

VILLAGE OF WESTERN SPRINGS

SPRINGDALE DRAINAGE IMPROVEMENT PROJECT


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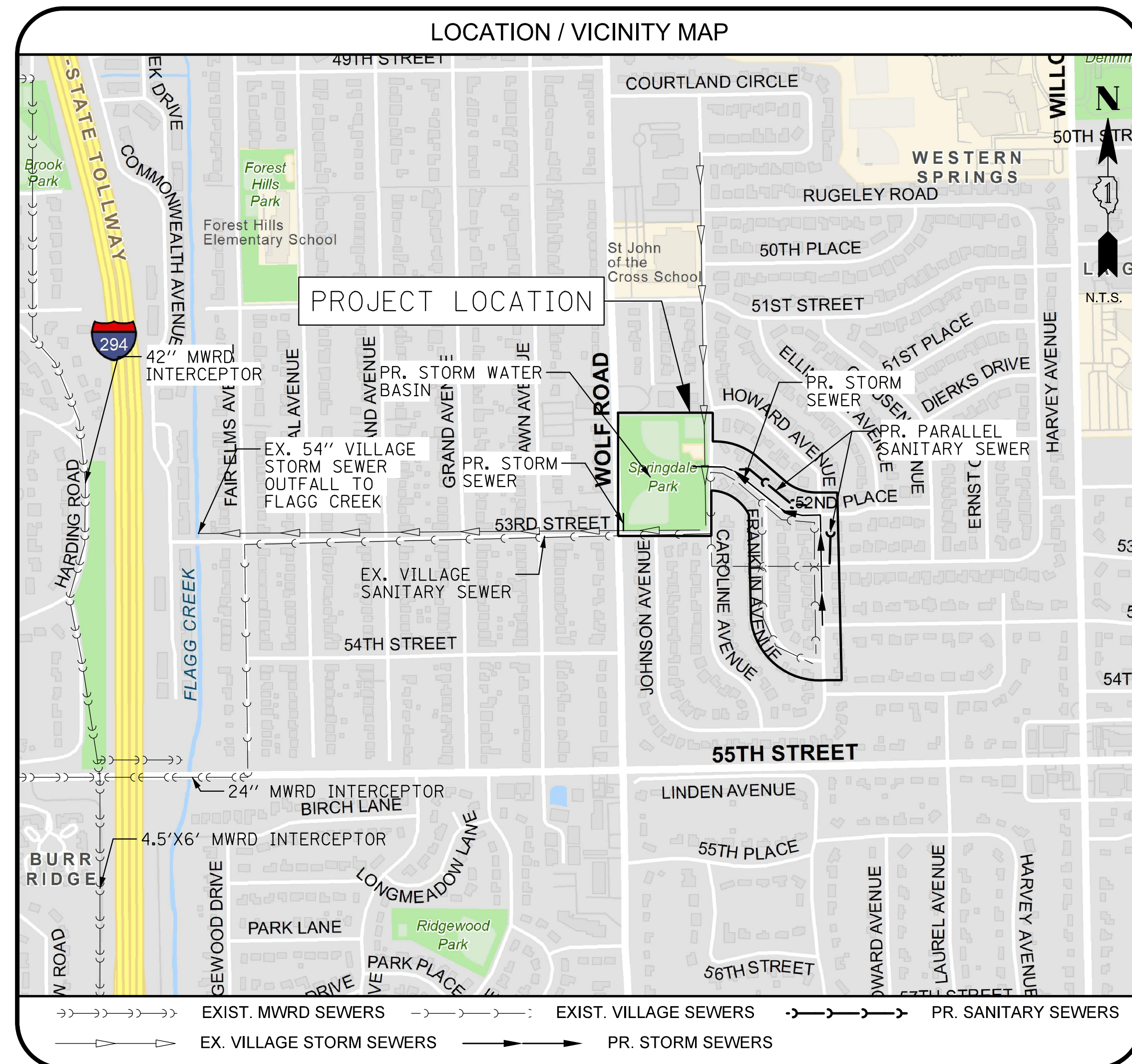
BENCHMARK

SEE ALIGNMENT, TIES, AND BENCHMARKS SHEET

DRAINAGE STATEMENT

TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE DRAINAGE SURFACE WATERS WILL NOT BE CHANGED BY THE PROPOSED DEVELOPMENT. IF ANY DRAINAGE PATTERNS WILL BE CHANGED, REASONABLE PROVISIONS HAVE BEEN MADE FOR THE COLLECTION AND DIVERSION OF SUCH SURFACE WATERS INTO THE PUBLIC AREA, OR DRAINS APPROVED FOR THE USE BY THE MUNICIPAL ENGINEER, AND THAT SUCH SURFACE WATERS ARE PLANNED FOR IN ACCORDANCE WITH GENERALLY ACCEPTED ENGINEERING PRACTICES SO AS TO REDUCE THE LIKELIHOOD OF DAMAGES TO ADJOINING PROPERTIES.


 ALEX SCHAEFER, P.E.



LOCATION

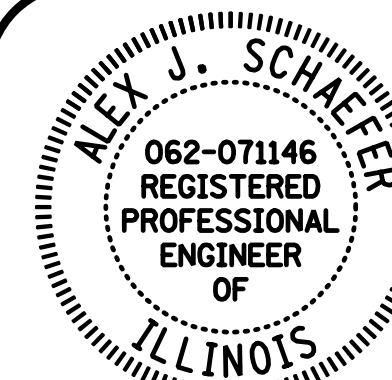
THIS PROJECT IS LOCATED ON HOWARD AVENUE FROM FRANKLIN AVENUE TO 52ND PLACE, FRANKLIN AVENUE FROM HOWARD AVENUE TO 52ND PLACE, 52ND PLACE FROM HOWARD AVENUE TO CAROLINE AVENUE AND WITHIN SPRINGDALE PARK.

CALL JULIE 811 WITH THE FOLLOWING:
 COUNTY: COOK
 CITY-TOWNSHIP: LYONS TOWNSHIP

48 HOURS BEFORE YOU DIG, EXCLUDING SAT., SUN., & HOLIDAYS

THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR JOB SITE SAFETY AS WELL AS SUPERVISION/DIRECTION AND MEANS/METHODS OF CONSTRUCTION

- IDOT STANDARDS**
- 000001-08 - STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
 - 280001-07 - TEMPORARY EROSION CONTROL SYSTEMS
 - 424001-12 - PERPENDICULAR CURB RAMPS FOR SIDEWALKS
 - 442201-03 - CLASS C AND D PATCHES
 - 542301-03 - PRECAST REINFORCED CONCRETE FLARED END SECTION
 - 542306-03 - PRECAST REINFORCED CONCRETE ELLIPTICAL FLARED END SECTION
 - 602001-02 - CATCH BASIN TYPE A
 - 602011-02 - CATCH BASIN TYPE C
 - 602301-04 - INLET TYPE A
 - 602406-11 - PRECAST MANHOLE TYPE A 6' DIAMETER
 - 602416-09 - PRECAST MANHOLE TYPE A 8' DIAMETER
 - 602601-06 - PRECAST REINFORCED CONCRETE FLAT SLAB TOP (ONLY IF APPROVED IN FIELD BY ENGINEER)
 - 602701-02 - MANHOLE STEPS
 - 604001-05 - FRAME AND LIDS TYPE 1
 - 604006-05 - FRAME AND GRATE TYPE 3
 - 701001-02 - OFF-RD OPERATIONS, 2L, 2W, MORE THAN 15FT
 - 701006-05 - OFF-RD OPERATIONS, 2L, 2W, 15' TO 24" FROM PAVEMENT EDGE
 - 701301-04 - LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
 - 701501-06 - URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED
 - 701801-06 - SIDEWALK, CORNER OR CROSSWALK CLOSURE
 - 701901-10 - TRAFFIC CONTROL DEVICES
 - 780001-05 - TYPICAL PAVEMENT MARKINGS



 ALEX J. SCHAEFER, P.E.
 REGISTERED PROFESSIONAL ENGINEER OF ILLINOIS
 ILLINOIS REGISTRATION No. 062-071146
 EXPIRATION DATE: 11/2025


VILLAGE PRESIDENT
HEIDI RUDOLPH

TRUSTEES
 AMY AVAKIAN
 NICOLE CHEN
 AL FINK
 SCOTT LEWIS
 PHIL NAWROCKI
 JAMES TYRRELL

VILLAGE CLERK
ED TYMICK

VILLAGE MANAGER
ELLEN BAER

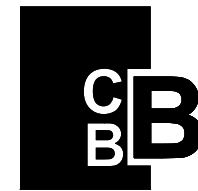
CONSTRUCTABILITY REVIEW BY


 REVIEWER DATE

Contact the Metropolitan Water Reclamation District of Greater Chicago 2 days before starting work.

P (708) 588-4055
 E WMOJobStart@mwr.org

CLIENT:  VILLAGE OF WESTERN SPRINGS
 740 HILLGROVE AVENUE
 WESTERN SPRINGS, IL 60558

 **CHRISTOPHER B. BURKE ENGINEERING, LTD.**
 16221 W. 159th Street, Suite 201
 Lockport, Illinois 60441
 (815) 770-2850
 PROFESSIONAL DESIGN FIRM NO. 184-001175-0014
 EXPIRATION DATE: 04/30/25

GENERAL NOTES

SPECIFICATIONS, STANDARDS AND SPECIAL PROVISIONS

1. ALL CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", ADOPTED JANUARY 1, 2022; THE "SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS", THE LATEST REVISION; THE LATEST EDITION OF THE "ILLINOIS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS" (IMUTCD), "THE STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS" LATEST EDITION, THE "DETAILS" IN THE PLANS AND THE "SPECIAL PROVISIONS" INCLUDED IN THE CONTRACT DOCUMENTS.
2. ANY REFERENCE TO STANDARDS THROUGHOUT THE PLANS OR SPECIAL PROVISIONS SHALL BE INTERPRETED AS THE LATEST IDOT HIGHWAY STANDARD.
3. CODES OF THE IEPA TITLE 35, AND O.S.H.A. SHALL BE ADHERED TO FOR THE CONSTRUCTION OF THIS PROJECT. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO ENSURE ADHERENCE TO THESE (NOT THE VILLAGE'S OR THE ENGINEER'S).
4. ALL TRAFFIC CONTROL AND OTHER ADVISORY SIGNS NEEDED FOR CONSTRUCTION ARE TO BE FURNISHED BY THE CONTRACTOR IN ACCORDANCE WITH SECTION 700 OF THE STANDARD SPECIFICATIONS.
5. ALL REQUIRED PERMITS FROM THE PROPER GOVERNING AGENCY SHALL BE OBTAINED FOR CONSTRUCTION ALONG OR ACROSS EXISTING STREETS OR HIGHWAYS. THE CONTRACTOR SHALL MAKE ARRANGEMENTS FOR THE PROPER BRACING, SHEETING, SHORING AND OTHER REQUIRED PROTECTION OF ALL ROADWAYS BEFORE CONSTRUCTION BEGINS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE STREETS OR ROADWAYS AND ASSOCIATED STRUCTURES AND SHALL MAKE REPAIRS AS NECESSARY TO THE SATISFACTION OF THE AGENCY, AT THE CONTRACTOR'S OWN EXPENSE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ADEQUATE SIGNS AND WARNING DEVICES TO INFORM AND PROTECT THE PUBLIC.

UTILITIES

6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE OWNERS OF ALL EXISTING FACILITIES SO THAT THE UTILITIES AND THEIR APPURTENANCES MAY BE LOCATED AND ADJUSTED OR MOVED, IF NECESSARY, PRIOR TO THE START OF CONSTRUCTION OPERATIONS. THE CONTRACTOR SHALL COOPERATE WITH ALL UTILITY OWNERS AS PROVIDED FOR IN THE STANDARD SPECIFICATIONS.
7. THE LOCATIONS OF EXISTING DRAINAGE STRUCTURES, STORM AND SANITARY SEWERS, WATER SERVICE LINES AND OTHER UTILITY LINES ARE APPROXIMATE, AND THE VILLAGE DOES NOT GUARANTEE THEIR ACCURACY. THEIR EXACT HORIZONTAL AND VERTICAL LOCATIONS ARE TO BE DETERMINED IN THE FIELD BY THE CONTRACTOR AT THE CONTRACTOR'S OWN EXPENSE.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UNDERGROUND OR SURFACE UTILITIES AND SEWER EVEN THOUGH THEY MAY NOT BE SHOWN ON THE PLANS. ANY SEWER OR UTILITY THAT IS DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE ENGINEER OR VILLAGE. THIS WORK SHALL BE AT THE CONTRACTOR'S EXPENSE.
9. BEFORE STARTING ANY EXCAVATING, THE CONTRACTOR SHALL CALL "J.U.L.I.E." AT 811 OR AT 800-892-0123 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE, CABLE AND GAS FACILITIES AND THE VILLAGE OF WESTERN SPRINGS FOR FIELD LOCATIONS OF BURIED WATER, SANITARY AND STORM FACILITIES (2 WORKING DAYS ADVANCE NOTIFICATION IS REQUIRED).
10. THE MUNICIPAL SERVICES DEPARTMENT AT 708-246-1800 SHALL BE NOTIFIED 48 HOURS PRIOR TO CONSTRUCTION AND ALL TESTING.
11. ALL UTILITY CONNECTIONS TO EXISTING LINES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE REGULATIONS AND TO THE SATISFACTION OF THE UTILITY OWNER.

STAKING

12. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL SECTION OR SUBSECTION MONUMENTS OR PROPERTY OR REFERENCE MARKERS UNTIL THE VILLAGE, THE VILLAGE'S AGENT OR AN AUTHORIZED SURVEYOR HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATIONS.

WATER, STORM SEWER AND SANITARY SEWER

13. WHENEVER DURING CONSTRUCTION OPERATIONS ANY LOOSE MATERIAL IS DEPOSITED IN THE FLOW LINE OF UTILITY STRUCTURES SUCH THAT THE NATURAL FLOW OF WATER IS OBSTRUCTED, IT SHALL BE REMOVED IMMEDIATELY. AT THE CONCLUSION OF CONSTRUCTION OPERATIONS, ALL UTILITY STRUCTURES SHALL BE FREE FROM DIRT AND DEBRIS. THE WORK SPECIFIED ABOVE WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF THE CONTRACT.
14. ANY EXISTING OR PROPOSED UTILITY DAMAGED BY THE CONTRACTOR DURING CONSTRUCTION SHALL BE REPLACED BY THE CONTRACTOR AT NO COST TO THE VILLAGE.
15. THE COST OF CONNECTING EXISTING STORM SEWER TO THE PROPOSED DRAINAGE SYSTEM AND CONNECTING PROPOSED STORM SEWER TO EXISTING STRUCTURES SHALL BE CONSIDERED INCLUDED IN THE CONTRACT UNIT PRICE FOR STORM SEWERS. HOWEVER, THE NECESSARY PIPE WILL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR "STORM SEWER" OF THE TYPE AND SIZE REQUIRED.
16. ALL WATER SERVICES IN CONFLICT WITH NEW IMPROVEMENTS SHALL BE REMOVED AND REPLACED FROM THE WATER MAIN TO THE B-BOX. NO HOME OR BUSINESS SHALL BE WITHOUT WATER OVERNIGHT.
17. ADJUST MANHOLE OR VAULT RIM ELEVATIONS TO FINAL GRADE AT TIME OF FINAL PAVING OR LANDSCAPING. ADJUSTMENT OF NEW STRUCTURES TO FINAL GRADE IS INCLUDED IN THE COST OF THE NEW STRUCTURE REGARDLESS OF THE AMOUNT OF TIMES ADJUSTMENT MUST BE MADE.
18. ALL DIMENSIONS AND COORDINATES SHOWN ON THE PLANS ARE TO THE EDGE OF PAVEMENT, EXCEPT FOR THE SEWER STRUCTURES NOT IN THE CURB LINE, WHICH ARE TO THE CENTER OF STRUCTURE.
19. ALL SHEETING, SHORING AND OTHER TEMPORARY MEASURES NECESSARY TO MITIGATE EXISTING SOIL CONDITIONS AND CONSTRUCT THE SEWER AND WATER IMPROVEMENTS SHALL BE INCLUDED IN THE COST OF THE SEWER AND WATER PIPE.
20. WHEN CONNECTION TO AN EXISTING SEWER MAIN IS MADE BY MEANS OTHER THAN AN EXISTING WYE, TEE, OR AN EXISTING MANHOLE, THE FOLLOWING METHOD SHALL BE USED:

21. WHEN EXISTING DRAINAGE OR SEWAGE FACILITIES ARE DISTURBED, THE CONTRACTOR SHALL PROVIDE AND MAINTAIN TEMPORARY OUTLETS AND CONNECTIONS FOR ALL PUBLIC OR PRIVATE DRAINS, SEWERS, OR CATCH BASINS. HE/SHE SHALL PROVIDE FACILITIES TO TAKE ALL STORM WATER OR SEWAGE WHICH WOULD BE RECEIVED BY THESE FACILITIES AND DISCHARGE THE SAME. HE/SHE SHALL ALSO PROVIDE AND MAINTAIN AN EFFICIENT PUMPING PLAN, IF NECESSARY. A TEMPORARY OUTLET, AND BE PREPARED AT ALL TIMES TO DISPOSE OF THE WATER RECEIVED FROM THESE TEMPORARY CONNECTIONS UNTIL SUCH TIME THAT PERMANENT CONNECTIONS WITH SEWERS ARE CONSTRUCTED AND IN SERVICE. THIS WORK SHALL BE INCLUDED IN THE COST OF THE PROPOSED STORM SEWER.
22. FOR WATER MAIN SHUT OFFS, THE CONTRACTOR SHALL GIVE THE VILLAGE A MINIMUM OF 48 HOURS NOTICE TO THE PUBLIC WORKS DEPARTMENT. THE VILLAGE SHALL PROVIDE NOTIFICATION FORMS AND DETERMINE THE LIMIT OF THE AFFECTED AREAS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DISTRIBUTION OF THE NOTIFICATION FORMS TO ALL AFFECTED RESIDENTS. THERE WILL BE NO SHUT DOWN OF MAINS BETWEEN FRIDAY AT 12 AM THROUGH MONDAY AT 7AM OR ON OBSERVED HOLIDAYS AND SUNDAY.
23. THE CONTRACTOR SHALL NOT OPEN OR SHUT ANY WATER VALVES OR FIRE HYDRANTS WITHOUT PRIOR AUTHORIZATION FROM THE VILLAGE PUBLIC WORKS DEPARTMENT. UNAUTHORIZED USE SHALL SUBJECT THE OFFENDER TO ARREST AND PROSECUTION.
24. WATER MAIN SHALL BE INSTALLED AT A MINIMUM DEPTH OF 5.5' BELOW FINISHED GRADE AND NO DEEPER THAN 8' FROM FINISHED GRADE, UNLESS OTHERWISE SHOWN ON THE PLANS, WITHOUT THE PRIOR WRITTEN APPROVAL OF THE PUBLIC WORKS DEPARTMENT.
25. CHANGES IN DIRECTION OF WATER MAIN SHALL BE INSTALLED WITH APPROVED RETAINER FITTINGS AND THRUST BLOCKING. TWO BELLS BEFORE AND AFTER ANY FITTING OR VALVE SHALL HAVE "FIELD LOCK" GASKET INSTALLED (INCLUDED IN THE COST OF THE PROPOSED WATER MAIN).
26. PRESSURE TESTING OF WATER MAIN SHALL INCLUDE HYDRANTS BY PRESSURE TESTING AGAINST INTERNAL VALVE OF HYDRANT. ALL EXISTING BUFFALO BOXES LOCATED IN DRIVEWAYS AND SIDEWALKS SHALL BE RELOCATED AS DIRECTED BY THE ENGINEER.
27. ALL EXISTING WATER MAIN TO BE TAKEN OUT OF SERVICE AFTER ACCEPTANCE OF NEW WATER MAIN SHALL BE ABANDONED IN PLACE, UNLESS OTHERWISE DIRECTED BY THE VILLAGE. ALL ABANDONED WATER MAIN SHALL BE PLUGGED AT BOTH ENDS WITH A MINIMUM OF TWO (2) FEET OF NON-SHRINK CONCRETE/MORTAR PLUGS. AT LOCATIONS WHERE THE WATER MAIN TO BE ABANDONED LIES BENEATH ROADWAY PAVEMENT, THE PIPE SHALL BE FILLED WITH FLOWABLE FILL AND CAPPED AT BOTH ENDS.
28. PAY LIMITS FOR REMOVAL AND REPLACEMENT OF WATER SERVICES EXTEND FROM THE MAIN TO THE B-BOX OR WATER METER. ANY WORK REQUIRED BEYOND THESE PAY LIMITS DUE TO DAMAGE OR BREAKAGE BY CONTRACTOR SHALL BE REPAIRED AT THE CONTRACTOR'S SOLE COST.
29. ALL EXISTING NON-LEAD WATER SERVICES ON STREETS WITH WATER MAIN REPLACEMENT SHALL BE REPLACED TO THE BUFFALO BOX. IF LEAD SERVICES ARE ENCOUNTERED, THE LEAD SERVICE SHALL BE REPLACED IN ITS ENTIRETY FROM THE NEW WATER MAIN TO THE BUILDING PLUMBING AT THE FIRST SHUT OFF VALVE OR 18" INSIDE THE HOUSE, WHICHEVER IS LESS.
30. WATER MAIN FITTINGS (I.E. BENDS, ELBOWS, TEES, REDUCERS, CUT IN SLEEVES, ETC.) MAY NOT BE SPECIFICALLY REFERENCED ON THE PLANS, HOWEVER, THEY ARE TO BE CONSIDERED INCLUDED IN THE LINEAR FOOTAGE COST OF THE WATER MAIN.
31. CONTRACTOR SHALL INSTALL WATER MAIN WITH BENDS AND/OR PIPE DEFLECTION AT JOINTS AS NECESSARY TO MAINTAIN OFFSETS SHOWN IN THE PLANS. PIPE DEFLECTION AT JOINTS SHALL NOT EXCEED MANUFACTURER SPECIFICATIONS.
32. THE CONTRACTOR SHALL HAVE THE OPTION OF BORING WATER MAIN SHOWN ON THE PLANS AS TRENCHED SO LONG AS IT DOES NOT RESULT IN ADDITIONAL COST TO THE VILLAGE.

BACKFILL

33. ALL TRENCH BACKFILL QUANTITIES HAVE BEEN COMPUTED AND SHALL BE PAID FOR IN ACCORDANCE WITH THE DETAILS IN THE PLANS, BASED ON THE INVERT DEPTH FROM THE PROPOSED PAVEMENT.
34. ANY TRENCH BACKFILL REQUIRED IN EXCESS OF THE QUANTITY ESTABLISHED IN ACCORDANCE WITH THE TRENCH DETAILS IN THE PLANS, INCLUDING BEDDING MATERIAL, SHALL BE INCLUDED IN THE COST OF THE ITEM BEING INSTALLED.

MISCELLANEOUS

35. DIMENSIONS: IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION. CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER OF ANY DISCREPANCIES IMMEDIATELY.
36. RELOCATING EXISTING SIGNS: EXISTING SIGNS, EXCLUDING STOP SIGNS, WHICH ARE IN CONFLICT WITH PROPOSED IMPROVEMENTS SHALL BE REMOVED AND REINSTALLED UPON COMPLETION OF CONFLICTING IMPROVEMENTS IN ACCORDANCE WITH THE ILLINOIS DEPARTMENT OF TRANSPORTATION "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES" AND THE "STANDARD SPECIFICATIONS FOR TRAFFIC CONTROL ITEMS". ALL STOP SIGNS IN CONFLICT WITH PROPOSED IMPROVEMENTS SHALL BE IMMEDIATELY RELOCATED UNTIL COMPLETION OF CONFLICTING IMPROVEMENTS. UPON COMPLETION OF CONFLICTING IMPROVEMENTS, STOP SIGNS SHALL BE REINSTALLED AT THE PROPER LOCATION. STOP SIGNS SHALL BE VISIBLE TO MOTORISTS AT ALL TIMES. THIS WORK SHALL BE INCLUDED IN THE COST OF THE TRAFFIC CONTROL AND PROTECTION.
37. PAY ITEMS IN THE SUMMARY OF QUANTITIES HAVE BEEN ESTIMATED. IF, IN THE ENGINEER'S OPINION, THE WORK IS NOT REQUIRED, THE ITEM WILL BE DEDUCTED FROM THE CONTRACT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
38. CONTRACTOR SHALL NOT PLACE SOD UNTIL THE TEMPERATURE IS 80° OR LESS AND THE FORECAST FOR THE NEXT 7 DAYS SHOWS TEMPERATURES OF 80° OR LESS. IF ALL OTHER PAY ITEMS ARE COMPLETED, THE CONTRACTOR WILL NOT BE CHARGED WORKING DAYS FOR DELAYS IN PARKWAY RESTORATION DUE TO TEMPERATURE.
39. THE SAFE AND ORDERLY PASSAGE OF TRAFFIC AND PEDESTRIANS SHALL BE PROVIDED WHERE OPERATIONS ABUT PUBLIC THOROUGHFARES AND ADJACENT PROPERTY.
40. NO BURNING OR INCINERATION OF RUBBISH WILL BE PERMITTED ON SITE.
41. NO CONSTRUCTION ACTIVITY SHALL BEGIN UNTIL ALL PROPER SIGNS AND BARRICADES HAVE BEEN INSTALLED.

42. ALL REMOVAL OR EXCAVATION ITEMS BEING DISPOSED OF AT AN UNCONTAMINATED SOIL FILL OPERATION OR CLEAN CONSTRUCTION AND DEMOLITION DEBRIS (CCDD) FILL SITE SHALL MEET THE REQUIREMENTS OF PUBLIC ACT 96-1416. ALL COSTS ASSOCIATED WITH MEETING THESE REQUIREMENTS SHALL BE INCLUDED IN THE UNIT PRICE COST FOR THE ASSOCIATED REMOVAL OR EXCAVATION ITEMS IN THE CONTRACT. THESE COSTS SHALL INCLUDE BUT ARE NOT LIMITED TO ALL REQUIRED TESTING, LAB ANALYSIS, CERTIFICATION BY A LICENSED PROFESSIONAL ENGINEER, AND STATE AND LOCAL TIPPING FEES. A COPY OF IEPA LPC 663 FORM IS INCLUDED IN THE SPECIAL PROVISIONS.
43. PRECONSTRUCTION MEETING WILL BE HELD AT LEAST 7 DAYS PRIOR TO START OF CONSTRUCTION.
44. ALL PERMITS AND LICENSES MUST BE OBTAINED PRIOR TO START OF CONSTRUCTION.
45. RESIDENTS SHALL HAVE ACCESS TO THE ROAD AND ALL DRIVEWAYS AT THE END OF EACH WORKING DAY. ALL TRENCHES/OPEN HOLES SHALL BE BACKFILLED OR COVERED WITH A STEEL PLATE AT THE END OF EACH WORKING DAY.
46. PROJECT LIMITS MAY BE CLOSED TO LOCAL TRAFFIC ONLY. IF A ROAD CLOSURE IS NEEDED, THE CONTRACTOR SHALL SUBMIT A DETOUR PLAN TO THE ENGINEER. ALL COSTS ASSOCIATED WITH THE IMPLEMENTATION OF A DETOUR SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
47. ALL SAW CUTTING SHALL BE INCLUDED IN THE COST OF THE ITEM BEING REMOVED.
48. AT THE END OF EACH DAY, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ASSURE THAT ALL STREETS ADJACENT TO THE PROJECT ARE FREE OF ALL CONSTRUCTION RELATED DEBRIS INCLUDING DIRT, STONE, NAILS, ETC. THE WORK SHALL BE DONE TO THE SATISFACTION OF THE ENGINEER AND VILLAGE OF WESTERN SPRINGS.

IEPA WATER MAIN PROTECTION NOTES

HORIZONTAL SEPARATION

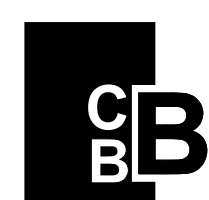
1. WATER MAINS SHALL BE LAID AT LEAST TEN (10'-0") FEET HORIZONTALLY FROM ANY EXISTING OR PROPOSED DRAIN. STORM SEWER, SANITARY SEWER, OR SEWER SERVICES CONNECTION.
2. WATER MAINS MAY BE LAID CLOSER THAN TEN (10'-0") FEET TO A SEWER LINE WHEN:
 - A. LOCAL CONDITIONS PREVENT A LATERAL SEPARATION OF TEN (10'-0") FEET;
 - B. THE WATER MAIN INVERT IS AT LEAST EIGHTEEN (18") ABOVE THE CROWN OF THE SEWER; AND
 - C. THE WATER MAIN IS EITHER IN A SEPARATE TRENCH OR IN THE SAME TRENCH ON AN UNDISTURBED EARTH SHELF LOCATED TO ONE SIDE OF THE SEWER.
3. BOTH THE WATER MAIN AND DRAIN OR SEWER SHALL BE CONSTRUCTED WITH PIPE EQUIVALENT TO WATER MAIN STANDARDS OF CONSTRUCTION WHEN IT IS IMPOSSIBLE TO MEET 1. OR 2. ABOVE. THE DRAIN OR SEWER SHALL BE PRESSURE TESTED TO THE MAXIMUM EXPECTED SURCHARGE HEAD BEFORE BACKFILLING.

VERTICAL SEPARATION

1. A WATER MAIN SHALL BE LAID SO THAT ITS INVERT IS EIGHTEEN (18") INCHES ABOVE THE CROWN OF THE DRAIN OR SEWER WHENEVER WATER MAINS CROSS STORM SEWERS, SANITARY SEWERS, OR SEWER SERVICE CONNECTIONS. THE VERTICAL SEPARATION SHALL BE MAINTAINED FOR THAT PORTION OF THE WATER MAIN LOCATED WITHIN TEN (10'-0") FEET HORIZONTALLY OF ANY SEWER OR DRAIN CROSSED. A LENGTH OF WATER MAIN PIPE SHALL BE ENTERED OVER THE SEWER TO BE CROSSED WITH JOINTS EQUIDISTANCE FROM THE SEWER OR DRAIN.
2. BOTH THE WATER MAINS AND SEWER SHALL BE CONSTRUCTED WITH SEWER PIPE EQUIVALENT TO WATER MAIN STANDARDS OF CONSTRUCTION WHEN:
 - A. IT IS IMPOSSIBLE TO OBTAIN THE PROPER VERTICAL SEPARATION AS DESCRIBED IN 1. ABOVE; OR
 - B. THE WATER MAIN PASSES UNDER A SEWER OR DRAIN.
3. A VERTICAL SEPARATION OF EIGHTEEN (18") INCHES BETWEEN THE INVERT OF THE SEWER OR DRAIN AND THE CROWN OF THE WATER MAIN SHALL BE MAINTAINED WHERE A WATERMAIN CROSSES UNDER A SEWER. SUPPORT THE SEWER OR DRAIN LINES TO PREVENT SETTLING AND BREAKING THE WATER MAIN.
4. CONSTRUCTION SHALL EXTEND ON EACH SIDE OF THE CROSSING UNTIL THE NORMAL DISTANCE FROM THE WATERMAIN TO THE SEWER OR DRAIN LINE IS AT LEAST TEN (10'-0") FEET.

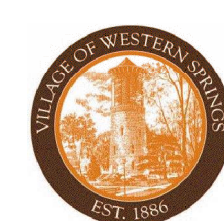
UTILITY MATRIX

NAME OF UTILITY	CONTACT	ADDRESS	TYPE	STATUS
AT&T (DISTRUBUTION)	Tom Laskowski	1000 Commerce Drive Oak Brook, IL 60523 630-573-5643 tl7895@att.com	Phone	Watch and Protect AT&T cable crossing Howard Avenue at approx. Sta. 202+00.
COMCAST	Axel Perez	688 Industrial Drive Elmhurst, IL 60126 773-851-8613 Axel_perez@cable.comcast.com	Cable	Watch and Protect cable crossing 52nd Place at approx. Sta. 101+80.
COMED	Nick Tuleja	1910 S. Briggs Street Joliet, IL 60433 440-796-8979 nicholas.tuleja@comed.com	Electric	Comed has relocated existing underground cables on 52nd Place and Howard Avenue to avoid conflicts with the proposed sewers. Contractor shall take
NICOR	Charles "Chip" Parrott	1844 FERRY ROAD NAPERVILLE, IL 60563 630-388-3319 gasmaps@southernco.com	Gas	Nicor will relocate existing gas lines on 52nd Place from Caroline to Howard and at Howard Avenue and 54th Street.



CHRISTOPHER B. BURKE ENGINEERING, LTD.
16221 W. 159th Street, Suite 201
Lockport, Illinois 60441
(815) 770-2850

CLIENT:



VILLAGE OF WESTERN SPRINGS
740 HILLGROVE AVENUE
WESTERN SPRINGS, IL 60558

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				CHKD.	AJS
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TITLE:

SPRINGDALE DRAINAGE IMPROVEMENT GENERAL NOTES

PROJ. NO. 210513

DATE: 2/24/2025

SHEET 2 OF 37

DRAWING NO.

GEN-1

A. REFERENCED SPECIFICATIONS

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE APPLICABLE SECTIONS OF THE FOLLOWING, EXCEPT AS MODIFIED HEREIN OR ON THE PLANS:
 * STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (LATEST EDITION), BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION (IDOT SS) FOR ALL IMPROVEMENTS EXCEPT SANITARY SEWER AND WATER MAIN CONSTRUCTION;
 * STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS, LATEST EDITION (SWSW) FOR SANITARY SEWER AND WATER MAIN CONSTRUCTION;
 * VILLAGE OF WESTERN SPRINGS MUNICIPAL CODE;
 * THE METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO (MWRD) WATERSHED MANAGEMENT ORDINANCE AND TECHNICAL GUIDANCE MANUAL;
 * IN CASE OF CONFLICT BETWEEN THE APPLICABLE ORDINANCES NOTED, THE MORE STRINGENT SHALL TAKE PRECEDENCE AND SHALL CONTROL ALL CONSTRUCTION.

B. NOTIFICATIONS

- THE MWRD LOCAL SEWER SYSTEMS SECTION FIELD OFFICE MUST BE NOTIFIED AT LEAST TWO (2) WORKING DAYS PRIOR TO THE COMMENCEMENT OF ANY WORK (CALL 708-588-4055 OR SEND EMAIL NOTIFICATION WITH PROJECT NAME, LOCATION AND PERMIT NUMBER TO WMOJOBSTART@MWRD.ORG).
- THE VILLAGE OF WESTERN SPRINGS ENGINEERING DEPARTMENT AND PUBLIC MUST BE NOTIFIED AT LEAST 24 HOURS PRIOR TO THE START OF CONSTRUCTION AND PRIOR TO EACH PHASE OF WORK. CONTRACTOR SHALL DETERMINE ITEMS REQUIRING INSPECTION PRIOR TO START OF CONSTRUCTION OR EACH WORK PHASE.
- THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES PRIOR TO BEGINNING CONSTRUCTION FOR THE EXACT LOCATIONS OF UTILITIES AND FOR THEIR PROTECTION DURING CONSTRUCTION. IF EXISTING UTILITIES ARE ENCOUNTERED THAT CONFLICT IN LOCATION WITH NEW CONSTRUCTION, IMMEDIATELY NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED. CALL J.U.L.I.E. AT 1-800-892-0123.

C. GENERAL NOTES

- ALL ELEVATIONS SHOWN ON PLANS REFERENCE THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). CONVERSION FACTOR IS 0.00 FT.
- MWRD, THE MUNICIPALITY AND THE OWNER OR OWNER'S REPRESENTATIVE SHALL HAVE THE AUTHORITY TO INSPECT, APPROVE, AND REJECT THE CONSTRUCTION IMPROVEMENTS.
- THE CONTRACTOR(S) SHALL INDEMNIFY THE OWNER, ENGINEER, MUNICIPALITY, MWRD, AND THEIR AGENTS, ETC., FROM ALL LIABILITY INVOLVED WITH THE CONSTRUCTION, INSTALLATION, OR TESTING OF THIS WORK ON THE PROJECT.
- THE PROPOSED IMPROVEMENTS MUST BE CONSTRUCTED IN ACCORDANCE WITH THE ENGINEERING PLANS AS APPROVED BY MWRD AND THE MUNICIPALITY UNLESS CHANGES ARE APPROVED BY MWRD, THE MUNICIPALITY, OR AUTHORIZED AGENT. THE CONSTRUCTION DETAILS, AS PRESENTED ON THE PLANS, MUST BE FOLLOWED. PROPER CONSTRUCTION TECHNIQUES MUST BE FOLLOWED ON THE IMPROVEMENTS INDICATED ON THE PLANS.
- THE LOCATION OF VARIOUS UNDERGROUND UTILITIES WHICH ARE SHOWN ON THE PLANS ARE FOR INFORMATION ONLY AND REPRESENT THE BEST KNOWLEDGE OF THE ENGINEER. VERIFY LOCATIONS AND ELEVATIONS PRIOR TO BEGINNING THE CONSTRUCTION OPERATIONS.
- ANY EXISTING PAVEMENT, SIDEWALK, DRIVEWAY, ETC., DAMAGED DURING CONSTRUCTION OPERATIONS AND NOT CALLED FOR TO BE REMOVED SHALL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR.
- MATERIAL AND COMPACTION TESTING SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THE MUNICIPALITY, MWRD, AND OWNER.
- THE UNDERGROUND CONTRACTOR SHALL MAKE ALL NECESSARY ARRANGEMENTS TO NOTIFY ALL INSPECTION AGENCIES.
- ALL NEW AND EXISTING UTILITY STRUCTURES ON SITE AND IN AREAS DISTURBED DURING CONSTRUCTION SHALL BE ADJUSTED TO FINISH GRADE PRIOR TO FINAL INSPECTION.
- RECORD DRAWINGS SHALL BE KEPT BY THE CONTRACTOR AND SUBMITTED TO THE ENGINEER AS SOON AS UNDERGROUND IMPROVEMENTS ARE COMPLETED. FINAL PAYMENTS TO THE CONTRACTOR SHALL BE HELD UNTIL THEY ARE RECEIVED. ANY CHANGES IN LENGTH, LOCATION OR ALIGNMENT SHALL BE SHOWN IN RED. ALL WYES OR BENDS SHALL BE LOCATED FROM THE DOWNSTREAM MANHOLE. ALL VALVES, B-BOXES, TEES OR BENDS SHALL BE TIED TO A FIRE HYDRANT.

D. SANITARY SEWER

- THE CONTRACTOR SHALL TAKE MEASURES TO PREVENT ANY POLLUTED WATER, SUCH AS GROUND AND SURFACE WATER, FROM ENTERING THE EXISTING SANITARY SEWERS.
- A WATER-TIGHT PLUG SHALL BE INSTALLED IN THE DOWNSTREAM SEWER PIPE AT THE POINT OF SEWER CONNECTION PRIOR TO COMMENCING ANY SEWER CONSTRUCTION. THE PLUG SHALL REMAIN IN PLACE UNTIL REMOVAL IS AUTHORIZED BY THE MUNICIPALITY AND/OR MWRD AFTER THE SEWERS HAVE BEEN TESTED AND ACCEPTED.
- DISCHARGING ANY UNPOLLUTED WATER INTO THE SANITARY SEWER SYSTEM FOR THE PURPOSE OF SEWER FLUSHING OF LINES FOR THE DEFLECTION TEST SHALL BE PROHIBITED WITHOUT PRIOR APPROVAL FROM THE MUNICIPALITY OR MWRD.
- ALL SANITARY SEWER CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS (LATEST EDITION).
- ALL FLOOR DRAINS SHALL DISCHARGE TO THE SANITARY SEWER SYSTEM.
- ALL DOWNSPOUTS AND FOOTING DRAINS SHALL DISCHARGE TO THE STORM SEWER SYSTEM.
- ALL SANITARY SEWER PIPE MATERIALS AND JOINTS (AND STORM SEWER PIPE MATERIALS AND JOINTS IN A COMBINED SEWER AREA) SHALL CONFORM TO THE FOLLOWING:

PIPE MATERIAL	PIPE SPECIFICATIONS	JOINT SPECIFICATIONS
VITRIFIED CLAY PIPE	ASTM C-700	ASTM C-425
REINFORCED CONCRETE SEWER PIPE	ASTM C-76	ASTM C-443
CAST IRON SOIL PIPE	ASTM A-74	ASTM C-564
DUCTILE IRON PIPE	ANSI A21.51	ANSI A21.11
POLYVINYL CHLORIDE (PVC) PIPE 6-INCH TO 15-INCH DIAMETER SDR 26 18-INCH TO 27-INCH DIAMETER F/DY=46	ASTM D-3034 ASTM F-679	ASTM D-3212 ASTM D-3212
HIGH DENSITY POLYETHYLENE (HDPE)	ASTM D-3350 ASTM D-3035	ASTM D-3261,F-2620 (HEAT FUSION) ASTM D-3212,F-477 (GASKETED)
WATER MAIN QUALITY PVC 4-INCH TO 36-INCH 4-INCH TO 12-INCH 14-INCH TO 48-INCH	ASTM D-2241 AWWA C900 AWWA C905	ASTM D-3139 ASTM D-3139 ASTM D-3139

THE FOLLOWING MATERIALS ARE ALLOWED ON A QUALIFIED BASIS SUBJECT TO DISTRICT REVIEW AND APPROVAL PRIOR TO PERMIT ISSUANCE. A SPECIAL CONDITION WILL BE ADDED TO THE PERMIT WHEN THE PIPE MATERIAL BELOW IS USED FOR SEWER CONSTRUCTION OR A CONNECTION IS MADE.

PIPE MATERIAL	PIPE SPECIFICATIONS	JOINT SPECIFICATIONS
POLYPROPYLENE (PP) PIPE		
12-INCH TO 24-INCH DOUBLE WALL	ASTM F-2736	D-3212, F-477
30-INCH TO 60-INCH TRIPLE WALL	ASTM F-2764	D3212, F-477

- ALL SANITARY SEWER CONSTRUCTION (AND STORM SEWER CONSTRUCTION IN COMBINED SEWER AREAS), REQUIRES STONE BEDDING WITH STONE 1/4" TO 1" IN SIZE, WITH MINIMUM BEDDING THICKNESS EQUAL TO 1/4 THE OUTSIDE DIAMETER OF THE SEWER PIPE, BUT NOT LESS THAN FOUR (4) INCHES NOR MORE THAN EIGHT (8) INCHES. MATERIAL SHALL BE CA-7, CA-11 OR CA-13 AND SHALL BE EXTENDED AT LEAST 12" ABOVE THE TOP OF THE PIPE WHEN USING PVC.
- NON-SHEAR FLEXIBLE-TYPE COUPLINGS SHALL BE USED IN THE CONNECTION OF SEWER PIPES OF DISSIMILAR PIPE MATERIALS.
- ALL MANHOLES SHALL BE PROVIDED WITH BOLTED, WATERTIGHT COVERS. SANITARY LIDS SHALL BE CONSTRUCTED WITH A CONCEALED PICKHOLE AND WATERTIGHT GASKET WITH THE WORD "SANITARY" CAST INTO THE LID.
- WHEN CONNECTING TO AN EXISTING SEWER MAIN BY MEANS OTHER THAN AN EXISTING WYE, TEE, OR AN EXISTING MANHOLE, ONE OF THE FOLLOWING METHODS SHALL BE USED:
 a) A CIRCULAR SAW-CUT OF SEWER MAIN BY PROPER TOOLS ("SEWER-TAP" MACHINE OR SIMILAR) AND PROPER INSTALLATION OF HUBWYE 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 HOLD IT FIRMLY IN PLACE.
- WHENEVER A SANITARY/COMBINED SEWER CROSSES UNDER A WATERMAIN, THE MINIMUM VERTICAL DISTANCE FROM THE TOP OF THE SEWER TO THE BOTTOM OF THE WATERMAIN SHALL BE 18 INCHES. FURTHERMORE, A MINIMUM HORIZONTAL DISTANCE OF 10 FEET BETWEEN SANITARY/COMBINED SEWERS AND WATERMANS SHALL BE MAINTAINED UNLESS: THE SEWER IS LAID IN A SEPARATE TRENCH, KEEPING A MINIMUM 18" VERTICAL SEPARATION; OR THE SEWER IS LAID IN THE SAME TRENCH WITH THE WATERMAIN LOCATED AT THE OPPOSITE SIDE ON A BENCH OF UNDISTURBED EARTH, KEEPING A MINIMUM 18" VERTICAL SEPARATION. IF EITHER THE VERTICAL OR HORIZONTAL DISTANCES DESCRIBED CANNOT BE MAINTAINED, OR THE SEWER CROSSES ABOVE THE WATER MAIN, THE SEWER SHALL BE CONSTRUCTED TO WATER MAIN STANDARDS OR IT SHALL BE ENCASED WITH A WATER MAIN QUALITY CARRIER PIPE WITH THE ENDS SEALED.
- ALL EXISTING SEPTIC SYSTEMS SHALL BE ABANDONED. ABANDONED TANKS SHALL BE FILLED WITH GRANULAR MATERIAL OR REMOVED.
- ALL SANITARY MANHOLES, (AND STORM MANHOLES IN COMBINED SEWER AREAS), SHALL HAVE A MINIMUM INSIDE DIAMETER OF 48 INCHES, AND SHALL BE CAST IN PLACE OR PRE-CAST REINFORCED CONCRETE.
- ALL SANITARY MANHOLES, (AND STORM MANHOLES IN COMBINED SEWER AREAS), SHALL HAVE PRECAST "RUBBER BOOTS" THAT CONFORM TO ASTM C-923 FOR ALL PIPE CONNECTIONS. PRECAST SECTIONS SHALL CONSIST OF MODIFIED GROOVE TONGUE AND RUBBER GASKET TYPE JOINTS.
- ALL ABANDONED SANITARY SEWERS SHALL BE PLUGGED AT BOTH ENDS WITH AT LEAST 2 FEET LONG NON-SHRINK CONCRETE OR MORTAR PLUG.
- EXCEPT FOR FOUNDATION/FOOTING DRAINS PROVIDED TO PROTECT BUILDINGS, OR PERFORATED PIPES ASSOCIATED WITH VOLUME CONTROL FACILITIES, DRAIN TILES/FIELD TILES/UNDERDRAINS/PERFORATED PIPES ARE NOT ALLOWED TO BE CONNECTED TO OR TRIBUTARY TO COMBINED SEWERS, SANITARY SEWERS, OR STORM SEWERS TRIBUTARY TO COMBINED SEWERS IN COMBINED SEWER AREAS. CONSTRUCTION OF NEW FACILITIES OF THIS TYPE IS PROHIBITED; AND ALL EXISTING DRAIN TILES AND PERFORATED PIPES ENCOUNTERED WITHIN THE PROJECT AREA SHALL BE PLUGGED OR REMOVED, AND SHALL NOT BE CONNECTED TO COMBINED SEWERS, SANITARY SEWERS, OR STORM SEWERS TRIBUTARY TO COMBINED SEWERS.
- A BACKFLOW PREVENTER IS REQUIRED FOR ALL DETENTION BASINS TRIBUTARY TO COMBINED SEWERS. REQUIRED BACKFLOW PREVENTERS SHALL BE INSPECTED AND EXERCISED ANNUALLY BY THE PROPERTY OWNER TO ENSURE PROPER OPERATION, AND ANY NECESSARY MAINTENANCES SHALL BE PERFORMED TO ENSURE FUNCTIONALITY. IN THE EVENT OF A SEWER SURCHARGE INTO AN OPEN DETENTION BASIN TRIBUTARY TO COMBINED SEWERS, THE PERMITTEE SHALL ENSURE THAT CLEAN UP AND WASH OUT OF SEWAGE TAKES PLACE WITHIN 48 HOURS OF THE STORM EVENT.

E. EROSION AND SEDIMENT CONTROL

- THE CONTRACTOR SHALL INSTALL THE EROSION AND SEDIMENT CONTROL DEVICES AS SHOWN ON THE APPROVED EROSION AND SEDIMENT CONTROL PLAN.
- EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE FUNCTIONAL PRIOR TO HYDROLOGIC DISTURBANCE OF THE SITE.
- ALL DESIGN CRITERIA, SPECIFICATIONS, AND INSTALLATION OF EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE IN ACCORDANCE WITH THE ILLINOIS URBAN MANUAL.
- A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.
- INSPECTIONS AND DOCUMENTATION SHALL BE PERFORMED, AT A MINIMUM:
 a) UPON COMPLETION OF INITIAL EROSION AND SEDIMENT CONTROL MEASURES, PRIOR TO ANY SOIL DISTURBANCE.
 b) ONCE EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM EVENT WITH GREATER THAN 0.5 INCH OF RAINFALL OR LIQUID EQUIVALENT PRECIPITATION.
- SOIL DISTURBANCE SHALL BE CONDUCTED IN SUCH A MANNER AS TO MINIMIZE EROSION. IF STRIPPING, CLEARING, GRADING, OR LANDSCAPING ARE TO BE DONE IN PHASES, THE CO-PERMITTEE SHALL PLAN FOR APPROPRIATE SOIL EROSION AND SEDIMENT CONTROL MEASURES.
- A STABILIZED MAT OF CRUSHED STONE MEETING THE STANDARDS OF THE ILLINOIS URBAN MANUAL SHALL BE INSTALLED AT ANY POINT WHERE TRAFFIC WILL BE ENTERING OR LEAVING A CONSTRUCTION SITE. SEDIMENT OR SOIL REACHING AN IMPROVED PUBLIC RIGHT-OF-WAY, STREET, ALLEY OR PARKING AREA SHALL BE REMOVED BY SCRAPING OR STREET CLEANING AS ACCUMULATIONS WARRANT AND TRANSPORTED TO A CONTROLLED SEDIMENT DISPOSAL AREA.
- CONCRETE WASHOUT FACILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE ILLINOIS URBAN MANUAL AND SHALL BE INSTALLED PRIOR TO ANY ON SITE CONSTRUCTION ACTIVITIES INVOLVING CONCRETE.
- MORTAR WASHOUT FACILITIES SHALL BE CONSTRUCTED IN ADDITION TO CONCRETE WASHOUT FACILITIES FOR ANY BRICK AND MORTAR BUILDING ENVELOPE CONSTRUCTION ACTIVITIES.
- TEMPORARY DIVERSIONS SHALL BE CONSTRUCTED AS NECESSARY TO DIRECT ALL RUNOFF FROM HYDROLOGICALLY DISTURBED AREAS TO AN APPROPRIATE SEDIMENT TRAP OR BASIN. VOLUME CONTROL FACILITIES SHALL NOT BE USED AS TEMPORARY SEDIMENT BASINS.
- DISTURBED AREAS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED SHALL BE STABILIZED WITH TEMPORARY OR PERMANENT MEASURES WITHIN SEVEN (7) DAYS.
- ALL FLOOD PROTECTION AREAS AND VOLUME CONTROL FACILITIES SHALL, AT A MINIMUM, BE PROTECTED WITH A DOUBLE-ROW OF SILT FENCE (OR EQUIVALENT).
- VOLUME CONTROL FACILITIES SHALL NOT BE CONSTRUCTED UNTIL ALL OF THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED.
- SOIL STOCKPILES SHALL, AT A MINIMUM, BE PROTECTED WITH PERIMETER SEDIMENT CONTROLS. SOIL STOCKPILES SHALL NOT BE PLACED IN FLOOD PROTECTION AREAS OR THEIR BUFFERS.
- EARTHEN EMBANKMENT SIDE SLOPES SHALL BE STABILIZED WITH APPROPRIATE EROSION CONTROL BLANKET.
- STORM SEWERS THAT ARE OR WILL BE FUNCTIONING DURING CONSTRUCTION SHALL BE PROTECTED BY APPROPRIATE SEDIMENT CONTROL MEASURES.
- THE CONTRACTOR SHALL EITHER REMOVE OR REPLACE ANY EXISTING DRAIN TILES AND INCORPORATE THEM INTO THE DRAINAGE PLAN FOR THE DEVELOPMENT. DRAIN TILES CANNOT BE TRIBUTARY TO A SANITARY OR COMBINED SEWER. DRAIN TILES ALLOWED IN COMBINED SEWER AREA FOR GREEN INFRASTRUCTURE PRACTICES.

- IF DEWATERING SERVICES ARE USED, ADJOINING PROPERTIES AND DISCHARGE LOCATIONS SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION. DEWATERING SYSTEMS SHOULD BE INSPECTED DAILY DURING OPERATIONAL PERIODS. THE SITE INSPECTOR MUST BE PRESENT AT THE COMMENCEMENT OF DEWATERING ACTIVITIES.
- THE CONTRCTOR SHALL BE RESPONSIBLE FOR TRENCH DEWATERING AND EXCAVATION FOR THE INSTALLATION OF SANITARY SEWERS, STORM SEWERS, WATERMANS AS WELL AS THEIR SERVICES AND OTHER APPURTENANCES. ANY TRENCH DEWATERING, WHICH CONTAINS SEDIMENT SHALL PASS THROUGH A SEDIMENT SETTLING POND OR EQUALLY EFFECTIVE SEDIMENT CONTROL DEVICE. ALTERNATIVES MAY INCLUDE DEWATERING INTO A SUMP PIT, FILTER BAG OR EXISTING VEGETATED UPSLOPE AREA. SEDIMENT LADEN WATERS SHALL NOT BE DISCHARGE TO WATERWAYS, FLOOD PROTECTION AREAS OR THE COMBINED SEWER SYSTEM.
- ALL PERMANENT EROSION CONTROL PRACTICES SHALL BE INITIATED WITHIN SEVEN (7) DAYS FOLLOWING THE COMPLETION OF SOIL DISTURBING ACTIVITIES.
- ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED AND REPAIRED AS NEEDED ON A YEAR-ROUND BASIS DURING CONSTRUCTION AND ANY PERIODS OF CONSTRUCTION SHUTDOWN UNTIL PERMANENT STABILIZATION IS ACHIEVED.
- ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN THIRTY (30) DAYS AFTER PERMANENT SITE STABILIZATION.
- THE EROSION AND SEDIMENT CONTROL MEASURES SHOWN ON THE PLANS ARE THE MINIMUM REQUIREMENTS. ADDITIONAL MEASURES MAY BE REQUIRED, AS DIRECTED BY THE ENGINEER, SITE INSPECTOR, OR MWRD.

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CLIENT:

VILLAGE OF WESTERN SPRINGS
 740 HILLGROVE AVENUE
 WESTERN SPRINGS, IL 60558

NO.	DATE	NATURE OF REVISION	CHKD.
FILE NAME	N:\WESTERNSPRINGS\210513\CIVIL\GEN_02_210513.shx		

TITLE:
**SPRINGDALE DRAINAGE IMPROVEMENT
 MWRD GENERAL NOTES**

PROJ. NO. 210513
DATE: 2/24/2025
SHEET 3 OF 37
DRAWING NO. GEN-2

SUMMARY OF QUANTITIES

SP	ITEM NO	PAY ITEM CODE	PAY ITEM NAME	UNITS	TOTAL QUANTITY
	1	20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	44
	2	20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	196
	3	20101000	TEMPORARY FENCE	FOOT	2300
	4	20101100	TREE TRUNK PROTECTION	EACH	63
#	5	20101200	TREE ROOT PRUNING	EACH	43
	6	20101300	TREE PRUNING (1 TO 10 INCH DIAMETER)	EACH	12
	7	20101350	TREE PRUNING (OVER 10 INCH DIAMETER)	EACH	30
	8	20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	6454
#	9	20700220	POROUS GRANULAR EMBANKMENT	CU YD	203
#	10	21101505	TOPSOIL EXCAVATION AND PLACEMENT	CU YD	13345
	11	25100115	MULCH, METHOD 2	ACRE	4.8
	12	25100630	EROSION CONTROL BLANKET	SQ YD	23235
	13	28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	500
	14	28000400	PERIMETER EROSION BARRIER	FOOT	2400
	15	28000500	INLET AND PIPE PROTECTION	EACH	3
#	16	28000510	INLET FILTERS	EACH	30
	17	28100107	STONE RIPRAP, CLASS A4	SQ YD	30
	18	28100111	STONE RIPRAP, CLASS A6	SQ YD	100
	19	28200200	FILTER FABRIC	SQ YD	130
	20	40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	1177
	21	40603080	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50	TON	1174
	22	40604060	HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N50	TON	588
#	23	42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	6555
	24	42400800	DETECTABLE WARNINGS	SQ FT	150
	25	44000600	SIDEWALK REMOVAL	SQ FT	6655
	26	54213663	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 18"	EACH	2
	27	54214539	PRECAST REINFORCED CONCRETE FLARED END SECTIONS, EQUIVALENT ROUND-SIZE 54"	EACH	1
	28	54247110	GRATING FOR CONCRETE FLARED END SECTION 18"	EACH	2
	29	54248190	GRATING FOR CONCRETE FLARED END SECTION EQUIVALENT ROUND-SIZE 54"	EACH	1
	30	550A2320	STORM SEWERS, RUBBER GASKET, CLASS A, TYPE 1 12"	FOOT	40
	31	550A2340	STORM SEWERS, RUBBER GASKET, CLASS A, TYPE 1 18"	FOOT	45
	32	550A2360	STORM SEWERS, RUBBER GASKET, CLASS A, TYPE 1 24"	FOOT	217
	33	550A2430	STORM SEWERS, RUBBER GASKET, CLASS A, TYPE 1 54"	FOOT	150
	34	550A2530	STORM SEWERS, RUBBER GASKET, CLASS A, TYPE 2 15"	FOOT	30
	35	550A2580	STORM SEWERS, RUBBER GASKET, CLASS A, TYPE 2 30"	FOOT	84
	36	550A2630	STORM SEWERS, RUBBER GASKET, CLASS A, TYPE 2 54"	FOOT	635
	37	550A2830	STORM SEWERS, RUBBER GASKET, CLASS A, TYPE 3 54"	FOOT	385
	38	550A4720	STORM SEWERS, CLASS A, TYPE 1 EQUIVALENT ROUND-SIZE 54"	FOOT	295
#	39	56103000	DUCTILE IRON WATER MAIN 6"	FOOT	54
#	40	56103100	DUCTILE IRON WATER MAIN 8"	FOOT	1215
#	41	56105000	WATER VALVES 8"	EACH	11
#	42	56106400	ADJUSTING WATER MAIN 8"	FOOT	30
#	43	56300100	ADJUSTING SANITARY SEWERS, 8-INCH DIAMETER OR LESS	FOOT	210
#	44	56400500	FIRE HYDRANTS TO BE REMOVED	EACH	3
#	45	56400820	FIRE HYDRANT WITH AUXILIARY VALVE AND VALVE BOX	EACH	6
#	46	60108206	PIPE UNDERDRAINS, TYPE 2, 6"	FOOT	3000
#	47	60200305	CATCH BASINS, TYPE A, 4'-DIAMETER, TYPE 3 FRAME AND GRATE	EACH	2

SP	ITEM NO	PAY ITEM CODE	PAY ITEM NAME	UNITS	TOTAL QUANTITY
#	48	60207105	CATCH BASINS, TYPE C, TYPE 3 FRAME AND GRATE	EACH	4
#	49	60218400	MANHOLES, TYPE A, 4'-DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	3
#	50	60221100	MANHOLES, TYPE A, 5'-DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	1
#	51	60223700	MANHOLES, TYPE A, 6'-DIAMETER, TYPE 1 FRAME, OPEN LID	EACH	2
#	52	60224459	MANHOLES, TYPE A, 8'-DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	1
#	53	60235700	INLETS, TYPE A, TYPE 3 FRAME AND GRATE	EACH	1
	54	60248900	VALVE VAULTS, TYPE A, 5'-DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	11
#	55	67100100	MOBILIZATION	L SUM	1
#	56	X0320067	BENCH REMOVAL	EACH	4
#	57	X0800006	PREPARATION OF BASE (SPECIAL)	SQ YD	4980
#	58	X1200015	VALVE VAULTS TO BE ABANDONED	EACH	7
#	59	X2080250	TRENCH BACKFILL, SPECIAL	CU YD	5876
#	60	X3580300	AGGREGATE BASE REPAIR (SPECIAL)	TON	441
#	61	X5610746	WATER MAIN LINE STOP 6"	EACH	2
#	62	X5610748	WATER MAIN LINE STOP 8"	EACH	1
#	63	X6026050	SANITARY MANHOLES TO BE ADJUSTED	EACH	5
#	64	X6026054	SANITARY MANHOLES TO BE REMOVED	EACH	1
#	65	X6030310	FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)	EACH	1
#	66	X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1
#	67	XX004040	DOMESTIC WATER METER TO BE RELOCATED	EACH	1
#	68	XX005431	LOCATING UNDERGROUND UTILITY	EACH	5
#	69	XX005964	REMOVE AND RESET BRICK SIDEWALK	SQ FT	63
#	70	XX007605	LIMESTONE SCREENING SURFACE 3"	SQ YD	160
#	71	Z0013797	STABILIZED CONSTRUCTION ENTRANCE	SQ YD	230
#	72	Z0013798	CONSTRUCTION LAYOUT	L SUM	1
#	73	Z0017400	DRAINAGE & UTILITY STRUCTURES TO BE ADJUSTED	EACH	7
#	74	Z0018700	DRAINAGE STRUCTURE TO BE REMOVED	EACH	22
#	75	Z0022800	FENCE REMOVAL	FOOT	134
#	76	N/A	ALUMINUM BLEACHERS	EACH	4
#	77	N/A	AS-BUILT DRAWINGS	LSUM	1
#	78	N/A	BACKSTOP FENCE, 16FT HT	FOOT	112
#	79	N/A	BACKSTOP REMOVAL (COMPLETE)	EACH	2
#	80	N/A	BASES, HOME PLATE, PITCHING PLATE (SET)	EACH	2
#	81	N/A	CHAIN LINK FENCE, COATED, 4FT HT	FOOT	144
#	82	N/A	CHAIN LINK FENCE, COATED, 6FT HT	FOOT	128
#	83	N/A	CHAIN LINK FENCE, COATED, 8FT HT	FOOT	88
#	84	N/A	CLAY BRICK UNDERLAYMENT - BASEBALL INFIELD	SQ FT	170
#	85	N/A	CLAY INFIELD, 8" DEPTH	CU YD	210
#	86	N/A	COMBINATION CONCRETE CURB AND GUTTER REMOVAL & REPLACEMENT	FOOT	3011
#	87	N/A	DUCTILE IRON WATER MAIN 8" (DIRECTIONAL BORE)	FOOT	575
#	88	N/A	DUCTILE IRON WATER MAIN IN CASING 8"	FOOT	10
#	89	N/A	EARTH EXCAVATION (BASIN)	CU YD	3565
#	90	N/A	HIGH CAPACITY INLET, 5' DEPTH OR LESS	EACH	9
#	91	N/A	HIGH CAPACITY INLET, GREATER THAN 5' DEPTH	EACH	5
#	92	N/A	HOT-MIX ASPHALT DRIVEWAY REMOVAL & REPLACEMENT	SQ YD	160
#	93	N/A	HOT-MIX ASPHALT SURFACE REMOVAL (FULL DEPTH)	SQ YD	4980
#	94	N/A	IN-LINE CHECK VALVE, 30"	EACH	1

SP	ITEM NO	PAY ITEM CODE	PAY ITEM NAME	UNITS	TOTAL QUANTITY
#	95	N/A	IRRIGATION REPAIR	UNIT	25000
#	96	N/A	JUNCTION CHAMBER WITH OVERFLOW WEIR	LSUM	1
#	97	N/A	LANDSCAPE RESTORATION - FIELD OF DREAMS SEED MIX	ACRE	4.8
#	98	N/A	LANDSCAPE RESTORATION - FIELD OF DREAMS SEED MIX (INTERSEEDING)	ACRE	9.6
#	99	N/A	LANDSCAPE RESTORATION - SODDING (SPRINGDALE PARK)	SQ YD	2000
#	100	N/A	LANDSCAPE RESTORATION - SUPPLEMENTAL WATERING	UNIT	1700
#	101	N/A	MISCELLANEOUS ADDITIONS AT THE VILLAGE'S DISCRETION	UNIT	150000
#	102	N/A	PARKWAY RESTORATION - SODDING	SQ YD	3607
#	103	N/A	PLAYER BENCHES	EACH	4
#	104	N/A	PORTLAND CEMENT CONCRETE DRIVEWAY REMOVAL & REPLACEMENT	SQ YD	330
#	105	N/A	POST-CONSTRUCTION SEWER TELEVISIONING	FOOT	3700
#	106	N/A	PVC CASING PIPE, 16"	FOOT	10
#	107	N/A	RCP BULKHEAD, 54" EQRS.	EACH	1
#	108	N/A	RCP PIPE FITTING (NO RISER), 54", GREATER THAN 10' DEPTH	EACH	1
#	109	N/A	RCP PIPE FITTING (WITH RISER), 54" (EQRS), 10' DEPTH OR LESS	EACH	3
#	110	N/A	RCP PIPE FITTING (WITH RISER), 54", 10' DEPTH OR LESS	EACH	4
#	111	N/A	RCP PIPE FITTING (WITH RISER), 54", GREATER THAN 10' DEPTH	EACH	4
#	112	N/A	RCP PIPE FITTING TRANSITION, 54" EQRS. TO 54", 10' DEPTH OR LESS	EACH	1
#	113	N/A	RELOCATE PLAY COURT	LSUM	1
#	114	N/A	SANITARY MANHOLE, DROP, 4'-DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	1
#	115	N/A	SANITARY MANHOLE, TYPE A, 4'-DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	8
#	116	N/A	SANITARY SERVICE CONNECTION TO NEW SEWER	EACH	11
#	117	N/A	SANITARY SERVICE REPLACEMENT	FOOT	200
#	118	N/A	SANITARY SEWER, DUCTILE IRON, 8"	FOOT	63
#	119	N/A	SANITARY SEWER, PVC, 8"	FOOT	609
#	120	N/A	SANITARY SEWER, PVC, 8" (POINT REPAIR)	FOOT	15
#	121	N/A	SANITARY SEWERS, PVC (C900), 8"	FOOT	27
#	122	N/A	SHUT DOWN CONNECTION TO EXISTING 6" WATER MAIN	EACH	4
#	123	N/A	SHUT DOWN CONNECTION TO EXISTING 8" WATER MAIN	EACH	3
#	124	N/A	SITE DEWATERING	LSUM	1
#	125	N/A	STORM SEWERS, DUCTILE IRON, 30"	FOOT	32
#	126	N/A	STORM SEWERS, PVC (C900), 8"	FOOT	27
#	127	N/A	STORM SEWERS, PVC (C900), 12"	FOOT	125
#	128	N/A	STORM SEWERS, PVC (C900), 18"	FOOT	62
#	129	N/A	STORM SEWERS, PVC (C900), 24"	FOOT	98
#	130	N/A	STORM SEWERS, PVC, 18"	FOOT	52
#	131	N/A	STORM SEWERS, PVC, 24"	FOOT	30
#	132	N/A	TEMPORARY PATCHING (COLD PATCH)	SQ YD	750
#	133	N/A	TEMPORARY STONE	LSUM	1
#	134	N/A	TREES	EACH	9
#	135	N/A	UNDERDRAIN CLEANOUT	EACH	15
#	136	N/A	WATER SERVICE - FURNISHING 6-MONTH WATER FILTER	EACH	1
#	137	N/A	WATER SERVICE (LEAD) - INTERIOR RESTORATION	EACH	4
#	138	N/A	WATER SERVICE LINE (PRIVATE) - LEAD SERVICE REPLACEMENT	FOOT	160
#	139	N/A	WATER SERVICE REPLACEMENT, LONG SIDE (1.5" DIA. OR LESS)	EACH	15
#	140	N/A	WATER SERVICE REPLACEMENT, SHORT SIDE (1.5" DIA. OR LESS)	EACH	15

DENOTES SPECIAL PROVISION

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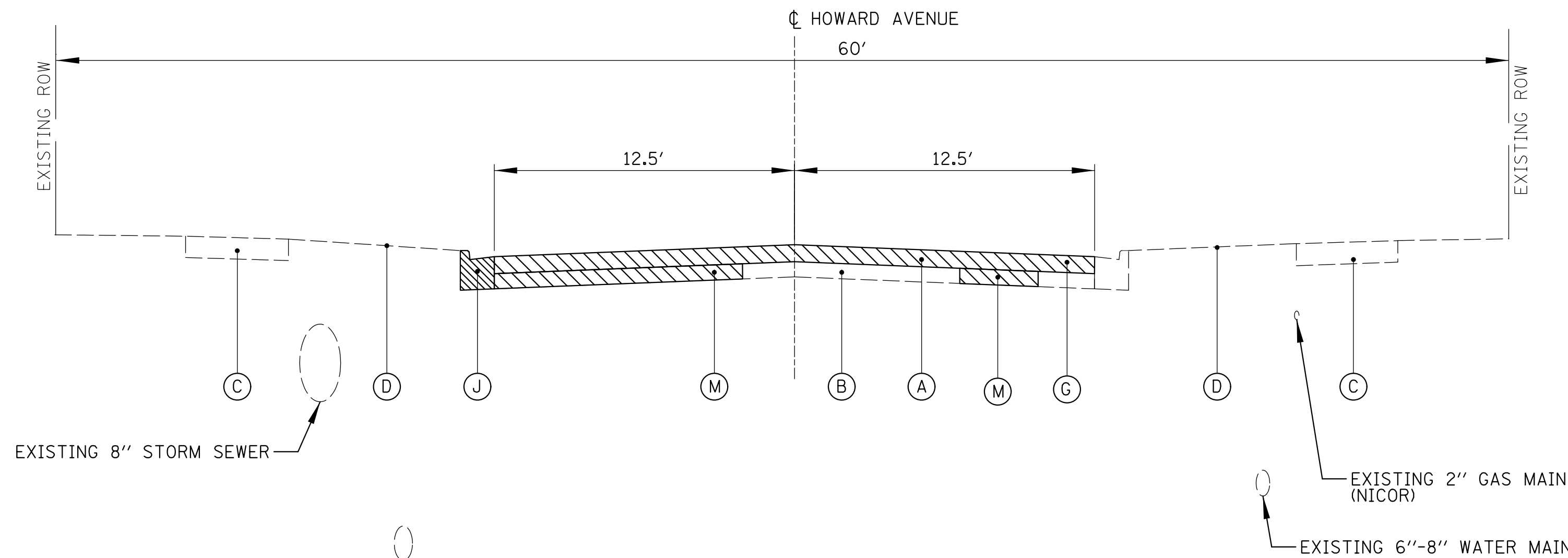
CLIENT:

VILLAGE OF WESTERN SPRINGS
 740 HILLGROVE AVENUE
 WESTERN SPRINGS, IL 60558

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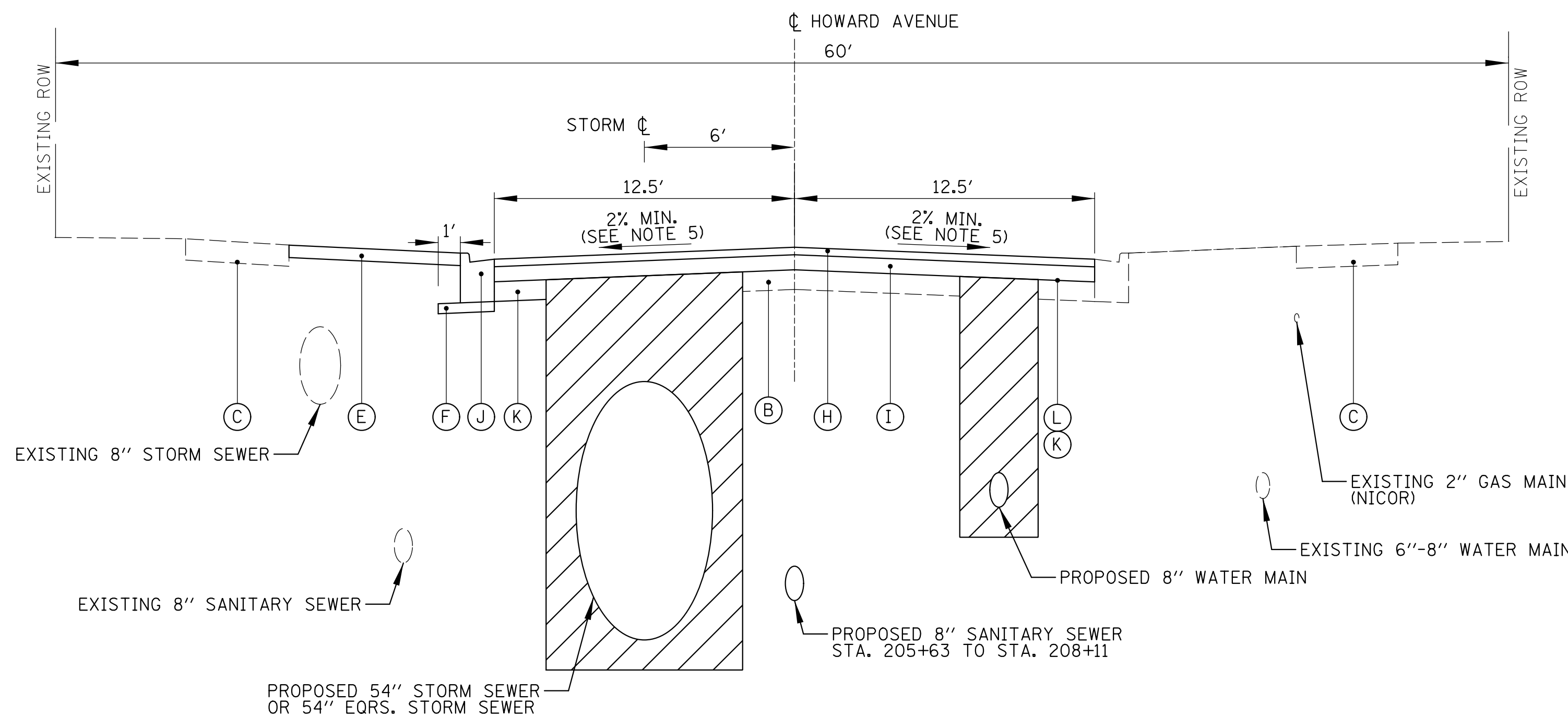
TITLE:
SPRINGDALE DRAINAGE IMPROVEMENT
SUMMARY OF QUANTITIES

PROJ. NO. 210513
 DATE: 2/24/2025
 SHEET 4 OF 37
 DRAWING NO.
S00-1



EXISTING TYPICAL SECTION

HOWARD AVENUE
(LOOKING NORTH)



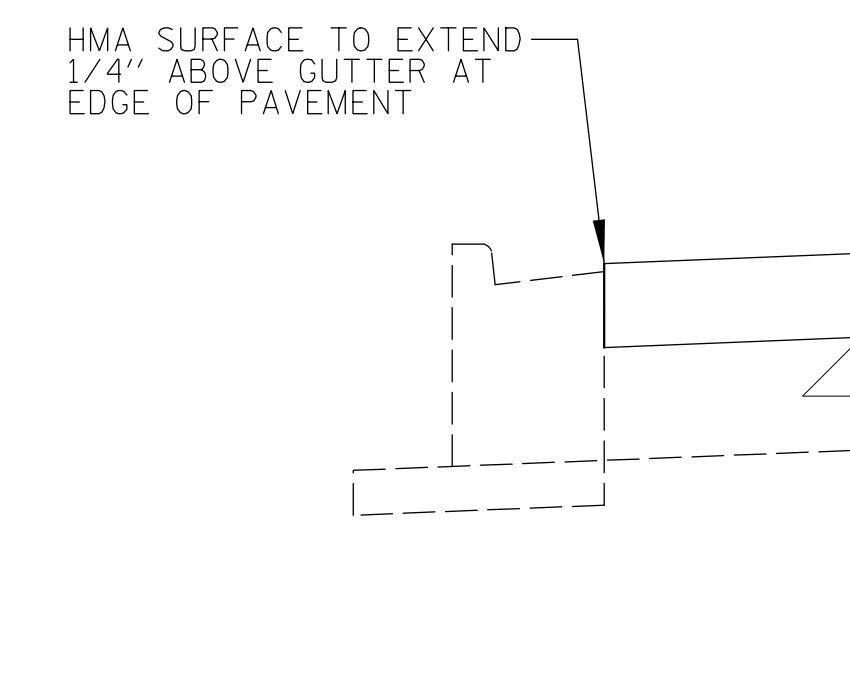
PROPOSED TYPICAL SECTION

HOWARD AVENUE
(LOOKING NORTH)

HOT-MIX ASPHALT MIXTURE REQUIREMENTS		
MIXTURE ITEM	AIR VOIDS @ Ndes	OMP
PROPOSED HMA PAVEMENT		
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", IL-9.5, N50, 2"	4% @ 50 GYR	LR-1030-2
HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50, 4"	4% @ 50 GYR	LR-1030-2
DRIVEWAYS		
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", IL-9.5, N50, 3" (2 LIFTS)	4% @ 50 GYR	LR-1030-2

- NOTES:
1. THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE MIXTURE QUANTITIES IS 112 LBS/SQ YD/IN.
 2. THE "AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG 76-22" AND FOR NON-POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64-22" UNLESS MODIFIED BY RECLAIMED MATERIALS PROVISIONS.

HMA SURFACE DETAIL



LEGEND:

- TRENCH BEDDING AND BACKFILL
- PAVEMENT REMOVAL
- (A) EXISTING HMA PAVEMENT (SEE SOIL BORINGS FOR THICKNESS)
- (B) EXISTING STONE SUBBASE (SEE SOIL BORINGS FOR THICKNESS)
- (C) EXISTING CONCRETE SIDEWALK OR SIDEWALK REPLACEMENT (AS DIRECTED BY ENGINEER)
- (D) EXISTING TOPSOIL AND GROUND COVER
- (E) PARKWAY RESTORATION - SODDING
- (F) SUB-BASE GRANULAR MATERIAL (CA-6), 4" (INCLUDED IN COST OF PROPOSED CURB & GUTTER)
- (G) HMA SURFACE REMOVAL (FULL DEPTH)
- (H) HMA SURFACE COURSE, MIX "D", N50, 2"
- (I) HMA BINDER COURSE, IL-19.0, N50 4"
- (J) COMBINATION CONCRETE CURB AND GUTTER REMOVAL & REPLACEMENT (AS DIRECTED BY ENGINEER)
- (K) AGGREGATE BASE REPAIR (SPECIAL), SEE NOTE 1
- (L) PREPARATION OF BASE (SPECIAL), SEE NOTES 1 & 2
- (M) ROADWAY SUBBASE EXCAVATION (INCLUDED IN COST OF PR. SEWER/WATER MAIN INSTALLATION), SEE NOTE 1)

- NOTES:
1. THE EXISTING ASPHALT PAVEMENT SHALL BE REMOVED AND REPLACED WITH 2" HMA SURFACE AND 4" HMA BINDER AT LOCATIONS SHOWN ON THEN PLANS. THE EXISTING SUBBASE MATERIALS SHALL BE REUSED, REPAIRED (AS NEEDED) AND PREPARED FOR PAVING. EXISTING ROADWAY SUBBASE SHALL ONLY BE REMOVED WITHIN SEWER OR WATER MAIN TRENCHES, WHICH EXCAVATION SHALL BE INCLUDED IN THE COST OF THE PROPOSED WATER MAIN, STORM, AND SANITARY SEWERS.
 2. EXISTING AGGREGATE SUBBASE THAT IS DISTURBED BUT LOCATED OUTSIDE THE TRENCH LIMITS SHALL BE REPAIRED PRIOR TO PAVING AS DIRECTED BY THE ENGINEER. THIS WORK SHALL BE PAID FOR AS AGGREGATE BASE REPAIR (SPECIAL).
 3. BITUMINOUS MATERIAL (TACK COAT) SHALL BE PLACED BETWEEN HMA LIFTS IN ACCORDANCE WITH SECTION 406 OF THE STANDARD SPECIFICATIONS.
 4. THE TOP PAY LIMIT OF TRENCH BACKFILL, SPECIAL SHALL BE THE BOTTOM OF THE PROSPED HMA PAVEMENT (BINDER COURSE).
 5. IF DIFFERING ELEVATIONS EXIST AT THE ROADWAY EDGE OF PAVEMENT, CONTRACTOR SHALL PAVE THE SIDE WITH THE HIGHER ELEVATION FIRST. WHEN GRADING THE AGGREGATE BASE, CONTRACTOR SHALL PROVIDE GRADE STAKES SHOWING FINISHED PAVEMENT AT 2% OFF HIGH SIDE (INCLUDED IN COST OF PREPARATION OF BASE (SPECIAL)).

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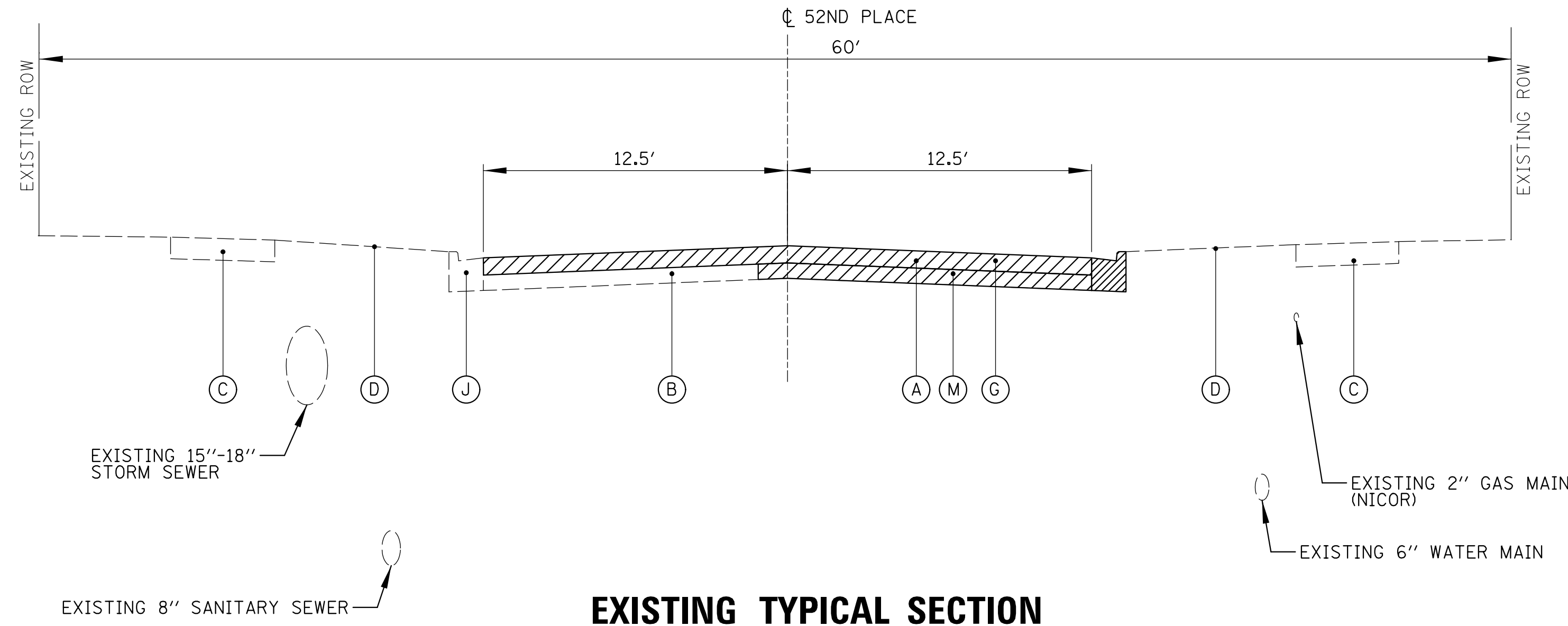
CLIENT:



VILLAGE OF WESTERN SPRINGS
740 HILLGROVE AVENUE
WESTERN SPRINGS, IL 60558

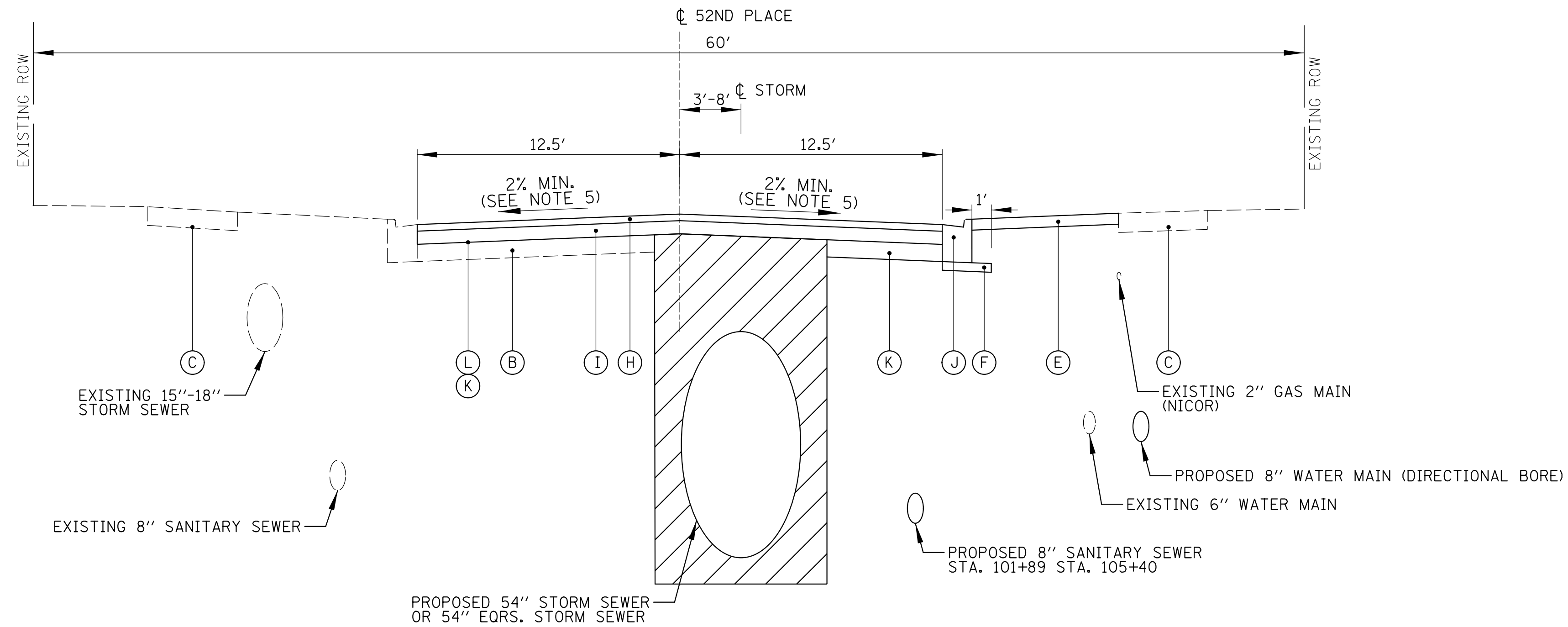
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DSGN.	AJS	TITLE:	PROJ. NO. 210513
DWN.	JRS	SPRINGDALE DRAINAGE IMPROVEMENT TYPICAL SECTIONS	DATE: 2/24/2025
CHKD.	AJS		SHEET 5 OF 37
SCALE:	20'		DRAWING NO.
PLOT DATE:	2/24/2025		TYP-1
CAD USER:	Jspeelman		



EXISTING TYPICAL SECTION

52ND PLACE
(LOOKING WEST)



PROPOSED TYPICAL SECTION

52ND PLACE
(LOOKING WEST)

LEGEND:

- TRENCH BEDDING AND BACKFILL
- PAVEMENT REMOVAL

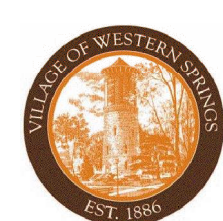
- (A) EXISTING HMA PAVEMENT (SEE SOIL BORINGS FOR THICKNESS)
- (B) EXISTING STONE SUBBASE (SEE SOIL BORINGS FOR THICKNESS)
- (C) EXISTING CONCRETE SIDEWALK OR SIDEWALK REPLACEMENT (AS DIRECTED BY ENGINEER)
- (D) EXISTING TOPSOIL AND GROUND COVER
- (E) PARKWAY RESTORATION - SODDING
- (F) SUB-BASE GRANULAR MATERIAL (CA-6), 4" (INCLUDED IN COST OF PROPOSED CURB & GUTTER)
- (G) HMA SURFACE REMOVAL (FULL DEPTH)
- (H) HMA SURFACE COURSE, MIX "D", N50, 2"
- (I) HMA BINDER COURSE, IL-19.0, N50 4"
- (J) COMBINATION CONCRETE CURB AND GUTTER REMOVAL & REPLACEMENT (AS DIRECTED BY ENGINEER)
- (K) AGGREGATE BASE REPAIR (SPECIAL), SEE NOTE 1
- (L) PREPARATION OF BASE (SPECIAL), SEE NOTES 1 & 2
- (M) ROADWAY SUBBASE EXCAVATION (INCLUDED IN COST OF PR. SEWER/WATER MAIN INSTALLATION), SEE NOTE 1)

NOTES:

1. THE EXISTING ASPHALT PAVEMENT SHALL BE REMOVED AND REPLACED WITH 2" HMA SURFACE AND 4" HMA BINDER AT LOCATIONS SHOWN ON THEN PLANS. THE EXISTING SUBBASE MATERIALS SHALL BE REUSED, REPAIRED (AS NEEDED) AND PREPARED FOR PAVING. EXISTING ROADWAY SUBBASE SHALL ONLY BE REMOVED WITHIN SEWER OR WATER MAIN TRENCHES, WHICH EXCAVATION SHALL BE INCLUDED IN THE COST OF THE PROPOSED WATER MAIN, STORM, AND SANITARY SEWERS.
2. EXISTING AGGREGATE SUBBASE THAT IS DISTURBED BUT LOCATED OUTSIDE THE TRENCH LIMITS SHALL BE REPAIRED PRIOR TO PAVING AS DIRECTED BY THE ENGINEER. THIS WORK SHALL BE PAID FOR AS AGGREGATE BASE REPAIR (SPECIAL).
3. BITUMINOUS MATERIAL (TACK COAT) SHALL BE PLACED BETWEEN HMA LIFTS IN ACCORDANCE WITH SECTION 406 OF THE STANDARD SPECIFICATIONS.
4. THE TOP PAY LIMIT OF TRENCH BACKFILL, SPECIAL SHALL BE THE BOTTOM OF THE PROPSED HMA PAVEMENT (BINDER COURSE).
5. IF DIFFERING ELEVATIONS EXIST AT THE ROADWAY EDGE OF PAVEMENT, CONTRACTOR SHALL PAVE THE SIDE WITH THE HIGHER ELEVATION FIRST. WHEN GRADING THE AGGREGATE BASE, CONTRACTOR SHALL PROVIDE GRADE STAKES SHOWING FINISHED PAVEMENT AT 2% OFF HIGH SIDE (INCLUDED IN COST OF PREPARATION OF BASE (SPECIAL)).

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CLIENT:



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740 HILLGROVE AVENUE
WESTERN SPRINGS, IL 60558

NO.	DATE	NATURE OF REVISION	CHKD.	MODEL:
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TITLE:

**SPRINGDALE DRAINAGE IMPROVEMENT
TYPICAL SECTIONS**

PROJ. NO. 210513

DATE: 2/24/2025

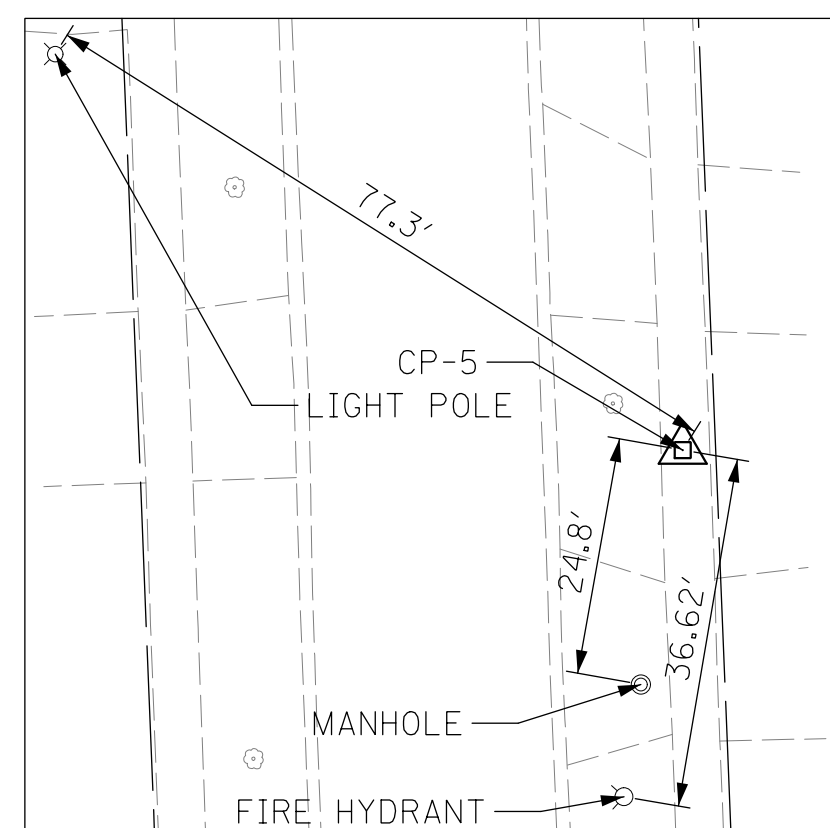
SHEET 6 OF 37

DRAWING NO.

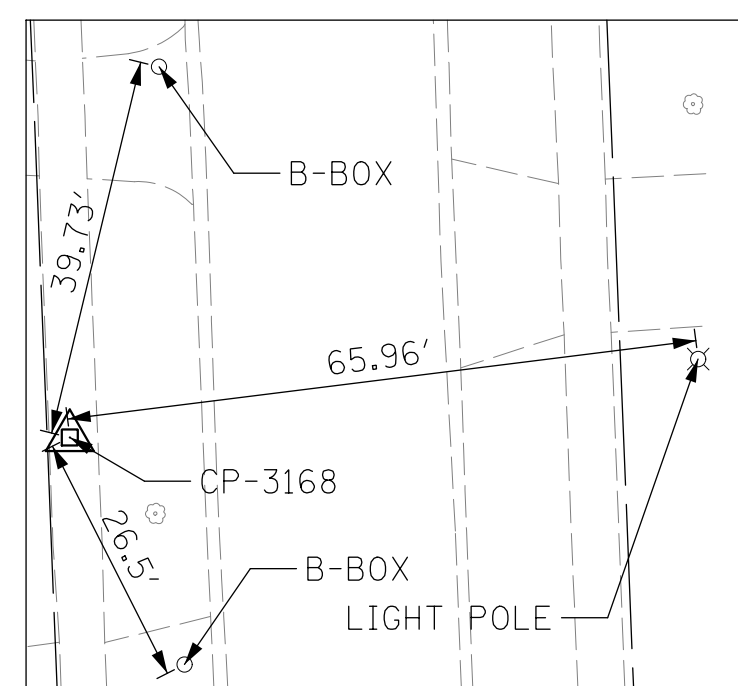
TYP-2

HORIZONTAL CONTROL

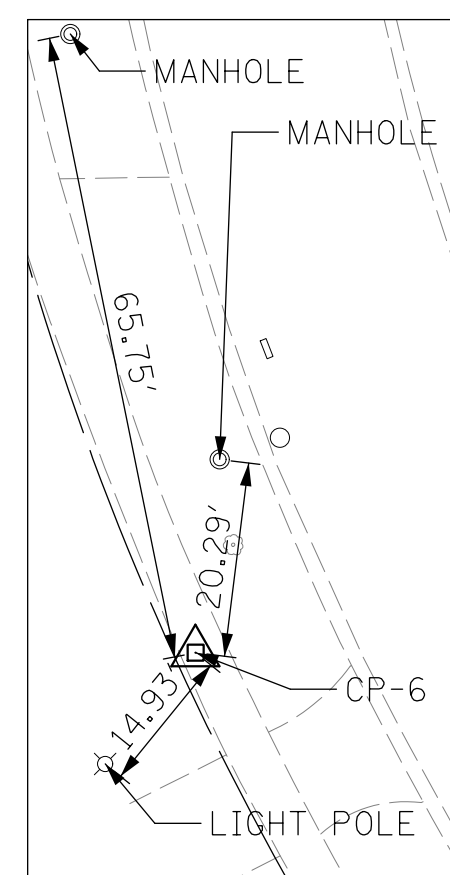
CONTROL POINT	DESCRIPTION	NORTHING	EASTING	STATION	OFFSET
5	X-CUT	1 867 382.96	1 103 865.98	156+68.98	26.57' RT
6	X-CUT	1 867 096.42	1 103 845.52	153+91.30	27.83' LT
7	X-CUT	1 866 927.20	1 104 138.86	150+58.78	17.39' LT
8	X-CUT	1 867 169.76	1 104 184.68	202+55.07	26.78' RT
9	X-CUT	1 867 517.45	1 104 172.44	206+02.97	28.42' RT
10	X-CUT	1 867 801.10	1 104 159.71	100+02.97	26.90' RT
3168	X-CUT	1 867 278.52	1 103 815.91	155+66.62	27.63' LT



CP-5



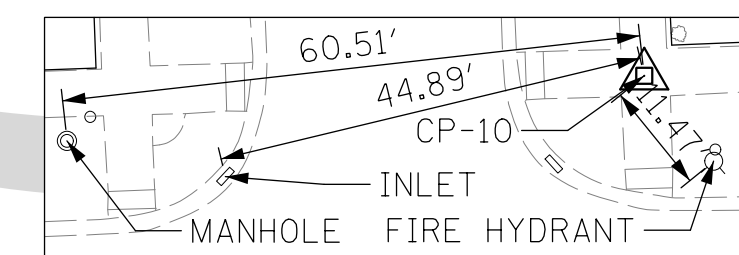
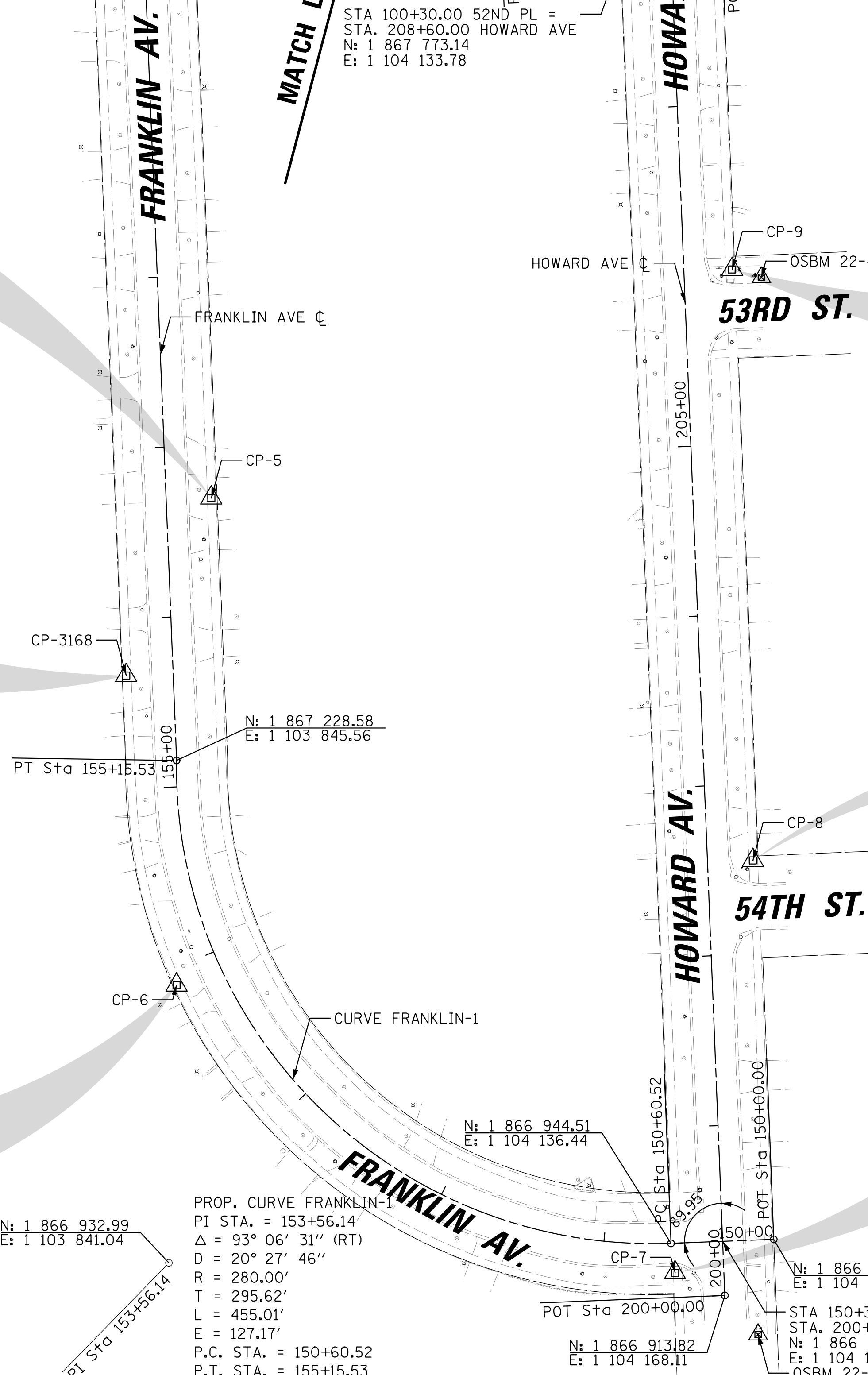
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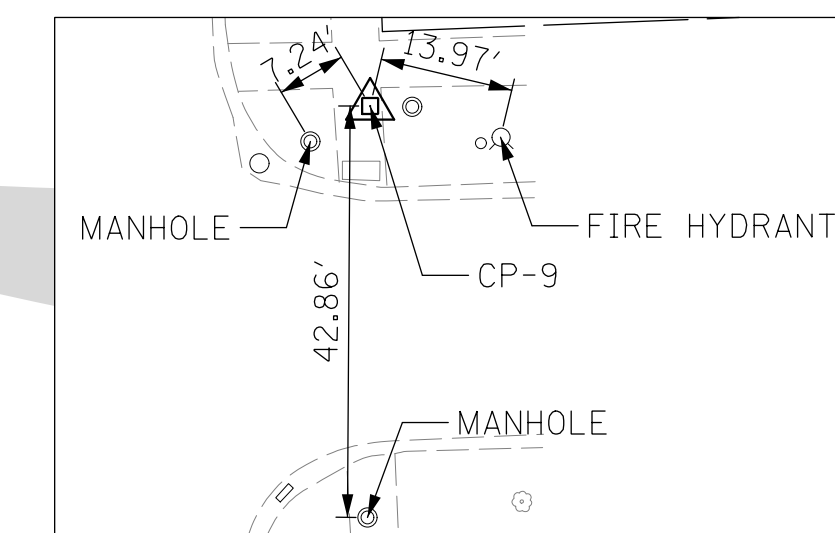
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MATCH LINE STA. 160 + 00

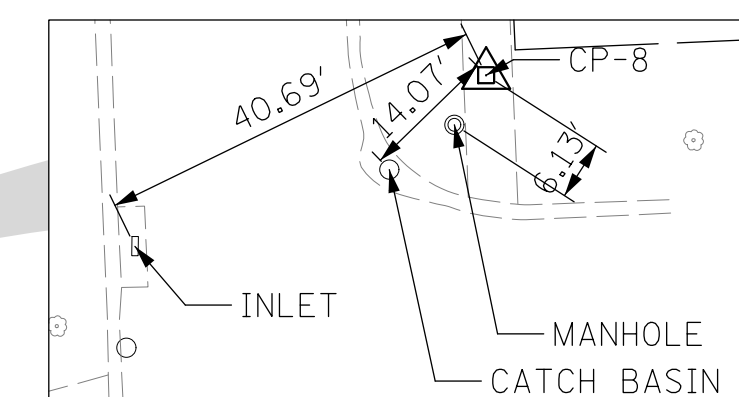
MATCH LINE STA. 102 + 00



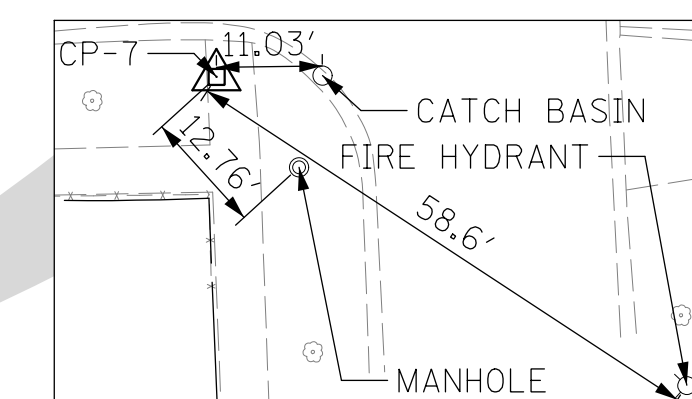
CP-10



CP-9

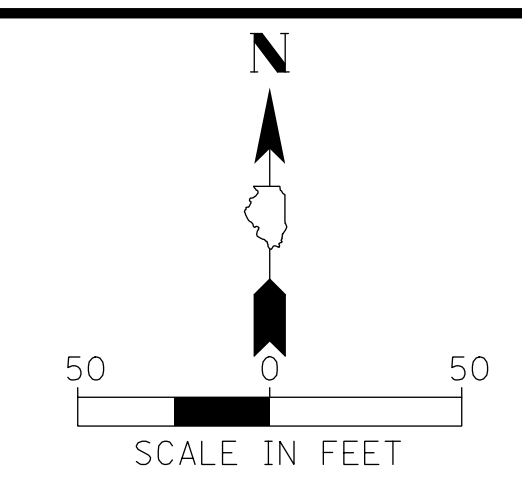


CP-8



CP-7

ELEVATION BENCHMARKS DATUM: NAVD '88 (GPS OBSERVED)		
NO.	DESCRIPTION	ELEV.
OSBM 22-3	NORTH FLANGE BOLT OF HYDRANT AT SE CORNER OF FRANKLIN AV. & HOWARD AV.	665.35
OSBM 22-4	WEST BOLT OF HYDRANT AT NE CORNER OF HOWARD AV. & 53RD ST.	667.58
OSBM 22-5	ARROW BOLT OF HYDRANT AT NE CORNER OF 52ND PL. & HOWARD AV.	673.92



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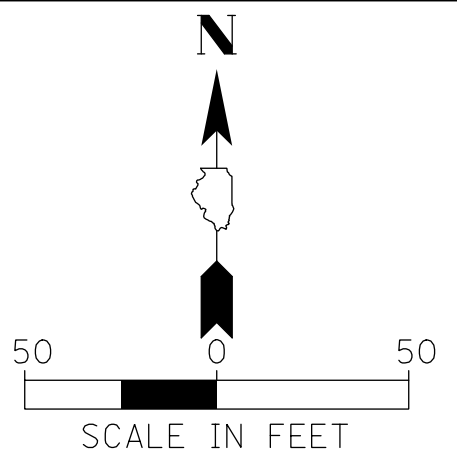
CLIENT:

VILLAGE OF WESTERN SPRINGS
 740 HILLGROVE AVENUE
 WESTERN SPRINGS, IL 60558

NO.	DATE	NATURE OF REVISION	CHKD.	MODEL:

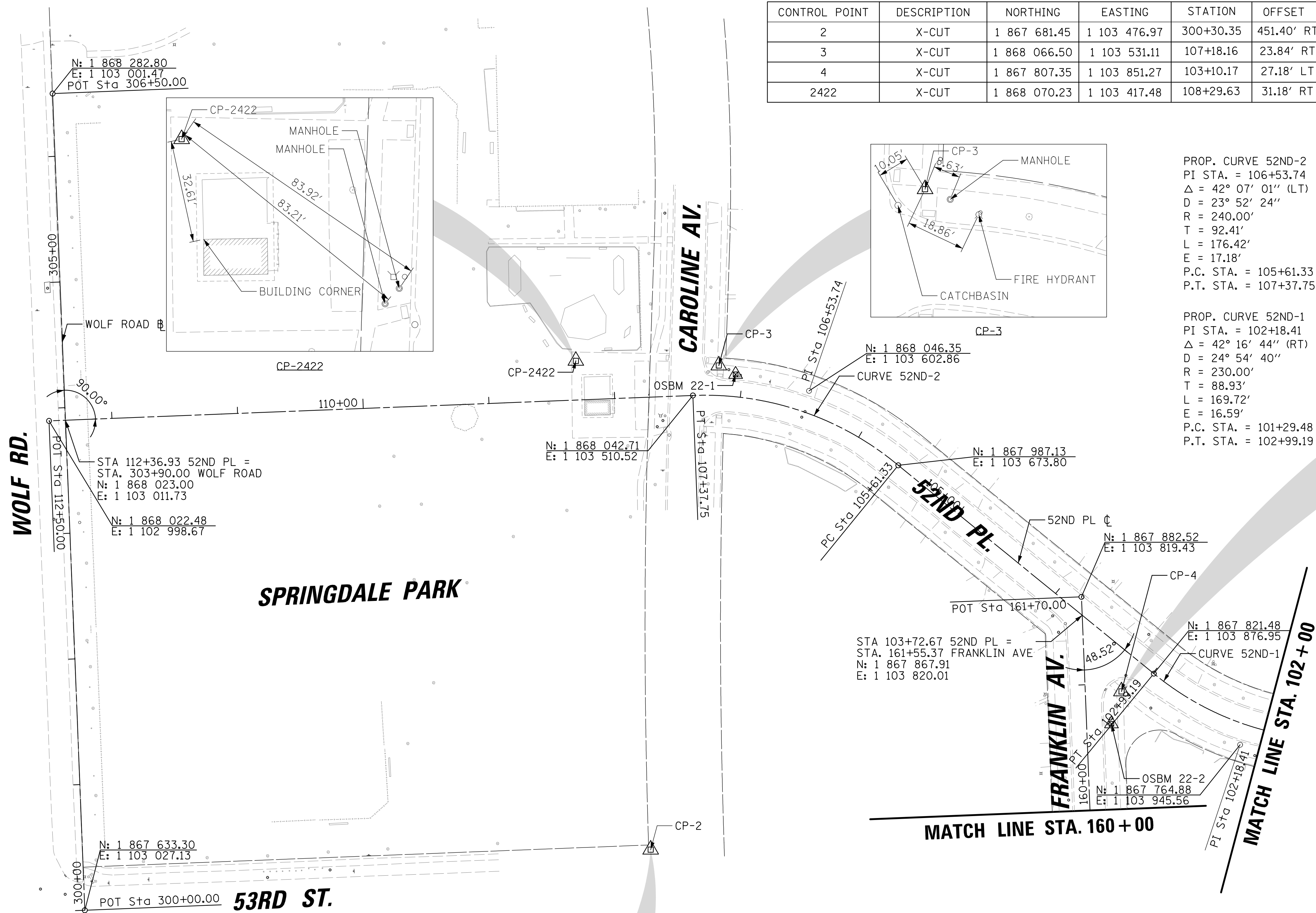
TITLE:
**SPRINGDALE DRAINAGE IMPROVEMENT
 ALIGNMENT, TIES, AND BENCHMARKS**

PROJ. NO. 210513
 DATE: 2/24/2025
 SHEET 7 OF 37
 DRAWING NO.
BMK-1



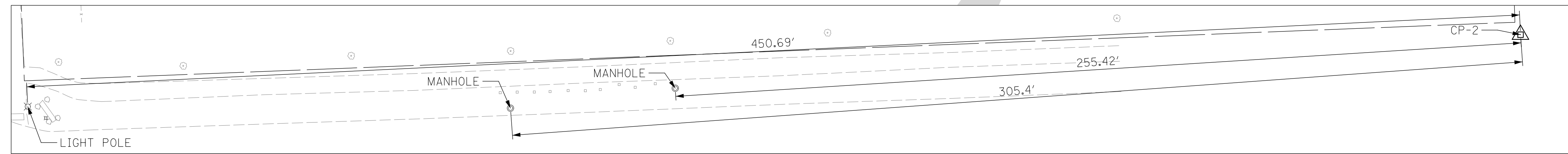
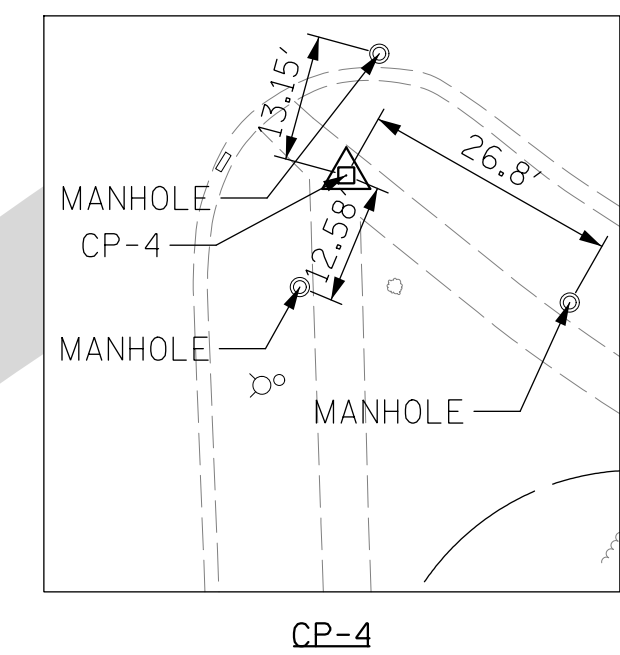
HORIZONTAL CONTROL

CONTROL POINT	DESCRIPTION	NORTHING	EASTING	STATION	OFFSET
2	X-CUT	1 867 681.45	1 103 476.97	300+30.35	451.40' RT
3	X-CUT	1 868 066.50	1 103 531.11	107+18.16	23.84' RT
4	X-CUT	1 867 807.35	1 103 851.27	103+10.17	27.18' LT
2422	X-CUT	1 868 070.23	1 103 417.48	108+29.63	31.18' RT



PROP. CURVE 52ND-2
 PI STA. = 106+53.74
 $\Delta = 42^\circ 07' 01''$ (LT)
 $D = 23^\circ 52' 24''$
 $R = 240.00'$
 $T = 92.41'$
 $L = 176.42'$
 $E = 17.18'$
 P.C. STA. = 105+61.33
 P.T. STA. = 107+37.75

PROP. CURVE 52ND-1
 PI STA. = 102+18.41
 $\Delta = 42^\circ 16' 44''$ (RT)
 $D = 24^\circ 54' 40''$
 $R = 230.00'$
 $T = 88.93'$
 $L = 169.72'$
 $E = 16.59'$
 P.C. STA. = 101+29.48
 P.T. STA. = 102+99.19



ELEVATION BENCHMARKS DATUM: NAVD '88 (GPS OBSERVED)		
NO.	DESCRIPTION	ELEV.
OSBM 22-1	ARROW BOLT OF HYDRANT AT NORTHEAST CORNER OF CAROLINE AV. & 52ND PL.	657.41
OSBM 22-2	SOUTH FLANGE BOLT OF HYDRANT AT SE CORNER OF FRANKLIN AV. & 52ND PL.	666.74

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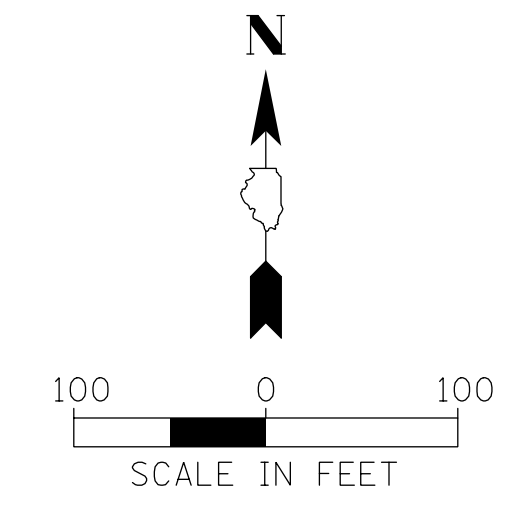
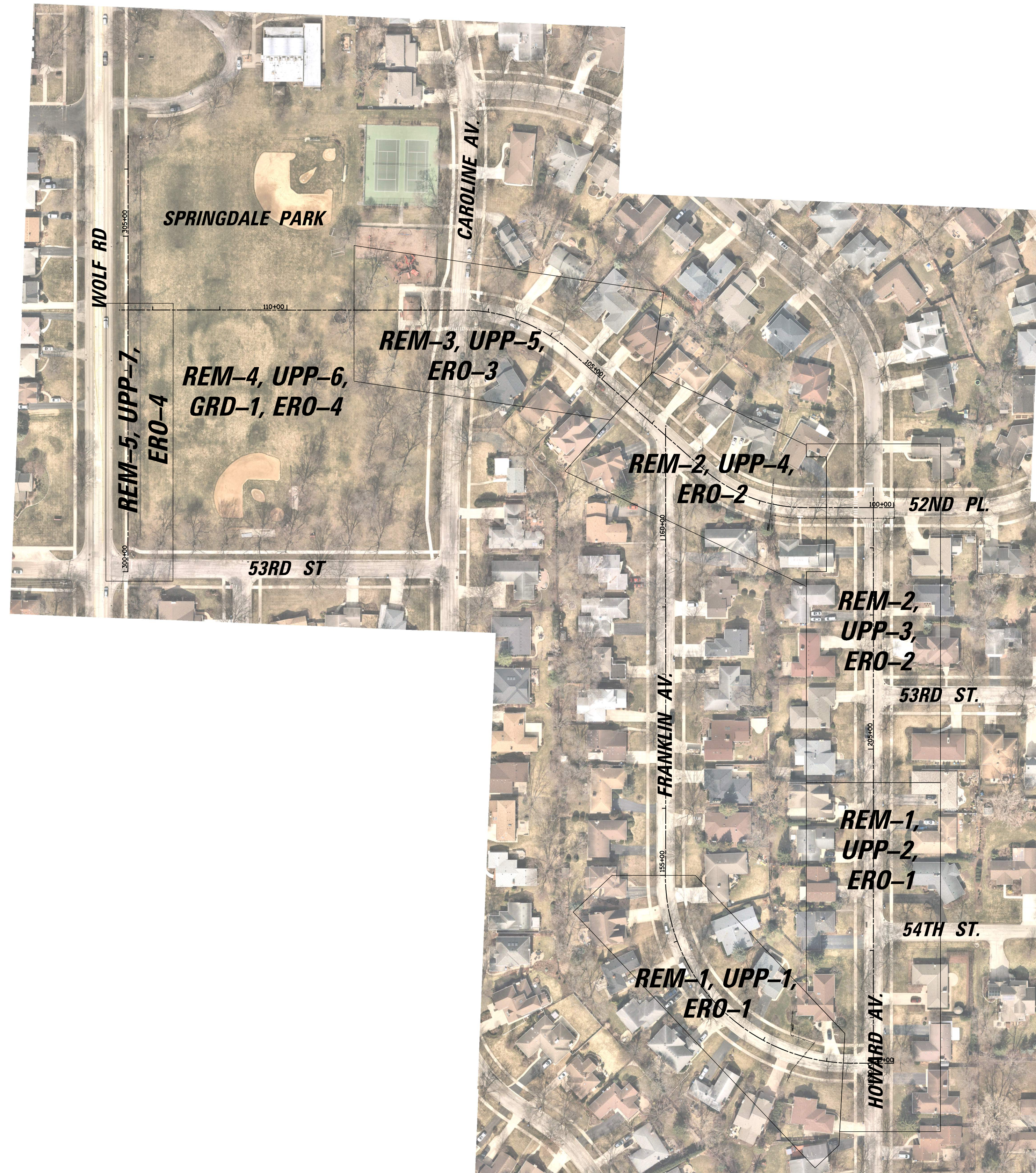
CLIENT:

VILLAGE OF WESTERN SPRINGS
 740 HILLGROVE AVENUE
 WESTERN SPRINGS, IL 60558

NO.	DATE	NATURE OF REVISION	CHKD.	MODEL:

TITLE:
**SPRINGDALE DRAINAGE IMPROVEMENT
 ALIGNMENT, TIES, AND BENCHMARKS**

PROJ. NO. 210513
 DATE: 2/24/2025
 SHEET 8 OF 37
 DRAWING NO.
BMK-2



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 WESTERN SPRINGS, IL 60558

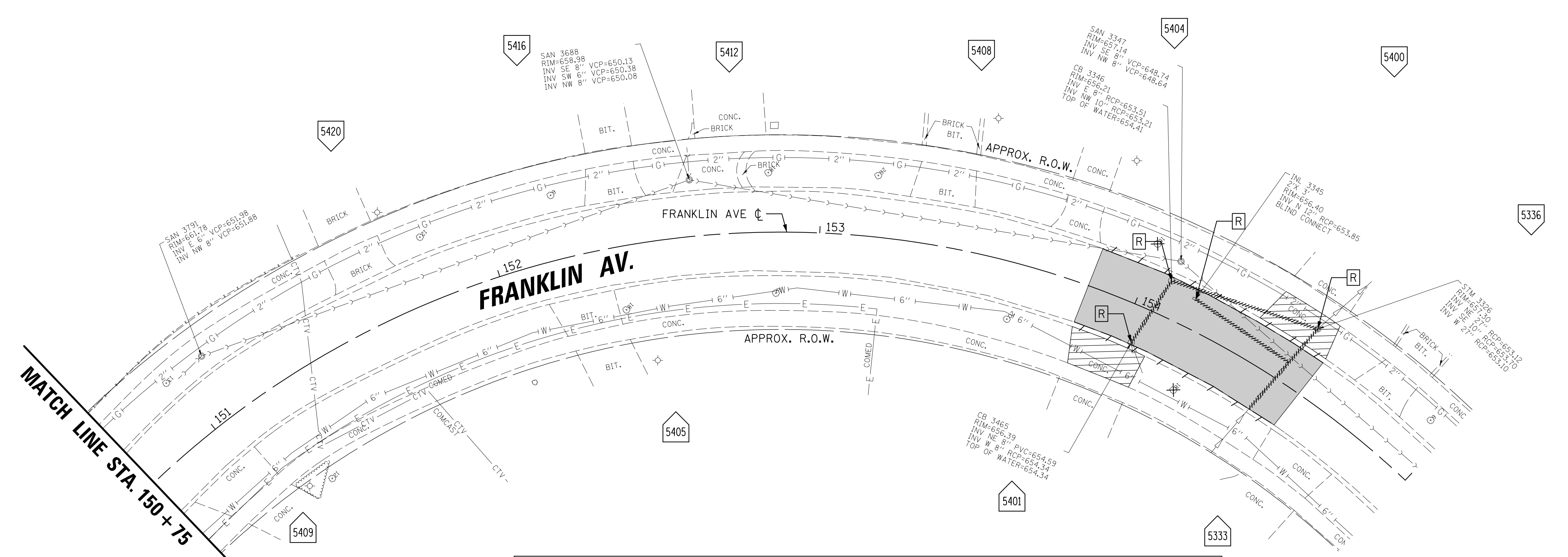
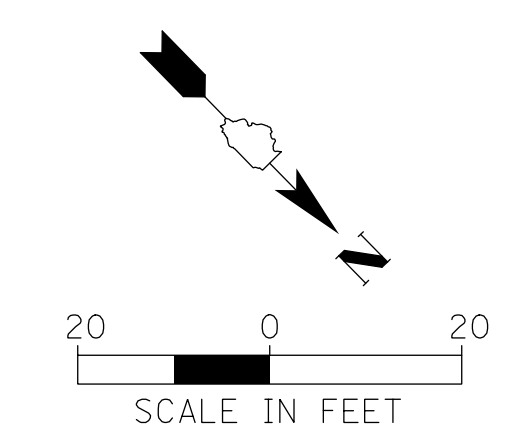
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DWN.	JRS
CHKD.	AJS
SCALE:	100'
PLOT DATE:	2/24/2025
CAD USER:	tcannon
MODEL:	Default

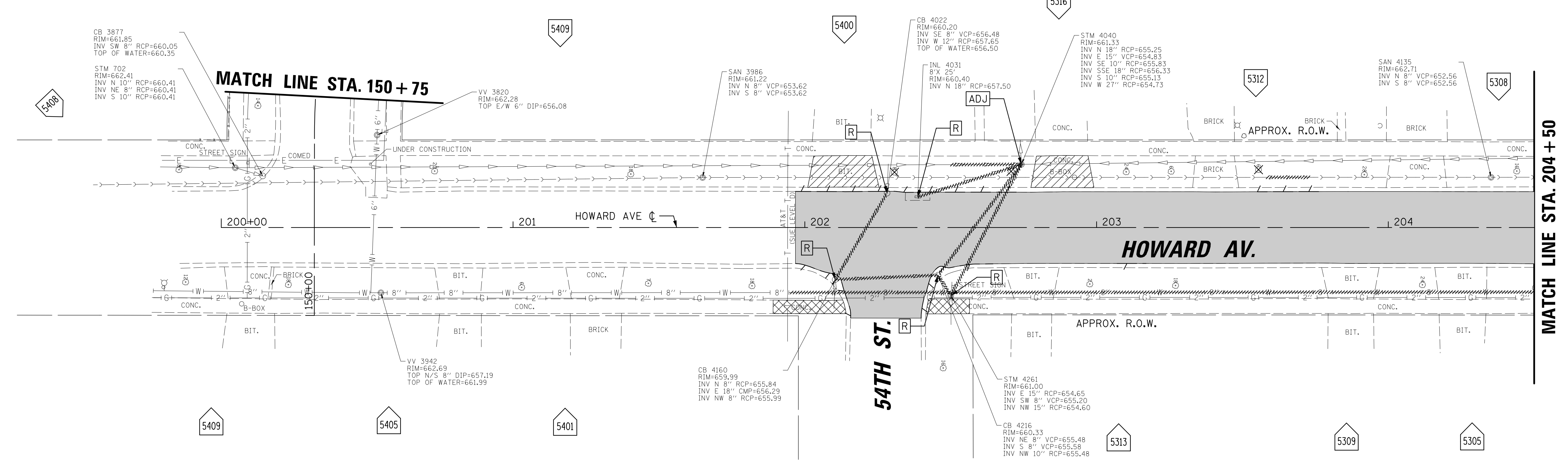
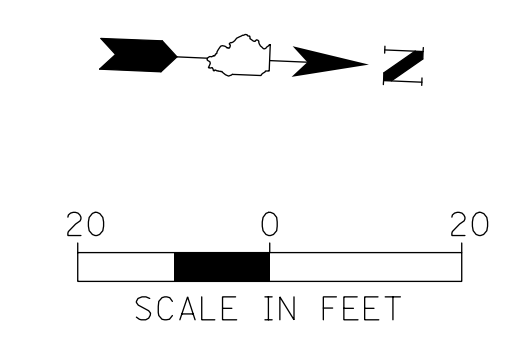
TITLE:

**SPRINGDALE DRAINAGE IMPROVEMENT
 KEYMAP**

PROJ. NO.	210513
DATE:	2/24/2025
SHEET	9 OF 37
DRAWING NO.	KEY-1



LEGEND	
	HOT-MIX ASPHALT SURFACE REMOVAL (FULL DEPTH)
	DRIVEWAY PAVEMENT REMOVAL & REPLACEMENT
	SIDEWALK REMOVAL
	COMBINATION CONCRETE CURB & GUTTER REMOVAL
	BUILDING ADDRESS
	WATER MAIN TO BE ABANDONED OR REMOVED (AS NECESSARY FOR CONSTRUCTION)
	STORM SEWER REMOVAL (AS NECESSARY FOR CONSTRUCTION)
	STRUCTURES TO BE REMOVED
	DRAINAGE & UTILITY STRUCTURES TO BE ADJUSTED
	SANITARY MANHOLES TO BE ADJUSTED
	VALVE VAULTS TO BE ABANDONED
	TREE REMOVAL (SIZE IN INCHES)



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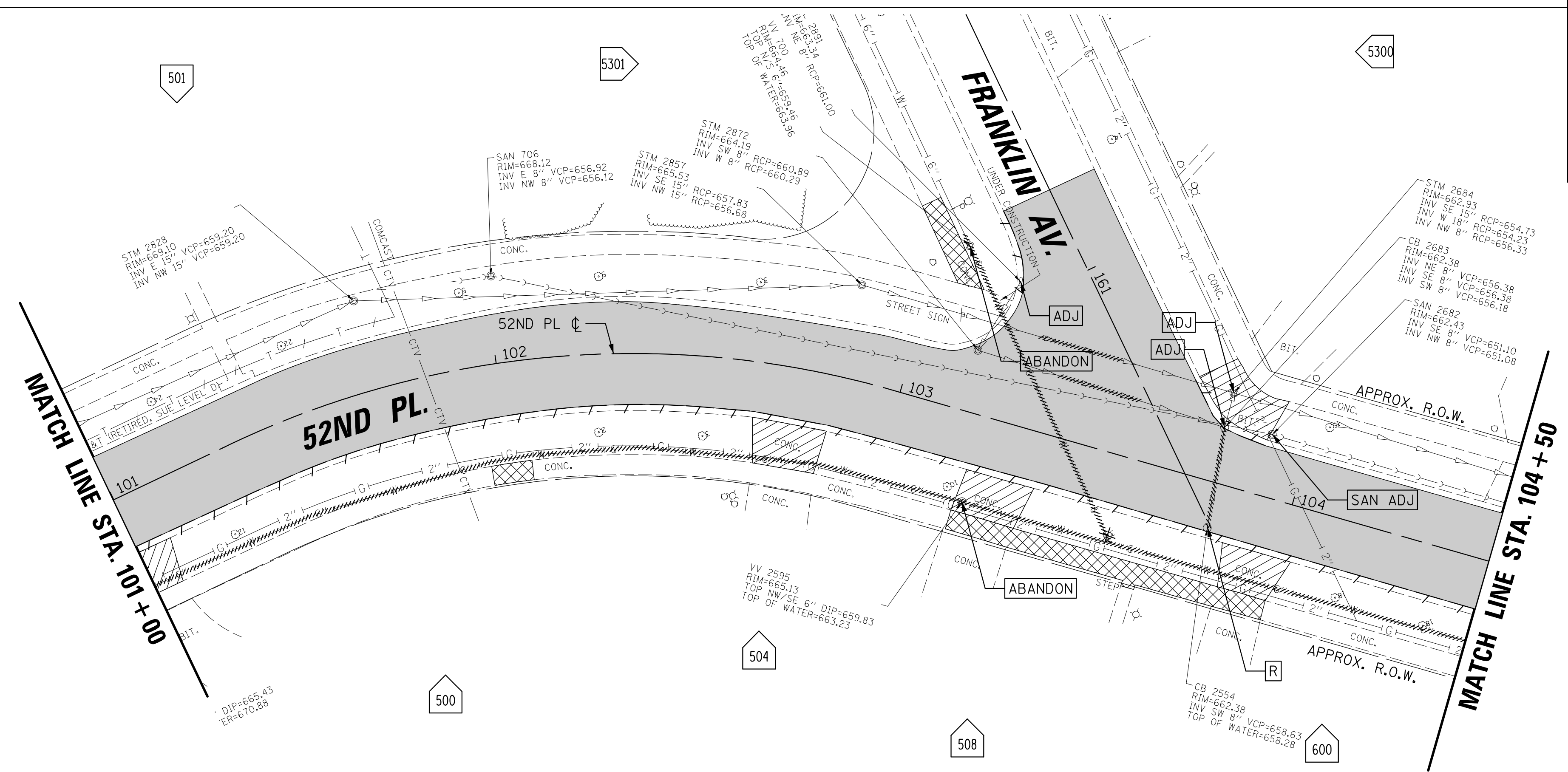
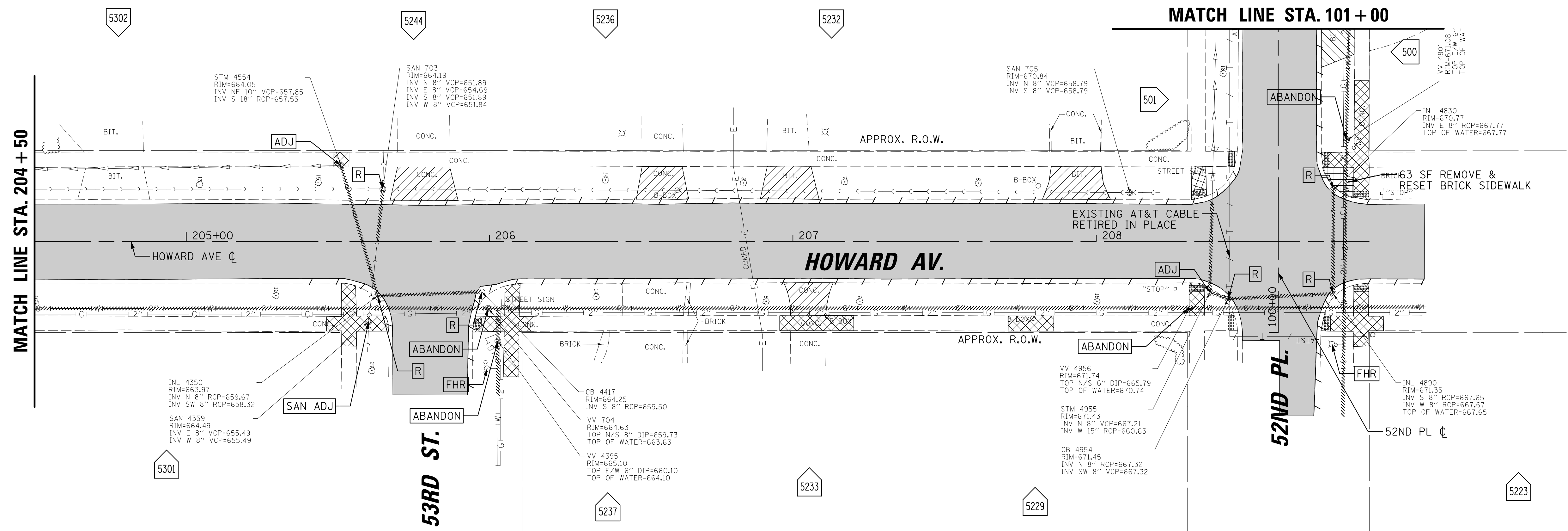
CLIENT:
 VILLAGE OF WESTERN SPRINGS
 740 HILLGROVE AVENUE
 WESTERN SPRINGS, IL 60558

NO.	DATE	NATURE OF REVISION	CHKD.	MODEL:

DSGN.	AJS
DWN.	JRS
CHKD.	AJS
SCALE:	20'
PLOT DATE:	2/24/2025
CAD USER:	Jspeelman
MODEL:	Default

TITLE:
**SPRINGDALE DRAINAGE IMPROVEMENT
 EXIST. CONDITIONS & REMOVAL PLAN
 HOWARD AVENUE**

PROJ. NO. 210513
 DATE: 2/24/2025
 SHEET 10 OF 37
 DRAWING NO.
REM-1



LEGEND

	HOT-MIX ASPHALT SURFACE REMOVAL (FULL DEPTH)		WATER MAIN TO BE ABANDONED OR REMOVED (AS NECESSARY FOR CONSTRUCTION)
	DRIVEWAY PAVEMENT REMOVAL & REPLACEMENT		STORM SEWER REMOVAL (AS NECESSARY FOR CONSTRUCTION)
	SIDEWALK REMOVAL		STRUCTURES TO BE REMOVED
	COMBINATION CONCRETE CURB & GUTTER REMOVAL		DRAINAGE & UTILITY STRUCTURES TO BE ADJUSTED
	BUILDING ADDRESS		SANITARY MANHOLES TO BE ADJUSTED
			VALVE VAULTS TO BE ABANDONED
			TREE REMOVAL (SIZE IN INCHES)

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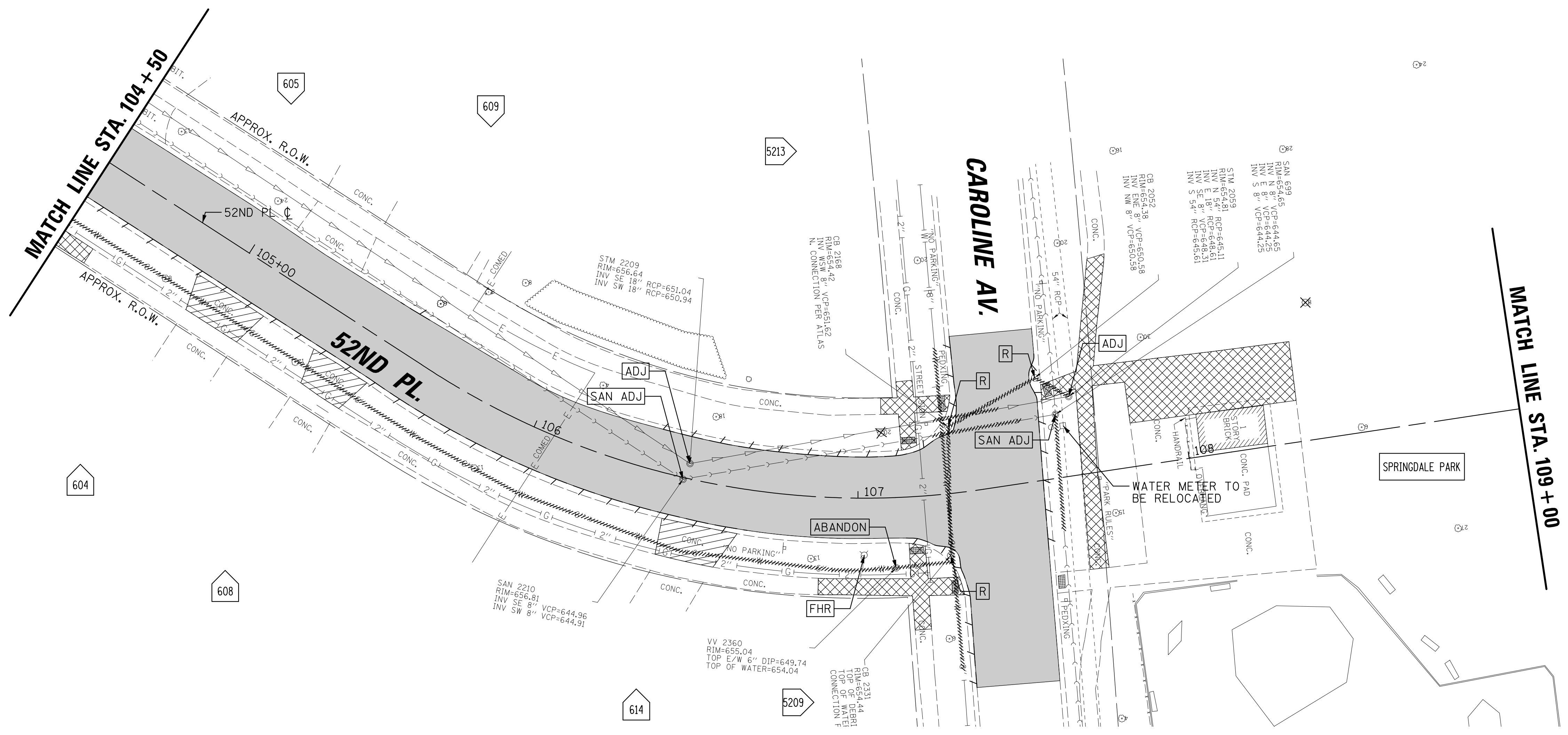
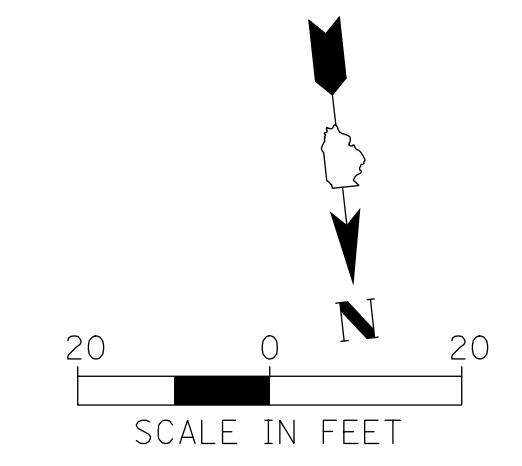
CLIENT:

VILLAGE OF WESTERN SPRINGS
 740 HILLGROVE AVENUE
 WESTERN SPRINGS, IL 60558

NO.	DATE	NATURE OF REVISION	CHKD.	MODEL:
				Default

TITLE:
**SPRINGDALE DRAINAGE IMPROVEMENT
 EXIST. CONDITIONS & REMOVAL PLAN
 HOWARD AVENUE**

PROJ. NO. 210513
 DATE: 2/24/2025
 SHEET 11 OF 37
 DRAWING NO.
REM-2



LEGEND	
[Symbol: Solid Grey]	HOT-MIX ASPHALT SURFACE REMOVAL (FULL DEPTH)
[Symbol: Diagonal Lines]	DRIVEWAY PAVEMENT REMOVAL & REPLACEMENT
[Symbol: Cross-hatch]	SIDEWALK REMOVAL
[Symbol: Dashed Line]	COMBINATION CONCRETE CURB & GUTTER REMOVAL
[Symbol: House with Number]	BUILDING ADDRESS
[Symbol: Wavy Line]	WATER MAIN TO BE ABANDONED OR REMOVED (AS NECESSARY FOR CONSTRUCTION)
[Symbol: Wavy Line]	STORM SEWER REMOVAL (AS NECESSARY FOR CONSTRUCTION)
[Symbol: Square with R]	STRUCTURES TO BE REMOVED
[Symbol: Square with ADJ]	DRAINAGE & UTILITY STRUCTURES TO BE ADJUSTED
[Symbol: Square with SAN ADJ]	SANITARY MANHOLES TO BE ADJUSTED
[Symbol: Square with ABANDON]	VALVE VAULTS TO BE ABANDONED
[Symbol: Circle with Tree]	TREE REMOVAL (SIZE IN INCHES)

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 WESTERN SPRINGS, IL 60558

NO.	DATE	NATURE OF REVISION	CHKD.	MODEL:

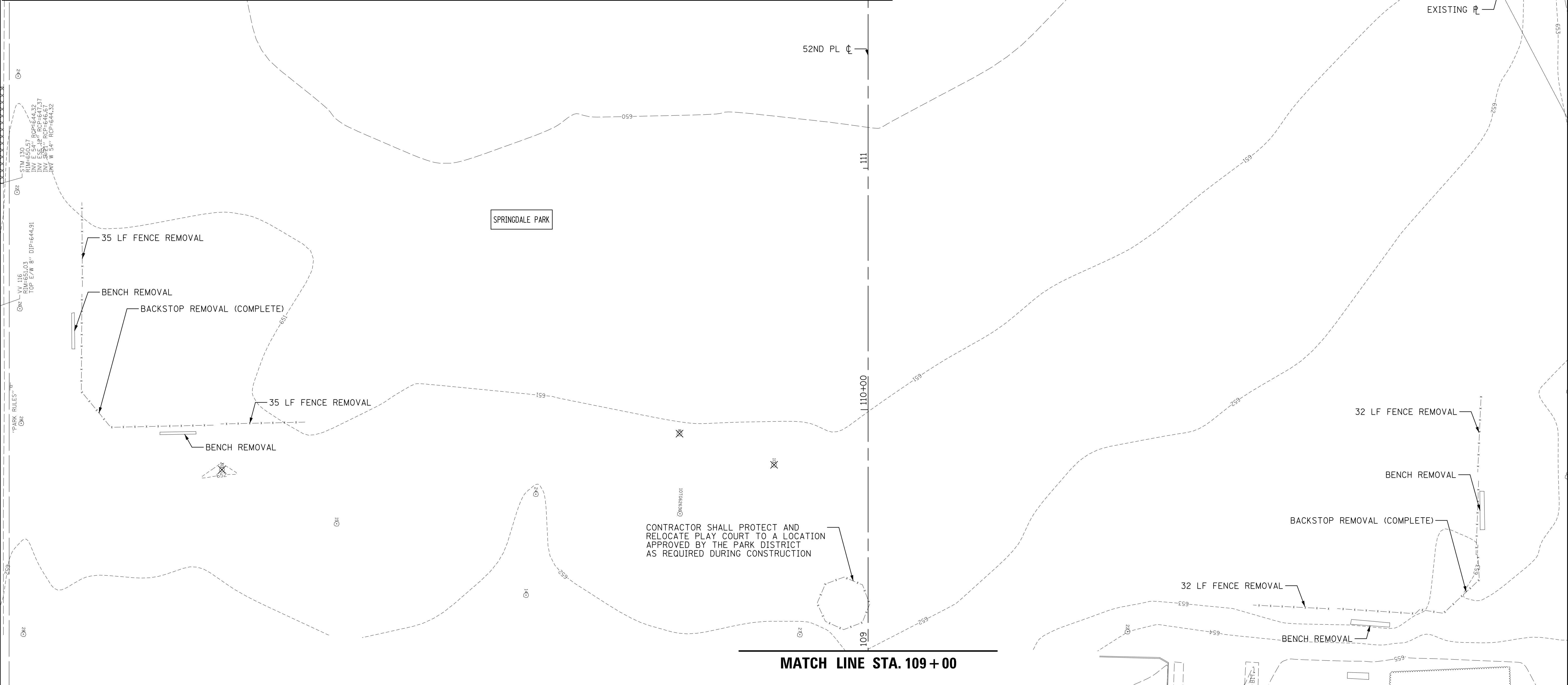
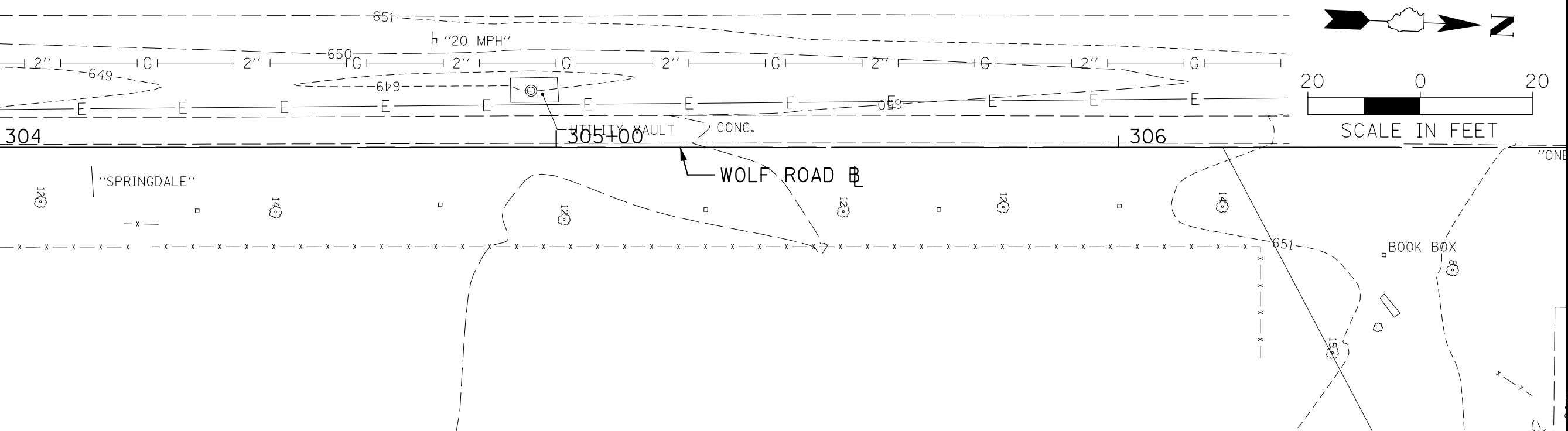
TITLE:
SPRINGDALE DRAINAGE IMPROVEMENT
EXIST. CONDITIONS & REMOVAL PLAN
HOWARD AVENUE

PROJ. NO. 210513
 DATE: 2/24/2025
 SHEET 12 OF 37
 DRAWING NO.
REM-3

LEGEND	
	HOT-MIX ASPHALT SURFACE REMOVAL (FULL DEPTH)
	DRIVEWAY PAVEMENT REMOVAL & REPLACEMENT
	SIDEWALK REMOVAL
	COMBINATION CONCRETE CURB & GUTTER REMOVAL
	BUILDING ADDRESS
	WATER MAIN TO BE ABANDONED OR REMOVED (AS NECESSARY FOR CONSTRUCTION)
	STORM SEWER REMOVAL (AS NECESSARY FOR CONSTRUCTION)
	STRUCTURES TO BE REMOVED
	DRAINAGE & UTILITY STRUCTURES TO BE ADJUSTED
	SANITARY MANHOLES TO BE ADJUSTED
	VALVE VAULTS TO BE ABANDONED
	TREE REMOVAL (SIZE IN INCHES)

SEE SHEET REM-5

MATCH LINE STA. 304 + 00



MATCH LINE STA. 109 + 00

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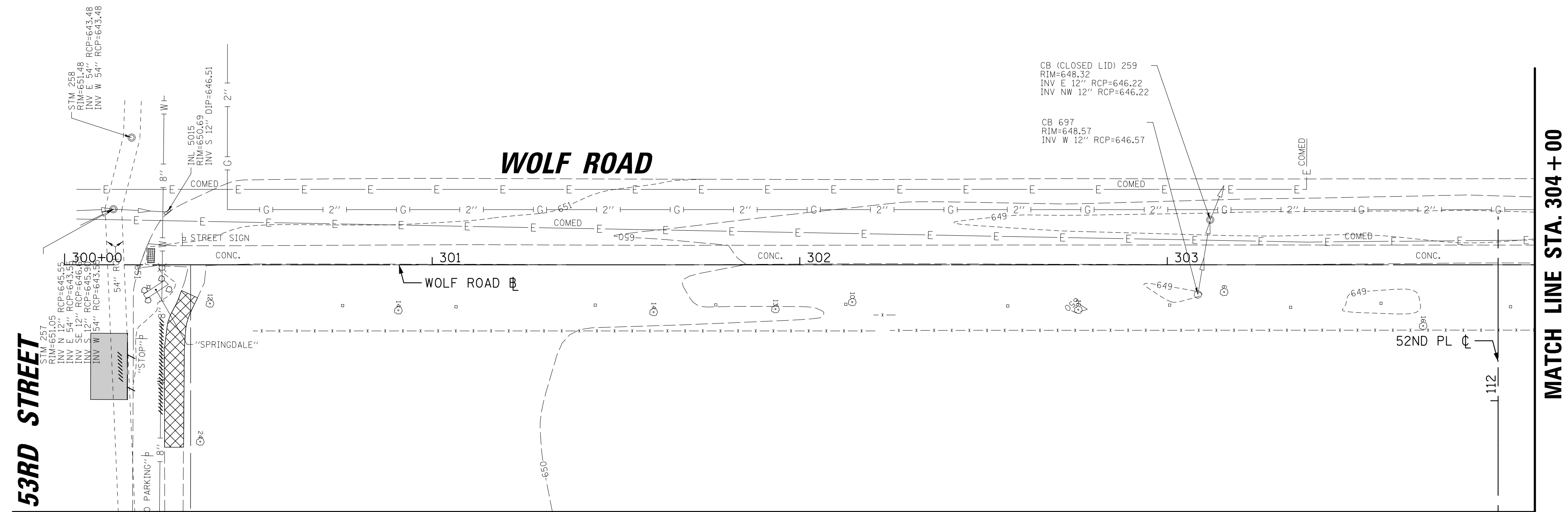
CLIENT:

VILLAGE OF WESTERN SPRINGS
 740 HILLGROVE AVENUE
 WESTERN SPRINGS, IL 60558

NO.	DATE	NATURE OF REVISION	CHKD.	MODEL:

TITLE:
**SPRINGDALE DRAINAGE IMPROVEMENT
 EXIST. CONDITIONS & REMOVAL PLAN
 SPRINGDALE PARK**

PROJ. NO. 210513
 DATE: 2/24/2025
 SHEET 13 OF 37
 DRAWING NO.
REM-4



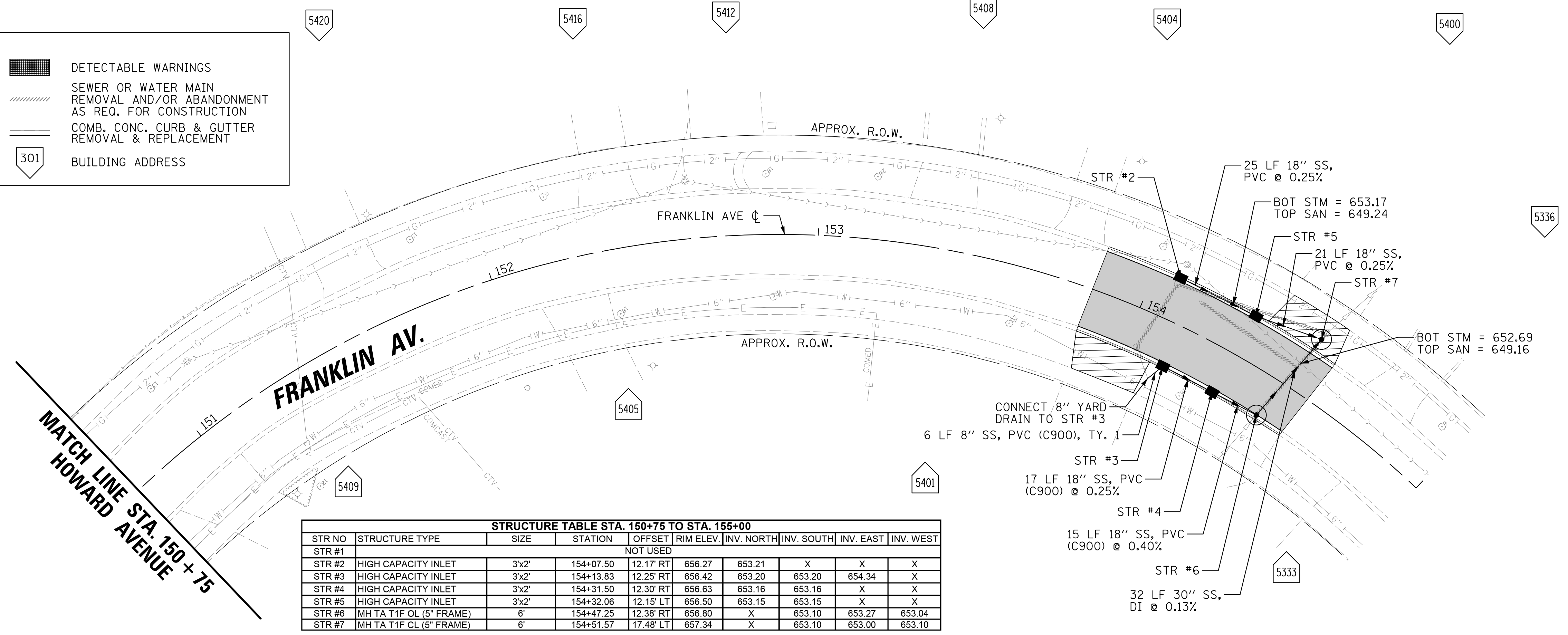
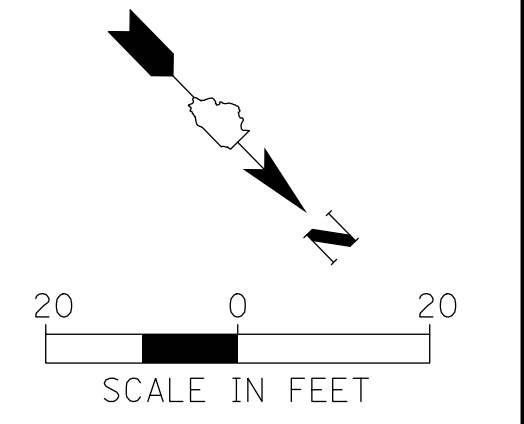
SEE SHEET REM-4

LEGEND			
	HOT-MIX ASPHALT SURFACE REMOVAL (FULL DEPTH)		WATER MAIN TO BE ABANDONED OR REMOVED (AS NECESSARY FOR CONSTRUCTION)
	DRIVEWAY PAVEMENT REMOVAL & REPLACEMENT		STORM SEWER REMOVAL (AS NECESSARY FOR CONSTRUCTION)
	SIDEWALK REMOVAL		STRUCTURES TO BE REMOVED
	COMBINATION CONCRETE CURB & GUTTER REMOVAL		DRAINAGE & UTILITY STRUCTURES TO BE ADJUSTED
	BUILDING ADDRESS		SANITARY MANHOLES TO BE ADJUSTED
			VALVE VAULTS TO BE ABANDONED
			TREE REMOVAL (SIZE IN INCHES)

NO.	DATE	NATURE OF REVISION	CHKD.	MODEL:
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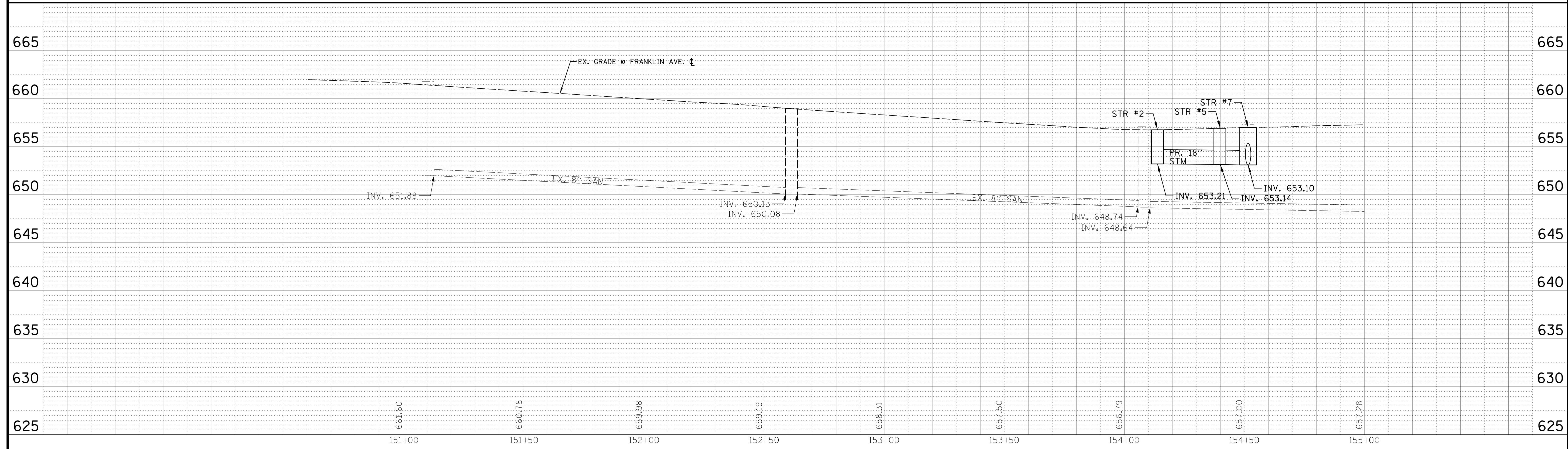
LEGEND

- PROPOSED HMA PAVEMENT (SEE TYPICAL SECTIONS)
- HMA DRIVEWAY REMOVAL & REPLACEMENT
- PCC DRIVEWAY REMOVAL & REPLACEMENT
- PCC SIDEWALK, 5 INCH
- DETECTABLE WARNINGS
- SEWER OR WATER MAIN REMOVAL AND/OR ABANDONMENT AS REQ. FOR CONSTRUCTION
- COMB. CONC. CURB & GUTTER REMOVAL & REPLACEMENT
- BUILDING ADDRESS



STRUCTURE TABLE STA. 150+75 TO STA. 155+00

STR NO	STRUCTURE TYPE	SIZE	STATION	OFFSET	RIM ELEV.	INV. NORTH	INV. SOUTH	INV. EAST	INV. WEST
STR #1				NOT USED					
STR #2	HIGH CAPACITY INLET	3'x2'	154+07.50	12.17' RT	656.27	653.21	X	X	X
STR #3	HIGH CAPACITY INLET	3'x2'	154+13.83	12.25' RT	656.42	653.20	653.20	654.34	X
STR #4	HIGH CAPACITY INLET	3'x2'	154+31.50	12.30' RT	656.63	653.16	653.16	X	X
STR #5	HIGH CAPACITY INLET	3'x2'	154+32.06	12.15' LT	656.50	653.15	653.15	X	X
STR #6	MH TA T1F OL (5' FRAME)	6'	154+47.25	12.38' RT	656.80	X	653.10	653.27	653.04
STR #7	MH TA T1F CL (5' FRAME)	6'	154+51.57	17.48' LT	657.34	X	653.10	653.00	653.10



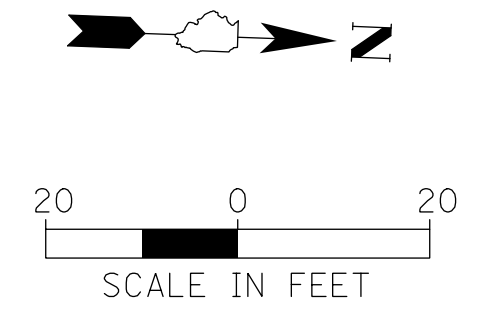
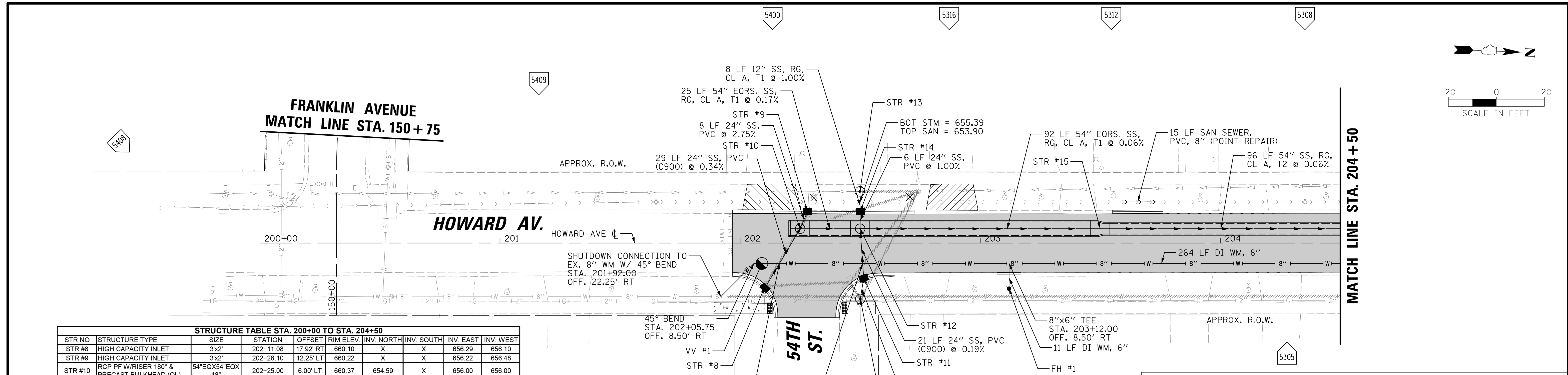
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 WESTERN SPRINGS, IL 60558

NO.	DATE	NATURE OF REVISION	CHKD.	MODEL:
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TITLE:
**SPRINGDALE DRAINAGE IMPROVEMENT
 UTILITY PLAN AND PROFILE
 FRANKLIN AVENUE**

PROJ. NO. 210513
 DATE: 2/24/2025
 SHEET 15 OF 37
 DRAWING NO.
UPP-1

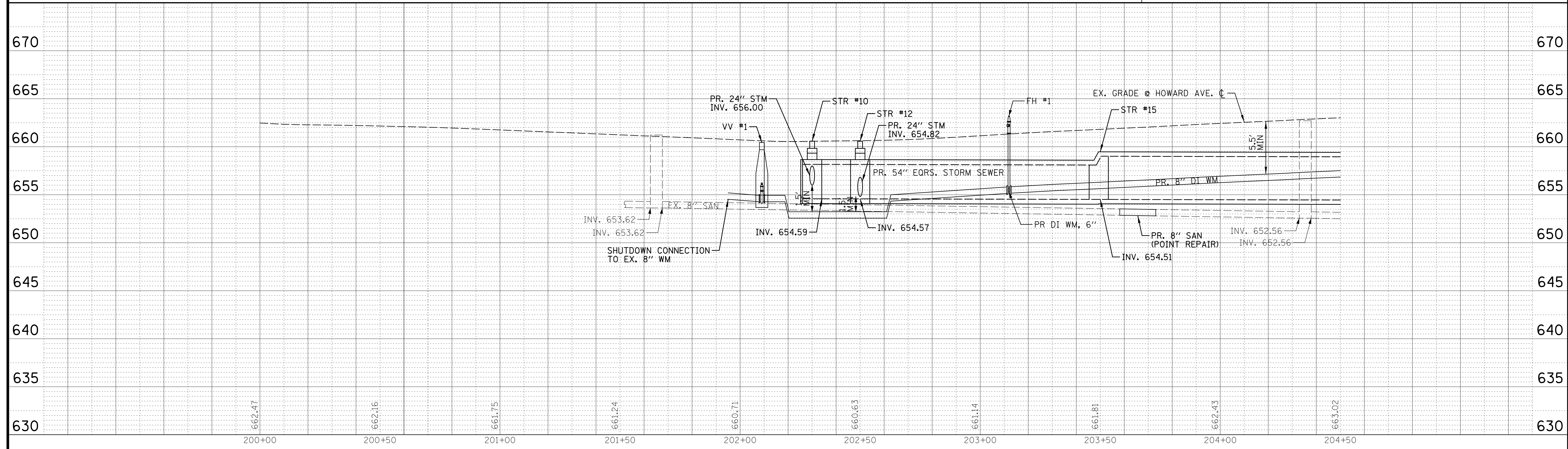


STRUCTURE TABLE STA. 200+00 TO STA. 204+50

STR NO	STRUCTURE TYPE	SIZE	STATION	OFFSET	RIM ELEV.	INV. NORTH	INV. SOUTH	INV. EAST	INV. WEST
STR #8	HIGH CAPACITY INLET	3x2'	202+11.08	17.92' RT	660.10	X	X	656.29	656.10
STR #9	HIGH CAPACITY INLET	3x2'	202+28.10	12.25' LT	660.22	X	X	656.22	656.48
STR #10	RCP PF W/RISER 180° & PRECAST BULKHEAD (OL)	54"EQX54"EQX 48"	202+25.00	6.00' LT	660.37	654.59	X	656.00	656.00
STR #12	HIGH CAPACITY INLET	3x2'	202+51.23	13.70' RT	660.41	X	X	654.65	654.86
STR #11A	MH TA T1F CL	4'	202+50.00	23.25' RT	661.00	X	X	654.65 (EX)	654.65
STR #12	RCP PF W/RISER 180° (OL)	54"EQX54"EQX 48"	202+50.00	6.00' LT	660.57	654.57	654.57	654.82	655.48
STR #13	MH TA T1F CL	4'	202+50.00	21.56' LT	661.23	X	655.60 (EX)	655.60	X
STR #14	HIGH CAPACITY INLET	3x2'	202+50.00	12.18' LT	660.40	X	X	655.54	655.54
STR #15	RCP PIPE TRANSITION	54"EQX54"	203+50.00	6.00' LT	X	654.51	654.51	X	X
VV #1	VV, TA, T1F CL	5'	202+09.00	8.50' RT	660.38				
FH #1	FH W/ AUX VALVE	N/A	203+12.00	19.00' RT	N/A				

LEGEND

- PROPOSED HMA PAVEMENT (SEE TYPICAL SECTIONS)
- HMA DRIVEWAY REMOVAL & REPLACEMENT
- PCC DRIVEWAY REMOVAL & REPLACEMENT
- PCC SIDEWALK, 5 INCH
- DETECTABLE WARNINGS
- SEWER OR WATER MAIN REMOVAL AND/OR ABANDONMENT AS REQ. FOR CONSTRUCTION
- COMB. CONC. CURB & GUTTER REMOVAL & REPLACEMENT
- BUILDING ADDRESS



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CLIENT:
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 740 HILLGROVE AVENUE
 WESTERN SPRINGS, IL 60558

NO.	DATE	NATURE OF REVISION	CHKD.	MODEL

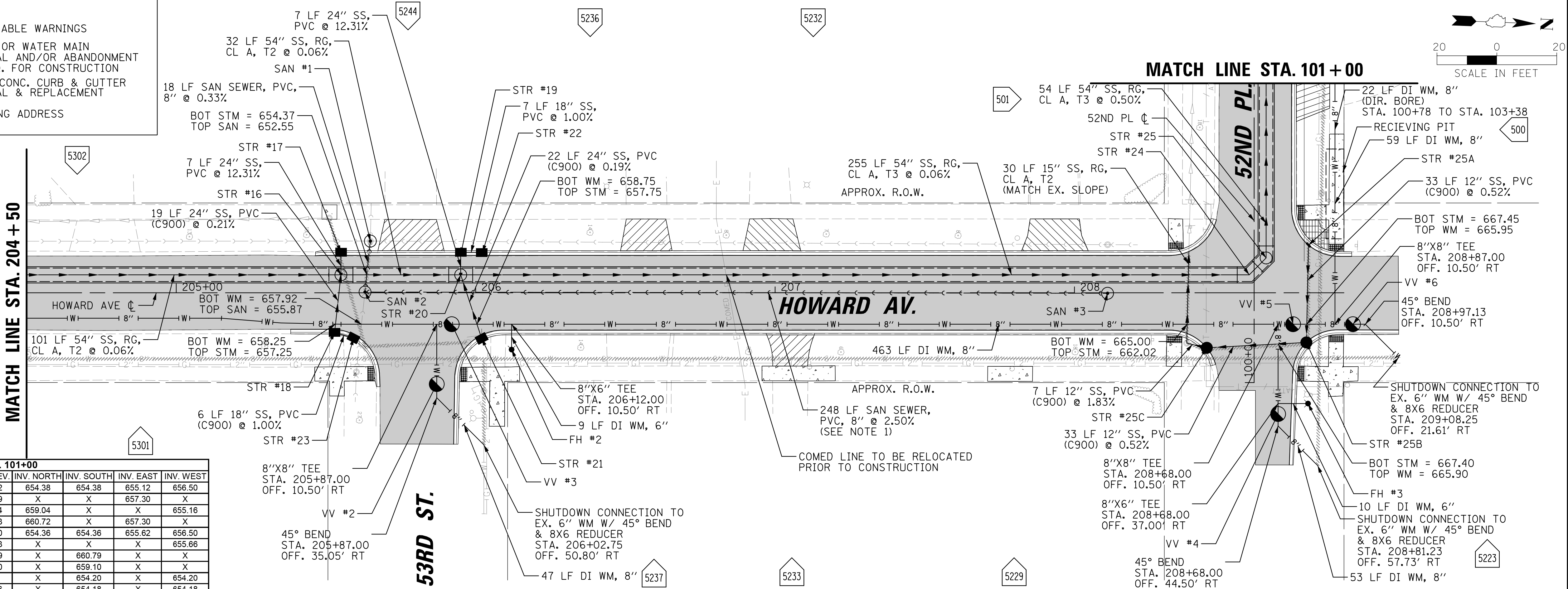
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TITLE:
**SPRINGDALE DRAINAGE IMPROVEMENT
 UTILITY PLAN AND PROFILE
 HOWARD AVENUE**

PROJ. NO. 210513
 DATE: 2/24/2025
 SHEET 16 OF 37
 DRAWING NO.
UPP-2

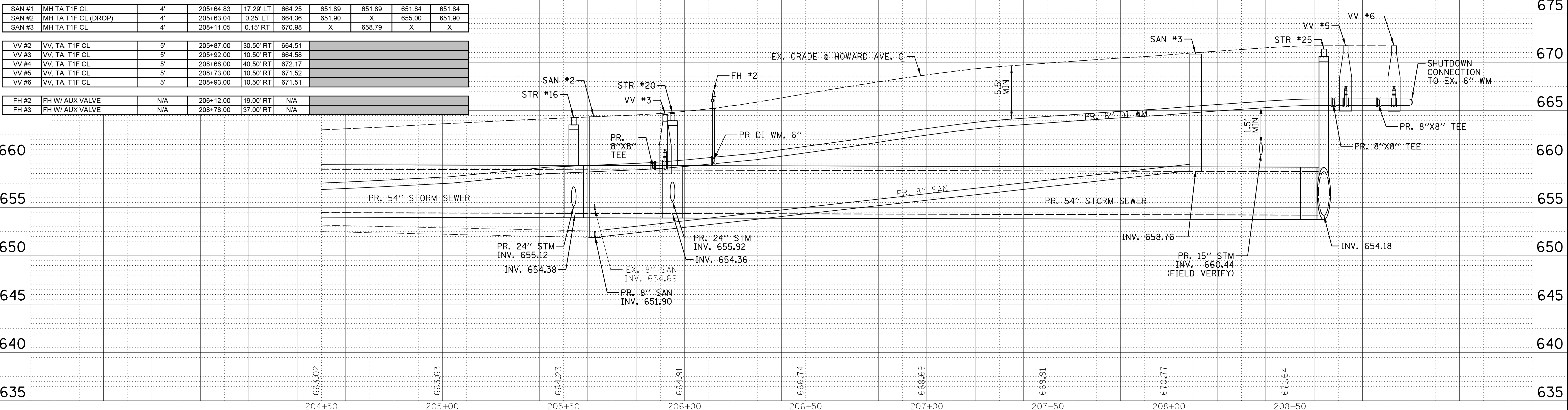
LEGEND	
	PROPOSED HMA PAVEMENT (SEE TYPICAL SECTIONS)
	HMA DRIVEWAY REMOVAL & REPLACEMENT
	PCC DRIVEWAY REMOVAL & REPLACEMENT
	PCC SIDEWALK, 5 INCH
	DETECTABLE WARNINGS
	SEWER OR WATER MAIN REMOVAL AND/OR ABANDONMENT AS REQ. FOR CONSTRUCTION
	COMB. CONC. CURB & GUTTER REMOVAL & REPLACEMENT
	BUILDING ADDRESS

NOTES:
 1. PRIOR TO CONSTRUCTION OF THE PROPOSED SANITARY SEWER BETWEEN SAN #2 AND SAN #3, THE CONTRACTOR SHALL FIELD VERIFY THE DEPTH OF THE EXISTING SANITARY SERVICES FOR 5237, 5233 AND 5229 HOWARD AVENUE TO DETERMINE IF A CONFLICT EXISTS BETWEEN THE PROPOSED STORM SEWER AND EXISTING SERVICES. IF THE PROPOSED STORM SEWER IS NOT IN CONFLICT WITH THE EXISTING SANITARY SERVICES, OR THE SERVICES CAN BE ADJUSTED TO AVOID CONFLICT, THE PROPOSED PARALLEL SANITARY SEWER SHALL NOT BE INSTALLED AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED. THIS WORK SHALL BE COMPLETED AS DIRECTED BY THE ENGINEER AND THE COST TO INVESTIGATE THE EXISTING SANITARY SERVICES SHALL BE INCLUDED IN THE COST OF THE PROPOSED STORM SEWER.



STRUCTURE TABLE STA. 204+50 TO STA. 101+00									
STR NO	STRUCTURE TYPE	SIZE	STATION	OFFSET	RIM ELEV.	INV. NORTH	INV. SOUTH	INV. EAST	INV. WEST
STR #16	RCP PF W/RISER 180" (CL)	54"x54"x48"	205+55.00	6.00' LT	664.12	654.38	654.38	655.12	656.50
STR #17	HIGH CAPACITY INLET	3x2'	205+55.00	12.50' LT	663.99	X	X	657.30	X
STR #18	HIGH CAPACITY INLET	3x2'	205+52.90	12.20' RT	664.04	659.04	X	X	655.16
STR #19	HIGH CAPACITY INLET	3x2'	205+95.00	12.50' LT	664.63	660.72	X	657.30	X
STR #20	RCP PF W/RISER 180" (CL)	54"x54"x48"	205+95.00	6.00' LT	664.70	654.36	654.36	655.62	656.50
STR #21	HIGH CAPACITY INLET	3x2'	206+01.70	14.28' RT	664.43	X	X	655.66	X
STR #22	HIGH CAPACITY INLET	3x2'	206+02.00	12.50' LT	664.79	X	660.79	X	X
STR #23	HIGH CAPACITY INLET	3x2'	205+59.56	14.10' RT	664.10	X	659.10	X	X
STR #24	RCP PF 45" (NO RISER)	54"x54"	208+58.34	6.00' LT	X	X	654.20	X	654.20
STR #25	RCP PF W/RISER 45" (CL)	54"x54"x48"	208+64.00	11.66' LT	671.36	X	654.18	X	654.18
STR #25A	INL TA T3 F&G	2'	208+78.16	16.00' LT	670.77	X	X	667.77	X
STR #25B	CB TA T3 F&G	4'	208+77.50	16.60' RT	671.35	X	667.60	X	667.60
STR #25C	CB TA T3 F&G	4'	208+44.18	18.38' RT	671.45	667.43	667.43	X	X

SAN #1	MH TA T1F CL	4'	205+64.83	17.29' LT	664.25	651.89	651.89	651.84	651.84
SAN #2	MH TA T1F CL (DROP)	4'	205+63.04	0.25' LT	664.36	651.90	X	655.00	651.90
SAN #3	MH TA T1F CL	4'	208+11.05	0.15' RT	670.98	X	658.79	X	X
VV #2	VV, TA, T1F CL	5'	205+87.00	30.50' RT	664.51				
VV #3	VV, TA, T1F CL	5'	205+92.00	10.50' RT	664.58				
VV #4	VV, TA, T1F CL	5'	208+68.00	40.50' RT	672.17				
VV #5	VV, TA, T1F CL	5'	208+73.00	10.50' RT	671.52				
VV #6	VV, TA, T1F CL	5'	208+93.00	10.50' RT	671.51				
FH #2	FH W/ AUX VALVE	N/A	206+12.00	19.00' RT	N/A				
FH #3	FH W/ AUX VALVE	N/A	208+78.00	37.00' RT	N/A				



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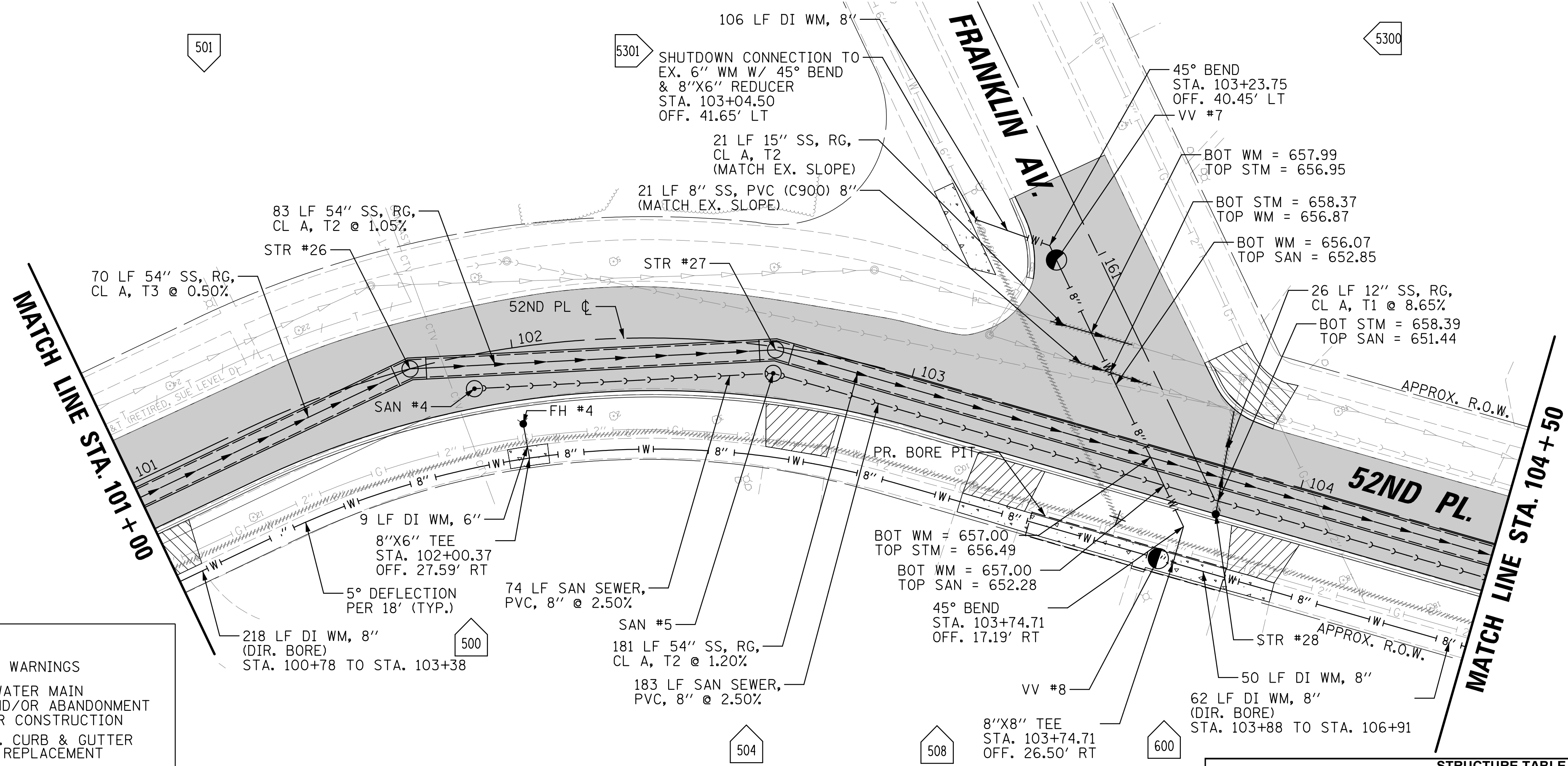
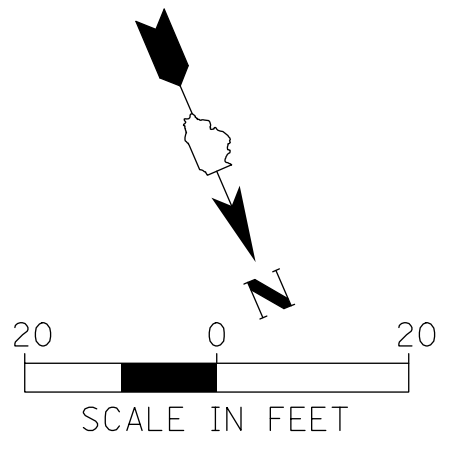
CLIENT:

VILLAGE OF WESTERN SPRINGS
 740 HILLGROVE AVENUE
 WESTERN SPRINGS, IL 60558

NO.	DATE	NATURE OF REVISION	CHKD.

TITLE:
**SPRINGDALE DRAINAGE IMPROVEMENT
 UTILITY PLAN AND PROFILE
 HOWARD AVENUE & 52ND PLACE**

PROJ. NO. 210513
 DATE: 2/24/2025
 SHEET 17 OF 37
 DRAWING NO.
UPP-3

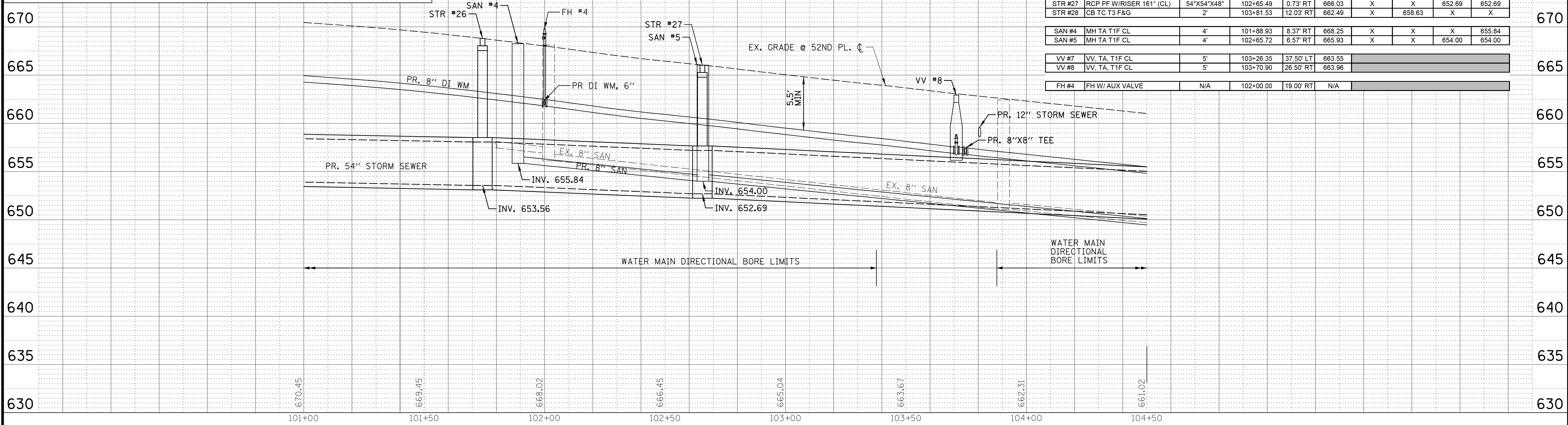


LEGEND

	PROPOSED HMA PAVEMENT (SEE TYPICAL SECTIONS)		DETECTABLE WARNINGS
	HMA DRIVEWAY REMOVAL & REPLACEMENT		SEWER OR WATER MAIN REMOVAL AND/OR ABANDONMENT AS REQ. FOR CONSTRUCTION
	PCC DRIVEWAY REMOVAL & REPLACEMENT		COMB. CONC. CURB & GUTTER REMOVAL & REPLACEMENT
	PCC SIDEWALK, 5 INCH		BUILDING ADDRESS

STRUCTURE TABLE STA. 101+00 TO STA. 104+50

STR NO	STRUCTURE TYPE	SIZE	STATION	OFFSET	RIM ELEV.	INV. NORTH	INV. SOUTH	INV. EAST	INV. WEST
STR #26	RCP PF W/ RISER 157.5" (CL)	54"X54"X48"	101+74.23	0.03' RT	668.79	X	X	653.56	653.56
STR #27	RCP PF W/ RISER 161" (CL)	54"X54"X48"	102+65.49	0.73' RT	666.03	X	X	652.69	652.69
STR #28	CB TC T3 F&G	2'	103+81.53	12.03' RT	662.49	X	658.63	X	X
SAN #4	IMH TA T1F CL	4'	101+88.93	8.37' RT	668.25	X	X	X	655.84
SAN #5	IMH TA T1F CL	4'	102+65.72	6.57' RT	665.93	X	X	654.00	654.00
VV #7	VV, TA, T1F CL	5'	103+26.35	37.50' LT	663.55				
VV #8	VV, TA, T1F CL	5'	103+70.90	26.50' RT	663.96				
FH #4	FH W/ AUX VALVE	N/A	102+00.00	19.00' RT	N/A				



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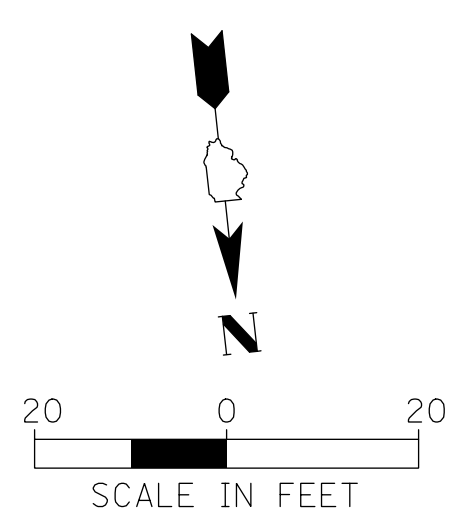
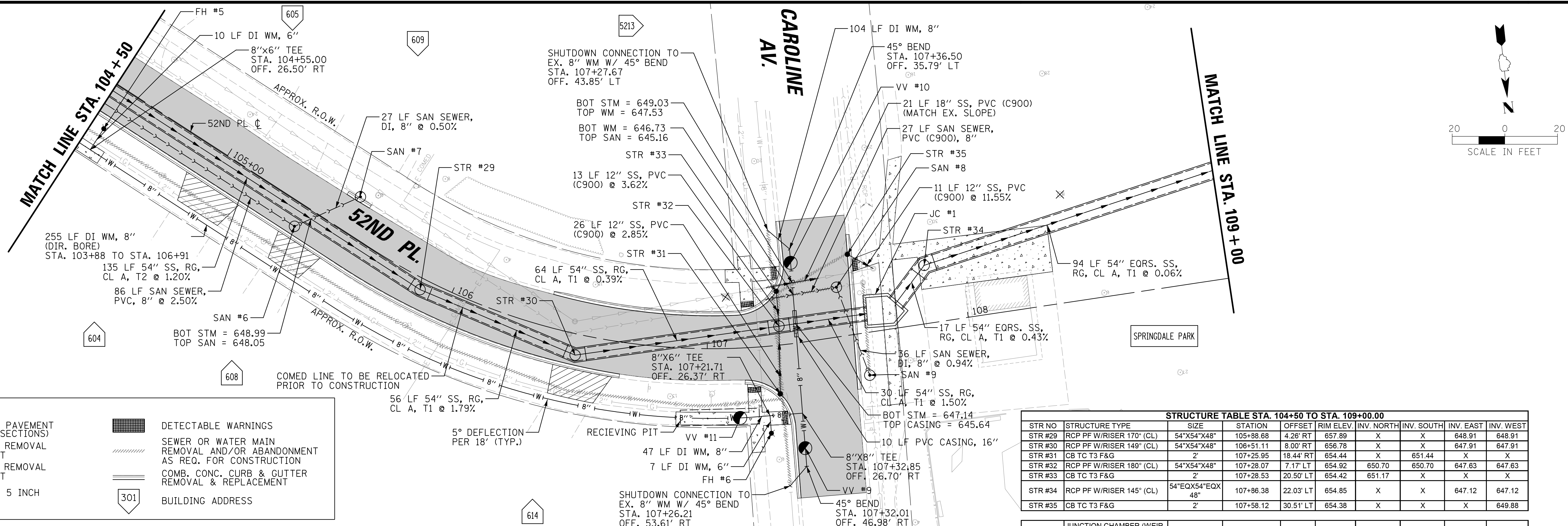
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 740 HILLGROVE AVENUE
 WESTERN SPRINGS, IL 60558

NO.	DATE	NATURE OF REVISION	CHKD.	MODEL:
				Default

TITLE:
**SPRINGDALE DRAINAGE IMPROVEMENT
 UTILITY PLAN AND PROFILE
 52ND PLACE**

PROJ. NO. 210513
 DATE: 2/24/2025
 SHEET 18 OF 37
 DRAWING NO.
UPP-4



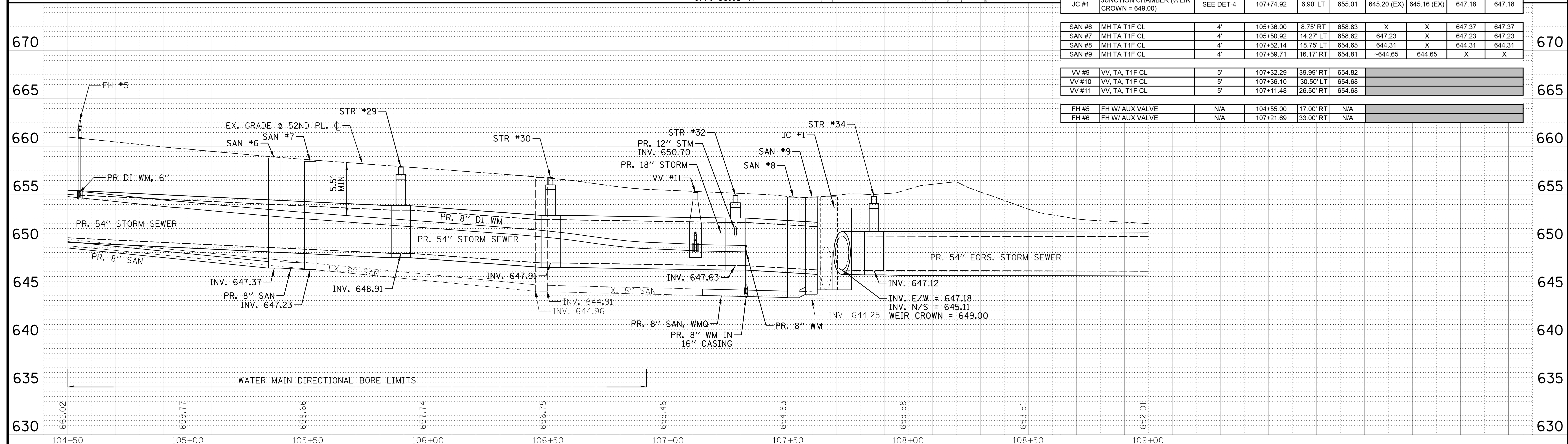
LEGEND

	PROPOSED HMA PAVEMENT (SEE TYPICAL SECTIONS)		DETECTABLE WARNINGS
	HMA DRIVEWAY REMOVAL & REPLACEMENT		SEWER OR WATER MAIN REMOVAL AND/OR ABANDONMENT AS REQ. FOR CONSTRUCTION
	PCC DRIVEWAY REMOVAL & REPLACEMENT		COMB. CONC. CURB & GUTTER REMOVAL & REPLACEMENT
	PCC SIDEWALK, 5 INCH		BUILDING ADDRESS

STRUCTURE TABLE STA. 104+50 TO STA. 109+00.00

STR NO	STRUCTURE TYPE	SIZE	STATION	OFFSET	RIM ELEV.	INV. NORTH	INV. SOUTH	INV. EAST	INV. WEST
STR #29	RCP PF W/RISE 170" (CL)	54"X54"X48"	105+88.68	4.26' RT	657.89	X	X	648.91	648.91
STR #30	RCP PF W/RISE 149" (CL)	54"X54"X48"	106+51.11	8.00' RT	656.78	X	X	647.91	647.91
STR #31	CB TC T3 F&G	2'	107+25.95	18.44' RT	654.44	X	651.44	X	X
STR #32	RCP PF W/RISE 180" (CL)	54"X54"X48"	107+28.07	7.17' LT	654.92	650.70	650.70	647.63	647.63
STR #33	CB TC T3 F&G	2'	107+28.53	20.50' LT	654.42	651.17	X	X	X
STR #34	RCP PF W/RISE 145" (CL)	54"EQX54"EQX 48"	107+86.38	22.03' LT	654.85	X	X	647.12	647.12
STR #35	CB TC T3 F&G	2'	107+58.12	30.51' LT	654.38	X	X	X	649.88

JC #1	JUNCTION CHAMBER (WEIR CROWN = 649.00)	SEE DET-4	107+74.92	6.90' LT	655.01	645.20 (EX)	645.16 (EX)	647.18	647.18
SAN #6	MH TA T1F CL	4'	105+36.00	8.75' RT	658.83	X	X	647.37	647.37
SAN #7	MH TA T1F CL	4'	105+50.92	14.27' LT	658.62	647.23	X	647.23	647.23
SAN #8	MH TA T1F CL	4'	107+52.14	18.75' LT	654.65	644.31	X	644.31	644.31
SAN #9	MH TA T1F CL	4'	107+59.71	16.17' RT	654.81	644.65	644.65	X	X
VV #9	VV, TA, T1F CL	5'	107+32.29	39.99' RT	654.82				
VV #10	VV, TA, T1F CL	5'	107+36.10	30.50' LT	654.68				
VV #11	VV, TA, T1F CL	5'	107+11.48	26.50' RT	654.68				
FH #5	FH W/ AUX VALVE	N/A	104+55.00	17.00' RT	N/A				
FH #6	FH W/ AUX VALVE	N/A	107+21.69	33.00' RT	N/A				



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CLIENT:

VILLAGE OF WESTERN SPRINGS
 740 HILLGROVE AVENUE
 WESTERN SPRINGS, IL 60558

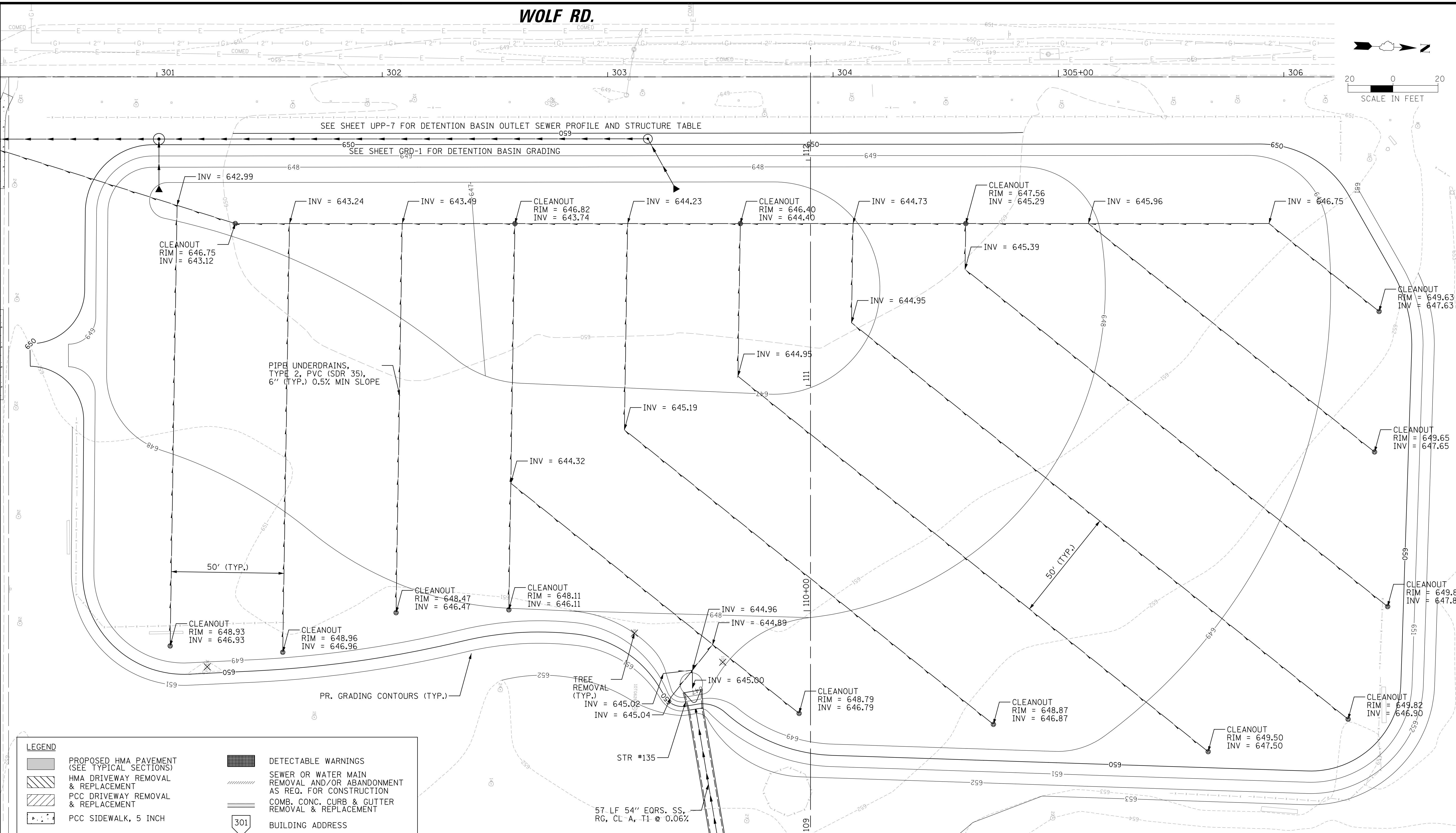
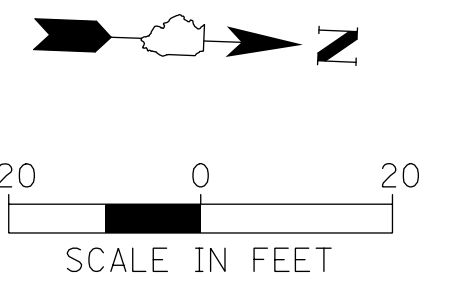
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TITLE:
**SPRINGDALE DRAINAGE IMPROVEMENT
 UTILITY PLAN AND PROFILE
 52ND PLACE**

PROJ. NO. 210513
 DATE: 2/24/2025
 SHEET 19 OF 37
 DRAWING NO.
UPP-5

WOLF RD.



LEGEND

	PROPOSED HMA PAVEMENT (SEE TYPICAL SECTIONS)		DETECTABLE WARNINGS
	HMA DRIVEWAY REMOVAL & REPLACEMENT		SEWER OR WATER MAIN REMOVAL AND/OR ABANDONMENT AS REQ. FOR CONSTRUCTION
	PCC DRIVEWAY REMOVAL & REPLACEMENT		COMB. CONC. CURB & GUTTER REMOVAL & REPLACEMENT
	PCC SIDEWALK, 5 INCH		BUILDING ADDRESS

**MATCH LINE STA. 109+00
SEE SHEET UPP-5 FOR HOWARD AVE**

STRUCTURE TABLE STA. 109+00.00 TO STA. 111+49.50

STR NO	STRUCTURE TYPE	SIZE	STATION	OFFSET	RIM ELEV.	INV. NORTH	INV. SOUTH	INV. EAST	INV. WEST
STR #135	FLARED END W/ GRATE	54" EQ	109+64.25	52.30' LT	N/A	X	X	X	647.00

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740 HILLGROVE AVENUE
WESTERN SPRINGS, IL 60558

NO.	DATE	NATURE OF REVISION	CHKD.	MODEL:

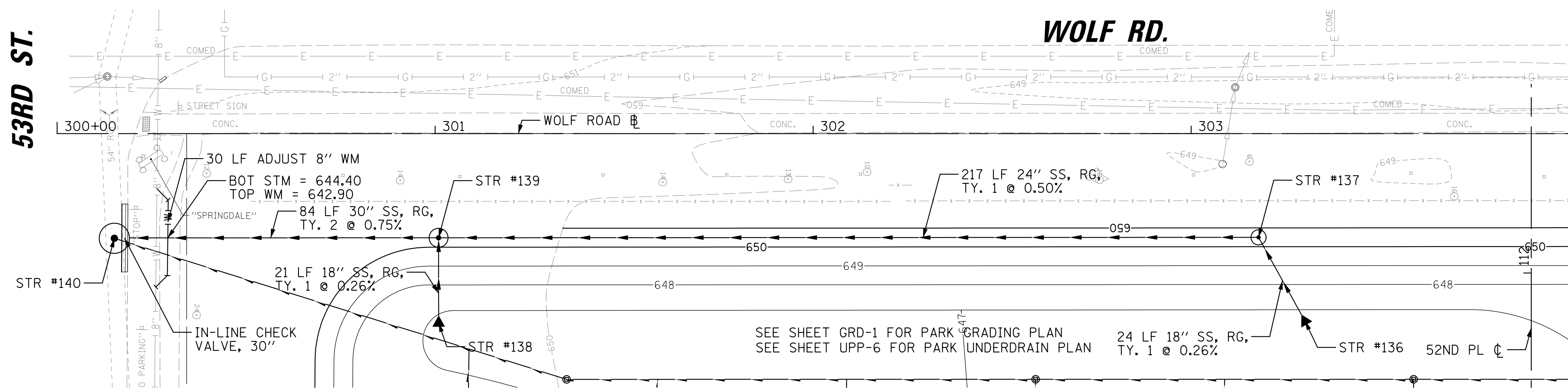
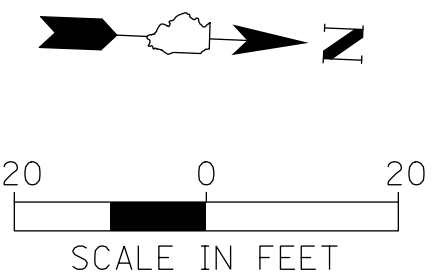
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TITLE:
**SPRINGDALE DRAINAGE IMPROVEMENT
PROPOSED UTILITY PLAN
SPRINGDALE PARK**

PROJ. NO. 210513
DATE: 2/24/2025
SHEET 20 OF 37
DRAWING NO.
UPP-6

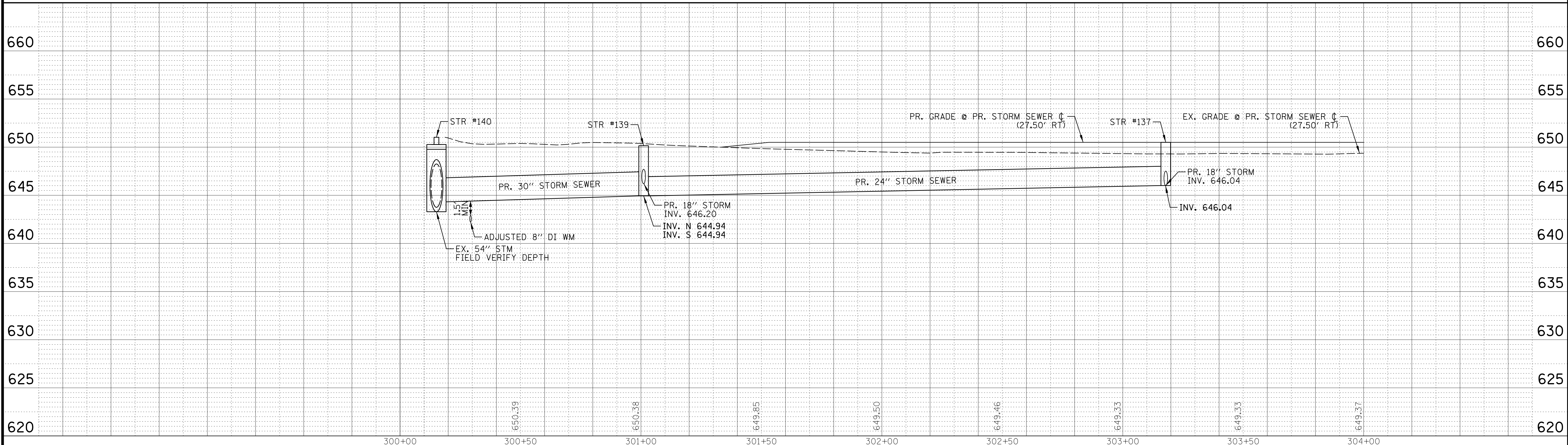
LEGEND

	PROPOSED HMA PAVEMENT (SEE TYPICAL SECTIONS)		DETECTABLE WARNINGS
	HMA DRIVEWAY REMOVAL & REPLACEMENT		SEWER OR WATER MAIN REMOVAL AND/OR ABANDONMENT AS REQ. FOR CONSTRUCTION
	PCC DRIVEWAY REMOVAL & REPLACEMENT		COMB. CONC. CURB & GUTTER REMOVAL & REPLACEMENT
	PCC SIDEWALK, 5 INCH		BUILDING ADDRESS



STRUCTURE TABLE STA. 300+00.00 TO STA. 304+00.00

STR NO	STRUCTURE TYPE	SIZE	STATION	OFFSET	RIM ELEV.	INV. NORTH	INV. SOUTH	INV. EAST	INV. WEST
STR #136	FLARED END W/ GRATE	18"	303+30.13	49.65' RT	N/A	X	X	X	646.10
STR #137	MH TA TIF CL	4'	303+17.85	27.47' RT	650.50	X	646.04	646.04	X
STR #138	FLARED END W/ GRATE	18"	301+00.92	50.13' RT	N/A	X	X	X	646.25
STR #139	MH TA TIF CL	5'	301+00.92	27.60' RT	650.50	644.95	644.95	646.20	X
STR #140	MH TA TIF CL	8'	300+15.15	27.75' RT	-650.75	644.32	X	643.75	643.75



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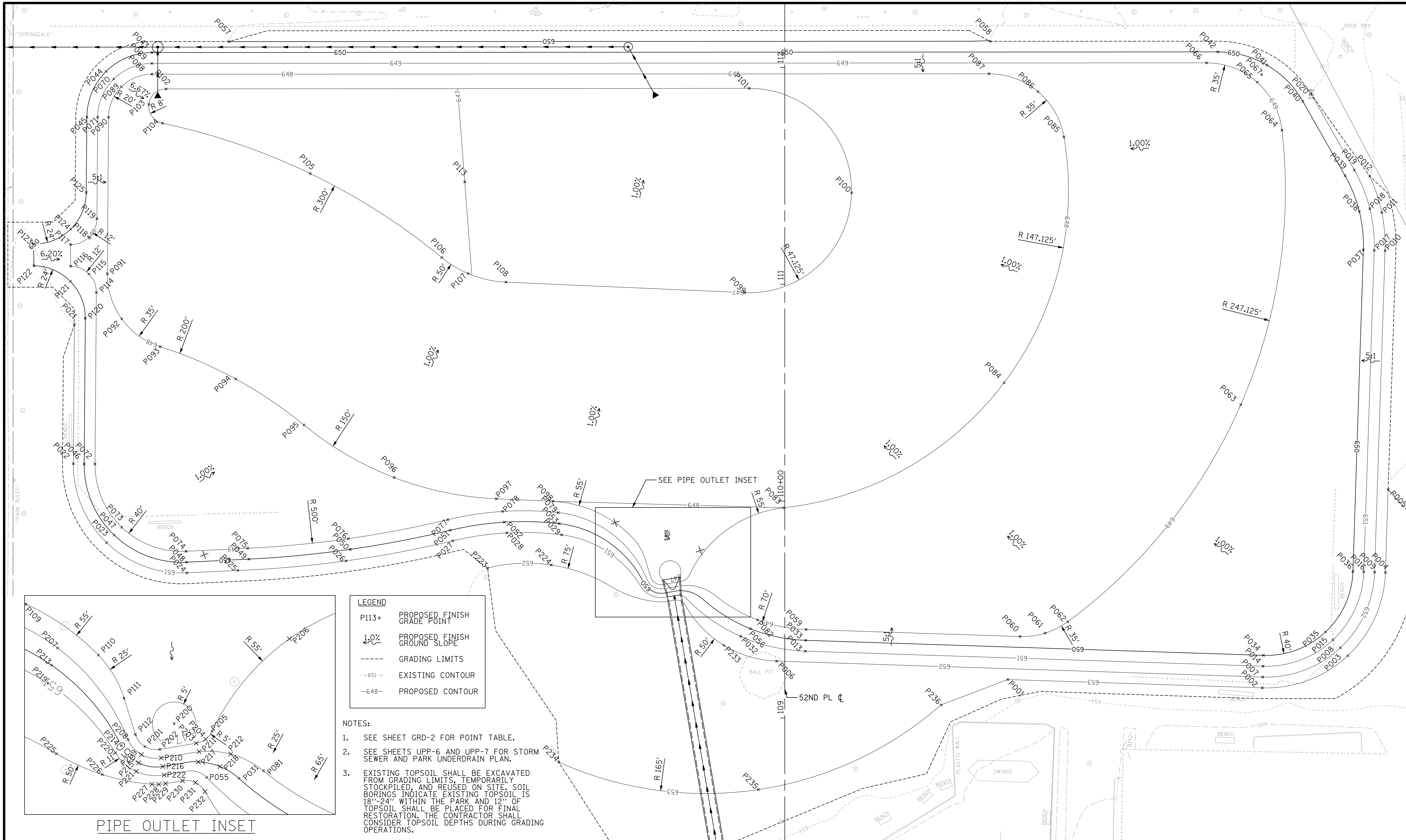
CLIENT:
VILLAGE OF WESTERN SPRINGS
 740 HILLGROVE AVENUE
 WESTERN SPRINGS, IL 60558

NO.	DATE	NATURE OF REVISION	CHKD.	MODEL:

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TITLE:
**SPRINGDALE DRAINAGE IMPROVEMENT
 UTILITY PLAN AND PROFILE
 BASIN OUTLET**

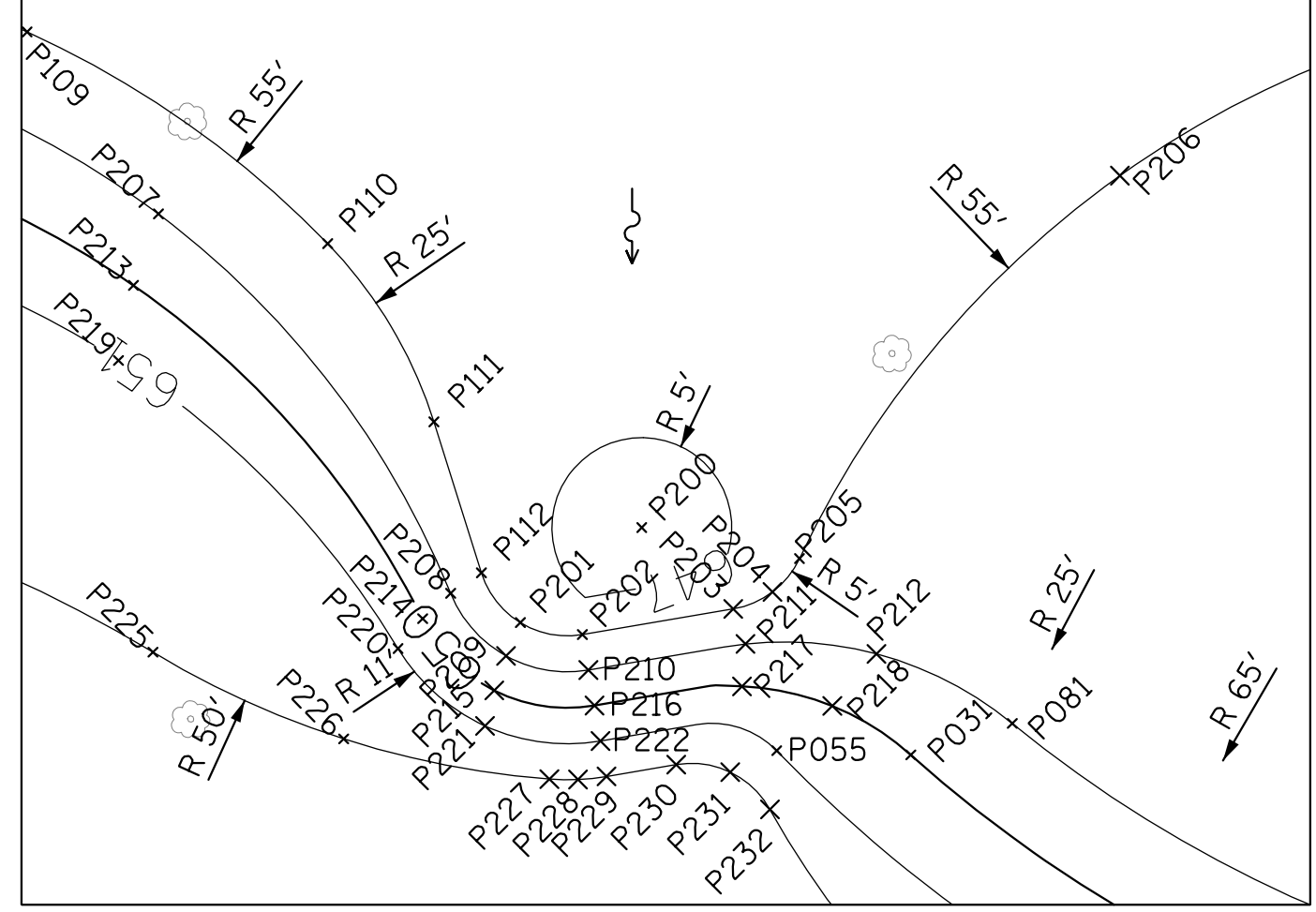
PROJ. NO. 210513
 DATE: 2/24/2025
 SHEET 21 OF 37
 DRAWING NO.
UPP-7



LEGEND


P113+	PROPOSED FINISH GRADE POINT
1.00%	PROPOSED FINISH GROUND SLOPE
----	GRADING LIMITS
-651-	EXISTING CONTOUR
-648-	PROPOSED CONTOUR

- NOTES:**
- SEE SHEET GRD-2 FOR POINT TABLE.
 - SEE SHEETS UPP-6 AND UPP-7 FOR STORM SEWER AND PARK UNDERDRAIN PLAN.
 - EXISTING TOPSOIL SHALL BE EXCAVATED FROM GRADING LIMITS, TEMPORARILY STOCKPILED, AND REUSED ON SITE. SOIL BORINGS INDICATE EXISTING TOPSOIL IS 18"-24" WITHIN THE PARK AND 12" OF TOPSOIL SHALL BE PLACED FOR FINAL RESTORATION. THE CONTRACTOR SHALL CONSIDER TOPSOIL DEPTHS DURING GRADING OPERATIONS.



PIPE OUTLET INSET

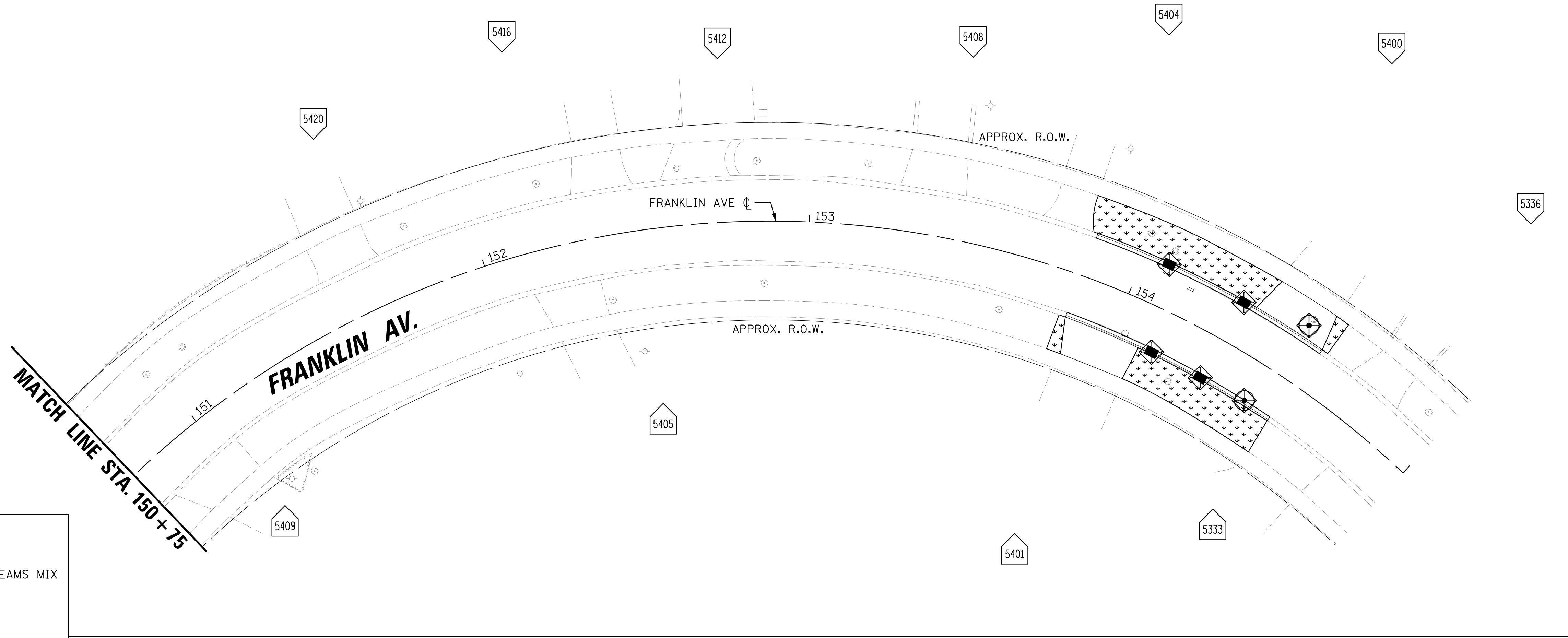
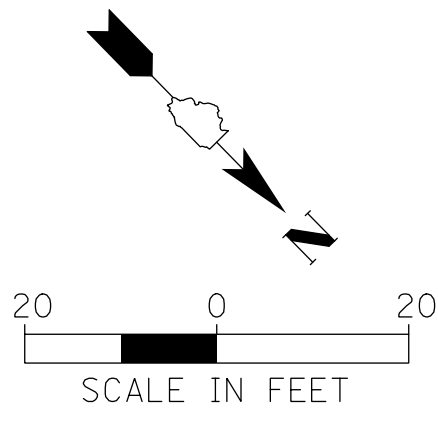
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 WESTERN SPRINGS, IL 60558

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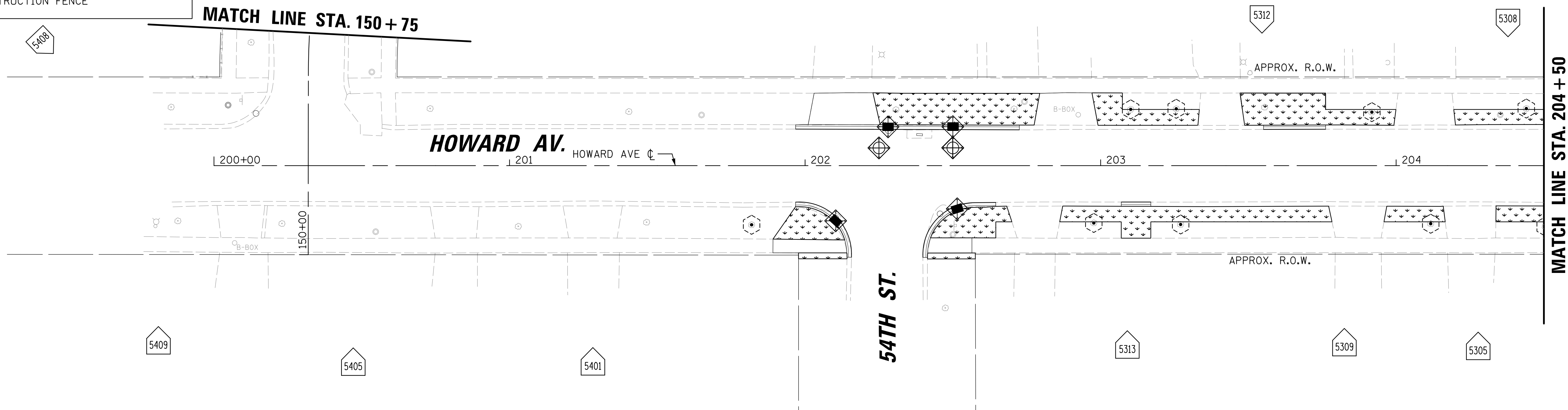
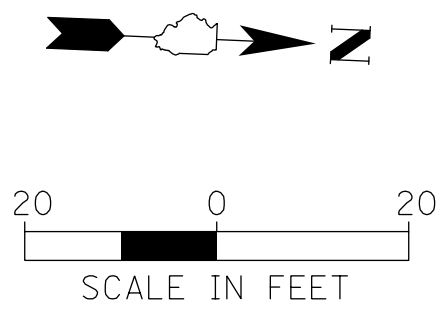
TITLE:
SPRINGDALE DRAINAGE IMPROVEMENT GRADING PLAN
SPRINGDALE PARK

PROJ. NO. 210513
 DATE: 2/24/2025
 SHEET 22 OF 37
 DRAWING NO.
GRD-1



LEGEND

	PARKWAY RESTORATION - SODDING
	LANDSCAPE RESTORATION - FIELD OF DREAMS MIX & EROSION CONTROL BLANKET
	CLAY INFIELD, 6"
	LIMESTONE SCREENING SURFACE 3"
	STONE RIPRAP, CLASS A4
	STABILIZED CONSTRUCTION ENTRANCE
	INLET FILTER
	PERIMETER EROSION CONTROL BARRIER
	TREE TRUNK PROTECTION
	TEMPORARY CONSTRUCTION FENCE



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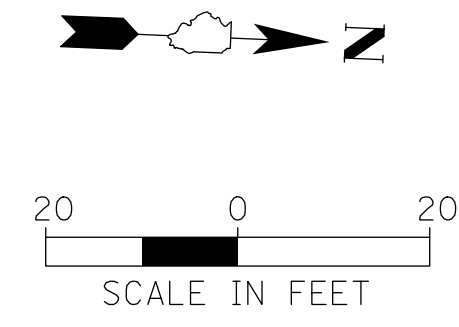
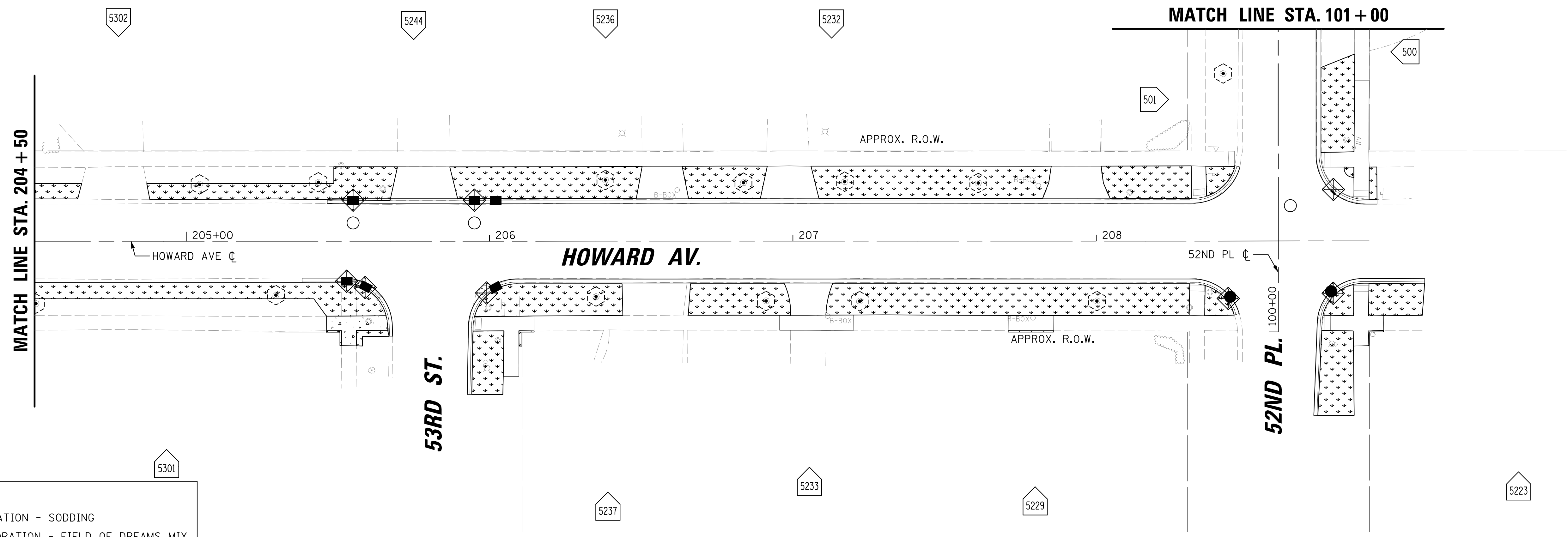
CLIENT:

VILLAGE OF WESTERN SPRINGS
 740 HILLGROVE AVENUE
 WESTERN SPRINGS, IL 60558

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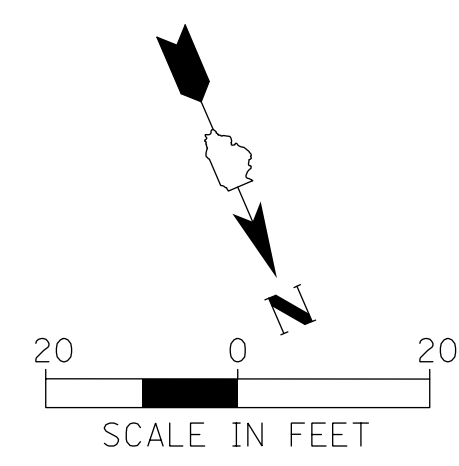
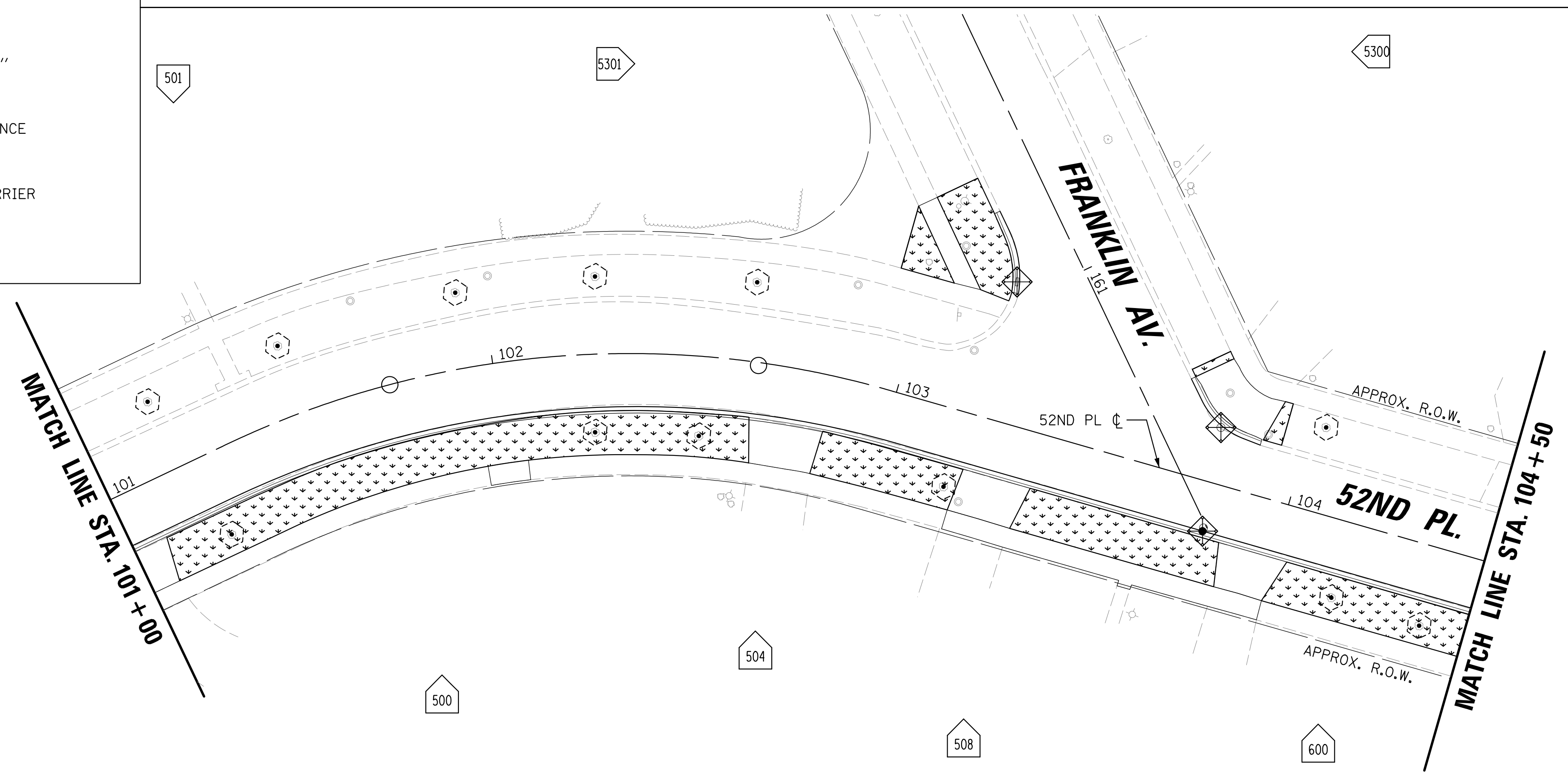
TITLE:
**SPRINGDALE DRAINAGE IMPROVEMENT
 LANDSCAPING & EROSION
 CONTROL PLAN
 HOWARD AVENUE**

PROJ. NO. 210513
 DATE: 2/24/2025
 SHEET 24 OF 37
 DRAWING NO.
ERO-1



LEGEND

	PARKWAY RESTORATION - SODDING
	LANDSCAPE RESTORATION - FIELD OF DREAMS MIX & EROSION CONTROL BLANKET
	CLAY INFIELD, 6"
	LIMESTONE SCREENING SURFACE 3"
	STONE RIPRAP, CLASS A4
	STABILIZED CONSTRUCTION ENTRANCE
	INLET FILTER
	PERIMETER EROSION CONTROL BARRIER
	TREE TRUNK PROTECTION
	TEMPORARY CONSTRUCTION FENCE



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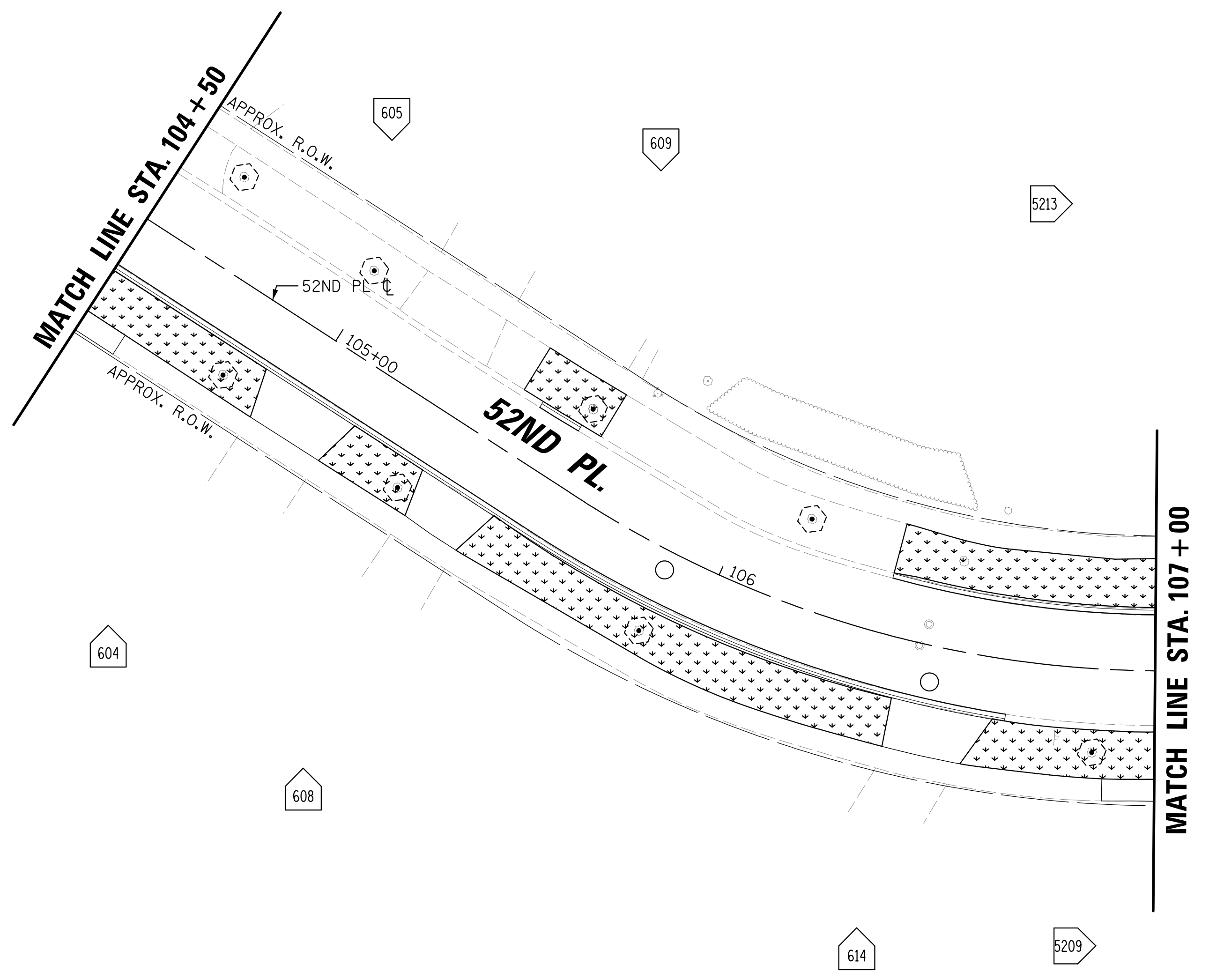
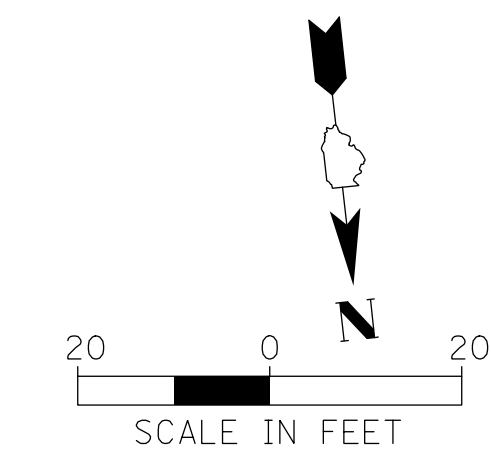
CLIENT:

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 740 HILLGROVE AVENUE
 WESTERN SPRINGS, IL 60558

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TITLE:
**SPRINGDALE DRAINAGE IMPROVEMENT
 LANDSCAPING & EROSION
 CONTROL PLAN
 HOWARD AVENUE & 52ND PLACE**

PROJ. NO. 210513
 DATE: 2/24/2025
 SHEET 25 OF 37
 DRAWING NO.
ERO-2



LEGEND	
	PARKWAY RESTORATION - SODDING
	LANDSCAPE RESTORATION - FIELD OF DREAMS MIX & EROSION CONTROL BLANKET
	CLAY INFIELD, 6"
	LIMESTONE SCREENING SURFACE 3"
	STONE RIPRAP, CLASS A4
	STABILIZED CONSTRUCTION ENTRANCE
	INLET FILTER
	PERIMETER EROSION CONTROL BARRIER
	TREE TRUNK PROTECTION
	TEMPORARY CONSTRUCTION FENCE

CB **CHRISTOPHER B. BURKE ENGINEERING, LTD.**
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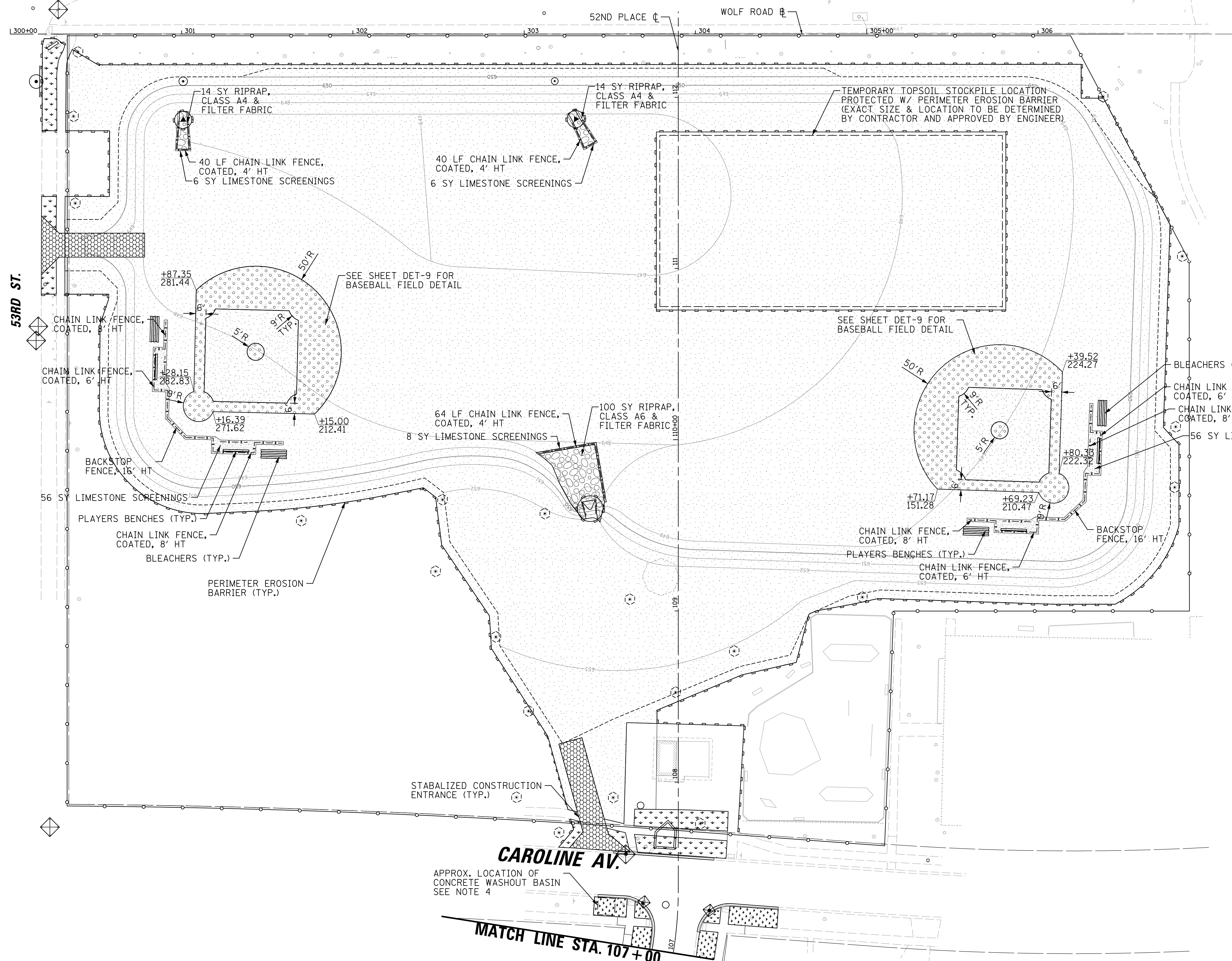
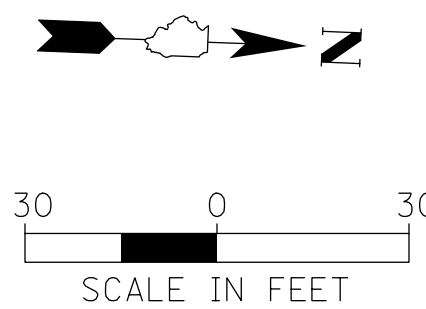
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 **VILLAGE OF WESTERN SPRINGS**
 740 HILLGROVE AVENUE
 WESTERN SPRINGS, IL 60558

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DSGN.	AJS				
DWN.	JRS				
CHKD.	AJS				
SCALE:	20'				
PLOT DATE:	2/24/2025				
CAD USER:	jspeelman				

TITLE:
**SPRINGDALE DRAINAGE IMPROVEMENT
 LANDSCAPING & EROSION
 CONTROL PLAN
 52ND PLACE**

PROJ. NO. 210513
 DATE: 2/24/2025
 SHEET 26 OF 37
 DRAWING NO.
ERO-3

WOLF RD.



- NOTES:
- EXISTING TOPSOIL SHALL BE EXCAVATED, TEMPORARILY STORED AND PLACED TO A DEPTH OF 12" AFTER BASIN EXCAVATION IS COMPLETE. EXCESS TOPSOIL NOT NEEDED FOR PERMANENT RESTORATION SHALL BE REMOVED AND DISPOSED OF. REMOVAL OF EXCESS TOPSOIL SHALL BE PAID FOR AS REMOVAL & DISPOSAL OF UNSUITABLE MATERIAL.
 - THE CONTRACTOR SHALL RELOCATE TEMPORARY STOCKPILES ON THE PARK SITE AS NEEDED TO FACILITATE CONSTRUCTION. STOCKPILES SHALL BE LOCATED WITHIN THE PROPOSED WORK ZONE. NO STOCKPILES WILL BE PERMITTED OUTSIDE OF THE WORK ZONE SHOWN ON THE PLANS. RELOCATION OF STOCKPILES SHALL BE INCLUDED IN THE COST OF THE CONTRACT AND NO SEPARATE PAYMENT SHALL BE ALLOWED.
 - TOPSOIL EXCAVATED FROM THE BASIN MAY BE RE-USED THROUGHOUT THE PROJECT LIMITS WITH APPROVAL FROM THE VILLAGE AND PARK DISTRICT.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPERLY BARRICADING AND PROTECTING THE CONCRETE WASHOUT BASIN FROM PEDESTRIANS AND VEHICULAR TRAFFIC AT ALL TIMES. FINAL LOCATION OF THE WASHOUT BASIN SHALL BE APPROVED BY THE ENGINEER.
 - SEE SHEETS DET-9 AND DET-10 FOR BASEBALL FIELD LAYOUT AND DETAILS

LEGEND

	PARKWAY RESTORATION - SODDING
	LANDSCAPE RESTORATION - FIELD OF DREAMS MIX & EROSION CONTROL BLANKET
	CLAY INFIELD, 6"
	LIMESTONE SCREENING SURFACE 3"
	STONE RIPRAP, CLASS A4
	STABILIZED CONSTRUCTION ENTRANCE
	INLET FILTER
	PERIMETER EROSION CONTROL BARRIER
	TREE TRUNK PROTECTION
	TEMPORARY CONSTRUCTION FENCE

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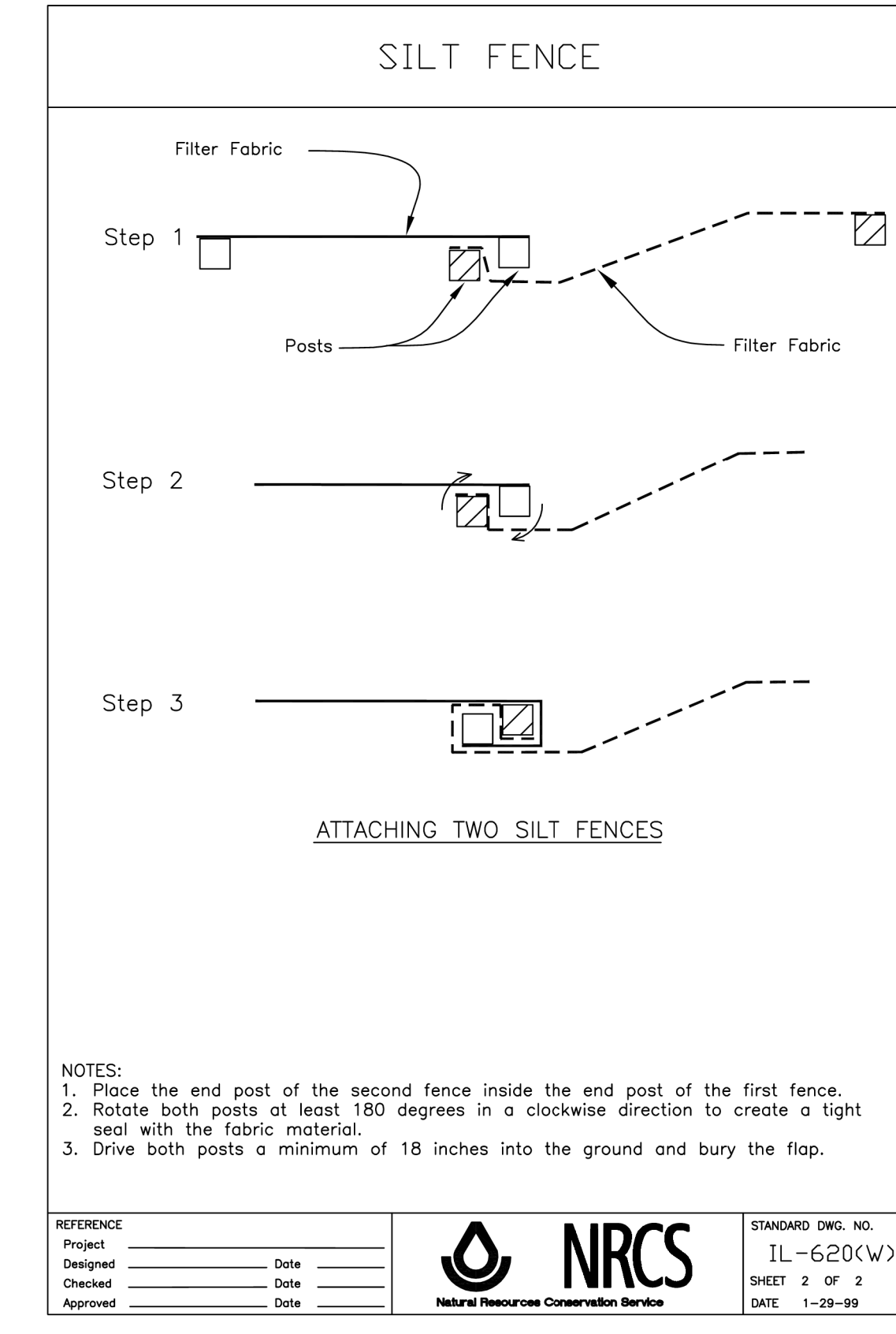
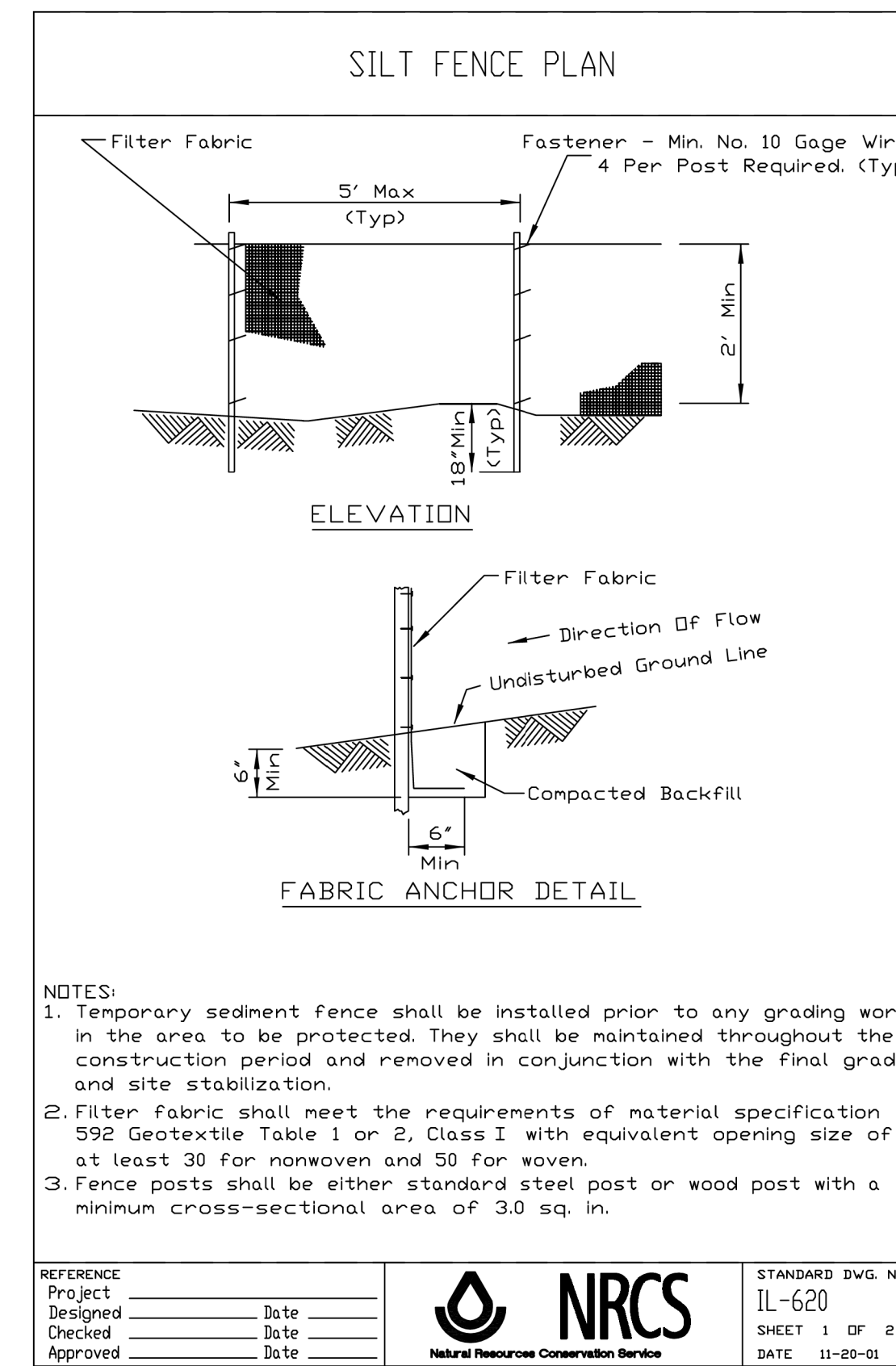
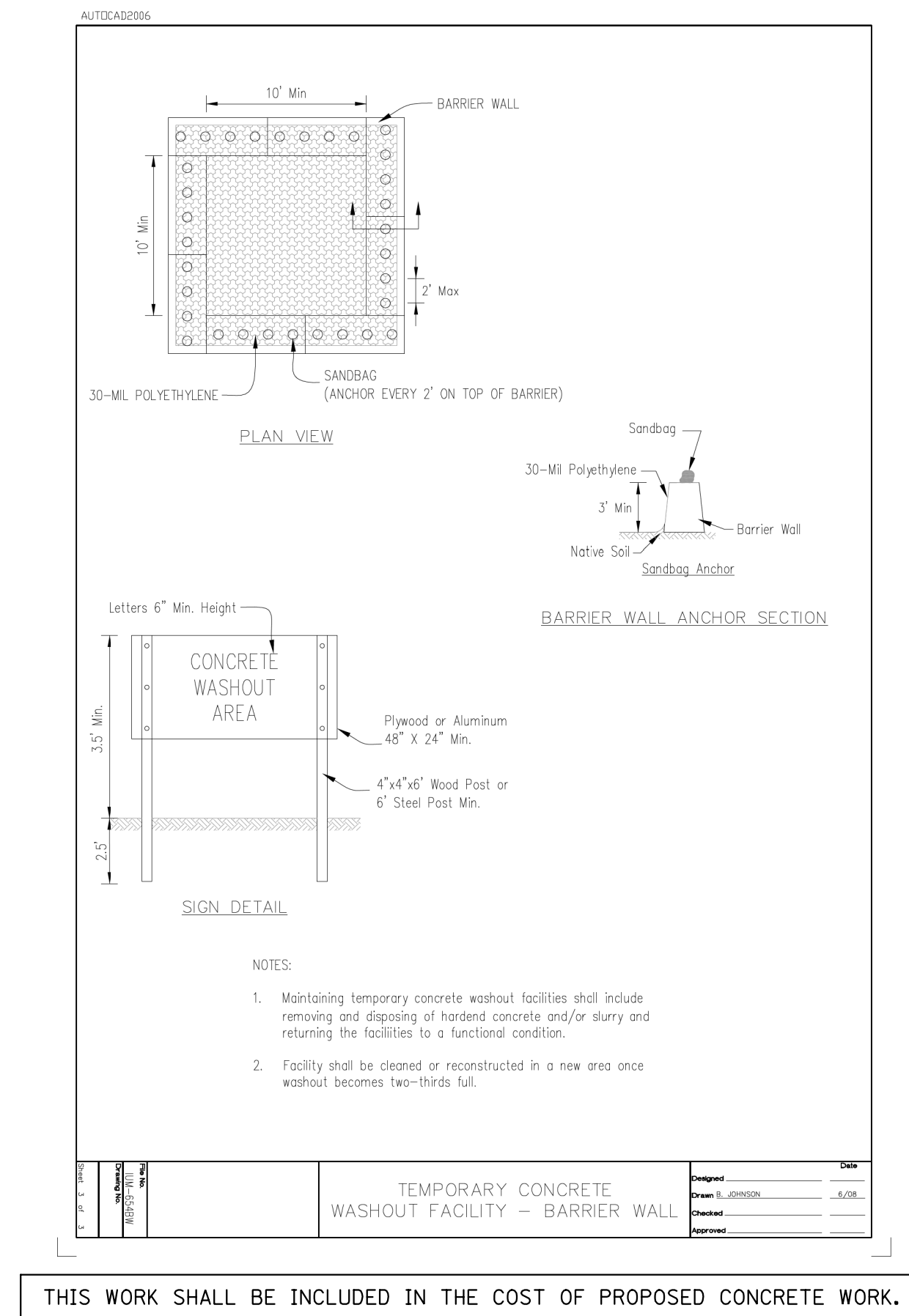
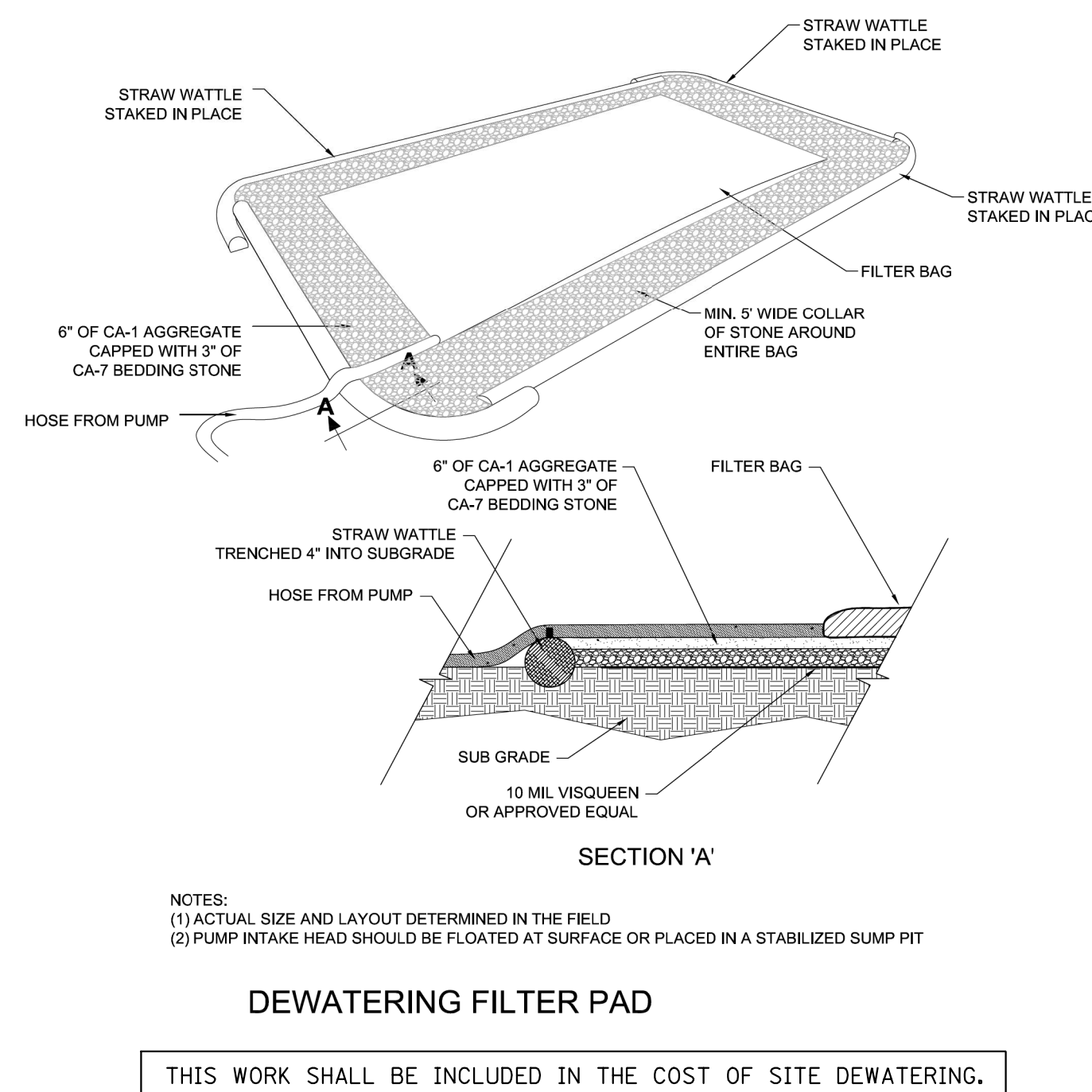
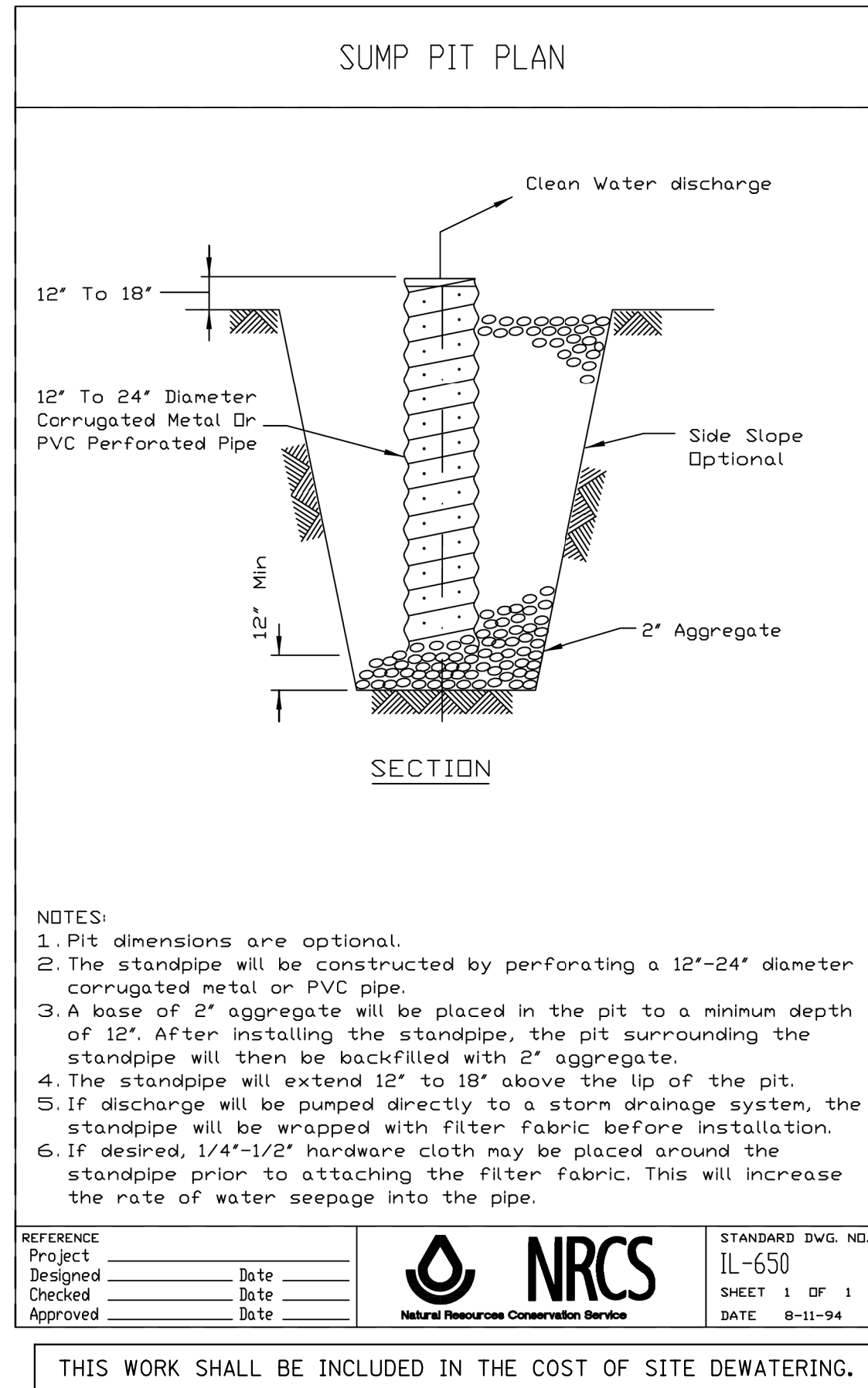
TITLE:
**SPRINGDALE DRAINAGE IMPROVEMENT
 LANDSCAPING & EROSION
 CONTROL PLAN
 SPRINGDALE PARK**

PROJ. NO. 210513
 DATE: 2/24/2025
 SHEET 27 OF 37
 DRAWING NO.
ERO-4

SOIL EROSION CONTROL AND SEDIMENT CONTROL NOTES

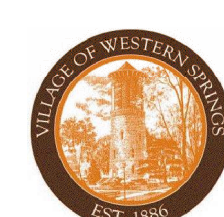
- A. Soil erosion and sediment control (SESC) features must be constructed prior to the commencement of upland disturbance. Soil disturbance must be phased or enacted in such a manner as to minimize erosion soil stabilization measures must consider the time of year, site conditions and the use of temporary and/or permanent measures.
- B. BMPs shall be maintained and operating year-round. BMPs shall be maintained per the SWPPP and Illinois Urban Manual.
- C. Concrete and mortar washout containment BMPs must be maintained on site
- D. Unless otherwise indicated, all vegetative and structural erosion and sediment control practices will be installed at minimum according to the standards and specifications in the Illinois Urban Manual, revised to latest version as amended. A copy of the approved soil erosion and sediment control (SESC) plan must be maintained on the site at all times.
- E. The erosion and sediment controls shown on the plans are the minimum requirements. Additional measures may be required as directed by the Engineer, MWRD, Village, or their authorized representative. All additional measures must be in place within 3 days of disturbance and any emergency SESC measures must be installed immediately.
- F. The contractor must clean up, grade the work areas as the project progresses, and install erosion protection to eliminate the concentration of runoff, or must install appropriate sediment control devices to trap sediment. Pavement must be cleaned daily or as necessary to remove track-out material.
- G. Flood protection areas shall be protected with BMPs, including silt fence or staked straw wattle.
- H. The contractor shall remove or replace any existing drain tiles and incorporate them into the drainage plan for the development. Drain tiles cannot be tributary to a sanitary pipe or combined sewer.
- I. Temporary diversions shall be constructed as necessary to direct runoff from disturbed areas to an appropriate sediment basin or sediment trap. Volume control facilities shall not be used as temporary sediment basins.
- J. It shall be the responsibility of the contractor to divert all water (ground, storm, and construction) during construction in order to keep the construction areas freed of water, bypass pumping, including silt bags and an energy dissipation surface for the pumps, shall not be measured and paid for separately but shall be considered incidental to the cost of weir structure. It shall be the contractor's responsibility to size the pumps appropriately.
- K. During de-watering/pumping operations, only uncontaminated water should be allowed to discharge to protected natural areas, Waters of the State, or to a storm sewer system (in accordance with local permits). Inlet hoses should be placed in a stabilized sump pit or floated at the surface of the water in order to limit the amount of sediment intake. Pumping operations may be discharged to a stabilized area that consists of an energy dissipating device (e.g., stone), sediment filter bag, or both. Adequate erosion and sediment controls should be used during de-watering operations as necessary. Dewatering sediment laden water directly into field tiles, storm water structures, or "Waters of the US" is prohibited.
- L. Sediment control BMPs shall be constructed at all locations where construction traffic enters or leaves the site. These locations shall be determined in the field, as needed. Graveled roads, rumble strips, access drives, parking areas of sufficient width and length, and vehicle wash down facilities if necessary, must be provided to prevent the deposit of soil from being tracked onto public or private roadways. Any soil reaching public or private roadway must be removed immediately.
- M. Stock piles or soil must not be located in flood plains, riparian areas (vegetated flood plains), wetlands and waters of the U.S., unless otherwise authorized by the relevant permitting authority. If a stockpile is to remain in place for more than three days, perimeter sediment barrier must be provided.
- N. Contractor must install perimeter sediment barrier at any location in which sheet flows may result in sediment runoff outside the construction limits. The contractor may use other methods to control runoff, including, but not limited to, temporary diversion swales, temporary sediment traps, shaped ditches to convey water, etc.
- O. All proposed and existing storm sewer inlet structures (including inlets located within the haul routes) must be protected with storm sewer inlet protection (i.e. inlet filters) per inlet protection details in the plans.
- P. Stabilization of disturbed areas must, at a minimum, be initiated immediately whenever any clearing, grading, excavating, or other earth disturbing activities have permanently ceased on any portion of the site and will not resume for a period exceeding 14 calendar days. Stabilization of disturbed areas must be initiated within 1 working day of permanent or temporary cessation of earth disturbing activities and shall be completed as soon as possible but not later than 14 days from the initiation of stabilization work in an area. Exceptions to these time frames are specified as follows:
 - Where the initiation of stabilization measures is precluded by snow cover, stabilization measures shall be initiated as soon as practicable.
 - On areas where construction activity ceased and will resume after 14 days, a temporary stabilization method can be used.
- Q. The Village shall provide a qualified person who will be responsible for conducting site inspections in compliance with the ILR10 NPDES Permit. After each inspection, a report should be prepared by the person who performed the inspection. The inspection report should be maintained on site as part of the Plan. Inspections should be conducted at least once every seven calendar days and within 24 hours of the end of a storm, or by the end of the following business or work day, that is 0.5 inches or greater. Areas inaccessible during inspections due to flooding or other unsafe conditions shall be inspected within 72 hours of becoming accessible.

Inspections may be reduced to once per month when construction activities have ceased due to frozen conditions (when ground and/or air temperatures are at or below 32 degrees Fahrenheit). Inspections must commence when construction activities are conducted, or if there is a 0.5" or greater rain event, or discharge due to snowmelt occurs.



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CLIENT:

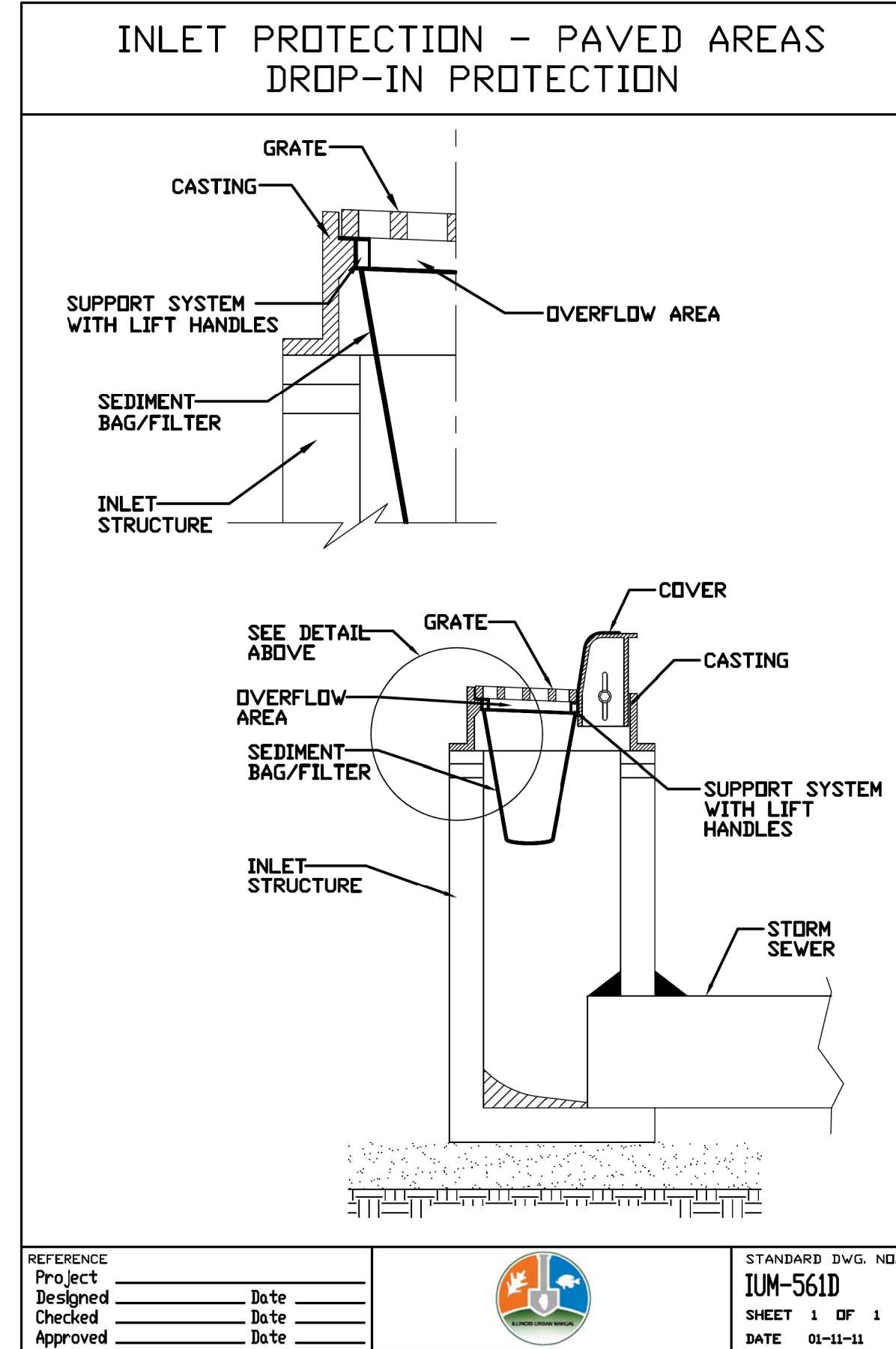
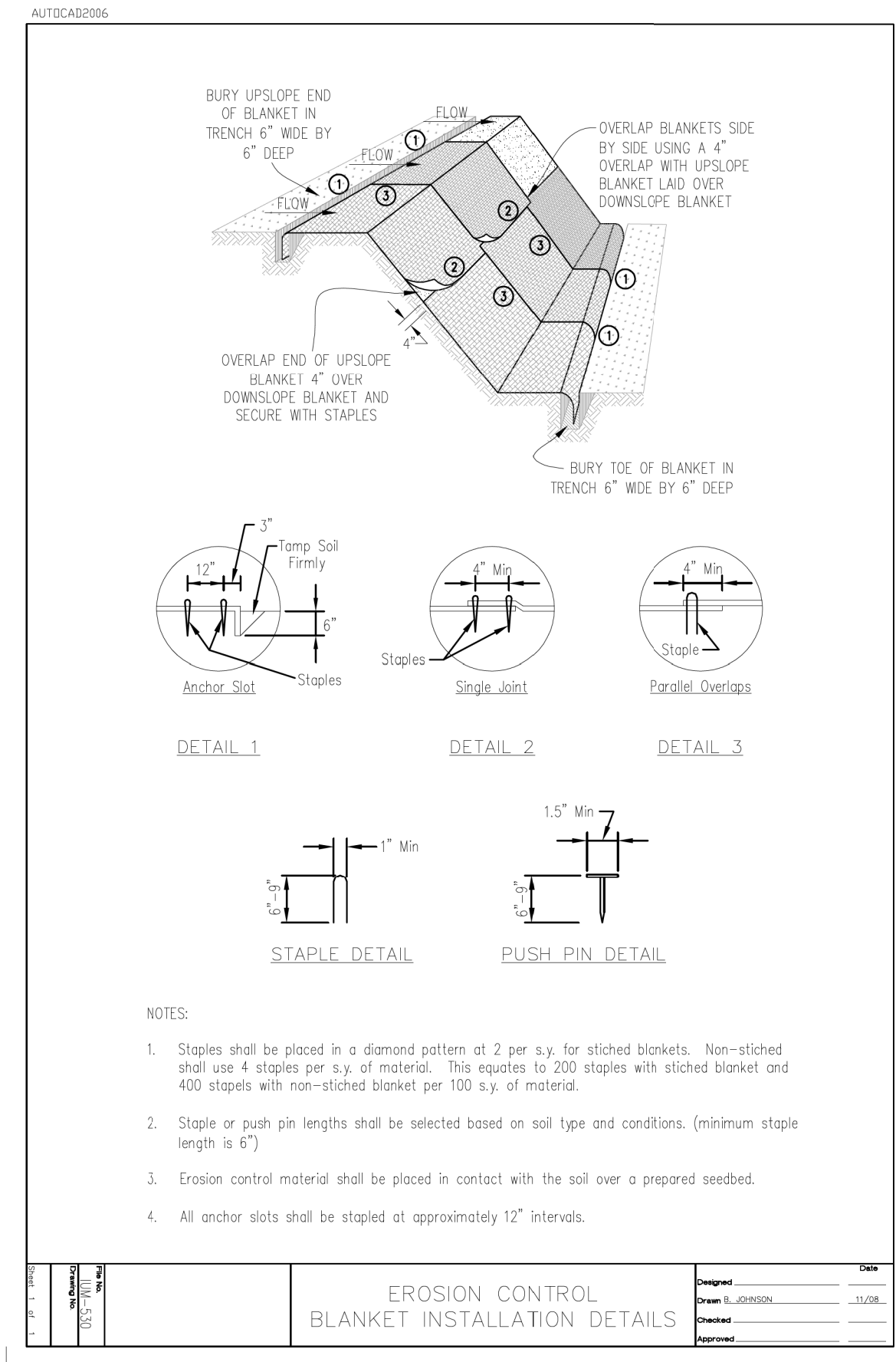
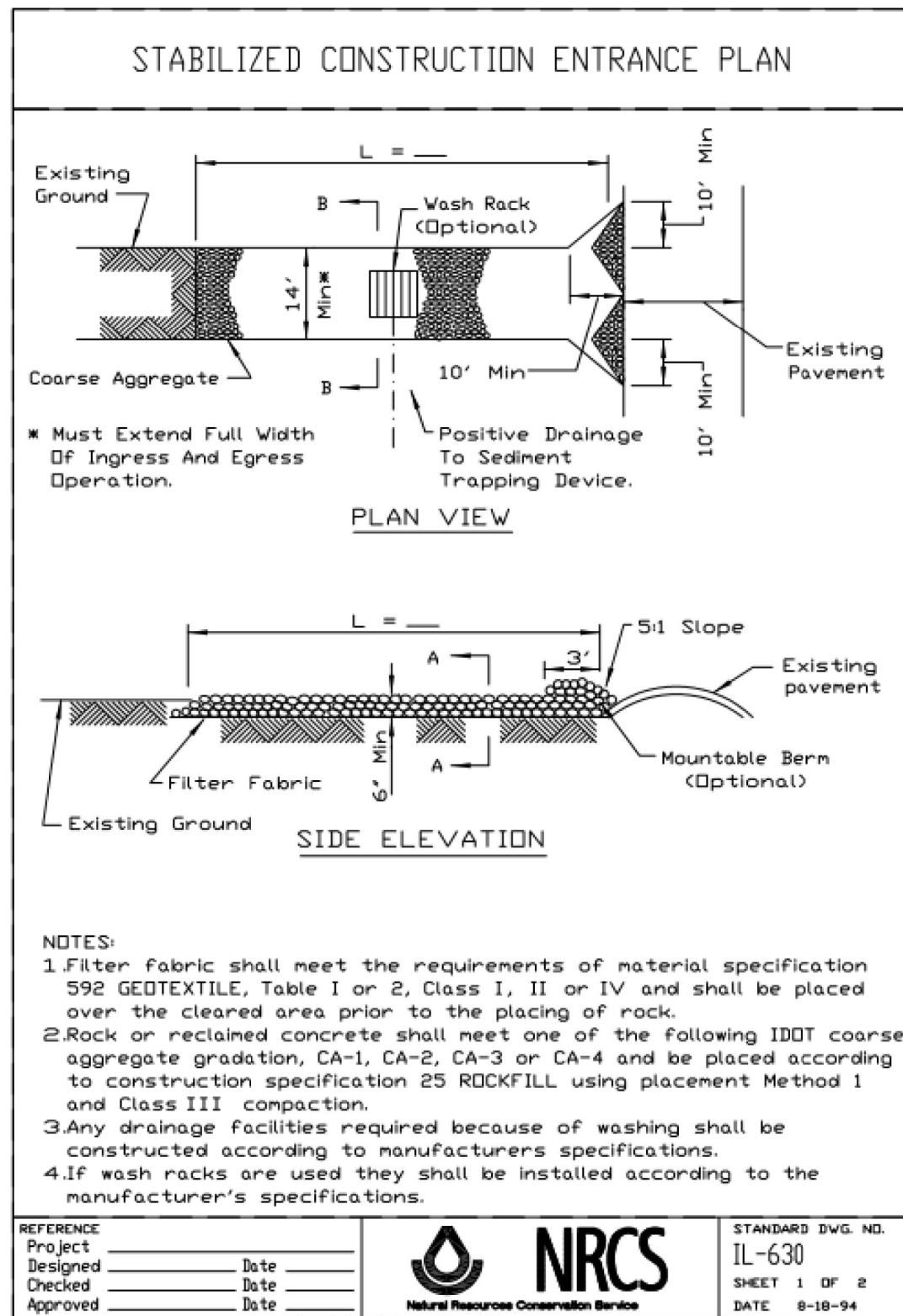


VILLAGE OF WESTERN SPRINGS
 740 HILLGROVE AVENUE
 WESTERN SPRINGS, IL 60558

NO.	DATE	NATURE OF REVISION	CHKD.	MODEL:
FILE NAME	N:\WESTERNSPRINGS\210513\CIVIL\DET_01_210513.shx			

TITLE:
**SPRINGDALE DRAINAGE IMPROVEMENT
 SOIL EROSION/SEDIMENT CONTROL
 NOTES & DETAILS**

PROJ. NO. 210513
 DATE: 2/24/2025
 SHEET 28 OF 37
 DRAWING NO.
DET-1



PARKWAY TREE PROTECTION REQUIREMENTS

Municipal Codes regarding trees, including tree protection requirements for public parkway trees, are located in Title 5, Chapter 5 of the Western Springs Village Code. Additional requirements are mentioned herein. Parkway tree protection shall involve avoiding damage to both the above ground tree trunk, including the branches, and the below ground root system. Roots are the most vital part of a tree with the majority of nutrient and water absorbing roots in the upper 18 to 24 inches of soil. Tree roots must be protected from severing or changes in their soil environment (such as compaction or grade changes) to prevent irreversible tree decline or death in the coming years.

The Critical Root Zone, or CRZ, is the area immediately surrounding a tree shall be protected from damage. The size of this area, measured from the center of the tree, is ideally a circle with a radius of one foot for each inch of trunk diameter. The depth of the CRZ extends to 4 feet below the natural ground surface level. In a municipal parkway setting with utilities and paved or concrete surfaces, the CRZ cannot grow naturally. Instead, the CRZ has been adjusted to form a rectangle around the parkway tree trunk with the minimum dimensions listed in the following table. At a minimum, the listed CRZ shall be fenced with a temporary 6 foot high post-driven chain link fence with metal posts spaced no further than 10 feet apart. The fence shall be placed on three sides of the tree with the private side of the tree left open for maintenance purposes. Whenever possible, the entire parkway shall be fenced in except where access has been permitted. Any exceptions shall be noted on the drawings submitted for a given permit.

PARKWAY TREE DIAMETER AT 4.5'	WIDTH FROM STREET TO PROPERTY (MINIMUM CURB TO SIDEWALK)	LENGTH ALONG STREET (MINIMUM)	DEPTH
0-12.0 INCHES	10.0 FEET	10 FEET	4 FEET
12-24.0 INCHES	10.0 FEET	20 FEET	4 FEET
24.1 OR MORE INCHES	10.0 FEET	30 FEET	4 FEET

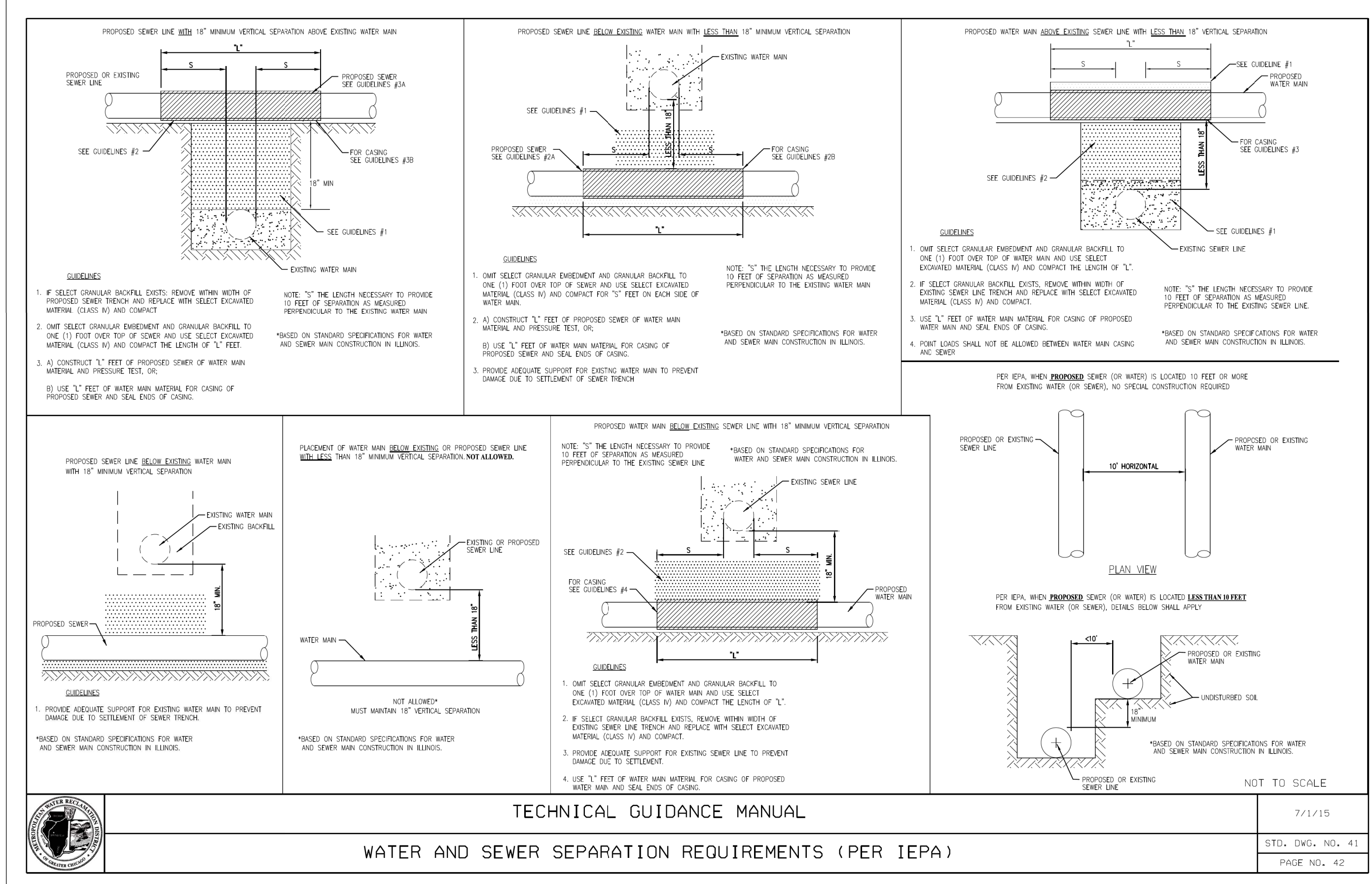
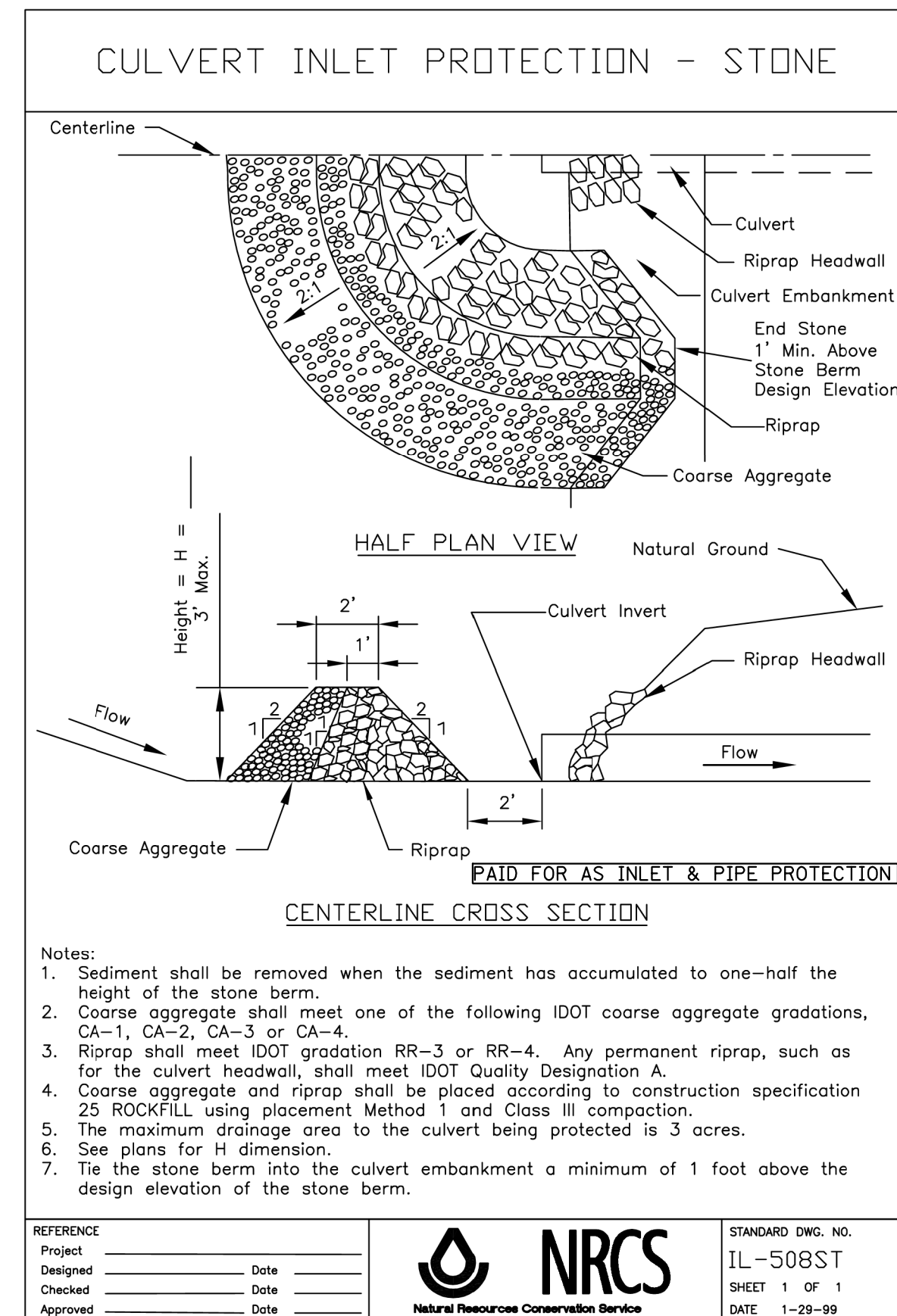
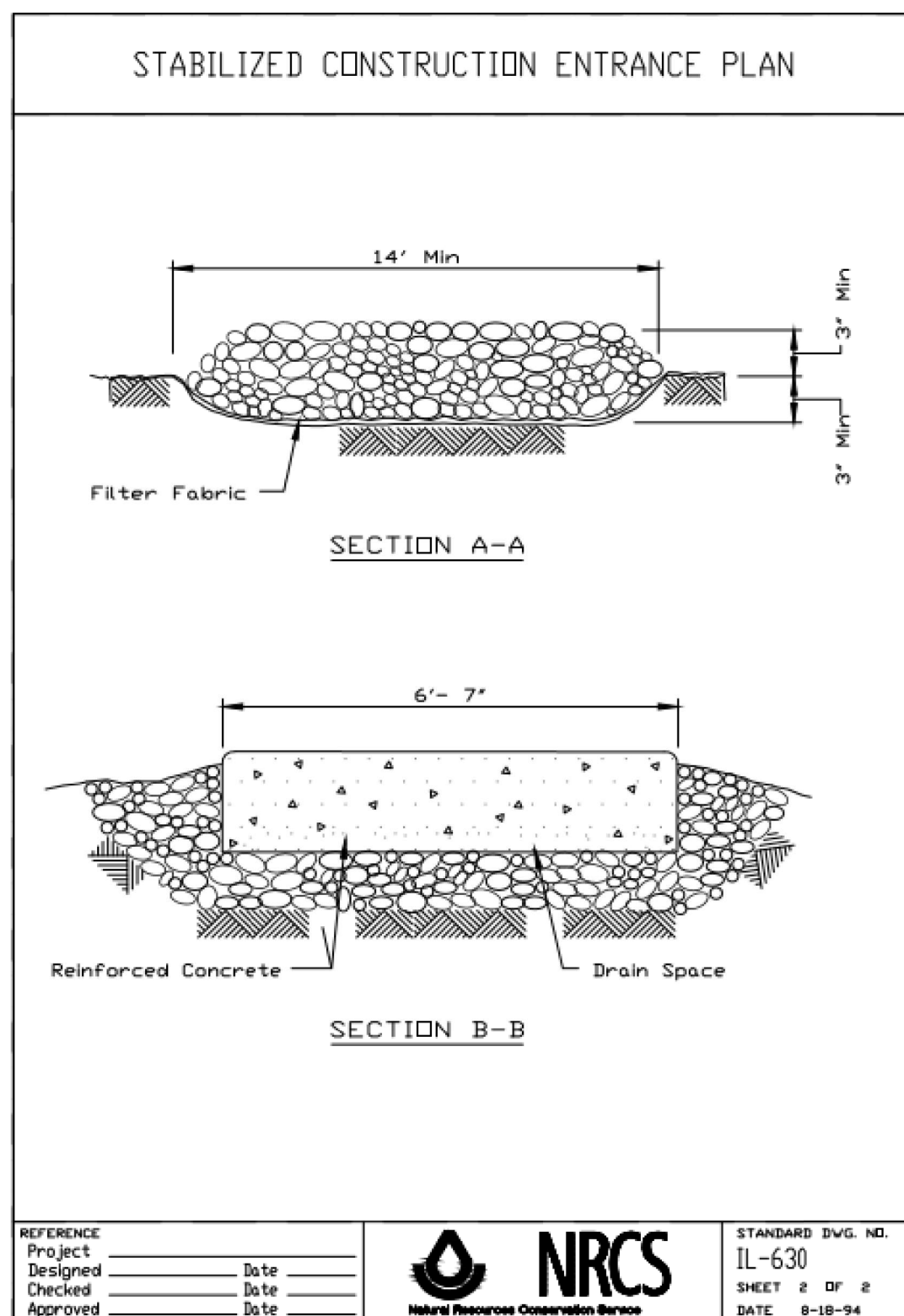
For public parkway trees, roots located within the determined CRZ shall be protected from compaction, severing, and the storage of materials or equipment. In some cases and as directed by the Village, utilities must be augered underneath the tree as shown above. In cases when severing of roots within a portion of the CRZ may be unavoidable (for sidewalk installation, curb replacement, water main or sanitary main disconnections in the parkway), subject to the approval of the Village, the smallest possible area shall be disturbed and sharp clean cuts shall be made on root ends to promote wound closure and root regeneration. All CRZ fencing shall be temporary 6 foot high post-driven chain link fence with metal posts spaced no further than 10 feet apart, and shall be maintained daily in good condition. Any exceptions to the fence dimensions or parkway position shall be noted on the building permit (for private work) or approved by the onsite Village representative (for Village work).

In addition to fines and citations that may be assessed for violations per Title 5, Chapter 5 of the Western Springs Village Code, violators may be subject to the following provisions:

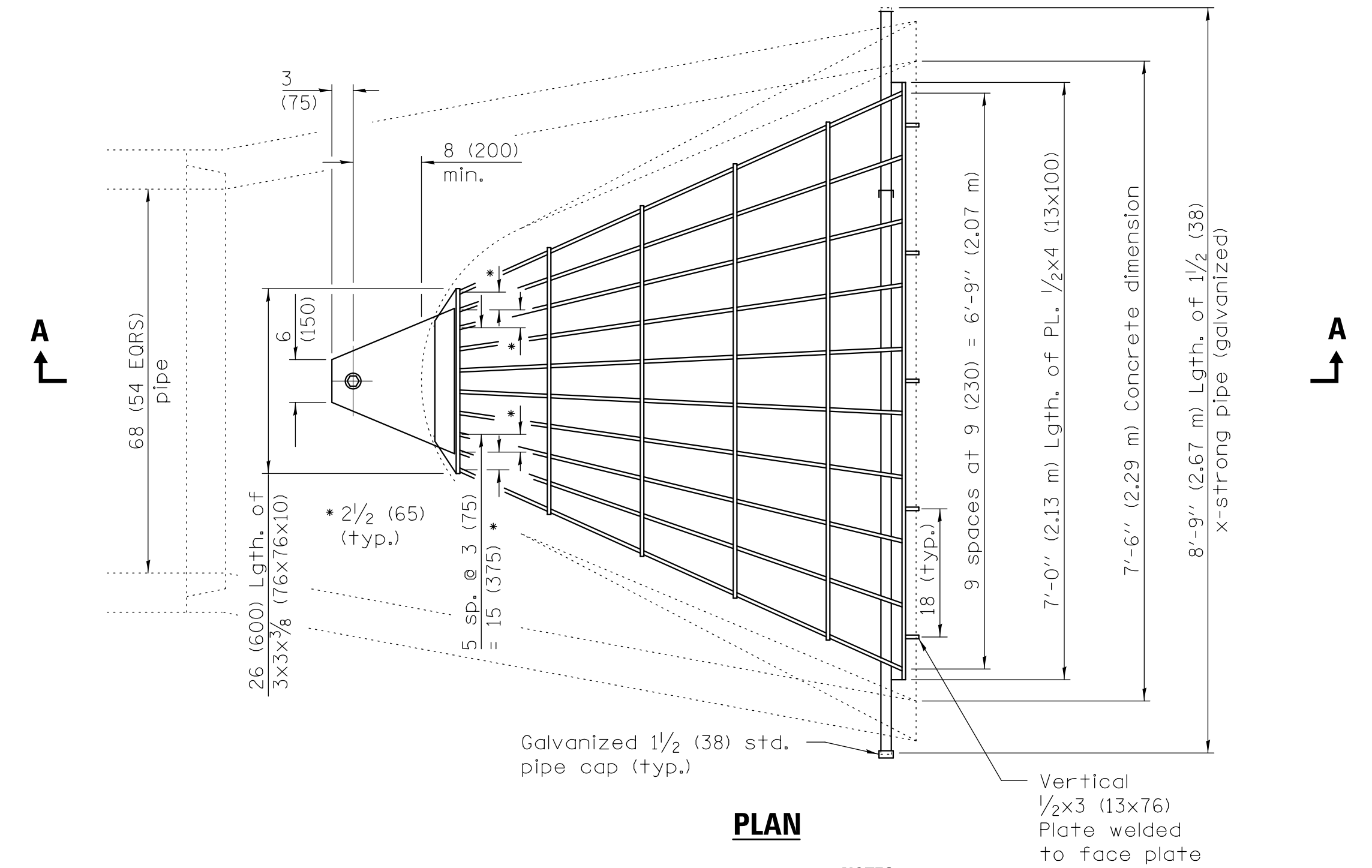
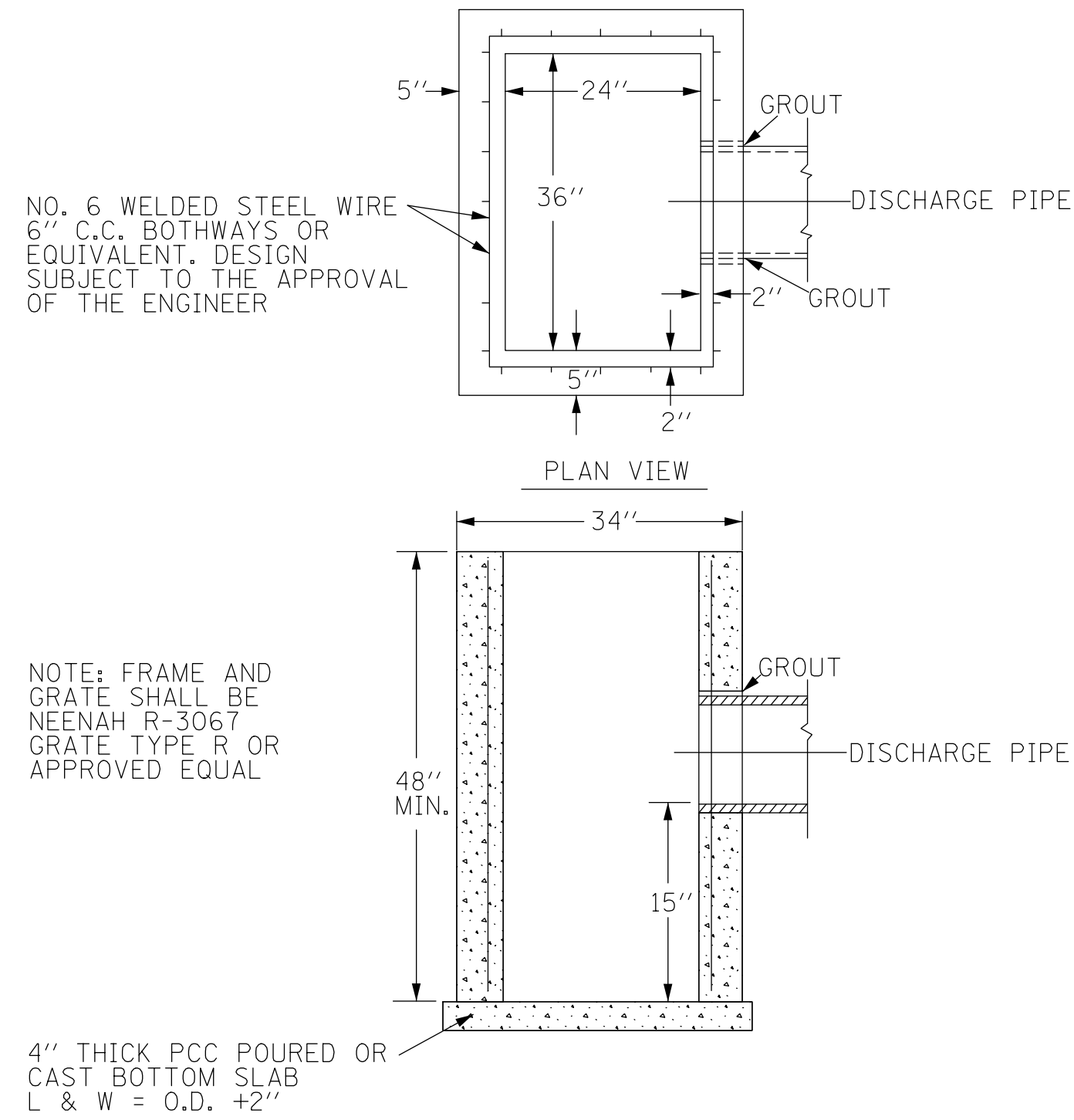
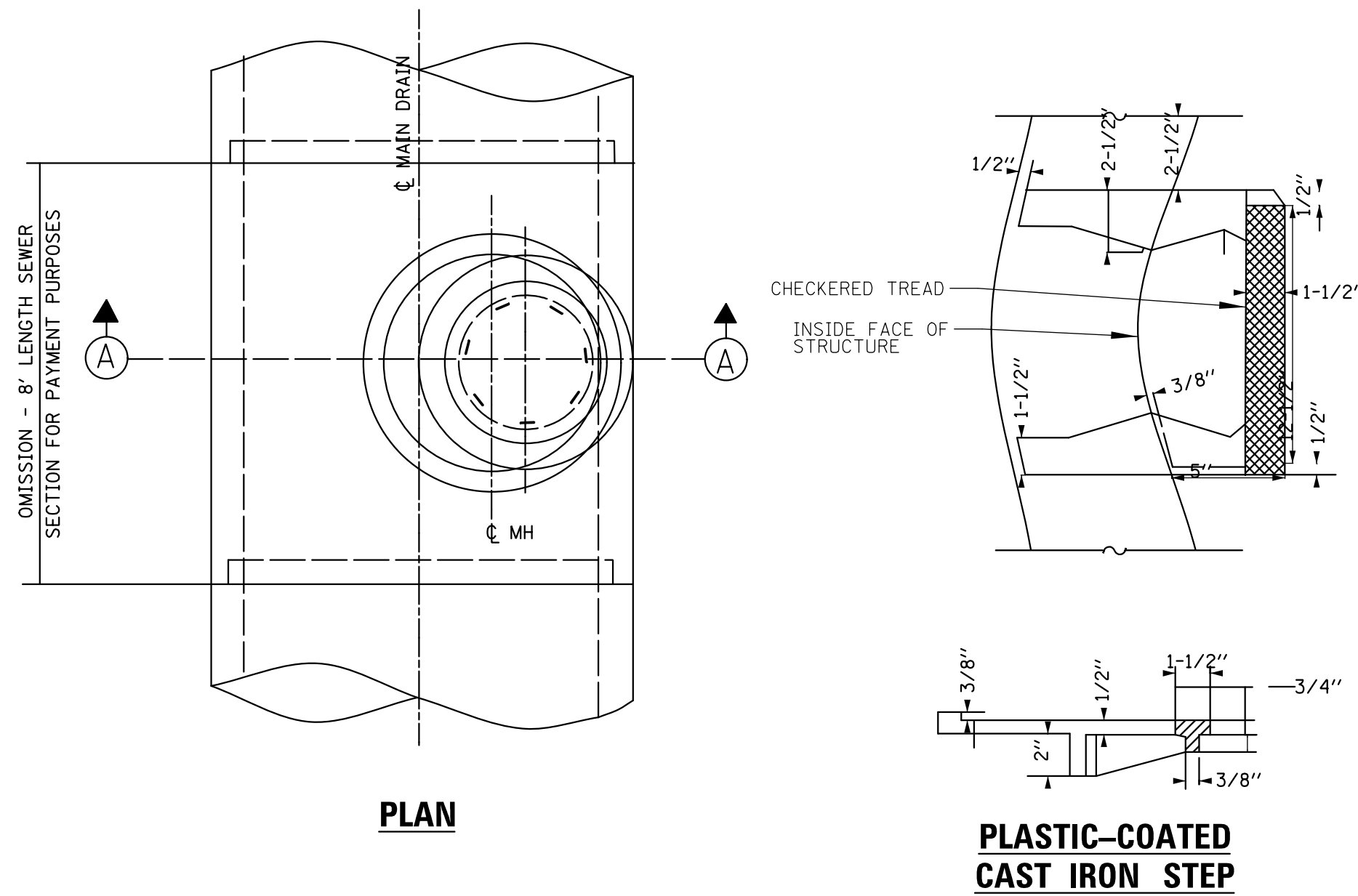
- issuance of an invoice for the monetary loss in tree value or partial value due to damage to either the above ground or below ground portions of the parkway tree, or unauthorized tree removal.
- forfeiture of bonds issued for the work should funds be sufficient to cover tree values and fines.
- costs of repairs, such as pruning or cabling, or costs for removal of the damaged parkway tree along with the stump if the tree cannot remain in the right-of-way.
- fines of \$500 for the 1st offense; \$1,000 for the 2nd offense; \$2,500 for 3rd and subsequent offenses.
- each day during which a violation continues shall be construed as a separate and distinct offense.

For more information, contact the Municipal Services at 708-246-1800.

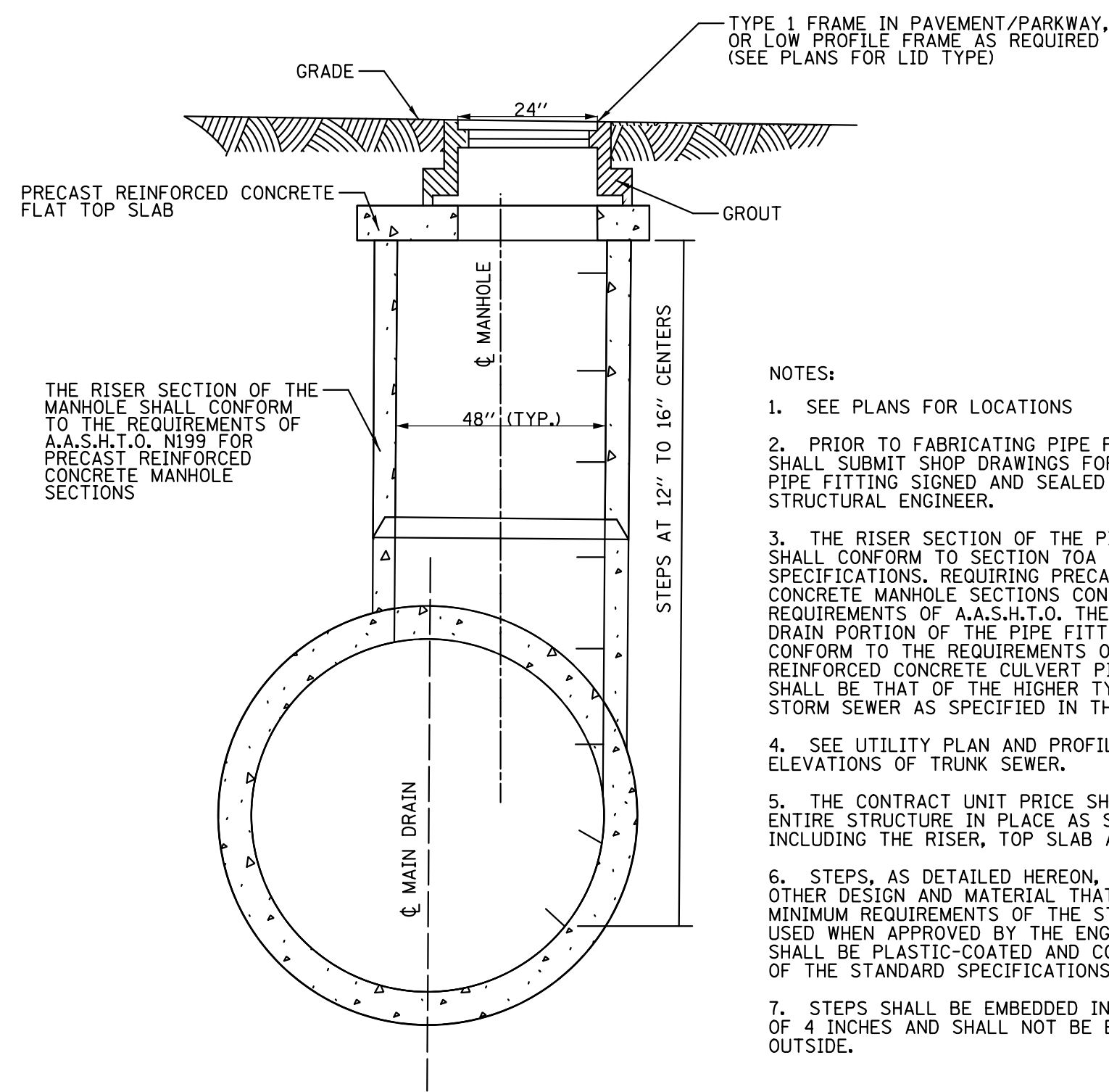
N.T.S.	DATE 03/21	REVISIONS	DRAWN BY J.P.T.	APPROV BY	STANDARD DETAIL
					PARKWAY TREE PROTECTION REQUIREMENTS
DRAWING NO. TRE-01					
G-Engineering Services/Standard Details/Village Standard Details					



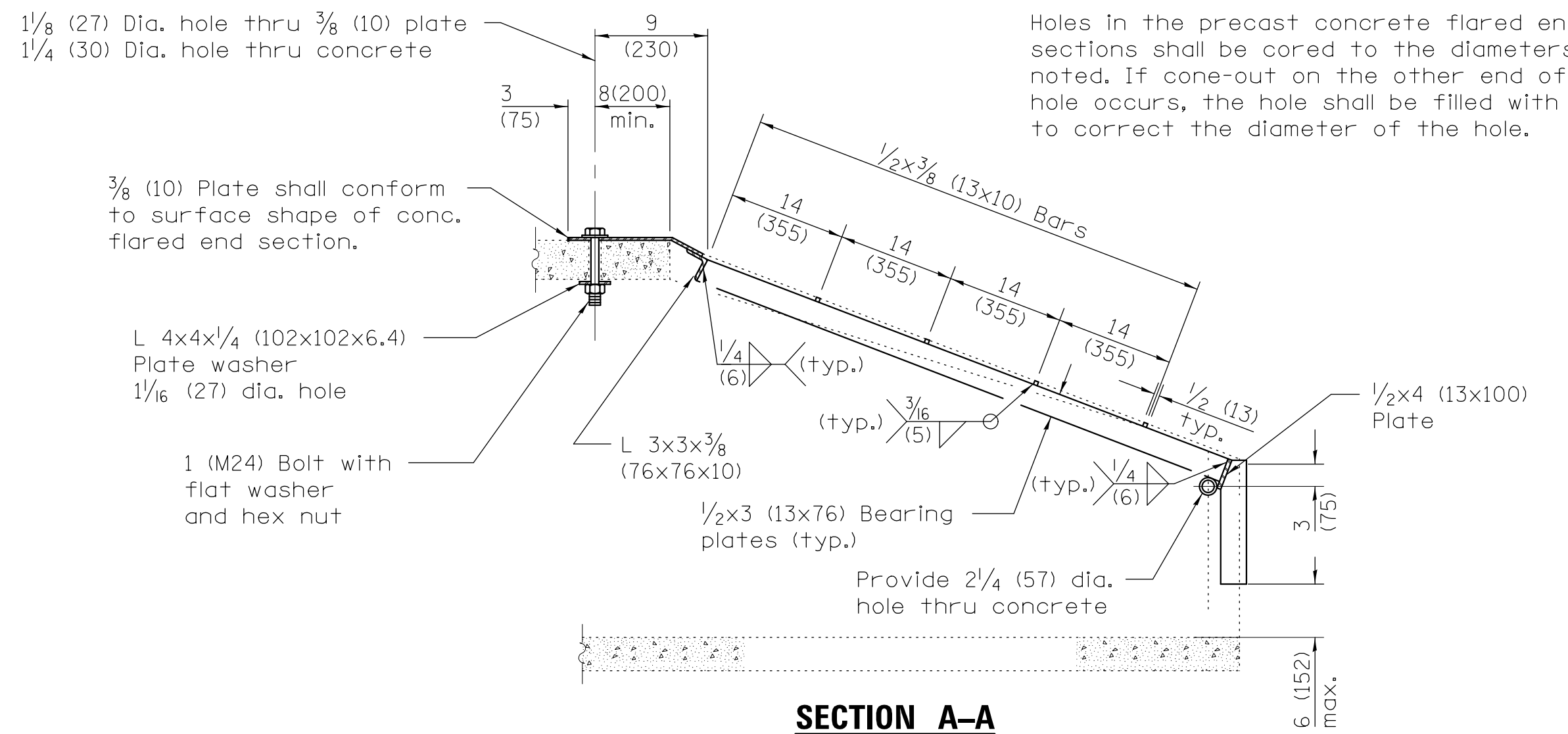
NO.	DATE	NATURE OF REVISION	CHKD.
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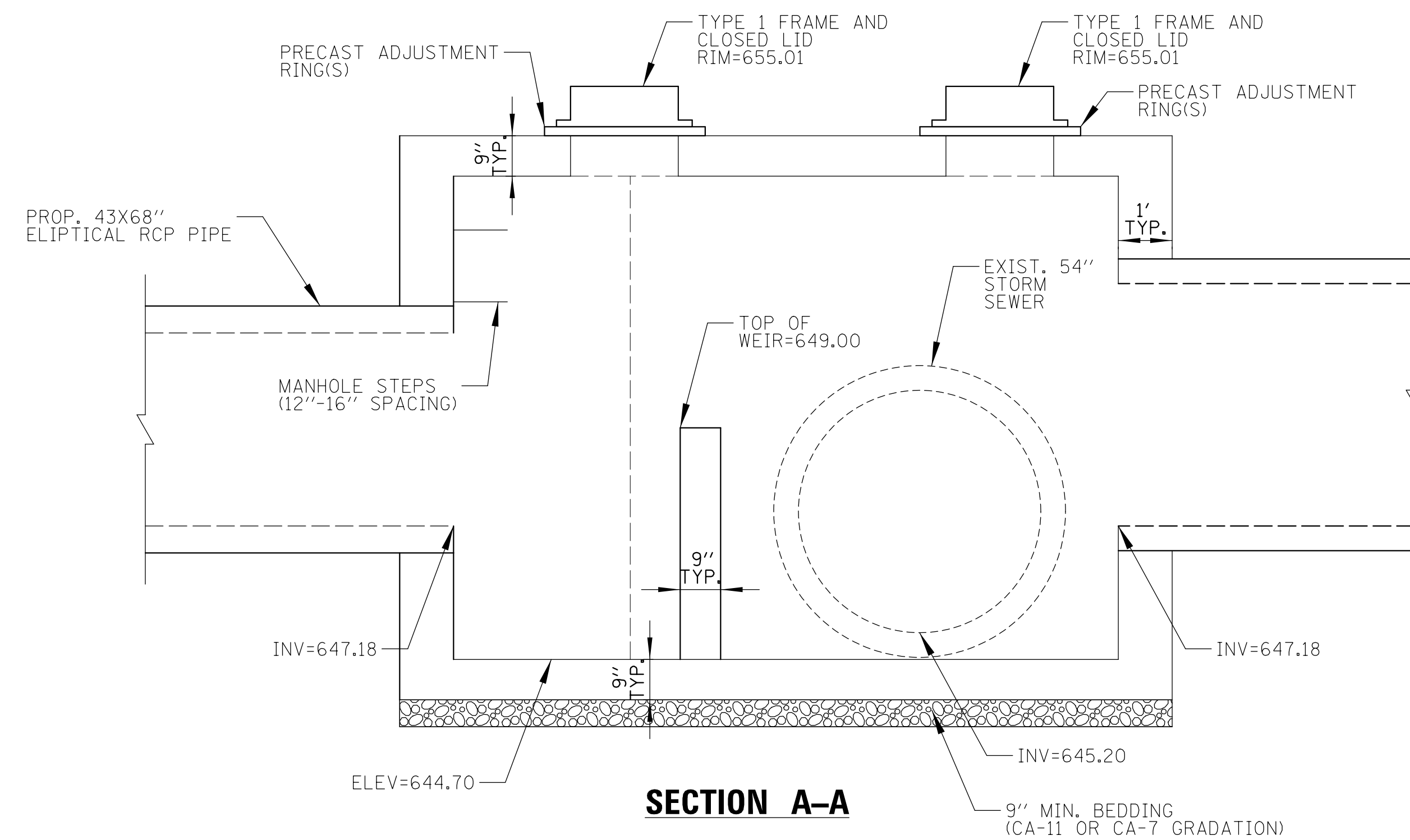
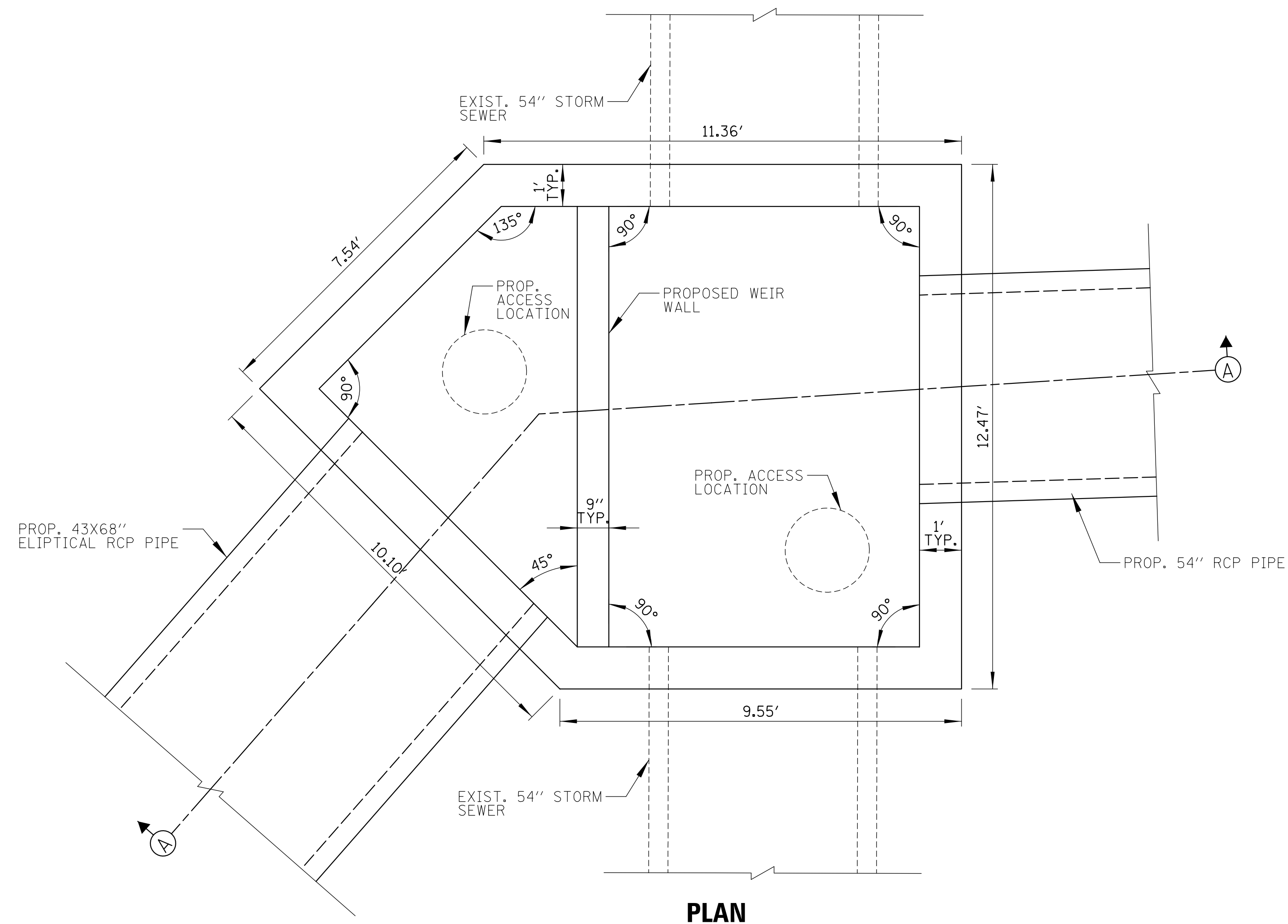
NOTES
 All dimensions are in inches (millimeters) unless otherwise shown.
 Holes in the precast concrete flared end sections shall be cored to the diameters noted. If cone-out on the other end of the hole occurs, the hole shall be filled with grout to correct the diameter of the hole.



- NOTES:**
1. SEE PLANS FOR LOCATIONS
 2. PRIOR TO FABRICATING PIPE FITTINGS, CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR APPROVAL FOR EACH PIPE FITTING SIGNED AND SEALED BY A LICENSED STRUCTURAL ENGINEER.
 3. THE RISER SECTION OF THE PIPE FITTING SHALL CONFORM TO SECTION 70A OF THE STANDARD SPECIFICATIONS, REQUIRING PRECAST REINFORCED CONCRETE MANHOLE SECTIONS CONFORMING TO THE REQUIREMENTS OF A.A.S.H.T.O. THE CIRCULAR MAIN DRAIN PORTION OF THE PIPE FITTING SHALL CONFORM TO THE REQUIREMENTS OF A.A.S.H.T.O. FOR REINFORCED CONCRETE CULVERT PIPE, AND THE CLASS SHALL BE THAT OF THE HIGHER TYPE OF THE ADJACENT STORM SEWER AS SPECIFIED IN THE PLANS.
 4. SEE UTILITY PLAN AND PROFILE SHEETS FOR ELEVATIONS OF TRUNK SEWER.
 5. THE CONTRACT UNIT PRICE SHALL INCLUDE THE ENTIRE STRUCTURE IN PLACE AS SPECIFIED ON THE PLAN, INCLUDING THE RISER, TOP SLAB AND CASTING.
 6. STEPS, AS DETAILED HEREON, ARE TYPICAL. STEPS OF OTHER DESIGN AND MATERIAL THAT CONFORM TO THE MINIMUM REQUIREMENTS OF THE STEPS SHOWN, MAY BE USED WHEN APPROVED BY THE ENGINEER. CAST IRON STEPS SHALL BE PLASTIC-COATED AND CONFORM TO ARTICLE 710.17 OF THE STANDARD SPECIFICATIONS.
 7. STEPS SHALL BE EMBEDDED IN THE WALL A MINIMUM OF 4 INCHES AND SHALL NOT BE EXTENDED ON THE OUTSIDE.



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NOTES:

1. PROPOSED FRAME AND CLOSED LID SHALL BE ADJUSTED TO THE ELEVATION OF THE FINAL GRADED SURFACE. THIS SHALL BE INCLUDE IN THE COST OF THE JUNCTION CHAMBER.
2. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION.

JUNCTION CHAMBER (JC #1) DETAIL N.T.S.

CLIENT:



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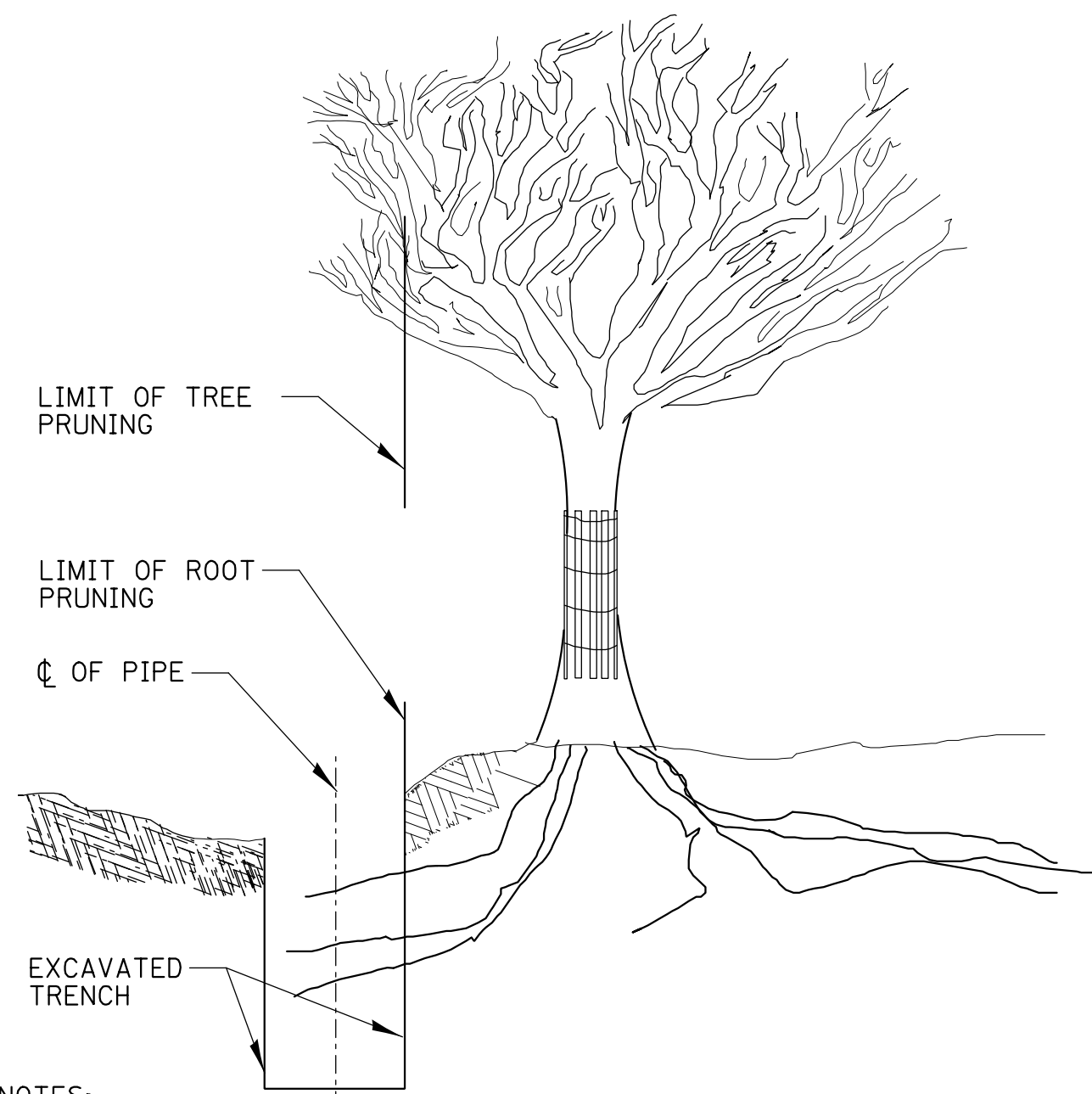
TITLE:

PROJ. NO. 210513

DATE: 2/24/2025

SHEET 31 OF 37

DRAWING NO.

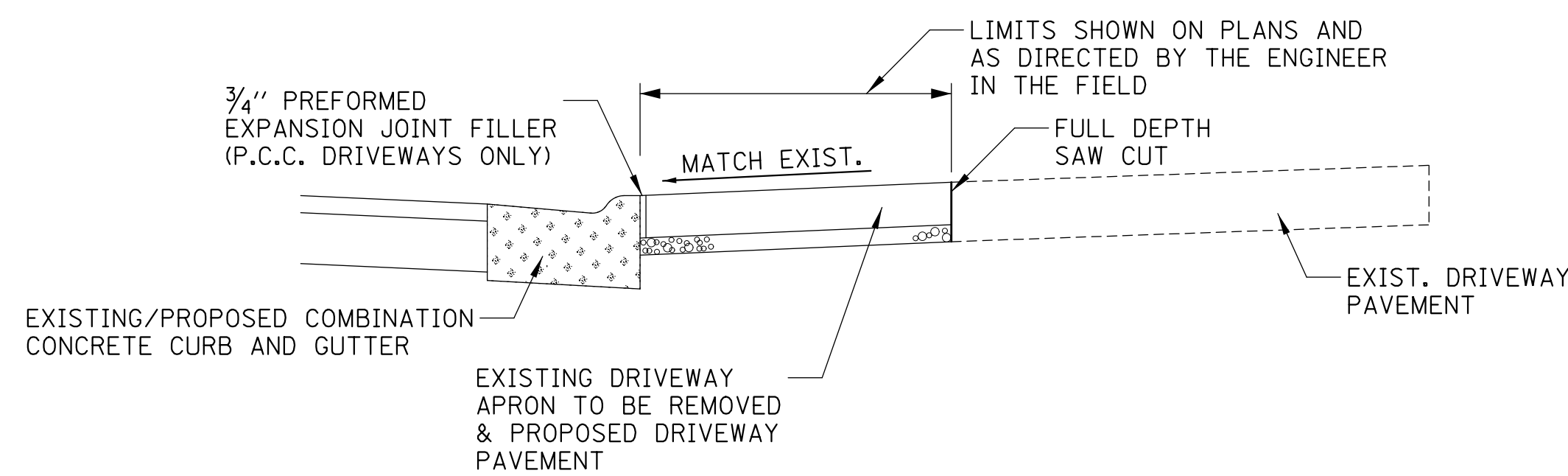


NOTES:

1. ALL TREES ARE TO REMAIN IN PLACE UNLESS OTHERWISE SHOWN TO BE REMOVED ON DRAWINGS.
2. TREES TO REMAIN IN PLACE AND WHICH ARE LOCATED ADJACENT TO PROJECT CONSTRUCTION SHALL BE PROTECTED.
3. THE CONTRACTOR SHALL OBTAIN THE OWNER'S APPROVAL PRIOR TO ANY TREE REMOVAL AND/OR TREE AND ROOT PRUNING.
4. TREE AND ROOT PRUNING SHALL BE DONE IN ACCORDANCE WITH IDOT SPECIFICATION SECTION 201.

TREE AND ROOT PRUNING DETAIL

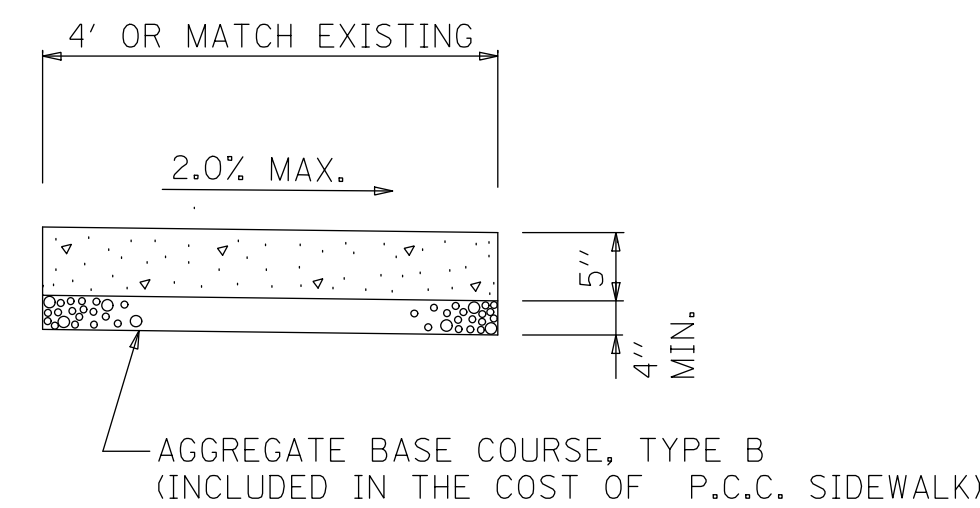
N.T.S.



NOTES:

1. THE PROPOSED DRIVEWAY PAVEMENT SHALL CONSIST OF:
 - A) 3" HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50, 6" AGGREGATE BASE COURSE IF THE EXISTING DRIVEWAY IS ASPHALT OR AGGREGATE.
 - B) 7" PORTLAND CEMENT CONCRETE, 4" SUBBASE GRANULAR MATERIAL TYPE B IF THE EXISTING DRIVEWAY IS CONCRETE. (SUBBASE GRANULAR MATERIAL TO BE PAID FOR SEPARATELY)
 - C) REPLACING BRICKS WITH 2" OF SAND IN A PATTERN IDENTICAL TO THE EXISTING BRICK.
2. PREFORMED EXPANSION JOINT FILLER SHALL BE INCLUDED IN THE COST OF P.C.C. DRIVEWAY PAVEMENT.
3. ALL REQUIRED EARTH EXCAVATION AND DRIVEWAY REMOVAL REQUIRED TO CONSTRUCT DRIVES SHALL BE INCLUDED IN THE COST OF THE APPLICABLE DRIVEWAY REMOVAL AND DRIVEWAY REMOVAL & REPLACEMENT PAY ITEMS.
4. DRIVEWAY REMOVAL & REPLACEMENT LIMITS WILL BE MARKED IN THE FIELD BY THE ENGINEER.

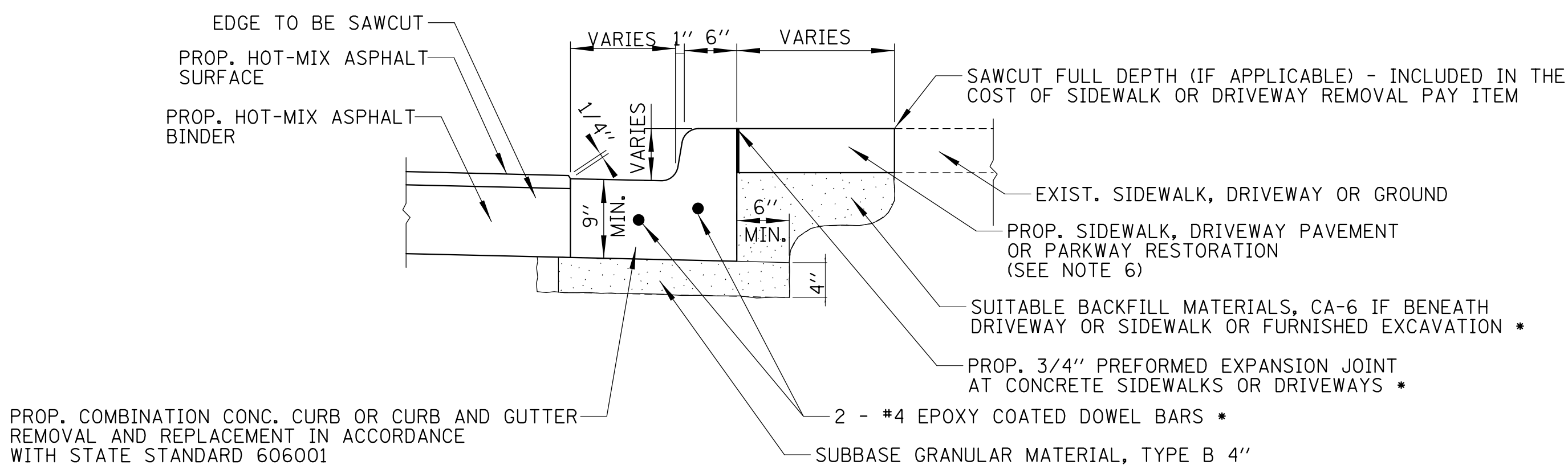
TYPICAL DRIVEWAY REMOVAL & REPLACEMENT DETAIL



NOTES:

1. THICKNESS SHALL BE INCREASED TO 7" WHERE SIDEWALK IS ADJACENT TO A DRIVEWAY (INCLUDED IN THE COST OF P.C.C. SIDEWALK). NO WIRE MESH.
2. ALL EARTH EXCAVATION REQUIRED TO CONSTRUCT THE P.C.C. SIDEWALK AND SUBBASE SHALL BE INCLUDED IN THE COST OF THE SIDEWALK.
3. WHEN FORMS ARE REMOVED FROM THE SIDEWALK, THE SIDEWALK SHALL BE BARRICADED OR BACKFILLED WITHIN 24 HOURS.
4. SIDEWALKS SHALL BE PLACED ON 2" (MINIMUM) OF SUBBASE GRANULAR MATERIAL WHEN REPLACING EXISTING SIDEWALK, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

P.C.C. SIDEWALK 5 INCH



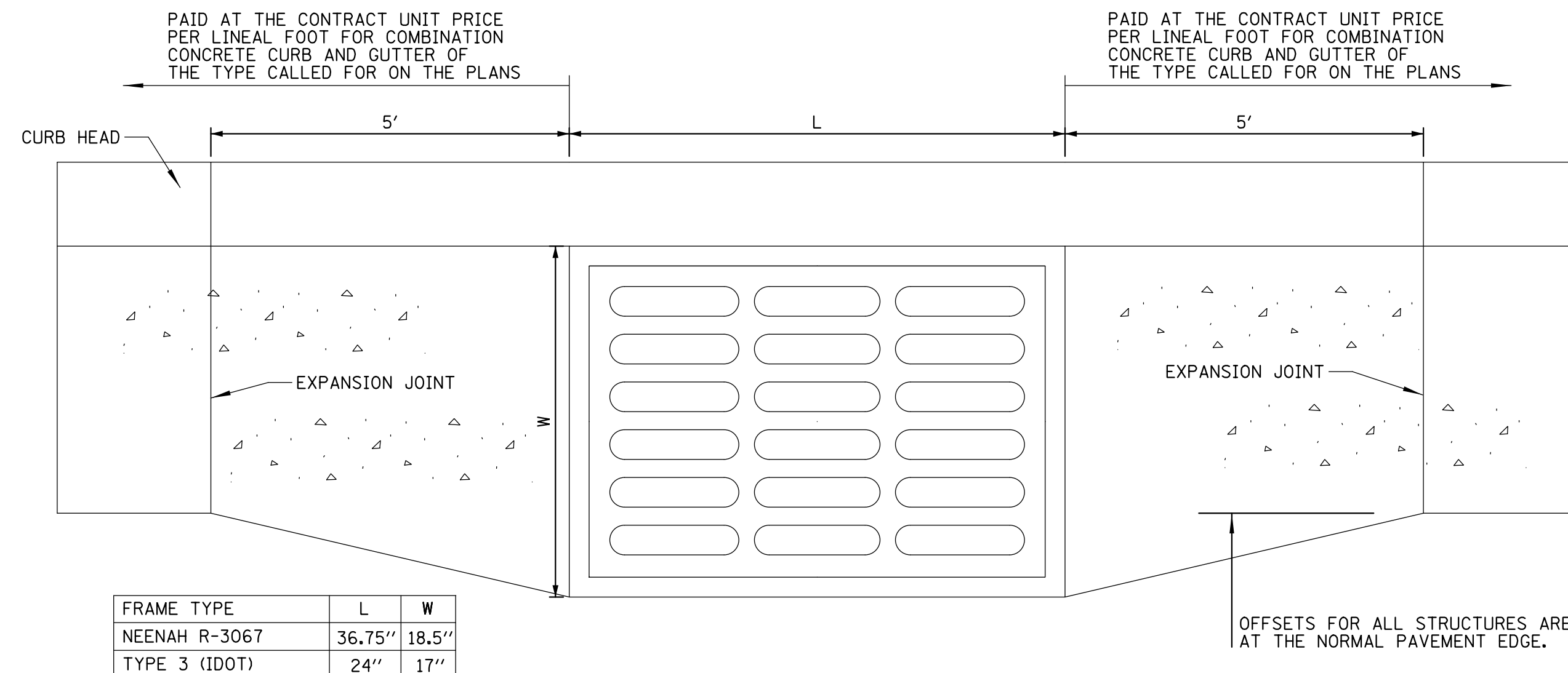
PROP. COMBINATION CONC. CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT IN ACCORDANCE WITH STATE STANDARD 606001

* INCLUDED IN THE COST FOR COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT.

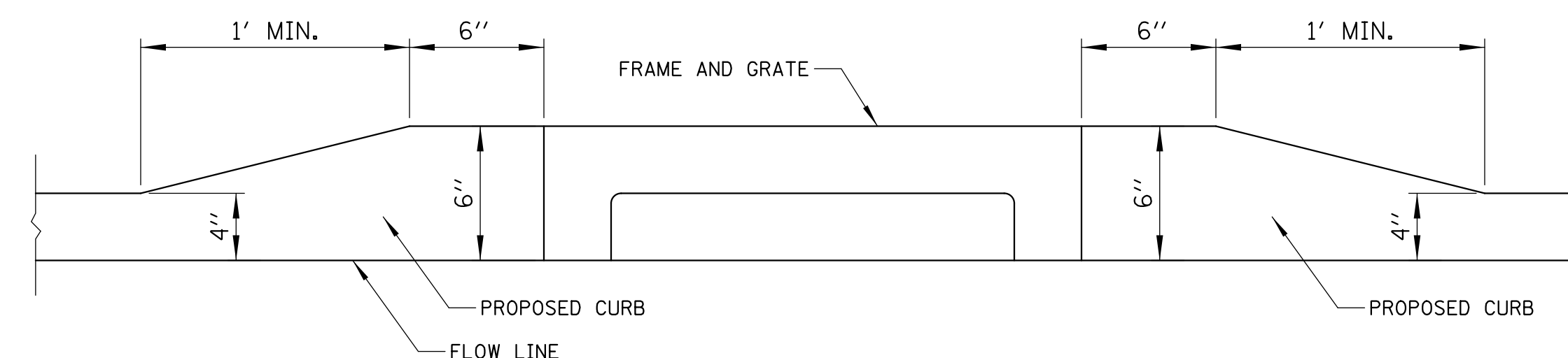
NOTES:

1. LONGITUDINAL BARS, IF ENCOUNTERED IN THE EXISTING CURB OR CURB AND GUTTER, ARE NOT TO BE REPLACED. CUTTING AND REMOVING LONGITUDINAL BARS SHALL BE INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.
2. WORK TO REMOVE AND REPLACE CURB AND GUTTER INCLUDES ALL NECESSARY PAVEMENT REMOVAL, EXCAVATION, AND EMBANKMENT. SUBBASE GRANULAR MATERIAL SHALL BE PAID FOR SEPARATELY. EXCAVATED MATERIAL WILL NOT BE PERMITTED TO BE STOCKPILED BEHIND THE CURB.
3. FOR LOCATIONS WHERE EXISTING HMA PAVEMENT WILL NOT BE FULLY REPLACED, ANY EXISTING PAVEMENT REMOVAL ADJACENT TO THE NEW CURB AND GUTTER SHALL BE REPLACED WITH CLASS S1 CONCRETE.
4. EXPANSION JOINTS PLACED AT A MAXIMUM 60 FEET SPACING. CONTRACTION JOINTS PLACED AT A MAXIMUM 15 FEET SPACING.
5. ALL FRAMING SHALL BE SET TO FINAL GRADE OF THE POUR. NO ANGLE IRONS WILL BE ALLOWED. NO WATERING CANS SHALL BE ALLOWED ON SITE.

COMBINATION CURB AND GUTTER REMOVAL AND REPLACEMENT



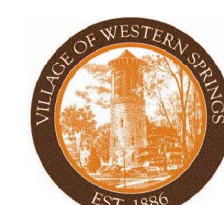
FRAME TYPE	L	W
NEENAH R-3067	36.75"	18.5"
TYPE 3 (IDOT)	24"	17"



GUTTER WIDENING & CURB HEAD ADJUSTMENT AT DRAINAGE STRUCTURES

CHRISTOPHER B. BURKE ENGINEERING, LTD.
 16221 W. 159th Street, Suite 201
 Lockport, Illinois 60441
 (815) 770-2850

CLIENT:

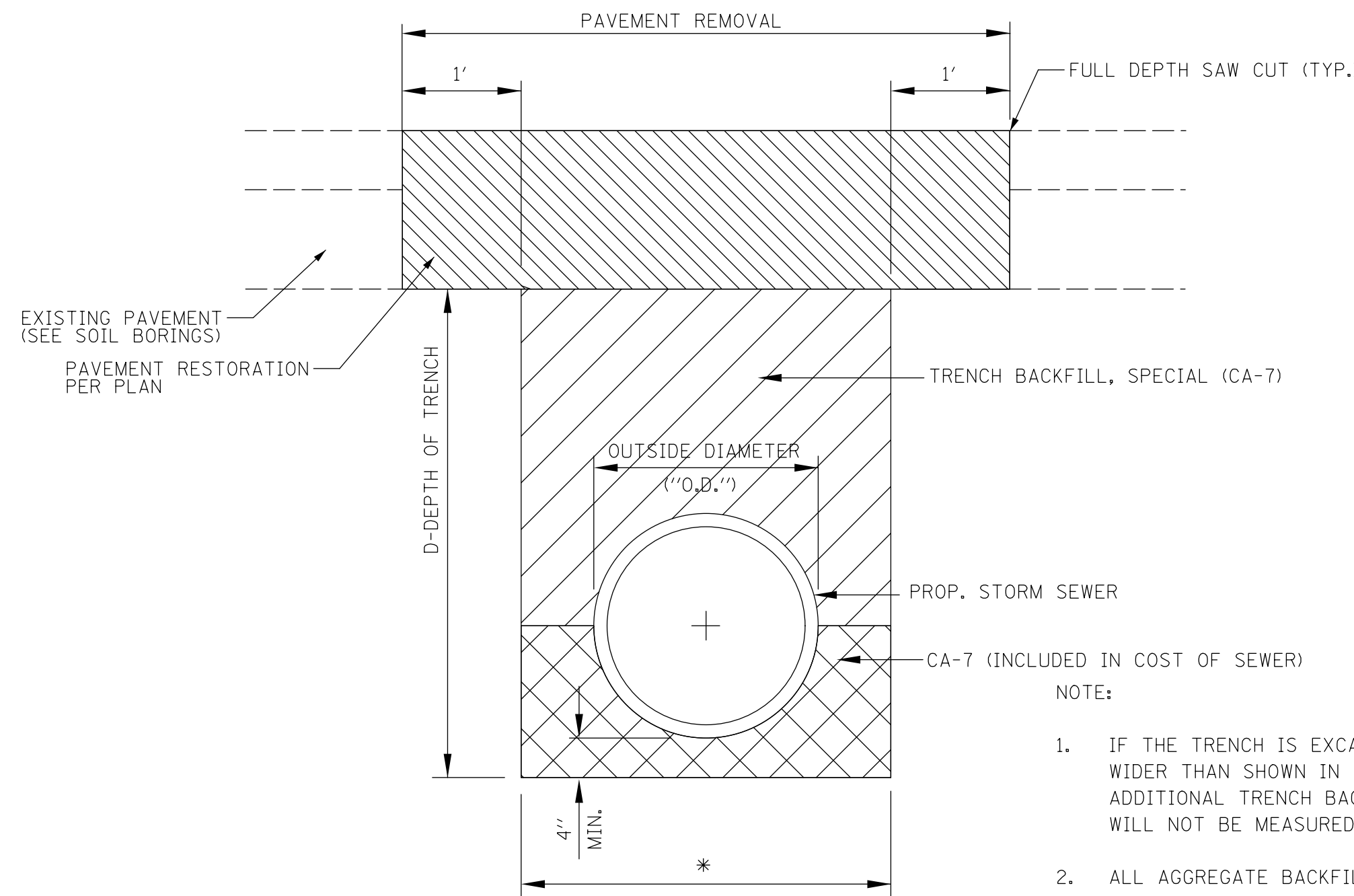


VILLAGE OF WESTERN SPRINGS
 740 HILLGROVE AVENUE
 WESTERN SPRINGS, IL 60558

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TITLE:
**SPRINGDALE DRAINAGE IMPROVEMENT
 CONSTRUCTION DETAILS**

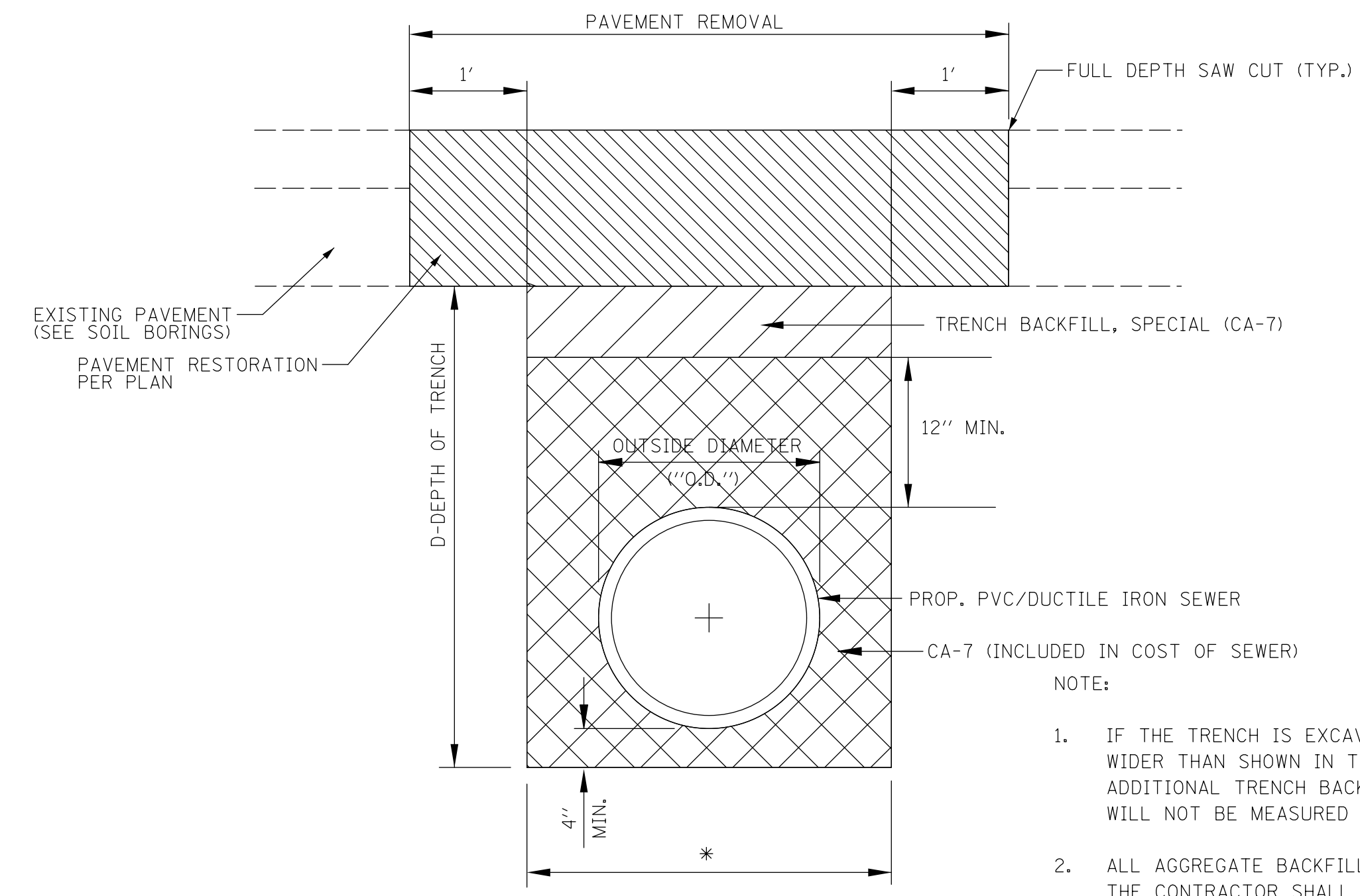
PROJ. NO. 210513
 DATE: 2/24/2025
 SHEET 32 OF 37
 DRAWING NO.
DET-5



TRENCH BACKFILL DETAIL FOR RCP STORM SEWER
N.T.S.

- NOTE:
1. IF THE TRENCH IS EXCAVATED WIDER THAN SHOWN IN THIS DETAIL, ADDITIONAL TRENCH BACKFILL WILL NOT BE MEASURED FOR PAYMENT.
 2. ALL AGGREGATE BACKFILL USED BY THE CONTRACTOR SHALL BE ANGULAR AND SUBJECT TO THE APPROVAL OF THE ENGINEER.
 3. SEE PLANS FOR PAVEMENT REMOVAL AND REPLACEMENT LIMITS
 4. THE TOP PAY LIMIT OF TRENCH BACKFILL, SPECIAL SHALL BE THE BOTTOM OF THE PROPOSED PAVEMENT.

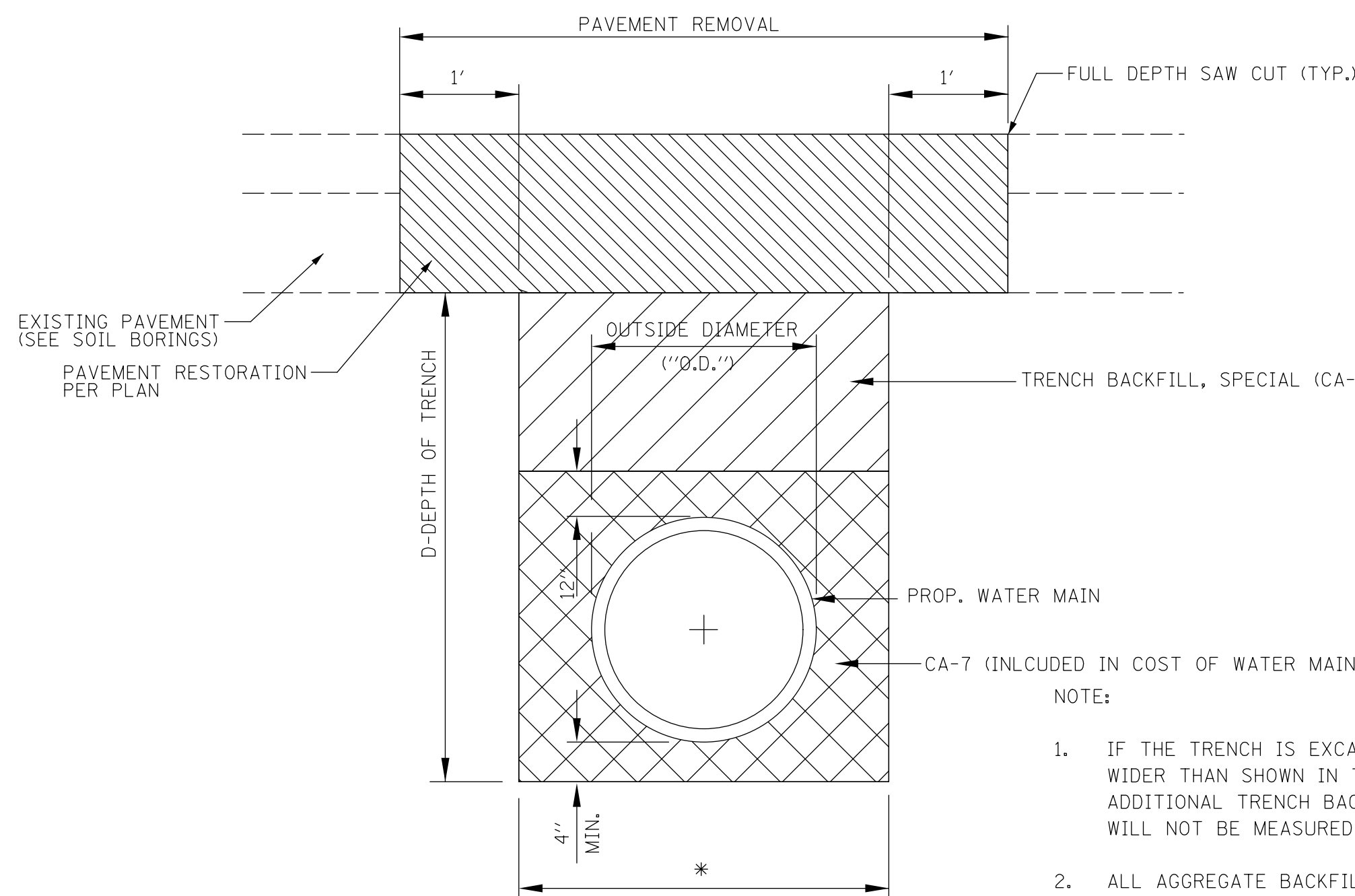
* TRENCH BACKFILL, PAY LIMIT
MAX. WIDTH = 9"+O.D.+9" WHEN D ≤ 5 FT.
MAX. WIDTH = 18"+O.D.+18" WHEN D > 5 FT.



TRENCH BACKFILL DETAIL FOR PVC/DUCTILE IRON SEWER

- NOTE:
1. IF THE TRENCH IS EXCAVATED WIDER THAN SHOWN IN THIS DETAIL, ADDITIONAL TRENCH BACKFILL WILL NOT BE MEASURED FOR PAYMENT.
 2. ALL AGGREGATE BACKFILL USED BY THE CONTRACTOR SHALL BE ANGULAR AND SUBJECT TO THE APPROVAL OF THE ENGINEER.
 3. SEE PLANS FOR PAVEMENT REMOVAL AND REPLACEMENT LIMITS
 4. THE TOP PAY LIMIT OF TRENCH BACKFILL, SPECIAL SHALL BE THE BOTTOM OF THE PROPOSED PAVEMENT.

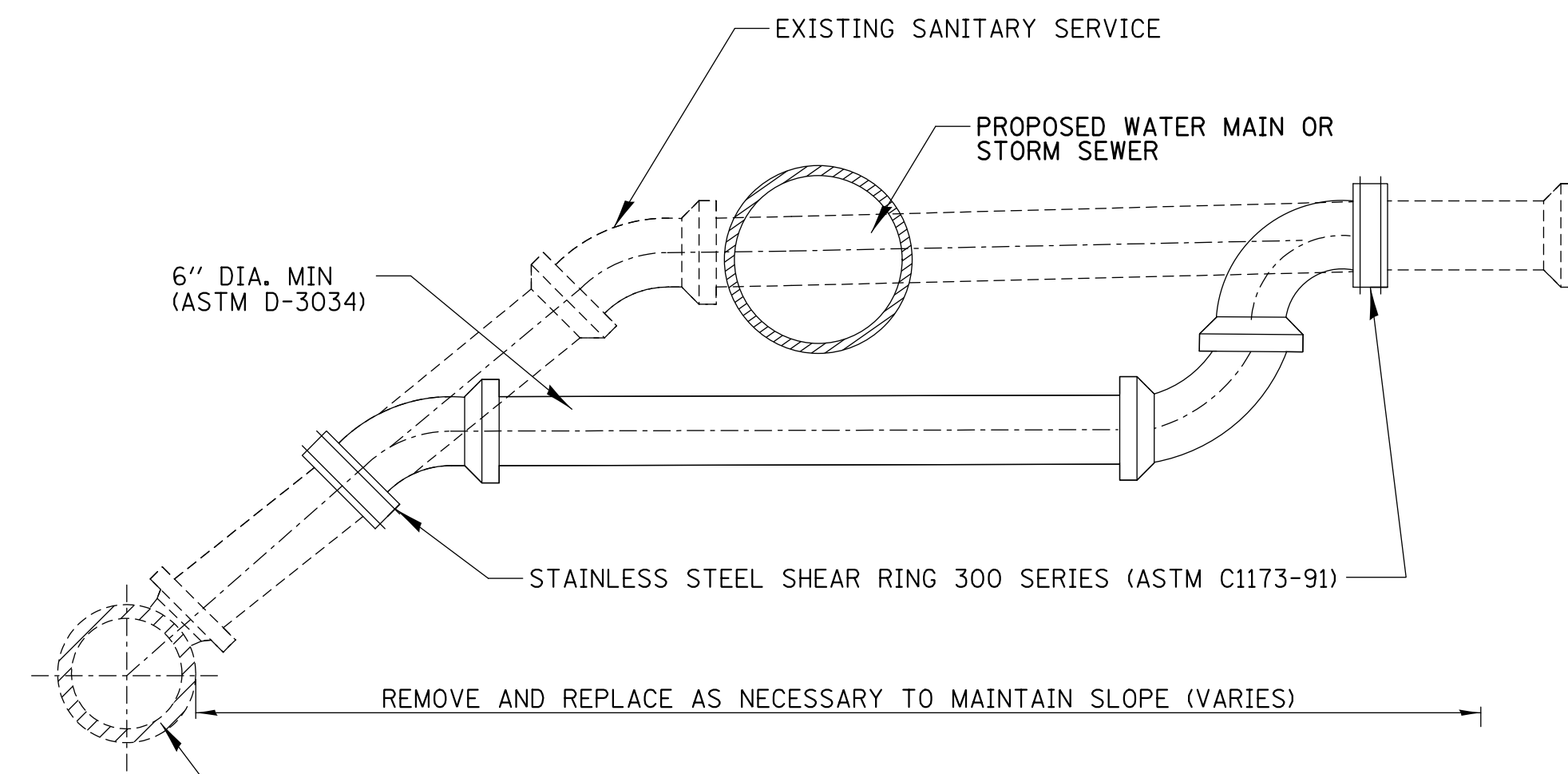
* TRENCH BACKFILL, PAY LIMIT
MAX. WIDTH = 9"+O.D.+9" WHEN D ≤ 5 FT.
MAX. WIDTH = 18"+O.D.+18" WHEN D > 5 FT.



TRENCH BACKFILL DETAIL FOR WATER MAIN
N.T.S.

- NOTE:
1. IF THE TRENCH IS EXCAVATED WIDER THAN SHOWN IN THIS DETAIL, ADDITIONAL TRENCH BACKFILL WILL NOT BE MEASURED FOR PAYMENT.
 2. ALL AGGREGATE BACKFILL USED BY THE CONTRACTOR SHALL BE ANGULAR AND SUBJECT TO THE APPROVAL OF THE ENGINEER.
 3. SEE PLANS FOR PAVEMENT REMOVAL AND REPLACEMENT LIMITS
 4. THE TOP PAY LIMIT OF TRENCH BACKFILL, SPECIAL SHALL BE THE BOTTOM OF THE PROPOSED PAVEMENT.

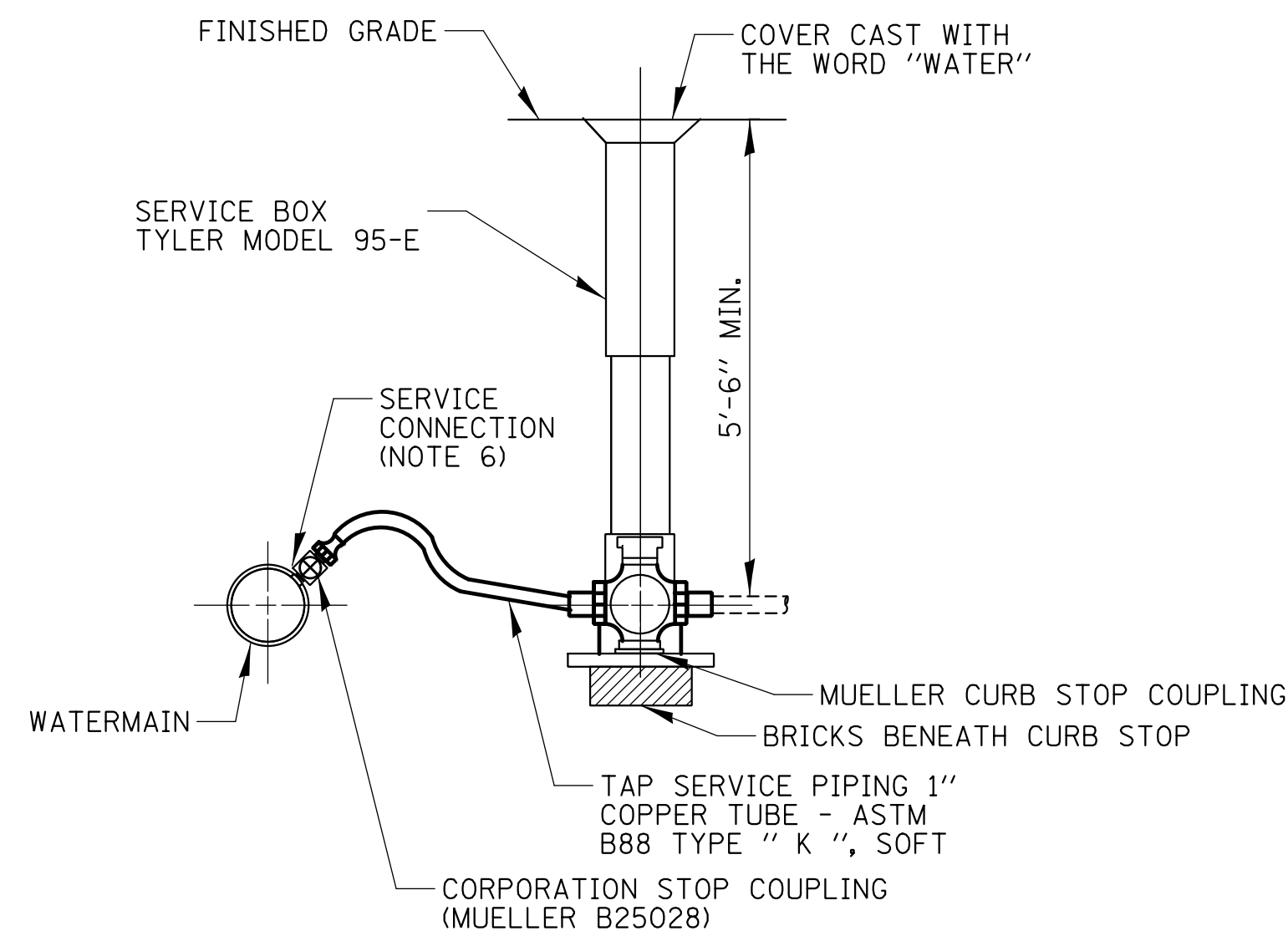
* TRENCH BACKFILL, PAY LIMIT
MAX. WIDTH = 9"+O.D.+9" WHEN D ≤ 5 FT.
MAX. WIDTH = 18"+O.D.+18" WHEN D > 5 FT.



ADJUSTING SANITARY SEWER, 8-INCH OR LESS
NOT TO SCALE

- NOTE:
1. THE CONTRACTOR WILL BE PAID FOR ADJUSTING SANITARY SEWER, 8-INCH OR LESS ONLY WHEN THE PROPOSED WATER MAIN OR STORM SEWER IS IN DIRECT CONFLICT WITH THE EXISTING SANITARY SERVICE LINE.
 2. FOR TRENCH BACKFILL PAYMENT SEE TRENCH DETAIL.
 3. ALL PVC BENDS SHALL BE SDR 26.

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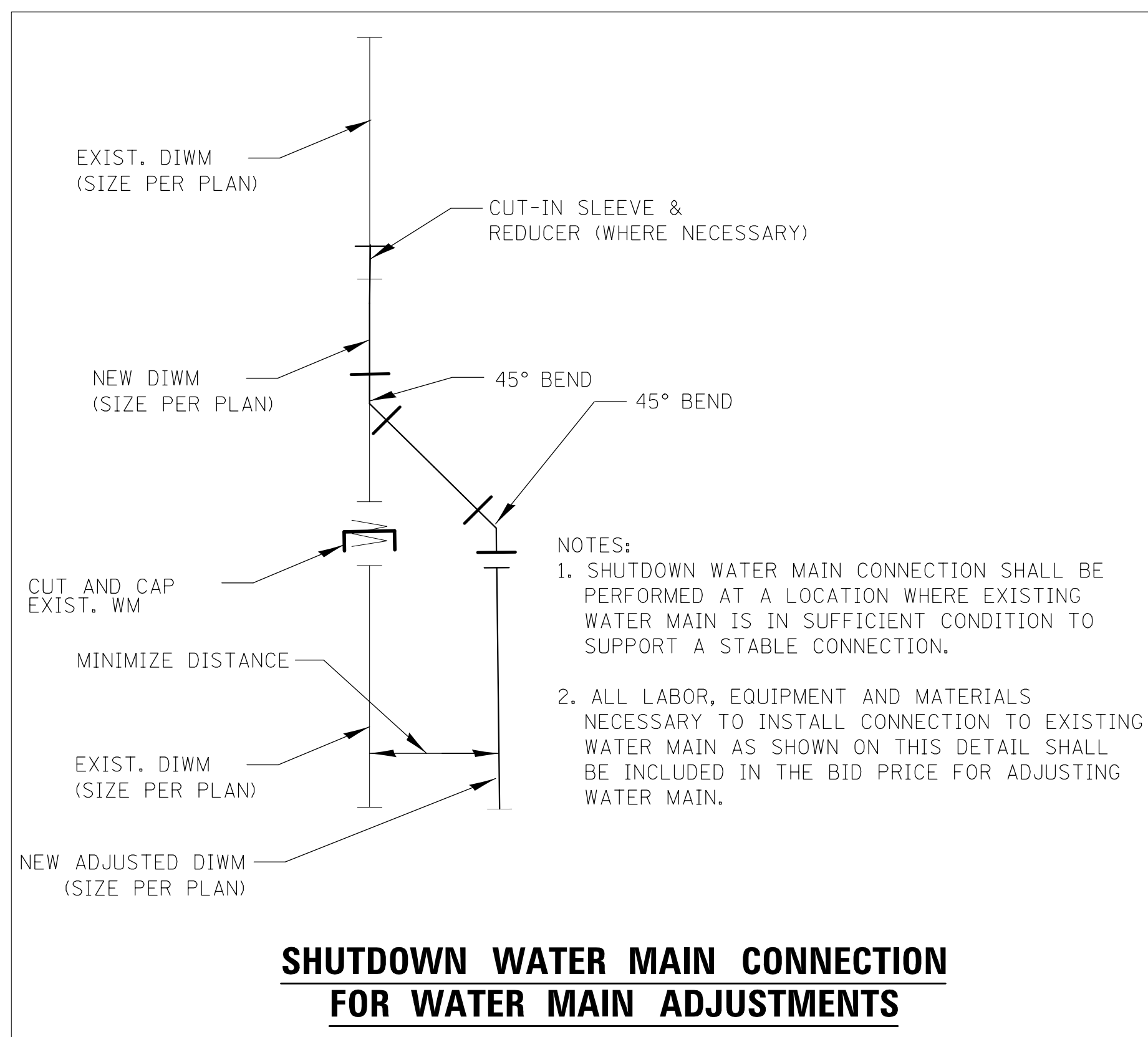


NOTES:

1. EXACT LOCATION OF WATER SERVICES TO BE DETERMINED BY CONTRACTOR.
2. WATER SERVICE FITTINGS TO CONFORM TO OWNER'S STANDARDS.
3. WHERE EXISTING SERVICE DIVIDES TO SERVE TWO HOMES, PROVIDE TWO NEW SERVICES.
4. PROVIDE A MINIMUM OF 18" BETWEEN TAPS AND BETWEEN TAP AND PIPE JOINT.
5. TEST EXISTING SERVICES FOR FLOW PRIOR TO INSTALLING NEW SERVICE.

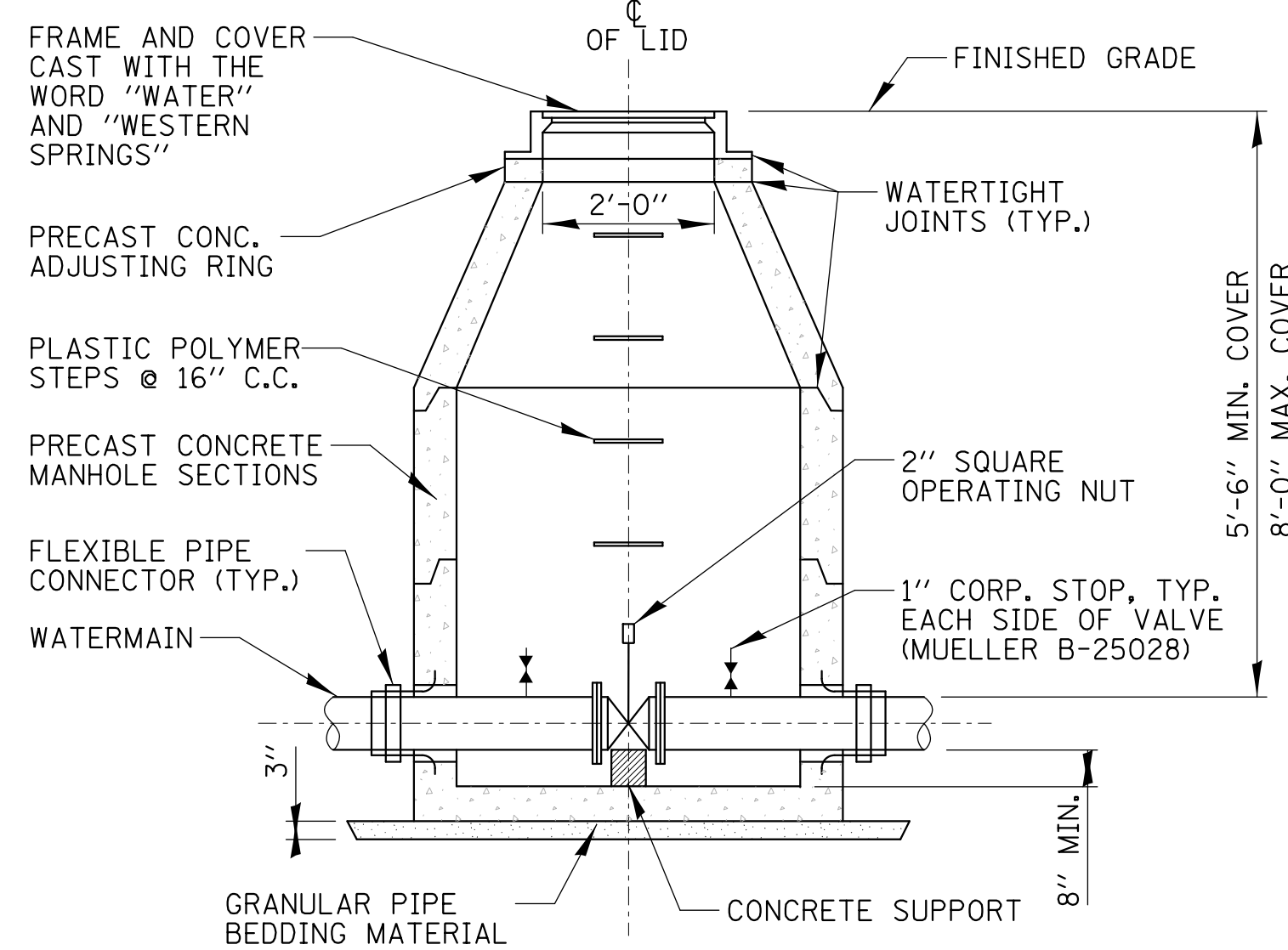
TYPICAL WATER SERVICE CONNECTION

N.T.S.



- NOTES:**
1. SHUTDOWN WATER MAIN CONNECTION SHALL BE PERFORMED AT A LOCATION WHERE EXISTING WATER MAIN IS IN SUFFICIENT CONDITION TO SUPPORT A STABLE CONNECTION.
 2. ALL LABOR, EQUIPMENT AND MATERIALS NECESSARY TO INSTALL CONNECTION TO EXISTING WATER MAIN AS SHOWN ON THIS DETAIL SHALL BE INCLUDED IN THE BID PRICE FOR ADJUSTING WATER MAIN.

SHUTDOWN WATER MAIN CONNECTION FOR WATER MAIN ADJUSTMENTS

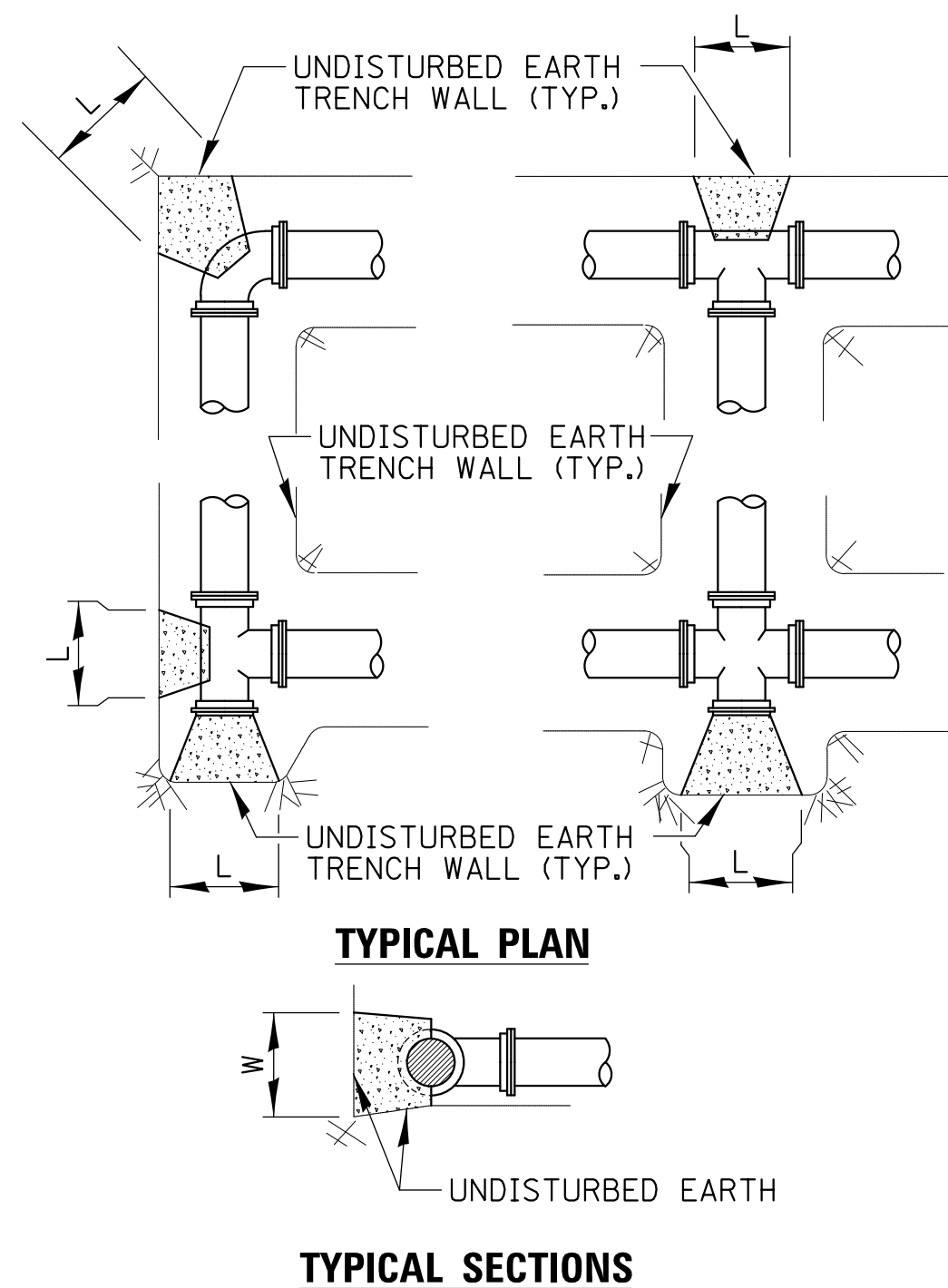


NOTES:

1. CONCENTRIC CONE REQUIRED FOR GATE VALVE VAULT ECCENTRIC CONE FOR BUTTERFLY VALVE VAULT.
2. USE 5'-0" DIAMETER FOR WATERMAIN SIZES THRU 20" USE 6'-0" DIAMETER FOR WATERMAIN SIZES 20" OR GREATER
3. VALVES 12" AND SMALLER SHALL BE RESILIENT WEDGE GATE VALVES. VALVES LARGER THAN 12" SHALL BE BUTTERFLY VALVES.

STANDARD VALVE VAULT DETAIL

N.T.S.

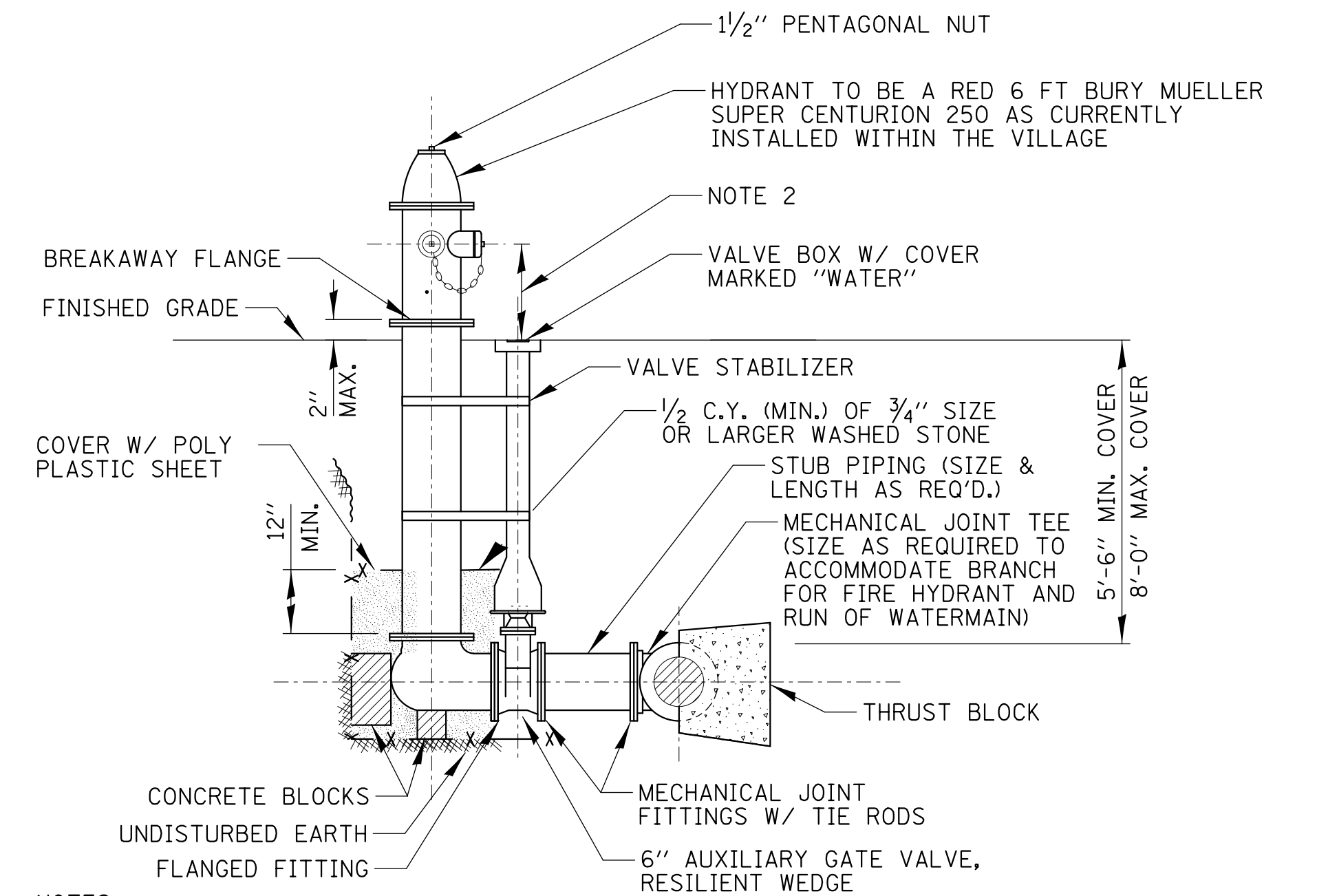


NOTES:

1. PROVIDE PRECAST OR CAST-IN-PLACE CONCRETE THRUST BLOCKS OF ADEQUATE SIZE AND THRUST BEARING SURFACE TO PREVENT MOVEMENT OF PIPELINE UNDER PRESSURE. SEE TABLE FOR BEARING SURFACE AREA.
2. PLACE THE BASE AND THRUST BEARING SIDES OF THRUST BLOCK DIRECTLY AGAINST UNDISTURBED EARTH.
3. PLACE THRUST BLOCKING SO THE FITTING JOINTS WILL BE ACCESSIBLE FOR REPAIR.
4. THE LENGTH (L) OF THE THRUST BLOCK SHALL BE APPROXIMATELY TWICE THE WIDTH (W).
5. THRUST BLOCKS ARE BASED ON A 2000 PSF SOIL BEARING LOAD AND 100 PSI THRUST INSIDE THE PIPE.
6. CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH OF NOT LESS THAN 2000 PSI AFTER 28 DAYS.

TYPICAL THRUST BLOCK INSTALLATIONS

N.T.S.



NOTES:

1. LOCATION OF AUXILIARY VALVE SHALL BE DEPENDENT UPON LOCATION OF EXISTING WATERMAIN. ACTUAL LOCATION TO BE DETERMINED IN THE FIELD BY ENGINEER AND OWNER. IF EXISTING WATERMAIN CONFLICTS WITH HYDRANT LEAD, SET HYDRANT AUXILIARY VALVE, PROVIDE TEMPORARY CAP AND BRACE. INSTALL HYDRANT AFTER EXISTING WATERMAIN HAS BEEN REMOVED.
2. PROVIDE 18 INCHES TO 24 INCHES CLEARANCE BETWEEN NOZZLE AND FINISHED GRADE.
3. MINIMUM NOZZLE SIZES SHALL INCLUDE TWO 2 1/2" AND ONE 4 1/2".
4. PROVIDE 2 FOOT DIAMETER BY 2 FEET DEEP DRAINAGE PIT AROUND AND ADJACENT TO FIRE HYDRANT, FILLED WITH WASHED STONE.
5. FIRE HYDRANT SHALL BE PAINTED RED TO MATCH EXISTING OWNER'S FIRE HYDRANTS. CAPS, PORT CAPS AND CHAINS COLOR.
6. FIRE HYDRANTS SHALL BE LOCATED 3' (MIN.) TO 5' (MAX.) FROM BACK OF CURB AS SHOWN ON THE DRAWINGS OR AS OTHERWISE DIRECTED BY THE OWNER'S REPRESENTATIVE.

STANDARD FIRE HYDRANT INSTALLATION

N.T.S.

PIPE SIZE	PIPE BEND IN DEGREES				PLUG OR TEE
	90	45	22.5	11.25	
8"	5 SQ. FT.	3 SQ. FT.	2 SQ. FT.	1 SQ. FT.	3 SQ. FT.
10"	7 SQ. FT.	4 SQ. FT.	2 SQ. FT.	1 SQ. FT.	5 SQ. FT.
12"	10 SQ. FT.	5 SQ. FT.	3 SQ. FT.	2 SQ. FT.	7 SQ. FT.
14"	13 SQ. FT.	7 SQ. FT.	4 SQ. FT.	2 SQ. FT.	9 SQ. FT.
16"	17 SQ. FT.	9 SQ. FT.	5 SQ. FT.	2 SQ. FT.	12 SQ. FT.
20"	26 SQ. FT.	14 SQ. FT.	7 SQ. FT.	4 SQ. FT.	18 SQ. FT.

BEARING SURFACE AREA TABLE

CLIENT:



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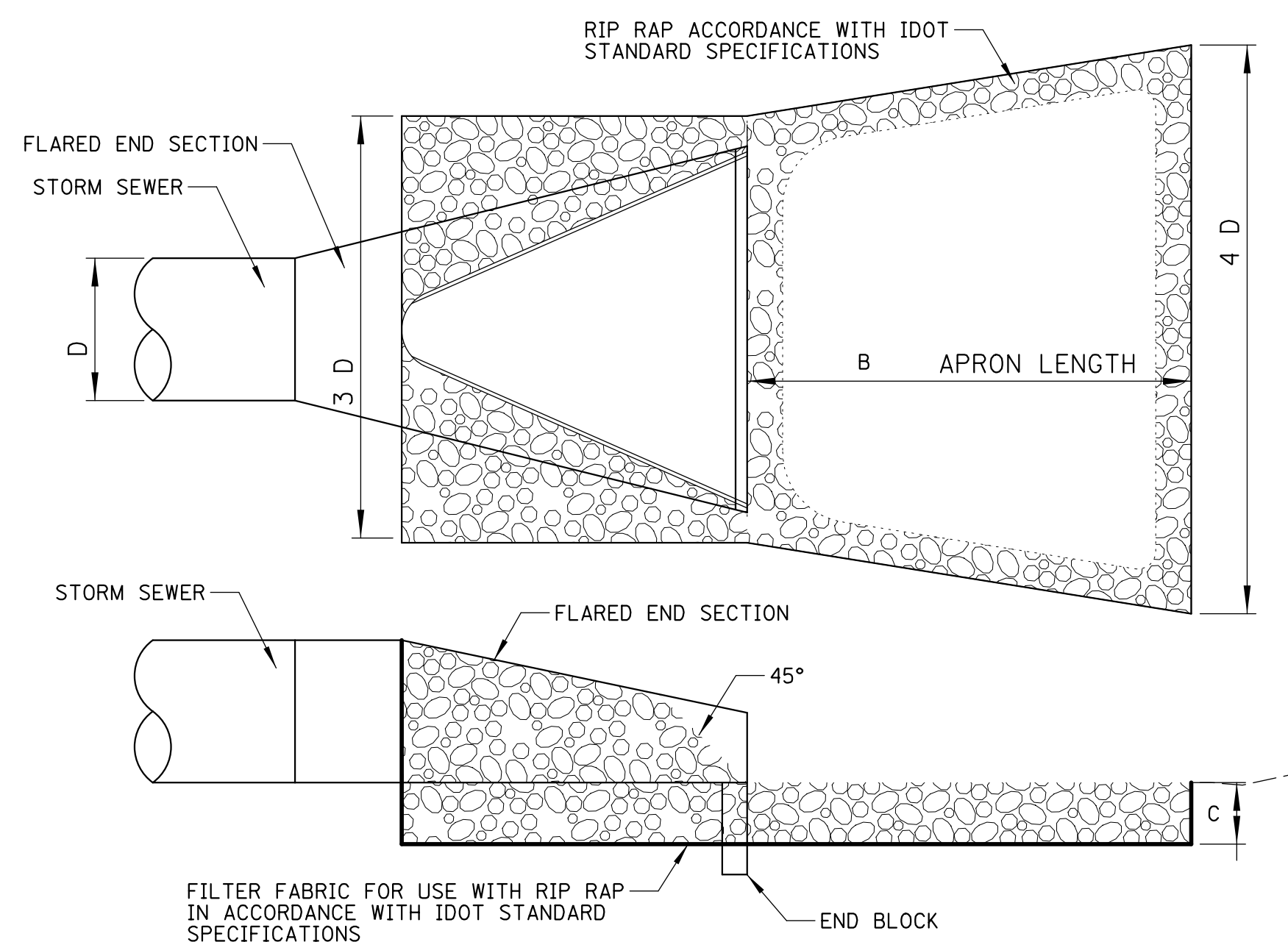
TITLE:

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DATE: 2/24/2025

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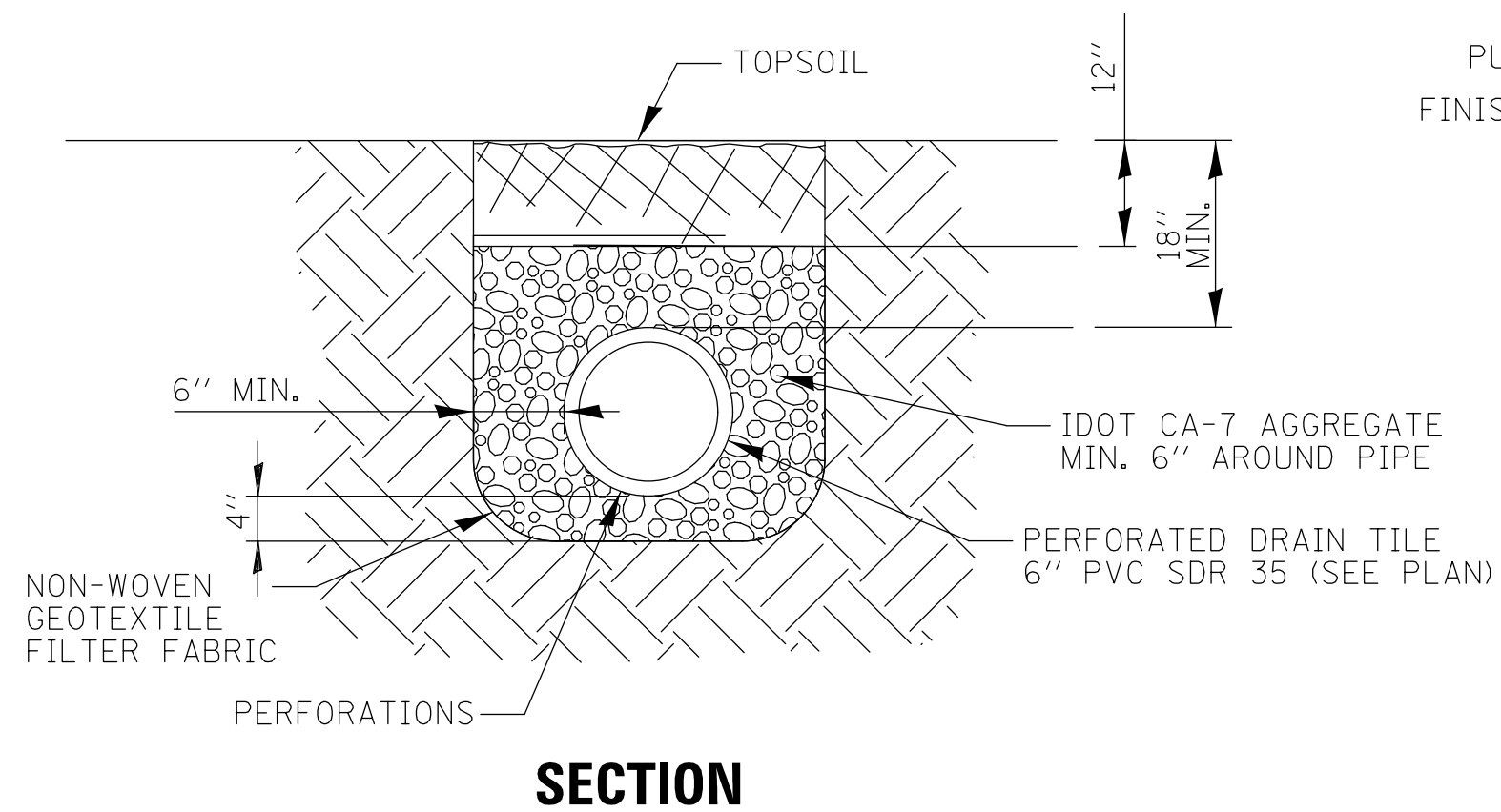
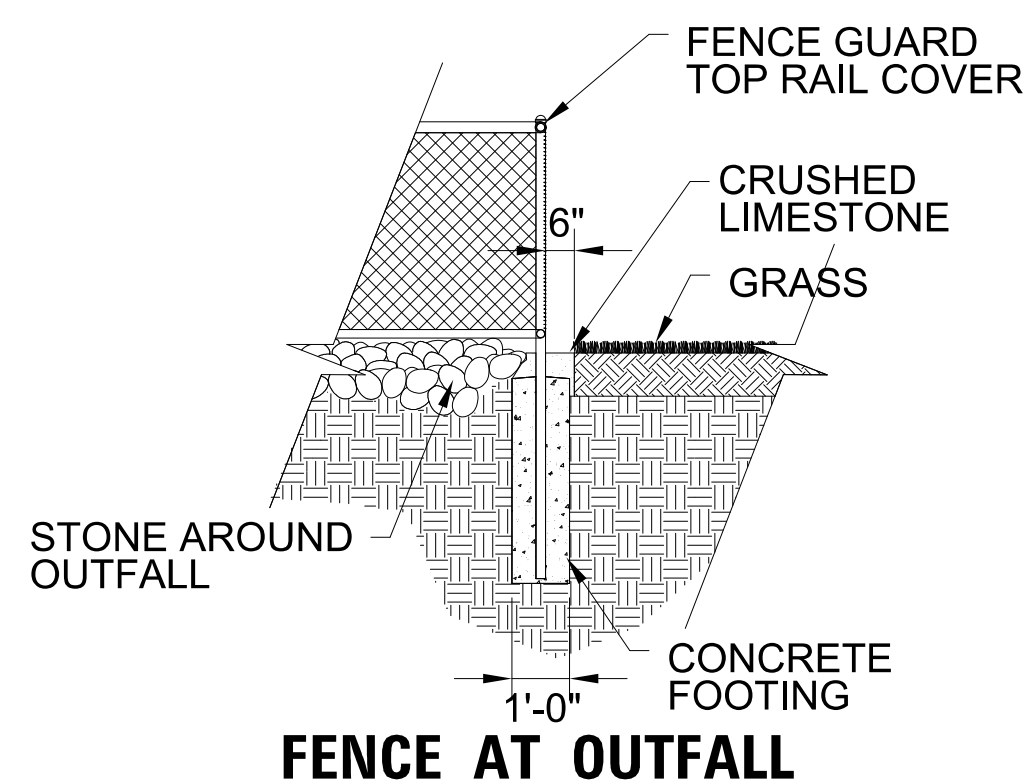
DRAWING NO.



PIPE DIAMETER (IN.) D	STONE RIP RAP							BEDDING	
	QUALITY DESIGNATION	GRADATION NUMBER	MINIMUM THICKNESS (IN.) A	MINIMUM LENGTH (FT.) B	WEIGHT RANGE (#)	WEIGHT AVERAGE (#)	SIZE AVERAGE (IN.)	GRADATION NUMBER	MINIMUM THICKNESS (IN.) C
18	A	4	16"	16'	1-50	40	7"	1 OR CA-3	6"
54	A	6	32"	32'	6-600	170	12"	2 OR CA-1	10"

- NOTE:
- RIPRAP DIMENSIONS SHOWN ARE MINIMUM REQUIRED. SEE PLANS FOR EXACT LIMITS.
 - GRADATION REFER TO IDOT SPECIFICATIONS AND STANDARDS.

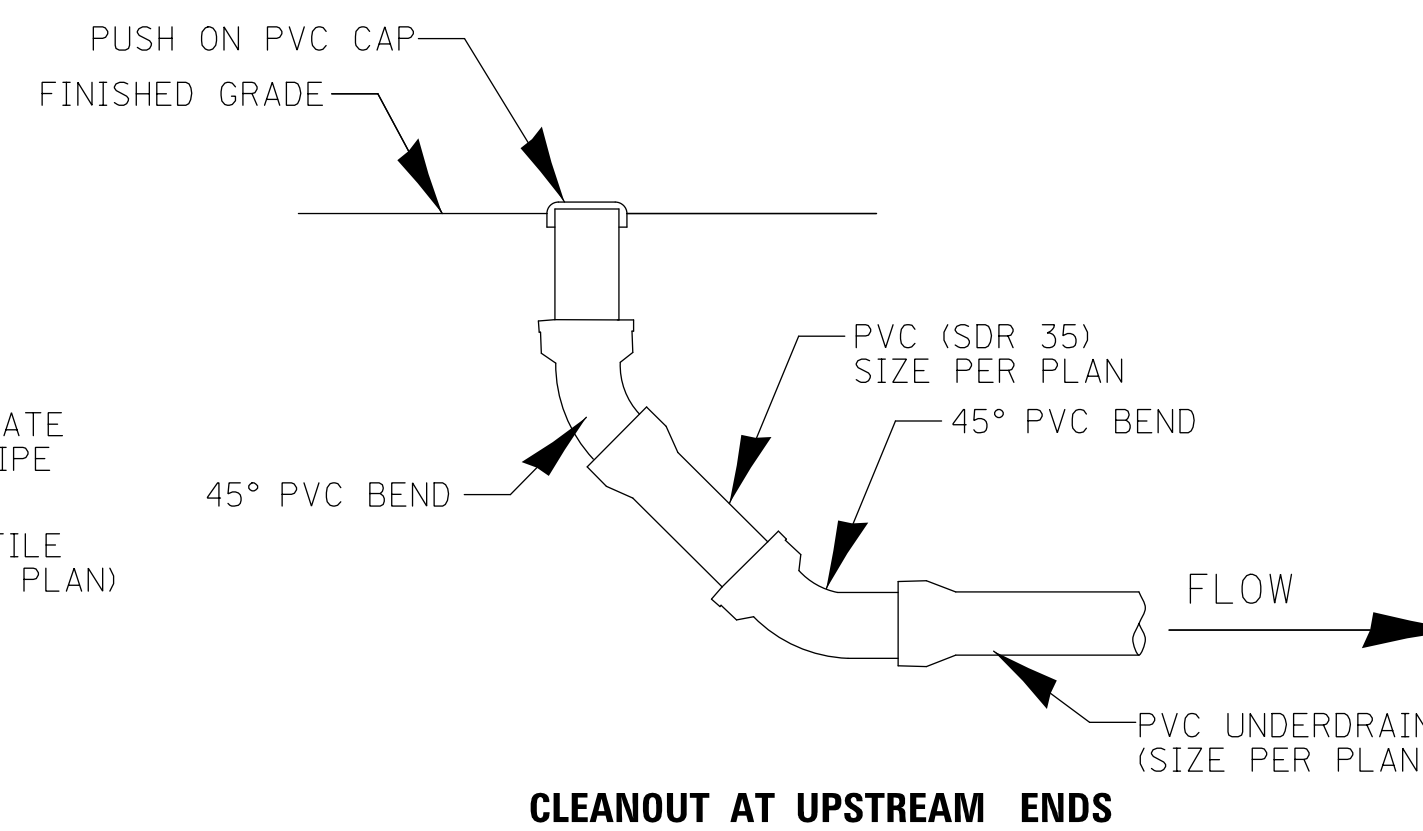
STONE RIPRAP DETAIL



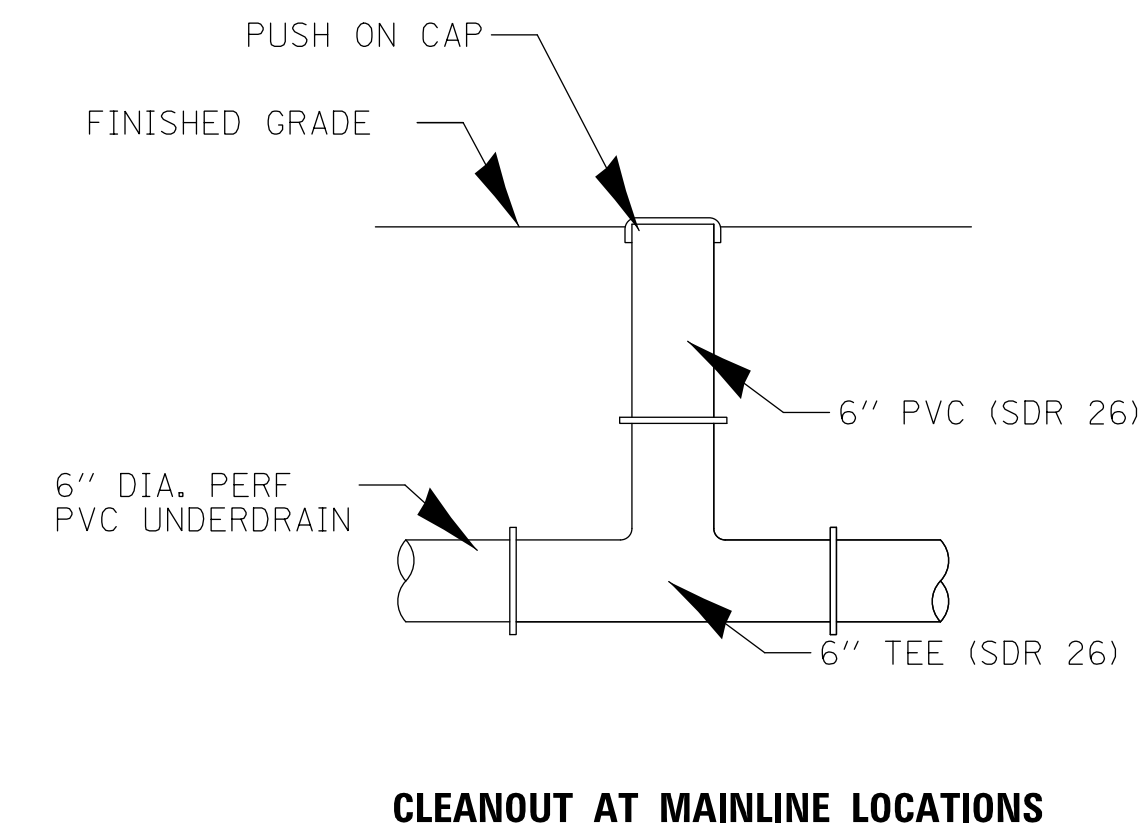
SECTION

- NOTES
- WASHED AGGREGATE SHALL BE PLACED AROUND THE DRAIN TILE.

PIPE UNDERDRAINS

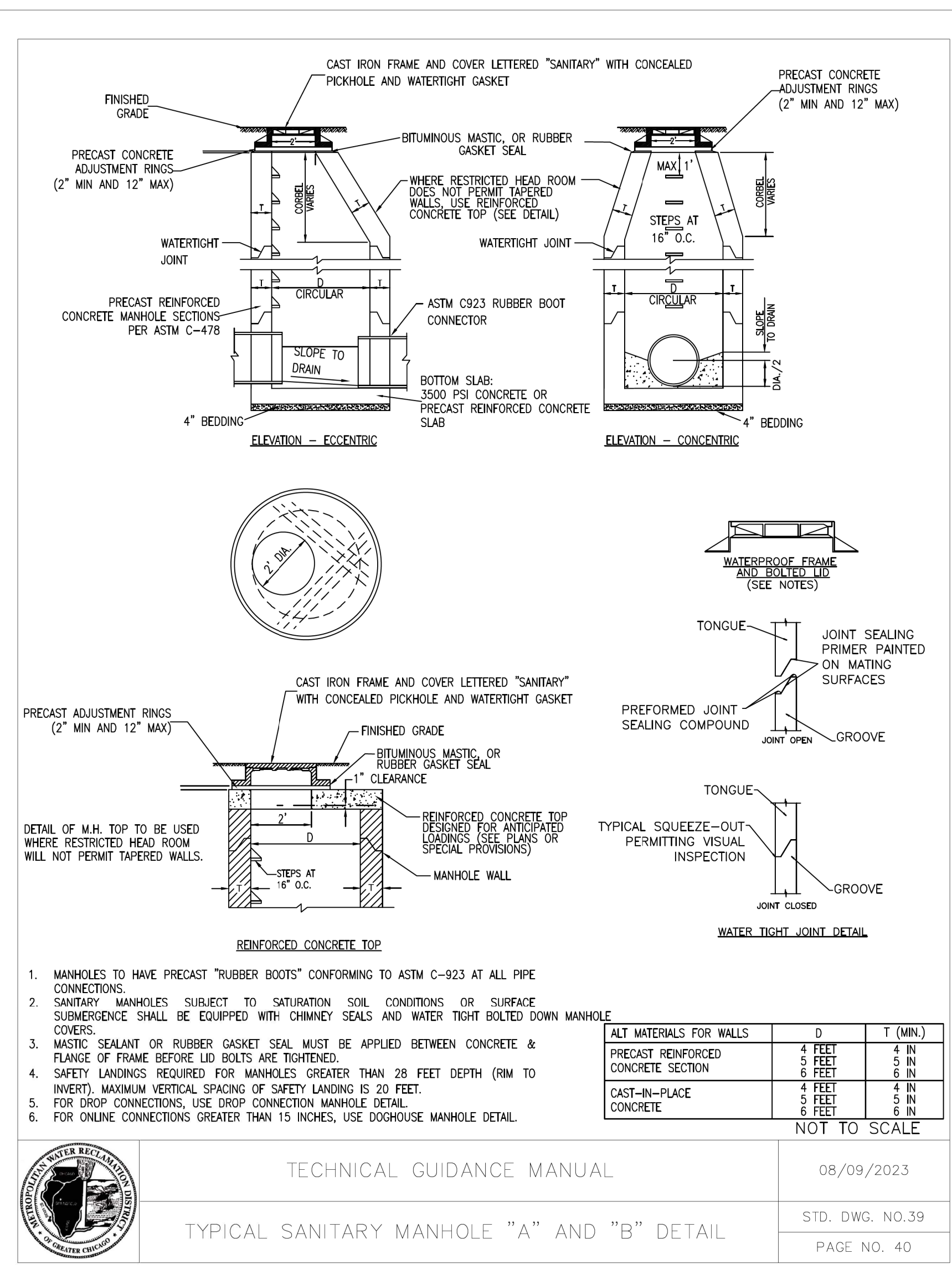


CLEANOUT AT UPSTREAM ENDS



CLEANOUT AT MAINLINE LOCATIONS

TYPICAL CLEAN OUT DETAIL

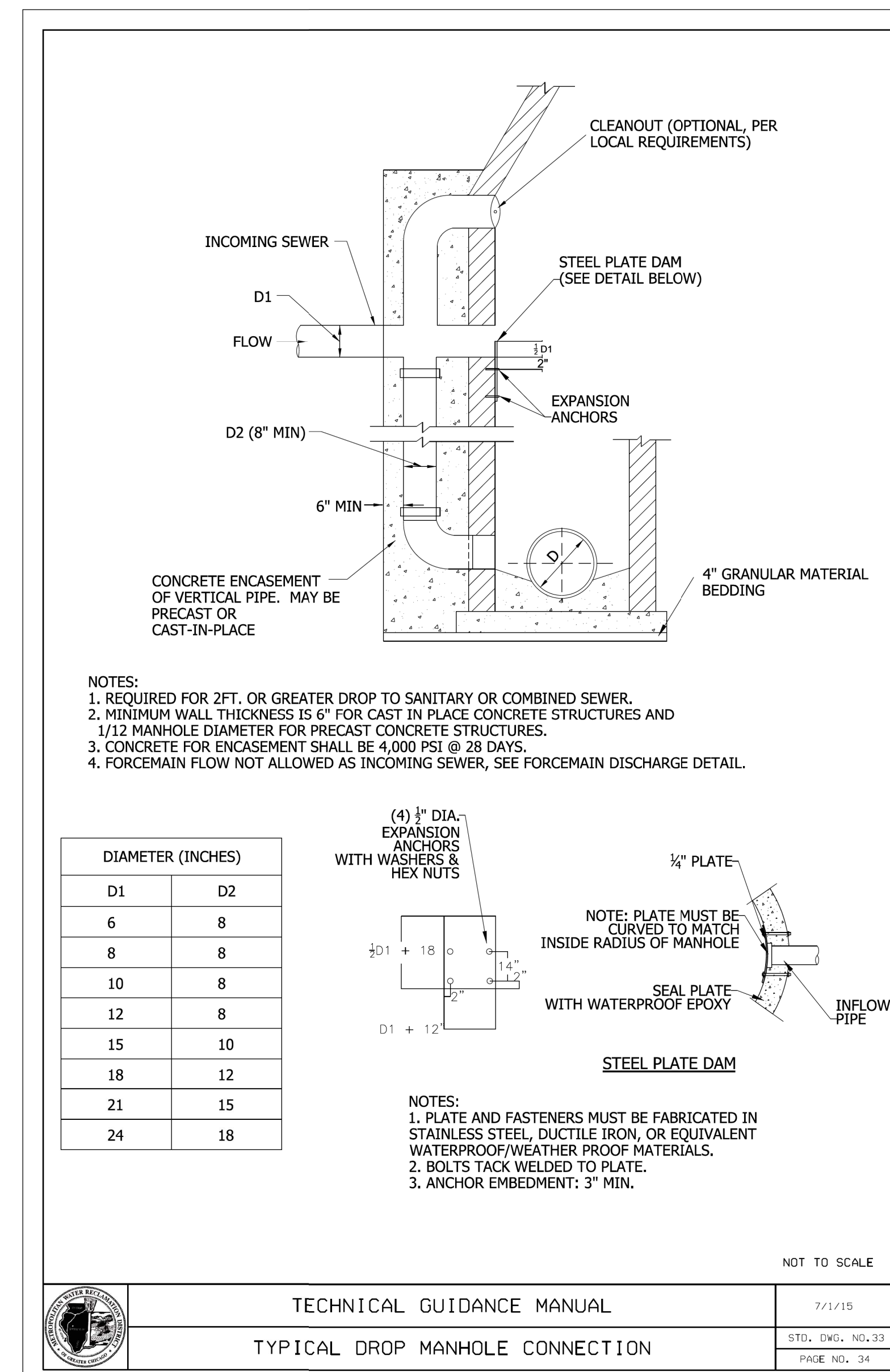


- MANHOLES TO HAVE PRECAST "RUBBER BOOTS" CONFORMING TO ASTM C-923 AT ALL PIPE CONNECTIONS.
- SANITARY MANHOLES SUBJECT TO SATURATION SOIL CONDITIONS OR SURFACE SUBMERGENCE SHALL BE EQUIPPED WITH CHIMNEY SEALS AND WATER TIGHT BOLTED DOWN MANHOLE COVERS.
- MASTIC SEALANT OR RUBBER GASKET SEAL MUST BE APPLIED BETWEEN CONCRETE & FLANGE OF FRAME BEFORE LID BOLTS ARE TIGHTENED.
- SAFETY LANDINGS REQUIRED FOR MANHOLES GREATER THAN 28 FEET DEPTH (RM TO INVERT). MAXIMUM VERTICAL SPACING OF SAFETY LANDING IS 20 FEET.
- FOR DROP CONNECTIONS, USE DROP CONNECTION MANHOLE DETAIL.
- FOR ONLINE CONNECTIONS GREATER THAN 15 INCHES, USE DOGHOUSE MANHOLE DETAIL.

ALT MATERIALS FOR WALLS	D	T (MIN.)
PRECAST REINFORCED CONCRETE SECTION	4 FEET	4 IN
	5 FEET	5 IN
	6 FEET	6 IN
CAST-IN-PLACE CONCRETE	4 FEET	4 IN
	5 FEET	5 IN
	6 FEET	6 IN

NOT TO SCALE

	TECHNICAL GUIDANCE MANUAL	08/09/2023
	TYPICAL SANITARY MANHOLE "A" AND "B" DETAIL	STD. DWG. NO.39
		PAGE NO. 40



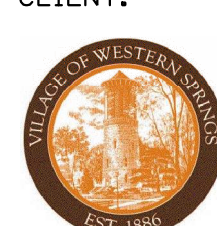
- NOTES:
- REQUIRED FOR 2FT. OR GREATER DROP TO SANITARY OR COMBINED SEWER.
 - MINIMUM WALL THICKNESS IS 6" FOR CAST IN PLACE CONCRETE STRUCTURES AND 1/12 MANHOLE DIAMETER FOR PRECAST CONCRETE STRUCTURES.
 - CONCRETE FOR ENCASEMENT SHALL BE 4,000 PSI @ 28 DAYS.
 - FORCEMAIN FLOW NOT ALLOWED AS INCOMING SEWER, SEE FORCEMAIN DISCHARGE DETAIL.

DIAMETER (INCHES)	
D1	D2
6	8
8	8
10	8
12	8
15	10
18	12
21	15
24	18

- NOTES:
- PLATE AND FASTENERS MUST BE FABRICATED IN STAINLESS STEEL, DUCTILE IRON, OR EQUIVALENT WATERPROOF/WEATHER PROOF MATERIALS.
 - BOLTS TACK WELDED TO PLATE.
 - ANCHOR EMBEDMENT: 3" MIN.

	TECHNICAL GUIDANCE MANUAL	7/1/15
	TYPICAL DROP MANHOLE CONNECTION	STD. DWG. NO.33
		PAGE NO. 34

CLIENT:



NO.	DATE	NATURE OF REVISION	CHKD.	MODEL:
FILE NAME	N:\WESTERNSPRINGS\210513\CIV\DET_08_210513.sht			

TITLE:

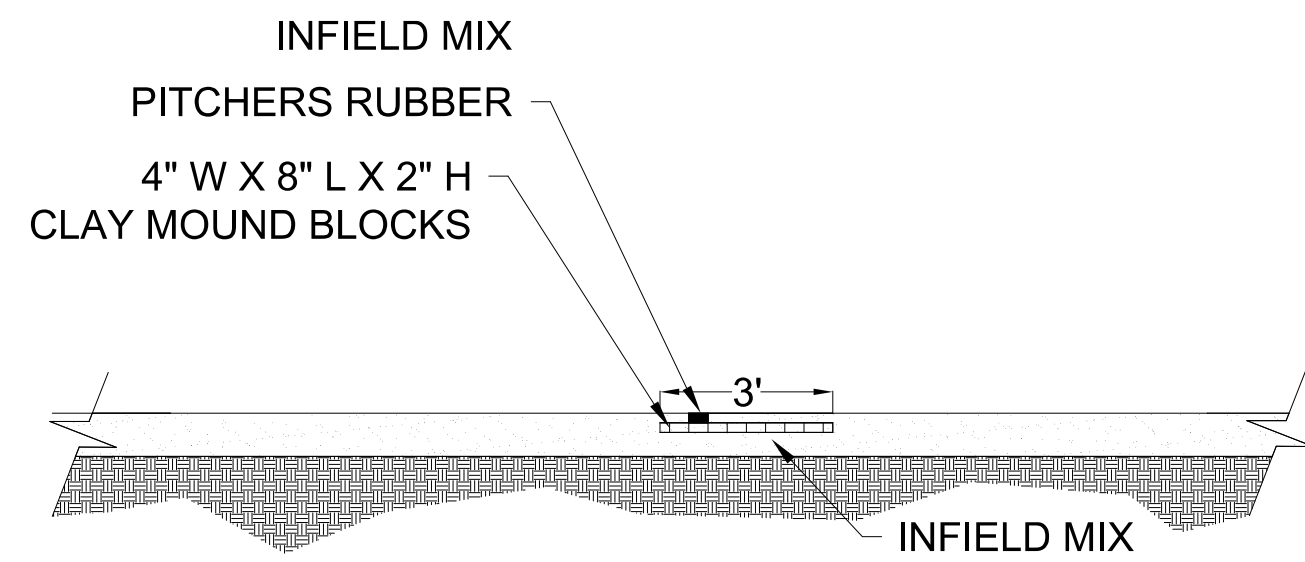
PROJ. NO. 210513

DATE: 2/24/2025

SHEET 35 OF 37

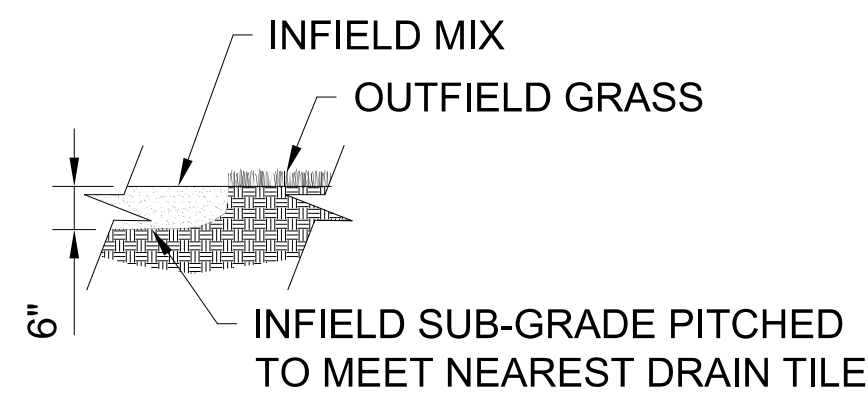
DRAWING NO.

DET-8

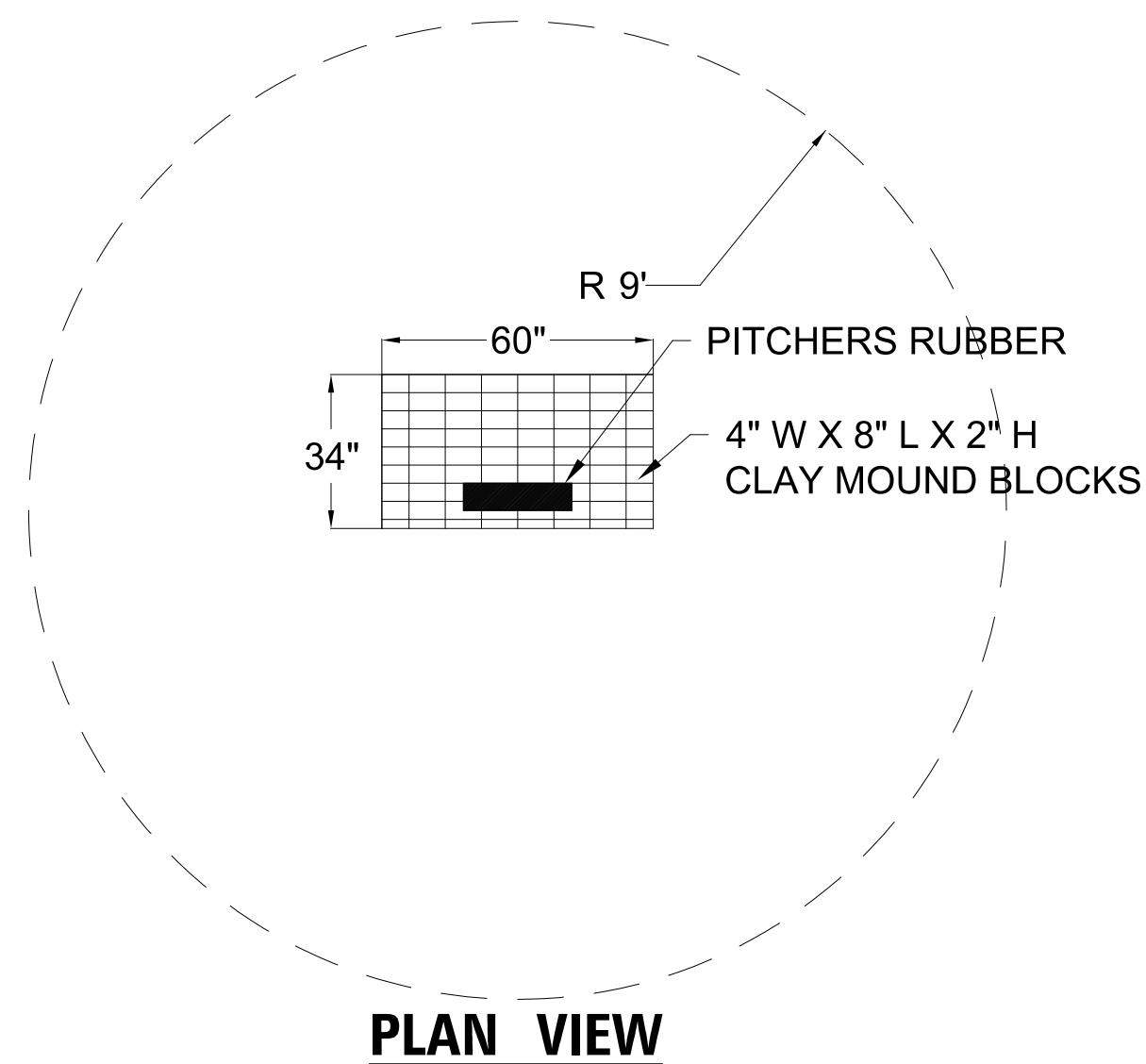


SECTION

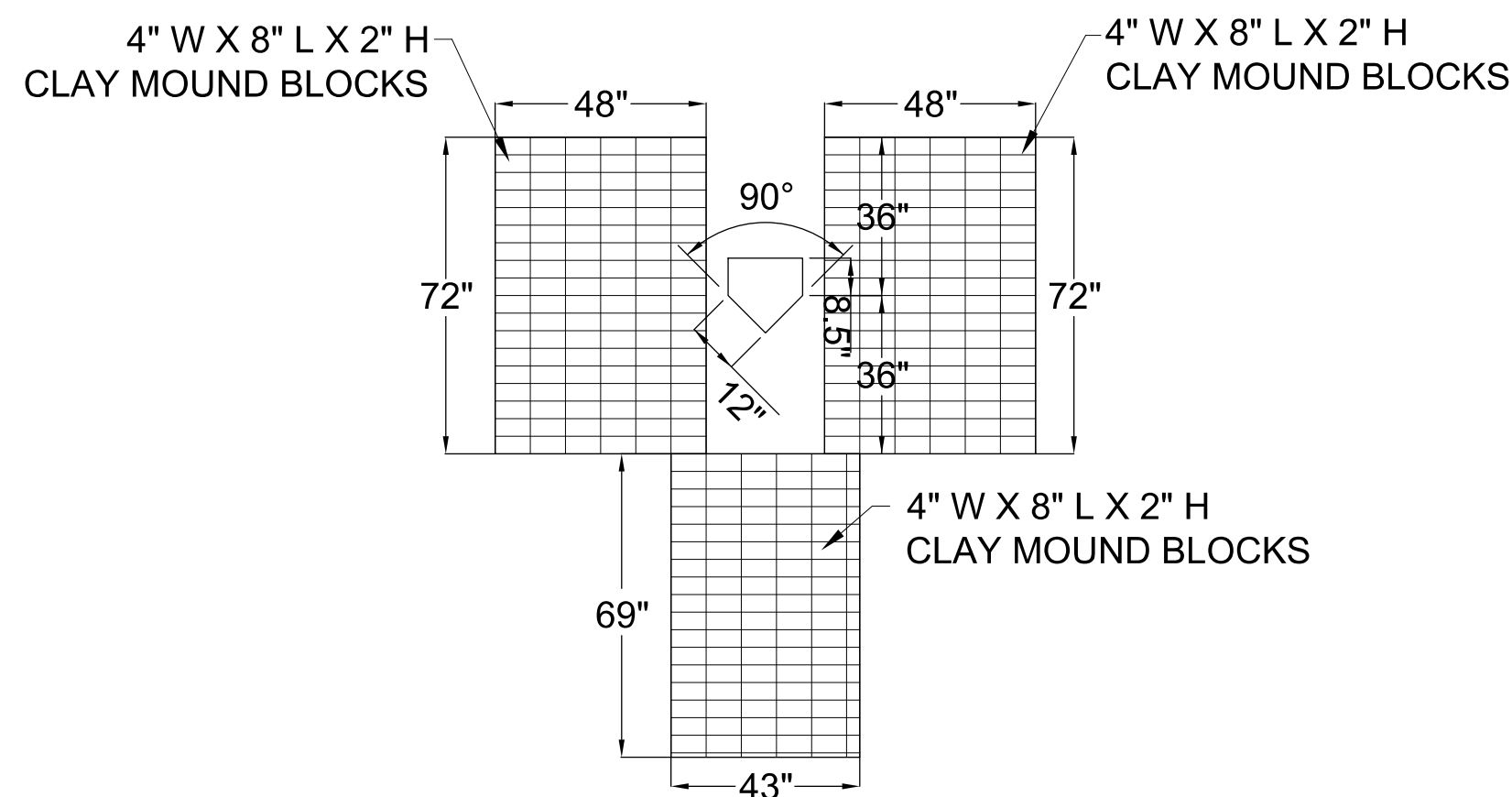
PITCHERS MOUND DETAIL



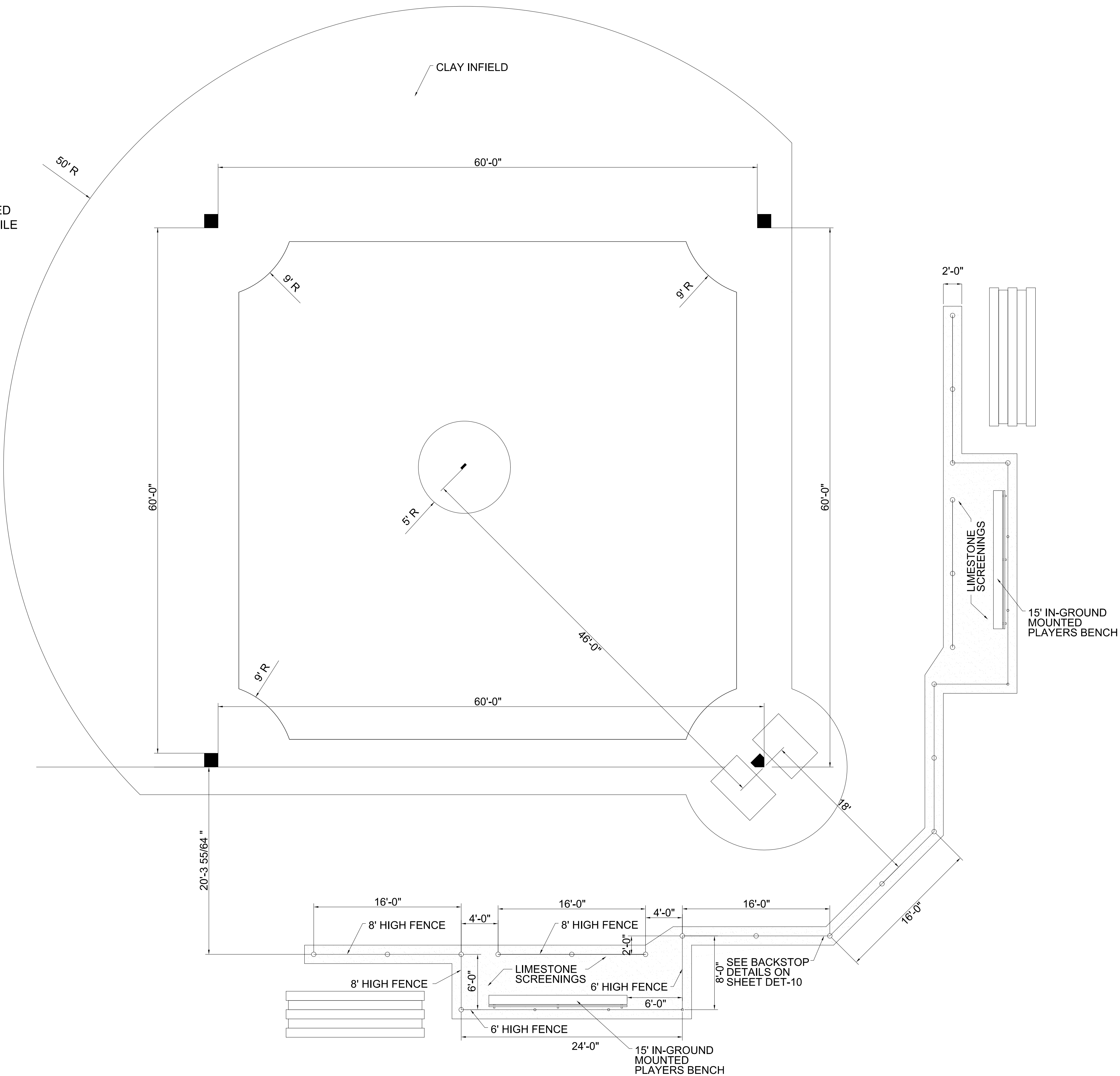
TYP. INFIELD SECTION



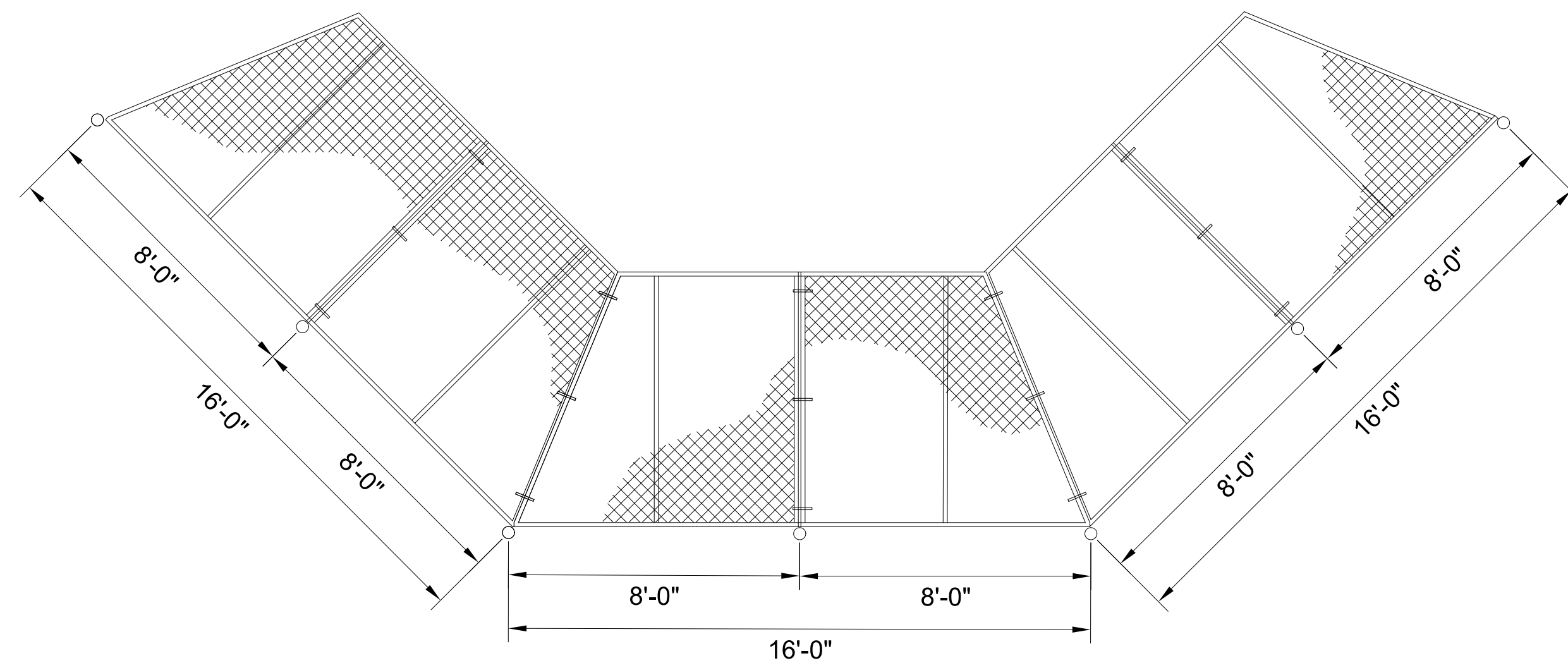
PLAN VIEW



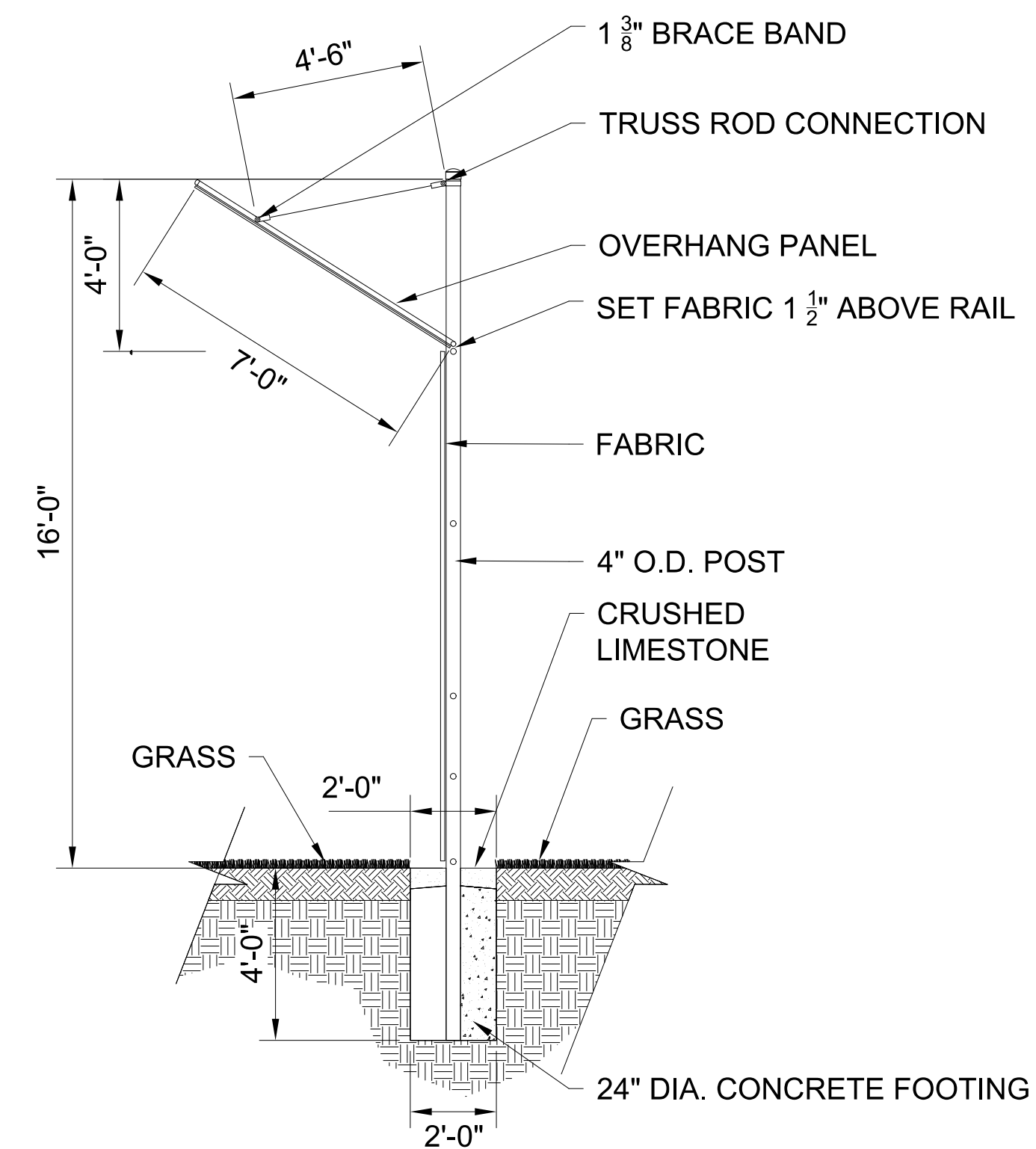
CATCHER'S AND BATTER'S BOX DETAIL



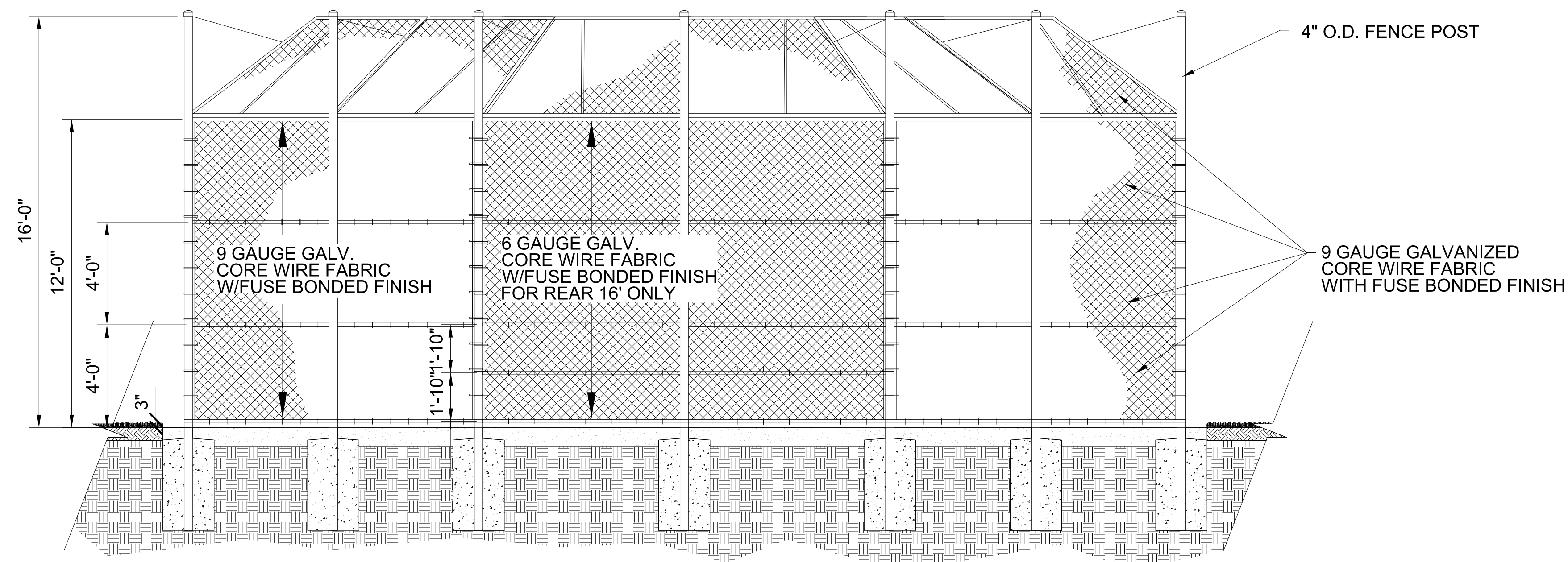
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PLAN VIEW



SECTION OF REAR PANEL



NOTE: ALL CHAIN LINK FABRIC TO BE FUSE BONDED BLACK

ELEVATION

BACKSTOP DETAIL

NO.	DATE	NATURE OF REVISION	CHKD.	MODEL:
				Default
FILE NAME	N:\WESTERNSPRINGS\210513\CIVIL\DET_10_210513.shx			

DSGN.	AJS	TITLE: SPRINGDALE DRAINAGE IMPROVEMENT CONSTRUCTION DETAILS
DWN.	JRS	
CHKD.	AJS	
SCALE:	N.T.S.	
PLOT DATE:	2/24/2025	
CAD USER:	Jspeelman	PROJ. NO. 210513
MODEL:	Default	DATE: 2/24/2025
		SHEET 37 OF 37
		DRAWING NO.
		DET-10

VILLAGE OF WESTERN SPRINGS

SPRINGDALE DRAINAGE IMPROVEMENT PROJECT

Mandatory Pre-Bid Meeting Date:.....Monday, March 10, 2025
Mandatory Pre-Bid Meeting Time:.....10:00am
Bid Opening Date:..... Monday, March 24, 2025
Bid Opening Time:..... 10:00am
Bid Opening Location:..... Western Springs Village Hall
Bid Deposit: 5% of the Amount of Bid
Performance Bond:.....100% of the Amount of Bid

Obtain information from:

Alex Schaefer, PE
Christopher B. Burke Engineering, Ltd.
16221 W. 159th Street, Suite 201
Lockport, IL 60441
(815) 770-2850
aschaefer@cbbel.com

Submit Bids to:

Village Clerk
Village of Western Springs
740 Hillgrove Avenue
Western Springs, IL 60558
(708) 246-1800

Note: This cover sheet is an integral part of the contract documents and is, as are all of the following documents, part of any contract executed between the Village of Western Springs and any successful Bidder. Do not detach any portion of this document. Invalidation could result.

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LR1030-2 Special Provision for Local Quality Assurance/Quality Management QC/QA

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Soil Boring Reports & LPC 663 Form (Sewer Portion)

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TAB 5

MWRD Affirmative Action Ordinance

MWRD MBE/WBE Utilization Plan

MWRD Veteran-Owned Business Enterprise Contracting Policy Requirements

MWRD Affirmative Action Status Report

RETURN WITH BID

NOT A STATE PROJECT

NOTICE TO BIDDERS

County Cook
Local Public Agency Western Springs
Section Number N/A
Route Springdale Drainage Improvement

Sealed proposals for the improvement described below will be received at the office of Western Springs Village Clerk
740 Hillgrove Avenue, Western Springs, IL 60558 until 10:00 AM on March 24, 2025

Sealed proposals will be opened and read publicly at the office of Western Springs Village Hall
740 Hillgrove Avenue, Western Springs, IL 60558 at 10:00 AM on March 24, 2025

DESCRIPTION OF WORK

Name Springdale Drainage Improvement Length: 1,900 feet (0.36 miles)
Location Springdale Park, 52nd Place (Caroline Avenue to Howard Avenue) and Howard Avenue (52nd Place to 54th Street)
Proposed Improvement Stormwater Basin Excavation, Storm Sewer Installation, Sanitary Sewer Installation, Water Main Replacement, Roadway Restoration, Parkway Restoration, and Park/Ballfield Restoration

1. Plans and proposal forms will be available in the office of Electronically for a \$30 fee
QuestCDN #9247781 via the CBBEL website at www.cbbel.com/bidding-info ; Contact Alex Schaefer @ Aschaefer@cbbel.com

2. [X] Prequalification
If checked, the 2 low bidders must file within 24 hours after the letting an "Affidavit of Availability" (Form BC 57), in duplicate, showing all uncompleted contracts awarded to them and all low bids pending award for Federal, State, County, Municipal and private work. One original shall be filed with the Awarding Authority and one original with the IDOT District Office.

3. The Awarding Authority reserves the right to waive technicalities and to reject any or all proposals as provided in BLRS Special Provision for Bidding Requirements and Conditions for Contract Proposals.

- 4. The following BLR Forms shall be returned by the bidder to the Awarding Authority:
a. BLR 12200: Local Public Agency Formal Contract Proposal
b. BLR 12200a Schedule of Prices
c. BLR 12230: Proposal Bid Bond (if applicable)
d. BLR 12325: Apprenticeship or Training Program Certification (do not use for federally funded projects)
e. BLR 12326: Affidavit of Illinois Business Office

5. The quantities appearing in the bid schedule are approximate and are prepared for the comparison of bids. Payment to the Contractor will be made only for the actual quantities of work performed and accepted or materials furnished according to the contract. The scheduled quantities of work to be done and materials to be furnished may be increased, decreased or omitted as hereinafter provided.

6. Submission of a bid shall be conclusive assurance and warranty the bidder has examined the plans and understands all requirements for the performance of work. The bidder will be responsible for all errors in the proposal resulting from failure or neglect to conduct an in depth examination. The Awarding Authority will, in no case be responsible for any costs, expenses, losses or changes in anticipated profits resulting from such failure or neglect of the bidder.

7. The bidder shall take no advantage of any error or omission in the proposal and advertised contract.

8. If a special envelope is supplied by the Awarding Authority, each proposal should be submitted in that envelope furnished by the Awarding Agency and the blank spaces on the envelope shall be filled in correctly to clearly indicate its contents. When an envelope other than the special one furnished by the Awarding Authority is used, it shall be marked to clearly indicate its contents. When sent by mail, the sealed proposal shall be addressed to the Awarding Authority at the address and in care of the official in whose office the bids are to be received. All proposals shall be filed prior to the time and at the place specified in the Notice to Bidders. Proposals received after the time specified will be returned to the bidder unopened.

9. Permission will be given to a bidder to withdraw a proposal if the bidder makes the request in writing or in person before the time for opening proposals.

RETURN WITH BID

PROPOSAL

County Cook
Local Public Agency Western Springs
Section Number N/A
Route Springdale Drainage Improvement

1. Proposal of

for the improvement of the above section by the construction of Stormwater Basin Excavation, Storm Sewer Installation, Sanitary Sewer Installation, Water Main Replacement, Roadway Restoration, Parkway Restoration, and Park/Ballfield Restoration

a total distance of 1,900 feet, of which a distance of 1,900 feet, (0.36 miles) are to be improved.

2. The plans for the proposed work are those prepared by Christopher B. Burke Engineering Ltd. and approved by the Department of Transportation on N/A

3. The specifications referred to herein are those prepared by the Department of Transportation and designated as "Standard Specifications for Road and Bridge Construction" and the "Supplemental Specifications and Recurring Special Provisions" thereto, adopted and in effect on the date of invitation for bids.

4. The undersigned agrees to accept, as part of the contract, the applicable Special Provisions indicated on the "Check Sheet for Recurring Special Provisions" contained in this proposal.

5. The undersigned agrees to complete the work within working days or by 10/30/2026 (Final) unless additional time is granted in accordance with the specifications.

6. A proposal guaranty in the proper amount, as specified in BLRS Special Provision for Bidding Requirements and Conditions for Contract Proposals, will be required. Bid Bonds will be allowed as a proposal guaranty. Accompanying this proposal is either a bid bond if allowed, on Department form BLR 12230 or a proposal guaranty check, complying with the specifications, made payable to:

Village Treasurer of Western Springs

The amount of the check is 5% of the total bid price ().

7. In the event that one proposal guaranty check is intended to cover two or more proposals, the amount must be equal to the sum of the proposal guaranties, which would be required for each individual proposal. If the proposal guaranty check is placed in another proposal, it will be found in the proposal for: Section Number

8. The successful bidder at the time of execution of the contract will be required to deposit a contract bond for the full amount of the award. When a contract bond is not required, the proposal guaranty check will be held in lieu thereof. If this proposal is accepted and the undersigned fails to execute a contract and contract bond as required, it is hereby agreed that the Bid Bond or check shall be forfeited to the Awarding Authority.

9. Each pay item should have a unit price and a total price. If no total price is shown or if there is a discrepancy between the product of the unit price multiplied by the quantity, the unit price shall govern. If a unit price is omitted, the total price will be divided by the quantity in order to establish a unit price.

10. A bid will be declared unacceptable if neither a unit price nor a total price is shown.

11. The undersigned submits herewith the schedule of prices on BLR 12200a covering the work to be performed under this contract.

12. The undersigned further agrees that if awarded the contract for the sections contained in the combinations on BLR 12200a, the work shall be in accordance with the requirements of each individual proposal for the multiple bid specified in the Schedule for Multiple Bids below.

RETURN WITH BID

NOT A STATE PROJECT

SCHEDULE OF PRICES

County Cook
 Local Public Agency Western Springs
 Section N/A
 Route Springdale Drainage Improvement

Schedule for Single Bid

(For complete information covering these items, see plans and specifications)

SP	Item No.	Pay Item Number	Items	Unit	Quantity	Unit Price	Total
	1	20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	44		
	2	20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	196		
	3	20101000	TEMPORARY FENCE	FOOT	2300		
	4	20101100	TREE TRUNK PROTECTION	EACH	63		
*	5	20101200	TREE ROOT PRUNING	EACH	43		
	6	20101300	TREE PRUNING (1 TO 10 INCH DIAMETER)	EACH	12		
	7	20101350	TREE PRUNING (OVER 10 INCH DIAMETER)	EACH	30		
	8	20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	6454		
*	9	20700220	POROUS GRANULAR EMBANKMENT	CU YD	203		
*	10	21101505	TOPSOIL EXCAVATION AND PLACEMENT	CU YD	13345		
	11	25100115	MULCH, METHOD 2	ACRE	4.8		
	12	25100630	EROSION CONTROL BLANKET	SQ YD	23235		
	13	28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	500		
	14	28000400	PERIMETER EROSION BARRIER	FOOT	2400		
	15	28000500	INLET AND PIPE PROTECTION	EACH	3		
*	16	28000510	INLET FILTERS	EACH	30		
	17	28100107	STONE RIPRAP, CLASS A4	SQ YD	30		
	18	28100111	STONE RIPRAP, CLASS A6	SQ YD	100		
	19	28200200	FILTER FABRIC	SQ YD	130		
	20	40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	1177		
	21	40603080	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50	TON	1174		
	22	40604060	HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N50	TON	588		
*	23	42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	6555		
	24	42400800	DETECTABLE WARNINGS	SQ FT	150		
	25	44000600	SIDEWALK REMOVAL	SQ FT	6655		
	26	54213663	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 18"	EACH	2		
	27	54214539	PRECAST REINFORCED CONCRETE FLARED END SECTIONS, EQUIVALENT ROUND-SIZE 54"	EACH	1		
	28	54247110	GRATING FOR CONCRETE FLARED END SECTION 18"	EACH	2		

RETURN WITH BID

SP	Item No.	Pay Item Number	Items	Unit	Quantity	Unit Price	Total
	29	54248190	GRATING FOR CONCRETE FLARED END SECTION EQUIVALENT ROUND-SIZE 54"	EACH	1		
	30	550A2320	STORM SEWERS, RUBBER GASKET, CLASS A, TYPE 1 12"	FOOT	40		
	31	550A2340	STORM SEWERS, RUBBER GASKET, CLASS A, TYPE 1 18"	FOOT	45		
	32	550A2360	STORM SEWERS, RUBBER GASKET, CLASS A, TYPE 1 24"	FOOT	217		
	33	550A2430	STORM SEWERS, RUBBER GASKET, CLASS A, TYPE 1 54"	FOOT	150		
	34	550A2530	STORM SEWERS, RUBBER GASKET, CLASS A, TYPE 2 15"	FOOT	30		
	35	550A2580	STORM SEWERS, RUBBER GASKET, CLASS A, TYPE 2 30"	FOOT	84		
	36	550A2630	STORM SEWERS, RUBBER GASKET, CLASS A, TYPE 2 54"	FOOT	635		
	37	550A2830	STORM SEWERS, RUBBER GASKET, CLASS A, TYPE 3 54"	FOOT	385		
	38	550A4720	STORM SEWERS, CLASS A, TYPE 1 EQUIVALENT ROUND-SIZE 54"	FOOT	295		
*	39	56103000	DUCTILE IRON WATER MAIN 6"	FOOT	54		
*	40	56103100	DUCTILE IRON WATER MAIN 8"	FOOT	1215		
*	41	56105000	WATER VALVES 8"	EACH	11		
*	42	56106400	ADJUSTING WATER MAIN 8"	FOOT	30		
*	43	56300100	ADJUSTING SANITARY SEWERS, 8-INCH DIAMETER OR LESS	FOOT	210		
*	44	56400500	FIRE HYDRANTS TO BE REMOVED	EACH	3		
*	45	56400820	FIRE HYDRANT WITH AUXILIARY VALVE AND VALVE BOX	EACH	6		
*	46	60108206	PIPE UNDERDRAINS, TYPE 2, 6"	FOOT	3000		
*	47	60200305	CATCH BASINS, TYPE A, 4'-DIAMETER, TYPE 3 FRAME AND GRATE	EACH	2		
*	48	60207105	CATCH BASINS, TYPE C, TYPE 3 FRAME AND GRATE	EACH	4		
*	49	60218400	MANHOLES, TYPE A, 4'-DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	3		
*	50	60221100	MANHOLES, TYPE A, 5'-DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	1		
*	51	60223700	MANHOLES, TYPE A, 6'-DIAMETER, TYPE 1 FRAME, OPEN LID	EACH	2		
*	52	60224459	MANHOLES, TYPE A, 8'-DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	1		
*	53	60235700	INLETS, TYPE A, TYPE 3 FRAME AND GRATE	EACH	1		
	54	60248900	VALVE VAULTS, TYPE A, 5'-DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	11		
*	55	67100100	MOBILIZATION	L SUM	1		
*	56	X0320067	BENCH REMOVAL	EACH	4		
*	57	X0800006	PREPARATION OF BASE (SPECIAL)	SQ YD	4980		
*	58	X1200015	VALVE VAULTS TO BE ABANDONED	EACH	7		
*	59	X2080250	TRENCH BACKFILL, SPECIAL	CU YD	5876		
*	60	X3580300	AGGREGATE BASE REPAIR (SPECIAL)	TON	441		
*	61	X5610746	WATER MAIN LINE STOP 6"	EACH	2		

RETURN WITH BID

SP	Item No.	Pay Item Number	Items	Unit	Quantity	Unit Price	Total
*	62	X5610748	WATER MAIN LINE STOP 8"	EACH	1		
*	63	X6026050	SANITARY MANHOLES TO BE ADJUSTED	EACH	5		
*	64	X6026054	SANITARY MANHOLES TO BE REMOVED	EACH	1		
*	65	X6030310	FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)	EACH	1		
*	66	X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1		
*	67	XX004040	DOMESTIC WATER METER TO BE RELOCATED	EACH	1		
*	68	XX005431	LOCATING UNDERGROUND UTILITY	EACH	5		
*	69	XX005964	REMOVE AND RESET BRICK SIDEWALK	SQ FT	63		
*	70	XX007605	LIMESTONE SCREENING SURFACE 3"	SQ YD	160		
*	71	Z0013797	STABILIZED CONSTRUCTION ENTRANCE	SQ YD	230		
*	72	Z0013798	CONSTRUCTION LAYOUT	L SUM	1		
*	73	Z0017400	DRAINAGE & UTILITY STRUCTURES TO BE ADJUSTED	EACH	7		
*	74	Z0018700	DRAINAGE STRUCTURE TO BE REMOVED	EACH	22		
*	75	Z0022800	FENCE REMOVAL	FOOT	134		
*	76	N/A	ALUMINUM BLEACHERS	EACH	4		
*	77	N/A	AS-BUILT DRAWINGS	LSUM	1		
*	78	N/A	BACKSTOP FENCE, 16FT HT	FOOT	112		
*	79	N/A	BACKSTOP REMOVAL (COMPLETE)	EACH	2		
*	80	N/A	BASES, HOME PLATE, PITCHING PLATE (SET)	EACH	2		
*	81	N/A	CHAIN LINK FENCE, COATED, 4FT HT	FOOT	144		
*	82	N/A	CHAIN LINK FENCE, COATED, 6FT HT	FOOT	128		
*	83	N/A	CHAIN LINK FENCE, COATED, 8FT HT	FOOT	88		
*	84	N/A	CLAY BRICK UNDERLAYMENT - BASEBALL INFIELD	SQ FT	170		
*	85	N/A	CLAY INFIELD, 8" DEPTH	CU YD	210		
*	86	N/A	COMBINATION CONCRETE CURB AND GUTTER REMOVAL & REPLACEMENT	FOOT	3011		
*	87	N/A	DUCTILE IRON WATER MAIN 8" (DIRECTIONAL BORE)	FOOT	575		
*	88	N/A	DUCTILE IRON WATER MAIN IN CASING 8"	FOOT	10		
*	89	N/A	EARTH EXCAVATION (BASIN)	CU YD	3565		
*	90	N/A	HIGH CAPACITY INLET, 5' DEPTH OR LESS	EACH	9		
*	91	N/A	HIGH CAPACITY INLET, GREATER THAN 5' DEPTH	EACH	5		
*	92	N/A	HOT-MIX ASPHALT DRIVEWAY REMOVAL & REPLACEMENT	SQ YD	160		
*	93	N/A	HOT-MIX ASPHALT SURFACE REMOVAL (FULL DEPTH)	SQ YD	4980		
*	94	N/A	IN-LINE CHECK VALVE, 30"	EACH	1		

RETURN WITH BID

SP	Item No.	Pay Item Number	Items	Unit	Quantity	Unit Price	Total
*	95	N/A	IRRIGATION REPAIR	UNIT	25000	\$1.00	\$25,000.00
*	96	N/A	JUNCTION CHAMBER WITH OVERFLOW WEIR	LSUM	1		
*	97	N/A	LANDSCAPE RESTORATION - FIELD OF DREAMS SEED MIX	ACRE	4.8		
*	98	N/A	LANDSCAPE RESTORATION - FIELD OF DREAMS SEED MIX (INTERSEEDING)	ACRE	9.6		
*	99	N/A	LANDSCAPE RESTORATION - SODDING (SPRINGDALE PARK)	SQ YD	2000		
*	100	N/A	LANDSCAPE RESTORATION - SUPPLEMENTAL WATERING	UNIT	1700		
*	101	N/A	MISCELLANEOUS ADDITIONS AT THE VILLAGE'S DISCRETION	UNIT	150000	\$1.00	\$150,000.00
*	102	N/A	PARKWAY RESTORATION - SODDING	SQ YD	3607		
*	103	N/A	PLAYER BENCHES	EACH	4		
*	104	N/A	PORTLAND CEMENT CONCRETE DRIVEWAY REMOVAL & REPLACEMENT	SQ YD	330		
*	105	N/A	POST-CONSTRUCTION SEWER TELEVISIONING	FOOT	3700		
*	106	N/A	PVC CASING PIPE, 16"	FOOT	10		
*	107	N/A	RCP BULKHEAD, 54" EQRS.	EACH	1		
*	108	N/A	RCP PIPE FITTING (NO RISER), 54", GREATER THAN 10' DEPTH	EACH	1		
*	109	N/A	RCP PIPE FITTING (WITH RISER), 54" (EQRS), 10' DEPTH OR LESS	EACH	3		
*	110	N/A	RCP PIPE FITTING (WITH RISER), 54", 10' DEPTH OR LESS	EACH	4		
*	111	N/A	RCP PIPE FITTING (WITH RISER), 54", GREATER THAN 10' DEPTH	EACH	4		
*	112	N/A	RCP PIPE FITTING TRANSITION, 54" EQRS. TO 54", 10' DEPTH OR LESS	EACH	1		
*	113	N/A	RELOCATE PLAY COURT	LSUM	1		
*	114	N/A	SANITARY MANHOLE, DROP, 4'-DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	1		
*	115	N/A	SANITARY MANHOLE, TYPE A, 4'-DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	8		
*	116	N/A	SANITARY SERVICE CONNECTION TO NEW SEWER	EACH	11		
*	117	N/A	SANITARY SERVICE REPLACEMENT	FOOT	200		
*	118	N/A	SANITARY SEWER, DUCTILE IRON, 8"	FOOT	63		
*	119	N/A	SANITARY SEWER, PVC, 8"	FOOT	609		
*	120	N/A	SANITARY SEWER, PVC, 8" (POINT REPAIR)	FOOT	15		
*	121	N/A	SANITARY SEWERS, PVC (C900), 8"	FOOT	27		
*	122	N/A	SHUT DOWN CONNECTION TO EXISTING 6" WATER MAIN	EACH	4		
*	123	N/A	SHUT DOWN CONNECTION TO EXISTING 8" WATER MAIN	EACH	3		
*	124	N/A	SITE DEWATERING	LSUM	1		
*	125	N/A	STORM SEWERS, DUCTILE IRON, 30"	FOOT	32		
*	126	N/A	STORM SEWERS, PVC (C900), 8"	FOOT	27		
*	127	N/A	STORM SEWERS, PVC (C900), 12"	FOOT	125		

RETURN WITH BID

SP	Item No.	Pay Item Number	Items	Unit	Quantity	Unit Price	Total
*	128	N/A	STORM SEWERS, PVC (C900), 18"	FOOT	62		
*	129	N/A	STORM SEWERS, PVC (C900), 24"	FOOT	98		
*	130	N/A	STORM SEWERS, PVC, 18"	FOOT	52		
*	131	N/A	STORM SEWERS, PVC, 24"	FOOT	30		
*	132	N/A	TEMPORARY PATCHING (COLD PATCH)	SQ YD	750		
*	133	N/A	TEMPORARY STONE	LSUM	1		
*	134	N/A	TREES	EACH	9		
*	135	N/A	UNDERDRAIN CLEANOUT	EACH	15		
*	136	N/A	WATER SERVICE - FURNISHING 6-MONTH WATER FILTER	EACH	1		
*	137	N/A	WATER SERVICE (LEAD) - INTERIOR RESTORATION	EACH	4		
*	138	N/A	WATER SERVICE LINE (PRIVATE) - LEAD SERVICE REPLACEMENT	FOOT	160		
*	139	N/A	WATER SERVICE REPLACEMENT, LONG SIDE (1.5" DIA. OR LESS)	EACH	15		
*	140	N/A	WATER SERVICE REPLACEMENT, SHORT SIDE (1.5" DIA. OR LESS)	EACH	15		
* INDICATES SPECIAL PROVISION						BID TOTAL	
END OF SCHEDULE OF PRICES							

RETURN WITH BID

CONTRACTOR CERTIFICATIONS

County	<u>Cook</u>
Local Public Agency	<u>Western Springs</u>
Section Number	<u>N/A</u>
Route	<u>Springdale Drainage Improvement</u>

The certifications hereinafter made by the bidder are each a material representation of fact upon which reliance is placed should the Department enter into the contract with the bidder.

1. **Debt Delinquency.** The bidder or contractor or subcontractor, respectively, certifies that it is not delinquent in the payment of any tax administered by the Department of Revenue unless the individual or other entity is contesting, in accordance with the procedures established by the appropriate revenue Act, its liability for the tax or the amount of tax. Making a false statement voids the contract and allows the Department to recover all amounts paid to the individual or entity under the contract in a civil action.

2. **Bid-Rigging or Bid Rotating.** The bidder or contractor or subcontractor, respectively, certifies that it is not barred from contracting with the Department by reason of a violation of either 720 ILCS 5/33E-3 or 720 ILCS 5/33E-4.

A violation of Section 33E-3 would be represented by a conviction of the crime of bid-rigging which, in addition to Class 3 felony sentencing, provides that any person convicted of this offense or any similar offense of any state or the United States which contains the same elements as this offense shall be barred for 5 years from the date of conviction from contracting with any unit of State or local government. No corporation shall be barred from contracting with any unit of State or local government as a result of a conviction under this Section of any employee or agent of such corporation if the employee so convicted is no longer employed by the corporation and: (1) it has been finally adjudicated not guilty or (2) if it demonstrates to the governmental entity with which it seeks to contract and that entity finds that the commission of the offense was neither authorized, requested, commanded, nor performed by a director, officer or a high managerial agent in behalf of the corporation.

A violation of Section 33E-4 would be represented by a conviction of the crime of bid-rotating which, in addition to Class 2 felony sentencing, provides that any person convicted of this offense or any similar offense of any state or the United States which contains the same elements as this offense shall be permanently barred from contracting with any unit of State or local government. No corporation shall be barred from contracting with any unit of State or local government as a result of a conviction under this Section of any employee or agent of such corporation if the employee so convicted is no longer employed by the corporation and: (1) it has been finally adjudicated not guilty or (2) if it demonstrates to the governmental entity with which it seeks to contract and that entity finds that the commission of the offense was neither authorized, requested, commanded, nor performed by a director, officer or a high managerial agent in behalf of the corporation.

3. **Bribery.** The bidder or contractor or subcontractor, respectively, certifies that it has not been convicted of bribery or attempting to bribe an officer or employee of the State of Illinois or any unit of local government, nor has the firm made an admission of guilt of such conduct which is a matter of record, nor has an official, agent, or employee of the firm committed bribery or attempted bribery on behalf of the firm and pursuant to the direction or authorization of a responsible official of the firm.

4. **Interim Suspension or Suspension.** The bidder or contractor or subcontractor, respectively, certifies that it is not currently under a suspension as defined in Subpart I of Title 44 Subtitle A Chapter III Part 6 of the Illinois Administrative Code. Furthermore, if suspended prior to completion of this work, the contract or contracts executed for the completion of this work may be cancelled.

RETURN WITH BID

SIGNATURES

County Cook
Local Public Agency Western Springs
Section Number N/A
Route Springdale Drainage Improvement

(If an individual)

Signature of Bidder _____

Business Address _____

(If a partnership)

Firm Name _____

Signed By _____

Business Address _____

Inset Names and Addressed of All Partners



(If a corporation)

Corporate Name _____

Signed By _____

President

Business Address _____

Inset Names of Officers



President _____

Secretary _____

Treasurer _____

Attest: _____
Secretary

Local Agency
Proposal Bid Bond

Route Springdale Drainage
Improvement

County Cook

Local Agency Western Springs

Section N/A

RETURN WITH BID

PAPER BID BOND

WE _____ as PRINCIPAL,

and _____ as SURETY,

are held jointly, severally and firmly bound unto the above Local Agency (hereafter referred to as "LA") in the penal sum of 5% of the total bid price, or for the amount specified in the proposal documents in effect on the date of invitation for bids whichever is the lesser sum. We bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly pay to the LA this sum under the conditions of this instrument.

WHEREAS THE CONDITION OF THE FOREGOING OBLIGATION IS SUCH that, the said PRINCIPAL is submitting a written proposal to the LA acting through its awarding authority for the construction of the work designated as the above section.

THEREFORE if the proposal is accepted and a contract awarded to the PRINCIPAL by the LA for the above designated section and the PRINCIPAL shall within fifteen (15) days after award enter into a formal contract, furnish surety guaranteeing the faithful performance of the work, and furnish evidence of the required insurance coverage, all as provided in the "Standard Specifications for Road and Bridge Construction" and applicable Supplemental Specifications, then this obligation shall become void; otherwise it shall remain in full force and effect.

IN THE EVENT the LA determines the PRINCIPAL has failed to enter into a formal contract in compliance with any requirements set forth in the preceding paragraph, then the LA acting through its awarding authority shall immediately be entitled to recover the full penal sum set out above, together with all court costs, all attorney fees, and any other expense of recovery.

IN TESTIMONY WHEREOF, the said PRINCIPAL and the said SURETY have caused this instrument to be signed by their respective officers this _____ day of _____

Principal

(Company Name)

(Company Name)

By: _____
(Signature and Title)

By: _____
(Signature and Title)

(If PRINCIPLE is a joint venture of two or more contractors, the company names, and authorized signatures of each contractor must be affixed.)

Surety

(Name of Surety)

By: _____
(Signature of Attorney-in-Fact)

STATE OF ILLINOIS,

COUNTY OF _____

I, _____, a Notary Public in and for said county,
do hereby certify that _____

(Insert names of individuals signing on behalf of PRINCIPAL & SURETY)

who are each personally known to me to be the same persons whose names are subscribed to the foregoing instrument on behalf of PRINCIPAL and SURETY, appeared before me this day in person and acknowledged respectively, that they signed and delivered said instruments as their free and voluntary act for the uses and purposes therein set forth.

Given under my hand and notarial seal this _____ day of _____

My commission expires _____
(Notary Public)

ELECTRONIC BID BOND

Electronic bid bond is allowed (box must be checked by LA if electronic bid bond is allowed)

The Principal may submit an electronic bid bond, in lieu of completing the above section of the Proposal Bid Bond Form. By providing an electronic bid bond ID code and signing below, the Principal is ensuring the identified electronic bid bond has been executed and the Principal and Surety are firmly bound unto the LA under the conditions of the bid bond as shown above. (If PRINCIPAL is a joint venture of two or more contractors, an electronic bid bond ID code, company/Bidder name title and date must be affixed for each contractor in the venture.)

Electronic Bid Bond ID Code

(Company/Bidder Name)

(Signature and Title)

Date

Affidavit of Availability
For the Letting of 3/24/25

Instructions: Complete this form by either typing or using black ink. "Authorization to Bid" will not be issued unless both sides of this form are completed in detail. Use additional forms as needed to list all work.

Part I. Work Under Contract

List below all work you have under contract as either a prime contractor or a subcontractor. It is required to include all pending low bids not yet awarded or rejected. In a joint venture, list only that portion of the work which is the responsibility of your company. The uncompleted dollar value is to be based upon the most recent engineer's or owners estimate, and must include work subcontracted to others. If no work is contracted, show **NONE**.

	1	2	3	4	Awards Pending	
Contract Number						
Contract With						
Estimated Completion Date						
Total Contract Price						Accumulated Totals
Uncompleted Dollar Value if Firm is the Prime Contractor						
Uncompleted Dollar Value if Firm is the Subcontractor						
Total Value of All Work						

Part II. Awards Pending and Uncompleted Work to be done with your own forces.

List below the uncompleted dollar value of work for each contract and awards pending to be completed with your own forces. All work subcontracted to others will be listed on the reverse of this form. In a joint venture, list only that portion of the work to be done by your company. If no work is contracted, show **NONE**.

						Accumulated Totals
Earthwork						
Portland Cement Concrete Paving						
HMA Plant Mix						
HMA Paving						
Clean & Seal Cracks/Joints						
Aggregate Bases & Surfaces						
Highway, R.R. and Waterway Structures						
Drainage						
Electrical						
Cover and Seal Coats						
Concrete Construction						
Landscaping						
Fencing						
Guardrail						
Painting						
Signing						
Cold Milling, Planning & Rotomilling						
Demolition						
Pavement Markings (Paint)						
Other Construction (List)						
						\$ 0.00
Totals						

Disclosure of this information is **REQUIRED** to accomplish the statutory purpose as outlined in the "Illinois Procurement Code." Failure to comply will result in non-issuance of an "Authorization To Bid." This form has been approved by the State Forms Management Center.

Part III. Work Subcontracted to Others.

For each contract described in Part I, list all the work you have subcontracted to others.

	1	2	3	4	Awards Pending
Subcontractor					
Type of Work					
Subcontract Price					
Amount Uncompleted					
Subcontractor					
Type of Work					
Subcontract Price					
Amount Uncompleted					
Subcontractor					
Type of Work					
Subcontract Price					
Amount Uncompleted					
Subcontractor					
Type of Work					
Subcontract Price					
Amount Uncompleted					
Subcontractor					
Type of Work					
Subcontract Price					
Amount Uncompleted					
Subcontractor					
Type of Work					
Subcontract Price					
Amount Uncompleted					
Total Uncompleted					

I, being duly sworn, do hereby declare that this affidavit is a true and correct statement relating to ALL uncompleted contracts of the undersigned for Federal, State, County, City and private work, including ALL subcontract work, ALL pending low bids not yet awarded or rejected and ALL estimated completion dates.

Subscribed and sworn to before me
 this _____ day of _____, _____ Type or Print Name _____
 Officer or Director Title

 Notary Public

Signed _____

My commission expires _____

(Notary Seal)

Company _____

Address _____

RETURN WITH BID

BIDDER'S MATERIAL PROCUREMENT CERTIFICATION FORM

_____ (Name of Bidder), having submitted a bid on a contract for the **SPRINGDALE DRAINAGE IMPROVEMENT** to the VILLAGE, hereby certifies that said BIDDER has contacted all necessary subcontractors, material suppliers, vendors, etc. and has confirmed that materials are available upon request to complete said project by the completion date(s) listed in the bid documents:

Interim Completion Date #1 – September 30, 2025

Interim Completion Date #2 – November 28, 2025

Final Completion – October 30, 2026

Below, the BIDDER shall disclose to the VILLAGE all material procurement delays known at the time of bid:

Subcontractor/Material Supplier/Vendor	Material	Projected Lead Time
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

By: _____
Authorized Agent of BIDDER

Subscribed and sworn to before me this _____ day of _____, 2025.

Notary Public

The VILLAGE reserves the right to reject any or all bids, and to waive technicalities in bidding. The VILLAGE reserves the right to reject the bid of any BIDDER who fails to complete this form. The VILLAGE reserves the right to terminate the contract at any time if the awarded BIDDER cannot complete the project by the completion date listed in the bid documents.

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**PROJECT SPECIAL PROVISIONS
FOR
VILLAGE OF WESTERN SPRINGS
SPRINGDALE DRAINAGE IMPROVEMENT PROJECT**

DEFINITIONS

The term "Village" or "Owner" whenever used in the contract documents shall be construed to mean the Village of Western Springs, Cook County, Illinois.

The term "Engineer" whenever used in the contract documents shall be construed to mean the Village Engineer or the appointed representative by the Owner.

The term "Bidder" whenever used in the contract documents shall be construed to mean any person or firm submitting a bid to the Village or its appointed representative.

The term "Contractor" whenever used in the contract documents shall be construed to mean any person or firm having a contract with the Village for the work so specified or its appointed representative.

The term "Subcontractor" whenever used in the contract documents shall be construed to mean any person or firm having a contract with the Contractor for the work so specified or its appointed representative.

The term "Standard Specifications" whenever used in this document shall be construed to mean the "Standard Specifications for Road and Bridge Construction" and "Supplemental Specifications and Recurring Special Provisions", most recently adopted, as amended; the "Standard Specifications for Traffic Control Items"; and the latest edition of the "Illinois Manual on Uniform Traffic Control Devices for Streets and Highways" in effect; all issued by the State of Illinois, Department of Transportation.

The term "Water and Sewer Specifications" whenever used in this document shall be construed to mean the "Standard Specifications for Water and Sewer Main Construction in Illinois", current edition, available from the Associated General Contractors of Illinois or the Illinois Society of Professional Engineers.

CONDITIONS

BIDDERS are responsible to become familiar with all conditions, instructions, and contract documents governing this bid and shall inspect the site and conditions pertinent to the work involved. Submission of a bid will be considered specific evidence of having performed the above. Failure to make such an inspection shall not excuse the Contractor from performance of the duties and obligations imposed under the terms of the contract. Once the award has been made, failure to have read all the conditions, instructions and specifications of this contract shall not be cause to alter the original contract or to request additional compensation.

AVAILABILITY OF CONTRACT DOCUMENTS

The Bidding Documents can be obtained through QuestCDN via the CBEL website at www.cbhel.com/bidding-info or at www.questcdn.com under Login using **QuestCDN #9247781** for a \$30 nonrefundable fee. A QuestCDN login will be required for each planholder. Contact QuestCDN at 952-233-1632 or info@questcdn.com for assistance in membership registration and downloading digital product information. **Contractors must purchase bid documents and be shown on the Bidder's Planholder List in order to bid. Bids received from contractors who are not in the Bidder's Planholder List will be rejected.**

MANDATORY PRE-BID MEETING

A Mandatory Pre-Bid Meeting will be held at Western Springs Village Hall, 740 Hillgrove Avenue, Western Springs, IL 60558 on March 10, 2025, at 10:00 am. All prospective bidders shall be in attendance to be qualified to bid.

CLARIFICATIONS OF CONTRACT DOCUMENTS

Any BIDDER in doubt as to the true meaning of any part of the contract documents, shall email all questions to the Engineer – Alex Schaefer, Christopher B. Burke Engineering, Ltd at aschaefer@cbhel.com.

DISQUALIFICATION OF BIDS

The following will be cause for disqualification of bids:

- a. Prices excessively high and/or exceed monies available for the intended work;
- b. Failure to submit bid security or surety;
- c. Failure to offer to meet specified delivery or performance schedules;
- d. Failure to price out the bid in conformance to the required format; or qualification of price to protect the Bidder from unknown future market conditions;
- e. Bidder in anyway limits the Rights of the Village;
- f. Reasonable basis to suspect either conflict of interest or collusion among BIDDERS;
- g. Bidder fails to submit required information, literature, or affidavits with bid;
- h. Late bids;
- i. Failure of any authorized person to sign any required forms or to sign the bid; and
- j. Bidder is prohibited by local, state or federal law from entering into public contracts.

AWARD OF CONTRACT

The award of this contract is contingent on the execution of Inter-Governmental Agreements between the Village of Western Springs and Western Springs Park District, and the Village and Metropolitan Water Reclamation District (MWRD). No Bidders may withdraw a bid within 90 days after the actual bid opening date. Should there be reasons why the contract cannot be awarded within the specified period, the time may be extended by mutual agreement between the Village and the Bidder.

COMPETENCY OF BIDDER

The Bidder, if requested in writing, must present within three (3) working days, evidence satisfactory to the Village of ability and possession of necessary facilities, prior experience, financial resources, and adequate insurance to comply with the terms of these contract documents.

IDOT PREQUALIFICATION

Bidder proposing to perform storm sewer trenching and installation work shall be IDOT Pre-Qualified for 012 – Drainage (\$4,000,000 minimum).

Prequalification by IDOT will be required of all subcontractors on this project in the respective discipline(s) they will be responsible for constructing. The Village may choose to waive this requirement if, in the Village's determination, the contractor has demonstrated the ability to perform work of a similar nature and scope to that set forth in this contract.

WORK WITHIN SPRINGDALE PARK

It is the Village's intention for the Contractor to stage work on this project to prioritize work within Springdale Park so the initial seeding and erosion control blanket can be placed prior to September 30, 2025. After the first full growing season, the Engineer will determine if additional seeding/interseeding applications shall be required for adequate growth and to fill in bare spots or areas. The Contractor shall place any supplemental seeding between April 1, 2026 and June 15, 2026 as directed by the Engineer.

All seeding operations shall be completed in accordance with the Special Provision for LANDSCAPE RESTORATION – FIELD OF DREAMS SEED MIX provided herein. Maintenance and watering of the seeding shall be in accordance with the Special Provisions for LANDSCAPE RESTORATION – FIELD OF DRAMS SEED MIX (INTERSEEDING) AND LANDSCAPE RESTORATION – SUPPLEMENTAL WATERING.

Springdale Park will be closed for this project for all of 2026 with the intent to begin events in the Spring of 2027. The Contractor shall pay special attention to the PROJECT SCHEDULE AND COMPLETION OF WORK and FAILURE TO COMPLETE THE WORK ON TIME special provisions provided herein.

All trenches and open holes within the park shall be backfilled, covered, and/or protected with temporary fence when work is not occurring. Unless otherwise approved by the Village and/or Park District, temporary fence shall be installed around the perimeter for the duration of construction within the park to prioritize safety and minimize damage to the new grassed areas during growing season. Any stockpiles within the park shall be located to minimize disturbance to seeded areas. Stockpiles shall be fully removed from the proposed basin upon completion of seeding operations.

The Contractor shall be responsible for coordinating the schedule and work within the park with the Village and Park District. Regular meetings may be required between the Contractor, Village and Park District staff members for the duration of construction.

PROJECT SCHEDULE AND COMPLETION OF WORK

No work shall be allowed to begin on this project prior to **June 16, 2025**. The Contractor shall sequence work to meet the following construction deadlines:

Interim Completion Date #1 – September 30, 2025

- Substantial completion of the stormwater basin including:
 - All topsoil excavation and placement, basin excavation/grading, undrain installation, basin outlet storm sewer installation, 54" EQRS. outfall construction, seeding and erosion control blanket installation.
 - Any remaining topsoil stockpiles shall be relocated outside of the basin/playing field area at locations approved by the Engineer and Village.

Interim Completion Date #2 – November 28, 2025

- Substantial completion of all utility and roadway work within the Village right-of-way including:
 - Water main installation, storm sewer installation, sanitary sewer installation, curb & gutter replacement, driveway replacement, sidewalk replacement and parkway restoration.
- Installation of all baseball fields and appurtenances.
- Supplemental seeding or seeding repair with Springdale Park shall be completed.

Final Completion – October 30, 2026

- Final landscape maintenance and/or restoration.
- Punch list items.

The Contractor shall provide a detailed work schedule prior to construction for Village approval and will be required to submit bi-weekly schedule updates during construction.

FAILURE TO COMPLETE THE WORK ON TIME

The Contractor shall be assessed liquidated damages for failure to complete work on time as required by the contract documents. Liquidated damages shall be assessed per calendar or overrun in accordance with the following schedule:

Interim Completion Date #1: \$1,500 per calendar day

Interim Completion Date #2: \$1,500 per calendar day

Final Completion: \$2,300 per calendar day

Further, the Contractor shall be financially responsible for any and all additional expenses incurred by the Engineer due to additional work being required on the part of the Engineer as a result of the Contractor's Failure to Complete Work on Time. The Village will deduct these expenses from any monies due or to become due to the Contractor from the Village.

MWRD STORMWATER PARTNERSHIP REQUIREMENTS

The Village has obtained partial funding for this project from the Metropolitan Water Reclamation District's (MWRD) Stormwater Partnership Program in the amount of nineteen percent (19%) of the total construct costs up to 1 million dollars (\$1,000,000). The Contractor

shall complete all work in accordance with MWRD requirements and shall comply with MWRD's Affirmative Action Ordinance and Diversity Policy.

The Contractor **must** meet the following participation requirements applicable to the Project before construction is completed:

- a. Twenty Percent (20%) of the total amount of reimbursement provided by the MWRD for the Project must be applied to work performed by Minority-owned Business Enterprises ("MBE"); and
- b. Ten Percent (10%) of the total amount of reimbursement provided by the MWRD for the Project must be applied to work performed by Women-owned Business Enterprises ("WBE").

The Contractor **should** meet the following participation goal applicable to the Project before construction is completed:

- a. three percent (3%) of the total amount of reimbursement provided by the MWRD for the Project should be applied to work performed by Veteran-owned Business Enterprises ("VBE").

All bidders shall be required to provide the MBE/WBE Utilization Plan Form, MBE/WBE Subcontractor's Letter of Intent, and the VBE Commitment Form located in Tab 5 with their bids. The MWRD Affirmative Action Ordinance (Appendix D) is also provided in Tab 5 for reference.

Every 30 days from the start of construction until its completion, the Contractor must submit to the Village the following: (1) an Affirmative Action Status Report ("Status Report"); (2) full or partial lien waivers from the participating MBE/WBE/VBE vendors, as applicable; and (3) proof of payment to the participating MBE/WBE/VBE vendors (e.g., canceled checks), as applicable. Failure to submit a Status Report and any supporting documentation may result in a payment delay and/or denial.

The Contractor shall be responsible for tracking "MBE", "WBE", and "VBE" work performed. The Contractor shall include "MBE", "WBE", and "VBE" work performed to date with every pay estimate.

If the Contractor fails to meet MWRD's Affirmative Action requirements, the amount of MWRD grant money equal to the proportionate share of the shortfall may be withheld from the final payment to the Contractor.

SUBLETTING OF CONTRACT

The Contractor may sublet portions of the work; however each subcontract must be approved by the Village in writing prior to commencement of work. In no case shall such consent relieve the Contractor from its obligation or change the terms of the contract. At all times the Contractor shall maintain no less than fifty-one (51) percent of the dollar value of the contract by direct employees of the Contractor.

PREVAILING WAGE REQUIREMENT

This contract calls for the construction of a “public work,” within the meaning of the Illinois Prevailing Wage Act, 820 ILCS 130/.01 et seq. (“the Act). The Act requires contractors and subcontractors to pay laborers, workers and mechanics performing services on public works projects no less than the “prevailing rate of wages” (hourly cash wages plus fringe benefits) in the county where the work is performed. For information regarding current prevailing wage rates, please refer to the Illinois Department of Labor’s website at: <https://www2.illinois.gov/idol/Laws-Rules/CONMED/Pages/Rates.aspx>. All contractors and subcontractors rendering services under this contract must comply with all requirements of the Act, including but not limited to, all wage, notice and record keeping duties.

DIRECTION OF WORK

The Contractor shall commence the work at such points as the Engineer may direct. The Contractor shall conform to any and all directions as to the order, manner, or time in which the different parts of the work shall be done. All verbal or written instructions from the Engineer in explanation of the contract documents made during the progress of the work must be strictly obeyed by the Contractor as though they had been fully written herein. All such explanations of said contract documents shall be final and conclusive. When more than one kind of material is mentioned in these specifications the Engineer shall approve the material to be used.

INTERPRETATION OF CONTRACT DOCUMENTS

The Engineer shall in all cases determine the amount or quantity of the several kinds of work which are to be paid for under this contract, and shall decide all questions which may arise relative to the execution of the contract on the part of the Contractor, and all estimates and decisions shall be final and conclusive. The Engineer shall have the right to make alterations in the lines, grades, plans, forms, or dimensions of the work herein contemplated either before or after the commencement of the work. If such alterations diminish the quantity of the work to be done, they shall not constitute a claim for damage or for anticipated profits on the work dispensed with, or if they increase the amount of work, such increase shall be paid according to the quantity actually done and at the price or prices stipulated for such work in the contract. The Village hereby reserves the right to approve as an equal, or to reject as not being an equal, any article the Contractor proposes to furnish under the terms of the contract.

SITE INVESTIGATION AND CONDITIONS AFFECTING THE WORK

The Bidder acknowledges that, prior to submission of its bid, it has taken steps necessary to ascertain the nature and location of the Work, and that it has investigated, confirmed, verified as correct and satisfied itself as to the general and local conditions which can affect the Work or its costs, including but not limited to:

- 1) Location and load capacity of existing roadways, utilities, corresponding pavement, shoulders, curb and gutter, combined sewer, storm sewers, and water main, bearing upon transportation, disposal, handling and storage of materials
- 2) The availability of labor, water, electric power and roads
- 3) Uncertainties of weather, river stages, tides, or similar physical conditions at the site

- 4) The conformation and conditions of the ground and existing detention ponds
- 5) The character of equipment and facilities needed prior to and during work performance
- 6) Subsurface conditions at the site of Work
- 7) The quantities and qualities of all materials, equipment, and labor set forth in the Bid Proposal, plans and drawings and specifications that are necessary to complete all the Work as required under the Contract Documents
- 8) The location, condition, compatibility, configuration of all existing utilities and infrastructure.

The Bidder also acknowledges that it has verified as correct, confirmed and satisfied itself as to the character, quality and quantity of surface and subsurface materials, obstacles or conditions to be encountered insofar as this information is reasonably ascertainable from an inspection of the site, including all exploratory work done, if any, as well as from the drawings, plans and specifications made a part of the bidding documents. Any failure of the Bidder to take the actions described and acknowledged in this paragraph will not relieve the Bidder from responsibility for estimating properly the difficulty and cost of successfully performing the Work, or for proceeding to successfully perform the Work without additional expense to the Village.

Village assumes no responsibility for any conclusions or interpretations made by the Bidder based on information made available by the Village of the project. Nor does the Village assume responsibility for any understanding reached or representation made concerning conditions which can affect the Work by any of its officers or agents before the acceptance of the bid offer and execution of the contract, unless that understanding or representation is expressly stated in this contract.

PROGRESS OF THE WORK

If the Contractor shall assign this contract or abandon the work or shall neglect or refuse to comply with the instructions of the Engineer relative thereto or shall fail in any manner to comply with the specifications or stipulations herein contained or if at any time the Engineer shall be of the opinion that the work is unnecessarily delayed and will not be finished within the prescribed time, or that unnecessary inconvenience is being imposed upon the public or unnecessary expense is being incurred by the Village for inspection and supervision, the Engineer shall notify the Contractor, in writing, to that effect. If the Contractor does not, within five (5) calendar days thereafter, take such measures as will in the judgment of the Engineer insure the satisfactory completion of the work within the prescribed time or prevent unnecessary inconvenience to the public or prevent unnecessary expense to the Village, the Engineer may put on the necessary force, at the cost to the Contractor, to correct such delay or the Village may declare the Contractor to be in default and terminate the contract as provided for herein.

RESPONSIBILITY FOR CONDUCT OF WORK

The Contractor shall be responsible to conduct the work in such a manner as to complete it accurately and within the time specified in the contract. The Contractor must have present, at all times, on the worksite a competent, English-speaking individual responsible for reading and understanding the contract documents. The representative shall be subject to receive

instructions from the Engineer, have full authority to execute the directions of the Engineer, without delay, and promptly supply any necessary labor, equipment, material or incidentals to do so. If any person employed shall refuse or neglect to obey the directions of the Engineer, in anything relating to the work, or shall appear to be incompetent, disorderly or unfaithful, he/she shall, upon request of the Engineer, be at once discharged and shall not be employed again on any part of the work without consent of the Engineer.

GUARANTY AND QUALITY OF THE WORK

The Work shall be done in a thorough and workman-like manner and to the satisfaction of the Engineer. The Contractor warrants and guarantees to the Village and Engineer that it shall provide only materials and tools of the best quality and free from faults and defects for the Work. No secondhand material can be used in any case. In the event anything is brought to the worksite that is improper to be used on the Work or that does not conform to the requirements of the Contract Documents, the same shall be considered defective and removed at the direction of the Engineer.

If required by the Village, the Contractor shall promptly, without cost to Village and as specified by Engineer, either correct any defective Work, whether fabricated or not fabricated, installed or completed, or, if the Work has been rejected by the Engineer, remove it from the site and replace it with non-defective Work. If the Contractor does not correct such defective Work or remove and replace such rejected Work within a reasonable time, or as specified in a written notice from Engineer, Village may have the deficiency corrected or the rejected Work removed and replaced. All direct and indirect costs of such correction or removal and replacement, including compensation for additional professional services (i.e., third party contractors, engineers, attorneys, etc.), shall be paid by the Contractor, and an appropriate deduction shall be made to payments due Contractor for Work completed. Contractor shall also bear the expense of removing any defective or damaged Work of others, and replace and correct such Work at its sole cost and expense. All labor will be furnished by the Contractor and must be efficient and skilled in the Work. All Work must pass inspection by the Engineer.

If after final acceptance of the Work by Village and before one (1) year after the acceptance of all the Work by Village, any Work is found to be defective or require repair, removal and/or replacement, the Contractor shall promptly, without cost to Village and in accordance with written directions of the Village, either correct such defective Work, or, if it has been rejected by Village, remove it from the site and replace it with non-defective Work. All labor and materials will be furnished by the Contractor and must be efficient and skilled in the Work. All Work must pass inspection by the Engineer. In the event the Contractor fails to correct such defective Work, remove or replace the same within 30 days written notice from Engineer, Village may have the deficiency corrected or the rejected Work removed and replaced. All direct and indirect costs of such correction or removal and replacement, including compensation for additional professional services (i.e., third party contractors, engineers, attorneys, etc.), shall be paid by the Contractor, and an appropriate deduction shall be made to payments due Contractor for Work completed.

INSPECTIONS

The Village shall have the right to inspect any work, material, component equipment, supplies, services, or completed work specified herein before acceptance. Any of said items not complying with these specifications are subject to rejection at the option of the Village. Any items rejected shall be removed from the project site and/or replaced at the entire expense of the Contractor. The Contractor will make every effort and means available to facilitate the Engineer's inspection of the work. Any work or material which the Engineer may determine to be defective must be rebuilt, replaced, or removed at the Contractor's own expense at the direction of the Engineer. Any omission to reject or condemn any work or material at the time of its construction or arrival at the worksite shall not be construed to mean an acceptance of the work.

EXTRA WORK

Any work not herein specified which may be implied as being included in this contract, of which the Engineer shall be the judge, shall be done by the Contractor without extra charge. The Contractor shall also do such work in connection with this contract as the Engineer may specifically direct and if it be of a kind for which no price is given or stated in this contract, such price shall be fixed by the Engineer and the Contractor, but no claim for extra work shall be allowed unless the same was done in pursuance of a written special order from the Engineer. It is understood that the completion of this contract under this agreement includes any and all work that may be necessary to connect and match work with adjoining work in a reasonable manner.

LOSS OR DAMAGE

Any loss or damage arising out of the nature of the work or from any detention or from any other unforeseen obstruction or difficulty which may be encountered in the prosecution of the work or from the action of the elements shall be sustained by the Contractor who will be required, without cost to the Village, to remove and replace all portions of the work, displaced or damaged, immediately after completion of this task. Any existing sewer damaged by the Contractor during construction shall be replaced immediately by the Contractor at no cost to the Village.

PROTECTION AND RESTORATION OF PROPERTY

The Contractor shall provide protection to prevent damage to all pavement, roadways, landscaping, utilities, structures, buildings, materials, automobiles, equipment, and all other infrastructure and improvements located on, adjacent to or in the subsurface of the job site (collectively, "Protected Property"). The Contractor shall repair any damage caused by the Contractor, Subcontractor, or any other person or entity performing work under the Contract Documents, to the Protected Property and restore the same to its original condition upon receipt of notification of such from the Engineer or Village. The Contractor shall also have the duty to immediately notify the Engineer upon the discovery of any such damage. If the Contractor does not correct such damage within said 30 days or as specified by written notice from Engineer, Village may have the damage corrected. All direct and indirect costs of such correction or replacement, including compensation for additional professional services (i.e., third party contractors, engineers, attorneys, etc.), shall be paid by the Contractor, and an appropriate deduction shall be made from payments due Contractor for Work completed. All

labor will be furnished by the Contractor and must be efficient and skilled in the Work. All Work must pass inspection by the Engineer.

CONTRACT QUANTITIES

Due to budget constraints, the Village reserves the right to add or delete from the contract, as required. No adjustments in contract unit prices or additional compensation will be made for alteration in the quantities or services from the contract. The quantities listed are estimates only, and may be altered. The Village reserves the right to remove quantities within the proposed project limits and/or add quantities outside of the proposed project limits shown on the Plans.

PRICES

The quantities provided in the bid documents are approximate only and are subject to increase or decrease. Actual compensation to the Contractor shall be based upon the actual quantities multiplied by the unit prices bid for each item. The unit prices submitted herewith are for the purpose of obtaining a gross sum, and for use in computing the value of additions and deductions and for the purpose of determining the lowest Bidder. Should there be a discrepancy between the gross sum bid and that bid resulting from summation of quantities multiplied by their respective unit prices, the latter shall apply.

PAYMENTS TO CONTRACTOR

The Contractor shall submit a partial payment estimate not more than once each month. The estimate will cover the work performed from the previous estimate until issuance of the current partial payment estimate. The partial payment estimate must be supported by such data as may be required by the Engineer. Upon approval by the Board of Trustees and approval of partial waiver(s) of lien, the Village agrees to make payment. The Village shall retain ten (10) percent of the amount of each payment until final completion and acceptance of all work covered by the contract. The retainage may be reduced at the discretion of the Engineer.

In addition, the Village may keep any money which would otherwise be payable at any time hereunder and apply the same, or so much as may be necessary thereof, to the payment of any expenses, losses, or damages, as determined by the Village Manager or his designee, incurred by the Village; and may retain, until all claims have been settled, so much of the monies as the Village Manager or his designee shall be of the opinion will be required to settle all claim against the Village and its officers agents as herein elsewhere specified, and all claims for labor on notice of which signed and sworn to be the claimants, shall be properly filed. **ALL claims against the Village for property damage or personal injury related to or resulting from the work of the Contractor, shall be either fully resolved or submitted to the applicable insurance carrier within 30 days of receipt by the Contractor.**

FINAL PAYMENT

Upon completion of the work and approval by the Engineer, a final payment estimate will be prepared by the Contractor. Upon approval by the Board of Trustees and approval of all final waiver(s) of lien by the Village, the Village will, within thirty (30) calendar days, pay the Contractor the final payment on the basis of the approved final payment estimate. The acceptance by the Contractor of final payment shall constitute a release and waiver of any and all rights and privileges under the terms of the contract, and shall relieve the Village from

any and all claims or liabilities for anything done or furnished relative to the work or for any act or neglect on the part of the Village relating to or connected with the contract. Any payment, however, final or otherwise, shall not release the Contractor or his sureties from any obligations under the contract or the performance bond and payment bonds.

RIGHTS OF LIEN

Under this contract the Contractor will not have the right to place a lien against the property which is publicly owned.

INSURANCE

- (A) During the term of the contract, the Contractor shall provide the following types of insurance in not less than the specified amounts:
1. Comprehensive General Liability - \$1,000,000.00 per occurrence and shall include coverage for products and completed operations liability, independent contractor's liability, and coverage for property damage from perils of explosion, collapse or damage to underground utilities, commonly known as XCU coverage; the general aggregate shall be twice the required occurrence limit. Minimum General Aggregate shall be no less than \$2,000,000.00 or a project/contract specific aggregate of \$1,000,000.00.
 2. Auto Liability - Combined Single Limit Amount of \$1,000,000.00 on any Contractor owned, and/or hired, and/or non-owned motor vehicles engaged in operations within the scope of this contract;
 3. Workers Compensation - Statutory; Employers Liability \$1,000,000.00 (the policy shall include a 'waiver of subrogation'); and
 4. Owners and CONTRACTORS Protective Liability \$1,000,000.00. Combined be no less than \$2,000,000.00 on a project aggregate.
 5. Umbrella Coverage - \$5,000,000.00.
- (B) The Contractor shall furnish to the Village satisfactory proof of coverage of the above insurance requirements, by a reliable company or companies, before commencing any work. Such proof shall consist of certificates executed by the respective insurance companies and filed with the Village. Said certificates shall contain a clause to the effect that, for the duration of the contract, the insurance policy shall be canceled, expired or changed so as to the amount of coverage only after written notification 30 days in advance to the Village. **In addition, said certificates shall list the Village and its officers, agents and employees, the Western Springs Park District and its officers, agents and employees, the Metropolitan Water Reclamation District (MWRD) its officers, agents and employees, and Christopher B. Burke Engineering, Ltd. and its officers, agents and employees as additional insured on all required insurance policies other than worker's compensation.**

- (C) The Contractor shall require subcontractors, if any, not protected under the Contractor's policies, to take out and maintain insurance of the same nature in amounts, and under the same terms, as required of the Contractor.
- (D) All insurance required herein of the Contractor and any subcontractors shall be valid and enforceable policies, insured by insurers licensed and permitted to do business by the State of Illinois or surplus line carriers qualified to do business in the State of Illinois. All insurance carriers and surplus line carriers shall be rated A-, VII or better by A.M. Best Company.

All costs for insurance as specified herein will be considered as included in the cost of the contract. The Contractors shall, at its expense and risk of delay, cease operations if the insurance required is terminated or reduced below the required amounts of coverage. Coverage in the minimum amounts set forth herein shall not be construed to relieve the Contractor from its obligation to indemnify in excess of the coverage according to the contract.

INDEMNIFICATION

Except to the extent claims, losses or damages are the result of the negligent acts or omissions or willful misconduct of the Village, the Contractor shall indemnify, defend and save harmless the Village, their officers, agents, employees, representatives and assigns, from lawsuits, actions, costs (including but not limited to attorneys' fees and expert witness fees), claims, fines, penalties, damages or liabilities of any character, resulting from: (a) Contractor's failure to comply fully with any federal, state or local law, statute, regulation, rule, ordinance, order of governmental directive, including, but not limited to, those which directly or indirectly regulate or relate to the generation, receipt, handling, treatment, storage, transportation, disposal or recycling of any hazardous substance or waste; (b) bodily injury, including death at any time resulting therefrom, and injury to property, which are attributable to, or arise out of, any negligent act or omission or willful misconduct of Contractor, its employees, agents, officers, directors, and subcontractors; and (c) the failure of Contractor to comply with the terms, conditions, representations and warranties contained in this contract. In connection with any such claims, lawsuits, actions or liabilities, the Village, its officers, agents, employees, representatives and their assigns shall have the right to defense counsel of their choice. The Contractor shall be solely liable for all costs of such defense and for all expenses, fees, judgments, settlements and all other costs arising out of such claims, lawsuits, actions or liabilities. The rights and obligations set forth in this section shall survive the expiration, conclusion, or termination of this contract.

COMPLIANCE WITH LAWS

COMPLIANCE WITH OSHA STANDARDS

The Contractor shall read and comply with all applicable Occupational Safety and Health Act (OSHA) standards. Special attention is directed to the Congressional Federal Register, Volume 58, Number 9, Thursday, January 14, 1993, Part 1910 (Permit Required Confined Spaces for General Industry.) Equipment supplied to the Village must comply with all requirements and standards as specified by the OSHA. Items not meeting any OSHA specifications will be refused.

Neither the Village nor the Engineer will be responsible for verifying or enforcing OSHA standards and requirements as this will be the sole responsibility of the Contractor.

COMPLIANCE WITH LOCAL, STATE, AND FEDERAL SAFETY/HEALTH STANDARDS

The Contractor shall read and comply with all applicable local, state, and federal safety and health standards and regulations including, but not limited to: OSHA, IDOT, EPA, COOK COUNTY, MWRD, IDOL.

WATER FOR CONSTRUCTION

The Contractor may obtain municipal water in bulk, at no charge, as long as there is not a watering ban in effect, from location(s) approved by the Village. Water shall be made available at a hydrant or hydrants within one (1) mile of the project limits. The indiscriminate use of fire hydrants is strictly prohibited. Water for construction shall be metered with a meter obtained by the Village and a daily log maintained. The Contractor shall provide the water truck and driver required to obtain and transport this water. The Village reserves the right to restrict or refuse the use of Village water if deemed necessary.

WORKING HOURS

All work within the defined limits the project shall be performed between the hours of 7:00 AM and 7:00 PM, Monday through Friday, and between 8:00 AM and 5:00 PM on Saturday, except in an emergency or when specific permission has been granted by the Village Engineer. No work is to be performed on Sunday or the holidays of New Year's Day, Memorial Day, 4th of July, Labor Day, Thanksgiving or Christmas Day. The Contractor shall notify the Village 24 hours in advance if work is to be performed on Saturdays.

EMERGENCY NUMBERS

The Contractor shall provide the Village and Engineer, prior to beginning construction, with the name and phone number of a contact person that will be available for quick response for afterhours emergencies. If that person does not respond within 4 hours of the call, then the Village shall hire or use other personnel to remedy the emergency and deduct all costs incurred from the payments due the Contractor.

NOTICE

A minimum of forty-eight (48) hour notice will be given to the Village prior to starting work, or restarting work after some absence of work for any reason.

Notify: Jeff Koza, PE, CFM
 Director of Engineering Services/Village Engineer
 Village of Western Springs
 (708) 246-1800 Ext. 202

TAXES

The Village is exempt, by law, from paying the following taxes: Federal Excise Tax, Illinois Retailer's Occupation Tax, Use Tax and Municipal Retailers' Occupation Tax on materials and services purchased by the Village. A copy of the Village tax-exempt letter will be provided to the successful Bidder when requested.

VENUE

The parties hereto agree that for purposes of any lawsuit(s) between them concerning the contract, its enforcement, or the subject matter thereof, venue shall be in Cook County, Illinois, and the laws of the State of Illinois shall govern the cause of action.

MATERIAL ORDERS

The Contractor shall order all materials with long lead times within 5 working days from issuance of Notice of Award to minimize any project delays and meet project completion date. **Any issues procuring material shall be brought to the attention of the Village and Engineer immediately.**

**TECHNICAL SPECIFICATIONS
FOR
VILLAGE OF WESTERN SPRINGS
SPRINGDALE DRAINAGE IMPROVEMENT PROJECT**

SPECIAL PROVISIONS

The following Special Provisions supplement the “Standard Specifications for Road and Bridge Construction”, Latest Edition, the latest edition of the “Manual on Uniform Traffic Control Devices for Streets and Highways”, the “Manual of Test Procedures of Materials” in effect on the date of invitation of bids, the latest edition of the Standard Specifications for Water and Sewer Construction, and the Supplemental Specifications and Recurring Special Provisions which apply to and govern the construction of **Springdale Drainage Improvement Project**, and in case of conflict with any part, or parts, of said Specifications, the said Special Provisions shall take precedence and shall govern.

LOCATION OF IMPROVEMENT

The Springdale Drainage Improvement Project is located on Franklin Avenue, Howard Avenue from 54th Street to 52nd Place, 52nd Place from Howard Avenue to Springdale Park, and throughout Springdale Park within the Village of Western Springs, Illinois.

DESCRIPTION OF IMPROVEMENT

The proposed work is officially known as the **Springdale Drainage Improvement Project**. The work to be performed consists of storm sewer installation ranging in size from 12”-54” diameter, excavation of stormwater detention basin, sanitary sewer installation, ductile iron water main installation, sidewalk, driveway and curb and gutter R&R, HMA surface removal, HMA surface and binder course installation, parkway restoration, baseball field/park restoration, and all collateral work necessary to complete the improvement as shown and described herein.

LIMITATIONS ON ENGINEER'S AUTHORITY AND RESPONSIBILITIES

The authority and duties of Resident Engineer in Article 105.10 of the Standard Specifications are hereby deleted. The authority of Engineer is amended as follows.

The Engineer will be the Municipality's representative during the construction period. The Engineer will provide base lines, benchmarks and reference points, assist the Contractor with interpretation of the Plans and Specifications, observe in general if the Contractor's Work is in conformity with the Contract Documents, and monitor the Contractor's progress as related to the date of completion. The Engineer will not supervise, direct, control or have authority over or be responsible for the Contractor's means, methods, techniques, sequences or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of the Contractor to comply with Laws and Regulations applicable to the furnishing or performance of the Work. The Engineer will not be responsible for the Contractor's failure to perform or furnish the Work in accordance with the Contract Documents.

The Engineer will not be responsible for the acts or omissions of the Contractor or any subcontractor, any supplier, or of any other person or organization performing or furnishing

any of the Work. These limitations on authority and responsibility set forth herein shall also apply to the Engineer's Consultants, Resident Project Representative and assistants.

PRE-CONSTRUCTION MEETING

Upon execution of the contract with the successful bidder, the Village will schedule a meeting with the Contractor. The Contractor shall submit his progress schedule, QC Plan, any material submittals, and Traffic Control Plan at or before this meeting. In attendance shall be the Contractor's representative on the job, i.e., Construction Superintendent or Foreman. On or before this meeting the Contractor shall inspect the work site to determine the existing conditions.

1. Purpose - To discuss and resolve any problems regarding the work prior to the Contractor starting work. This includes the schedule of construction operations and interpretation of the Special Provisions and/or plans.
2. Attendance - Village Engineer, representatives of other Village departments, Contractor, Utility Company representatives, if utility work or adjustments is required. Also, any other person as may be deemed necessary.
3. Specification information regarding source of materials, responsibility for testing of materials, who is QC Manager, work to be sublet, responsibility for maintaining traffic/detours and any other problems relating to work will be discussed.
4. A roster will be prepared which will list the names, addresses and telephone numbers of all parties concerned. Twenty-four (24) hour a day and emergency contact persons and phone numbers shall be listed.

VANDALISM

Special attention is called to Article 107.30 of the Standard Specifications. Any defaced work shall be corrected or replaced by the Contractor at his sole expense prior to final payment. The Owner shall cooperate with the Contractor to minimize vandalism, but the Contractor shall be ultimately responsible to correct any damage.

LICENSES AND PERMITS

The Contractor shall be responsible for obtaining applicable licenses, complying with all permits and completing all work in accordance with their provisions. No person shall construct, install, or repair any items within the Village limits unless such person has first obtained or verified to have been obtained by the Village the followed permits and licenses:

1. Water main construction permit from the Illinois Environmental Protection Agency.
2. MWRD Watershed Management Ordinance (WMO) Permit.
3. An Illinois Environmental Protection Agency NPDES ILR10 Permit.
4. Village Business License.

Village of Western Springs shall be responsible for obtaining the above permits, except that the Contractor shall be responsible for obtaining a Village Business License and providing the necessary bonds for all permits. All work and costs associated with obtaining these items shall

be considered included in the cost of the pay item for "MOBILIZATION". No additional compensation shall be made.

MAINTENANCE OF ROADWAYS

Beginning on the date that the Contractor begins work on this project, the Contractor shall assume responsibility for normal maintenance of all existing roadways within the limits of the improvement. This normal maintenance shall include all repair work deemed necessary by the Village, but shall not include snow removal operations. Traffic control and protection for this work will be provided by the Contractor as required by the Village.

The work involved in maintaining the existing pavement will be paid for separately at the contract unit prices for the various items of work involved, unless otherwise specified elsewhere in these Special Provisions. Traffic control and protection will be paid for as stated in the contract. No construction activity shall begin until all proper signs and barricades have been installed. There shall be no equipment or material storage on the pavement, temporary or otherwise.

Contractors shall assume that the project limits can be closed to local traffic only. Roads can be closed for short durations while work is actively occurring, but access shall be provided to residents at all times.

PUBLIC CONVENIENCE AND SAFETY

In addition to the requirements of Article 107.09 of the Standard Specifications, the Contractor shall maintain entrances and side roads along the proposed improvement; interference with traffic movements and inconvenience to owners of abutting property and public shall be kept to a minimum. Any delays or inconveniences caused to the Contractor by complying with these requirements shall be considered as incidental to the contract, and no additional compensation will be allowed.

The Contractor shall plan his work so that there will be no open holes in the pavement overnight unless otherwise allowed by the Engineer. Trenches and open holes shall be backfilled and/or covered at the end of each working day. Any steel plates necessary to accommodate this requirement shall be incidental to the contract.

Two-way traffic shall be maintained at all times except for short durations during construction and as approved by the Engineer. Flaggers shall be provided whenever traffic is reduced to one lane and as deemed necessary by the Engineer. The work zones may be closed to thru traffic during construction. Construction signs referring to temporary lane closures during work hours shall be removed or covered during the non-work hours.

The Contractor shall complete all work on driveway aprons within 5 working days of their removal for final driveway restoration. Temporary stone may be used to maintain driveway access until the time of pavement driveway restoration. The work shall include any adjacent curb and gutter that was removed as part of work on the installation of driveway aprons, including necessary curing times. Failure to complete the work will result in a penalty of \$250.00 per calendar day for each driveway apron that has not been restored within the specified time.

Access to driveways shall be maintained at all times, except for short-term closures necessary as work is being performed within the driveway itself. Property owners shall be notified at least 24 hours in advance of a driveway closure. Access to all driveways shall be provided between 6pm and 7am each day, except as permitted for concrete curing due to driveway or curb and gutter replacement.

The Contractor shall be responsible for developing a staging plan that conforms to the above requirements and any additional requirements of the Village. This Contractor's staging plan shall be approved by the Village prior to lane or road closures taking place.

During all construction operations, the Contractor will be required to provide, erect and maintain proper signage and barricades plus provide flagmen as necessary for safe traffic control.

All provisions relating to traffic control, signage, barricades and the use of flagmen shall be subject to the approval and the direction of the Engineer.

Contractor shall be solely responsible for coordination and/or relocation of residential services (garbage pickup, mail delivery, school bus dropoffs, etc.) as directed by the Engineer, including notification of residents of relocation of such services.

Emergency access shall be maintained at all times.

This work will not be paid for separately but shall be considered as incidental to the Contract and no extra compensation will be allowed.

STREET CLEANING

Special attention shall be paid to Section 107.15 of the Standard Specifications. If the Contractor fails to clean the pavement, sidewalk or parkways on or adjacent to the section under construction to the satisfaction of the Engineer at any time during the contract, the Engineer will notify the Contractor at which time the Contractor will have 24 hours to respond.

If the Contractor fails to respond within 24 hours an amount of \$500.00 per incident will be deducted from any monies due the Contractor in addition to any other remedies provided for herein.

STATUS OF EXISTING UTILITIES

Before starting construction, the Contractor shall contact JULIE for locations of any and all utilities. The toll free telephone number is 1-800-892-0123.

The Contractor is responsible for notification and coordination with JULIE for locations of utilities before and throughout the project.

The utilities shown are representative only and are not inclusive: Contractor shall have all utilities field located prior to ground disturbance.

Utility companies and their respective project contacts are listed below:

NAME OF UTILITY	CONTACT	Phone/Email	TYPE	CONFLICT STATUS
AT&T-D	Tom Laskowski	630-779-4722 t17895@att.com	Phone/Fiber Optic	Watch and Protect AT&T cable crossing Howard Avenue at approx. Sta. 202+00.
Comcast	Axel Perez	773-851-8613 Axel_perez@cable.comcast.com	Cable	Watch and Protect cable crossing 52 nd Place at approx. Sta. 101+80.
ComEd	Nick Tuleja	440-796-8979 nicholas.tuleja@comed.com	Electric	ComEd has relocated existing underground cables on 52 nd Place and Howard Avenue to avoid conflicts with the proposed sewers. Contractor shall take caution while excavating near ComEd facilities.
Nicor	Charles "Chip" Parrot	630-388-3319 cparrot@southernco.com	Gas	Nicor will relocate existing gas lines on 52 nd Place from Caroline to Howard and at Howard Avenue and 54 th Street.

The above represents the best information available to the Village and is included for the convenience of the bidder. The applicable portions of Articles 105.07 and 107.31 of the Standard Specifications shall apply.

REMOVAL AND DISPOSAL OF EXCAVATED MATERIALS

The Contractor shall have the sole and exclusive responsibility and liability for complying with all federal, state and local laws pertaining to the removal and disposal of excavated materials from the project site, including but not limited to the requirements for the excavation, transportation and off-site disposal of any soils or clean construction or demolition debris (CCDD) at a CCDD fill operation or facility.

The Village will provide a signed Illinois Environmental Protection Agency Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation Form LPC-663 form for disposal of the soil located in the project limits. A summary of soil testing completed by Seeco Consultants has been provided in Tab 4 of this contract booklet.

The Contractor is hereby notified all responsibilities, obligations and liability relating to complying with Public Act 96-1416 (which amended the Illinois Environmental Protection Act

by changing Sections 3.160, 22.51, 31.1 and 42 and by adding Section 22.51(a) and (b)) and the regulations promulgated there under, shall remain solely with the Contractor. The Contractor's responsibilities may include but not be limited to any required testing, dumping fees and proper documentation for disposal of such materials. All costs or expenses incurred or associated directly or indirectly with the Contractor's compliance with the requirements of this paragraph will not be paid for separately but will be considered included in the cost of MOBILIZATION.

Two LPC-663 have been provided for this project, one for the sewer area and one for the proposed basin. The LPC-663 forms are dated April 14, 2022 and September 29, 2023 respectively. No separate payment shall be allowed to the contractor for additional environmental testing required to properly dispose of materials at a CCDD or USFO. It is recommended that bidders provide the LPC-663 forms and environmental testing reports to prospective CCDD facilities for pre-approval during the bidding process.

Contractors may request the full geotechnical and environmental reports, including all analytical testing data, by emailing Alex Schaefer at CBBEL (aschaefer@cbbel.com).

MATERIAL TESTING

All materials shall be inspected and tested by the Contractor. This includes compaction tests, the making and breaking of concrete test cylinders and asphalt plant inspection and onsite compaction testing. Test results shall be furnished directly to the Engineer and Owner's Representative by the materials testing firm retained by the Contractor. The materials testing firm shall be experienced and qualified to perform the type of Work required by this Special Provision.

Work to be performed under this Special Provision of the Specification shall be in accordance with the applicable requirements and the adopted Standard Specifications, and shall be conducted by experienced personnel regularly engaged, knowledgeable, and skilled in inspections and testing materials.

Submittals shall include results/reports of the materials inspected and/or tested. Reports on inspections and/or materials tested shall be prepared in an acceptable form and in accordance with the applicable requirements of the Standard Specifications and adopted by these Specifications.

Inspections and/or testing of material shall be performed in accordance with the applicable requirements of the Standard Specifications and as required by these Specifications.

Separate measurement or payment will not be made for the Work specified in this Special Provision. All costs of such Work shall be included in the prices bid for the various items to which they pertain in the Schedule of Prices.

GEOTECHNICAL INVESTIGATION REPORT

The Geotechnical Investigation reports prepared by Seeco Consultants dated April 2022 and October 2023 have been provided in Tab 4 of this Bid Booklet.

PROTECTION OF TREES AND SHRUBS

Every effort shall be made by the Contractor when working near trees and shrubs to preserve same from harm. The Contractor shall be responsible for damage to or loss of any tree or shrub not specifically designated to be removed.

Wherever trees which are not permitted to be removed interfere with normal excavation procedures, the following shall govern. No machine excavation shall be made within a distance of three tree trunk diameters or 12 inches (whichever is greater) of any tree, and no roots over 2 inches in diameter shall be cut unless, in the opinion of the Engineer, it is impossible to complete the work without cutting. Excavation closer than three trunk diameters or 12 inches (whichever is greater) from any tree shall be made by hand, and the tree shall be tunneled where necessary as determined by the Engineer.

Damage to tree limbs shall be held to a minimum. Shrubs and tree limbs shall be tied back wherever necessary to prevent their loss or damage. Wherever damage by construction equipment to limbs and branches is unavoidable, they shall be pruned before starting work and sealed in accordance with best forestry practice.

Wherever necessary, the Contractor shall provide tree protection fencing in accordance with the Village Standard detail. If excavation is required to take place within the critical root zone outlined in the Village Standard Detail, plank wrappers wired in place shall be provided to protect tree trunks from being damaged by trench machinery, tractors or trucks.

Protective fencing and or planking shall be removed as soon as practical after the work in the vicinity has been completed. In removing spoil banks from around trees, hand work will be required as necessary to prevent damage to the trunks by construction machinery.

Small trees (less than 4 inches in diameter) and shrubs which are removed or severely damaged during construction shall be replaced in kind and size by the Contractor. Trees larger than 1 inch in diameter shall be furnished balled and burlapped. The Contractor shall have the option of removing and replanting existing small trees and shrubs in the construction zone in lieu of replacement with new stock. All plantings shall be thoroughly watered at the time of planting and thereafter as required. All trees and shrubs planted or replanted by the Contractor which do not survive in good condition for a period of 18 months after the time of planting, shall be removed and replaced by the Contractor.

Damages at the rate of one hundred dollars (\$100.00) per inch of trunk diameter shall be charged against the Contractor for unauthorized removal or destruction of any tree 4 inches in diameter or larger.

Basis of Payment. This work shall not be paid for separately but rather shall be included in the cost of the items for which this work applies, except TREE TRUNK PROTECTION shall be paid for separately.

CONSTRUCTION NOTICES

It shall be the Contractor's responsibility to produce and distribute all construction notifications to residents/businesses and to place no parking signs on streets a minimum of 24 hours in

advance of work. No parking signs shall be removed when work is not occurring and reposted as needed when operations continue. This work will not be measured for payment but shall be included in the total contract cost. The construction notices and no parking signs shall be reviewed and approved by the Engineer prior to being distributed/posted. Notices shall be issued at various project stages as required by the Engineer.

The Contractor will also be responsible for distributing and/or redistributing notices in case of any delays due to inclement weather or for any other reason for extended stoppages (i.e. strikes) in the construction schedule.

Should the Contractor fail to distribute or post notices per the request of the Village, the Contractor shall pay to the Village the sum of \$250 per incident, not as a penalty, but as liquidated damages.

Basis of Payment. This work shall not be paid for separately but rather shall be included in the total contract cost.

SIGN RELOCATIONS

The Contractor shall remove and relocate all street signs located in or near the construction zone as directed by the Village. This shall also include the relocation of any existing decorative monument-type street signs. Contractor shall be responsible for documenting sign locations and replacing each sign to the exact pre-project location in accordance with MUTCD standards, unless otherwise directed by the Engineer. The Contractor shall be responsible for replacing at his expense any signs damaged during the course of construction and the operation of removing and relocating any signs. The removal and relocation of all existing signs within the construction limits shall not be paid for separately but shall be incidental to the contract.

PRE-CONSTRUCTION VIDEO RECORDING

Description. This work shall consist of performing color video and audio recording of the project area and other areas which may be impacted by construction.

Pre-construction video recordings will include coverage of the project area and all other areas which may be impacted by construction. Video recordings will also include construction easements when applicable. Video recordings will provide a visual record of all physical features within those areas, including, but not limited to, roadways, pavements, curbs, gutters, driveways, driveway aprons, sidewalks, carriage walks, parkways, trees, landscaping, shrubbery, plantings, landscaping walls, retaining walls, signs, sign posts, fences, utility poles, light poles, utilities, equipment, manholes, b-boxes, cleanouts, valves, curb structures, pipelines, buildings, mailboxes, and any other features located within the project area.

Video recordings will maintain viewer orientation by means of an audio commentary in the audio track of each video recording which provides an explanation of what is being viewed; and by videotaping landmarks and readily identifiable objects, including property addresses, street signs, or other appropriate objects, at appropriate intervals.

If any element within or portion of the project area is not adequately documented by the pre-construction video recording so as to definitively demonstrate its condition prior to the start of construction, Contractor will assume responsibility for the repair, restoration or replacement of that element or portion of the project area. Such repair, restoration or replacement will be to equal or better condition than previously existing, and will further comply with all standards and provisions which govern the work in question.

Pre-construction video shall be recorded within 7 calendar days of the start of construction and shall take place after the Joint Utility Locating Information for Excavators (JULIE) request for the project area has cleared. The site shall be clear of all material, equipment and other items that will prohibit accurate documentation of pre-construction site conditions. The video should not be taken if significant snow or leaf cover exists.

The pre-construction video shall be provided to the Engineer for approval prior to starting work or delivering materials and equipment to the site.

Deliverables. Video will be high-definition, with a minimum resolution of 1280 × 720 pixels per frame. Video will be filmed in a landscape aspect ratio. Video filmed in a portrait aspect ratio will be considered unacceptable and will be rejected.

Preconstruction video recordings will be provided as electronic files of .avi, .mp4, .m4v, .mkv, .wmv, or .mpg file format, or of such other file format as may be approved by Engineer. Pre-construction video recording electronic files will be provided on a portable electronic media device or devices of one of the following types: USB flash drive, SD flash memory card, CF flash memory card, data DVD, external hard drive, or such other portable electronic media device as may be approved by Engineer. Preconstruction video recording electronic files may also be provided via online file sharing, cloud storage, File Transfer Protocol (FTP), or other online or network file transfer methods if approved by Engineer.

Basis of Payment. Pre-construction video recording will not be paid for separately, but shall be included in the cost of MOBILIZATION.

TREE ROOT PRUNING

Work under this item shall consist of pruning tree root structures using disc blade trenching equipment, trench backfilling and mulching. Pruning will be required where construction activities will encroach upon critical root zone areas as designated by Engineer.

The trench width for root pruning shall not exceed 6". Root pruning shall be to a depth of not less than 18". All pruning operations shall be completed prior to beginning any work which would disturb the root zone. The trench shall be backfilled and loosely compacted. Immediately following the completion of root pruning activities, Contractor shall erect protective fencing around those trees designated on the Drawings, so as to enclose the remainder of the critical root zone as shown on the details.

Additional root pruning may be determined by the Engineer at the time of underground sewer and water construction. No separate payment shall be made additional mobilizations required for root pruning.

Basis of Payment. Work under this item shall be paid for at the Contract Unit Price per each for TREE ROOT PRUNING; which price shall include all labor, materials, and equipment necessary to satisfactorily complete the Work as described herein.

POROUS GRANULAR EMBANKMENT

This work shall consist of furnishing, transporting, and placing porous granular material to replace unsuitable or unstable materials which are removed from the pavement subgrade. Work shall be performed in accordance with Section 207 of the Standard Specifications with the following modifications:

The gradation of the material used for this item shall meet the following requirements:

<u>Sieve Size</u>	<u>% Passing</u>
6"	94-100
4"	80-100
2"	20-70
1"	---
1/2"	---
#4	---
#200	0-10

At the Engineer's discretion, CA-1 (3" stone) shall replace the gradations listed above.

The material supplier shall provide gradation and quality data on the material prior to construction.

Basis of Payment. This work will be paid for at the Contract Unit Price per cubic yard for POROUS GRANULAR EMBANKMENT; which price shall include all materials, labor, and equipment necessary to satisfactorily complete the Work as specified herein

TOPSOIL EXCAVATION AND PLACEMENT

Description. This work shall include striping, temporarily stockpiling and placing topsoil within the proposed Springdale Park stormwater basin. Placing topsoil shall conform to Section 211 of the STANDARD SPECIFICATIONS. Topsoil shall be excavated prior to earth excavation operations taking place.

Proposed topsoil placement shall be 12"-thick within Springdale Park unless otherwise directed by the ENGINEER. If topsoil is used in the roadway parkways outside of the park, it shall be installed to a minimum thickness of 4-inches in accordance with the special provision for PARKWAY RESTORATION – SODDING.

Existing information indicates that the existing topsoil layer is approximately 18" to 24" thick. Actual topsoil thickness varies throughout the site. Soil boring information is provided in Tab 4 of these Special Provisions.

CONTRACTOR shall be paid for the excavation of all existing topsoil. The excavated topsoil shall be stockpiled within the Springdale Park site at locations approved by the Engineer and Village. The Contractor may be required to relocate stockpiles to facilitate construction operations. No separate payment shall be allowed if multiple relocations are required. It is anticipated that the basin will be excavated one half at a time to properly move the soil stockpiles within the site. Stockpiles shall be protected with silt fence and temporary erosion control seeding as directed by the Engineer. Stockpiles shall be kept neat and shall be graded to prevent erosion/wash out. All work to construct, maintain and relocate stockpiles shall be included in the cost of this item, including the necessary temporary erosion control items as specified.

After the basin is excavated, topsoil shall be placed 12" thick over the entire proposed basin area. Placement of topsoil to the thickness specified shall be included in the cost of this item. Topsoil shall pulverized and free of all debris, rocks, sticks, and clods prior to placement. Topsoil shall meet the gradation requirements of Section 1081.05 of the IDOT Standard specifications, unless otherwise approved by the Engineer. No separate payment shall be allowed for pulverizing/processing existing topsoil to be reused on site.

Excess topsoil may be utilized for parkway restoration associated with the sewer installation on 52nd Place, Howard Avenue and Franklin Avenue. No additional payment shall be allowed for relocating excess topsoil from the basin area to the adjacent roadway parkways. Any surplus topsoil not utilized within the project limits shall be removed and disposed of offsite. Offsite disposal of surplus excavated topsoil on the shall be paid be measured and paid for separately as REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL.

Topsoil excavation will be measured in their original positions, and the volumes computed in cubic yards by the method of average end areas. Quantities shown on the plans are for bid purposes only. Final quantities shall be based on measurements in the field. CONTRACTOR shall be responsible for providing field survey to generate end area measurements and earthwork volumes. Measurements and quantities shall be provided to the ENGINEER for approval and acceptance for payment. Truck tickets shall not be an acceptable form of substantiating topsoil excavation quantities and payments.

Method of Measurement. This work will be measured in their original positions, and the volumes computed in cubic yard by the method of average end areas.

Basis of Payment. This work will be paid for at the contract unit price per cubic yard for TOPSOIL EXCAVATION AND PLACEMENT, which price shall include excavation, stockpiling, pulverization/processing of topsoil, topsoil placement, and all other work necessary to complete this item as described herein.

INLET FILTERS

This work shall include furnishing new inlet filter bags in accordance with Section 280 of the Standard Specifications and the manufacturer recommendations. At a minimum, the inlet filter shall conform to the following:

Frame: The flange shall be fabricated from 1/8" flat stock. The base ring shall be fabricated from 1-1/2" x 1-1/2" x 1/8" channel. All steel shall be domestic conforming to ASTM-A36.

Sediment Bag: The sediment bag shall be fabricated from 4 oz/sq yd non-woven polypropylene geotextile and shall be reinforced with polyester mesh. The bag shall be secured to the base ring with stainless steel strap and lock.

Inlet filters shall be installed prior to starting work on a given street. Once any site work has started, the Contractor shall be fined \$500 per structure per day for each filter not installed. Fines shall be imposed for missing filters until the final lift of surface has been placed.

Inlet filters shall be monitored, and shall be cleaned of debris if they become full or at the direction of the Engineer.

All inlet filters shall be removed within 24 hours after placing the HMA surface course. Liquidated damages for failure to remove filters within the specified timeframe shall be \$100 per structure per day.

Basis of Payment. This work will be paid for at the contract unit price per each for INLET FILTERS, which price shall include all labor, materials, and equipment necessary to satisfactorily complete the work as described herein

PORTLAND CEMENT CONCRETE SIDEWALK

Portland cement concrete sidewalk shall be constructed on a 4" thick granular sub-base, in accordance with Sections 311 and 424 of the Standard Specifications, and the following:

Thickness of sidewalks shall be 5", except across driveways, where the walk thickness shall be increased to match the driveway slab thickness, or 7", whichever is greater. No additional compensation will be made for such thickened walk areas.

At locations designated by Engineer as sidewalk ramps accessible to the disabled, sidewalks shall be finished in accordance with the details included in the plans. Type B side curb adjacent to ramps shall be constructed as necessary for ADA compliance of ramp, and this work shall be included in the cost of the sidewalk construction. Any Type B curb required at the direction of the Engineer beyond the upper landing/turning space (keystone) shall be paid for separately as CONCRETE CURB, TYPE B.

All earth excavation required to construct the proposed sidewalk and subbase shall be included in the cost of the PORTLAND CEMENT CONCRETE SIDEWALK, 5", including at locations where new sidewalk is to be constructed none currently exists.

The finished grades of replacement walks shall match adjacent surfaces.

The Contractor shall backfill adjacent to the new sidewalk pavement, to the satisfaction of the Engineer, within seven (7) calendar days of the placement of the pavement. Failure to comply will result in a charge of \$500.00 per location per day. This charge is separate from the cost

of any corrective work ordered. The contractor shall not be relieved of any contractual responsibilities by the Village's action.

After construction of the new driveway or sidewalk is complete, the Contractor shall restore adjacent grassed parkway areas in accordance with the requirements of the PARKWAY RESTORATION - SODDING special provision included herein. The Contractor shall make every effort to minimize disturbance of parkways.

Basis of Payment. This Work will be paid for at the Contract Unit Price per square foot for PORTLAND CEMENT CONCRETE SIDEWALK, 5"; which prices shall include all materials, granular subbase, labor and equipment necessary to satisfactorily complete the Work as specified herein.

DUCTILE IRON WATER MAIN

Description. This work shall consist of the installation of ductile iron water main which shall be constructed in accordance with the applicable portions of Section 561 of the Standard Specifications, Section 41 of the Water and Sewer Specifications and applicable Village Standard Details, except as modified herein. This work shall be completed in accordance with applicable Village Standard Details noted on the plans.

Construction Requirements. The water main and fittings shall be ductile cast iron, cement lined, with push-on joints, Class 52, of the size as designated in the plans, and shall conform to the latest ANSI A21.51/AWWA C151, C111 and C104. All ductile iron water main shall include polyethylene wrapping. Further details and notes regarding materials, installation and testing for ductile iron water main are provided on the plans.

Wherever water is encountered in the trench, it shall be removed during pipe laying and jointing operations. Provisions shall be made to prevent floating of the pipe. Any dewatering of the trenches shall be included in the cost of the water main installation. At no time shall trench water be allowed to enter the water main. Water main shall be installed to provide a minimum cover of 5.5', and up to a maximum cover of 6.0' except where required at special crossings. Depths of cover over 6.0' will only be allowed when shown on the plans or as otherwise approved by the Engineer.

The pipe shall be handled in such a manner as to prevent damage to the pipe or coating. Accidental damage to the pipe or coating shall be repaired to the satisfaction of the Engineer, or be removed from the job, and the methods of handling shall be corrected to prevent further damage when called to the attention of the Contractor.

The pipe shall be inspected by the Engineer for defects while suspended above grade.

Dirt or other foreign material shall be prevented from entering the pipe or pipe joint during handling or laying operations, and any pipe or fitting that has been installed with dirt or foreign material therein shall be removed, cleaned and re-laid. At times when pipe laying is not in progress, the open ends of the pipe shall be closed by a watertight plug, or by other means subject to the review of the Engineer, to ensure absolute cleanliness inside the pipe. All cutting of existing water main pipe for the insertion of valves, crosses, tees or other fittings

shall be performed without damage to the pipe or pipe lining, and so as to leave a smooth end at right angles to the axis of the pipe. Any damaged water main shall be re-cut and replaced by the Contractor at his sole expense.

All fittings shall be mechanical joint and or iron or ductile iron conforming to ANSI A21.53/AWWA C153 and ANSI A21.4/AWWA C104. Restrained joints may be used in lieu of mechanical joints. All pipe joints at any valve or fitting including those where the proposed water main ties into the existing water main shall be restrained with retainer glands. Retainer glands shall be Mega Lugs by EBAA Iron, or an equal approved by the Engineer. Contractor shall install Field-Lok gaskets in two bells prior to and after any bend or valve. Field-Lok gaskets are incidental and will not be paid for separately. Also, all horizontal bends, crosses, and tees shall be additionally restrained with thrust blocks as shown on the details in the plans. The cost of the thrust blocks shall be considered included in the cost of the ductile iron water main.

The ductile iron water main shall be constructed on 4-inches of compacted bedding and haunching and initial backfill shall be placed to 12-inches above the top of pipe. All bedding, haunching and initial backfill shall be CA-7 stone in accordance with the Detail for Water Main Installation provided in the plans and shall be included in the cost of the ductile iron water main. Trench Backfill shall be paid for separately.

Disinfection of the water main shall be performed using only liquid chlorine. Under certain conditions when the use of liquid chlorine is not practical, chlorine tablets will be allowed with the approval of the Engineer.

Measurement and Payment. This work will be paid for at the contract unit price per foot for DUCTILE IRON WATER MAIN, of the diameter specified, measured in place. This price shall include the cost of all pipe, pipe fittings, joint materials, polywrap, restraint devices and thrust blocks, Field-Lock gaskets, hydrostatic pressure tests, leakage tests, disinfecting of the water main, excavation, bedding and select (common) backfill. All trench backfill, pavement removal and replacement and other surface restoration items as shown on the plans and specified herein shall be paid for separately.

This item shall also include any and all incidental items such as temporary plugs, corporation stops (for testing), water pumps, gauges, meters and laboratory test costs, and all other items necessary to complete this work as specified.

PRESSURE TESTING OF WATER MAINS

Description. After the pipe has been laid and partially backfilled as specified herein, all newly-laid pipe valved sections and fire hydrants, unless otherwise expressly specified, be subjected to a hydrostatic pressure of 150 psi at the lowest elevation of the pipe section. The Engineer shall be given 24 hours notice prior to the beginning of testing. The duration of each pressure test shall be not less than four hours. Water main testing shall be in accordance with the applicable portions of AWWA Standards C600 and C603, or as otherwise modified herein.

The water main shall be tested in segments (i.e., not the entire project length at once) to minimize water service disruption. Length of test segments to be determined by the Engineer.

Procedure for Test. The Contractor shall notify the Village at least twenty-four hours prior to the pressure test. Valves will be turned on only under the supervision of the Village, and the Village will witness all pressure testing.

Each section of pipe to be tested, as determined by the Engineer, shall be slowly filled with water and the specified test pressure shall be applied by means of a pump connected to the pipe in a satisfactory manner. The pump pipe connection and all necessary apparatus, including gauges and meters, shall be furnished by the Contractor. Before applying the specified test pressure, all air shall be expelled from the pipe. To accomplish this, taps shall be made, if necessary, at points of highest elevations and afterwards tightly plugged. Any cracked or defective pipes, fittings, valves, or hydrants discovered in consequence of this pressure test shall be removed and replaced by the Contractor with sound material, and test shall be repeated until satisfactory to the Engineer and the Village. The provisions of AWWA C600 and C603, where applicable, shall apply.

The pressure testing shall be accomplished with fire hydrant auxiliary valves open.

Leakage Test. After completion of the pressure test, a leakage test shall be conducted to determine the quantity of water lost by leakage under the specified test pressure.

1. Test pressure is defined as the maximum operating pressure of the section under test, and is based on the elevation of the lowest point in the line or section under test corrected to the elevation of the test gauge. Applicable provisions of AWWA C600 and C603 shall apply. The minimum duration of each leakage test shall be one (1) hour in addition to the pressure test period.
2. Allowable leakage in gallons per hour for cast iron water main shall not be greater than that determined by the following formula:

$$L = \frac{ND \sqrt{P}}{7400}$$

Note: L = Allowable leakage in gallons per hour
N = Number of joints in length of pipeline tested.
D = Nominal diameter of the pipe in inches.
P = Average test pressure during leakage test in pounds per square inch gauge.

3. Leakage is defined as the quantity of water to be supplied in the newly laid pipe or any valved section under test, which is necessary to maintain the specified leakage test pressure after the pipe has been filled with water and the air expelled.

Immediately after a passed test the pressure shall be drained through a fire hydrant until it is below the potable system pressure.

Method of Measurement and Basis of Payment. This work shall not be measured separately and shall be included in the bid price for the water main installation.

DISINFECTION OF WATER MAINS

Description. Disinfection of water mains shall be completed in accordance with Section 41-2.14 of the Water and Sewer Specifications except as modified in this Special Provision.

The Owner shall be notified at least twenty-four hours before the disinfection procedure. Representatives of the Public Works Department must be present during the procedure.

Flushing. Sections of pipe to be disinfected shall first be flushed to remove any solids or contaminated material that may have become lodged in the pipe. If no hydrant is installed at the end of the main, then a tap should be provided large enough to develop a velocity of at least two and five-tenths (2.5) feet per second in the main. One two and one-half (2 1/2) inch hydrant opening will, under normal pressures, provide this velocity in pipe sized up to and including twelve (12) inches.

All taps required for chlorination or flushing purposes, or for temporary or permanent release of air, shall be provided for by the Contractor as part of the construction of water mains.

Requirement of Chlorine. A free chlorine residual of at least 50 ppm and no more than 400 ppm must be reached throughout the entire length and branch lines of the water main. After the super-chlorinated water has sat in the main for twenty-four hours, a chlorine residual test shall be taken to insure the residual has not dropped by over one-half.

Form of Applied Chlorine. Chlorine shall be applied by the method which follows, subject to the review of the Engineer.

Chlorination shall be made by the use of chlorine gas only. The dry gas shall be fed directly through proper devices for regulating the rate of flow and providing effective diffusion of the gas into the water within the pipe being treated. Chlorinating devices for feeding the chlorine gas must provide means for preventing the backflow of water into the chlorine. The chlorine gas shall be injected into the main at intervals of no more than 1,000 feet.

Point of Application. The preferred point of application of the chlorine gas is at the beginning of the pipe line extension or any valved section of it, and through a corporation stop inserted in the pipe. The water injector for delivering the chlorine-bearing water into the pipe should be supplied from a tap made on the pressure side of the gate valve controlling the flow into the pipe line extension. Alternate points of application may be used subject to the review of the Engineer.

Preventing Reverse Flow. Valves shall be manipulated so that the strong chlorine solution in the line being treated will not flow back into the line supplying the water. Check valves may be used if desired.

Retention Period. Treated water shall be retained in the pipe at least twenty-four (24) hours. After this period, the chlorine residual at pipe extremities and at other representative points shall be at least twenty-five (25) mg/l.

Chlorinating Valves and Hydrants. In the process of chlorinating newly laid pipe, all valves or other appurtenances shall be operated while the pipe line is filled with the chlorinating agent and under normal operating pressure.

Final Flushing and Testing. Following chlorination, all treated water shall be thoroughly flushed from the newly laid pipe at its extremity until the replacement water throughout its entire length shows, upon test, a chlorine residual of less than one (1) mg/l. In the event chlorine is normally used in the source of supply, then the test shall show a residual of not in excess of that carried in the system.

Chlorinated water to be flushed into the combined sewer, not the storm sewer.

Contractor to notify the Village prior to discharging chlorinated water to the combined sewer.

At this time a water sample will be taken by the Contractor or his representative and sent to a state-certified water lab of his choice. Also at this time the Village will witness the sampling. The Contractor shall take two (2) samples, 24 hours apart with satisfactory results or the procedure shall be repeated.

Repetition of Flushing and Testing. Should the initial treatment result in an unsatisfactory bacterial test, the original chlorination procedure shall be repeated by the Contractor until satisfactory results are obtained. After water main passes chlorination testing, the corporation stop used to chlorinate the main shall be shut off and any piping removed.

Method of Measurement and Basis of Payment. This work shall not be measured separately and shall be included in the bid price for the water main installation.

ABANDON EXISTING WATER MAIN

Description. This work shall consist of the abandonment of portions of existing water main as shown on the plans and as directed by the Engineer to construct the proposed improvements.

Existing water main shall be abandoned only after all new water services have been transferred over to the new main and the new main is in operation.

Water main to be abandoned shall be drained of all water shall be plugged at both ends with a minimum of two (2) feet of non-shrink concrete/mortar plugs to the satisfaction of the Engineer. Pumping access points shall be at the proposed excavation locations.

Basis of Payment. All labor, materials and equipment necessary to complete the work as specified for ABANDON EXISTING WATER MAIN shall not be paid for separately but shall be included in the bid price for the installation of the water main.

WATER MAIN REMOVAL

Description. This work shall consist of the removal of existing water main that are in direct conflict with the proposed improvements. Existing water main that are to be taken out of operation but are not in conflict with the proposed improvements shall be abandoned as specified for ABANDON EXISTING WATER MAIN.

This work shall be completed in accordance with applicable portions of Section 551 of the Standard Specifications, except that the material shall not be salvaged, but shall be disposed according to Article 202.03 of the Standard Specifications. All diameters of water main to be removed will be covered under this item. This work shall also include any necessary sawcutting of the existing water main and the removal of valves, tees, and other appurtenances (excluding fire hydrants).

The ends of the existing water main shall be plugged as specified for ABANDON EXISTING WATER MAIN.

Trenches resulting from the removal of water main shall be backfilled in accordance with the applicable requirements of Article 550.07. Backfill of removal trenches (including Trench Backfill) shall be included in this item.

Basis of Payment. All labor, materials and equipment necessary to complete the work as specified for WATER MAIN REMOVAL shall not be paid for separately but shall be included in the bid price for the installation of the proposed water main.

WATER VALVES

Description. This work shall consist of the installation of water valves of the resilient wedge gate valve type suitable for ordinary water-works service, intended to be installed in a normal position on buried pipe lines for water distribution systems. This work shall be completed in accordance with applicable details noted on the plans.

Construction Requirements. As a minimum, all gate valves shall, in design, material and workmanship, conform to the standards of the latest AWWA C515 and AWWA C509. Further details and notes on materials and installation are provided on the plans. All materials used in the manufacture of waterworks gate valves shall conform to the AWWA standards designed for each material listed.

Materials. All materials shall be per applicable Village Standard Details. All wedges shall be brass, two (2) per joint.

1. **Manufacturer and Marking** - The gate valves shall be standard pattern and shall have the name or mark of the manufacturer, size and working pressure plainly cast in raised letters on the valve body. Gate valves shall be Mueller or an approved equal.
2. **Type and Mounting** - The valve bodies shall be mounted with approved non-corrosive metals. All wearing surfaces shall be brass or other approved non-corrosive material and there shall be no moving bearing or contact surfaces of iron in contact with iron. Contact surfaces shall be machined and finished in the best workmanlike manner, and

all wearing surfaces shall be easily renewable. All trim bolts shall be 300 series stainless steel.

The resilient-seated disc wedge shall be of the resilient wedge fully-supported type. Solid guide lugs shall travel within channels in the body of the valve. The disc and guide lugs shall be fully (100%) encapsulated in SBR (styrene butadiene) rubber.

Disc wedges that are not 100% fully encapsulated shall not be acceptable. Guide caps of an acetal copolymer bearing material shall be provided to protect the rubber-encapsulated solid guide lugs from abrasion for long life and ease of operation.

All internal and external exposed ferrous surfaces of the valve shall be coated with a fusion-bonded, thermosetting powder epoxy coating conforming to AWWA C550 and certified to NSF 61. Coating shall be non-toxic and shall impart no taste to water. Coating thickness shall be nominal 10 mils.

The stem shall be of high tensile strength brass or other approved non-corrosive metal, providing 70,000 PSI tensile strength with 15% elongation and a yield strength of 30,000 PSI. All nonferrous bushings shall be of substantial thickness, tightly fitted and pressed into machine seats. All valves shall open by turning to the left (counterclockwise), unless otherwise specified.

3. End Connections - End connections of gate valves shall consist of Mechanical Joints and Mega-Lug retainer glands.

All water valve (including auxiliary valves) bolts shall be stainless steel. All pipe joints at any valve or fitting, including those where the proposed water main ties into the existing water main, shall be restrained with retainer glands. Retainer glands shall be Mega Lugs by EBAA Iron, or an equal approved by the Engineer.

All gate valves are to be installed in concrete valve vaults as detailed in the plans. All water valve trim bolts and bonnet bolts shall be stainless steel. A one inch ("1") corporation stop shall be installed in the water main on each side of the valve within the vault to allow for testing, chlorinating, and sampling work to be done.

Method of Measurement and Basis of Payment. This work will be paid for at the contract unit price each for WATER VALVES, of the size specified. This price shall include the cost of all labor, materials and equipment necessary to install the gate valve in a valve vault including corporation stops as detailed in the plans and as specified herein. The valve vault will be paid for separately.

ADJUSTING WATER MAIN

Description. This work shall consist of adjusting water main in conflict with sewers to be constructed. Water main shall be adjusted below the conflicting sewer, unless otherwise authorized by the ENGINEER. Alignment of the adjusted water main will be required to be horizontally offset from existing water main, unless otherwise authorized by the ENGINEER.

Materials. Materials for adjusting water main shall be ductile iron pipe, Class 52, conforming to ANSI/AWWA C151/A21.51-86, Standard for Ductile Iron Pipe, Centrifugally Cast in Metal Molds or Sand Lined Molds, for Water or Other Liquids. Ductile iron pipe shall be cement lined in accordance with AWWA C104, Standard for Cement Mortar Lining and Ductile Iron and Gray Iron Pipe and Fittings for Water. Fittings shall be ductile iron or cast iron in accordance with AWWA C110, Standard for Ductile Iron and Gray Iron Fittings, 3-in. through 48-in., for Water and Other Liquids, and AWWA C151. Pipe joints shall be mechanical or push-on in accordance with AWWA C111, Standard for Rubber Gasket Joints for Ductile Iron and Gray Iron Pressure Pipe and Fittings. Refer to the latest revision for the above AWWA standards. All mechanical joint fittings shall be installed with stainless steel bolts. All new water main shall be wrapped with polyethylene film, a minimum of 5 mils in thickness.

Construction Requirements. Installation requirements shall be in accordance with Section 561 of the STANDARD SPECIFICATIONS, and shall be completed within the work hours designated by the ENGINEER.

Abandonment and/or removal of existing water main shall be as specified for ABANDON EXISTING WATER MAIN and WATER MAIN REMOVAL, respectively, and shall be included in the cost of this item.

Connection to the existing water main shall be completed as specified for SHUTDOWN WATER MAIN CONNECTIONS, except no separate payment for SHUTDOWN WATER MAIN CONNECTIONS shall be made.

Measurement and Payment. This work shall be measured and paid for at the contract unit price per lineal foot, as measured along the centerline of the pipe, for ADJUSTING WATER MAIN, of the diameter specified. Said price shall include the cost of all pipe, fittings, joint materials (including restrained joints where required), fittings, caps, thrust blocks, bedding, poly-wrap, haunching and backfill, hydrostatic pressure tests, leakage tests, disinfecting of the water main, removal and disposal of old water main, shut down connections, and all excavation. This item shall also include any and all items such as water pumps, gauges, meters and laboratory test costs, and all other items necessary to complete this work as specified.

Trench backfill shall be paid for separately and shall be installed in accordance with the Special Provision for TRENCH BACKFILL, SPECIAL, included elsewhere herein.

ADJUSTING SANITARY SEWERS, 8-INCH DIAMETER OR LESS

Description. This work shall consist of adjusting sanitary sewer services of 8-inch diameter or less where the proposed storm sewer or water main is in conflict with the existing sanitary service in accordance with Section 563 of the Standard Specification, the detail in the plans and as specified herein. This work shall be completed in accordance with applicable Village Standard Details noted on the plans.

The exact locations of existing sewer and sewer connections are to be verified in the field by the Contractor.

Materials. Sanitary sewer shall be PVC, SDR 26. Connections to existing sewer shall be made with stainless steel shielded couplings, as manufactured by Mission Rubber Company, gasket to meet ASTM C1173-91, 300 series stainless steel shear ring with a minimum thickness of 0.012", 316 grade stainless steel nut and bolt tightening clamps, shear ring and clamps to meet all requirements of ASTM A167-91, transitional sizes to utilize a one piece gasket.

Measurement and Payment. This work will be paid for at the contract unit price per foot for ADJUSTING SANITARY SEWERS, 8-INCH DIAMETER OR LESS which price shall include all pipe removal and replacement, joint materials, marking all connections, excavation and backfilling, except that trench backfill will be measured separately for payment.

FIRE HYDRANTS TO BE REMOVED

Description. This work shall consist of the removal of existing fire hydrants, including auxiliary valves, and plugging of abandoned water main as specified in the Special Provision for ABANDON EXISTING WATER MAIN.

Construction Requirements. The existing fire hydrants are not to be removed until the new fire hydrants have been installed and satisfactorily tested. All hydrants, auxiliary valves, and connecting water main that is removed shall be delivered to the Village Public Works Facility at 1440 Hillgrove Ave, Western Springs, IL 60558, upon request of the same.

Method of Measurement and Basis of Payment. This work will be paid for at the contract unit price each for FIRE HYDRANTS TO BE REMOVED.

FIRE HYDRANT WITH AUXILIARY VALVE AND VALVE BOX

Description. This work shall consist of furnishing new fire hydrants at the locations indicated on the plans or otherwise directed by the Engineer. All materials and construction shall be in accordance with applicable Village Standards and details provided in the plans. As a minimum, the design, materials and workmanship of all fire hydrants shall conform to the applicable portions of AWWA C502 as well as Section 45 of the Water and Sewer Specifications. This work shall be completed in accordance with applicable details noted on the plans.

Fire hydrants shall be Mueller Super Centurion 250, painted red. All fire hydrants shall have a safety break flange no more than 2" above finished grade. The depth of bury on all hydrants shall be 6'. The finished grade on all hydrants shall be no more than 20" from finished grade to the center of the pumper cap. All fire hydrants shall be equipped with an attached auxiliary valve and cast iron valve box. An anchor coupling shall be installed between the valve and the shoe. All below grade trim bolts shall be 300 series stainless steel. The auxiliary valve shall be in accordance with the WATER VALVES special provision included elsewhere herein. The water main from the hydrant to the water main shall be a six (6) inch ductile iron water pipe conforming to AWWA Standards C151, C111, and C104 installation shall be included in the work. Restrained joint pipe shall be required on all hydrant leads over one pipe length. The valve boxes shall be the adjustable type, shall be set at finished grade, and shall have the valve box covers stamped "Water".

All valve bolts shall be stainless steel. All pipe joints at any valve or fitting, including those where the proposed water main ties into the existing water main, shall be restrained with retainer glands. Retainer glands shall be Mega Lugs by EBAA Iron, or an equal approved by the Engineer.

Fire hydrants shall be installed as shown on the details included in the plans. A minimum of 0.5 cubic yard of coarse aggregate shall be placed at and around the base of the hydrant to promote proper drainage of the hydrant after use. The hydrant shall be set on a concrete block to ensure firm bearing for the hydrant base. The hydrant, valve and tee shall be interconnected with steel tie rods. The Contractor shall submit his method of construction of the tie rods to the Engineer for prior review. Stainless steel bolts shall be used at all fittings.

Fire hydrants shall be placed at the locations as shown in the plans or as directed by the Engineer. Flexible reflective fire hydrant delineator posts shall be installed behind all hydrants as approved by the Village. Delineator posts shall not be paid for separately, but shall be included in the cost of this item.

All fire hydrants shall be installed in accordance with Village Specifications and shall be inspected by the Village prior to backfilling.

This work will be paid for at the contract unit price each for FIRE HYDRANT WITH AUXILIARY VALVE AND VALVE BOX, which price shall include the cost of all labor, materials, and equipment necessary to install the fire hydrant with auxiliary valve and valve box, as detailed in the plans and to the satisfaction of the Engineer. The cost of all tie rods shall be included in the cost of this item.

Basis of Payment. This work will be paid for at the contract unit price each for FIRE HYDRANT WITH AUXILIARY VALVE AND VALVE BOX, which price for all work as specified herein.

PIPE UNDERDRAINS, TYPE 2

This work shall consist of constructing pipe underdrains as shown in the plans and details in accordance with Section 602 of the STANDARD SPECIFICATIONS, except as specified herein.

Materials. Pipe underdrains shall be constructed with perforated PVC (SDR 35) pipe.

Basis of Payment. This work will be paid for at the contract unit price per foot for PIPE UNDERDRAINS, TYPE 2, of the size specified, which price shall include all work to install the underdrains as specified herein and as shown in the detail in the plans.

CATCH BASINS **MANHOLES** **INLETS**

This work shall consist of constructing catch basins, manholes and inlets as shown in the details, together with the necessary cast iron frames and grates, in accordance with Section 602 of the STANDARD SPECIFICATIONS, except as specified herein.

Frames and grates used shall be the VILLAGE standard as shown on the details. Contractor shall submit the manufacturer and type of frames, grates, and lids proposed for use as Type 1 and Type 3 to the Village for approval prior to ordering materials. Lids shall have machined bearing surfaces, and "concealed" pick holes. The top surface of lids shall be embossed with the words "VILLAGE OF WESTERN SPRINGS" and "STORM SEWER", as appropriate for each structure.

Type 3 frames and grates located in depressed curb areas shall be installed with depressed curb grates approved by the Engineer. Any grates or lids within ADA curb ramps or crosswalks shall be ADA compliant. The Contractor shall provide shop drawings of all castings to the Engineer for approval prior to construction.

The CONTRACTOR is responsible for tying in all existing storm sewers to the proposed structures as directed by the ENGINEER. Up to 10 feet of new sewer (if required) for each existing sewer tying into the proposed structure shall be considered included in the bid price for this pay item. The CONTRACTOR shall be responsible for verifying the size, inverts and locations of the existing sewers to be connected to the proposed structure. Any existing storm sewers that are damaged during construction shall be replaced in kind by the CONTRACTOR at no cost to the VILLAGE. In addition, the CONTRACTOR will be responsible for determining which structures require precast concrete flat slab tops in accordance with Standard Drawing 502601. Flat slab tops will only be allowed where a conical section cannot be installed due to a lack of clearance.

Basis of Payment. This work will be paid for at the contract unit price per each for CATCH BASINS, MANHOLES, or INLETS, type specified with the specified frames and grates, which price shall include all excavation, backfilling, concrete rings, flat slab tops (when required), and existing sewer connections required to complete the work.

MOBILIZATION

Description. This work shall be performed in accordance with Section 671 of the Standard Specifications, with the addition of the following:

As part of MOBILIZATION, the Contractor may be required to obtain permits and/or licenses required to complete the proposed improvements. A listing of required permits is provided under LICENSES AND PERMITS elsewhere herein.

Basis of Payment. The allowable lump sum bid price for shall be limited to a maximum of **four percent (4%)** of the total contract amount. Any bids exceeding this amount may be rejected at the discretion of the Village.

BENCH REMOVAL

Description. This work shall consist of the removal and disposal of baseball field players benches, their foundations, hardware and all connected appurtenances.

The foundations shall be removed and backfilled with compacted sand to the satisfaction of the Engineer.

Method of Measurement and Basis of Payment. This work will be measured and paid for at the contract unit price per EACH for BENCH REMOVAL, which price shall include all required materials, equipment, and labor as necessary to complete this work as specified.

PREPARATION OF BASE (SPECIAL)

This work shall be done in accordance with Section 358 of the Standard Specifications except as modified herein.

358.04 Aggregate Bases. Add the following sentence to the beginning of the first paragraph of this Article:

"It may be necessary to remove existing aggregate base course in order to establish the proposed base course elevation."

358.04 Aggregate Bases. Delete reference to Article 358.04 (a).

358.04 Aggregate Bases. Add the following sentence to Article 358.04 (b):

"Proof-rolling with a 45,000 pound, rubber-tired vehicle in the presence of the Engineer will be necessary to demonstrate that the base is in proper condition for resurfacing."

Basis of Payment. The work in connection with the preparation of bases, will be paid for at the contract unit price per square yard for PREPARATION OF BASE (SPECIAL). This work shall include the removal of existing aggregate base course as necessary to establish the proposed base course elevation.

VALVE VAULTS TO BE ABANDONED

Description. This work shall consist of abandoning valve vaults in accordance with Section 605 of the Standard Specifications, as shown on the plans and as designated by the Engineer.

The Contractor shall remove the frame and cone of the existing valve vault to an elevation of at least 3 feet below the existing ground, and fill the vault with compacted sand or flowable fill.

In paved areas, the void above the abandoned structure shall be backfilled with trench backfill to the top of the existing pavement as directed by the Engineer. Backfilling abandoned valve vaults in paved areas, including trench backfill, shall be included in the cost of this item.

In unpaved areas, the void above the abandoned vault shall be filled with suitable fill and a minimum of 4 inches of topsoil, and restored in accordance with PARKWAY RESTORATION – SODDING. Backfilling abandoned valve vaults in unpaved areas shall be paid as PARKWAY RESTORATION – SODDING.

Basis of Payment. The work specified above shall be paid for at the contract unit price each for VALVE VAULTS TO BE ABANDONED.

TRENCH BACKFILL, SPECIAL

Description. This work shall be in accordance with the requirements of Section 208 of the Standard Specifications. This work shall be completed in accordance with applicable Village Standards and the details noted on the plans.

All trenches falling under or with within two (2) feet of paved areas shall be filled with granular trench backfill material. All trench backfill material shall meet applicable IDOT requirements. **Excavated materials that meet gradation requirements may be permitted to be reused as TRENCH BACKFILL, SPECIAL, at the discretion of the Engineer.** Re-use of excavated materials for Trench Backfill will not be paid for separately but shall be considered included in the underground installation cost.

TRENCH BACKFILL, SPECIAL shall be CA-7 stone, unless the Contractor satisfactorily demonstrates that excavated trench materials meet gradation requirements and are suitable for re-use as trench backfill. Reuse of in situ sand material may be allowed if the material is found to be completely free of clay, silt, etc.

The top pay limit of TRENCH BACKFILL, SPECIAL shall be the bottom of the proposed HMA pavement.

Contractor shall be responsible for all testing and costs necessary to demonstrate conformance with the requirements. The trench backfill shall be compacted by Method 1 or 3 of Article 550.07 of the Standard Specifications before the paving base is placed. All areas that require trench backfill will be as shown on the plans, or as directed by the Engineer. Trench backfill shall be paid for in conformance with the unit price on the bid proposal sheet for the maximum width and specified depth of trench only. Maximum trench width shall be as shown on the construction details in the plans. No compensation shall be allowed for trench backfill over and above the amount required for this trench dimension and as shown on the plans.

Method of Measurement and Basis of Payment. This work shall be measured and paid for at the contract unit price per cubic yard as TRENCH BACKFILL, SPECIAL, and shall be measured in place at the time of construction. Re-use of excavated materials for Trench Backfill, as allowed by the Engineer, will not be paid for separately but shall be considered included in the underground installation cost.

AGGREGATE BASE REPAIR (SPECIAL)

This work shall be done in accordance with Section 358 of the Standard Specifications except as modified herein.

358.01 Description. Revise this Article to read:

"358.01 Description. This work shall consist of the addition of aggregate as a top dressing material to an existing aggregate base course where it is necessary to bring the base to the proposed base elevation, and/or to fill holes/repair existing aggregate base damaged by utility work on those streets where the entire HMA pavement is to be removed and replaced."

358.02 Materials. Revise this Article to read:

"358.02 Materials. The aggregate materials shall be crushed stone or crushed gravel and have a gradation equal to CA-6 conforming to Section 1004 of the Standard Specifications, except that the material shall be crushed stone or crushed gravel."

358.04 Aggregate Bases. Delete reference to Article 358.04 (a).

358.04 Aggregate Bases. Add the following sentence to the first paragraph of Article 358.04 (b): "Fine aggregate screenings shall be used if required for surface stability."

358.06 Method of Measurement. Revise Article 358.06 (b) to read:

"(b) Measured Quantities. The aggregate will be measured for payment in tons according to the requirements of Article 311.08 (b)."

Basis of Payment. This work will be paid for at the contract unit price per ton for AGGREGATE BASE REPAIR (SPECIAL).

WATER MAIN LINE STOP

Description. This work shall consist of the placement of a self-contained unit of the size indicated on the plans for the purpose of installation of a valve and/or other connection with the existing water distribution system without interruption of service. This work shall be performed at the locations shown on the plans and as directed by the Engineer.

The line stop unit shall be a self-contained hydraulic (hand pump operated) ram. The line stopping device shall be of such a design, that when hydraulic pressure is applied, the rubber will expand and conform to the inside diameter of the pipe and tuberculation inside the main (if any) will be moved outside of the sealing area. The line stop shall be of the 'Short Stop' variety which will require removing only the top of the pipe during operation. All fittings shall employ an inside diameter thread, screw-type connection. After insertion of the plug, a screw-on cap shall be used and bolted down. The system shall be capable of containing a water pressure of 150 psi. The line stopping system shall be Hydra-Stop or approved equal. Shop drawings for line stop sleeves shall be submitted for approval by the Engineer prior to delivery to the job site.

Basis of Payment. This work will be paid for at the contract unit price each for WATER MAIN LINE STOP, of the diameter specified, which price shall be payment in full for all excavation, saw cutting, legal disposal off-site of all excess material, trench backfill, labor, materials and equipment necessary to perform the work as herein specified.

SANITARY MANHOLES TO BE ADJUSTED

This work shall be done in accordance with Section 602 of the Standard Specifications and applicable Village standard drawings and shall consist of the adjustment of sanitary manholes and furnishing and installing a new type 1 frame, closed lid. Non-hardening butyl rubber mastic sealant; minimum thickness 1/4 inch, shall be used between adjusting rings in place

of mortar, or as required by the Owner of the Sanitary Sewer. In locations where existing external frame seals exist, it shall be removed and disposed of and an internal/external frame seal shall be installed. In locations where internal frame seals exist, it shall be removed and disposed of and an internal/external frame seal shall be installed. In locations where there are no existing frame seals, an internal/external frame seal shall be installed. The installation of the internal/external frame seal will not be paid for separately and will be considered incidental to this pay item.

The Internal/External Frame seal shall consist of the following:

- (A) Provide frame seals consisting of a flexible internal rubber sleeve, rubber ring, and external rubber sleeve and extension, and stainless steel compression bands.
- (B) Rubber sleeve, ring, butyl tape, and extension:
 - (1) Provide rubber sleeve and extension complying with ASTM D412 and ASTM D2240.
 - (2) Provide rubber ring complying with ASTM D-2000.
 - (3) Provide butyl tape: Comply with 1000% minimum webbing @ 77 degrees F, 500% minimum elongation @ 32 degrees F, and maximum 75 psi compressibility @ 77 degrees F.
 - (4) Provide sleeve with a minimum thickness of 0.062" and unexpanded external vertical heights of 10 to 12 inches.
 - (5) Provide extension having a minimum thickness of 0.062".
 - (6) Comply with a minimum 1500 psi tensile strength, maximum 18 percent compression set and a hardness (durameter) of 48±5.
- (C) Compression band:
 - (1) Provide compression band to compress the sleeve against the manhole.
 - (2) Use 16 gauge stainless steel conforming to ASTM A240 Type 304 with no welded attachments and having a minimum width of 1/2-inch.
 - (3) Make a watertight seal having a minimum adjustment range of 2 diameter inches.
 - (4) Provide stainless steel screws, bolts, and nuts conforming to ASTM F593 and 594, Type 304.
- (D) Acceptable products:
 - (1) Adaptor, Inc. Internal/External Adaptor Seal.
 - (2) Or equal.
- (E) Or as required by the Owner of the sanitary sewer system.

The Internal/External Frame Seal shall be installed as follows:

- (A) Install internal/external rubber gasket on the manhole chimney.
 - (1) Provide watertight gasket to eliminate leakage between the internal/external frame seal and the adjusting ring and between each adjusting ring down to and including cone section.
- (B) Clean surface and prepare the lower 2 inches of the manhole frame and exterior of all adjusting rings and cone section/corbel surfaces.

- (C) Install internal rubber gasket in accordance with manufacturer's recommendations.
 - (1) Field verify for suitable dimensions and layout before installation.
 - (2) Realign frame as required.
- (D) Repair and apply mortar grout to the adjusting rings as required to provide a smooth, circular surface for the external rubber gasket.
- (E) Install external rubber gasket in accordance with manufacturer's recommendations.
 - (1) Field verify for suitable dimensions and layout before installation.
 - (2) Utilize sealing caulk where required.
 - (3) Provide chimney seal extensions as required.
- (F) Test installation by flooding area around the manhole with water before backfilling and surface restoration.
 - (1) Gaskets are required to provide watertight seal at openings between the frame and adjusting rings and between adjacent adjusting rings down to the cone/corbel section.
- (G) Reinstall and retest failing gaskets at no additional cost to Owner
- (H) Or as required by the Owner of the sanitary sewer system.

When structures are located within the pavement resurfacing area, the sanitary manholes shall be adjusted in accordance with the adjustment sequence specified in the Special Provision for FRAMES AND LIDS TO BE ADJUSTED (SPECIAL).

Basis of Payment. This work shall be paid for at the contract unit price per each of SANITARY MANHOLES TO BE ADJUSTED, which price shall include all of the above.

SANITARY MANHOLES TO BE REMOVED

This work shall include the removal and disposal of sanitary manholes and castings and shall be done in accordance with Section 605 of the Standard Specifications except as modified herein.

Existing sanitary manholes designated to be removed shall be removed to a depth of at least four (4") below the bottom of the sanitary sewer system. All debris in the structure below the sanitary sewer shall be removed and backfilled with compacted crushed aggregate conforming to IDOT gradation CA-7.

All required bypass pumping plugs required to temporarily stop flows shall be included in the cost of this item.

Basis of Payment. This work shall be paid for at the contract unit price per each for SANITARY MANHOLES TO BE REMOVED which price shall include all equipment, material, and labor to perform the work as indicated on the plans and specified herein.

FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)

These items of work shall be performed as directed by the ENGINEER in conformance with applicable provisions of Sections 353, 406, 602 and 603 of the "Standard Specifications for

Road and Bridge Construction". This work shall be completed in accordance with the Details for Frames and Lids Adjustment with Milling (BD-8) in the Plans, and shall include the following:

Stage I (Before Pavement Milling)

- A. Remove a minimum of 12" of the pavement from around the structure.
- B. Remove the existing frame and lid from the structure.
- C. Cover the structure opening with a 36" diameter metal plate.
- D. Backfill with crushed stone and a minimum 1½" thick bituminous material approved by the ENGINEER.

Stage II (After Pavement Milling/Binder)

- A. Remove the bituminous material and crushed stone.
- B. Install the frame and lid; adjust the frame to its final surface elevation.
- C. The surrounding space shall be filled with Class SI concrete to the elevation of the surface of the existing base course.

Additionally, this work shall include the removal of any debris, which has accumulated in the structure. Also, any mortar repairs, which need to be made around existing sewer pipes shall be included. Repair or replacement of masonry or concrete corbels on structures shall be made with concrete block, or pre-cast sections. Pre-cast concrete adjusting rings ("donuts") will be required to replace existing brick adjustments and allow castings to be set at the required elevation. The top ring and any rings under 2" thick shall be rubber. Rubber rings shall be PRO-RING by Cretex or an approved equal.

Adjusting rings and castings on all structures shall be bedded in bituminous mastic materials.

Where new castings are required, they will be paid for separately.

Removed castings which will not be reused will remain the property of Village and shall be delivered by Contractor to Village Public Works Department yards, located at 1440 Hillgrove Avenue. Delivery shall be considered included in the cost of this item.

Method of Measurement and Basis of Payment. This work will be paid for at the contract unit EACH price for FRAMES AND LIDS TO BE ADJUSTED (SPECIAL).

TRAFFIC CONTROL PLAN (DISTRICT 1)

Traffic Control shall be according to the applicable sections of the Standard Specifications, the Supplemental Specifications, the "Illinois Manual on Uniform Traffic Control Devices for Streets and Highways", any special details and Highway Standards contained in the plans, and the Special Provisions contained herein.

Special attention is called to Article 107.09 of the Standard Specifications and the following Highway Standards, Details, Quality Standard for Work Zone Traffic Control Devices,

Recurring Special Provisions and Special Provisions contained herein, relating to traffic control.

Contractor shall contact the Village of Western Springs 72 hours in advance of beginning work.

STANDARDS:

701301, 701501, 701801, 701901

DETAILS:

Traffic Control and Protection for Side Roads, Intersections and Driveways (TC-10)

SPECIAL PROVISIONS:

LRS-3

LRS-4

Advance road closure signs shall be installed two weeks prior to the start of construction. All advance warning signs shall be installed two days prior to the start of construction.

Contractors shall assume that all roadway work shown on the plans will be completed under live traffic, with the contractor responsible for providing traffic control in accordance with IDOT standard details and specification. The roadways within the project limits may be closed to thru traffic, however, access shall be provided to adjacent streets and properties.

This item of work shall include furnishing, installing, maintaining, replacing, relocating and removing all traffic control devices used for the purpose of regulating, warning or directing traffic during the construction or maintenance of this improvement.

Traffic Control and Protection shall be provided as called for in the Plans, these Special Provisions, applicable Highway Standards, applicable sections of the Standard Specifications, or as directed by the Engineer.

The governing factor in the execution and staging of work for this project is to provide the motoring public with the safest possible travel conditions along the roadway through the construction zone. The Contractor shall arrange his operations to keep the closing of any lane of the roadway to a minimum.

Traffic Control Devices include signs and their supports, signals, pavement markings, barricades with sand bags, channelized devices, warning lights, arrow boards, flaggers, or any other device used for the purpose of regulating, detouring, warning or guiding traffic through or around the construction zone.

All warning signs shall have black legend and border on reflectorized orange background, unless otherwise specified. Warning signs shall be 48"x48" in size and shall be in like new condition. Damaged and/or dirty warning signs will not be allowed.

The Contractor is required to conduct routine inspections of the work site at a frequency that will allow for the timely replacement of any traffic control device that has become displaced,

worn or damaged to the extent that it no longer conforms to the shape, dimensions, color and operational requirements of the MUTCD, the Traffic Control Standards or will no longer present a neat appearance to motorists. A sufficient quantity of replacement devices, based on vulnerability to damage, shall be readily available to meet this requirement.

The Contractor shall be responsible for the proper location, installation and arrangement of all traffic control devices. Special attention shall be given to advance warning signs during construction operations in order to keep lane assignments consistent with barricade placement at all times. The Contractor shall immediately remove, cover or turn from view of the motorists all traffic control devices which are inconsistent with detour or lane assignment patterns and conflicting conditions during the transition from one construction stage to another. When the Contractor elects to cover conflicting or inappropriate signing, materials used shall totally block out reflectivity of the sign and shall cover the entire sign. The method used for covering the signing shall meet with the approval of the Engineer.

The Contractor shall coordinate all traffic control work on this project with adjoining or overlapping projects, including barricade placement necessary to provide a uniform traffic detour pattern. When directed by the Engineer, the Contractor shall remove all traffic control devices which were furnished, installed and maintained by him under this contract, and such devices shall remain the property of the Contractor. All traffic control devices shall remain in place until specific authorization for relocation or removal is received from the Engineer.

The Contractor shall ensure that all traffic control devices installed by him are operational, functional and effective 24-hours a day, including Sundays and holidays.

Barricades shall be placed to protect all open excavations greater than four (4) inches deep (patches, curb and gutter/sidewalk that has not yet been backfilled, etc.) and parked construction equipment at the end of each working day and at all times when work is not being performed in the immediate area of the excavations and parked equipment. All barricades shall be quipped with steady burn amber lights and shall be weighted down with sandbags. The use of barricades with flashing lights will not be allowed.

The Contractor shall provide a telephone number where a responsible individual can be contacted on a 24-hour a day basis to receive notification of any deficiencies regarding traffic control and protection. The Contractor shall dispatch men, materials, and equipment to correct any such deficiencies. The Contractor shall respond to any call from the Village or its representative concerning any request for improving or correcting traffic control devices and begin making the requested repairs within two hours from the time of notification.

No road closures or restrictions shall be permitted without written approval by the Engineer.

Deficiency Charge. The primary concern of the Village is to maintain a safe travel way for the public and a safe Environment for the worker in the construction zone. The Contractor is expected to comply with the Standard Specifications, contract plans, these Special Provisions, and directions from the Engineer concerning traffic control protection. The Contractor shall provide a telephone number where a responsible individual can be contacted on a 24-hour a day basis to receive notification of any deficiencies regarding traffic control

and protection. The Contractor shall immediately respond correcting traffic control deficiencies by dispatching men, materials and equipment to correct such deficiencies.

If the Contractor fails to begin corrections to the traffic control deficiencies within one (1) hour of the initial attempt of notification by the Village or its representative or fails to restore the traffic control and protection compliance with the specifications within four (4) hours of the original attempt of notification, the Village may execute such work as deemed necessary to correct the deficiencies. The cost thereof shall be deducted from monies due or which may become due the Contractor.

Failure to comply with directions from the Engineer for corrections or modifications to the traffic control and protection will result in a charge of \$1000.00 per calendar day. This charge is separate from the cost of any corrective work ordered. The contractor shall not be relieved of any contractual responsibilities by the Village's action.

Basis of Payment. This work will be paid for at the contract lump sum price for TRAFFIC CONTROL AND PROTECTION (SPECIAL). All other traffic control and protection necessary to complete the work to the satisfaction of the Engineer shall be considered included in these pay items. The allowable lump sum bid price for shall be limited to a maximum of **four percent (4%)** of the total contract amount. Any bids exceeding this amount may be rejected at the discretion of the Village.

DOMESTIC WATER METER TO BE RELOCATED

Description. This work shall consist of relocating an existing water meter and water service in accordance with the Village Standards and the applicable sections of the IDOT Standard Specifications and Standard Specifications for Water and Sewer Construction in Illinois.

The contractor shall locate and expose the entire copper service from the right-of-way line to the existing water main. The Contractor shall relocate the water meter to a location approved by the Engineer that will not interfere with the proposed improvements. The contractor shall disconnect the existing copper services from the corporation stop at the water main and install a new type k copper service from the existing corporation stop to the relocated water meter. The water meter shall then be reconnected to the existing water service near the right-of-way line. The copper service shall be a single piece of pipe matching the size of the existing service between the water main and meter. The contractor shall salvage the existing copper service line and return it to the Village.

The copper pipe and connections to the water main and existing water service shall be included in the cost of this item, regardless of copper length. This item shall also include furnishing and installing a new water service box and/or water meter vault/box, unless otherwise directed by the Engineer. All materials, labor and equipment required to relocate the water meter shall be included in the cost of this item and no additional payment shall be allowed. This item shall include all excavation, disposal and backfill (including trench backfill) necessary for installation. The final location of water meter shall be approved by the Engineer/Village prior to relocation.

Basis of Payment. This work shall be paid for at the contract unit price per each DOMESTIC WATER METER TO BE RELOCATED, which shall include all labor, materials, and equipment required to relocate the water meter in accordance with the Village Standards.

LOCATING UNDERGROUND UTILITY

Description. This item shall consist of locating underground utilities that potentially conflict with proposed improvements.

Requirements. It shall be the Contractor's responsibility to locate underground utilities that are marked on the plans. This work will not be paid for separately but shall be included in the cost of the item being constructed. Exceptions are as follows:

- **Utilities Marked on the Plans:** If the item to be constructed is grade critical, and cannot be adjusted either vertically or horizontally (i.e. storm sewer, sanitary sewer), and there is a potential for conflict with the utility. Locating potentially conflicting utilities will be paid under this item.
- **Utilities Not Marked on Plans:** If a utility is not shown on the plans (or not shown in accordance with Article 104.03 of the Standard Specifications). Locating potentially conflicting utilities will be paid under this item. As per Article 107.40(a)(2) of the Standard Specifications, "Service connections shall not be considered to be utilities in unanticipated locations".

Construction. The method of excavation to locate utilities will be at the contractor's discretion, as approved by the Engineer. If the contractor elects to use hydro excavation for the removal of excavated material, he/she shall be responsible for all water usage and disposing of the excavated material in accordance with Article 202.03 of the Standard Specifications. Regardless of the method of excavation, the Contractor shall be responsible for replacing excavated soil in the resulting hole with sand, limestone screenings or other material as approved by the Engineer.

Any utilities damaged during excavation operations shall be repaired or replaced at the contractor's expense; no additional compensation shall be allowed.

Removal and replacement/restoration of any pavement, sidewalk, parkway, driveway, etc. necessary to complete the exploration excavation shall be paid for separately under pay items that are in the contract. Sidewalk removal and replacement shall include the complete sidewalk panel.

Method of Measurement. This work will be measured per each excavation, regardless of the soil composition, to locate existing utilities. For this pay item, excavation depth and width will be limited to 72 inches and 5 feet, respectively. The Contractor will not receive compensation if more than one utility is located within the excavation (as defined above). If the utility is deeper than 72 inches, the initial locate shall be measured in accordance with this special provision. Additional excavation (beyond 72 inches in depth) shall be measured and paid for in accordance with Article 109.04 of the Standard Specifications.

Basis of Payment. This work shall be paid for at the contract unit price per each for LOCATING UNDERGROUND UTILITY.

REMOVE AND RESET BRICK SIDEWALK

Description. This work shall consist of removing an existing brick sidewalk, cleaning and storing the bricks, excavating or placing embankment to meet the lines and grades shown on the plans, and replacing the bricks in the original pattern to the satisfaction of the Engineer. This work shall be completed in accordance with Sections 301 and 440 of the Standard Specifications, and as directed by the Engineer.

If the Contractor removes or damages the existing driveway outside the limits designated by the Engineer, the Contractor will be required to remove and replace that portion at the Contractor's own expense to the satisfaction of the Engineer. The existing material shall be carefully stored and replaced after the adjacent curb and gutter or sidewalk is completed. In some locations, the Contractor may have to provide additional material. The additional brick, pavers or flagstone must match the existing material and be approved by the Engineer before installation. The Contractor shall provide a 2" thick sand base or match the thickness of the existing base, whichever is greater. This work will not be paid for separately but shall be included in this pay item.

All excavation, embankment, brick, stone, aggregate base course, sand, and any other material required to match the existing brick driveway shall be included REMOVE AND RESET BRICK SIDEWALK.

Method of Measurement and Basis of Payment. This work shall be measured and paid for at the contract unit price per square yard for REMOVE AND RESET BRICK SIDEWALK.

LIMESTONE SCREENING SURFACE

Description. This work shall consist of constructing a limestone screening surface at the locations shown on the plans and as directed by the Engineer.

The contractor shall place and compact limestone screenings to a depth of 3" to the lines and grades shown on the plans. Gradations of the limestone screenings shall be provided to the Engineer for approval prior to construction.

Method of Measurement and Basis of Payment. This work shall be measured and paid for at the contract unit price per square yard for LIMESTONE SCREENING SURFACE, of the depth specified.

STABILIZED CONSTRUCTION ENTRANCE

Description. This work shall consist of furnishing, installation, maintenance and removal of stabilized pad of aggregate underlain with filter fabric as shown on the plans or directed by the Engineer.

Materials. Materials shall conform to the following:
Aggregate size. IDOT Coarse Aggregate Graduation: CA-1, CA-2 CA-3, or CA-4.

Filter Fabric shall consist of synthetic polymers composed of at least 85 percent by weight polypropylene, polyesters, polyamides, polyethylene, polyolefins, or polyvinylidene chlorides. The geotextile shall be free of any chemical treatment or coating that significantly reduces its porosity. Fibers shall contain stabilizers and/or inhibitors to enhance resistance to ultraviolet lights.

Construction Requirements. The coarse aggregate shall be a thickness of 6 inches or more. The stone entrance should not be filled until the area has been inspected and approved by the Engineer.

The rock shall be dumped and spread into place in approximately horizontal layers not more than 3 feet in thickness. It shall be placed in a manner to produce a reasonable homogeneous stable fill that contains no segregated pockets or larger or small fragments or large unfilled space caused by bridging of larger fragments. No compaction will be required beyond that resulting from the placing and spreading operations.

The minimum width and length shall be 14 and 70 feet, respectively, unless otherwise approved by the Engineer.

All surface water flowing or diverted toward the construction entrance shall be piped across the entrance. Any pipe used for this will be considered included in the cost of STABILIZED CONSTRUCTION ENTRANCE. The stabilized construction entrance will have positive drainage away from the roadway.

The entrance shall remain in place and be maintained until the disturbed area is stabilized. Any sediment spilled onto public right-of-ways must be removed immediately.

Method of Measurement and Basis of Payment. The work will be measured and paid for at the contract unit price per square yard for STABILIZED CONSTRUCTION ENTRANCE, which price shall be payment in full for all material, labor and any other items required to complete the work.

CONSTRUCTION LAYOUT

The Engineer will provide adequate reference points to the baseline of survey and benchmarks as shown in the plans and listed herein. Any additional control points set by the Engineer will be identified in the field to the Contractor and all field notes will be kept in the office of the Engineer.

The Contractor shall provide field forces, equipment and materials to set all additional stakes for this project, which are needed to establish offset stakes, reference points, and any other horizontal or vertical controls, including supplementary benchmarks, necessary to secure a correct layout of the work. Stakes for line and grade shall be set at sufficient station intervals (not to exceed 15 m (50 ft.)) to assure substantial conformance to plan line and grade. The Contractor will not be required to set additional stakes to locate a utility line which is not included as a pay item in the contract.

The Contractor shall be responsible for having the finished work substantially conform to the lines, grades, elevations and dimensions called for in the plans. Any inspection of checking of the Contractor's layout by the Engineer and the acceptance of all or any part of it shall not relieve the Contractor of his/her responsibility to secure the proper dimension, grades and elevations of the several parts of the work. The Contractor shall exercise care in the preservation of stakes and benchmarks and shall have them reset at his/her expense when any are damaged, lost, displaced or removed or otherwise obliterated.

Responsibility of the Engineer

- a. The Engineer will locate and reference the baseline.

Locating and referencing the baseline of survey will consist of establishing and referencing the control points of the baseline of surveys such as PC's, PT's and as many POT's as are necessary to provide a line of sight.
- b. Benchmarks will be established along the project outside of the construction lines not exceeding 300 m (1,000 ft.) intervals horizontally and 6 m (20 ft.) Vertically.
- c. Stakes set for (a) and (b) above will be identified in the field to the Contractor.
- d. The Engineer will make random checks of the Contractor's staking to determine if the work is in substantial conformance with the plans. Where the Contractor's work will tie into work that is being or will be done by others, checks will be made to determine if the work is in conformance with the proposed overall grade and horizontal alignment.
- e. The Engineer will set all stakes for utility adjustment for building fences along the right of way line by parties other than the Contractor.
- f. The Engineer will make all arrangements and take all cross sections from which the various pay items are to be measured.
- g. Where the Contractor, in setting construction stakes, discovers discrepancies, the Engineer will check to determine their nature and make whatever revisions are necessary in the plans, including the recross-sectioning of the area involved. Any additional restaking required by the Engineer will be the responsibility of the Contractor. The additional restaking done by the Contractor will be paid for in accordance with 109.04 of the Standard Specifications.
- h. The Engineer will accept responsibility for the accuracy of the initial control points as provided herein.
- i. It is not the responsibility of the Engineer, except as provided herein, to check the correctness of the Contractor's stakes; however, any errors that are apparent will be immediately called to the Contractor's attention and s(he) shall be required to make the necessary correction before the stakes are used for construction purposes.

- j. Where the plan quantities for excavation are to be used as the final pay quantities, the Engineer will make sufficient checks to determine if the work has been completed in substantial conformance with the plan cross sections.

Responsibility of the Contractor

- a. The Contractor shall establish from the given survey points and benchmarks all the control points necessary to construct the individual project elements. S(he) shall provide the Engineer adequate control in close proximity to each individual element to allow adequate checking of construction operations. This includes, but is not limited to, line and grade stakes, line and grade nails in form work, and/or filed or etched marks in substantially completed construction work.

It is the Contractor's responsibility to tie in baseline control points in order to preserve them during construction operations.

- b. The Contractor shall be responsible for locating and marking the limits of the project prior to the installation of silt fence.
- c. At the completion of the grading operations, the Contractor will be required to set stakes at 30 m (100 ft.) station intervals along each profile grade line. These stakes will be used for final cross sectioning by the Engineer.
- d. All work shall be in accordance with normally accepted self-checking surveying practices. Field notes shall be kept in standard survey field notebooks and those books shall become the property of the Engineer at the completion of the project. All notes shall be neat, orderly and in accepted form.
- e. For work on streets identified for complete curb and gutter removal and replacement, the Contractor shall be responsible for furnishing all labor, materials and equipment necessary to document, lay out and re-establish existing curb and gutter and pavement grades. At a minimum, Contractor shall be required to survey and stake out existing and proposed edge of pavement and back of curb locations (horizontal and vertical) at 15' intervals as well as high points, low points and other locations of key grade change. Where deviations from existing grades are requested by the Village, the Village/Engineer shall determine proposed grades prior to Contractor layout, and shall be responsible for verifying the Contractor's layout in the field before construction commences.

Basis of Payment. This work will be paid for at the contract lump sum price for CONSTRUCTION LAYOUT, which shall be payment in full for all labor, materials, transportation, and incidentals necessary to furnish, install, maintain, replace, and relocate all control and stationing points for the duration of the project. The allowable lump sum bid price for shall be limited to a maximum of **two percent (2%)** of the total contract amount. Any bids exceeding this amount may be rejected at the discretion of the Village.

DRAINAGE & UTILITY STRUCTURES TO BE ADJUSTED

Description. This work shall consist of adjusting catch basins, manholes, valve vaults, and inlets with their existing frame, in accordance with Section 602 of the Standard Specifications and as specified herein. The word STRUCTURE shall be understood to mean catch basin, manhole, valve vault, or inlet as the case may be.

At locations shown on the plans or as directed by the Engineer, structures shall be adjusted with new frame and grates. New frame and grates will be paid for separately.

Each structure adjustment shall be limited to two adjustment rings. The final ring and rings under 2" on all drainage adjustments shall be rubber. The CONTRACTOR shall place a continuous strip 3/8" thick of polyurethane sealer/adhesive between the PCC structure or PCC ring and the bottom of the rubber ring. The CONTRACTOR shall also place a continuous strip 3/8" thick of polyurethane sealer/adhesive between the top of the rubber ring and the bottom of the frame.

Hydraulic cement shall be used in the adjustment of said structure to seal the outside of the adjustment rings and under the frame.

Basis of Payment. This work will be measured and paid for at the contract unit price per each for DRAINAGE & UTILITY STRUCTURES TO BE ADJUSTED.

DRAINAGE STRUCTURE TO BE REMOVED

Description. Where directed by the Engineer, this item shall be performed in accordance with applicable provisions of Section 605 of the Standard Specifications. The word STRUCTURE shall be understood to mean inlet, catch basin, or manhole. All removed frames, grates and lids shall be delivered to the Village Public Works Facility at 1440 Hillgrove Avenue, Western Springs, IL 60558, upon request of the same. If drainage structures are not to be replaced in the same location, the hole shall be filled with trench backfill. All trench backfill shall be included in the cost of this item.

Measurement and Basis of Payment. This work will be measured and paid for at the contract unit price each for DRAINAGE STRUCTURE TO BE REMOVED.

FENCE REMOVAL

Description. This work shall consist of removing existing fences that are in conflict with construction operations and as shown on the plans. The limits of fence removal shall be approved by the Engineer prior to construction.

This item shall include the removal of chain link fences including the removal of all fence posts, gates, foundations, and all hardware necessary.

Fence post foundations that are removed shall be removed and backfilled with compacted sand to the satisfaction of the Engineer.

All fence posts, gates, hardware, and foundations shall be disposed of by the Contractor.

Basis of Payment. The proposed fence shall be paid for per linear foot measured along the base of the fence as FENCE REMOVAL, which price shall be payment in full for all labor, equipment and material required to complete the work as specified.

ALUMINUM BLEACHERS

PLAYERS BENCHES

The work covered by this section consists of furnishing all labor, materials, tools, equipment, and incidentals necessary to supply and install the various site furniture that occur on the project. The Contractor shall be responsible for following items:

- Furnishing all items specified.
- Layout of the elements.
- Assembly and installation of all apparatus.
- Use all means necessary to protect site furnishings and other materials before, during, and after installation and to protect the installed work and materials of all other trades.
- Submit product information and manufacturer's installation recommendations for all equipment.

The site furniture shall include:

Aluminum Bleachers

Team Series Aluminum Players Benches, 15' long, in-ground mount.

Model #: ABS15WB-I

Color: Aluminum

Manufactured by; Belson Outdoors or approved equal.

Players Benches

Non Elevated 3 Row x 15' Bleacher

Model #: BP-0315

Color: Aluminum

Manufactured by; Belson Outdoors or approved equal.

Method of Measurement and Basis of Payment. This work shall be paid for at the contract unit price per each for ALUMINUM BLEACHERS and PLAYERS BENCHES, as the case may be.

AS-BUILT DRAWINGS

Description. At the completion and acceptance of the work, the Contractor shall perform an "as-built" survey of the newly installed improvements.

The survey shall provide, a minimum, the following information:

1. As-Built locations and elevations, including rims and inverts, of the proposed storm sewer and water main improvements, using the base sheets of the of the design drawings as reference.
2. Locations and elevations of all newly-constructed utilities (rims and inverts) and any

modified existing utilities, including but not limited to water main, storm sewers, manholes, catch basins, hydrants, valves, water services, tees, bends, and reducers tied into the right-of-way.

3. As-built locations of cleanouts and b-boxes.
4. As-built drawing of Springdale Park, with necessary contour lines and drainage improvements.
5. The as-built drawings must be stamped by a Professional ENGINEER or Land Surveyor licensed in the State of Illinois.

The As-Built data shall be drafted or redlined onto a plan set showing the complete improvements using the design plans as reference. The Contractor will turn over 3 paper copies of a full size (22"x34") plan set at a scale of 1"=20'. An electronic copy (in Microstation and PDF format) of the as-built drawings shall also be provided to the Village.

Basis of Payment. This work shall be paid for at the contract lump sum for AS-BUILT DRAWINGS.

BACKSTOP FENCE **CHAINLINK FENCE, COATED**

Description: This specification includes the furnishing of all labor, tools, material, equipment, and services necessary for, and reasonably incidental to, the construction of ballfield backstop, wing and dugout fencing, as indicated on drawings or specified herein.

Provide entire PVC coated system, black.

Shop Drawings: Submit Shop Drawings for approval, prior to manufacturing, describing and detailing typical line post, terminal post, gate, fabric, materials, hardware assemblies, and all proposed fence/gate alignment sections.

FRAMEWORK

Chain link Fence Fabric: Chain link fabric shall be constructed of woven 6-guage (for backstops and wing fence fabric up to 10'-0"), 9-guage (for backstop fabric above 10'-0", for dugout fence fabric or for perimeter fencing. All fabric shall be W & M steel wire as specified on plans and details, in a continuous 2-inch mesh (for fencing or backstops). Mesh shall be as specified on plans and details, with knuckled top and bottom selvage. Fabric shall not be hot-dipped galvanized after weaving, per ASTM A-392. The weight of the coating shall be 1.2oz. per square foot of actual surface. Coating shall be smooth, of uniform thickness, and free from dross, uncoated spots and adhered particles of foreign material. Height of fabric shall be as shown on the drawings. The lower edge of fabric shall be no greater than 1-1/2" above concrete mow strip or infield finished grade as specified on plans and details.

All line posts, terminal post, top rails, bottom rails and fittings shall be PVC coated galvanized zinc steel, ASTM A120 or A123, with not less than 1.8 oz. zinc per square foot of surface area and 12 mils PVC thickness. All fittings and accessories shall be PVC coated galvanized, ASTM A153.

Line Posts shall be one of the following:

2-3/8" O.D. Schedule 40, ASTM A-120, 3.65 pound/LF.

S-40-ASTM A-569, 3.12 pounds/LF.
Standard C Section ASTM F-669, 2.28 pounds/LF.
H Section ASTM F-669, 3.26 pounds/LF.

End, corner and pull posts shall be one of the following:
4" O.D. Schedule 40, 5.79 pounds/LF. For backstop and 12' high fence.
2 $\frac{7}{8}$ " for 4', 6', 8' high fence.
SS-40, 4.64 pounds/LF.
Roll Formed Post, 4.85 pounds/LF.

All posts shall have PVC Coating after galvanizing.

Top and Bottom & Intermediate Rails shall be: Longest lengths available, with expansion type couplings, approximately 6" long, for each joint. Provide with means for attaching securely to each post other than line posts. Provide and install posts as required. Shall be one of the following:

1-5/8" O.D. Schedule 40, 2.27 pounds/LF.
S-40, 1.84 pounds/LF.
Roll Formed Rail, 1.37 pounds/LF with PVC Coating after galvanizing.

Hog rings, nuts and bolts: These components shall be coated with .007 mils film thickness of Phenolic baked phosphate enamel capable of 250 hours salt spray test.

Post brace assembly: Adjustable brace at end and gate posts and at both sides of corner and pull posts, with horizontal brace located at mid-height of fabric. Use same material as top rail for brace, and truss to line posts with 0.0375" diameter rod and adjustable tightened.

Caps bands and Connectors: All caps, bands, and connectors used in construction of PVC coated chainlink fence shall be galvanized pressed steel, malleable or cast steel, or aluminum alloy. PVC coating shall be bonded and applied as stated in 2.03. Provide a weathertight closure cap designed to receive top rail.

All chain link posts shall be set in concrete foundations in the ground. Concrete shall conform to the Standard ASTM C-94, 3000 PSI @ 28 days. The diameter of the foundation to be a minimum of twelve (12") inches except for terminal posts on which the minimum diameter shall be three times the outside diameter of the post. All foundations shall slope away from the post to assure proper drainage or as detailed in the drawings.

All posts shall be of sufficient length to provide forty-two (42) inch setting in concrete footings. Excavation: drill or hand excavate (using post hole digger) holes for posts to diameters and spacing indicated, in firm, undisturbed or compacted soil. All excavated material is to be removed from the post location and dumped in an Owner approved location on site project site or removed from site and disposed of properly.

Excavate holes for each post to minimum diameter recommended by fence manufacturer, but not less than 4 times largest cross-section of post. Excavate hole depths approximately

3" lower than post bottom; with bottom of posts set not less than 36" below finish grade surface.

Setting Posts: Center and align posts in holes 3" above bottom of excavation. Place concrete around posts and vibrate or tamp for consolidation. Check each post for vertical and top alignment and hold in position during placement and finishing operations. Extend concrete footings 2" above grade and trowel to a crown to shed water. Allow concrete to attain at least 75% of its minimum 28-day compressive strength, but in no case sooner than 7 days after placement, before rails, tension wires, or fabric is installed. Do not stretch and tension fabric and wires, and do not hang gates until the concrete has attained its full design strength. Restore grade around posts once setting is complete.

Top Rails: Run rail continuously through post caps. Provide expansion couplings as recommended by fencing manufacturer.

Spacing: Maximum spacing between fence posts shall be 8'-0".

Fabric: Pull fabric taut and tie to posts and rails. Install fabric on interior or playing side of fences and anchor to framework so that the fabric remains in tension after pulling force is released. Lower edge of fabric shall be set level with finished grades (1-½" above grade typ.) except as specified on plans and details.

Tension Bars: Fabric shall be attached to the terminal posts by means of single piece tension bars. Thread through fabric and secure to posts with metal bands spaced not over 12 inches O.C. (typ.).

Welding: All field welds shall be fully filled, ground flush and smooth, and cold galvanized by brushing on "Galvicon", or approved paint for vinyl fencing. Use silver paint (two coats required).

All 4' high fence shall include an HDPE fence top rail guard manufactured with UV stabilizers. The top rail guard shall be 'D' Shaped design measuring 2 5/8" W x 5 ½" H x 8' L and shall be secured by hog rings threaded pre-drilled holes. The top rail guard shall be yellow and manufactured by Midwest Cover or approved equal.

Method of Measurement and Basis of Payment. This work shall be paid for at the contract unit price per foot for BACKSTOP FENCE or CHAIN LINK FENCE, COATED, of the height specified which price shall include all materials, labor, tools, equipment, and any incidentals, excavation, and backfill necessary to satisfactorily complete the Work as described herein.

BACKSTOP REMOVAL (COMPLETE)

Description. This work shall consist of the complete removal and disposal of existing baseball field backstops, their foundations, hardware and all connected appurtenances.

The foundations shall be fully removed and backfilled with compacted sand to the satisfaction of the Engineer.

Method of Measurement and Basis of Payment. This work will be measured and paid for at the contract unit price per EACH for BACKSTOP REMOVAL (COMPLETE), which price shall include all required materials, equipment, and labor as necessary to complete this work as specified.

BASES, HOME PLATE, PITCHING PLATE (SET)

Description. This work shall consist of furnishing and installing infield bases, home plate and pitching plate for the proposed baseball fields.

Products. The bases, home plate and pitching plate shall be as specified below:

INFIELD BASES

1. Supplier: Beacon Athletics, 8233 Forsythia Street STE 120, Middleton, WI 53562
2. Model: 301-905-215, Pro-Style Base Set (3)
3. Anchors and Plugs: Rubber base plugs and ground anchors as supplied by manufacturer for each specified base.

HOME PLATE

1. Supplier: Beacon Athletics LLC, 8233 Forsythia Street STE 120, Middleton, WI 53562
2. Model: 301-905-105, Home Plate with Anchor and Stanchion
3. Anchors and Plugs: Rubber base plugs and ground anchors as supplied by manufacturer for each specified base.

PITCHING PLATE

1. Supplier: Beacon Athletics LLC, 8233 Forsythia Street STE 120, Middleton, WI 53562
2. Model: 335-201-300, Bulldog Pitching Rubber
3. Size: 4-inch, adult

This item shall include all work necessary to install the bases, home plate and pitching plate in accordance with the Manufacturer's requirements and details shown in the plans.

Method of Measurement and Basis of Payment. This work will be measured and paid for at the contract unit price per EACH for BASES, HOME PLATE, PITCHING PLATE (SET), which price shall include all required materials, equipment, and labor as necessary to complete this work as specified.

CLAY BRICK UNDERLAYMENT – BASEBALL INFIELD

Description. This work shall consist of furnishing and installing a supportive base for the proposed pitchers mound, proposed batter's box, and proposed catcher's box using clay mound blocks in accordance with the detail in the plans.

The contractor shall install the clay bricks so that they are below the pitching plate, batter's box, and catcher's box and can be covered with a final top course of clay infield material.

Basis of Payment. This work will be paid for at the contract unit price per square foot for CLAY BRICK UNDERLAYMENT – BASEBALL INFIELD which price shall constitute all labor, materials and equipment necessary to complete the work as specified

CLAY INFIELD, 8" DEPTH

Description. This work shall consist of furnishing and placing infield mixture for each ball field infield within the basin.

The infield mixture shall be free of stones and gravel and meet the following requirements:

1. Sand passing the #4 and retained on the #200:	80%
a) Coarse sand, passing the #4 retained on the #10	.5%
b) Medium sand, passing the #10 and retained on the #4	.5%
c) Fine sand, passing the #40 and retained on the #200	79%
2. Silt Size, 0.074 to 0.005mm	5%
3. Clay	15%

Samples of the Infield Mix shall be submitted to the Engineer for Owners approval.

Placing Infield Mix. Rake out the subgrade to achieve a fine uniform surface without any clods greater than 1/2" in diameter. Make sure that the aggregate surrounding the under-drain system is exposed. Once a mix has been approved place the mix within the areas of the infield. Preserve the markers for 1st and 3rd bases during placing. Bring the infield mix to the grades shown on the plans and moisten to permit easier grading and movement without severe rutting. Do not use compaction devices on the surface. One rolling of the entire surface shall be made.

Owner approval of finished grade of the mixture is required.

Measurement of Measurement. CLAY INFIELD, 8" DEPTH will be measured in place and paid for at the contract unit price per cubic yard, in place and complete.

Basis of Payment. This work will be paid for at the contract unit price per square yard for CLAY INFIELD, 8" DEPTH which price shall constitute all labor, materials and equipment necessary to complete the work as specified

COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT

This work shall consist of the removal of the existing curb and gutter and the construction of new concrete curb and gutter to match the existing curb and gutter type (except where otherwise noted on the plans or directed by the Engineer) including all necessary excavation, embankment and doweling as shown in the detail on the plans and in accordance with Sections 606, 202, 205 and 311 of the Standard Specifications and as specified herein. For the purposes of this item, no differentiation shall be made between concrete curb and combination concrete curb and gutter. Subbase granular material shall be paid for separately. Concrete curb and gutter shall be constructed to the lines and grades established by the Engineer.

New curb and gutter shall match the existing curb and gutter type, unless otherwise noted on the plans and as specified herein. All transitions from new curb type to old curb type shall be paid for as COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT. All proposed curb and gutter adjacent to new curb line drainage frame and

grates shall be type B-6.12 curb, except that the gutter shall be widened to match the curb grate at the frame as directed by the engineer. Curb adjacent to frames and grates shall be constructed in accordance with the detail in the plans. When frames are located in a curb radius return, the entire radius shall be type B-6.12 curb with the exception of ADA compliant depressed curb at crosswalks. Transitions from Type B-6.12 curb to other curb types shall be made over 5 feet, unless otherwise directed by the Engineer. Type B-6.12 curb and curb transitions shall be measured and paid for as COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT.

In addition to the requirements of Article 606.06 of the Standard Specifications the Contractor shall excavate all material necessary to build the proposed curb and gutter and proposed subbase in accordance with Section 202 of the Standard Specifications. The area between the edge of the existing pavement and the face of the new gutter shall be cleaned of all loose material and then filled with Class SI concrete to a minimum 6-inch width and rough troweled 1.75" below the top of the proposed gutter flag. The existing pavement shall have a clean sawcut edge prior to pouring concrete. Driveways shall not be removed for forming purposes unless approved by the Engineer.

The proposed subbase shall be subbase granular material, Type B with minimum thickness of 4" in accordance with Section 311 of the Standard Specifications. Backfill behind the proposed back of curb shall be in accordance with Section 205 of the Standard Specifications. Any existing pavement removed adjacent to the new curb and gutter shall be replaced in-kind.

The Contractor shall machine-saw a perpendicular clean joint between that portion of the curb and gutter to be removed and that which is to remain in place. If the Contractor removes or damages the existing curb and gutter outside the limits designated by the Engineer for removal and replacement, he will be required to remove and replace that portion at his own expense to the satisfaction of the Engineer.

Contractor shall use full forms on both sides of the patch - 9" at edge of pavement and either 12" or 15" at back of curb.

Where Class D pavement patching or full depth HMA paving will be adjacent to replacement curb and gutter, the curb and gutter replacement shall be completed first.

For HMA pavement sections, contraction joints shall be provided at uniform intervals not to exceed 15 feet.

Reinforcement/doweling of new curb and gutter shall be as shown on the detail in the plans.

Construction joints with dowel bars shall be provided at the end of a day's work. Transverse expansion joints (including two 1-1/8" diameter smooth coated dowel bars) shall be constructed at curvature points, and at additional locations designated by Engineer. Cost of all joints shall be incidental to the curb, or curb and gutter item.

At each location where the new curb meets the existing curb, the existing and new curb shall be tied together with 1 - No. 8 epoxy coated smooth dowel bar, 18" long. Dowel shall be drilled and grouted into the existing curb.

Depressed curb for driveway openings and at sidewalk ramps accessible to the disabled shall be constructed at the locations shown on the Drawings or designated by Engineer. No additional compensation will be made for depressed curb at ramp or driveway locations.

The Contractor shall backfill behind the new curb and gutter, to the satisfaction of the Engineer, within seven (7) calendar days of the placement of the curb and gutter. Failure to comply will result in a charge of \$500.00 per calendar day. This charge is separate from the cost of any corrective work ordered. The contractor shall not be relieved of any contractual responsibilities by the Village's action.

After construction of the new curb and gutter is complete, the Contractor shall restore adjacent grassed parkway areas in accordance with the requirements of the PARKWAY RESTORATION – SODDING special provision included herein.

Method of Measurement shall be per Article 606, except any earth excavation will not be measured for payment for curb and gutter removal and replacement, but shall be included in the payment for COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT.

For locations/streets with significant or complete curb and gutter removal and replacement, the Contractor shall be responsible for furnishing all labor, materials and equipment necessary to document, lay out and re-establish existing curb and gutter and pavement grades. At a minimum, Contractor shall be required to survey and stake out existing and proposed edge of pavement and back of curb locations (horizontal and vertical) at 15' intervals as well as high points, low points and other locations of key grade change. Where deviations from existing grades are requested by the Village, the Village/Engineer shall determine proposed grades prior to Contractor layout, and shall be responsible for verifying the Contractor's layout in the field before construction commences. All survey and required layout shall be paid for in accordance with the special provision for CONSTRUCTION LAYOUT.

Basis of Payment. This work will be paid for at the Contract Unit Price per foot of COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT regardless of curb and gutter type removed and replaced; measured in place, which price shall include all materials, labor, tools, equipment, and any incidentals, including pavement removal, excavation, dowel bars and reinforcement, expansion joints, backfill, necessary to satisfactorily complete the Work as described herein.

DUCTILE IRON WATER MAIN (DIRECTIONAL BORE)

Description. This work shall consist of trenchless pipe installation by means of directional boring, which shall be constructed in accordance with the applicable portions of Section 561 of the Standard Specifications and Section 41 of the Water and Sewer Specifications except as modified herein.

Submittals. Submit for Engineer's review material certification, product descriptions and catalog cut sheets, method of joining and detailed description of directional boring plan. Pits required to perform the work shall also be described in detail.

General. Provide hydraulically or pneumatically operated, fluid-assisted, remote guided boring system capable of installing pipe indicated on the Drawings by trenchless methods.

1. Provide compressors, pumps, apparatus, tools and all devices certified as suitable by the system manufacturer to install the new pipe without damaging or stressing the pipe.
2. Provide recovery system that will recover bentonite slurries or other drilling fluids without releasing the slurry onto the surrounding ground or water surfaces.
3. Provide certification from pipe manufacturer that the proposed material and strength classification is appropriate for application.

US Pipes TR Flex Restrained Ductile Iron Pipe (DIWM) and joints for horizontal directional drilling applications, or approved equal, conforming to ANSI A21.51/AWWA C151. Joints shall be push-on double sealing rubber gasketed type conforming to ANSI A21.11/AWWA C111. The water main pipe and fittings shall be cement lined in conformance with ANSI A21.4/AWWA C104. All ductile iron water main shall include polyethylene wrapping. All bolts for mechanical fittings shall be stainless steel.

Directional boring shall be performed by experienced and qualified personnel with specialized equipment utilizing steerable tunneling systems capable of creating a bore hole and then pulling the utility back through the bore hole. Slurry shall be used to stabilize the walls of bore hole as required and to reduce frictional drag on the piping being installed.

Pipe Installation. The water main pipe shall be installed in accordance with the following:

1. Install pipe by directional boring methods. Install ductile iron pipe by pulling the pipe into place.
 - a. Provide winch systems designed to protect structures, provide directional stability, and pull pipe from insertion point to exit point without causing damage to the pipe being inserted.
 - b. Insert pipe in a continuous operation from point to point.
 - c. Provide lubricants as specified by pipe manufacturer to avoid stressing of pipe beyond its elastic limit during insertion.
 - d. Drill Path Survey and Potholing shall be provided by the Contractor to locate existing service lines and utilities prior to installing water main.

All such exploratory excavations shall utilize a vacuum truck to minimize disturbance to the surface and the existing utilities. The Contractor shall properly dispose of all material removed and shall be disposed of off-site.

- e. Provide silencers, mufflers, or other devices required to reduce noise from compressors and other equipment to meet limits as outlined by Village Ordinance.
2. Provide pipe insertion pits necessary for complete installation of pipe.
 - a. In general, position pits at the end of the pipe specified for directional boring as indicated on the Drawings in the least disruptive location whenever possible.
 - b. Provide additional pits as required to install new pipe.
 - c. Provide all traffic control, barricades, flagmen, and other items at insertion pit areas as necessary to complete the work.

Measurement and Payment. This work will be paid for at the contract unit price per foot for DUCTILE IRON WATER MAIN (DIRECTIONAL BORE) of the size specified, which price shall include water main, boring/installation and receiving/exit pits, fittings, polywrap, thrust block/anchors, potholing and all components necessary for the installation of the water main.

DUCTILE IRON WATER MAIN IN CASING

Description. This item includes the installation of ductile iron pipe water main with casing spacers into casing pipe as shown on the plans.

Water main pipe shall be in accordance with the DUCTILE IRON WATER MAIN Special Provision herein.

The water main (carrier pipe) shall be provided with a carrier pipe support system to position the carrier pipe at the indicated elevations within the casing. The carrier pipe support system shall be Powerseal Casing Chock, model 4810, stainless steel spacers consisting of 4 gauge, type 304 stainless steel shells, PVC liner, high molecular weight polymer runners, and stainless steel bolts and lock nuts, or approved equal. A minimum of 3 spacers shall be provided per carrier pipe length, on 6' centers

Once the carrier pipe has been installed and pressure tested, the annular space between the carrier pipe and casing pipe at both ends shall be sealed. The end seals shall be constructed utilizing concrete brick laid lengthwise with mortar or premanufactured rubber end seals made specifically for this purpose.

The carrier pipe shall be installed by pushing and pulling it into place in such a manner that there is no opportunity for a joint to be opened. All joints shall have Field Lok gaskets, and or approved equal.

Basis of Payment. This work will be paid for at the contract unit price for DUCTILE IRON WATER MAIN IN CASING of the size specified, per lineal foot which price shall include the cost of all pipe, spacers, casing seals, joint materials (including restrained joints where required), fittings, reducers, thrust blocks, bedding, haunching and backfill, all required appurtenances, hydrostatic pressure tests, leakage tests, disinfecting of the water main and excavation. This item shall also include any and all items such as water pumps, gauges, meters and laboratory test costs, and all other items necessary to complete this work as specified.

EARTH EXCAVATION (BASIN)

Description. This item shall be completed in accordance with the applicable portions of Section 202 of the Standard Specifications with the following general additions. This work shall include removal of all earth material necessary to construct the proposed stormwater basin within Springdale Park to the lines and grades shown or as directed by the Engineer. Earth excavation will not include the excavation of topsoil or unsuitable materials, as those will be paid for separately.

Earth excavation for sewers, underdrains or other proposed improvements shall be included in the cost of the item requiring the excavation and will not be measured and paid for using this item.

For this project, it is the intention of this specification to pay for the handling of earthwork material only once, regardless of staging or Contractor's operations.

Method of Measurement. This work shall be measured in accordance with article 202.07(b) of the Standard Specifications.

Basis of Payment. This work will be paid for at the contract unit price per cubic yard of EARTH EXCAVATION (BASIN).

HIGH CAPACITY INLET

Description. This work shall consist of furnishing and installing special high-capacity box inlets as shown on the plans and in accordance with Sections 602 and 604 of the Standard Specifications.

Construction Requirements. The structure shall include the cast iron frame with Neenah R-3067 Type R Grate or an approved equal. The pre-cast reinforced concrete section shall be manufactured in accordance with A.S.T.M. Design C-858. The contractor must submit a shop drawing for approval by the Engineer and the contractor shall confirm all inverts and flow lines in the field.

The Contractor is responsible for tying in all existing storm sewers to the proposed structures as directed by the Engineer. Up to 10 feet of new sewer (if required) for each existing sewer tying into the proposed structure shall be considered included in the bid price for this item. The Contractor shall be responsible for verifying the size, inverts and locations of the existing sewers to be connected to the proposed structure. Any existing storm sewers that are

damaged during construction shall be replaced in kind by the Contractor at no cost to the Village.

Precast concrete adjustment rings, as supplied by the precast concrete manufacturer to conform with the special frame and grate, are to be used on all structure adjustments unless otherwise approved by the engineer. Final adjustment of all frame and grates shall be made after the curb and gutter has been poured.

Method of Measurement and Basis of Payment. This work shall be paid for at the contract unit price per each for HIGH CAPACITY INLET, per the structure depth specified, which price shall include all excavation, backfill, concrete patch, adjustment rings, material, labor, and equipment necessary to complete the work as specified herein. **The structure depth shall be calculated from the rim elevation to the lowest invert elevation.**

HOT-MIX ASPHALT DRIVEWAY REMOVAL AND REPLACEMENT

Work under this item consists of the removal, satisfactory disposal and replacement of hot-mix asphalt driveway surface. The limits of removal will be marked in the field by Engineer. Saw cutting required for this Work shall be considered incidental to this item.

Additional pavement which is damaged or disturbed beyond the marked limits due to negligence or carelessness on the part of Contractor, shall be re-sawed and removed. The additional quantity of pavement so removed (and replaced) will not be measured for payment.

HMA driveway pavement shall be 3-inches of HMA Surface Course placed in two 1 1/2 – inch lifts over 6-inches of aggregate base course. Any excavation required to install the new driveway shall be included in the cost of this item. The existing aggregate base course may be reused if it is in suitable condition and approved by the Engineer.

The Contractor shall complete driveway construction, to the satisfaction of the Engineer, within fourteen (14) calendar days of the placement of the adjacent curb and gutter. Failure to comply will result in a charge of \$500.00 per calendar day. This charge is separate from the cost of any corrective work ordered. The contractor shall not be relieved of any contractual responsibilities by the Village's action.

After construction of the new driveway is complete, the Contractor shall restore adjacent grassed parkway areas in accordance with the requirements of the PARKWAY RESTORATION – SODDING special provision included herein.

Basis of Payment. This Work under this item will be paid for at the Contract Unit Price per square yard for HMA DRIVEWAY REMOVAL AND REPLACEMENT; measured in place, which price shall include all materials, labor, and equipment necessary to satisfactorily complete the Work as specified herein.

HOT-MIX ASPHALT SURFACE REMOVAL (FULL DEPTH)

This work shall be done in accordance with Section 440 of the Standard Specifications except as modified herein.

440.01 Description. Revise this Article to read:

"440.01 Description. This work shall consist of the removal and satisfactory disposal of the entire HMA pavement surface, full depth. The geotechnical report included with the bidding documents indicates the existing HMA pavements on streets to receive full depth HMA surface course removal, vary in thickness. The existing pavement information is for informational purposes only, and actual existing pavement thickness will vary. Any additional removal of existing aggregate base in order to match the proposed aggregate base grade shall not be paid separately, but shall be included in the cost of PREPARATION OF BASE (SPECIAL).

440.03 General. Add the following paragraph to the end of this Article:

"No additional compensation will be allowed because of variations from the assumed HMA surface thickness or from the HMA surface thickness shown on the Plans."

"No additional compensation will be allowed due to the presence of geotextile fabric in the milled asphalt layer(s)."

Basis of Payment. This work will be paid for at the contract unit price per square yard for HOT-MIX ASPHALT SURFACE REMOVAL (FULL DEPTH).

IN-LINE CHECK VALVE

Description. This work consists of furnishing, fabricating, transporting, and installing in-line check valves of the size, shape, and design head at the locations shown on the plans and specified herein with all the necessary appurtenances.

This work shall include installation of the in-line check valve, including all supports, anchors, attachment hardware and all other items necessary as determined by the Engineer. Installation of the structures piping is listed under a different specification and pay item.

Materials. Provide Series 39 In-Line Check Valve or Series CMUF-SL Slip-in CheckMate Ultraflex In-line Valves as manufactured by Tideflex Technologies®, A Division of Red Valve Company or approved equal. All valves shall be manufactured in the U.S.A.

Fabrication. Before fabrication of the component parts of the flat gate is initiated, shop drawings showing the dimensions and details required to locate and install the component assemblies shall be submitted for the Engineer's approval.

Installation. Prior to initiating installation of the flap gate, the Contractor shall provide the Engineer with four copies of a manual giving complete information on installation and maintenance of the in-line check valves.

The in-line check valves shall be installed according to the manufacturer's recommendations and as directed by the Engineer. The valve shall be installed in a plumb position with the axis of the hinge perpendicular to the centerline of the waterway opening.

The quantity and size of the fasteners shall be recommended by the manufacturer.

Method of Measurement and Basis of Payment. This work will be paid for at the contract unit price per EACH for IN-LINE CHECK VALVE of the diameter specified on the plans, which price shall be payment in full for labor, materials, and equipment to perform the work as specified herein.

IRRIGATION REPAIR

Description. This item covers work related to the repair of existing private irrigation systems unavoidably damaged by the Contractor. Repair of damage caused by Contractor negligence or carelessness, or that which is determined to have reasonably been avoidable with proper precaution or care, shall be the sole responsibility of the Contractor and will not be paid for. The Contractor's eligibility for payment for damaged irrigation systems shall be at the sole discretion of the Engineer.

Construction Requirements. All work shall conform to appropriate articles of the Standard Specifications, Village ordinances, Village details and specifications that are considered industry standards or standards set forth by a governing body for the furnishing, fabrication, installation or removal of the included items.

Materials. All furnished material shall conform to appropriate articles of the Standard Specifications, Village ordinances, Village details and specifications that are considered industry standards or standards set forth by a governing body for the furnishing, fabrication, installation or removal of the included items.

Disposal of Material & Safety. All materials resulting from this extra work shall be disposed of at the contractor's expense, outside the limits of the job, at locations acceptable to the Engineer and in accordance with Section 107.01 of the Standard Specifications.

Method of Measurement. This item shall be measured for payment in the appropriate dimensions to for the work performed, as determined by the Engineer.

Basis of Payment. The Contractor will include in his bid a sum of 25,000 units at \$1 per unit for a total of \$25,000.00 for IRRIGATION REPAIR. This item will be used at the sole discretion of the Engineer and shall be based upon reasonable cost proposals provided by the Contractor.

JUNCTION CHAMBER WITH OVERFLOW WEIR

Description. This work shall consist of all work and materials required for the construction of the precast concrete JUNCTION CHAMBER WITH OVERFLOW WEIR in accordance with the plans and as specified herein. The dimension shown on the plans are measured to the inside face of the chamber walls.

Materials.

Concrete: IDOT Section 1020 Class PC (f' c min = 4,500 PSI)

Reinforcing Steel:	ASTM A 706, Grade 60 (IL Modified)
Frame and Grate:	Type 1 Frame, Closed Lid or Neenah Low Profile as determined by CONTRACTOR
Precast Riser/Slab:	IDOT Standard 602401 and 602601
Steps:	IDOT Standard 602701
Mastic Joint Sealer:	IDOT Section 1056
Loading:	Soil Loads and AASHTO HS-20

Construction Requirements. The precast junction chamber and weir wall shall be constructed in accordance with IDOT Section 504. All excavation and granular backfill material shall be in accordance with IDOT Section 502. The CONTRACTOR shall be responsible for verifying the size, inverts and locations of the sewers to be connected to the proposed Junction Chamber. The weir wall shall be set to the elevations shown in the plans. A cast in place concrete bench slab shall be poured up to the inverts of the pipes to prevent standing water on the bottom slab. The CONTRACTOR shall take necessary precautions to prevent the chamber from becoming buoyant during construction.

The CONTRACTOR has the option of constructing the junction chamber using cast in place concrete in accordance with IDOT Section 503, with prior permission from the VILLAGE. Cast in place concrete shall be IDOT class SI ($f'c$ min = 3500 PSI).

The CONTRACTOR shall submit calculations and detailed shop drawings that are signed and sealed by a Structural Engineer licensed in the State of Illinois to the ENGINEER for review prior to ordering material or starting construction. The required thickness of the chambers bottom slab, sidewalls and top slab, overflow weir, and reinforcement details shall be shown on the shop drawings.

A temporary shoring plan, signed and sealed by a Structural Engineer licensed in the State of Illinois, shall be submitted to the ENGINEER with corresponding calculations and other necessary information, for all temporary shoring required to accommodate safety and other requirements during construction. Temporary shoring plan shall be approved by the ENGINEER prior to installation of temporary shoring.

All labor, materials, excavation, granular backfill, granular subbase, concrete, reinforcement bars, frame and grate, cast iron steps, precast concrete riser and slab, temporary shoring and any miscellaneous items required for the junction chamber shall not be paid for separately, but shall be included in the lump sum price for JUNCTION CHAMBER WITH OVERFLOW WEIR.

Basis of Payment. This work shall be paid for at the contract lump sum price for JUNCTION CHAMBER WITH OVERFLOW WEIR.

LANDSCAPE RESTORATION – FIELD OF DREAMS SEED MIX

Description. This work shall consist of preparing the seed bed and placing the seed, erosion control blanket and other materials required in seeding operations on the disturbed areas within the Springdale Park property as shown on the plans.

Fertilizer and Agricultural Ground Limestone Application. Fertilizer nutrients and agricultural ground limestone shall be uniformly spread over the designated areas immediately prior to seed bed preparation. 300 kg (270 lb) of fertilizer nutrients per hectare (acre) shall be applied at 1:1 ratio as follows:

Nitrogen Fertilizer Nutrients (90 lb/acre)
Potassium Fertilizer Nutrients (90 lb/acre)

When agricultural ground limestone is specified, it shall be applied at a rate of 4.5 metric tons/ha (2 tons /acre) multiplied by the source correction factor.

The Contractor shall restore, at his/her expense, any existing turf areas damaged by improper application of fertilizer nutrients or agricultural ground limestone.

Seed Bed Preparation. Seed bed preparation shall not be started until all stones, boulders, debris and similar material larger than 1 inch in diameter have been removed. Topsoil shall be placed within the park to a depth of 12-inches in accordance with the special provision for TOPSOIL EXCAVATION AND PLACEMENT. The areas to be seeded shall be worked to a minimum depth of 3 inch with a disk tiller or other equipment approved by the Owner, reducing all soil particles to a size not larger than 1/4 inch in the largest dimension. The prepared surface shall be relatively free from weeds, clods, stones, roots, sticks, rivulets, gullies, crusting and caking. No seeds shall be sown until the seed bed has been approved by the Owner.

Seeding Methods. No seed shall be sown during high winds or when the ground is not in a proper condition for seeding, nor shall any seed be sown until the purity test has been completed for the seeds to be used, and shows that the seed meets the noxious weed seed requirements. All seed installation equipment shall be approved by the Owner prior to being used. Prior to starting work, seeders and interseeders shall be calibrated and adjusted to sow seeds at the required seeding rate. Equipment shall be operated in a manner to ensure complete coverage of the entire area to be seeded or interseeded. The Owner shall be notified 48 hours prior to beginning the seeding operations so that the Owner may determine by trial runs that a calibration of the seeder will provide uniform distribution at the specified rate per acre. When seed or fertilizer is applied with a hydraulic seeder, the rate of application shall be not less than 1000 gal of slurry per acre. This slurry shall contain the proper quantity of seed or fertilizer nutrients specified per acre. When using a hydraulic seeder, the fertilizer nutrients and seed shall be applied in two separate operations.

Seeding Dates. The seeding dates shall be from April 1 to June 15 and from September 15 to October 15. The contractor shall place seed in accordance with the interim completion dates specified in the PROJECT SCHEDULE AND COMPLETION OF WORK special provision provided herein. Seed and blanket within the proposed Springdale Park basin shall first be placed by September 30, 2025. After the first growing period, the Contractor shall be required to correct any areas of insufficient growth or bare spots between April 1, 2026 and October 15, 2026. Between April 1, 2026 and October 15, 2026, additional seeding and work required to correct the initial seeding shall not be paid for as LANDSCAPE RESTORATION

– FIELD OF DREAMS SEED MIX (INTERSEEDING) as approved by the Engineer. No interseeding/supplemental seeding shall be permitted without prior approval from the Engineer.

Seeding Mixtures. All seeding shall occur prior to placement of mulch cover. Seed mixtures shall be as specified below:

Field of Dreams Athletic Mix (by National Seed or approved equal)

1. Seeding Rate: 3-5 lbs. per 1,000 feet²
2. 20% each of two of the following or equals:
 - a. Diva Kentucky Bluegrass
 - b. Rockstar Kentucky Bluegrass
 - c. Blue Chip Plus Kentucky Bluegrass
 - d. Appalachian Kentucky Bluegrass
 - e. Gateway Kentucky Bluegrass
3. 30% each of two of the following or equals:
 - a. Accent II Perennial Ryegrass
 - b. Panther H2O Perennial Ryegrass
 - c. Goalkeeper Perennial Ryegrass
 - d. Palmer III Perennial Ryegrass
 - e. Top Gun II Perennial Ryegrass

Seed mixture shall be delivered to the site in bags labeled with the manufacture's guaranteed analysis of seed type and percentage included.

Installation. Roll all seeded areas after seed application. Within 24 hours from the time seeding has been performed, the seeded area shall be given a covering of erosion control blanket. On slopes steeper than 1:3 (V:H), blanket shall be applied the same day as seeded.

Erosion Control Blanket. NAG S-150 Mulch blanket shall be placed within 24 hours after seeding operations have been completed on the areas specified.

Prior to placing the blanket, the areas to be covered shall be relatively free of foreign material which will prevent the close contact of the blanket with the seed bed. After the area has been properly shaped, fertilized and seeded, the blanket shall be laid out flat, evenly and smoothly, without stretching the material.

The blankets shall be placed so that the netting is on the top and the fibers are in contact with the soil.

For placement on slopes, knitted straw blanket shall be unrolled in the direction of the slope and shall extend a minimum of 3 feet over the crest of the slope. On slope applications, six staples shall be installed on uniform spacing across the uphill end of each roll. The downhill ends of the lowermost rolls across the slope also shall be anchored with six staples, placed on uniform spacing.

Erosion control blanket shall be paid for separately.

Maintenance. Following the mulching operation, foot and vehicular traffic, or the movement of equipment over the mulched area shall be prohibited.

Promptly after seeding, wet the upper 1" of seedbed thoroughly, keeping all areas moist throughout the germination process and the grass has reached a height of 1 inch. The surface of the soil shall not be allowed to dry out but areas of standing water are not permitted.

At any location where seeding/blanket has been displaced by any Contractor's equipment or personnel, the seeding and blanket or other work damaged as a result of that displacement shall be repaired or replaced immediately at the Contractor's expense, in a manner satisfactory to the Owner.

Supplemental Watering. Once the new seed has reached a height of 1" or greater supplemental watering may be required in the event of inadequate rainfall, as determined by the Owner. Supplemental water shall be applied within 24 hours of notification from the Owner. Use a diffusing type attachment for hose watering to create a light sprinkling effect. The water shall be applied at the rate of 1 inch per week across the surface of all seeded areas. Supplemental watering shall be paid for as LANDSCAPE RESTORATION – SUPPLEMENTAL WATERING.

Guarantee. Contractor shall guarantee the seeding for a period of one growing season from the Date of Final Completion of total project for any loss due to faulty materials, workmanship, or procedures. Seeded areas shall have a healthy, uniform, close stand of established grass, free of weeds, surface irregularities and have no bare spots larger than 1-1/2" diameter. If any area does not meet this criteria contractor shall prepare the soil surface of the rejected areas, install seed fertilizer and mulch, and water until an acceptable stand of grass is established. Any seeded or landscaped area disturbed by these procedures will be restored at the contractor's expense.

If any seeding must be performed later than the scheduled periods then the contractor shall also guarantee these seeded areas for a period of one growing season from the date of substantial completion from loss due to weather conditions.

Maintenance. Contractor is responsible for all maintenance of the seeding for the duration of the project and for a period of one growing season from the Date of Final Completion of total project. Maintenance shall include, but not be limited to, mowing and weeding.

Measurement and Payment. This work will be paid for at the contract price per ACRE as LANDSCAPE RESTORATION – FIELD OF DREAMS SEED MIX, or LANDSCAPE RESTORATION – FIELD OF DREAMS SEED MIX (INTERSEEDING), as the case may be, which price shall be payment in full for all labor, material, and equipment necessary for the supply, installation of the seeding, maintenance, guarantee and all incidental work and materials herein specified. Erosion control blanket shall be paid for separately.

LANDSCAPE RESTORATION – SODDING (SPRINGDALE PARK)

Description. This work shall consist of placing sodding within Springdale Park at the direction of the Engineer. This item shall only be used with the Engineer's authorization and shall be used to fill any bare spots within the park that have not had substantial grass growth through the 2026 growing season. This item may also be used with approval of the Engineer to sod the baseball infields as needed for full establishment prior to the final completion date.

This work shall be completed in accordance with Sections 202, 211 and 252 of the Standard Specifications, the special provision for PARKWAY RESTORATION – SODDING provided herein, and the plans, except where modified herein. **Sodding shall not be permitted to**

be installed between June 15th and September 15th, unless otherwise allowed by the Engineer.

If required, this item shall include excavation of existing grassed areas, and preparation of the underlying topsoil prior to sod placement.

Watering. All newly restored areas shall be watered daily for a period of 14 days after installation. The initial watering shall occur within 8 hours after the sod has been placed. This initial watering shall be at a rate of 5 gallons of water per square yard. Subsequent watering shall be at a rate of 3 gallons per square yard. On days when measurable rain falls, the new sod need not be watered. All watering shall be done with a spray boom, spray nozzle or lawn sprinkler, so as to achieve a uniform distribution of the water. Use of open end hoses will not be acceptable.

Water needed for the execution of this work is available without charge from Village's Public Works Department yard, 1440 Hillgrove Avenue, Western Springs, IL 60558.

Guarantee. Contractor shall guarantee the sodding for a period of one growing season from the Date of Final Completion of total project for any loss due to faulty materials, workmanship, or procedures. Sodded areas shall have a healthy, uniform, close stand of established grass, free of weeds, surface irregularities and have no bare spots larger than 1-1/2" diameter. If any area does not meet this criteria contractor shall prepare the soil surface of the rejected areas, install new sod, and water until an acceptable stand of grass is established. Any seeded or landscaped area disturbed by these procedures will be restored at the contractor's expense.

If any sodding must be performed later than the scheduled periods then the contractor shall also guarantee these sodded areas for a period of one growing season from the date of substantial completion from loss due to weather conditions.

Maintenance. Contractor is responsible for all maintenance of the sodding for the duration of the project and for a period of one growing season from the Date of Final Completion of total project. Maintenance shall include, but not be limited to, mowing and weeding.

Method of Measurement. Sodding, fertilizer, watering, etc. will not be measured separately but shall instead be included as part of this item. A written request for final inspection shall be submitted by Contractor at the end of the guarantee period.

Basis of Payment. This work will be paid for at the Contract Unit Price per square yard for LANDSCAPE RESTORATION – SODDING (SPRINGDALE PARK); which price shall include all labor, material and equipment necessary to satisfactorily complete the work as described herein.

LANDSCAPE RESTORATION – SUPPLEMENTAL WATERING

Description. This work shall consist of supplemental watering of the seeded/sodded areas within Springdale Park as directed by the Engineer in accordance with Section 252 of the Standard Specifications and as modified herein.

Supplemental Watering. Once the new seed has reached a height of 1” or greater supplemental watering may be required in the event of inadequate rainfall, as determined by the Owner. Supplemental water shall be applied within 24 hours of notification from the Owner. Use a diffusing type attachment for hose watering to create a light sprinkling effect. The water shall be applied at the rate of 1 inch per week across the surface of all seeded areas.

Method of Measurement. Supplemental watering shall be paid for in accordance with Section 252.12 of the Standard Specifications.

Measurement and Payment. This work will be paid for at the contract price per UNIT for LANDSCAPE RESTORATION – SUPPLEMENTAL WATERING, which price shall be payment in full for all labor, material, and equipment necessary to complete the work as specified.

MISCELLANEOUS ADDITIONS AT THE VILLAGE’S DISCRETION

Description. This item is to provide for adequate budget to cover items not specifically included in the contract prior to the bidding process.

Construction Requirements. All work shall conform to appropriate articles of the Standard Specifications, Village ordinances, Village details and specifications that are considered industry standards or standards set forth by a governing body for the furnishing, fabrication, installation or removal of the included items.

Materials. All furnished material shall conform to appropriate articles of the Standard Specifications, Village ordinances, Village details and specifications that are considered industry standards or standards set forth by a governing body for the furnishing, fabrication, installation or removal of the included items.

Disposal of Material & Safety. All materials resulting from this extra work shall be disposed of at the Contractor’s expense, outside the limits of the job, at locations acceptable to the Engineer and in accordance with Section 107.01 of the Standard Specifications, as amended by Public Act 90-761. A sample of the required load ticket is included in this contract.

Method of Measurement. This item shall be measured for payment in the appropriate dimensions to for the work performed.

Basis of Payment. The Contractor will include in his bid a sum of 150,000 units at \$1 per unit for a total of \$150,000.00 for miscellaneous additions to the project at the Village’s Discretion. Only additional work, not covered by existing Pay Items, indicated on the Drawings or in the Project Specifications will be eligible for payment under this item. Additional work may consist of items such as additional connection to an existing water service of an odd size, or handrail installation, or other construction that may be deemed necessary by the Village to add to the project.

PARKWAY RESTORATION - SODDING

Disturbed parkways shall be topsoiled and sodded in accordance with Sections 202, 211 and 252 of the Standard Specifications and the plans, except where modified herein. **Sodding**

shall not be permitted to be installed between June 15th and September 15th, unless otherwise allowed by the Engineer.

Description. The work included under this item consists of furnishing all labor, materials, equipment, necessary for and incidental to, the complete repair and restoration of all lawn and parkway areas which are removed, rutted, gouged, or otherwise disturbed as a result of this project, as specified herein and at locations directed by the Engineer. Affected areas will be restored to a condition as good as, or better than, existed prior to the start of construction. All restored areas shall be in a healthy, growing condition before they are accepted by Village.

Backfilling. Backfill within utility trenches shall consist of material approved by the Engineer. Concrete spoils, form lumber, or other debris shall not be placed in excavations. All materials shall be placed in maximum 1-foot lifts. Each lift shall be mechanically compacted before placing the next lift.

No topsoil shall be placed until Engineer has inspected and approved the sub-grade.

Sodding. Preparation of areas to be sodded shall be performed in accordance with the applicable articles of Sections 202, 211 and 252 of the Standard Specifications. This work shall include up to four inches of excavation to accommodate placement of new topsoil, as well as the removal of any deleterious material. Topsoil shall be compacted with a roller plate or tire, and this work must be performed in the presence of the Engineer, unless otherwise authorized by the Engineer. Payment for topsoil placed without the Engineer's presence (or waiver of same) shall not be paid for. New topsoil shall be furnished and placed to a depth of at least 4" (after satisfactory compaction) in all excavated areas. Topsoil shall be pulverized black dirt from a source approved by Engineer. With approval from the Engineer, the Contractor may utilize surplus topsoil excavated within Springdale Park for placement in parkways. No separate payment shall be made for utilizing surplus topsoil for parkway restoration. Topsoil shall also be placed in other areas which have been gouged, rutted or otherwise disturbed. Where working conditions allow, use of a "gill" may be made as part of the fine grading operation.

Placement of sod and fertilizer shall be in accordance with the requirements of Section 252 and 1081 of the Standard Specifications with the following modifications:

Finished grade of sod shall match the grade of all sidewalks and driveways, and be approximately ½" above all curbs, and the frames of underground structures. It shall also match with the grade of adjacent undisturbed lawns. All areas requiring restoration shall be cut back to sound lawn areas, generally along straight lines.

Watering. All newly restored areas shall be watered daily for a period of 14 days after installation. The initial watering shall occur within 8 hours after the sod has been placed. This initial watering shall be at a rate of 5 gallons of water per square yard. Subsequent watering shall be at a rate of 3 gallons per square yard. On days when measurable rain falls, the new sod need not be watered. All watering shall be done with a spray boom, spray nozzle or lawn sprinkler, so as to achieve a uniform distribution of the water. Use of open end hoses will not be acceptable.

Water needed for the execution of this work is available without charge from Village's Public Works Department yard, 1440 Hillgrove Avenue, Western Springs, IL 60558.

Method of Measurement. Topsoil, topsoil excavation, sodding, fertilizer, watering, etc. will not be measured separately but shall instead be included as part of this item. A written request for final inspection shall be submitted by Contractor at the end of the guarantee period.

Basis of Payment. This work will be paid for at the Contract Unit Price per square yard for PARKWAY RESTORATION – SODDING; which price shall include all labor, material and equipment necessary to satisfactorily complete the work as described herein.

PORTLAND CEMENT CONCRETE DRIVEWAY REMOVAL AND REPLACEMENT

Description. This work shall be in accordance with Sections 423 and 440 of the Standard Specifications and applicable Village Standard details. PCC driveway pavement shall be constructed using Hi-Early Strength Concrete to minimize curing time. Driveway aprons are to be replaced at the grades specified in the field and essentially to the same width. Full-depth sawcutting will be required in locations where joints do not exist as directed by the Engineer. Replacement of residential driveways will be with a P.C.C. pavement section 7" thick on a prepared granular subbase at least 4" thick. Replacement of commercial driveways will be with a P.C.C. pavement section 8" thick on a prepared granular subbase at least 5" thick. All excavation required to attain the minimum driveway section thickness required shall be included in this work.

The Contractor shall backfill adjacent to the new driveway pavement, to the satisfaction of the Engineer, within seven (7) calendar days of the placement of the driveway pavement.

Basis of Payment. This work will be paid for at the contract unit price per square yard for PORTLAND CEMENT CONCRETE DRIVEWAY REMOVAL AND REPLACEMENT. All full depth saw-cutting and granular subbase, as required, will be included in this item. Prime Coat for this work shall be included in the cost of this item.

POST-CONSTRUCTION SEWER TELEVISIONING

Description. This work shall consist of cleaning and televising new storm and sanitary sewers constructed as part of this project.

Cleaning sewers shall include high pressure jetting, root cutting, bucketing and any other actions necessary to remove all obstructions impeding flows.

Deliverables. The CONTRACTOR shall provide the ENGINEER a narrated video tape of the sewer after cleaning. The ENGINEER will use this tape to verify that the sewer was installed to the satisfaction of the VILLAGE.

Post-construction sewer televising video recordings will be provided as electronic files of .avi, .mp4, .m4v, .mkv, .wmv, or .mpg file format, or of such other file format as may be approved by Engineer. Sewer televising video recordings will be provided as independent digital

container format files, which container files will include all video, audio, and other electronic information necessary to view the preconstruction video recording as intended.

Video DVD will be considered an unacceptable format for providing post-construction sewer televising video recordings, and will be rejected.

Post-construction sewer televising video electronic files will be provided on a portable electronic media device or devices of one of the following types: USB flash drive, SD flash memory card, CF flash memory card, data DVD, external hard drive, or such other portable electronic media device as may be approved by Engineer. Post-construction sewer televising video electronic files may also be provided via online file sharing, cloud storage, File Transfer Protocol (FTP), or other online or network file transfer methods if approved by Engineer. All recordings shall be in accordance with NASSCO standards and completed by a PACP certified individual.

Post-construction sewer televising video electronic files will be accompanied by corresponding logs which document the dates, times, and locations (corresponding manholes/structures) covered by each video recording electronic file.

Basis of Payment. This work will be paid for at the contract unit price per foot of sewer televised for POST-CONSTRUCTION SEWER TELEVISIONING, regardless of pipe diameter.

PVC CASING PIPE

Description. This work shall consist of installing water main quality PVC casing pipe in open cut trench at the locations as shown on the plans and as directed by the Engineer.

Materials. Casings shall be capable of withstanding the loads superimposed upon them. The following types of casing pipes are acceptable for use as PVC CASING PIPE:

- PVC pressure pipe and fabricated fittings (water main quality) in accordance with AWWA C-900 for sizes 4"-12" or AWWA C-905 for sizes 14"-48". PVC pipe joints shall be flexible elastomeric seals per ASTM D-3139 and F-477.

Construction requirements. Casing pipe shall be installed into place and shall include all things necessary, but not limited to, excavation sheeting/bracing, dewatering, pumping, backfilling and compacting all as required for the casing pipe installation. Ends shall be sealed with brick and mortar or manufactured rubber end seals.

Trench backfill shall be installed in accordance with TRENCH BACKFILL, SPECIAL, as specified elsewhere in these Special Provisions and as shown on the detail in the plans.

Measurement and Payment. This work will be measured and paid for at the contract unit price per foot for PVC CASING PIPE, of the size specified, which price shall include all labor, equipment, and material necessary to complete the specified work. Payment for placement and compaction of TRENCH BACKFILL, SPECIAL shall be paid for separately.

RCP BULKHEAD
RCP PIPE FITTING

Description. This work shall be completed in accordance with Section 550 of the STANDARD SPECIFICATIONS, and the STANDARD SPECIFICATIONS for Water and Sewer Main Construction in Illinois (Eighth Edition), except as modified herein:

RCP PIPE FITTINGS shall consist of furnishing and installing RCP storm sewer base tees, bends, transitions, and bulkheads of the dimensions shown on the plans. CONTRACTOR shall submit shop drawings and receive approval prior to purchasing pipe fittings. Pipe fittings shall be installed to the angle and grade shown on the plans. Where shown on the plans, precast concrete risers shall be provided by the CONTRACTOR as necessary to bring the pipe fittings up to the proposed grade. Risers shall be installed such that no more than 12" of adjusting rings are required to bring the rim up to proposed grade.

RCP PIPE FITTINGS shall be installed with Type 1 frames and closed lids, unless otherwise noted on the plans. Low profile frames and grates shall be installed where necessary. CONTRACTOR shall be responsible for determination of type of frames and grates required. The top surface of lids shall be embossed with the words "VILLAGE OF WESTERN SPRINGS" and "STORM SEWER".

The CONTRACTOR is responsible for connecting all existing storm sewers to the proposed pipe fittings as directed by the ENGINEER. Up to 10 feet of new sewer (if required) for each existing sewer tying into the proposed pipe fitting shall be considered included in the bid price for this pay item. The CONTRACTOR shall be responsible for verifying the size, inverts and locations of the existing sewers to be connected to the proposed pipe fittings. Any existing storm sewers that are damaged during construction shall be replaced in kind by the CONTRACTOR at no cost to the VILLAGE. In addition, the CONTRACTOR will be responsible for determining which structures require precast concrete flat slab tops in accordance with Standard Drawing 602601. Flat slab tops will only be allowed where a conical section cannot be installed due to a lack of clearance.

All excavation, backfilling (including trench backfill), precast concrete riser sections, concrete rings, flat slab tops (when required), and existing sewer connections required to complete the work shall be included in the cost of this item. The pay limits for STORM SEWERS shall be exclusive of the RCP PIPE FITTING length (i.e. base tees, bends, transitions, and bulkheads).

Method of Measurement and Basis of Payment. This work shall be paid for at the contract unit price per each for RCP PIPE FITTING (NO RISER), RCP PIPE FITTING TRANSITION, and RCP BULKHEAD of the size identified on the plans, or RCP PIPE FITTING (WITH RISER), of the size and depth identified on the plans, together with the specified frames and grates. **The structure depth for RCP PIPE FITTING (WITH RISER) shall be calculated from the rim elevation to the lowest invert elevation.**

RELOCATE PLAY COURT

Description. This work shall consist of temporarily relocating an existing GaGa Ball court located within Springdale Park. The court consists of wooden walls that can be moved and/or

disassembled as needed to temporarily relocate the court. The court shall be relocated to a location approved by the Engineer and Park District.

Any damage to the court, including the walls and hardware, shall be corrected or repaired at the Contractor's expense.

After work in Springdale Park is complete, the Contractor shall relocate the play court to its permanent location as directed by the Park District.

Basis of Payment. This work shall be paid for a the lump sum price for RELOCATE PLAY COURT, which shall include all labor and equipment required to temporarily relocate the play court.

SANITARY MANHOLE, DROP

Description. This work shall consist of constructing drop manholes, together with the necessary cast iron frames and lids, in accordance with the detail in the plans and Section 602 of the STANDARD SPECIFICATIONS, except as specified herein.

Manholes constructed over proposed or existing sanitary sewers and which are indicated on the plans as sanitary manholes shall be provided with rubber gasketed couplings to ensure a watertight seal between pipe and manhole. The rubber gasketed couplings shall conform to ASTM Specification C-923. Rubber gasketed couplings shall be A-LOK Premium, or an approved equal. Manholes shall be provided with epoxy coated cast iron steps on 16" centers from frame to invert. The outside of the manhole shall be coated with a waterproofing membrane and external sealing bands conforming to ASTM C-877. The seal between the pipe and the structure to be bound by water tight hydraulic cement. The rubber gasketed couplings, waterproof coating, chimney seal, and steps shall be included in the cost of manholes and will not be paid for separately.

The top surface of lids shall be embossed with the words "VILLAGE OF WESTERN SPRINGS" and "SANITARY ".

Drop manholes shall be constructed when the difference in invert elevations of incoming pipes is greater than 24 inches. The diameter of the drop pipe shall equal the diameter of the incoming sanitary sewer requiring the drop connection. The drop connection shall be encased in Class SI concrete after the manhole is installed. All concrete shall be included in the cost of this item.

When existing sanitary sewers connect to proposed drop manholes, replacement of up to ten feet of pipe for each existing pipe shall be included in the cost of this item. Sanitary sewer pipe shall be PVC, SDR 26 conforming to ASTM D2241 and connections shall be made with non-shear mission couplings. The pipe, couplings, and trench backfill shall be included in the cost of manholes and will not be paid for separately.

If necessary, the Contractor shall be required to temporarily stop or bypass flow in existing sewers to construct proposed sanitary manholes. When pumping and bypassing is required, the Contractor shall furnish all temporary pumps, conduits, and other equipment to divert the

flow of sewage around the sewer section/manhole in which work is to be performed. The bypass system shall have sufficient capacity to handle existing flow plus additional flow that may occur during peak flow periods or from precipitation. The Contractor shall construct bypass system of material to prevent leakage during pumping operation. At no time shall bypass conduits (pipes, hoses, etc.) cross open lanes of traffic.

In areas where flows are bypassed, all discharge flow shall be returned to the sanitary sewer. No bypassing to ground surface, receiving waters, storm drains, or bypassing which results in groundwater contamination or potential health hazards shall be permitted.

If bypassing is required for construction, the Contractor shall submit a bypass pumping plan to the Engineer and Village for approval prior to construction. All costs associated with bypass pumping and the temporary plugging of sewers required for sanitary manhole installation shall be included in the cost of the proposed sanitary manhole. This shall include all pumps, material, equipment, and labor required to successfully complete the work. The VILLAGE will assist the Contractor with coordinating road closures necessary to facilitate manhole removal and installation.

Method of Measurement and Basis of Payment. This work shall be paid for at the Contract unit price per each for SANITARY MANHOLE, DROP of the specified diameter and frame and lid.

SANITARY MANHOLE, TYPE A

This work shall consist of constructing manholes, together with the necessary cast iron frames and lids, in accordance with the detail in the plans and Section 602 of the Standard Specifications, except as specified herein.

Manholes constructed over proposed or existing sanitary sewers and which are indicated on the plans as sanitary manholes shall be provided with rubber gasketed couplings to ensure a watertight seal between pipe and manhole. The rubber gasketed couplings shall conform to ASTM Specification C-923. Rubber gasketed couplings shall be A-LOK Premium, or an approved equal. Manholes shall be provided with epoxy coated cast iron steps on 16" centers from frame to invert. The outside of the manhole shall be coated with a waterproofing membrane and external sealing bands conforming to ASTM C-877. The seal between the pipe and the structure to be bound by water tight hydraulic cement. The rubber gasketed couplings, waterproof coating, chimney seal, and steps shall be included in the cost of manholes and will not be paid for separately. Manholes shall be furnished with cast iron frames and lids marked with "VILLAGE OF WESTERN SPRINGS" and "SANITARY" with concealed pick holes and watertight gaskets. The frames and lids shall be approve by the Village.

Sanitary manholes shall be tested for watertightness by means of a vacuum test in accordance with ASTM C-1244 prior to acceptance by the Engineer.

When existing sanitary sewers connect to proposed manholes, replacement of up to ten feet of pipe for each existing pipe shall be included in the cost of this item. Sanitary sewer pipe shall be PVC, SDR 26 conforming to ASTM D2241 and connections shall be made with non-

shear mission couplings. The pipe, couplings, and trench backfill shall be included in the cost of manholes and will not be paid for separately.

If necessary, the Contractor shall be required to temporarily stop or bypass flow in existing sewers to construct proposed sanitary manholes. When pumping and bypassing is required, the Contractor shall furnish all temporary pumps, conduits, and other equipment to divert the flow of sewage around the sewer section/manhole in which work is to be performed. The bypass system shall have sufficient capacity to handle existing flow plus additional flow that may occur during peak flow periods or from precipitation. The Contractor shall construct bypass system of material to prevent leakage during pumping operation. At no time shall bypass conduits (pipes, hoses, etc.) cross open lanes of traffic.

In areas where flows are bypassed, all discharge flow shall be returned to the sanitary sewer. No bypassing to ground surface, receiving waters, storm drains, or bypassing which results in groundwater contamination or potential health hazards shall be permitted.

If bypassing is required for construction, the Contractor shall submit a bypass pumping plan to the Engineer and Village for approval prior to construction. All costs associated with bypass pumping and the temporary plugging of sewers required for sanitary manhole installation shall be included in the cost of the proposed sanitary manhole. This shall include all pumps, material, equipment, and labor required to successfully complete the work. The VILLAGE will assist the Contractor with coordinating road closures necessary to facilitate manhole removal and installation.

Method of Measurement and Basis of Payment. This work shall be paid for at the Contract unit price per each for SANITARY MANHOLE, TYPE A, of the specified diameter and frame and lid.

SANITARY SERVICE CONNECTION TO NEW SEWER

Description. This work shall consist of connecting existing sanitary services to new sewer pipe replaced as part of this project. The work shall be done in accordance with applicable portions of Section 563 of the Standard Specifications and as specified herein.

The exact locations of existing sewer and sewer connections are to be verified in the field by the CONTRACTOR. The Village will not mark locations of existing sanitary services.

The CONTRACTOR shall install a new polyvinyl chloride tee fitting on the new sewer main pipe at the location of the existing service, and shall remove and replace, if necessary, a sufficient length of existing service pipe to re-establish the service. Service pipe to be replaced shall be paid separately for as SANITARY SERVICE REPLACEMENT. All connections to existing pipes shall be made with non-shear mission couplings. The couplings shall be equipped with stainless steel bands.

Basis of Payment. This work will be paid for at the contract unit price per each for SANITARY SERVICE CONNECTION TO NEW SEWER, which shall include all fittings, backfill (including trench backfill), labor and equipment to complete the work as specified.

SANITARY SERVICE REPLACEMENT

Description: This work shall consist of the complete removal or abandonment of existing service as directed by the ENGINEER and replacing and reconnecting a new PVC, SDR-26 (ASTM D2241) sanitary service to the existing sanitary sewer.

New sanitary service pipe should be cut in cleanly at the minimum distance from the conflicting improvement that provides for elimination of the conflict, or a location determined by the ENGINEER. A rubber, non-shear mission coupling with stainless steel bands should be used to effect the connection between new service and existing service pipes.

Sanitary services shall be connected to proposed sanitary sewers where shown on the plans or as determined in the field. The exact locations of existing sewer and sewer connections are to be verified in the field by the CONTRACTOR. The Village will not mark locations of existing sanitary services, and the locating of existing services shall be the responsibility of the CONTRACTOR. The slope from the right-of-way to the sewer connection shall be continuous and constant, except as otherwise authorized by the ENGINEER. The CONTRACTOR shall be responsible for verifying the elevation and slope of the proposed service prior to the installation of each service.

The CONTRACTOR shall install a new polyvinyl chloride tee or wye fitting at the location of the connection on the proposed mainline sanitary sewer. The connection of the service to the proposed sanitary main with a polyvinyl chloride tee fitting shall be paid for as SANITARY SERVICE CONNECTION TO NEW SEWER.

The services shall be replaced from the new fitting at the mainline sanitary sewer to the right-of-way line, using SDR-26 polyvinyl chloride pipe conforming to ASTM D2241 of the same diameter as the existing connection. The CONTRACTOR is to ensure positive flow from the right-of-way to the connection to the mainline sewer.

For instances where the existing sanitary sewer service pipe is excavated and found to be 4-inches in diameter, or less, the sewer service pipe shall be replaced with 6-inch PVC, SDR-26 between the wye or tee connection at the sewer main and the cleanout connection at the property line, or as otherwise directed by the Engineer. Connection to the existing 4-inch (or less) diameter sewer service pipe shall be made using a transitional coupling in conformance with the requirements specified above.

Existing services shall be removed or abandoned in accordance with ABANDON EXISTING SEWERS AND WATER MAIN or EXISTING SEWER REMOVAL. Any holes in existing manholes or pipes that result from abandoning or removing sanitary services shall be plugged with brick and non-shrink concrete mortar to the satisfaction of the Engineer. The non-shrink concrete mortar shall completely fill the holes and keep all water from entering the manhole. When sewers to be removed or abandoned tie directly into a pipe (including blind connections and services), the pipe shall be plugged with non-shrink concrete mortar to the satisfaction of the Engineer. The pipe shall be water-tight, and the inside of the pipe shall be free of excess material that might restrict flow. Plugging existing manholes and pipes due to existing sanitary service removal and/or abandonment shall be included in the cost of this item.

Trench backfill shall be paid for separately and installed in accordance with TRENCH BACKFILL, SPECIAL, as specified elsewhere in these Special Provisions and as shown on the detail in the plans.

Method of Measurement and Basis of Payment. Pay limits for removal and replacement of sanitary services for this item shall extend from the connection at the proposed sanitary main to the existing right-of-way. This work will be measured and paid for at the contract unit price per foot for SANITARY SERVICE REPLACEMENT, regardless of service diameter.

SANITARY SEWER, DUCTILE IRON

Description. This work shall include installation of ductile iron sanitary sewers at locations shown on the plans and as directed by the Engineer. This work shall conform to applicable sections of the Standard Specifications and the Standard Specifications for Water and Sewer Main Construction in Illinois (Sixth Edition) and the Village Standard details.

The following pipe types are acceptable for use as SANITARY SEWER, DUCTILE IRON:

- Ductile Iron pipe (Class 50) conforming to ANSI/AWWA C151/A.21.51 with joints conforming to ANSI/AWWA C111/A.21.11. Ductile shall be encased in polyethylene encasement in accordance with ANSI/AWWA C105/A21.5.

Connections to existing sewer pipe shall be made with Non-Shear couplings, Fernco Strongback RC Series or equal. The couplings shall be equipped with stainless steel bands.

If this item is to be used at locations of sewer removal and replacement, the Contractor shall excavate and expose the existing sanitary sewer to determine the exact limits of removal and replacement. The existing sanitary sewer shall be sawcut to separate that portion of the pipe that is to be removed from that which will remain. The Contractor shall be responsible for bypass pumping the existing sanitary flow during replacement of the pipe. This work will be included in this pay item. Sandbagging/plugging the existing sanitary sewer to remain will not be allowed without prior approval from the Engineer and/or Village. Any existing sanitary services located on a sections of pipe to be removed and replaced with ductile iron pipe shall be connected to the new pipe with a tee or wye (as necessary). Reconnecting services shall be paid for as SANITARY SERVICE CONNECTION TO NEW SEWER. All necessary sanitary service pipe shall be paid for as SANITARY SERVICE REPLACEMENT.

Measurement and Payment. This work shall be measured and paid for at the contract unit price per lineal foot for SANITARY SEWER, DUCTILE IRON of the diameter specified, which price shall include all labor; excavation; materials, including pipe, structure and pipe connections, fittings and bedding; backfilling, compacting and removal of spoils; dewatering; and equipment necessary to complete the work as specified herein.

Placement and compaction of TRENCH BACKFILL, SPECIAL shall be paid for separately.

SANITARY SEWER, PVC

Description. This work shall consist of placing new PVC sanitary sewer pipe at locations shown on the plans and as directed by the ENGINEER.

Construction Requirements. The excavation, bedding, pipe laying, backfilling, and clean up shall be completed in accordance with the applicable portions of Divisions II and III of the "Standard Specifications for Water and Sewer Main Construction in Illinois". The bedding for the pipe shall be placed from 4" below the pipe to 12" over the top of the pipe. The cost for the bedding shall be included in the work.

PVC sanitary sewer shall be SDR 26 polyvinyl chloride (PVC) pipe conforming to ASTM D-2241 with joints conforming to ASTM D-3212 or D-2855.

Connections to existing sewer pipe shall be made with Non-Shear couplings. The couplings shall be equipped with stainless steel bands.

Sanitary services shall be connected to the new sewer using PVC tee or wye fittings. The sanitary service shall be connected to the tee/wye using non-shear couplings. All fittings required and couplings required to effect connections between the new sanitary sewer and sanitary services shall be paid for as SANITARY SERVICE CONNECTION TO NEW SEWER. All necessary sanitary service pipe shall be paid for as SANITARY SERVICE REPLACEMENT.

All labor; excavation; materials, including pipe, structure connections, fittings and bedding; backfilling, compacting and removal of spoils; dewatering/bypass pumping; and equipment necessary to complete the work as specified herein shall be included in the cost of the item.

Trench backfill shall be paid for separately and installed in accordance with TRENCH BACKFILL, SPECIAL, as specified elsewhere in these Special Provisions and as shown on the detail in the plans.

Measurement and Payment. This work will be paid for at the contract unit price per foot for SANITARY SEWER, PVC of the diameter specified.

SANITARY SEWER, PVC (POINT REPAIR)

Description. This work shall consist of removing portions of existing sanitary sewer and replacing the removed portions with new sanitary sewer pipe at the same location, as determined necessary during previously completed sewer televising and as approved by the Engineer.

Construction Requirements. The point repair locations shown on the plans are approximate. The locations and limits of the removals and replacement shall be determined during pre-construction televising of the existing sewers. Sewer Televising of the existing sewer segments with proposed point repairs shall be included in the cost of this item. The Contractor shall excavate and expose the existing sewer at these locations to determine the exact limits of removal and replacement.

The excavation, bedding, pipe laying, backfilling, and clean up shall be completed in accordance with the applicable portions of Divisions II and III of the "Standard Specifications for Water and Sewer Main Construction in Illinois". The bedding for the pipe shall be placed

from 4" below the pipe to 12" over the top of the pipe. The cost for the bedding shall be included in the work.

Sanitary sewer shall be SDR 26 polyvinyl chloride (PVC) pipe conforming to ASTM D-2241 with joints conforming to ASTM D-3212 or D-2855.

Connections to existing sewer pipe shall be made with Non-Shear couplings. The couplings shall be equipped with stainless steel bands.

Sanitary services shall be connected to the new sewer using PVC tee fittings. Reconnecting services shall be paid for separately as SANITARY SERVICE CONNECTION TO NEW SEWER.

The Contractor shall excavate and expose the existing sanitary sewer to determine the exact limits of removal and replacement. The existing combined sewer shall be sawcut to separate that portion of the pipe that is to be removed from that which will remain. The Contractor shall be responsible for bypass pumping the existing sanitary flow during replacement of the pipe. This work will be included in this pay item. Sandbagging/plugging the existing sanitary sewer to remain will not be allowed without prior approval from the Engineer and/or Village.

All labor; excavation; materials, including pipe, structure connections, fittings and bedding; backfilling, compacting and removal of spoils; dewatering; sewer plugging and bypass pumping; and equipment necessary to complete the work as specified herein shall be included in the cost of the item.

Trench backfill shall be paid for separately and installed in accordance with TRENCH BACKFILL (SPECIAL), as specified elsewhere in these Special Provisions and as shown on the detail in the plans.

Measurement and Payment. This work will be paid for at the contract unit price per foot for SANITARY SEWER, PVC (POINT REPAIR), of the diameter specified, which price shall include all labor; excavation; materials, including pipe, structure and pipe connections, fittings and bedding; backfilling, compacting and removal of spoils; dewatering; and equipment necessary to complete the work as specified herein.

Placement and compaction of TRENCH BACKFILL, SPECIAL shall be paid for separately.

SANITARY SEWER, PVC (C900)

Description. This work shall include installation of water main-quality sanitary sewers at locations shown on the plans and as directed by the Engineer. This work shall conform to applicable sections of the Standard Specifications and the Standard Specifications for Water and Sewer Main Construction in Illinois (Sixth Edition) and the Village Standard details.

The following pipe types are acceptable for use for this item:

- PVC pressure pipe and fabricated fittings (water main quality) in accordance with AWWA C-900 for sizes 4"-12" or AWWA C-905 for sizes 14"-48". PVC pipe joints shall

be flexible elastomeric seals per ASTM D-3139 and F-477.

Connections to existing sewer pipe shall be made with Non-Shear couplings, Fernco Strongback RC Series or equal. The couplings shall be equipped with stainless steel bands.

The Contractor shall excavate and expose the existing sanitary sewer to determine the exact limits of removal and replacement. The existing sanitary sewer shall be sawcut to separate that portion of the pipe that is to be removed from that which will remain. The Contractor shall be responsible for bypass pumping the existing sanitary flow during replacement of the pipe. This work will be included in this pay item. Sandbagging/plugging the existing sanitary sewer to remain will not be allowed without prior approval from the Engineer and/or Village. Any existing sanitary services located on a sections of pipe to be removed and replaced with water main quality pipe shall be connected to the new pipe with a tee or wye (as necessary). Reconnecting services shall be paid for as SANITARY SERVICE CONNECTION TO NEW SEWER. All necessary sanitary service pipe shall be paid for as SANITARY SERVICE REPLACEMENT.

Measurement and Payment. This work shall be measured and paid for at the contract unit price per lineal foot for SANITARY SEWER, PVC (C900), of the diameter specified, which price shall include all labor; excavation; materials, including pipe, structure and pipe connections, fittings and bedding; backfilling, compacting and removal of spoils; dewatering; and equipment necessary to complete the work as specified herein.

Placement and compaction of TRENCH BACKFILL, SPECIAL shall be paid for separately.

ABANDON EXISTING SEWERS

Description. This work shall consist of the abandonment of portions of existing sewer pipes as shown on the plans and as directed by the Engineer to construct the proposed improvements.

Sewers to be abandoned shall be plugged at both ends with a minimum of two (2) feet of non-shrink concrete/mortar plugs to the satisfaction of the Engineer. Pumping access points shall be at the proposed excavation locations.

Basis of Payment. All labor, materials and equipment necessary to complete the work as specified for ABANDON EXISTING SEWERS shall not be paid for separately but shall be included in the bid price for the installation of the proposed items of work.

EXISTING SEWER REMOVAL

Description. This work shall consist of the removal of existing sewers or culverts that are in direct conflict with the proposed improvements. Existing sewers that are to be taken out of operation but are not in conflict with the proposed improvements shall be abandoned as specified for ABANDON EXISTING SEWERS.

Existing sewers shall be removed only as directed by the Engineer. Excavated pipe material shall be disposed of by the Contractor in accordance with Article 202.03 of the Standard Specifications.

The ends of the existing sewers shall be plugged as specified for ABANDON EXISTING SEWERS.

Trenches resulting from the removal of sewers shall be backfilled in accordance with the applicable requirements of Article 550.07. Backfill of removal trenches (including Trench Backfill) shall be included in this item.

Basis of Payment. All labor, materials and equipment necessary to complete the work as specified for EXISTING SEWER REMOVAL shall not be paid for separately but shall be included in the bid price for the installation of the proposed items of work.

SHUTDOWN CONNECTION TO EXISTING WATER MAIN

Description. This work shall consist of the furnishing of all labor, tools, and equipment necessary to affect a connection of a new water main to the existing water main. This work shall include taking the existing water main out of service and cutting, capping and abandoning the existing water main as shown on the plans. Temporary water system shutdowns shall be as specified elsewhere for TEMPORARY WATER SHUTDOWNS. This work shall be performed as shown on the plans and in accordance with applicable Village Standard Details.

Installation. All materials shall be on hand before work is undertaken to minimize the time necessary to complete the work required. Only Water Department Personnel will be in charge of closing system valves, but the Contractor shall lend any assistance necessary to expedite the shutdown. In addition, the Contractor shall distribute notices of water service interruptions door to door as directed by the Engineer.

Once water service has been shut down by the Village, the Contractor shall cut the existing water main, remove pipe as necessary to accommodate connection to the new main. Contractor shall then complete the water main connection and abandon and plug/cap and block the existing water main as shown on the plans. All mechanical joints for water main pipe shall be MegaLug or approved equal. Abandonment of water main shall be as specified elsewhere for ABANDON EXISTING WATER MAIN.

The Contractor shall be required to furnish any and all pipefittings, required jointing materials, and all work necessary to complete the connection as specified. This includes but not limited to any necessary plugs, blocks, corporation stops, sleeves, mechanical joints, reducers and water main pipe. All fittings and pipe that are installed under this item shall be placed on a bedding in accordance with the plans. Pipe fittings shall not be paid for separately but shall be included in the cost of the work as specified. In addition, whenever a connection is made and a portion of the existing system will not be subject to the chlorination procedure for the new main, the Contractor shall provide tablet disinfection procedures as described in Section 41-2.14C (3) of the Water and Sewer Standard Specifications. All other items required for restoration (i.e. pavement patches, sodding, etc.) will be paid for under the specific pay item in the contract. After the connection has been made, a visual inspection shall be made for leaks under system pressure, irrespective of the pressure test that may be required under

other provisions in the contract. If no visual leaks are detected, the excavation shall be backfilled with materials as directed by the Village.

Basis of Payment. This work will be paid for at the contract unit price per each for SHUTDOWN CONNECTION TO EXISTING WATER MAIN, of the size specified, which price shall include all labor, material, and equipment necessary to complete the work as specified, including granular bedding, granular backfill and all pipe/pipefittings, including cut-in sleeves and reducers, necessary to complete the work.

TEMPORARY WATER SHUTDOWNS

Description. The Village water division shall be notified at least forty-eight (48) hours (not including holidays and weekends) in advance of any water shutdown. The Village will determine what residences will be affected by the shutdown and supply to the Contractor shut-off notice handouts and those areas to be notified. The Contractor shall be responsible for distributing handouts to affected residences. The turning of any valve other than those installed but not yet accepted by the Village shall be performed by water division personnel. Before the system is returned to service, a fire hydrant must be opened to relieve any air in the line and to flush the system. After the system is fully flushed, Contractor will collect chlorine residual and bacteriological samples. Another sample will be collected after 24 hours.

Basis of Payment. This work will not be paid for separately but shall be included in the bid price for SHUTDOWN CONNECTION TO EXISTING WATER MAIN.

SITE DEWATERING

Description. Work consists of providing labor, tools, equipment, and materials necessary to dewater the related work areas of the Project to relatively dry conditions and maintain suitable working conditions so that the modifications/improvements may be constructed in the dry.

Products. Contractor shall be responsible for the choice of the product(s) and equipment as well as “means and methods” for the Site Dewatering Work to be performed subject to the review of the Engineer. All products and “means and methods” selected shall be adequate for the intended use/application. Engineer’s review does not relieve the Contractor from compliance with the requirements of the Drawings and Specifications and the requirements of this special provision.

Submittals. Contractor shall submit to the Village’s Representative for review a description of dewatering techniques and equipment to be used, together with detail drawings showing lengths of discharge piping and point(s) of discharge including erosion control procedures. Note: Village’s Representative review of dewatering techniques and equipment shall in no way be construed as creating any obligation on the Village’s Representative for same.

Responsibility. The Contractor shall be solely responsible for the choice of product(s) and equipment; for the design, installation, and operation; as well as “means and methods” of performing the Work; and subsequent removal of dewatering systems and their safety and conformity with local codes, regulations and these Specifications. All product(s), equipment and “means and methods” selected shall be adequate for the intended use/application.

Review by Village's Representative does not relieve Contractor from compliance with the requirements specified herein.

General Requirements. The Contractor shall select the pumps he/she desires to use and the rate at which the pumps discharge, but adequate protection at the pump discharge shall be provided by the Contractor, subject to review by the Engineer. The Contractor shall ensure that downstream water quality shall not be impaired.

At all times during the excavation period and until completion and acceptance of the Work at Final Inspection, ample means and equipment shall be provided with which to remove promptly and dispose of properly all water entering any excavation or any other parts of the Work.

Water pumped or drained from the work required for this Contract shall be disposed of in a safe and suitable manner without damage to adjacent property or streets or to other work under construction. Water shall not be discharged onto streets without adequate protection of the surface at the point of discharge. No water shall be discharged into combined sewers.

No water containing settleable solids shall be discharged into storm sewers. Any and all damages caused by dewatering the work site shall be promptly repaired by the Contractor. The Contractor is responsible for providing any and all labor, materials and equipment needed for the SITE DEWATERING in order to meet the scheduled completion of the project.

Method of Measurement: No separate measurement will be made for SITE DEWATERING.

Basis of Payment. Payment for the work specified will be made at the contract lump sum price for SITE DEWATERING. The allowable lump sum bid price for shall be limited to a maximum of **two percent (2%)** of the total contract amount. Any bids exceeding this amount may be rejected at the discretion of the Village.

STORM SEWERS, DUCTILE IRON

Description. This work shall include installation of ductile iron storm sewers at locations shown on the plans and as directed by the Engineer. This work shall conform to applicable sections of the Standard Specifications and the Standard Specifications for Water and Sewer Main Construction in Illinois (Current Edition) and the Village Standard details.

The following pipe types are acceptable for use as STORM SEWERS, DUCTILE IRON, of the diameter specified:

- Ductile Iron pipe (Class 50) conforming to ANSI/AWWA C151/A.21.51 with joints conforming to ANSI/AWWA C111/A.21.11. Ductile shall be encased in polyethylene encasement in accordance with ANSI/AWWA C105/A21.5.

Connections to existing sewer pipe shall be made with Non-Shear couplings, Fernco Strongback RC Series or equal. The couplings shall be equipped with stainless steel bands.

Measurement and Payment. This work shall be measured and paid for at the contract unit price per lineal foot for STORM SEWERS, DUCTILE IRON, of the diameter specified of the type and diameter specified, which price shall include all labor; excavation; materials, including pipe, structure and pipe connections, fittings and bedding; backfilling, compacting and removal of spoils; dewatering; and equipment necessary to complete the work as specified herein.

Placement and compaction of TRENCH BACKFILL, SPECIAL shall be paid for separately.

STORM SEWERS, PVC

Description. This work shall include installation of PVC storm sewers at locations shown on the plans and as directed by the Engineer. This work shall conform to applicable sections of the Standard Specifications and the Standard Specifications for Water and Sewer Main Construction in Illinois (Current Edition) and the Village Standard details.

The following pipe types are acceptable for use as STORM SEWERS, PVC, of the diameter specified:

- PVC storm sewer shall be SDR 26 polyvinyl chloride (PVC) pipe conforming to ASTM D-2241 with joints conforming to ASTM D-3212 or D-2855.

The following pipe types are acceptable for use as STORM SEWERS, PVC (C900), of the diameter specified:

- PVC pressure pipe and fabricated fittings (water main quality) in accordance with AWWA C-900 for sizes 4"-12" or AWWA C-905 for sizes 14"-48". PVC pipe joints shall be flexible elastomeric seals per ASTM D-3139 and F-477.

The storm sewers shall be handled in such a manner as to prevent damage to the pipe or joint/gasket. Accidental damage to the pipe or joint/gasket shall be repaired to the satisfaction of the ENGINEER, or be removed from the job, and the methods of handling shall be corrected to prevent further damage when called to the attention of the CONTRACTOR.

The pipe shall be inspected by the ENGINEER for defects prior to installation. Dirt or other foreign material which might prevent a watertight seal between pipe sections shall be removed to the satisfaction of the ENGINEER prior to installation. If any pipe end or gasket has been installed with dirt or foreign material therein, it shall be removed, cleaned and reinstalled.

Method of Measurement and Basis of Payment. This work shall be paid for at the contract unit price per lineal foot for STORM SEWERS, PVC of the diameter specified, or STORM SEWERS, PVC (C900) of the diameter specified.

TEMPORARY PATCHING (COLD PATCH)

Description. This work shall consist of constructing temporary asphalt patches as directed by the ENGINEER. The temporary patch shall be installed to a depth of at least 2", unless otherwise approved by the ENGINEER. The CONTRACTOR shall use cold patch at locations

directed by the Engineer. With approval from the ENGINEER, the contractor may elect to use Hot-Mix Asphalt in lieu of cold patch. Prior to placement the CONTRACTOR must submit to the ENGINEER a mix design for approval. The number of lifts required to place the material will be determined in the field by the ENGINEER. All work shall be performed in accordance with Section 355 or 406 of the Standard Specifications.

TEMPORARY PATCHING shall be placed at locations directed by the ENGINEER, as needed to provide vehicular and pedestrian access for roads, driveways, sidewalks, etc.

This work shall include removal of any temporary stone as necessary to place the temporary pavement patch. The cost to remove the temporary patch shall be included in the cost of the permanent pavement.

The existing pavement shall be saw cut prior to the installation of the patch.

Method of Measurement and Basis of Payment. This work will be measured and paid for at the contract unit price per square yard for TEMPORARY PATCHING (COLD PATCH).

TEMPORARY STONE

Description. This work shall consist of furnishing, placing, compacting, maintaining, relocating and disposing of temporary stone for the purposes of maintaining vehicular/pedestrian access, property access and general safety throughout the site, as directed by the Engineer. TEMPORARY STONE shall be utilized to provide temporary access to driveways, sidewalks/curb ramps and roadways and shall be utilized to backfill all trenches and excavations at the end of each business day, in accordance with the Special Provision for PUBLIC CONVENIENCE AND SAFETY and as directed by the Engineer.

TEMPORARY STONE shall be constructed of aggregate in accordance with the applicable portions of Section 351 of the Standard Specifications and to the dimensions determined by the Engineer. The coarse aggregate shall be crushed stone or crushed gravel, gradation CA-6. HMA grindings shall also be acceptable.

Recycled CA-6 will be allowed for use as TEMPORARY STONE, but will not be allowed for use under curb and gutter, sidewalks, driveways, etc.

TEMPORARY STONE may not be reused as TRENCH BACKFILL, SPECIAL without the prior approval of the Engineer.

Construction. This work shall be maintained and kept in a satisfactory condition. Any deficiencies will be reported to the Contractor by the Engineer and shall be restored to satisfactory condition within 1 hour. If the access and/or condition is not made satisfactory within the 1 hour, the Village will charge liquidated damages in the amount of \$300.00 per hour (minimum charge of two hours plus materials) from the time of initial notice until the correction is accepted.

Basis of Payment. This work will be paid for at the contract lump sum price for TEMPORARY STONE, which price shall be payment in full for furnishing, transporting, placing, maintaining

and removing, reusing or disposing of the aggregate, as herein specified and as directed by the Engineer. The allowable lump sum bid price for shall be limited to a maximum of **two percent (2%)** of the total contract amount. Any bids exceeding this amount may be rejected at the discretion of the Village.

TREES

Description: This work shall consist of furnishing and installing trees in accordance with Section 253 of the Standard Specifications and ANSIZ133.1. The Village and/or Park District will designate the location and type of tree to be installed.

All trees shall be 3" caliper, balled, burlapped, transported, planted, mulched and receive one watering. Trees shall not be planted in locations that will interfere with existing or proposed utilities, and aerial utility lines.

Codes and Reference Standards: All materials shall conform to the standards adopted by the American Association of Nurserymen.

Scheduling: Fall planting shall be performed from the time the plant becomes dormant until the ground cannot be satisfactorily worked except that evergreen planting shall be performed between September 1 and November 1.

Shredded Harwood Bark Mulch: Shredded hardwood bark mulch shall be free of harmful chemicals, diseases, and insects. Mulch shall have a minimum 1/8 inch dimension and a maximum length of 2-1/2".

Surface Conditions: Apply a total non-plant selective herbicide to the outline of all mass planting beds. Follow manufactures instructions for use and applications. Herbicide to be applied by a licensed applicator. Sod stripping, if necessary, shall be included. After herbicide manufacture recommendations for sufficient time to perform removes existing turf and vegetation debris. Dispose of offsite.

Excavation of Plant Holes:

Shape: The sides of all plant holes shall be sloped and the bottoms horizontal.

Size: Tree excavations shall be the ball depth by the ball diameter plus 24 inches. Shrub excavations shall be dug to the depth of the root ball and the ball diameter plus 18 inches. Ground cover shall be a minimum diameter and depth of the container plus 8 inches.

All excess excavated material shall be removed from the site, become property of the Contractor, or dumped at a legal offsite location. Removal and disposal of any roots encountered during excavation of the plant hole shall be considered incidental to this item.

Planting: Remove all rocks and debris over 1" in diameter from top 3" of planting beds. Remove top two inches of existing soil from entire surface of mass planting beds. Apply a 3" layer of Mushroom compost over entire surface of mass planting beds. Prepared backfill shall consist of a mixture of top soil and peat moss at a ratio of 1 cubic yard soil, 3 cubic feet of peat moss. Prepared backfill soil shall be in a loose friable

condition at the time of planting. All plants shall be placed in a plumb position and set at the same depth and orientation as they grew in the nursery field. Tamping or watering shall accompany the backfilling operation to eliminate air pockets.

Balled and Burlapped Plants: After the plant is placed in the hole, all cords and burlap shall be cut away from the trunk and the burlap and any wire baskets removed from the top of the ball.

Watering: Within two hours after the tree has been placed, tree shall be substantially watered.

Basis of Payment: This work shall be paid for at the contract unit price per EACH for TREES which includes excavation, disposal of excavated material, staking and ties, tree wrap, furnishing and placing mulch and all incidental work herein specified.

UNDERDRAIN CLEANOUT

Description. This work shall be done in accordance with Section 601 of the Standard Specifications, these Special Provisions, and the Detail in the Plans; and shall consist of installing pipe drain cleanouts at the locations shown in the plans or as determined by the Engineer at the time of construction. Fittings shall be solvent welded. The installation of a pipe drain cleanout shall include all excavation; and providing, placing, and compacting granular trench backfill material. The cleanouts in the proposed Springdale Park field shall have closed caps. Contractor shall submit shop drawings prior to ordering material.

This item is intended for use as maintenance access for the underdrain system.

Method of Measurement and Basis of Payment. This work will be paid for at the contract unit price per EACH for UNDERDRAIN CLEANOUT which price shall include a connection to the pipe drain, including all backfill (Trench Backfill as necessary), fittings, caps, and all connections.

WATER SERVICE – FURNISHING 6-MONTH WATER FILTER

Description: This work shall consist of furnishing and providing a 6-month water filter to the property owner after the replacement of any lead water service line (full or partial), in accordance with the current Illinois Environmental Protection Agency (IEPA) regulations and Federal Laws.

Materials: The water filter provided shall be certified to meet NSF/ANSI Standard 53 for lead reduction and shall be capable of filtering lead from drinking water for a minimum of 6 months. The Contractor shall submit the proposed filter and corresponding specifications to the Engineer for approval prior to ordering.

Construction Requirements:

1. Delivery and Installation:

- The Contractor shall deliver the water filter to the property owner no later than the day of completing the lead service line replacement. If the structure is multi-unit, each unit/tenant shall be issued a filter.
- The Contractor shall provide instructions for the installation and maintenance of the water filter to the property owner.

2. Documentation:

- The Contractor shall provide documentation to the Engineer confirming the delivery of the water filter to the property owner or providing the Engineer with the filter to be delivered on the Contractors behalf.
- The documentation shall include the make and model of the water filter, quantity of filters provided, certification of compliance with NSF/ANSI Standard 53, and the date of delivery.

Method of Measurement: This work will be measured for payment as EACH water filter furnished and delivered to the property owner (or tenant for multi-unit buildings).

Basis of Payment: This work will be paid for at the contract unit price per EACH WATER SERVICE – FURNISHING 6-MONTH WATER FILTER, which price shall include all materials, labor, equipment, and documentation required to complete the work as specified.

WATER SERVICE (LEAD) – INTERIOR RESTORATION

Description. This work consists of the interior restoration of buildings to repair any damages caused by the lead water service replacement work.

General. Interior restoration shall include removal, disposal, and replacement of structural components of the flooring and/or walls as well as restoration of flooring materials, drywall, trim, paint, etc. The interior of each building shall be restored to preconstruction conditions or better. Contractor shall be responsible for documenting the pre-project condition of each building. This work will be performed in accordance with the special provision for VIDEOTAPING (INTERIOR AND EXTERIOR) and shall be included in the cost of this item.

Method of Measurement and Basis of Payment. This work shall be measured and paid for at the contract unit price per each building/residence as WATER SERVICE (LEAD) – INTERIOR RESTORATION, which payment shall be full compensation for all labor, materials and equipment necessary to completely restore the interior of buildings with interior lead service replacement work to preconstruction conditions or better as specified.

VIDEOTAPING (INTERIOR AND EXTERIOR)

Description. The Contractor shall prepare preconstruction and post-construction video documentation of all home interior and exterior features that will be affected by lead water service replacements.

Video Requirements. Video camera recorders shall be HD format equipment. Preconstruction and post-construction video documentation shall consist of a series of high-resolution color audio-video tapes. All pertinent exterior features within the

construction's zone of influence shall be shown in sufficient detail to document their preconstruction and post-construction condition. Features to be shown shall include but not be limited to pavements, curbs, driveways, sidewalks, landscape retaining walls, buildings, landscaping trees, shrubbery, fences, light posts, etc. View orientation shall be maintained by audio commentary on the audio track of each video to help explain what is being viewed. The Contractor will be held liable for any damages that are not shown on the pre-construction video.

For interior videotaping, the Contractor shall document all areas affected by the proposed work including existing foundation or slab cracks, or other existing damage. Video shall also be obtained following restoration of the building interior.

Deliverable. The Contractor shall provide two thumb drives each of the preconstruction and post-construction videos to the Engineer. Any video(s) that is/are deemed incomplete (or of poor quality) by the Engineer shall be corrected by the Contractor.

Basis for Payment. This work shall not be paid for separately, but shall be included in the cost of WATER SERVICE (LEAD) – INTERIOR RESTORATION.

WATER SERVICE REPLACEMENT – ASBESTOS ABATEMENT

Description. This work shall consist of removing and disposing friable and non-friable asbestos within the limits of the water service replacement and shall be done according to the requirements of the U.S. Environmental Protection Agency (USEPA), the Illinois Environmental Protection Agency (IEPA), Illinois Department of Health (IDPH), Cook County Department of Environment and Sustainability and the Occupational Safety and Health Administration (OSHA).

The work shall be performed by a Contractor or subcontractor prequalified with the Illinois Capital Development Board.

Asbestos abatement is anticipated to be limited to 3 square feet or less. All permitting and necessary air testing required in accordance with local and state agency requirements shall be included in the cost of this item. The Village shall be notified in advance of any abatement work anticipated to exceed 3 square feet.

Method of Measurement and Basis of Payment. The removal, disposal and/or abatement of asbestos material encountered and disturbed during lead service line replacement work, and all required testing and permitting, shall be paid for in accordance with the special provision for MISCELLANEOUS ADDITIONS TO THE PROJECT AT THE VILLAGE'S DISCRETION.

WATER SERVICE REPLACEMENT (PRIVATE) – LEAD SERVICE REPLACEMENT

Description. This work shall consist of the replacement of lead water services on the private side of the curb stop as designed herein.

General. Where existing lead services are encountered on private property, exterior private water services shall be completely replaced regardless of whether the existing service is

located in the front yard or side yard. For any property where an existing private lead water service is encountered, the service shall be replaced as follows:

- Where the water meter is located inside the house, the private service shall be replaced from the b-box to the existing shut-off valve or 18-inches inside of the house. If there is no shut-off valve, the Contractor shall install a valve that meets the requirements of the current Illinois Plumbing Code. Water meters shall not be replaced.
- Where the water meter is located outside the house, the lead service shall be replaced from the b-box, thru the meter, to the nearest interior shut off valve or 18 inches inside of the house, whichever is closer. If there is no shut-off valve, the contractor shall install a valve that meets the requirements of current Illinois Plumbing Code. The water meter shall not be replaced.

Construction Requirements. All work shall be performed in accordance with ANSI/AWWA Standard C810-17, Replacement and Flushing of Lead Service Lines and the Illinois Plumbing Code.

The Contractor shall install the water service pipe to the water meter by method of trenchless installation. The water service shall be one continuous length. The use of couplings, joints, etc. will not be allowed. If the Contractor plans on using the pipe pulling method, he/she shall have a horizontal directional drill on site in the event the pipe pulling method is unsuccessful. Upon approval of the Engineer, the Contractor may install the water service pipe in an open trench. If an open trench is utilized, the trench shall be backfilled with excavated material. The excavated material shall be compacted in 12-inch lifts to the satisfaction of the Engineer.

The water service material shall be 1-inch diameter Type K copper Splicing of the water service pipe will not be permitted.

Coring of concrete floor slabs and foundation walls shall comply with the following:

Coring of Concrete Floor Slabs

For buildings without basements, the Contractor shall core drill the concrete floor slab to allow for penetration of the water service pipe. The use of breakers or concrete saws to cut through the floor slab will not be allowed. The Contractor shall exercise caution to prevent damage to the floor slab caused by the coring operation. After all work is completed, the cored hole shall be completely sealed with hydraulic cement to prevent water infiltration. The hydraulic cement shall be a high-quality, engineer approved material.

Coring of Foundation Walls

For houses with basements, the service will be installed through the foundation/basement wall in lieu of the basement floor unless otherwise directed by the Engineer. The Contractor will be allowed to core drill through the basement wall as part of the same trenchless installation operation of the private service. If the Contractor is unable to perform this task, either by lack of satisfactory performance (as determined by the Village) or existing condition limitations, the service will be installed through the basement wall as follows:

An exterior pit shall be hand excavated. Hydro excavation will not be allowed. The Contractor shall core drill the existing foundation wall to allow for the penetration of the water service pipe.

The interior and exterior of the cored hole shall be completely sealed with hydraulic cement to prevent water infiltration. The hydraulic cement shall be a high-quality, engineer approved material. If the cored hole is exposed on the outside of the building, a coating of roof cement shall be added to the exterior of the foundation wall and should completely coat the seams of the cored hole. The Contractor shall exercise caution to prevent damage to the foundation caused by the coring operation. Upon completion of all work, the exterior pit shall be backfilled with excavated material compacted in 12-inch lifts.

The existing water meter shall remain and shall not be removed. All material necessary to connect the new water service to the existing plumbing shall be provided and installed by the Contractor's licensed plumber. All interior water service pipe material shall be type "L" copper pipe; 1-inch diameter on the upstream side of the meter; 3/4-inch size (or match existing) on the downstream side of the meter, as necessary. The Contractor is responsible for any modifications to the interior plumbing necessary to install the new water service.

The Contractor shall be responsible for removing and properly disposing of any debris generated by the work on the interior and exterior of the home, including any obsolete lead plumbing material generated by the internal plumbing work. If it is necessary to move fixtures to complete the work, they shall be placed in their original location after completion of the work.

This work shall also include abandoning the exterior lead water service. The lead water service line shall be cut, capped, and abandoned in place

Restoration. All landscape and hardscape removal and restoration shall be included in this item. This shall include, but not be limited to, removal and replacement of existing decks, sidewalks, patios, decorative landscaping, grassed areas, walkways, trees, bushes etc., required to install the private water service. No separate payment shall be allowed for these items and the Village's intent is to minimize private property impacts through the use of trenchless installations. All private property shall be restored to pre-construction conditions or better. All grassed areas shall be restored with a minimum of 4" of topsoil and sodding, unless otherwise directed by the Engineer. Sodding shall be completed as specified for PARKWAY RESTORATION – SODDING, except that the work shall be included in the cost of WATER SERVICE REPLACEMENT (PRIVATE) – LEAD SERVICE REPLACEMENT and will not be paid for separately.

The private water layout shall be approved by the Engineer prior to installation. The bid price for this item shall include the cost of all work to be done on private property for each private water service.

The public portion of the water service (i.e. portion located within the public ROW) shall be installed and paid for in accordance with the special provision for WATER SERVICE REPLACEMENT, SHORT SIDE or WATER SERVICE REPLACEMENT, LONG SIDE.

Basis of Payment. This work shall be measured and paid for at the contract unit price per foot for WATER SERVICE REPLACEMENT (PRIVATE) – LEAD SERVICE REPLACEMENT.

WATER SERVICE REPLACEMENT, LONG SIDE
WATER SERVICE REPLACEMENT, SHORT SIDE

Description. This work shall consist of the complete removal or abandonment of existing water service to the right-of-way line and replacing and reconnecting a new copper water service to the existing or proposed water main, as shown on the plans and as directed by the Engineer.

This work shall be completed in accordance with Section 562 of the Standard Specifications, Section 41-2.11 of the Water and Sewer Specifications and applicable Village Standard details and include the installation of a new service line from the water main to a new water service box near the right-of-way line. In the case where an existing water meter/meter pit exists for a property, the new water service box shall be installed between the meter pit and new main, as close to the meter pit as possible.

The work shall include the removal of all existing service boxes and reconnection of the existing services line to the new service line near the right-of-way line. In the case where an existing water meter/meter pit exists for a property, the new water service shall connect to the existing service at the existing meter pit. The Contractor shall provide the fittings necessary to connect new service boxes to the existing lines, regardless of the material composition of existing service lines which may include copper, galvanized iron, or other materials.

Construction Requirements. Copper pipe shall be copper water tube, Type K, soft temper, for underground service conforming to ASTM 8-88 and B-251. The pipe shall be marked with manufacturer's name or trademark and a mark indicative of the type of pipe. The outside diameter of the pipe and minimum weight per foot of the pipe shall not be less than that listed in ASTM B-251, Table 11.

New water services shall be Type K copper lines and shall match the existing service size, except that the minimum size installed shall be 1"-diameter unless otherwise directed by the Village. The Contractor shall be responsible for verifying the size of the existing service prior to the installation of its replacement.

All new service lines shall be directional bored beneath the existing pavement, curb and gutter, and sidewalk unless otherwise allowed by the Engineer.

No splices shall be installed between the corporation stop and the water service box.

All work shall be in accordance with the details on the plans and applicable Village Standard details. Service connections to the proposed water main shall be made individually and in as

short of time as possible after testing and disinfection. No water customer shall be without water in excess of two (2) hours and shall be notified prior to disconnecting service.

All service boxes will be replaced. All new curb stops and service boxes shall be located in the parkway out of driveways and sidewalks and approximately at the right-of-way line. In the case where an existing water meter/meter pit exists for a property, the new curb stop and service box shall be installed between the meter pit and new main, as close to the meter pit as possible. Location of the curb stop and service box shall be approved by the Engineer prior to starting work on the service replacement. The service box shall be installed over the curb stop and held in a truly vertical position until sufficient backfill has been placed to ensure permanent vertical alignment of the box. The top of the box shall be adjusted and set flush with the established ground surface grade.

The installation of the new curb stops and service boxes, and the removal and disposal of the existing curb stops and services boxes will not be paid for separately but shall be included in WATER SERVICE REPLACEMENT.

All water service replacements larger than three (3) inches in diameter shall be paid for as DUCTILE IRON WATER MAIN of the size required.

Method of Measurement and Basis of Payment. This work shall be measured and paid for at the contract unit price each for WATER SERVICE REPLACEMENT, SHORT SIDE and WATER SERVICE REPLACEMENT, LONG SIDE, of the size range noted, which payment shall be full compensation for all work, including disconnecting the existing water service, abandonment or removal of the existing water service as directed by the Engineer, removal and disposal of existing water service boxes and curb stops, tapping the water main, corporation stop, service box, curb stop, copper water service line, connection to the existing water service, bushings, unions, or other fittings to disconnect existing services from the water main to be abandoned, and to reconnect them to the proposed water main. The work shall also include all required excavation and backfill (including Trench Backfill) in accordance with the plans. The work for all other restoration including driveway, sidewalk, curb and gutter, and seeding as shown on the plans shall be paid for separately.

Pay limits for removal and replacement of water services shall extend from the water main to the new service box. Any work required beyond these pay limits due to damage or breakage caused by the Contractor shall be repaired at the Contractor's sole cost.

FRICION AGGREGATE (D-1)

Effective: January 1, 2011

Revised: December 1, 2021

Revise Article 1004.03(a) of the Standard Specifications to read:

“1004.03 Coarse Aggregate for Hot-Mix Asphalt (HMA). The aggregate shall be according to Article 1004.01 and the following.

(a) Description. The coarse aggregate for HMA shall be according to the following table.

Use	Mixture	Aggregates Allowed
Class A	Seal or Cover	<u>Allowed Alone or in Combination</u> ^{5/} : Gravel Crushed Gravel Carbonate Crushed Stone Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) Crushed Steel Slag Crushed Concrete
HMA Low ESAL	Stabilized Subbase or Shoulders	<u>Allowed Alone or in Combination</u> ^{5/} : Gravel Crushed Gravel Carbonate Crushed Stone Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) Crushed Steel Slag ^{1/} Crushed Concrete
HMA High ESAL Low ESAL	Binder IL-19.0 or IL-19.0L SMA Binder	<u>Allowed Alone or in Combination</u> ^{5/ 6/} : Crushed Gravel Carbonate Crushed Stone ^{2/} Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) Crushed Concrete ^{3/}
HMA High ESAL Low ESAL	C Surface and Binder IL-9.5 IL-9.5FG or IL-9.5L	<u>Allowed Alone or in Combination</u> ^{5/} : Crushed Gravel Carbonate Crushed Stone ^{2/} Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) Crushed Steel Slag ^{4/} Crushed Concrete ^{3/}

Use	Mixture	Aggregates Allowed	
HMA High ESAL	D Surface and Binder IL-9.5 or IL-9.5FG	<u>Allowed Alone or in Combination</u> ^{5/} :	
		Crushed Gravel Carbonate Crushed Stone (other than Limestone) ^{2/} Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) Crushed Steel Slag ^{4/}	
		<u>Other Combinations Allowed:</u>	
		<i>Up to...</i>	<i>With...</i>
		25% Limestone	Dolomite
HMA High ESAL	E Surface IL-9.5 SMA Ndesign 80 Surface	<u>Allowed Alone or in Combination</u> ^{5/ 6/} :	
		Crushed Gravel Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) Crushed Steel Slag No Limestone.	
		<u>Other Combinations Allowed:</u>	
		<i>Up to...</i>	<i>With...</i>
		50% Dolomite ^{2/}	Any Mixture E aggregate
75% Dolomite ^{2/}	Crushed Sandstone, Crushed Slag (ACBF), Crushed Steel Slag, or Crystalline Crushed Stone		

Use	Mixture	Aggregates Allowed	
		75% Crushed Gravel ^{2/}	Crushed Sandstone, Crystalline Crushed Stone, Crushed Slag (ACBF), or Crushed Steel Slag
HMA High ESAL	F Surface IL-9.5 SMA Ndesign 80 Surface	<u>Allowed Alone or in Combination</u> ^{5/ 6/} :	
		Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) Crushed Steel Slag No Limestone.	
		<u>Other Combinations Allowed:</u>	
		<i>Up to...</i>	<i>With...</i>
		50% Crushed Gravel ^{2/} or Dolomite ^{2/}	Crushed Sandstone, Crushed Slag (ACBF), Crushed Steel Slag, or Crystalline Crushed Stone

- 1/ Crushed steel slag allowed in shoulder surface only.
- 2/ Carbonate crushed stone (limestone) and/or crushed gravel shall not be used in SMA Ndesign 80.
- 3/ Crushed concrete will not be permitted in SMA mixes.
- 4/ Crushed steel slag shall not be used as binder.
- 5/ When combinations of aggregates are used, the blend percent measurements shall be by volume.”
- 6/ Combining different types of aggregate will not be permitted in SMA Ndesign 80.”

HOT-MIX ASPHALT BINDER AND SURFACE COURSE (D-1)

Effective: November 1, 2019

Revised: December 1, 2021

Revise Article 1004.03(c) to read:

“(c) Gradation. The coarse aggregate gradations shall be as listed in the following table.

Use	Size/Application	Gradation No.
Class A-1, A-2, & A-3	3/8 in. (10 mm) Seal	CA 16 or CA 20

Class A-1	1/2 in. (13 mm) Seal	CA 15
Class A-2 & A-3	Cover Coat	CA 14
HMA High ESAL	IL-19.0; Stabilized Subbase IL-19.0	CA 11 ^{1/}
	SMA 12.5 ^{2/}	CA 13 ^{4/} , CA 14, or CA 16
	SMA 9.5 ^{2/}	CA 13 ^{3/4/} or CA 16 ^{3/}
	IL-9.5	CA 16, CM 13 ^{4/}
	IL-9.5FG	CA 16
HMA Low ESAL	IL-19.0L	CA 11 ^{1/}
	IL-9.5L	CA 16

1/ CA 16 or CA 13 may be blended with the CA 11.

2/ The coarse aggregates used shall be capable of being combined with the fine aggregates and mineral filler to meet the approved mix design and the mix requirements noted herein.

3/ The specified coarse aggregate gradations may be blended.

4/ CA 13 shall be 100 percent passing the 1/2 in. (12.5mm) sieve.”

Revise Article 1004.03(e) of the Supplemental Specifications to read:

“(e) Absorption. For SMA the coarse aggregate shall also have water absorption ≤ 2.0 percent.”

Revise the “High ESAL” portion of the table in Article 1030.01 to read:

“High ESAL	Binder Courses	IL-19.0, IL-9.5, IL-9.5FG, IL-4.75, SMA 12.5, Stabilized Subbase IL-19.0
	Surface Courses	IL-9.5, IL-9.5FG, SMA 12.5, SMA 9.5”

Revise Note 2. and add Note 6 to Article 1030.02 of the Standard Specifications to read:

“Item	Article/Section
(g)Performance Graded Asphalt Binder (Note 6)	1032
(h)Fibers (Note 2)	

Note 2. A stabilizing additive such as cellulose or mineral fiber shall be added to the SMA mixture according to Illinois Modified AASHTO M 325. The stabilizing additive shall meet the Fiber Quality Requirements listed in Illinois Modified AASHTO M 325. Prior to approval and use of fibers, the Contractor shall submit a notarized certification

by the producer of these materials stating they meet these requirements. Reclaimed Asphalt Shingles (RAS) may be used in Stone Matrix Asphalt (SMA) mixtures designed with an SBA polymer modifier as a fiber additive if the mix design with RAS included meets AASHTO T305 requirements. The RAS shall be from a certified source that produces either Type I or Type 2. Material shall meet requirements noted herein and the actual dosage rate will be determined by the Engineer.

Note 6. The asphalt binder shall be an SBS PG 76-28 when the SMA is used on a full-depth asphalt pavement and SBS PG 76-22 when used as an overlay, except where modified herein. The asphalt binder shall be a SBS PG 76-22 for IL-4.75, except where modified herein..”

Revise table in Article 1030.05(a) of the Standard Specifications to read:

"MIXTURE COMPOSITION (% PASSING) ^{1/}												
Sieve Size	IL-19.0 mm		SMA 12.5		SMA 9.5		IL-9.5mm		IL-9.5FG		IL-4.75 mm	
	min	max	min	max	min	max	min	max	min	max	min	max
1 1/2 in (37.5 mm)												
1 in. (25 mm)		100										
3/4 in. (19 mm)	90	100		100								
1/2 in. (12.5 mm)	75	89	80	100		100		100		100		100
3/8 in. (9.5 mm)				65	90	100	90	100	90	100		100
#4 (4.75 mm)	40	60	20	30	36	50	34	69	60	75 ^{6/}	90	100
#8 (2.36 mm)	20	42	16	24 ^{4/}	16	32 ^{4/}	34 ^{5/}	52 ^{2/}	45	60 ^{6/}	70	90
#16 (1.18 mm)	15	30					10	32	25	40	50	65
#30 (600 μm)			12	16	12	18			15	30		
#50 (300 μm)	6	15					4	15	8	15	15	30
#100 (150 μm)	4	9					3	10	6	10	10	18
#200 (75 μm)	3.0	6.0	7.0	9.0 ^{3/}	7.5	9.5 ^{3/}	4.0	6.0	4.0	6.5	7.0	9.0 ^{3/}
#635 (20 μm)			≤ 3.0		≤ 3.0							
Ratio Dust/Asphalt Binder		1.0		1.5		1.5		1.0		1.0		1.0

1/ Based on percent of total aggregate weight.

- 2/ The mixture composition shall not exceed 44 percent passing the #8 (2.36 mm) sieve for surface courses with Ndesign = 90.
- 3/ Additional minus No. 200 (0.075 mm) material required by the mix design shall be mineral filler, unless otherwise approved by the Engineer.
- 4/ When establishing the Adjusted Job Mix Formula (AJMF) the percent passing the #8 (2.36 mm) sieve shall not be adjusted above the percentage stated on the table.

- 5/ When establishing the Adjusted Job Mix Formula (AJMF) the percent passing the #8 (2.36 mm) sieve shall not be adjusted below 34 percent.
- 6/ When the mixture is used as a binder, the maximum shall be increased by 0.5 percent passing.”

Revise Article 1030.05(b) of the Standard Specifications to read:

- (b) Volumetric Requirements. The target value for the air voids of the HMA shall be 4.0 percent, for IL-4.75 and SMA mixtures it shall be 3.5 percent and for Stabilized Subbase it shall be 3.0 percent at the design number of gyrations. The voids in the mineral aggregate (VMA) and voids filled with asphalt binder (VFA) of the HMA design shall be based on the nominal maximum size of the aggregate in the mix and shall conform to the following requirements.

Mix Design	Voids in the Mineral Aggregate (VMA), % Minimum for Ndesign				
	30	50	70	80	90
IL-19.0		13.5	13.5		13.5
IL-9.5		15.0	15.0		
IL-9.5FG		15.0	15.0		
IL-4.75 ^{1/}		18.5			
SMA-12.5 ^{1/2/5/}				17.0 ^{3/} /16.0 ^{4/}	
SMA-9.5 ^{1/2/5/}				17.0 ^{3/} /16.0 ^{4/}	
IL-19.0L	13.5				
IL-9.5L	15.0				

- 1/ Maximum draindown shall be 0.3 percent according to Illinois Modified AASHTO T 305.
- 2/ The draindown shall be determined at the JMF asphalt binder content at the mixing temperature plus 30°F.
- 3/ Applies when specific gravity of coarse aggregate is ≥ 2.760 .
- 4/ Applies when specific gravity of coarse aggregate is < 2.760 .

- 5/ For surface course, the coarse aggregate can be crushed steel slag, crystalline crushed stone or crushed sandstone. For binder course, coarse aggregate shall be crushed stone (dolomite), crushed gravel, crystalline crushed stone, or crushed sandstone”

Revise the last paragraph of Article 1102.01 (a) (5) of the Standard Specifications to read:

“IL-4.75 and Stone Matrix Asphalt (SMA) mixtures which contain aggregate having absorptions greater than or equal to 2.0 percent, or which contain steal slag sand, shall have minimum surge bin storage plus haul time of 1.5 hours.”

Add after third sentence of Article 1030.09(b) to read:

“If the Contractor and Engineer agree the nuclear density test method is not appropriate for the mixture, cores shall be taken at random locations determined according to the QC/QA document "Determination of Random Density Test Site Locations". Core densities shall be determined using the Illinois Modified AASHTO T 166 or T 275 procedure.”

Revise Table 1 and Note 4/ of Table 1 in Article 406.07(a) of the Standard Specifications to read:

	Breakdown/Intermediate Roller (one of the following)	Final Roller (one or more of the following)	Density Requirement
IL-9.5, IL-9.5FG, IL-19.0 ^{1/}	V _D , P , T _B , 3W, O _T , O _B	V _S , T _B , T _F , O _T	As specified in Section 1030
IL-4.75 and SMA ^{3/ 4/}	T _B , 3W, O _T	T _F , 3W	As specified in Section 1030
Mixtures on Bridge Decks ^{2/}	T _B	T _F	As specified in Articles 582.05 and 582.06.

“4/ The Contractor shall provide a minimum of two steel-wheeled tandem rollers (T_B), and/or three-wheel (3W) rollers for breakdown, except one of the (T_B) or (3W) rollers shall be 84 inches (2.14 m) wide and a weight of 315 pound per linear inch (PLI) (5.63 kg/mm) and one of the (T_B) or (3W) rollers can be substituted for an oscillatory roller (O_T). T_F rollers shall be a minimum of 280 lb/in. (50 N/mm). The 3W and T_B rollers shall be operated at a uniform speed not to exceed 3 mph (5 km/h), with the drive roll for T_B rollers nearest the paver and maintain an effective rolling distance of not more than 150 ft (45 m) behind the paver.”

Add the following after the fourth paragraph of Article 406.13 (b):

“The plan quantities of SMA mixtures shall be adjusted using the actual approved binder and surface Mix Design’s G_{mb} .”

Revise first paragraph of Article 1030.10 of the Standard Specifications to read:

“A test strip of 300 ton (275 metric tons), except for SMA mixtures it will be 400 ton (363 metric ton), will be required for each mixture on each contract at the beginning of HMA production for each construction year according to the Manual of Test Procedures for Materials “Hot Mix Asphalt Test Strip Procedures”. At the request of the Producer, the Engineer may waive the test strip if previous construction during the current construction year has demonstrated the constructability of the mix using Department test results.”

Revise third paragraph of Article 1030.10 of the Standard Specifications to read:

“When a test strip is constructed, the Contractor shall collect and split the mixture according to the document “Hot-Mix Asphalt Test Strip Procedures”. The Engineer, or a representative, shall deliver split sample to the District Laboratory for verification testing. The Contractor shall complete mixture tests stated in Article 1030.09(a). Mixture sampled shall include enough material for the Department to conduct mixture tests detailed in Article 1030.09(a) and in the document “Hot-Mix Asphalt Mixture Design Verification Procedure” Section 3.3. The mixture test results shall meet the requirements of Articles 1030.05(b) and 1030.05(d), except Hamburg wheel tests will only be conducted on High ESAL mixtures during production.”

HOT-MIX ASPHALT – MIXTURE DESIGN VERIFICATION AND PRODUCTION (D1)

Effective: January 1, 2019

Revised: December 1, 2021

Add to Article 1030.05 (d)(3) of the Standard Specifications to read:

“ During mixture design, prepared samples shall be submitted to the District laboratory by the Contractor for verification testing. The required testing, and number and size of prepared samples submitted, shall be according to the following tables.

High ESAL – Required Samples for Verification Testing	
Mixture	Hamburg Wheel and I-FIT Testing ^{1/2/}
Binder	total of 3 - 160 mm tall bricks
Surface	total of 4 - 160 mm tall bricks

Low ESAL – Required Samples for Verification Testing	
Mixture	I-FIT Testing ^{1/2/}

Binder	1 - 160 mm tall brick
Surface	2 - 160 mm tall bricks

- 1/ The compacted gyratory bricks for Hamburg wheel and I-FIT testing shall be 7.5 ± 0.5 percent air voids.
- 2/ If the Contractor does not possess the equipment to prepare the 160 mm tall brick(s), twice as many 115 mm tall compacted gyratory bricks will be acceptable.

Revise the fourth paragraph of Article 1030.10 of the Standard Specifications to read:

“When a test strip is not required, each HMA mixture shall still be sampled on the first day of production: I-FIT and Hamburg wheel testing for High ESAL; I-FIT testing for Low ESAL. Within two working days after sampling the mixture, the Contractor shall deliver gyratory cylinders to the District laboratory for Department verification testing. The High ESAL mixture test results shall meet the requirements of Articles 1030.05(d)(3) and 1030.05(d)(4). The Low ESAL mixture test results shall meet the requirements of Article 1030.05(d)(4). The required number and size of prepared samples submitted for the Hamburg wheel and I-FIT testing shall be according to the “High ESAL - Required Samples for Verification Testing” table in Article 1030.05(d)(3) above.”

Add the following to the end of Article 1030.10 of the Standard Specifications to read:

“Mixture sampled during first day of production shall include approximately 60 lb (27 kg) of additional material for the Department to conduct Hamburg wheel testing and approximately 80 lb (36 kg) of additional material for the Department to conduct I-FIT testing. Within two working days after sampling, the Contractor shall deliver prepared samples to the District laboratory for verification testing. The required number and size of prepared samples submitted for the Hamburg wheel and I-FIT testing shall be according to the “High ESAL - Required Samples for Verification Testing” table in Article 1030.05(d)(3) above.”

ADJUSTMENTS AND RECONSTRUCTIONS

Effective: March 15, 2011

Revise the first paragraph of Article 602.04 to read:

“602.04 Concrete. Cast-in-place concrete for structures shall be constructed of Class SI concrete according to the applicable portions of Section 503. Cast-in-place concrete for pavement patching around adjustments and reconstructions shall be constructed of Class PP-1 concrete, unless otherwise noted in the plans, according to the applicable portions of Section 1020.”

Revise the third, fourth and fifth sentences of the second paragraph of Article 602.11(c) to read:

“Castings shall be set to the finished pavement elevation so that no subsequent adjustment will be necessary, and the space around the casting shall be filled with Class PP-1 concrete, unless otherwise noted in the plans, to the elevation of the surface of the base course or

binder course. HMA surface or binder course material shall not be allowed. The pavement may be opened to traffic according to Article 701.17(e)(3)b.”

Revise Article 603.05 to read:

“603.05 Replacement of Existing Flexible Pavement. After the castings have been adjusted, the surrounding space shall be filled with Class PP-1 concrete, unless otherwise noted in the plans, to the elevation of the surface of the base course or binder course. HMA surface or binder course material shall not be allowed. The pavement may be opened to traffic according to Article 701.17(e)(3)b.”

Revise Article 603.06 to read:

“603.06 Replacement of Existing Rigid Pavement. After the castings have been adjusted, the pavement and HMA that was removed, shall be replaced with Class PP-1 concrete, unless otherwise noted in the plans, not less than 9 in. (225 mm) thick. The pavement may be opened to traffic according to Article 701.17(e)(3)b.

The surface of the Class PP concrete shall be constructed flush with the adjacent surface.”

Revise the first sentence of Article 603.07 to read:

“603.07 Protection Under Traffic. After the casting has been adjusted and the Class PP concrete has been placed, the work shall be protected by a barricade and two lights according to Article 701.17(e)(3)b.”

DRAINAGE AND INLET PROTECTION UNDER TRAFFIC (DISTRICT 1)

Effective: April 1, 2011

Revised: April 2, 2011

Add the following to Article 603.02 of the Standard Specifications:

- “(i) Temporary Hot-Mix Asphalt (HMA) Ramp (Note 1) 1030
- “(j) Temporary Rubber Ramps (Note 2)

Note 1. The HMA shall have maximum aggregate size of 3/8 in. (95 mm).

Note 2. The rubber material shall be according to the following.

Property	Test Method	Requirement
Durometer Hardness, Shore A	ASTM D 2240	75 ±15
Tensile Strength, psi (kPa)	ASTM D 412	300 (2000) min
Elongation, percent	ASTM D 412	90 min
Specific Gravity	ASTM D 792	1.0 - 1.3
Brittleness, °F (°C)	ASTM D 746	-40 (-40)”

Revise Article 603.07 of the Standard Specifications to read:

“603.07 Protection Under Traffic. After the casting has been adjusted and the Class PP concrete has been placed, the work shall be protected by a barricade and two lights according to Article 701.17(e)(3)b.

When castings are under traffic before the final surfacing operation has been started, properly sized temporary ramps shall be placed around the drainage and/or utility castings according to the following methods.

- (a) Temporary Asphalt Ramps. Temporary hot-mix asphalt ramps shall be placed around the casting, flush with its surface and decreasing to a featheredge in a distance of 2 ft (600 mm) around the entire surface of the casting.
- (a) Temporary Rubber Ramps. Temporary rubber ramps shall only be used on roadways with permanent posted speeds of 40 mph or less and when the height of the casting to be protected meets the proper sizing requirements for the rubber ramps as shown below.

Dimension	Requirement
Inside Opening	Outside dimensions of casting + 1 in. (25 mm)
Thickness at inside edge	Height of casting \pm 1/4 in. (6 mm)
Thickness at outside edge	1/4 in. (6 mm) max.
Width, measured from inside opening to outside edge	8 1/2 in. (215 mm) min

Placement shall be according to the manufacturer’s specifications.

Temporary ramps for castings shall remain in place until surfacing operations are undertaken within the immediate area of the structure. Prior to placing the surface course, the temporary ramp shall be removed. Excess material shall be disposed of according to Article 202.03.”

SPECIAL PROVISION
FOR
INSURANCE

Effective: February 1, 2007
Revised: August 1, 2007

All references to Sections or Articles in this specification shall be construed to mean specific Section or Article of the Standard Specifications for Road and Bridge Construction, adopted by the Department of Transportation.

The Contractor shall name the following entities as additional insured under the Contractor's general liability insurance policy in accordance with Article 107.27:

The entities listed above and their officers, employees, and agents shall be indemnified and held harmless in accordance with Article 107.26.

State of Illinois
DEPARTMENT OF TRANSPORTATION
Bureau of Local Roads & Streets
SPECIAL PROVISION
FOR
LOCAL QUALITY ASSURANCE/ QUALITY MANAGEMENT QC/QA
Effective: January 1, 2022

Replace the first five paragraphs of Article 1030.06 of the Standard Specifications with the following:

“1030.06 Quality Management Program. The Quality Management Program (QMP) will be Quality Control / Quality Assurance (QC/QA) according to the following.”

Delete Article 1030.06(d)(1) of the Standard Specifications.

Revise Article 1030.09(g)(3) of the Standard Specifications to read:

“(3) If core testing is the density verification method, the Contractor shall provide personnel and equipment to collect density verification cores for the Engineer. Core locations will be determined by the Engineer following the document “Hot-Mix Asphalt QC/QA Procedure for Determining Random Density Locations” at density verification intervals defined in Article 1030.09(b). After the Engineer identifies a density verification location and prior to opening to traffic, the Contractor shall cut a 4 in. (100 mm) diameter core. With the approval of the Engineer, the cores may be cut at a later time.”

Revise Article 1030.09(h)(2) of the Standard Specifications to read:

“(2) After final rolling and prior to paving subsequent lifts, the Engineer will identify the random density verification test locations. Cores or nuclear density gauge testing will be used for density verification. The method used for density verification will be as selected below.

Density Verification Method	
<input type="checkbox"/>	Cores
<input checked="" type="checkbox"/>	Nuclear Density Gauge (Correlated when paving \geq 3,000 tons per mixture)

Density verification test locations will be determined according to the document “Hot-Mix Asphalt QC/QA Procedure for Determining Random Density Locations”. The density testing interval for paving wider than or equal to 3 ft (1 m) will be 0.5 miles (800 m) for lift thicknesses of 3 in. (75 mm) or less and 0.2 miles (320 m) for lift thicknesses greater than 3 in. (75 mm). The density testing interval for paving less than 3 ft (1 m) wide will be 1 mile (1,600 m). If a day’s paving will be less than the prescribed density testing interval, the length of the day’s paving will be the interval for that day. The density testing interval for mixtures used for patching will be 50 patches with a minimum of one test per mixture per project.

If core testing is the density verification method, the Engineer will witness the Contractor coring, and secure and take possession of all density samples at the

density verification locations. The Engineer will test the cores collected by the Contractor for density according to Illinois Modified AASHTO T 166 or AASHTO T 275.

If nuclear density gauge testing is the density verification method, the Engineer will conduct nuclear density gauge tests. The Engineer will follow the density testing procedure detailed in the document "Illinois Modified ASTM D 2950, Standard Test Method for Density of Bituminous Concrete In-Place by Nuclear Method".

A density verification test will be the result of a single core or the average of the nuclear density tests at one location. The results of each density test must be within acceptable limits. The Engineer will promptly notify the Contractor of observed deficiencies."

Revise the seventh paragraph and all subsequent paragraphs in Section D. of the document "Hot-Mix Asphalt QC/QA Initial Daily Plant and Random Samples" to read:

"Mixtures shall be sampled from the truck at the plant by the Contractor following the same procedure used to collect QC mixture samples (Section A). This process will be witnessed by the Engineer who will take custody of the verification sample. Each sample bag with a verification mixture sample will be secured by the Engineer using a locking ID tag. Sample boxes containing the verification mixture sample will be sealed/taped by the Engineer using a security ID label."

TAB 2
PREVAILING WAGES

Cook County Prevailing Wage Rates posted on 1/15/2025

Trade Title	Rg	Type	C	Base	Foreman	Overtime					Pension	Vac	Trng	Other Ins	Add OT 1.5x owed	Add OT 2.0x owed
						M-F	Sa	Su	Hol	H/W						
ASBESTOS ABT-GEN	All	ALL		50.15	51.15	1.5	1.5	2.0	2.0	17.71	16.92	0.00	0.91		0.00	0.00
ASBESTOS ABT-MEC	All	BLD		41.27	44.57	1.5	1.5	2.0	2.0	15.84	16.02	0.00	0.90		3.11	6.21
BOILERMAKER	All	BLD		55.76	60.77	2.0	2.0	2.0	2.0	6.97	26.44	0.00	3.34	1.95	0.00	38.26
BRICK MASON	All	BLD		52.06	57.27	1.5	1.5	2.0	2.0	12.70	24.54	0.00	1.24	0.00	3.99	7.98
CARPENTER	All	ALL		55.11	57.11	1.5	1.5	2.0	2.0	12.89	26.26	2.15	0.93	0.00	0.00	0.00
CEMENT MASON	All	ALL		52.00	54.00	2.0	1.5	2.0	2.0	17.81	23.00	0.00	1.15		2.00	4.00
CERAMIC TILE FINISHER	All	BLD		47.09	47.09	1.5	1.5	2.0	2.0	13.00	16.82	0.00	1.09	0.00	5.17	10.34
CERAMIC TILE LAYER	All	BLD		54.84	59.84	1.5	1.5	2.0	2.0	13.00	20.68	0.00	1.17	0.00	7.15	14.30
COMMUNICATION ELECTRICIAN	All	BLD		49.86	54.85	1.5	1.5	2.0	2.0	15.60	14.43	1.25	1.22	0.15	0.00	0.00
ELECTRIC PWR EQMT OP	All	ALL		62.10	68.14	1.5	1.5	2.0	2.0	13.08	20.88	0.00	3.32	0.00	18.64	37.28
ELECTRIC PWR GRNDMAN	All	ALL		48.44	68.14	1.5	1.5	2.0	2.0	10.20	16.29	0.00	2.60	0.00	14.55	29.09
ELECTRIC PWR LINEMAN	All	ALL		62.10	68.14	1.5	1.5	2.0	2.0	13.08	20.88	0.00	3.32	0.00	18.64	37.28
ELECTRICIAN	All	ALL		55.55	61.11	1.5	1.5	2.0	2.0	19.06	20.61	1.50	1.78	0.40	0.00	0.00
ELEVATOR CONSTRUCTOR	All	BLD		67.84	76.32	2.0	2.0	2.0	2.0	16.18	20.96	5.42	0.75		0.00	0.00
FENCE ERECTOR	All	ALL		51.00	53.00	1.5	1.5	2.0	2.0	13.74	18.32	0.00	0.75		0.00	0.00
GLAZIER	All	BLD		51.55	53.05	1.5	2.0	2.0	2.0	15.64	26.18	0.00	2.27	0.00	0.00	0.00
HEAT/FROST INSULATOR	All	BLD		55.02	58.32	1.5	1.5	2.0	2.0	15.84	19.01	0.00	0.90		4.60	9.20
IRON WORKER	All	ALL		59.26	62.76	2.0	2.0	2.0	2.0	18.30	26.31	0.00	0.49	0.00	0.00	0.00
LABORER	All	ALL		50.15	50.90	1.5	1.5	2.0	2.0	17.71	16.92	0.00	0.91		0.00	0.00
LATHER	All	ALL		55.11	57.11	1.5	1.5	2.0	2.0	12.89	26.26	2.15	0.93	0.00	0.00	0.00
MACHINIST	All	BLD		58.39	62.39	1.5	1.5	2.0	2.0	9.93	8.95	1.85	1.47		0.00	0.00
MARBLE FINISHER	All	ALL		39.50	53.55	1.5	1.5	2.0	2.0	12.70	22.32	0.00	0.73	0.00	2.88	5.76
MARBLE SETTER	All	BLD		51.00	56.10	1.5	1.5	2.0	2.0	12.70	24.01	0.00	0.92	0.00	3.73	7.45
MATERIAL TESTER I	All	ALL		40.15		1.5	1.5	2.0	2.0	17.71	16.92	0.00	0.91		0.00	0.00
MATERIALS TESTER II	All	ALL		45.15		1.5	1.5	2.0	2.0	17.71	16.92	0.00	0.91		0.00	0.00
MILLWRIGHT	All	ALL		55.11	57.11	1.5	1.5	2.0	2.0	12.89	26.26	2.15	0.93	0.00	0.00	0.00

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OPERATING ENGINEER	All	BLD	1	60.80	64.80	2.0	2.0	2.0	2.0	23.70	20.80	2.00	2.70	0.00	0.00	0.00
OPERATING ENGINEER	All	BLD	2	59.50	64.80	2.0	2.0	2.0	2.0	23.70	20.80	2.00	2.70	0.00	0.00	0.00
OPERATING ENGINEER	All	BLD	3	56.95	64.80	2.0	2.0	2.0	2.0	23.70	20.80	2.00	2.70	0.00	0.00	0.00
OPERATING ENGINEER	All	BLD	4	55.20	64.80	2.0	2.0	2.0	2.0	23.70	20.80	2.00	2.70	0.00	0.00	0.00
OPERATING ENGINEER	All	BLD	5	64.55	64.80	2.0	2.0	2.0	2.0	23.70	20.80	2.00	2.70	0.00	0.00	0.00
OPERATING ENGINEER	All	BLD	6	61.80	64.80	2.0	2.0	2.0	2.0	23.70	20.80	2.00	2.70	0.00	0.00	0.00
OPERATING ENGINEER	All	BLD	7	63.80	64.80	2.0	2.0	2.0	2.0	23.70	20.80	2.00	2.70	0.00	0.00	0.00
OPERATING ENGINEER	All	FLT	1	69.35	69.35	1.5	1.5	2.0	2.0	23.70	20.80	2.00	2.70	0.00	0.00	0.00
OPERATING ENGINEER	All	FLT	2	67.85	69.35	1.5	1.5	2.0	2.0	23.70	20.80	2.00	2.70	0.00	0.00	0.00
OPERATING ENGINEER	All	FLT	3	63.35	69.35	1.5	1.5	2.0	2.0	23.70	20.80	2.00	2.70	0.00	0.00	0.00
OPERATING ENGINEER	All	FLT	4	58.85	69.35	1.5	1.5	2.0	2.0	23.70	20.80	2.00	2.70	0.00	0.00	0.00
OPERATING ENGINEER	All	FLT	5	70.85	69.35	1.5	1.5	2.0	2.0	23.70	20.80	2.00	2.70	0.00	0.00	0.00
OPERATING ENGINEER	All	FLT	6	58.85	69.35	1.5	1.5	2.0	2.0	23.70	20.80	2.00	2.70	0.00	0.00	0.00
OPERATING ENGINEER	All	HWY	1	59.00	63.00	1.5	1.5	2.0	2.0	23.70	20.80	2.00	2.70	0.00	0.00	0.00
OPERATING ENGINEER	All	HWY	2	58.45	63.00	1.5	1.5	2.0	2.0	23.70	20.80	2.00	2.70	0.00	0.00	0.00
OPERATING ENGINEER	All	HWY	3	56.40	63.00	1.5	1.5	2.0	2.0	23.70	20.80	2.00	2.70	0.00	0.00	0.00
OPERATING ENGINEER	All	HWY	4	55.00	63.00	1.5	1.5	2.0	2.0	23.70	20.80	2.00	2.70	0.00	0.00	0.00
OPERATING ENGINEER	All	HWY	5	53.80	63.00	1.5	1.5	2.0	2.0	23.70	20.80	2.00	2.70	0.00	0.00	0.00
OPERATING ENGINEER	All	HWY	6	62.00	63.00	1.5	1.5	2.0	2.0	23.70	20.80	2.00	2.70	0.00	0.00	0.00
OPERATING ENGINEER	All	HWY	7	60.00	63.00	1.5	1.5	2.0	2.0	23.70	20.80	2.00	2.70	0.00	0.00	0.00
ORNAMENTAL IRON WORKER	All	ALL		57.51	60.51	2.0	2.0	2.0	2.0	14.31	26.50	0.00	2.00	0.00	0.00	0.00
PAINTER	All	ALL		53.05	59.68	1.5	1.5	1.5	2.0	15.76	16.19	0.00	1.86	0.00	0.00	0.00
PAINTER - SIGNS	All	BLD		45.49	51.09	1.5	1.5	2.0	2.0	8.20	16.81	0.00	0.00	0.00	0.00	0.00
PILEDRIVER	All	ALL		55.11	57.11	1.5	1.5	2.0	2.0	12.89	26.26	2.15	0.93	0.00	0.00	0.00
PIPEFITTER	All	BLD		57.00	60.00	1.5	1.5	2.0	2.0	13.65	22.85	0.00	3.12	0.00	0.00	0.00
PLASTERER	All	BLD		50.00	53.00	1.5	1.5	2.0	2.0	17.81	21.22	0.00	1.15		0.00	0.00
PLUMBER	All	BLD		58.55	62.05	1.5	1.5	2.0	2.0	17.75	17.74	0.00	1.83		0.00	0.00
ROOFER	All	BLD		50.25	55.25	1.5	1.5	2.0	2.0	11.98	17.34	0.00	1.11	0.00	0.00	0.00
SHEETMETAL WORKER	All	BLD		53.05	57.29	1.5	1.5	2.0	2.0	14.88	28.65	0.00	1.15	0.00	0.00	0.00

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SIGN HANGER	All	BLD		36.72	39.66	1.5	1.5	2.0	2.0	7.45	4.70	0.00	0.00	0.00	0.00	0.00
SPRINKLER FITTER	All	BLD		60.00	62.75	1.5	1.5	2.0	2.0	14.95	19.40	0.00	1.10	0.00	0.00	0.00
STEEL ERECTOR	All	ALL		59.26	62.76	2.0	2.0	2.0	2.0	18.30	26.31	0.00	0.49	0.00	0.00	0.00
STONE MASON	All	BLD		52.06	57.27	1.5	1.5	2.0	2.0	12.70	24.54	0.00	1.24	0.00	3.99	7.98
SURVEY WORKER	All	BLD		56.50	57.50	1.5	1.5	2.0	2.0	17.75	14.15	0.00	1.49		0.00	0.00
SURVEY WORKER	All	HWY		56.50	57.50	1.5	1.5	2.0	2.0	17.75	14.15	0.00	1.49		0.00	0.00
TERRAZZO FINISHER	All	BLD		48.94	48.94	1.5	1.5	2.0	2.0	13.00	18.42	0.00	1.11	0.00	4.22	8.44
TERRAZZO MECHANIC	All	BLD		52.85	56.35	1.5	1.5	2.0	2.0	13.00	19.81	0.00	1.15	0.00	4.47	8.94
TRAFFIC SAFETY WORKER I	All	HWY		42.10	43.70	1.5	1.5	2.0	2.0	11.11	9.81	0.00	1.05	0.00	0.00	0.00
TRAFFIC SAFETY WORKER II	ALL	HWY		43.10	44.70	1.5	1.5	2.0	2.0	11.11	9.81	0.00	1.05	0.00	0.00	0.00
TRUCK DRIVER	E	ALL	1	43.45		1.5	1.5	2.0	2.0	13.15	16.09	0.00	0.25	0.00	0.00	0.00
TRUCK DRIVER	E	ALL	2	43.70		1.5	1.5	2.0	2.0	13.15	16.09	0.00	0.25	0.00	0.00	0.00
TRUCK DRIVER	E	ALL	3	43.90		1.5	1.5	2.0	2.0	13.15	16.09	0.00	0.25	0.00	0.00	0.00
TRUCK DRIVER	E	ALL	4	44.10		1.5	1.5	2.0	2.0	13.15	16.09	0.00	0.25	0.00	0.00	0.00
TRUCK DRIVER	W	ALL	1	43.43		1.5	1.5	2.0	2.0	11.70	16.11	0.00	0.25		0.00	0.00
TRUCK DRIVER	W	ALL	2	43.58		1.5	1.5	2.0	2.0	11.70	16.11	0.00	0.25	0.00	0.00	0.00
TRUCK DRIVER	W	ALL	3	43.78		1.5	1.5	2.0	2.0	11.70	16.11	0.00	0.25	0.00	0.00	0.00
TRUCK DRIVER	W	ALL	4	43.98		1.5	1.5	2.0	2.0	11.70	16.11	0.00	0.25	0.00	0.00	0.00
TUCK POINTER	All	BLD		51.53	52.53	1.5	1.5	2.0	2.0	10.05	22.66	0.00	1.15	0.00	0.00	0.00

Legend

Rg Region

Type Trade Type - All,Highway,Building,Floating,Oil & Chip,Rivers

C Class

Base Base Wage Rate

OT M-F Unless otherwise noted, OT pay is required for any hour greater than 8 worked each day, Mon through Fri. The number listed is the multiple of the base wage.

OT Sa Overtime pay required for every hour worked on Saturdays

OT Su Overtime pay required for every hour worked on Sundays

OT Hol Overtime pay required for every hour worked on Holidays

H/W Health/Welfare benefit

Vac Vacation

Trng Training

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Other Ins Employer hourly cost for any other type(s) of insurance provided for benefit of worker.

Explanations COOK COUNTY

The following list is considered as those days for which holiday rates of wages for work performed apply: New Years Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day, Christmas Day and Veterans Day in some classifications/counties. Generally, any of these holidays which fall on a Sunday is celebrated on the following Monday. This then makes work performed on that Monday payable at the appropriate overtime rate for holiday pay. Common practice in a given local may alter certain days of celebration. If in doubt, please check with IDOL.

TRUCK DRIVERS (WEST) - That part of the county West of Barrington Road.

EXPLANATION OF CLASSES

ASBESTOS - GENERAL - removal of asbestos material/mold and hazardous materials from any place in a building, including mechanical systems where those mechanical systems are to be removed. This includes the removal of asbestos materials/mold and hazardous materials from ductwork or pipes in a building when the building is to be demolished at the time or at some close future date. ASBESTOS - MECHANICAL - removal of asbestos material from mechanical systems, such as pipes, ducts, and boilers, where the mechanical systems are to remain.

CERAMIC TILE FINISHER

The grouting, cleaning, and polishing of all classes of tile, whether for interior or exterior purposes, all burned, glazed or unglazed products; all composition materials, granite tiles, warning detectable tiles, cement tiles, epoxy composite materials, pavers, glass, mosaics, fiberglass, and all substitute materials, for tile made in tile-like units; all mixtures in tile like form of cement, metals, and other materials that are for and intended for use as a finished floor surface, stair treads, promenade roofs, walks, walls, ceilings, swimming pools, and all other places where tile is to form a finished interior or exterior. The mixing of all setting mortars including but not limited to thin-set mortars, epoxies, wall mud, and any other sand and cement mixtures or adhesives when used in the preparation, installation, repair, or maintenance of tile and/or similar materials. The handling and unloading of all sand, cement, lime, tile, fixtures, equipment, adhesives, or any other materials to be used in the preparation, installation, repair, or maintenance of tile and/or similar materials. Ceramic Tile Finishers shall fill all joints and voids regardless of method on all tile work, particularly and especially after installation of said tile work. Application of any and all protective coverings to all types of tile installations including, but not be limited to, all soap compounds, paper products, tapes, and all polyethylene coverings, plywood, masonite, cardboard, and any new type of products that may be used to protect tile installations, Blastrac equipment, and all floor scarifying equipment used in preparing floors to receive tile. The clean up and removal of all waste and materials. All demolition of existing tile floors and walls to be re-tiled.

COMMUNICATIONS ELECTRICIAN

Installation, operation, inspection, maintenance, repair and service of radio, television, recording, voice sound vision production and reproduction, telephone and telephone interconnect, facsimile, data apparatus, coaxial, fibre optic and wireless equipment, appliances and systems used for the transmission and reception of signals of any nature, business, domestic, commercial,

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education, entertainment, and residential purposes, including but not limited to, communication and telephone, electronic and sound equipment, fibre optic and data communication systems, and the performance of any task directly related to such installation or service whether at new or existing sites, such tasks to include the placing of wire and cable and electrical power conduit or other raceway work within the equipment room and pulling wire and/or cable through conduit and the installation of any incidental conduit, such that the employees covered hereby can complete any job in full.

MARBLE FINISHER

Loading and unloading trucks, distribution of all materials (all stone, sand, etc.), stocking of floors with material, performing all rigging for heavy work, the handling of all material that may be needed for the installation of such materials, building of scaffolding, polishing if needed, patching, waxing of material if damaged, pointing up, caulking, grouting and cleaning of marble, holding water on diamond or Carborundum blade or saw for setters cutting, use of tub saw or any other saw needed for preparation of material, drilling of holes for wires that anchor material set by setters, mixing up of molding plaster for installation of material, mixing up thin set for the installation of material, mixing up of sand to cement for the installation of material and such other work as may be required in helping a Marble Setter in the handling of all material in the erection or installation of interior marble, slate, travertine, art marble, serpentine, alberene stone, blue stone, granite and other stones (meaning as to stone any foreign or domestic materials as are specified and used in building interiors and exteriors and customarily known as stone in the trade), carrara, sanionyx, vitrolite and similar opaque glass and the laying of all marble tile, terrazzo tile, slate tile and precast tile, steps, risers treads, base, or any other materials that may be used as substitutes for any of the aforementioned materials and which are used on interior and exterior which are installed in a similar manner.

MATERIAL TESTER I: Hand coring and drilling for testing of materials; field inspection of uncured concrete and asphalt.

MATERIAL TESTER II: Field inspection of welds, structural steel, fireproofing, masonry, soil, facade, reinforcing steel, formwork, cured concrete, and concrete and asphalt batch plants; adjusting proportions of bituminous mixtures.

OPERATING ENGINEER - BUILDING

Class 1. Asphalt Plant; Asphalt Spreader; Autograde; Backhoes with Caisson Attachment; Batch Plant; Benoto (requires Two Engineers); Boiler and Throttle Valve; Caisson Rigs; Central Redi-Mix Plant; Combination Back Hoe Front End-loader Machine; Compressor and Throttle Valve; Concrete Breaker (Truck Mounted); Concrete Conveyor; Concrete Conveyor (Truck Mounted); Concrete Paver Over 27E cu. ft; Concrete Paver 27E cu. ft. and Under; Concrete Placer; Concrete Placing Boom; Concrete Pump (Truck Mounted); Concrete Tower; Cranes, All; Cranes, Hammerhead; Cranes, (GCI and similar Type); Creter Crane; Spider Crane; Crusher, Stone, etc.; Derricks, All; Derricks, Traveling; Formless Curb and Gutter Machine; Grader, Elevating; Grouting Machines; Heavy Duty Self-Propelled Transporter or Prime Mover; Highlift Shovels or Front Endloader 2-1/4 yd. and over; Hoists, Elevators, outside type rack and pinion and similar machines; Hoists, One, Two and Three Drum; Hoists, Two Tugger One Floor; Hydraulic Backhoes; Hydraulic Boom Trucks; Hydro Vac (and similar equipment); Locomotives, All; Motor Patrol; Lubrication Technician; Manipulators; Pile Drivers and Skid Rig; Post Hole Digger; Pre-Stress Machine; Pump Cretes Dual Ram; Pump Cretes: Squeeze Cretes-Screw Type Pumps; Gypsum Bulker and Pump; Raised and Blind Hole Drill; Roto Mill Grinder; Scoops - Tractor Drawn; Slip-Form Paver; Straddle Buggies; Operation of Tie Back Machine; Tournapull; Tractor with Boom and Side Boom; Trenching Machines.

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Class 2. Boilers; Broom, All Power Propelled; Bulldozers; Concrete Mixer (Two Bag and Over); Conveyor, Portable; Forklift Trucks; Highlift Shovels or Front Endloaders under 2-1/4 yd.; Hoists, Automatic; Hoists, Inside Elevators; Hoists, Sewer Dragging Machine; Hoists, Tugger Single Drum; Laser Screed; Rock Drill (Self-Propelled); Rock Drill (Truck Mounted); Rollers, All; Steam Generators; Tractors, All; Tractor Drawn Vibratory Roller; Winch Trucks with "A" Frame.

Class 3. Air Compressor; Combination Small Equipment Operator; Generators; Heaters, Mechanical; Hoists, Inside Elevators (remodeling or renovation work); Hydraulic Power Units (Pile Driving, Extracting, and Drilling); Pumps, over 3" (1 to 3 not to exceed a total of 300 ft.); Low Boys; Pumps, Well Points; Welding Machines (2 through 5); Winches, 4 Small Electric Drill Winches.

Class 4. Bobcats and/or other Skid Steer Loaders; Oilers; and Brick Forklift.

Class 5. Assistant Craft Foreman.

Class 6. Gradall.

Class 7. Mechanics; Welders.

OPERATING ENGINEERS - HIGHWAY CONSTRUCTION

Class 1. Asphalt Plant; Asphalt Heater and Planer Combination; Asphalt Heater Scarfire; Asphalt Spreader; Autograder/GOMACO or other similar type machines: ABG Paver; Backhoes with Caisson Attachment; Ballast Regulator; Belt Loader; Caisson Rigs; Car Dumper; Central Redi-Mix Plant; Combination Backhoe Front Endloader Machine, (1 cu. yd. Backhoe Bucket or over or with attachments); Concrete Breaker (Truck Mounted); Concrete Conveyor; Concrete Paver over 27E cu. ft.; Concrete Placer; Concrete Tube Float; Cranes, all attachments; Cranes, Tower Cranes of all types: Creter Crane; Spider Crane; Crusher, Stone, etc.; Derricks, All; Derrick Boats; Derricks, Traveling; Dredges; Elevators, Outside type Rack & Pinion and Similar Machines; Formless Curb and Gutter Machine; Grader, Elevating; Grader, Motor Grader, Motor Patrol, Auto Patrol, Form Grader, Pull Grader, Subgrader; Guard Rail Post Driver Truck Mounted; Hoists, One, Two and Three Drum; Heavy Duty Self-Propelled Transporter or Prime Mover; Hydraulic Backhoes; Backhoes with shear attachments up to 40' of boom reach; Lubrication Technician; Manipulators; Mucking Machine; Pile Drivers and Skid Rig; Pre-Stress Machine; Pump Cretes Dual Ram; Rock Drill - Crawler or Skid Rig; Rock Drill - Truck Mounted; Rock/Track Tamper; Roto Mill Grinder; Slip-Form Paver; Snow Melters; Soil Test Drill Rig (Truck Mounted); Straddle Buggies; Hydraulic Telescoping Form (Tunnel); Operation of Tieback Machine; Tractor Drawn Belt Loader; Tractor Drawn Belt Loader (with attached pusher - two engineers); Tractor with Boom; Tractaire with Attachments; Traffic Barrier Transfer Machine; Trenching; Truck Mounted Concrete Pump with Boom; Raised or Blind Hole Drills (Tunnel Shaft); Underground Boring and/or Mining Machines 5 ft. in diameter and over tunnel, etc; Underground Boring and/or Mining Machines under 5 ft. in diameter; Wheel Excavator; Widener (APSCO).

Class 2. Batch Plant; Bituminous Mixer; Boiler and Throttle Valve; Bulldozers; Car Loader Trailing Conveyors; Combination Backhoe Front Endloader Machine (Less than 1 cu. yd. Backhoe Bucket or over or with attachments); Compressor and Throttle Valve; Compressor, Common Receiver (3); Concrete Breaker or Hydro Hammer; Concrete Grinding Machine; Concrete Mixer or Paver 7S Series to and including 27 cu. ft.; Concrete Spreader; Concrete Curing Machine, Burlap Machine, Belting Machine and Sealing Machine; Concrete Wheel Saw; Conveyor Muck Cars (Haglund or Similar Type); Drills, All; Finishing Machine - Concrete; Highlift Shovels or Front Endloader; Hoist - Sewer Dragging Machine; Hydraulic Boom Trucks (All Attachments); Hydro-Blaster; Hydro

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Excavating (excluding hose work); Laser Screed; All Locomotives, Dinky; Off-Road Hauling Units (including articulating) Non Self-Loading Ejection Dump; Pump Cretes: Squeeze Cretes - Screw Type Pumps, Gypsum Bulker and Pump; Roller, Asphalt; Rotary Snow Plows; Rototiller, Seaman, etc., self-propelled; Self-Propelled Compactor; Spreader - Chip - Stone, etc.; Scraper - Single/Twin Engine/Push and Pull; Scraper - Prime Mover in Tandem (Regardless of Size); Tractors pulling attachments, Sheeps Foot, Disc, Compactor, etc.; Tug Boats.

Class 3. Boilers; Brooms, All Power Propelled; Cement Supply Tender; Compressor, Common Receiver (2); Concrete Mixer (Two Bag and Over); Conveyor, Portable; Farm-Type Tractors Used for Mowing, Seeding, etc.; Forklift Trucks; Grouting Machine; Hoists, Automatic; Hoists, All Elevators; Hoists, Tugger Single Drum; Jeep Diggers; Low Boys; Pipe Jacking Machines; Post-Hole Digger; Power Saw, Concrete Power Driven; Pug Mills; Rollers, other than Asphalt; Seed and Straw Blower; Steam Generators; Stump Machine; Winch Trucks with "A" Frame; Work Boats; Tamper-Form-Motor Driven.

Class 4. Air Compressor; Combination - Small Equipment Operator; Directional Boring Machine; Generators; Heaters, Mechanical; Hydraulic Power Unit (Pile Driving, Extracting, or Drilling); Light Plants, All (1 through 5); Pumps, over 3" (1 to 3 not to exceed a total of 300 ft.); Pumps, Well Points; Vacuum Trucks (excluding hose work); Welding Machines (2 through 5); Winches, 4 Small Electric Drill Winches.

Class 5. SkidSteer Loader (all); Brick Forklifts; Oilers.

Class 6. Field Mechanics and Field Welders

Class 7. Dowell Machine with Air Compressor; Gradall and machines of like nature.

OPERATING ENGINEER - FLOATING

Class 1. Craft Foreman; Master Mechanic; Diver/Wet Tender; Engineer; Engineer (Hydraulic Dredge).

Class 2. Crane/Backhoe Operator; Boat Operator with towing endorsement; Mechanic/Welder; Assistant Engineer (Hydraulic Dredge); Leverman (Hydraulic Dredge); Diver Tender.

Class 3. Deck Equipment Operator, Machineryman, Maintenance of Crane (over 50 ton capacity) or Backhoe (115,000 lbs. or more); Tug/Launch Operator; Loader/Dozer and like equipment on Barge, Breakwater Wall, Slip/Dock, or Scow, Deck Machinery, etc.

Class 4. Deck Equipment Operator, Machineryman/Fireman (4 Equipment Units or More); Off Road Trucks; Deck Hand, Tug Engineer, Crane Maintenance (50 Ton Capacity and Under) or Backhoe Weighing (115,000 pounds or less); Assistant Tug Operator.

Class 5. Friction or Lattice Boom Cranes.

Class 6. ROV Pilot, ROV Tender

SURVEY WORKER

Cook County Prevailing Wage Rates posted on 1/15/2025

Operates survey equipment (such as levels, transits, data collectors, GPS and robotic total stations) for the purpose of performing construction layout and/or grade checking.

SURVEY FOREMAN

Operates survey equipment (such as levels, transits, data collectors, GPS and robotic total stations) for the purpose of performing construction layout and/or grade checking; oversees survey crew operations; and/or coordinates work of survey crews.

TERRAZZO FINISHER

The handling of sand, cement, marble chips, and all other materials that may be used by the Mosaic Terrazzo Mechanic, and the mixing, grinding, grouting, cleaning and sealing of all Marble, Mosaic, and Terrazzo work, floors, base, stairs, and wainscoting by hand or machine, and in addition, assisting and aiding Marble, Masonic, and Terrazzo Mechanics.

TRAFFIC SAFETY Worker I

Traffic Safety Worker I - work associated with the delivery, installation, pick-up and servicing of safety devices during periods of roadway construction, including such work as set-up and maintenance of barricades, barrier wall reflectors, drums, cones, delineators, signs, crash attenuators, glare screen and other such items, and the layout and application or removal of conflicting and/or temporary roadway markings utilized to control traffic in construction zones, as well as flagging for these operations.

TRAFFIC SAFETY WORKER II

Work associated with the installation and removal of permanent pavement markings and/or pavement markers including both installations performed by hand and installations performed by truck.

TRUCK DRIVER - BUILDING, HEAVY AND HIGHWAY CONSTRUCTION - EAST & WEST

Class 1. Two or three Axle Trucks. A-frame Truck when used for transportation purposes; Air Compressors and Welding Machines, including those pulled by cars, pick-up trucks and tractors; Ambulances; Batch Gate Lockers; Batch Hopperman; Car and Truck Washers; Carry-alls; Fork Lifts and Hoisters; Helpers; Mechanics Helpers and Greasers; Oil Distributors 2-man operation; Pavement Breakers; Pole Trailer, up to 40 feet; Power Mower Tractors; Self-propelled Chip Spreader; Skipman; Slurry Trucks, 2-man operation; Slurry Truck Conveyor Operation, 2 or 3 man; Teamsters; Unskilled Dumpman; and Truck Drivers hauling warning lights, barricades, and portable toilets on the job site.

Class 2. Four axle trucks; Dump Crets and Adgetors under 7 yards; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump Turnapulls or Turnatrailers when pulling other than self-loading equipment or similar equipment under 16 cubic yards; Mixer Trucks under 7 yards; Ready-mix Plant Hopper Operator, and Winch Trucks, 2 Axles.

Class 3. Five axle trucks; Dump Crets and Adgetors 7 yards and over; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump Turnatrailers or turnapulls when pulling other than self-loading equipment or similar equipment over 16 cubic yards; Explosives and/or Fission Material Trucks; Mixer Trucks 7 yards or over; Mobile Cranes while in transit; Oil Distributors, 1-man operation; Pole Trailer, over 40 feet; Pole and Expandable Trailers hauling material over 50 feet long; Slurry trucks, 1-man operation; Winch

Cook County Prevailing Wage Rates posted on 1/15/2025

trucks, 3 axles or more; Mechanic--Truck Welder and Truck Painter.

Class 4. Six axle trucks; Dual-purpose vehicles, such as mounted crane trucks with hoist and accessories; Foreman; Master Mechanic; Self-loading equipment like P.B. and trucks with scoops on the front.

Other Classifications of Work:

For definitions of classifications not otherwise set out, the Department generally has on file such definitions which are available. If a task to be performed is not subject to one of the classifications of pay set out, the Department will upon being contacted state which neighboring county has such a classification and provide such rate, such rate being deemed to exist by reference in this document. If no neighboring county rate applies to the task, the Department shall undertake a special determination, such special determination being then deemed to have existed under this determination. If a project requires these, or any classification not listed, please contact IDOL at 217-782-1710 for wage rates or clarifications.

LANDSCAPING

Landscaping work falls under the existing classifications for laborer, operating engineer and truck driver. The work performed by landscape plantsman and landscape laborer is covered by the existing classification of laborer. The work performed by landscape operators (regardless of equipment used or its size) is covered by the classifications of operating engineer. The work performed by landscape truck drivers (regardless of size of truck driven) is covered by the classifications of truck driver.


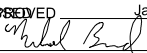
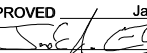
MATERIAL TESTER & MATERIAL TESTER/INSPECTOR I AND II

Notwithstanding the difference in the classification title, the classification entitled "Material Tester I" involves the same job duties as the classification entitled "Material Tester/Inspector I". Likewise, the classification entitled "Material Tester II" involves the same job duties as the classification entitled "Material Tester/Inspector II".

Cook County Prevailing Wage Rates posted on 1/15/2025

TAB 3
IDOT STANDARD DETAILS

ABV	ABOVE	CU YD	CUBIC YARD	HATCH	HATCHING	PM	PAVEMENT MARKING	STD	STANDARD
A/C	ACCESS CONTROL	CULV	CULVERT	HD	HEAD	PED	PEDESTAL	SBI	STATE BOND ISSUE
AC	ACRE	C&G	CURB & GUTTER	HDW	HEADWALL	PNT	POINT	SR	STATE ROUTE
ADJ	ADJUST	D	DEGREE OF CURVE	HDUTY	HEAVY DUTY	PC	POINT OF CURVATURE	STA	STATION
AS	AERIAL SURVEYS	DC	DEPRESSED CURVE	ha	HECTARE	PI	POINT OF INTERSECTION OF HORIZONTAL CURVE	SPBGR	STEEL PLATE BEAM GUARDRAIL
AGG	AGGREGATE	DET	DETECTOR	HMA	HOT MIX ASPHALT	PRC	POINT OF REVERSE CURVE	SS	STORM SEWER
AH	AHEAD	DIA	DIAMETER	HWY	HIGHWAY	PT	POINT OF TANGENCY	STY	STORY
APT	APARTMENT	DIST	DISTRICT	HORIZ	HORIZONTAL	POT	POINT ON TANGENT	ST	STREET
ASPH	ASPHALT	DOM	DOMESTIC	HSE	HOUSE	POLYETH	POLYETHYLENE	STR	STRUCTURE
AUX	AUXILIARY	DBL	DOUBLE	IL	ILLINOIS	PCC	PORTLAND CEMENT CONCRETE	e	SUPERELEVATION RATE
AGS	AUXILIARY GAS VALVE (SERVICE)	DSEL	DOWNSTREAM ELEVATION	IMP	IMPROVEMENT	PP	POWER POLE OR PRINCIPAL POINT	S.E. RUN.	SUPERELEVATION RUNOFF LENGTH
AVE	AVENUE	DSFL	DOWNSTREAM FLOWLINE	IN DIA	INCH DIAMETER	PRM	PRIME	SURF	SURFACE
AX	AXIS OF ROTATION	DR	DRAINAGE OR DRIVE	INL	INLET	PE	PRIVATE ENTRANCE	SMK	SURVEY MARKER
BK	BACK	DI	DRAINAGE INLET OR DROP INLET	INST	INSTALLATION	PROF	PROFILE	T	TANGENT DISTANCE
B-B	BACK TO BACK	DRV	DRIVEWAY	IDS	INTERSECTION DESIGN STUDY	PGL	PROFILE GRADELINE	T.R.	TANGENT RUNOUT DISTANCE
BKPL	BACKPLATE	DCT	DUCT	INV	INVERT	PROJ	PROJECT	TEL	TELEPHONE
B	BARN	EA	EACH	IP	IRON PIPE	P.C.	PROPERTY CORNER	TB	TELEPHONE BOX
BARR	BARRICADE	EB	EASTBOUND	IR	IRON ROD	PL	PROPERTY LINE	TP	TELEPHONE POLE
BL	BASELINE	EOP	EDGE OF PAVEMENT	JT	JOINT	PR	PROPOSED	TEMP	TEMPORARY
BGN	BEGIN	E-CL	EDGE TO CENTERLINE	kg	KILOGRAM	R	RADIUS or RESIDENTUAL	TBM	TEMPORARY BENCH MARK
BM	BENCHMARK	E-E	EDGE TO EDGE	km	KILOMETER	RR	RAILROAD	TD	TILE DRAIN
BIND	BINDER	ELEC	ELECTRICAL	LS	LANDSCAPING	RRS	RAILROAD SPIKE	TBE	TO BE EXTENDED
BIT	BITUMINOUS	EL	ELEVATION	LN	LANE	RPS	REFERENCE POINT STAKE	TBR	TO BE REMOVED
BTM	BOTTOM	ENTR	ENTRANCE	LT	LEFT	REF	REFLECTIVE	TBS	TO BE SAVED
BLVD	BOULEVARD	EXC	EXCAVATION	LIDAR	LIGHT DETECTION AND RANGING	REIN	REINFORCED CONCRETE CULVERT PIPE	TWP	TOWNSHIP
BRK	BRICK	EX	EXISTING	LP	LIGHT POLE	REMF	REINFORCEMENT	TR	TOWNSHIP ROAD
BBOX	BUFFALO BOX	EXPWAY	EXPRESSWAY	LGT	LIGHTING	REM	REMOVAL	TS	TRAFFIC SIGNAL
BLDG	BUILDING	E	EXTERNAL DISTANCE OF HORIZONTAL CURVE	LF	LINEAL FEET OR LINEAR FEET	RC	REMOVE CROWN	TSCB	TRAFFIC SIGNAL CONTROL BOX
CATV	CABLE	E	OFFSET DISTANCE TO VERTICAL CURVE	L	LITER OR CURVE LENGTH	REP	REPLACEMENT	TSC	TRAFFIC SYSTEMS CENTER
CIP	CAST IRON PIPE	F-F	FACE TO FACE	LC	LONG CHORD	REST	RESTAURANT	TRVS	TRANSVERSE
CB	CATCH BASIN	FA	FEDERAL AID	LNG	LONGITUDINAL	RESURF	RESURFACING	TRVL	TRAVEL
C-C	CENTER TO CENTER	FAI	FEDERAL AID INTERSTATE	L SUM	LUMP SUM	RET	RETAINING	TRN	TURN
CL	CENTERLINE OR CLEARANCE	FAP	FEDERAL AID PRIMARY	MACH	MACHINE	RT	RIGHT	TY	TYPE
CL-E	CENTERLINE TO EDGE	FAS	FEDERAL AID SECONDARY	MB	MAIL BOX	ROW	RIGHT-OF-WAY	T-A	TYPE A
CL-F	CENTERLINE TO FACE	FAUS	FEDERAL AID URBAN SECONDARY	MH	MANHOLE	RD	ROAD	TYP	TYPICAL
CTS	CENTERS	FP	FENCE POST	MATL	MATERIAL	RDWY	ROADWAY	UNDGND	UNDERGROUND
CERT	CERTIFIED	OPT	FIBER OPTIC	MED	MEDIAN	RTE	ROUTE	USGS	U.S. GEOLOGICAL SURVEY
CHSLD	CHISELED	FE	FIELD ENTRANCE	m	METER	SAN	SANITARY	USEL	UPSTREAM ELEVATION
CS	CITY STREET	FH	FIRE HYDRANT	METH	METHOD	SANS	SANITARY SEWER	USFL	UPSTREAM FLOWLINE
CP	CLAY PIPE	FL	FLOW LINE	M	MID-ORDINATE	SEC	SECTION	UTIL	UTILITY
CLSD	CLOSED	FB	FOOT BRIDGE	mm	MILLIMETER	SEED	SEEDING	VBOX	VALVE BOX
CLID	CLOSED LID	FDN	FOUNDATION	mm DIA	MILLIMETER DIAMETER	SHAP	SHAPING	VV	VALVE VAULT
CT	COAT OR COURT	FR	FRAME	MIX	MIXTURE	S	SHED	VL	VAULT
COMB	COMBINATION	F&G	FRAME & GRATE	MBH	MOBILE HOME	SH	SHEET	VEH	VEHICLE
C	COMMERCIAL BUILDING	FRWAY	FREEWAY	MOD	MODIFIED	SHLD	SHOULDER	VP	VENT PIPE
CE	COMMERCIAL ENTRANCE	GAL	GALLON	MFT	MOTOR FUEL TAX	SW	SIDEWALK OR SOUTHWEST	VERT	VERTICAL
CONC	CONCRETE	GALV	GALVANIZED	N & BC	NAIL & BOTTLE CAP	SIG	SIGNAL	VC	VERTICAL CURVE
CONST	CONSTRUCT	G	GARAGE	N & C	NAIL & CAP	SOD	SODDING	VPC	VERTICAL POINT OF CURVATURE
CONTD	CONTINUED	GM	GAS METER	N & W	NAIL & WASHER	SM	SOLID MEDIATE	VPI	VERTICAL POINT OF INTERSECTION
CONT	CONTINUOUS	GV	GAS VALVE	NC	NORMAL CROWN	SB	SOUTHBOUND	VPT	VERTICAL POINT OF TANGENCY
COR	CORNER	GIS	GEOGRAPHICAL INFORMATION SYSTEM	NB	NORTHBOUND	SE	SOUTHEAST	WM	WATER METER
CORR	CORRUGATED	GRAN	GRANULAR	NE	NORTHEAST	SPL	SPECIAL	WV	WATER VALVE
CMP	CORRUGATED METAL PIPE	GR	GRATE	NW	NORTHWEST	SD	SPECIAL DITCH	WMAIN	WATER MAIN
CNTY	COUNTY	GRVL	GRAVEL	O/S	OFFSET	SQ FT	SQUARE FEET	WB	WESTBOUND
CH	COUNTY HIGHWAY	GND	GROUND	O&C	OIL AND CHIP	m ²	SQUARE METER	WILDFL	WILDFLOWERS
CSE	COURSE	GUT	GUTTER	OLID	OPEN LID	mm ²	SQUARE MILLIMETER	W	WITH
XSECT	CROSS SECTION	GP	GUY POLE	PAT	PATTERN	SQ YD	SQUARE YARD	WO	WITHOUT
m ³	CUBIC METER	GW	GUY WIRE	PVD	PAVED	STB	STABILIZED		
mm ³	CUBIC MILLIMETER	HH	HANDHOLE	PVMT	PAVEMENT				



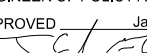
 Illinois Department of Transportation	
APPROVED _____ January 1, 2021  ENGINEER OF POLICY AND PROCEDURES	ISSUED 1-1-97
APPROVED _____ January 1, 2021  ENGINEER OF DESIGN AND ENVIRONMENT	

DATE	REVISIONS
1-1-21	Updated fonts, abbreviations, and symbols.
1-1-19	Added new symbols.

**STANDARD SYMBOLS,
ABBREVIATIONS,
AND PATTERNS**
(Sheet 1 of 9)

STANDARD 000001-08

<u>ADJUSTMENT ITEMS</u>			<u>ALIGNMENT ITEMS</u>			<u>DRAINAGE ITEMS</u>		
	<u>EX</u>	<u>PR</u>		<u>EX</u>	<u>PR</u>		<u>EX</u>	<u>PR</u>
Structure To Be Adjusted		ADJ	Baseline	_____	_____	Channel or Stream Line	-----	-----
Structure To Be Cleaned		C	Centerline	-----	-----	Culvert Line	- - - - -	_____
Main Structure To Be Filled		FM	Centerline Break Circle	○	⊙	Grading & Shaping Ditches	-----	-----
Structure To Be Filled		F	Baseline Symbol	⊥	⊥	Drainage Boundary Line	▩▩▩▩▩▩▩▩▩▩	▩▩▩▩▩▩▩▩▩▩
Structure To Be Filled Special		FSP	Centerline Symbol		⊥	Paved Ditch	▩▩▩▩▩▩▩▩▩▩	▩▩▩▩▩▩▩▩▩▩
Structure To Be Removed		R	PI Indicator	△	△	Aggregate Ditch	▩▩▩▩▩▩▩▩▩▩	▩▩▩▩▩▩▩▩▩▩
Structure To Be Reconstructed		REC	Point Indicator	○	○	Pipe Underdrain	▩▩▩▩▩▩▩▩▩▩	▩▩▩▩▩▩▩▩▩▩
Structure To Be Reconstructed Special		RSP	Horizontal Curve Data (Half Size)	EX. CURVE P.I. STA= Δ= D= R= T= L= E= e= T.R.= S.E. RUN= P.C. STA= P.T. STA=	CURVE P.I. STA= Δ= D= R= T= L= E= e= T.R.= S.E. RUN= P.C. STA= P.T. STA=	Storm Sewer	▩▩▩▩▩▩▩▩▩▩	▩▩▩▩▩▩▩▩▩▩
Frame and Grate To Be Adjusted		A	<u>BOUNDARIES ITEMS</u>				<u>EX</u>	<u>PR</u>
Frame and Lid To Be Adjusted		A	Dashed Property Line	- - - - -	- - - - -	Flowline	⊥	⊥
Domestic Service Box To Be Adjusted		A	Solid Property/Lot Line	_____	_____	Ditch Check	⊥	⊥
Valve Vault To Be Adjusted		A	Section/Grant Line	- - - - -	- - - - -	Headwall	-	∩
Special Adjustment		SP	Quarter Section Line	_____	_____	Inlet	□	▬
Item To Be Abandoned		AB	Quarter/Quarter Section Line	- - - - -	- - - - -	Manhole	⊙	⊙
Item To Be Moved		M	County/Township Line	_____	_____	Summit	↔	↔
Item To Be Relocated		REL	State Line	- - - - -	- - - - -	Roadway Ditch Flow	↔	↔
Pavement Removal and Replacement		▨	Chiseled Square Found	□	□	Swale	▩▩▩▩▩▩▩▩▩▩	▩▩▩▩▩▩▩▩▩▩
			Iron Pipe Found	○	○	Catch Basin	○	●
			Iron Pipe Set	●	●	Culvert End Section	◁	◁
			Survey Marker	⊙	⊙	Water Surface Indicator	▽	▽
			Property Line Symbol	⊥	⊥	Riprap	▩▩▩▩▩▩▩▩▩▩	▩▩▩▩▩▩▩▩▩▩
			Same Ownership Symbol (Half Size)	↗	↗	<u>HYDRAULICS ITEMS</u>		
			Northwest Quarter Corner (Half Size)	⊙	⊙	Overflow	↘	↘
			Section Corner (Half Size)	⊙	⊙	Sheet Flow	→	→
			Southeast Quarter Corner (Half Size)	⊙	⊙	Hydrant Outlet	→	→


 Illinois Department of Transportation
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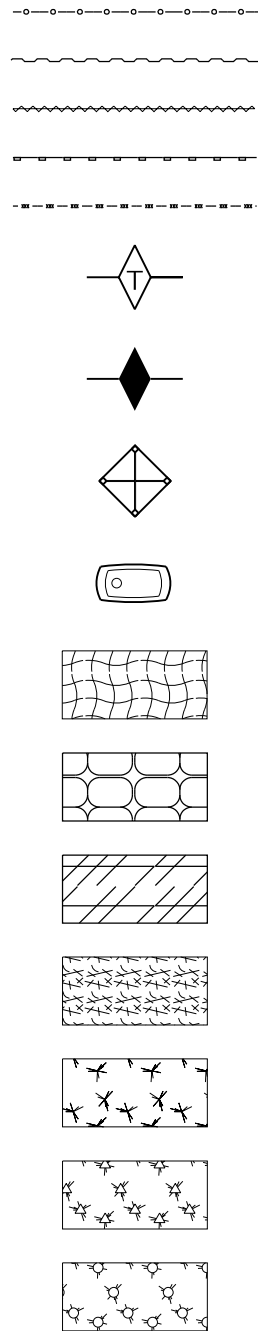
**STANDARD SYMBOLS,
 ABBREVIATIONS,
 AND PATTERNS**
 (Sheet 2 of 9)
STANDARD 000001-08

EROSION & SEDIMENT CONTROL ITEMS

EX

PR

- Cleaning & Grading Limits
- Dike
- Erosion Control Fence
- Perimeter Erosion Barrier
- Temporary Fence
- Ditch Check Temporary
- Ditch Check Permanent
- Inlet & Pipe Protection
- Sediment Basin
- Erosion Control Blanket
- Fabric Formed Concrete Revetment Mat
- Turf Reinforcement Mat
- Mulch Temporary
- Mulch Method 1
- Mulch Method 2 Stabilized
- Mulch Method 3 Hydraulic

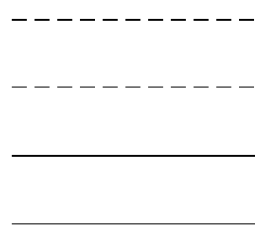


CONTOUR ITEMS

EX

PR

- Approx. Index Line
- Approx. Intermediate Line
- Index Contour
- Intermediate Contour

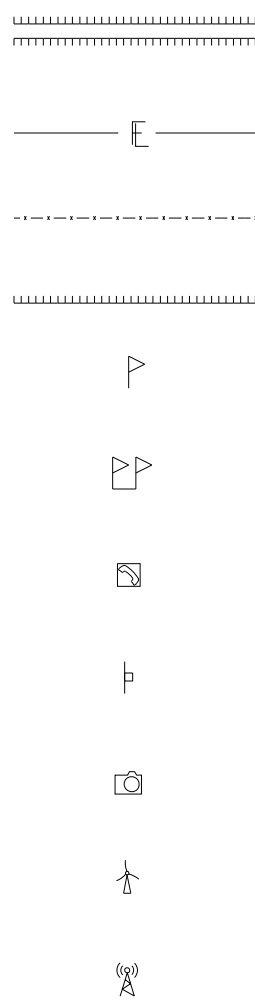


NON-HIGHWAY IMPROVEMENT ITEMS

EX

PR

- Noise Attn./Levee
- Field Line
- Fence
- Base of Levee
- Mailbox
- Multiple Mailboxes
- Pay Telephone
- Advertising Sign
- *ITS Camera
- Wind Turbine
- Cellular Tower
- *Intelligent Transportation Systems

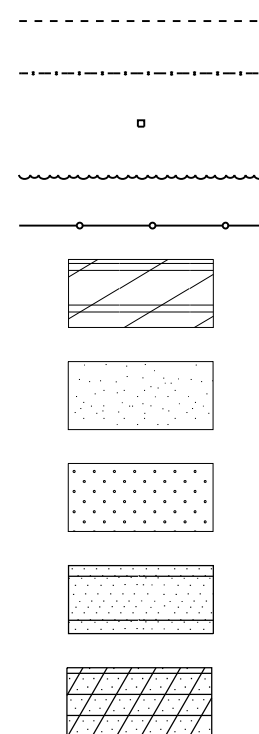


LANDSCAPING ITEMS

EX

PR

- Contour Mounding Line
- Fence
- Fence Post
- Shrubs
- Mowline
- Perennial Plants
- Seeding Class 2
- Seeding Class 2A
- Seeding Class 4
- Seeding Class 4 & 5 Combined

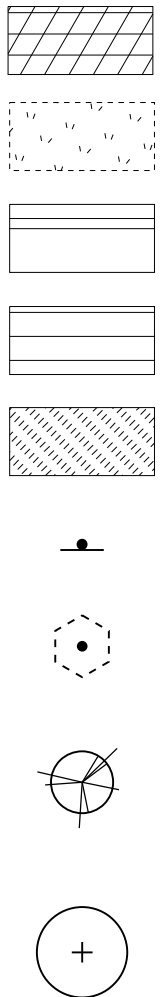


EXISTING LANDSCAPING ITEMS (contd.)

EX

PR

- Seeding Class 5
- Seeding Class 7
- Seedlings Type 1
- Seedlings Type 2
- Sodding
- Mowstake w/Sign
- Tree Trunk Protection
- Evergreen Tree
- Shade Tree

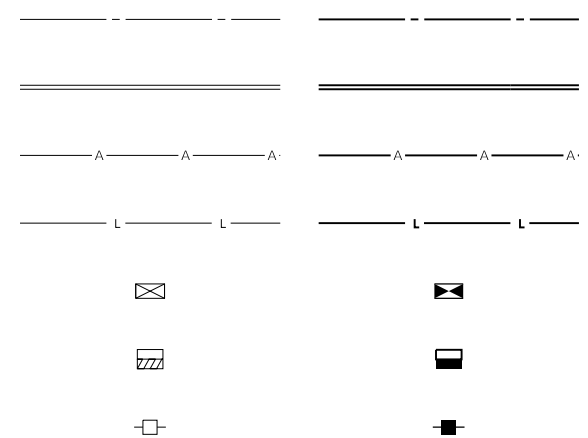


LIGHTING

EX

PR

- Duct
- Conduit
- Electrical Aerial Cable
- Electrical Buried Cable
- Controller
- Underpass Luminaire
- Power Pole



STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS

(Sheet 3 of 9)

STANDARD 000001-08

Illinois Department of Transportation

APPROVED January 1, 2021

Michael Bond

ENGINEER OF POLICY AND PROCEDURES

APPROVED January 1, 2021

Scott E. Elie

ENGINEER OF DESIGN AND ENVIRONMENT

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**LIGHTING
(contd.)**

EX

PR

Pull Point



Handhole



Heavy Duty Handhole



Junction Box



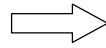
Light Unit Comb.



Electrical Ground



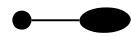
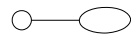
Traffic Flow Arrow



High Mast Pole
(Half Size)



Light Unit-1

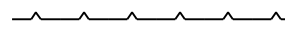


PAVEMENT (MISC.)

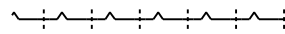
EX

PR

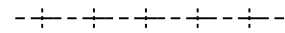
Keyed Long. Joint



Keyed Long. Joint w/Tie Bars



Sawed Long. Joint w/Tie Bars



Bituminous Shoulder



Bituminous Taper



Stabilized Driveway



Widening



PAVEMENT MARKINGS

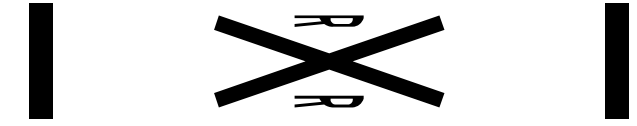
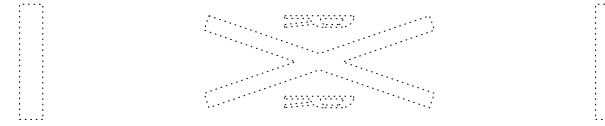
EX

PR

Handicap Symbol



RR Crossing



Raised Marker Amber 1 Way



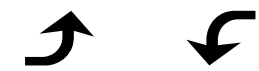
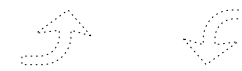
Raised Marker Amber 2 Way



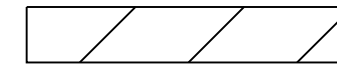
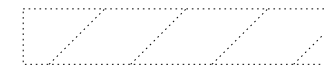
Raised Marker Crystal 1 Way



Two Way Turn Left



Shoulder Diag. Pattern



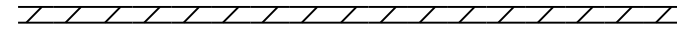
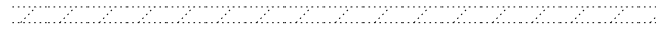
Skip-Dash White



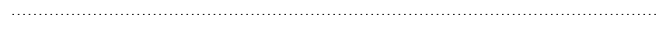
Skip-Dash Yellow



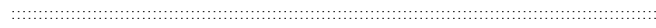
Stop Line



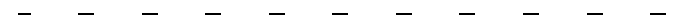
Solid Line


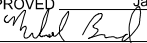
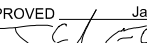


Double Centerline



Dotted Lines



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(Sheet 4 of 9)

STANDARD 000001-08

PAVEMENT MARKINGS
(contd.)

CL 2Ln 2Way
RRPM 12.2 m (40') o.c.

CL 2Ln 2Way
RRPM 80' (24.4 m) o.c.

CL Multilane Div.
RRPM 40' (12.2 m) o.c.

CL Multilane Div.
RRPM 80' (24.4 m) o.c.

CL Multilane Div. Dbl.
RRPM 80' (24.4 m) o.c.

CL Multilane Undiv.

Two Way Turn Left Line

Urban Combination Left

Urban Combination Right

Urban Left Turn Arrow

Urban Right Turn Arrow

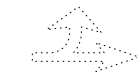
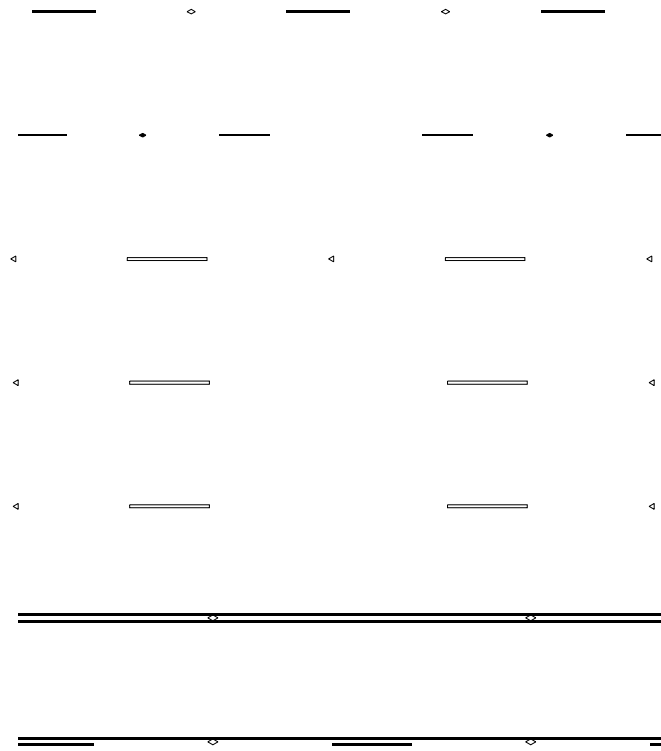
Urban Left Turn Only

Urban Right Turn Only

Urban Thru Only

EX

PR



ONLY
ONLY
ONLY

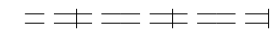


RAILROAD ITEMS

EX

PR

Abandoned Railroad



Railroad



Railroad Point



Control Box



Crossing Gate



Flashing Signal



Railroad Cant. Mast Arm



Crossbuck

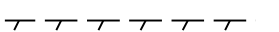


REMOVAL ITEMS

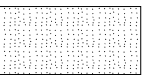
EX

PR

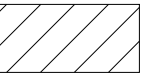
Removal Tic



Bituminous Removal



Hatch Pattern



Tree Removal Single



RIGHT OF WAY ITEMS

EX

PR

Future ROW Corner Monument



ROW Marker



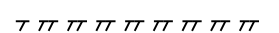
ROW Line



Easement



Temporary Easement



**STANDARD SYMBOLS,
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Urban LT & RT Turn Arrow

Urban Thru Arrow

PAVEMENT MARKINGS
(contd.)

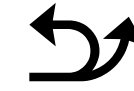
EX

PR

Urban U-Turn



Urban Combined U-Turn



Rural Combination Left



Rural Combination Right



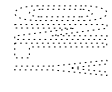
Rural Left Turn Arrow



Rural Right Turn Arrow



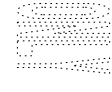
Rural Left Turn Only



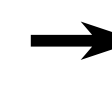
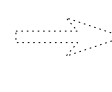
ONLY ONLY ONLY



Rural Right Turn Only



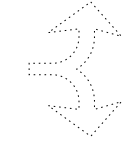
Rural Thru Only



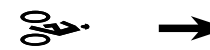
Rural Thru Arrow



Rural Lt & Rt Turn Arrow



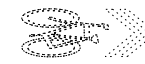
Bike Lane Symbol



Bike Lane Text



Bike Path Shared



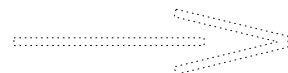
Bike Shared Roadway



Lane Drop Symbol



Wrong Way Arrow



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 (Sheet 6 of 9)
STANDARD 000001-08

**RIGHT OF WAY ITEMS
(contd.)**

	EX	PR
Access Control Line		
Access Control Line & ROW		
Access Control Line & ROW with Fence		
Excess ROW Line		

**ROADWAY PLAN
ITEMS**

	EX	PR
Cable Barrier		
Concrete Barrier		
Edge of Pavement		
Bit Shoulders, Medians and C&G Line		
Aggregate Shoulder		
Sidewalks, Driveways		
Guardrail		
Guardrail Post		
Traffic Sign		
Corrugated Median		
Impact Attenuator		
North Arrow with District Office (Half Size)		
Match Line		
Slope Limit Line		
Typical Cross-Section Line		

ROADWAY PROFILES

	EX	PR
P.I. Indicator		
Point Indicator		
Earthworks Balance Point		
Begin Point		
Vert. Curve Data	VPI = ELEV = L = E =	VPI = ELEV = L = E =
Ditch Profile Left Side		
Ditch Profile Right Side		
Roadway Profile Line		
Storm Sewer Profile Left Side		
Storm Sewer Profile Right Side		

SIGNING ITEMS

	EX	PR
Cone, Drum or Barricade		
Barricade Type II		
Barricade Type III		
Barricade With Edge Line		
Flashing Light Sign		
Panels I		
Panels II		
Direction of Traffic		
Sign Flag (Half Size)		

**SIGNING ITEMS
(contd.)**

	EX	PR
Reverse Left W1-4L (Half Size)		
Reverse Right W1-4R (Half Size)		
Two Way Traffic Sign W6-3 (Half Size)		
Detour Ahead W20-2(O) (Half Size)		
Left Lane Closed Ahead W20-5L(O) (Half Size)		
Right Lane Closed Ahead W20-5R(O) (Half Size)		
Road Closed Ahead W20-3(O) (Half Size)		
Road Construction Ahead W20-1(O) (Half Size)		
Single Lane Ahead (Half Size)		
Transition Left W4-2L (Half Size)		
Transition Right W4-2R (Half Size)		

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**STANDARD SYMBOLS,
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(Sheet 7 of 9)

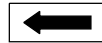
STANDARD 000001-08

SIGNING ITEMS
(contd.)

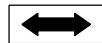
EX

PR

One Way Arrow Lrg. W1-6-(O)
(Half Size)



Two Way Arrow Large W1-7-(O)
(Half Size)



Detour M4-10L-(O)
(Half Size)



Detour M4-10R-(O)
(Half Size)



One Way Left R6-1L
(Half Size)



One Way Right R6-1R
(Half Size)



Left Turn Lane R3-I100L
(Half Size)



Keep Left R4-7AL
(Half Size)



Keep Left R4-7BL
(Half Size)



Keep Right R4-7AR
(Half Size)



Keep Right R4-7BR
(Half Size)



Stop Here On Red R10-6-AL
(Half Size)



Stop Here On Red R10-6-AR
(Half Size)



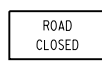
No Left Turn R3-2
(Half Size)



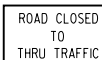
No Right Turn R3-1
(Half Size)



Road Closed R11-2
(Half Size)



Road Closed Thru Traffic R11-2
(Half Size)



STRUCTURES ITEMS

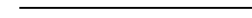
EX

PR

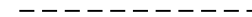
Box Culvert Barrel



Box Culvert Headwall



Bridge Pier



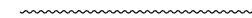
Bridge



Retaining Wall



Temporary Sheet Piling



TRAFFIC SHEET ITEMS

EX

PR

Cable Number



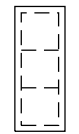
Left Turn Green



Left Turn Yellow



Signal Backplate



Signal Section 8" (200 mm)



Signal Section 12" (300 mm)



Walk/Don't Walk Letters



Walk/Don't Walk Symbols

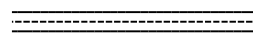
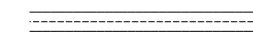


TRAFFIC SIGNAL ITEMS

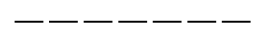
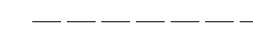
EX

PR

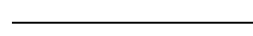
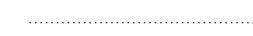
Galv. Steel Conduit



Underground Cable



Detector Loop Line



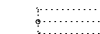
Detector Loop Large



Detector Loop Small



Detector Loop Quadrapole



**STANDARD SYMBOLS,
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(Sheet 8 of 9)

STANDARD 000001-08

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TRAFFIC SIGNAL ITEMS (contd.)

EX

PR

Detector Raceway		
Aluminum Mast Arm		
Steel Mast Arm		
Veh. Detector Magnetic		
Conduit Splice		
Controller		
Gulfbox Junction		
Wood Pole		
Temp. Signal Head		
Handhole		
Double Handhole		
Heavy Duty Handhole		
Junction Box		
Ped. Pushbutton Detector		
Ped. Signal Head		
Power Pole Service		
Priority Veh. Detector		
Signal Head		
Signal Head w/Backplate		
Signal Post		
Closed Circuit TV		
Video Detector System		

UNDERGROUND UTILITY ITEMS

EX

PR

ABANDONED

Cable TV			
Electric Cable			
Fiber Optic			
Gas Pipe			
Oil Pipe			
Sanitary Sewer			
Telephone Cable			
Water Pipe			

UTILITIES ITEMS

EX

PR

Controller		
Double Handhole		
Fire Hydrant		
GuyWire or Deadman Anchor		
Handhole		
Heavy Duty Handhole		
Junction Box		
Light Pole		
Manhole		
Monitoring Well (Gasoline)		
Pipeline Warning Sign		
Power Pole		
Power Pole with Light		
Sanitary Sewer Cleanout		
Splice Box Above Ground		
Telephone Splice Box Above Ground		
Telephone Pole		

UTILITY ITEMS (contd.)

EX

PR

Traffic Signal		
Traffic Signal Control Box		
Water Meter		
Water Meter Valve Box		
Profile Line		
Aerial Power Line		

VEGETATION ITEMS

EX

PR

Deciduous Tree		
Bush or Shrub		
Evergreen Tree		
Stump		
Orchard/Nursery Line		
Vegetation Line		
Woods & Bush Line		

WATER FEATURE ITEMS

EX

PR

Stream or Drainage Ditch		
Waters Edge		
Water Surface Indicator		
Water Point		
Disappearing Ditch		
Marsh		
Marsh/Swamp Boundary		

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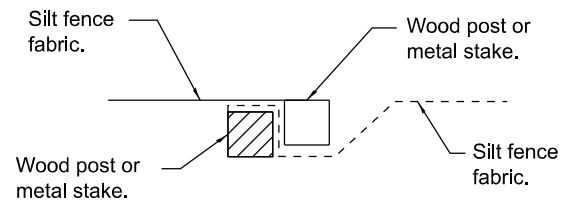
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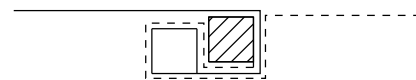
STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS
 (Sheet 9 of 9)

STANDARD 000001-08



Place end-post (stake) of first silt fence adjacent to end-post (stake) of second silt fence with fabric positioned as shown.

STEP 1

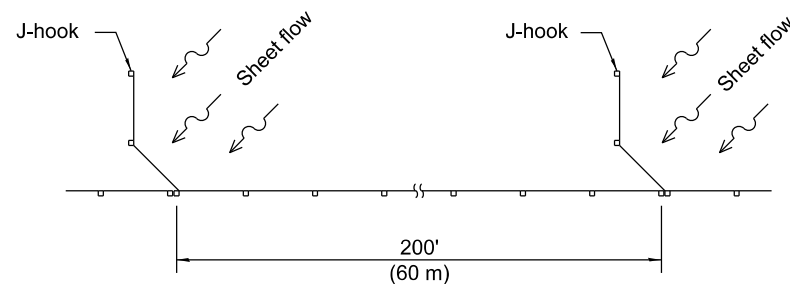


Rotate posts (stakes) together 180° clockwise and drive both posts (stakes) 18 (450) into ground.

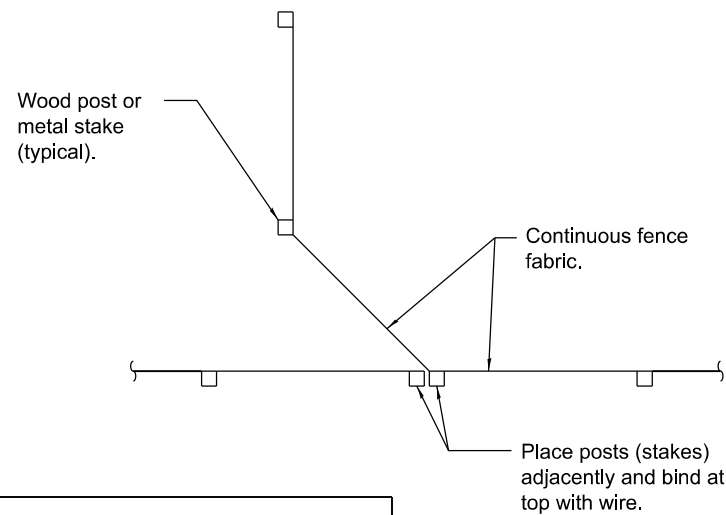
STEP 2

ATTACHING TWO SILT FILTER FENCES

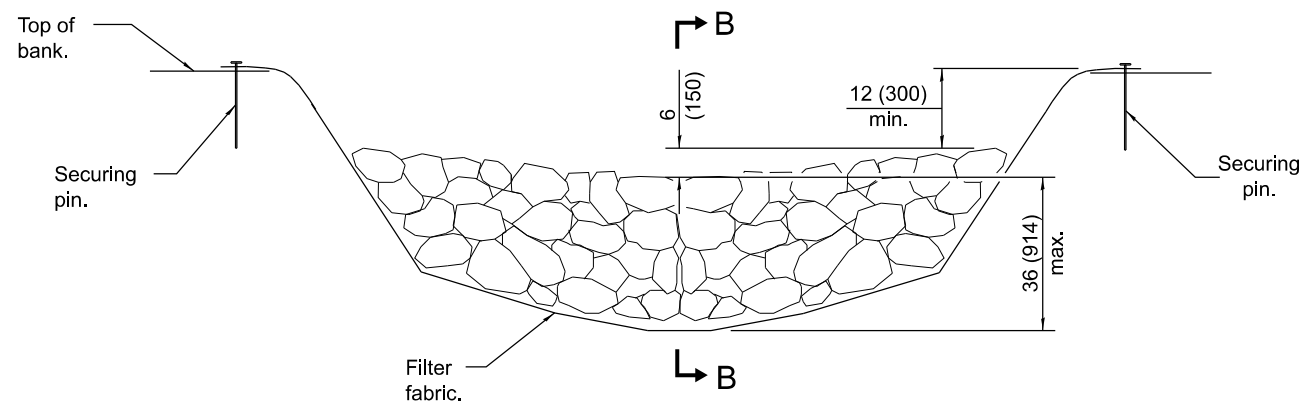
(Not applicable for J-hooks)



SILT FILTER J-HOOK PLACEMENT

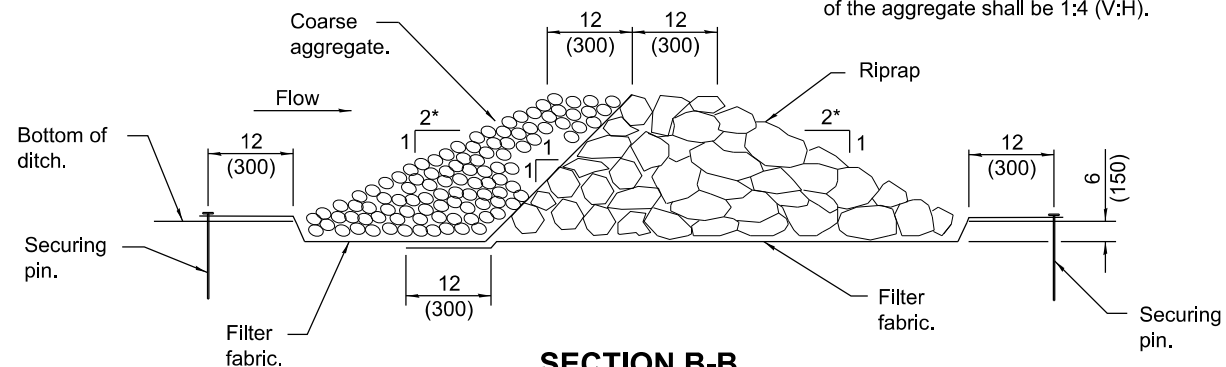


J-HOOK



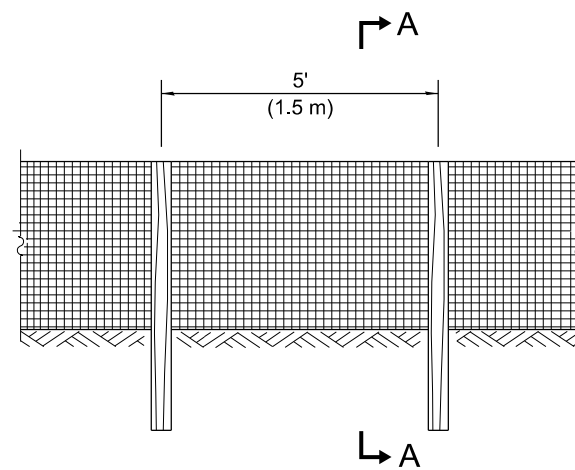
ELEVATION

* When the ditch check is within the clear zone and the road is open to traffic, the traffic approach slope of the aggregate shall be 1:4 (V:H).



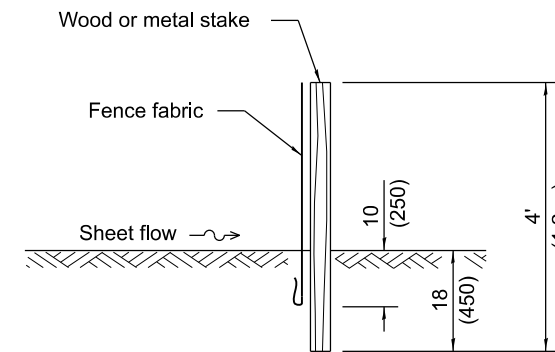
SECTION B-B

AGGREGATE DITCH CHECK

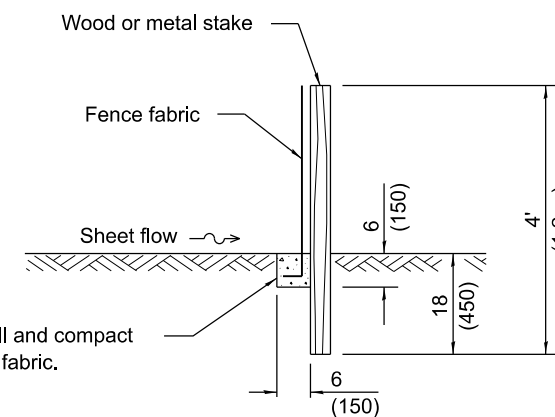


ELEVATION

SILT FILTER FENCE AS A PERIMETER EROSION BARRIER



SLICE METHOD



TRENCH METHOD

SECTION A-A

Excavate, backfill and compact trench to secure fabric.

GENERAL NOTES

The installation details and dimensions shown for perimeter erosion barriers shall also apply for inlet and pipe protection.

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

DATE	REVISIONS
1-1-13	Corrected notation for flowline (f) on SEDIMENT BASIN ELEVATION
1-1-12	Omitted hay/straw perimeter barrier. Added SLICE METHOD to SECTION A-A

TEMPORARY EROSION CONTROL SYSTEMS

(Sheet 1 of 2)

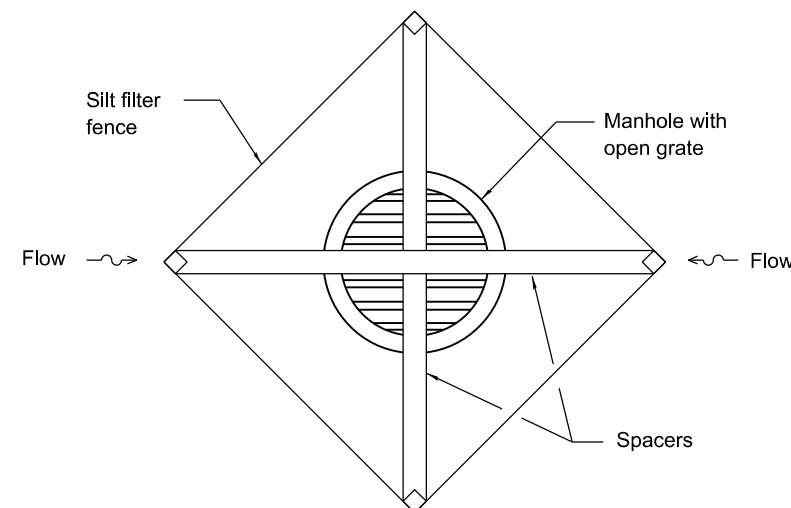
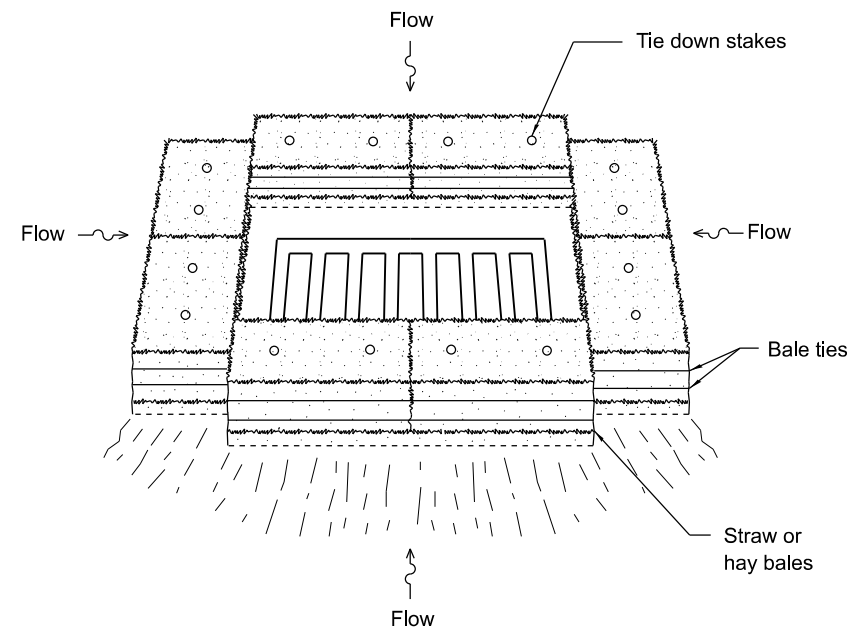
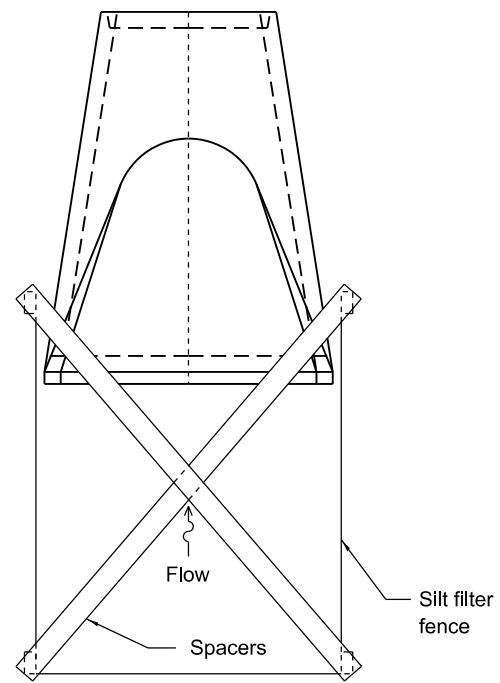
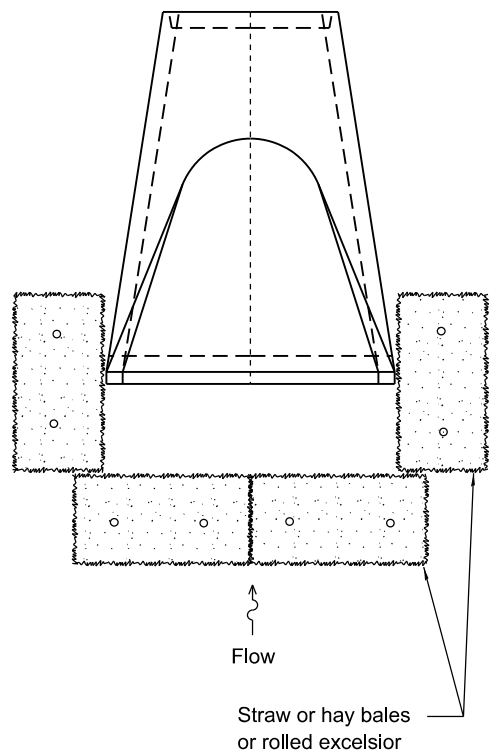
STANDARD 280001-07

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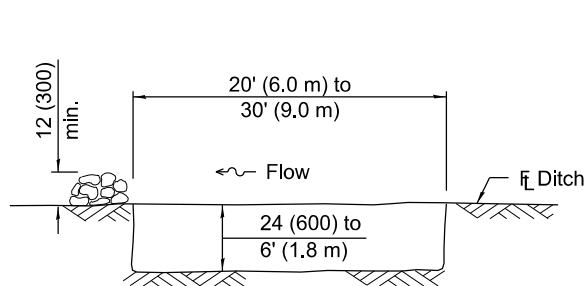
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Michael Beard
 ENGINEER OF POLICY AND PROCEDURES

APPROVED January 1, 2013
[Signature]
 ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

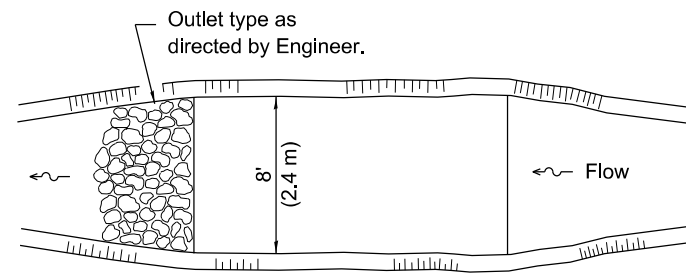


INLET AND PIPE PROTECTION



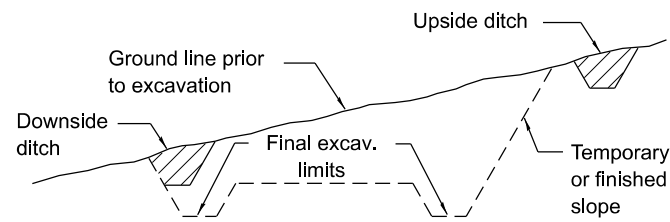
The performance of the basin will improve if put into a series.

ELEVATION

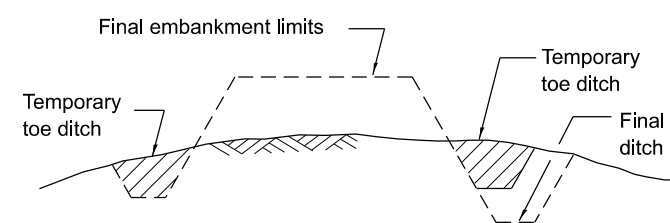


The long dimension should be parallel with the direction of the flow. Accumulated silt shall be removed anytime the basins become 75% filled.

PLAN



TYPICAL CUT CROSS-SECTION



TYPICAL FILL CROSS-SECTION

TEMPORARY DITCHES FOR CUT & FILL SECTIONS

SEDIMENT BASIN

Illinois Department of Transportation

APPROVED January 1, 2013
Michael Brand
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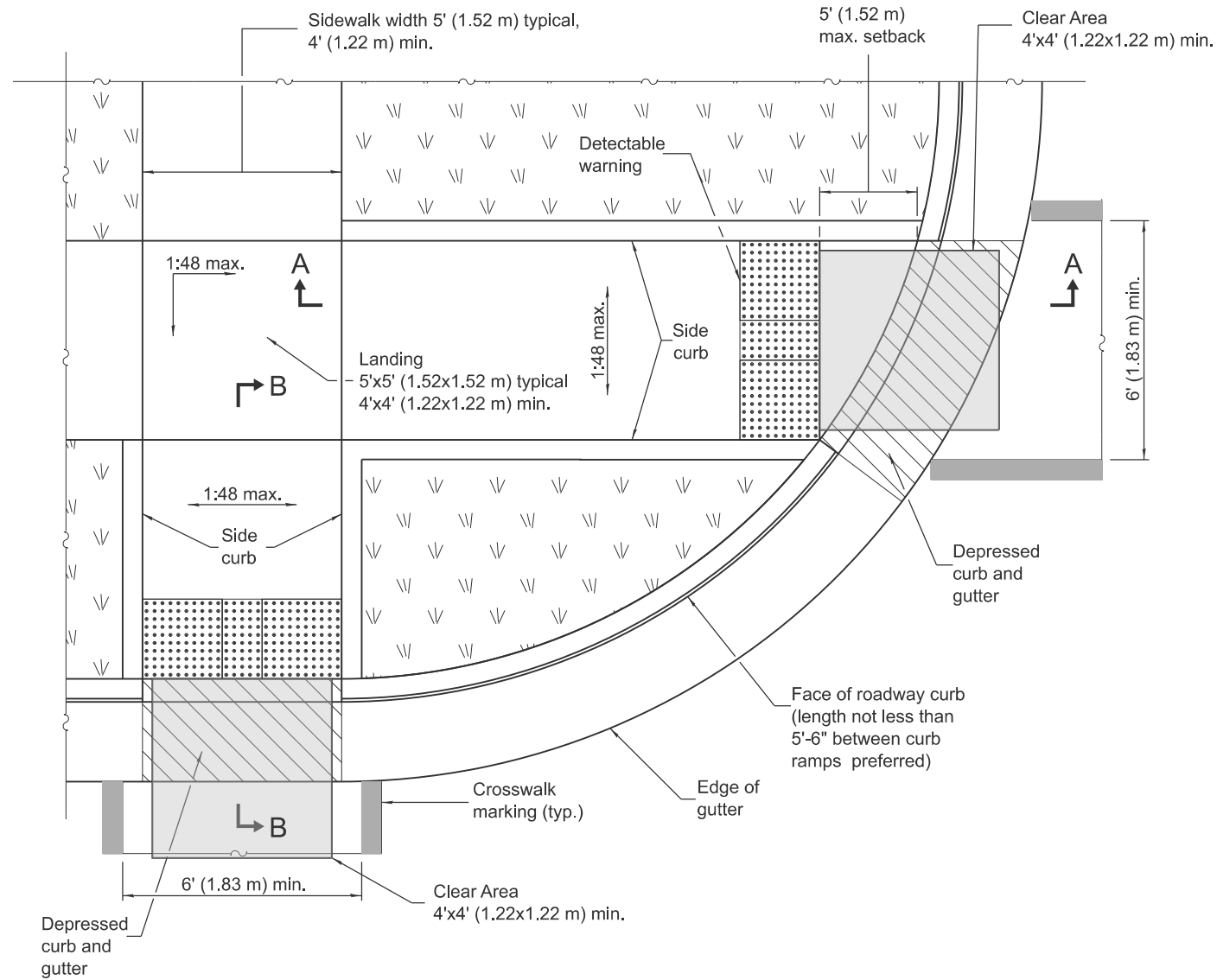
APPROVED January 1, 2013
[Signature]
 ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

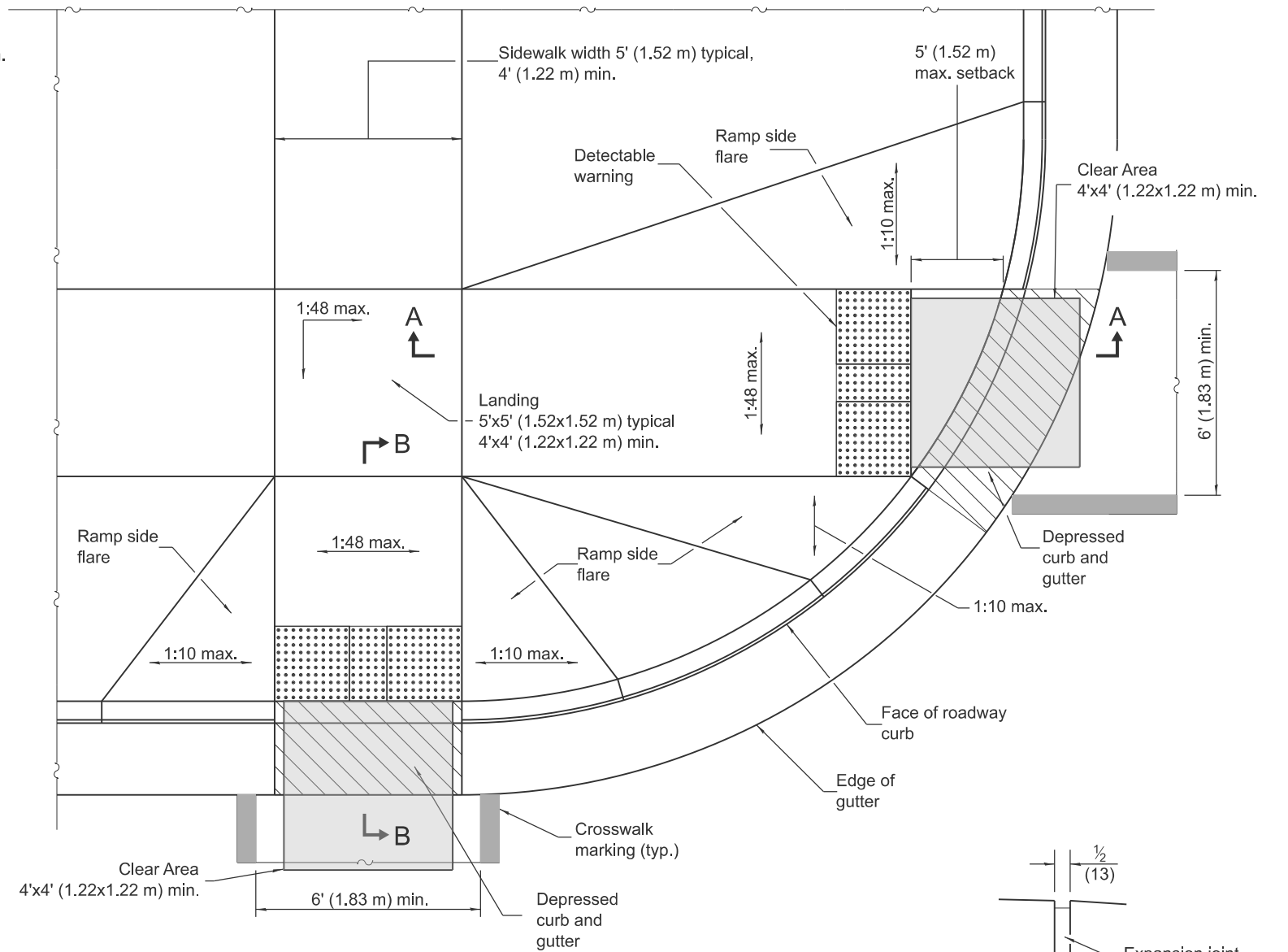
TEMPORARY EROSION CONTROL SYSTEMS

(Sheet 2 of 2)

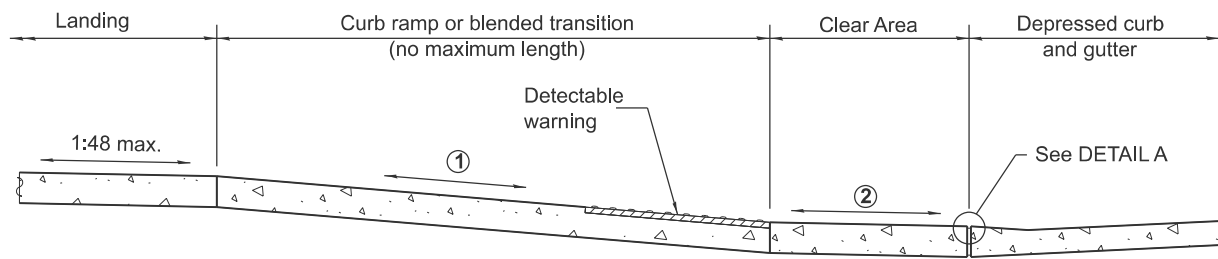
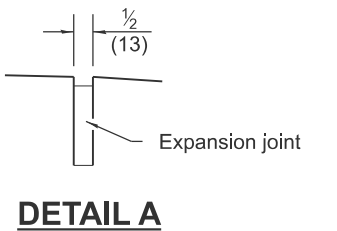
STANDARD 280001-07



**RAMPS IN LANDSCAPED AREA
SETBACK ≤ 5'**

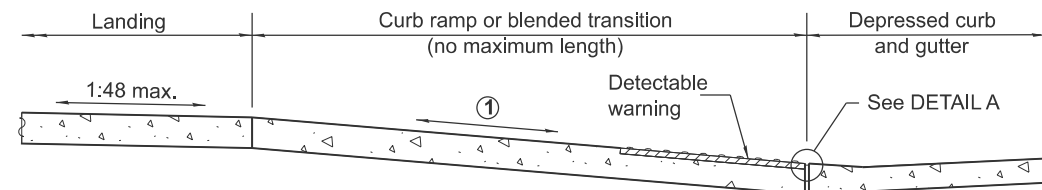


**RAMPS IN PAVED AREA
SETBACK ≤ 5'**



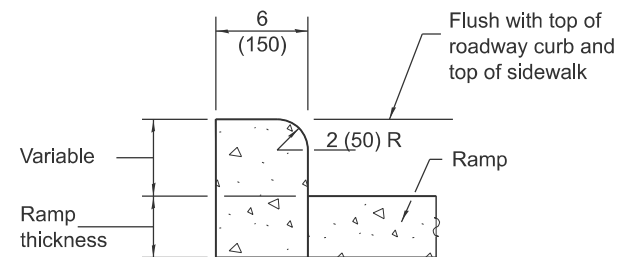
SECTION A-A

- ① The running slope of a curb ramp shall be 1:12 max. The running slope of a blended transition shall be 1:20 max.
- ② Clear Area shall be located outside the travel lane inclusive of any bicycle lanes. The running slope shall be 1:20 max and the cross slope shall be:
 - Signalized/Uncontrolled Intersection - 1:20
 - Yield/Stop Controlled Intersection - 1:48
 - Midblock - grade of the road



SECTION B-B

- ① The running slope of a curb ramp shall be 1:12 max. The running slope of a blended transition shall be 1:20 max.



SIDE CURB DETAIL

See Sheet 2 for GENERAL NOTES.

DATE	REVISIONS
1-1-25	Indicated "Clear Area" Location and updated cross-slopes.
1-1-19	Removed "15-foot rule", added "Blended transitions" and placement tolerances for detectable warnings.

**PERPENDICULAR CURB
RAMPS FOR SIDEWALKS**

(Sheet 1 of 2)

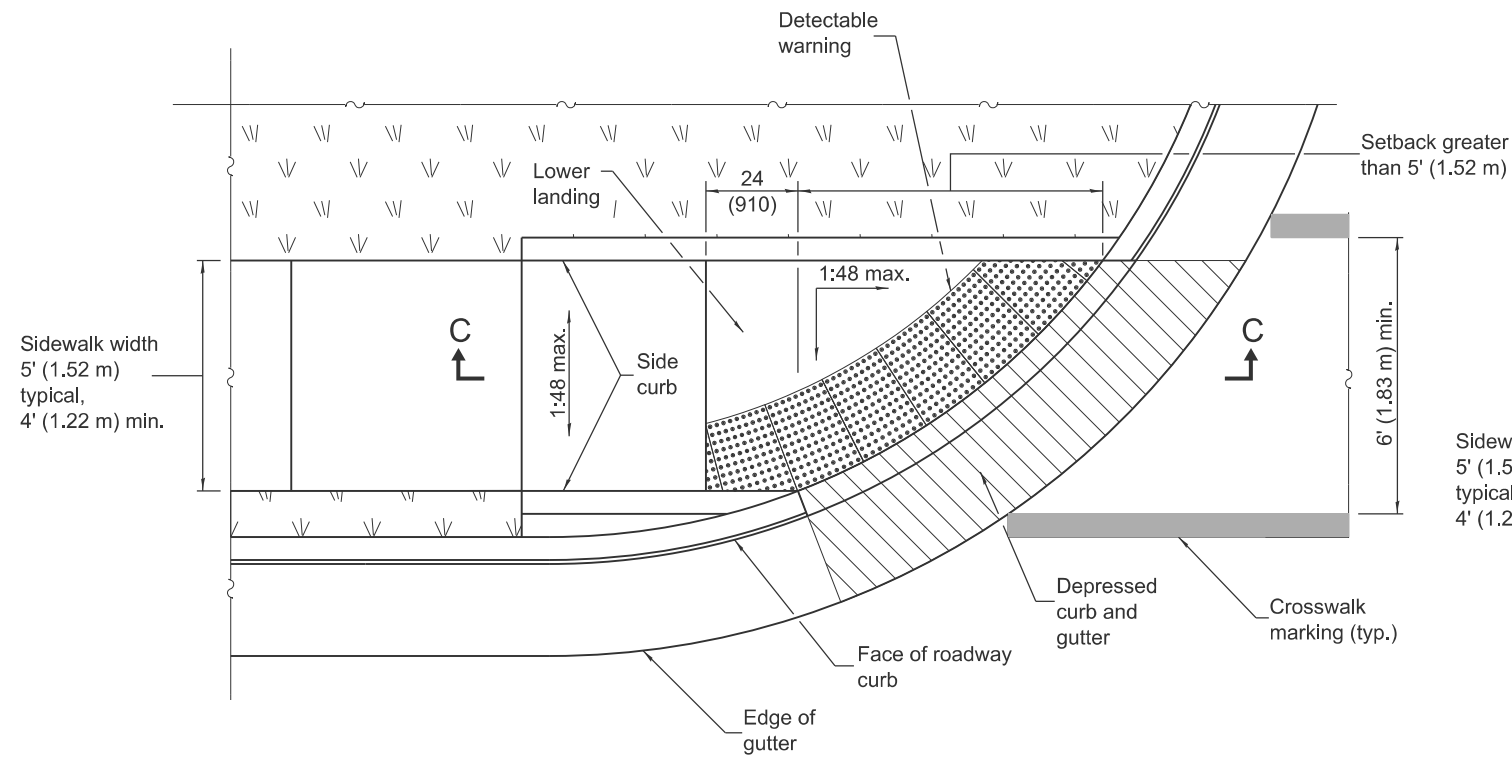
STANDARD 424001-12

Illinois Department of Transportation

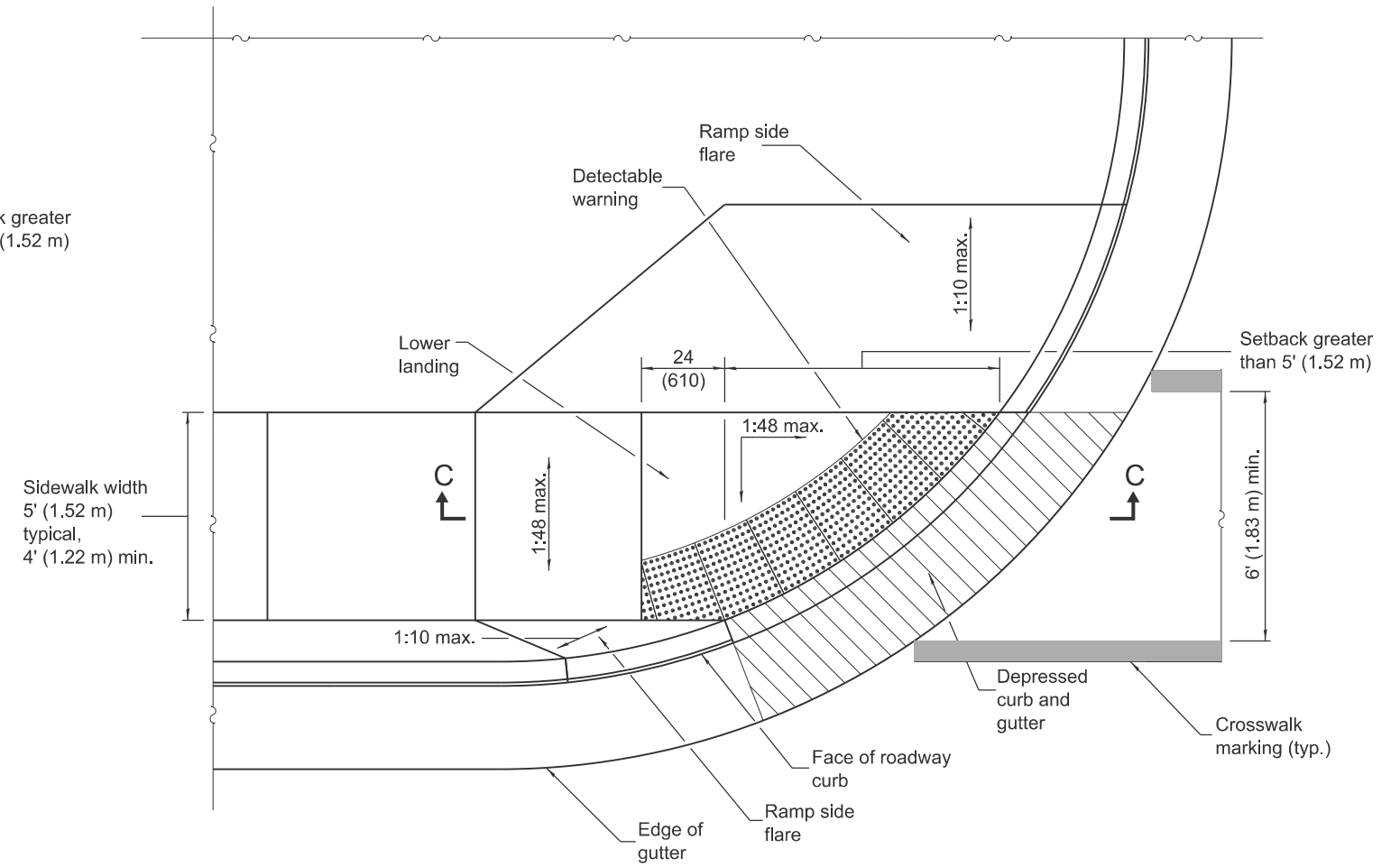
APPROVED January 1, 2025
Marshall K. Wood
 ENGINEER OF POLICY AND PROCEDURES

APPROVED January 1, 2025
Subh Chak
 ENGINEER OF DESIGN AND ENVIRONMENT

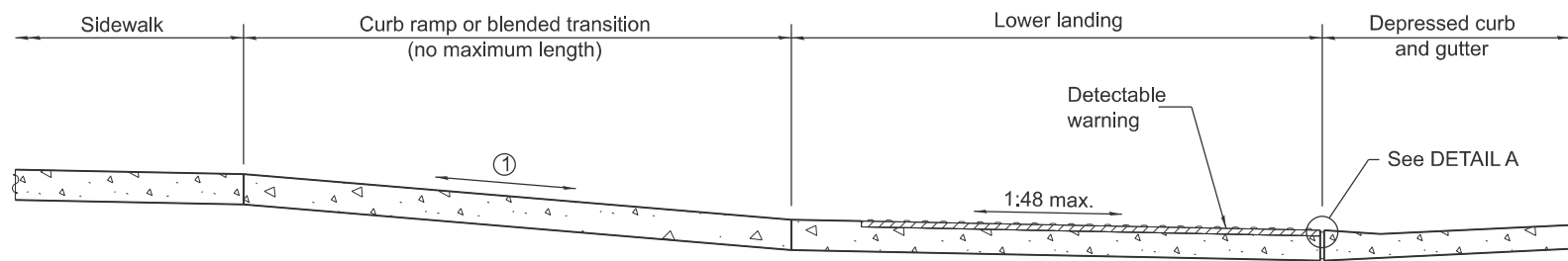
ISSUED 1-1-97



**RAMP IN LANDSCAPED AREA
SETBACK > 5'**



**RAMP IN PAVED AREA
SETBACK > 5'**



SECTION C-C

- ① The running slope of a curb ramp shall be 1:12 max. The running slope of a blended transition shall be 1:20 max.

GENERAL NOTES

All slope ratios are expressed as units of vertical displacement to units of horizontal displacement (V:H).

Where 1:48 maximum slope is shown, 1:64 is preferred.

Detectable warnings are shown in their ideal locations but the following placement tolerances are allowed.

Side Border - Detectable warnings should extend the full width of the walking surface (excluding flared sides) but a border along each side up to 2 in. (50 mm) in width is allowed.

Curb Set-Back - Detectable warnings located at the back of curb should closely align with the curb but a gap up to 6 in. (150 mm) behind the curb is allowed.

See Standard 606001 for details of depressed curb adjacent to curb ramp.

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

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APPROVED January 1, 2025
Marshall K. Matell
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APPROVED January 1, 2025
John C. ...
 ENGINEER OF DESIGN AND ENVIRONMENT

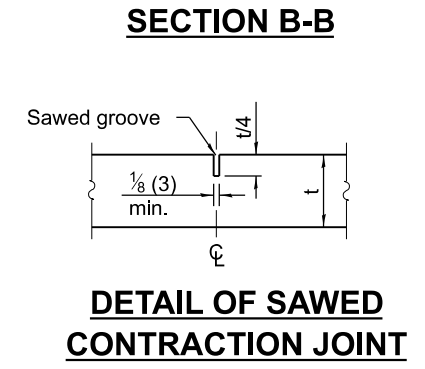
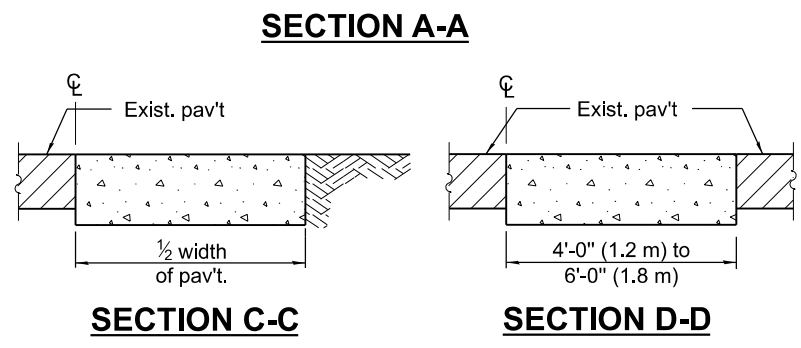
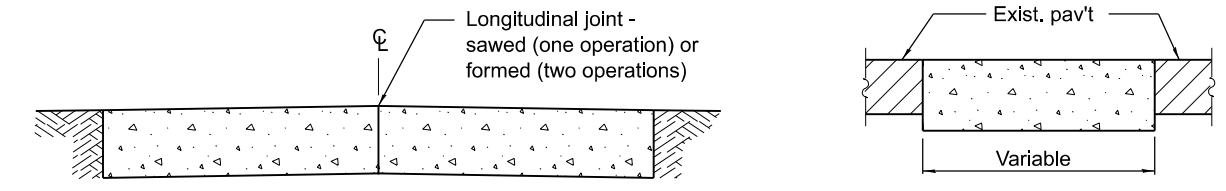
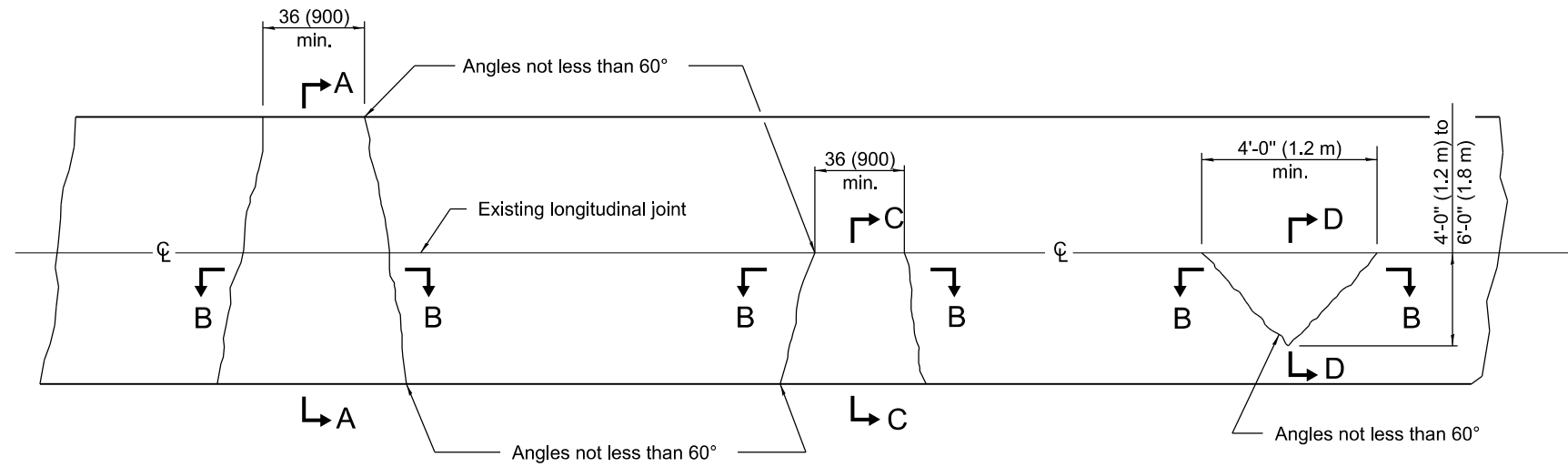
ISSUED 1-1-97

**PERPENDICULAR CURB
RAMPS FOR SIDEWALKS**

(Sheet 2 of 2)

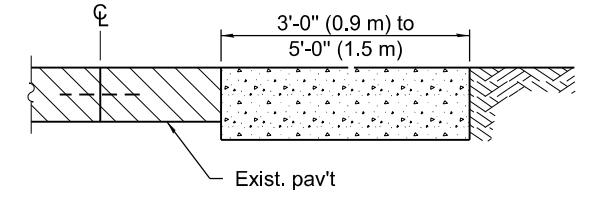
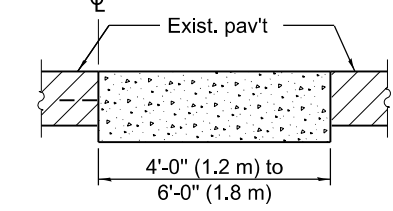
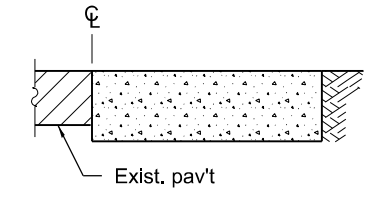
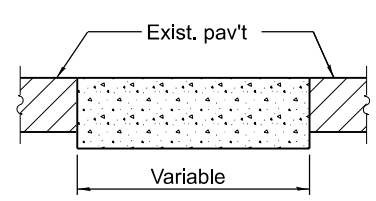
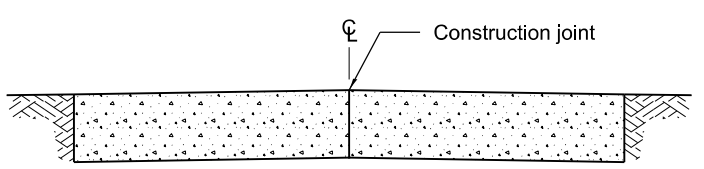
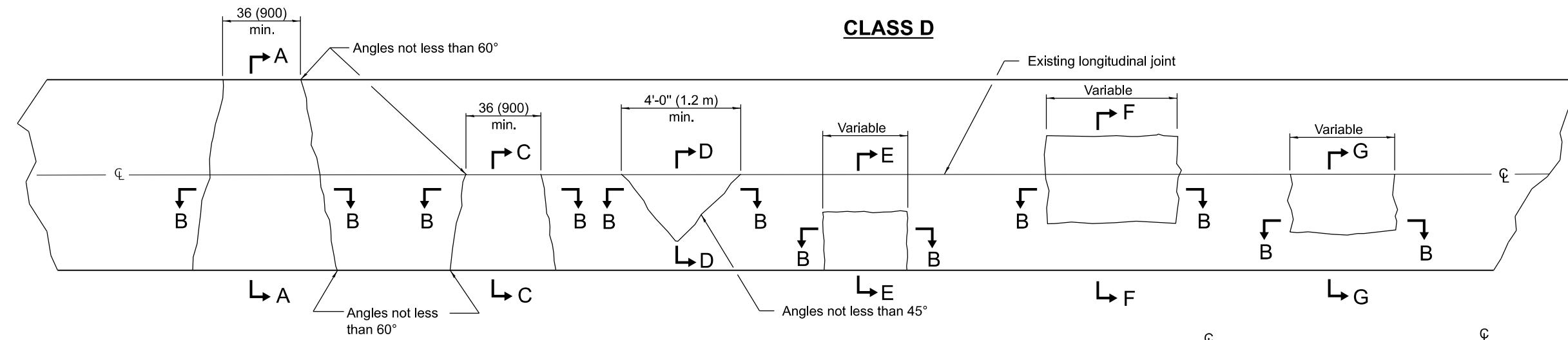
STANDARD 424001-12

CLASS C



Note:
Longitudinal joints shall be as detailed on Standard 420001, except tie bars are not required for patches 20'-0" (6,0 m) or less in length.

CLASS D



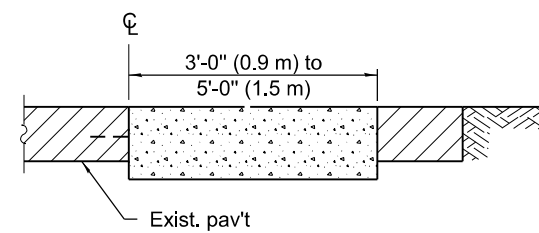
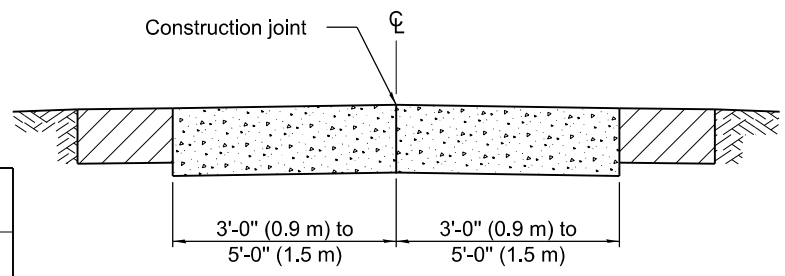
SECTION A-A
(Built in two operations)

SECTION B-B

SECTION C-C

SECTION D-D

SECTION E-E



SECTION F-F
(Built in two operations)

SECTION G-G

GENERAL NOTES

Existing tie bars shall be either cut or removed. Marginal bars shall be cut.

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

DATE	REVISIONS
1-1-08	Switched units to English (metric).
1-1-07	Revised Note for Class C patches.

CLASS C and D PATCHES

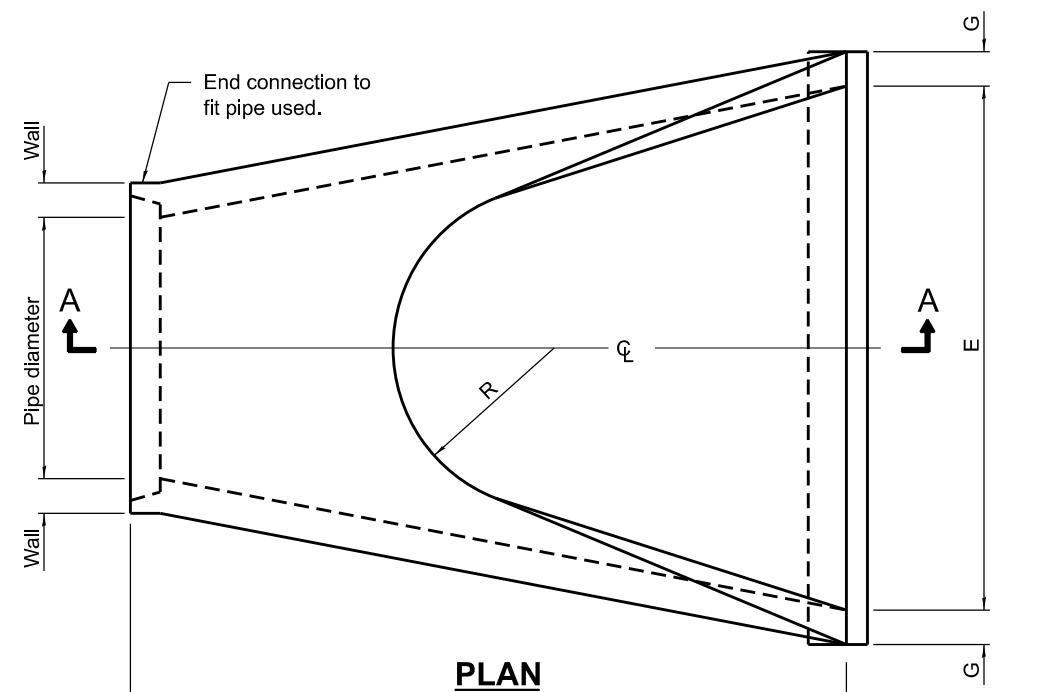
STANDARD 442201-03

Illinois Department of Transportation

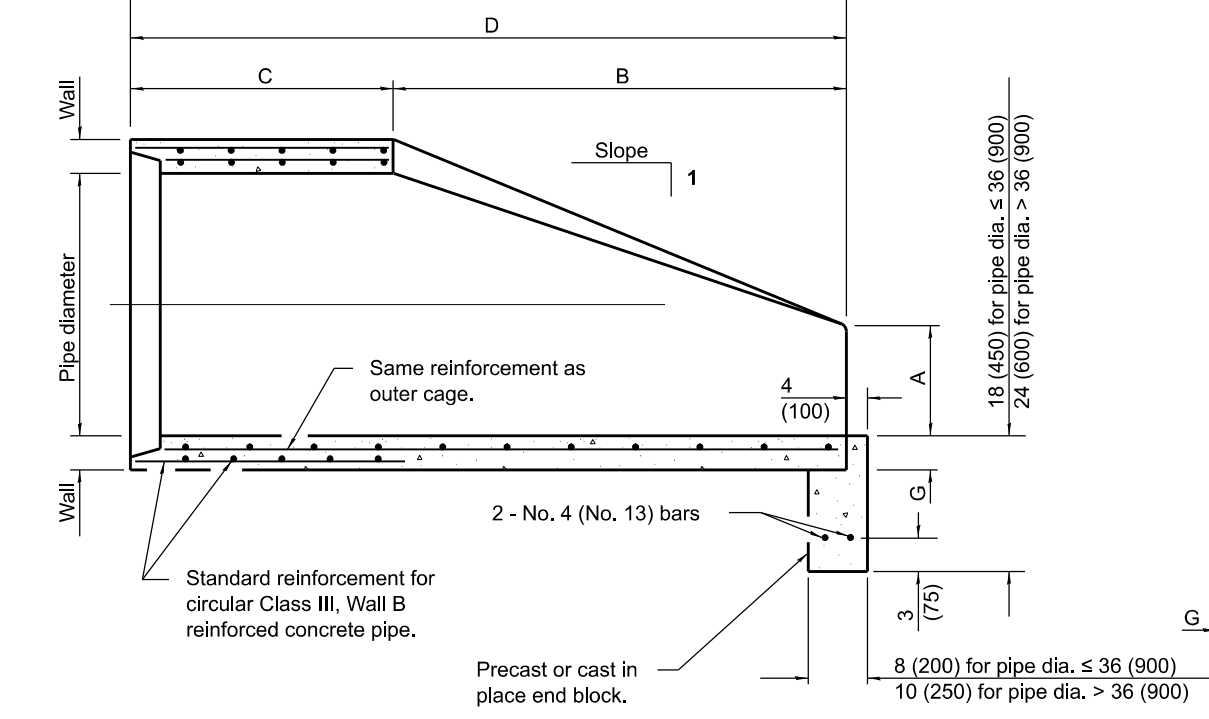
APPROVED January 1, 2008
Scott Smith
ENGINEER OF POLICY AND PROCEDURES

APPROVED January 1, 2008
Lee E. Han
ENGINEER OF DESIGN AND ENVIRONMENT

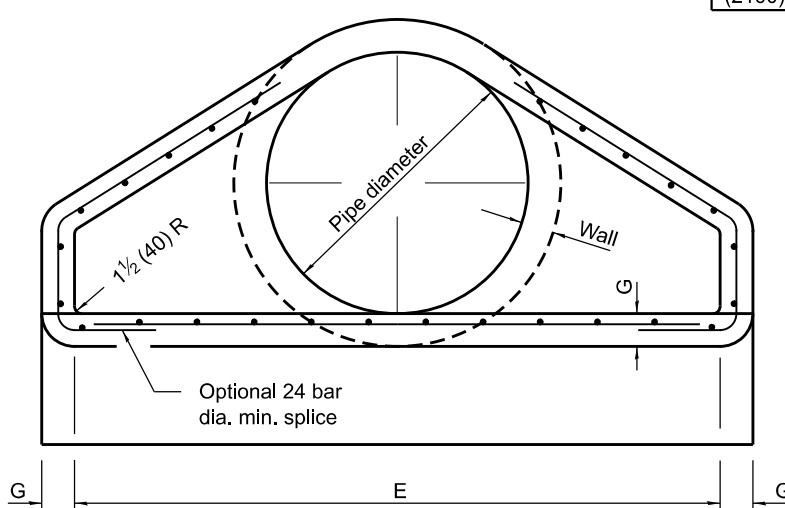
ISSUED 1-1-97



PLAN



SECTION A-A



END VIEW

PIPE DIA.	APPROX. QTY. lbs. (kg)	WALL	A	B	C	D	E	G	R	APPROX. SLOPE
12 (300)	530 (240)	2 (51)	4 (102)	24 (610)	4'-0 7/8" (1.241 m)	6'-0 7/8" (1.851 m)	24 (610)	2 (51)	9 (229)	1:2.4
15 (375)	740 (335)	2 1/4 (57)	6 (152)	27 (686)	3'-10" (1.168 m)	6'-1" (1.854 m)	30 (762)	2 1/4 (57)	11 (280)	1:2.4
18 (450)	990 (450)	2 1/2 (64)	9 (229)	27 (686)	3'-10" (1.168 m)	6'-1" (1.854 m)	36 (914)	2 1/2 (64)	12 (305)	1:2.4
21 (525)	1280 (580)	2 3/4 (70)	9 (229)	35 (889)	38 (965)	6'-1" (1.854 m)	3'-6" (1.067 m)	2 3/4 (70)	13 (330)	1:2.4
24 (600)	1520 (690)	3 (76)	9 1/2 (241)	3'-7 1/2" (1.105 m)	30 (762)	6'-1 1/2" (1.867 m)	4'-0" (1.219 m)	3 (76)	14 (356)	1:2.5
27 (675)	1930 (875)	3 1/4 (83)	10 1/2 (267)	4'-0" (1.219 m)	25 1/2 (648)	6'-1 1/2" (1.867 m)	4'-6" (1.372 m)	3 1/4 (83)	14 1/2 (368)	1:2.4
30 (750)	2190 (995)	3 1/2 (89)	12 (305)	4'-6" (1.375 m)	19 3/4 (502)	6'-1 3/4" (1.874 m)	5'-0" (1.524 m)	3 1/2 (89)	15 (381)	1:2.5
33 (825)	3200 (1450)	3 3/4 (95)	13 1/2 (343)	4'-10 1/2" (1.486 m)	39 1/4 (997)	8'-1 1/2" (2.483 m)	5'-6" (1.676 m)	3 3/4 (95)	17 1/2 (445)	1:2.5
36 (900)	4100 (1860)	4 (102)	15 (381)	5'-3" (1.6 m)	34 3/4 (883)	8'-1 3/4" (2.483 m)	6'-0" (1.829 m)	4 (102)	20 (508)	1:2.5
42 (1050)	5380 (2440)	4 1/2 (114)	21 (533)	5'-3" (1.6 m)	35 (889)	8'-2" (2.489 m)	6'-6" (1.981 m)	4 1/2 (114)	22 (559)	1:2.5
48 (1200)	6550 (2970)	5 (127)	24 (610)	6'-0" (1.829 m)	26 (660)	8'-2" (2.489 m)	7'-0" (2.134 m)	5 (127)	22 (559)	1:2.5
54 (1350)	8240 (3740)	5 1/2 (140)	27 (686)	5'-5" (1.651 m)	35 (889)	8'-4" (2.54 m)	7'-6" (2.286 m)	5 1/2 (140)	24 (610)	1:2.0
60 (1500)	8730 (3960)	6 (152)	35 (889)	5'-0" (1.524 m)	39 (991)	8'-3" (2.515 m)	8'-0" (2.438 m)	5 (127)	*	1:1.9
66 (1650)	10710 (4860)	6 1/2 (165)	30 (762)	6'-0" (1.829 m)	27 (686)	8'-3" (2.515 m)	8'-6" (2.591 m)	5 1/2 (140)	*	1:1.7
72 (1800)	12520 (5680)	7 (178)	36 (914)	6'-6" (1.981 m)	21 (533)	8'-3" (2.514 m)	9'-0" (2.743 m)	6 (152)	*	1:1.8
78 (1950)	14770 (6700)	7 1/2 (191)	36 (914)	7'-6" (2.286 m)	21 (533)	9'-3" (2.819 m)	9'-6" (2.896 m)	6 1/2 (165)	*	1:1.8
84 (2100)	18160 (8240)	8 (203)	36 (914)	7'-6 1/2" (2.299 m)	21 (533)	9'-3 1/2" (2.832 m)	10'-0" (3.048 m)	6 1/2 (165)	*	1:1.6

* Radius as furnished by manufacturer

GENERAL NOTES

All slope ratios are expressed as units of vertical displacement to units of horizontal displacement (V:H).

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

DATE	REVISIONS
1-1-11	Clarified ref. to pipe dia. on Section A-A. Changed 'inner' to 'outer' cage. ref.
1-1-09	Switched units to English (metric).

PRECAST REINFORCED CONCRETE FLARED END SECTION

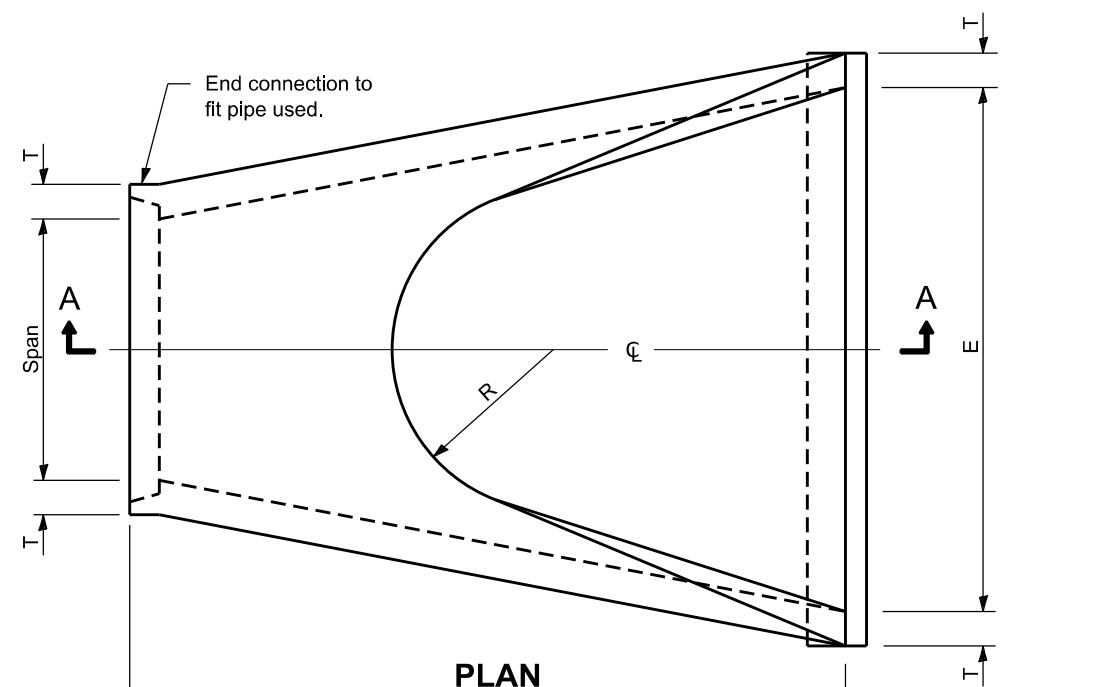
STANDARD 542301-03

Illinois Department of Transportation

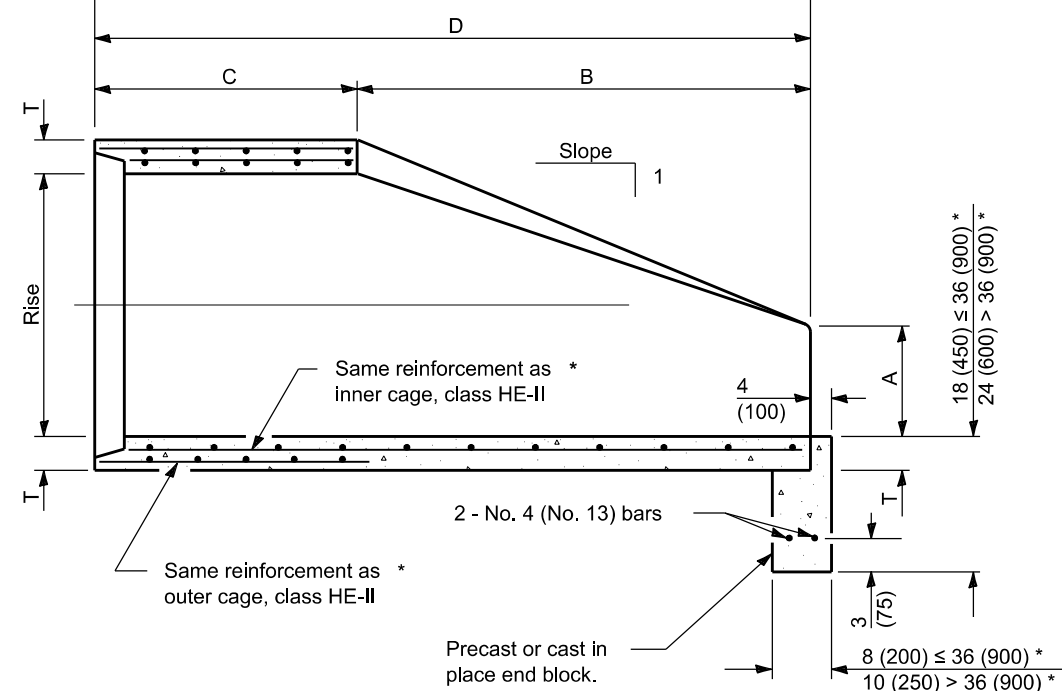
APPROVED January 1, 2011
Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

APPROVED January 1, 2011
Scott Schick
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97



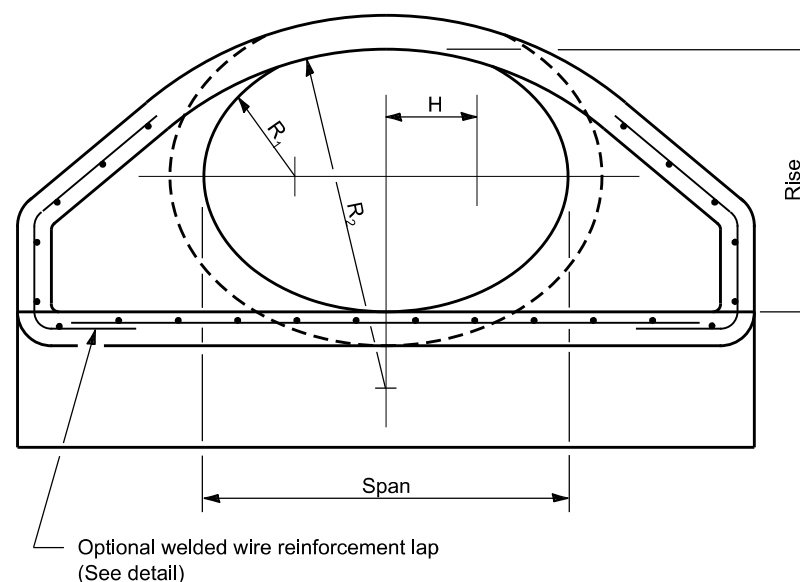
PLAN



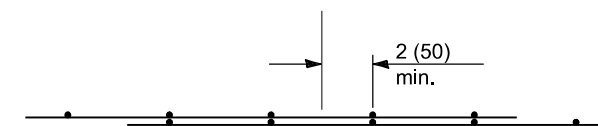
SECTION A-A

* Refers to the equivalent pipe diameter.

SPAN	RISE	EQUIV. DIA.	WALL T	A	B	C	D	E	H	R	R ₁	R ₂	APPROX. SLOPE
23 (584)	14 (356)	18 (450)	2 3/4 (70)	8 (203)	27 (686)	3'-9" (1.143 m)	6'-0" (1.829 m)	36 (914)	5 3/8 (137)	6 (152)	6 (152)	20 (508)	1:3.1
30 (762)	19 (483)	24 (600)	3 1/4 (83)	8 1/2 (216)	39 (991)	33 (838)	6'-0" (1.829 m)	4'-0" (1.219 m)	6 7/8 (175)	7 (178)	8 1/4 (210)	26 1/4 (667)	1:2.8
34 (864)	22 (559)	27 (675)	3 1/2 (89)	9 (229)	4'-0" (1.219 m)	24 (610)	6'-0" (1.829 m)	4'-6" (1.372 m)	7 3/4 (197)	8 (203)	9 1/4 (235)	29 1/4 (743)	1:2.9
38 (965)	24 (610)	30 (750)	3 1/2 (95)	9 1/2 (241)	4'-6" (1.372 m)	18 (475)	6'-0" (1.829 m)	5'-0" (1.524 m)	8 5/8 (219)	9 (229)	10 1/4 (260)	32 3/4 (832)	1:2.9
45 (1143)	29 (737)	36 (900)	4 1/2 (114)	11 1/4 (286)	5'-0" (1.524 m)	36 (914)	8'-0" (2.438 m)	6'-0" (1.829 m)	10 1/2 (267)	12 (305)	12 1/4 (311)	39 1/4 (997)	1:2.7
53 (1346)	34 (864)	42 (1050)	5 (127)	15 3/4 (400)	5'-0" (1.524 m)	36 (914)	8'-0" (2.438 m)	6'-6" (1.981 m)	12 1/8 (308)	13 (330)	14 1/2 (368)	3'-10" (1.168 m)	1:2.6
60 (1524)	38 (965)	48 (1200)	5 1/2 (140)	21 (533)	5'-0" (1.524 m)	36 (914)	8'-0" (2.438 m)	7'-0" (2.134 m)	13 1/2 (343)	14 (356)	16 1/2 (419)	4'-3 1/2" (1.308 m)	1:2.7
68 (1727)	43 (1092)	54 (1350)	6 (152)	26 (660)	5'-0" (1.524 m)	36 (914)	8'-0" (2.438 m)	7'-6" (2.286 m)	15 1/4 (387)	16 (406)	18 3/4 (476)	4'-10 1/2" (1.486 m)	1:2.6
76 (1930)	48 (1219)	60 (1500)	6 1/2 (165)	31 (787)	5'-0" (1.524 m)	36 (914)	8'-0" (2.438 m)	8'-0" (2.439 m)	17 (432)	18 (457)	20 3/4 (527)	5'-5" (1.651 m)	1:2.6



END VIEW



OPTIONAL WELDED WIRE REINFORCEMENT LAP

GENERAL NOTES

All slope ratios are expressed as units of vertical displacement to units of horizontal displacement (V:H).

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

DATE	REVISIONS
4-1-16	Changed terminology to 'welded wire reinforcement'.
	Corrected min. lap dimension.
1-1-09	Switched units to English (metric).

PRECAST REINFORCED CONCRETE ELLIPTICAL FLARED END SECTION

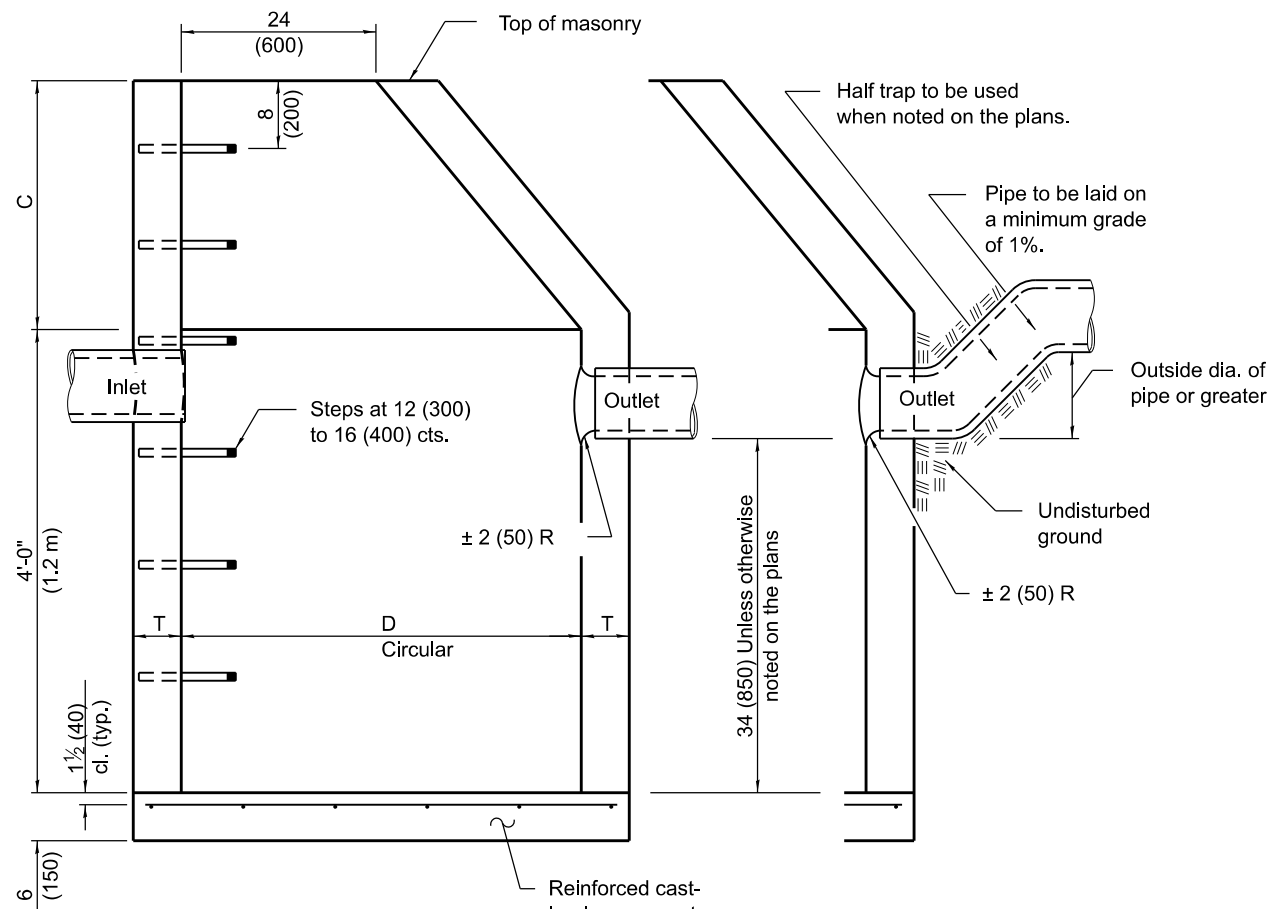
STANDARD 542306-03

Illinois Department of Transportation

APPROVED *[Signature]* April 1, 2016
ENGINEER OF BRIDGES AND STRUCTURES

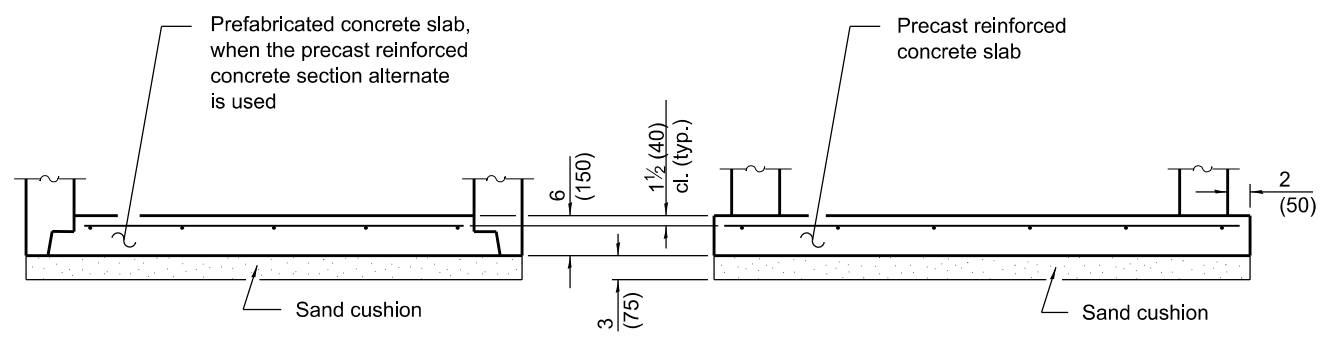
APPROVED *[Signature]* April 1, 2016
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97



ELEVATION
(Standard Outlet)

ELEVATION
(Half Trap)



ALTERNATE BOTTOM SLAB

ALTERNATE MATERIALS FOR WALLS	D	C*	T (min.)
Concrete Masonry Unit	4'-0" (1.2 m)	30 (750)	5 (125)
	5'-0" (1.5 m)	3'-9" (1.15 m)	5 (125)
Brick Masonry	4'-0" (1.2 m)	30 (750)	8 (200)
	5'-0" (1.5 m)	3'-9" (1.15 m)	8 (200)
Precast Reinforced Concrete Section	4'-0" (1.2 m)	30 (750)	4 (100)
	5'-0" (1.5 m)	3'-9" (1.15 m)	5 (125)
Cast-in-place Concrete	4'-0" (1.2 m)	30 (750)	6 (150)
	5'-0" (1.5 m)	3'-9" (1.15 m)	6 (150)

* For precast reinforced concrete sections, dimension "C" may vary from the dimension given to plus 6 (150).

GENERAL NOTES

Bottom slabs shall be reinforced with a minimum of 0.20 sq. in./ft (420 sq. mm/m) in both directions with a maximum spacing of 12 (300).

Bottom slabs may be connected to the riser as determined by the fabricator; however, only a single row of reinforcement around the perimeter may be utilized.

See Standard 602601 for optional precast reinforced concrete flat slab top.

See Standard 602701 for details of steps.

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

Illinois Department of Transportation

APPROVED January 1, 2011
Michael Brand
ENGINEER OF POLICY AND PROCEDURES

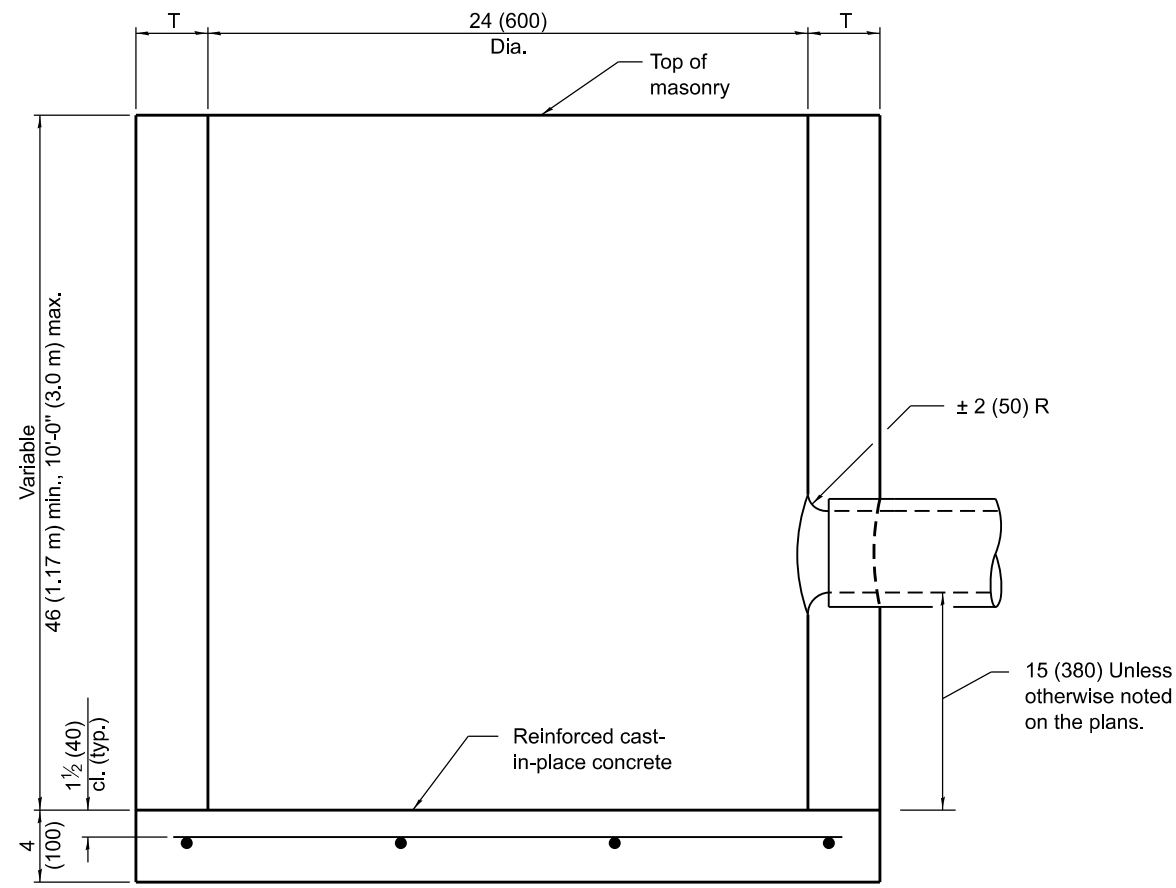
APPROVED January 1, 2011
Scott Schick
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

DATE	REVISIONS
1-1-11	Added 'Outside' to half trap note.
	Detail rein. in slabs. Revised
	general notes.
1-1-09	Switched units to English (metric).

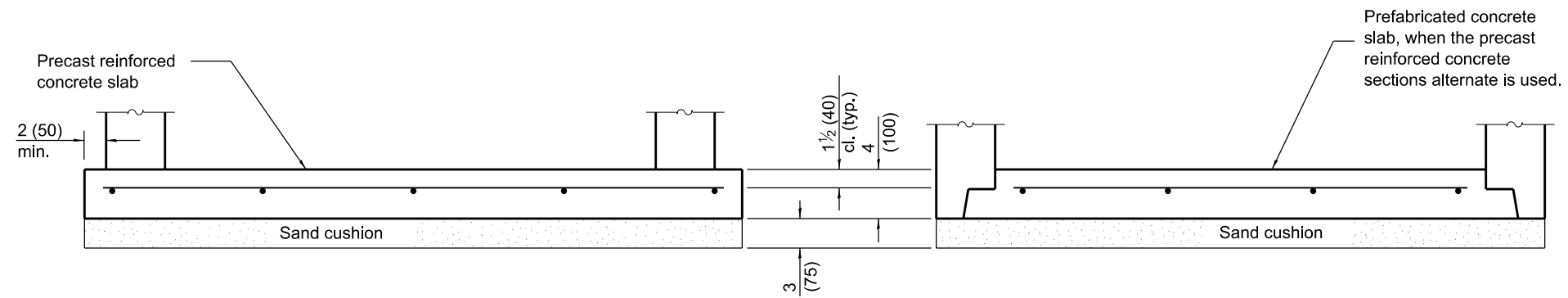
**CATCH BASIN
TYPE A**

STANDARD 602001-02



ELEVATION

ALTERNATE MATERIALS FOR WALLS	T (min)
Precast Reinforced Concrete Section	3 (75)
Concrete Masonry Unit	5 (125)
Cast-in-Place Concrete	6 (150)
Brick Masonry	8 (200)



ALTERNATE BOTTOM SLAB

GENERAL NOTES

Bottom slabs shall be reinforced with a minimum of 0.27 sq. in./ft. (570 sq. mm/m) in both directions with a maximum spacing of 9 (230).

Bottom slabs may be connected to the riser as determined by the fabricator; however, only a single row of reinforcement around the perimeter may be utilized.

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

Illinois Department of Transportation

APPROVED January 1, 2011
Michael Brand
 ENGINEER OF POLICY AND PROCEDURES

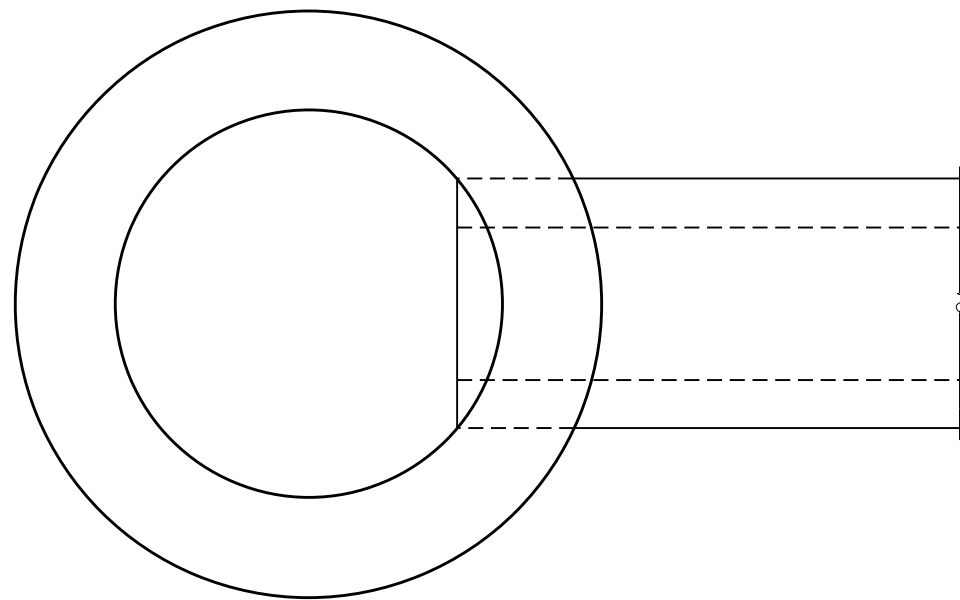
APPROVED January 1, 2011
Scott Schick
 ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

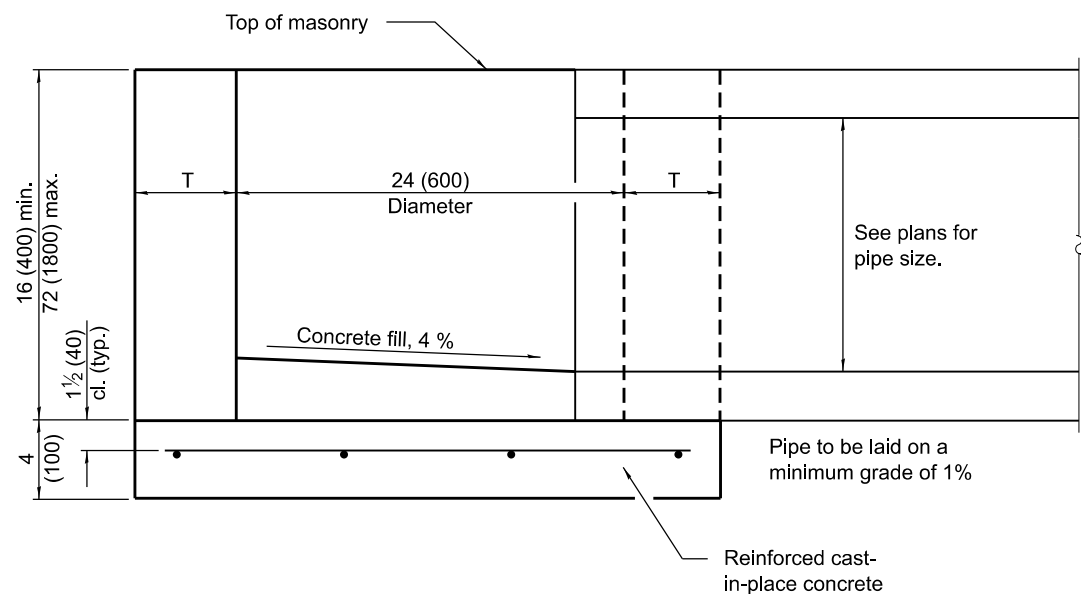
DATE	REVISIONS
1-1-11	Detailed rein. in slabs. Added
	max limit to height. Added
	general notes.
1-1-09	Switched units to English (metric).

**CATCH BASIN
TYPE C**

STANDARD 602011-02

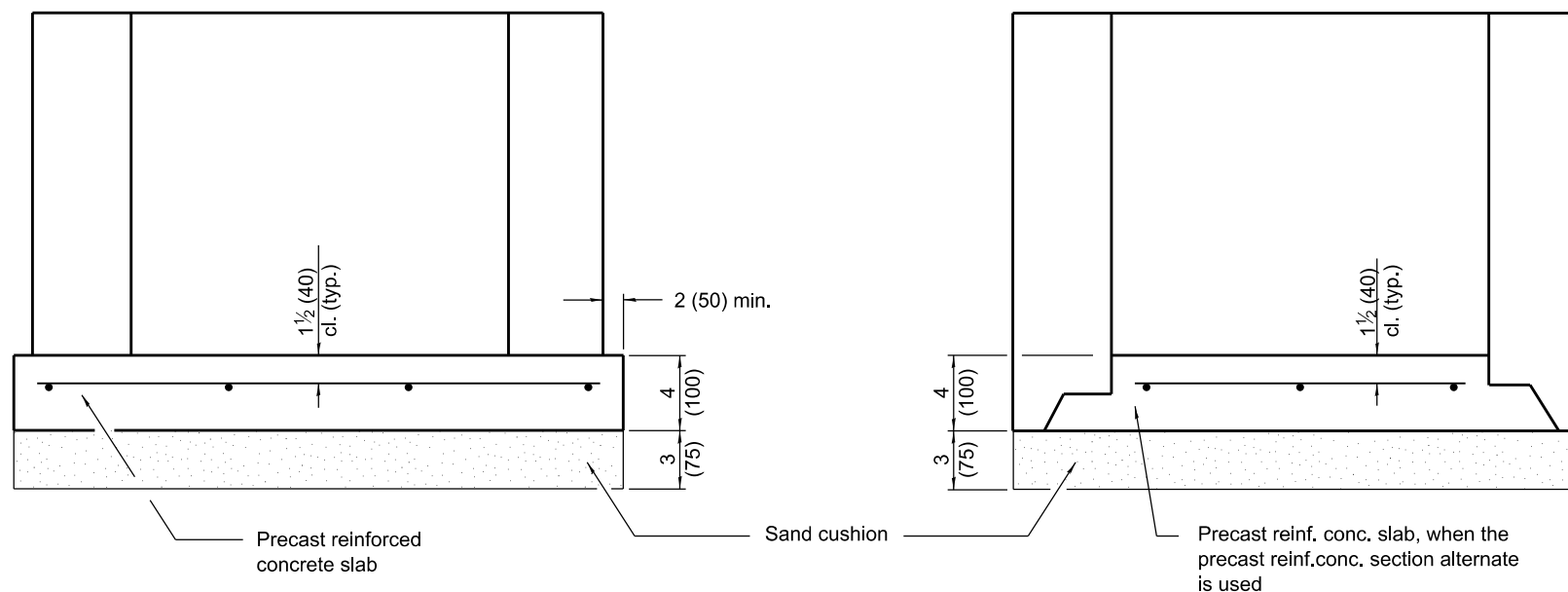


PLAN



ELEVATION

ALTERNATE MATERIALS FOR WALLS	T
BRICK MASONRY	8 (200)
CAST-IN-PLACE CONCRETE	6 (150)
CONCRETE MASONRY UNIT	5 (125)
PRECAST REINFORCED CONCRETE SECTION	3 (75)



ALTERNATE METHODS

GENERAL NOTES

Bottom slabs shall be reinforced with a minimum of 0.24 sq. in./ft. (510 sq. mm/m) in both directions with a maximum spacing of 10 (250).

Bottom slabs may be connected to the riser as determined by the fabricator; however, only a single row of reinforcement around the perimeter may be utilized.

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

DATE	REVISIONS
1-1-14	Increased height to 72 (1800) maximum.
1-1-11	Detailed rein. in slabs. Added max. limit to height. Added general notes.

INLET - TYPE A

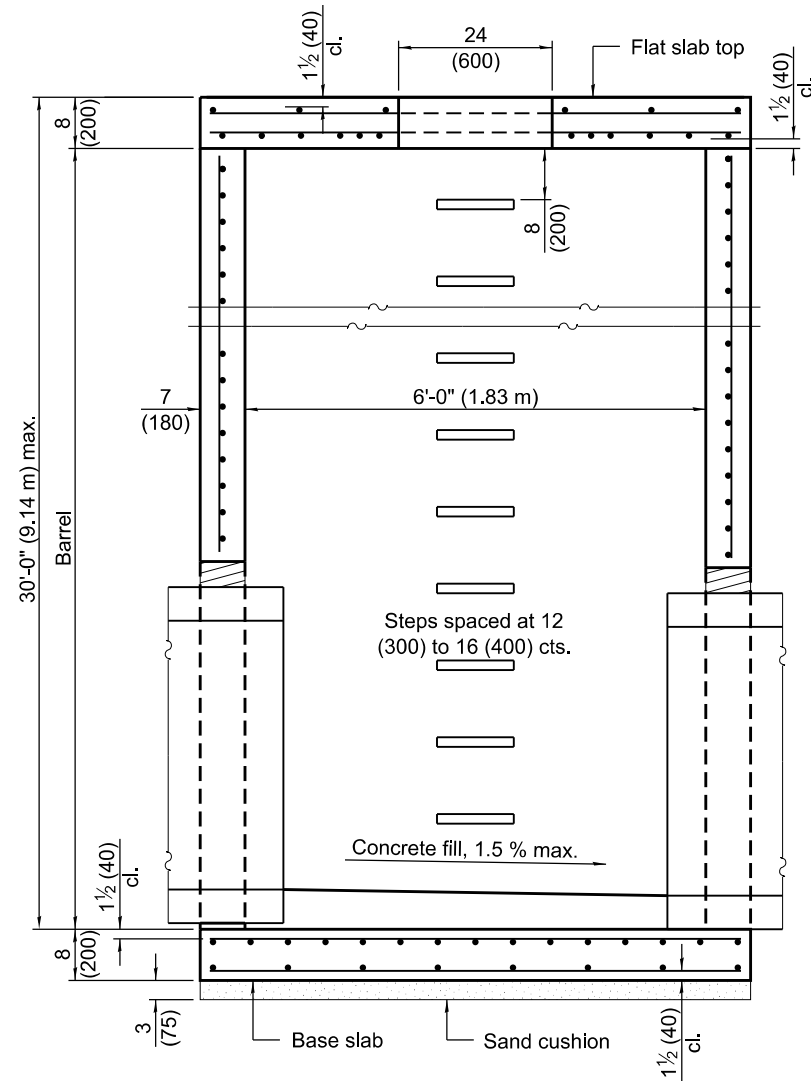
STANDARD 602301-04

Illinois Department of Transportation

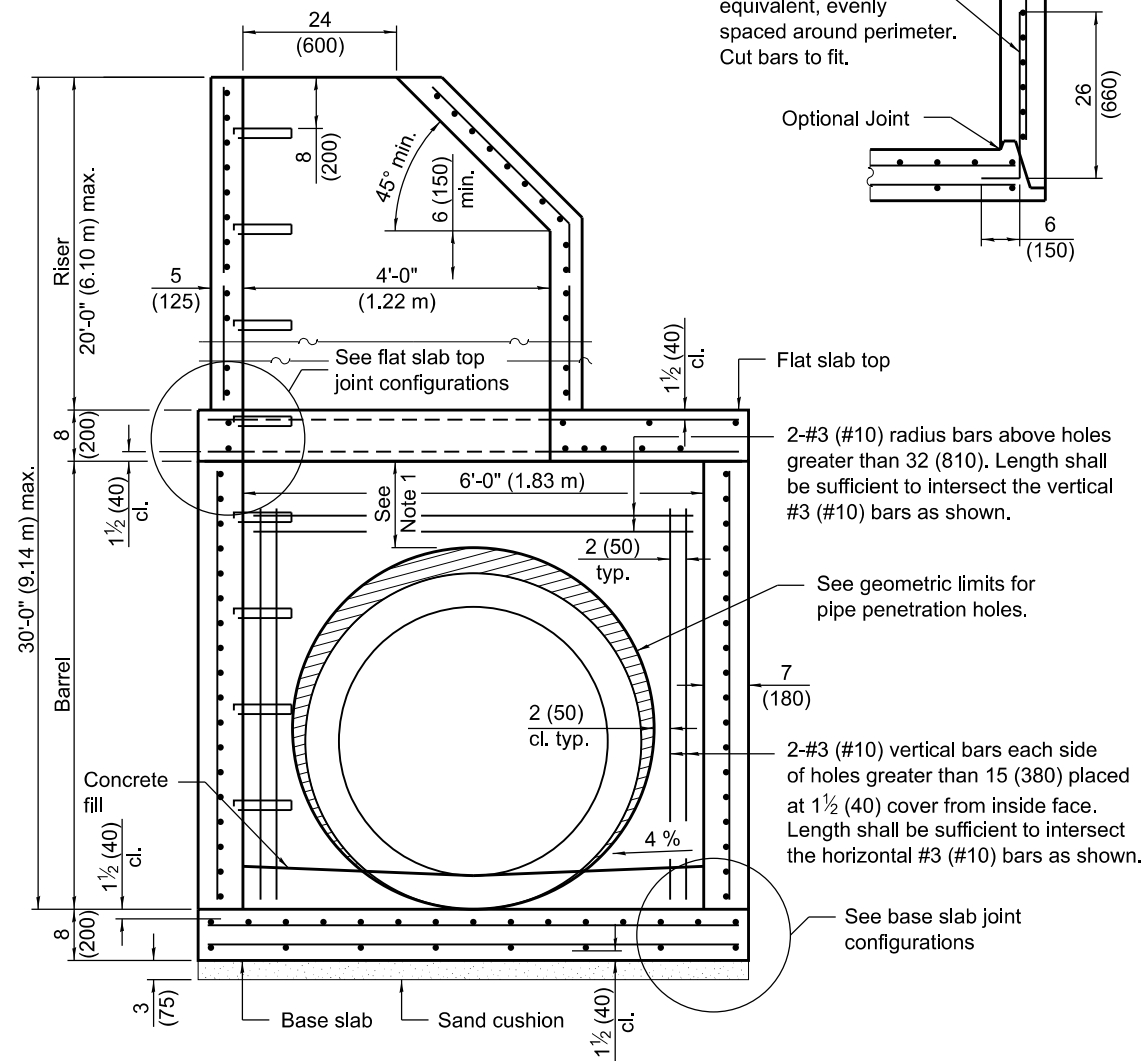
APPROVED January 1, 2014
Michael Beard
 ENGINEER OF POLICY AND PROCEDURES

APPROVED January 1, 2014
[Signature]
 ENGINEER OF DESIGN AND ENVIRONMENT

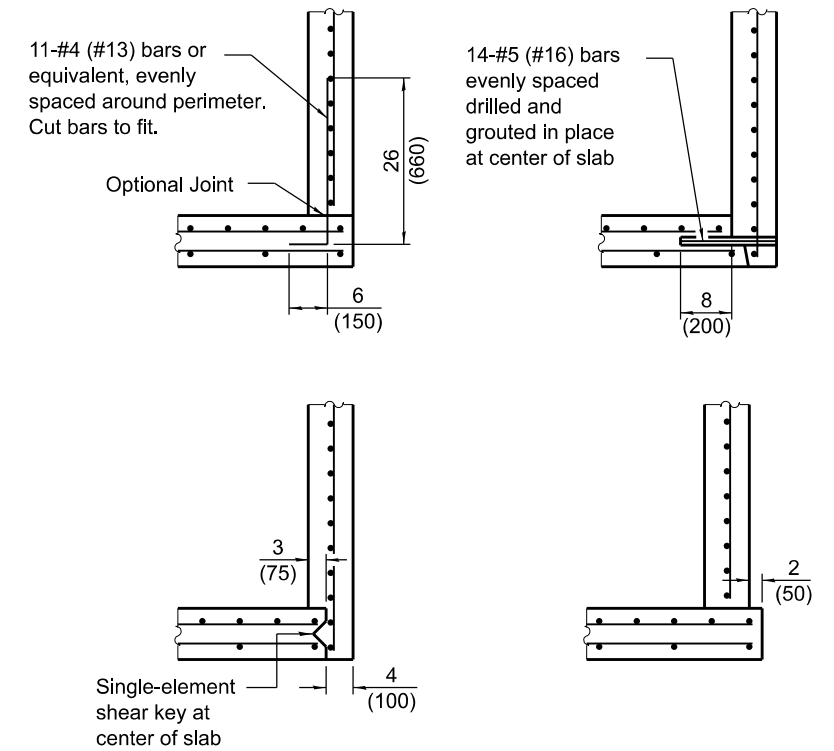
ISSUED 1-1-97



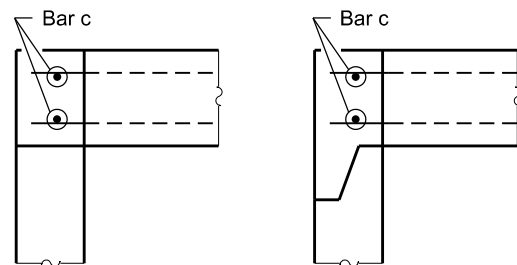
SECTION PARALLEL TO PIPE
(Without conical top riser)



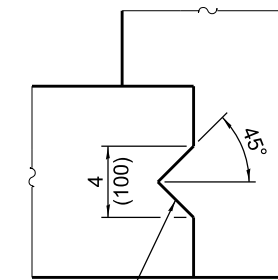
SECTION PERPENDICULAR TO PIPE
(With conical top riser)



BASE SLAB JOINT CONFIGURATIONS



FLAT SLAB TOP JOINT CONFIGURATIONS
(Shown at access hole)



Single-element shear key at center of slab

SHEAR KEY GEOMETRY
(Reinforcement not shown for clarity)

GEOMETRIC LIMITS FOR PIPE PENETRATION HOLES

- Note 1: A minimum of 9 (230) of monolithic reinforced concrete shall be maintained above pipe penetration holes > 32 (810).
- Note 2: A minimum 12 (300) inside arc length of reinforced concrete shall be maintained between pipe penetration holes > 15 (380).
- Note 3: A maximum of 60 percent of the inside perimeter of the reinforced concrete manhole walls may be removed.
- Note 4: Horizontal joints that intersect pipe penetration holes > 15 (380) shall have one joint splice for every location around the perimeter of the joint where the inside arc length between pipe penetration holes is < 24 (600). See joint splice detail.
- Note 5: The recommended pipe penetration hole is equal to the O.D. of the pipe plus 4 (100).
- Note 6: Only pipe penetration holes ≤ 15 (380) are allowed in riser sections.

GENERAL NOTES

- Pipe holes shall be formed to facilitate proper placement of hole reinforcement.
- The manufacturer shall ensure that all precast manhole sections are additionally reinforced where required to resist damage from handling, shipping and installation stresses.
- Lifting holes shall be located in the sections as per the manufacturer's recommendations.
- See Standard 602701 for details of manhole steps.
- All dimensions are in inches (millimeters) unless otherwise noted.

DATE	REVISIONS
1-1-21	Revised Note 1, Note 2, and lifting hole general note.
3-1-19	Moved wall reinforcement from inside face to middle.

PRECAST MANHOLE TYPE A
6' (1.83 m) DIAMETER

(Sheet 1 of 3)

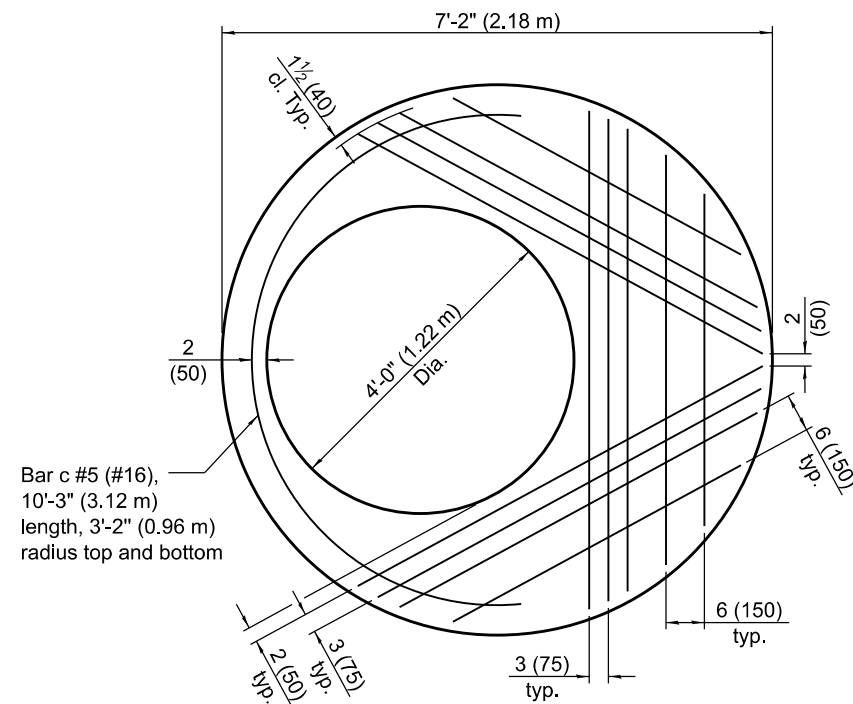
STANDARD 602406-11

Illinois Department of Transportation

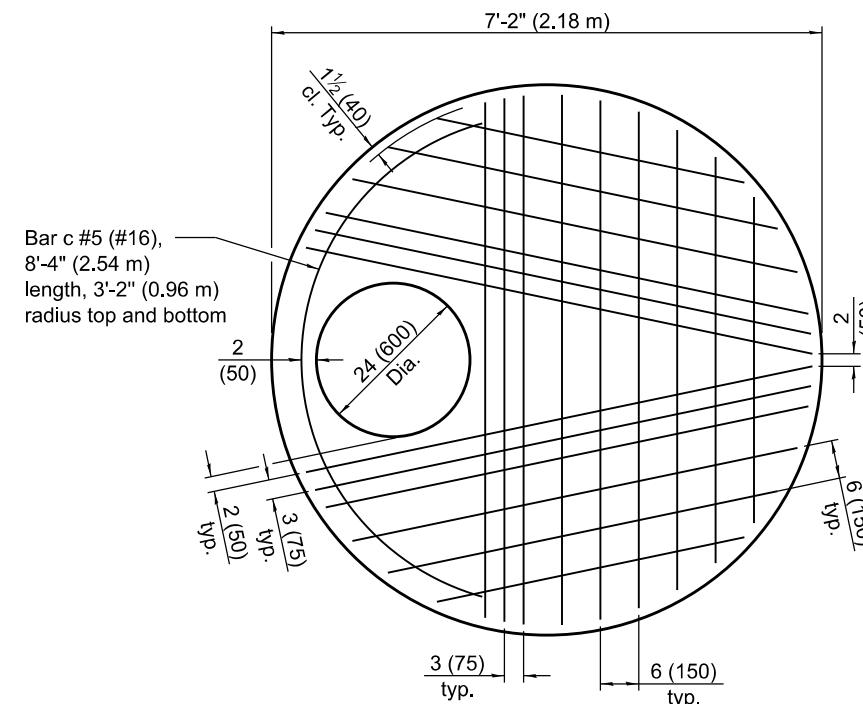
APPROVED January 1, 2021
Michael Bond
ENGINEER OF POLICY AND PROCEDURES

APPROVED January 1, 2021
John E. ...
ENGINEER OF DESIGN AND ENVIRONMENT

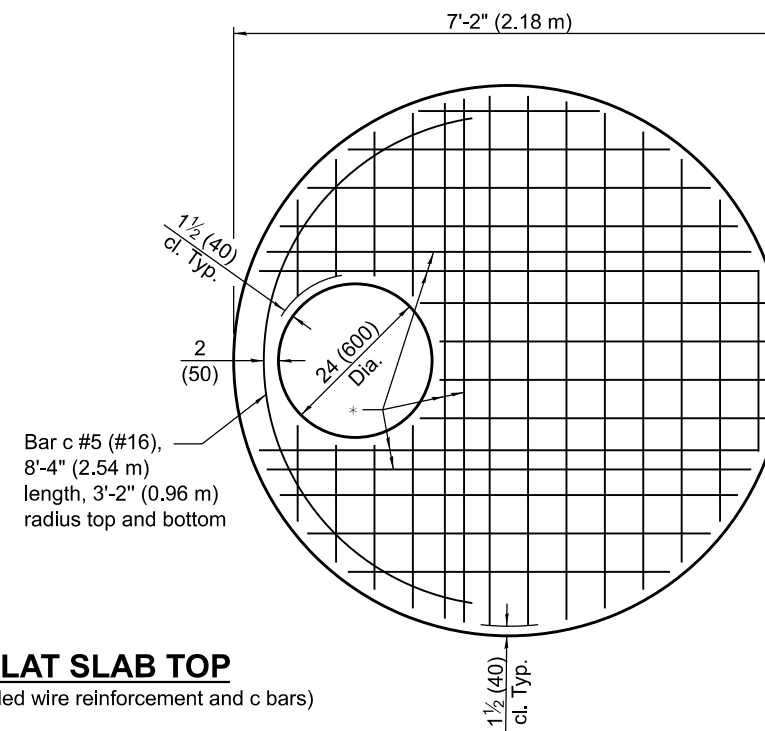
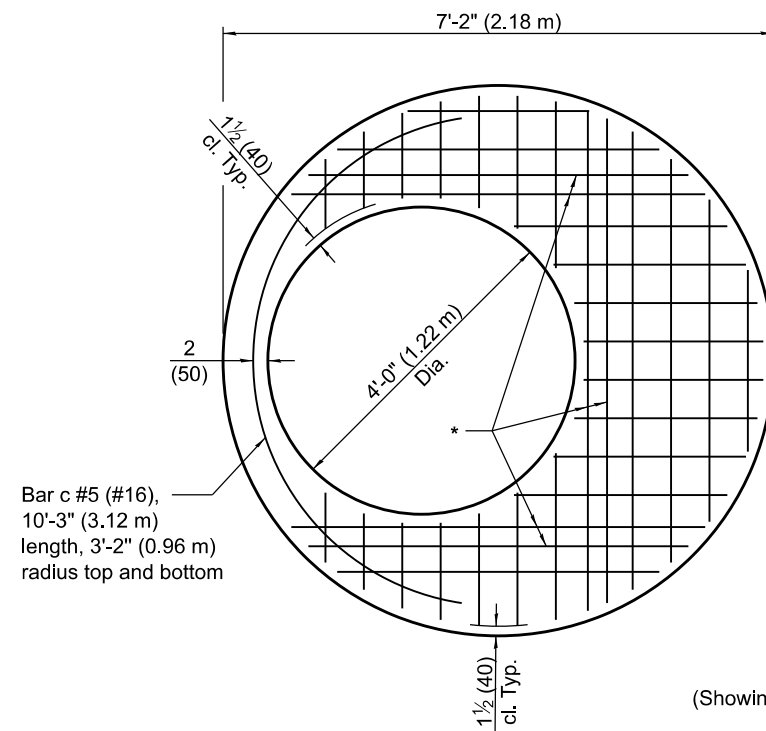
ISSUED 1-1-97



PLAN - FLAT SLAB TOP
(Showing layout of bottom reinforcement bars and c bars)



PLAN - FLAT SLAB TOP
(Showing layout of welded wire reinforcement and c bars)



* #5 (#16) bars for risers ≤ 10 ft. (3.05 m) tall or #6 (#19) bars for risers > 10 ft. (3.05 m) tall bottom. Bundle first bar with closest WWR bar to the opening and place second bar ±3 (75) away.

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APPROVED January 1, 2021

ENGINEER OF POLICY AND PROCEDURES

APPROVED January 1, 2021

ENGINEER OF DESIGN AND ENVIRONMENT

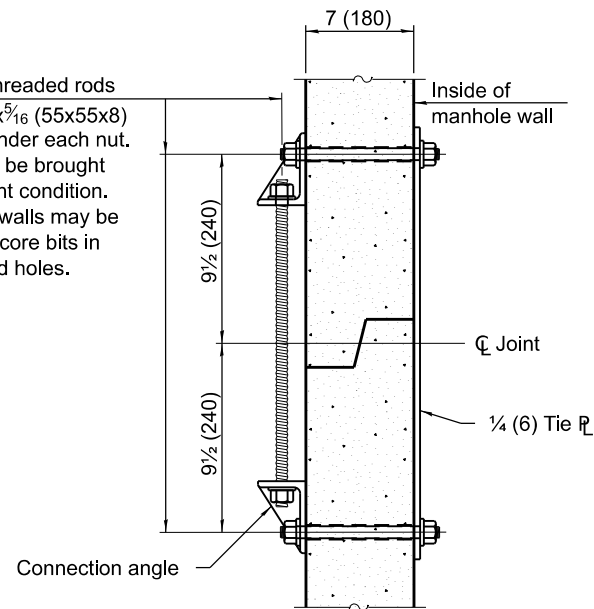
ISSUED 1-1-97

PRECAST MANHOLE TYPE A
6' (1.83 m) DIAMETER

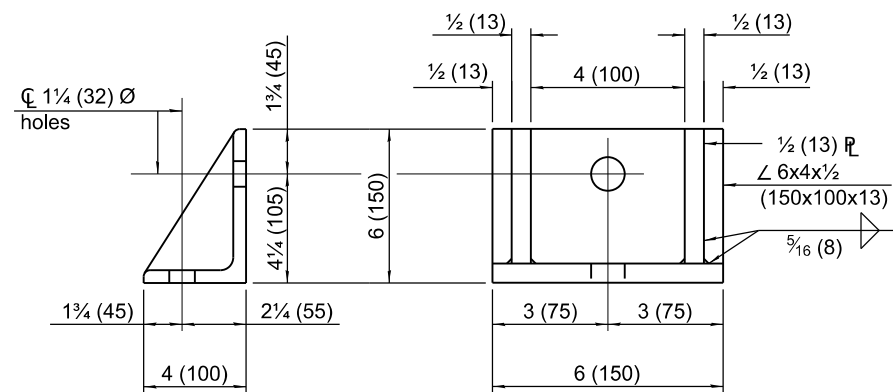
(Sheet 2 of 3)

STANDARD 602406-11

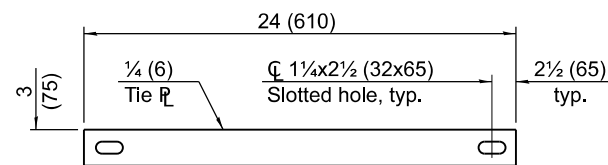
\varnothing 1(25) \varnothing Threaded rods
 with $2\frac{1}{4} \times 2\frac{1}{4} \times \frac{5}{16}$ (55x55x8)
 \varnothing washers under each nut.
 All nuts shall be brought
 to a snug tight condition.
 Holes in the walls may be
 drilled using core bits in
 lieu of formed holes.



JOINT SPLICE



CONNECTION ANGLE



TIE PLATE

FLAT SLAB TOP REINFORCEMENT

Location	Riser Height (RH)	WWR (each direction)		Rebar (each direction except as noted)		
		A_s (min.)	Spacing (max.)	A_s (min.)	Spacing (max.)	Bar Size
Top Mat	All	0.11 sq. in./ft. (233 sq. mm/m)	18 (450)	0.11 sq. in./ft. (233 sq. mm/m)	18 (450)	#3 or #4 (#10) (#13)
Bottom Mat	RH \leq 10 ft. (3.05 m)	** 0.62 sq. in./ft. (1312 sq. mm/m)	6 (150)	See plan view for rebar orientation and spacing and this table for bar size		#5 (#16)
	RH > 10 ft. (3.05 m)	** 0.88 sq. in./ft. (1863 sq. mm/m)	6 (150)			#6 (#19)

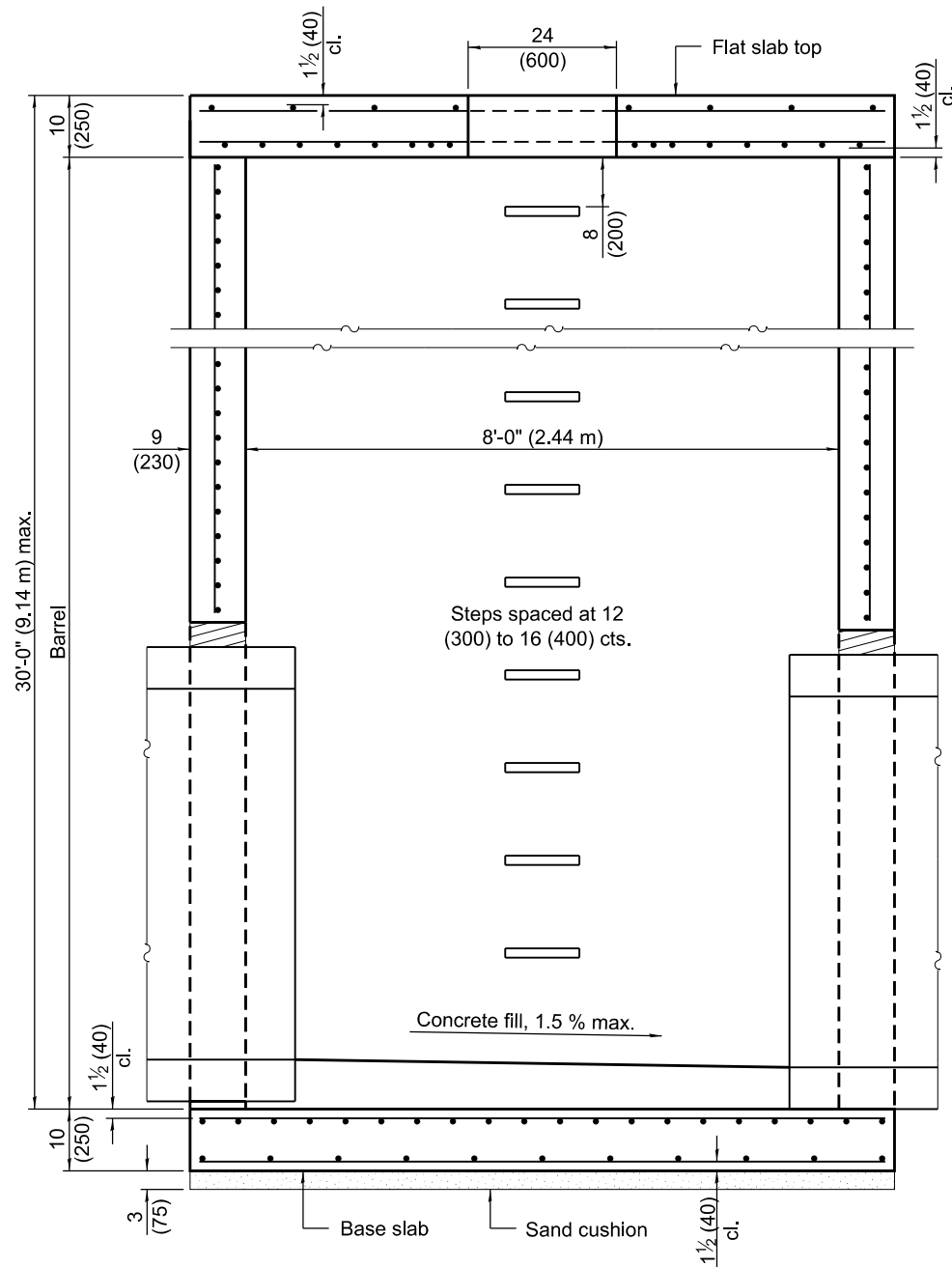
** Only one layer of WWR permitted to avoid congestion.

WALL REINFORCEMENT

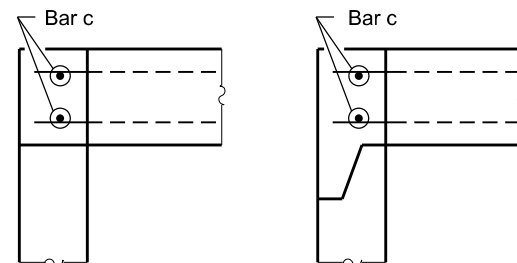
Location	Orientation	WWR or Rebar	
		A_s (min.)	Spacing (max.)
4 ft. (1.22 m) \varnothing Riser	Circumferential	0.12 sq. in./ft. (254 sq. mm/m)	6 (150)
	Vertical	0.045 sq. in./ft. (95 sq. mm/m)	8 (200)
6 ft. (1.83 m) \varnothing Barrel	Circumferential	0.18 sq. in./ft. (381 sq. mm/m)	6 (150)
	Vertical	0.045 sq. in./ft. (95 sq. mm/m)	8 (200)

BASE SLAB REINFORCEMENT

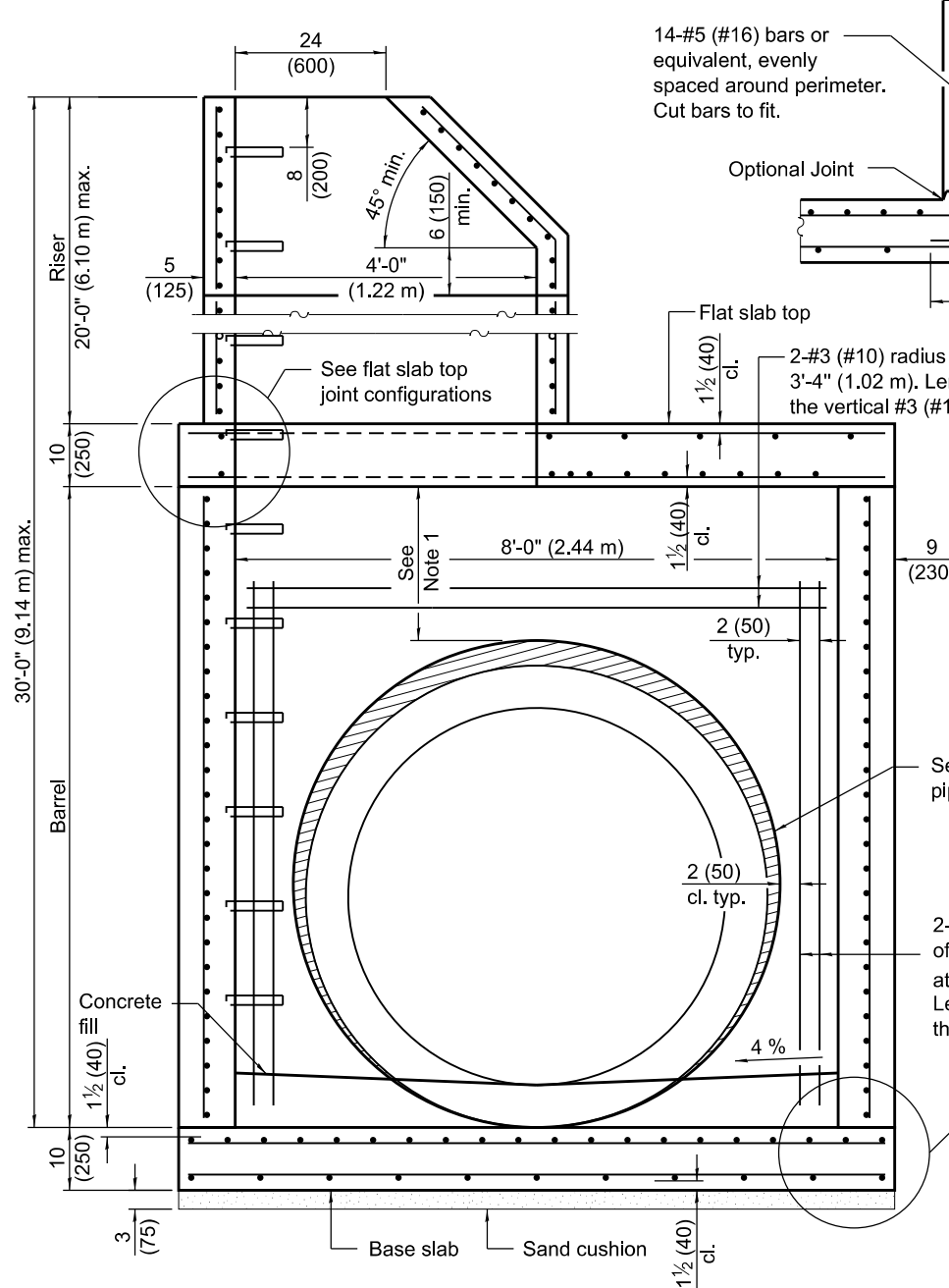
Location	Riser Height (RH)/ Total Height (TH)	WWR or Rebar (each direction)	
		A_s (min.)	Spacing (max.)
Top Mat	RH \leq 10 ft. (3.05 m) & TH \leq 20 ft. (6.10 m)	0.28 sq. in./ft. (593 sq. mm/m)	6 (150)
	RH > 10 ft. (3.05 m) or TH > 20 ft. (6.10 m)	0.40 sq. in./ft. (847 sq. mm/m)	6 (150)
Bottom Mat	All	0.11 sq. in./ft. (233 sq. mm/m)	18 (450)



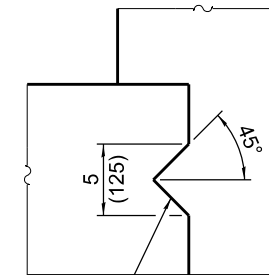
SECTION PARALLEL TO PIPE
(Without conical top riser)



FLAT SLAB TOP JOINT CONFIGURATIONS
(Shown at access hole)

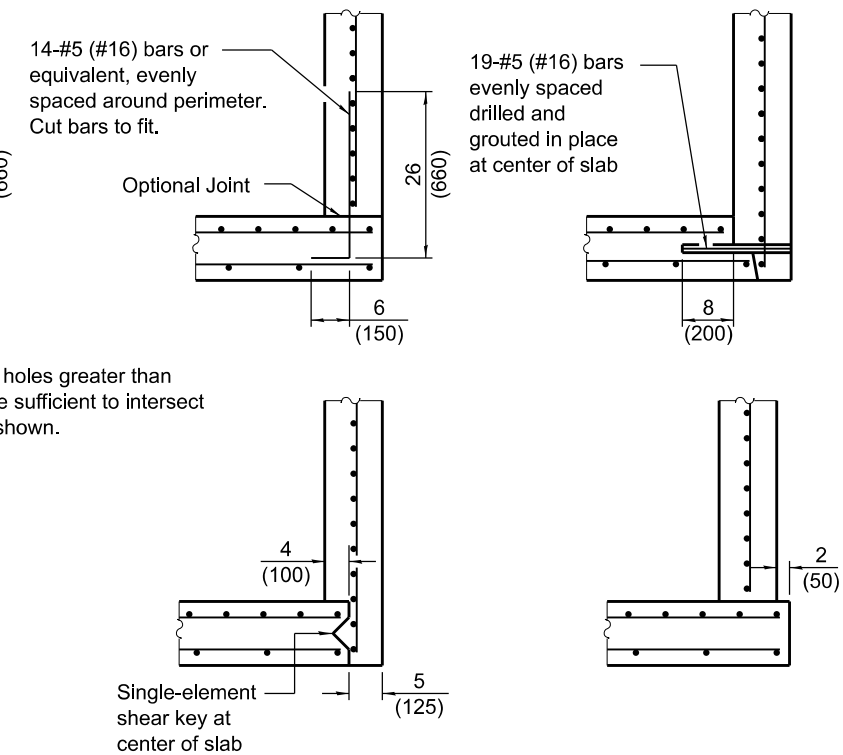


SECTION PERPENDICULAR TO PIPE
(With conical top riser)



Single-element shear key at center of slab

SHEAR KEY GEOMETRY
(Reinforcement not shown for clarity)



BASE SLAB JOINT CONFIGURATIONS

GEOMETRIC LIMITS FOR PIPE PENETRATION HOLES

- Note 1: A minimum of 12 (300) of monolithic reinforced concrete shall be maintained above pipe penetration holes > 3'-4" (1.02 m).
- Note 2: A minimum 12 (300) inside arc length of reinforced concrete shall be maintained between pipe penetration holes > 15 (380).
- Note 3: A maximum of 60 percent of the inside perimeter of the reinforced concrete manhole walls may be removed.
- Note 4: Horizontal joints that intersect pipe penetration holes > 15 (380) shall have one joint splice for every location around the perimeter of the joint where the inside arc length between pipe penetration holes is < 24 (600). See joint splice detail.
- Note 5: The recommended pipe penetration hole is equal to the O.D. of the pipe plus 4 (100).
- Note 6: Only pipe penetration holes ≤ 15 (380) are allowed in riser sections.

DATE	REVISIONS
1-1-21	Revised Note 1 and lifting hole general note.
3-1-19	Moved wall reinforcement from inside face to middle.

GENERAL NOTES

- Pipe holes shall be formed to facilitate proper placement of hole reinforcement.
- The manufacturer shall ensure that all precast manhole sections are additionally reinforced where required to resist damage from handling, shipping and installation stresses.
- Lifting holes shall be located in the sections as per the manufacturer's recommendations.
- See Standard 602701 for details of manhole steps.
- All dimensions are in inches (millimeters) unless otherwise noted.

PRECAST MANHOLE TYPE A
8' (2.44 m) DIAMETER

(Sheet 1 of 3)

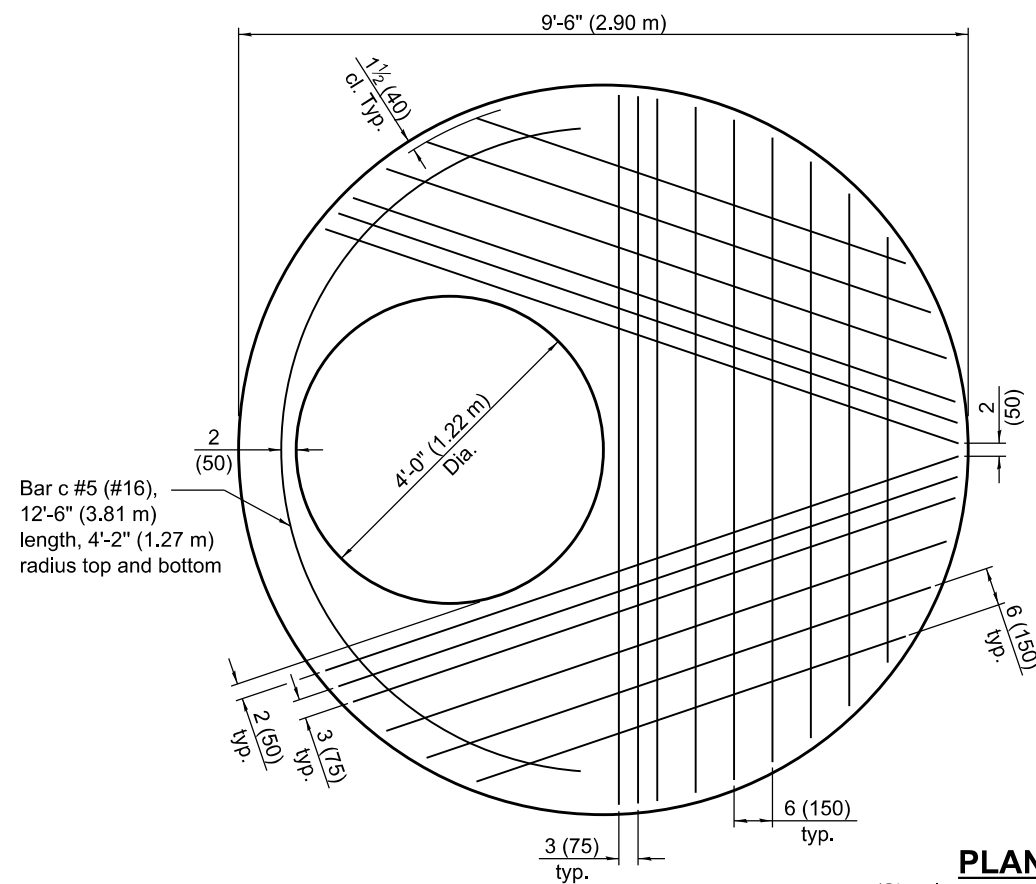
STANDARD 602416-09

Illinois Department of Transportation

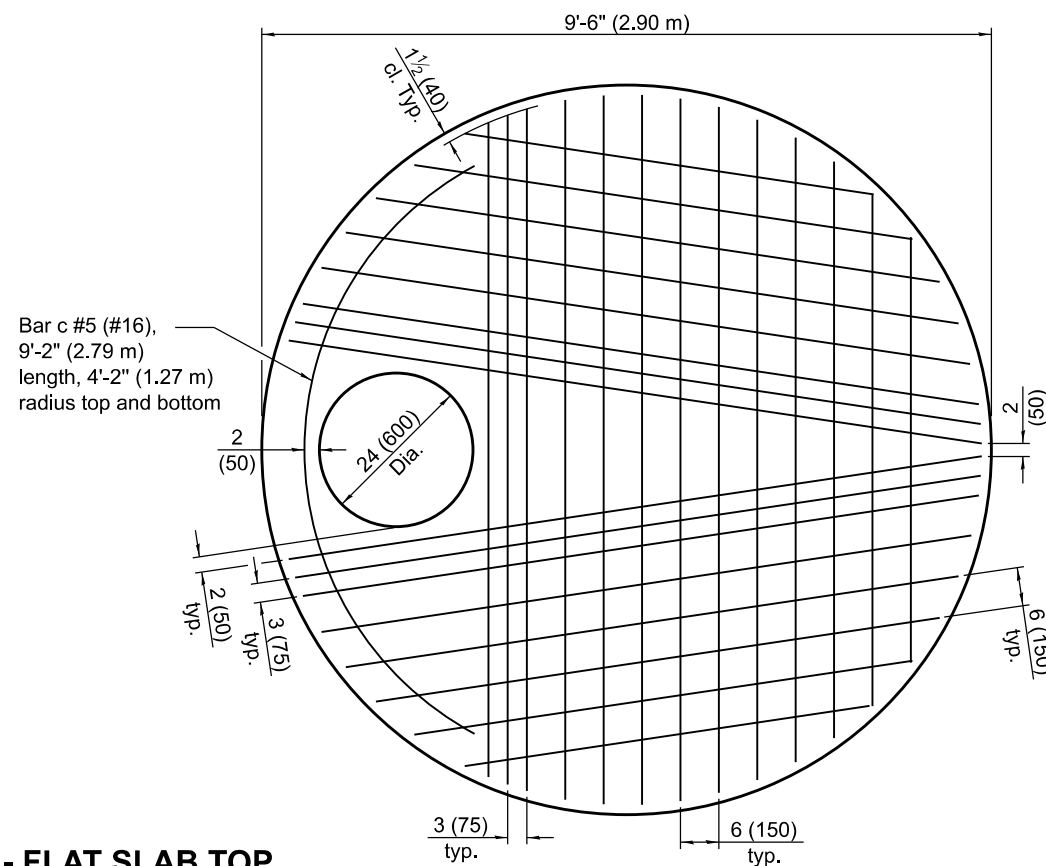
APPROVED January 1, 2021
Michael Bond
ENGINEER OF POLICY AND PROCEDURES

APPROVED January 1, 2021
John E. ...
ENGINEER OF DESIGN AND ENVIRONMENT

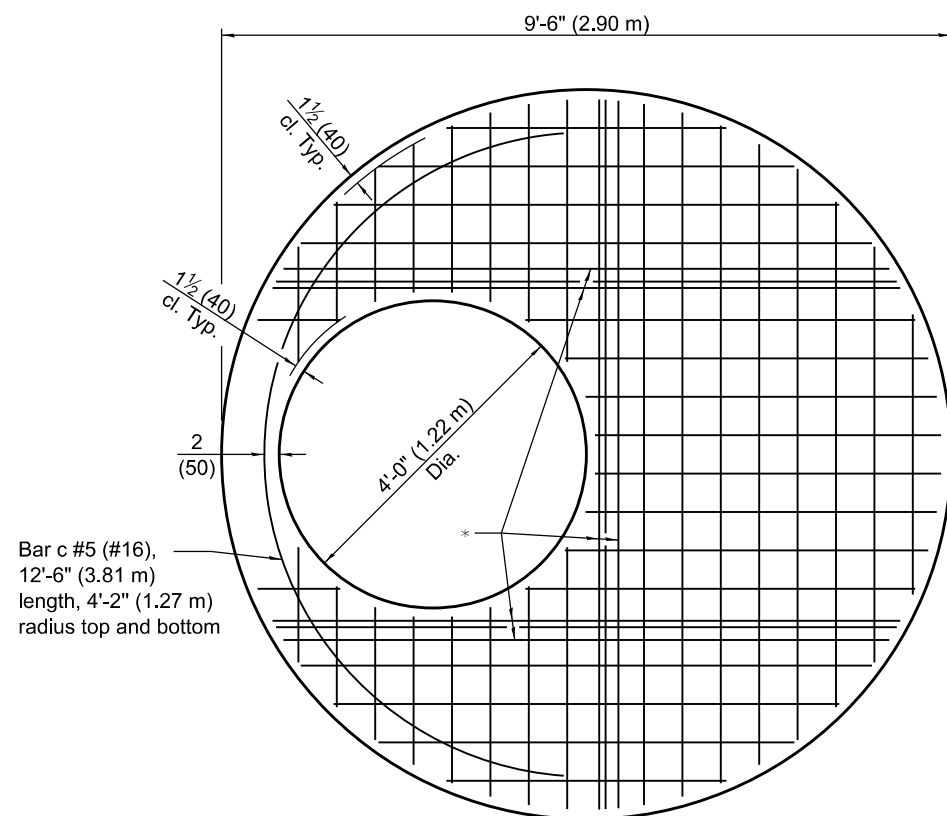
ISSUED 4-1-06



PLAN - FLAT SLAB TOP
(Showing layout of bottom reinforcement bars and c bars)

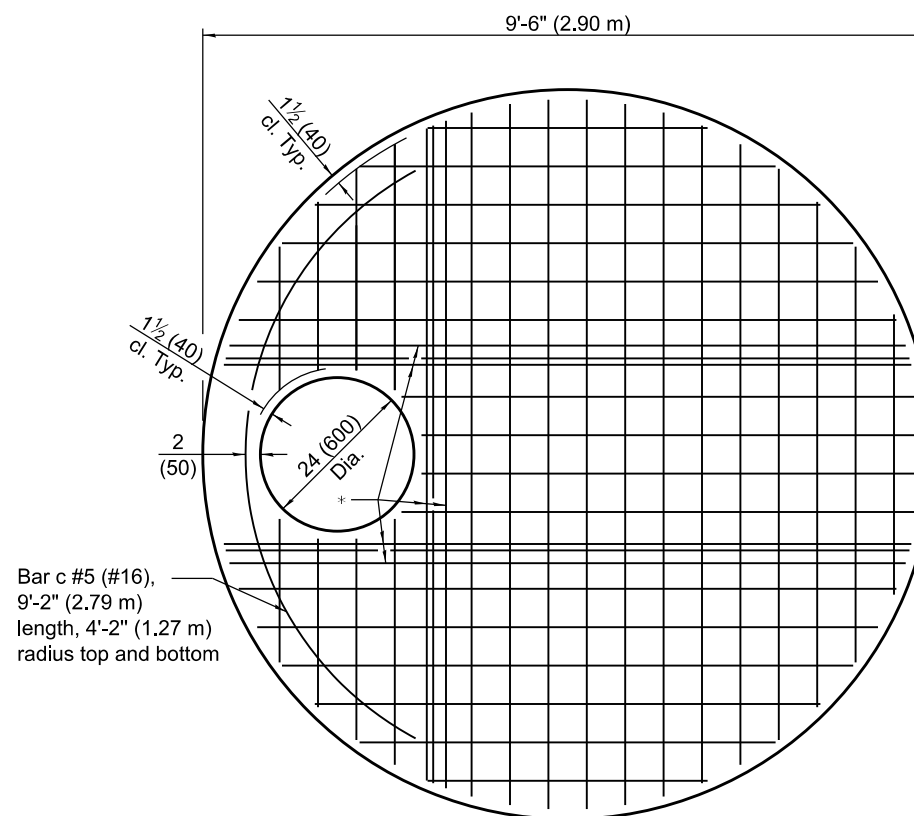


PLAN - FLAT SLAB TOP



PLAN - FLAT SLAB TOP

(Showing layout of Welded Wire Reinforcement and c bars)
WWR not permitted for riser heights > 10' (3.05 m).



Bar c #5 (#16),
9'-2" (2.79 m)
length, 4'-2" (1.27 m)
radius top and bottom

* #6 (#19) bars bottom. Bundle first bar with closest WWR bar to the opening and place second bar ±3 (75) away.

PRECAST MANHOLE TYPE A
8' (2.44 m) DIAMETER

(Sheet 2 of 3)

STANDARD 602416-09

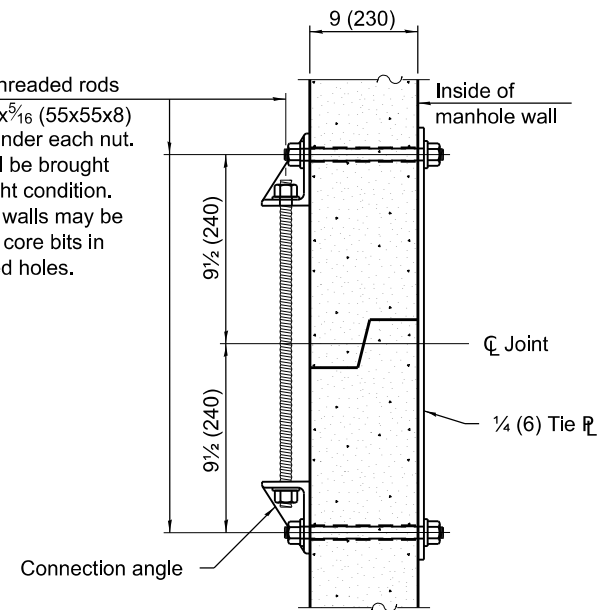
Illinois Department of Transportation

APPROVED January 1, 2021
[Signature]
ENGINEER OF POLICY AND PROCEDURES

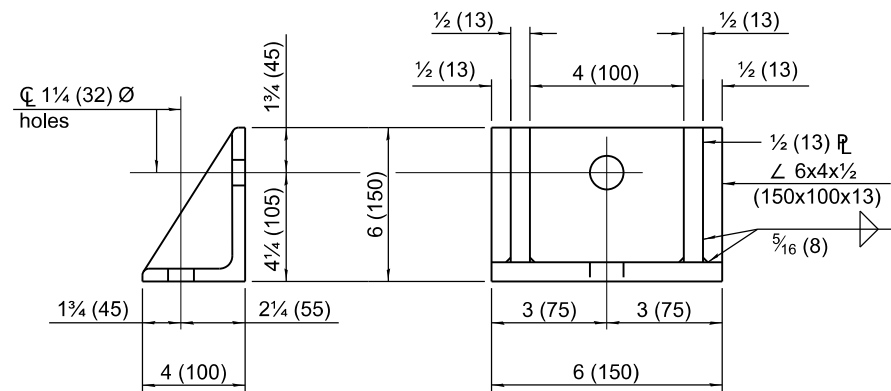
APPROVED January 1, 2021
[Signature]
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 4-1-06

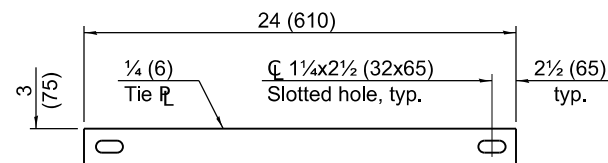
\varnothing 1(25) \varnothing Threaded rods
 with $2\frac{1}{4} \times 2\frac{1}{4} \times \frac{5}{16}$ (55x55x8)
 \varnothing washers under each nut.
 All nuts shall be brought
 to a snug tight condition.
 Holes in the walls may be
 drilled using core bits in
 lieu of formed holes.



JOINT SPLICE



CONNECTION ANGLE



TIE PLATE

FLAT SLAB TOP REINFORCEMENT

Location	Riser Height (RH)	WWR (each direction)		Rebar (each direction except as noted)		
		A_s (min.)	Spacing (max.)	A_s (min.)	Spacing (max.)	Bar Size
Top Mat	All	0.11 sq. in./ft. (233 sq. mm/m)	18 (450)	0.11 sq. in./ft. (233 sq. mm/m)	18 (450)	#3 or #4 (#10) (#13)
Bottom Mat	RH \leq 10 ft. (3.05 m)	** 0.88 sq. in./ft. (1863 sq. mm/m)	6 (150)	See plan view for rebar orientation and spacing and this table for bar size		#6 (#19)
	RH > 10 ft. (3.05 m)	WWR not permitted				#7 (#22)

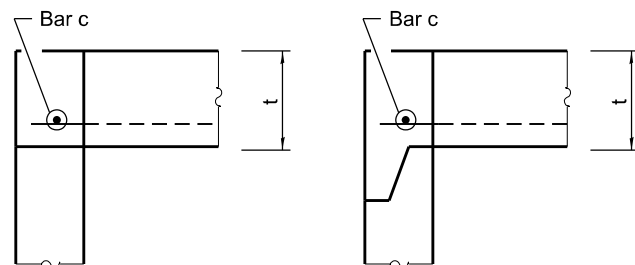
** Only one layer of WWR permitted to avoid congestion.

WALL REINFORCEMENT

Location	Orientation	WWR or Rebar	
		A_s (min.)	Spacing (max.)
4 ft. (1.22 m) \varnothing Riser	Circumferential	0.12 sq. in./ft. (254 sq. mm/m)	6 (150)
	Vertical	0.045 sq. in./ft. (95 sq. mm/m)	8 (200)
8 ft. (2.44 m) \varnothing Barrel	Circumferential	0.24 sq. in./ft. (508 sq. mm/m)	6 (150)
	Vertical	0.045 sq. in./ft. (95 sq. mm/m)	8 (200)

BASE SLAB REINFORCEMENT

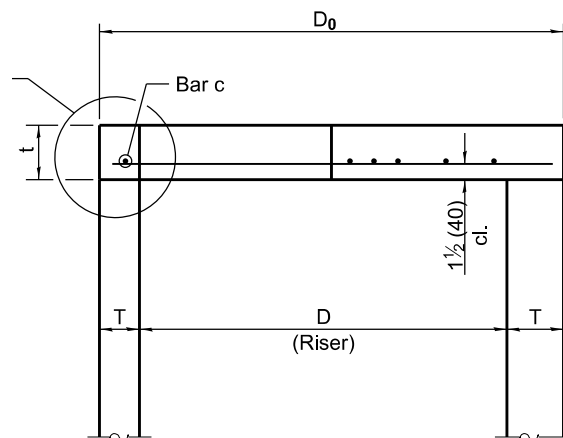
Location	Riser Height (RH)/ Total Height (TH)	WWR or Rebar (each direction)	
		A_s (min.)	Spacing (max.)
Top Mat	RH \leq 10 ft. (3.05 m) & TH \leq 20 ft. (6.10 m)	0.36 sq. in./ft. (762 sq. mm/m)	6 (150)
	RH > 10 ft. (3.05 m) or TH > 20 ft. (6.10 m)	0.60 sq. in./ft. (1270 sq. mm/m)	6 (150)
Bottom Mat	All	0.11 sq. in./ft. (233 sq. mm/m)	18 (450)



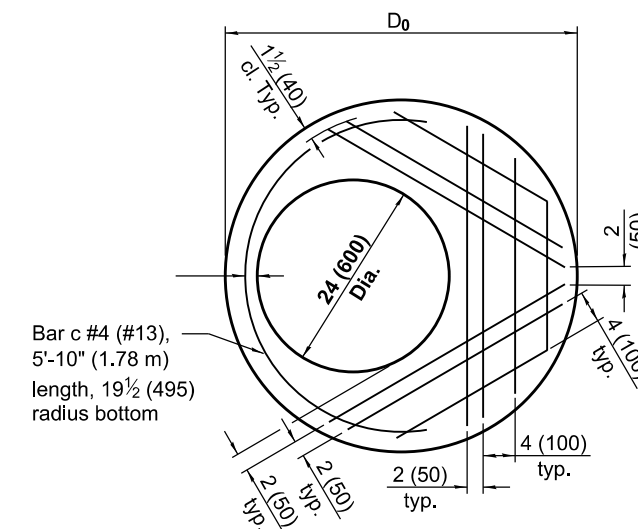
**FLAT SLAB TOP JOINT CONFIGURATIONS
FOR D = 36 (900) AND D = 4'-0" (1.22 m)**

(Shown at access hole)

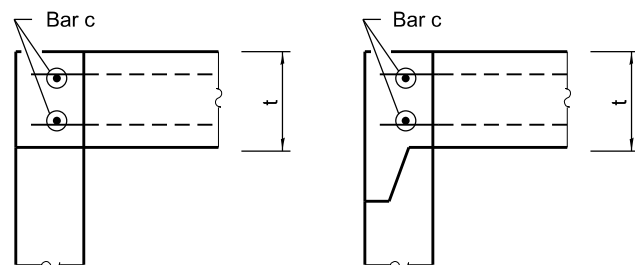
See Top Slab Joint Configurations for D=36 (900) and D=4'-0" (1.22 m)



**SECTION THRU FLAT SLAB TOP
FOR D = 36 (900) AND D = 4'-0" (1.22 m)**



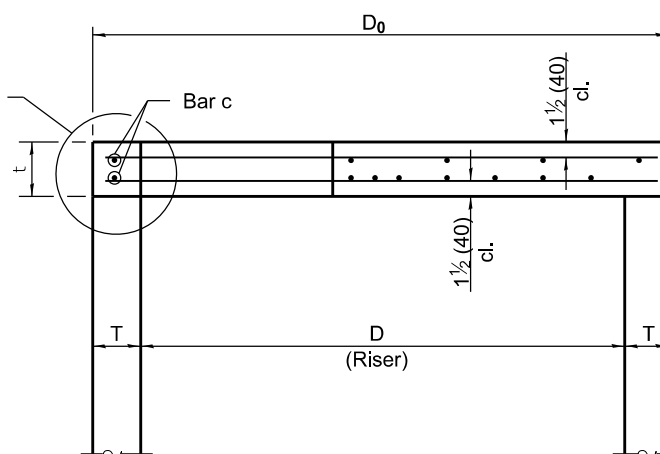
PLAN - FLAT SLAB TOP FOR D = 36 (900)
(Showing layout of reinforcement bars and c bars)



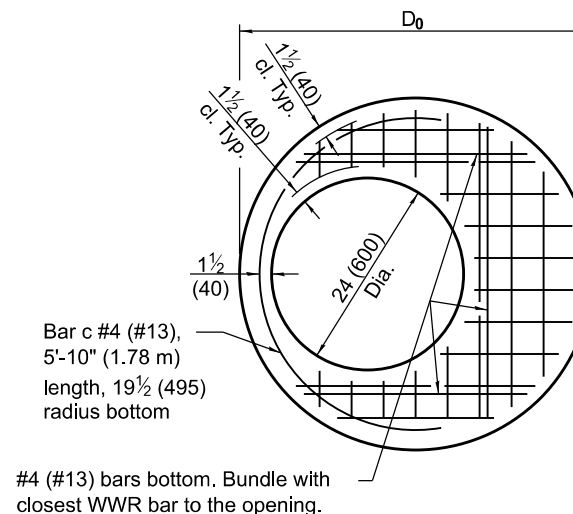
**FLAT SLAB TOP JOINT CONFIGURATIONS
D = 5'-0" (1.52 m)**

(Shown at access hole)

See Top Slab Joint Configurations for D=5'-0" (1.52 m)



**SECTION THRU FLAT SLAB TOP
FOR D = 5'-0" (1.52 m)**



PLAN - FLAT SLAB TOP FOR D = 36 (900)
(Showing layout of welded wire reinforcement and c bars)

#4 (#13) bars bottom. Bundle with closest WWR bar to the opening.

GENERAL NOTES

The flat slab top may be used in lieu of the tapered tops shown on Standards 602001, 602016, or 602306 at the option of the Contractor or when field conditions prohibit the use of tapered tops.

Lifting holes shall be located in the sections as per the manufacturer's recommendations.

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

TABLE

D	T	D ₀ (min.)	t
36 (900)	See applicable Standards	D + 2T	6 (150)
4'-0" (1.2 m)			6 (150)
5'-0" (1.5 m)			8 (200)

Illinois Department of Transportation

APPROVED January 1, 2021

 ENGINEER OF POLICY AND PROCEDURES

APPROVED January 1, 2021

 ENGINEER OF DESIGN AND ENVIRONMENT

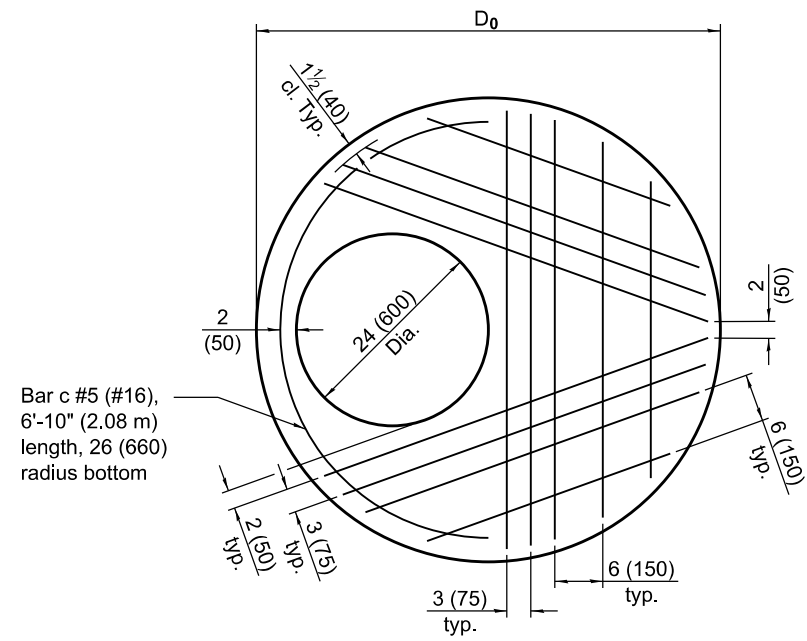
ISSUED 1-1-97

DATE	REVISIONS
1-1-19	Expanded / refined reinforcement options.
1-1-18	Revised for compliance with LRFD.

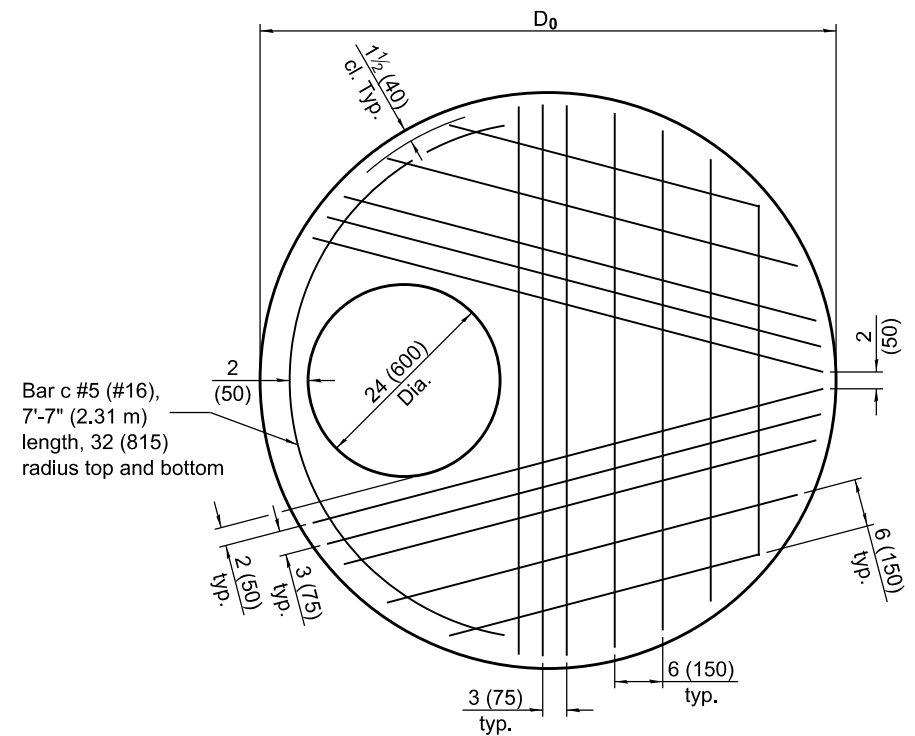
**PRECAST REINFORCED
CONCRETE FLAT SLAB TOP**

(Sheet 1 of 2)

STANDARD 602601-06



PLAN - FLAT SLAB TOP FOR D = 4'-0" (1.22 m)
(Showing layout of reinforcement bars and c bars)



PLAN - FLAT SLAB TOP FOR D = 5'-0" (1.52 m)
(Showing layout of bottom reinforcement bars and c bars)

FLAT SLAB TOP REINFORCEMENT FOR D = 36 (900)

Location	WWR (each direction)		Rebar		
	A _s (min.)	Spacing (max.)	A _s (min.)	Spacing (max.)	Bar Size
Bottom Mat	* 0.60 sq. in./ft. (1270 sq. mm/m)	6 (150)	See plan view for rebar orientation and spacing and this table for bar size		#4 (#13)

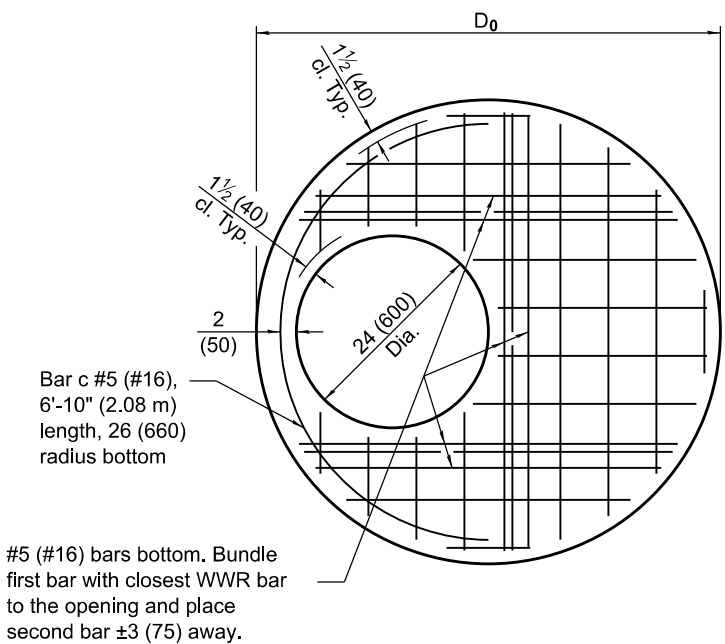
FLAT SLAB TOP REINFORCEMENT FOR D = 4'-0" (1.22 m)

Location	WWR (each direction)		Rebar		
	A _s (min.)	Spacing (max.)	A _s (min.)	Spacing (max.)	Bar Size
Bottom Mat	* 0.62 sq. in./ft. (1312 sq. mm/m)	6 (150)	See plan view for rebar orientation and spacing and this table for bar size		#5 (#16)

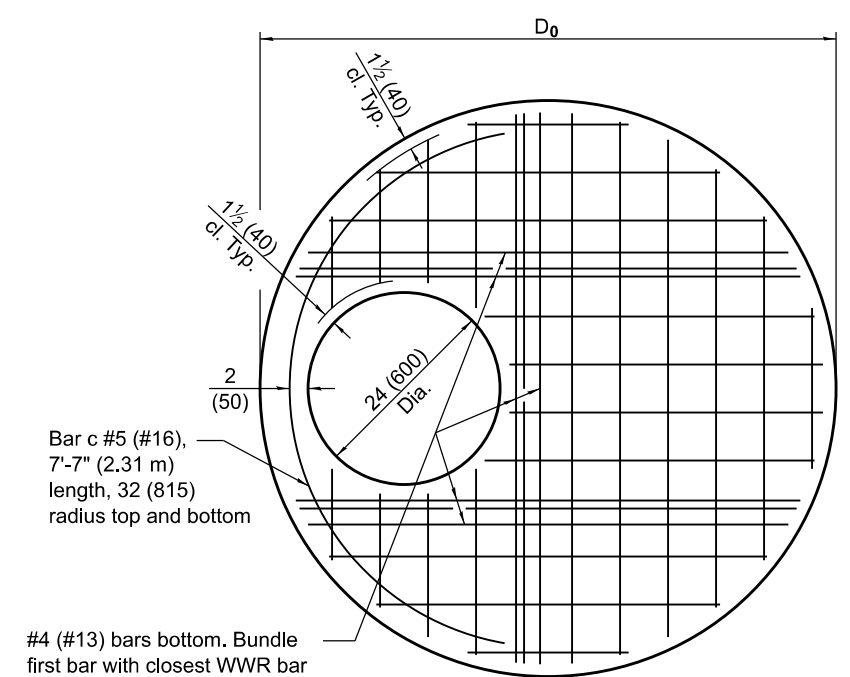
FLAT SLAB TOP REINFORCEMENT FOR D = 5'-0" (1.52 m)

Location	WWR (each direction)		Rebar (each direction except as noted)		
	A _s (min.)	Spacing (max.)	A _s (min.)	Spacing (max.)	Bar Size
Top Mat	0.11 sq. in./ft. (233 sq. mm/m)	18 (450)	0.11 sq. in./ft. (233 sq. mm/m)	18 (450)	#3 or #4 (#10) (#13)
Bottom Mat	* 0.40 sq. in./ft. (847 sq. mm/m)	6 (150)	See plan view for rebar orientation and spacing and this table for bar size		#4 (#13)

* Only one layer of WWR permitted to avoid congestion.



PLAN - FLAT SLAB TOP FOR D = 4'-0" (1.22 m)
(Showing layout of welded wire reinforcement and c bars)



PLAN - FLAT SLAB TOP FOR D = 5'-0" (1.52 m)
(Showing layout of welded wire reinforcement and c bars)

Illinois Department of Transportation

APPROVED January 1, 2021
Michael Bond
ENGINEER OF POLICY AND PROCEDURES

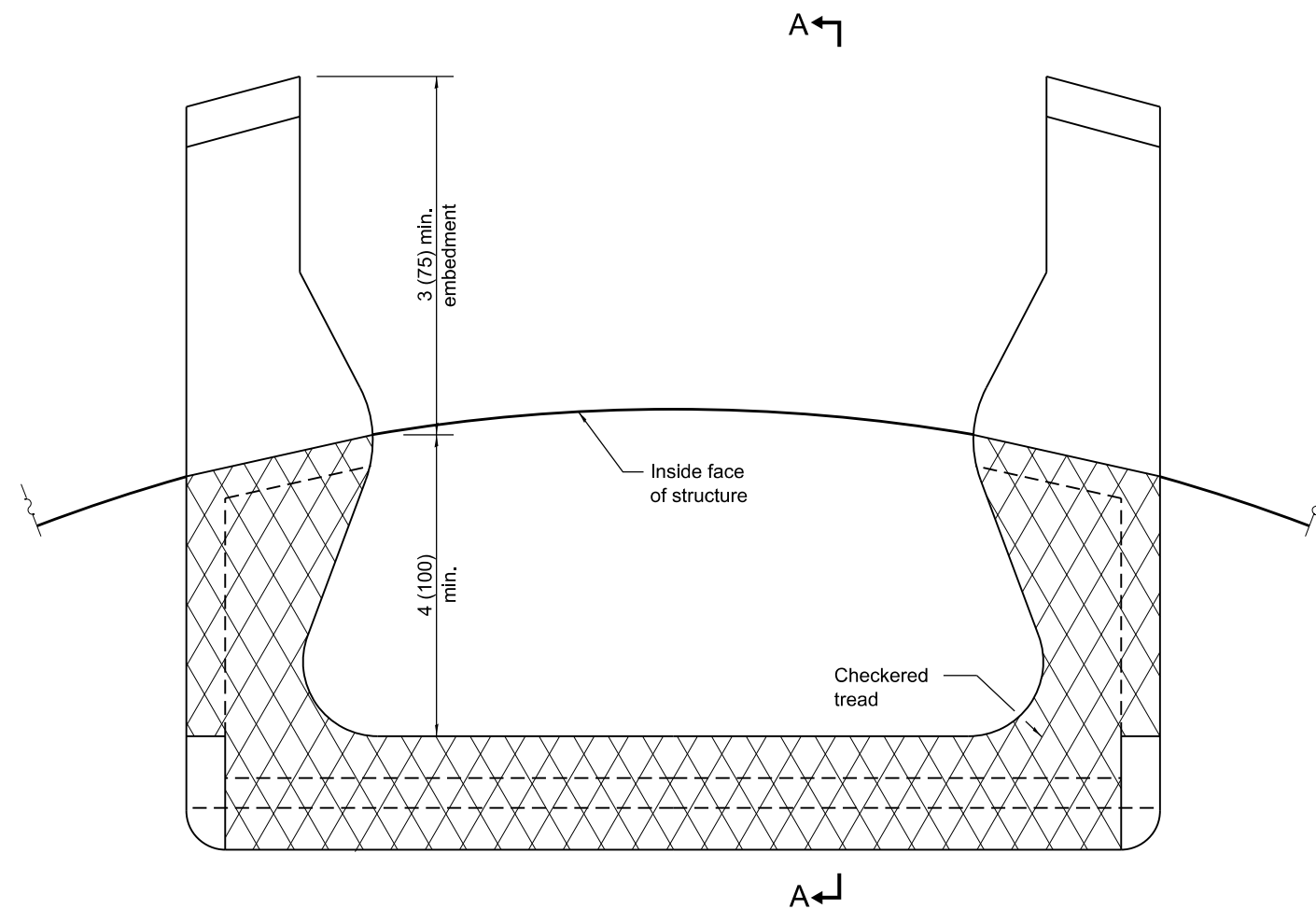
APPROVED January 1, 2021
Scott E. G.
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

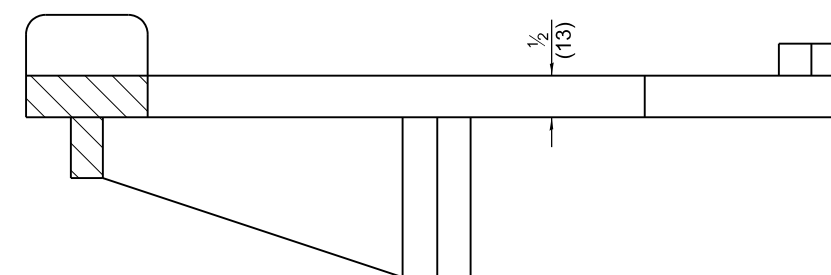
**PRECAST REINFORCED
CONCRETE FLAT SLAB TOP**

(Sheet 2 of 2)

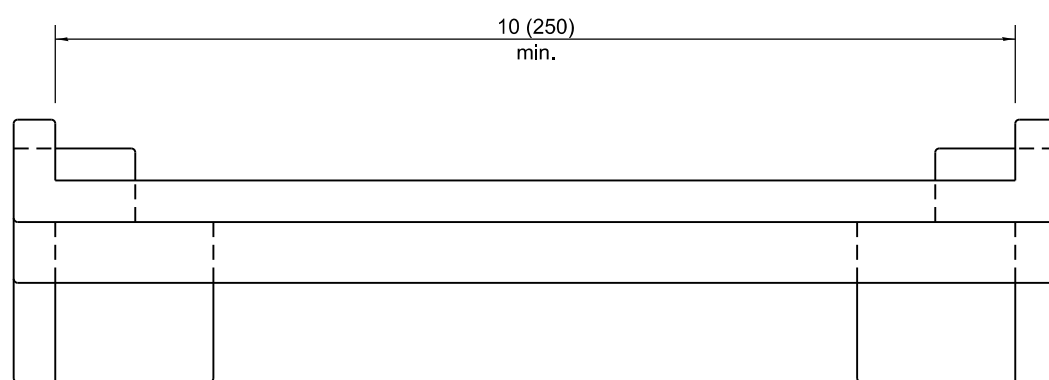
STANDARD 602601-06



PLAN VIEW



SECTION A-A



ELEVATION VIEW

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

Illinois Department of Transportation

APPROVED January 1, 2009
Scott Smith
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APPROVED January 1, 2009
Ken E. Han
 ENGINEER OF DESIGN AND ENVIRONMENT

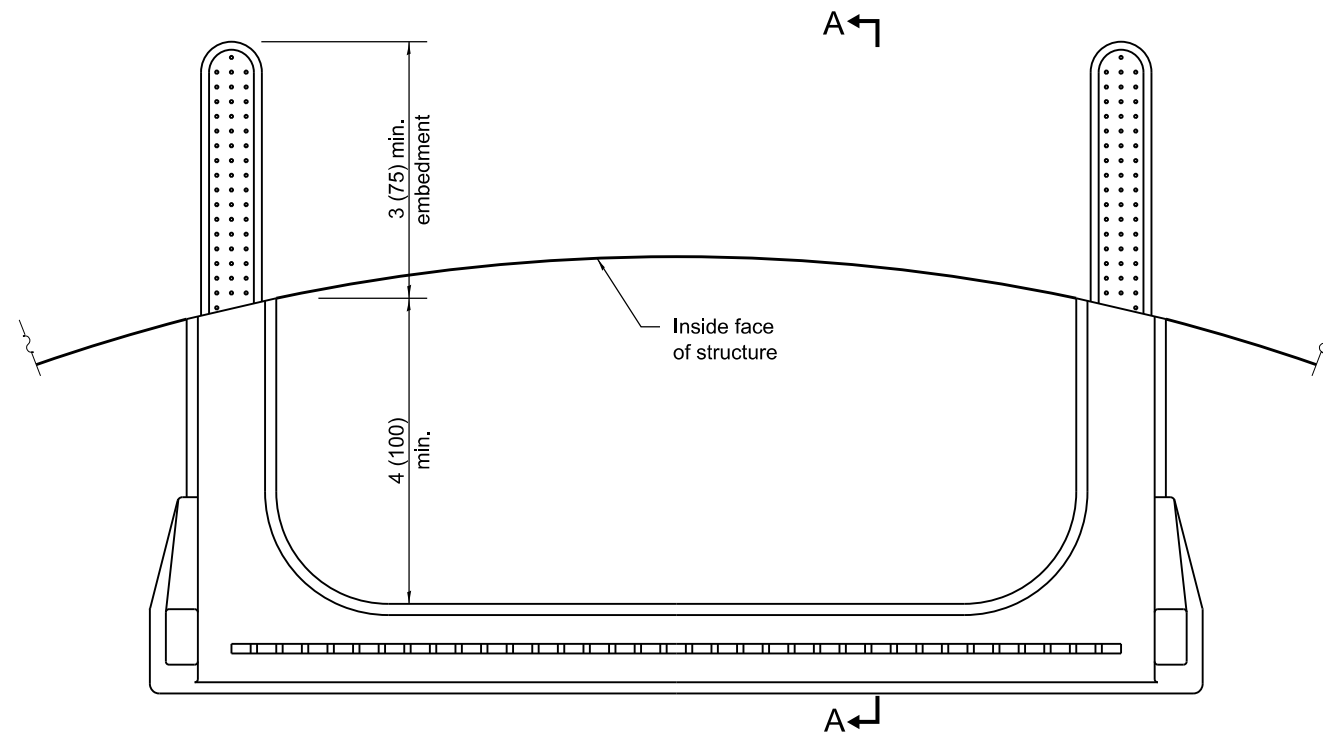
ISSUED 1-1-97

DATE	REVISIONS
1-1-09	Switched units to English (metric).
4-1-06	Revised title, drawings, and added plastic steps on sheet 2.

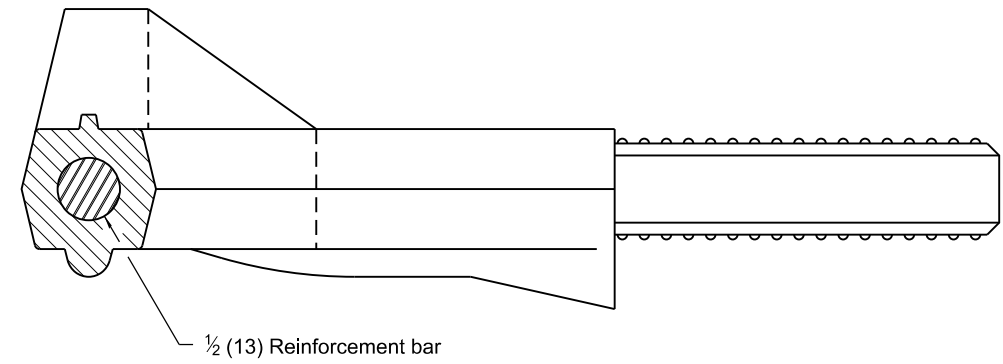
MANHOLE STEPS

(Sheet 1 of 2)

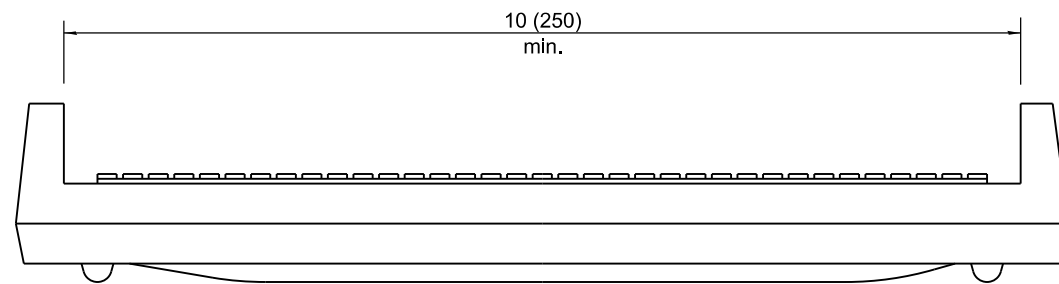
STANDARD 602701-02



PLAN VIEW



SECTION A-A



ELEVATION VIEW

Illinois Department of Transportation

APPROVED January 1, 2009

Scott Smith
ENGINEER OF POLICY AND PROCEDURES

APPROVED January 1, 2009

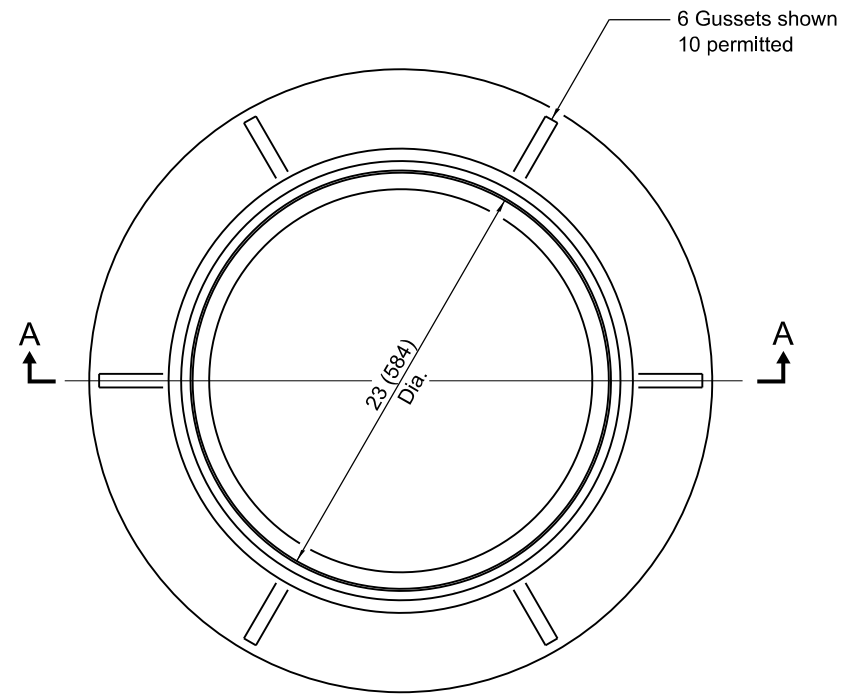
Lee E. Han
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

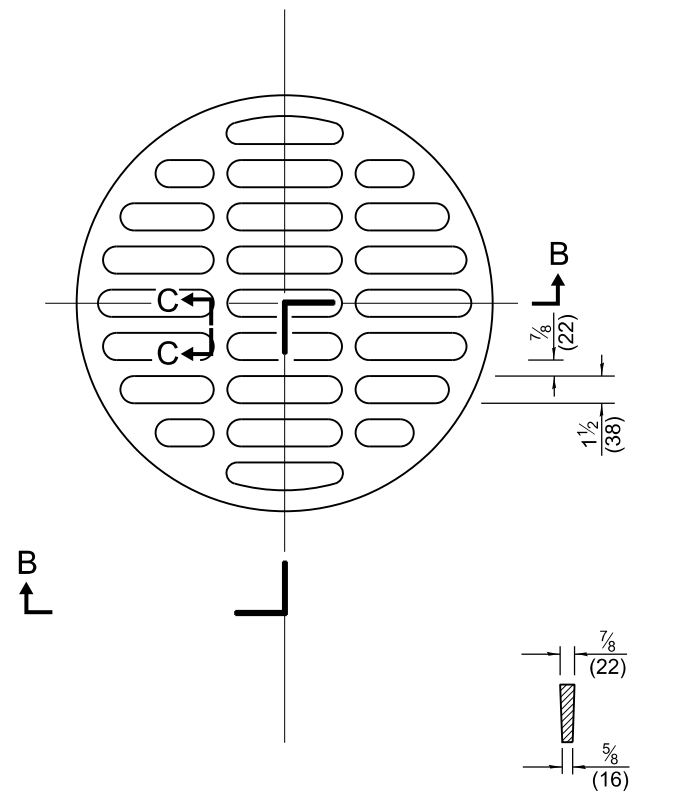
MANHOLE STEPS

(Sheet 2 of 2)

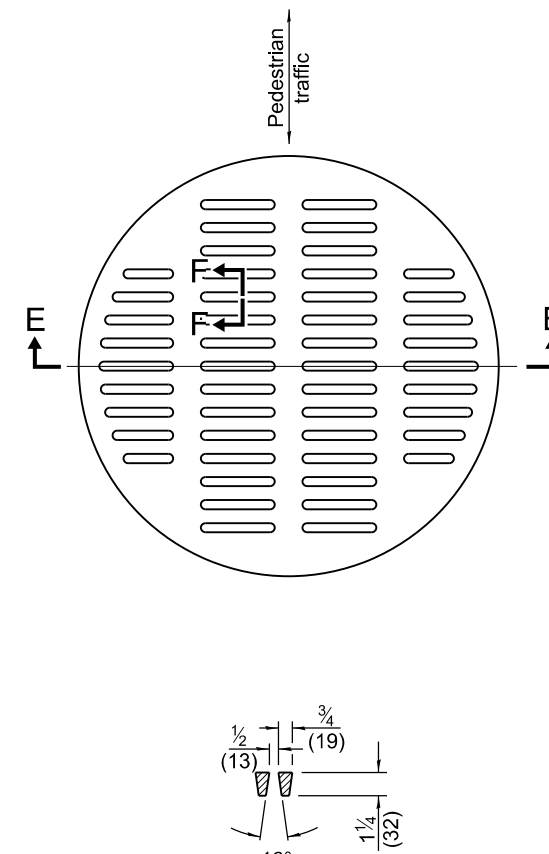
STANDARD 602701-02



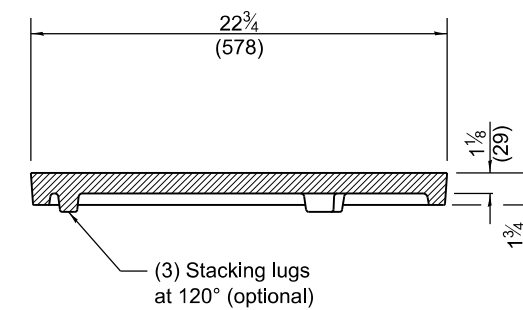
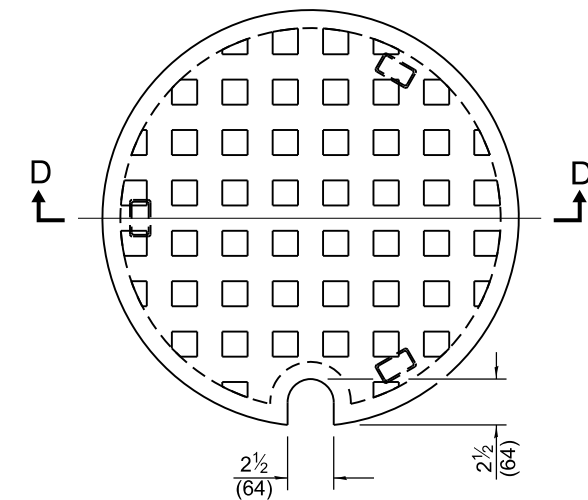
CAST FRAME



SECTION C-C

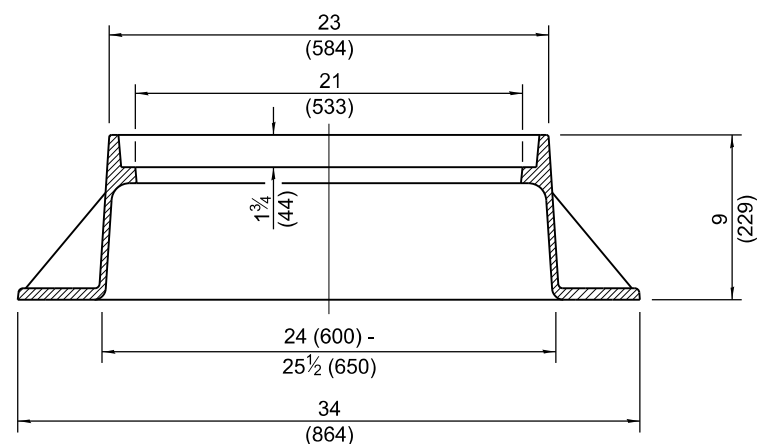


SECTION F-F

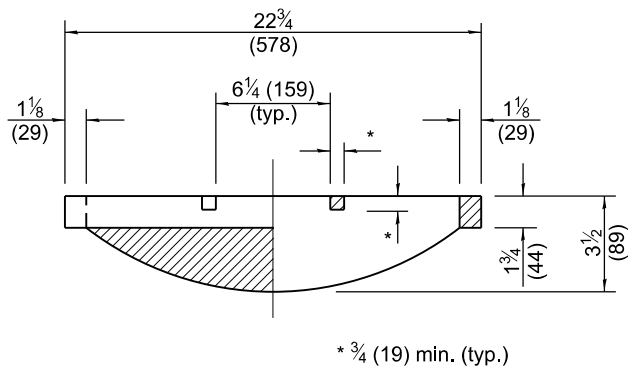


SECTION D-D

CAST CLOSED LID
Gray Iron Lid

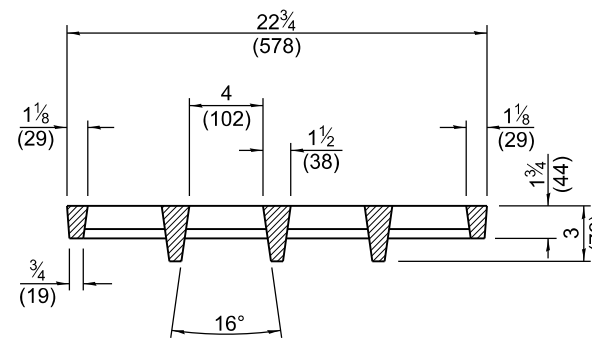


SECTION A-A
Gray Iron



SECTION B-B

CAST OPEN LID



SECTION E-E

**ADA COMPLIANT
CAST OPEN LID**

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

Illinois Department of Transportation

APPROVED January 1, 2020
Michael Bond
ENGINEER OF POLICY AND PROCEDURES

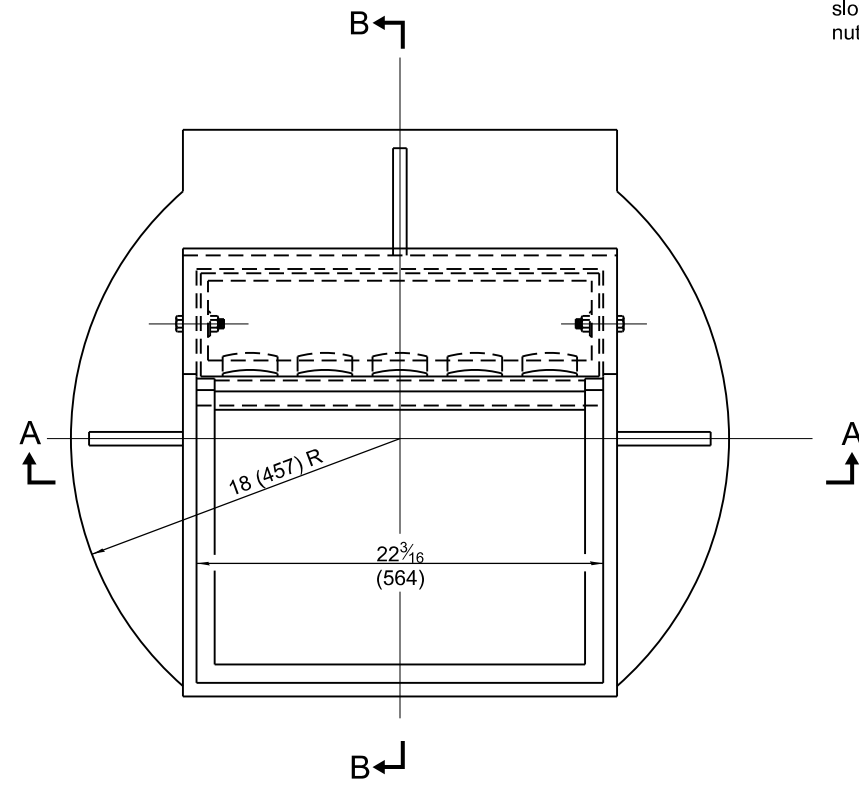
APPROVED January 1, 2020
J. E. Egan
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

DATE	REVISIONS
1-1-20	Revised dimension in Section B-B of cast open lid.
1-1-15	Revised dimensioning of frame.
	Added ADA compliant open lid.

**FRAME AND LIDS
TYPE 1**

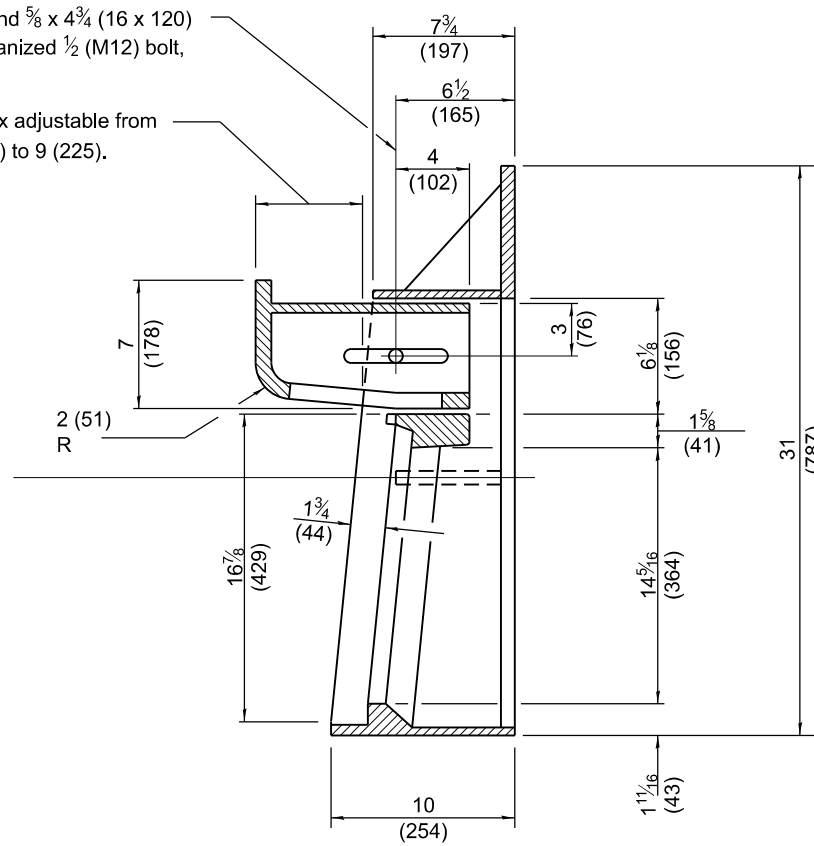
STANDARD 604001-05



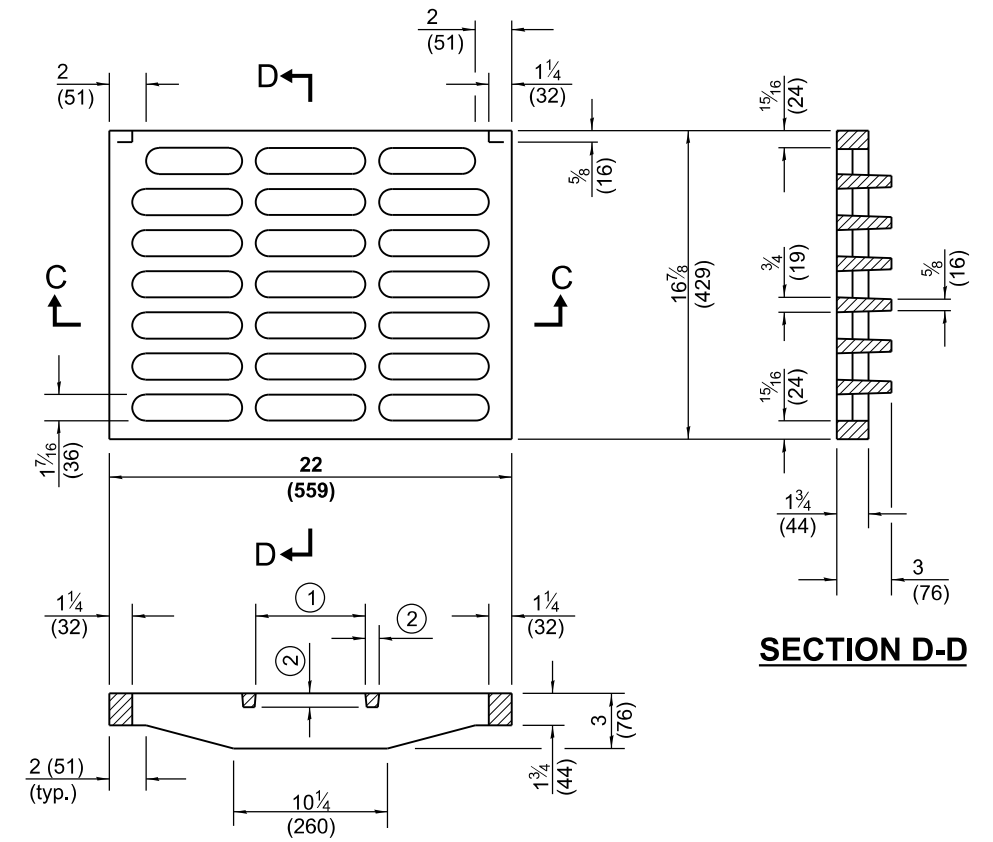
CAST FRAME

Ø 5/8 (16) dia. hole and 5/8 x 4 3/4 (16 x 120) slotted hole for galvanized 1/2 (M12) bolt, nut and washer.

Curb box adjustable from 5 1/4 (135) to 9 (225).



SECTION B-B

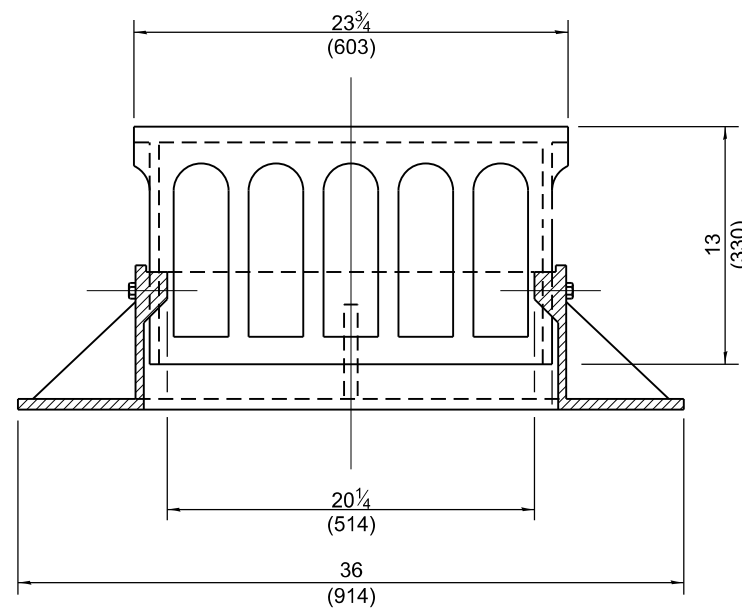


SECTION C-C

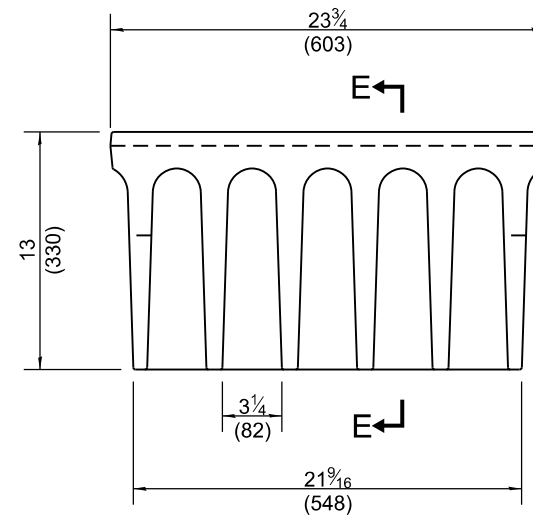
- ① = 6 (152) typ.
- ② = 3/4 (19) typ.

SECTION D-D

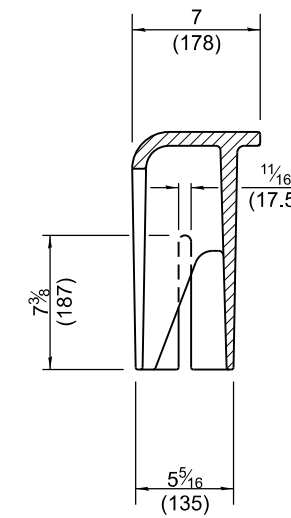
CAST GRATE



SECTION A-A



ALTERNATE CURB BOX



SECTION E-E

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

Illinois Department of Transportation

APPROVED January 1, 2015
Michael Brand
 ENGINEER OF POLICY AND PROCEDURES

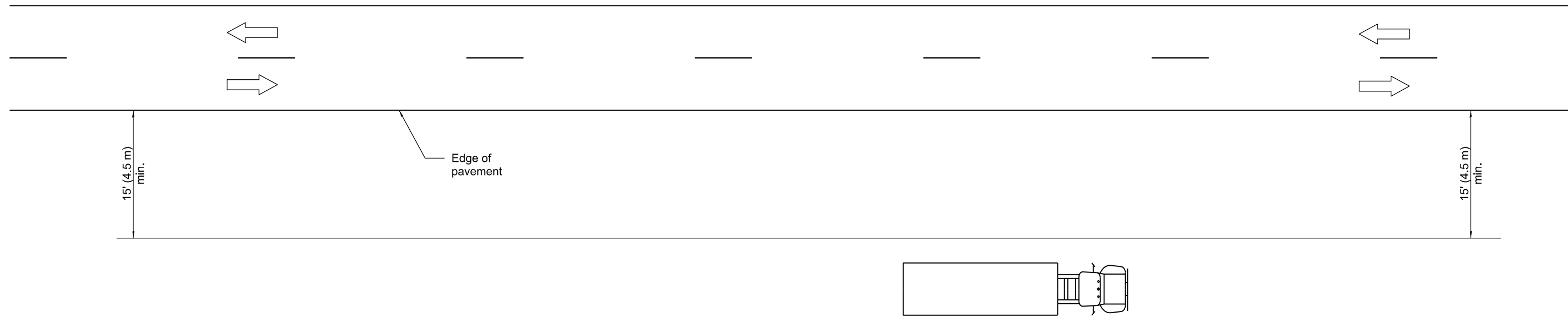
APPROVED January 1, 2015
[Signature]
 ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

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

**FRAME AND GRATE
TYPE 3**

STANDARD 604006-05



TYPICAL APPLICATIONS


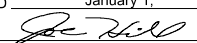
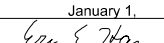
- Landscaping work
- Utility work
- Fencing contracts and maintenance
- Cleaning culverts

GENERAL NOTES

This Standard is used where at all times all vehicles, equipment, workers or their activities are more than 15' (4.5 m) from the edge of pavement.

When the work operation requires that two or more work vehicles cross the 15' (4.5 m) clear zone in any one hour, traffic control shall be according to Standard 701006.

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

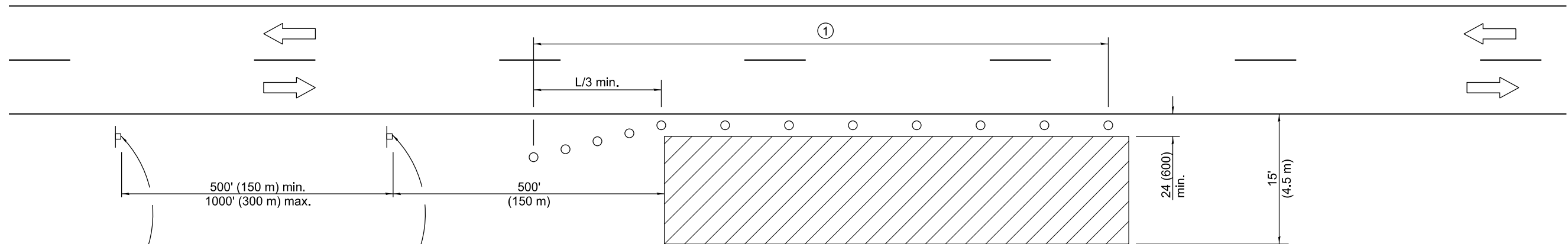

 Illinois Department of Transportation
 APPROVED January 1, 2009

 ENGINEER OF OPERATIONS
 APPROVED January 1, 2009

 ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

DATE	REVISIONS
1-1-09	Switched units to English (metric).
1-1-05	Revised title and notes.

**OFF-RD OPERATIONS,
 2L, 2W, MORE THAN
 15' (4.5 m) AWAY**

STANDARD 701001-02



For contract construction projects

ROAD CONSTRUCTION AHEAD

W20-1103(0)-48

W21-1(0)-48

For maintenance and utility projects

ROAD WORK AHEAD




W20-1(0)-48

TYPICAL APPLICATIONS

- Utility operations
- Culvert extensions
- Side slope changes
- Guardrail installation and maintenance
- Delineator installation
- Landscaping operations
- Shoulder repair
- Sign installation and maintenance

① When the work operation exceeds one hour, cones, drums or barricades shall be placed at 25' (8 m) centers for L/3 distance, and at 50' (15 m) centers through the remainder of the work area.

SYMBOLS

-  Work area
-  Sign
-  Cone, drum or barricade

GENERAL NOTES

This Standard is used where any vehicles, equipment, workers or their activities will encroach in the area 15' (4.5 m) to 24' (600) from the edge of pavement.

Calculate L as follows:

SPEED LIMIT	FORMULAS	
	English	(Metric)
40 mph (70 km/h) or less:	$L = \frac{WS^2}{60}$	$L = \frac{WS^2}{150}$
45 mph (80 km/h) or greater:	$L=(W)(S)$	$L=0.65(W)(S)$

W = Width of offset in feet (meters).

S = Normal posted speed mph (km/h).

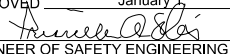
All dimensions are in inches (millimeters) unless otherwise shown.

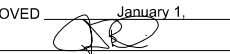
DATE	REVISIONS
1-1-14	Revised workers sign number to agree with current MUTCD.
1-1-13	Omitted text 'WORKERS' sign.

OFF-RD OPERATIONS, 2L, 2W, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE

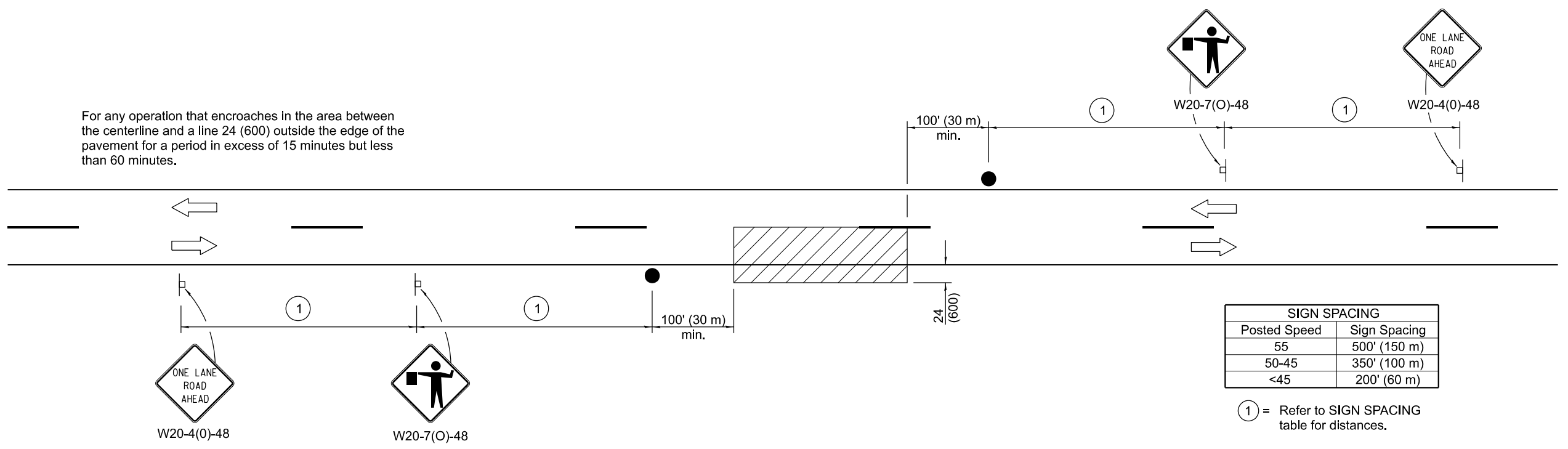
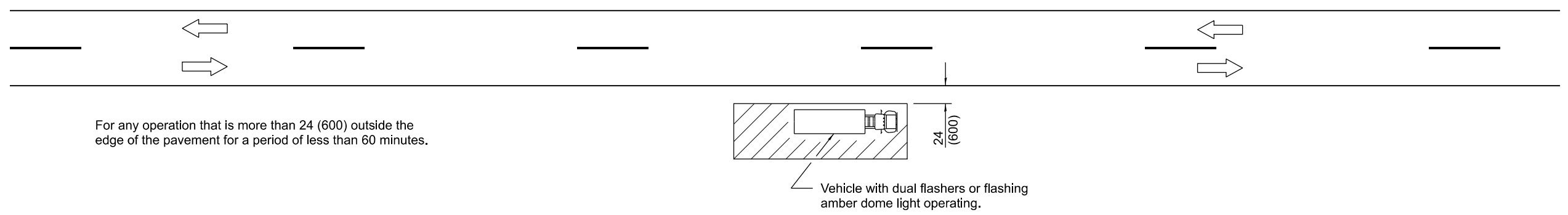
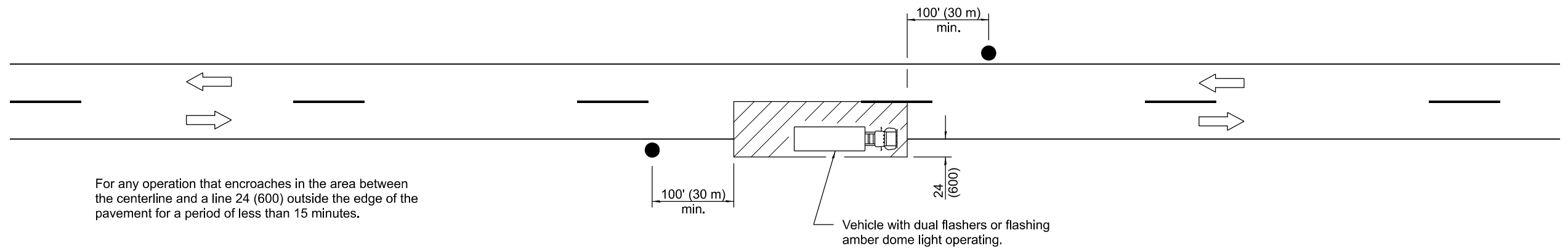
STANDARD 701006-05

Illinois Department of Transportation

APPROVED January 1, 2014

 ENGINEER OF SAFETY ENGINEERING

APPROVED January 1, 2014

 ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97



TYPICAL APPLICATIONS

- Marking patches
- Field survey
- String line
- Utility operations
- Cleaning up debris on pavement

SYMBOLS

- Work area
- Sign on portable or permanent support
- Flagger with traffic control sign

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

Illinois Department of Transportation

APPROVED January 1, 2011
Amelia A. Davis
 ENGINEER OF SAFETY ENGINEERING

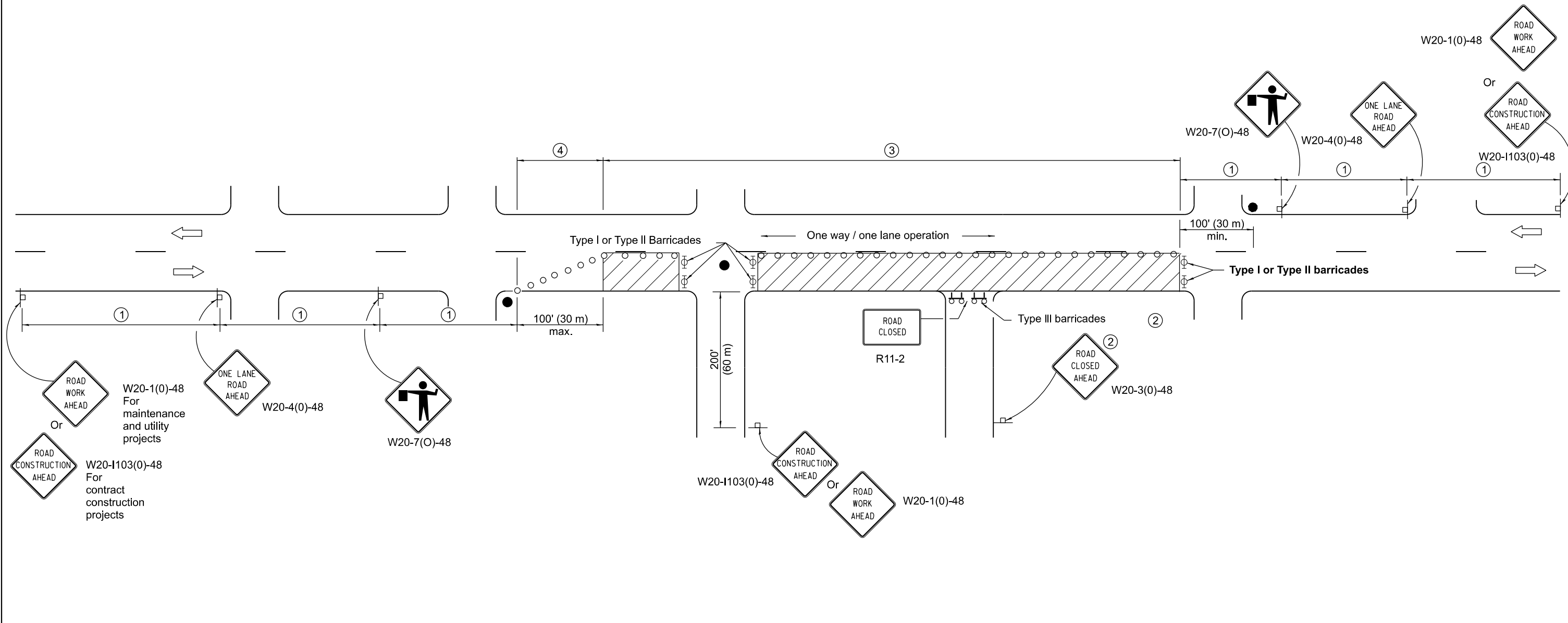
APPROVED January 1, 2011
Scott Schickel
 ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

DATE	REVISIONS
1-1-11	Revised flagger sign.
1-1-09	Switched units to English (metric).

**LANE CLOSURE, 2L, 2W,
SHORT TIME OPERATIONS**

STANDARD 701301-04



SIGN SPACING	
Posted Speed	Sign Spacing
55	500' (150 m)
50-45	350' (100 m)
<45	200' (60 m)

SYMBOLS

- Work area
- Cone, drum or barricade (not required for moving operations)
- Sign on portable or permanent support
- Flagger with traffic control sign
- Barricade or drum with flashing light
- Type III barricade with flashing lights

- ① Refer to SIGN SPACING TABLE for distances.
- ② For approved sideroad closures.
- ③ Cones at 25' (8 m) centers for 250' (75 m). Additional cones may be placed at 50' (15 m) centers. When drums or Type I or Type II barricades are used, the interval between devices may be doubled.
- ④ Cones, drums or barricades at 20' (6 m) centers.

GENERAL NOTES

This Standard is used where at any time, day or night, any vehicle, equipment, workers or their activities encroach on the pavement requiring the closure of one traffic lane in an urban area.

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

Illinois Department of Transportation

APPROVED January 1, 2011
Amelia A. Davis
 ENGINEER OF SAFETY ENGINEERING

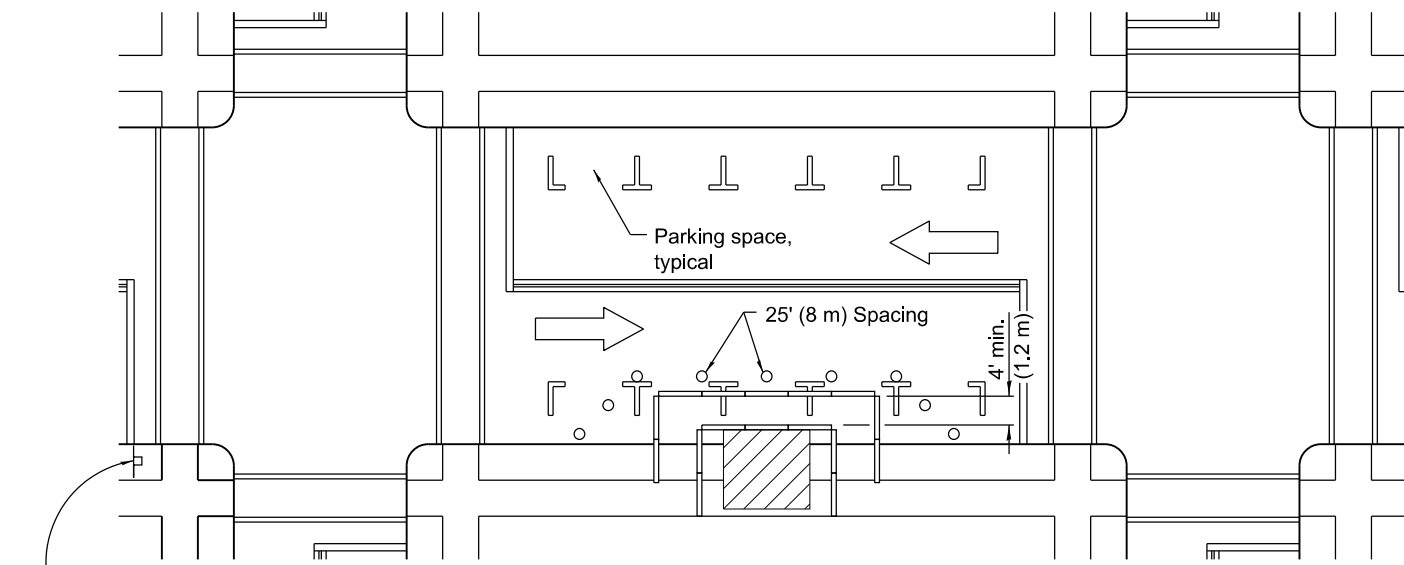
APPROVED January 1, 2011
Scott Schickel
 ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

DATE	REVISIONS
1-1-11	Revised flagger sign.
1-1-09	Switched units to English (metric).
	Corrected sign No.'s.

**URBAN LANE CLOSURE,
2L, 2W, UNDIVIDED**

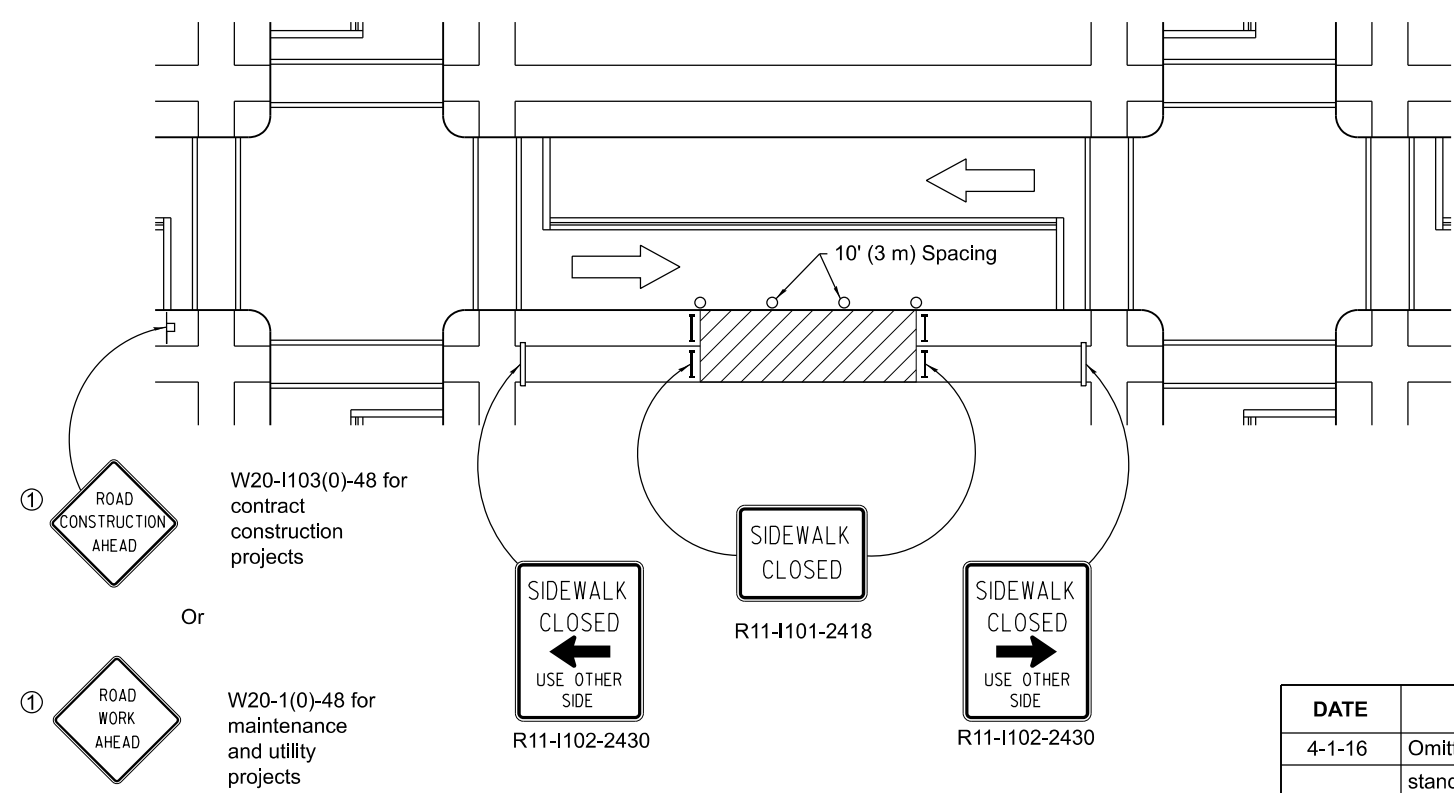
STANDARD 701501-06



① ROAD CONSTRUCTION AHEAD W20-I103(0)-48 for contract construction projects

Or
① ROAD WORK AHEAD W20-1(0)-48 for maintenance and utility projects

SIDEWALK DIVERSION



① ROAD CONSTRUCTION AHEAD W20-I103(0)-48 for contract construction projects

Or
① ROAD WORK AHEAD W20-1(0)-48 for maintenance and utility projects

R11-I102-2430

R11-I101-2418

R11-I102-2430

SIDEWALK CLOSURE

① Omit whenever duplicated by road work traffic control.

GENERAL NOTES

This Standard is used where, at any time, pedestrian traffic must be rerouted due to work being performed.

This Standard must be used in conjunction with other Traffic Control & Protection Standards when roadway traffic is affected.

Temporary facilities shall be detectable and accessible.

The temporary pedestrian facilities shall be provided on the same side of the closed facilities whenever possible.

The SIDEWALK CLOSED / USE OTHER SIDE sign shall be placed at the nearest crosswalk or intersection to each end of the closure. Where the closure occurs at a corner, the signs shall be erected on the corners across the street from the closure. The SIDEWALK CLOSED signs shall be used at the ends of the actual closures.

Type III barricades and R11-2-4830 signs shall be positioned as shown in "ROAD CLOSED TO ALL TRAFFIC" detail on Standard 701901.

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

SYMBOLS

- Work area
- Sign on portable or permanent support
- Barricade or drum
- Cone, drum or barricade
- Type III barricade
- Detectable pedestrian channelizing barricade

Illinois Department of Transportation

APPROVED January 1, 2016
Amelia A. Davis
ENGINEER OF SAFETY ENGINEERING

APPROVED January 1, 2016
DR
ENGINEER OF DESIGN AND ENVIRONMENT

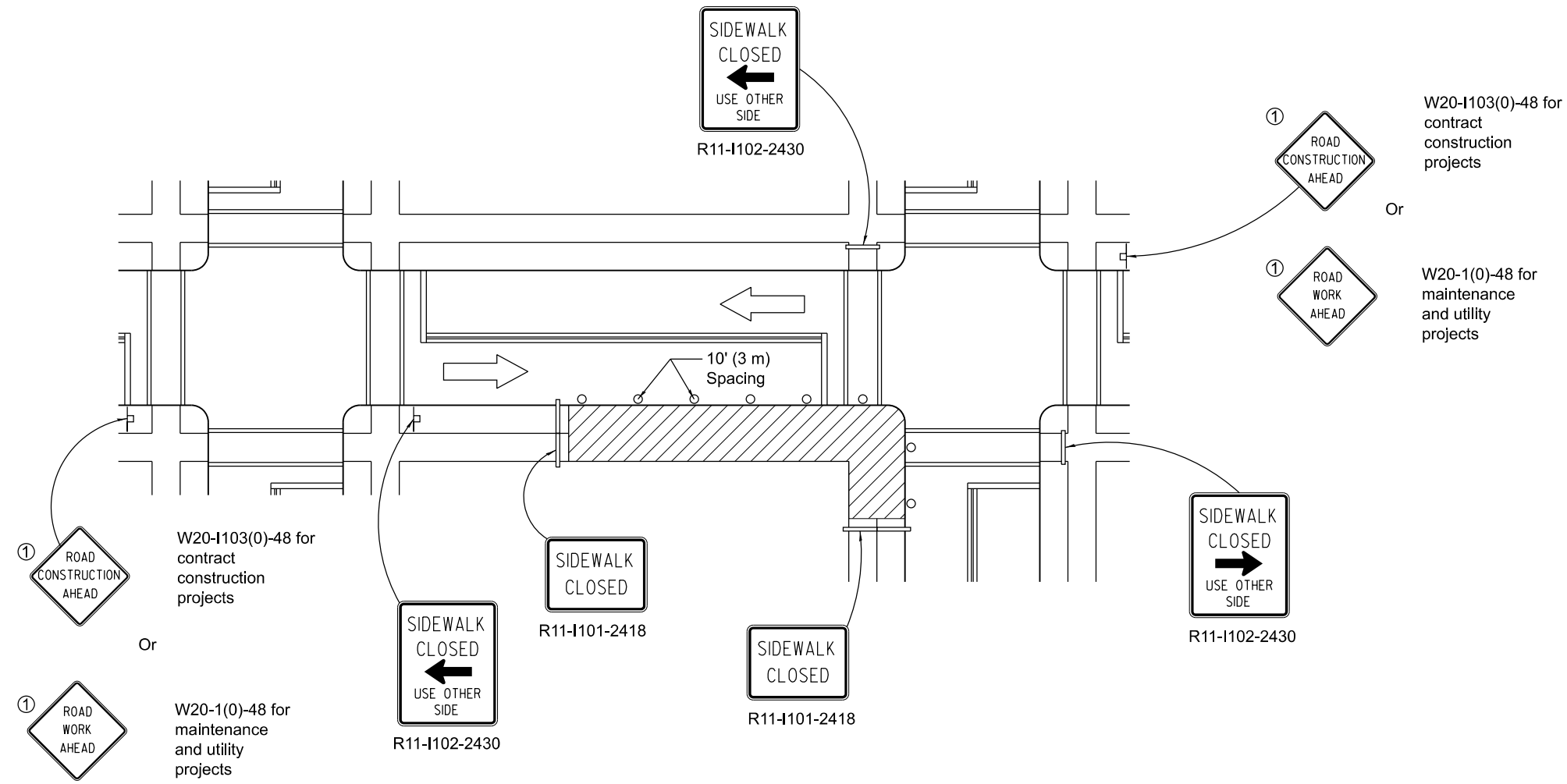
ISSUED 1-1-97

DATE	REVISIONS
4-1-16	Omitted orange safety fence from standard as this is covered in the standard spec.
1-1-12	Added SIDEWALK DIVERSION.
	Modified appearance of plan views.
	Renamed Standard.

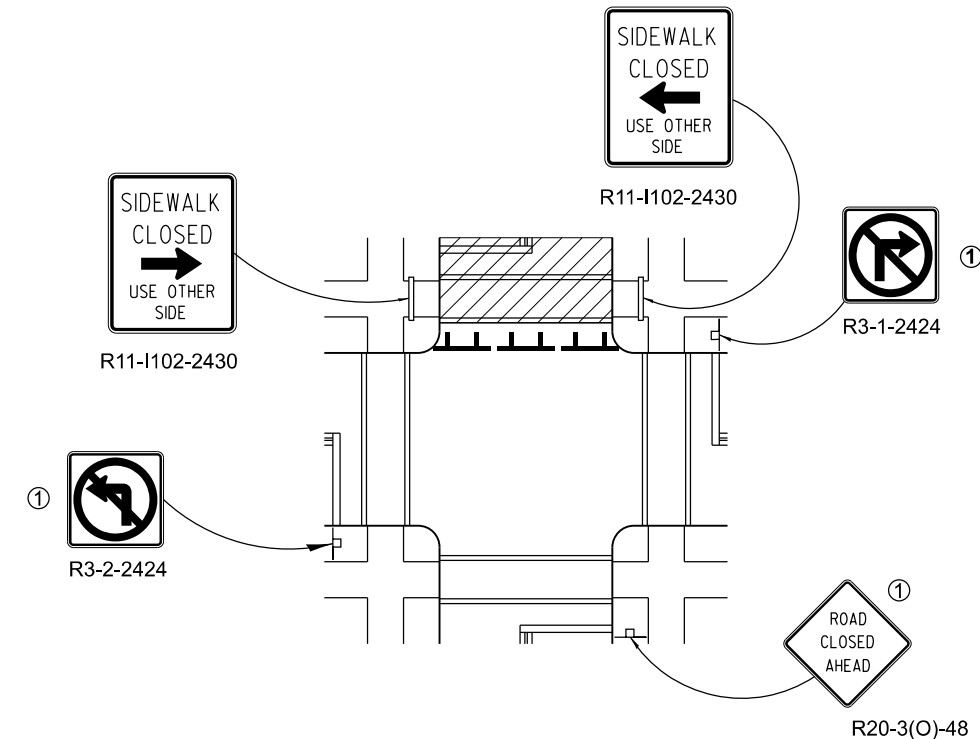
SIDEWALK, CORNER OR CROSSWALK CLOSURE

(Sheet 1 of 2)

STANDARD 701801-06



CORNER CLOSURE



CROSSWALK CLOSURE


W20-I103(0)-48 for contract construction projects
Or
W20-1(0)-48 for maintenance and utility projects

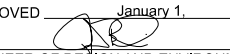
SIDEWALK, CORNER OR CROSSWALK CLOSURE

(Sheet 2 of 2)

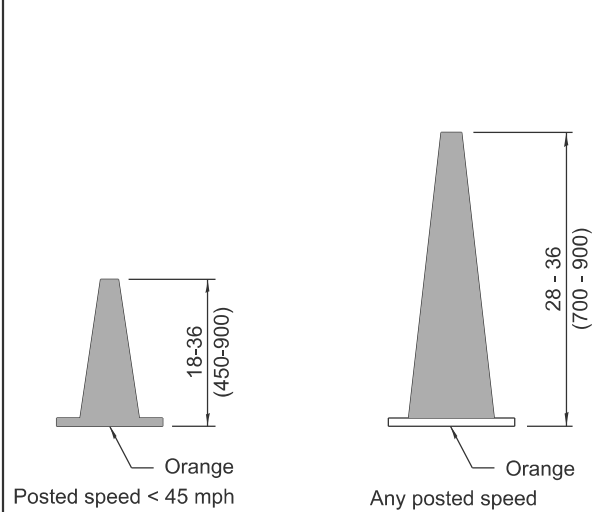
STANDARD 701801-06

Illinois Department of Transportation

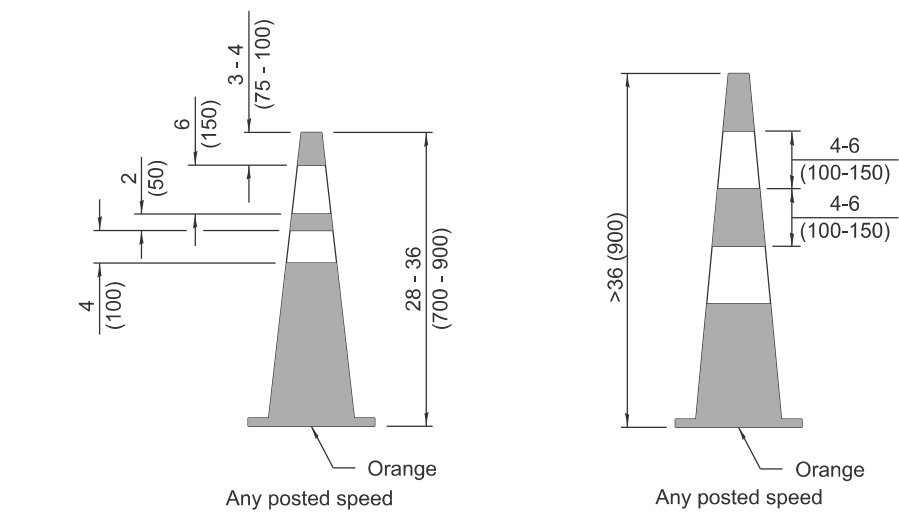
APPROVED January 1, 2016

 ENGINEER OF SAFETY ENGINEERING

APPROVED January 1, 2016

 ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

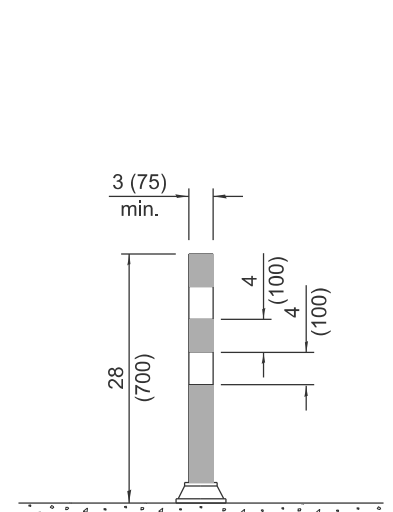


DAYTIME USE

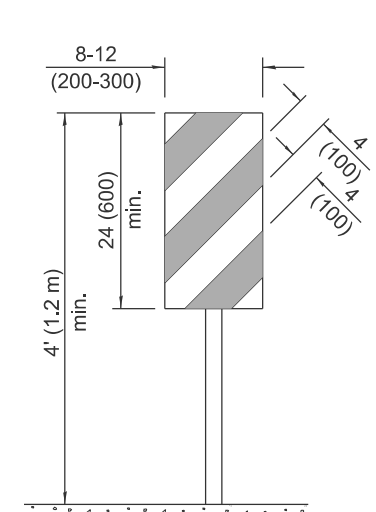


DAY OR NIGHTTIME USE

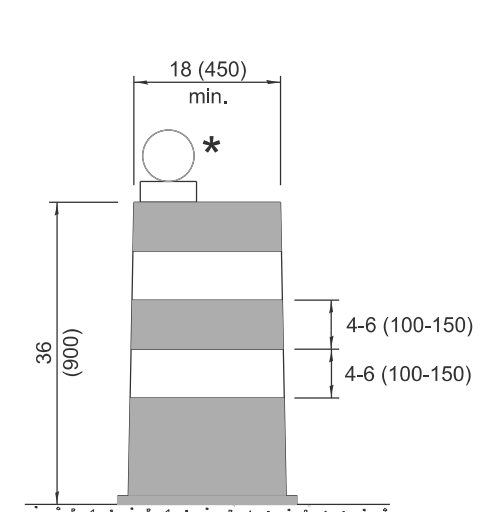
CONES



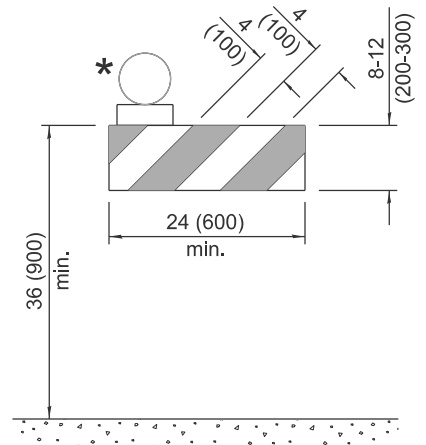
TUBULAR MARKER



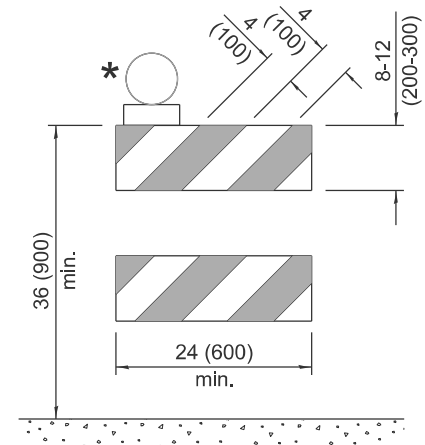
VERTICAL PANEL POST MOUNTED



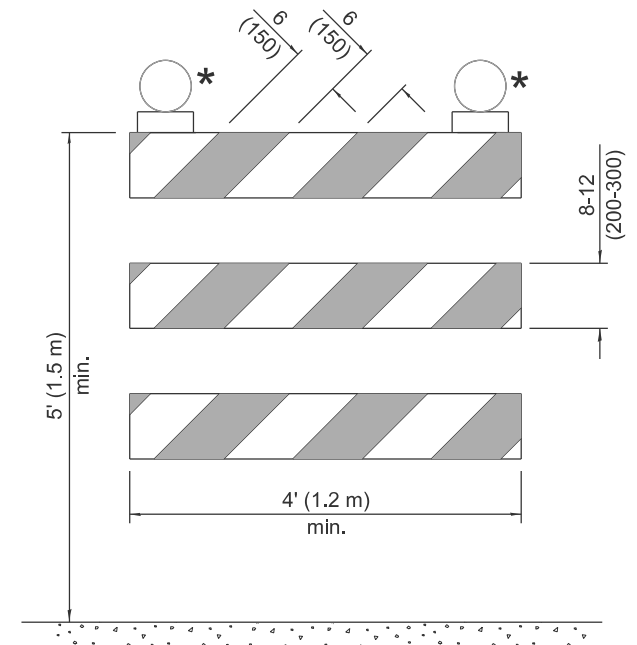
DRUM



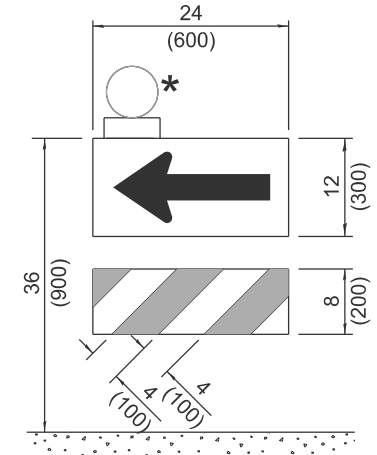
TYPE I BARRICADE



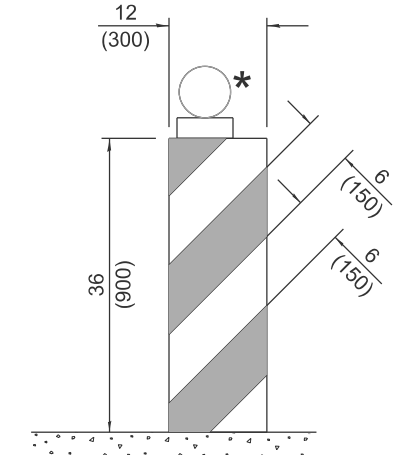
TYPE II BARRICADE



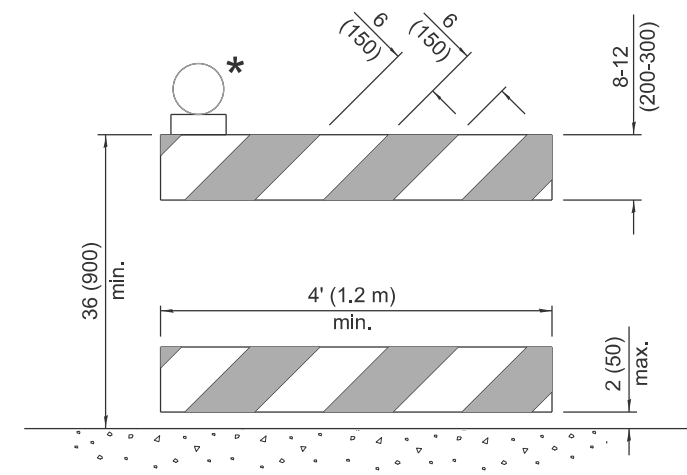
TYPE III BARRICADE



DIRECTION INDICATOR BARRICADE



VERTICAL BARRICADE



DETECTABLE PEDESTRIAN CHANNELIZING BARRICADE

* Warning lights (if required)

GENERAL NOTES

All heights shown shall be measured above the pavement surface.

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

DATE	REVISIONS
1-1-25	Updated Temporary Rumble Strip Detail (sht. 3).
1-1-24	Revised Type III Barricade notes (sht. 3) & moved warning light on post mounted signs to top center.

TRAFFIC CONTROL DEVICES

(Sheet 1 of 3)

STANDARD 701901-10

Illinois Department of Transportation

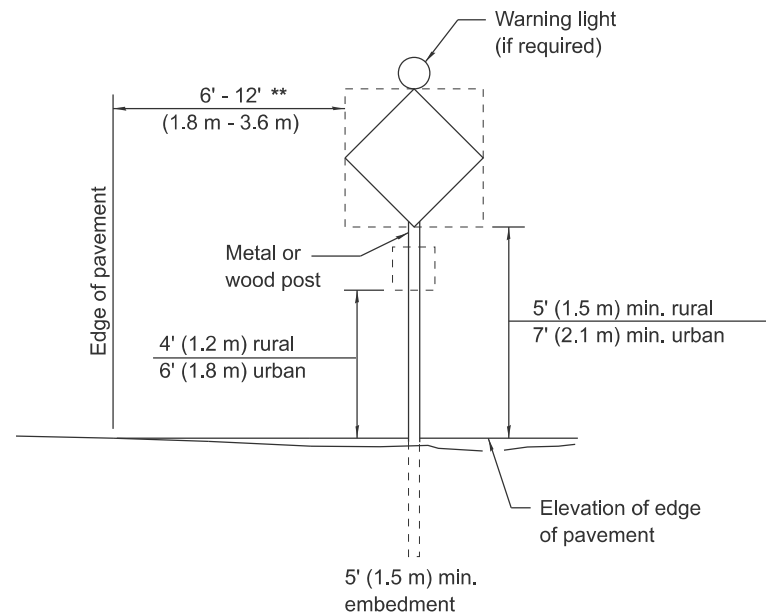
APPROVED January 1, 2025

ENGINEER OF SAFETY PROG. AND ENGINEERING

APPROVED January 1, 2025

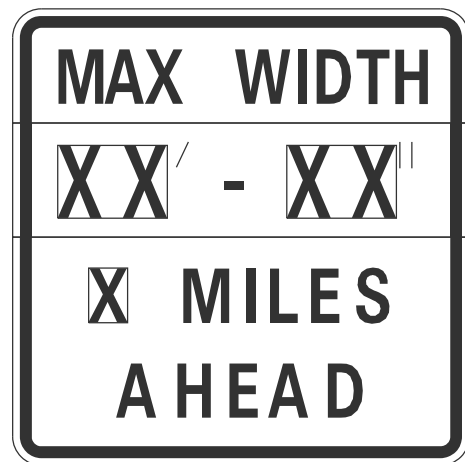
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-13



POST MOUNTED SIGNS

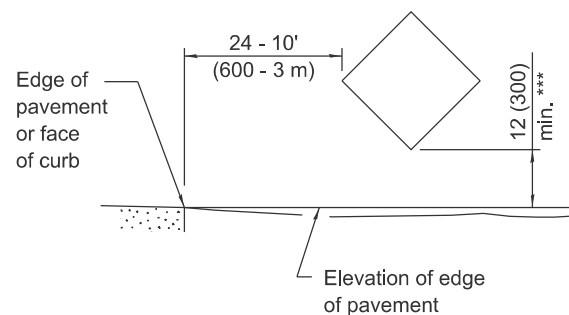
** When curb or paved shoulder are present this dimension shall be 24 (600) to the face of curb or 6' (1.8 m) to the outside edge of the paved shoulder.



W12-1103-4848

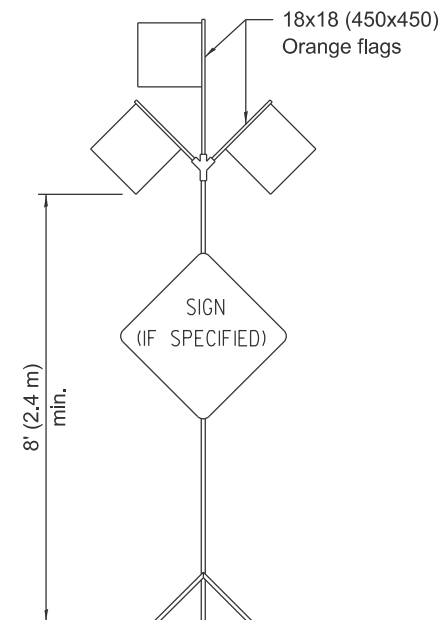
WIDTH RESTRICTION SIGN

XX'-XX" width and X miles are variable.

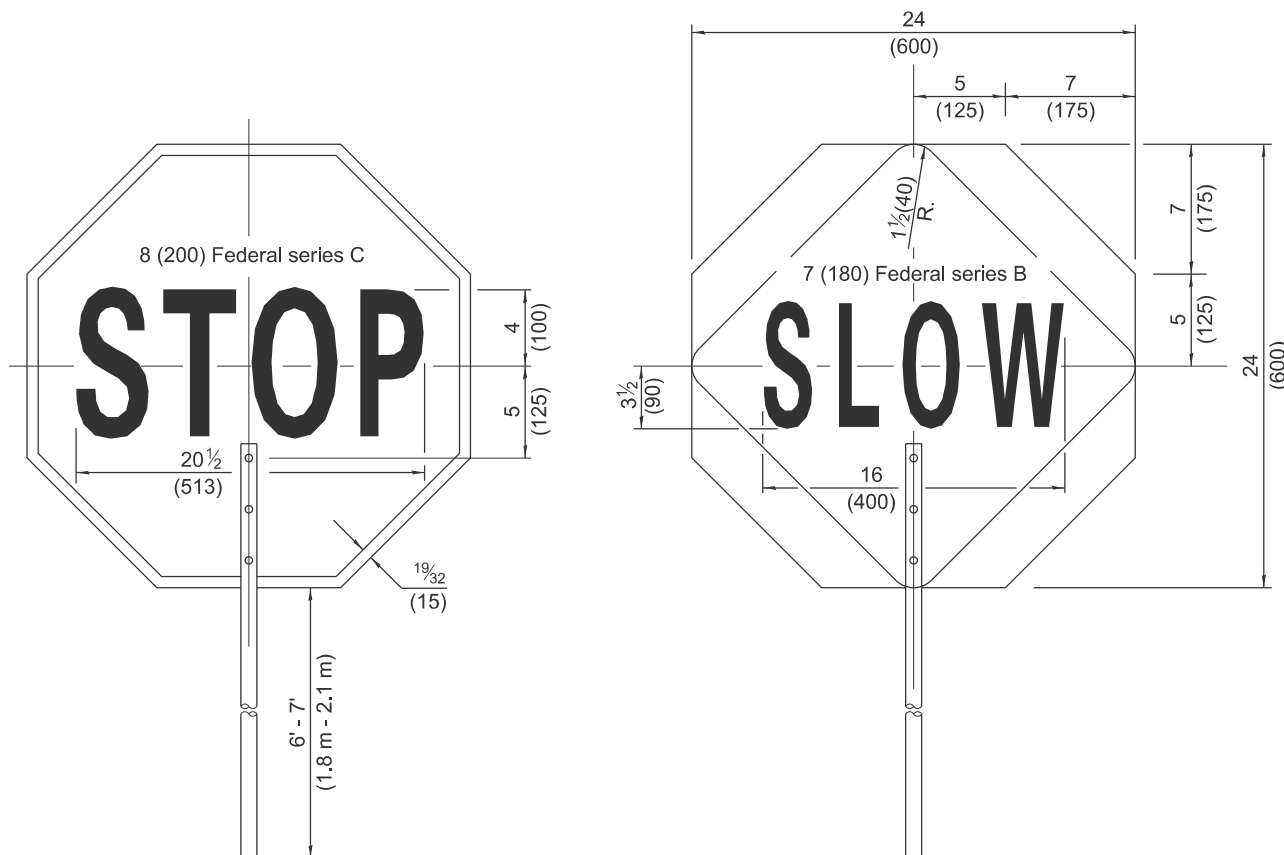


SIGNS ON TEMPORARY SUPPORTS

*** When work operations exceed four days, this dimension shall be 5' (1.5 m) min. If located behind other devices, the height shall be sufficient to be seen completely above the devices.



HIGH LEVEL WARNING DEVICE



FLAGGER TRAFFIC CONTROL SIGN

ROAD CONSTRUCTION NEXT X MILES

END CONSTRUCTION

G20-1104(0)-6036

G20-1105(0)-6024

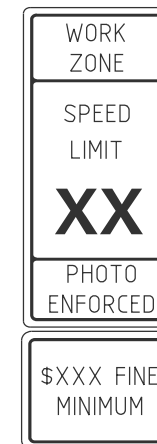
This signing is required for all projects 2 miles (3200 m) or more in length.

ROAD CONSTRUCTION NEXT X MILES sign shall be placed 500' (150 m) in advance of project limits.

END CONSTRUCTION sign shall be erected at the end of the job unless another job is within 2 miles (3200 m).

Dual sign displays shall be utilized on multi-lane highways.

WORK LIMIT SIGNING



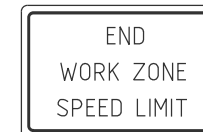
W21-1115(0)-3618

R2-1-3648

R10-1108p-3618 ****

R2-1106p-3618

Sign assembly as shown on Standards or as allowed by District Operations.



G20-1103-6036

This sign shall be used when the above sign assembly is used.

HIGHWAY CONSTRUCTION SPEED ZONE SIGNS

**** R10-1108p shall only be used along roadways under the jurisdiction of the State.

TRAFFIC CONTROL DEVICES

(Sheet 2 of 3)

STANDARD 701901-10

Illinois Department of Transportation

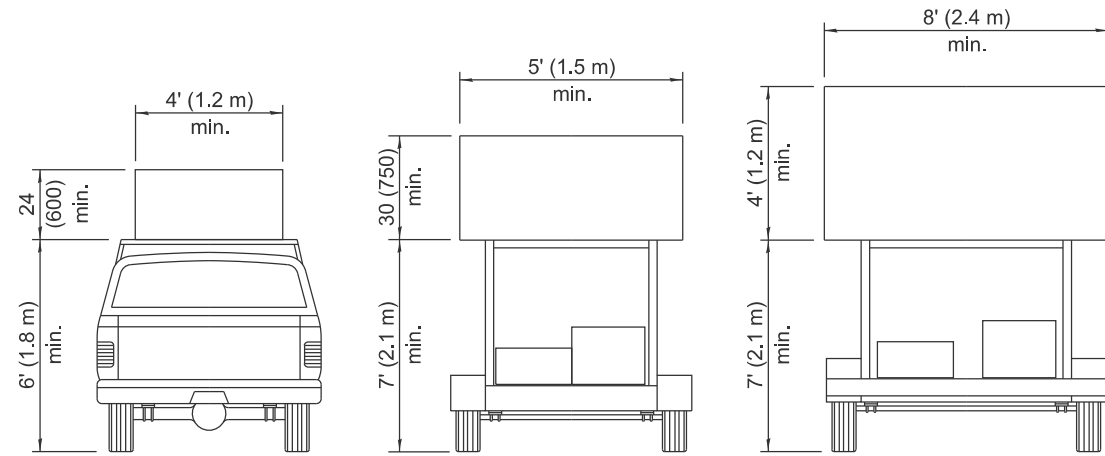
APPROVED January 1, 2025

ENGINEER OF SAFETY PROG. AND ENGINEERING

APPROVED January 1, 2025

ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-13

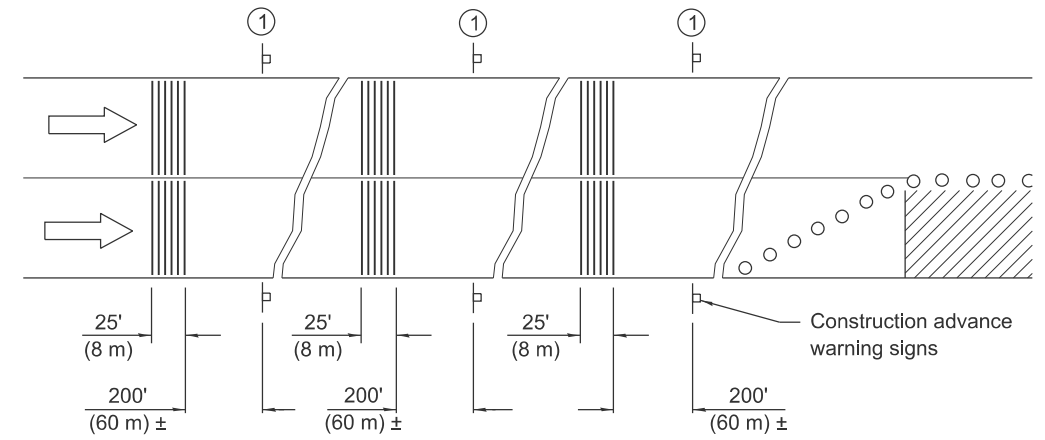


**TYPE A
ROOF
MOUNTED**

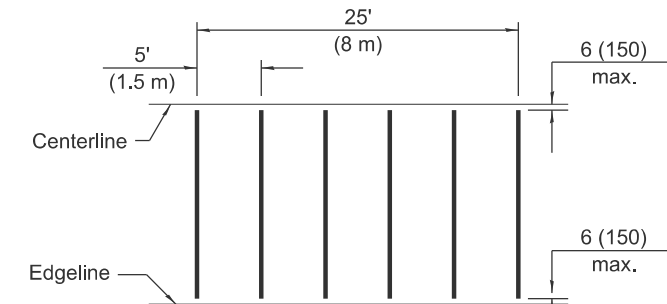
**TYPE B
ROOF OR TRAILER
MOUNTED**

**TYPE C
TRAILER
MOUNTED**

ARROW BOARDS

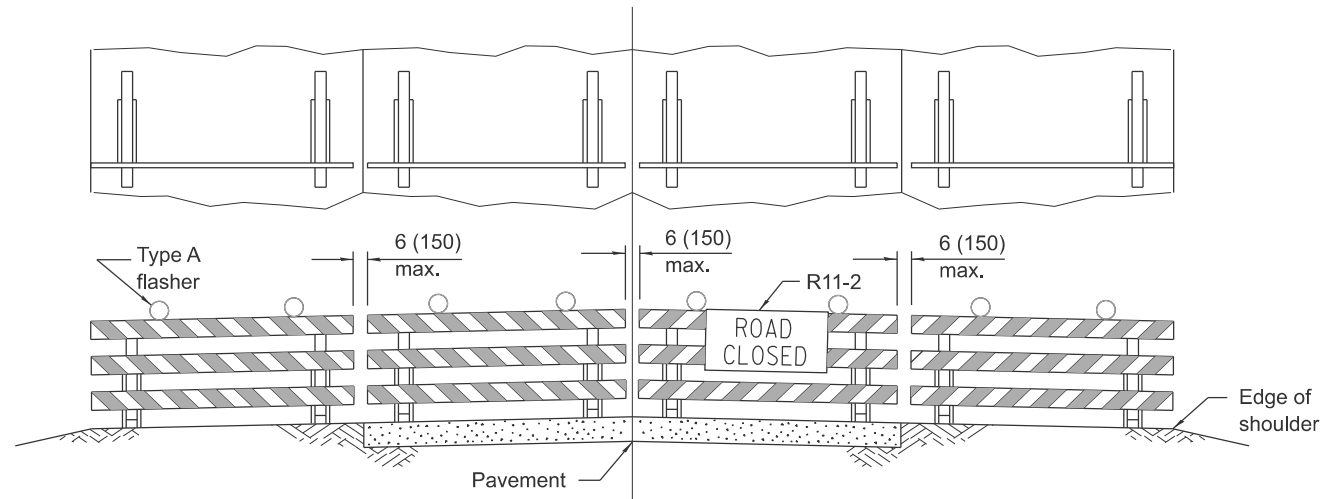


① This sign shall be omitted when median width is less than 10' (3 m).



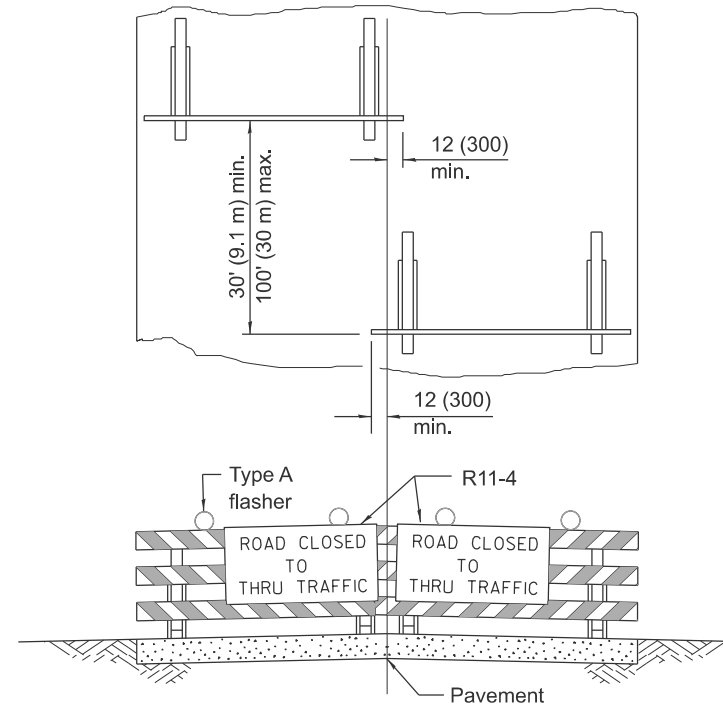
TYPICAL INSTALLATION

TEMPORARY RUMBLE STRIPS



ROAD CLOSED TO ALL TRAFFIC

ReflectORIZED striping may be omitted on the back side of the barricades.



ROAD CLOSED TO THRU TRAFFIC

ReflectORIZED striping shall appear on both sides of the barricades.

**TYPICAL APPLICATIONS OF
TYPE III BARRICADES CLOSING A ROAD**

If a Type III barricade with an attached sign panel which meets NCHRP 350 or MASH is not available, the sign may be mounted on an NCHRP 350 or MASH temporary sign support directly in front of the barricade.

Illinois Department of Transportation

APPROVED January 1, 2025

ENGINEER OF SAFETY PROG. AND ENGINEERING

APPROVED January 1, 2025

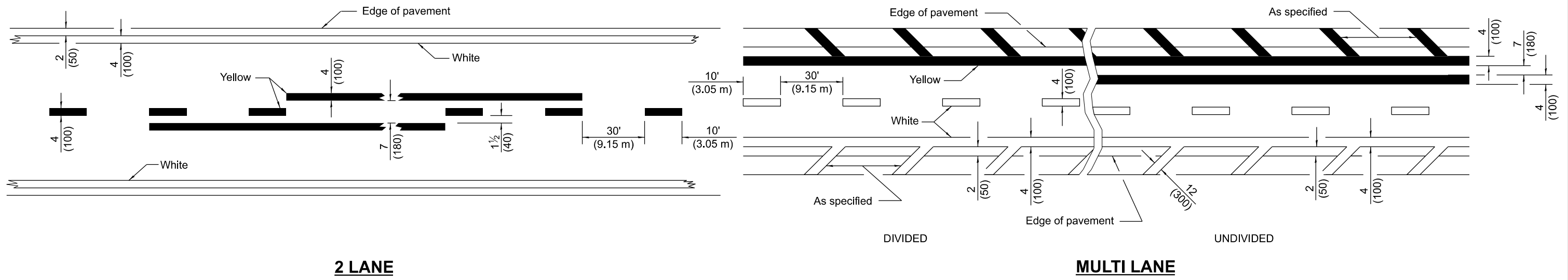
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-13

**TRAFFIC CONTROL
DEVICES**

(Sheet 3 of 3)

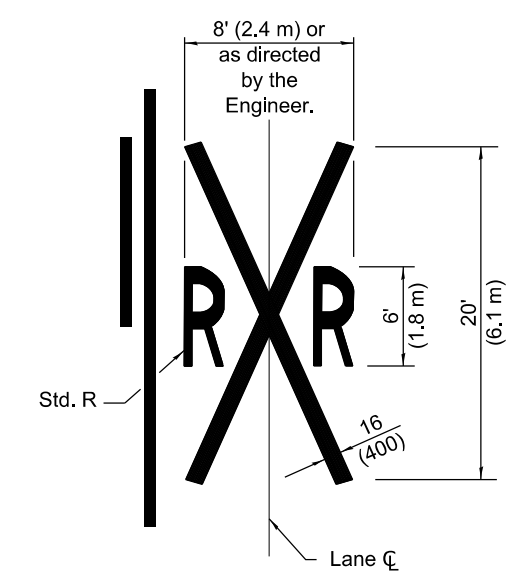
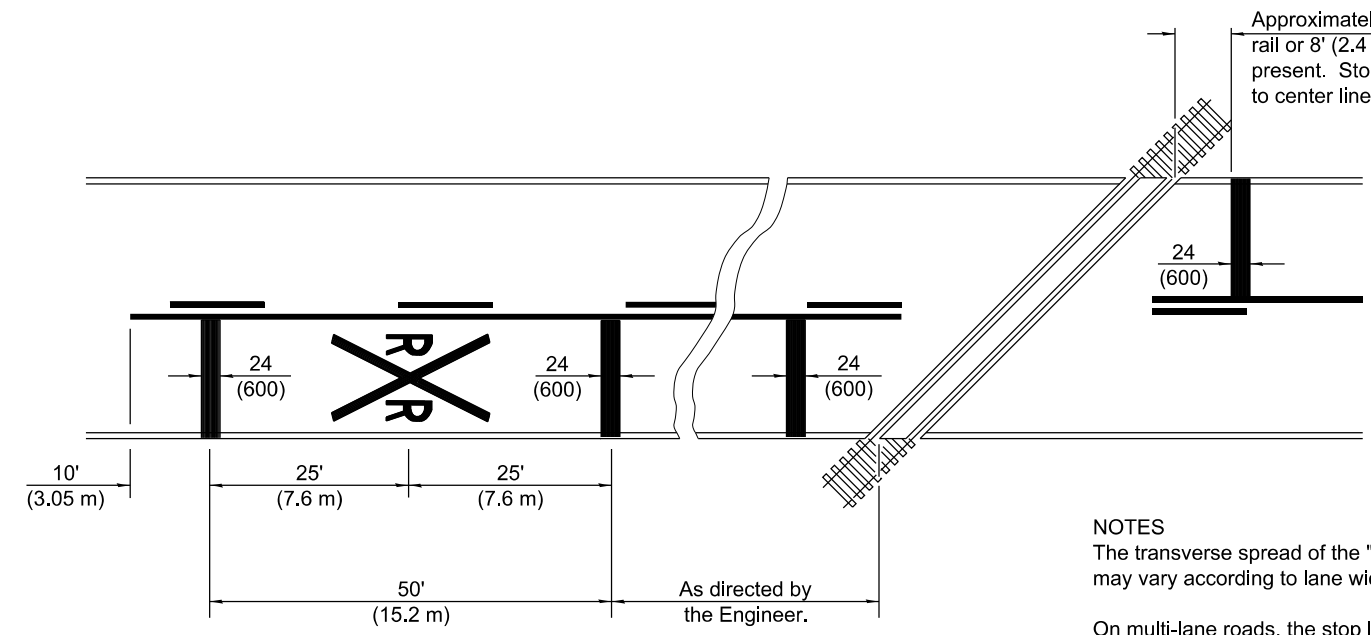
STANDARD 701901-10



2 LANE

MULTI LANE

LANE AND EDGE LINES



NOTES

The transverse spread of the "X" may vary according to lane width.

On multi-lane roads, the stop lines shall extend across all approach lanes and separate RXR symbols shall be placed adjacent to each other in each lane.

When the pavement marking symbol is used, a portion of the symbol should be located directly adjacent to the Advance Warning Sign (W10-1) as placed by Table 2C-4, Condition B of the MUTCD.

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

PAVEMENT MARKINGS AT RAILROAD-HIGHWAY GRADE CROSSING

DATE	REVISIONS
1-1-15	Added symbols. Revised bike symbol.
	Revised note for stop line at RR crossing.
1-1-14	Added bike symbol. Renamed 'LANE
	DROP ARROW' detail to 'LANE-REDUCTION ARROW'.

TYPICAL PAVEMENT MARKINGS

(Sheet 1 of 3)

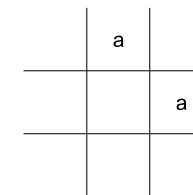
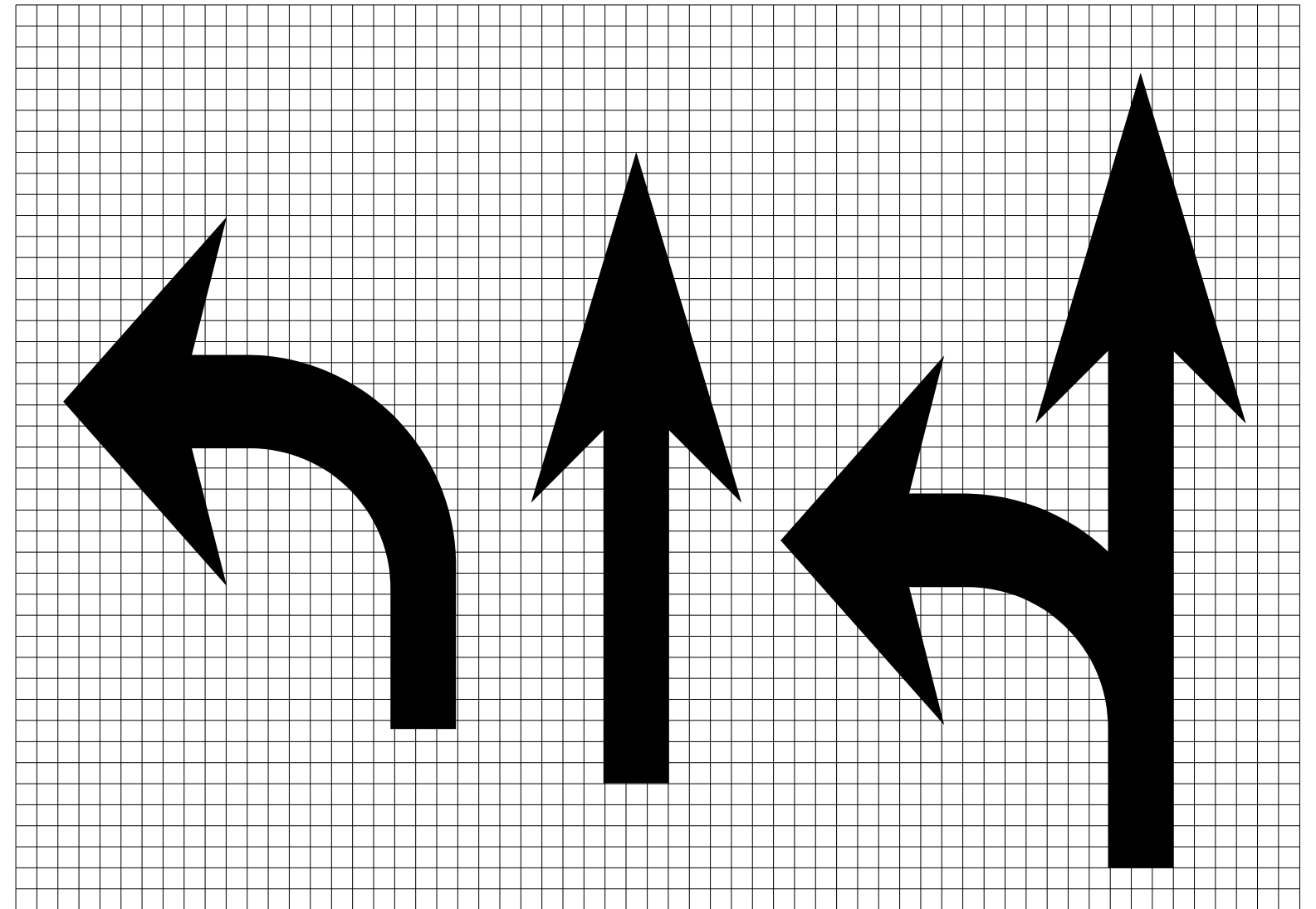
STANDARD 780001-05

Illinois Department of Transportation

APPROVED January 1, 2015
Amy Ellis
 ENGINEER OF OPERATIONS

APPROVED January 1, 2015
[Signature]
 ENGINEER OF DESIGN AND ENVIRONMENT


ISSUED 1-1-97



Legend Height	Arrow Size	a
6' (1.8 m)	Small	2.9 (74)
8' (2.4 m)	Large	3.8 (96)

The space between adjacent letters or numerals should be approximately 3 (75) for 6' (1.8 m) legend and 4 (100) for 8' (2.4 m) legend.

LETTER AND ARROW GRID SCALE

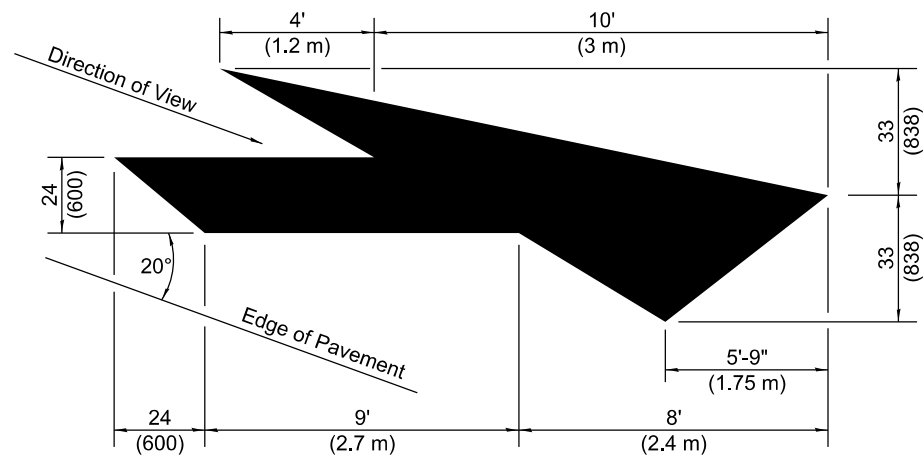
 Illinois Department of Transportation
 APPROVED January 1, 2015
Amy Ellis
 ENGINEER OF OPERATIONS
 APPROVED January 1, 2015
RE
 ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

TYPICAL PAVEMENT MARKINGS

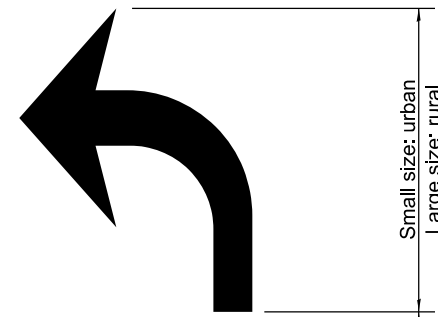
(Sheet 2 of 3)

STANDARD 780001-05



LANE-REDUCTION ARROW

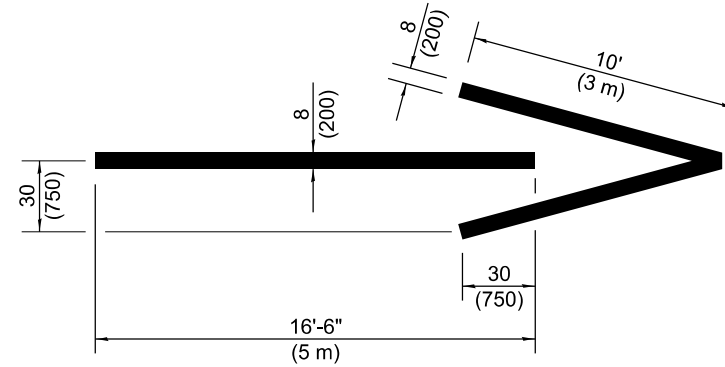
Right lane-reduction arrow shown.
Use mirror image for left lane.



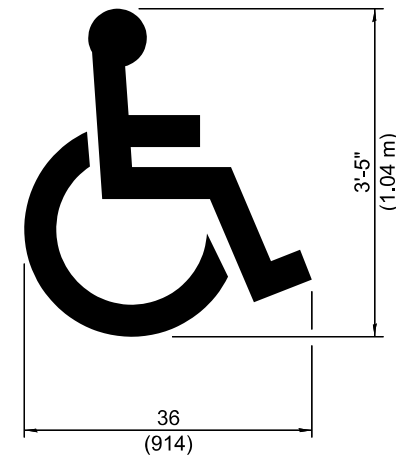
20' (6 m): urban
50' (15 m): rural
(Between arrow and word or between words)



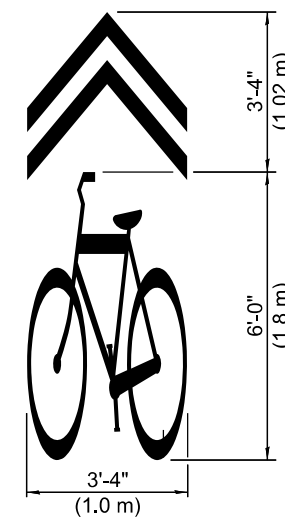
WORD AND ARROW LAYOUT



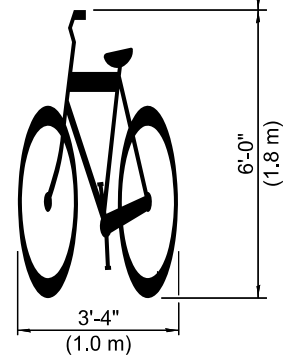
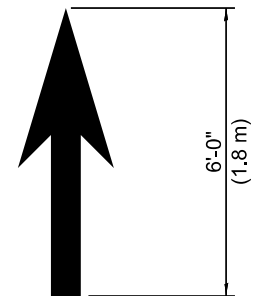
WRONG WAY ARROW



INTERNATIONAL SYMBOL OF ACCESSIBILITY



SHARED LANE SYMBOL



BIKE SYMBOL
(Arrow is optional.)

Illinois Department of Transportation

APPROVED January 1, 2015
Amy Ellis
ENGINEER OF OPERATIONS

APPROVED January 1, 2015
RE
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

TYPICAL PAVEMENT MARKINGS

(Sheet 3 of 3)

STANDARD 780001-05

TAB 4

GEO TECHNICAL REPORT & LPC-663 FORMS

Construction Monitoring &
Observations
Construction Materials Testing
Tunnels and Underground Openings
Geotechnical Engineering &
Evaluation

SEECO Consultants Inc.
CONSULTING ENGINEERS

Subsurface Explorations
Foundation Analysis & Design
Structural Rehabilitation
Condition Surveys
Dams and Drainage Studies

April 15, 2022

Mr. Bryan Welch, P.E.
Christopher B. Burke Engineering, Ltd.
16221 W. 159th Street, Suite 201
Lockport, IL 60441

Re: Subsurface Exploration, Laboratory Testing and
Geotechnical Engineering and Analysis for the
Proposed Storm Sewer Project in Village of Western
Springs, Illinois (SEECO Job No. 12946G)

Dear Mr. Welch:

This geotechnical report is prepared for the construction of the proposed storm sewer replacement project located along either Howard Avenue, Franklin Avenue and 52nd Place (Alternative 1A) or along Howard Avenue and 52nd Place (Alternative 1B) in the Village of Western Springs, Illinois. The purpose of this report is to describe the subsurface soil conditions encountered at this project site, to evaluate the physical characteristics of the soil by means of a geotech laboratory testing program and provide general recommendation for the installation of the proposed storm sewer using the open cut trench excavation method with trench box protection and bore and jack recommendations (for Caroline Avenue pipe crossing) along with engineering recommendations on general construction procedures and address any problems that may exist due to soil or prevalent groundwater conditions at the project site.

The Village of Western Springs is planning to dispose of the waste excavation soils after storm sewer excavation and backfill as Clean Construction or Demolition Debris (CCDD). The scope of services also includes screening of the soil samples using visual, olfactory senses, and a photo-ionization detector (PID) for the presence of volatile organic vapors and pH testing. Any statements in this report or on the boring logs regarding odors, colors, unusual or suspicious items or conditions are strictly for the information of the client.

In addition, one (1) environmental soil sample (B-1/S-1/1'-3') was collected and placed in an 8 oz. laboratory cleaned borosilicate glass jar and sent to First Environmental Laboratories, Naperville, Illinois for environmental chemical laboratory analysis for pH, VOCs, SVOCs, and Total 8 RCRA metals. The result of the environmental chemical test is discussed in the body of this report and the applicable IEPA LPC-663 form is attached in the **Appendix** of this report as the environmental chemical test meets the MAC requirements of the IEPA CCDD regulations. PID readings, as well as pH values, are shown on the **Boring Logs** provided in the **Appendix** of this report.

Authorization to proceed with this work was provided through SEECO Consultants, Inc. Proposal and Contract dated November 19, 2021 which was authorized by Mr. Bryan Welch, P.E., Vice President, Assistant Department Head - Civil Design at Christopher B. Burke Engineering, Ltd. (CBBEL) on March 9, 2022 and a signed copy returned to SEECO Consultants, Inc. through email.

General Site Conditions and Project Description

The project is located in a primarily residential area in the Village of Western Springs, Cook County, Illinois.

The project information was referenced from the email exhibits and conversation between the principal author of this report with Mr. Bryan Welch, P.E., Vice President, Assistant Department Head - Civil Design at Christopher B. Burke Engineering, Ltd. on April 13, 2022. The project information at this time is as follows:

There are no Project Civil Plans or Plan and Profiles available at this time. However, Mr. Welch emailed SEECO two (2) alternative exhibits consisting of Drawing Number EXH 8 titled "Alternative 1A 100-YR Protection" (Project # 200110) dated 9/25/2020 and Drawing Number EXH 9 titled "Alternative 1B 100-YR Protection" (Project # 200110) dated 9/25/2020 as provided for reference in the **Appendix** of this report. Each exhibit proposed a different storm sewer route.

Alternative 1A Proposed Storm Sewer Route

In this alternative, a proposed 48-inch to 60-inch interior diameter Reinforced Concrete Pipe (RCP) storm sewer would begin from a manhole on the west side of Howard Avenue and West 54th Street intersection R.O.W. in Western Springs, Illinois. The proposed 48-to-60-inch diameter RCP storm

pipe route in Alternative 1A proceeds south (48-inch diameter RCP) along Howard Avenue then proceeds west (60-inch diameter RCP) on Franklin Avenue where it veers north until 52nd Place where it then proceeds northwest to west to a rectangular proposed storm drainage storage area (approximately 9,500 yd³ to be excavated) in the existing Springdale Park. The southwest corner of the proposed storage area will have 50 lineal feet of 12-inch diameter RCP and 350 lineal feet of 24-inch RCP that then carry the storm water to the southwest to connect to existing storm sewer pipes on 53rd Street and on Wolf Road. The proposed RCP storm sewer inverts for this route range from approximately 646.25 M.S.L. to 653.5 M.S.L. with proposed manhole rim elevations ranging from 652.0 M.S.L. to 660 M.S.L. with approximate invert depths ranging from approximately 5.75 feet to 14.8 feet. The proposed bottoms of new manholes are to be approximately 2 feet below proposed invert elevations shown in EXH 8. SEECO soil Borings B-1, B-4, B-5 and B-6 were made along this proposed storm sewer route in this Alternative 1A.

Alternative 1B Proposed Storm Sewer Route

In this alternative, a proposed 54-inch interior diameter Reinforced Concrete Pipe (RCP) storm sewer would begin from a manhole on the west side of Howard Avenue and West 54th Street intersection R.O.W. in Western Springs, Illinois. The proposed 54-inch diameter RCP storm pipe route in Alternative 1B proceeds north along Howard Avenue then proceeds west on 52nd Place where it then proceeds west to northwest to a rectangular proposed stormwater drainage storage area (approximately 9,500 yd³ to be excavated) in the existing Springdale Park. The southwest corner of the proposed storage area will have 50 lineal feet of 12-inch diameter RCP and 350 lineal feet of 24-inch RCP that then carry the storm water to the southwest to connect to existing storm sewer pipes on 53rd Street and on Wolf Road. The proposed RCP storm sewer inverts for this route range from approximately 646.75 M.S.L. to 653.5 M.S.L. with proposed manhole rim elevations ranging from 652.0 M.S.L. to 660 M.S.L. with approximate invert depths ranging from approximately 5.25 feet to 21 feet. The proposed bottoms of new manholes are to be approximately 2 feet below proposed invert elevations shown in EXH 9. SEECO soil Borings B-1, B-2, B-3 and B-4 were made along this proposed storm sewer route in this Alternative 1B.

Proposed Detention Facility

The proposed outlet for both of the new storm sewer alternatives is still proposed in a new detention facility constructed in the existing park per Mr. Welch or CBBEL. However, the Village of Western

Springs does not currently have permission to get on the premises. A future subsurface investigation for the park area, once is anticipated once permission to be allowed on site is obtained per CBBEL, Project Civil Engineer. No Geotechnical recommendations are provided in this report for the proposed storm water detention facility.

Proposed Construction

Per the CBBEL, the majority of the proposed storm sewer installation work will be open cut. Currently, CBBEL is considering jacking and boring under Caroline Avenue as well. The proposed storm sewer pipe is to be placed under the existing bituminous roadways along the storm sewer route and per CBBEL the pavement restoration will depend on the depth of the trench. In shallower excavation areas, probably bituminous pavement patches will be constructed. However, in deeper trench excavation areas, CBBEL believes that the bituminous roadway pavement would be completely reconstructed. Existing and proposed roadway elevations would be approximately the same per CBBEL. It has not been determined yet if the existing storm sewer will be abandoned/removed or if it will remain per CBBEL.

Site Geology

The native soils at the project site are the product of the result of the Wisconsinan Stage of the Continental Glacier. The Wisconsinan Ice was the last to cover the North American Continent, receding from this area some 13,500 years ago. Present land forms in this area are the results of the Wisconsinan glaciation action during the Pleistocene Epoch. The soils were formed from the natural deposition erosion and weathering processes that have prevailed to the present time. The Pre-Wisconsin glacial deposits are found only in deep bedrock valleys and ravines where they were sheltered from the erosive action of the Wisconsinan Ice Age.

According to the Illinois State Geological Survey (ISGS) Surficial Geology of The Chicago Region (Willman, H.B. and Lineback, Jerry A., 1970), the soils at this project site have been assigned to the Tinley Moraine of the Wadsworth Member of the Wedron Formation deposited during the Woodfordian substage of the Wisconsinan stage. This soil deposit is described as mostly gray clayey and silty clayey glacial till, relatively low in content of pebbles, cobbles, and boulders; contains local lenses of silt; commonly mantled with 1 to 2 feet of leached silt (modified loess).

The six (6) soil borings made on March 23, 2022 by SEECO Consultants, Inc. at this project site indicate that the original virgin soils at this project site consists of stiff to hard silty clay glacial till. These soil borings in general, confirm the ISGS published surficial geology map for this area.

It should also be noted that to the west side of the project site where Flag Creek exists, the soils have been assigned to the Cahokia Alluvium deposited during the Woodfordian, Two creekan, Valderan, and younger substage of the Wisconsinan stage. These soil deposits are described as deposits in floodplains and channels of modern rivers and streams; mostly poorly sorted silt and sand containing local deposits of sandy gravel; in many places overlies relatively well sorted glacial outwash of the Henry Formation. These soils may be encountered to the west portion of the project site.

FIELD AND LABORATORY ANALYSIS AND RESULTS

Subsurface Site Exploration Procedure

On March 23, 2022, six (6) soil borings (B-1 through B-6) were drilled and sampled to a depth of 20 to 25 feet below the existing ground surface level at this project site. The number, depth, and location of soil borings were provided by Mr. Bryan Welch, P.E. of Christopher B. Burke Engineering, Ltd. (CBBEL) to Mr. Don Cassier, Director of Field Services of SEECO Consultants, Inc. and the soil borings were laid out in the field by representative of SEECO Consultants, Inc. at the approximate locations indicated on the **Boring Location Plan** given in the **Appendix** of this report.

All six (6) soil borings were drilled and sampled utilizing a truck-mounted Diedrich drill rig (Model D-50) with a two-person drill crew from SEECO Consultants, Inc. This drill rig advances the boreholes by the hollow stem auger method. The soil samples were obtained utilizing a split spoon sampler in accordance with ASTM D 1586-18. In the split barrel sampling procedure, a split spoon sampler having a two-inch outside diameter and inside diameter of 1-3/8 inches and a length of two feet is driven into the soil. This sampler is advanced by driving with a 140-pound weight falling freely from a height of 30 inches with Standard Penetration Resistance being recorded as the number of blows required to advance the sampling spoon a distance of 12 inches after an initial driving of six inches

has been used to seat the sampler. The Standard Penetration Resistance or the "N" value is a measure of the consistency of cohesive soils and relative density of primarily cohesionless soils and is in general, related to the bearing capacity of the material. Other factors are usually taken into consideration in determining the bearing capacity value and those include the type of soil, the type of loading, the dimensions and the depths of footings below the ground surface and the proximity of the groundwater table to the base of the footings. Portions of the split spoon samples were placed in glass containers with screw-type lids and taken to our geotech laboratory for further examination and testing.

Geotech Laboratory Testing Program

The geotechnical laboratory testing program consists of performing in-situ natural moisture content, visual classification of all soil samples and unconfined compressive strength tests on the basis of calibrated penetrometer readings on all cohesive soil samples. In situ moisture content or natural water content is determined in the geotech laboratory according to ASTM D 2216-19. A portion of each sample is weighed, oven-dried at $110^{\circ} \pm 5^{\circ}\text{C}$, and reweighed to obtain the weight of water in the soil sample. The moisture content is the ratio of the weight of water in the soil sample to the weight of the dry soil expressed as a percentage of the total dry weight. After completion of the geotech testing program, each soil sample was visually classified on the basis of texture and plasticity in accordance with the **Unified Soil Classification System** (ASTM D 2487-17 and D 2488-17). The estimated group symbol according to this system is included following the description of the soil on the **Boring Logs**. A brief explanation of the **Unified Soil Classification System** is included in the **Appendix** of this report. All laboratory test data is noted on the **Boring Logs** which is included in the **Appendix** of this report.

Environmental Laboratory Soil Testing Program

A geoenvironmental engineer from SEECO Consultants, Inc. environmentally screened the soil samples using photoionization detector (PID) readings in the SEECO Consultants geotech laboratory utilizing a Mini RAE 3000 PID 11.8 (eV) lamp in conjunction with visual and olfactory observations to determine the presence of petroleum contamination in the subsurface soils. The OVM PID readings of the soil samples obtained for this exploration are given on the **Boring Logs** in the **Appendix** of this report and are all 0.0 PPM. The visual and olfactory observations indicate no

petroleum odors and/or staining were present in the soil samples taken. Based on the PID readings and visual and olfactory observations, it is determined that the soil samples are not contaminated at the location of the boreholes drilled and sampled for this exploration.

The Illinois Pollution Control Board has changed the rule for the requirements for Clean Construction or Demolition Debris (CCDD) fill operations according to 35 Illinois Administrative Code 1100 Subpart F. The rule prohibits landfill from accepting clean construction debris and fill with a pH below 6.25 or above 9.0 regardless of applicable Maximum Allowable Concentrations (MACs) in the CCDD regulations of the various chemical compounds. Four (4) pH tests were performed on representative soil samples obtained from soil boring B-1/S-1/1'-3' (pH= 8.98), boring B-3/S-1/1'-3' (pH= 8.68), boring B-4/S-1/1'-3' (pH= 8.17), and boring B-6/S-1/1'-3' (pH= 8.66) and the test results indicate the pH values ranging from 8.17 to 8.98 for the 4 soil samples. Since the pH value of the soil samples is between 6.25 and 9.0, the excavated soils from the storm sewer trenches are considered clean, to the best of our knowledge, for CCDD landfill disposal for the above-mentioned sites. PID readings, as well as pH values are both shown on the project **Boring Logs** in the **Appendix** of this report.

In addition, one (1) environmental soil sample (B-1/S-1/1'-3') was collected and placed in an individual 8 oz. laboratory cleaned borosilicate glass jar and sent to First Environmental Laboratories, Naperville, Illinois for environmental chemical laboratory analysis for VOCs, SVOCs, Total 8 RCRA metals and pH. The result of the environmental chemical test can be found in the **Appendix** of this report and the environmental test result meets the MAC requirements of the IEPA CCDD regulations and the applicable completed **IEPA LPC-663** form can be found in the **Appendix** of this report.

Screening of soil samples at the job site is no guarantee that landfill facility will accept/not reject materials since this report is prepared strictly on the basis of soil samples obtained from the soil borings only and it is not possible to determine if the site is entirely clean of contaminants per IEPA CCDD standards. Environmental chemical analysis may be required if the soils at the time of excavation between the soil boring locations are found to be contaminated.

Site Pavement and Soil Conditions

Six (6) soil borings were drilled and sampled by SEECO Consultants through the existing bituminous concrete pavement on March 23, 2022. The thickness and type of the pavement and base course encountered at each boring location is summarized in **Table No. 1** below:

Table No 1: Existing Pavement Type and Thickness

Boring No.	Approximate Bituminous Concrete Pavement Thickness (Inches)	Approximate Base Course Type and Thickness (inches)
B-1	6.75	7.25" Crushed Stone
B-2	6.0	7.0" Crushed Stone
B-3	5.0	9.0" Crushed Stone
B-4	5.75	7.25" Crushed Stone
B-5	5.0	7" Crushed Stone
B-6	6.0	9" Crushed Stone
Average	5.75	7.75

Underlying the above mentioned upper pavement sections in borings B-1 to B-6, very stiff to hard brown and gray silty clay till was encountered overlying very stiff to hard gray silty clay till to the boring termination depths of 20 to 25 feet below the existing ground surface. No bedrock was encountered within the termination depths of the six boreholes. It is recommended that the **Boring Logs** in the **Appendix** of this report be referred for the detail site soil conditions encountered in each of the soil borings.

Site Groundwater Conditions

Groundwater was not encountered in any of the six (6) soil borings (B-1 through B-6) drilled and sampled to a depth of 20 feet to 25 feet at this project site during this subsurface exploration of March 23, 2022 while drilling, sampling, and after the removal of the hollow stem augers from the boreholes. However, daily, monthly, yearly and seasonal fluctuations in the groundwater levels are possible due to changes in hydrogeological conditions at this site over time.

ENGINEERING RECOMMENDATIONS

Storm Sewer Installation

Open Cut with Stacked Trench Boxes

The majority of the proposed 48 inch to 60 inch diameter RCP storm sewer is proposed to be installed using the open cut trench method with trench box protection shoring at this project site. Based on 6 soil borings B-1 to B-6 and geotechnical laboratory testing of the subgrade soils for the proposed 48 inch to 60 inch diameter RCP storm sewer (depending on alternative selected), it is concluded that the proposed storm sewer can be installed at the project site using the open cut trench method with trench box protection (stacked trench boxes for deeper depths). The construction recommendation for open cut trench method with trench box protection procedure is given in this section.

For the proposed Alternative 1A storm sewer route (Borings B-1, B-4 to B-6), the anticipated depth of excavation of the proposed storm sewer ranges from approximately 5.75 feet to 14.8 feet below the existing ground surface level for the proposed storm sewer. For the and manhole installation an additional depth of 2 feet from the inverts should be added for the approximate bottom of manhole slab elevations per CBBEL (7.75 to 16.8 feet). These open cuts made through the roadways in the existing R.O.W.s are less than 20 feet deep and can be made with open cuts with stacked trench boxes.

For the proposed Alternative 1B storm sewer route (Borings B-1 to B-4), the anticipated depth of excavation of the proposed storm sewer ranges from approximately 5.25 feet to 21 feet below the existing ground surface level for the proposed storm sewer. For the and manhole installation an additional depth of 2 feet from the inverts should be added for the approximate bottom of manhole slab elevations per CBBEL (7.25 to 23 feet). For Alternative 1B, open cuts made through the roadways in the existing R.O.W.s can be made with stacked trench boxes for cuts less than 20 feet deep; however, the excavations made greater than 20 feet (near borings B-2 and B-3) will need steel sheet piling or a slide rail shoring system for temporary bracing to install the storm sewer pipe in these locations.

Bedrock was not encountered in any of the six soil borings (B-1 through B-6) for the entire drilling depth of 20 to 25 feet; therefore, bedrock excavation is not anticipated for the proposed storm sewer installation. See the following **Table No. 2A: Anticipated Soil Conditions at the Storm Sewer Invert Elevations for Alternative A** and **Table No. 2B: Anticipated Soil Conditions at the Storm Sewer Invert Elevations for Alternative B** for more information on the type of soil at the proposed invert elevations.

**Table No. 2A: Anticipated Soil Conditions at the
 Proposed Storm Sewer Invert Elevations for Alternative 1A**

Boring No.	Proposed Diameter of New Storm Sewer (Inches)	Anticipated Approximate Depth of Excavation to Invert (Feet)	Type of Soil to Be Encountered at the Proposed Location of Storm Sewer Invert
B-1	60"	9.9'	Very Stiff Brown & Gray Silty Clay (CL)
B-4	60"	8.5'	Hard Brown & Gray Silty Clay (CL)
B-5	60"	7.5'	Very Stiff Brown Silty Clay (CL)
B-6	60"	13**	Very Stiff Gray Silty Clay (CL)

*Estimated invert obtained from averaging between proposed manholes on EXH 8 and using estimated existing surface elevations off of Google.

The soils at the bottom of the excavation for the proposed storm sewer trenches in the location of borings B-1 and B-4 to B-5 for Alternative 1A generally consist of suitable very stiff to hard brown to brown and gray to gray virgin silty clay till (CL). The pipe bedding material can be placed directly on this soil.

**Table No. 2B: Anticipated Soil Conditions at the
 Proposed Storm Sewer Invert Elevations for Alternative 1B**

Boring No.	Proposed Diameter of New Storm Sewer (Inches)	Anticipated Approximate Depth of Excavation to Invert (Feet)	Type of Soil to Be Encountered at the Proposed Location of Storm Sewer Invert
B-1	54"	9'	Very Stiff Brown & Gray Silty Clay (CL)
B-2	54"	19'	Very Stiff Gray Silty Clay (CL)
B-3	54"	21'	Hard Gray Silty Clay (CL)
B-4	54"	6.5'	Hard Brown & Gray Silty Clay (CL)

The soils at the bottom of the excavation for the proposed storm sewer trenches in the location of borings B-1 to B-4 for Alternative 1B generally consist of suitable very stiff to hard brown to brown and gray to gray virgin silty clay till (CL). The pipe bedding material can be placed directly on this

soil.

The construction recommendation for open cut trench method with trench box protection procedure is given in this report.

Braced Excavations for Storm Sewer Replacement

Any excavation that extends greater than five (5) feet in depth should be designed in accordance with the U.S. Department of Labor, Occupational Safety and Health Administration 1989 (OSHA) "Occupational Safety and Health Standards – Excavations; Final Rule" 29 CFR, Part 1926 Subpart P. Since the proposed storm sewers will be installed in the R.O.W. of the street and the depth of excavation will be greater than 5 feet in a fully developed residential area, open cut excavation with vertical side walls will not be safe. Therefore, it is recommended that the trench excavations should be braced with stacked steel trench boxes for excavations less than 20 feet and with steel sheet piling or a slide rail shoring system for excavations greater than 20 feet (as encountered in the Alternative 1B Storm Sewer Route).

The trench excavation with accompanying steel trench protection box should not have major problems when excavating for the proposed storm sewers. The trench box is introduced into the trench and protects personnel in the trench and the work under construction from damage or injury which might be caused by the collapse of the trench sidewalls. The trench box is designed to brace the two (2) parallel walls of the trench against each other. The walls of the box are constructed from sheet steel, usually double wall thickness, with a diaphragm between the two (2) sheets to provide structural rigidity. The pipe is laid inside the box after placing the bedding material and the men at the bottom of the trench join the pipe. The trench box is advanced as the excavation is dug and backfill material is placed.

The pre-fabricated steel trench protection box can be used for this project in order to protect personnel in the trench during construction and must conform to OSHA CFR 29, Part 1926, Subject P, July 1997, and keep the work under construction from damage or personnel injury which might be caused by the collapse of the trench sidewalls.

The trench box should be designed for lateral earth pressure based on the apparent lateral earth pressure distribution for braced excavations based on Peck's criteria for stiff clay. The soil conditions at this project site are in general stiff to hard cohesive glacial till soils and the minimum live load surcharge from construction equipment should be considered to be 600 psf per running foot of bracing. The depth of trenches for the proposed storm sewer may vary, but anticipated approximate trench depth will be 5.75 feet to 14.8 feet for Alternative 1A and 5.25 to 21 feet for alternative 1B (not including 2 feet deeper at proposed manhole locations). However, lateral earth pressure diagram is provided for a maximum of 20 feet below the existing ground surface level for the proposed storm sewer. For trench excavations the steel trench box sidewalls and struts should be capable of resisting an approximate minimum of 1,380 psf per foot of length (for maximum 20-foot depth) of lateral earth pressure in comparison with the trench box allowable structural lateral pressure capacity. Refer to the **Apparent Lateral Earth Pressure Diagram for Trench Protection Box Design in Clayey Soils** for excavation depths of 20 feet or less as given in the **Appendix** of this report. The utility contractor is responsible for the design of the trench protection box.

The parallel walls of the box are braced apart by adjustable pipe struts. The adjustment permits the use of the box in trenches of different widths. The box is open at both ends. The rear opening permits movement of the box along the trench while allowing passage of the completed pipe utility out of the back of the box. The front of the box is open to permit dragging the box forward through unstable ground. The top of the box is open to permit introduction of the pipe bedding and new portion of the pipe into the trench. The bottom of the box is open to permit placement of trench bedding directly on the bottom of the trench.

Trench boxes must not only be wide enough to permit the introduction of the required utility pipe or conduit together with the specified sidewall backfill cover, but also wide enough to permit passage of the backhoe bucket into the box to clean the base or bottom of the trench. Trench boxes are dragged forward by the backhoe (a hydraulic excavator) digging the trench on the front side. The backhoe hooks its bucket behind the leading pipe strut and pulls the box toward itself.

The stability of the bottom of trench excavation is controlled by the type of soil at the bottom of the trench and its underlying soils of the excavation trench. For the proposed storm sewers, the bottom of an excavation in the very stiff to hard brown and gray to silty clay till is stable against failure by

plastic clay bottom heave since the bottom heave Factor of Safety is greater than 1.5 for the proposed temporary storm sewer trench excavation.

For the construction of proposed storm sewer and manhole excavations greater than 20 feet (but less than 25 feet) such as near Borings B-2 and B-3 made at the Howard Drive and 52nd Place intersection, stacked trench boxes cannot be used. Instead, a temporary bracing consisting of a steel sheet piling or portable slide rail shoring earth retention system should be utilized. The temporary earth retention system should be designed on the basis of the lateral earth pressures given on the **Apparent Lateral Earth Pressure Diagram For Temporary Earth Retention System Design ($H \leq 25$ Feet Deep)** as given in the **Appendix** of this report. The design of the temporary steel sheet pile retention system should be performed by a Registered Structural Engineer of Illinois. The surcharge due to heavy construction equipment should be considered as 600 psf per running foot of bracing for this excavation case. The lateral earth pressure diagram was calculated as an equivalent very stiff to hard clay profile. For braced excavations, the earth retention system should be capable of resisting a minimum of 1,650 psf per foot of length (for maximum 25 foot vertical depth) of lateral earth pressure in comparison with the earth retention system allowable lateral pressure capacity.

Also, for the excavation of the proposed storm sewer deeper than 21 feet from existing grade a temporary braced excavation scheme should be in place such as braced excavation earth retention systems (slide rail shoring or steel sheet piling) should be utilized to prevent excavation instability and provide safety during construction, this is due to lack of space around the proposed structure for sloped excavation of the proposed storm sewer line under the existing pavement steel sheet piling or equivalent slide rail shoring system can be utilized to support the side walls of the excavation with cross-struts or bracing for the excavation of the proposed storm sewer. Steel sheet piles are advanced downward by driving or vibrating them in place to a depth to resist overturning moment based on soil pressure and proposed depth of excavation and the steel sheet piles should be designed by a Registered Structural Engineer in the State of Illinois. The slide rail shoring system is a modular excavation support system comprising heavy duty shoring panels supported by vertical multi-track rails into which one or more panels are placed and advanced or slid downward as the excavation progresses toward the bottom of the proposed excavation. The vertical rails or posts are placed at the corners of the shored excavation and at intermediate locations along the sides of the excavation. The

location of the intermediate rails or posts depends on the horizontal length of the shoring panels. Shoring panels are prefabricated and are available in heights of 4 to 8 feet to 20 feet with lengths of 8 feet to 20 feet long. When a panel has been installed to its full height a second panel is inserted into a second vertical rail track. This second panel is then pushed down below the first panel as the excavation continues downward. For deeper excavations the process may be repeated as required.

Slide rail shoring systems are proprietary systems of the subject slide rail manufacturers. Multiple companies produce slide rail shoring, which a few include Efficiency Production, Icon Equipment Distributors, Inc., Pro-Tec Equipment, and GME. The design of the temporary slide rail earth retaining system is usually provided by the systems manufacturers' supplier and their consulting structural engineer. Slide rail systems are most often rented by the contractor rather than purchase the specific shoring system for each project and then pulled out and returned to the rental supply company.

For conventional open cut and cover excavation construction, the following bedding and trench backfill recommendations are applicable:

Pipe Bedding

Bedding material should comply with Article 1003.04 of the IDOT Standard Specifications for Road and Bridge Construction, 2022 Edition. The bedding material should be a well-graded granular material equivalent to IDOT FA-1, FA-2 or FA-6 or as per Village of Western Springs criteria. A minimum 4.0 inches of bedding material is required to be placed below the storm sewer pipe. The bedding material must be placed in maximum 4.0-inch loose lifts and compacted to a minimum 95% of the maximum density according to AASHTO T-99. The placement of bedding material must comply with Article 550.04 of the IDOT Standard Specifications for Road and Bridge Construction, 2022 Edition.

Trench Backfill

The soils excavated from the storm sewer trenches cannot be used as backfill of the trenches under driveways, roads or street pavements. The approved granular trench backfill material should be placed in maximum eight-inch loose lifts with each lift compacted to a minimum of 95% of maximum density as per AASHTO T-99 to the proposed subgrade of each street. Trench backfill material should be IDOT FA-1, FA-2, FA-6 or CA-6 or as per Village of Western Springs criteria. However,

the final one foot of trench backfill should be compacted to 100% of maximum density as obtained according to AASHTO T-99. The excavation at any pavement areas should be completed with a bituminous concrete pavement section to match the existing pavement section.

Jack and Bore Procedure and Design underneath Caroline Avenue

The 54" (Alternative 1B) or 60" (Alternative 1A) diameter storm sewer pipeline is preliminarily proposed to be bored and jacked underneath Caroline Avenue per CBBEL. The bore and jack method will be used to install carrier pipe casing which should be approximately 12" or greater in diameter than the exterior diameter of the proposed storm sewer pipeline

The two (2) types of pits (jacking and receiving) to be excavated at this location must be of sufficient size to provide ample working space for the jacking head, jacks, jacking frame, reaction blocks, spoil removal and one or two sections of pipe. The jacking and receiving pits excavation should be made to an approximate depth of 6 to 12 inches below the proposed bottom elevation of the 66" (Alternative 1B) to 72" (Alternative 1A) inside (minimum) diameter permanent steel casing for proposed 54" to 60" inside diameter storm sewer pipeline and the proposed 16 inch inside diameter water transmission force main. Typically, the jacking pit should be made on the low invert side and the reception pit should be made on the high invert side and the casing is generally pushed or jacked from the low side invert to the high side invert.

After the casing segments for each separate utility are jacked and welded in place, the storm sewer pipe sections are pushed into the steel casing in place and the volume between the outside diameter of the pipeline and the inside of the steel casing should be filled with fine sand or pea gravel blown into the annular space between the inside of the steel casing and the outside of the utility pipeline. It is necessary to provide for relatively uniform distribution of the axial load around the periphery of the pipe to prevent localized stress concentrations. For stronger shear strength soils such as dense sand and stiff clays, drilling lubricants such as a polymer or bentonite slurries can be injected in and around the carrier pipe outside diameter to reduce friction forces while jacking the pipe in place.

The exact size and locations of the jacking and receiving pits are not known at this time. Invert depths of the pipe range from 5.25 feet to 9 feet (in Alternative 1B) and from 5.75 feet to 9.9 feet in

alternative 1A) on the west and east sides of Caroline Avenue. The lower invert is on the west side of Caroline where the pipe is proposed to daylight into the future storm water storage area at the park to the west. It should be checked that sufficient cover is available to reasonably jack and bore said 54" or 60" diameter RCP pipe. The nearest boring B-1 is on the east side of Carlone Avenue (and was made on 52nd Place) and consists of very stiff to hard brown and gray to gray silty clay till found in dry conditions which is generally suitable for the bore and jack procedure. The pipe would be bored and jacked through very stiff to hard brown and gray clay till and be supported this same clay till soil which is suitable for supporting the said carrier pipe and utility pipeline (at this location).

The proposed approximately 11 feet +/- deep excavation at the location for the proposed jacking and receiving pits should be a braced excavation using a temporary steel sheet piling for pit excavations where $H \leq 11$ feet deep. The design of the earth retention system at the proposed jacking and receiving pits at Caroline Avenue should be performed on the basis of the "**Apparent Lateral Earth Pressure Diagram For Temporary Braced Earth Retention System Design For Jack and Bore Pits ($H \leq 11$ feet deep)**" as given in the **Appendix** of this report and the braced excavation should be capable of resisting minimum 894 psf/ft of length for depths up to 11 feet of braced length in comparison with the braced excavation's allowable maximum bending stress capacity with a construction surcharge load of 600 psf per running foot of bracing.

The reception pits and jacking pits should be designed by a Registered Structural Foundation/Geotechnical Engineer as a braced excavation. The design of trench temporary retention system should be performed by a Registered Structural Engineer of Illinois on the basis of the appropriate "Apparent Lateral Earth Pressure Diagram for Temporary Retention System Design" diagram given as given in the **Appendix** of this report. This design is the responsibility of the utility contractor.

The stability of the bottom of trench excavation is controlled by the type of soil at the bottom of the trench and its underlying soils of the excavation trench. For the proposed storm sewer pipeline, the bottom of excavation is located in very stiff brown and gray clay till is stable against bottom heave considering the bottom is dry due to proper dewatering is performed as recommended in this report.

Pavement Restoration Recommendations

Upon backfilling the storm sewer trenches with compacted trench backfill according to the recommendations given under the **Trench Backfill** section the shallow cut areas of the existing bituminous pavement should be patched per CBBEL to match the existing pavement section (see **Table No 1** of this report) and should be constructed in accordance with Section 442 "Pavement Patching" of the IDOT Standard Specifications for Road and Bridge Construction, 2022 Edition.

Per CBBEL where the open cuts are too deep, the existing pavement may be completely reconstructed in accordance with the IDOT Standard Specifications for Road and Bridge Construction, 2022 Edition. If to be total reconstructed and redesigned, the Modified AASHTO design per the IDOT Bureau of Design and Environment Manual, **Chapter 54, Pavement Design**, Current Edition from IDOT or Western Springs standard could be utilized in the structural design of the flexible bituminous concrete pavement. For the Modified AASTHO Pavement Design, the following factors are usually taken into consideration in arriving at a design of a flexible pavement, traffic density and type of traffic and frequency (actual field traffic count from traffic study) and design period of the proposed pavement along with the design IBR value of subgrade soils. The traffic design information is necessary to determine the pavement design such as the distribution of single unit vehicles (SU), passenger vehicles (PV) and multiple unit vehicles (MU) along with the average daily traffic (ADT) count obtained from actual field traffic counts for number of vehicular cars, buses, semi-trucks, garbage trucks and tractor-trailer semi-dump trucks and pickup trucks.

The Illinois Bearing Ratio (IBR) of the subgrade soil is used in conjunction with the traffic data for flexible pavement design. It is recommended that the design of the bituminous concrete pavement should be performed based on a typical IBR value of 3 for the existing virgin clay till subgrade (encountered in the 6 soil borings) as this will be a conservative value and control over the crushed stone backfilled in adjacent open cut areas.

For the new proposed flexible pavement, the HMA surface course and HMA binder course should consist of bituminous concrete mixtures as defined in Section 1030. Hot Mix Asphalt of the State of Illinois "Standard Specifications for Road and Bridge Construction," 2022 Edition. The HMA surface

course and HMA binder course should be compacted to a minimum 93% and maximum 97% theoretical density as determined by AASHTO T 209-11. This is the IDOT Big "D" value which is used with the nuclear density testing of the asphalt in order to determine the percentage of in place compaction achieved in the field. The field density of the bituminous concrete surface and binder courses should be tested with a nuclear density gauge by a SEECO Consultants, Inc. Field Engineer at the time of construction in the field.

Potential Construction Problems

Groundwater was not encountered in any of the six (6) soil borings (B-1 to B-6) drilled and sampled to 20 to 25 feet depth during the exploration of March 23, 2022. However, during the rainy season and under normal conditions, surface runoff and seepage water that may accumulate overnight or momentarily in the excavation trenches can be removed by means of the standard sump and pump procedures.

Any excavation that extends greater than five feet in depth should be designed in accordance with U.S. Department of Labor, Occupational Safety and Health Administration 1989 (OSHA) "Occupational Safety and Health Standards-Excavations; Final Rule" 29 CFR, Part 1926, Subpart P. Excavations with properly sloped or braced excavation earth retention systems (such as trench boxes) to prevent excavation instability and provide safety which is the responsibility of the utilities contractor. Also, the means and methods of excavating the soil materials are at the discretion of the utility contractor and are the responsibility of the utility contractor.

Construction Consultation Engineering

A Field Geotechnical Engineer from SEECO Consultants Inc. should be present during the utilities excavation operations to ensure compliance with the specifications during construction. Field density tests to determine the degree of trench backfill compaction should be performed by a Field Engineering Technician or Field Geotechnical Engineer from SEECO Consultants Inc. once the storm sewer is installed and the backfilling begins.

Closing Remarks

We trust this report and the information contained herein is sufficient for your present requirements. We have welcomed the opportunity to be of service to you on this project. If there are any questions regarding this report, please contact us at your convenience.

Respectfully submitted,

SEECO Consultants, Inc.



Garrett W Gray, P.E.
Project Engineer

Collin W. Gray, S.E., P.E.
President

GG:arm

APPENDIX

- 1. PROPOSED STORM SEWER ROUTE ALTERNATIVE 1A (EXH 8) AND ALTERNATIVE 1B (EXH 9) PREPARED BY CBBEL**
- 2. BORING LOCATION PLAN**
- 3. GENERAL NOTES**
- 4. BORING LOGS**
- 5. UNIFIED SOIL CLASSIFICATION SYSTEM**
- 6. APPARENT LATERAL EARTH PRESSURE DIAGRAM FOR TRENCH PROTECTION BOX DESIGN IN CLAYEY SOILS ($H \leq 20$ FEET DEEP)**
- 7. APPARENT LATERAL EARTH PRESSURE DIAGRAM FOR TEMPORARY EARTH RETENTION SYSTEM DESIGN IN EQUIVALENT CLAYEY SOILS ($H \leq 25$ FEET DEEP)**
- 8. APPARENT LATERAL EARTH PRESSURE DIAGRAM FOR TEMPORARY BRACED EARTH RETENTION SYSTEM DESIGN FOR JACK AND BORE PITS ($H \leq 11$ FEET DEEP)**
- 9. ENVIRONMENTAL LABORATORY SOIL ANALYTICAL RESULTS**
- 10. COMPLETED LPC 663 FORM**
- 11. GENERAL REMARKS**

APPENDIX 1



NO.	DATE	NATURE OF REVISION	CHKD.	MODEL:
FILE NAME		Path: N:\WESTERNSPRINGS\200110\GIS\Exhibits\Report Exhibits\EXH 8_ALT 1A.mxd		

DSGN.	JLW
DWN.	JLW
CHKD.	JJJ
SCALE:	1" =
PLOT DATE:	9/25/2020
CAD USER:	

APPENDIX 2



NO.	DATE	REVISIONS	BY	DRAWN	EH

SEECO Consultants, Inc.
 7350 DuVan Drive, Tinley Park, Illinois 60477
 OFFICE: (708) 429-1666 FAX: (708) 429-1689

CLIENT
Christopher B. Burke Engineering, Ltd.

PROJECT NAME AND LOCATION
 Proposed Storm Sewer Project
 Western Springs, IL

BORING LOCATION PLAN

DATE 3/28/2022
 SCALE See Map
 JOB NO. 12946G

SHEET
1 OF 1

APPENDIX 3

DRILLING AND SAMPLING SYMBOLS

SS	SPLIT SPOON	1-3/8" I.D. x 2" O.D. (EXCEPT WHERE NOTED)
2T	THINWALL TUBE SAMPLER	2" O.D. x 1-7/8" I.D.
3T	THINWALL TUBE SAMPLER	3" O.D. x 2-7/8" I.D.
3P	PISTON SAMPLER	3" O.D. THINWALL TUBE
FA	CONTINUOUS FLIGHT AUGER	4" O.D.
HS	HOLLOW STEM AUGER	6-3/4" O.D. x 3-1/4" I.D.
HA	HAND AUGER	
RB	ROLLER ROCK BIT	
FT	FISHTAIL BIT	
DB	DIAMOND BIT	
AX	ROCK CORE	1-3/16" DIAMETER
BX	ROCK CORE	1-5/8" DIAMETER
NX	ROCK CORE	2-1/8" DIAMETER
AS	AUGER SAMPLE	
WS	WASH SAMPLE	
CA	COMBINED ANALYSIS	
SA	SIEVE ANALYSIS	

Standard "N" Penetration: Blows per foot of a 140 pound hammer falling 30 inches on a two inch O.D. split spoon, except where noted.

WATER LEVEL MEASUREMENT SYMBOLS

<u>▼</u>	WATER LEVEL OBSERVATION	WD	WHILE DRILLING
WCI	WET CAVE-IN	BCR	BEFORE CASING REMOVAL
DCI	DRY CAVE-IN	ACR	AFTER CASING REMOVAL
WS	WHILE SAMPLING	AB	AFTER BORING

Water levels indicated on the boring logs are the levels measured in the boring at the times indicated. In pervious soils, the indicated elevations are considered reliable groundwater levels. In impervious soils, the accurate determination of groundwater elevations are not possible in even several days observation, and additional evidence on groundwater elevations must be sought.

SOIL IDENTIFICATION TERMINOLOGY

COHESIONLESS SOILS

<u>COMPONENT</u>	<u>SIZE RANGE</u>	<u>DESCRIPTIVE TERM</u>	<u>PERCENT OF WEIGHT</u>
BOULDERS	OVER 8"	TRACE	0 – 10
COBBLES	8" TO 3"	LITTLE	10 – 20
GRAVEL	3" TO #4 SIEVE (4.75 mm)	SOME	20 – 35
SAND	#4 TO #200 SIEVE (0.074 mm)	AND	35 – 50
SILT	PASSING #200 SIEVE (0.074 mm)		

SOIL IDENTIFICATION TERMINOLOGY (Cont'd)

COHESIVE SOILS

<u>DESCRIPTIVE TERM</u>	<u>PLASTICITY INDEX</u>
CLAYEY SILT OR ORGANIC CLAYEY SILT	4 – 7
SILTY CLAY OR ORGANIC SILTY CLAY	8 – 30
CLAY OR ORGANIC CLAY	> 30

INTERMEDIATE SOILS

<u>DESCRIPTIVE TERM</u>	<u>PLASTICITY INDEX</u>
SILT	0 – 3

Unconfined compression tests are generally not applicable for intermediate soils.

CONSISTENCY OF COHESIVE SOILS

RELATIVE DENSITY OF GRANULAR SOILS

1-3/8" I.D. x 2" O.D. with 140 pound hammer falling 30"

<u>UNCONFINED COMP. STRENGTH, Qu, TSF</u>	<u>CONSISTENCY</u>	<u>N – BLOWS/FT.</u>	<u>RELATIVE DENSITY</u>
<0.25	VERY SOFT	0 – 3	VERY LOOSE
0.25 - 0.49	SOFT	4 – 9	LOOSE
0.50 - 1.00	MEDIUM	10 – 29	MEDIUM DENSE
1.01 - 1.99	STIFF	30 – 49	DENSE
2.00 - 3.99	VERY STIFF	50 – 80	VERY DENSE
4.00 - 8.00	HARD	>80	EXTREMELY DENSE
>8.00	VERY HARD		

CONSISTENCY OF COHESIVE SOILS

<u>N – BLOWS/FT.</u>	<u>RELATIVE DENSITY</u>
0 – 2	VERY SOFT
2 – 4	SOFT
4 – 8	MEDIUM
8 – 15	STIFF
15 – 30	VERY STIFF
>30	HARD

APPENDIX 4

BORING LOG

CLIENT **Christopher B. Burke Engineering, Ltd.**

PROJECT **Proposed Storm Sewer Project**

ENGINEER **Christopher B. Burke Engineering, Ltd.**

LOCATION **Western Springs, IL**

DEPTH ELEVATION	SAMPLE NO.	SAMPLER TYPE	SAMPLE REC. (%)	SOIL GRAPHIC LOG	BORING NUMBER B-1		Unconfined Compressive Strength, Tons/Ft. ²					REMARKS
					SURFACE ELEVATION (M.S.L.)		1	2	3	4	5	
					STATION	OFFSET from CL	PL		MC		LL	
					DESCRIPTION OF MATERIALS (LABORATORY CLASSIFICATION)		STD "N" PENETRATION BLOWS PER FT.					
							10	20	30	40	50	
				⊗	6.75" BITUMINOUS CONCRETE PAVEMENT							
				⊗	7.25" CRUSHED STONE BASE COURSE							
2.5	1	SS	67	⊗	SILTY CLAY, Brown and Gray, Trace Sand and Gravel, Hard to Very Stiff, Moist (CL) (pH = 8.98)		0		⊗			ENV. Sample
		HS		⊗								
5.0	2	SS	46	⊗			0		⊗			
		HS		⊗								
7.5	3	SS	33	⊗			0		⊗			
		HS		⊗								
10.0	4	SS	54	⊗			0	⊗				
		HS		⊗								
12.5	5	SS	63	⊗	SILTY CLAY, Gray, Trace Sand and Gravel, Very Stiff, Moist (CL)		0		⊗			
		HS		⊗								
15.0				⊗								
17.5				⊗								
20.0	6	SS	50	⊗			0		⊗			
				⊗								
22.5					Note: 1) All soil samples were screened with a MiniRae 3000 OVM photo-ionization detector (PID) and by utilizing olfactory senses. No petroleum odors were detected in all samples and all PID = 0 ppm. 2) Sample 1 was discretely chosen to be environmental chemically tested for VOCs, SVOCs, Total 8 RCRA Metals, and pH by an independent environmental laboratory.							
25.0												
27.5												
30.0												
End of Boring at 20 Feet												

⊗ Calibrated Penetrometer Unconfined Compression

Water Level Observations			SEECO Consultants, Inc. 7350 Duvan Drive, Tinley Park, IL 60477			Boring Started 3/23/22	
W.L.						Boring Completed 3/23/22	
W.L.	DRY WS/WD	DRY ACR				Driller EN	Rig D-50
W.L.						Drawn By EH	Sheet 1 of 1
			Approved GG	Job No. 12946G			

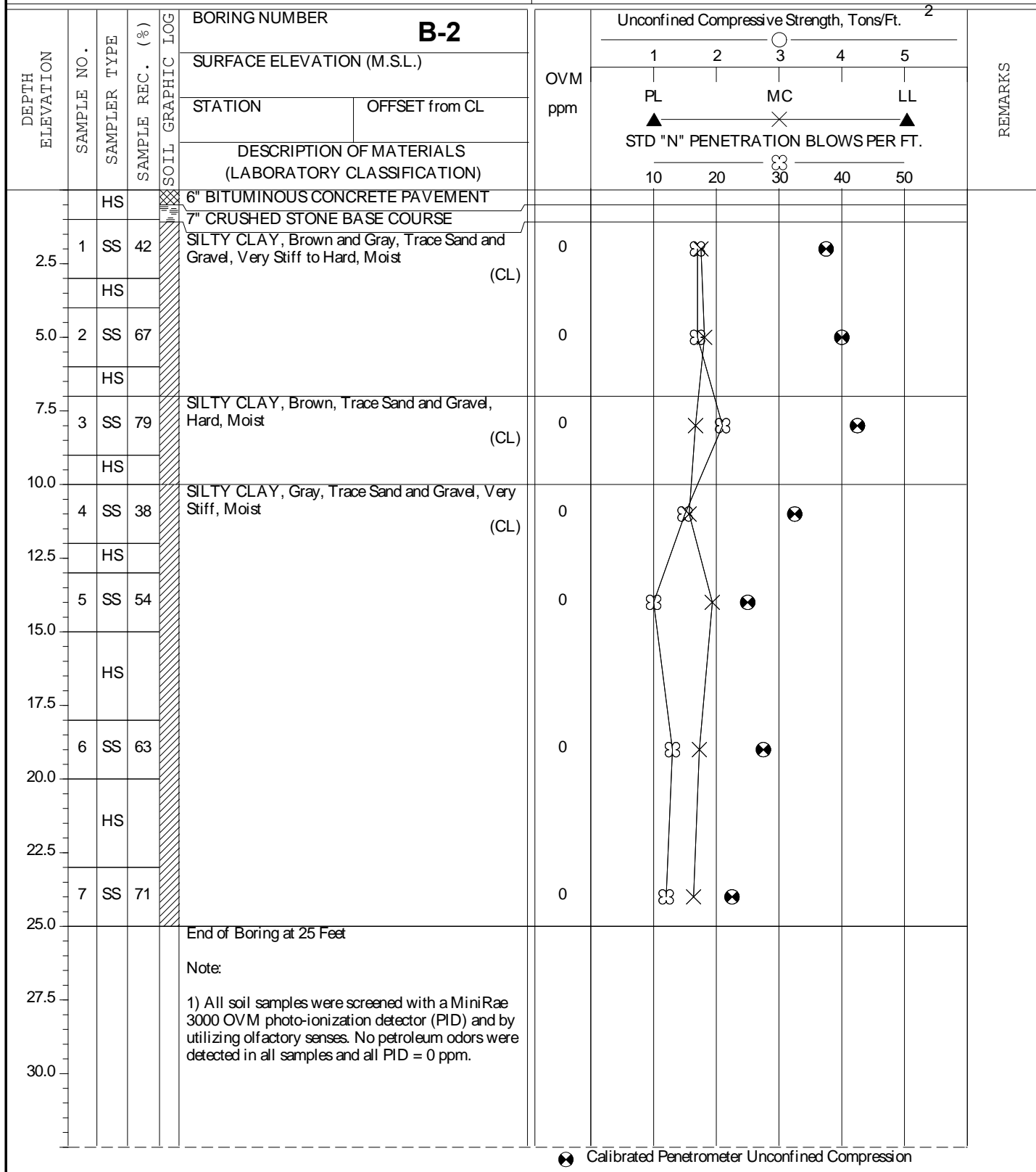
BORING LOG

CLIENT **Christopher B. Burke Engineering, Ltd.**

PROJECT **Proposed Storm Sewer Project**

ENGINEER **Christopher B. Burke Engineering, Ltd.**

LOCATION **Western Springs, IL**



End of Boring at 25 Feet

Note:

1) All soil samples were screened with a MiniRae 3000 OVM photo-ionization detector (PID) and by utilizing olfactory senses. No petroleum odors were detected in all samples and all PID = 0 ppm.

☉ Calibrated Penetrometer Unconfined Compression

Water Level Observations			<div style="text-align: center;"> <h2 style="margin: 0;">SEECO</h2> <h3 style="margin: 0;">Consultants, Inc.</h3> <p style="margin: 0; font-size: small;">7350 Duvan Drive, Tinley Park, IL 60477</p> </div>			Boring Started		3/23/22			
W.L.						Boring Completed		3/23/22			
W.L.	DRY WS/WD	DRY ACR				Driller	EN	Rig	D-50		
W.L.			Approved	GG	Job No.	12946G	Drawn By	EH	Sheet	1 of 1	

BORING LOG

CLIENT **Christopher B. Burke Engineering, Ltd.**

PROJECT **Proposed Storm Sewer Project**

ENGINEER **Christopher B. Burke Engineering, Ltd.**

LOCATION **Western Springs, IL**

DEPTH ELEVATION	SAMPLE NO.	SAMPLER TYPE	SAMPLE REC. (%)	SOIL GRAPHIC LOG	BORING NUMBER B-3		Unconfined Compressive Strength, Tons/Ft. ²					REMARKS
					SURFACE ELEVATION (M.S.L.)		1	2	3	4	5	
					STATION	OFFSET from CL	PL		MC		LL	
					DESCRIPTION OF MATERIALS (LABORATORY CLASSIFICATION)		STD "N" PENETRATION BLOWS PER FT.					
				5" BITUMINOUS CONCRETE PAVEMENT 9" CRUSHED STONE BASE COURSE								
2.5	1	SS	46	SILTY CLAY, Brown and Gray, Trace Sand and Gravel, Very Stiff to Hard to Very Stiff, Moist (CL) (pH = 8.68)	0		⊗	⊗		⊗		
5.0	2	SS	29		0		⊗			⊗		
7.5	3	SS	58		0		⊗	⊗		⊗		
10.0	4	SS	42		0		⊗			⊗		
12.5				SILTY CLAY, Gray, Trace Sand and Gravel, Hard, Moist (CL)	0		⊗	⊗		⊗		
15.0	5	SS	71		0		⊗			⊗		
17.5					0		⊗			⊗		
20.0	6	SS	29		0		⊗			⊗		
22.5					0		⊗			⊗		
25.0	7	SS	67		0		⊗	⊗		⊗		
27.5				End of Boring at 25 Feet								
30.0				Note: 1) All soil samples were screened with a MiniRae 3000 OVM photo-ionization detector (PID) and by utilizing olfactory senses. No petroleum odors were detected in all samples and all PID = 0 ppm. 2) Sample 1 was discretely chosen to be environmental chemically tested for pH by an independent environmental laboratory.								

⊗ Calibrated Penetrometer Unconfined Compression

Water Level Observations			SEECO Consultants, Inc. 7350 Duvan Drive, Tinley Park, IL 60477	Boring Started 3/23/22	
W.L.				Boring Completed 3/23/22	
W.L.	DRY WS/WD	DRY ACR		Driller EN	Rig D-50
W.L.				Approved GG	Job No. 12946G
			Job No. 12946G	Drawn By EH	Sheet 1 of 1

BORING LOG

CLIENT **Christopher B. Burke Engineering, Ltd.**

PROJECT **Proposed Storm Sewer Project**

ENGINEER **Christopher B. Burke Engineering, Ltd.**

LOCATION **Western Springs, IL**

DEPTH ELEVATION	SAMPLE NO.	SAMPLER TYPE	SAMPLE REC. (%)	SOIL GRAPHIC LOG	BORING NUMBER B-4		OVM ppm	Unconfined Compressive Strength, Tons/Ft. ²					REMARKS
					SURFACE ELEVATION (M.S.L.)	STATION		1	2	3	4	5	
								PL	MC	LL			
								STD "N" PENETRATION BLOWS PER FT.					
								10	20	30	40	50	
2.5	1	SS	54	5.75" BITUMINOUS CONCRETE PAVEMENT 7.25" CRUSHED STONE BASE COURSE			0	⊗	⊗	⊗			
		HS		SILTY CLAY, Brown and Gray, Trace Sand and Gravel, Very Stiff to Hard, Moist (CL) (pH = 8.17)			0	⊗	⊗	⊗			
5.0	2	SS	71	SILTY CLAY, Brown, Trace Sand and Gravel, Hard, Moist (CL)			0	⊗	⊗	⊗			
		HS		SILTY CLAY, Gray, Trace Sand and Gravel, Hard to Very Stiff, Moist (CL)			0	⊗	⊗	⊗			
7.5	3	SS	33	SILTY CLAY, Gray, Trace Sand and Gravel, Hard to Very Stiff, Moist (CL)			0	⊗	⊗	⊗			
		HS		SILTY CLAY, Gray, Trace Sand and Gravel, Hard to Very Stiff, Moist (CL)			0	⊗	⊗	⊗			
10.0	4	SS	63	SILTY CLAY, Gray, Trace Sand and Gravel, Hard to Very Stiff, Moist (CL)			0	⊗	⊗	⊗			
		HS		SILTY CLAY, Gray, Trace Sand and Gravel, Hard to Very Stiff, Moist (CL)			0	⊗	⊗	⊗			
15.0	5	SS	50	SILTY CLAY, Gray, Trace Sand and Gravel, Hard to Very Stiff, Moist (CL)			0	⊗	⊗	⊗			
		HS		SILTY CLAY, Gray, Trace Sand and Gravel, Hard to Very Stiff, Moist (CL)			0	⊗	⊗	⊗			
17.5				SILTY CLAY, Gray, Trace Sand and Gravel, Hard to Very Stiff, Moist (CL)			0	⊗	⊗	⊗			
20.0	6	SS	38	SILTY CLAY, Gray, Trace Sand and Gravel, Hard to Very Stiff, Moist (CL)			0	⊗	⊗	⊗			
				SILTY CLAY, Gray, Trace Sand and Gravel, Hard to Very Stiff, Moist (CL)			0	⊗	⊗	⊗			
20.0	End of Boring at 20 Feet												
22.5	Note:												
25.0	1) All soil samples were screened with a MiniRae 3000 OVM photo-ionization detector (PID) and by utilizing olfactory senses. No petroleum odors were detected in all samples and all PID = 0 ppm.												
27.5	2) Sample 1 was discretely chosen to be environmental chemically tested for pH by an independent environmental laboratory.												
30.0													

⊗ Calibrated Penetrometer Unconfined Compression

Water Level Observations			SEECO Consultants, Inc. 7350 Duvan Drive, Tinley Park, IL 60477			Boring Started 3/23/22	
W.L.	DRY WS/WD	DRY ACR				Boring Completed 3/23/22	
W.L.						Driller EN	Rig D-50
W.L.			Approved GG	Job No. 12946G	Drawn By EH	Sheet 1 of 1	

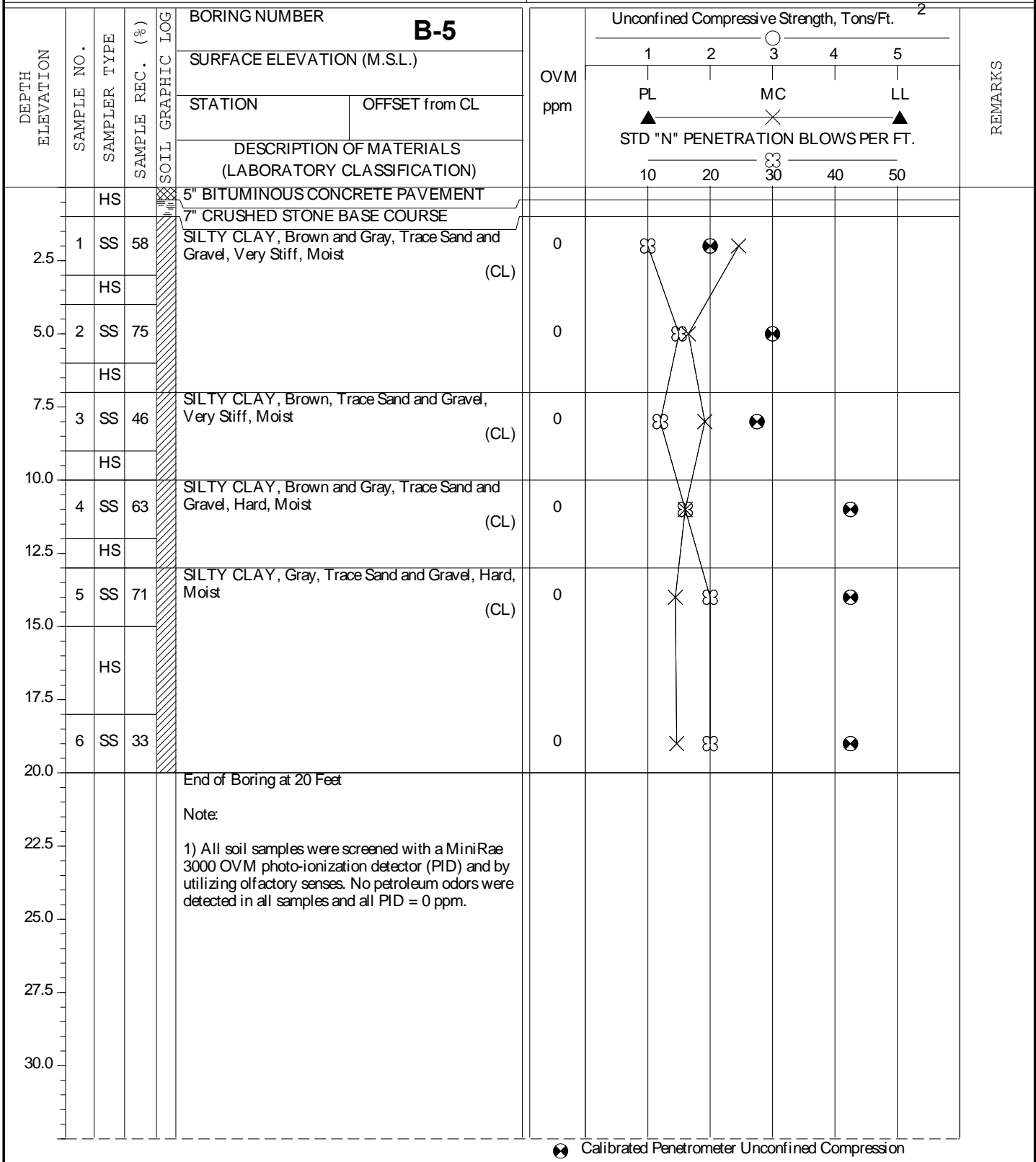
BORING LOG

CLIENT **Christopher B. Burke Engineering, Ltd.**

PROJECT **Proposed Storm Sewer Project**

ENGINEER **Christopher B. Burke Engineering, Ltd.**

LOCATION **Western Springs, IL**



Note:
 1) All soil samples were screened with a MiniRae 3000 OVM photo-ionization detector (PID) and by utilizing olfactory senses. No petroleum odors were detected in all samples and all PID = 0 ppm.

Water Level Observations			SEECO Consultants, Inc. 7350 Duvan Drive, Tinley Park, IL 60477 Approved GG Job No. 12946G			Boring Started 3/23/22	
W.L.						Boring Completed 3/23/22	
W.L.	DRY WS/WD	DRY ACR				Driller EN	Rig D-50
W.L.			Drawn By EH	Sheet 1 of 1			

APPENDIX 5

CLASSIFICATION OF SOILS FOR ENGINEERING PURPOSES

ASTM Designation: D 2487-10

(Based on United Soil Classification System)

SEECO Consultants, Inc.

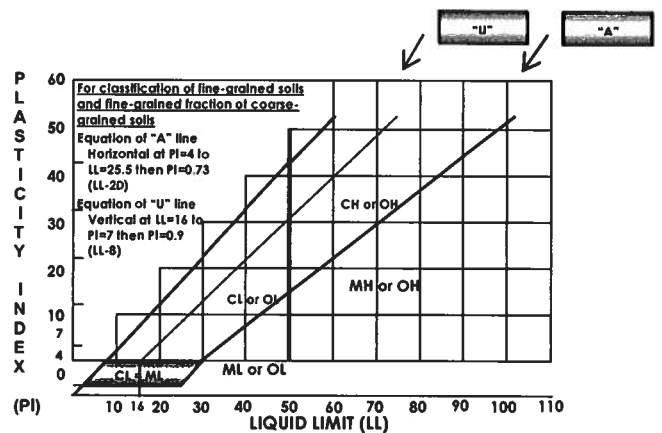
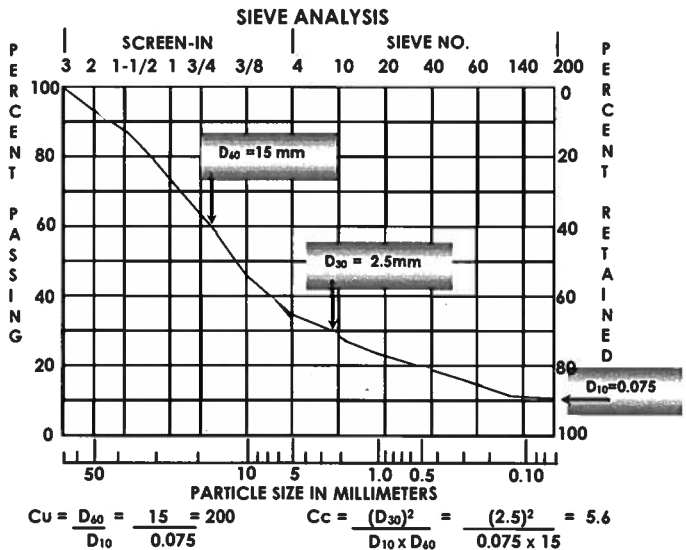
Criteria for Assigning Group Symbols and Group Names Using Laboratory Tests^A

				Soil Classification		
				Group Symbol	Group Name ^B	
Coarse Grained Soils More than 50% retained on No. 200 sieve	Gravels More than 50% coarse fraction retained on No. 4 sieve	Clean Gravels Less than 5% fines ^C	$Cu \geq 4$ and $1 \leq Cc \leq 3^E$	GW	Well-graded gravel ^F	
			$Cu \geq 4$ and/or $1 > Cc > 3^E$	GP	Poorly graded gravel ^F	
		Gravels with fines More than 12% fines ^C	Fines classify as ML or MH	GM	Silty gravel ^{F, G, H}	
			Fines classify as CL or CH	GC	Clayey gravel ^{F, G, H}	
	Sands 50% or more of coarse fraction passes No. 4 sieve		$Cu \geq 6$ and $1 \leq Cc \leq 3^E$	SW	Well-graded sand ^I	
		Clean Sands Less than 5% fines ^D	$Cu < 6$ and /or $1 > Cc > 3^E$	SP	Poorly graded sand ^I	
			Fines classify as ML or MH	SM	Silty sand ^{G, H, I}	
			Fines classify as CL or CH	SC	Clayey sand ^{G, H, I}	
	Fine-Grained Soils 50% or more passes the No. 200 sieve	Silts and Clays Liquid limit less than 50	Inorganic	$PI > 7$ and plots on or above "A" line ^J	CL	Lean clay ^{K, L, M}
				$PI < 4$ or plots below "A" line ^J	ML	Silt ^{K, L, M}
Organic			Liquid limit - oven dried < 0.75	OL	Organic clay ^{K, L, M, N}	
			Liquid limit - nat dried	OL	Organic silt ^{K, L, M, O}	
Silts and Clays Liquid limit 50 or more		Inorganic	PI plots on or above "A" line	CH	Fat clay ^{K, L, M}	
			PI plots below "A" line	MH	Elastic silt ^{K, L, M}	
		Organic	Liquid limit - oven dried < 0.75	OH	Organic clay ^{K, L, M, P}	
			Liquid limit - nat dried	OH	Organic silt ^{K, L, M, Q}	
Highly organic soils		Primarily organic matter, dark in color, and organic odor			PT	Peat

^ABased on the material passing the three inch (75 mm) sieve
^BIf field sample contained cobbles or boulders, or both, add "with cobbles or boulders, or both" to group name
^CGravels with 5 to 12% fines require dual symbols:
 GW-GM well-graded gravel with silt
 GW-GC well-graded gravel with clay
 GP-GM poorly graded gravel with silt
 GP-GC poorly graded gravel with clay

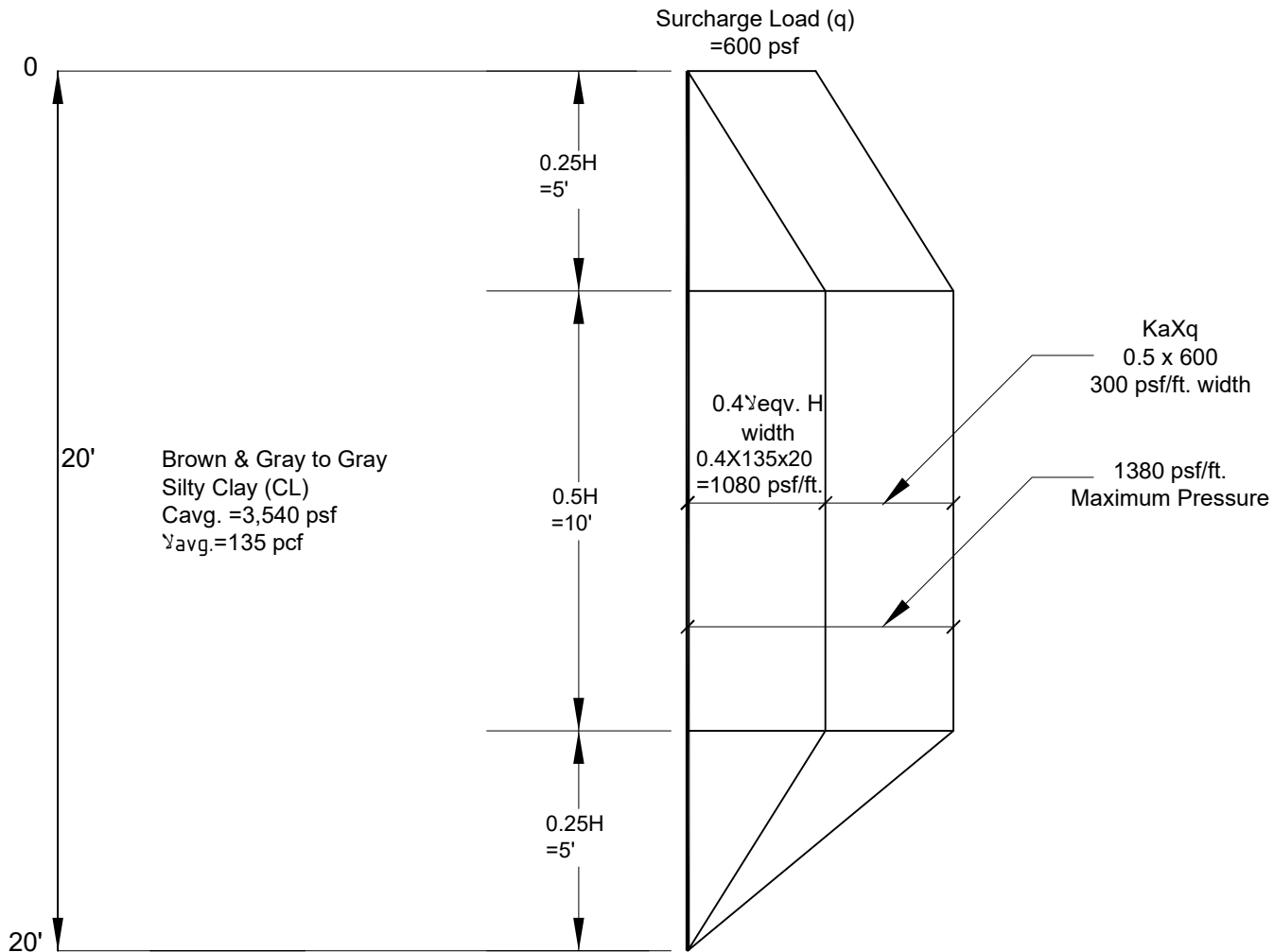
^DSands with 5 to 12% fines require dual symbols:
 SW-SM well-graded sand with silt
 SW-SC well-graded sand with clay
 SP-SM poorly graded sand with silt
 SP-SC poorly graded sand with clay
^E $Cu = D_{60}/D_{10}$ $Cc = \frac{(D_{30})^2}{D_{10} \times D_{60}}$
^FIf silt contains $\geq 15\%$ sand, add "with sand" to group name
^GIf fines classify as CL-ML, use dual symbol GC-GM, or SC-SM
^HIf fines are organic, add "with organic fines" to group name
^IIf silt contains $\geq 15\%$ gravel, add "with gravel" to group name

^JIf Atterberg limits plot in hatched area, soil is a CL-ML, silty clay
^KIf silt contains 15 to 29% plus No. 200, add "with sand" or "with gravel," whichever is predominant
^LIf silt contains $\geq 30\%$ plus No. 200, predominantly sand, add "sandy" to group name
^MIf silt contains $\geq 30\%$ plus No. 200, predominantly gravel, add "gravelly" to group name
^N $PI \geq 4$ and plots on or above "A" line
^O $PI < 4$ or plots below "A" line
^P PI plots on or above "A" line
^Q PI plots below "A" line



APPENDIX 6

Apparent Lateral Earth Pressure Diagram For Trench Protection Box Design in Clayey Soils ($H \leq 20$ Feet Deep)




Note: Pressure Diagram for a braced excavation through the silty clay is determined by equilibrium and by assuming the area is prede-watered to the bottom of the excavation.

Soil Profile shown is obtained from boring B-1

$$\gamma_{avg} \cdot H / C_{avg} = (135 \text{ pcf} \cdot 20') / 2250 \text{ psf} = 0.76 < 4.0$$

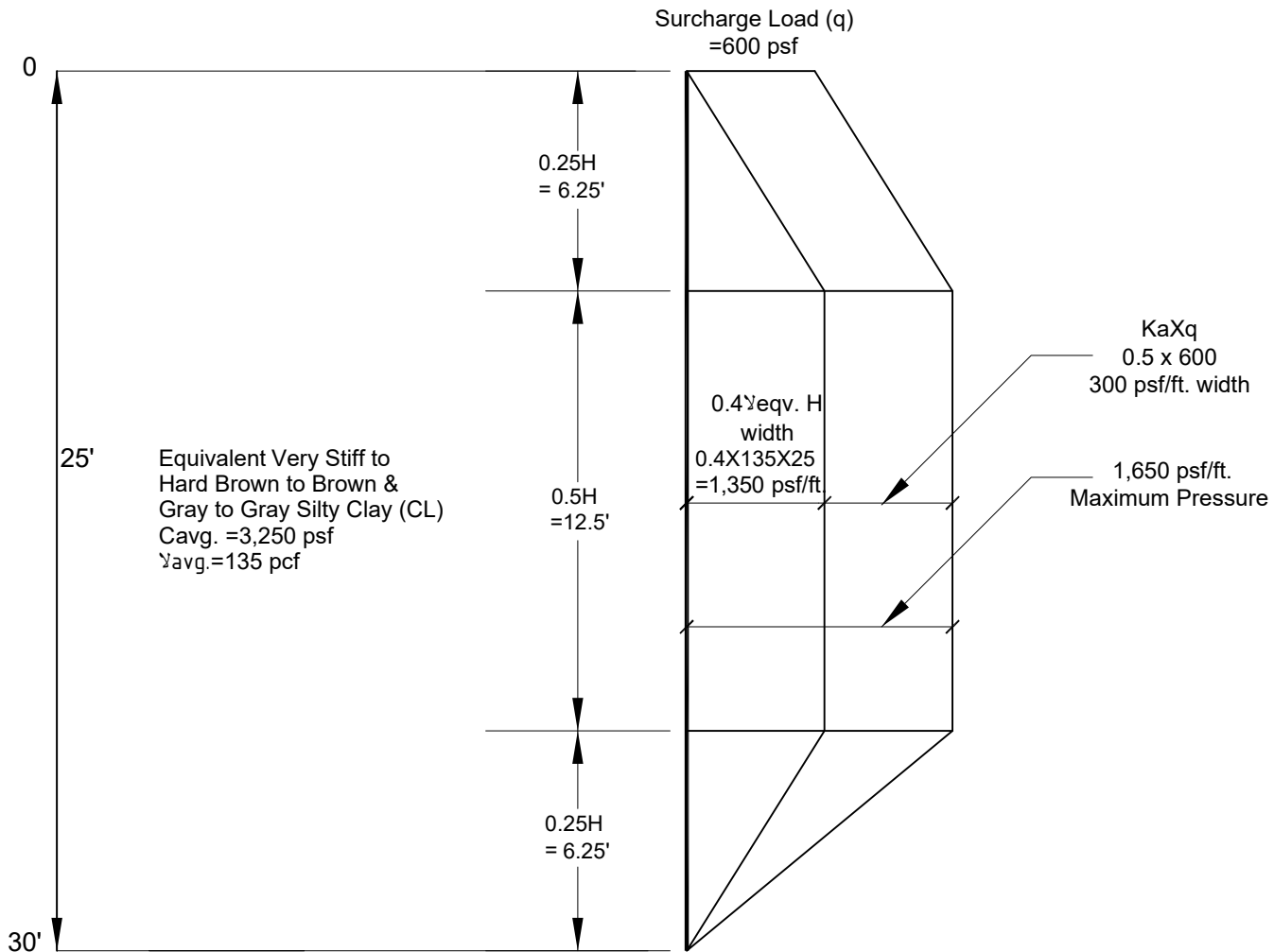
$$\begin{aligned} \sigma_a &= 0.4 \gamma_{eqv} \cdot H + K_a \cdot q \\ &= 0.4(135)(20) + 0.5 \cdot 600 \\ &= 1380 \text{ psf/ft.} \end{aligned}$$

Assumptions: 1) Water table is below the bottom of excavation.

<i>DRAWN BY</i> G.G.	<i>APPROVED</i> CWG	<i>DATE</i> 4/14/2022	APPARENT LATERAL BRACED EARTH PRESSURE DIAGRAM FOR TRENCH PROTECTION BOX DESIGN IN EQUIVALENT COHESIVE SOILS
<i>SCALE</i> N.T.S.	<i>FIGURE</i> 1 OF 1	<i>JOB NO.</i> 12946G	<i>CLIENT</i> Christopher B. Burke Engineering, Ltd.
 SEECO Consultants, Inc. 7350 Duwan Drive, Tinley Park, Illinois 60477 OFFICE: (708) 429-1666 FAX: (708) 429-1689			<i>PROJECT NAME & LOCATION</i> Proposed Storm Sewer Project Western Springs, IL

APPENDIX 7

Apparent Lateral Earth Pressure Diagram For Temporary Earth Retention System Design in Equivalent Clayey Soils (H ≤ 25 Feet Deep)



Note: Pressure Diagram for a braced excavation through the silty clay is determined by equilibrium and by assuming the area is prede-watered to the bottom of the excavation. Soil Profile shown is obtained from boring B-2.

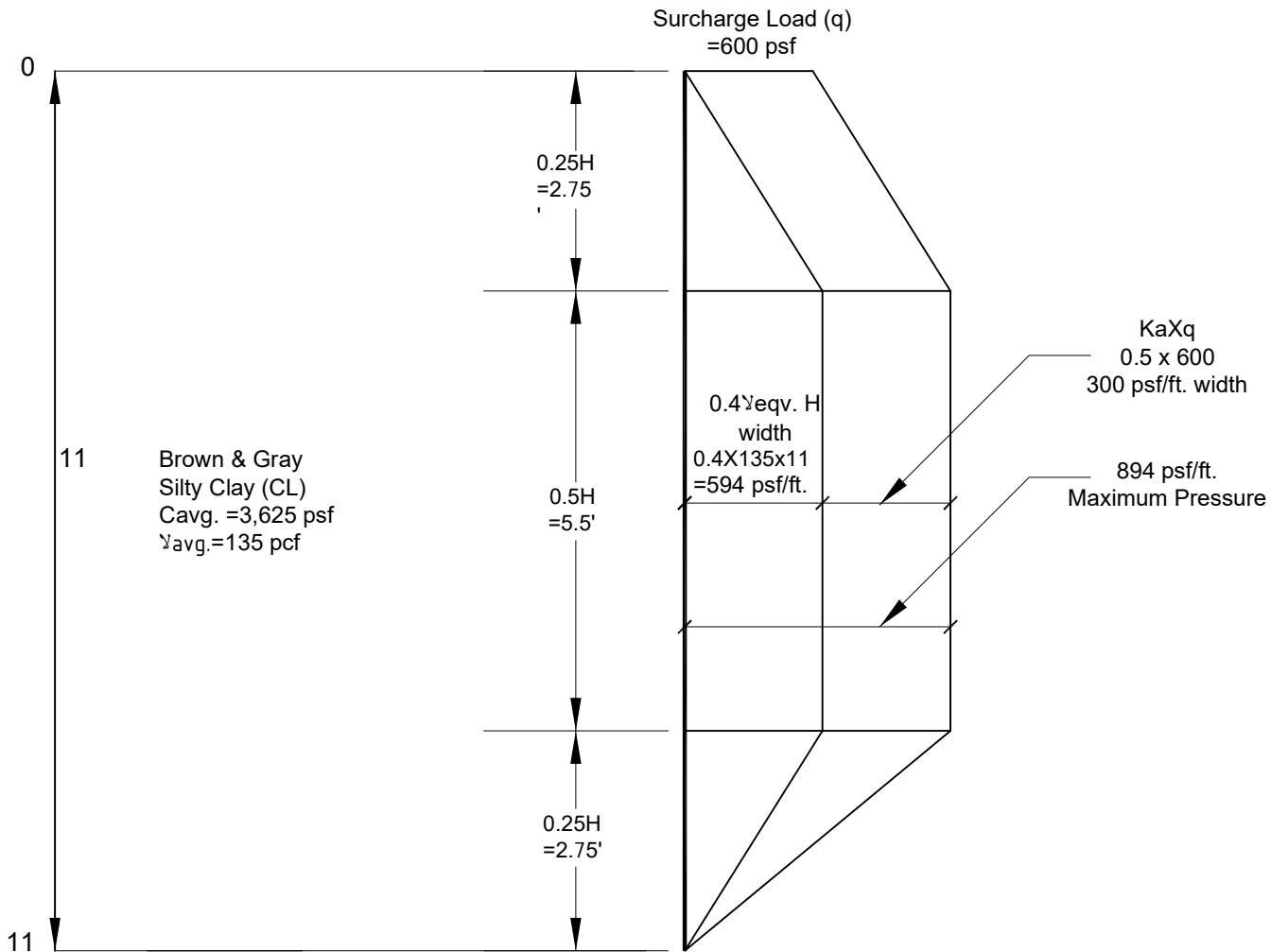
$$\begin{aligned}
 &C_{avg.} = 3,250 \text{ psf} \quad \gamma_{avg.} = 135 \text{ pcf} \\
 &\gamma_{avg.} * H / C_{avg.} = (135 \text{ pcf} * 25') / 3,250 \text{ psf} = 1.0 < 4.0 \\
 &\sigma_a = 0.4 \gamma_{eqv.} H + K_a * q \\
 &= 0.4(135)(25) + 0.5 * 600 \\
 &= 1,650 \text{ psf/ft.}
 \end{aligned}$$

Assumptions: 1) Water table is below the bottom of excavation.

<i>DRAWN BY</i> G.G.	<i>APPROVED</i> CWG	<i>DATE</i> 4/15/2022	APPARENT LATERAL BRACED EARTH PRESSURE DIAGRAM FOR TRENCH PROTECTION BOX DESIGN IN EQUIVALENT COHESIVE SOILS
<i>SCALE</i> N.T.S.	<i>FIGURE</i> 1 OF 1	<i>JOB NO.</i> 12946G	<i>CLIENT</i> Christopher B. Burke Engineering, Ltd.
SEECO Consultants, Inc. 7350 Duwan Drive, Tinley Park, Illinois 60477 OFFICE: (708) 429-1666 FAX: (708) 429-1689			<i>PROJECT NAME & LOCATION</i> Proposed Storm Sewer Project Western Springs, IL

APPENDIX 8

Apparent Lateral Earth Pressure Diagram For Temporary Braced Earth Retention System Design For Jack and Bore Pits (H < 11 Feet Deep)



Note: Pressure Diagram for a braced excavation through the silty clay is determined by equilibrium and by assuming the area is prewatered to the bottom of the excavation.

Soil Profile shown is obtained from boring B-1

$$\gamma_{avg} \cdot H / C_{avg} = (135 \text{ pcf} \cdot 11') / 3625 \text{ psf} = 0.41 < 4.0$$

$$\begin{aligned} \sigma_a &= 0.4 \gamma_{eqv.} H + K_a q \\ &= 0.4(135)(11) + 0.50 \cdot 600 \\ &= 894 \text{ psf/ft.} \end{aligned}$$

Assumptions: 1) Water table is below the bottom of excavation.

DRAWN BY G.G.	APPROVED CWG	DATE 4/15/2022	APPARENT LATERAL BRACED EARTH PRESSURE DIAGRAM FOR BORE AND JACK PITS IN EQUIVALENT COHESIVE SOILS
SCALE N.T.S.	FIGURE 1 OF 1	JOB NO. 12946G	CLIENT Christopher B. Burke Engineering, Ltd.
SEECO Consultants, Inc. 7350 Duwan Drive, Tinley Park, Illinois 60477 OFFICE: (708) 429-1666 FAX: (708) 429-1689			PROJECT NAME & LOCATION Proposed Storm Sewer Project Western Springs, IL

APPENDIX 9



April 06, 2022

Mr. Don Cassier

SEECO ENVIRONMENTAL SERVICES

7350 Duvan Drive

Tinley Park, IL 60477

Project ID: 12946

First Environmental File ID: 22-2003

Date Received: March 30, 2022

Dear Mr. Don Cassier:

The above referenced project was analyzed as directed on the enclosed chain of custody record.

All Quality Control criteria as outlined in the methods and current IL ELAP/NELAP have been met unless otherwise noted. QA/QC documentation and raw data will remain on file for future reference. Our accreditation number is 100292 and our current certificate is number:

1002922022-8: effective 02/10/2022 through 02/28/2023.

I thank you for the opportunity to be of service to you and look forward to working with you again in the future. Should you have any questions regarding any of the enclosed analytical data or need additional information, please contact me at (630) 778-1200.

Sincerely,

Neal Cleghorn
Project Manager



Case Narrative

SEECO ENVIRONMENTAL SERVICES

Lab File ID: **22-2003**

Project ID: **12946**

Date Received: **March 30, 2022**

All quality control criteria, as outlined in the methods, have been met except as noted below or on the following analytical report.

The results in this report apply to the samples in the following table:

Laboratory Sample ID	Client Sample Identifier	Date/Time Collected
22-2003-001	B-1	03/23/22
22-2003-002	B-3	03/23/22
22-2003-003	B-4	03/23/22
22-2003-004	B-6	03/23/22

Sample Batch Comments:

Method 5035 vials for soil VOCs were not received. Samples preserved in lab.



Case Narrative

SEECO ENVIRONMENTAL SERVICES

Lab File ID: **22-2003**

Project ID: **12946**

Date Received: **March 30, 2022**

All quality control criteria, as outlined in the methods, have been met except as noted below or on the following analytical report.

The following is a definition of flags that may be used in this report:

Flag	Description	Flag	Description
A	Method holding time is 15 minutes from collection. Lab analysis was performed as soon as possible.		
B	Analyte was found in the method blank.	L	LCS recovery outside control limits.
<	Analyte not detected at or above the reporting limit.	M	MS recovery outside control limits; LCS acceptable.
C	Sample received in an improper container for this test.	P	Chemical preservation pH adjusted in lab.
D	Surrogates diluted out; recovery not available.	Q	Result was determined by a GC/MS database search.
E	Estimated result; concentration exceeds calibration range.	S	Analysis was subcontracted to another laboratory.
G	Surrogate recovery outside control limits.	T	Result is less than three times the MDL value.
H	Analysis or extraction holding time exceeded.	W	Reporting limit elevated due to sample matrix.
I	ICVS % rec outside 95-105% but within 90-110%		
J	Estimated result; concentration is less than routine RL but greater than MDL.	N	Analyte is not part of our NELAC accreditation or accreditation may not be available for this parameter.
RL	Routine Reporting Limit (Lowest amount that can be detected when routine weights/volumes are used without dilution.)	ND	Analyte was not detected using a library search routine; No calibration standard was analyzed.



Analytical Report

Client: SEECO ENVIRONMENTAL SERVICES
Project ID: 12946
Sample ID: B-1
Sample No: 22-2003-001

Date Collected: 03/23/22
Time Collected:
Date Received: 03/30/22
Date Reported: 04/06/22

Results are reported on a dry weight basis.

Analyte	Result	R.L.	Units	Flags
Solids, Total		Method: 2540G 2011		
Analysis Date: 03/31/22				
Total Solids	85.71		%	
Volatile Organic Compounds		Method: 5035A/8260B		
Analysis Date: 04/01/22				
Acetone	< 200	200	ug/kg	
Benzene	< 5.0	5.0	ug/kg	
Bromodichloromethane	< 5.0	5.0	ug/kg	
Bromoform	< 5.0	5.0	ug/kg	
Bromomethane	< 10.0	10.0	ug/kg	
2-Butanone (MEK)	< 100	100	ug/kg	
Carbon disulfide	< 5.0	5.0	ug/kg	
Carbon tetrachloride	< 5.0	5.0	ug/kg	
Chlorobenzene	< 5.0	5.0	ug/kg	
Chlorodibromomethane	< 5.0	5.0	ug/kg	
Chloroethane	< 10.0	10.0	ug/kg	
Chloroform	< 5.0	5.0	ug/kg	
Chloromethane	< 10.0	10.0	ug/kg	
1,1-Dichloroethane	< 5.0	5.0	ug/kg	
1,2-Dichloroethane	< 5.0	5.0	ug/kg	
1,1-Dichloroethene	< 5.0	5.0	ug/kg	
cis-1,2-Dichloroethene	< 5.0	5.0	ug/kg	
trans-1,2-Dichloroethene	< 5.0	5.0	ug/kg	
1,2-Dichloropropane	< 5.0	5.0	ug/kg	
cis-1,3-Dichloropropene	< 4.0	4.0	ug/kg	
trans-1,3-Dichloropropene	< 4.0	4.0	ug/kg	
Ethylbenzene	< 5.0	5.0	ug/kg	
2-Hexanone	< 10.0	10.0	ug/kg	
Methyl-tert-butylether (MTBE)	< 5.0	5.0	ug/kg	
4-Methyl-2-pentanone (MIBK)	< 10.0	10.0	ug/kg	
Methylene chloride	< 20.0	20.0	ug/kg	
Styrene	< 5.0	5.0	ug/kg	
1,1,2,2-Tetrachloroethane	< 5.0	5.0	ug/kg	
Tetrachloroethene	< 5.0	5.0	ug/kg	
Toluene	< 5.0	5.0	ug/kg	
1,1,1-Trichloroethane	< 5.0	5.0	ug/kg	
1,1,2-Trichloroethane	< 5.0	5.0	ug/kg	
Trichloroethene	< 5.0	5.0	ug/kg	



Analytical Report

Client: SEECO ENVIRONMENTAL SERVICES
Project ID: 12946
Sample ID: B-1
Sample No: 22-2003-001

Date Collected: 03/23/22
Time Collected:
Date Received: 03/30/22
Date Reported: 04/06/22

Results are reported on a dry weight basis.

Analyte	Result	R.L.	Units	Flags
Volatile Organic Compounds		Method: 5035A/8260B		
Analysis Date: 04/01/22				
Vinyl acetate	< 10.0	10.0	ug/kg	
Vinyl chloride	< 10.0	10.0	ug/kg	
Xylene, Total	< 5.0	5.0	ug/kg	
Semi-Volatile Compounds		Method: 8270C		Preparation Method 3540C
Analysis Date: 04/05/22				
Preparation Date: 04/04/22				
Acenaphthene	< 330	330	ug/kg	
Acenaphthylene	< 330	330	ug/kg	
Anthracene	< 330	330	ug/kg	
Benzidine	< 330	330	ug/kg	
Benzo(a)anthracene	< 330	330	ug/kg	
Benzo(a)pyrene	< 90	90	ug/kg	
Benzo(b)fluoranthene	< 330	330	ug/kg	
Benzo(k)fluoranthene	< 330	330	ug/kg	
Benzo(ghi)perylene	< 330	330	ug/kg	
Benzoic acid	< 330	330	ug/kg	
Benzyl alcohol	< 330	330	ug/kg	
bis(2-Chloroethoxy)methane	< 330	330	ug/kg	
bis(2-Chloroethyl)ether	< 330	330	ug/kg	
bis(2-Chloroisopropyl)ether	< 330	330	ug/kg	
bis(2-Ethylhexyl)phthalate	< 330	330	ug/kg	
4-Bromophenyl phenyl ether	< 330	330	ug/kg	
Butyl benzyl phthalate	< 330	330	ug/kg	
Carbazole	< 330	330	ug/kg	
4-Chloroaniline	< 330	330	ug/kg	
4-Chloro-3-methylphenol	< 330	330	ug/kg	
2-Chloronaphthalene	< 330	330	ug/kg	
2-Chlorophenol	< 330	330	ug/kg	
4-Chlorophenyl phenyl ether	< 330	330	ug/kg	
Chrysene	< 330	330	ug/kg	
Dibenzo(a,h)anthracene	< 90	90	ug/kg	
Dibenzofuran	< 330	330	ug/kg	
1,2-Dichlorobenzene	< 330	330	ug/kg	
1,3-Dichlorobenzene	< 330	330	ug/kg	
1,4-Dichlorobenzene	< 330	330	ug/kg	
3,3'-Dichlorobenzidine	< 660	660	ug/kg	
2,4-Dichlorophenol	< 330	330	ug/kg	



Analytical Report

Client: SEECO ENVIRONMENTAL SERVICES
Project ID: 12946
Sample ID: B-1
Sample No: 22-2003-001

Date Collected: 03/23/22
Time Collected:
Date Received: 03/30/22
Date Reported: 04/06/22

Results are reported on a dry weight basis.

Analyte	Result	R.L.	Units	Flags
Semi-Volatile Compounds	Method: 8270C	Preparation Method 3540C		
Analysis Date: 04/05/22		Preparation Date: 04/04/22		
Diethyl phthalate	< 330	330	ug/kg	
2,4-Dimethylphenol	< 330	330	ug/kg	
Dimethyl phthalate	< 330	330	ug/kg	
Di-n-butyl phthalate	< 330	330	ug/kg	
4,6-Dinitro-2-methylphenol	< 1,600	1600	ug/kg	
2,4-Dinitrophenol	< 1,600	1600	ug/kg	
2,4-Dinitrotoluene	< 250	250	ug/kg	
2,6-Dinitrotoluene	< 260	260	ug/kg	
Di-n-octylphthalate	< 330	330	ug/kg	
Fluoranthene	< 330	330	ug/kg	
Fluorene	< 330	330	ug/kg	
Hexachlorobenzene	< 330	330	ug/kg	
Hexachlorobutadiene	< 330	330	ug/kg	
Hexachlorocyclopentadiene	< 330	330	ug/kg	
Hexachloroethane	< 330	330	ug/kg	
Indeno(1,2,3-cd)pyrene	< 330	330	ug/kg	
Isophorone	< 330	330	ug/kg	
2-Methylnaphthalene	< 330	330	ug/kg	
2-Methylphenol	< 330	330	ug/kg	
3 & 4-Methylphenol	< 330	330	ug/kg	
Naphthalene	< 330	330	ug/kg	
2-Nitroaniline	< 1,600	1600	ug/kg	
3-Nitroaniline	< 1,600	1600	ug/kg	
4-Nitroaniline	< 1,600	1600	ug/kg	
Nitrobenzene	< 260	260	ug/kg	
2-Nitrophenol	< 1,600	1600	ug/kg	
4-Nitrophenol	< 1,600	1600	ug/kg	
n-Nitrosodi-n-propylamine	< 90	90	ug/kg	
n-Nitrosodimethylamine	< 330	330	ug/kg	
n-Nitrosodiphenylamine	< 330	330	ug/kg	
Pentachlorophenol	< 330	330	ug/kg	
Phenanthrene	< 330	330	ug/kg	
Phenol	< 330	330	ug/kg	
Pyrene	< 330	330	ug/kg	
Pyridine	< 330	330	ug/kg	
1,2,4-Trichlorobenzene	< 330	330	ug/kg	
2,4,5-Trichlorophenol	< 330	330	ug/kg	



Analytical Report

Client: SEECO ENVIRONMENTAL SERVICES
Project ID: 12946
Sample ID: B-1
Sample No: 22-2003-001

Date Collected: 03/23/22
Time Collected:
Date Received: 03/30/22
Date Reported: 04/06/22

Results are reported on a dry weight basis.

Analyte	Result	R.L.	Units	Flags
Semi-Volatile Compounds				
Method: 8270C		Preparation Method 3540C		
Analysis Date: 04/05/22		Preparation Date: 04/04/22		
2,4,6-Trichlorophenol	< 330	330	ug/kg	
Total Metals				
Method: 6010C		Preparation Method 3050B		
Analysis Date: 04/05/22		Preparation Date: 04/01/22		
Arsenic	9.2	1.0	mg/kg	
Barium	38.9	0.5	mg/kg	
Cadmium	< 0.5	0.5	mg/kg	
Chromium	19.2	0.5	mg/kg	
Lead	15.5	0.5	mg/kg	
Selenium	< 1.0	1.0	mg/kg	
Silver	< 0.2	0.2	mg/kg	
Total Mercury				
Method: 7471B				
Analysis Date: 04/01/22				
Mercury	< 0.05	0.05	mg/kg	
pH @ 25°C, 1:2				
Method: 9045D				
Analysis Date: 04/05/22 10:05				
pH @ 25°C, 1:2	8.98		Units	



Analytical Report

Client: SEECO ENVIRONMENTAL SERVICES
Project ID: 12946
Sample ID: B-3
Sample No: 22-2003-002

Date Collected: 03/23/22
Time Collected:
Date Received: 03/30/22
Date Reported: 04/06/22

Results are reported on an "as received" basis.

Analyte	Result	R.L.	Units	Flags
pH @ 25°C, 1:2				
Analysis Date: 04/05/22 10:05				
	Method: 9045D			
pH @ 25°C, 1:2	8.68		Units	



Analytical Report

Client: SEECO ENVIRONMENTAL SERVICES
Project ID: 12946
Sample ID: B-4
Sample No: 22-2003-003

Date Collected: 03/23/22
Time Collected:
Date Received: 03/30/22
Date Reported: 04/06/22

Results are reported on an "as received" basis.

Analyte	Result	R.L.	Units	Flags
pH @ 25°C, 1:2				
Analysis Date: 04/05/22 10:05				
	8.17		Units	



Analytical Report

Client: SEECO ENVIRONMENTAL SERVICES
Project ID: 12946
Sample ID: B-6
Sample No: 22-2003-004

Date Collected: 03/23/22
Time Collected:
Date Received: 03/30/22
Date Reported: 04/06/22

Results are reported on an "as received" basis.

Analyte	Result	R.L.	Units	Flags
pH @ 25°C, 1:2				
Analysis Date: 04/05/22 10:05				
	Method: 9045D			
pH @ 25°C, 1:2	8.66		Units	



First Environmental Laboratories, Inc.

1600 Shore Road, Suite D
 Naperville, IL 60563
 Phone: (630)778-1200 * Fax (630)778-1233
 E-Mail: fristinfo@fristenv.com
 IIEPA Accreditation #100292
www.firstenv.com

CHAIN OF CUSTODY RECORD

Company Name: SEECO	
Street Address:	
City:	State:
Phone:	e-Mail: cassier@seeco.com
Send Report To: Cassier	Hardcopy: <input type="checkbox"/>
Sampled By: DW	PDF e-Mail: <input checked="" type="checkbox"/>

Date/Time Taken	Sample Description	Matrix*	VOCs	SVOCs	Total 8 RCRA Metals	pH	HOLD-Do not analyze	Comments	Lab I.D.
3/23/22	B-1	S <input checked="" type="checkbox"/>	X	X	X	X		22-2003	001
	B-3								002
	B-4								003
	B-6								004

FOR LAB USE ONLY:
 Cooler Temperature: 0-1-6°C Yes No 4 °C
 Received within 8 hrs of collection: No
 Ice Present: Yes No

FOR LAB COURIER USE ONLY:
 Sample Refrigerated: Yes No
 Refrigerator Temperature: _____ °C

Program: TACO/SRP CCDD NPDES LUST SDWA
 *Matrix Code Key: DW-drinking water GW-groundwater WW-wastewater
 S-soil SL-sludge WIPE-wipe O-other

Notes and Special Instructions:

Relinquished By: <i>[Signature]</i>	Date/Time: 3/30/22 8:35AM
Relinquished By: <i>[Signature]</i>	Date/Time: 3/30/22 8:35AM

APPENDIX 10



Illinois Environmental Protection Agency

1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276 • (217) 782-3397

Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: Proposed Storm Sewer Project Office Phone Number, if available: _____

Physical Site Location (address, including number and street):

Howard Ave (Franklin Ave to 52nd Pl); Franklin Ave (Howard Ave to 52nd Pl); 52nd PL (Howard Ave to Springdale Park)

City: Western Springs State: IL Zip Code: 60558

County: Cook Township: Lyons

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 41.79408 Longitude: - 87.89484

(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS Map Interpolation Photo Interpolation Survey Other

IEPA Site Number(s), if assigned: BOL: _____ BOW: _____ BOA: _____

Approximate Start Date (mm/dd/yyyy): _____ Approximate End Date (mm/dd/yyyy): _____

Estimated Volume of debris (cu. Yd.): _____

II. Owner/Operator Information for Source Site

Site Owner

Name: Village of Western Springs

Street Address: 740 Hillgrove Avenue

PO Box: _____

City: Western Springs State: IL

Zip Code: 60558 Phone: 708-246-1800

Contact: Chris Breakey, Superintendent of PW

Email, if available: _____

Site Operator

Name: Village of Western Springs

Street Address: 740 Hillgrove Avenue

PO Box: _____

City: Western Springs State: IL

Zip Code: 60558 Phone: 708-246-1800

Contact: Chris Breakey, Superintendent of PW

Email, if available: _____

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Uncontaminated Soil Certification

III. Basis for Certification and Attachments

For each item listed below, reference the attachments to this form that provide the required information.

a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

SEECO performed 6 borings (B1-B6) to 20-25 feet depth and chemical laboratory testing was performed on 1 representative soil sample (B1/S1). Materials certified herewith as CCDD material must be free of rebar, garbage, etc. and any said materials must be segregated from CCDD materials and disposed of in other legal means.

b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

SEECO screened for volatile organics using a Photo Ionization Detector which indicates the presence of volatile organics in parts per million (ppm). No readings indicated the presence of volatile organics associated with contamination at the locations tested. Laboratory analysis were within the MAC range set forth by the IEPA and soil pH range is acceptable (results attached).

IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist

I, Garrett Gray (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

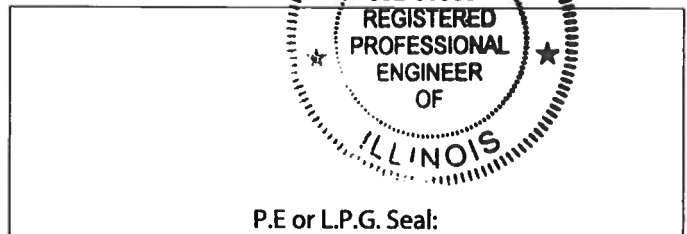
Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

Company Name: SEECO Environmental Services, Inc.
Street Address: 7350 Duvan Drive
City: Tinley Park State: IL Zip Code: 60477
Phone: 708 429-1685

Garrett Gray
Printed Name: _____


Licensed Professional Engineer or
Licensed Professional Geologist Signature: _____

Apr 14, 2022
Date: _____



P.E or L.P.G. Seal:

Construction Monitoring &
Observations

Construction Materials Testing

Tunnels and Underground Openings

Geotechnical Engineering &
Evaluation

SEECO Consultants Inc.
CONSULTING ENGINEERS

Subsurface Explorations

Foundation Analysis & Design

Structural Rehabilitation
Condition Surveys

Dams and Drainage Studies

October 5, 2023

Mr. Bryan Welch, P.E.
Christopher B. Burke Engineering, Ltd.
16221 W. 159th Street, Suite 201
Lockport, IL 60441

Re: Subsurface Exploration, Geotech Laboratory
Testing and Engineering and Analysis for the
Proposed Village of Western Springs Springdale
Park Stormwater Detention Facility
SEECO Job No. 12946G-1

Dear Mr. Welch:

This geotechnical report is prepared for the construction of a new stormwater detention basin in Springdale Park for the Village of Western Springs, Illinois.

Christopher B. Burke Engineering, Ltd. is the design stormwater engineer and the design will be in accordance with MWRDGC Technical Guidance Manual for the Implementation of the Watershed Management Ordinance dated August 1, 2015 revision No. 2 dated 5/31/2023 since this site is in Cook County, Illinois.

The original engineering contract between SEECO Consultants and CBBEL signed by CBBEL, Ltd. on 3/9/2022 included the Springdale Park stormwater detention facility the Village of Western Springs did not give CBBEL, Ltd. and SEECO Consultants permission to go onto Springdale Park until this year.

On 8/22/2023, SEECO Consultants Inc. drilling personnel with a CME-750 All Terrain drill rig drilled and sampled 4 – 20 foot borings at this site of Springdale Park as shown on the **Boring Location Plan** in the **Appendix** of this report. The site located on the east side of Wolf Road and north of 53rd Street in Western Springs, Illinois.

Per your email of the site topographic to SEECO Consultants on October 2, 2023 we have linearly interpolated the existing top of ground at each of the boring locations and put the elevations on each representative **Boring Log** found in the **Appendix** of this report.

The Village of Western Springs will still use the 3.4 acres of park for the two (2) baseball fields but at a lower ground elevation about 3 feet since temporary stormwater detention will pond temporarily from 2 – west side flared end storm pipe sections and discharge at Structure #135 the east side outlet structure.

From the soil borings, the site consists of 18" to 24" of black silty clay topsoil overlying medium to very stiff brown to brown and gray silty clay glacial till overlying the unoxidized very stiff to stiff gray silty clay glacial till at depth of 10 feet to 13 feet below the existing site grade at the boring locations.

The side slopes of the detention pond should be at least 3:5 H:V or flatter to be able to use ride on grass mowers to cut the grass on the side slopes. The CBBEL, Ltd. plan Springdale Drainage Improvement Proposed Drainage Plan, Springdale Park most recent date 7/28/2023 satisfy the minimum side slope requirement of 3.5:1 H:V being 5.1 (H:V).

The subsoils exhibit no free groundwater at the time SEECO Consultants Inc. drilled and sampled the borings 8/22/23 but you explained the 6" subdrains are to intercept surface stormwater so the Park District can readily use the baseball field after a heavy rainfall.

From CBBEL, Ltd., the approximate detention pond footprint is 3.4 Acres and will require about 19,000 cubic yards of excavation including the original topsoil for respread after the topsoil is stripped, silty clay excavated and the topsoil respread for new seeding.

One (1) soil sample from Boring B-2, 3 foot depth was obtained for LPC-663 IEPA Bureau of Land testing and all the SVOCs, VOCs and 8 RCRA Heavy Metals were all within the MAC based on the IEPA CCDD testing criteria. The soil sample pH was 8.06 which is in the 6.25 to 9.0 pH range for acceptable disposal. So a completed **IEPA Form LPC-663** is found in the **Appendix** of this report.

General Site Conditions and Project Description

The Village of Western Springs, Illinois is proposing to convert the Springdale Park baseball fields into a temporary detention basin for stormwater pipes to be leading into this area. The initial SEECO Consultants Inc. Proposed Storm Sewer Project Report for this site was done by SEECO Consultants Inc. on April 15, 2022 and previously transmitted to you.

The new sequence of construction for this stormwater detention basin will be as follows:

- a) Stripping the existing topsoil and salvage enough topsoil for at least 12 inches of topsoil redistribution after the silty clay is cut down to the topsoil redistribution subgrade elevation.
- b) Cutting the silty clay down to the topsoil redistribution subgrade elevation and trucking the excess offsite and legally disposing of the silty clay.
- c) Put in the 6 inch diameter underdrain system and backfilling with porous granular backfill.
- d) Topsoil redistribution over the whole detention pond site.
- e) Seeding the site per IDOT Class I Seeding Specification and constructing new baseball infields.

Site Geology

The native soils at the project site are the product of the result of the Wisconsin Stage of the Continental Glacier. The Wisconsin Ice was the last to cover the North American Continent, receding from this area some 13,500 years ago. Present land forms in this area are the results of the Wisconsin glaciation action during the Pleistocene Epoch. The soils were formed from the natural deposition erosion and weathering processes that have prevailed to the present time. The Pre-Wisconsin glacial deposits are found only in deep bedrock valleys and ravines where they were sheltered from the erosive action of the Wisconsin Ice Age.

According to the Illinois State Geological Survey (ISGS) Surficial Geology of The Chicago Region (Willman, H.B. and Lineback, Jerry A., 1970), the soils at this project site have been assigned to the Tinley Moraine of the Wadsworth Member of the Wedron Formation deposited during the Woodfordian substage of the Wisconsin stage. This soil deposit is described as mostly gray clayey and silty clayey glacial till, relatively low in content of pebbles, cobbles, and boulders; contains local lenses of silt; commonly mantled with 1 to 2 feet of leached silt (modified loess).

The four (4) soil borings made on August 22, 2023 by SEECO Consultants, Inc. at this project site indicate that the original virgin soils at this project site consists of medium to stiff to very stiff silty clay glacial till. These soil borings in general, confirm the ISGS published surficial geology map for this area.

FIELD AND LABORATORY ANALYSIS AND RESULTS

Subsurface Site Exploration Procedure

On August 22, 2023, four (4) soil borings (B-1 through B-4) were drilled and sampled to a depth of 20 feet each below the existing ground surface level at this project site. The number, depth, and location of soil borings were provided by Mr. Bryan Welch, P.E. of Christopher B. Burke Engineering, Ltd. (CBBEL) to Mr. Don Cassier, Director of Field Services of SEECO Consultants, Inc. and the soil borings were laid out in the field by representative of SEECO Consultants, Inc. at the approximate locations indicated on the **Boring Location Plan** given in the **Appendix** of this report.

All four (4) soil borings were drilled and sampled utilizing an All Terrain CME-750 drill rig with a two-person drill crew from SEECO Consultants, Inc. This drill rig advances the boreholes by the hollow stem auger method. The soil samples were obtained utilizing a split spoon sampler in accordance with ASTM D 1586-18. In the split barrel sampling procedure, a split spoon sampler having a two-inch outside diameter and inside diameter of 1-3/8 inches and a length of two feet is driven into the soil. This sampler is advanced by driving with a 140-pound weight falling freely from a height of 30 inches with Standard Penetration Resistance being recorded as the number of blows required to advance the sampling spoon a distance of 12 inches after an initial driving of six inches has been used to seat the sampler. The Standard Penetration Resistance or the "N" value is a measure of the consistency of cohesive soils and relative density of primarily cohesionless soils and is in general, related to the bearing capacity of the material. Other factors are usually taken into consideration in determining the bearing capacity value and those include the type of soil, the type of loading, the dimensions and the depths of footings below the ground surface and the proximity of the groundwater table to the base of the footings. Portions of the split spoon samples were placed in glass containers with screw-type lids and taken to our geotech laboratory for further examination and testing.

Geotech Laboratory Testing Program

The geotechnical laboratory testing program consists of performing in-situ natural moisture content, visual classification of all soil samples and unconfined compressive strength tests on the basis of calibrated penetrometer readings on all cohesive soil samples. In situ moisture content or natural water content is determined in the geotech laboratory according to ASTM D 2216-19. A portion of each sample is weighed, oven-dried at $110^{\circ} \pm 5^{\circ}\text{C}$, and reweighed to obtain the weight of water in the soil sample. The moisture content is the ratio of the weight of water in the soil sample to the weight of the dry soil expressed as a percentage of the total dry weight. After completion of the geotech testing program, each soil sample was visually classified on the basis of texture and plasticity in accordance with the **Unified Soil Classification System** (ASTM D 2487-17 and D 2488-18). The estimated group symbol according to this system is included following the description of the soil on the **Boring Logs**. A brief explanation of the **Unified Soil Classification System** is included in the **Appendix** of this report. All laboratory test data is noted on the **Boring Logs** which is included in the **Appendix** of this report.

Environmental Laboratory Soil Testing Program

A geoenvironmental engineer from SEECO Consultants, Inc. environmentally screened the soil samples using photoionization detector (PID) readings in the SEECO Consultants geotech laboratory utilizing a Mini RAE 3000 PID 11.8 (eV) lamp in conjunction with visual and olfactory observations to determine the presence of petroleum contamination in the subsurface soils. The OVM PID readings of the soil samples obtained for this exploration are given on the **Boring Logs** in the **Appendix** of this report and are all 0.0 PPM. The visual and olfactory observations indicate no petroleum odors and/or staining were present in the soil samples taken. Based on the PID readings and visual and olfactory observations, it is determined that the soil samples are not contaminated at the location of the boreholes drilled and sampled for this exploration.

The Illinois Pollution Control Board has changed the rule for the requirements for Clean Construction or Demolition Debris (CCDD) fill operations according to 35 Illinois Administrative Code 1100 Subpart F. The rule prohibits landfill from accepting clean construction debris and fill with a pH below 6.25 or above 9.0 regardless of applicable Maximum Allowable Concentrations

(MACs) in the CCDD regulations of the various chemical compounds. One (1) pH test was performed on a representative soil sample obtained from soil boring B-2/S-3' pH= 8.06 the test results indicate the pH value of the soil sample. Since the pH value of the soil sample is between 6.25 and 9.0, the excavated soils from the storm sewer trenches are considered clean, to the best of our knowledge, for CCDD landfill disposal for the above-mentioned sites. PID readings, are both shown on the project **Boring Logs** in the **Appendix** of this report.

In addition, one (1) environmental soil sample (B-2/S-3') was collected and placed in an individual 8 oz. laboratory cleaned borosilicate glass jar and sent to First Environmental Laboratories, Naperville, Illinois for environmental chemical laboratory analysis for VOCs, SVOCs, Total 8 RCRA metals and pH. The result of the environmental chemical test can be found in the **Appendix** of this report and the environmental test result meets the MAC requirements of the IEPA CCDD regulations and the applicable completed **IEPA LPC-663** form can be found in the **Appendix** of this report.

Screening of soil samples at the job site is no guarantee that landfill facility will accept/not reject materials since this report is prepared strictly on the basis of soil samples obtained from the soil borings only and it is not possible to determine if the site is entirely clean of contaminants per IEPA CCDD standards. Environmental chemical analysis may be required if the soils at the time of excavation between the soil boring locations are found to be contaminated.

Site Soil Conditions

From the four (4) borings drilled and sampled for this site on 8/22/2023 the following geologic profile was found from the original ground surface at the boring locations.

- 1) Topsoil found in all of the borings at the following borings and thicknesses:

Boring Number	Approximate Topsoil/Thickness Inches
B-4	16
B-2	21
B-3	24
B-4	24

- 2) Brown & Gray to Brown Medium to Stiff to Very Stiff Silty Clay to depths of 10 to 13 feet below original grade at the boring locations
- 3) Stiff Gray Silty Clay found between 10 feet to 13 feet below the grade at each boring location to the bottom of each borehole at 20 foot depth.

Site Groundwater Conditions

On August 22, 2023, no groundwater was encountered in any of the four (4) soil borings drilled and sampled on this date while drilling, sampling and after removal of the hollow stem augers from the boreholes.

However, daily, monthly, yearly and seasonal fluctuations in the groundwater levels are possible due to changes in hydrogeological conditions at this site over time.

ENGINEERING RECOMMENDATIONS

After the existing topsoil is stripped over the entire site and a sufficient amount is salvaged for topsoil redistribution the subsoil should be cut down to the new 12 inch thick topsoil redistribution depth. After cutting the subsoil to the topsoil redistribution depth, the subgrade should be proofrolled using a tractor-trailer combination loaded with 20 tons of payload.

Based on the soil borings, subgrade soils at this site may pass the proofroll, but if pumping or rutting occurs the following should be done.

For the preparation of the subgrade, if any areas do pump or rut during the proofroll inspection performed on the subgrade soils, then SEECO recommends undercutting all soft or loose subgrade soils. The actual depths and lateral extent of the undercuts must be determined in the field by a Field Geotech Engineer from SEECO Consultants using a Static Cone Penetrometer (SCP). The undercut soils should be removed and legally disposed of offsite. The undercut volume should be filled with suitable brown to brown and gray silty clay cut to the topsoil redistribution subgrade elevation and compacted in 9 inch loose lifts to 90% Modified Proctor density ASTM D 1557-12.

The side slope of the new detention pond are flatter than 3.5:1 (H:V) and are proposed at 5:1 (H:V) so the ride on lawnmowers can cut the grass on the pond side slopes without overturning distress.

The majority of the pond bottom elevation will be 648.0 MSL but a small depression at elevation 647.0 MSL will be on the west side next to Wolf Road to catch minimal flow from the two (2) stormwater flare end sections heading into this 647 MSL depression area.

Potential Construction Problems

Groundwater was not encountered in any of the four (4) soil borings (B-1 to B-4) drilled and sampled to 20 feet each depth during the exploration of August 22, 2023. However, during the rainy season and under normal conditions, surface runoff and seepage water that may accumulate overnight or momentarily in the excavation trenches can be removed by means of the standard sump and pump procedures.

Any excavation that extends greater than five feet in depth should be designed in accordance with U.S. Department of Labor, Occupational Safety and Health Administration 1989 (OSHA) "Occupational Safety and Health Standards-Excavations; Final Rule" 29 CFR, Part 1926, Subpart P. Excavations with properly sloped for Type A soil $\frac{1}{2}$ 'H:1 Vertical for excavations greater than 5 ft. and less than 12 feet to prevent excavation instability and provide safety which is the responsibility of the excavating contractor. Also, the means and methods of excavating the soil materials are at the discretion of the excavation contractor and are the responsibility of the excavation contractor.

Construction Consultation Engineering

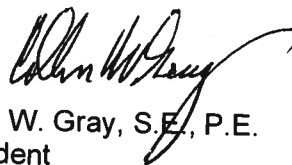
A Field Geotechnical Engineer from SEECO Consultants Inc. should be present during the excavation operations, proofroll and undercut operations if applicable to ensure compliance with the specifications during construction. Field density tests to determine the degree of trench backfill compaction and undercut excavation and backfill if necessary should be performed by a Field Engineering Technician or Field Geotechnical Engineer from SEECO Consultants Inc. once the undercut excavation, if applicable, happens.

Closing Remarks

We trust this report and the information contained herein is sufficient for your present requirements. We have welcomed the opportunity to be of service to you on this project. If there are any questions regarding this report, please contact us at your convenience.



Respectfully submitted,
SEECO Consultants, Inc.



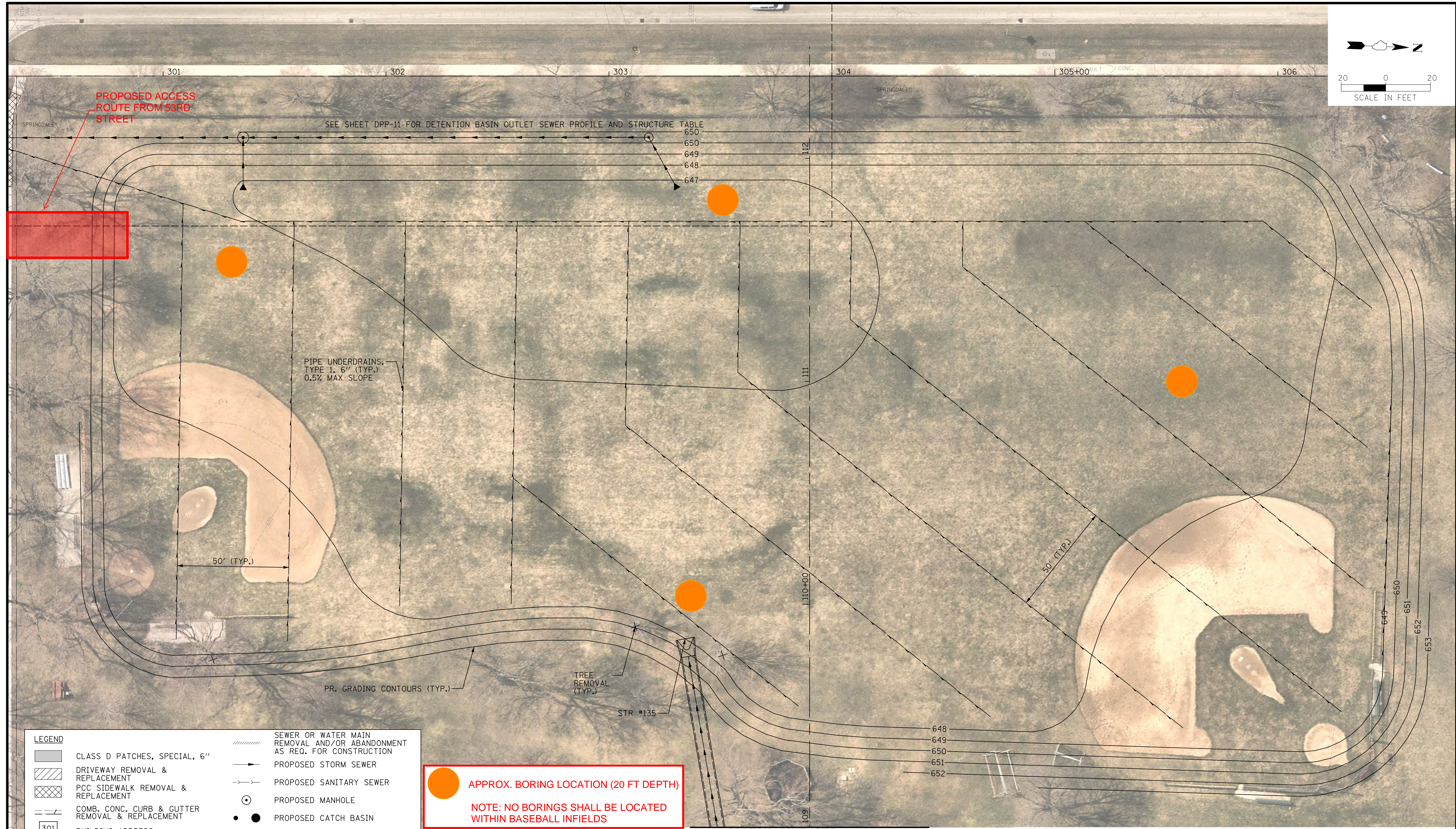
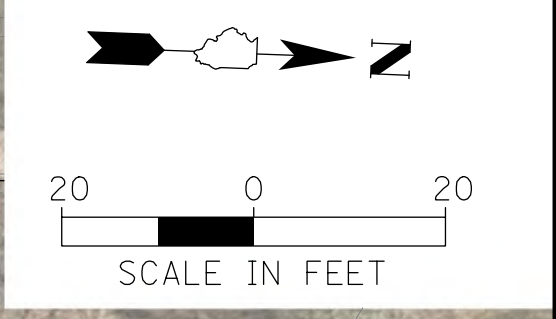
Collin W. Gray, S.E., P.E.
President

CWG:arm

APPENDIX

1. **SPRINGDALE DRAINAGE IMPROVEMENT PROPOSED
DRAINAGE PLAN, SPRINGDALE PARK, DATED 7/28/2023**
2. **BORING LOCATION PLAN**
3. **GENERAL NOTES**
4. **BORING LOGS**
5. **UNIFIED SOIL CLASSIFICATION SYSTEM**
6. **COMPLETED LPC 663 FORM**

APPENDIX 1



PROPOSED ACCESS ROUTE FROM 53RD STREET

SEE SHEET DPP-11 FOR DETENTION BASIN OUTLET SEWER PROFILE AND STRUCTURE TABLE
 650
 650
 649
 648
 647

PIPE UNDERDRAINS, TYPE 1, 6" (TYP.) 0.5% MAX SLOPE

50' (TYP.)

PR. GRADING CONTOURS (TYP.)

TREE REMOVAL (TYP.)

STR #135

50' (TYP.)

648
 649
 650
 651
 652

LEGEND	
	CLASS D PATCHES, SPECIAL, 6"
	DRIVEWAY REMOVAL & REPLACEMENT
	PCC SIDEWALK REMOVAL & REPLACEMENT
	COMB. CONC. CURB & GUTTER REMOVAL & REPLACEMENT
	BUILDING ADDRESS
	SEWER OR WATER MAIN REMOVAL AND/OR ABANDONMENT AS REQ. FOR CONSTRUCTION
	PROPOSED STORM SEWER
	PROPOSED SANITARY SEWER
	PROPOSED MANHOLE
	PROPOSED CATCH BASIN
	PROPOSED HIGH CAPACITY INLET

APPROX. BORING LOCATION (20 FT DEPTH)
 NOTE: NO BORINGS SHALL BE LOCATED WITHIN BASEBALL INFIELDS

MATCH LINE STA. 109+00
 SEE SHEET DPP-5 FOR HOWARD AVE

STRUCTURE TABLE STA. 109+00.00 TO STA. 111+49.50									
STR NO	STRUCTURE TYPE	SIZE	STATION	OFFSET	RIM ELEV.	INV. NORTH	INV. SOUTH	INV. EAST	INV. WEST
STR #135	FLARED END	54" EQ	109+76.67	54.42 LT	652.00	X	X	X	647.00

CHRISTOPHER B. BURKE ENGINEERING, LTD.
 16221 W. 159th Street, Suite 201
 Lockport, Illinois 60441
 (815) 770-2850

CLIENT:

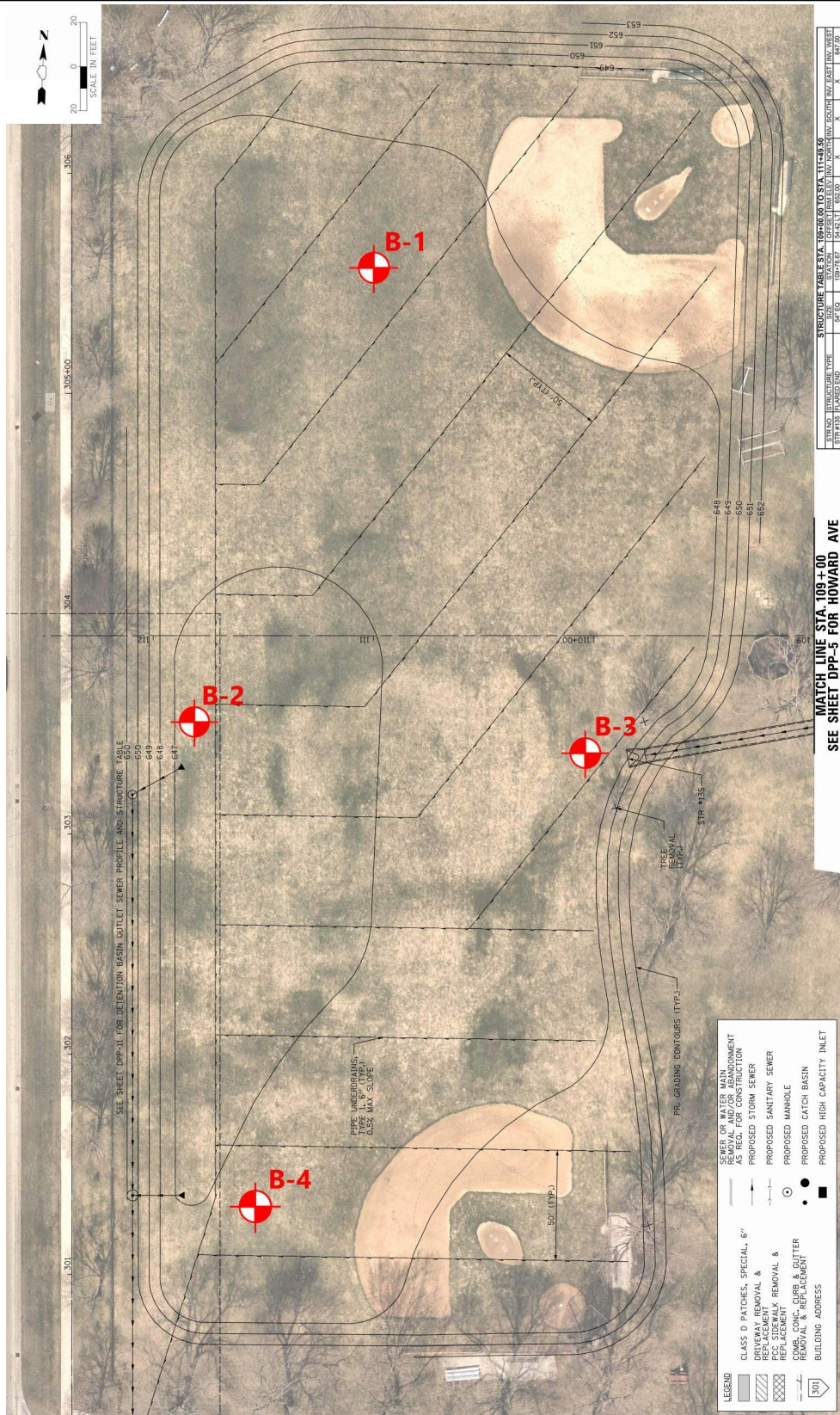
 VILLAGE OF WESTERN SPRINGS
 740 HILLGROVE AVENUE
 WESTERN SPRINGS, IL 60558

NO.	DATE	NATURE OF REVISION	CHKD.	MODEL:

TITLE:
**SPRINGDALE DRAINAGE IMPROVEMENT
 PROPOSED DRAINAGE PLAN
 SPRINGDALE PARK**

PROJ. NO. 210513
 DATE: 7/28/2023
 SHEET 1 OF 8
 DRAWING NO.
DPP-6

APPENDIX 2



LEGEND

- B-1 APPROXIMATE BORING LOCATION
- PROJECT LOCATION



DRAWN BY G.G.	APPROVED CWG	DATE 9/30/2023	BORING LOCATION PLAN
SCALE N.T.S.	FIGURE 1 OF 1	JOB NO. 12946G-1	

SEECO Consultants, Inc.
7350 Duwan Drive, Tinley Park, Illinois 60477
OFFICE: (708) 429-1666 FAX: (708) 429-1689

PROJECT NAME & LOCATION
Proposed Detention Basin Project,
Springdale Park, Western Springs, IL


APPENDIX 3

DRILLING AND SAMPLING SYMBOLS

SS	SPLIT SPOON	1-3/8" I.D. x 2" O.D. (EXCEPT WHERE NOTED)
2T	THINWALL TUBE SAMPLER	2" O.D. x 1-7/8" I.D.
3T	THINWALL TUBE SAMPLER	3" O.D. x 2-7/8" I.D.
3P	PISTON SAMPLER	3" O.D. THINWALL TUBE
FA	CONTINUOUS FLIGHT AUGER	4" O.D.
HS	HOLLOW STEM AUGER	6-3/4" O.D. x 3-1/4" I.D.
HA	HAND AUGER	
RB	ROLLER ROCK BIT	
FT	FISHTAIL BIT	
DB	DIAMOND BIT	
AX	ROCK CORE	1-3/16" DIAMETER
BX	ROCK CORE	1-5/8" DIAMETER
NX	ROCK CORE	2-1/8" DIAMETER
AS	AUGER SAMPLE	
WS	WASH SAMPLE	
CA	COMBINED ANALYSIS	
SA	SIEVE ANALYSIS	

Standard "N" Penetration: Blows per foot of a 140 pound hammer falling 30 inches on a two inch O.D. split spoon, except where noted.

WATER LEVEL MEASUREMENT SYMBOLS

	WATER LEVEL OBSERVATION	WD	WHILE DRILLING
WCI	WET CAVE-IN	BCR	BEFORE CASING REMOVAL
DCI	DRY CAVE-IN	ACR	AFTER CASING REMOVAL
WS	WHILE SAMPLING	AB	AFTER BORING

Water levels indicated on the boring logs are the levels measured in the boring at the times indicated. In pervious soils, the indicated elevations are considered reliable groundwater levels. In impervious soils, the accurate determination of groundwater elevations are not possible in even several days observation, and additional evidence on groundwater elevations must be sought.

SOIL IDENTIFICATION TERMINOLOGY

COHESIONLESS SOILS

<u>COMPONENT</u>	<u>SIZE RANGE</u>	<u>DESCRIPTIVE TERM</u>	<u>PERCENT OF WEIGHT</u>
BOULDERS	OVER 8"	TRACE	0 – 10
COBBLES	8" TO 3"	LITTLE	10 – 20
GRAVEL	3" TO #4 SIEVE (4.75 mm)	SOME	20 – 35
SAND	#4 TO #200 SIEVE (0.074 mm)	AND	35 – 50
SILT	PASSING #200 SIEVE (0.074 mm)		

SOIL IDENTIFICATION TERMINOLOGY (Cont'd)

COHESIVE SOILS

<u>DESCRIPTIVE TERM</u>	<u>PLASTICITY INDEX</u>
CLAYEY SILT OR ORGANIC CLAYEY SILT	4 – 7
SILTY CLAY OR ORGANIC SILTY CLAY	8 – 30
CLAY OR ORGANIC CLAY	> 30

INTERMEDIATE SOILS

<u>DESCRIPTIVE TERM</u>	<u>PLASTICITY INDEX</u>
SILT	0 – 3

Unconfined compression tests are generally not applicable for intermediate soils.

CONSISTENCY OF COHESIVE SOILS

RELATIVE DENSITY OF GRANULAR SOILS

1-3/8" I.D. x 2" O.D. with 140 pound hammer falling 30"

<u>UNCONFINED COMP. STRENGTH, Qu, TSF</u>	<u>CONSISTENCY</u>	<u>N – BLOWS/FT.</u>	<u>RELATIVE DENSITY</u>
<0.25	VERY SOFT	0 – 3	VERY LOOSE
0.25 - 0.49	SOFT	4 – 9	LOOSE
0.50 - 1.00	MEDIUM	10 – 29	MEDIUM DENSE
1.01 - 1.99	STIFF	30 – 49	DENSE
2.00 - 3.99	VERY STIFF	50 – 80	VERY DENSE
4.00 - 8.00	HARD	>80	EXTREMELY DENSE
>8.00	VERY HARD		

CONSISTENCY OF COHESIVE SOILS

<u>N – BLOWS/FT.</u>	<u>RELATIVE DENSITY</u>
0 – 2	VERY SOFT
2 – 4	SOFT
4 – 8	MEDIUM
8 – 15	STIFF
15 – 30	VERY STIFF
>30	HARD

APPENDIX 4

BORING LOG

CLIENT Christopher B. Burke Engineering, Ltd.	PROJECT Proposed Detention Basin Project
ENGINEER Christopher B. Burke Engineering, Ltd.	LOCATION Springdale Park, Western Springs, IL

DEPTH ELEVATION	SAMPLE NO.	SAMPLER TYPE	SAMPLE REC. (%)	SOIL GRAPHIC LOG	BORING NUMBER B-1		OVM ppm	Unconfined Compressive Strength, Tons/Ft. ²					REMARKS
					SURFACE ELEVATION (M.S.L.) 651.0 +	-		1	2	3	4	5	
					STATION	OFFSET		PL	MC	LL			
					DESCRIPTION OF MATERIALS (LABORATORY CLASSIFICATION)			STD "N" PENETRATION BLOWS PER FT. 10 20 30 40 50					
	1A	HS			18" SILTY CLAY TOPSOIL, Black, Trace Sand, Trace Roots, Very Stiff, Moist	(OL)	0						
2.5	1B	SS	58		SILTY CLAY, Brown and Gray, Trace Sand, Very Stiff, Moist	(CL)	0	⊗	⊗				
5.0	2	SS	75				0	⊗	⊗				
7.5	3	SS	67		SILTY CLAY, Brown, Trace Sand and Gravel, Very Stiff, Moist	(CL)	0	⊗	⊗				
10.0	4	SS	71		SILTY CLAY, Gray, Trace Sand, Very Stiff to Stiff, Moist	(CL)	0	⊗	⊗				
15.0	5	SS	63				0	⊗	⊗				
20.0	6	SS	54				0	⊗	⊗				
22.5					End of Boring at 20 Feet								
25.0					Note: 1) All soil samples were screened with a MiniRae 3000 OVM photo-ionization detector (PID) and by utilizing olfactory senses. No petroleum odors were detected in all samples and all PID = 0 ppm.								

⊗ Calibrated Penetrometer Unconfined Compression

Water Level Observations			SEECO Consultants, Inc. 7350 Duvan Drive, Tinley Park, IL 60477 Approved GG Job No. 12946G-1			Boring Started 8/22/23	
W.L.	DRY WS/WD	DRY ACR				Boring Completed 8/22/23	
W.L.						Driller EN	Rig CME-750
W.L.			Approved GG	Job No. 12946G-1	Drawn By ZY	Sheet 1 of 1	

BORING LOG

CLIENT Christopher B. Burke Engineering, Ltd.	PROJECT Proposed Detention Basin Project
ENGINEER Christopher B. Burke Engineering, Ltd.	LOCATION Springdale Park, Western Springs, IL

DEPTH ELEVATION	SAMPLE NO.	SAMPLER TYPE	SAMPLE REC. (%)	SOIL GRAPHIC LOG	BORING NUMBER B-2		OVM ppm	Unconfined Compressive Strength, Tons/Ft. ²					REMARKS	
					SURFACE ELEVATION (M.S.L.) 649.3 -			1	2	3	4	5		
					STATION	OFFSET		PL	MC	LL				
					DESCRIPTION OF MATERIALS (LABORATORY CLASSIFICATION)			STD "N" PENETRATION BLOWS PER FT.						
								10	20	30	40	50		
	1A	HS			21" SILTY CLAY TOPSOIL, Black, Trace Sand, Trace Roots, Very Stiff, Wet (OL)	0							ENV. sample	
2.5	1B	SS 71			SILTY CLAY, Brown and Gray, Trace Dark Gray, Trace Sand and Gravel, Hard to Medium, Moist (CL)	0								
		HS												
5.0	2	SS 63			SILTY CLAY, Brown and Gray to Brown, Trace Sand, Very Stiff to Hard, Moist (CL)	0								
		HS												
7.5	3	SS 75			SILTY CLAY, Brown and Gray, Trace Sand and Gravel, Very Stiff, Moist (CL)	0								
		HS												
10.0	4	SS 79			SILTY CLAY, Brown and Gray, Trace Sand and Gravel, Very Stiff, Moist (CL)	0								
		HS												
12.5														
15.0	5	SS 67			SILTY CLAY, Gray, Trace Sand and Gravel, Stiff, Moist (CL)	0								
		HS												
17.5														
20.0	6	SS 79				0								
22.5						End of Boring at 20 Feet Note: 1) All soil samples were screened with a MiniRae 3000 OVM photo-ionization detector (PID) and by utilizing olfactory senses. No petroleum odors were detected in all samples and all PID = 0 ppm. 2) Sample 1 was discretely chosen to be environmental chemically tested for VOCs, SVOCs, Total 8 RCRA Metals, and pH by an independent environmental laboratory.								
25.0														

☉ Calibrated Penetrometer Unconfined Compression

Water Level Observations			SEECO Consultants, Inc. 7350 Duvan Drive, Tinley Park, IL 60477 Approved GG Job No. 12946G-1	Boring Started 8/22/23	
W.L.				Boring Completed 8/22/23	
W.L.	DRY WS/WD	DRY ACR		Driller EN	Rig CME-750
W.L.				Drawn By ZY	Sheet 1 of 1

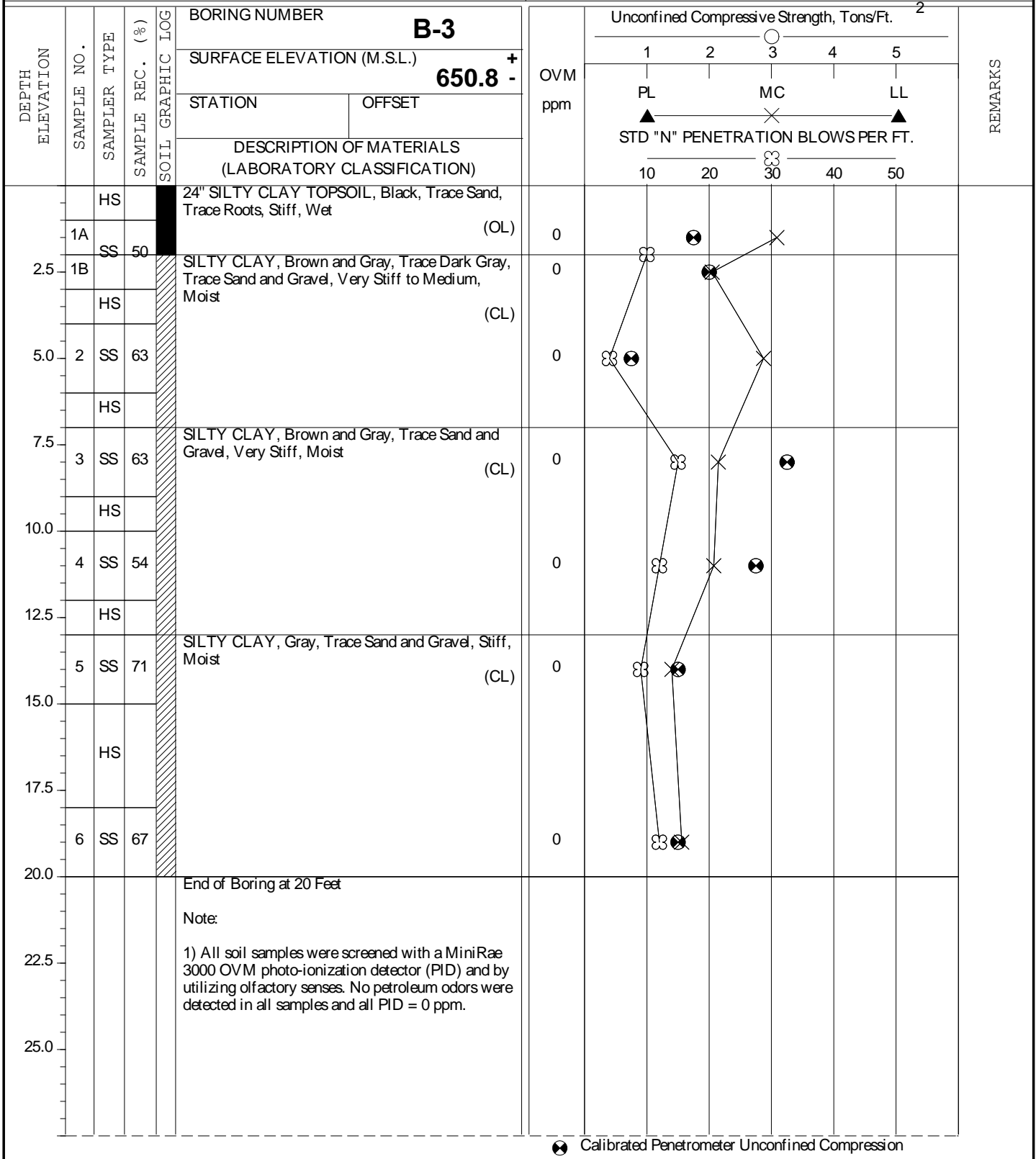
BORING LOG

CLIENT **Christopher B. Burke Engineering, Ltd.**

PROJECT **Proposed Detention Basin Project**

ENGINEER **Christopher B. Burke Engineering, Ltd.**

LOCATION **Springdale Park, Western Springs, IL**



Water Level Observations			SEECO Consultants, Inc. 7350 Duvan Drive, Tinley Park, IL 60477 Approved GG Job No. 12946G-1			Boring Started 8/22/23	
W.L.	DRY WS/WD	DRY ACR				Boring Completed 8/22/23	
W.L.						Driller EN	Rig CME-750
W.L.			Approved GG	Job No. 12946G-1	Drawn By ZY	Sheet 1 of 1	

APPENDIX 5

CLASSIFICATION OF SOILS FOR ENGINEERING PURPOSES

ASTM Designation: D 2487-10

(Based on United Soil Classification System)

SEECO Consultants, Inc.

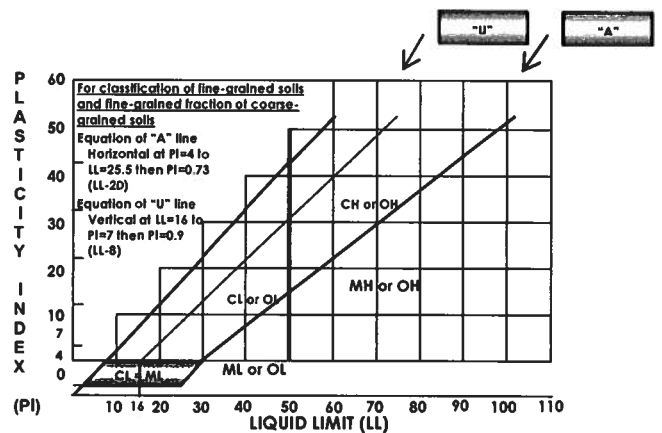
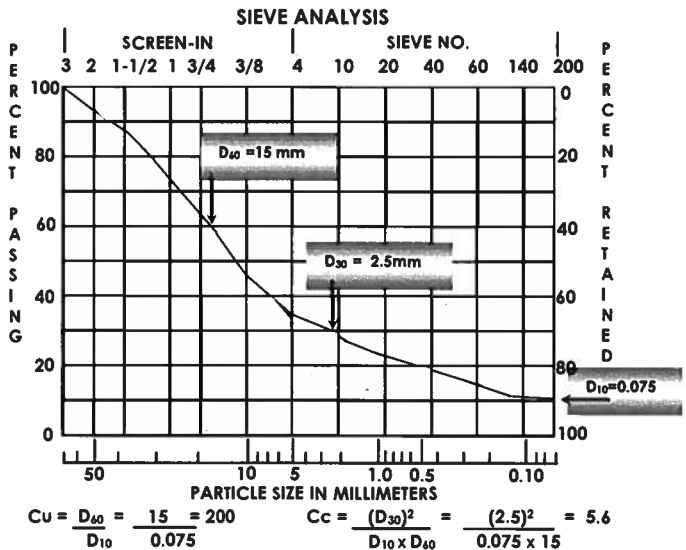
Criteria for Assigning Group Symbols and Group Names Using Laboratory Tests^A

				Soil Classification	
				Group Symbol	Group Name ^B
Coarse Grained Soils More than 50% retained on No. 200 sieve	Gravels More than 50% coarse fraction retained on No. 4 sieve	Clean Gravels Less than 5% fines ^C	$Cu \geq 4$ and $1 \leq Cc \leq 3^E$	GW	Well-graded gravel ^F
			$Cu \geq 4$ and/or $1 > Cc > 3^E$	GP	Poorly graded gravel ^F
		Gravels with fines More than 12% fines ^C	Fines classify as ML or MH	GM	Silty gravel ^{F, G, H}
			Fines classify as CL or CH	GC	Clayey gravel ^{F, G, H}
	Sands 50% or more of coarse fraction passes No. 4 sieve	Clean Sands Less than 5% fines ^D	$Cu \geq 6$ and $1 \leq Cc \leq 3^E$	SW	Well-graded sand ^I
			$Cu < 6$ and /or $1 > Cc > 3^E$	SP	Poorly graded sand ^I
Sands with fines More than 12% fines ^D		Fines classify as ML or MH	SM	Silty sand ^{G, H, I}	
		Fines classify as CL or CH	SC	Clayey sand ^{G, H, I}	
Fine-Grained Soils 50% or more passes the No. 200 sieve	Silts and Clays Liquid limit less than 50	Inorganic	$PI > 7$ and plots on or above "A" line ^J	CL	Lean clay ^{K, L, M}
			$PI < 4$ or plots below "A" line ^J	ML	Silt ^{K, L, M}
		Organic	Liquid limit - oven dried < 0.75	OL	Organic clay ^{K, L, M, N}
			Liquid limit - nat dried	OL	Organic silt ^{K, L, M, O}
	Silts and Clays Liquid limit 50 or more	Inorganic	PI plots on or above "A" line	CH	Fat clay ^{K, L, M}
			PI plots below "A" line	MH	Elastic silt ^{K, L, M}
		Organic	Liquid limit - oven dried < 0.75	OH	Organic clay ^{K, L, M, P}
			Liquid limit - nat dried	OH	Organic silt ^{K, L, M, Q}
Highly organic soils	Primarily organic matter, dark in color, and organic odor			PT	Peat

^ABased on the material passing the three inch (75 mm) sieve
^BIf field sample contained cobbles or boulders, or both, add "with cobbles or boulders, or both" to group name
^CGravels with 5 to 12% fines require dual symbols:
 GW-GM well-graded gravel with silt
 GW-GC well-graded gravel with clay
 GP-GM poorly graded gravel with silt
 GP-GC poorly graded gravel with clay

^DSands with 5 to 12% fines require dual symbols:
 SW-SM well-graded sand with silt
 SW-SC well-graded sand with clay
 SP-SM poorly graded sand with silt
 SP-SC poorly graded sand with clay
^E $Cu = D_{60}/D_{10}$ $Cc = \frac{(D_{30})^2}{D_{10} \times D_{60}}$
^FIf silt contains $\geq 15\%$ sand, add "with sand" to group name
^GIf fines classify as CL-ML, use dual symbol GC-GM, or SC-SM
^HIf fines are organic, add "with organic fines" to group name
^IIf silt contains $\geq 15\%$ gravel, add "with gravel" to group name

^JIf Atterberg limits plot in hatched area, soil is a CL-ML, silty clay
^KIf silt contains 15 to 29% plus No. 200, add "with sand" or "with gravel," whichever is predominant
^LIf silt contains $\geq 30\%$ plus No. 200, predominantly sand, add "sandy" to group name
^MIf silt contains $\geq 30\%$ plus No. 200, predominantly gravel, add "gravelly" to group name
^N $PI \geq 4$ and plots on or above "A" line
^O $PI < 4$ or plots below "A" line
^P PI plots on or above "A" line
^Q PI plots below "A" line



APPENDIX 6



Illinois Environmental Protection Agency

1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276 • (217) 782-3397

Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: Springdale Park Detention Basin Office Phone Number, if available: _____

Physical Site Location (address, including number and street):

Northeast Corner of Wolf Road and 53rd Street

City: Western Springs State: IL Zip Code: 60558

County: Cook Township: Lyons

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 41.79459 Longitude: - 87.89728

(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS Map Interpolation Photo Interpolation Survey Other

IEPA Site Number(s), if assigned: BOL: _____ BOW: _____ BOA: _____

Approximate Start Date (mm/dd/yyyy): _____ Approximate End Date (mm/dd/yyyy): _____

Estimated Volume of debris (cu. Yd.): _____

II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Village of Western Springs

Name: Village of Western Springs

Street Address: 740 Hillgrove Avenue

Street Address: 740 Hillgrove Avenue

PO Box: _____

PO Box: _____

City: Western Springs State: IL

City: Western Springs State: IL

Zip Code: 60558 Phone: 708-246-1800

Zip Code: 60558 Phone: 708-246-1800

Contact: Chris Breakey, Superintendent of PW

Contact: Chris Breakey, Superintendent of PW

Email, if available: _____

Email, if available: _____

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Uncontaminated Soil Certification

III. Basis for Certification and Attachments

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

SEECO performed 3 borings (B-1-B-3) to 20 feet depth and chemical laboratory testing was performed on 1 representative soil sample (B-2 at 3.0'). Materials certified herewith as CCDD material must be free of rebar, garbage, deleterious material, etc. and any said materials must be segregated from CCDD materials and disposed of in other legal means.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

SEECO screened for volatile organics using a Photo Ionization Detector which indicates the presence of volatile organics in parts per million (ppm). No readings indicated the presence of volatile organics associated with contamination at the locations tested. Laboratory analysis were within the MAC range set forth by the IEPA and soil pH range is acceptable (results attached).

IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist

I, Garrett Gray (name of licensed professional engineer or geologist)

certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

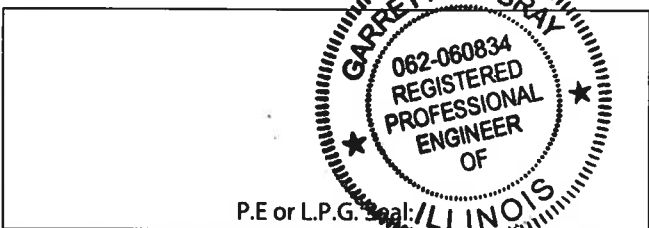
Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

Company Name: SEECO Environmental Services, Inc.
Street Address: 7350 Duvan Drive
City: Tinley Park State: IL Zip Code: 60477
Phone: 708 429-1685

Garrett Gray
Printed Name:


Licensed Professional Engineer or
Licensed Professional Geologist Signature:

Sep 29, 2023
Date:





September 06, 2023

Mr. Don Cassier
SEECO ENVIRONMENTAL SERVICES
7350 Duvan Drive
Tinley Park, IL 60477

Project ID: 12946
First Environmental File ID: 23-7649
Date Received: August 28, 2023

Dear Mr. Don Cassier:

The above referenced project was analyzed as directed on the enclosed chain of custody record.

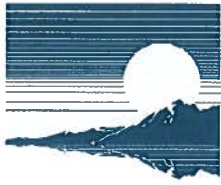
All Quality Control criteria as outlined in the methods and current IL ELAP/NELAP have been met unless otherwise noted. QA/QC documentation and raw data will remain on file for future reference. Our accreditation number is 100292 and our current certificate is number:

1002922023-11: effective 08/29/2023 through 02/28/2024.

I thank you for the opportunity to be of service to you and look forward to working with you again in the future. Should you have any questions regarding any of the enclosed analytical data or need additional information, please contact me at (630) 778-1200.

Sincerely,

Neal Cleghorn
Project Manager



Case Narrative

SEECO ENVIRONMENTAL SERVICES

Lab File ID: **23-7649**

Project ID: **12946**

Date Received: **August 28, 2023**

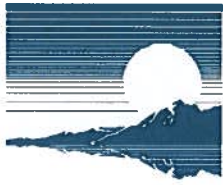
All quality control criteria, as outlined in the methods, have been met except as noted below or on the following analytical report.

The results in this report apply to the samples in the following table:

Laboratory Sample ID	Client Sample Identifier	Date/Time Collected
23-7649-001	B2 3'	08/26/23 11:00

Sample Batch Comments:

Method 5035 vials for soil VOCs were not received. Samples preserved in lab.



Case Narrative

SEECO ENVIRONMENTAL SERVICES

Lab File ID: **23-7649**

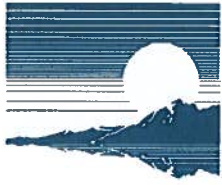
Project ID: **12946**

Date Received: **August 28, 2023**

All quality control criteria, as outlined in the methods, have been met except as noted below or on the following analytical report.

The following is a definition of flags that may be used in this report:

Flag	Description	Flag	Description
A	Method holding time is 15 minutes from collection. Lab analysis was performed as soon as possible.		
B	Analyte was found in the method blank.	L	LCS recovery outside control limits.
<	Analyte not detected at or above the reporting limit.	M	MS recovery outside control limits; LCS acceptable.
C	Sample received in an improper container for this test.	P	Chemical preservation pH adjusted in lab.
D	Surrogates diluted out; recovery not available.	Q	Result was determined by a GC/MS database search.
E	Estimated result; concentration exceeds calibration range.	S	Analysis was subcontracted to another laboratory.
G	Surrogate recovery outside control limits.	T	Result is less than three times the MDL value.
H	Analysis or extraction holding time exceeded.	W	Reporting limit elevated due to sample matrix.
I	ICVS % rec outside 95-105% but within 90-110%		
J	Estimated result; concentration is less than routine RL but greater than MDL.	N	Analyte is not part of our NELAC accreditation or accreditation may not be available for this parameter.
RL	Routine Reporting Limit (Lowest amount that can be detected when routine weights/volumes are used without dilution.)	ND	Analyte was not detected using a library search routine; No calibration standard was analyzed.



Analytical Report

Client: SEECO ENVIRONMENTAL SERVICES
Project ID: 12946
Sample ID: B2 3'
Sample No: 23-7649-001

Date Collected: 08/26/23
Time Collected: 11:00
Date Received: 08/28/23
Date Reported: 09/06/23

Results are reported on a dry weight basis.

Analyte	Result	R.L.	Units	Flags
Solids, Total		Method: 2540G 2011		
Analysis Date: 08/29/23				
Total Solids	80.56		%	
Volatile Organic Compounds		Method: 5035A/8260B		
Analysis Date: 09/06/23				
Acetone	< 200	200	ug/kg	
Benzene	< 5.0	5.0	ug/kg	
Bromodichloromethane	< 5.0	5.0	ug/kg	
Bromoform	< 5.0	5.0	ug/kg	
Bromomethane	< 10.0	10.0	ug/kg	
2-Butanone (MEK)	< 100	100	ug/kg	
Carbon disulfide	< 5.0	5.0	ug/kg	
Carbon tetrachloride	< 5.0	5.0	ug/kg	
Chlorobenzene	< 5.0	5.0	ug/kg	
Chlorodibromomethane	< 5.0	5.0	ug/kg	
Chloroethane	< 10.0	10.0	ug/kg	
Chloroform	< 5.0	5.0	ug/kg	
Chloromethane	< 10.0	10.0	ug/kg	
1,1-Dichloroethane	< 5.0	5.0	ug/kg	
1,2-Dichloroethane	< 5.0	5.0	ug/kg	
1,1-Dichloroethene	< 5.0	5.0	ug/kg	
cis-1,2-Dichloroethene	< 5.0	5.0	ug/kg	
trans-1,2-Dichloroethene	< 5.0	5.0	ug/kg	
1,2-Dichloropropane	< 5.0	5.0	ug/kg	
cis-1,3-Dichloropropene	< 4.0	4.0	ug/kg	
trans-1,3-Dichloropropene	< 4.0	4.0	ug/kg	
Ethylbenzene	< 5.0	5.0	ug/kg	
2-Hexanone	< 10.0	10.0	ug/kg	
Methyl-tert-butylether (MTBE)	< 5.0	5.0	ug/kg	
4-Methyl-2-pentanone (MIBK)	< 10.0	10.0	ug/kg	
Methylene chloride	< 20.0	20.0	ug/kg	
Styrene	< 5.0	5.0	ug/kg	
1,1,2,2-Tetrachloroethane	< 5.0	5.0	ug/kg	
Tetrachloroethene	< 5.0	5.0	ug/kg	
Toluene	< 5.0	5.0	ug/kg	
1,1,1-Trichloroethane	< 5.0	5.0	ug/kg	
1,1,2-Trichloroethane	< 5.0	5.0	ug/kg	
Trichloroethene	< 5.0	5.0	ug/kg	



Analytical Report

Client: SEECO ENVIRONMENTAL SERVICES
Project ID: 12946
Sample ID: B2 3'
Sample No: 23-7649-001

Date Collected: 08/26/23
Time Collected: 11:00
Date Received: 08/28/23
Date Reported: 09/06/23

Results are reported on a dry weight basis.

Analyte	Result	R.L.	Units	Flags
Volatile Organic Compounds		Method: 5035A/8260B		
Analysis Date: 09/06/23				
Vinyl acetate	< 10.0	10.0	ug/kg	
Vinyl chloride	< 10.0	10.0	ug/kg	
Xylene, Total	< 5.0	5.0	ug/kg	
Semi-Volatile Compounds		Method: 8270C		Preparation Method 3540C
Analysis Date: 09/05/23				
Preparation Date: 09/04/23				
Acenaphthene	< 330	330	ug/kg	
Acenaphthylene	< 330	330	ug/kg	
Anthracene	< 330	330	ug/kg	
Benzidine	< 330	330	ug/kg	
Benzo(a)anthracene	< 330	330	ug/kg	
Benzo(a)pyrene	< 90	90	ug/kg	
Benzo(b)fluoranthene	< 330	330	ug/kg	
Benzo(k)fluoranthene	< 330	330	ug/kg	
Benzo(ghi)perylene	< 330	330	ug/kg	
Benzoic acid	< 330	330	ug/kg	
Benzyl alcohol	< 330	330	ug/kg	
bis(2-Chloroethoxy)methane	< 330	330	ug/kg	
bis(2-Chloroethyl)ether	< 330	330	ug/kg	
bis(2-Chloroisopropyl)ether	< 330	330	ug/kg	
bis(2-Ethylhexyl)phthalate	< 330	330	ug/kg	
4-Bromophenyl phenyl ether	< 330	330	ug/kg	
Butyl benzyl phthalate	< 330	330	ug/kg	
Carbazole	< 330	330	ug/kg	
4-Chloroaniline	< 330	330	ug/kg	
4-Chloro-3-methylphenol	< 330	330	ug/kg	
2-Chloronaphthalene	< 330	330	ug/kg	
2-Chlorophenol	< 330	330	ug/kg	
4-Chlorophenyl phenyl ether	< 330	330	ug/kg	
Chrysene	< 330	330	ug/kg	
Dibenzo(a,h)anthracene	< 90	90	ug/kg	
Dibenzofuran	< 330	330	ug/kg	
1,2-Dichlorobenzene	< 330	330	ug/kg	
1,3-Dichlorobenzene	< 330	330	ug/kg	
1,4-Dichlorobenzene	< 330	330	ug/kg	
3,3'-Dichlorobenzidine	< 660	660	ug/kg	
2,4-Dichlorophenol	< 330	330	ug/kg	



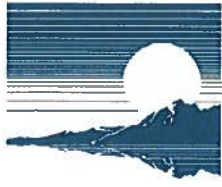
Analytical Report

Client: SEECO ENVIRONMENTAL SERVICES
Project ID: 12946
Sample ID: B2 3'
Sample No: 23-7649-001

Date Collected: 08/26/23
Time Collected: 11:00
Date Received: 08/28/23
Date Reported: 09/06/23

Results are reported on a dry weight basis.

Analyte	Result	R.L.	Units	Flags
Semi-Volatile Compounds	Method: 8270C	Preparation Method 3540C		
Analysis Date: 09/05/23		Preparation Date: 09/04/23		
Diethyl phthalate	< 330	330	ug/kg	
2,4-Dimethylphenol	< 330	330	ug/kg	
Dimethyl phthalate	< 330	330	ug/kg	
Di-n-butyl phthalate	< 330	330	ug/kg	
4,6-Dinitro-2-methylphenol	< 1,600	1600	ug/kg	
2,4-Dinitrophenol	< 1,600	1600	ug/kg	
2,4-Dinitrotoluene	< 250	250	ug/kg	
2,6-Dinitrotoluene	< 260	260	ug/kg	
Di-n-octylphthalate	< 330	330	ug/kg	
Fluoranthene	< 330	330	ug/kg	
Fluorene	< 330	330	ug/kg	
Hexachlorobenzene	< 330	330	ug/kg	
Hexachlorobutadiene	< 330	330	ug/kg	
Hexachlorocyclopentadiene	< 330	330	ug/kg	
Hexachloroethane	< 330	330	ug/kg	
Indeno(1,2,3-cd)pyrene	< 330	330	ug/kg	
Isophorone	< 330	330	ug/kg	
2-Methylnaphthalene	< 330	330	ug/kg	
2-Methylphenol	< 330	330	ug/kg	
3 & 4-Methylphenol	< 330	330	ug/kg	
Naphthalene	< 330	330	ug/kg	
2-Nitroaniline	< 1,600	1600	ug/kg	
3-Nitroaniline	< 1,600	1600	ug/kg	
4-Nitroaniline	< 1,600	1600	ug/kg	
Nitrobenzene	< 260	260	ug/kg	
2-Nitrophenol	< 1,600	1600	ug/kg	
4-Nitrophenol	< 1,600	1600	ug/kg	
n-Nitrosodi-n-propylamine	< 90	90	ug/kg	
n-Nitrosodimethylamine	< 330	330	ug/kg	
n-Nitrosodiphenylamine	< 330	330	ug/kg	
Pentachlorophenol	< 330	330	ug/kg	
Phenanthrene	< 330	330	ug/kg	
Phenol	< 330	330	ug/kg	
Pyrene	< 330	330	ug/kg	
Pyridine	< 330	330	ug/kg	
1,2,4-Trichlorobenzene	< 330	330	ug/kg	
2,4,5-Trichlorophenol	< 330	330	ug/kg	



Analytical Report

Client: SEECO ENVIRONMENTAL SERVICES
Project ID: 12946
Sample ID: B2 3'
Sample No: 23-7649-001

Date Collected: 08/26/23
Time Collected: 11:00
Date Received: 08/28/23
Date Reported: 09/06/23

Results are reported on a dry weight basis.

Analyte	Result	R.L.	Units	Flags
Semi-Volatile Compounds				
Method: 8270C		Preparation Method 3540C		
Analysis Date: 09/05/23		Preparation Date: 09/04/23		
2,4,6-Trichlorophenol	< 330	330	ug/kg	
Total Metals				
Method: 6010C		Preparation Method 3050B		
Analysis Date: 09/06/23		Preparation Date: 09/01/23		
Arsenic	10.4	1.0	mg/kg	
Barium	54.9	0.5	mg/kg	
Cadmium	< 0.5	0.5	mg/kg	
Chromium	17.1	0.5	mg/kg	
Lead	18.5	0.5	mg/kg	
Selenium	< 1.0	1.0	mg/kg	
Silver	< 0.2	0.2	mg/kg	
Total Mercury				
Method: 7471B				
Analysis Date: 09/05/23				
Mercury	< 0.05	0.05	mg/kg	
pH @ 25°C, 1:2				
Method: 9045D				
Analysis Date: 08/31/23 9:00				
pH @ 25°C, 1:2	8.06		Units	



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 IEPA Accreditation #100292
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CHAIN OF CUSTODY RECORD

Company Name: SEECO ENVIRONMENTAL SERVICES	
Street Address: 7350 Duvan Drive	
City: Tinley Park	State: IL
Phone: 708-429-1685	Zip: 60477
e-Mail: cassier@seeco.com	
Send Report To: Don Cassier	Hardcopy: <input type="checkbox"/>
Sampled By: <i>PR</i>	PDF e-Mail: <input checked="" type="checkbox"/>

Project ID: <u>12946</u>	P.O. #:	Date/Time Taken	Sample Description	Matrix*	HOLD-Do not analyze						Enter analyses required on the lines to the left. Place an "X" in the box below to indicate which samples require what analysis.	Comments	Lab I.D.
					pH	Total 8 RCRA Metals	VOCs	SVOCs	PNAs	PCBs			
		<i>8/26/23 11:00</i>	<i>B2-3-</i>	<i>S</i>	<i>XX</i>	<i>XX</i>	<i>XX</i>						<i>23-7649-001</i>

FOR LAB USE ONLY:
 Cooler Temperature: 0-16°C Yes No S °C
 Received within 6 hrs of collection: _____
 Ice Present: Yes No
FOR LAB COURIER USE ONLY:
 Sample Refrigerated: Yes _____ No _____ °C
 Refrigerator Temperature: _____ °C
 Program: TACOS/RP CCDD NPDES LUST SDWA
 *Matrix Code Key: DW-drinking water GW-groundwater WW-wastewater
 S-soil SL-sludge WIFE-wipe O-other

Notes and Special Instructions:

Relinquished By: _____ Date/Time: *8/26/23*

Relinquished By: _____ Date/Time: _____

Received By: *Sam Jimenez* Date/Time: *8/28/23 09:07*

Received By: _____ Date/Time: _____

TAB 5
MWRD FORMS

AFFIRMATIVE ACTION ORDINANCE

REVISED APPENDIX D

OF THE

METROPOLITAN WATER RECLAMATION DISTRICT

OF GREATER CHICAGO

December 31, 2022

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AFFIRMATIVE ACTION ORDINANCE
REVISED APPENDIX D
OF THE
METROPOLITAN WATER RECLAMATION DISTRICT
OF GREATER CHICAGO

Section 1. Declaration of Policy

It is the policy of the Metropolitan Water Reclamation District of Greater Chicago (“District”) to ensure competitive business opportunities for minority and women-owned business enterprises in the award of and performance on District contracts; to prohibit discrimination on the basis of race, sex, color, disability, age, religion, national origin, sexual orientation, veteran status, or any other legally protected characteristic in the award of or participation on District contracts; and to abolish barriers to full participation on District contracts by all; and

The District, pursuant to its authority under 70 ILCS 2605/11.3, is committed to establishing procedures to implement this policy, as well as state and federal regulations, to assure the utilization of minority and women-owned business enterprises in a manner consistent with constitutional requirements; and

The District is committed to creating equal opportunities for minority and women-owned businesses to participate in the award and performance on District contracts.

Section 2. Findings

Whereas, the Supreme Court of the United States in *City of Richmond v. J.A. Croson Co.*, 488 U.S. 469 (1989), enunciated certain standards that are necessary to maintain effective contracting affirmative action programs in compliance with constitutional requirements; and

Whereas, the District is committed to implementing its affirmative action program in conformance with the decision in *Croson* and its progeny; and

Whereas, in furtherance of this commitment, the Board of Commissioners of the Metropolitan Water Reclamation District of Greater Chicago (“Board of Commissioners”) directed District employees and its outside consultant in 1989 to conduct an investigation into the scope of any discrimination in the award of and participation on District construction contracts, as well as in the construction industry in Metropolitan Chicago, the extent to which such discrimination or the effects thereof has denied and continues to deny minority and women’s business enterprises equal opportunity to participate on District contracts and to recommend the appropriate affirmative action steps to be taken to eliminate any such discrimination and its continuing effects; and

Whereas, on March 15, 1990, the District adopted its Revised Appendix D, Notice of Requirements for Affirmative Action Program to Ensure Minority, Small, and Women’s Business Participation (“Appendix D”), which was later amended on June 21, 2001; and

Whereas, in 2003, the United States District Court in *Builders Association of Greater Chicago v. City of Chicago*, 298 F. Supp.2d 725 (N.D. Ill. 2003) held that the evidence introduced at trial demonstrated that past and current discriminatory practices continue to place MBE and

WBE businesses at a competitive disadvantage in the award of governmental contracts and such practices have and continue to impede the growth and success of MBEs and WBEs; and

Whereas, a 2004 study of the Metropolitan Chicago Construction Industry by Timothy Bates, Professor at Wayne State University, concluded that the evidence that African American, Hispanic, and women-owned businesses have been, and continue to be disadvantaged in the construction industry is strong, has remained consistent, and that compelling evidence indicates that African American, Hispanic, and women-owned businesses face barriers in the Metropolitan Chicago construction industry greater than those faced by white males; and

Whereas, a 2005 study of the Metropolitan Chicago construction industry by David Blanchflower, Professor of Economics at Dartmouth College, determined that discrimination against Asian-owned businesses existed in the business community in areas of business financing and construction wages and that this, together with evidence of individual discrimination against Asian-owned construction companies, leads to the conclusion that discrimination against Asian-owned businesses continues to exist in the Metropolitan Chicago construction industry; and

Whereas, in 2005, the United States District Court held in *Northern Contracting, Inc. v. Illinois Department of Transportation*, 2005 U.S. Dist. LEXIS 19868 (N.D. Ill. Sept. 8, 2005) that there is strong evidence of the effects of past and current discrimination against MBEs and WBEs in the construction industry in the Chicago area. The trial court's decision was affirmed in *Northern Contracting, Inc. v. Illinois Department of Transportation*, 473 F.3d 715 (7th Cir. 2007); and

Whereas, a 2006 Cook County, Illinois report entitled, "Review of Compelling Evidence of Discrimination Against Minority- and Women-Owned Business Enterprise in the Chicago Area Construction Industry and Recommendations for Narrowly Tailored Remedies for Cook County, Illinois", concluded that there is extensive evidence of discrimination against MBEs and WBEs in the Chicago area construction marketplace, and the participation of MBEs and WBEs in the County's construction Prime Contracts and Subcontracts is below the availability of such businesses; and

Whereas, in 2006, the District commissioned a report on discrimination of and barriers to construction opportunities in the Chicago area market for minority and women-owned businesses and recommendations for District actions to reduce such issues, which found continuing disparities in the Chicago area construction market; and

Whereas, in 2010, Cook County commissioned a new report, entitled "The Status of Minority and Women-Owned Business Enterprises Relevant to Construction Activity In and Around Cook County, Illinois", which found that MBEs and WBEs were not utilized in all industries in proportion to their availability; and

Whereas, in 2010, the United States Department of Justice produced a report to Congress, entitled "Compelling Interest for Race- and Gender-Conscious Federal Contracting Programs: An Update to the May 23, 1996 Review of Barriers to Minority- and Women-Owned Businesses," that updated the original basis for the United States Department of Transportation's DBE program and concluded that discriminatory barriers continue to impede the ability of MBEs and WBEs to compete with other businesses on a fair and equal footing in government contracting markets, including in the construction industry; and

Whereas, in 2012, the District commissioned a report on barriers to construction opportunities in the Chicago area market and recommendations for District efforts to reduce such barriers, which found continuing disparities in the Chicago area construction market; and

Whereas, in 2014, the District commissioned a Disparity Study, conducted by Colette Holt & Associates, on barriers to equal opportunities in the construction industry in the District's geographic and industry market areas and recommendations for District efforts to reduce such barriers, which found continuing disparities in the District's market area; and

Whereas, in 2015, the trial court in *Midwest Fence, Corp. v. U.S. Department of Transportation et al*, 2015 WL 139676 (N.D. Ill. March 24, 2015) held that discrimination continues to impede full and fair opportunities for disadvantaged business enterprises in the Illinois construction industry and this judgment was affirmed in 2016 by the Seventh Circuit Court of Appeals at 840 F.3d. 932; and

Whereas, in 2021, the District again commissioned a Disparity Study, conducted by Colette Holt & Associates, which likewise found that there continues to be barriers to equal opportunities for construction firms owned by minorities and women to compete for District contracts, both as Prime Contractors and Subcontractors; and

Whereas, based upon the 2021 Disparity Study, the District has determined that it has a compelling interest in continuing to implement narrowly tailored remedies to redress discrimination against minority and women-owned businesses in its market such that it will not function as a passive participant in the market failure of discrimination; and

Whereas, the Affirmative Action Program, adopted by the District on July 20, 1978 and amended from time to time, is hereby modified to further continue to ameliorate the effects of racial and gender discrimination in the marketplace; and

Whereas, the remedies adopted herein by the District will not overly burden non-MBE and non-WBE businesses in the award of District contracts; and

Whereas, the Board of Commissioners will periodically review minority and women-owned participation in contracts awarded by the District to ensure that the District continues to have a compelling interest in remedying discrimination and that the measures adopted herein remain narrowly tailored to accomplish that objective;

Now, therefore, the District's Board of Commissioners hereby adopts this Revised Appendix D:

Section 3. Purpose and Intent

The purpose and intent of this Affirmative Action Ordinance Revised Appendix D ("Revised Appendix D") is to mitigate the present effects of discrimination on the basis of race, ethnicity, or sex in opportunities to participate on the District's contracts as either a Prime Contractor or a Subcontractor and to achieve equitable utilization of minority and women-owned business enterprises on District contracts.

Section 4. Coverage

The following provisions, together with relevant forms, will apply and be appended to every Construction Contract awarded by the District where the total approved expenditure is in

excess of one hundred thousand dollars (\$100,000.00), except contracts approved by the Board of Commissioners pursuant to Sections 11.4 and 11.5 of the District's Purchasing Act (70 ILCS 2605).

Section 5. Definitions

The meaning of these terms in this Revised Appendix D are as follows:

- (a) "Administrator" means the District's Affirmative Action Program Administrator.
- (b) "Affiliate" of an individual or entity means an individual or entity that directly or indirectly through one or more intermediaries, controls or is controlled by, or is under common control with, the individual or entity. In determining affiliation, the District will consider all appropriate factors, including common ownership, common management, and contractual relationships.
- (c) "Annual Aspirational Goals" means the targeted levels established by the District for the annual aggregate participation of MBEs and WBEs on District Construction Contracts.
- (d) "Bidder" means an individual, a business enterprise, including a sole proprietorship, a partnership, a corporation, a not-for-profit corporation, a limited liability company, or any other entity which has submitted a bid on a District contract.
- (e) "Books and Records" include, but are not limited to, payroll records, bank statements, bank reconciliations, accounts payable documents, account receivable documents, ledgers, all financial software, and all employer business tax returns.
- (f) "Calendar Days" in computing any period of time described herein, the day from which the period begins to run will not be counted (*e.g.*, if a notice is issued on a Monday, the countdown of days starts on Tuesday). When the last day of the period is a Saturday or Sunday, the period does not extend to the next day. Only in instances where District offices are closed in observance of a federal holiday, will the period extend to the next day.
- (g) "Construction Contract" means any District contract, agreement, or amendment thereto, providing for a total expenditure in excess of one hundred thousand dollars (\$100,000.00) for the construction, demolition, replacement, major repair or renovation, and maintenance of real property and improvement thereon or sludge hauling, and any other construction related contract which the District deems appropriate to be subject to this Revised Appendix D.
- (h) "Commercially Useful Function" means responsibility for the execution of a distinct element of the work of the contract, which is carried out by performing, managing, and supervising the work involved, or fulfilling responsibilities.
- (i) "Contract Goals" means the numerical percentage goals for MBE or WBE participation to be applied to an eligible District Construction Contract subject to this Revised Appendix D for the participation of MBEs and WBEs based upon the scope of work of the contract, the availability of MBEs and WBEs to meet the goals, and the District's progress towards meeting its annual MBE and WBE goals.
- (j) "Dealer" means a business that owns, operates, or maintains a store, warehouse, or other establishment in which the materials or supplies required for performance of the contract are bought, kept in stock, and regularly sold to the public in the usual course of business.

To be a dealer, the business must engage in, as its principal business, and under its own name, the purchase and sale of the products in question. A business that operates as a dealer in bulk items such as steel, cement, gravel, stone, and petroleum products need not keep such products in stock, if it owns or operates distribution equipment. Brokers and packagers do not meet the definition of dealers.

(k) "Director" means the District's Director of Procurement and Materials Management, formerly known as the Purchasing Agent.

(l) "Economically Disadvantaged" means an individual with a Personal Net Worth of less than \$2,000,000.00, indexed annually for the Chicago Metro Area Consumer Price Index, published by the United States Department of Labor, Bureau of Labor Standards, beginning January 2008.

(m) "Executive Director" means the chief administrative officer of the District, formerly known as the General Superintendent.

(n) "Expertise" means demonstrated knowledge, skills, or ability to perform in the field of endeavor in which certification is sought by the business as defined by normal industry practices, including licensure, where required.

(o) "Good Faith Efforts" means honest, fair, and commercially reasonable actions undertaken by a Prime Contractor to meet the MBE or WBE Contract Goal, which by their scope, intensity, and appropriateness to the objective, can reasonably be expected to fulfill the Contract Goals.

(p) "Hearing Officer" is an attorney licensed to practice in the State of Illinois and appointed by the Board of Commissioners to conduct hearings regarding a Prime Contractor's or Subcontractor's compliance or non-compliance with this Revised Appendix D.

(q) "Joint Venture" means an association of two or more individuals, or any combination of types of business enterprises and individuals numbering two or more, proposing to function as a single for profit business enterprise, in which each Joint Venture partner contributes property, capital, efforts, skill, and knowledge, and in which the certified business is responsible for a distinct, clearly defined portion of the work of the contract and whose share in the capital contribution, control, management, risks, and profits of the Joint Venture are equal to its ownership interest. Joint Ventures must have an agreement in writing specifying the terms and conditions of the relationships between the partners, their relationship, and detailing their respective responsibilities on the contract.

(r) "Job Order Contract" or "JOC" means a business, fixed price, indefinite quantity contract designed to complete a large number of construction projects quickly.

(s) "Local Business" means a business located within the District's geographic market area as established by the 2021 Disparity Study, namely the counties of Cook, DuPage, Kane, Lake, McHenry, or Will, in the State of Illinois.

(t) "Manufacturer" means a business that operates or maintains a factory or establishment that produces on the premises the materials or supplies obtained by the Bidder. Brokers and packagers do not meet the definition of Manufacturer.

(u) "Minority-owned Business Enterprise" or "MBE" means a local small business entity, including a sole proprietorship, partnership, corporation, limited liability company, Joint Venture, or any other business or professional entity, which is at least fifty-one (51) percent owned by one or more Socially and Economically Disadvantaged individuals who are members of one or more minority groups, or, in the case of a publicly held corporation, at least fifty-one (51) percent of the stock of which is owned by one or more members of one or more minority groups, and whose management, policies, major decisions, and daily business operations are controlled by one or more Minority Individuals.

(v) "Minority Individual" means a natural person who is a citizen of the United States or lawful permanent resident of the United States and one of the following:

(i) African American – An individual having origins in any of the Black racial groups of Africa and is regarded as such by the African American community of which the individual claims to be a part.

(ii) Hispanic American – An individual having origins from Mexico, Puerto Rico, Cuba, and South or Central America and is regarded as such by the Hispanic community of which the individual claims to be a part, regardless of race.

(iii) Asian American – An individual having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands or the Northern Marianas, and is regarded as such by the Asian American community of which the individual claims to be a part.

(iv) Native American – An individual having origins in any of the original peoples of North America and who is recognized through tribal certification as a Native American by either a tribe or a tribal organization recognized by the government of the United States of America.

(v) Individual members of other groups whose participation is required under state or federal regulations or by court order.

(vi) Individual members of other groups found by the District to be Socially Disadvantaged by having suffered racial or ethnic prejudice or cultural bias within American society, without regard to individual qualities, resulting in decreased opportunities to compete in the District's marketplace or to do business with the District.

(w) "Personal Net Worth" means the net value of the assets of an individual after total liabilities are deducted. An individual's Personal Net Worth does not include the individual's ownership interest in a business entity seeking to do business with the District or other certified MBE or WBE, provided that the other business is certified by a governmental agency that meets the District's eligibility criteria or the individual's equity in his or her primary place or residence. As to assets held jointly with his or her spouse or recognized civil partner, an individual's Personal Net Worth includes only that individual's share of such assets. An individual's net worth also includes the present value of the individual's interest in any vested pension plans, individual retirement accounts, or other

retirement savings or investment programs, less the tax and interest penalties that would be imposed if the asset were distributed at the present time.

(x) "Prime Contractor" means a contractor that is awarded a District contract and is responsible for the completion of the entire District contract, including purchasing all materials, hiring and paying Subcontractors, and coordinating all the work.

(y) "Program" means the program provisions established by this Revised Appendix D.

(z) "Small Business Enterprise" means a small business as defined by the United States Small Business Administration (SBA), pursuant to the business size standard found in 13 CFR Part 121, that is relevant to the scope of work the business seeks to perform on District contracts. A business is not an eligible SBE in any calendar fiscal year in which its gross receipts, averaged over the business' previous five (5) fiscal years, exceed the size standards of 13 CFR Part 121.

(aa) "Socially Disadvantaged" means a Minority Individual or woman who has been subjected to racial, ethnic, or gender prejudice or cultural bias within American society because of his or her identity as a member of a group and without regard to individual qualities. Social Disadvantage must stem from circumstances beyond the individual's control. A Socially Disadvantaged individual must be a citizen or lawfully admitted permanent resident of the United States.

(bb) "Subcontractor" means a party that enters into a subcontract agreement with a District Prime Contractor to perform work or provide materials on a District project.

(cc) "Tier" refers to the relationship of a Subcontractor to the Prime Contractor. A Subcontractor having a contract with the Prime Contractor, including a material supplier to the Prime Contractor, is considered a "first-tier Subcontractor," while a Subcontractor's Subcontractor is a "second-tier Subcontractor", and so forth. The Subcontractor is subject to the same duties, obligations, and sanctions as the Prime Contractor under this Revised Appendix D.

(dd) "Utilization Plan" means the plan, in the form specified by the District, which must be submitted by a Bidder listing the MBEs and WBEs that the Bidder intends to use in the performance of a contract, the scope of work, and the dollar values or the percentages of the work to be performed.

(ee) "Vendor List" means the District's list of businesses that are certified as minority-owned or women-owned by the City of Chicago, the County of Cook, the State of Illinois, the Women's Business Development Center, or the Chicago Minority Business Development Council, or as a Disadvantaged Business Enterprise by the Illinois Unified Certification Program, or as a Small Disadvantaged Business by the United States Small Business Administration.

(ff) "Women-owned Business Enterprise" or "WBE" means a local small business entity which is at least fifty-one (51) percent owned by one or more Socially and Economically Disadvantaged individuals who are women, or in the case of a publicly held corporation, fifty-one (51) percent of the stock of which is owned by one or more women, and whose management and daily business operations are controlled by one or more women.

Determination of whether a business is at least fifty-one (51) percent owned by a woman or women will be made without regard to community property laws.

Section 6. Non-Discrimination and Affirmative Action Clause

As a prerequisite to selection, a Prime Contractor must agree in its bid proposal for a Construction Contract subject to this Revised Appendix D to the following commitments:

- (a) It will not discriminate on the basis of race, sex, color, disability, age, religion, national origin, sexual orientation, veteran status, or any other legally protected characteristic in the bid solicitation for or purchase of goods in the performance of its contract.
- (b) It will actively solicit bids for the purchase or subcontracting of goods or services from qualified MBEs and WBEs.
- (c) It will undertake Good Faith Efforts in accordance with the criteria established in this Revised Appendix D to ensure that qualified MBEs and WBEs are utilized in the performance of the Construction Contract and share in the total dollar value of the contract in accordance with each of the applicable Contract Goals established by the District for the participation of qualified MBEs and WBEs.
- (d) It will require its Subcontractors at all Tiers to make similar Good Faith Efforts to utilize qualified MBEs and WBEs.
- (e) It will maintain records and furnish to the District all requisite information and reports for monitoring of compliance with this Revised Appendix D.
- (f) It will designate an individual to act as an affirmative action coordinator on its behalf to facilitate the review of all concerns related to the participation of MBEs and WBEs.

Section 7. Race and Gender-Neutral Measures to Ensure Equal Opportunities for All Prime Contractors and Subcontractors

The District will develop and utilize measures to encourage and facilitate the participation of all businesses engaged in District construction contracting activities. These measures will include but are not limited to:

- (a) Unbundling by dividing large dollar value contracts into smaller dollar value contracts to facilitate the participation of MBEs and WBEs as Prime Contractors.
- (b) Arranging solicitation times for the presentations of bids, specifications, and delivery schedules to facilitate the participation of interested Prime Contractors and Subcontractors.
- (c) Providing timely information on contracting procedures, bid preparation, and specific contracting opportunities, including through an electronic system and social media.
- (d) Assisting MBEs and WBEs with training seminars on the technical aspects of preparing a bid for a District contract or otherwise participating on District Contracts.

- (e) Assisting businesses in overcoming barriers such as difficulty in obtaining financing and support for business development such as accounting, bid estimation, safety requirements, and quality control.
- (f) Prohibiting Prime Contractors from denying a subcontract to a MBE or WBE solely on the basis of that businesses inability to obtain the required performance bond.
- (g) Limiting the amount of insurance coverage required by a Prime Contractor for a subcontract to only that which is required for the portion of work to be performed by the Subcontractor.
- (h) Holding pre-bid conferences to explain the contract and to encourage Bidders to contact all available businesses about opportunities to perform as Subcontractors. The pre-bid conferences will be a mandatory requirement on all District contracts where this Revised Appendix D is applicable.
- (i) Adopting prompt payment procedures, including but not limited to, requiring that Prime Contractors promptly pay Subcontractors in compliance with Section 9 of the Local Government Prompt Payment Act, 50 ILCS 505/9, and investigating complaints or charges of excessive delay in payments.
- (j) Reviewing retainage, bonding, and insurance requirements to eliminate unnecessary barriers to contracting with the District.
- (k) Collecting information from Prime Contractors on District Construction Contracts which detail the bids received from all Subcontractors and the expenditures to Subcontractors on District Construction Contracts.
- (l) Developing a separate SBE program that is race and gender neutral which designates specific small dollar value contracts for bid only by certified SBE businesses.
- (m) Maintaining information on all businesses bidding on District contracts as both Prime Contractors and Subcontractors.
- (n) At the discretion of the Board of Commissioners, awarding a representative sample of District contracts without Contract Goals to determine MBE and WBE utilization in the absence of Contract Goals.
- (o) Referring complaints of discrimination against MBEs and WBEs to the appropriate authority for investigation and resolution.

Section 8. Support and Outreach

To provide optimal support to MBEs and WBEs desiring to participate on District contracts, the Administrator will facilitate support and outreach, which may be in-person and/or virtual as conditions permit, and may include the following:

- (a) Meeting with business organizations to engage in discussions regarding difficulties experienced by their members on District contracts and effective steps to minimize those difficulties.
- (b) Meeting with assist agencies and member businesses interested in working on District contracts to discuss upcoming opportunities.
- (c) Meeting with new vendors to provide information regarding completion of the District's vendor application and bid documents.
- (d) Meeting with Prime Contractors to collect feedback regarding their experiences under this Revised Appendix D.
- (e) Participation in mandatory pre-bid conferences, as applicable.
- (f) Hosting various seminars and support endeavors as the Administrator deems necessary for MBEs and WBEs to provide information on topics of interest, including financing, bonding, insurance, certification, bid estimation, safety requirements, and quality control.

Section 9. District Roles and Responsibilities

The District is responsible for promoting, supporting, and assisting in creating awareness of the Program such that it aides the Administrator in the implementation of the Annual Aspirational Goals, Contract Goals, and objectives of the Program. To reduce barriers to MBEs and WBEs participation on District contracts, all departments requesting bids, proposals, or any other solicitation governed by this Revised Appendix D will:

- (a) Provide notification of anticipated solicitations including the following information: the scope of work, experience required, insurance requirements, budget, schedule, bid specifications, and any other relevant information no later than fourteen (14) calendar days prior to the procurement announcement.
- (b) Evaluate anticipated solicitations to unbundle items or services to permit offers on quantities or scope of work less than the total requirement or the performance of discreet portions of the project, where feasible.
- (c) At least fourteen (14) calendar days before a solicitation will be advertised, forward a copy of the advertisement to the Administrator to ensure appropriate Program language has been included.
- (d) Ensure that all applicable provisions of the Program are included in bid specifications/proposals and contracts.
- (e) Monitor contracts to ensure compliance with the Program and provide notification to the Administrator in instances where problems with compliance arise.
- (f) Assist in the compilation of contract data for MBE and WBE availability and utilization.

(g) Provide the Administrator with a copy of, or independent electronic access to, the necessary information for each contract including, but not limited to, the contract value, pre-bid/pre-proposal sign in sheets, the bid or proposal results, any contract modifications, and an executed copy of the agreement.

(h) Notify the Administrator no later than ten (10) calendar days prior to any key post-award contract meetings or issues that could affect the Prime Contractor's ability to achieve the MBE or WBE commitment, such as contract kickoff meetings, monthly meetings, or meetings to address contract performance issues affecting MBE and WBE commitments.

(i) Require that each Prime Contractor submit to the Administrator, as part of its pay request process, the required Program information in the format required to ensure an accurate accounting of MBE and WBE participation.

(j) Support the Administrator by ensuring that Prime Contractors provide all necessary documents and information to close out the contract that provides a final accounting for MBE and WBE participation on the contract.

(k) Advertise contract opportunities via the District's website, and other avenues in consultation with the Administrator, where appropriate, to maximize MBE and WBE participation.

(l) Develop and advertise forecasts of upcoming procurement opportunities, including on an annual basis.

Section 10. Certification Eligibility

(a) The District is a self-certifying agency. In addition to issuing certifications, the District will accept certifications from the City of Chicago, Cook County, and other governmental agencies approved by the Administrator, issued within the last two (2) years of submittal. The District will verify a business' certification to ensure that the business meets the requirements of this Revised Appendix D. Any business that has been previously certified by the City of Chicago, Cook County, or another Administrator approved governmental agency shall be able to participate in an abbreviated verification process. Details regarding the abbreviated process will be maintained on the District's website.

(b) The verification permitted in Subsection (a) may take place in advance of the bid process or during the bid process. The District will maintain an online list of verified businesses.

(c) Only businesses that meet the criteria for certification as a MBE or WBE may be eligible for credit towards meeting Contract Goals. The business applying for District certification has the burden of production and persuasion by a preponderance of the evidence at all stages of the certification process.

(d) Only a business owned by a Socially and Economically Disadvantaged individual is eligible to participate in the Program.

(i) The business' ownership by a Socially and Economically Disadvantaged individual must be real, substantial, and continuing, going beyond *pro forma* ownership of the business as reflected in ownership documents. The owner must enjoy the customary incidents of ownership and share in the risks and profits commensurate with that ownership interest.

(ii) The contributions of capital or Expertise by the Socially and Economically Disadvantaged owner to acquire the ownership interest must be real and substantial. If Expertise is relied upon as part of a Socially and Economically Disadvantaged owner's contribution to acquire ownership, the Expertise must be of the requisite quality generally recognized in a specialized field, in areas critical to the business' operations, indispensable to the business' potential success, specific to the type of work the business performs, and documented in the business' records. The individual whose Expertise is relied upon must have a commensurate financial investment in the business.

(e) Only a business that is managed and controlled by a Socially and Economically Disadvantaged individual may be certified as a MBE or WBE.

(i) A business must not be subject to any formal or informal restrictions that limit the customary discretion of the Socially and Economically Disadvantaged owner. There can be no restrictions through corporate charter provisions, by-laws, contracts, or any other formal or informal devices that prevent the Socially and Economically Disadvantaged owner, without the cooperation or vote of any non-Socially and Economically Disadvantaged individual, from making any business decision, including making obligations or dispersing of funds.

(ii) The Socially and Economically Disadvantaged owner must possess the power to direct or cause the direction of the management and policies of the business and to make day-to-day as well as long term decisions on management, policy, operations, and work.

(iii) The Socially and Economically Disadvantaged owner may delegate various areas of the management or daily operations of the business to individuals who are not Socially and Economically Disadvantaged. Such delegations of authority must be revocable, and the Socially and Economically Disadvantaged owner must retain the power to hire and fire any such individual. The Socially and Economically Disadvantaged owner must exercise control over the business' operations, work, management, and policy.

(iv) The Socially and Economically Disadvantaged owner must have an overall understanding of managerial and technical competence, experience, and Expertise, directly related to the business' operations and work. The Socially and Economically Disadvantaged owner must have the ability to intelligently and critically evaluate information presented by other participants in the business'

activities and to make independent decisions concerning the business' daily operations, work, management, and policymaking.

(v) If federal, state, or local laws, regulations, statutes, or District ordinance, or other legal regulations require the owner to have a particular license or other credential to own or control the business, then the Socially and Economically Disadvantaged owner must possess the required license or credential. If federal, state, or local laws, regulations, statutes, or District ordinance, or other legal regulations does not require that the Socially and Economically Disadvantaged owner possess the license or credential, and the Socially and Economically Disadvantaged owner lacks such license or credential, this information will be a factor, but is not dispositive, in determining whether the Socially and Economically Disadvantaged owner actually controls the business.

(vi) A Socially and Economically Disadvantaged owner cannot engage in outside employment or other business interests that conflict with the management of the business or prevents them from devoting sufficient time and attention to the affairs of the business, including the management and control of the business' day-to-day operations.

(f) Only an independent business may be certified as a MBE or WBE. An independent business is one whose viability does not depend on its relationship with another business. Recognition of an applicant as a separate entity for tax or corporate purposes is not sufficient to demonstrate that a business is independent. In determining whether an applicant is an independent business, the Administrator will:

(i) Evaluate relationships with non-certified businesses in such areas as personnel, facilities, equipment, financial and/or bonding support, and other resources.

(ii) Consider whether present or recent employer/employee relationships between the Socially and Economically Disadvantaged owner of the applicant for MBE or WBE certification and non-certified businesses or individuals thereby associated compromise the applicant's independence.

(iii) Examine the applicant's relationships with non-certified businesses to determine whether a pattern of exclusive or primary dealings with non-certified businesses compromises the applicant's independence.

(iv) Consider the consistency of relationships between the applicant and non-certified businesses with normal industry practice.

(g) All documentation submitted by an applicant will remain in the custody of the District pursuant to Local Records Act, 50 ILCS 205, whether or not the certification is approved.

(h) If it is determined by the Administrator that an applicant knowingly, willingly, and intentionally submitted false or misleading information during the verification process, the applicant will be referred to the appropriate law enforcement agency for investigation and prosecution, where applicable.

- (i) An applicant will be certified only for the specific types of work in which the Socially and Economically Disadvantaged owner for the MBEs and/or WBEs has the ability and Expertise to manage and control the business' operations and work.
- (j) An applicant will be certified only in the specific category for which they are applying. A business that is both a MBE and WBE will not automatically be certified as both if the application is submitted only in regards to one category.
- (k) The District will certify the eligibility of Joint Ventures involving MBEs and WBEs and non-certified businesses for credit towards a Contract Goal.
- (l) A business found to be ineligible may not apply for certification for two (2) years after the effective date of the final decision.
- (m) The certification status of all MBEs and WBEs will be reviewed every two (2) years by the Administrator. Failure of a business to seek recertification by filing the necessary documentation with the Administrator as required will result in decertification.
- (n) It is the responsibility of the certified business to notify the Administrator of any change in its circumstances affecting its continued eligibility, including change in ownership and licenses held by the business. Failure to do so will result in the business' decertification.
- (o) The Administrator will decertify a business that does not continuously meet the eligibility criteria.
- (p) Decertification by another agency will create a *prima facie* case for decertification by the District. The challenged business will have the burden of proving by a preponderance of the evidence that its District certification should be maintained.

Section 11. Appeals

A business that has been denied certification or recertification, or that has been decertified by the Administrator may protest the denial or decertification by filing a written appeal with the Executive Director. The appeal must meet the following criteria:

- (a) **Timeliness of appeals.** The appeal must be received by the Executive Director within ten (10) calendar days of the date of the letter denying certification, recertification, or decertifying. The appeal must be received no later than 4:30 p.m. central time zone on the tenth (10) calendar day. Any appeal received after this time will not be considered timely and will be automatically denied.
- (b) **Form of appeals.** Appeals may be a type-written hardcopy document delivered to the District or may be attached to electronic mail sent directly to the Executive Director no later than 4:30 p.m. If the appeal is a hard-copy document, it must be addressed to the Executive Director and delivered to 100 E. Erie no later than 4:30 p.m.
- (c) **Content of appeals.** The appeal must clearly articulate the basis on which it is being made and consist only of a letter clearly explaining why the business believes that the

Administrator's decision should not be upheld. No new documents may be submitted for the Executive Director's consideration. Only documents already in the possession of the Administrator will be considered in the appeal to the Executive Director.

(d) **Decision on appeals.** The Executive Director will carefully review all documents including the written request for appeal and will render a decision within thirty (30) calendar days of receipt of a timely appeal. The Executive Director's decision will be the final decision on the matter and is not subject to appeal or review.

(e) **Denial of appeals.** A business found to be ineligible for certification may not reapply for certification for two (2) years after the date of the final decision issued by the Executive Director.

Section 12. Schedule of Goals for Minority and Women-Owned Business Enterprise Utilization

In fulfillment of this policy to provide MBEs and WBEs full and equitable opportunities to participate on District contracts as both Prime Contractors and Subcontractors, the District will establish Annual Aspirational Goals for MBE and WBE participation, based on the availability of MBEs and WBEs in the District's geographic and procurement market area as established by the 2021 Disparity Study.

Section 13. Contract Goals

(a) The Administrator, based upon the information provided by the User Department, will establish Contract Goals for Construction Contracts based upon the availability of at least three (3) MBEs and three (3) WBEs registered on the District's Vendor List to perform the anticipated scope of work on the entire contract and the District's utilization of MBEs and WBEs to date.

(b) Where a substantial portion of the total Construction Contract cost is for the purchase of equipment, the Administrator may designate goals for only that portion of the contract relating to construction work and related supplies or modify the limitations on the credit for MBE and WBE suppliers.

(c) The Contract Goals will be designated in the contract documents.

(d) All contracts on which goals are placed will have goals that are narrowly tailored to the type of work being performed under the contract.

Section 14. Counting MBE and WBE Participation Towards Contract Goals

(a) A Bidder may achieve the Contract Goals by its status as a MBE or WBE, by entering into a Joint Venture with one or more MBEs and WBEs, by first-tier subcontracting a portion of the contract to one or more MBEs and WBEs, by direct purchase of materials or services from one or more MBEs and WBEs, or by any combination of the above.

(b) If a business is certified as both a MBE and a WBE, the Bidder may count the business' participation either toward the achievement of its MBE or WBE Contract Goal, but not

both. Participation by a business certified as both an MBE and a WBE cannot be split between the MBE and the WBE Contract Goal.

(c) When a MBE or WBE participates on a contract, the District will count only the value of the work actually performed by the MBE or WBE towards the Contract Goal.

(d) A Prime Contractor may count the entire amount of that portion of a contract that is performed by MBEs or WBEs own forces, including the cost of supplies and materials obtained and installed by the MBE or WBE for the work on the contract, and supplies purchased or equipment leased by the MBE or WBE used to directly perform the work on the contract, except supplies and equipment the MBE or WBE purchases or leases from the Prime Contractor or the Prime Contractor's Affiliate.

(e) Where a Bidder or first-tier Subcontractor engages in a Joint Venture to meet the Contract Goal, the Administrator will review the profits and losses, initial capital investment, actual participation of the Joint Venture in the performance of the contract with its own forces and for which it is separately at risk, and other pertinent factors of the Joint Venture, which must be fully disclosed and documented in the Utilization Plan in the same manner as for other types of participation, to determine the degree of MBE or WBE participation that will be credited towards the Contract Goal. The Joint Venture's Utilization Plan must evidence how it will meet the Contract Goal or document the Bidder's Good Faith Efforts to do so. The Administrator has the authority to review all records pertaining to Joint Venture agreements before and after the award of a contract in order to assess compliance with this Revised Appendix D. The MBE or WBE Joint Venture partner must have a history of proven Expertise in performance of a specific area of work and will not be approved for performing only general management of the Joint Venture. The specific work activities for which the MBE or WBE Joint Venture partner will be responsible and the assigned individuals must be clearly designated in the Joint Venture agreement. The Joint Venture must submit to the Administrator quarterly work plans, including scheduling dates of the tasks. The Administrator must approve the quarterly plans for the MBE or WBE Joint Venture partner's participation to be credited towards the Contract Goals.

(f) Only the participation of MBEs or WBEs that will perform as first-tier Subcontractors will be counted towards meeting the Contract Goals.

(g) Only expenditures to a MBE or WBE that is performing a Commercially Useful Function will be counted towards the Contract Goals.

(i) A business is considered to perform a Commercially Useful Function when it is responsible for execution of a distinct element of the work of a contract and carries out its responsibilities by actually performing; managing, and supervising the work involved. The business must pay all costs associated with personnel, materials, and equipment. The business must be formally and directly responsible for the employment, supervision and payment of its workforce, must own and /or lease equipment, and must be responsible for negotiating price, determining quality and quantity and paying for and ordering materials used. The business cannot share employees with the Prime Contractor or its Affiliates. No payments for use of equipment or materials by the business can be made through deductions by the

Prime Contractor. No family members who own related businesses are allowed to lease, loan, or provide equipment, employees, or materials to the business.

(ii) A business does not perform a Commercially Useful Function if its role is limited to that of an extra participant in a transaction through which funds are passed to obtain the appearance of MBE or WBE participation. The Prime Contractor is responsible for ensuring that the business is performing a Commercially Useful Function.

(iii) The District will evaluate the amount of work subcontracted, industry practices, and whether the amount the MBE or WBE is to be paid under the contract is commensurate with the work it is actually performing, along with other relevant factors.

(iv) If a business subcontracts a greater portion of the work of a contract than would be expected based on normal industry practice, it is presumed not to perform a Commercially Useful Function. When a business is presumed not to be performing a Commercially Useful Function, the business may present evidence to the Administrator to rebut this presumption. If no rebuttal is presented, then the presumption will stand.

(h) Credit towards the Contract Goals will be allowed only for those direct services performed or materials supplied by MBEs or WBEs or first-tier Subcontractor MBEs or WBEs. No less than eighty-five (85) percent of their work must be performed with their own forces, through the use of its own management and supervision, employees, and equipment. If industry standards and practices differ, the business must furnish supporting documentation to rebut this presumption to the Administrator.

(i) Prime Contractors are prohibited from allocating MBE and WBE Subcontract work to items identified in a contract as allowances, contingencies, and unit price. Allocation by a Prime Contractor to these categories under the scope of work of a contract will result in the rejection of the Utilization Plan by the Administrator.

(j) Purchase of materials and supplies must be pre-approved if their purchase is related to Contract Goal attainment. The Bidder may count payments to MBE or WBE regular dealers or Manufacturers for Contract Goal attainment for no more than fifty (50) percent of each MBE or WBE goal, unless otherwise approved by the Administrator. If the Bidder exceeds the supplier exception amount allowable as stated in the bid documents, the bid will be viewed as non-responsive.

(k) If a business ceases to be certified during its performance on a contract, the dollar value of work performed under the contract with that particular business after it has ceased to be certified will not be counted.

(l) In determining achievement of Contract Goals, the participation of a MBE or WBE will not be counted until that amount, including retention, has been paid to the MBE or WBE.

Section 15. Utilization Plan Submission

(a) Compliance documents must be submitted as detailed in the bid solicitation. Failure to do so will render the bid non-responsive. The Administrator will review compliance documents for each bid submission to determine whether it meets the requirements herein.

(b) A Bidder must either meet the Contract Goals or establish its Good Faith Efforts to do so as described in this Revised Appendix D and the bid solicitation.

(c) Each Bidder must submit with its bid a completed and signed Utilization Plan that lists for each Subcontractor and supplier proposed to be used to perform the scope of work on the contract: the name; address; telephone number; electronic mail address; six-digit North American Industry Classification System code; a description of the work with contract item number; the dollar amount to be allocated to the business; the contact person of the business; and any other information required in the solicitation documents. Each Bidder's Utilization Plan must commit to MBE or WBE participation equal to or greater than each of the Contract Goals set forth in the bid solicitation, unless the Bidder requests a partial or total waiver of the requirement that it file a Utilization Plan or achieve a particular goal by submitting with the bid a signed Waiver Request in the form specified in the bid solicitation.

(d) Each Bidder must submit with its bid a signed MBE/WBE Subcontractor's Letter of Intent for each business proposed to meet the Contract Goals in the form specified in the bid solicitation, with a copy of each MBE or WBE current Letter of Certification from a state or local government or agency, or documentation demonstrating that the business is a MBE or WBE within the meaning of this Revised Appendix D. In the event of a conflict between the amounts stated on the Utilization Plan and the MBE/WBE Subcontractor's Letter of Intent, the terms stated on the Utilization Plan will control. An original or scanned copy of the MBE/WBE Subcontractor's Letter of Intent will be acceptable.

(e) Where a Bidder has failed to meet the Contract Goals, it must file a Waiver Request documenting its Good Faith Efforts to meet the Contract Goals as provided in the format described in the bid solicitation. Following submittal of a Waiver Request, the Administrator will require the Prime Contractor to file a Contractor Information Form and provide additional documentation of its Good Faith Efforts in attempting to fulfill such goals.

(i) Good Faith Efforts will include, but are not limited to:

(1) Attending the mandatory pre-bid conference conducted by the District to acquaint Prime Contractors with MBEs and WBEs available to provide relevant goods and services and to inform MBEs and WBEs of subcontracting opportunities on a contract.

(2) Reviewing the Vendor List of available MBEs and WBEs maintained by the District, as well as other state and local governments and agencies, prior to the bid opening to identify qualified MBEs and WBEs for solicitation for bids.

(3) Soliciting, not less than fifteen (15) calendar days before the bid opening date, through reasonable and available means (*e.g.*, written notices,

advertisements on social media) MBEs and WBEs that can provide services in the anticipated scopes of subcontracting on the contract.

(4) Providing MBEs and WBEs with convenient and timely opportunities to review and obtain relevant plans, specifications, or terms and conditions of the contract to enable such MBEs and WBEs to prepare an informed response to a Prime Contractor solicitation and following up initial solicitations to answer questions and encourage MBEs and WBEs to submit bids.

(5) Negotiating in good faith with interested MBEs and WBEs that have submitted bids and thoroughly investigated their capabilities. Evidence of such negotiations includes: the names, electronic mail addresses, and telephone numbers of MBEs and WBEs with whom the Bidder negotiated; a description of the information provided to MBEs and WBEs regarding the work selected for subcontracting; and explanations as to why agreements could not be reached with MBEs and/or WBEs to perform the work. The Bidder may not reject MBEs and WBEs as being unqualified without sound reasons. That there may be some additional costs involved in finding and using MBEs and WBEs is not in itself a sufficient reason for a Bidder's failure to meet the Contract Goals, as long as such costs are reasonable.

(6) Selecting those portions of the contract consistent with the available MBEs and WBEs, including where appropriate, breaking out contract work items into economically feasible units to facilitate MBE and WBE participation.

(7) Making efforts to assist interested MBEs and WBEs in obtaining financing or insurance as required by the District for performance on the contract, when applicable.

(8) Using the services and assistance of the District; MBE and WBE assistance groups; local, state, and federal minority or woman business assistance offices; and other organizations to provide assistance in the recruitment and placement of MBEs and WBEs.

(ii) Failure of a Bidder to provide requested information to the Administrator or to cooperate with the Administrator's investigation may be grounds for the rejection of a bid submission or a Waiver Request.

(iii) Upon completion of the investigation, the Administrator will inform the Director of his or her findings.

(iv) Thereafter, the Administrator will determine whether to grant the Waiver Request based on the Bidder's Good Faith Efforts at the time of the bid submission.

(v) Where the Administrator determines that a Bidder has not made Good Faith Efforts, the Director will declare the bid submission non-responsive and reject the bid.

(f) A Prime Contractor's submission of a Utilization Plan that commits to MBE or WBE participation equal to or greater than the Contract Goals does not provide a basis for a higher bid, an increase in contract price, or a later change order.

(g) The requirement to submit a Utilization Plan and MBE/WBE Subcontractor's Letter of Intent applies when the individual project is awarded under a Job Order Contract.

(i) A Prime Contractor awarded a Job Order Contract must submit with each work order issued under such a contract its Utilization Plan that lists the name, address, telephone number, electronic mail address, and contact person for each MBE and WBE to be used on the work order, as well as a description of work to be performed and the dollar amount to be allocated to the MBE or WBE. The Prime Contractor must submit with each work order a MBE/WBE Subcontractor's Letter of Intent from each certified business.

(ii) A Prime Contractor awarded a Job Order Contract will be subject to the compliance monitoring provisions contained in this Revised Appendix D. The Prime Contractor must submit to the Administrator monthly documentation, as specified by the Administrator, demonstrating that the Prime Contractor has attained the Contract Goals for the completed portion of the Job Order Contract or that it has been unable to do so despite its Good Faith Efforts. Good Faith Efforts must be documented as provided in this Revised Appendix D.

Section 16. Bid Submission Compliance Review

(a) The Director, in coordination with the Administrator, will declare a bid submission non-responsive if a Bidder:

(i) Failed to submit with its bid a completed and signed Utilization Plan and signed MBE/WBE Subcontractor's Letter of Intent from each MBE and WBE listed on its Utilization Plan.

(ii) Failed to commit in its Utilization Plan to MBE and WBE participation equal to or greater than the Contract Goals unless the Bidder submitted with its bid a request a total or partial waiver of the Contract Goals.

(b) Where, after consultation with the Administrator, the Director determines that the Utilization Plan submitted by a Bidder is false or fraudulent, the bid will be rejected or, if the determination is made after the contract is awarded, the contract may be forfeited in accordance with the provisions of Article 28 of the General Conditions.

(c) Prior to the award of any contract, the Administrator will review the Utilization Plan, MBE/WBE Subcontractor's Letter of Intent, Letter of Certification, Contractor Information, and Waiver Request Form submitted by the apparent low Bidder and conduct any other investigation the Administrator deems appropriate to determine compliance.

(d) Within thirty (30) calendar days after request, the Prime Contractor must furnish executed copies of all MBE and WBE subcontracts to the Administrator. Subsequently, the Prime Contractor will obtain and submit a copy of all MBE and WBE contracts at all Tiers within five (5) calendar days of a written request.

(e) The Prime Contractor will set timetables for the use of its Subcontractors before ten (10) percent of the work is completed. Timetables may be modified during contract performance with the prior written approval of the Administrator.

(f) If requested by the Administrator, the Prime Contractor must submit a MBE and WBE work plan projecting the work tasks associated with a certified business' commitments prior to the award of the contract. The work plan must provide a description of the work to be subcontracted to MBEs and WBEs and non-certified businesses and the dollar amount, as well as the name of all Tiers of Subcontractors. The work plan will become a part of the Prime Contractor's commitment and the contract record and may not be changed without prior written approval of the Administrator.

Section 17. Mentor-Protégé Program

The mentor-protégé program has been designed to encourage Prime Contractors to actively participate in the development and mentoring of MBE and WBE businesses. To motivate Prime Contractors to participate in the mentor-protégé program, the District will include a three (3) percent Contract Goal credit towards the applicable mentee category on all contracts to which this Revised Appendix D is applied. In addition to providing mentoring opportunities, the mentor-protégé program will also provide increased access to resources which will facilitate improved economic growth and greater contracting opportunities for the MBE or WBE protégé. The following guidelines will apply to the mentor-protégé program:

(a) The mentor/Prime Contractor will indicate that it wishes to participate in the mentor-protégé program in its bid submission for a District contract. This indication will be considered as an application to participate in the mentor-protégé program, and the application will be subject to the review and approval of the Administrator.

(b) The mentor and protégé must have a relationship independent of the District that pre-exists the mentor/Prime Contractor's bid application. The District will not facilitate a relationship between a mentor and a protégé.

(c) To qualify as a mentor, the Prime Contractor must present evidence that it has been operating in the market in which the protégé conducts business for at least five (5) years; is in good financial standing as determined by its federal tax returns or audited financial statements; and has not been debarred, suspended, or had its business license revoked.

(d) To qualify as a protégé, the Subcontractor must be a MBE and WBE as defined in this Revised Appendix D. Additionally, the protégé must have at least one (1) year of work experience in the market in which the mentor conducts business.

(e) A mentor may only have a total of three (3) protégés at any given time, and no more than one (1) protégé per contract. This information must be provided to the Administrator at the time that the bid application is reviewed.

(f) A protégé may only have one (1) mentor at any given time. This information must be provided to the Administrator at the time that the bid application is reviewed.

(g) A business may not serve as a mentor and a protégé at the same time.

(h) The mentor and protégé must be separate and distinct businesses. The mentor cannot possess an ownership interest in the protégé business, nor can the businesses be otherwise affiliated outside of the mentor-protégé relationship, including any familial relationship. The Administrator will review and assess the nature of the relationship to ensure that this requirement is fulfilled.

(i) If the mentor-protégé agreement is terminated during the pendency of the District contract on which the mentor-protégé relationship has been approved, it is the obligation of the mentor/Prime Contractor to notify the Administrator within three (3) calendar days of the termination. Failure to notify the Administrator within this required timeframe may result in the mentor/Prime Contractor being prohibited from participating in the mentor-protégé program on future contracts. In the event of termination, the mentor/Prime Contractor will cease to receive any credit or recognition for work performed by the protégé/Subcontractor from the point the agreement has been terminated, separate from any credit or recognition for which it is otherwise entitled.

(j) In the event of termination of the original mentor-protégé agreement, the mentor will not be permitted to engage with another protégé for the same District contract. Likewise, no substitutions of a protégé will be permitted.

(k) Any application to the mentor-protégé program will be denied if, in the opinion of the Administrator, the mentor-protégé relationship presents no opportunity for professional benefit to the protégé, but instead serves only as vehicle for the mentor to receive Contract Goal credits on a District contract. The Administrator's decision on this matter will be final and is not subject to appeal or review.

(l) Violation of any of the provisions contained in this section will result in the mentor-protégé application being denied, or in the event that information pertaining to a violation is discovered after the application is approved, permission to participate in the mentor-protégé program will be revoked. The Administrator's decision on this matter will be final and is not subject to appeal or review.

Section 18. Contract Performance Compliance

(a) Following the award of a contract, the Administrator will review the Prime Contractor's compliance with its MBE and WBE commitments during the performance of the contract.

(b) The Prime Contractor will be required to submit the Affirmative Action Monthly MBE/WBE Status Report providing the information in the written format specified by the Administrator. Evidence of MBE and WBE Subcontractor participation and payments must be submitted as required to confirm Subcontractors' participation and payment. The Prime Contractor's failure to do so may result in a finding of non-compliance by the Administrator pursuant to Section 20 of this Revised Appendix D. The Administrator reserves the right to require that the Affirmative Action Monthly MBE/WBE Status Report be submitted electronically via the compliance system upon notice.

(c) District contract compliance officers and auditors, or their designees, must have access to the Prime Contractor's and Subcontractor's Books and Records, including certified payroll records, bank statements, employer business tax returns, and all records including

all computer records and books of account to determine Prime Contractor and Subcontractor compliance with Program requirements. The District has the sole discretion to perform audits at any time and without notice to the Prime Contractor or Subcontractor. A Prime Contractor must provide the Administrator with any additional compliance documentation within ten (10) calendar days of receipt of a written request.

(d) If District personnel observe that any Subcontractor other than those listed on the Utilization Plan is performing work or providing materials or equipment for those MBE and WBE Subcontractors listed on the Utilization Plan, the Prime Contractor will be notified in writing of an apparent violation and progress payments may be withheld. The Prime Contractor will have the opportunity to meet with the Administrator prior to a finding of non-compliance.

(e) The Prime Contractor is required to fill out the Supplemental Change Order Form or such other documents as the Administrator may require which details the names of the Subcontractors impacted and provides a description of the work and dollar amount of the change and the amended contract value. The Prime Contractor will submit the Supplemental Change Order Form along with any additional documents as required to the Administrator for approval.

(f) Where a partial or total waiver of the Contract Goals has been granted, the Prime Contractor must continue to make Good Faith Efforts during the performance of the contract to meet the Contract Goals, and the Administrator will provide technical assistance with respect to such efforts. The Administrator will require the Prime Contractor to provide documentation of its continuing Good Faith Efforts in attempting to fulfill the Contract Goals.

(g) The Prime Contractor cannot make any changes to the approved Utilization Plan without the prior written approval of the Administrator. This includes, but is not limited to, instances in which the Prime Contractor seeks to perform work originally designated for a MBE or WBE Subcontractor with its own forces or those of an Affiliate, a non-certified business, or another MBE or WBE. Failure to obtain the prior written approval of the Administrator will constitute a breach of the contract and subject the Prime Contractor to any and all available sanctions. Additionally, the participation of certified businesses that did not receive prior written approval by the Administrator will not be counted towards the Contract Goals.

(i) The Prime Contractor must demonstrate good cause to terminate or reduce the scope of work of the MBE or WBE to the satisfaction of the Administrator. Good cause is limited to the following circumstances:

(1) The listed MBE or WBE Subcontractor fails or refuses to execute a written contract.

(2) The listed MBE or WBE Subcontractor becomes bankrupt, insolvent, or exhibits credit unworthiness.

(3) The listed MBE or WBE is ineligible to work on public works projects because of suspension or debarment proceedings pursuant to federal, state, or local law.

(4) The Administrator has determined that the listed MBE or WBE Subcontractor is not a responsible contractor.

(5) The listed MBE or WBE Subcontractor voluntarily withdraws from the project and provides the Administrator with prior written notice of its withdrawal before a decision on certification eligibility by the Administrator is rendered.

(6) The listed MBE or WBE Subcontractor is ineligible to receive credit for the type of work required.

(7) The MBE or WBE owner dies or becomes disabled rendering the business unable to complete the work on the contract.

(8) Other good cause as determined in the Administrator's sole discretion.

(ii) Good cause does not include instances where the Prime Contractor seeks to terminate a MBE or WBE so that the Prime Contractor can self-perform the work or substitute another MBE or WBE or non-certified Subcontractor to perform the work.

(iii) The Prime Contractor must give the MBE or WBE notice in writing, with a copy to the Administrator, of its intent to request to terminate or substitute, and the detailed reasons for the request. The Prime Contractor must give the MBE or WBE five (5) business days to respond to the notice and advise the Administrator of the reasons, if any, why the MBE or WBE objects to the proposed termination and why the Administrator should approve the request to terminate. If required in a particular case as a matter of public necessity (*e.g.*, safety), the Administrator may require a response period shorter than five (5) business days.

(iv) If the Prime Contractor proposes to terminate or substitute a MBE or WBE Subcontractor for any reason, the Prime Contractor must make Good Faith Efforts as defined herein to find a substitute MBE or WBE Subcontractor to meet its MBE or WBE contractual commitment. Its Good Faith Efforts must be directed at finding another MBE or WBE to perform or provide at least the same amount of work, material, or service under the contract as the original MBE or WBE to the extent necessary to meet the Contract Goals.

(v) The Prime Contractor must submit a MBE/WBE Subcontractor's Letter of Intent for each proposed new MBE or WBE Subcontractor.

(vi) The Administrator will review the substitution request and decide whether to grant the request based on the Prime Contractor's documented compliance with these provisions.

(h) In the event that a Prime Contractor fails to achieve the level of MBE or WBE participation described in its Utilization Plan as demonstrated by its request for a progress payment, the Administrator will provide written notice to the Prime Contractor regarding the deficiency and progress payments may be withheld until compliance is achieved. If additional instances of non-compliance occur, subsequent progress payments may also be withheld pending compliance. Failure to meet the Contract Goals as stated on the Utilization Plan will be a *prime facie* case of non-compliance.

(i) In the event that a Prime Contractor fails to achieve the level of MBE or WBE participation described in its Utilization Plan as the result of the District's elimination of the work to be performed by a MBE or WBE, the Prime Contractor must notify the Administrator in writing and request an amendment of its Utilization Plan. A letter of release signed by the Subcontractor must be included with the request.

(j) The Contract Goal obligation extends to all contract work covered by change orders. The obligation to make Good Faith Efforts to meet the Contract Goal extends to the entire performance of the contract. When contract work is added, the Prime Contractor must award that work to the MBE or WBE listed in its Utilization Plan, if the original scope of work is to be performed by a MBE or WBE listed in the Utilization Plan. If the original listed MBE or WBE cannot perform the additional work, the Prime Contractor must make Good Faith Efforts to secure MBE or WBE Subcontractors to perform the additional contract work so that the goal percentage committed to in the contract is maintained or the Contract Goal is achieved.

(k) When the scope of Contract work is deducted, the Prime Contractor must make Good Faith Efforts to achieve the Contract Goal percentages committed to in the Contract.

(l) The Prime Contractor must notify the Administrator in writing within ten (10) calendar days of its determination to request an amendment of its Utilization Plan. The Prime Contractor must give the MBE or WBE notice in writing, with a copy to the Administrator, of its intent to request a reduction in the scope of work, and the detailed reasons for the request. The Administrator will review the request for the reduction and decide whether to approve the request based on the Prime Contractor's documented compliance with these provisions.

(m) Where contract change orders are made individually or in the aggregate that increase the total value of the contract by more than ten (10) percent of the original contract value, the Prime Contractor will increase the utilization of all MBEs or WBEs, where feasible, so that the total value of the percentage of work performed by MBEs or WBEs as to increased contract value bears the same relationship to the total value of the contract, as modified by change orders, as the percentage of MBEs or WBEs utilization committed to in the Prime Contractor's original Utilization Plan.

Section 19. Compliance System

All contractors are to comply with Diversity's electronic compliance and monitoring system for reporting purposes. Failure to comply with these requirements may result in a finding

of non-compliance by the Administrator pursuant to Section 20 of this Revised Appendix D. The reporting requirements include, but are not limited to:

- (a) Prime Contractors are required to submit monthly Diversity spend numbers as well as make payments towards invoices submitted by Subcontractors, on a monthly basis.
- (b) Subcontractors are required to submit invoices for their work and to acknowledge payment from Prime Contractors when received.

Section 20. Sanctions for Non-Compliance

(a) Where the Administrator believes that the Prime Contractor or Subcontractor has: committed fraud or made misrepresentations to the District; failed to comply with this Revised Appendix D or its contract; provided false or fraudulent documentation; or failed to comply with its Utilization Plan, the Administrator will notify the Prime Contractor and/or Subcontractor in writing of such determination of non-compliance and withhold up to one hundred (100) percent of the current progress or final payment due to the Prime Contractor. The amount to be withheld will be based upon a determination of the degree to which the Prime Contractor has failed to meet its MBE or WBE contractual commitments and to what extent the Prime Contractor has made Good Faith Efforts to achieve such commitments. The Prime Contractor and/or Subcontractor will have the right to meet with the Administrator within ten (10) calendar days of receipt of the notice. After conference and conciliation, the Administrator will determine whether the Prime Contractor and/or Subcontractor is complying.

(b) If the Administrator determines that the Prime Contractor and/or Subcontractor is not in compliance and the violation cannot be resolved by conference and conciliation, the Administrator will refer the matter to the Executive Director. Upon review of the matter, the Executive Director may return the referral to the Administrator with direction on how to proceed or may direct that the Prime Contractor and/or Subcontractor participate in a Show Cause hearing on a date certain to explain why further sanctions should not be imposed.

(i) The Prime Contractor and/or Subcontractor will have ten (10) calendar days after receipt of the Show Cause notice within which to file a response in writing with the Administrator. A hearing before a duly appointed Hearing Officer will be convened to provide the Prime Contractor and/or Subcontractor an opportunity to be heard with respect to the non-compliance. Within twenty (20) calendar days after the Executive Director's referral, the Hearing Officer will schedule a hearing to be held within twenty (20) calendar days of receipt of the referral. The District will carry the burden of proof as to non-compliance by a preponderance of the evidence. An official record will be kept with the Clerk of the District. All filings by the District or the Prime Contractor and/or Subcontractor should be made with the Clerk of the District, with courtesy copies going to the parties and the Hearing Officer.

(ii) The Hearing Officer will conduct the Show Cause hearing and issue findings of fact, conclusions of law, and recommendations regarding disposition of the hearing.

Procedures and rules governing the Show Cause hearings will be followed as adopted by the Board of Commissioners.

(iii) All Show Cause hearings must be conducted on the record and all testimony must be under oath and transcribed verbatim by a court reporter. All parties will be given the opportunity to present and respond to evidence. The Hearing Officer will conduct a fair hearing and maintain order and will abide by the Judicial Canons of Ethics enacted by the Illinois Supreme Court.

(iv) Within thirty (30) calendar days after the Show Cause hearing, the Hearing Officer will issue in writing to the Executive Director his/her written findings of fact, conclusions of law as to compliance, and recommendations with respect to any appropriate sanctions. The Executive Director will transmit the Hearing Officer's findings, conclusions, and recommendations to the Board of Commissioners which may impose sanctions for a Prime Contractor's and/or Subcontractor's non-compliance with this Revised Appendix D including, but not limited to:

(1) Withholding up to fifty (50) percent of the current progress or final payment due the Prime Contractor until the Administrator determines that the Prime Contractor is in compliance. Following the withholding of up to fifty (50) percent of the current progress payment, up to one hundred (100) percent of further progress payments may be withheld until the Prime Contractor is found to be in compliance. The amount to be withheld will be based upon a determination of the degree to which the Prime Contractor has failed to meet its MBE or WBE contractual commitments and to what extent the Prime Contractor has made Good Faith Efforts to achieve such commitments.

(2) Declaring the Prime Contractor and/or Subcontractor to be non-responsible and disqualify/debar the Prime Contractor and/or Subcontractor from eligibility to bid on District Construction Contracts for a period of not less than one (1) year and not more than three (3) years. A business that is disqualified pursuant to the provisions of this Revised Appendix D will be precluded from participation on any District contract as a Prime Contractor, Subcontractor, and supplier for the period of disqualification. In cases involving the use of false documentation, the making of false statements, fraud or misrepresentation, the disqualification period will be not less than eighteen (18) months and not more than three (3) years for the second violation, and not less than two (2) years and not more than three (3) years for the third violation from the date of disqualification established by the Board of Commissioners' Order.

(3) Rejecting bid submissions by the Prime Contractor for other contracts not yet awarded when it is determined that the Prime Contractor participated in the use of false documentation, the making of false statements, or fraud or misrepresentation.

(4) For any MBE or WBE that has misrepresented its MBE or WBE status and failed to operate as an independent business performing a Commercially Useful Function, declaration by the Director that the MBE or WBE is ineligible to participate as a MBE or WBE in District contracts. A business that has been declared ineligible may not participate as a MBE or WBE for a period of not less than one (1) year and not more than three (3) years.

(5) Forfeiting and deducting from the Prime Contractor's progress or final payments under the contract an amount up to the dollar amount of its MBE or WBE goal commitment that the Prime Contractor failed to meet. The amount to be deducted will be based upon a determination of the extent to which the Prime Contractor made Good Faith Efforts to achieve such commitments at the sole discretion of the Administrator.

(6) Referring the matter to the Office of the Attorney General or Cook County State's Attorney for follow-up action, where applicable.

(c) The District's attorneys' fees and costs may be assessed against the Prime Contractor and/or Subcontractor where the Hearing Officer makes a finding that the Prime Contractor and/or Subcontractor used false documentation, made false statements, or committed fraud or misrepresentation.

(d) Notice of sanctions imposed by the Board of Commissioners for violations of this Revised Appendix D by the Prime Contractor, Subcontractor, or supplier will be spread upon the public record by the District, including but not limited to publication in the Record of Proceedings of the Board of Commissioners, posting on the District's website, publication in any type of media or newspaper publication, and direct notice by letter to governmental entities.

(e) The District may take other action, as appropriate, within the discretion of the Administrator, subject to the approval of the Hearing Officer and the Board of Commissioners.

Section 21. Federal Regulations

The provisions of this Revised Appendix D shall not apply to any contract in which there will be monetary contributions received from a federal agency and the requirements of the federal agency dictate automatic compliance with that agency's affirmative action program. No language contained in this Revised Appendix D shall be interpreted to diminish or supplant the Equal Employment Opportunity Commission requirements.

Section 22. Reporting and Review

The Administrator will provide biannual reports to the Board of Commissioners containing the following information:

(a) The level of MBE or WBE participation achieved during the prior calendar year or other time period on District Construction Contracts subject to this Revised Appendix D; and

- (b) Identification of any difficulties with the enforcement of this Revised Appendix D; and
- (c) Any recommendations with respect to improving the implementation of this Revised Appendix D.

Section 23. Sunset Provision

This Revised Appendix D will expire on December 31, 2027, unless the District finds its remedial purposes have not been fully achieved and that there is a compelling interest in continuing to implement narrowly tailored remedies to redress discrimination against MBEs and WBEs so that the District will not function as a passive participant in a discriminatory marketplace in the District's Chicago construction industry and geographic market area.

Section 24. Repeal of Prior Inconsistent Provisions

All enactments and provisions previously adopted by the Board of Commissioners with regard to affirmative action on Construction Contracts subject to this Revised Appendix D that are inconsistent with the provisions contained in this Revised Appendix D are hereby expressly repealed.

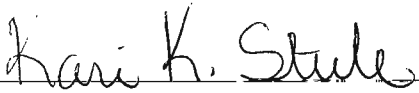
Section 25. Severability

If any clause, sentence, paragraph, section, or part of this Revised Appendix D is held by a court of competent jurisdiction to be invalid, illegal, or unenforceable, that judgment will not affect, impair, or invalidate the remainder of this Revised Appendix D and will be construed as if the clause, sentence, paragraph, section, or part had never been contained in this Revised Appendix D. The remaining language contained in this Revised Appendix D will remain in full force and effect. In lieu of such invalid, illegal, or unenforceable clause, sentence, paragraph, section, or part, there will be automatically added as part of this Revised Appendix D language as similar in its terms to such invalid, illegal, or unenforceable language as may be possible and be valid, legal, and enforceable.

Section 26. Effective Dates


This amendment to Revised Appendix D will be effective and apply to all bids for Construction Contracts advertised after December 31, 2022.

ADOPTED:

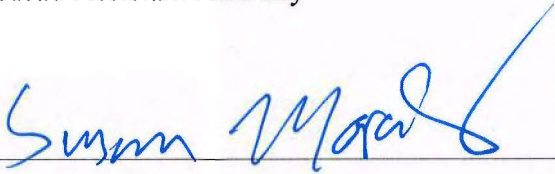


Kari K. Steele, President
Board of Commissioners of the
Metropolitan Water Reclamation
District of Greater Chicago

Approved as to form and legality:



Head Assistant Attorney



General Counsel

Exhibit A
Utilization Plan

Exhibit B
MBE/WBE Subcontractor's Letter of Intent

Exhibit C
Assist Agencies List

**METROPOLITAN WATER RECLAMATION DISTRICT OF
GREATER CHICAGO**

MBE/WBE UTILIZATION PLAN

For Local and Small business entities - Definitions for terms used below can be found in Appendix D: MBE - Section 5(u); WBE - Section 5(ff); SBE - Section 5(z).

NOTE: The Bidder shall submit with the Bid, originals or facsimile copies of all MBE/WBE Subcontractor's Letter of Intent furnished to all MBEs and WBEs. IF A BIDDER FAILS TO INCLUDE signed copies of the MBE/WBE Utilization Plan and all signed MBE/WBE Subcontractor's Letter of Intent with its bid, said bid will be deemed nonresponsive and rejected.

All Bidders must sign the signature page UP-4 of the Utilization Plan, even if a waiver is requested.

Name of Bidder: _____

Contract No.: _____

Affirmative Action Contact & Phone No.: _____

E-Mail Address: _____

Total Bid: _____

**MBE/WBE UTILIZATION PLAN AND ALL SIGNED MBE/WBE
SUBCONTRACTOR'S LETTER OF INTENT MUST BE
COMPLETED, SIGNED AND ACCOMPANY YOUR BID!!!**

MBE UTILIZATION

Name of MBE and contact person: _____

Business Phone Number: _____ Email Address: _____

Address: _____

Description of Work, Services or Supplies to be provided: _____

CONTRACT ITEM NO.: _____

Total Dollar Amount Participation: _____

The MBE/WBE Utilization Plan and the MBE/WBE Subcontractor's Letter of Intent MUST Accompany the Bid!!

MBE UTILIZATION

Name of MBE and contact person: _____

Business Phone Number: _____ Email Address: _____

Address: _____

Description of Work, Services or Supplies to be provided: _____

CONTRACT ITEM NO.: _____

Total Dollar Amount Participation: _____

The MBE/WBE Utilization Plan and the MBE/WBE Subcontractor's Letter of Intent MUST Accompany the Bid!!

MBE UTILIZATION

Name of MBE and contact person: _____

Business Phone Number: _____ Email Address: _____

Address: _____

Description of Work, Services or Supplies to be provided: _____

CONTRACT ITEM NO.: _____

Total Dollar Amount Participation: _____

The MBE/WBE Utilization Plan and the MBE/WBE Subcontractor's Letter of Intent MUST Accompany the Bid!!

(Attach additional sheets as needed)

WBE UTILIZATION

Name of WBE and contact person: _____

Business Phone Number: _____ Email Address: _____

Address: _____

Description of Work, Services or Supplies to be provided: _____

CONTRACT ITEM NO.: _____

Total Dollar Amount Participation: _____

The MBE/WBE Utilization Plan and the MBE/WBE Subcontractor's Letter of Intent MUST Accompany the Bid!!

WBE UTILIZATION

Name of WBE and contact person: _____

Business Phone Number: _____ Email Address: _____

Address: _____

Description of Work, Services or Supplies to be provided: _____

CONTRACT ITEM NO.: _____

Total Dollar Amount Participation: _____

The MBE/WBE Utilization Plan and the MBE/WBE Subcontractor's Letter of Intent MUST Accompany the Bid!!

WBE UTILIZATION

Name of WBE and contact person: _____

Business Phone Number: _____ Email Address: _____

Address: _____

Description of Work, Services or Supplies to be provided: _____

CONTRACT ITEM NO.: _____

Total Dollar Amount Participation: _____

The MBE/WBE Utilization Plan and the MBE/WBE Subcontractor's Letter of Intent MUST Accompany the Bid!!

(Attach additional sheets as needed)

SIGNATURE SECTION

On Behalf of _____ I/We hereby acknowledge that
(name of company)

I/WE have read Revised Appendix D, will comply with the provisions of Revised Appendix D, and intend to use the MBEs and WBEs listed above in the performance of this contract and/or have completed the Waiver Request Form. To the best of my knowledge, information and belief, the facts and representations contained in this Exhibit are true, and no material facts have been omitted.

I do solemnly declare and affirm under penalties of perjury that the contents of the foregoing document are true and correct, and that I am authorized, on behalf of the bidder, to make this affidavit.

Date

Signature of Authorized officer

ATTEST:

Print name and title

Secretary

Phone number

- 1) **The Bidder is required to sign and execute this page, EVEN IF A WAIVER IS BEING REQUESTED.**
- 2) **Failure to do so will result in a nonresponsive bid and rejection of the bid.**
- 3) **If a waiver is requested, the bidder must also complete the following “WAIVER REQUEST FORM.”**

The MBE/ WBE Utilization Plan and the MBE/ WBE Subcontractor's Letter of Intent MUST Accompany the Bid! ! !

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WAIVER REQUEST FORM

If a waiver is requested, the Bidder is required to sign and execute this page.

Contract No.: _____

Name of Bidder: _____

Contact Person and Phone Number: _____

With respect to the contract specified above, the Bidder hereby requests a total or partial waiver of the requirement that, pursuant to Section 15 (a)-(d) of the Affirmative Action Ordinance, Revised Appendix D, it files a MBE/WBE Utilization Plan or achieve a particular goal for MBE/WBE participation in the contract. The reasons for the request are as follows:

On Behalf of _____ I/We hereby acknowledge that
(name of company)

I/WE have read Affirmative Action Ordinance, Revised Appendix D, will comply with the provisions of Affirmative Action Ordinance, Revised Appendix D, and intend to use the MBEs and WBEs listed in the MBE/WBE Utilization Plan in the performance of this contract and have completed the Waiver Request Form. To the best of my knowledge, information and belief, the facts and representations contained in this Waiver Request Form are true, and no material facts have been omitted.

I do solemnly declare and affirm under penalties of perjury that the contents of the foregoing document are true and correct, and that I am authorized, on behalf of the contractor, to make this affidavit.

Date

Signature of Authorized officer

ATTEST:

Print name and title

Secretary

Phone number

NOTE TO BIDDERS

All Waiver requests are evaluated carefully by the District. **The evaluation is based on your firm's documented GOOD FAITH EFFORTS.**

The GOOD FAITH EFFORTS MUST be Undertaken PRIOR to your bid submittal to the District.

Good Faith Efforts are identified on pp. D21-D22, Section 15. Utilization Plan Submission (e), (i) (1)-(8).

The MBE/ WBE Utilization Plan and the MBE/ WBE Subcontractor's Letter of Intent MUST Accompany the Bid! ! !

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MBE/ WBE SUBCONTRACTOR'S LETTER OF INTENT

To: (Name of Bidder) _____ and the MWRDGC

RE: Contract Name: (Insert Name) _____

Contract Number: (Insert Number) _____

From: (Name of MBE/WBE Firm) _____ MBE: Yes ___ No ___
WBE: Yes ___ No ___

The MBE/WBE status of the undersigned is confirmed by the attached letter of Certification. A certification letter must be attached hereto.

The undersigned is prepared to provide the following described services or supply the following described goods in connection with the above named project/contract:

If more space is needed to fully describe the MBE/WBE firms' proposed scope of work and/or payment schedule, attach additional sheets.

The above described performance is offered for the following total price:

\$ _____
(Written in Figures) (Written in Words)

In the event of a discrepancy between the "Written in Words" price and the "Written in Figures" price, the "Written in Words" price shall govern."

The undersigned will enter into a formal written agreement for the above work with the Prime Contractor, conditioned upon the execution of a contract by the Prime contractor with the MWRDGC.

(Signature of Owner, President or Authorized Agent of MBE/WBE)

Name/Title (Print)

Date _____ Phone _____

THIS SIGNED DOCUMENT MUST BE SUBMITTED WITH THE BID. FAILURE TO DO SO WILL RESULT IN A NONRESPONSIVE BID AND REJECTION OF THE BID.

All bidders shall submit with the Bid, copies of MBE/WBE Subcontractor's Letter of Intent in paper form with signatures, which were furnished to each MBE and WBE listed in its MBE/WBE Utilization Plan and must be submitted to the District with its bid as part of its bid packet with either a copy of each MBE and WBE current Letter of Certification from a state or local government or agency or documentation demonstrating that the MBE and WBE is a MBE or WBE within the meaning of this Revised Appendix D. Failure to submit the MBE/WBE Subcontractor's Letter of Intent signed by each MBE and WBE subcontractor will be viewed as nonresponsive and the bid will be rejected. All MBE/WBE Subcontractor's Letter of Intent must conform to the MBE/WBE Utilization Plan submitted with the bid. An original or facsimile copy of MBE/WBE Subcontractor's Letter of Intent will be acceptable.

The MBE/ WBE Utilization Plan and the MBE/ WBE Subcontractor's Letter of Intent MUST Accompany the Bid! ! !

APPENDIX V

VETERAN-OWNED BUSINESS ENTERPRISE CONTRACTING POLICY REQUIREMENTS

Section 1. Purpose

The purpose of the Veteran-Owned Business Enterprise Contracting Policy (“Policy”) is to increase contracting opportunities with the Metropolitan Water Reclamation District of Greater Chicago (“District”) for veteran-owned and operated small business enterprises.

Section 2. Definitions

- (a) “Contract Goals” means the numerical percentage goals for MBE, WBE, and VBE participation to be applied to an eligible District contract subject to Affirmative Action Ordinance Revised Appendix D of the Metropolitan Water Reclamation District of Greater Chicago and this Appendix V for the participation of MBEs, WBEs, and VBEs based upon the scope of work of the contract and the availability of MBEs, WBEs, and VBEs to meet the goal, and the District’s progress towards meeting its annual MBE and WBE goals.
- (b) “Eligible Veteran” means an individual who has been a member of the armed forces of the United States and served for a total of at least six (6) months, or for the duration of hostilities regardless of the length of engagement, and
 - (i) was discharged on the basis of hardship; or
 - (ii) was released from active duty because of a service-connected disability; or
 - (iii) was discharged under honorable conditions.

Former members of the military with the following type of discharges are excluded from the Policy:

- (i) dishonorably discharge; or
 - (ii) bad conduct discharge; or
 - (iii) general discharge under other-than-honorable conditions.
- (c) “Good Faith Efforts” means honest, fair, and commercially reasonable actions undertaken by a prime contractor or consultant to meet the VBE Contract Goal, which by their scope, intensity, and appropriateness to the objective, can reasonably be expected to fulfill the Contract Goals.
 - (d) “Local Business” means a business located within the District’s geographic market area as established by the 2021 Disparity Study, namely the counties of Cook , DuPage, Kane, Lake, McHenry, or Will, in the State of Illinois.
 - (e) “Minority-owned Business Enterprise” or “MBE” means a local small business entity, including a sole proprietorship, partnership, corporation, limited liability company, joint venture, or any other business or professional entity, which is at least fifty-one (51) percent owned by one or more socially and economically disadvantaged individuals who are members of one or more minority groups, or, in the case of a publicly held corporation, at least fifty-one (51) percent of the stock of which is owned by one or more members of one or more minority groups, and whose management, policies, major decisions, and daily business operations are controlled by one or more minority individuals.

- (f) “Small Business Enterprise” or “SBE” means a small business as defined by the United States Small Business Administration (SBA), pursuant to the business size standard found in 13 CFR Part 121, that is relevant to the scope of work the business seeks to perform on District contracts. A business is not an eligible SBE in any calendar fiscal year in which its gross receipts, averaged over the business’ previous five (5) fiscal years, exceed the size standards of 13 CFR Part 121.
- (g) “Veteran-owned Business Enterprise” or “VBE” means a local small business entity, including a sole proprietorship, partnership, corporation, limited liability company, joint venture or any other business or professional entity, which is at least fifty-one (51) percent owned by one or more eligible veterans, or in the case of a publicly held corporation, at least fifty-one (51) percent of the stock which is owned by one or more eligible veterans, and whose control and management of the business including long-term goals for the company as well as day-to-day operations are controlled by one or more eligible veterans.
- (h) “Women-owned Business Enterprise” or “WBE” means a local small business entity which is at least fifty-one (51) percent owned by one or more socially and economically disadvantaged individuals who are women, or in the case of a publicly held corporation, fifty-one (51) percent of the stock of which is owned by one or more women, and whose management and daily business operations are controlled by one or more women. Determination of whether a business is at least fifty-one (51) percent owned by a woman or women will be made without regard to community property laws.

Section 3. Certification Eligibility

- (a) Only a business owned, managed, and controlled by an Eligible Veteran may be certified as a VBE.
 - (i) Ownership by one or more Eligible Veterans must be direct and unconditional; and
 - (ii) Subsidiaries owned or controlled by one or more Eligible Veterans is not acceptable.
- (b) For the purposes of this policy, there is no distinction between service-disabled and non-service disabled veteran-owned businesses.

Section 4. Contract Goals

- (a) The standard Contract Goal for VBEs is three (3) percent, unless otherwise specified in the language of the contract, specifically the Invitation to Bid. This goal is applicable to contracts awarded by the District where the total approved expenditure is in excess of one hundred thousand dollars (\$100,000.00).
- (b) VBE Contract Goals are separate and distinct from the MBE and WBE Contract Goals. An Eligible Veteran who is also a MBE or WBE may be utilized to fulfill the MBE, WBE, and VBE Contract Goals, as applicable. However, the three (3) percent VBE Contract Goal must be fulfilled in addition to the MBE and WBE Contract Goals set forth.
- (c) If a MBE or WBE is utilized to accomplish the VBE Contract Goal, the VBE commitment amount must be entered as a separate dollar amount on all contract documents.

- (d) VBE Contract Goals will only be applied to a contract when there are at least two (2) qualified VBE contractors or professional services consultants registered on the District's vendor list that are capable of performing the anticipated subcontracting functions of the contract.

Section 5. Good Faith Efforts

A prime contractor must undertake Good Faith Efforts to ensure that qualified VBE businesses are utilized in the performance of the contract and provide maximum opportunities for VBE participation, notwithstanding the fact that the contractor may have the capability to complete the contract without the use of subcontractors.

Section 6. VBE Commitment Form Submission

When completing a Utilization Plan for a contract bid document, a prime contractor must complete the VBE Commitment Form by doing the following:

- (a) Provide the name, contact information, and qualifications for prospective VBE businesses. Delineate the various anticipated categories and disciplines of services to be provided by VBE businesses and provide the dollar amount to be allocated to each business; and
- (b) Summarize commitment to comply with the VBE Contract Goal for the project. Compliance documents must be submitted as detailed in the bid solicitation. The Administrator will review compliance documents for each bid submission to determine whether it meets the requirements herein; and
- (c) Where a prime contractor or consultant is a business owned and controlled by a VBE or where the prime contractor or consultant utilizes a VBE in a joint venture or as a subcontractor, a prime contractor or consultant may count toward the achievement of its VBE Contract Goals the utilization of any VBE that also satisfies the definition of a SBE.

Section 7. Effective Date

This Policy is effective as of December 31, 2022 and applies only to qualifying contracts advertised after the effective date.

Adopted pursuant to an Order of the Board dated November 15, 2018

Revised May 1, 2023

VBE COMMITMENT FORM

1. Name of VBE: _____
Identify MBE, WBE Status: _____ Address: _____
City, State, Zip Code: _____
Contact Person: _____ Telephone Number: _____
eMail Address: _____
*Dollar Amount of Participation: \$ _____ Percent of Participation: _____ %
Scope of Work: _____

2. Name of VBE: _____
Identify MBE, WBE Status: _____ Address: _____
City, State Zip Code: _____
Contact Person: _____ Telephone Number: _____
eMail Address: _____
*Dollar Amount of Participation: \$ _____ Percent of Participation: _____ %
Scope of Work: _____

3. Name of VBE: _____
Identify MBE, WBE Status: _____ Address: _____
City, State Zip Code: _____
Contact Person: _____ Telephone Number: _____
eMail Address: _____
*Dollar Amount of Participation: \$ _____ Percent of Participation: _____ %
Scope of Work: _____

4. Name of VBE: _____
Identify MBE, WBE Status: _____ Address: _____
City, State, Zip Code: _____
Contact Person: _____ Telephone Number: _____
eMail Address: _____
*Dollar Amount of Participation: \$ _____ Percent of Participation: _____ %
Scope of Work: _____

* If a MBE or WBE will be utilized to accomplish the VBE Contract Goal, then the VBE commitment amount must be entered as a separate dollar amount. VBE Contract Goals are separate and distinct from the MBE and WBE Contract Goals.

Attach a copy of qualifications for each VBE business.

AFFIDAVIT - AFFIRMATIVE ACTION STATUS REPORT

Notice: This report is required to be submitted at 25%, 50%, 75%, and 100% completion of construction.

Contract Title: _____

Contract Number: _____

Prime Contractor's Name: _____

Prime's Contact Name: _____ Estimated Completion Date: _____

Prime's Contact Phone #: () _____ Status Report No.: 25% - 50% - 75% - 100%
(CIRCLE ONE)

In connection with the above-captioned contract:

For each MBE, WBE, and SBE subcontractor, including third tier contracts awarded by your MBE/WBE/SBE company, describe the work or goods or services provided in relation to this contract (indicate line items, if applicable) performed during the report period.

MBE, WBE, and SBE Subcontractor	MBE / WBE / SBE	AMOUNT OF CONTRACT	AMOUNT PAID TO DATE
DESCRIPTION OF WORK/SERVICES AND/OR GOODS PROVIDED. BE SPECIFIC.			

MBE, WBE, and SBE Subcontractor	MBE / WBE / SBE	AMOUNT OF CONTRACT	AMOUNT PAID TO DATE
DESCRIPTION OF WORK/SERVICES AND/OR GOODS PROVIDED. BE SPECIFIC.			

MBE, WBE, and SBE Subcontractor	MBE / WBE / SBE	AMOUNT OF CONTRACT	AMOUNT PAID TO DATE
DESCRIPTION OF WORK/SERVICES AND/OR GOODS PROVIDED. BE SPECIFIC.			

MBE, WBE, and SBE Subcontractor	MBE / WBE / SBE	AMOUNT OF CONTRACT	AMOUNT PAID TO DATE
DESCRIPTION OF WORK/SERVICES AND/OR GOODS PROVIDED. BE SPECIFIC.			

MBE, WBE, and SBE Subcontractor	MBE / WBE / SBE	AMOUNT OF CONTRACT	AMOUNT PAID TO DATE
DESCRIPTION OF WORK/SERVICES AND/OR GOODS PROVIDED. BE SPECIFIC.			

I DO SOLEMNLY DECLARE AND AFFIRM UNDER THE PENALTIES OF PERJURY THAT THE CONTENTS OF THIS DOCUMENT ARE TRUE AND CORRECT, AND THAT I AM AUTHORIZED TO MAKE THIS AFFIDAVIT. I CERTIFY THAT THE ABOVE NAMED FIRMS WERE AWARDED CONTRACT(S), PERFORMED THE WORK WITH THEIR OWN FORCES, AMOUNTS LISTED ARE ACCURATE AND PAYMENTS WERE MADE IN ACCORDANCE WITH CONTRACTUAL OBLIGATIONS. CANCELLED CHECKS AND/OR SUPPORTING INFORMATION WILL BE ON FILE FOR INSPECTION OR AUDIT.

Name of Affiant: _____

Title: _____

Signature: _____
(Signature of Affiant)

Date: _____

State of _____ County (City) of _____

This instrument was SUBSCRIBED and SWORN TO before me on _____

 Signature of Notary Public