 20-4.06 OF THE STANDARD SPECIFICATIONS (ISPE).		10) THRUST BLOCKING: PREFORMED CONCRETE BLOCK THRUST BLOCKING SHALL BE PROVIDED AT ALL BENDS GREATER THAN 10 DEGREES, AT ALL MECHANICAL JOINT CONNECTIONS, AND AT ALL FIRE HYDRANTS (REFER TO THRUST BLOCKING DETAIL).	
2) THE BEDDING, HAUNCHING AND INITIAL BACKFILL MATERIAL SHALL BE PLACED FROM 6" BELOW THE OUTSIDE DIAMETER OF THE PIPE TO 12" ABOVE THE OUTSIDE OF THE PIPE. EMBEDMENT MATERIALS FOR THE WATER MAIN SHALL BE CLASS 1A, IB, OR II.		11) TRENCH BACKFILL: ALL UTILITY AND SERVICE TRENCHES WITHIN (3) FEET OF PAVED SURFACES, OR AT A DISTANCE SPECIFIED BY THE ENGINEER, SHALL BE BACKFILLED WITH CA-7 (VIRGIN CRUSHED LIMESTONE). FA-6 (CLEAN BEACH SAND) MATERIAL SHALL BE USED IN ALL OTHER UNPAVED LOCATIONS. ALL BACKFILL MATERIAL SHALL BE PROPERLY COMPACTED UNLESS OTHERWISE DIRECTED BY THE APPROPRIATE ENGINEERING DIVISION. BACKFILL UNDER EXISTING PAVEMENTS, WHERE AN OPEN CUT OF THE PAVEMENT HAS BEEN APPROVED, SHALL BE FLOWABLE FILL THAT MEETS THE IDOT STANDARDS OF CONTROLLED LOW STRENGTH MATERIAL (CLSM) MIXTURE #1. NO FLY ASH WILL BE PERMITTED IN THIS MIX (REFER TO CITY PIPE TRENCH DETAIL).	
3) IF WET CONDITIONS ARE ENCOUNTERED IN THE TRENCH, A CA-7 BEDDING MATERIAL (CLASS 1A BEDDING PER ASTM D-2321) SHALL BE REQUIRED, AS DIRECTED BY THE ENGINEER.		12) VALVE SPACING: RIGHT-HAND CLOSING RESILIENT WEDGE GATE VALVES AT INTERVALS NOT OVER 600 FEET INTERVALS.	
FINAL BACKFILL		13) VALVE VAULTS: VALVE VAULTS ARE TO BE PRECAST REINFORCED CONCRETE, ECCENTRIC TYPE (REFER TO STANDARD DETAIL AND MATERIALS SECTION FOR SIZING SPECIFICATIONS). A MAXIMUM OF (8-INCHES) OF ADJUSTING RINGS SHALL BE USED.	
1) ALL WATER MAIN SHALL BE BACKFILLED IN ACCORDANCE WITH SECTION 20-4.06 OF THE STANDARD SPECIFICATIONS (ISPE). THE MATERIALS USED FOR TRENCH BACKFILL SHALL BE CRUSHED GRAVEL OR CRUSHED STONE WITH IDOT GRADATION NUMBER OF CA 7 (ASTM D 448 GRADATION SIZE 57).		14) FRAME AND COVERS: ALL VALVE VAULT STRUCTURES SHALL HAVE A NEENAH FOUNDRY COMPANY R-1713 FRAME AND TYPE "B" LID WITH CONCEALED PICK HOLE. LIDS SHALL BE FURNISHED WITH "VILLAGE OF ORLAND PARK - WATER" CAST INTO THE TOP SURFACE.	
2) IN ALL AREAS WHERE THE WATER MAIN TRENCH IS LOCATED MORE THAN 2' OUTSIDE OF THE ROADWAYS, DRIVEWAYS, AND SIDEWALKS, THE TRENCH SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH SECTION 20-4.06B, METHOD 2 OF THE STANDARD SPECIFICATIONS (ISPE).		15) WATER MAIN, MINIMUM SIZE: THE MINIMUM SIZE FOR ANY PUBLIC WATER MAIN SHALL BE 8" (WITH THE EXCEPTION OF HYDRANT LATERALS THAT MAY BE 6", (SEE DESIGN REQUIREMENT #3 ABOVE FOR FIRE FLOW CONSIDERATIONS).	
WATER DESIGN RESTRICTIONS		16) SEPARATION: A TEN-FOOT HORIZONTAL SEPARATION SHALL BE MAINTAINED BETWEEN WATER MAINS AND APPURTENANCES, AND ALL OTHER UTILITIES, PUBLIC OR PRIVATE.	
1) DEAD END WATER MAIN: THE CONSTRUCTION OF DEAD END WATER MAIN WILL NOT BE PERMITTED. WHERE DEAD END MAINS CANNOT BE AVOIDED ON A TEMPORARY BASIS, A FIRE HYDRANT SHALL BE PLACED AT THE END.		17) APPURTENANCE SEPARATION: WATER APPURTENANCES SHALL BE A MINIMUM OF (20) FEET FROM PERMANENT STRUCTURES; THIS APPLIES TO ANY STRUCTURE THAT MAY REQUIRE A BUILDING PERMIT (I.E. RETAINING WALLS, POOLS, SHED, GARAGES, ETC.)	
2) PIPE COMPOUND: PIPE COMPOUND WILL NOT BE PERMITTED IN ANY WATER MAIN CONSTRUCTION, INCLUDING SERVICE CONNECTIONS.		18) DEAD ENDS: DEAD END WATER MAINS LONGER THAN 300' SHOULD NOT BE PERMITTED. THE WATER SYSTEM MUST BE EXTENDED, AS A MINIMUM, TO THE LIMITS OF THE DEVELOPMENT AND LOOPED WHEREVER POSSIBLE.	
WATER DESIGN REQUIREMENTS:		19) ADJUSTMENT OF STRUCTURES: ALL ADJUSTMENTS TO VALVE VAULTS SHALL BE MADE WITH PRECAST CONCRETE ADJUSTING RINGS NOT TO EXCEED A MAXIMUM OF EIGHT (8) INCHES OVERALL IN HEIGHT. WATERTIGHT VALVE VAULTS SHALL BE PROVIDED FOR EACH VALVE. BARREL SECTIONS SHALL BE SEATED USING (2) BUTYL RUBBER STRIPS PER TONGUE AND GROOVE SECTION. VALVE VAULTS ARE TO BE PRECAST REINFORCED CONCRETE, CONCENTRIC TYPE (REFER TO STANDARD DETAIL AND MATERIALS SECTION FOR SIZING SPECIFICATIONS). AFTER FINAL ADJUSTMENTS HAVE BEEN MADE, ALL JOINTS IN PRECAST STRUCTURES SHALL BE MORTARED. THE MORTAR SHALL BE COMPOSED OF ONE PART CEMENT TO THREE PARTS SAND, BY VOLUME, BASED ON DRY METALS AND SHALL BE THOROUGHLY WETTED BEFORE LAYING. VAULTS MAY ONLY BE EXTENDED TO A MAXIMUM OF 23" FROM THE SURFACE TO THE INSIDE FLARE OF THE MANHOLE CONE SECTION.	
1) AUGERING OR DIRECTIONAL DRILLING WILL BE REQUIRED AT ALL ROADWAY CROSSINGS UNLESS OTHERWISE PERMITTED BY THE VILLAGE OF ORLAND PARK'S APPROPRIATE ENGINEERING DIVISION. STEEL CASING AND "CASCADE" SPACERS SHALL BE UTILIZED EXCLUSIVELY. FOLLOWING COMPLETION OF THE AUGER, THE CASING SHALL BE FILLED WITH PE4 GRAVEL OR SAND, THE ENDS SHALL BE BLOCKED AND MORTARED SHUT, OR HAVE END BOOTS INSTALLED.		20) CONNECTING TO EXISTING WATER MAINS: CONNECTION TO THE END OF AN EXISTING A WATER MAIN SHALL BE WITH A VALVE ONLY. NO NEW WATER MAIN SHOULD BE CONNECTED TO THE EXISTING WATER MAIN UNLESS THE NEW WATER MAIN CAN BE PRESSURE TESTED SEPARATELY. CONNECTION TO AN EXISTING WATER MAIN SHALL BE DONE BY PRESSURE CONNECTION ONLY UNLESS AUTHORIZED BY THE APPROPRIATE ENGINEERING DIVISION. PRESSURE CONNECTION AND VALVE SHALL BE LOCATED WITHIN THE VALVE VAULT. NO PRESSURE CONNECTION SHALL BE WITHIN 3 FEET OF AN EXISTING WATER MAIN JOINT. IF PRESSURE CONNECTION CANNOT BE DONE, USE A CUT IN SLEEVE AND TEE CONNECTION. ALL FITTINGS WILL BE SWABBED OUT WITH A CHLORINE SOLUTION OF AT LEAST 50 MG/L. A CITY REPRESENTATIVE MUST TEST THIS SOLUTION.	
2) COVER DEPTH: ALL WATER MAIN, HYDRANT LEADS, AND SERVICES MUST HAVE A MINIMUM COVER OF FIVE AND A HALF FEET (5.5') , AND A MAXIMUM COVER OF TEN FEET (10'). VARIATIONS FROM THESE STANDARDS WILL REQUIRE APPROVAL OF APPROPRIATE ENGINEERING DIVISION.		21) SERVICE TAPS: SERVICE TAPS TO WATER MAINS ARE NOT PERMITTED UNTIL AFTER BACTERIOLOGICAL SAMPLING AND ANALYSIS HAS BEEN COMPLETED TO THE SATISFACTION OF THE APPROPRIATE ENGINEERING DIVISION. NO WATER SERVICE CONNECTION SHALL BE MADE BY ANY PERSON OR FIRM OTHER THAN A STATE OF ILLINOIS LICENSED CONTRACTOR, WITH A STATE OF ILLINOIS LICENSED PLUMBER ON THE JOB, BONDED WITH THE CITY.	
3) FIRE FLOWS: FIRE FLOWS SHALL BE CALCULATED AT A TWENTY (20) PSI RESIDUAL PRESSURE AND SHALL BE AVAILABLE FOR A MINIMUM FOUR (4) HOUR CONTINUOUS DURATION FOR FLOWS ABOVE 2,000 GPM, AND A TWO (2) HOUR CONTINUOUS DURATION FOR FLOWS BELOW 2,000 GPM. APPROPRIATE WATER PRESSURE AND FLOW MUST BE PROVIDED IN ACCORDANCE WITH THE VILLAGE OF ORLAND PARK'S MUNICIPAL CODE:		22) LANDSCAPING: LANDSCAPE PLANTINGS SHALL NOT INTERFERE WITH OPERATION AND MAINTENANCE OF WATER APPURTENANCES. TREES SHALL BE PLACED NO CLOSER THAN (10) FEET FROM ANY STRUCTURE(S).	
• SINGLE FAMILY DETACHED RESIDENTIAL: 1,000 - 1,500 GPM		23) FIRE HYDRANTS: FIRE HYDRANTS SHALL BE INSTALLED WITH A MAXIMUM OF ONE EXTENSION KIT USED, AND A MAXIMUM EXTENSION OF 36". FIRE HYDRANT EXTENSION KITS MUST BE OF THE SAME MANUFACTURE AS THE HYDRANT, AND MUST BE INSTALLED ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS USING ORIGINAL MANUFACTURER'S PARTS.	
• TOWN / ROW OR CLUSTER HOUSING: 1,500 - 2,000 GPM		24) JOINT RESTRAINT: ALL MECHANICAL JOINT FITTINGS SHALL HAVE RESTRAINING GLANDS INSTALLED. RESTRAINT DEVICE SHALL BE UNI-FLANGE BY FORD COMPANY OR MEGA-LUG BY EBAA IRON. PUSH JOINT PIPE RESTRAINT SHALL BE FIELD LOCK GASKETS BY US PIPE OR SERIES 1700 MEGA-LUG OR SERIES 1390 PIPE RESTRAINT BY FORD. LENGTHS OF PIPE RESTRAINT SHALL BE DETERMINED FROM MANUFACTURERS INSTALLATION SPECIFICATIONS (REFER TO WATERMAIN RESTRAINT DETAIL).	
• APARTMENT TYPE CONSTRUCTION: 3,000 - 4,000 GPM		1) CORPORATION STOPS:	
• INDUSTRIAL & STORAGE: 3,000 - 5,000 GPM		a. COMPRESSION FITTINGS.	
• RESEARCH & DEVELOPMENT LABORATORIES: 3,000 - 4,000 GPM		i. MUELLER B-25008-N (1"-1 1/2"-2")	
• BUSINESS & COMMERCIAL AREAS: 3,000 - 4,500 GPM MERCANTILE CENTERS: 3,000 - 6,000 GPM		ii. FORD	
• ASSEMBLY & EDUCATION: 3,000 - 5,000 GPM		1. FB1000-4-Q-NL 1"	
• HEALTH CARE & INSTITUTIONAL: 3,000 - 4,000 GPM		2. FB1000-6-Q-NL 1 1/2"	
		3. FB 1000-7-Q-NL 2"	
		iii. A. Y. MCDONALD 4701-BQ (1", 1 1/	



THE NORTH 1/2 OF THE WEST 1/2 OF THE SOUTHWEST 1/4 OF THE SOUTHEAST QUARTER OF SECTION 5, TOWNSHIP 36 NORTH, RANGE 12 EAST OF THE THIRD PRINCIPAL MERIDIAN, EXCEPTING THE WEST 40.00 FEET THEREOF TAKEN FOR ROADWAY PURPOSES PER DOCUMENT NO. 95870785, ALL IN COOK COUNTY, ILLINOIS

P.I.N.: 27-05-402-096

COMMONLY KNOWN AS: 14137 S. 108TH AVENUE, ORLAND PARK, ILLINOIS



- LEGEND**
- = PROPERTY LINE
 - - -= LOT LINE
 - · - · = EASEMENT LINE
 - · - · = BUILDING SETBACK LINE
 - · - · = EX. SANITARY LINE
 - · - · = EX. STORM LINE
 - · - · = EX. WATER LINE
 - · - · = EX. UNDERGROUND CABLE (APPROXIMATE LOCATION)
 - · - · = EX. UNDERGROUND ELECTRIC (APPROXIMATE LOCATION)
 - · - · = EX. UNDERGROUND GAS (APPROXIMATE LOCATION)
 - · - · = EX. UNDERGROUND TELEPHONE (APPROXIMATE LOCATION)
 - · - · = EX. FENCE
 - · - · = EX. OVERHEAD WIRE (APPROXIMATE LOCATION)
 - · - · = EX. CONCRETE CURB & GUTTER
 - · - · = EX. DEPRESSED CURB
 - · - · = EX. CONTOURS
 - = EX. SANITARY MANHOLE
 - = EX. STORM CATCH BASIN
 - = EX. STORM FLARED END SECTION
 - = EX. STORM INLET
 - = EX. STORM MANHOLE
 - = EX. VALVE VAULT
 - = EX. FIRE HYDRANT
 - = EX. SPOT ELEVATION
 - = EX. CONIFEROUS TREE
 - = EX. DECIDUOUS TREE
 - = EX. BUSH
- ABBREVIATIONS**
- | | |
|-----------|----------------------------|
| ASPH | ARC LENGTH |
| AC | ASPHALT |
| BC | AIR CONDITIONER UNIT |
| BM | BACK OF CURB |
| BW | BENCHMARK |
| B | BOTTOM OF WALL |
| CH | BOTTOM OF CHORD |
| CM | CORRUGATED METAL PIPE |
| CO | CLEANOUT |
| CONC | CONCRETE |
| CP | CORRUGATED PLASTIC PIPE |
| DS | DOWNSPOUT |
| E | EAST |
| ELEC | ELECTRIC |
| EM | ELECTRIC METER |
| EP | EDGE OF PAVEMENT |
| FF | FINISHED FLOOR |
| GF | GARAGE FLOOR |
| GM | GAS METER |
| ICB | IRRIGATION CONTROL BOX |
| INVT | INVERT |
| LSP | LANDSCAPED AREA |
| MB | MAILBOX |
| MT | MEASURED TOP OF FOUNDATION |
| N | NORTH |
| PEDC | CABLE PEDESTAL |
| PEDE | ELECTRIC PEDESTAL |
| PEDT | TELEPHONE PEDESTAL |
| PIT | PROPOSED TOP OF FOUNDATION |
| PVC | POLYVINYL CHLORIDE PIPE |
| PVR | PAVERS |
| R | RADIUS |
| RCP | REINFORCED CONCRETE PIPE |
| S | SOUTH |
| TF | TOP OF FOUNDATION |
| TRANS | TRANSFORMER |
| T | TOP OF |
| TW | TOP OF WALL |
| UP | UTILITY POLE |
| UTIL | UTILITY |
| VCP | VITRIFIED CLAY PIPE |
| W | WEST |
| WW | WINDOW WELL |
| XXX.X' | MEASURED DIMENSION |
| (XXX.XX') | RECORD DIMENSION |

SITE BENCHMARK #1:
WEST SOUTHWEST FLANGE BOLT ON FIRE HYDRANT
LOCATED ON THE WEST SIDE OF 108TH AVENUE AT
APPROXIMATELY NORTH PROPERTY LINE OF SUBJECT
SITE EXTENDED.
ELEV: 736.43 (NAVD 88)

SITE BENCHMARK #2:
WEST SOUTHWEST FLANGE BOLT ON FIRE HYDRANT
LOCATED ON THE WEST SIDE OF 108TH AVENUE
NEAR NORTHEAST CORNER OF PROPERTY AT 10801
W 142ND ST.
ELEV: 722.40 (NAVD 88)

SNOW NOTE
THE ABOVE DESCRIBED PROPERTY WAS MEASURED DURING A PERIOD OF SNOW/ICE COVER.
EVERY EFFORT WAS MADE BY ENGINEERING RESOURCE ASSOCIATES TO ACCURATELY
LOCATE ANY AND ALL IMPROVEMENTS, ADDITIONS, ETC., (SPECIFICALLY THOSE WHICH MAY
ENCROACH UPON PROPERTY LINES) SOME ITEMS WHICH ARE CLEARLY WITHIN THE
PROPERTY LINE BOUNDARIES MAY NOT HAVE BEEN OBSERVED DUE TO THE SNOW COVER.

PROFESSIONAL DESIGN FIRM NUMBER: 184.001186

ENGINEERING
RESOURCE ASSOCIATES
35701 WEST AVENUE, SUITE 150
NORTH BROMFIELD, ILLINOIS 60065
PHONE (830) 393-3060
FAX (830) 393-3152
www.eraconsultants.com

RT/MGR, LLC
1965 BRENTWOOD RD. NORTHBROOK, IL 60062
(847) 863-8808

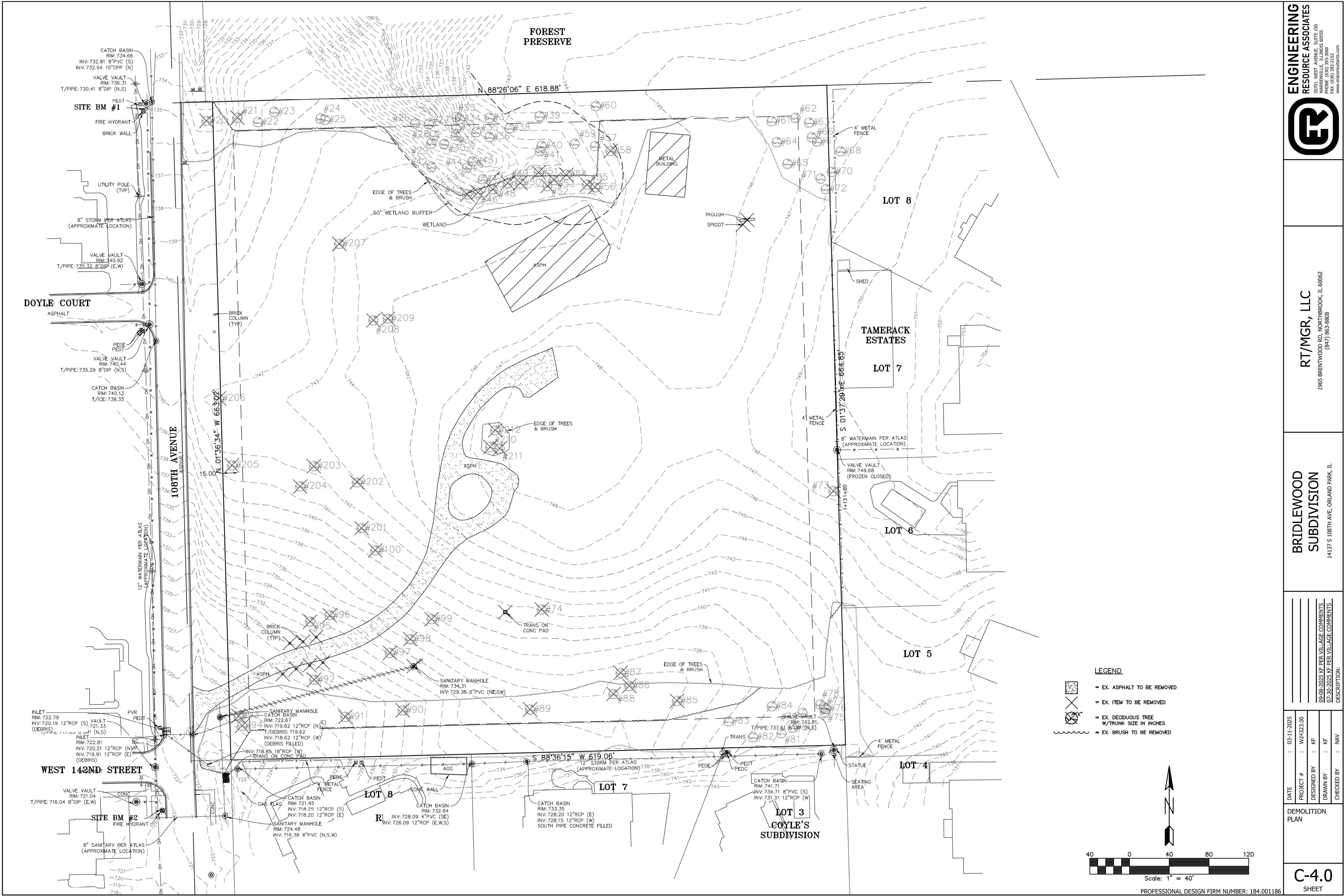
BRIDLEWOOD
SUBDIVISION
14137 S 108TH AVE, ORLAND PARK, IL

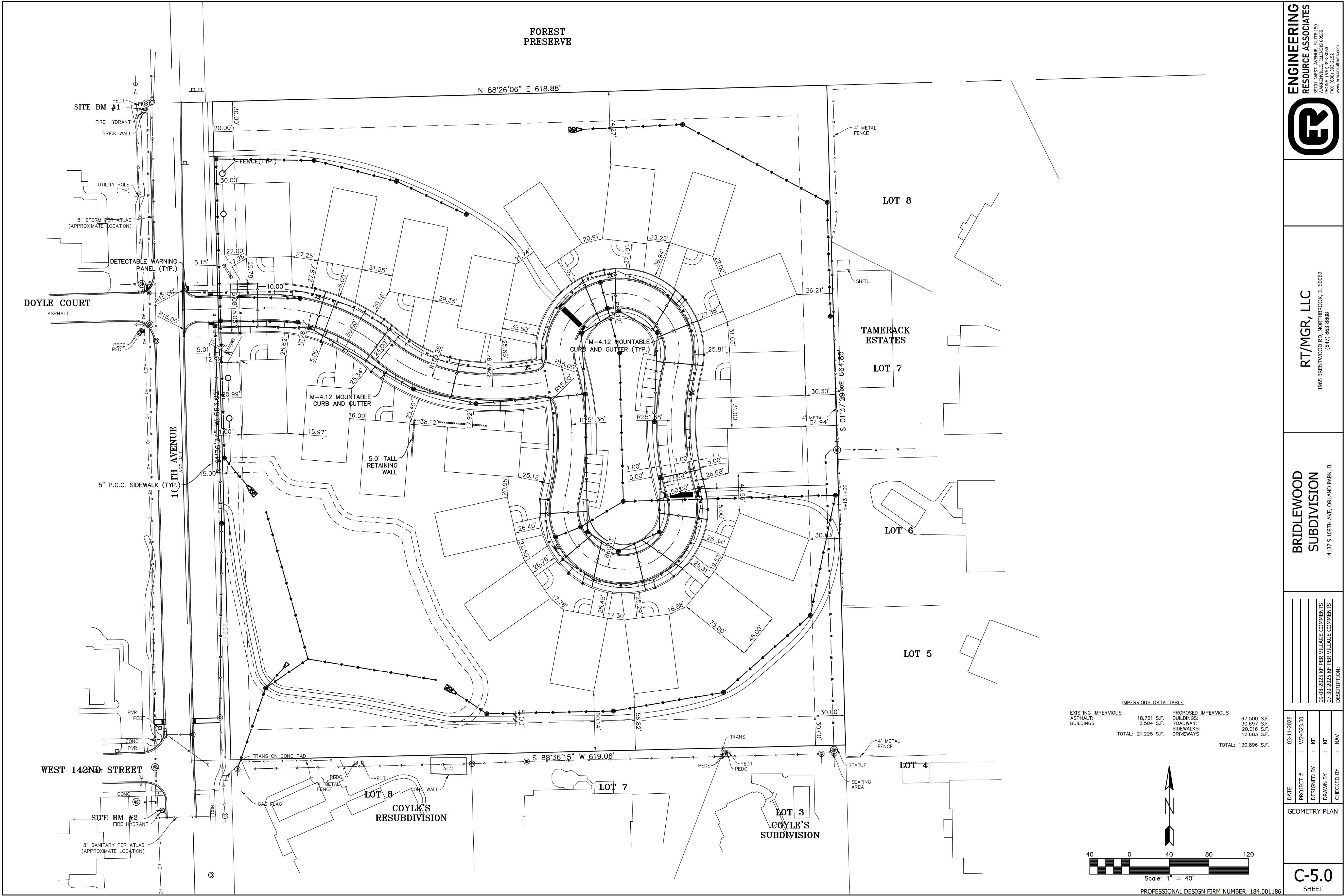
DATE	03-11-2025
PROJECT #	W24323.00
DESIGNED BY	KF
DRAWN BY	KF
CHECKED BY	NAV

EXISTING CONDITIONS PLAN

C-3.0
SHEET

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IMPERVIOUS DATA TABLE

EXISTING IMPERVIOUS	PROPOSED IMPERVIOUS
ASPHALT: 18,721 S.F.	BUILDINGS: 67,500 S.F.
BUILDINGS: 2,504 S.F.	ROADWAY: 30,887 S.F.
	SIDEWALKS: 20,016 S.F.
TOTAL: 21,225 S.F.	DRIVEWAYS: 12,683 S.F.
	TOTAL: 130,896 S.F.

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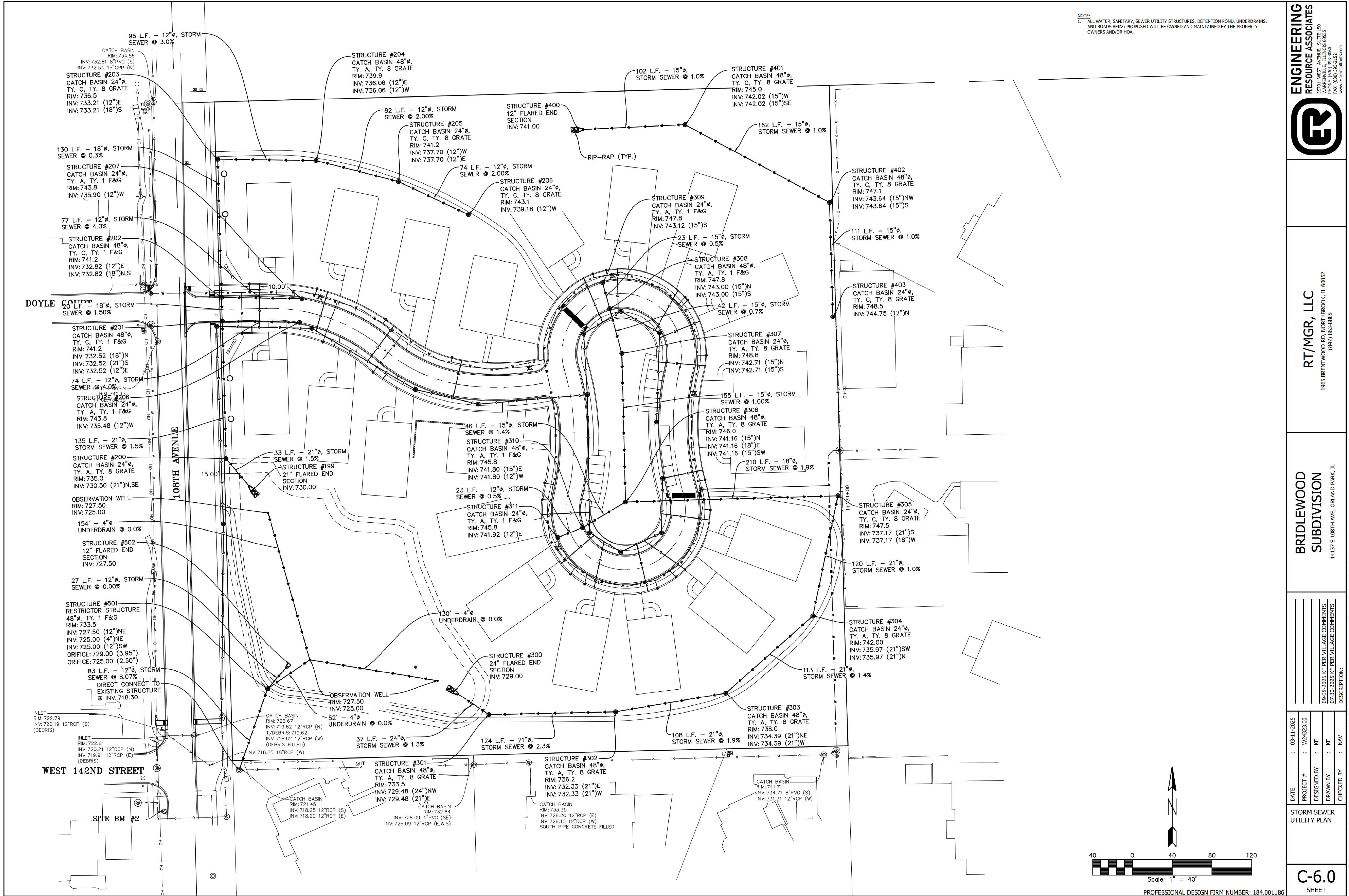
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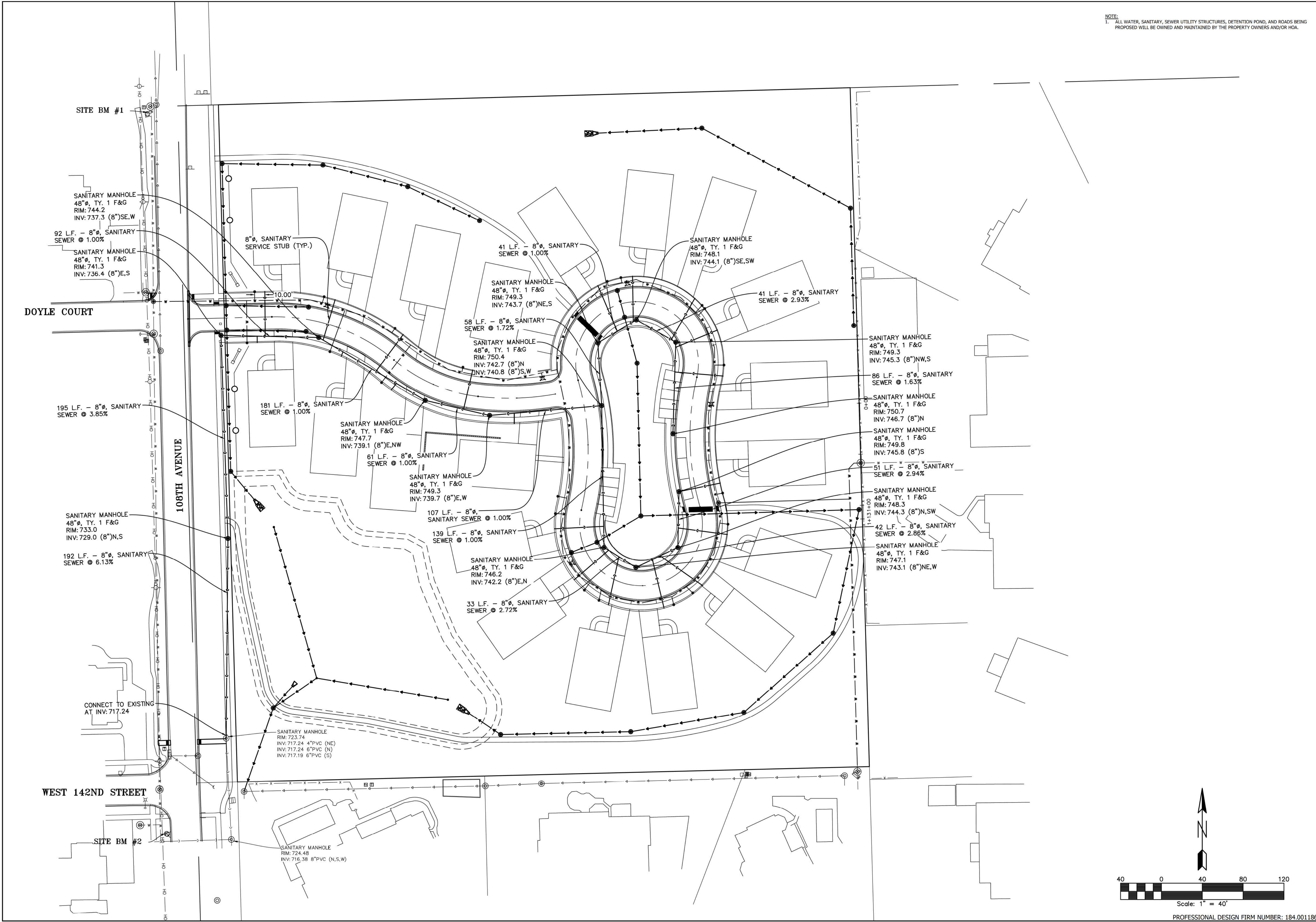
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DESIGNED BY : KF	DRAWN BY : KF
CHECKED BY : NAV	DESCRIPTION: 09-08-2025 KF PER VILLAGE COMMENTS 07-30-2025 KF PER VILLAGE COMMENTS

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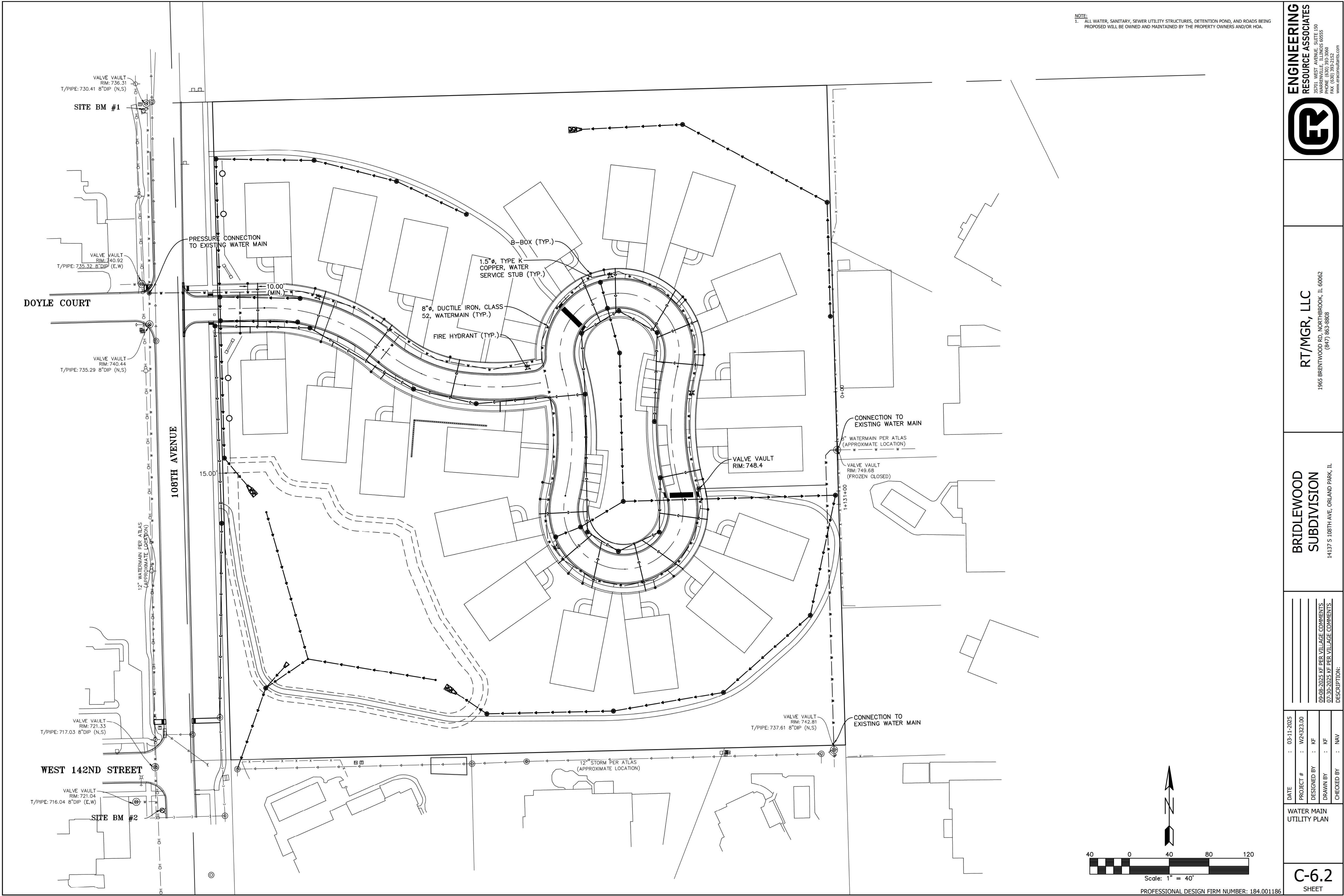
PROFESSIONAL DESIGN FIRM NUMBER: 184.001186

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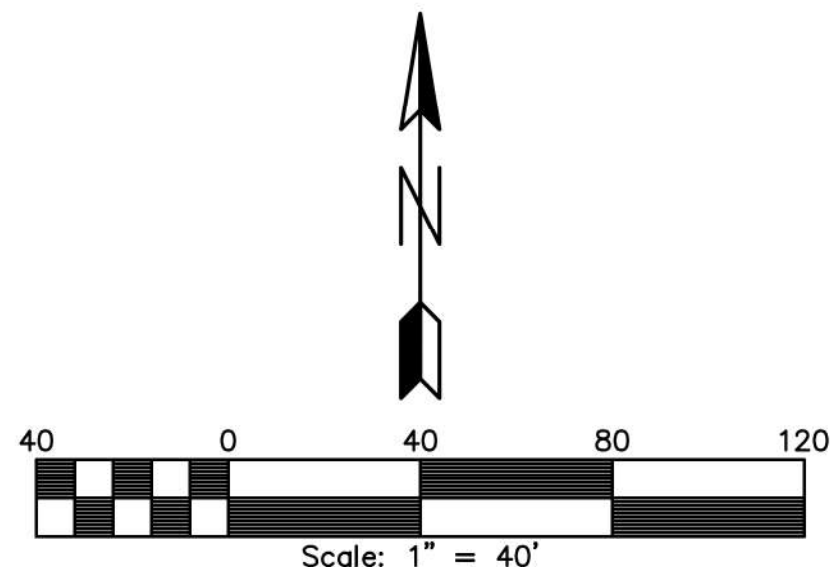




NOTE:
1. ALL WATER, SANITARY, SEWER UTILITY STRUCTURES, DETENTION POND, AND ROADS BEING PROPOSED WILL BE OWNED AND MAINTAINED BY THE PROPERTY OWNERS AND/OR HOA.



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1. ALL WATER, SANITARY, SEWER UTILITY STRUCTURES, DETENTION POND, AND ROADS BEING PROPOSED WILL BE OWNED AND MAINTAINED BY THE PROPERTY OWNERS AND/OR HOA.



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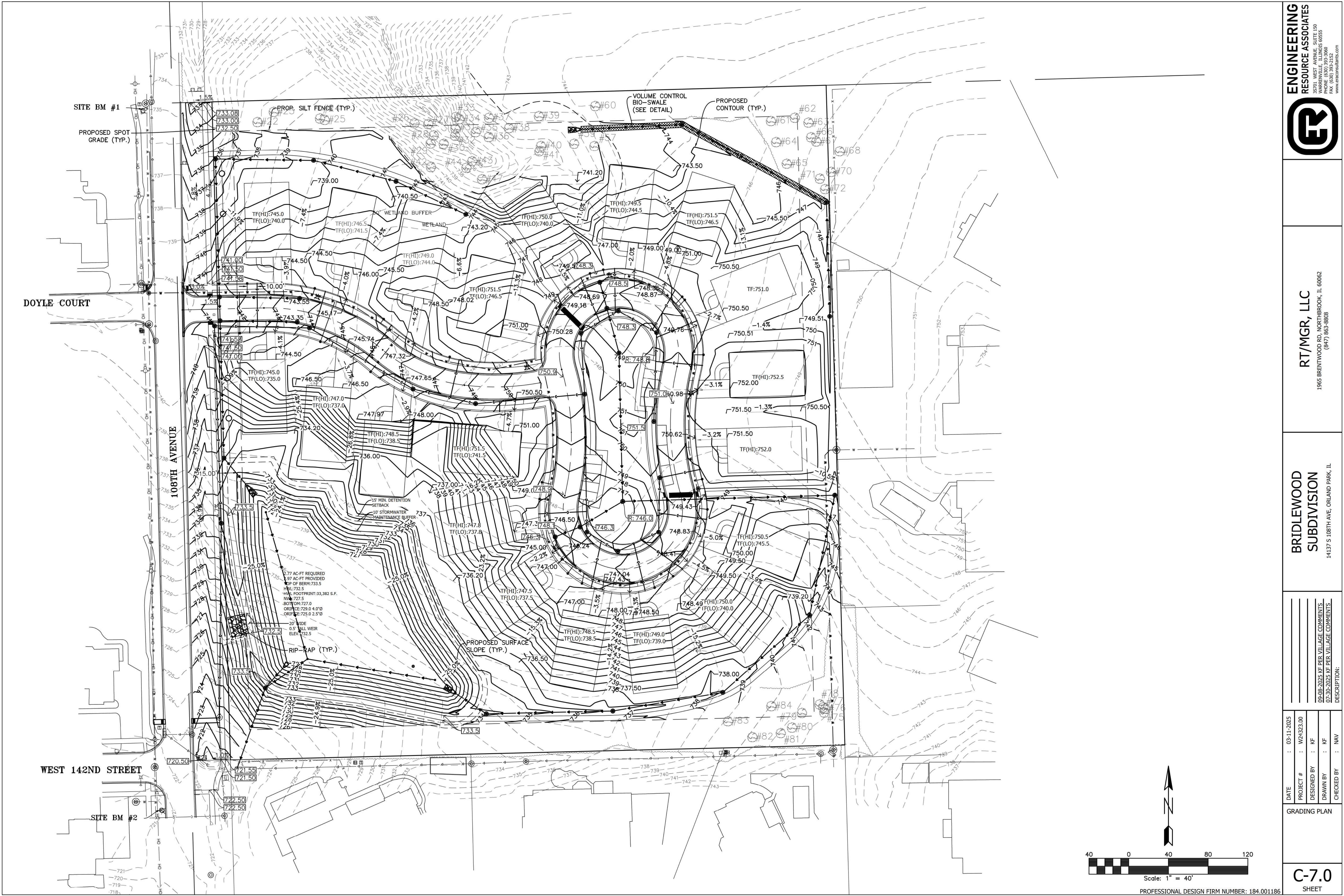
**BRIDLEWOOD
SUBDIVISION**
14137 S 108TH AVE, ORLAND PARK, IL


DATE	: 03-11-2025
PROJECT #	: W24323.00
DESIGNED BY	: KF
DRAWN BY	: KF
CHECKED BY	: NAV
DESCRIPTION: 09-08-2025 RF PER VILLAGE COMMENTS 07-30-2025 RF PER VILLAGE COMMENTS	

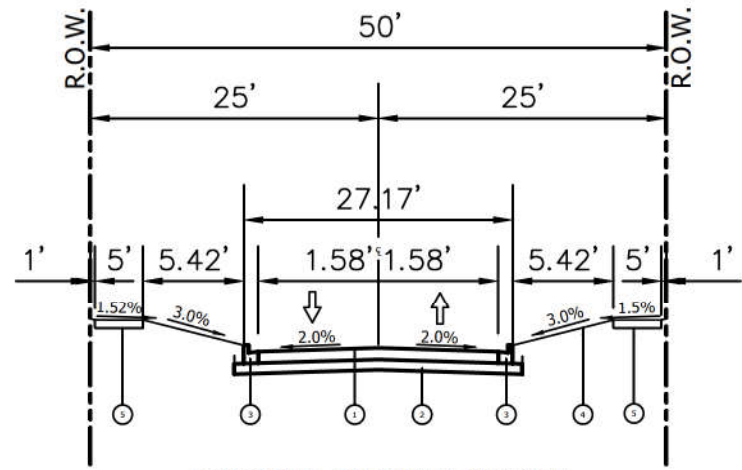
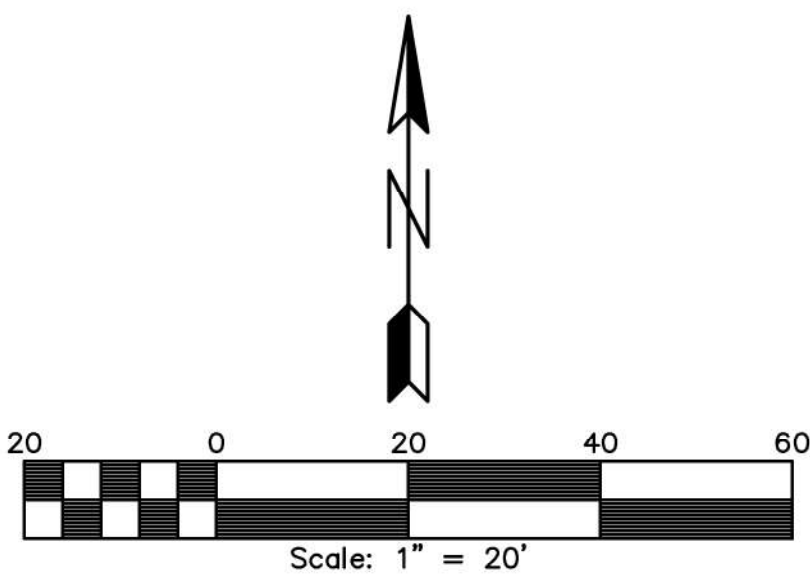
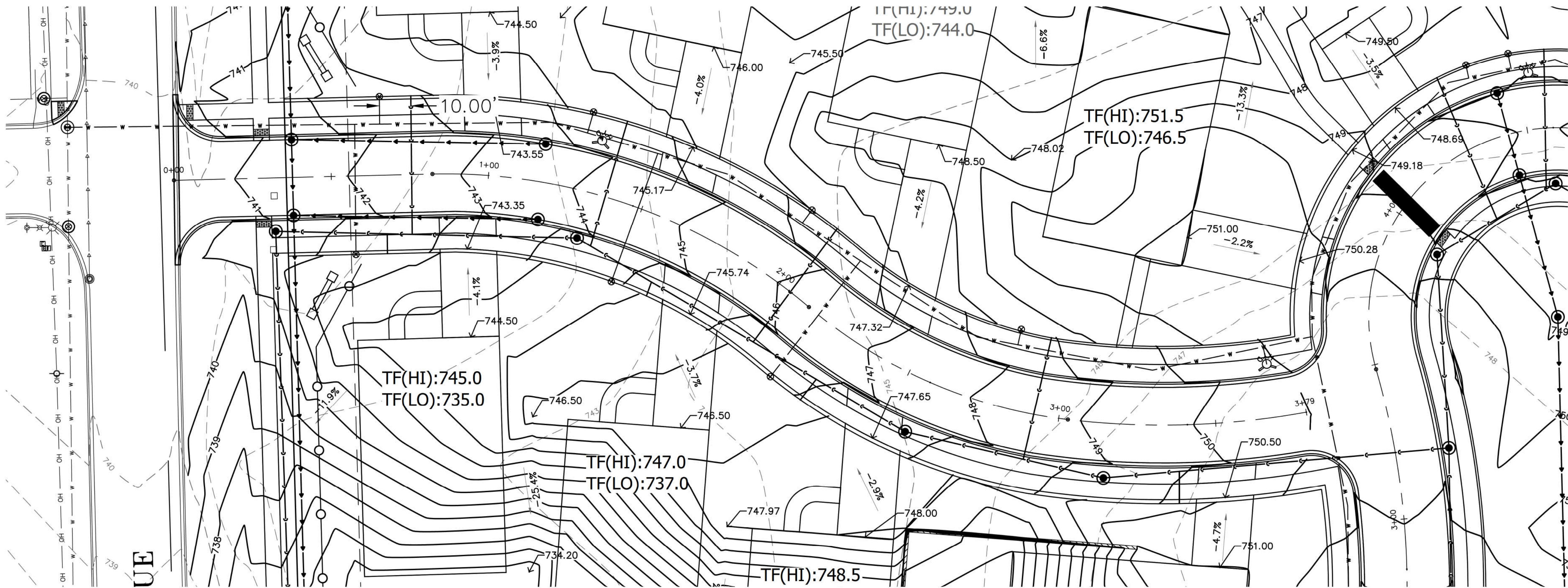
WATER MAIN
UTILITY PLAN

C-6.2
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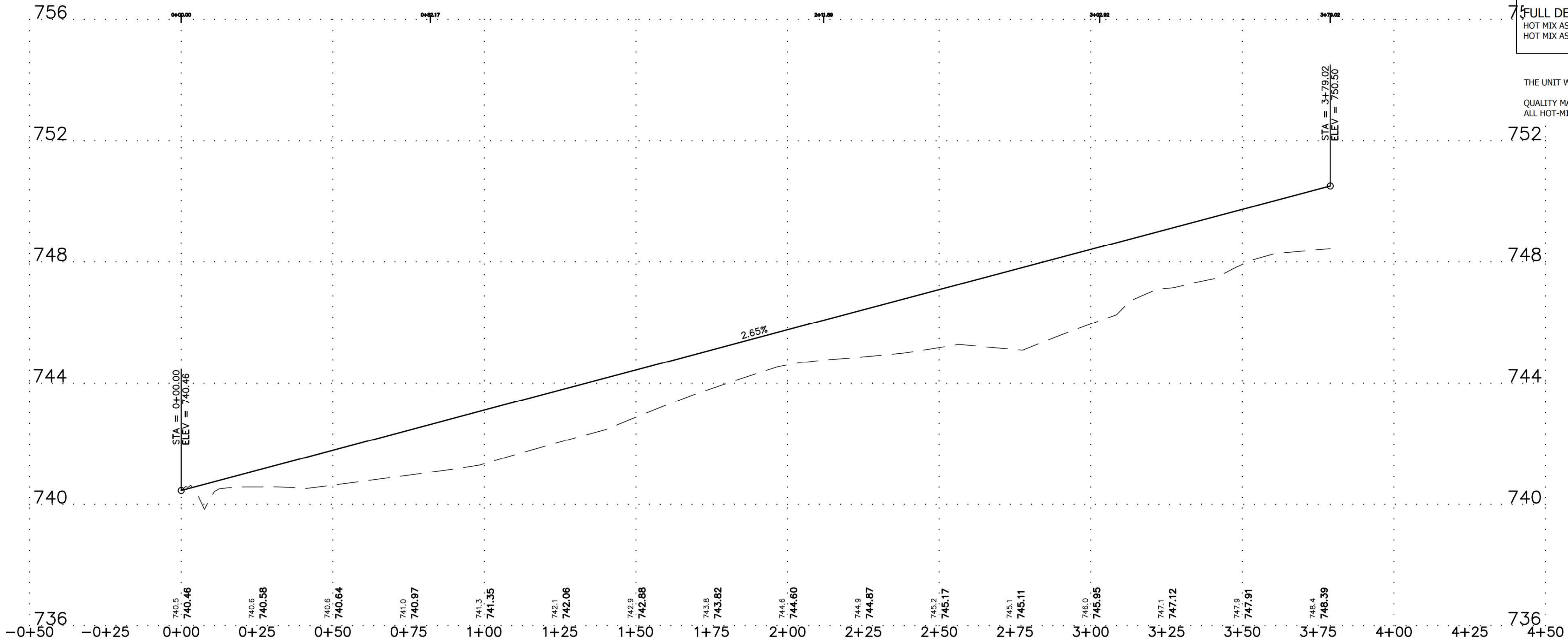
ENGINEERING RESOURCE ASSOCIATES 35701 WEST AVENUE, SUITE 150 NORTHbrook, IL 60062 PHONE (830) 393-2960 FAX (830) 393-2152 www.erasconsultants.com	
	
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BRIDLEWOOD SUBDIVISION 14137 S 108TH AVE, ORLAND PARK, IL	
09-08-2025 KF PER VILLAGE COMMENTS 07-30-2025 KF PER VILLAGE COMMENTS DESCRIPTION:	
DATE : 03-11-2025	PROJECT # : W24233.00
DESIGNED BY : KF	DRAWN BY : KF
CHECKED BY : NAV	
GRADING PLAN	
C-7.0 SHEET	



PROPOSED LEGEND

- 1 HOT-MIX ASPHALT PAVEMENT (FULL DEPTH) 6", (SEE MIX TABLE)
- 2 AGGREGATE SUB-GRADE IMPROVEMENT, 12", CA-6
- 3 COMBINATION CONCRETE CURB AND GUTTER, TYPE M-4.12 (MOUNTABLE CURB)
- 4 SEEDING, CLASS 2A, TOPSOIL 6"
- 5 PORTLAND CEMENT CONCRETE SIDEWALK, 5" SUBBASE GRANULAR MATERIAL, TYPE B 4"

Profile View of Roadway



HOT-MIX ASPHALT MIXTURE REQUIREMENTS

MIXTURE TYPE	AC TYPE	AIR VOIDS @ NDES
1 FULL DEPTH PAVEMENT, 6" HOT MIX ASPHALT SURFACE COURSE, MIX "D", N50; 1.5" HOT MIX ASPHALT BINDER COURSE, IL-19.0L, N50; 4.5"	PG 64-22 PG 64-22	4% @ 50 GYR. 4% @ 50 GYR.

THE UNIT WEIGHT USED TO CALCULATE ALL HOT-MIX ASPHALT MIXTURES IS 112 LBS/SQ YD/IN.

QUALITY MANAGENET PROGRAM (QMP) SHALL BE QUALITY CONTROL/QUALITY ASSURANCE (QC/QA) FOR ALL HOT-MIX ASPHALT PAVEMENTS



RT/MGR, LLC

1965 BRENTWOOD RD, NORTHBROOK, IL 60062
(847) 863-8808

BRIDLEWOOD
SUBDIVISION

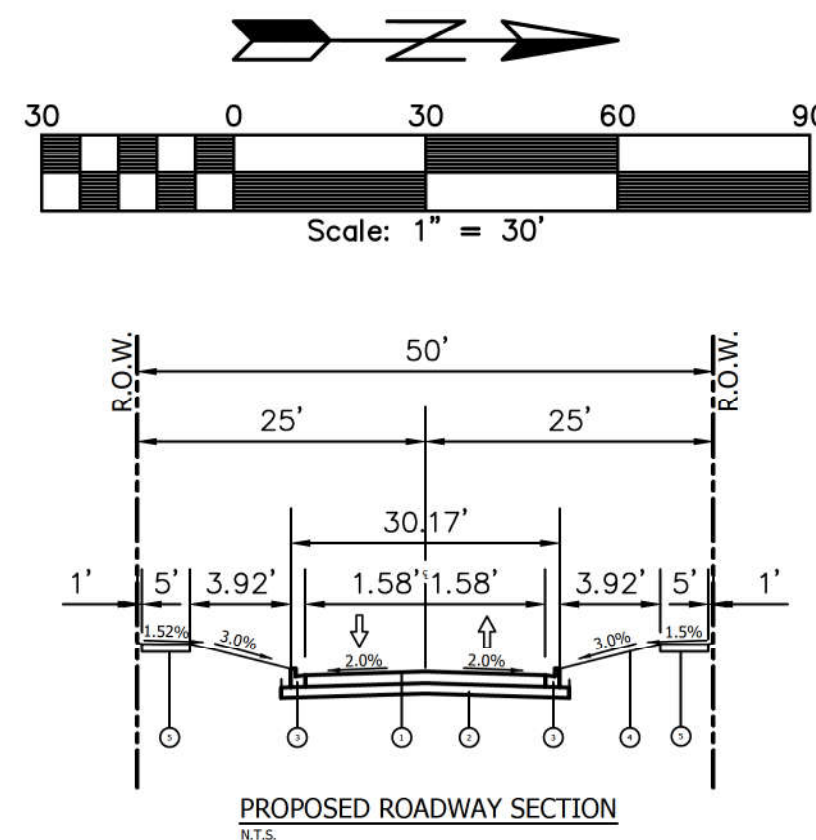
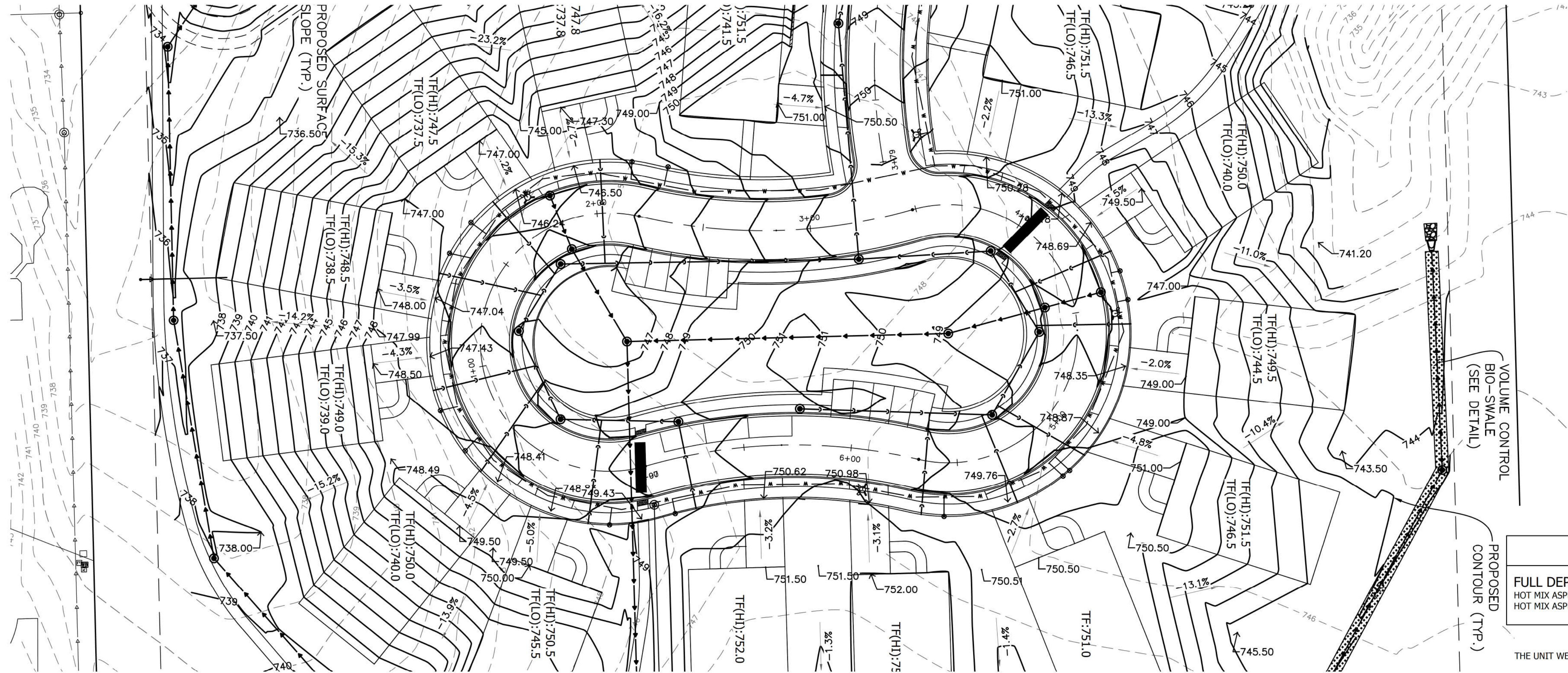
14137 S 108TH AVE, ORLAND PARK, IL

DATE : 03-11-2025	PROJECT # : W24232.00	DESIGNED BY : KF	DRAWN BY : KF	CHECKED BY : NAV
09-08-2025 KF PER VILLAGE COMMENTS 07-30-2025 KF PER VILLAGE COMMENTS DESCRIPTION:				

DATE : 03-11-2025	PROJECT # : W24232.00	DESIGNED BY : KF	DRAWN BY : KF	CHECKED BY : NAV
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ROADWAY PLAN

C-7.1
SHEET



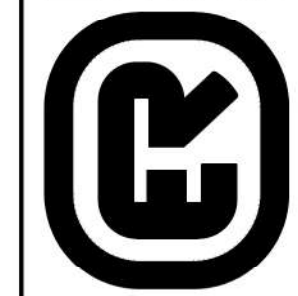
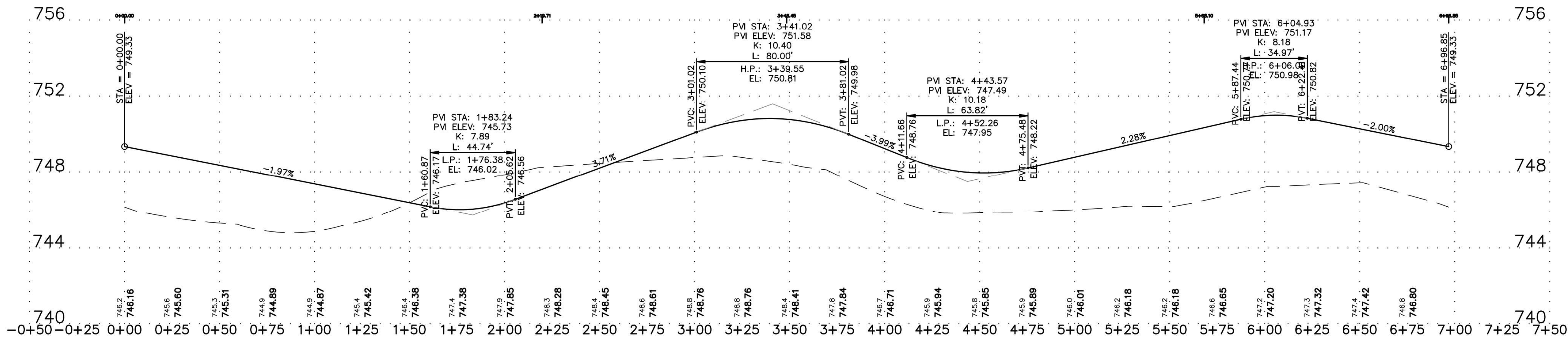
HOT-MIX ASPHALT MIXTURE REQUIREMENTS

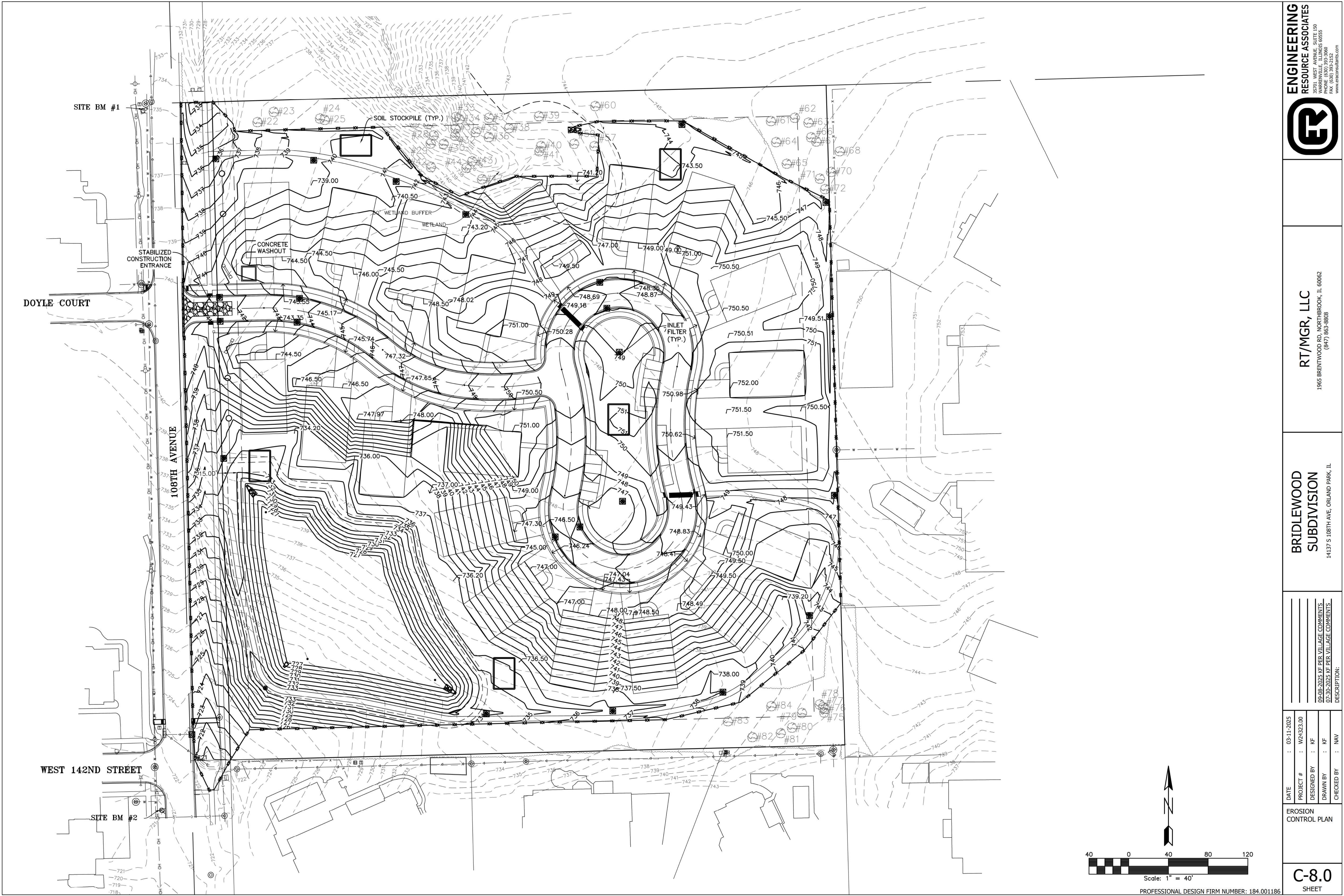
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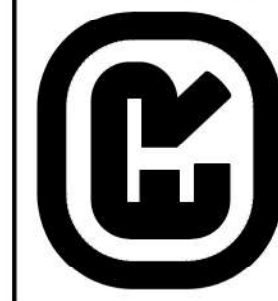
THE UNIT WEIGHT USED TO CALCULATE ALL HOT-MIX ASPHALT MIXTURES IS 112 LBS/SQ YD/IN.

QUALITY MANAGENET PROGRAM (QMP) SHALL BE QUALITY CONTROL/QUALITY ASSURANCE (QC/QA) FOR ALL HOT-MIX ASPHALT PAVEMENTS

Profile View of Roadway





ENGINEERING RESOURCE ASSOCIATES 35701 WEST AVENUE, SUITE 150 NORTH BROMFIELD, ILLINOIS 60055 PHONE (830) 393-2960 FAX (830) 393-2152 www.eraconsultants.com	
	
RT/MGR, LLC 1965 BRENTWOOD RD. NORTHBROOK, IL 60062 (847) 863-8808	
BRIDLEWOOD SUBDIVISION 14137 S 108TH AVE, ORLAND PARK, IL	
DATE : 03-11-2025 PROJECT # : W24232.00 DESIGNED BY : KF DRAWN BY : KF CHECKED BY : NAV	
EROSION CONTROL PLAN	
C-8.0 SHEET	

PROFESSIONAL DESIGN FIRM NUMBER: 184.001186

STORMWATER POLLUTION PREVENTION PLAN

THE FOLLOWING PLAN IS ESTABLISHED AND INCORPORATED IN THE PROJECT TO DIRECT THE CONTRACTOR IN THE PLACEMENT OF TEMPORARY EROSION CONTROL SYSTEMS AND TO PROVIDE A STORM SEWER WATER POLLUTION PREVENTION PLAN FOR COMPLIANCE UNDER NPDES.

THE PURPOSE OF THIS PLAN IS TO MINIMIZE EROSION WITHIN THE CONSTRUCTION SITE AND TO LIMIT SEDIMENTS FROM LEAVING THE CONSTRUCTION SITE BY UTILIZING PROPER TEMPORARY EROSION CONTROL SYSTEMS AND PROVIDING GROUND COVER WITHIN A REASONABLE AMOUNT OF TIME.

CERTAIN EROSION CONTROL FACILITIES SHALL BE INSTALLED BY THE CONTRACTOR AT THE BEGINNING OF CONSTRUCTION. OTHER ITEMS SHALL BE INSTALLED BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER ON A CASE BY CASE SITUATION DEPENDING ON THE CONTRACTOR'S SEQUENCE OF ACTIVITIES, TIME OF YEAR, AND EXPECTED WEATHER CONDITION.

THE CONTRACTOR SHALL INSTALL PERMANENT EROSION CONTROL SYSTEMS AND SEEDING WITHIN A TIME FRAME SPECIFIED HEREIN AND AS DIRECTED BY THE ENGINEER, THEREFORE MINIMIZING THE AMOUNT OF AREA SUSCEPTIBLE TO EROSION AND REDUCING THE AMOUNT OF TEMPORARY SEEDING. THE ENGINEER WILL DETERMINE IF ANY TEMPORARY EROSION CONTROL SYSTEMS SHOWN IN THE PLAN CAN BE DELETED AND IF ANY ADDITIONAL TEMPORARY EROSION CONTROL SYSTEMS, WHICH ARE NOT INCLUDED IN THIS PLAN, SHALL BE ADDED. THE CONTRACTOR SHALL PERFORM ALL WORK AS DIRECTED BY THE ENGINEER AND AS SHOWN IN STANDARD 280001 OF THE PLANS. SECTION 280. TEMPORARY EROSION CONTROL, OF THE STANDARD SPECIFICATIONS ADDITIONALLY SUPPLEMENTS THIS PLAN.

SITE DESCRIPTION
DESCRIPTION OF CONSTRUCTION ACTIVITY
THE PROJECT CONSISTS OF THE CONSTRUCTION OF A 410,954 +/- SQUARE FOOT 20 - LOT SUBDIVISION WITH A ROADWAY, SIDEWALK, STORM SEWER, SANITARY SEWER, WATER MAIN, STORMWATER DETENTION, MASS GRADING, EROSION CONTROL, AND LANDSCAPING. THE PROPERTY IS LOCATED WITHIN A RESIDENTIAL AREA. THE PROPOSED 20 LOT SUBDIVISION IS SURROUNDED BY 108TH AVE. ON THE WEST, RESIDENTIAL PROPERTIES ON THE EAST AND SOUTH, AND FOREST PRESERVE ON THE NORTH IN THE VILLAGE OF ORLAND PARK.
DESCRIPTION OF INTENDED SEQUENCE FOR MAJOR CONSTRUCTION ACTIVITIES WHICH WILL DISTURB SOILS FOR MAJOR PORTION OF THE CONSTRUCTION SITE:
- EROSION CONTROL SILT FENCING SHALL BE IN PLACE PRIOR TO EARTHWORK ACTIVITIES.
- DETENTION BASIN SHALL BE CONSTRUCTED BEFORE ANY OTHER IMPROVEMENTS.
- SITE SHALL BE ROUGH GRADED
- UNDERGROUND UTILITY NETWORK DIRECTING FLOW TO DETENTION FACILITY SHALL BE INSTALLED.
- OTHER UNDERGROUND UTILITIES SHALL BE CONSTRUCTED
- SITE SHALL BE FINE-GRADED, WITH ALL PROPOSED PAVING AREAS GRADED TO ROUGHLY 1-FOOT BELOW FINAL ELEVATION ON PLANS.
- ROADWAY AND SIDEWALK SHALL BE CONSTRUCTED.
- DISTURBED AREAS SHALL BE TOP SOILED & SEEDED.

AREA OF CONSTRUCTION SITE:
THE TOTAL AREA OF THE CONSTRUCTION SITE IS ESTIMATED TO BE 9.4 ACRES BY WHICH 8.0 ACRES WILL BE DISTURBED BY EXCAVATION, GRADING, AND OTHER ACTIVITIES.

OTHER REPORTS, STUDIES AND PLANS, WHICH AID IN THE DEVELOPMENT OF THE STORM WATER POLLUTION PREVENTION PLAN AS REFERENCED DOCUMENTS:
- INFORMATION OF THE SOILS AND TERRAIN WITHIN THE SITE WAS OBTAINED FROM TOPOGRAPHIC SURVEYS AND SOIL BORINGS THAT WERE UTILITIES FOR THE DEVELOPMENT OF THE PROPOSED TEMPORARY EROSION CONTROL SYSTEMS.
- PROJECT PLAN DOCUMENTS, SPECIFICATIONS AND SPECIAL PROVISIONS, AND PLAN DRAWINGS INDICATING DRAINAGE PATTERNS AND APPROXIMATE SLOPES ANTICIPATED AFTER GRADING ACTIVITIES WERE UTILIZED FOR THE PROPOSED PLACEMENT OF THE TEMPORARY EROSION CONTROL SYSTEMS.

DRAINAGE TRIBUTARIES AND SENSITIVE AREAS RECEIVING RUNOFF FROM THIS CONSTRUCTION SITE:
THE SITE SHALL DRAIN INTO THE PROPOSED STORMWATER DETENTION PONDS BY MEANS OF AN EXISTING STORM SEWER SYSTEM.

CONTROLS, EROSION CONTROLS AND SEDIMENT CONTROL:
- THE DRAWINGS, SPECIFICATIONS AND SPECIAL PROVISIONS WILL ENSURE THAT EXISTING VEGETATION IS PRESERVED WHERE ATTAINABLE AND DISTURBED PORTIONS OF THE SITE WILL BE STABILIZED. STABILIZATION PRACTICES INCLUDE TEMPORARY SEEDING, PERMANENT SEEDING, MULCHING, PROTECTION OF TREES, PRESERVATION OF NATURE VEGETATION, AND OTHER APPROPRIATE MEASURES AS DIRECTED BY THE ENGINEER. STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN 7 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED.
(a.) AREAS OF EXISTING VEGETATION, WOOD AND GRASSLANDS, OUTSIDE THE PROPOSED CONSTRUCTION LIMITS SHALL BE IDENTIFIED BY THE ENGINEER FOR PRESERVING AND SHALL BE PROTECTED FROM CONSTRUCTION ACTIVITIES.
(b.) DEAD, DISEASED, OR UNSUITABLE VEGETATION WITHIN THE SITE SHALL BE REMOVED AS DIRECTED BY THE ENGINEER, ALONG WITH REQUIRED TREE REMOVAL.
(c.) AS SOON AS REASONABLE ACCESS IS AVAILABLE TO ALL LOCATIONS WHERE WATER DRAINS AWAY FROM THE PROJECT, TEMPORARY PERIMETER EROSION BARRIER SHALL BE INSTALLED AS CALLED OUT IN THIS PLAN AND DIRECTED BY THE ENGINEER.
(d.) BARE AND SPARSLEY VEGETATED GROUND IN HIGH ERODIBLE AREAS AS DETERMINED BY THE ENGINEER SHALL BE TEMPORARILY SEEDED AT THE BEGINNING OF CONSTRUCTION WHERE NO CONSTRUCTION ACTIVITIES ARE EXPECTED WITHIN SEVEN (7) DAYS.
(e.) IMMEDIATELY AFTER TREE REMOVAL IS COMPLETED, AREAS WHICH ARE HIGHLY ERODIBLE AS DETERMINED BY THE ENGINEER, SHALL BE TEMPORARILY SEEDED WHEN NO CONSTRUCTION ACTIVITIES ARE EXPECTED WITHIN SEVEN (7) DAYS.
- ESTABLISHMENT OF THESE TEMPORARY EROSION CONTROL MEASURES WILL HAVE ADDITIONAL BENEFITS TO THE PROJECT. DESIRABLE GRASS SEED WILL BECOME ESTABLISHED IN THESE AREAS AND WILL SPREAD SEEDS ONTO THE CONSTRUCTION SITE UNTIL PERMANENT SEEDING/MOWING AND OVER SEEDING CAN BE COMPLETED.
- THE SOIL AND WATER CONSERVATION DISTRICT IS RESPONSIBLE FOR CONDUCTING SITE VISITS AND VERIFYING THAT THE PRACTICES ARE WORKING PROPERLY AND DETERMINE IF ADDITIONAL PRACTICES ARE NEEDED FOR BETTER SOIL EROSION AND SEDIMENT CONTROL. IF ADDITIONAL PRACTICES ARE DEEMED NECESSARY BY THE SWCD THE CONTRACTOR WILL IMPLEMENT THE PRACTICE IN A TIMELY MANNER.

THIS PLAN HAS BEEN PREPARED TO COMPLY WITH THE PROVISIONS OF THE NPDES PERMIT NUMBER ILR10 ISSUED BY THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY FOR STORM WATER DISCHARGES FROM CONSTRUCTION SITE ACTIVITIES.

I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHERED AND EVALUATED THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.

ENGINEER: NICHOLAS A. VARCHETTO, PE DATE

DESCRIPTION OF STABILIZATION PRACTICES DURING CONSTRUCTION:

- DURING CONSTRUCTION, AREAS OUTSIDE THE CONSTRUCTION LIMITS AS OUTLINED PREVIOUSLY HEREIN SHALL BE PROTECTED. THE CONTRACTOR SHALL NOT USE THIS AREA FOR STAGING, PARKING OF VEHICLES OF CONSTRUCTION EQUIPMENT, STORAGE OF MATERIALS OR OTHER CONSTRUCTION RELATED ACTIVITIES.
(a.) WITHIN THE CONSTRUCTION LIMITS, AREAS WHICH MAY BE SUSCEPTIBLE TO EROSION AS DETERMINED BY THE ENGINEER SHALL REMAIN UNDISTURBED UNTIL FULL SCALE CONSTRUCTION IS UNDERWAY TO PREVENT UNNECESSARY SOIL EROSION.
(b.) AS CONSTRUCTION PROCEEDS, THE CONTRACTOR SHALL INSTITUTE THE FOLLOWING AS DIRECTED BY THE ENGINEER
(i.) PLACE TEMPORARY EROSION CONTROL FACILITIES AT LOCATIONS SHOWN ON THE PLANS.
(ii.) TEMPORARILY SEED ERODIBLE BARE EARTH ON A WEEKLY BASIS TO MINIMIZE THE AMOUNT OF ERODIBLE SURFACE AREA WITHIN THE CONTRACT LIMITS.
(iii.) PROVIDE TEMPORARY EROSION CONTROL SYSTEMS.
(iv.) CONTINUE BUILDING UP THE EMBANKMENT TO THE PROPOSED GRADE WHILE, AT THE SAME TIME, PLACING PERMANENT EROSION CONTROL FINAL SHAPING TO THE SLOPES.
(c.) EXCAVATED AREAS AND EMBANKMENT SHALL BE PERMANENTLY SEEDED IMMEDIATELY AFTER FINAL GRADING. IF NOT, THEY SHALL BE TEMPORARILY SEEDED IF NO CONSTRUCTION ACTIVITY IN THE AREA IS PLANNED FOR SEVEN (7) DAYS.
(d.) CONSTRUCTION EQUIPMENT SHALL BE STORED AND FUELED ONLY AT DESIGNATED LOCATIONS. ALL NECESSARY MEASURES SHALL BE TAKEN TO CONTAIN ANY FUEL OR OTHER POLLUTANT IN ACCORDANCE WITH EPA WATER QUALITY REGULATIONS. LEAKING EQUIPMENT OR SUPPLIES SHALL BE IMMEDIATELY REPAIRED OR REMOVED FROM THE SITE.
(e.) THE RESIDENT ENGINEER SHALL INSPECT THE PROJECT WEEKLY DURING CONSTRUCTION ACTIVITIES. INSPECTION SHALL ALSO BE DONE WEEKLY AND AFTER RAINS OF 1/2-INCH OR GREATER OR EQUIVALENT SNOWFALL AND DURING THE WINTER SHUTDOWN PERIOD. THE PROJECT SHALL ADDITIONALLY BE INSPECTED BY THE CONSTRUCTION FIELD ENGINEER ON A BIWEEKLY BASIS TO DETERMINE THAT EROSION CONTROL EFFORTS ARE IN PLACE AND EFFECTIVE AND IF OTHER EROSION CONTROL WORK IS NECESSARY.
(f.) SEDIMENT COLLECTED DURING CONSTRUCTION OF THE VARIOUS TEMPORARY EROSION CONTROL SYSTEMS SHALL BE DISPOSED OF ON THE SITE ON A REGULAR BASIS AS DIRECTED BY THE ENGINEER. THE COST OF THIS MAINTENANCE SHALL BE INCLUDED IN THE UNIT BID PRICE FOR EARTH EXCAVATION FOR EROSION CONTROL.
(g.) THE TEMPORARY EROSION CONTROL SYSTEMS SHALL BE REMOVED, AS DIRECTED BY THE ENGINEER, AFTER USE IS NO LONGER NEEDED OR NO LONGER FUNCTIONING.

DESCRIPTION OF STRUCTURAL PRACTICES AFTER FINAL GRADING:

- TEMPORARY EROSION CONTROL SYSTEMS SHALL BE LEFT IN PLACE WITH PROPER MAINTENANCE UNTIL PERMANENT EROSION CONTROL IS IN PLACE AND WORKING PROPERLY AND ALL PROPOSED TURF AREAS SODDED AND ESTABLISHED.
- ONCE PERMANENT EROSION CONTROL SYSTEMS AS PROPOSED IN THE PLANS ARE FUNCTIONAL AND ESTABLISHED, TEMPORARY ITEMS SHALL BE REMOVED, CLEANED UP, AND DISTURBED TURF RESEEDED.

MISCELLANEOUS:

- TEMPORARY EROSION CONTROL SEEDING SHALL BE APPLIED AT A RATE OF 100 LBS/ACRES, IF DIRECTED.
- SEDIMENT COLLECTED DURING CONSTRUCTION BY THE VARIOUS TEMPORARY EROSION CONTROL SYSTEMS SHALL BE DISPOSED OF ON THE SITE ON A REGULAR BASIS, AS DIRECTED BY THE ENGINEER. THE COST OF THIS MAINTENANCE SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CUBIC YARD FOR EARTH EXCAVATION.
- ALL EROSION CONTROL PRODUCTS FURNISHED SHALL BE SPECIFICALLY RECOMMENDED BY THE MANUFACTURER FOR THE USE SPECIFIED IN THE EROSION CONTROL PLAN. PRIOR TO THE APPROVAL AND USE OF THE PROJECT. THE CONTRACTOR SHALL PROVIDE MANUFACTURER INSTALLATION PROCEDURES TO FACILITATE THE ENGINEER IN CONSTRUCTION INSPECTION.

SOIL EROSION CONTROL:

1. SOIL EROSION CONTROL MUST CONFORM TO THE CITY ORDINANCE.

A. SPECIFICATIONS:
1. A CONSTRUCTION ENTRANCE TO THE SITE SHALL BE INSTALLED AND STABILIZED PRIOR TO ANY WORK ON THE SITE. THE CONSTRUCTION ENTRANCE SHALL CONSIST OF 12" OF CRUSHED CONCRETE, 50 FEET IN LENGTH AND 24 FEET WIDE, AS SHOWN ON PLANS.
2. ALL STOCK PILES ON THE SITE WHICH WILL NOT BE REDISTRIBUTED FOR A WEEK OR LONGER WILL BE SEEDED WITHIN SEVEN DAYS OF THE FORMATION OF THE STOCKPILE.
3. SEEDING IN DISTRIBUTED AREAS OUTSIDE OF THE RIGHT-OF-WAYS WILL BE DONE WITH PERENNIAL RYE GRASS, 1/2 LB. PER 1,000 SF, IF IT IS LATER IN THE FALL AND A MORE RAPID GERMINATION IS REQUIRED, 1 LB OF OATS PER 1,000 S.F. CAN BE ADDED TO THE RYE GRASS.
4. THE SEEDING AND MULCH WILL BE MAINTAINED AND REPAIRED WHEN NECESSARY UNTIL THE PROJECT IS COMPLETED.
5. AGGREGATE BASE SHALL BE INSTALLED AS SOON AS POSSIBLE IN THE CONSTRUCTION SEQUENCE FOR ROADS TO PROVIDE REQUIRED STABILIZATION.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF EROSION CONTROL STRUCTURES.
7. CONTRACTOR SHALL INSPECT EROSION CONTROL STRUCTURES WEEKLY OR AFTER ANY MAJOR STORMS OR AS DIRECTED BY THE CITY.
8. ALL DESIGN AND CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH STANDARD SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL AS CONTAINED IN THE IEPA/WPC/87-012 OR CURRENT EDITION AND THE ILLINOIS PROCEDURE AND STANDARDS FOR URBAN SOIL EROSION AND SEDIMENTATION CONTROL.
9. DUST CONTROL AND CLEANING OF ROADWAYS AS REQUESTED BY THE CITY SHALL BE THE RESPONSIBILITY OF THE DEVELOPER.

B. INSTALLATION
1. INSPECTION SHALL BE FREQUENT AND REPAIR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
2. NOTIFY COUNTY BUILDING AND ZONING DEPARTMENTS 24 HOURS PRIOR TO INITIATING CONSTRUCTION.

CONTRACTOR'S CERTIFICATION

"I CERTIFY UNDER PENALTY OF LAW THAT I UNDERSTAND THE TERMS AND CONDITIONS OF THE GENERAL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT (ILR 10) THAT AUTHORIZES THE STORMWATER DISCHARGES ASSOCIATED WITH ACTIVITY FROM THE CONSTRUCTION SITE IDENTIFIED AS PART OF THIS CERTIFICATION.

GENERAL CONTRACTOR

SIGNATURE TITLE DATE
COMPANY

OWNER'S CERTIFICATION

"I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHERED AND EVALUATED THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE AND COMPLETE. I AM AWARE THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS."

OWNER

SIGNATURE TITLE DATE
COMPANY

DRAINAGE STATEMENT

WE HEREBY STATE THAT TO THE BEST OF OUR KNOWLEDGE AND BELIEF THE DRAINAGE OF SURFACE WATERS OF THIS PLAT WILL NOT BE CHANGED BY THE CONSTRUCTION OF THE IMPROVEMENTS OF THIS SUBDIVISION OR ANY PART THEREOF OR THAT IF SUCH SURFACE WATER DRAINAGE WILL BE CHANGED, REASONABLE PROVISIONS HAVE BEEN MADE FOR COLLECTION AND DIVERSION OF SUCH SURFACE WATERS INTO PUBLIC AREAS, OR DRAINS WHICH THE SUBDIVIDER HAS A RIGHT TO USE, AND THAT SUCH SURFACE WATERS WILL BE PLANNED FOR IN ACCORDANCE WITH GENERALLY ACCEPTED ENGINEERING PRACTICES SO AS TO REDUCE THE LIKELIHOOD OF DAMAGE TO THE ADJOINING PROPERTY BECAUSE OF THE CONSTRUCTION OF THE SUBDIVISION.

DATE: NAME OF ENGINEER
ILLINOIS REGISTERED PROF.ENG.NO.

OWNER AND DEVELOPER: NAME OF DEVELOPER/OWNER
TITLE:
CORPORATION:

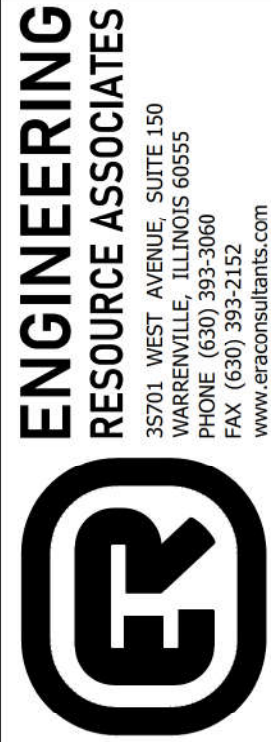
SOIL PROTECTION CHART

STABILIZATION TYPE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
PERMANENT SEEDING			A			*	*					
DORMANT SEEDING	B										B	
TEMPORARY SEEDING			C			*		D*				
SODDING			E**									
MULCHING	F											

- A. KENTUCKY BLUEGRASS 90 LBS/AC MIXED WITH PERENNIAL RYEGRASS 30 LBS/AC
B. KENTUCKY BLUEGRASS 135 LBS/AC MIXED WITH PERENNIAL RYE GRASS 45 LBS/AC + 2 TONS STRAW MULCH/AC
C. SPRING OATS 100 LBS/AC
D. WHEAT OR CEREAL RYE 150 LBS/AC
E. SOD
F. STRAW MULCH 2 TONS/AC

* IRRIGATION NEEDED DURING JUNE AND JULY

** IRRIGATION NEEDED FOR 2 TO 3 WEEKS AFTER APPLYING SOD



RT/MGR, LLC

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BRIDLEWOOD SUBDIVISION

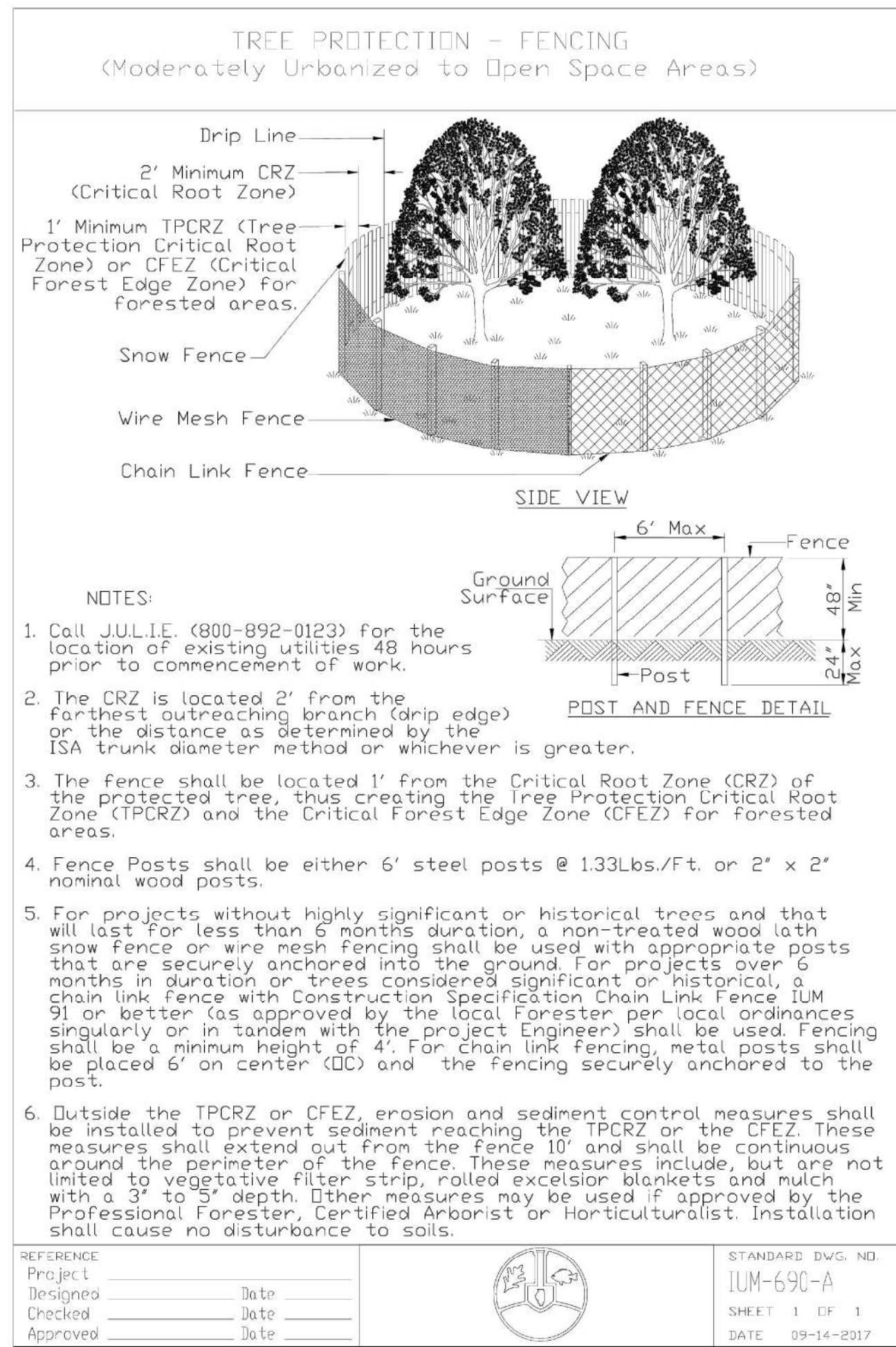
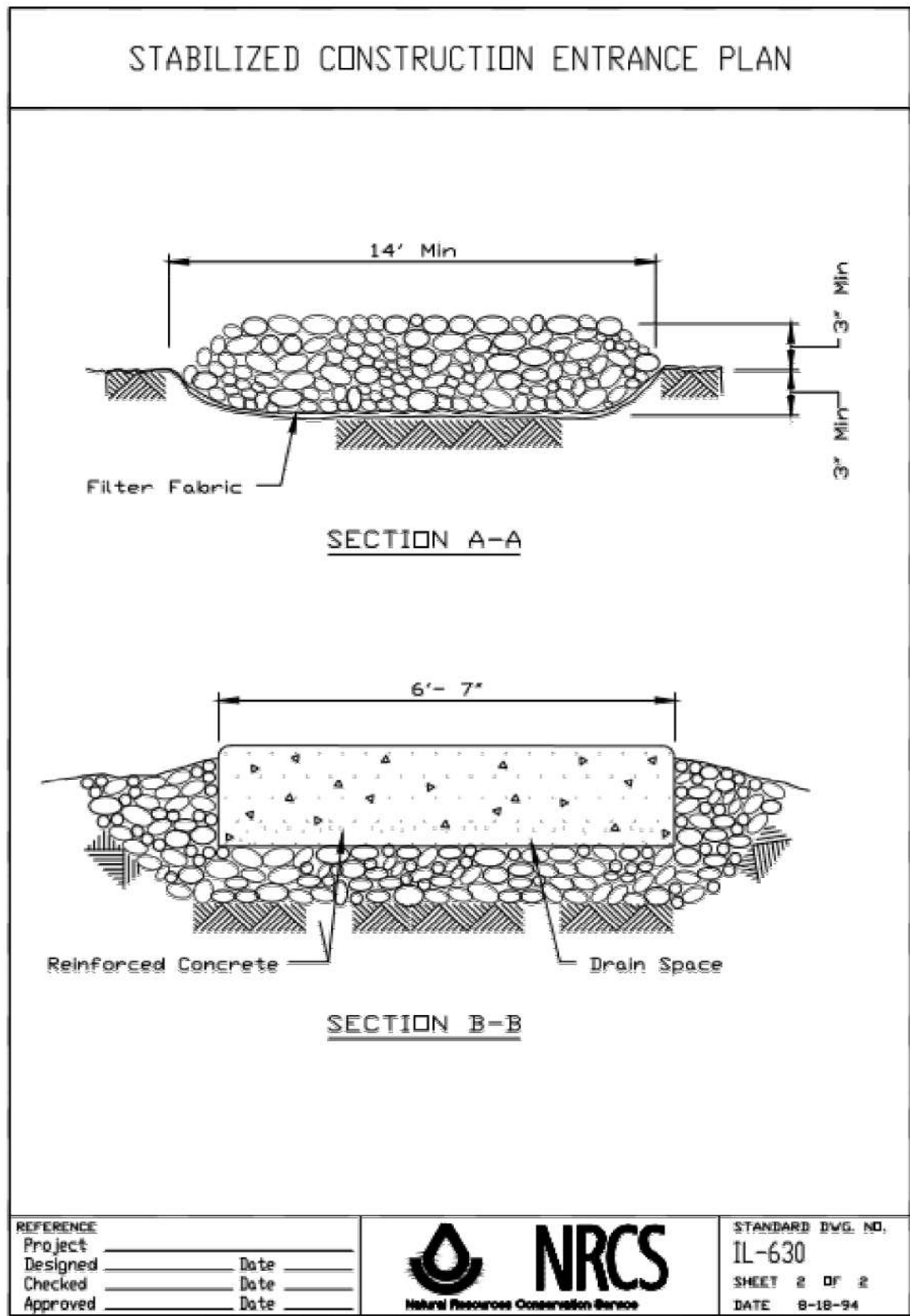
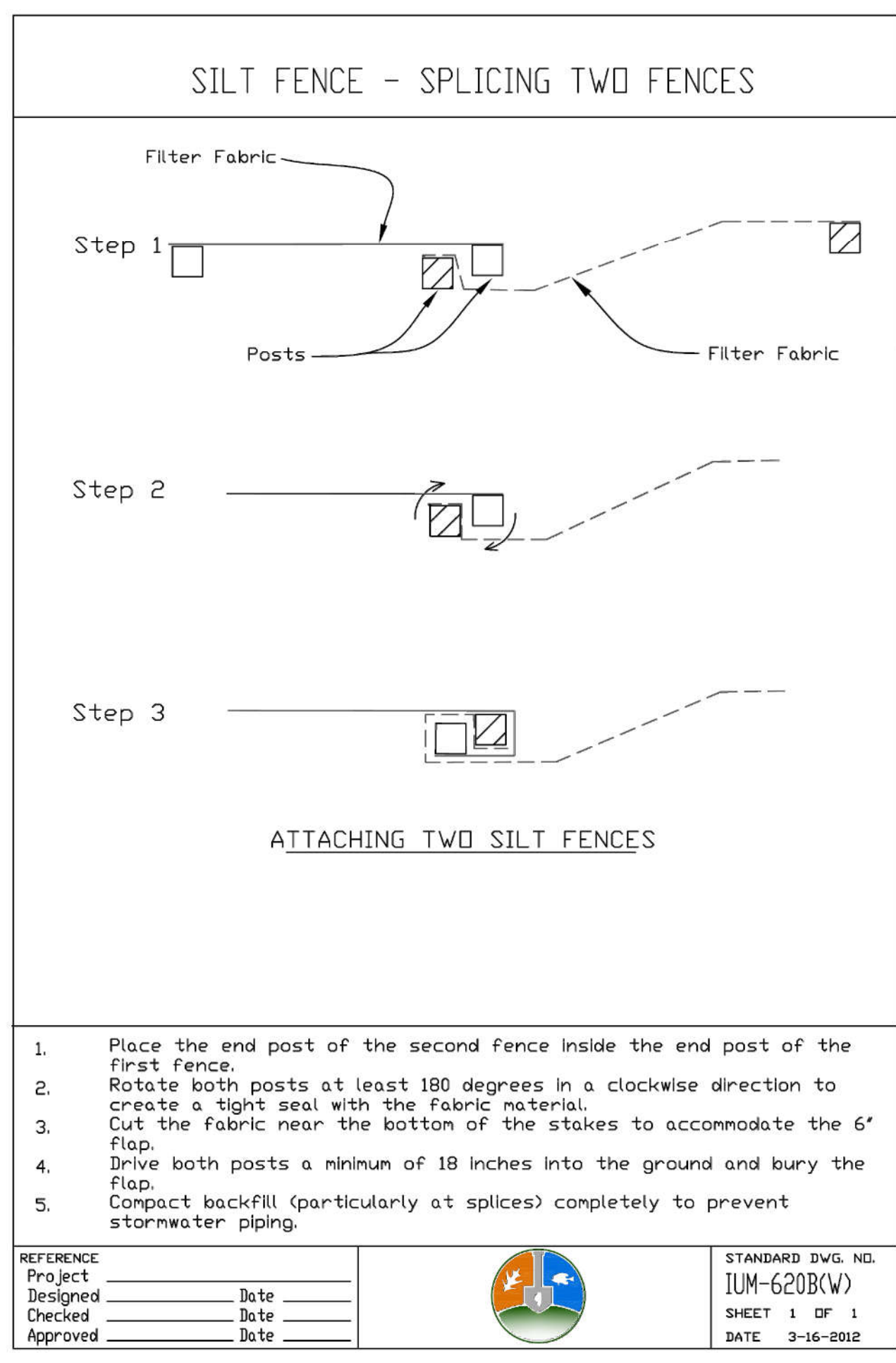
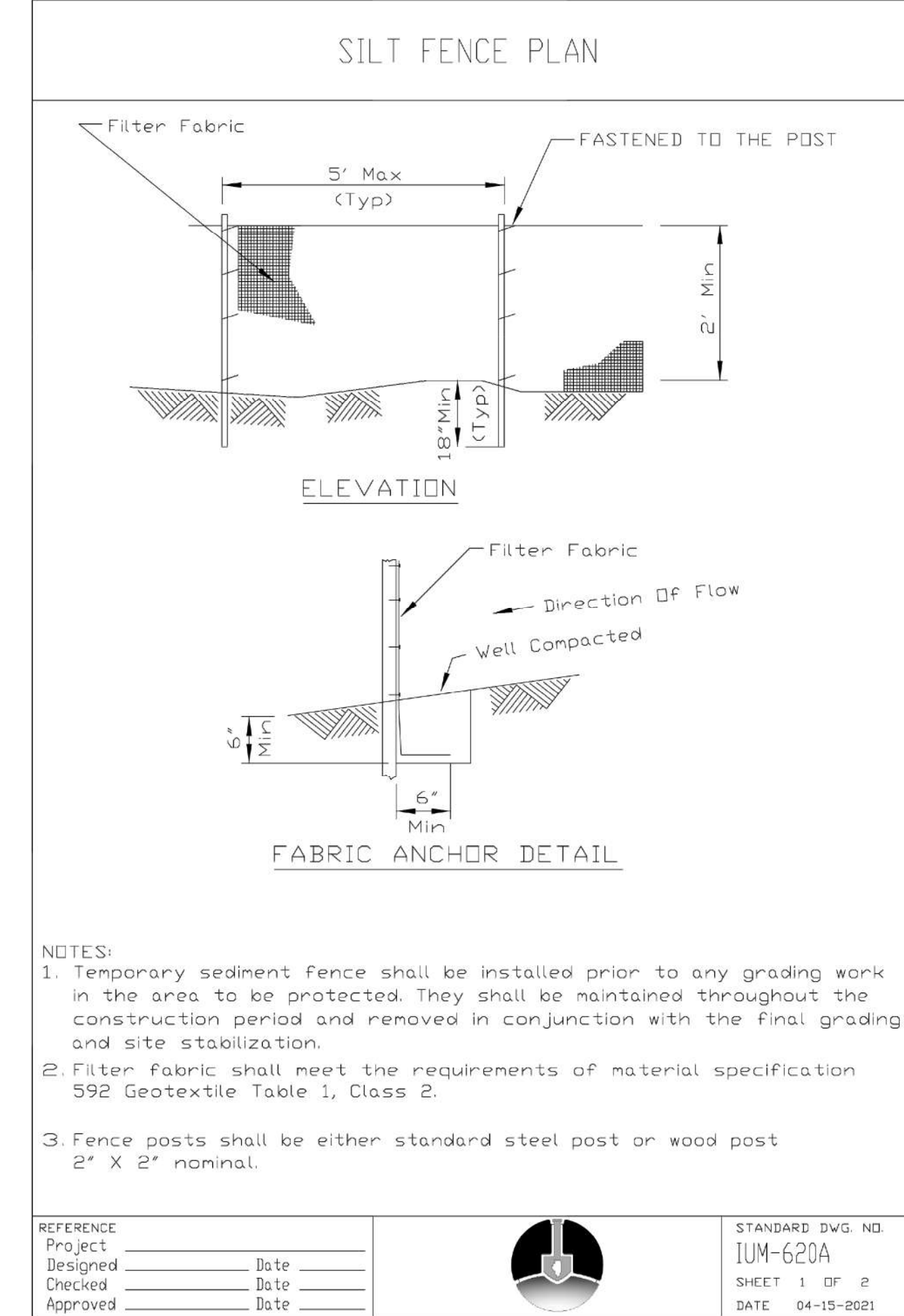
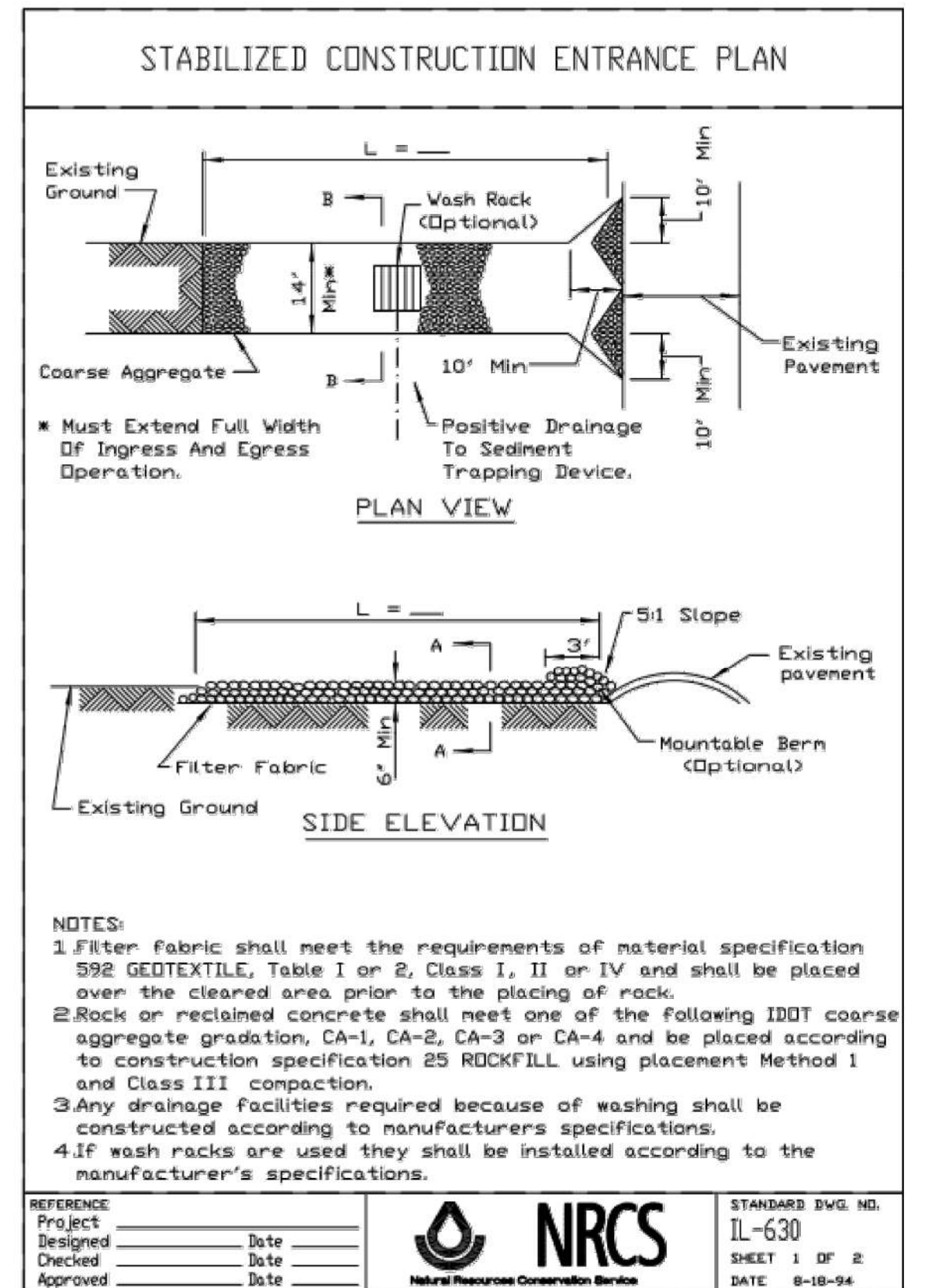
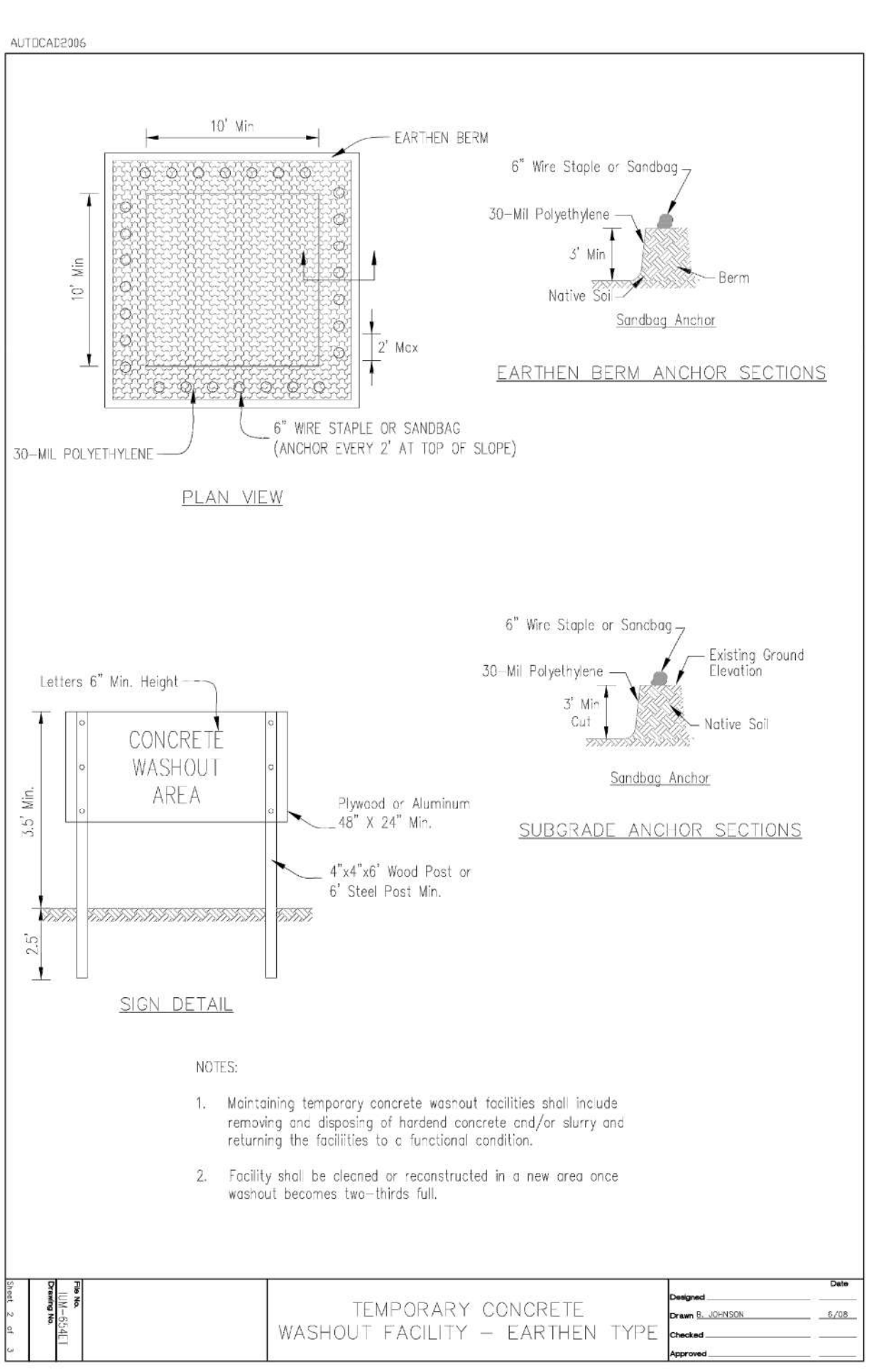
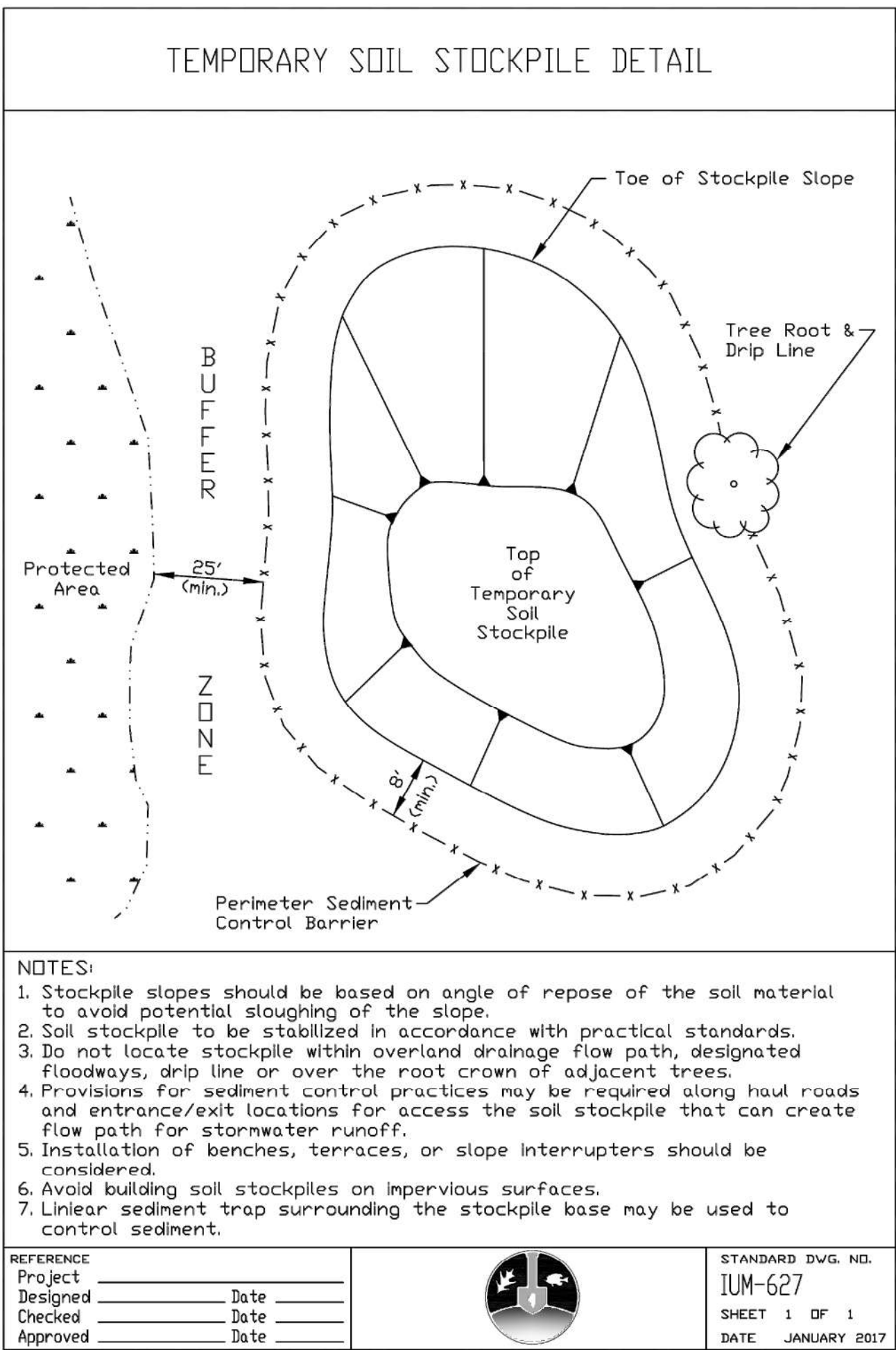
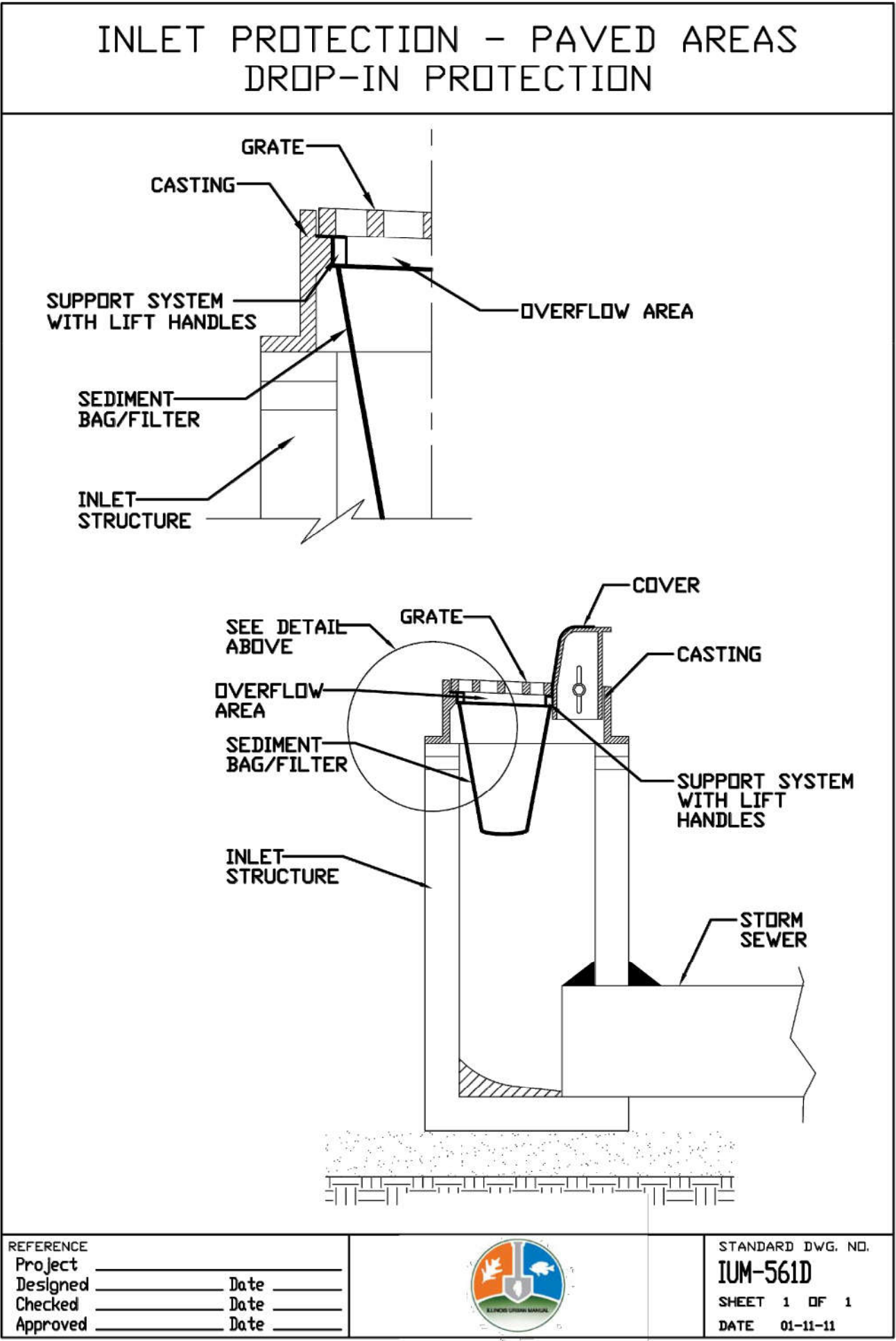
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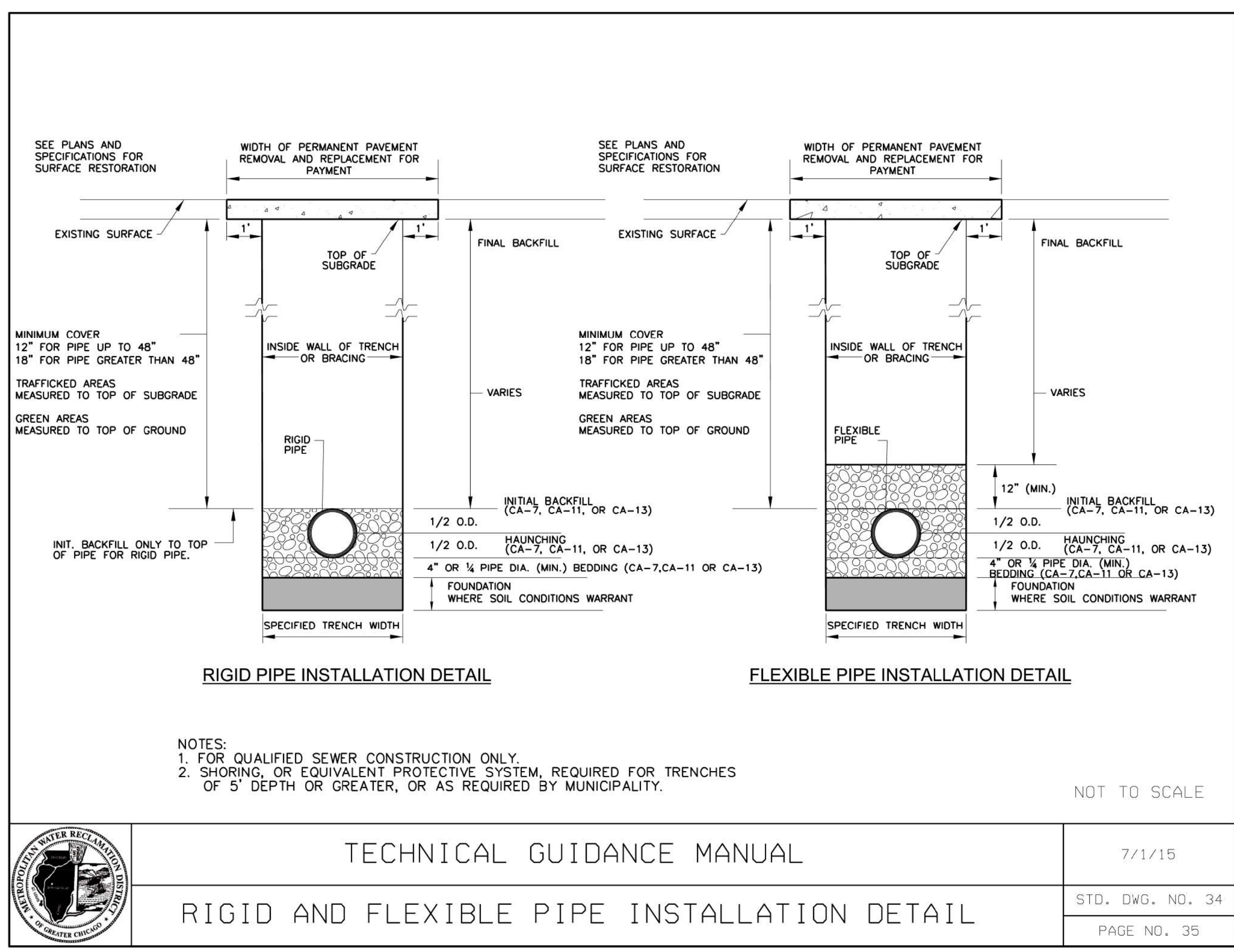
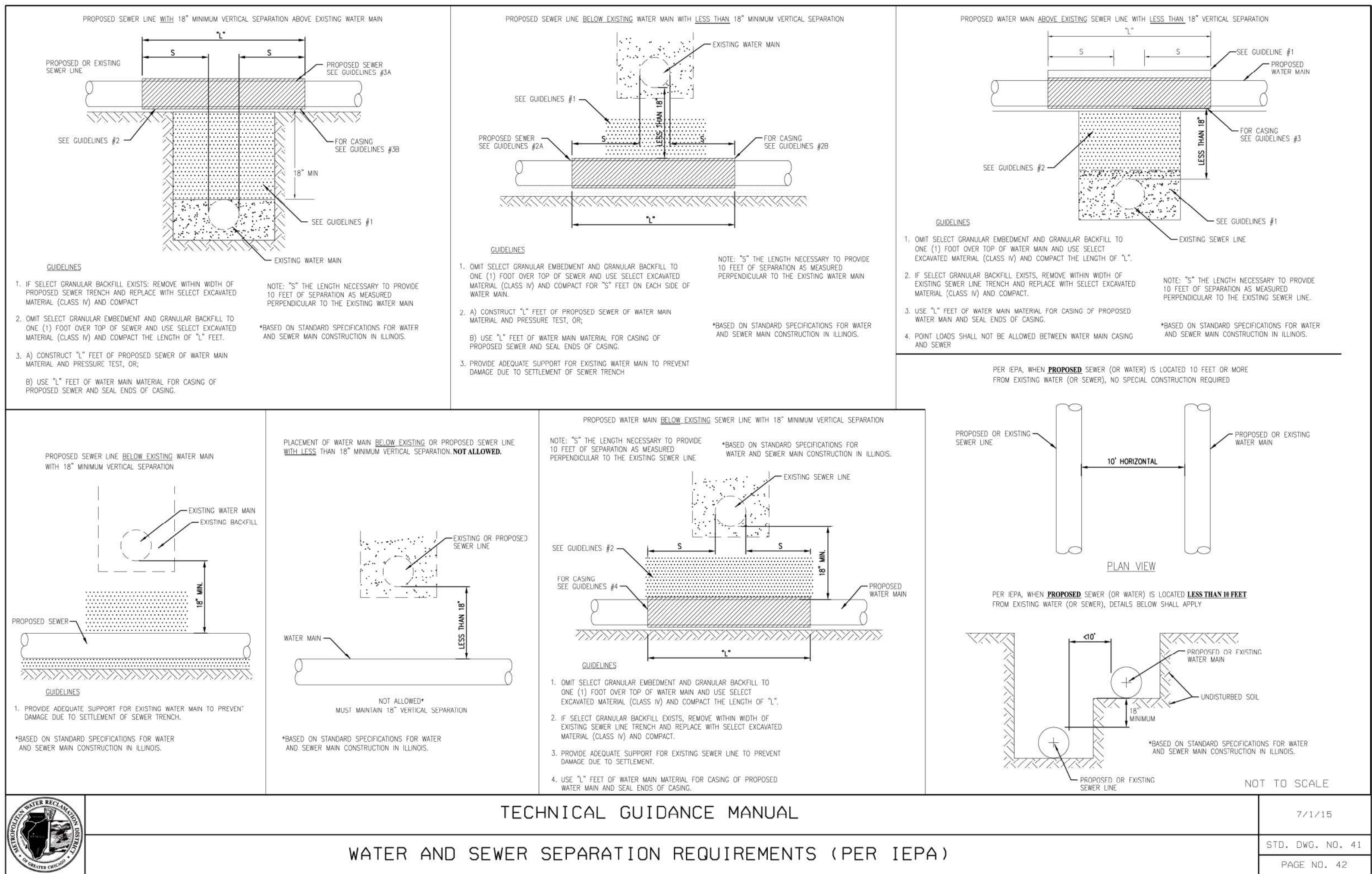
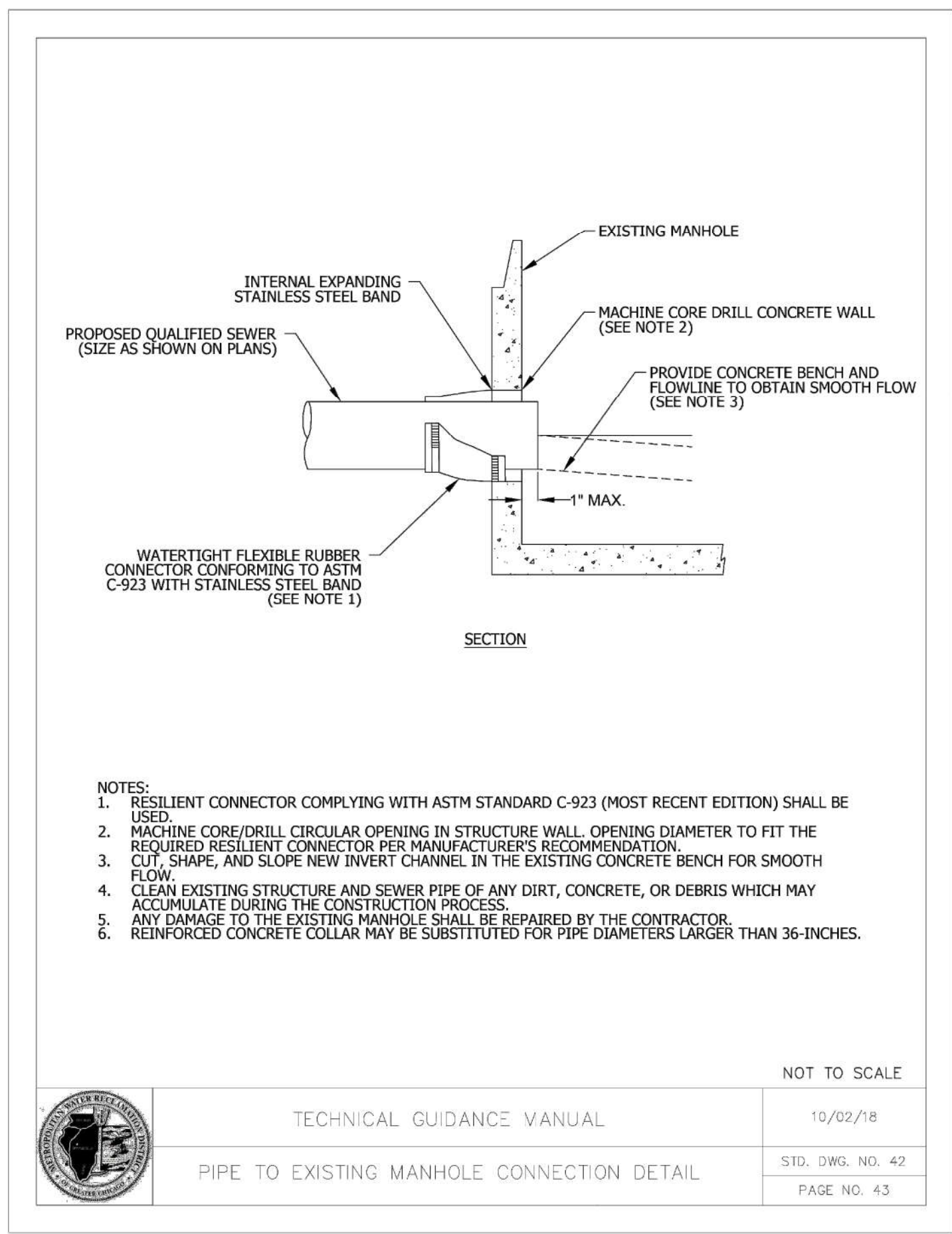
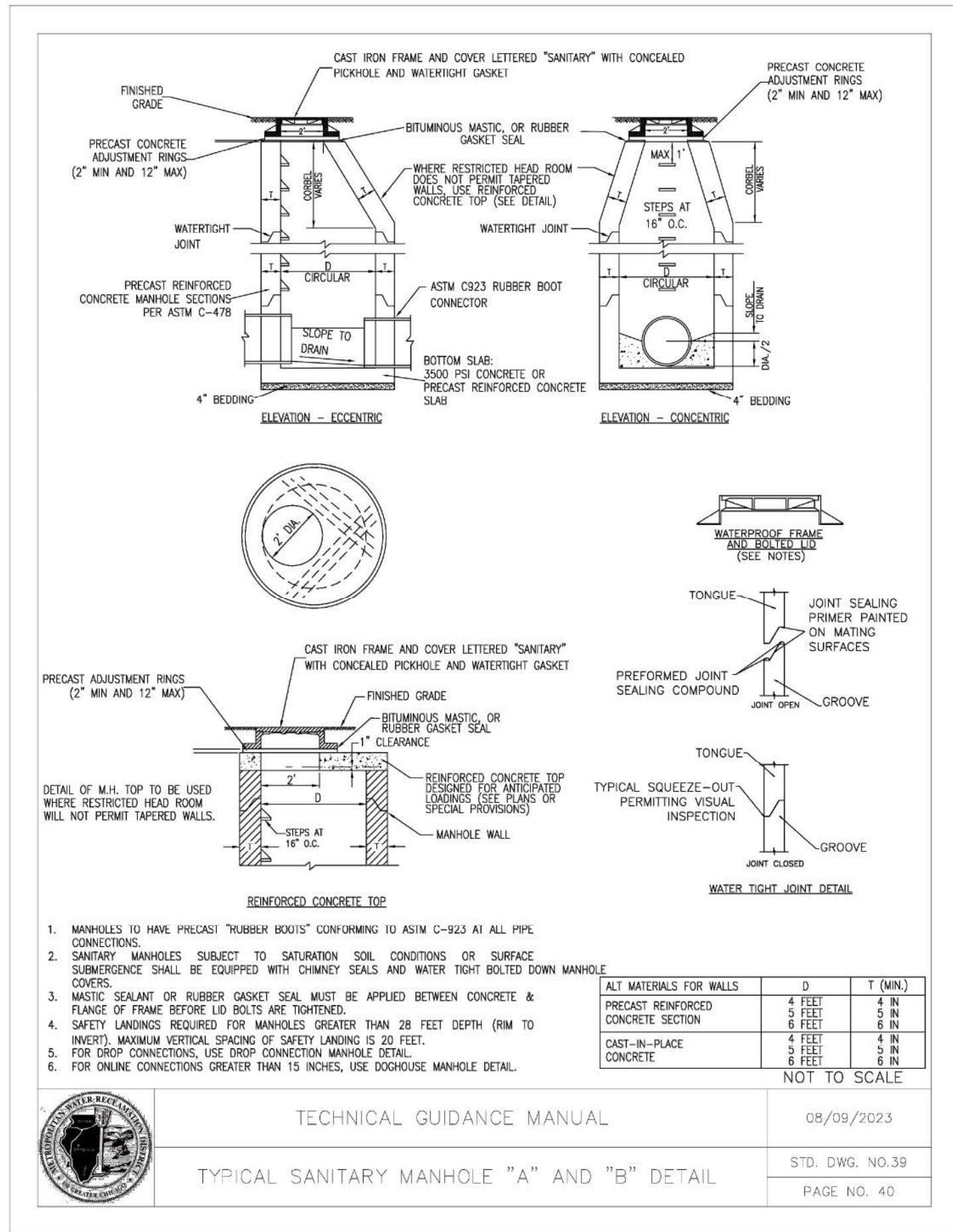
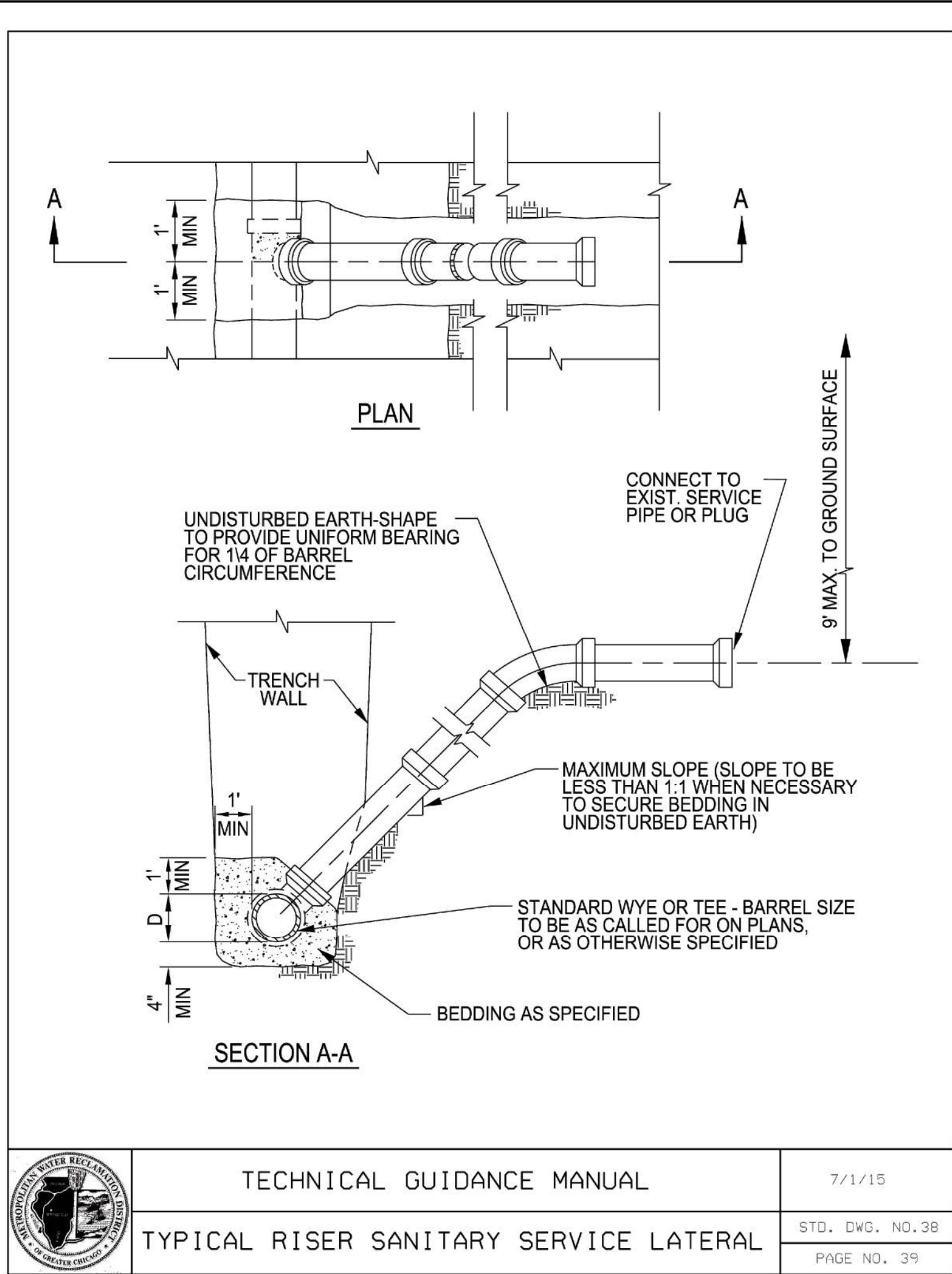
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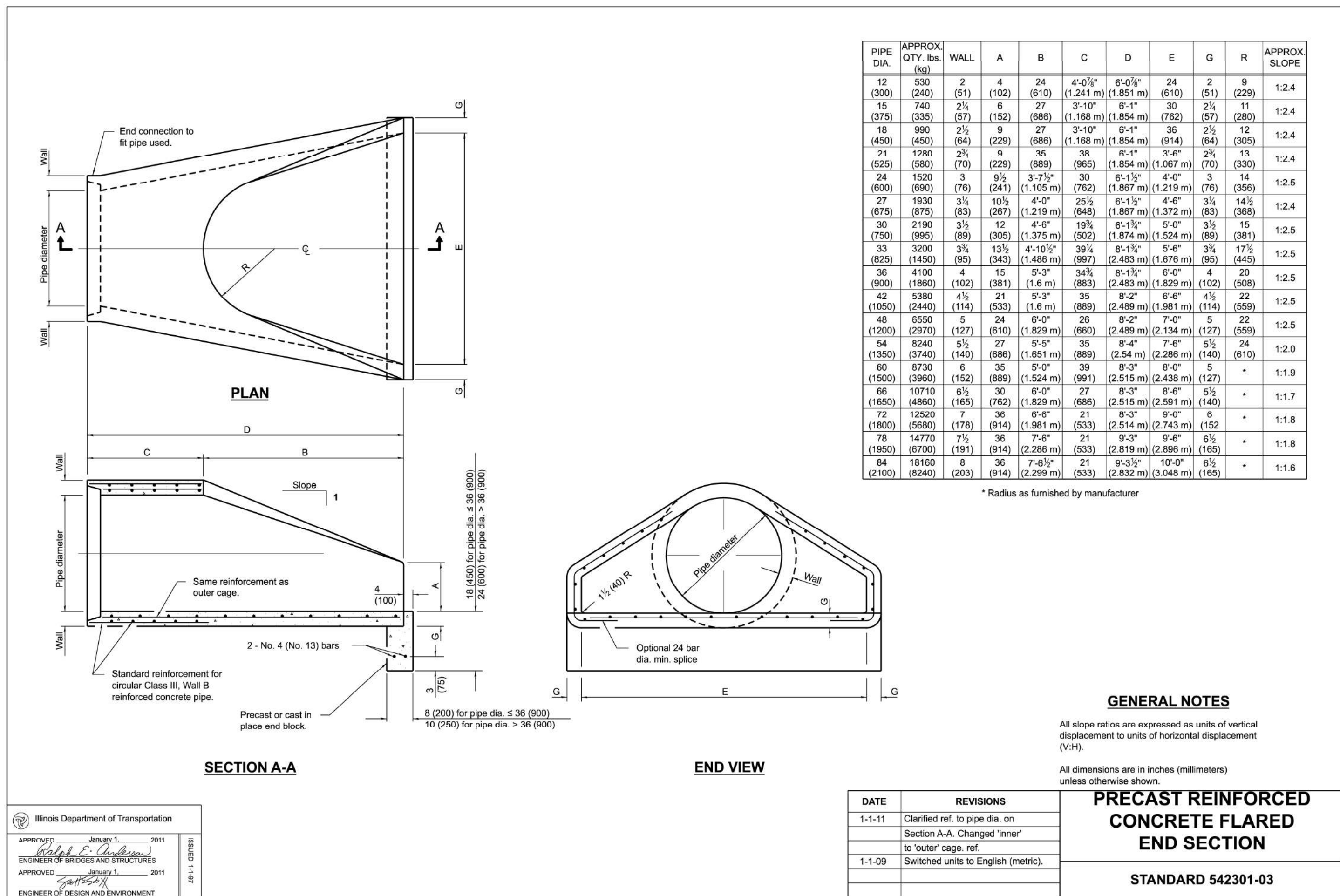
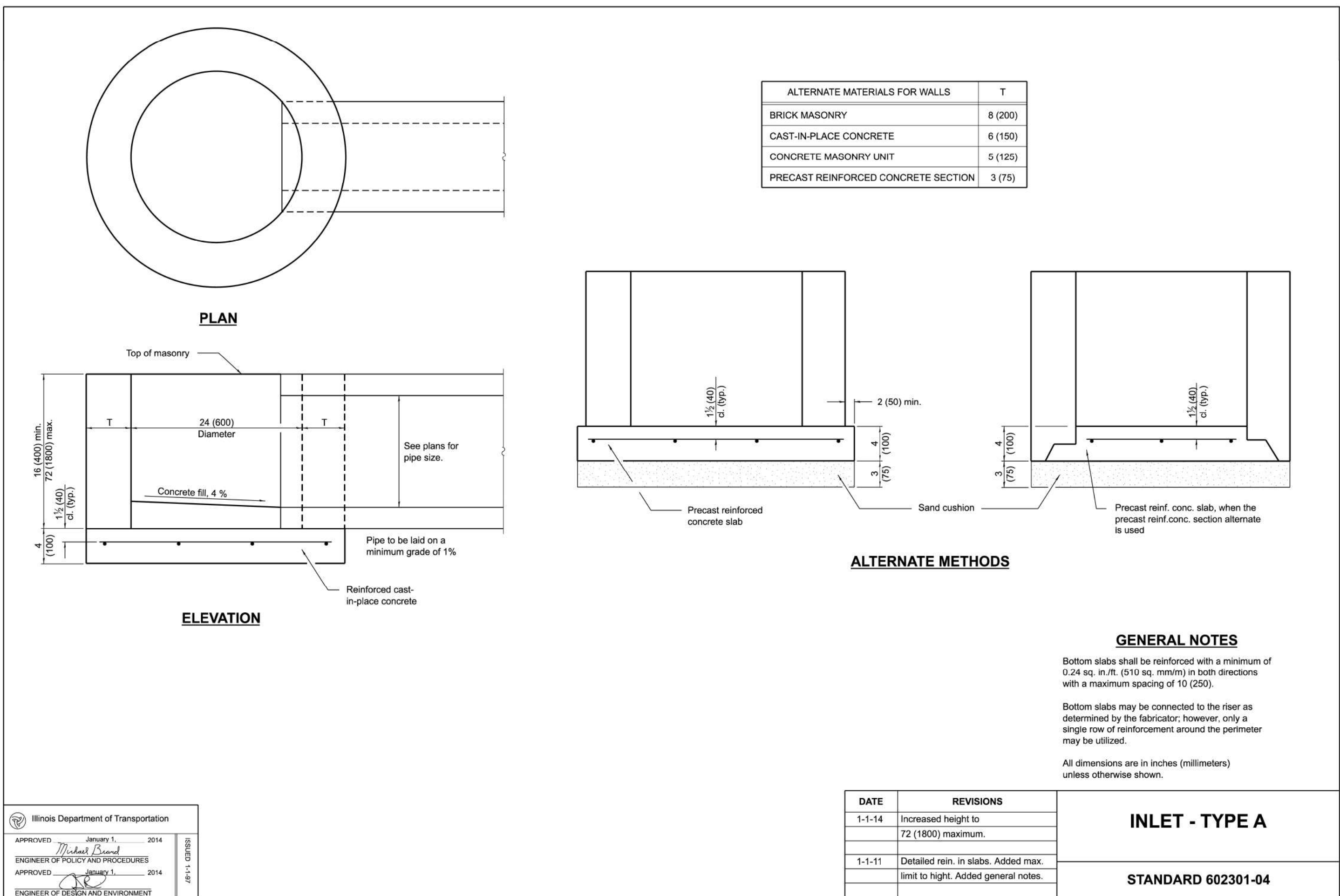
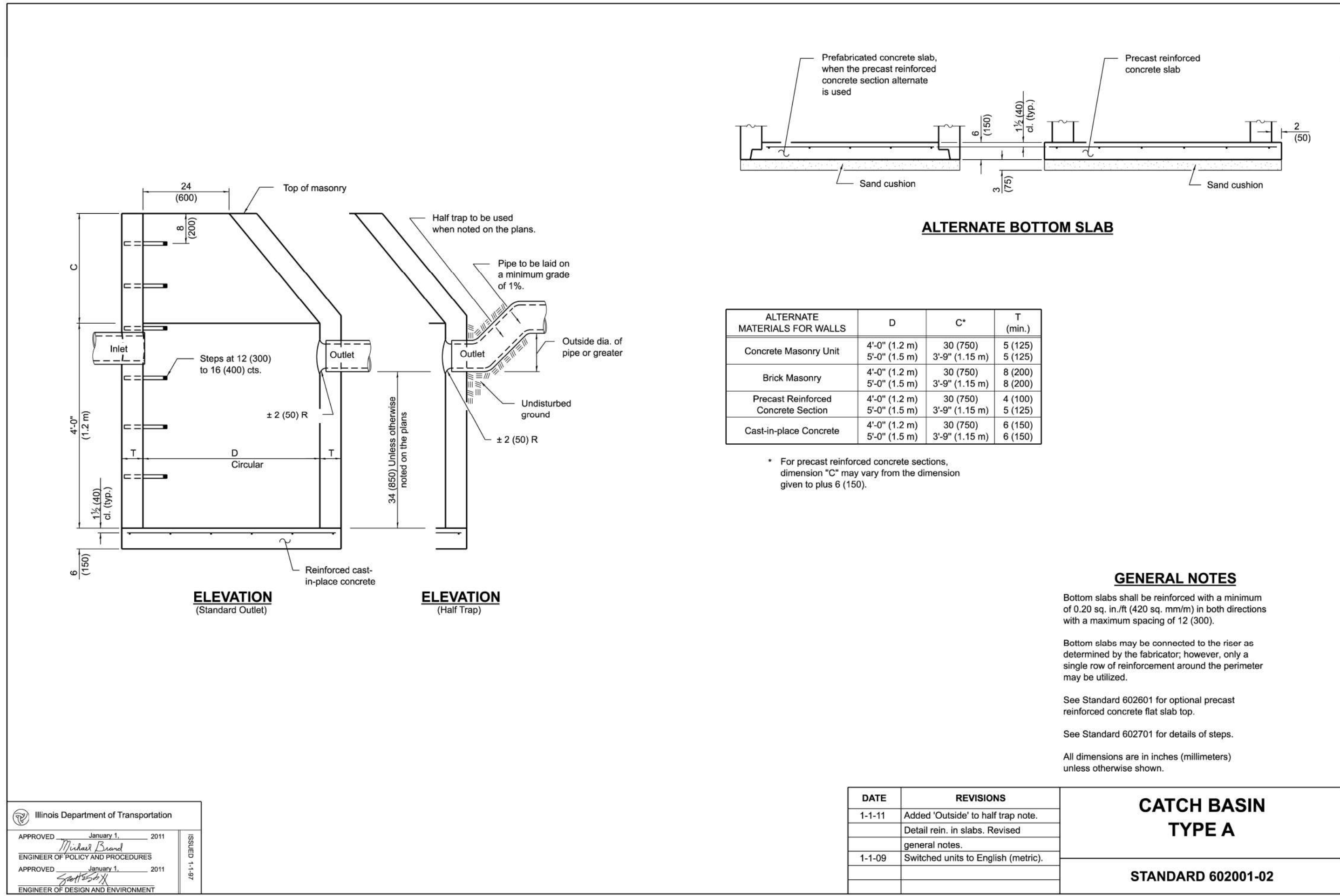
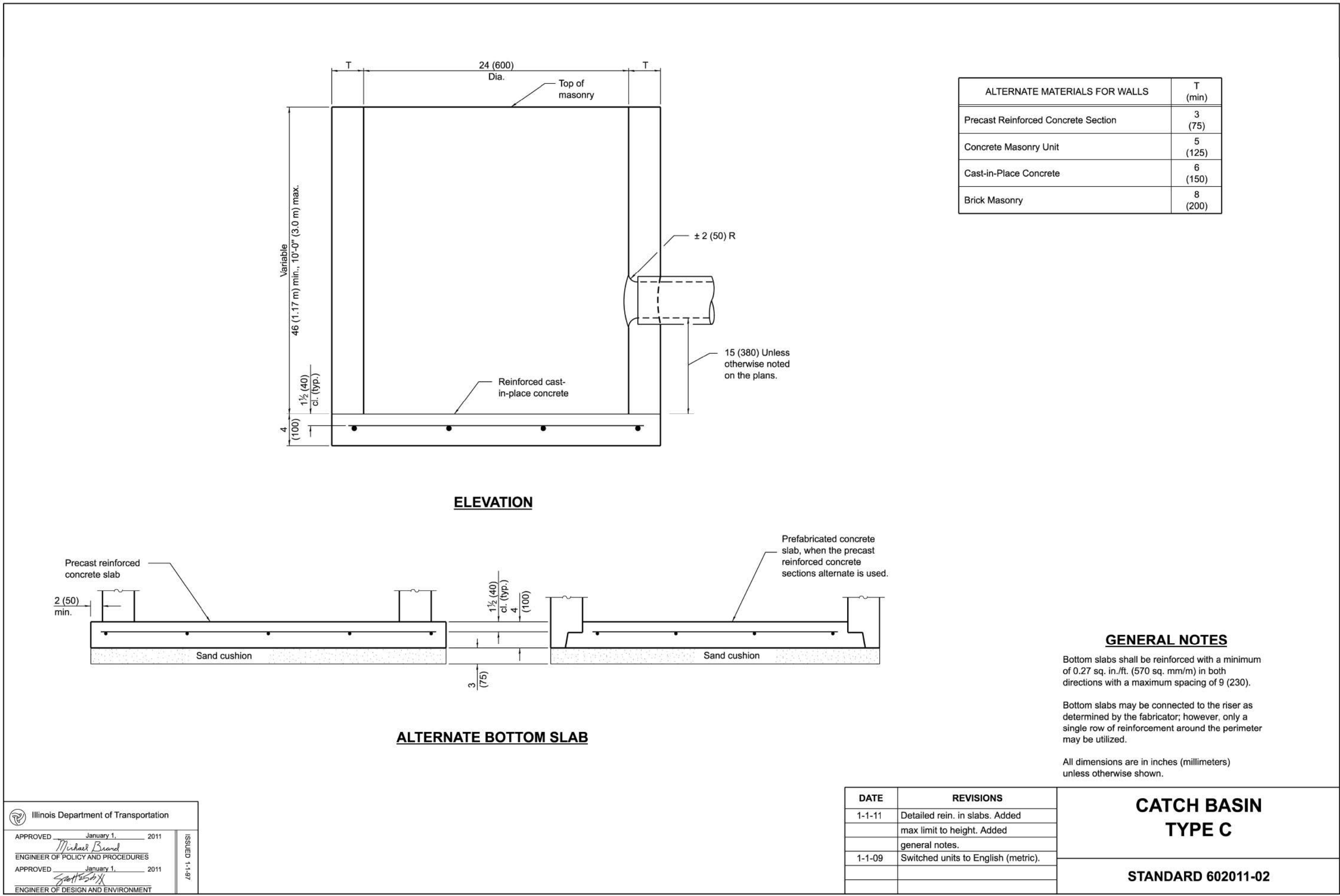
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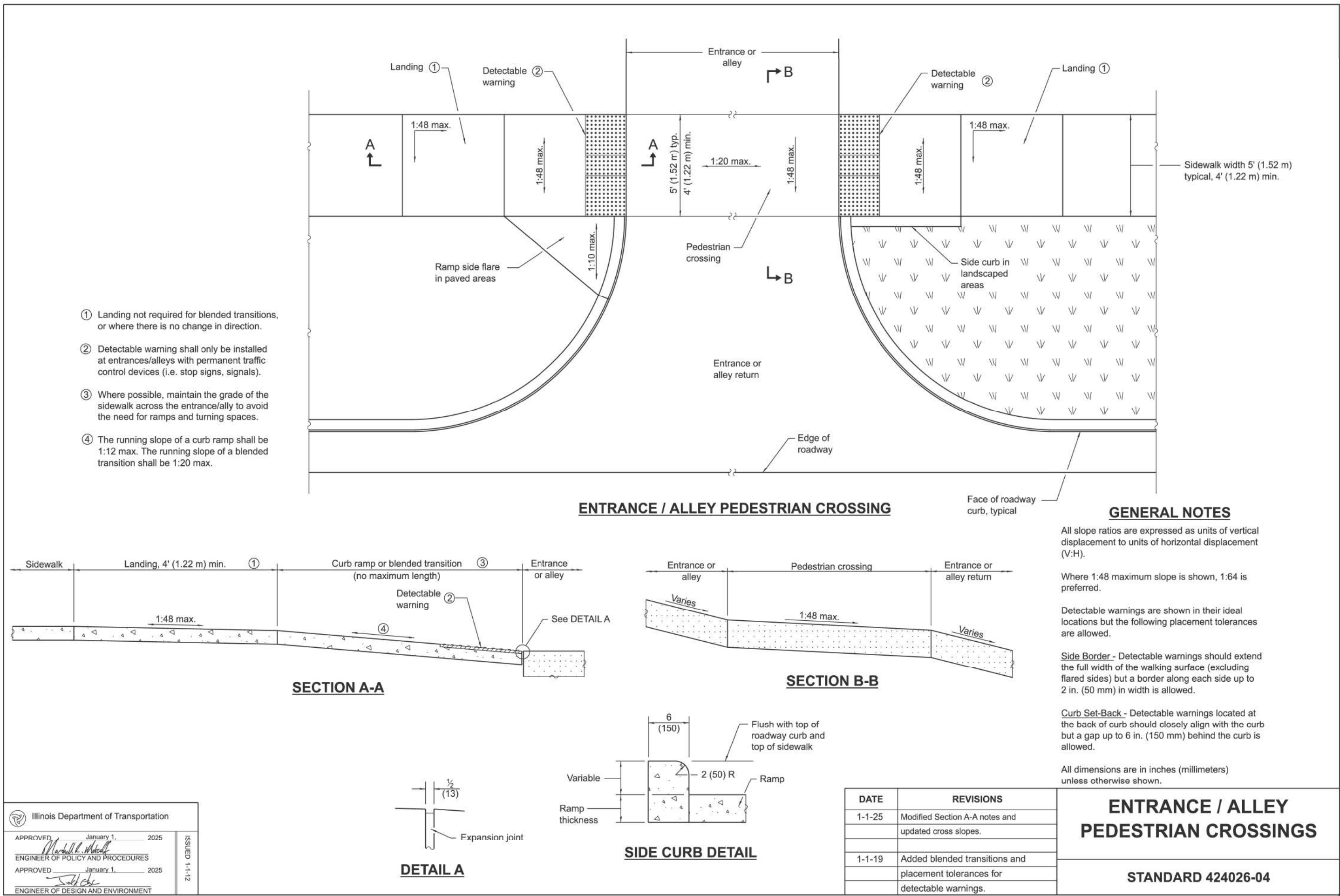
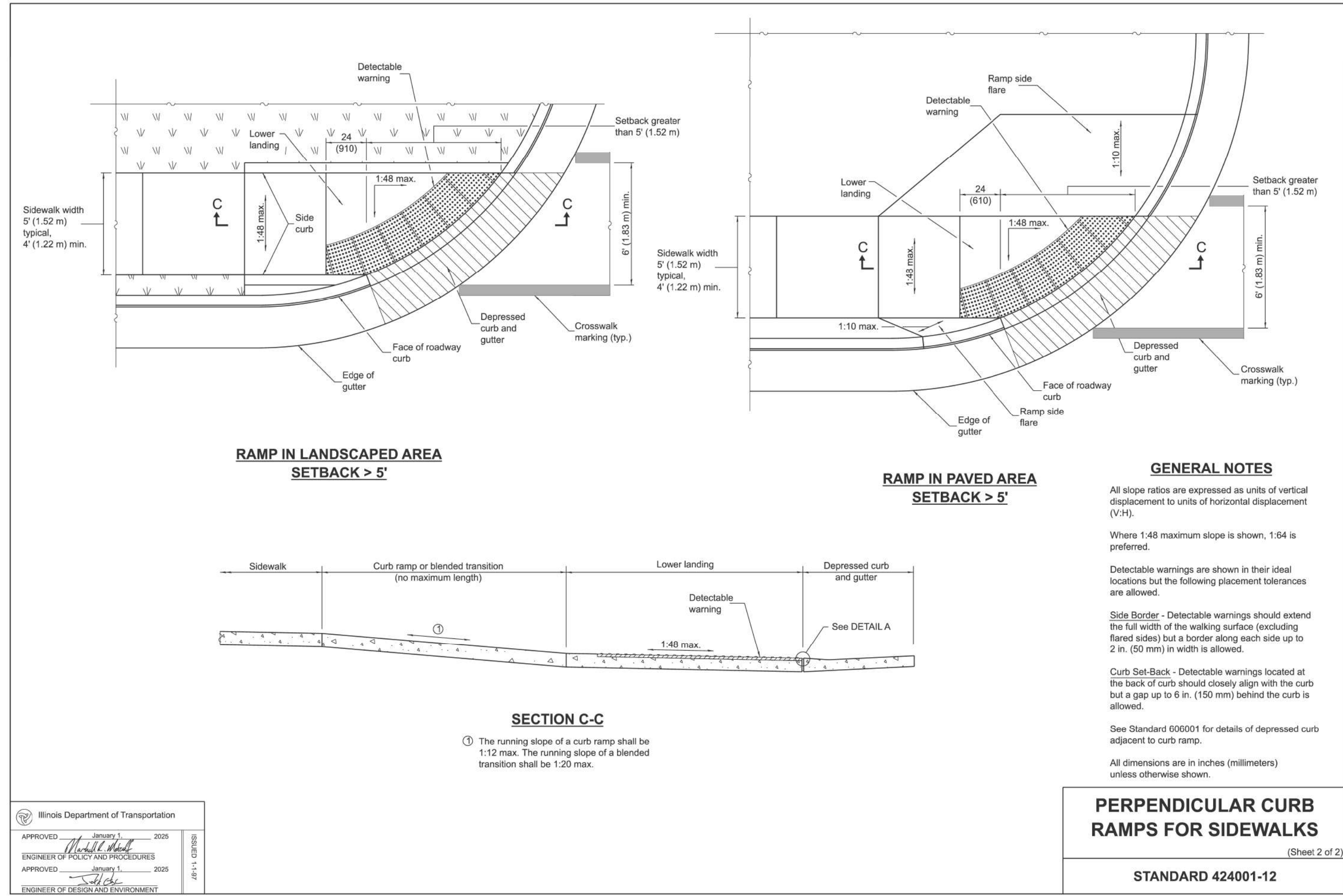
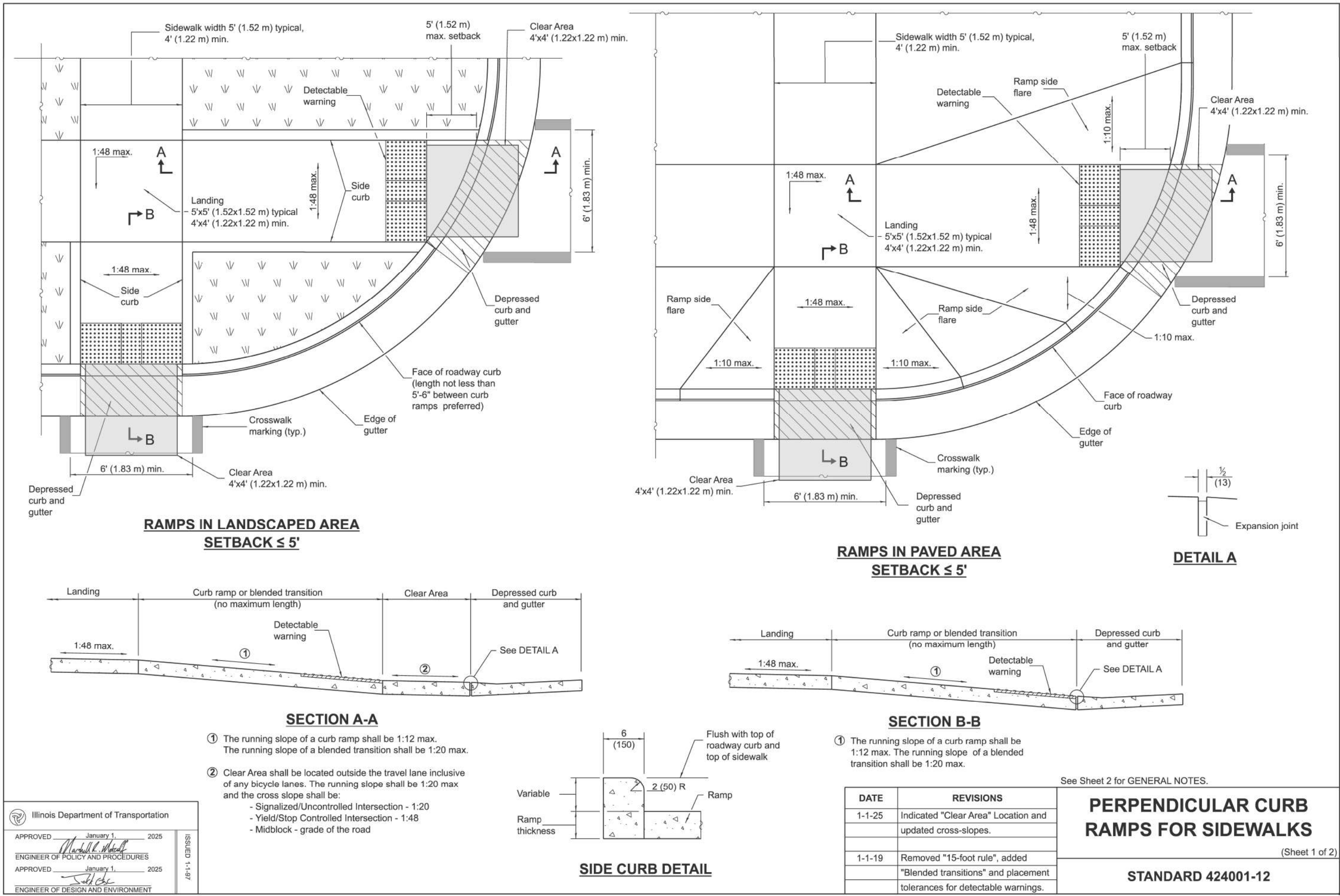
EROSION CONTROL NOTES

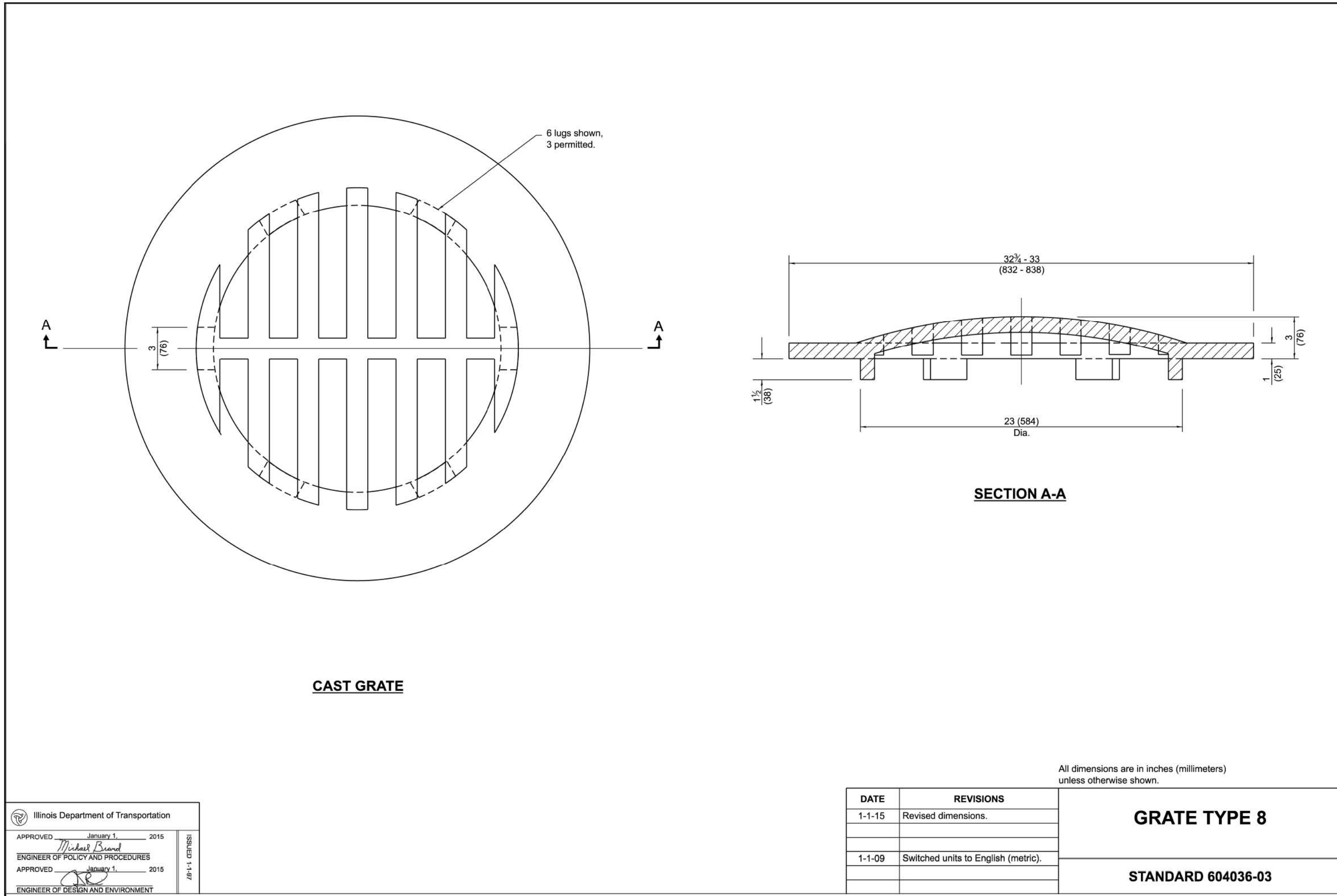
C-8.0 SHEET











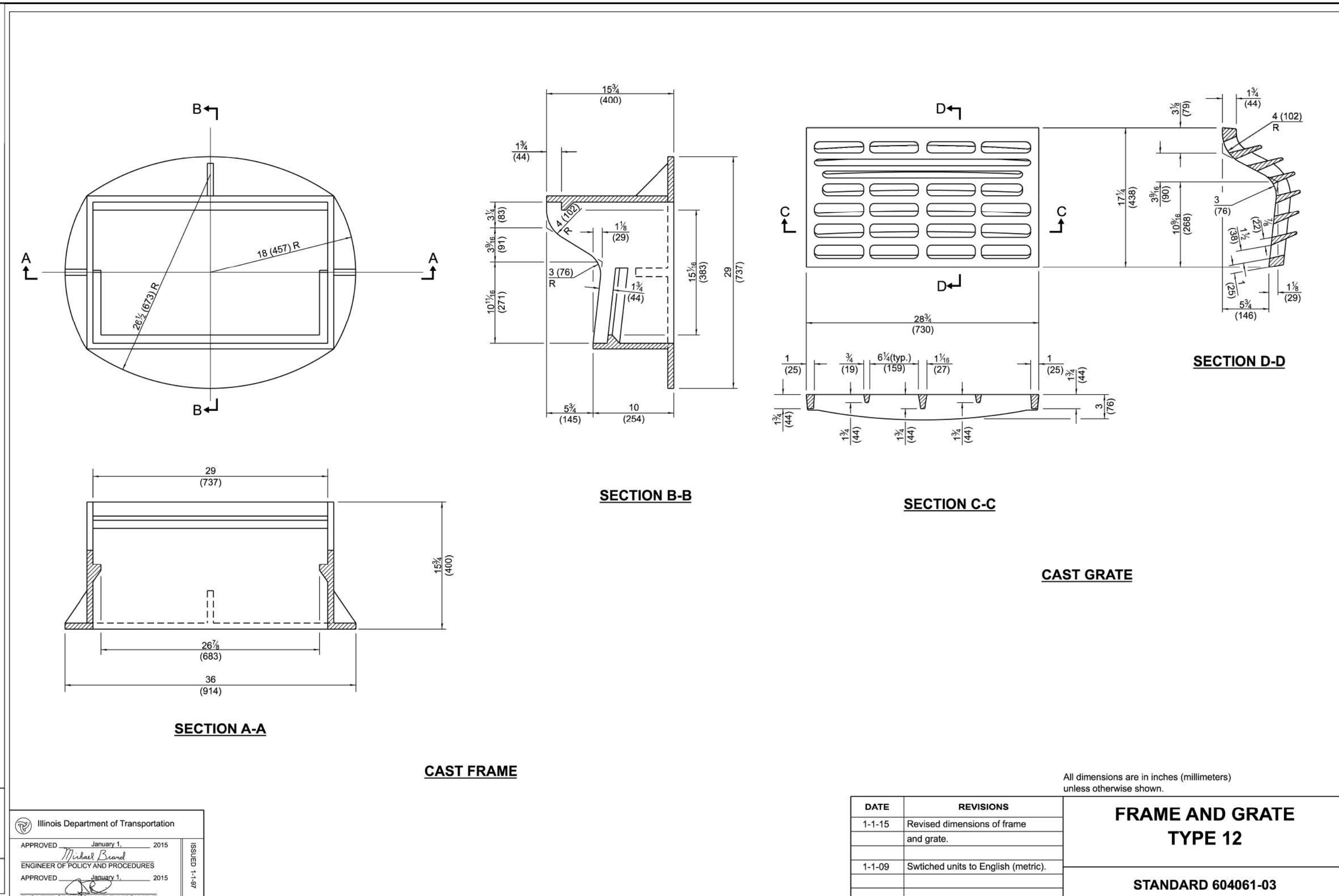
Illinois Department of Transportation
APPROVED: January 1, 2015
ENGINEER OF POLICY AND PROCEDURES
APPROVED: January 1, 2015
ENGINEER OF DESIGN AND ENVIRONMENT

DATE	REVISIONS
1-1-15	Revised dimensions.
1-1-09	Switched units to English (metric).

All dimensions are in inches (millimeters) unless otherwise shown.

GRATE TYPE 8

STANDARD 604036-03



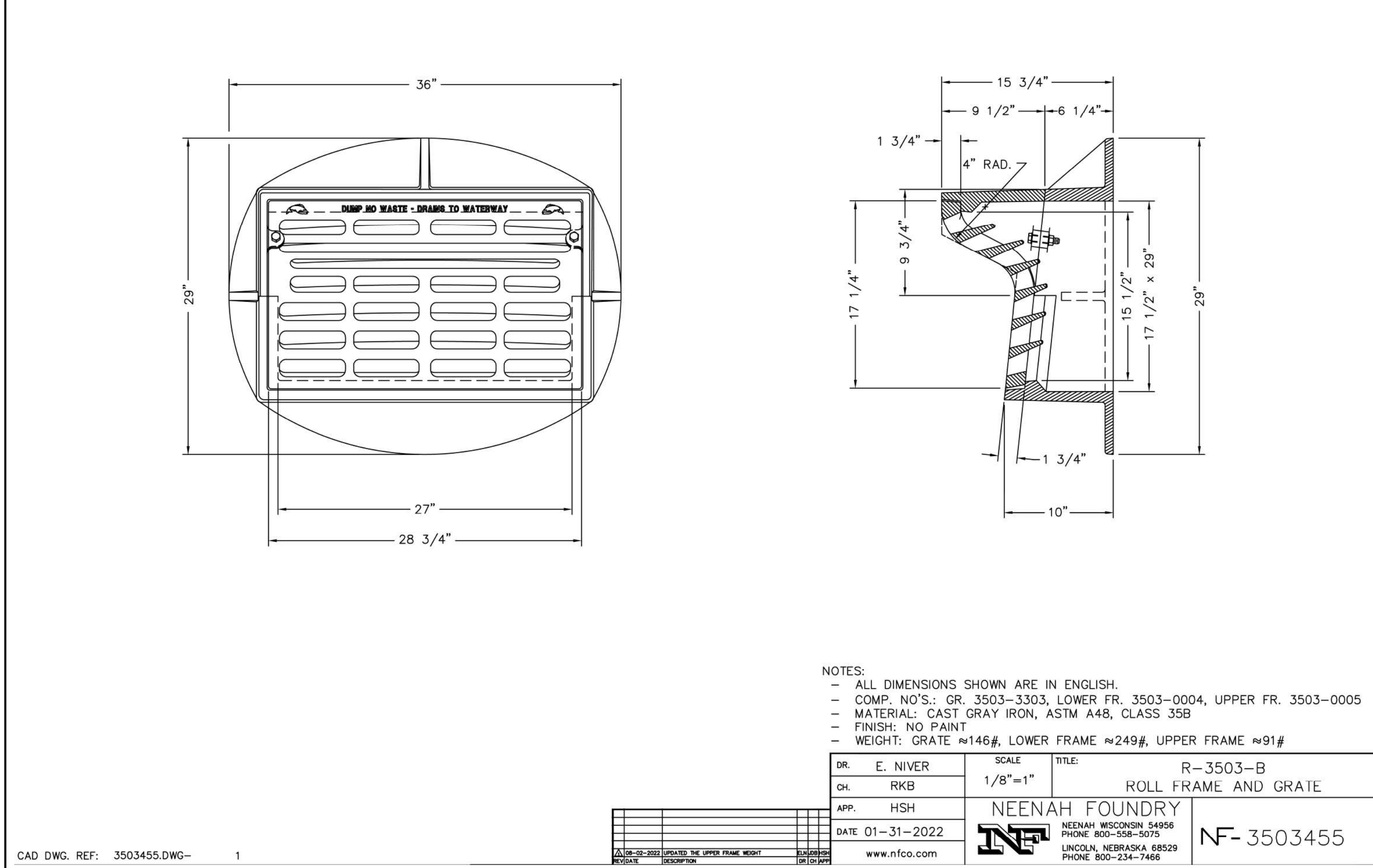
Illinois Department of Transportation
APPROVED: January 1, 2015
ENGINEER OF POLICY AND PROCEDURES
APPROVED: January 1, 2015
ENGINEER OF DESIGN AND ENVIRONMENT

DATE	REVISIONS
1-1-15	Revised dimensions of frame and grate.
1-1-09	Switched units to English (metric).

All dimensions are in inches (millimeters) unless otherwise shown.

FRAME AND GRATE TYPE 12

STANDARD 604061-03



CAD DWG. REF: 3503455.DWG- 1

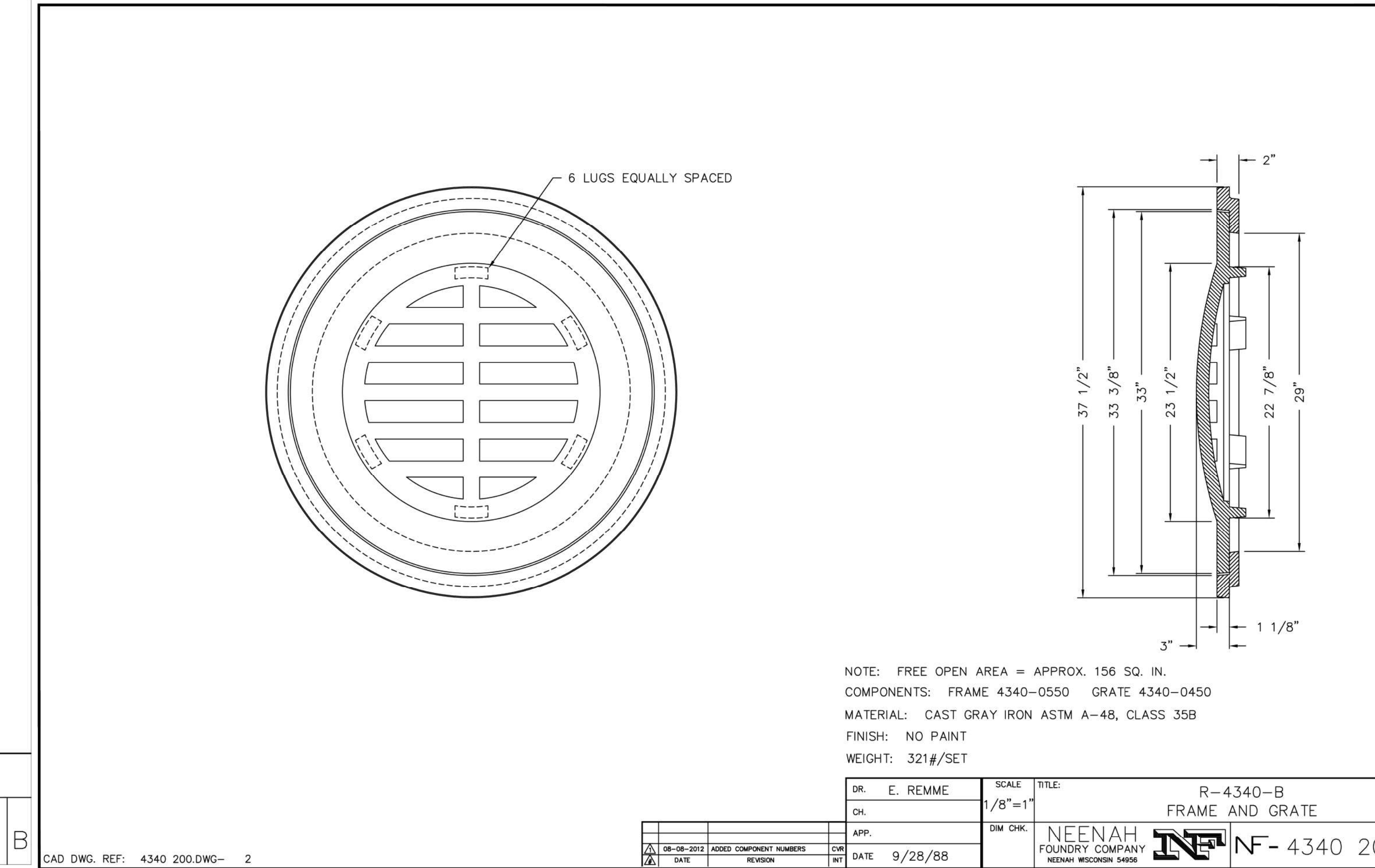
08-08-2012	UPDATED THE UPPER FRAME HEIGHT	REVISION
08-08-2012	REVISION	REVISION

NOTES:
- ALL DIMENSIONS SHOWN ARE IN ENGLISH.
- COMP. NO'S.: GR. 3503-3303, LOWER FR. 3503-0004, UPPER FR. 3503-0005
- MATERIAL: CAST GRAY IRON, ASTM A48, CLASS 35B
- FINISH: NO PAINT
- WEIGHT: GRATE ~146#, LOWER FRAME ~249#, UPPER FRAME ~91#

DR. E. NIVER	SCALE 1/8"=1"	TITLE: R-3503-B
CH. RKB		ROLL FRAME AND GRATE
APP. HSH		
DATE 01-31-2022		

NEENAH FOUNDRY
NEENAH, WISCONSIN 54956
PHONE 800-558-5075
LINCOLN, NEBRASKA 68529
PHONE 800-234-7466

NF- 3503455



CAD DWG. REF: 4340 200.DWG- 2

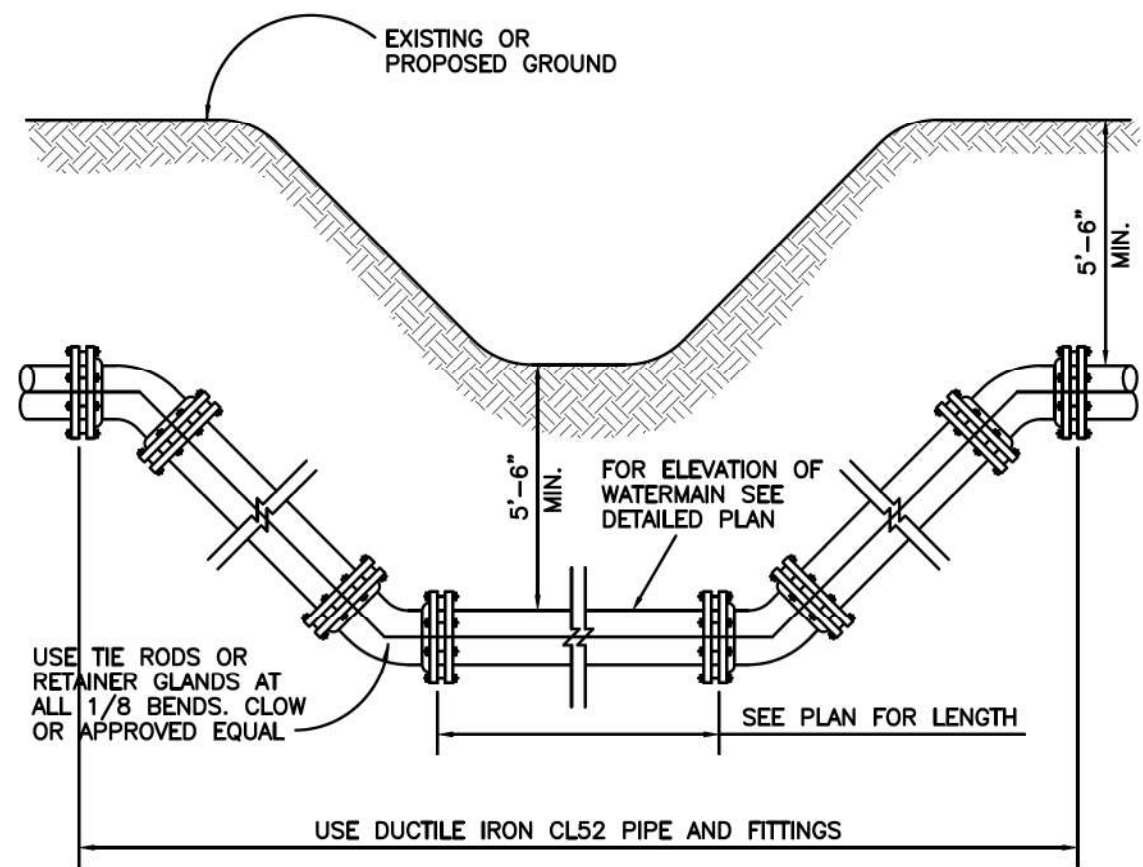
08-08-2012	ADDED COMPONENT NUMBERS	DATE
08-08-2012	REVISION	DATE

NOTE: FREE OPEN AREA = APPROX. 156 SQ. IN.
COMPONENTS: FRAME 4340-0050 GRATE 4340-0450
MATERIAL: CAST GRAY IRON ASTM A-48, CLASS 35B
FINISH: NO PAINT
WEIGHT: 321#/SET

DR. E. REMME	SCALE 1/8"=1"	TITLE: R-4340-B
CH. RKB		FRAME AND GRATE
APP. HSH		
DATE 9/28/88		

NEENAH FOUNDRY COMPANY
NEENAH, WISCONSIN 54956

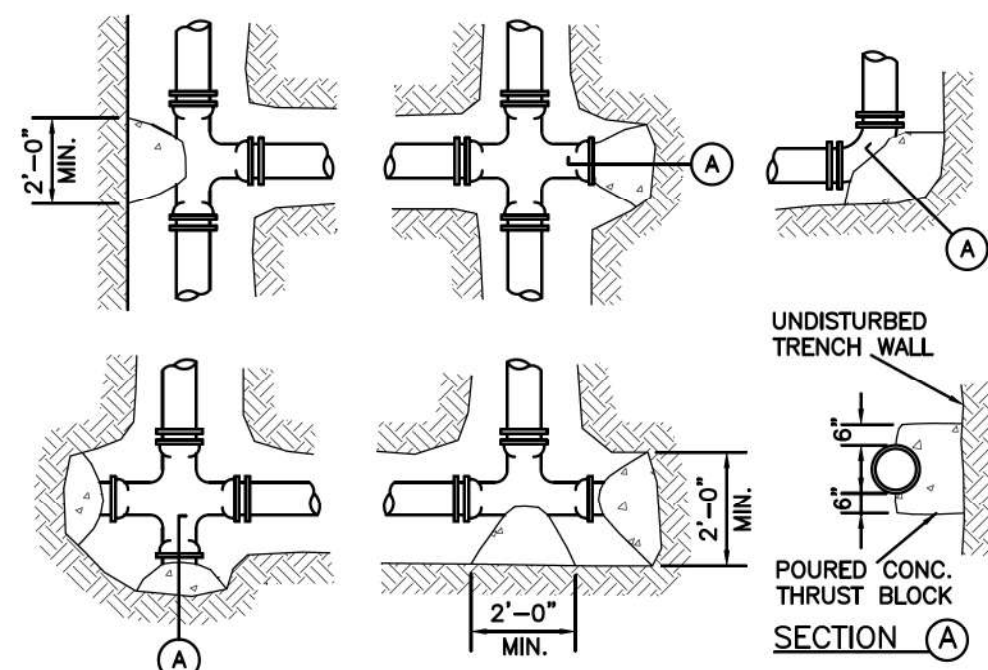
NF- 4340 200B



NOTE:
1. POLYETHYLENE ENCASEMENT - ENTIRE LENGTH OF WATERMAIN, AS REQUIRED.

TYPICAL WATERMAIN

NOT TO SCALE

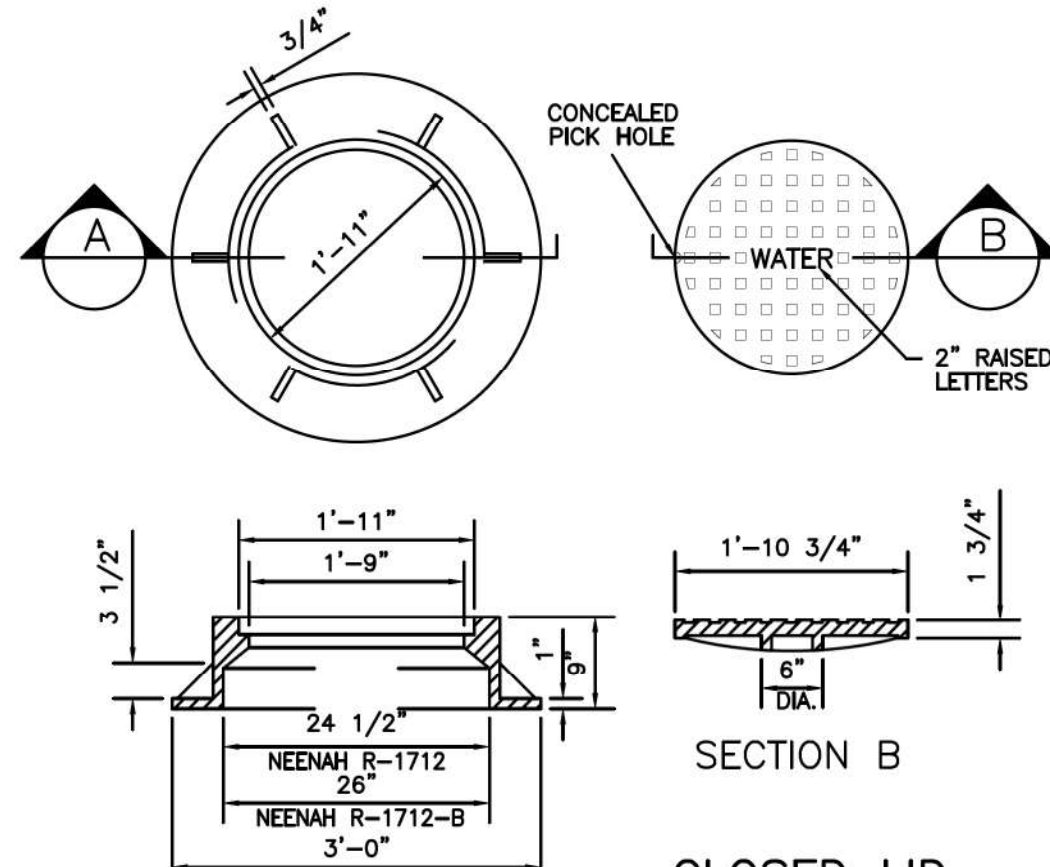


SIZE (DIA. IN INCH.)	DEAD END OR TEE (SQ. FT.)	1/4 BEND 90° BEND (SQ. FT.)	1/8 BEND 45° BEND (SQ. FT.)	1/16 BEND 22.5° BEND (SQ. FT.)	1/32 BEND 11.25° BEND (SQ. FT.)
6	3.9	5.5	3.0	1.5	1.5
8	6.7	9.4	5.1	2.6	2.6
10	10.9	15.4	8.4	4.3	4.3
12	15.5	21.8	11.9	6.1	6.1
14	21.0	29.6	16.1	8.2	8.2
16	28.5	37.9	20.6	12.5	12.5
18	38.6	54.4	29.7	14.9	14.9
20	47.8	67.4	36.7	18.6	18.6
24	69.0	97.2	52.9	26.8	26.8

- NOTES:
- THE ABOVE TABLE IS BASED ON 2,000 PSF SOIL BEARING AGAINST THE UNDISTURBED TRENCH WALL AND ARE TO REPRESENT THE MINIMUM VERTICAL AREA OF THE THRUST BLOCK PERPENDICULAR TO THE FITTING INCLUDING THE ANGLE OF THE FITTING.
 - THRUST BLOCKING TO PREVENT MOVEMENT OF LINES UNDER PRESSURE AT BENDS, TEES, CAPS, VALVES, HYDRANTS AND AT POINTS SPECIFIED SHALL BE CLASS "SI" CONCRETE, A MIN. OF 12" THICK, PLACED BETWEEN SOLID GROUND AND FITTING, AND SHALL BE ANCHORED IN SUCH A MANNER THAT PIPE AND FITTING WILL BE ACCESSIBLE FOR REPAIRS. THRUST BLOCK SHALL BE PLACED AT BENDS OF 11 1/4 OR MORE. RETAINER GLANDS MAY BE USED IN PLACE OF THRUST BLOCKS. THE COST OF THRUST BLOCKS OR RETAINER GLANDS SHALL BE INCLUDED IN THE COST OF THE FITTING.
 - PROVIDE POLYETHYLENE ENCASEMENT THROUGHOUT THE ENTIRE LENGTH OF THE WATERMAIN, AS REQUIRED.

THRUST BLOCK DETAIL

NOT TO SCALE

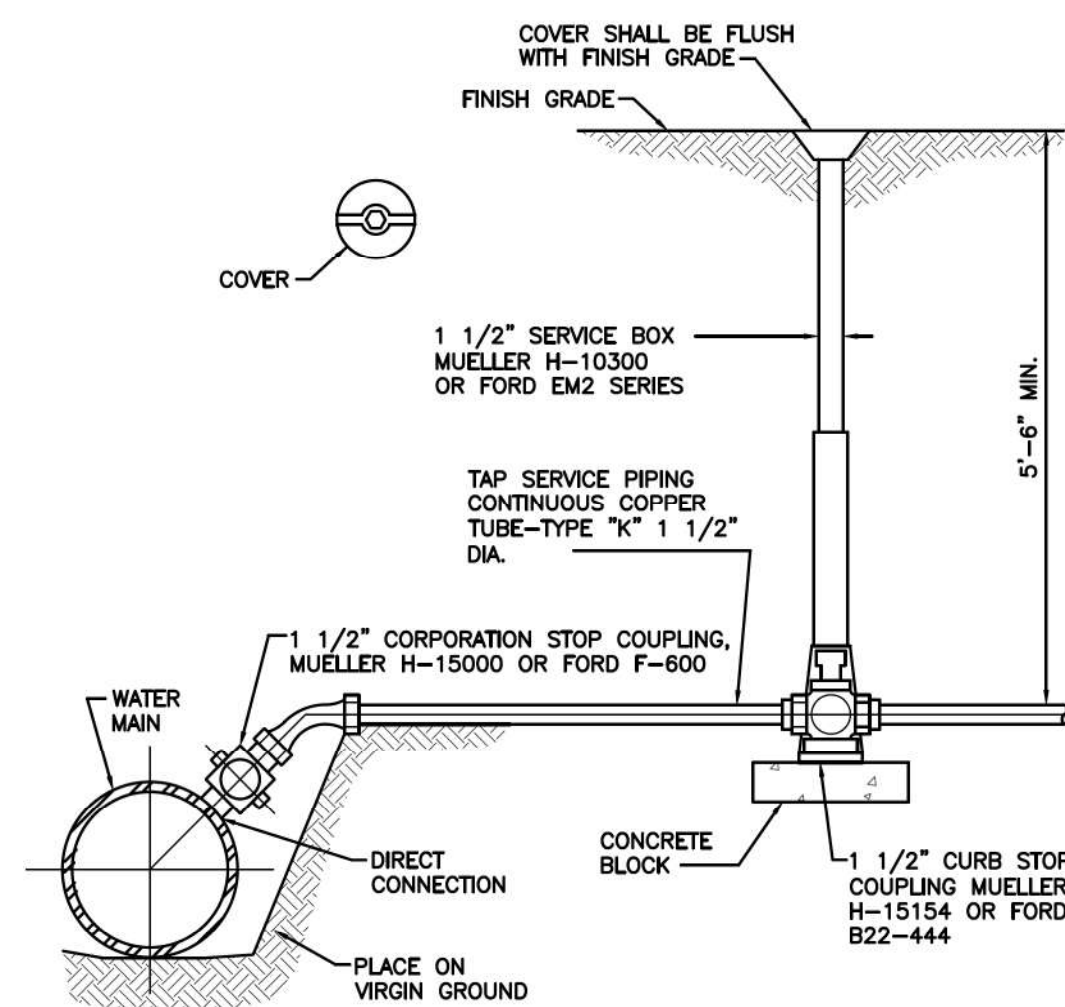


SECTION A CAST FRAME

- NOTES:
- DUCTILE IRON CASTING SHALL BE GRADE 60-40-18 AND SHALL BE TESTED IN ACCORDANCE WITH FEDERAL SPECIFICATIONS.
 - ALL FRAMES AND LIDS SHALL BE MACHINED.
 - THE MANHOLE LIDS SHALL HAVE RAISED LETTERS AS SHOWN.
 - ALTERNATIVE TO DUCTILE IRON LID, GRAY IRON LID MAY BE USED.
 - FRAME AND LID TO BE NEENAH R-1712 (540 LBS. WT.) FOR PAVEMENTS AND NEENAH R-1712-B (415 LBS. WT.) FOR PARKWAYS.
 - CLOSED LID SHALL HAVE A CONCEALED PICK HOLE.
 - LID SHALL BE IMPRINTED WITH THE DESIGNATION "WATER".

VALVE VAULT FRAME & LID, TYPE-1

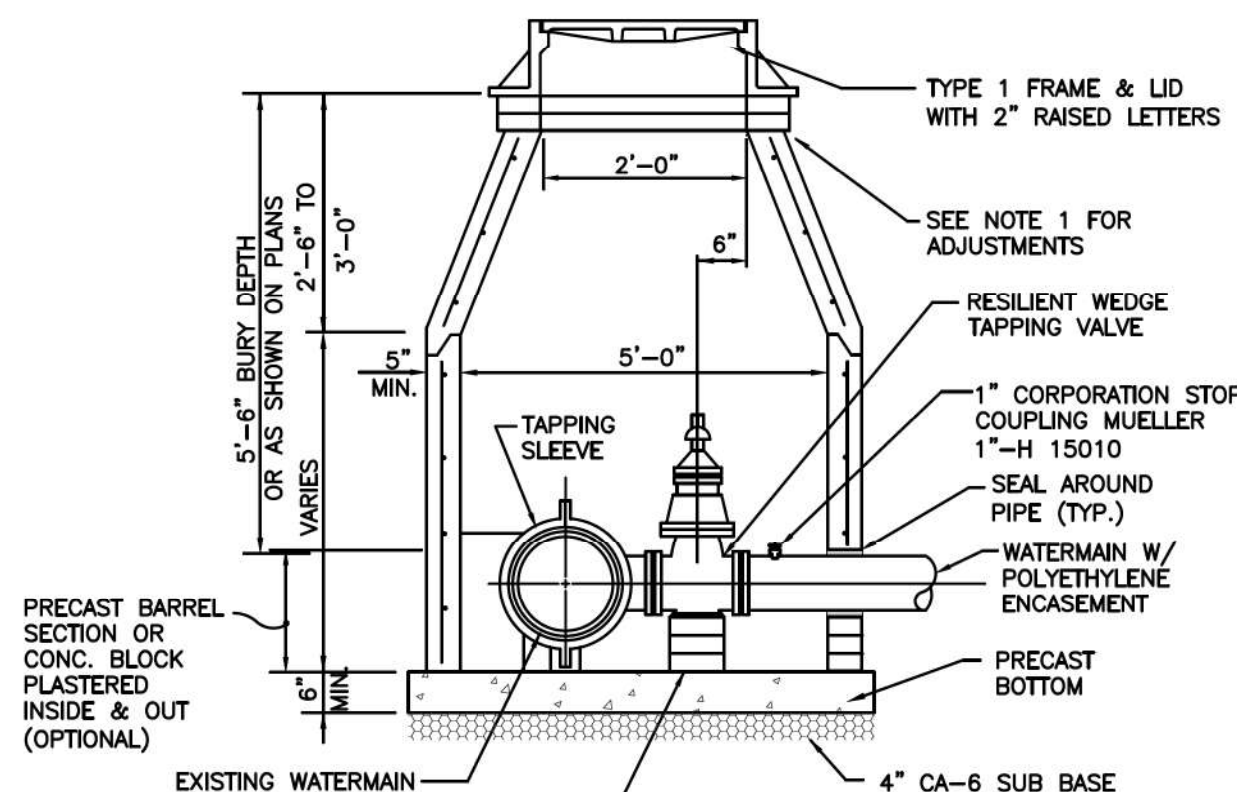
NOT TO SCALE



- NOTE:
- WATER SERVICE SHALL BE LOCATED A MINIMUM OF 10 FEET FROM THE SANITARY SEWER SERVICE.

WATER SERVICE TAP

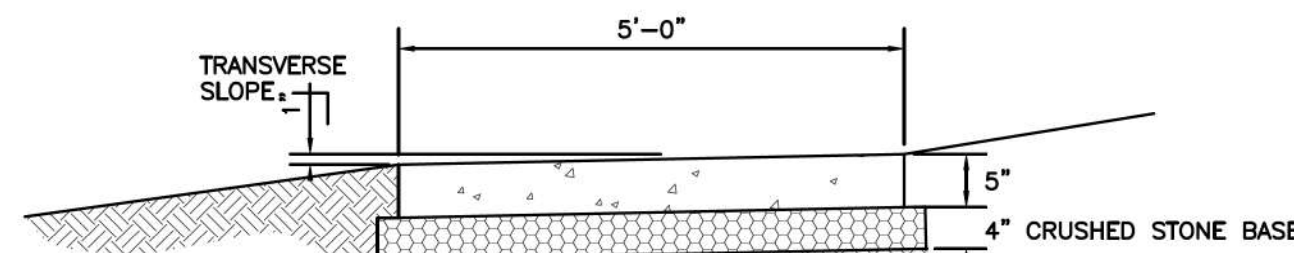
NOT TO SCALE



- NOTES:
- PRECAST-REINFORCED CONCRETE RISER RINGS AND CONES SHALL COMPLY WITH TEST STRENGTH - A.S.T.M. C-39. ADJUSTMENT RINGS SHALL NOT EXCEED 8" IN HEIGHT.
 - WALL THICKNESS SHALL BE - 5" FOR 4' DIA. & 6" FOR 5' DIA. MANHOLE. MINIMUM CIRCULAR REINFORCEMENT SHALL BE 0.18 SQUARE INCH PER FOOT.
 - PRECAST ADJUSTMENT RINGS WILL BE REQUIRED FOR ALL ADJUSTMENTS WITH MAX. ADJUSTMENT EQUAL TO 1 1/2".
 - ALL VALVES SHALL BE ENCLOSED IN A VAULT UNLESS OTHERWISE SPECIFIED.
 - VALVE WITH VAULT INCLUDING FRAME AND LID SHALL BE PAID FOR AS ITEM "VALVE AND VAULT" OF THE SIZE SPECIFIED IN THE PLANS AND SHALL INCLUDE CORPORATION STOP AS SHOWN.
 - ALL JOINTS BETWEEN PRE-CAST ELEMENTS, ADJUSTING RINGS AND MANHOLE FRAMES ON ALL UNDERGROUND STRUCTURES, SHALL BE SET IN PLACE WITH ONE OF THE FOLLOWING: BUTYL RUBBER JOINT SEALANTS AS MANUFACTURED BY CONCRETE PRODUCTS SUPPLY CO. - EZ STIK STB, HAMILTON-KENT GASKET CO. - (KENT SEAL), OR EQUAL, AS APPROVED BY THE VILLAGE ENGINEER, AND ALL JOINTS TO BE TUCKPOINTED W/ANTI-HYDRAULIC CEMENT.

PRESSURE CONNECTION VALVE VAULT

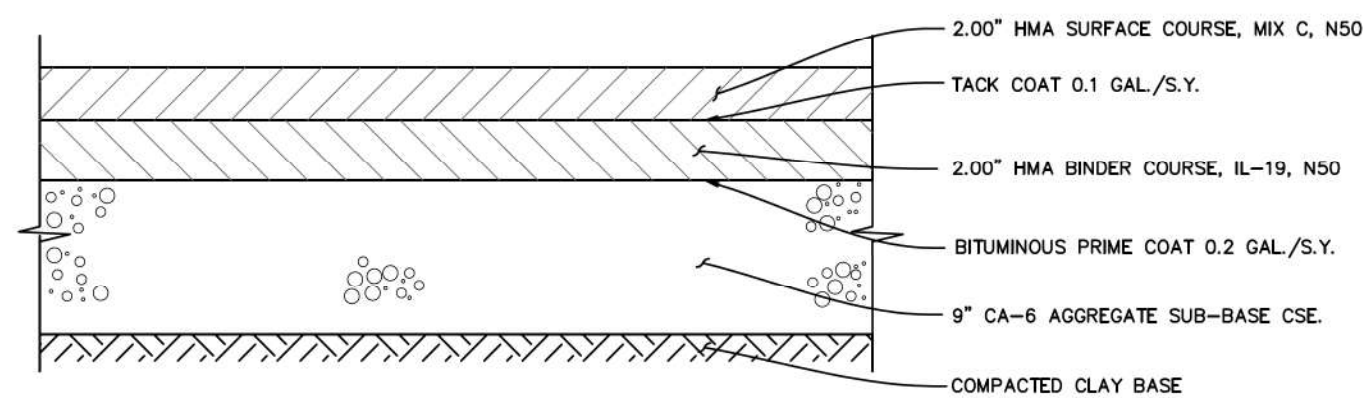
NOT TO SCALE



- NOTES:
- THE CONCRETE SIDEWALK SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 424 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
 - THE CONCRETE SHALL CONFORM TO SECTION 1020 AND SHALL BE A SIX (6) BAG MIXTURE WITH A 5-INCH SLUMP AND SHALL DEVELOP A MINIMUM OF 3,500 PSI COMPRESSIVE STRENGTH AT 14 DAYS.
 - THE SIDEWALK PORTION OF THE DRIVEWAY SHALL BE 5-INCHES THICK AND SHALL BE REINFORCED WITH FIBER MESH ADDITIVE.
 - PLACEMENT WILL NOT BE PERMITTED UNLESS THE TEMPERATURE IS 28° AND RISING. NO CHLORIDE ADDITIVE WILL BE PERMITTED IN THE CONCRETE.
 - SIDEWALK AT INTERSECTIONS SHALL BE DEPRESSED AND TEXTURED IN ACCORDANCE WITH THE AMERICANS WITH DISABILITIES ACT. THE MAXIMUM ALLOWABLE SLOPE IS 1:20.
 - CONTROL JOINTS SHALL BE INSTALLED AT 5 FOOT CENTERS.
 - PRECURED FIBER EXPANSION JOINTS SHALL BE INSTALLED AT 100 FOOT CENTERS MAXIMUM OR WHERE THE SIDEWALK ABUTS CURB OR OTHER SIDEWALK, OR AT THE END OF EACH POUR.
 - THE SIDEWALK SHALL HAVE A BROOM FINISH.

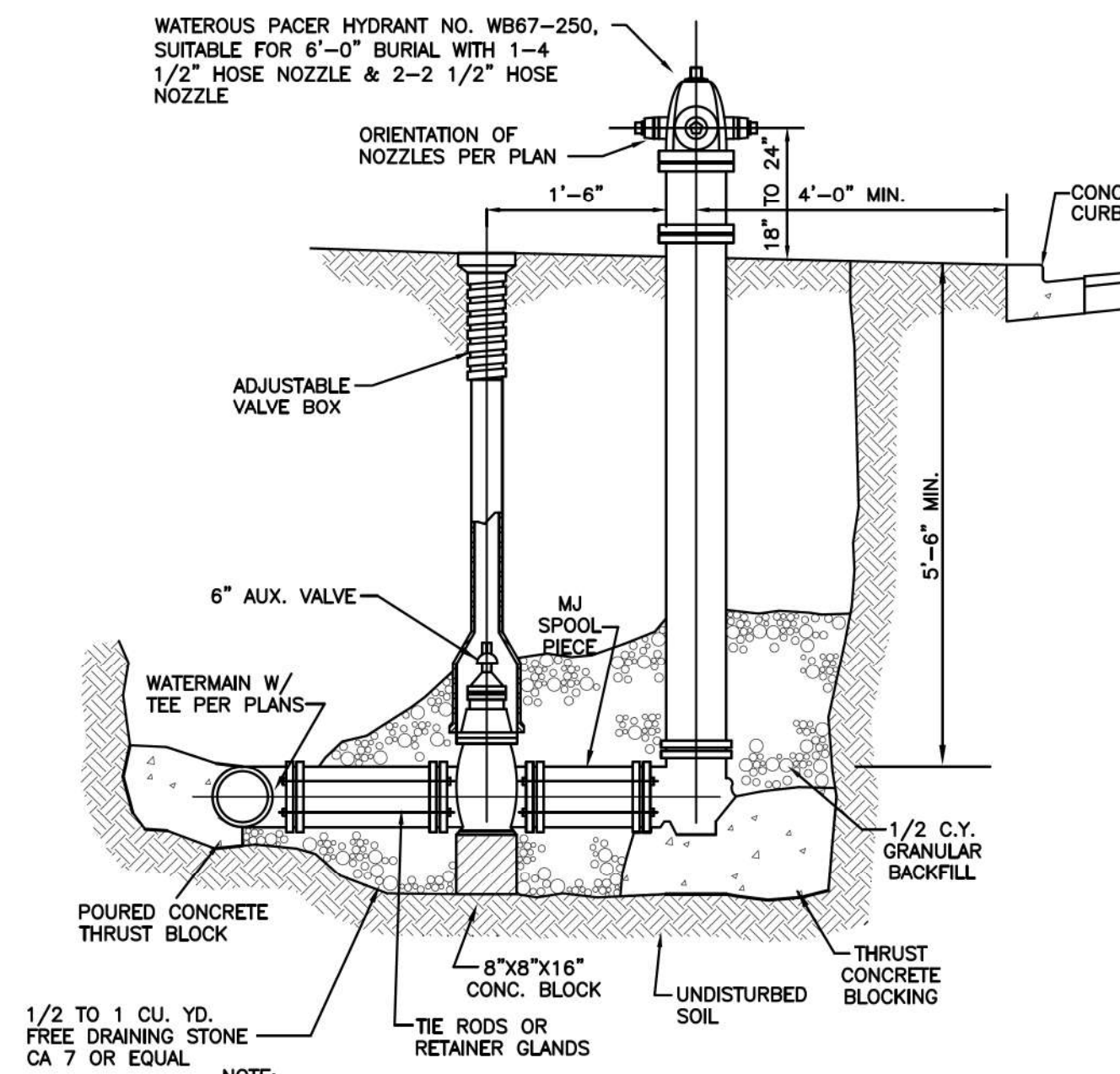
CONCRETE SIDEWALK DETAIL

NOT TO SCALE



BITUMINOUS PAVEMENT DETAIL

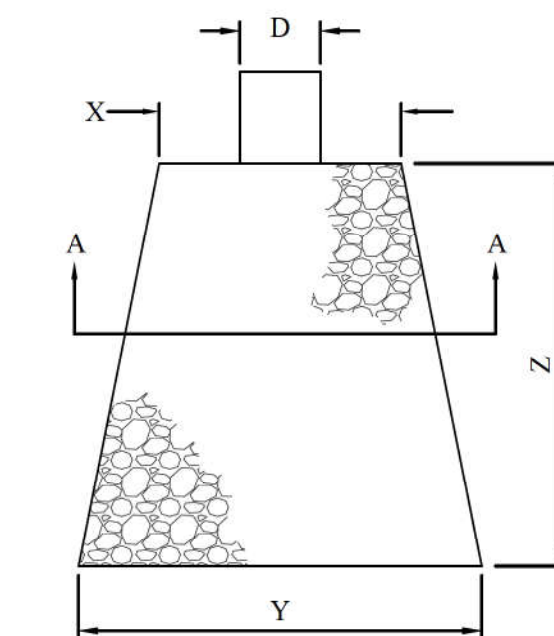
N.T.S.



- NOTE:
- POLYETHYLENE ENCASEMENT - ENTIRE LENGTH OF WATERMAIN, AS REQUIRED.

FIRE HYDRANT

NOT TO SCALE



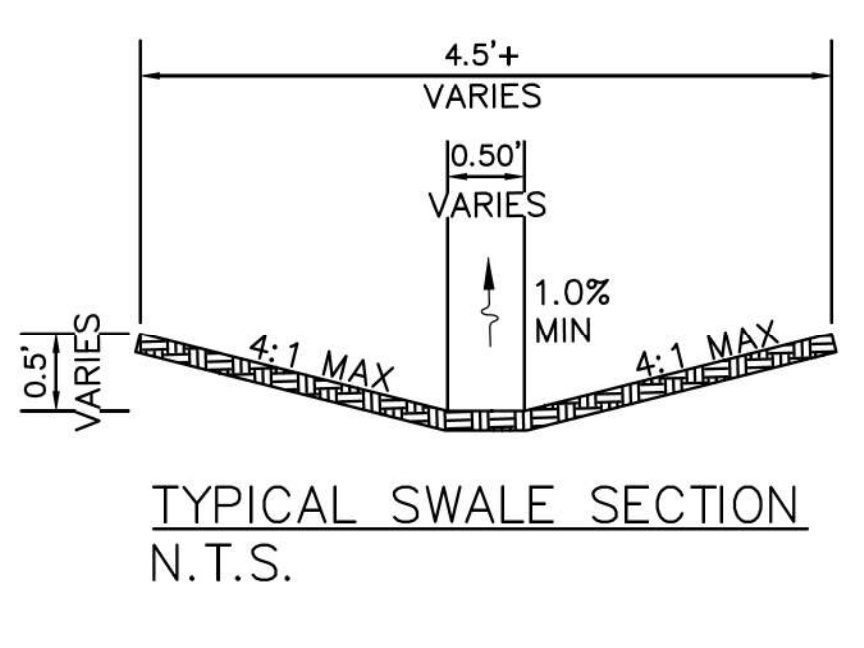
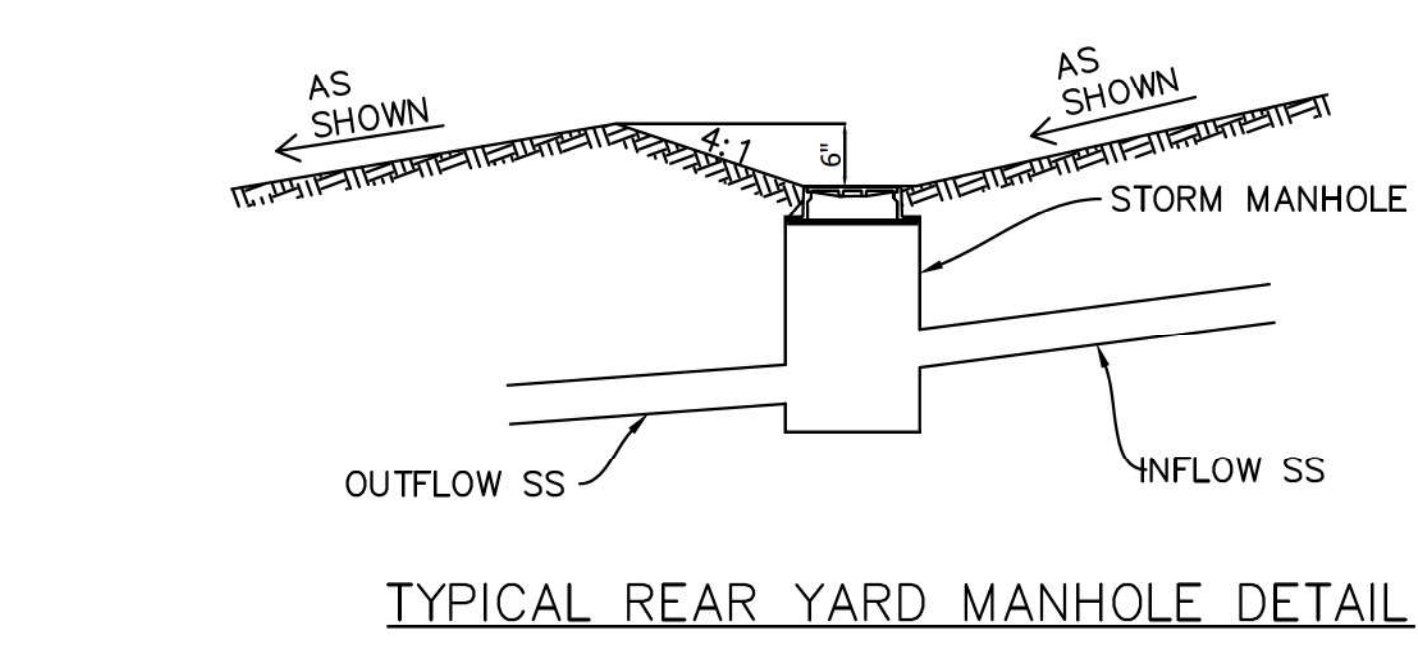
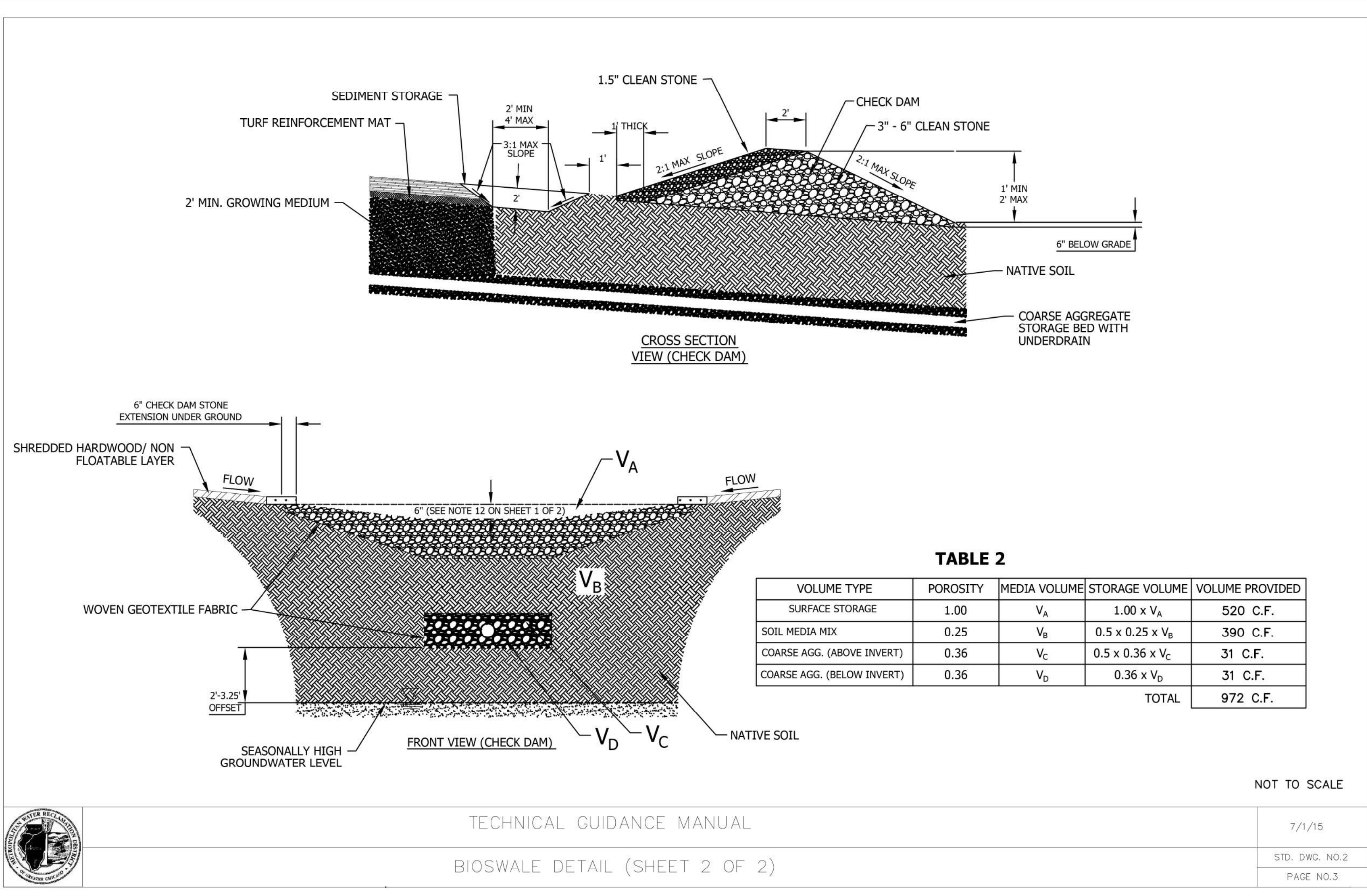
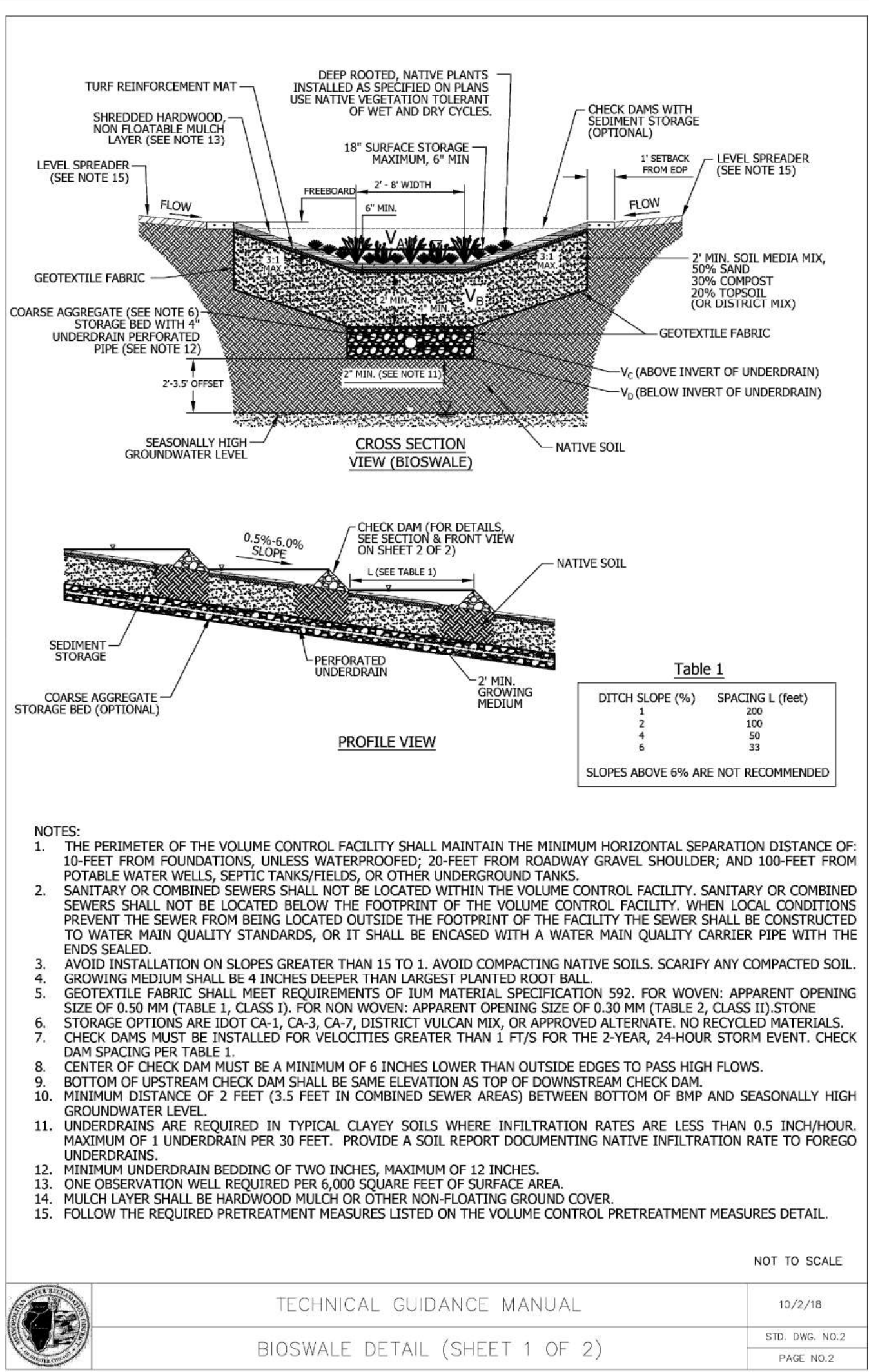
RIP RAP SHALL MEET THE REQUIREMENTS OF CLASS C-3 (I.D.O.T. STANDARD SPECIFICATIONS ARTICLE 1005) MIN. 12" THICKNESS

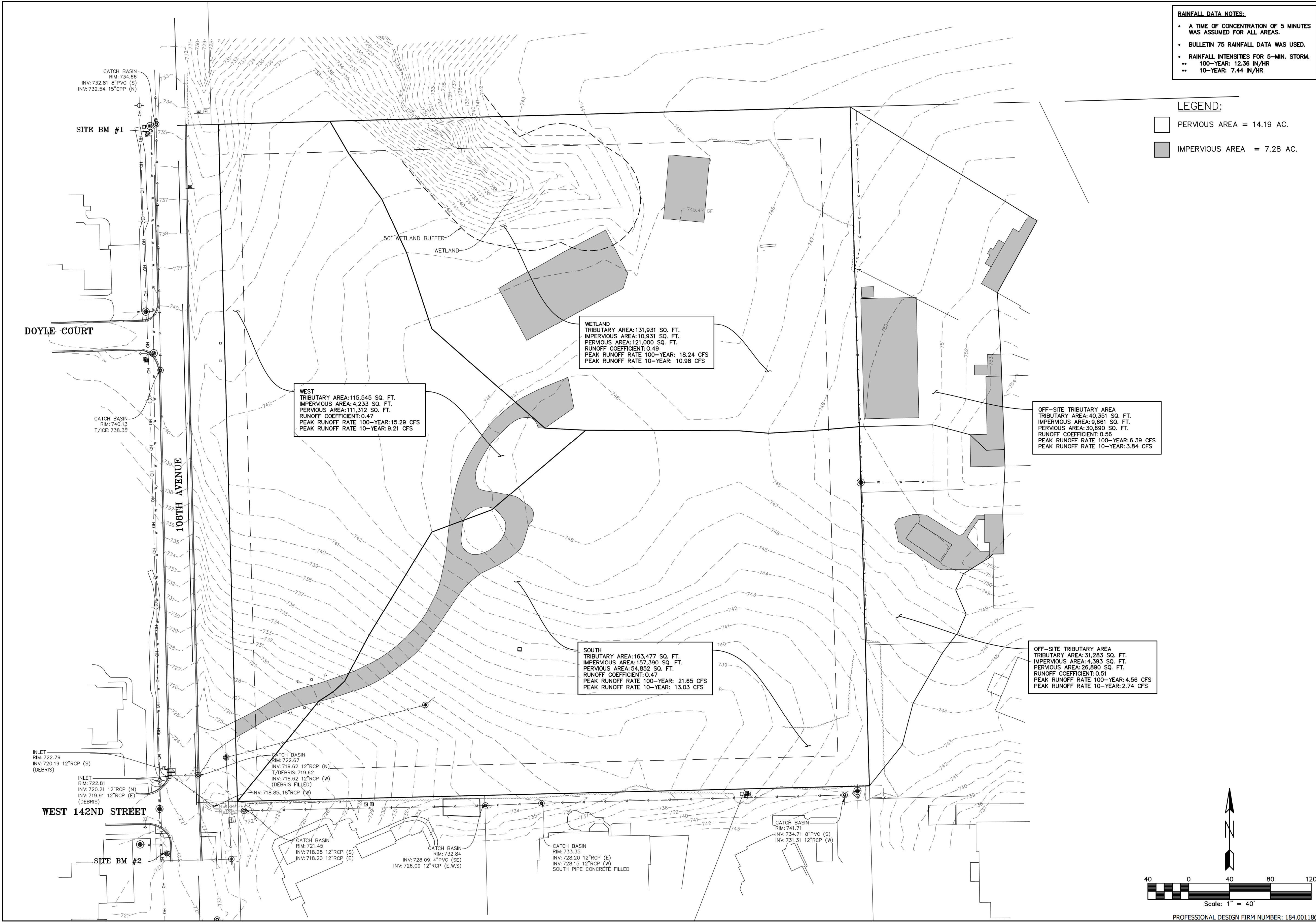
SECTION A-A

D (INCHES)	X (FEET)	Y (FEET)	Z (FEET)
12	3	5	5
15	4	6	6
18	5	6	8
21	5	7	8
24	6	8	9
27	7	9	11
30	8	10	12
33	8	11	13
36	9	12	14
42	11	15	17

RIP RAP DETAIL

NOT TO SCALE





RAINFALL DATA NOTES:

- A TIME OF CONCENTRATION OF 5 MINUTES WAS ASSUMED FOR ALL AREAS.
- BULLETIN 75 RAINFALL DATA WAS USED.
- RAINFALL INTENSITIES FOR 5-MIN. STORM.
 - 100-YEAR: 12.36 IN/HR
 - 10-YEAR: 7.44 IN/HR

LEGEND:

PERVIOUS AREA = 14.19 AC.

IMPERVIOUS AREA = 7.28 AC.

ENGINEERING
RESOURCE ASSOCIATES
35701 WEST AVENUE, SUITE 150
NORTH BROS. IL 60062
PHONE (830) 393-3960
FAX (830) 393-2152
www.eraconsultants.com

RT/MGR, LLC
1965 BRENTWOOD RD. NORTHBROOK, IL 60062
(847) 863-8808

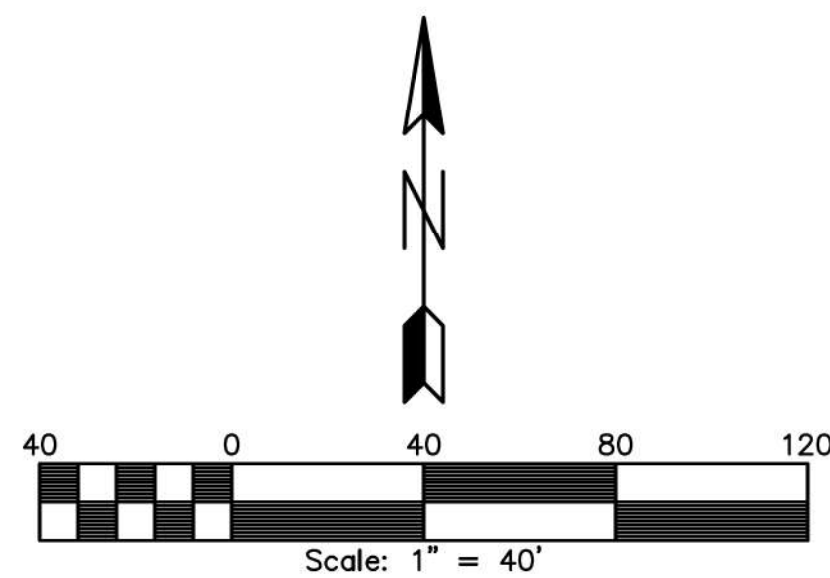
BRIDLEWOOD SUBDIVISION
14137 S 108TH AVE, ORLAND PARK, IL

DATE	: 03-11-2005
PROJECT #	: W24323.00
DESIGNED BY	: KF
DRAWN BY	: KF
CHECKED BY	: NAV

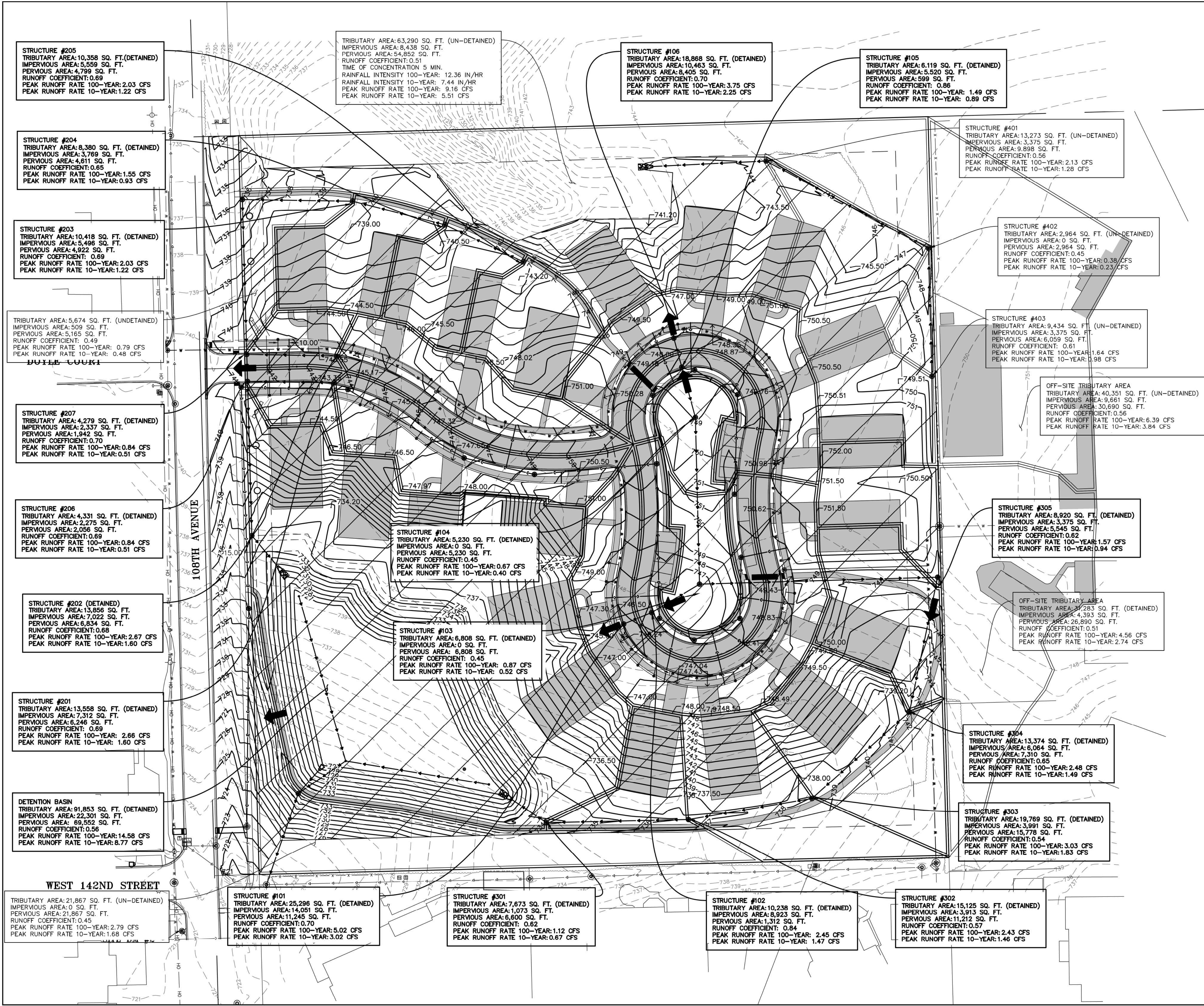
EXISTING DRAINAGE PLAN
C-11.0
SHEET

G:\PROJECTS\RT-MGR, LLC\W24323.00 14137 S 108th Ave Orland Park Bridlewood\CAAD\SHET\ SITE DEVELOPMENT\W24323 SHEET Prelim Engineering.dwg

09-08-2025 KF PER VILLAGE COMMENTS
07-30-2025 KF PER VILLAGE COMMENTS
DESCRIPTION:



PROFESSIONAL DESIGN FIRM NUMBER: 184.001186



RAINFALL DATA NOTES:

- A TIME OF CONCENTRATION OF 5 MINUTES WAS ASSUMED FOR ALL AREAS.
- BULLETIN 75 RAINFALL DATA WAS USED.
- RAINFALL INTENSITIES FOR 5-MIN. STORM.
 - 100-YEAR: 12.36 IN/HR
 - 10-YEAR: 7.44 IN/HR

- LEGEND:**
- PERVIOUS AREA = 6.43 AC.
 - IMPERVIOUS AREA = 3.00 AC.
 - REDEVELOPMENT AREA = 8.04 AC.
 - EMERGENCY OVERLAND FLOWROUTE

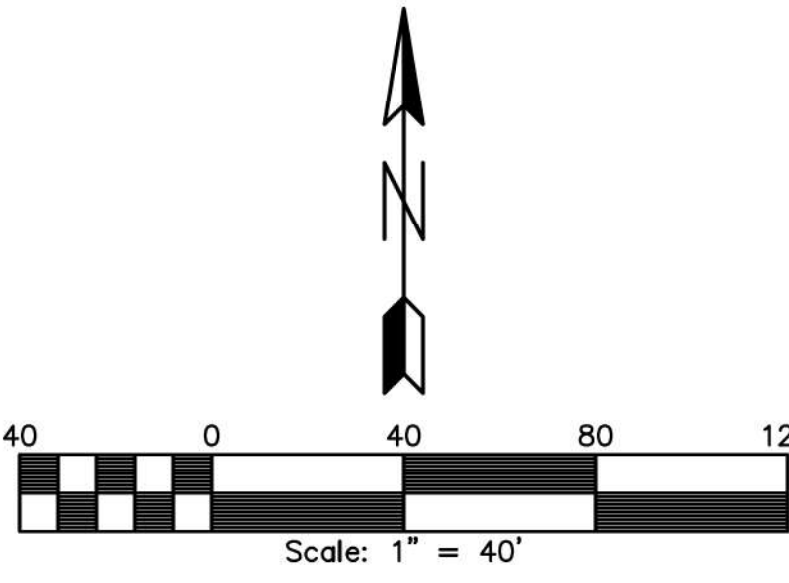
PROJECT DATA

OVERALL SITE:
TOTAL AREA: 9.43 AC.
REDEVELOPMENT AREA: 8.04 AC.
IMPERVIOUS AREA: 3.00
PERVIOUS AREA: 6.43 AC.
IMPERVIOUS COVERAGE: 31.81%

DETAINED AREA:
ON-SITE DETAINED AREA: 8.21 AC.
ON-SITE UN-DETAINED AREA: 1.22 AC.
OFF-SITE (TRIBUTARY TO DETENTION): 0.72 AC
OFF-SITE (TRIBUTARY TO WETLAND): 0.93 AC.

REQUIRED VOLUMES:
DETENTION VOLUME: 2.77 AC-FT
BMP VOLUME: 0.26 AC-FT

BASIN
PROVIDED DETENTION VOLUME: 2.97 AC-FT
PROVIDED BMP VOLUME: 0.35 AC-FT
WEIR CAPACITY: 60.00 CFS



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BRIDLEWOOD SUBDIVISION
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DATE : 03-11-2025
PROJECT # : W24323.00
DESIGNED BY : KF
DRAWN BY : KF
CHECKED BY : NAV
DESCRIPTION: 09-08-2025 (F PER VILLAGE COMMENTS)
07-30-2025 (F PER VILLAGE COMMENTS)

PROPOSED DRAINAGE PLAN

C-11.1
SHEET